WKE

APR 2014

ORDER OF SHEETS

Section No.	1	Title
Section No.	2	Typical Sections and Details (includes erosion control plans)
Section No.	3	Estimate of Quantities
Section No.	3	Miscellaneous Quantities
Section No.	4	Right of Way Plat
Section No.	5	Plan and Profile
Section No.	6	Standard Detail Drawings
Section No.	7	Sign Plates
Section No.	8	Structure Plans
Section No.	9	Computer Earthwork Data
Section No.	9	Cross Sections

TOTAL SHEETS = 1134

PROJECT ID: 2060-15-71

WITH: N/A

COUNTY: MILWAUKEE

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
2060-15-71	WISC 2014106	1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

HOWELL AVENUE, CITY OF OAK CREEK

OAKWOOD ROAD TO GRANGE AVENUE

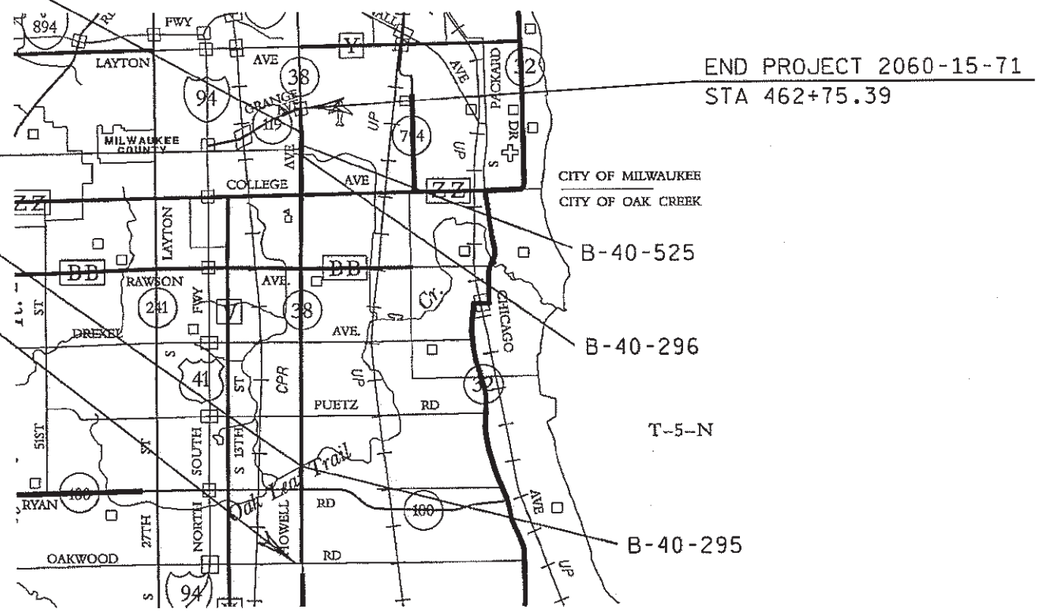
STH 38

MILWAUKEE COUNTY

STATE PROJECT NUMBER

2060-15-71

B-40-484
B-40-485



END PROJECT 2060-15-71
STA 462+75.39

TUNNEL STRUCTURE
B-40-282

B-40-294

BEGIN PROJECT 2060-15-71
STA 128+61.24
Y = 233515.52
X = 604944.43

B-40-525

B-40-296

B-40-295

DESIGN DESIGNATION

A.A.D.T. (2014)	=	24,100 - 28,400
A.A.D.T. (2034)	=	28,600 - 35,500
D.H.V.	=	4.2%
D.D.	=	58/42
T.	=	5.3%
DESIGN SPEED	=	40 M.P.H. COLLEGE AVENUE TO GRANGE AVENUE 50 M.P.H. OAKWOOD ROAD TO COLLEGE AVENUE
ESALS	=	4,577,100

CONVENTIONAL SYMBOLS

PLAN		PROFILE	
CORPORATE LIMITS		GRADE LINE	
PROPERTY LINE	PL + 58.1	ORIGINAL GROUND	
LOT LINE		MARSH OR ROCK PROFILE (To be noted as such)	ROCK
LIMITED HIGHWAY EASEMENT		SPECIAL DITCH	LABEL
EXISTING RIGHT OF WAY		GRADE ELEVATION	95.36
PROPOSED OR NEW R/W LINE		CULVERT (Profile View)	
SLOPE INTERCEPT		UTILITIES	
REFERENCE LINE		ELECTRIC	E
EXISTING CULVERT		FIBER OPTIC	FO
PROPOSED CULVERT (Box or Pipe)		GAS	G
COMBUSTIBLE FLUIDS	CAUTION	SANITARY SEWER	SAN
		STORM SEWER	SS
MARSH AREA		TELEPHONE	T
		WATER	W
		UTILITY PEDESTAL	
		POWER POLE	
WOODED OR SHRUB AREA		TELEPHONE POLE	

LAYOUT
SCALE 0 1 MI.

TOTAL NET LENGTH OF CENTERLINE
PROJECT 2060-15-71 = 6.325 MI.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), MILWAUKEE, NAD 83 (97)

ELEVATIONS ON THIS PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM, NAVD 88 (07)

ORIGINAL PLANS PREPARED BY

EMCS
1300 N. Doral Street, Suite 200
Milwaukee, WI 53233
414.347.1687 | FAX 414.347.1347

WISCONSIN
THERESA M. KUBISTA
E-36160-6
MILWAUKEE
WI
PROFESSIONAL ENGINEER

11/01/13 (Date)

(Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	EMCS, INC.
Designer	EMCS, INC.
Project Manager	JANET CANNON
Regional Examiner	
Regional Supervisor	JIM FORSETH

APPROVED FOR THE DEPARTMENT

DATE: 11/4/13 SIGNATURE

E

2

GENERAL NOTES

VIBRATE CONCRETE PLACED AROUND MANHOLE & INLET CASTINGS.

ALL CURB & GUTTER RADII ARE MEASURED TO THE FACE OF THE CURB.

NO TREES OR SHRUBS ARE TO BE REMOVED WITHOUT THE APPROVAL OF THE ENGINEER.

THE LOCATIONS OF THE EXISTING UTILITY INSTALLATIONS AS SHOWN ON HTE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN INCLUDING BUILDING SERVICES AND LATERALS.

THE CONTRACTOR SHALL NOTIFY DIGGERS HOTLINE AND AFFECTED UTILITIES PRIOR TO START OF WORK. ANY UTILITY WHICH IS NOT A MEMBER OF THE DIGGERS HOTLINE SHALL BE CONTACTED SEPARATELY.

ALL HOLES OR OPENINGS RESULTING FROM THE REMOVAL OF EXISTING STRUCTURES SHALL BE FILLED WITH GRANULAR BACKFILL, WHICH SHALL BE CONSIDERED INCIDENTAL TO THE RESPECTIVE REMOVAL ITEM.

PIPE ELEVATIONS AS SHOWN ON THE PLANS SHALL BE ADJUSTED BY THE ENGINEER TO FIT EXISTING FIELD CONDITIONS.

PLACE INLET PROTECTION AT ALL INLET LOCATIONS ACCEPTING STORM WATER FROM THE PROJECT AREA OR AS DIRECTED BY THE ENGINEER.

FILL EXPANSION FACTOR IS SHOWN IN THE EARTHWORK SUMMARY.

EXCAVATION BELOW SUBGRADE (EBS) IS NOT USED TO BALANCE YARDAGE AND IS NOT SHOWN ON THE CROSS-SECTIONS BUT IS MEASURED AND PAID FOR AS EXCAVATION COMMON. THE EXACT LIMITS AND LOCATIONS OF EBS ARE TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

RE-TOPSOIL OF GRADED AREAS, AS DESIGNATED BY THE ENGINEER, IMMEDIATELY AFTER GRADING IS COMPLETED WITHIN THOSE AREAS. SOD, SEED, FERTILIZE, AND MULCH/EROSION MAT TOP-SOILED AREAS, AS DESIGNATED BY THE ENGINEER, WITHIN FIVE (5) CALENDAR DAYS AFTER PLACEMENT OF TOPSOIL. IF GRADED AREAS ARE LEFT EXPOSED FOR MORE THAN FOURTEEN (14) CALENDAR DAYS, SEED THOSE AREAS WITH TEMPORARY SEED.

STOCKPILE EXCESS MATERIAL OR SPOILS ON UPLAND AREAS AWAY FROM WETLANDS, FLOODPLAINS AND WATERWAYS. STOCKPILED SOIL SHALL BE PROTECTED AGAINST EROSION. IF STOCKPILED MATERIAL IS LEFT FOR MORE THAN FOURTEEN (14) CALENDAR DAYS, SEED THE STOCKPILE WITH TEMPORARY SEED.

EROSION CONTROL BMP'S ARE AT SUGGESTED LOCATIONS. THE ACTUAL LOCATIONS WILL BE DETERMINED BY THE CONTRACTORS ECIP AND BY THE ENGINEER. EROSION CONTROL BMP'S SHALL BE MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED OR UNTIL THE ENGINEER DETERMINES THAT THE BMP IS NO LONGER REQUIRED.

HMA PAVEMENT TYPE E-1 SHALL BE CONSTRUCTED AS FOLLOWS:

PAVEMENT THICKNESS	LAYERS	NOMINAL MAXIMUM SIZE GRADATION	BINDER TYPE
6¼"	2¾" LOWER LOWER LAYER	19.0 MM	PG 64-28
	1¾" UPPER LOWER LAYER	12.5 MM	PG 64-28
	1¾" UPPER LAYER	12.5 MM	PG 64-28
4"	2¼" LOWER LAYER	19.0 MM	PG 64-28
	1¾" UPPER LAYER	12.5 MM	PG 64-28
3"	1" LEVELING COURSE	12.5 MM	PG 64-28
	2" UPPER LAYER	12.5 MM	PG 64-28
1¾"	1¾" SINGLE LAYER	12.5 MM	PG 64-28

STANDARD ABBREVIATIONS

AGG	AGGREGATE
AEW	APRON ENDWALL
CB	CATCH BASIN
CPRC	CULVERT PIPE REINFORCED CONCRETE
PLE	PERMANENT LIMITED EASEMENT
SSPRC	STORM SEWER PIPE REINFORCED CONCRETE
SSPRCHE	STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL
TLE	TEMPORARY LIMITED EASEMENT

DIGGERS HOTLINE

Dial 811 or (800) 242-8511

www.DiggersHotline.com

UTILITIES

ATC MANAGEMENT, INC.

MR. MIKE OLSEN
801 O'KEEFE ROAD
PO BOX 6113
DEPERE, WI 54115 6113
PHONE: (920) 338-6582
molsen@atcllc.com

AT&T WISCONSIN

MR. MARK EDER
2005 PEWAUKEE ROAD
WAUKESHA, WI 53188
PHONE: (262) 896-7434
me1754@att.com

LEVEL 3 COMMUNICATIONS, LLC

MR. MARK DECHANT
411 EAST WISCONSIN AVENUE
MILWAUKEE, WI 53202
PHONE: (414) 426-1857
mark.dechant@level3.com

CITY OF OAK CREEK

MR. BRIAN JOHNSTON
8640 S HOWELL AVENUE
OAK CREEK, WI 53154
PHONE: (414) 768-6531
bjohnston@oakcreekwi.org

OAK CREEK SEWER & WATER

MR. RON PRITZLAFF
170 WEST DREXEL AVENUE
OAK CREEK, WI 53154
PHONE: (414) 570-8210
rpritzlaff@water.oak-creek.wi.us

CITY OF MILWAUKEE - CABLE

MR. BRIAN PAWLAK
841 N BROADWAY
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brian.pawlak@milwaukee.gov

CITY OF MILWAUKEE - CONDUIT

MRS. KAREN ROGNEY
841 N BROADWAY
MILWAUKEE, WI 53202
PHONE: (414) 286-3243
karen.rogney@milwaukee.gov

CITY OF MILWAUKEE - SIGNALS & LIGHTING

MR. DENNIS MILLER
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PHONE: (414) 286-4251
dennis.miller@milwaukee.gov

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MR. KEVIN DRISCOLL
841 N BROADWAY
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kevin.driscoll@milwaukee.gov

CITY OF MILWAUKEE - WATER

MR. DAVE GOLDAPP
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dave.goldapp@milwaukee.gov

MIDWEST FIBER NETWORKS

MR. RICHARD TRGOVEC, OSP ENGINEER
3701 W. BURNHAM STREET, STE C
MILWAUKEE, WI 53215
PHONE: (414) 672-5612 EXT. 274
rtrgovec@midwestfibernetworks.com

MILWAUKEE METRO SEWERAGE DIST.

MS. DEBRA JENSEN, PLANNING SERVICES SUPERVISOR
260 W SEEBOTH ST
MILWAUKEE, WI 53204 1446
PHONE: (414) 225-2143
djensen@mmsd.com

TELEPORT COMMUNICATIONS AMERICA, LLC

MR. DON DIETSCH, PROJECT MANAGER
3701 W. BURNHAM STREET - SUITE C
C/O NORTHWIND TECHNICAL SERVICES
MILWAUKEE, WI 53215
PHONE: (414) 459-3569
d.dietsch@northwindtech.com

TDS TELECOM

MR. MICHAEL JOHNSON, OSP ENGINEERING
20875 CROSSROADS CIRCLE, SUITE 800
WAUKESHA, WI 53186
PHONE: (262) 754-3052
michael.johnson@tdstelecom.com

TIME WARNER CABLE

MR. LUKAS LACROSSE
1320 N. MARTIN LUTHER KING JR. DRIVE
MILWAUKEE, WI 53212
PHONE: (414) 908-4766
lukas.lacrosse@twcable.com

WE ENERGIES - ELECTRIC

MR. CHRIS SCHULZ
500 S 116TH STREET
WEST ALLIS, WI 53214
PHONE: (414) 944-5553
chris.schulz@we-energies.com

WE ENERGIES - GAS

MR. RALPH PACKARD
500 S 116TH STREET
WEST ALLIS< WI 53214
PHONE: (414) 944-5539
ralph.packard@we-energies.com

WEST SHORE PIPELINE COMPANY

MR. KEN BELMORE
11115 W. COUNTY LINE ROAD
MILWAUKEE, WI 53224
PHONE: (414) 354-9288
kbelmore@buckeye.com

WISDOT ATR PULL BOXES

MR. CLIFF SEROWSKI
935 S. 60TH STREET
WEST ALLIS, WI 53214
PHONE: (414) 266-1157
clifford.serowski@dot.wi.gov

WISDOT SIGNALS

DUTY ENGINEER
141 NW BARSTOW STREET
WAUKESHA, WI 53187
PHONE: (414) 750-2605

ELECTRICAL FIELD UNIT
935 S. 60TH STREET
WEST ALLIS, WI 53214
PHONE: (414) 266-1170

WISDOT STOC

MR. JEFF MADSON
433 W ST. PAUL AVENUE, STE 300
MILWAUKEE, WI 53203 3007
PHONE: (414) 225-3723
jeffrey.madson@dot.wi.gov

WISDOT TRAFFIC LIGHTING

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935 S. 60TH STREET
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PHONE: (414) 266-1154
matthew.pfeifer@dot.wi.gov

ORDER OF SECTION 2 SHEETS

PROJECT OVERVIEW
TYPICAL SECTION
CONSTRUCTION DETAILS
REMOVAL DETAILS
PLAN DETAILS
CONDUIT PLAN
EROSION CONTROL PLAN
STORM SEWER
PERMANENT SIGNING
PAVEMENT MARKING PLAN
LIGHTING PLAN
TRAFFIC SIGNAL PLAN
TRAFFIC CONTROL & STAGING
DETOUR
ALIGNMENT DETAILS

OTHER AGENCIES

WISCONSIN DEPARTMENT OF NATURAL RESOURCES

MS. KRISTINA BETZOLD
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Kristina.Betzold@Wisconsin.gov

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GENERAL MITCHELL INTERNATIONAL AIRPORT

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MILWAUKEE COUNTY TRANSIT SYSTEM

MR. DAVE ZIAREK
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MILWAUKEE, WI 53205
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THE GATEWAY TO MILWAUKEE

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jim@gatewaytomilwaukee.com

MILWAUKEE COUNTY

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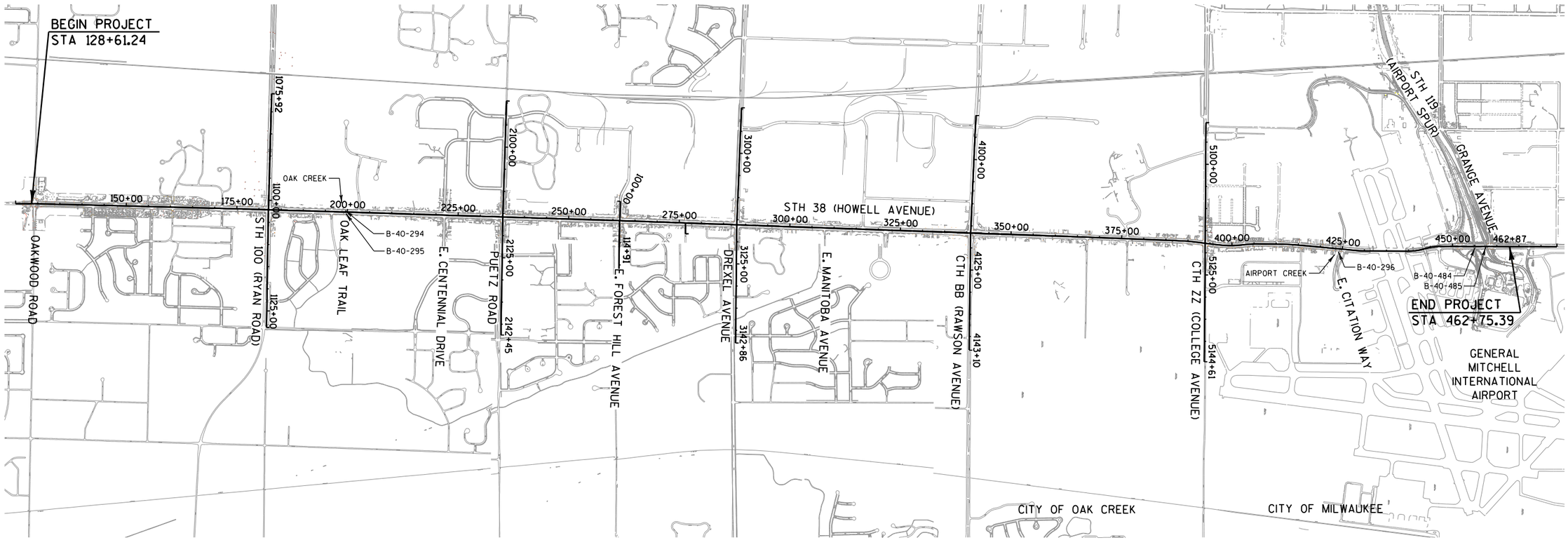
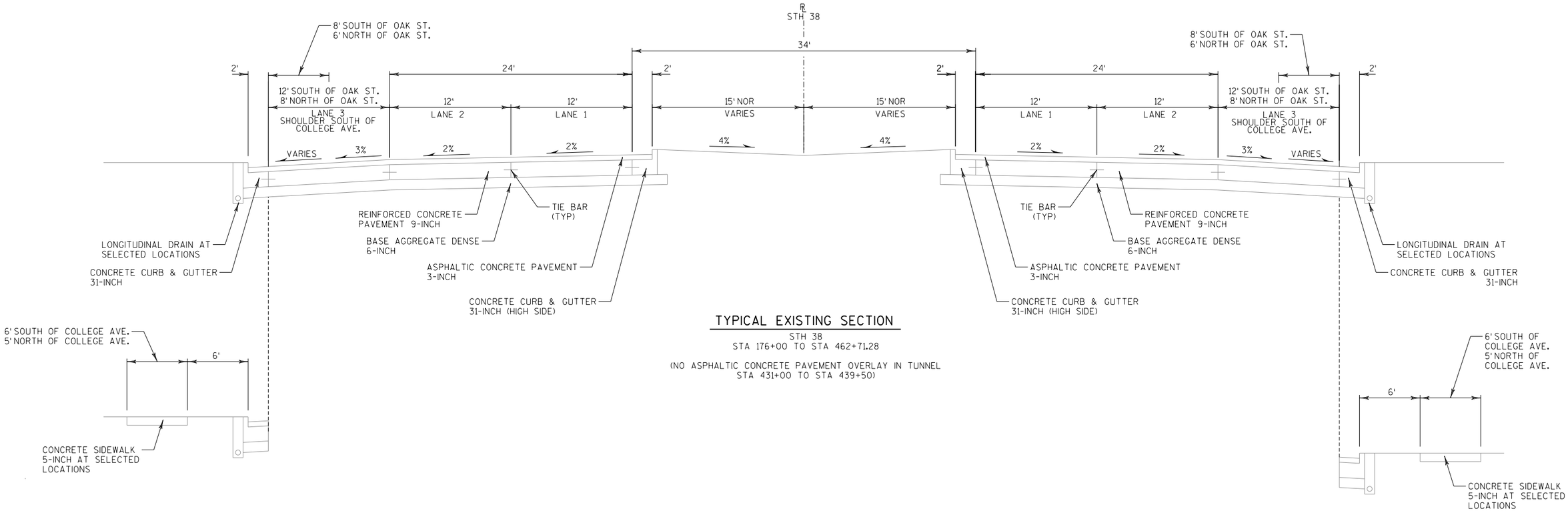
MR. GREG HEISEL
HIGHWAY MAINTENANCE MANAGER
MILWAUKEE COUNTY DEPT. OF TRANSPORTATION
10190 WEST WATERTOWN PLANK RD
WAUWATOSA, WI 53226
PHONE: (414) 257-6566

MR. JAMES KEEGAN
MILWAUKEE COUNTY DEPT. OF PARKS AND REC.
9480 WEST WATERTOWN PLANK RD
WAUWATOSA, WI 53226
PHONE: (414) 257-4775

2



PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PROJECT OVERVIEW	SHEET 3	E



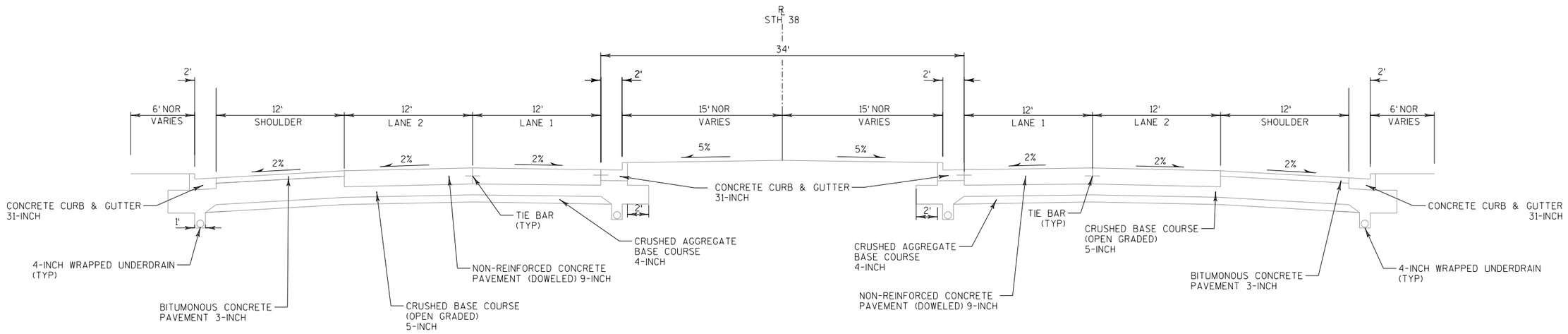
TYPICAL EXISTING SECTION

STH 38
STA 176+00 TO STA 462+71.28

(NO ASPHALTIC CONCRETE PAVEMENT OVERLAY IN TUNNEL
STA 431+00 TO STA 439+50)

STA 176+00 TO STA 393+40

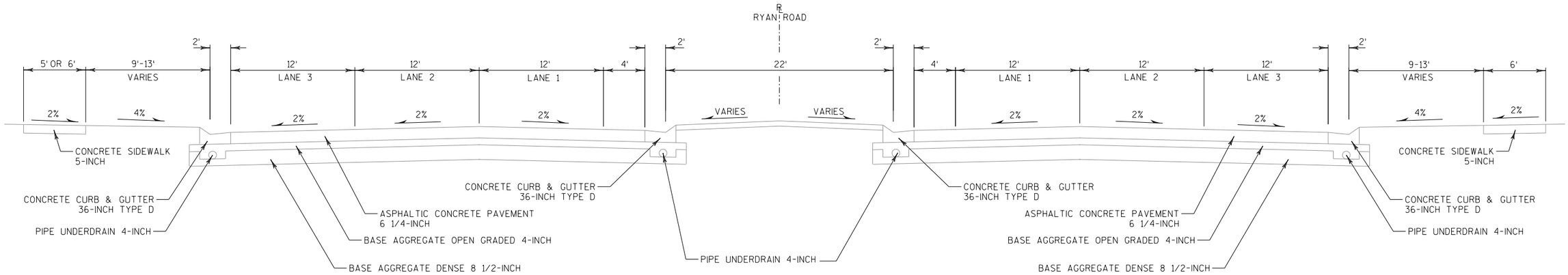
STA 176+00 TO STA 393+40



TYPICAL EXISTING SECTION

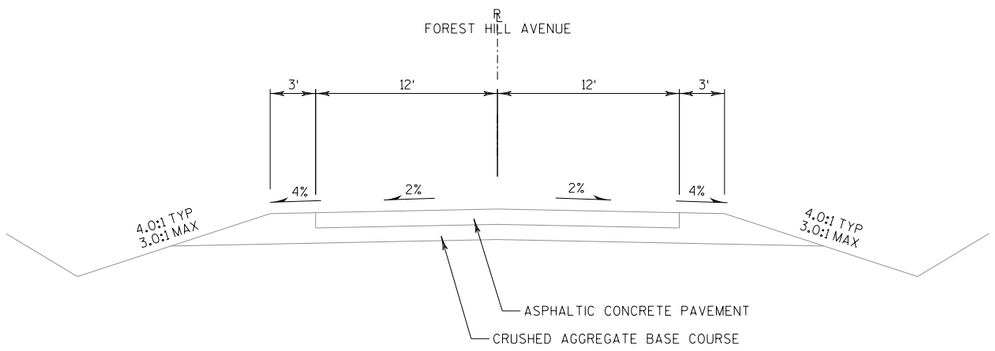
STH 38
STA 128+73.87 TO STA 176+00

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SHEET 4	E



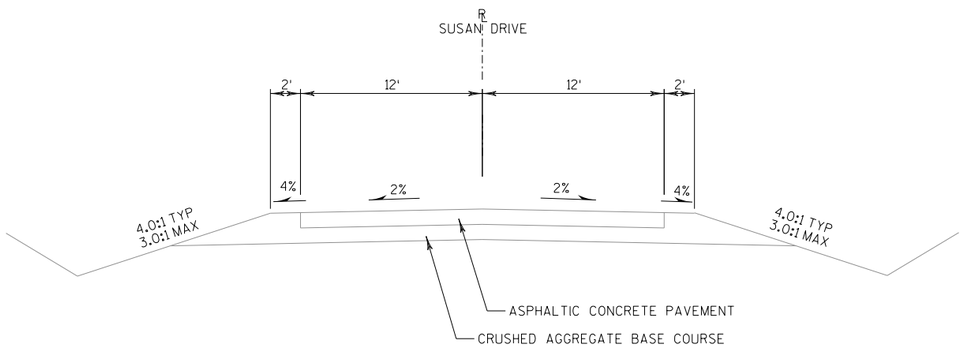
TYPICAL EXISTING SECTION

RYAN RD.
STA 1103+77.50 TO STA 1105+79.58



TYPICAL EXISTING SECTION

FOREST HILL AVE.
STA 108+73.88 TO STA 112+81.64



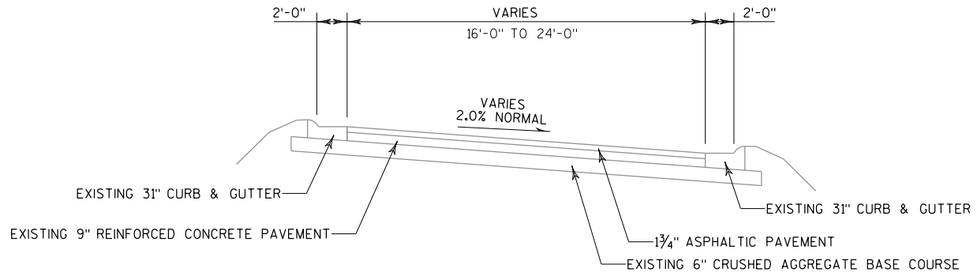
TYPICAL EXISTING SECTION

SUSAN DRIVE
STA 300+51.90 TO STA 302+22.09

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SHEET 5	E

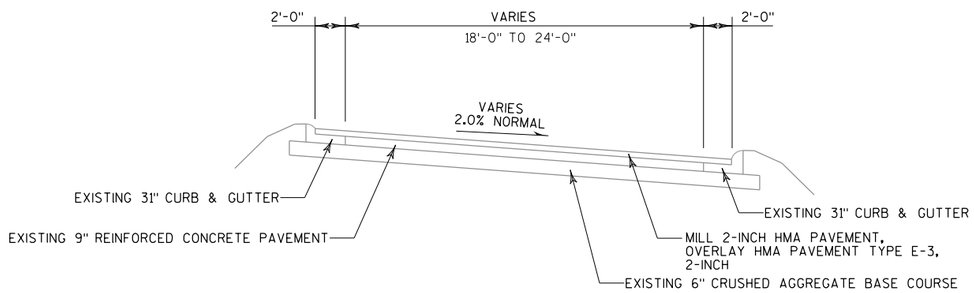
FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\020301_ts.dgn PLOT DATE : 10/30/2013 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:10

WISDOT/CADDS SHEET 42



TYPICAL EXISTING SECTION
RAMP ER

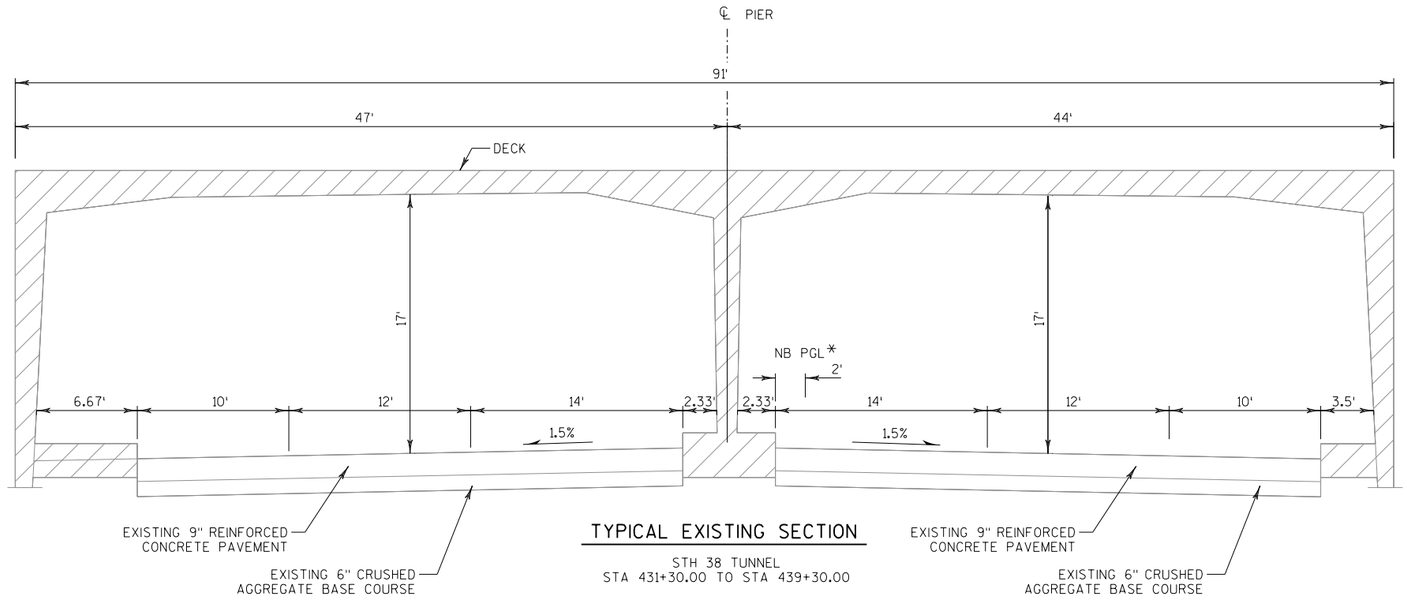
STA 148ER+37.24 TO STA 155ER+00.00



TYPICAL EXISTING SECTION
RAMP WC

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SHEET 6	E

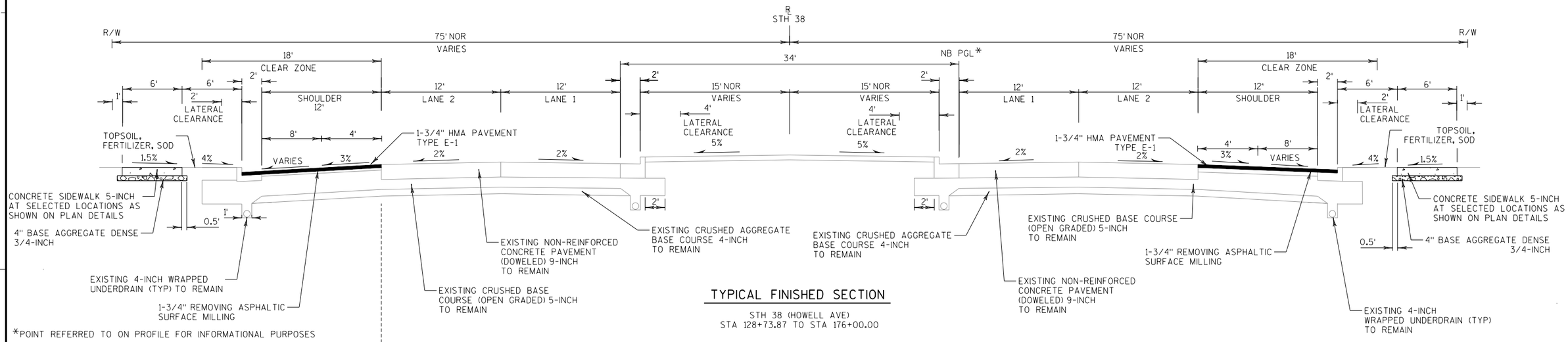
2



TYPICAL EXISTING SECTION

STH 38 TUNNEL
STA 431+30.00 TO STA 439+30.00

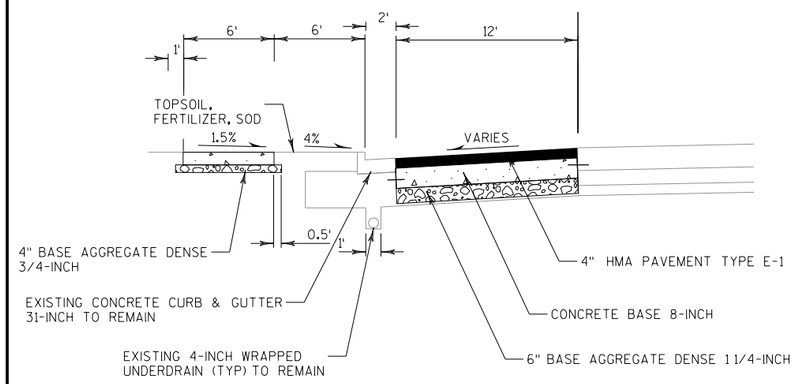
2



*POINT REFERRED TO ON PROFILE FOR INFORMATIONAL PURPOSES

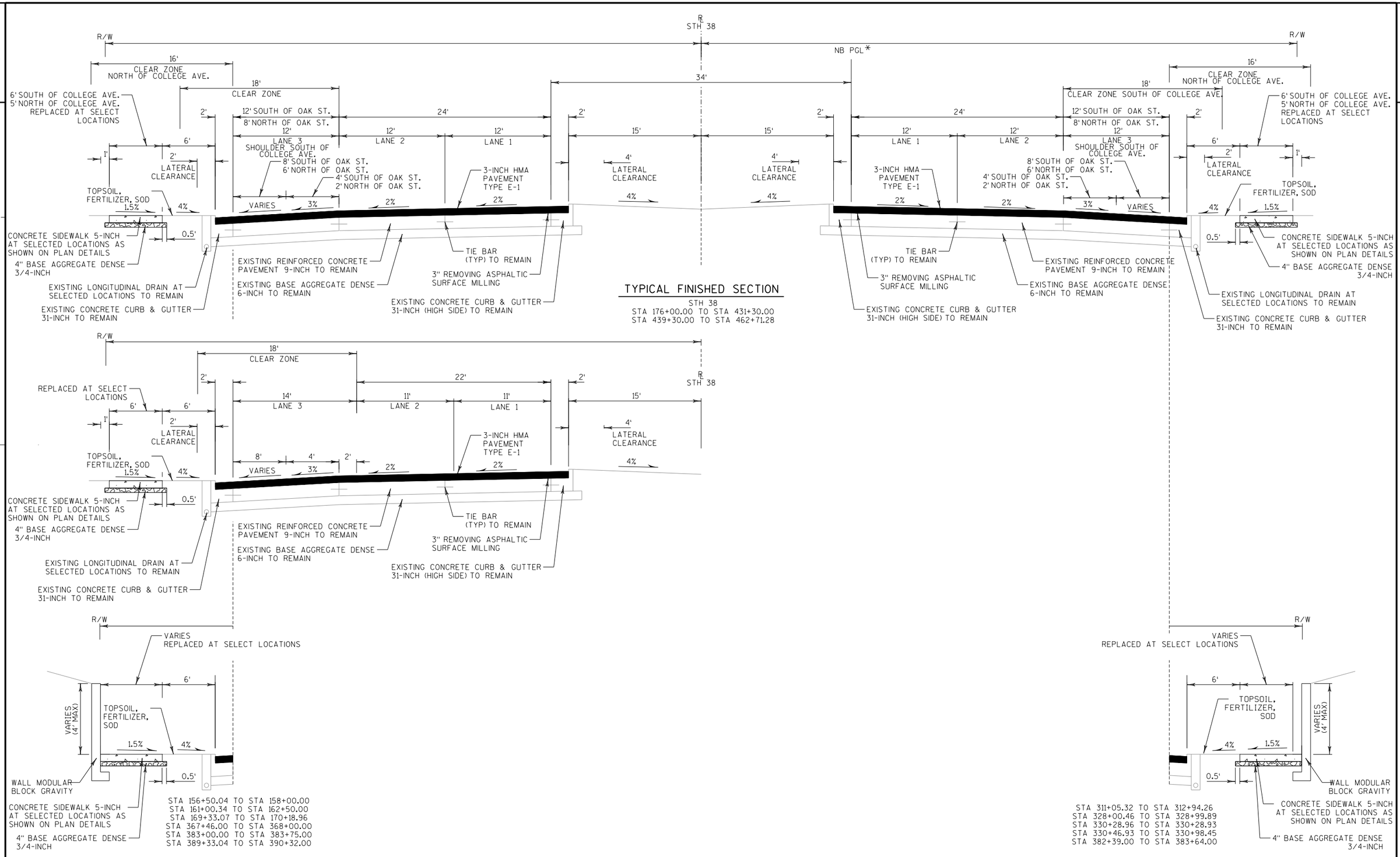
TYPICAL FINISHED SECTION

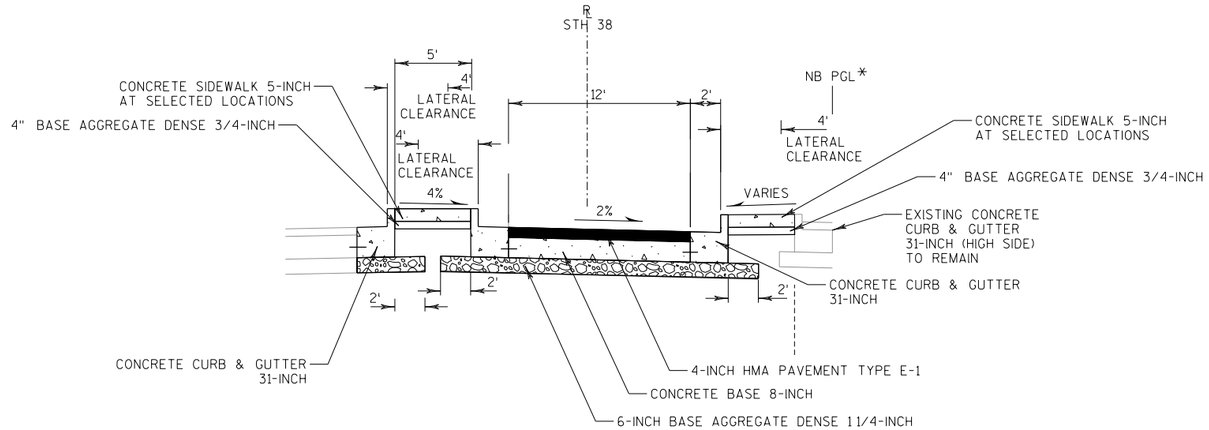
STH 38 (HOWELL AVE)
STA 128+73.87 TO STA 176+00.00



STH 38 (HOWELL AVE)
STA 130+00.00 TO STA 135+00.00

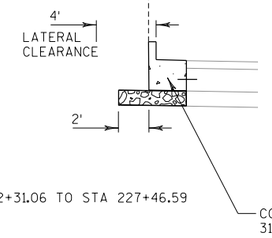
PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SHEET 8	E


R/W
16'
CLEAR ZONE
NORTH OF COLLEGE AVE.
18'
CLEAR ZONE
6' SOUTH OF COLLEGE AVE.
5' NORTH OF COLLEGE AVE.
REPLACED AT SELECT
LOCATIONS
2'
12' SOUTH OF OAK ST.
8' NORTH OF OAK ST.
24'
2'
12'
LANE 3
SHOULDER SOUTH OF
COLLEGE AVE.
12'
LANE 2
12'
LANE 1
34'
R/W
STH 38
NB PGL *
15'
15'
2'
6'
1'
2'
LATERAL
CLEARANCE
8' SOUTH OF OAK ST.
6' NORTH OF OAK ST.
4' SOUTH OF OAK ST.
2' NORTH OF OAK ST.
3-INCH HMA
PAVEMENT
TYPE E-1
4'
LATERAL
CLEARANCE
4'
LATERAL
CLEARANCE
TOPSOIL,
FERTILIZER, SOD
1.5%
4%
VARIES
3%
2%
2%
2%
2%
4%
4%
0.5'
CONCRETE SIDEWALK 5-INCH
AT SELECTED LOCATIONS AS
SHOWN ON PLAN DETAILS
4" BASE AGGREGATE DENSE
3/4-INCH
EXISTING LONGITUDINAL DRAIN AT
SELECTED LOCATIONS TO REMAIN
EXISTING CONCRETE CURB & GUTTER
31-INCH TO REMAIN
EXISTING REINFORCED CONCRETE
PAVEMENT 9-INCH TO REMAIN
EXISTING BASE AGGREGATE DENSE
6-INCH TO REMAIN
TIE BAR
(TYP) TO REMAIN
3" REMOVING ASPHALTIC
SURFACE MILLING
EXISTING CONCRETE CURB & GUTTER
31-INCH (HIGH SIDE) TO REMAIN
TYPICAL FINISHED SECTION
STH 38
STA 176+00.00 TO STA 431+30.00
STA 439+30.00 TO STA 462+71.28
18'
CLEAR ZONE
REPLACED AT SELECT
LOCATIONS
22'
14'
LANE 3
11'
LANE 2
11'
LANE 1
8'
4'
2'
VARIES
3%
2%
2%
15'
4'
LATERAL
CLEARANCE
4%
VARIES
REPLACED AT SELECT LOCATIONS
6'
VARIES
(4" MAX)
TOPSOIL,
FERTILIZER,
SOD
1.5%
4%
0.5'
WALL MODULAR
BLOCK GRAVITY
CONCRETE SIDEWALK 5-INCH
AT SELECTED LOCATIONS AS
SHOWN ON PLAN DETAILS
4" BASE AGGREGATE DENSE
3/4-INCH
STA 156+50.04 TO STA 158+00.00
STA 161+00.34 TO STA 162+50.00
STA 169+33.07 TO STA 170+18.96
STA 367+46.00 TO STA 368+00.00
STA 383+00.00 TO STA 383+75.00
STA 389+33.04 TO STA 390+32.00
STA 311+05.32 TO STA 312+94.26
STA 328+00.46 TO STA 328+99.89
STA 330+28.96 TO STA 330+28.93
STA 330+46.93 TO STA 330+98.45
STA 382+39.00 TO STA 383+64.00

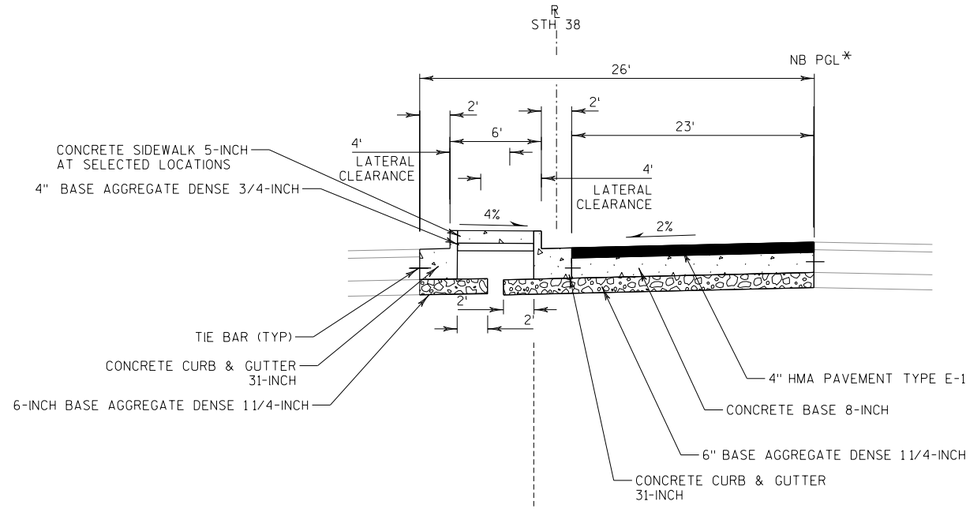


TYPICAL FINISHED SECTION

STH 38 (HOWELL AVENUE)
SB CHANNELIZED LEFT TURN LANE
STA 222+36.97 TO STA 227+46.30
STA 262+06.77 TO STA 267+17.03
STA 276+98.49 TO STA 283+00.99



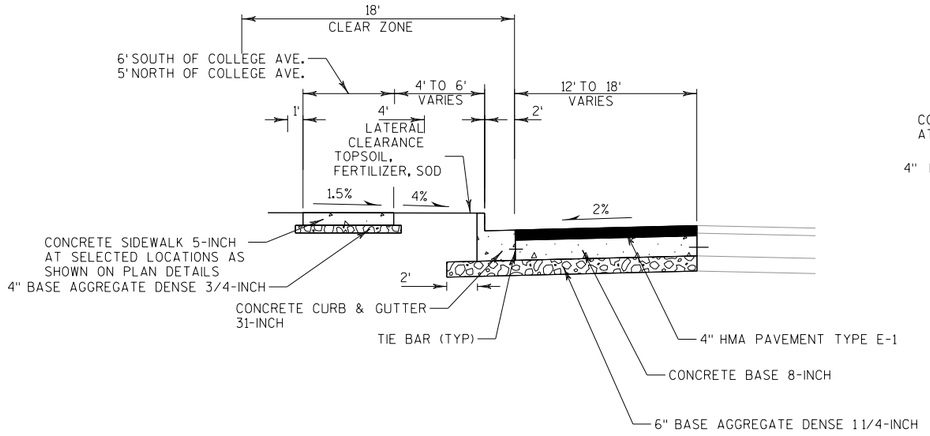
STA 222+31.06 TO STA 227+46.59



TYPICAL FINISHED SECTION

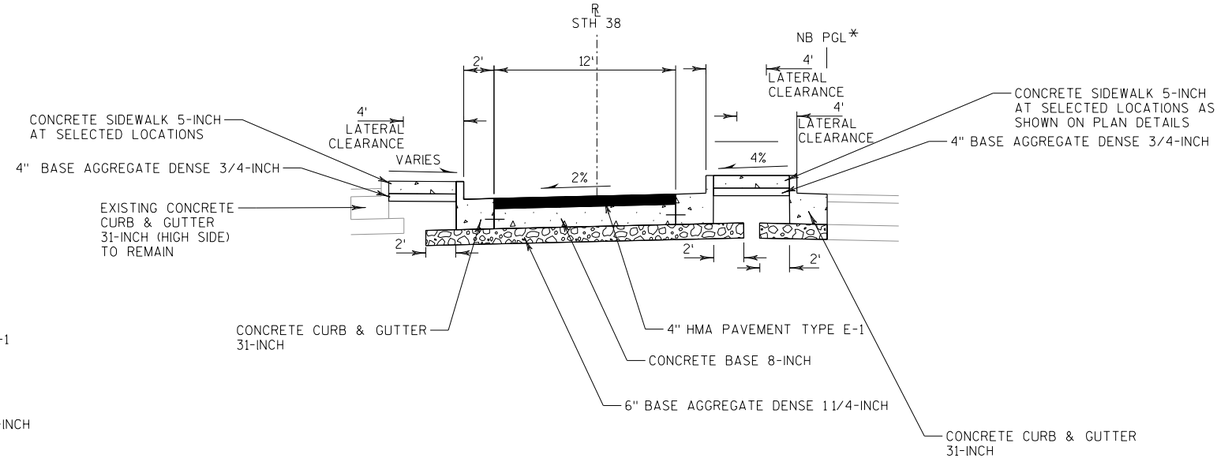
STH 38 (HOWELL AVENUE)
NB LEFT TURN LANE
STA 224+57.72 TO STA 229+35.24

STA 269+01.24 TO STA 275+73.43



TYPICAL FINISHED SECTION

STH 38 (HOWELL AVENUE)
SB RIGHT TURN LANE
STA 183+57.57 TO STA 187+87.12
STA 262+25.41 TO STA 266+62.98
STA 277+45.91 TO STA 281+63.87
STA 459+47.44 TO STA 462+75.38

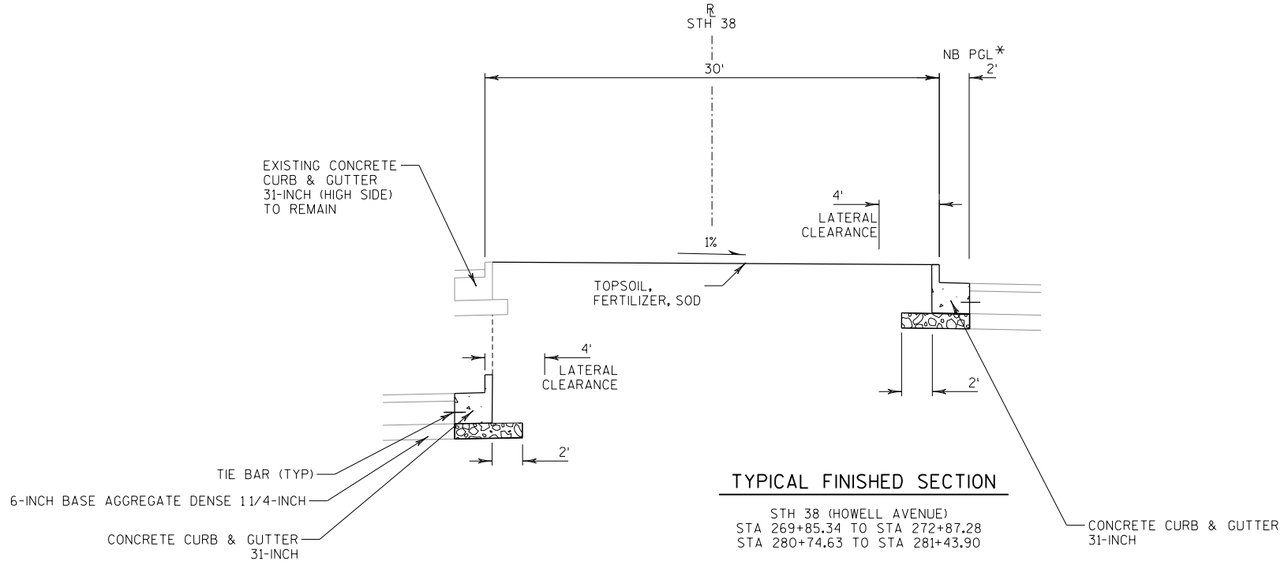


TYPICAL FINISHED SECTION

STH 38 (HOWELL AVENUE)
NB CHANNELIZED LEFT TURN LANE
STA 216+08.67 TO STA 221+55.95
STA 254+88.20 TO STA 261+02.72

*POINT REFERRED TO ON PROFILE FOR INFORMATIONAL PURPOSES

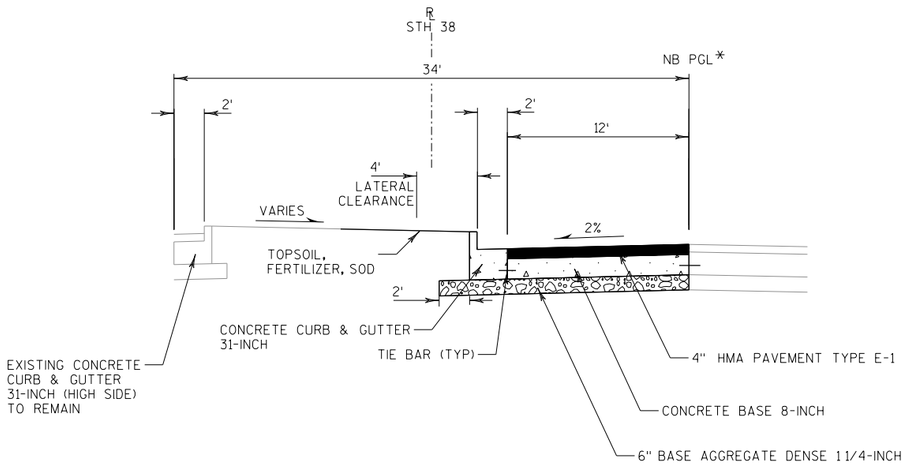
PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SHEET 10	E



STA 272+54.97 TO STA 273+55.97
STA 257+96.46 TO STA 258+53.86

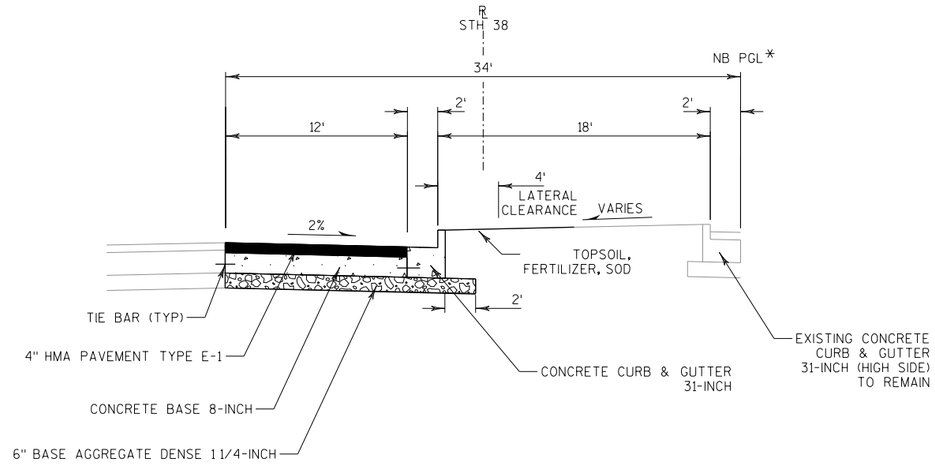
TYPICAL FINISHED SECTION

STH 38 (HOWELL AVENUE)
STA 269+85.34 TO STA 272+87.28
STA 280+74.63 TO STA 281+43.90



TYPICAL FINISHED SECTION

STH 38 (HOWELL AVENUE)
NB LEFT TURN LANE
STA 174+47.98 TO STA 178+54.88
STA 244+21.49 TO STA 247+49.17
STA 280+73.87 O STA 284+88.90
STA 294+08.96 TO STA 297+59.09
STA 330+50.01 TO STA 334+29.03
STA 352+90.61 TO STA 356+40.77
STA 370+50.74 TO STA 374+00.48
STA 399+01.46 TO STA 402+51.51
STA 455+22.47 TO STA 457+07.61



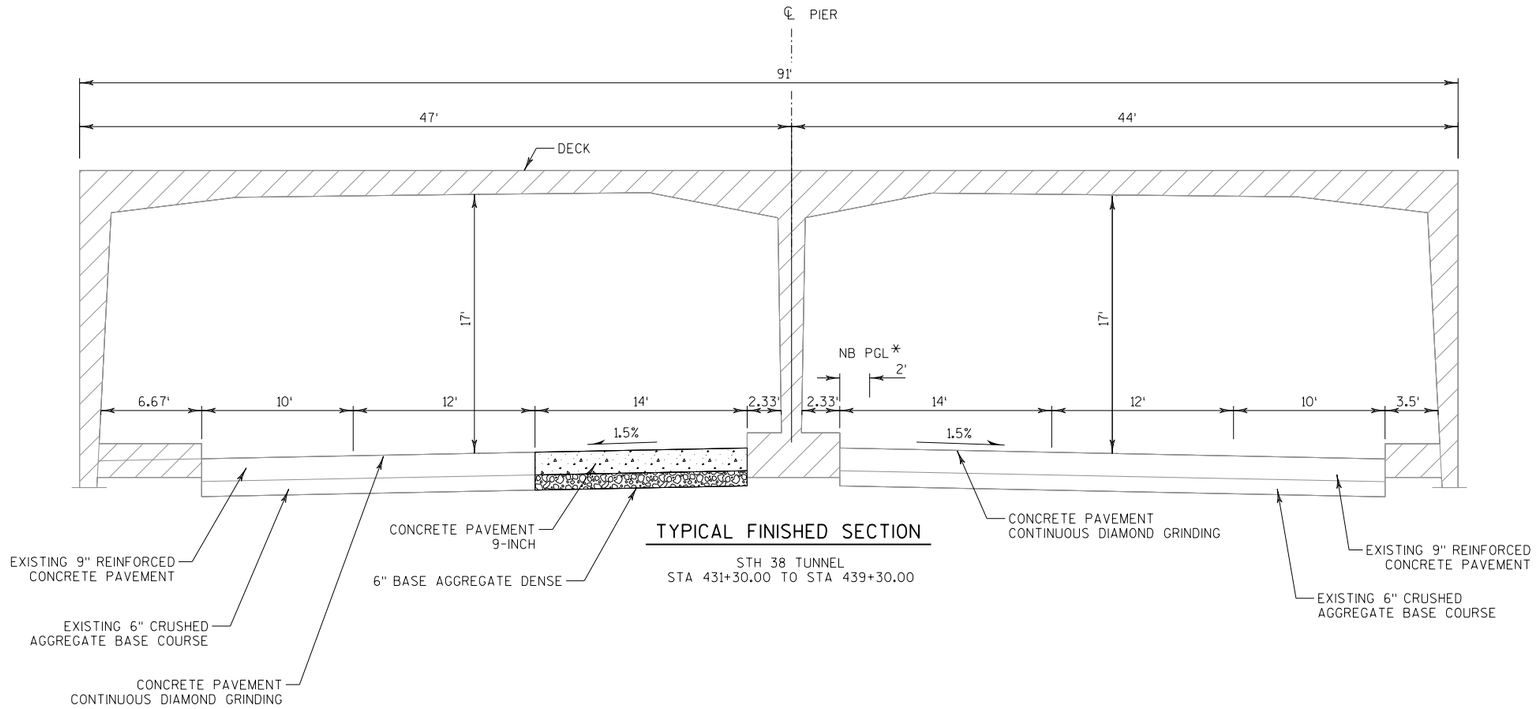
TYPICAL FINISHED SECTION

STH 38 (HOWELL AVENUE)
SB LEFT TURN LANE
STA 290+28.92 TO STA 293+98.21
STA 308+21.27 TO STA 311+58.19
STA 323+75.02 TO STA 326+18.62
STA 327+96.81 TO STA 331+49.97
STA 376+72.55 TO STA 379+92.92
STA 403+17.00 TO STA 406+60.44
STA 455+57.94 TO STA 456+61.21

*POINT REFERRED TO ON PROFILE FOR INFORMATIONAL PURPOSES

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SHEET 11	E

2

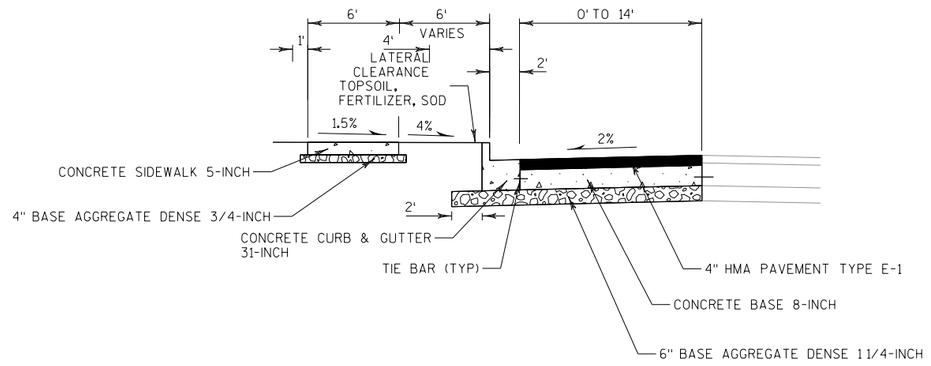


TYPICAL FINISHED SECTION

STH 38 TUNNEL
STA 431+30.00 TO STA 439+30.00

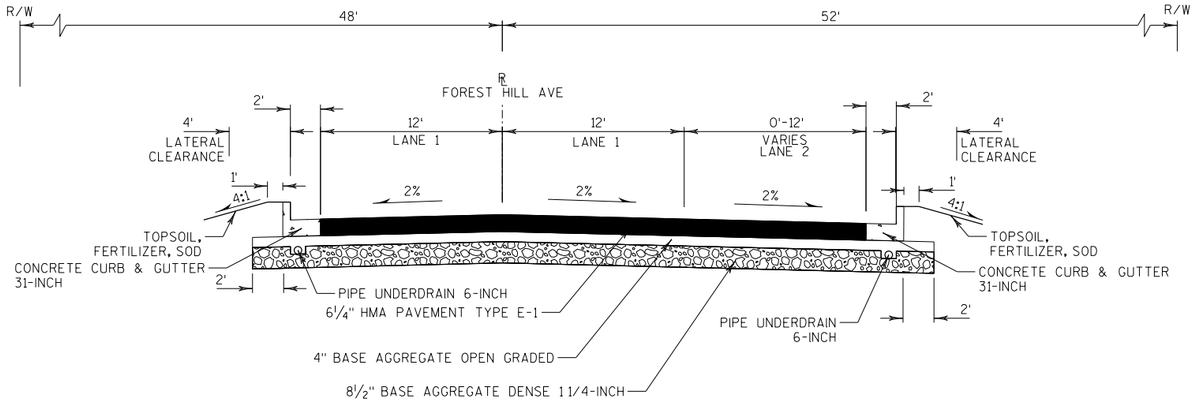
*POINT REFERRED TO ON PROFILE FOR INFORMATIONAL PURPOSES

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SHEET 12	E



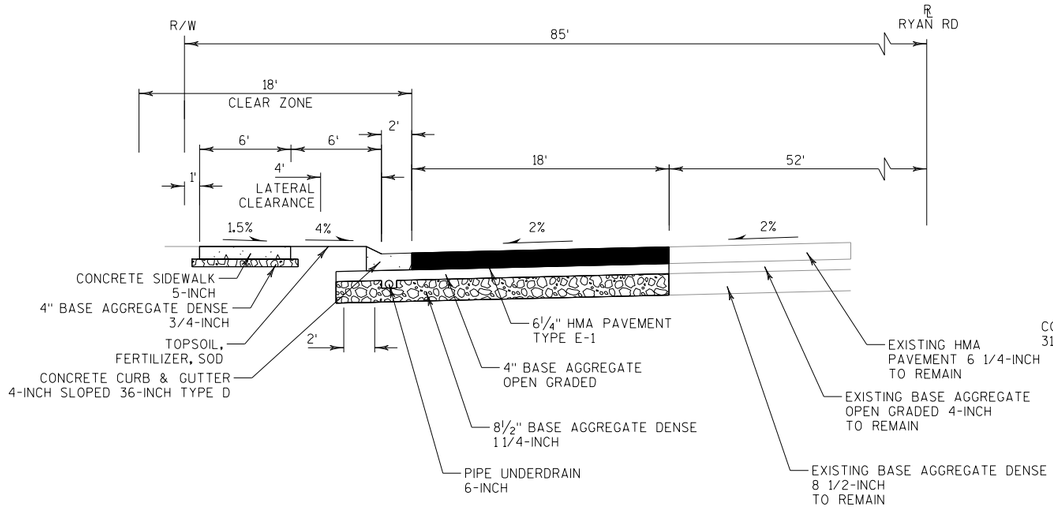
TYPICAL FINISHED SECTION

W. FOREST HILL AVE.
STA 200+42.35 TO STA 203+52.74



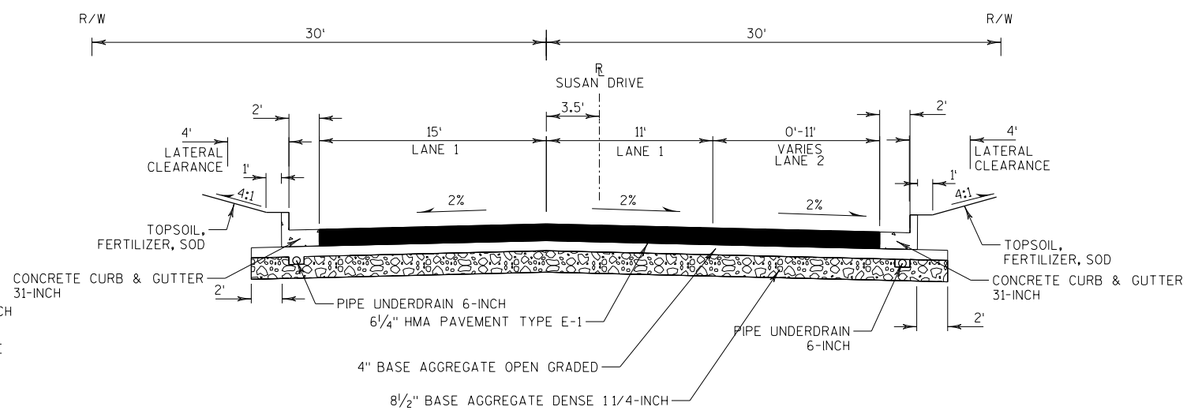
TYPICAL FINISHED SECTION

E. FOREST HILL AVE
STA 100+52.07 TO STA 105+40.00



TYPICAL FINISHED SECTION

RYAN ROAD
STA 1103+60.08 TO STA 1106+91.74

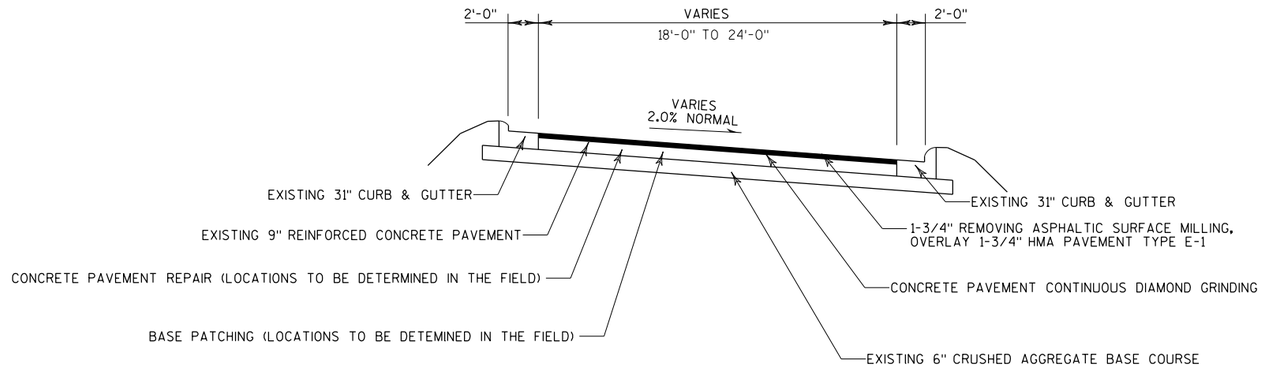


TYPICAL FINISHED SECTION

SUSAN DRIVE
STA 300+51.90 TO STA 301+72.09

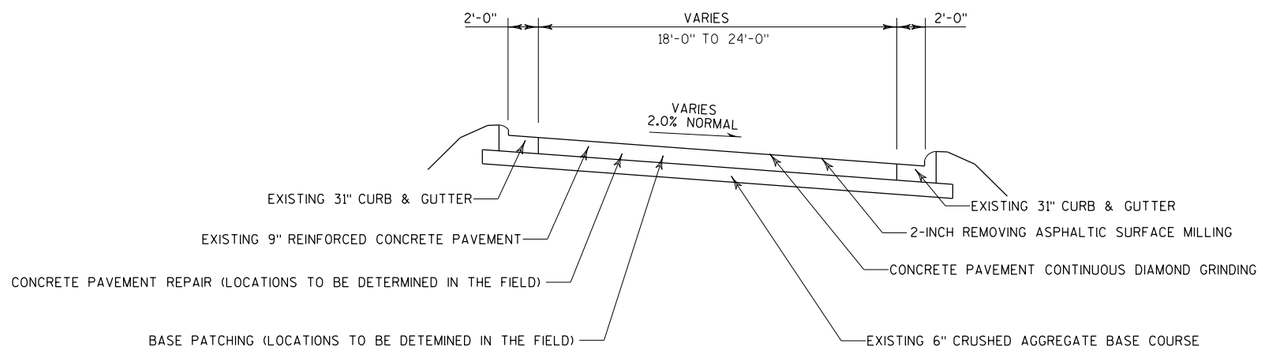
*POINT REFERRED TO ON PROFILE FOR INFORMATIONAL PURPOSES

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SHEET 13	E



TYPICAL FINISHED SECTION

RAMP ER



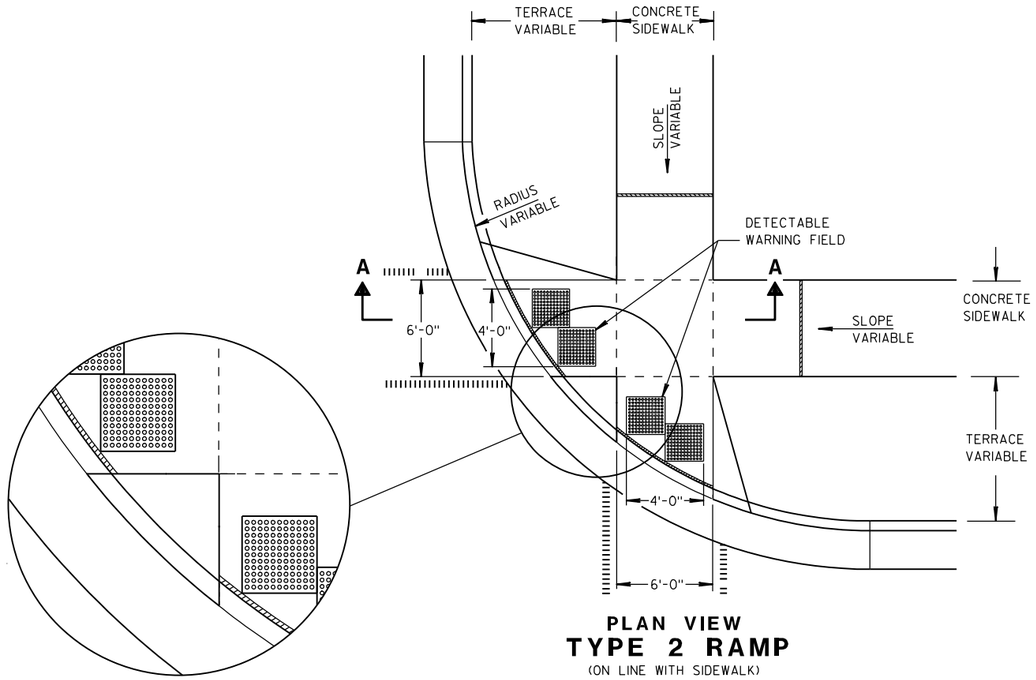
TYPICAL FINISHED SECTION

RAMP WC

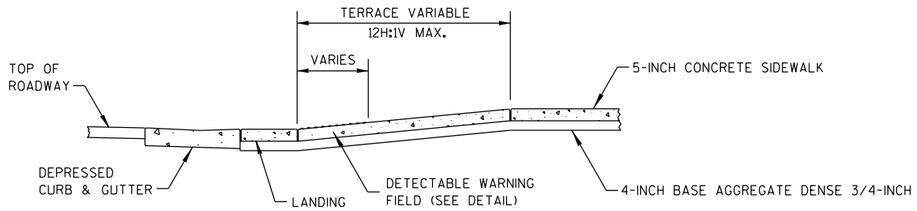
NOTES

PGL = POINT REFERRED TO ON PROFILE AND PIVOT POINT FOR SUPERELEVATION

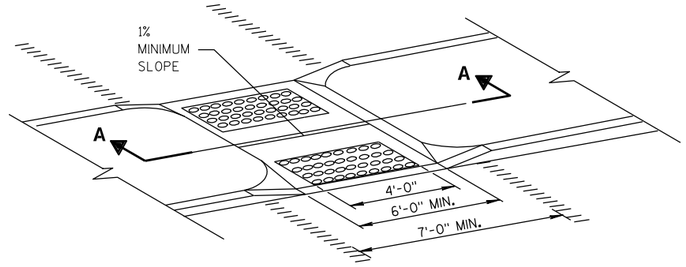
PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SHEET 14	E



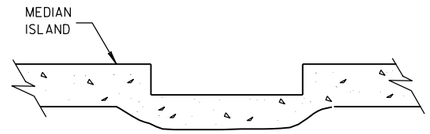
PLAN VIEW
TYPE 2 RAMP
(ON LINE WITH SIDEWALK)



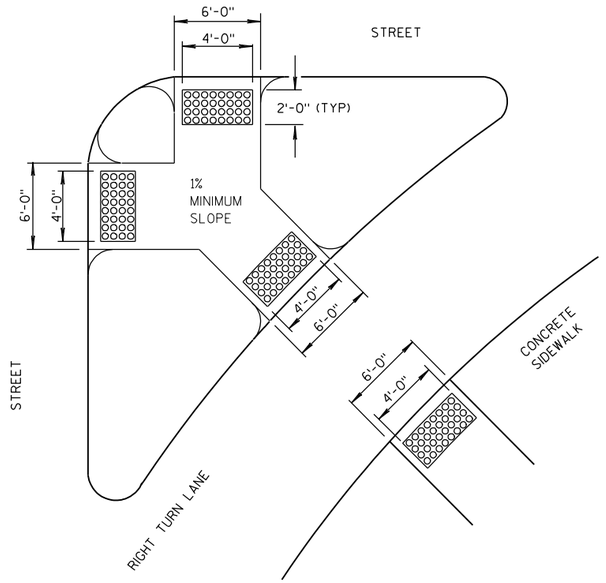
SEE SDD "CURB RAMPS TYPES 2 AND 3" FOR ALL OTHER DIMENSIONS



MEDIAN ISLAND
NON-ELEVATED CROSSING
TYPE 5



SECTION A-A



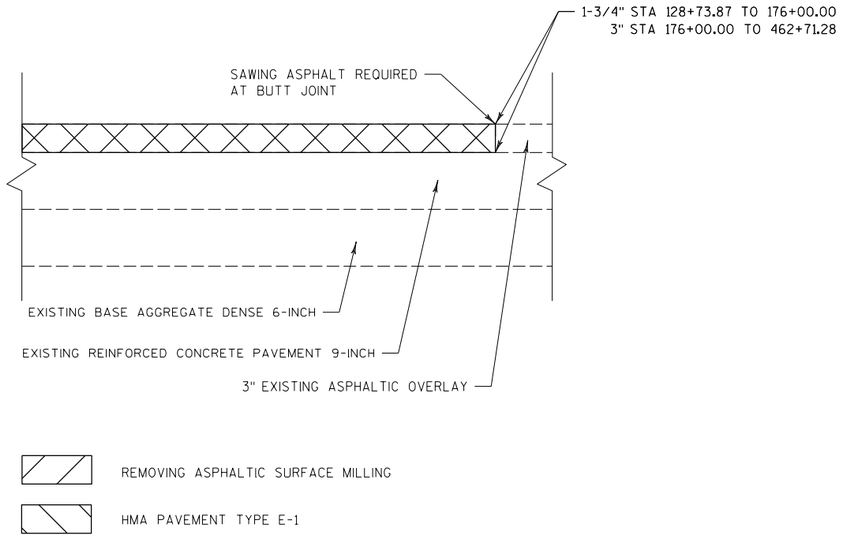
TYPE 6
DETECTABLE WARNING AT ISLANDS

CURB RAMPS

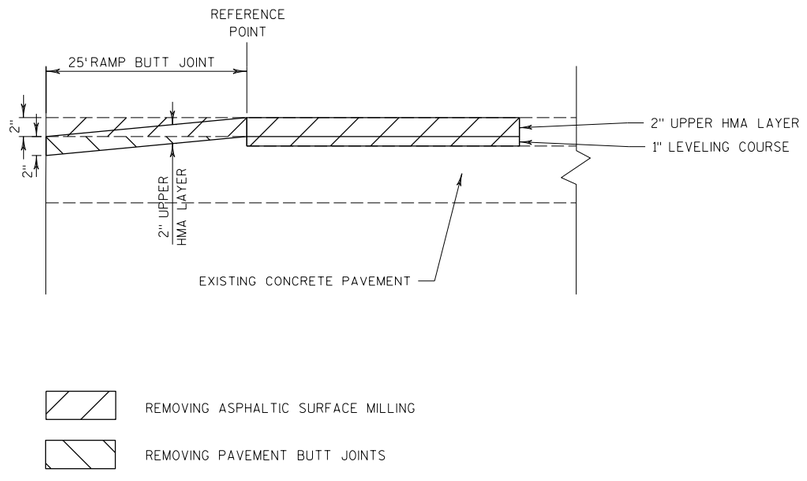
STA 128+73.87 TO 394+00.00

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET 15	E

2



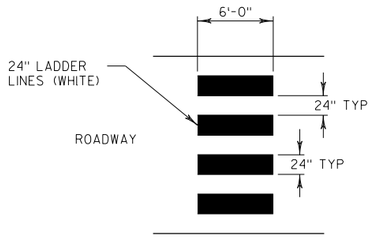
BUTT JOINT DETAIL



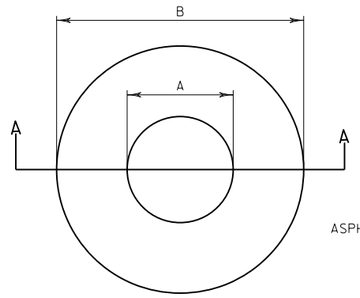
RAMP BUTT JOINT DETAIL

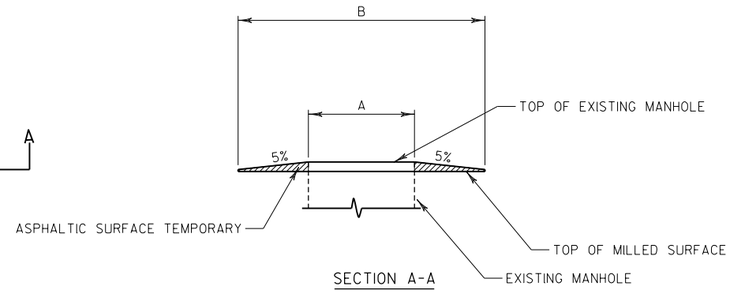
SEE CONSTRUCTION DETAIL-AIRPORT SPUR RAMPS FOR LOCATIONS

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET 16	E



ZEBRA PATTERN CROSSWALK MARKING



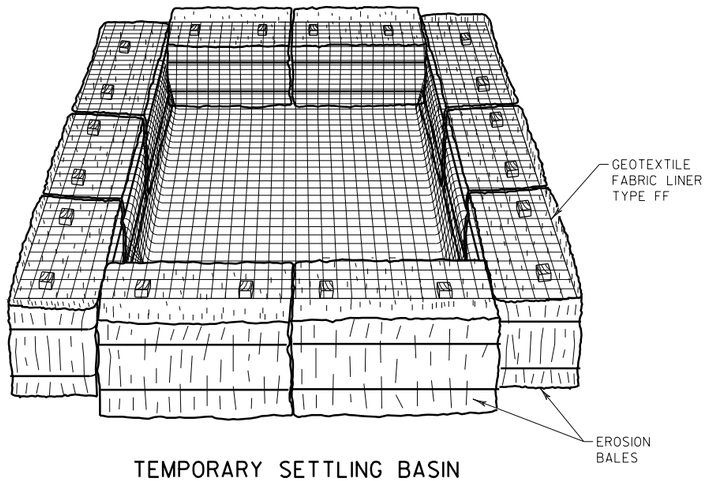


SECTION A-A

NOTES

1. PROVIDE RAMP AFTER MILLING OPERATION AND BEFORE OPENING TO TRAFFIC.
2. RAMP MATERIAL SHALL BE ASPHALTIC SURFACE TEMPOARY

MANHOLE RAMP



TEMPORARY SETTLING BASIN

(SIZE TO BE DETERMINED IN FIELD AS INDICATED BELOW:)

STORAGE VOLUME (C.F.) = 16 X GPM (PUMP RATE)

EXAMPLE:
CONTRACTOR INDICATES PUMP CAPABLE OF 50 GPM
HEIGHT OF BALES = 1.5 FT.

SOLUTION:
SV (C.F.) = 16 X 50
SV = 800 C.F.

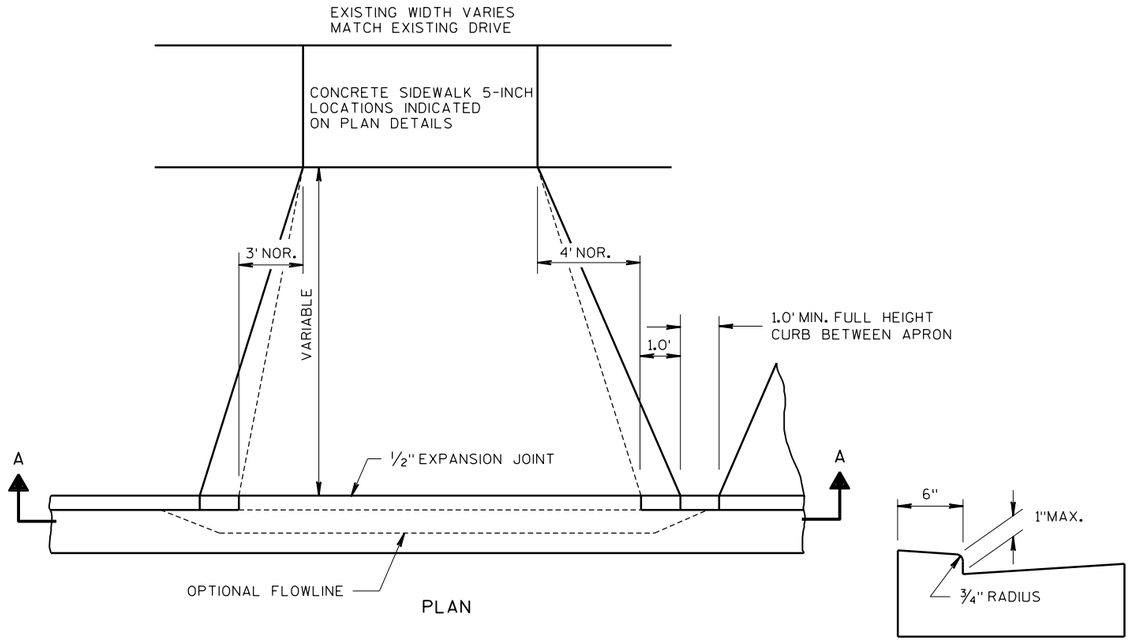
$\frac{800\ C.F.}{1.5\ FT.}$ = 533 S.F.

USE A 20 FT. X 27 FT. BASIN

NOTES

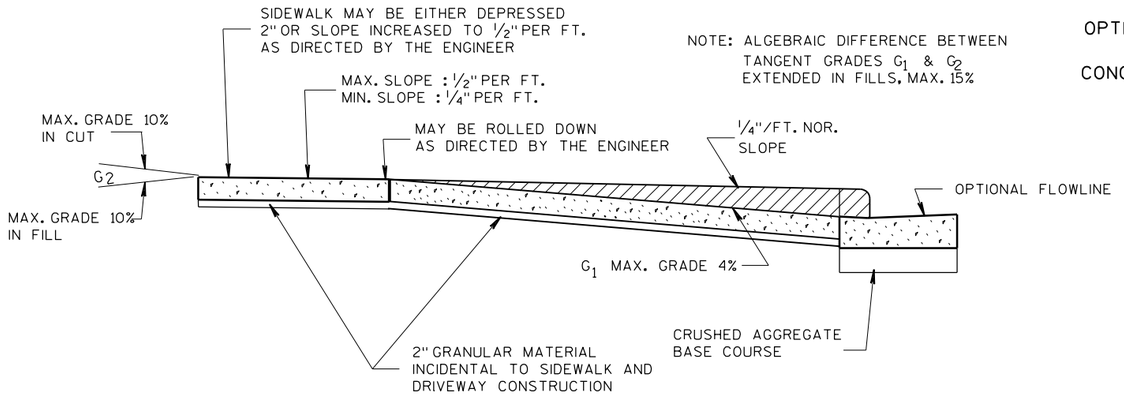
1. CONTRACTOR TO PUMP WATER FROM EXCAVATION TO BASIN PRIOR TO DISCHARGING TO THE WATERWAY.
2. BASIN TO BE KEPT LESS THAN 10% FULL OF SEDIMENT. GEOTEXTILE FABRIC AND SEDIMENTS TO BE DISPOSED BY THE CONTRACTOR OFF OF THE PROJECT SITE.
3. TEMPORARY SETTLING BASIN TO BE PAID FOR AS EROSION BALES AND GEOTEXTILE FABRIC TYPE FF.

2



PLAN

OPTIONAL METHOD
FOR
CONCRETE GUTTER



PROFILE

SECTION A-A

URBAN DRIVEWAY DETAIL

FOREST HILL AVENUE

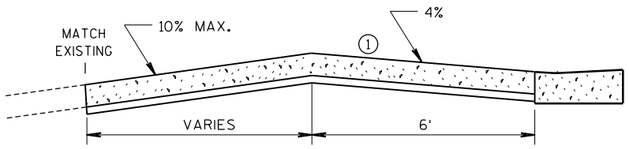
NOTES

1. DRIVEWAY SURFACE TO BE SAME TYPE AND THICKNESS AS EXISTING WITH MINIMUM SECTION OF:

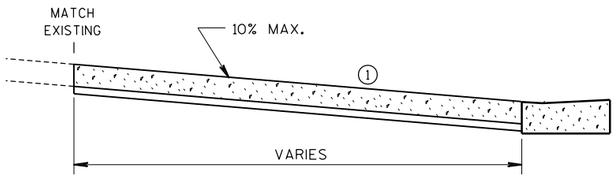
   ASPHALTIC SURFACE (3-INCH) DRIVEWATS AND FIELD ENTRANCES OVER BASE AGGREGATE DENSE 3/4-INCH (4-INCH)

   OR

   BASE AGGREGATE DENSE 3/4-INCH (6-INCH)

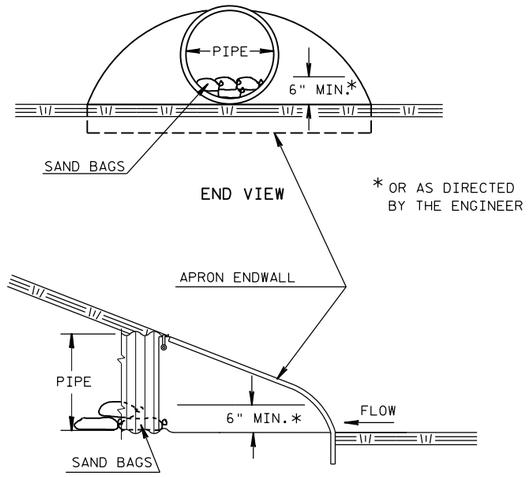


DRIVEWAY IN FILL

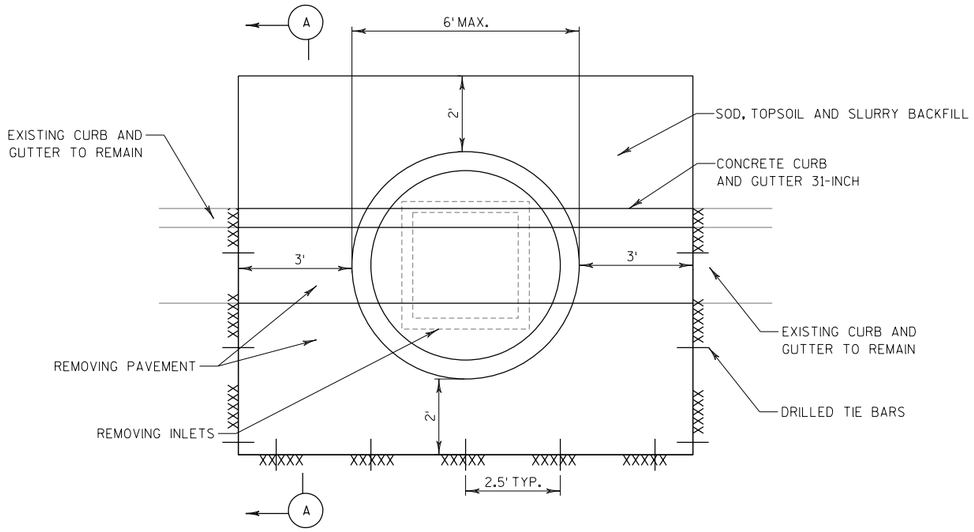


DRIVEWAY IN CUT

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET 18	E

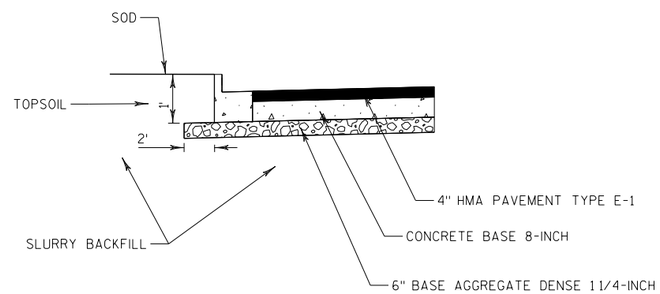


CULVERT PIPE CHECK



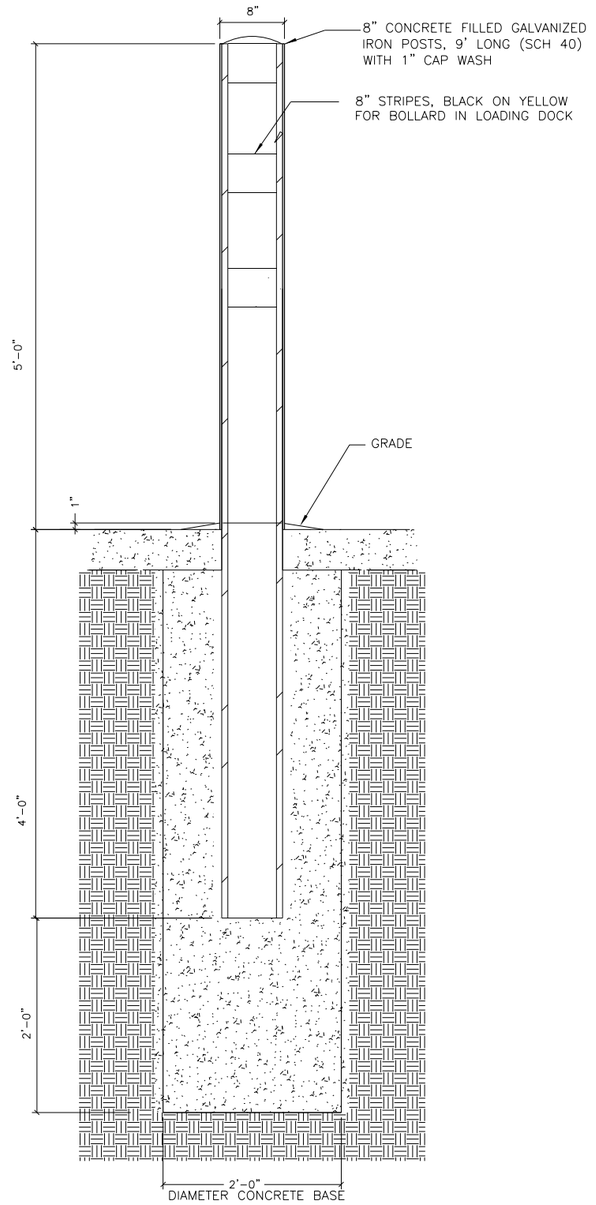
SEE "REPLACING INLETS" IN MISCELLANEOUS QUANTITIES FOR LOCATIONS, STRUCTURE SIZE AND COVER TYPES

XXXXX SAWING CONCRETE

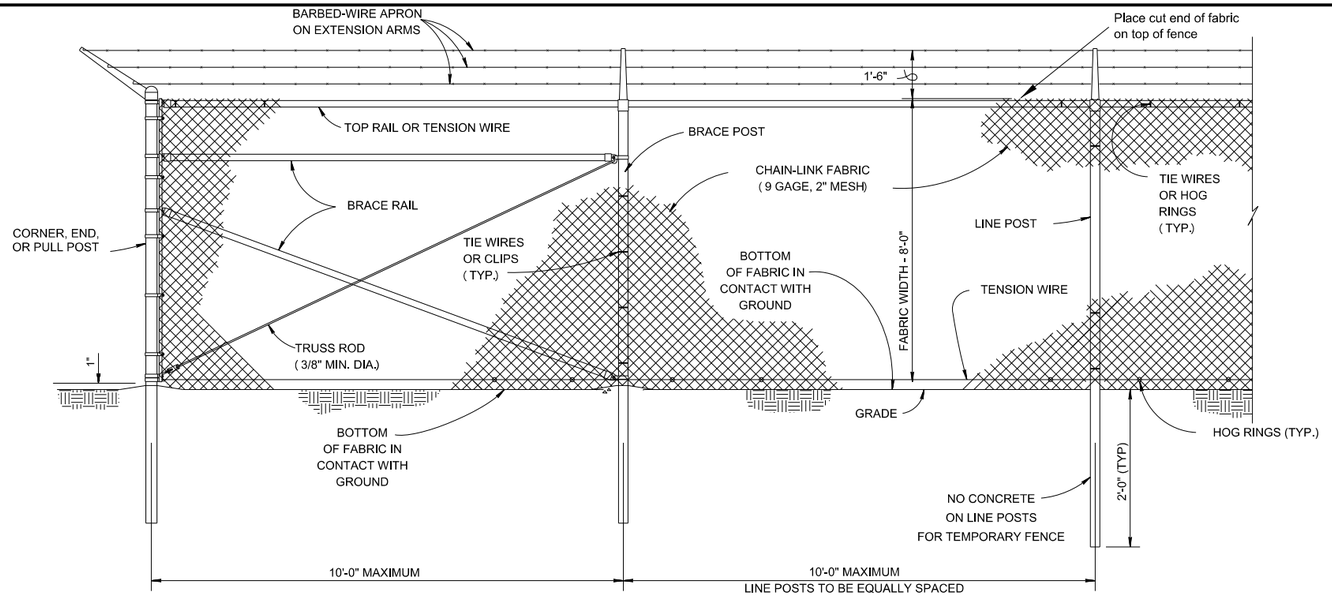


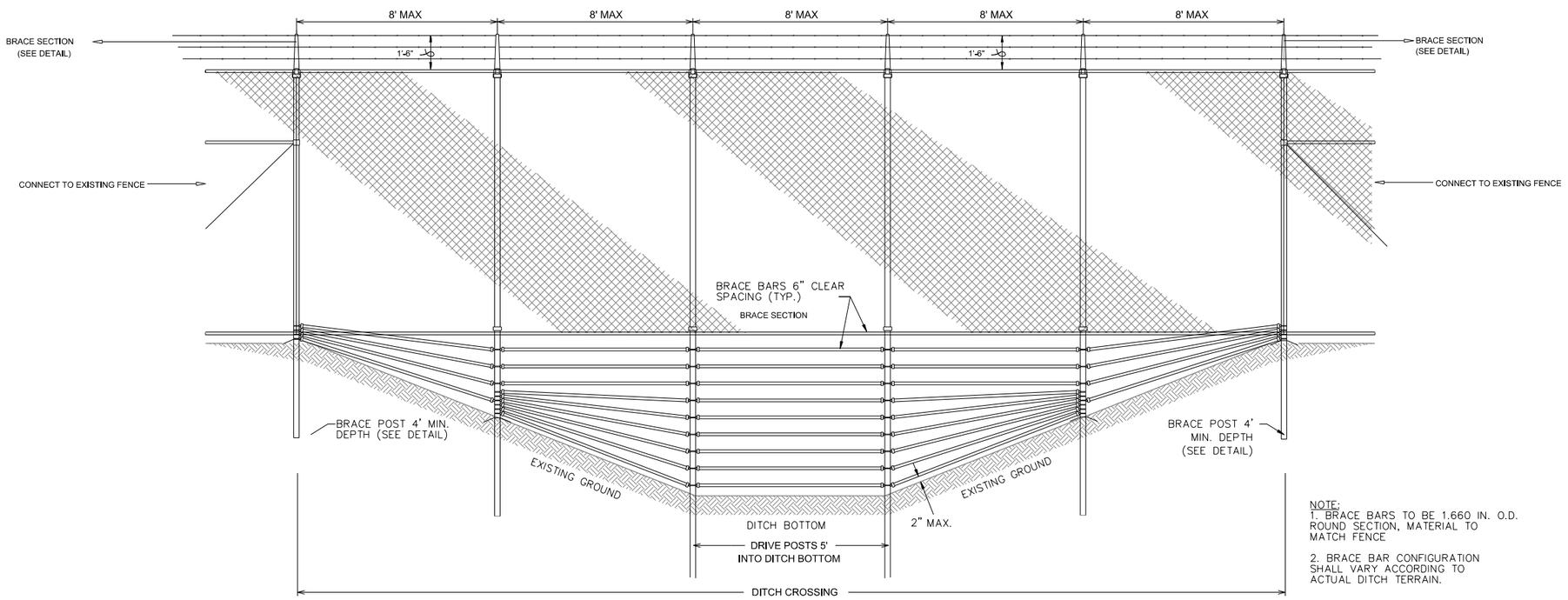
SECTION A-A

REPLACE EXISTING INLET IN PLACE



MANUFACTURED CONCRETE PAINTED BOLLARD

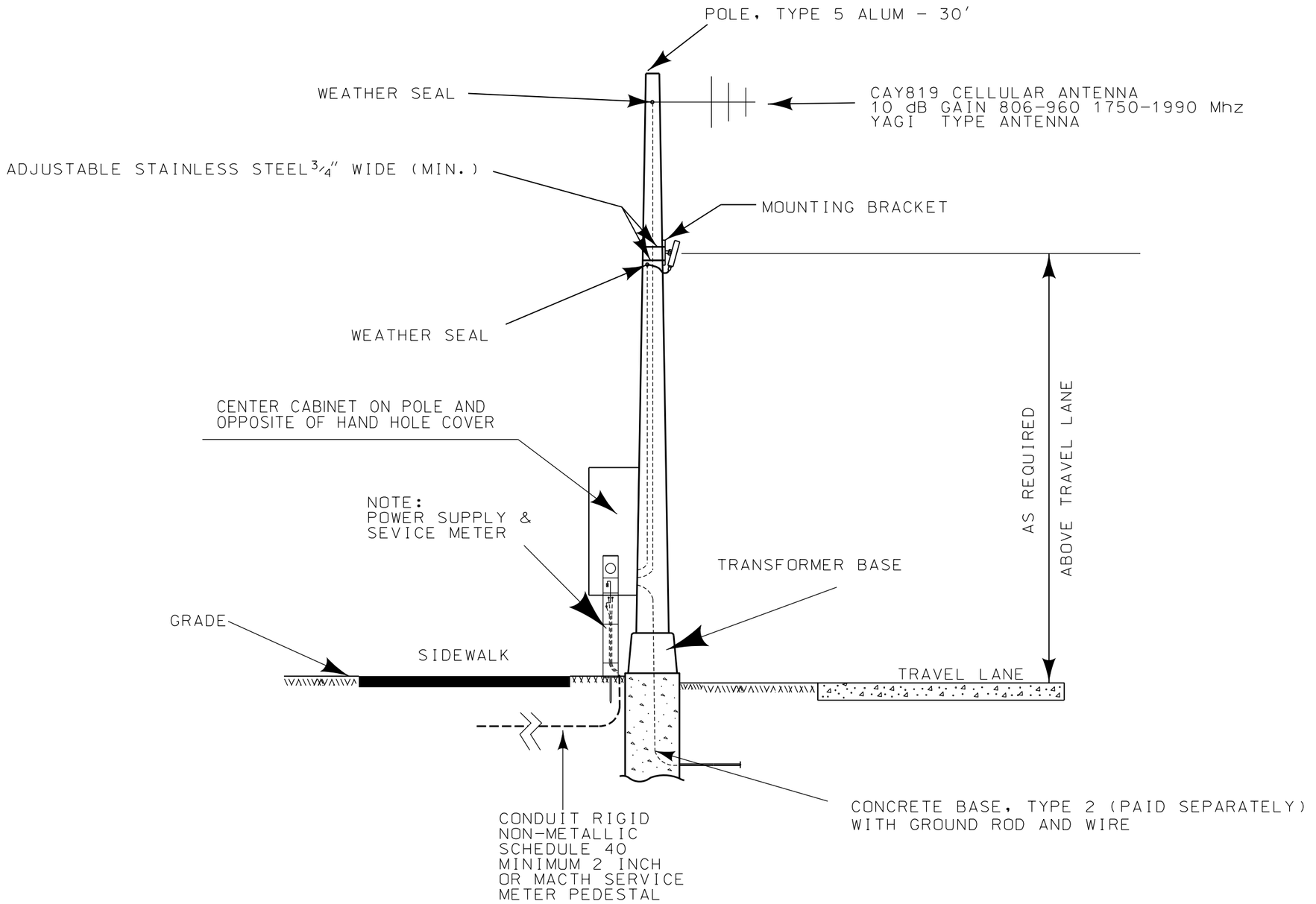




SECURITY FENCE TEMPORARY

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET 20	E

2



WAVETRONIX DETECTOR WITH CELLULAR ANTENNA INSTALLATION ON TYPE 5 POLE

(NOT TO SCALE)

Sta. 228+17

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

FOUR (4) BOLTS SHALL BE FURNISHED WITH EACH TRANSFORMER BASE. BOLTS SHALL BE 1" DIAMETER, 4" IN LENGTH, WITH WASHERS, LOCK WASHERS AND NUTS. BOLTS, NUTS AND WASHERS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 641.2.2 OF THE STANDARD SPECIFICATIONS, ASTM A-325, (92,000 YIELD) HEAVY HEX NUT AND BE GALVANIZED IN ACCORDANCE WITH ASTM A-153, CLASS C.

LEVELING SHIMS, IF NEEDED, SHALL BE DESIGNED FOR THE PURPOSE AND USED UNDER CAST BASES WHEN PLUMBING POLES OR STANDARDS DURING INSTALLATION. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE.

SHIM LENGTH SHALL BE LONG ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.

DOUBLE NUTTING IS NOT ACCEPTABLE FOR LEVELING OR MOUNTING PURPOSES.

A NEMA APPROVED AND U.L. LISTED MECHANICAL CONNECTOR (LUG) AL/CU RATED AND SIZED TO ACCEPT #10 AWG STRANDED WIRE, SHALL BE FURNISHED AND INSTALLED IN THE PEDESTAL AND TRANSFORMER BASES.

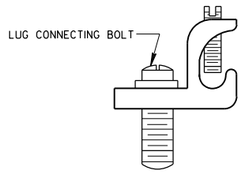
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

PEDESTAL BASE COLLAR THREADING SHALL BE TAPERED AND IN ACCORDANCE WITH NATIONAL PIPE THREADING DIMENSIONS.

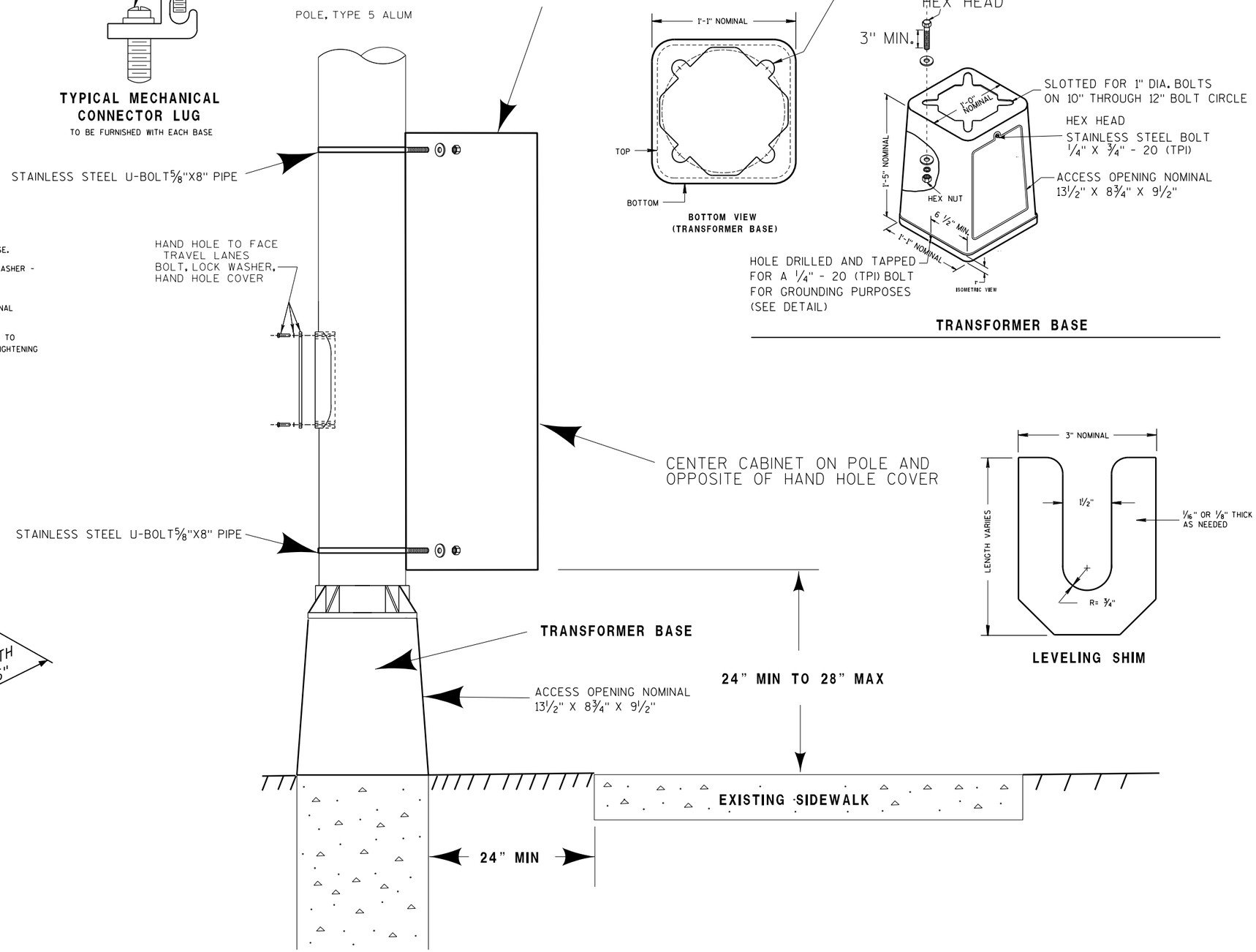
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1½", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

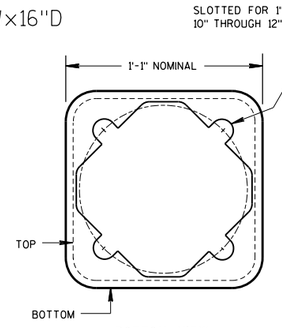
THE ACCESS DOOR SHALL BE OF THE SAME MATERIAL AS THE BASE.



TYPICAL MECHANICAL CONNECTOR LUG

TO BE FURNISHED WITH EACH BASE

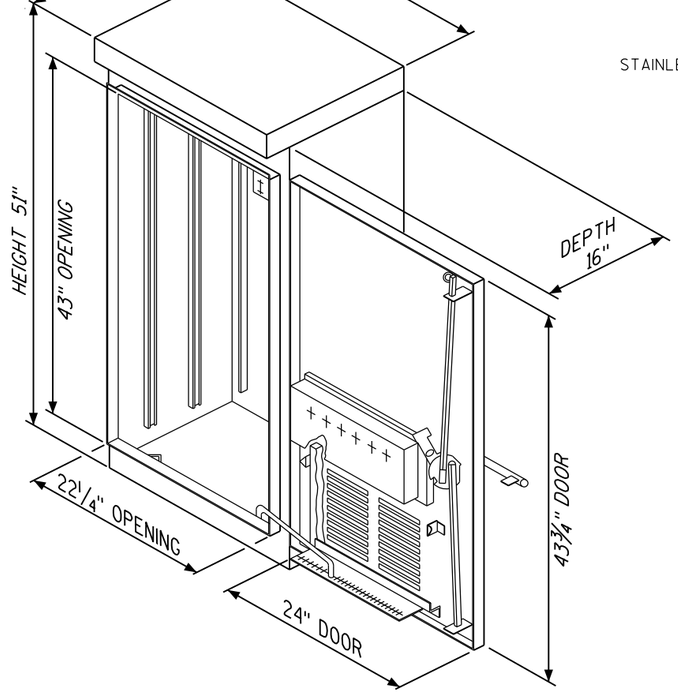




BOTTOM VIEW (TRANSFORMER BASE)

TRANSFORMER BASE

LEVELING SHIM

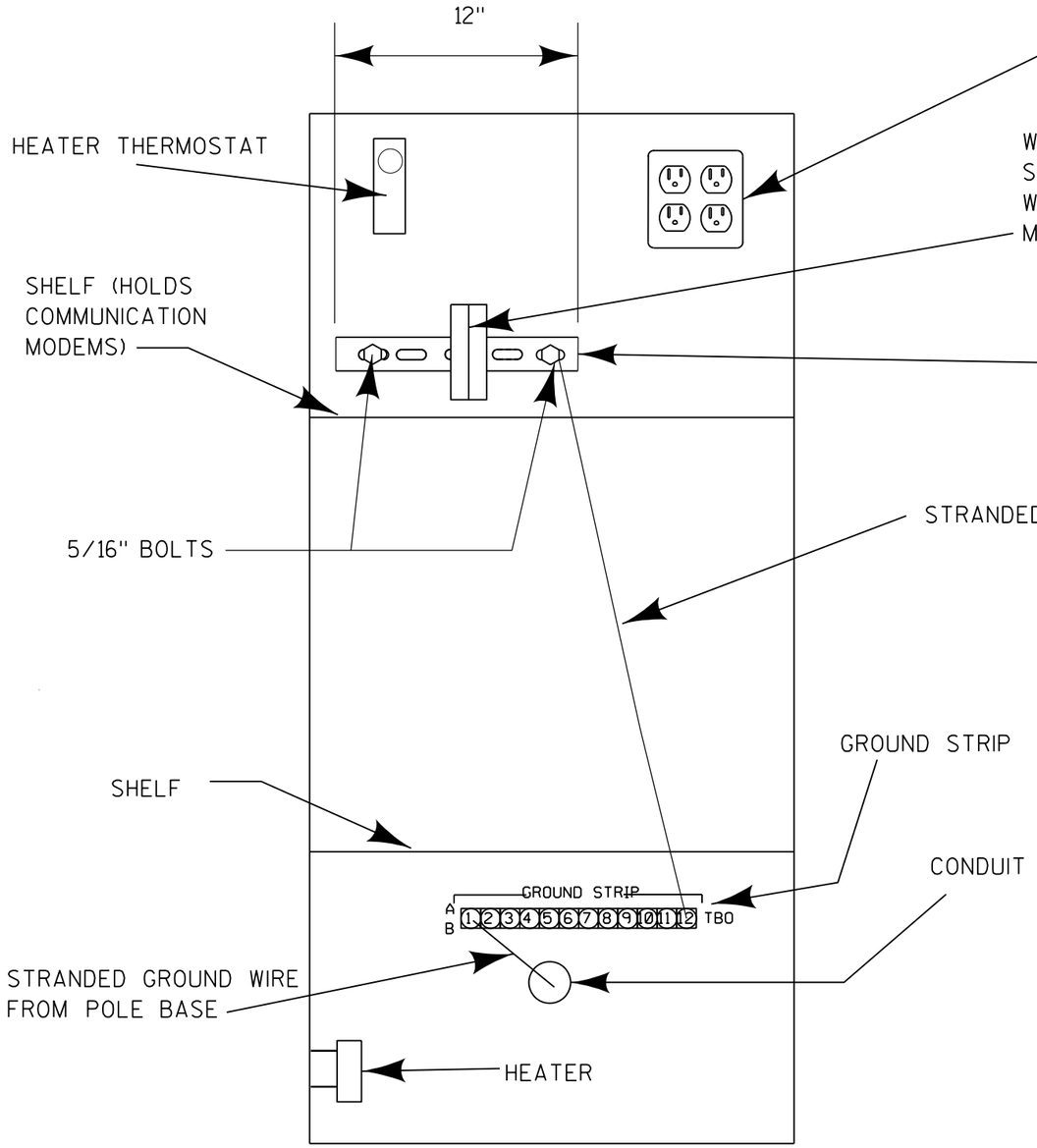


INSTALLATION OF ATR CABINET ON POLE

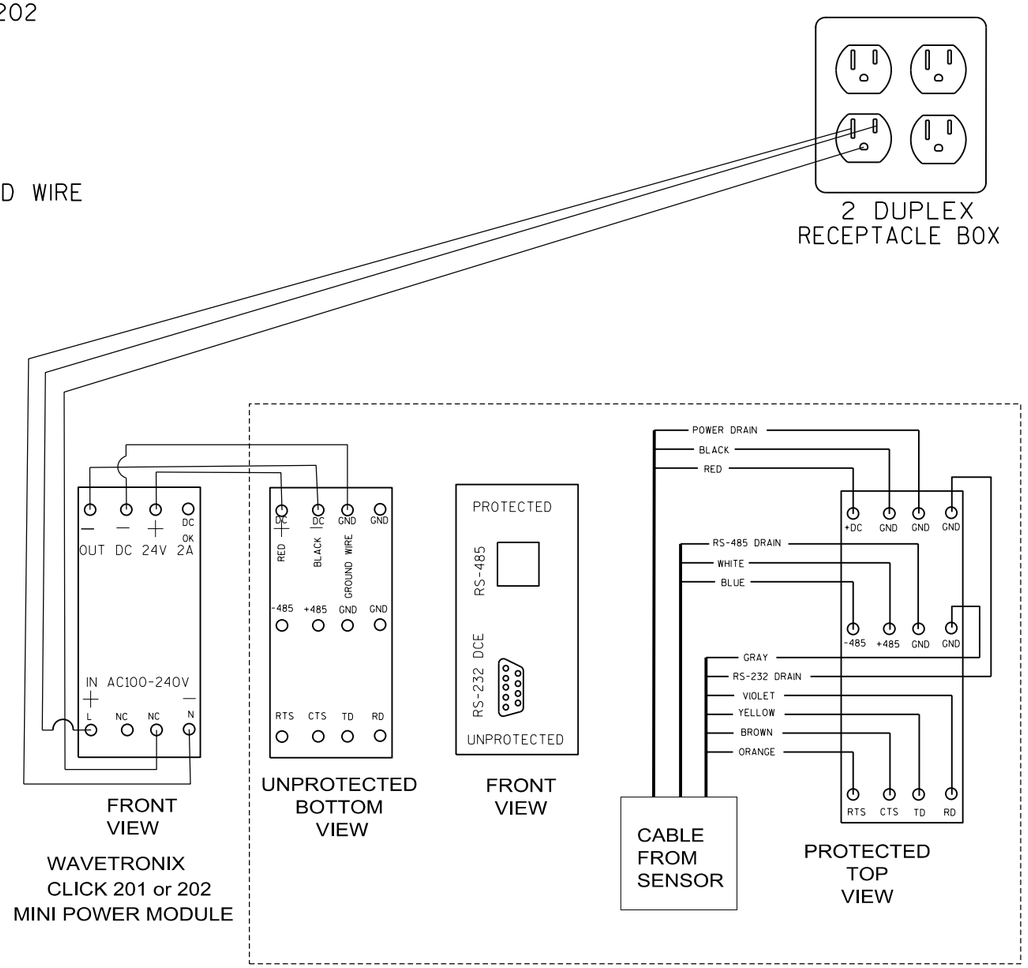
PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	INSTALLATION OF ATR CABINET ON POLE	SHEET 22	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\021002_cd.dgn PLOT DATE : 10/31/2013 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:200

WISDOT/CADDS SHEET 42



FRONT VIEW/LAYOUT
(NOT TO SCALE)



WAVETRONIX CLICK 200 MODULE

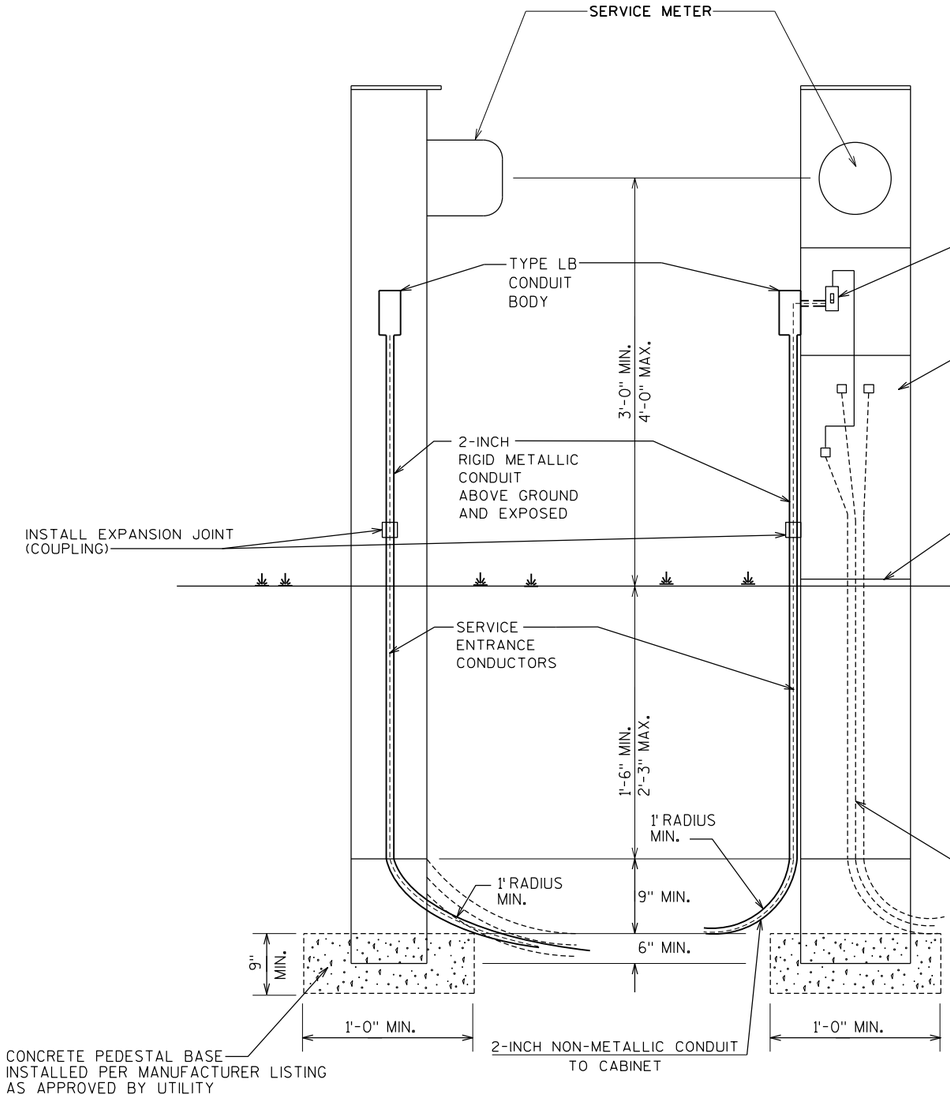
WIRING DIAGRAM
(NOT TO SCALE)

ATR POLE-MOUNTED CABINET LAYOUT

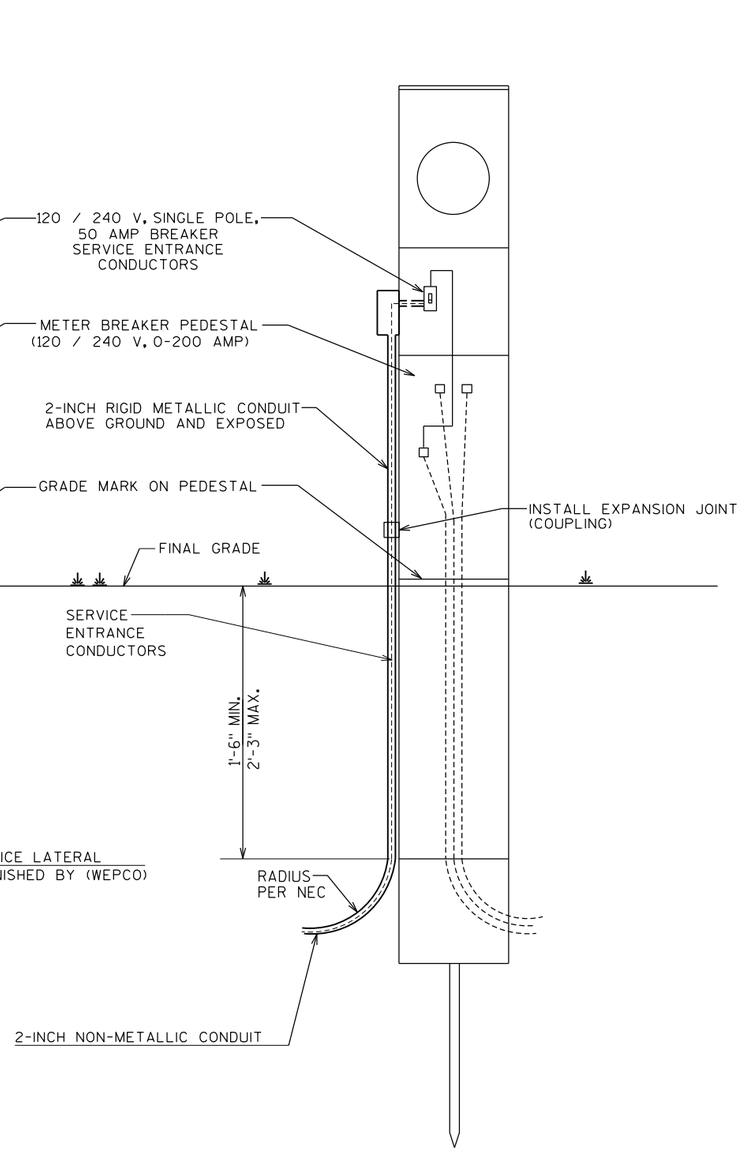
ATR - WAVETRONIX

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	INSTALLATION OF ATR - WAVETRONIX DETECTOR	SHEET 23	E

2



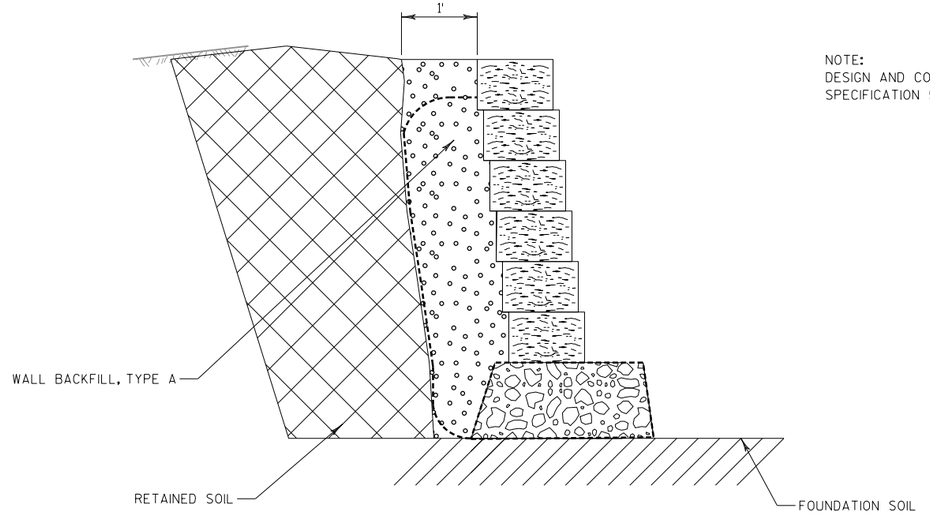
FREE STANDING METER BREAKER PEDESTAL



UTILITY APPROVED SUPPORTING STAKE

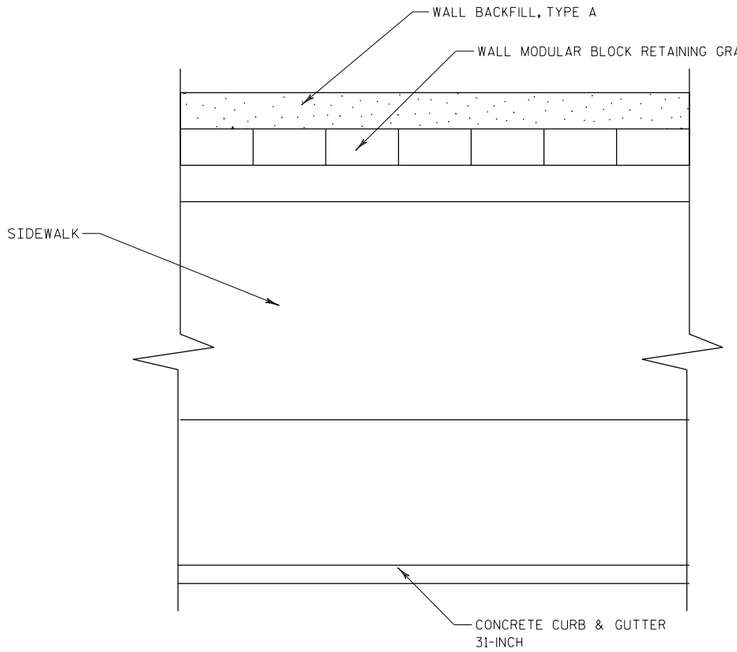
PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	FREE STANDING METER BREAKER PEDESTAL AND SUPPORTING STAKE	SHEET 24	E

2



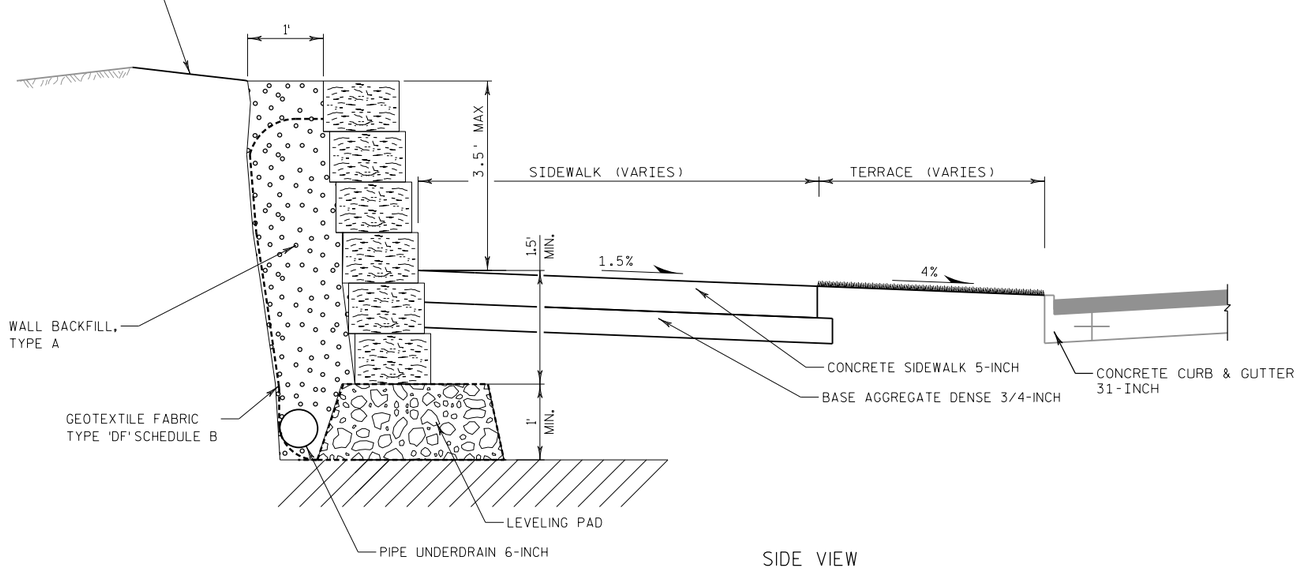
SIDE VIEW

NOTE:
DESIGN AND CONSTRUCT ALL MODULAR BLOCK GRAVITY WALLS AS PER SPECIFICATION 532.0200.S.



PLAN VIEW

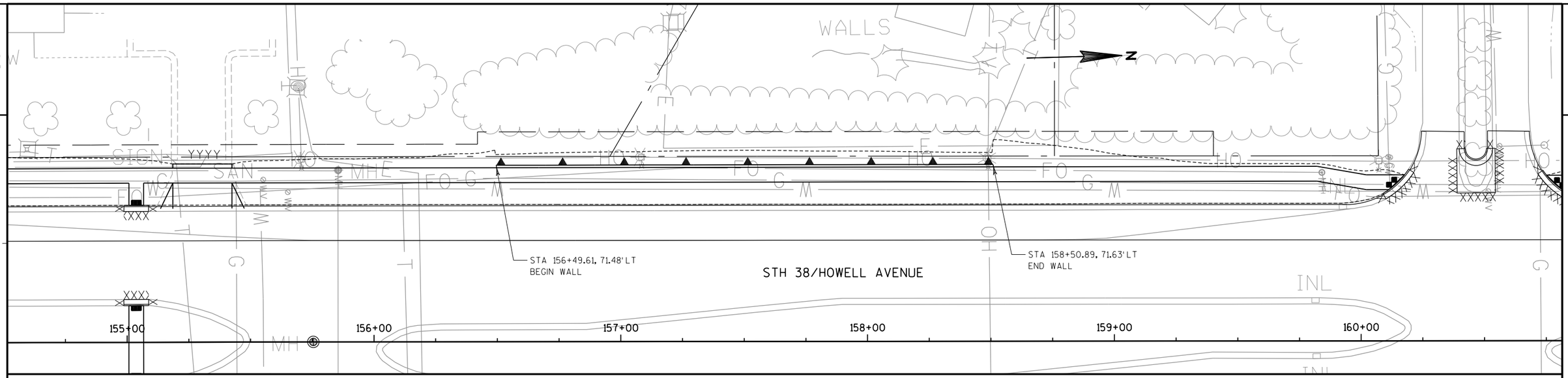
MATERIAL LIMITS

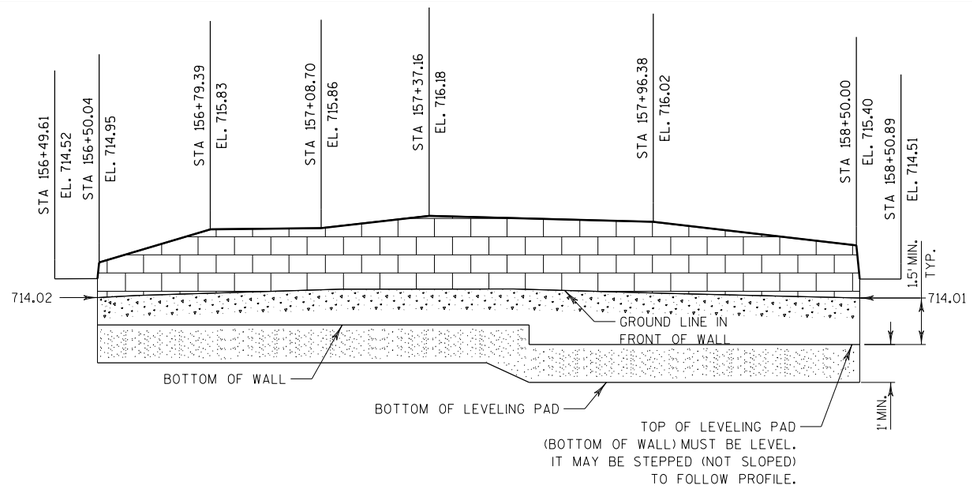


SIDE VIEW

WALL MODULAR BLOCK GRAVITY DETAIL

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CONSTRUCTION DETAIL	SHEET 25	E





PROFILE VIEW

WALL MODULAR BLOCK GRAVITY DETAIL #1

STA 156+49.61 TO STA 158+50.89 LT

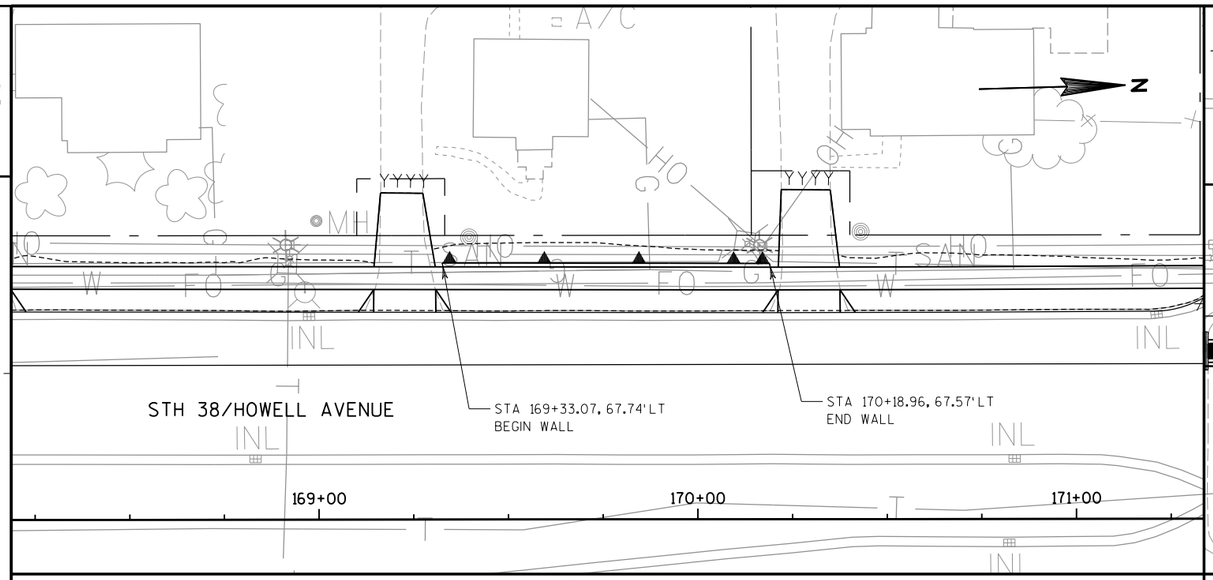
NOTES

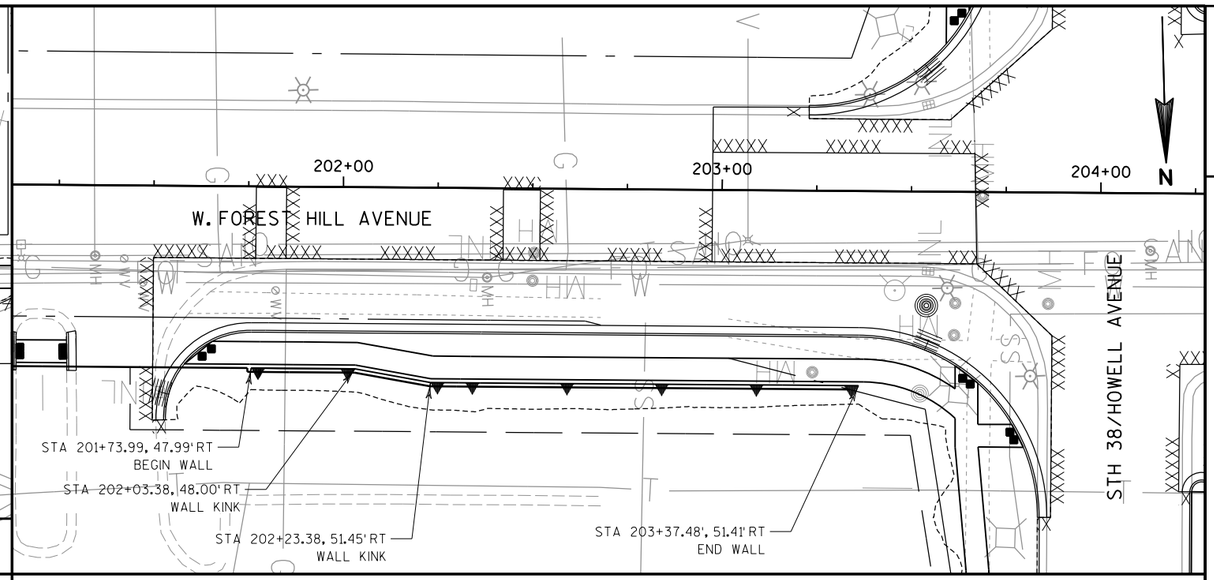
SLOPE PIPE UNDERDRAIN 6-INCH,
0.5% MINIMUM SLOPE TO SUITABLE DRAINAGE.

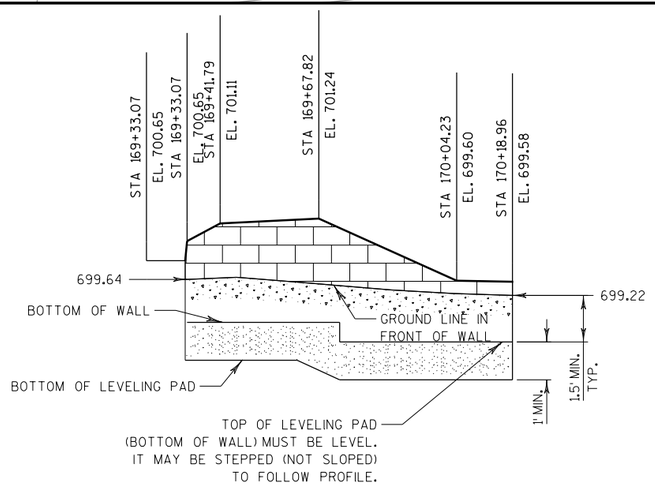
SOIL PARAMETERS

STRATUM LOCATIONS & SOIL DESCRIPTIONS	TOTAL UNIT WEIGHT (PCF)	FRICTION ANGLE (DEGREES)	COHESION (PCF)
FOUNDATION SOIL	135	30	250
RETAINED SOIL*	135	29	150
WALL BACKFILL, TYPE A	125	34	0

*DESIGN WALL FOR THESE VALUES







PROFILE VIEW

WALL MODULAR BLOCK GRAVITY DETAIL #5

STA 169+32.56 TO STA 170+18.96 LT

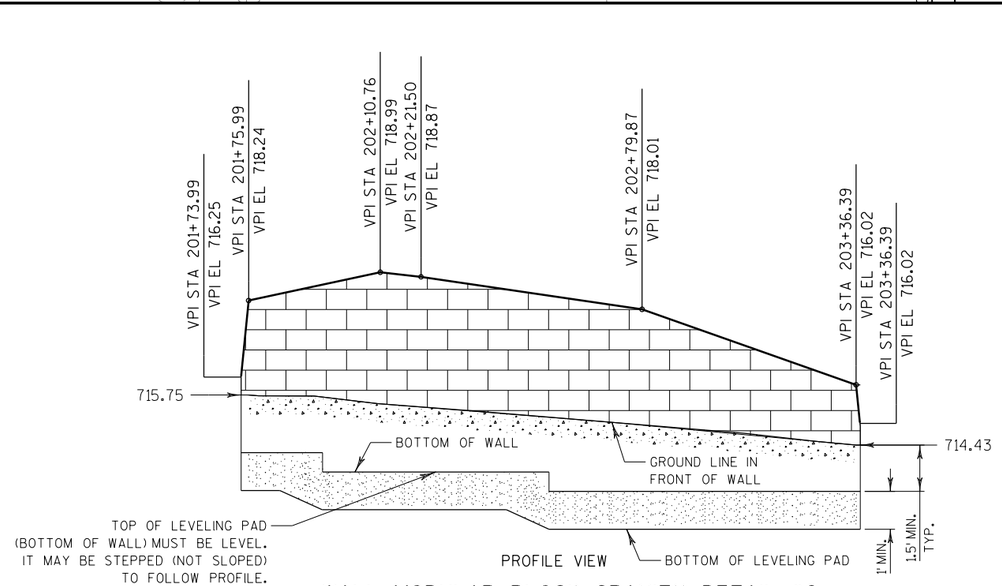
NOTES

SLOPE PIPE UNDERDRAIN 6-INCH,
0.5% MINIMUM SLOPE TO SUITABLE DRAINAGE.

SOIL PARAMETERS

STRATUM LOCATIONS & SOIL DESCRIPTIONS	TOTAL UNIT WEIGHT (PCF)	FRICTION ANGLE (DEGREES)	COHESION (PCF)
FOUNDATION SOIL	135	30	250
RETAINED SOIL*	135	29	150
WALL BACKFILL, TYPE A	125	34	0

*DESIGN WALL FOR THESE VALUES



PROFILE VIEW

WALL MODULAR BLOCK GRAVITY DETAIL #6

STA 201+73.99 TO STA 203+37.48 RT

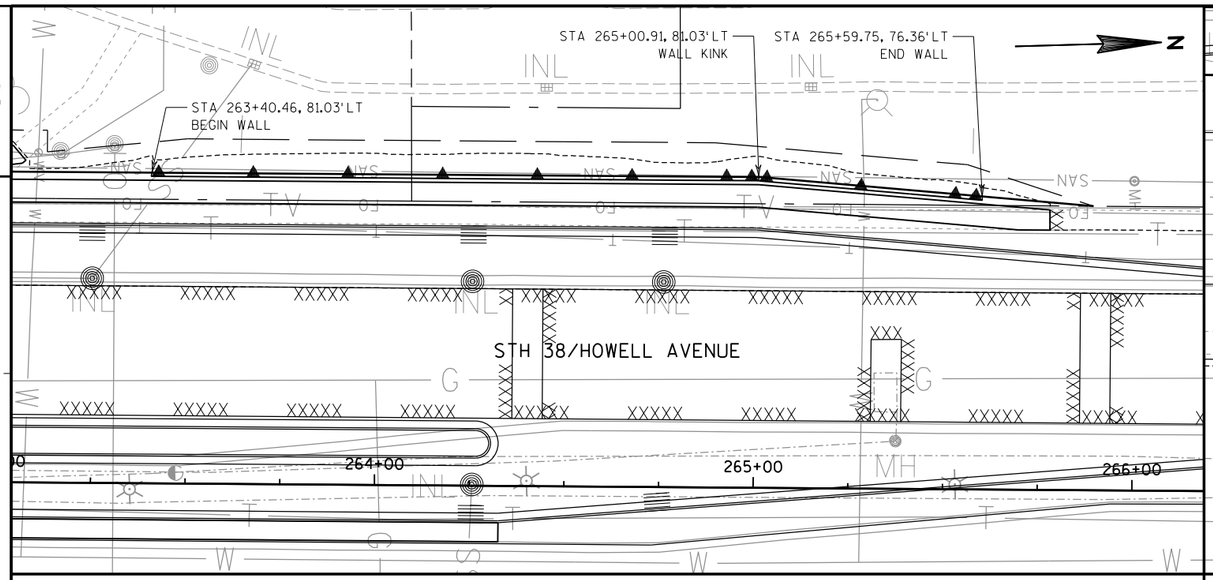
NOTES

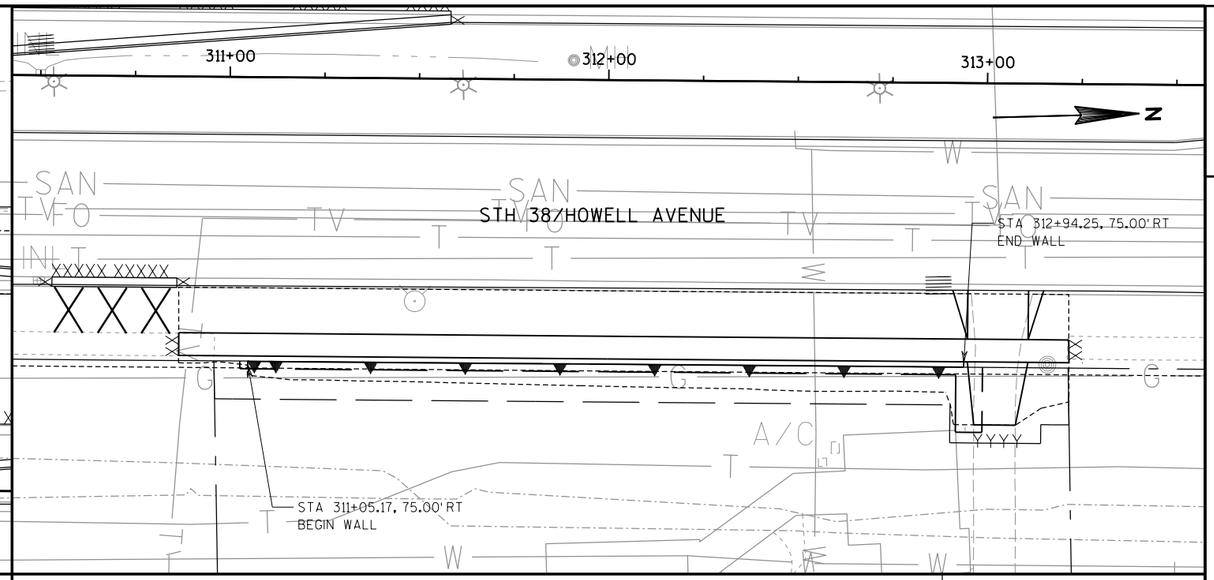
SLOPE PIPE UNDERDRAIN 6-INCH,
0.5% MINIMUM SLOPE TO SUITABLE DRAINAGE.

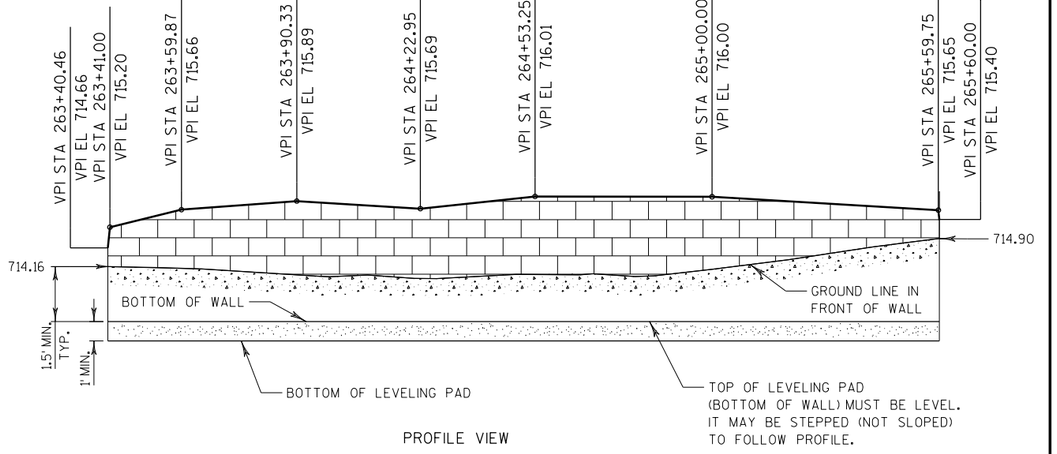
SOIL PARAMETERS

STRATUM LOCATIONS & SOIL DESCRIPTIONS	TOTAL UNIT WEIGHT (PCF)	FRICTION ANGLE (DEGREES)	COHESION (PCF)
FOUNDATION SOIL	130	28	200
RETAINED SOIL*	130	28	150
WALL BACKFILL, TYPE A	125	34	0

*DESIGN WALL FOR THESE VALUES







PROFILE VIEW

WALL MODULAR BLOCK GRAVITY DETAIL #7

STA 263+40.46 TO STA 265+60.00 LT

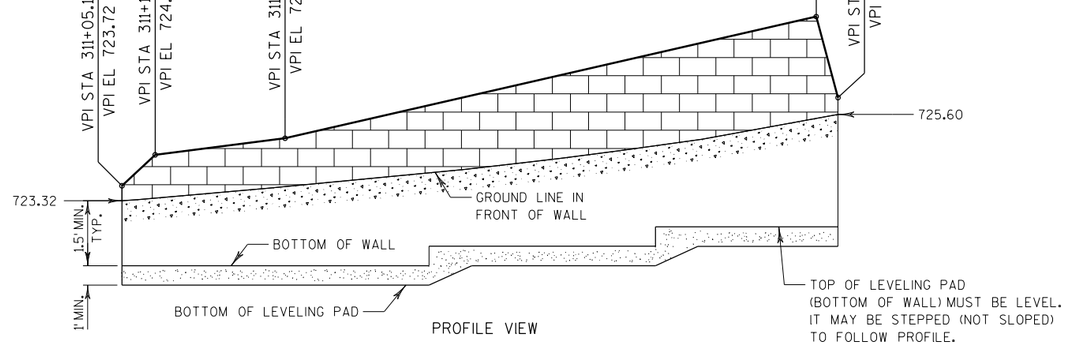
NOTES

SLOPE PIPE UNDERDRAIN 6-INCH,
0.5% MINIMUM SLOPE TO SUITABLE DRAINAGE.

SOIL PARAMETERS

STRATUM LOCATIONS & SOIL DESCRIPTIONS	TOTAL UNIT WEIGHT (PCF)	FRICTION ANGLE (DEGREES)	COHESION (PCF)
FOUNDATION SOIL	130	28	200
RETAINED SOIL*	130	28	150
WALL BACKFILL, TYPE A	125	34	0

*DESIGN WALL FOR THESE VALUES



PROFILE VIEW

WALL MODULAR BLOCK GRAVITY DETAIL #8

STA 311+05.32 TO STA 312+94.26 RT

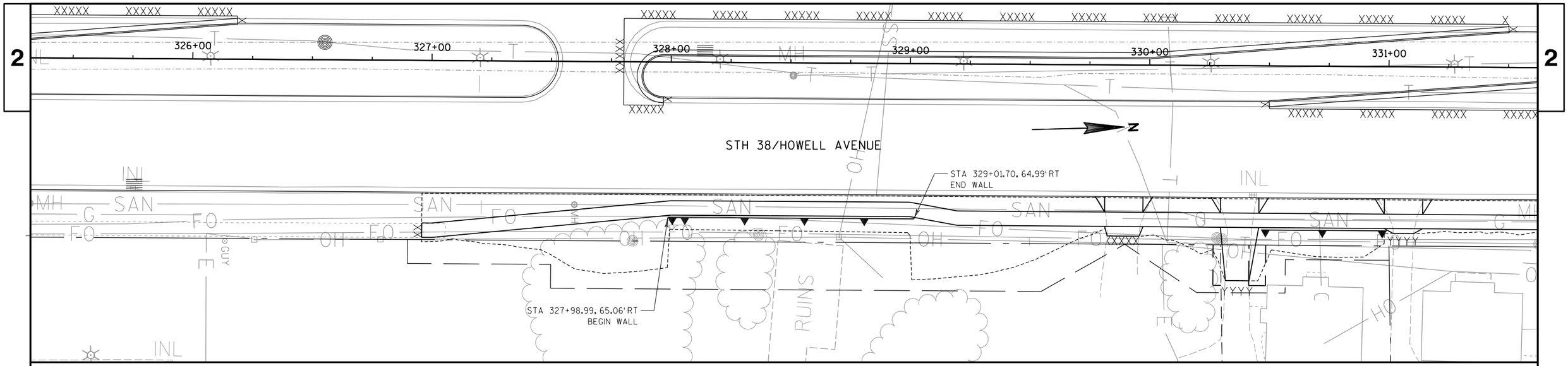
NOTES

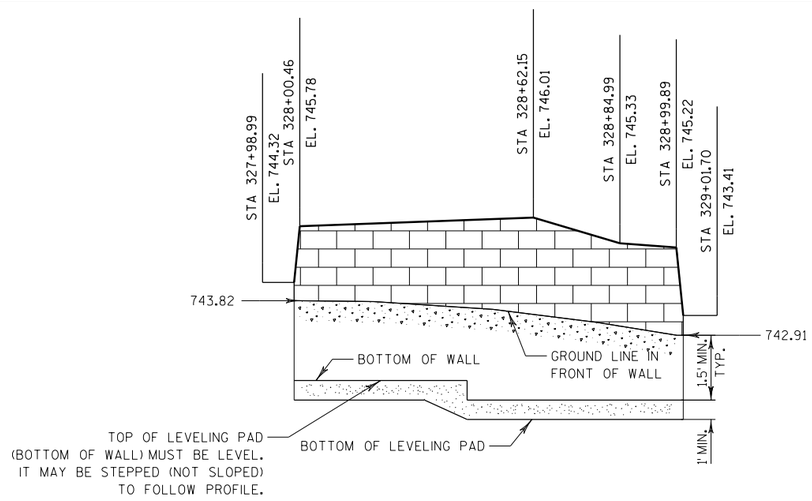
SLOPE PIPE UNDERDRAIN 6-INCH,
0.5% MINIMUM SLOPE TO SUITABLE DRAINAGE.

SOIL PARAMETERS

STRATUM LOCATIONS & SOIL DESCRIPTIONS	TOTAL UNIT WEIGHT (PCF)	FRICTION ANGLE (DEGREES)	COHESION (PCF)
FOUNDATION SOIL	130	28	200
RETAINED SOIL*	130	28	150
WALL BACKFILL, TYPE A	125	34	0

*DESIGN WALL FOR THESE VALUES





PROFILE VIEW

WALL MODULAR BLOCK GRAVITY DETAIL #9

STA 327+98.99 TO STA 329+01.70 RT

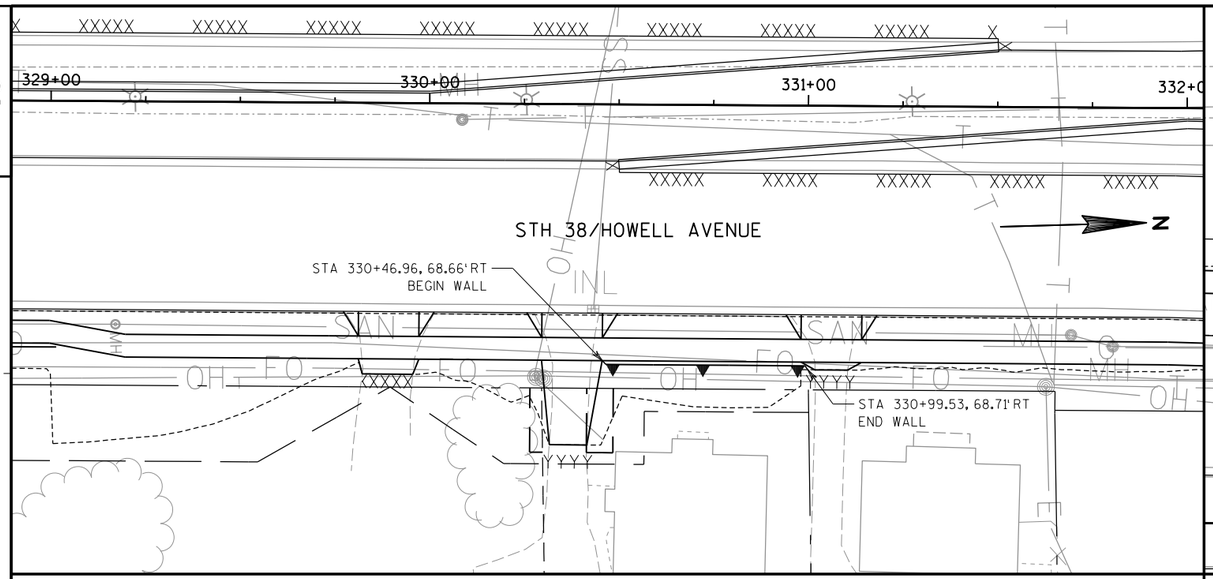
NOTES

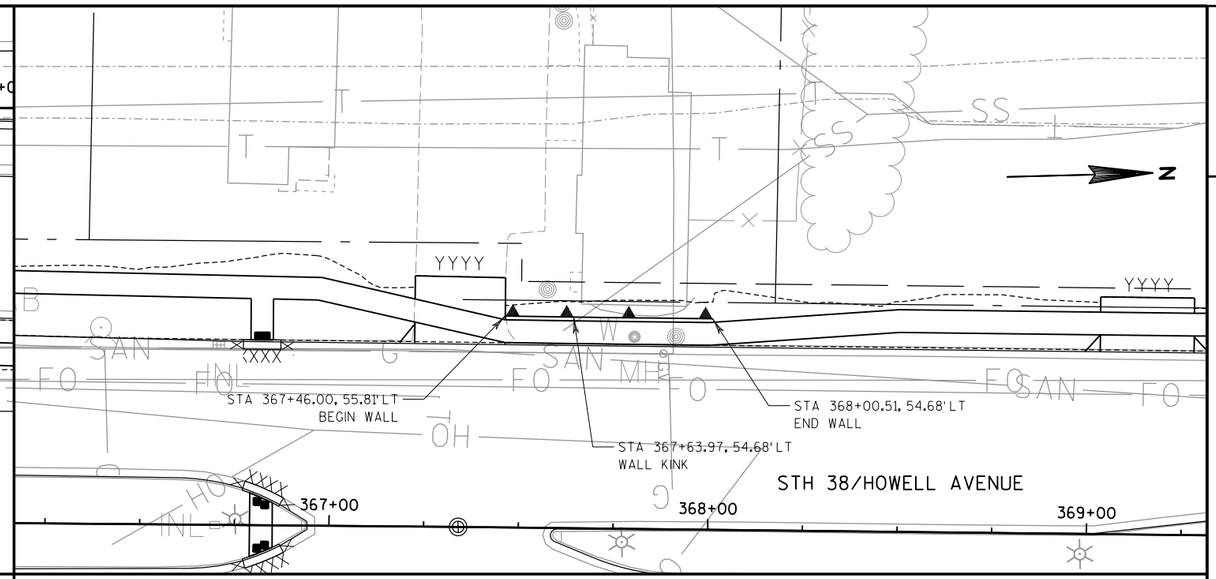
SLOPE PIPE UNDERDRAIN 6-INCH,
0.5% MINIMUM SLOPE TO SUITABLE DRAINAGE.

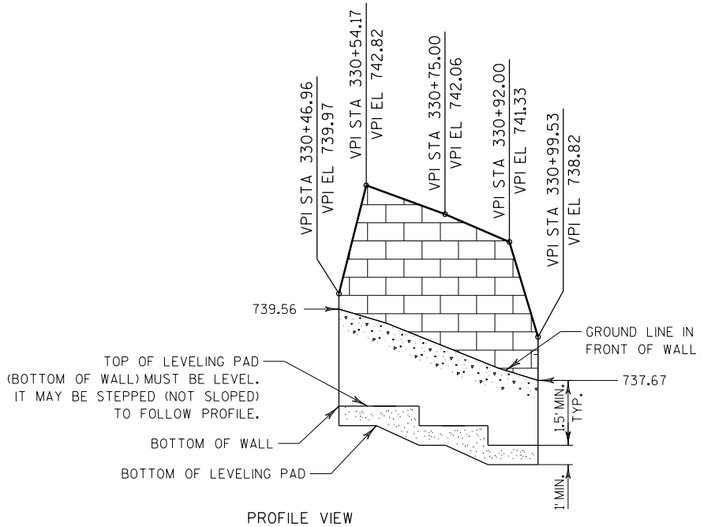
SOIL PARAMETERS

STRATUM LOCATIONS & SOIL DESCRIPTIONS	TOTAL UNIT WEIGHT (PCF)	FRICTION ANGLE (DEGREES)	COHESION (PCF)
FOUNDATION SOIL	130	30	0
RETAINED SOIL*	130	30	0
WALL BACKFILL, TYPE A	125	34	0

*DESIGN WALL FOR THESE VALUES







PROFILE VIEW

WALL MODULAR BLOCK GRAVITY DETAIL #13

STA 330+46.93 TO STA 330+99.53 RT

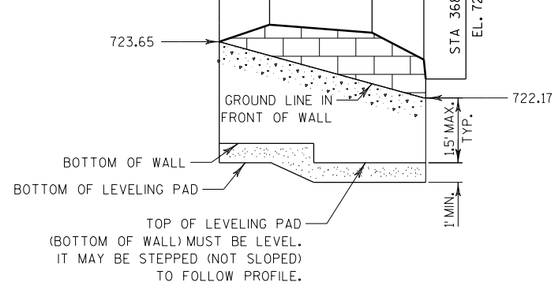
SOIL PARAMETERS

STRATUM LOCATIONS & SOIL DESCRIPTIONS	TOTAL UNIT WEIGHT (PCF)	FRICTION ANGLE (DEGREES)	COHESION (PCF)
FOUNDATION SOIL	125	34	0
RETAINED SOIL*	120	26	100
WALL BACKFILL, TYPE A	125	34	0

*DESIGN WALL FOR THESE VALUES

NOTES

SLOPE PIPE UNDERDRAIN 6-INCH,
0.5% MINIMUM SLOPE TO SUITABLE DRAINAGE.



PROFILE VIEW

WALL MODULAR BLOCK GRAVITY DETAIL #15

STA 367+46.00 TO STA 368+00.51 LT

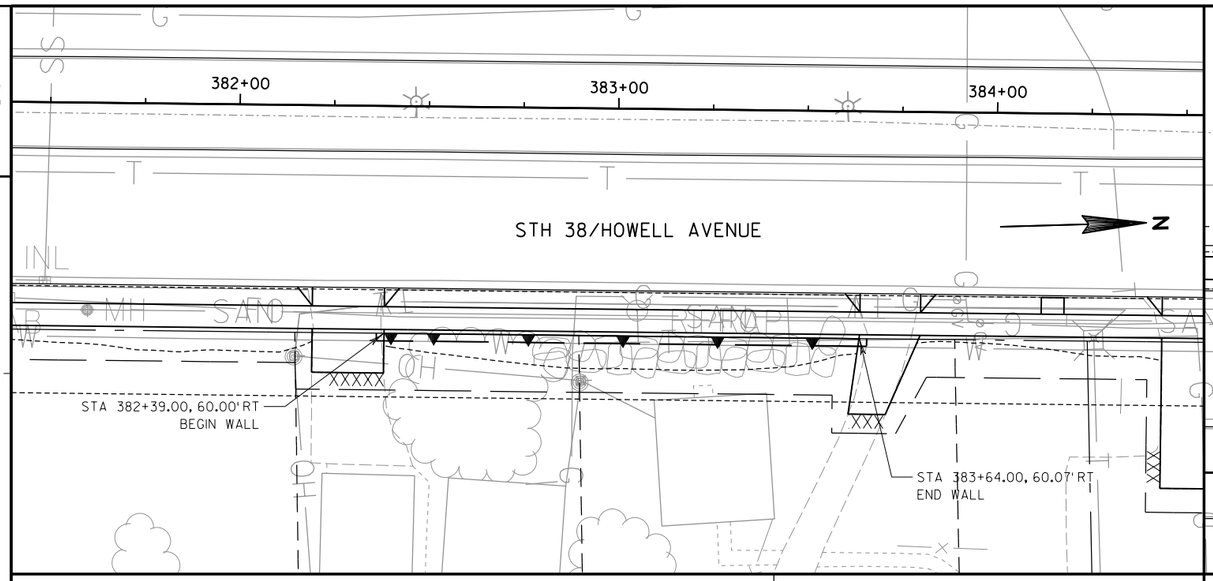
SOIL PARAMETERS

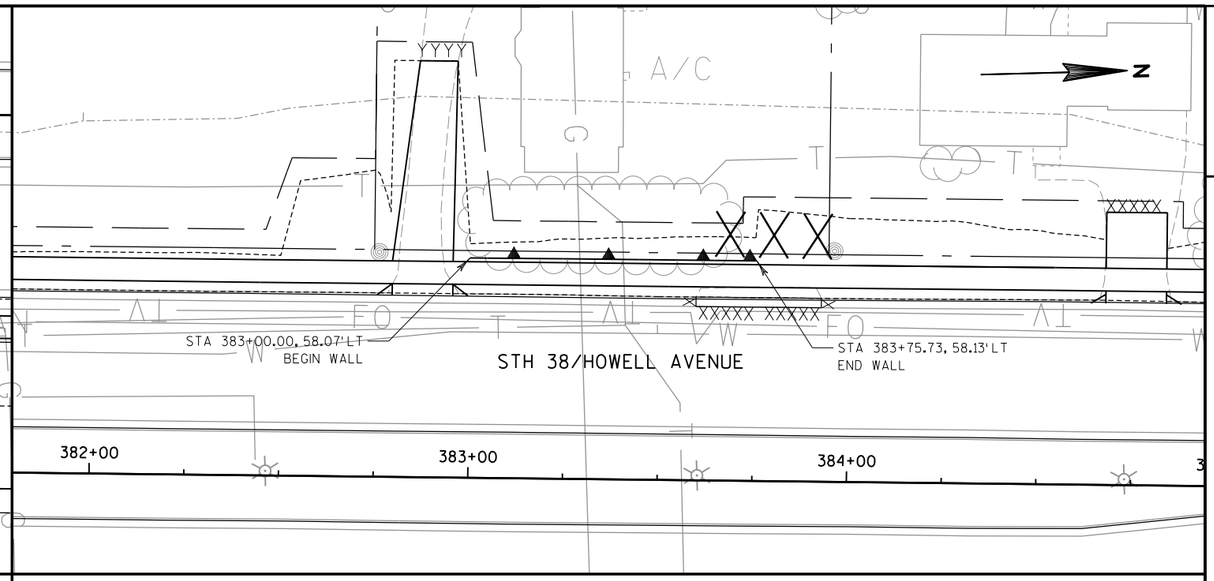
STRATUM LOCATIONS & SOIL DESCRIPTIONS	TOTAL UNIT WEIGHT (PCF)	FRICTION ANGLE (DEGREES)	COHESION (PCF)
BACKFILL (REINFORCING ZONE OR BACKFILL)	130	28	200
RETAINED SOIL*	125	28	100
WALL BACKFILL, TYPE A	125	34	0

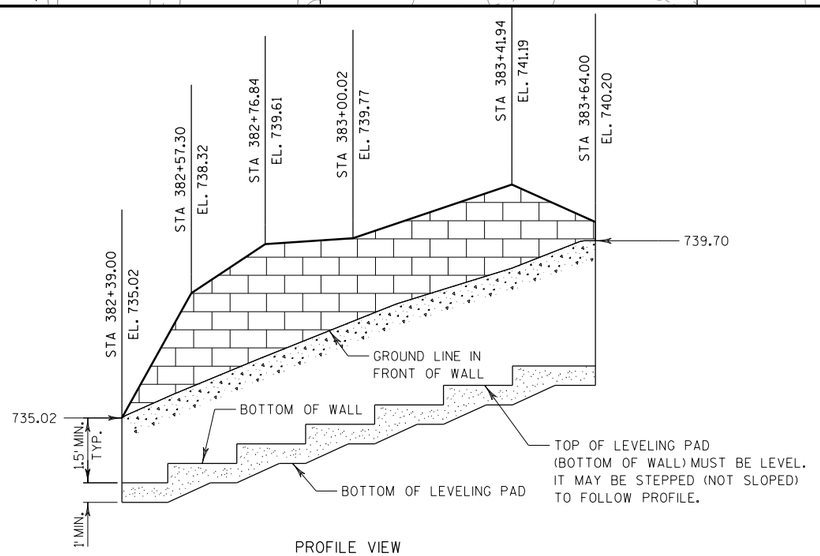
*DESIGN WALL FOR THESE VALUES

NOTES

SLOPE PIPE UNDERDRAIN 6-INCH,
0.5% MINIMUM SLOPE TO SUITABLE DRAINAGE.







PROFILE VIEW

WALL MODULAR BLOCK GRAVITY DETAIL #17

STA 382+39.00 TO STA 383+64.00 RT

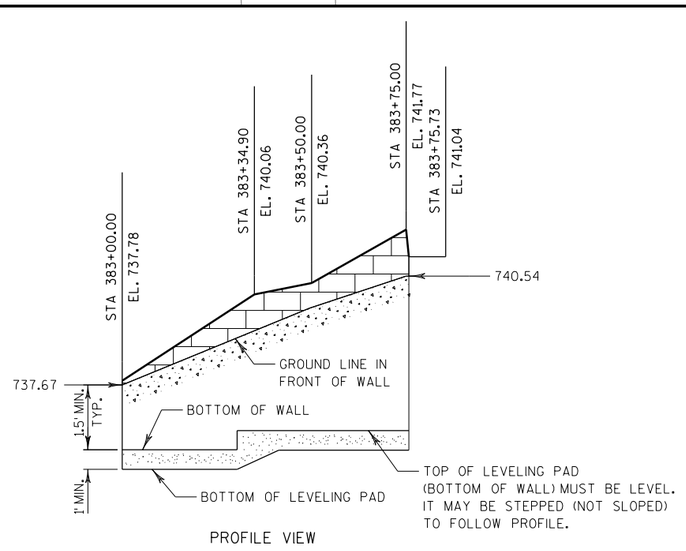
NOTES

SLOPE PIPE UNDERDRAIN 6-INCH,
0.5% MINIMUM SLOPE TO SUITABLE DRAINAGE.

SOIL PARAMETERS

STRATUM LOCATIONS & SOIL DESCRIPTIONS	TOTAL UNIT WEIGHT (PCF)	FRICTION ANGLE (DEGREES)	COHESION (PCF)
FOUNDATION SOIL	130	28	200
RETAINED SOIL*	125	28	100
WALL BACKFILL, TYPE A	125	34	0

*DESIGN WALL FOR THESE VALUES



PROFILE VIEW

WALL MODULAR BLOCK GRAVITY DETAIL #19

STA 383+00.00 TO STA 383+75.73 LT

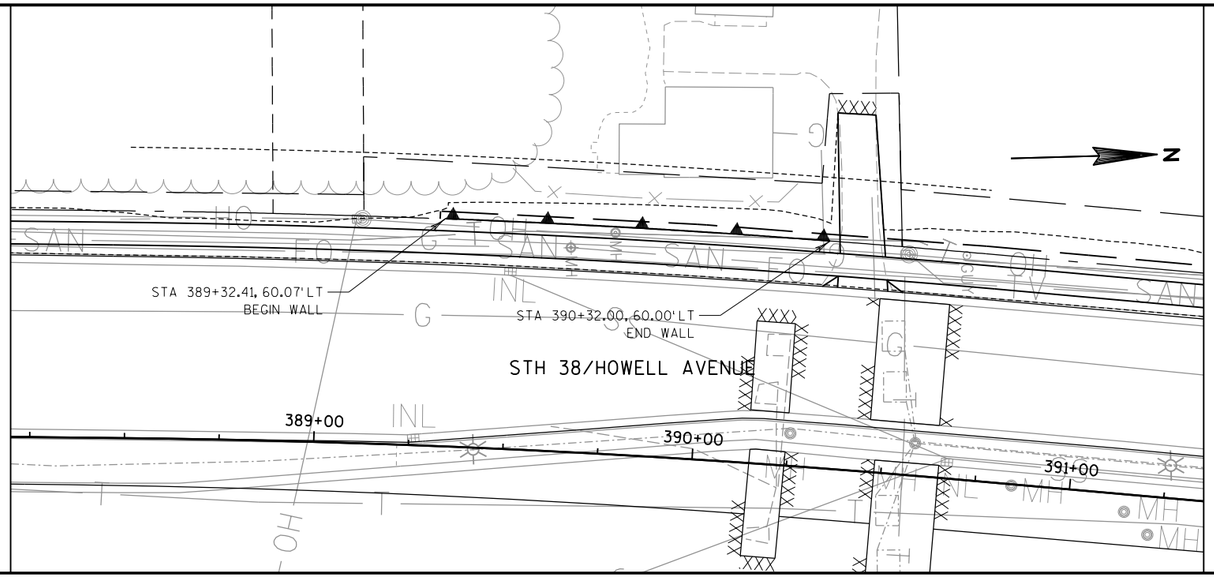
NOTES

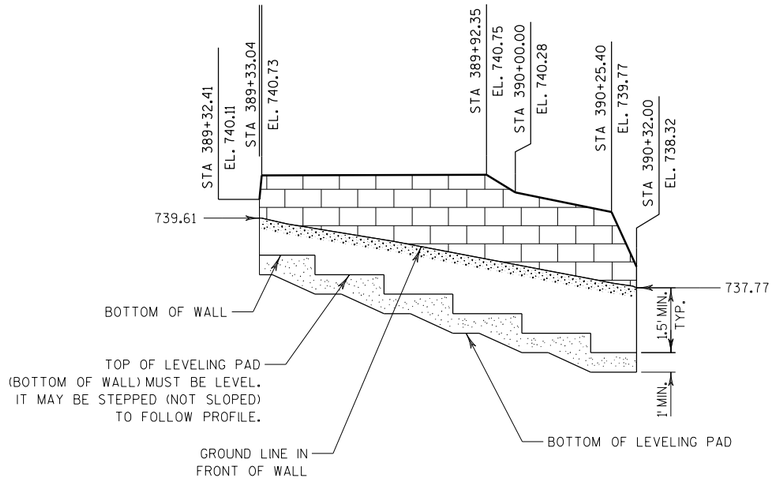
SLOPE PIPE UNDERDRAIN 6-INCH,
0.5% MINIMUM SLOPE TO SUITABLE DRAINAGE.

SOIL PARAMETERS

STRATUM LOCATIONS & SOIL DESCRIPTIONS	TOTAL UNIT WEIGHT (PCF)	FRICTION ANGLE (DEGREES)	COHESION (PCF)
BACKFILL (REINFORCING ZONE OR BACKFILL)	130	28	200
RETAINED SOIL*	125	28	100
WALL BACKFILL, TYPE A	125	34	0

*DESIGN WALL FOR THESE VALUES





PROFILE VIEW

WALL MODULAR BLOCK GRAVITY DETAIL #21

STA 389+32.41 TO STA 390+32.00 LT

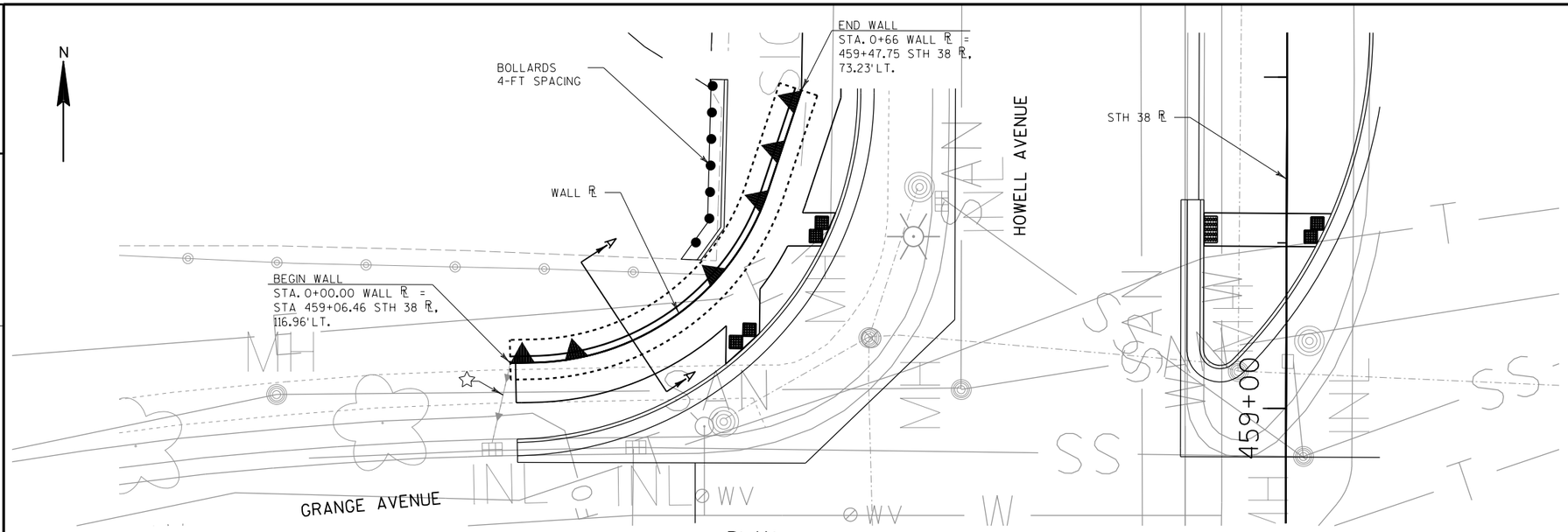
NOTES

SLOPE PIPE UNDERDRAIN 6-INCH.
0.5% MINIMUM SLOPE TO SUITABLE DRAINAGE.

SOIL PARAMETERS

STRATUM LOCATIONS & SOIL DESCRIPTIONS	TOTAL UNIT WEIGHT (PCF)	FRICTION ANGLE (DEGREES)	COHESION (PCF)
FOUNDATION SOIL	130	28	150
RETAINED SOIL*	125	28	100
WALL BACKFILL, TYPE A	125	34	0

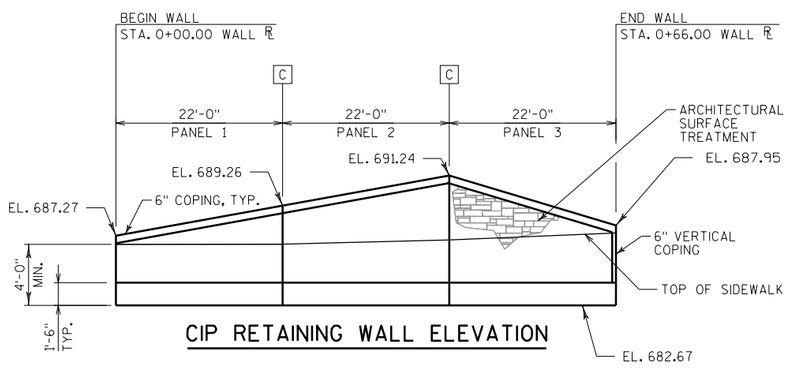
*DESIGN WALL FOR THESE VALUES



PLAN

WALL ALIGNMENT

POB: STA. 0+00.00
Y: 266523.44
X: 605795.91
PI: STA. 0+30.48
Y: 266524.12
X: 605826.39
DELTA: 70°21'37"
D: 150°46'42"
T: 26.79
L: 46.66
R: 38.00
PC: STA. 0+03.70
Y: 266523.52
X: 605799.61
PT: STA. 0+50.36
Y: 266549.54
X: 605834.83
POE: STA. 0+66.22
Y: 266564.59
X: 605834.83



CIP RETAINING WALL ELEVATION

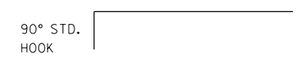
BILL OF BARS

BAR MARK	COAT	NO REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
F401		30	21'-8"			FOOTING - LONGITUDINAL TOP AND BOTTOM
F402		132	4'-8"			FOOTING - TRANSVERSE TOP AND BOTTOM
W401	X	18	21'-8"			WALL - LONGITUDINAL - FRONT AND BACK FACE
W402	X	2	19'-3"			WALL - LONGITUDINAL - FRONT AND BACK FACE - PANEL 1
W403	X	2	2'-8"			WALL - LONGITUDINAL - FRONT AND BACK FACE - PANEL 1
W404	X	15	5'-7"	X	X	WALL - VERTICAL - FRONT FACE - PANEL 1
W405	X	22	5'-7"	X	X	WALL - VERTICAL - BACK FACE - PANEL 1
W406	X	2	8'-0"			WALL - LONGITUDINAL - FRONT AND BACK FACE - PANEL 2
W407	X	15	7'-6"	X	X	WALL - VERTICAL - FRONT FACE - PANEL 2
W408	X	22	7'-6"	X	X	WALL - VERTICAL - BACK FACE - PANEL 2
W409	X	2	4'-9"			WALL - LONGITUDINAL - FRONT AND BACK FACE - PANEL 3
W410	X	15	6'-11"	X	X	WALL - VERTICAL - FRONT FACE - PANEL 3
W411	X	22	6'-11"	X	X	WALL - VERTICAL - BACK FACE - PANEL 3

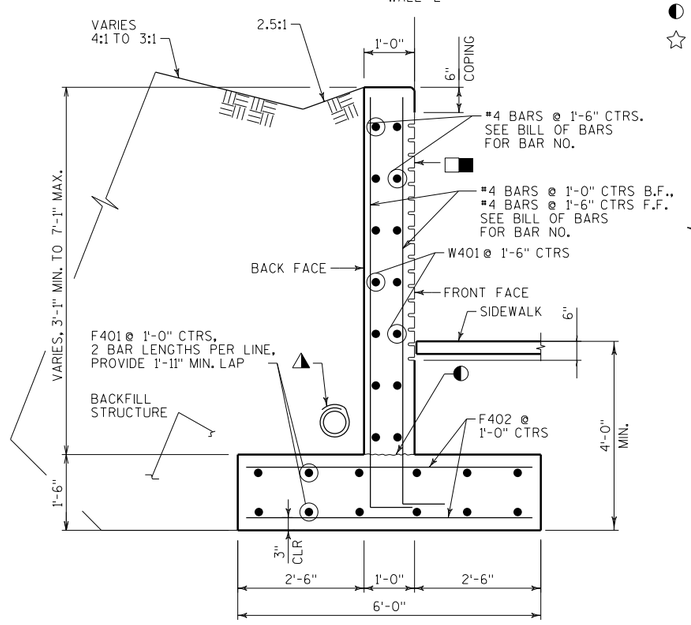
NOTE:
BAR DIMENSIONS ARE OUT TO OUT OF BAR. THE FIRST OR FIRST TWO DIGITS OF A BAR MARK SIGNIFIES THE BAR SIZE.

SERIES TABLE

BAR MARK	NO. REQUIRED	LENGTH
W404	1 SERIES OF 15	4'-7" TO 6'-7"
W405	1 SERIES OF 22	4'-7" TO 6'-7"
W407	1 SERIES OF 15	6'-7" TO 8'-7"
W408	1 SERIES OF 22	6'-7" TO 8'-7"
W410	1 SERIES OF 15	5'-3" TO 8'-7"
W411	1 SERIES OF 22	5'-3" TO 8'-7"



W404, W405,
W407, W408
W410, W411



WALL TYPICAL SECTION A-A

DESIGN DATA

LIVE LOAD SURCHARGE (TRAFFIC) = 240 P.S.F.

ULTIMATE DESIGN STRESSES

CONCRETE MASONRY: f'c = 3,500 P.S.I.
BAR STEEL REINFORCEMENT: fy = 60,000 P.S.I.

FOUNDATION DATA

RETAINING WALL FOOTINGS TO BE SUPPORTED ON CLEAN UNDISTURBED SOIL WITH A REQUIRED FACTORED BEARING RESISTANCE OF 1,920 P.S.F.

A GEOTECHNICAL ENGINEER WILL DETERMINE THE FACTORED BEARING RESISTANCE BY VISUAL INSPECTION PRIOR TO CONSTRUCTION OF THE WALL FOOTING. THE FACTORED BEARING RESISTANCE IS THE VALUE USED FOR DESIGN.

NOTES

- PROVIDE FORM LINED ARCHITECTURAL SURFACE TREATMENT USING RANDOM SPLITEDGE ASHLAR PATTERN. ARCHITECTURAL SURFACE TREATMENT TO EXTEND VERTICALLY FROM 6" COPING AT TOP OF WALL TO A MINIMUM OF 6" BELOW TOP OF SIDEWALK ELEVATION AND EXTEND HORIZONTALLY FULL LENGTH OF EXPOSED WALL FACE.

  ALL ARCHITECTURAL SURFACE TREATMENT FORMLINER AREAS SHALL BE STAINED IN A RANDOMLY MIXED COLOR ARRANGMENT TO ACHIEVE A TEXTURED LOOK AS DIRECTED BY THE DEPARTMENT.

- PIPE UNDERDRAIN WRAPPED 6-INCH. MINIMUM SLOPE 0.5%. OUTLET TO DRAINAGE STRUCTURE EX326.

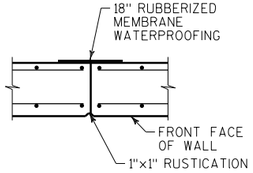
  PLACE REINFORCEMENT WITH MINIMUM 2" OF CLEAR COVER UNLESS OTHERWISE SHOWN.

- C DENOTES VERTICAL CONTRACTION JOINT

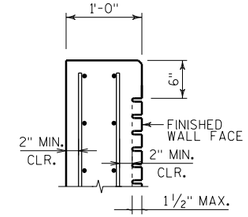
  THE REQUIRED FACTORED BEARING RESISTANCE OF THE NATIVE SOIL AT THE BOTTOM OF THE SPREAD FOOTING ELEVATIONS IS 2.5 KSF.

- CONSTRUCTION JOINT - STRIKE OFF AS SHOWN.

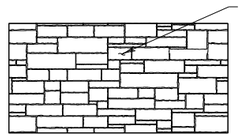
- PIPE UNDERDRAIN UNPERFORATED 6" TO BE RAN TO DRAINAGE STRUCTURE EX326.



VERTICAL CONTRACTION JOINT



COPING AND FORMLINER DETAIL



RANDOM SPLITEDGE ASHLAR PATTERN

STONE HEIGHT = 1½"-10"
MAXIMUM RELIEF = 1½"
STONE LENGTH = 4"-31"

FORMLINER DETAILS AT WALL

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET 33	E

LEGEND

1. REMOVING ASPHALTIC SURFACE MILLING, 1¾" ON RAMP ER, 2" ON RAMP WC
2. BASE PATCHING (LOCATIONS TO BE DETERMINED IN THE FIELD)
3. CONCRETE PAVEMENT REPAIR (LOCATIONS TO BE DETERMINED IN THE FIELD)
4. CONTINOUS DIAMOND GRINDING
5. ADJUSTING INLET COVERS
6. 1¾" HMA PAVEMENT TYPE E-1

A. INLET PROTECTION TYPE A

C. INLET PROTECTION TYPE C

RAMP BUTT JOINT (SEE CONSTRUCTION DETAIL)

N

GRANGE AVENUE

STH 119/AIRPORT SPUR

RAMP WC

RAMP ER

REMOVE AND REPLACE 31" CURB ABD GUTTER

100' CONCRETE PAVEMENT REPLACEMENT TO MATCH ELEVATIONS

REMOVE AND REPLACE 31" CURB ABD GUTTER

100' CONCRETE PAVEMENT REPLACEMENT TO MATCH ELEVATIONS

REFERENCE POINT ON RAMP BUTT JOINT CONSTRUCTION DETAIL

STH 38/HOWELL AVENUE

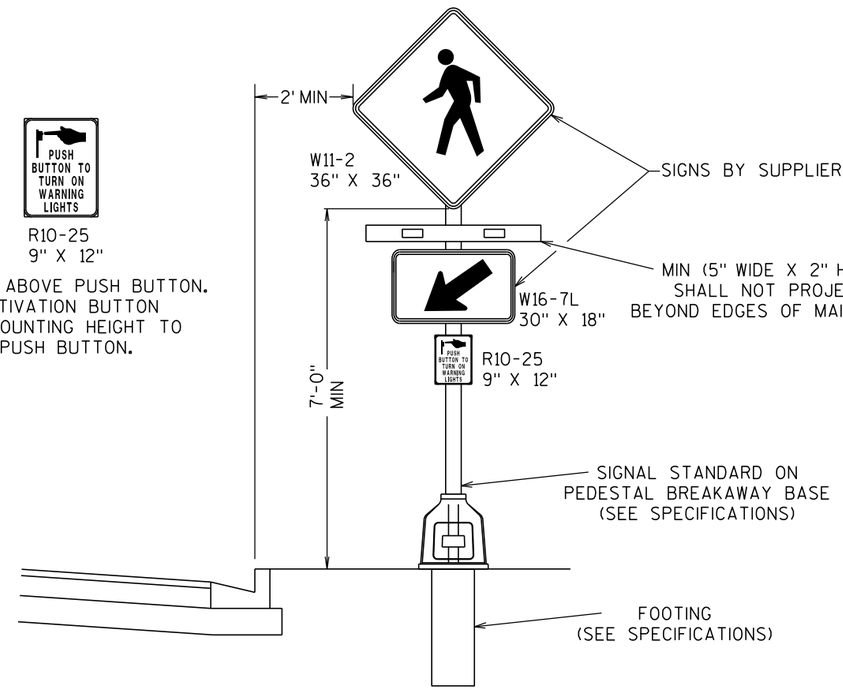
GENERAL MITCHELL INTERNATIONAL AIRPORT

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CONSTRUCTION DETAIL-AIRPORT SPUR RAMPS	SHEET 34	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\021012_cd.dgn PLOT DATE : 10/31/2013 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2



RAPID RECTANGULAR
FLASHING BEACON

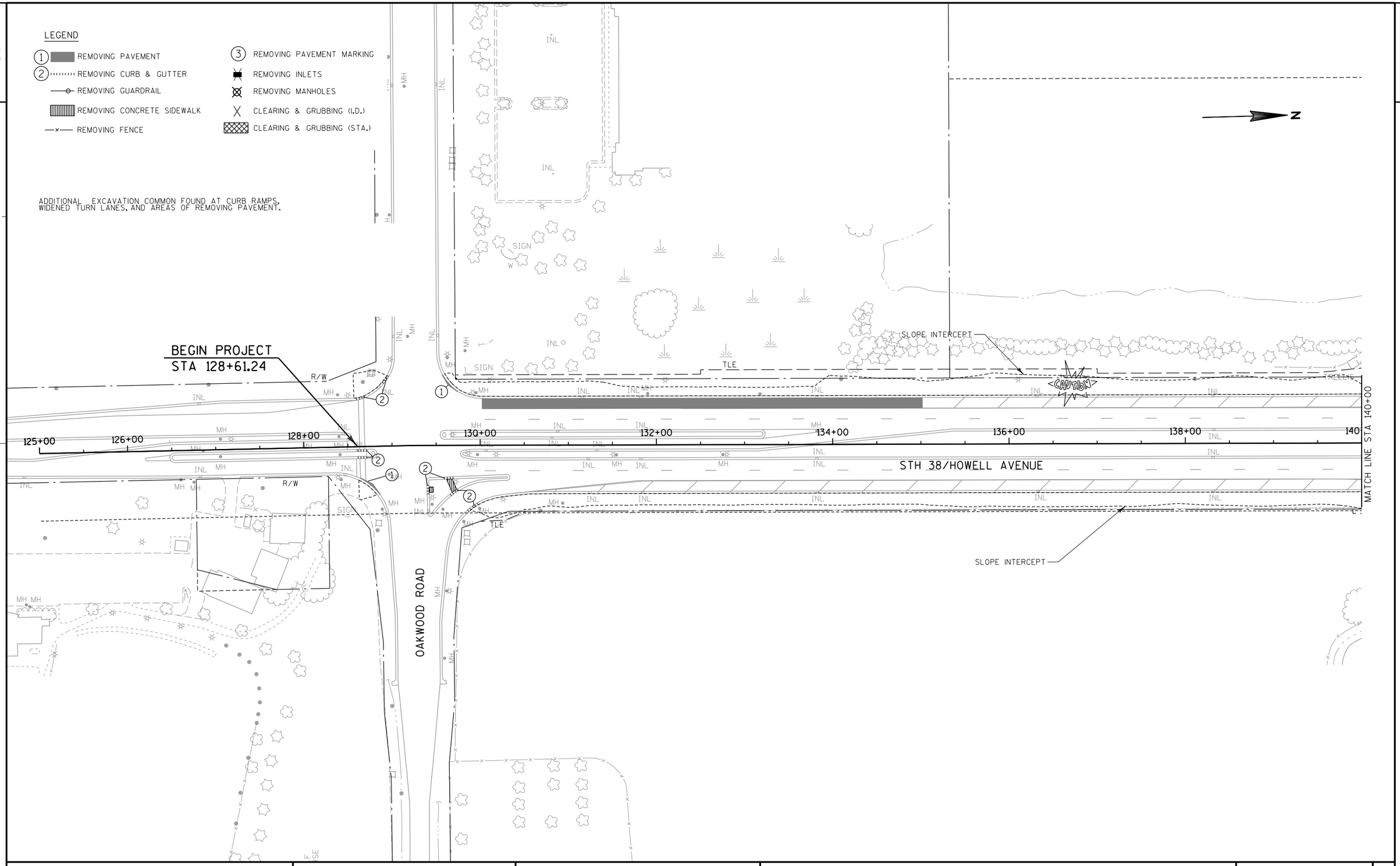
PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PEDESTRIAN SIGNS FOR RRFB INSTALLATION	SHEET 35	E

2

LEGEND

(1) REMOVING PAVEMENT
(2) REMOVING CURB & GUTTER
REMOVING GUARDRAIL
REMOVING CONCRETE SIDEWALK
REMOVING FENCE
(3) REMOVING PAVEMENT MARKING
REMOVING INLETS
REMOVING MANHOLES
CLEARING & GRUBBING (I.D.)
CLEARING & GRUBBING (STA.)

ADDITIONAL EXCAVATION COMMON FOUND AT CURB RAMPS, WIDENED TURN LANES, AND AREAS OF REMOVING PAVEMENT.



PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	REMOVAL DETAILS	SHEET 36	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\021101_rm.dgn PLOT DATE : 1/30/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

LEGEND

1. REMOVING PAVEMENT
2. REMOVING CURB & GUTTER
- REMOVING GUARDRAIL
- REMOVING CONCRETE SIDEWALK
- REMOVING FENCE
3. REMOVING PAVEMENT MARKING
- REMOVING INLETS
- REMOVING MANHOLES
- CLEARING & GRUBBING (I.D.)
- CLEARING & GRUBBING (STA.)

N

MATCH LINE STA 140+00

140+00 142+00 144+00 146+00 148+00 150+00 152+00 154+00

MATCH LINE STA 155+00

STH 38/HOWELL AVENUE

LISA DRIVE

SLOPE INTERCEPT

R/W

TLE

SIGN

MH

CAUTION

INL

W

2

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	REMOVAL DETAILS	SHEET 37	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\021102_rm.dgn PLOT DATE : 1/30/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

2

LEGEND

1. REMOVING PAVEMENT
2. REMOVING CURB & GUTTER
- REMOVING GUARDRAIL
- REMOVING CONCRETE SIDEWALK
- REMOVING FENCE
3. REMOVING PAVEMENT MARKING
- REMOVING INLETS
- REMOVING MANHOLES
- CLEARING & GRUBBING (I.D.)
- CLEARING & GRUBBING (STA.)

N

SUMMERHILL PLACE

FITZSIMMONS ROAD

ESTATES PLACE

STH 38/HOWELL AVENUE

MATCH LINE STA 155+00

MATCH LINE STA 170+00

156+00 158+00 160+00 162+00 164+00 166+00 168+00 170

SLOPE INTERCEPT

R/W

TLE

WALLS

ANT.

A/C

POOL

MH

INL

CAUTION

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	REMOVAL DETAILS	SHEET 38	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\021103_rm.dgn PLOT DATE : 1/30/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

LEGEND

1. REMOVING PAVEMENT
2. REMOVING CURB & GUTTER
- REMOVING GUARDRAIL
- REMOVING CONCRETE SIDEWALK
- REMOVING FENCE
3. REMOVING PAVEMENT MARKING
- REMOVING INLETS
- REMOVING MANHOLES
- CLEARING & GRUBBING (I.D.)
- CLEARING & GRUBBING (STA.)

STH 38/HOWELL AVENUE

STH 100/RYAN ROAD

FAIRFIELD DRIVE

MATCH LINE STA 170+00

MATCH LINE STA 185+00

SLOPE INTERCEPT

TLE

R/W

WALLS

FLAG

VACUUM

CANOPY

FILLER CAP

CAUTION

170+00 172+00 174+00 176+00 178+00 180+00 182+00 184+00

1098+00 1100+00 1102+00 1104+00 1106+00

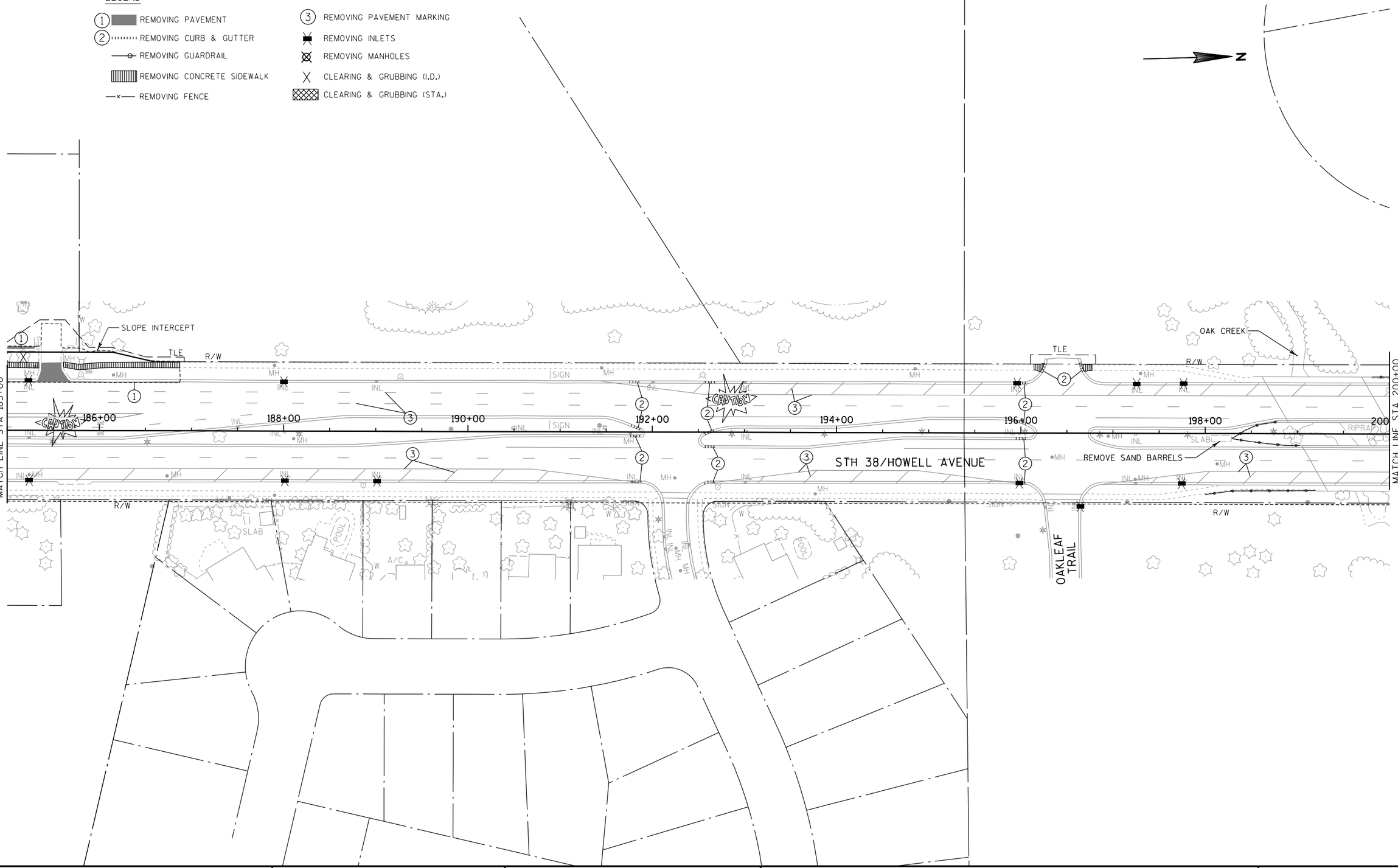
2

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	REMOVAL DETAILS	SHEET 39	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\021104_rm.dgn PLOT DATE : 1/30/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

LEGEND

1. REMOVING PAVEMENT
2. REMOVING CURB & GUTTER
   - REMOVING GUARDRAIL
   - REMOVING CONCRETE SIDEWALK
   - REMOVING FENCE
3. REMOVING PAVEMENT MARKING
   - REMOVING INLETS
   - REMOVING MANHOLES
   - CLEARING & GRUBBING (I.D.)
   - CLEARING & GRUBBING (STA.)



PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	REMOVAL DETAILS	SHEET 40	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\021105_rm.dgn PLOT DATE : 1/30/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

2

LEGEND

- (1) REMOVING PAVEMENT
- (2) REMOVING CURB & GUTTER
- REMOVING GUARDRAIL
- REMOVING CONCRETE SIDEWALK
- REMOVING FENCE
- (3) REMOVING PAVEMENT MARKING
- REMOVING INLETS
- REMOVING MANHOLES
- CLEARING & GRUBBING (I.D.)
- CLEARING & GRUBBING (STA.)

N

W. OAKLEAF DRIVE

STH 38/HOWELL AVENUE

MATCH LINE STA 200+00

MATCH LINE STA 215+00

+00 202+00 204+00 206+00 208+00 210+00 212+00 214+00

REMOVE SAND BARRELS

CAUTION

R/W

SIGN

SIGN I

SLAB

WALLS

FLAG

TLE

INL

MH

INV

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	REMOVAL DETAILS	SHEET 41	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\021106_rm.dgn PLOT DATE : 1/30/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

2

N

E. CENTENNIAL DRIVE

STH 38/HOWELL AVENUE

MATCH LINE STA 215+00

MATCH LINE STA 230+00

216+00 218+00 220+00 222+00 224+00 226+00 228+00 230

CAUTION

LEGEND

(1) REMOVING PAVEMENT	(3) REMOVING PAVEMENT MARKING
(2) REMOVING CURB & GUTTER	REMOVING INLETS
REMOVING GUARDRAIL	REMOVING MANHOLES
REMOVING CONCRETE SIDEWALK	CLEARING & GRUBBING (I.D.)
REMOVING FENCE	CLEARING & GRUBBING (STA.)

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	REMOVAL DETAILS	SHEET 42	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\021107_rm.dgn PLOT DATE : 1/30/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

2

LEGEND

1. REMOVING PAVEMENT
2. REMOVING CURB & GUTTER
3. REMOVING PAVEMENT MARKING

REMOVING GUARDRAIL
REMOVING CONCRETE SIDEWALK
REMOVING FENCE
REMOVING INLETS
REMOVING MANHOLES
CLEARING & GRUBBING (I.D.)
CLEARING & GRUBBING (STA.)

N

W. PUETZ ROAD

STH 38/HOWELL AVENUE

MATCH LINE STA 230+00

MATCH LINE STA 245+00

230+00 232+00 234+00 236+00 238+00 240+00 242+00 244+00

2112+00 2114+00 2116+00 2118+00 2120+00

SLOPE INTERCEPT

CANOPY

FILLER CAP

TLE

SLAB

FLAG

CAUTION

R/W

SIGN

INL

MH

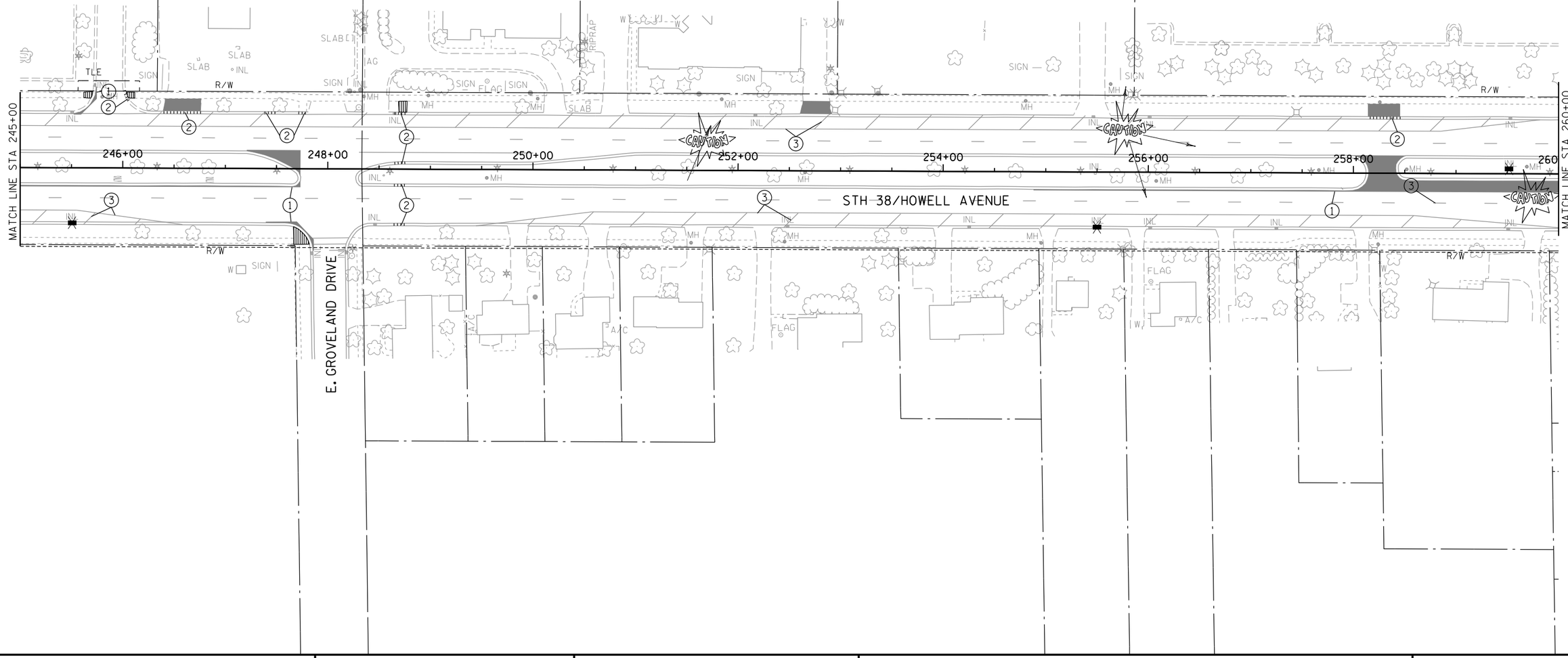
PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	REMOVAL DETAILS	SHEET 43	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\021108_rm.dgn PLOT DATE : 1/30/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

2

LEGEND

- (1) REMOVING PAVEMENT
- (2) REMOVING CURB & GUTTER
- REMOVING GUARDRAIL
- REMOVING CONCRETE SIDEWALK
- REMOVING FENCE
- (3) REMOVING PAVEMENT MARKING
- REMOVING INLETS
- REMOVING MANHOLES
- CLEARING & GRUBBING (I.D.)
- CLEARING & GRUBBING (STA.)



PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	REMOVAL DETAILS	SHEET 44	E

LEGEND

1. REMOVING PAVEMENT
2. REMOVING CURB & GUTTER
- REMOVING GUARDRAIL
- REMOVING CONCRETE SIDEWALK
- REMOVING FENCE
3. REMOVING PAVEMENT MARKING
- REMOVING INLETS
- REMOVING MANHOLES
- CLEARING & GRUBBING (I.D.)
- CLEARING & GRUBBING (STA.)

N

FOREST HILL AVENUE

STH 38/HOWELL AVENUE

E. OAKFIELD DRIVE

MATCH LINE STA 260+00

MATCH LINE STA 275+00

200+00 202+00 204+00 206+00 208+00 210+00 212+00 214+00 216+00 218+00 220+00 222+00 224+00 226+00 228+00 230+00 232+00 234+00 236+00 238+00 240+00 242+00 244+00 246+00 248+00 250+00 252+00 254+00 256+00 258+00 260+00 262+00 264+00 266+00 268+00 270+00 272+00 274+00

SLOPE INTERCEPT

SLOPE INTERCEPT

CAUTION

CAUTION

CAUTION

CAUTION

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	REMOVAL DETAILS	SHEET 45	E

2

LEGEND

1. REMOVING PAVEMENT
2. REMOVING CURB & GUTTER
- REMOVING GUARDRAIL
- REMOVING CONCRETE SIDEWALK
- REMOVING FENCE
3. REMOVING PAVEMENT MARKING
- REMOVING INLETS
- REMOVING MANHOLES
- CLEARING & GRUBBING (L.D.)
- CLEARING & GRUBBING (STA.)

MATCH LINE STA 275+00

MATCH LINE STA 290+00

276+00 278+00 280+00 282+00 284+00 286+00 288+00 290+00

300+00 302+00 302+44

3112+00 3114+00 3116+00 3118+00 3120+00

STH 38/HOWELL AVENUE

SUSAN DRIVE

DREXEL AVENUE

CAUTION

TLE R/W SLAB INL MH SIGN FLAG

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	REMOVAL DETAILS	SHEET 46	E

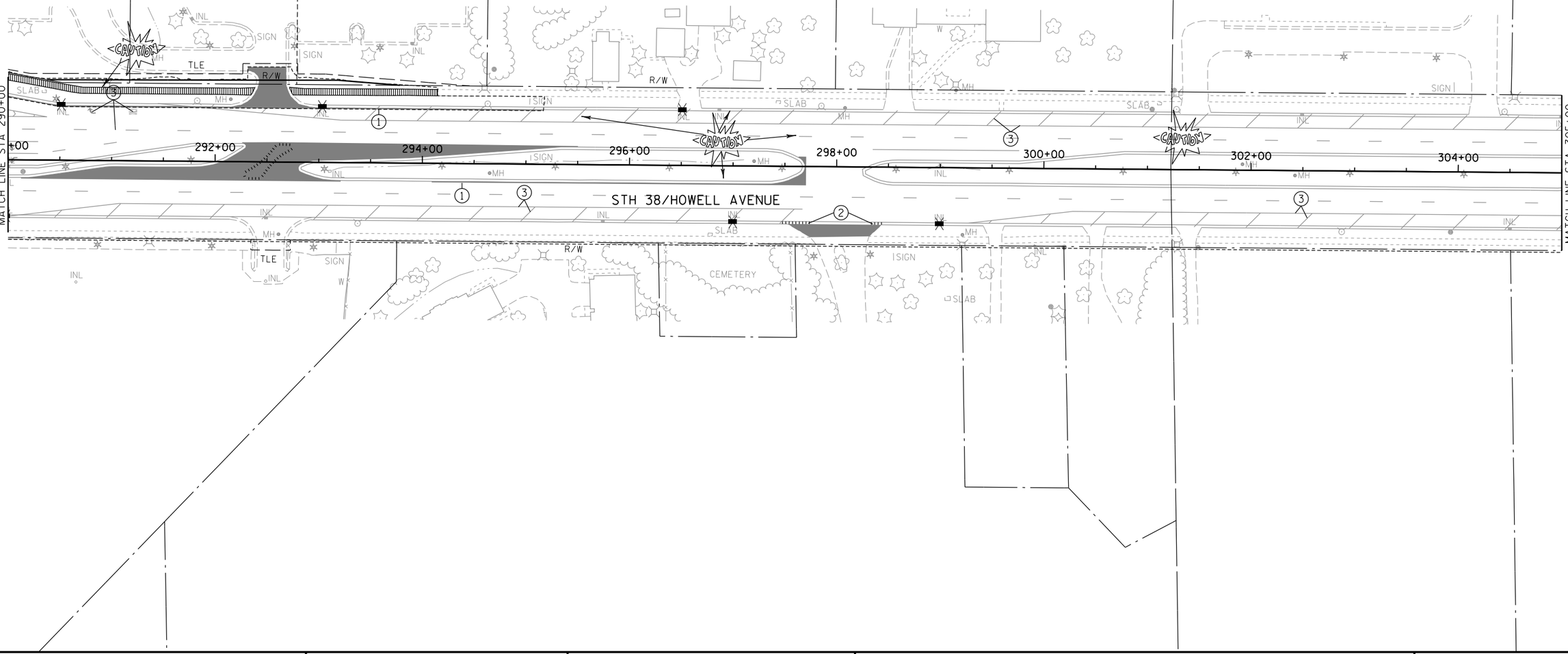
FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\021111_rm.dgn PLOT DATE : 1/30/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

2

LEGEND

1. REMOVING PAVEMENT
2. REMOVING CURB & GUTTER
- REMOVING GUARDRAIL
- REMOVING CONCRETE SIDEWALK
- REMOVING FENCE
3. REMOVING PAVEMENT MARKING
- REMOVING INLETS
- REMOVING MANHOLES
- CLEARING & GRUBBING (I.D.)
- CLEARING & GRUBBING (STA.)

N



PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	REMOVAL DETAILS	SHEET 47	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\021112_rm.dgn PLOT DATE : 1/30/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

2

N

W. MARQUETTE AVENUE

STH 38/HOWELL AVENUE

E. MANITOBA AVENUE

MATCH LINE STA 305+00

MATCH LINE STA 320+00

306+00 308+00 310+00 312+00 314+00 316+00 318+00 320

SLOPE INTERCEPT

TLE

SLOPE INTERCEPT

TLE

U/C

FLAG

SIGN

WALLS

SLAB

R/W

INL

MH

W

A/C

CAUTION

LEGEND

1 REMOVING PAVEMENT

2 REMOVING CURB & GUTTER

REMOVING GUARDRAIL

REMOVING CONCRETE SIDEWALK

REMOVING FENCE

3 REMOVING PAVEMENT MARKING

REMOVING INLETS

REMOVING MANHOLES

CLEARING & GRUBBING (I.D.)

CLEARING & GRUBBING (STA.)

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	REMOVAL DETAILS	SHEET 48	E

2

LEGEND

- (1) REMOVING PAVEMENT
- (2) REMOVING CURB & GUTTER
- REMOVING GUARDRAIL
- REMOVING CONCRETE SIDEWALK
- REMOVING FENCE
- (3) REMOVING PAVEMENT MARKING
- REMOVING INLETS
- REMOVING MANHOLES
- CLEARING & GRUBBING (I.D.)
- CLEARING & GRUBBING (STA.)

N

MATCH LINE STA 320+00

320+00 322+00 324+00 326+00 328+00 330+00 332+00 334+00

MATCH LINE STA 335+00

STH 38/HOWELL AVENUE

E. MAHN CT.

TOWER

SLOPE INTERCEPT

TLE

R/W

SIGN

SLAB

CAUTION

MH

INL

RUINS

A/C

W

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	REMOVAL DETAILS	SHEET 49	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\021114_rm.dgn PLOT DATE : 1/30/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

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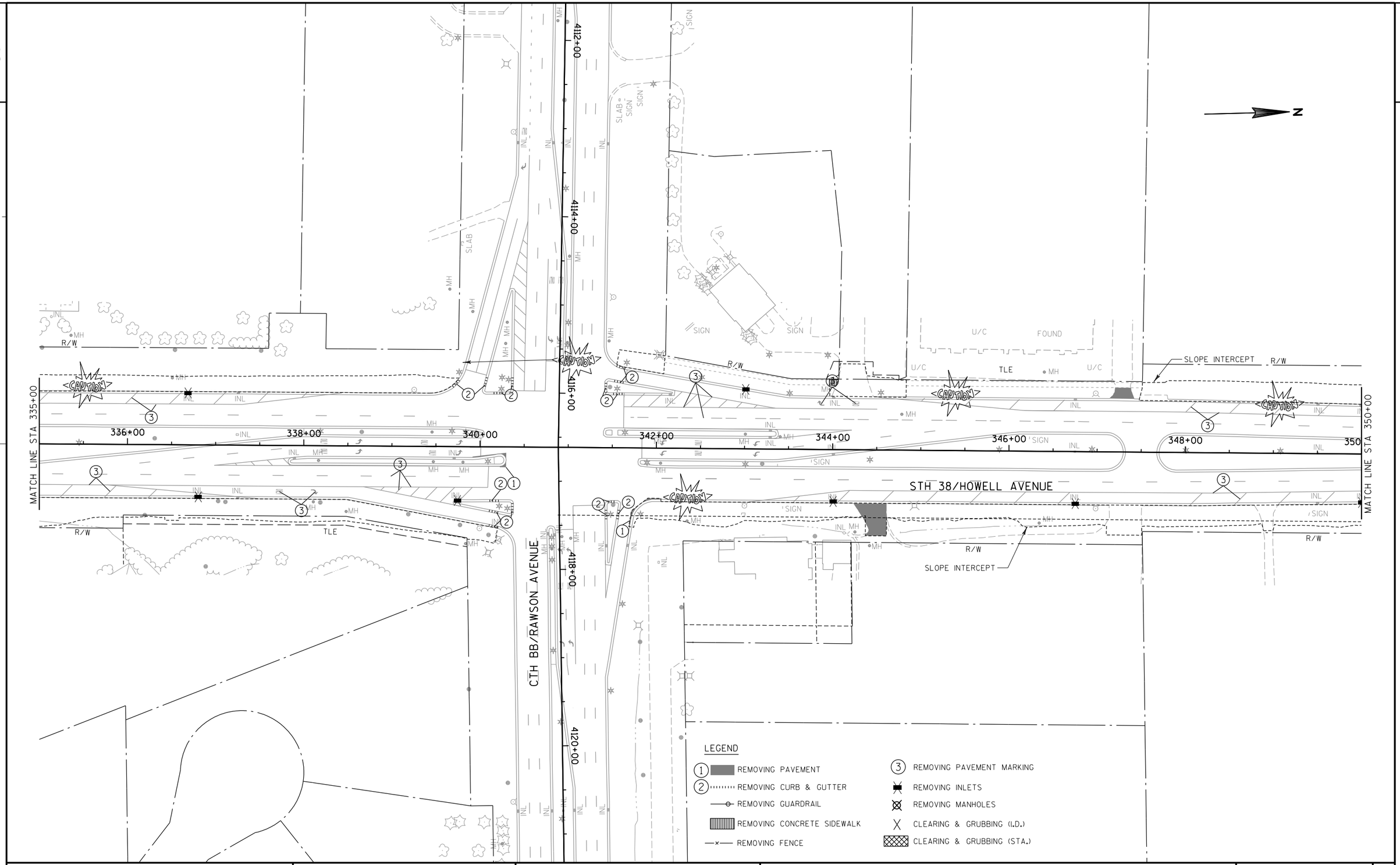


PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	REMOVAL DETAILS	SHEET 50	E

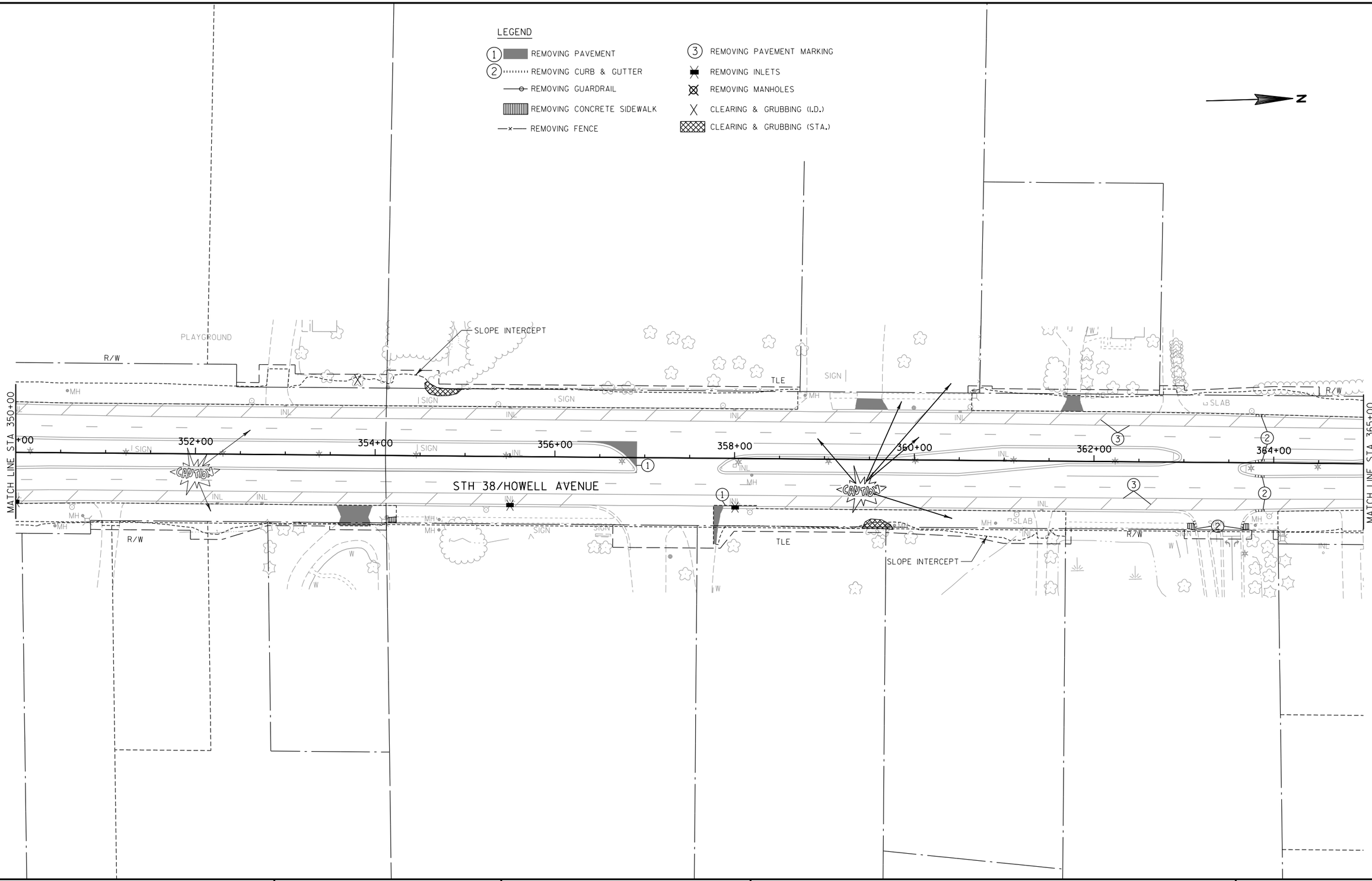
2

2

LEGEND

1 REMOVING PAVEMENT
2 REMOVING CURB & GUTTER
REMOVING GUARDRAIL
REMOVING CONCRETE SIDEWALK
REMOVING FENCE
3 REMOVING PAVEMENT MARKING
REMOVING INLETS
REMOVING MANHOLES
CLEARING & GRUBBING (I.D.)
CLEARING & GRUBBING (STA.)

N



PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	REMOVAL DETAILS	SHEET 51	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\021116_rm.dgn PLOT DATE : 1/30/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

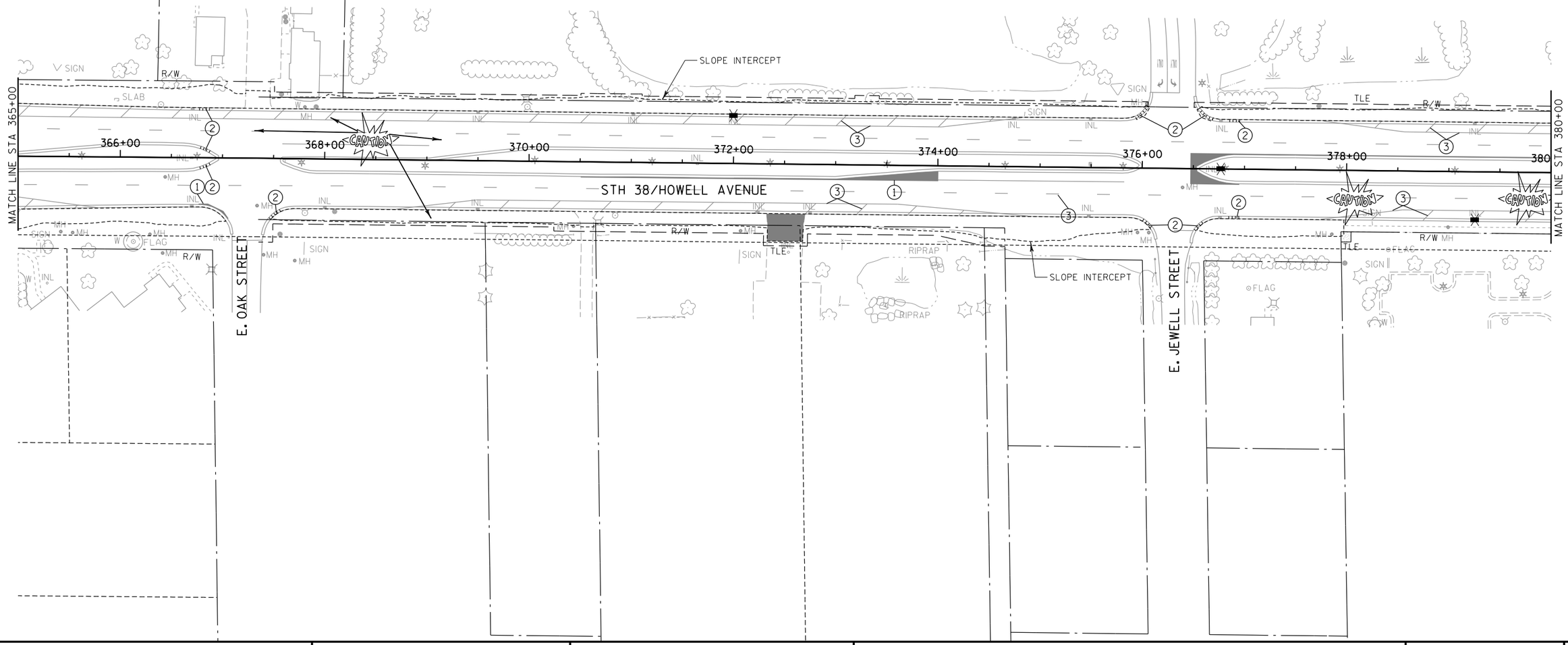
WISDOT/CADDS SHEET 42

2

LEGEND

1. REMOVING PAVEMENT
2. REMOVING CURB & GUTTER
- REMOVING GUARDRAIL
- REMOVING CONCRETE SIDEWALK
- REMOVING FENCE
3. REMOVING PAVEMENT MARKING
- REMOVING INLETS
- REMOVING MANHOLES
- CLEARING & GRUBBING (I.D.)
- CLEARING & GRUBBING (STA.)

N



PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	REMOVAL DETAILS	SHEET	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\021117_rm.dgn PLOT DATE : 1/30/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

2

LEGEND

1. REMOVING PAVEMENT
2. REMOVING CURB & GUTTER
- REMOVING GUARDRAIL
- REMOVING CONCRETE SIDEWALK
- REMOVING FENCE
3. REMOVING PAVEMENT MARKING
- REMOVING INLETS
- REMOVING MANHOLES
- CLEARING & GRUBBING (I.D.)
- CLEARING & GRUBBING (STA.)

MATCH LINE STA 380+00

380+00

382+00

384+00

386+00

388+00

390+00

392+00

394+00

MATCH LINE STA 395+00

STH 38/HOWELL AVENUE

CTH ZZ/COLLEGE AVENUE

5114+00

5116+00

5118+00

5120+00

5122+

N

SLOPE INTERCEPT

RAMP

CEMETERY

CEMETERY

RIPRAP

FILLER

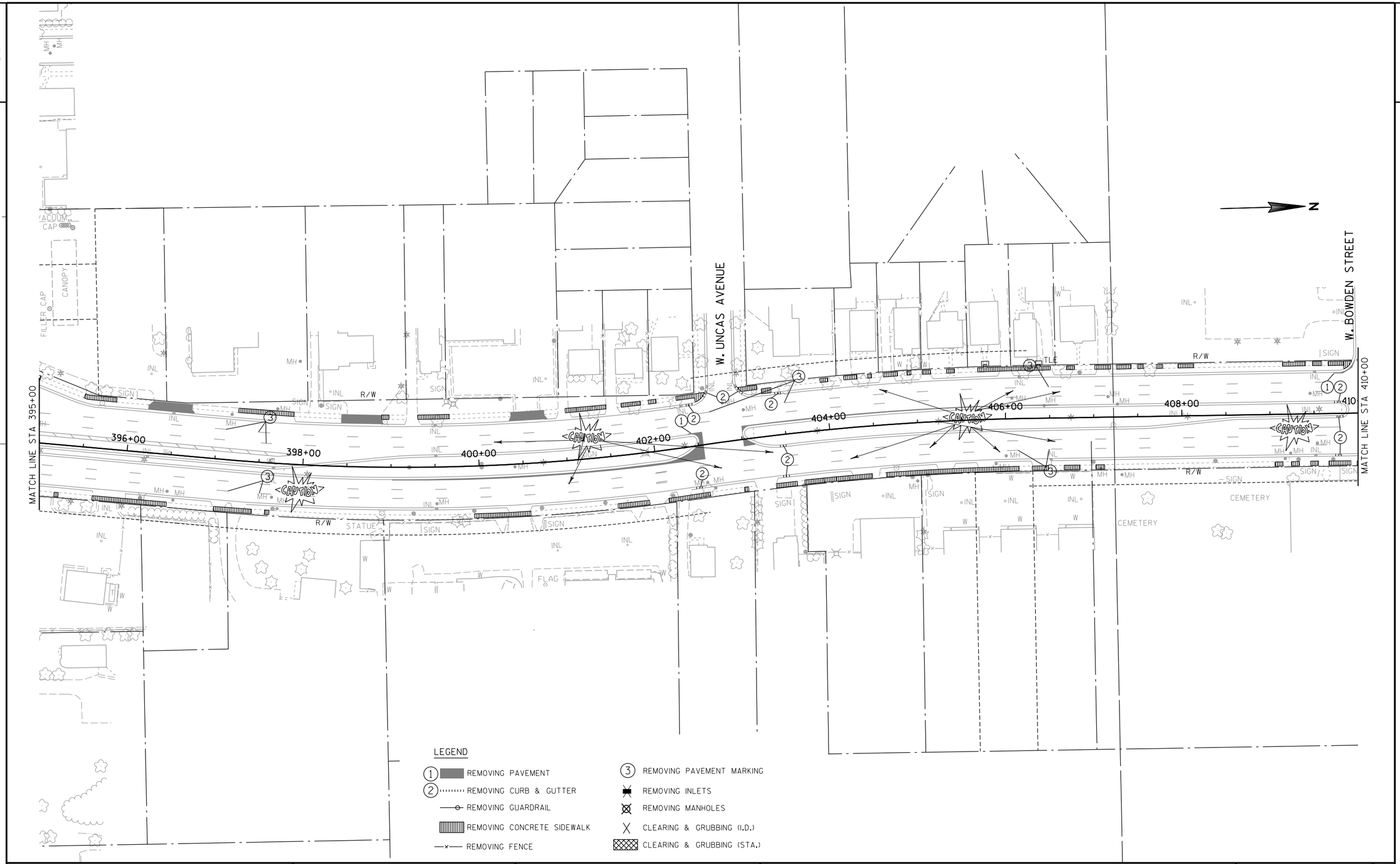
FILLER CAP

CAUTION

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	REMOVAL DETAILS	SHEET 53	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\021118_rm.dgn PLOT DATE : 1/30/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

2

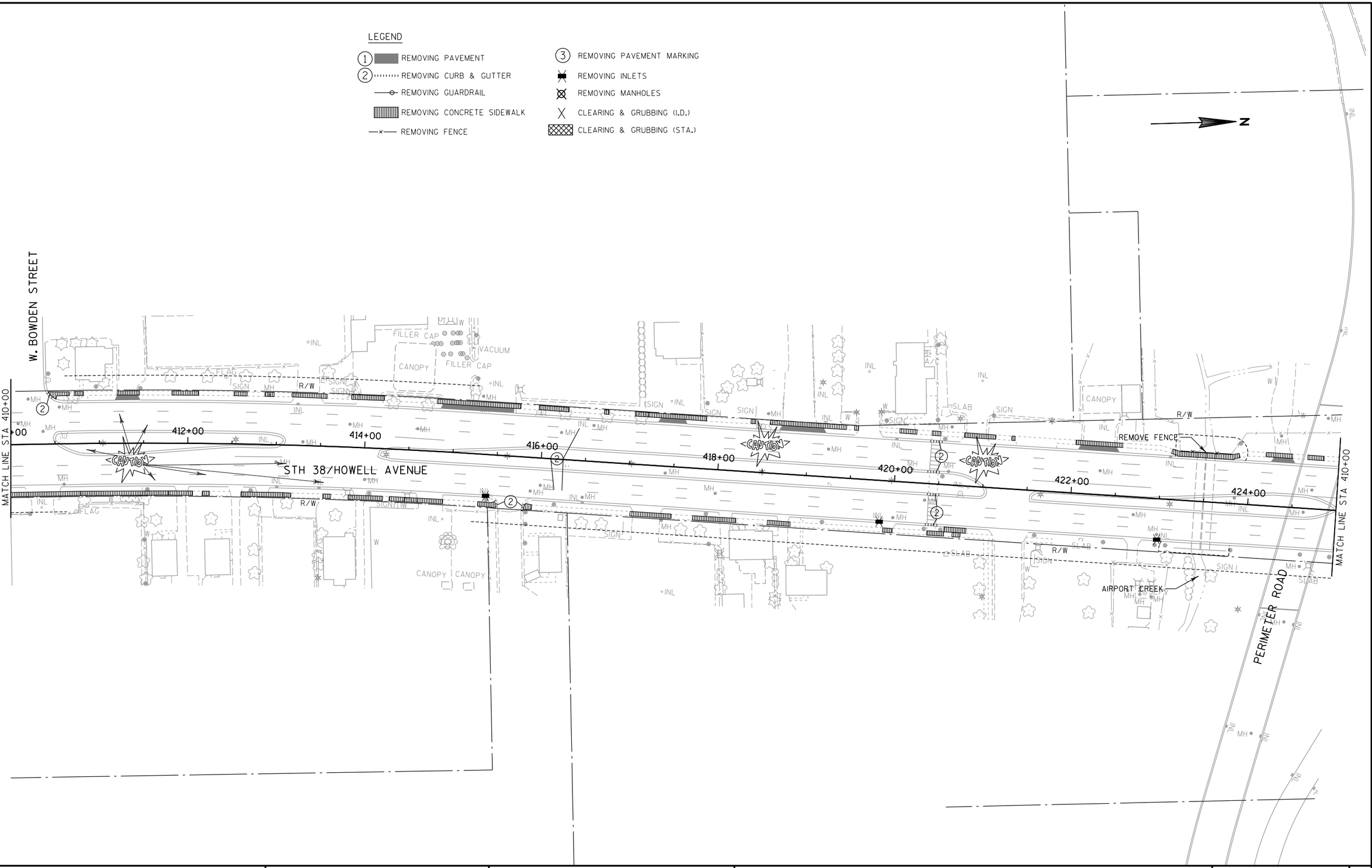


PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	REMOVAL DETAILS	SHEET 54	E

2

LEGEND

- (1) REMOVING PAVEMENT
- (2) REMOVING CURB & GUTTER
- REMOVING GUARDRAIL
- REMOVING CONCRETE SIDEWALK
- REMOVING FENCE
- (3) REMOVING PAVEMENT MARKING
- REMOVING INLETS
- REMOVING MANHOLES
- CLEARING & GRUBBING (I.D.)
- CLEARING & GRUBBING (STA.)



PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	REMOVAL DETAILS	SHEET 55	E

2

2

LEGEND

1 REMOVING PAVEMENT
2 REMOVING CURB & GUTTER
REMOVING GUARDRAIL
REMOVING CONCRETE SIDEWALK
REMOVING FENCE
3 REMOVING PAVEMENT MARKING
REMOVING INLETS
REMOVING MANHOLES
CLEARING & GRUBBING (I.D.)
CLEARING & GRUBBING (STA.)

N

MATCH LINE STA 425+00

426+00

428+00

430+00

432+00

434+00

436+00

438+00

440

MATCH LINE STA 440+00

REMOVE SAND BARRELS

STH 38/HOWELL AVENUE

E. CITATION WAY

R/W

SIGN

SLAB

MH

INL

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	REMOVAL DETAILS	SHEET 56	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\021121_rm.dgn PLOT DATE : 1/30/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2

LEGEND

1. REMOVING PAVEMENT
2. REMOVING CURB & GUTTER
- REMOVING GUARDRAIL
- REMOVING CONCRETE SIDEWALK
- REMOVING FENCE
3. REMOVING PAVEMENT MARKING
- REMOVING INLETS
- REMOVING MANHOLES
- CLEARING & GRUBBING (I.D.)
- CLEARING & GRUBBING (STA.)

SEE CONSTRUCTION DETAIL - AIRPORT SPUR RAMPS

N

RAMP ER

RAMP WC

AIRPORT SPUR

STH 38/HOWELL AVENUE

S. HOWELL AVENUE

R/W

RIPRAP

CAUTION

MATCH LINE STA 440+00

MATCH LINE STA 455+00

440+00 442+00 444+00 446+00 448+00 450+00 452+00 454+00

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	REMOVAL DETAILS	SHEET 57	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\021122_rm.dgn PLOT DATE : 1/30/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

2

2

LEGEND

1 REMOVING PAVEMENT
2 REMOVING CURB & GUTTER
REMOVING GUARDRAIL
REMOVING CONCRETE SIDEWALK
REMOVING FENCE
3 REMOVING PAVEMENT MARKING
REMOVING INLETS
REMOVING MANHOLES
CLEARING & GRUBBING (I.D.)
CLEARING & GRUBBING (STA.)

N

STH 119/AIRPORT SPUR

GRANGE AVENUE

SLOPE INTERCEPT

TLE

CANOPY

MATCH LINE STA 455+00

456+00

458+00

460+00

462+00

464+00

466+00

468+00

470+00

STH 38/HOWELL AVENUE

END PROJECT
STA 462+75.39

S. HOWELL AVENUE

SUBSTATION

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	REMOVAL DETAILS	SHEET 58	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\021123_rm.dgn PLOT DATE : 1/30/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

LEGEND

1 REMOVING PAVEMENT
2 REMOVING CURB & GUTTER
REMOVING GUARDRAIL
REMOVING CONCRETE SIDEWALK
REMOVING FENCE
3 REMOVING PAVEMENT MARKING
REMOVING INLETS
REMOVING MANHOLES
CLEARING & GRUBBING (I.D.)
CLEARING & GRUBBING (STA.)

STH 38/HOWELL AVENUE
STH 100/RYAN ROAD
188+00
186+00
184+00
182+00
180+00
1098+00
1100+00
1102+00
1104+00
1106+00
1108+00
1110+00
1112+00
TLE
SLOPE INTERCEPT
R/W
CAUTION
CANOPY
VACUUM
FILLER CAP
SIGN
SLAB
FLAG
MH
INL
INLET
N

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	REMOVAL DETAILS	SHEET 59	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\021124_rm.dgn
PLOT DATE : 1/30/2014
PLOT BY : tmk
PLOT NAME :
PLOT SCALE : 1:100

2

2

N

STH 38/HOWELL AVENUE

FOREST HILL AVENUE

SLOPE INTERCEPT

CAUTION

R/W

200+00 202+00 204+00 204+39 100+00 102+00 104+00 106+00 108+00

264+00 266+00 260+00 258+00

LEGEND

1. REMOVING PAVEMENT
2. REMOVING CURB & GUTTER
- REMOVING GUARDRAIL
- REMOVING CONCRETE SIDEWALK
- REMOVING FENCE
3. REMOVING PAVEMENT MARKING
- REMOVING INLETS
- REMOVING MANHOLES
- CLEARING & GRUBBING (I.D.)
- CLEARING & GRUBBING (STA.)

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	REMOVAL DETAILS	SHEET 60	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\021125_rm.dgn PLOT DATE : 1/30/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

NOTES:
CURB AND GUTTER RADII SHOWN AT FACE OF CURB.

ALL STATIONS AND OFFSETS ARE BASED ON THE STH 38 R/L UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT.

2' MINIMUM RISE BETWEEN DETECTABLE WARNING FIELDS REQUIRED, SEE SDD "CURB RAMPS TYPE 2 AND 3"

128+62.73 79.72' LT
128+62.88 55.73' LT
128+95.80 79.91' LT
128+98.86 80.24' LT
128+60.78 55.42' LT
128+92.25 71.08' LT
128+71.56 55.83' LT
128+60.92 52.93' LT
R/W
6'
9'

129+60.52 80.22' LT
129+67.64 80.40' LT
129+56.52 80.12' LT
129+76.59 70.37' LT
129+63.55 68.23' LT
129+74.47 60.32' LT
131+40.00 70.48' LT
131+60.00 63.98' LT
TLE
SLOPE INTERCEPT

CURB RAMP TO REMAIN
BUTT JOINT SEE DETAIL

BEGIN PROJECT
STA 128+61.24

STH 38/HOWELL AVENUE

127+00 128+00 129+00 130+00 131+00 132+00 133

MATCH LINE STA 133+00

128+61.24 3.10' RT
128+71.24 3.10' RT
128+69.24 5.60' RT
128+69.27 11.04' RT
128+61.26 13.59' RT
128+71.26 13.52' RT

128+63.27 34.87' RT
128+63.44 38.95' RT
128+77.55 42.41' RT
128+85.96 54.30' RT
128+63.53 54.83' RT
128+81.87 54.72' RT

129+63.31 43.39' RT
129+59.38 35.98' RT
129+69.66 35.57' RT
129+41.89 47.13' RT
129+72.32 50.44' RT
129+39.32 45.22' RT
129+75.87 51.29' RT
129+39.67 55.27' RT
129+67.24 57.22' RT
129+97.37 64.84' RT
129+85.55 73.36' RT
129+88.60 74.00' RT
130+10.94 74.00' RT
130+50.67 65.00' RT
130+74.76 65.00' RT
130+99.76 67.00' RT

BUTT JOINT SEE DETAIL
SLOPE INTERCEPT
TLE

OAKWOOD ROAD

LEGEND

1. 4-INCH HMA PAVEMENT TYPE E-1, 8-INCH CONCRETE BASE, 6-INCH BASE AGGREGATE DENSE 1-1/4"
2. CONCRETE CURB AND GUTTER 31-INCH
3. 6-1/4" HMA PAVEMENT TYPE E-1, 4-INCH BASE AGGREGATE OPEN GRADED, 8-1/2" BASE AGGREGATE DENSE 1-1/4"
4. REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
5. CONCRETE SIDEWALK 5-INCH
7. ASPHALTIC DRIVEWAY
8. BASE AGGREGATE DENSE DRIVEWAY
9. CONCRETE DRIVEWAY 7-INCH
10. REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
11. CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING
12. CURB RAMP TYPE 2
13. CURB RAMP TYPE 5
14. CURB RAMP TYPE 6
15. CONCRETE CURB AND GUTTER 36-INCH
16. CONCRETE MEDIAN SLOPED NOSE
17. CRACKING AND SEATING
18. CONCRETE PAVEMENT REPLACEMENT

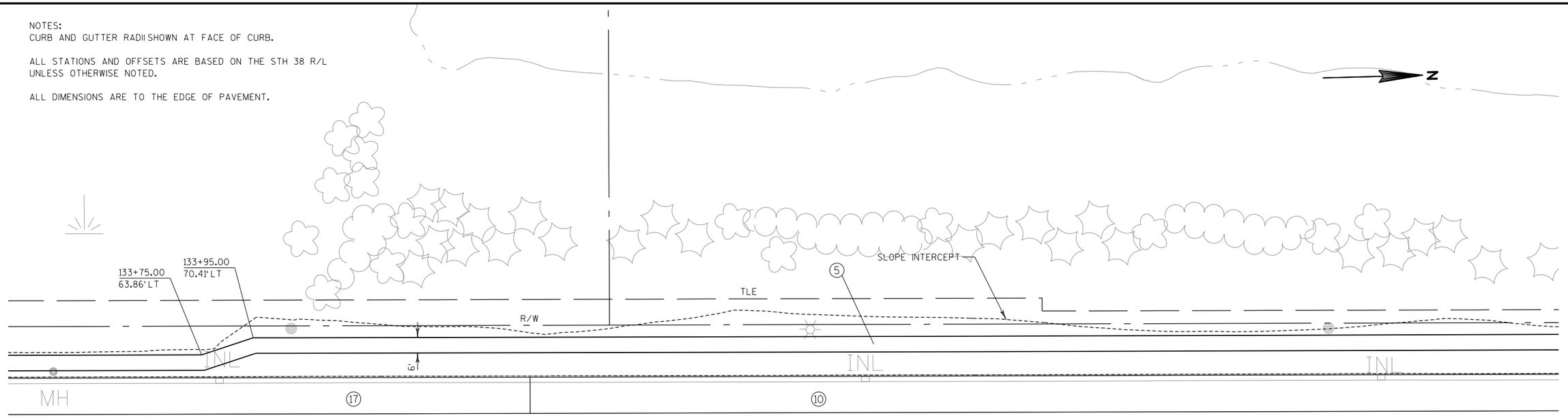
PE/CE/FE PRIVATE/COMMERCIAL/FIELD ENTRANCE
■ DETECTABLE WARNING FIELD
XXXXX SAW CUTTING CONCRETE
YYYYY SAW CUTTING ASPHALT
XXX CLOSE DRIVEWAY

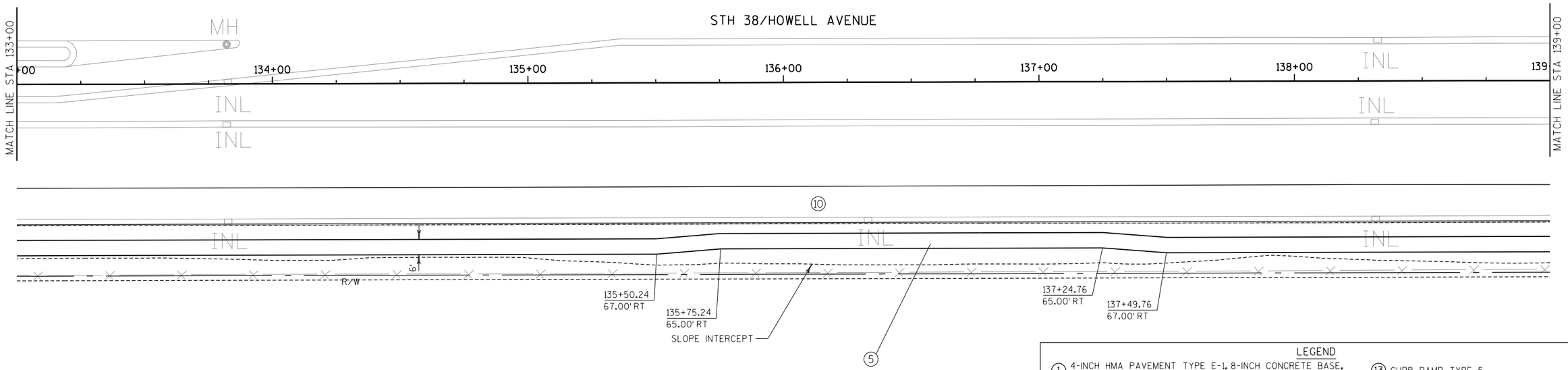
PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 61	E

NOTES:
CURB AND GUTTER RADII SHOWN AT FACE OF CURB.

ALL STATIONS AND OFFSETS ARE BASED ON THE STH 38 R/L UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT.





LEGEND

1. 4-INCH HMA PAVEMENT TYPE E-1, 8-INCH CONCRETE BASE, 6-INCH BASE AGGREGATE DENSE 1-1/4"
2. CONCRETE CURB AND GUTTER 31-INCH
3. 6-1/4" HMA PAVEMENT TYPE E-1, 4-INCH BASE AGGREGATE OPEN GRADED, 8-1/2" BASE AGGREGATE DENSE 1-1/4"
4. REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
5. CONCRETE SIDEWALK 5-INCH
7. ASPHALTIC DRIVEWAY
8. BASE AGGREGATE DENSE DRIVEWAY
9. CONCRETE DRIVEWAY 7-INCH
10. REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
11. CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING
12. CURB RAMP TYPE 2
13. CURB RAMP TYPE 5
14. CURB RAMP TYPE 6
15. CONCRETE CURB AND GUTTER 36-INCH
16. CONCRETE MEDIAN SLOPED NOSE
17. CRACKING AND SEATING
18. CONCRETE PAVEMENT REPLACEMENT

PE/CE/FE PRIVATE/COMMERCIAL/FIELD ENTRANCE

■ DETECTABLE WARNING FIELD

XXXXX SAW CUTTING CONCRETE

YYYYY SAW CUTTING ASPHALT

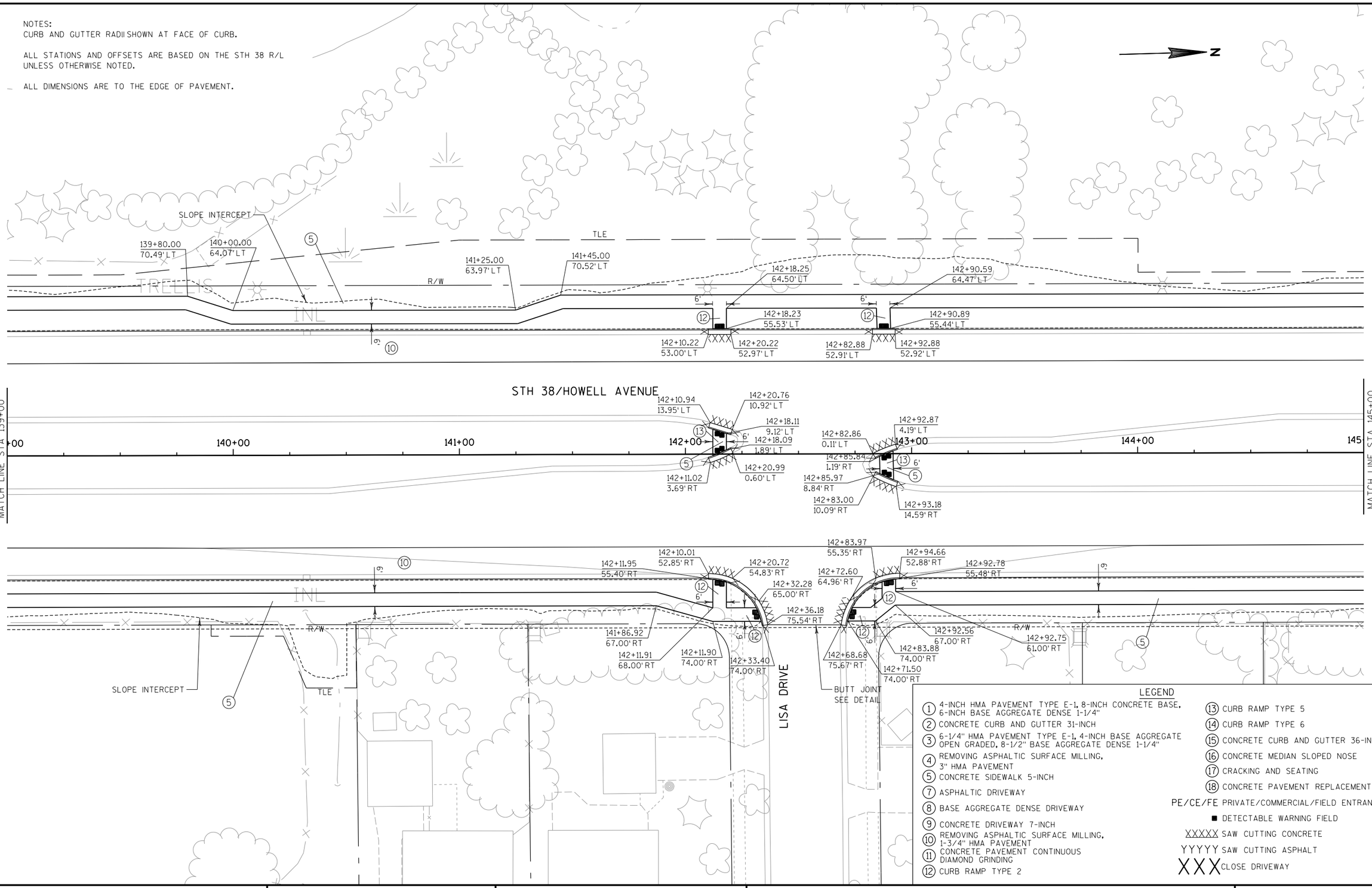
XXX CLOSE DRIVEWAY

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 62	E

NOTES:
CURB AND GUTTER RADII SHOWN AT FACE OF CURB.

ALL STATIONS AND OFFSETS ARE BASED ON THE STH 38 R/L UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT.



LEGEND

1. 4-INCH HMA PAVEMENT TYPE E-1, 8-INCH CONCRETE BASE, 6-INCH BASE AGGREGATE DENSE 1-1/4"
2. CONCRETE CURB AND GUTTER 31-INCH
3. 6-1/4" HMA PAVEMENT TYPE E-1, 4-INCH BASE AGGREGATE OPEN GRADED, 8-1/2" BASE AGGREGATE DENSE 1-1/4"
4. REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
5. CONCRETE SIDEWALK 5-INCH
7. ASPHALTIC DRIVEWAY
8. BASE AGGREGATE DENSE DRIVEWAY
9. CONCRETE DRIVEWAY 7-INCH
10. REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
11. CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING
12. CURB RAMP TYPE 2
13. CURB RAMP TYPE 5
14. CURB RAMP TYPE 6
15. CONCRETE CURB AND GUTTER 36-INCH
16. CONCRETE MEDIAN SLOPED NOSE
17. CRACKING AND SEATING
18. CONCRETE PAVEMENT REPLACEMENT

PE/CE/FE PRIVATE/COMMERCIAL/FIELD ENTRANCE

■ DETECTABLE WARNING FIELD

XXXXX SAW CUTTING CONCRETE

YYYYY SAW CUTTING ASPHALT

XXX CLOSE DRIVEWAY

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 63	E

NOTES:
CURB AND GUTTER RADII SHOWN AT FACE OF CURB.

ALL STATIONS AND OFFSETS ARE BASED ON THE STH 38 R/L UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT.

N

SLOPE INTERCEPT

BUTT JOINT SEE DETAIL (5)

147+49.23
70.42' LT

147+52.34
69.89' LT

147+83.38
70.31' LT

147+86.54
70.36' LT

147+40.19
61.28' LT

147+93.04
61.19' LT

TLE

R/W

CE

INL

(12)

(10)

STH 38/HOWELL AVENUE

MATCH LINE STA 145+00

146+00

147+00

148+00

149+00

150+00

151+00

MATCH LINE STA 151+00

(10)

MH

146+25.24
67.00' RT

146+50.24
65.00' RT

149+49.76
65.00' RT

149+74.76
67.00' RT

SLOPE INTERCEPT

(5)

LEGEND

1. 4-INCH HMA PAVEMENT TYPE E-1, 8-INCH CONCRETE BASE, 6-INCH BASE AGGREGATE DENSE 1-1/4"
2. CONCRETE CURB AND GUTTER 31-INCH
3. 6-1/4" HMA PAVEMENT TYPE E-1, 4-INCH BASE AGGREGATE OPEN GRADED, 8-1/2" BASE AGGREGATE DENSE 1-1/4"
4. REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
5. CONCRETE SIDEWALK 5-INCH
7. ASPHALTIC DRIVEWAY
8. BASE AGGREGATE DENSE DRIVEWAY
9. CONCRETE DRIVEWAY 7-INCH
10. REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
11. CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING
12. CURB RAMP TYPE 2
13. CURB RAMP TYPE 5
14. CURB RAMP TYPE 6
15. CONCRETE CURB AND GUTTER 36-INCH
16. CONCRETE MEDIAN SLOPED NOSE
17. CRACKING AND SEATING
18. CONCRETE PAVEMENT REPLACEMENT

PE/CE/FE PRIVATE/COMMERCIAL/FIELD ENTRANCE

■ DETECTABLE WARNING FIELD

XXXXX SAW CUTTING CONCRETE

YYYYY SAW CUTTING ASPHALT

XXX CLOSE DRIVEWAY

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 64	E

NOTES:
CURB AND GUTTER RADII SHOWN AT FACE OF CURB.

ALL STATIONS AND OFFSETS ARE BASED ON THE STH 38 R/L UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT.

N

STH 38/HOWELL AVENUE

MATCH LINE STA 151+00

MATCH LINE STA 157+00

151+00 152+00 153+00 154+00 155+00 156+00 157

152+64.18 70.60'LT
CE
152+67.31 70.46'LT
152+94.23 71.16'LT
152+57.37 61.24'LT
152+98.05 71.03'LT
153+05.14 62.34'LT
BUTT JOINT SEE DETAIL
SLOPE INTERCEPT
R/W
TLE
155+00.86 64.50'LT
155+18.71 72.21'LT
155+00.83 55.51'LT
154+98.82 53.01'LT
155+08.82 53.02'LT
155+42.62 72.15'LT
WALL MODULAR BLOCK GRAVITY #1

154+98.72 17.35'LT
155+08.74 17.39'LT
155+06.73 14.88'LT
155+06.65 14.59'RT
154+98.64 17.08'RT
155+08.64 17.09'RT

151+14.97 67.00'RT
151+35.55 63.67'RT
SLOPE SIDEWALK AWAY FROM STREET
152+50.12 67.00'RT
152+30.12 63.65'RT
SLOPE INTERCEPT

154+98.56 52.65'RT
155+08.56 52.68'RT
155+52.02 61.45'RT
155+06.55 55.17'RT
154+75.52 67.00'RT
TLE
155+00.50 74.00'RT
155+06.51 68.00'RT
155+54.93 74.00'RT
BUTT JOINT SEE DETAIL
155+98.26 65.16'RT
155+94.53 75.64'RT
155+59.33 80.36'RT
155+97.40 74.00'RT
TLE
R 26'
FITZSIMMONS ROAD

LEGEND

1. 4-INCH HMA PAVEMENT TYPE E-1, 8-INCH CONCRETE BASE, 6-INCH BASE AGGREGATE DENSE 1-1/4"
2. CONCRETE CURB AND GUTTER 31-INCH
3. 6-1/4" HMA PAVEMENT TYPE E-1, 4-INCH BASE AGGREGATE OPEN GRADED, 8-1/2" BASE AGGREGATE DENSE 1-1/4"
4. REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
5. CONCRETE SIDEWALK 5-INCH
7. ASPHALTIC DRIVEWAY
8. BASE AGGREGATE DENSE DRIVEWAY
9. CONCRETE DRIVEWAY 7-INCH
10. REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
11. CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING
12. CURB RAMP TYPE 2
13. CURB RAMP TYPE 5
14. CURB RAMP TYPE 6
15. CONCRETE CURB AND GUTTER 36-INCH
16. CONCRETE MEDIAN SLOPED NOSE
17. CRACKING AND SEATING
18. CONCRETE PAVEMENT REPLACEMENT

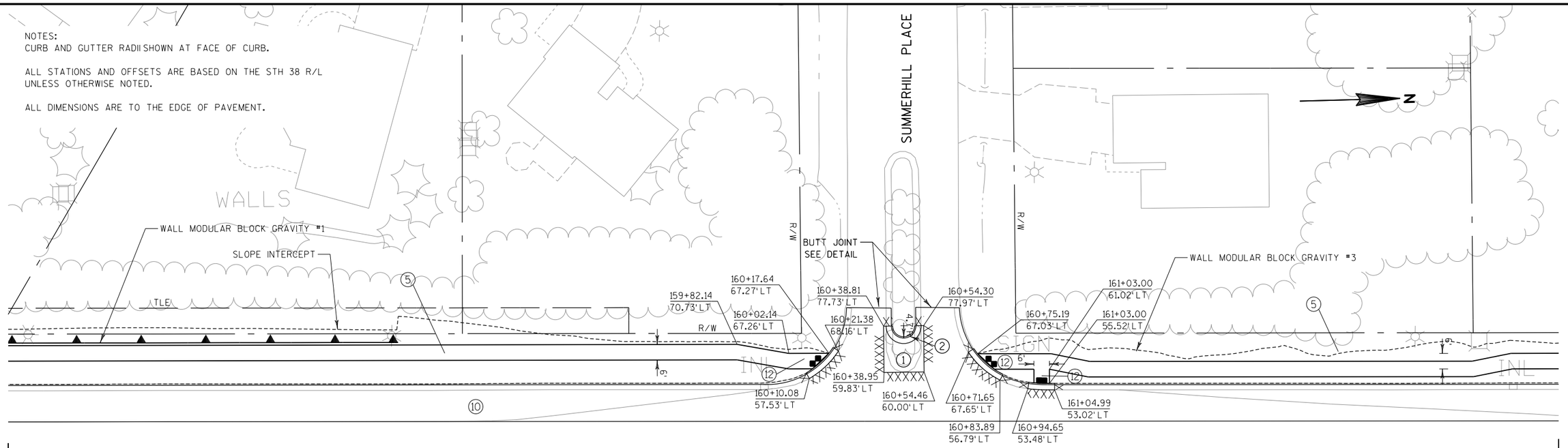
PE/CE/FE PRIVATE/COMMERCIAL/FIELD ENTRANCE
■ DETECTABLE WARNING FIELD
XXXXX SAW CUTTING CONCRETE
YYYYY SAW CUTTING ASPHALT
XXX CLOSE DRIVEWAY

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 65	E

NOTES:
CURB AND GUTTER RADII SHOWN AT FACE OF CURB.

ALL STATIONS AND OFFSETS ARE BASED ON THE STH 38 R/L UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT.



LEGEND

1. 4-INCH HMA PAVEMENT TYPE E-1, 8-INCH CONCRETE BASE, 6-INCH BASE AGGREGATE DENSE 1-1/4"
2. CONCRETE CURB AND GUTTER 31-INCH
3. 6-1/4" HMA PAVEMENT TYPE E-1, 4-INCH BASE AGGREGATE OPEN GRADED, 8-1/2" BASE AGGREGATE DENSE 1-1/4"
4. REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
5. CONCRETE SIDEWALK 5-INCH
7. ASPHALTIC DRIVEWAY
8. BASE AGGREGATE DENSE DRIVEWAY
9. CONCRETE DRIVEWAY 7-INCH
10. REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
11. CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING
12. CURB RAMP TYPE 2
13. CURB RAMP TYPE 5
14. CURB RAMP TYPE 6
15. CONCRETE CURB AND GUTTER 36-INCH
16. CONCRETE MEDIAN SLOPED NOSE
17. CRACKING AND SEATING
18. CONCRETE PAVEMENT REPLACEMENT

PE/CE/FE PRIVATE/COMMERCIAL/FIELD ENTRANCE

■ DETECTABLE WARNING FIELD

XXXXX SAW CUTTING CONCRETE

YYYYY SAW CUTTING ASPHALT

XXX CLOSE DRIVEWAY

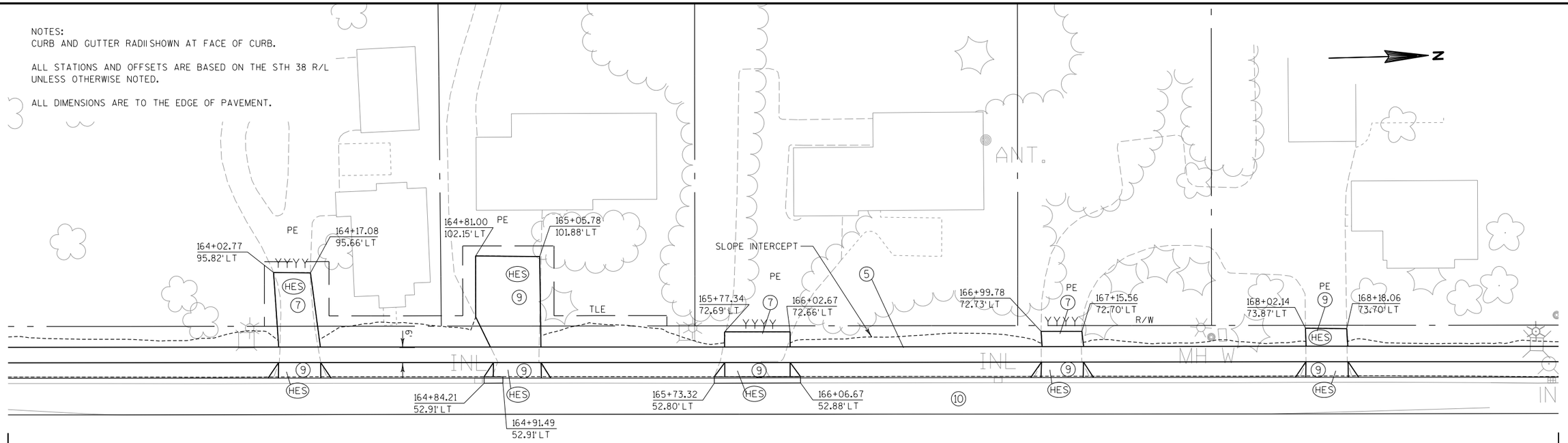
PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 66	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\021206_pd.dgn PLOT DATE : 1/30/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:40

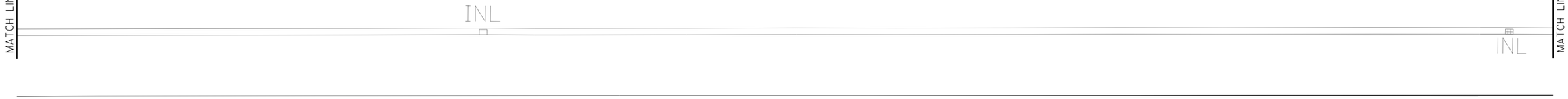
NOTES:
CURB AND GUTTER RADII SHOWN AT FACE OF CURB.

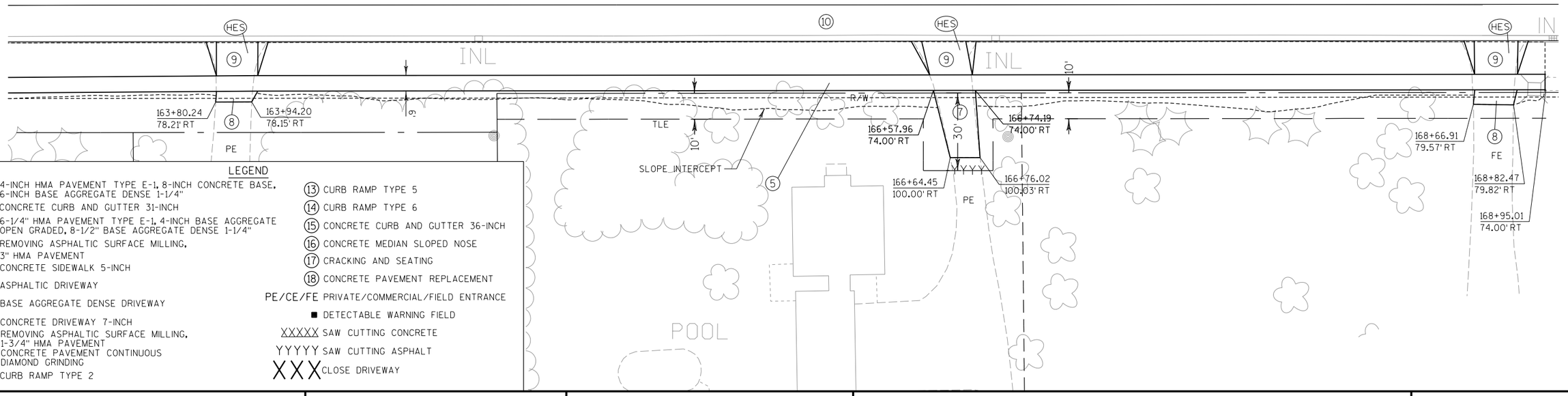
ALL STATIONS AND OFFSETS ARE BASED ON THE STH 38 R/L UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT.



STH 38/HOWELL AVENUE





LEGEND

1. 4-INCH HMA PAVEMENT TYPE E-1, 8-INCH CONCRETE BASE, 6-INCH BASE AGGREGATE DENSE 1-1/4"
2. CONCRETE CURB AND GUTTER 31-INCH
3. 6-1/4" HMA PAVEMENT TYPE E-1, 4-INCH BASE AGGREGATE OPEN GRADED, 8-1/2" BASE AGGREGATE DENSE 1-1/4"
4. REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
5. CONCRETE SIDEWALK 5-INCH
7. ASPHALTIC DRIVEWAY
8. BASE AGGREGATE DENSE DRIVEWAY
9. CONCRETE DRIVEWAY 7-INCH
10. REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
11. CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING
12. CURB RAMP TYPE 2
13. CURB RAMP TYPE 5
14. CURB RAMP TYPE 6
15. CONCRETE CURB AND GUTTER 36-INCH
16. CONCRETE MEDIAN SLOPED NOSE
17. CRACKING AND SEATING
18. CONCRETE PAVEMENT REPLACEMENT

PE/CE/FE PRIVATE/COMMERCIAL/FIELD ENTRANCE

■ DETECTABLE WARNING FIELD

XXXXX SAW CUTTING CONCRETE

YYYYY SAW CUTTING ASPHALT

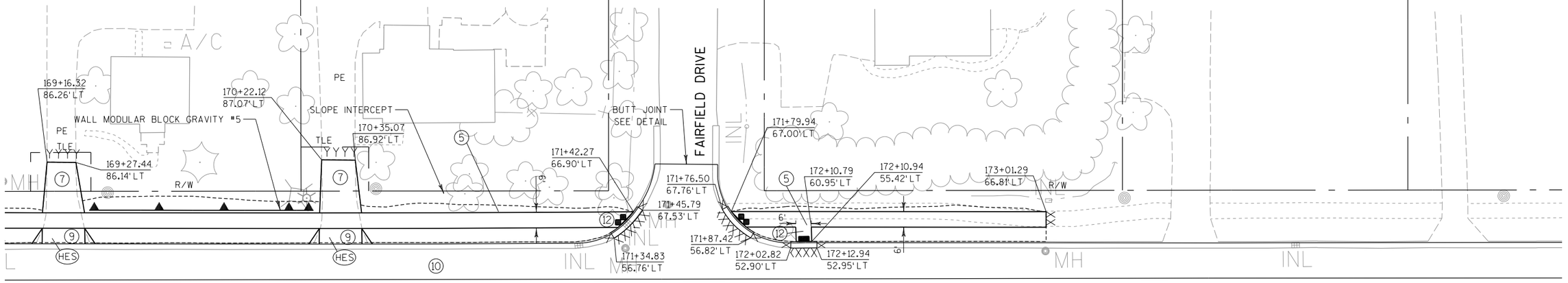
XXX CLOSE DRIVEWAY

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 67	E

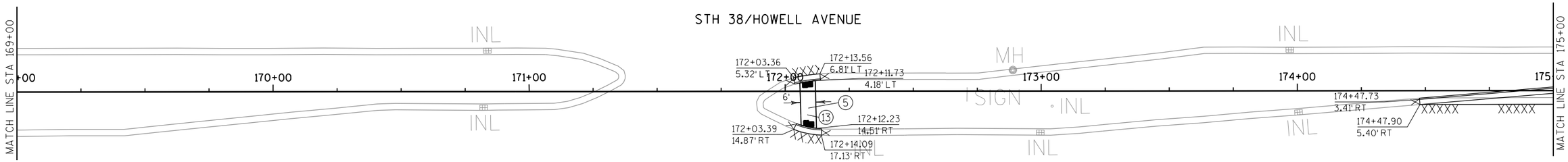
NOTES:
CURB AND GUTTER RADII SHOWN AT FACE OF CURB.

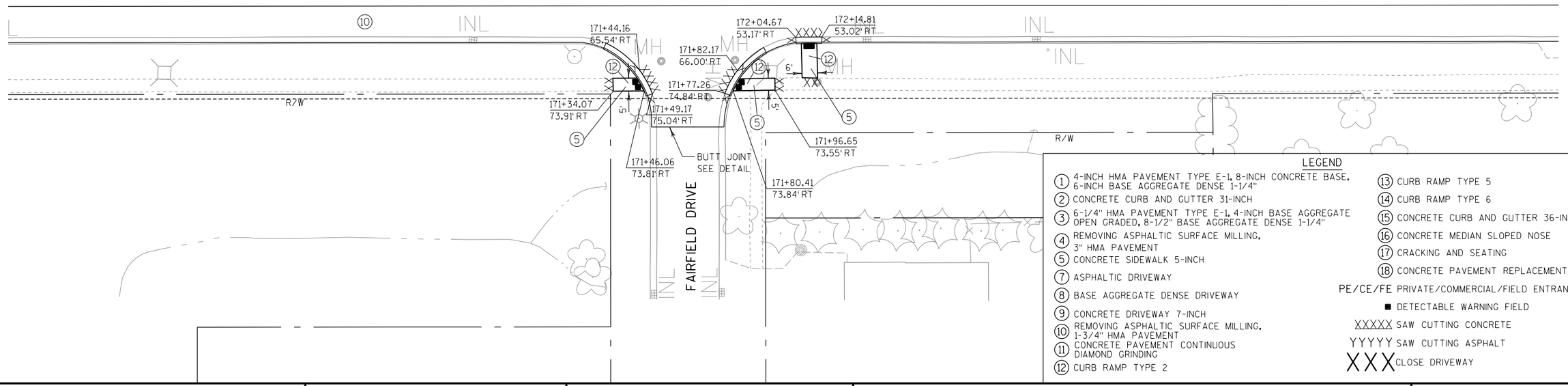
ALL STATIONS AND OFFSETS ARE BASED ON THE STH 38 R/L UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT.



STH 38/HOWELL AVENUE





LEGEND

1. 4-INCH HMA PAVEMENT TYPE E-1, 8-INCH CONCRETE BASE, 6-INCH BASE AGGREGATE DENSE 1-1/4"
2. CONCRETE CURB AND GUTTER 31-INCH
3. 6-1/4" HMA PAVEMENT TYPE E-1, 4-INCH BASE AGGREGATE OPEN GRADED, 8-1/2" BASE AGGREGATE DENSE 1-1/4"
4. REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
5. CONCRETE SIDEWALK 5-INCH
7. ASPHALTIC DRIVEWAY
8. BASE AGGREGATE DENSE DRIVEWAY
9. CONCRETE DRIVEWAY 7-INCH
10. REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
11. CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING
12. CURB RAMP TYPE 2
13. CURB RAMP TYPE 5
14. CURB RAMP TYPE 6
15. CONCRETE CURB AND GUTTER 36-INCH
16. CONCRETE MEDIAN SLOPED NOSE
17. CRACKING AND SEATING
18. CONCRETE PAVEMENT REPLACEMENT

PE/CE/FE PRIVATE/COMMERCIAL/FIELD ENTRANCE

■ DETECTABLE WARNING FIELD

XXXXX SAW CUTTING CONCRETE

YYYYY SAW CUTTING ASPHALT

XXX CLOSE DRIVEWAY

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 68	E

NOTES:
CURB AND GUTTER RADII SHOWN AT FACE OF CURB.

ALL STATIONS AND OFFSETS ARE BASED ON THE STH 38 R/L UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT.

N

STH 38/HOWELL AVENUE

MATCH LINE STA 175+00

MATCH LINE STA 180+50

BUTT JOINT SEE DETAIL

176+92.57 8.63' LT

176+18.76 17.04' LT

176+72.59 16.97' LT

176+00.02 5.43' RT

176+00.11 17.17' RT

176+59.93 17.36' RT

177+56.07 17.60' RT

177+64.14 17.69' RT

178+02.99 18.12' RT

177+64.06 42.69' RT

177+55.99 42.67' RT

178+02.88 53.20' RT

178+11.11 18.20' RT

178+10.87 53.23' RT

178+51.69 6.63' LT

178+54.89 6.63' LT

179+05.92 18.33' RT

179+13.92 18.32' RT

179+37.96 18.29' RT

179+45.96 18.28' RT

179+05.95 42.60' RT

179+13.95 42.59' RT

179+45.99 53.22' RT

179+37.99 53.22' RT

EXISTING 3.5' CORRUGATED CONCRETE MEDIAN TO REMAIN

WALLS, INL, SIGN, R/W, MH, FLAG, VACUUM

LEGEND

1. 4-INCH HMA PAVEMENT TYPE E-1, 8-INCH CONCRETE BASE, 6-INCH BASE AGGREGATE DENSE 1-1/4"
2. CONCRETE CURB AND GUTTER 31-INCH
3. 6-1/4" HMA PAVEMENT TYPE E-1, 4-INCH BASE AGGREGATE OPEN GRADED, 8-1/2" BASE AGGREGATE DENSE 1-1/4"
4. REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
5. CONCRETE SIDEWALK 5-INCH
7. ASPHALTIC DRIVEWAY
8. BASE AGGREGATE DENSE DRIVEWAY
9. CONCRETE DRIVEWAY 7-INCH
10. REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
11. CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING
12. CURB RAMP TYPE 2
13. CURB RAMP TYPE 5
14. CURB RAMP TYPE 6
15. CONCRETE CURB AND GUTTER 36-INCH
16. CONCRETE MEDIAN SLOPED NOSE
17. CRACKING AND SEATING
18. CONCRETE PAVEMENT REPLACEMENT

PE/CE/FE PRIVATE/COMMERCIAL/FIELD ENTRANCE

■ DETECTABLE WARNING FIELD

XXXXX SAW CUTTING CONCRETE

YYYYY SAW CUTTING ASPHALT

XXX CLOSE DRIVEWAY

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 69	E

2

NOTES:
CURB AND GUTTER RADII SHOWN AT FACE OF CURB.

ALL STATIONS AND OFFSETS ARE BASED ON THE STH 38 R/L UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT.

STH 100/RYAN ROAD

PROJECT 2040-16-70 TO BE CONSTRUCTED CONCURRENTLY (BY OTHERS)

BUTT JOINT SEE DETAIL

182+84.80 67.70'LT
182+71.53 75.42'LT
182+68.44 72.38'LT
182+72.98 68.48'LT
182+72.39 55.95'LT
182+94.64 71.23'LT
182+90.85 68.36'LT
182+93.60 57.15'LT
182+90.34 60.47'LT

183+58.65 91.88'LT
184+17.17 81.45'LT
183+57.58 68.47'LT
184+42.48 52.41'LT
184+90.09 52.34'LT
184+82.09 52.35'LT
184+82.04 18.17'LT
185+08.86 52.31'LT
185+16.86 50.39'LT
185+16.81 18.30'LT
185+08.81 18.21'LT
184+90.04 18.17'LT
185+34.24 81.28'LT
185+60.76 81.23'LT

SLOPE INTERCEPT
CONCRETE CURB TYPE A

683.98 683.51 683.07 682.36 681.91 681.44 680.90 680.40 679.49

EXISTING 3.5' CORRUGATED CONCRETE MEDIAN TO REMAIN

MATCH LINE STA 180+50

180+59.95 8.69'LT
181+34.00 8.74'LT
180+59.95 15.14'RT
180+81.66 52.27'RT
181+33.97 15.23'RT

EXISTING 3.5' CORRUGATED CONCRETE MEDIAN TO REMAIN

MATCH LINE STA 186+00

STH 38/HOWELL AVENUE

180+81.69 55.27'RT
181+35.39 59.32'RT
181+18.74 55.17'RT
181+45.11 51.80'RT
181+34.14 68.02'RT
181+62.17 71.53'RT
181+28.07 74.01'RT
181+59.17 95.12'RT
181+52.48 74.26'RT
181+62.17 133.89'RT
181+59.17 133.90'RT

RESTORATION REQUIRED

BUTT JOINT SEE DETAIL

182+31.31 55.06'RT
182+70.19 54.59'RT
182+23.08 76.59'RT
182+31.61 76.77'RT
182+11.39 84.07'RT
182+71.08 127.45'RT
182+32.33 127.92'RT
182+87.16 145.76'RT

CURB RAMP TO REMAIN

183+40.63 52.93'RT
183+75.51 52.92'RT
183+06.23 146.61'RT

RESTORATION REQUIRED

MATCH LINE STA 1103+75

LEGEND

1. 4-INCH HMA PAVEMENT TYPE E-1, 8-INCH CONCRETE BASE, 6-INCH BASE AGGREGATE DENSE 1-1/4"
2. CONCRETE CURB AND GUTTER 31-INCH
3. 6-1/4" HMA PAVEMENT TYPE E-1, 4-INCH BASE AGGREGATE OPEN GRADED, 8-1/2" BASE AGGREGATE DENSE 1-1/4"
4. REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
5. CONCRETE SIDEWALK 5-INCH
7. ASPHALTIC DRIVEWAY
8. BASE AGGREGATE DENSE DRIVEWAY
9. CONCRETE DRIVEWAY 7-INCH
10. REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
11. CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING
12. CURB RAMP TYPE 2
13. CURB RAMP TYPE 5
14. CURB RAMP TYPE 6
15. CONCRETE CURB AND GUTTER 36-INCH
16. CONCRETE MEDIAN SLOPED NOSE
17. CRACKING AND SEATING
18. CONCRETE PAVEMENT REPLACEMENT

PE/CE/FE PRIVATE/COMMERCIAL/FIELD ENTRANCE
■ DETECTABLE WARNING FIELD
XXXXX SAW CUTTING CONCRETE
YYYYY SAW CUTTING ASPHALT
XXX CLOSE DRIVEWAY

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 70	E

NOTES:
CURB AND GUTTER RADII SHOWN AT FACE OF CURB.

ALL STATIONS AND OFFSETS ARE BASED ON THE STH 38 R/L UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT.

N

SLOPE INTERCEPT
186+12.35
72.16' LT
186+26.94
81.13' LT
186+56.71
74.34' LT
TLE
186+87.13
74.29' LT
R/W
678.96
678.65
678.43
678.24
678.01
678.90
186+11.57
52.16' LT
186+37.25
52.12' LT
186+87.54
54.99' LT
186+87.12
52.04' LT
186+58.88
52.09' LT
186+82.97
52.05' LT
186+82.92
18.56' LT
186+11.52
18.52' LT
186+37.21
18.59' LT
186+58.83
18.60' LT
186+22.28
17.14' RT
186+75.61
16.90' RT
186+83.61
16.89' RT
186+30.28
17.18' RT
186+30.07
53.22' RT
186+83.67
53.15' RT
186+22.07
53.20' RT
186+75.67
53.13' RT
191+77.50
68.41' LT
191+77.53
55.53' LT
191+75.53
53.03' LT
191+77.83
8.18' LT
191+87.50
4.21' LT
191+78.73
5.11' LT
191+78.64
3.06' RT
191+76.65
5.57' RT
191+86.64
5.52' RT
191+88.36
53.07' RT
191+78.27
52.78' RT
191+80.23
55.33' RT
191+80.18
65.03' RT
CURB RAMP TO REMAIN
STH 38/HOWELL AVENUE
MATCH LINE STA 186+00
MATCH LINE STA 192+00
186+00
187+00
188+00
189+00
190+00
191+00
192
POOL
A/C
INL
MH
SIGN

LEGEND

1. 4-INCH HMA PAVEMENT TYPE E-1, 8-INCH CONCRETE BASE, 6-INCH BASE AGGREGATE DENSE 1-1/4"
2. CONCRETE CURB AND GUTTER 31-INCH
3. 6-1/4" HMA PAVEMENT TYPE E-1, 4-INCH BASE AGGREGATE OPEN GRADED, 8-1/2" BASE AGGREGATE DENSE 1-1/4"
4. REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
5. CONCRETE SIDEWALK 5-INCH
7. ASPHALTIC DRIVEWAY
8. BASE AGGREGATE DENSE DRIVEWAY
9. CONCRETE DRIVEWAY 7-INCH
10. REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
11. CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING
12. CURB RAMP TYPE 2
13. CURB RAMP TYPE 5
14. CURB RAMP TYPE 6
15. CONCRETE CURB AND GUTTER 36-INCH
16. CONCRETE MEDIAN SLOPED NOSE
17. CRACKING AND SEATING
18. CONCRETE PAVEMENT REPLACEMENT

PE/CE/FE PRIVATE/COMMERCIAL/FIELD ENTRANCE
■ DETECTABLE WARNING FIELD
XXXXX SAW CUTTING CONCRETE
YYYYY SAW CUTTING ASPHALT
XXX CLOSE DRIVEWAY

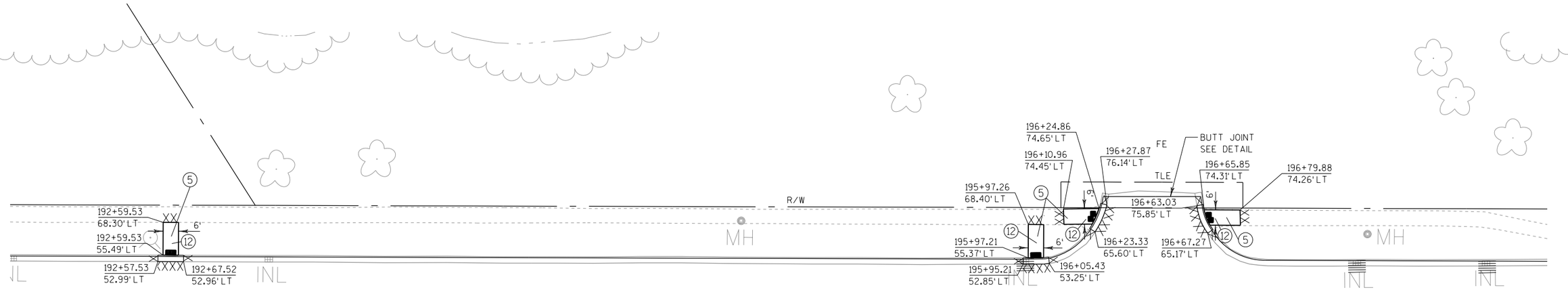
PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 71	E

NOTES:
CURB AND GUTTER RADII SHOWN AT FACE OF CURB.

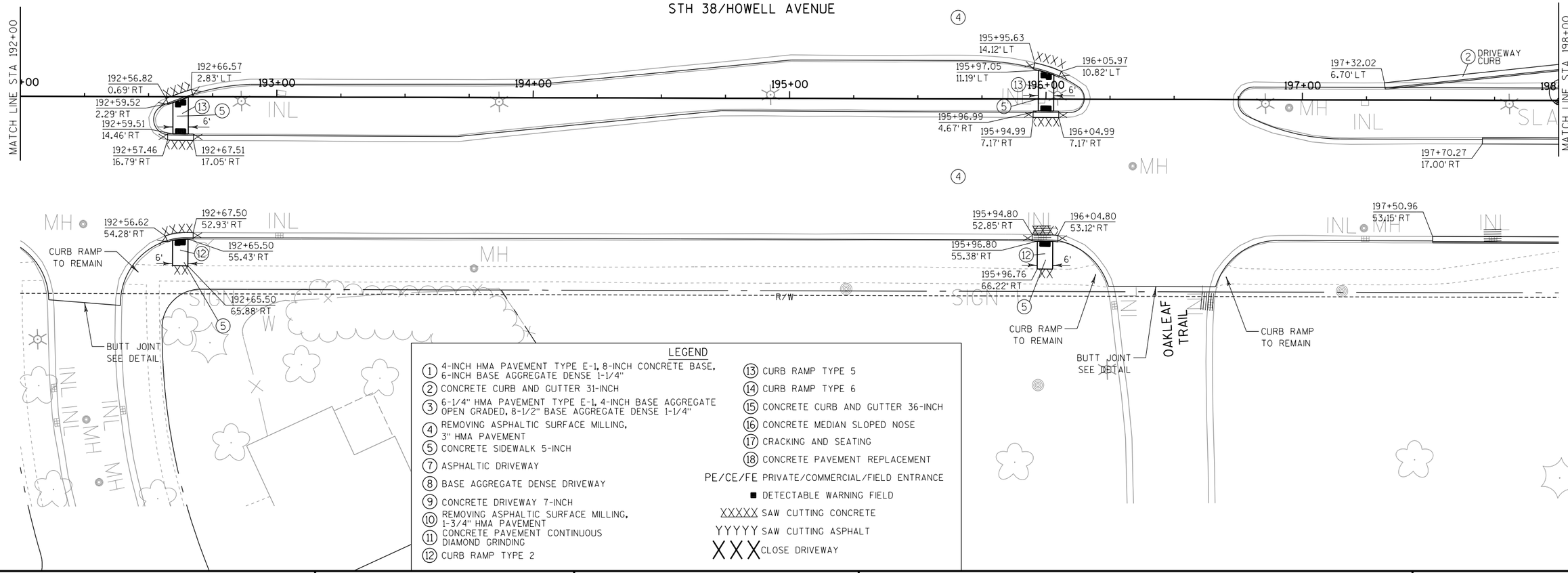
ALL STATIONS AND OFFSETS ARE BASED ON THE STH 38 R/L UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT.

N



STH 38/HOWELL AVENUE



LEGEND

1. 4-INCH HMA PAVEMENT TYPE E-1, 8-INCH CONCRETE BASE, 6-INCH BASE AGGREGATE DENSE 1-1/4"
2. CONCRETE CURB AND GUTTER 31-INCH
3. 6-1/4" HMA PAVEMENT TYPE E-1, 4-INCH BASE AGGREGATE OPEN GRADED, 8-1/2" BASE AGGREGATE DENSE 1-1/4"
4. REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
5. CONCRETE SIDEWALK 5-INCH
7. ASPHALTIC DRIVEWAY
8. BASE AGGREGATE DENSE DRIVEWAY
9. CONCRETE DRIVEWAY 7-INCH
10. REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
11. CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING
12. CURB RAMP TYPE 2
13. CURB RAMP TYPE 5
14. CURB RAMP TYPE 6
15. CONCRETE CURB AND GUTTER 36-INCH
16. CONCRETE MEDIAN SLOPED NOSE
17. CRACKING AND SEATING
18. CONCRETE PAVEMENT REPLACEMENT

PE/CE/FE PRIVATE/COMMERCIAL/FIELD ENTRANCE

■ DETECTABLE WARNING FIELD

XXXXX SAW CUTTING CONCRETE

YYYYY SAW CUTTING ASPHALT

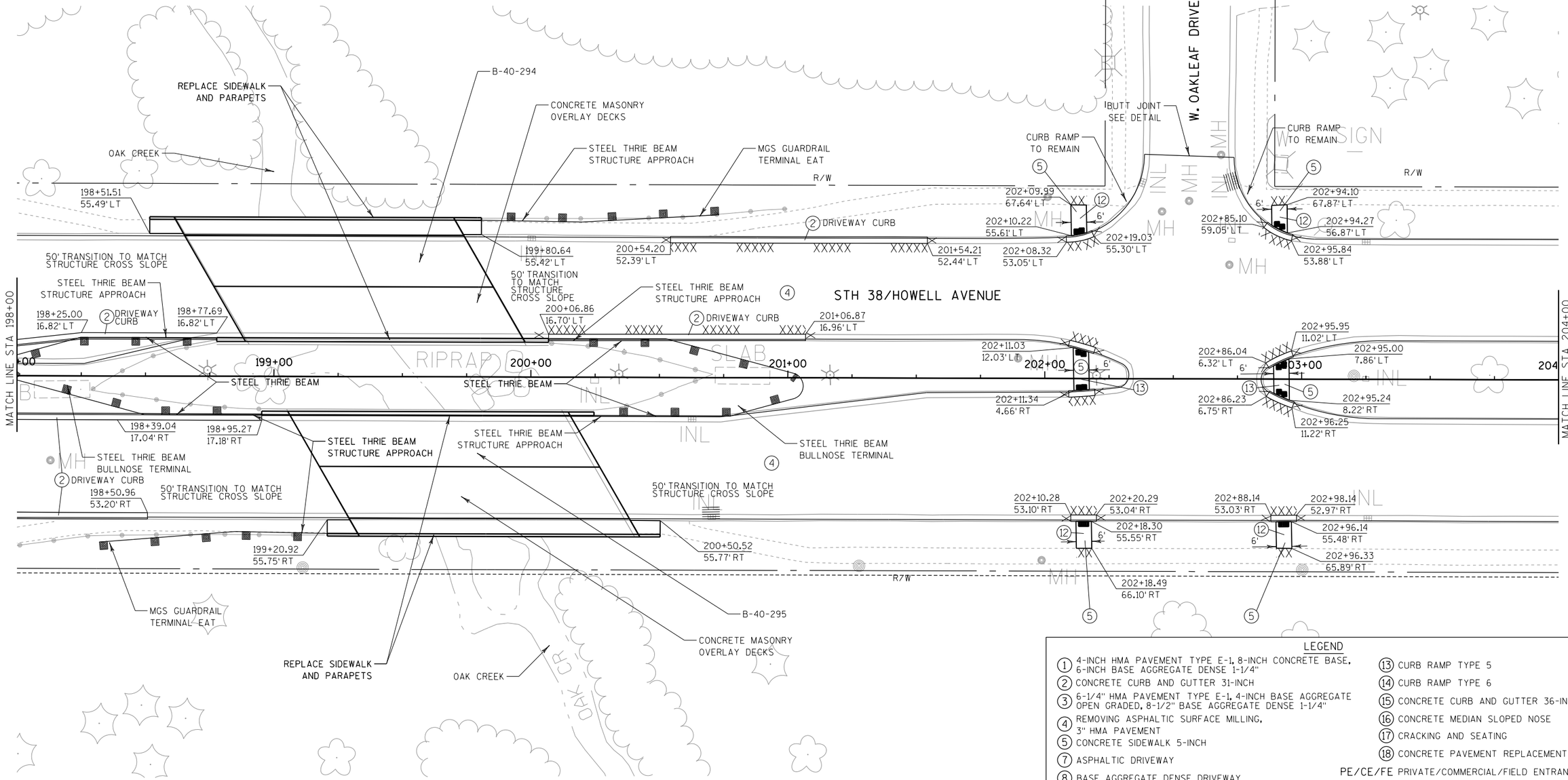
XXX CLOSE DRIVEWAY

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 72	E

NOTES:
CURB AND GUTTER RADII SHOWN AT FACE OF CURB.

ALL STATIONS AND OFFSETS ARE BASED ON THE STH 38 R/L UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT.



LEGEND

1. 4-INCH HMA PAVEMENT TYPE E-1, 8-INCH CONCRETE BASE, 6-INCH BASE AGGREGATE DENSE 1-1/4"
2. CONCRETE CURB AND GUTTER 31-INCH
3. 6-1/4" HMA PAVEMENT TYPE E-1, 4-INCH BASE AGGREGATE OPEN GRADED, 8-1/2" BASE AGGREGATE DENSE 1-1/4"
4. REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
5. CONCRETE SIDEWALK 5-INCH
7. ASPHALTIC DRIVEWAY
8. BASE AGGREGATE DENSE DRIVEWAY
9. CONCRETE DRIVEWAY 7-INCH
10. REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
11. CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING
12. CURB RAMP TYPE 2
13. CURB RAMP TYPE 5
14. CURB RAMP TYPE 6
15. CONCRETE CURB AND GUTTER 36-INCH
16. CONCRETE MEDIAN SLOPED NOSE
17. CRACKING AND SEATING
18. CONCRETE PAVEMENT REPLACEMENT

PE/CE/FE PRIVATE/COMMERCIAL/FIELD ENTRANCE

■ DETECTABLE WARNING FIELD

XXXXX SAW CUTTING CONCRETE

YYYYY SAW CUTTING ASPHALT

XXX CLOSE DRIVEWAY

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 73	E

NOTES:
CURB AND GUTTER RADII SHOWN AT FACE OF CURB.

ALL STATIONS AND OFFSETS ARE BASED ON THE STH 38 R/L UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT.

N

SIGN

MH

R/W

INL

BUTT JOINT SEE DETAIL

208+72.59
73.66'LT

208+75.41
75.20'LT

208+64.53
73.80'LT

208+71.50
64.58'LT

209+06.24
75.37'LT

209+09.20
73.29'LT

209+10.98
64.17'LT

209+17.71
73.29'LT

TLE

CE

W

STH 38/HOWELL AVENUE

MATCH LINE STA 204+00

204+00 205+00 206+00 207+00 208+00 209+00 210

MATCH LINE STA 210+00

FLAG

LEGEND

1. 4-INCH HMA PAVEMENT TYPE E-1, 8-INCH CONCRETE BASE, 6-INCH BASE AGGREGATE DENSE 1-1/4"
2. CONCRETE CURB AND GUTTER 31-INCH
3. 6-1/4" HMA PAVEMENT TYPE E-1, 4-INCH BASE AGGREGATE OPEN GRADED, 8-1/2" BASE AGGREGATE DENSE 1-1/4"
4. REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
5. CONCRETE SIDEWALK 5-INCH
7. ASPHALTIC DRIVEWAY
8. BASE AGGREGATE DENSE DRIVEWAY
9. CONCRETE DRIVEWAY 7-INCH
10. REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
11. CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING
12. CURB RAMP TYPE 2
13. CURB RAMP TYPE 5
14. CURB RAMP TYPE 6
15. CONCRETE CURB AND GUTTER 36-INCH
16. CONCRETE MEDIAN SLOPED NOSE
17. CRACKING AND SEATING
18. CONCRETE PAVEMENT REPLACEMENT

PE/CE/FE PRIVATE/COMMERCIAL/FIELD ENTRANCE

■ DETECTABLE WARNING FIELD

XXXXX SAW CUTTING CONCRETE

YYYY SAW CUTTING ASPHALT

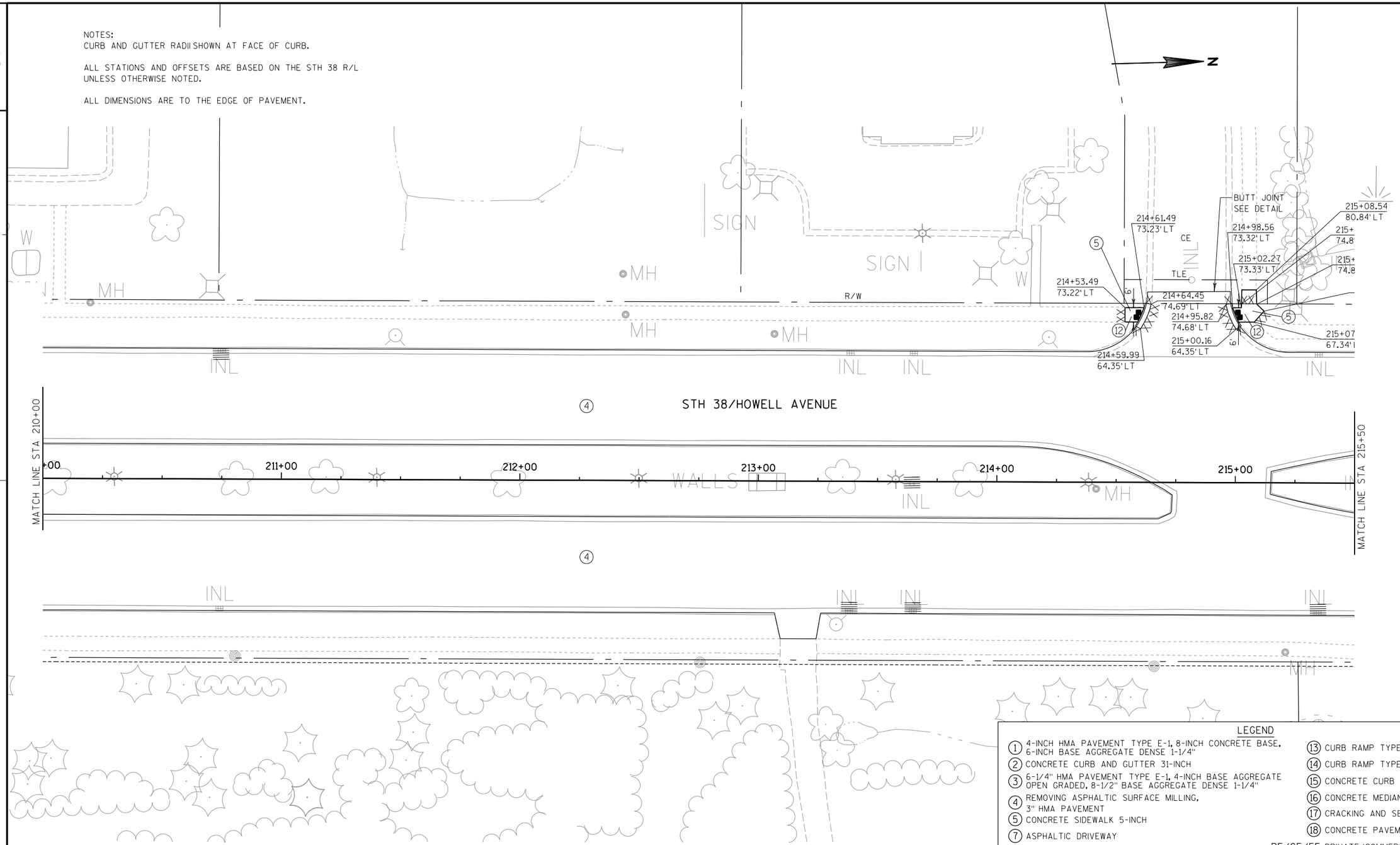
XXX CLOSE DRIVEWAY

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 74	E

NOTES:
CURB AND GUTTER RADII SHOWN AT FACE OF CURB.

ALL STATIONS AND OFFSETS ARE BASED ON THE STH 38 R/L UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT.



LEGEND

1. 4-INCH HMA PAVEMENT TYPE E-1, 8-INCH CONCRETE BASE, 6-INCH BASE AGGREGATE DENSE 1-1/4"
2. CONCRETE CURB AND GUTTER 31-INCH
3. 6-1/4" HMA PAVEMENT TYPE E-1, 4-INCH BASE AGGREGATE OPEN GRADED, 8-1/2" BASE AGGREGATE DENSE 1-1/4"
4. REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
5. CONCRETE SIDEWALK 5-INCH
7. ASPHALTIC DRIVEWAY
8. BASE AGGREGATE DENSE DRIVEWAY
9. CONCRETE DRIVEWAY 7-INCH
10. REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
11. CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING
12. CURB RAMP TYPE 2
13. CURB RAMP TYPE 5
14. CURB RAMP TYPE 6
15. CONCRETE CURB AND GUTTER 36-INCH
16. CONCRETE MEDIAN SLOPED NOSE
17. CRACKING AND SEATING
18. CONCRETE PAVEMENT REPLACEMENT

PE/CE/FE PRIVATE/COMMERCIAL/FIELD ENTRANCE

■ DETECTABLE WARNING FIELD

XXXXX SAW CUTTING CONCRETE

YYYYY SAW CUTTING ASPHALT

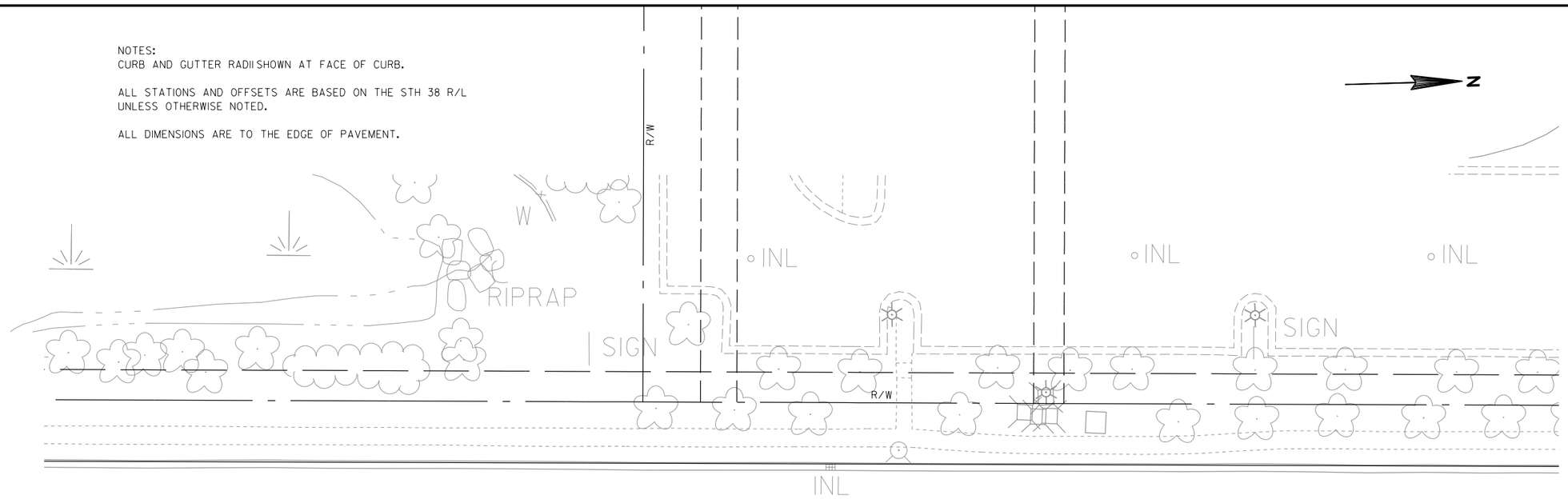
XXX CLOSE DRIVEWAY

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 75	E

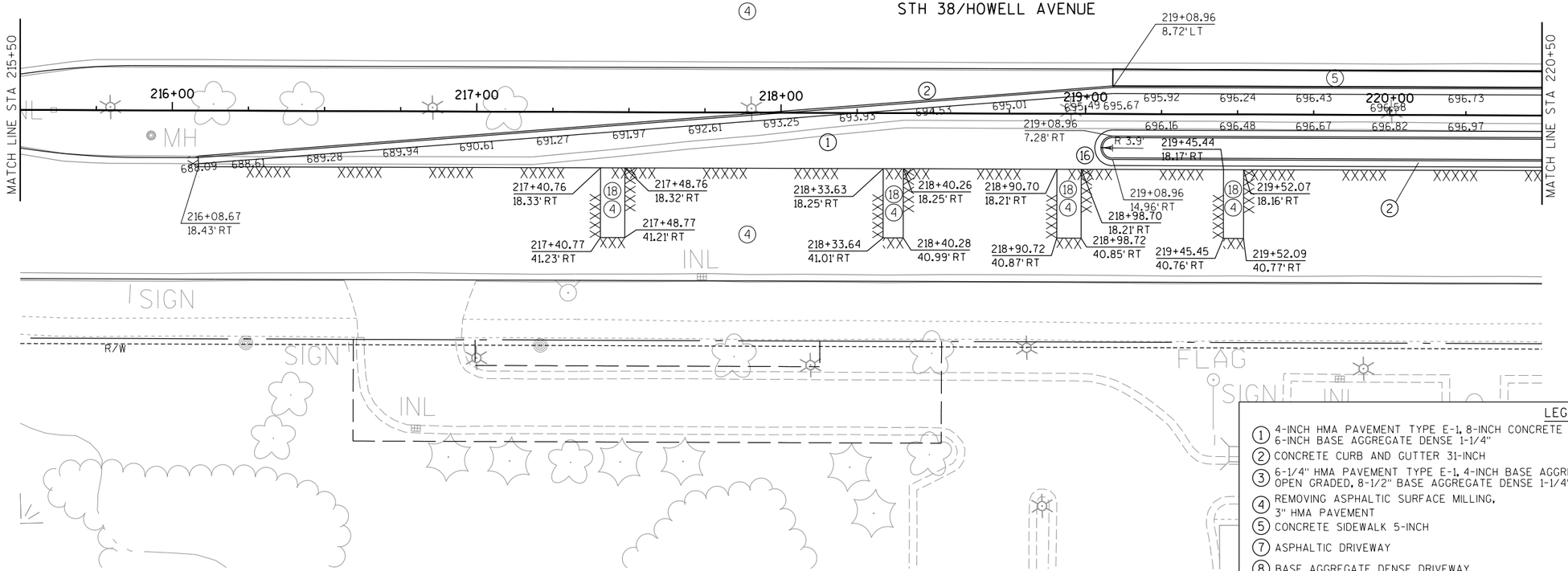
NOTES:
CURB AND GUTTER RADII SHOWN AT FACE OF CURB.

ALL STATIONS AND OFFSETS ARE BASED ON THE STH 38 R/L UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT.



④ STH 38/HOWELL AVENUE



LEGEND

1. 4-INCH HMA PAVEMENT TYPE E-1, 8-INCH CONCRETE BASE, 6-INCH BASE AGGREGATE DENSE 1-1/4"
2. CONCRETE CURB AND GUTTER 31-INCH
3. 6-1/4" HMA PAVEMENT TYPE E-1, 4-INCH BASE AGGREGATE OPEN GRADED, 8-1/2" BASE AGGREGATE DENSE 1-1/4"
4. REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
5. CONCRETE SIDEWALK 5-INCH
7. ASPHALTIC DRIVEWAY
8. BASE AGGREGATE DENSE DRIVEWAY
9. CONCRETE DRIVEWAY 7-INCH
10. REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
11. CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING
12. CURB RAMP TYPE 2
13. CURB RAMP TYPE 5
14. CURB RAMP TYPE 6
15. CONCRETE CURB AND GUTTER 36-INCH
16. CONCRETE MEDIAN SLOPED NOSE
17. CRACKING AND SEATING
18. CONCRETE PAVEMENT REPLACEMENT

PE/CE/FE PRIVATE/COMMERCIAL/FIELD ENTRANCE

■ DETECTABLE WARNING FIELD

XXXXX SAW CUTTING CONCRETE

YYYYY SAW CUTTING ASPHALT

XXX CLOSE DRIVEWAY

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 76	E

NOTES:
CURB AND GUTTER RADII SHOWN AT FACE OF CURB.

ALL STATIONS AND OFFSETS ARE BASED ON THE STH 38 R/L UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT.

N

CENTENNIAL DRIVE

BUTT JOINT SEE DETAIL

221+65.37 146.86' LT
221+93.03 147.25' LT
221+93.01 135.53' LT
222+06.01 135.69' LT
222+09.01 135.71' LT
R 103.25'
R 60.5'
222+39.97 91.66' LT
222+50.77 73.83' LT
SLOPE INTERCEPT
222+73.92 73.91' LT
221+53.22 99.94' LT
221+53.22 94.94' LT
SLOPE INTERCEPT
221+26.12 63.28' LT
221+47.85 72.80' LT
222+07.50 87.90' LT
221+03.08 66.57' LT
221+08.08 66.50' LT
221+93.50 74.77' LT
222+33.30 73.77' LT
222+43.77 73.81' LT
222+55.20 67.85' LT
221+65.70 74.57' LT
221+59.74 64.35' LT
222+50.68 51.87' LT
222+55.28 59.12' LT
222+73.99 54.71' LT
222+74.01 51.71' LT
221+26.25 55.34' LT
221+24.26 52.82' LT
221+34.28 52.93' LT
221+08.96 14.83' LT
221+08.96 14.75' LT
221+08.96 17.75' LT
221+55.95 17.76' LT
222+29.93 17.71' LT
222+36.97 14.71' LT
222+55.76 14.21' LT
222+55.82 7.37' LT
224+53.78 28.43' LT
224+58.72 28.43' LT
224+75.64 40.77' LT
224+83.64 40.77' LT
225+86.95 40.74' LT
224+53.77 17.51' LT
224+57.58 6.71' LT
224+83.62 17.49' LT
224+84.01 14.81' LT
225+82.01 40.74' LT
225+81.98 17.39' LT
224+84.25 8.82' LT
225+86.93 17.38' LT
221+08.96 8.75' LT
221+34.92 7.23' RT
221+33.26 7.74' RT
221+33.37 14.50' RT
221+34.92 15.01' RT
221+55.96 18.01' RT
222+61.27 9.12' RT
222+61.26 15.12' RT
224+58.20 9.29' RT
224+58.44 15.29' RT
222+29.93 18.12' RT
222+00 6.88' LT
223+00
224+00
225+00
MATCH LINE STA 220+50
MATCH LINE STA 226+00

STH 38/HOWELL AVENUE

221+05.14 55.16' RT
221+05.19 52.16' RT
221+44.14 52.15' RT
221+69.78 76.97' RT
222+07.66 65.40' RT
221+82.02 65.86' RT
222+50.43 55.60' RT
222+48.42 53.15' RT
222+58.42 52.98' RT
221+28.10 60.46' RT
221+24.76 68.24' RT
221+47.74 77.32' RT
221+51.54 82.83' RT
221+08.79 74.31' RT
SLOPE INTERCEPT
R 50.0'
R 33.0'
CURB RAMP TO REMAIN
222+50.54 67.90' RT
221+23.71 74.24' RT
221+28.24 69.52' RT
221+35.77 78.68' RT
221+41.74 77.51' RT
221+60.18 123.67' RT
221+83.37 135.29' RT
222+08.90 135.15' RT
R 154.0'
221+54.97 126.75' RT
221+54.96 128.66' RT
221+70.66 150.51' RT
221+60.16 128.68' RT
221+67.66 150.56' RT
BUTT JOINT SEE DETAIL

LEGEND

1. 4-INCH HMA PAVEMENT TYPE E-1, 8-INCH CONCRETE BASE, 6-INCH BASE AGGREGATE DENSE 1-1/4"
2. CONCRETE CURB AND GUTTER 31-INCH
3. 6-1/4" HMA PAVEMENT TYPE E-1, 4-INCH BASE AGGREGATE OPEN GRADED, 8-1/2" BASE AGGREGATE DENSE 1-1/4"
4. REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
5. CONCRETE SIDEWALK 5-INCH
7. ASPHALTIC DRIVEWAY
8. BASE AGGREGATE DENSE DRIVEWAY
9. CONCRETE DRIVEWAY 7-INCH
10. REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
11. CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING
12. CURB RAMP TYPE 2
13. CURB RAMP TYPE 5
14. CURB RAMP TYPE 6
15. CONCRETE CURB AND GUTTER 36-INCH
16. CONCRETE MEDIAN SLOPED NOSE
17. CRACKING AND SEATING
18. CONCRETE PAVEMENT REPLACEMENT

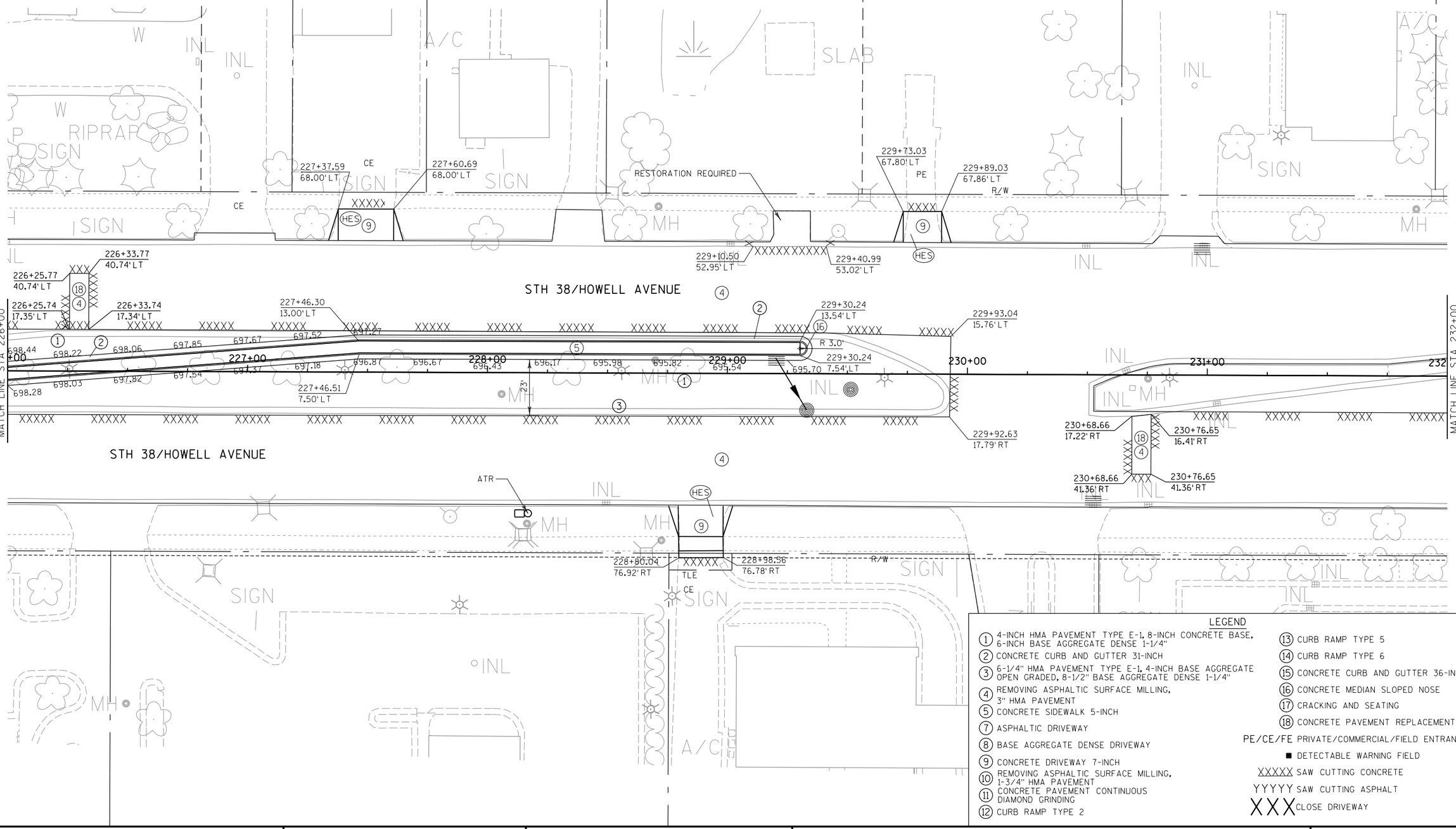
PE/CE/FE PRIVATE/COMMERCIAL/FIELD ENTRANCE
■ DETECTABLE WARNING FIELD
XXXXX SAW CUTTING CONCRETE
YYYYY SAW CUTTING ASPHALT
XXX CLOSE DRIVEWAY

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 77	E

NOTES:
CURB AND GUTTER RADII SHOWN AT FACE OF CURB.

ALL STATIONS AND OFFSETS ARE BASED ON THE STH 38 R/L UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT.



LEGEND

1. 4-INCH HMA PAVEMENT TYPE E-1, 8-INCH CONCRETE BASE, 6-INCH BASE AGGREGATE DENSE 1-1/4"
2. CONCRETE CURB AND GUTTER 31-INCH
3. 6-1/4" HMA PAVEMENT TYPE E-1, 4-INCH BASE AGGREGATE OPEN GRADED, 8-1/2" BASE AGGREGATE DENSE 1-1/4"
4. REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
5. CONCRETE SIDEWALK 5-INCH
7. ASPHALTIC DRIVEWAY
8. BASE AGGREGATE DENSE DRIVEWAY
9. CONCRETE DRIVEWAY 7-INCH
10. REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
11. CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING
12. CURB RAMP TYPE 2
13. CURB RAMP TYPE 5
14. CURB RAMP TYPE 6
15. CONCRETE CURB AND GUTTER 36-INCH
16. CONCRETE MEDIAN SLOPED NOSE
17. CRACKING AND SEATING
18. CONCRETE PAVEMENT REPLACEMENT

PE/CE/FE PRIVATE/COMMERCIAL/FIELD ENTRANCE

■ DETECTABLE WARNING FIELD

XXXXX SAW CUTTING CONCRETE

YYYYY SAW CUTTING ASPHALT

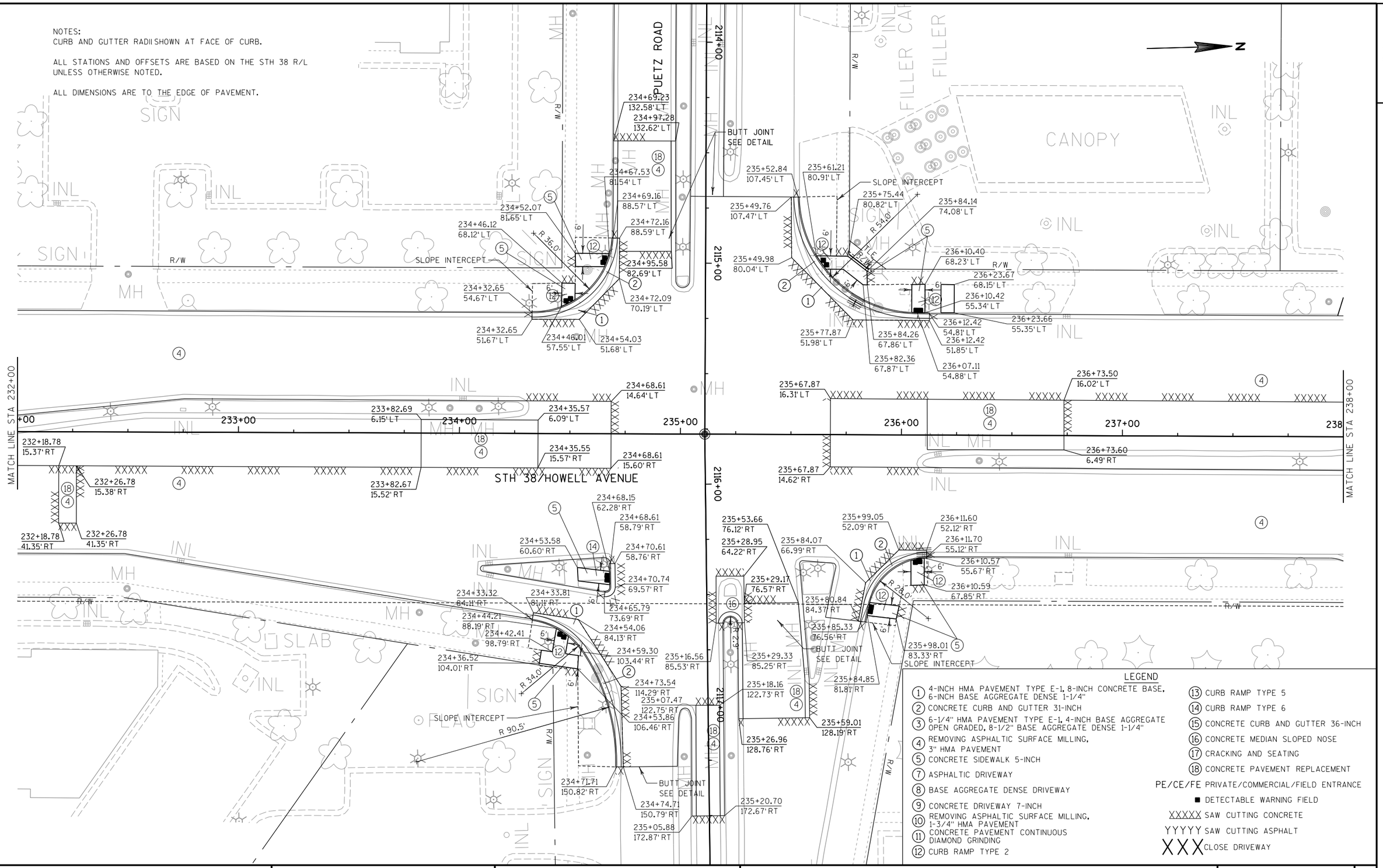
XXX CLOSE DRIVEWAY

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 78	E

NOTES:
CURB AND GUTTER RADII SHOWN AT FACE OF CURB.

ALL STATIONS AND OFFSETS ARE BASED ON THE STH 38 R/L UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT.



LEGEND

1. 4-INCH HMA PAVEMENT TYPE E-1, 8-INCH CONCRETE BASE, 6-INCH BASE AGGREGATE DENSE 1-1/4"
2. CONCRETE CURB AND GUTTER 31-INCH
3. 6-1/4" HMA PAVEMENT TYPE E-1, 4-INCH BASE AGGREGATE OPEN GRADED, 8-1/2" BASE AGGREGATE DENSE 1-1/4"
4. REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
5. CONCRETE SIDEWALK 5-INCH
7. ASPHALTIC DRIVEWAY
8. BASE AGGREGATE DENSE DRIVEWAY
9. CONCRETE DRIVEWAY 7-INCH
10. REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
11. CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING
12. CURB RAMP TYPE 2
13. CURB RAMP TYPE 5
14. CURB RAMP TYPE 6
15. CONCRETE CURB AND GUTTER 36-INCH
16. CONCRETE MEDIAN SLOPED NOSE
17. CRACKING AND SEATING
18. CONCRETE PAVEMENT REPLACEMENT

PE/CE/FE PRIVATE/COMMERCIAL/FIELD ENTRANCE

■ DETECTABLE WARNING FIELD

XXXXX SAW CUTTING CONCRETE

YYYYY SAW CUTTING ASPHALT

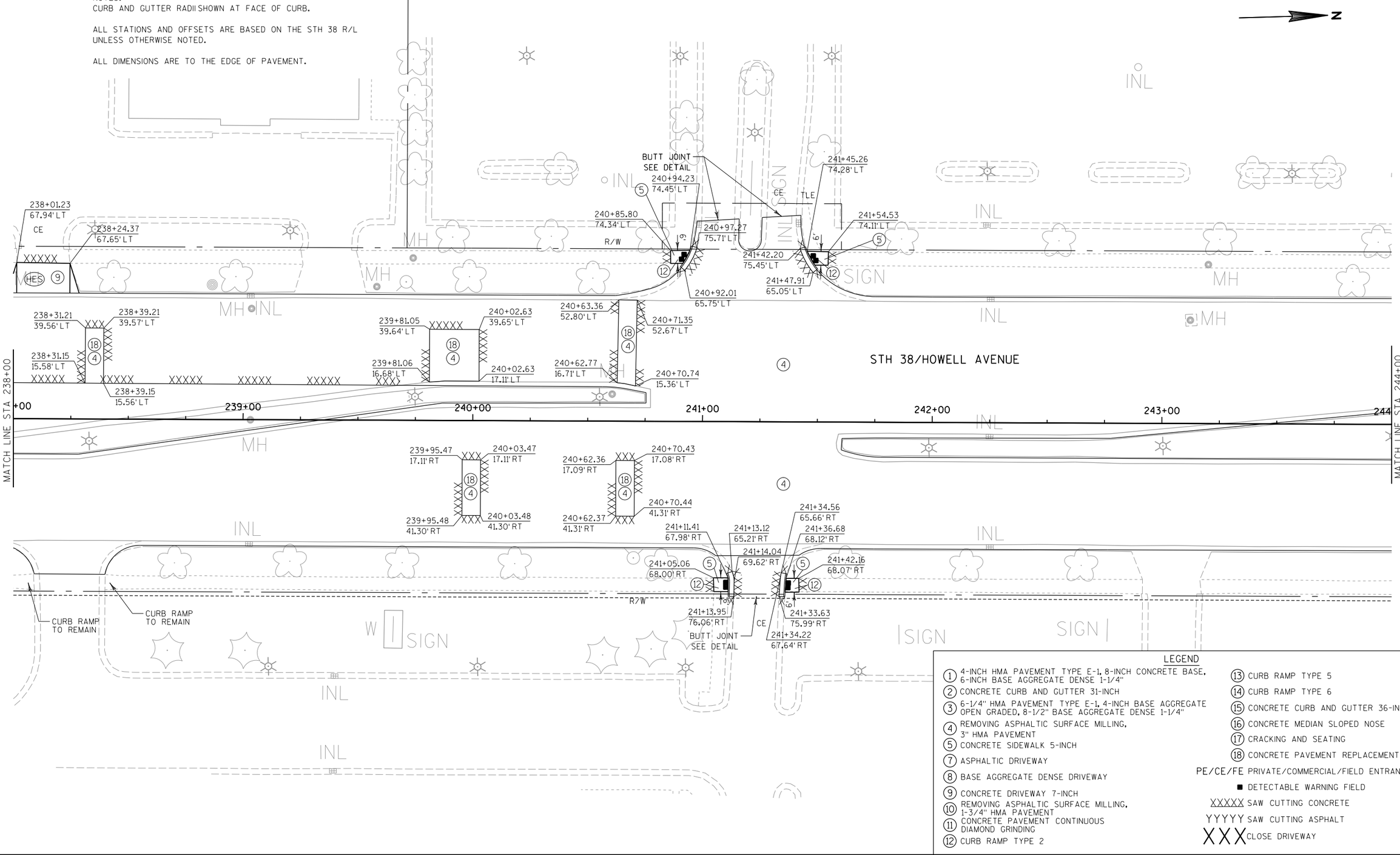
XXX CLOSE DRIVEWAY

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 79	E

NOTES:
CURB AND GUTTER RADII SHOWN AT FACE OF CURB.

ALL STATIONS AND OFFSETS ARE BASED ON THE STH 38 R/L UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT.



LEGEND

1. 4-INCH HMA PAVEMENT TYPE E-1, 8-INCH CONCRETE BASE, 6-INCH BASE AGGREGATE DENSE 1-1/4"
2. CONCRETE CURB AND GUTTER 31-INCH
3. 6-1/4" HMA PAVEMENT TYPE E-1, 4-INCH BASE AGGREGATE OPEN GRADED, 8-1/2" BASE AGGREGATE DENSE 1-1/4"
4. REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
5. CONCRETE SIDEWALK 5-INCH
7. ASPHALTIC DRIVEWAY
8. BASE AGGREGATE DENSE DRIVEWAY
9. CONCRETE DRIVEWAY 7-INCH
10. REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
11. CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING
12. CURB RAMP TYPE 2
13. CURB RAMP TYPE 5
14. CURB RAMP TYPE 6
15. CONCRETE CURB AND GUTTER 36-INCH
16. CONCRETE MEDIAN SLOPED NOSE
17. CRACKING AND SEATING
18. CONCRETE PAVEMENT REPLACEMENT

PE/CE/FE PRIVATE/COMMERCIAL/FIELD ENTRANCE

■ DETECTABLE WARNING FIELD

XXXXX SAW CUTTING CONCRETE

YYYYY SAW CUTTING ASPHALT

XXX CLOSE DRIVEWAY

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 80	E

NOTES:
CURB AND GUTTER RADII SHOWN AT FACE OF CURB.

ALL STATIONS AND OFFSETS ARE BASED ON THE STH 38 R/L UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT.

N

BUTT JOINT SEE DETAIL

RESTORATION REQUIRED

245+61.68 73.82' LT
245+71.59 79.22' LT
CE
TLE
246+00.20 75.41' LT
246+11.45 73.91' LT
245+74.58 79.18' LT
245+74.43 67.42' LT
245+68.81 68.32' LT
245+52.06 54.87' LT
245+52.08 51.87' LT
245+59.17 51.92' LT
246+04.40 65.17' LT
246+05.50 68.18' LT
246+39.17 53.05' LT
246+75.71 53.12' LT
247+40.36 68.19' LT
247+40.50 55.54' LT
247+38.51 53.03' LT
247+48.51 53.06' LT
247+71.45 53.02' LT
247+79.33 66.13' LT
247+79.03 55.47' LT
247+79.04 54.97' LT
247+79.02 52.97' LT
248+73.12 66.29' LT
248+84.12 66.27' LT
248+84.10 55.44' LT
248+75.11 52.93' LT
248+73.10 55.46' LT
248+65.06 53.10' LT

R/W
R 24.0'
6'
8'
SLAB
SIGN
INL
MH
FLAG
AG

MATCH LINE STA 244+00

+00 245+00 246+00 247+00 248+00 249+00 250

245+71.23 3.26' RT
244+21.50 15.47' RT
244+21.49 18.47' RT
703.00 702.96 703.10 703.22 703.43 703.34 703.50 703.73 703.75 703.81 704.01 704.26 704.55 704.96 705.45 705.93 705.90

247+20.78 18.10' LT
247+41.02 9.39' LT
247+51.92 4.20' LT
247+73.37 18.14' LT
R 4.0'
247+41.16 2.62' RT
247+49.17 3.11' RT
247+73.39 18.09' RT
R 71.1'

248+64.81 6.91' LT
248+74.98 7.40' LT
248+72.99 4.92' LT
248+72.95 14.49' RT
248+64.95 16.96' RT
248+74.95 16.99' RT

MATCH LINE STA 250+00

STH 38/HOWELL AVENUE

247+47.76 55.35' RT
247+57.55 52.89' RT
247+70.00 51.49' RT
247+39.76 51.82' RT
247+30.76 55.22' RT
247+30.90 67.87' RT
247+41.90 67.87' RT
247+67.13 73.76' RT
247+82.37 73.62' RT
R 25.5'
247+86.45 68.75' RT
247+86.80 79.81' RT
247+83.80 79.87' RT

248+64.85 52.83' RT
248+74.85 52.78' RT
248+72.86 55.29' RT
248+72.83 68.15' RT

CURB RAMP TO REMAIN

BUTT JOINT SEE DETAIL

E. GROVELAND DRIVE

A/C

LEGEND

1. 4-INCH HMA PAVEMENT TYPE E-1, 8-INCH CONCRETE BASE, 6-INCH BASE AGGREGATE DENSE 1-1/4"
2. CONCRETE CURB AND GUTTER 31-INCH
3. 6-1/4" HMA PAVEMENT TYPE E-1, 4-INCH BASE AGGREGATE OPEN GRADED, 8-1/2" BASE AGGREGATE DENSE 1-1/4"
4. REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
5. CONCRETE SIDEWALK 5-INCH
7. ASPHALTIC DRIVEWAY
8. BASE AGGREGATE DENSE DRIVEWAY
9. CONCRETE DRIVEWAY 7-INCH
10. REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
11. CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING
12. CURB RAMP TYPE 2
13. CURB RAMP TYPE 5
14. CURB RAMP TYPE 6
15. CONCRETE CURB AND GUTTER 36-INCH
16. CONCRETE MEDIAN SLOPED NOSE
17. CRACKING AND SEATING
18. CONCRETE PAVEMENT REPLACEMENT

PE/CE/FE PRIVATE/COMMERCIAL/FIELD ENTRANCE

■ DETECTABLE WARNING FIELD

XXXXX SAW CUTTING CONCRETE

YYYYY SAW CUTTING ASPHALT

XXX CLOSE DRIVEWAY

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 81	E

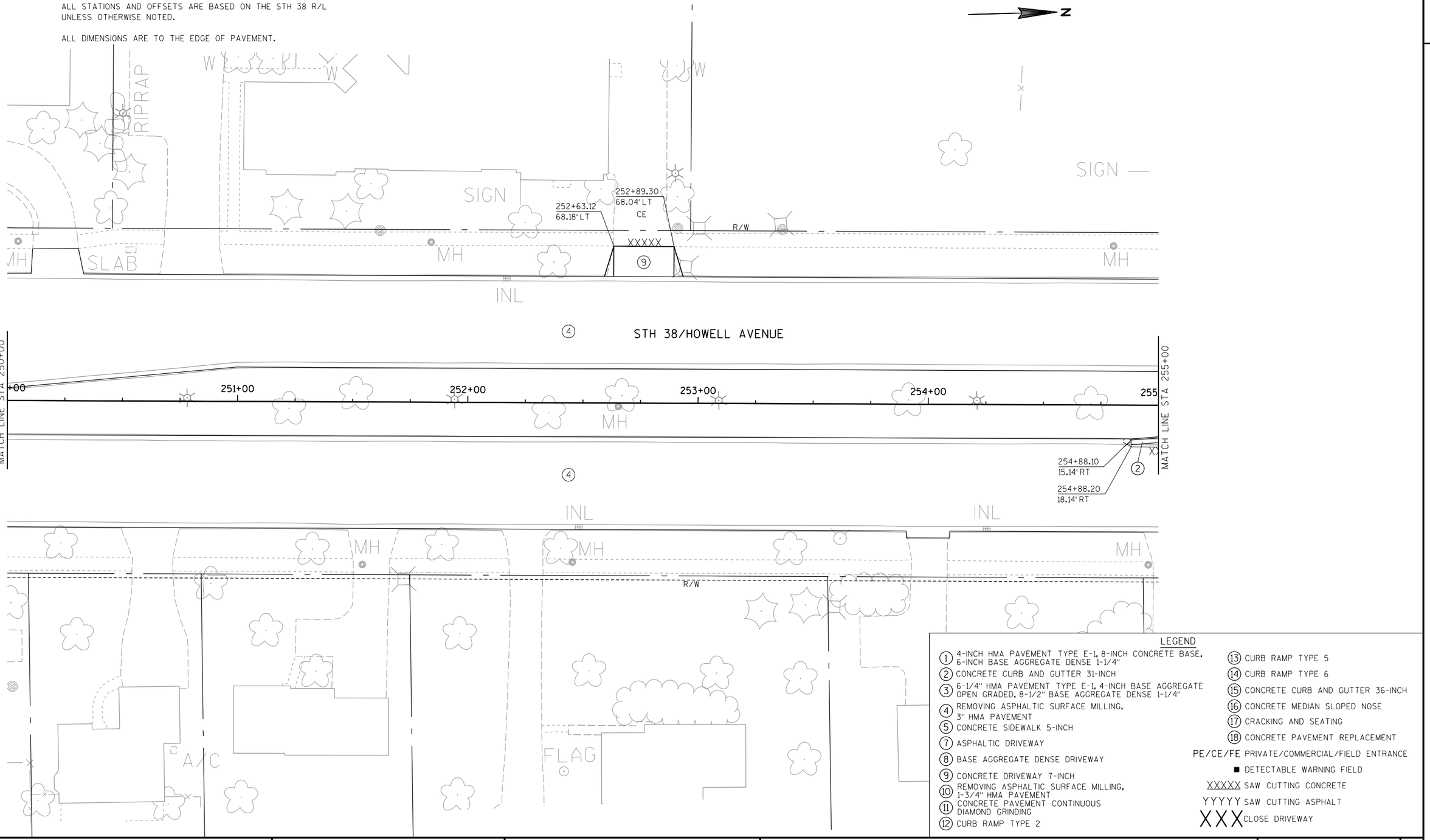
FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\021221_pd.dgn PLOT DATE : 1/30/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:40

WISDOT/CADDS SHEET 42

NOTES:
CURB AND GUTTER RADII SHOWN AT FACE OF CURB.

ALL STATIONS AND OFFSETS ARE BASED ON THE STH 38 R/L
UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT.



LEGEND

1. 4-INCH HMA PAVEMENT TYPE E-1, 8-INCH CONCRETE BASE, 6-INCH BASE AGGREGATE DENSE 1-1/4"
2. CONCRETE CURB AND GUTTER 31-INCH
3. 6-1/4" HMA PAVEMENT TYPE E-1, 4-INCH BASE AGGREGATE OPEN GRADED, 8-1/2" BASE AGGREGATE DENSE 1-1/4"
4. REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
5. CONCRETE SIDEWALK 5-INCH
7. ASPHALTIC DRIVEWAY
8. BASE AGGREGATE DENSE DRIVEWAY
9. CONCRETE DRIVEWAY 7-INCH
10. REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
11. CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING
12. CURB RAMP TYPE 2
13. CURB RAMP TYPE 5
14. CURB RAMP TYPE 6
15. CONCRETE CURB AND GUTTER 36-INCH
16. CONCRETE MEDIAN SLOPED NOSE
17. CRACKING AND SEATING
18. CONCRETE PAVEMENT REPLACEMENT

PE/CE/FE PRIVATE/COMMERCIAL/FIELD ENTRANCE

■ DETECTABLE WARNING FIELD

XXXXX SAW CUTTING CONCRETE

YYYYY SAW CUTTING ASPHALT

XXX CLOSE DRIVEWAY

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 82	E

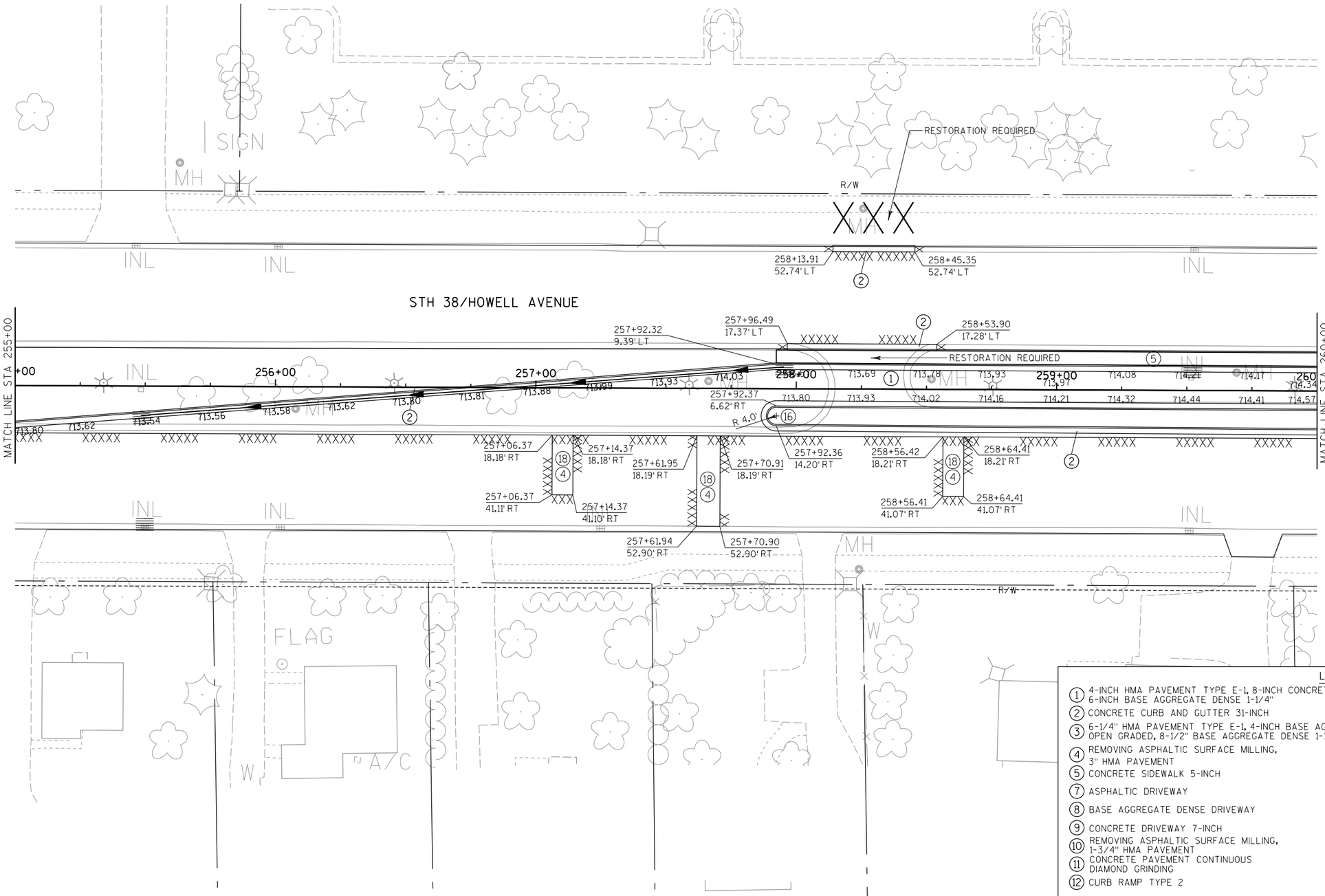
NOTES:
CURB AND GUTTER RADII SHOWN AT FACE OF CURB.

ALL STATIONS AND OFFSETS ARE BASED ON THE STH 38 R/L UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT.

N

STH 38/HOWELL AVENUE



LEGEND

1. 4-INCH HMA PAVEMENT TYPE E-1, 8-INCH CONCRETE BASE, 6-INCH BASE AGGREGATE DENSE 1-1/4"
2. CONCRETE CURB AND GUTTER 31-INCH
3. 6-1/4" HMA PAVEMENT TYPE E-1, 4-INCH BASE AGGREGATE OPEN GRADED, 8-1/2" BASE AGGREGATE DENSE 1-1/4"
4. REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
5. CONCRETE SIDEWALK 5-INCH
7. ASPHALTIC DRIVEWAY
8. BASE AGGREGATE DENSE DRIVEWAY
9. CONCRETE DRIVEWAY 7-INCH
10. REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
11. CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING
12. CURB RAMP TYPE 2
13. CURB RAMP TYPE 5
14. CURB RAMP TYPE 6
15. CONCRETE CURB AND GUTTER 36-INCH
16. CONCRETE MEDIAN SLOPED NOSE
17. CRACKING AND SEATING
18. CONCRETE PAVEMENT REPLACEMENT

PE/CE/FE PRIVATE/COMMERCIAL/FIELD ENTRANCE

■ DETECTABLE WARNING FIELD

XXXXX SAW CUTTING CONCRETE

YYYYY SAW CUTTING ASPHALT

XXX CLOSE DRIVEWAY

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 83	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\021223_pd.dgn PLOT DATE : 1/30/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:40

NOTES:
CURB AND GUTTER RADII SHOWN AT FACE OF CURB.

ALL STATIONS AND OFFSETS ARE BASED ON THE STH 38 R/L UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT.

N

FOREST HILL AVENUE

STH 38/HOWELL AVENUE

MATCH LINE STA 260+00

MATCH LINE STA 266+00

MATCH LINE STA 102+00

SLOPE INTERCEPT

RESTORATION REQUIRED

WALL MODULAR BLOCK GRAVITY #7

BUTT JOINT SEE DETAIL

RIPRAP

FLAG

A/C

POOL

LEGEND

1. 4-INCH HMA PAVEMENT TYPE E-1, 8-INCH CONCRETE BASE, 6-INCH BASE AGGREGATE DENSE 1-1/4"
2. CONCRETE CURB AND GUTTER 31-INCH
3. 6-1/4" HMA PAVEMENT TYPE E-1, 4-INCH BASE AGGREGATE OPEN GRADED, 8-1/2" BASE AGGREGATE DENSE 1-1/4"
4. REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
5. CONCRETE SIDEWALK 5-INCH
7. ASPHALTIC DRIVEWAY
8. BASE AGGREGATE DENSE DRIVEWAY
9. CONCRETE DRIVEWAY 7-INCH
10. REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
11. CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING
12. CURB RAMP TYPE 2
13. CURB RAMP TYPE 5
14. CURB RAMP TYPE 6
15. CONCRETE CURB AND GUTTER 36-INCH
16. CONCRETE MEDIAN SLOPED NOSE
17. CRACKING AND SEATING
18. CONCRETE PAVEMENT REPLACEMENT

PE/CE/FE PRIVATE/COMMERCIAL/FIELD ENTRANCE

■ DETECTABLE WARNING FIELD

XXXXX SAW CUTTING CONCRETE

YYYYY SAW CUTTING ASPHALT

XXX CLOSE DRIVEWAY

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 84	E

NOTES:
CURB AND GUTTER RADII SHOWN AT FACE OF CURB.

ALL STATIONS AND OFFSETS ARE BASED ON THE STH 38 R/L UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT.

N

PRIVATE ROAD

BUTT JOINT SEE DETAIL

CE

TLE

INL

SIGN

MH

R/W

268+32.30
67.84' LT

268+32.27
55.59' LT

CURB RAMP TO REMAIN

714.50

714.65

266+62.98
55.09' LT

266+62.73
52.01' LT

267+97.53
13.97' LT

268+13.04
14.00' LT

267+17.03
14.60' LT

268+33.52
17.33' LT

R 57.2'

R 4.6'

R 2.8'

267+93.70
11.96' LT

268+13.94
8.54' LT

268+33.91
0.12' RT

268+32.12
1.03' RT

268+32.09
14.46' RT

267+90.58
10.28' RT

267+69.58
9.36' RT

267+46.02
18.17' RT

267+70.93
14.65' RT

267+84.10
14.68' RT

268+34.07
17.97' RT

268+27.60
14.93' RT

269+01.24
15.04' RT

269+01.48
18.05' RT

R 70.5'

HIGH SIDE CURB AND GUTTER REQUIRED ON ISLAND

268+24.64
53.19' RT

268+34.00
52.82' RT

268+31.98
55.31' RT

268+31.95
67.99' RT

CURB RAMP TO REMAIN

BUTT JOINT SEE DETAIL

E. OAKFIELD DRIVE

SLAB

W

④ STH 38/HOWELL AVENUE

271+90.85
8.00' LT

271+90.93
6.00' LT

271+75.93
18.12' RT

271+83.93
18.11' RT

271+75.96
41.89' RT

271+83.96
41.90' RT

715.14

715.32

715.48

715.64

716.71

716.80

716.93

716.91

716.93

717.09

717.19

717.26

717.28

717.36

717.48

MATCH LINE STA 266+00

MATCH LINE STA 272+00

266+00

267+00

268+00

269+00

270+00

271+00

272+00

LEGEND

1. 4-INCH HMA PAVEMENT TYPE E-1, 8-INCH CONCRETE BASE, 6-INCH BASE AGGREGATE DENSE 1-1/4"
2. CONCRETE CURB AND GUTTER 31-INCH
3. 6-1/4" HMA PAVEMENT TYPE E-1, 4-INCH BASE AGGREGATE OPEN GRADED, 8-1/2" BASE AGGREGATE DENSE 1-1/4"
4. REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
5. CONCRETE SIDEWALK 5-INCH
7. ASPHALTIC DRIVEWAY
8. BASE AGGREGATE DENSE DRIVEWAY
9. CONCRETE DRIVEWAY 7-INCH
10. REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
11. CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING
12. CURB RAMP TYPE 2
13. CURB RAMP TYPE 5
14. CURB RAMP TYPE 6
15. CONCRETE CURB AND GUTTER 36-INCH
16. CONCRETE MEDIAN SLOPED NOSE
17. CRACKING AND SEATING
18. CONCRETE PAVEMENT REPLACEMENT

PE/CE/FE PRIVATE/COMMERCIAL/FIELD ENTRANCE

■ DETECTABLE WARNING FIELD

XXXXX SAW CUTTING CONCRETE

YYYYY SAW CUTTING ASPHALT

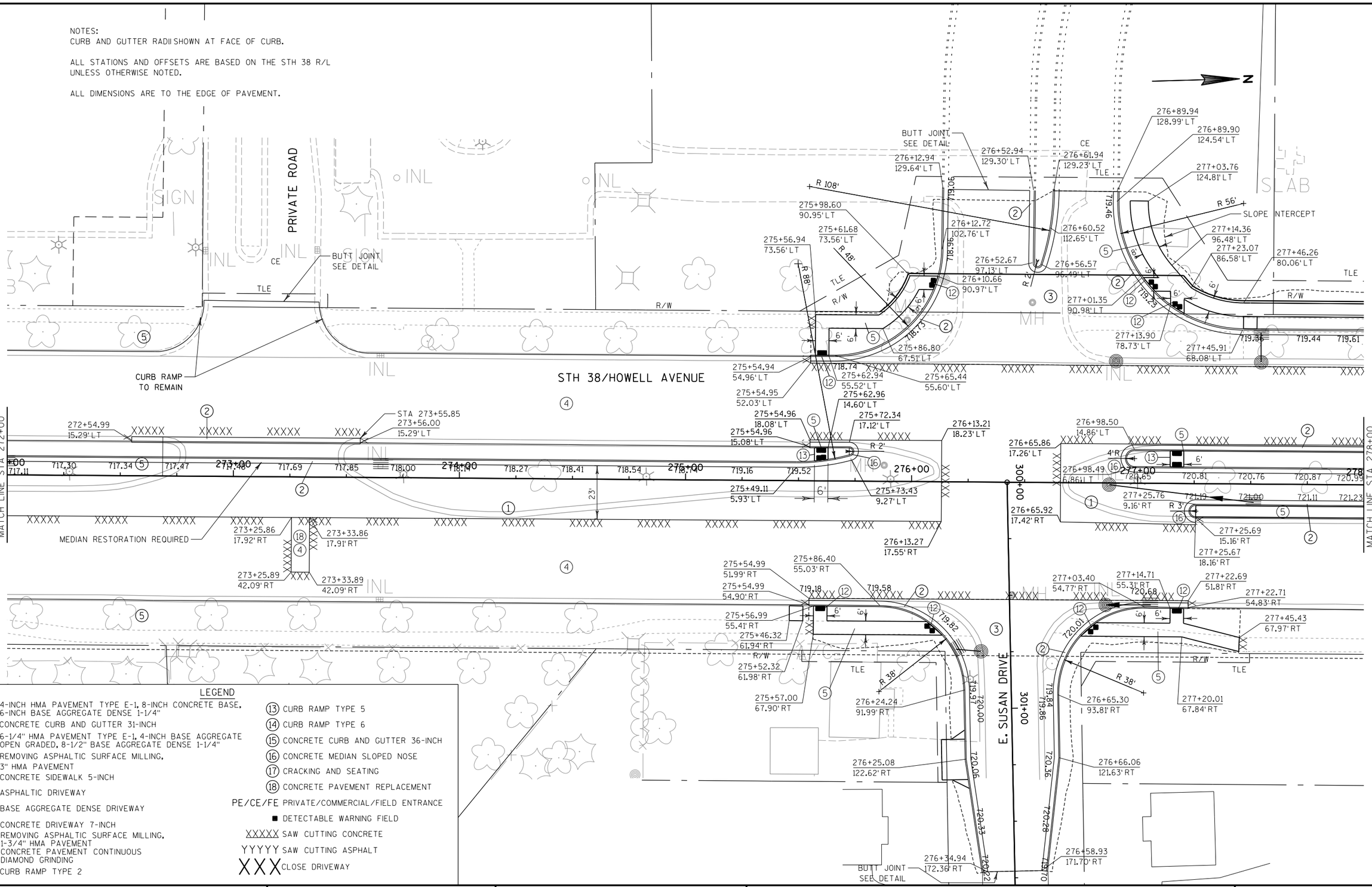
XXX CLOSE DRIVEWAY

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 85	E

NOTES:
CURB AND GUTTER RADII SHOWN AT FACE OF CURB.

ALL STATIONS AND OFFSETS ARE BASED ON THE STH 38 R/L UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT.



LEGEND

1. 4-INCH HMA PAVEMENT TYPE E-1, 8-INCH CONCRETE BASE, 6-INCH BASE AGGREGATE DENSE 1-1/4"
2. CONCRETE CURB AND GUTTER 31-INCH
3. 6-1/4" HMA PAVEMENT TYPE E-1, 4-INCH BASE AGGREGATE OPEN GRADED, 8-1/2" BASE AGGREGATE DENSE 1-1/4"
4. REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
5. CONCRETE SIDEWALK 5-INCH
7. ASPHALTIC DRIVEWAY
8. BASE AGGREGATE DENSE DRIVEWAY
9. CONCRETE DRIVEWAY 7-INCH
10. REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
11. CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING
12. CURB RAMP TYPE 2
13. CURB RAMP TYPE 5
14. CURB RAMP TYPE 6
15. CONCRETE CURB AND GUTTER 36-INCH
16. CONCRETE MEDIAN SLOPED NOSE
17. CRACKING AND SEATING
18. CONCRETE PAVEMENT REPLACEMENT

PE/CE/FE PRIVATE/COMMERCIAL/FIELD ENTRANCE

■ DETECTABLE WARNING FIELD

XXXXX SAW CUTTING CONCRETE

YYYYY SAW CUTTING ASPHALT

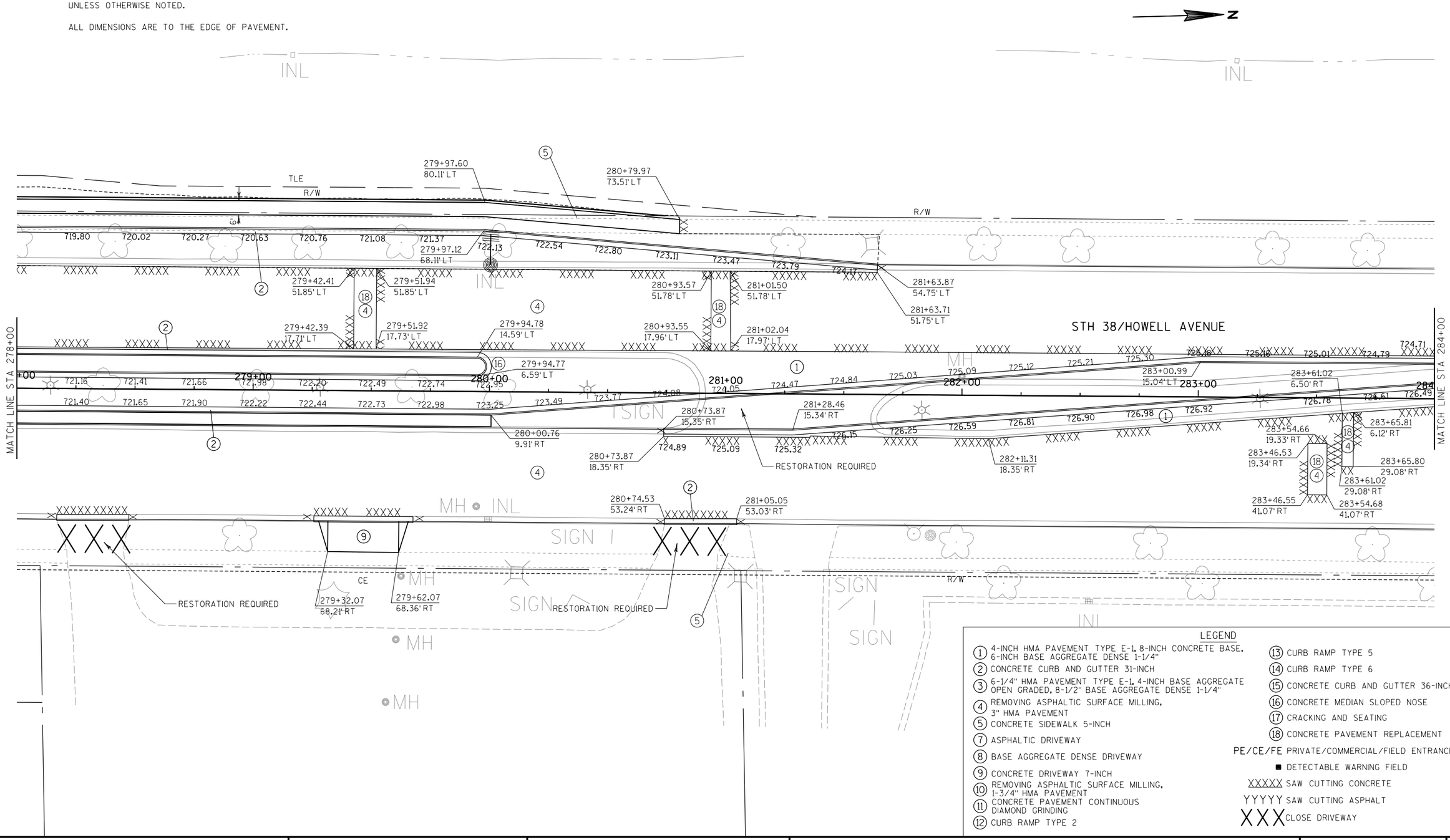
XXX CLOSE DRIVEWAY

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 86	E

NOTES:
CURB AND GUTTER RADII SHOWN AT FACE OF CURB.

ALL STATIONS AND OFFSETS ARE BASED ON THE STH 38 R/L UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT.



LEGEND

1. 4-INCH HMA PAVEMENT TYPE E-1, 8-INCH CONCRETE BASE, 6-INCH BASE AGGREGATE DENSE 1-1/4"
2. CONCRETE CURB AND GUTTER 31-INCH
3. 6-1/4" HMA PAVEMENT TYPE E-1, 4-INCH BASE AGGREGATE OPEN GRADED, 8-1/2" BASE AGGREGATE DENSE 1-1/4"
4. REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
5. CONCRETE SIDEWALK 5-INCH
7. ASPHALTIC DRIVEWAY
8. BASE AGGREGATE DENSE DRIVEWAY
9. CONCRETE DRIVEWAY 7-INCH
10. REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
11. CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING
12. CURB RAMP TYPE 2
13. CURB RAMP TYPE 5
14. CURB RAMP TYPE 6
15. CONCRETE CURB AND GUTTER 36-INCH
16. CONCRETE MEDIAN SLOPED NOSE
17. CRACKING AND SEATING
18. CONCRETE PAVEMENT REPLACEMENT

PE/CE/FE PRIVATE/COMMERCIAL/FIELD ENTRANCE

■ DETECTABLE WARNING FIELD

XXXXX SAW CUTTING CONCRETE

YYYYY SAW CUTTING ASPHALT

XXX CLOSE DRIVEWAY

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 87	E

NOTES:
CURB AND GUTTER RADII SHOWN AT FACE OF CURB.

ALL STATIONS AND OFFSETS ARE BASED ON THE STH 38 R/L UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT.

DREXEL AVENUE

STH 38/HOWELL AVENUE

MATCH LINE STA 284+00

MATCH LINE STA 290+00

284+23.70 18.03' LT
284+23.70 15.03' LT
284+88.91 3.62' LT
284+88.90 6.73' LT
284+06.02 4.73' LT
725.89
725.77
725.54
285+00
285+21.47 19.13' RT
285+29.60 19.12' RT
285+21.50 41.13' RT
285+29.63 41.14' RT
286+00
286+22.21 4.71' LT
286+47.17 4.74' LT
286+22.03 7.01' RT
286+47.29 6.98' RT
286+78.08 5.07' LT
286+78.44 18.94' RT
287+00
287+10.29 5.07' LT
287+10.66 18.90' RT
287+11.29 55.20' RT
287+01.29 52.21' RT
287+01.28 55.21' RT
287+03.30 74.21' RT
287+28.33 74.34' RT
287+37.62 87.67' RT
287+38.45 106.24' RT
287+07.86 54.91' LT
287+07.86 51.87' LT
287+33.21 51.89' LT
287+32.72 64.86' LT
287+53.65 71.34' LT
287+45.11 87.93' RT
287+54.98 75.94' RT
287+50.77 87.80' RT
287+52.48 95.69' RT
287+55.76 105.70' RT
287+52.79 105.80' RT
287+97.59 137.86' RT
287+25.47 68.33' RT
287+33.92 52.28' RT
287+25.56 58.80' RT
287+34.23 103.09' LT
287+34.17 92.76' LT
287+24.59 73.46' LT
286+87.45 73.79' LT
287+42.23 103.05' LT
287+53.57 102.74' LT
287+45.35 96.76' LT
288+00
288+50.67 121.93' LT
288+48.67 121.92' LT
288+47.64 103.53' LT
288+67.76 90.97' LT
288+61.20 86.11' LT
288+72.65 90.98' LT
288+72.66 88.19' LT
288+80.59 84.97' LT
288+84.63 81.02' LT
288+85.27 83.95' LT
288+60.85 96.96' LT
288+78.96 97.00' LT
289+43.12 93.27' LT
289+49.02 92.21' LT
289+79.13 67.18' LT
289+79.15 64.13' LT
290+00.00 83.02' LT
288+94.77 16.84' LT
288+94.78 5.28' RT
289+00
289+26.77 16.86' LT
289+59.47 5.87' LT
289+76.18 5.88' LT
289+26.78 5.20' RT
289+59.48 5.18' RT
289+76.15 5.21' RT
288+52.62 93.50' RT
288+53.35 135.85' RT
311+00
316+00
R/W
TLE
SLOPE INTERCEPT
R 38.0'
R 43.0'
6'
8'
4" MINIMUM HEIGHT BETWEEN CURB RAMPS
CURB RAMP TO REMAIN
BUTT JOINT SEE DETAIL

LEGEND

1. 4-INCH HMA PAVEMENT TYPE E-1, 8-INCH CONCRETE BASE, 6-INCH BASE AGGREGATE DENSE 1-1/4"
2. CONCRETE CURB AND GUTTER 31-INCH
3. 6-1/4" HMA PAVEMENT TYPE E-1, 4-INCH BASE AGGREGATE OPEN GRADED, 8-1/2" BASE AGGREGATE DENSE 1-1/4"
4. REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
5. CONCRETE SIDEWALK 5-INCH
7. ASPHALTIC DRIVEWAY
8. BASE AGGREGATE DENSE DRIVEWAY
9. CONCRETE DRIVEWAY 7-INCH
10. REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
11. CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING
12. CURB RAMP TYPE 2
13. CURB RAMP TYPE 5
14. CURB RAMP TYPE 6
15. CONCRETE CURB AND GUTTER 36-INCH
16. CONCRETE MEDIAN SLOPED NOSE
17. CRACKING AND SEATING
18. CONCRETE PAVEMENT REPLACEMENT

PE/CE/FE PRIVATE/COMMERCIAL/FIELD ENTRANCE
■ DETECTABLE WARNING FIELD
XXXXX SAW CUTTING CONCRETE
YYYYY SAW CUTTING ASPHALT
XXX CLOSE DRIVEWAY

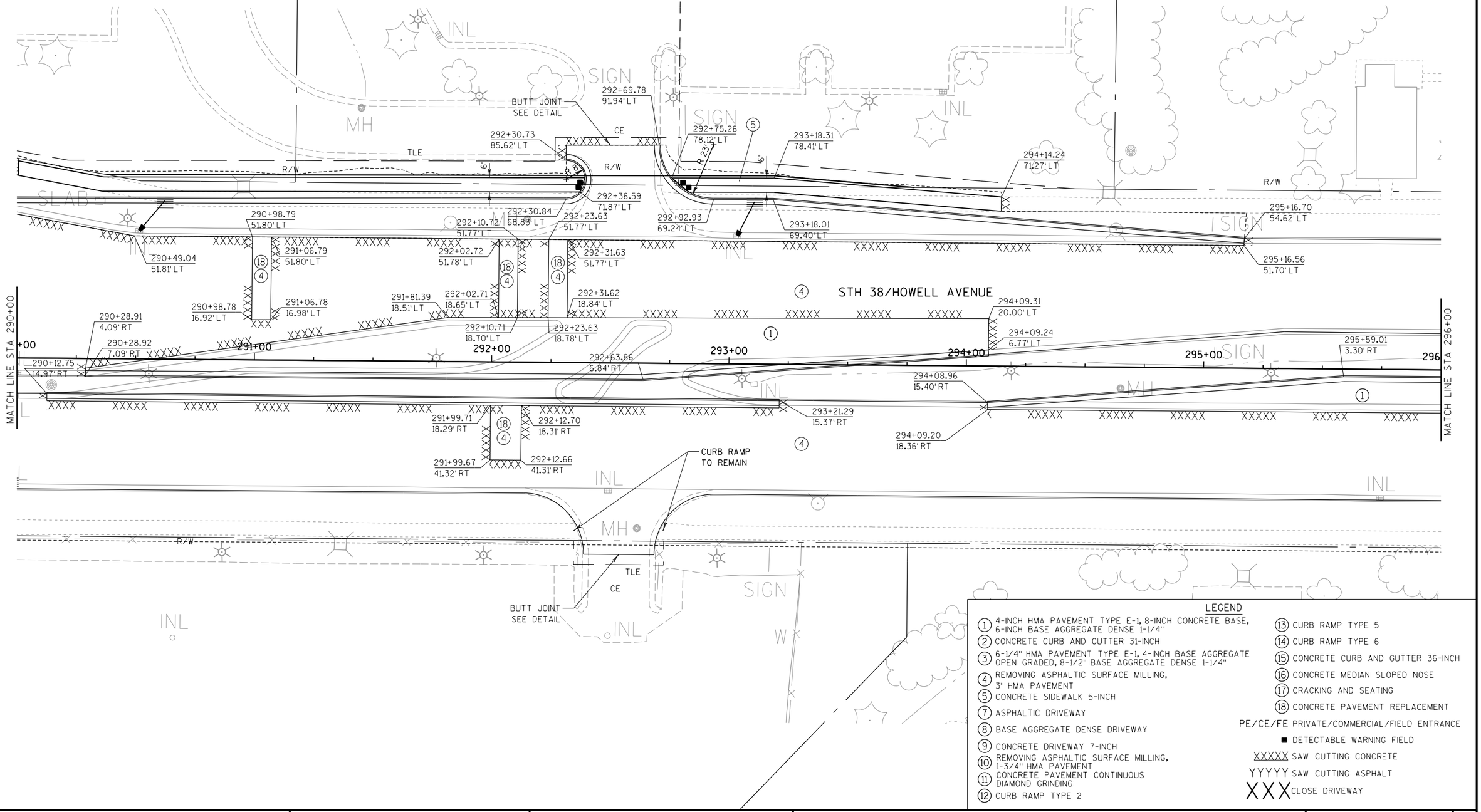
PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 88	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\021228_pd.dgn
PLOT DATE : 1/30/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:40
WISDOT/CADDS SHEET 42

NOTES:
CURB AND GUTTER RADII SHOWN AT FACE OF CURB.

ALL STATIONS AND OFFSETS ARE BASED ON THE STH 38 R/L UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT.



LEGEND

1. 4-INCH HMA PAVEMENT TYPE E-1, 8-INCH CONCRETE BASE, 6-INCH BASE AGGREGATE DENSE 1-1/4"
2. CONCRETE CURB AND GUTTER 31-INCH
3. 6-1/4" HMA PAVEMENT TYPE E-1, 4-INCH BASE AGGREGATE OPEN GRADED, 8-1/2" BASE AGGREGATE DENSE 1-1/4"
4. REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
5. CONCRETE SIDEWALK 5-INCH
7. ASPHALTIC DRIVEWAY
8. BASE AGGREGATE DENSE DRIVEWAY
9. CONCRETE DRIVEWAY 7-INCH
10. REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
11. CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING
12. CURB RAMP TYPE 2
13. CURB RAMP TYPE 5
14. CURB RAMP TYPE 6
15. CONCRETE CURB AND GUTTER 36-INCH
16. CONCRETE MEDIAN SLOPED NOSE
17. CRACKING AND SEATING
18. CONCRETE PAVEMENT REPLACEMENT

PE/CE/FE PRIVATE/COMMERCIAL/FIELD ENTRANCE

■ DETECTABLE WARNING FIELD

XXXXX SAW CUTTING CONCRETE

YYYY SAW CUTTING ASPHALT

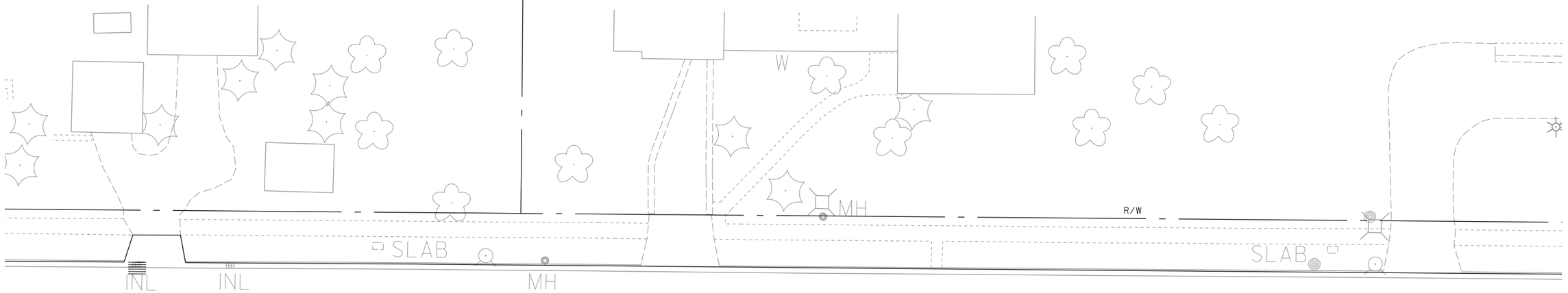
XXX CLOSE DRIVEWAY

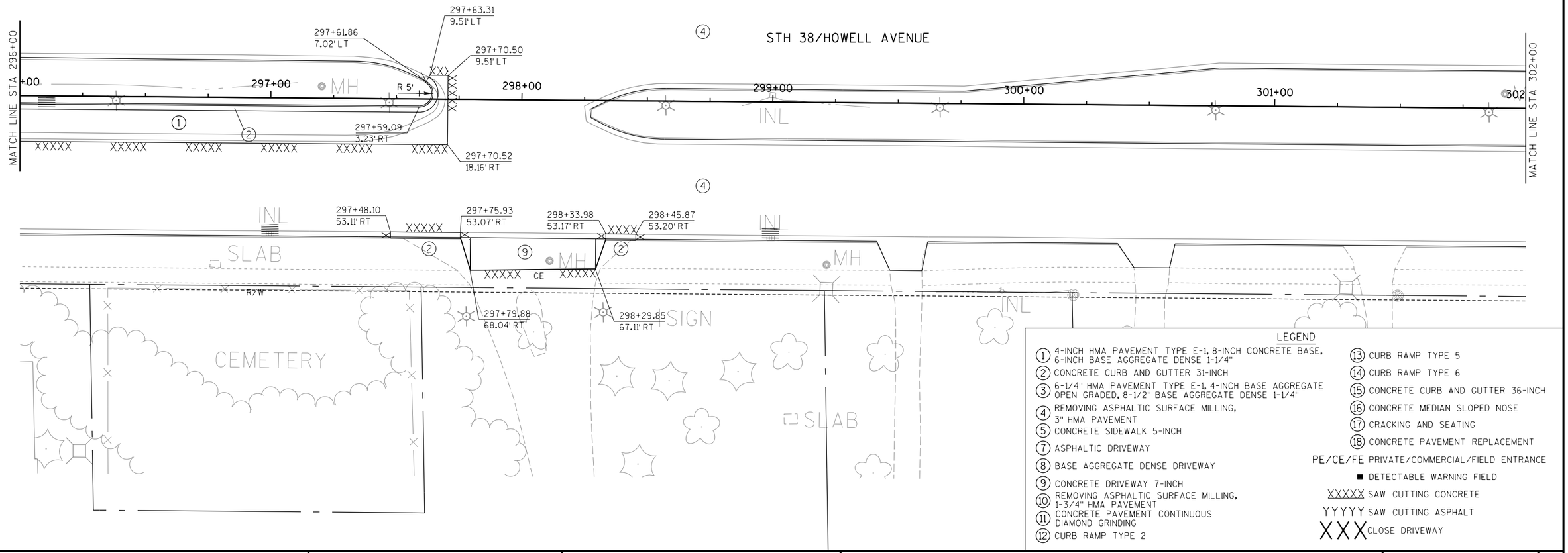
PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 89	E

NOTES:
CURB AND GUTTER RADII SHOWN AT FACE OF CURB.

ALL STATIONS AND OFFSETS ARE BASED ON THE STH 38 R/L UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT.





LEGEND

1. 4-INCH HMA PAVEMENT TYPE E-1, 8-INCH CONCRETE BASE, 6-INCH BASE AGGREGATE DENSE 1-1/4"
2. CONCRETE CURB AND GUTTER 31-INCH
3. 6-1/4" HMA PAVEMENT TYPE E-1, 4-INCH BASE AGGREGATE OPEN GRADED, 8-1/2" BASE AGGREGATE DENSE 1-1/4"
4. REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
5. CONCRETE SIDEWALK 5-INCH
7. ASPHALTIC DRIVEWAY
8. BASE AGGREGATE DENSE DRIVEWAY
9. CONCRETE DRIVEWAY 7-INCH
10. REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
11. CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING
12. CURB RAMP TYPE 2
13. CURB RAMP TYPE 5
14. CURB RAMP TYPE 6
15. CONCRETE CURB AND GUTTER 36-INCH
16. CONCRETE MEDIAN SLOPED NOSE
17. CRACKING AND SEATING
18. CONCRETE PAVEMENT REPLACEMENT

PE/CE/FE PRIVATE/COMMERCIAL/FIELD ENTRANCE

■ DETECTABLE WARNING FIELD

XXXXX SAW CUTTING CONCRETE

YYYYY SAW CUTTING ASPHALT

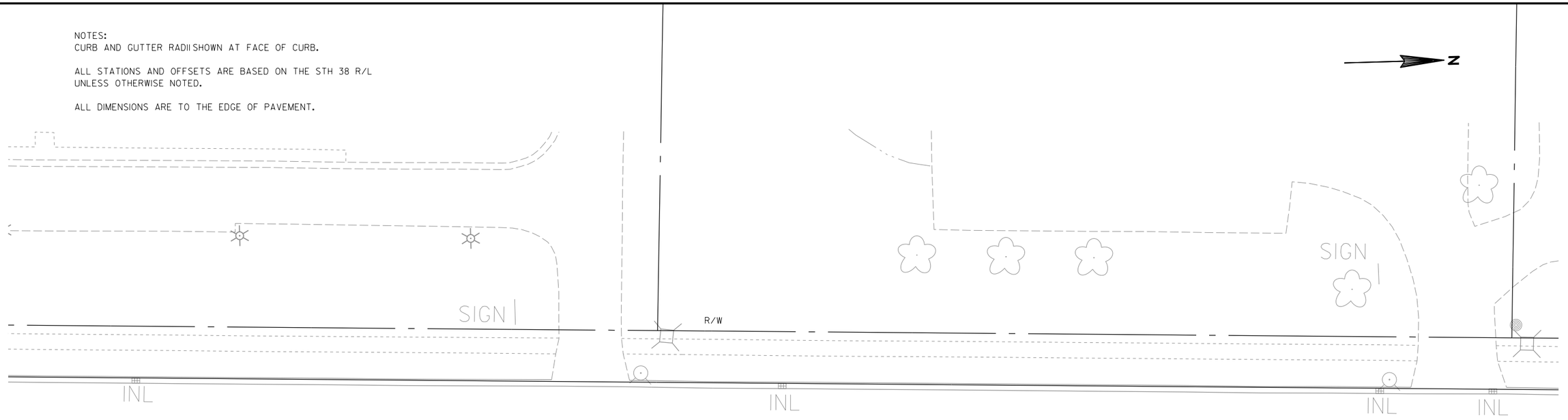
XXX CLOSE DRIVEWAY

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 90	E

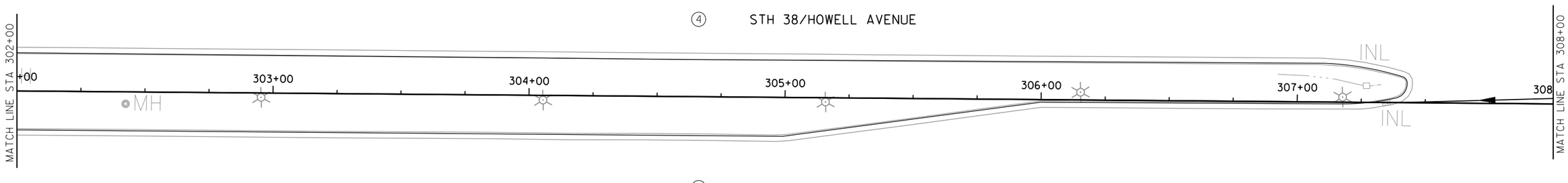
NOTES:
CURB AND GUTTER RADII SHOWN AT FACE OF CURB.

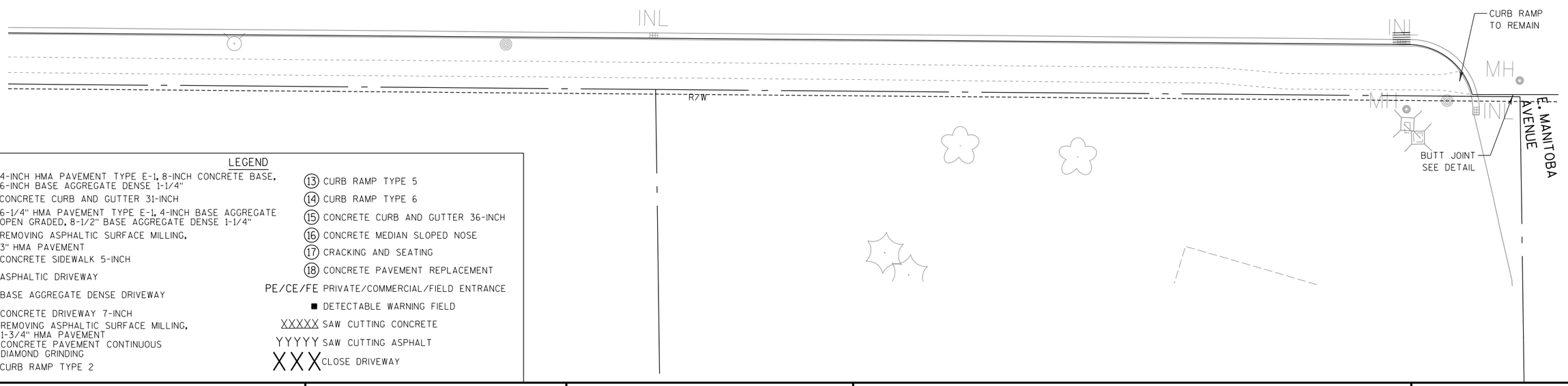
ALL STATIONS AND OFFSETS ARE BASED ON THE STH 38 R/L UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT.



④ STH 38/HOWELL AVENUE





LEGEND

1. 4-INCH HMA PAVEMENT TYPE E-1, 8-INCH CONCRETE BASE, 6-INCH BASE AGGREGATE DENSE 1-1/4"
2. CONCRETE CURB AND GUTTER 31-INCH
3. 6-1/4" HMA PAVEMENT TYPE E-1, 4-INCH BASE AGGREGATE OPEN GRADED, 8-1/2" BASE AGGREGATE DENSE 1-1/4"
4. REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
5. CONCRETE SIDEWALK 5-INCH
7. ASPHALTIC DRIVEWAY
8. BASE AGGREGATE DENSE DRIVEWAY
9. CONCRETE DRIVEWAY 7-INCH
10. REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
11. CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING
12. CURB RAMP TYPE 2
13. CURB RAMP TYPE 5
14. CURB RAMP TYPE 6
15. CONCRETE CURB AND GUTTER 36-INCH
16. CONCRETE MEDIAN SLOPED NOSE
17. CRACKING AND SEATING
18. CONCRETE PAVEMENT REPLACEMENT

PE/CE/FE PRIVATE/COMMERCIAL/FIELD ENTRANCE

■ DETECTABLE WARNING FIELD

XXXXX SAW CUTTING CONCRETE

YYYYY SAW CUTTING ASPHALT

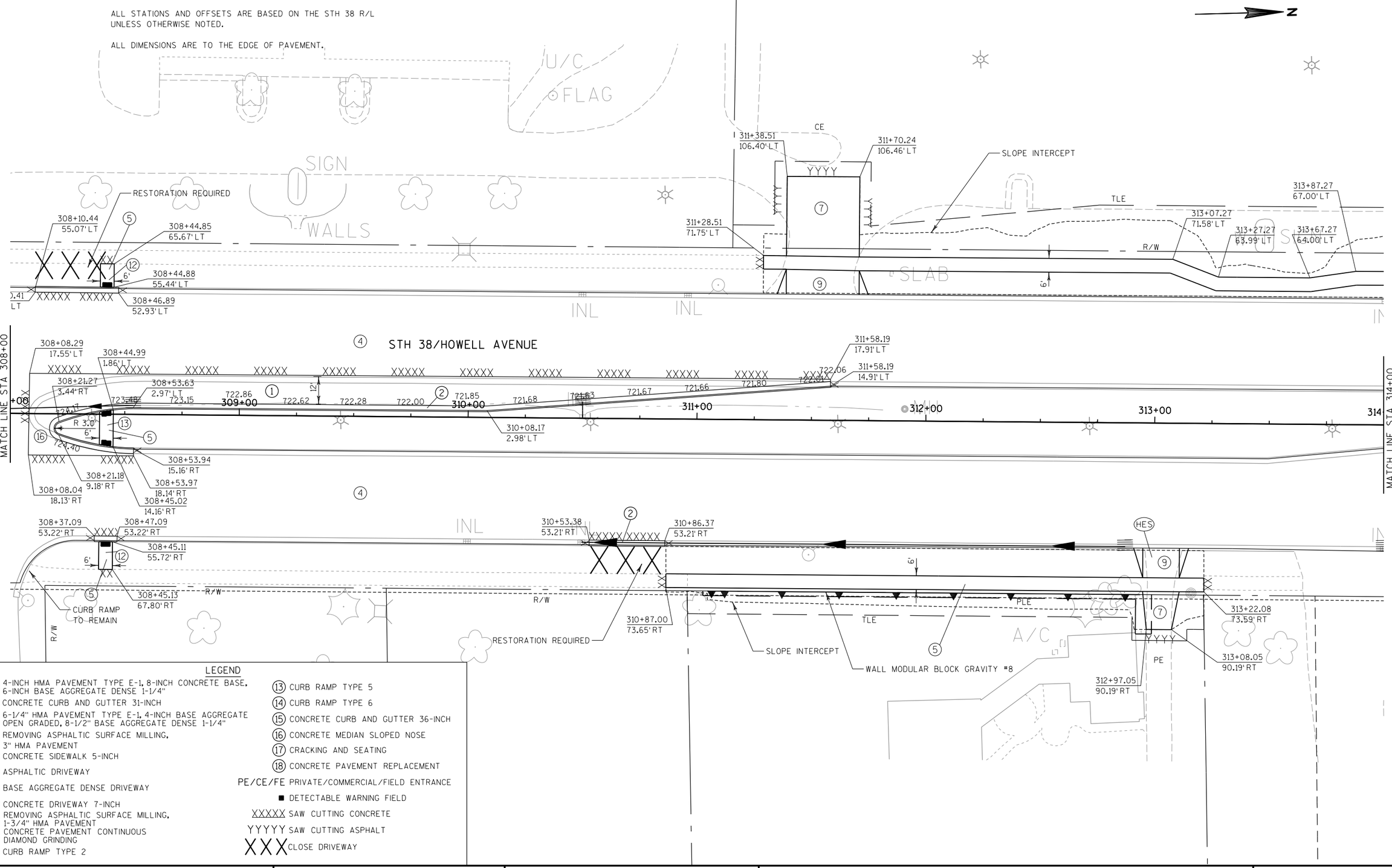
XXX CLOSE DRIVEWAY

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 91	E

NOTES:
CURB AND GUTTER RADII SHOWN AT FACE OF CURB.

ALL STATIONS AND OFFSETS ARE BASED ON THE STH 38 R/L UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT.



LEGEND

1. 4-INCH HMA PAVEMENT TYPE E-1, 8-INCH CONCRETE BASE, 6-INCH BASE AGGREGATE DENSE 1-1/4"
2. CONCRETE CURB AND GUTTER 31-INCH
3. 6-1/4" HMA PAVEMENT TYPE E-1, 4-INCH BASE AGGREGATE OPEN GRADED, 8-1/2" BASE AGGREGATE DENSE 1-1/4"
4. REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
5. CONCRETE SIDEWALK 5-INCH
7. ASPHALTIC DRIVEWAY
8. BASE AGGREGATE DENSE DRIVEWAY
9. CONCRETE DRIVEWAY 7-INCH
10. REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
11. CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING
12. CURB RAMP TYPE 2
13. CURB RAMP TYPE 5
14. CURB RAMP TYPE 6
15. CONCRETE CURB AND GUTTER 36-INCH
16. CONCRETE MEDIAN SLOPED NOSE
17. CRACKING AND SEATING
18. CONCRETE PAVEMENT REPLACEMENT

PE/CE/FE PRIVATE/COMMERCIAL/FIELD ENTRANCE

■ DETECTABLE WARNING FIELD

XXXXX SAW CUTTING CONCRETE

YYYYY SAW CUTTING ASPHALT

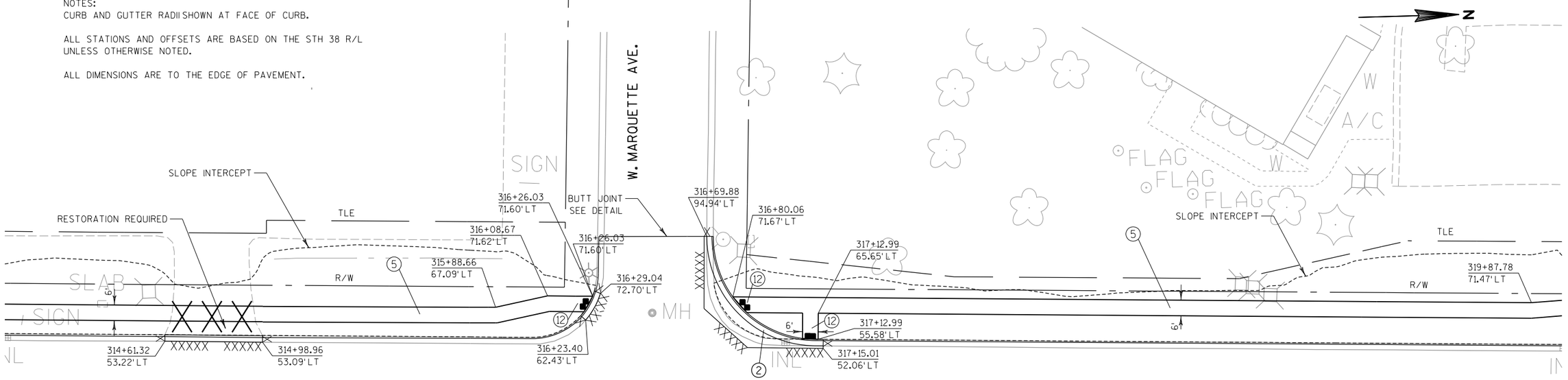
XXX CLOSE DRIVEWAY

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 92	E

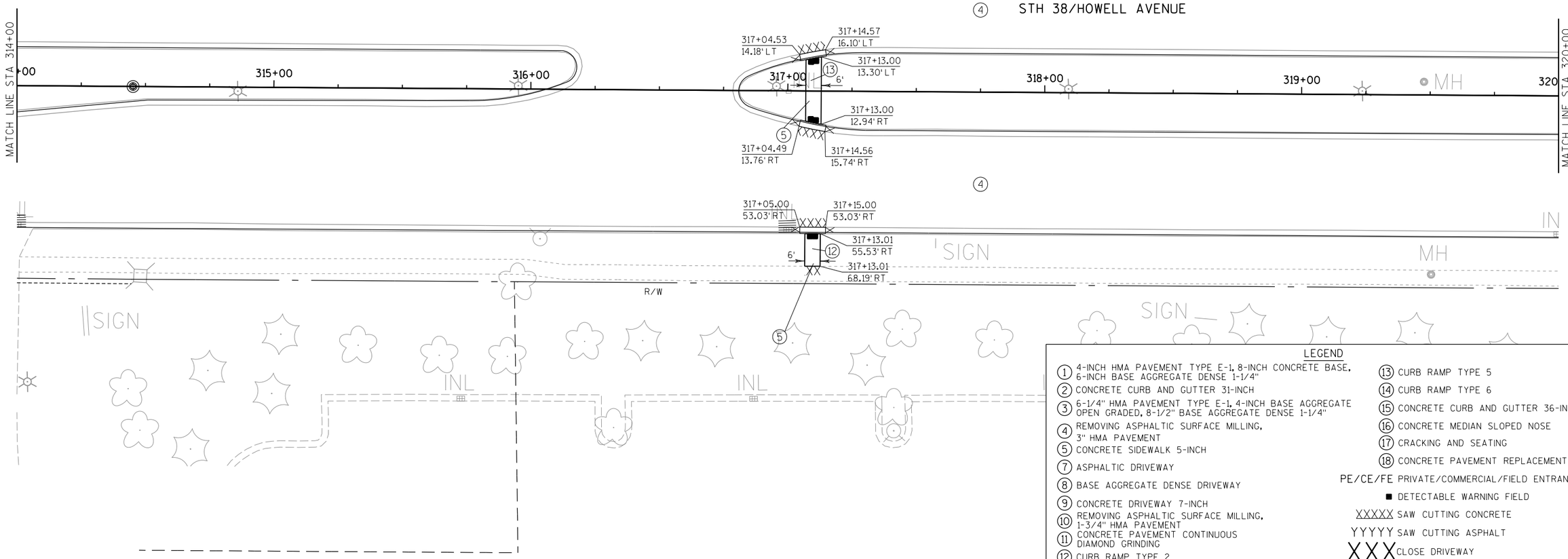
NOTES:
CURB AND GUTTER RADII SHOWN AT FACE OF CURB.

ALL STATIONS AND OFFSETS ARE BASED ON THE STH 38 R/L UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT.



④ STH 38/HOWELL AVENUE



LEGEND

1. 4-INCH HMA PAVEMENT TYPE E-1, 8-INCH CONCRETE BASE, 6-INCH BASE AGGREGATE DENSE 1-1/4"
2. CONCRETE CURB AND GUTTER 31-INCH
3. 6-1/4" HMA PAVEMENT TYPE E-1, 4-INCH BASE AGGREGATE OPEN GRADED, 8-1/2" BASE AGGREGATE DENSE 1-1/4"
4. REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
5. CONCRETE SIDEWALK 5-INCH
7. ASPHALTIC DRIVEWAY
8. BASE AGGREGATE DENSE DRIVEWAY
9. CONCRETE DRIVEWAY 7-INCH
10. REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
11. CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING
12. CURB RAMP TYPE 2
13. CURB RAMP TYPE 5
14. CURB RAMP TYPE 6
15. CONCRETE CURB AND GUTTER 36-INCH
16. CONCRETE MEDIAN SLOPED NOSE
17. CRACKING AND SEATING
18. CONCRETE PAVEMENT REPLACEMENT

PE/CE/FE PRIVATE/COMMERCIAL/FIELD ENTRANCE

■ DETECTABLE WARNING FIELD

XXXXX SAW CUTTING CONCRETE

YYYYY SAW CUTTING ASPHALT

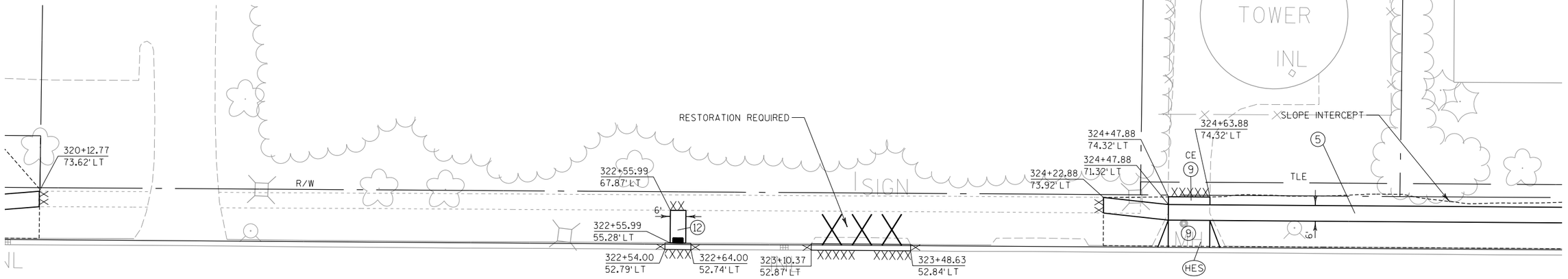
XXX CLOSE DRIVEWAY

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 93	E

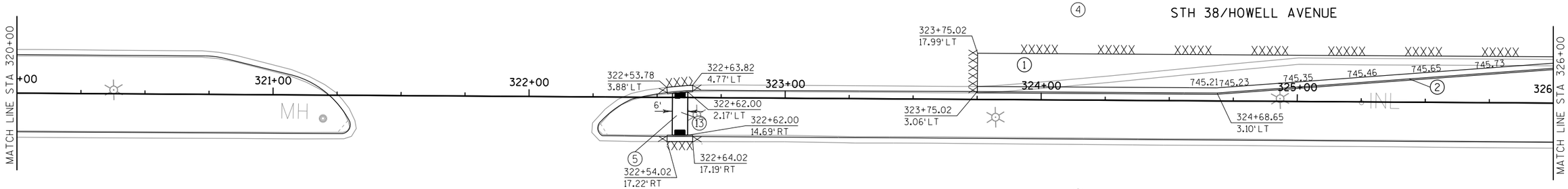
NOTES:
CURB AND GUTTER RADII SHOWN AT FACE OF CURB.

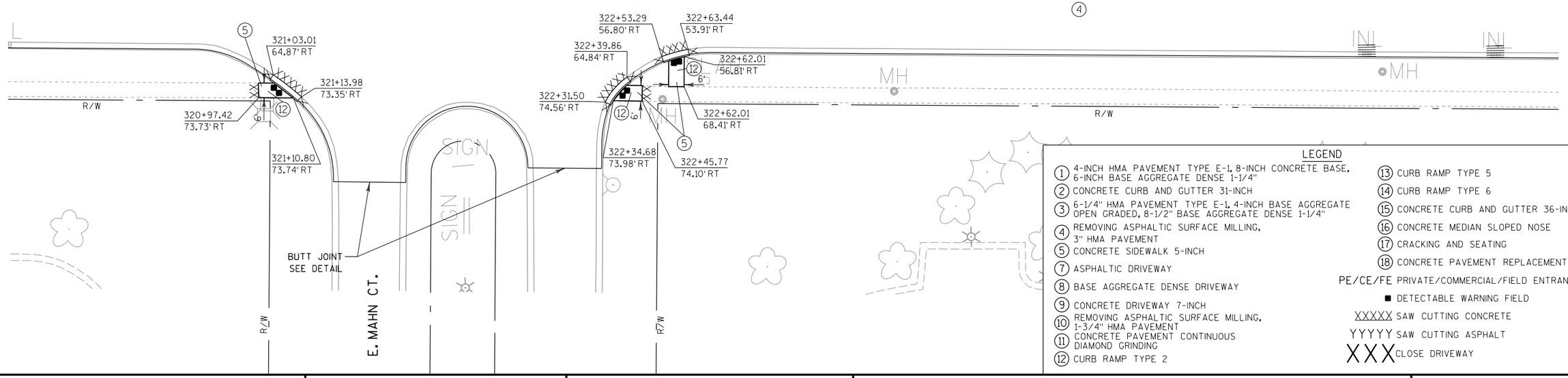
ALL STATIONS AND OFFSETS ARE BASED ON THE STH 38 R/L UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT.



④ STH 38/HOWELL AVENUE





LEGEND

1. 4-INCH HMA PAVEMENT TYPE E-1, 8-INCH CONCRETE BASE, 6-INCH BASE AGGREGATE DENSE 1-1/4"
2. CONCRETE CURB AND GUTTER 31-INCH
3. 6-1/4" HMA PAVEMENT TYPE E-1, 4-INCH BASE AGGREGATE OPEN GRADED, 8-1/2" BASE AGGREGATE DENSE 1-1/4"
4. REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
5. CONCRETE SIDEWALK 5-INCH
7. ASPHALTIC DRIVEWAY
8. BASE AGGREGATE DENSE DRIVEWAY
9. CONCRETE DRIVEWAY 7-INCH
10. REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
11. CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING
12. CURB RAMP TYPE 2
13. CURB RAMP TYPE 5
14. CURB RAMP TYPE 6
15. CONCRETE CURB AND GUTTER 36-INCH
16. CONCRETE MEDIAN SLOPED NOSE
17. CRACKING AND SEATING
18. CONCRETE PAVEMENT REPLACEMENT

PE/CE/FE PRIVATE/COMMERCIAL/FIELD ENTRANCE

■ DETECTABLE WARNING FIELD

XXXXX SAW CUTTING CONCRETE

YYYYY SAW CUTTING ASPHALT

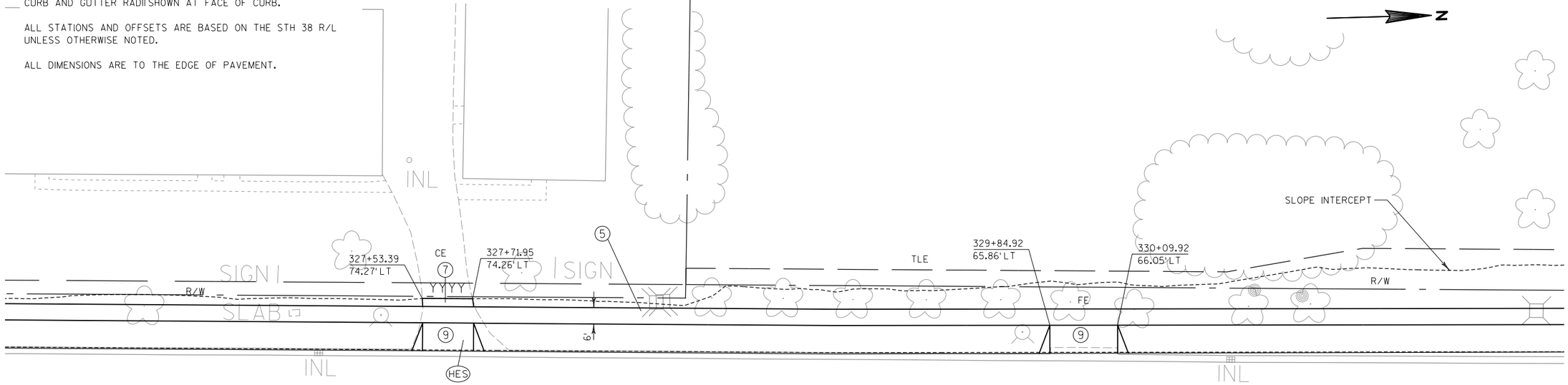
XXX CLOSE DRIVEWAY

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 94	E

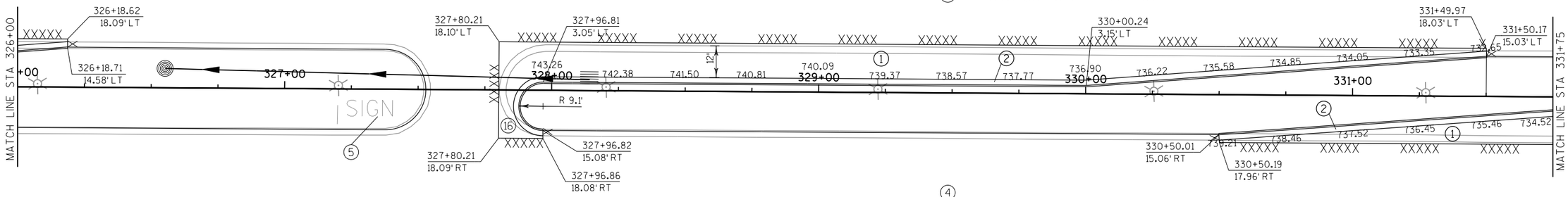
NOTES:
CURB AND GUTTER RADII SHOWN AT FACE OF CURB.

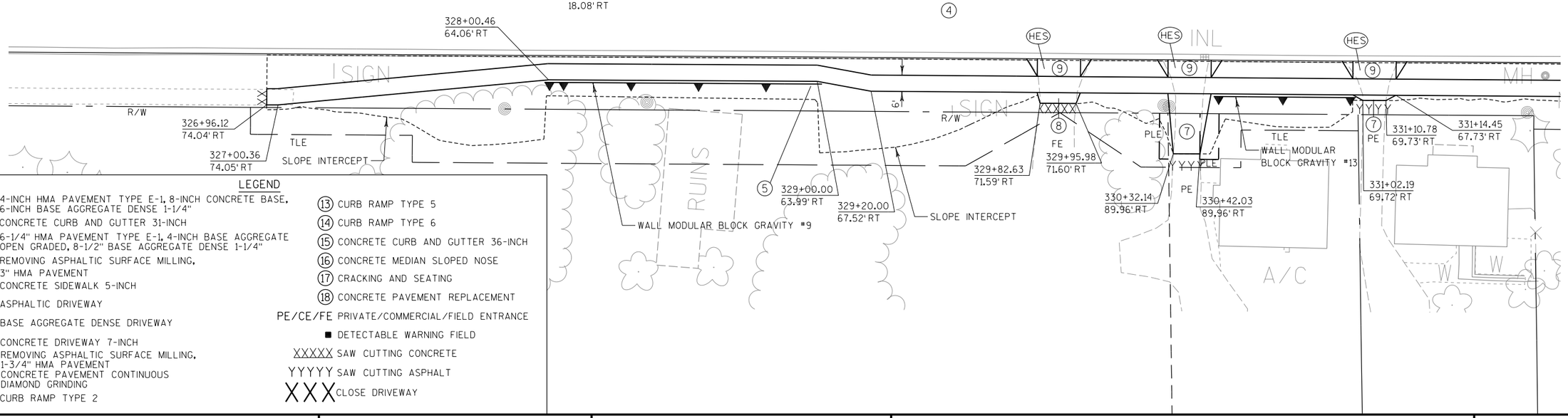
ALL STATIONS AND OFFSETS ARE BASED ON THE STH 38 R/L UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT.



④ STH 38/HOWELL AVENUE





LEGEND

1. 4-INCH HMA PAVEMENT TYPE E-1, 8-INCH CONCRETE BASE, 6-INCH BASE AGGREGATE DENSE 1-1/4"
2. CONCRETE CURB AND GUTTER 31-INCH
3. 6-1/4" HMA PAVEMENT TYPE E-1, 4-INCH BASE AGGREGATE OPEN GRADED, 8-1/2" BASE AGGREGATE DENSE 1-1/4"
4. REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
5. CONCRETE SIDEWALK 5-INCH
7. ASPHALTIC DRIVEWAY
8. BASE AGGREGATE DENSE DRIVEWAY
9. CONCRETE DRIVEWAY 7-INCH
10. REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
11. CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING
12. CURB RAMP TYPE 2
13. CURB RAMP TYPE 5
14. CURB RAMP TYPE 6
15. CONCRETE CURB AND GUTTER 36-INCH
16. CONCRETE MEDIAN SLOPED NOSE
17. CRACKING AND SEATING
18. CONCRETE PAVEMENT REPLACEMENT

PE/CE/FE PRIVATE/COMMERCIAL/FIELD ENTRANCE

■ DETECTABLE WARNING FIELD

XXXXX SAW CUTTING CONCRETE

YYYYY SAW CUTTING ASPHALT

XXX CLOSE DRIVEWAY

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 95	E

NOTES:
CURB AND GUTTER RADII SHOWN AT FACE OF CURB.

ALL STATIONS AND OFFSETS ARE BASED ON THE STH 38 R/L UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT.

LEGEND

1. 4-INCH HMA PAVEMENT TYPE E-1, 8-INCH CONCRETE BASE, 6-INCH BASE AGGREGATE DENSE 1-1/4"
2. CONCRETE CURB AND GUTTER 31-INCH
3. 6-1/4" HMA PAVEMENT TYPE E-1, 4-INCH BASE AGGREGATE OPEN GRADED, 8-1/2" BASE AGGREGATE DENSE 1-1/4"
4. REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
5. CONCRETE SIDEWALK 5-INCH
7. ASPHALTIC DRIVEWAY
8. BASE AGGREGATE DENSE DRIVEWAY
9. CONCRETE DRIVEWAY 7-INCH
10. REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
11. CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING
12. CURB RAMP TYPE 2
13. CURB RAMP TYPE 5
14. CURB RAMP TYPE 6
15. CONCRETE CURB AND GUTTER 36-INCH
16. CONCRETE MEDIAN SLOPED NOSE
17. CRACKING AND SEATING
18. CONCRETE PAVEMENT REPLACEMENT

PE/CE/FE PRIVATE/COMMERCIAL/FIELD ENTRANCE

■ DETECTABLE WARNING FIELD

XXXXX SAW CUTTING CONCRETE

YYYYY SAW CUTTING ASPHALT

XXX CLOSE DRIVEWAY

N

STH 38/HOWELL AVENUE ④

MATCH LINE STA 331+75

MATCH LINE STA 337+50

332+00 333+00 334+00 335+00 336+00 337+00

332+00.11
3.41' RT

733.53 732.61 731.63 730.67 729.72 728.75 727.78 726.90 726.12 725.40

334+29.67
23.25' LT

334+29.61
20.25' LT

334+52.62
23.25' LT

R 14.2'

724.64

334+29.03
8.05' RT

334+52.62
23.49' RT

335+77.67
76.48' LT

SLOPE INTERCEPT

335+04.44
79.00' RT

336+34.46
23.14' RT

336+42.56
23.12' RT

336+34.53
46.09' RT

336+42.63
46.11' RT

337+13.33
33.99' RT

337+18.94
33.99' RT

337+13.32
58.20' RT

337+18.93
58.23' RT

336+42.96
85.73' RT

336+58.96
85.74' RT

331+95.27
67.82' RT

332+40.31
88.63' RT

332+49.83
88.81' RT

333+28.94
85.56' RT

333+38.08
85.73' RT

333+99.91
71.50' RT

R/W TLE PE FE HES MH INL SIGN

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 96	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\021236_pd.dgn PLOT DATE : 1/30/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:40

LEGEND

1. 4-INCH HMA PAVEMENT TYPE E-1, 8-INCH CONCRETE BASE, 6-INCH BASE AGGREGATE DENSE 1-1/4"
2. CONCRETE CURB AND GUTTER 31-INCH
3. 6-1/4" HMA PAVEMENT TYPE E-1, 4-INCH BASE AGGREGATE OPEN GRADED, 8-1/2" BASE AGGREGATE DENSE 1-1/4"
4. REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
5. CONCRETE SIDEWALK 5-INCH
7. ASPHALTIC DRIVEWAY
8. BASE AGGREGATE DENSE DRIVEWAY
9. CONCRETE DRIVEWAY 7-INCH
10. REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
11. CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING
12. CURB RAMP TYPE 2
13. CURB RAMP TYPE 5
14. CURB RAMP TYPE 6
15. CONCRETE CURB AND GUTTER 36-INCH
16. CONCRETE MEDIAN SLOPED NOSE
17. CRACKING AND SEATING
18. CONCRETE PAVEMENT REPLACEMENT

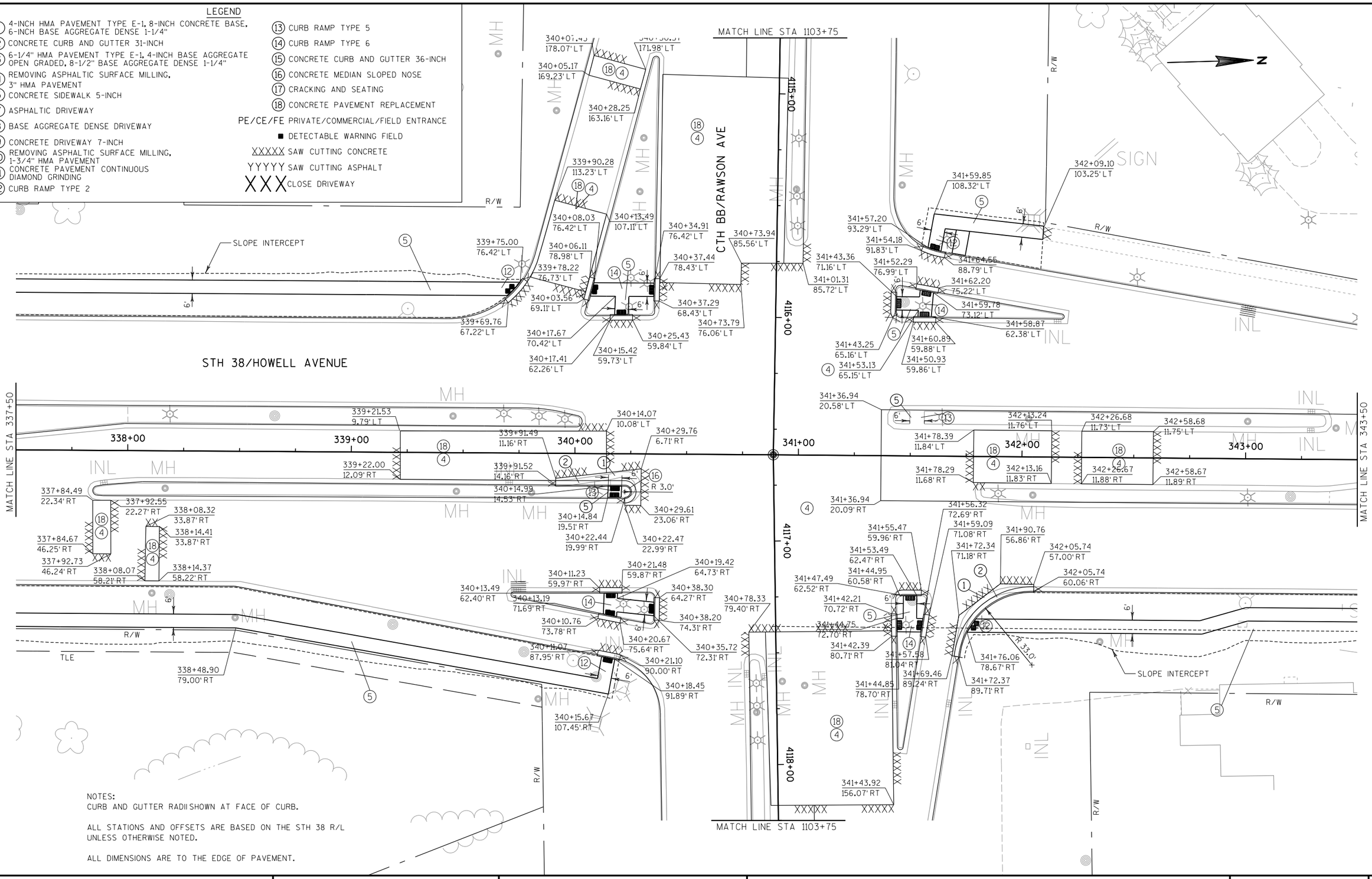
PE/CE/FE PRIVATE/COMMERCIAL/FIELD ENTRANCE

■ DETECTABLE WARNING FIELD

XXXXX SAW CUTTING CONCRETE

YYYYY SAW CUTTING ASPHALT

XXX CLOSE DRIVEWAY



NOTES:
CURB AND GUTTER RADII SHOWN AT FACE OF CURB.

ALL STATIONS AND OFFSETS ARE BASED ON THE STH 38 R/L UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT.

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 97	E

NOTES:
CURB AND GUTTER RADII SHOWN AT FACE OF CURB.

ALL STATIONS AND OFFSETS ARE BASED ON THE STH 38 R/L UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT.

LEGEND

1. 4-INCH HMA PAVEMENT TYPE E-1, 8-INCH CONCRETE BASE, 6-INCH BASE AGGREGATE DENSE 1-1/4"
2. CONCRETE CURB AND GUTTER 31-INCH
3. 6-1/4" HMA PAVEMENT TYPE E-1, 4-INCH BASE AGGREGATE OPEN GRADED, 8-1/2" BASE AGGREGATE DENSE 1-1/4"
4. REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
5. CONCRETE SIDEWALK 5-INCH
7. ASPHALTIC DRIVEWAY
8. BASE AGGREGATE DENSE DRIVEWAY
9. CONCRETE DRIVEWAY 7-INCH
10. REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
11. CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING
12. CURB RAMP TYPE 2
13. CURB RAMP TYPE 5
14. CURB RAMP TYPE 6
15. CONCRETE CURB AND GUTTER 36-INCH
16. CONCRETE MEDIAN SLOPED NOSE
17. CRACKING AND SEATING
18. CONCRETE PAVEMENT REPLACEMENT

PE/CE/FE PRIVATE/COMMERCIAL/FIELD ENTRANCE
■ DETECTABLE WARNING FIELD
XXXXX SAW CUTTING CONCRETE
YYYYY SAW CUTTING ASPHALT
XXX CLOSE DRIVEWAY

N

SIGN
344+07.77
97.39' LT
344+35.87
97.24' LT
CE
TLE
YYYY
343+95.55
79.03' LT
R/W
MH
344+82.88
79.00' LT
U/C
347+50.81
79.00' LT
347+75.79
76.46' LT
SLOPE INTERCEPT
R/W
349+37.46
75.61' LT
INL
343+79.91
46.36' LT
343+88.31
46.35' LT
345+29.77
46.17' LT
345+38.21
46.16' LT
STH 38/HOWELL AVENUE
343+79.88
20.23' LT
343+88.28
20.22' LT
345+29.73
20.02' LT
345+38.17
20.01' LT
344+00
345+00
346+00
347+00
348+00
349+00
MATCH LINE STA 343+50
MATCH LINE STA 349+50

344+61.82
78.41' RT
344+37.84
97.43' RT
344+61.84
97.41' RT
SLOPE INTERCEPT
R/W
347+11.15
94.18' RT
347+51.33
78.14' RT
347+51.34
94.14' RT
348+16.77
78.08' RT
348+89.53
87.83' RT
349+02.87
76.59' RT
349+00.34
87.64' RT
HES

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 98	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\021238_pd.dgn PLOT DATE : 1/30/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:40

WISDOT/CADDS SHEET 42

NOTES:
CURB AND GUTTER RADII SHOWN AT FACE OF CURB.

ALL STATIONS AND OFFSETS ARE BASED ON THE STH 38 R/L UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT.

LEGEND

1. 4-INCH HMA PAVEMENT TYPE E-1, 8-INCH CONCRETE BASE, 6-INCH BASE AGGREGATE DENSE 1-1/4"
2. CONCRETE CURB AND GUTTER 31-INCH
3. 6-1/4" HMA PAVEMENT TYPE E-1, 4-INCH BASE AGGREGATE OPEN GRADED, 8-1/2" BASE AGGREGATE DENSE 1-1/4"
4. REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
5. CONCRETE SIDEWALK 5-INCH
7. ASPHALTIC DRIVEWAY
8. BASE AGGREGATE DENSE DRIVEWAY
9. CONCRETE DRIVEWAY 7-INCH
10. REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
11. CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING
12. CURB RAMP TYPE 2
13. CURB RAMP TYPE 5
14. CURB RAMP TYPE 6
15. CONCRETE CURB AND GUTTER 36-INCH
16. CONCRETE MEDIAN SLOPED NOSE
17. CRACKING AND SEATING
18. CONCRETE PAVEMENT REPLACEMENT

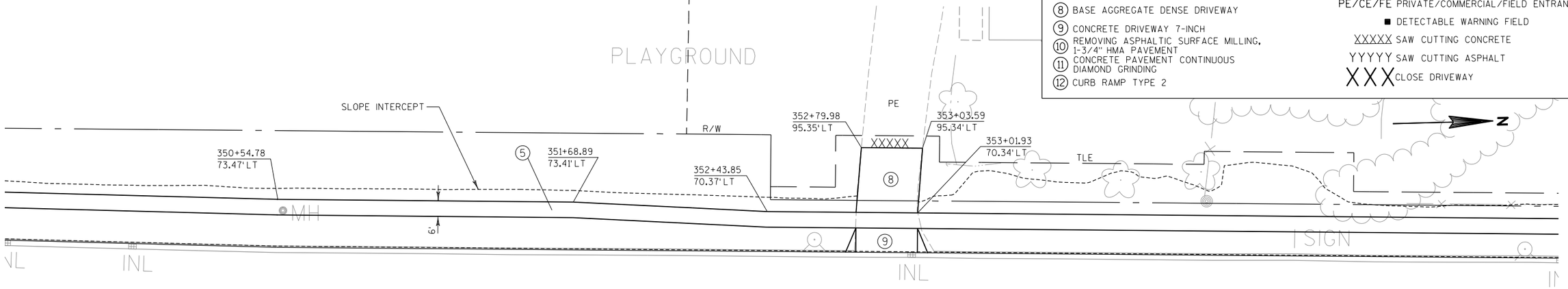
PE/CE/FE PRIVATE/COMMERCIAL/FIELD ENTRANCE

■ DETECTABLE WARNING FIELD

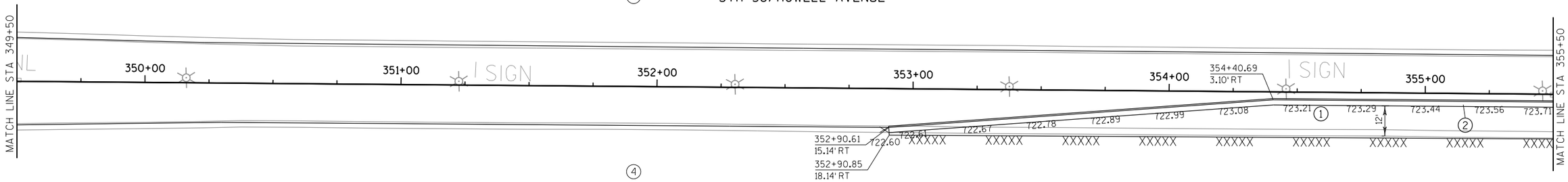
XXXXX SAW CUTTING CONCRETE

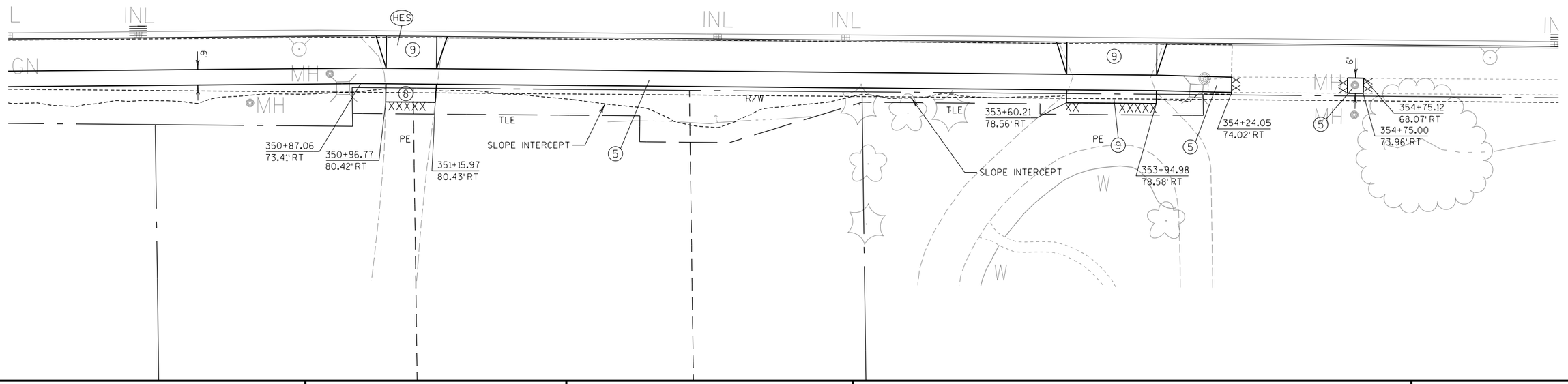
YYYYY SAW CUTTING ASPHALT

XXX CLOSE DRIVEWAY



④ STH 38/HOWELL AVENUE





PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 99	E

NOTES:
CURB AND GUTTER RADII SHOWN AT FACE OF CURB.

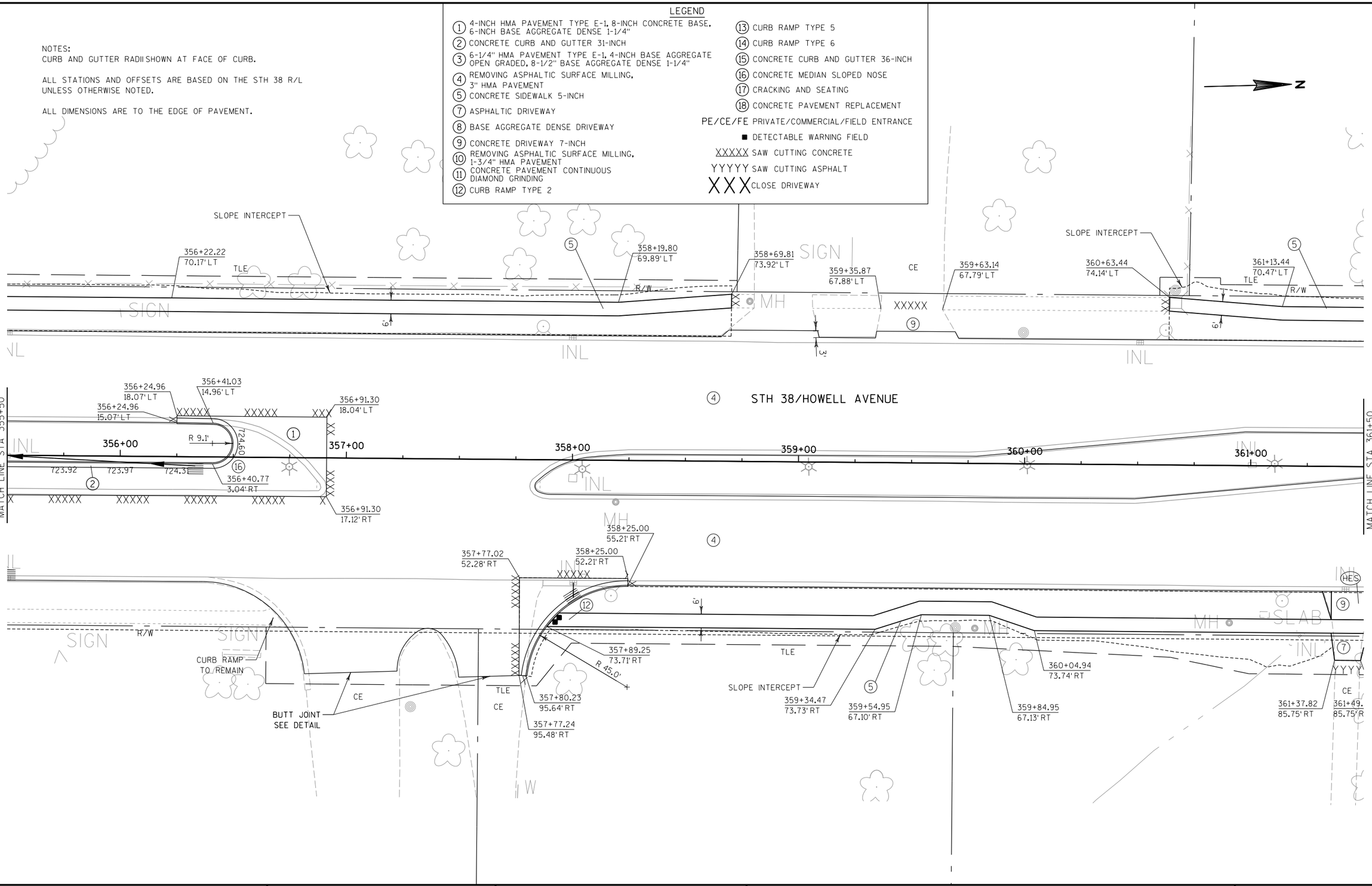
ALL STATIONS AND OFFSETS ARE BASED ON THE STH 38 R/L UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT.

LEGEND

1. 4-INCH HMA PAVEMENT TYPE E-1, 8-INCH CONCRETE BASE, 6-INCH BASE AGGREGATE DENSE 1-1/4"
2. CONCRETE CURB AND GUTTER 31-INCH
3. 6-1/4" HMA PAVEMENT TYPE E-1, 4-INCH BASE AGGREGATE OPEN GRADED, 8-1/2" BASE AGGREGATE DENSE 1-1/4"
4. REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
5. CONCRETE SIDEWALK 5-INCH
7. ASPHALTIC DRIVEWAY
8. BASE AGGREGATE DENSE DRIVEWAY
9. CONCRETE DRIVEWAY 7-INCH
10. REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
11. CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING
12. CURB RAMP TYPE 2
13. CURB RAMP TYPE 5
14. CURB RAMP TYPE 6
15. CONCRETE CURB AND GUTTER 36-INCH
16. CONCRETE MEDIAN SLOPED NOSE
17. CRACKING AND SEATING
18. CONCRETE PAVEMENT REPLACEMENT

PE/CE/FE PRIVATE/COMMERCIAL/FIELD ENTRANCE
■ DETECTABLE WARNING FIELD
XXXXX SAW CUTTING CONCRETE
YYYYY SAW CUTTING ASPHALT
XXX CLOSE DRIVEWAY

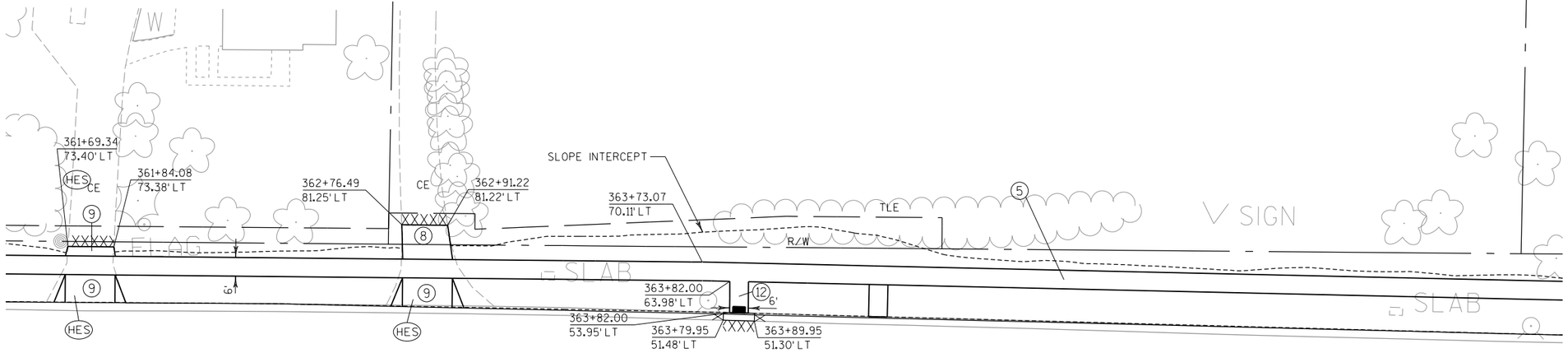


PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 100	E

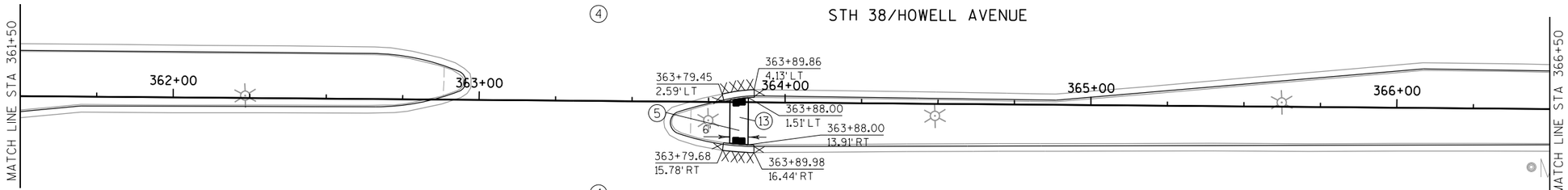
NOTES:
CURB AND GUTTER RADII SHOWN AT FACE OF CURB.

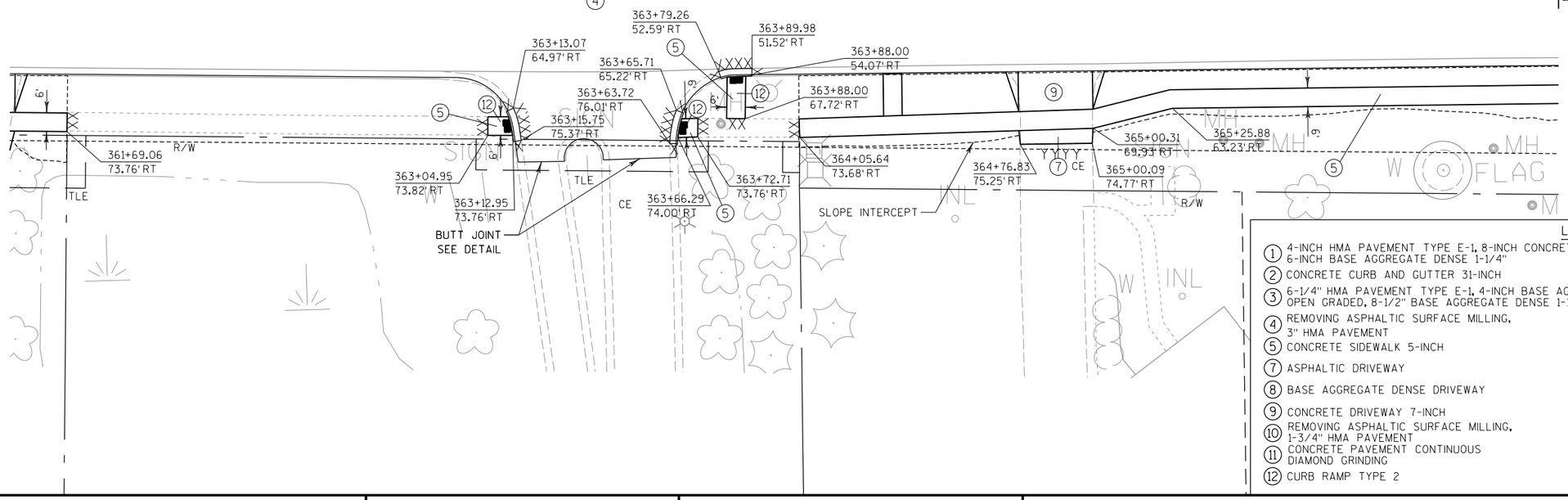
ALL STATIONS AND OFFSETS ARE BASED ON THE STH 38 R/L UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT.



STH 38/HOWELL AVENUE





LEGEND

1. 4-INCH HMA PAVEMENT TYPE E-1, 8-INCH CONCRETE BASE, 6-INCH BASE AGGREGATE DENSE 1-1/4"
2. CONCRETE CURB AND GUTTER 31-INCH
3. 6-1/4" HMA PAVEMENT TYPE E-1, 4-INCH BASE AGGREGATE OPEN GRADED, 8-1/2" BASE AGGREGATE DENSE 1-1/4"
4. REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
5. CONCRETE SIDEWALK 5-INCH
7. ASPHALTIC DRIVEWAY
8. BASE AGGREGATE DENSE DRIVEWAY
9. CONCRETE DRIVEWAY 7-INCH
10. REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
11. CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING
12. CURB RAMP TYPE 2
13. CURB RAMP TYPE 5
14. CURB RAMP TYPE 6
15. CONCRETE CURB AND GUTTER 36-INCH
16. CONCRETE MEDIAN SLOPED NOSE
17. CRACKING AND SEATING
18. CONCRETE PAVEMENT REPLACEMENT

PE/CE/FE PRIVATE/COMMERCIAL/FIELD ENTRANCE

■ DETECTABLE WARNING FIELD

XXXXX SAW CUTTING CONCRETE

YYYY SAW CUTTING ASPHALT

XXX CLOSE DRIVEWAY

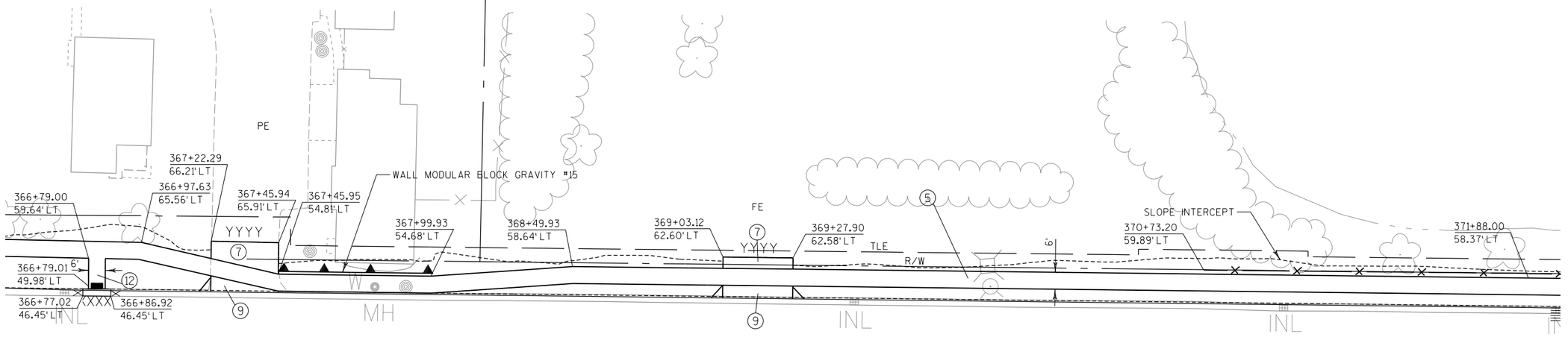
PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 101	E

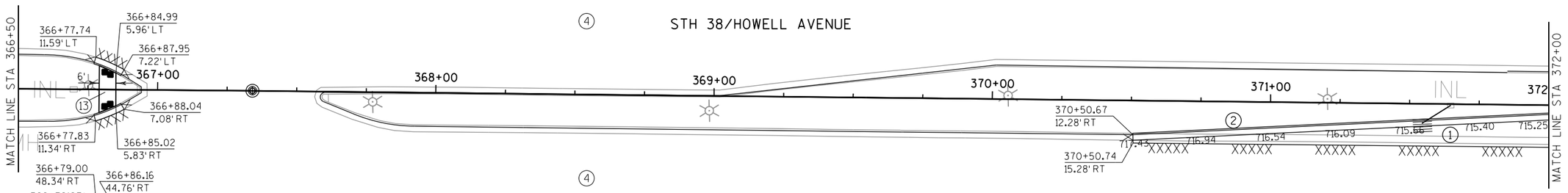
NOTES:
CURB AND GUTTER RADII SHOWN AT FACE OF CURB.

ALL STATIONS AND OFFSETS ARE BASED ON THE STH 38 R/L UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT.

N





LEGEND

1. 4-INCH HMA PAVEMENT TYPE E-1, 8-INCH CONCRETE BASE, 6-INCH BASE AGGREGATE DENSE 1-1/4"
2. CONCRETE CURB AND GUTTER 31-INCH
3. 6-1/4" HMA PAVEMENT TYPE E-1, 4-INCH BASE AGGREGATE OPEN GRADED, 8-1/2" BASE AGGREGATE DENSE 1-1/4"
4. REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
5. CONCRETE SIDEWALK 5-INCH
7. ASPHALTIC DRIVEWAY
8. BASE AGGREGATE DENSE DRIVEWAY
9. CONCRETE DRIVEWAY 7-INCH
10. REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
11. CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING
12. CURB RAMP TYPE 2
13. CURB RAMP TYPE 5
14. CURB RAMP TYPE 6
15. CONCRETE CURB AND GUTTER 36-INCH
16. CONCRETE MEDIAN SLOPED NOSE
17. CRACKING AND SEATING
18. CONCRETE PAVEMENT REPLACEMENT

PE/CE/FE PRIVATE/COMMERCIAL/FIELD ENTRANCE

■ DETECTABLE WARNING FIELD

XXXXX SAW CUTTING CONCRETE

YYYYY SAW CUTTING ASPHALT

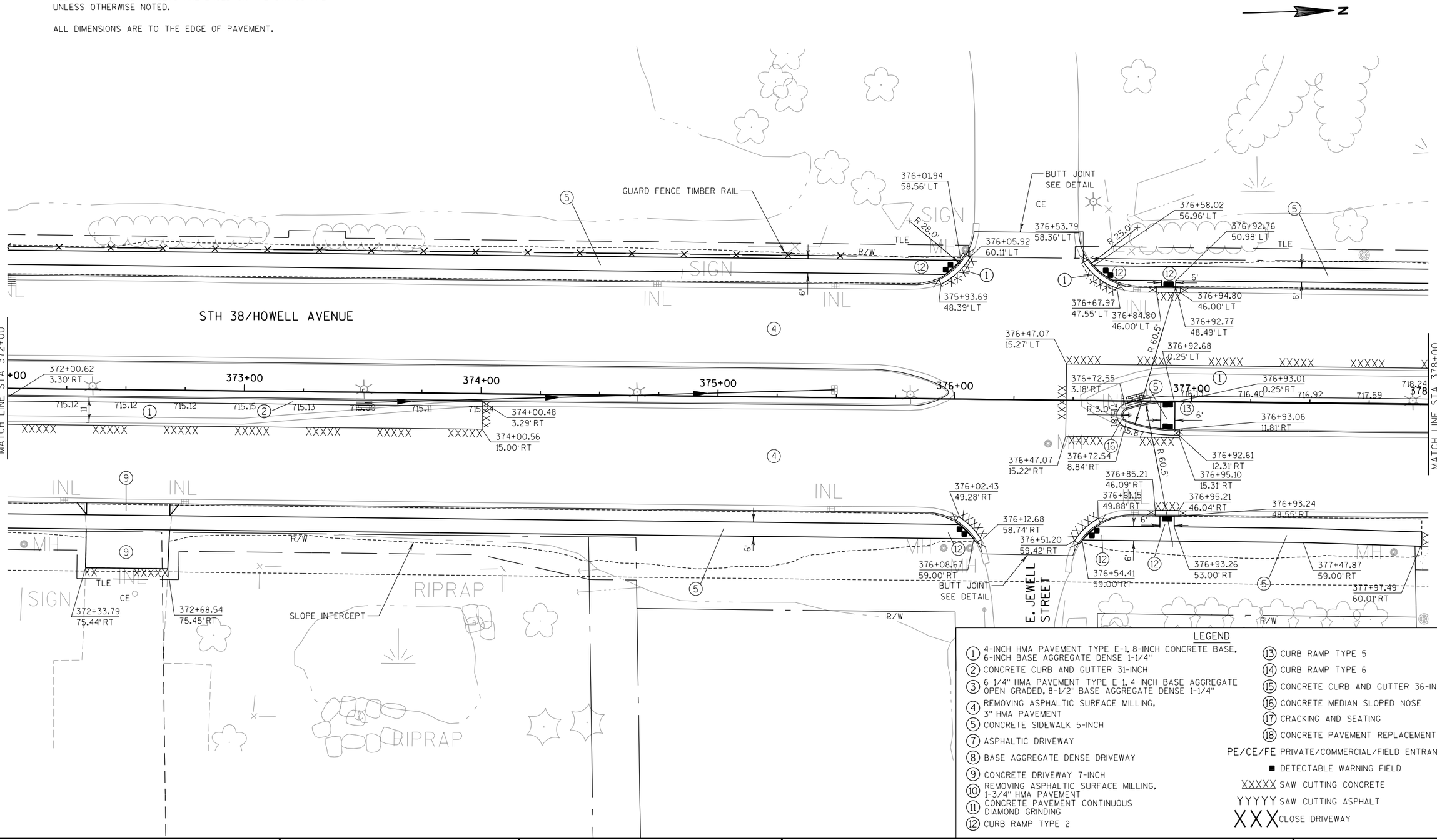
XXX CLOSE DRIVEWAY

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 102	E

NOTES:
CURB AND GUTTER RADII SHOWN AT FACE OF CURB.

ALL STATIONS AND OFFSETS ARE BASED ON THE STH 38 R/L
UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT.



LEGEND

1. 4-INCH HMA PAVEMENT TYPE E-1, 8-INCH CONCRETE BASE, 6-INCH BASE AGGREGATE DENSE 1-1/4"
2. CONCRETE CURB AND GUTTER 31-INCH
3. 6-1/4" HMA PAVEMENT TYPE E-1, 4-INCH BASE AGGREGATE OPEN GRADED, 8-1/2" BASE AGGREGATE DENSE 1-1/4"
4. REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
5. CONCRETE SIDEWALK 5-INCH
7. ASPHALTIC DRIVEWAY
8. BASE AGGREGATE DENSE DRIVEWAY
9. CONCRETE DRIVEWAY 7-INCH
10. REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
11. CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING
12. CURB RAMP TYPE 2
13. CURB RAMP TYPE 5
14. CURB RAMP TYPE 6
15. CONCRETE CURB AND GUTTER 36-INCH
16. CONCRETE MEDIAN SLOPED NOSE
17. CRACKING AND SEATING
18. CONCRETE PAVEMENT REPLACEMENT

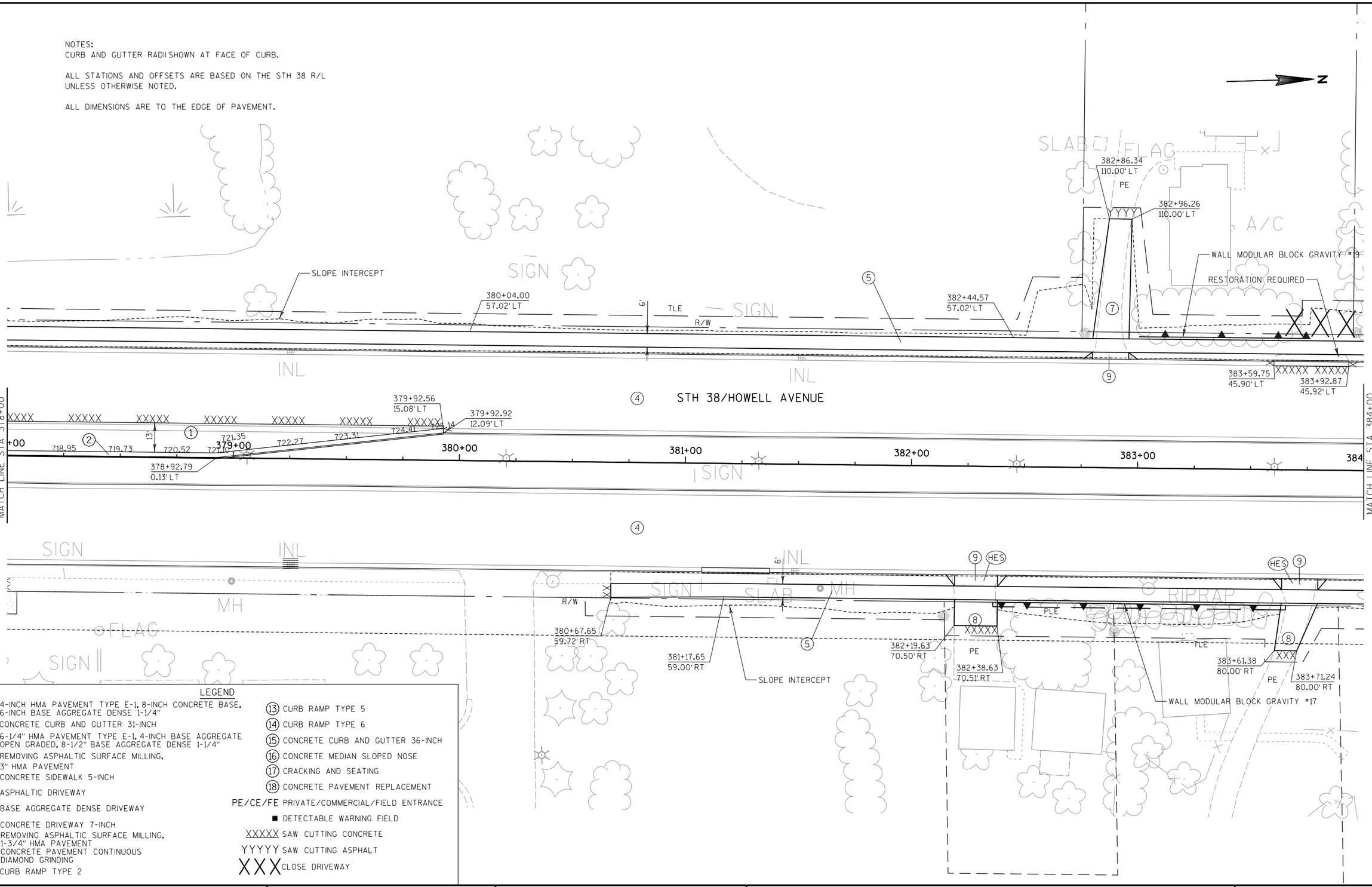
PE/CE/FE PRIVATE/COMMERCIAL/FIELD ENTRANCE
■ DETECTABLE WARNING FIELD
XXXXX SAW CUTTING CONCRETE
YYYYY SAW CUTTING ASPHALT
XXX CLOSE DRIVEWAY

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 103	E

NOTES:
CURB AND GUTTER RADII SHOWN AT FACE OF CURB.

ALL STATIONS AND OFFSETS ARE BASED ON THE STH 38 R/L UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT.



LEGEND

1. 4-INCH HMA PAVEMENT TYPE E-1, 8-INCH CONCRETE BASE, 6-INCH BASE AGGREGATE DENSE 1-1/4"
2. CONCRETE CURB AND GUTTER 31-INCH
3. 6-1/4" HMA PAVEMENT TYPE E-1, 4-INCH BASE AGGREGATE OPEN GRADED, 8-1/2" BASE AGGREGATE DENSE 1-1/4"
4. REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
5. CONCRETE SIDEWALK 5-INCH
7. ASPHALTIC DRIVEWAY
8. BASE AGGREGATE DENSE DRIVEWAY
9. CONCRETE DRIVEWAY 7-INCH
10. REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
11. CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING
12. CURB RAMP TYPE 2
13. CURB RAMP TYPE 5
14. CURB RAMP TYPE 6
15. CONCRETE CURB AND GUTTER 36-INCH
16. CONCRETE MEDIAN SLOPED NOSE
17. CRACKING AND SEATING
18. CONCRETE PAVEMENT REPLACEMENT

PE/CE/FE PRIVATE/COMMERCIAL/FIELD ENTRANCE

■ DETECTABLE WARNING FIELD

XXXXX SAW CUTTING CONCRETE

YYYYY SAW CUTTING ASPHALT

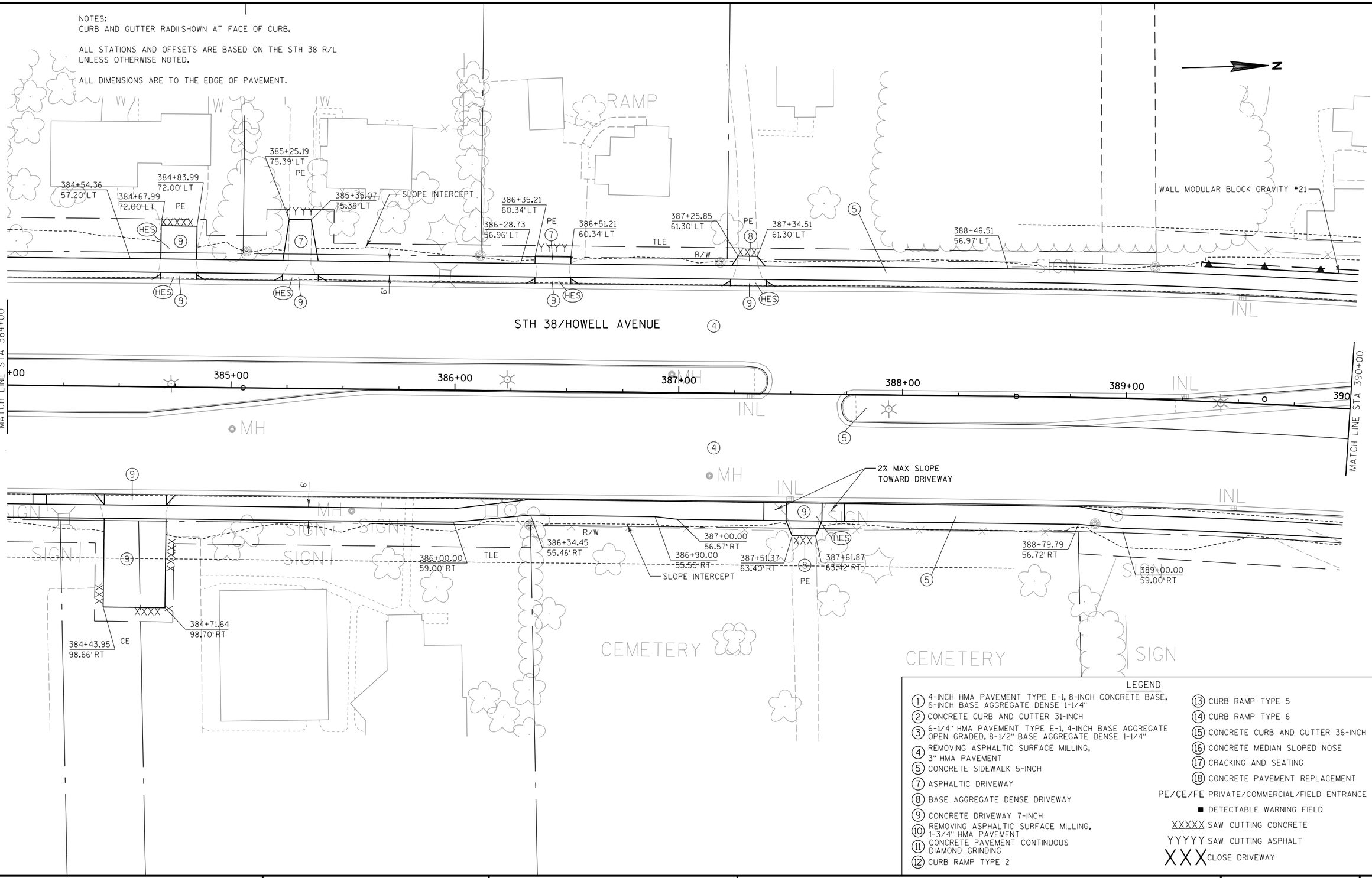
XXX CLOSE DRIVEWAY

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 104	E

NOTES:
CURB AND GUTTER RADII SHOWN AT FACE OF CURB.

ALL STATIONS AND OFFSETS ARE BASED ON THE STH 38 R/L UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT.



LEGEND

1. 4-INCH HMA PAVEMENT TYPE E-1, 8-INCH CONCRETE BASE, 6-INCH BASE AGGREGATE DENSE 1-1/4"
2. CONCRETE CURB AND GUTTER 31-INCH
3. 6-1/4" HMA PAVEMENT TYPE E-1, 4-INCH BASE AGGREGATE OPEN GRADED, 8-1/2" BASE AGGREGATE DENSE 1-1/4"
4. REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
5. CONCRETE SIDEWALK 5-INCH
7. ASPHALTIC DRIVEWAY
8. BASE AGGREGATE DENSE DRIVEWAY
9. CONCRETE DRIVEWAY 7-INCH
10. REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
11. CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING
12. CURB RAMP TYPE 2
13. CURB RAMP TYPE 5
14. CURB RAMP TYPE 6
15. CONCRETE CURB AND GUTTER 36-INCH
16. CONCRETE MEDIAN SLOPED NOSE
17. CRACKING AND SEATING
18. CONCRETE PAVEMENT REPLACEMENT

PE/CE/FE PRIVATE/COMMERCIAL/FIELD ENTRANCE

■ DETECTABLE WARNING FIELD

XXXXX SAW CUTTING CONCRETE

YYYY SAW CUTTING ASPHALT

XXX CLOSE DRIVEWAY

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 105	E

NOTES:
CURB AND GUTTER RADII SHOWN AT FACE OF CURB.

ALL STATIONS AND OFFSETS ARE BASED ON THE STH 38 R/L UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT.

WALL MODULAR BLOCK GRAVITY #21

STH 38/HOWELL AVENUE

CTH ZZ/COLLEGE AVENUE

MATCH LINE STA 390+00

MATCH LINE STA 396+00

SLOPE INTERCEPT

BUTT JOINT SEE DETAIL

FILLER CAP

CANOPY

SIGN

INL

MH

R/W

TLE

PE

HES

R 38.0'

R 3.0'

R 40.0'

390+31.60 93.89' LT PE
390+41.34 94.10' LT
390+46.14 45.83' LT
390+75.72 56.95' LT
391+40.13 61.44' LT TLE
391+49.66 61.45' LT PE
391+77.16 61.48' LT PE
391+96.79 61.51' LT
391+96.68 56.97' LT
390+14.68 37.56' LT
390+64.31 45.82' LT
390+24.69 13.92' LT
390+64.37 13.75' LT
390+48.13 3.26' LT
390+65.04 3.25' LT
390+23.75 24.60' RT
390+14.44 24.53' RT
390+47.99 37.06' RT
390+65.15 37.20' RT
390+72.55 59.00' RT
391+00
392+00
393+00
394+00
395+00
396

393+67.01 157.24' LT
393+68.17 147.22' LT
393+78.85 158.64' LT
393+80.04 148.54' LT
393+34.44 90.07' LT
393+36.83 90.33' LT
393+26.70 63.55' LT
393+03.47 56.36' LT
393+90.61 72.52' LT
393+87.63 72.24' LT
393+39.65 67.24' LT
393+91.22 66.08' LT
393+90.18 50.08' LT
392+90.65 47.99' LT
392+90.68 45.07' LT
393+04.24 49.27' LT
393+41.10 56.91' LT
393+24.27 45.23' LT
393+05.05 14.68' LT
393+08.38 11.23' LT
393+05.11 11.69' LT
393+29.15 10.74' LT
393+27.60 10.47' LT
393+27.63 6.08' LT
392+56.01 3.20' LT
392+56.02 8.66' RT
393+06.19 5.37' LT
393+06.22 2.37' LT
393+08.96 5.89' LT
393+29.19 5.60' LT
394+02.77 51.34' LT
394+35.03 66.71' LT
394+29.76 62.31' LT
394+30.83 49.37' LT
394+34.08 52.52' LT
394+34.59 45.80' LT
394+44.42 52.05' LT
394+44.76 49.59' LT
394+50.79 49.77' LT
394+59.06 46.51' LT
394+58.72 59.68' LT
394+49.57 58.74' LT
394+57.58 72.90' LT
394+58.43 75.78' LT
394+37.67 78.93' LT
394+00.28 73.69' LT
394+28.04 90.93' LT
394+26.48 105.08' LT
394+29.54 105.43' LT
394+35.79 103.06' LT
394+40.74 103.74' LT
394+41.40 98.79' LT
394+48.41 90.11' LT
394+51.72 83.88' LT
394+57.47 82.15' LT
395+50.99 59.09' LT
394+95.72 75.95' LT
395+47.45 60.18' LT
394+94.36 71.24' LT
395+45.98 55.40' LT
395+50.23 54.10' LT
395+83.33 53.97' LT
394+86.10 44.95' RT
395+38.49 8.84' LT
395+48.47 8.85' LT
394+64.88 2.20' RT
395+38.50 3.08' RT
395+48.43 3.12' RT
394+64.82 11.19' RT
394+64.92 14.19' RT
394+47.19 14.25' RT
394+47.30 2.26' RT
393+93.76 6.95' RT
393+88.82 62.21' RT
393+83.31 49.11' RT
393+37.22 44.99' RT
393+10.40 45.11' RT
393+15.35 48.09' RT
393+10.45 48.10' RT
393+53.69 59.04' RT
393+88.35 59.75' RT
393+56.17 81.59' RT
393+53.53 85.02' RT
393+14.88 48.59' RT
393+15.36 53.00' RT
393+14.13 59.00' RT
393+41.23 80.73' RT
393+41.51 83.23' RT
393+52.69 82.08' RT
393+86.81 81.81' RT
393+89.80 81.50' RT
393+89.99 78.48' RT
393+95.48 77.95' RT
393+95.77 47.77' RT
393+93.97 59.15' RT
394+56.03 72.12' RT
394+49.67 72.73' RT
394+40.04 72.16' RT
393+99.28 80.59' RT
393+96.30 80.91' RT
394+46.14 88.99' RT
394+43.56 105.33' RT
394+46.56 105.26' RT
394+60.64 94.81' RT
394+61.14 89.47' RT
394+65.00 54.57' RT
394+65.83 60.67' RT
394+86.08 47.95' RT
394+86.09 54.08' RT
395+26.36 54.12' RT
394+91.87 59.10' RT
395+26.36 59.08' RT
394+86.87 59.09' RT
394+70.54 64.40' RT
394+61.05 75.48' RT
395+65.01 59.13' RT

LEGEND

1. 4-INCH HMA PAVEMENT TYPE E-1, 8-INCH CONCRETE BASE, 6-INCH BASE AGGREGATE DENSE 1-1/4"
2. CONCRETE CURB AND GUTTER 31-INCH
3. 6-1/4" HMA PAVEMENT TYPE E-1, 4-INCH BASE AGGREGATE OPEN GRADED, 8-1/2" BASE AGGREGATE DENSE 1-1/4"
4. REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
5. CONCRETE SIDEWALK 5-INCH
7. ASPHALTIC DRIVEWAY
8. BASE AGGREGATE DENSE DRIVEWAY
9. CONCRETE DRIVEWAY 7-INCH
10. REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
11. CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING
12. CURB RAMP TYPE 2
13. CURB RAMP TYPE 5
14. CURB RAMP TYPE 6
15. CONCRETE CURB AND GUTTER 36-INCH
16. CONCRETE MEDIAN SLOPED NOSE
17. CRACKING AND SEATING
18. CONCRETE PAVEMENT REPLACEMENT

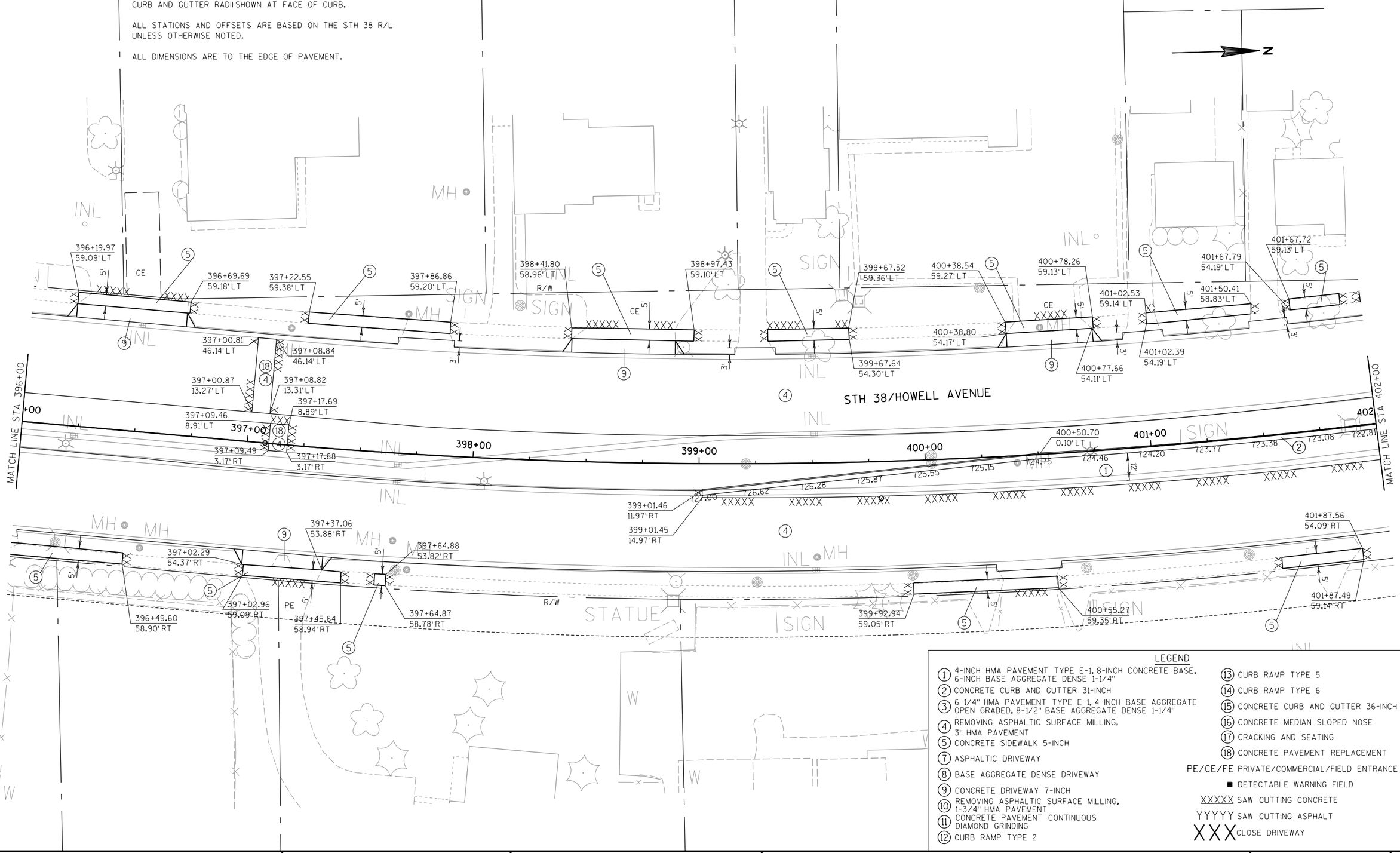
PE/CE/FE PRIVATE/COMMERCIAL/FIELD ENTRANCE
■ DETECTABLE WARNING FIELD
XXXXX SAW CUTTING CONCRETE
YYYYY SAW CUTTING ASPHALT
XXX CLOSE DRIVEWAY

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 106	E

NOTES:
CURB AND GUTTER RADII SHOWN AT FACE OF CURB.

ALL STATIONS AND OFFSETS ARE BASED ON THE STH 38 R/L UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT.



LEGEND

1. 4-INCH HMA PAVEMENT TYPE E-1, 8-INCH CONCRETE BASE, 6-INCH BASE AGGREGATE DENSE 1-1/4"
2. CONCRETE CURB AND GUTTER 31-INCH
3. 6-1/4" HMA PAVEMENT TYPE E-1, 4-INCH BASE AGGREGATE OPEN GRADED, 8-1/2" BASE AGGREGATE DENSE 1-1/4"
4. REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
5. CONCRETE SIDEWALK 5-INCH
7. ASPHALTIC DRIVEWAY
8. BASE AGGREGATE DENSE DRIVEWAY
9. CONCRETE DRIVEWAY 7-INCH
10. REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
11. CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING
12. CURB RAMP TYPE 2
13. CURB RAMP TYPE 5
14. CURB RAMP TYPE 6
15. CONCRETE CURB AND GUTTER 36-INCH
16. CONCRETE MEDIAN SLOPED NOSE
17. CRACKING AND SEATING
18. CONCRETE PAVEMENT REPLACEMENT

PE/CE/FE PRIVATE/COMMERCIAL/FIELD ENTRANCE

■ DETECTABLE WARNING FIELD

XXXXX SAW CUTTING CONCRETE

YYYYY SAW CUTTING ASPHALT

XXX CLOSE DRIVEWAY

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 107	E

NOTES:
CURB AND GUTTER RADII SHOWN AT FACE OF CURB.

ALL STATIONS AND OFFSETS ARE BASED ON THE STH 38 R/L UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT.

W. UNCAS AVENUE

STH 38/HOWELL AVENUE

MATCH LINE STA 402+00

MATCH LINE STA 408+00

MEDIAN RESTORATION REQUIRED

R 2659.0'

LEGEND

1. 4-INCH HMA PAVEMENT TYPE E-1, 8-INCH CONCRETE BASE, 6-INCH BASE AGGREGATE DENSE 1-1/4"
2. CONCRETE CURB AND GUTTER 31-INCH
3. 6-1/4" HMA PAVEMENT TYPE E-1, 4-INCH BASE AGGREGATE OPEN GRADED, 8-1/2" BASE AGGREGATE DENSE 1-1/4"
4. REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
5. CONCRETE SIDEWALK 5-INCH
7. ASPHALTIC DRIVEWAY
8. BASE AGGREGATE DENSE DRIVEWAY
9. CONCRETE DRIVEWAY 7-INCH
10. REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
11. CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING
12. CURB RAMP TYPE 2
13. CURB RAMP TYPE 5
14. CURB RAMP TYPE 6
15. CONCRETE CURB AND GUTTER 36-INCH
16. CONCRETE MEDIAN SLOPED NOSE
17. CRACKING AND SEATING
18. CONCRETE PAVEMENT REPLACEMENT

PE/CE/FE PRIVATE/COMMERCIAL/FIELD ENTRANCE

■ DETECTABLE WARNING FIELD

XXXXX SAW CUTTING CONCRETE

YYYYY SAW CUTTING ASPHALT

XXX CLOSE DRIVEWAY

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 108	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\021248_pd.dgn PLOT DATE : 1/30/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:40

NOTES:
CURB AND GUTTER RADII SHOWN AT FACE OF CURB.

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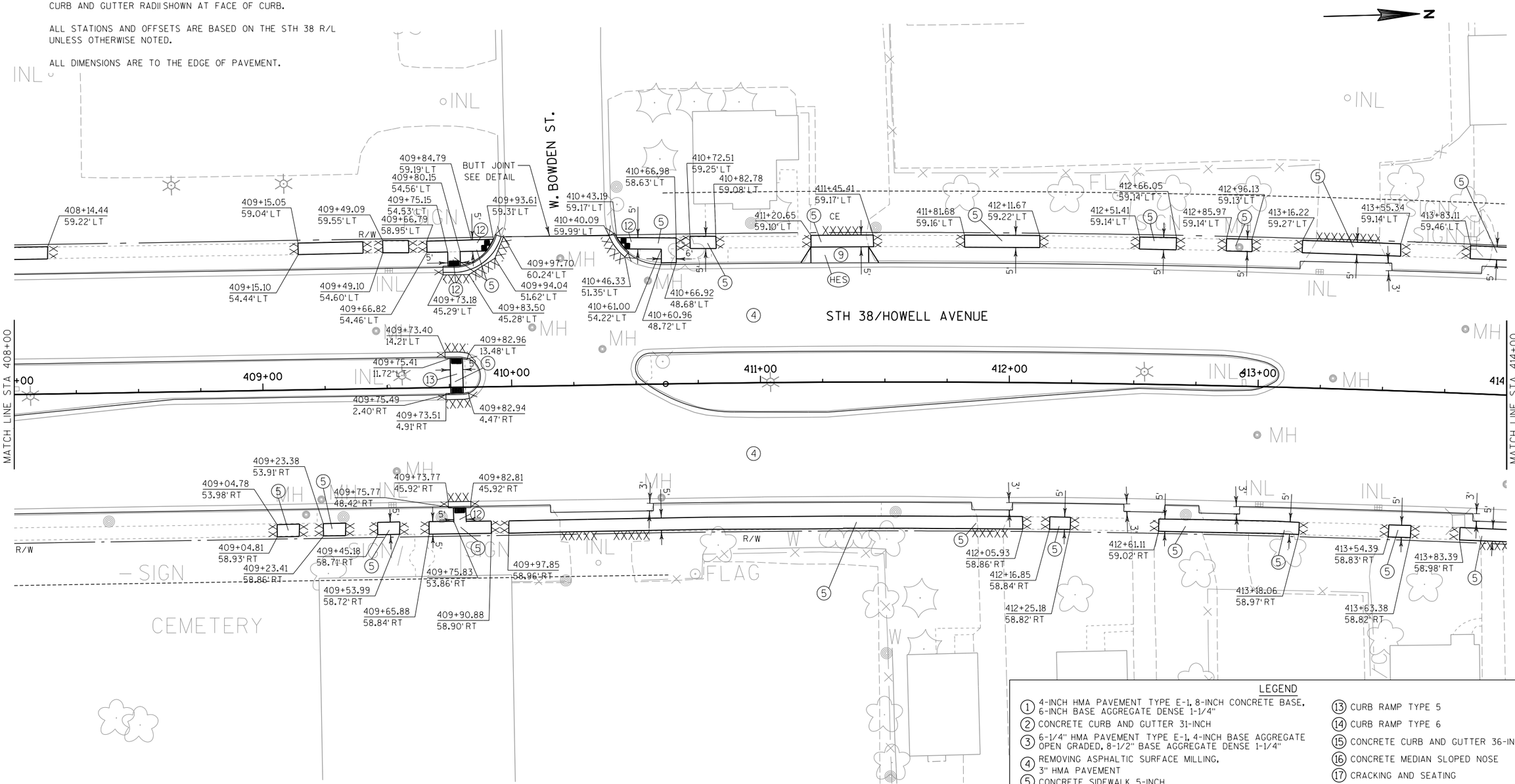

LEGEND

1. 4-INCH HMA PAVEMENT TYPE E-1, 8-INCH CONCRETE BASE, 6-INCH BASE AGGREGATE DENSE 1-1/4"
2. CONCRETE CURB AND GUTTER 31-INCH
3. 6-1/4" HMA PAVEMENT TYPE E-1, 4-INCH BASE AGGREGATE OPEN GRADED, 8-1/2" BASE AGGREGATE DENSE 1-1/4"
4. REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
5. CONCRETE SIDEWALK 5-INCH
7. ASPHALTIC DRIVEWAY
8. BASE AGGREGATE DENSE DRIVEWAY
9. CONCRETE DRIVEWAY 7-INCH
10. REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
11. CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING
12. CURB RAMP TYPE 2
13. CURB RAMP TYPE 5
14. CURB RAMP TYPE 6
15. CONCRETE CURB AND GUTTER 36-INCH
16. CONCRETE MEDIAN SLOPED NOSE
17. CRACKING AND SEATING
18. CONCRETE PAVEMENT REPLACEMENT

PE/CE/FE PRIVATE/COMMERCIAL/FIELD ENTRANCE

■ DETECTABLE WARNING FIELD

XXXXX SAW CUTTING CONCRETE

YYYY SAW CUTTING ASPHALT

XXX CLOSE DRIVEWAY

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 109	E

NOTES:
CURB AND GUTTER RADII SHOWN AT FACE OF CURB.

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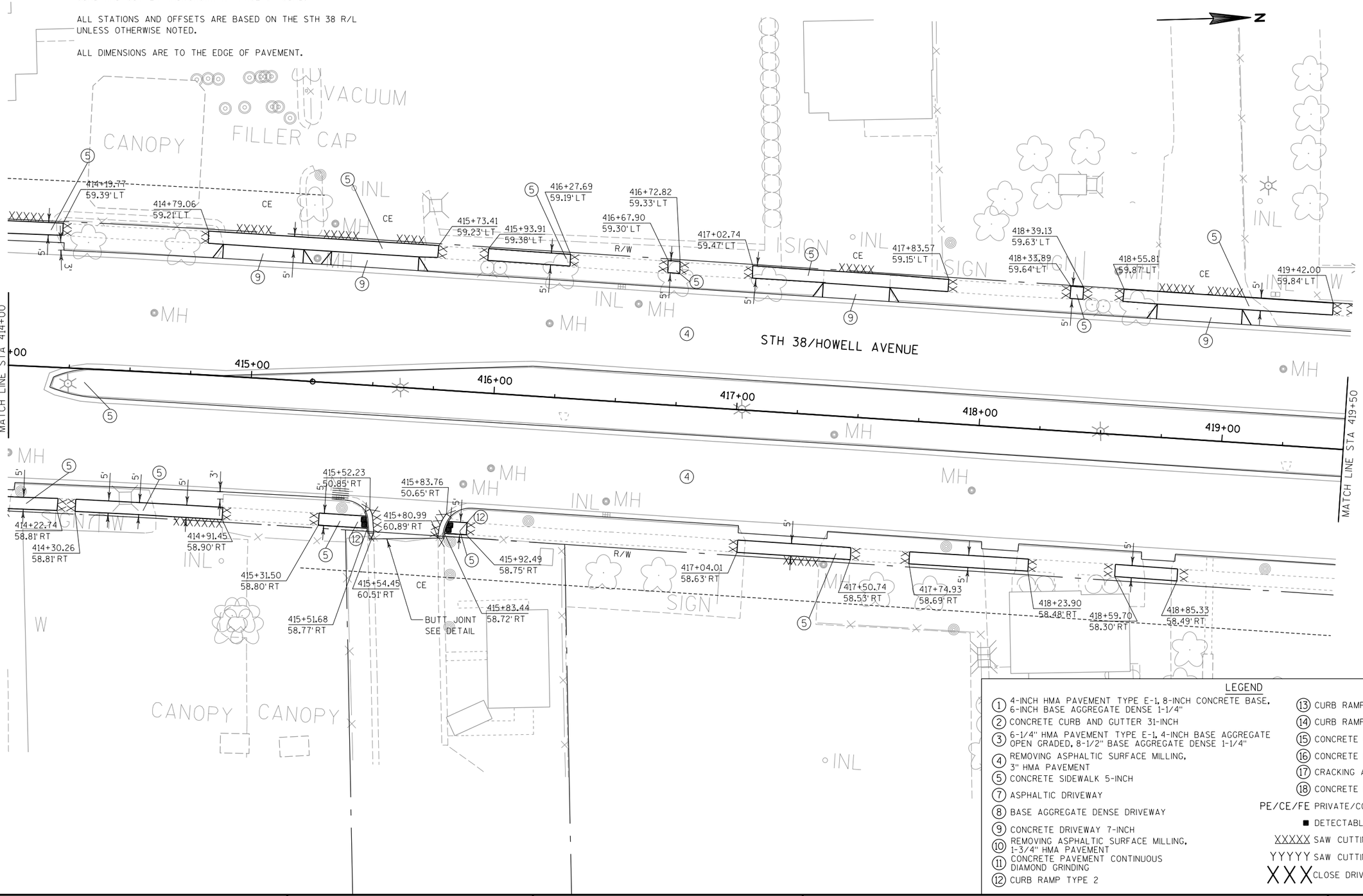

LEGEND

1. 4-INCH HMA PAVEMENT TYPE E-1, 8-INCH CONCRETE BASE, 6-INCH BASE AGGREGATE DENSE 1-1/4"
2. CONCRETE CURB AND GUTTER 31-INCH
3. 6-1/4" HMA PAVEMENT TYPE E-1, 4-INCH BASE AGGREGATE OPEN GRADED, 8-1/2" BASE AGGREGATE DENSE 1-1/4"
4. REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
5. CONCRETE SIDEWALK 5-INCH
7. ASPHALTIC DRIVEWAY
8. BASE AGGREGATE DENSE DRIVEWAY
9. CONCRETE DRIVEWAY 7-INCH
10. REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
11. CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING
12. CURB RAMP TYPE 2
13. CURB RAMP TYPE 5
14. CURB RAMP TYPE 6
15. CONCRETE CURB AND GUTTER 36-INCH
16. CONCRETE MEDIAN SLOPED NOSE
17. CRACKING AND SEATING
18. CONCRETE PAVEMENT REPLACEMENT

PE/CE/FE PRIVATE/COMMERCIAL/FIELD ENTRANCE

■ DETECTABLE WARNING FIELD

XXXXX SAW CUTTING CONCRETE

YYYYY SAW CUTTING ASPHALT

XXX CLOSE DRIVEWAY

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 110	E

NOTES:
CURB AND GUTTER RADII SHOWN AT FACE OF CURB.

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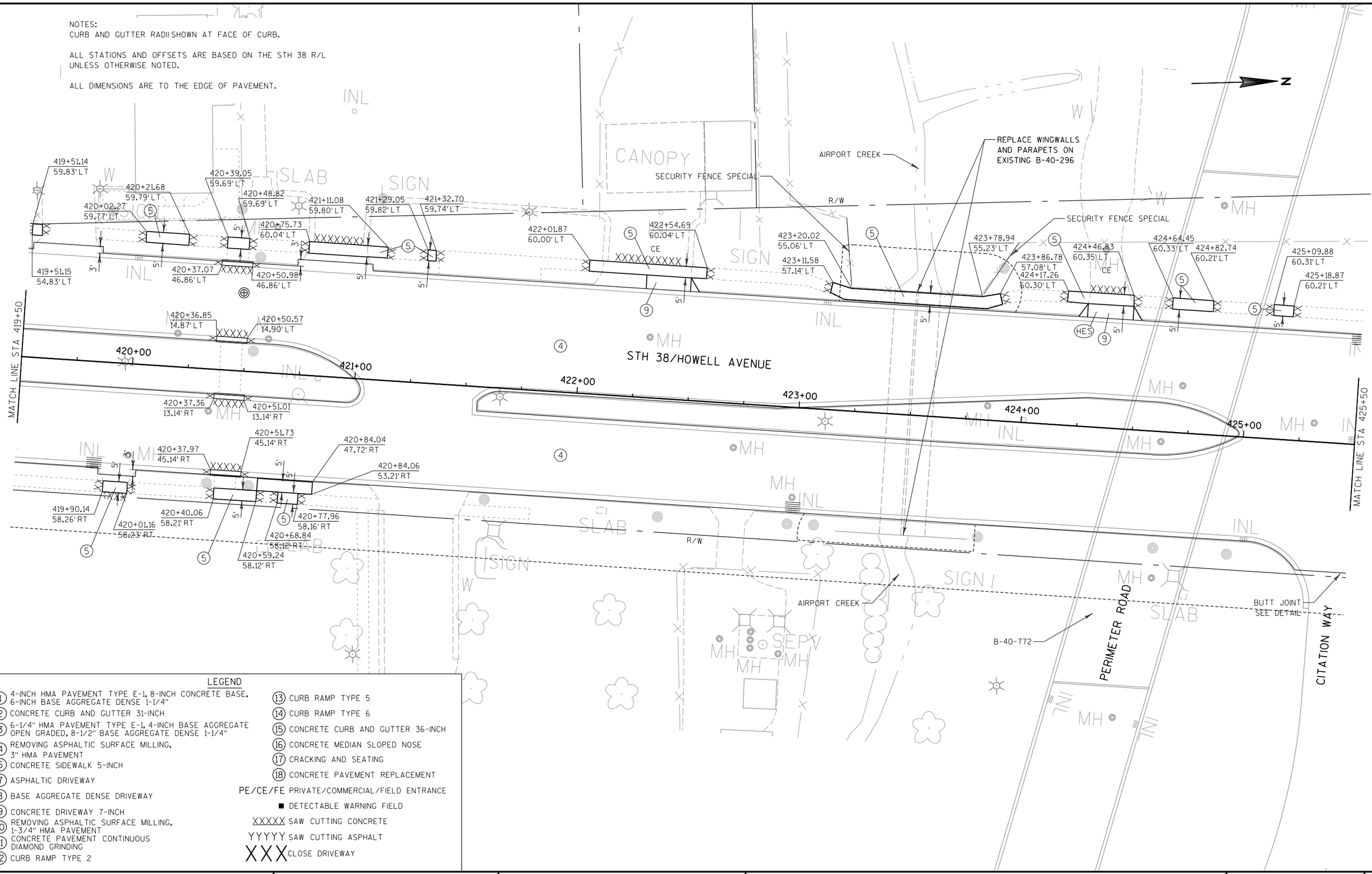
ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT.



LEGEND

1. 4-INCH HMA PAVEMENT TYPE E-1, 8-INCH CONCRETE BASE, 6-INCH BASE AGGREGATE DENSE 1-1/4"
2. CONCRETE CURB AND GUTTER 31-INCH
3. 6-1/4" HMA PAVEMENT TYPE E-1, 4-INCH BASE AGGREGATE OPEN GRADED, 8-1/2" BASE AGGREGATE DENSE 1-1/4"
4. REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
5. CONCRETE SIDEWALK 5-INCH
7. ASPHALTIC DRIVEWAY
8. BASE AGGREGATE DENSE DRIVEWAY
9. CONCRETE DRIVEWAY 7-INCH
10. REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
11. CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING
12. CURB RAMP TYPE 2
13. CURB RAMP TYPE 5
14. CURB RAMP TYPE 6
15. CONCRETE CURB AND GUTTER 36-INCH
16. CONCRETE MEDIAN SLOPED NOSE
17. CRACKING AND SEATING
18. CONCRETE PAVEMENT REPLACEMENT

PE/CE/FE PRIVATE/COMMERCIAL/FIELD ENTRANCE

■ DETECTABLE WARNING FIELD

XXXXX SAW CUTTING CONCRETE

YYYYY SAW CUTTING ASPHALT

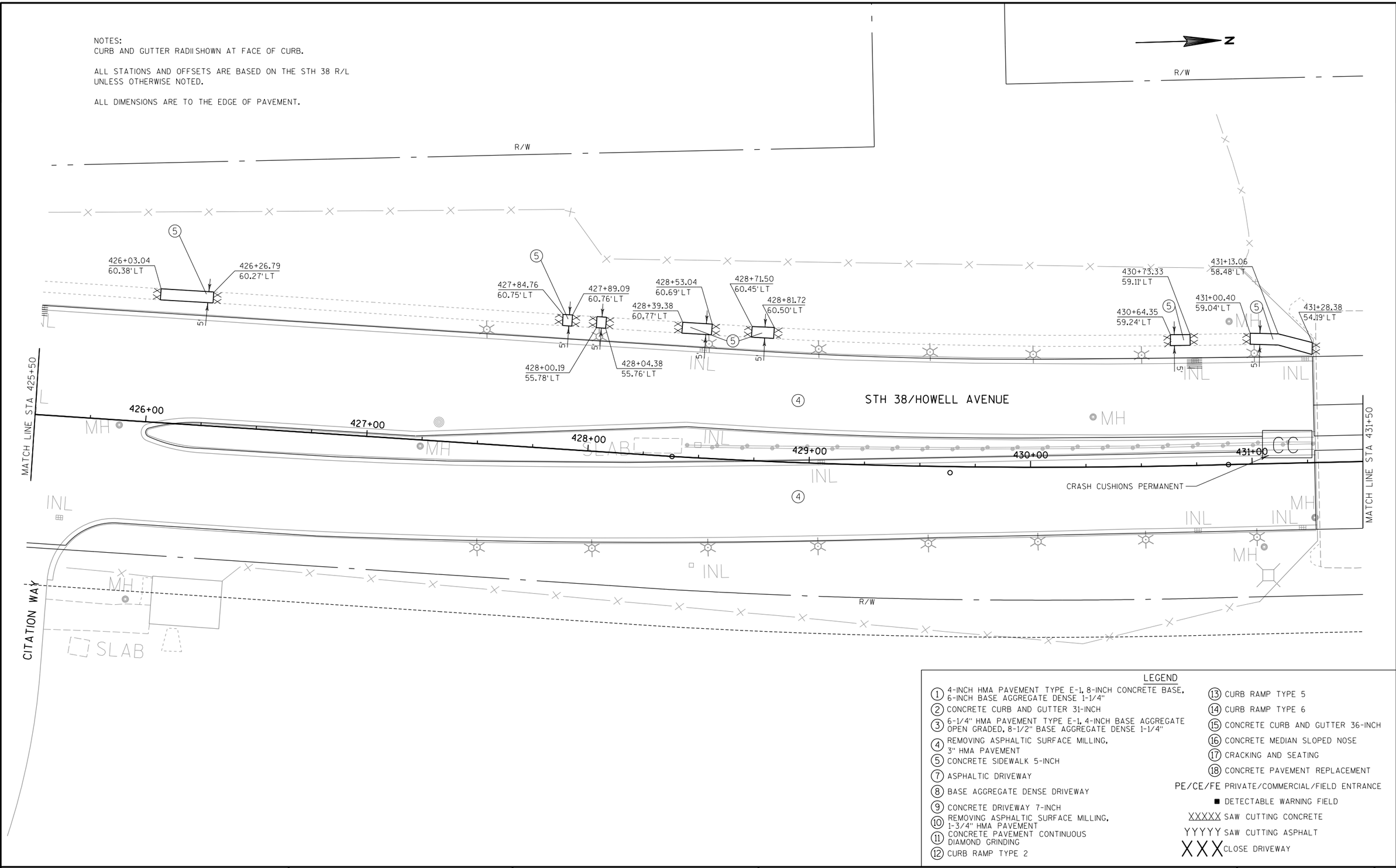
XXX CLOSE DRIVEWAY

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 111	E

NOTES:
CURB AND GUTTER RADII SHOWN AT FACE OF CURB.

ALL STATIONS AND OFFSETS ARE BASED ON THE STH 38 R/L UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT.



LEGEND

1. 4-INCH HMA PAVEMENT TYPE E-1, 8-INCH CONCRETE BASE, 6-INCH BASE AGGREGATE DENSE 1-1/4"
2. CONCRETE CURB AND GUTTER 31-INCH
3. 6-1/4" HMA PAVEMENT TYPE E-1, 4-INCH BASE AGGREGATE OPEN GRADED, 8-1/2" BASE AGGREGATE DENSE 1-1/4"
4. REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
5. CONCRETE SIDEWALK 5-INCH
7. ASPHALTIC DRIVEWAY
8. BASE AGGREGATE DENSE DRIVEWAY
9. CONCRETE DRIVEWAY 7-INCH
10. REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
11. CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING
12. CURB RAMP TYPE 2
13. CURB RAMP TYPE 5
14. CURB RAMP TYPE 6
15. CONCRETE CURB AND GUTTER 36-INCH
16. CONCRETE MEDIAN SLOPED NOSE
17. CRACKING AND SEATING
18. CONCRETE PAVEMENT REPLACEMENT

PE/CE/FE PRIVATE/COMMERCIAL/FIELD ENTRANCE

■ DETECTABLE WARNING FIELD

XXXXX SAW CUTTING CONCRETE

YYYYY SAW CUTTING ASPHALT

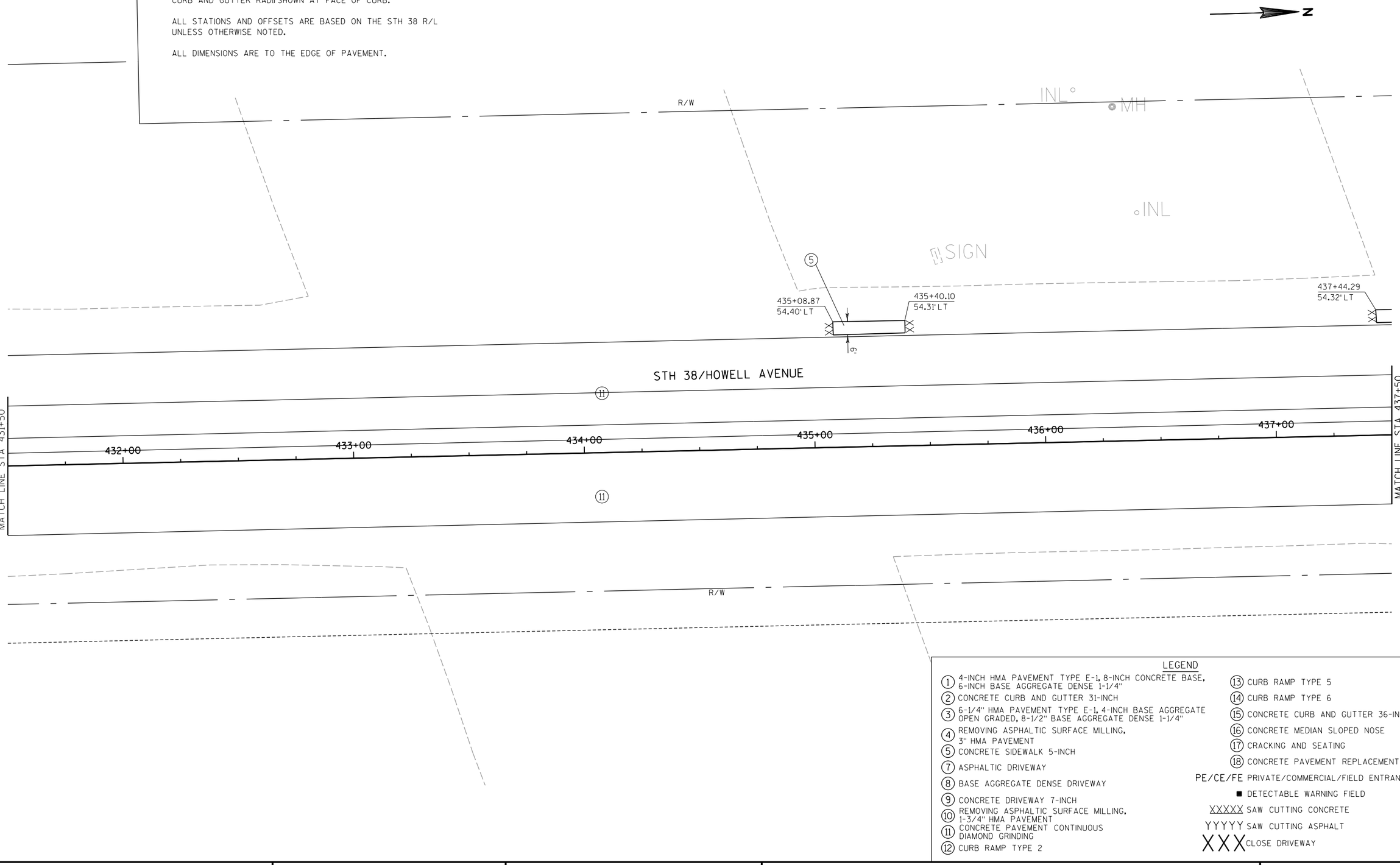
XXX CLOSE DRIVEWAY

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 112	E

NOTES:
CURB AND GUTTER RADII SHOWN AT FACE OF CURB.

ALL STATIONS AND OFFSETS ARE BASED ON THE STH 38 R/L UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT.



LEGEND

1. 4-INCH HMA PAVEMENT TYPE E-1, 8-INCH CONCRETE BASE, 6-INCH BASE AGGREGATE DENSE 1-1/4"
2. CONCRETE CURB AND GUTTER 31-INCH
3. 6-1/4" HMA PAVEMENT TYPE E-1, 4-INCH BASE AGGREGATE OPEN GRADED, 8-1/2" BASE AGGREGATE DENSE 1-1/4"
4. REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
5. CONCRETE SIDEWALK 5-INCH
7. ASPHALTIC DRIVEWAY
8. BASE AGGREGATE DENSE DRIVEWAY
9. CONCRETE DRIVEWAY 7-INCH
10. REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
11. CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING
12. CURB RAMP TYPE 2
13. CURB RAMP TYPE 5
14. CURB RAMP TYPE 6
15. CONCRETE CURB AND GUTTER 36-INCH
16. CONCRETE MEDIAN SLOPED NOSE
17. CRACKING AND SEATING
18. CONCRETE PAVEMENT REPLACEMENT

PE/CE/FE PRIVATE/COMMERCIAL/FIELD ENTRANCE

■ DETECTABLE WARNING FIELD

XXXXX SAW CUTTING CONCRETE

YYYYY SAW CUTTING ASPHALT

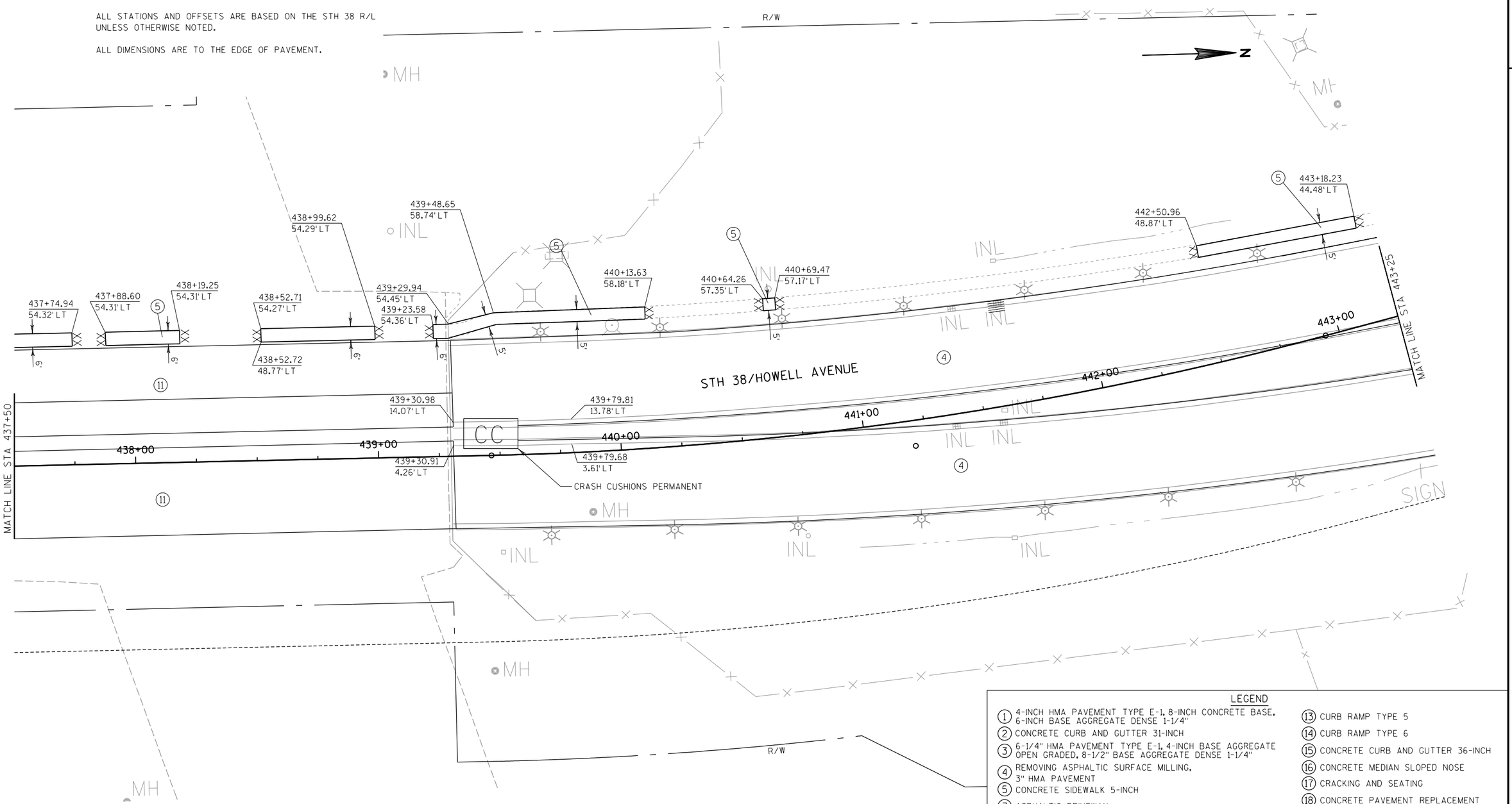
XXX CLOSE DRIVEWAY

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 113	E

NOTES:
CURB AND GUTTER RADII SHOWN AT FACE OF CURB.

ALL STATIONS AND OFFSETS ARE BASED ON THE STH 38 R/L UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT.



LEGEND

1. 4-INCH HMA PAVEMENT TYPE E-1, 8-INCH CONCRETE BASE, 6-INCH BASE AGGREGATE DENSE 1-1/4"
2. CONCRETE CURB AND GUTTER 31-INCH
3. 6-1/4" HMA PAVEMENT TYPE E-1, 4-INCH BASE AGGREGATE OPEN GRADED, 8-1/2" BASE AGGREGATE DENSE 1-1/4"
4. REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
5. CONCRETE SIDEWALK 5-INCH
7. ASPHALTIC DRIVEWAY
8. BASE AGGREGATE DENSE DRIVEWAY
9. CONCRETE DRIVEWAY 7-INCH
10. REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
11. CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING
12. CURB RAMP TYPE 2
13. CURB RAMP TYPE 5
14. CURB RAMP TYPE 6
15. CONCRETE CURB AND GUTTER 36-INCH
16. CONCRETE MEDIAN SLOPED NOSE
17. CRACKING AND SEATING
18. CONCRETE PAVEMENT REPLACEMENT

PE/CE/FE PRIVATE/COMMERCIAL/FIELD ENTRANCE

■ DETECTABLE WARNING FIELD

XXXXX SAW CUTTING CONCRETE

YYYYY SAW CUTTING ASPHALT

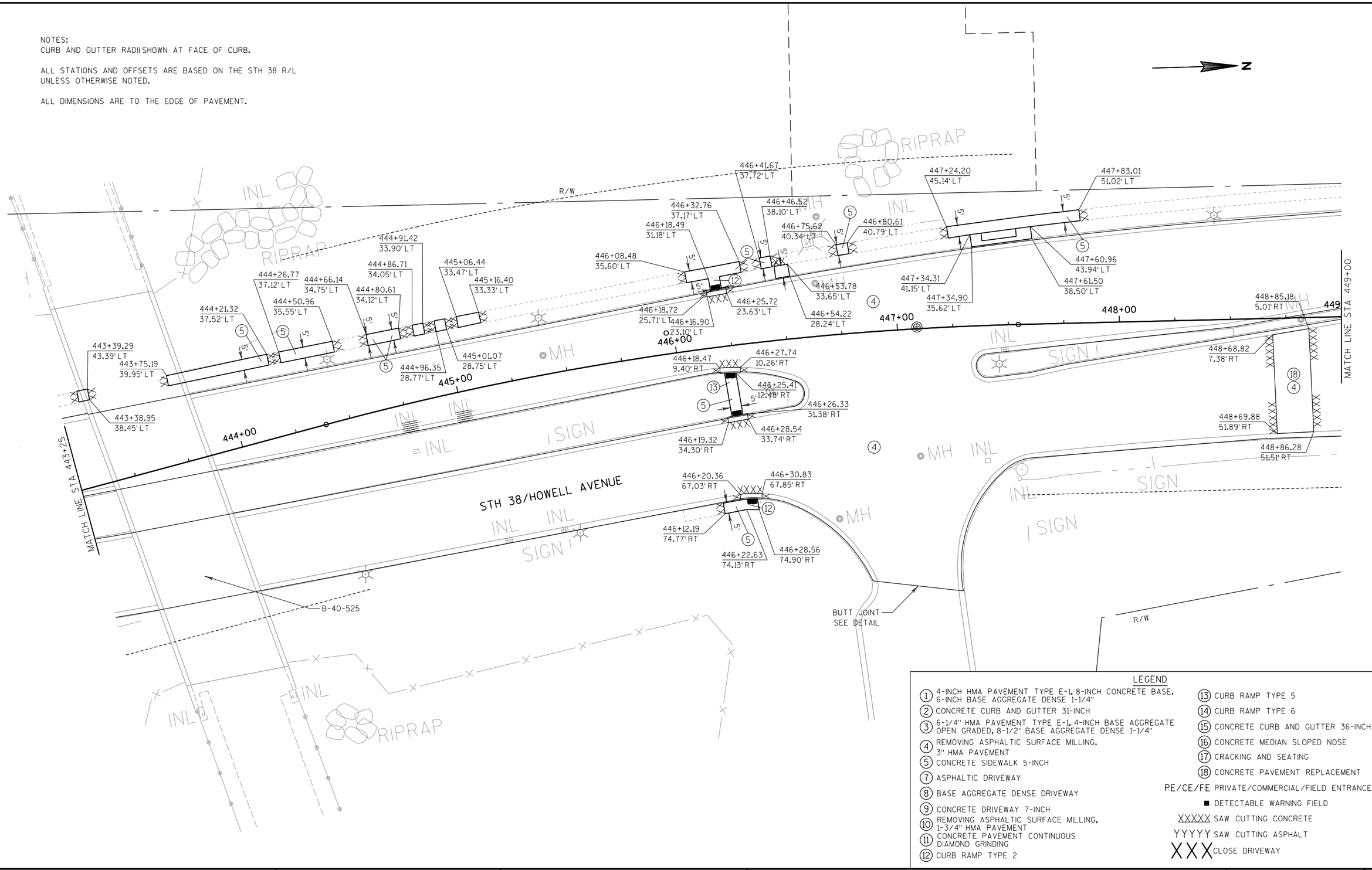
XXX CLOSE DRIVEWAY

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 114	E

NOTES:
CURB AND GUTTER RADII SHOWN AT FACE OF CURB.

ALL STATIONS AND OFFSETS ARE BASED ON THE STH 38 R/L
UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT.



LEGEND

1. 4-INCH HMA PAVEMENT TYPE E-1, 8-INCH CONCRETE BASE, 6-INCH BASE AGGREGATE DENSE 1-1/4"
2. CONCRETE CURB AND GUTTER 31-INCH
3. 6-1/4" HMA PAVEMENT TYPE E-1, 4-INCH BASE AGGREGATE OPEN GRADED, 8-1/2" BASE AGGREGATE DENSE 1-1/4"
4. REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
5. CONCRETE SIDEWALK 5-INCH
7. ASPHALTIC DRIVEWAY
8. BASE AGGREGATE DENSE DRIVEWAY
9. CONCRETE DRIVEWAY 7-INCH
10. REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
11. CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING
12. CURB RAMP TYPE 2
13. CURB RAMP TYPE 5
14. CURB RAMP TYPE 6
15. CONCRETE CURB AND GUTTER 36-INCH
16. CONCRETE MEDIAN SLOPED NOSE
17. CRACKING AND SEATING
18. CONCRETE PAVEMENT REPLACEMENT

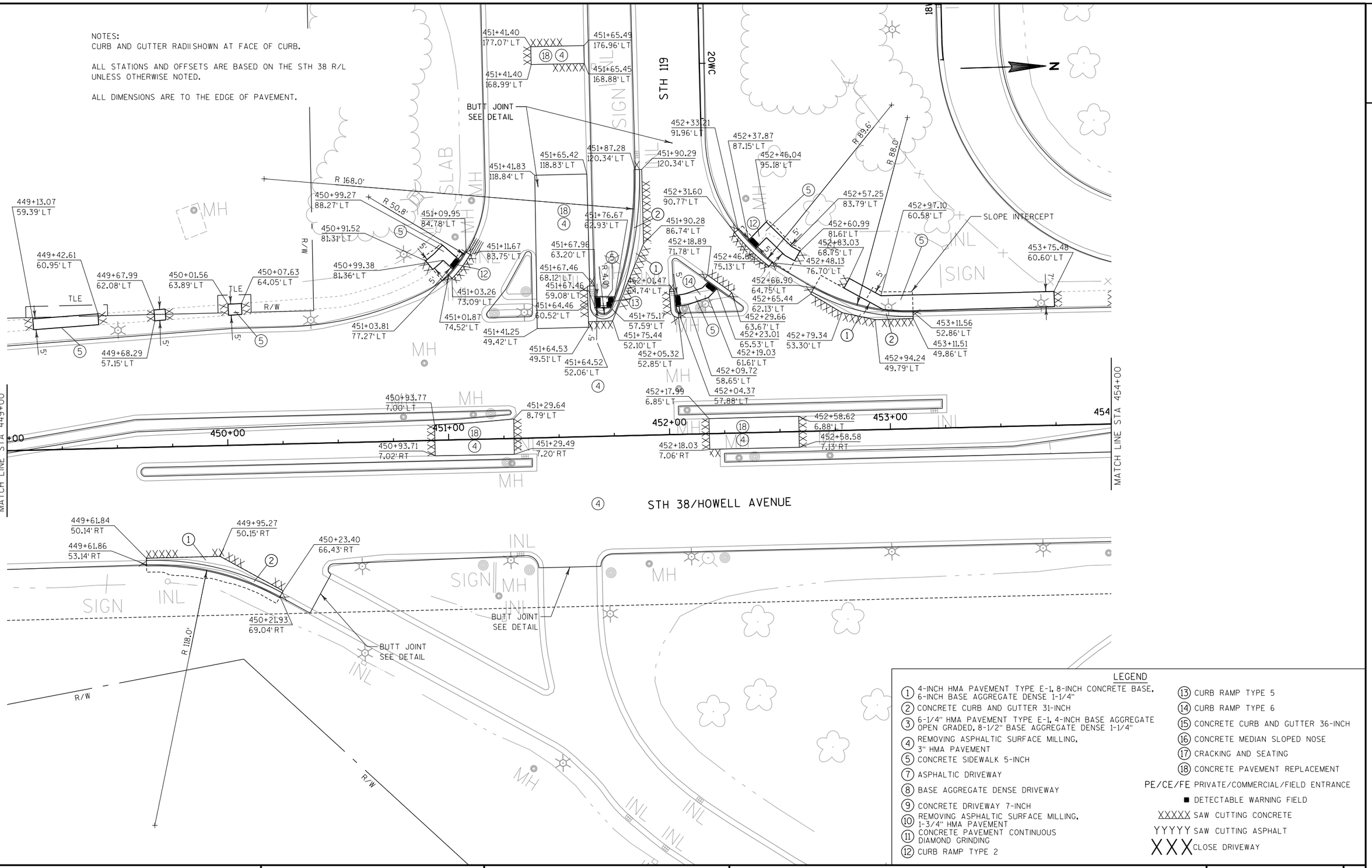
PE/CE/FE PRIVATE/COMMERCIAL/FIELD ENTRANCE
■ DETECTABLE WARNING FIELD
XXXXX SAW CUTTING CONCRETE
YYYYY SAW CUTTING ASPHALT
XXX CLOSE DRIVEWAY

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 115	E

NOTES:
CURB AND GUTTER RADII SHOWN AT FACE OF CURB.

ALL STATIONS AND OFFSETS ARE BASED ON THE STH 38 R/L UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT.



LEGEND

1. 4-INCH HMA PAVEMENT TYPE E-1, 8-INCH CONCRETE BASE, 6-INCH BASE AGGREGATE DENSE 1-1/4"
2. CONCRETE CURB AND GUTTER 31-INCH
3. 6-1/4" HMA PAVEMENT TYPE E-1, 4-INCH BASE AGGREGATE OPEN GRADED, 8-1/2" BASE AGGREGATE DENSE 1-1/4"
4. REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
5. CONCRETE SIDEWALK 5-INCH
7. ASPHALTIC DRIVEWAY
8. BASE AGGREGATE DENSE DRIVEWAY
9. CONCRETE DRIVEWAY 7-INCH
10. REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
11. CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING
12. CURB RAMP TYPE 2
13. CURB RAMP TYPE 5
14. CURB RAMP TYPE 6
15. CONCRETE CURB AND GUTTER 36-INCH
16. CONCRETE MEDIAN SLOPED NOSE
17. CRACKING AND SEATING
18. CONCRETE PAVEMENT REPLACEMENT

PE/CE/FE PRIVATE/COMMERCIAL/FIELD ENTRANCE
■ DETECTABLE WARNING FIELD
XXXXX SAW CUTTING CONCRETE
YYYYY SAW CUTTING ASPHALT
XXX CLOSE DRIVEWAY

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 116	E

NOTES:
CURB AND GUTTER RADII SHOWN AT FACE OF CURB.

ALL STATIONS AND OFFSETS ARE BASED ON THE STH 38 R/L UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT.

ALL AIRPORT SIGNS TO REMAIN SHALL BE PROTECTED AND MUST BE REPLACED BY THE CONTRACTOR IF DAMAGED BY THEIR WORK.

STH 119/AIRPORT SPUR

STH 119/AIRPORT SPUR

GRANGE AVENUE

B-40-0485

B-40-0484

B-40-0485

B-40-0484

STH 38/HOWELL AVENUE

RELOCATE SIGN TO STA 455+25

MATCH LINE STA 454+00

MATCH LINE STA 460+00

454+00

455+00

456+00

457+00

458+00

459+00

460

454+02.78 72.96'LT
454+24.84 69.00'LT
454+03.13 53.37'LT
454+24.42 53.61'LT
454+46.37 53.63'LT
454+66.59 50.77'LT
454+07.99 53.59'LT
454+66.67 4.83'LT
454+75.84 4.85'LT
454+75.77 50.78'LT
454+83.30 59.12'RT
455+11.36 68.85'LT
455+13.33 60.56'LT
455+52.61 60.66'LT
455+57.67 15.58'LT
455+57.94 2.90'LT
455+22.47 12.96'RT
455+22.94 15.96'RT
455+96.67 2.75'RT
455+91.86 15.92'RT
455+91.88 51.26'RT
455+31.20 59.21'RT
456+06.97 60.62'LT
456+19.58 60.62'LT
456+24.93 60.64'LT
456+50.81 60.80'LT
456+66.00 60.73'LT
456+78.15 60.74'LT
456+89.70 60.68'LT
456+30.00 60.58'LT
456+95.96 60.67'LT
456+33.60 12.55'LT
456+61.22 16.02'LT
456+61.21 13.04'LT
456+03.44 15.91'RT
456+03.46 51.27'RT
457+10.48 60.50'LT
457+26.56 60.49'LT
457+44.12 60.56'LT
457+73.86 60.57'LT
457+82.52 60.51'LT
457+98.03 68.71'LT
457+03.95 60.62'LT
457+07.68 13.01'LT
457+46.25 2.90'RT
457+07.61 2.98'RT
457+46.28 15.32'RT
457+07.56 15.86'RT
457+76.95 15.95'LT
457+76.95 12.95'LT
457+79.45 12.95'LT
457+76.91 2.94'RT
457+76.91 5.94'RT
458+10.87 85.55'LT
458+21.64 85.58'LT
458+12.62 2.53'LT
458+10.90 2.93'RT
458+40.41 15.94'LT
458+40.40 5.93'RT
458+20.02 5.93'RT
458+20.02 15.34'RT
458+59.92 119.32'LT
458+57.30 106.56'LT
458+23.85 118.17'LT
458+24.21 87.52'LT
458+23.10 78.02'LT
458+25.34 61.38'LT
458+57.67 54.64'LT
458+60.30 106.49'LT
458+91.48 115.86'LT
458+69.55 89.01'LT
458+63.65 88.31'LT
458+91.51 72.43'LT
458+69.77 54.69'LT
458+94.48 115.93'LT
459+05.48 116.21'LT
459+17.75 79.38'LT
459+47.44 72.28'LT
459+11.05 79.46'LT
459+24.26 75.24'LT
459+13.24 49.99'LT
459+47.44 64.28'LT
459+24.27 70.18'LT
459+31.45 15.94'LT
459+29.47 12.48'LT
459+31.46 12.99'LT
458+92.67 15.91'LT
458+92.67 15.87'RT
459+29.41 6.73'RT
459+57.27 12.92'RT
459+57.27 14.90'RT
458+70.51 61.61'RT
458+93.64 55.19'RT
458+78.90 99.61'RT
459+22.68 51.02'RT
459+31.68 51.03'RT
459+40.70 73.21'RT
459+60.45 77.38'RT
459+66.31 81.46'RT
459+38.60 81.93'RT
459+05.79 92.27'RT
459+56.75 86.25'RT
459+63.03 92.91'RT

685.78 685.80 685.75 685.99 685.80 685.68 685.65 685.58 685.70 685.88 685.83 686.01 686.15 686.02 686.47 686.91 687.11 687.26

BUTT JOINT SEE DETAIL

SLOPE INTERCEPT

CIP RETAINING WALL

SLOPE INTERCEPT

TLE

R 53.0'

R 98.7'

R 3.0'

R 58.0'

2 HIGH-SIDE BOLLARDS

SIGN AND SPRINKLER SYSTEM IN PLANTING BED TO REMAIN

BUS STOP

NOTE:
REMOVE CONCRETE SLOPE PAVING AND REPLACE WITH "SLOPED PAVING CRUSHED AGGREGATE SPECIAL" SEE STRUCTURES PLANS

(R/W IS BEYOND SHEET LIMITS)

LEGEND

1. 4-INCH HMA PAVEMENT TYPE E-1, 8-INCH CONCRETE BASE, 6-INCH BASE AGGREGATE DENSE 1-1/4"
2. CONCRETE CURB AND GUTTER 31-INCH
3. 6-1/4" HMA PAVEMENT TYPE E-1, 4-INCH BASE AGGREGATE OPEN GRADED, 8-1/2" BASE AGGREGATE DENSE 1-1/4"
4. REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
5. CONCRETE SIDEWALK 5-INCH
7. ASPHALTIC DRIVEWAY
8. BASE AGGREGATE DENSE DRIVEWAY
9. CONCRETE DRIVEWAY 7-INCH
10. REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
11. CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING
12. CURB RAMP TYPE 2
13. CURB RAMP TYPE 5
14. CURB RAMP TYPE 6
15. CONCRETE CURB AND GUTTER 36-INCH
16. CONCRETE MEDIAN SLOPED NOSE
17. CRACKING AND SEATING
18. CONCRETE PAVEMENT REPLACEMENT

PE/CE/FE PRIVATE/COMMERCIAL/FIELD ENTRANCE

■ DETECTABLE WARNING FIELD

XXXXX SAW CUTTING CONCRETE

YYYYY SAW CUTTING ASPHALT

XXX CLOSE DRIVEWAY

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 117	E

NOTES:
CURB AND GUTTER RADII SHOWN AT FACE OF CURB.

ALL STATIONS AND OFFSETS ARE BASED ON THE STH 38 R/L UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT.

N

STH 38/HOWELL AVENUE

MATCH LINE STA 460+00

461+00 462+00 463+00 464+00 465+00 466+00

2 HIGH-SIDE CONCRETE CURB TYPE A SLOPE INTERCEPT
460+45.10 72.23' LT
460+60.10 75.23' LT TLE
TLE
461+47.29 88.18' LT
461+76.29 92.67' LT CE
462+09.48 85.72' LT
462+09.46 89.71' LT CE
462+44.69 89.64' LT
462+26.32 75.33' LT
462+53.82 73.63' LT
462+44.63 61.59' LT
462+60.95 57.88' LT
462+75.39 57.87' LT
R/W
687.31 687.24 687.09 686.84 686.58 686.42 686.10 685.89 685.64 685.50 685.46
461+83.62 64.17' LT
462+75.39 47.12' LT
462+75.38 44.12' LT
461+11.64 50.01' LT
461+19.79 50.01' LT
461+79.74 45.17' LT
461+87.93 45.16' LT
462+26.64 65.67' LT
462+58.61 47.13' LT
461+11.81 15.15' LT
461+19.68 15.16' LT
461+79.84 15.16' LT
461+87.93 13.16' LT
BUTT JOINT SEE DETAIL
461+55.00 14.63' RT
461+89.07 12.59' RT
BUTT JOINT SEE DETAIL
461+55.00 48.44' RT
461+89.07 49.82' RT
END PROJECT STA 462+75.39
SLAB
FLAG
SIGN
MH
INL

LEGEND

1. 4-INCH HMA PAVEMENT TYPE E-1, 8-INCH CONCRETE BASE, 6-INCH BASE AGGREGATE DENSE 1-1/4"
2. CONCRETE CURB AND GUTTER 31-INCH
3. 6-1/4" HMA PAVEMENT TYPE E-1, 4-INCH BASE AGGREGATE OPEN GRADED, 8-1/2" BASE AGGREGATE DENSE 1-1/4"
4. REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
5. CONCRETE SIDEWALK 5-INCH
7. ASPHALTIC DRIVEWAY
8. BASE AGGREGATE DENSE DRIVEWAY
9. CONCRETE DRIVEWAY 7-INCH
10. REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
11. CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING
12. CURB RAMP TYPE 2
13. CURB RAMP TYPE 5
14. CURB RAMP TYPE 6
15. CONCRETE CURB AND GUTTER 36-INCH
16. CONCRETE MEDIAN SLOPED NOSE
17. CRACKING AND SEATING
18. CONCRETE PAVEMENT REPLACEMENT

PE/CE/FE PRIVATE/COMMERCIAL/FIELD ENTRANCE
■ DETECTABLE WARNING FIELD
XXXXX SAW CUTTING CONCRETE
YYYY SAW CUTTING ASPHALT
XXX CLOSE DRIVEWAY

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 118	E

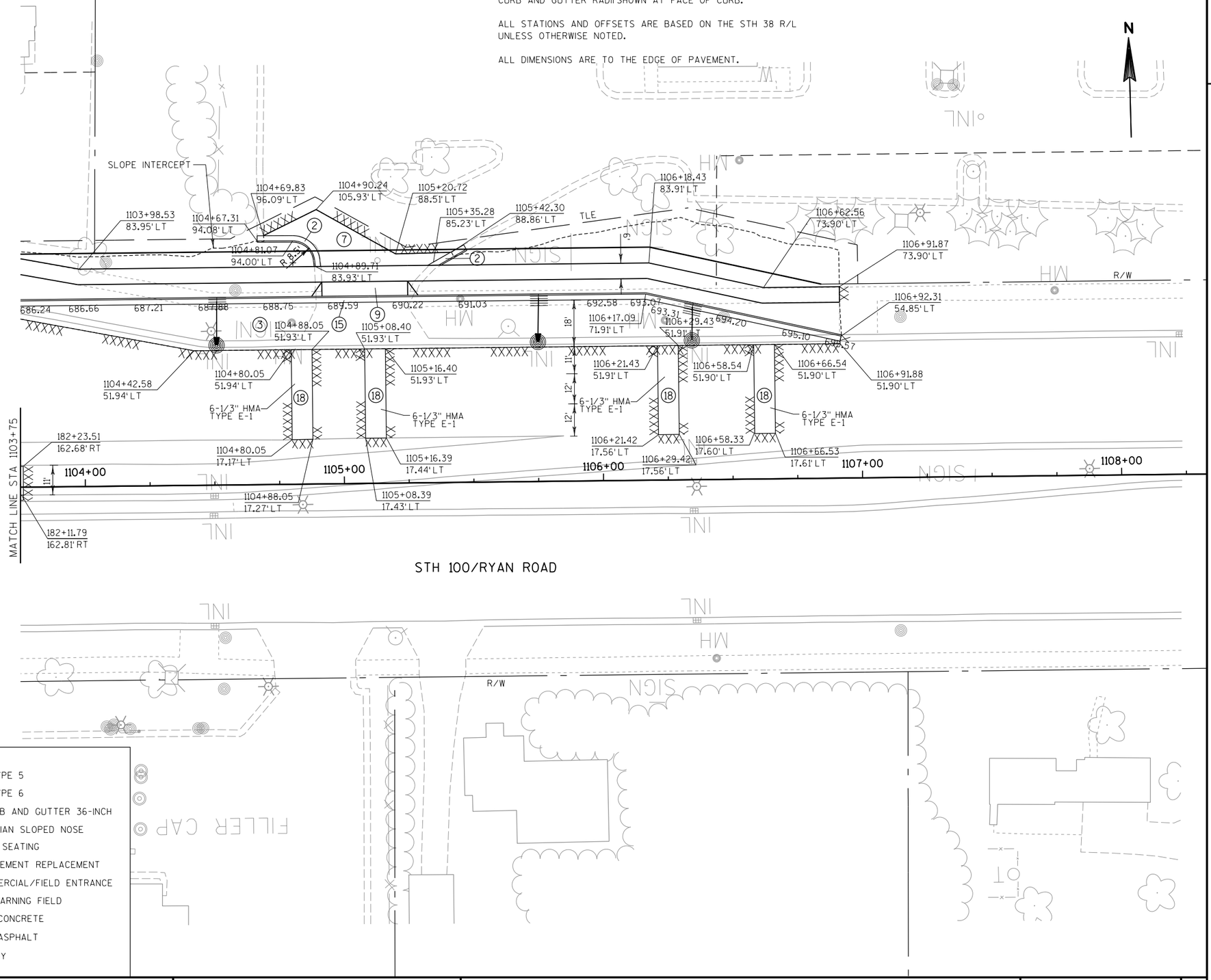
FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\021258_pd.dgn PLOT DATE : 1/30/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:40

WISDOT/CADDS SHEET 42

NOTES:
CURB AND GUTTER RADII SHOWN AT FACE OF CURB.

ALL STATIONS AND OFFSETS ARE BASED ON THE STH 38 R/L UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT.



LEGEND

1. 4-INCH HMA PAVEMENT TYPE E-1, 8-INCH CONCRETE BASE, 6-INCH BASE AGGREGATE DENSE 1-1/4"
2. CONCRETE CURB AND GUTTER 31-INCH
3. 6-1/4" HMA PAVEMENT TYPE E-1, 4-INCH BASE AGGREGATE OPEN GRADED, 8-1/2" BASE AGGREGATE DENSE 1-1/4"
4. REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
5. CONCRETE SIDEWALK 5-INCH
7. ASPHALTIC DRIVEWAY
8. BASE AGGREGATE DENSE DRIVEWAY
9. CONCRETE DRIVEWAY 7-INCH
10. REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
11. CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING
12. CURB RAMP TYPE 2
13. CURB RAMP TYPE 5
14. CURB RAMP TYPE 6
15. CONCRETE CURB AND GUTTER 36-INCH
16. CONCRETE MEDIAN SLOPED NOSE
17. CRACKING AND SEATING
18. CONCRETE PAVEMENT REPLACEMENT

PE/CE/FE PRIVATE/COMMERCIAL/FIELD ENTRANCE

■ DETECTABLE WARNING FIELD

XXXXX SAW CUTTING CONCRETE

YYYYY SAW CUTTING ASPHALT

XXX CLOSE DRIVEWAY

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 119	E

NOTES:
CURB AND GUTTER RADII SHOWN AT FACE OF CURB.

ALL STATIONS AND OFFSETS ARE BASED ON THE STH 38 R/L UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT.

N

FOREST HILL AVENUE

200+00 201+00 202+00 203+00 204+00 204+39

MATCH LINE STA 203+00

200+74.75 41.0RT
200+73.51 47.0RT
200+74.75 24.09'RT
201+11.45 38.5RT
201+50.00 19.00'RT
201+29.55 38.5RT
201+77.01 0.25'RT
201+85.01 0.27'RT
202+42.28 0.40'RT
202+52.03 0.43'RT
6-1/4" HMA TYPE E-1
201+77.01 19.00'RT
201+85.01 19.00'RT
202+42.28 19.00'RT
202+52.03 19.00'RT
714.95 714.72 714.48 714.27 714.08
715.54
200+42.36 33.52'RT
R 30'
200+87.50 47.0RT
SLOPE INTERCEPT
200+90.29 49.0RT
201+11.41 49.0RT
201+29.81 49.0RT
201+50.00 61.94'RT
201+53.00 61.83'RT
201+75.99 37.99'RT
201+58.37 47.0RT
SLOPE INTERCEPT
202+03.47 47.0RT
202+23.46 50.4RT
TLE
WALL MODULAR BLOCK GRAVITY #6
R/W
RIPRAP
SIGN
MH
INL
SLAB

263+00
262+00
261+00
260+00
STH 38/HOWELL AVENUE

LEGEND

1. 4-INCH HMA PAVEMENT TYPE E-1, 8-INCH CONCRETE BASE, 6-INCH BASE AGGREGATE DENSE 1-1/4"
2. CONCRETE CURB AND GUTTER 31-INCH
3. 6-1/4" HMA PAVEMENT TYPE E-1, 4-INCH BASE AGGREGATE OPEN GRADED, 8-1/2" BASE AGGREGATE DENSE 1-1/4"
4. REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
5. CONCRETE SIDEWALK 5-INCH
7. ASPHALTIC DRIVEWAY
8. BASE AGGREGATE DENSE DRIVEWAY
9. CONCRETE DRIVEWAY 7-INCH
10. REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
11. CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING
12. CURB RAMP TYPE 2
13. CURB RAMP TYPE 5
14. CURB RAMP TYPE 6
15. CONCRETE CURB AND GUTTER 36-INCH
16. CONCRETE MEDIAN SLOPED NOSE
17. CRACKING AND SEATING
18. CONCRETE PAVEMENT REPLACEMENT

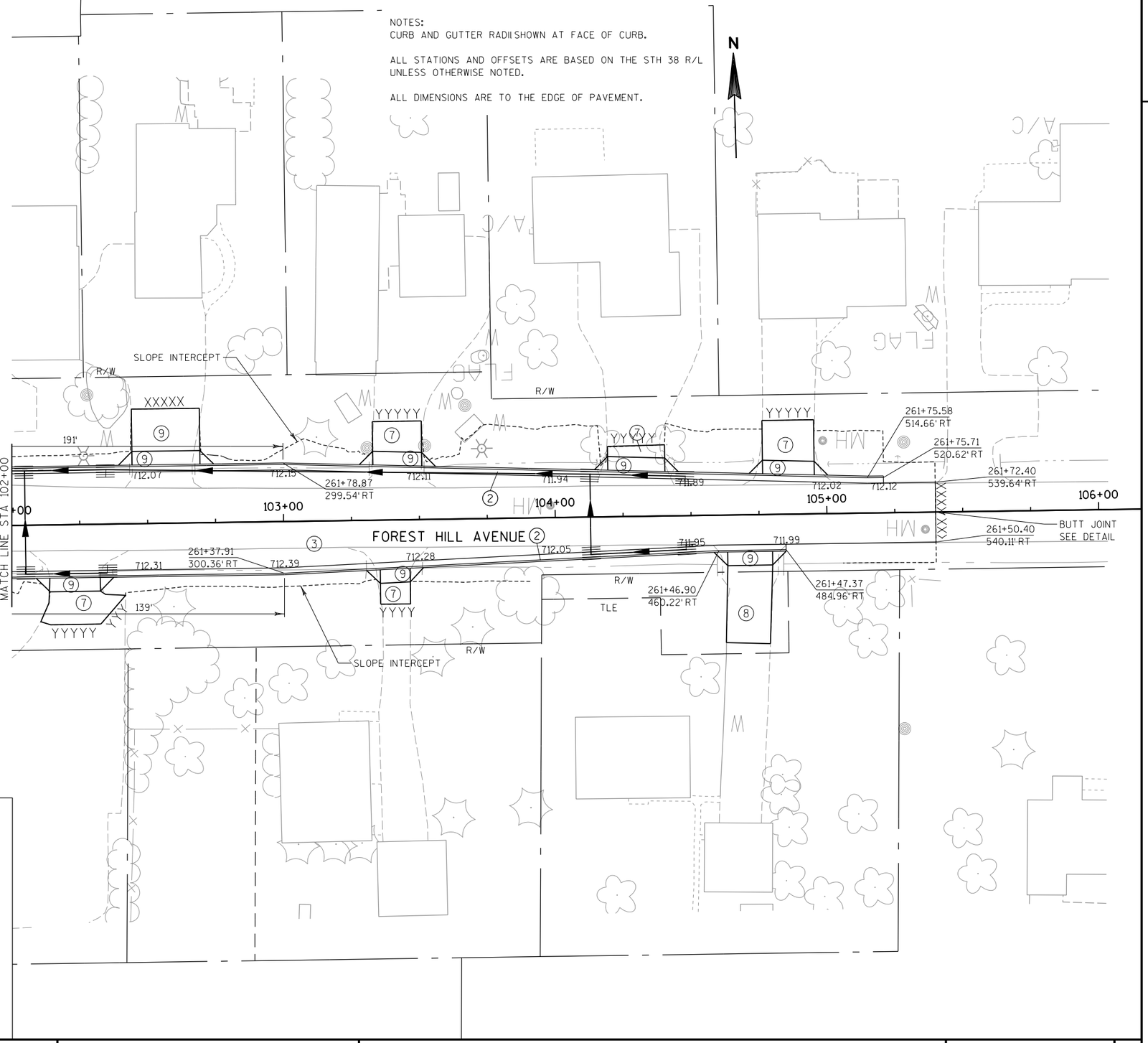
PE/CE/FE PRIVATE/COMMERCIAL/FIELD ENTRANCE
■ DETECTABLE WARNING FIELD
XXXXX SAW CUTTING CONCRETE
YYYYY SAW CUTTING ASPHALT
XXX CLOSE DRIVEWAY

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 120 E

NOTES:
CURB AND GUTTER RADII SHOWN AT FACE OF CURB.

ALL STATIONS AND OFFSETS ARE BASED ON THE STH 38 R/L UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT.



LEGEND

1. 4-INCH HMA PAVEMENT TYPE E-1, 8-INCH CONCRETE BASE, 6-INCH BASE AGGREGATE DENSE 1-1/4"
2. CONCRETE CURB AND GUTTER 31-INCH
3. 6-1/4" HMA PAVEMENT TYPE E-1, 4-INCH BASE AGGREGATE OPEN GRADED, 8-1/2" BASE AGGREGATE DENSE 1-1/4"
4. REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
5. CONCRETE SIDEWALK 5-INCH
7. ASPHALTIC DRIVEWAY
8. BASE AGGREGATE DENSE DRIVEWAY
9. CONCRETE DRIVEWAY 7-INCH
10. REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
11. CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING
12. CURB RAMP TYPE 2
13. CURB RAMP TYPE 5
14. CURB RAMP TYPE 6
15. CONCRETE CURB AND GUTTER 36-INCH
16. CONCRETE MEDIAN SLOPED NOSE
17. CRACKING AND SEATING
18. CONCRETE PAVEMENT REPLACEMENT

PE/CE/FE PRIVATE/COMMERCIAL/FIELD ENTRANCE

■ DETECTABLE WARNING FIELD

XXXXX SAW CUTTING CONCRETE

YYYYY SAW CUTTING ASPHALT

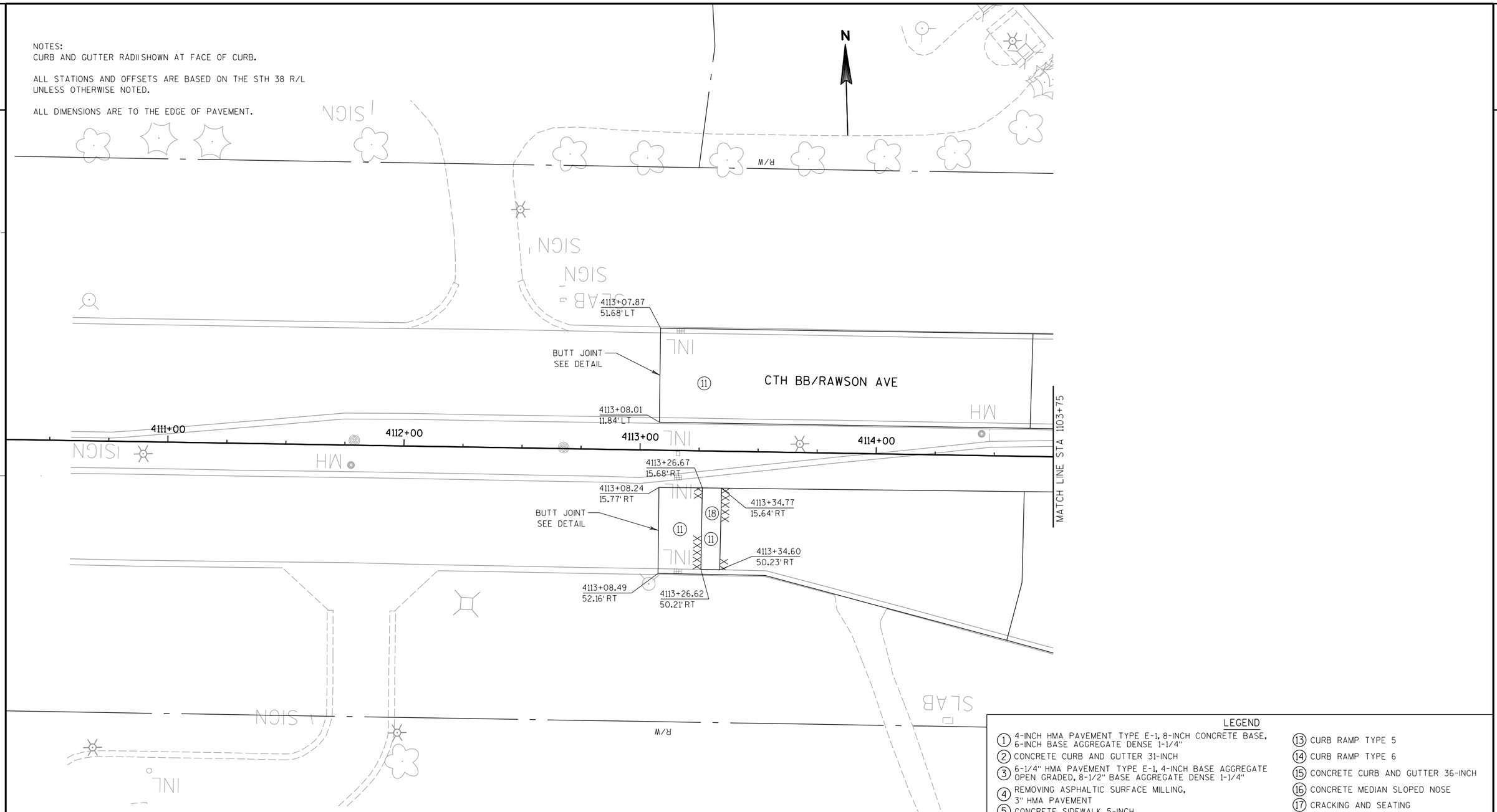
XXX CLOSE DRIVEWAY

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 121	E

NOTES:
CURB AND GUTTER RADII SHOWN AT FACE OF CURB.

ALL STATIONS AND OFFSETS ARE BASED ON THE STH 38 R/L UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT.



LEGEND

1. 4-INCH HMA PAVEMENT TYPE E-1, 8-INCH CONCRETE BASE, 6-INCH BASE AGGREGATE DENSE 1-1/4"
2. CONCRETE CURB AND GUTTER 31-INCH
3. 6-1/4" HMA PAVEMENT TYPE E-1, 4-INCH BASE AGGREGATE OPEN GRADED, 8-1/2" BASE AGGREGATE DENSE 1-1/4"
4. REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
5. CONCRETE SIDEWALK 5-INCH
7. ASPHALTIC DRIVEWAY
8. BASE AGGREGATE DENSE DRIVEWAY
9. CONCRETE DRIVEWAY 7-INCH
10. REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
11. CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING
12. CURB RAMP TYPE 2
13. CURB RAMP TYPE 5
14. CURB RAMP TYPE 6
15. CONCRETE CURB AND GUTTER 36-INCH
16. CONCRETE MEDIAN SLOPED NOSE
17. CRACKING AND SEATING
18. CONCRETE PAVEMENT REPLACEMENT

PE/CE/FE PRIVATE/COMMERCIAL/FIELD ENTRANCE

■ DETECTABLE WARNING FIELD

XXXXX SAW CUTTING CONCRETE

YYYYY SAW CUTTING ASPHALT

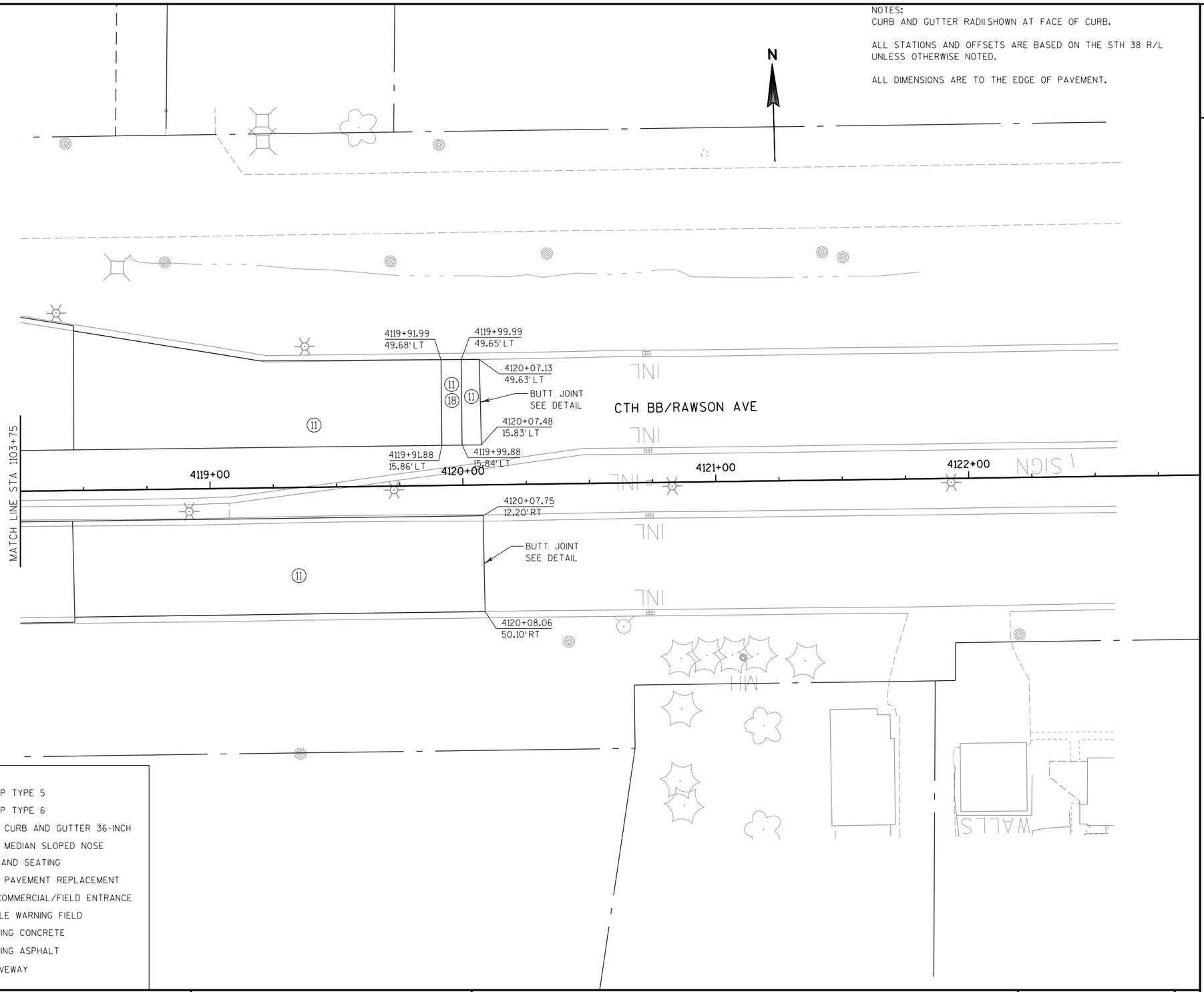
XXX CLOSE DRIVEWAY

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 122	E

NOTES:
CURB AND GUTTER RADII SHOWN AT FACE OF CURB.

ALL STATIONS AND OFFSETS ARE BASED ON THE STH 38 R/L UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT.



LEGEND

1. 4-INCH HMA PAVEMENT TYPE E-1, 8-INCH CONCRETE BASE, 6-INCH BASE AGGREGATE DENSE 1-1/4"
2. CONCRETE CURB AND GUTTER 31-INCH
3. 6-1/4" HMA PAVEMENT TYPE E-1, 4-INCH BASE AGGREGATE OPEN GRADED, 8-1/2" BASE AGGREGATE DENSE 1-1/4"
4. REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
5. CONCRETE SIDEWALK 5-INCH
7. ASPHALTIC DRIVEWAY
8. BASE AGGREGATE DENSE DRIVEWAY
9. CONCRETE DRIVEWAY 7-INCH
10. REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
11. CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING
12. CURB RAMP TYPE 2
13. CURB RAMP TYPE 5
14. CURB RAMP TYPE 6
15. CONCRETE CURB AND GUTTER 36-INCH
16. CONCRETE MEDIAN SLOPED NOSE
17. CRACKING AND SEATING
18. CONCRETE PAVEMENT REPLACEMENT

PE/CE/FE PRIVATE/COMMERCIAL/FIELD ENTRANCE

■ DETECTABLE WARNING FIELD

XXXXX SAW CUTTING CONCRETE

YYYYY SAW CUTTING ASPHALT

XXX CLOSE DRIVEWAY

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 123	E

NOTES:
CURB AND GUTTER RADII SHOWN AT FACE OF CURB.

ALL STATIONS AND OFFSETS ARE BASED ON THE STH 38 R/L UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE TO THE EDGE OF PAVEMENT.

SEE "CONSTRUCTION DETAIL - AIRPORT SPUR RAMPS" FOR ADDITIONAL WORK

SEE CONSTRUCTION DETAIL - AIRPORT SPUR RAMPS

152ER

153ER

RAMP ER

154ER

155ER

RAMP WC

18WC

19WC

20WC

STH 119

STH 38/HOWELL AVENUE

453+00

452+00

451+00

450+00

N

LEGEND

1. 4-INCH HMA PAVEMENT TYPE E-1, 8-INCH CONCRETE BASE, 6-INCH BASE AGGREGATE DENSE 1-1/4"
2. CONCRETE CURB AND GUTTER 31-INCH
3. 6-1/4" HMA PAVEMENT TYPE E-1, 4-INCH BASE AGGREGATE OPEN GRADED, 8-1/2" BASE AGGREGATE DENSE 1-1/4"
4. REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
5. CONCRETE SIDEWALK 5-INCH
7. ASPHALTIC DRIVEWAY
8. BASE AGGREGATE DENSE DRIVEWAY
9. CONCRETE DRIVEWAY 7-INCH
10. REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
11. CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING
12. CURB RAMP TYPE 2
13. CURB RAMP TYPE 5
14. CURB RAMP TYPE 6
15. CONCRETE CURB AND GUTTER 36-INCH
16. CONCRETE MEDIAN SLOPED NOSE
17. CRACKING AND SEATING
18. CONCRETE PAVEMENT REPLACEMENT

PE/CE/FE PRIVATE/COMMERCIAL/FIELD ENTRANCE

■ DETECTABLE WARNING FIELD

XXXXX SAW CUTTING CONCRETE

YYYYY SAW CUTTING ASPHALT

XXX CLOSE DRIVEWAY

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 124 E

LEGEND

- (A) INLET PROTECTION, TYPE A
- (B) INLET PROTECTION, TYPE B
- (C) INLET PROTECTION, TYPE C
- (D) INLET PROTECTION, TYPE D
- CULVERT PIPE CHECK
- SILT FENCE

BEGIN PROJECT
STA 128+61.24

IMPACTED WETLAND

SLOPE INTERCEPT

STH 38/HOWELL AVENUE

OAKWOOD ROAD

SLOPE INTERCEPT
138+98.99
72.65' RT

139+68.29
70.55' RT

139+97.73
74.62' RT

MATCH LINE STA 140+00

125+00 126+00 128+00 130+00 132+00 134+00 136+00 138+00 140

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	EROSION CONTROL	SHEET 125	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\022001_ec.dgn PLOT DATE : 1/30/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

LEGEND

- (A) INLET PROTECTION, TYPE A
- (B) INLET PROTECTION, TYPE B
- (C) INLET PROTECTION, TYPE C
- (D) INLET PROTECTION, TYPE D
- CULVERT PIPE CHECK
- SILT FENCE

N

140+06.45
78.87' LT
140+21.17
80.77' LT
140+75.77
84.74' LT
140+98.43
85.16' LT
IMPACTED WETLAND
R/W
SLOPE INTERCEPT
TLE
147+98.63
94.25' LT
148+17.31
75.47' LT
WETLAND BOUNDARY
152+66.85
85.47' LT
152+56.92
75.60' LT
SIGN
CAUTION
MATCH LINE STA 140+00
MATCH LINE STA 155+00
140+00
142+00
144+00
146+00
148+00
150+00
152+00
154+00
STH 38/HOWELL AVENUE
140+59.50
72.46' RT
140+51.00
74.37' RT
140+52.20
97.39' RT
140+42.32
99.93' RT
140+30.91
96.18' RT
140+22.82
75.81' RT
LISA DRIVE
R/W
SLOPE INTERCEPT

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	EROSION CONTROL	SHEET 126	E

2

LEGEND

- (A) INLET PROTECTION, TYPE A
- (B) INLET PROTECTION, TYPE B
- (C) INLET PROTECTION, TYPE C
- (D) INLET PROTECTION, TYPE D
- CULVERT PIPE CHECK
- SILT FENCE

N

SUMMERHILL PLACE

SLOPE INTERCEPT

STH 38/HOWELL AVENUE

MATCH LINE STA 155+00

MATCH LINE STA 170+00

156+00 158+00 160+00 162+00 164+00 166+00 168+00 170

CAUTION

155+54.92
75.18' RT

155+97.40
75.16' RT

156+15.08
82.56' RT

156+01.49
78.31' RT

157+02.69
83.19' RT

157+65.60
78.92' RT

SLOPE INTERCEPT

FITZSIMMONS ROAD

ESTATES PLACE

R/W

TLE

POOL

ANT.

A/C

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	EROSION CONTROL	SHEET 127	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\022003_ec.dgn PLOT DATE : 1/31/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

LEGEND

- (A) INLET PROTECTION, TYPE A
- (B) INLET PROTECTION, TYPE B
- (C) INLET PROTECTION, TYPE C
- (D) INLET PROTECTION, TYPE D
- CULVERT PIPE CHECK
- SILT FENCE

BEGIN LANE RESURFACING
STA 176+00

SLOPE INTERCEPT

STH 38/HOWELL AVENUE

STH 100/RYAN ROAD

FAIRFIELD DRIVE

MATCH LINE STA 170+00

MATCH LINE STA 185+00

1098+00

1100+00

1102+00

1104+00

1106+00

170+00

172+00

174+00

176+00

178+00

180+00

182+00

184+00

R/W

TLE

CANOPY

VACUUM

FILLER CAP

FLAG

CAUTION

2

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	EROSION CONTROL	SHEET 128	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\022004_ec.dgn PLOT DATE : 1/30/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

2

LEGEND

- (A) INLET PROTECTION, TYPE A
- (B) INLET PROTECTION, TYPE B
- (C) INLET PROTECTION, TYPE C
- (D) INLET PROTECTION, TYPE D
- CULVERT PIPE CHECK
- SILT FENCE

N

MATCH LINE STA 185+00

SLOPE INTERCEPT

TLE

R/W

CAUTION

186+00

188+00

190+00

192+00

CAUTION

194+00

196+00

198+00

200

MATCH LINE STA 200+00

STH 38/HOWELL AVENUE

B-40-294

IMPACTED WETLAND

R/W

B-40-295

OAK CREEK

OAKLEAF TRAIL

SLAB

POOL

RIPRAP

SAN

SAN

SAN

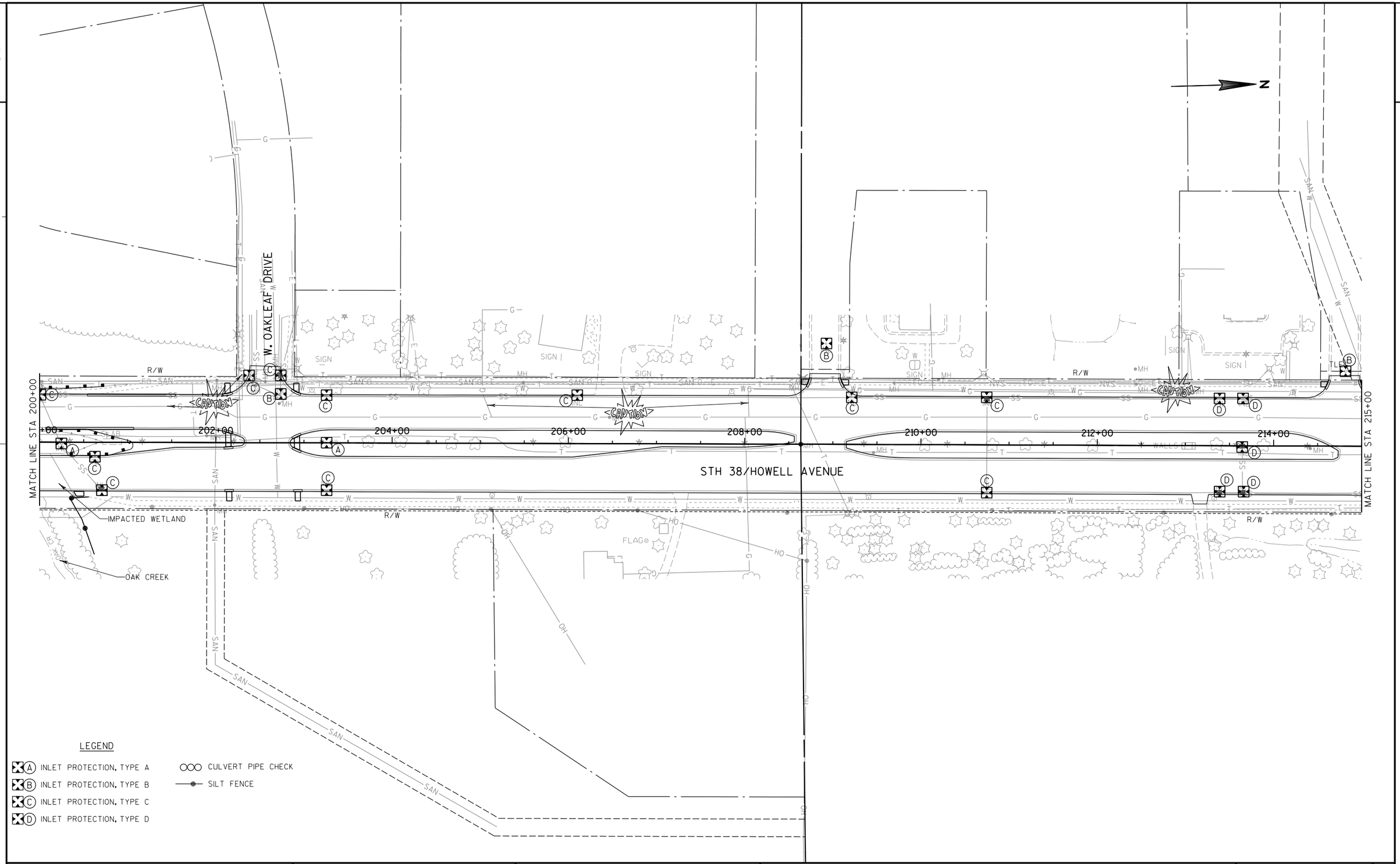
SAN

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	EROSION CONTROL	SHEET 129	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\022005_ec.dgn PLOT DATE : 1/30/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2



PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	EROSION CONTROL	SHEET 130	E

2

MATCH LINE STA 215+00

MATCH LINE STA 230+00

E. CENTENNIAL DRIVE

STH 38/HOWELL AVENUE

216+00 218+00 220+00 222+00 224+00 226+00 228+00 230

CAUTION

LEGEND

- (A) INLET PROTECTION, TYPE A
- (B) INLET PROTECTION, TYPE B
- (C) INLET PROTECTION, TYPE C
- (D) INLET PROTECTION, TYPE D
- CULVERT PIPE CHECK
- SILT FENCE

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	EROSION CONTROL	SHEET 131	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\022007_ec.dgn PLOT DATE : 1/30/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

2

N

W. PUETZ ROAD

2112+00

2114+00

2116+00

2118+00

2120+00

MATCH LINE STA 230+00

232+00

234+00

236+00

238+00

240+00

242+00

244+00

MATCH LINE STA 245+00

STH 38/HOWELL AVENUE

CANOPY

FILLER CAP

SLOPE INTERCEPT

TLE

CAUTION

SLAB

FLAG

R/W

LEGEND

- (A) INLET PROTECTION, TYPE A
- (B) INLET PROTECTION, TYPE B
- (C) INLET PROTECTION, TYPE C
- (D) INLET PROTECTION, TYPE D
- CULVERT PIPE CHECK
- SILT FENCE

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	EROSION CONTROL	SHEET 132	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\022008_ec.dgn PLOT DATE : 1/30/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

2

N

MATCH LINE STA 245+00

246+00

248+00

250+00

252+00

254+00

256+00

258+00

MATCH LINE STA 260+00

STH 38/HOWELL AVENUE

E. GROVELAND DRIVE

R/W

CAUTION

LEGEND

- (A) INLET PROTECTION, TYPE A
- (B) INLET PROTECTION, TYPE B
- (C) INLET PROTECTION, TYPE C
- (D) INLET PROTECTION, TYPE D
- CULVERT PIPE CHECK
- SILT FENCE

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	EROSION CONTROL	SHEET 133	E

2

FOREST HILL AVENUE

STH 38/HOWELL AVENUE

E. OAKFIELD DRIVE

MATCH LINE STA 260+00

MATCH LINE STA 275+00

200+00

202+00

204+00

206+00

208+00

210+00

262+00

264+00

266+00

268+00

270+00

272+00

274+00

CAUTION

SLOPE INTERCEPT

SLOPE INTERCEPT

LEGEND

- (A) INLET PROTECTION, TYPE A
- (B) INLET PROTECTION, TYPE B
- (C) INLET PROTECTION, TYPE C
- (D) INLET PROTECTION, TYPE D
- CULVERT PIPE CHECK
- SILT FENCE

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	EROSION CONTROL	SHEET	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\022010_ec.dgn PLOT DATE : 1/30/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

2

LEGEND

- (A) INLET PROTECTION, TYPE A
- (B) INLET PROTECTION, TYPE B
- (C) INLET PROTECTION, TYPE C
- (D) INLET PROTECTION, TYPE D
- CULVERT PIPE CHECK
- SILT FENCE

MATCH LINE STA 275+00

276+00

278+00

280+00

282+00

284+00

286+00

288+00

MATCH LINE STA 290+00

290

STH 38/HOWELL AVENUE

E. SUSAN DRIVE

DREXEL AVENUE

300+00

302+00

302+44

3112+00

3114+00

3116+00

3118+00

3120+00

CAUTION

TLE

R/W

INL

SAN

SIGN

MH

OH

W

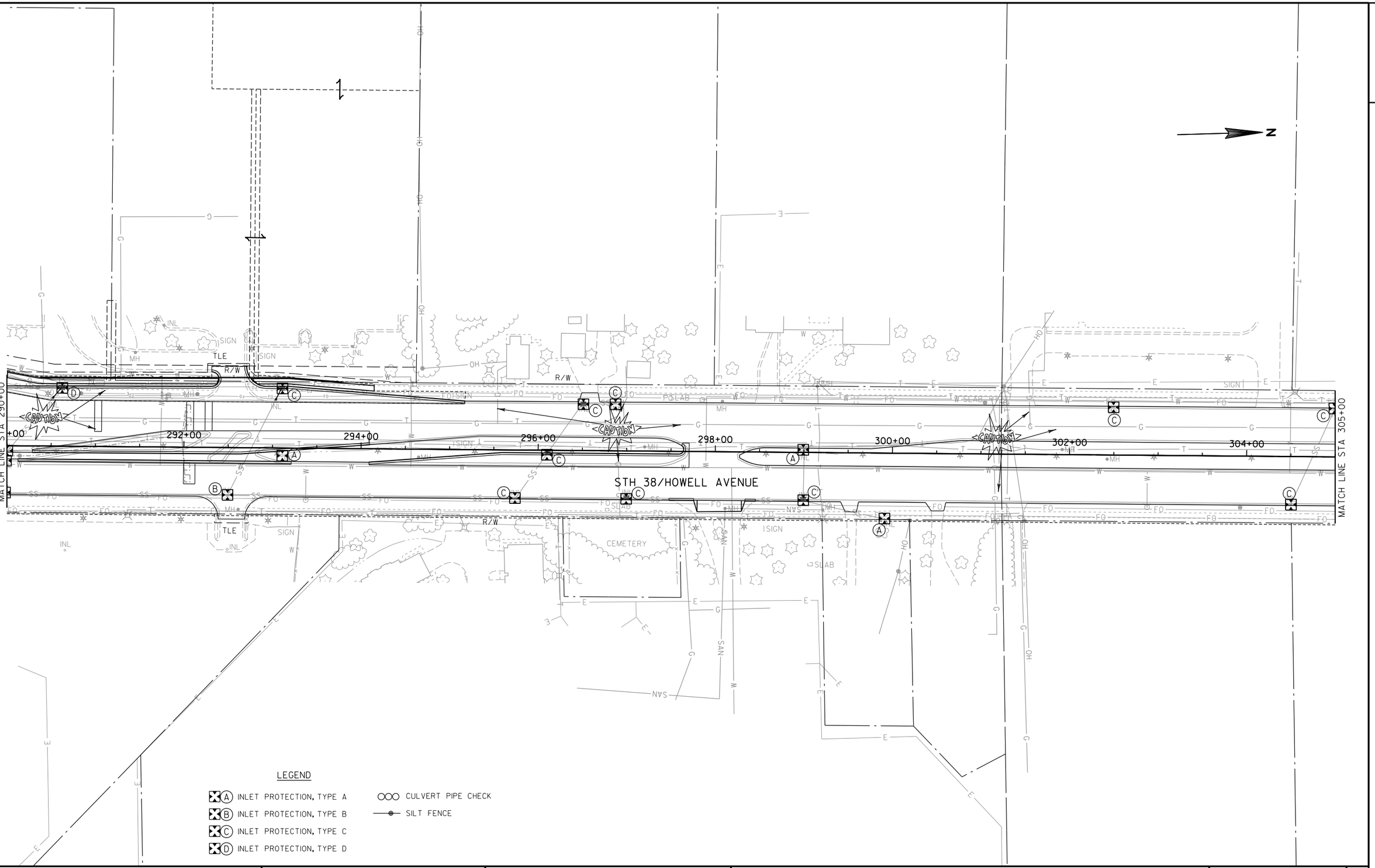
G

T

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	EROSION CONTROL	SHEET 135	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\022011_ec.dgn PLOT DATE : 1/30/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

2



PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	EROSION CONTROL	SHEET 136	E

2

LEGEND

- (A) INLET PROTECTION, TYPE A
- (B) INLET PROTECTION, TYPE B
- (C) INLET PROTECTION, TYPE C
- (D) INLET PROTECTION, TYPE D
- CULVERT PIPE CHECK
- SILT FENCE

N

MATCH LINE STA 305+00

306+00

308+00

310+00

312+00

314+00

316+00

318+00

320+00

MATCH LINE

STH 38/HOWELL AVENUE

W. MARQUETTE AVENUE

E. MANITOBA AVENUE

311+26.36
82.93' LT
311+26.44
72.43' LT

312+59.77
89.46' LT
312+42.74
82.50' LT

313+21.81
83.06' LT
313+06.68
90.96' LT

313+27.87
69.58' LT
313+81.93
81.89' LT

314+19.85
86.87' LT
314+95.02
80.26' LT

315+01.23
89.50' LT
315+94.79
90.33' LT

316+76.39
79.12' LT
316+89.27
84.00' LT

317+21.06
79.41' LT
317+31.21
82.19' LT

317+72.56
77.05' LT

311+71.03
82.22' LT
312+25.94
86.58' LT

313+70.04
68.48' LT
314+57.68
83.91' LT

314+73.42
74.82' LT
316+08.80
80.68' LT

316+26.45
77.44' LT

SLOPE INTERCEPT

TLE

CAUTION

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	EROSION CONTROL	SHEET 137	E

2

LEGEND

- (A) INLET PROTECTION, TYPE A
- (B) INLET PROTECTION, TYPE B
- (C) INLET PROTECTION, TYPE C
- (D) INLET PROTECTION, TYPE D
- CULVERT PIPE CHECK
- SILT FENCE

N

MATCH LINE STA 320+00

MATCH LINE STA 335+00

STH 38/HOWELL AVENUE

E. MAHN CT.

TOWER

CAUTION

SLOPE INTERCEPT

329+42.14 79.05' LT

329+84.14 84.42' LT

329+94.95 82.19' LT

330+09.76 85.26' LT

330+26.32 81.31' LT

330+83.30 88.93' LT

331+37.50 88.10' LT

331+60.95 90.52' LT

332+83.40 79.50' LT

332+71.51 75.56' RT

332+75.31 78.78' RT

333+12.36 86.55' RT

333+38.43 85.76' RT

333+63.40 80.44' RT

333+90.38 86.11' RT

334+48.71 92.59' RT

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	EROSION CONTROL	SHEET 138	E

LEGEND

- (A) INLET PROTECTION, TYPE A
- (B) INLET PROTECTION, TYPE B
- (C) INLET PROTECTION, TYPE C
- (D) INLET PROTECTION, TYPE D
- CULVERT PIPE CHECK
- SILT FENCE

MATCH LINE STA 335+00

MATCH LINE STA 350+00

CTH BB/RAWSON AVENUE

STH 38/HOWELL AVENUE

4112+00

4114+00

4116+00

4118+00

4120+00

336+00

338+00

340+00

342+00

344+00

346+00

348+00

350

334+97.55
94.81' RT

335+66.33
83.47' RT

336+42.77
82.49' RT

336+59.30
83.00' RT

337+27.29
85.60' RT

337+95.28
88.21' RT

338+48.81
85.41' RT

339+30.94
98.61' RT

341+98.24
82.88' RT

342+08.51
84.16' RT

342+19.74
82.08' RT

342+75.36
88.42' RT

343+00.38
94.02' RT

343+95.88
98.70' RT

344+19.72
83.87' RT

344+35.89
95.60' RT

344+62.94
96.40' RT

344+63.52
82.35' RT

344+88.18
91.99' RT

345+49.92
92.63' RT

346+87.16
83.44' RT

SLOPE INTERCEPT

R/W

TLE

U/C

FOUND

CAUTION

N

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	EROSION CONTROL	SHEET 139	E

LEGEND

- (A) INLET PROTECTION, TYPE A
- (B) INLET PROTECTION, TYPE B
- (C) INLET PROTECTION, TYPE C
- (D) INLET PROTECTION, TYPE D
- CULVERT PIPE CHECK
- SILT FENCE

N

MATCH LINE STA 350+00

MATCH LINE STA 365+00

PLAYGROUND

SLOPE INTERCEPT

TLE

R/W

CAUTION

352+00

354+00

356+00

358+00

360+00

362+00

364+00

STH 38/HOWELL AVENUE

362+94.37
76.83' LT

363+03.84
76.91' LT

363+26.15
79.56' LT

364+05.99
83.83' LT

364+52.63
75.13' LT

IMPACTED WETLAND

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	EROSION CONTROL	SHEET 140	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\022016_ec.dgn | PLOT DATE : 1/30/2014 | PLOT BY : tmk | PLOT NAME : | PLOT SCALE : 1:100

2

LEGEND

- (A) INLET PROTECTION, TYPE A
- (B) INLET PROTECTION, TYPE B
- (C) INLET PROTECTION, TYPE C
- (D) INLET PROTECTION, TYPE D
- CULVERT PIPE CHECK
- SILT FENCE

N

MATCH LINE STA 365+00

MATCH LINE STA 380+00

366+00

368+00

370+00

372+00

374+00

376+00

378+00

380

SLOPE INTERCEPT

WETLAND BOUNDARY

WETLAND BOUNDARY

TLE

R/W

CAUTION

CAUTION

CAUTION

STH 38/HOWELL AVENUE

E. OAK STREET

E. JEWELL STREET

372+71.22
66.03' RT

374+25.16
65.75' RT

374+55.09
72.31' RT

375+29.31
73.75' RT

375+78.05
64.87' RT

WETLAND BOUNDARY

SLOPE INTERCEPT

RIPRAP

RIPRAP

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	EROSION CONTROL	SHEET 141	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\022017_ec.dgn

PLOT DATE : 1/30/2014

PLOT BY : tmk

PLOT NAME :

PLOT SCALE : 1:100

LEGEND

- Ⓐ INLET PROTECTION, TYPE A
- Ⓑ INLET PROTECTION, TYPE B
- Ⓒ INLET PROTECTION, TYPE C
- Ⓓ INLET PROTECTION, TYPE D
- CULVERT PIPE CHECK
- SILT FENCE

MATCH LINE STA 380+00

382+00

384+00

386+00

388+00

390+00

392+00

394+00

MATCH LINE STA 395+00

5114+00

5116+00

5118+00

5120+00

5122+

CTH ZZ/COLLEGE AVENUE

STH 38/HOWELL AVENUE

384+87.75
67.93' RT

385+22.27
61.32' RT

384+73.37
68.09' RT

385+50.77
66.30' RT

385+69.64
61.11' RT

SLOPE INTERCEPT

TLE

CEMETERY

CAUTION

RAMP

SLAB

FLAG

A/C

SIGN

R/W

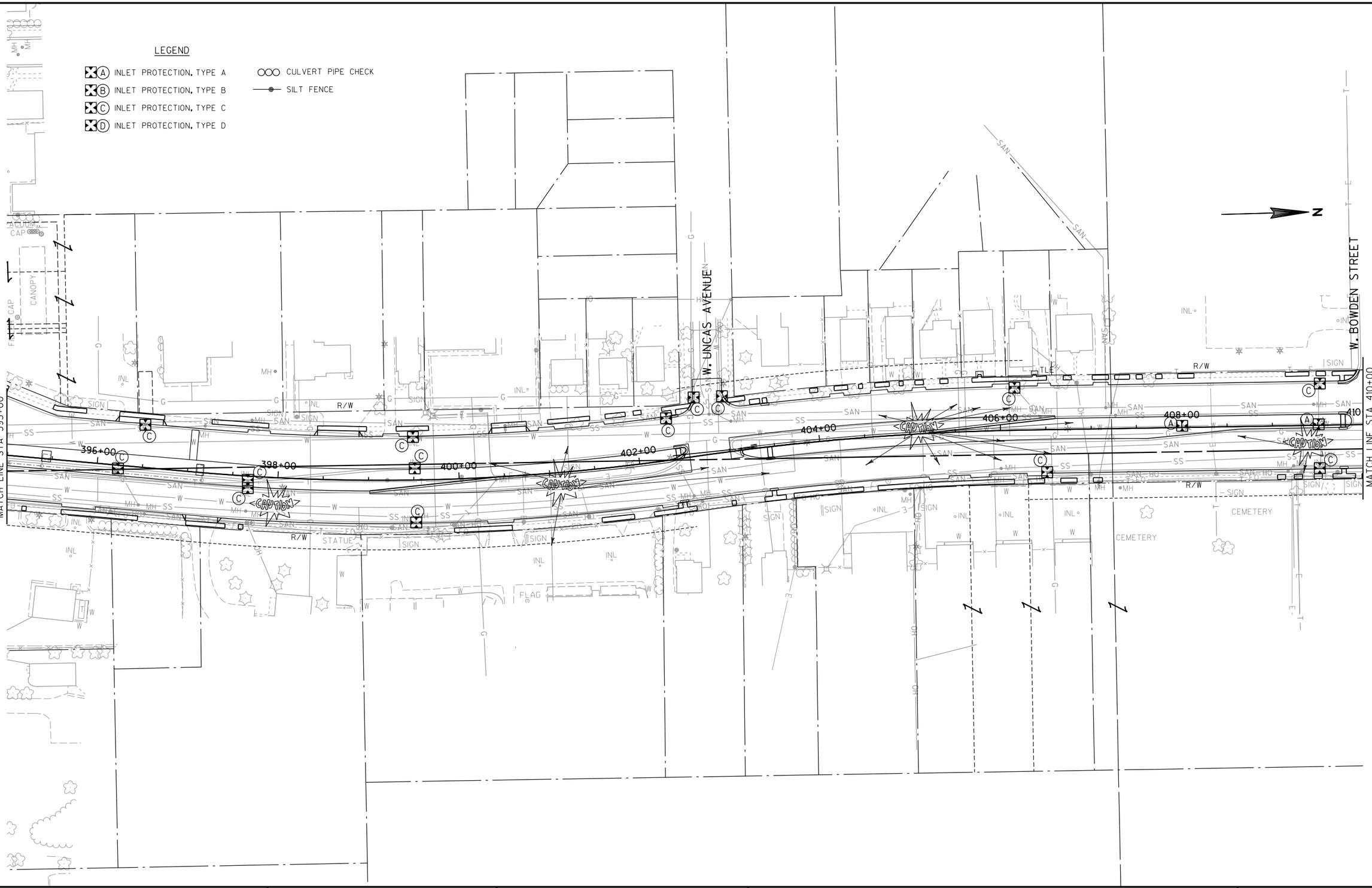
FILLER

FILLER CAP

2

LEGEND

- (A) INLET PROTECTION, TYPE A
- (B) INLET PROTECTION, TYPE B
- (C) INLET PROTECTION, TYPE C
- (D) INLET PROTECTION, TYPE D
- CULVERT PIPE CHECK
- SILT FENCE



PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	EROSION CONTROL	SHEET 143	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\022019_ec.dgn PLOT DATE : 1/30/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

LEGEND

- (A) INLET PROTECTION, TYPE A
- (B) INLET PROTECTION, TYPE B
- (C) INLET PROTECTION, TYPE C
- (D) INLET PROTECTION, TYPE D
- CULVERT PIPE CHECK
- SILT FENCE

N

W. BOWDEN STREET

STH 38/HOWELL AVENUE

MATCH LINE STA 410+00

412+00

414+00

416+00

418+00

420+00

422+00

424+00

EROSION MAT CLASS II TYPE B

IMPACTED WETLAND

B-40-772

PERIMETER ROAD

2

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	EROSION CONTROL	SHEET 144	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\022020_ec.dgn PLOT DATE : 1/30/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2

LEGEND

- (A) INLET PROTECTION, TYPE A
- (B) INLET PROTECTION, TYPE B
- (C) INLET PROTECTION, TYPE C
- (D) INLET PROTECTION, TYPE D
- CULVERT PIPE CHECK
- SILT FENCE

N

MATCH LINE STA 425+00

MATCH LINE STA 440+00

E. CITATION WAY

STH 38/HOWELL AVENUE

TUNNEL STRUCTURE
B-40-282

R/W

426+00 428+00 430+00 432+00 434+00 436+00 438+00 440

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	EROSION CONTROL	SHEET 145	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\022021_ec.dgn PLOT DATE : 1/30/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

2

SEE CONSTRUCTION DETAIL - AIRPORT SPUR RAMPS

LEGEND

- (A) INLET PROTECTION, TYPE A
- (B) INLET PROTECTION, TYPE B
- (C) INLET PROTECTION, TYPE C
- (D) INLET PROTECTION, TYPE D
- CULVERT PIPE CHECK
- SILT FENCE

RAMP ER

RAMP WC

AIRPORT SPUR

STH 38/HOWELL AVENUE

S. HOWELL AVENUE

MATCH LINE STA 440+00

MATCH LINE STA 455+00

442+00

444+00

446+00

448+00

450+00

452+00

454+00

B-40-525

EROSION MAT CLASS II TYPE B

RIPRAP

R/W

CAUTION

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	EROSION CONTROL	SHEET 146	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\022022_ec.dgn PLOT DATE : 1/30/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

2

LEGEND

- (A) INLET PROTECTION, TYPE A
- (B) INLET PROTECTION, TYPE B
- (C) INLET PROTECTION, TYPE C
- (D) INLET PROTECTION, TYPE D
- CULVERT PIPE CHECK
- SILT FENCE

N

STH 119/AIRPORT SPUR

GRANGE AVENUE

SLOPE INTERCEPT

TLE

CANOPY

STH 38/HOWELL AVENUE

S. HOWELL AVENUE

MATCH LINE STA 455+00

456+00

458+00

460+00

462+00

464+00

466+00

468+00

470+00

B-40-484

EROSION MAT CLASS II TYPE B

EROSION MAT CLASS II TYPE B

EROSION MAT CLASS II TYPE B

END PROJECT

STA 462+75.39

SUBSTATION SLAB

SLAB

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	EROSION CONTROL	SHEET 147	E

2

LEGEND

- (A) INLET PROTECTION, TYPE A
- (B) INLET PROTECTION, TYPE B
- (C) INLET PROTECTION, TYPE C
- (D) INLET PROTECTION, TYPE D
- CULVERT PIPE CHECK
- SILT FENCE

N

STH 38/HOWELL AVENUE

STH 100/RYAN ROAD

188+00 186+00 184+00 182+00 180+00

1098+00 1100+00 1102+00 1104+00 1106+00 1108+00 1110+00 1112+00

TLE

SLOPE INTERCEPT

R/W

CAUTION

CANOPY

FILLER CAP

VACUUM

FLAG

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	EROSION CONTROL	SHEET 148	E

2

2

LEGEND

- (A) INLET PROTECTION, TYPE A
- (B) INLET PROTECTION, TYPE B
- (C) INLET PROTECTION, TYPE C
- (D) INLET PROTECTION, TYPE D
- CULVERT PIPE CHECK
- SILT FENCE

N

STH 38/HOWELL AVENUE

FOREST HILL AVENUE

SLOPE INTERCEPT

R/W

200+00 202+00 204+00 204+38 206+00 208+00 210+00 212+00 214+00 216+00 218+00 220+00 222+00 224+00 226+00 228+00 230+00 232+00 234+00 236+00 238+00 240+00 242+00 244+00 246+00 248+00 250+00 252+00 254+00 256+00 258+00 260+00 262+00 264+00 266+00 268+00 270+00 272+00 274+00 276+00 278+00 280+00 282+00 284+00 286+00 288+00 290+00 292+00 294+00 296+00 298+00 300+00 302+00 304+00 306+00 308+00

PROJECT NO: 2060-15-71 | HWY: STH 38 | COUNTY: MILWAUKEE | EROSION CONTROL | SHEET 149 | E

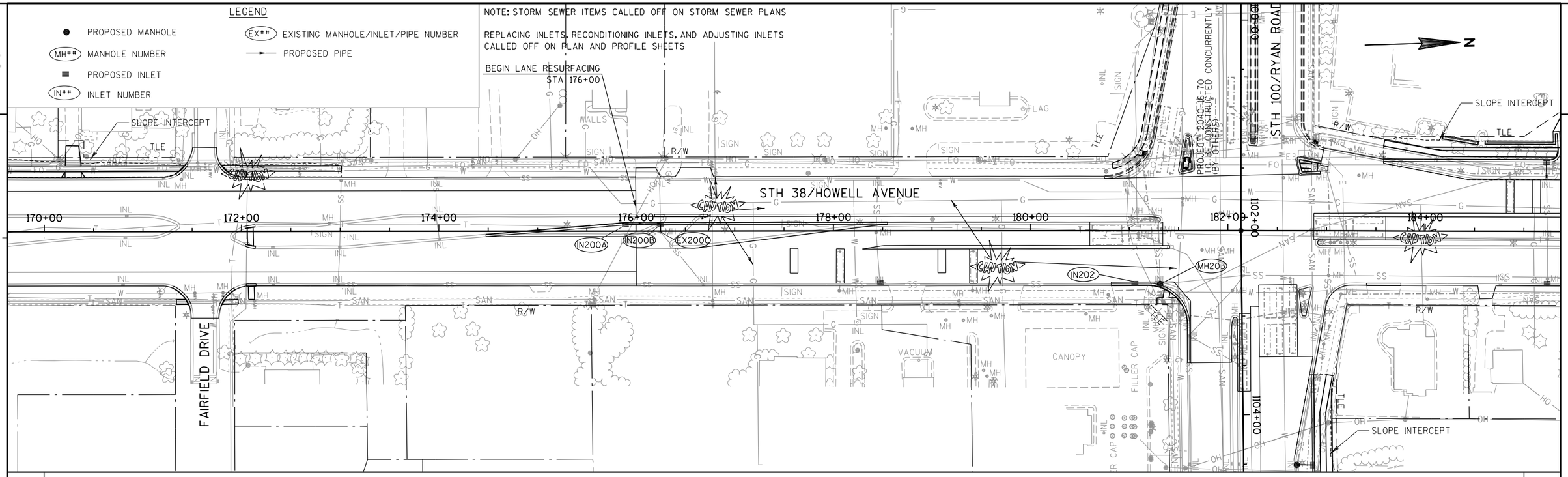
LEGEND

- PROPOSED MANHOLE
- MH## MANHOLE NUMBER
- PROPOSED INLET
- IN## INLET NUMBER
- EX## EXISTING MANHOLE/INLET/PIPE NUMBER
- PROPOSED PIPE

NOTE: STORM SEWER ITEMS CALLED OFF ON STORM SEWER PLANS

REPLACING INLETS, RECONDITIONING INLETS, AND ADJUSTING INLETS CALLED OFF ON PLAN AND PROFILE SHEETS

BEGIN LANE RESURFACING
STA 176+00



NO PROFILE THIS SHEET

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	STORM SEWER	SHEET 150	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\022504_ss.dgn PLOT DATE : 1/3/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 41

LEGEND

- PROPOSED MANHOLE
- MH## MANHOLE NUMBER
- PROPOSED INLET
- IN## INLET NUMBER
- EX## EXISTING MANHOLE/INLET/PIPE NUMBER
- PROPOSED PIPE

N

IN213
SLOPE INTERCEPT
TLE
R/W
EX214
CAUTION
186+00
188+00
190+00
192+00
CAUTION
194+00
196+00
198+00
200+00
IN218
IN217
STH 38/HOWELL AVENUE
B-40-294
B-40-295
RIPRAP
SLAB
POOL
A/C
OAKLEAF TRAIL

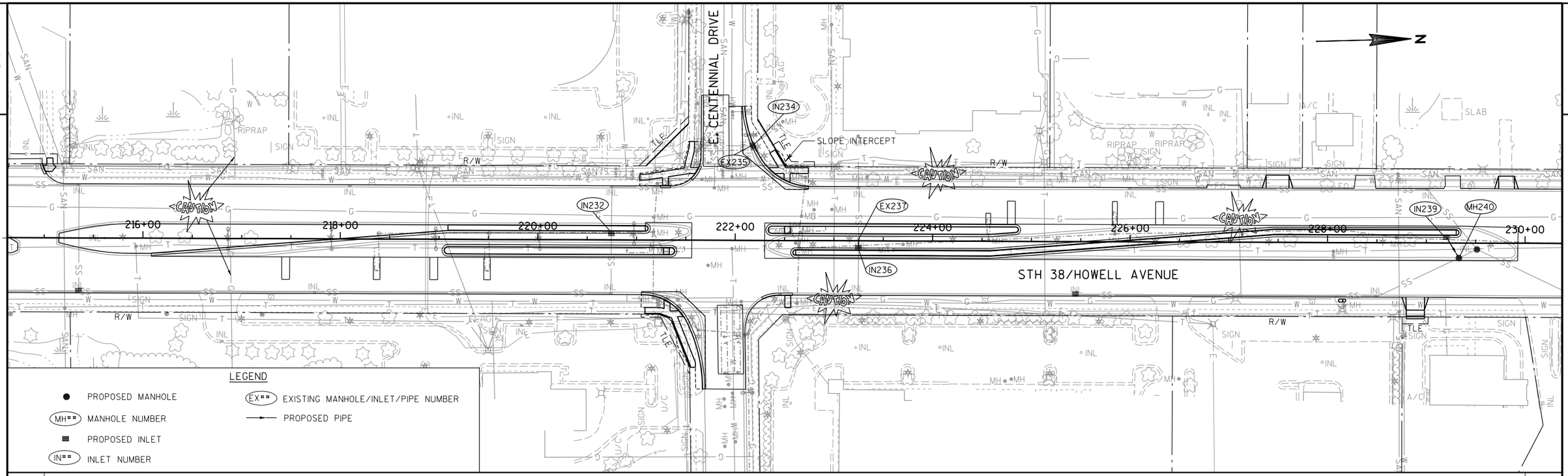
695
690
685
680
675
670
665
660

NO PROFILE THIS SHEET

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	STORM SEWER	SHEET 151	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\022505_ss.dgn PLOT DATE : 1/3/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 41



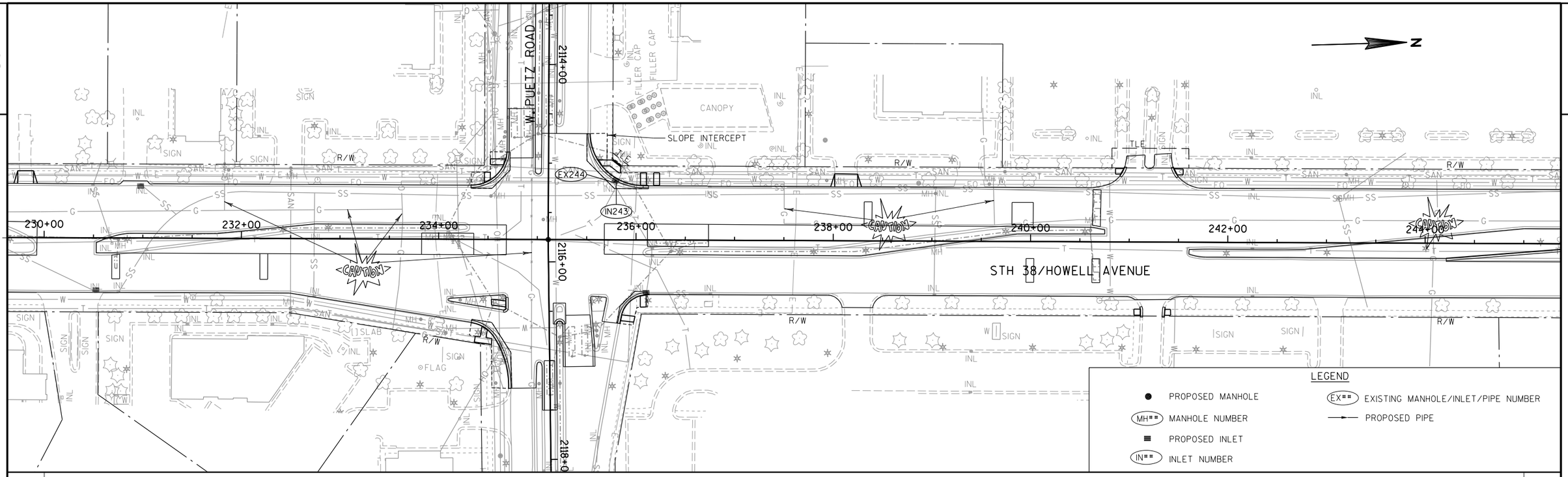
710
705
700
695
690
685
680
675

NO PROFILE THIS SHEET

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	STORM SEWER	SHEET 152	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\022507_ss.dgn PLOT DATE : 1/3/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 41



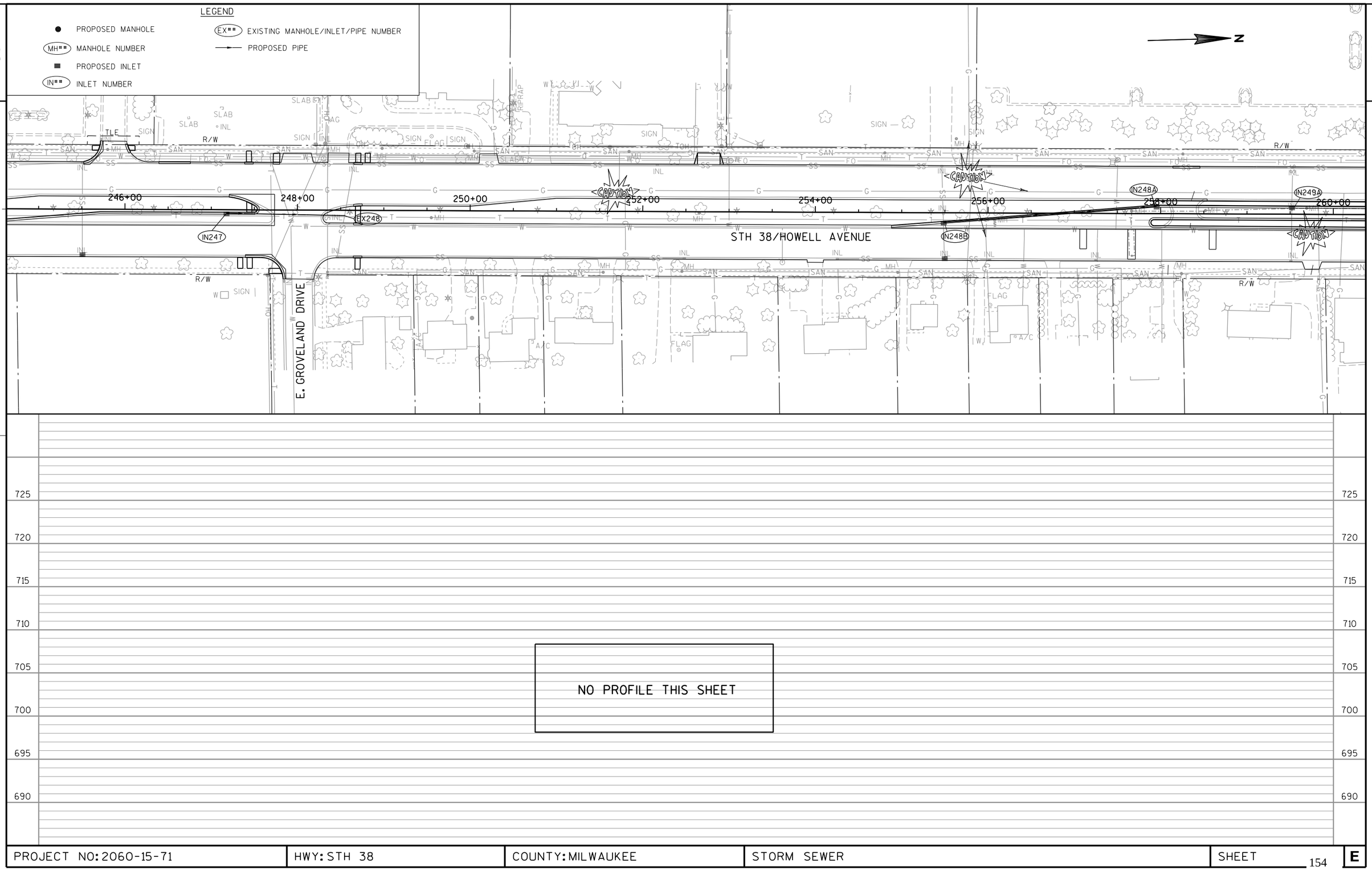
715
710
705
700
695
690
685
680

NO PROFILE THIS SHEET

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	STORM SEWER	SHEET 153	E

LEGEND

- PROPOSED MANHOLE
- MH## MANHOLE NUMBER
- PROPOSED INLET
- IN## INLET NUMBER
- EX## EXISTING MANHOLE/INLET/PIPE NUMBER
- PROPOSED PIPE



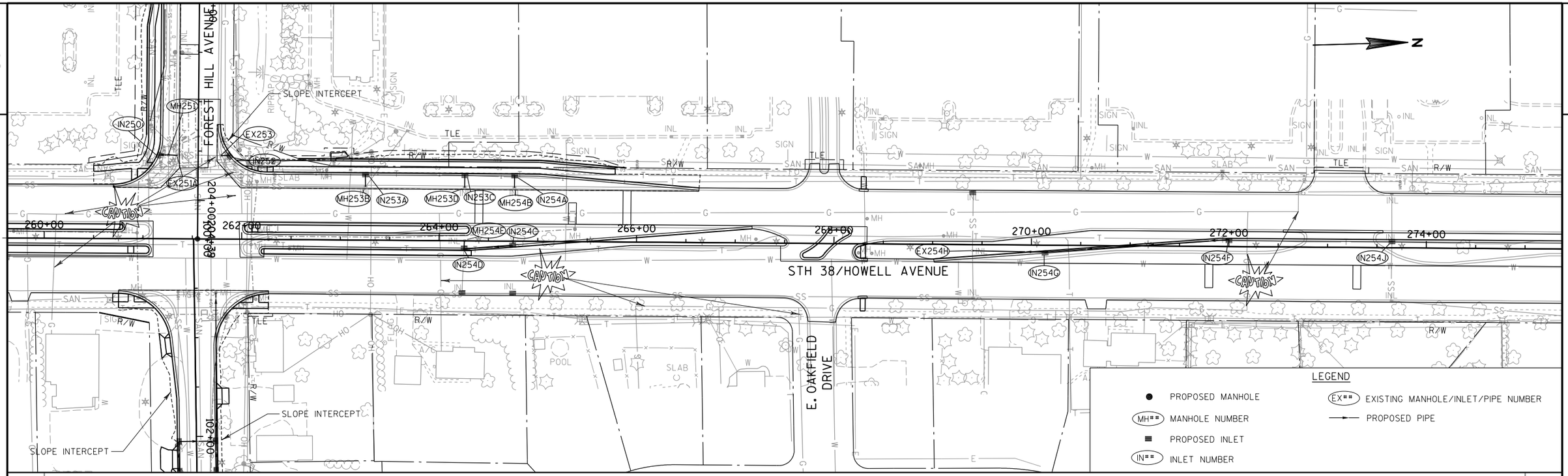
725 720 715 710 705 700 695 690

NO PROFILE THIS SHEET

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	STORM SEWER	SHEET 154	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\022509_ss.dgn PLOT DATE : 1/3/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 41



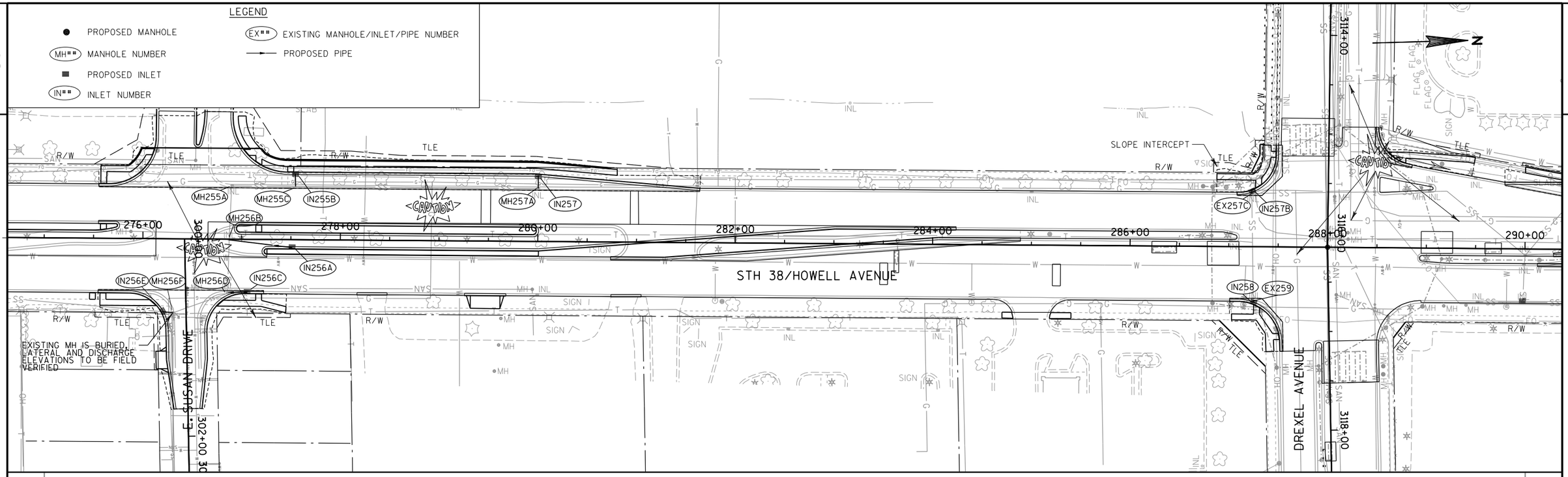
730 725 720 715 710 705 700 695

NO PROFILE THIS SHEET

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	STORM SEWER	SHEET 155	E

LEGEND

- PROPOSED MANHOLE
- MH"" MANHOLE NUMBER
- PROPOSED INLET
- IN"" INLET NUMBER
- EX"" EXISTING MANHOLE/INLET/PIPE NUMBER
- PROPOSED PIPE



NO PROFILE THIS SHEET

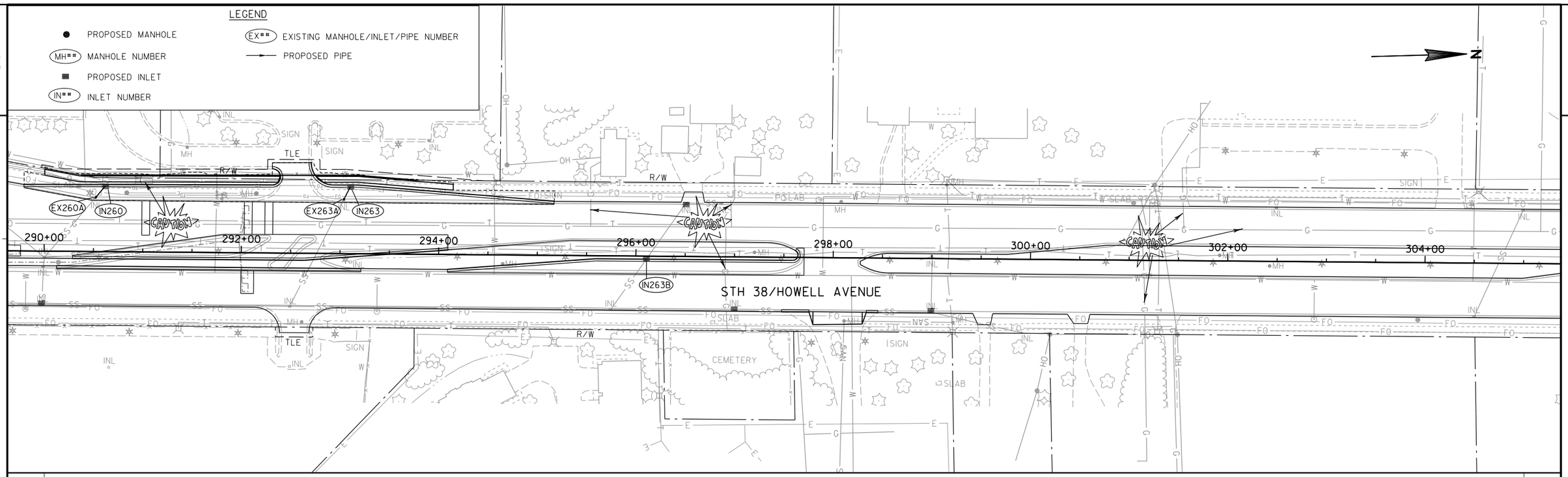
PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	STORM SEWER	SHEET 156	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\022511_ss.dgn PLOT DATE : 1/3/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 41

LEGEND

- PROPOSED MANHOLE
- MH"#" MANHOLE NUMBER
- PROPOSED INLET
- IN"#" INLET NUMBER
- EX"#" EXISTING MANHOLE/INLET/PIPE NUMBER
- PROPOSED PIPE



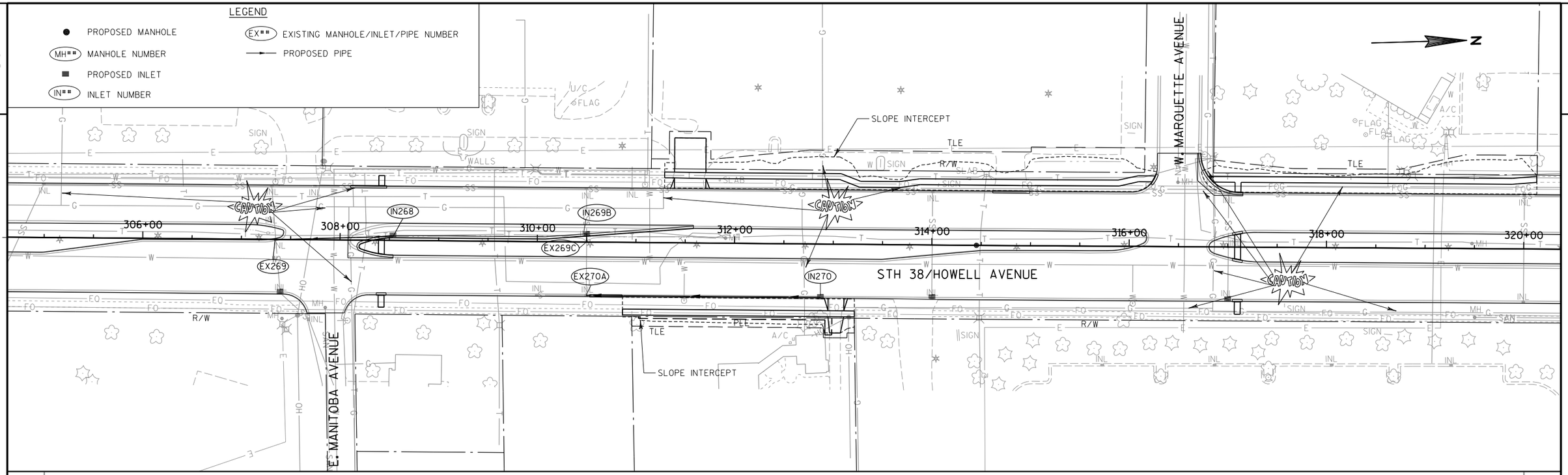
NO PROFILE THIS SHEET

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	STORM SEWER	SHEET 157	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\022512_ss.dgn PLOT DATE : 1/3/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

LEGEND

- PROPOSED MANHOLE
- MH## MANHOLE NUMBER
- PROPOSED INLET
- IN## INLET NUMBER
- EX## EXISTING MANHOLE/INLET/PIPE NUMBER
- PROPOSED PIPE



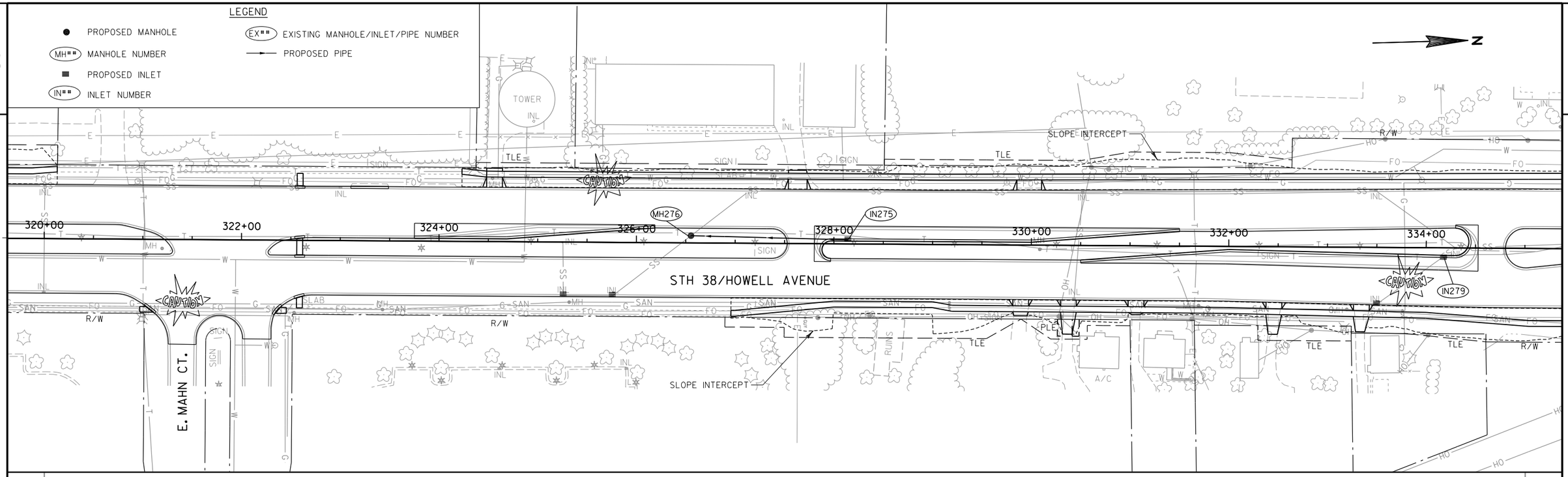
NO PROFILE THIS SHEET

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	STORM SEWER	SHEET 158	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\022513_ss.dgn PLOT DATE : 1/3/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

LEGEND

- PROPOSED MANHOLE
- MH## MANHOLE NUMBER
- PROPOSED INLET
- IN## INLET NUMBER
- EX## EXISTING MANHOLE/INLET/PIPE NUMBER
- PROPOSED PIPE



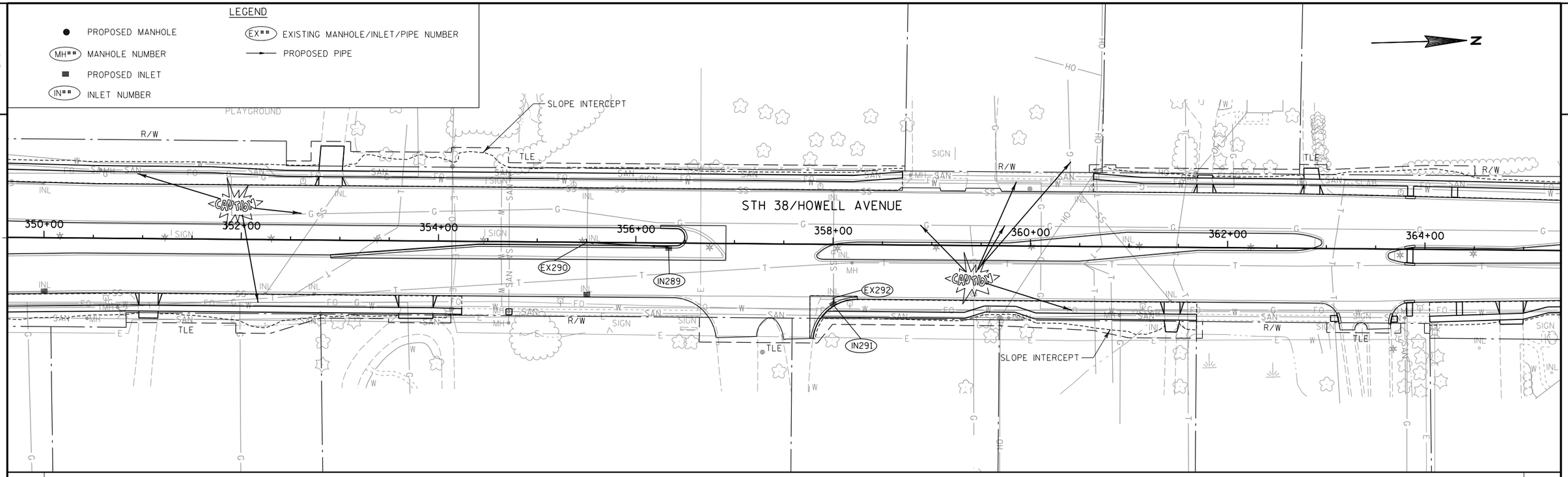
755
750
745
740
735
730
725
720

NO PROFILE THIS SHEET

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	STORM SEWER	SHEET 159	E

LEGEND

- PROPOSED MANHOLE
- MANHOLE NUMBER (MH##)
- PROPOSED INLET
- INLET NUMBER (IN###)
- EXISTING MANHOLE/INLET/PIPE NUMBER (EX###)
- PROPOSED PIPE



NO PROFILE THIS SHEET

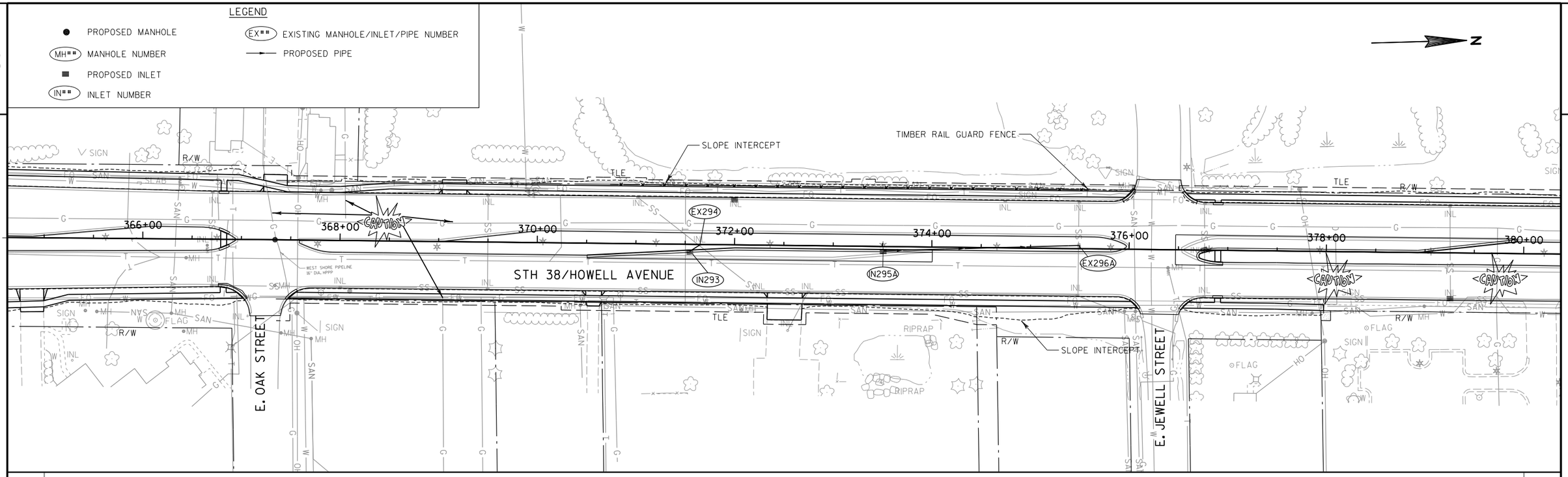
PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	STORM SEWER	SHEET 160	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\022516_ss.dgn PLOT DATE : 1/3/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 41

LEGEND

- PROPOSED MANHOLE
- MH## MANHOLE NUMBER
- PROPOSED INLET
- IN## INLET NUMBER
- EX## EXISTING MANHOLE/INLET/PIPE NUMBER
- PROPOSED PIPE



735 730 725 720 715 710 705 700

NO PROFILE THIS SHEET

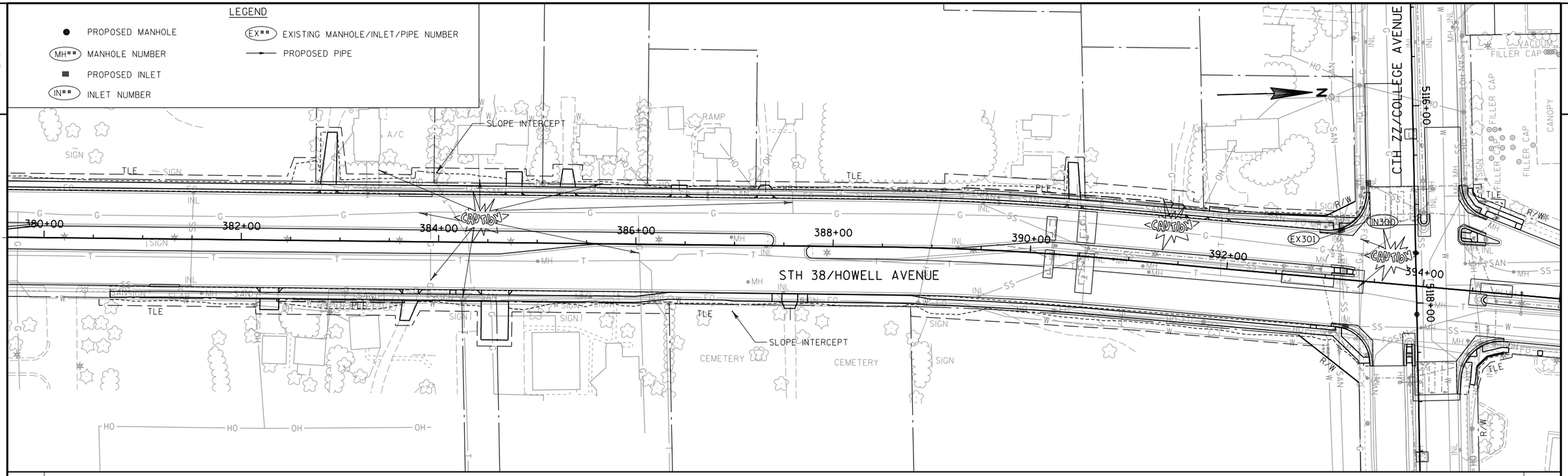
PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	STORM SEWER	SHEET 161	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\022517_ss.dgn PLOT DATE : 1/3/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 41

LEGEND

- PROPOSED MANHOLE
- MH## MANHOLE NUMBER
- PROPOSED INLET
- IN## INLET NUMBER
- EX## EXISTING MANHOLE/INLET/PIPE NUMBER
- PROPOSED PIPE



NO PROFILE THIS SHEET

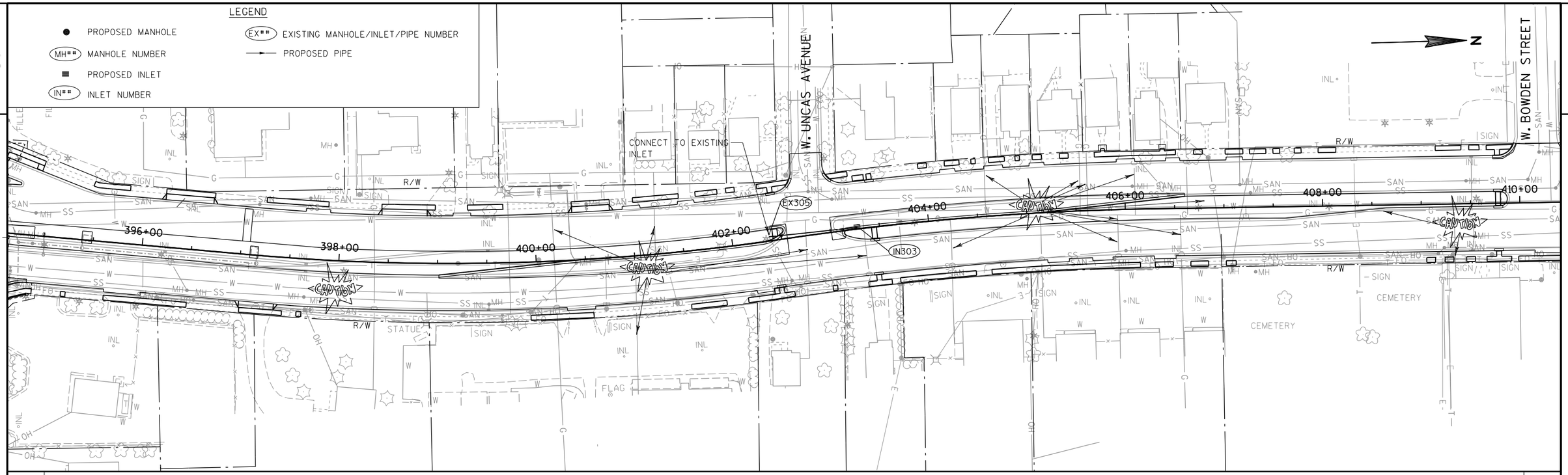
PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	STORM SEWER	SHEET 162	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\022518_ss.dgn PLOT DATE : 1/3/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 41

LEGEND

- PROPOSED MANHOLE
- MH## MANHOLE NUMBER
- PROPOSED INLET
- IN## INLET NUMBER
- EX## EXISTING MANHOLE/INLET/PIPE NUMBER
- PROPOSED PIPE

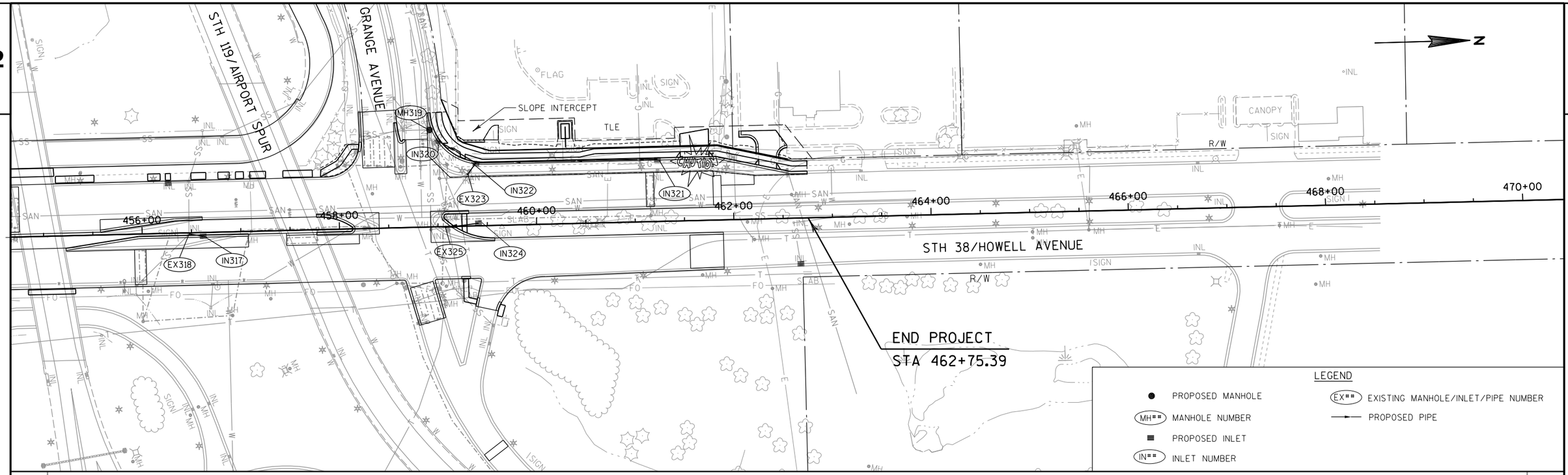


735
730
725
720
715
710
705
700

NO PROFILE THIS SHEET

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	STORM SEWER	SHEET 163	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\022519_ss.dgn PLOT DATE : 1/3/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100



NO PROFILE THIS SHEET

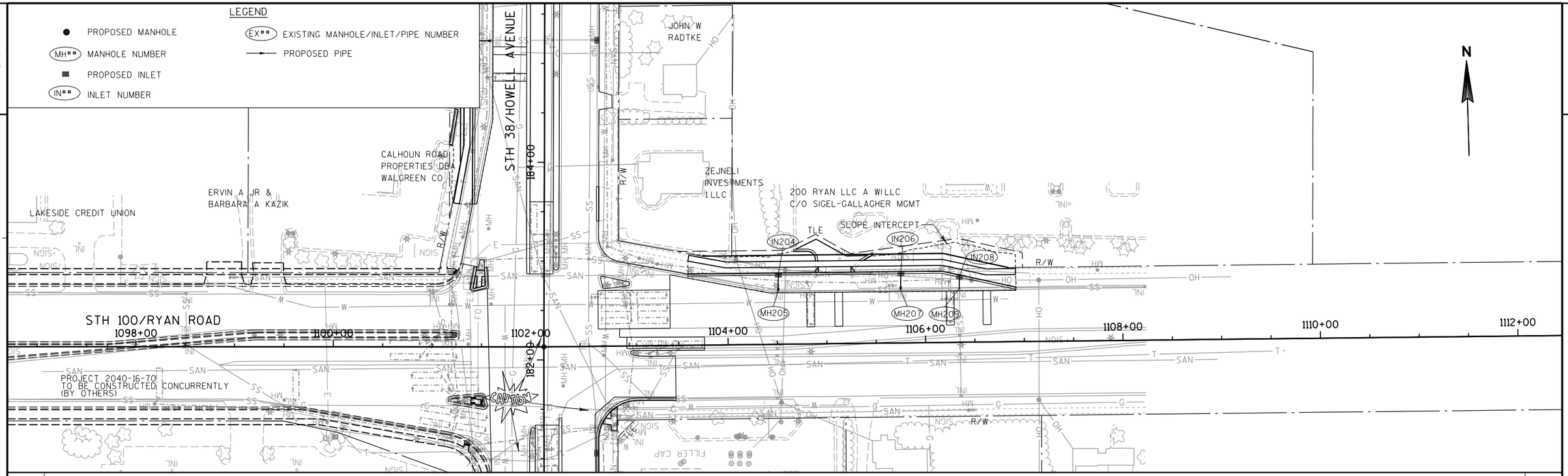
PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	STORM SEWER	SHEET 164	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\022523_ss.dgn PLOT DATE : 1/3/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 41

LEGEND

- PROPOSED MANHOLE
- MH## MANHOLE NUMBER
- PROPOSED INLET
- IN## INLET NUMBER
- EX## EXISTING MANHOLE/INLET/PIPE NUMBER
- PROPOSED PIPE

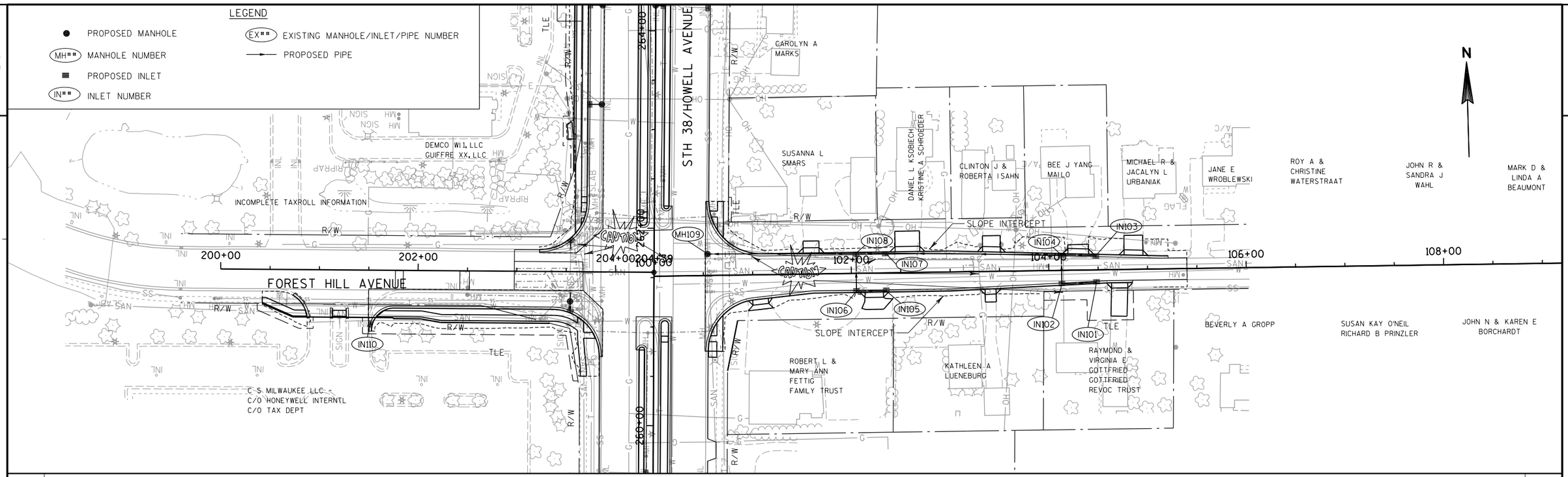


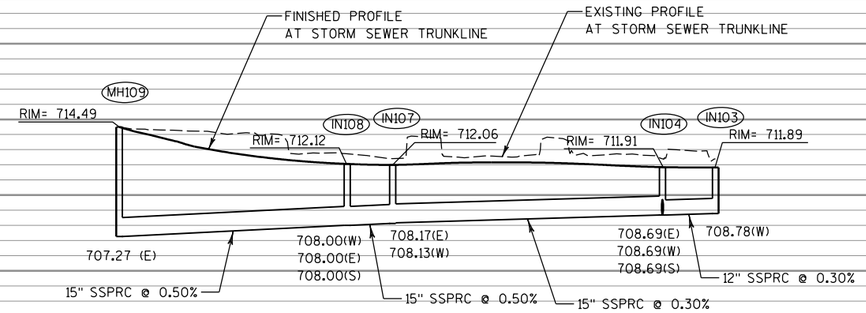
NO PROFILE THIS SHEET

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	STORM SEWER	SHEET 165	E

LEGEND

- PROPOSED MANHOLE
- MANHOLE NUMBER (MH##)
- PROPOSED INLET
- INLET NUMBER (IN##)
- EXISTING MANHOLE/INLET/PIPE NUMBER (EX##)
- PROPOSED PIPE





PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	STORM SEWER	SHEET 166	E

NOTE:
LOCATIONS OF NO PASSING PENNANTS ARE APPROXIMATE. PERMANENT LOCATIONS SHALL BE DETERMINED BY LOCATING NO PASSING ZONES BID ITEM.

N

101
W6-3(3)

102
R4-7(3)
W5-56(2M)
SEE ATTACHED DETAIL
REMOVE

103
DO NOT ENTER
R5-1(3)
REMOVE

104
NO PASSING ZONE
W14-3(3)
REMOVE

105
106
SPEED LIMIT 45
R2-1(3)

Oakwood Rd
10300 SOUTH
NEXT SIGNAL
D1-65(MOD)
107

STH 38

STH

INL

SIGN

MH

FOOTBRIDGE

GOLF COURSE

GOLF GREEN

W

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) INDICATES YEAR INSTALLED

SHEET 1 OF 59

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET	E

FILE NAME : J:\projects\d2_20601538\71\Sign\023201_ps.dgn PLOT DATE : 28-OCT-2013 16:40 PLOT BY : MSCKVW PLOT NAME : PLOT SCALE : 40:1

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIZE
- (2010) INDICATES YEAR INSTALLED

SEE SHEET 2A

OAKWOOD RD

108 SPEED LIMIT 45 REMOVE
109
110 WRONG WAY R5-1A(3) WRONG WAY REMOVE
111 W6-2(2M)
112 REMOVE
113 SOUTH 38 J4-1(3)
114 W4-2R(3)
115 R4-7(3) REMOVE
116 ONE WAY R6-2L(2M) ONE WAY REMOVE
116A R1-1F(3) STOP DIVIDED HIGHWAY R6-3(2M) STOP REMOVE
117 TRUCKING TO OPUS DRIVE ONLY TRUCK ROUTE ESTR
118 DO NOT ENTER R5-1(3) DO NOT ENTER REMOVE
119 120 121 STOP R1-1F(3) STOP REMOVE
122 STOP R1-1F(3) STOP REMOVE
123 STOP R1-1F(3) STOP REMOVE
124 R4-7(3) REMOVE
125 LEFT TURN LANE REMOVE
126 Oakwood Rd 10300 S REMOVE
127 WRONG WAY REMOVE WRONG WAY R5-1A(3)
128 STOP REMOVE STOP R1-1F(3)
129 DO NOT ENTER REMOVE DO NOT ENTER R5-1(3)
130
131 Oakwood Rd M1-94-H ON SIGNAL ARM
132 Oakwood Rd M1-94-H ON SIGNAL ARM
133 REMOVE W12-1D(2M) 2' MOUNTING HEIGHT
134 STOP REMOVE STOP R1-1F(3) DIVIDED HIGHWAY R6-3(2M)
135 ONE WAY REMOVE ONE WAY R6-2L(2M)
136 YIELD REMOVE YIELD R1-2(3)
154 BEGIN LEFT TURN LANE R3-20LL(2M)
201 38 S Howell Ave M1-94-H ON SIGNAL ARM
202 38 S Howell Ave M1-94-H ON SIGNAL ARM
203 NORTH SOUTH 38 38 J3-2(2S) 48" X 57"
204 SOUTH NORTH 38 38 J3-2 48" X 57"

STH 38
125+00 126+00 127+00 128+00 129+00 130+00 131+00
N 0°20'27" E
SB18 SB15 SB9
ICPB1 ICPB2 ICPB3
FO I/C
2 - 6X20 3 TURNS EACH
6X6 5 TURNS
INL MH SIGN

SEE SHEET 2B

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET E

FILE NAME : J:\projects\d2_20601538\71\Sign\023202_ps.dgn PLOT DATE : 28-OCT-2013 16:40 PLOT BY : MSCKVW PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

2

N

INL

INL

SIGN

W

RIGHT LANE
MUST
TURN RIGHT
ESTR

SPEED
LIMIT
25
ESTR

INL

OAKWOOD RD

SEE SHEET 2

MH

INL

PB2

MH

P

JCT
38
J1-1(2S)
1230

ESTR

ONLY
ESTR

ESTR

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

SHEET 2A OF 59

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET	E

2

2

N

R/W

MH

81

OAKWOOD RD

SEE SHEET 2

ONLY ONLY ONLY

ESTR

ESTR

1231

JCT

38

J1-1(2S)

SPEED LIMIT 25

ESTR

WEIGHT LIMIT 3 TONS

ESTR

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

SHEET 2B OF 59

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET	E

FILE NAME : J:\projects\d2_20601538\71\Sign\023202b_ps.dgn PLOT DATE : 28-OCT-2013 16:40 PLOT BY : MSCKVW PLOT NAME : PLOT SCALE : 40:1

2

N

137
138
W4-2R(3)
REMOVE

139
WRONG WAY
R5-1A(3)
WRONG WAY
REMOVE

1439
BEGIN LEFT TURN LANE
R3-20LL(2S)

140
LEFT TURN LANE
REMOVE

141
142
RIGHT LANE ENDS
REMOVE

200' TO NEAR RIGHT SIGNAL
6X20
4 TURNS
22

330' TO NEAR RIGHT SIGNAL
6X20
5 TURNS
22

PB5
PB6
PB9
PB10
SB7
SB8
MH
INL

131+00
132+00
133+00
134+00
135+00
136+00
137+00

STH 38
FO I/C
FO I/C

NORTH
38
J4-1(3)
143

SPEED LIMIT 45
REMOVE
SPEED LIMIT 45
R2-1(3)
144
145

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

SHEET 3 OF 59

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET	E

FILE NAME : J:\projects\d2_20601538\71\Sign\023203_ps.dgn PLOT DATE : 28-JAN-2014 11:40 PLOT BY : MSCKVW PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

NOTE:
STREET SIGNS SHALL BE MOVED
BY MUNICIPALITY AND SHALL NOT
BE PLACED ON TOP OF STOP SIGNS.

N

146
147
Oakwood Rd
10300 SOUTH
NEXT SIGNAL
D1-65(MOD)
Oakwood Rd
10300 S
REMOVE

148
149
W3-3(3)
REMOVE

150
R4-7(3)
REMOVE

151
ONE WAY
R6-2L(2M)

152
R4-7(3)
REMOVE

153
DO NOT ENTER
R5-1(3)

TRELLIS

INL

137+00 138+00 139+00 140+00 141+00 142+00 143+00

STH 38

FO I/C

ICPB4

N 25°03" E

ICPB5

LISA DR

DO NOT ENTER
R5-1(3)
155

WEIGHT LIMIT 3 TONS
ESTR

STOP
REMOVE

R1-1(3) STOP

R6-3A(2S) DIVIDED HIGHWAY

156

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

SHEET 4 OF 59

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET	E

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

N

157
158
SPEED LIMIT 45
R2-1(3)
SPEED LIMIT 45
REMOVE

159
R4-7(3)

160
DO NOT ENTER
R5-1(3)

161
R4-7(3)
REMOVE

INL
SIGN

144+00
145+00
146+00
STH 38
147+00
148+00
149+00
FO I/C
ICPB6
ICPB7

SPEED LIMIT 45
REMOVE
SPEED LIMIT 45
R2-1(3)
162
163

ONE WAY
R6-2L(2M)
164

SHEET 5 OF 59

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET	E

2

N

165
CURB LANE
BICYCLES AND RIGHT TURNS ONLY
R3-21(2)
CURB LANE
BICYCLES AND RIGHT TURNS ONLY
REMOVE

167
R4-7(3)

168
R4-7(3)
REMOVE

169
DO NOT ENTER
R5-1(3)

SIGN
MH
INL
W

149+00
150+00
151+00
152+00
153+00
154+00
ICPB8
ICPB9
FO I/C
STH 38

W11-2(3)
AHEAD
W16-9P(3)
170
171

ONE WAY
R6-2L(2M)
172

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) INDICATES YEAR INSTALLED

SHEET 6 OF 59

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET	E

FILE NAME : J:\projects\d2_20601538\71\Sign\023206_ps.dgn PLOT DATE : 28-OCT-2013 16:41 PLOT BY : MSCKVW PLOT NAME : PLOT SCALE : 40:1
WISDOT/CADDS SHEET 42

NOTE:
STREET SIGNS SHALL BE MOVED BY MUNICIPALITY AND SHALL NOT BE PLACED ON TOP OF STOP SIGNS.

174 W11-2(3) W16-7L(3)
175 R4-7(3) REMOVE
176 ONE WAY R6-2L(2M)
177 R4-7(3)
179 180 SPEED LIMIT 45 R2-1(3)
SPEED LIMIT 45 REMOVE
181 182 W11-2(3) AHEAD W16-9P(3)
183 ONE WAY R6-2L(2M)
184 (2011) STOP MOVE
R6-3(2M) DIVIDED HIGHWAY
WEIGHT LIMIT 3 TONS ESTR
SUMMERHILL PL
188 189 R4-7(3) REMOVE
185 186 W11-2(3) W16-7R(3)
DO NOT ENTER R5-1(3) 187
WEIGHT LIMIT 3 TONS ESTR
190 W11-2(3) W16-7L(3)
FITZSIMMONS RD
STOP REMOVE
STOP R1-1(3)
DIVIDED HIGHWAY R6-3A(2S) 191
SPEED LIMIT 45 REMOVE
SPEED LIMIT 45 R2-1(3) 193 194
DO NOT ENTER R5-1(3) 195
WEIGHT LIMIT 3 TONS ESTR
ESTATES PL
STOP REMOVE
ONE WAY R6-2L(2M) 197
STOP R1-1(3)
DIVIDED HIGHWAY R6-3(2S) 196

STH 38
155+00 156+00 157+00 158+00 159+00 160+00 161+00
ICPB10 ICPB11 ICPB12
FO I/C
MH
INL

LEGEND
EXISTING SIGN MOUNTED ON POST(S)
EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
PROPOSED SIGN MOUNTED ON POST(S)
PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
EXISTING LIGHT OR SIGNAL POLE
PROPOSED LIGHT OR SIGNAL POLE
SIGN BRIDGE
CANTILEVER SIGN BRIDGE
(XXX) DENOTES SIGN NUMBER
(X) INDICATES SIGN SIZE
(2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

SHEET 7 OF 59

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET	E

FILE NAME : J:\projects\d2_20601538\71\Sign\023207_ps.dgn PLOT DATE : 28-OCT-2013 16:41 PLOT BY : MSCKVW PLOT NAME : PLOT SCALE : 40:1

2

N

198

DO NOT ENTER

R5-1(3)

SIGN

INL

INL

INL

161+00

162+00

163+00

164+00

165+00

166+00

167+00

ICPB13

FO I/C

FO I/C

FO I/C

INL

STH 38

INL

INL

INL

INL

W

CURB LANE

BICYCLES AND RIGHT TURNS ONLY

REMOVE

CURB LANE

BICYCLES AND RIGHT TURNS ONLY

R3-21(MOD)

200

LEGEND

EXISTING SIGN MOUNTED ON POST(S)

EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE

PROPOSED SIGN MOUNTED ON POST(S)

PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE

EXISTING LIGHT OR SIGNAL POLE

PROPOSED LIGHT OR SIGNAL POLE

SIGN BRIDGE

CANTILEVER SIGN BRIDGE

XXX DENOTES SIGN NUMBER

(X) INDICATES SIGN SIZE

(2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

SHEET 8 OF 59

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET	E

NOTE:
STREET SIGNS SHALL BE MOVED
BY MUNICIPALITY AND SHALL NOT
BE PLACED ON TOP OF STOP SIGNS.

N

205
206
SPEED LIMIT 45
R2-1(3)

207
207A
208
208A
SPEED LIMIT 45
REMOVE

209
ONE WAY
R6-2L(2M)

210
(2011) STOP
MOVE
R6-3(2S) DIVIDED HIGHWAY

FAIRFIELD DR

211
212
R4-7(3)
REMOVE

215
LEFT TURN LANE
REMOVE

216
DO NOT ENTER
R5-1(3)

217
W11-2(3)
W16-7L(3)

218
RIGHT LANE MUST TURN RIGHT
REMOVE

219
Fairfield Dr
REMOVE

WEIGHT LIMIT 3 TONS
ESTR

167+00
168+00
169+00
170+00
171+00
172+00
173+00

N 1°31'25" E

STH 38

FO I/C
ICPB14
ICPB15

W11-2(3)
W16-7R(3)
213
214

222
223
SPEED LIMIT 45
R2-1(3)

W11-2(3)
AHEAD
W16-9P(3)
220
221

225
DO NOT ENTER
R5-1(3)

STREET SIGNS

227
ONE WAY
R6-2L(2M)

W11-2(3)
W16-7L(3)
228

226
STOP
REMOVE
STOP R1-1(3)
DIVIDED HIGHWAY R6-3(2M)

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

SHEET 9 OF 59

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET E

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

N

230 CURB LANE / BICYCLES AND RIGHT TURNS ONLY R3-2(2)
CURB LANE / BICYCLES AND RIGHT TURNS ONLY REMOVE

231 231A W11-2(3) AHEAD W16-9P(3)

232 232A DO NOT ENTER REMOVE

234 SPEED LIMIT 45 R2-1(3)
SPEED LIMIT 45 REMOVE

235 SPEED LIMIT 45 R2-1(3)

236 ONE WAY R6-2R(2S)

233 REMOVE

237 ONE WAY R6-2R(2S)

1426 NO PARKING ANY TIME R7-1R
NO PARKING ANY TIME REMOVE

INL SIGN MH 38

173+00 174+00 175+00 STH 38 ICPB16 176+00 ICPB17 177+00 178+00 179+00

FO I/C

ONLY REMOVE 251

BEGIN LEFT TURN LANE R3-20L(3) 239

JCT 100 REMOVE
JCT 100 J4-1(3) 240 241

NO PARKING ANY TIME R7-1D(3) 242

TO WEST EAST 94 100 100 J3-3(3) 249 250

W3-3(3)
REMOVE 243 244

Ryan Rd 9500 SOUTH NEXT SIGNAL D1-65(MOD) 245

NO PARKING ANY TIME REMOVE 246

REMOVE 247

Ryan Rd 9500 SOUTH REMOVE 248

WEST TO EAST 100 94 100 REMOVE 224 238

NO PARKING ANY TIME REMOVE
NO PARKING ANY TIME R7-1D(3) 252

WRONG WAY REMOVE
WRONG WAY R5-1A(3) 253

SHEET 10 OF 59

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET	E

FILE NAME : J:\projects\d2_20601538\71\Sign\023210_ps.dgn PLOT DATE : 28-OCT-2013 16:41 PLOT BY : MSCKVW PLOT NAME : PLOT SCALE : 40:1

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) INDICATES YEAR INSTALLED

NOTE:
SIGNING TO WEST IS PART OF PROJECT 2040-16-70

SEE SHEET 11A

NOTE:
STREET SIGNS SHALL BE MOVED BY MUNICIPALITY AND SHALL NOT BE PLACED ON TOP OF STOP SIGNS.

SIGNS NOT SHOWN ON STH 100 ARE PART OF ANOTHER PROJECT AND ARE EXISTING SIGNS TO REMAIN (ESTR).

RYAN RD/STH 100

STH 38

RYAN ROAN/STH 100

SEE SHEET 11B

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET E

SHEET 11 OF 59

FILE NAME : J:\projects\d2_20601538\71\Sign\023211_ps.dgn PLOT DATE : 28-OCT-2013 16:41 PLOT BY : MSCKVW PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

NOTE:
ALL SIGNS NOT SHOWN ARE
EXISTING SIGNS TO REMAIN.

N

NOTE:
SIGNING ON THIS SHEET, OTHER THAN NO PARKING SIGNAGE, IS PART OF PROJECT 2040-16-70

1232
R7-1D(3)
REMOVE

1237
R7-1D(3)
REMOVE

1239
R7-1D(3)
REMOVE

94+00
1095+00
1096+00
1097+00
1098+00
1099+00
1100+00

RYAN RD/STH 100

SEE SHEET 11

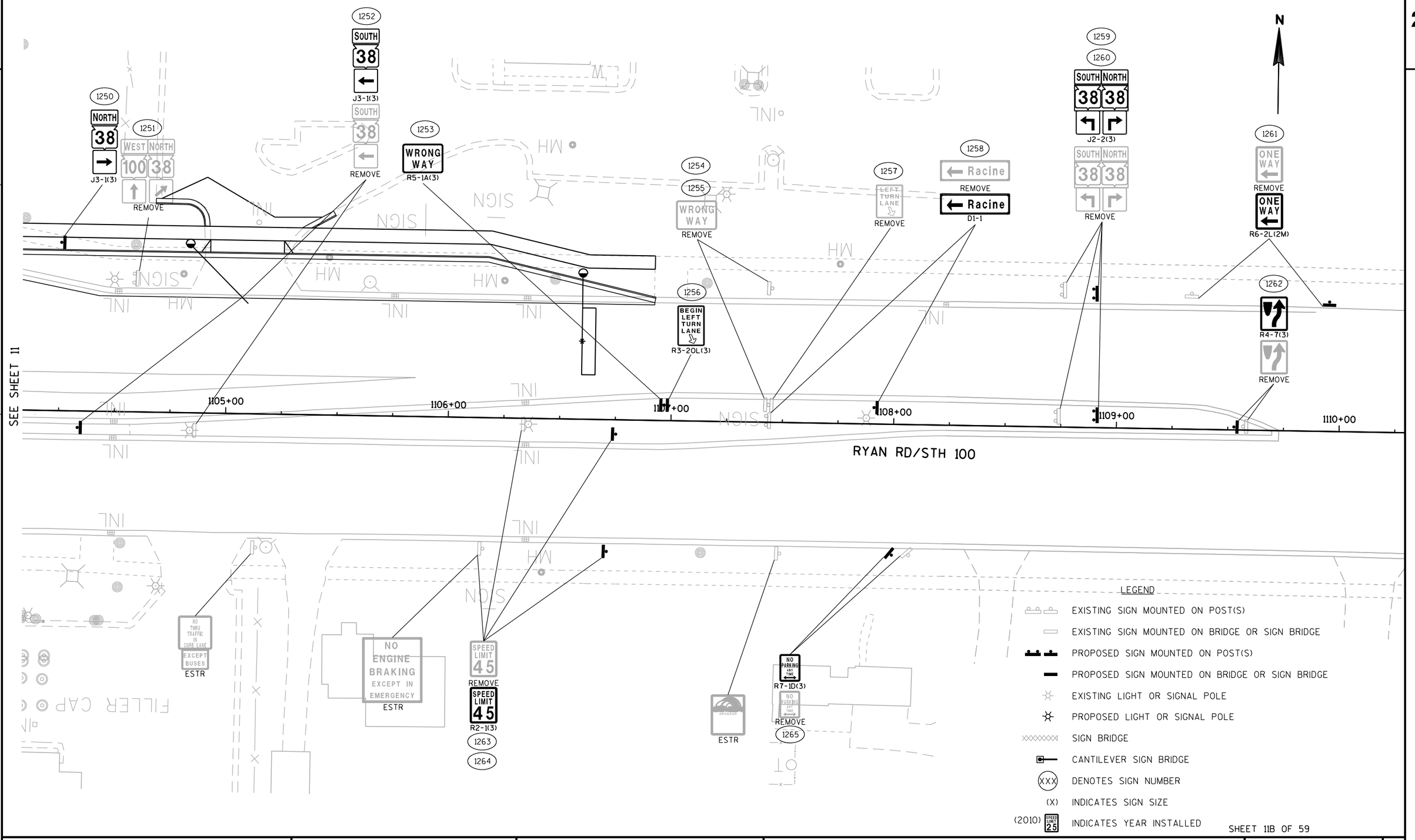
LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET	E

FILE NAME : J:\projects\d2_20601538\71\Sign\023211a_ps.dgn
PLOT DATE : 28-OCT-2013 16:41
PLOT BY : MSCKVW
PLOT NAME :
PLOT SCALE : 40:1
WISDOT/CADDS SHEET 42

2



SHEET 11B OF 59

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET	E

2

N

306
307
ONLY
R3-5L(2M)
ONLY
REMOVE

308
NO PARKING ANY TIME
R7-1D(3)
NO PARKING ANY TIME
REMOVE

309
BEGIN LEFT TURN LANE
R3-20L(3)
LEFT TURN LANE
REMOVE

310
NO PARKING ANY TIME
R7-1D(3)
NO PARKING ANY TIME
REMOVE

311
312
EAST TO WEST
INTERSTATE
100 94 100
J3-3(2M)
EAST TO WEST
INTERSTATE
100 94 100
REMOVE

186+00 187+00 188+00 189+00 190+00 191+00

STH 38

FO I/C

SIGN

INL MH

SEAL POOL

BEGIN LEFT TURN LANE
R3-20L(3)
316

NO PARKING ANY TIME
REMOVE
R7-1D(3)
313

SPEED LIMIT 45
REMOVE
SPEED LIMIT 45
R2-1(3)
314
315

NO PARKING ANY TIME
REMOVE
R7-1D(3)
317

NO PARKING ANY TIME
R7-1D(3)
319

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

SHEET 12 OF 59

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET	E

NOTE:
STREET SIGNS SHALL BE MOVED
BY MUNICIPALITY AND SHALL NOT
BE PLACED ON TOP OF STOP SIGNS.

N

411 Ryan Rd 9500 SOUTH NEXT SIGNAL D1-65(MOD)

320 ONE WAY R6-2L(2M)

322 NO PARKING ANY TIME R7-1D(3) REMOVE

323 324 REMOVE W3-3(3)

325 JCT 100 J1-1(3)

326 NO PARKING ANY TIME R7-1D(3) REMOVE

327 JCT 100 REMOVE

328 W11-2(3) RRFB W16-7L(3) R10-25(2M)

329 ONE WAY R6-2L(2M)

330 DO NOT ENTER R5-1(3)

331 R4-7(3) REMOVE

328A W11-2(3) RRFB W16-7R(3) R10-25(2M)

321 R4-7(3) REMOVE

191+00 192+00 193+00 194+00 STH 38 195+00 196+00 197+00

FO I/C ICPB19 ICPB20 FO I/C N 44°08" E FO I/C ICPB21 FO I/C ICPB22

332 DO NOT ENTER R5-1(3)

333 R4-7(3)

344 R4-7(3)

343 W11-2(3) RRFB W16-7R(3) R10-25(2M)

E PARKWAY ESTATES DR

336 NO PARKING ANY TIME REMOVE

W11-2(3) AHEAD W16-9P(3)

334

335

STOP REMOVE

337 STOP R1-1(3) DIVIDED HIGHWAY R6-3A(2M)

339 SPEED LIMIT 45 REMOVE

340 SPEED LIMIT 45 R2-1(3)

341

342

345 W11-2(3) RRFB W16-7L(3) R10-25(2M)

346 DO NOT ENTER R5-1(3)

347 STOP REMOVE STOP R1-1(3) DIVIDED HIGHWAY R6-3(2M)

348 ONE WAY R6-2L(2M)

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

SHEET 13 OF 59

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET	E

FILE NAME : J:\projects\d2_20601538\71\Sign\023213_ps.dgn PLOT DATE : 28-OCT-2013 16:41 PLOT BY : MSCKVW PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

NOTE:
STREET SIGNS SHALL BE MOVED
BY MUNICIPALITY AND SHALL NOT
BE PLACED ON TOP OF STOP SIGNS.

N

349
CURB LANE
BICYCLES AND RIGHT TURNS ONLY
R3-21(2)
CURB LANE
BICYCLES AND RIGHT TURNS ONLY
REMOVE

350
NO PARKING ANY TIME
R7-1D(3)
NO PARKING ANY TIME
REMOVE

351
4' MOUNTING HEIGHT
W5-52L(3)
REMOVE

352
4' MOUNTING HEIGHT
W5-52R(3)

354
NO PARKING ANY TIME
R7-1D(3)

355
SPONSOR
MOVE

356
R1-1(3)
STOP
R6-3A(2M)
DIVIDED HIGHWAY
STOP
REMOVE

W OAK LEAF DR

WEIGHT LIMIT 3 TONS

359
ONE WAY
R6-2L(2M)

W11-2(3)
AHEAD
W16-7P(3)

357
358

FO I/C
ATTACHED TO SIDE OF BRIDGE

ICPB23
ICPB24
ICPB22

197+00
198+00
199+00
200+00
201+00
202+00
203+00

FO I/C

SB
SB

STH 38

RIPRAP
SLAB

MH
INL

SPONSOR
MOVE
360

NO PARKING ANY TIME
REMOVE
NO PARKING ANY TIME
R7-1D(3)
361

W5-52L(3)
4' MOUNTING HEIGHT
362

W5-52R(3)
4' MOUNTING HEIGHT
363

NO PARKING ANY TIME
REMOVE
NO PARKING ANY TIME
R7-1D(3)
364

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

SHEET 14 OF 59

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET	E

FILE NAME : J:\projects\d2_20601538\71\Sign\023214_ps.dgn PLOT DATE : 28-OCT-2013 16:41 PLOT BY : MSCKVW PLOT NAME : PLOT SCALE : 40:1

2

N

NOTE:
STREET SIGNS SHALL BE MOVED
BY MUNICIPALITY AND SHALL NOT
BE PLACED ON TOP OF STOP SIGNS.

W OAK LEAF DR

WEIGHT LIMIT 3 TONS
ESTR

366
R4-7(3)
REMOVE

367
DO NOT ENTER
R5-1(3)

368
NO PARKING ANY TIME
R7-1D(3)
REMOVE

369
370
SPEED LIMIT 45
R2-1(3)
SPEED LIMIT 45
REMOVE

372
NO PARKING ANY TIME
R7-1D(3)
REMOVE

373
R4-7(3)
REMOVE

SIGN
SIGN
SIGN
MH
MH
MH
MH
INL
INL
INL
INL
INL

203+00
ICPB26
204+00
205+00
FO I/C
206+00
207+00
FO I/C
208+00
ICPB27
FO I/C
FO I/C

STH 38

SPEED LIMIT 45
REMOVE
SPEED LIMIT 45
R2-1(3)
374
375

NO PARKING ANY TIME
REMOVE
NO PARKING ANY TIME
R7-1D(3)
376

CURB LANE
BICYCLES AND RIGHT TURNS ONLY
REMOVE
CURB LANE
BICYCLES AND RIGHT TURNS ONLY
R3-2I(2)
377

LEFT TURN LANE
REMOVE
BEGIN LEFT TURN LANE
R3-20L(3)
378

NO PARKING ANY TIME
REMOVE
NO PARKING ANY TIME
R7-1D(3)
379

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

SHEET 15 OF 59

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET	E

NOTE:
STREET SIGNS SHALL BE MOVED
BY MUNICIPALITY AND SHALL NOT
BE PLACED ON TOP OF STOP SIGNS.

N

380
R4-7(3)
REMOVE

381
DO NOT ENTER
R5-1(3)

382
NO PARKING ANY TIME
R7-1D(3)
REMOVE

384
NO PARKING ANY TIME
R7-1D(3)
REMOVE

385
ONE WAY
R6-2L(2M)

386
NO PARKING ANY TIME
R7-1D(3)
REMOVE

387
NO PARKING ANY TIME
R7-1D(3)
REMOVE

FO I/C
209+00
ICPB28
FO I/C
210+00
211+00
212+00
FO I/C
213+00
214+00
FO I/C
ICf

STH 38

INL
MH
SIGN
W
WALES

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

SHEET 16 OF 59

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET	E

FILE NAME : J:\projects\d2_20601538\71\Sign\023216_ps.dgn
PLOT DATE : 28-OCT-2013 16:41 PLOT BY : MSCKVW PLOT NAME : PLOT SCALE : 40:1

NOTE:
STREET SIGNS SHALL BE MOVED BY MUNICIPALITY AND SHALL NOT BE PLACED ON TOP OF STOP SIGNS.

388 STOP R1-1(3) / DIVIDED HIGHWAY R6-3A(2M) / STOP REMOVE

389 DO NOT ENTER R5-1(3)

390 R4-7(3) / REMOVE

391 BEGIN LEFT TURN LANE R3-20L(3)

392 NO PARKING ANY TIME REMOVE

394 CURB LANE / BICYCLES AND RIGHT TURNS ONLY R3-21(2) / REMOVE

395 396 SPEED LIMIT 45 R2-1(3) / SPEED LIMIT 45 REMOVE

397 NO PARKING ANY TIME R7-1D(3) / NO PARKING ANY TIME REMOVE

398 REMOVE R3-2(3)

399 REMOVE R3-2(3)

402 ONE WAY R6-2L(2M)

400 401 REMOVE W3-3(3)

403 404 Centennial Drive REMOVE / Centennial Drive NEXT SIGNAL D1-65(MOD)

405 NO PARKING ANY TIME REMOVE / R7-1D(3)

406 407 AHEAD REMOVE

408 WRONG WAY R5-1A(3)

409 NO PARKING ANY TIME REMOVE / R7-1D(3)

410 WRONG WAY REMOVE

ICPB29 ICPB30 215+00 216+00 217+00 218+00 219+00 220+00 STH 38 F.O. I/C

RIPRAP SIGN INL MH FLAG

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

SHEET 17 OF 59

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET	E

FILE NAME : J:\projects\d2_20601538\71\Sign\023217_ps.dgn PLOT DATE : 28-OCT-2013 16:41 PLOT BY : MSCKVW PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

NOTE:
STREET SIGNS SHALL BE MOVED BY MUNICIPALITY AND SHALL NOT BE PLACED ON TOP OF STOP SIGNS.

N

SEE SHEET 18A

CENTENNIAL DR

414 STOP R1-1F(3) / DIVIDED HIGHWAY R6-3(2M)
STOP REMOVE

413 ONE WAY R6-2L(2M)
ONE WAY REMOVE

417 WEIGHT LIMIT 3 TONS MOVE

418 DO NOT ENTER R5-1(3)

419 420 STOP R1-1F(3)
STOP REMOVE

421 WRONG WAY R5-1A(3)
WRONG WAY REMOVE

353 371 LEFT TURN YIELD ON FLASHING YELLOW ARROW R10-50(2M)

412 STOP R1-1F(3)

416 38 S Howell Ave M1-94-H ON SIGNAL ARM

415 Centennial Dr M1-94-H ON SIGNAL ARM

338 DO NOT ENTER R5-1(3)

CB1

45'

35'

220+00 221+00 222+00 223+00 224+00 225+00 226+00

N 1°47'23" E

339 LEFT TURN YIELD ON FLASHING YELLOW ARROW R10-50(2M)

318 DO NOT ENTER R5-1(3)

STH 38

STOP REMOVE

R4-7(3)

428 429 REMOVE

430 38 S Howell Ave M1-94-H ON SIGNAL ARM

431 Centennial Dr M1-94-H ON SIGNAL ARM

ONE WAY REMOVE

ONE WAY R6-2L(2M) 433

STOP REMOVE

STOP R1-1F(3) / DIVIDED HIGHWAY R6-3(2M) 432

NO PARKING ANY TIME REMOVE

NO PARKING ANY TIME R7-1D(3) 434

NO PARKING ANY TIME REMOVE

NO PARKING ANY TIME R7-1D(3) 435

LEFT TURN YIELD ON FLASHING YELLOW ARROW R10-50(2M) 383

STOP REMOVE

STOP R1-1F(3) 422

STOP REMOVE

STOP R1-1F(3) 423

424 DO NOT ENTER REMOVE

DO NOT ENTER R5-1(3)

MOVE TRUCK ROUTE NO PARKING ANY TIME REMOVE 425

MOVE TRUCK ROUTE 426

NO PARKING ANY TIME R7-1D(2S) 427

CENTENNIAL DR

SEE SHEET 18B

S1-1(3)

W16-9P(3) AHEAD / R2-6P(3) FINES HIGHER 1266 1267

NO PARKING ANY TIME REMOVE 438

REMOVE

W3-3(3) 436 437

SCHOOL SPEED LIMIT 35 WHEN CHILDREN ARE PRESENT S4-51(3) 1268 1269

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

SHEET 18 OF 59

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET E

FILE NAME : J:\projects\d2_20601538\71\Sign\023218_ps.dgn PLOT DATE : 28-OCT-2013 16:41 PLOT BY : MSCKVW PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

2

LEGEND

EXISTING SIGN MOUNTED ON POST(S)

EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE

PROPOSED SIGN MOUNTED ON POST(S)

PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE

EXISTING LIGHT OR SIGNAL POLE

PROPOSED LIGHT OR SIGNAL POLE

SIGN BRIDGE

CANTILEVER SIGN BRIDGE

(XXX) DENOTES SIGN NUMBER

(X) INDICATES SIGN SIZE

(2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

N

CENTENNIAL DR

NO PARKING ANY TIME

ESTR

SPEED LIMIT 25

ESTR

JCT 38

J1-1(2S)

1272

W3-3(2S)

1273

STOP

ESTR

ONLY

ESTR

NORTH SOUTH 38 38

J3-2(2S)

1274

NO PARKING ANY TIME

ESTR

SEE SHEET 18

SHEET 18A OF 59

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET	E

FILE NAME : J:\projects\d2_20601538\71\Sign\023218a_ps.dgn PLOT DATE : 28-OCT-2013 16:41 PLOT BY : MSCKVW PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

2

LEGEND

EXISTING SIGN MOUNTED ON POST(S)

EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE

PROPOSED SIGN MOUNTED ON POST(S)

PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE

EXISTING LIGHT OR SIGNAL POLE

PROPOSED LIGHT OR SIGNAL POLE

SIGN BRIDGE

CANTILEVER SIGN BRIDGE

XXX DENOTES SIGN NUMBER

(X) INDICATES SIGN SIZE

(2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

N

1275

SOUTH 38 NORTH 38

J3-2(2S)

1276

REMOVE

W3-3(2S)

1277

JCT 38

J1-1(2S)

ESTR

ESTR

NO PARKING ANY TIME

ONLY

RIPRAP

RIPRAP

RIPRAP

MH

INL

SIGN

U/C

CENTENNIAL DR

SEE SHEET 18

SPEED LIMIT 25

NO PARKING ANY TIME

ESTR

SHEET 18B OF 59

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET	E

FILE NAME : J:\projects\d2_20601538\71\Sign\023218b_ps.dgn PLOT DATE : 28-OCT-2013 16:41 PLOT BY : MSCKVW PLOT NAME : PLOT SCALE : 40:1

NOTE:
STREET SIGNS SHALL BE MOVED
BY MUNICIPALITY AND SHALL NOT
BE PLACED ON TOP OF STOP SIGNS.

N

439 R7-1D(3)

440 Centennial Drive REMOVE

441 REMOVE

442 443 W3-3(3)

444 445 Centennial Drive NEXT SIGNAL D1-65(MOD)

446 R7-1D(3)

173 R9-3(2S) R9-3BL(2S)

448 AHEAD REMOVE

449 REMOVE

450 CURB LANE BICYCLES AND RIGHT TURNS ONLY R3-2I(2)

447 R4-7(3) REMOVE

R4-7(3) 178

ICPB32

STH 38

226+00 227+00 228+00 229+00 230+00 231+00 232+00

F.O. I/C

Puetz Rd 8700 S REMOVE

Puetz Rd 8700 S NEXT SIGNAL D1-65(MOD) 451 452

REMOVE R7-1D(3) 453

CURB LANE BICYCLES AND RIGHT TURNS ONLY REMOVE R3-2I(2) 454

AHEAD REMOVE 455 456

457 R7-1D(3)

166 R9-3(2S) R9-3BR(2S)

AHEAD REMOVE S1-1(3) AHEAD S16-9P(3) 458 459

REMOVE 460

LEFT TURN LANE REMOVE BEGIN LEFT TURN LANE R3-2OL(3) 461

WRONG WAY R5-1A(3) 462

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

SHEET 19 OF 59

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET E

FILE NAME : J:\projects\d2_20601538\71\Sign\023219_ps.dgn PLOT DATE : 28-OCT-2013 16:41 PLOT BY : MSCKVW PLOT NAME : PLOT SCALE : 40:1

MATCH LINE - SEE SHEET 20A

NOTE:
BUS STOP SIGNS SHALL BE MOVED BY TRANSIT AUTHORTIY. CONTRACTOR IS RESPONSIBLE FOR COORDINATION.

STH 38

PUETZ RD

232+00 233+00 234+00 235+00 236+00 237+00 238+00

2115+00 2116+00 2117+00

463 SPEED LIMIT 45 R2-1(3) — REMOVE
464 SPEED LIMIT 45 R2-1(3)
465 NO PARKING ANY TIME R7-1D(3)
466 CURB LANE BICYCLES AND RIGHT TURNS ONLY — REMOVE
467 NO PARKING ANY TIME — REMOVE
468 SOUTH 38 J4-1(3) — REMOVE
469 ONE WAY R6-2L(2M) — REMOVE
470 471 STOP R1-1F(3) DIVIDED HIGHWAY R6-3(2M) — STOP REMOVE
472 Puetz Rd — REMOVE; Puetz Rd M1-94-H ON MAST ARM
473 DO NOT ENTER R5-1(3) — DO NOT ENTER REMOVE
474 38 S Howell Ave M1-94-H ON MAST ARM
475 STOP R1-1F(3) DIVIDED HIGHWAY R6-3(2M) — STOP REMOVE
365 ONE WAY R6-2L(2M) — ESTR
476 DO NOT ENTER R5-1(3) — DO NOT ENTER REMOVE
477 R4-7(3) — REMOVE
478 479 DO NOT ENTER R5-1(3) — DO NOT ENTER REMOVE
480 481 R4-7(3) — REMOVE
482 DO NOT ENTER (2011) — MOVE
483 Puetz Rd — REMOVE; Puetz Rd M1-94-H ON MAST ARM
484 STOP R1-1F(3) DIVIDED HIGHWAY R6-3(2M) — STOP REMOVE
411 STOP R1-1F(3) DIVIDED HIGHWAY R6-3(2M) — STOP REMOVE
485 — REMOVE
S1-1(3) S16-7L(3)
486 — REMOVE
S1-1(3) S16-7R(3)
487 488 ONLY — REMOVE; R3-5L(2M) ON MAST ARM BRACKETS INCIDENTAL
1429 NO PARKING ANY TIME — REMOVE
1430 NO PARKING ANY TIME — REMOVE
497 498 STOP R1-1F(3) DIVIDED HIGHWAY R6-3(2M) — STOP REMOVE
499 500 R4-7(3) — REMOVE
ONE WAY R6-2L(2M) — REMOVE
482 (2011) DO NOT ENTER — MOVE
493 W12-1D(2M) 2' MOUNTING HEIGHT — REMOVE
S1-1(3) S16-7L(3) — REMOVE
494
496 CB1 — REMOVE; WEIGHT LIMIT 3 TONS — MOVE
YIELD R1-2(3) — REMOVE
495
501 502 503 STOP R1-1F(3) DIVIDED HIGHWAY R6-3(2M) — STOP REMOVE
504 W12-1D(2M) 2' MOUNTING HEIGHT — REMOVE
505 YIELD R1-2(3) — REMOVE
506 ONE WAY R6-2L(3) — REMOVE
507 NORTH 38 J4-1(3) — REMOVE
489 NO PARKING ANY TIME R7-1D(3)
490 491 ONLY — REMOVE; R3-5L(2M) ON MAST ARM BRACKETS INCIDENTAL
492 S1-1(3) S16-7R(3) — REMOVE
1437 38 S Howell Ave M1-94-H ON MAST ARM

MATCH LINE - SEE SHEET 20B

PB3

LEGEND
- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

SHEET 20 OF 59

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 192 E

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) INDICATES YEAR INSTALLED

N

1279
BEGIN LEFT TURN LANE
R3-20L(2S)
LEFT TURN LANE
REMOVE

ESTR

1278
R4-7(2S)
REMOVE

SPEED LIMIT 35
ESTR

NO PARKING ANY TIME
ESTR

2110+00
2111+00
2112+00
2113+00
2114+00

PUETZ RD

6'x20'
3 TURNS
250' TO NEAREST SIGNAL

ONE WAY
REMOVE
1285
ONE WAY
R6-2R(2S)

WRONG WAY
R5-1A(2S)
1286

SOUTH 38
REMOVE
SOUTH 38
J3-1(2S)
1287

JCT 38
J1-1(2S)
1280

STOP
ESTR

REMOVE
W3-3(2S)
1281

NORTH 38 | SOUTH 38
J2-2(2S)
1282

LEFT TURN LANE
REMOVE
BEGIN LEFT TURN LANE
R3-20LL(2S)
1283

NORTH 38
REMOVE
NORTH 38
J3-1(2S)
1284

SEE SHEET 20

SHEET 20A OF 59

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET	E

FILE NAME : J:\projects\d2_20601538\71\Sign\023220a_ps.dgn PLOT DATE : 28-OCT-2013 16:42 PLOT BY : MSCKVW PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) INDICATES YEAR INSTALLED

N

1288 NORTH 38 J3-1(2S)
NORTH 38 REMOVE

1289 BEGIN LEFT TURN LANE R3-20LL(2S)
LEFT TURN LANE REMOVE

1290 WRONG WAY R5-1A(2S)

STOP ESTR

1291 ONE WAY R6-2R(2S)
ONE WAY REMOVE

1292 BEGIN LEFT TURN LANE R3-20L(2S)
LEFT TURN LANE REMOVE

1293 R4-7(2S)
REMOVE

SPEED LIMIT 35 ESTR

1421 SOUTH 38 NORTH 38 J2-2(2S)

1422 JCT 38 J1-1(2S)

250' TO NEAR RIGHT SIGNAL
6'x20' 4 TURNS

PUETZ RD

2118+00 2119+00 2120+00 2121+00 2122+00 2123+00

SEE SHEET 20

ONE WAY REMOVE
ONE WAY R6-2R(2S) 1294

SOUTH 38 REMOVE
SOUTH 38 J3-1(2S) 1295

ESTR

ONE WAY REMOVE
ONE WAY R6-2R(2S) 1296

STOP ESTR

SHEET 20B OF 59

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET	E

FILE NAME : J:\projects\d2_20601538\71\Sign\023220b_ps.dgn PLOT DATE : 28-OCT-2013 16:42 PLOT BY : MSCKVW PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

NOTE:
STREET SIGNS SHALL BE MOVED
BY MUNICIPALITY AND SHALL NOT
BE PLACED ON TOP OF STOP SIGNS.

N

508 WRONG WAY R5-1A(3)

509 NO PARKING ANY TIME R7-1D(3) / NO PARKING ANY TIME REMOVE

510 BEGIN LEFT TURN LANE R3-20L(3) / LEFT TURN LANE REMOVE

511 ONE WAY R6-2L(3)

STOP ESTR

512

513 R4-7(3) / REMOVE

515 / 515A SPEED LIMIT 45 REMOVE / SPEED LIMIT 45 R2-1(3)

516 ONE WAY R6-2L(3)

517 NO PARKING ANY TIME R7-1D(3) / NO PARKING ANY TIME REMOVE

518 / 519 AHEAD REMOVE

S1-1(3) / AHEAD S16-9P(3)

ONE WAY R6-2R(2S) 520

STOP REMOVE / STOP R1-1(3) 521

NO PARKING ANY TIME REMOVE / NO PARKING ANY TIME R7-1D(3) 522

LIBRARY ESTR

NO PARKING ANY TIME REMOVE R7-1D(3) 523

AHEAD REMOVE / W11-2(3) / AHEAD W16-9P(3) 524 / 525

ONE WAY R6-2R(2S) 526A

STOP REMOVE / STOP R1-1(3) 526

238+00 239+00 240+00 241+00 242+00 243+00 244+00

STH 38

ICPB39

MH INL SIGN W SIGN SIGN BRIDGE

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

SHEET 21 OF 59

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET E

FILE NAME : J:\projects\d2_20601538\71\Sign\023221_ps.dgn PLOT DATE : 28-OCT-2013 16:42 PLOT BY : MSCKVW PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

NOTE:
STREET SIGNS SHALL BE MOVED BY MUNICIPALITY AND SHALL NOT BE PLACED ON TOP OF STOP SIGNS.

BUS STOP SIGNS SHALL BE MOVED BY TRANSIT AUTHORTIY. CONTRACTOR IS RESPONSIBLE FOR COORDINATION.

N

527 REMOVE

528 529 Puetz Rd 8700 S NEXT SIGNAL D1-65(MOD)

530 R7-1D(3)

532 533 W3-3(3)

REMOVE

534 535 SPEED LIMIT 45 R2-1(3)

536 R7-1D(3)

REMOVE

537 W11-2(3) RRFB W16-7L(3) R10-25(2M)

REMOVE

538 ONE WAY R6-2L(2M)

539 W11-2(3) RRFB W16-7L(3) R10-25(2M)

540 541 SPEED LIMIT 45

REMOVE

542 543

REMOVE

W11-2(3) RRFB W16-7R(3) R10-25(2M)

545 R4-7(3)

546 ONE WAY R6-2L(2M)

REMOVE 544

547 548

W11-2(3) RRFB W16-7R(3) R10-25(2M)

SCHOOL SPEED LIMIT 35 WHEN CHILDREN ARE PRESENT S4-51(3)

1423 1424

REMOVE 550

CURB LANE BICYCLES AND RIGHT TURNS ONLY

REMOVE

CURB LANE BICYCLES AND RIGHT TURNS ONLY R3-21(2) 551

REMOVE NO PARKING ANY TIME R7-1D(3) 553

W11-2(3) RRFB W16-7L(3) R10-25(2M) 554

DO NOT ENTER R5-1(3) 555

WEIGHT LIMIT 3 TONS ESTR

REMOVE STOP R1-1(3) DIVIDED HIGHWAY R6-3A(2M) 556

W11-2(3) RRFB W16-7L(3) R10-25(2M) 557

SPEED LIMIT 45 REMOVE 558 559

GROVELAND DR

244+00 245+00 246+00 247+00 248+00 249+00 250+00

FO I/C ICPB40 FO I/C ICPB41 N 1°49'00" E

INL SLAB MH SIGN FLAG

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

SHEET 22 OF 59

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET E

FILE NAME : J:\projects\d2_20601538\71\Sign\023222_ps.dgn PLOT DATE : 28-OCT-2013 16:42 PLOT BY : MSCKVW PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

N

560
R7-1D(3)
REMOVE

563
R7-1D(3)
REMOVE

564
565
W11-2(3)
AHEAD
W16-9P(3)
REMOVE

566
ONE WAY
R6-2R(2S)
REMOVE

(2012)
MOVE

250+00 251+00 252+00 253+00 254+00 255+00 256+00

FO I/C

STH 38

561
562

REMOVE
NO PARKING ANY TIME
R7-1D(3)
570

Forest Hill Ave
NEXT SIGNAL
D1-65(MOD)
571
572

SPEED LIMIT 45
R2-1(3)
567
568

REMOVE
NO PARKING ANY TIME
R7-1D(3)
569

BEGIN LEFT TURN LANE
R3-20L(3)
593

SHEET 23 OF 59

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET	E

NOTE:
STREET SIGNS SHALL BE MOVED BY MUNICIPALITY AND SHALL NOT BE PLACED ON TOP OF STOP SIGNS.

BUS STOP SIGNS SHALL BE MOVED BY TRANSIT AUTHORTIY. CONTRACTOR IS RESPONSIBLE FOR COORDINATION.

SEE SHEET 24A

575 NO PARKING ANY TIME R7-1D(3) — NO PARKING ANY TIME — REMOVE

576 CURB LANE / BICYCLES AND RIGHT TURNS ONLY R3-21(2) — CURB LANE / BICYCLES AND RIGHT TURNS ONLY — REMOVE

577 578 SPEED LIMIT 45 R2-1(3)

579 NO PARKING ANY TIME R7-1D(3) — NO PARKING ANY TIME — REMOVE

580 581 SPEED LIMIT 45 — REMOVE

582 SOUTH 38 J4-1(3)

583 ONE WAY R6-2L(2M)

584 STOP — REMOVE

STOP R1-1F(3)

DIVIDED HIGHWAY R6-3(2M)

585 NORTH SOUTH 38 38 J3-2(25)

FOREST HILL AVE

514 LEFT TURN YIELD ON FLASHING YELLOW ARROW R10-50(2M)

586 R4-7(3) — REMOVE

587 Forest Hill Ave M1-94-H ON MAST ARM

256+00 257+00 258+00 259+00 260+00 261+00

FO I/C

STH 38

588 STOP — REMOVE

590 DO NOT ENTER R5-1(3)

531 LEFT TURN YIELD ON FLASHING YELLOW ARROW R10-50(2M)

591 38 S Howell Ave M1-94-H ON MAST ARM

100+00

101+00

BEGIN LEFT TURN LANE R3-20LL(2S)

ONE WAY R6-2R(2S) 303

WRONG WAY R5-1A(3) 594

592 NO PARKING ANY TIME R7-1D(3) — REMOVE

595 NO PARKING ANY TIME R7-1D(3) — REMOVE

596 STOP R1-1F(3) — REMOVE

264 TRUCK EXIT ONLY

265

266 DO NOT ENTER R5-1(2S)

267

597 WEIGHT LIMIT 3 TONS — MOVE

FOREST HILL AVE

SEE SHEET 24B

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET	E

FILE NAME : J:\projects\d2_20601538\71\Sign\023224_ps.dgn PLOT DATE : 28-OCT-2013 16:42 PLOT BY : MSCKVW PLOT NAME : PLOT SCALE : 40:1

2

2

N

STOP
ESTR

NO PARKING ANY TIME
ESTR

STOP
ESTR

SPEED LIMIT 25
ESTR

INL
INL
INL

2

2

N

1306

REMOVE

W3-3(2S)

1304

SOUTH NORTH

38 38

J2-2(2S)

1305

JCT

38

J1-1(2S)

1302

ONLY

R3-8A(2S)

FOREST HILL AVE

102+00 103+00 104+00 105+00 106+00 107+00

SEE SHEET 24

WEIGHT LIMIT 3 TONS

MOVE

597

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

SHEET 24B OF 59

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET	E

FILE NAME : J:\projects\d2_20601538\71\Sign\023224b_ps.dgn PLOT DATE : 28-OCT-2013 16:42 PLOT BY : MSCKVW PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

NOTE:
BUS STOP SIGNS SHALL BE MOVED BY TRANIST AUTHORITY. CONTRACTOR IS RESPONSIBLE FOR COORDINATION.

N

FOREST HILL AVE

574 NO PARKING ANY TIME REMOVE

600 TRUCK ROUTE MOVE

601 STOP R1-1F(3) STOP REMOVE

603 WRONG WAY R5-1A(3)

604 NO PARKING ANY TIME R7-1D(3) NO PARKING ANY TIME REMOVE

599 DO NOT ENTER R5-1(3)

602 STOP R1-1F(3) STOP REMOVE

549 LEFT TURN YIELD ON FLASHING YELLOW ARROW R10-50(2M)

598 38 S Howell Ave M1-94-H ON MAST ARM

655 BEGIN LEFT TURN LANE R3-20LL(2S)

SCHOOL SPEED LIMIT 35 WHEN CHILDREN ARE PRESENT S4-51(3)

1270

1271

STH 38

261+00 262+00 263+00 264+00 265+00 266+00 267+00

FO I/C

605 R4-7(3) REMOVE

606 Forest Hill Ave M1-94-H ON MAST ARM

LEFT TURN YIELD ON FLASHING YELLOW ARROW R10-50(2M) 552

ONE WAY R6-2L(2M) 609

NORTH 38 J4-1(3) 610

SPEED LIMIT 45 REMOVE SPEED LIMIT 45 R2-1(3) 573 611

NO PARKING ANY TIME REMOVE NO PARKING ANY TIME R7-1D(3) 612

BEGIN LEFT TURN LANE R3-20L(3) 676

CURB LANE BICYCLES AND RIGHT TURNS ONLY REMOVE 613

SOUTH NORTH 38 38 J3-2(2S) 608

STOP LEFT TURN YIELD ON GREEN REMOVE

STOP R1-1F(3) DIVIDED HIGHWAY R6-3(2M) 607

DO NOT ENTER R5-1(2S) 262 263

CB1

CV5

10+00

FOREST HILL AVE

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

SHEET 25 OF 59

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET E

FILE NAME : J:\projects\d2_20601538\71\Sign\023225_ps.dgn PLOT DATE : 28-OCT-2013 16:42 PLOT BY : MSCKVW PLOT NAME : PLOT SCALE : 40:1

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

NOTE:
STREET SIGNS SHALL BE MOVED BY MUNICIPALITY AND SHALL NOT BE PLACED ON TOP OF STOP SIGNS.

N

614 RIGHT TURN ONLY R3-53R(2S)
615 STOP R1-1(3)
STOP REMOVE
616 DO NOT ENTER R5-1(3)
617 618 Forest Hill Ave NEXT SIGNAL D1-65(MOD)
619 NO PARKING ANY TIME R7-1D(3)
NO PARKING ANY TIME REMOVE
620 621 REMOVE
1272 1273 W16-9P(3) AHEAD FINES HIGHER R2-6P(3)
627 628 W3-3(3)
629 NO PARKING ANY TIME R7-1D(3)
NO PARKING ANY TIME REMOVE
630 RIGHT TURN ONLY R3-53R(2S)
631 STOP R1-1(3)
STOP REMOVE
624 DO NOT ENTER R5-1(3)
622 BEGIN LEFT TURN LANE R3-20L(3)
623 R3-2(3)
625 W12-1D(2M) 2' MOUNTING HEIGHT
626 BEGIN LEFT TURN LANE R3-20L(3)

267+00 ICPB43 FO I/C 268+00 269+00 ICPB44 FO I/C 270+00 271+00 272+00 ICPB45 FO I/C 273+00
STH 38

REMOVE R4-7(3) 632
W12-1D(2M) 2' MOUNTING HEIGHT 633
R3-2(3) 634
DO NOT ENTER R5-1(3) 635
REMOVE R4-7(3) 638
BEGIN LEFT TURN LANE R3-20L(3) 644
OAKFIELD DR
STOP R1-1(3)
STOP REMOVE 636
RIGHT TURN ONLY R3-53R(2S) 637
WEIGHT LIMIT 3 TONS ESTR
NO PARKING ANY TIME REMOVE
NO PARKING ANY TIME R7-1D(3) 639
W3-3(3) 1334 1335
SPEED LIMIT 45 R2-1(3) 640 641
Susan Drive NEXT SIGNAL D1-65(MOD) 1336 1337
NO PARKING ANY TIME REMOVE
NO PARKING ANY TIME R7-1D(3) 643
CURB LANE BICYCLES AND RIGHT TURNS ONLY R3-2(2) 642

SHEET 26 OF 59

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET E

FILE NAME : J:\projects\d2_20601538\71\Sign\023226_ps.dgn PLOT DATE : 28-OCT-2013 16:42 PLOT BY : MSCKVW PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

NOTE:
STREET SIGNS SHALL BE MOVED BY MUNICIPALITY AND SHALL NOT BE PLACED ON TOP OF STOP SIGNS.

BUS STOP SIGNS SHALL BE MOVED BY TRANSIT AUTHORITY. CONTRACTOR IS RESPONSIBLE FOR COORDINATION.

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

N

645 ONE WAY R6-2R(2S)
646 REMOVE
647 DO NOT ENTER R5-1(3)
648 649 SPEED LIMIT 45 R2-1(3)
SPEED LIMIT 45 REMOVE
650 NO PARKING ANY TIME R7-1D(3)
NO PARKING ANY TIME REMOVE
651 R4-7(3)
REMOVE
652 ONE WAY R6-2L(2M)
653 DO NOT ENTER R5-1(3)
654 STOP R1-1F(3)
DIVIDED HIGHWAY R6-3(2M)
STOP REMOVE
950 R4-7(2M)
1338 Susan Dr M1-94-H ON MAST ARM
658 668 DO NOT ENTER R5-1(3) (2010)
659 R4-7(2M)
REMOVE
660 NO PARKING ANY TIME R7-1D(3)
NO PARKING ANY TIME REMOVE

930 ONE WAY R6-2L(2M)
1339 Susan Dr M1-94-H ON MAST ARM
WRONG WAY R5-1A(3) 661
SPEED LIMIT 45 REMOVE 662 663
NO PARKING ANY TIME REMOVE
NO PARKING ANY TIME R7-1D(3) 664
DO NOT ENTER R5-1(3) 665
WEIGHT LIMIT 3 TONS ESTR
R1-1F(3) STOP DIVIDED HIGHWAY R6-3(2M)
STOP REMOVE 667
REMOVE 668
REMOVE
W3-3(3) 669 670
NO PARKING ANY TIME REMOVE
NO PARKING ANY TIME R7-1D(3) 673

SUSAN DR
STH 38
273+00 274+00 275+00 276+00 277+00 278+00 279+00
N 2°00'12" E
FO I/C ICPB46 ICPB47 MH INL A/C

SHEET 27 OF 59

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET E

FILE NAME : J:\projects\d2_20601538\71\Sign\023227_ps.dgn PLOT DATE : 28-OCT-2013 16:42 PLOT BY : MSCKVW PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

NOTE:
STREET SIGNS SHALL BE MOVED
BY MUNICIPALITY AND SHALL NOT
BE PLACED ON TOP OF STOP SIGNS.

N

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

674 WRONG WAY R5-1A(3)

675 REMOVE

677 NO PARKING ANY TIME R7-1D(3) REMOVE

1342 1343 W3-3(3)

678 CURB LANE BICYCLES AND RIGHT TURNS ONLY R3-21(2) REMOVE

679 680 SPEED LIMIT 45 R2-1(3)

Susan Drive NEXT SIGNAL D1-65(MOD) 1340 1341

686 686A TO INTERSTATE 94 (2013) MOVE

671 BEGIN LEFT TURN LANE R3-20LL(2S)

672 BEGIN LEFT TURN LANE R3-20L(3)

279+00 280+00 281+00 282+00 283+00 284+00 285+00

STH 38

Drexel Ave 7900 S REMOVE

Drexel Ave 7900 SOUTH NEXT SIGNAL D1-65(MOD) 683 684

STOP ESTR

RIGHT TURN ONLY R3-53R(2M) 687

NO PARKING ANY TIME REMOVE

NO PARKING ANY TIME R7-1D(3) 688

LEFT TURN LANE REMOVE

BEGIN LEFT TURN LANE R3-20L(3) 689

BEGIN RIGHT TURN LANE R3-20R(3) 690

WRONG WAY R5-1A(3) 691

SHEET 28 OF 59

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET E

FILE NAME : J:\projects\d2_20601538\71\Sign\023228_ps.dgn PLOT DATE : 28-JAN-2014 11:40 PLOT BY : MSCKVW PLOT NAME : PLOT SCALE : 40:1

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

SEE SHEET 29A

N

699 STOP R1-1F(3) — DIVIDED HIGHWAY R6-3(2M)
REMOVE STOP 698
697 ONE WAY R6-2L(2M)
DO NOT ENTER R5-1(3) — REMOVE
694 NO PARKING ANY TIME R7-1D(3)
695 SOUTH 38 J4-1(3)
696 NO PARKING ANY TIME — REMOVE
REMOVE ONE WAY
692 SPEED LIMIT 45 — REMOVE
693
700 Drexel Ave — REMOVE
Drexel Ave M1-94-H ON MAST ARM
701 38 S Howell Ave M1-94-H ON MAST ARM
702 NO PARKING ANY TIME — REMOVE
704 (2010) STOP — MOVE — DIVIDED HIGHWAY R6-3(2M)
703 (2010) MOVE
705 ONE WAY R6-2L(2M)
REMOVE ONE WAY
706 (2010) DO NOT ENTER — MOVE
707 (2010) STOP — MOVE
DREXEL AVE
SPEED LIMIT 35 — TRUCK ROUTE — ESTR
708 STOP R1-1(3) — YIELD — REMOVE
709 W12-1D(2M) 2' MOUNTING HEIGHT — REMOVE
711 NO PARKING ANY TIME — REMOVE
712
713 ONLY (2010) — MOVE ON MAST ARM BRACKETS INCIDENTAL
714 NO PARKING ANY TIME — REMOVE — NO PARKING ANY TIME R7-1D(3)
526 TO INTERSTATE 94 (2013) — MOVE
710 Drexel Ave — REMOVE — Drexel Ave M1-94-H ON MAST ARM
R10-50(2M)
716 (2010) — MOVE
715 (2010) STOP — MOVE — DIVIDED HIGHWAY R6-3(2M)
1425 38 S Howell Ave M1-94-H ON MAST ARM
717 ONE WAY — REMOVE — ONE WAY R6-2L(2M)
719 (2010) — MOVE
720 (2010) STOP — MOVE — DIVIDED HIGHWAY R6-3(2M)
DO NOT ENTER R5-1(3)
725 (2010) DO NOT ENTER — MOVE
726 (2010) — MOVE
718 DO NOT ENTER (2010) — REMOVE — DO NOT ENTER R5-1(3)
724 (2010) STOP — MOVE — DIVIDED HIGHWAY R6-3(2M)
723
ONE WAY — REMOVE — ONE WAY R6-2L(2M)
WEIGHT LIMIT 3 TONS — ESTR
(2010) STOP — MOVE — DIVIDED HIGHWAY R6-3(2M)
727
SOUTH 38 — REMOVE — SOUTH 38 J3-1(2)
728
729 (2010) STOP — MOVE — DIVIDED HIGHWAY R6-3(2M)
NORTH 38 — REMOVE — NORTH 38 J4-1(3)
731
NORTH 38 — REMOVE — NORTH 38 J3-1(2)
730
NO PARKING ANY TIME — REMOVE — NO PARKING ANY TIME R7-1D(3)
747
ONLY — REMOVE — ONLY R3-5L(2M)
721
722
1300 TO INTERSTATE 94 (2013) — MOVE

STH 38
285+00 286+00 287+00 288+00 289+00 290+00 291+00
3116+00 3117+00
ICPB51 ICPB52 ICPB53
FO I/C CV6

SEE SHEET 29B

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET E

FILE NAME : J:\projects\d2_20601538\71\Sign\023229_ps.dgn PLOT DATE : 28-OCT-2013 16:42 PLOT BY : MSCKVW PLOT NAME : PLOT SCALE : 40:1

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

N

2

3108+00 3109+00 3110+00 3111+00 3112+00 3113+00 3114+00

DREXEL AVE

SEE SHEET 29

ONE WAY (2010) ESTR

R5-1A(2S)

JCT 38 J1-1(2S) 1309

REMOVE W3-3(2S) 1308

LEFT TURN LANE REMOVE BEGIN LEFT TURN LANE R3-20L(2S) 1310

NORTH 38 (2010) ESTR

SOUTH 38 (2010) ESTR

ONLY ONLY (2010) ESTR

REMOVE NORTH 38 J3-1(2S) 1311

REMOVE SOUTH 38 J3-1(2S) 1312

SHEET 29A OF 59

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET	E

FILE NAME : J:\projects\d2_20601538\71\Sign\023229a_ps.dgn PLOT DATE : 28-OCT-2013 16:42 PLOT BY : MSCKVW PLOT NAME : PLOT SCALE : 40:1

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

N

NO PARKING ANY TIME OAK LEAF TRAIL
ESTR

(2010) ONLY ONLY
ESTR

(2010) NORTH 38
ESTR

1314
(2010) SOUTH 38
MOVE

1315
BEGIN LEFT TURN LANE
R3-20L(2S)
LEFT TURN LANE
REMOVE

SEE SHEET 29

3118+00 3119+00 3120+00 3121+00 3122+00

DREXEL AVE

ONE WAY (2010)
REMOVE

ONE WAY
R6-2R(2S)
1316

SHEET 29B OF 59

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET	E

FILE NAME : J:\projects\d2_20601538\71\Sign\023229b_ps.dgn PLOT DATE : 28-OCT-2013 16:42 PLOT BY : MSCKVW PLOT NAME : PLOT SCALE : 40:1

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) INDICATES YEAR INSTALLED

N

732 RIGHT TURN LANE — REMOVE
734 LEFT TURN LANE — REMOVE
735 ONE WAY — REMOVE
736 — REMOVE
737
738 DO NOT ENTER — REMOVE
740 — REMOVE
742 BEGIN RIGHT TURN LANE — R3-20R(3)
743 NO PARKING ANY TIME — R7-1D(3)
NO PARKING ANY TIME — REMOVE
744 — REMOVE
745
746 Drexel Ave 7900 S — NEXT SIGNAL — REMOVE
Drexel Ave 7900 SOUTH NEXT SIGNAL — D1-65(MOD)
1301 BEGIN LEFT TURN LANE — R3-20L(3)
1432 TO INTERSTATE 94 — MOVE (2013)
733 WRONG WAY — R5-1A(3)
748 — REMOVE
739 ONE WAY — R6-2R(2S)
749 RIGHT TURN ONLY — R3-53R(2M)
750 ONE WAY — REMOVE — R6-2R(2S)
741 BEGIN LEFT TURN LANE — R3-20L(3)
751 NO PARKING ANY TIME — REMOVE — R7-1D(3)
752 SPEED LIMIT 45 — REMOVE
753 SPEED LIMIT 45 — R2-1(3)

291+00 292+00 293+00 294+00 295+00 296+00 297+

ICPB54 FO I/C ICPB55 FO I/C

STH 38

SHEET 30 OF 59

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET E

FILE NAME : J:\projects\d2_20601538\71\Sign\023230_ps.dgn PLOT DATE : 28-JAN-2014 11:40 PLOT BY : MSCKVW PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

N

754
755
W3-3(3)
REMOVE

756
R7-1D(3)
REMOVE

758
R7-1D(3)
REMOVE

297+00
298+00
299+00
300+00
301+00
302+00
303+00

R6-2L(2M)
757

STH 38 N 2°03'49" E

F0 I/C
ICPB56
F0 I/C
ICPB57
F0 I/C
F0 I/C

MH
INL
SLAB

CURB LANE BICYCLES AND RIGHT TURNS ONLY
R3-21(2)
759

DO NOT ENTER
R5-1(3)
760

REMOVE
R7-1D(3)
761

REMOVE
R7-1D(3)
762

W11-2(3)
AHEAD
W16-9P(3)
1355
1356

SHEET 31 OF 59

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET	E

FILE NAME : J:\projects\d2_20601538\71\Sign\023231_ps.dgn PLOT DATE : 28-OCT-2013 16:42 PLOT BY : MSCKVW PLOT NAME : PLOT SCALE : 40:1

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

NOTE:
STREET SIGNS SHALL BE MOVED BY MUNICIPALITY AND SHALL NOT BE PLACED ON TOP OF STOP SIGNS.

N

763 NO PARKING ANY TIME R7-1D(3)
NO PARKING ANY TIME REMOVE

764 NO PARKING ANY TIME R7-1D(3)
NO PARKING ANY TIME REMOVE

765 766 R4-7(3)
REMOVE

767 ONE WAY R6-2L(2M)

1344 W11-2(3) W16-7L(3)

1345 1346 W11-2(3) W16-7R(3)

SIGN

INL

303+00 304+00 305+00 STH 38 306+00 307+00 308+00 309+00

FO I/C ICPB58 FO I/C ICPB59 FO I/C

MH

NO PARKING ANY TIME REMOVE
NO PARKING ANY TIME R7-1D(3)
768

NO PARKING ANY TIME REMOVE
NO PARKING ANY TIME R7-1D(3)
770

DO NOT ENTER R5-1(3)
771

DEAD END ESTR

MANITOBA AVE

STOP REMOVE
STOP R1-1(3)
DIVIDED HIGHWAY R6-3A(2M)
772

1347 W11-2(3) W16-7L(3)

SHEET 32 OF 59

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET	E

FILE NAME : J:\projects\d2_20601538\71\Sign\023232_ps.dgn PLOT DATE : 28-OCT-2013 16:42 PLOT BY : MSCKVW PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

N

773
774
SPEED LIMIT 45
R2-1(3)
SPEED LIMIT 45
REMOVE

775
NO PARKING ANY TIME
R7-1D(3)

776
ONE WAY
R6-2R(2S)
ONE WAY
REMOVE

777
BEGIN LEFT TURN LANE
R3-20L(3)

778
NO PARKING ANY TIME
R7-1D(3)
NO PARKING ANY TIME
REMOVE

779
CURB LANE
BICYCLES AND RIGHT TURNS ONLY
R3-21(2)
CURB LANE
BICYCLES AND RIGHT TURNS ONLY
REMOVE

780
ONE WAY
R6-2R(2S)
ONE WAY
REMOVE

WALLS
SLAB
SIGN
INL
309+00
310+00
311+00
312+00
313+00
314+00
315+00
STH 38
F O I/C
W11-2(3)
AHEAD
W16-9P(3)
1357
1358

SPEED LIMIT 45
REMOVE
SPEED LIMIT 45
R2-1(3)
781
782

NO PARKING ANY TIME
REMOVE
NO PARKING ANY TIME
R7-1D(3)
783

A/C
W11-2(3)
AHEAD
W16-9P(3)
1359
1360

NO PARKING ANY TIME
REMOVE
NO PARKING ANY TIME
R7-1D(3)
784

SHEET 33 OF 59

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET	E

FILE NAME : J:\projects\d2_20601538\71\Sign\023233_ps.dgn PLOT DATE : 28-OCT-2013 16:43 PLOT BY : MSCKVW PLOT NAME : PLOT SCALE : 40:1

NOTE:
STREET SIGNS SHALL BE MOVED
BY MUNICIPALITY AND SHALL NOT
BE PLACED ON TOP OF STOP SIGNS.

N

MARQUETTE AVE

785 NO PARKING ANY TIME — REMOVE

786 R1-1(3) STOP — DIVIDED HIGHWAY — R6-3A(2M) — STOP — REMOVE

787 R4-7(3)

788 R4-7(3) — REMOVE

789 DO NOT ENTER — R5-1(3)

1348 W11-2(3) — W16-7L(3)

1349

1350 W11-2(3) — W16-7R(3)

790 NO PARKING ANY TIME — R7-1D(3) — NO PARKING ANY TIME — REMOVE

792

793 SPEED LIMIT 45 — R2-1(3) — SPEED LIMIT 45 — REMOVE

315+00 FO I/C 316+00 ICPB60 FO I/C 317+00 ICPB61 FO I/C 318+00 STH 38 319+00 FO I/C 320+00 FO I/C ICPB62 321+00

INL MH SIGN FLAG

ONE WAY — R6-2L(2M) — 795

W11-2(3) — W16-7L(3) — 1351

CURB LANE BICYCLES AND RIGHT TURNS ONLY — REMOVE

CURB LANE BICYCLES AND RIGHT TURNS ONLY — R3-21(2) — 796

NO PARKING ANY TIME — REMOVE — NO PARKING ANY TIME — R7-1D(3) — 797

NO PARKING ANY TIME — R7-1D(3) — 794

DO NOT ENTER — R5-1(3) — 1352

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- ESTR EXISTING SIGN TO REMAIN

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX — DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 — INDICATES YEAR INSTALLED

SHEET 34 OF 59

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET	E

NOTE:
STREET SIGNS SHALL BE MOVED
BY MUNICIPALITY AND SHALL NOT
BE PLACED ON TOP OF STOP SIGNS.

N

798
R4-7(3)
REMOVE

799
ONE WAY
R6-2L(2M)

800
NO PARKING ANY TIME
R7-1D(3)
REMOVE

1361
1362
W11-2(3)
AHEAD
W16-9P(3)

801
NO PARKING ANY TIME
R7-1D(3)
REMOVE

802
STOP
REMOVE
R1-1(3) STOP
DIVIDED HIGHWAY
R6-3A(2M)

804
NO PARKING ANY TIME
R7-1D(3)

805
SPEED LIMIT 45
REMOVE

806
SPEED LIMIT 45
R2-1(3)

807
NO PARKING ANY TIME
REMOVE

808
NO PARKING ANY TIME
R7-1D(3)

321+00 322+00 323+00 324+00 325+00 326+00 327+00
FO I/C
ICPB63
STH 38
MAHN CT
SIGN
SLAB
MH
INL

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

SHEET 35 OF 59

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET E

FILE NAME : J:\projects\d2_20601538\71\Sign\023235_ps.dgn PLOT DATE : 28-OCT-2013 16:43 PLOT BY : MSCKVW PLOT NAME : PLOT SCALE : 40:1

2

LEGEND

EXISTING SIGN MOUNTED ON POST(S)

EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE

PROPOSED SIGN MOUNTED ON POST(S)

PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE

EXISTING LIGHT OR SIGNAL POLE

PROPOSED LIGHT OR SIGNAL POLE

SIGN BRIDGE

CANTILEVER SIGN BRIDGE

(XXX) DENOTES SIGN NUMBER

(X) INDICATES SIGN SIZE

(2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

N

2

809
R4-7(3)

810
R7-1D(3)
REMOVE

811
R7-1D(3)
REMOVE

812
BEGIN LEFT TURN LANE
R3-20L(3)

327+00 328+00 329+00 330+00 331+00 STH 38 332+00 333+00

FO I/C ICPB64 N 1°57'17" E FO I/C ICPB65 FO I/C FO I/C FO I/C

INL INL INL

SIGN SIGN SIGN SIGN

MH MH MH

JNS

JCT COUNTY BB
REMOVE
813

Rawson Ave
NEXT SIGNAL
REMOVE
814
814A

REMOVE
815

R7-1D(3)
816

JCT COUNTY BB
J1-1(3)
817
818

REMOVE
820

REMOVE
W3-3(3)
821
822

WEST TO EAST
COUNTY BB INTERSTATE 94 COUNTY BB
REMOVE
823

R7-1D(3)
824

Rawson Ave
NEXT SIGNAL
D1-65(MOD)
825
826

SHEET 36 OF 59

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET	E

FILE NAME : J:\projects\d2_20601538\71\Sign\023236_ps.dgn PLOT DATE : 28-OCT-2013 16:43 PLOT BY : MSCKVW PLOT NAME : PLOT SCALE : 40:1

2

2

N

827
NO PARKING ANY TIME
R7-1D(3)
NO PARKING ANY TIME
REMOVE

828
828A
R4-7(3)

829
BEGIN LEFT TURN LANE
R3-20L(3)
LEFT TURN LANE
REMOVE

830
CURB LANE
BICYCLES AND RIGHT TURNS ONLY
R3-21(2)
CURB LANE
BICYCLES AND RIGHT TURNS ONLY
REMOVE

831
NO PARKING ANY TIME
REMOVE

832
833
SPEED LIMIT 45
R2-1(3)
SPEED LIMIT 45
REMOVE

834
NO PARKING ANY TIME
R7-1D(3)

835
WEST
COUNTY
BB
REMOVE
WEST
COUNTY
BB
J3-1(3)

836
NO PARKING ANY TIME
REMOVE

SPONSOR
ESTR

INL
MH

333+00
334+00
335+00
336+00
337+00
338+00
339+00

F0 I/C
ICPB66
F0 I/C
ICPB67
F0 I/C

837
TO
INTERSTATE
94
REMOVE
TO
INTERSTATE
94
J23-1(3)

STH 38

840
NO PARKING ANY TIME
REMOVE

841
NO PARKING ANY TIME
R7-1D(3)

844
NO PARKING ANY TIME
REMOVE

845
WRONG WAY
R5-1A(3)

848
NO PARKING ANY TIME
R7-1D(3)

TO
INTERSTATE
94
WEST
COUNTY
BB
EAST
COUNTY
BB
J3-3(3)
838
839

BEGIN RIGHT TURN LANE
R3-20R(3)
843

SPONSOR
ESTR

LEFT TURN LANE
REMOVE
BEGIN LEFT TURN LANE
R3-20LL(3)
846

EAST
COUNTY
BB
REMOVE
847

EAST
COUNTY
BB
J3-1(3)
842

ONLY
REMOVE
ONLY
R3-5L(2M)
ON MAST ARM
BRACKETS INCIDENTAL
849
850

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

SHEET 37 OF 59

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET	E

FILE NAME : J:\projects\d2_20601538\71\Sign\023237_ps.dgn PLOT DATE : 28-OCT-2013 16:43 PLOT BY : MSCKVW PLOT NAME : PLOT SCALE : 40:1

SEE SHEET 38A

RAWSON AVE

STH 38

339+00 340+00 341+00 342+00 343+00 344+00 345+00

851 SOUTH 38 J4-1(3) REMOVE
852 STOP REMOVE
853 854 STOP R1-1F(3) DIVIDED HIGHWAY R6-3(2M)
855 NO TURN ON RED FROM LEFT LANE R10-1E(2M)
856 Rawson Ave M1-94-H ON MAST ARM
857 ONE WAY R6-2L(2M)
858 DO NOT ENTER R5-1(3)
859 R4-7(3)
860 W12-1D(2M) 2' MOUNTING HEIGHT
861 NORTH 38 J3-1(2M)
862 S Howell Ave M1-94-H ON MAST ARM
863 ONE WAY 40' R6-2L(2M)
864 DO NOT ENTER R5-1(3)
865 STOP REMOVE
866 STOP R1-1(3) YIELD REMOVE
867 WEST COUNTY BB J4-1(3)
868 NO PARKING ANY TIME REMOVE
869 W12-1D(2M) 2' MOUNTING HEIGHT
870 TO INTERSTATE 94 WEST COUNTY BB REMOVE
871 STOP R1-1F(3) DIVIDED HIGHWAY R6-3(2M)
872 NO PARKING ANY TIME REMOVE
873 TO INTERSTATE 94 WEST COUNTY BB REMOVE
874 875 ON MAST ARM BRACKETS INCIDENTAL ONLY R3-5L(2M) REMOVE
876 WRONG WAY R5-1A(3)
877 EAST COUNTY BB J3-1(2M) REMOVE
878 TO INTERSTATE 94 WEST COUNTY BB J3-2(2M)
879 NO PARKING ANY TIME R7-1D(3) REMOVE
880 BEGIN LEFT TURN LANE R3-20LL(3)
881 STOP REMOVE
882 STOP R1-1F(3) DIVIDED HIGHWAY R6-3(2M)
883 884 STOP REMOVE R1-1F(3) DIVIDED HIGHWAY R6-3(2M)
885 DO NOT ENTER R5-1(3) REMOVE
885A DO NOT ENTER REMOVE
886 REMOVE
887 ONE WAY R6-2L(2M)
888 R4-7(3)
889 ONE WAY R6-2L(2M)
890 DO NOT ENTER REMOVE
891 R4-7(3) REMOVE
892 Rawson Ave M1-94-H ON MAST ARM REMOVE
893 NO PARKING ANY TIME REMOVE
894 YIELD R1-2(3) REMOVE
895 EAST COUNTY BB J4-1(3) REMOVE
896 S Howell Ave M1-94-H ON MAST ARM
897 STOP R1-1F(3) DIVIDED HIGHWAY R6-3(2M)
898 STOP R1-1F(3) REMOVE
899 W12-1D(2M) 2' MOUNTING HEIGHT REMOVE
900 YIELD R1-2(3) REMOVE
901 NO PARKING ANY TIME R7-1D(3) REMOVE
902 NORTH 38 J4-1(3) REMOVE
903 904 SPEED LIMIT 45 REMOVE SPEED LIMIT 45 R2-1(3)
905 NO PARKING ANY TIME R7-1D(3) REMOVE
1432 W12-1D(2M) 2' MOUNTING HEIGHT

RAWSON AVE

SEE SHEET 38B

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

SHEET 38 OF 59

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET E

FILE NAME : J:\projects\d2_20601538\71\Sign\023238_ps.dgn PLOT DATE : 28-OCT-2013 16:43 PLOT BY : MSCKVW PLOT NAME : PLOT SCALE : 40:1

2

LEGEND

EXISTING SIGN MOUNTED ON POST(S)

EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE

PROPOSED SIGN MOUNTED ON POST(S)

PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE

EXISTING LIGHT OR SIGNAL POLE

PROPOSED LIGHT OR SIGNAL POLE

SIGN BRIDGE

CANTILEVER SIGN BRIDGE

(XXX) DENOTES SIGN NUMBER

(X) INDICATES SIGN SIZE

(2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

2

SPEED LIMIT 40
ESTR

NO PARKING ANY TIME
ESTR

WEST COUNTY BB
REMOVE

NORTH 38
REMOVE

RAWSON AVE

100'

4109+00

4110+00

4111+00

4112+00

4113+00

4114+00

SEE SHEET 38

100'

JCT 38
REMOVE

JCT 38
J1-1(2S)
1319

S Howell Ave
REMOVE

S Howell Ave
NEXT SIGNAL
D1-65(MOD)
1320

NORTH SOUTH 38 38
J2-2(2S)
1321
1322

BEGIN LEFT TURN LANE
R3-20L(2s)
1324

RIGHT LANE MUST TURN RIGHT
ESTR

ONLY ONLY
R3-8Y(2S)
1325

SOUTH 38
J3-1(2S)
1326

W3-3(2S)
1318
1318A

NORTH SOUTH 38 38
REMOVE
1317

SHEET 38A OF 59

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET	E

FILE NAME : J:\projects\d2_20601538\71\Sign\023238a_ps.dgn PLOT DATE : 28-OCT-2013 16:43 PLOT BY : MSCKVW PLOT NAME : PLOT SCALE : 40:1

2

SEE SHEET 38

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

N

1327
ONLY ONLY
R3-8Y(3)
ONLY ONLY
REMOVE

1328
NORTH
38
J3-1(2M)
NORTH
38
REMOVE

1329
SOUTH
38
J3-1(2M)
SOUTH
38
REMOVE

1330
BEGIN LEFT TURN LANE
R3-20L(3)
LEFT TURN LANE
REMOVE

1331
S Howell Ave
NEXT SIGNAL
D1-65(MOD)
S Howell Ave
REMOVE

1332
NORTH SOUTH
38 38
J2-2(2S)
NORTH SOUTH
38 38
REMOVE

1333
JCT
38
J1-1(3)
JCT
38
REMOVE

RAWSON AVE

4119+00 4120+00 4121+00 4122+00 4123+00 4124+00

NO PARKING ANY TIME
ESTR

SPEED LIMIT 40
ESTR

SHEET 38B OF 59

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET	E

FILE NAME : J:\projects\d2_20601538\71\Sign\023238b_ps.dgn PLOT DATE : 28-OCT-2013 16:43 PLOT BY : MSCKVW PLOT NAME : PLOT SCALE : 40:1

2

N

906
BEGIN LEFT TURN LANE
R3-20L(3)
LEFT TURN LANE
REMOVE

907
ONE WAY
R6-2L(2M)

908
NO PARKING ANY TIME
R7-1D(3)
NO PARKING ANY TIME
REMOVE

909
910
TO EAST WEST
INTERSTATE 94 COUNTY BB COUNTY BB
J3-3(3)

911
912
REMOVE

913
914
Rawson Ave
NEXT SIGNAL
D1-65(MOD)

915
916
W3-3(3)

U/C
FOUND
U/C
MH
U/C
INL
MH
INL
INL
INL
MH
SIGN
345+00
346+00
347+00
348+00
STH 38
349+00
350+00
351+00
ICPB71
FO I/C
FO I/C
FO I/C
ICPB72
FO I/C

INL
INL
INL
MH
MH
MH
SIGN

NO PARKING ANY TIME
REMOVE
R7-1D(3)
918

CURB LANE
BICYCLES AND RIGHT TURNS ONLY
REMOVE
CURB LANE
BICYCLES AND RIGHT TURNS ONLY
R3-21(2)
919

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

SHEET 39 OF 59

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET	E

FILE NAME : J:\projects\d2_20601538\71\Sign\023239_ps.dgn PLOT DATE : 28-OCT-2013 16:43 PLOT BY : MSCKVW PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

N

920
NO PARKING ANY TIME
R7-1D(3)
NO PARKING ANY TIME
REMOVE

921
EAST TO WEST
COUNTY BB | INTERSTATE 94 | COUNTY BB
REMOVE

923
JCT
COUNTY BB
J1-1(3)
JCT
COUNTY BB
REMOVE

924
NO PARKING ANY TIME
R7-1D(3)
NO PARKING ANY TIME
REMOVE

925
926
Rawson Ave
REMOVE

927
CURB LANE
BICYCLES AND RIGHT TURNS ONLY
R3-21(2)
CURB LANE
BICYCLES AND RIGHT TURNS ONLY
REMOVE

928
R4-7(3)
REMOVE

INL
SIGN
INL
SIGN

351+00
352+00
353+00
STH 38
354+00
355+00
356+00
357+00
FO I/C
FO I/C
FO I/C
ICPB73

INL
INL
INL
MH
MH
SIGN
SIGN

W

WRONG WAY
R5-1A(3)
931

DO NOT ENTER
R5-1(3)
935

SPEED LIMIT 45
REMOVE
933
934

NO PARKING ANY TIME
REMOVE
NO PARKING ANY TIME
R7-1D(3)
929

NO PARKING ANY TIME
REMOVE
NO PARKING ANY TIME
R7-1D(3)
932

NO PARKING ANY TIME
REMOVE
936

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) INDICATES YEAR INSTALLED

SHEET 40 OF 59

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET	E

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

NOTE:
STREET SIGNS SHALL BE MOVED BY MUNICIPALITY AND SHALL NOT BE PLACED ON TOP OF STOP SIGNS.

N

937 R7-1D(3) NO PARKING ANY TIME REMOVE

1353 R6-2L(2M) ONE WAY

938 939 940 SPEED LIMIT 45 REMOVE

941 R7-1D(3) NO PARKING ANY TIME REMOVE

942 943 SPEED LIMIT 45 R2-1(3)

944 NO PARKING ANY TIME REMOVE

945 R4-7(3) REMOVE

SIGN

MH

INL

FLAG

357+00 FO I/C 358+00 359+00 360+00 FO I/C 361+00 362+00 FO I/C ICPB75 363+00

ICPB74

STH 38

SLAB

947 SPEED LIMIT 45 R2-1(3)

948

W11-2(3) AHEAD

1371

1372

946 R7-1D(3) NO PARKING ANY TIME

949 REMOVE NO PARKING ANY TIME

951 REMOVE NO PARKING ANY TIME R7-1D(3)

952 DO NOT ENTER R5-1(3)

SHEET 41 OF 59

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET	E

FILE NAME : J:\projects\d2_20601538\71\Sign\023241_ps.dgn PLOT DATE : 28-OCT-2013 16:43 PLOT BY : MSCKVW PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

NOTE:
STREET SIGNS SHALL BE MOVED BY MUNICIPALITY AND SHALL NOT BE PLACED ON TOP OF STOP SIGNS.

BUS STOP SIGNS SHALL BE MOVED BY TRANSIT AUTHORTIY. CONTRACTOR IS RESPONSIBLE FOR COORDINATION.

N

953 R6-2L(2M) ONE WAY
954 R7-1D(3) NO PARKING ANY TIME
1367 W11-2(3) W16-7L(3)
955 R4-7(3)
956 R7-1D(3) NO PARKING ANY TIME REMOVE
957 R4-7(3) REMOVE
958 R6-2L(2M) ONE WAY
959 R7-1D(3) NO PARKING ANY TIME REMOVE
1368 1369 W11-2(3) W16-7R(3)
W11-2(3) W16-7R(3)
SLAB SLAB SIGN SIGN
INL INL INL INL INL
MH MH MH MH MH MH MH MH MH
W W
FLAG
363+00 364+00 365+00 366+00 367+00 368+00 369+00
FO I/C FO I/C FO I/C FO I/C FO I/C FO I/C
ICPB76 ICPB77 ICPB78
SIH 38
964 R5-1(3) DO NOT ENTER
960 R6-3A(2M) DIVIDED HIGHWAY R1-1(3) STOP
1370 W11-2(3) W16-7L(3)
962 R7-1D(3) NO PARKING ANY TIME REMOVE
963 MOVE DEAD END
965 R6-3A(2M) DIVIDED HIGHWAY R1-1(3) STOP REMOVE
966 R7-1D(2S) NO PARKING ANY TIME REMOVE
967 R7-1D(3) NO PARKING ANY TIME REMOVE
OAK ST

SHEET 42 OF 59

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET E

FILE NAME : J:\projects\d2_20601538\71\Sign\023242_ps.dgn PLOT DATE : 28-OCT-2013 16:43 PLOT BY : MSCKVW PLOT NAME : PLOT SCALE : 40:1

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

N

968
969
SPEED LIMIT 45
R2-1(3)
SPEED LIMIT 45
REMOVE

970
NO PARKING ANY TIME
R7-1D(3)

971
CURB LANE
BICYCLES AND RIGHT TURNS ONLY
R3-2(2)

917
NO PARKING ANY TIME
REMOVE

INL
INL
INL
INL
/ SIGN

369+00
370+00
FO I/C
371+00
INL
372+00
373+00
STH 38
FO I/C
374+00
375+00

INL
MH
INL
INL
MH
INL
/ SIGN
RIPRAP

SPEED LIMIT 45
REMOVE
SPEED LIMIT 45
R2-1(3)
972
973

NO PARKING ANY TIME
REMOVE
974

NO PARKING ANY TIME
R7-1D(3)
975

NO PARKING ANY TIME
R7-1D(3)
NO PARKING ANY TIME
REMOVE
977

2

SHEET 43 OF 59

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET	E

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

NOTE:
STREET SIGNS SHALL BE MOVED BY MUNICIPALITY AND SHALL NOT BE PLACED ON TOP OF STOP SIGNS.

BUS STOP SIGNS SHALL BE MOVED BY TRANSIT AUTHORTIY. CONTRACTOR IS RESPONSIBLE FOR COORDINATION.

N

922 R1-1(3) STOP DIVIDED HIGHWAY R6-3(2M)
978 CURB LANE BICYCLES AND RIGHT TURNS ONLY REMOVE
979 ONE WAY R6-2L(2M)
STOP REMOVE
JEWELL ST
980
981 R4-7(3) REMOVE
982 DO NOT ENTER R5-1(3)
983 NO PARKING ANY TIME R7-1D(3) NO PARKING ANY TIME REMOVE
1363 W11-2(3) W16-7L(3)
986 NO PARKING ANY TIME R7-1D(3) NO PARKING ANY TIME REMOVE
1364
1365 W11-2(3) W16-7R(3)
SIGN
MH
INL
FO I/C
ICPB79
ICPB80
375+00
376+00
377+00
378+00
379+00
380+00
381+00
N 2°13'11" E
STH 38

DO NOT ENTER R5-1(3) 987
DEAD END ESTR
STOP REMOVE
R1-1(3) STOP DIVIDED HIGHWAY R6-3(2M) 988
ONE WAY R6-2L(2M) 989
NO PARKING ANY TIME REMOVE
NO PARKING ANY TIME R7-1D(3) 990
W11-2(3) W16-7L(3) 1366
FLAG
CURB LANE BICYCLES AND RIGHT TURNS ONLY REMOVE
CURB LANE BICYCLES AND RIGHT TURNS ONLY R3-21(2) 991
NO PARKING ANY TIME REMOVE
NO PARKING ANY TIME R7-1D(3) 992

SHEET 44 OF 59

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET	E

FILE NAME : J:\projects\d2_20601538\71\Sign\023244_ps.dgn PLOT DATE : 28-OCT-2013 16:43 PLOT BY : MSCKVW PLOT NAME : PLOT SCALE : 40:1

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

N

1373
1374
W11-2(3)
AHEAD
W16-9P(3)

993
994
SPEED LIMIT 45
REMOVE

995
NO PARKING ANY TIME
R7-1D(3)
NO PARKING ANY TIME
REMOVE

996
NO PARKING ANY TIME
R7-1D(3)
NO PARKING ANY TIME
REMOVE

— SIGN
INL
HH
381+00
382+00
383+00
FO I/C
384+00
STH 38
385+00
386+00
FO I/
387+00
N 2°13'11" E
SIGN
MH
INL
SIGN
SLAB
MH
#0 RIPRAP
SIGN
SIGN
SIGN
SIGN
MH
SIGN
SIGN
LIO

ONE WAY
R6-2R(2M)
1433

NO PARKING ANY TIME
REMOVE
NO PARKING ANY TIME
R7-1D(3)
999

SPEED LIMIT 35
REMOVE
SPEED LIMIT 35
R2-1(3)
1000
1001

JCT
COUNTY ZZ
REMOVE
JCT
COUNTY ZZ
J1-1(2)
1002

College Ave
6300 SOUTH
NEXT SIGNAL
D1-65(MOD)
1007

REMOVE
W3-3(2S)
1003
1004

NO PARKING ANY TIME
REMOVE
NO PARKING ANY TIME
R7-1D(2S)
1005

WEST EAST
COUNTY ZZ COUNTY ZZ
REMOVE
1006

College Ave
6300 S
NEXT SIGNAL
REMOVE
997
998

TO WEST EAST
INTERSTATE 94 COUNTY ZZ COUNTY ZZ
J3-3(2)
1008

SHEET 45 OF 59

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET	E

FILE NAME : J:\projects\d2_20601538\71\Sign\023245_ps.dgn PLOT DATE : 28-JAN-2014 11:40 PLOT BY : MSCKVW PLOT NAME : PLOT SCALE : 40:1

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) INDICATES YEAR INSTALLED

N

1307 R9-3(2S) NO PEDESTRIAN CROSSING / USE CROSSWALK R9-3BL(2S)

1009 1009A (2013) MOVE

1010 1011 SPEED LIMIT 45 R2-1(3) SPEED LIMIT 45 REMOVE

1012 NO PARKING ANY TIME R7-1D(3) NO PARKING ANY TIME REMOVE

1013 CURB LANE BICYCLES AND RIGHT TURNS ONLY R3-2I(2) CURB LANE BICYCLES AND RIGHT TURNS ONLY REMOVE

1013 LEFT TURN LANE REMOVE

BEGIN LEFT TURN LANE R3-20L(2S)

PARKING REGULATIONS ESTR

1014 ONE WAY R6-2R(2S) ONE WAY REMOVE

NO ENGINE BRAKING EXCEPT IN EMERGENCY ESTR

1015 NO PARKING ANY TIME R7-1D(2S) NO PARKING ANY TIME REMOVE

1016 ONE WAY R6-2R(2S) ONE WAY REMOVE

1434 WEST COUNTY ZZ REMOVE

STH 38

FO I/C ICPB81 FO I/C ICPB82 FO I/C

388+00 389+00 390+00 391+00 392+00

INL MH SIGN CEMETERY

R9-3(2S) NO PEDESTRIAN CROSSING / USE CROSSWALK R9-3BR(2S) 1303

TO INTERSTATE 94 REMOVE 1017

TO INTERSTATE 94 WEST COUNTY ZZ J3-2(2S) 1019

NO PARKING ANY TIME REMOVE

NO PARKING ANY TIME R7-1D(2S) 1018

EAST COUNTY ZZ J3-1(2) 1020

WRONG WAY R5-1A(2S) 1021

NO PARKING ANY TIME REMOVE 1022

H REMOVE

H D9-2(2S) 1023

DO NOT ENTER REMOVE 1434

SHEET 46 OF 59

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET	E

FILE NAME : J:\projects\d2_20601538\71\Sign\023246_ps.dgn PLOT DATE : 28-OCT-2013 16:43 PLOT BY : MSCKVW PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

SEE SHEET 47A

SEE SHEET 47B

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) INDICATES YEAR INSTALLED

N

NOTE:
BUS STOP SIGNS SHALL BE MOVED BY TRANSIT AUTHORTIY. CONTRACTOR IS RESPONSIBLE FOR COORDINATION.

STH 38

COLLEGE AVE

SHEET 47 OF 59

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET E

FILE NAME : J:\projects\d2_20601538\71\Sign\023247_ps.dgn PLOT DATE : 28-OCT-2013 16:43 PLOT BY : MSCKVW PLOT NAME : PLOT SCALE : 40:1

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

N

COLLEGE AVE

5111+00 5112+00 5113+00 5114+00 5115+00 5116+00

1387 BEGIN LEFT TURN LANE R3-20L(2S)

1387 LEFT TURN LANE REMOVE

1388 1389 ONE WAY R6-2R(2S)

ONE WAY REMOVE

RIGHT TURN ONLY ESTR

1390 WEST COUNTY ZZ J4-1(2S)

WEST COUNTY ZZ REMOVE

JCT 38 REMOVE

JCT 38 J1-1(2S) 1391

NORTH SOUTH 38 38 J2-2(2S) 1393

RIGHT TURN ONLY (2010) ESTR

NO PARKING ANY TIME ESTR

RIGHT TURN ONLY (2010) ESTR

NORTH 38 J3-1(2S) 1394

SOUTH 38 J3-1(2S) 1395

SEE SHEET 47

SHEET 47A OF 59

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET E

FILE NAME : J:\projects\d2_20601538\71\Sign\023247a_ps.dgn PLOT DATE : 28-OCT-2013 16:43 PLOT BY : MSCKVW PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

2

N

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) INDICATES YEAR INSTALLED

1396
RIGHT TURN ONLY
ESTR
ONE WAY
R6-2R(2S)
ONE WAY
REMOVE

1398
BEGIN LEFT TURN LANE
R3-20L(2S)
LEFT TURN LANE
REMOVE

1399
SOUTH NORTH
38 38
J2-2(2S)
SOUTH NORTH
38 38
REMOVE

1400
S Howell Ave
NEXT SIGNAL
D1-65(MOD)
JCT 38
S Howell Ave
REMOVE

1401
JCT 38
(2011) MOVE

1401
JCT 38
(2011) MOVE

5120+00 5121+00 5122+00 5123+00 5124+00 5125+00

COLLEGE AVE

SEE SHEET 47

SHEET 47B OF 59

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET	E

FILE NAME : J:\projects\d2_20601538\71\Sign\023247b_ps.dgn PLOT DATE : 28-OCT-2013 16:43 PLOT BY : MSCKVW PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

NOTE:
STREET SIGNS SHALL BE MOVED BY MUNICIPALITY AND SHALL NOT BE PLACED ON TOP OF STOP SIGNS.

N

W UNCAS AVE

1069 1069A REMOVE

1073 EAST WEST TO COUNTY ZZ COUNTY ZZ INTERSTATE 94 J3-3(2)

TO INTERSTATE 94 EAST COUNTY ZZ WEST COUNTY ZZ REMOVE

1070 College Ave 6300 S REMOVE

College Ave 6300 SOUTH NEXT SIGNAL D1-65(MOD)

1071 NO PARKING ANY TIME R7-1D(2S)

1072 REMOVE

1074 1074A W3-3(2S)

1075 JCT COUNTY ZZ J1-1(2)

JCT COUNTY ZZ REMOVE

1076 JCT COUNTY ZZ J1-1(2)

1077 STOP R1-1(3)

DIVIDED HIGHWAY R6-3A(2M)

STOP REMOVE

1375 W11-2(2S) W16-7L(2S)

1079 DO NOT ENTER R5-1(2S)

1080 NO PARKING BUS STOP R7-7L(2S)

REMOVE

1081 TO INTERSTATE 94 J2-1(2)

TO INTERSTATE 94 REMOVE

1078 R4-7(2S)

W11-2(2S) W16-7R(2S) 1376

1377 REMOVE

1082 R4-7(2S)

W11-2(2S) W16-7L(2S) 1378

NO PARKING REMOVE

NO PARKING R7-2D(2S) 1085

ONE WAY R6-2L(2M) 1086

W11-2(2S) AHEAD W16-9P(2S) 1379 1380

NO PARKING REMOVE

NO PARKING R7-2D(2S) 1084

398+00 399+00 400+00 401+00 402+00 403+00 404

STH 38

F0 I/C

ICPB84 ICPB85

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

SHEET 48 OF 59

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET	E

FILE NAME : J:\projects\d2_20601538\71\Sign\023248_ps.dgn PLOT DATE : 28-JAN-2014 11:40 PLOT BY : MSCKVW PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

N

1088
1089
SPEED LIMIT 35
R2-1(2S)
SPEED LIMIT 35
REMOVE

1087
NO PARKING
R7-2D(2S)
NO PARKING
REMOVE

1091
BEGIN LEFT TURN LANE
R3-20L(2S)

1092
NO PARKING
R7-2D(2S)
NO PARKING
REMOVE

1381
1382
W11-2(2S)
AHEAD
W16-9P(2S)

1383
W11-2(2S)
W16-7L(2S)

1094
STOP
R1-1(3)
DIVIDED HIGHWAY
R6-3A(2M)

1093
NO PARKING
R7-2D(2S)
NO PARKING
REMOVE

STOP
REMOVE

1384
1385
W11-2(2S)
W16-7R(2S)

BOWDEN ST

404+00
405+00
406+00
407+00
408+00
409+00
410+00
STH 38
FO I/C
N 0°38'36" E
ICPB86
MH
INL
SIGN
W

1096
NO PARKING
R7-2D(2S)
NO PARKING
REMOVE

1095
SPEED LIMIT 35
REMOVE
SPEED LIMIT 35
R2-1(2S)

1097
LEFT TURN LANE
REMOVE
BEGIN LEFT TURN LANE
R3-20L(2S)

1098
1099
NO PARKING
R7-1L(2S)
NO PARKING
R7-2D(2S)
NO PARKING
REMOVE

1386
W11-2(2S)
W16-7L(2S)

CEMETERY

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

SHEET 49 OF 59

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET	E

FILE NAME : J:\projects\d2_20601538\71\Sign\023249_ps.dgn PLOT DATE : 28-OCT-2013 16:43 PLOT BY : MSCKVW PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

2

N

BOWDEN ST

1100 DO NOT ENTER R5-1(2S)

1101 1102 SPEED LIMIT 35 R2-1(2S) SPEED LIMIT 35 REMOVE

1103 1104 NO PARKING R7-1L(2S) NO PARKING R7-2D(2S) NO PARKING REMOVE

1108 NO PARKING R7-2D(2S) NO PARKING REMOVE

1108A R4-7(2S) REMOVE

1106 R4-7(2S) REMOVE

1107 R4-7(2S)

410+00 411+00 412+00 413+00 414+00 415+00 416+00

FO FO I/C FO I/C

ICPB87 ICPB88 ICPB89

STH 38

1109A SPEED LIMIT 35 REMOVE

1109 ONE WAY R6-2L(2M)

1110 NO PARKING REMOVE NO PARKING R7-2D(2S)

1354 ONE WAY R6-2L(2M)

1111 NO PARKING R7-2D(2S)

1112 AHEAD REMOVE

1113 SPEED LIMIT 35 R2-1(2S)

FLAG SIGN MH INL CANOPY VACUUM FILLER CAP

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

SHEET 50 OF 59

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET	E

FILE NAME : J:\projects\d2_20601538\71\Sign\023250_ps.dgn PLOT DATE : 28-OCT-2013 16:44 PLOT BY : MSCKVW PLOT NAME : PLOT SCALE : 40:1

2

2

R3-20LL(2S)

N

1114
NO PARKING HERE TO DRIVEWAY
R7-51L(MOD)(2S)
REMOVE

1116
1117
REMOVE

1119
ONE WAY
R6-2L(2M)
ONE WAY
REMOVE

1120
R4-7(2S)
REMOVE

1115
REMOVE

1118
REMOVE

1121
NO PARKING
REMOVE
NO PARKING
R7-2D(2S)

1123
NO PARKING
REMOVE
NO PARKING
R7-2D(2S)

1124
DO NOT ENTER
REMOVE
DO NOT ENTER
R5-1(2S)

1125
STOP
REMOVE
STOP
R1-1(3)
DIVIDED HIGHWAY
R6-3A(2M)

(2012)
ESTR

ICPB90
ICPB91

STH 38

416+00
417+00
418+00
419+00
420+00
421+00
422+00

F0 I/C

SIGN
INL
MH
W
SLAB
CA

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

SHEET 51 OF 59

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET	E

FILE NAME : J:\projects\d2_20601538\71\Sign\023251_ps.dgn PLOT DATE : 28-OCT-2013 16:44 PLOT BY : MSCKVW PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

NOTE:
STREET SIGNS SHALL BE MOVED
BY MUNICIPALITY AND SHALL NOT
BE PLACED ON TOP OF STOP SIGNS.

N

1126
1127
R7-2L(2S)
R7-1R(2S)
REMOVE

1129
R6-2L(2M)

1130
R4-7(2S)
REMOVE

1130A
R7-1D(2S)
REMOVE

1131
RIDESHARE INFO CALL
1-800-455-POOL
D12-2A(2S)
RIDESHARE INFO CALL
1-800-455-POOL
REMOVE

1132
BEGIN LEFT TURN LANE
R3-20L(2S)

ICPB95

2+00
423+00
424+00
425+00
426+00
427+00
428+00
F0 I/C
ICPB92
ICPB93
ICPB94
STH 38
CITATION WAY
MH
INL
SLAB
SIGN

TRUCKS ENTERING WHEN FLASHING
REMOVE
W11-8(3)
FIRE TRUCKS ENTERING
W54-60(2S)
1133
REUSE POST WITH FLASHING BEACONS

REMOVE
W11-8(3)
1134
REUSE POST WITH FLASHING BEACONS

R7-1L(2S)
R7-2R(2S)
REMOVE
1135

STOP
REMOVE
STOP
R1-1(3)
DIVIDED HIGHWAY
R6-3A(2M)
1136

R4-7(2S)
1137

REMOVE
R7-1D(2S)
1138

REMOVE
1139

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

SHEET 52 OF 59

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET	E

FILE NAME : J:\projects\d2_20601538\71\Sign\023252_ps.dgn PLOT DATE : 28-OCT-2013 16:44 PLOT BY : MSCKVW PLOT NAME : PLOT SCALE : 40:1

2

N

1141
REUSE POST WITH FLASHING BEACONS
W11-8(3)
FIRE TRUCKS ENTERING WHEN SIGNAL FLASHES
W54-60(2S)
TRUCKS ENTERING WHEN FLASHING
REMOVE

1142
NO PARKING ANY TIME
R7-1D(2S)

1143
1144
AHEAD
REMOVE

1145
NO PARKING ANY TIME
REMOVE

1146
1147
SPEED LIMIT 35
R2-1(2S)
SPEED LIMIT 35
REMOVE

1140
W11-8(2S)

ICPB95
ICPB94
F0 I/C
F0 I/C
F0 I/C
F0 I/C
MH
MH
MH
INL
INL
INL

2

N

1153

NO PARKING ANY TIME

R7-1D(2S)

NO PARKING ANY TIME

REMOVE

INL

SIGN

INL

FO I/C

FO I/C

FO I/C

FO I/C

FO I/C

ICPB96

FO I/C

SB

ICPB97

STH 38

434+00

435+00

436+00

437+00

438+00

439+00

440+00

N 0°17'22" E

MH

INL

MH

LEGEND

EXISTING SIGN MOUNTED ON POST(S)

EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE

PROPOSED SIGN MOUNTED ON POST(S)

PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE

EXISTING LIGHT OR SIGNAL POLE

PROPOSED LIGHT OR SIGNAL POLE

SIGN BRIDGE

CANTILEVER SIGN BRIDGE

XXX DENOTES SIGN NUMBER

(X) INDICATES SIGN SIZE

(2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

SHEET 54 OF 59

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET	E

FILE NAME : J:\projects\d2_20601538\71\Sign\023254_ps.dgn PLOT DATE : 28-OCT-2013 16:44 PLOT BY : MSCKVW PLOT NAME : PLOT SCALE : 40:1

2

1154
SPEED LIMIT 35
R2-1(2S)
SPEED LIMIT 35
REMOVE

1155
NO PARKING ANY TIME
REMOVE

1156
NO PARKING ANY TIME
R7-1D(2S)

1157
NO PARKING ANY TIME
REMOVE

1158
NO PARKING ANY TIME
R7-1D(2S)

1159
NO PARKING ANY TIME
REMOVE
NO PARKING ANY TIME
R7-1D(2S)

1160
SPEED LIMIT 35
REMOVE
SPEED LIMIT 35
R2-1(2S)

1161
NO PARKING ANY TIME
REMOVE
NO PARKING ANY TIME
R7-1D(2S)

1162
Amtrak Station
SECOND SIGNAL LEFT
REMOVE
Amtrak Station
SECOND SIGNAL

1164
TO INTERSTATE 94 USE LEFT LANE
J23-1(2S)

1165
JCT 119
J1-1(2S)

1166
1166A
JCT TO INTERSTATE 94 JCT 119 USE LEFT LANE
REMOVE

1167
NO PARKING ANY TIME
REMOVE
NO PARKING ANY TIME
R7-1D(2S)

PARKING REGULATIONS DEC - APRIL
NO ENGINE BRAKING EXCEPT IN EMERGENCY
ESTR
MOVE BY LOCAL MUNICIPALITY IF REQUIRED

W16-9P(3)

ICPB97
440+00
441+00
442+00
443+00
444+00
445+00
F0 1/C
STH 38
INL
MH
RIPRAP
SIGN

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

SHEET 55 OF 59

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET	E

FILE NAME : J:\projects\d2_20601538\71\Sign\023255_ps.dgn PLOT DATE : 28-OCT-2013 16:44 PLOT BY : MSCKVW PLOT NAME : PLOT SCALE : 40:1

NOTES:
ALL SIGNS NOT SHOWN ARE EXISTING SIGNS TO REMAIN.

STREET SIGNS SHALL BE MOVED BY MUNICIPALITY AND SHALL NOT BE PLACED ON TOP OF STOP SIGNS.

CONTACT MILWAUKEE COUNTY AIRPORT ENGINEER, ED BASICH, FOR ANY AIRPORT SIGN NEEDS.

SEE SHEET 59

PI STA445+97.45
PT STA447+54.48
446+00
447+00
448+00
449+00
450+00
451+00
452+00
STH 38
S HOWELL AVE
STH 119 ON-RAMP
AIRPORT SIGN TO REMAIN
AIRPORT SIGN TO REMAIN
50'
.92

1168 ONE WAY R6-2L(2M)
1169
1170 R4-7(2S)
1171 TO WEST INTERSTATE 94 119 J2-2(2S)
1171 TO WEST INTERSTATE 94 119 REMOVE
1173 TO INTERSTATE 94 J23-1(2S)
Post Office ESTR
1174 SPEED LIMIT 35 R2-1(2S)
1175 SOUTH 38 SPEED LIMIT 35 REMOVE
1176 SPEED LIMIT 35 R2-1(2S)
SPEED LIMIT 35 REMOVE
1177 SOUTH 38 J4-1(2S)
1178 TO INTERSTATE 94 REMOVE
1179 ONE WAY R6-2L(2M)
CB1
1179A W12-1D(2S) 2' MOUNTING HEIGHT
1180 STOP R1-1F(3)
STOP REMOVE
1181 STOP R1-1F(3)
DIVIDED HIGHWAY R6-3(2M)
STOP REMOVE
1182 DO NOT ENTER REMOVE
1183 REMOVE
1184 STOP R1-1F(3)
DIVIDED HIGHWAY R6-3(2M)
STOP REMOVE
1238 LEFT TURN YIELD ON FLASHING YELLOW ARROW R10-50(2M)
DO NOT ENTER R5-1(2S)
803 DO NOT ENTER R5-1(2S)
STOP R1-1F(3)
1186 STOP REMOVE
1187 STOP REMOVE
1188 1189 REMOVE
R4-7(2S)
1187A W12-1D(2S) 2' MOUNTING HEIGHT
STOP R1-1F(3)
DIVIDED HIGHWAY R6-3(2M)
ICPB98
ICPB99
F/O I/C
REMOVE
1406
1407
1402 W3-3(2S)
1403
1404 DO NOT ENTER R5-1(2S)
STOP REMOVE
R1-1(3)
DIVIDED HIGHWAY R6-3A(2M)
1405
NO PARKING ANY TIME REMOVE
NO PARKING ANY TIME R7-1D(2S)
1408
LEFT TURN LANE REMOVE
BEGIN LEFT TURN LANE R3-20LL(2S)
1409
38 S Howell Ave M1-94-H
1437
YIELD REMOVE
YIELD R1-2(2S)
1410
ONE WAY R6-2L(2M)
1190

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

SHEET 56 OF 59

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET	E

FILE NAME : J:\projects\d2_20601538\71\Sign\023256_ps.dgn
PLOT DATE : 28-JAN-2014 11:41
PLOT BY : MSCKVW
PLOT NAME :
PLOT SCALE : 40:1

SEE SHEET 59

NOTES:
ALL SIGNS NOT SHOWN ARE EXISTING SIGNS TO REMAIN.

STREET SIGNS SHALL BE MOVED BY MUNICIPALITY AND SHALL NOT BE PLACED ON TOP OF STOP SIGNS.

CONTACT MILWAUKEE COUNTY AIRPORT ENGINEER, ED BASICH, FOR ANY AIRPORT SIGN NEEDS.

1187A
W12-1D(2S)
2' MOUNTING HEIGHT

1193A
R1-2(2S)

1185
R1-1F(3)
R6-3(2M)

1191
REMOVE
R5-1(2S)

REMOVE
R4-7(2S)
1192

SIGN BY AIRPORT AUTHORITY
COORDINATE SIGN REMOVAL/REPLACEMENT
WITH ED BASICH, MILW CO AIRPORT ENGINEER

LEFT TURN YIELD ON FLASHING YELLOW ARROW
R10-50(2M)
1240

NORTH 38
REMOVE
NORTH 38
J4-1(2S)
1199

1193
REMOVE

1194
REMOVE
BEGIN LEFT TURN LANE
R3-20LL

1163
DO NOT ENTER
R5-1(2S)

DO NOT ENTER
R5-1(2S)

1195
TO INTERSTATE 94
J23-1(2S)

TO INTERSTATE 94
REMOVE

1196
NO PARKING ANY TIME
R7-1D(2S)

NO PARKING ANY TIME
REMOVE

Amtrak Station
REMOVE

1197
Amtrak Station

WRONG WAY
R5-1A(2S)

1128

Air Cargo
SuperSaver Parking

SIGN BY AIRPORT AUTHORITY
COORDINATE SIGN REMOVAL/REPLACEMENT
WITH ED BASICH, MILW CO AIRPORT ENGINEER

TO INTERSTATE 94 WEST 119
REMOVE
TO INTERSTATE 94 WEST 119
JV23-2(2S)
1201

NO PARKING ANY TIME
REMOVE
NO PARKING ANY TIME
R7-1D(2S)
1202

NO PARKING ANY TIME
REMOVE
NO PARKING ANY TIME
R7-1D(2S)
1200

1198
BEGIN LEFT TURN LANE
R3-20L(3)

AIRPORT SIGN TO REMAIN
SIGN BY AIRPORT AUTHORITY
COORDINATE SIGN REMOVAL/REPLACEMENT
WITH ED BASICH, MILW CO AIRPORT ENGINEER

Airport Terminal & Parking

WEST 119
REMOVE
TO INTERSTATE 94 WEST 119
J3-1(2S)
1203

STH 119
STH 38
STH 38
STH 38

452+00
453+00
454+00
455+00
456+00
457+00

FO I/C

LEGEND
- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- XXX DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

SHEET 57 OF 59

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET	E

FILE NAME : J:\projects\d2_20601538\71\Sign\023257_ps.dgn PLOT DATE : 28-OCT-2013 16:44 PLOT BY : MSCKVW PLOT NAME : PLOT SCALE : 40:1

NOTES:
ALL SIGNS NOT SHOWN ARE EXISTING SIGNS TO REMAIN.

STREET SIGNS SHALL BE MOVED BY MUNICIPALITY AND SHALL NOT BE PLACED ON TOP OF STOP SIGNS.

CONTACT MILWAUKEE COUNTY AIRPORT ENGINEER, ED BASICH, FOR ANY AIRPORT SIGN NEEDS.

1205 STOP R1-1F(3)
1206 STOP R1-1F(3) DIVIDED HIGHWAY R6-3(2M)
1204 SPONSOR MOVE
STOP REMOVE
GRANGE AVENUE
30'
Grange Ave M1-94-H
STH 119
1207 R4-7(2S)
1208 ONE WAY R6-2L(3)
1235 NO TURN ON RED REMOVE
1209
1210
1211 STOP REMOVE
STOP R1-1F(3) DIVIDED HIGHWAY R6-3(2M)
NO PARKING ANY TIME REMOVE
R7-1D(2S) 1225
STOP R1-1F(3) 1212
DO NOT ENTER R5-1(2S) 1105
ESTR
RIGHT TURN YIELD ON FLASHING YELLOW ARROW R10-50R(2M) 685
1214 REMOVE R4-7(2S)
1213 REMOVE R3-1(3)
1215 REMOVE R4-7(2S)
458+00
459+00
460+00
461+00
462+00
463+00
FO I/C ICPB101
1216 STOP R1-1F(3) NO TURN ON RED REMOVE
1217 R3-2(3) R1-1F(3) STOP REMOVE
1218 TO INTERSTATE 94 WEST 119 JV23-2(2S)
DO NOT ENTER R5-1(2S) 1122
1219 NO PARKING ANY TIME R7-1D(2S) NO PARKING ANY TIME REMOVE
STH 38
1220 Amtrak Station REMOVE
Amtrak Station
1221 TO INTERSTATE 94 WEST 119 JV23-2(2S)
REMOVE
1222
1223 W3-3(2S)
REMOVE
STOP REMOVE
STOP R1-1F(3) 1224
N 0°11'28" E
SOUTH 38 REMOVE
SOUTH 38 J3-1(2) 1226
STH 119
LEFT TURN YIELD ON FLASHING YELLOW ARROW 682
← Grange Ave M1-94-H 1236
NORTH 38 J4-1(2S) 1227
1228 SPEED LIMIT 35 REMOVE
SPEED LIMIT 35 R2-1(2S)
NO PARKING ANY TIME REMOVE
R7-1D(2S) 1229
PARKING REGULATIONS DEC - APRIL NO ENGINE BRAKING EXCEPT IN EMERGENCY ESTR

LEGEND
- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- PROPOSED LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE
- (2010) SPEED LIMIT 25 INDICATES YEAR INSTALLED

SHEET 58 OF 59

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET	E

FILE NAME : J:\projects\d2_20601538\71\Sign\023258_ps.dgn PLOT DATE : 28-OCT-2013 16:44 PLOT BY : MSCKVW PLOT NAME : PLOT SCALE : 40:1

2

N

NOTE:
ALL SIGNS NOT SHOWN ARE EXISTING SIGNS TO REMAIN.

STH 119 OFF-RAMP

1411
1412
WRONG WAY
R5-1A(2S)
WRONG WAY
REMOVE

1413
TO 38
J22-1(2S)
TO 38
REMOVE

1414
1415
DO NOT ENTER
R5-1(2S)
WRONG WAY
R5-1A(2S)
UNDER DO NOT ENTER
3' MOUNTING HEIGHT
DO NOT ENTER
REMOVE

1416
TO INTERSTATE 94
J22-1(2S)
TO INTERSTATE 94
REMOVE

REMOVE

W3-3(2S)
1417
1418

EXISTING AIRPORT SIGN TO REMAIN

SOUTH 38
REMOVE
SOUTH 38
J3-1(2)
1419

NORTH 38
REMOVE
NORTH 38
J3-1(2)
1420

SOUTH 38
J3-1(2)
1438

W AIR CARGO WAY

CB1

SEE SHEET 56

SHEET 59 OF 59

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET	E

2

LEGEND

1. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK 6-INCH
2. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ZEBRA MARKING 24-INCH
3. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC STOP LINE 18-INCH
4. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (20' C-C IN MEDIANS, 50' C-C IN SHOULDERS) (WHITE)
5. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 4-INCH (LANE LINE SKIPS)
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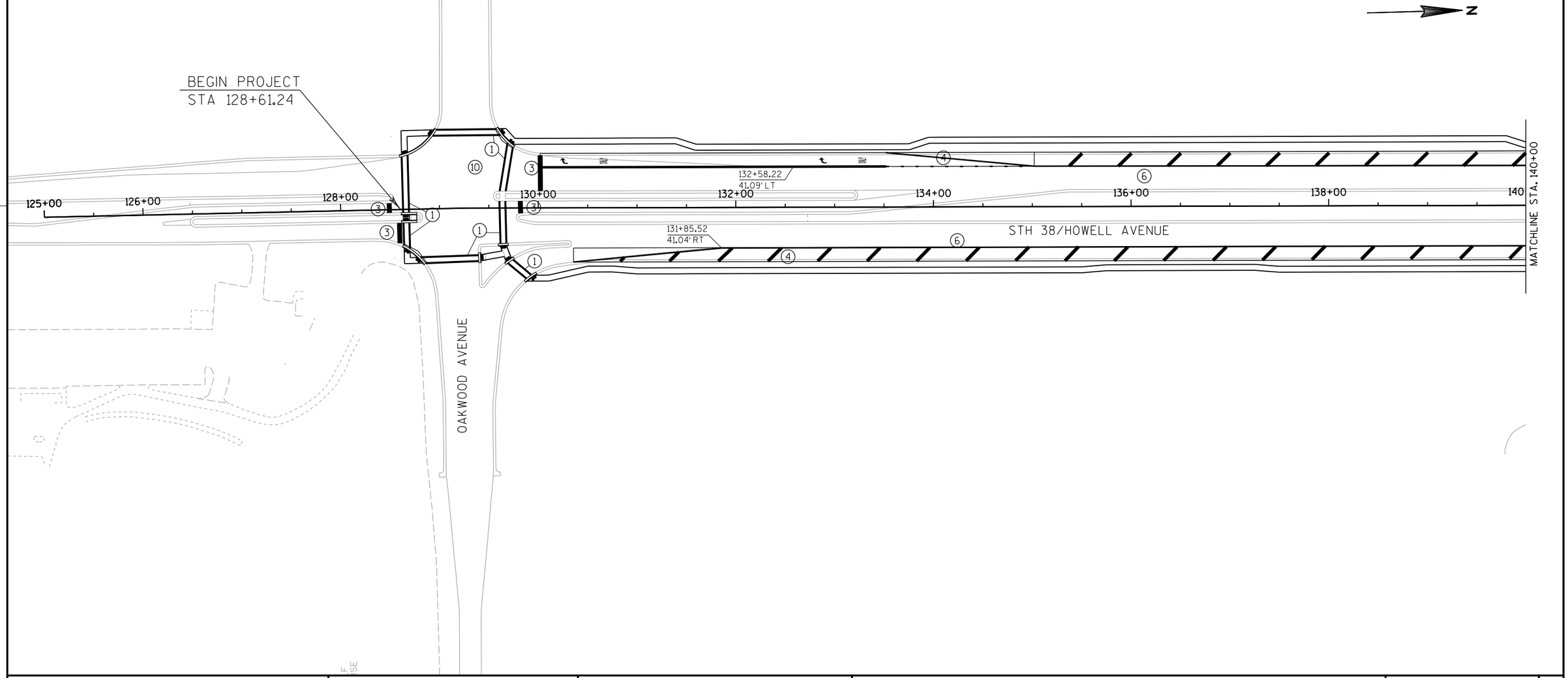
10. PAVEMENT MARKING ISLAND NOSE EPOXY
12. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS, TYPE 2
13. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS, TYPE 3
14. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC WORDS
15. PAVEMENT MARKING ARROWS BIKE LANE PREFORMED THERMOPLASTIC
16. PAVEMENT MARKING WORDS BIKE LANE PREFORMED THERMOPLASTIC
17. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
18. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH (2 FT LINE 6 FT SKIP)



PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 242	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\024501_pm.dgn PLOT DATE : 1/3/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

2

LEGEND

1. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK 6-INCH
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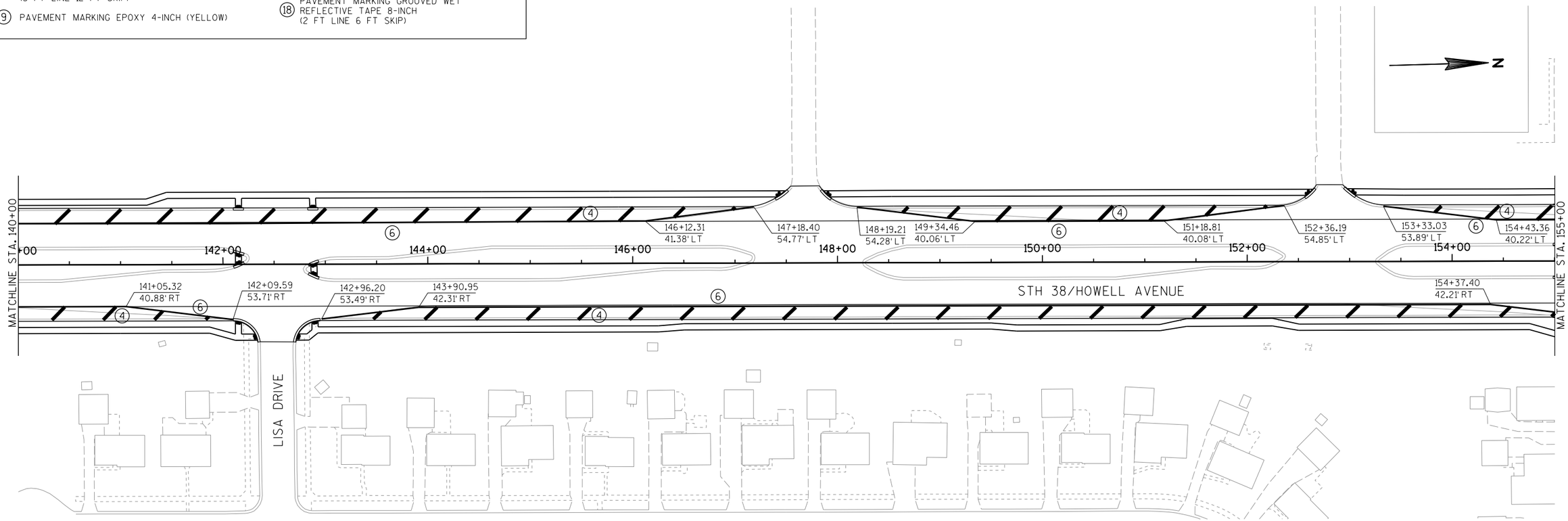

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 243	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\024502_pm.dgn PLOT DATE : 1/3/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2

LEGEND

1. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK 6-INCH
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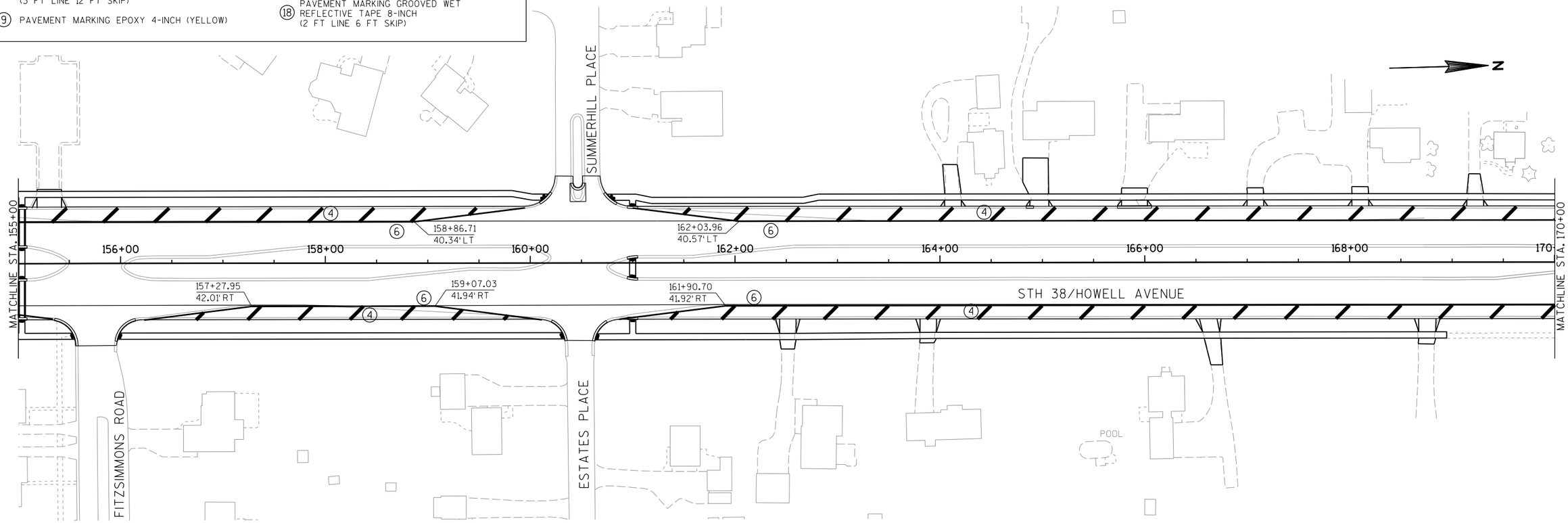

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 244	E

2

LEGEND

1. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK 6-INCH
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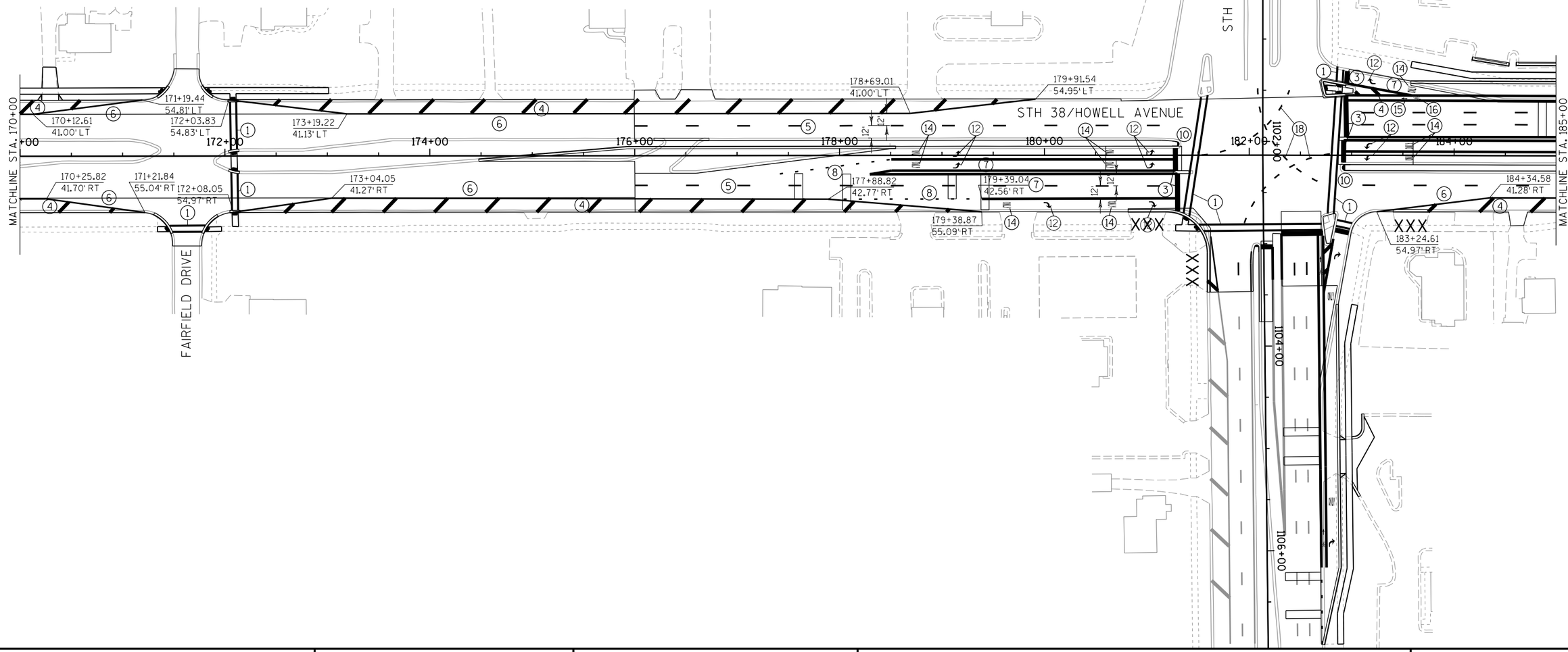

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 245	E

2

LEGEND

1. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK 6-INCH
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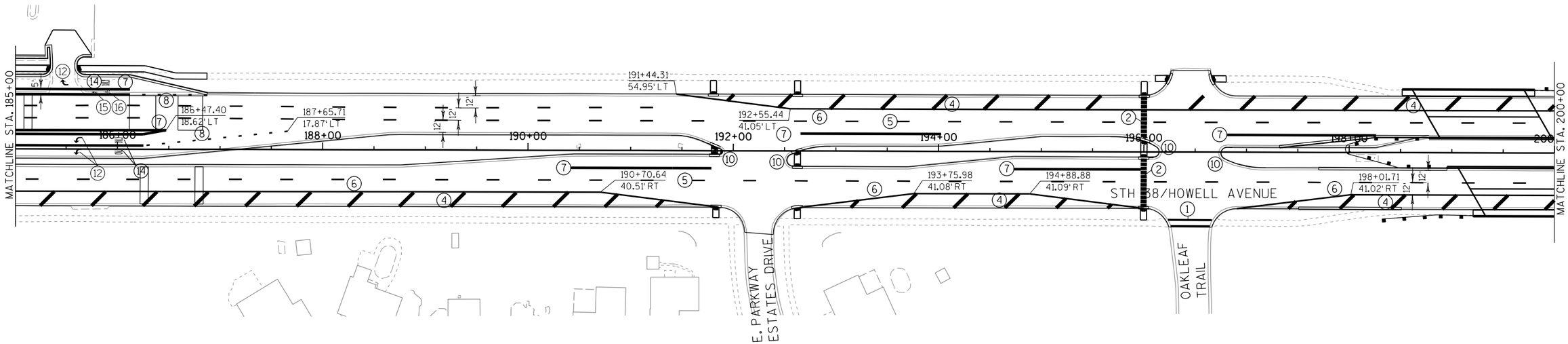
18. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH (2 FT LINE 6 FT SKIP)

N



2

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 246	E

2

LEGEND

1. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK 6-INCH
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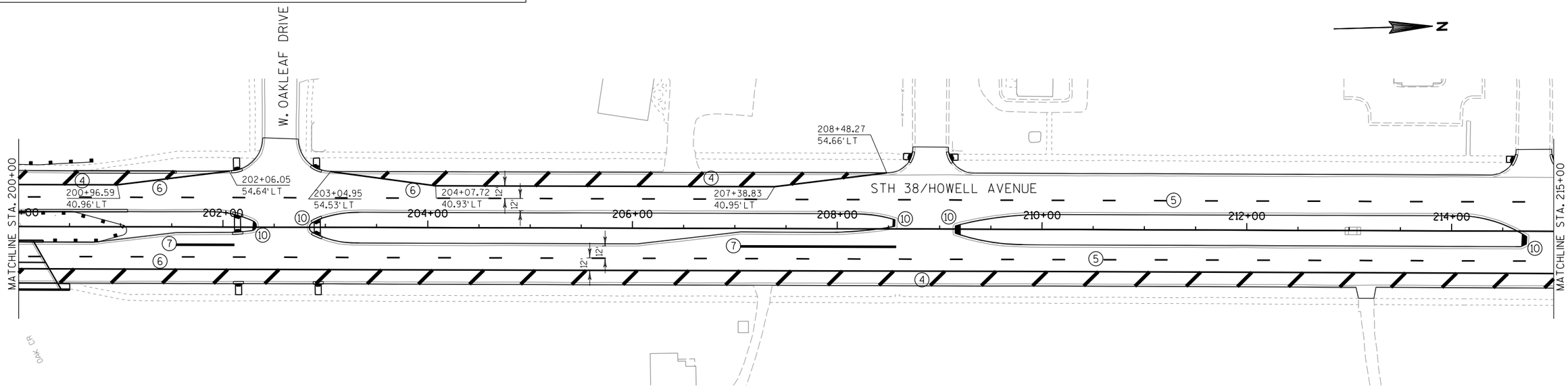

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 247	E

LEGEND

1. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK 6-INCH
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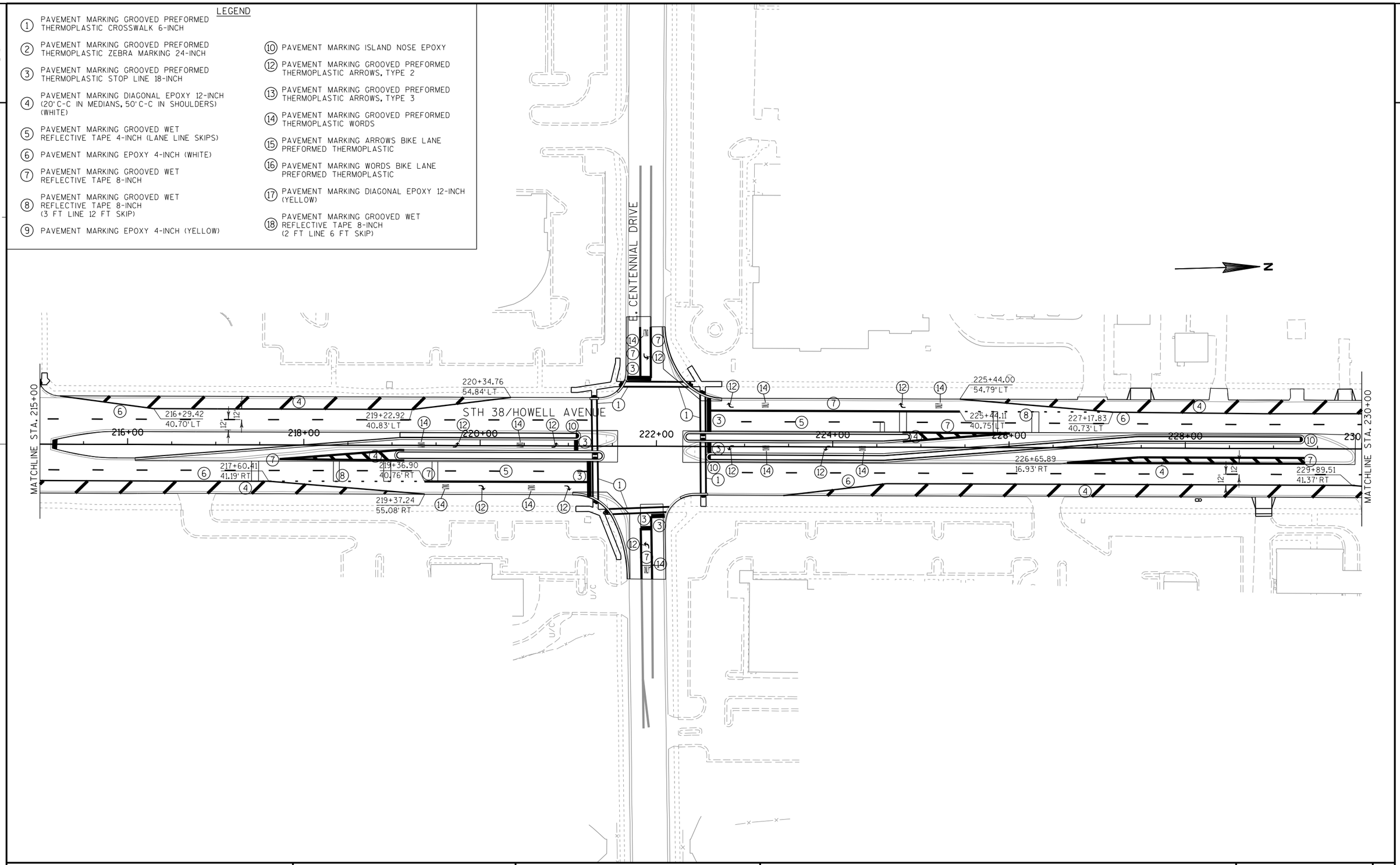

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 248	E

2

LEGEND

1. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK 6-INCH
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N

W. PUETZ ROAD

STH 38/HOWELL AVENUE

2112+00

2114+00

2116+00

2118+00

2120+00

MATCHLINE STA. 230+00

MATCHLINE STA. 245+00

233+32.66
54.70' LT

232+15.10
40.76' LT

232+00

234+00

231+48.36
41.35' RT

231+48.61
55.11' RT

236+00

238+00

238+78.92
54.73' LT

239+63.40
39.64' LT

239+81.77
39.64' LT

240+00

238+27.05
41.29' RT

239+15.03
17.14' RT

237+11.71
55.01' RT

242+00

242+74.61
54.51' LT

243+77.60
41.03' LT

244+00

243+68.99
15.88' LT

12"

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 249	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\024508_pm.dgn PLOT DATE : 1/3/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

2

LEGEND

1. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK 6-INCH
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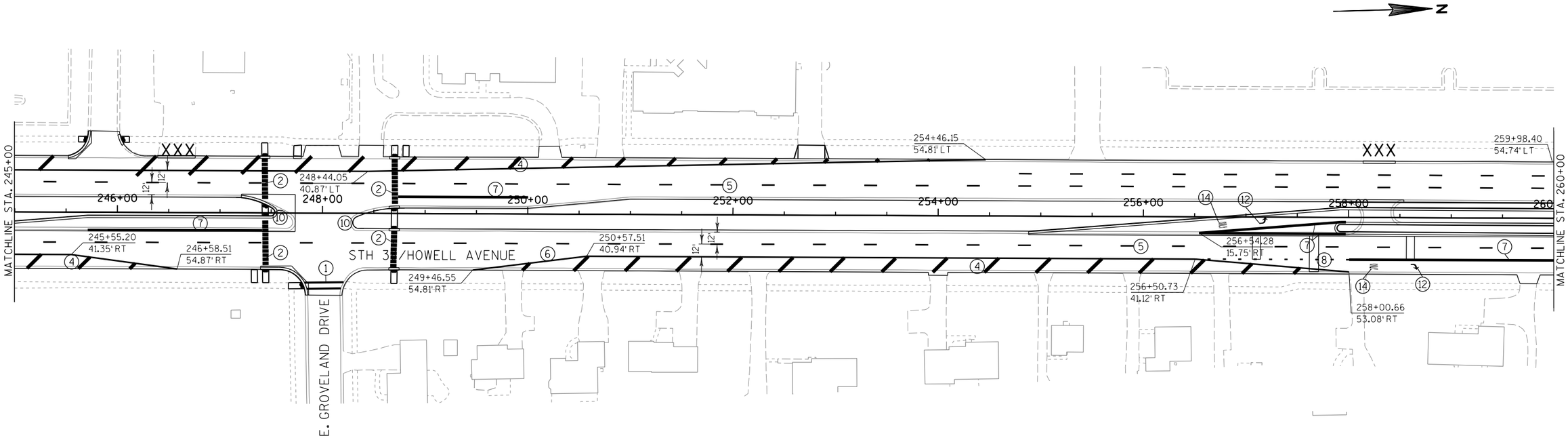
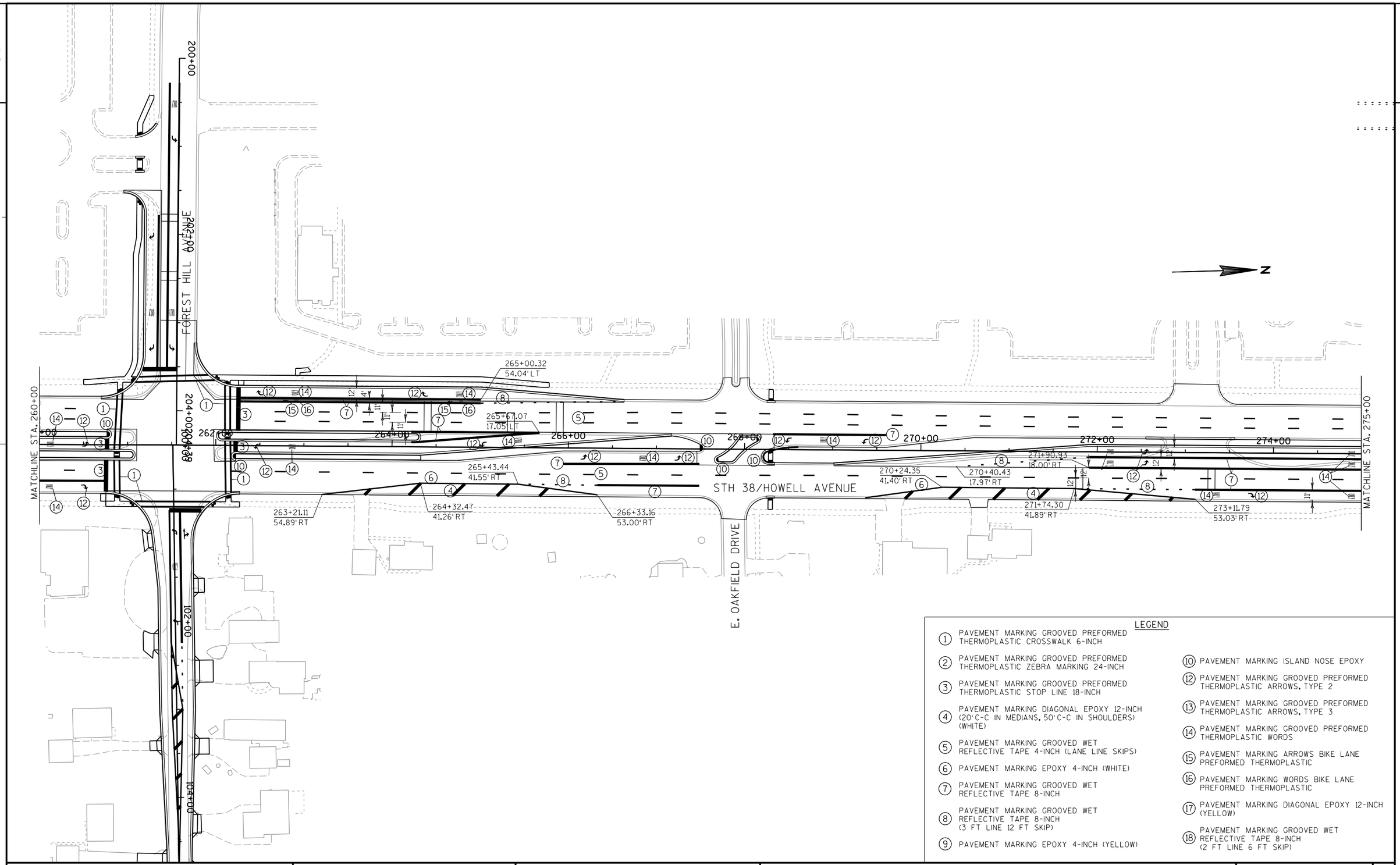


PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 250	E

2



LEGEND

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PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 251	E

LEGEND

1. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK 6-INCH
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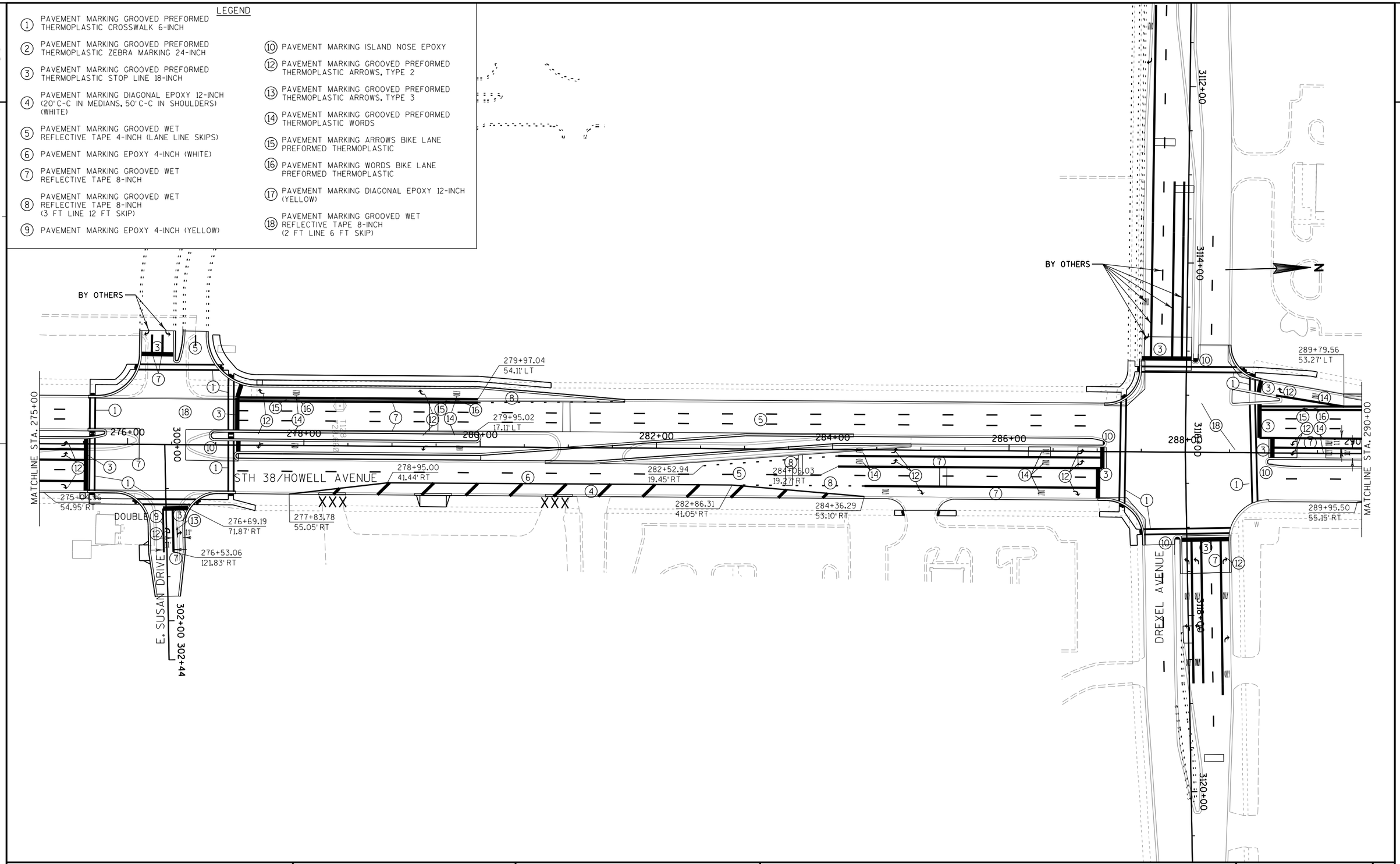
18. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH (2 FT LINE 6 FT SKIP)



PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 252	E

2

LEGEND

1. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK 6-INCH
2. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ZEBRA MARKING 24-INCH
3. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC STOP LINE 18-INCH
4. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (20' C-C IN MEDIANS, 50' C-C IN SHOULDERS) (WHITE)
5. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 4-INCH (LANE LINE SKIPS)
6. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
7. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH
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10. PAVEMENT MARKING ISLAND NOSE EPOXY
12. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS, TYPE 2
13. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS, TYPE 3
14. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC WORDS
15. PAVEMENT MARKING ARROWS BIKE LANE PREFORMED THERMOPLASTIC
16. PAVEMENT MARKING WORDS BIKE LANE PREFORMED THERMOPLASTIC
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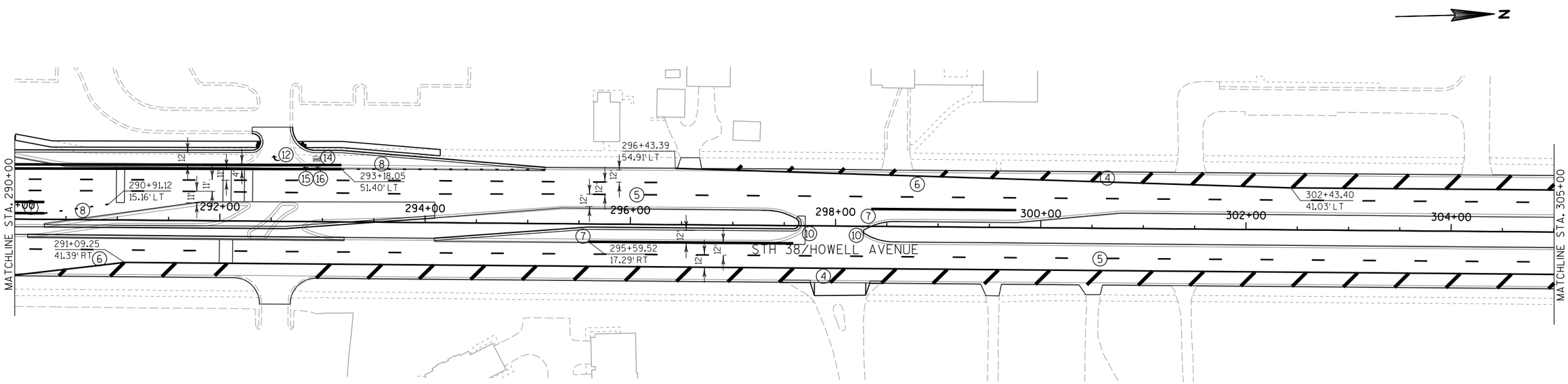

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 253	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\024512_pm.dgn PLOT DATE : 1/3/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2

LEGEND

1. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK 6-INCH
2. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ZEBRA MARKING 24-INCH
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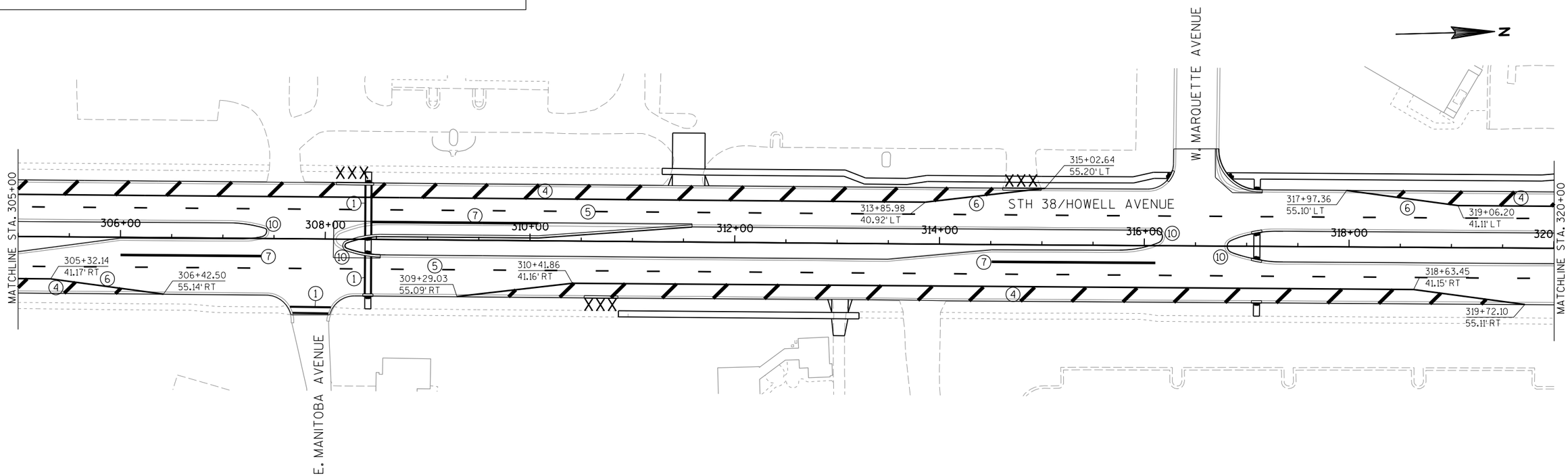

2

LEGEND

1. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK 6-INCH
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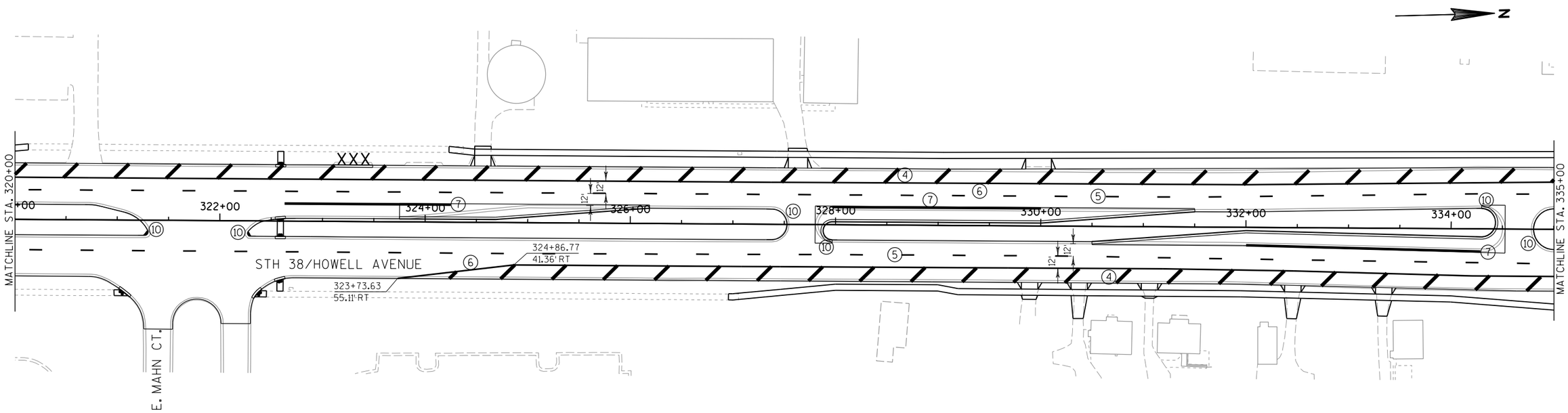
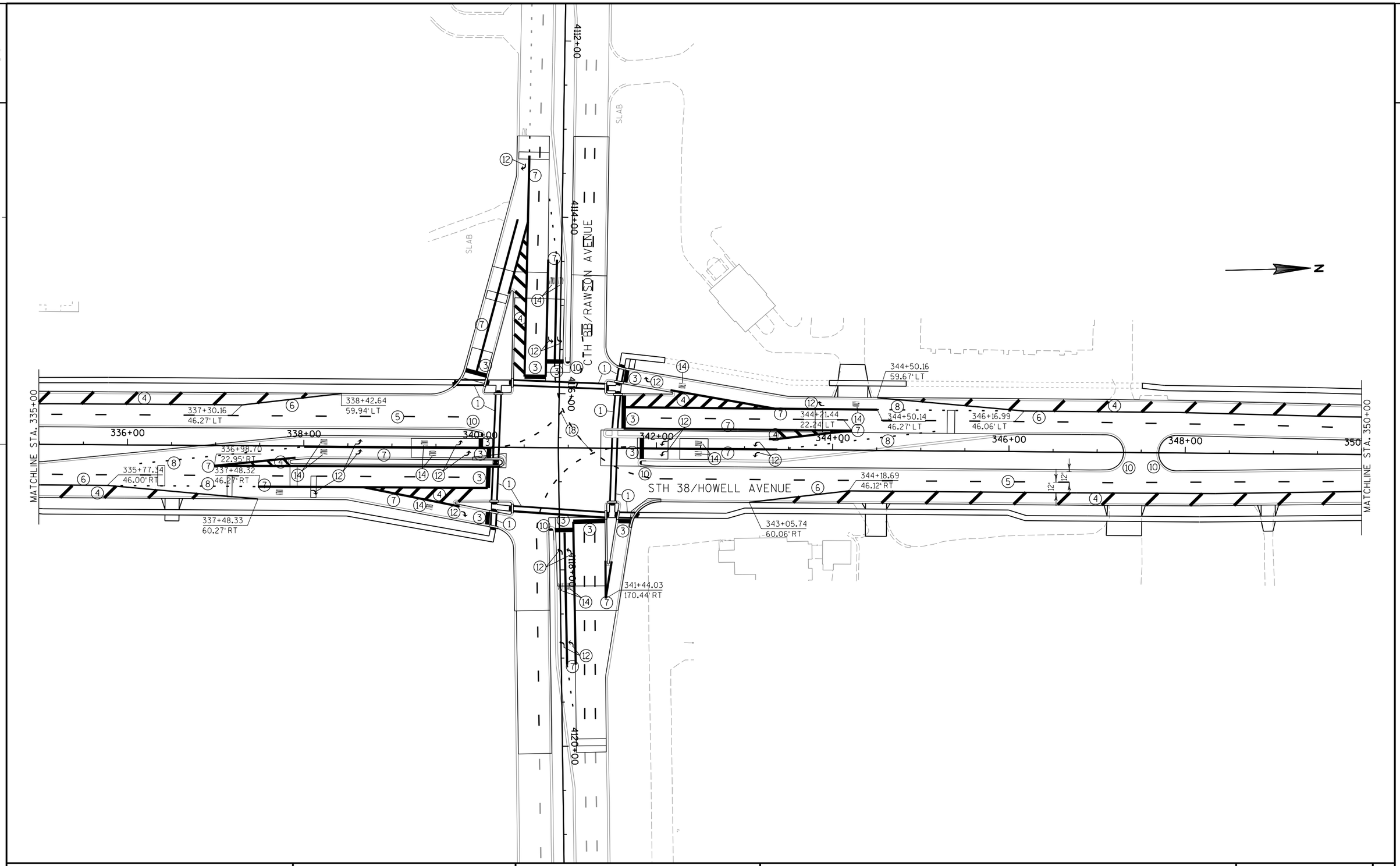


PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 255	E

2



PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 256	E

2

LEGEND

1. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK 6-INCH
2. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ZEBRA MARKING 24-INCH
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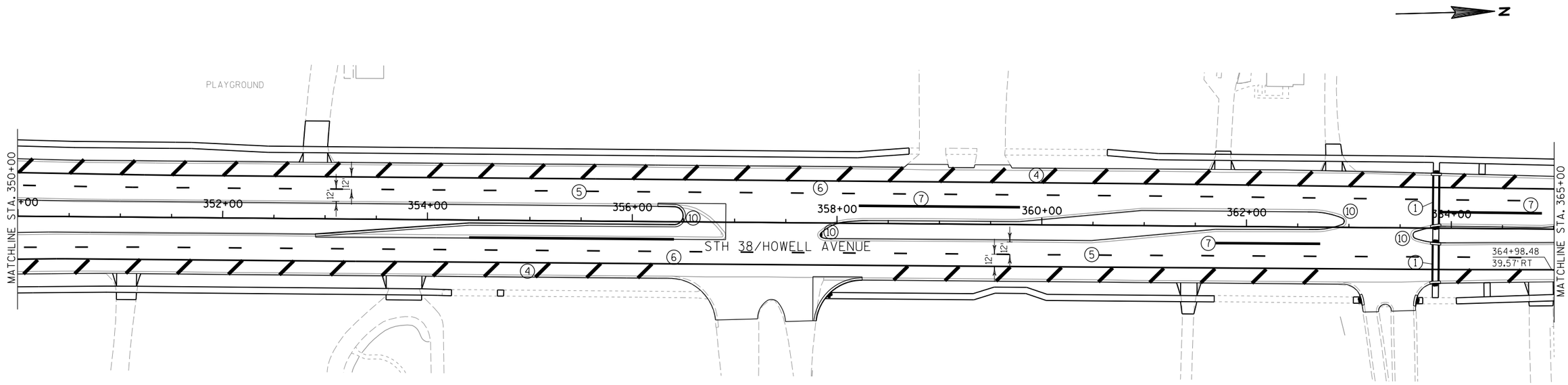

LEGEND

1. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK 6-INCH
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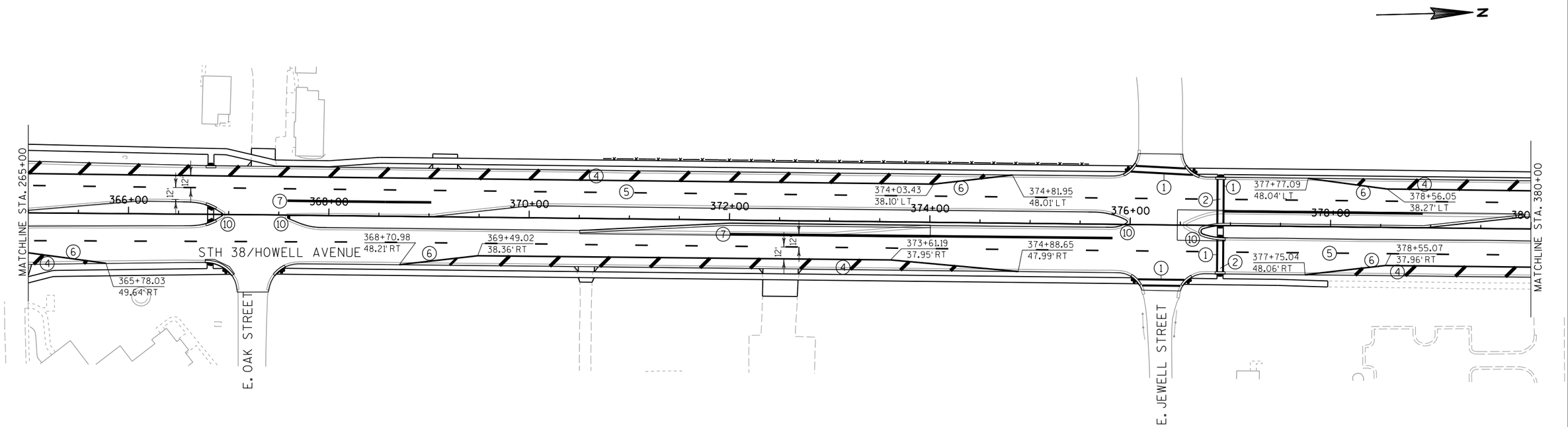

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 258	E

2

LEGEND

1. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK 6-INCH
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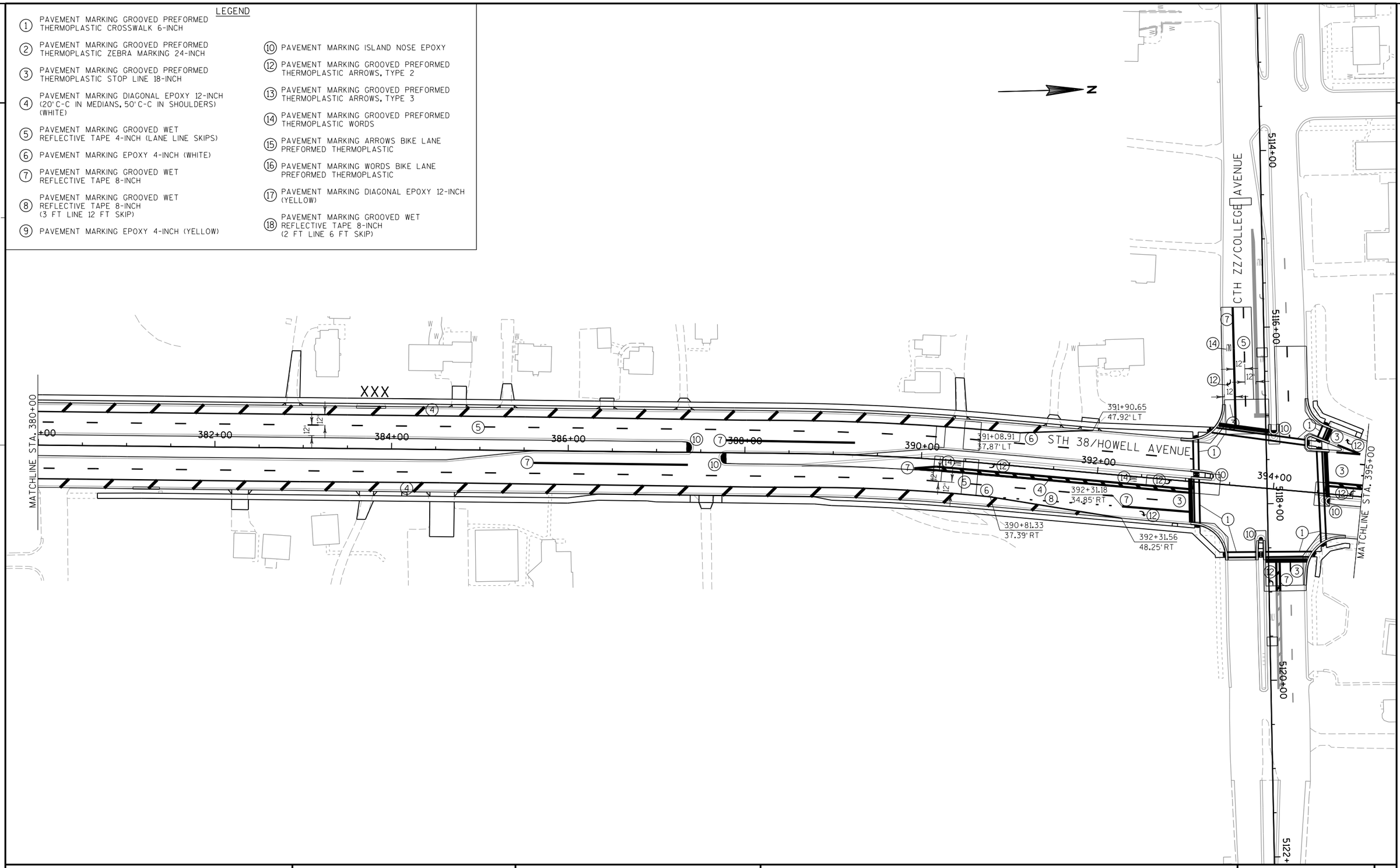

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 259	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\024518_pm.dgn PLOT DATE : 1/3/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

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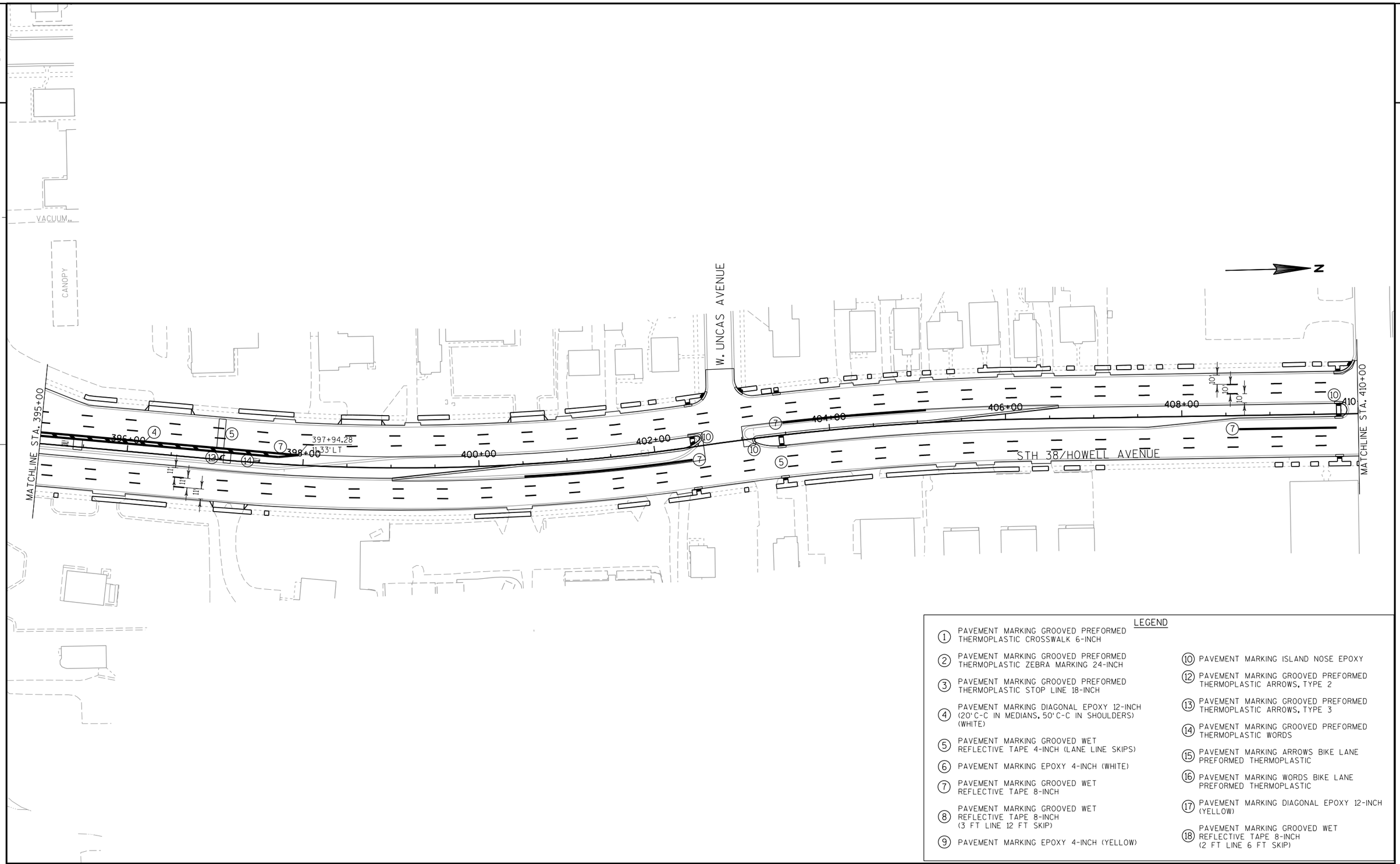

LEGEND

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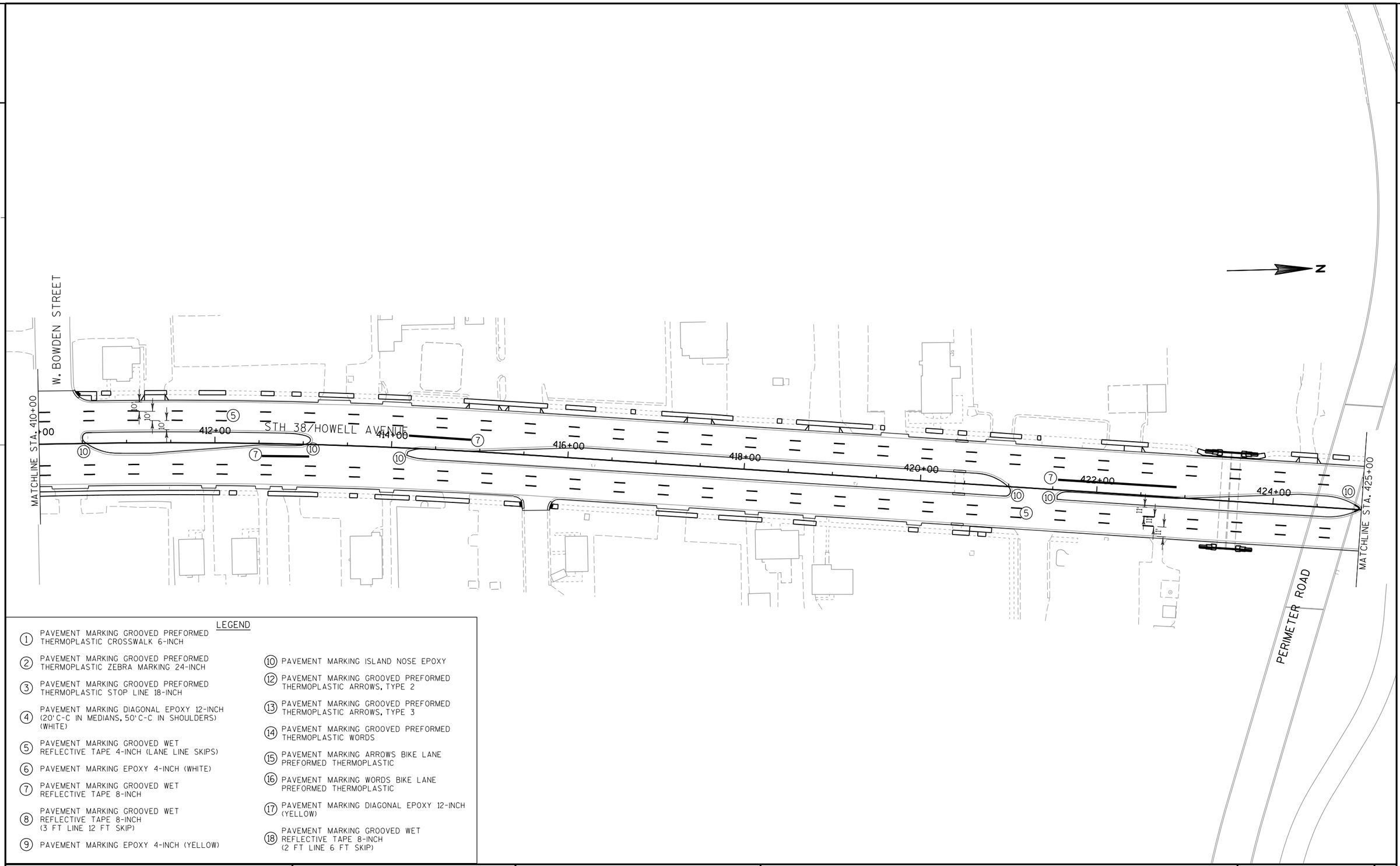
PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 260	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\024519_pm.dgn PLOT DATE : 1/3/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2



LEGEND

1. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK 6-INCH
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PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 261	E

2

LEGEND

1. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK 6-INCH
2. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ZEBRA MARKING 24-INCH
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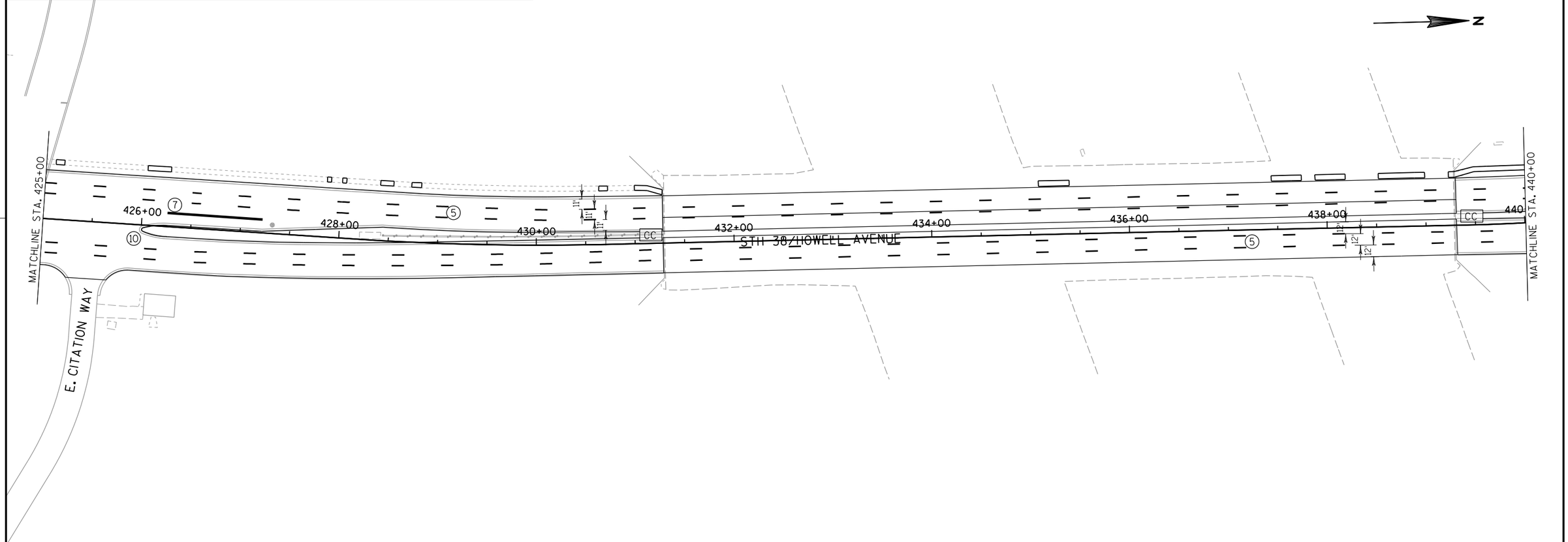

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 262	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\024521_pm.dgn PLOT DATE : 1/3/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2

LEGEND

1. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK 6-INCH
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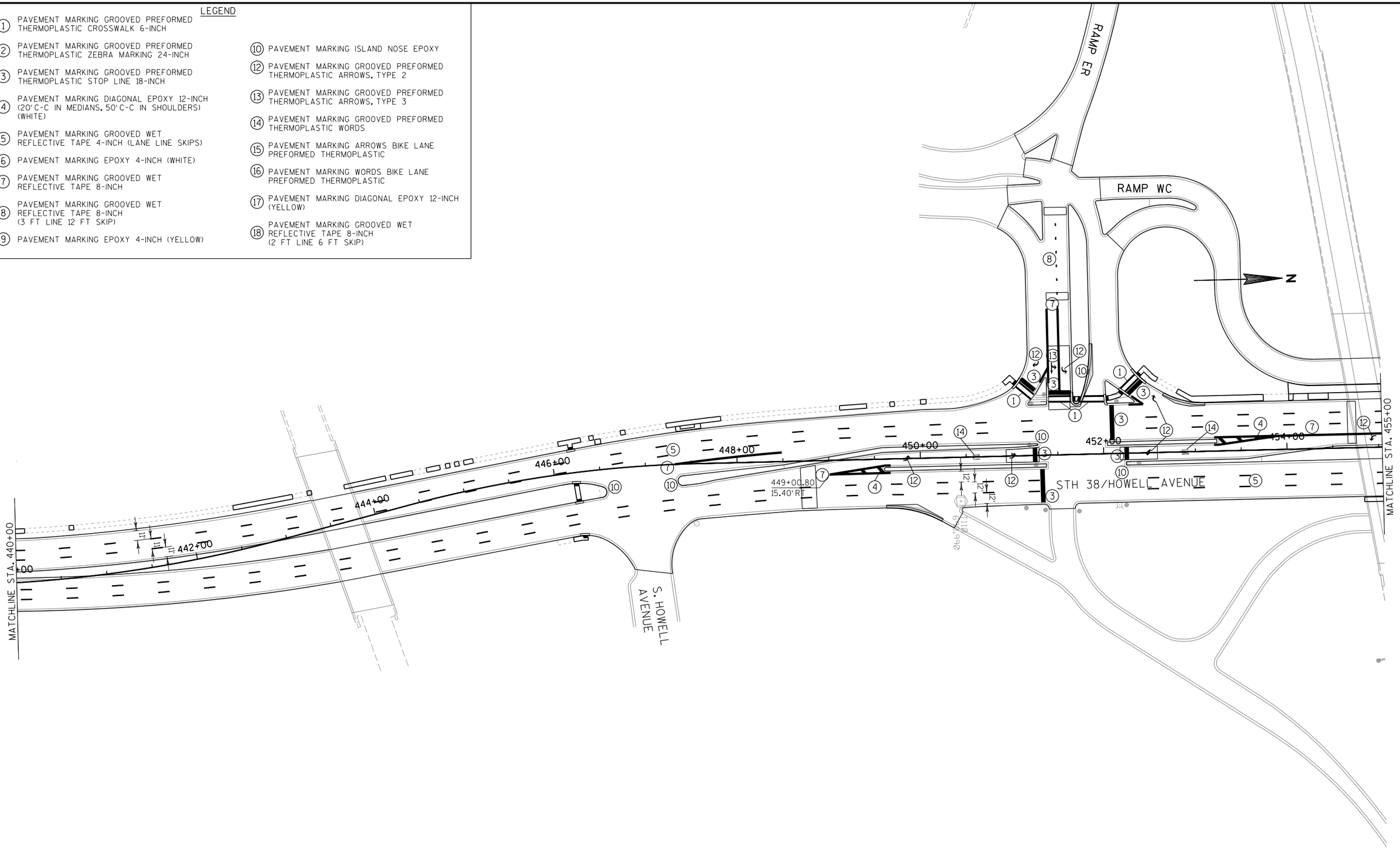

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PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 263	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\024522_pm.dgn PLOT DATE : 1/3/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2

LEGEND

1. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK 6-INCH
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N

STH 119/AIRPORT SPUR

GRANGE AVENUE

MATCHLINE STA. 455+00

456+00

458+00

460+00

462+00

464+00

466+00

468+00

470+00

STH 38/HOWELL AVENUE

END PROJECT
STA 462+75.39

S. HOWELL AVENUE

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 264	E

2

LEGEND

1. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK 6-INCH
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6. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
7. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH
8. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH (3 FT LINE 12 FT SKIP)
9. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
10. PAVEMENT MARKING ISLAND NOSE EPOXY
12. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS, TYPE 2
13. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS, TYPE 3
14. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC WORDS
15. PAVEMENT MARKING ARROWS BIKE LANE PREFORMED THERMOPLASTIC
16. PAVEMENT MARKING WORDS BIKE LANE PREFORMED THERMOPLASTIC
17. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
18. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH (2 FT LINE 6 FT SKIP)

N

STH 38/HOWELL AVENUE

STH 100/RYAN ROAD

1098+00 1100+00 1102+00 1104+00 1106+00 1108+00 1110+00 1112+

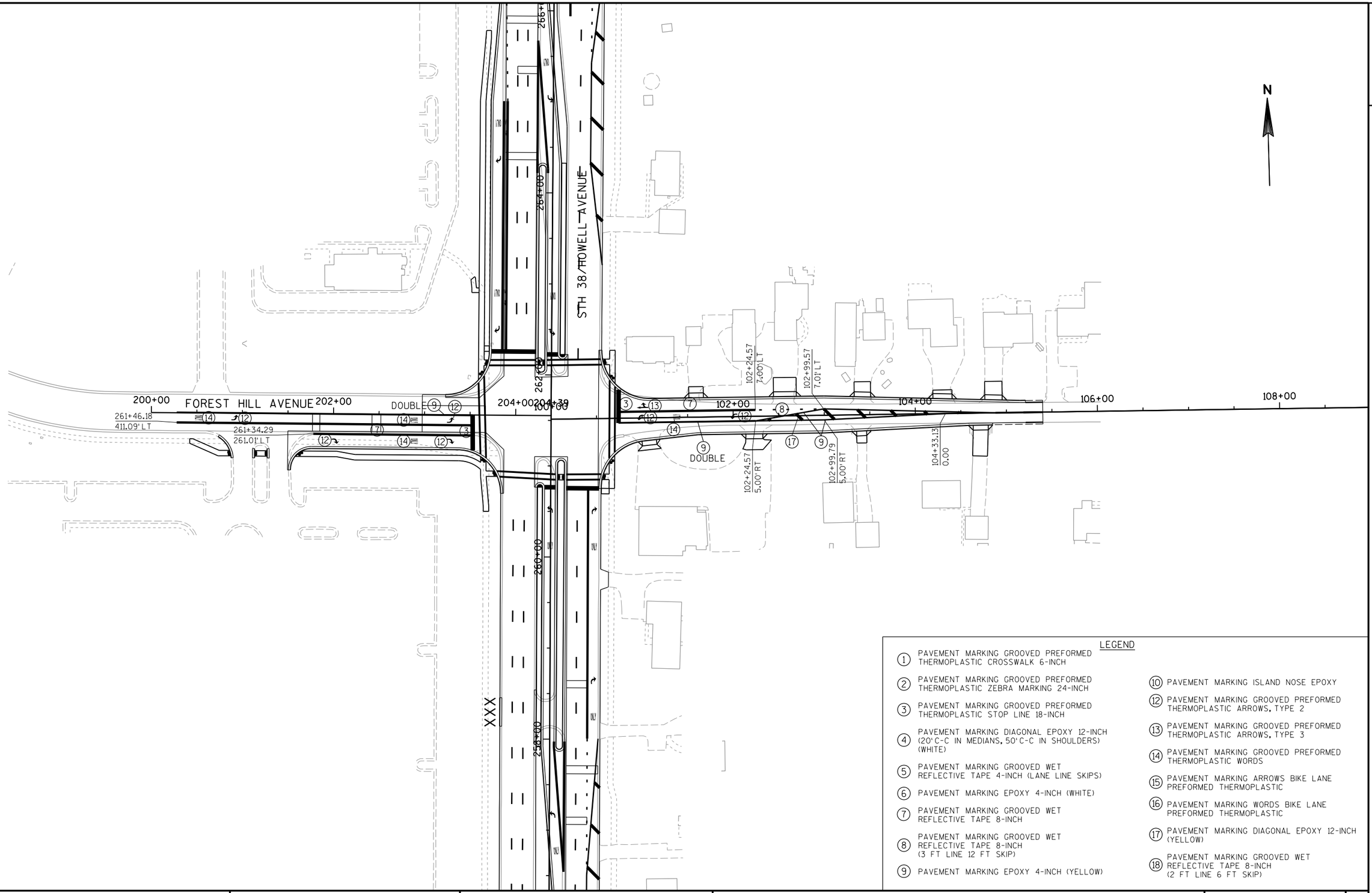
186+00 184+00 182+00 180+00 178+00

XXX XXX XXX

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 265	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\024524_pm.dgn PLOT DATE : 1/3/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

2



LEGEND

1. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK 6-INCH
2. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ZEBRA MARKING 24-INCH
3. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC STOP LINE 18-INCH
4. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (20' C-C IN MEDIANS, 50' C-C IN SHOULDERS) (WHITE)
5. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 4-INCH (LANE LINE SKIPS)
6. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
7. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH
8. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH (3 FT LINE 12 FT SKIP)
9. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
10. PAVEMENT MARKING ISLAND NOSE EPOXY
12. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS, TYPE 2
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16. PAVEMENT MARKING WORDS BIKE LANE PREFORMED THERMOPLASTIC
17. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
18. PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH (2 FT LINE 6 FT SKIP)

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 266	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\024525_pm.dgn PLOT DATE : 1/3/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

GENERAL NOTES:

FREEWAY LIGHTING SHALL BE INSTALLED IN COMPLIANCE WITH WISCONSIN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS SECTIONS 652 TO 657 AND 659 EXCEPT:

1. DETAILS OF CONSTRUCTION MATERIALS AND WORKMANSHIP NOT SHOWN ON THESE DRAWINGS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

2. LOCATIONS OF THE PVC CONDUITS ARE IDENTIFIED IN THE PLANS WHERE THEY ARE REQUIRED. HOWEVER, INSTALLATION WILL REQUIRE INTEGRATION WITH EXISTING FIELD CONDITIONS. UNDER THE APPROVAL OF THE ENGINEER, APPROPRIATE ADJUSTMENT OF CONDUIT LOCATIONS MAY BE MADE IF THE FIELD CONDITIONS ARE SUCH THAT THE CONDUIT CANNOT BE INSTALLED AT THE SPECIFIED LOCATIONS. FIELD MARK EACH CONDUIT LOCATION IN RED TO ILLUSTRATE AS BUILT CONDITIONS.

3. THE TRENCH SHALL NOT BE BACKFILLED PRIOR TO INSPECTION ON THE CONDUIT.

4. ALL OPEN AND UN-TERMINATED CONDUITS SHALL BE CAPPED OR PLUGGED WITH ENGINEER APPROVED FITTINGS IMMEDIATELY AFTER INSTALLATION.

5. BENDING OF PVC ELECTRICAL CONDUIT SHALL BE ACCOMPLISHED BY USING A BLANKET OR IMMERSION TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT.

6. ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON ALL CONDUITS.

7. PRIOR TO CONDUIT ACCEPTANCE, ALL CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND BE CAPPED WITH THE APPROPRIATE CAST PLASTIC CAP WHICH FITS SNUGGLY ON THE CONDUIT THAT CAN BE EASILY REMOVED. DUCT TAPE OR ANY OTHER CAPPING METHOD IS NOT ACCEPTABLE.

8. CONDUIT RUNS SHALL BE THE SAME SIZE PIPE FROM ONE END TO THE OTHER (FROM PULL BOX-TO-PULL BOX, JUNCTION BOX OR BASE-TO-BASE, ETC.) UNLESS OTHERWISE NOTED ON PLANS.

9. PULL ROPE (3*8-INCH NYLON) SHALL BE INSTALLED IN ALL NEW CONDUITS.

10. CONTRACTOR SHALL SUPPLY AS-BUILT DRAWINGS (.PDF FORMAT) FOR ALL THE WORK BEING DONE.

11. CONDUIT LATERALS SHALL BE TRENCHED UNDER PAVEMENT BEFORE PAVEMENT CONSTRUCTION.

12. ALL LIGHT POLES SHALL BE INSTALLED SUCH THAT LUMINAIRE ARMS ARE PERPENDICULAR TO THE NEAREST EDGE OF THE PAVEMENT OF ROADWAY THE LUMINAIRE IS AIMED.

13. ALL PULL BOXES SHALL BE INSTALLED SUCH THAT THE OUTER EDGE OF THE PULL BOX IS MINIMUM 2-FT BEHIND THE BACK OF CURB AND 2-INCH ABOVE CURB GRADE.

14. UNLESS NOTED ON PLANS OR LIGHT POLES LOCATED IN THE MEDIAN, ALL LIGHT POLES SHALL BE INSTALLED SUCH THAT THE CENTER OF THE POLE IS 2-FT MINIMUM BEHIND THE BACK OF CURB

15 CONTRACTOR IS RESPONSIBLE TO COORDINATE WITH CITY OF OAK CREEK ENGINEERING DEPARTMENT FOR CONNECTING NEW LIGHTING TO EXISTING LIGHTING SYSTEM.

16. THE DUCT SIZE OF CABLE IN DUCT WITH NO. 4 AWG WIRES SHALL BE 1 1/4" DIA.

17. ALL PULL BOXES SHALL BE GROUNDED USING 5/8-INCH X 8-FT COPPER CLAD GROUNDING ELECTRODE WITH NO. 4 AWG, STRANDED COPPER GROUNDING ELECTRODE CONDUCTOR EXOTHERMICALLY WELDED.

18. ALL CONCRETE BASES AND LIGHT POLES FOR CITY OF OAK CREEK LIGHTING SHALL BE INSTALLED IN CONFORMANCE WITH CITY OF OAK CREEK DRAWING NO. SL-6 AND PER APPLICABLE STATE STANDARDS.

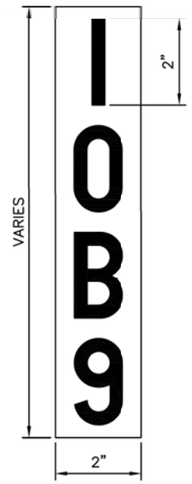
PROVIDE MINIMUM CABLE SLACK AS MENTIONED BELOW:

PULL BOXES:	5-FT ONE WAY IN OR OUT
EMBEDDED JUNCTION BOXES:	3-FT
DISTRIBUTION CENTER/LOAD CENTER:	10-FT
AT THE POLE:	3-FT

CITY OF OAK CREEK LOAD CENTER LOCATIONS:

LOAD CENTER	LOCATION
1	ALONG PUETZ ROAD, EAST OF STH 38, NEAR OAK PARK DRIVE, ABOUT 1600FT EAST OF STH 38.
3	ALONG STH 38, NORTHEAST QUADRANT OF CATERPILLAR GLOBAL MINING ENTRANCE AT 6744 S. HOWELL AVE., ABOUT AT STA. 364+00.
4	ALONG RAWSON AVENUE, WEST OF STH 38, CONTRACTOR SHALL FIELD VERIFY EXACT LOCATION.
5	ALONG STH 38, SOUTHEAST QUADRANT OF MANITOSA AVE.
6	ALONG STH 38, NORTHWEST QUADRANT OF FOREST HILL AVE.
7	ALONG STH 38, OPPOSITE KOHL'S SOUTH ENTRANCE, EAST OF STH 38, ABOUT AT STA. 209+00.
8	ALONG RYAN RD, SOUTHWEST QUADRANT OF STH 38.
PC	ALONG RAWSON AVENUE, EAST OF STH 38, CONTRACTOR SHALL FIELD VERIFY EXACT LOCATION.

2



LIGHTING STANDARDS

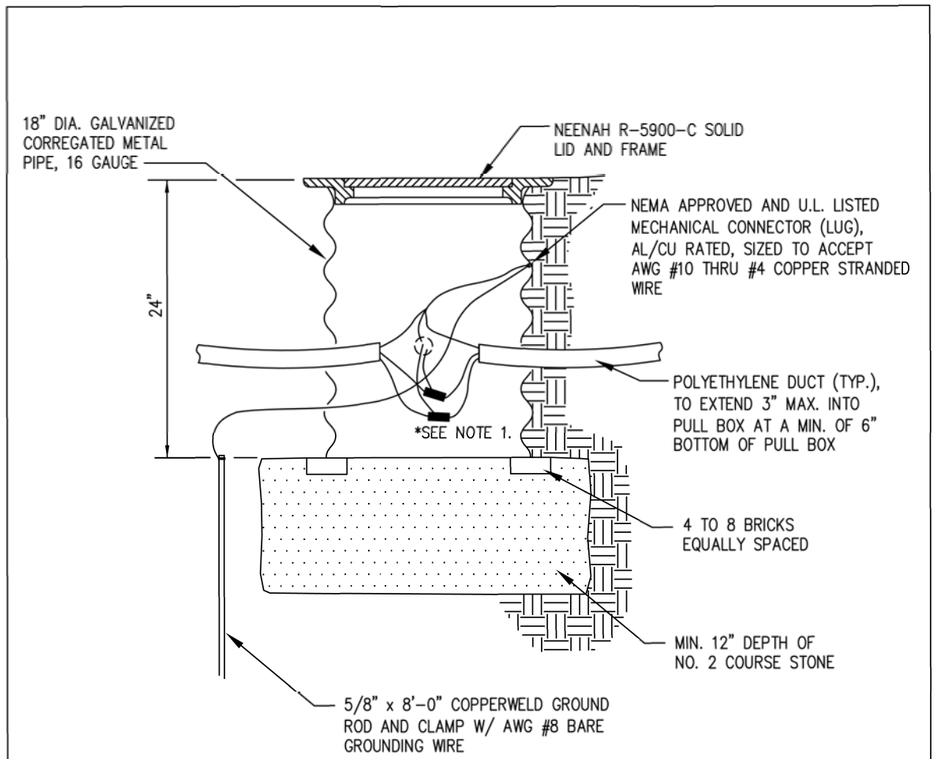
THE NUMBERING FOR LIGHTING STANDARDS SHALL CONSIST OF WEATHERPROOF SELF-ADHESIVE TYPE BACKING MATERIAL CONFORMING TO THE CONFIGURATION AND DIMENSIONS AS INDICATED ABOVE. THE NUMERALS SHALL BE BLACK MOUNTED ON THE WHITE BACKGROUND. NUMBERING SHALL FACE THE STREET AND BE MOUNTED APPROXIMATELY 6' ABOVE THE GROUND SURFACE.

LIGHTING CONTROLLERS

THE NUMBERING FOR LIGHTING CONTROLLERS SHALL CONSIST OF WEATHERPROOF SELF-ADHESIVE TYPE BACKING MATERIAL CONFORMING TO THE CONFIGURATION AND DIMENSIONS AS INDICATED ABOVE. THE NUMERALS SHALL BE WHITE MOUNTED ON THE BLACK BACKGROUND. NUMBERING SHALL BE MOUNTED SUCH THAT IT IS VISIBLE FROM THE STREET SIDE OF THE CONTROLLER.

City of Oak Creek
Department of Public Works

Drawn By: M. Simmons	Scale: N.T.S
Appv. By: Wayne St. John	Date: 1/13/04 (Revised)
STREET LIGHTING STANDARD AND CONTROLLER IDENTIFICATION NUMBERING	SL-1



NOTES:

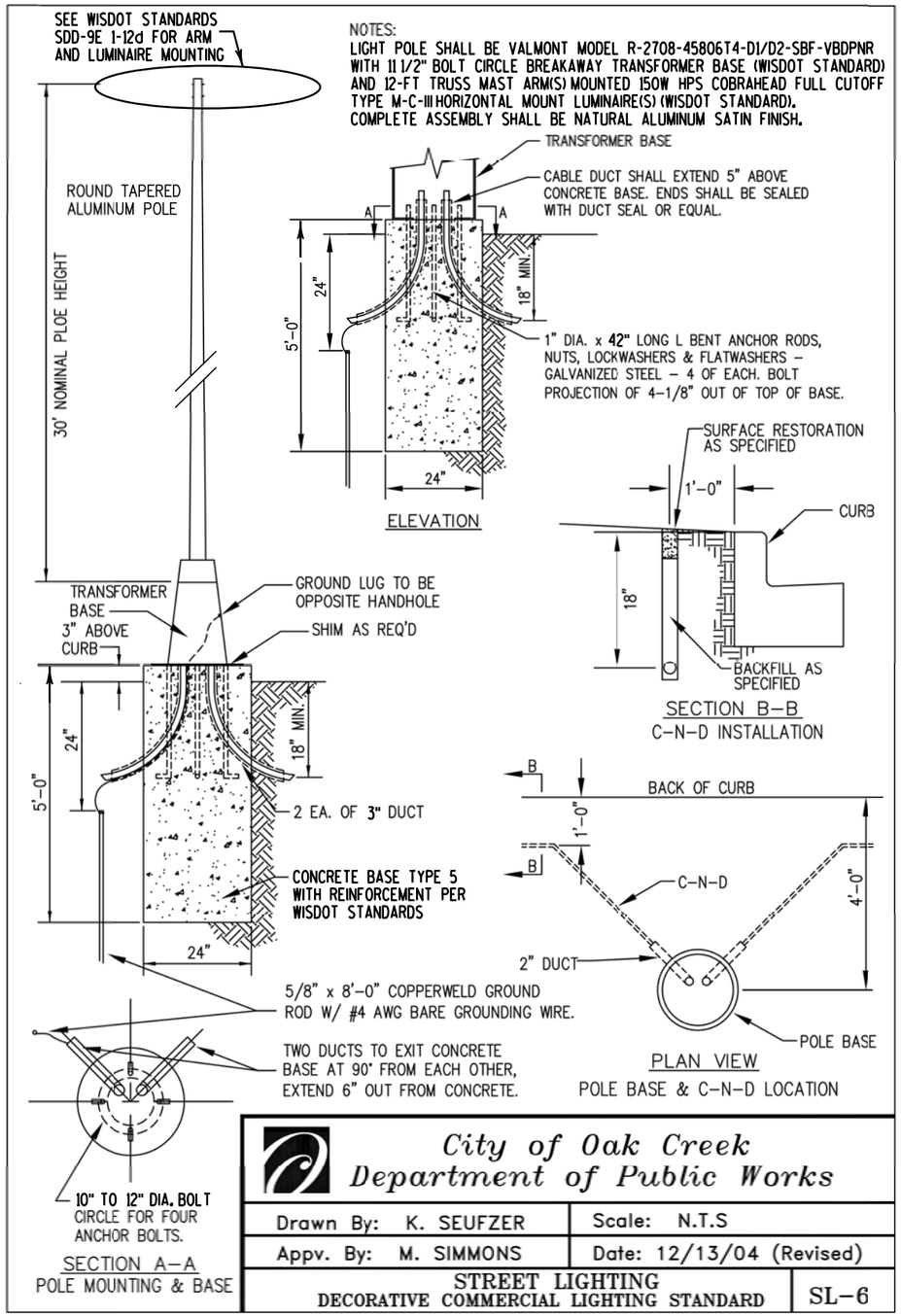
1. SPLICES FOR ALL HOT WIRES WITHIN THE PULL BOX SHALL BE WITH SCOTCH CAST KIT NO. 90-B1, OR APPROVED EQUAL.

2. PULL BOXES SHALL BE SET 2' TO 3' BEHIND CURB AND 2" ABOVE CURB GRADE.

3. IN LIEU OF THE PULL BOX DEPICTED HEREON, A STRONGWELL QUAZITE 13"(w)x24"(l)x18"(d) BOX AND COVER MAY BE INSTALLED. PART NUMBERS ARE AS FOLLOWS: BOX – PG1324BA18, COVER – PG1324HA0041A

City of Oak Creek
Department of Public Works

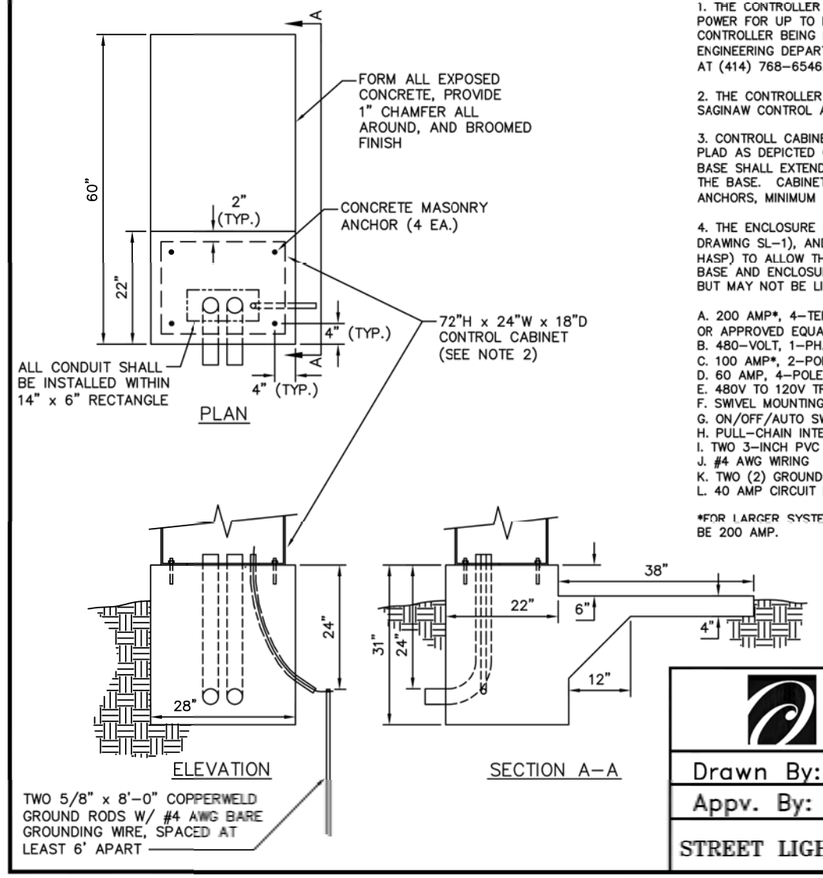
Drawn By: M. SIMMONS	Scale: N.T.S
Appv. By: M. SIMMONS	Date: 12/19/03 (Revised)
STREET LIGHTING – PULL BOX	SL-4



City of Oak Creek
Department of Public Works

Drawn By: K. SEUFZER	Scale: N.T.S
Appv. By: M. SIMMONS	Date: 12/13/04 (Revised)
STREET LIGHTING DECORATIVE COMMERCIAL LIGHTING STANDARD	SL-6

MODIFIED CITY OF OAK CREEK STANDARD DETAIL



GENERAL NOTES:

1. THE CONTROLLER (SERVICE AND CONTROL CABINET) SHALL PROVIDE 480-VOLT POWER FOR UP TO FOUR LIGHTING CIRCUITS OF UP TO 30 LIGHTS EACH. PRIOR TO CONTROLLER BEING PUT INTO SERVICE, IT MUST PASS INSPECTION BY THE CITY ENGINEERING DEPARTMENT AT (414) 768-5859 AND THE CITY ELECTRICAL INSPECTOR AT (414) 768-6546.

2. THE CONTROLLER CABINET SHALL BE A 72"H X 24"W X 18"D NEMA 4 ENCLOSURE, SAGINAW CONTROL AND ENGINEERING MODEL NO. SCE-72EL2418FS, OR APPROVED EQUAL.

3. CONTROLL CABINET SHALL BE CONSTRUCTED UPON A CONCRETE BASE WITH MAINTENANCE PLAD AS DEPICTED ON THIS DETAIL DRAWING. ALL CONDUIT RUNS THROUGH THE CONCRETE BASE SHALL EXTEND ABOUT 2" OUT THE TOP OF THE BASE AND ABOUT 4" OUT THE SIDES OF THE BASE. CABINET TO BE SECURED TO THE CONCRETE BASE WITH FOUR CONCRETE MASONRY ANCHORS, MINIMUM 1/2" DIAMETER AND 5" IN LENGTH.

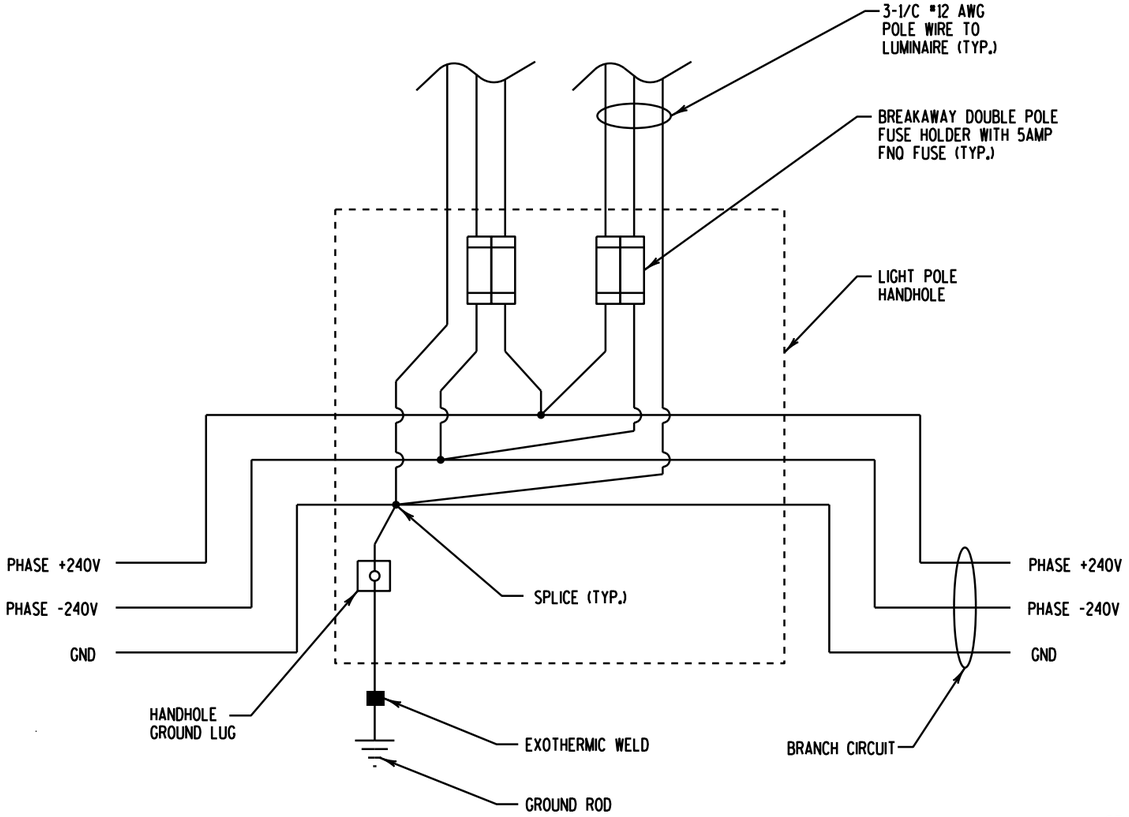
4. THE ENCLOSURE SHALL BE GRAY IN COLOR, WITH AN ADHESIVE IDENTIFICATION TAG (DETAIL DRAWING SL-1), AND SHALL HAVE AN ACCESS HANDLE WITH LOCKING MECHANISM (I.E. LOCK HASP) TO ALLOW THE CITY TO INSTALL ITS OWN PAD LOCK. IN ADDITION TO THE CONCRETE BASE AND ENCLOSURE, COMPONENTS AND RELATED WORK FOR THE CONTROLLER SHALL INCLUDE BUT MAY NOT BE LIMITED BY THE FOLLOWING:

A. 200 AMP*, 4-TERMINAL METER PEDESTAL (MILBANK MODEL NO. U3358-O-KK, OR APPROVED EQUAL)
B. 480-VOLT, 1-PHASE, 3-WIRE PANELBOARD INTERIOR
C. 100 AMP*, 2-POLE MAIN DISCONNECT (CIRCUIT BREAKER TYPE)
D. 60 AMP, 4-POLE ELECTRICALLY HELD CONTACTOR, 120V COIL
E. 480V TO 120V TRANSFORMER TO PROVIDE FOR THE CONTROL VOLTAGE, 1 KVA
F. SWIVEL MOUNTING PHOTO EYE
G. ON/OFF/AUTO SWITCH
H. PULL-CHAIN INTERIOR CABINET LIGHT WITH 60-WATT BULB AND STANDARD G.F.I. OUTLET
I. TWO 3-INCH PVC CABLE DUCTS AND ONE 1-INCH PVC GROUND WIRE DUCT
J. #4 AWG WIRING
K. TWO (2) GROUND RODS WITH NO. 4 WIRE, SPACED AT LEAST 6' APART
L. 40 AMP CIRCUIT BREAKERS

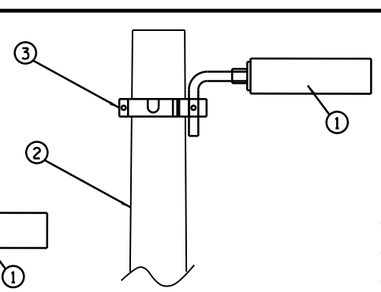
*FOR LARGER SYSTEMS AND DEPENDING ON CALCULATED PROPOSED LOAD THIS MAY NEED TO BE 200 AMP.

City of Oak Creek
Department of Public Works

Drawn By: M. SIMMONS	Scale: NONE
Appv. By: W. ST. JOHN	1/9/04
STREET LIGHTING - CONTROL CABINET & BASE	SL-2

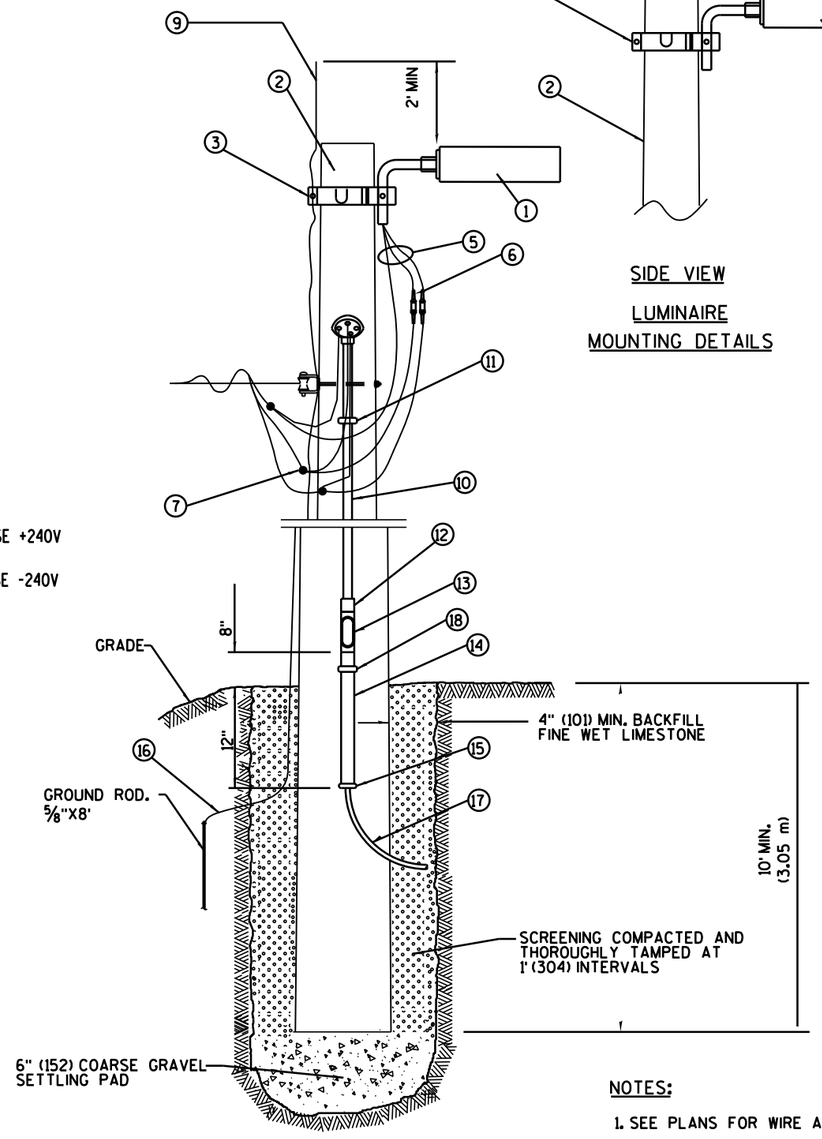


LIGHT POLE HANDHOLE WIRING DETAILS



SIDE VIEW

LUMINAIRE MOUNTING DETAILS



LIGHT POLE WITH CIRCUIT ROUTED UNDERGROUND

1. LUMINAIRE, SIZE AND TYPE AS NOTED.
2. WOOD LIGHT POLE, CLASS 4 (TYP.).
3. LUMINAIRE MOUNTING BRACKET.
4. NOTE USED
5. 3#10 XLP-USE CABLE.
6. WATERPROOF DOUBLE POLE FUSE HOLDER WITH 5AMP FUSES
7. WATERPROOF INSULATION PIERCING TAP CONNECTOR.
8. NOT USED
9. AIR TERMINAL.
10. 1" RIGID STEEL CONDUIT.
11. MALLEABLE IRON CONDUIT CLAMPS, 5' INTERVALS.
12. THREADED CONDUIT REDUCER.
13. "C" CONDULET, THREADED.
14. 2" RIGID STEEL CONDUIT.
15. CONDUIT BUSHING.
16. #2 BARE COPPER GROUND WIRE TO 8 FT. GROUND ROD.
17. UNIT DUCT.
18. MALLEABLE IRON CONDUIT CLAMP BELOW "C" CONDULET.

NOTES:

1. SEE PLANS FOR WIRE AND UNIT DUCT SIZES AND POLE LOCATIONS.
2. PROVIDE GUY WIRES WITH STRAIN INSULATORS AND ANCHORS, AS NEEDED, INCIDENTAL TO OVERHEAD CABLE INSTALLATION.

TEMPORARY WOOD LIGHTING UNITS 50-FT MOUNTING HEIGHT

N.T.S.

LIGHTING REMOVAL LEGEND

- PULL BOX
- CONDUIT, UNDERGROUND
- CID (CABLE IN DUCT) UNDERGROUND
- CONDUIT STUBOUT
- LOCAL MUNI. POLE
- LOCAL MUNI. LOAD CENTER

LOAD CENTER "8"

REMOVE 3 #4

REMOVE 3 #4

8A3 REMOVE NOTE 1

8A4 REMOVE NOTE 1

REMOVE 3 #4

7B22 REMOVE NOTE 1

REMOVE 3 #4

7B23 REMOVE NOTE 1

8C4 REMOVE NOTE 1

8C3 REMOVE NOTE 1

8C1 REMOVE NOTE 1

176+00 178+00 180+00 182+00 184+00 186+00 188+00 190+00

100+00 102+00 104+00 106+00

STH 38/HOWELL AVENUE

RYAN ROAD

REMOVE 3 #4 THROUGH 2" CONDUIT

REMOVE 3 #4

REMOVE 3 #4

8B1 REMOVE NOTE 1

REMOVE 3 #4

8B3 REMOVE NOTE 1

7B21 REMOVE NOTE 1

8B2 REMOVE NOTE 1

8B4 REMOVE NOTE 1

REMOVE 3 #4 THROUGH 2" CONDUIT

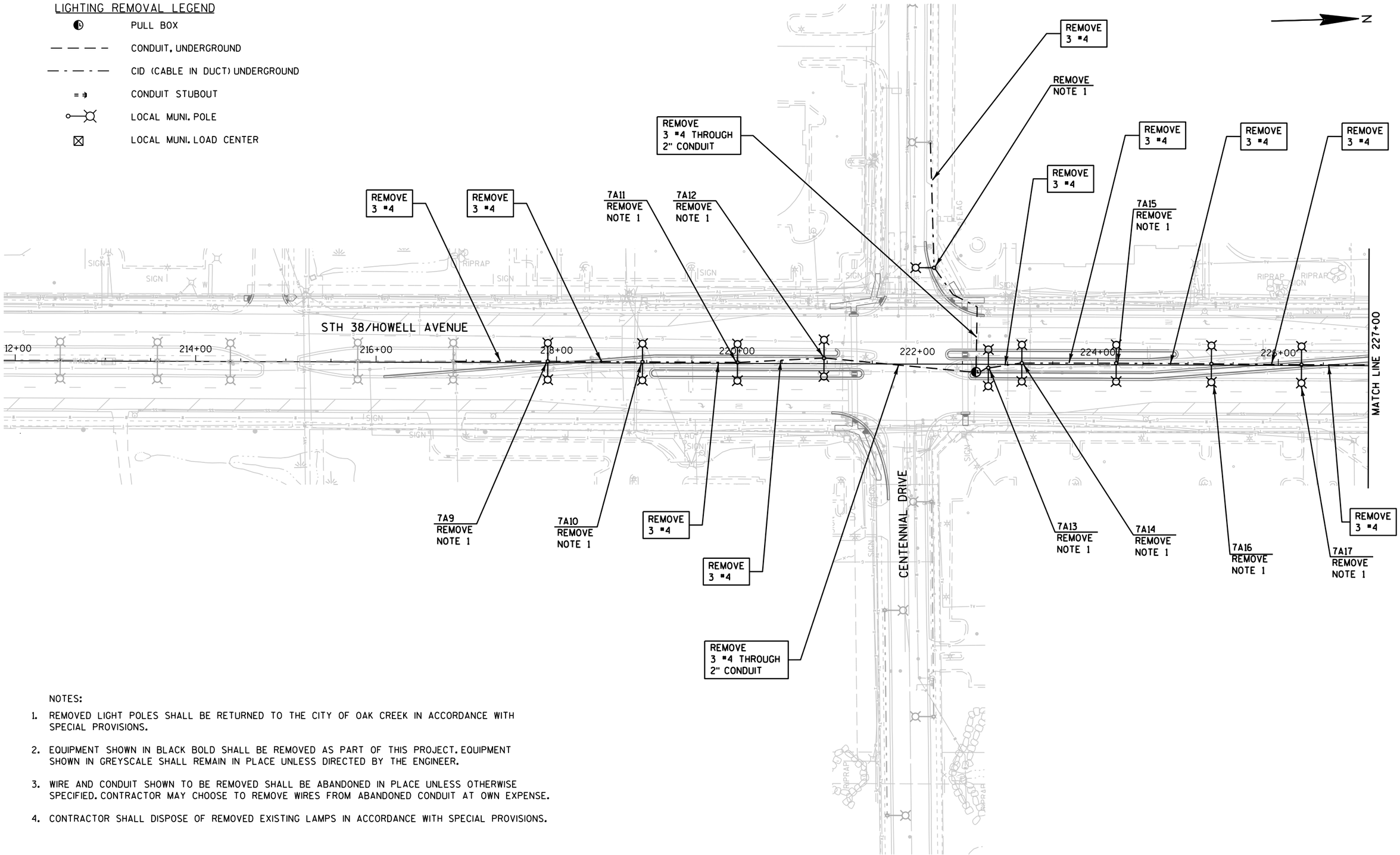
NOTES:

1. REMOVED LIGHT POLES SHALL BE RETURNED TO THE CITY OF OAK CREEK IN ACCORDANCE WITH SPECIAL PROVISIONS.
2. EQUIPMENT SHOWN IN BLACK BOLD SHALL BE REMOVED AS PART OF THIS PROJECT. EQUIPMENT SHOWN IN GREYSCALE SHALL REMAIN IN PLACE UNLESS DIRECTED BY THE ENGINEER.
3. WIRE AND CONDUIT SHOWN TO BE REMOVED SHALL BE ABANDONED IN PLACE UNLESS OTHERWISE SPECIFIED. CONTRACTOR MAY CHOOSE TO REMOVE WIRES FROM ABANDONED CONDUIT AT OWN EXPENSE.
4. CONTRACTOR SHALL DISPOSE OF REMOVED EXISTING LAMPS IN ACCORDANCE WITH SPECIAL PROVISIONS.

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	LIGHTING PLAN - REMOVAL	SHEET 271	E

LIGHTING REMOVAL LEGEND

- PULL BOX
- CONDUIT, UNDERGROUND
- CID (CABLE IN DUCT) UNDERGROUND
- CONDUIT STUBOUT
- LOCAL MUNI. POLE
- LOCAL MUNI. LOAD CENTER



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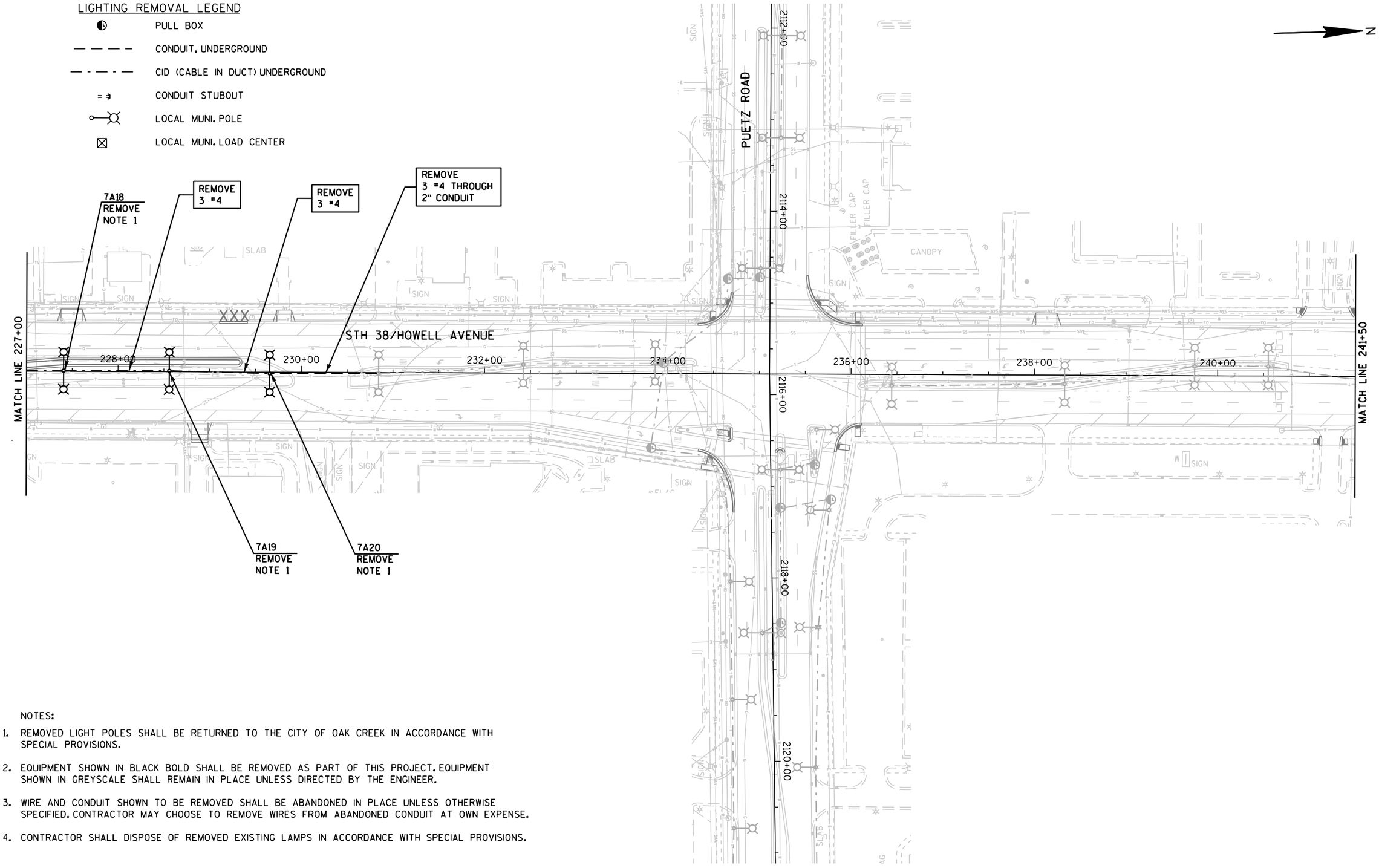
4. CONTRACTOR SHALL DISPOSE OF REMOVED EXISTING LAMPS IN ACCORDANCE WITH SPECIAL PROVISIONS.

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	LIGHTING PLAN - REMOVAL	SHEET 272	E

LIGHTING REMOVAL LEGEND

- PULL BOX
- CONDUIT, UNDERGROUND
- CID (CABLE IN DUCT) UNDERGROUND
- CONDUIT STUBOUT
- LOCAL MUNI. POLE
- LOCAL MUNI. LOAD CENTER



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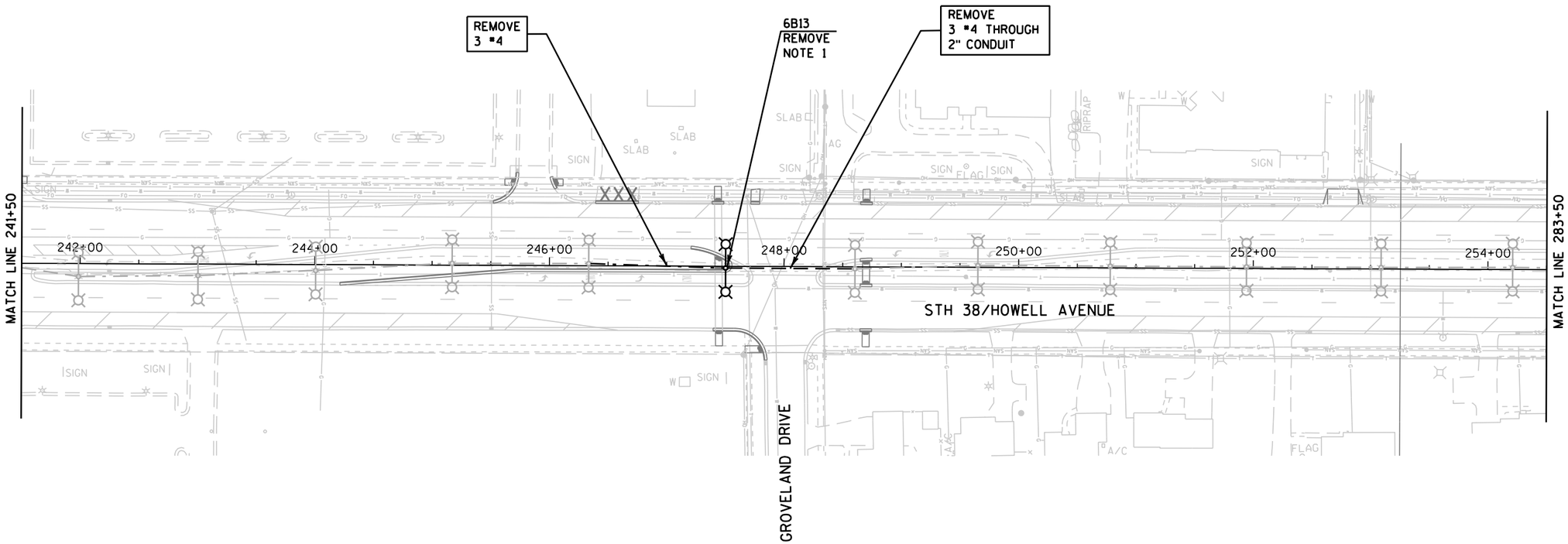
LIGHTING REMOVAL LEGEND

- PULL BOX
- CONDUIT, UNDERGROUND
- CID (CABLE IN DUCT) UNDERGROUND
- CONDUIT STUBOUT
- LOCAL MUNI. POLE
- LOCAL MUNI. LOAD CENTER



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LIGHTING REMOVAL LEGEND

- PULL BOX
- CONDUIT, UNDERGROUND
- CID (CABLE IN DUCT) UNDERGROUND
- CONDUIT STUBOUT
- LOCAL MUNI. POLE
- LOCAL MUNI. LOAD CENTER

REMOVE 3 #4

REMOVE 3 #4 THROUGH 2" CONDUIT

6A22 REMOVE NOTE 1

REMOVE 3 #4

LOAD CENTER "6" NOTE 5

REMOVE 3 #4

6A2 REMOVE NOTE 1

6A4 REMOVE NOTE 1

REMOVE 3 #4

REMOVE 3 #4 THROUGH 2" CONDUIT

6B2 REMOVE NOTE 1

REMOVE 3 #4

STH 38/HOWELL AVENUE

MATCH LINE 283+50

MATCH LINE 268+50

256+00 258+00 260+00 262+00 264+00 266+00 268+00

FOREST HILL AVENUE

OAKFIELD DRIVE

100+00 102+00 104+00

6B4 REMOVE NOTE 1

6B3 REMOVE NOTE 1

6B1 REMOVE NOTE 1

6A1 REMOVE NOTE 1

6A3 REMOVE NOTE 1

REMOVE 3 #4

REMOVE 3 #4

REMOVE 3 #4

REMOVE 3 #4 THROUGH 2" CONDUIT

NOTES:

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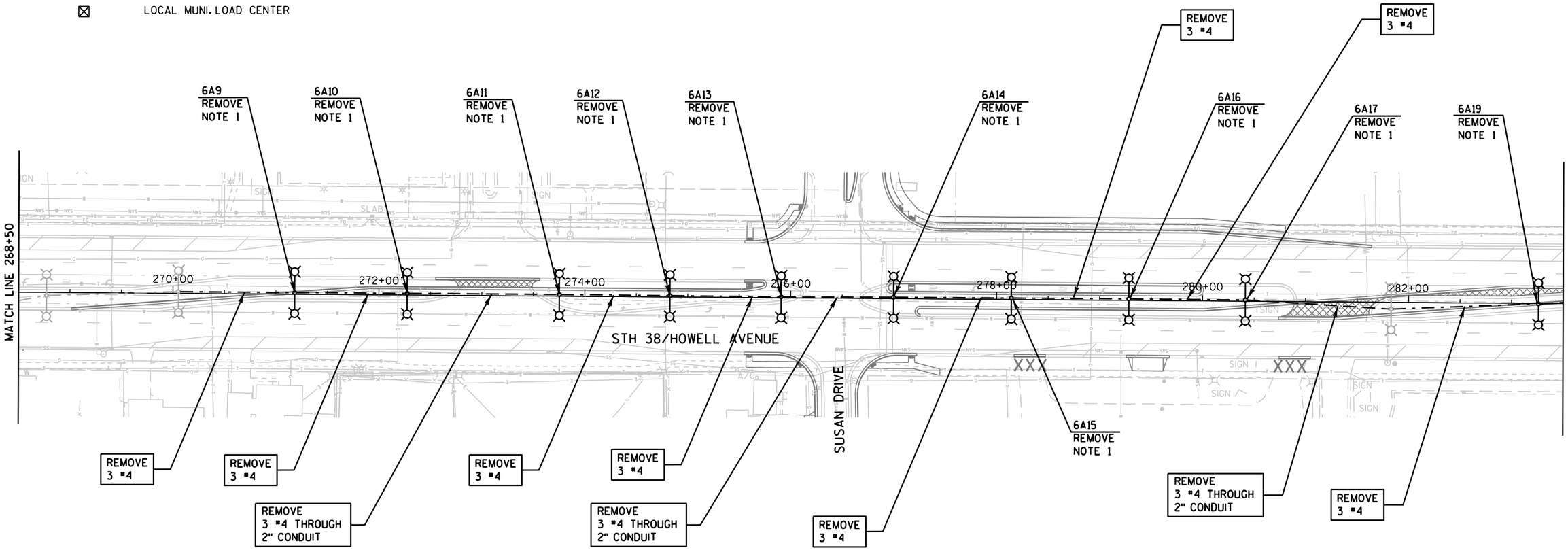
4. CONTRACTOR SHALL DISPOSE OF REMOVED EXISTING LAMPS IN ACCORDANCE WITH SPECIAL PROVISIONS.
5. REMOVED LIGHTING LOAD CENTER SHALL BE RETURNED TO THE CITY OF OAK CREEK IN ACCORDANCE WITH SPECIAL PROVISIONS.

LIGHTING REMOVAL LEGEND

- PULL BOX
- CONDUIT, UNDERGROUND
- CID (CABLE IN DUCT) UNDERGROUND
- CONDUIT STUBOUT
- LOCAL MUNI. POLE
- LOCAL MUNI. LOAD CENTER



NOTES:

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2. EQUIPMENT SHOWN IN BLACK BOLD SHALL BE REMOVED AS PART OF THIS PROJECT. EQUIPMENT SHOWN IN GREYSCALE SHALL REMAIN IN PLACE UNLESS DIRECTED BY THE ENGINEER.
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4. CONTRACTOR SHALL DISPOSE OF REMOVED EXISTING LAMPS IN ACCORDANCE WITH SPECIAL PROVISIONS.

LIGHTING REMOVAL LEGEND

- PULL BOX
- CONDUIT, UNDERGROUND
- CID (CABLE IN DUCT) UNDERGROUND
- CONDUIT STUBOUT
- LOCAL MUNI. POLE
- LOCAL MUNI. LOAD CENTER

N

MATCH LINE 283+50

STH 38/HOWELL AVENUE

DREXEL AVENUE

3112+00 3114+00 3116+00 3118+00 3120+00

284+00 286+00 288+00 290+00 292+00 294+00 296+00 298+00

REMOVE 3 #4

REMOVE NOTE 1

6A21 REMOVE NOTE 1

5B21 REMOVE NOTE 1

REMOVE 3 #4 THROUGH 2" CONDUIT

5B20 REMOVE NOTE 1

5B18 REMOVE NOTE 1

5B17 REMOVE NOTE 1

5B16 REMOVE NOTE 1

5B15 REMOVE NOTE 1

5B12 REMOVE NOTE 1

5B11 REMOVE NOTE 1

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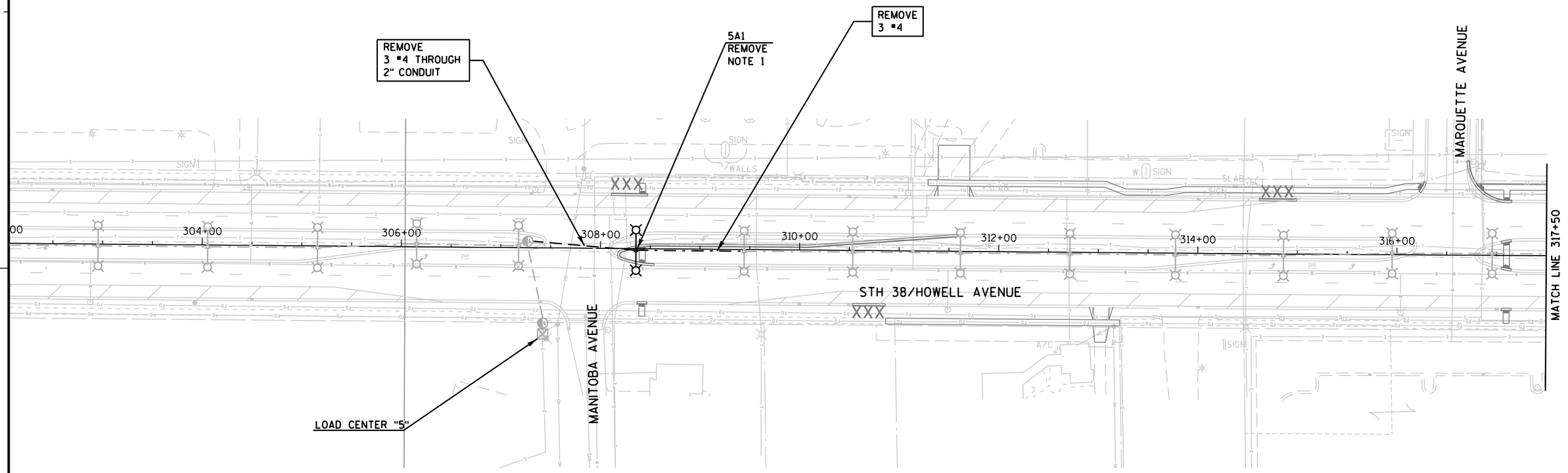
PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	LIGHTING PLAN - REMOVAL	SHEET 277	E

LIGHTING REMOVAL LEGEND

- PULL BOX
- CONDUIT, UNDERGROUND
- CID (CABLE IN DUCT) UNDERGROUND
- CONDUIT STUBOUT
- LOCAL MUNI. POLE
- LOCAL MUNI. LOAD CENTER



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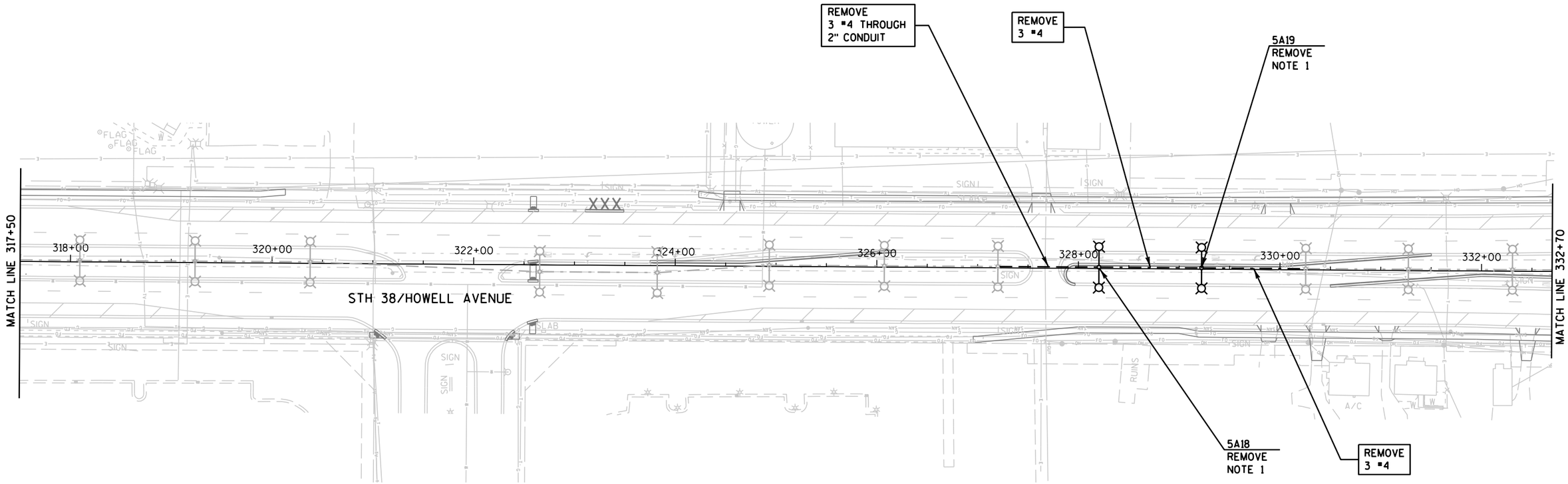
LIGHTING REMOVAL LEGEND

- PULL BOX
- CONDUIT, UNDERGROUND
- CID (CABLE IN DUCT) UNDERGROUND
- CONDUIT STUBOUT
- LOCAL MUNI. POLE
- LOCAL MUNI. LOAD CENTER



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LIGHTING REMOVAL LEGEND

- PULL BOX
- CONDUIT, UNDERGROUND
- CID (CABLE IN DUCT) UNDERGROUND
- CONDUIT STUBOUT
- LOCAL MUNI. POLE
- LOCAL MUNI. LOAD CENTER

RAWSON AVENUE

STH 38/HOWELL AVENUE

MATCH LINE 332+70

334+00 336+00 338+00 340+00 342+00 344+00 346+00 348+00

4112+00 4114+00 4116+00 4118+00 4120+00

REMOVE 3 #4

4B25 REMOVE NOTE 1

REMOVE 3 #4 THROUGH 2" CONDUIT

REMOVE 3 #4

4B26 REMOVE NOTE 1

REMOVE 3 #4

3B21 REMOVE NOTE 1

3B20 REMOVE NOTE 1

REMOVE 3 #4

5A28 REMOVE NOTE 1

5A29 REMOVE NOTE 1

PC12 REMOVE NOTE 1

PC13 REMOVE NOTE 1

NOTES:

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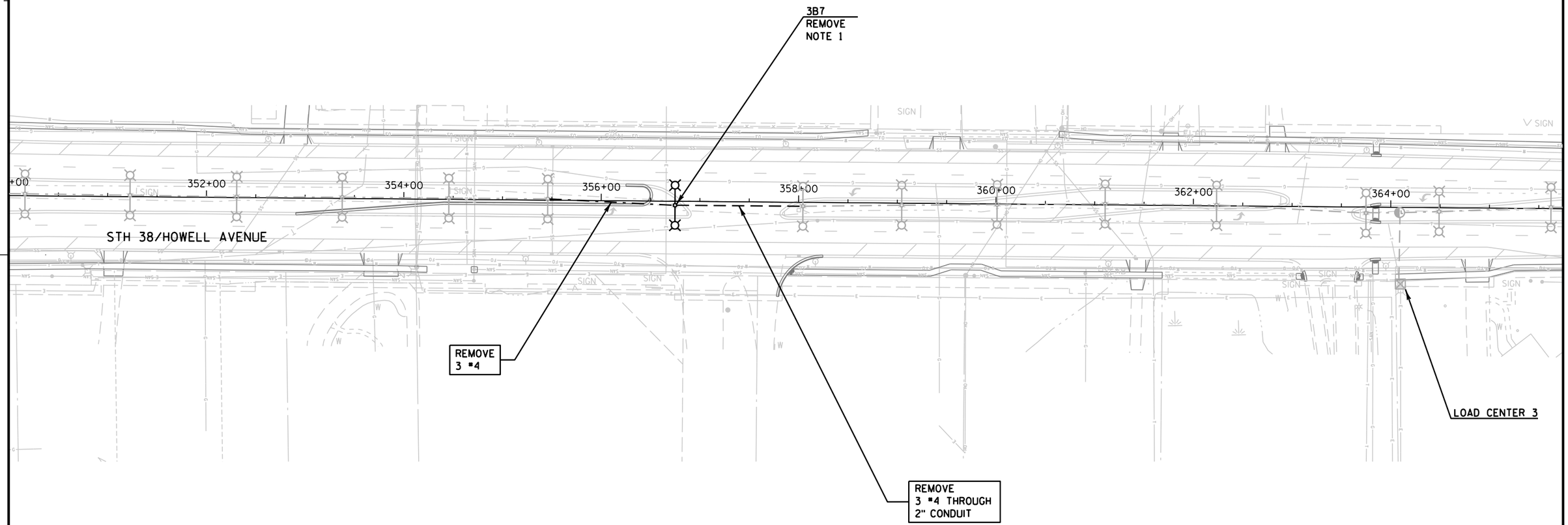
4. CONTRACTOR SHALL DISPOSE OF REMOVED EXISTING LAMPS IN ACCORDANCE WITH SPECIAL PROVISIONS.
5. THE EXISTING WIRES AND CONDUITS SHALL BE REMOVED AFTER PROPOSED WIRES AND CONDUIT ARE INSTALLED ON SOUTHBOUND MEDIAN PARAPET AND READY TO CONNECT AS SHOWN ON FINAL LIGHTING PLANS

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	LIGHTING PLAN - REMOVAL	SHEET 280	E

LIGHTING REMOVAL LEGEND

- PULL BOX
- CONDUIT, UNDERGROUND
- CID (CABLE IN DUCT) UNDERGROUND
- CONDUIT STUBOUT
- LOCAL MUNI. POLE
- LOCAL MUNI. LOAD CENTER

N



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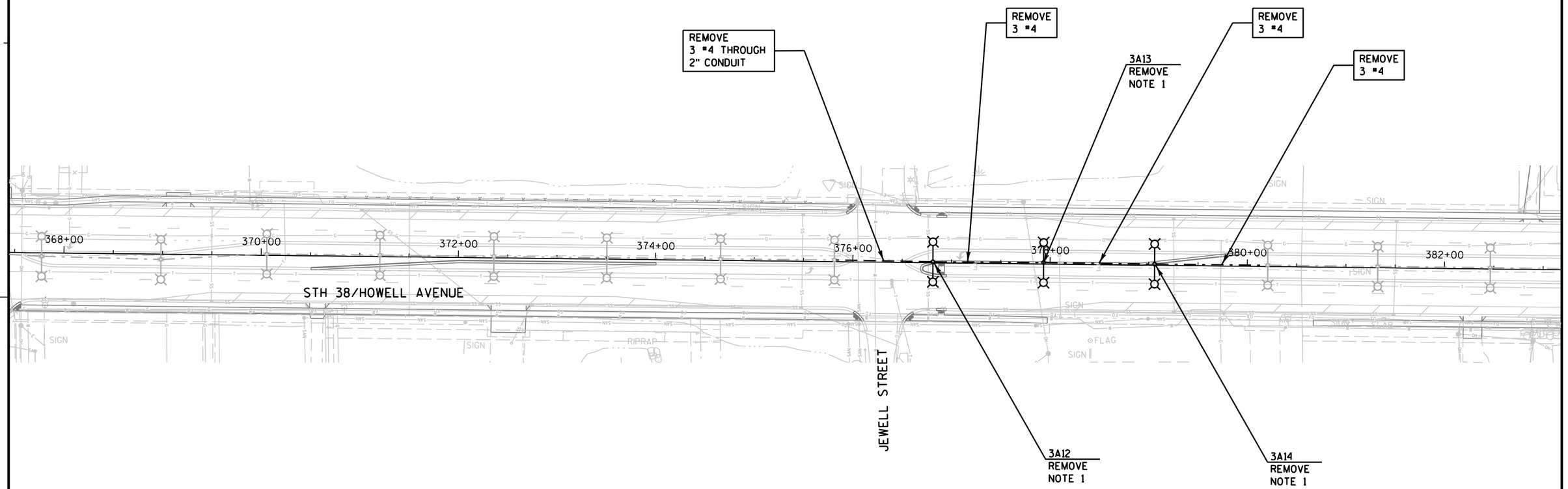
LIGHTING REMOVAL LEGEND

- PULL BOX
- CONDUIT, UNDERGROUND
- CID (CABLE IN DUCT) UNDERGROUND
- CONDUIT STUBOUT
- LOCAL MUNI. POLE
- LOCAL MUNI. LOAD CENTER



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4. CONTRACTOR SHALL DISPOSE OF REMOVED EXISTING LAMPS IN ACCORDANCE WITH SPECIAL PROVISIONS.

2

2

LIGHTING REMOVAL LEGEND

- PULL BOX
- CONDUIT, UNDERGROUND
- CID (CABLE IN DUCT) UNDERGROUND
- CONDUIT STUBOUT
- LOCAL MUNI. POLE
- LOCAL MUNI. LOAD CENTER

N

REMOVE 3 #4

3A24 REMOVE NOTE 1

5114+00

5116+00

5118+00

5120+00

5122+00

COLLEGE AVENUE

UNCAS AVENUE

STH 38/HOWELL AVENUE

390+00

392+00

394+00

396+00

398+00

400+00

402+00

404+00

NOTES:

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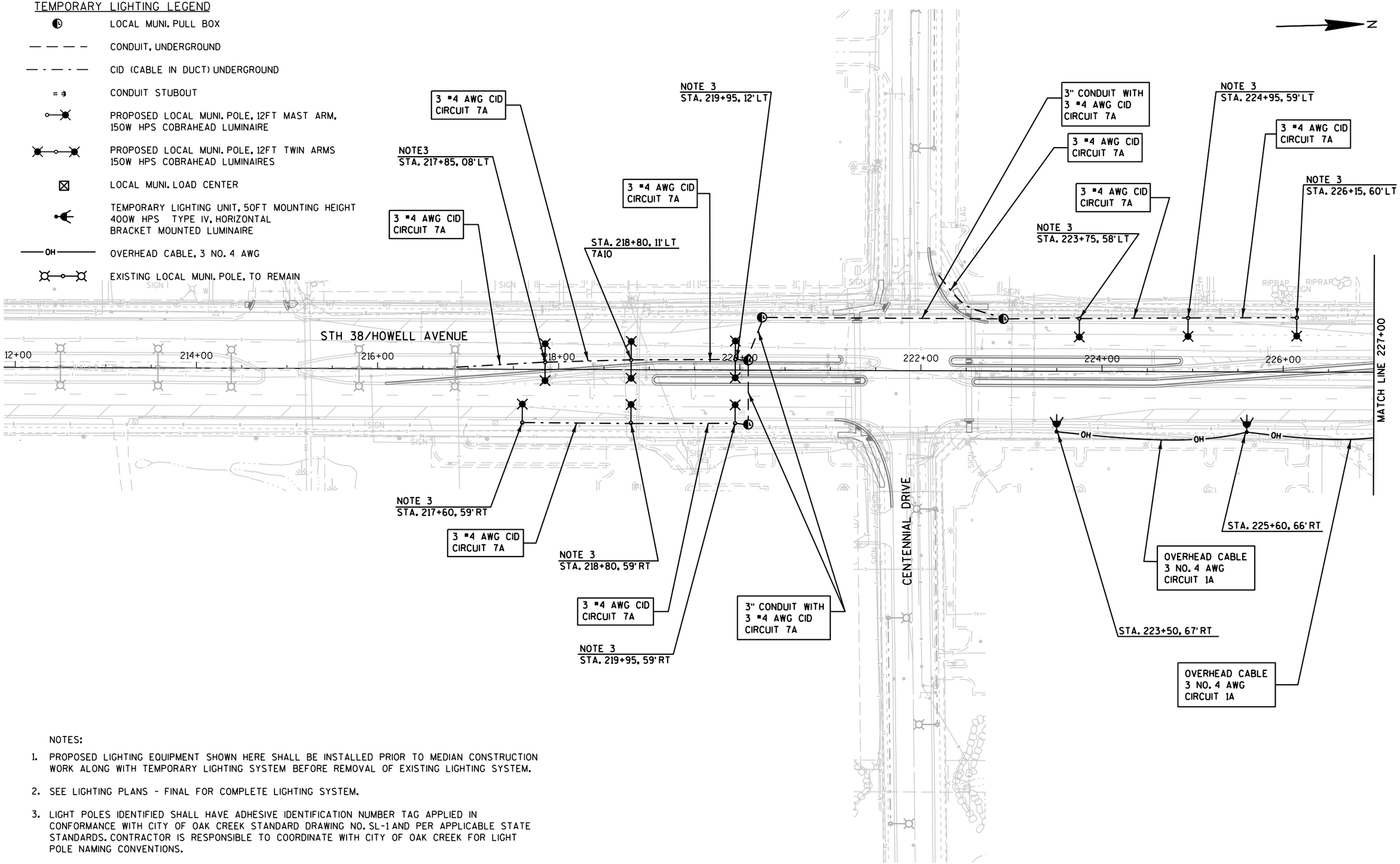
PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	LIGHTING PLAN - REMOVAL	SHEET 283	E

TEMPORARY LIGHTING LEGEND

- LOCAL MUNI. PULL BOX
- CONDUIT, UNDERGROUND
- CID (CABLE IN DUCT) UNDERGROUND
- CONDUIT STUBOUT
- PROPOSED LOCAL MUNI. POLE, 12FT MAST ARM, 150W HPS COBRAHEAD LUMINAIRE
- PROPOSED LOCAL MUNI. POLE, 12FT TWIN ARMS 150W HPS COBRAHEAD LUMINAIRES
- LOCAL MUNI. LOAD CENTER
- TEMPORARY LIGHTING UNIT, 50FT MOUNTING HEIGHT 400W HPS TYPE IV, HORIZONTAL BRACKET MOUNTED LUMINAIRE
- OH — OVERHEAD CABLE, 3 NO. 4 AWG
- EXISTING LOCAL MUNI. POLE, TO REMAIN



NOTES:

1. PROPOSED LIGHTING EQUIPMENT SHOWN HERE SHALL BE INSTALLED PRIOR TO MEDIAN CONSTRUCTION WORK ALONG WITH TEMPORARY LIGHTING SYSTEM BEFORE REMOVAL OF EXISTING LIGHTING SYSTEM.
2. SEE LIGHTING PLANS - FINAL FOR COMPLETE LIGHTING SYSTEM.
3. LIGHT POLES IDENTIFIED SHALL HAVE ADHESIVE IDENTIFICATION NUMBER TAG APPLIED IN CONFORMANCE WITH CITY OF OAK CREEK STANDARD DRAWING NO. SL-1 AND PER APPLICABLE STATE STANDARDS. CONTRACTOR IS RESPONSIBLE TO COORDINATE WITH CITY OF OAK CREEK FOR LIGHT POLE NAMING CONVENTIONS.

2

N

PUETZ ROAD

STH 38/HOWELL AVENUE

MATCH LINE 227+00

228+00 230+00 232+00 234+00 236+00 238+00 240+00

2112+00 2114+00 2116+00 2118+00 2120+00

CANOPY

FILLER CAP FILLER CAP

OVERHEAD CABLE
3 NO. 4 AWG
CIRCUIT 1A

3 #4 AWG CID
CIRCUIT 1A

OH

STA. 227+70, 66' RT

OVERHEAD CABLE
3 NO. 4 AWG
CIRCUIT 1A

NOTE 3
STA. 229+80, 60' RT

3 #4 AWG CID
CIRCUIT 1A

NOTE 3
STA. 231+00, 60' RT

3 #4 AWG CID
CIRCUIT 1A

NOTE 3
STA. 232+20, 60' RT

NOTE 3
STA. 233+40, 73' RT

TEMPORARY LIGHTING LEGEND

- LOCAL MUNI. PULL BOX
- CONDUIT, UNDERGROUND
- CID (CABLE IN DUCT) UNDERGROUND
- CONDUIT STUBOUT
- PROPOSED LOCAL MUNI. POLE, 12FT MAST ARM, 150W HPS COBRAHEAD LUMINAIRE
- PROPOSED LOCAL MUNI. POLE, 12FT TWIN ARMS 150W HPS COBRAHEAD LUMINAIRES
- LOCAL MUNI. LOAD CENTER
- TEMPORARY LIGHTING UNIT, 50FT MOUNTING HEIGHT 400W HPS MEDIUM NON-CUTOFF TYPE IV TENON MOUNTED LUMINAIRE
- OH — OVERHEAD CABLE, 3 NO. 4 AWG
- EXISTING LOCAL MUNI. POLE, TO REMAIN

NOTES:

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PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	LIGHTING PLAN - TEMPORARY	SHEET 285	E

LIGHTING INSTALLATION LEGEND

- LOCAL MUNI. PULL BOX
- CONDUIT, UNDERGROUND
- CID (CABLE IN DUCT) UNDERGROUND
- CONDUIT STUBOUT
- LOCAL MUNI. POLE, 12FT MAST ARM, 150W HPS COBRAHEAD LUMINAIRE
- LOCAL MUNI. POLE, 12FT TWIN ARMS 150W HPS COBRAHEAD LUMINAIRES
- LOCAL MUNI. LOAD CENTER
- EXISTING LIGHT POLE TO REMAIN IN PLACE

LOAD CENTER "8"

3" CONDUIT WITH (2) 3 #4 AWG CID CIRCUIT 8B & 8C

TRAFFIC/LIGHT COMBINATION INTERSECTION LIGHTING PART OF TRAFFIC SIGNAL PLANS; WISDOT OWNED

3 #4 AWG CID CIRCUIT 8C

3 #4 AWG CID CIRCUIT 8C

3 #4 AWG CID CIRCUIT 8C

3" CONDUIT WITH 3 #4 AWG CID CIRCUIT 8C

NOTE 3
STA. 176+84, 12' LT

NOTE 3
STA. 178+36, 12' LT

NOTE 3
STA. 177+80, 59' RT

3 #4 AWG CID CIRCUIT 8C

NOTE3
STA. 179+00, 59' RT

3 #4 AWG CID CIRCUIT 8C

NOTE 3
STA. 180+20, 59' RT

3 #4 AWG CID CIRCUIT 8C

STH 38/HOWELL AVENUE

LPB801

RYAN ROAD

NOTE 3
STA. 184+40, 83' LT

3 #4 AWG CID CIRCUIT 7B

3" CONDUIT WITH 3 #4 AWG CID CIRCUIT 7B

3 #4 AWG CID CIRCUIT 7B

NOTE 3
STA. 185+70, 83' LT

3 #4 AWG CID CIRCUIT 7B

NOTE 3
STA. 186+90, 60' LT

LPB701

3 #4 AWG CID CIRCUIT 8B

3 #4 AWG CID CIRCUIT 8B

NOTE 3
STA. 1104+40, 77' LT

3 #4 AWG CID CIRCUIT 8B

NOTE 3
STA. 11105+60, 77' LT

3 #4 AWG CID CIRCUIT 8B

NOTE 3
STA. 1106+80, 61' LT

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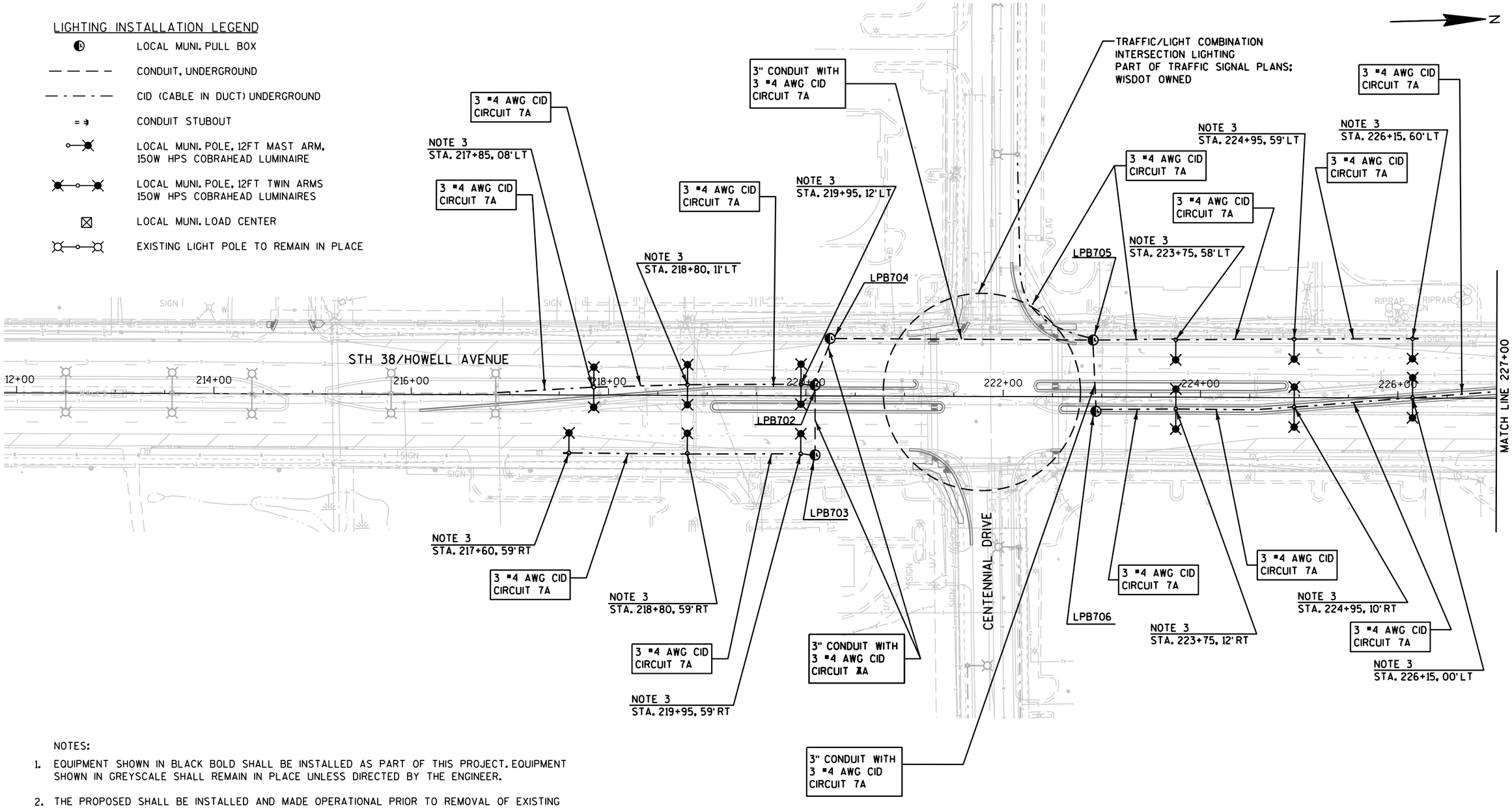
PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	LIGHTING PLAN - FINAL	SHEET 286	E

2

LIGHTING INSTALLATION LEGEND

- LOCAL MUNI. PULL BOX
- CONDUIT, UNDERGROUND
- CID (CABLE IN DUCT) UNDERGROUND
- CONDUIT STUBOUT
- LOCAL MUNI. POLE, 12FT MAST ARM, 150W HPS COBRAHEAD LUMINAIRE
- LOCAL MUNI. POLE, 12FT TWIN ARMS 150W HPS COBRAHEAD LUMINAIRES
- LOCAL MUNI. LOAD CENTER
- EXISTING LIGHT POLE TO REMAIN IN PLACE



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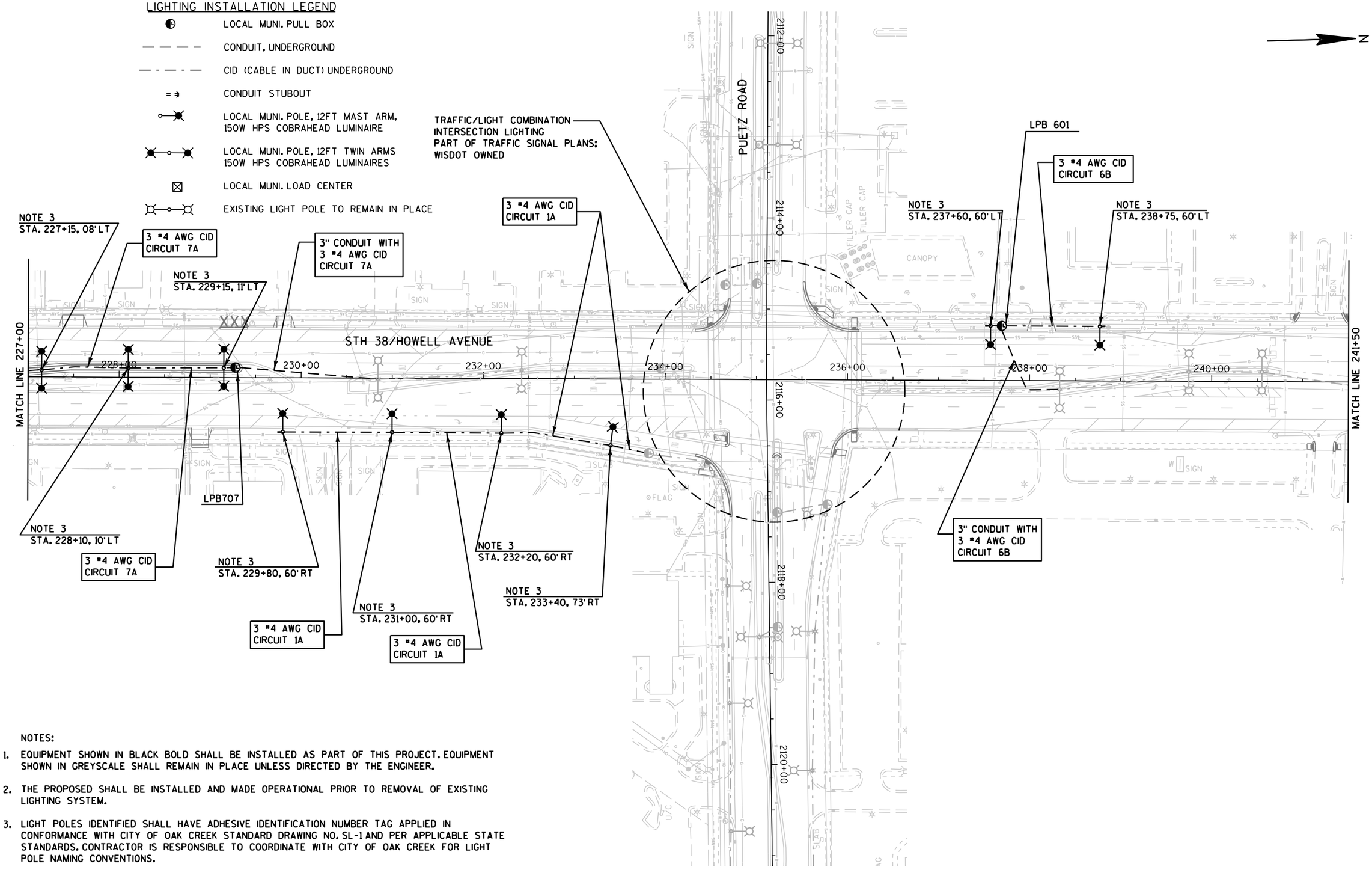
LIGHTING INSTALLATION LEGEND

- LOCAL MUNI. PULL BOX
- CONDUIT, UNDERGROUND
- CID (CABLE IN DUCT) UNDERGROUND
- CONDUIT STUBOUT
- LOCAL MUNI. POLE, 12FT MAST ARM, 150W HPS COBRAHEAD LUMINAIRE
- LOCAL MUNI. POLE, 12FT TWIN ARMS 150W HPS COBRAHEAD LUMINAIRES
- LOCAL MUNI. LOAD CENTER
- EXISTING LIGHT POLE TO REMAIN IN PLACE



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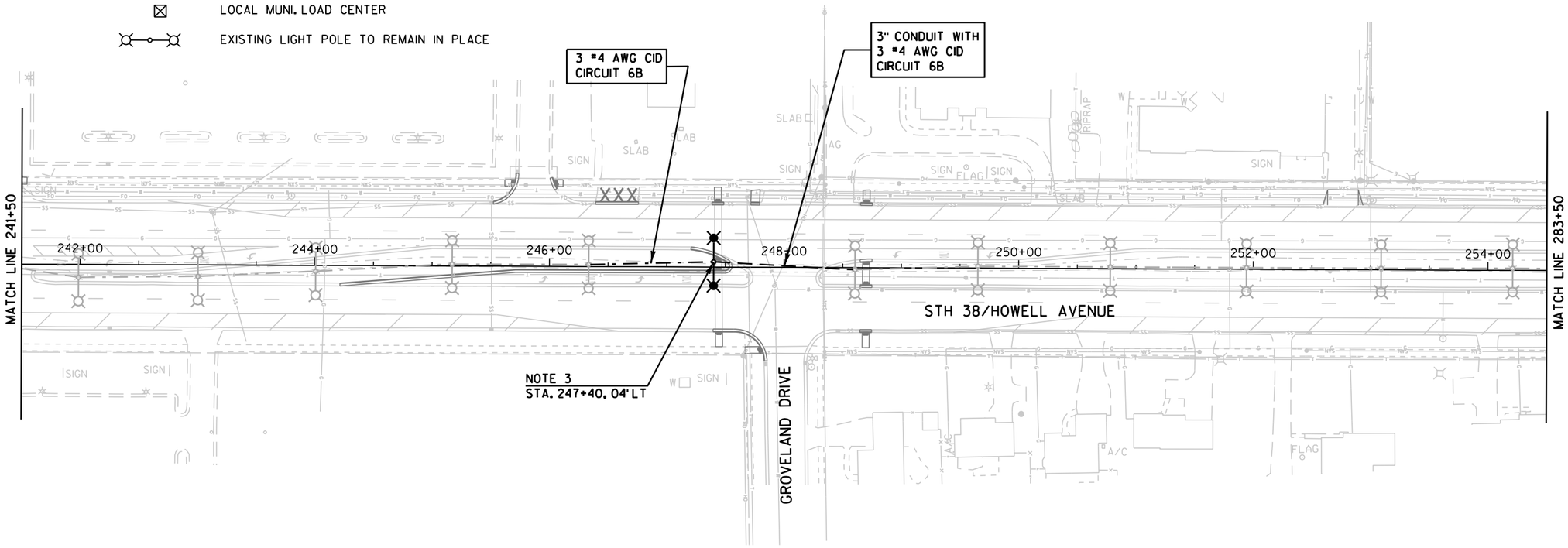
LIGHTING INSTALLATION LEGEND

- LOCAL MUNI. PULL BOX
- CONDUIT, UNDERGROUND
- CID (CABLE IN DUCT) UNDERGROUND
- CONDUIT STUBOUT
- LOCAL MUNI. POLE, 12FT MAST ARM, 150W HPS COBRAHEAD LUMINAIRE
- LOCAL MUNI. POLE, 12FT TWIN ARMS 150W HPS COBRAHEAD LUMINAIRES
- LOCAL MUNI. LOAD CENTER
- EXISTING LIGHT POLE TO REMAIN IN PLACE



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LIGHTING INSTALLATION LEGEND

- LOCAL MUNI. PULL BOX
- CONDUIT, UNDERGROUND
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- LOCAL MUNI. POLE, 12FT MAST ARM, 150W HPS COBRAHEAD LUMINAIRE
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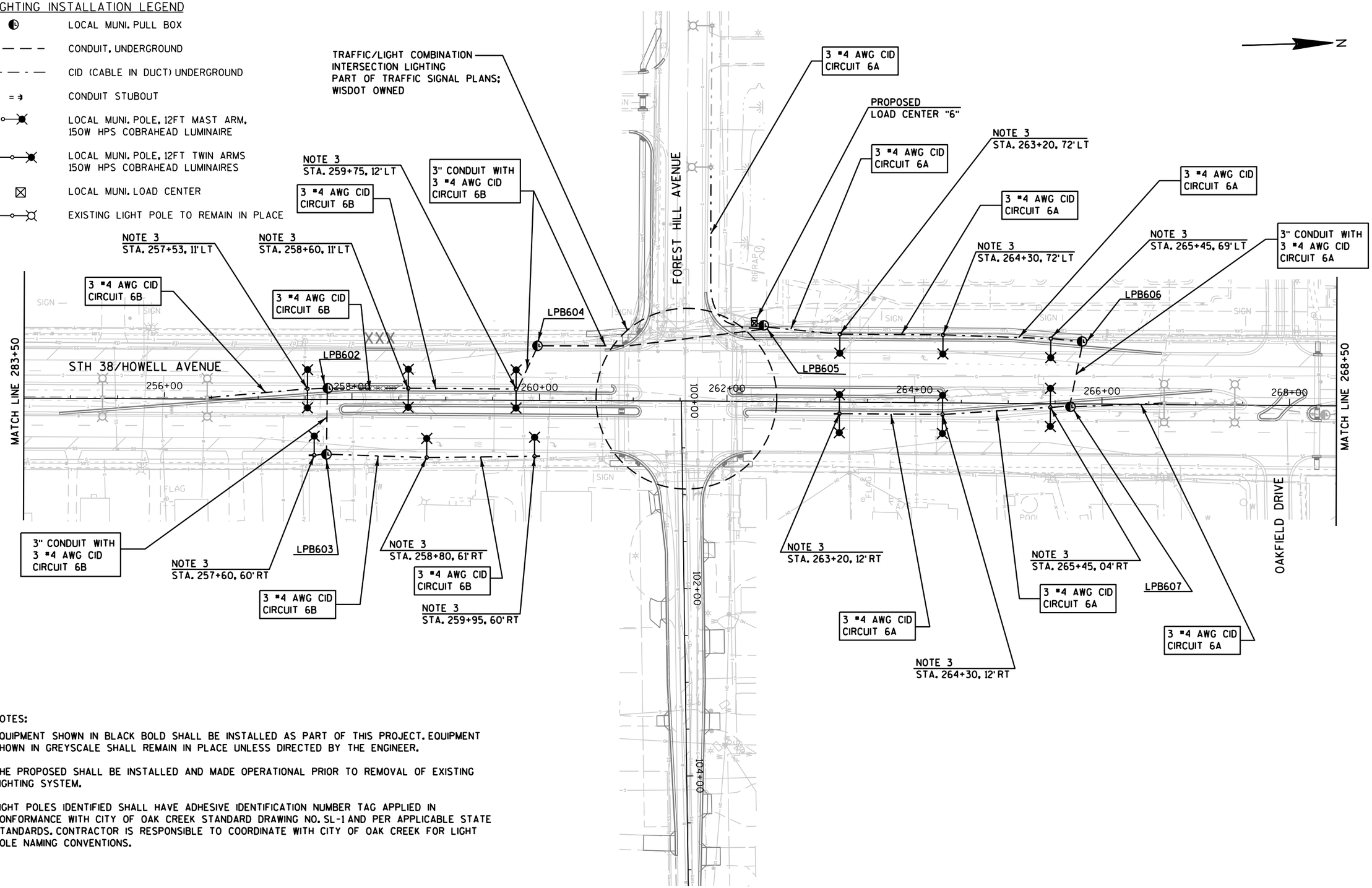
- LOCAL MUNI. LOAD CENTER
- EXISTING LIGHT POLE TO REMAIN IN PLACE



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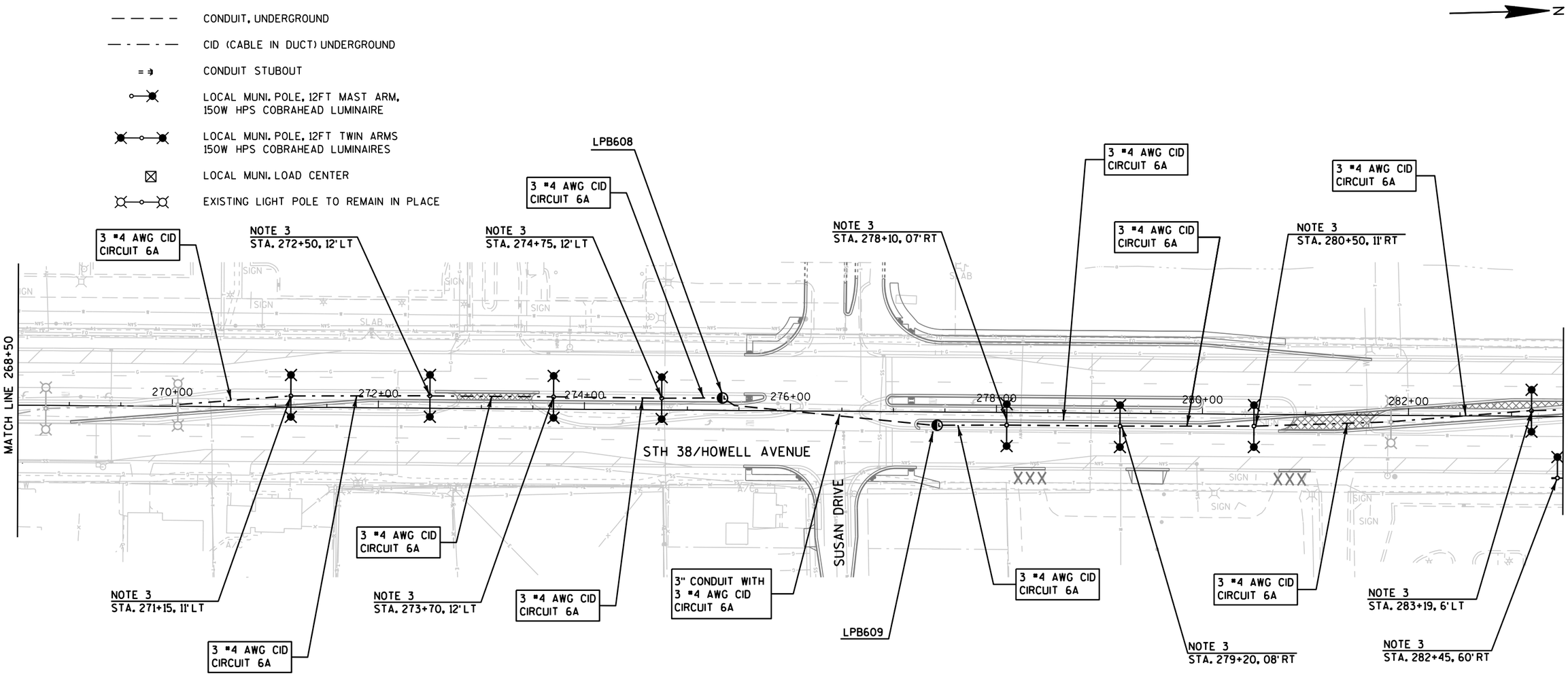
LIGHTING INSTALLATION LEGEND

- LOCAL MUNI. PULL BOX
- CONDUIT, UNDERGROUND
- CID (CABLE IN DUCT) UNDERGROUND
- CONDUIT STUBOUT
- LOCAL MUNI. POLE, 12FT MAST ARM, 150W HPS COBRAHEAD LUMINAIRE
- LOCAL MUNI. POLE, 12FT TWIN ARMS 150W HPS COBRAHEAD LUMINAIRES
- LOCAL MUNI. LOAD CENTER
- EXISTING LIGHT POLE TO REMAIN IN PLACE



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LIGHTING INSTALLATION LEGEND

- LOCAL MUNI. PULL BOX
- CONDUIT, UNDERGROUND
- CID (CABLE IN DUCT) UNDERGROUND
- CONDUIT STUBOUT
- LOCAL MUNI. POLE, 12FT MAST ARM, 150W HPS COBRAHEAD LUMINAIRE
- LOCAL MUNI. POLE, 12FT TWIN ARMS 150W HPS COBRAHEAD LUMINAIRES
- LOCAL MUNI. LOAD CENTER
- EXISTING LIGHT POLE TO REMAIN IN PLACE

N

MATCH LINE 283+50

TRAFFIC/LIGHT COMBINATION INTERSECTION LIGHTING PART OF TRAFFIC SIGNAL PLANS; WISDOT OWNED

3112+00 3114+00 3116+00 3118+00 3120+00

284+00 286+00 288+00 290+00 292+00 294+00 296+00 298+00

STH 38/HOWELL AVENUE

DREXEL AVENUE

3 #4 AWG CID CIRCUIT 6A

3" CONDUIT WITH 3 #4 AWG CID CIRCUIT 6A

NOTE 3 STA. 284+70, 64' RT

3" CONDUIT WITH 3 #4 AWG CID CIRCUIT 6A

NOTE 3 STA. 286+00, 63' RT

3 #4 AWG CID CIRCUIT 6A

LPB610

3 #4 AWG CID CIRCUIT 5B

NOTE 3 STA. 290+53, 82' LT

3 #4 AWG CID CIRCUIT 5B

NOTE 3 STA. 291+60, 81' LT

3 #4 AWG CID CIRCUIT 5B

NOTE 3 STA. 292+90, 81' LT

NOTE 3 STA. 296+44, 8' LT

NOTE 3 STA. 297+40, 2' LT

3" CONDUIT WITH 3 #4 AWG CID CIRCUIT 6A

3 #4 AWG CID CIRCUIT 5B

NOTE 3 STA. 290+29, 11' RT.

3 #4 AWG CID CIRCUIT 5B

NOTE 3 STA. 291+59, 12' RT

3 #4 AWG CID CIRCUIT 5B

NOTE 3 STA. 292+89, 11' RT.

3 #4 AWG CID CIRCUIT 5B

3 #4 AWG CID CIRCUIT 5B

NOTE 3 STA. 3118+30, 55' LT

3 #4 AWG CID CIRCUIT 5B

NOTE 3 STA. 3119+50, 51' LT

3 #4 AWG CID CIRCUIT 5B

3 #4 AWG CID CIRCUIT 5B

NOTES:

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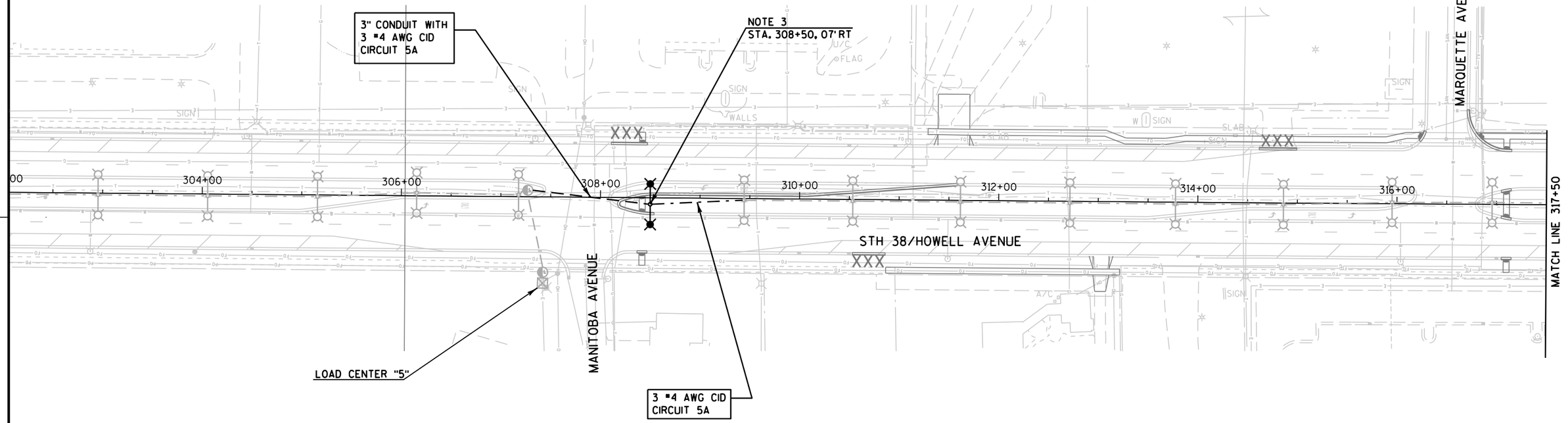
2. THE PROPOSED SHALL BE INSTALLED AND MADE OPERATIONAL PRIOR TO REMOVAL OF EXISTING LIGHTING SYSTEM.
3. LIGHT POLES IDENTIFIED SHALL HAVE ADHESIVE IDENTIFICATION NUMBER TAG APPLIED IN CONFORMANCE WITH CITY OF OAK CREEK STANDARD DRAWING NO. SL-1 AND PER APPLICABLE STATE STANDARDS. CONTRACTOR IS RESPONSIBLE TO COORDINATE WITH CITY OF OAK CREEK FOR LIGHT POLE NAMING CONVENTIONS.

2

LIGHTING INSTALLATION LEGEND

N

- LOCAL MUNI. PULL BOX
- CONDUIT, UNDERGROUND
- CID (CABLE IN DUCT) UNDERGROUND
- CONDUIT STUBOUT
- LOCAL MUNI. POLE, 12FT MAST ARM, 150W HPS COBRAHEAD LUMINAIRE
- LOCAL MUNI. POLE, 12FT TWIN ARMS 150W HPS COBRAHEAD LUMINAIRES
- LOCAL MUNI. LOAD CENTER
- EXISTING LIGHT POLE TO REMAIN IN PLACE



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LIGHTING INSTALLATION LEGEND

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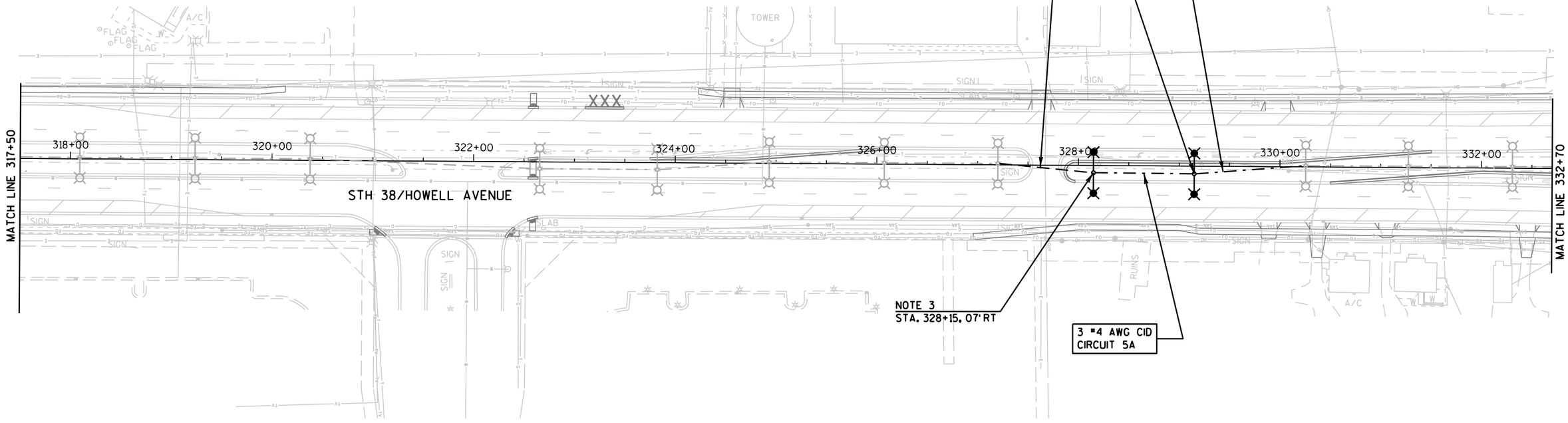
- LOCAL MUNI. LOAD CENTER
- EXISTING LIGHT POLE TO REMAIN IN PLACE

N



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LIGHTING INSTALLATION LEGEND

- LOCAL MUNI. PULL BOX
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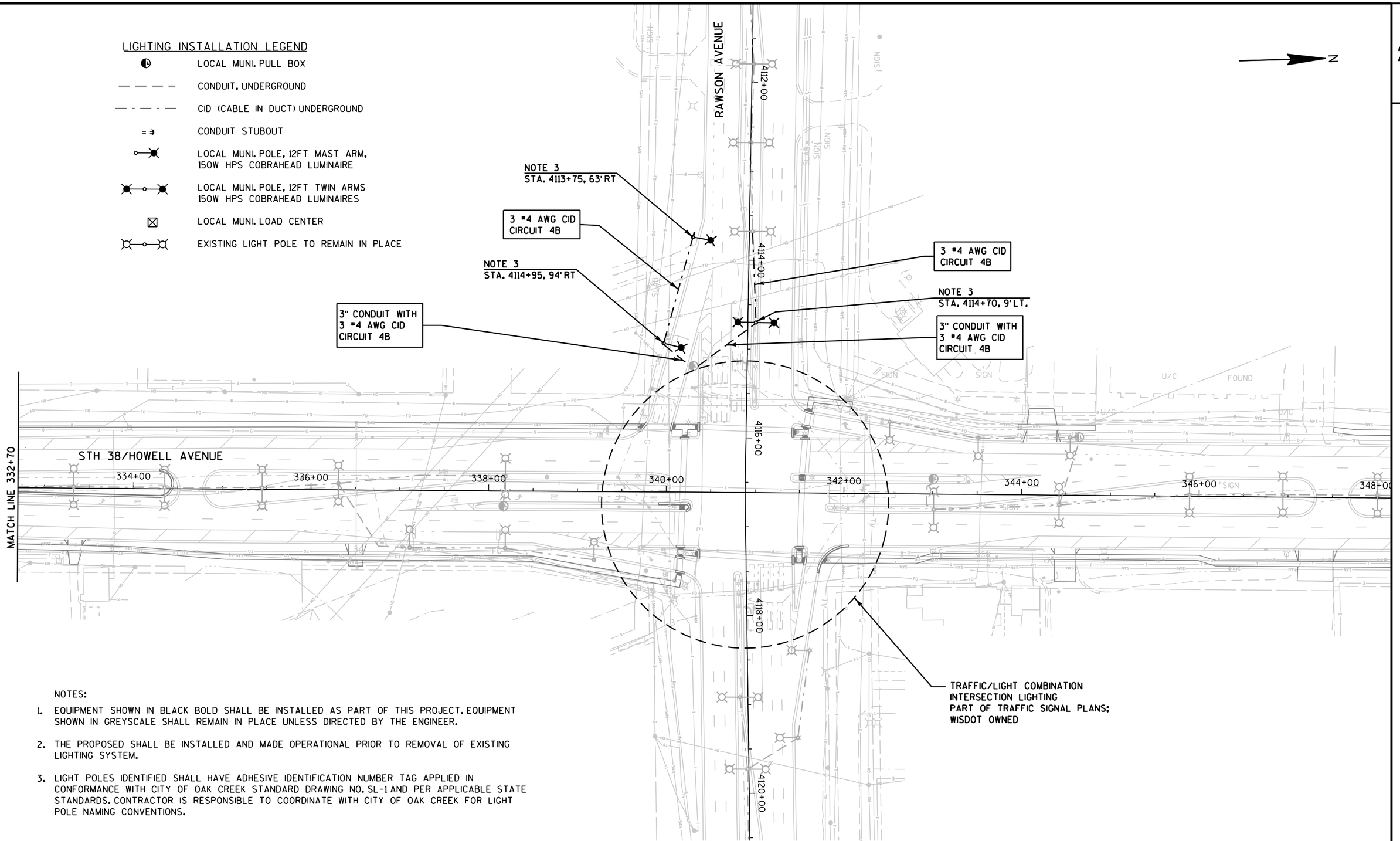
- CID (CABLE IN DUCT) UNDERGROUND
- CONDUIT STUBOUT
- LOCAL MUNI. POLE, 12FT MAST ARM, 150W HPS COBRAHEAD LUMINAIRE
- LOCAL MUNI. POLE, 12FT TWIN ARMS 150W HPS COBRAHEAD LUMINAIRES
- LOCAL MUNI. LOAD CENTER
- EXISTING LIGHT POLE TO REMAIN IN PLACE



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LIGHTING INSTALLATION LEGEND

- LOCAL MUNI. PULL BOX
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- CID (CABLE IN DUCT) UNDERGROUND
- CONDUIT STUBOUT
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- LOCAL MUNI. POLE, 12FT TWIN ARMS 150W HPS COBRAHEAD LUMINAIRES
- LOCAL MUNI. LOAD CENTER
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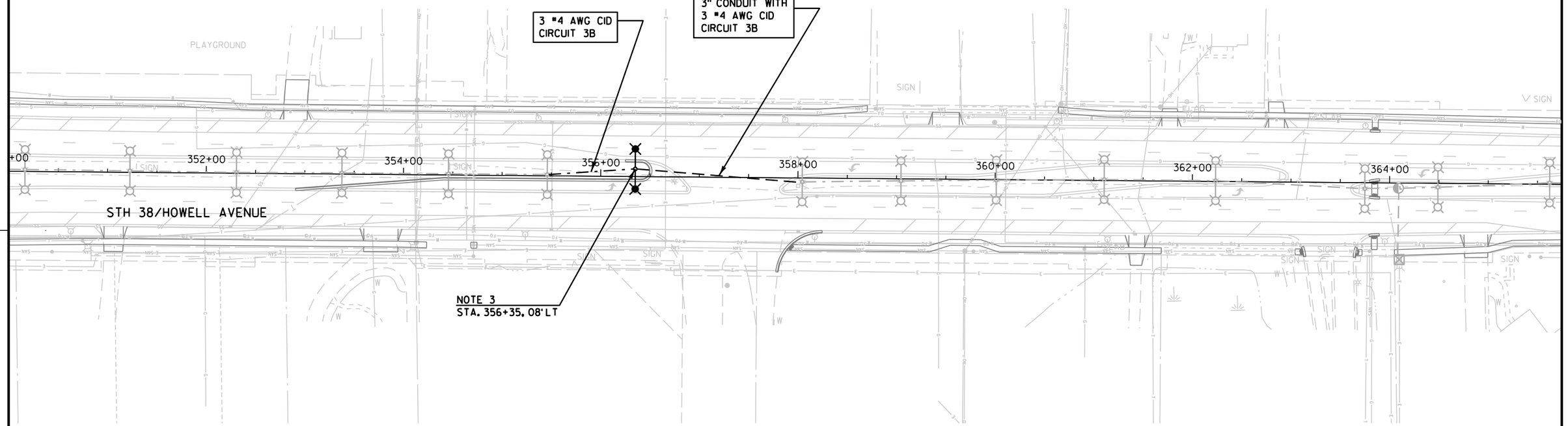

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LIGHTING INSTALLATION LEGEND

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- CONDUIT STUBOUT
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- LOCAL MUNI. LOAD CENTER
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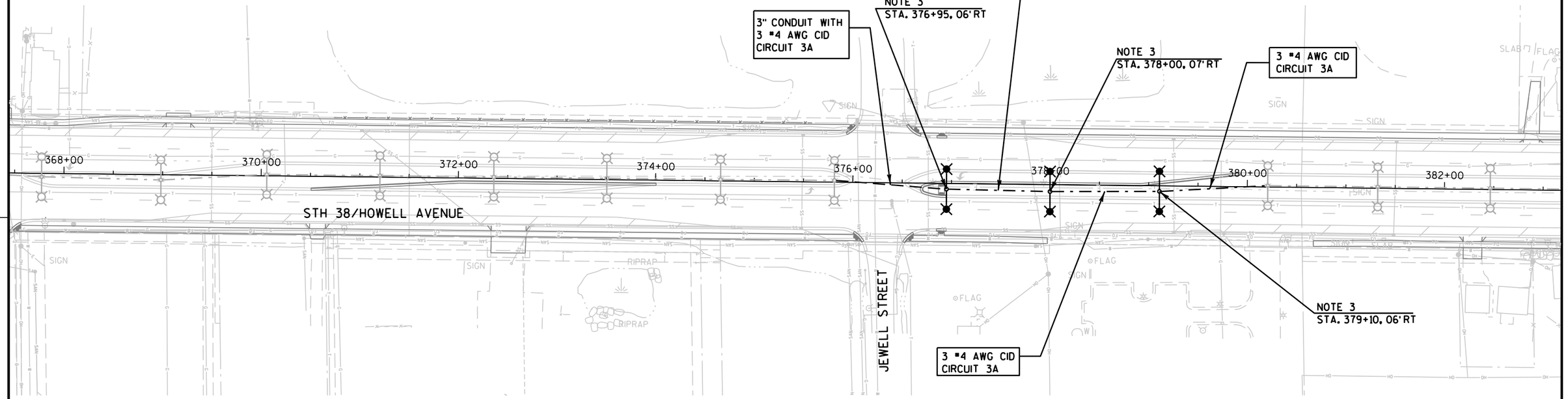

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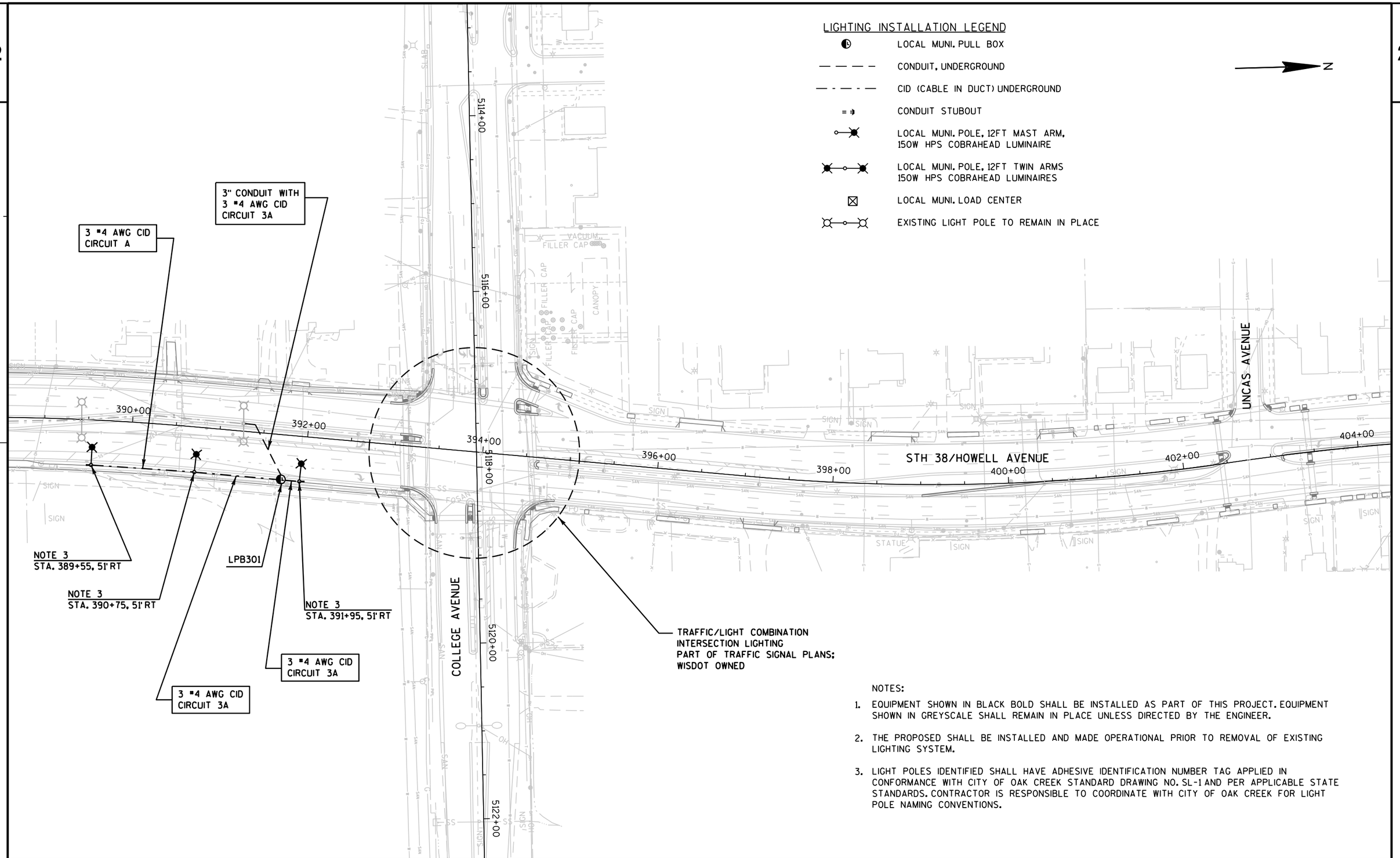
2



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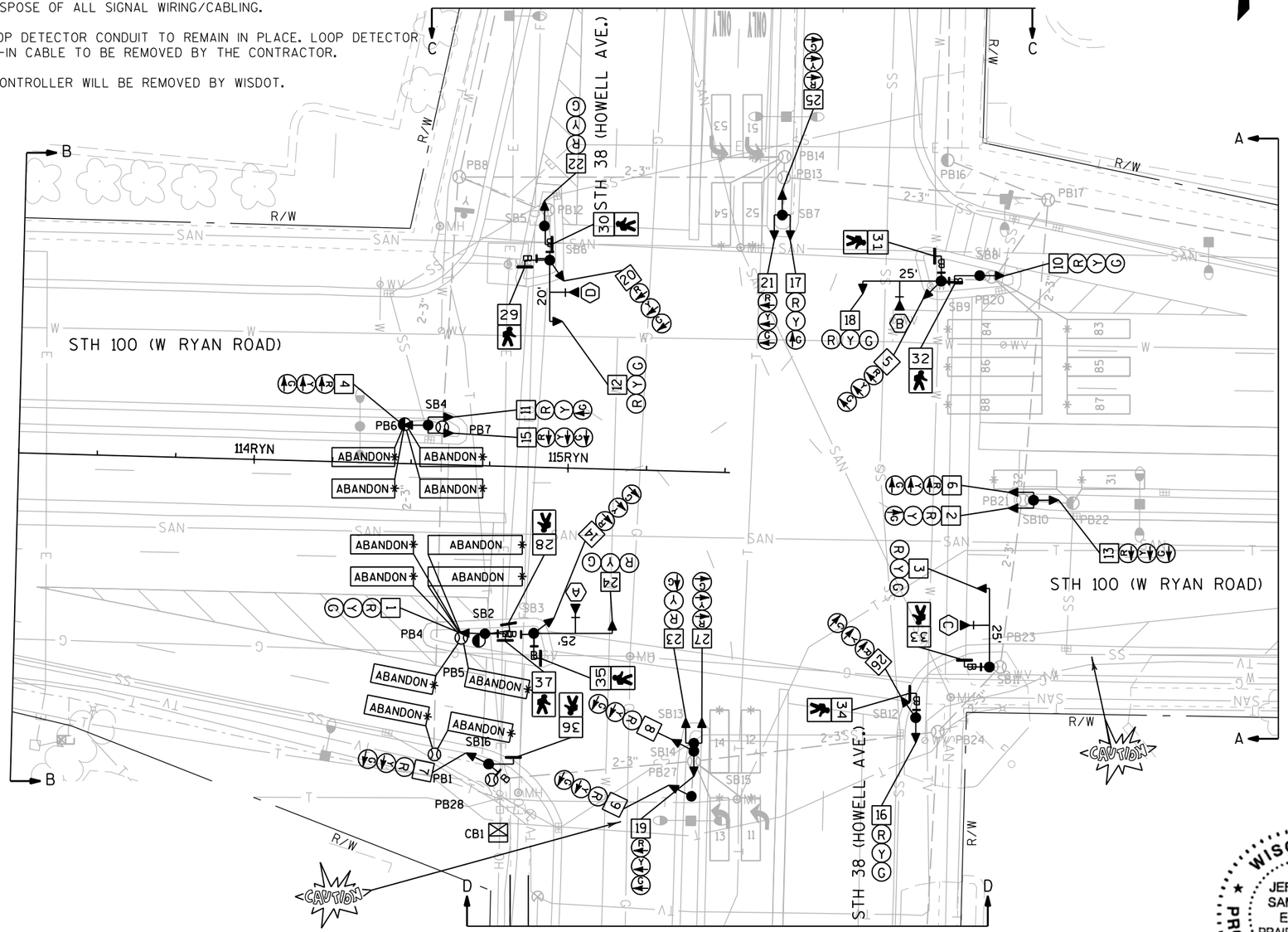
CONSTRUCTION NOTES:

1. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
2. REMOVE EXISTING SIGNAL FACES, POLES, ARMS, AND PEDESTAL AND TRANSFORMER BASES. REMOVE CONCRETE BASES FOR SB2, SB3, SB4, SB16, AND CB1. ALL OTHER CONCRETE BASES AND PULL BOXES NOT IDENTIFIED IN PLAN WILL BE REMOVED AS PART OF PROJECT 2060-16-70.
3. REMOVE AND DISPOSE OF ALL SIGNAL WIRING/CABLING.
4. ABANDONED LOOP DETECTOR CONDUIT TO REMAIN IN PLACE. LOOP DETECTOR WIRE AND LEAD-IN CABLE TO BE REMOVED BY THE CONTRACTOR.
5. CABINET AND CONTROLLER WILL BE REMOVED BY WISDOT.



N

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- LUMINAIRE UNDER PERMIT TO LOCAL MUNICIPALITY
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- (R) RED ARROW
- (Y) YELLOW ARROW
- (G) GREEN ARROW
- WALK / DON'T WALK INDICATOR 16" (COUNTDOWN TIMER)
- (X) EVP DESIGNATOR
- EVP DETECTOR HEAD
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH GRAYSHADE REPRESENTS EXISTING

FOR INFORMATION ONLY

WISCONSIN PROFESSIONAL ENGINEER
JEFFREY J. SANDBERG
E-39308
PRAIRIE DU SAC, WI

TRAFFIC CONTROL SIGNAL
STH 38 & STH 100
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1080

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: AECOM
REVISED BY:

PAGE 1 OF 3

PROJECT NUMBER: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 299	E

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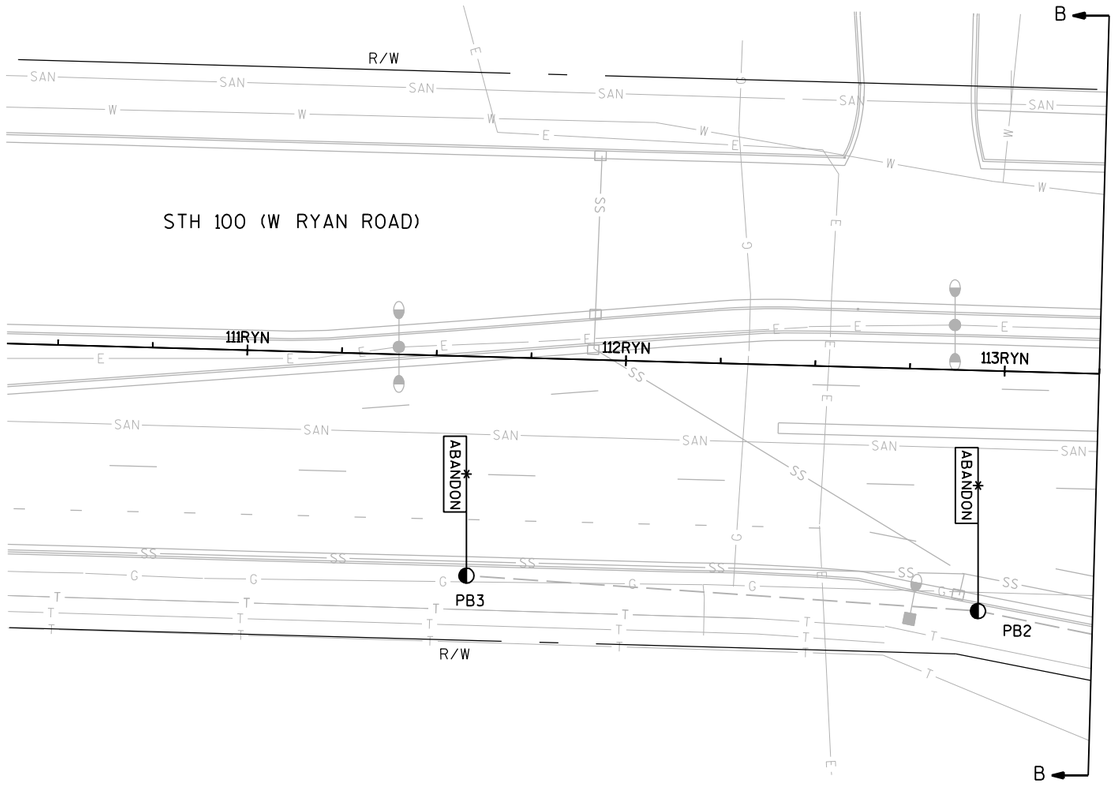
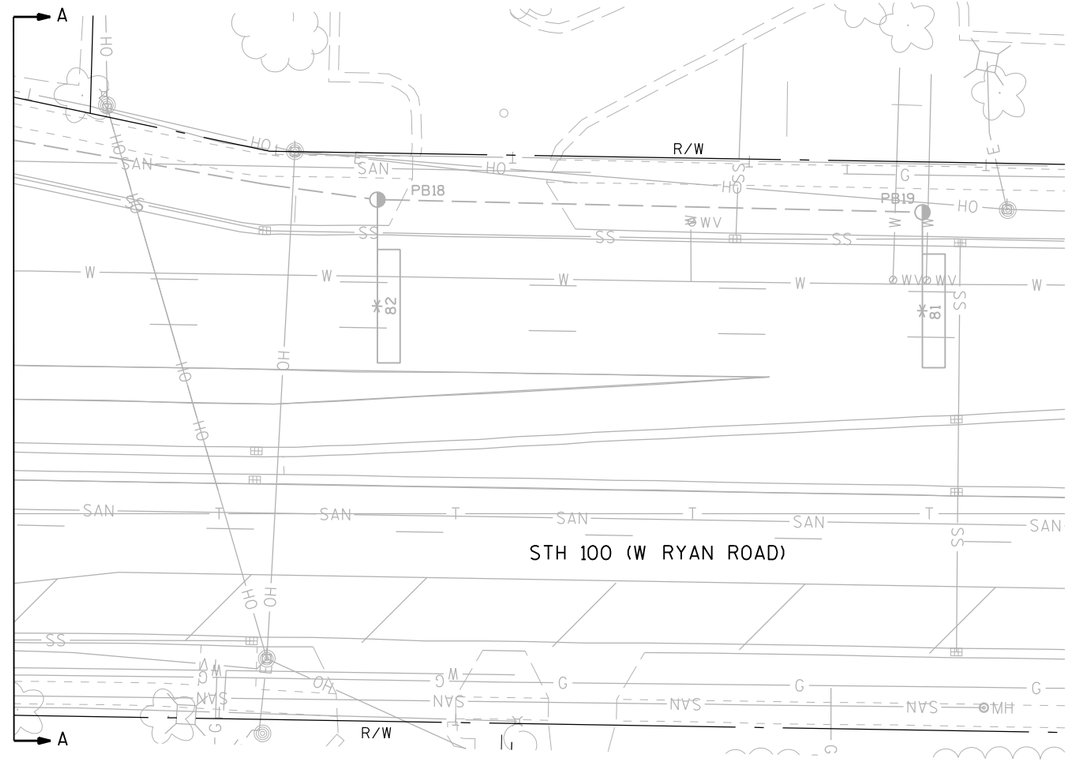
WISDOT/CADDS SHEET 42

2

N





FOR INFORMATION ONLY

TRAFFIC CONTROL SIGNAL
STH 38 & STH 100
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1080

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: AECOM
REVISED BY:

PAGE 2 OF 3

PROJECT NUMBER: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 300	E

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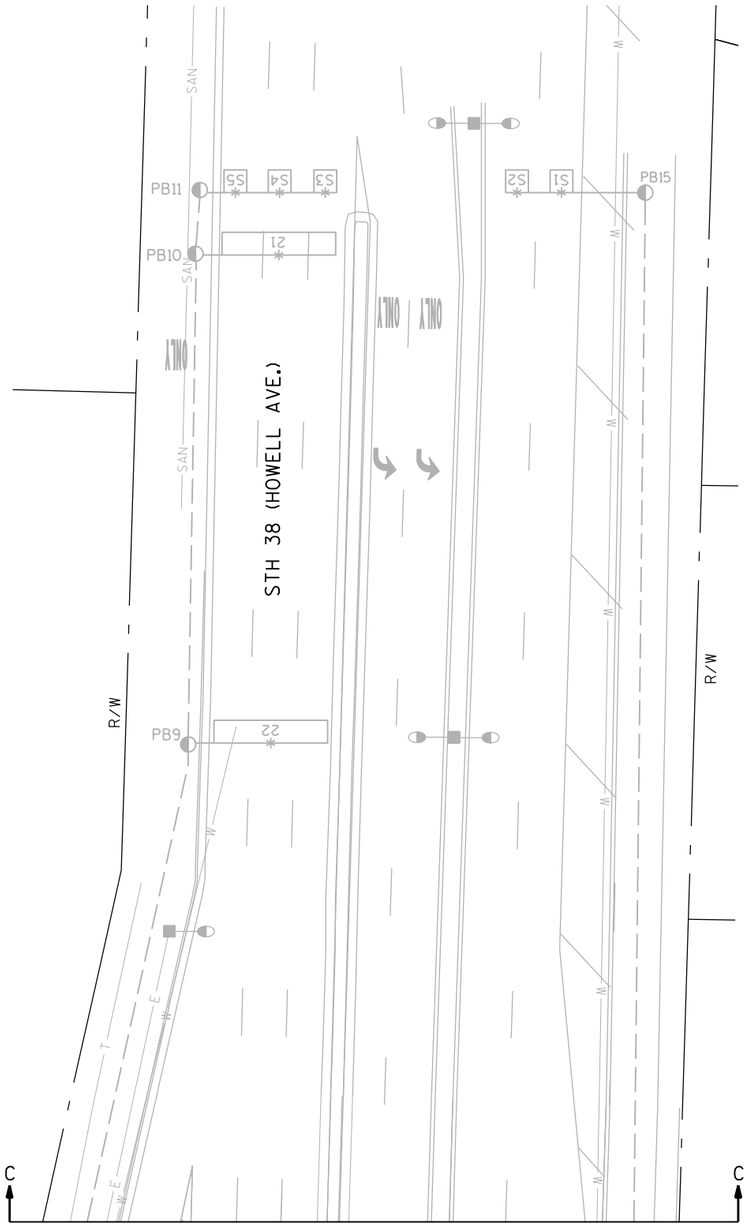
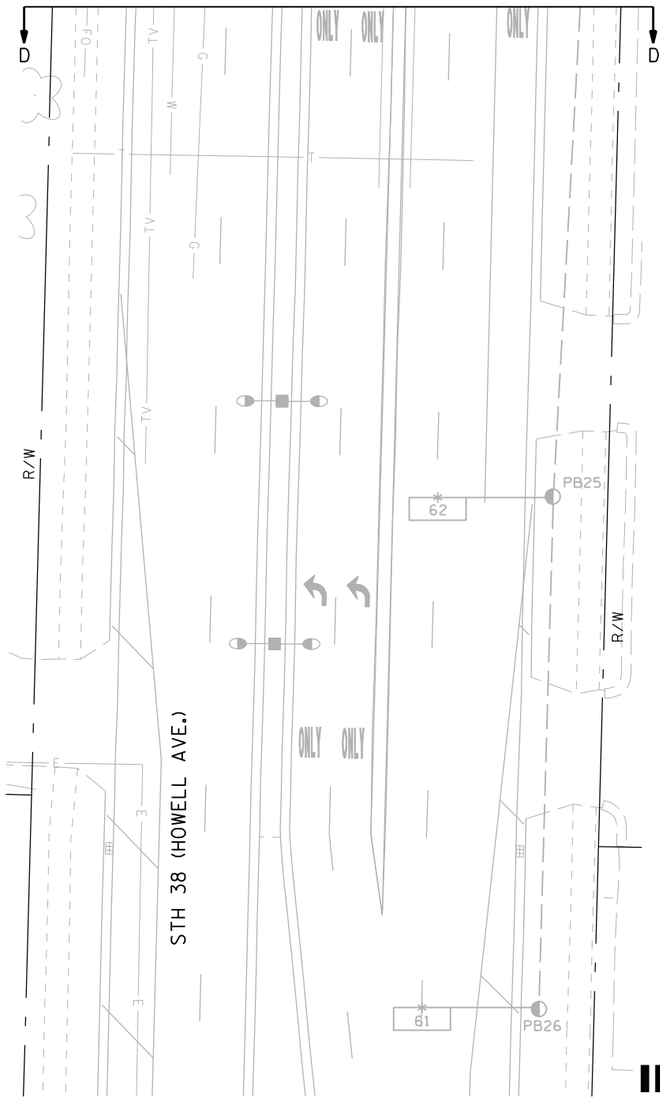
WISDOT/CADDS SHEET 42





FOR INFORMATION ONLY

TRAFFIC CONTROL SIGNAL
STH 38 & STH 100
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1080

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: AECOM
REVISED BY:

PAGE 3 OF 3

PROJECT NUMBER: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 301	E

FILE NAME: l:\work\projects\60222213\000_cad\removal_sh3_howell.dgn
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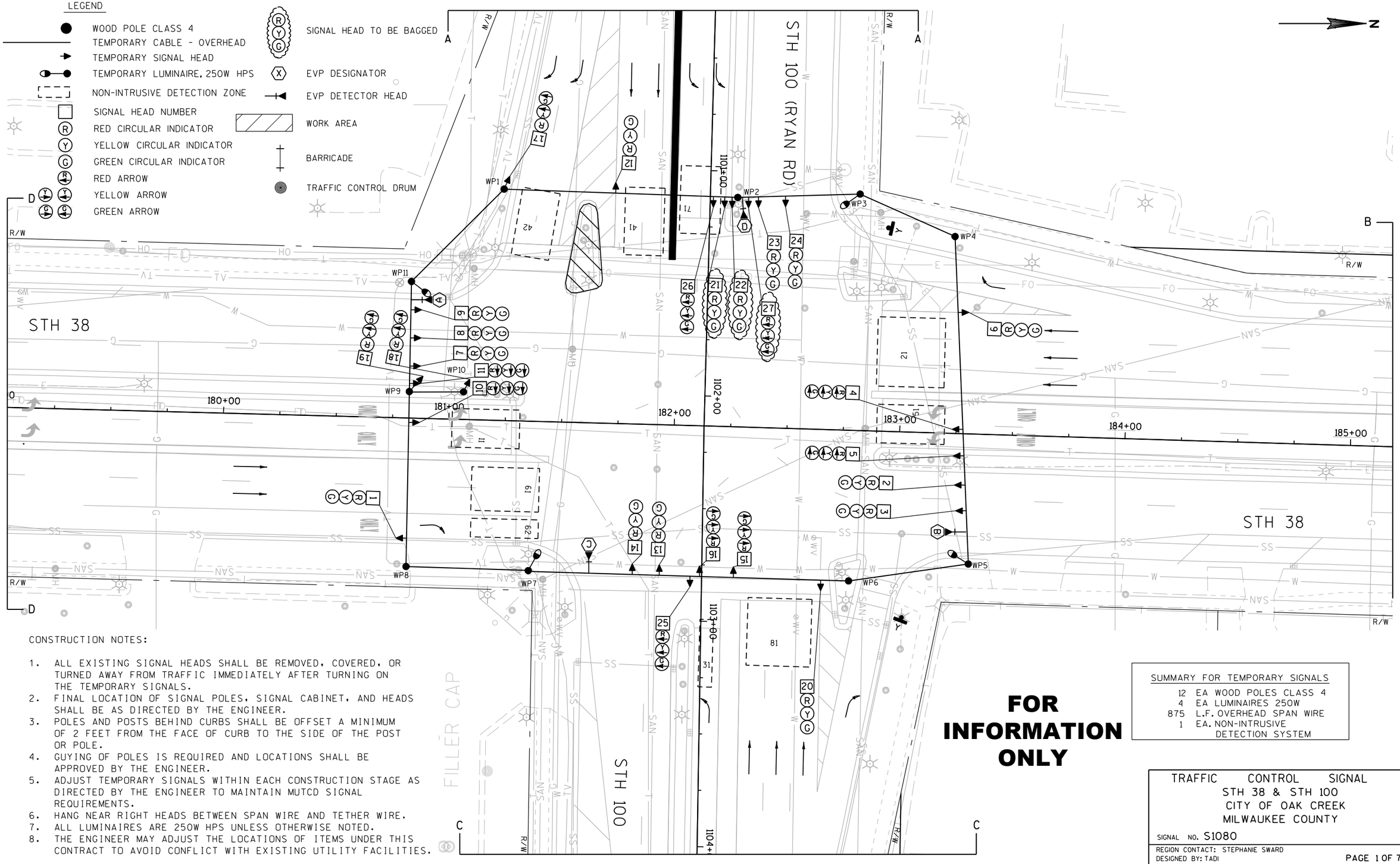
WISDOT/CADDS SHEET 42

LEGEND

- WOOD POLE CLASS 4
- TEMPORARY CABLE - OVERHEAD
- TEMPORARY SIGNAL HEAD
- TEMPORARY LUMINAIRE, 250W HPS
- NON-INTRUSIVE DETECTION ZONE
- SIGNAL HEAD NUMBER
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- SIGNAL HEAD TO BE BAGGED
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- WORK AREA
- BARRICADE
- TRAFFIC CONTROL DRUM



CONSTRUCTION NOTES:

1. ALL EXISTING SIGNAL HEADS SHALL BE REMOVED, COVERED, OR TURNED AWAY FROM TRAFFIC IMMEDIATELY AFTER TURNING ON THE TEMPORARY SIGNALS.
2. FINAL LOCATION OF SIGNAL POLES, SIGNAL CABINET, AND HEADS SHALL BE AS DIRECTED BY THE ENGINEER.
3. POLES AND POSTS BEHIND CURBS SHALL BE OFFSET A MINIMUM OF 2 FEET FROM THE FACE OF CURB TO THE SIDE OF THE POST OR POLE.
4. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER.
5. ADJUST TEMPORARY SIGNALS WITHIN EACH CONSTRUCTION STAGE AS DIRECTED BY THE ENGINEER TO MAINTAIN MUTCD SIGNAL REQUIREMENTS.
6. HANG NEAR RIGHT HEADS BETWEEN SPAN WIRE AND TETHER WIRE.
7. ALL LUMINAIRES ARE 250W HPS UNLESS OTHERWISE NOTED.
8. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.

FOR INFORMATION ONLY

SUMMARY FOR TEMPORARY SIGNALS

12	EA WOOD POLES CLASS 4
4	EA LUMINAIRES 250W
875	L.F. OVERHEAD SPAN WIRE
1	EA. NON-INTRUSIVE DETECTION SYSTEM

TRAFFIC CONTROL SIGNAL
STH 38 & STH 100
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1080

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: TADI
REVISED BY:

PAGE 1 OF 7

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 1A (PROJECT 2040-16-70)	SHEET 302	E

LEGEND

- WOOD POLE CLASS 4
- TEMPORARY CABLE - OVERHEAD
- TEMPORARY SIGNAL HEAD
- TEMPORARY LUMINAIRE, 250W HPS
- NON-INTRUSIVE DETECTION ZONE
- SIGNAL HEAD NUMBER
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- SIGNAL HEAD TO BE BAGGED
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- WORK AREA
- BARRICADE
- TRAFFIC CONTROL DRUM

STH 100 (RYAN RD)

STH 38

STH 100

FILLER CAP

WP1 WP2 WP3 WP4 WP5 WP6 WP7 WP8 WP9 WP10 WP11

180+00 181+00 182+00 183+00 184+00 185+00

1101+00 1102+00 1103+00 1104+00

FOR INFORMATION ONLY

TRAFFIC CONTROL SIGNAL
STH 38 & STH 100
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1080

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: TADI
REVISED BY:

PAGE 2 OF 7

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 1B&1C (PROJECT 2040-16-70)	SHEET 303	E

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WISDOT/CADDS SHEET 42

LEGEND

- WOOD POLE CLASS 4
- TEMPORARY CABLE - OVERHEAD
- TEMPORARY SIGNAL HEAD
- TEMPORARY LUMINAIRE, 250W HPS
- NON-INTRUSIVE DETECTION ZONE
- SIGNAL HEAD NUMBER
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- SIGNAL HEAD TO BE BAGGED
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- WORK AREA
- BARRICADE
- TRAFFIC CONTROL DRUM

STH 38

STH 100 (RYAN RD)

STH 100

FILLER CAP

WP1 WP2 WP3 WP4 WP5 WP6 WP7 WP8 WP9 WP10 WP11

180+00 181+00 182+00 183+00 184+00 185+00

1101+00 1102+00 1103+00 1104+00

R/W

FOR INFORMATION ONLY

TRAFFIC CONTROL SIGNAL
STH 38 & STH 100
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1080

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: TADI
REVISED BY:

PAGE 3 OF 7

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 2A&2B (PROJECT 2040-16-70)	SHEET 304	E

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LEGEND

- WOOD POLE CLASS 4
- TEMPORARY CABLE - OVERHEAD
- TEMPORARY SIGNAL HEAD
- TEMPORARY LUMINAIRE, 250W HPS
- NON-INTRUSIVE DETECTION ZONE
- SIGNAL HEAD NUMBER
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
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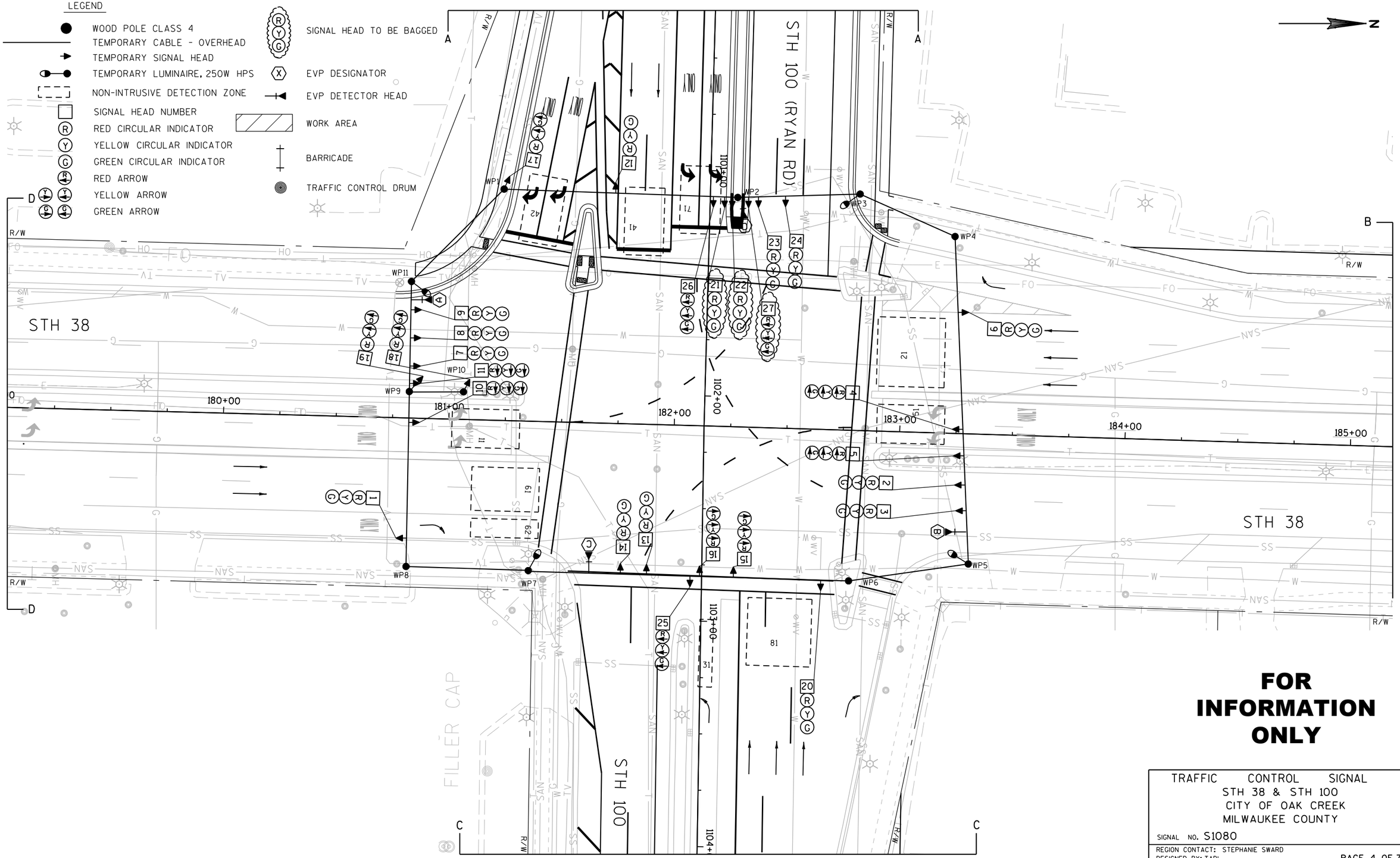
- GREEN ARROW
- SIGNAL HEAD TO BE BAGGED
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- WORK AREA
- BARRICADE
- TRAFFIC CONTROL DRUM



FOR INFORMATION ONLY

TRAFFIC CONTROL SIGNAL
STH 38 & STH 100
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1080

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: TADI
REVISED BY:

PAGE 4 OF 7

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 2C (PROJECT 2040-16-70)	SHEET 305	E

FILE NAME : l:\work\projects\60222213\000_cad\sth 100 & sth 38\STH 38 at STH 100 Temp_Sig_Ryan_2C.dgn PLOT DATE : 9/27/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : 1:40

WISDOT/CADDS SHEET 42

LEGEND

- WOOD POLE CLASS 4
- TEMPORARY CABLE - OVERHEAD
- TEMPORARY SIGNAL HEAD
- TEMPORARY LUMINAIRE, 250W HPS
- NON-INTRUSIVE DETECTION ZONE
- SIGNAL HEAD NUMBER
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- SIGNAL HEAD TO BE BAGGED
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- WORK AREA
- BARRICADE
- TRAFFIC CONTROL DRUM

STH 100 (RYAN RD)

STH 38

STH 38

STH 100

FILLER CAP

WP1 WP2 WP3 WP4 WP5 WP6 WP7 WP8 WP9 WP10 WP11

180+00 181+00 182+00 183+00 184+00 185+00

1101+00 1102+00 1103+00 1104+00

FOR INFORMATION ONLY

TRAFFIC CONTROL SIGNAL
STH 38 & STH 100
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1080

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: TADI
REVISED BY:

PAGE 5 OF 7

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - PRE-STAGE (PROJECT 2060-15-71)	SHEET 306	E

FILE NAME : l:\work\projects\60222213\000_cad\sth 100 & sth 38\STH 38 at STH 100 Temporary Signals.dgn PLOT DATE : 9/27/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : 1:40

WISDOT/CADDS SHEET 42

LEGEND

- WOOD POLE CLASS 4
- TEMPORARY CABLE - OVERHEAD
- TEMPORARY SIGNAL HEAD
- TEMPORARY LUMINAIRE, 250W HPS
- NON-INTRUSIVE DETECTION ZONE
- SIGNAL HEAD NUMBER
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- SIGNAL HEAD TO BE BAGGED
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- WORK AREA
- BARRICADE
- TRAFFIC CONTROL DRUM

STH 100 (RYAN RD)

STH 38

FILLER CAP

WP1 WP2 WP3 WP4 WP5 WP6 WP7 WP8 WP9 WP10 WP11

180+00 181+00 182+00 183+00 184+00 185+00

1101+00 1102+00 1103+00 1104+00

FOR INFORMATION ONLY

TRAFFIC CONTROL SIGNAL
STH 38 & STH 100
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1080

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: TADI
REVISED BY:

PAGE 6 OF 7

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 1 (PROJECT 2060-15-71)	SHEET 307	E

FILE NAME : l:\work\projects\60222213\000_cad\sth 100 & sth 38\STH 38 at STH 100 Temporary Signals Stage 1.dgn PLOT DATE : 9/27/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : 1:40

WISDOT/CADDS SHEET 42

2

SEQUENCE OF OPERATION

RING 1

	HEAD NUMBERS	Ø1 R/W	Ø1 **	Ø1 Ø4	Ø2 R/W	Ø2 **	Ø3 R/W	Ø3 **	Ø4 R/W	Ø4 ** Ø1	FLASH
Ø1	4,5	G	Y	R	R	R	R	R	R	R	R
Ø2	6,7,8,9	R	R	R	G	Y	R	R	R	R	R
Ø3	25,26,27	R	R	R	R	R	G	Y	R	R	R
Ø4	12,13,14	R	R	R	R	R	R	R	G	Y	R
Ø5	10,11	R	R	R	R	R	R	R	R	R	R
Ø6	1,2,3	R	R	R	R	R	R	R	R	R	R
Ø7	15,16	R	R	R	R	R	R	R	R	R	R
Ø8	20,21,22,23,24	R	R	R	R	R	R	R	R	R	R
Ø2P											
Ø4P											
Ø6P											
Ø8P											
OL'A'	17,18,19	G	Y	R G G	R	R	R	R	G	Y R G G	R
OL'B'											
OL'C'											
OL'D'											

RING 2

	HEAD NUMBERS	Ø5 R/W	Ø5 **	Ø6 R/W	Ø6 **	Ø7 R/W	Ø7 **	Ø8 R/W	Ø8 **
Ø1	4,5	R	R	R	R	R	R	R	R
Ø2	6,7,8,9	R	R	R	R	R	R	R	R
Ø3	25,26,27	R	R	R	R	R	R	R	R
Ø4	12,13,14	R	R	R	R	R	R	R	R
Ø5	10,11	G	Y	R	R	R	R	R	R
Ø6	1,2,3	R	R	G	Y	R	R	R	R
Ø7	15,16	R	R	R	R	G	Y	R	R
Ø8	20,21,22,23,24	R	R	R	R	R	R	G	Y
Ø2P									
Ø4P									
Ø6P									
Ø8P									
OL'A'	17,18,19	R	R	R	R	R	R	R	R
OL'B'									
OL'C'									
OL'D'									

BARRIER

** CLEARANCE TO A PHASE IN CONFLICT WITH THIS PHASE ON (SEE CHART 1)

CHART 1

PHASE ON	NONCONFLICTING PHASE ALLOWED TO TIME CONCURRENTLY	PHASES IN CONFLICT WITH PHASE ON
1	5 OR 6	2,3,4,7,8
2	5 OR 6	1,3,4,7,8
3	7 OR 8	1,2,4,5,6
4	7 OR 8	1,2,3,5,6
5	1 OR 2	3,4,6,7,8
6	1 OR 2	3,4,5,7,8
7	3 OR 4	1,2,5,6,8
8	3 OR 4	1,2,5,6,7

DETECTOR LOGIC

DETECTOR NUMBER	DETECTOR INPUT	DETECTOR OPERATION: CALLS AND EXTENDS	DETECTOR OPERATION: CALLS ONLY	DETECTOR OPERATION: EXTENDS ONLY	PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	SIZE	NUMBER OF TURNS
11		X			1	1					
21		X			2	2					
31		X			3	3					
41		X			4	4					
42		X			4	4					
51		X			5	5					
61		X			6	6					
62		X			6	6		X			
71		X			7	7					
81		X			8	8					

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1		6		X
2	X	6	MIN.	X
3		8		X
4		8		X
5		2		X
6	X	2	MIN.	X
7		4		X
8		4		X

OVERLAPS

O.L. "A" = 1,4
O.L. "B" = NONE
O.L. "C" = NONE
O.L. "D" = NONE

TYPE OF INTERCONNECT COMMUNICATION	
NONE	X
TBC	
CLOSED LOOP TWISTED PAIR*	
CLOSED LOOP FIBER OPTIC*	
RADIO	
*LOCATION OF MASTER CONTROLLER NO: S-	
SIGNAL SYSTEM #: SS- -	

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	X
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC SIGNAL CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE DETECTOR	A	B	C	D
MOVEMENT				
PHASE	2+5	1+6	4+7	3+8

AFTER PREEMPTION SEQUENCE 1+6 OR 2+5
CONTROLLER SHALL RETURN TO PHASES 2+6

AFTER PREEMPTION SEQUENCE 4+7 OR 3+8
CONTROLLER SHALL RETURN TO PHASES 4+8

GENERAL NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.
2. WHEN ONE PHASE IS ON ALONE, ANY NONCONFLICTING PHASE MAY START TIMING CONCURRENTLY WITHOUT A CLEARANCE INTERVAL. (SEE CHART 1 AT LEFT.)

FOR INFORMATION ONLY

STH 38 & STH 100
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1080

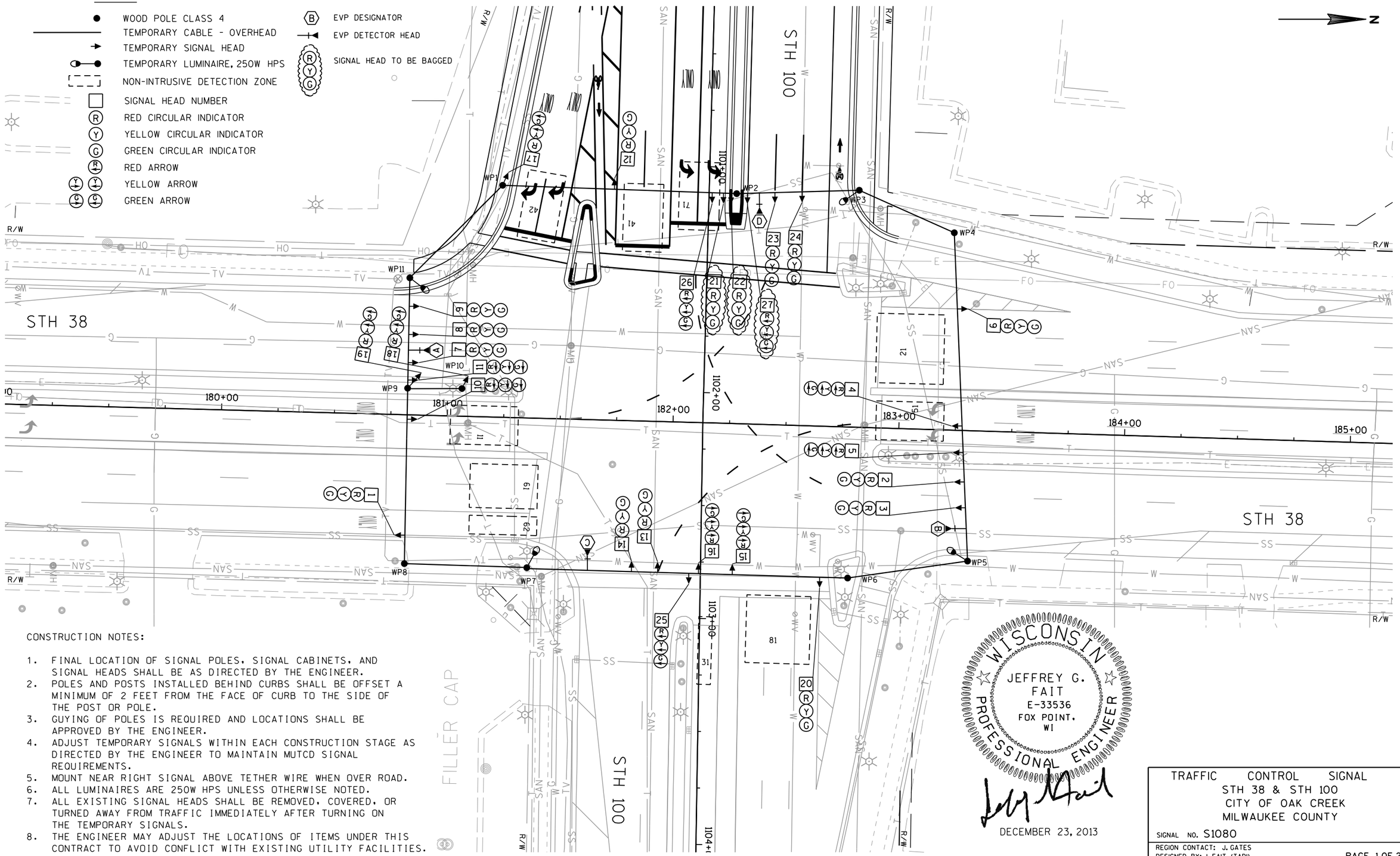
CONTROLLER TYPE: TEMP

DATE SEPTEMBER 2013 PAGE NO. 7 OF 7

PROJECT NO: 2040-16-70 | HWY: STH 100 | COUNTY: MILWAUKEE | TEMPORARY SEQUENCE OF OPERATIONS - ALL STAGES | SHEET 308 | E

LEGEND

- WOOD POLE CLASS 4
- TEMPORARY CABLE - OVERHEAD
- TEMPORARY SIGNAL HEAD
- TEMPORARY LUMINAIRE, 250W HPS
- NON-INTRUSIVE DETECTION ZONE
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- (R) RED ARROW
- (Y) YELLOW ARROW
- (G) GREEN ARROW
- (B) EVP DESIGNATOR
- EVP DETECTOR HEAD
- (R)(Y)(G) SIGNAL HEAD TO BE BAGGED



CONSTRUCTION NOTES:

1. FINAL LOCATION OF SIGNAL POLES, SIGNAL CABINETS, AND SIGNAL HEADS SHALL BE AS DIRECTED BY THE ENGINEER.
2. POLES AND POSTS INSTALLED BEHIND CURBS SHALL BE OFFSET A MINIMUM OF 2 FEET FROM THE FACE OF CURB TO THE SIDE OF THE POST OR POLE.
3. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER.
4. ADJUST TEMPORARY SIGNALS WITHIN EACH CONSTRUCTION STAGE AS DIRECTED BY THE ENGINEER TO MAINTAIN MUTCD SIGNAL REQUIREMENTS.
5. MOUNT NEAR RIGHT SIGNAL ABOVE TETHER WIRE WHEN OVER ROAD.
6. ALL LUMINAIRES ARE 250W HPS UNLESS OTHERWISE NOTED.
7. ALL EXISTING SIGNAL HEADS SHALL BE REMOVED, COVERED, OR TURNED AWAY FROM TRAFFIC IMMEDIATELY AFTER TURNING ON THE TEMPORARY SIGNALS.
8. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.

WISCONSIN
JEFFREY G. FAIT
E-33536
FOX POINT, WI
PROFESSIONAL ENGINEER

DECEMBER 23, 2013

TRAFFIC CONTROL SIGNAL
STH 38 & STH 100
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1080

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PAGE 1 OF 2

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - PRE-STAGE	SHEET 309	E

FILE NAME : Temporary Signals.dgn PLOT DATE : 12/23/2013 PLOT BY : DSCHNABEL-TADI PLOT NAME : PLOT SCALE : 40.0000 sf / in.

WISDOT/CADDS SHEET 42

LEGEND

- WOOD POLE CLASS 4
- TEMPORARY CABLE - OVERHEAD
- TEMPORARY SIGNAL HEAD
- TEMPORARY LUMINAIRE, 250W HPS
- NON-INTRUSIVE DETECTION ZONE
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- (R) RED ARROW
- (Y) YELLOW ARROW
- (G) GREEN ARROW
- (B) EVP DESIGNATOR
- EVP DETECTOR HEAD
- (R)(Y)(G) SIGNAL HEAD TO BE BAGGED

N

STH 38

STH 100

FILLER CAP

WP1 WP2 WP3 WP4 WP5 WP6 WP7 WP8 WP9 WP10 WP11

180+00 181+00 182+00 183+00 184+00 185+00

1102+00 1103+00 1104+

R/W

TRAFFIC CONTROL SIGNAL
STH 38 & STH 100
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1080

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PAGE 1 OF 1

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 1	SHEET 310	E

FILE NAME : Temporary Signals Stage1.dgn PLOT DATE : 12/22/2013 PLOT BY : DSCHNABEL-TADI PLOT NAME : PLOT SCALE : 40.0000 sf / in.

WISDOT/CADDS SHEET 42

LEGEND

- WOOD POLE CLASS 4
- TEMPORARY CABLE - OVERHEAD
- TEMPORARY SIGNAL HEAD
- TEMPORARY LUMINAIRE, 250W HPS
- NON-INTRUSIVE DETECTION ZONE
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- (R) RED ARROW
- (Y) YELLOW ARROW
- (G) GREEN ARROW
- (B) EVP DESIGNATOR
- EVP DETECTOR HEAD
- (R)(Y)(G) SIGNAL HEAD TO BE BAGGED

N

STH 100

STH 38

FILLER CAP

WP1 WP2 WP3 WP4 WP5 WP6 WP7 WP8 WP9 WP10 WP11

180+00 181+00 182+00 183+00 184+00 185+00

1101+00 1102+00 1103+00 1104+00

R/W

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 2	SHEET 311	E

TRAFFIC CONTROL SIGNAL
STH 38 & STH 100
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1080

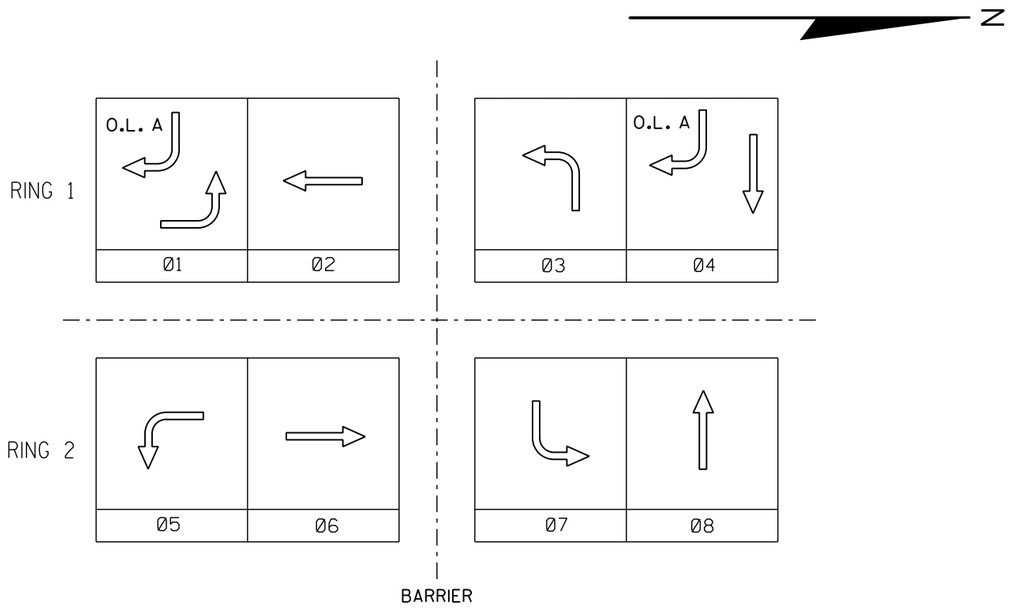
REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PAGE 1 OF 1

FILE NAME : Temporary Signals Stage 2.dgn PLOT DATE : 12/22/2013 PLOT BY : DSCHNABEL-TADI PLOT NAME : PLOT SCALE : 40.0000 sf / in.

WISDOT/CADDS SHEET 42

	HEAD NUMBERS	FLASH
Ø1	4,5	R
Ø2	6,7,8,9	R
Ø3	25,26,27	R
Ø4	12,13,14	R
Ø5	10,11	R
Ø6	1,2,3	R
Ø7	15,16	R
Ø8	20,21,22,23,24	R
Ø2P		
Ø4P		
Ø6P		
Ø8P		
OLA	17,18,19	R
OLB		
OLC		
OLD		



CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1		6		X
2	X	6	MIN	X
3		8		X
4		8		X
5		2		X
6	X	2	MIN	X
7		4		X
8		4		X

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	X
CLOSED LOOP	
TWISTED PAIR*	
FIBER OPTIC*	
FIBER OPTIC (ETHERNET)	
RADIO	

TYPE OF COORDINATION	
NONE	
TBC	X
TRAFFIC RESPONSIVE	
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO:	S-
SIGNAL SYSTEM #:	SS-00-06

TYPE OF LIGHTING	
BY OTHER AGENCY	X
IN TRAFFIC SIGNAL CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	X
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

DETECTOR LOGIC

DETECTOR NUMBER	DETECTOR INPUT	DETECTOR OPERATION: CALLS AND EXTENDS	DETECTOR OPERATION: CALLS ONLY	DETECTOR OPERATION: EXTENDS ONLY	PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	SIZE	NUMBER OF TURNS
11		X			1	1					
21		X			2	2					
31		X			3	3					
41		X			4	4					
42		X			4	4					
51		X			5	5					
61		X			6	6					
62		X			6	6		X			
71		X			7	7					
81		X			8	8					

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE DETECTOR	A	B	C	D
MOVEMENT				
PHASE	2+5	6+1	4+7	8+3

AFTER PREEMPTION SEQUENCE 2+5 OR 1+6, CONTROLLER SHALL RETURN TO PHASES 2+6.

AFTER PREEMPTION SEQUENCE 4+7 OR 8+3, CONTROLLER SHALL RETURN TO PHASES 4+8.

STH 38 & STH 100
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1080 CABINET TYPE:

CONTROLLER TYPE: TEMP

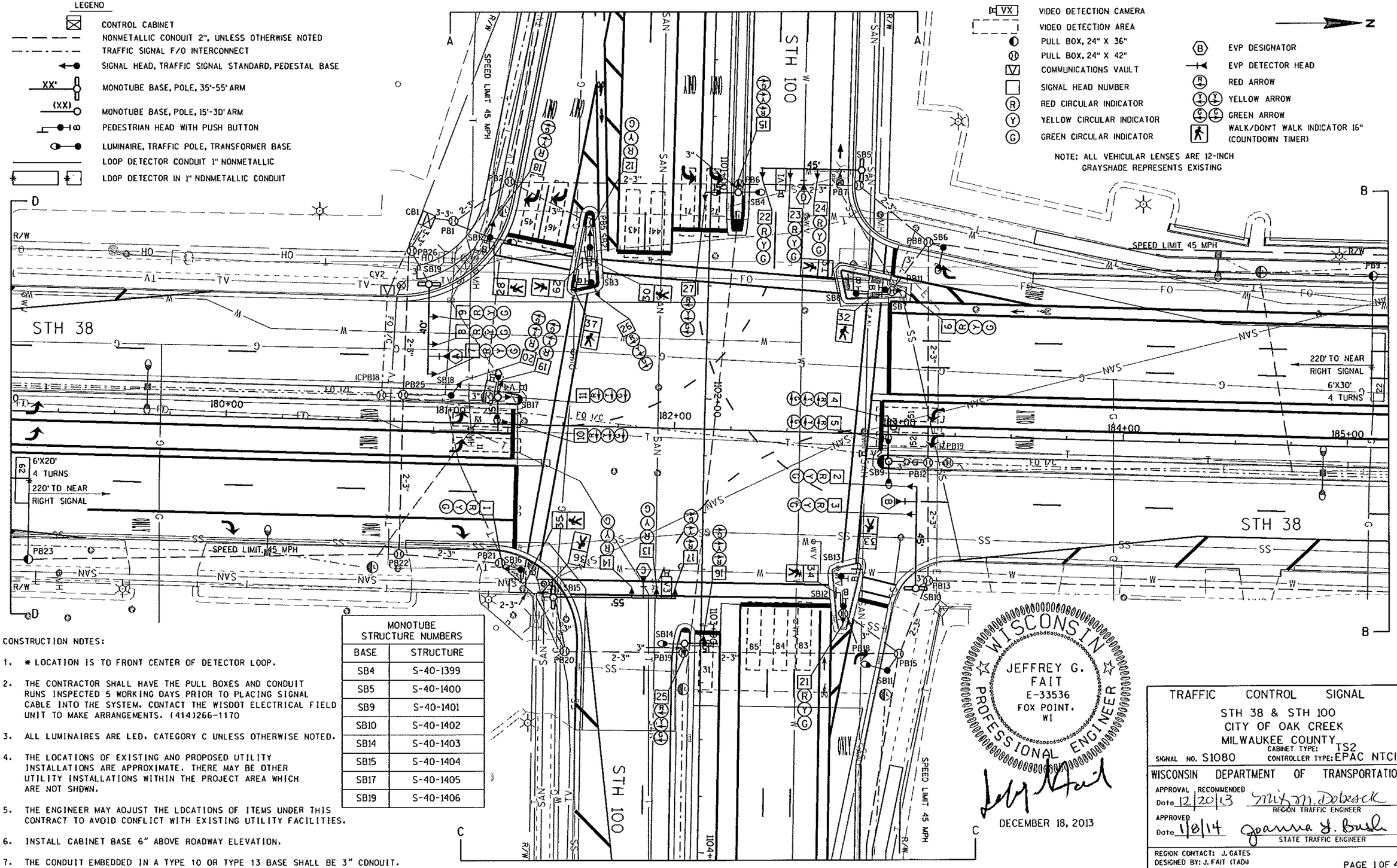
DATE 12/13 PAGE NO. 2 OF 2

2

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- TRAFFIC SIGNAL F/O INTERCONNECT
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- XX' MONOTUBE BASE, POLE, 35'-55' ARM
- (XX) MONOTUBE BASE, POLE, 15'-30' ARM
- PEDESTRIAN HEAD WITH PUSH BUTTON
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- VX VIDEO DETECTION CAMERA
- VIDEO DETECTION AREA
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- COMMUNICATIONS VAULT
- SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- B EVP DESIGNATOR
- EVP DETECTOR HEAD
- R RED ARROW
- Y YELLOW ARROW
- G GREEN ARROW
- WALK/DON'T WALK INDICATOR 16" (COUNTDOWN TIMER)

NOTE: ALL VEHICULAR LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING



CONSTRUCTION NOTES:

1. * LOCATION IS TO FRONT CENTER OF DETECTOR LOOP.
2. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO THE SYSTEM. CONTACT THE WISDOT ELECTRICAL FIELD UNIT TO MAKE ARRANGEMENTS. (414)266-1170
3. ALL LUMINAIRES ARE LED, CATEGORY C UNLESS OTHERWISE NOTED.
4. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN.
5. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
6. INSTALL CABINET BASE 6" ABOVE ROADWAY ELEVATION.
7. THE CONDUIT EMBEDDED IN A TYPE 10 OR TYPE 13 BASE SHALL BE 3" CONDUIT.

MONOTUBE STRUCTURE NUMBERS	
BASE	STRUCTURE
SB4	S-40-1399
SB5	S-40-1400
SB9	S-40-1401
SB10	S-40-1402
SB14	S-40-1403
SB15	S-40-1404
SB17	S-40-1405
SB19	S-40-1406

WISCONSIN
JEFFREY G. FAIT
E-33536
FOX POINT, WI
PROFESSIONAL ENGINEER

DECEMBER 18, 2013

TRAFFIC CONTROL SIGNAL
STH 38 & STH 100
CITY OF OAK CREEK
MILWAUKEE COUNTY
CABINET TYPE: TS2
SIGNAL NO. S1080 CONTROLLER TYPE: EPAC NTCIP

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED
Date 12/20/13 Mitch M. Dobrick
REGION TRAFFIC ENGINEER

APPROVED
Date 1/8/14 Joanna Y. Bush
STATE TRAFFIC ENGINEER

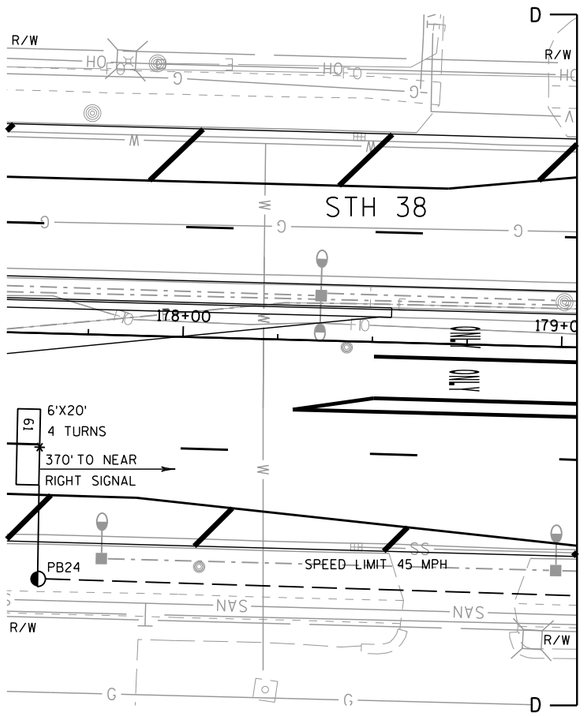
REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

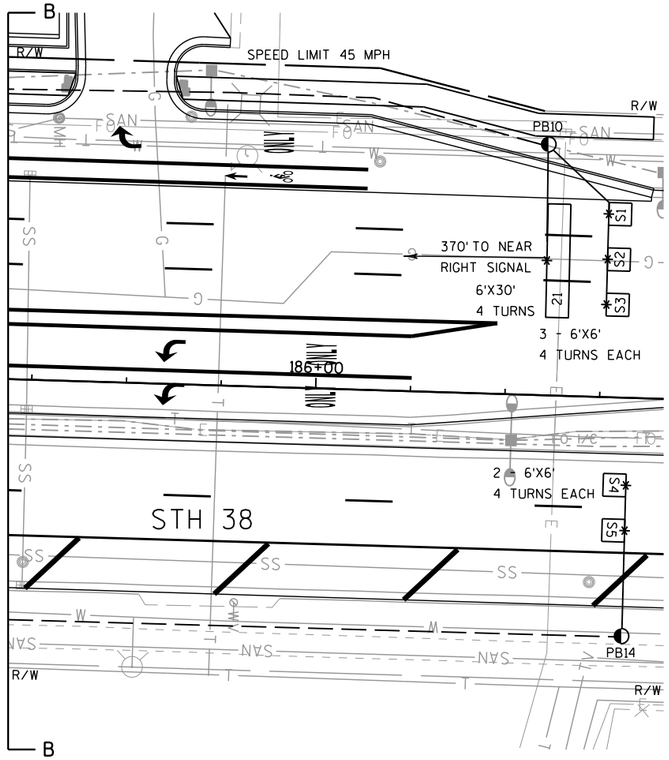
PAGE 1 OF 4

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 313	E

FILE NAME : Proposed Signals.dgn PLOT DATE : 12/19/2013 PLOT BY : DSCHNABEL-TADI PLOT NAME : PLOT SCALE : 40.0000 sf / in. WISDOT/CADDS SHEET 42

JMG 12/20/2013





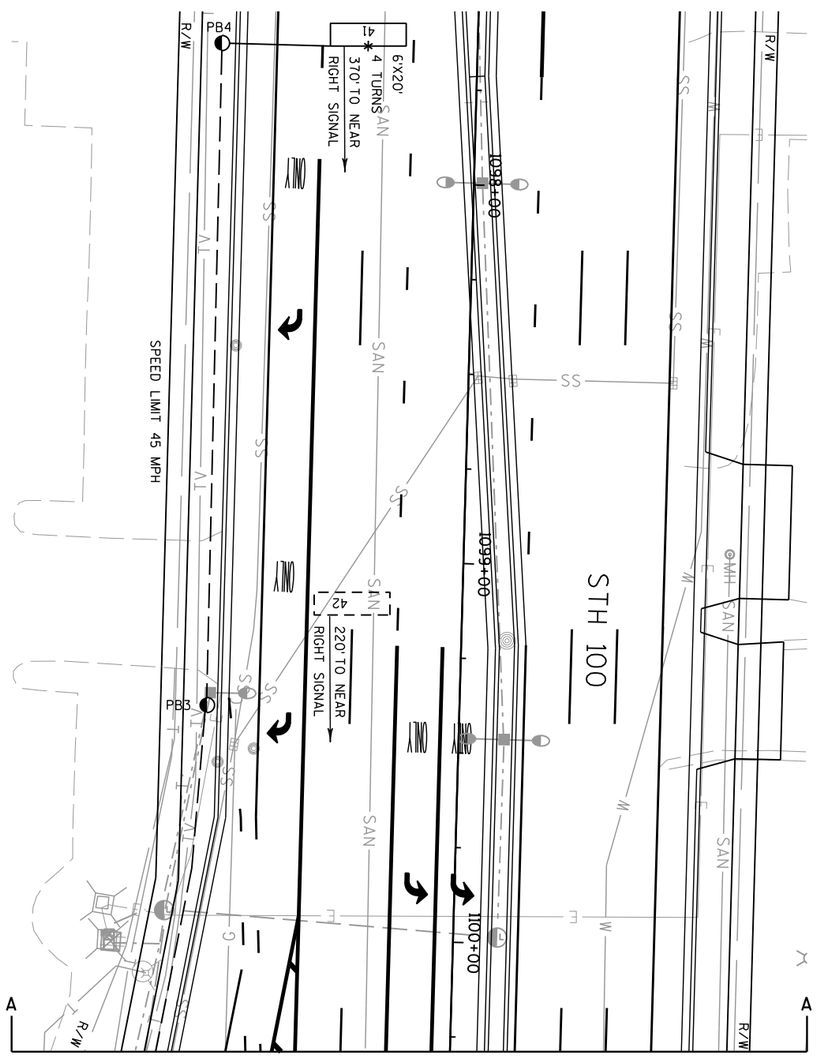
TRAFFIC CONTROL SIGNAL
STH 38 & STH 100
CITY OF OAK CREEK
MILWAUKEE COUNTY

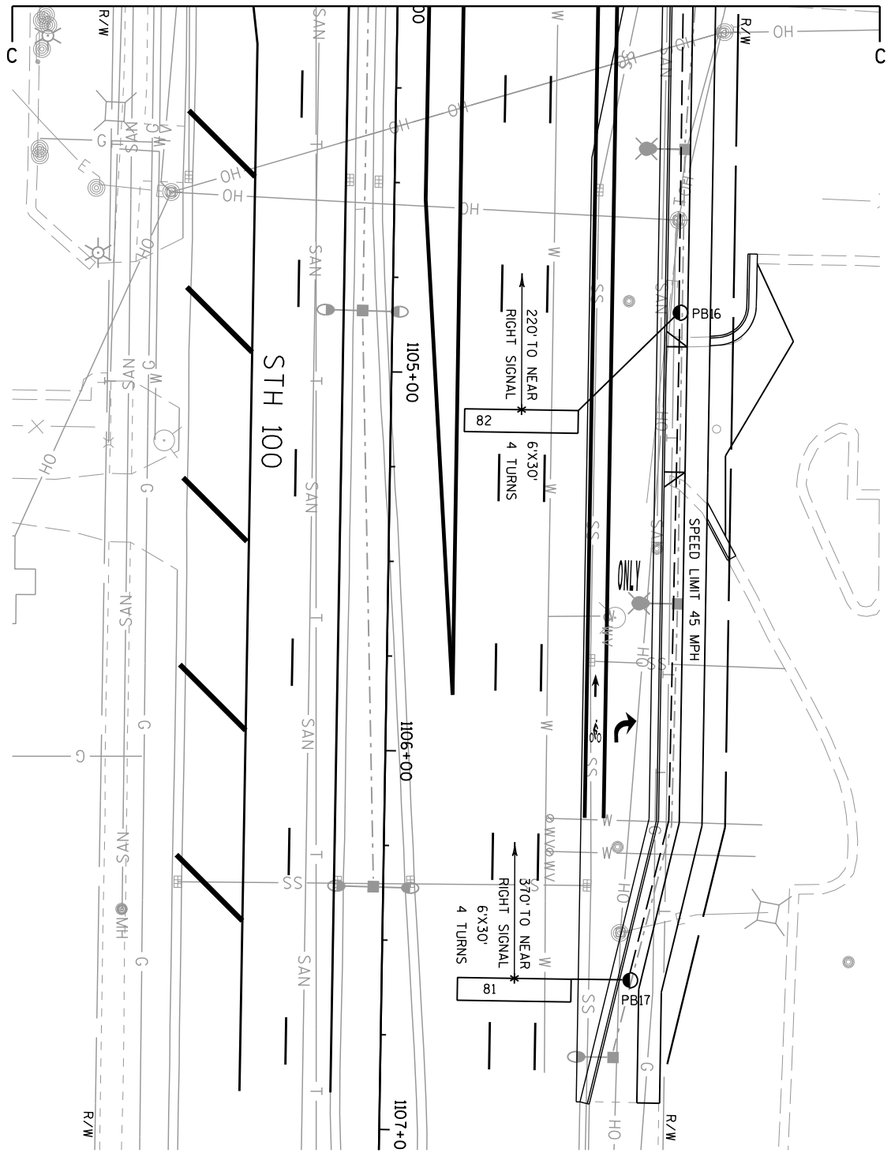
SIGNAL NO. S1080

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PAGE 2 OF 4

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 314	E





TRAFFIC CONTROL SIGNAL
STH 38 & STH 100
CITY OF OAK CREEK
MILWAUKEE COUNTY

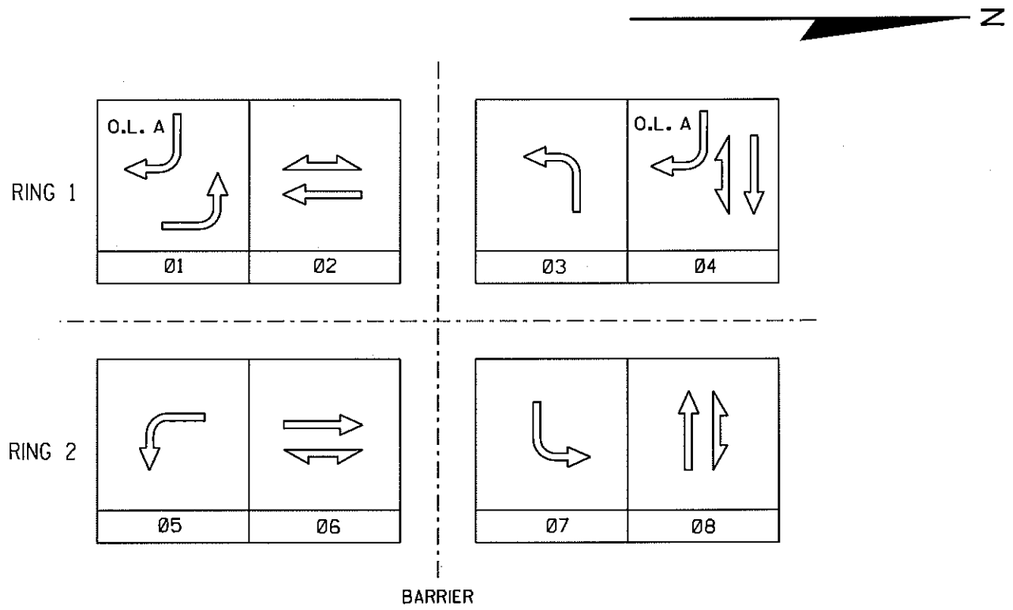
SIGNAL NO. S1080

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PAGE 3 OF 4

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 315	E

	HEAD NUMBERS	FLASH
Ø1	4,5	R
Ø2	6,7,8,9	R
Ø3	25,26,27	R
Ø4	12,13,14	R
Ø5	10,11	R
Ø6	1,2,3	R
Ø7	15,16,17	R
Ø8	21,22,23,24	R
Ø2P	28,29,30,31	
Ø4P	36,37	
Ø6P	34,35	
Ø8P	32,33	
OLA	18,19,20	R
OLB		
OLC		
OLD		



CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1		6		X
2	X	6	MIN	X
3		8		X
4		8		X
5		2		X
6	X	2	MIN	X
7		4		X
8		4		X

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	
CLOSED LOOP	
TWISTED PAIR*	
FIBER OPTIC*	X
FIBER OPTIC (ETHERNET)	
RADIO	

TYPE OF COORDINATION	
NONE	
TBC	X
TRAFFIC RESPONSIVE	X
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO:	S-
SIGNAL SYSTEM *:	SS-00-06

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC SIGNAL CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	X
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
PLAN LOOP DETECTOR *(S)	21	41	61	81		S1	S3	S5
ASSIGNED PHASE	2	4	6	8				
OPERATION MODE	VEH	VEH	VEH	VEH				
SWITCH								
EXTEND		X		X				
DELAY								

DETECTOR INPUT	19	17	23	21	27	25	31	29
PLAN LOOP DETECTOR *(S)	11	31	43	45	51	71	83	85
ASSIGNED PHASE	1	3	4	4	5	7	8	8
OPERATION MODE	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH
SWITCH								
EXTEND								
DELAY				X				

DETECTOR INPUT	4	2	8	6	12	10	16	14
PLAN LOOP DETECTOR *(S)	22		62	82		S2	S4	
ASSIGNED PHASE	2		6	8				
OPERATION MODE	VEH		VEH	VEH				
SWITCH								
EXTEND				X				
DELAY								

DETECTOR INPUT	20	18	24	22	28	26	32	30
PLAN LOOP DETECTOR *(S)	12	42	44	46	52	72	84	
ASSIGNED PHASE	1	4	4	4	5	7	8	
OPERATION MODE	VEH	VEH	VEH	VEH	VEH	VEH	VEH	
SWITCH								
EXTEND		X						
DELAY								

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE DETECTOR	A	B	C	D
MOVEMENT				
PHASE	2+5	6+1	4+7	8+3

AFTER PREEMPTION SEQUENCE 2+5 OR 1+6, CONTROLLER SHALL RETURN TO PHASES 2+6.

AFTER PREEMPTION SEQUENCE 4+7 OR 8+3, CONTROLLER SHALL RETURN TO PHASES 4+8.

STH 38 & STH 100
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1080 CABINET TYPE: TS2

CONTROLLER TYPE: EPAC

DATE 12/13 PAGE NO. 4 OF 4

JMG 12/20/2013

12/20/13 mmd

FILE NAME : Proposed Signals.dgn PLOT DATE : 12/18/2013 PLOT BY : DSCHNABEL-TADI PLOT NAME : S-400,seq,rev2 PLOT SCALE : 40.0000 sf / in. WISDOT/CADDS SHEET 42

PROJECT ID:	2060-15-71
INTERSECTION:	STH 38 & STH 100

SIGNAL WIRE COLOR CODING	BLK-BLACK	RED-RED	GRN-GREEN
	WHT-WHITE	BLU-BLUE	ORG-ORANGE

CB1 TO	JUMPER	# OF COND. AWG 14	HEAD NO.	SIGNAL INDICATION WIRE COLOR									PED BUTTON	OTHER
				RED	YELLOW	GREEN	<RED	<YELLOW>	<FL YELLOW>	<GREEN>	D/WALK	WALK		
SB1		12	18	RED				ORG		GRN				
			28								BLK	BLU		
			BUTTON										WHT/BLK	
SB2		12	12	RED	ORG	GRN								
			29								BLK	BLU		
			30								BLK	BLU		
			BUTTON										WHT/BLK	
SB3		12	26				RED	ORG		GRN				
			37								BLK	BLU		
			BUTTON										WHT/BLK	
SB4		12	15				RED	ORG		GRN				
			27				RED/BLK	ORG/BLK		GRN/BLK				
SB5		7	22	RED	ORG	GRN								
			23	RED	ORG	GRN								
			24	RED	ORG	GRN								
SB7		12	6	RED	ORG	GRN								
			32								BLK	BLU		
			BUTTON										WHT/BLK	
SB8		7	31								BLK	BLU		
			BUTTON										WHT/BLK	
SB9		7	4				RED	ORG		GRN				
			5				RED	ORG		GRN				
SB10		7	2	RED	ORG	GRN								
			3	RED	ORG	GRN								
SB12		12	21	RED	ORG	GRN								
			34								BLK	BLU		
			BUTTON										WHT/BLK	
SB13		7	33								BLK	BLU		
			BUTTON										WHT/BLK	
SB14		12	16				RED	ORG		GRN				
			25				RED/BLK	ORG/BLK		GRN/BLK				
SB15		12	13	RED	ORG	GRN								
			14	RED	ORG	GRN								
			17				RED/BLK	ORG/BLK		GRN/BLK				
			36								BLK	BLU		
			BUTTON										WHT/BLK	
SB16		12	1	RED	ORG	GRN								
			35								BLK	BLU		
			BUTTON										WHT/BLK	
SB17		12	10				RED	ORG		GRN				
			11				RED	ORG		GRN				
			19	RED/BLK				ORG/BLK		GRN/BLK				
SB18		7	20	RED				ORG		GRN				
SB19		7	7	RED	ORG	GRN								
			8	RED	ORG	GRN								
			9	RED	ORG	GRN								

EQUIPMENT GROUNDING CONDUCTOR 10 AWG GRN XLP	
FROM	TO
CB1	SB1
SB1	SB2
SB2	SB3
SB3	SB4
SB4	SB5
SB5	SB6
SB6	SB7
SB7	SB8
SB8	SB9
SB9	SB10
SB10	SB11
SB11	SB12
SB12	SB13
SB13	SB14
SB14	SB15
SB15	SB16
SB16	SB17
SB17	SB18
SB18	SB19
SB19	CB1

PULL BOX BONDING JUMPER 10 AWG GRN XLP	
FROM	TO
CB1	PB1
CB1	PB2
SB2	PB5
SB4	PB6
SB5	PB7
SB6	PB8
SB7	PB11
SB9	PB12
SB10	PB13
SB11	PB15
SB12	PB18
SB14	PB19
SB15	PB20
SB16	PB21
SB16	PB22
SB18	PB25
CB1	PB26

LIGHTING UF 12 AWG W/GROUND	
FROM	TO
CB1	SB1
SB1	SB4
SB4	SB6
SB6	SB9
CB1	SB17
SB17	SB14
SB14	SB11

VIDEO DETECTION CABLE	
FROM	TO
CB1	SB5 (V1)
CB1	SB9 (V2)
CB1	SB15 (V3)
CB1	SB17 (V4)

EMERGENCY VEHICLE PREEMPTION CABLE	
FROM	TO
CB1	SB5 (D)
CB1	SB10 (B)
CB1	SB15 (C)
CB1	SB19 (A)

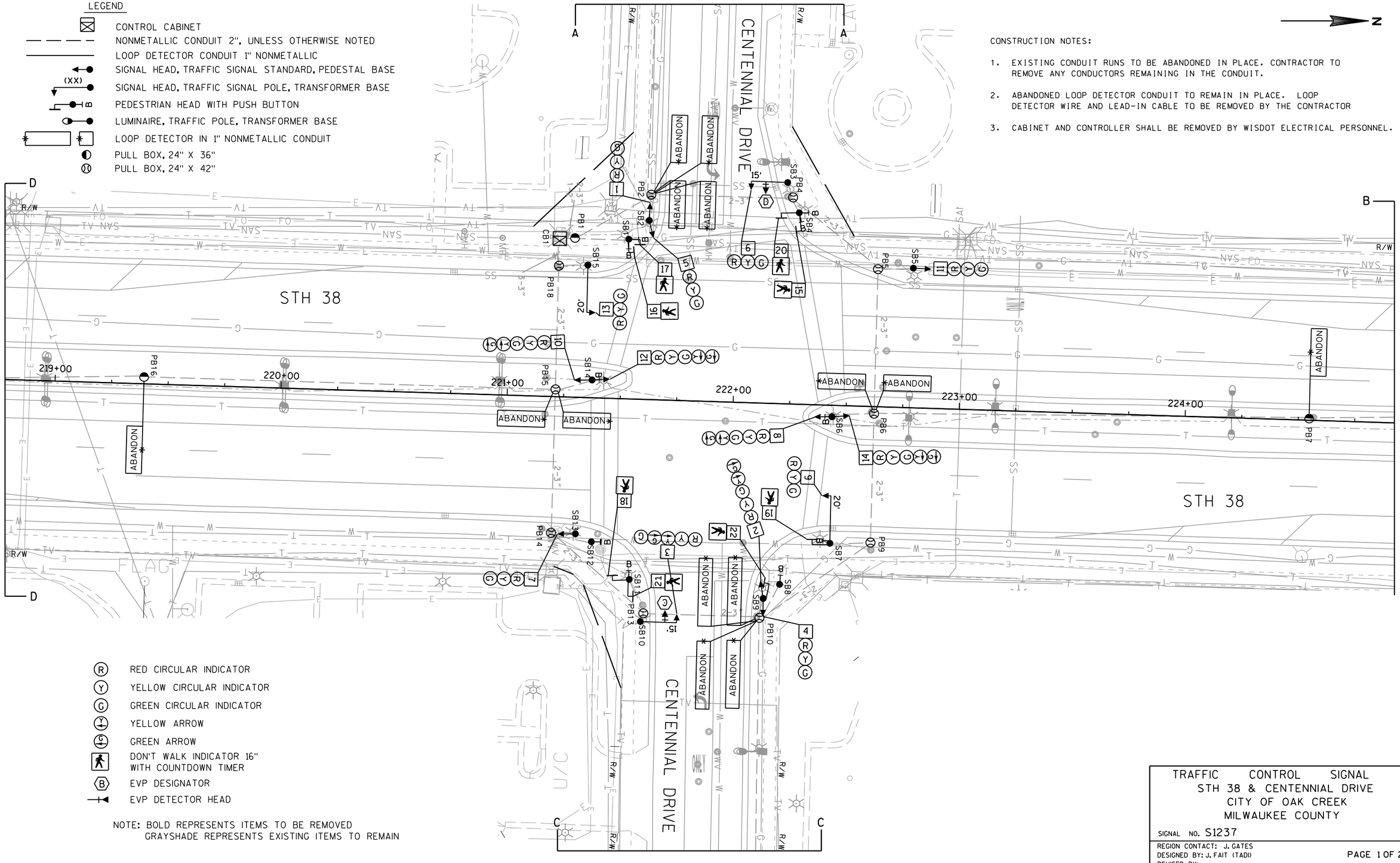
NOTES:
1. USE WHITE CONDUCTOR IN THE SIGNAL CABLE AS THE GROUNDED CONDUCTOR FOR ALL TRAFFIC SIGNAL INDICATIONS.
2. ENSURE THE GROUNDED CONDUCTOR IN THE FEEDER CABLE AND THE POLE CABLES ARE BOTH 18" LONGER THAN THE UNGROUNDED CONDUCTORS.
3. AT THE SIGNAL BASES, CONNECT ONE TERMINAL FROM THE PEDESTRIAN PUSH BUTTONS TO THE COLOR INDICATED IN THE CHART. CONNECT THE OTHER TERMINAL TO THE GROUNDED CONDUCTOR.

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"

CONSTRUCTION NOTES:

1. EXISTING CONDUIT RUNS TO BE ABANDONED IN PLACE. CONTRACTOR TO REMOVE ANY CONDUCTORS REMAINING IN THE CONDUIT.
2. ABANDONED LOOP DETECTOR CONDUIT TO REMAIN IN PLACE. LOOP DETECTOR WIRE AND LEAD-IN CABLE TO BE REMOVED BY THE CONTRACTOR
3. CABINET AND CONTROLLER SHALL BE REMOVED BY WISDOT ELECTRICAL PERSONNEL.



- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- (Y) YELLOW ARROW
- (G) GREEN ARROW
- DON'T WALK INDICATOR 16" WITH COUNTDOWN TIMER
- (B) EVP DESIGNATOR
- EVP DETECTOR HEAD

NOTE: BOLD REPRESENTS ITEMS TO BE REMOVED
GRAYSHADE REPRESENTS EXISTING ITEMS TO REMAIN

TRAFFIC CONTROL SIGNAL
STH 38 & CENTENNIAL DRIVE
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1237

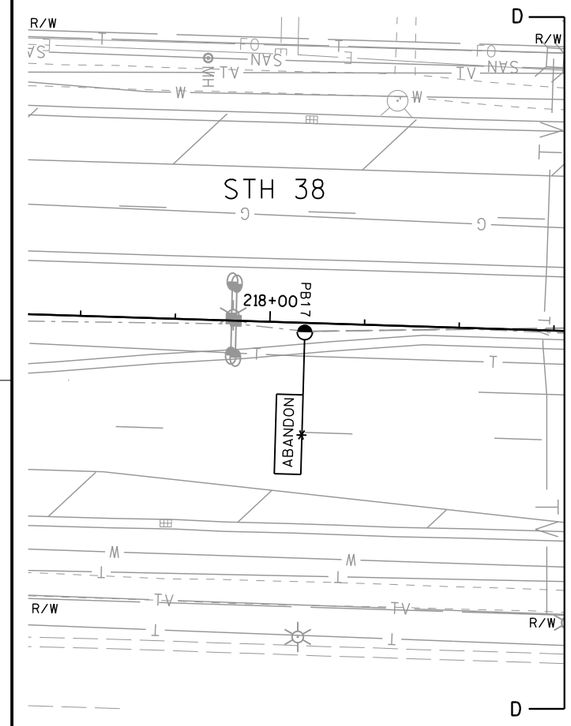
REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

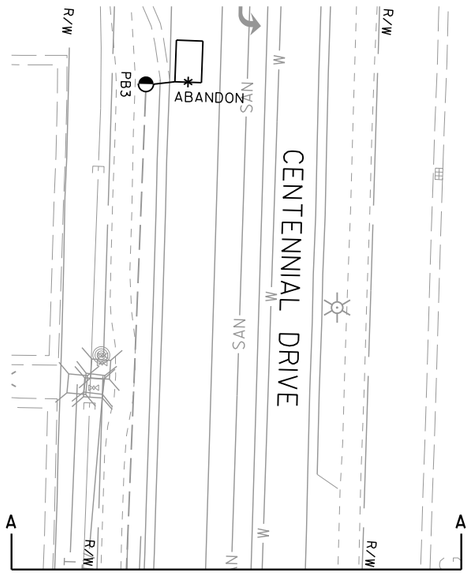
PAGE 1 OF 2

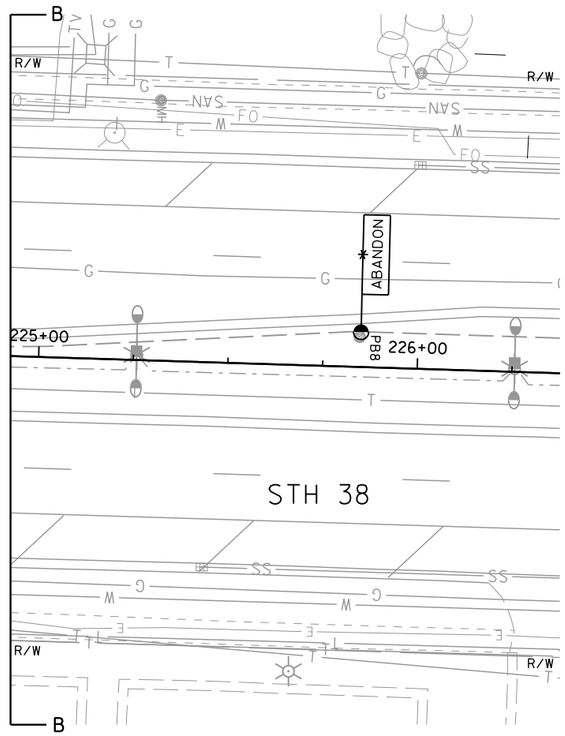
PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 318 E

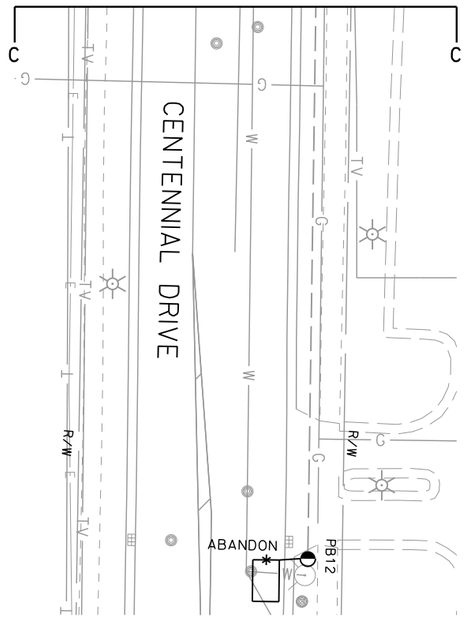
2

N









TRAFFIC CONTROL SIGNAL
STH 38 & CENTENNIAL DRIVE
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1237

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

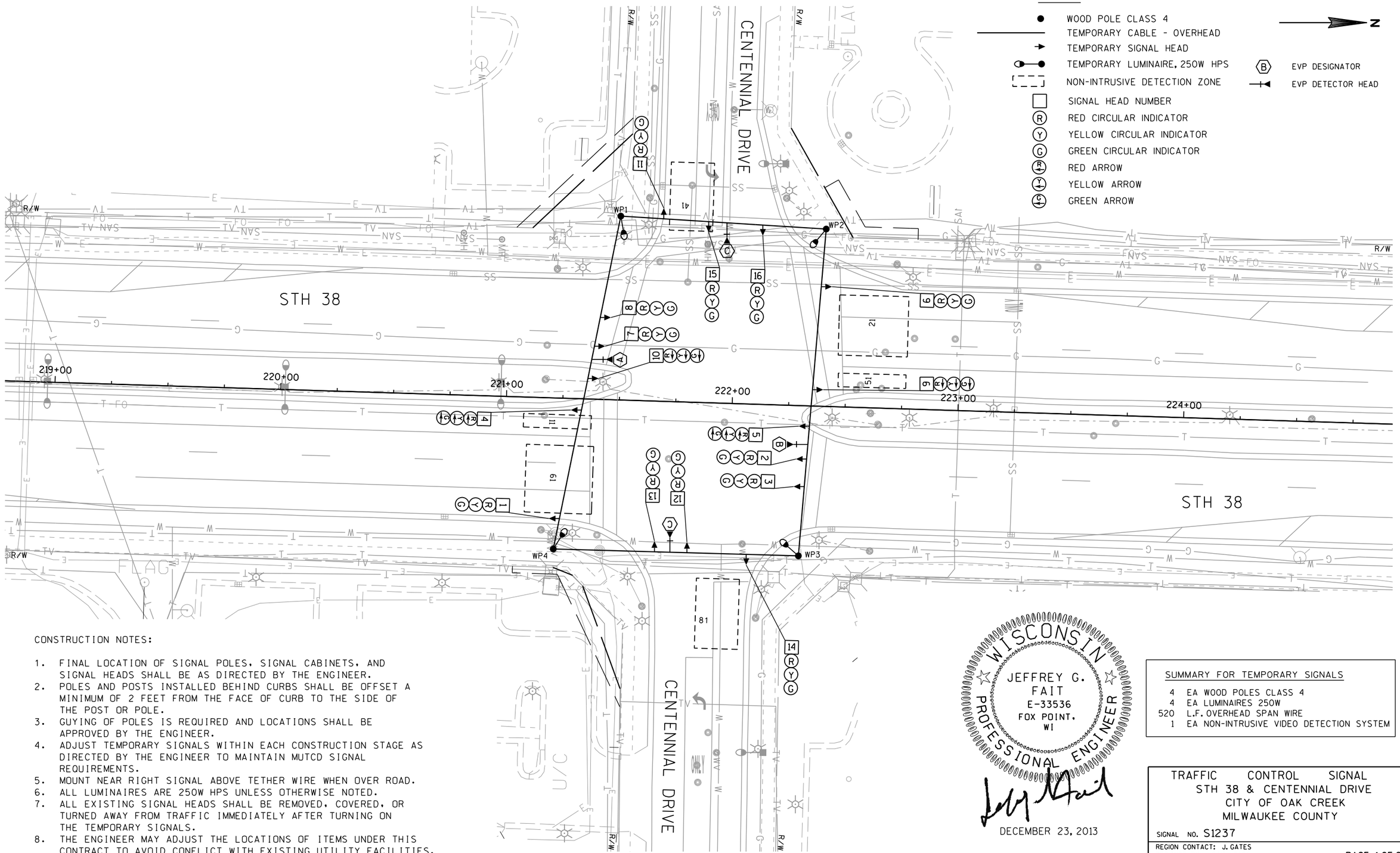
PAGE 2 OF 2

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 319	E

2

LEGEND

- WOOD POLE CLASS 4
- TEMPORARY CABLE - OVERHEAD
- TEMPORARY SIGNAL HEAD
- TEMPORARY LUMINAIRE, 250W HPS
- NON-INTRUSIVE DETECTION ZONE
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- (R) RED ARROW
- (Y) YELLOW ARROW
- (G) GREEN ARROW
- (B) EVP DESIGNATOR
- EVP DETECTOR HEAD
- N



CONSTRUCTION NOTES:

1. FINAL LOCATION OF SIGNAL POLES, SIGNAL CABINETS, AND SIGNAL HEADS SHALL BE AS DIRECTED BY THE ENGINEER.
2. POLES AND POSTS INSTALLED BEHIND CURBS SHALL BE OFFSET A MINIMUM OF 2 FEET FROM THE FACE OF CURB TO THE SIDE OF THE POST OR POLE.
3. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER.
4. ADJUST TEMPORARY SIGNALS WITHIN EACH CONSTRUCTION STAGE AS DIRECTED BY THE ENGINEER TO MAINTAIN MUTCD SIGNAL REQUIREMENTS.
5. MOUNT NEAR RIGHT SIGNAL ABOVE TETHER WIRE WHEN OVER ROAD.
6. ALL LUMINAIRES ARE 250W HPS UNLESS OTHERWISE NOTED.
7. ALL EXISTING SIGNAL HEADS SHALL BE REMOVED, COVERED, OR TURNED AWAY FROM TRAFFIC IMMEDIATELY AFTER TURNING ON THE TEMPORARY SIGNALS.
8. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.

WISCONSIN
JEFFREY G. FAIT
E-33536
FOX POINT, WI
PROFESSIONAL ENGINEER

DECEMBER 23, 2013

SUMMARY FOR TEMPORARY SIGNALS

4	EA WOOD POLES CLASS 4
4	EA LUMINAIRES 250W
520	L.F. OVERHEAD SPAN WIRE
1	EA NON-INTRUSIVE VIDEO DETECTION SYSTEM

TRAFFIC CONTROL SIGNAL
STH 38 & CENTENNIAL DRIVE
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1237

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PAGE 1 OF 2

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - PRE-STAGE	SHEET 320 E

2

LEGEND

- WOOD POLE CLASS 4
- TEMPORARY CABLE - OVERHEAD
- TEMPORARY SIGNAL HEAD
- TEMPORARY LUMINAIRE, 250W HPS
- NON-INTRUSIVE DETECTION ZONE
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- (R) RED ARROW
- (Y) YELLOW ARROW
- (G) GREEN ARROW
- (B) EVP DESIGNATOR
- EVP DETECTOR HEAD

N

CENTENNIAL DRIVE

STH 38

R/W

WP1

WP2

WP3

WP4

219+00

220+00

221+00

222+00

223+00

224+00

41

81

21

19

U/C

FLAG

TRAFFIC CONTROL SIGNAL
STH 38 & CENTENNIAL DRIVE
CITY OF OAK CREEK
MILWAUKEE COUNTY

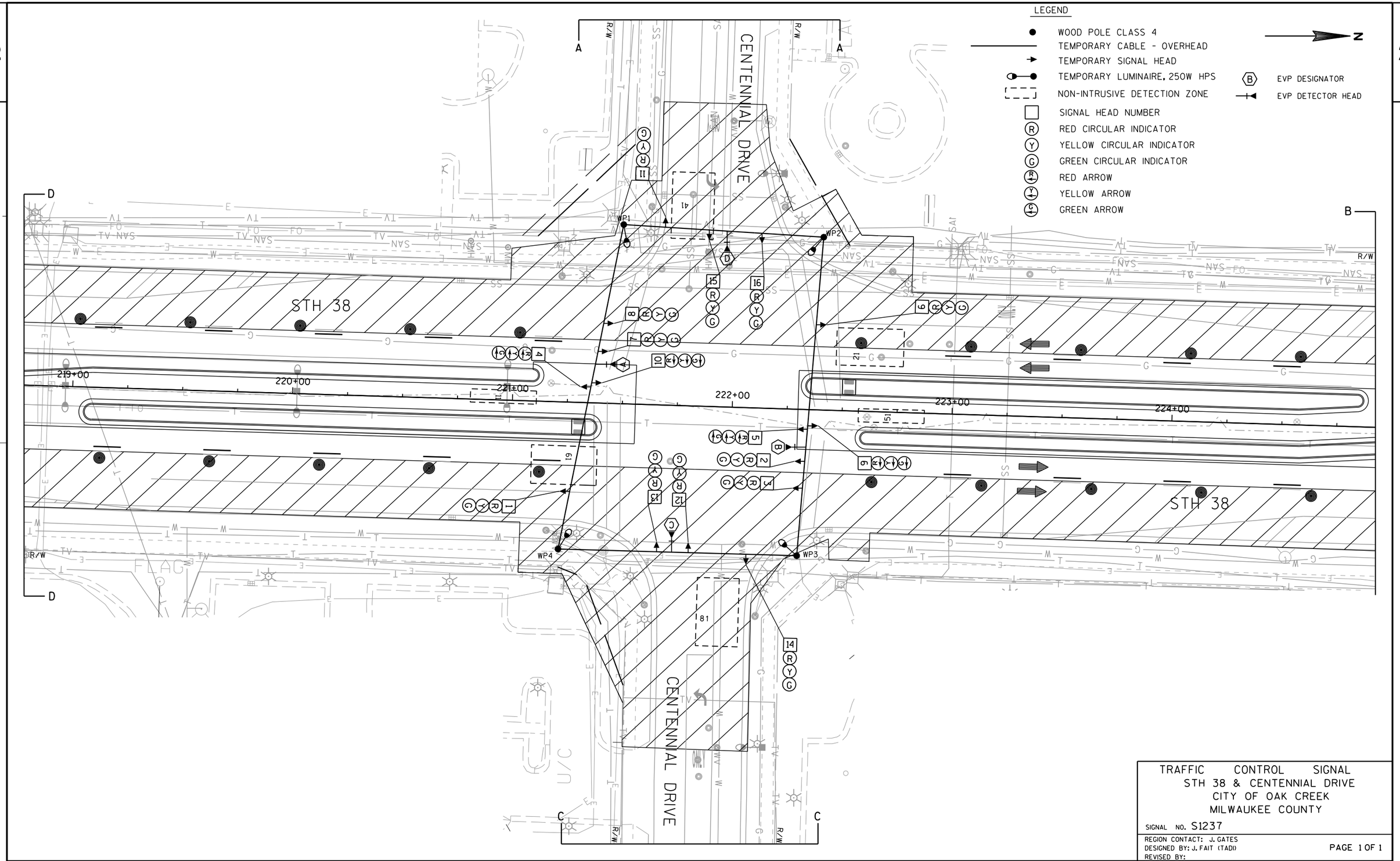
SIGNAL NO. S1237

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PAGE 1 OF 1

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 1	SHEET 321	E

FILE NAME : Temporary Signals Stage1.dgn PLOT DATE : 12/22/2013 PLOT BY : DSCHNABEL-TADI PLOT NAME : PLOT SCALE : 40.0000 sf / in.



TRAFFIC CONTROL SIGNAL
STH 38 & CENTENNIAL DRIVE
CITY OF OAK CREEK
MILWAUKEE COUNTY

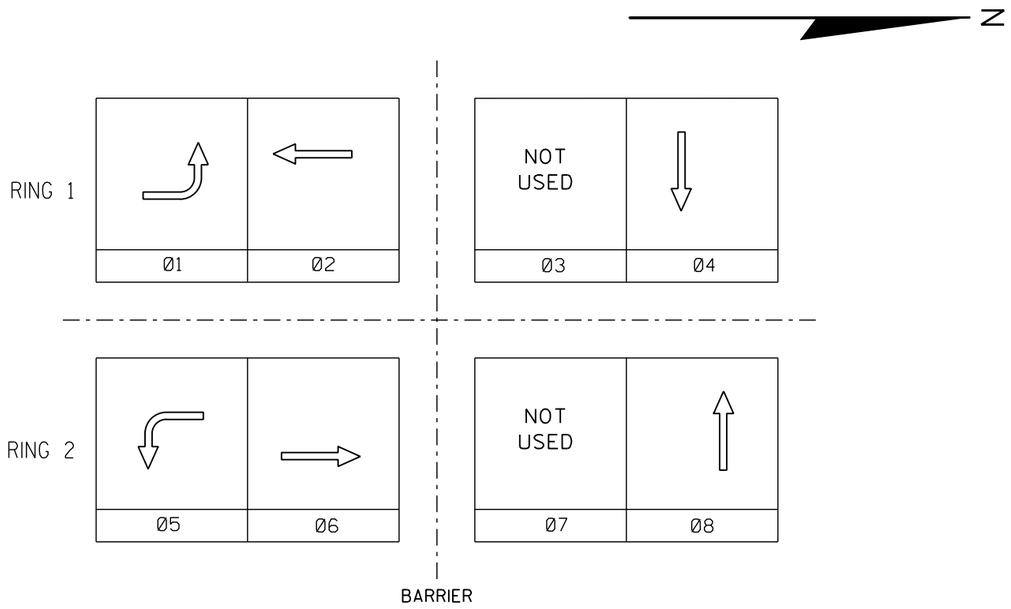
SIGNAL NO. S1237

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PAGE 1 OF 1

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 2	SHEET 322	E

	HEAD NUMBERS	FLASH
Ø1	4,5	R
Ø2	6,7,8	R
Ø3		
Ø4	11,12,13	R
Ø5	9,10	R
Ø6	1,2,3	R
Ø7		
Ø8	14,15,16	R
Ø2P		
Ø4P		
Ø6P		
Ø8P		
OLA		
OLB		
OLC		
OLD		



CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1		6		X
2	X	6	MIN	X
3				
4		8		X
5		2		X
6	X	2	MIN	X
7				
8		4		X

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	X
CLOSED LOOP	
TWISTED PAIR*	
FIBER OPTIC*	
FIBER OPTIC (ETHERNET)	
RADIO	

TYPE OF COORDINATION	
NONE	
TBC	X
TRAFFIC RESPONSIVE	
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO:	S-
SIGNAL SYSTEM #:	SS-00-06

TYPE OF LIGHTING	
BY OTHER AGENCY	X
IN TRAFFIC SIGNAL CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	X
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

DETECTOR LOGIC

DETECTOR NUMBER	DETECTOR INPUT	DETECTOR OPERATION: CALLS AND EXTENDS	DETECTOR OPERATION: CALLS ONLY	DETECTOR OPERATION: EXTENDS ONLY	PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	SIZE	NUMBER OF TURNS
11		X			1	1					
21		X			2	2					
41		X			4	4					
51		X			5	5					
61		X			6	6					
81		X			8	8					

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE DETECTOR	A	B	C	
MOVEMENT	←	→	↓ ↑	
PHASE	2+5	6+1	4+8	

AFTER PREEMPTION SEQUENCE 2+5 OR 1+6, CONTROLLER SHALL RETURN TO PHASES 2+6.

AFTER PREEMPTION SEQUENCE 4+8, CONTROLLER SHALL RETURN TO PHASES 4+8.

STH 38 & CENTENNIAL DRIVE
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1237 CABINET TYPE:

CONTROLLER TYPE: TEMP

DATE 12/13 PAGE NO. 2 OF 2

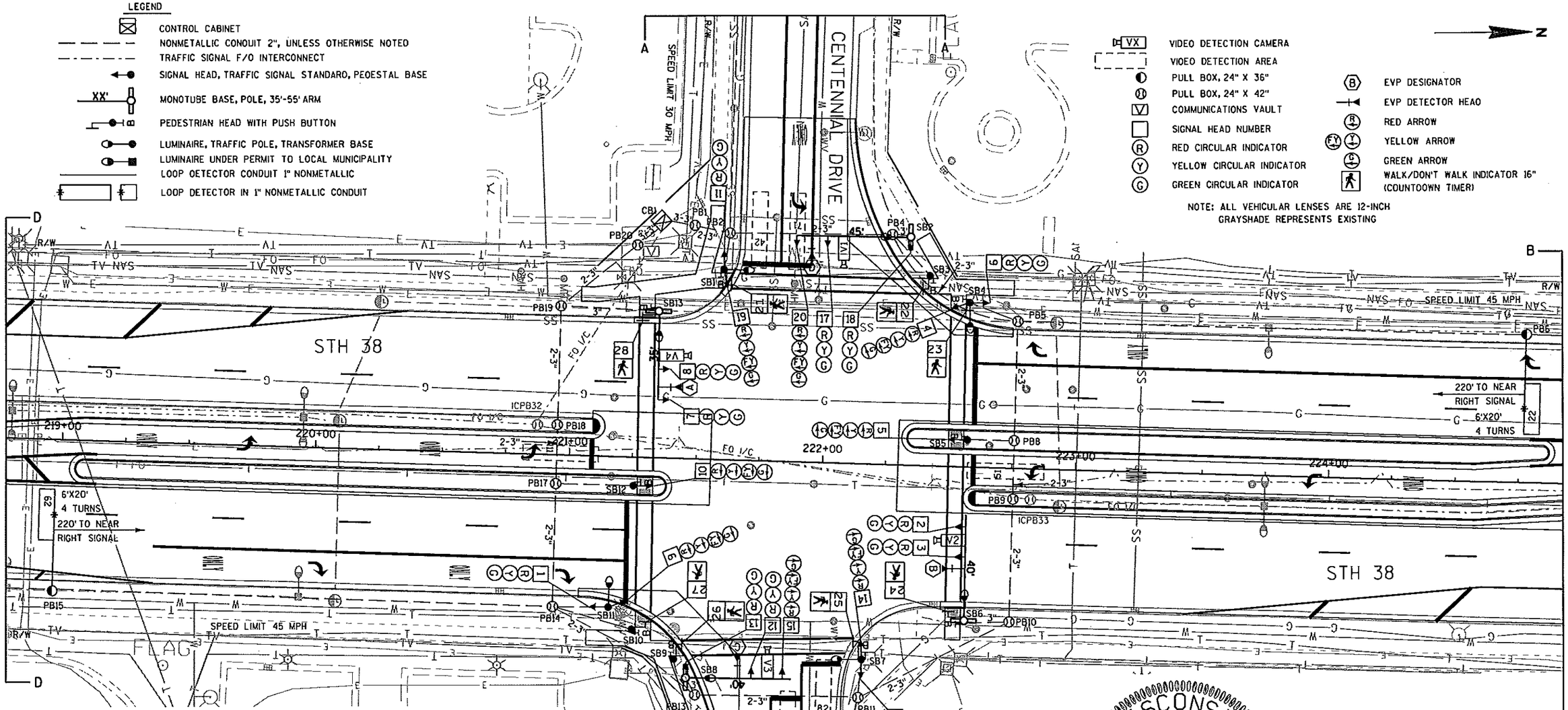
PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TEMPORARY SEQUENCE OF OPERATIONS - ALL STAGES	SHEET 323	E

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- TRAFFIC SIGNAL F/O INTERCONNECT
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- XX' MONOTUBE BASE, POLE, 35'-55' ARM
- PEDESTRIAN HEAD WITH PUSH BUTTON
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- LUMINAIRE UNDER PERMIT TO LOCAL MUNICIPALITY
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- VX VIDEO DETECTION CAMERA
- VIDEO DETECTION AREA
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- COMMUNICATIONS VAULT
- SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- B EVP DESIGNATOR
- EVP DETECTOR HEAD
- R RED ARROW
- FY Y YELLOW ARROW
- G GREEN ARROW
- WALK/DON'T WALK INDICATOR 16" (COUNTDOWN TIMER)

NOTE: ALL VEHICULAR LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

N



CONSTRUCTION NOTES:

1. * LOCATION IS TO FRONT CENTER OF DETECTOR LOOP.
2. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO THE SYSTEM. CONTACT THE WISDOT ELECTRICAL FIELD UNIT TO MAKE ARRANGEMENTS. (414)266-1170
3. ALL LUMINAIRES ARE LED. CATEGORY C UNLESS OTHERWISE NOTED.
4. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN.
5. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
6. INSTALL CABINET BASE 6" ABOVE ROADWAY ELEVATION.
7. THE CONDUIT EMBEDDED IN A TYPE 10 OR TYPE 13 BASE SHALL BE 3" CONDUIT.

MONOTUBE STRUCTURE NUMBERS	
BASE	STRUCTURE
SB2	S-40-1407
SB6	S-40-1408
SB8	S-40-1409
SB13	S-40-1410

WISCONSIN
JEFFREY G. FAIT
E-33536
FOX POINT, WI
PROFESSIONAL ENGINEER

DECEMBER 18, 2013

TRAFFIC CONTROL SIGNAL
STH 38 & CENTENNIAL DRIVE
CITY OF OAK CREEK
MILWAUKEE COUNTY
SIGNAL NO. S1237
CABINET TYPE: TS2
CONTROLLER TYPE: EPAC NTCIP

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED
Date 12/20/13 — REGION TRAFFIC ENGINEER

APPROVED
Date 1/8/14 — STATE TRAFFIC ENGINEER

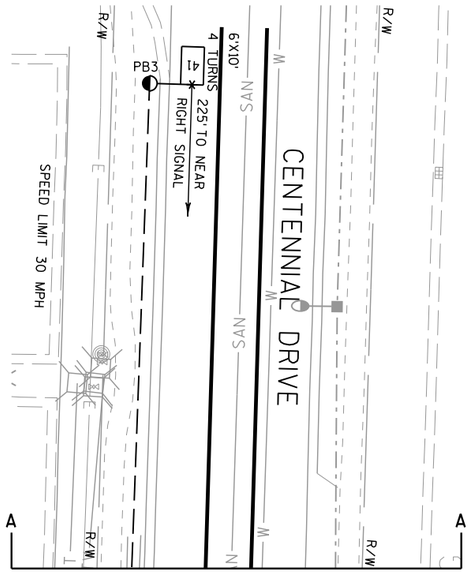
REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

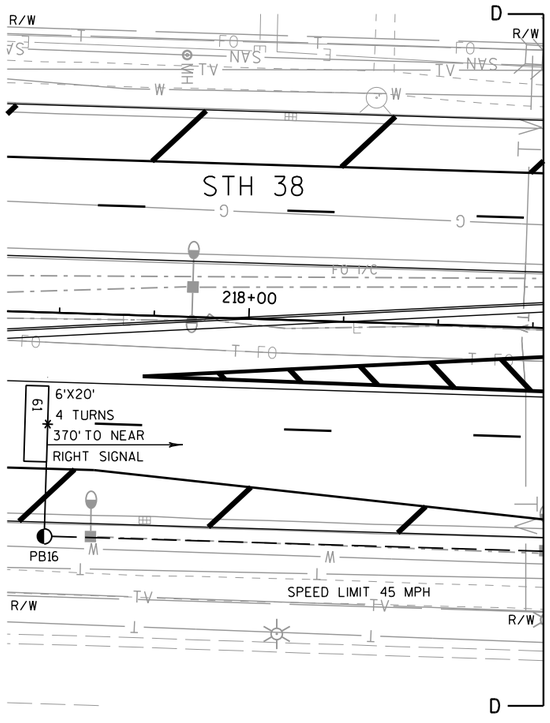
PAGE 1 OF 3

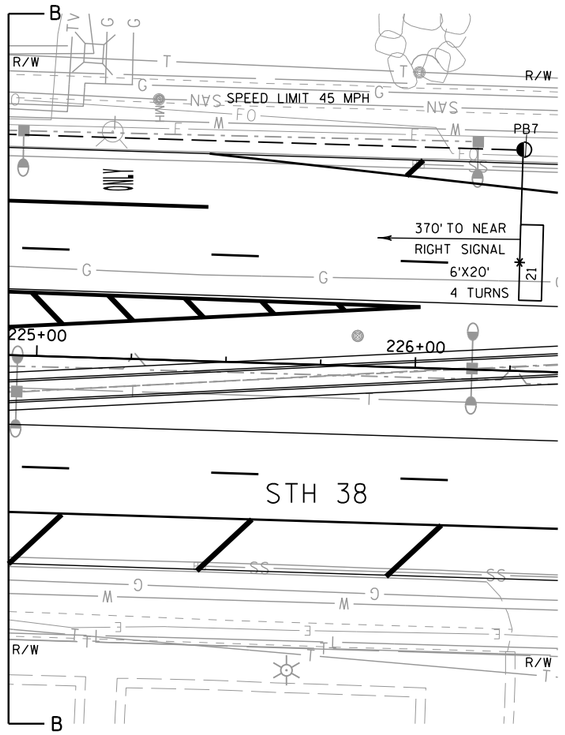
PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 324 E

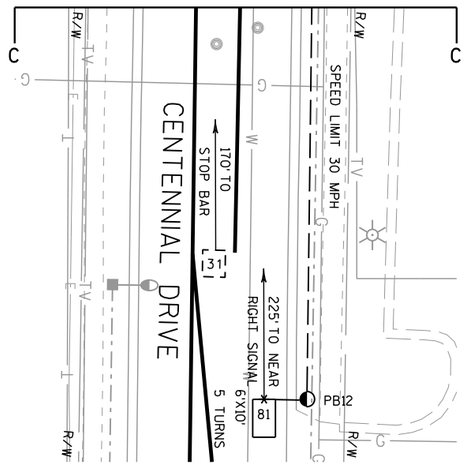
FILE NAME : Proposed Signals.dgn | PLOT DATE : 12/19/2013 | PLOT BY : DSCHNABEL-TADI | PLOT NAME : | PLOT SCALE : 40.0000 sf / in. | WISDOT/CADDS SHEET 42

JMG 12/20/2013









TRAFFIC CONTROL SIGNAL
STH 38 & CENTENNIAL DRIVE
CITY OF OAK CREEK
MILWAUKEE COUNTY

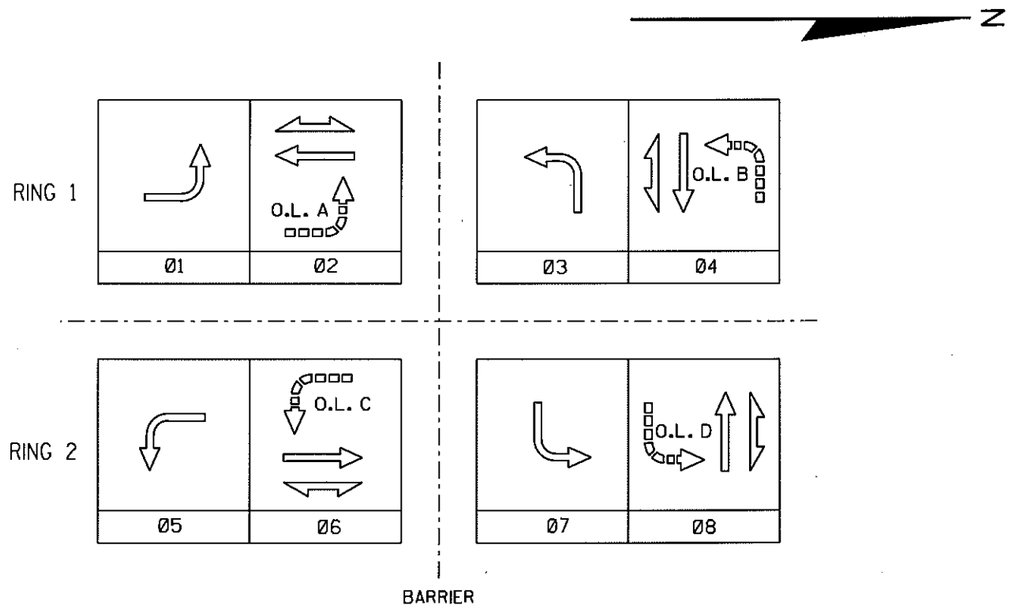
SIGNAL NO. S1237

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PAGE 2 OF 3

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 325 E

	HEAD NUMBERS	FLASH
Ø1	4,5	-
Ø2	6,7,8	R
Ø3	19,20	-
Ø4	11,12,13	R
Ø5	9,10	-
Ø6	1,2,3	R
Ø7	14,15	-
Ø8	16,17,18	R
Ø2P	21,22	
Ø4P	27,28	
Ø6P	25,26	
Ø8P	23,24	
OLA	4,5	R
OLB	19,20	R
OLC	9,10	R
OLD	14,15	R



CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1		6		X
2	X	6	MIN	X
3		8		X
4		8		X
5		2		X
6	X	2	MIN	X
7		4		X
8		4		X

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	
CLOSED LOOP	
TWISTED PAIR*	
FIBER OPTIC*	X
FIBER OPTIC (ETHERNET)	
RADIO	

TYPE OF COORDINATION	
NONE	
TBC	X
TRAFFIC RESPONSIVE	X
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO:	S-
SIGNAL SYSTEM #:	SS-00-06

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC SIGNAL CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	X
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
PLAN LOOP DETECTOR #(S)	21	41	61	81				
ASSIGNED PHASE	2	4	6	8				
OPERATION MODE	VEH	VEH	VEH	VEH				
SWITCH								
EXTEND		X		X				
DELAY								

19	17	23	21	27	25	31	29	DETECTOR INPUT
11	31	42	51	71	82			PLAN LOOP DETECTOR #(S)
1	3	4	5	7	8			ASSIGNED PHASE
VEH	VEH	VEH	VEH	VEH	VEH			OPERATION MODE
								SWITCH
								EXTEND
	X							DELAY

DETECTOR INPUT	4	2	8	6	12	10	16	14
PLAN LOOP DETECTOR #(S)	22		62					
ASSIGNED PHASE	2		6					
OPERATION MODE	VEH		VEH					
SWITCH								
EXTEND								
DELAY								

20	18	24	22	28	26	32	30	DETECTOR INPUT
		43						PLAN LOOP DETECTOR #(S)
		4						ASSIGNED PHASE
		VEH						OPERATION MODE
								SWITCH
								EXTEND
								DELAY

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE DETECTOR	A	B	C	D
MOVEMENT				
PHASE	2+5	6+1	4+7	8+3

AFTER PREEMPTION SEQUENCE 2+5 OR 1+6, CONTROLLER SHALL RETURN TO PHASES 2+6.

AFTER PREEMPTION SEQUENCE 4+7 OR 8+3, CONTROLLER SHALL RETURN TO PHASES 4+8.

STH 38 & CENTENNIAL DRIVE
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1237 CABINET TYPE: TS2

CONTROLLER TYPE: EPAC

DATE 12/13 PAGE NO. 3 OF 3

JMG 12/20/2013

12/20/13 MMD

FILE NAME : Proposed Signals.dgn PLOT DATE : 12/18/2013 PLOT BY : DSCHNABEL-TADI PLOT NAME : S-400,seq,rev2 PLOT SCALE : 40.0000 sf / in.
WISDOT/CADDS SHEET 42

PROJECT ID:	2060-15-71
INTERSECTION:	STH 38 & CENTENNIAL DR

SIGNAL WIRE COLOR CODING	BLK-BLACK	RED-RED	GRN-GREEN
	WHT-WHITE	BLU-BLUE	ORG-ORANGE

CB1 TO	JUMPER	# OF COND. AWG 14	HEAD NO.	SIGNAL INDICATION WIRE COLOR									PED BUTTON	OTHER
				RED	YELLOW	GREEN	<RED>	<YELLOW>	<FL YELLOW>	<GREEN>	D/WALK	WALK		
SB1		12	11	RED	ORG	GRN								
			19				RED/BLK	ORG/BLK	BLK/WHT	GRN/BLK				
			21								BLK	BLU		
			BUTTON										WHT/BLK	
SB2		12	17	RED	ORG	GRN								
			18	RED	ORG	GRN								
			20				RED/BLK	ORG/BLK	BLK/WHT	GRN/BLK				
SB3		7	22								BLK	BLU		
			BUTTON										WHT/BLK	
SB4		12	4				RED	ORG	BLK/WHT	GRN				
			6	RED/BLK	ORG/BLK	GRN/BLK								
			23								BLK	BLU		
			BUTTON										WHT/BLK	
SB5		12	5				RED	ORG	BLK/WHT	GRN				
			BUTTON											
SB6		12	2	RED	ORG	GRN								
			3	RED	ORG	GRN								
			24								BLK	BLU		
			BUTTON										WHT/BLK	
SB7		12	14				RED	ORG	BLK/WHT	GRN				
			16	RED/BLK	ORG/BLK	GRN/BLK								
			25								BLK	BLU		
			BUTTON										WHT/BLK	
SB8		12	12	RED	ORG	GRN								
			13	RED	ORG	GRN								
			15				RED/BLK	ORG/BLK	BLK/WHT	GRN/BLK				
SB9		7	26								BLK	BLU		
			BUTTON										WHT/BLK	
SB10		7	27								BLK	BLU		
			BUTTON										WHT/BLK	
SB11		12	1	RED	ORG	GRN								
			9				RED/BLK	ORG/BLK	BLK/WHT	GRN/BLK				
SB12		12	10				RED	ORG	BLK/WHT	GRN				
			BUTTON										WHT/BLK	
SB13		12	7	RED	ORG	GRN								
			8	RED	ORG	GRN								
			28								BLK	BLU		
			BUTTON										WHT/BLK	

EQUIPMENT GROUNDING CONDUCTOR 10 AWG GRN XLP	
FROM	TO
CB1	SB1
SB1	SB2
SB2	SB3
SB3	SB4
SB4	SB5
SB5	SB6
SB6	SB7
SB7	SB8
SB8	SB9
SB9	SB10
SB10	SB11
SB11	SB12
SB12	SB13
SB13	CB1

PULL BOX BONDING JUMPER 10 AWG GRN XLP	
FROM	TO
CB1	PB1
CB1	PB2
SB2	PB4
SB4	PB5
SB5	PB8
SB5	PB9
SB6	PB10
SB7	PB11
SB8	PB13
SB11	PB14
SB12	PB17
SB12	PB18
SB13	PB19
CB1	PB20

LIGHTING UF 12 AWG W/GROUND	
FROM	TO
CB1	SB1
SB1	SB2
SB2	SB4
SB4	SB6
CB1	SB13
SB13	SB11
SB11	SB8
SB8	SB7

VIDEO DETECTION CABLE	
FROM	TO
CB1	SB2 (V1)
CB1	SB6 (V2)
CB1	SB8 (V3)
CB1	SB13 (V4)

EMERGENCY VEHICLE PREEMPTION CABLE	
FROM	TO
CB1	SB2 (D)
CB1	SB6 (B)
CB1	SB8 (C)
CB1	SB13 (A)

NOTES:
1. USE WHITE CONDUCTOR IN THE SIGNAL CABLE AS THE GROUNDED CONDUCTOR FOR ALL TRAFFIC SIGNAL INDICATIONS.
2. ENSURE THE GROUNDED CONDUCTOR IN THE FEEDER CABLE AND THE POLE CABLES ARE BOTH 18" LONGER THAN THE UNGROUNDED CONDUCTORS.
3. AT THE SIGNAL BASES, CONNECT ONE TERMINAL FROM THE PEDESTRIAN PUSH BUTTONS TO THE COLOR INDICATED IN THE CHART. CONNECT THE OTHER TERMINAL TO THE GROUNDED CONDUCTOR.

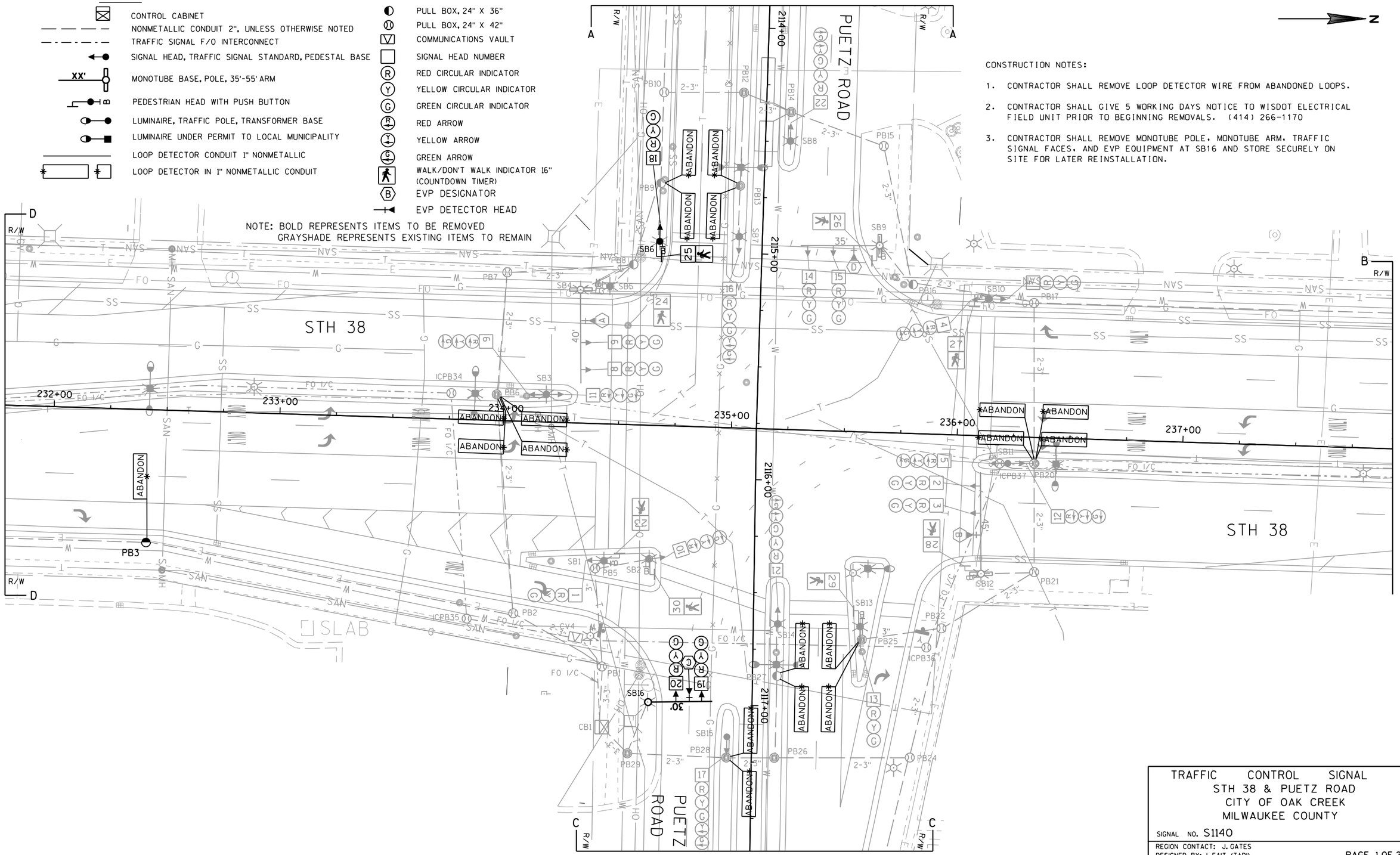
LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- TRAFFIC SIGNAL F/O INTERCONNECT
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- XX' MONOTUBE BASE, POLE, 35'-55' ARM
- B PEDESTRIAN HEAD WITH PUSH BUTTON
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- LUMINAIRE UNDER PERMIT TO LOCAL MUNICIPALITY
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- COMMUNICATIONS VAULT
- SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- R RED ARROW
- Y YELLOW ARROW
- G GREEN ARROW
- WALK/DON'T WALK INDICATOR 16" (COUNTDOWN TIMER)
- B EVP DESIGNATOR
- EVP DETECTOR HEAD

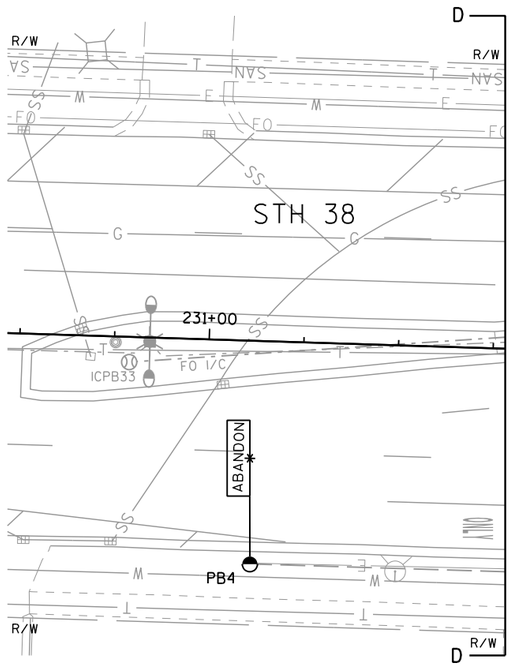
NOTE: BOLD REPRESENTS ITEMS TO BE REMOVED
GRAYSHADE REPRESENTS EXISTING ITEMS TO REMAIN

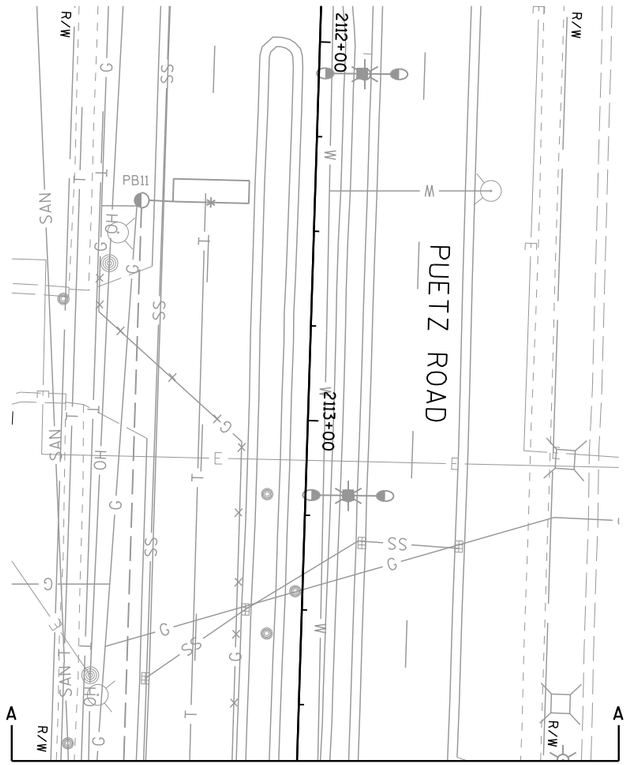
CONSTRUCTION NOTES:

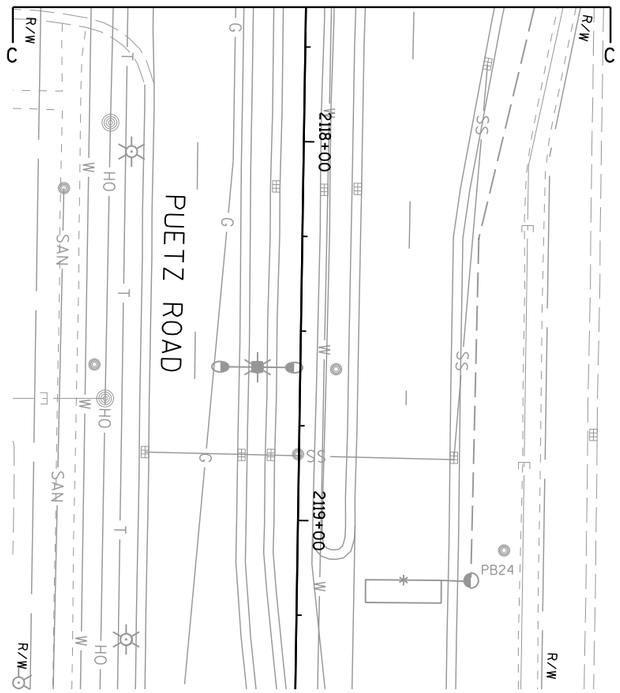
1. CONTRACTOR SHALL REMOVE LOOP DETECTOR WIRE FROM ABANDONED LOOPS.
2. CONTRACTOR SHALL GIVE 5 WORKING DAYS NOTICE TO WISDOT ELECTRICAL FIELD UNIT PRIOR TO BEGINNING REMOVALS. (414) 266-1170
3. CONTRACTOR SHALL REMOVE MONOTUBE POLE, MONOTUBE ARM, TRAFFIC SIGNAL FACES, AND EVP EQUIPMENT AT SB16 AND STORE SECURELY ON SITE FOR LATER REINSTALLATION.

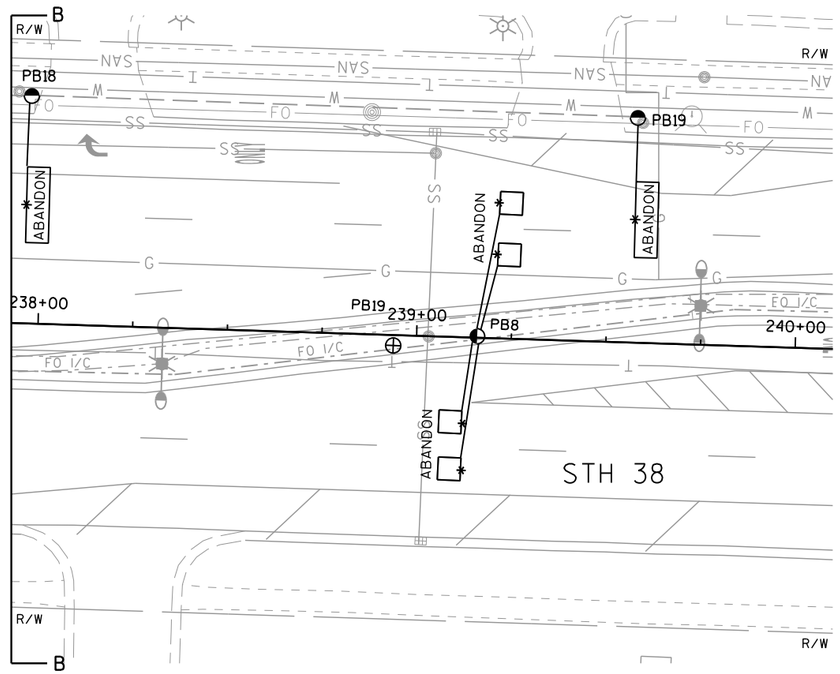


TRAFFIC CONTROL SIGNAL STH 38 & PUETZ ROAD CITY OF OAK CREEK MILWAUKEE COUNTY SIGNAL NO. S1140				
REGION CONTACT: J. GATES DESIGNED BY: J. FAIT (TADI) REVISED BY:				PAGE 1 OF 2
PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 328 E









TRAFFIC CONTROL SIGNAL
STH 38 & PUETZ ROAD
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1140

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PAGE 2 OF 2

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 329	E

LEGEND

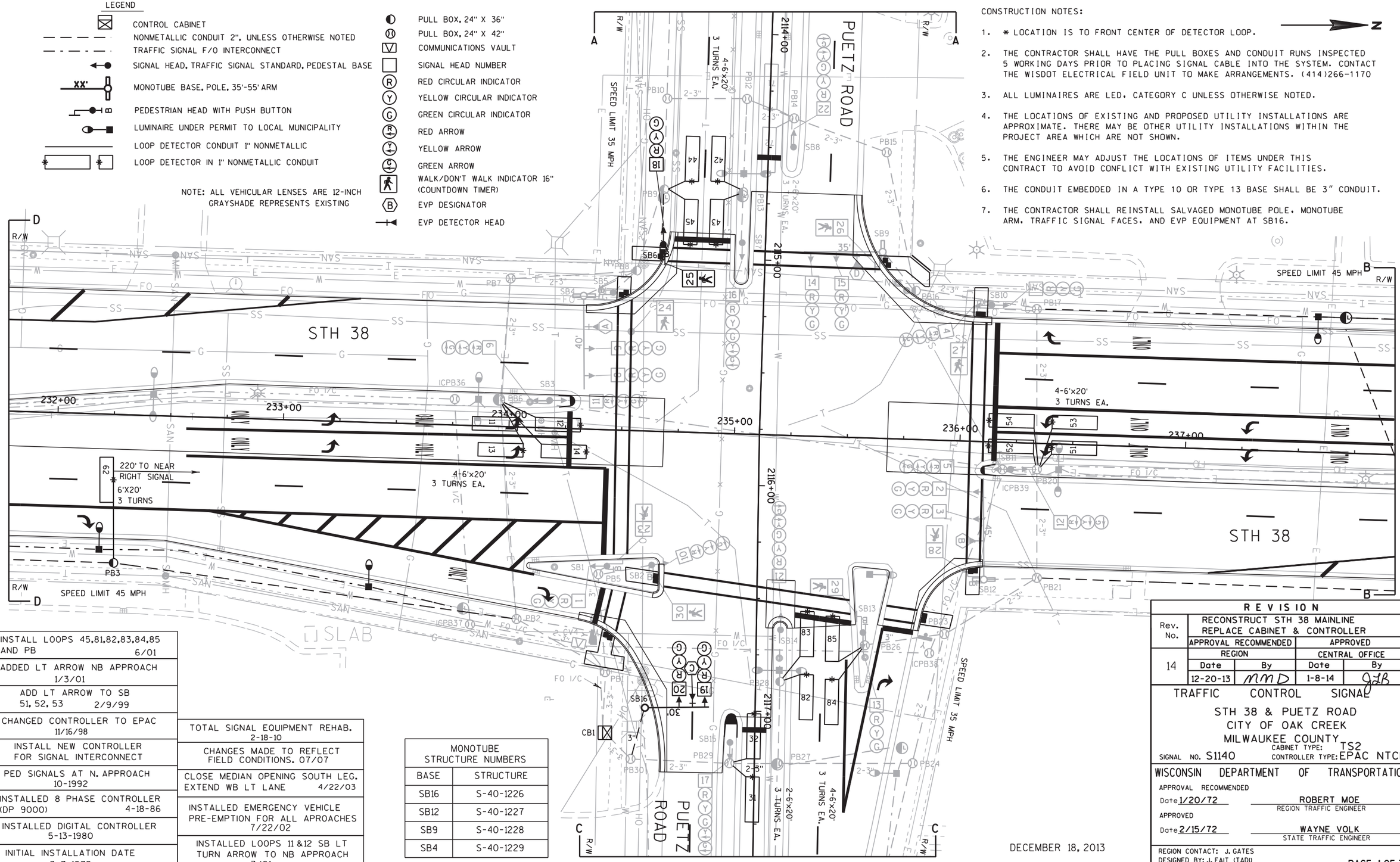
- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- TRAFFIC SIGNAL F/O INTERCONNECT
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- XX' MONOTUBE BASE, POLE, 35'-55' ARM
- PEDESTRIAN HEAD WITH PUSH BUTTON
- LUMINAIRE UNDER PERMIT TO LOCAL MUNICIPALITY
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT

- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- COMMUNICATIONS VAULT
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- WALK/DON'T WALK INDICATOR 16" (COUNTDOWN TIMER)
- (B) EVP DESIGNATOR
- EVP DETECTOR HEAD

NOTE: ALL VEHICULAR LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

CONSTRUCTION NOTES:

1. * LOCATION IS TO FRONT CENTER OF DETECTOR LOOP.
2. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO THE SYSTEM. CONTACT THE WISDOT ELECTRICAL FIELD UNIT TO MAKE ARRANGEMENTS. (414)266-1170
3. ALL LUMINAIRES ARE LED, CATEGORY C UNLESS OTHERWISE NOTED.
4. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN.
5. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
6. THE CONDUIT EMBEDDED IN A TYPE 10 OR TYPE 13 BASE SHALL BE 3" CONDUIT.
7. THE CONTRACTOR SHALL REINSTALL SALVAGED MONOTUBE POLE, MONOTUBE ARM, TRAFFIC SIGNAL FACES, AND EVP EQUIPMENT AT SB16.



INSTALL LOOPS 45,81,82,83,84,85 AND PB 6/01
ADDED LT ARROW NB APPROACH 1/3/01
ADD LT ARROW TO SB 51, 52, 53 2/9/99
CHANGED CONTROLLER TO EPAC 11/16/98
INSTALL NEW CONTROLLER FOR SIGNAL INTERCONNECT
PED SIGNALS AT N. APPROACH 10-1992
INSTALLED 8 PHASE CONTROLLER (DP 9000) 4-18-86
INSTALLED DIGITAL CONTROLLER 5-13-1980
INITIAL INSTALLATION DATE 3-7-1972

TOTAL SIGNAL EQUIPMENT REHAB. 2-18-10
CHANGES MADE TO REFLECT FIELD CONDITIONS. 07/07
CLOSE MEDIAN OPENING SOUTH LEG. EXTEND WB LT LANE 4/22/03
INSTALLED EMERGENCY VEHICLE PRE-EMPTION FOR ALL APROACHES 7/22/02
INSTALLED LOOPS 11 &12 SB LT TURN ARROW TO NB APPROACH 7/01

MONOTUBE STRUCTURE NUMBERS	
BASE	STRUCTURE
SB16	S-40-1226
SB12	S-40-1227
SB9	S-40-1228
SB4	S-40-1229

REVISION

Rev. No.	RECONSTRUCT STH 38 MAINLINE REPLACE CABINET & CONTROLLER			
	APPROVAL RECOMMENDED		APPROVED	
14	REGION		CENTRAL OFFICE	
	Date	By	Date	By
	12-20-13	MMD	1-8-14	JJB

TRAFFIC CONTROL SIGNAL

STH 38 & PUETZ ROAD
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1140 CABINET TYPE: TS2 CONTROLLER TYPE: EPAC NTCIP

WISCONSIN DEPARTMENT OF TRANSPORTATION

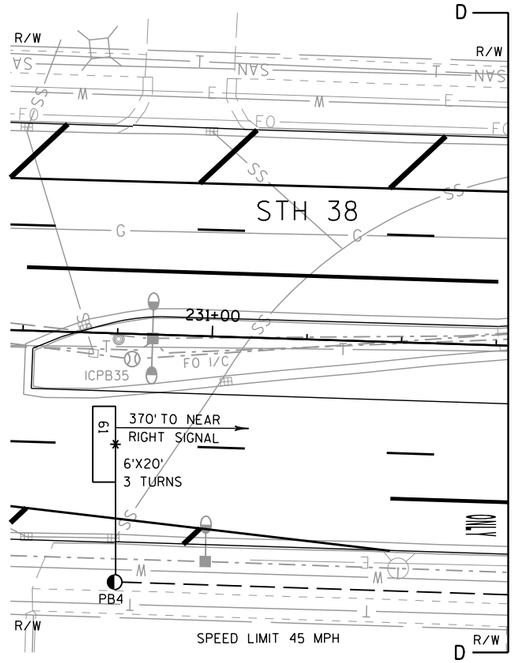
APPROVAL RECOMMENDED
Date 1/20/72 ROBERT MOE, REGION TRAFFIC ENGINEER

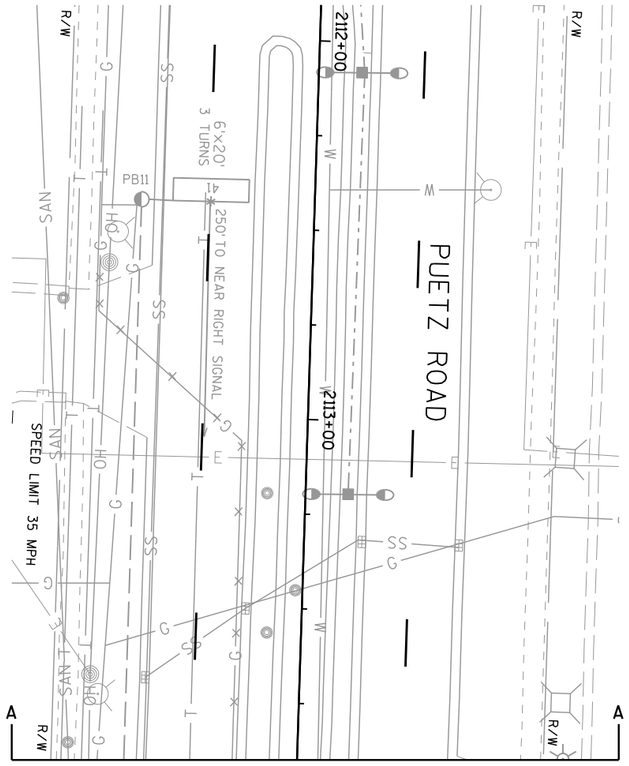
APPROVED
Date 2/15/72 WAYNE VOLK, STATE TRAFFIC ENGINEER

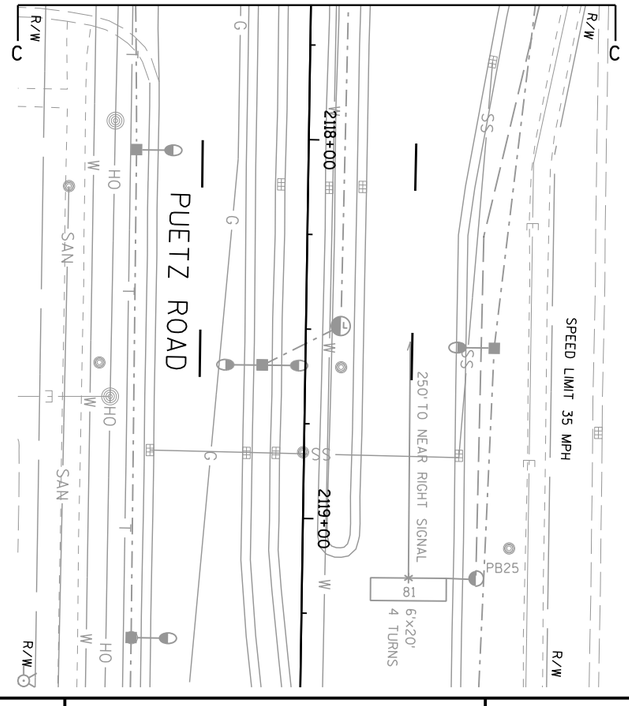
REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

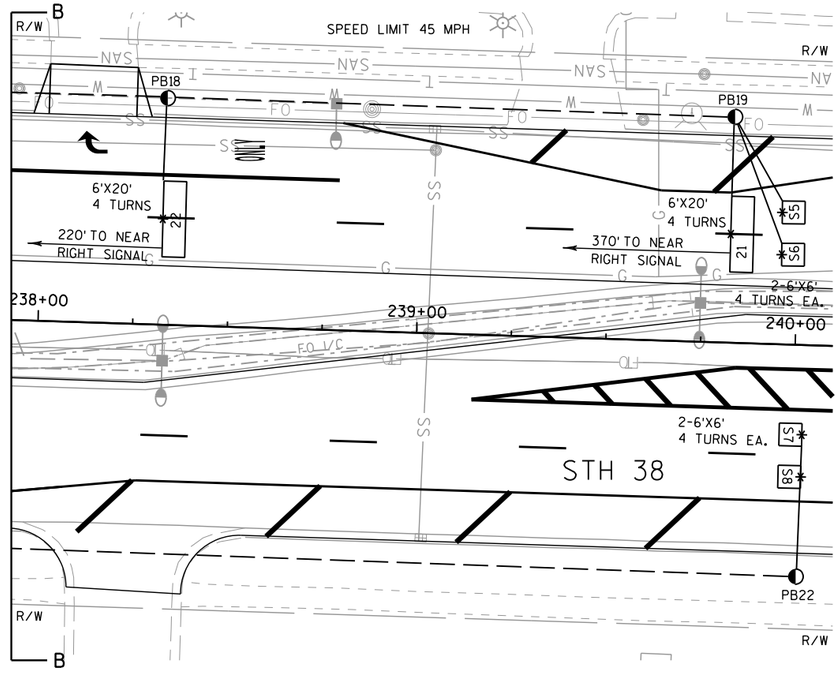
PAGE 1 OF 3

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 330	E









TRAFFIC CONTROL SIGNAL
STH 38 & PUETZ ROAD
CITY OF OAK CREEK
MILWAUKEE COUNTY

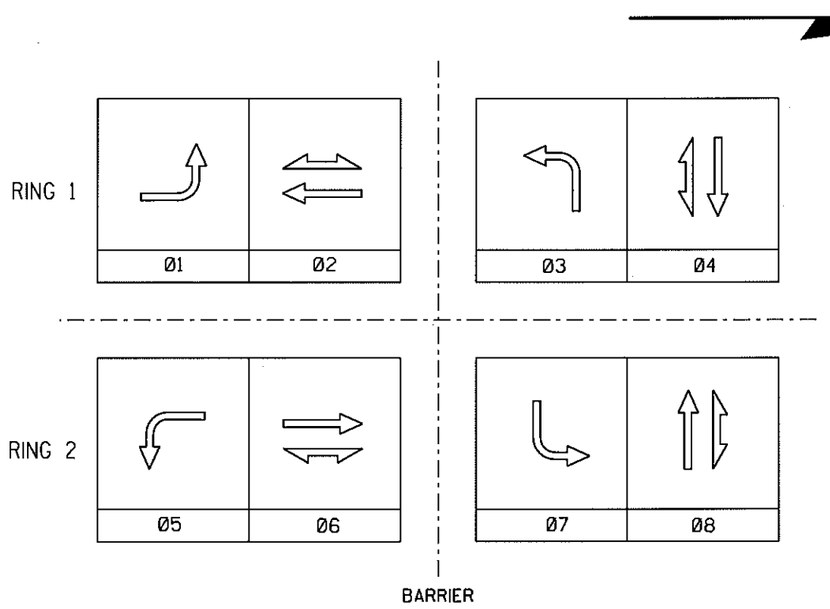
SIGNAL NO. S1140

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PAGE 2 OF 3

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 331 E

	HEAD NUMBERS	FLASH
Ø1	4,5,6	R
Ø2	7,8,9	R
Ø3	16,17	-
Ø4	18,19,20	R
Ø5	10,11,12	R
Ø6	1,2,3	R
Ø7	21,22	-
Ø8	13,14,15	R
Ø2P	25,26	
Ø4P	23,24	
Ø6P	29,30	
Ø8P	27,28	
OLA		
OLB		
OLC		
OLD		



CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1		6		X
2	X	6	MIN	X
3		8		X
4		8		X
5		2		X
6	X	2	MIN	X
7		4		X
8		4		X

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	
CLOSED LOOP	
TWISTED PAIR*	
FIBER OPTIC*	X
FIBER OPTIC (ETHERNET)	
RADIO	

TYPE OF COORDINATION	
NONE	
TBC	X
TRAFFIC RESPONSIVE	X
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO:	S-
SIGNAL SYSTEM *:	SS-00-06

TYPE OF LIGHTING	
BY OTHER AGENCY	X
IN TRAFFIC SIGNAL CABINET	
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	X
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
PLAN LOOP DETECTOR #(S)	11	13	21	31	41	43	45	51
ASSIGNED PHASE	1	1	2	3	4	4	4	5
OPERATION MODE	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH
SWITCH								
EXTEND					X			
DELAY								

19	17	23	21	27	25	31	29	DETECTOR INPUT
53	61	71	81	83	85	S5	S7	PLAN LOOP DETECTOR #(S)
5	6	7	8	8	8			ASSIGNED PHASE
VEH	VEH	VEH	VEH	VEH	VEH			OPERATION MODE
								SWITCH
			X					EXTEND
								DELAY

DETECTOR INPUT	4	2	8	6	12	10	16	14
PLAN LOOP DETECTOR #(S)	12	14	22	32	42	44		52
ASSIGNED PHASE	1	1	2	3	4	4		5
OPERATION MODE	VEH	VEH	VEH	VEH	VEH	VEH		VEH
SWITCH								
EXTENO								
DELAY								

20	18	24	22	28	26	32	30	DETECTOR INPUT
54	62	72	82	84		S6	S8	PLAN LOOP DETECTOR #(S)
5	6	7	8	8				ASSIGNED PHASE
VEH	VEH	VEH	VEH	VEH				OPERATION MODE
								SWITCH
								EXTEND
								DELAY

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE DETECTOR	A	B	C	D
MOVEMENT				
PHASE	2+5	6+1	4+8	8+4

AFTER PREEMPTION SEQUENCE 2+5 OR 1+6, CONTROLLER SHALL RETURN TO PHASES 2+6.

AFTER PREEMPTION SEQUENCE 4+8 OR 8+4, CONTROLLER SHALL RETURN TO PHASES 4+8.

STH 38 & PUETZ ROAD
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1140 CABINET TYPE: TS2

CONTROLLER TYPE: EPAC

DATE 12/13 PAGE NO. 3 OF 3

JMG 12/20/2013

12/20/13 MMD

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	SEQUENCE OF OPERATIONS	SHEET 332	E

PROJECT ID:	2060-15-71
INTERSECTION:	STH 38 & PUETZ RD

SIGNAL WIRE COLOR CODING	BLK-BLACK	RED-RED	GRN-GREEN
	WHT-WHITE	BLU-BLUE	ORG-ORANGE

CB1 TO	JUMPER	# OF COND. AWG 14	HEAD NO.	SIGNAL INDICATION WIRE COLOR									PED BUTTON	OTHER
				RED	YELLOW	GREEN	<RED	<YELLOW>	<FL YELLOW>	<GREEN>	D/WALK	WALK		
SB6		12	18	RED	ORG	GRN								
			25								BLK	BLU		
			B										WHT/BLK	
SB16		12	19	RED	ORG	GRN								
			20	RED	ORG	GRN								

EQUIPMENT GROUNDING CONDUCTOR 10 AWG GRN XLP	
FROM	TO
SB5	SB6
SB6	SB7
SB15	SB16
SB16	CB1

PULL BOX BONDING JUMPER 10 AWG GRN XLP	
FROM	TO
SB6	PB8
SB16	PB30

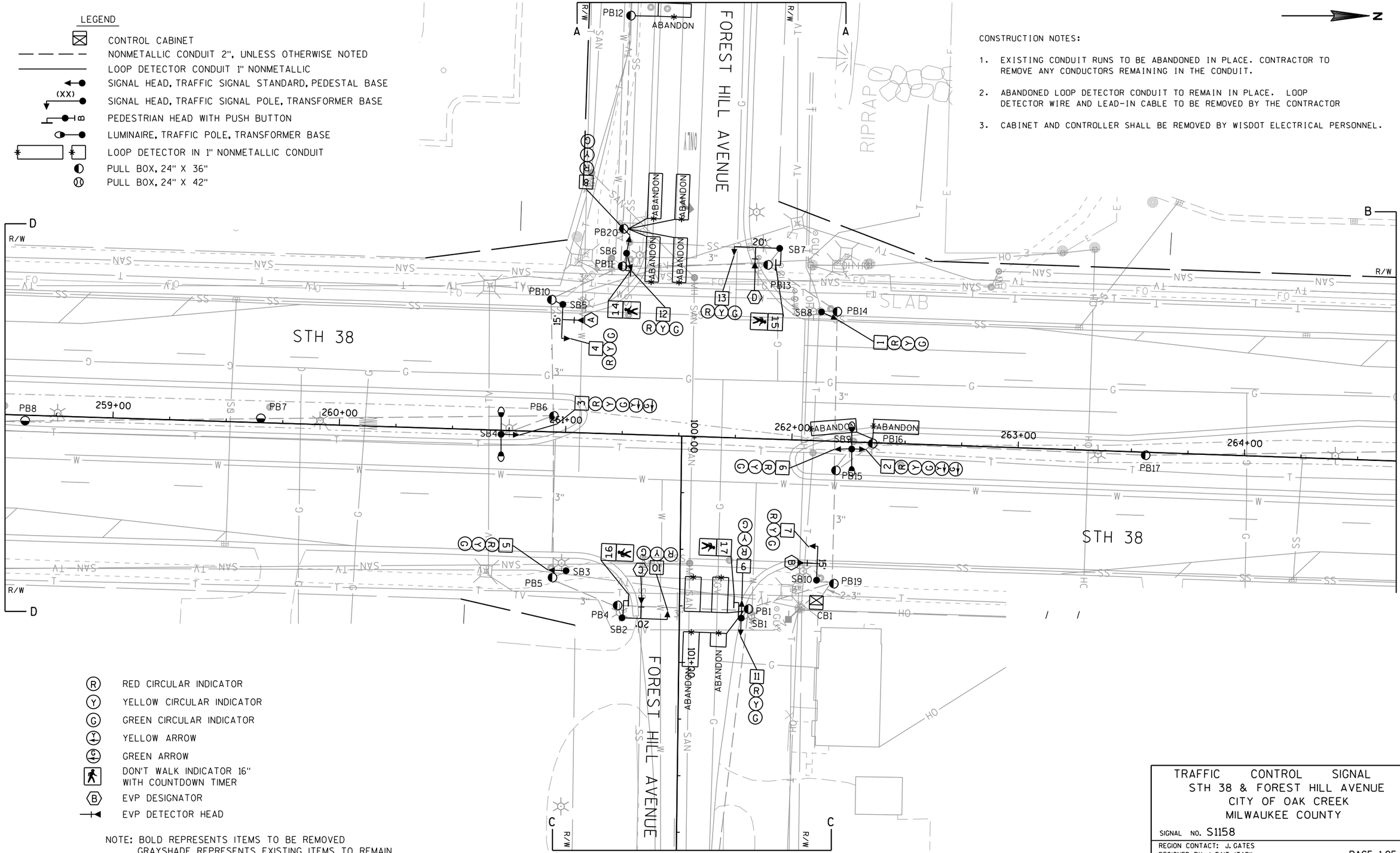
NOTES:
1. USE WHITE CONDUCTOR IN THE SIGNAL CABLE AS THE GROUNDED CONDUCTOR FOR ALL TRAFFIC SIGNAL INDICATIONS.
2. ENSURE THE GROUNDED CONDUCTOR IN THE FEEDER CABLE AND THE POLE CABLES ARE BOTH 18" LONGER THAN THE UNGROUNDED CONDUCTORS.
3. AT THE SIGNAL BASES, CONNECT ONE TERMINAL FROM THE PEDESTRIAN PUSH BUTTONS TO THE COLOR INDICATED IN THE CHART.
   CONNECT THE OTHER TERMINAL TO THE GROUNDED CONDUCTOR.

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"

CONSTRUCTION NOTES:

1. EXISTING CONDUIT RUNS TO BE ABANDONED IN PLACE. CONTRACTOR TO REMOVE ANY CONDUCTORS REMAINING IN THE CONDUIT.
2. ABANDONED LOOP DETECTOR CONDUIT TO REMAIN IN PLACE. LOOP DETECTOR WIRE AND LEAD-IN CABLE TO BE REMOVED BY THE CONTRACTOR
3. CABINET AND CONTROLLER SHALL BE REMOVED BY WISDOT ELECTRICAL PERSONNEL.



- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- (Y) YELLOW ARROW
- (G) GREEN ARROW
- DON'T WALK INDICATOR 16" WITH COUNTDOWN TIMER
- (B) EVP DESIGNATOR
- EVP DETECTOR HEAD

NOTE: BOLD REPRESENTS ITEMS TO BE REMOVED
GRAYSHADE REPRESENTS EXISTING ITEMS TO REMAIN

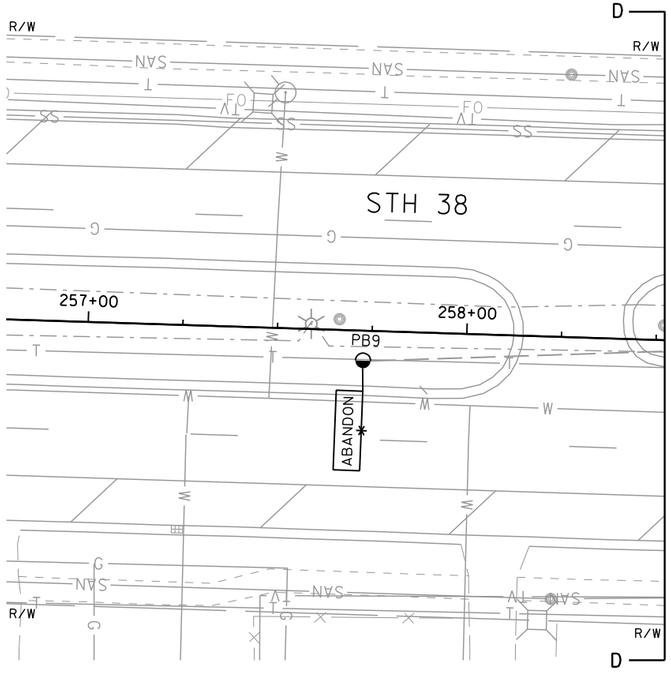
TRAFFIC CONTROL SIGNAL
STH 38 & FOREST HILL AVENUE
CITY OF OAK CREEK
MILWAUKEE COUNTY

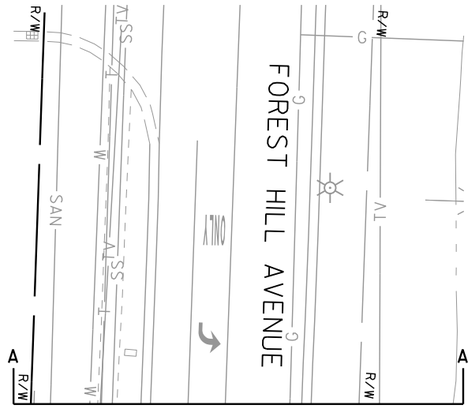
SIGNAL NO. S1158

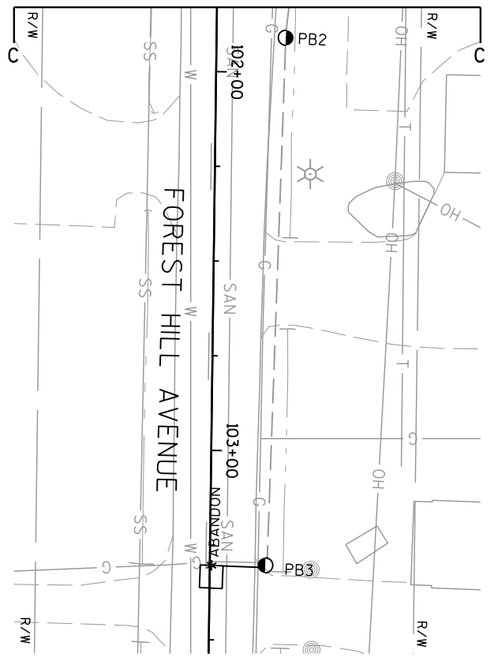
REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

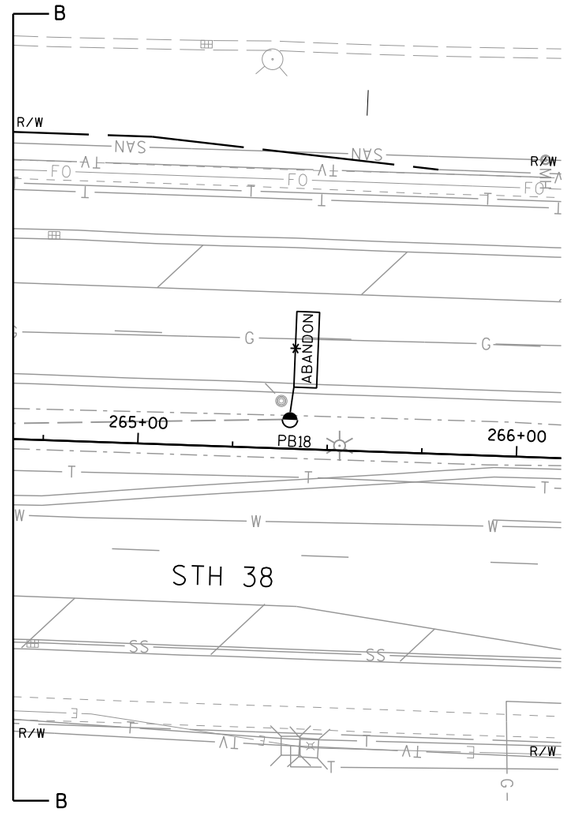
PAGE 1 OF 2

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 334	E









TRAFFIC CONTROL SIGNAL
STH 38 & FOREST HILL AVENUE
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1158

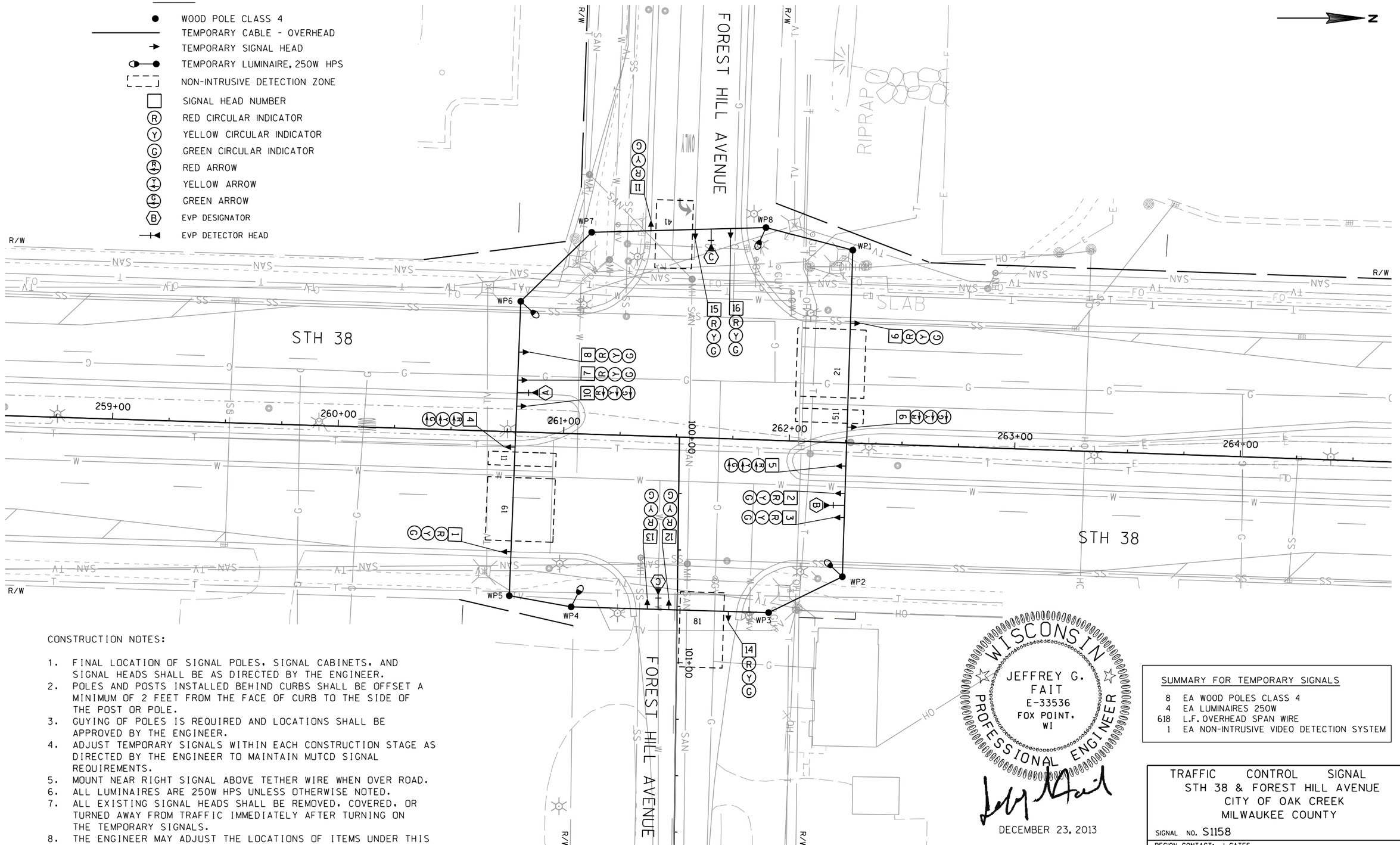
REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PAGE 2 OF 2

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 335	E

LEGEND

- WOOD POLE CLASS 4
- TEMPORARY CABLE - OVERHEAD
- TEMPORARY SIGNAL HEAD
- TEMPORARY LUMINAIRE, 250W HPS
- NON-INTRUSIVE DETECTION ZONE
- SIGNAL HEAD NUMBER
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- EVP DESIGNATOR
- EVP DETECTOR HEAD



CONSTRUCTION NOTES:

1. FINAL LOCATION OF SIGNAL POLES, SIGNAL CABINETS, AND SIGNAL HEADS SHALL BE AS DIRECTED BY THE ENGINEER.
2. POLES AND POSTS INSTALLED BEHIND CURBS SHALL BE OFFSET A MINIMUM OF 2 FEET FROM THE FACE OF CURB TO THE SIDE OF THE POST OR POLE.
3. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER.
4. ADJUST TEMPORARY SIGNALS WITHIN EACH CONSTRUCTION STAGE AS DIRECTED BY THE ENGINEER TO MAINTAIN MUTCD SIGNAL REQUIREMENTS.
5. MOUNT NEAR RIGHT SIGNAL ABOVE TETHER WIRE WHEN OVER ROAD.
6. ALL LUMINAIRES ARE 250W HPS UNLESS OTHERWISE NOTED.
7. ALL EXISTING SIGNAL HEADS SHALL BE REMOVED, COVERED, OR TURNED AWAY FROM TRAFFIC IMMEDIATELY AFTER TURNING ON THE TEMPORARY SIGNALS.
8. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.

WISCONSIN
JEFFREY G. FAIT
E-33536
FOX POINT, WI
PROFESSIONAL ENGINEER

DECEMBER 23, 2013

SUMMARY FOR TEMPORARY SIGNALS

8	EA WOOD POLES CLASS 4
4	EA LUMINAIRES 250W
618	L.F. OVERHEAD SPAN WIRE
1	EA NON-INTRUSIVE VIDEO DETECTION SYSTEM

TRAFFIC CONTROL SIGNAL
STH 38 & FOREST HILL AVENUE
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1158

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PAGE 1 OF 2

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - PRE-STAGE	SHEET 336	E

LEGEND

- WOOD POLE CLASS 4
- TEMPORARY CABLE - OVERHEAD
- TEMPORARY SIGNAL HEAD
- TEMPORARY LUMINAIRE, 250W HPS
- NON-INTRUSIVE DETECTION ZONE
- SIGNAL HEAD NUMBER
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- EVP DESIGNATOR
- EVP DETECTOR HEAD

N

FOREST HILL AVENUE

STH 38

RIPRAP

SLAB

WP1 WP2 WP3 WP4 WP5 WP6 WP7 WP8

259+00 260+00 261+00 262+00 263+00 264+00

100+00 101+00

TRAFFIC CONTROL SIGNAL
STH 38 & FOREST HILL AVENUE
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1158

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PAGE 1 OF 1

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 1	SHEET 337	E

FILE NAME : Temporary Signals Stage1.dgn PLOT DATE : 12/22/2013 PLOT BY : DSCHNABEL-TADI PLOT NAME : PLOT SCALE : 40.0000 sf / in.

WISDOT/CADDS SHEET 42

LEGEND

- WOOD POLE CLASS 4
- TEMPORARY CABLE - OVERHEAD
- TEMPORARY SIGNAL HEAD
- TEMPORARY LUMINAIRE, 250W HPS
- NON-INTRUSIVE DETECTION ZONE
- SIGNAL HEAD NUMBER
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- EVP DESIGNATOR
- EVP DETECTOR HEAD

SIGNAL HEAD TO BE BAGGED

N

STH 38

FOREST HILL AVENUE

RIPRAP

SLAB

WP1 WP2 WP3 WP4 WP5 WP6 WP7 WP8

259+00 260+00 261+00 262+00 263+00 264+00

100+00 101+00

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 2	SHEET 338 E

TRAFFIC CONTROL SIGNAL
STH 38 & FOREST HILL AVENUE
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1158

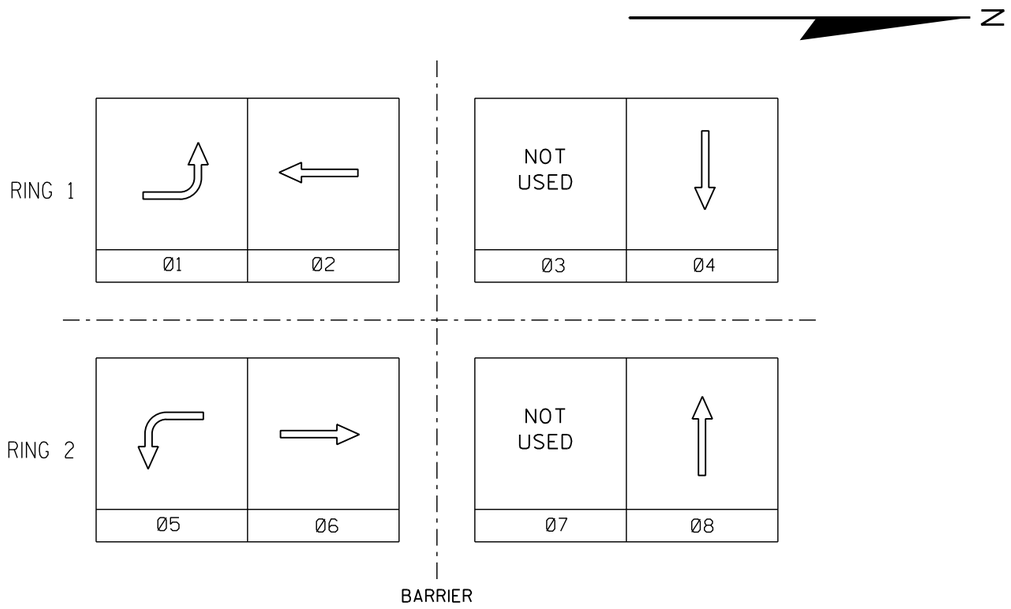
REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PAGE 1 OF 2

FILE NAME : Temporary Signals Stage 2.dgn PLOT DATE : 12/22/2013 PLOT BY : DSCHNABEL-TADI PLOT NAME : PLOT SCALE : 40.0000 sf / in.

WISDOT/CADDS SHEET 42

	HEAD NUMBERS	FLASH
Ø1	4,5	R
Ø2	6,7,8	R
Ø3		
Ø4	11,12,13	R
Ø5	9,10	R
Ø6	1,2,3	R
Ø7		
Ø8	14,15,16	R
Ø2P		
Ø4P		
Ø6P		
Ø8P		
OLA		
OLB		
OLC		
OLD		



CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1		6		X
2	X	6	MIN	X
3				
4		8		X
5		2		X
6	X	2	MIN	X
7				
8		4		X

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	X
CLOSED LOOP	
TWISTED PAIR*	
FIBER OPTIC*	
FIBER OPTIC (ETHERNET)	
RADIO	

TYPE OF COORDINATION	
NONE	
TBC	X
TRAFFIC RESPONSIVE	
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO:	S-
SIGNAL SYSTEM #:	SS-00-06

TYPE OF LIGHTING	
BY OTHER AGENCY	X
IN TRAFFIC SIGNAL CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	X
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

DETECTOR LOGIC

DETECTOR NUMBER	DETECTOR INPUT	DETECTOR OPERATION			PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	SIZE	NUMBER OF TURNS
		CALLS AND EXTENDS	CALLS ONLY	EXTENDS ONLY							
11		X			1	1					
21		X			2	2					
41		X			4	4					
51		X			5	5					
61		X			6	6					
81		X			8	8					

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE DETECTOR	A	B	C	
MOVEMENT	←	↗	↓ ↑	
PHASE	2+5	6+1	4+8	

AFTER PREEMPTION SEQUENCE 2+5 OR 1+6,
CONTROLLER SHALL RETURN TO PHASES 2+6.

AFTER PREEMPTION SEQUENCE 4+8,
CONTROLLER SHALL RETURN TO PHASES 4+8.

STH 38 & FOREST HILL AVENUE
CITY OF OAK CREEK
MILWAUKEE COUNTY

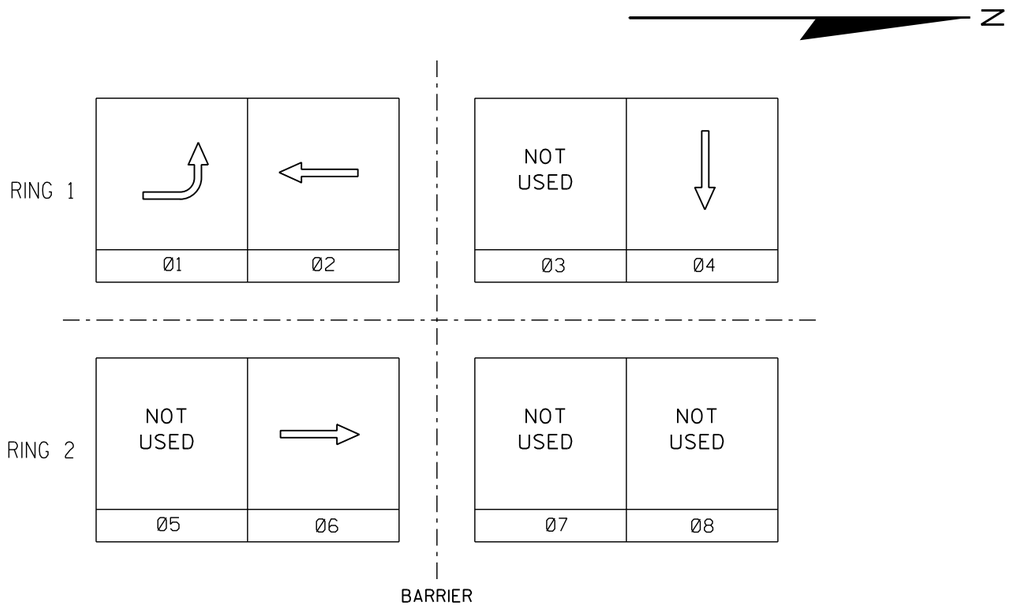
SIGNAL NO. S1158 CABINET TYPE:

CONTROLLER TYPE: TEMP

DATE 12/13 PAGE NO. 2 OF 2

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TEMPORARY SEQUENCE OF OPERATIONS - PRE-STAGE & STAGE 1	SHEET 339	E

	HEAD NUMBERS	FLASH
Ø1	4,5	R
Ø2	6,7,8	R
Ø3		
Ø4	11,12,13	R
Ø5		
Ø6	1,2,3	R
Ø7		
Ø8		
Ø2P		
Ø4P		
Ø6P		
Ø8P		
OLA		
OLB		
OLC		
OLD		



CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1		6		X
2	X	6	MIN	X
3				
4				X
5				
6	X	2	MIN	X
7				
8				

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	X
CLOSED LOOP	
TWISTED PAIR*	
FIBER OPTIC*	
FIBER OPTIC (ETHERNET)	
RADIO	

TYPE OF COORDINATION	
NONE	
TBC	X
TRAFFIC RESPONSIVE	
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO:	S-
SIGNAL SYSTEM #:	SS-00-06

TYPE OF LIGHTING	
BY OTHER AGENCY	X
IN TRAFFIC SIGNAL CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	X
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

DETECTOR LOGIC

DETECTOR NUMBER	DETECTOR INPUT	DETECTOR OPERATION			PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	SIZE	NUMBER OF TURNS
		CALLS AND EXTENDS	CALLS ONLY	EXTENDS ONLY							
11		X			1	1					
21		X			2	2					
41		X			4	4					
61		X			6	6					

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE DETECTOR	A	B	C	D
MOVEMENT	←	→	↓	
PHASE	2+5	6+1	4	

AFTER PREEMPTION SEQUENCE 2+5 OR 1+6,
CONTROLLER SHALL RETURN TO PHASES 2+6.

STH 38 & FOREST HILL AVENUE
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1158 CABINET TYPE:

CONTROLLER TYPE: TEMP

DATE 12/13 PAGE NO. 2 OF 2

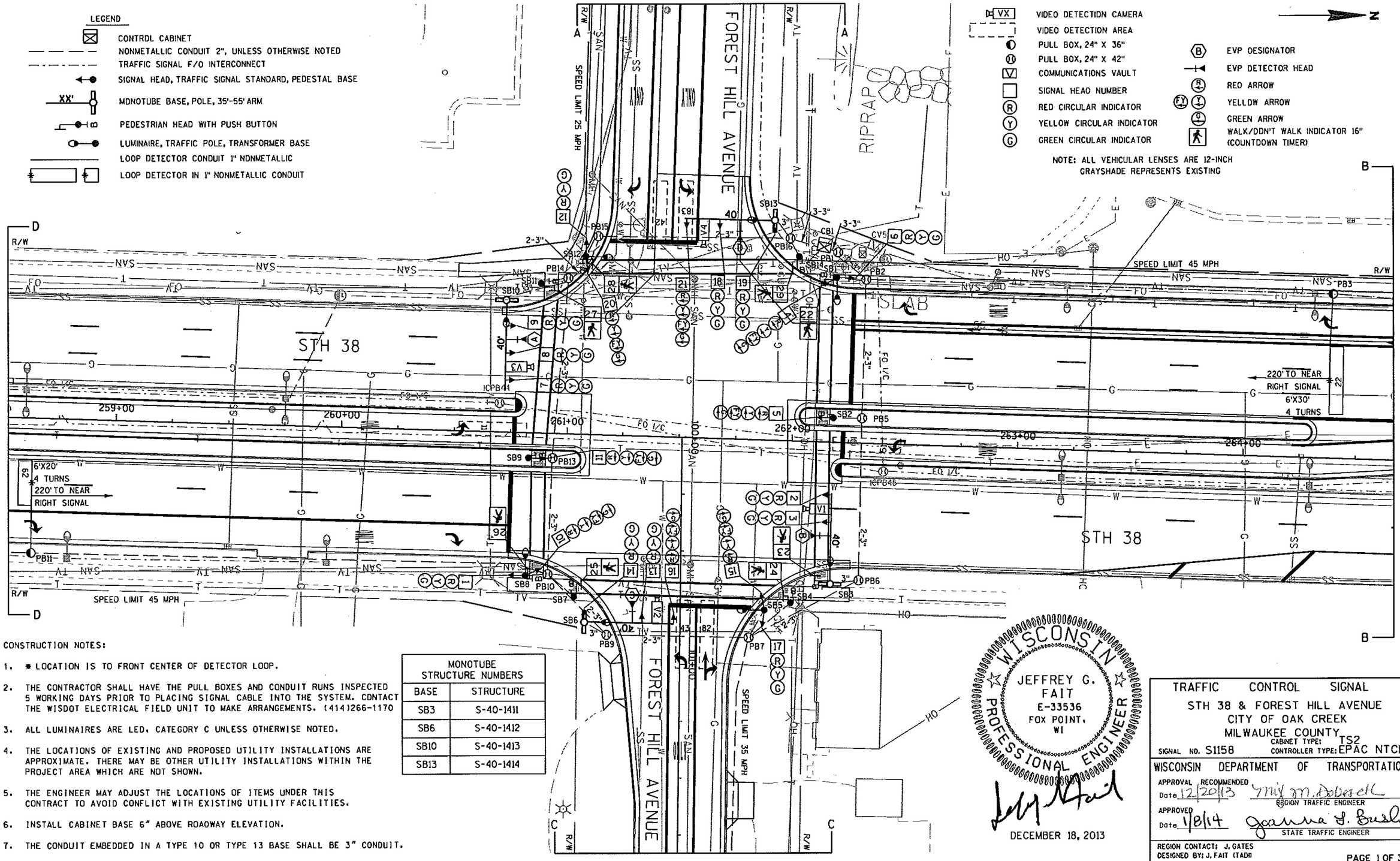
LEGEND

- CONTRDL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- TRAFFIC SIGNAL F/O INTERCONNECT
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- XX' MDNOTUBE BASE, POLE, 35'-55' ARM
- PEDESTRIAN HEAD WITH PUSH BUTTON
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- LOOP DETECTOR CONDUIT 1" NDNMETALLIC
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT

- VX VIDEO DETECTIDN CAMERA
- VIDEO OETECTION AREA
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- COMMUNICATIONS VAULT
- SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- B EVP OESIGNATOR
- EVP DETECTOR HEAD
- RED ARROW
- YELLDW ARROW
- GREEN ARROW
- WALK/DDN'T WALK INDICATOR 16" (COUNTDOWN TIMER)

NOTE: ALL VEHICULAR LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

N



CONSTRUCTION NOTES:

1. * LOCATION IS TO FRONT CENTER OF DETECTOR LOOP.
2. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO THE SYSTEM. CONTACT THE WISDOT ELECTRICAL FIELD UNIT TO MAKE ARRANGEMENTS. (414)266-1170
3. ALL LUMINAIRES ARE LED, CATEGORY C UNLESS OTHERWISE NOTED.
4. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN.
5. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
6. INSTALL CABINET BASE 6" ABOVE ROADWAY ELEVATION.
7. THE CONDUIT EMBEDDED IN A TYPE 10 OR TYPE 13 BASE SHALL BE 3" CONDUIT.

MONOTUBE STRUCTURE NUMBERS	
BASE	STRUCTURE
SB3	S-40-1411
SB6	S-40-1412
SB10	S-40-1413
SB13	S-40-1414

WISCONSIN
JEFFREY G. FAIT
E-33536
FOX POINT, WI
PROFESSIONAL ENGINEER
DECEMBER 18, 2013

TRAFFIC CONTROL SIGNAL
STH 38 & FOREST HILL AVENUE
CITY OF OAK CREEK
MILWAUKEE COUNTY
SIGNAL NO. S1158
CABINET TYPE: TS2
CONTROLLER TYPE: EPAC NTCIP

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED Date 12/20/13 — REGION TRAFFIC ENGINEER
APPROVED Date 1/8/14 — STATE TRAFFIC ENGINEER

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI
REVISED BY:

PAGE 1 OF 3

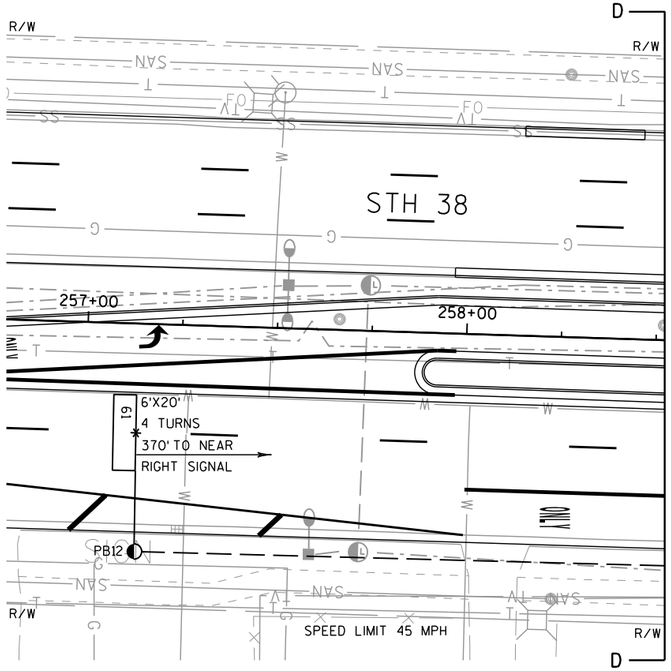
PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 341 E

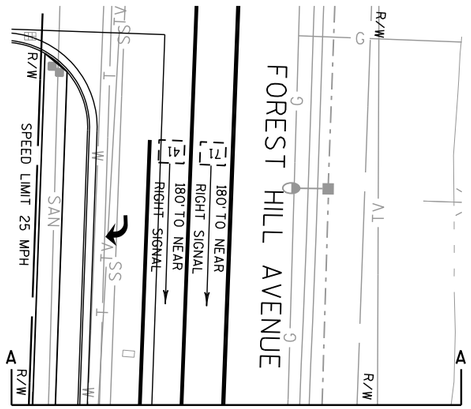
FILE NAME : Proposed Signals.dgn | PLOT DATE : 12/19/2013 | PLOT BY : DSCHNABEL-TADI | PLOT NAME : | PLOT SCALE : 40.0000 sf / in. | WISDOT/CADDS SHEET 42

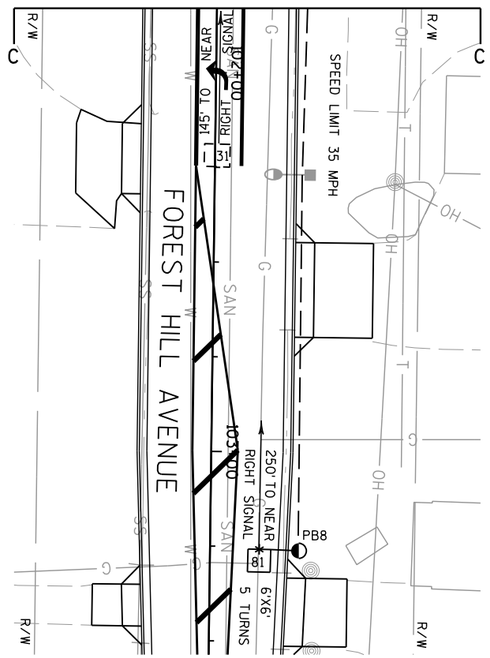
JMG 12/20/2013

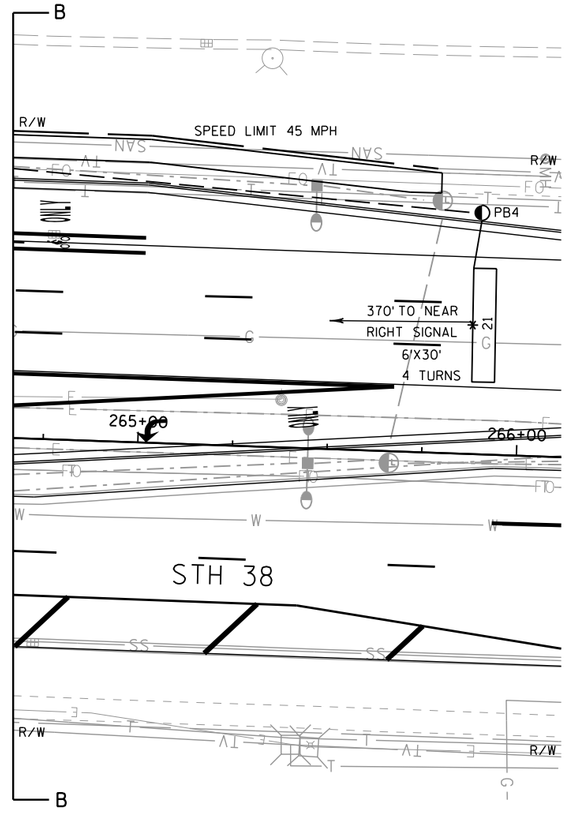
2

N









TRAFFIC CONTROL SIGNAL
STH 38 & FOREST HILL AVENUE
CITY OF OAK CREEK
MILWAUKEE COUNTY

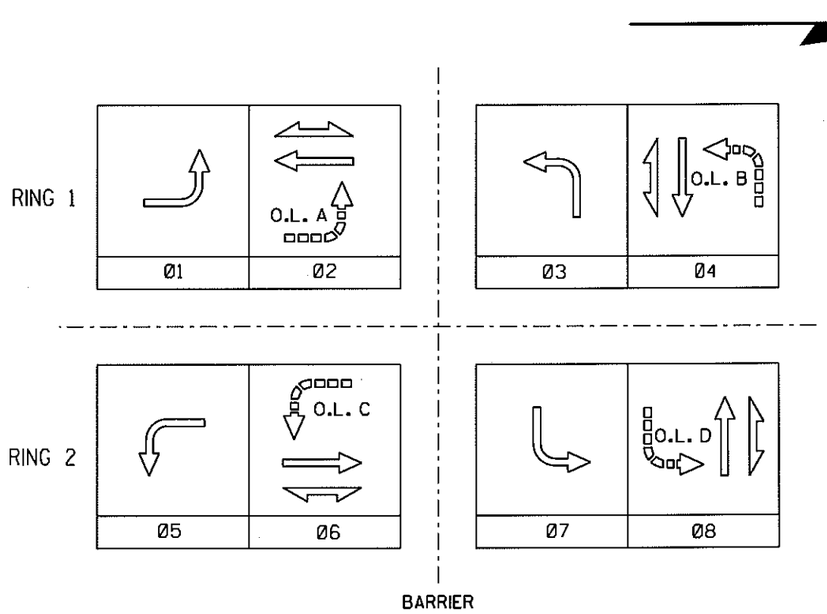
SIGNAL NO. S1158

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PAGE 2 OF 3

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 342 E

	HEAD NUMBERS	FLASH
Ø1	4,5	-
Ø2	6,7,8,9	R
Ø3	20,21	-
Ø4	12,13,14	R
Ø5	10,11	-
Ø6	1,2,3	R
Ø7	15,16	-
Ø8	17,18,19	R
Ø2P	28,29	
Ø4P	26,27	
Ø6P	24,25	
Ø8P	22,23	
OLA	4,5	R
OLB	20,21	R
OLC	10,11	R
OLD	15,16	R



CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1		6		X
2	X	6	MIN	X
3		8		X
4		8		X
5		2		X
6	X	2	MIN	X
7		4		X
8		4		X

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	
CLOSED LOOP	
TWISTED PAIR*	
FIBER OPTIC*	X
FIBER OPTIC (ETHERNET)	
RADIO	

TYPE OF COORDINATION	
NONE	
TBC	X
TRAFFIC RESPONSIVE	X
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO:	S-
SIGNAL SYSTEM *:	SS-00-06

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC SIGNAL CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	X
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
PLAN LOOP DETECTOR *(S)	21	61	81					
ASSIGNED PHASE	2	6	8					
OPERATION MODE	VEH	VEH	VEH					
SWITCH								
EXTEND			X					
DELAY								

19	17	23	21	27	25	31	29	DETECTOR INPUT
11	31	41	43	51	71	82		PLAN LOOP DETECTOR *(S)
1	3	4	4	5	7	8		ASSIGNED PHASE
VEH	VEH	VEH	VEH	VEH	VEH	VEH		OPERATION MODE
								SWITCH
		X						EXTEND
	X				X			DELAY

DETECTOR INPUT	4	2	8	6	12	10	16	14
PLAN LOOP DETECTOR *(S)	22	62						
ASSIGNED PHASE	2	6						
OPERATION MODE	VEH	VEH						
SWITCH								
EXTEND								
DELAY								

20	18	24	22	28	26	32	30	DETECTOR INPUT
		42				83		PLAN LOOP DETECTOR *(S)
		4				8		ASSIGNED PHASE
		VEH				VEH		OPERATION MODE
								SWITCH
								EXTEND
								DELAY

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE DETECTOR	A	B	C	D
MOVEMENT				
PHASE	2+5	6+1	4+7	8+3

AFTER PREEMPTION SEQUENCE 2+5 OR 1+6, CONTROLLER SHALL RETURN TO PHASES 2+6.

AFTER PREEMPTION SEQUENCE 4+7 OR 8+3, CONTROLLER SHALL RETURN TO PHASES 4+8.

STH 38 & FOREST HILL AVENUE
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1158 CABINET TYPE: TS2

CONTROLLER TYPE: EPAC

DATE 12/13 PAGE NO. 3 OF 3

JMG 12/20/2013

12/20/13 mmd

PROJECT ID:	2060-15-71
INTERSECTION:	STH 38 & FOREST HILL AVE

SIGNAL WIRE COLOR CODING	BLK-BLACK	RED-RED	GRN-GREEN
	WHT-WHITE	BLU-BLUE	ORG-ORANGE

CB1 TO	JUMPER	# OF COND. AWG 14	HEAD NO.	SIGNAL INDICATION WIRE COLOR									PED BUTTON	OTHER
				RED	YELLOW	GREEN	<RED>	<YELLOW>	<FL YELLOW>	<GREEN>	D/WALK	WALK		
SB1		12	4				RED	ORG	BLK/WHT	GRN				
			6	RED/BLK	ORG/BLK	GRN/BLK								
			22								BLK	BLU		
			BUTTON										WHT/BLK	
SB2		12	5				RED	ORG	BLK/WHT	GRN				
			BUTTON										WHT/BLK	
SB3		12	2	RED	ORG	GRN								
			3	RED	ORG	GRN								
			23								BLK	BLU		
			BUTTON										WHT/BLK	
SB4		7	24								BLK	BLU		
			BUTTON										WHT/BLK	
SB5		12	15				RED	ORG	BLK/WHT	GRN				
			17	RED/BLK	ORG/BLK	GRN/BLK								
SB6		12	13	RED	ORG	GRN								
			14	RED	ORG	GRN								
			16				RED/BLK	ORG/BLK	BLK/WHT	GRN/BLK				
SB7		7	25								BLK	BLU		
			BUTTON										WHT/BLK	
SB8		12	1	RED	ORG	GRN								
			10				RED/BLK	ORG/BLK	BLK/WHT	GRN/BLK				
			26								BLK	BLU		
			BUTTON										WHT/BLK	
SB9		12	11				RED	ORG	BLK/WHT	GRN				
			BUTTON										WHT/BLK	
SB10		12	7	RED	ORG	GRN								
			8	RED	ORG	GRN								
			9	RED	ORG	GRN								
SB11		7	27								BLK	BLU		
			BUTTON										WHT/BLK	
SB12		12	12	RED	ORG	GRN								
			20				RED/BLK	ORG/BLK	BLK/WHT	GRN/BLK				
			28								BLK	BLU		
			BUTTON										WHT/BLK	
SB13		12	18	RED	ORG	GRN								
			19	RED	ORG	GRN								
			21				RED/BLK	ORG/BLK	BLK/WHT	GRN/BLK				
SB14		7	29								BLK	BLU		
			BUTTON										WHT/BLK	

EQUIPMENT GROUNDING CONDUCTOR 10 AWG GRN XLP	
FROM	TO
CB1	SB1
SB1	SB2
SB2	SB3
SB3	SB4
SB4	SB5
SB5	SB6
SB6	SB7
SB7	SB8
SB8	SB9
SB9	SB10
SB10	SB11
SB11	SB12
SB12	SB13
SB13	SB14
SB14	CB1

PULL BOX BONDING JUMPER 10 AWG GRN XLP	
FROM	TO
CB1	PB1
SB1	PB2
SB2	PB5
SB3	PB6
SB5	PB7
SB6	PB9
SB8	PB10
SB9	PB13
SB10	PB14
SB12	PB15
SB13	PB16

LIGHTING UF 12 AWG W/GROUND	
FROM	TO
CB1	SB1
SB1	SB3
SB3	SB5
SB5	SB6
CB1	SB13
SB13	SB12
SB12	SB10
SB10	SB8

VIDEO DETECTION CABLE	
FROM	TO
CB1	SB3 (V1)
CB1	SB6 (V2)
CB1	SB10 (V3)
CB1	SB13 (V4)

EMERGENCY VEHICLE PREEMPTION CABLE	
FROM	TO
CB1	SB13 (D)
CB1	SB3 (B)
CB1	SB6 (C)
CB1	SB10 (A)

NOTES:
1. USE WHITE CONDUCTOR IN THE SIGNAL CABLE AS THE GROUNDED CONDUCTOR FOR ALL TRAFFIC SIGNAL INDICATIONS.
2. ENSURE THE GROUNDED CONDUCTOR IN THE FEEDER CABLE AND THE POLE CABLES ARE BOTH 18" LONGER THAN THE UNGROUNDED CONDUCTORS.
3. AT THE SIGNAL BASES, CONNECT ONE TERMINAL FROM THE PEDESTRIAN PUSH BUTTONS TO THE COLOR INDICATED IN THE CHART.
   CONNECT THE OTHER TERMINAL TO THE GROUNDED CONDUCTOR.

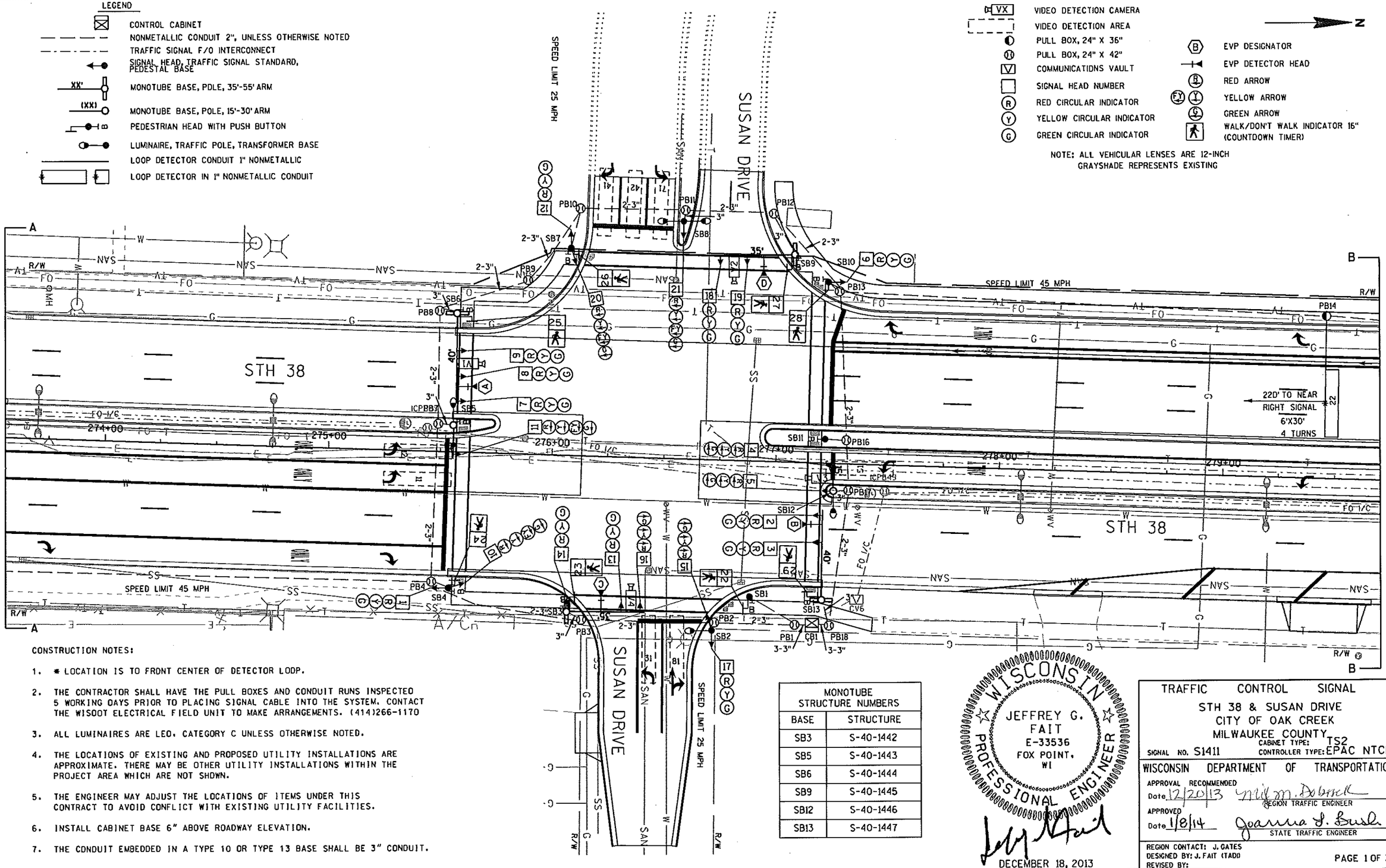
LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- TRAFFIC SIGNAL F/O INTERCONNECT
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- XX' MONOTUBE BASE, PDLE, 35'-55' ARM
- (XX) MONOTUBE BASE, POLE, 15'-30' ARM
- PEDESTRIAN HEAD WITH PUSH BUTTON
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT

- VX VIDEO DETECTION CAMERA
- VIDEO DETECTION AREA
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- V COMMUNICATIONS VAULT
- SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- B EVP DESIGNATOR
- EVP DETECTOR HEAD
- R RED ARROW
- FY Y YELLOW ARROW
- G GREEN ARROW
- WALK/DON'T WALK INDICATOR 16" (COUNTDOWN TIMER)

N

NOTE: ALL VEHICULAR LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING



CONSTRUCTION NOTES:

1. * LOCATION IS TO FRONT CENTER OF DETECTOR LOOP.
2. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO THE SYSTEM. CONTACT THE WISDOT ELECTRICAL FIELD UNIT TO MAKE ARRANGEMENTS. (414)266-1170
3. ALL LUMINAIRES ARE LED, CATEGORY C UNLESS OTHERWISE NOTED.
4. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN.
5. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
6. INSTALL CABINET BASE 6" ABOVE ROADWAY ELEVATION.
7. THE CONDUIT EMBEDDED IN A TYPE 10 OR TYPE 13 BASE SHALL BE 3" CONDUIT.

MONOTUBE STRUCTURE NUMBERS	
BASE	STRUCTURE
SB3	S-40-1442
SB5	S-40-1443
SB6	S-40-1444
SB9	S-40-1445
SB12	S-40-1446
SB13	S-40-1447

WISCONSIN
JEFFREY G. FAIT
E-33536
FOX POINT, WI
PROFESSIONAL ENGINEER
DECEMBER 18, 2013

TRAFFIC CONTROL SIGNAL
STH 38 & SUSAN DRIVE
CITY OF OAK CREEK
MILWAUKEE COUNTY
CABINET TYPE: TS2
SIGNAL NO. S1411 CONTROLLER TYPE: EPAC NTCIP

WISCONSIN DEPARTMENT OF TRANSPORTATION
APPROVAL RECOMMENDED Date 12/20/13 — REGION TRAFFIC ENGINEER
APPROVED Date 1/8/14 — STATE TRAFFIC ENGINEER

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI
REVISED BY:

PAGE 1 OF 3

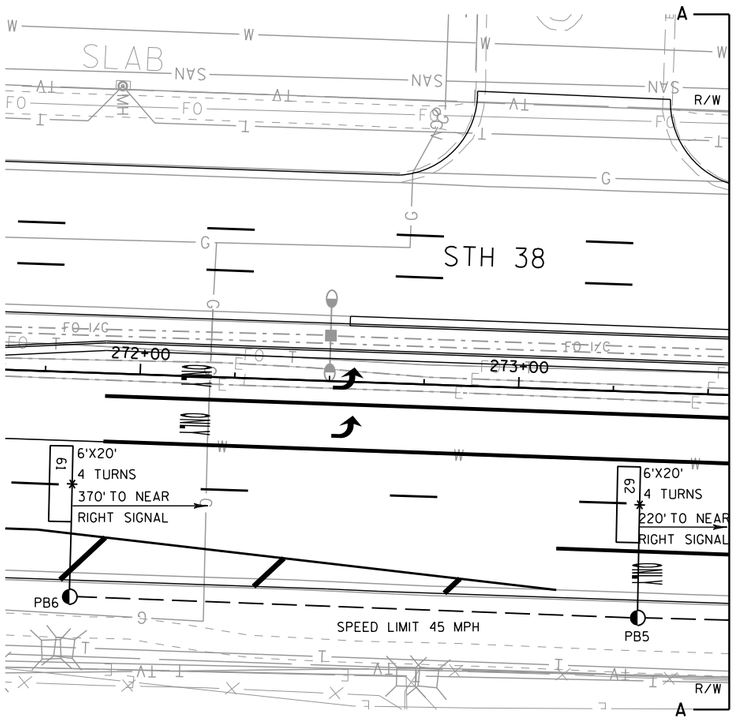
PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 345 E

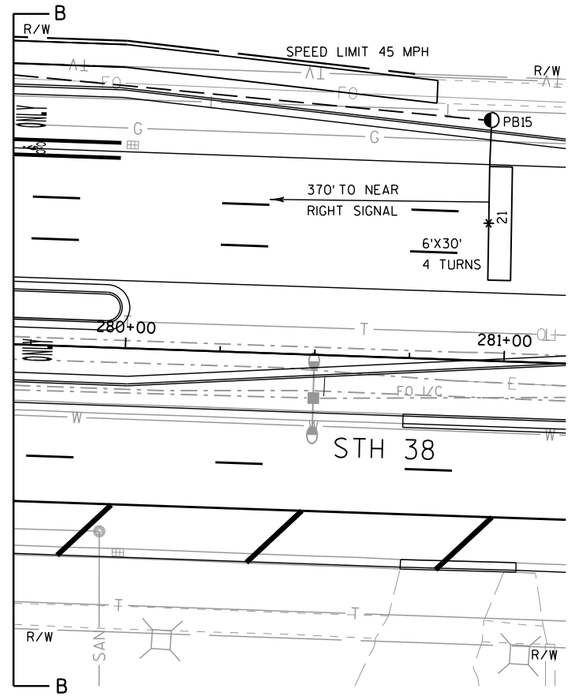
FILE NAME : Proposed Signals.dgn PLOT DATE : 12/19/2013 PLOT BY : DSCHNABEL-TADI PLOT NAME : PLOT SCALE : 40.0000 sf / in. WISDOT/CADDS SHEET 42

12/20/13 JMG

2

N





TRAFFIC CONTROL SIGNAL
STH 38 & SUSAN DRIVE
CITY OF OAK CREEK
MILWAUKEE COUNTY

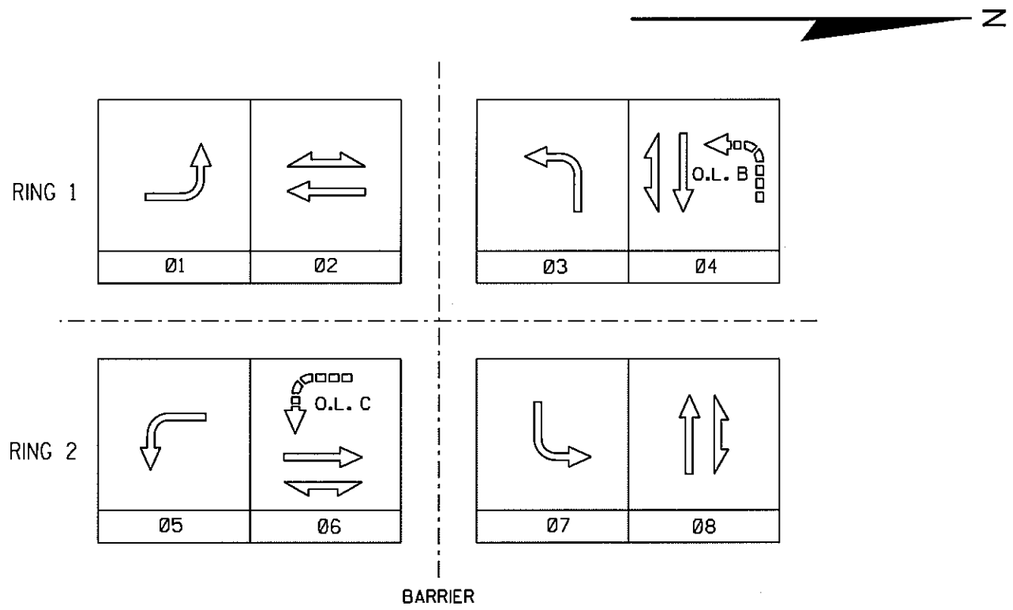
SIGNAL NO. S1411

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PAGE 2 OF 3

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 346	E

	HEAD NUMBERS	FLASH
Ø1	4,5	R
Ø2	6,7,8,9	R
Ø3	20,21	-
Ø4	12,13,14	R
Ø5	10,11	-
Ø6	1,2,3	R
Ø7	15,16	R
Ø8	17,18,19	R
Ø2P	26,27	
Ø4P	24,25	
Ø6P	22,23	
Ø8P	28,29	
OLA		
OLB	20,21	R
OLC	10,11	R
OLD		



CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1		6		X
2	X	6	MIN	X
3		8		X
4		8		X
5		2		X
6	X	2	MIN	X
7		4		X
8		4		X

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	
CLOSED LOOP	
TWISTED PAIR*	
FIBER OPTIC*	X
FIBER OPTIC (ETHERNET)	
RADIO	

TYPE OF COORDINATION	
NONE	
TBC	X
TRAFFIC RESPONSIVE	X
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO:	S-
SIGNAL SYSTEM *:	SS-00-06

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC SIGNAL CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	X
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
PLAN LOOP DETECTOR #(S)	21	61						
ASSIGNED PHASE	2	6						
OPERATION MODE	VEH	VEH						
SWITCH								
EXTEND								
DELAY								

19	17	23	21	27	25	31	29	DETECTOR INPUT
11	31	41	51	71	81			PLAN LOOP DETECTOR #(S)
1	3	4	5	7	8			ASSIGNED PHASE
VEH	VEH	VEH	VEH	VEH	VEH			OPERATION MODE
								SWITCH
								EXTEND
		X						DELAY

DETECTOR INPUT	4	2	8	6	12	10	16	14
PLAN LOOP DETECTOR #(S)	22	62						
ASSIGNED PHASE	2	6						
OPERATION MODE	VEH	VEH						
SWITCH								
EXTEND								
DELAY								

20	18	24	22	28	26	32	30	DETECTOR INPUT
12		42						PLAN LOOP DETECTOR #(S)
1		4						ASSIGNED PHASE
VEH		VEH						OPERATION MODE
								SWITCH
								EXTEND
								DELAY

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE DETECTOR	A	B	C	D
MOVEMENT				
PHASE	2+5	6+1	4+7	8+3

AFTER PREEMPTION SEQUENCE 2+5 OR 1+6, CONTROLLER SHALL RETURN TO PHASES 2+6.

AFTER PREEMPTION SEQUENCE 4+7 OR 8+3, CONTROLLER SHALL RETURN TO PHASES 4+8.

STH 38 & SUSAN DRIVE
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1411 CABINET TYPE: TS2

CONTROLLER TYPE: EPAC

DATE 12/13 PAGE NO. 3 OF 3

JMG 12/20/2013

FILE NAME : Proposed Signals.dgn PLOT DATE : 12/18/2013 PLOT BY : DSCHNABEL-TADI PLOT NAME : S-400,seq,rev2 PLOT SCALE : 40.0000 sf / in. WISDOT/CADDS SHEET 42

12/20/13 mmd

PROJECT ID:	2060-15-71
INTERSECTION:	STH 38 & SUSAN DRIVE

SIGNAL WIRE COLOR CODING	BLK-BLACK	RED-RED	GRN-GREEN
	WHT-WHITE	BLU-BLUE	ORG-ORANGE

CB1 TO	JUMPER	# OF COND. AWG 14	HEAD NO.	SIGNAL INDICATION WIRE COLOR									PED BUTTON	OTHER
				RED	YELLOW	GREEN	<RED	<YELLOW>	<FL YELLOW>	<GREEN>	D/WALK	WALK		
SB1		7	22								BLK	BLU		
			BUTTON										WHT/BLK	
SB2		12	15				RED	ORG		GRN				
			17	RED/BLK	ORG/BLK	GRN/BLK								
SB3		12	13	RED	ORG	GRN								
			14	RED	ORG	GRN								
			16				RED/BLK	ORG/BLK		GRN/BLK				
			23								BLK	BLU		
			BUTTON										WHT/BLK	
SB4		12	1	RED	ORG	GRN								
			10				RED/BLK	ORG/BLK	BLK/WHT	GRN/BLK				
			24								BLK	BLU		
			BUTTON										WHT/BLK	
SB5		12	11				RED/BLK	ORG/BLK	BLK/WHT	GRN/BLK				
			BUTTON										WHT/BLK	
SB6		12	7	RED	ORG	GRN								
			8	RED	ORG	GRN								
			9	RED	ORG	GRN								
			25								BLK	BLU		
			BUTTON										WHT/BLK	
SB7		12	12	RED	ORG	GRN								
			20				RED/BLK	ORG/BLK	BLK/WHT	GRN/BLK				
			26								BLK	BLU		
			BUTTON										WHT/BLK	
SB8		12	21				RED	ORG	BLK/WHT	GRN				
SB9		12	18	RED	ORG	GRN								
			19	RED	ORG	GRN								
			27								BLK	BLU		
			BUTTON										WHT/BLK	
SB10		12	6	RED	ORG	GRN								
			28								BLK	BLU		
			BUTTON										WHT/BLK	
SB11		7	BUTTON										WHT/BLK	
SB12		12	4	RED	ORG	GRN								
			5	RED	ORG	GRN								
SB13		12	2	RED	ORG	GRN								
			3	RED	ORG	GRN								
			29								BLK	BLU		
			BUTTON										WHT/BLK	

EQUIPMENT GROUNDING CONDUCTOR 10 AWG GRN XLP	
FROM	TO
CB1	SB1
SB1	SB2
SB2	SB3
SB3	SB4
SB4	SB5
SB5	SB6
SB6	SB7
SB7	SB8
SB8	SB9
SB9	SB10
SB10	SB11
SB11	SB12
SB12	SB13
SB13	CB1

PULL BOX BONDING JUMPER 10 AWG GRN XLP	
FROM	TO
CB1	PB1
SB1	PB2
SB3	PB3
SB4	PB4
SB5	PB7
SB6	PB8
SB6	PB9
SB7	PB10
SB8	PB11
SB9	PB12
SB10	PB13
SB11	PB16
SB12	PB17
CB1	PB18

LIGHTING UF 12 AWG W/GROUND	
FROM	TO
CB1	SB2
SB2	SB5
CB1	SB12
SB12	SB8

VIDEO DETECTION CABLE	
FROM	TO
CB1	SB6 (V1)
CB1	SB9 (V2)
CB1	SB12 (V3)
CB1	SB3 (V4)

EMERGENCY VEHICLE PREEMPTION CABLE	
FROM	TO
CB1	SB9 (D)
CB1	SB13 (B)
CB1	SB3 (C)
CB1	SB6 (A)

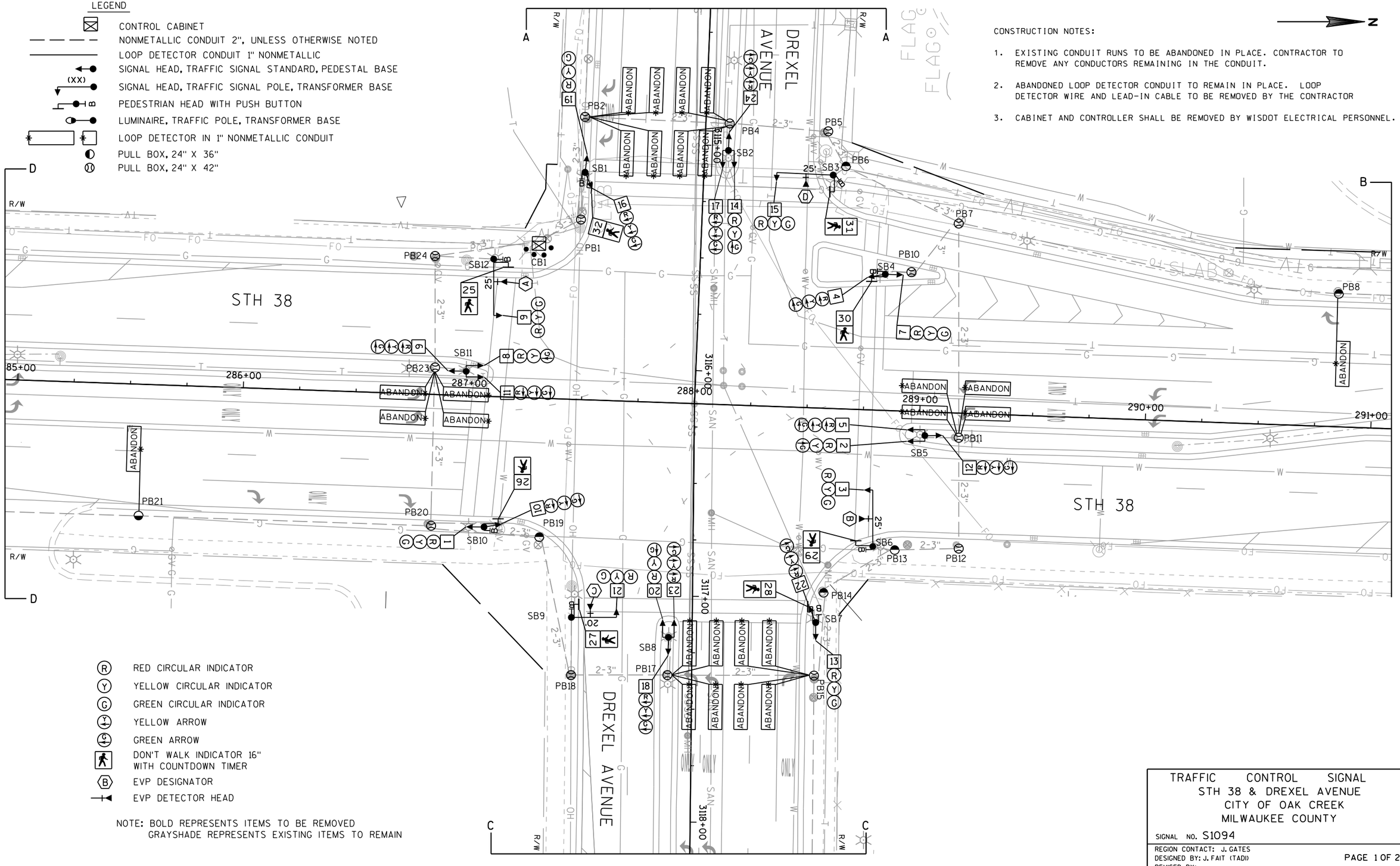
NOTES:
1. USE WHITE CONDUCTOR IN THE SIGNAL CABLE AS THE GROUNDED CONDUCTOR FOR ALL TRAFFIC SIGNAL INDICATIONS.
2. ENSURE THE GROUNDED CONDUCTOR IN THE FEEDER CABLE AND THE POLE CABLES ARE BOTH 18" LONGER THAN THE UNGROUNDED CONDUCTORS.
3. AT THE SIGNAL BASES, CONNECT ONE TERMINAL FROM THE PEDESTRIAN PUSH BUTTONS TO THE COLOR INDICATED IN THE CHART.
   CONNECT THE OTHER TERMINAL TO THE GROUNDED CONDUCTOR.

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"

CONSTRUCTION NOTES:

1. EXISTING CONDUIT RUNS TO BE ABANDONED IN PLACE. CONTRACTOR TO REMOVE ANY CONDUCTORS REMAINING IN THE CONDUIT.
2. ABANDONED LOOP DETECTOR CONDUIT TO REMAIN IN PLACE. LOOP DETECTOR WIRE AND LEAD-IN CABLE TO BE REMOVED BY THE CONTRACTOR
3. CABINET AND CONTROLLER SHALL BE REMOVED BY WISDOT ELECTRICAL PERSONNEL.



- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- (Y) YELLOW ARROW
- (G) GREEN ARROW
- DON'T WALK INDICATOR 16" WITH COUNTDOWN TIMER
- (B) EVP DESIGNATOR
- EVP DETECTOR HEAD

NOTE: BOLD REPRESENTS ITEMS TO BE REMOVED
GRAYSHADE REPRESENTS EXISTING ITEMS TO REMAIN

TRAFFIC CONTROL SIGNAL
STH 38 & DREXEL AVENUE
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1094

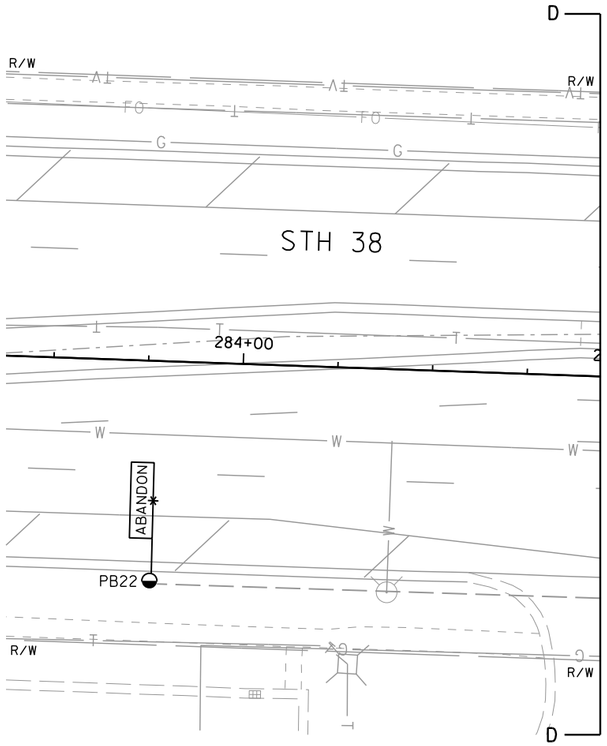
REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

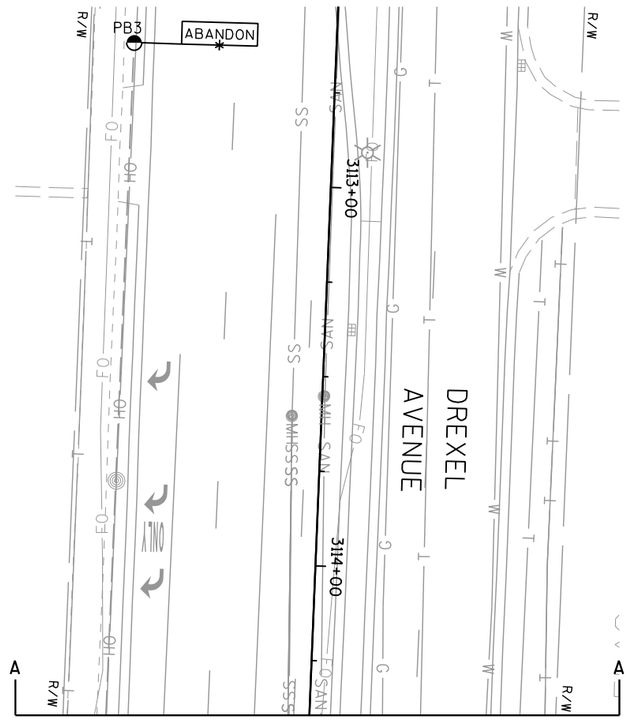
PAGE 1 OF 2

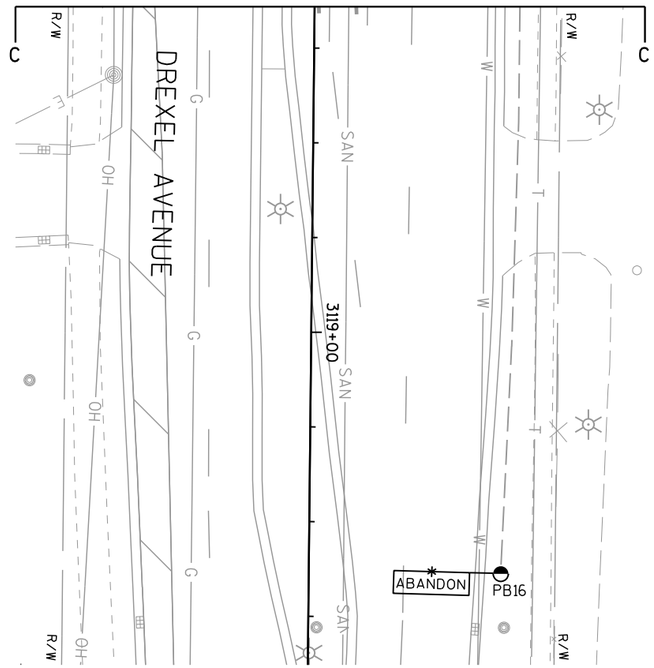
PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 349 E

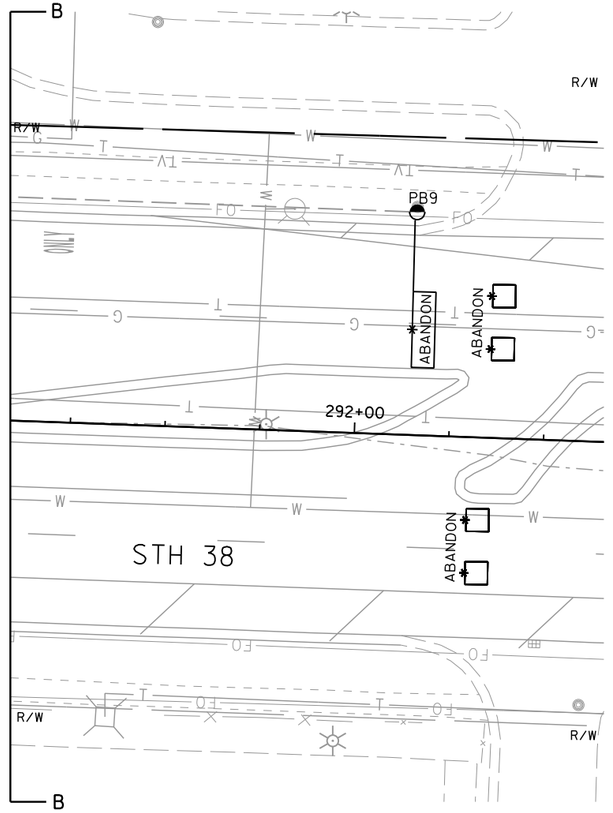
2

N









TRAFFIC CONTROL SIGNAL
STH 38 & DREXEL AVENUE
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1094

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

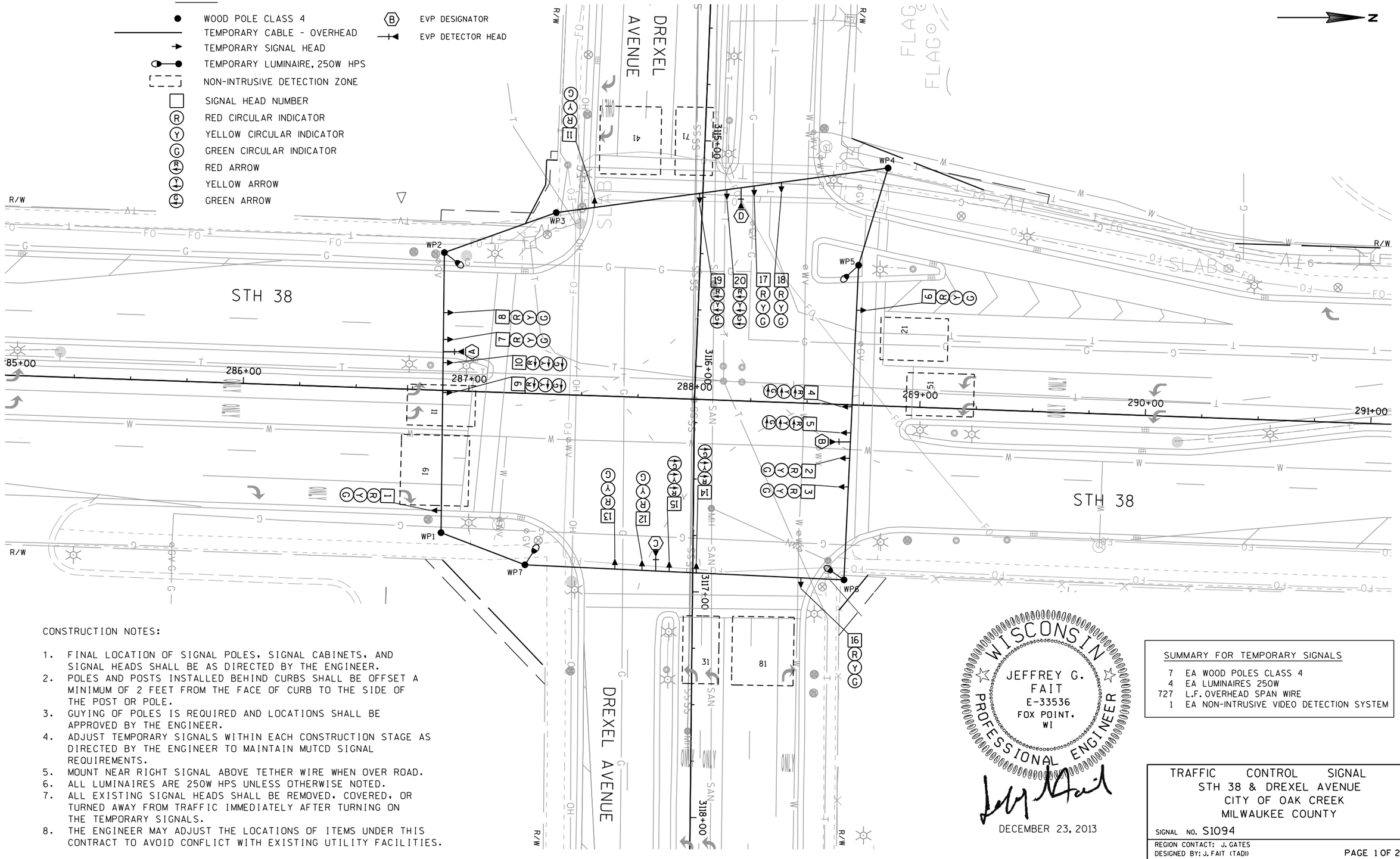
PAGE 2 OF 2

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 350	E

2

LEGEND

- WOOD POLE CLASS 4
- TEMPORARY CABLE - OVERHEAD
- TEMPORARY SIGNAL HEAD
- TEMPORARY LUMINAIRE, 250W HPS
- NON-INTRUSIVE DETECTION ZONE
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- (R) RED ARROW
- (Y) YELLOW ARROW
- (G) GREEN ARROW
- (B) EVP DESIGNATOR
- EVP DETECTOR HEAD



CONSTRUCTION NOTES:

1. FINAL LOCATION OF SIGNAL POLES, SIGNAL CABINETS, AND SIGNAL HEADS SHALL BE AS DIRECTED BY THE ENGINEER.
2. POLES AND POSTS INSTALLED BEHIND CURBS SHALL BE OFFSET A MINIMUM OF 2 FEET FROM THE FACE OF CURB TO THE SIDE OF THE POST OR POLE.
3. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER.
4. ADJUST TEMPORARY SIGNALS WITHIN EACH CONSTRUCTION STAGE AS DIRECTED BY THE ENGINEER TO MAINTAIN MUTCD SIGNAL REQUIREMENTS.
5. MOUNT NEAR RIGHT SIGNAL ABOVE TETHER WIRE WHEN OVER ROAD.
6. ALL LUMINAIRES ARE 250W HPS UNLESS OTHERWISE NOTED.
7. ALL EXISTING SIGNAL HEADS SHALL BE REMOVED, COVERED, OR TURNED AWAY FROM TRAFFIC IMMEDIATELY AFTER TURNING ON THE TEMPORARY SIGNALS.
8. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.

WISCONSIN
JEFFREY G. FAIT
E-33536
FOX POINT, WI
PROFESSIONAL ENGINEER

DECEMBER 23, 2013

SUMMARY FOR TEMPORARY SIGNALS

7	EA WOOD POLES CLASS 4
4	EA LUMINAIRES 250W
727	L.F. OVERHEAD SPAN WIRE
1	EA NON-INTRUSIVE VIDEO DETECTION SYSTEM

TRAFFIC CONTROL SIGNAL
STH 38 & DREXEL AVENUE
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1094

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PAGE 1 OF 2

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - PRE-STAGE	SHEET 351	E

FILE NAME : Temporary Signals.dgn PLOT DATE : 12/23/2013 PLOT BY : DSCHNABEL-TADI PLOT NAME : PLOT SCALE : 40.0000 sf / in.

WISDOT/CADDS SHEET 42

LEGEND

- WOOD POLE CLASS 4
- TEMPORARY CABLE - OVERHEAD
- TEMPORARY SIGNAL HEAD
- TEMPORARY LUMINAIRE, 250W HPS
- NON-INTRUSIVE DETECTION ZONE
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- (R) RED ARROW
- (Y) YELLOW ARROW
- (G) GREEN ARROW
- (B) EVP DESIGNATOR
- EVP DETECTOR HEAD

N

STH 38

DREXEL AVENUE

WP1 WP2 WP3 WP4 WP5 WP6 WP7

3115+00 3116+00 3117+00 3118+00

85+00 286+00 287+00 288+00 289+00 290+00 291+00

R/W

TRAFFIC CONTROL SIGNAL
STH 38 & DREXEL AVENUE
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1094

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PAGE 1 OF 1

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 1	SHEET 352	E

LEGEND

- WOOD POLE CLASS 4
- TEMPORARY CABLE - OVERHEAD
- TEMPORARY SIGNAL HEAD
- TEMPORARY LUMINAIRE, 250W HPS
- NON-INTRUSIVE DETECTION ZONE
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- (R) RED ARROW
- (Y) YELLOW ARROW
- (G) GREEN ARROW
- (B) EVP DESIGNATOR
- EVP DETECTOR HEAD

N

STH 38

DREXEL AVENUE

WP1 WP2 WP3 WP4 WP5 WP6 WP7

3115+00 3116+00 3117+00 3118+00

285+00 286+00 287+00 288+00 289+00 290+00 291+00

TRAFFIC CONTROL SIGNAL
STH 38 & DREXEL AVENUE
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1094

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

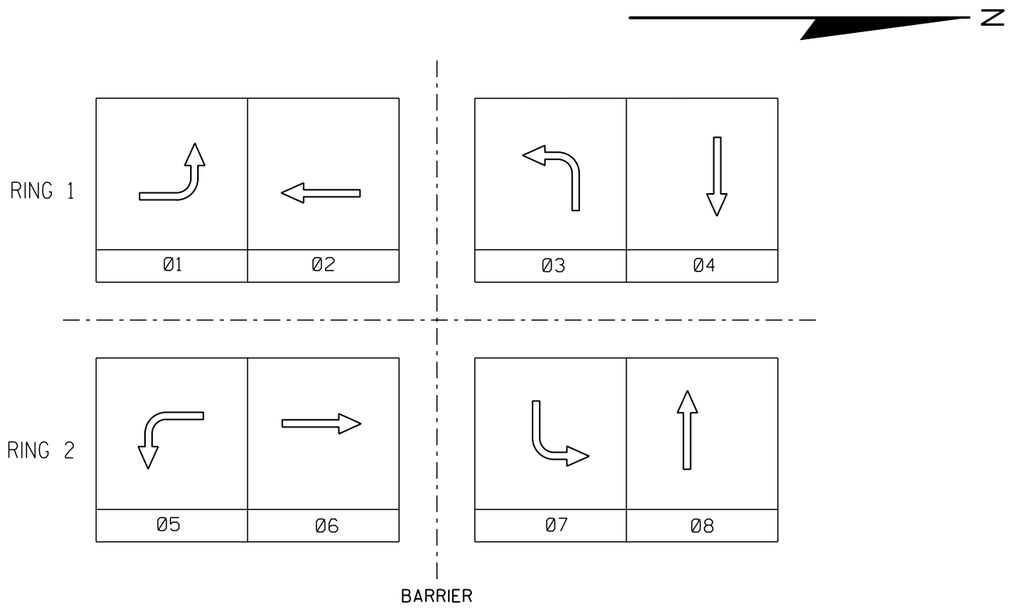
PAGE 1 OF 1

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 2	SHEET 353 E

FILE NAME : Temporary Signals Stage 2.dgn PLOT DATE : 12/22/2013 PLOT BY : DSCHNABEL-TADI PLOT NAME : PLOT SCALE : 40.0000 sf / in.

WISDOT/CADDS SHEET 42

	HEAD NUMBERS	FLASH
Ø1	4,5	R
Ø2	6,7,8	R
Ø3	19,20	R
Ø4	11,12,13	R
Ø5	9,10	R
Ø6	1,2,3	R
Ø7	14,15	R
Ø8	16,17,18	R
Ø2P		
Ø4P		
Ø6P		
Ø8P		
OLA		
OLB		
OLC		
OLD		



CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1		6		X
2	X	6	MIN	X
3		8		X
4		8		X
5		2		X
6	X	2	MIN	X
7		4		X
8		4		X

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	X
CLOSED LOOP	
TWISTED PAIR*	
FIBER OPTIC*	
FIBER OPTIC (ETHERNET)	
RADIO	

TYPE OF COORDINATION	
NONE	
TBC	X
TRAFFIC RESPONSIVE	
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO:	S-
SIGNAL SYSTEM #:	SS-00-06

TYPE OF LIGHTING	
BY OTHER AGENCY	X
IN TRAFFIC SIGNAL CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	X
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

DETECTOR LOGIC

DETECTOR NUMBER	DETECTOR INPUT	DETECTOR OPERATION			PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	SIZE	NUMBER OF TURNS
		CALLS AND EXTENDS	CALLS ONLY	EXTENDS ONLY							
11		X			1	1					
21		X			2	2					
31		X			3	3					
41		X			4	4					
51		X			5	5					
61		X			6	6					
71		X			7	7					
81		X			8	8					

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE DETECTOR	A	B	C	D
MOVEMENT				
PHASE	2+5	6+1	4+7	8+3

AFTER PREEMPTION SEQUENCE 2+5 OR 1+6, CONTROLLER SHALL RETURN TO PHASES 2+6.

AFTER PREEMPTION SEQUENCE 4+7 OR 8+3, CONTROLLER SHALL RETURN TO PHASES 4+8.

STH 38 & DREXEL AVENUE
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1094 CABINET TYPE:

CONTROLLER TYPE: TEMP

DATE 12/13 PAGE NO. 2 OF 2

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TEMPORARY SEQUENCE OF OPERATIONS - ALL STAGES	SHEET 354	E

LEGEND

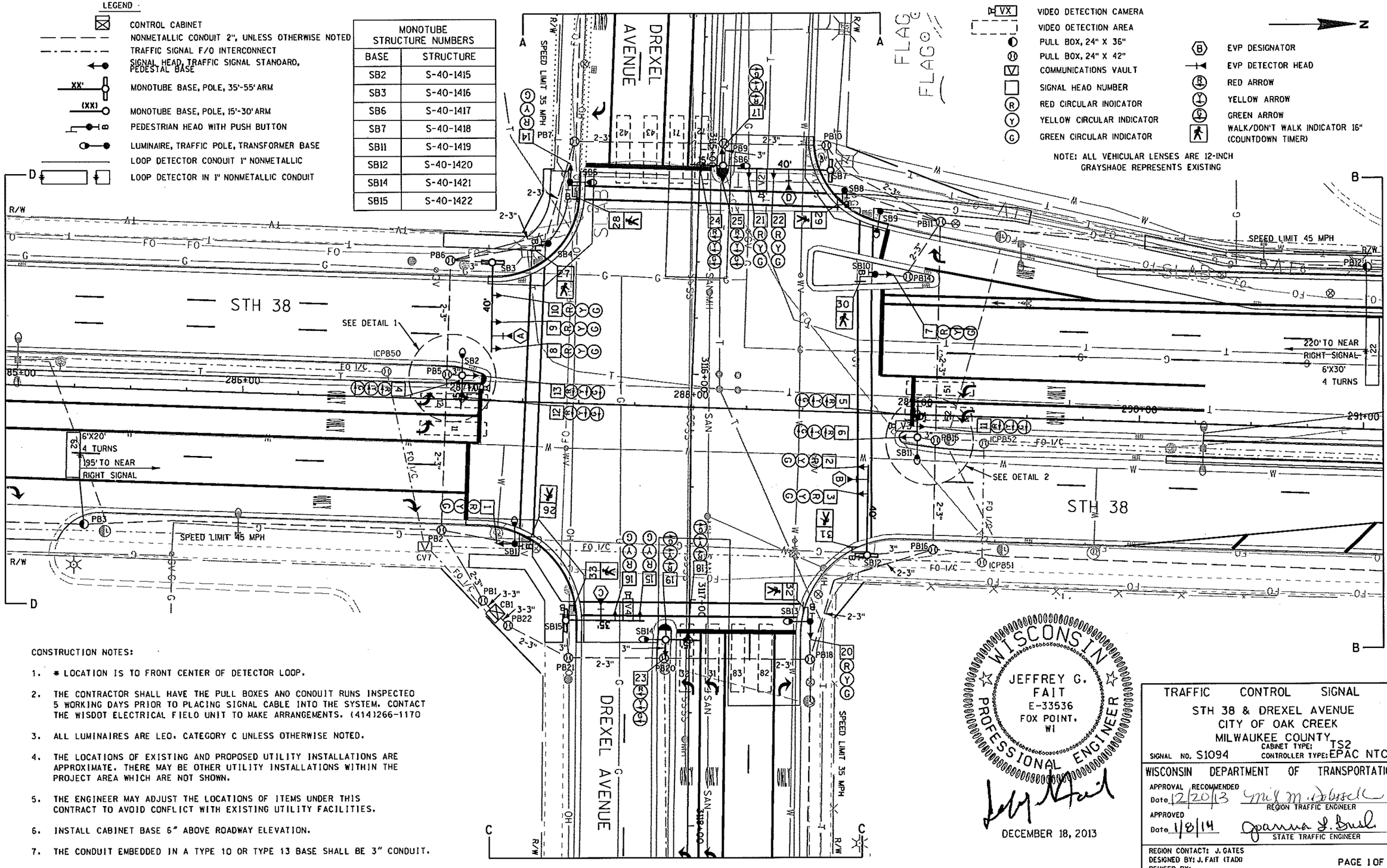
- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- TRAFFIC SIGNAL F/O INTERCONNECT
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- XX' — MONOTUBE BASE, POLE, 35'-55' ARM
- (XX) — MONOTUBE BASE, POLE, 15'-30' ARM
- B — PEDESTRIAN HEAD WITH PUSH BUTTON
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT

MONOTUBE STRUCTURE NUMBERS	
BASE	STRUCTURE
SB2	S-40-1415
SB3	S-40-1416
SB6	S-40-1417
SB7	S-40-1418
SB11	S-40-1419
SB12	S-40-1420
SB14	S-40-1421
SB15	S-40-1422

- VX — VIDEO DETECTION CAMERA
- VIDEO DETECTION AREA
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- COMMUNICATIONS VAULT
- SIGNAL HEAD NUMBER
- R — RED CIRCULAR INDICATOR
- Y — YELLOW CIRCULAR INDICATOR
- G — GREEN CIRCULAR INDICATOR
- B — EVP DESIGNATOR
- EVP DETECTOR HEAD
- R — RED ARROW
- Y — YELLOW ARROW
- G — GREEN ARROW
- WALK/DON'T WALK INDICATOR 16" (COUNTDOWN TIMER)

N

NOTE: ALL VEHICULAR LENSES ARE 12-INCH GRAYSHAOE REPRESENTS EXISTING



CONSTRUCTION NOTES:

1. * LOCATION IS TO FRONT CENTER OF DETECTOR LOOP.
2. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO THE SYSTEM. CONTACT THE WISDOT ELECTRICAL FIELD UNIT TO MAKE ARRANGEMENTS. (414)266-1170
3. ALL LUMINAIRES ARE LED, CATEGORY C UNLESS OTHERWISE NOTED.
4. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN.
5. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
6. INSTALL CABINET BASE 6" ABOVE ROADWAY ELEVATION.
7. THE CONDUIT EMBEDDED IN A TYPE 10 OR TYPE 13 BASE SHALL BE 3" CONDUIT.

WISCONSIN
JEFFREY G. FAIT
E-33536
FOX POINT, WI
PROFESSIONAL ENGINEER

DECEMBER 18, 2013

TRAFFIC CONTROL SIGNAL
STH 38 & DREXEL AVENUE
CITY OF OAK CREEK
MILWAUKEE COUNTY
SIGNAL NO. S1094
CABINET TYPE: TS2
CONTROLLER TYPE: EPAC NTCIP

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED Date 12/20/13 — REGION TRAFFIC ENGINEER

APPROVED Date 1/8/14 — STATE TRAFFIC ENGINEER

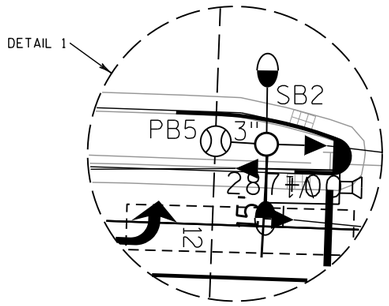
REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI
REVISED BY:

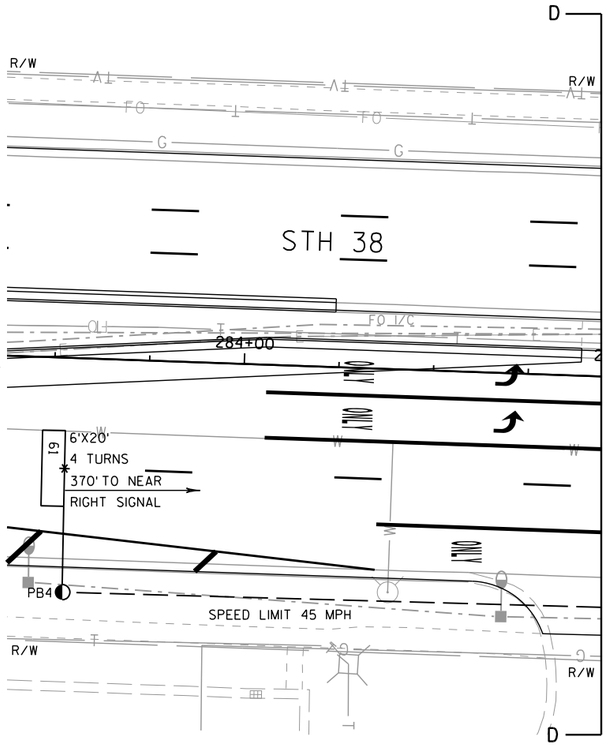
PAGE 1 OF 3

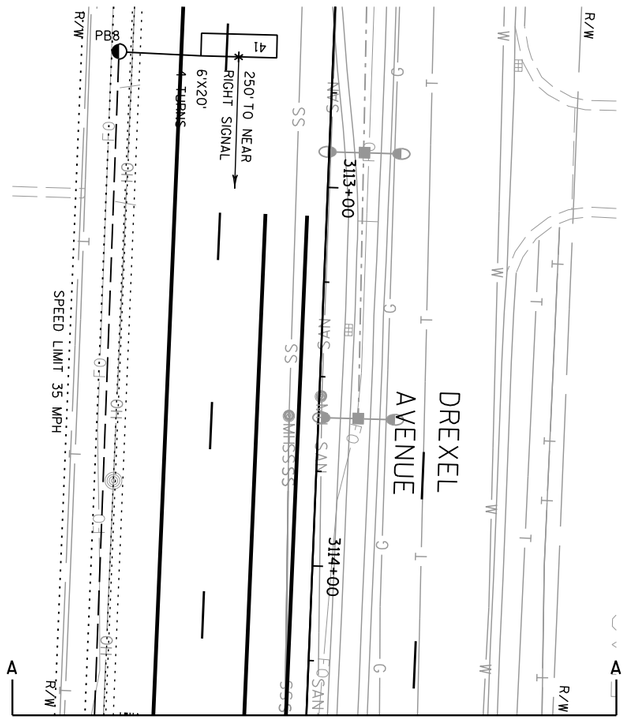
PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 355 E

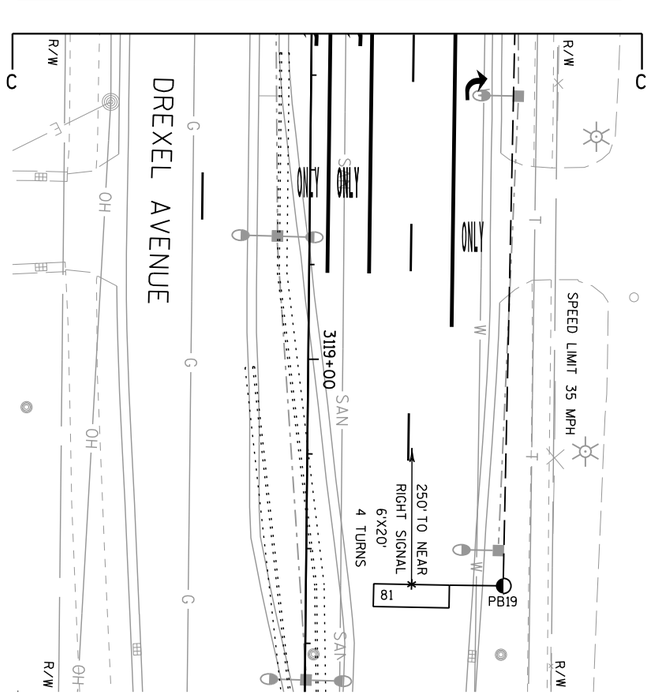
FILE NAME : Proposed Signals.dgn — PLOT DATE : 12/19/2013 — PLOT BY : DSCHNABEL-TADI — PLOT NAME : — PLOT SCALE : 40.0000 sf / in. — WISDOT/CADDS SHEET 42

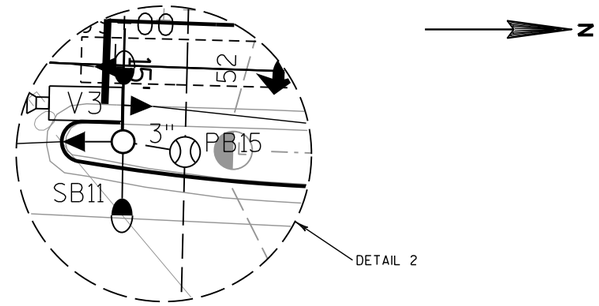
TMG 12/20/2013

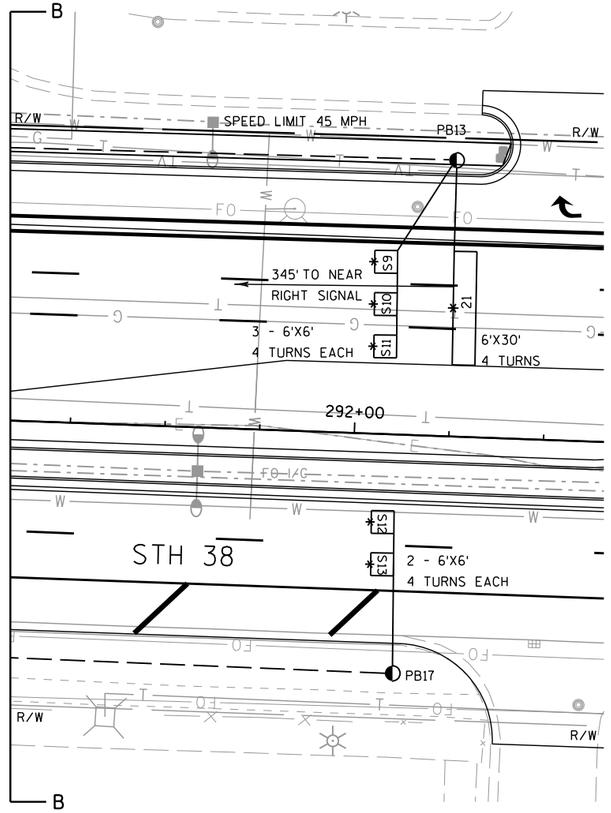












TRAFFIC CONTROL SIGNAL
STH 38 & DREXEL AVENUE
CITY OF OAK CREEK
MILWAUKEE COUNTY

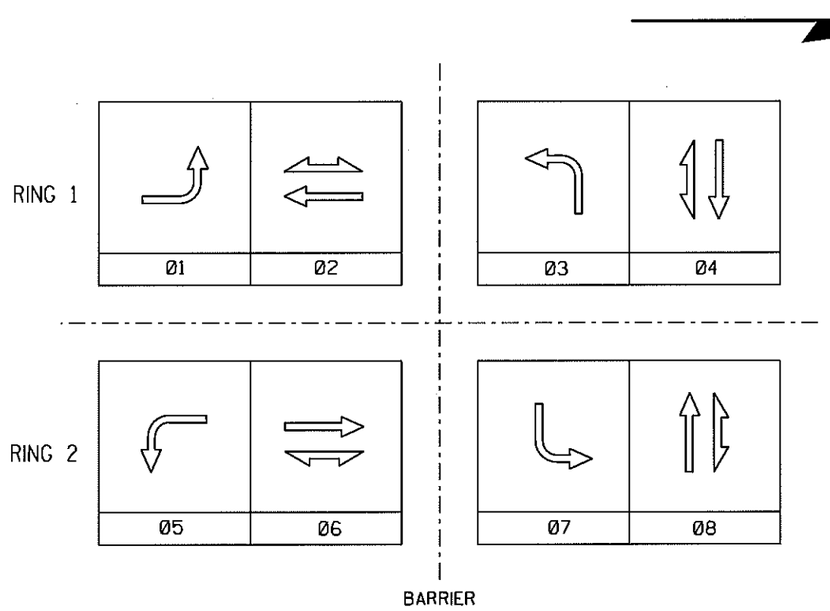
SIGNAL NO. S1094

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PAGE 2 OF 3

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 356	E

	HEAD NUMBERS	FLASH
Ø1	4,5,6	R
Ø2	7,8,9,10	R
Ø3	23,24,25	R
Ø4	14,15,16	R
Ø5	11,12,13	R
Ø6	1,2,3	R
Ø7	17,18,19	R
Ø8	20,21,22	R
Ø2P	28,29	
Ø4P	26,27	
Ø6P	32,33	
Ø8P	30,31	
OLA		
OLB		
OLC		
OLD		



CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1		6		X
2	X	6	MIN	X
3		8		X
4		8		X
5		2		X
6	X	2	MIN	X
7		4		X
8		4		X

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	
CLOSED LOOP	
TWISTED PAIR*	
FIBER OPTIC*	X
FIBER OPTIC (ETHERNET)	
RADIO	

TYPE OF COORDINATION	
NONE	
TBC	X
TRAFFIC RESPONSIVE	X
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO:	S-
SIGNAL SYSTEM #:	SS-00-06

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC SIGNAL CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	X
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
PLAN LOOP DETECTOR #(S)	21	41	61	81		S9	S11	S13
ASSIGNED PHASE	2	4	6	8				
OPERATION MODE	VEH	VEH	VEH	VEH				
SWITCH								
EXTEND		X		X				
DELAY								

DETECTOR INPUT	19	17	23	21	27	25	31	29
PLAN LOOP DETECTOR #(S)	11	31	42	51	71	82		
ASSIGNED PHASE	1	3	4	5	7	8		
OPERATION MODE	VEH	VEH	VEH	VEH	VEH	VEH		
SWITCH								
EXTEND								
DELAY								

DETECTOR INPUT	4	2	8	6	12	10	16	14
PLAN LOOP DETECTOR #(S)	22		62			S10	S12	
ASSIGNED PHASE	2		6					
OPERATION MODE	VEH		VEH					
SWITCH								
EXTEND								
DELAY								

DETECTOR INPUT	20	18	24	22	28	26	32	30
PLAN LOOP DETECTOR #(S)	12	32	43	52	72	83		
ASSIGNED PHASE	1	3	4	5	7	8		
OPERATION MODE	VEH	VEH	VEH	VEH	VEH	VEH		
SWITCH								
EXTEND								
DELAY								

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE DETECTOR	A	B	C	D
MOVEMENT				
PHASE	2+5	6+1	4+7	8+3

AFTER PREEMPTION SEQUENCE 2+5 OR 1+6, CONTROLLER SHALL RETURN TO PHASES 2+6.

AFTER PREEMPTION SEQUENCE 4+7 OR 8+3, CONTROLLER SHALL RETURN TO PHASES 4+8.

STH 38 & DREXEL AVENUE
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1094 CABINET TYPE: TS2

CONTROLLER TYPE: EPAC

DATE 12/13 PAGE NO. 3 OF 3

JMG 12/20/2013

12/20/13 mmd

PROJECT ID:	2060-15-71
INTERSECTION:	STH 38 & DREXEL AVE

SIGNAL WIRE COLOR CODING	BLK-BLACK	RED-RED	GRN-GREEN
	WHT-WHITE	BLU-BLUE	ORG-ORANGE

CB1 TO	JUMPER	# OF COND. AWG 14	HEAD NO.	SIGNAL INDICATION WIRE COLOR									PED BUTTON	OTHER
				RED	YELLOW	GREEN	<RED	<YELLOW>	<FL YELLOW>	<GREEN>	D/WALK	WALK		
SB1		12	1	RED	ORG	GRN								
			26								BLK	BLU		
			BUTTON										WHT/BLK	
SB2		12	4				RED	ORG		GRN				
			12				RED/BLK	ORG/BLK		GRN/BLK				
			13				RED/BLK	ORG/BLK		GRN/BLK				
SB3		12	8	RED	ORG	GRN								
			9	RED	ORG	GRN								
			10	RED	ORG	GRN								
SB4		7	27								BLK	BLU		
			BUTTON										WHT/BLK	
SB5		12	14	RED	ORG	GRN								
			28								BLK	BLU		
			BUTTON										WHT/BLK	
SB6		12	17				RED	ORG		GRN				
			24				RED/BLK	ORG/BLK		GRN/BLK				
			25				RED/BLK	ORG/BLK		GRN/BLK				
SB7		12	21	RED	ORG	GRN								
			22	RED	ORG	GRN								
SB8		7	29								BLK	BLU		
			BUTTON										WHT/BLK	
SB10		12	7	RED	ORG	GRN								
			30								BLK	BLU		
			BUTTON										WHT/BLK	
SB11		12	5				RED	ORG		GRN				
			6				RED	ORG		GRN				
			11				RED/BLK	ORG/BLK		GRN/BLK				
SB12		12	2	RED	ORG	GRN								
			3	RED	ORG	GRN								
			31								BLK	BLU		
			BUTTON										WHT/BLK	
SB13		12	20	RED	ORG	GRN								
			32								BLK	BLU		
			BUTTON										WHT/BLK	
SB14		12	18				RED	ORG		GRN				
			19				RED	ORG		GRN				
			23				RED/BLK	ORG/BLK		GRN/BLK				
SB15		12	15	RED	ORG	GRN								
			16	RED	ORG	GRN								
			33								BLK	BLU		
			BUTTON										WHT/BLK	

EQUIPMENT GROUNDING CONDUCTOR 10 AWG GRN XLP	
FROM	TO
CB1	SB1
SB1	SB2
SB2	SB3
SB3	SB4
SB4	SB5
SB5	SB6
SB6	SB7
SB7	SB8
SB8	SB9
SB9	SB10
SB10	SB11
SB11	SB12
SB12	SB13
SB13	SB14
SB14	SB15
SB15	CB1

PULL BOX BONDING JUMPER 10 AWG GRN XLP	
FROM	TO
CB1	PB1
SB1	PB2
SB2	PB5
SB3	PB6
SB5	PB7
SB6	PB9
SB7	PB10
SB9	PB11
SB10	PB14
SB11	PB15
SB12	PB16
SB13	PB18
SB14	PB20
SB15	PB21
CB1	PB22

LIGHTING UF 12 AWG W/GROUND	
FROM	TO
CB1	SB1
SB1	SB2
SB2	SB5
SB5	SB6
CB1	SB14
SB14	SB13
SB13	SB11
SB11	SB9

VIDEO DETECTION CABLE	
FROM	TO
CB1	SB2 (V1)
CB1	SB7 (V2)
CB1	SB11 (V3)
CB1	SB15 (V4)

EMERGENCY VEHICLE PREEMPTION CABLE	
FROM	TO
CB1	SB7 (D)
CB1	SB12 (B)
CB1	SB15 (C)
CB1	SB3 (A)

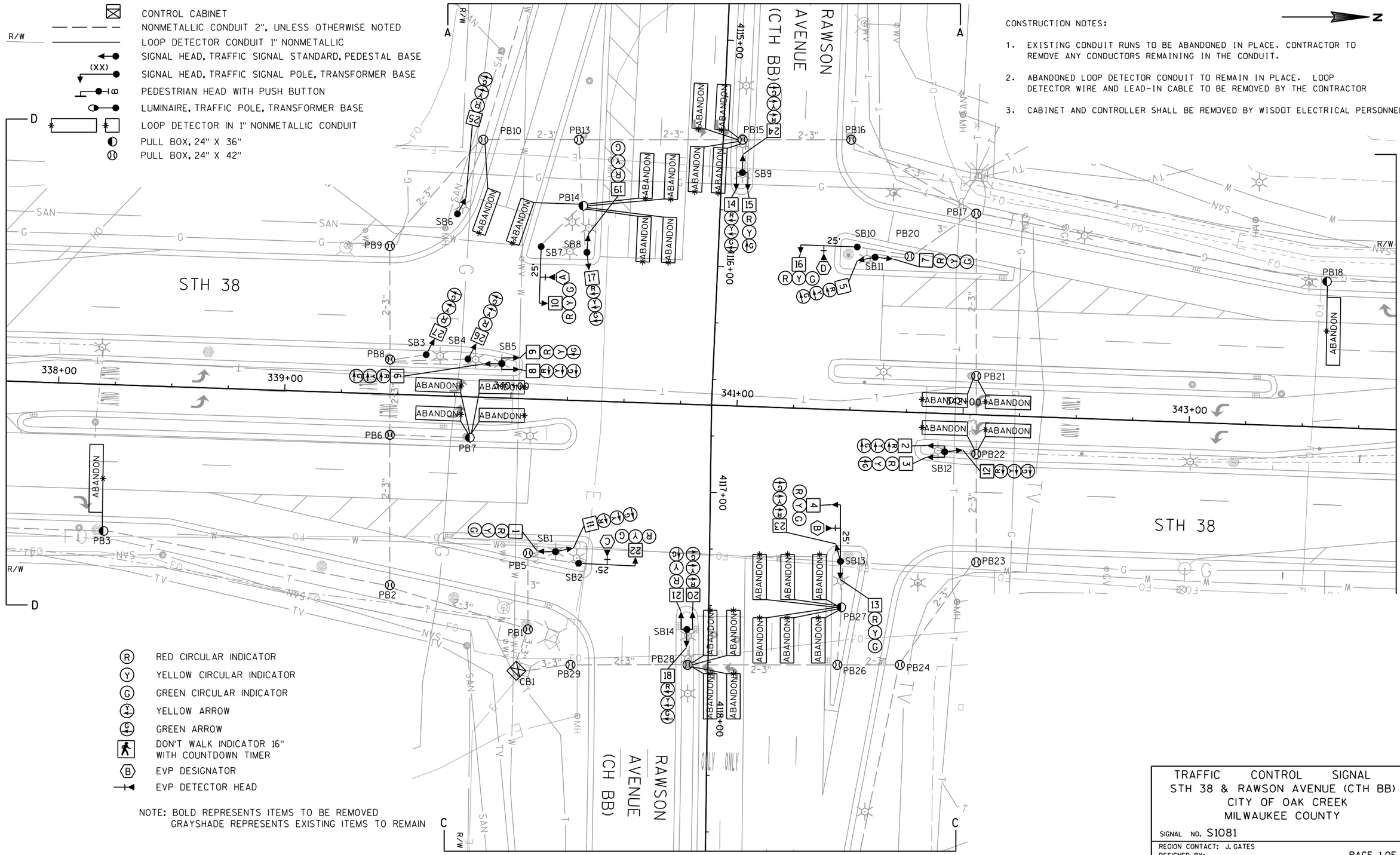
NOTES:
1. USE WHITE CONDUCTOR IN THE SIGNAL CABLE AS THE GROUNDED CONDUCTOR FOR ALL TRAFFIC SIGNAL INDICATIONS.
2. ENSURE THE GROUNDED CONDUCTOR IN THE FEEDER CABLE AND THE POLE CABLES ARE BOTH 18" LONGER THAN THE UNGROUNDED CONDUCTORS.
3. AT THE SIGNAL BASES, CONNECT ONE TERMINAL FROM THE PEDESTRIAN PUSH BUTTONS TO THE COLOR INDICATED IN THE CHART.

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"

CONSTRUCTION NOTES:

1. EXISTING CONDUIT RUNS TO BE ABANDONED IN PLACE. CONTRACTOR TO REMOVE ANY CONDUCTORS REMAINING IN THE CONDUIT.
2. ABANDONED LOOP DETECTOR CONDUIT TO REMAIN IN PLACE. LOOP DETECTOR WIRE AND LEAD-IN CABLE TO BE REMOVED BY THE CONTRACTOR
3. CABINET AND CONTROLLER SHALL BE REMOVED BY WISDOT ELECTRICAL PERSONNEL.



- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- (Y) YELLOW ARROW
- (G) GREEN ARROW
- DON'T WALK INDICATOR 16" WITH COUNTDOWN TIMER
- (B) EVP DESIGNATOR
- EVP DETECTOR HEAD

NOTE: BOLD REPRESENTS ITEMS TO BE REMOVED
GRAYSHADE REPRESENTS EXISTING ITEMS TO REMAIN

TRAFFIC CONTROL SIGNAL
STH 38 & RAWSON AVENUE (CTH BB)
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1081

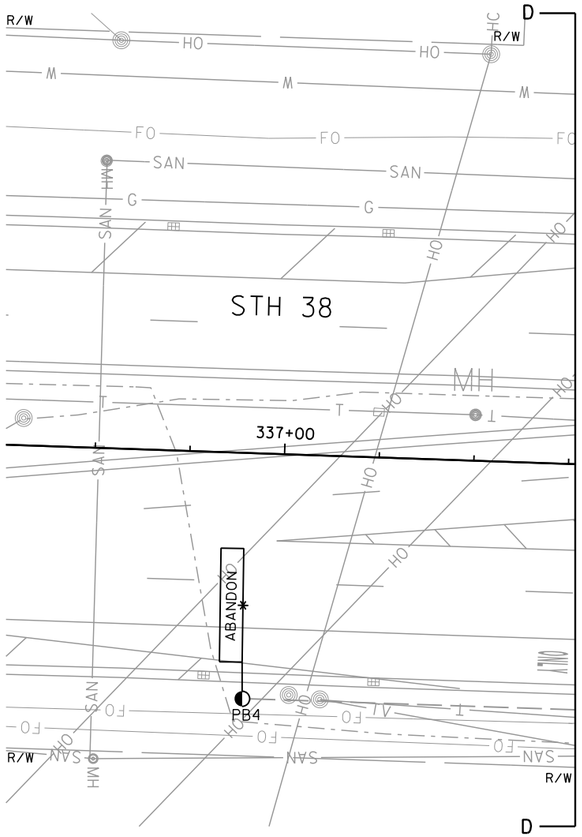
REGION CONTACT: J. GATES
DESIGNED BY:
REVISED BY: J. FAIT

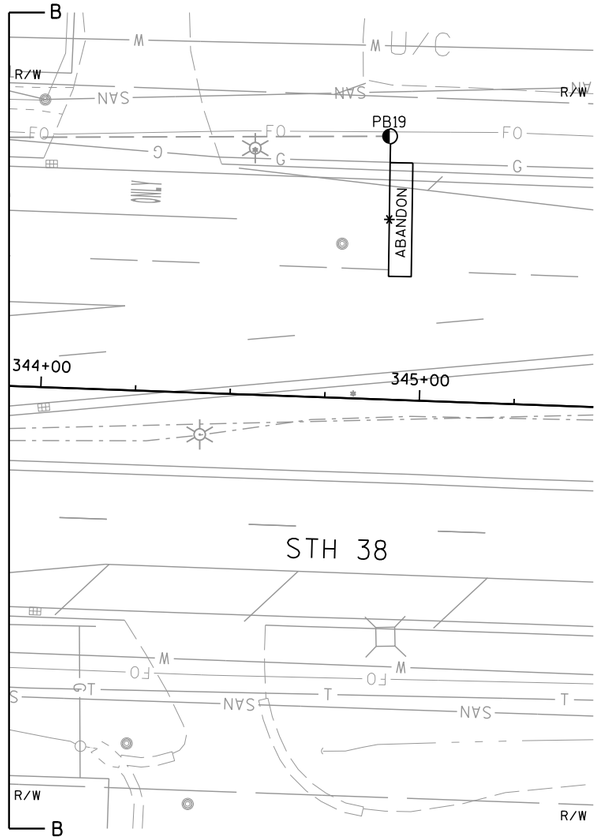
PAGE 1 OF 3

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 359	E

FILE NAME : Removals.dgn PLOT DATE : 12/22/2013 PLOT BY : DSCHNABEL-TADI PLOT NAME : PLOT SCALE : 40.0000 sf / in.

WISDOT/CADDS SHEET 42





TRAFFIC CONTROL SIGNAL
STH 38 & RAWSON AVENUE (CTH BB)
CITY OF OAK CREEK
MILWAUKEE COUNTY

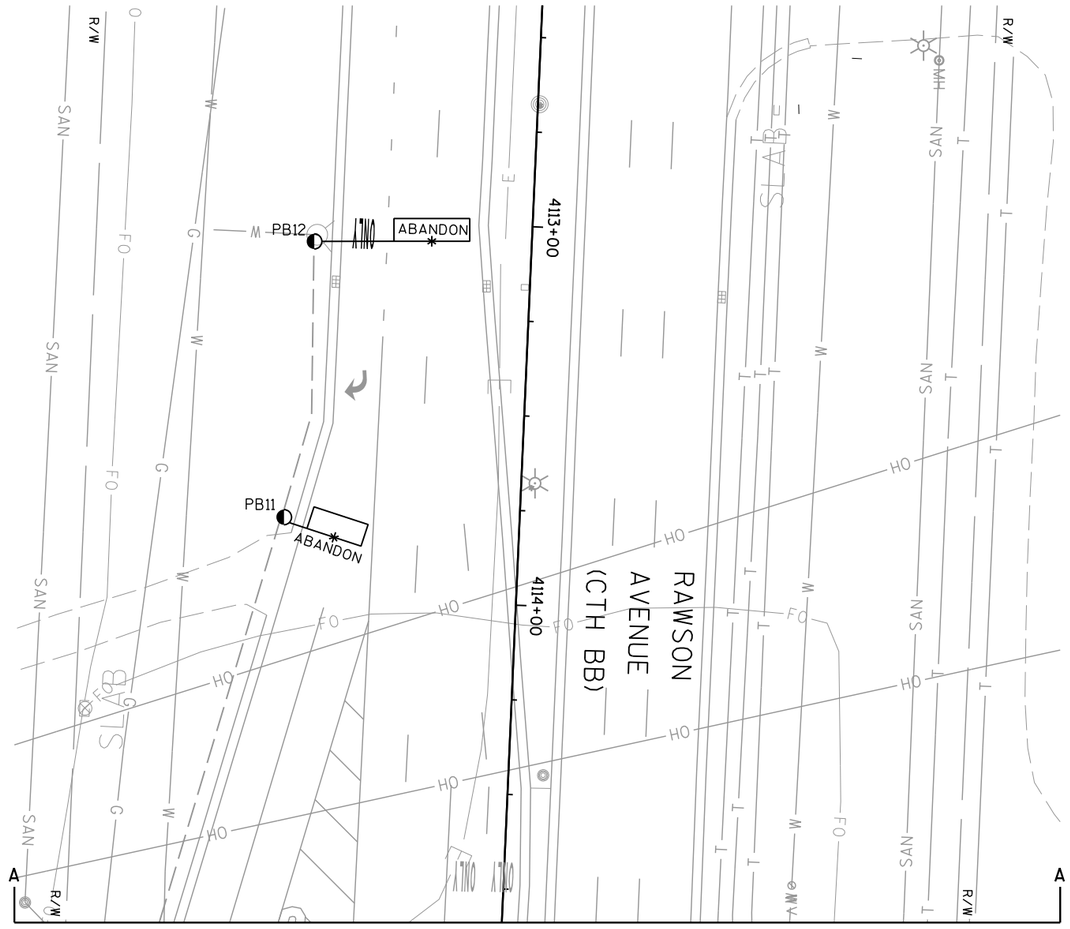
SIGNAL NO. S1081

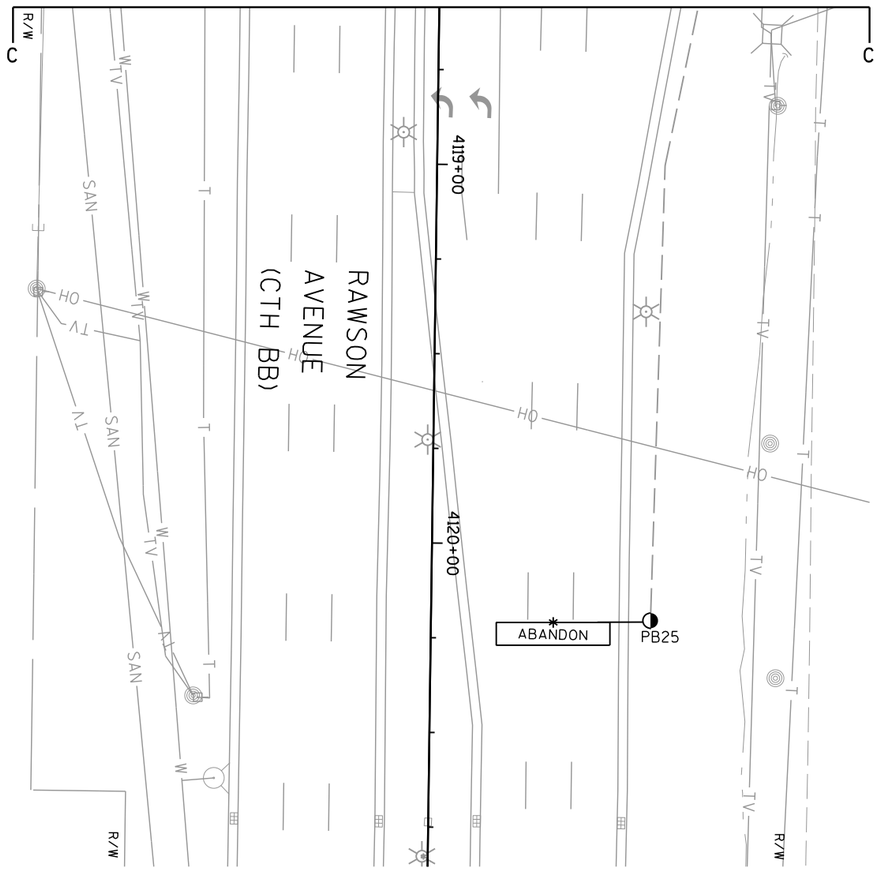
REGION CONTACT: J. GATES
DESIGNED BY:
REVISED BY: J. FAIT

PAGE 2 OF 3

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 360	E

FILE NAME : Removals.dgn PLOT DATE : 12/22/2013 PLOT BY : DSCHNABEL-TADI PLOT NAME : PLOT SCALE : 40.0000 sf / in.





TRAFFIC CONTROL SIGNAL
STH 38 & RAWSON AVENUE (CTH BB)
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1081

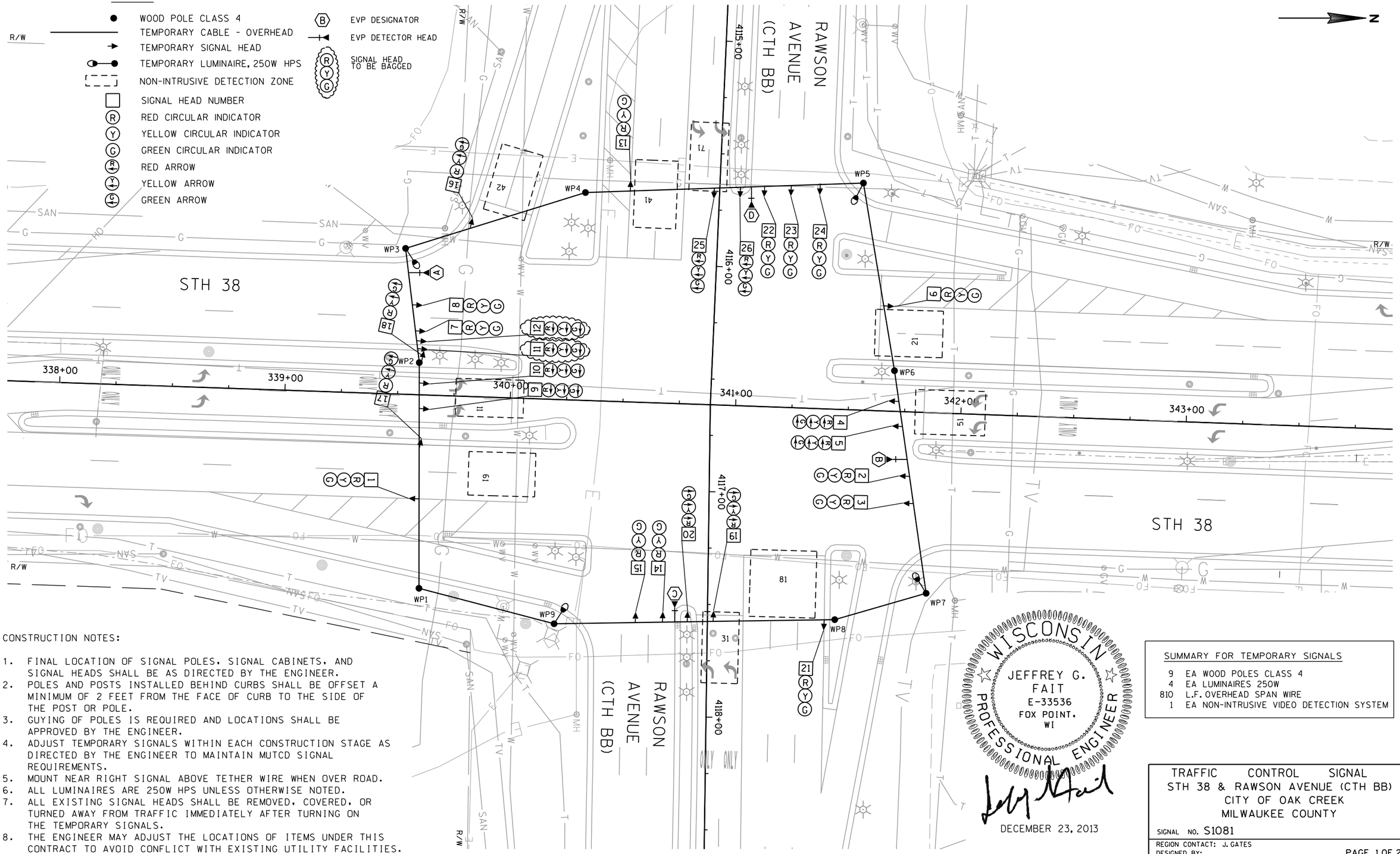
REGION CONTACT: J. GATES
DESIGNED BY:
REVISED BY: J. FAIT

PAGE 3 OF 3

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 361 E

LEGEND

- WOOD POLE CLASS 4
- TEMPORARY CABLE - OVERHEAD
- TEMPORARY SIGNAL HEAD
- TEMPORARY LUMINAIRE, 250W HPS
- NON-INTRUSIVE DETECTION ZONE
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- (R) RED ARROW
- (Y) YELLOW ARROW
- (G) GREEN ARROW
- (B) EVP DESIGNATOR
- EVP DETECTOR HEAD
- (R)(Y)(G) SIGNAL HEAD TO BE BAGGED



CONSTRUCTION NOTES:

1. FINAL LOCATION OF SIGNAL POLES, SIGNAL CABINETS, AND SIGNAL HEADS SHALL BE AS DIRECTED BY THE ENGINEER.
2. POLES AND POSTS INSTALLED BEHIND CURBS SHALL BE OFFSET A MINIMUM OF 2 FEET FROM THE FACE OF CURB TO THE SIDE OF THE POST OR POLE.
3. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER.
4. ADJUST TEMPORARY SIGNALS WITHIN EACH CONSTRUCTION STAGE AS DIRECTED BY THE ENGINEER TO MAINTAIN MUTCD SIGNAL REQUIREMENTS.
5. MOUNT NEAR RIGHT SIGNAL ABOVE TETHER WIRE WHEN OVER ROAD.
6. ALL LUMINAIRES ARE 250W HPS UNLESS OTHERWISE NOTED.
7. ALL EXISTING SIGNAL HEADS SHALL BE REMOVED, COVERED, OR TURNED AWAY FROM TRAFFIC IMMEDIATELY AFTER TURNING ON THE TEMPORARY SIGNALS.
8. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.

WISCONSIN
JEFFREY G. FAIT
E-33536
FOX POINT, WI
PROFESSIONAL ENGINEER

DECEMBER 23, 2013

SUMMARY FOR TEMPORARY SIGNALS

9	EA WOOD POLES CLASS 4
4	EA LUMINAIRES 250W
810	L.F. OVERHEAD SPAN WIRE
1	EA NON-INTRUSIVE VIDEO DETECTION SYSTEM

TRAFFIC CONTROL SIGNAL
STH 38 & RAWSON AVENUE (CTH BB)
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1081

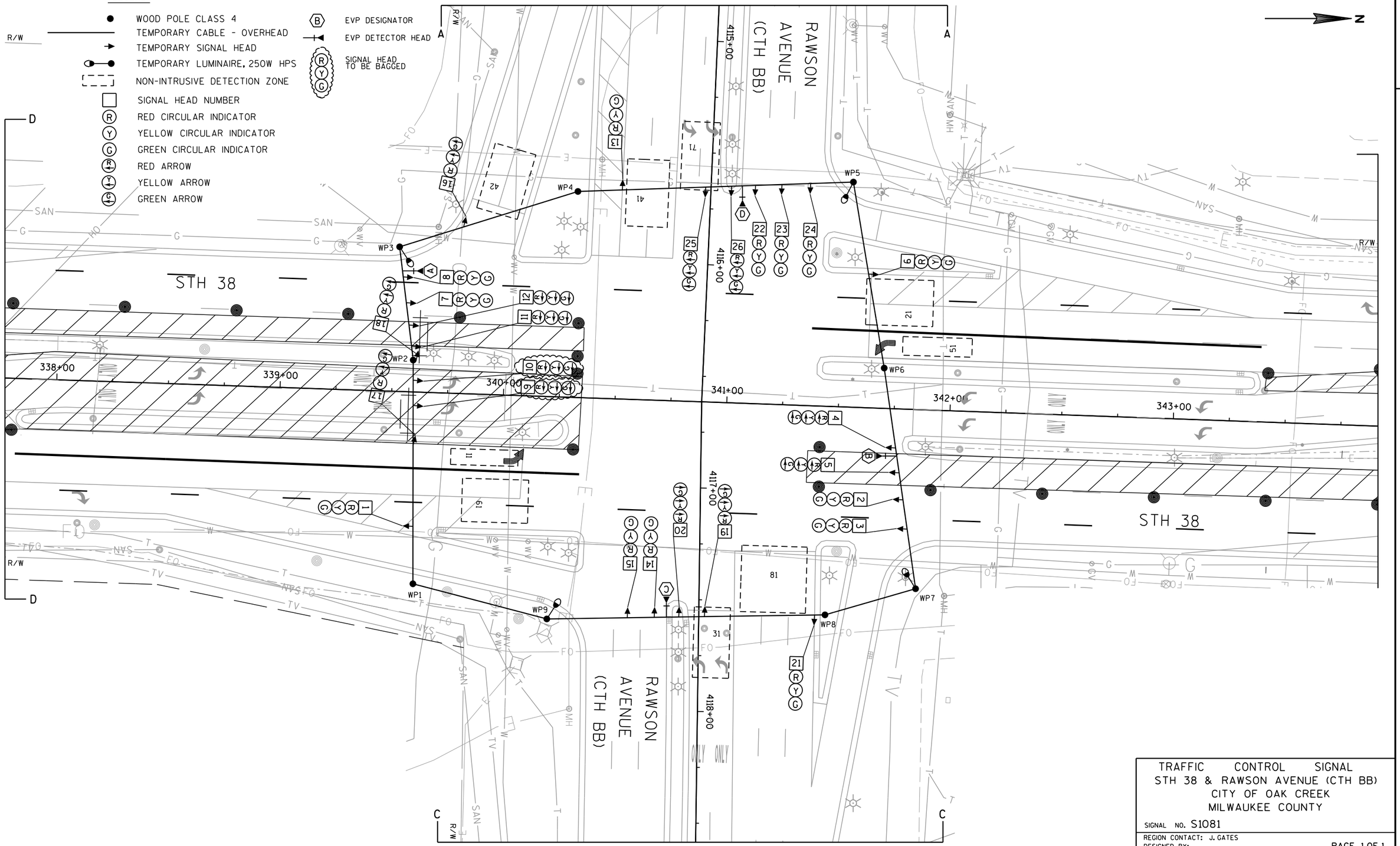
REGION CONTACT: J. GATES
DESIGNED BY:
REVISED BY: J. FAIT

PAGE 1 OF 2

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - PRE-STAGE	SHEET 362 E

LEGEND

- WOOD POLE CLASS 4
- TEMPORARY CABLE - OVERHEAD
- TEMPORARY SIGNAL HEAD
- TEMPORARY LUMINAIRE, 250W HPS
- NON-INTRUSIVE DETECTION ZONE
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- (R) RED ARROW
- (Y) YELLOW ARROW
- (G) GREEN ARROW
- (B) EVP DESIGNATOR
- EVP DETECTOR HEAD
- (R)(Y)(G) SIGNAL HEAD TO BE BAGGED



TRAFFIC CONTROL SIGNAL
STH 38 & RAWSON AVENUE (CTH BB)
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1081

REGION CONTACT: J. GATES
DESIGNED BY:
REVISED BY: J. FAIT

PAGE 1 OF 1

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 1	SHEET 363	E

FILE NAME : Temporary Signals Stage1.dgn
PLOT DATE : 12/22/2013
PLOT BY : DSCHNABEL-TADI
PLOT NAME :
PLOT SCALE : 40.0000 sf / in.

LEGEND

- WOOD POLE CLASS 4
- TEMPORARY CABLE - OVERHEAD
- TEMPORARY SIGNAL HEAD
- TEMPORARY LUMINAIRE, 250W HPS
- NON-INTRUSIVE DETECTION ZONE
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- (R) RED ARROW
- (Y) YELLOW ARROW
- (G) GREEN ARROW
- (B) EVP DESIGNATOR
- EVP DETECTOR HEAD
- (R)(Y)(G) SIGNAL HEAD TO BE BAGGED

STH 38

RAWSON AVENUE (CTH BB)

WP1 WP2 WP3 WP4 WP5 WP6 WP7 WP8 WP9

338+00 339+00 340+00 341+00 342+00 343+00

4115+00 4116+00 4117+00 4118+00

TRAFFIC CONTROL SIGNAL
STH 38 & RAWSON AVENUE (CTH BB)
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1081

REGION CONTACT: J. GATES
DESIGNED BY:
REVISED BY: J. FAIT

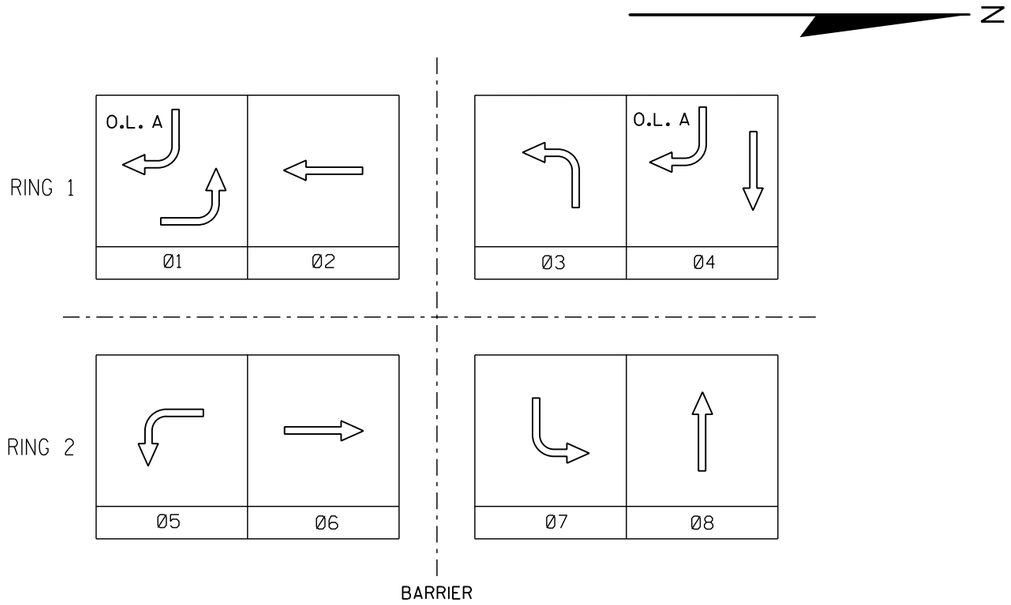
PAGE 1 OF 1

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 2	SHEET 364	E

FILE NAME : Temporary Signals Stage 2.dgn PLOT DATE : 12/22/2013 PLOT BY : DSCHNABEL-TADI PLOT NAME : PLOT SCALE : 40.0000 sf / in.

WISDOT/CADDS SHEET 42

	HEAD NUMBERS	FLASH
Ø1	4,5	R
Ø2	6,7,8	R
Ø3	25,26	R
Ø4	13,14,15	R
Ø5	9,10,11,12	R
Ø6	1,2,3	R
Ø7	19,20	R
Ø8	21,22,23,24	R
Ø2P		
Ø4P		
Ø6P		
Ø8P		
OLA	16,17,18	R
OLB		
OLC		
OLD		



CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1		6		X
2	X	6	MIN	X
3		8		X
4		8		X
5		2		X
6	X	2	MIN	X
7		4		X
8		4		X

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	X
CLOSED LOOP	
TWISTED PAIR*	
FIBER OPTIC*	
FIBER OPTIC (ETHERNET)	
RADIO	

TYPE OF COORDINATION	
NONE	
TBC	X
TRAFFIC RESPONSIVE	
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO:	S-
SIGNAL SYSTEM #:	SS-00-06

TYPE OF LIGHTING	
BY OTHER AGENCY	X
IN TRAFFIC SIGNAL CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	X
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

DETECTOR LOGIC

DETECTOR NUMBER	DETECTOR INPUT	DETECTOR OPERATION			PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	SIZE	NUMBER OF TURNS
		CALLS AND EXTENDS	CALLS ONLY	EXTENDS ONLY							
11		X			1	1					
21		X			2	2					
31		X			3	3					
41		X			4	4					
42		X			4	4					
51		X			5	5					
61		X			6	6					
71		X			7	7					
81		X			8	8					

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE DETECTOR	A	B	C	D
MOVEMENT				
PHASE	2+5	6+1	4+7	8+3

AFTER PREEMPTION SEQUENCE 2+5 OR 1+6, CONTROLLER SHALL RETURN TO PHASES 2+6.

AFTER PREEMPTION SEQUENCE 4+7 OR 8+3, CONTROLLER SHALL RETURN TO PHASES 4+8.

STH 38 & RAWSON AVENUE (CTH BB)
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1081 CABINET TYPE:

CONTROLLER TYPE: TEMP

DATE 12/13 PAGE NO. 2 OF 2

PROJECT NO: 2060-15-71 | HWY: STH 38 | COUNTY: MILWAUKEE | TEMPORARY SEQUENCE OF OPERATIONS - ALL STAGES | SHEET 365 | E

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- TRAFFIC SIGNAL F/O INTERCONNECT
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- MONOTUBE BASE, POLE, 35'-55' ARM
- MONOTUBE BASE, POLE, 15'-30' ARM
- PEDESTRIAN HEAD WITH PUSH BUTTON
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- VIDEO DETECTION CAMERA
- VIDEO DETECTION AREA
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- COMMUNICATIONS VAULT
- SIGNAL HEAD NUMBER
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- WALK/DON'T WALK INDICATOR 16" (COUNTDOWN TIMER)

NOTE: ALL VEHICULAR LENSES ARE 12-INCH GRAYSHADE REPRESENTS EXISTING

CONSTRUCTION NOTES:

1. * LOCATION IS TO FRONT CENTER OF DETECTOR LOOP.
2. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO THE SYSTEM. CONTACT THE WISDOT ELECTRICAL FIELD UNIT TO MAKE ARRANGEMENTS. (414)266-1170
3. ALL LUMINAIRES ARE LED. CATEGORY C UNLESS OTHERWISE NOTED.
4. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN.
5. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
6. INSTALL CABINET BASE 6" ABOVE ROADWAY ELEVATION.
7. THE CONDUIT EMBEDDED IN A TYPE 10 OR TYPE 13 BASE SHALL BE 3" CONDUIT.

MONOTUBE STRUCTURE NUMBERS	
BASE	STRUCTURE
SB5	S-40-1423
SB9	S-40-1424
SB12	S-40-1425
SB13	S-40-1426
SB18	S-40-1427
SB19	S-40-1428
SB23	S-40-1429
SB24	S-40-1430

JEFFREY G. FAIT
E-33536
FOX POINT, WI
WISCONSIN PROFESSIONAL ENGINEER
DECEMBER 18, 2013

TRAFFIC CONTROL SIGNAL
STH 38 & RAWSON AVENUE (CTH BB)
CITY OF OAK CREEK
MILWAUKEE COUNTY
SIGNAL NO. S1081
CABINET TYPE: TS2
CONTROLLER TYPE: EPAC NTCIP

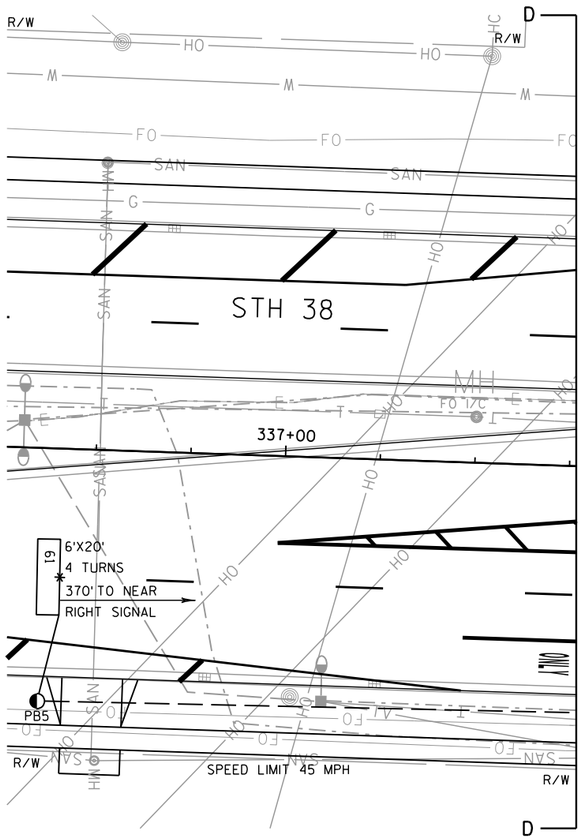
WISCONSIN DEPARTMENT OF TRANSPORTATION
APPROVAL RECOMMENDED Date 12/20/13 — REGION TRAFFIC ENGINEER
APPROVED Date 1/8/14 — STATE TRAFFIC ENGINEER
REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

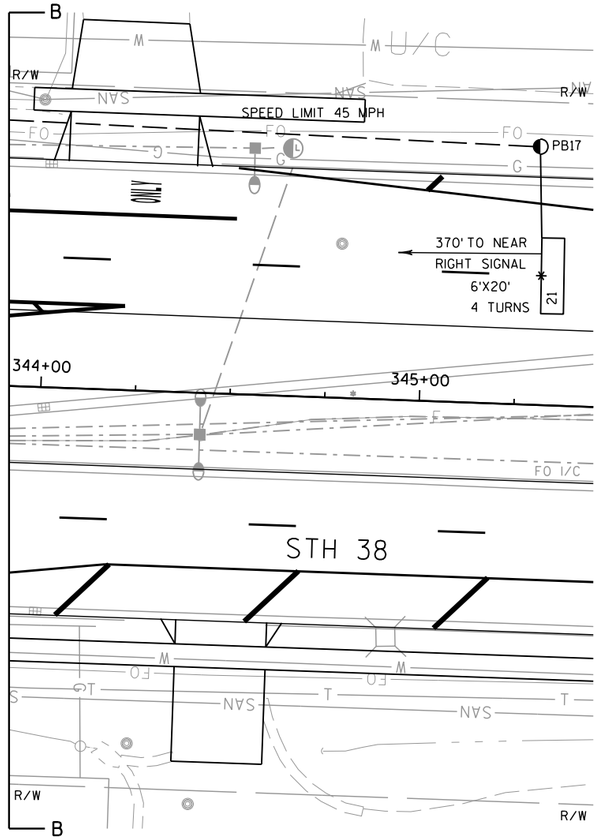
PAGE 1 OF 4

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 366 E

FILE NAME : Proposed Signals.dgn | PLOT DATE : 12/19/2013 | PLOT BY : DSCHNABEL-TADI | PLOT NAME : | PLOT SCALE : 40.0000 sf / in. | WISDOT/CADDS SHEET 42

JMG 12/20/2013





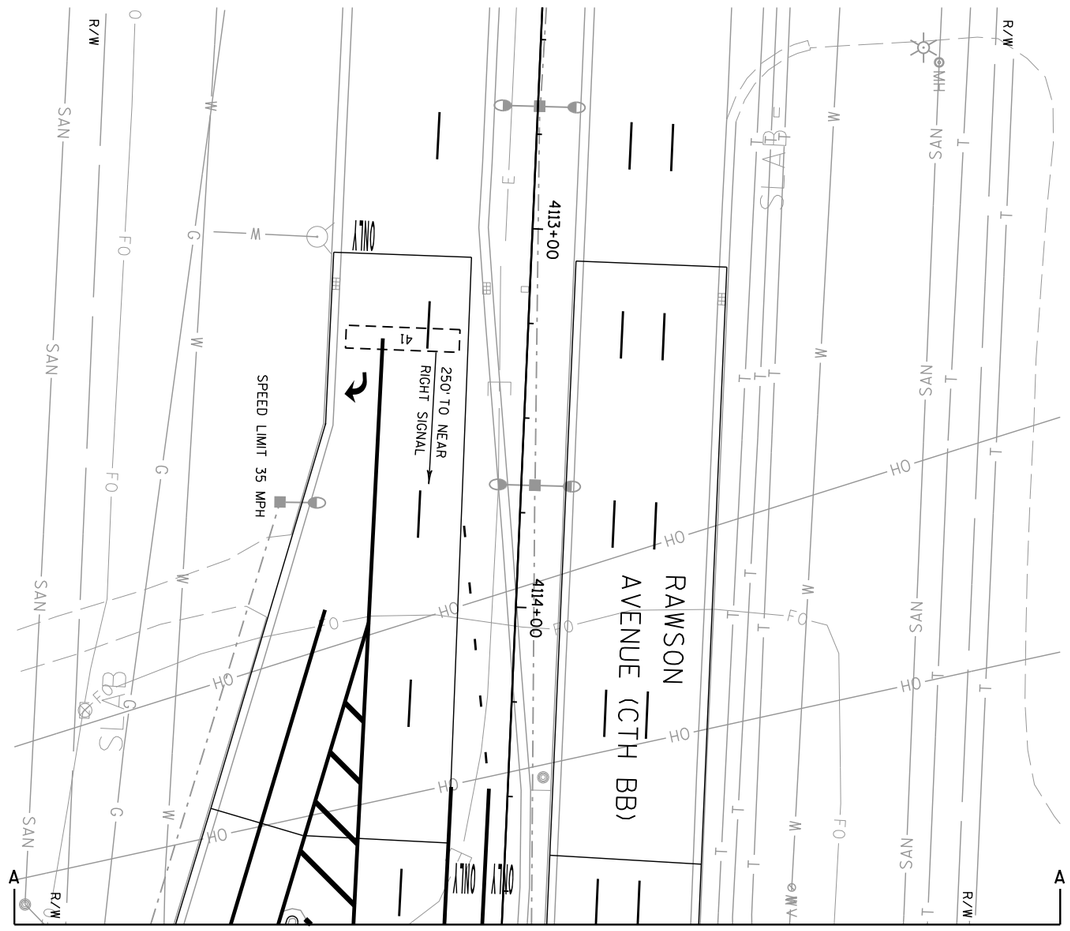
TRAFFIC CONTROL SIGNAL
STH 38 & RAWSON AVENUE (CTH BB)
CITY OF OAK CREEK
MILWAUKEE COUNTY

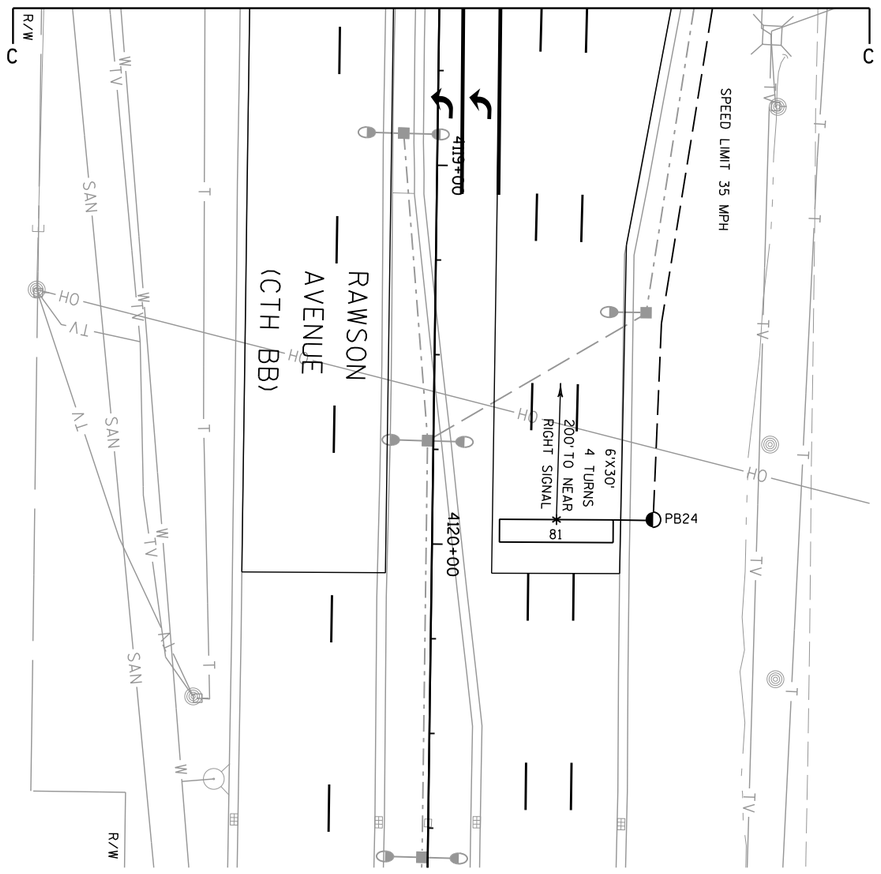
SIGNAL NO. S1081

REGION CONTACT: J. GATES
DESIGNED BY:
REVISED BY: J. FAIT

PAGE 2 OF 4

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 367	E





TRAFFIC CONTROL SIGNAL
STH 38 & RAWSON AVENUE (CTH BB)
CITY OF OAK CREEK
MILWAUKEE COUNTY

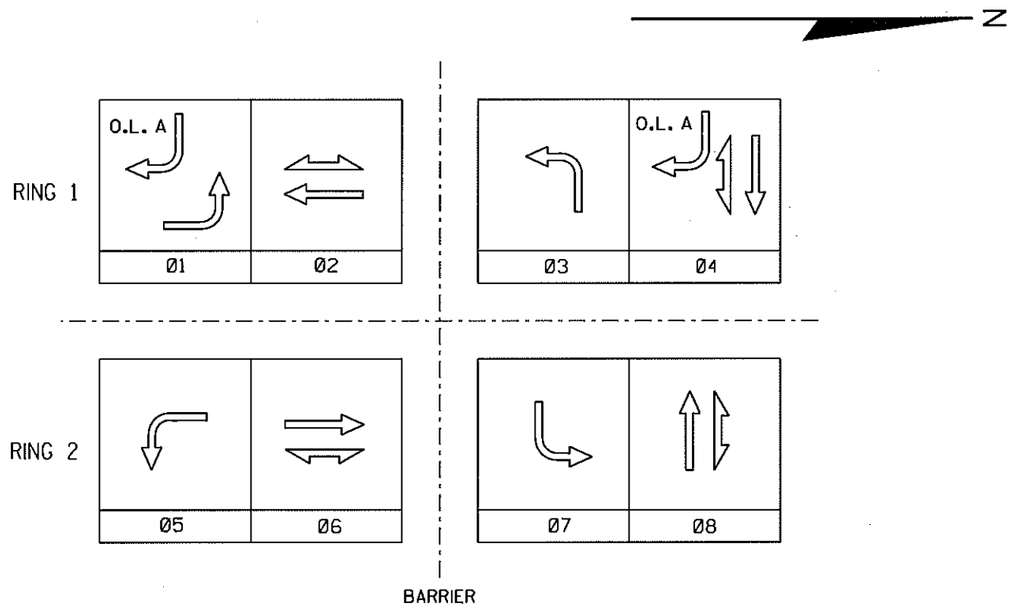
SIGNAL NO. S1081

REGION CONTACT: J. GATES
DESIGNED BY:
REVISED BY: J. FAIT

PAGE 3 OF 4

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 368	E

	HEAD NUMBERS	FLASH
Ø1	4,5,6	R
Ø2	7,8,9	R
Ø3	26,27,28	R
Ø4	13,14,15	R
Ø5	10,11,12	R
Ø6	1,2,3	R
Ø7	16,17,18	R
Ø8	22,23,24,25	R
Ø2P	31,32,33,34	
Ø4P	29,30	
Ø6P	37,38	
Ø8P	35,36	
OLA	19,20,21	R
OLB		
OLC		
OLD		



CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1		6		X
2	X	6	MIN	X
3		8		X
4		8		X
5		2		X
6	X	2	MIN	X
7		4		X
8		4		X

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	
CLOSED LOOP	
TWISTED PAIR*	
FIBER OPTIC*	X
FIBER OPTIC (ETHERNET)	
RADIO	

TYPE OF COORDINATION	
NONE	
TBC	X
TRAFFIC RESPONSIVE	X
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO:	S-
SIGNAL SYSTEM #:	SS-00-06

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC SIGNAL CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	X
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
PLAN LOOP DETECTOR #(S)	21	61	81					
ASSIGNED PHASE	2	6	8					
OPERATION MODE	VEH	VEH	VEH					
SWITCH								
EXTEND			X					
DELAY								

19	17	23	21	27	25	31	29	DETECTOR INPUT
11	31	41	43	45	51	71	83	PLAN LOOP DETECTOR #(S)
1	3	4	4	4	5	7	8	ASSIGNED PHASE
VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	OPERATION MODE
								SWITCH
		X						EXTEND
								DELAY

DETECTOR INPUT	4	2	8	6	12	10	16	14
PLAN LOOP DETECTOR #(S)	22	62						
ASSIGNED PHASE	2	6						
OPERATION MODE	VEH	VEH						
SWITCH								
EXTEND								
DELAY								

20	18	24	22	28	26	32	30	DETECTOR INPUT
12	32	42	44	82	52	72	84	PLAN LOOP DETECTOR #(S)
1	3	4	4	8	5	7	8	ASSIGNED PHASE
VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	OPERATION MODE
								SWITCH
								EXTEND
			X					DELAY

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE DETECTOR	A	B	C	D
MOVEMENT				
PHASE	2+5	6+1	4+7	8+3

AFTER PREEMPTION SEQUENCE 2+5 OR 1+6, CONTROLLER SHALL RETURN TO PHASES 2+6.

AFTER PREEMPTION SEQUENCE 4+7 OR 8+3, CONTROLLER SHALL RETURN TO PHASES 4+8.

STH 38 & RAWSON AVENUE (CTH BB)
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1081 CABINET TYPE: TS2

CONTROLLER TYPE: EPAC

DATE 12/13 PAGE NO. 4 OF 4

JMG 12/20/2013

12/20/13 MMD

PROJECT ID:	2060-15-71
INTERSECTION:	STH 38 & RAWSON AVE

SIGNAL WIRE COLOR CODING			
	BLK-BLACK	RED-RED	GRN-GREEN
	WHT-WHITE	BLU-BLUE	ORG-ORANGE

CB1 TO	JUMPER	# OF COND. AWG 14	HEAD NO.	SIGNAL INDICATION WIRE COLOR									PED BUTTON	OTHER
				RED	YELLOW	GREEN	<RED>	<YELLOW>	<FL YELLOW>	<GREEN>	D/WALK	WALK		
SB2		12	1	RED	ORG	GRN								
			29								BLK	BLU		
			BUTTON										WHT/BLK	
SB3		7	38								BLK	BLU		
			BUTTON										WHT/BLK	
SB4		7	BUTTON										WHT/BLK	
SB5		12	4				RED	ORG		GRN				
			11				RED/BLK	ORG/BLK		GRN/BLK				
			12				RED/BLK	ORG/BLK		GRN/BLK				
SB6		7	20	RED				ORG		GRN				
SB7		7	21	RED				ORG		GRN				
SB8		12	19	RED				ORG		GRN				
			31								BLK	BLU		
			BUTTON										WHT/BLK	
SB9		12	8	RED	ORG	GRN								
			9	RED	ORG	GRN								
			32								BLK	BLU		
			BUTTON										WHT/BLK	
SB10		7	30								BLK	BLU		
			BUTTON										WHT/BLK	
SB11		12	13	RED	ORG	GRN								
			33								BLK	BLU		
			BUTTON										WHT/BLK	
SB12		12	16				RED	ORG		GRN				
			27				RED/BLK	ORG/BLK		GRN/BLK				
			28				RED/BLK	ORG/BLK		GRN/BLK				
SB13		12	23	RED	ORG	GRN								
			24	RED	ORG	GRN								
			25	RED	ORG	GRN								
SB15		12	7	RED	ORG	GRN								
			35								BLK	BLU		
			BUTTON										WHT/BLK	
SB16		7	34								BLK	BLU		
			BUTTON										WHT/BLK	
SB17		7	BUTTON										WHT/BLK	
SB18		12	5				RED	ORG		GRN				
			6				RED	ORG		GRN				
			10				RED/BLK	ORG/BLK		GRN/BLK				
SB19		12	2	RED	ORG	GRN								
			3	RED	ORG	GRN								
SB21		12	22	RED	ORG	GRN								
			37								BLK	BLU		
			BUTTON										WHT/BLK	
SB22		7	36								BLK	BLU		
			BUTTON										WHT/BLK	
SB23		12	17				RED	ORG		GRN				
			18				RED	ORG		GRN				
			26				RED/BLK	ORG/BLK		GRN/BLK				
SB24		12	14	RED	ORG	GRN								
			15	RED	ORG	GRN								

EQUIPMENT GROUNDING CONDUCTOR 10 AWG GRN XLP	
FROM	TO
CB1	SB1
SB1	SB2
SB2	SB3
SB3	SB4
SB4	SB5
SB5	SB6
SB6	SB7
SB7	SB8
SB8	SB9
SB9	SB10
SB10	SB11
SB11	SB12
SB12	SB13
SB13	SB14
SB14	SB15
SB15	SB16
SB16	SB17
SB17	SB18
SB18	SB19
SB19	SB20
SB20	SB21
SB21	SB22
SB22	SB23
SB23	SB24
SB24	CB1

PULL BOX BONDING JUMPER 10 AWG GRN XLP	
FROM	TO
CB1	PB1
SB1	PB2
SB1	PB3
SB2	PB6
SB4	PB7
SB4	PB8
SB5	PB9
SB8	PB10
SB8	PB11
SB9	PB12
SB12	PB13
SB13	PB14
SB14	PB15
SB15	PB18
SB17	PB19
SB17	PB20
SB18	PB21
SB19	PB22
SB20	PB23
SB21	PB25
SB23	PB26
CB1	PB27

LIGHTING UF 12 AWG W/GROUND	
FROM	TO
CB1	SB1
SB1	SB5
SB5	SB8
SB8	SB12
CB1	SB23
SB23	SB20
SB20	SB18
SB18	SB14

VIDEO DETECTION CABLE	
FROM	TO
CB1	SB5 (V1)
CB1	SB12 (V2)
CB1	SB18 (V3)
CB1	SB23 (V4)
CB1	SB5 (V5)

EMERGENCY VEHICLE PREEMPTION CABLE	
FROM	TO
CB1	SB13 (D)
CB1	SB19 (B)
CB1	SB24 (C)
CB1	SB9 (A)

NOTES:
1. USE WHITE CONDUCTOR IN THE SIGNAL CABLE AS THE GROUNDED CONDUCTOR FOR ALL TRAFFIC SIGNAL INDICATIONS.
2. ENSURE THE GROUNDED CONDUCTOR IN THE FEEDER CABLE AND THE POLE CABLES ARE BOTH 18" LONGER THAN THE UNGROUNDED CONDUCTORS.
3. AT THE SIGNAL BASES, CONNECT ONE TERMINAL FROM THE PEDESTRIAN PUSH BUTTONS TO THE COLOR INDICATED IN THE CHART.
   CONNECT THE OTHER TERMINAL TO THE GROUNDED CONDUCTOR.

2

CONSTRUCTION NOTES:

1. EXISTING CONDUIT RUNS TO BE ABANDONED IN PLACE. CONTRACTOR TO REMOVE ANY CONDUCTORS REMAINING IN THE CONDUIT.
2. ABANDONED LOOP DETECTOR CONDUIT TO REMAIN IN PLACE. LOOP DETECTOR WIRE AND LEAD-IN CABLE TO BE REMOVED BY THE CONTRACTOR
3. CABINET AND CONTROLLER SHALL BE REMOVED BY WISDOT ELECTRICAL PERSONNEL.

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- YELLOW ARROW
- GREEN ARROW
- DON'T WALK INDICATOR 16" WITH COUNTDOWN TIMER

NOTE: BOLD REPRESENTS ITEMS TO BE REMOVED
GRAYSHADE REPRESENTS EXISTING ITEMS TO REMAIN

TRAFFIC CONTROL SIGNAL
STH 38 & COLLEGE AVENUE (CTH ZZ)
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO. S1090

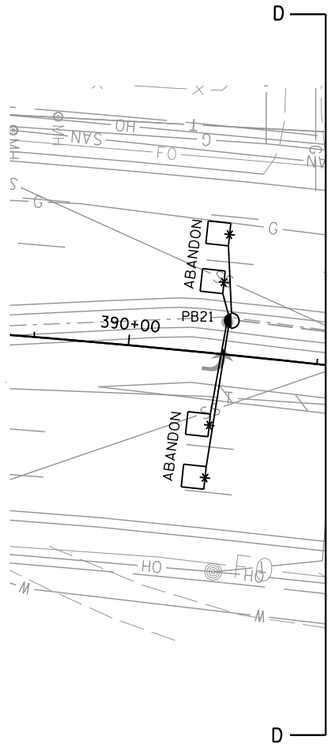
REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

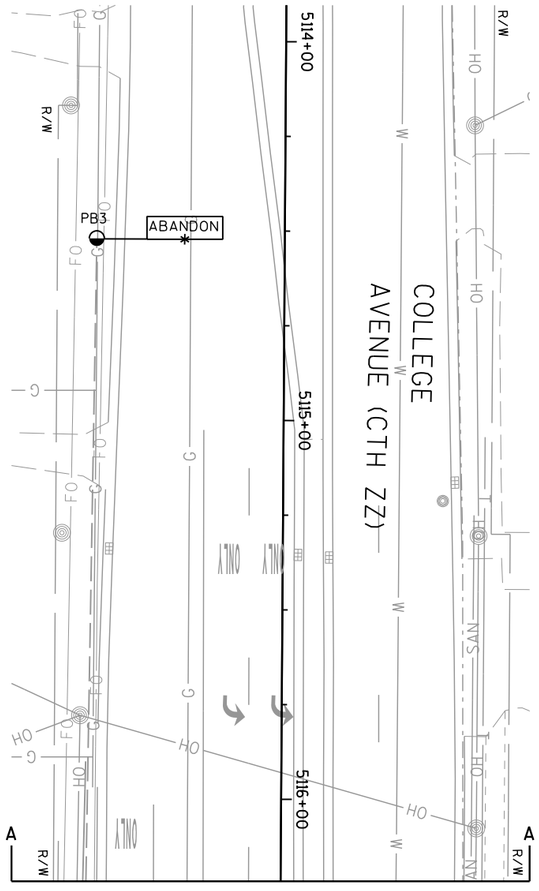
PAGE 1 OF 2

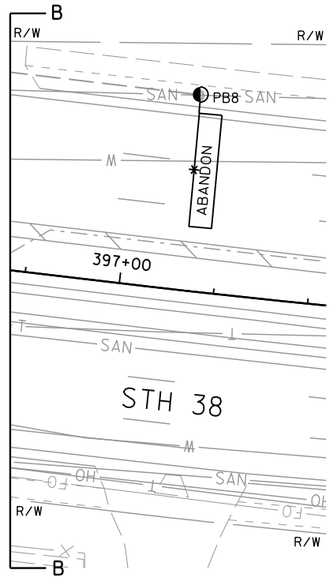
PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 371	E

2

N







TRAFFIC CONTROL SIGNAL
STH 38 & COLLEGE AVENUE (CTH ZZ)
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO. S1090

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PAGE 2 OF 2

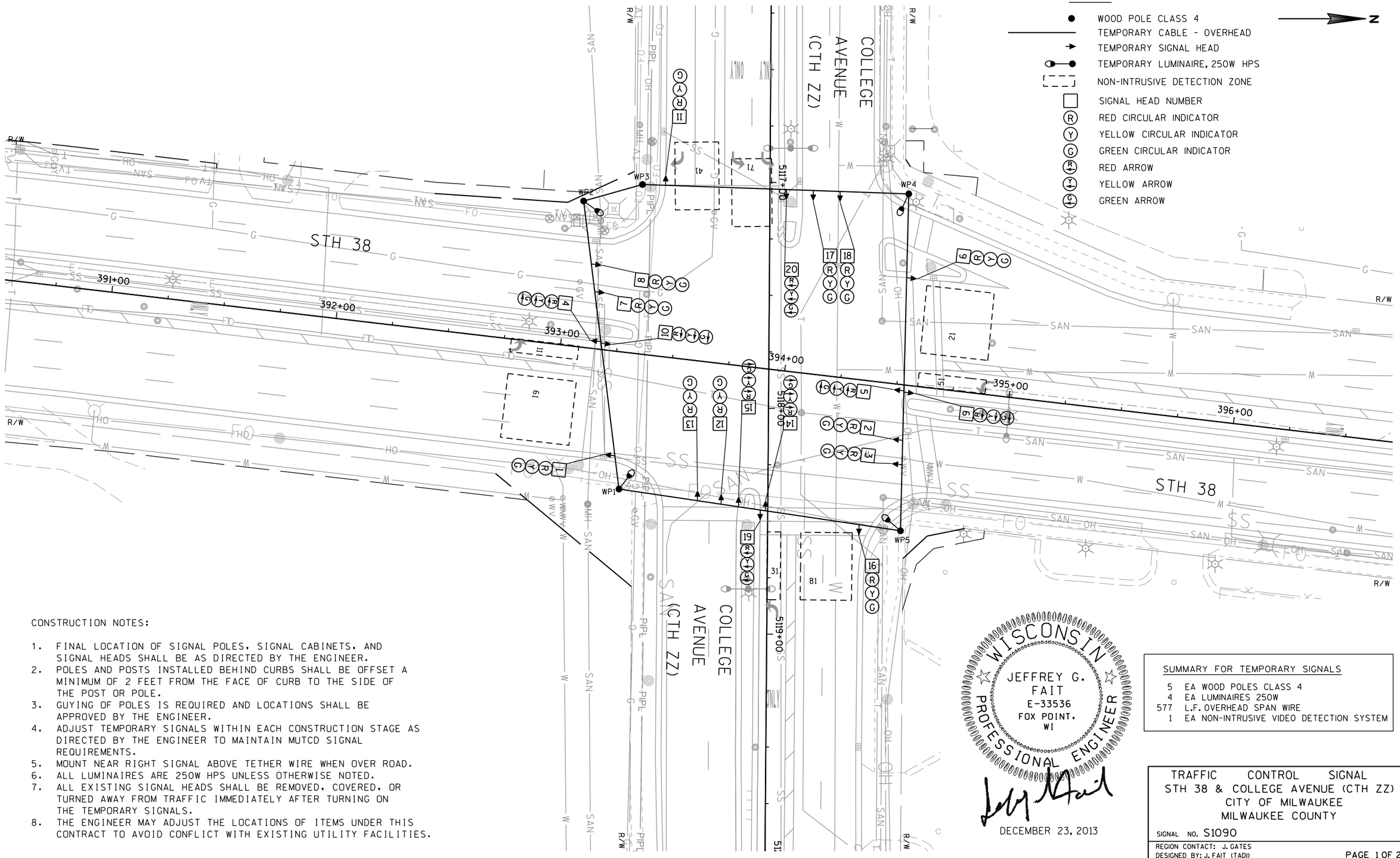
PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 372	E

2

LEGEND

- WOOD POLE CLASS 4
- TEMPORARY CABLE - OVERHEAD
- TEMPORARY SIGNAL HEAD
- TEMPORARY LUMINAIRE, 250W HPS
- NON-INTRUSIVE DETECTION ZONE
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- (R) RED ARROW
- (Y) YELLOW ARROW
- (G) GREEN ARROW

N



CONSTRUCTION NOTES:

1. FINAL LOCATION OF SIGNAL POLES, SIGNAL CABINETS, AND SIGNAL HEADS SHALL BE AS DIRECTED BY THE ENGINEER.
2. POLES AND POSTS INSTALLED BEHIND CURBS SHALL BE OFFSET A MINIMUM OF 2 FEET FROM THE FACE OF CURB TO THE SIDE OF THE POST OR POLE.
3. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER.
4. ADJUST TEMPORARY SIGNALS WITHIN EACH CONSTRUCTION STAGE AS DIRECTED BY THE ENGINEER TO MAINTAIN MUTCD SIGNAL REQUIREMENTS.
5. MOUNT NEAR RIGHT SIGNAL ABOVE TETHER WIRE WHEN OVER ROAD.
6. ALL LUMINAIRES ARE 250W HPS UNLESS OTHERWISE NOTED.
7. ALL EXISTING SIGNAL HEADS SHALL BE REMOVED, COVERED, OR TURNED AWAY FROM TRAFFIC IMMEDIATELY AFTER TURNING ON THE TEMPORARY SIGNALS.
8. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.

WISCONSIN
JEFFREY G. FAIT
E-33536
FOX POINT, WI
PROFESSIONAL ENGINEER

DECEMBER 23, 2013

SUMMARY FOR TEMPORARY SIGNALS

5	EA WOOD POLES CLASS 4
4	EA LUMINAIRES 250W
577	L.F. OVERHEAD SPAN WIRE
1	EA NON-INTRUSIVE VIDEO DETECTION SYSTEM

TRAFFIC CONTROL SIGNAL
STH 38 & COLLEGE AVENUE (CTH ZZ)
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO. S1090

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PAGE 1 OF 2

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - PRE-STAGE	SHEET 373	E

2

LEGEND

- WOOD POLE CLASS 4
- TEMPORARY CABLE - OVERHEAD
- TEMPORARY SIGNAL HEAD
- TEMPORARY LUMINAIRE, 250W HPS
- NON-INTRUSIVE DETECTION ZONE
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- (R) RED ARROW
- (Y) YELLOW ARROW
- (G) GREEN ARROW

N

STH 38

COLLEGE AVENUE (CTH ZZ)

391+00 392+00 393+00 394+00 395+00 396+00

5117+00 5118+00 5119+00

WP1 WP2 WP3 WP4 WP5

A A B B C C R/W

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 1	SHEET 374	E

LEGEND

- WOOD POLE CLASS 4
- TEMPORARY CABLE - OVERHEAD
- TEMPORARY SIGNAL HEAD
- TEMPORARY LUMINAIRE, 250W HPS
- NON-INTRUSIVE DETECTION ZONE
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- (R) RED ARROW
- (Y) YELLOW ARROW
- (G) GREEN ARROW

N

STH 38

COLLEGE AVENUE (CTH ZZ)

391+00 392+00 393+00 394+00 395+00 396+00

511+00 512+00 513+00 514+00 515+00 516+00 517+00 518+00 519+00

WP1 WP2 WP3 WP4 WP5

R/W

A A B B C C

TRAFFIC CONTROL SIGNAL
STH 38 & COLLEGE AVENUE (CTH ZZ)
CITY OF MILWAUKEE
MILWAUKEE COUNTY

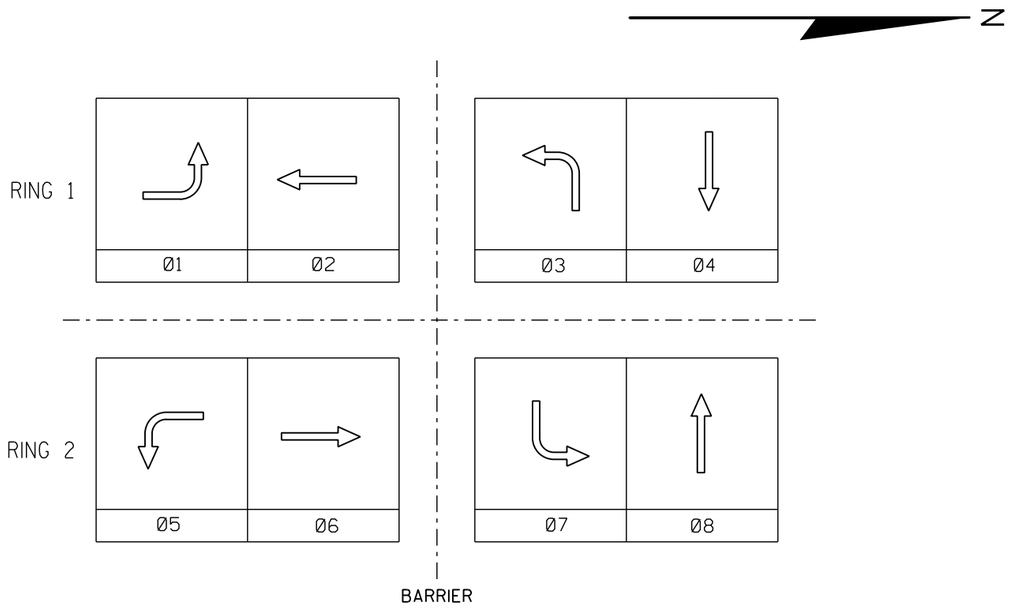
SIGNAL NO. S1090

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PAGE 1 OF 1

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 2	SHEET 375 E

	HEAD NUMBERS	FLASH
Ø1	4,5	R
Ø2	6,7,8	R
Ø3	19,20	R
Ø4	11,12,13	R
Ø5	9,10	R
Ø6	1,2,3	R
Ø7	14,15	R
Ø8	16,17,18	R
Ø2P		
Ø4P		
Ø6P		
Ø8P		
OLA		
OLB		
OLC		
OLD		



CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1		6		X
2	X	6	MIN	X
3		8		X
4		8		X
5		2		X
6	X	2	MIN	X
7		4		X
8		4		X

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	X
CLOSED LOOP	
TWISTED PAIR*	
FIBER OPTIC*	
FIBER OPTIC (ETHERNET)	
RADIO	

TYPE OF COORDINATION	
NONE	
TBC	X
TRAFFIC RESPONSIVE	
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO:	S-
SIGNAL SYSTEM #:	SS-00-05

TYPE OF LIGHTING	
BY OTHER AGENCY	X
IN TRAFFIC SIGNAL CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF PRE-EMPT	
NONE	X
RAILROAD	
EMERGENCY VEHICLE	
GTT	
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

DETECTOR LOGIC

DETECTOR NUMBER	DETECTOR INPUT	DETECTOR OPERATION: CALLS AND EXTENDS	DETECTOR OPERATION: CALLS ONLY	DETECTOR OPERATION: EXTENDS ONLY	PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	SIZE	NUMBER OF TURNS
11		X			1	1					
21		X			2	2					
31		X			3	3					
41		X			4	4					
51		X			5	5					
61		X			6	6					
71		X			7	7					
81		X			8	8					

STH 38 & COLLEGE AVE (CTH ZZ)
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1090 CABINET TYPE:

CONTROLLER TYPE: TEMP

DATE 12/13 PAGE NO. 2 OF 2

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TEMPORARY SEQUENCE OF OPERATIONS - ALL STAGES	SHEET 376	E

2

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- TRAFFIC SIGNAL F/O INTERCONNECT
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- XX' MONOTUBE BASE, POLE, 35'-55' ARM
- (XX) MONOTUBE BASE, POLE, 15'-30' ARM
- PEOESTRIAN HEAD WITH PUSH BUTTON
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE

- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- VX VIDEO DETECTION CAMERA
- VIDEO OETECTION AREA
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- COMMUNICATIONS VAULT
- SIGNAL HEAD NUMBER
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- WALK/DON'T WALK INDICATOR 16" (COUNTDOWN TIMER)

NOTE: ALL VEHICULAR LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

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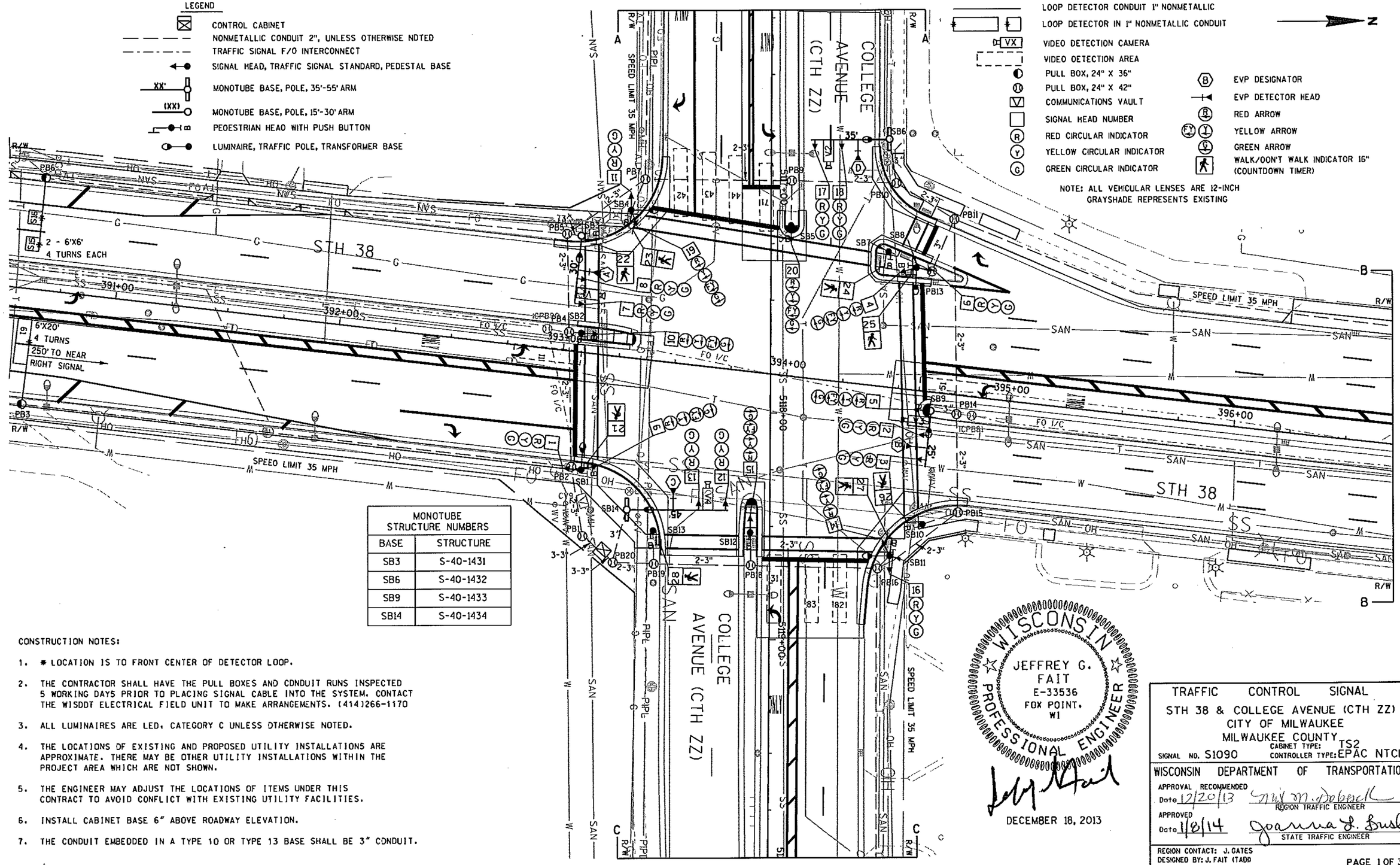


MONOTUBE STRUCTURE NUMBERS	
BASE	STRUCTURE
SB3	S-40-1431
SB6	S-40-1432
SB9	S-40-1433
SB14	S-40-1434

CONSTRUCTION NOTES:

1. # LOCATION IS TO FRONT CENTER OF DETECTOR LOOP.
2. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO THE SYSTEM. CONTACT THE WISDOT ELECTRICAL FIELD UNIT TO MAKE ARRANGEMENTS. (414)266-1170
3. ALL LUMINAIRES ARE LED, CATEGORY C UNLESS OTHERWISE NOTED.
4. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN.
5. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
6. INSTALL CABINET BASE 6" ABOVE ROADWAY ELEVATION.
7. THE CONDUIT EMBEDDED IN A TYPE 10 OR TYPE 13 BASE SHALL BE 3" CONDUIT.

WISCONSIN
JEFFREY G. FAIT
E-33536
FOX POINT, WI
PROFESSIONAL ENGINEER

DECEMBER 18, 2013

TRAFFIC CONTROL SIGNAL

STH 38 & COLLEGE AVENUE (CTH ZZ)
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO. S1090
CABINET TYPE: TS2
CONTROLLER TYPE: EPAC NTCIP

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED
Date 12/20/13 — REGION TRAFFIC ENGINEER

APPROVED
Date 1/8/14 — STATE TRAFFIC ENGINEER

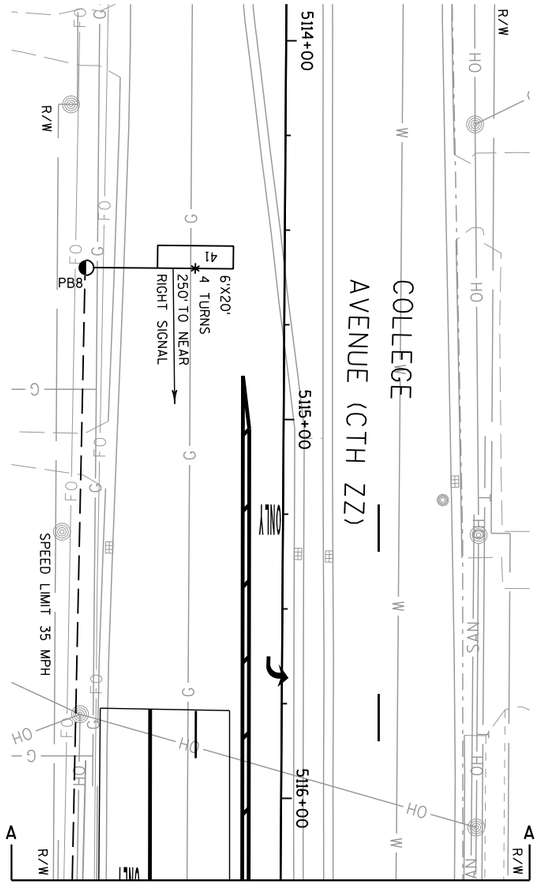
REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADD
REVISED BY:

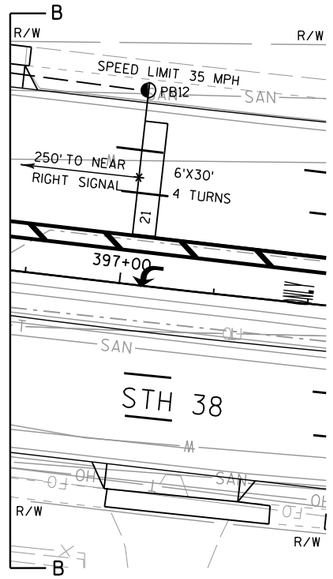
PAGE 1 OF 3

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 377 E

FILE NAME : Proposed Signals.dgn | PLOT DATE : 12/19/2013 | PLOT BY : DSCHNABEL-TADI | PLOT NAME : | PLOT SCALE : 40.0000 sf / in. | WISDOT/CADDS SHEET 42

12/20/2013





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TRAFFIC CONTROL SIGNAL
STH 38 & COLLEGE AVENUE (CTH ZZ)
CITY OF MILWAUKEE
MILWAUKEE COUNTY

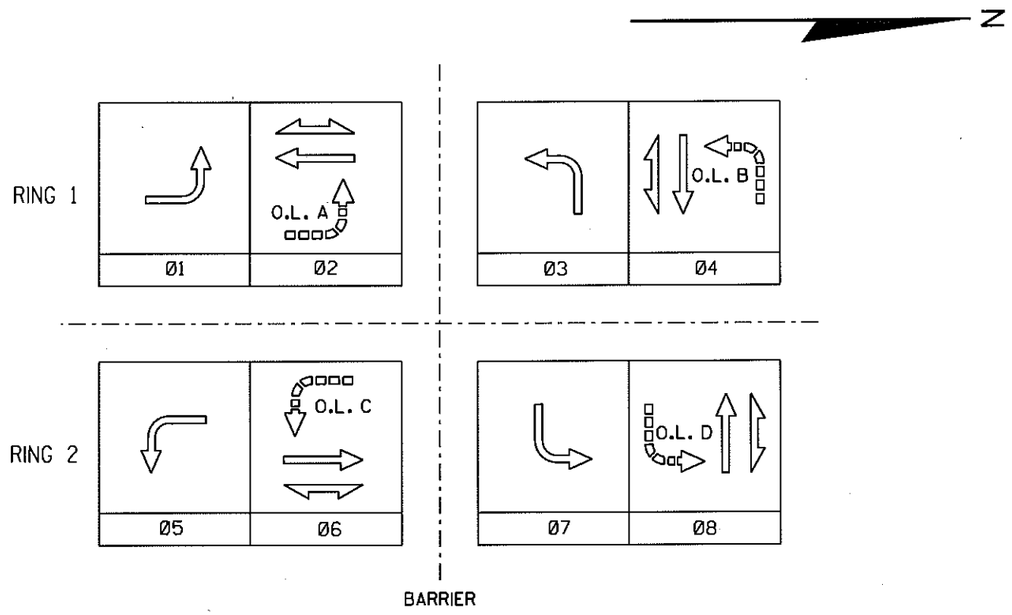
SIGNAL NO. S1090

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PAGE 2 OF 3

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 378	E

	HEAD NUMBERS	FLASH
Ø1	4,5	-
Ø2	6,7,8	R
Ø3	19,20	-
Ø4	11,12,13	R
Ø5	9,10	-
Ø6	1,2,3	R
Ø7	14,15	-
Ø8	16,17,18	R
Ø2P	23,24	
Ø4P	21,22	
Ø6P	27,28	
Ø8P	25,26	
OLA	4,5	R
OLB	19,20	R
OLC	9,10	R
OLD	14,15	R



CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1		6		X
2	X	6	MIN	X
3		8		X
4		8		X
5		2		X
6	X	2	MIN	X
7		4		X
8		4		X

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	
CLOSED LOOP	
TWISTED PAIR*	
FIBER OPTIC*	X
FIBER OPTIC (ETHERNET)	
RADIO	

TYPE OF COORDINATION	
NONE	
TBC	X
TRAFFIC RESPONSIVE	X
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO:	S-
SIGNAL SYSTEM #:	SS-00-05

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC SIGNAL CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	X
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
PLAN LOOP DETECTOR #(S)	21	41	61	81				S15
ASSIGNED PHASE	2	4	6	8				
OPERATION MODE	VEH	VEH	VEH	VEH				
SWITCH								
EXTEND		X		X				
DELAY								

DETECTOR INPUT	19	17	23	21	27	25	31	29
PLAN LOOP DETECTOR #(S)	11	31	42	44	51	71	82	
ASSIGNED PHASE	1	3	4	4	5	7	8	
OPERATION MODE	VEH	VEH	VEH	VEH	VEH	VEH	VEH	
SWITCH								
EXTEND								
DELAY			X					

DETECTOR INPUT	4	2	8	6	12	10	16	14
PLAN LOOP DETECTOR #(S)								S16
ASSIGNED PHASE								
OPERATION MODE								
SWITCH								
EXTEND								
DELAY								

DETECTOR INPUT	20	18	24	22	28	26	32	30
PLAN LOOP DETECTOR #(S)			43				83	
ASSIGNED PHASE			4				8	
OPERATION MODE			VEH				VEH	
SWITCH								
EXTEND								
DELAY								

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE DETECTOR	A	B	C	D
MOVEMENT				
PHASE	2+5	6+1	4+7	8+3

AFTER PREEMPTION SEQUENCE 2+5 OR 1+6, CONTROLLER SHALL RETURN TO PHASES 2+6.

AFTER PREEMPTION SEQUENCE 4+7 OR 8+3, CONTROLLER SHALL RETURN TO PHASES 4+8.

STH 38 & COLLEGE AVE (CTH ZZ)
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1090 CABINET TYPE: TS2

CONTROLLER TYPE: EPAC

DATE 12/13 PAGE NO. 3 OF 3

JMG 12/20/2013

12/20/13 MMD

PROJECT ID:	2060-15-71
INTERSECTION:	STH 38 & COLLEGE AVE

SIGNAL WIRE COLOR CODING	BLK-BLACK	RED-RED	GRN-GREEN
	WHT-WHITE	BLU-BLUE	ORG-ORANGE

CB1 TO	JUMPER	# OF COND. AWG 14	HEAD NO.	SIGNAL INDICATION WIRE COLOR									PED BUTTON	OTHER
				RED	YELLOW	GREEN	<RED>	<YELLOW>	<FL YELLOW>	<GREEN>	D/WALK	WALK		
SB1		12	1	RED	ORG	GRN								
			9				RED/BLK	ORG/BLK	BLK/WHT	GRN/BLK				
			21								BLK	BLU		
			BUTTON										WHT/BLK	
SB2		12	10				RED	ORG	BLK/WHT	GRN				
			BUTTON										WHT/BLK	
SB3		12	7	RED	ORG	GRN								
			8	RED	ORG	GRN								
			22								BLK	BLU		
			BUTTON										WHT/BLK	
SB4		12	11	RED	ORG	GRN								
			19				RED/BLK	ORG/BLK	BLK/WHT	GRN/BLK				
			23								BLK	BLU		
			BUTTON										WHT/BLK	
SB5		12	20				RED	ORG	BLK/WHT	GRN				
			BUTTON										WHT/BLK	
SB6		12	17	RED	ORG	GRN								
			18	RED	ORG	GRN								
SB7		7	24								BLK	BLU		
			BUTTON										WHT/BLK	
SB8		12	4				RED	ORG	BLK/WHT	GRN				
			6	RED/BLK	ORG/BLK	GRN/BLK								
			25								BLK	BLU		
			BUTTON										WHT/BLK	
SB9		12	2	RED	ORG	GRN								
			3	RED	ORG	GRN								
			5				RED/BLK	ORG/BLK	BLK/WHT	GRN/BLK				
			BUTTON										WHT/BLK	
SB10		7	26								BLK	BLU		
			BUTTON										WHT/BLK	
SB11		12	14				RED	ORG	BLK/WHT	GRN				
			16	RED/BLK	ORG/BLK	GRN/BLK								
			27								BLK	BLU		
			BUTTON										WHT/BLK	
SB12		12	15				RED	ORG	BLK/WHT	GRN				
			BUTTON										WHT/BLK	
SB13		7	28								BLK	BLU		
			BUTTON										WHT/BLK	
SB14		12	12	RED	ORG	GRN								
			13	RED	ORG	GRN								

EQUIPMENT GROUNDING CONDUCTOR 10 AWG GRN XLP	
FROM	TO
CB1	SB1
SB1	SB2
SB2	SB3
SB3	SB4
SB4	SB5
SB5	SB6
SB6	SB7
SB7	SB8
SB8	SB9
SB9	SB10
SB10	SB11
SB11	SB12
SB12	SB13
SB13	SB14
SB14	CB1

PULL BOX BONDING JUMPER 10 AWG GRN XLP	
FROM	TO
CB1	PB1
SB1	PB2
SB2	PB4
SB3	PB5
SB4	PB7
SB5	PB9
SB6	PB10
SB6	PB11
SB8	PB13
SB9	PB14
SB10	PB15
SB11	PB16
SB12	PB18
SB13	PB19
CB1	PB20

LIGHTING UF 12 AWG W/GROUND	
FROM	TO
CB1	SB1
SB1	SB3
SB3	SB4
SB4	SB6
CB1	SB14
SB14	SB11
SB11	SB9
SB9	SB8

VIDEO DETECTION CABLE	
FROM	TO
CB1	SB3 (V1)
CB1	SB6 (V2)
CB1	SB9 (V3)
CB1	SB14 (V4)

EMERGENCY VEHICLE PREEMPTION CABLE	
FROM	TO
CB1	SB3 (A)
CB1	SB9 (B)
CB1	SB14 (C)
CB1	SB6 (D)

NOTES:
1. USE WHITE CONDUCTOR IN THE SIGNAL CABLE AS THE GROUNDED CONDUCTOR FOR ALL TRAFFIC SIGNAL INDICATIONS.
2. ENSURE THE GROUNDED CONDUCTOR IN THE FEEDER CABLE AND THE POLE CABLES ARE BOTH 18" LONGER THAN THE UNGROUNDED CONDUCTORS.
3. AT THE SIGNAL BASES, CONNECT ONE TERMINAL FROM THE PEDESTRIAN PUSH BUTTONS TO THE COLOR INDICATED IN THE CHART.

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"

CONSTRUCTION NOTES:

1. EXISTING CONDUIT RUNS TO BE ABANDONED IN PLACE. CONTRACTOR TO REMOVE ANY CONDUCTORS REMAINING IN THE CONDUIT.
2. ABANDONED LOOP DETECTOR CONDUIT TO REMAIN IN PLACE. LOOP DETECTOR WIRE AND LEAD-IN CABLE TO BE REMOVED BY THE CONTRACTOR
3. CABINET AND CONTROLLER SHALL BE REMOVED BY WISDOT ELECTRICAL PERSONNEL.

N

STH 38

STH 119 EB OFF RAMP

SLAB

R/W

CB1 PB1 PB2 PB3 PB4 PB5 PB6 PB7 PB9 PB10 SB4 PB11 PB12 PB13 PB14 PB15 PB16 PB17 PB18 PB19

SB1 SB2 SB3 SB5 SB6 SB7 SB8 SB10 SB12

ABANDON

449+00 450+00 451+00 452+00 453+00 454+00

- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (C) GREEN CIRCULAR INDICATOR
- YELLOW ARROW
- GREEN ARROW
- DON'T WALK INDICATOR 16" WITH COUNTDOWN TIMER

NOTE: BOLD REPRESENTS ITEMS TO BE REMOVED
GRAYSHADE REPRESENTS EXISTING ITEMS TO REMAIN

TRAFFIC CONTROL SIGNAL
STH 38 & STH 119 EB OFF RAMP
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO. S1201

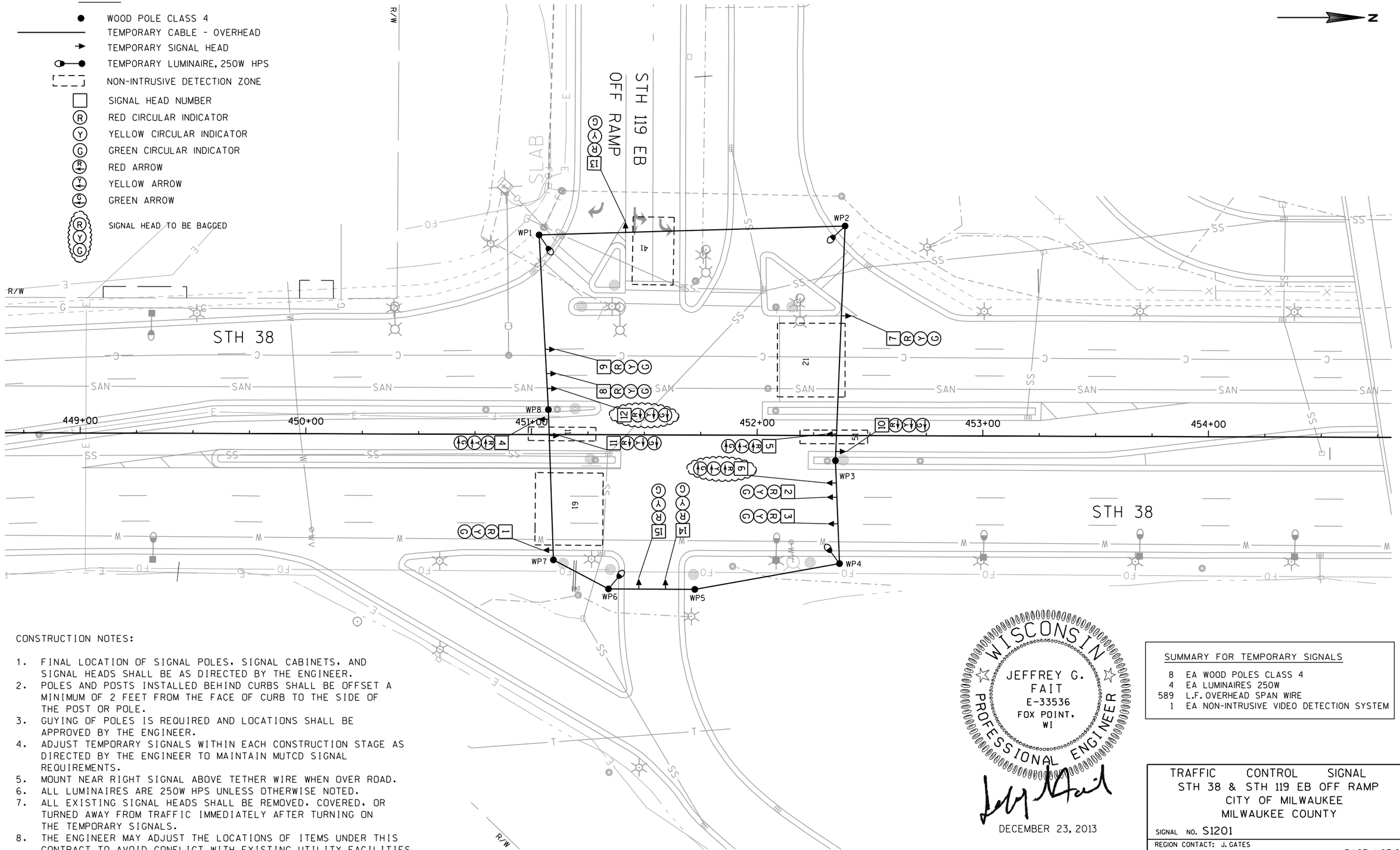
REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PAGE 1 OF 1

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 381	E

LEGEND

- WOOD POLE CLASS 4
- TEMPORARY CABLE - OVERHEAD
- TEMPORARY SIGNAL HEAD
- TEMPORARY LUMINAIRE, 250W HPS
- NON-INTRUSIVE DETECTION ZONE
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- (R) RED ARROW
- (Y) YELLOW ARROW
- (G) GREEN ARROW
- (R)(Y)(G) SIGNAL HEAD TO BE BAGGED



CONSTRUCTION NOTES:

1. FINAL LOCATION OF SIGNAL POLES, SIGNAL CABINETS, AND SIGNAL HEADS SHALL BE AS DIRECTED BY THE ENGINEER.
2. POLES AND POSTS INSTALLED BEHIND CURBS SHALL BE OFFSET A MINIMUM OF 2 FEET FROM THE FACE OF CURB TO THE SIDE OF THE POST OR POLE.
3. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER.
4. ADJUST TEMPORARY SIGNALS WITHIN EACH CONSTRUCTION STAGE AS DIRECTED BY THE ENGINEER TO MAINTAIN MUTCD SIGNAL REQUIREMENTS.
5. MOUNT NEAR RIGHT SIGNAL ABOVE TETHER WIRE WHEN OVER ROAD.
6. ALL LUMINAIRES ARE 250W HPS UNLESS OTHERWISE NOTED.
7. ALL EXISTING SIGNAL HEADS SHALL BE REMOVED, COVERED, OR TURNED AWAY FROM TRAFFIC IMMEDIATELY AFTER TURNING ON THE TEMPORARY SIGNALS.
8. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.

WISCONSIN
JEFFREY G. FAIT
E-33536
FOX POINT, WI
PROFESSIONAL ENGINEER

DECEMBER 23, 2013

SUMMARY FOR TEMPORARY SIGNALS

8	EA WOOD POLES CLASS 4
4	EA LUMINAIRES 250W
589	L.F. OVERHEAD SPAN WIRE
1	EA NON-INTRUSIVE VIDEO DETECTION SYSTEM

TRAFFIC CONTROL SIGNAL
STH 38 & STH 119 EB OFF RAMP
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO. S1201

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - PRE-STAGE	SHEET 382 E

LEGEND

- WOOD POLE CLASS 4
- TEMPORARY CABLE - OVERHEAD
- TEMPORARY SIGNAL HEAD
- TEMPORARY LUMINAIRE, 250W HPS
- NON-INTRUSIVE DETECTION ZONE
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- (R) RED ARROW
- (Y) YELLOW ARROW
- (G) GREEN ARROW
- (R)(Y)(G) SIGNAL HEAD TO BE BAGGED

N

STH 119 EB OFF RAMP

STH 38

R/W

SLAB

WP1 WP2 WP3 WP4 WP5 WP6 WP7 WP8

449+00 450+00 451+00 452+00 453+00 454+00

TRAFFIC CONTROL SIGNAL
STH 38 & STH 119 EB OFF RAMP
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO. S1201

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PAGE 1 OF 1

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 1	SHEET 383	E

LEGEND

- WOOD POLE CLASS 4
- TEMPORARY CABLE - OVERHEAD
- TEMPORARY SIGNAL HEAD
- TEMPORARY LUMINAIRE, 250W HPS
- NON-INTRUSIVE DETECTION ZONE
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- SIGNAL HEAD TO BE BAGGED

N

STH 119 EB OFF RAMP

STH 38

R/W

SLAB

WP1 WP2 WP3 WP4 WP5 WP6 WP7 WP8

449+00 450+00 451+00 452+00 453+00 454+00

2

TRAFFIC CONTROL SIGNAL
STH 38 & STH 119 EB OFF RAMP
CITY OF MILWAUKEE
MILWAUKEE COUNTY

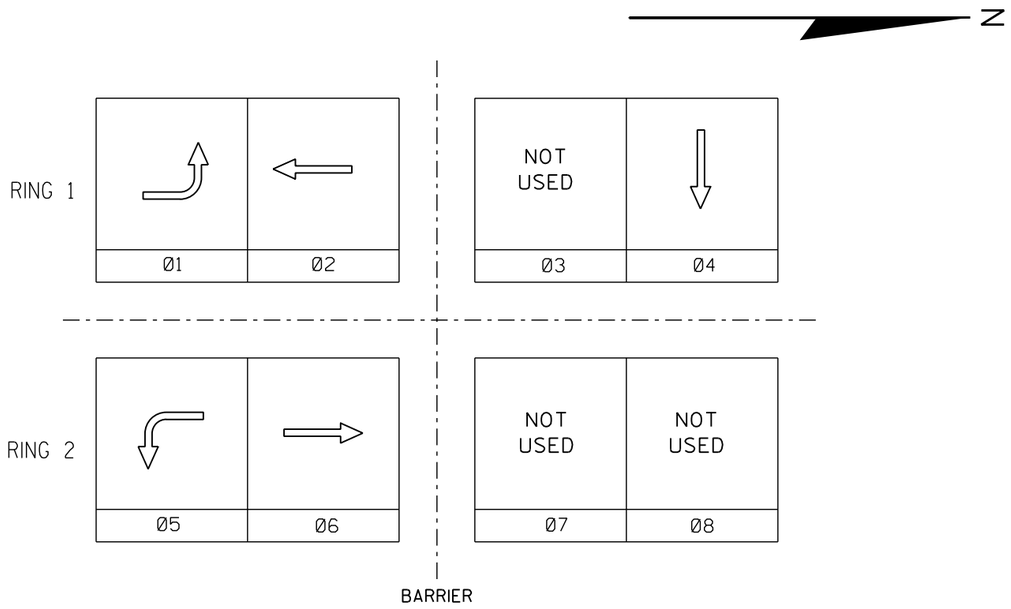
SIGNAL NO. S1201

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PAGE 1 OF 1

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 2	SHEET 384	E

	HEAD NUMBERS	FLASH
Ø1	4,5,6	R
Ø2	7,8,9	R
Ø3		
Ø4	13,14,15	R
Ø5	10,11,12	R
Ø6	1,2,3	R
Ø7		
Ø8		
Ø2P		
Ø4P		
Ø6P		
Ø8P		
OLA		
OLB		
OLC		
OLD		



CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1		6		X
2	X	6	MIN	X
3				
4				X
5		2		X
6	X	2	MIN	X
7				
8				

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	X
CLOSED LOOP	
TWISTED PAIR*	
FIBER OPTIC*	
FIBER OPTIC (ETHERNET)	
RADIO	

TYPE OF COORDINATION	
NONE	
TBC	X
TRAFFIC RESPONSIVE	
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO:	S-
SIGNAL SYSTEM #:	SS-00-05

TYPE OF LIGHTING	
BY OTHER AGENCY	X
IN TRAFFIC SIGNAL CABINET	
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF PRE-EMPT	
NONE	X
RAILROAD	
EMERGENCY VEHICLE	
GTT	
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

DETECTOR LOGIC

DETECTOR NUMBER	DETECTOR INPUT	DETECTOR OPERATION			PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	SIZE	NUMBER OF TURNS
		CALLS AND EXTENDS	CALLS ONLY	EXTENDS ONLY							
11		X			1	1					
21		X			2	2					
41		X			4	4					
51		X			5	5					
61		X			6	6					

STH 38 & STH 119 EB OFF RAMP
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1201 CABINET TYPE:

CONTROLLER TYPE: TEMP

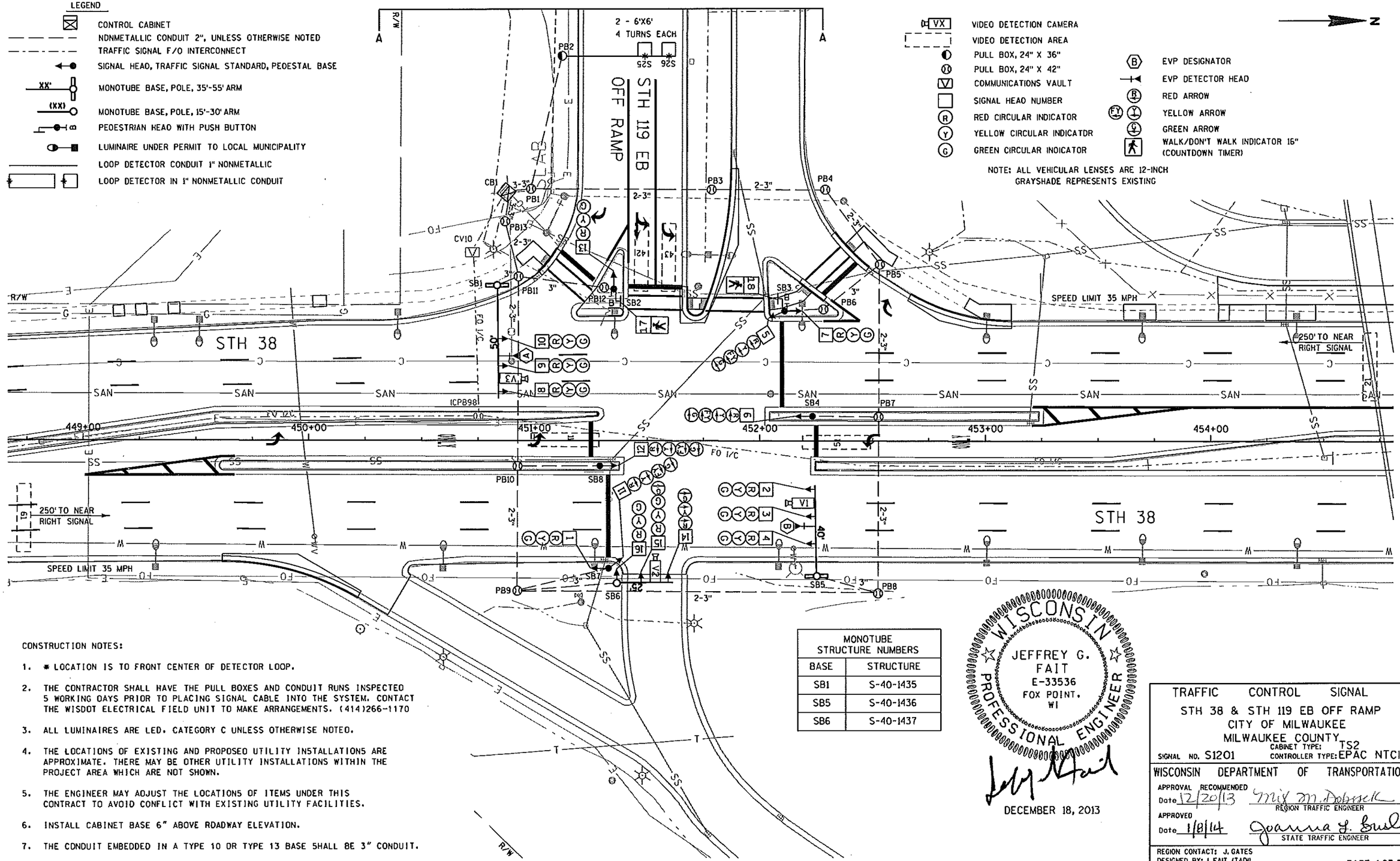
DATE 12/13 PAGE NO. 2 OF 2

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- TRAFFIC SIGNAL F/O INTERCONNECT
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- XX' MONOTUBE BASE, POLE, 35'-55' ARM
- (XX) MONOTUBE BASE, POLE, 15'-30' ARM
- PEDESTRIAN HEAD WITH PUSH BUTTON
- LUMINAIRE UNDER PERMIT TO LOCAL MUNICIPALITY
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT

- VX VIDEO DETECTION CAMERA
- VIDEO DETECTION AREA
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- COMMUNICATIONS VAULT
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATDR
- (G) GREEN CIRCULAR INDICATOR
- (B) EVP DESIGNATOR
- EVP DETECTOR HEAD
- (R) RED ARROW
- (FY) (Y) YELLOW ARROW
- (G) GREEN ARROW
- WALK/DON'T WALK INDICATOR 16" (COUNTDOWN TIMER)

NOTE: ALL VEHICULAR LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING



CONSTRUCTION NOTES:

1. * LOCATION IS TO FRONT CENTER OF DETECTOR LOOP.
2. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO THE SYSTEM. CONTACT THE WISDOT ELECTRICAL FIELD UNIT TO MAKE ARRANGEMENTS. (414)266-1170
3. ALL LUMINAIRES ARE LED. CATEGORY C UNLESS OTHERWISE NOTED.
4. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN.
5. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
6. INSTALL CABINET BASE 6" ABOVE ROADWAY ELEVATION.
7. THE CONDUIT EMBEDDED IN A TYPE 10 OR TYPE 13 BASE SHALL BE 3" CONDUIT.

MONOTUBE STRUCTURE NUMBERS	
BASE	STRUCTURE
SB1	S-40-1435
SB5	S-40-1436
SB6	S-40-1437

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DECEMBER 18, 2013

TRAFFIC CONTROL SIGNAL
STH 38 & STH 119 EB OFF RAMP
CITY OF MILWAUKEE
MILWAUKEE COUNTY
SIGNAL NO. S1201
CABINET TYPE: TS2
CONTROLLER TYPE: EPAC NTCIP

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED Date 12/20/13 — REGION TRAFFIC ENGINEER
APPROVED Date 1/8/14 — STATE TRAFFIC ENGINEER

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PAGE 1 OF 3

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 386 E

FILE NAME : Proposed Signals.dgn | PLOT DATE : 12/18/2013 | PLOT BY : DSCHNABEL-TADI | PLOT NAME : | PLOT SCALE : 40.0000 sf / in. | WISDOT/CADDS SHEET 42

TMG 12/20/2013

2

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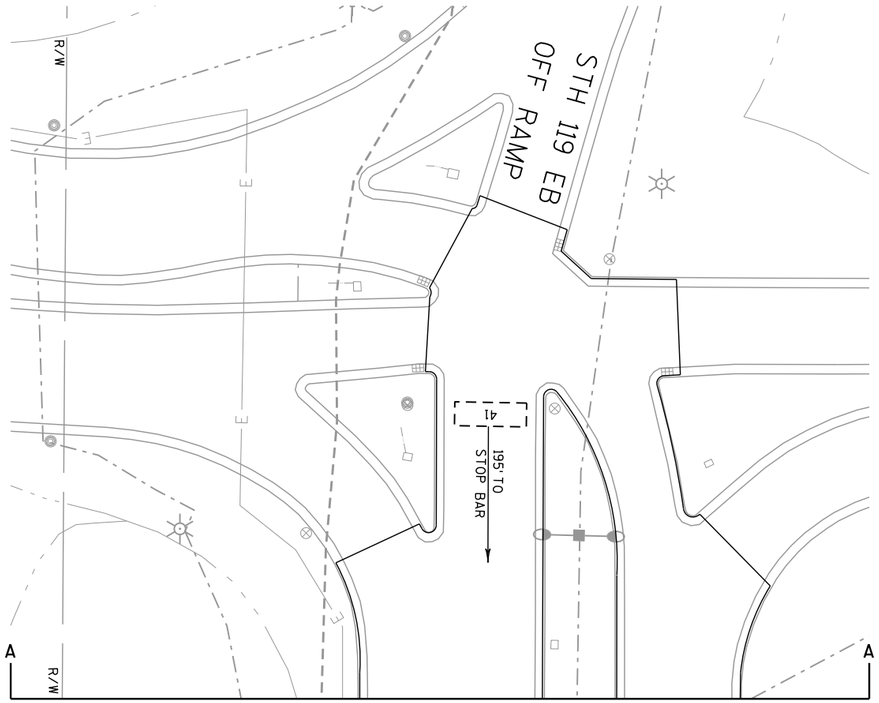


TRAFFIC CONTROL SIGNAL
STH 38 & STH 119 EB OFF RAMP
CITY OF MILWAUKEE
MILWAUKEE COUNTY

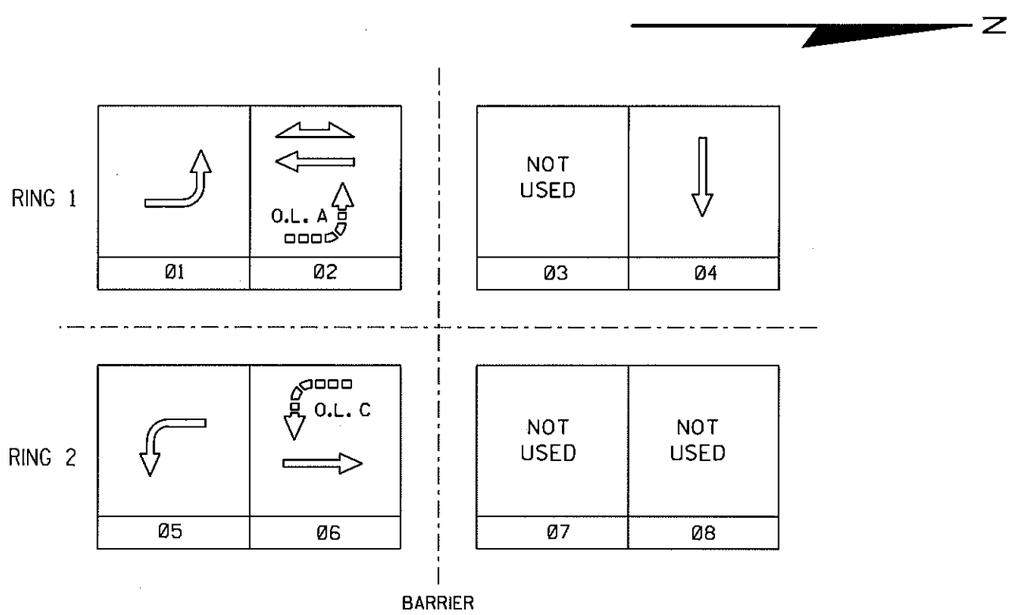
SIGNAL NO. S1201

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PAGE 2 OF 3

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 387	E

	HEAD NUMBERS	FLASH
Ø1	5,6	-
Ø2	7,8,9,10	R
Ø3		
Ø4	13,14,15,16	R R
Ø5	11,12	-
Ø6	1,2,3,4	R
Ø7		
Ø8		
Ø2P	17,18	
Ø4P		
Ø6P		
Ø8P		
OLA	5,6	R
OLB		
OLC	11,12	R
OLD		



CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1		6		X
2	X	6	MIN	X
3				
4				X
5		2		X
6	X	2	MIN	X
7				
8				

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	
CLOSED LOOP	
TWISTED PAIR*	
FIBER OPTIC*	X
FIBER OPTIC (ETHERNET)	
RADIO	

TYPE OF COORDINATION	
NONE	
TBC	X
TRAFFIC RESPONSIVE	X
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO:	S-
SIGNAL SYSTEM *:	SS-00-05

TYPE OF LIGHTING	
BY OTHER AGENCY	X
IN TRAFFIC SIGNAL CABINET	
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	X
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
PLAN LOOP DETECTOR *(S)								S25
ASSIGNED PHASE								
OPERATION MODE								
SWITCH								
EXTEND								
DELAY								

19	17	23	21	27	25	31	29	DETECTOR INPUT
11	21	41	43	51	61			PLAN LOOP DETECTOR *(S)
1	2	4	4	5	6			ASSIGNED PHASE
VEH	VEH	VEH	VEH	VEH	VEH			OPERATION MODE
								SWITCH
		X						EXTEND
								DELAY

DETECTOR INPUT	4	2	8	6	12	10	16	14
PLAN LOOP DETECTOR *(S)								S26
ASSIGNED PHASE								
OPERATION MODE								
SWITCH								
EXTEND								
DELAY								

20	18	24	22	28	26	32	30	DETECTOR INPUT
		42						PLAN LOOP DETECTOR *(S)
		4						ASSIGNED PHASE
		VEH						OPERATION MODE
								SWITCH
								EXTEND
								DELAY

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE DETECTOR	A	B	C	D
MOVEMENT				
PHASE	2+5	6+1		

AFTER PREEMPTION SEQUENCE 2+5 OR 1+6, CONTROLLER SHALL RETURN TO PHASES 2+6.

STH 38 & STH 119 EB OFF RAMP
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1201 CABINET TYPE: TS2

CONTROLLER TYPE: EPAC

DATE 12/13 PAGE NO. 3 OF 3

JMG 12/20/2013

12/20/13 MMD

PROJECT ID:	2060-15-71
INTERSECTION:	STH 38 & STH 119

SIGNAL WIRE COLOR CODING	BLK-BLACK	RED-RED	GRN-GREEN
	WHT-WHITE	BLU-BLUE	ORG-ORANGE

CB1 TO	JUMPER	# OF COND. AWG 14	HEAD NO.	SIGNAL INDICATION WIRE COLOR									PED BUTTON	OTHER
				RED	YELLOW	GREEN	<RED	<YELLOW>	<FL YELLOW>	<GREEN>	D/WALK	WALK		
SB1		12	8	RED	ORG	GRN								
			9	RED	ORG	GRN								
			10	RED	ORG	GRN								
SB2		12	13	RED	ORG	GRN								
			17								BLK	BLU		
			BUTTON										WHT/BLK	
SB3		12	5				RED	ORG	BLK/WHT	GRN				
			7	RED/BLK	ORG/BLK	GRN/BLK								
			18								BLK	BLU		
			BUTTON										WHT/BLK	
SB4		12	6				RED	ORG	BLK/WHT	GRN				
SB5		12	2	RED	ORG	GRN								
			3	RED	ORG	GRN								
			4	RED	ORG	GRN								
SB6		12	14				RED/BLK	ORG/BLK		GRN/BLK				
			15	RED	ORG	GRN								
			16	RED	ORG	GRN								
SB7		12	1	RED	ORG	GRN								
			11				RED/BLK	ORG/BLK	BLK/WHT	GRN/BLK				
SB8		12	12				RED	ORG	BLK/WHT	GRN				

EQUIPMENT GROUNDING CONDUCTOR 10 AWG GRN XLP	
FROM	TO
CB1	SB3
SB3	SB4
SB4	SB5
SB5	SB6
SB6	SB7
SB7	SB8
SB8	SB2
SB2	SB1
SB1	CB1

PULL BOX BONDING JUMPER 10 AWG GRN XLP	
FROM	TO
CB1	PB1
CB1	PB3
CB1	PB4
SB3	PB5
SB3	PB6
SB4	PB7
SB5	PB8
SB6	PB9
SB8	PB10
SB1	PB11
SB2	PB12
CB1	PB13

VIDEO DETECTION CABLE	
FROM	TO
CB1	SB5 (V1)
CB1	SB6 (V2)
CB1	SB1 (V3)

EMERGENCY VEHICLE PREEMPTION CABLE	
FROM	TO
CB1	SB1 (A)
CB1	SB5 (B)

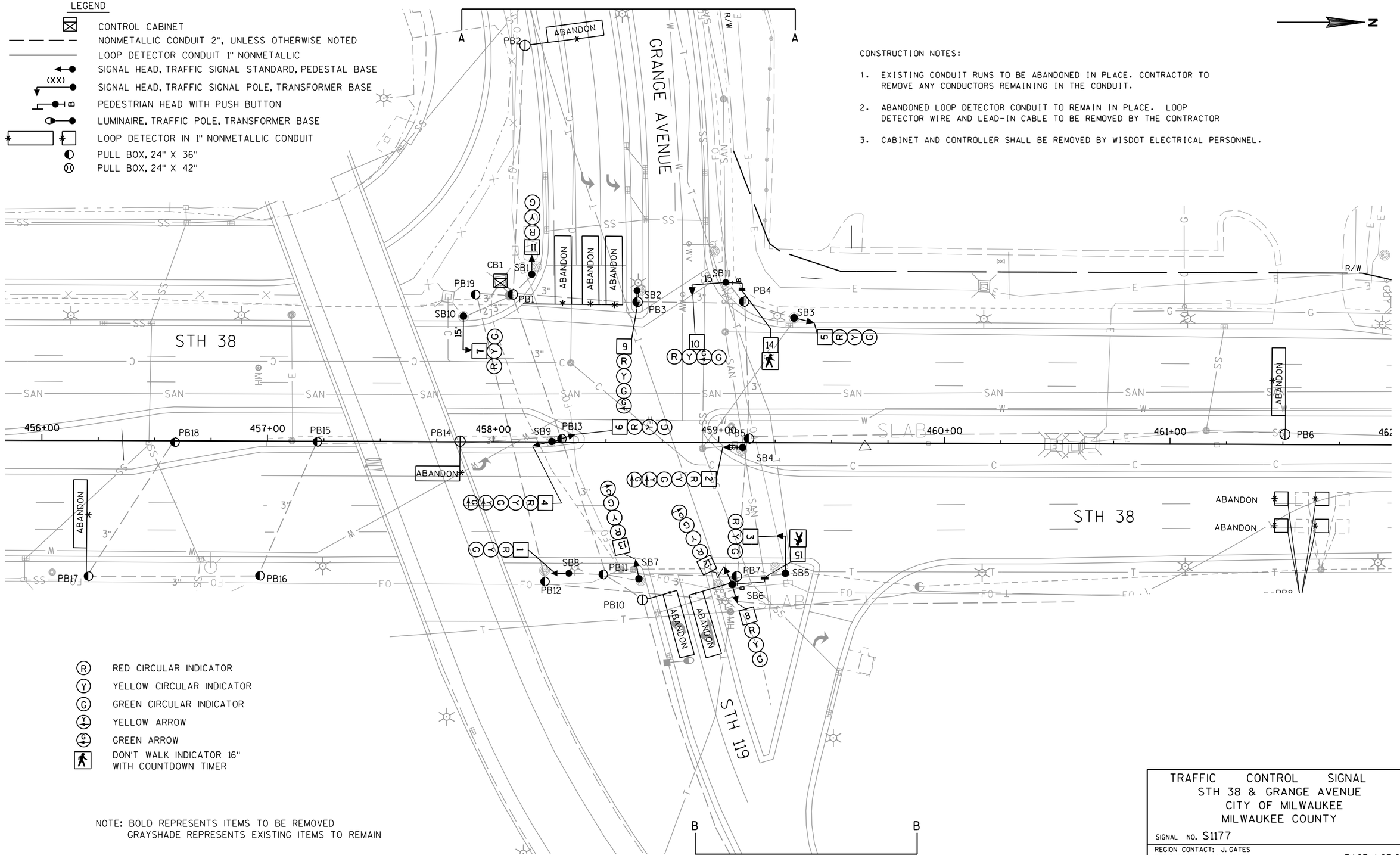
NOTES:
1. USE WHITE CONDUCTOR IN THE SIGNAL CABLE AS THE GROUNDED CONDUCTOR FOR ALL TRAFFIC SIGNAL INDICATIONS.
2. ENSURE THE GROUNDED CONDUCTOR IN THE FEEDER CABLE AND THE POLE CABLES ARE BOTH 18" LONGER THAN THE UNGROUNDED CONDUCTORS.
3. AT THE SIGNAL BASES, CONNECT ONE TERMINAL FROM THE PEDESTRIAN PUSH BUTTONS TO THE COLOR INDICATED IN THE CHART.
   CONNECT THE OTHER TERMINAL TO THE GROUNDED CONDUCTOR.

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"

CONSTRUCTION NOTES:

1. EXISTING CONDUIT RUNS TO BE ABANDONED IN PLACE. CONTRACTOR TO REMOVE ANY CONDUCTORS REMAINING IN THE CONDUIT.
2. ABANDONED LOOP DETECTOR CONDUIT TO REMAIN IN PLACE. LOOP DETECTOR WIRE AND LEAD-IN CABLE TO BE REMOVED BY THE CONTRACTOR
3. CABINET AND CONTROLLER SHALL BE REMOVED BY WISDOT ELECTRICAL PERSONNEL.



- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- Y YELLOW ARROW
- G GREEN ARROW
- DON'T WALK INDICATOR 16" WITH COUNTDOWN TIMER

NOTE: BOLD REPRESENTS ITEMS TO BE REMOVED
GRAYSHADE REPRESENTS EXISTING ITEMS TO REMAIN

TRAFFIC CONTROL SIGNAL
STH 38 & GRANGE AVENUE
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO. S1177

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PAGE 1 OF 2

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 390	E

2

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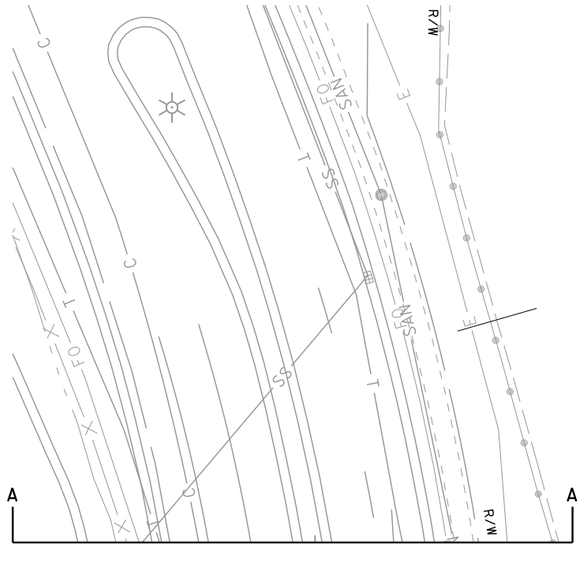
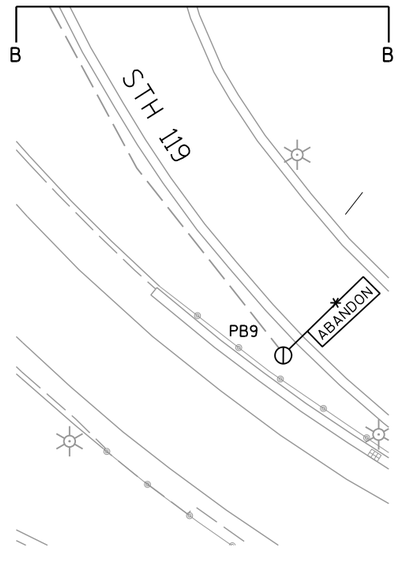




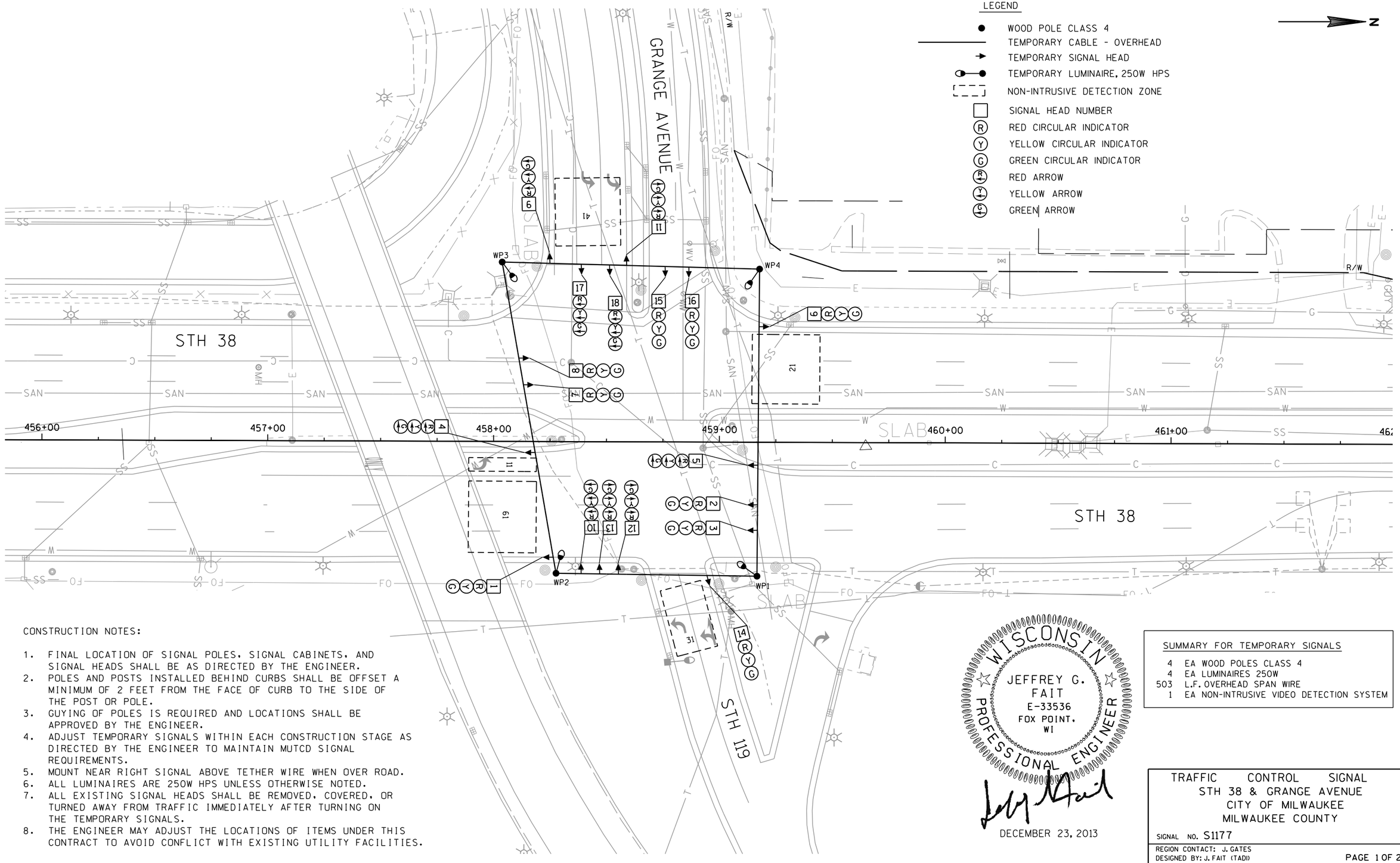
TRAFFIC CONTROL SIGNAL
STH 38 & GRANGE AVENUE
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO. S1177

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PAGE 2 OF 2

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 391	E



CONSTRUCTION NOTES:

1. FINAL LOCATION OF SIGNAL POLES, SIGNAL CABINETS, AND SIGNAL HEADS SHALL BE AS DIRECTED BY THE ENGINEER.
2. POLES AND POSTS INSTALLED BEHIND CURBS SHALL BE OFFSET A MINIMUM OF 2 FEET FROM THE FACE OF CURB TO THE SIDE OF THE POST OR POLE.
3. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER.
4. ADJUST TEMPORARY SIGNALS WITHIN EACH CONSTRUCTION STAGE AS DIRECTED BY THE ENGINEER TO MAINTAIN MUTCD SIGNAL REQUIREMENTS.
5. MOUNT NEAR RIGHT SIGNAL ABOVE TETHER WIRE WHEN OVER ROAD.
6. ALL LUMINAIRES ARE 250W HPS UNLESS OTHERWISE NOTED.
7. ALL EXISTING SIGNAL HEADS SHALL BE REMOVED, COVERED, OR TURNED AWAY FROM TRAFFIC IMMEDIATELY AFTER TURNING ON THE TEMPORARY SIGNALS.
8. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.

WISCONSIN
JEFFREY G. FAIT
E-33536
FOX POINT, WI
PROFESSIONAL ENGINEER

DECEMBER 23, 2013

SUMMARY FOR TEMPORARY SIGNALS

4	EA WOOD POLES CLASS 4
4	EA LUMINAIRES 250W
503	L.F. OVERHEAD SPAN WIRE
1	EA NON-INTRUSIVE VIDEO DETECTION SYSTEM

TRAFFIC CONTROL SIGNAL
STH 38 & GRANGE AVENUE
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO. S1177

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - PRE-STAGE	SHEET 392	E

LEGEND

- WOOD POLE CLASS 4
- TEMPORARY CABLE - OVERHEAD
- TEMPORARY SIGNAL HEAD
- TEMPORARY LUMINAIRE, 250W HPS
- NON-INTRUSIVE DETECTION ZONE
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- (R) RED ARROW
- (Y) YELLOW ARROW
- (G) GREEN ARROW
- (R Y G) SIGNAL HEAD TO BE BAGGED

N

GRANGE AVENUE

STH 38

STH 119

WP1 WP2 WP3 WP4

CONSTRUCTION NOTES:

1. BAG SIGNAL HEADS #5 AND #6.

TRAFFIC CONTROL SIGNAL
STH 38 & GRANGE AVENUE
CITY OF MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO. S1177

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PAGE 1 OF 2

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 1	SHEET 393	E

2

LEGEND

- WOOD POLE CLASS 4
- TEMPORARY CABLE - OVERHEAD
- TEMPORARY SIGNAL HEAD
- TEMPORARY LUMINAIRE, 250W HPS
- NON-INTRUSIVE DETECTION ZONE
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- (R) RED ARROW
- (Y) YELLOW ARROW
- (G) GREEN ARROW

N

GRANGE AVENUE

STH 38

STH 119

WP1

WP2

WP3

WP4

456+00 457+00 458+00 459+00 460+00 461+00

A A

B B

TRAFFIC CONTROL SIGNAL
STH 38 & GRANGE AVENUE
CITY OF MILWAUKEE
MILWAUKEE COUNTY

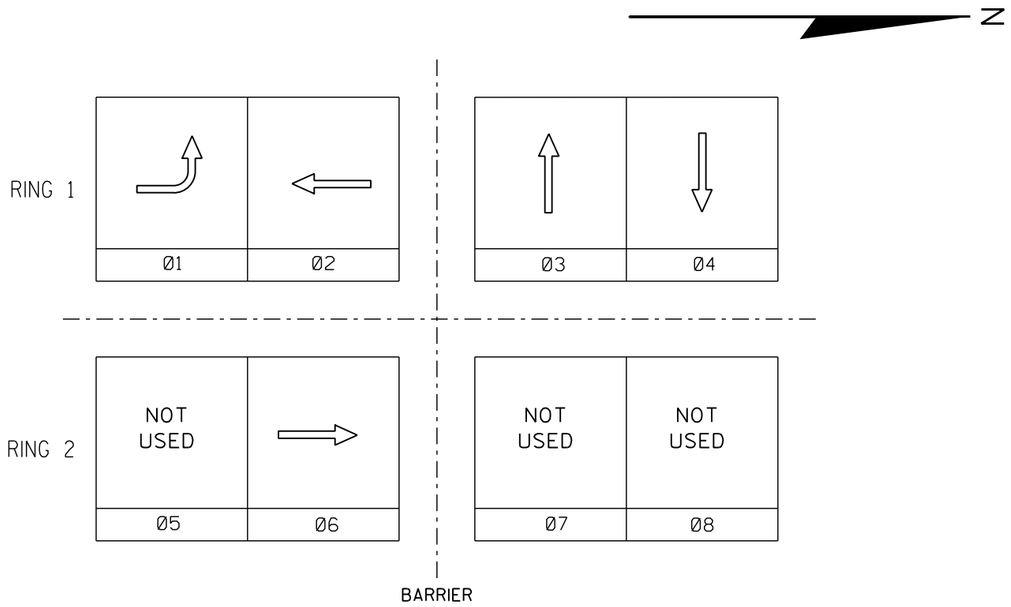
SIGNAL NO. S1177

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PAGE 1 OF 1

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 2	SHEET 394	E

	HEAD NUMBERS	FLASH
Ø1	4,5	R
Ø2	6,7,8	R
Ø3	14,15,16,17,18	R R
Ø4	9,10,11,12,13	R R
Ø5		
Ø6	1,2,3	R
Ø7		
Ø8		
Ø2P		
Ø3P		
Ø4P		
Ø6P		
OLA		
OLB		
OLC		
OLD		
OLA SPL		



CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1		6		X
2	X	6	MIN	X
3				X
4				X
5				
6	X	2	MIN	X
7				
8				

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	X
CLOSED LOOP	
TWISTED PAIR*	
FIBER OPTIC*	
FIBER OPTIC (ETHERNET)	
RADIO	

TYPE OF COORDINATION	
NONE	
TBC	X
TRAFFIC RESPONSIVE	
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO:	S-
SIGNAL SYSTEM #:	SS-00-05

TYPE OF LIGHTING	
BY OTHER AGENCY	X
IN TRAFFIC SIGNAL CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF PRE-EMPT	
NONE	X
RAILROAD	
EMERGENCY VEHICLE	
GTT	
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

DETECTOR LOGIC

DETECTOR NUMBER	DETECTOR INPUT	DETECTOR OPERATION			PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	SIZE	NUMBER OF TURNS
		CALLS AND EXTENDS	CALLS ONLY	EXTENDS ONLY							
11		X			1	1					
21		X			2	2					
31		X			3	3					
41		X			4	4					
61		X			6	6					

STH 38 & GRANGE AVENUE
CITY OF OAK CREEK
MILWAUKEE COUNTY

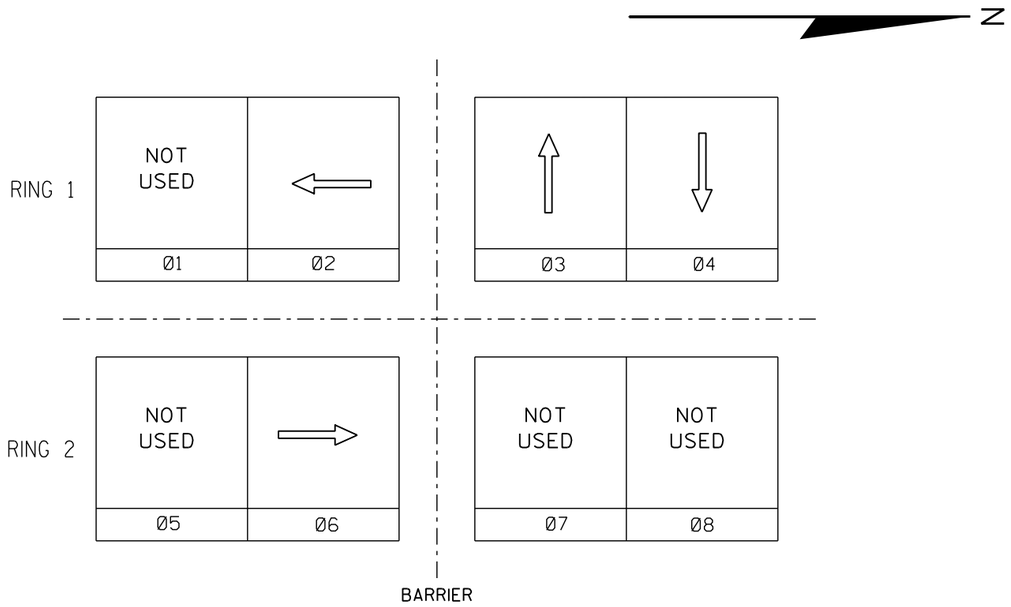
SIGNAL NO. S1177 CABINET TYPE:

CONTROLLER TYPE: TEMP

DATE 12/13 PAGE NO. 2 OF 2

2

	HEAD NUMBERS	FLASH
Ø1		
Ø2	6,7,8	R
Ø3	14,15,16,17,18	R R
Ø4	9,10,11,12,13	R R
Ø5		
Ø6	1,2,3	R
Ø7		
Ø8		
Ø2P		
Ø3P		
Ø4P		
Ø6P		
OLA		
OLB		
OLC		
OLD		
OLA SPL		



CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1				
2	X	6	MIN	x
3				x
4				x
5				
6	X	2	MIN	x
7				
8				

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	x
CLOSED LOOP	
TWISTED PAIR*	
FIBER OPTIC*	
FIBER OPTIC (ETHERNET)	
RADIO	

TYPE OF COORDINATION	
NONE	
TBC	x
TRAFFIC RESPONSIVE	
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO:	S-
SIGNAL SYSTEM #:	SS-00-05

TYPE OF LIGHTING	
BY OTHER AGENCY	x
IN TRAFFIC SIGNAL CABINET	x
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF PRE-EMPT	
NONE	x
RAILROAD	
EMERGENCY VEHICLE	
GTT	
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

DETECTOR LOGIC

DETECTOR NUMBER	DETECTOR INPUT	DETECTOR OPERATION			PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	SIZE	NUMBER OF TURNS
		CALLS AND EXTENDS	CALLS ONLY	EXTENDS ONLY							
21		X			2	2					
31		X			3	3					
41		X			4	4					
61		X			6	6					

STH 38 & GRANGE AVENUE
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1177 CABINET TYPE:

CONTROLLER TYPE: TEMP

DATE 12/13 PAGE NO. 2 OF 2

2

LEGEND

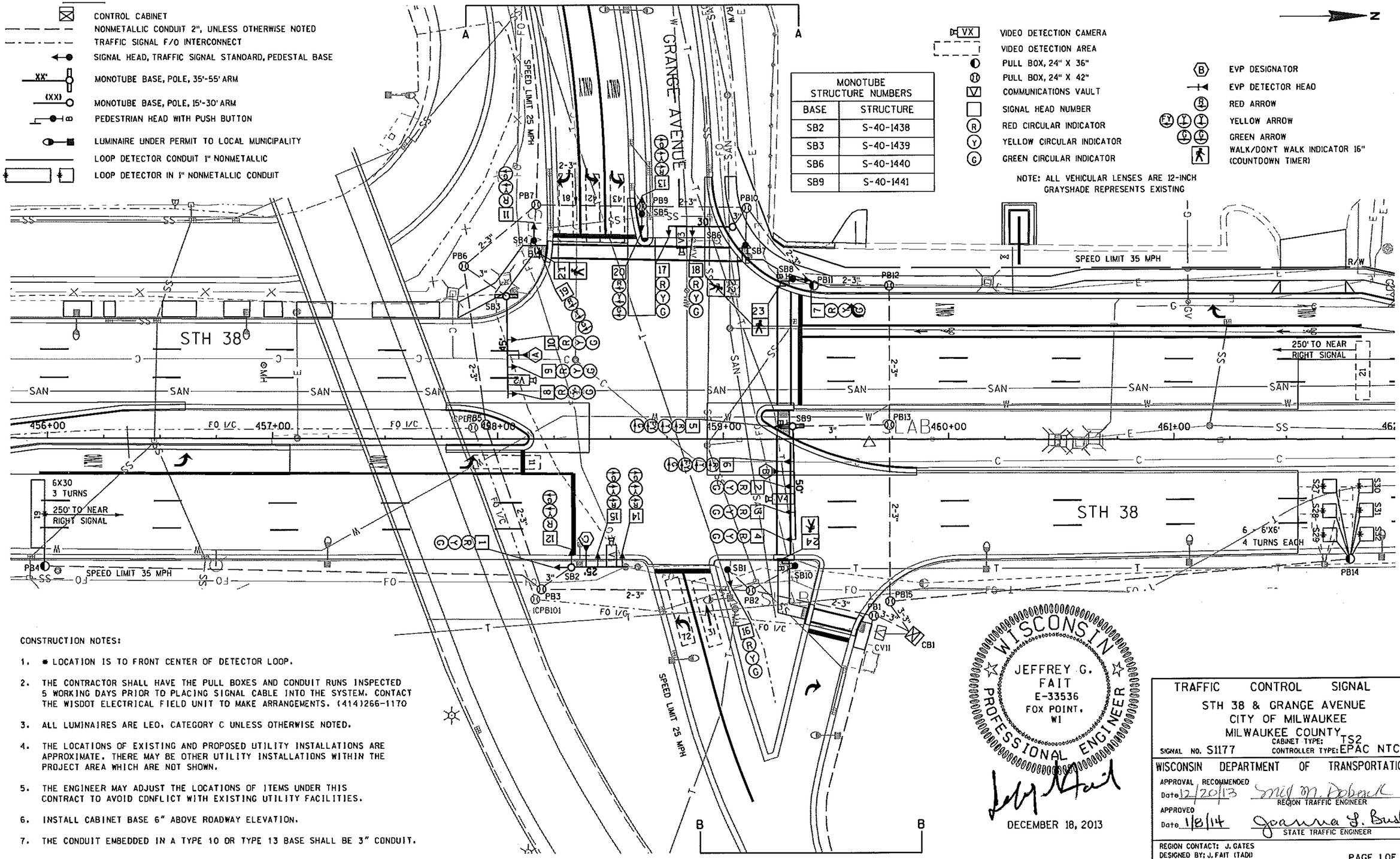
- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- TRAFFIC SIGNAL F/O INTERCONNECT
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- XX' MONOTUBE BASE, POLE, 35'-55' ARM
- (XX) MONOTUBE BASE, POLE, 15'-30' ARM
- PEDESTRIAN HEAD WITH PUSH BUTTON
- LUMINAIRE UNDER PERMIT TO LOCAL MUNICIPALITY
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT

MONOTUBE STRUCTURE NUMBERS	
BASE	STRUCTURE
SB2	S-40-1438
SB3	S-40-1439
SB6	S-40-1440
SB9	S-40-1441

- VX VIDEO DETECTION CAMERA
- VIDEO DETECTION AREA
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- COMMUNICATIONS VAULT
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- (B) EVP DESIGNATOR
- EVP DETECTOR HEAD
- (R) RED ARROW
- (Y) YELLOW ARROW
- (G) GREEN ARROW
- WALK/DON'T WALK INDICATOR 16" (COUNTDOWN TIMER)

NOTE: ALL VEHICULAR LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

N



CONSTRUCTION NOTES:

1. * LOCATION IS TO FRONT CENTER OF DETECTOR LOOP.
2. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO THE SYSTEM. CONTACT THE WISDOT ELECTRICAL FIELD UNIT TO MAKE ARRANGEMENTS. (414)266-1170
3. ALL LUMINAIRES ARE LEO, CATEGORY C UNLESS OTHERWISE NOTED.
4. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN.
5. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
6. INSTALL CABINET BASE 6" ABOVE ROADWAY ELEVATION.
7. THE CONDUIT EMBEDDED IN A TYPE 10 OR TYPE 13 BASE SHALL BE 3" CONDUIT.

WISCONSIN
JEFFREY G. FAIT
E-33536
FOX POINT, WI
PROFESSIONAL ENGINEER

DECEMBER 18, 2013

TRAFFIC CONTROL SIGNAL
STH 38 & GRANGE AVENUE
CITY OF MILWAUKEE
MILWAUKEE COUNTY
CABINET TYPE: TS2
SIGNAL NO. S1177
CONTROLLER TYPE: EPAC NTCIP

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED Date 12/20/13 — REGION TRAFFIC ENGINEER
APPROVED Date 1/8/14 — STATE TRAFFIC ENGINEER

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PAGE 1 OF 3

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 397 E

FILE NAME : Proposed Signals.dgn | PLOT DATE : 12/18/2013 | PLOT BY : DSCHNABEL-TADI | PLOT NAME : | PLOT SCALE : 40.0000 sf / in. | WISDOT/CADDS SHEET 42

JMG 12/20/2013

2

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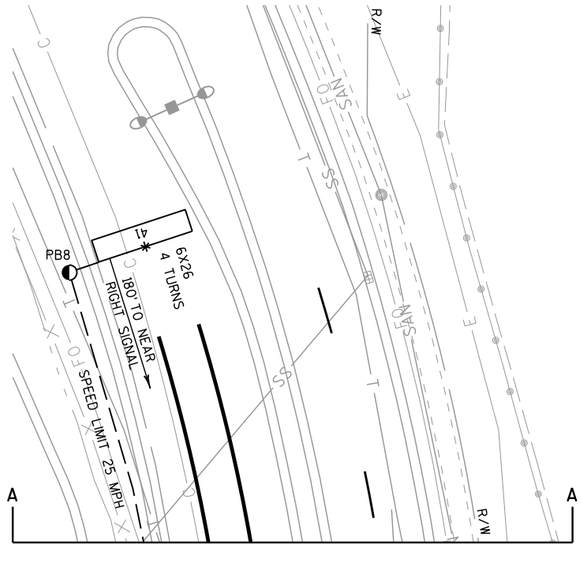
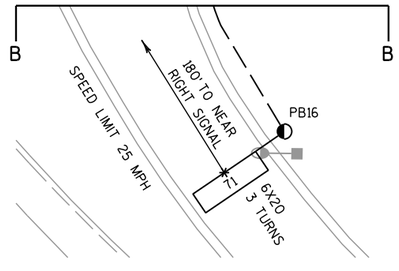




TRAFFIC CONTROL SIGNAL
STH 38 & GRANGE AVENUE
CITY OF MILWAUKEE
MILWAUKEE COUNTY

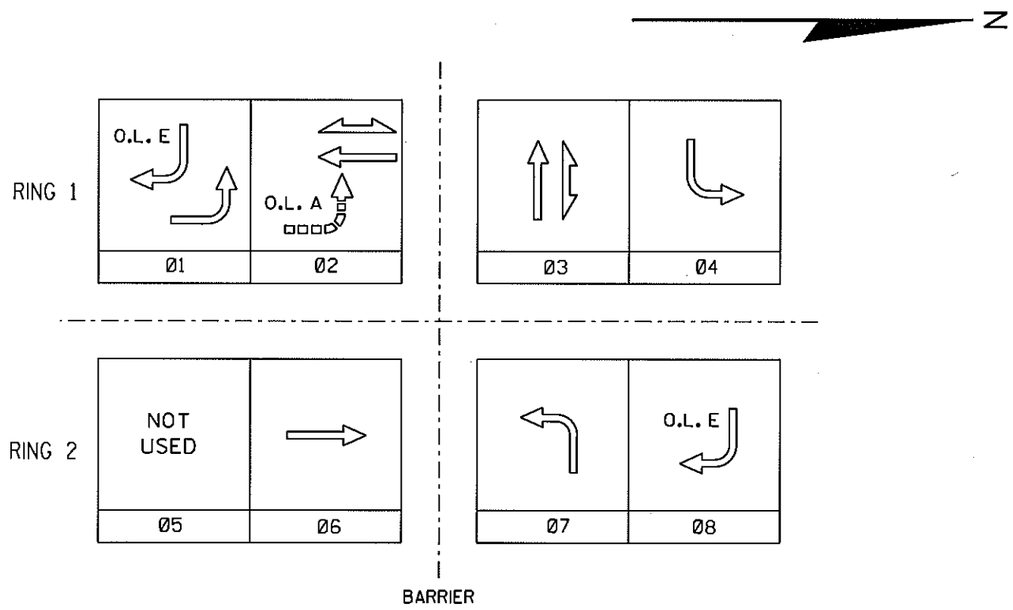
SIGNAL NO. S1177

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PAGE 2 OF 3

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 398	E

	HEAD NUMBERS	FLASH
Ø1	5,6	-
Ø2	7,8,9,10	R
Ø3	16,17,18	R
Ø4	13,14,15	R
Ø5		
Ø6	1,2,3,4	R
Ø7	19,20	R
Ø8	11,12	R
Ø2P	21,22	
Ø3P	23,24	
Ø4P		
Ø6P		
OLA	5,6	R
OLB		
OLC		
OLD		
OLE	11,12	R



CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1		6		X
2	X	6	MIN	X
3		7		X
4		7		X
5				
6	X	2	MIN	X
7		4		X
8		4		X

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	
CLOSED LOOP	
TWISTED PAIR*	
FIBER OPTIC*	X
FIBER OPTIC (ETHERNET)	
RADIO	

TYPE OF COORDINATION	
NONE	
TBC	X
TRAFFIC RESPONSIVE	X
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO:	S-
SIGNAL SYSTEM #:	SS-00-05

TYPE OF LIGHTING	
BY OTHER AGENCY	X
IN TRAFFIC SIGNAL CABINET	
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	X
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
PLAN LOOP DETECTOR #(S)	41	61	71			S27	S29	S31
ASSIGNED PHASE	4	6	7					
OPERATION MODE	VEH	VEH	VEH					
SWITCH								
EXTEND	X		X					
DELAY								

19	17	23	21	27	25	31	29	DETECTOR INPUT
11	21	31	42	72	81			PLAN LOOP DETECTOR #(S)
1	2	3	4	7	8			ASSIGNED PHASE
VEH	VEH	VEH	VEH	VEH	VEH			OPERATION MODE
6								SWITCH
								EXTEND
								DELAY

DETECTOR INPUT	4	2	8	6	12	10	16	14
PLAN LOOP DETECTOR #(S)						S28	S30	S32
ASSIGNED PHASE								
OPERATION MODE								
SWITCH								
EXTEND								
DELAY								

20	18	24	22	28	26	32	30	DETECTOR INPUT
			43					PLAN LOOP DETECTOR #(S)
			4					ASSIGNED PHASE
			VEH					OPERATION MODE
								SWITCH
								EXTEND
								DELAY

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE DETECTOR	A	B	C	D
MOVEMENT				
PHASE	2	6+1	4+8	

AFTER PREEMPTION SEQUENCE 2 OR 1+6, CONTROLLER SHALL RETURN TO PHASES 2+6.

AFTER PREEMPTION SEQUENCE 4+8, CONTROLLER SHALL RETURN TO PHASE 4+7.

STH 38 & GRANGE AVENUE
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1177 CABINET TYPE: TS2

CONTROLLER TYPE: EPAC

DATE 12/13 PAGE NO. 3 OF 3

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	SEQUENCE OF OPERATIONS	SHEET 399 E

JMG 12/20/2013
12/18/13 mmd

PROJECT ID:	2060-15-71
INTERSECTION:	STH 38 & GRANGE AVE

SIGNAL WIRE COLOR CODING	BLK-BLACK	RED-RED	GRN-GREEN
	WHT-WHITE	BLU-BLUE	ORG-ORANGE

CB1 TO	JUMPER	# OF COND. AWG 14	HEAD NO.	SIGNAL INDICATION WIRE COLOR									PED BUTTON	OTHER
				RED	YELLOW	GREEN	<RED	<YELLOW>	<FL YELLOW>	<GREEN>	D/WALK	WALK		
SB1		7	16	RED	ORG	GRN								
SB2		12	1	RED	ORG	GRN								
			12				BLU	BLK		BLU/BLK				
			14				RED/BLK	ORG/BLK		GRN/BLK				
			15				RED/BLK	ORG/BLK		GRN/BLK				
SB3		7	8	RED	ORG	GRN								
			9	RED	ORG	GRN								
			10	RED	ORG	GRN								
SB4		12	11				RED	ORG		GRN				
			19				RED/BLK	ORG/BLK		GRN/BLK				
			21								BLK	BLU		
			BUTTON										WHT/BLK	
SB5		12	13				RED	ORG		GRN				
			20				RED/BLK	ORG/BLK		GRN/BLK				
SB6		7	17	RED	ORG	GRN								
			18	RED	ORG	GRN								
SB7		7	22								BLK	BLU		
			BUTTON										WHT/BLK	
SB8		12	7	RED	ORG	GRN								
			23								BLK	BLU		
			BUTTON										WHT/BLK	
SB9		12	2	RED	ORG	GRN								
			3	RED	ORG	GRN								
			4	RED	ORG	GRN								
			5				RED/BLK	ORG/BLK	BLK/WHT	GRN/BLK				
			6				RED/BLK	ORG/BLK	BLK/WHT	GRN/BLK				
			BUTTON										WHT/BLK	
SB10		7	24								BLK	BLU		
			BUTTON										WHT/BLK	

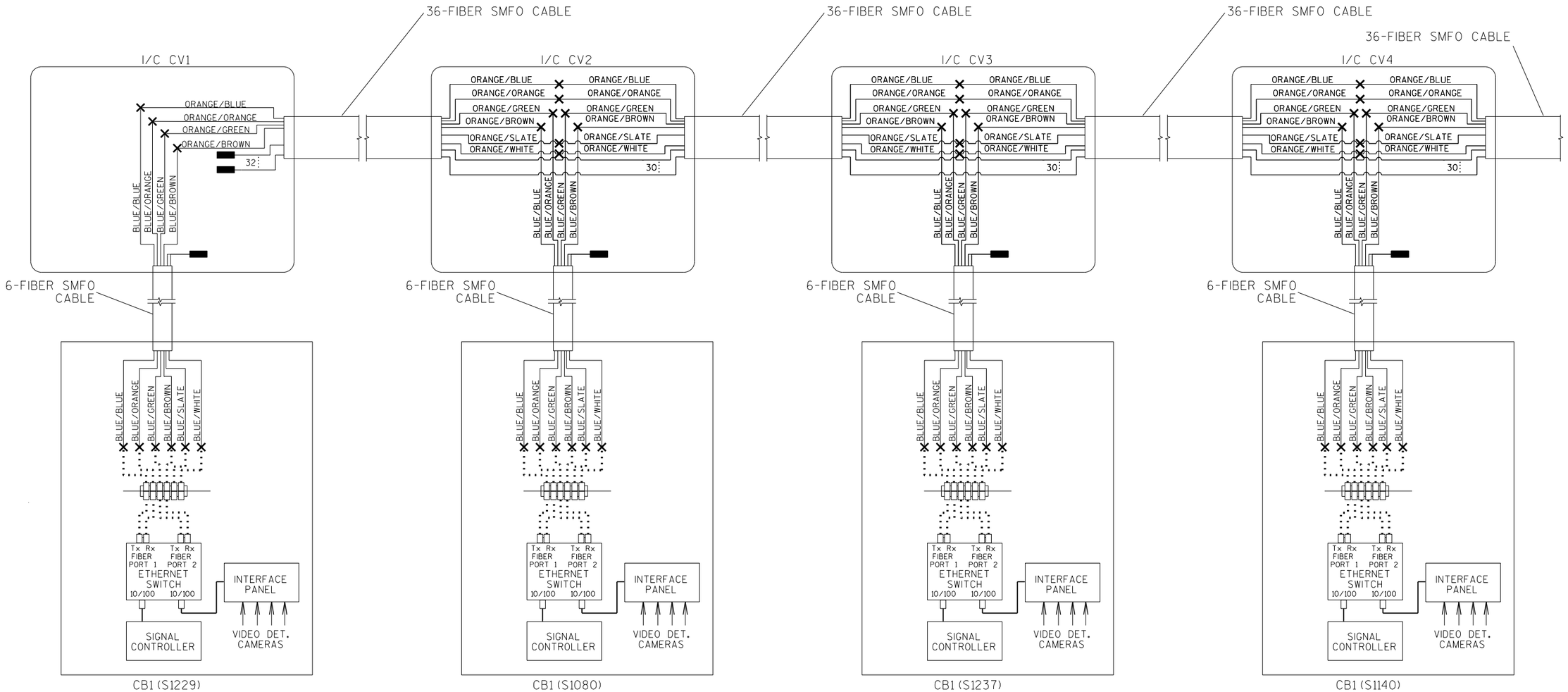
EQUIPMENT GROUNDING CONDUCTOR 10 AWG GRN XLP	
FROM	TO
CB1	SB1
SB1	SB2
SB2	SB3
SB3	SB4
SB4	SB5
SB5	SB6
SB6	SB7
SB7	SB8
SB8	SB9
SB9	SB10
SB10	CB1

PULL BOX BONDING JUMPER 10 AWG GRN XLP	
FROM	TO
CB1	PB1
SB1	PB2
SB2	PB3
SB3	PB5
SB3	PB6
SB4	PB7
SB5	PB9
SB6	PB10
SB8	PB11
SB8	PB12
SB9	PB13
CB1	PB15

VIDEO DETECTION CABLE	
FROM	TO
CB1	SB2 (V1)
CB1	SB3 (V2)
CB1	SB6 (V3)
CB1	SB9 (V4)

EMERGENCY VEHICLE PREEMPTION CABLE	
FROM	TO
CB1	SB3 (A)
CB1	SB9 (B)
CB1	SB2 (C)

NOTES:
1. USE WHITE CONDUCTOR IN THE SIGNAL CABLE AS THE GROUNDED CONDUCTOR FOR ALL TRAFFIC SIGNAL INDICATIONS.
2. ENSURE THE GROUNDED CONDUCTOR IN THE FEEDER CABLE AND THE POLE CABLES ARE BOTH 18" LONGER THAN THE UNGROUNDED CONDUCTORS.
3. AT THE SIGNAL BASES, CONNECT ONE TERMINAL FROM THE PEDESTRIAN PUSH BUTTONS TO THE COLOR INDICATED IN THE CHART.
   CONNECT THE OTHER TERMINAL TO THE GROUNDED CONDUCTOR.



KEY

- SM EQUIPMENT CONNECTION FIBER OPTIC JUMPER
- SM FIBER OPTIC PIGTAIL
- BARE FIBER LEFT COILED IN SPLICE TRAY
- EXISTING/PROPOSED FUSION SPLICE
- PATCH PANEL MODULE
- CAT-5E PATCH CABLE

NOTE: DASHED LINES DENOTE EXISTING CABLES, DEVICES OR ENCLOSURES.

NOTES

1. MAXIMUM SPLICE LOSS SHALL BE 0.1 dB
2. NO INTERMEDIATE SPLICES ALLOWED
3. ALL SPLICES SHALL BE FUSION SPLICES
4. COORDINATE FIBER ASSIGNMENTS WITH MARIE TREAZISE, STOC, AT (414) 225-3720 BEFORE SPLICING FIBER OPTIC CABLE
5. THE ENTIRE MAINLINE FIBER OPTIC CABLE SHALL NOT BE CUT AND/OR SPLICED IN THE VAULTS NEAREST THE TRAFFIC SIGNAL CABINET WHILE MAKING THE PIGTAIL CONNECTION. ONLY THE REQUIRED BUFFER TUBE SHALL BE CUT AND SPLICED WITH THE PIGTAIL CONNECTION.

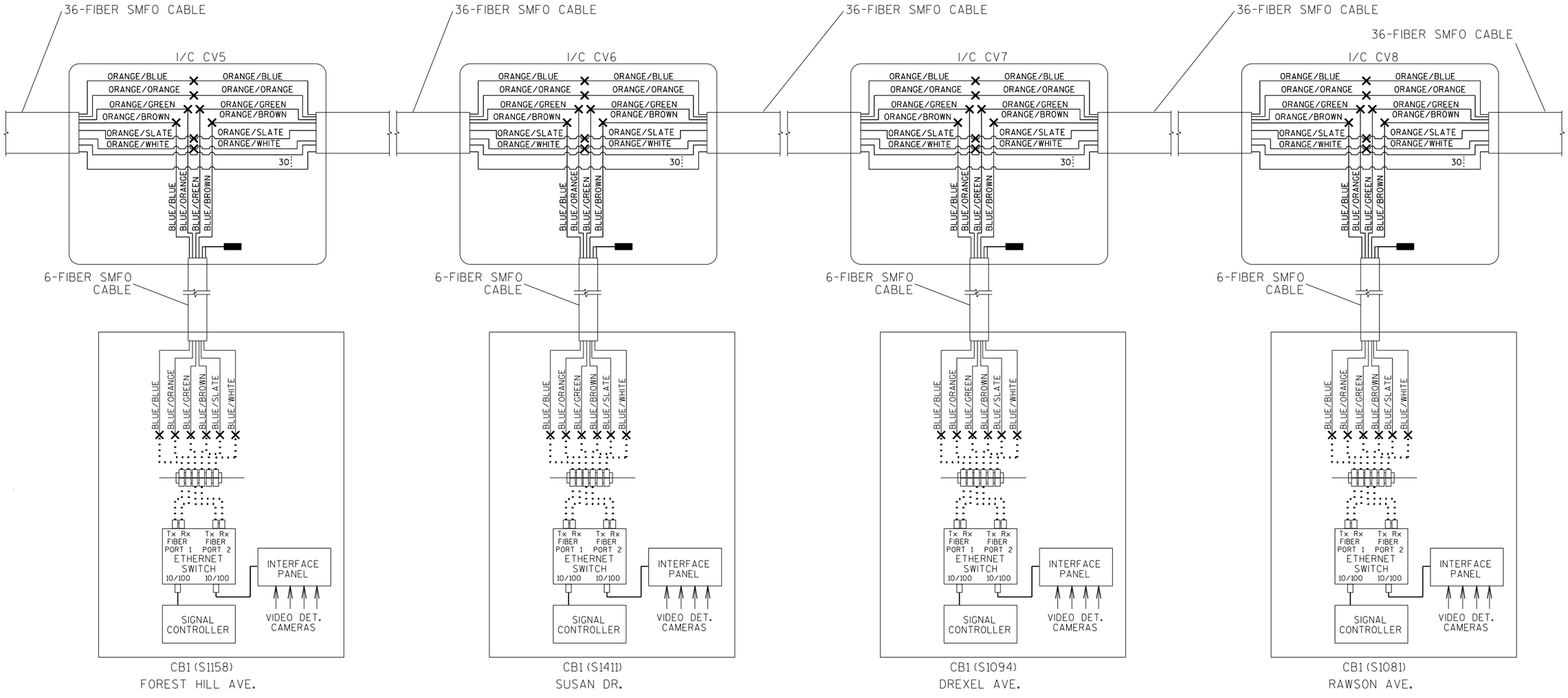
TRAFFIC CONTROL INTERCONNECT
STH 38
CITIES OF OAK CREEK AND MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO.

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PAGE 1 OF 3

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	FIBER OPTIC ASSIGNMENT DETAIL	SHEET 401	E



KEY

- SM EQUIPMENT CONNECTION FIBER OPTIC JUMPER
- SM FIBER OPTIC PIGTAIL
- BARE FIBER LEFT COILED IN SPLICE TRAY
- EXISTING/PROPOSED FUSION SPLICE
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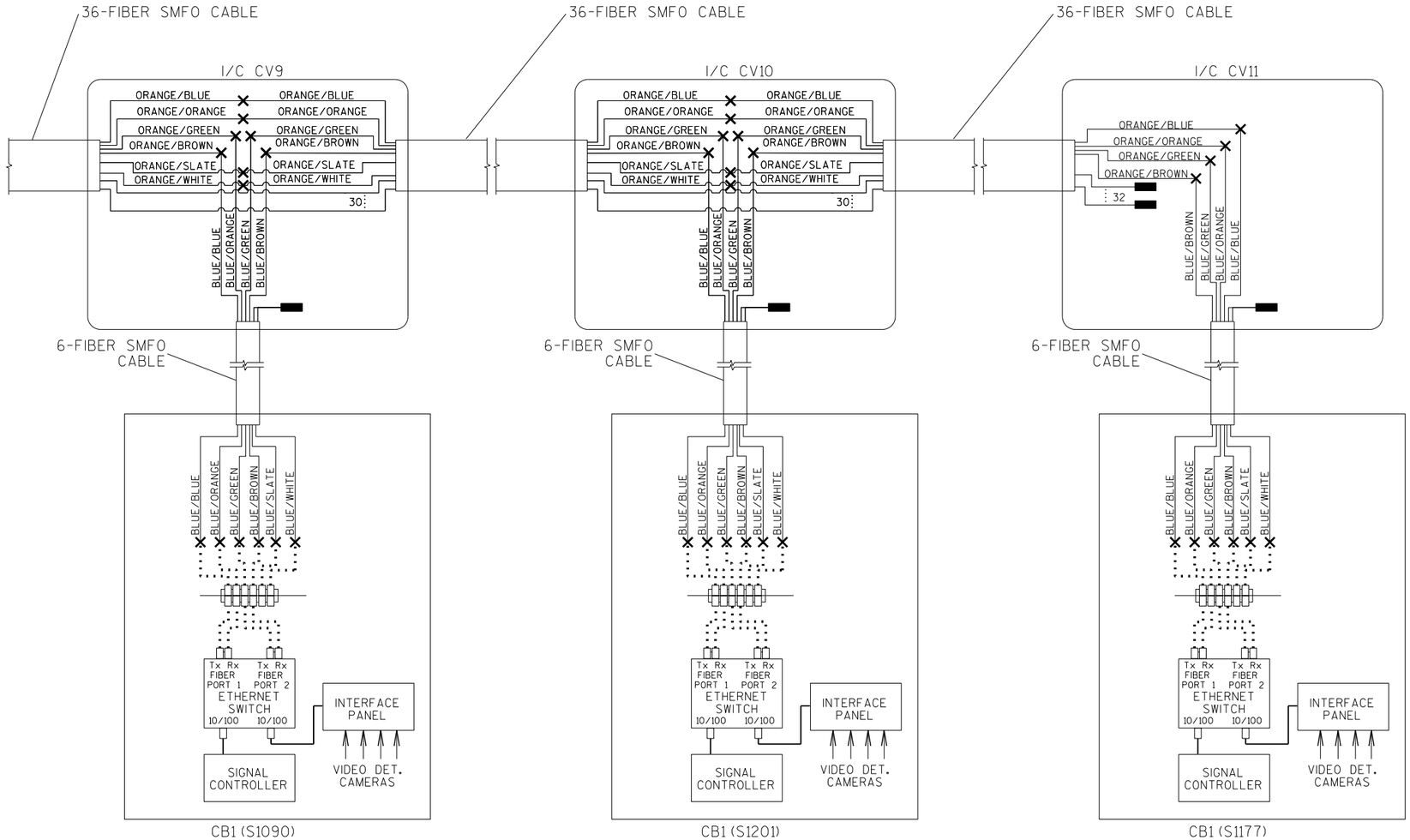
TRAFFIC CONTROL INTERCONNECT
STH 38
CITIES OF OAK CREEK AND MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO.

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PAGE 2 OF 3

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	FIBER OPTIC ASSIGNMENT DETAIL	SHEET 402	E



KEY

- SM EQUIPMENT CONNECTION FIBER OPTIC JUMPER
- SM FIBER OPTIC PIGTAIL
- BARE FIBER LEFT COILED IN SPLICE TRAY
- EXISTING/PROPOSED FUSION SPLICE
- PATCH PANEL MODULE

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NOTES

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TRAFFIC CONTROL INTERCONNECT
STH 38
CITIES OF OAK CREEK AND MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO.

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PAGE 3 OF 3

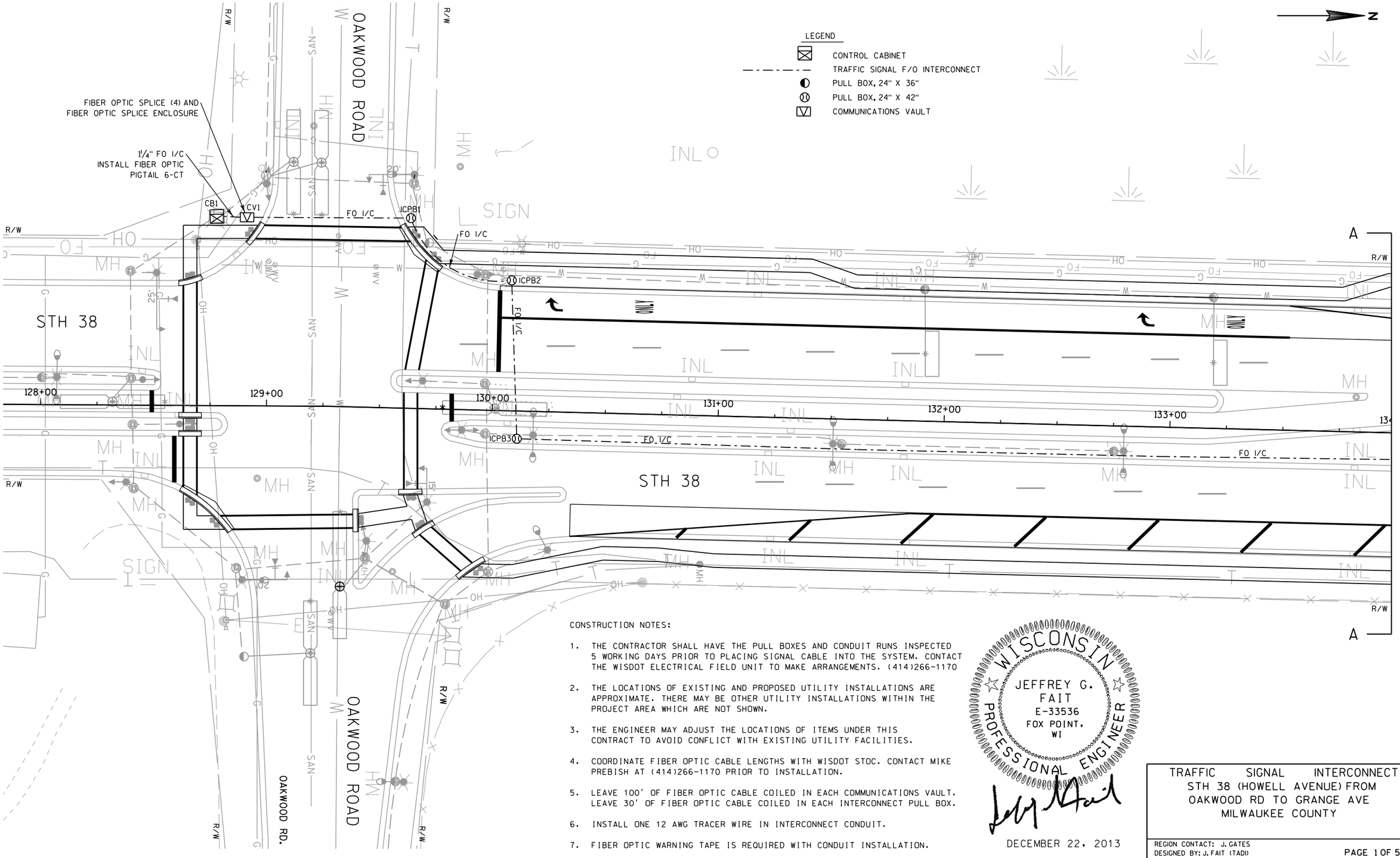
PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	FIBER OPTIC ASSIGNMENT DETAIL	SHEET 403	E

2

N

LEGEND

- CONTROL CABINET
- TRAFFIC SIGNAL F/O INTERCONNECT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- COMMUNICATIONS VAULT



CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO THE SYSTEM. CONTACT THE WISDOT ELECTRICAL FIELD UNIT TO MAKE ARRANGEMENTS. (414)266-1170
2. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN.
3. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
4. COORDINATE FIBER OPTIC CABLE LENGTHS WITH WISDOT STOC. CONTACT MIKE PREBISH AT (414)266-1170 PRIOR TO INSTALLATION.
5. LEAVE 100' OF FIBER OPTIC CABLE COILED IN EACH COMMUNICATIONS VAULT. LEAVE 30' OF FIBER OPTIC CABLE COILED IN EACH INTERCONNECT PULL BOX.
6. INSTALL ONE 12 AWG TRACER WIRE IN INTERCONNECT CONDUIT.
7. FIBER OPTIC WARNING TAPE IS REQUIRED WITH CONDUIT INSTALLATION.

WISCONSIN
JEFFREY G. FAIT
E-33536
FOX POINT, WI
PROFESSIONAL ENGINEER

DECEMBER 22, 2013

TRAFFIC SIGNAL INTERCONNECT
STH 38 (HOWELL AVENUE) FROM
OAKWOOD RD TO GRANGE AVE
MILWAUKEE COUNTY

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 404	E

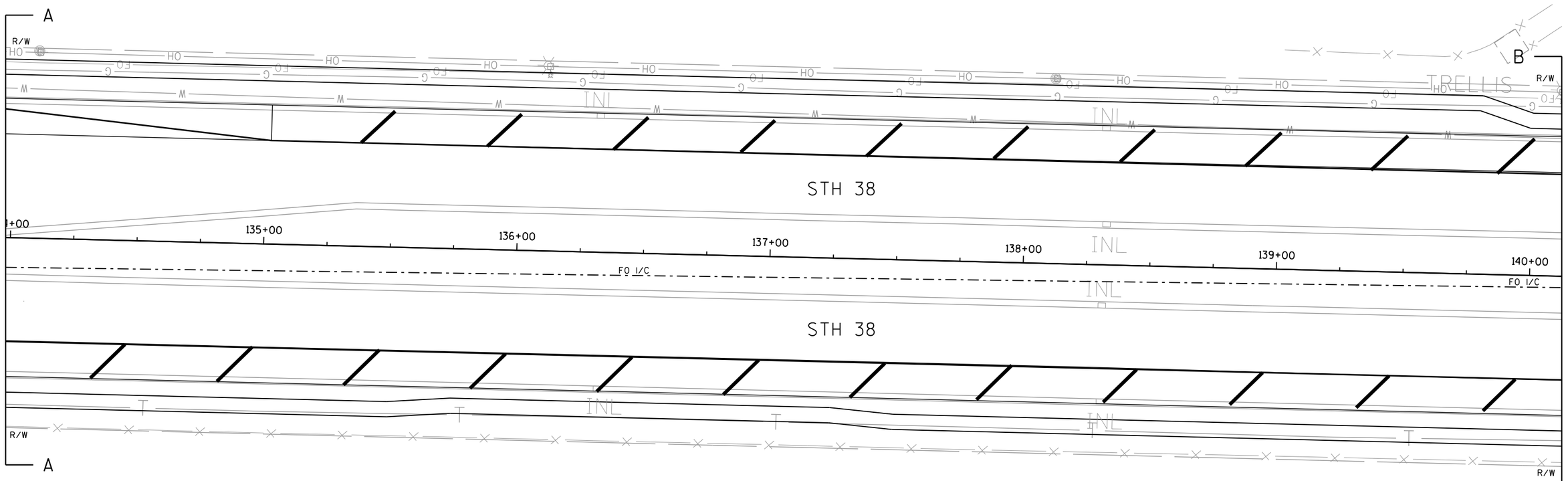
2

2

N

LEGEND

- CONTROL CABINET
- TRAFFIC SIGNAL F/O INTERCONNECT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- COMMUNICATIONS VAULT



TRAFFIC SIGNAL INTERCONNECT
STH 38 (HOWELL AVENUE) FROM
OAKWOOD RD TO GRANGE AVE
MILWAUKEE COUNTY

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PAGE 2 OF 54

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 405	E

FILE NAME : Proposed Interconnect.dgn PLOT DATE : 12/22/2013 PLOT BY : DSCHNABEL-TADI PLOT NAME : PLOT SCALE : 40.0000 sf / in.

WISDOT/CADDS SHEET 42

2

2

N

LEGEND

- CONTROL CABINET
- TRAFFIC SIGNAL F/O INTERCONNECT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- COMMUNICATIONS VAULT

B

C

R/W

STH 38

141+00

142+00

143+00

144+00

145+00

146+00

ICPB4

ICPB5

F0 I/C

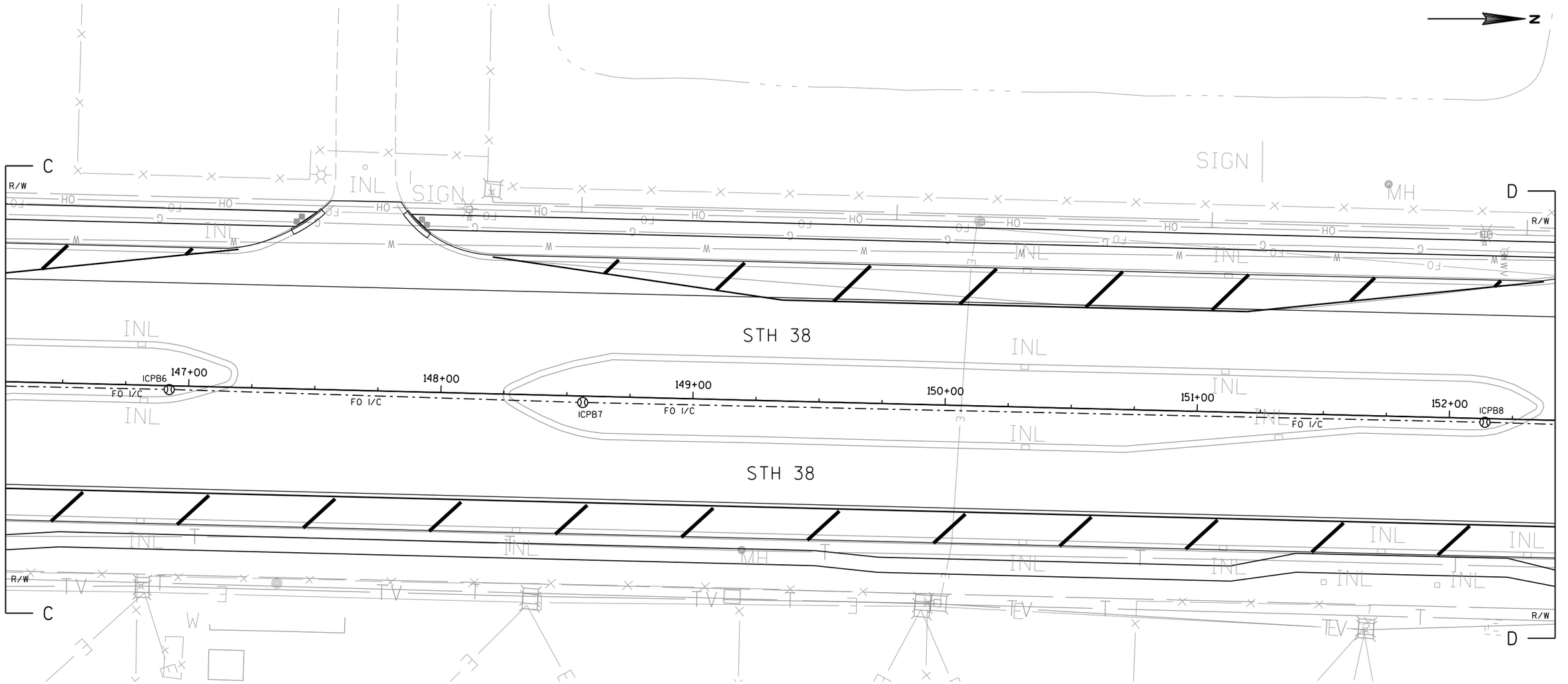
LISA DRIVE

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 406	E

TRAFFIC SIGNAL INTERCONNECT
STH 38 (HOWELL AVENUE) FROM
OAKWOOD RD TO GRANGE AVE
MILWAUKEE COUNTY

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

FILE NAME : Proposed Interconnect.dgn
PLOT DATE : 12/22/2013
PLOT BY : DSCHNABEL-TADI
PLOT NAME :
PLOT SCALE : 40.0000 sf / in.
WISDOT/CADDS SHEET 42



LEGEND

- CONTROL CABINET
- TRAFFIC SIGNAL F/O INTERCONNECT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- COMMUNICATIONS VAULT

TRAFFIC SIGNAL INTERCONNECT
STH 38 (HOWELL AVENUE) FROM
OAKWOOD RD TO GRANGE AVE
MILWAUKEE COUNTY

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 407 E

FILE NAME : Proposed Interconnect.dgn
PLOT DATE : 12/22/2013
PLOT BY : DSCHNABEL-TADI
PLOT NAME :
PLOT SCALE : 40.0000 sf / in.
WISDOT/CADDS SHEET 42

2

N

D

E

R/W

STH 38

153+00

154+00

155+00

156+00

157+00

158+00

ICPB9

ICPB10

ICPB11

F0 I/C

STH 38

FITZSIMMONS ROAD

WALLS

LEGEND

- CONTROL CABINET
- TRAFFIC SIGNAL F/O INTERCONNECT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- COMMUNICATIONS VAULT

TRAFFIC SIGNAL INTERCONNECT
STH 38 (HOWELL AVENUE) FROM
OAKWOOD RD TO GRANGE AVE
MILWAUKEE COUNTY

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 408	E

FILE NAME : Proposed Interconnect.dgn
PLOT DATE : 12/22/2013
PLOT BY : DSCHNABEL-TADI
PLOT NAME :
PLOT SCALE : 40.0000 sf / in.
WISDOT/CADDS SHEET 42

2

N

SUMMERHILL PLACE

E

R/W

F

R/W

STH 38

159+00

160+00

161+00

162+00

163+00

164+00

ICPB12

ICPB13

FO I/C

STH 38

ESTATES PLACE

E

R/W

F

R/W

LEGEND

- CONTROL CABINET
- TRAFFIC SIGNAL F/O INTERCONNECT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- COMMUNICATIONS VAULT

TRAFFIC SIGNAL INTERCONNECT
STH 38 (HOWELL AVENUE) FROM
OAKWOOD RD TO GRANGE AVE
MILWAUKEE COUNTY

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PAGE 6 OF 54

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 409	E

FILE NAME : Proposed Interconnect.dgn PLOT DATE : 12/22/2013 PLOT BY : DSCHNABEL-TADI PLOT NAME : PLOT SCALE : 40.0000 sf / in.

2

N

ANT.

A/C

F

G

R/W

STH 38

165+00

166+00

167+00

168+00

169+00

170+00

FO I/C

FO I/C

STH 38

POOL

LEGEND

- CONTROL CABINET
- TRAFFIC SIGNAL F/O INTERCONNECT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- COMMUNICATIONS VAULT

TRAFFIC SIGNAL INTERCONNECT
STH 38 (HOWELL AVENUE) FROM
OAKWOOD RD TO GRANGE AVE
MILWAUKEE COUNTY

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 410	E

FILE NAME : Proposed Interconnect.dgn
PLOT DATE : 12/22/2013
PLOT BY : DSCHNABEL-TADI
PLOT NAME :
PLOT SCALE : 40.0000 sf / in.
WISDOT/CADDS SHEET 42

2

N

FAIRFIELD DRIVE

G

R/W

STH 38

171+00 ICPB14 FO I/C

172+00 ICPB15 FO I/C

173+00 FO I/C

174+00 FO I/C

175+00 FO I/C

176+00 ICPB16 FO I/C

ICPB17

177

H

R/W

STH 38

R/W

G

FAIRFIELD DRIVE

H

LEGEND

- CONTROL CABINET
- TRAFFIC SIGNAL F/O INTERCONNECT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- COMMUNICATIONS VAULT

TRAFFIC SIGNAL INTERCONNECT
STH 38 (HOWELL AVENUE) FROM
OAKWOOD RD TO GRANGE AVE
MILWAUKEE COUNTY

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 411	E

LEGEND

- CONTROL CABINET
- TRAFFIC SIGNAL F/O INTERCONNECT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- COMMUNICATIONS VAULT

STH 38

STH 100

1¼" FO I/C
INSTALL FIBER OPTIC
PIGTAIL 6-CT

FIBER OPTIC SPLICE (8) AND
FIBER OPTIC SPLICE ENCLOSURE

CB1

CV2

ICPB18

FO I/C

178+00

179+00

180+00

181+00

182+00

183+00

1101+00

1102+00

1103+00

FLAG

VACUUM

CANOPY

FILLER CAP

R/W

ONLY

TRAFFIC SIGNAL INTERCONNECT
STH 38 (HOWELL AVENUE) FROM
OAKWOOD RD TO GRANGE AVE
MILWAUKEE COUNTY

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 412	E

FILE NAME : Proposed Interconnect.dgn
PLOT DATE : 12/22/2013
PLOT BY : DSCHNABEL-TADI
PLOT NAME :
PLOT SCALE : 40.0000 sf / in.
WISDOT/CADDS SHEET 42

2

N

LEGEND

- CONTROL CABINET
- TRAFFIC SIGNAL F/O INTERCONNECT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- COMMUNICATIONS VAULT

STH 38

STH 38

184+00

185+00

186+00

187+00

188+00

189+00

ICPB19

F/O I/C

F/O I/C

J

R/W

R/W

R/W

R/W

SLAB

POOL

A/C

TRAFFIC SIGNAL INTERCONNECT
STH 38 (HOWELL AVENUE) FROM
OAKWOOD RD TO GRANGE AVE
MILWAUKEE COUNTY

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

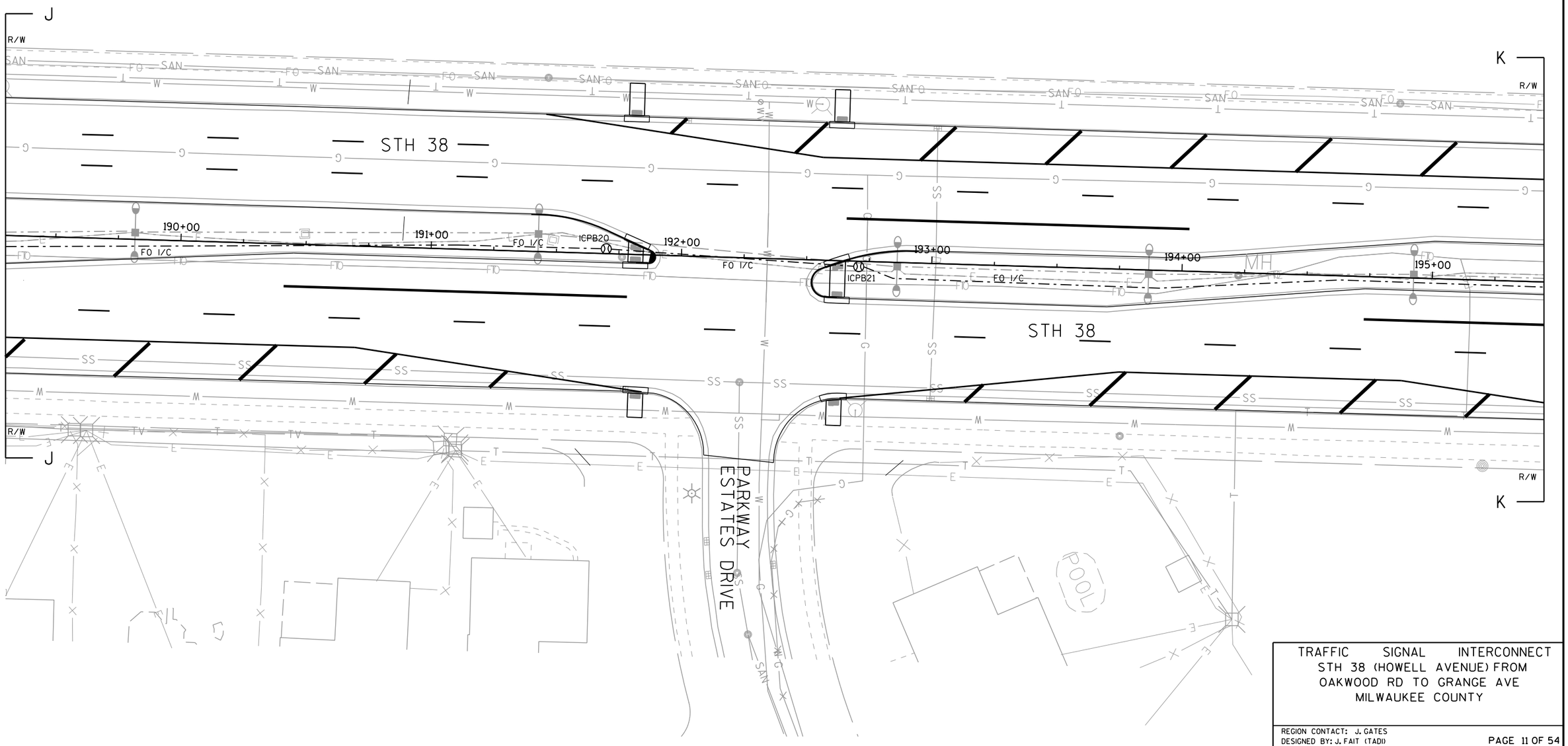
PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 413	E

2

N

LEGEND

- CONTROL CABINET
- TRAFFIC SIGNAL F/O INTERCONNECT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- COMMUNICATIONS VAULT



TRAFFIC SIGNAL INTERCONNECT
STH 38 (HOWELL AVENUE) FROM
OAKWOOD RD TO GRANGE AVE
MILWAUKEE COUNTY

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PAGE 11 OF 54

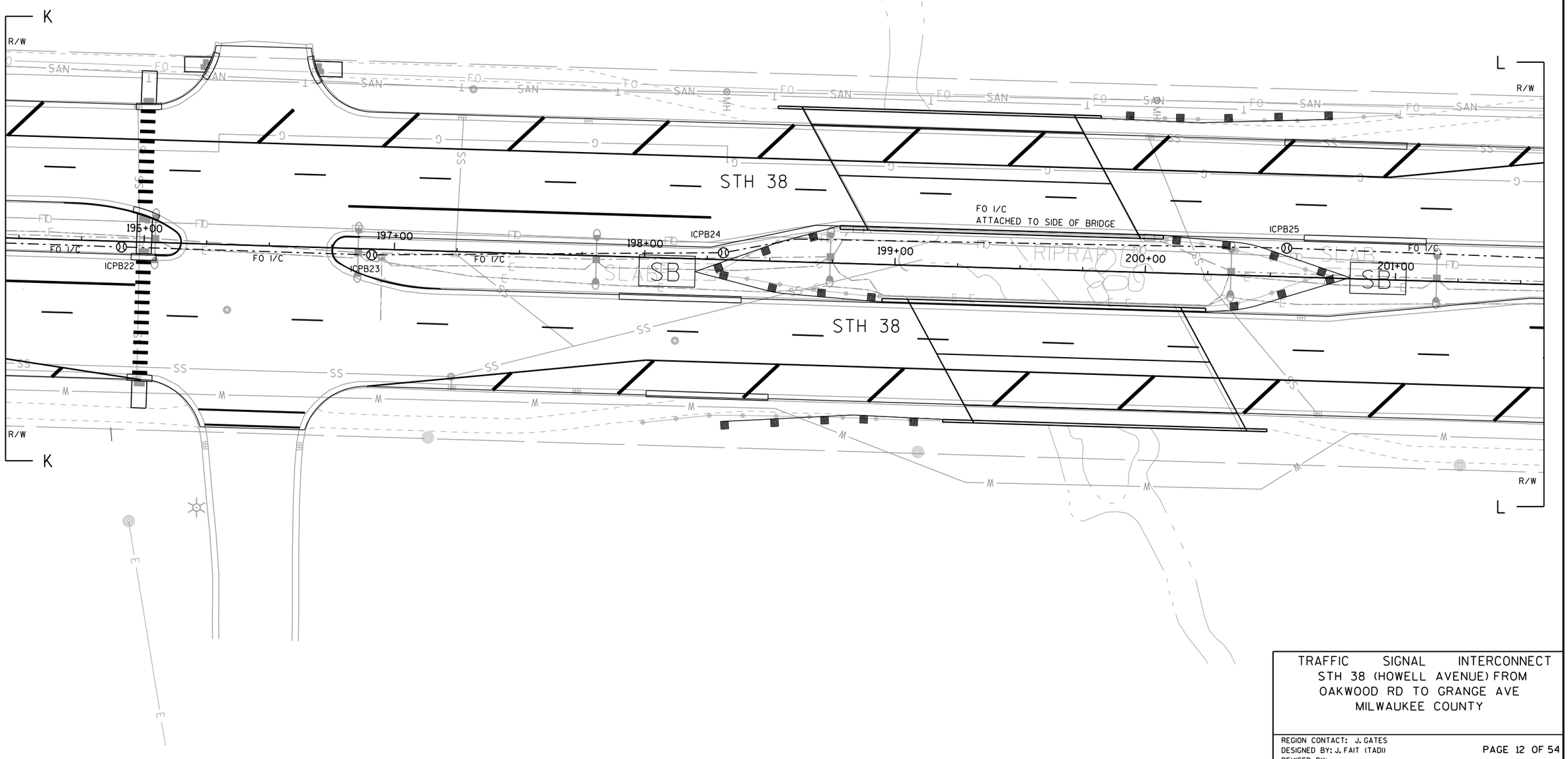
PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 414	E

2

N

LEGEND

- CONTROL CABINET
- TRAFFIC SIGNAL F/O INTERCONNECT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- COMMUNICATIONS VAULT



TRAFFIC SIGNAL INTERCONNECT
STH 38 (HOWELL AVENUE) FROM
OAKWOOD RD TO GRANGE AVE
MILWAUKEE COUNTY

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 415	E

FILE NAME : Proposed Interconnect.dgn
PLOT DATE : 12/22/2013
PLOT BY : DSCHNABEL-TADI
PLOT NAME :
PLOT SCALE : 40.0000 sf / in.
WISDOT/CADDS SHEET 42

2

N

OAK LEAF DRIVE

L

R/W

M

R/W

STH 38

ICPB26

202+00

FO I/C

203+00

ICPB27

FO I/C

204+00

205+00

FO I/C

206+00

207+00

STH 38

R/W

L

R/W

M

FLAG

LEGEND

- CONTROL CABINET
- TRAFFIC SIGNAL F/O INTERCONNECT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- COMMUNICATIONS VAULT

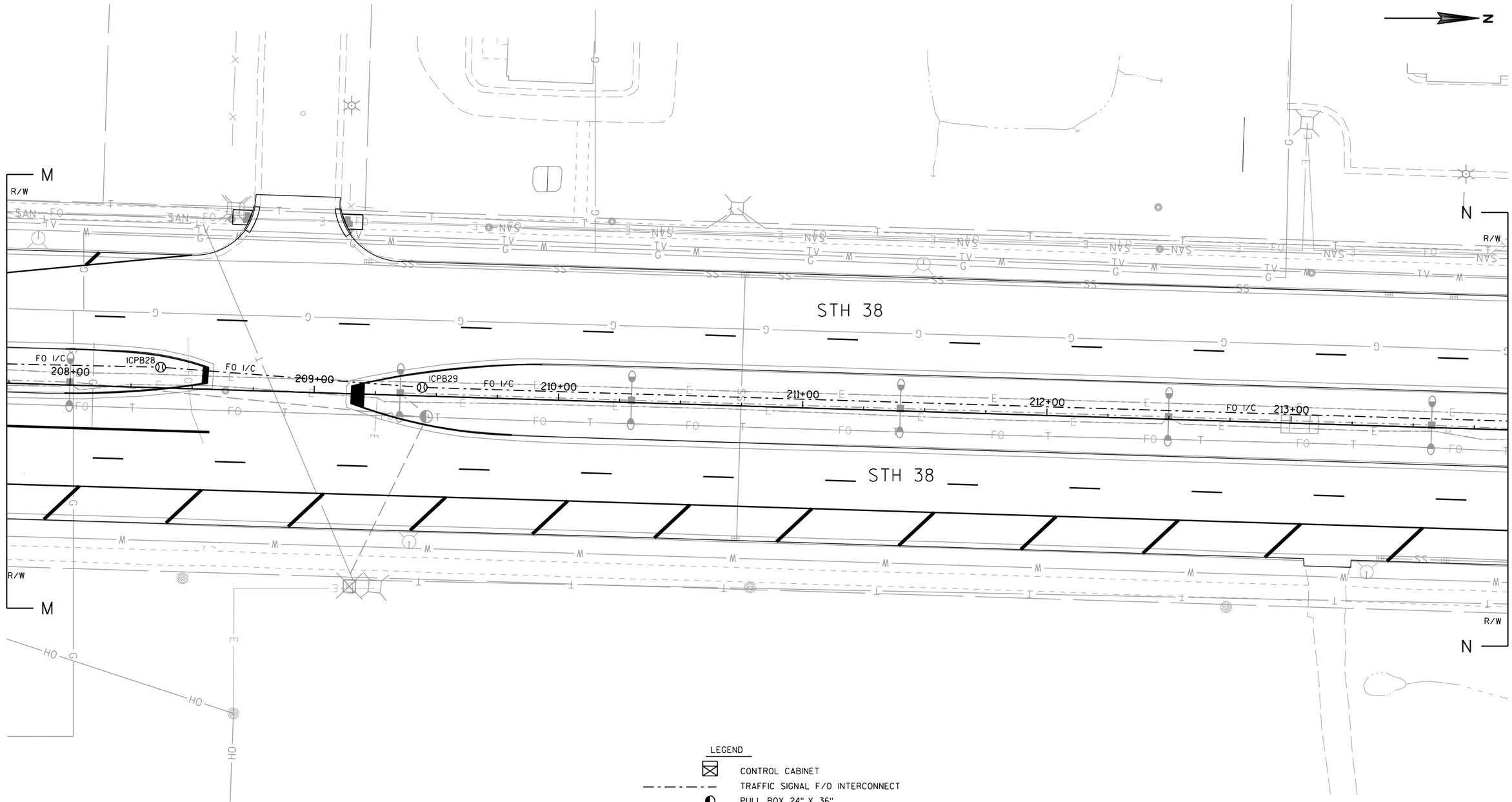
TRAFFIC SIGNAL INTERCONNECT
STH 38 (HOWELL AVENUE) FROM OAKWOOD RD TO GRANGE AVE
MILWAUKEE COUNTY

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 416	E

FILE NAME : Proposed Interconnect.dgn
PLOT DATE : 12/22/2013
PLOT BY : DSCHNABEL-TADI
PLOT NAME :
PLOT SCALE : 40.0000 sf / in.
WISDOT/CADDS SHEET 42

2



LEGEND

- CONTROL CABINET
- TRAFFIC SIGNAL F/O INTERCONNECT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- COMMUNICATIONS VAULT

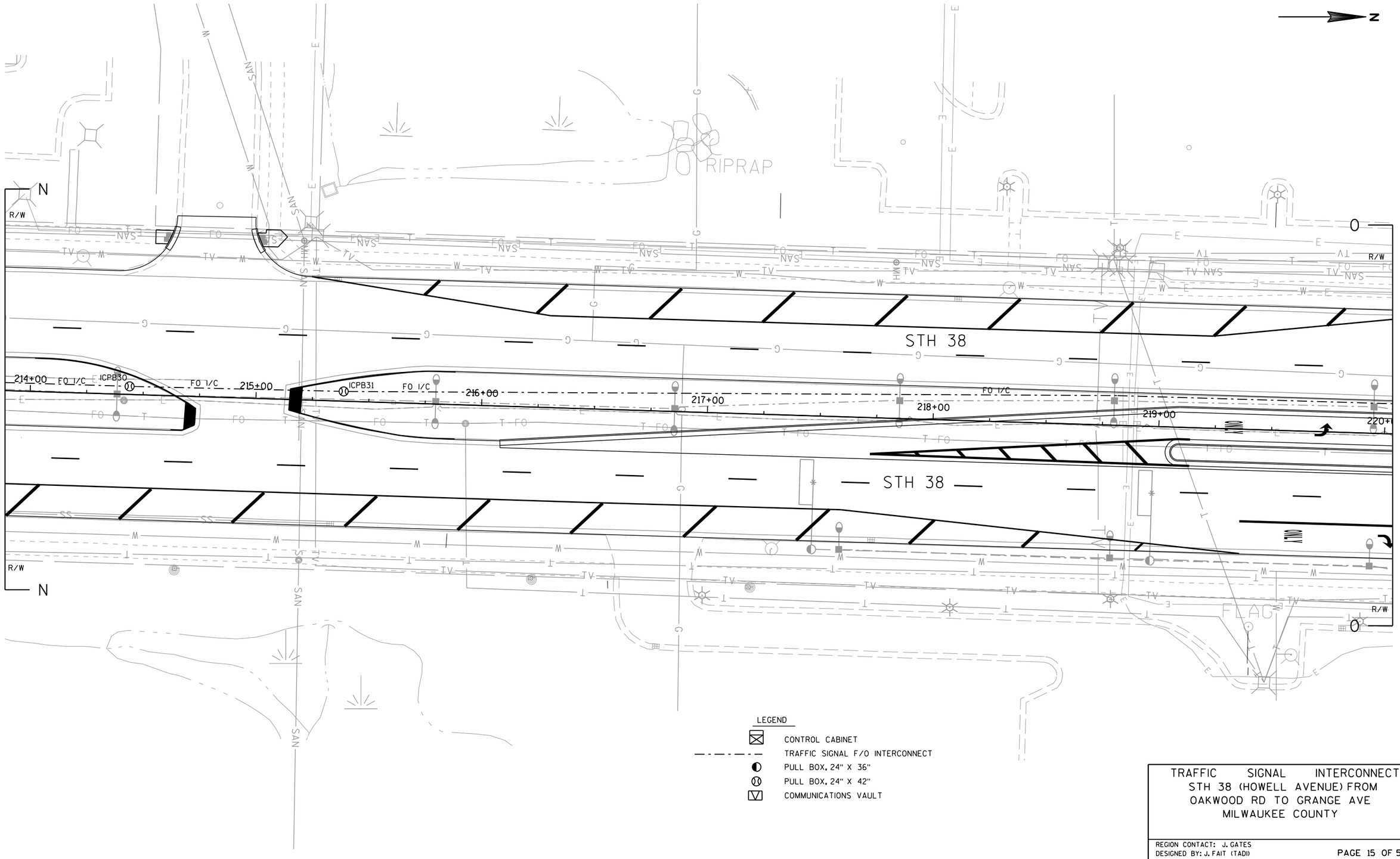
TRAFFIC SIGNAL INTERCONNECT
STH 38 (HOWELL AVENUE) FROM
OAKWOOD RD TO GRANGE AVE
MILWAUKEE COUNTY

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 417 E

FILE NAME : Proposed Interconnect.dgn
PLOT DATE : 12/22/2013
PLOT BY : DSCHNABEL-TADI
PLOT NAME :
PLOT SCALE : 40.0000 sf / in.
WISDOT/CADDS SHEET 42

2



TRAFFIC SIGNAL INTERCONNECT
STH 38 (HOWELL AVENUE) FROM
OAKWOOD RD TO GRANGE AVE
MILWAUKEE COUNTY

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 418	E

FILE NAME : Proposed Interconnect.dgn
PLOT DATE : 12/22/2013
PLOT BY : DSCHNABEL-TADI
PLOT NAME :
PLOT SCALE : 40.0000 sf / in.
WISDOT/CADDS SHEET 42

2

N

LEGEND

- CONTROL CABINET
- TRAFFIC SIGNAL F/O INTERCONNECT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- COMMUNICATIONS VAULT

CENTENNIAL DRIVE

ONLY

1¼" FO I/C
INSTALL FIBER OPTIC
PIGTAIL 6-CT

FIBER OPTIC SPLICE (8) AND
FIBER OPTIC SPLICE ENCLOSURE

CB1

CV3

FO I/C

ICPB32

ICPB33

STH 38

221+00

222+00

223+00

224+00

225+00

226+00

RIPRAP

R/W

U/C

TRAFFIC SIGNAL INTERCONNECT
STH 38 (HOWELL AVENUE) FROM
OAKWOOD RD TO GRANGE AVE
MILWAUKEE COUNTY

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PAGE 16 OF 54

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 419	E

2

N

LEGEND

- CONTROL CABINET
- TRAFFIC SIGNAL F/O INTERCONNECT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- COMMUNICATIONS VAULT

P

Q

R/W

STH 38

ICPB34

ICPB35

227+00

228+00

229+00

230+00

231+00

232+00

FO I/C

3 TURNS

RIPRAP

SLAB

A/C

SAN

TV

TRAFFIC SIGNAL INTERCONNECT
STH 38 (HOWELL AVENUE) FROM OAKWOOD RD TO GRANGE AVE
MILWAUKEE COUNTY

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 420	E

FILE NAME : Proposed Interconnect.dgn
PLOT DATE : 12/22/2013
PLOT BY : DSCHNABEL-TADI
PLOT NAME :
PLOT SCALE : 40.0000 sf / in.
WISDOT/CADDS SHEET 42

LEGEND

- CONTROL CABINET
- TRAFFIC SIGNAL F/O INTERCONNECT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- COMMUNICATIONS VAULT

N

PUETZ ROAD

CANOPY

STH 38

Q

R

R/W

SLAB

FLAG

ICPB36

ICPB37

ICPB38

ICPB39

CV4

CB1

F0 1/C

233+00

234+00

235+00

236+00

237+00

238+00

214+00

215+00

216+00

217+00

FIBER OPTIC SPLICE (8) AND FIBER OPTIC SPLICE ENCLOSURE

1¼" F0 1/C INSTALL FIBER OPTIC PIGTAIL 6-CT

TRAFFIC SIGNAL INTERCONNECT
STH 38 (HOWELL AVENUE) FROM OAKWOOD RD TO GRANGE AVE
MILWAUKEE COUNTY

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PAGE 18 OF 54

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 421	E

FILE NAME : Proposed Interconnect.dgn PLOT DATE : 12/22/2013 PLOT BY : DSCHNABEL-TADI PLOT NAME : PLOT SCALE : 40.0000 sf / in.

WISDOT/CADDS SHEET 42

2

LEGEND

- CONTROL CABINET
- TRAFFIC SIGNAL F/O INTERCONNECT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- COMMUNICATIONS VAULT

N

R

R/W

S

R/W

STH 38

239+00

240+00

241+00

242+00

243+00

244+00

ICPB40

ICPB41

FO I/C

STH 38

R/W

R

R/W

S

TRAFFIC SIGNAL INTERCONNECT
STH 38 (HOWELL AVENUE) FROM
OAKWOOD RD TO GRANGE AVE
MILWAUKEE COUNTY

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PAGE 19 OF 54

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 422	E

2

N

S

R/W

245+00

246+00

247+00

FO I/C ICPB42

248+00

FO I/C

ICPB43

249+00

250+00

STH 38

GROVELAND DRIVE

SLAB

SLAB

SLAB

SLAB

RIPRAP

FLAG

T

R/W

LEGEND

- CONTROL CABINET
- TRAFFIC SIGNAL F/O INTERCONNECT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- COMMUNICATIONS VAULT

TRAFFIC SIGNAL INTERCONNECT
STH 38 (HOWELL AVENUE) FROM
OAKWOOD RD TO GRANGE AVE
MILWAUKEE COUNTY

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PAGE 20 OF 54

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 423	E

FILE NAME : Proposed Interconnect.dgn

PLOT DATE : 12/22/2013

PLOT BY : DSCHNABEL-TADI

PLOT NAME :

PLOT SCALE : 40.0000 sf / in.

2

LEGEND

- CONTROL CABINET
- TRAFFIC SIGNAL F/O INTERCONNECT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- COMMUNICATIONS VAULT

N

T

U

R/W

STH 38

251+00

252+00

253+00

254+00

255+00

256+00

FO I/C

FLAG

LEGEND

- CONTROL CABINET
- TRAFFIC SIGNAL F/O INTERCONNECT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- COMMUNICATIONS VAULT

N

FOREST HILL AVENUE

ONE WAY

RIPRAP

1¼" FO I/C
INSTALL FIBER OPTIC
PIGTAIL 6-CT

CB1

CV5

FIBER OPTIC SPLICE (8) AND
FIBER OPTIC SPLICE ENCLOSURE

STH 38

257+00

258+00

259+00

260+00

261+00

262+00

263+00

100+00

101+00

FO I/C

ICPB44

ICPB45

U

V

R/W

TRAFFIC SIGNAL INTERCONNECT
STH 38 (HOWELL AVENUE) FROM
OAKWOOD RD TO GRANGE AVE
MILWAUKEE COUNTY

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PAGE 22 OF 54

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 425	E

LEGEND

- CONTROL CABINET
- TRAFFIC SIGNAL F/O INTERCONNECT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- COMMUNICATIONS VAULT

N

STH 38

264+00

265+00

266+00

267+00

268+00

269+00

ICPB46

ICPB47

F0 I/C

R/W

V

W

STH 38

A/C

POOL

SLAB

OAKFIELD DRIVE

TRAFFIC SIGNAL INTERCONNECT
STH 38 (HOWELL AVENUE) FROM
OAKWOOD RD TO GRANGE AVE
MILWAUKEE COUNTY

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 426	E

FILE NAME : Proposed Interconnect.dgn
PLOT DATE : 12/22/2013
PLOT BY : DSCHNABEL-TADI
PLOT NAME :
PLOT SCALE : 40.0000 sf / in.
WISDOT/CADDS SHEET 42

LEGEND

- CONTROL CABINET
- TRAFFIC SIGNAL F/O INTERCONNECT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- COMMUNICATIONS VAULT

N

W

R/W

SLAB

STH 38

X

R/W

270+00

271+00

272+00

FO I/C

273+00

FO I/C

274+00

FO I/C

275+00

STH 38

R/W

W

A/C

R/W

X

TRAFFIC SIGNAL INTERCONNECT
STH 38 (HOWELL AVENUE) FROM
OAKWOOD RD TO GRANGE AVE
MILWAUKEE COUNTY

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PAGE 24 OF 54

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 427	E

FILE NAME : Proposed Interconnect.dgn PLOT DATE : 12/22/2013 PLOT BY : DSCHNABEL-TADI PLOT NAME : PLOT SCALE : 40.0000 sf / in.

LEGEND

- CONTROL CABINET
- TRAFFIC SIGNAL F/O INTERCONNECT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- COMMUNICATIONS VAULT

N

STH 38

SUSAN DRIVE

ICPB48

ICPB49

CB1

CV6

276+00

277+00

278+00

279+00

280+00

281+00

FO I/C

FIBER OPTIC SPLICE (8) AND FIBER OPTIC SPLICE ENCLOSURE

1¼" FO I/C INSTALL FIBER OPTIC PIGTAIL 6-CT

R/W

X

Y

TRAFFIC SIGNAL INTERCONNECT
STH 38 (HOWELL AVENUE) FROM
OAKWOOD RD TO GRANGE AVE
MILWAUKEE COUNTY

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 428	E

FILE NAME : Proposed Interconnect.dgn PLOT DATE : 12/22/2013 PLOT BY : DSCHNABEL-TADI PLOT NAME : PLOT SCALE : 40.0000 sf / in.

WISDOT/CADDS SHEET 42

LEGEND

- CONTROL CABINET
- TRAFFIC SIGNAL F/O INTERCONNECT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- COMMUNICATIONS VAULT

N

STH 38

282+00
283+00
284+00
285+00
286+00
287+00

FO I/C

ICPB50

CV7

FIBER OPTIC SPLICE (8) AND
FIBER OPTIC SPLICE ENCLOSURE

1¼" FO I/C
INSTALL FIBER OPTIC
PIGTAIL 6-CT

CB1

40'

R/W

Y

OAKLEY

DREXEL AVENUE

TRAFFIC SIGNAL INTERCONNECT
STH 38 (HOWELL AVENUE) FROM
OAKWOOD RD TO GRANGE AVE
MILWAUKEE COUNTY

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PAGE 26 OF 54

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 429	E

FILE NAME : Proposed Interconnect.dgn PLOT DATE : 12/22/2013 PLOT BY : DSCHNABEL-TADI PLOT NAME : PLOT SCALE : 40.0000 sf / in.

WISDOT/CADDS SHEET 42

2

LEGEND

- CONTROL CABINET
- TRAFFIC SIGNAL F/O INTERCONNECT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- COMMUNICATIONS VAULT

N

DREXEL AVENUE

STH 38

STH 38

ICPB52

ICPB51

FO I/C

3115+00

3116+00

3117+00

288+00

289+00

290+00

291+00

292+00

293+00

AA

Z

R/W

ONLY

ONLY

ONLY

TRAFFIC SIGNAL INTERCONNECT
STH 38 (HOWELL AVENUE) FROM
OAKWOOD RD TO GRANGE AVE
MILWAUKEE COUNTY

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 430	E

FILE NAME : Proposed Interconnect.dgn
PLOT DATE : 12/22/2013
PLOT BY : DSCHNABEL-TADI
PLOT NAME :
PLOT SCALE : 40.0000 sf / in.
WISDOT/CADDS SHEET 42

LEGEND

- CONTROL CABINET
- TRAFFIC SIGNAL F/O INTERCONNECT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- COMMUNICATIONS VAULT

N

AA

AB

R/W

STH 38

294+00

295+00

296+00

297+00

298+00

299+00

FO I/C

ICPB53

ICPB54

SLAB

CEMETERY

OH

TV

FO

SAN

TRAFFIC SIGNAL INTERCONNECT
STH 38 (HOWELL AVENUE) FROM
OAKWOOD RD TO GRANGE AVE
MILWAUKEE COUNTY

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PAGE 28 OF 54

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 431	E

FILE NAME : Proposed Interconnect.dgn PLOT DATE : 12/22/2013 PLOT BY : DSCHNABEL-TADI PLOT NAME : PLOT SCALE : 40.0000 sf / in.

WISDOT/CADDS SHEET 42

2

LEGEND

- CONTROL CABINET
- TRAFFIC SIGNAL F/O INTERCONNECT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- COMMUNICATIONS VAULT

N

AB

AC

R/W

STH 38

300+00

301+00

302+00

303+00

304+00

305+00

306+00

FO I/C

TRAFFIC SIGNAL INTERCONNECT
STH 38 (HOWELL AVENUE) FROM
OAKWOOD RD TO GRANGE AVE
MILWAUKEE COUNTY

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 432	E

FILE NAME : Proposed Interconnect.dgn
PLOT DATE : 12/22/2013
PLOT BY : DSCHNABEL-TADI
PLOT NAME :
PLOT SCALE : 40.0000 sf / in.
WISDOT/CADDS SHEET 42

2

N

AC

R/W

AD

R/W

STH 38

STH 38

MANITOBA AVENUE

U/C

FLAG

SLAB

ICPB55

307+00

FO I/C

308+00

309+00

310+00

311+00

312+00

ICPB56

FO I/C

FO I/C

LEGEND

- CONTROL CABINET
- TRAFFIC SIGNAL F/O INTERCONNECT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- COMMUNICATIONS VAULT

TRAFFIC SIGNAL INTERCONNECT
STH 38 (HOWELL AVENUE) FROM
OAKWOOD RD TO GRANGE AVE
MILWAUKEE COUNTY

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 433	E

FILE NAME : Proposed Interconnect.dgn
PLOT DATE : 12/22/2013
PLOT BY : DSCHNABEL-TADI
PLOT NAME :
PLOT SCALE : 40.0000 sf / in.
WISDOT/CADDS SHEET 42

2

N

MARQUETTE AVENUE

AD

R/W

AE

R/W

STH 38

STH 38

313+00

314+00

315+00

316+00

317+00

318+00

ICPB57

ICPB58

FO I/C

FO I/C

FO I/C

R/W

AD

R/W

AE

LEGEND

- CONTROL CABINET
- TRAFFIC SIGNAL F/O INTERCONNECT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- COMMUNICATIONS VAULT

TRAFFIC SIGNAL INTERCONNECT
STH 38 (HOWELL AVENUE) FROM
OAKWOOD RD TO GRANGE AVE
MILWAUKEE COUNTY

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 434	E

FILE NAME : Proposed Interconnect.dgn PLOT DATE : 12/22/2013 PLOT BY : DSCHNABEL-TADI PLOT NAME : PLOT SCALE : 40.0000 sf / in.

WISDOT/CADDS SHEET 42

2

LEGEND

- CONTROL CABINET
- TRAFFIC SIGNAL F/O INTERCONNECT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- COMMUNICATIONS VAULT

N

AE

R/W

AF

R/W

STH 38

319+00

F0 I/C

320+00

F0 I/C ICPB59

321+00

F0 I/C

322+00

323+00

ICPB60

F0 I/C

324+00

STH 38

SLAB

R/W

AE

R/W

AF

MAHN COURT

MAHN COURT

TRAFFIC SIGNAL INTERCONNECT
STH 38 (HOWELL AVENUE) FROM
OAKWOOD RD TO GRANGE AVE
MILWAUKEE COUNTY

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PAGE 32 OF 54

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 435	E

FILE NAME : Proposed Interconnect.dgn PLOT DATE : 12/22/2013 PLOT BY : DSCHNABEL-TADI PLOT NAME : PLOT SCALE : 40.0000 sf / in.

2

LEGEND

- CONTROL CABINET
- TRAFFIC SIGNAL F/O INTERCONNECT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- COMMUNICATIONS VAULT

N

TOWER

AF

R/W

AG

R/W

STH 38

325+00

326+00

327+00

328+00

329+00

330+00

F0 I/C

ICPB61

ICPB62

STH 38

SLAB

RUNS

GUY

R/W

AF

R/W

AG

TRAFFIC SIGNAL INTERCONNECT
STH 38 (HOWELL AVENUE) FROM
OAKWOOD RD TO GRANGE AVE
MILWAUKEE COUNTY

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 436	E

FILE NAME : Proposed Interconnect.dgn PLOT DATE : 12/22/2013 PLOT BY : DSCHNABEL-TADI PLOT NAME : PLOT SCALE : 40.0000 sf / in.

WISDOT/CADDS SHEET 42

2

LEGEND

- CONTROL CABINET
- TRAFFIC SIGNAL F/O INTERCONNECT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- COMMUNICATIONS VAULT

N

AG

R/W

AH

R/W

STH 38

331+00

332+00

333+00

334+00

335+00

336+00

FO I/C

ICPB63

ICPB64

STH 38

AG

R/W

AH

R/W

TRAFFIC SIGNAL INTERCONNECT
STH 38 (HOWELL AVENUE) FROM
OAKWOOD RD TO GRANGE AVE
MILWAUKEE COUNTY

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 437	E

FILE NAME : Proposed Interconnect.dgn PLOT DATE : 12/22/2013 PLOT BY : DSCHNABEL-TADI PLOT NAME : PLOT SCALE : 40.0000 sf / in.

WISDOT/CADDS SHEET 42

2

2

N

R/W

AH

STH 38

RAWSON AVENUE (CTH BB)

4115+00

4116+00

4117+00

4118+00

40'

ONLY

ONLY

337+00

338+00

339+00

340+00

341+00

342+00

343

ICPB65

ICPB67

ICPB66

FO I/C

CV8

CB1

FIBER OPTIC SPLICE (8) AND FIBER OPTIC SPLICE ENCLOSURE

1¼" FO I/C INSTALL FIBER OPTIC PIGTAIL 6-CT

AI

LEGEND

- CONTROL CABINET
- TRAFFIC SIGNAL F/O INTERCONNECT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- COMMUNICATIONS VAULT

TRAFFIC SIGNAL INTERCONNECT
STH 38 (HOWELL AVENUE) FROM
OAKWOOD RD TO GRANGE AVE
MILWAUKEE COUNTY

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PAGE 35 OF 54

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 438	E

FILE NAME : Proposed Interconnect.dgn PLOT DATE : 12/22/2013 PLOT BY : DSCHNABEL-TADI PLOT NAME : PLOT SCALE : 40.0000 sf / in.

WISDOT/CADDS SHEET 42

2

2

N

LEGEND

- CONTROL CABINET
- TRAFFIC SIGNAL F/O INTERCONNECT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- COMMUNICATIONS VAULT

R/W AI

R/W AJ

STH 38

344+00

345+00

346+00

347+00

348+00

349+00

ICPB68

ICPB69

FO I/C

STH 38

AI

AJ

R/W

TRAFFIC SIGNAL INTERCONNECT
STH 38 (HOWELL AVENUE) FROM OAKWOOD RD TO GRANGE AVE
MILWAUKEE COUNTY

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 439	E

FILE NAME : Proposed Interconnect.dgn
PLOT DATE : 12/22/2013
PLOT BY : DSCHNABEL-TADI
PLOT NAME :
PLOT SCALE : 40.0000 sf / in.
WISDOT/CADDS SHEET 42

LEGEND

- CONTROL CABINET
- TRAFFIC SIGNAL F/O INTERCONNECT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- COMMUNICATIONS VAULT

N

PLAYGROUND

R/W

AJ

AK

STH 38

350+00

351+00

352+00

353+00

354+00

355+00

FO I/C

FO I/C

R/W

AJ

R/W

AK

TRAFFIC SIGNAL INTERCONNECT
STH 38 (HOWELL AVENUE) FROM
OAKWOOD RD TO GRANGE AVE
MILWAUKEE COUNTY

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PAGE 37 OF 54

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 440 E

FILE NAME : Proposed Interconnect.dgn PLOT DATE : 12/22/2013 PLOT BY : DSCHNABEL-TADI PLOT NAME : PLOT SCALE : 40.0000 sf / in.

WISDOT/CADDS SHEET 42

2

LEGEND

- CONTROL CABINET
- TRAFFIC SIGNAL F/O INTERCONNECT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- COMMUNICATIONS VAULT

N

AK

AL

R/W

STH 38

356+00

357+00

358+00

359+00

360+00

361+00

F/O I/C

ICPB70

ICPB71

TRAFFIC SIGNAL INTERCONNECT
STH 38 (HOWELL AVENUE) FROM
OAKWOOD RD TO GRANGE AVE
MILWAUKEE COUNTY

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PAGE 38 OF 54

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 441	E

FILE NAME : Proposed Interconnect.dgn PLOT DATE : 12/22/2013 PLOT BY : DSCHNABEL-TADI PLOT NAME : PLOT SCALE : 40.0000 sf / in.

2

N

LEGEND

- CONTROL CABINET
- TRAFFIC SIGNAL F/O INTERCONNECT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- COMMUNICATIONS VAULT

AL

AM

STH 38

362+00

363+00

364+00

365+00

366+00

367+00

ICPB72

ICPB73

ICPB74

F0 I/C

R/W

FLAG

SLAB

SAN

OAK STREET

TRAFFIC SIGNAL INTERCONNECT
STH 38 (HOWELL AVENUE) FROM
OAKWOOD RD TO GRANGE AVE
MILWAUKEE COUNTY

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PAGE 39 OF 54

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 442	E

FILE NAME : Proposed Interconnect.dgn PLOT DATE : 12/22/2013 PLOT BY : DSCHNABEL-TADI PLOT NAME : PLOT SCALE : 40.0000 sf / in.

2

2

N

LEGEND

- CONTROL CABINET
- TRAFFIC SIGNAL F/O INTERCONNECT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- COMMUNICATIONS VAULT

AM

R/W

AN

R/W

STH 38

368+00

369+00

370+00

371+00

372+00

373+00

ICPB75

F/O I/C

F/O I/C

F/O I/C

STH 38

R/W

AM

R/W

AN

TRAFFIC SIGNAL INTERCONNECT
STH 38 (HOWELL AVENUE) FROM
OAKWOOD RD TO GRANGE AVE
MILWAUKEE COUNTY

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PAGE 40 OF 54

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 443 E

FILE NAME : Proposed Interconnect.dgn PLOT DATE : 12/22/2013 PLOT BY : DSCHNABEL-TADI PLOT NAME : PLOT SCALE : 40.0000 sf / in.

WISDOT/CADDS SHEET 42

LEGEND

- CONTROL CABINET
- TRAFFIC SIGNAL F/O INTERCONNECT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- COMMUNICATIONS VAULT

N

AN

AO

R/W

STH 38

374+00

375+00

376+00

377+00

378+00

379+00

FO I/C

ICPB76

ICPB77

JEWELL STREET

FLAG

IPRAP

RAP

TRAFFIC SIGNAL INTERCONNECT
STH 38 (HOWELL AVENUE) FROM OAKWOOD RD TO GRANGE AVE
MILWAUKEE COUNTY

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PAGE 41 OF 54

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 444	E

FILE NAME : Proposed Interconnect.dgn PLOT DATE : 12/22/2013 PLOT BY : DSCHNABEL-TADI PLOT NAME : PLOT SCALE : 40.0000 sf / in.

WISDOT/CADDS SHEET 42

LEGEND

- CONTROL CABINET
- TRAFFIC SIGNAL F/O INTERCONNECT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- COMMUNICATIONS VAULT

N

A0

AP

R/W

STH 38

FO I/C

380+00

381+00

382+00

383+00

384+00

385+00

386+00

SLAB

FLAG

A/C

TRAFFIC SIGNAL INTERCONNECT
STH 38 (HOWELL AVENUE) FROM
OAKWOOD RD TO GRANGE AVE
MILWAUKEE COUNTY

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PAGE 42 OF 54

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 445	E

FILE NAME : Proposed Interconnect.dgn PLOT DATE : 12/22/2013 PLOT BY : DSCHNABEL-TADI PLOT NAME : PLOT SCALE : 40.0000 sf / in.

WISDOT/CADDS SHEET 42

2

LEGEND

- CONTROL CABINET
- TRAFFIC SIGNAL F/O INTERCONNECT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- COMMUNICATIONS VAULT

N

RAMP

AP

AQ

R/W

STH 38

387+00

388+00

389+00

390+00

391+00

392+00

ICPB78

ICPB79

F0 I/C

CEMETERY

CEMETERY

TRAFFIC SIGNAL INTERCONNECT
STH 38 (HOWELL AVENUE) FROM
OAKWOOD RD TO GRANGE AVE
MILWAUKEE COUNTY

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PAGE 43 OF 54

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 446	E

2

LEGEND

- CONTROL CABINET
- TRAFFIC SIGNAL F/O INTERCONNECT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- COMMUNICATIONS VAULT

N

AQ

AR

STH 38

COLLEGE AVENUE (CTH ZZ)

ONLY

R/W

ICPB80

ICPB81

CV9

CB1

FIBER OPTIC SPLICE (8) AND FIBER OPTIC SPLICE ENCLOSURE

1¼" FO I/C INSTALL FIBER OPTIC PIGTAIL 6-CT

393+00

394+00

395+00

396+00

397+00

398+00

5117+00

5118+00

5119+00

TRAFFIC SIGNAL INTERCONNECT
STH 38 (HOWELL AVENUE) FROM
OAKWOOD RD TO GRANGE AVE
MILWAUKEE COUNTY

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 447	E

FILE NAME : Proposed Interconnect.dgn
PLOT DATE : 12/22/2013
PLOT BY : DSCHNABEL-TADI
PLOT NAME :
PLOT SCALE : 40.0000 sf / in.
WISDOT/CADDS SHEET 42

LEGEND

- CONTROL CABINET
- TRAFFIC SIGNAL F/O INTERCONNECT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- COMMUNICATIONS VAULT

N

UNCAS AVENUE

STH 38

STH 38

399+00

400+00

401+00

402+00

403+00

404+00

FO I/C

ICPB82

ICPB83

AR

AS

R/W

STATUE

FLAG

TRAFFIC SIGNAL INTERCONNECT
STH 38 (HOWELL AVENUE) FROM
OAKWOOD RD TO GRANGE AVE
MILWAUKEE COUNTY

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PAGE 45 OF 54

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 448	E

FILE NAME : Proposed Interconnect.dgn PLOT DATE : 12/22/2013 PLOT BY : DSCHNABEL-TADI PLOT NAME : PLOT SCALE : 40.0000 sf / in.

WISDOT/CADDS SHEET 42

2

LEGEND

- CONTROL CABINET
- TRAFFIC SIGNAL F/O INTERCONNECT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- COMMUNICATIONS VAULT

N

AS

AT

R/W

STH 38

STH 38

BOWDEN STREET

405+00

406+00

407+00

408+00

409+00

410+00

F/O I/C

ICPB84

CEMETERY

CEMETERY

TRAFFIC SIGNAL INTERCONNECT
STH 38 (HOWELL AVENUE) FROM
OAKWOOD RD TO GRANGE AVE
MILWAUKEE COUNTY

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PAGE 46 OF 54

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 449	E

FILE NAME : Proposed Interconnect.dgn PLOT DATE : 12/22/2013 PLOT BY : DSCHNABEL-TADI PLOT NAME : PLOT SCALE : 40.0000 sf / in.

LEGEND

- CONTROL CABINET
- TRAFFIC SIGNAL F/O INTERCONNECT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- COMMUNICATIONS VAULT

N

AT

AU

STH 38

STH 38

411+00 F0 I/C

412+00

ICPB85

ICPB86 413+00

F0 I/C

414+00

ICPB87

F0 I/C

415+00

416+00

FILLER CAP

VACUUM FILLER CAP

CANOPY

CANOPY

CANOPY

FLAG

FLAG

R/W

R/W

R/W

R/W

TRAFFIC SIGNAL INTERCONNECT
STH 38 (HOWELL AVENUE) FROM
OAKWOOD RD TO GRANGE AVE
MILWAUKEE COUNTY

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

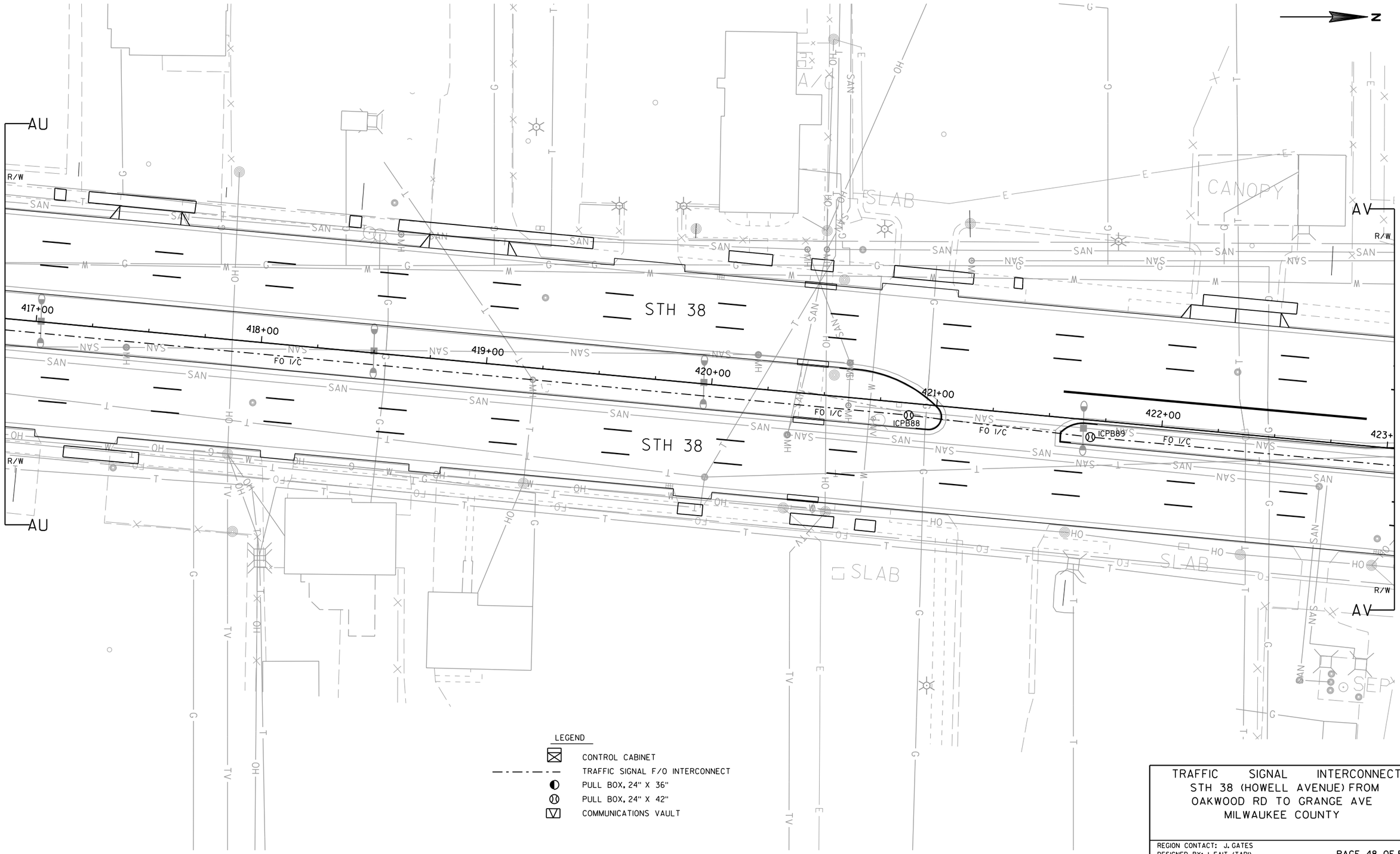
PAGE 47 OF 54

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 450	E

FILE NAME : Proposed Interconnect.dgn PLOT DATE : 12/22/2013 PLOT BY : DSCHNABEL-TADI PLOT NAME : PLOT SCALE : 40.0000 sf / in.

WISDOT/CADDS SHEET 42

2



TRAFFIC SIGNAL INTERCONNECT
STH 38 (HOWELL AVENUE) FROM
OAKWOOD RD TO GRANGE AVE
MILWAUKEE COUNTY

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 451	E

FILE NAME : Proposed Interconnect.dgn
PLOT DATE : 12/22/2013
PLOT BY : DSCHNABEL-TADI
PLOT NAME :
PLOT SCALE : 40.0000 sf / in.
WISDOT/CADDS SHEET 42

2

N

AV

AW

R/W

STH 38

424+00

425+00

426+00

427+00

428+00

ICPB90

ICPB91

ICPB92

ICPB93

F0 I/C

SB

PERIMETER ROAD

CITATION WAY

SLAB

LEGEND

- CONTROL CABINET
- TRAFFIC SIGNAL F/O INTERCONNECT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- COMMUNICATIONS VAULT

TRAFFIC SIGNAL INTERCONNECT
STH 38 (HOWELL AVENUE) FROM
OAKWOOD RD TO GRANGE AVE
MILWAUKEE COUNTY

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 452	E

FILE NAME : Proposed Interconnect.dgn PLOT DATE : 12/22/2013 PLOT BY : DSCHNABEL-TADI PLOT NAME : PLOT SCALE : 40.0000 sf / in.

WISDOT/CADDS SHEET 42

2

N

R/W

AW

AX

STH 38

STH 38

430+00

431+00

432+00

433+00

434+00

435+00

LEGEND

- CONTROL CABINET
- TRAFFIC SIGNAL F/O INTERCONNECT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- COMMUNICATIONS VAULT

TRAFFIC SIGNAL INTERCONNECT
STH 38 (HOWELL AVENUE) FROM OAKWOOD RD TO GRANGE AVE
MILWAUKEE COUNTY

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 453	E

FILE NAME : Proposed Interconnect.dgn
PLOT DATE : 12/22/2013
PLOT BY : DSCHNABEL-TADI
PLOT NAME :
PLOT SCALE : 40.0000 sf / in.
WISDOT/CADDS SHEET 42

2

2

N

R/W

AX

AY

STH 38

STH 38

FO I/C

ICPB94

ICPB95

SB

436+00

437+00

438+00

439+00

440+00

441+00

LEGEND

- CONTROL CABINET
- TRAFFIC SIGNAL F/O INTERCONNECT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- COMMUNICATIONS VAULT

TRAFFIC SIGNAL INTERCONNECT
STH 38 (HOWELL AVENUE) FROM
OAKWOOD RD TO GRANGE AVE
MILWAUKEE COUNTY

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PAGE 51 OF 54

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 454	E

FILE NAME : Proposed Interconnect.dgn PLOT DATE : 12/22/2013 PLOT BY : DSCHNABEL-TADI PLOT NAME : PLOT SCALE : 40.0000 sf / in.

WISDOT/CADDS SHEET 42

2

N

AY

AZ

R/W

STH 38

443+00

444+00

445+00

446+00

447+00

442+00

ICPB96

ICPB97

FO I/C

RIPRAP

LEGEND

- CONTROL CABINET
- TRAFFIC SIGNAL F/O INTERCONNECT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- COMMUNICATIONS VAULT

TRAFFIC SIGNAL INTERCONNECT
STH 38 (HOWELL AVENUE) FROM
OAKWOOD RD TO GRANGE AVE
MILWAUKEE COUNTY

REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 455	E

FILE NAME : Proposed Interconnect.dgn PLOT DATE : 12/22/2013 PLOT BY : DSCHNABEL-TADI PLOT NAME : PLOT SCALE : 40.0000 sf / in.

WISDOT/CADDS SHEET 42

2

N

AZ

BA

STH 119 EB OFF RAMP

STH 38

1¼" FO I/C
INSTALL FIBER OPTIC PIGTAIL 6-CT

CB1

FIBER OPTIC SPLICE (8) AND FIBER OPTIC SPLICE ENCLOSURE

CV10

ICPB98

448+00 449+00 450+00 451+00 452+00 453+00

FO I/C

R/W

LEGEND

- CONTROL CABINET
- TRAFFIC SIGNAL F/O INTERCONNECT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- COMMUNICATIONS VAULT

TRAFFIC SIGNAL INTERCONNECT
STH 38 (HOWELL AVENUE) FROM
OAKWOOD RD TO GRANGE AVE
MILWAUKEE COUNTY

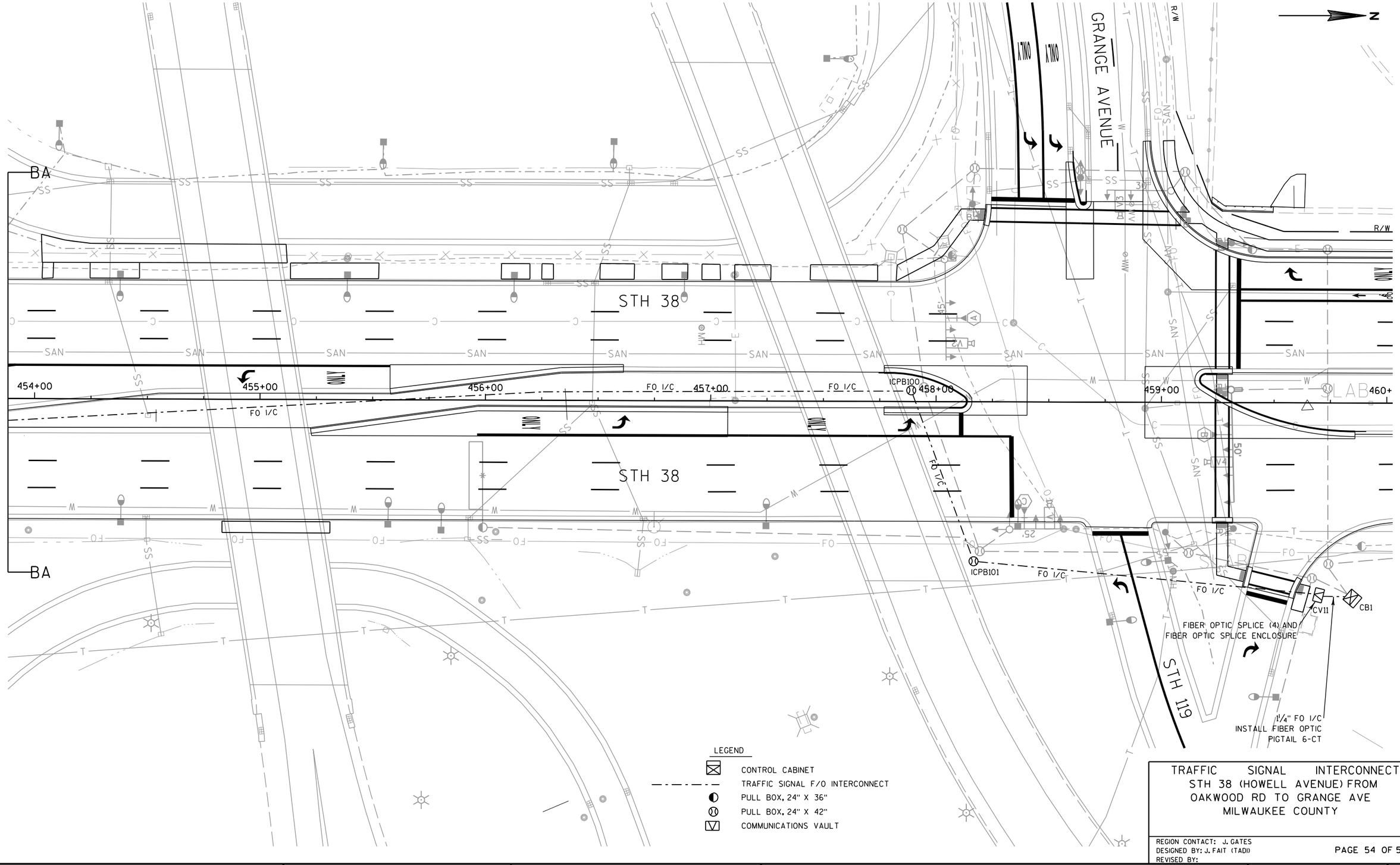
REGION CONTACT: J. GATES
DESIGNED BY: J. FAIT (TADI)
REVISED BY:

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT PLAN	SHEET 456	E

FILE NAME : Proposed Interconnect.dgn PLOT DATE : 12/22/2013 PLOT BY : DSCHNABEL-TADI PLOT NAME : PLOT SCALE : 40.0000 sf / in.

WISDOT/CADDS SHEET 42

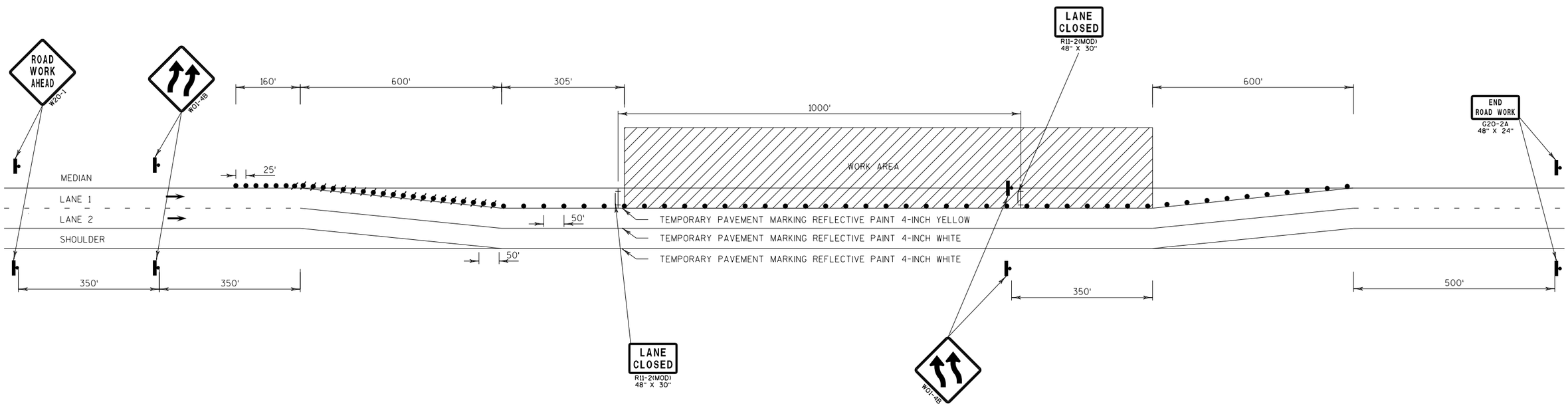
2


N
GRANGE AVENUE
ONLY
ONLY
R/W
R/W
ONLY
STH 38
STH 38
454+00
455+00
456+00
457+00
458+00
459+00
460+
F0 I/C
F0 I/C
F0 I/C
F0 I/C
ICPB100
ICPB101
SLAB
BA
BA
SAN
SAN
SAN

2

NOTE

SEE TRAFFIC CONTROL STAGING SHEETS FOR
LOCATIONS WHERE THIS DETAIL SHALL BE USED



LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C LIGHT
- WORK AREA
- DIRECTION OF TRAFFIC

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC CONTROL DETAIL - LANE SHIFT	SHEET 458	E

2

NOTES

NOTES APPLY TO ALL STAGE 1 SHEETS

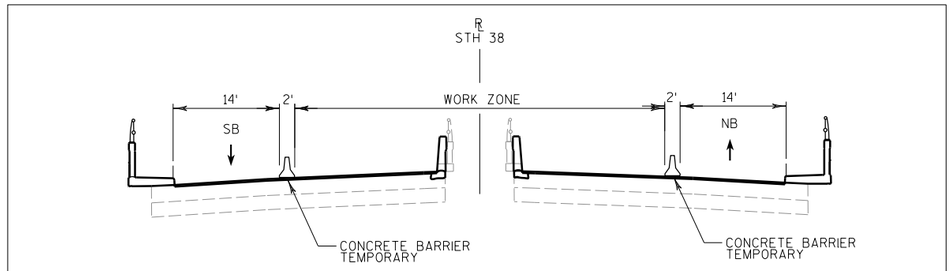
MAINTAIN ACCESS AT ALL INTERSECTIONS, DRIVEWAYS,
AND SELECT MEDIAN OPENINGS AS SHOWN ON THE PLAN.

PHASE CURB RAMP AND INTERSECTION WORK TO MAINTAIN PEDESTRIAN ACCESS.
SEE SDD "TRAFFIC CONTROL, SIDEWALK CLOSURE"

MAINTAIN ONE LANE IN EACH TRAVEL DIRECTION DURING NIGHT WORK,
MAINTAIN TWO LANES IN EACH DIRECTION AT ALL OTHER TIMES.

MAINTAIN TWO LANES IN EACH DIRECTION NORTH OF COLLEGE AVE
DURING DAY TIME HOURS

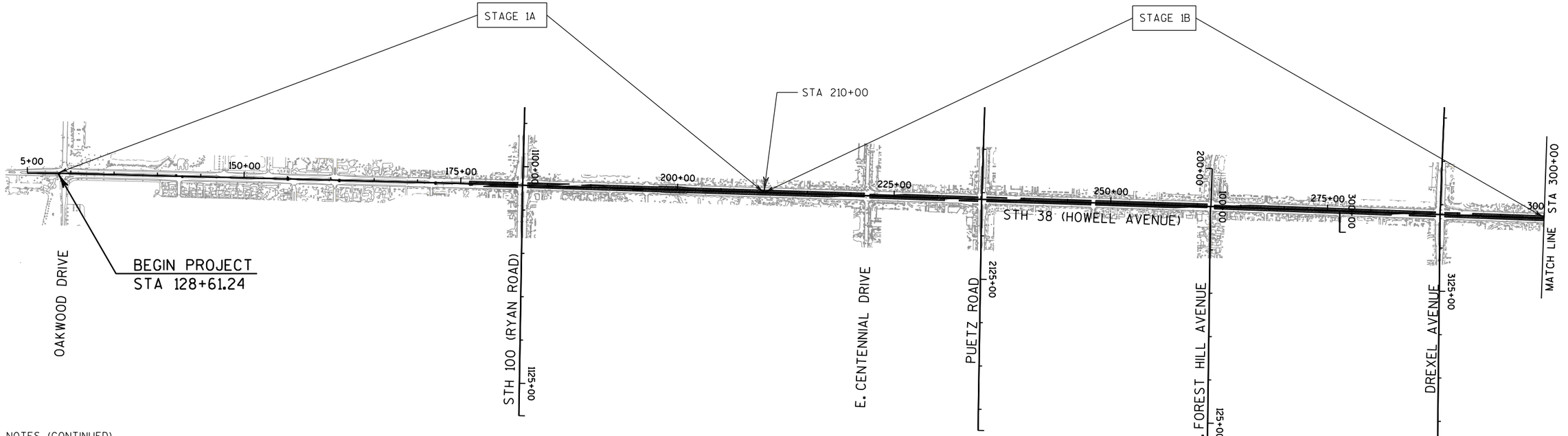
PROVIDE WEDGING BETWEEN ADJACENT LANES WHEN DROP OFF
BETWEEN ADJACENT LANES IS GREATER THAN ONE INCH, TO BE PAID
AS ASPHALTIC SURFACE TEMPORARY AND REMOVING ASPHALTIC SURFACE.



B-40-294, B-40-295
STA. 198+87.78 TO STA. 200+14.33

N

2



NOTES (CONTINUED)

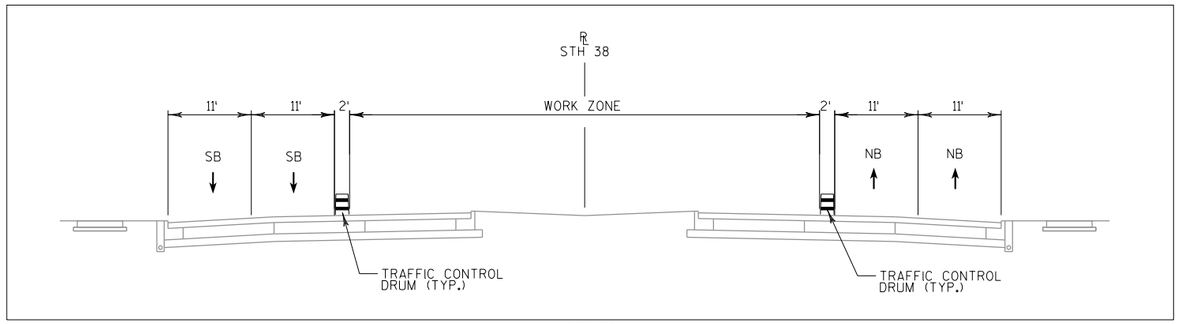
STAGE 1 - MILL AND OVERLAY MEDIAN AND INSIDE LANE;
CONSTRUCT ADDITIONAL TURN LANES

STAGE 1 SHALL BE BROKEN INTO
SUBSTAGES A, B, C, AND D AS SHOWN,
SUBSTAGES CAN BE COMPLETED IN ANY SEQUENCE,
ADJACENT SUBSTAGES SHALL NOT BE CONSTRUCTED CONCURRENTLY

ALL SIGNS ARE 48-INCH X 48-INCH UNLESS OTHERWISE NOTED

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE
BACKGROUND IS ORANGE

MEDIAN SIGNING TO BE COMPLETE BEFORE BEGINNING
STAGE 2 WORK



STH 38
STA. 128+73.87 TO 431+30.00
STA. 439+30.00 TO 462+71.28

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CONSTRUCTION STAGING OVERVIEW-STAGE 1	SHEET 459	E

2

N

STAGE 1C

STAGE 1D

STA 300+00

MATCH LINE

300+00

325+00

STA 355+00

350+00

375+00

STH 38 (HOWELL AVENUE)

400+00

425+00

450+00

END PROJECT
STA 462+75.39

STH 119 (AIRPORT SPUR) GRANGE AVENUE

E. MANITOBA AVENUE

CTH BB (RAWSON AVENUE)

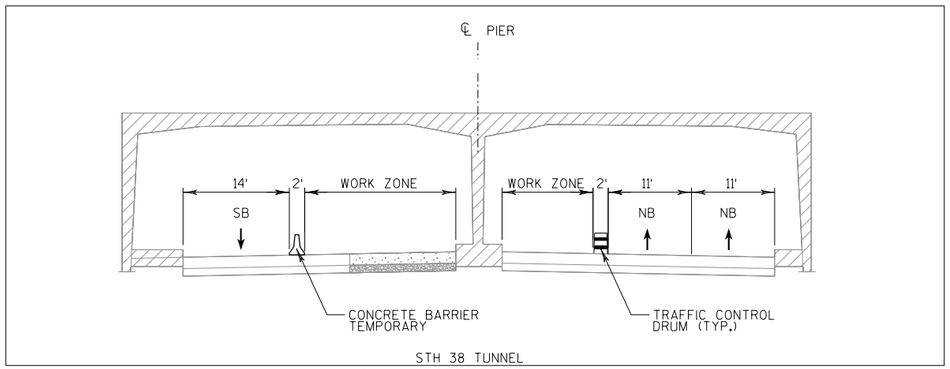
425+00

E. OAK STREET

E. CITATION WAY

CTH ZZ (COLLEGE AVENUE)

425+00



STH 38 TUNNEL
STA. 431+30.00 TO 439+30.00

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CONSTRUCTION STAGING OVERVIEW-STAGE 1	SHEET 460	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\026003_s1.dgn PLOT DATE : 1/3/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:1200

2

N

ROAD WORK AHEAD
W20-1

END ROAD WORK
G20-2A
48" X 24"

OAKWOOD ROAD

BEGIN PROJECT
STA 128+61.24

EXISTING PAVEMENT MARKING

125+00 126+00 128+00 130+00 132+00 134+00 136+00 138+00 140+00

STH 38/HOWELL AVENUE

SHORT TERM LANE CLOSURE, SEE SDD "TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 MPH"

END ROAD WORK
G20-2A
48" X 24"

ROAD WORK AHEAD
W20-1

TRELLIS

SIGN

INL MH

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C LIGHT
- WORK AREA
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC CRASH CUSHIONS TEMPORARY
- TRAFFIC CONTROL SIGNS FIXED MESSAGE

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1	SHEET 461	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\026004_s1.dgn PLOT DATE : 1/3/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

2

N

SHORT TERM LANE CLOSURE, SEE SDD "TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 MPH"

EXISTING PAVEMENT MARKING

SHORT TERM LANE CLOSURE, SEE SDD "TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 MPH"

140+00 142+00 144+00 146+00 148+00 150+00 152+00 154+00

STH 38/HOWELL AVENUE

SHORT TERM LANE CLOSURE, SEE SDD "TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 MPH"

LISA DRIVE

SHORT TERM LANE CLOSURE, SEE SDD "TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 MPH"

END ROAD WORK
G20-2A
48" X 24"

ROAD WORK AHEAD
W20-1

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C LIGHT
- WORK AREA
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC — CRASH CUSHIONS TEMPORARY
- TRAFFIC CONTROL SIGNS FIXED MESSAGE

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1	SHEET 462	E

2

2

N

ROAD WORK AHEAD W20-1

END ROAD WORK G20-2A 48" X 24"

SUMMERHILL PLACE

SHORT TERM LANE CLOSURE, SEE SDD "TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 MPH"

EXISTING PAVEMENT MARKING

156+00 158+00 160+00 162+00 164+00 166+00 168+00 170+00

STH 38/HOWELL AVENUE

FITZSIMMONS ROAD

ESTATES PLACE

END ROAD WORK G20-2A 48" X 24"

ROAD WORK AHEAD W20-1

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C LIGHT
- WORK AREA
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC CRASH CUSHIONS TEMPORARY
- TRAFFIC CONTROL SIGNS FIXED MESSAGE

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1	SHEET 463	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\026006_s1.dgn PLOT DATE : 1/31/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

2

STAGE 1A

ROAD WORK AHEAD
W20-1

END ROAD WORK
G20-2A
48" X 24"

ROAD CLOSED
R11-2
48" X 30"

W01-6
48" X 24"

SHORT TERM LANE CLOSURE, SEE SDD "TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 MPH"

TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH

COORDINATE TRAFFIC CONTROL WITH RYAN ROAD PROJECT 2040-16-70

STH 100/RYAN ROAD

MAINTAIN MEDIAN ACCESS

STH 38/HOWELL AVENUE

170+00 172+00 174+00 176+00 178+00 180+00 182+00 184+00

1098+00 1100+00 1102+00 1104+00 1106+00

50'

BEGIN LEFT TURN LANE
R3-20L
24" X 36"

600'

SEE TRAFFIC CONTROL DETAIL - LANE SHIFT

LEFT TURN LANE CLOSURES DURING NIGHT TIME WORK ONLY

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C LIGHT
- WORK AREA
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC — CRASH CUSHIONS TEMPORARY
- TRAFFIC CONTROL SIGNS FIXED MESSAGE

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1	SHEET 464	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\026007_s1.dgn PLOT DATE : 1/3/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

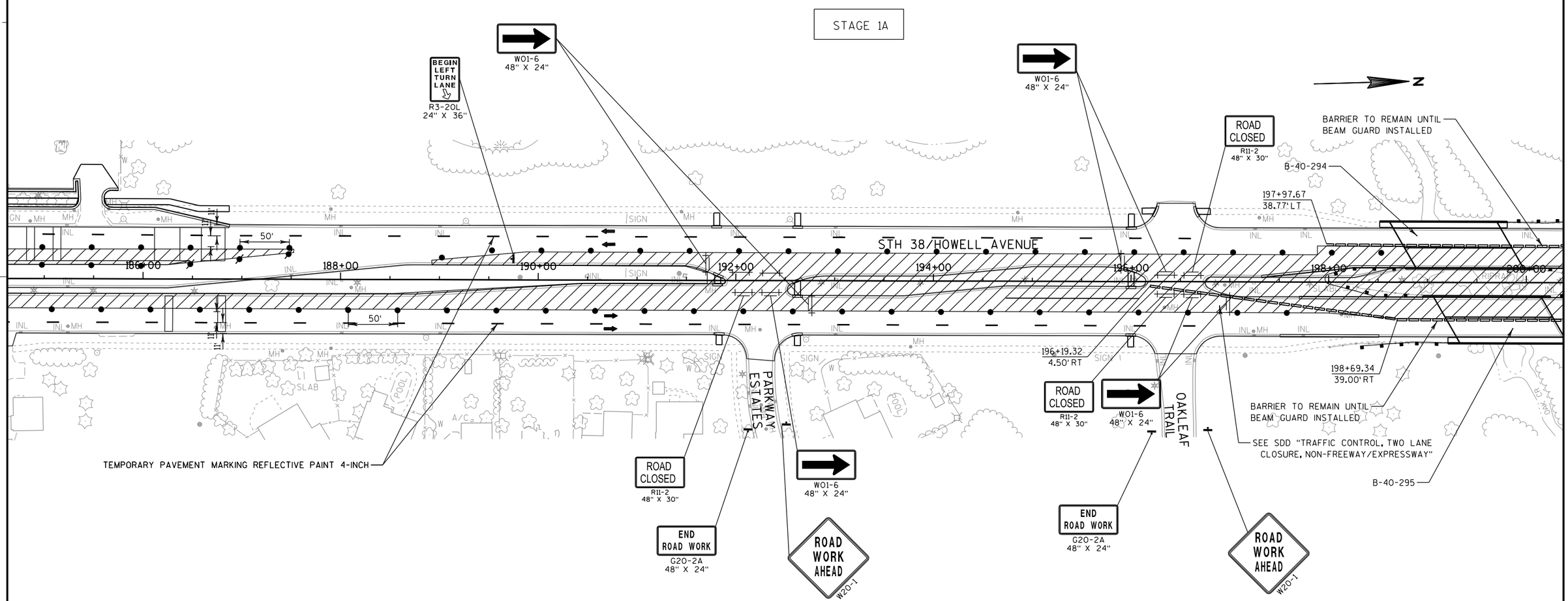
2

2

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C LIGHT
- WORK AREA
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC — CRASH CUSHIONS TEMPORARY
- TRAFFIC CONTROL SIGNS FIXED MESSAGE

STAGE 1A



PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1	SHEET 465	E

2

N

STAGE 1A

STAGE 1B

ROAD WORK AHEAD
W20-1

END ROAD WORK
G20-2A
48" X 24"

W. OAKLEAF DRIVE

SEE SDD "TRAFFIC CONTROL, TWO LANE CLOSURE, NON-FREEWAY/EXPRESSWAY"

SEE TRAFFIC CONTROL DETAIL - LANE SHIFT

200+33.00
37.76'LT

W01-6
48" X 24"

ROAD CLOSED
R11-2
48" X 30"

50'

STH 38/HOWELL AVENUE

200+00
202+00
204+00
206+00
208+00
210+00
212+00
214+00

201+07.34
39.22'RT

202+83.34
8.40'LT

SEE TRAFFIC CONTROL DETAIL - LANE SHIFT

TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH

W01-6
48" X 24"

ROAD CLOSED
R11-2
48" X 30"

W01-6
48" X 24"

ROAD CLOSED
R11-2
48" X 30"

W01-6
48" X 24"

SIGN

MH

INL

FLAGS

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C LIGHT
- WORK AREA
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC — CRASH CUSHIONS TEMPORARY
- TRAFFIC CONTROL SIGNS FIXED MESSAGE

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1	SHEET 466	E

2

N

STAGE 1B

ROAD WORK AHEAD
W20-1

END ROAD WORK
G20-2A
48" X 24"

E. CENTENNIAL DRIVE

BEGIN LEFT TURN LANE
R3-20L
24" X 36"

W01-6
48" X 24"

LEFT TURN LANE CLOSURES DURING NIGHT TIME WORK ONLY

TEMPORARY PAVEMENT MARKING 8-INCH

STH 38/HOWELL AVENUE

50'

50'

216+00

218+00

220+00

222+00

224+00

226+00

228+00

230+00

W01-6
48" X 24"

MAINTAIN MEDIAN ACCESS

TEMPORARY PAVEMENT MARKING 8-INCH

W01-6
48" X 24"

TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH

BEGIN LEFT TURN LANE
R3-20L
24" X 36"

END ROAD WORK
G20-2A
48" X 24"

ROAD WORK AHEAD
W20-1

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C LIGHT
- WORK AREA
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC — CRASH CUSHIONS TEMPORARY
- TRAFFIC CONTROL SIGNS FIXED MESSAGE

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1	SHEET 467	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\026010_s1.dgn PLOT DATE : 1/3/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

2

ROAD WORK AHEAD
W20-1

END ROAD WORK
G20-2A
48" X 24"

N

STAGE 1B

W. PUETZ ROAD

2112+00

2114+00

2116+00

2118+00

2120+00

MAINTAIN MEDIAN ACCESS

BEGIN LEFT TURN LANE
R3-20L
24" X 36"

W01-6
48" X 24"

ROAD CLOSED
R11-2
48" X 30"

W01-6
48" X 24"

STH 38/HOWELL AVENUE

50'

230+00

232+00

234+00

236+00

238+00

240+00

242+00

244+00

11'

CANOPY

FILLER CAP

SLAB

FLAG

BEGIN LEFT TURN LANE
R3-20L
24" X 36"

W01-6
48" X 24"

ROAD CLOSED
R11-2
48" X 30"

W01-6
48" X 24"

ROAD CLOSED
R11-2
48" X 30"

W01-6
48" X 24"

LEFT TURN LANE CLOSURES DURING NIGHT TIME WORK ONLY

TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH

END ROAD WORK
G20-2A
48" X 24"

ROAD WORK AHEAD
W20-1

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C LIGHT
- WORK AREA
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC — CRASH CUSHIONS TEMPORARY
- TRAFFIC CONTROL SIGNS FIXED MESSAGE

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1	SHEET 468	E

2

2

STAGE 1B

MAINTAIN MEDIAN ACCESS

STH 38/HOWELL AVENUE

246+00 248+00 250+00 252+00 254+00 256+00 258+00 260+00

50'

50'

E. GROVELAND DRIVE

W01-6
48" X 24"

END
ROAD WORK
G20-2A
48" X 24"

ROAD
WORK
AHEAD
W20-1

TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH

BEGIN
LEFT
TURN
LANE
R3-20L
24" X 36"

W01-6
48" X 24"

TEMPORARY PAVEMENT MARKING 8-INCH

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C LIGHT
- WORK AREA
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CRASH CUSHIONS TEMPORARY
- TRAFFIC CONTROL SIGNS FIXED MESSAGE

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1	SHEET 469	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\026012_s1.dgn PLOT DATE : 1/3/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

2

N

ROAD WORK AHEAD
W20-1

END ROAD WORK
G20-2A
48" X 24"

200+00

FOREST HILL AVENUE

202+00

204+00

STAGE 1B

LEFT TURN LANE CLOSURES DURING NIGHT TIME WORK ONLY

BEGIN LEFT TURN LANE
R3-20L
24" X 36"

W01-6
48" X 24"

TEMPORARY PAVEMENT MARKING 8-INCH

STH 38/HOWELL AVENUE

260+00

262+00

264+00

266+00

268+00

270+00

272+00

274+00

50'

50'

W01-6
48" X 24"

W01-6
48" X 24"

TEMPORARY PAVEMENT MARKING 8-INCH

MAINTAIN MEDIAN ACCESS

102+00

104+00

E. OAKFIELD DRIVE

ROAD CLOSED
R11-2
48" X 30"

END ROAD WORK
G20-2A
48" X 24"

TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH

ROAD WORK AHEAD
W20-1

END ROAD WORK
G20-2A
48" X 24"

ROAD WORK AHEAD
W20-1

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C LIGHT
- WORK AREA
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC — CRASH CUSHIONS TEMPORARY
- TRAFFIC CONTROL SIGNS FIXED MESSAGE

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1	SHEET 470	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\026013_s1.dgn PLOT DATE : 1/3/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C LIGHT
- WORK AREA
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC — CRASH CUSHIONS TEMPORARY
- TRAFFIC CONTROL SIGNS FIXED MESSAGE

N

(BY OTHERS)

W01-6
48" X 24"

LANE CLOSED
R11-2L
48" X 30"

ROAD WORK AHEAD
W20-1

(BY OTHERS)

END ROAD WORK
G20-2A
48" X 24"

LEFT TURN LANE CLOSURES DURING NIGHT TIME WORK ONLY

276+00 278+00 280+00 282+00 284+00 286+00 288+00 290+00

300+00 302+00 302+44 3112+00 3114+00 3116+00 3118+00 3120+00

50' 50'

STH 38/HOWELL AVENUE

E. SUSAN DRIVE

DREXEL AVENUE

MEDIANS SHALL NOT BE CONSTRUCTED CONCURRENTLY

BEGIN LEFT TURN LANE
R3-20L
24" X 36"

TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH

MAINTAIN MEDIAN ACCESS

FLAG

SIGN

MH

INL

SLAB

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1	SHEET 471	E

2

N

STAGE 1B

STAGE 1C

LEFT TURN LANE
R3-56L
22" X 28"

W01-6
48" X 24"

SEE TRAFFIC CONTROL DETAIL - LANE SHIFT

STH 38/HOWELL AVENUE

290+00 292+00 294+00 296+00 298+00 300+00 302+00 304+00

50' 50'

TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH

ROAD CLOSED
R11-2
48" X 30"

W01-6
48" X 24"
SEE TRAFFIC CONTROL DETAIL - LANE SHIFT

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C LIGHT
- WORK AREA
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC — CRASH CUSHIONS TEMPORARY
- TRAFFIC CONTROL SIGNS FIXED MESSAGE

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1	SHEET 472	E

STAGE 1C

N

ROAD WORK AHEAD
W20-1

END ROAD WORK
G20-2A
48" X 24"

W01-6
48" X 24"

ROAD CLOSED
R11-2
48" X 30"

W. MARQUETTE AVENUE

E. MANITOBA AVENUE

STH 38/HOWELL AVENUE

306+00 308+00 310+00 312+00 314+00 316+00 318+00 320+00

50' 50'

11' 11'

TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C LIGHT
- WORK AREA
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC CRASH CUSHIONS TEMPORARY
- TRAFFIC CONTROL SIGNS FIXED MESSAGE

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1	SHEET 473	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\026016_s1.dgn PLOT DATE : 1/3/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

2

2

N

STAGE 1C

W01-6
48" X 24"

50'

STH 38/HOWELL AVENUE

320+00 322+00 324+00 326+00 328+00 330+00 332+00 334+00

TOWER

ROAD CLOSED
R11-2
48" X 30"

E. MAHN CT.

ROAD CLOSED
R11-2
48" X 30"

END ROAD WORK
G20-2A
48" X 24"

ROAD WORK AHEAD
W20-1

TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH

W01-6
48" X 24"

RUINS

A/C

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C LIGHT
- WORK AREA
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC — CRASH CUSHIONS TEMPORARY
- TRAFFIC CONTROL SIGNS FIXED MESSAGE

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1	SHEET 474	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\026017_s1.dgn PLOT DATE : 1/3/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

2

N

ROAD WORK AHEAD
W20-1

END ROAD WORK
G20-2A
48" X 24"

CTH BB/RAWSON AVENUE

4112+00

4114+00

4116+00

4118+00

4120+00

LEFT TURN LANE CLOSURES DURING NIGHT TIME WORK ONLY

BEGIN LEFT TURN LANE
R3-20L
24" X 36"

STAGE 1C

W01-6
48" X 24"

TEMPORARY PAVEMENT MARKING 8-INCH

STH 38/HOWELL AVENUE

336+00

338+00

340+00

342+00

344+00

346+00

348+00

350+00

50'

50'

TEMPORARY PAVEMENT MARKING 8-INCH

BEGIN LEFT TURN LANE
R3-20L
24" X 36"

W01-6
48" X 24"

W01-6
48" X 24"

MAINTAIN MEDIAN ACCESS

TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH

ROAD CLOSED
R11-2
48" X 30"

W01-6
48" X 24"

END ROAD WORK
G20-2A
48" X 24"

ROAD WORK AHEAD
W20-1

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C LIGHT
- WORK AREA
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC — CRASH CUSHIONS TEMPORARY
- TRAFFIC CONTROL SIGNS FIXED MESSAGE

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1	SHEET 475	E

2

N

STAGE 1C

STAGE 1D

W01-6
48" X 24"

PLAYGROUND

SEE TRAFFIC CONTROL DETAIL - LANE SHIFT

STH 38/HOWELL AVENUE

350+00 352+00 354+00 356+00 358+00 360+00 362+00 364+00

50'

50'

ROAD CLOSED
R11-2
48" X 30"

W01-6
48" X 24"

TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH

SEE TRAFFIC CONTROL DETAIL - LANE SHIFT

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C LIGHT
- WORK AREA
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC — CRASH CUSHIONS TEMPORARY
- TRAFFIC CONTROL SIGNS FIXED MESSAGE

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1	SHEET 476	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\026019_s1.dgn PLOT DATE : 1/3/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

STAGE 1D

N

ROAD WORK AHEAD
W20-1

END ROAD WORK
G20-2A
48" X 24"

MAINTAIN MEDIAN ACCESS

W01-6
48" X 24"

W01-6
48" X 24"

366+00 368+00 370+00 372+00 374+00 376+00 378+00 380+00

50' 50'

STH 38/HOWELL AVENUE

E. OAK STREET

E. JEWELL STREET

W01-6
48" X 24"

TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH

SINGLE LANE CLOSURES DURING NIGHT TIME WORK ONLY

TEMPORARY PAVEMENT MARKING 8-INCH

ROAD CLOSED
R11-2
48" X 30"

END ROAD WORK
G20-2A
48" X 24"

ROAD WORK AHEAD
W20-1

BEGIN LEFT TURN LANE
R3-20L
24" X 36"

END ROAD WORK
G20-2A
48" X 24"

ROAD WORK AHEAD
W20-1

RIPRAP

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C LIGHT
- WORK AREA
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC CRASH CUSHIONS TEMPORARY
- TRAFFIC CONTROL SIGNS FIXED MESSAGE

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1	SHEET 477	E

STAGE 1D

N

ROAD WORK AHEAD
W20-1

END ROAD WORK
G20-2A
48" X 24"

CTH ZZ/COLLEGE AVENUE

5114+00

5116+00

5118+00

5120+00

5122+

394+00

W01-6
48" X 24"

LEFT TURN LANE CLOSURES DURING NIGHT TIME WORK ONLY

STH 38/HOWELL AVENUE

380+00 382+00 384+00 386+00 388+00 390+00 392+00

50'

ROAD CLOSED
R11-2
48" X 30"

TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH

BEGIN LEFT TURN LANE
R3-20L
24" X 36"

W01-6
48" X 24"

MAINTAIN MEDIAN ACCESS

W01-6
48" X 24"

END ROAD WORK
G20-2A
48" X 24"

ROAD WORK AHEAD
W20-1

SLAB FLAG A/C RAMP SIGN INL MH W CEMETERY RIPRAP LIGHT VACUUM FILLER CAP CANOPY

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C LIGHT
- WORK AREA
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC — CRASH CUSHIONS TEMPORARY
- TRAFFIC CONTROL SIGNS FIXED MESSAGE

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1	SHEET 478	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\026021_s1.dgn PLOT DATE : 1/3/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

STAGE 1D

ROAD WORK AHEAD
W20-1

END ROAD WORK
G20-2A
48" X 24"

BEGIN LEFT TURN LANE
R3-20L
24" X 36"

W01-6
48" X 24"

W. UNCAS AVENUE

STH 38/HOWELL AVENUE

396+00 398+00 400+00 402+00 404+00 406+00 408+00 410+00

50'

ROAD CLOSED
R11-2
48" X 30"

TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH

CEMETERY

FLAG

STATUE

VACUUM

FILLER CAP

CANOPY

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C LIGHT
- WORK AREA
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC — CRASH CUSHIONS TEMPORARY
- TRAFFIC CONTROL SIGNS FIXED MESSAGE

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1	SHEET 479	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\026022_s1.dgn PLOT DATE : 1/3/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

2

STAGE 1D

END ROAD WORK
G20-2A
48" X 24"

MAINTAIN MEDIAN ACCESS

ROAD CLOSED
R11-2
48" X 30"

LANE CLOSED
R11-2L
48" X 30"

W. BOWDEN STREET

STH 38/HOWELL AVENUE

410+00 412+00 414+00 416+00 418+00 420+00 422+00 424+00

50' 50'

ROAD CLOSED
R11-2
48" X 30"

ROAD CLOSED
R11-2
48" X 30"

W01-6
48" X 24"

W01-6
48" X 24"

TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH

PERIMETER ROAD

E. CITATION WAY

N

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C LIGHT
- WORK AREA
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC — CRASH CUSHIONS TEMPORARY
- TRAFFIC CONTROL SIGNS FIXED MESSAGE

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1	SHEET 480	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\026023_s1.dgn PLOT DATE : 1/3/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2

2

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C LIGHT
- WORK AREA
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC — CRASH CUSHIONS TEMPORARY
- TRAFFIC CONTROL SIGNS FIXED MESSAGE

N

STAGE 1D

LANE CLOSED
R11-2L
48" X 30"

431+28.33
33.78' LT

439+30.33
33.58' LT

426+00
428+00
430+00
432+00
434+00
436+00
438+00
440+00

50'
50'

SIH 38/~~HOWELL AVENUE~~

TEMPORARY PAVEMENT MARKING REFLECTIVE TAPE 4-INCH

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1	SHEET 481	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\026024_s1.dgn PLOT DATE : 1/3/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

2

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C LIGHT
- WORK AREA
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC — CRASH CUSHIONS TEMPORARY
- TRAFFIC CONTROL SIGNS FIXED MESSAGE

STAGE 1D

N

RAMP ER

RAMP WC

STH 119/AIRPORT SPUR WB

STH 119/AIRPORT SPUR ENTRANCE RAMP

STH 38/HOWELL AVENUE

S. HOWELL AVENUE

TEMPORARY PAVEMENT MARKING 8-INCH

SINGLE LANE CLOSURES DURING NIGHT TIME WORK ONLY

W01-6
48" X 24"

LANE CLOSED
R11-2L
48" X 30"

441+13.18
10.49' LT

440+00
442+00
444+00
446+00
448+00
450+00
452+00
454+00

50'

TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH

MAINTAIN MEDIAN ACCESS

END ROAD WORK
G20-2A
48" X 24"

BEGIN LEFT TURN LANE
R3-20L
24" X 36"

ROAD WORK AHEAD
W20-1

RIPRAP

2

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1	SHEET 482	E

2

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C LIGHT
- WORK AREA
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC — CRASH CUSHIONS TEMPORARY
- TRAFFIC CONTROL SIGNS FIXED MESSAGE

STAGE 1D

N

ROAD WORK AHEAD
W20-1

STH 119/AIRPORT SPUR EB

GRANGE AVENUE

END ROAD WORK
G20-2A
48" X 24"

BEGIN LEFT TURN LANE
R3-20L
24" X 36"

MAINTAIN MEDIAN ACCESS

SINGLE LANE CLOSURES DURING NIGHT TIME WORK ONLY

RAMP WC

480'

50'

456+00

458+00

460+00

462+00

464+00

466+00

468+00

470+00

CANOPY

EXISTING PAVEMENT MARKING

STH 38/HOWELL AVENUE

SLAB

W01-6
48" X 24"

END PROJECT
STA 462+75.39

SINGLE LANE CLOSURES DURING NIGHT TIME WORK ONLY

SEE SDD FOR SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

ROAD WORK AHEAD
W20-1

S. HOWELL AVENUE

SUBSTATION
SLAB
SLAB

STH 119/AIRPORT SPUR WB

TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1	SHEET 483	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\026026_s1.dgn

PLOT DATE : 1/3/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

2

NOTES

NOTES APPLY TO ALL STAGE 2 SHEETS

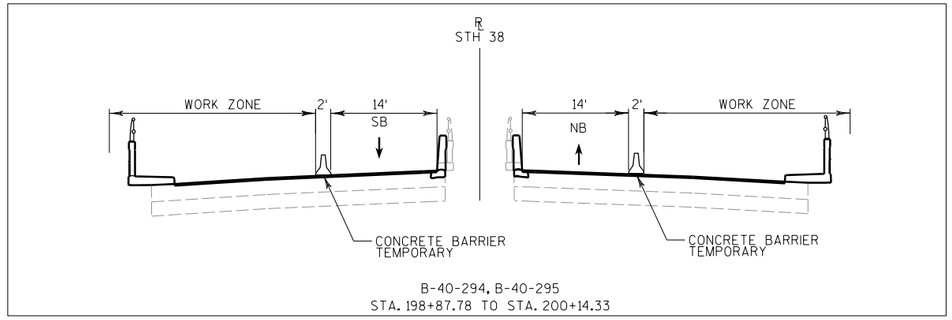
MAINTAIN ACCESS AT ALL INTERSECTIONS, DRIVEWAYS,
AND SELECT MEDIAN OPENINGS AS SHOWN ON THE PLAN.

PHASE SIDEWALK, CURB RAMP AND INTERSECTION WORK TO MAINTAIN PEDESTRIAN ACCESS.
SEE SDD "TRAFFIC CONTROL, SIDEWALK CLOSURE"

MAINTAIN ONE LANE IN EACH TRAVEL DIRECTION DURING NIGHT WORK,
MAINTAIN TWO LANES IN EACH DIRECTION AT ALL OTHER TIMES.

MAINTAIN TWO LANES IN EACH DIRECTION NORTH OF COLLEGE AVE
DURING DAY TIME HOURS

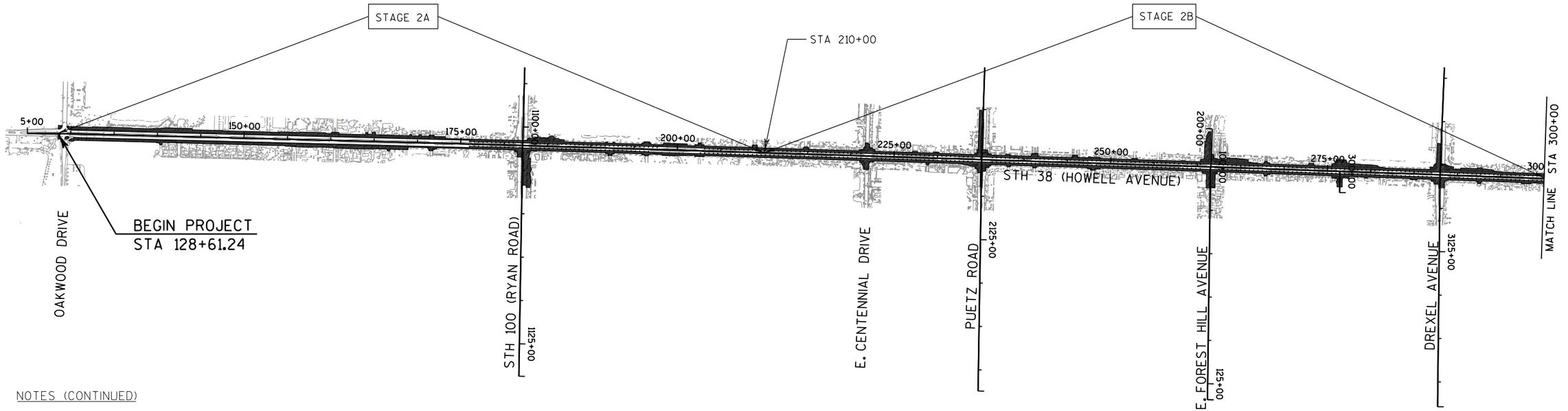
PROVIDE WEDGING BETWEEN ADJACENT LANES WHEN DROP OFF
BETWEEN ADJACENT LANES IS GREATER THAN ONE INCH, TO BE PAID
AS ASPHALTIC SURFACE TEMPORARY AND REMOVING ASPHALTIC SURFACE.



B-40-294, B-40-295
STA. 198+87.78 TO STA. 200+14.33

N

2



NOTES (CONTINUED)

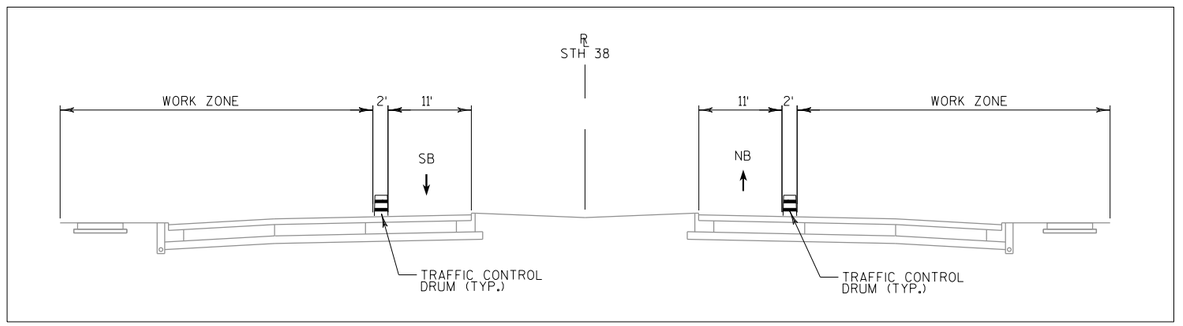
STAGE 2 - MILL AND OVERLAY OUTSIDE LANES AND SHOULDER;
CONSTRUCT ADDITIONAL TURN LANES

STAGE 2 SHALL BE BROKEN INTO
SUBSTAGES A, B, C, AND D AS SHOWN,
SUBSTAGES CAN BE COMPLETED IN ANY SEQUENCE,
ADJACENT SUBSTAGES SHALL NOT BE CONSTRUCTED CONCURRENTLY

ALL SIGNS ARE 48-INCH X 48-INCH UNLESS OTHERWISE NOTED

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE
BACKGROUND IS ORANGE

MEDIAN SIGNING TO BE COMPLETE BEFORE BEGINNING
STAGE 2 WORK



STH 38
STA. 128+73.87 TO 431+30.00
STA. 439+30.00 TO 462+71.28

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CONSTRUCTION STAGING OVERVIEW-STAGE 2	SHEET 484	E

2

N

STAGE 2C

STAGE 2D

STA 300+00

MATCH LINE

300+00

325+00

350+00

STA 355+00

375+00

400+00

425+00

450+00

END PROJECT
STA 462+75.39

STH 119 (AIRPORT SPUR) GRANGE AVENUE

STH 38 (HOWELL AVENUE)

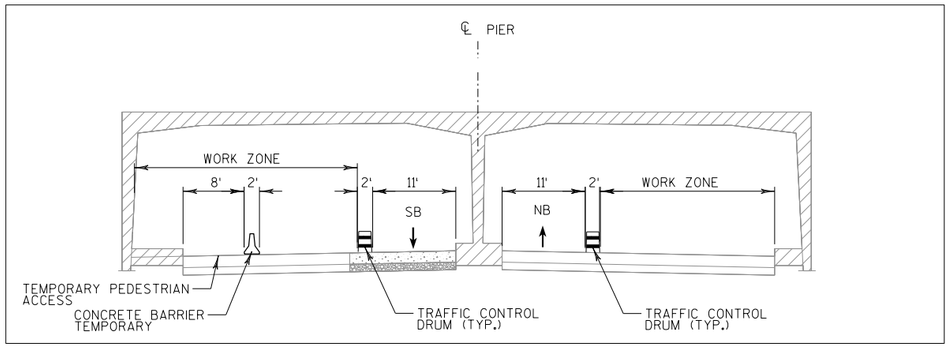
E. MANITOBA AVENUE

CTH BB (RAWSON AVENUE)

E. OAK STREET

CTH ZZ (COLLEGE AVENUE)

E. CITATION WAY



STH 38 TUNNEL
STA. 431+30.00 TO 439+30.00

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CONSTRUCTION STAGING OVERVIEW-STAGE 2	SHEET 485	E

2

N

STAGE 2A

OAKWOOD ROAD

ROAD WORK AHEAD
W20-1

END ROAD WORK
G20-2A
48" X 24"

LANE CLOSED
R11-2L
48" X 30"

LANE CLOSED
R11-2L
48" X 30"

EXISTING PAVEMENT MARKING

50'

50'

125+00 126+00 128+00 130+00 132+00 134+00 136+00 138+00 140+00

STH 38/HOWELL AVENUE

SEE SDD "TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 MPH"

BEGIN PROJECT
STA 128+61.24

RIGHT TURN LANE CLOSED DURING WORK ON CURB RAMPS AND CURB AND GUTTER, RIGHT TURN LANE TO REMAIN OPEN AT ALL OTHER TIMES

END ROAD WORK
G20-2A
48" X 24"

ROAD WORK AHEAD
W20-1

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C LIGHT
- WORK AREA
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC — CRASH CUSHIONS TEMPORARY
- TRAFFIC CONTROL SIGNS FIXED MESSAGE

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SHEET 486	E

2

2

STAGE 2A

LANE CLOSED
R11-2L
48" X 30"

EXISTING PAVEMENT MARKING

50'

140+00 142+00 144+00 146+00 148+00 150+00 152+00 154+00

15' 15'

50'

STH 38/HOWELL AVENUE

LISA DRIVE

MAINTAIN 2-WAY ACCESS

END ROAD WORK
G20-2A
48" X 24"

ROAD WORK AHEAD
W20-1

LANE CLOSED
R11-2L
48" X 30"

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C LIGHT
- WORK AREA
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC — CRASH CUSHIONS TEMPORARY
- TRAFFIC CONTROL SIGNS FIXED MESSAGE

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SHEET 487	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\026104_s2.dgn PLOT DATE : 1/3/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

2

N

STAGE 2A

ROAD WORK AHEAD
W20-1

END ROAD WORK
G20-2A
48" X 24"

LANE CLOSED
R11-2L
48" X 30"

SUMMERHILL PLACE

MAINTAIN 2-WAY ACCESS

EXISTING PAVEMENT MARKING

WALLS

ANT.

A/C

POOL

156+00 158+00 160+00 162+00 164+00 166+00 168+00 170+00

50'

15'

STH 38/HOWELL AVENUE

LANE CLOSED
R11-2L
48" X 30"

MAINTAIN 2-WAY ACCESS

FITZSIMMONS ROAD

ESTATES PLACE

MAINTAIN 2-WAY ACCESS

END ROAD WORK
G20-2A
48" X 24"

ROAD WORK AHEAD
W20-1

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C LIGHT
- WORK AREA
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC — CRASH CUSHIONS TEMPORARY
- TRAFFIC CONTROL SIGNS FIXED MESSAGE

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SHEET 488	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\026105_s2.dgn PLOT DATE : 1/31/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

STAGE 2A

ROAD WORK AHEAD
W20-1

END ROAD WORK
G20-2A
48" X 24"

LANE CLOSED
R11-2L
48" X 30"

EXISTING PAVEMENT MARKING

MAINTAIN TWO LANES DURING DAYTIME HOURS

MAINTAIN TWO LANES DURING DAYTIME HOURS,
MAINTAIN AT LEAST ONE LANE AT ALL TIMES,
SEE SDD "TRAFFIC CONTROL, INTERSECTIONS
WITHIN SINGLE LANE CLOSURE (DETAIL B)"

RIGHT TURN LANE CLOSED DURING WORK
ON CURB RAMPS AND CURB AND GUTTER,
RIGHT TURN LANE TO REMAIN OPEN
AT ALL OTHER TIMES

STH 100/RYAN ROAD

STH 38/HOWELL AVENUE

SEE SDD FOR SINGLE LANE CLOSURE,
NON-FREEWAY/EXPRESSWAY

TEMPORARY PAVEMENT MARKING REFLECTIVE TAPE 4-INCH

CONSTRUCT ONE CORNER AT A TIME

170+00 172+00 174+00 176+00 178+00 180+00 182+00 184+00

1098+00 1100+00 1102+00 1104+00 1105+00

50' 15'

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C LIGHT
- WORK AREA
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC CRASH CUSHIONS TEMPORARY
- TRAFFIC CONTROL SIGNS FIXED MESSAGE

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SHEET 489	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\026106_s2.dgn PLOT DATE : 1/3/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

2

N

2

STAGE 2A

LANE CLOSED
R11-2L
48" X 30"

MAINTAIN TWO LANES DURING DAYTIME HOURS

SEE SDD "TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 MPH"

LANE CLOSED
R11-2L
48" X 30"

B-40-294

198+44.61
30.86' LT

186+00 188+00 190+00 192+00 194+00 196+00 198+00 200+00

50' 50'

15' 15' 15'

STH 38/HOWELL AVENUE

PARKWAY ESTATES

MAINTAIN 2-WAY ACCESS

MAINTAIN 2-WAY ACCESS

OAKLEAF TRAIL

197+01.68
49.12' RT

197+92.96
31.27' RT

B-40-295

TEMPORARY PAVEMENT MARKING REFLECTIVE TAPE 4-INCH

END ROAD WORK
G20-2A
48" X 24"

ROAD WORK AHEAD
W20-1

END ROAD WORK
G20-2A
48" X 24"

ROAD WORK AHEAD
W20-1

SEE SDD "TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 MPH WITH BARRIER"

LANE CLOSED
R11-2L
48" X 30"

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C LIGHT
- WORK AREA
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC CRASH CUSHIONS TEMPORARY
- TRAFFIC CONTROL SIGNS FIXED MESSAGE

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SHEET 490	E

2

STAGE 2A

STAGE 2B

N

ROAD WORK AHEAD
W20-1

LANE CLOSED
R11-2L
48" X 30"

END ROAD WORK
G20-2A
48" X 24"

W. OAKLEAF DRIVE

SEE SDD "TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 MPH WITH BARRIER"

MAINTAIN 2-WAY ACCESS

15'

50'

200+00

202+00

204+00

206+00

208+00

210+00

212+00

214+00

STH 38/HOWELL AVENUE

MAINTAIN TWO LANES DURING DAYTIME HOURS

SEE SDD "TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 MPH"

LANE CLOSED
R11-2L
48" X 30"

LANE CLOSED
R11-2L
48" X 30"

TEMPORARY PAVEMENT MARKING REFLECTIVE TAPE 4-INCH

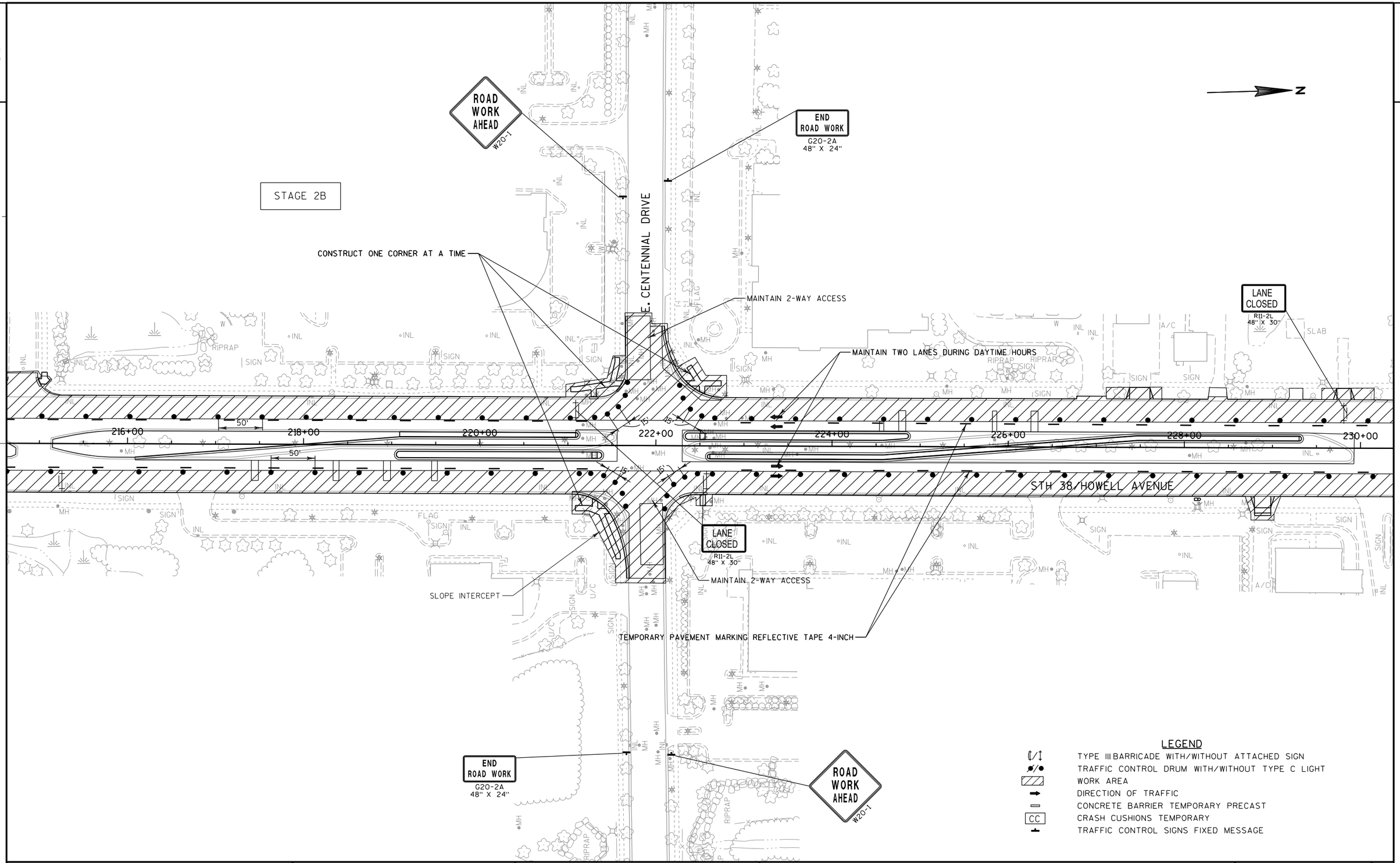
LANE CLOSED
R11-2L
48" X 30"

LEGEND

↕/↕	TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
●/●	TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C LIGHT
	WORK AREA
➡	DIRECTION OF TRAFFIC
	CONCRETE BARRIER TEMPORARY PRECAST
CC	CRASH CUSHIONS TEMPORARY
	TRAFFIC CONTROL SIGNS FIXED MESSAGE

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SHEET 491	E

2



LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C LIGHT
- WORK AREA
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC — CRASH CUSHIONS TEMPORARY
- TRAFFIC CONTROL SIGNS FIXED MESSAGE

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SHEET 492	E

2

2

ROAD WORK AHEAD
W20-1

END ROAD WORK
G20-2A
48" X 24"

STAGE 2B

W. PUETZ ROAD

LANE CLOSED
R11-2L
48" X 30"

MAINTAIN TWO LANES DURING DAYTIME HOURS,
MAINTAIN AT LEAST ONE LANE AT ALL TIMES,
SEE SDD "TRAFFIC CONTROL, INTERSECTIONS
WITHIN SINGLE LANE CLOSURE (DETAIL B)"

MAINTAIN TWO LANES DURING DAYTIME HOURS

STH 38/HOWELL AVENUE

TEMPORARY PAVEMENT MARKING REFLECTIVE TAPE 4-INCH

RIGHT TURN LANE CLOSED DURING WORK
ON CURB RAMPS AND CURB AND GUTTER,
RIGHT TURN LANE TO REMAIN OPEN
AT ALL OTHER TIMES

MAINTAIN TWO LANES DURING DAYTIME HOURS,
MAINTAIN AT LEAST ONE LANE AT ALL TIMES,
SEE SDD "TRAFFIC CONTROL, INTERSECTIONS
WITHIN SINGLE LANE CLOSURE (DETAIL B)"

END ROAD WORK
G20-2A
48" X 24"

ROAD WORK AHEAD
W20-1

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C LIGHT
- WORK AREA
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC CRASH CUSHIONS TEMPORARY
- TRAFFIC CONTROL SIGNS FIXED MESSAGE

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SHEET 493	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\026110_s2.dgn PLOT DATE : 1/3/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2

N

STAGE 2B

LANE CLOSED
R11-2L
48" X 30"

MAINTAIN TWO LANES DURING DAYTIME HOURS

246+00 248+00 250+00 252+00 254+00 256+00 258+00 260+00

50' 50'

STH 38/HOWELL AVENUE

E. GROVELAND DRIVE

MAINTAIN 2-WAY ACCESS

TEMPORARY PAVEMENT MARKING REFLECTIVE TAPE 4-INCH

END ROAD WORK
G20-2A
48" X 24"

ROAD WORK AHEAD
W20-1

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C LIGHT
- WORK AREA
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC CRASH CUSHIONS TEMPORARY
- TRAFFIC CONTROL SIGNS FIXED MESSAGE

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SHEET 494	E

STAGE 2B

MAINTAIN 2-WAY ACCESS

FOREST HILL AVENUE

CONSTRUCT ONE CORNER AT A TIME

LANE CLOSED
R11-2L
48" X 30"

MAINTAIN TWO LANES DURING DAYTIME HOURS

200+00
202+00
204+00
206+00
208+00
260+00
262+00
264+00
266+00
268+00
270+00
272+00
274+00

50'
15'

STH 38/HOWELL AVENUE

LANE CLOSED
R11-2L
48" X 30"

E. OAKFIELD DRIVE

MAINTAIN 2-WAY ACCESS

END ROAD WORK
G20-2A
48" X 24"

TEMPORARY PAVEMENT MARKING REFLECTIVE TAPE 4-INCH

ROAD WORK AHEAD
W20-1

N

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C LIGHT
- WORK AREA
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC — CRASH CUSHIONS TEMPORARY
- TRAFFIC CONTROL SIGNS FIXED MESSAGE

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SHEET 495	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\026112_s2.dgn | PLOT DATE : 1/3/2014 | PLOT BY : tmk | PLOT NAME : | PLOT SCALE : 1:100

2

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C LIGHT
- WORK AREA
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC — CRASH CUSHIONS TEMPORARY
- TRAFFIC CONTROL SIGNS FIXED MESSAGE

STAGE 2B

N

(BY OTHERS)

LANE CLOSED
R11-2L
48" X 30"

SLAB

MAINTAIN TWO LANES DURING DAYTIME HOURS

ROAD CLOSED
R11-2
48" X 30"

END ROAD WORK
G20-2A
48" X 24"

ROAD WORK AHEAD
W20-1

SUSAN DRIVE

TEMPORARY PAVEMENT MARKING REFLECTIVE TAPE 4-INCH

STH 38/HOWELL AVENUE

276+00 278+00 280+00 282+00 284+00 286+00 288+00 290+00

300+00 302+00 302+44 3112+00 3114+00 3116+00 3118+00 3120+00

ROAD WORK AHEAD
W20-1

(BY OTHERS)

END ROAD WORK
G20-2A
48" X 24"

RIGHT TURN LANE CLOSED DURING WORK ON CURB RAMPS AND CURB AND GUTTER, RIGHT TURN LANE TO REMAIN OPEN AT ALL OTHER TIMES

MAINTAIN TWO LANES DURING DAYTIME HOURS, MAINTAIN AT LEAST ONE LANE AT ALL TIMES, SEE SDD "TRAFFIC CONTROL, INTERSECTIONS WITHIN SINGLE LANE CLOSURE (DETAIL B)"

CONSTRUCT ONE CORNER AT A TIME

MAINTAIN TWO LANES DURING DAYTIME HOURS, MAINTAIN AT LEAST ONE LANE AT ALL TIMES, SEE SDD "TRAFFIC CONTROL, INTERSECTIONS WITHIN SINGLE LANE CLOSURE (DETAIL B)"

DREXEL AVENUE

LANE CLOSED
R11-2L
48" X 30"

END ROAD WORK
G20-2A
48" X 24"

ROAD WORK AHEAD
W20-1

FLAG

SIGN

2

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SHEET 496	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\026113_s2.dgn PLOT DATE : 1/3/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

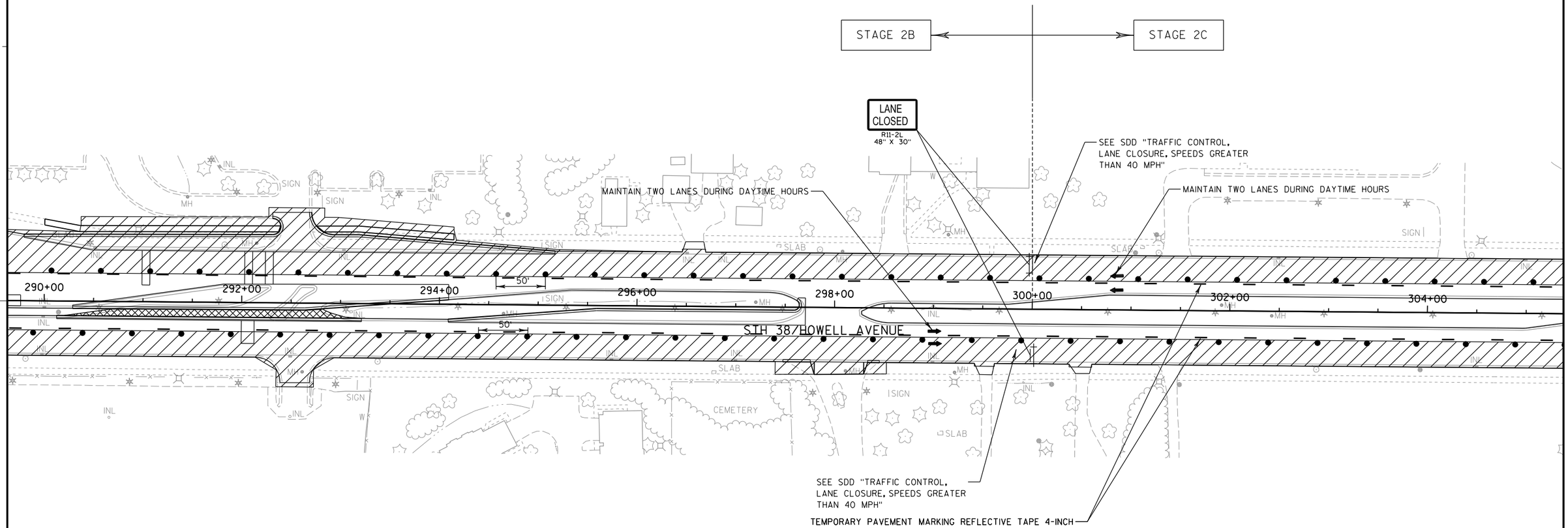
2

2

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C LIGHT
- WORK AREA
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC — CRASH CUSHIONS TEMPORARY
- TRAFFIC CONTROL SIGNS FIXED MESSAGE

N



PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SHEET 497	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\026114_s2.dgn PLOT DATE : 1/3/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2

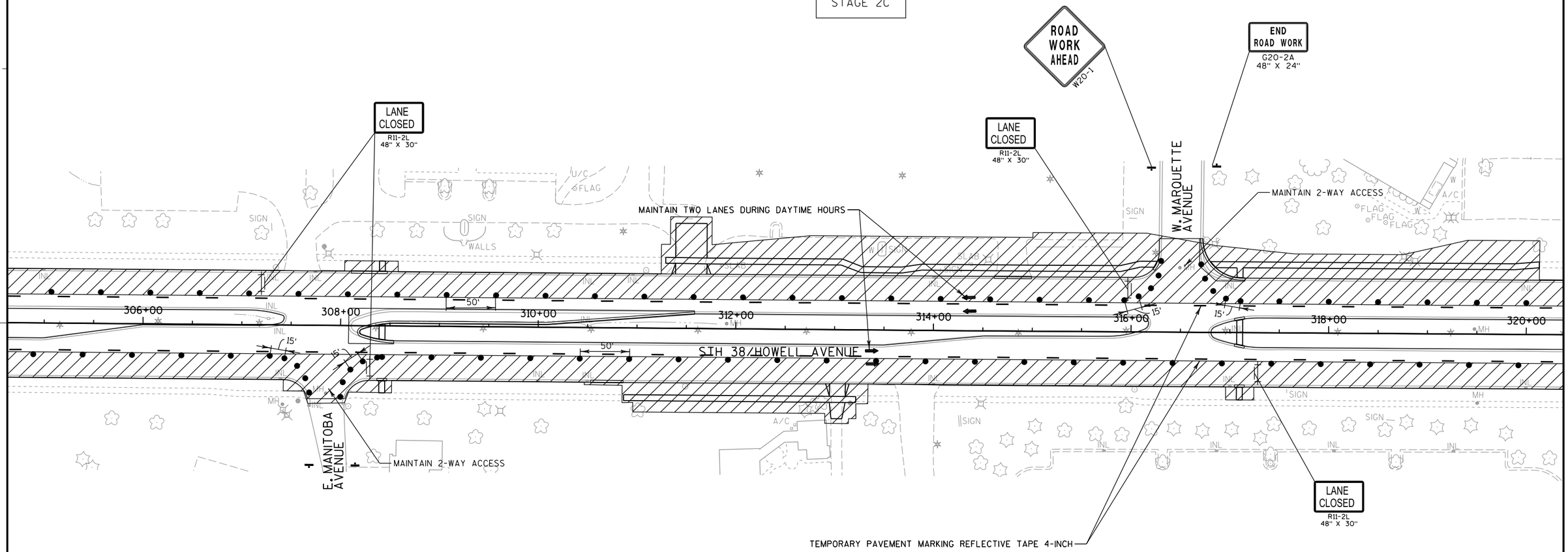
2

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C LIGHT
- WORK AREA
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC — CRASH CUSHIONS TEMPORARY
- TRAFFIC CONTROL SIGNS FIXED MESSAGE

N

STAGE 2C



PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SHEET 498	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\026115_s2.dgn PLOT DATE : 1/3/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

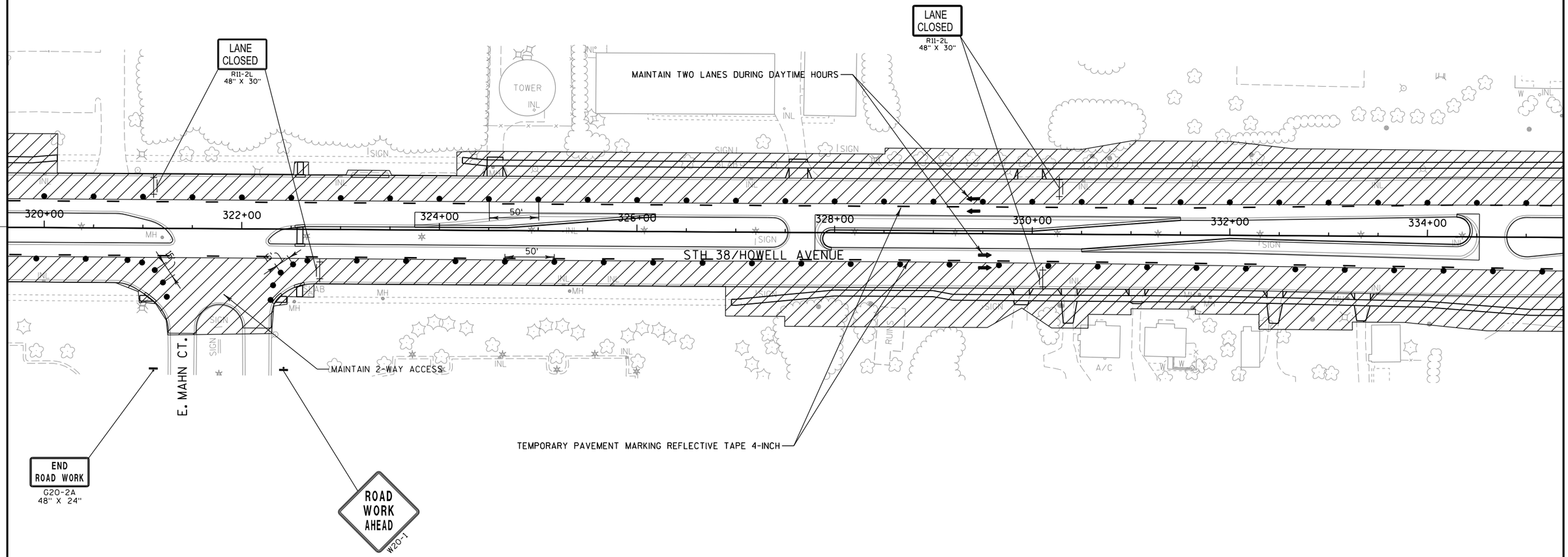
2

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C LIGHT
- WORK AREA
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC — CRASH CUSHIONS TEMPORARY
- TRAFFIC CONTROL SIGNS FIXED MESSAGE

N

STAGE 2C



PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SHEET 499	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\026116_s2.dgn PLOT DATE : 1/3/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C LIGHT
- WORK AREA
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC — CRASH CUSHIONS TEMPORARY
- TRAFFIC CONTROL SIGNS FIXED MESSAGE

ROAD WORK AHEAD
W20-1

END ROAD WORK
G20-2A
48" X 24"

STAGE 2C

RIGHT TURN LANE CLOSED DURING WORK ON CURB RAMPS AND CURB AND GUTTER, RIGHT TURN LANE TO REMAIN OPEN AT ALL OTHER TIMES

LANE CLOSED
R11-2L
48" X 30"

CTH BB/RAWSON AVENUE

STH 38/HOWELL AVENUE

MAINTAIN TWO LANES DURING DAYTIME HOURS

TEMPORARY PAVEMENT MARKING REFLECTIVE TAPE 4-INCH

CONSTRUCT ONE CORNER AT A TIME

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SHEET 500	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\026117_s2.dgn | PLOT DATE : 1/3/2014 | PLOT BY : tmk | PLOT NAME : | PLOT SCALE : 1:100

2

N

STAGE 2C

STAGE 2D

SEE SDD "TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 MPH"

PLAYGROUND

MAINTAIN TWO LANES DURING DAYTIME HOURS

350+00 352+00 354+00 356+00 358+00 360+00 362+00 364+00

50'

50'

STH 38/HOWELL AVENUE

SEE SDD "TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 MPH"

LANE CLOSED
R11-2L
48" X 30"

TEMPORARY PAVEMENT MARKING REFLECTIVE TAPE 4-INCH

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C LIGHT
- WORK AREA
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC — CRASH CUSHIONS TEMPORARY
- TRAFFIC CONTROL SIGNS FIXED MESSAGE

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SHEET 501	E

2

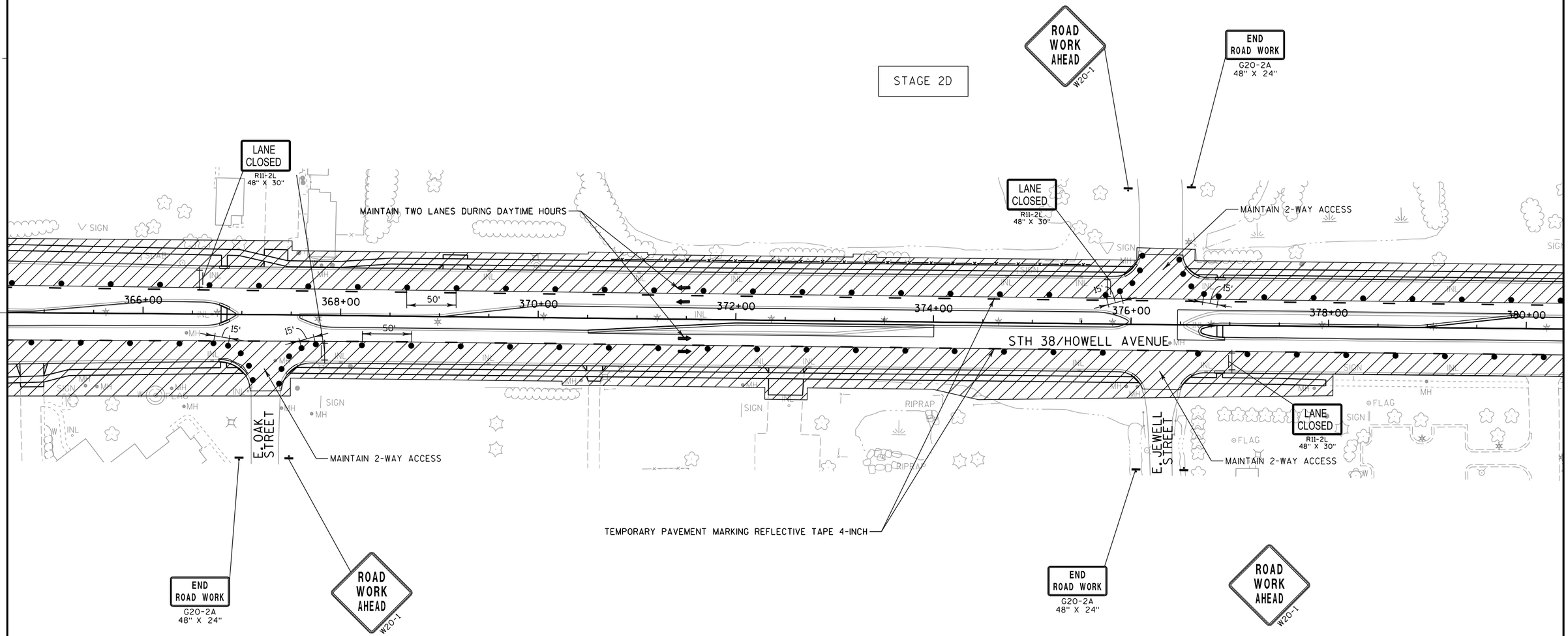
LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C LIGHT
- WORK AREA
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC — CRASH CUSHIONS TEMPORARY
- TRAFFIC CONTROL SIGNS FIXED MESSAGE

N

2

STAGE 2D



PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SHEET 502	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\026119_s2.dgn PLOT DATE : 1/3/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

2

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C LIGHT
- WORK AREA
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC — CRASH CUSHIONS TEMPORARY
- TRAFFIC CONTROL SIGNS FIXED MESSAGE

STAGE 2D

ROAD WORK AHEAD W20-1

END ROAD WORK G20-2A 48" X 24"

MAINTAIN TWO LANES DURING DAYTIME HOURS, MAINTAIN AT LEAST ONE LANE AT ALL TIMES, SEE SDD "TRAFFIC CONTROL, INTERSECTIONS WITHIN SINGLE LANE CLOSURE (DETAIL B)"

LANE CLOSED R11-2L 48" X 30"

MAINTAIN TWO LANES DURING DAYTIME HOURS

LANE CLOSED R11-2L 48" X 30"

TEMPORARY PAVEMENT MARKING REFLECTIVE TAPE 4-INCH

CONSTRUCT ONE CORNER AT A TIME

END ROAD WORK G20-2A 48" X 24"

ROAD WORK AHEAD W20-1

380+00 382+00 384+00 386+00 388+00 390+00 392+00 394+00

5114+00 5116+00 5118+00 5120+00 5122+

STH 38/HOWELL AVENUE

CTH ZZ/COLLEGE AVENUE

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SHEET 503	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\026120_s2.dgn PLOT DATE : 1/3/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2

2

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C LIGHT
- WORK AREA
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC — CRASH CUSHIONS TEMPORARY
- TRAFFIC CONTROL SIGNS FIXED MESSAGE

N

STAGE 2D

ROAD WORK AHEAD W20-1

END ROAD WORK G20-2A 48" X 24"

ROAD WORK AHEAD W20-1

RIGHT TURN LANE CLOSED DURING WORK ON CURB RAMPS AND CURB AND GUTTER, RIGHT TURN LANE TO REMAIN OPEN AT ALL OTHER TIMES

W. UNCAS AVENUE

MAINTAIN 2-WAY ACCESS

MAINTAIN 2-WAY ACCESS

STH 38/HOWELL AVENUE

396+00 398+00 400+00 402+00 404+00 406+00 408+00 410+00

50' 50' 15' 15'

MAINTAIN TWO LANES DURING DAYTIME HOURS

TEMPORARY PAVEMENT MARKING REFLECTIVE TAPE 4-INCH

LANE CLOSED R11-2L 48" X 30"

LANE CLOSED R11-2L 48" X 30"

LANE CLOSED R11-2L 48" X 30"

VACUUM FILLER CAP

FILLER CAP

FILLER CAP

CANOPY

STATUE

FLAG

CEMETERY

CEMETERY

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SHEET 504	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\026121_s2.dgn PLOT DATE : 1/3/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C LIGHT
- WORK AREA
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC — CRASH CUSHIONS TEMPORARY
- TRAFFIC CONTROL SIGNS FIXED MESSAGE

STAGE 2D

END ROAD WORK
G20-2A
48" X 24"

W. BOWDEN STREET

MAINTAIN TWO LANES DURING DAYTIME HOURS

CLOSE RIGHT LANE DURING WING WALL CONSTRUCTION
SEE SDD "TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 MPH WITH BARRIER"

SEE SDD "TRAFFIC CONTROL, SIDEWALK CLOSURE"

PROVIDE TEMPORARY SIDEWALK AND CURB RAMP

TEMPORARY SECURITY FENCE

TEMPORARY PEDESTRIAN ACCESS

STH 38/HOWELL AVENUE

410+00 412+00 414+00 416+00 418+00 420+00 422+00 424+00

50' 50'

LANE CLOSED
R11-2L
48" X 30"

TEMPORARY PAVEMENT MARKING REFLECTIVE TAPE 4-INCH

LANE CLOSED
R11-2L
48" X 30"

W5-52R
12" X 36"

PERIMETER ROAD

E. CITATION WAY

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SHEET 505	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\026122_s2.dgn PLOT DATE : 1/3/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2

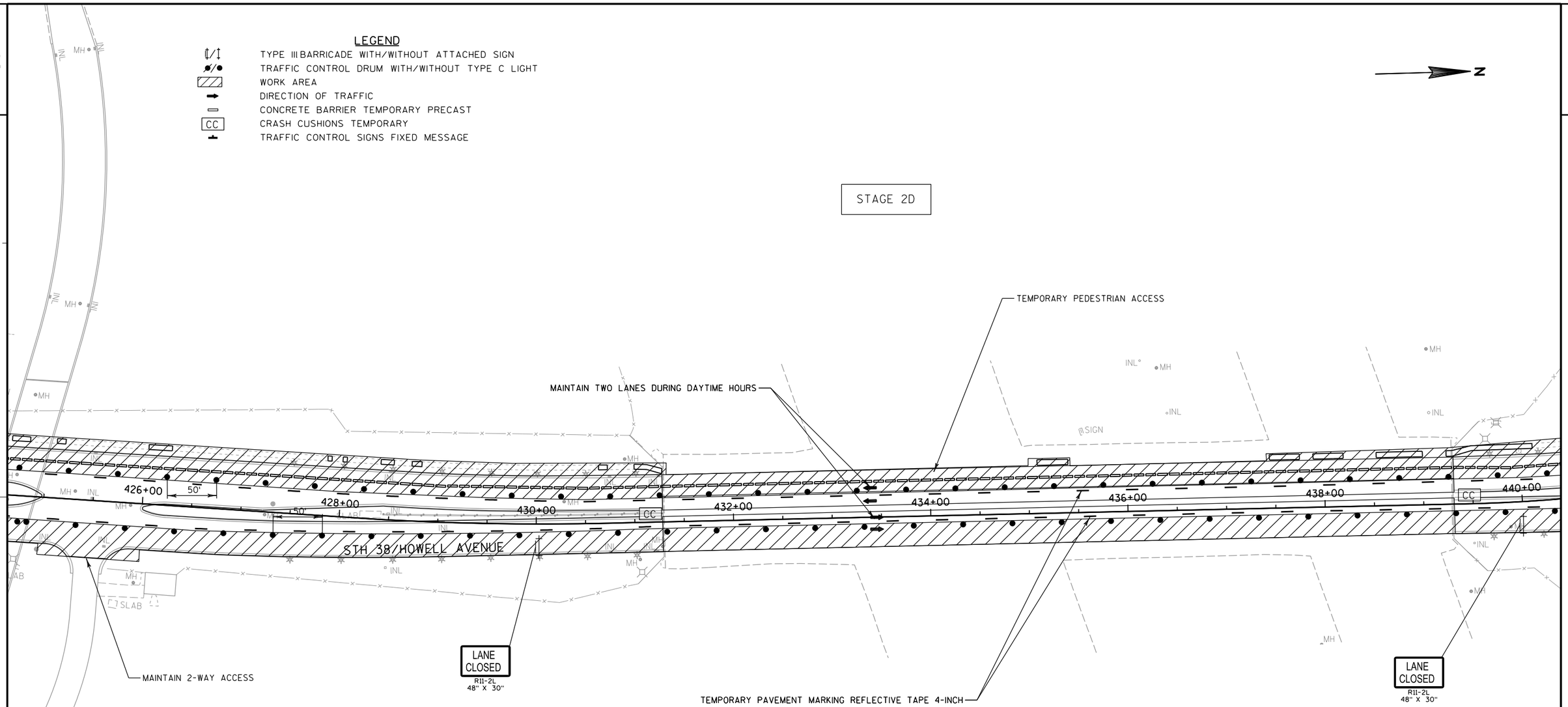
2

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C LIGHT
- WORK AREA
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CRASH CUSHIONS TEMPORARY
- TRAFFIC CONTROL SIGNS FIXED MESSAGE

N

STAGE 2D



PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SHEET 506	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\026123_s2.dgn PLOT DATE : 1/3/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

2

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C LIGHT
- WORK AREA
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC CRASH CUSHIONS TEMPORARY
- TRAFFIC CONTROL SIGNS FIXED MESSAGE

STAGE 2D

N

RAMP ER

RAMP WC

MAINTAIN TWO LANES DURING DAYTIME HOURS, MAINTAIN AT LEAST ONE LANE AT ALL TIMES, SEE SDD "TRAFFIC CONTROL, INTERSECTIONS WITHIN SINGLE LANE CLOSURE (DETAIL B)"

LANE CLOSED
R11-2L
48" X 30"

TEMPORARY PEDESTRIAN ACCESS

PROVIDE TEMPORARY SIDEWALK AND CURB RAMP

W5-52R
12" X 36"

SEE SDD "TRAFFIC CONTROL, SIDEWALK CLOSURE"

440+00 442+00 444+00 446+00 448+00 450+00 452+00 454+00

50' 15'

MAINTAIN 2-WAY ACCESS

END ROAD WORK
G20-2A
48" X 24"

S. HOWELL AVENUE

ROAD WORK AHEAD
W20-1

MAINTAIN TWO LANES DURING DAYTIME HOURS

LANE CLOSED
R11-2L
48" X 30"

TEMPORARY PAVEMENT MARKING REFLECTIVE TAPE 4-INCH

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SHEET 507	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\026124_s2.dgn PLOT DATE : 1/3/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

2

N

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C LIGHT
- WORK AREA
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC — CRASH CUSHIONS TEMPORARY
- TRAFFIC CONTROL SIGNS FIXED MESSAGE

STAGE 2D

ROAD WORK AHEAD
W20-1

END ROAD WORK
G20-2A
48" X 24"

MAINTAIN TWO LANES DURING DAYTIME HOURS,
MAINTAIN AT LEAST ONE LANE AT ALL TIMES,
SEE SDD "TRAFFIC CONTROL, INTERSECTIONS
WITHIN SINGLE LANE CLOSURE (DETAIL B)"

LANE CLOSED
R11-2L
48" X 30"

LANE CLOSED
R11-2L
48" X 30"

SEE SDD FOR SINGLE LANE CLOSURE,
NON-FREEWAY/EXPRESSWAY

EXISTING PAVEMENT MARKING

STH 119/AIRPORT SPUR

GRANGE AVENUE

RAMP WC

STH 38/HOWELL AVENUE

456+00 458+00 460+00 462+00 464+00 466+00 468+00 470+00

15' 50' 15'

MAINTAIN TWO LANES DURING DAYTIME HOURS,
MAINTAIN AT LEAST ONE LANE AT ALL TIMES,
SEE SDD "TRAFFIC CONTROL, INTERSECTIONS
WITHIN SINGLE LANE CLOSURE (DETAIL B)"

MAINTAIN TWO LANES DURING DAYTIME HOURS

TEMPORARY PAVEMENT MARKING REFLECTIVE TAPE 4-INCH

ROAD WORK AHEAD
W20-1

END PROJECT
STA 462+75.39

S. HOWELL AVENUE

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SHEET 508	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\026125_s2.dgn PLOT DATE : 1/3/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

2

N

STAGE 2A

MAINTAIN TWO LANES DURING DAYTIME HOURS,
MAINTAIN AT LEAST ONE LANE AT ALL TIMES

SEE SDD "TRAFFIC CONTROL, SIDEWALK CLOSURE"

ROAD WORK AHEAD
W20-1

STH 100/RYAN ROAD

186+00
184+00
182+00
180+00
178+00

1100+00
1102+00
1104+00
1106+00
1108+00
1110+00
1112+00
1114+

15'

STH 38/HOWELL AVENUE

END ROAD WORK
G20-2A
48" X 24"

MAINTAIN TWO LANES DURING DAYTIME HOURS,
MAINTAIN AT LEAST ONE LANE AT ALL TIMES,
SEE SDD "TRAFFIC CONTROL, INTERSECTIONS
WITHIN SINGLE LANE CLOSURE (DETAIL B)"

CANOPY
VACUUM
FILLER CAP
SIGN
MH
INL
NL

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C LIGHT
- WORK AREA
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC — CRASH CUSHIONS TEMPORARY
- TRAFFIC CONTROL SIGNS FIXED MESSAGE

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SHEET 509	E

2

2

N

STAGE 2B

STH 38/HOWELL AVENUE

FOREST HILL AVENUE

E FOREST HILL

ROAD CLOSED SEE SDD "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES" MAINTAIN DRIVEWAY ACCESS

END ROAD WORK
G20-2A
48" X 24"

ROAD WORK AHEAD
W20-1

ROAD CLOSED AHEAD
W20-3

ROAD CLOSED TO THRU TRAFFIC
R11-4
60" X 30"

ROAD CLOSED TO THRU TRAFFIC
R11-4
60" X 30"

ROAD WORK AHEAD
W20-1

END ROAD WORK
G20-2A
48" X 24"

500'

266+00
264+00
262+00
260+00
258+00xx
256+00
202+00
204+00
204+39
100+00
102+00
104+00
106+00
108+00
110+00

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C LIGHT
- WORK AREA
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC — CRASH CUSHIONS TEMPORARY
- TRAFFIC CONTROL SIGNS FIXED MESSAGE

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SHEET 510	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\026127_s2.dgn PLOT DATE : 1/3/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 42

LEGEND

- TYPE III BARRICADE WITH/WITHOUT ATTACHED SIGN
- TRAFFIC CONTROL DRUM WITH/WITHOUT TYPE C LIGHT
- WORK AREA
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER TEMPORARY PRECAST
- CC — CRASH CUSHIONS TEMPORARY
- TRAFFIC CONTROL SIGNS FIXED MESSAGE

WB ENTRANCE RAMP

STH 119/AIRPORT SPUR

STH 119/AIRPORT SPUR

EB EXIT RAMP

RAMP ER CLOSED: SEE SDD "TRAFFIC CONTROL, EXIT RAMP CLOSURE"

RAMP WC CLOSED: SEE SDD "TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE"

RAMP ER

RAMP WC

STH 38/HOWELL AVENUE

458+00

456+00

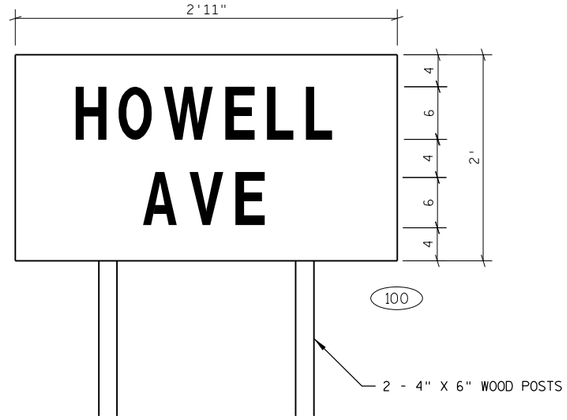
454+00

452+00

450+00

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2	SHEET 511	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\026128_s2.dgn PLOT DATE : 1/3/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100



NOTES

1. AFTER SIGNS HAVE BEEN LOCATED IN THE FIELD, BUT BEFORE INSTALLATION, THE SIGNING AND MARKING SUPERVISOR SHALL VERIFY EACH SIGN LOCATION.

2. ALL SIGNS TO BE MOUNTED ON WOODEN POST SUPPORTS (4"x6"). THE NUMBER OF POSTS REQUIRED FOR EACH LAYOUT IS SHOWN. STEEL POSTS (2"X2") MAY BE USED FOR SIGNS ON SURFACE STREETS. SIGNS WHERE NO POSTS ARE SHOWN TO BE MOUNTED ON EXISTING SIGNS. FOR SIGNS MOUNTED ON POSTS, USE POSTS FROM FHWA LIST OF ACCEPTED BREAKAWAY SIGN SUPPORTS.

3. POSTS SHALL MEET THE BREAKAWAY REQUIREMENTS OF SECTION 643.2.9.1 OF THE STANDARD SPECIFICATIONS AND SIGN PLATE A4-11.

4. SIGNS ON THIS SHEET TO BE PAID UNDER THE ITEM "TRAFFIC CONTROL SIGNS FIXED MESSAGE".

5. SIGNS SHALL BE BLACK NON-REFLECTIVE MESSAGE ON ORANGE REFLECTIVE BACKGROUND UNLESS OTHERWISE NOTED.

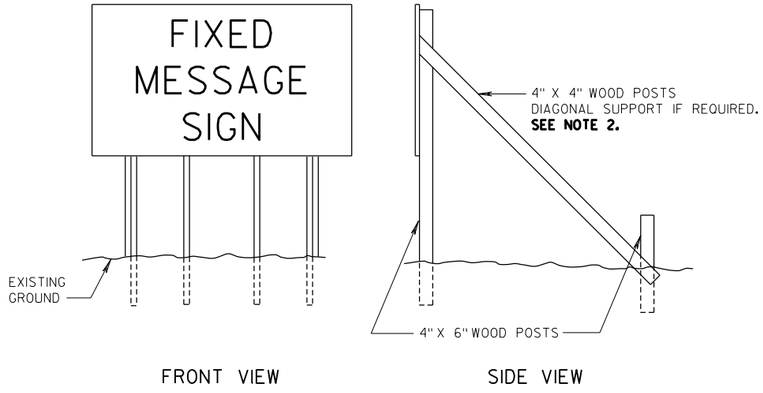
6. ALL SIGNS SHALL HAVE CAPITAL LETTERS AND NUMERALS:
12" CAPS SHALL BE SERIES "D", 6" CAPS SHALL BE SERIES "C".

7. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO ENGINEER FOR REVIEW PRIOR TO MANUFACTURING.

8. SIGN BASE MATERIAL SHALL BE ACCORDING TO SECTION 637.2.1.2.

9. DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

(XXX) = FIXED MESSAGE SIGN NUMBER



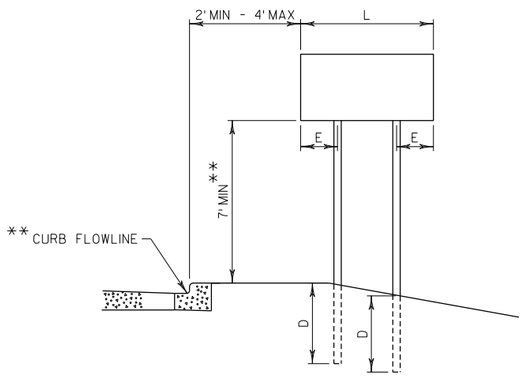
FRONT VIEW SIDE VIEW

NOTES

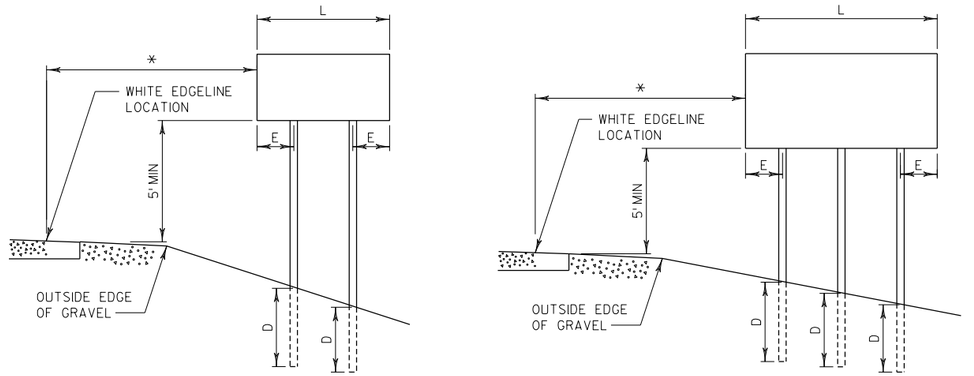
1. SEE TRAFFIC CONTROL SHEETS FOR SIGN LOCATIONS.
2. TWO DIAGONAL SUPPORTS TO BE INCLUDED FOR EACH SIGN OVER 12'LONG AND HIGHER THAN 8'. DIAGONAL SUPPORTS TO BE AFFIXED TO THE OUTSIDE SUPPORTS AND TO BE INCIDENTAL TO THE "TRAFFIC CONTROL FIXED MESSAGE SIGN" ITEM. IF DIAGONAL SUPPORTS ARE USED, SIGN TO BE SHIELDED BEHIND CONCRETE BARRIER OR PLACED OUTSIDE THE CLEAR ZONE.
3. SEE TABLES BELOW FOR REQUIRED NUMBER OF POSTS.

* 6'FROM EDGE OF A PAVED SHOULDER OR 12'FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) OR 2'FROM OUTSIDE EDGE OF GRAVEL, WHICHEVER IS GREATER UNLESS DIRECTED BY PROJECT ENGINEER. SEE NOTE 2 FOR OFFSET REQUIREMENTS WHERE DIAGONAL SUPPORTS ARE USED.

** THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5'MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.



URBAN AREA



RURAL AREA

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
GREATER THAN 48" LESS THAN 60"	12"
60" TO 120"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
GREATER THAN 120" LESS THAN 168"	12"

SIGN SHAPE OTHER THAN DIAMOND (FOUR POSTS REQUIRED)	
L	E
168" AND GREATER	12"

POST EMBEDMENT DEPTH

AREA OF SIGN INSTALLATION (SQ. FT.)	D (MIN)
20 OR LESS	4'
GREATER THAN 20	5'

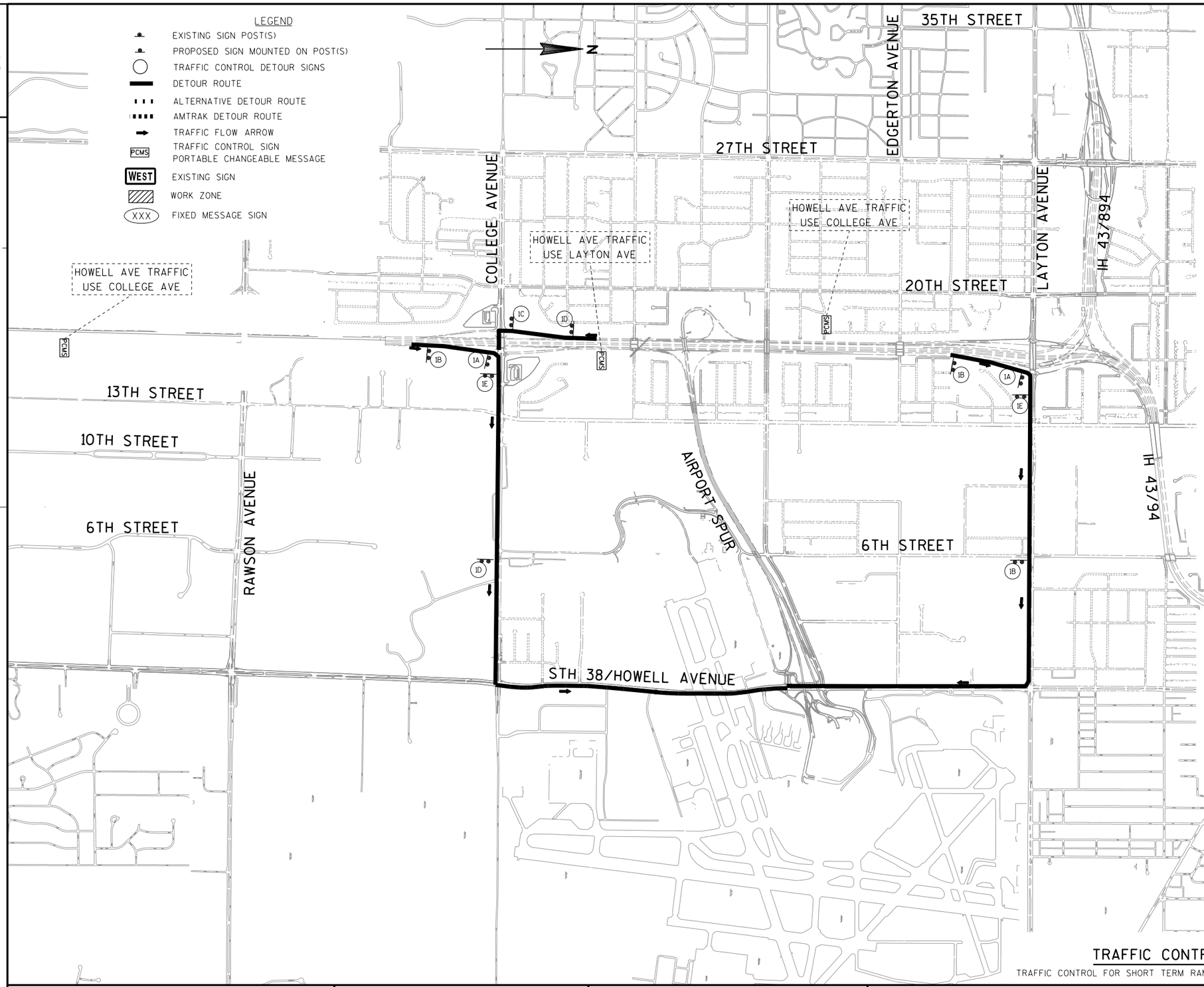
NOTE TO DESIGNERS: SHOW POSTS ON FMS SIGN DETAILS.

POST MOUNTING DETAIL FOR TRAFFIC CONTROL FIXED MESSAGE SIGNS

2

LEGEND

- EXISTING SIGN POST(S)
- PROPOSED SIGN MOUNTED ON POST(S)
- TRAFFIC CONTROL DETOUR SIGNS
- DETOUR ROUTE
- ALTERNATIVE DETOUR ROUTE
- AMTRAK DETOUR ROUTE
- TRAFFIC FLOW ARROW
- PCMS — TRAFFIC CONTROL SIGN PORTABLE CHANGEABLE MESSAGE
- WEST — EXISTING SIGN
- WORK ZONE
- XXX — FIXED MESSAGE SIGN



GENERAL NOTES

"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS REFLECTIVE ORANGE.

ALL SIGNS SHALL BE PLACED IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FEDERAL HIGHWAY ADMINISTRATION MANUAL OF STANDARD HIGHWAY SIGNS. UNLESS OTHERWISE PROVIDED IN THE PLAN.

LOCATION AND SPACING OF SIGNS AND DEVICES MAY BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

ANY EXISTING TRAFFIC SIGNS THAT CONFLICT WITH THIS DETOUR SHALL BE COVERED AS DIRECTED BY THE ENGINEER.

DETOUR SIGNS SHALL BE COVERED OR REMOVED WHEN DETOUR IS NOT IN USE OR AS DIRECTED BY THE ENGINEER.

ADVANCED SIGNING SHALL BE INSTALLED WHEN REQUIRING CLOSURES. THIS INCLUDES TRAFFIC CONTROL PORTABLE CHANGEABLE MESSAGE SIGNS. REFER TO FOOTNOTES (1).

FOOTNOTES

(1) WHEN MODIFYING EXISTING SIGNS, SIGN PLATES (A) THROUGH (E) TO BE INSTALLED WHILE DETOURS ARE IN PLACE. REMOVE WHEN CLOSURE IS OVER, OR AS DIRECTED BY THE ENGINEER.

(1) MO4-5 24" X 12" / 100 / 24" X 35" — TO HOWELL AVE

(A) MO6-1 21" X 21"
(B) MO5-1R 21" X 21"
(C) MO6-1 21" X 21"
(D) MO5-1L 21" X 21"
(E) MO6-1 21" X 21"

TRAFFIC CONTROL-RAMP CLOSURE

TRAFFIC CONTROL FOR SHORT TERM RAMP CLOSURE AT STH 119 (AIRPORT SPUR)

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	TRAFFIC CONTROL-RAMP CLOSURE	SHEET 514 E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\026131_s2.dgn PLOT DATE : 10/31/2013 PLOT BY : tmk PLOT NAME : $FILE$ PLOT SCALE : 1:2000

2

1075+91.58 RYAN ROAD
Y = 238,938.30
X = 602,460.26

2089+56.69 PUETZ RD
Y = 244,244.84
X = 602,624.63

200+00.00 FOREST HILL AVE
Y = 246,819.53
X = 604,889.27

182+13.17 STH 38 =
1102+13.31 RYAN ROAD
Y = 238,865.70
X = 605,080.98

235+11.04 STH 38 =
2115+77.34 PUETZ ROAD
Y = 244,161.05
X = 605,243.94

261+51.30 STH 38 =
100+00.00 FOREST HILL AVE
Y = 246,799.98
X = 605,327.76

Y=236228.88
X=605010.85

PI STA155+75.43

PI STA208+63.66

N 0°20'27" E

PI STA129+27.40

125+00

N 1°25'43" E

150+00

N 1°31'25" E

175+00

1100+00

S 88°24'47" E

N 1°44'08" E

200+00

N 1°47'23" E

225+00

2100+00

S 88°10'04" E

N 1°49'09" E

250+00

200+00

S 87°58'39" E

N 2°00'12" E

MATCH LINE STA 275+00

R/L STH 38

BEGIN PROJECT
STA 128+62.73

125+00.00 STH 38
Y = 233,154.29
X = 604,942.29

Y=233581.68
X=604944.83

Y=238865.70
X=605080.98

R/L RYAN RD

S 89°03'38" E

1125+00

1128+73.59 RYAN ROAD
Y = 238,822.08
X = 607,740.91

Y=241514.97
X=605161.26

Y=244161.05
X=605243.94

R/L PUETZ RD

2125+00

S 89°06'31" E

2142+44.88 PUETZ RD
Y = 244,119.55
X = 607,911.15

Y=246803.98
X=605327.89

R/L FOREST HILL AVE

S 89°15'10" E

125+00

261+55.36 STH 38 =
204+38.39 FOREST HILL AVE
Y = 246,804.04
X = 605,327.89

126+83.37 FOREST HILL AVE
Y = 246,764.98
X = 608,010.90

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	ALIGNMENT DETAILS	SHEET 515	E

2

3089+69.03 DREXEL AVENUE
Y = 249,554.73
X = 602,776.92

276+42.23 STH 38 =
300+00.00 SUSAN DRIVE
Y = 248,290.00
X = 605,379.86

288+00.08 STH 38 =
3116+14.63 DREXEL AVENUE
Y = 249,447.15
X = 605,420.34

Y=252090.52
X=605515.59

340+88.75 STH 38 =
4116+61.42 RAWSON AVENUE
Y = 254,732.57
X = 605,605.75

4090+02.05 RAWSON AVENUE
Y = 254,849.78
X = 602,948.96

PI STA314+45.17

PI STA367+34.11

Y=257376.20
X=605700.98

5090+56.88 COLLEGE AVENUE
Y = 260,048.89
X = 603,111.70

Y=260030.67
X=605803.87

393+92.85 STH 38 =
5117+82.64 COLLEGE AVENUE
Y = 260,030.47
X = 605,837.39

PI STA5091+60.39

PRC STA402+52.41

PI STA404+39.26

PT STA406+25.58

PT STA390+72.55

PI STA389+61.75

PC STA388+50.84

PI STA385+05.38

PI STA5117+49.12

N 0°38'36" E

MATCH LINE STA 275+00

MATCH LINE STA 410+00

300+00 N 2°00'12" E

300+00 N 2°03'49" E

325+00 N 1°57'17" E

350+00 N 2°03'47" E

375+00 N 2°13'11" E

N 2°13'11" E

400+00

S 89°33'45" E

S 87°40'10" E

S 87°28'26" E

S 89°17'17" E

S 89°37'33" E

3100+00

4100+00

5100+00

R/L SUSAN DRIVE

R/L STH 38

CURVE 1

CURVE 3

PI STA399+81.39

CURVE 2

PC STA397+07.82

N 6°40'33" E

S 89°35'47" E

PI STA5118+11.45

302+44.34
SUSAN DRIVE
Y = 248,288.14
X = 605,624.20

Y=249447.15
X=605420.34

Y=254732.57
X=605605.75

3125+00

4125+00

5125+00

S 89°24'15" E

S 89°12'58" E

S 89°32'37" E

Y=260030.27
X=605866.20

S 89°37'40" E

R/L COLLEGE AVENUE

R/L DREXEL AVENUE

R/L RAWSON AVENUE

PI STA5143+97.74

3142+86.15 DREXEL AVENUE
Y = 249,419.37
X = 608,091.71

4143+09.95 RAWSON AVENUE
Y = 254,696.33
X = 608,254.03

5144+60.86 COLLEGE AVENUE
Y = 260,009.25
X = 608,515.53

CURVE 1
PI STA. 389+61.75
Y: 259,602.18
X: 605,787.26
DELTA: 4°27'21.32"
D: 2°00'35.36"
T: 110.91'
L: 221.71'
R: 2,850.79'
PC STA. 388+50.84
Y: 259,491.35
X: 605,782.97
PT STA. 390+72.55
Y: 259,712.33
X: 605,800.16
BK: N 2°13'11.33" E
AH: N 6°40'32.64" E
SE=NC

CURVE 2
PI STA. 399+81.39
Y: 260,615.01
X: 605,905.81
DELTA: 13°31'55.87"
D: 2°29'05.36"
T: 273.57'
L: 544.59'
R: 2,305.83'
PC STA. 397+07.82
Y: 260,343.30
X: 605,874.01
PRC STA. 402+52.41
Y: 260,886.62
X: 605,873.15
BK: N 6°40'32.42" E
AH: N 6°51'23.45" W
SE=NC

CURVE 3
PI STA. 404+39.26
Y: 261,072.14
X: 605,850.84
DELTA: 7°29'59.82"
D: 2°00'35.36"
T: 186.85'
L: 373.17'
R: 2,850.79'
PRC STA. 402+52.41
Y: 260,886.62
X: 605,873.15
PT STA. 406+25.58
Y: 261,258.98
X: 605,852.94
BK: N 6°51'23.42" W
AH: N 0°38'36.40" E
SE=NC

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	ALIGNMENT DETAILS	SHEET 516	E

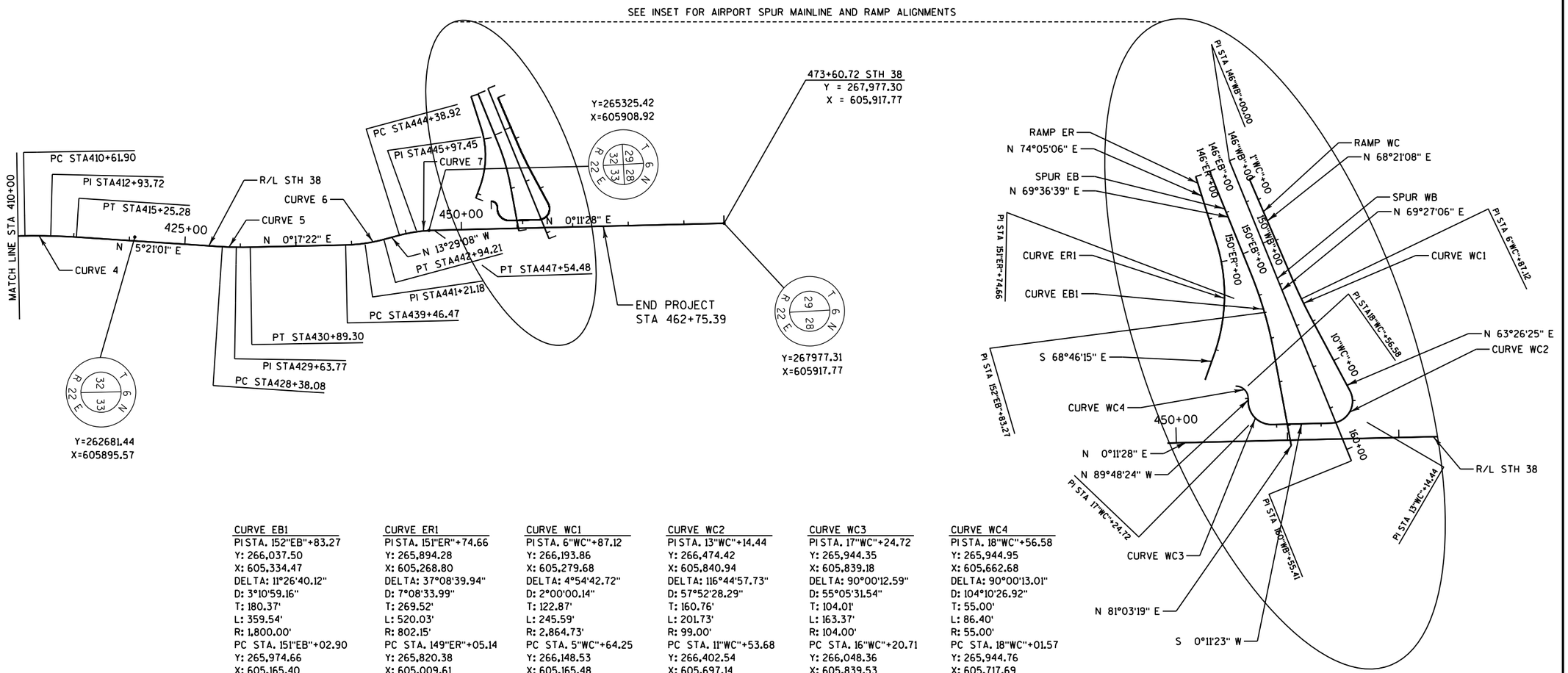
2

CURVE 4
PI STA. 412+93.72
Y: 261,927.07
X: 605,860.44
DELTA: 4°38'42.70"
D: 1°00'08.82"
T: 231.82'
L: 463.38'
R: 5,715.58'
PC STA. 410+61.90
Y: 261,695.27
X: 605,857.84
PT STA. 415+25.28
Y: 262,157.91
X: 605,881.81
BK: N 0°38'36.50" E
AH: N 5°21'01.44" E
SE=NC

CURVE 5
PI STA. 429+63.77
Y: 263,590.21
X: 606,014.99
DELTA: 5°00'00.48"
D: 1°59'24.98"
T: 125.69'
L: 251.23'
R: 2,878.79'
PC STA. 428+38.08
Y: 263,464.98
X: 606,004.23
PT STA. 430+89.30
Y: 263,715.91
X: 606,014.79
BK: N 5°21'01.44" E
AH: N 0°17'22.01" E
SE=NC

CURVE 6
PI STA. 441+21.18
Y: 264,747.77
X: 606,020.01
DELTA: 13°46'30.71"
D: 3°57'40.66"
T: 174.71'
L: 347.74'
R: 1,446.39'
PC STA. 439+46.47
Y: 264,573.06
X: 606,019.12
PT STA. 442+94.21
Y: 264,917.67
X: 605,979.26
BK: N 0°17'22.01" E
AH: N 13°29'08.34" W
SE=NC

CURVE 7
PI STA. 445+97.45
Y: 265,212.55
X: 605,908.55
DELTA: 13°40'36.15"
D: 4°20'02.95"
T: 158.53'
L: 315.56'
R: 1,321.96'
PC STA. 444+38.92
Y: 265,058.39
X: 605,945.52
PT STA. 447+54.48
Y: 265,371.08
X: 605,909.08
BK: N 13°29'08.34" W
AH: N 0°11'27.81" E
SE=NC



CURVE EB1
PI STA. 152"EB"+83.27
Y: 266,037.50
X: 605,334.47
DELTA: 11°26'40.12"
D: 3°10'59.16"
T: 180.37'
L: 359.54'
R: 1,800.00'
PC STA. 151"EB"+02.90
Y: 265,974.66
X: 605,165.40
PT STA. 154"EB"+62.44
Y: 266,065.55
X: 605,512.65
BK: N 69°36'38.87" E
AH: N 81°03'18.99" E
SE=NC

CURVE ER1
PI STA. 151"ER"+74.66
Y: 265,894.28
X: 605,268.80
DELTA: 37°08'39.94"
D: 7°08'33.99"
T: 269.52'
L: 520.03'
R: 802.15'
PC STA. 149"ER"+05.14
Y: 265,820.38
X: 605,009.61
PT STA. 154"ER"+25.17
Y: 265,796.69
X: 605,520.03
BK: N 74°05'05.50" E
AH: S 68°46'14.56" E
SE=NC

CURVE WC1
PI STA. 6"WC"+87.12
Y: 266,193.86
X: 605,279.68
DELTA: 4°54'42.72"
D: 2°00'00.14"
T: 122.87'
L: 245.59'
R: 2,864.73'
PC STA. 5"WC"+64.25
Y: 266,148.53
X: 605,165.48
PT STA. 8"WC"+09.84
Y: 266,248.80
X: 605,389.58
BK: N 68°21'07.96" E
AH: N 63°26'25.24" E
SE=NC

CURVE WC2
PI STA. 13"WC"+14.44
Y: 266,474.42
X: 605,840.94
DELTA: 116°44'57.73"
D: 57°52'28.29"
T: 160.76'
L: 201.73'
R: 99.00'
PC STA. 11"WC"+53.68
Y: 266,402.54
X: 605,697.14
PT STA. 13"WC"+55.41
Y: 266,313.66
X: 605,840.41
BK: N 63°26'25.24" E
AH: S 0°11'22.97" W
SE=NC

CURVE WC3
PI STA. 17"WC"+24.72
Y: 265,944.35
X: 605,839.18
DELTA: 90°00'12.59"
D: 55°05'31.54"
T: 104.01'
L: 163.37'
R: 104.00'
PC STA. 16"WC"+20.71
Y: 266,048.36
X: 605,839.53
PT STA. 17"WC"+84.08
Y: 265,944.70
X: 605,735.18
BK: S 0°11'22.97" W
AH: N 89°48'24.44" W
SE=NC

CURVE WC4
PI STA. 18"WC"+56.58
Y: 265,944.95
X: 605,662.68
DELTA: 90°00'13.01"
D: 104°10'26.92"
T: 55.00'
L: 86.40'
R: 55.00'
PC STA. 18"WC"+01.57
Y: 265,944.76
X: 605,717.69
PT STA. 18"WC"+87.97
Y: 265,889.94
X: 605,662.50
BK: N 89°48'24.44" W
AH: S 00°11'22.55" W
SE=NC

DATE 19FEB14 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	2060-15-71 QUANTITY
0010	108.4300	RBC PROGRESS SCHEDULE	EACH	1.000	1.000
0020	201.0105	CLEARING **P**	STA	19.000	19.000
0030	201.0120	CLEARING **P**	ID	298.000	298.000
0040	201.0205	GRUBBING **P**	STA	19.000	19.000
0050	201.0220	GRUBBING **P**	ID	298.000	298.000
0060	203.0200	REMOVING OLD STRUCTURE (STATION) 0003. 423+50	LS	1.000	1.000
0070	203.0210.S	ABATEMENT OF ASBESTOS CONTAINING MATERIAL (STRUCTURE) 0001. B-40-294	LS	1.000	1.000
0080	203.0210.S	ABATEMENT OF ASBESTOS CONTAINING MATERIAL (STRUCTURE) 0002. B-40-295	LS	1.000	1.000
0090	203.0210.S	ABATEMENT OF ASBESTOS CONTAINING MATERIAL (STRUCTURE) 0003. B-40-296	LS	1.000	1.000
0100	203.0600.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS (STATION) 0001. 199+41	LS	1.000	1.000
0110	203.0600.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS (STATION) 0002. 199+61	LS	1.000	1.000
0120	204.0100	REMOVING PAVEMENT	SY	16,425.000	16,425.000
0130	204.0105	REMOVING PAVEMENT BUTT JOINTS	SY	314.000	314.000
0140	204.0120	REMOVING ASPHALTIC SURFACE MILLING **P**	SY	297,978.000	297,978.000
0150	204.0150	REMOVING CURB & GUTTER	LF	3,048.000	3,048.000
0160	204.0155	REMOVING CONCRETE SIDEWALK	SY	5,871.000	5,871.000
0170	204.0165	REMOVING GUARDRAIL **P**	LF	1,060.000	1,060.000
0180	204.0170	REMOVING FENCE **P**	LF	58.000	58.000
0190	204.0175	REMOVING CONCRETE SLOPE PAVING	SY	380.000	380.000
0200	204.0195	REMOVING CONCRETE BASES	EACH	185.000	185.000
0210	204.0210	REMOVING MANHOLES	EACH	2.000	2.000
0220	204.0220	REMOVING INLETS	EACH	94.000	94.000
0230	204.9105.S	REMOVING (ITEM DESCRIPTION) 0001. SAND BARREL ARRAYS STA 198+25	LS	1.000	1.000
0240	204.9105.S	REMOVING (ITEM DESCRIPTION) 0002. SAND BARREL ARRAYS STA 200+75	LS	1.000	1.000
0250	204.9105.S	REMOVING (ITEM DESCRIPTION) 0003. SAND BARREL ARRAYS STA 428+25	LS	1.000	1.000
0260	204.9105.S	REMOVING (ITEM DESCRIPTION) 0004. SAND BARREL ARRAYS STA 439+50	LS	1.000	1.000
0270	204.9105.S	REMOVING (ITEM DESCRIPTION) 0005. CONCRETE PAD STA 401+90	LS	1.000	1.000
0280	205.0100	EXCAVATION COMMON **P**	CY	39,943.000	39,943.000
0290	205.0501.S	EXCAVATION, HAULING, AND DISPOSAL OF PETROLEUM CONTAMINATED SOIL	TON	160.000	160.000
0300	206.2000	EXCAVATION FOR STRUCTURES CULVERTS (STRUCTURE) 0001. B-40-296	LS	1.000	1.000
0310	206.3000	EXCAVATION FOR STRUCTURES RETAINING WALLS (STRUCTURE) 0001. CAST-IN-PLACE WALL	LS	1.000	1.000
0320	206.6000.S	TEMPORARY SHORING	SF	3,090.000	3,090.000
0330	210.0100	BACKFILL STRUCTURE	CY	451.000	451.000
0340	213.0100	FINISHING ROADWAY (PROJECT) 0001. 2060-15-71	EACH	1.000	1.000
0350	305.0110	BASE AGGREGATE DENSE 3/4-INCH	TON	6,885.000	6,885.000
0360	305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	12,032.000	12,032.000
0370	310.0110	BASE AGGREGATE OPEN GRADED	TON	900.000	900.000
0380	320.0145	CONCRETE BASE 8-INCH	SY	21,704.000	21,704.000
0390	340.0100	CRACKING AND SEATING	SY	2,030.000	2,030.000

3

DATE 19FEB14 — E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	2060-15-71 QUANTITY
0400	390.0303	BASE PATCHING CONCRETE	SY	8,218.000	8,218.000
0410	416.0170	CONCRETE DRIVEWAY 7-INCH	SY	1,362.000	1,362.000
0420	416.0270	CONCRETE DRIVEWAY HES 7-INCH	SY	809.000	809.000
0430	416.0610	DRILLED TIE BARS	EACH	8,742.000	8,742.000
0440	416.0620	DRILLED DOWEL BARS	EACH	707.000	707.000
0450	416.1715	CONCRETE PAVEMENT REPAIR SHES	SY	390.000	390.000
0460	416.1725	CONCRETE PAVEMENT REPLACEMENT SHES	SY	8,950.000	8,950.000
0470	420.1000.S	CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING	SY	15,440.000	15,440.000
0480	440.4410.S	INCENTIVE IRI RIDE	DOL	65,162.000	65,162.000
0490	455.0120	ASPHALTIC MATERIAL PG64-28	TON	3,237.000	3,237.000
0500	455.0605	TACK COAT	GAL	24,167.000	24,167.000
0510	460.1101	HMA PAVEMENT TYPE E-1	TON	58,385.000	58,385.000
0520	460.2000	INCENTIVE DENSITY HMA PAVEMENT	DOL	38,370.000	38,370.000
0530	465.0120	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES	TON	180.000	180.000
0540	465.0125	ASPHALTIC SURFACE TEMPORARY	TON	100.000	100.000
0550	502.0100	CONCRETE MASONRY BRIDGES	CY	100.000	100.000
0560	502.3200	PROTECTIVE SURFACE TREATMENT	SY	1,388.000	1,388.000
0570	502.5005	MASONRY ANCHORS TYPE L NO. 5 BARS	EACH	778.000	778.000
0580	504.0100	CONCRETE MASONRY CULVERTS	CY	103.000	103.000
0590	504.0500	CONCRETE MASONRY RETAINING WALLS	CY	35.000	35.000
0600	505.0415	BAR STEEL REINFORCEMENT HS RETAINING WALLS	LB	850.000	850.000
0610	505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	19,420.000	19,420.000
0620	505.0610	BAR STEEL REINFORCEMENT HS COATED CULVERTS	LB	8,200.000	8,200.000
0630	505.0615	BAR STEEL REINFORCEMENT HS COATED RETAINING WALLS	LB	810.000	810.000
0640	509.0301	PREPARATION DECKS TYPE 1	SY	463.000	463.000
0650	509.0302	PREPARATION DECKS TYPE 2	SY	307.000	307.000
0660	509.0500	CLEANING DECKS	SY	970.000	970.000
0670	509.1500	CONCRETE SURFACE REPAIR	SF	894.000	894.000
0680	509.2000	FULL-DEPTH DECK REPAIR	SY	43.000	43.000
0690	509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	102.000	102.000
0700	513.4055	RAILING TUBULAR TYPE H (STRUCTURE) 0001. B-40-294	LS	1.000	1.000
0710	513.4055	RAILING TUBULAR TYPE H (STRUCTURE) 0002. B-40-295	LS	1.000	1.000
0720	513.4055	RAILING TUBULAR TYPE H (STRUCTURE) 0003. B-40-296	LS	1.000	1.000
0730	516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	21.000	21.000
0740	517.1010.S	CONCRETE STAINING (STRUCTURE) 0001. CAST-IN-PLACE WALL	SF	67.000	67.000
0750	517.1015.S	CONCRETE STAINING MULTI-COLOR (STRUCTURE) 0001. CAST-IN-PLACE WALL	SF	162.000	162.000
0760	517.1050.S	ARCHITECTURAL SURFACE TREATMENT (STRUCTURE) 0001. CAST-IN-PLACE WALL	SF	162.000	162.000
0770	520.8000	CONCRETE COLLARS FOR PIPE	EACH	15.000	15.000
0780	532.0200.S	WALL MODULAR BLOCK GRAVITY	SF	2,568.000	2,568.000
0790	601.0105	CONCRETE CURB TYPE A	LF	9.000	9.000
0800	601.0331	CONCRETE CURB & GUTTER 31-INCH	LF	22,305.000	22,305.000
0810	601.0553	CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE D	LF	334.000	334.000

3

DATE 19FEB14 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	2060-15-71 QUANTITY
0820	601.0600	CONCRETE CURB PEDESTRIAN	LF	120.000	120.000
0830	602.0410	CONCRETE SIDEWALK 5-INCH **P**	SF	188,779.000	188,779.000
0840	602.0505	CURB RAMP DETECTABLE WARNING FIELD YELLOW	SF	2,128.000	2,128.000
0850	603.8000	CONCRETE BARRIER TEMPORARY PRECAST DELIVERED	LF	4,752.000	4,752.000
0860	603.8125	CONCRETE BARRIER TEMPORARY PRECAST INSTALLED	LF	4,752.000	4,752.000
0870	606.0300	RIPRAP HEAVY	CY	24.000	24.000
0880	608.0312	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 12-INCH	LF	2,270.000	2,270.000
0890	608.0315	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 15-INCH	LF	692.000	692.000
0900	608.0318	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 18-INCH	LF	41.000	41.000
0910	608.0321	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 21-INCH	LF	7.000	7.000
0920	611.0535	MANHOLE COVERS TYPE J-SPECIAL	EACH	19.000	19.000
0930	611.0642	INLET COVERS TYPE MS	EACH	1.000	1.000
0940	611.0654	INLET COVERS TYPE V	EACH	106.000	106.000
0950	611.2003	MANHOLES 3-FT DIAMETER	EACH	10.000	10.000
0960	611.2004	MANHOLES 4-FT DIAMETER	EACH	34.000	34.000
0970	611.2005	MANHOLES 5-FT DIAMETER	EACH	3.000	3.000
0980	611.2006	MANHOLES 6-FT DIAMETER	EACH	6.000	6.000
0990	611.2007	MANHOLES 7-FT DIAMETER	EACH	1.000	1.000
1000	611.2008	MANHOLES 8-FT DIAMETER	EACH	1.000	1.000
1010	611.3220	INLETS 2X2-FT	EACH	90.000	90.000
1020	611.3901	INLETS MEDIAN 1 GRATE	EACH	1.000	1.000
1030	611.8115	ADJUSTING INLET COVERS	EACH	8.000	8.000
1040	612.0106	PIPE UNDERDRAIN 6-INCH	LF	4,877.000	4,877.000
1050	612.0206	PIPE UNDERDRAIN UNPERFORATED 6-INCH	LF	13.000	13.000
1060	612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	142.000	142.000
1070	614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	8.000	8.000
1080	614.0200	STEEL THRIE BEAM STRUCTURE APPROACH	LF	82.400	82.400
1090	614.0220	STEEL THRIE BEAM BULLNOSE TERMINAL	EACH	2.000	2.000
1100	614.0230	STEEL THRIE BEAM	LF	64.400	64.400
1110	614.0396	GUARDRAIL MOW STRIP ASPHALT	SY	26.000	26.000
1120	614.0800	CRASH CUSHIONS PERMANENT	EACH	2.000	2.000
1130	614.0905	CRASH CUSHIONS TEMPORARY	EACH	7.000	7.000
1140	614.2300	MGS GUARDRAIL 3	LF	50.000	50.000
1150	614.2500	MGS THRIE BEAM TRANSITION	LF	78.000	78.000
1160	614.2610	MGS GUARDRAIL TERMINAL EAT	EACH	2.000	2.000
1170	615.0100	GUARD FENCE TIMBER RAIL	LF	485.000	485.000
1180	618.0100	MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) 0001. 2060-15-71	EACH	1.000	1.000
1190	619.1000	MOBILIZATION	EACH	1.000	1.000
1200	620.0300	CONCRETE MEDIAN SLOPED NOSE	SF	2,109.000	2,109.000
1210	621.0100	LANDMARK REFERENCE MONUMENTS	EACH	1.000	1.000
1220	623.0200	DUST CONTROL SURFACE TREATMENT	SY	27,215.000	27,215.000
1230	624.0100	WATER	MGAL	4.000	4.000
1240	625.0100	TOPSOIL	SY	4,521.000	4,521.000
1250	628.1104	EROSION BALES	EACH	40.000	40.000
1260	628.1504	SILT FENCE	LF	7,649.000	7,649.000
1270	628.1520	SILT FENCE MAINTENANCE	LF	7,649.000	7,649.000

3

DATE 19FEB14 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	2060-15-71 QUANTITY
1280	628.1905	MOBILIZATIONS EROSION CONTROL	EACH	13.000	13.000
1290	628.1910	MOBILIZATIONS EMERGENCY EROSION CONTROL	EACH	6.000	6.000
1300	628.2033	EROSION MAT CLASS III TYPE B	SY	1,262.000	1,262.000
1310	628.7005	INLET PROTECTION TYPE A	EACH	96.000	96.000
1320	628.7010	INLET PROTECTION TYPE B	EACH	15.000	15.000
1330	628.7015	INLET PROTECTION TYPE C	EACH	440.000	440.000
1340	628.7020	INLET PROTECTION TYPE D	EACH	134.000	134.000
1350	628.7555	CULVERT PIPE CHECKS	EACH	13.000	13.000
1360	628.7560	TRACKING PADS	EACH	1.000	1.000
1370	629.0210	FERTILIZER TYPE B	CWT	264.000	264.000
1380	630.0140	SEEDING MIXTURE NO. 40	LB	4.000	4.000
1390	630.0200	SEEDING TEMPORARY	LB	5.000	5.000
1400	631.0300	SOD WATER	MGAL	33.000	33.000
1410	631.1000	SOD LAWN	SY	4,521.000	4,521.000
1420	634.0616	POSTS WOOD 4X6-INCH X 16-FT	EACH	418.000	418.000
1430	634.0618	POSTS WOOD 4X6-INCH X 18-FT	EACH	469.000	469.000
1440	637.2210	SIGNS TYPE II REFLECTIVE H	SF	9,069.860	9,069.860
1450	637.2215	SIGNS TYPE II REFLECTIVE H FOLDING	SF	522.200	522.200
1460	637.2230	SIGNS TYPE II REFLECTIVE F	SF	1,798.700	1,798.700
1470	638.2102	MOVING SIGNS TYPE II	EACH	79.000	79.000
1480	638.2602	REMOVING SIGNS TYPE II	EACH	831.000	831.000
1490	638.3000	REMOVING SMALL SIGN SUPPORTS	EACH	550.000	550.000
1500	642.5401	FIELD OFFICE TYPE D	EACH	1.000	1.000
1510	643.0100	TRAFFIC CONTROL (PROJECT) 0001. 2060-15-71	EACH	1.000	1.000
1520	643.0300	TRAFFIC CONTROL DRUMS	DAY	105,299.000	105,299.000
1530	643.0410	TRAFFIC CONTROL BARRICADES TYPE II	DAY	4,168.000	4,168.000
1540	643.0420	TRAFFIC CONTROL BARRICADES TYPE III	DAY	8,928.000	8,928.000
1550	643.0705	TRAFFIC CONTROL WARNING LIGHTS TYPE A	DAY	2,400.000	2,400.000
1560	643.0715	TRAFFIC CONTROL WARNING LIGHTS TYPE C	DAY	7,635.000	7,635.000
1570	643.0800	TRAFFIC CONTROL ARROW BOARDS	DAY	696.000	696.000
1580	643.0900	TRAFFIC CONTROL SIGNS	DAY	18,350.000	18,350.000
1590	643.0920	TRAFFIC CONTROL COVERING SIGNS TYPE II	EACH	1.000	1.000
1600	643.1000	TRAFFIC CONTROL SIGNS FIXED MESSAGE	SF	160.000	160.000
1610	643.1050	TRAFFIC CONTROL SIGNS PCMS	DAY	55.000	55.000
1620	645.0105	GEOTEXTILE FABRIC TYPE C	SY	137.000	137.000
1630	645.0120	GEOTEXTILE FABRIC TYPE HR	SY	35.000	35.000
1640	646.0106	PAVEMENT MARKING EPOXY 4-INCH **P**	LF	39,175.000	39,175.000
1650	646.0600	REMOVING PAVEMENT MARKINGS	LF	77,649.000	77,649.000
1660	646.0881.S	PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 4-INCH **P**	LF	19,250.000	19,250.000
1670	646.0883.S	PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH **P**	LF	29,415.000	29,415.000
1680	646.0900.S	PAVEMENT MARKING LATE SEASON	LF	20,742.000	20,742.000
1690	647.0208	PAVEMENT MARKING ARROWS BIKE LANE PREFORMED THERMOPLASTIC	EACH	12.000	12.000
1700	647.0408	PAVEMENT MARKING WORDS BIKE LANE PREFORMED THERMOPLASTIC	EACH	12.000	12.000
1710	647.0606	PAVEMENT MARKING ISLAND NOSE EPOXY	EACH	86.000	86.000
1720	647.0726	PAVEMENT MARKING DIAGONAL EPOXY 12-INCH **P**	LF	13,325.000	13,325.000
1730	647.0955	REMOVING PAVEMENT MARKINGS ARROWS	EACH	8.000	8.000
1740	647.0965	REMOVING PAVEMENT MARKINGS WORDS	EACH	8.000	8.000
1750	649.0200	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH	LF	26,387.000	26,387.000

3

DATE 19FEB14 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	2060-15-71 QUANTITY
1760	649.0701	TEMPORARY PAVEMENT MARKING 8-INCH	LF	1,774.000	1,774.000
1770	652.0215	CONDUIT RIGID NONMETALLIC SCHEDULE 40 1 1/4-INCH	LF	355.000	355.000
1780	652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	38,405.000	38,405.000
1790	652.0235	CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH	LF	5,435.000	5,435.000
1800	652.0605	CONDUIT SPECIAL 2-INCH	LF	8,163.000	8,163.000
1810	652.0610	CONDUIT SPECIAL 2 1/2-INCH	LF	91.000	91.000
1820	652.0615	CONDUIT SPECIAL 3-INCH	LF	12,197.000	12,197.000
1830	652.0800	CONDUIT LOOP DETECTOR	LF	7,396.000	7,396.000
1840	653.0120	PULL BOXES STEEL 18X24-INCH	EACH	19.000	19.000
1850	653.0135	PULL BOXES STEEL 24X36-INCH	EACH	55.000	55.000
1860	653.0140	PULL BOXES STEEL 24X42-INCH	EACH	228.000	228.000
1870	653.0905	REMOVING PULL BOXES	EACH	189.000	189.000
1880	654.0101	CONCRETE BASES TYPE 1	EACH	57.000	57.000
1890	654.0102	CONCRETE BASES TYPE 2	EACH	21.000	21.000
1900	654.0105	CONCRETE BASES TYPE 5	EACH	83.000	83.000
1910	654.0110	CONCRETE BASES TYPE 10	EACH	20.000	20.000
1920	654.0113	CONCRETE BASES TYPE 13	EACH	30.000	30.000
1930	654.0217	CONCRETE CONTROL CABINET BASES TYPE 9 SPECIAL	EACH	9.000	9.000
1940	655.0124	CABLE IN DUCT 3-4 AWG	LF	12,740.000	12,740.000
1950	655.0230	CABLE TRAFFIC SIGNAL 5-14 AWG	LF	7,510.000	7,510.000
1960	655.0240	CABLE TRAFFIC SIGNAL 7-14 AWG	LF	10,215.000	10,215.000
1970	655.0260	CABLE TRAFFIC SIGNAL 12-14 AWG	LF	23,005.000	23,005.000
1980	655.0305	CABLE TYPE UF 2-12 AWG GROUNDED	LF	8,335.000	8,335.000
1990	655.0515	ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG	LF	19,940.000	19,940.000
2000	655.0610	ELECTRICAL WIRE LIGHTING 12 AWG	LF	15,660.000	15,660.000
2010	655.0615	ELECTRICAL WIRE LIGHTING 10 AWG	LF	7,800.000	7,800.000
2020	655.0700	LOOP DETECTOR LEAD IN CABLE	LF	37,368.000	37,368.000
2030	655.0800	LOOP DETECTOR WIRE	LF	29,336.000	29,336.000
2040	656.0200	ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) 0001. STH 38 & STH 100	LS	1.000	1.000
2050	656.0200	ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) 0002. STH 38 & CENTENNIAL DR	LS	1.000	1.000
2060	656.0200	ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) 0003. STH 38 & FOREST HILL AVE	LS	1.000	1.000
2070	656.0200	ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) 0004. STH 38 & SUSAN DR	LS	1.000	1.000
2080	656.0200	ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) 0005. STH 38 & DREXEL AVE	LS	1.000	1.000
2090	656.0200	ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) 0006. STH 38 & RAWSON AVE	LS	1.000	1.000
2100	656.0200	ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) 0007. STH 38 & COLLEGE AVE	LS	1.000	1.000
2110	656.0200	ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) 0008. STH 38 & STH 119	LS	1.000	1.000

DATE 19FEB14 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	2060-15-71 QUANTITY
2120	656.0200	ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) 0009. STH 38 & GRANGE AVE	LS	1.000	1.000
2130	656.0200	ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) 0011. ATR 40-0027	LS	1.000	1.000
2140	657.0100	PEDESTAL BASES	EACH	57.000	57.000
2150	657.0255	TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE	EACH	104.000	104.000
2160	657.0315	POLES TYPE 4	EACH	19.000	19.000
2170	657.0322	POLES TYPE 5-ALUMINUM	EACH	6.000	6.000
2180	657.0405	TRAFFIC SIGNAL STANDARDS ALUMINUM 3.5-FT	EACH	3.000	3.000
2190	657.0420	TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT	EACH	19.000	19.000
2200	657.0425	TRAFFIC SIGNAL STANDARDS ALUMINUM 15-FT	EACH	13.000	13.000
2210	657.0430	TRAFFIC SIGNAL STANDARDS ALUMINUM 10-FT	EACH	22.000	22.000
2220	657.0609	LUMINAIRE ARMS SINGLE MEMBER 4-INCH CLAMP 6-FT	EACH	26.000	26.000
2230	657.0710	LUMINAIRE ARMS TRUSS TYPE 4 1/2-INCH CLAMP 12-FT	EACH	116.000	116.000
2240	657.1345	INSTALL POLES TYPE 9	EACH	3.000	3.000
2250	657.1350	INSTALL POLES TYPE 10	EACH	16.000	16.000
2260	657.1355	INSTALL POLES TYPE 12	EACH	21.000	21.000
2270	657.1360	INSTALL POLES TYPE 13	EACH	10.000	10.000
2280	657.1515	INSTALL MONOTUBE ARMS 15-FT	EACH	11.000	11.000
2290	657.1520	INSTALL MONOTUBE ARMS 20-FT	EACH	1.000	1.000
2300	657.1525	INSTALL MONOTUBE ARMS 25-FT	EACH	5.000	5.000
2310	657.1530	INSTALL MONOTUBE ARMS 30-FT	EACH	3.000	3.000
2320	657.1535	INSTALL MONOTUBE ARMS 35-FT	EACH	5.000	5.000
2330	657.1540	INSTALL MONOTUBE ARMS 40-FT	EACH	16.000	16.000
2340	657.1545	INSTALL MONOTUBE ARMS 45-FT	EACH	6.000	6.000
2350	657.1550	INSTALL MONOTUBE ARMS 50-FT	EACH	2.000	2.000
2360	657.1555	INSTALL MONOTUBE ARMS 55-FT	EACH	1.000	1.000
2370	657.1815	INSTALL LUMINAIRE ARMS STEEL 15-FT	EACH	40.000	40.000
2380	658.0110	TRAFFIC SIGNAL FACE 3-12 INCH VERTICAL	EACH	166.000	166.000
2390	658.0115	TRAFFIC SIGNAL FACE 4-12 INCH VERTICAL	EACH	35.000	35.000
2400	658.0215	BACKPLATES SIGNAL FACE 3 SECTION 12-INCH	EACH	166.000	166.000
2410	658.0220	BACKPLATES SIGNAL FACE 4 SECTION 12-INCH	EACH	35.000	35.000
2420	658.0416	PEDESTRIAN SIGNAL FACE 16-INCH	EACH	67.000	67.000
2430	658.0500	PEDESTRIAN PUSH BUTTONS	EACH	79.000	79.000
2440	658.0600	LED MODULES 12-INCH RED BALL	EACH	121.000	121.000
2450	658.0605	LED MODULES 12-INCH YELLOW BALL	EACH	115.000	115.000
2460	658.0610	LED MODULES 12-INCH GREEN BALL	EACH	115.000	115.000
2470	658.0615	LED MODULES 12-INCH RED ARROW	EACH	80.000	80.000
2480	658.0620	LED MODULES 12-INCH YELLOW ARROW	EACH	120.000	120.000
2490	658.0625	LED MODULES 12-INCH GREEN ARROW	EACH	87.000	87.000
2500	658.0635	LED MODULES PEDESTRIAN COUNTDOWN TIMER 16-INCH	EACH	67.000	67.000
2510	658.5069	SIGNAL MOUNTING HARDWARE (LOCATION) 0001. STH 38 & STH 100	LS	1.000	1.000
2520	658.5069	SIGNAL MOUNTING HARDWARE (LOCATION) 0002. STH 38 & CENTENNIAL DR	LS	1.000	1.000
2530	658.5069	SIGNAL MOUNTING HARDWARE (LOCATION) 0003. STH 38 & PUETZ RD	LS	1.000	1.000
2540	658.5069	SIGNAL MOUNTING HARDWARE (LOCATION) 0004. STH 38 & FOREST HILL AVE	LS	1.000	1.000
2550	658.5069	SIGNAL MOUNTING HARDWARE (LOCATION) 0005. STH 38 & SUSAN DR	LS	1.000	1.000

DATE 19FEB14 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	2060-15-71 QUANTITY
2560	658.5069	SIGNAL MOUNTING HARDWARE (LOCATION) 0006. STH 38 & DREXEL AVE	LS	1.000	1.000
2570	658.5069	SIGNAL MOUNTING HARDWARE (LOCATION) 0007. STH 38 & RAWSON AVE	LS	1.000	1.000
2580	658.5069	SIGNAL MOUNTING HARDWARE (LOCATION) 0008. STH 38 & COLLEGE AVE	LS	1.000	1.000
2590	658.5069	SIGNAL MOUNTING HARDWARE (LOCATION) 0009. STH 38 & STH 119	LS	1.000	1.000
2600	658.5069	SIGNAL MOUNTING HARDWARE (LOCATION) 0010. STH 38 & GRANGE AVE	LS	1.000	1.000
2610	659.0115	LUMINAIRES UTILITY HPS 150 WATTS	EACH	116.000	116.000
2620	659.0802	PLAQUES SEQUENCE IDENTIFICATION	EACH	78.000	78.000
2630	659.1125	LUMINAIRES UTILITY LED C	EACH	66.000	66.000
2640	661.0200	TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS (LOCATION) 0001. STH 38 & STH 100	LS	1.000	1.000
2650	661.0200	TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS (LOCATION) 0002. STH 38 & CENTENNIAL DR	LS	1.000	1.000
2660	661.0200	TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS (LOCATION) 0003. STH 38 & FOREST HILL AVE	LS	1.000	1.000
2670	661.0200	TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS (LOCATION) 0004. STH 38 & DREXEL AVE	LS	1.000	1.000
2680	661.0200	TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS (LOCATION) 0005. STH 38 & RAWSON AVE	LS	1.000	1.000
2690	661.0200	TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS (LOCATION) 0006. STH 38 & COLLEGE AVE	LS	1.000	1.000
2700	661.0200	TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS (LOCATION) 0007. STH 38 & STH 119	LS	1.000	1.000
2710	661.0200	TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS (LOCATION) 0008. STH 38 & GRANGE AVE	LS	1.000	1.000
2720	661.0300	GENERATORS	DAY	8.000	8.000
2730	670.0100	FIELD SYSTEM INTEGRATOR	LS	1.000	1.000
2740	670.0200	ITS DOCUMENTATION	LS	1.000	1.000
2750	678.0036	INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 36-CT	LF	34,795.000	34,795.000
2760	678.0200	FIBER OPTIC SPLICE ENCLOSURE	EACH	10.000	10.000
2770	678.0300	FIBER OPTIC SPLICE	EACH	72.000	72.000
2780	678.0500	COMMUNICATION SYSTEM TESTING	LS	1.000	1.000
2790	690.0150	SAWING ASPHALT	LF	492.000	492.000
2800	690.0250	SAWING CONCRETE	LF	37,214.000	37,214.000
2810	715.0502	INCENTIVE STRENGTH CONCRETE STRUCTURES	DOL	500.000	500.000
2820	ASP.1T0A	ON-THE-JOB TRAINING APPRENTICE AT $5. 00/HR	HRS	4,800.000	4,800.000
2830	ASP.1T0G	ON-THE-JOB TRAINING GRADUATE AT $5.00/HR	HRS	4,500.000	4,500.000
2840	SPV.0035	SPECIAL 0010. BACKFILL SLURRY	CY	500.000	500.000
2850	SPV.0045	SPECIAL 0010. TEMPORARY CROSSWALK/SIDEWALK	DAY	228.000	228.000
2860	SPV.0060	SPECIAL 0010. RECONDITIONING INLETS	EACH	133.000	133.000
2870	SPV.0060	SPECIAL 0020. PARKING LOT BOLLARD	EACH	7.000	7.000

3

DATE 19FEB14 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	2060-15-71 QUANTITY
2880	SPV.0060	SPECIAL 0030. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC WORDS	EACH	96.000	96.000
2890	SPV.0060	SPECIAL 0040. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS, TYPE 2	EACH	121.000	121.000
2900	SPV.0060	SPECIAL 0050. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS, TYPE 3	EACH	4.000	4.000
2910	SPV.0060	SPECIAL 0070. EXPOSING EXISTING UTILITY PAVED AREA	EACH	20.000	20.000
2920	SPV.0060	SPECIAL 0080. EXPOSING EXISTING UTILITY UNPAVED AREA	EACH	50.000	50.000
2930	SPV.0060	SPECIAL 0090. INLET COVERS TYPE 57	EACH	18.000	18.000
2940	SPV.0060	SPECIAL 1000. REMOVING LIGHTING UNITS	EACH	71.000	71.000
2950	SPV.0060	SPECIAL 1001. LIGHT POLES TAPERED ROUND ALUMINUM CITY OF OAK CREEK 28-FT	EACH	78.000	78.000
2960	SPV.0060	SPECIAL 1002. TEMPORARY WOOD POLE LIGHTING UNITS 50-FT MOUNTING HEIGHT	EACH	3.000	3.000
2970	SPV.0060	SPECIAL 1003. REMOVING LIGHTING LOAD CENTERS CITY OF OAK CREEK AND SALVAGE	EACH	1.000	1.000
2980	SPV.0060	SPECIAL 1004. LIGHTING LOAD CENTERS CITY OF OAK CREEK 480V 1-PHASE	EACH	1.000	1.000
2990	SPV.0060	SPECIAL 2000. INSTALLING POLES TYPE 5	EACH	1.000	1.000
3000	SPV.0060	SPECIAL 2010. INSTALLING POLE MOUNTED CABINET	EACH	1.000	1.000
3010	SPV.0060	SPECIAL 2020. INSTALLING CABINET HEATER & THERMOSTAT	EACH	1.000	1.000
3020	SPV.0060	SPECIAL 2030. INSTALLING WAVETRONIX CLICK 200 MODULE	EACH	1.000	1.000
3030	SPV.0060	SPECIAL 2040. INSTALLING WAVETRONIX POWER MODULE	EACH	1.000	1.000
3040	SPV.0060	SPECIAL 2050. INSTALLING WAVETRONIX DETECTOR MODULE AND HD 125 CABLE	EACH	1.000	1.000
3050	SPV.0060	SPECIAL 2060. INSTALLING CONCRETE MAINTENANCE PLATFORM	EACH	1.000	1.000
3060	SPV.0060	SPECIAL 2070. INSTALLING CELLULAR/NEXTEL/PCS DUAL BAND ANTENNA, 10DB GAIN & CABLE	EACH	1.000	1.000
3070	SPV.0060	SPECIAL 3000. TRAFFIC SIGNAL INTERCONNECT VAULT	EACH	11.000	11.000
3080	SPV.0060	SPECIAL 3001. INSTALL FIBER OPTIC COMMUNICATIONS IN CABINET	EACH	11.000	11.000
3090	SPV.0060	SPECIAL 3002. CONTRCTOR PROVIDED HIGH-STR BOLT ASSY FOR MONOTUBE ARM POLE TYPE 9 OR 10	EACH	19.000	19.000
3100	SPV.0060	SPECIAL 3003. CONTRACTOR PROVIDED HIGH-STR BOLT ASSY FOR MONOTUBE ARM POLE TYPE 12 OR 13	EACH	31.000	31.000
3110	SPV.0060	SPECIAL 5040. ADJUSTING CITY OF OAK CREEK SANITARY MANHOLE	EACH	31.000	31.000
3120	SPV.0060	SPECIAL 5050. RECONSTRUCT CITY OF OAK CREEK SANITARY MANHOLE	EACH	5.000	5.000
3130	SPV.0060	SPECIAL 5060. ADJUSTING CITY OF OAK CREEK WATER VALVE	EACH	29.000	29.000
3140	SPV.0060	SPECIAL 5070. ADJUSTING CITY OF MILWAUKEE WATER VALVE	EACH	35.000	35.000
3150	SPV.0060	SPECIAL 5080. ADJUSTING TES MANHOLE COVERS	EACH	5.000	5.000
3160	SPV.0060	SPECIAL 5090. 4' DIAMETER MANHOLE TYPE TES	EACH	7.000	7.000

DATE 19FEB14 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	2060-15-71 QUANTITY
3170	SPV.0060	SPECIAL 5100. ADJUSTING CITY OF MILWAUKEE SANITARY MANHOLE	EACH	1.000	1.000
3180	SPV.0060	SPECIAL 5110. ADJUSTING CITY OF MILWAUKEE WATER MANHOLE	EACH	5.000	5.000
3190	SPV.0090	SPECIAL 0010. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK 6-INCH	LF	8,752.000	8,752.000
3200	SPV.0090	SPECIAL 0020. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ZEBRA MARKING 24-INCH	LF	378.000	378.000
3210	SPV.0090	SPECIAL 0030. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC STOPLINE 18-INCH	LF	2,089.000	2,089.000
3220	SPV.0090	SPECIAL 0040. SECURITY FENCE SPECIAL	LF	119.000	119.000
3230	SPV.0090	SPECIAL 0050. SECURITY FENCE TEMPORARY	LF	78.000	78.000
3240	SPV.0090	SPECIAL 1000. TEMPORARY OVERHEAD LIGHTING CABLE TRIPLEX 4 AWG	LF	688.000	688.000
3250	SPV.0090	SPECIAL 3000. TRAFFIC SIGNAL EMERGENCY VEHICLE PREEMPTION DETECTOR CABLE INSTALLED	LF	8,310.000	8,310.000
3260	SPV.0090	SPECIAL 3001. FIBER OPTIC TRACER WIRE	LF	34,795.000	34,795.000
3270	SPV.0090	SPECIAL 3002. FIBER OPTIC WARNING TAPE	LF	34,795.000	34,795.000
3280	SPV.0090	SPECIAL 5100. 3-DUCT CONDUIT CEMENT ENCASED DB-60	LF	3,471.000	3,471.000
3290	SPV.0090	SPECIAL 5110. 2-DUCT CONDUIT CEMENT ENCASED DB-60	LF	4.000	4.000
3300	SPV.0105	SPECIAL 0010. PAVEMENT CLEANUP 2060-15-71	LS	1.000	1.000
3310	SPV.0105	SPECIAL 0020. SURVEY PROJECT 2060-15-71	LS	1.000	1.000
3320	SPV.0105	SPECIAL 0040. RECTANGULAR RAPID FLASH BEACON (RRFB) SYSTEM STA 196+00 SOUTHBOUND LT	LS	1.000	1.000
3330	SPV.0105	SPECIAL 0050. RECTANGULAR RAPID FLASH BEACON (RRFB) SYSTEM STA 196+00 NORTHBOUND RT	LS	1.000	1.000
3340	SPV.0105	SPECIAL 0060. RECTANGULAR RAPID FLASH BEACON (RRFB) SYSTEM STA 196+00 NORTHBOUND LT	LS	1.000	1.000
3350	SPV.0105	SPECIAL 0070. RECTANGULAR RAPID FLASH BEACON (RRFB) SYSTEM STA 247+50 NORTHBOUND RT	LS	1.000	1.000
3360	SPV.0105	SPECIAL 0080. RECTANGULAR RAPID FLASH BEACON (RRFB) SYSTEM STA 247+50 NORTHBOUND LT	LS	1.000	1.000
3370	SPV.0105	SPECIAL 0090. RECTANGULAR RAPID FLASH BEACON (RRFB) SYSTEM STA 248+50 SOUTHBOUND RT	LS	1.000	1.000
3380	SPV.0105	SPECIAL 0100. RECTANGULAR RAPID FLASH BEACON (RRFB) SYSTEM STA 248+50 SOUTHBOUND LT	LS	1.000	1.000
3390	SPV.0105	SPECIAL 0110. MILLING AND REMOVING TEMPORARY JOINTS	LS	1.000	1.000
3400	SPV.0105	SPECIAL 2000. REMOVING ATR CABINET AND CONCRETE BASE	LS	1.000	1.000
3410	SPV.0105	SPECIAL 3000. TRANSPORT & INSTALLING TRAF SIG MATERIALS STH 38 & STH 100	LS	1.000	1.000
3420	SPV.0105	SPECIAL 3001. TRANSPORT & INSTALLING TRAF SIG MATERIALS STH 38 & CENTENIAL DR	LS	1.000	1.000
3430	SPV.0105	SPECIAL 3002. TRANSPORT & INSTALLING TRAF SIG MATERIALS STH 38 & PUETZ RD	LS	1.000	1.000

3

DATE 19FEB14 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	2060-15-71 QUANTITY
3440	SPV.0105	SPECIAL 3003. TRANSPORT & INSTALLING TRAF SIG MATERIALS STH 38 & FOREST HILL AVE	LS	1.000	1.000
3450	SPV.0105	SPECIAL 3004. TRANSPORT & INSTALLING TRAF SIG MATERIALS STH 38 & SUSAN DR	LS	1.000	1.000
3460	SPV.0105	SPECIAL 3005. TRANSPORT & INSTALLING TRAF SIG MATERIALS STH 38 & DREXEL AVE	LS	1.000	1.000
3470	SPV.0105	SPECIAL 3006. TRANSPORT & INSTALLING TRAF SIG MATERIALS STH 38 & RAWSON AVE	LS	1.000	1.000
3480	SPV.0105	SPECIAL 3007. TRANSPORT & INSTALLING TRAF SIG MATERIALS STH 38 & COLLEGE AVE	LS	1.000	1.000
3490	SPV.0105	SPECIAL 3008. TRANSPORT & INSTALLING TRAF SIG MATERIALS STH 38 & STH 119	LS	1.000	1.000
3500	SPV.0105	SPECIAL 3009. TRANSPORT & INSTALLING TRAF SIG MATERIALS STH 38 & GRANGE AVE	LS	1.000	1.000
3510	SPV.0105	SPECIAL 3010. TRANSP & INSTALL STATE FURNISHED VIDEO DET SYS STH 38 & STH 100	LS	1.000	1.000
3520	SPV.0105	SPECIAL 3011. TRANSP & INSTALL STATE FURNISHED VIDEO DET SYS STH 38 & CENTENIAL DR	LS	1.000	1.000
3530	SPV.0105	SPECIAL 3012. TRANSP & INSTALL STATE FURNISHED VIDEO DET SYS STH 38 & FOREST HILL AVE	LS	1.000	1.000
3540	SPV.0105	SPECIAL 3013. TRANSP & INSTALL STATE FURNISHED VIDEO DET SYS STH 38 & SUSAN DR	LS	1.000	1.000
3550	SPV.0105	SPECIAL 3014. TRANSP & INSTALL STATE FURNISHED VIDEO DET SYS STH 38 & DREXEL AVE	LS	1.000	1.000
3560	SPV.0105	SPECIAL 3015. TRANSP & INSTALL STATE FURNISHED VIDEO DET SYS STH 38 & RAWSON AVE	LS	1.000	1.000
3570	SPV.0105	SPECIAL 3016. TRANSP & INSTALL STATE FURNISHED VIDEO DET SYS STH 38 & COLLEGE AVE	LS	1.000	1.000
3580	SPV.0105	SPECIAL 3017. TRANSP & INSTALL STATE FURNISHED VIDEO DET SYS STH 38 & STH 119	LS	1.000	1.000
3590	SPV.0105	SPECIAL 3018. TRANSP & INSTALL STATE FURNISHED VIDEO DET SYS STH 38 & GRANGE AVE	LS	1.000	1.000
3600	SPV.0105	SPECIAL 3019. MODIFY TRAFFIC SIGNALS INTERSECTION OF STH 38 & PUETZ RD	LS	1.000	1.000
3610	SPV.0105	SPECIAL 3020. EMERGENCY VEH PREEMPTION (EVP) DET HEAD INST STH 38 & STH 100	LS	1.000	1.000
3620	SPV.0105	SPECIAL 3021. EMERGENCY VEH PREEMPTION (EVP) DET HEAD INST STH 38 & CENTENIAL DR	LS	1.000	1.000
3630	SPV.0105	SPECIAL 3022. EMERGENCY VEH PREEMPTION (EVP) DET HEAD INST STH 38 & FOREST HILL AVE	LS	1.000	1.000
3640	SPV.0105	SPECIAL 3023. EMERGENCY VEH PREEMPTION (EVP) DET HEAD INST STH 38 & SUSAN DR	LS	1.000	1.000
3650	SPV.0105	SPECIAL 3024. EMERGENCY VEH PREEMPTION (EVP) DET HEAD INST STH 38 & DREXEL AVE	LS	1.000	1.000
3660	SPV.0105	SPECIAL 3025. EMERGENCY VEH PREEMPTION (EVP) DET HEAD INST STH 38 & RAWSON AVE	LS	1.000	1.000
3670	SPV.0105	SPECIAL 3026. EMERGENCY VEH PREEMPTION (EVP) DET HEAD INST STH 38 & COLLEGE AVE	LS	1.000	1.000

3

DATE 19FEB14 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	2060-15-71 QUANTITY
3680	SPV.0105	SPECIAL 3027. EMERGENCY VEH PREEMPTION (EVP) DET HEAD INST STH 38 & STH 119	LS	1.000	1.000
3690	SPV.0105	SPECIAL 3028. EMERGENCY VEH PREEMPTION (EVP) DET HEAD INST STH 38 & GRANGE AVE	LS	1.000	1.000
3700	SPV.0105	SPECIAL 3029. REMOVE TRAFFIC SIGNALS STH 38 AT CENTENIAL DR	LS	1.000	1.000
3710	SPV.0105	SPECIAL 3030. REMOVE TRAFFIC SIGNALS STH 38 AT FOREST HILL AVE	LS	1.000	1.000
3720	SPV.0105	SPECIAL 3031. REMOVE TRAFFIC SIGNALS STH 38 AT DREXEL AVE	LS	1.000	1.000
3730	SPV.0105	SPECIAL 3032. REMOVE TRAFFIC SIGNALS STH 38 AT RAWSON AVE	LS	1.000	1.000
3740	SPV.0105	SPECIAL 3033. REMOVE TRAFFIC SIGNALS STH 38 AT COLLEGE AVE	LS	1.000	1.000
3750	SPV.0105	SPECIAL 3034. REMOVE TRAFFIC SIGNALS STH 38 AT STH 119	LS	1.000	1.000
3760	SPV.0105	SPECIAL 3035. REMOVE TRAFFIC SIGNALS STH 38 AT GRANGE AVE	LS	1.000	1.000
3770	SPV.0105	SPECIAL 3036. REMOVE LOOP DETECTOR WIRE AND LEAD-IN CABLE STH 38 AT CENTENNIAL DR	LS	1.000	1.000
3780	SPV.0105	SPECIAL 3037. REMOVE LOOP DETECTOR WIRE AND LEAD-IN CABLE STH 38 AT PUETZ RD	LS	1.000	1.000
3790	SPV.0105	SPECIAL 3038. REMOVE LOOP DETECTOR WIRE AND LEAD-IN CABLE STH 38 AT FOREST HILL AVE	LS	1.000	1.000
3800	SPV.0105	SPECIAL 3039. REMOVE LOOP DETECTOR WIRE AND LEAD-IN CABLE STH 38 AT DREXEL AVE	LS	1.000	1.000
3810	SPV.0105	SPECIAL 3040. REMOVE LOOP DETECTOR WIRE AND LEAD-IN CABLE STH 38 AT RAWSON AVE	LS	1.000	1.000
3820	SPV.0105	SPECIAL 3041. REMOVE LOOP DETECTOR WIRE AND LEAD-IN CABLE STH 38 AT COLLEGE AVE	LS	1.000	1.000
3830	SPV.0105	SPECIAL 3042. REMOVE LOOP DETECTOR WIRE AND LEAD-IN CABLE STH 38 AT STH 119	LS	1.000	1.000
3840	SPV.0105	SPECIAL 3043. REMOVE LOOP DETECTOR WIRE AND LEAD-IN CABLE STH 38 AT GRANGE AVE	LS	1.000	1.000
3850	SPV.0105	SPECIAL 3044. INSTALL STATE FURNISHED TRAFFIC SIGNAL CABINET STH 38 AT STH 100	LS	1.000	1.000
3860	SPV.0105	SPECIAL 3045. INSTALL STATE FURNISHED TRAFFIC SIGNAL CABINET STH 38 AT CENTENNIAL DR	LS	1.000	1.000
3870	SPV.0105	SPECIAL 3046. INSTALL STATE FURNISHED TRAFFIC SIGNAL CABINET STH 38 AT PUETZ RD	LS	1.000	1.000
3880	SPV.0105	SPECIAL 3047. INSTALL STATE FURNISHED TRAFFIC SIGNAL CABINET STH 38 AT FOREST HILL AVE	LS	1.000	1.000
3890	SPV.0105	SPECIAL 3048. INSTALL STATE FURNISHED TRAFFIC SIGNAL CABINET STH 38 AT SUSAN DR	LS	1.000	1.000
3900	SPV.0105	SPECIAL 3049. INSTALL STATE FURNISHED TRAFFIC SIGNAL CABINET STH 38 AT DREXEL AVE	LS	1.000	1.000
3910	SPV.0105	SPECIAL 3050. INSTALL STATE FURNISHED TRAFFIC SIGNAL CABINET STH 38 AT RAWSON AVE	LS	1.000	1.000
3920	SPV.0105	SPECIAL 3051. INSTALL STATE FURNISHED TRAFFIC SIGNAL CABINET STH 38 AT COLLEGE AVE	LS	1.000	1.000

3

DATE 19FEB14 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	2060-15-71 QUANTITY
3930	SPV.0105	SPECIAL 3052. INSTALL STATE FURNISHED TRAFFIC SIGNAL CABINET STH 38 AT STH 119	LS	1.000	1.000
3940	SPV.0105	SPECIAL 3053. INSTALL STATE FURNISHED TRAFFIC SIGNAL CABINET STH 38 AT GRANGE AVE	LS	1.000	1.000
3950	SPV.0105	SPECIAL 3054. INHERIT TEMP NON-INSTRUSIVE VEH DET SYS FOR INT STH 38 AT STH 100	LS	1.000	1.000
3960	SPV.0105	SPECIAL 3055. TEMP NON-INSTRUSIVE VEH DET SYS FOR INT STH 38 AT CENTENIAL DR	LS	1.000	1.000
3970	SPV.0105	SPECIAL 3056. TEMP NON-INSTRUSIVE VEH DET SYS FOR INT STH 38 AT FOREST HILL AVE	LS	1.000	1.000
3980	SPV.0105	SPECIAL 3057. TEMP NON-INSTRUSIVE VEH DET SYS FOR INT STH 38 AT DREXEL AVE	LS	1.000	1.000
3990	SPV.0105	SPECIAL 3058. TEMP NON-INSTRUSIVE VEH DET SYS FOR INT STH 38 AT RAWSON AVE	LS	1.000	1.000
4000	SPV.0105	SPECIAL 3059. TEMP NON-INSTRUSIVE VEH DET SYS FOR INT STH 38 AT COLLEGE AVE	LS	1.000	1.000
4010	SPV.0105	SPECIAL 3060. TEMP NON-INSTRUSIVE VEH DET SYS FOR INT STH 38 AT STH 119	LS	1.000	1.000
4020	SPV.0105	SPECIAL 3061. TEMP NON-INSTRUSIVE VEH DET SYS FOR INT STH 38 AT GRANGE AVE	LS	1.000	1.000
4030	SPV.0105	SPECIAL 3062. TEMPORARY INFRARED EVP SYSTEM TO REMAIN STH 38 AT STH 100	LS	1.000	1.000
4040	SPV.0105	SPECIAL 3063. TEMPORARY INFRARED EVP SYSTEM STH 38 AT CENTENNIAL DR	LS	1.000	1.000
4050	SPV.0105	SPECIAL 3064. TEMPORARY INFRARED EVP SYSTEM STH 38 AT FOREST HILL AVE	LS	1.000	1.000
4060	SPV.0105	SPECIAL 3065. TEMPORARY INFRARED EVP SYSTEM STH 38 AT DREXEL AVE	LS	1.000	1.000
4070	SPV.0105	SPECIAL 3066. TEMPORARY INFRARED EVP SYSTEM STH 38 AT RAWSON AVE	LS	1.000	1.000
4080	SPV.0180	SPECIAL 0010. GEOTEXTILE FABRIC TYPE FF	SY	200.000	200.000
4090	SPV.0180	SPECIAL 4500. SLOPE PAVING CRUSHED AGGREGATE SPECIAL	SY	385.000	385.000
4100	SPV.0195	SPECIAL 0010. COLD PATCH	TON	15.000	15.000

3

CLEARING AND GRUBBING ITEMS

CATEGORY	STAGE	LOCATION	STATION TO STATION	OFFSET		201.0105 CLEARING STA	201.0205 GRUBBING STA	201.0120 CLEARING ID	201.0220 GRUBBING ID
0010	1	STH 38/HOWELL AVENUE							
			216+37 - 216+61	0'	RT/LT	1	1	--	--
			217+20 - 217+45	0'	RT/LT	1	1	--	--
			226+04	0'	RT/LT	--	--	3	3
			226+55	0'	RT/LT	--	--	5	5
			226+83	0'	RT/LT	--	--	4	4
			227+17	0'	RT/LT	--	--	4	4
			227+63	0'	RT/LT	--	--	3	3
			228+34	0'	RT/LT	--	--	4	4
			228+83	0'	RT/LT	--	--	3	3
			265+11	2'	LT	--	--	3	3
			274+37	1'	LT	--	--	3	3
			277+35	3'	LT	--	--	2	2
			277+79	3'	LT	--	--	2	2
			278+37	1'	LT	--	--	2	2
			279+02	1'	LT	--	--	2	2
			279+68	2'	LT	--	--	2	2
			280+04	1'	LT	--	--	3	3
			SUBTOTAL			2	2	45	45
0010	2	STH 38/HOWELL AVENUE							
			141+56 - 142+23	69'	RT	1	1	--	--
			142+31 - 143+47	83'	LT	2	2	--	--
			159+42 - 159+86	73'	RT	1	1	--	--
			160+47	73'	LT	--	--	6	6
			164+62 - 165+66	77'	RT	2	2	--	--
			166+01	77'	RT	--	--	4	4
			184+33	85'	LT	--	--	7	7
			184+57	92'	LT	--	--	5	5
			184+79	80'	LT	--	--	6	6
			184+97	80'	LT	--	--	6	6
			185+18	80'	LT	--	--	6	6
			263+43 - 265+68	78'	LT	2	2	--	--
			264+10	92'	LT	--	--	6	6
			264+40	91'	LT	--	--	5	5
			264+56	91'	LT	--	--	5	5
			265+09	92'	LT	--	--	4	4
			275+57	64'	LT	--	--	3	3
			275+93	63'	LT	--	--	3	3
			275+96	90'	LT	--	--	2	2
			276+76 - 277+33	88'	LT	1	1	--	--
			276+94	90'	LT	--	--	2	2

CLEARING AND GRUBBING ITEMS

CATEGORY	STAGE	LOCATION	STATION TO STATION	OFFSET		201.0105 CLEARING STA	201.0205 GRUBBING STA	201.0120 CLEARING ID	201.0220 GRUBBING ID
			277+19	63'	LT	--	--	2	2
			277+20	90'	LT	--	--	2	2
			277+59	62'	LT	--	--	2	2
			277+99	62'	LT	--	--	2	2
			278+41	62'	LT	--	--	2	2
			278+89	61'	LT	--	--	3	3
			279+24	61'	LT	--	--	3	3
			279+62	61'	LT	--	--	3	3
			280+04	63'	LT	--	--	2	2
			281+26	63'	LT	--	--	2	2
			312+71	82'	RT	--	--	12	12
			312+79	77'	RT	--	--	4	4
			312+87	74'	RT	--	--	4	4
			326+51	71'	LT	--	--	8	8
			327+45 - 328+45	79'	RT	2	2	--	--
			328+60	75'	LT	--	--	4	4
			328+86	75'	LT	--	--	10	10
			329+12	75'	LT	--	--	10	10
			329+39	75'	LT	--	--	3	3
			329+68	75'	LT	--	--	10	10
			329+92	75'	LT	--	--	8	8
			330+16	72'	LT	--	--	6	6
			330+58	73'	LT	--	--	6	6
			330+81	74'	LT	--	--	8	8
			332+27	77'	LT	--	--	12	12
			353+80	84'	LT	--	--	10	10
			354+55 - 354+96	75'	LT	1	1	--	--
			359+43 - 359+77	76'	RT	1	1	--	--
			382+44 - 383+06	65'	RT	1	1	--	--
			382+96 - 383+73	64'	LT	1	1	--	--
			384+03	64'	LT	--	--	10	10
			384+90 - 385+19	60'	LT	1	1	--	--
	2	STH 100/RYAN ROAD							
			1104+02	89'	LT	--	--	15	15
	2	FOREST HILL AVENUE							
			100+85	37'	LT	--	--	20	20
			103+79 - 104+02	24'	RT	1	1	--	--
			SUBTOTAL			17	17	253	253
			TOTALS			19	19	298	298

REMOVING PAVEMENT

CATEGORY	STAGE	LOCATION	STATION		STATION	OFFSET		* 204.0100 REMOVING PAVEMENT SY	COMMENTS
0010	1	STH 38/HOWELL AVENUE							
			174+48	-	178+55	0'	RT/LT	269	
			216+09	-	221+56	18'	RT/LT	767	
			222+30	-	229+93	0'	RT/LT	969	
			244+21	-	247+73	18'	RT/LT	211	
			256+02	-	261+10	18'	RT/LT	712	
			261+98	-	268+34	0'	RT/LT	926	
			269+01	-	276+13	0'	RT/LT	1,066	
			276+65	-	284+89	0'	RT/LT	996	
			290+13	-	294+09	0'	RT/LT	888	
			294+09	-	297+71	0'	RT/LT	167	
			308+08	-	311+58	0'	RT/LT	188	
			323+75	-	326+19	12'	LT	183	
			327+80	-	331+50	0'	RT/LT	169	
			330+50	-	334+53	18'	RT	186	
			339+91	-	340+30	11'	RT	21	
			352+91	-	356+91	0'	RT/LT	213	
			370+51	-	374+01	14'	RT	189	
			376+47	-	379+92	0'	RT/LT	205	
			394+40	-	394+86	8'	RT	22	
			399+01	-	402+56	14'	RT	212	
			403+01	-	406+60	0'	RT/LT	157	
			455+23	-	457+08	15'	RT	115	
			455+58	-	456+61	16'	LT	111	
			457+77	-	458+40	0'	RT/LT	68	
			458+93	-	459+86	0'	RT/LT	83	
		SUBTOTAL						9,093	
0010	2	STH 38/HOWELL AVENUE							
			128+62	-	128+86	35'	RT	14	
			129+57	-	129+77	59'	LT	11	
			130+02	-	135+02	41'	LT	154	
			155+12	-	155+48	56'	LT	48	DRIVEWAY
			155+51	-	155+59	62'	RT	8	
			160+39	-	160+54	60'	LT	18	
			162+38	-	162+62	55'	RT	14	DRIVEWAY
			163+76	-	164+00	55'	RT	13	DRIVEWAY
			164+03	-	164+24	55'	LT	13	DRIVEWAY
			164+81	-	165+10	79'	LT	119	DRIVEWAY
			165+73	-	165+95	55'	LT	14	DRIVEWAY
			166+50	-	166+75	55'	RT	14	DRIVEWAY
			166+97	-	167+18	55'	LT	12	DRIVEWAY
			167+98	-	168+23	55'	LT	37	DRIVEWAY
			168+63	-	168+87	55'	RT	14	DRIVEWAY
			169+12	-	169+33	55'	LT	11	DRIVEWAY
			170+19	-	170+40	55'	LT	11	DRIVEWAY
			180+82	-	181+62	52'	RT	83	
			180+82	-	181+19	55'	RT	46	DRIVEWAY
			182+68	-	182+95	72'	LT	23	
			183+58	-	186+87	68'	LT	124	
			184+20	-	184+51	94'	LT	19	
			184+63	-	185+30	88'	LT	44	
			185+31	-	185+69	53'	LT	59	DRIVEWAY
			221+05	-	221+70	53'	RT	63	
			221+65	-	222+74	135'	LT	83	
			227+34	-	227+65	55'	LT	40	DRIVEWAY
			228+79	-	229+01	56'	RT	45	DRIVEWAY
			229+18	-	229+34	55'	LT	21	DRIVEWAY
			229+73	-	229+90	55'	LT	19	DRIVEWAY
			234+33	-	734+72	53'	LT	25	
			234+34	-	234+75	81'	RT	56	
			235+16	-	235+29	64'	RT	27	
			235+50	-	236+12	80'	LT	43	
			235+81	-	236+12	84'	RT	19	
			237+97	-	238+29	55'	LT	37	DRIVEWAY
			245+52	-	246+02	52'	LT	16	
			246+39	-	246+76	56'	LT	49	DRIVEWAY
			247+40	-	248+19	52'	RT	27	
			252+60	-	252+91	56'	LT	39	DRIVEWAY

REMOVING PAVEMENT

CATEGORY	STAGE	LOCATION	STATION		STATION	OFFSET		* 204.0100 REMOVING PAVEMENT SY	COMMENTS
			258+14	-	258+45	55'	LT	43	DRIVEWAY
			260+83	-	261+37	52'	LT	150	
			261+74	-	262+34	80'	LT	214	
			275+55	-	277+23	60'	RT	468	E. SUSAN DRIVE
			275+55	-	281+64	60'	LT	664	DRIVEWAY
			276+14	-	276+31	115'	RT	33	E. SUSAN DRIVE DRIVEWAY
			280+75	-	281+02	56'	RT	37	DRIVEWAY
			287+01	-	287+55	52'	RT	38	
			287+15	-	287+54	52'	LT	33	
			288+48	-	288+85	103'	LT	24	
			289+79	-	295+17	60'	LT	373	DRIVEWAY
			297+53	-	298+44	56'	RT	110	DRIVEWAY
			316+70	-	317+15	67'	LT	33	
			323+10	-	323+49	56'	LT	21	DRIVEWAY
			324+42	-	324+70	55'	LT	42	DRIVEWAY
			327+49	-	327+86	55'	LT	23	DRIVEWAY
			341+69	-	342+06	89'	RT	21	
			344+24	-	344+62	61'	RT	109	DRIVEWAY
			347+14	-	347+42	61'	LT	30	DRIVEWAY
			353+57	-	353+98	56'	RT	88	DRIVEWAY
			357+77	-	358+25	52'	RT	43	
			359+34	-	359+70	56'	LT	44	DRIVEWAY
			361+63	-	361+88	55'	LT	37	DRIVEWAY
			366+77	-	367+06	45'	RT	14	
			372+33	-	372+71	49'	RT	106	DRIVEWAY
			384+66	-	384+85	49'	LT	44	DRIVEWAY
			392+91	-	393+40	45'	LT	33	
			393+10	-	393+54	45'	RT	28	
			393+83	-	393+96	49'	RT	35	
			393+90	-	394+03	50'	LT	27	
			394+28	-	394+58	91'	LT	18	
			394+30	-	394+59	62'	LT	39	
			394+47	-	394+65	72'	RT	39	
			396+20	-	396+73	49'	LT	57	DRIVEWAY
			396+99	-	397+39	49'	RT	23	DRIVEWAY APPROACH
			398+42	-	398+91	49'	LT	54	DRIVEWAY
			400+36	-	400+81	49'	LT	46	DRIVEWAY
			409+73	-	410+39	45'	LT	12	
			411+32			49'	LT	17	DRIVEWAY
			414+83	-	415+66	48'	LT	50	DRIVEWAY
			417+29	-	417+62	49'	LT	17	DRIVEWAY
			418+67	-	419+20	49'	LT	31	DRIVEWAY
			422+05	-	422+52	49'	LT	27	DRIVEWAY
			424+23	-	424+51	50'	LT	15	DRIVEWAY
			449+62	-	450+23	50'	RT	29	
			451+65	-	451+90	52'	LT	37	
			452+65	-	453+12	62'	LT	18	
			458+58	-	458+70	55'	LT	36	
			458+92	-	462+75	72'	LT	176	
			460+24	-	460+39	86'	LT	31	
			461+45	-	461+82	54'	LT	26	
			462+21	-	462+50	48'	LT	28	
	2	STH 100/RYAN ROAD							
			1103+00	-	1103+46	55'	RT	47	
			1103+60	-	1106+92	68'	LT	152	
	2	FOREST HILL AVENUE							
			100+52	-	105+40	0'	RT/LT	1,484	
			102+42	-	102+70	13'	LT	72	DRIVEWAY
		SUBTOTAL						7,078	
		TOTAL						16,171	

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

REMOVING ASPHALTIC SURFACE MILLING

CATEGORY	STAGE	LOCATION	STATION TO STATION	204.0120 REMOVING ASPHALTIC SURFACE MILLING SY
0050	1	STH 38/HOWELL AVENUE		
			170+00 - 185+00	3,538
			185+00 - 200+00	6,739
			200+00 - 215+00	5,752
			215+00 - 230+00	4,472
			230+00 - 245+00	6,387
			245+00 - 260+00	4,904
			260+00 - 275+00	5,179
			275+00 - 290+00	5,938
			290+00 - 305+00	5,024
			305+00 - 320+00	6,118
			320+00 - 335+00	5,991
			335+00 - 350+00	6,164
			350+00 - 365+00	5,771
			365+00 - 380+00	4,658
			380+00 - 395+00	5,087
			395+00 - 410+00	4,031
			410+00 - 425+00	5,246
			425+00 - 440+00	4,172
			440+00 - 455+00	6,037
			455+00 - 462+87	2,052
			SUBTOTAL	103,260
0050	2	STH 38/HOWELL AVENUE		
			128+60 - 140+00	3,079
			140+00 - 155+00	4,957
			155+00 - 170+00	4,995
			170+00 - 185+00	8,411
			185+00 - 200+00	8,019
			200+00 - 215+00	8,711
			215+00 - 230+00	9,100
			230+00 - 245+00	10,325
			245+00 - 260+00	8,844
			260+00 - 275+00	8,680
			275+00 - 290+00	9,667
			290+00 - 305+00	8,583
			305+00 - 320+00	8,405
			320+00 - 335+00	8,395
			335+00 - 350+00	11,910
			350+00 - 365+00	9,310
			365+00 - 380+00	8,326
			380+00 - 395+00	9,023
			395+00 - 410+00	8,294
			410+00 - 425+00	8,497
			425+00 - 440+00	7,986
			440+00 - 455+00	11,017
			455+00 - 462+87	4,284
0050	2	RAMP ER		
			148+37 - 154+87	1,805
0050	2	RAMP WC		
			5+42 - 19+14	4,095
			SUBTOTAL	194,718
			TOTAL	297,978

REMOVING PAVEMENT BUTT JOINTS

CATEGORY	STAGE	LOCATION	STATION TO STATION		204.0105 REMOVING PAVEMENT BUTT JOINTS SY
0010	2	RAMP ER			
			154+72 - 154+97	RT/LT	69
			154+81 - 155+03	RT	79
0010	2	RAMP WC			
			19+11 - 19+44	RT/LT	96
			19+14 - 19+26	RT	70
			TOTAL		314

REMOVING CONCRETE PAD

CATEGORY	LOCATION	STATION	OFFSET	204.9105.S.0005 REMOVING CONCRETE PAD LS
0010	STH 38/HOWELL AVE			
		401+90	0' RT/LT	1
		TOTAL		1

REMOVING CURB & GUTTER

CATEGORY	STAGE	LOCATION	STATION TO STATION	OFFSET	* 204.0150 REMOVING CURB & GUTTER LF
0010	1	STH 38/HOWELL AVENUE			
			128+61 - 128+71	5' RT	10
			128+61 - 128+71	12' RT	10
			142+10 - 142+20	12' LT	10
			142+11 - 142+21	4' RT	11
			142+83 - 142+93	10' RT	11
			142+84 - 142+94	2' RT	10
			154+99 - 155+09	15' LT	10
			154+99 - 155+09	17' RT	10
			160+95 - 161+05	3' LT	10
			160+94 - 161+05	15' RT	11
			172+04 - 172+13	3' LT	10
			172+03 - 172+14	15' RT	11
			191+77 - 191+87	6' LT	10
			191+77 - 191+87	6' RT	10
			192+58 - 192+67	3' RT	10
			192+57 - 192+68	17' RT	10
			195+95 - 196+05	12' LT	10
			195+95 - 196+05	7' RT	10
			197+90 - 198+39	17' RT	49
			200+63 - 201+12	17' LT	49
			202+09 - 202+19	13' LT	10
			202+09 - 202+20	7' RT	10
			202+86 - 202+96	7' RT	11
			202+87 - 202+97	4' LT	10
			248+65 - 248+75	7' LT	10
			248+65 - 248+75	17' RT	10
			317+05 - 317+15	12' LT	10
			317+04 - 317+15	14' RT	10
			322+54 - 322+64	4' LT	10
			322+54 - 322+64	15' RT	10
			363+80 - 363+90	16' RT	10
			363+80 - 363+90	0' LT	10
			366+78 - 366+88	12' LT	11
			366+77 - 366+87	9' RT	10
			393+05 - 393+29	11' LT	24
			393+06 - 393+29	6' LT	23
			403+40 - 403+49	12' RT	9
			409+73 - 408+82	12' LT	9
			409+74 - 409+83	2' RT	9
			420+37 - 420+51	12' LT	14
			420+37 - 420+51	10' RT	14
			424+85 - 424+95	1' LT	10
			424+86 - 424+96	9' RT	10
			428+17 - 428+66	14' LT	49
			428+18 - 428+66	4' RT	49
			439+31 - 439+80	6' LT	49
			439+31 - 439+80	12' LT	49
			446+18 - 446+27	12' RT	9
			446+19 - 446+28	32' RT	9
			SUBOTAL		760
0010	2	STH 38/HOWELL AVENUE			
			128+61 - 128+71	55' LT	10
			128+91 - 128+97	72' LT	11
			129+41	45' RT	10
			129+59 - 129+70	37' RT	10

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REMOVING CURB & GUTTER

CATEGORY	STAGE	LOCATION	STATION		STATION	OFFSET	* 204.0150 REMOVING CURB & GUTTER LF
			129+66	-	129+75	50' RT	11
			129+87	-	129+98	75' RT	14
			142+10	-	142+20	53' LT	10
			142+10	-	142+20	55' RT	10
			142+30	-	142+34	66' RT	10
			142+71	-	142+75	76' RT	10
			142+85	-	142+95	58' RT	10
			142+83	-	142+93	53' LT	10
			147+40	-	147+52	61' LT	15
			147+83	-	147+93	70' LT	13
			152+57	-	152+67	61' LT	14
			152+94	-	153+05	71' LT	14
			154+99	-	155+09	53' LT	10
			154+99	-	155+09	55' RT	10
			155+97	-	156+00	76' RT	10
			160+10	-	160+21	57' LT	16
			160+30	-	160+34	66' RT	11
			160+63	-	160+66	76' RT	9
			160+72	-	160+84	68' LT	17
			160+95	-	161+05	53' LT	10
			160+95	-	161+05	55' RT	10
			165+73	-	166+07	52' LT	33
			171+35	-	171+46	57' LT	15
			171+42	-	171+47	67' RT	10
			171+80	-	171+84	76' RT	9
			171+77	-	171+87	68' LT	16
			172+03	-	172+13	53' LT	10
			172+05	-	172+15	56' RT	10
			183+41	-	183+76	55' RT	35
			191+76	-	191+86	53' LT	10
			191+78	-	191+88	55' RT	10
			192+58	-	192+68	53' LT	10
			192+58	-	192+68	57' RT	10
			195+95	-	195+05	53' LT	10
			195+95	-	196+05	55' RT	10
			196+23	-	196+28	66' LT	12
			196+63	-	196+67	75' LT	12
			198+02	-	198+02	52' RT	49
			200+54	-	201+03	52' LT	49
			202+08	-	202+19	53' LT	11
			202+10	-	202+20	56' RT	10
			202+85	-	202+96	60' LT	12
			202+88	-	202+98	56' RT	10
			208+72	-	208+75	65' LT	11
			209+06	-	209+11	74' LT	12
			214+60	-	214+64	64' LT	11
			214+96	-	215+00	75' LT	11
			221+24	-	221+34	53' LT	10
			221+60	-	221+66	64' LT	12
			222+48	-	222+64	56' RT	10
			229+11	-	229+41	52' LT	14
			234+66	-	234+68	59' RT	14
			240+92	-	240+97	66' LT	11
			241+11	-	241+12	66' RT	10
			241+36	-	241+37	76' RT	10
			241+42	-	241+48	65' LT	12
			246+03	-	246+06	74' LT	10
			246+39	-	246+76	56' LT	37

REMOVING CURB & GUTTER

CATEGORY	STAGE	LOCATION	STATION		STATION	OFFSET	* 204.0150 REMOVING CURB & GUTTER LF
			247+39	-	247+49	53' LT	10
			247+71	-	247+79	53' LT	8
			248+65	-	248+75	56' LT	10
			248+65	-	248+75	55' RT	10
			258+14	-	258+45	55' LT	31
			268+25	-	268+33	53' LT	9
			268+25	-	268+34	56' RT	9
			278+17	-	278+48	56' RT	31
			279+26	-	279+68	56' RT	42
			280+75	-	281+05	56' RT	31
			308+10	-	308+47	56' LT	36
			308+37	-	308+47	56' RT	10
			310+53	-	310+86	55' RT	33
			314+61	-	314+99	53' LT	38
			316+24	-	316+29	63' LT	11
			317+05	-	317+15	56' RT	10
			321+03	-	321+14	57' RT	14
			322+32	-	322+40	75' RT	13
			322+54	-	322+64	55' LT	10
			322+53	-	322+63	57' RT	11
			323+10	-	323+49	55' LT	38
			339+70	-	339+78	67' LT	13
			340+06	-	340+09	68' LT	10
			340+11	-	340+20	90' RT	10
			340+11	-	340+21	74' RT	10
			340+11	-	340+21	62' RT	10
			340+15	-	340+25	60' LT	10
			340+35			68' LT	10
			340+36			64' RT	10
			341+45			71' RT	10
			341+44			64' LT	10
			341+46	-	341+55	63' RT	9
			341+51	-	341+61	60' LT	10
			341+52	-	341+62	75' LT	10
			341+54	-	341+65	92' LT	11
			341+57			70' RT	10
			363+11	-	363+13	66' RT	10
			363+64	-	363+66	76' RT	11
			363+79	-	363+90	53' RT	11
			363+80	-	363+90	51' LT	10
			366+77	-	366+87	49' LT	10
			367+45	-	367+56	59' RT	14
			375+93	-	376+04	51' LT	16
			376+01	-	376+10	52' RT	13
			376+53	-	376+62	61' RT	13
			376+56	-	376+69	60' LT	17
			376+85	-	376+95	49' LT	10
			376+85	-	376+95	49' RT	10
			383+60	-	383+93	48' LT	33
			402+39	-	402+48	46' RT	9
			402+40	-	402+50	49' LT	9
			402+61	-	402+66	53' LT	9
			403+01	-	403+08	61' LT	10
			403+40	-	403+49	46' RT	9
			403+40	-	403+49	49' LT	9
			409+74	-	409+83	48' RT	9
			410+43	-	410+48	60' LT	10
			415+50	-	415+52	52' RT	9

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REMOVING CURB & GUTTER

CATEGORY	STAGE	LOCATION	STATION		STATION	OFFSET		* 204.0150 REMOVING CURB & GUTTER LF
			415+83	-	415+86	59'	RT	9
			420+37	-	420+51	49'	LT	14
			420+38	-	420+52	48'	LT	14
			424+83	-	424+93	50'	LT	10
			424+85	-	424+95	1'	LT	10
			446+17	-	446+26	26'	LT	9
			446+21	-	446+31	70'	RT	10
			451+02	-	451+10	75'	LT	13
			452+05			55'	LT	10
			452+17	-	452+28	70'	LT	14
			452+34	-	452+48	92'	LT	21
			258+21			79'	LT	9
			459+23	-	459+32	54'	RT	9
			459+38			72'	RT	9
			459+61			81'	RT	9
0010	2	FOREST HILL AVENUE						
			200+74	-	200+84	25'	RT	14
			200+87	-	200+88	42'	RT	10
			201+13			42'	RT	10
			201+28			43'	RT	10
0010	2	RAMP ER						
			148+37	-	149+37	1'	RT	100
			148+37	-	149+37	16'	LT	100
0010	2	RAMP WC						
			5+42	-	6+44	16'	LT	102
		SUBOTAL						2,188
		TOTAL						2,948

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

REMOVING CONCRETE SIDEWALK

CATEGORY	STAGE	LOCATION	STATION		STATION	204.0155 REMOVING CONCRETE SIDEWALK SY
0010	1	STH 38/HOWELL AVENUE				
			394+59	-	394+66	3
	2	STH 38/HOWELL AVENUE				
			129+42	-	140+00	13
			140+00	-	155+00	28
			155+00	-	170+00	20
			170+00	-	185+00	263
			185+00	-	200+00	98
			200+00	-	215+00	14
			215+00	-	230+00	188
			230+00	-	245+00	137
			245+00	-	260+00	39
			260+00	-	275+00	452
			275+00	-	290+00	728
			290+00	-	305+00	262
			305+00	-	320+00	6
			320+00	-	335+00	12
			335+00	-	350+00	7
			350+00	-	365+00	15
			365+00	-	380+00	54
			380+00	-	395+00	140
			395+00	-	405+00	52
			405+00	-	420+00	96
			420+00	-	435+00	--
			435+00	-	450+00	146
			450+00	-	462+87	492
	2	FOREST HILL AVENUE				
			200+42	-	200+82	21
	2	STH 100/RYAN ROAD				
			1103+60	-	1104+90	86
			1105+24	-	1106+92	106
		SUBTOTAL				3,488
0040	2	STH 38/HOWELL AVENUE				
			380+00	-	395+00	10
			395+00	-	405+00	760
			405+00	-	420+00	851
			420+00	-	435+00	300
			435+00	-	450+00	417
			450+00	-	462+87	--
		SUBTOTAL				2,383
		TOTAL				5,871

REMOVING GUARDRAIL

CATEGORY	STAGE	LOCATION	STATION TO STATION	OFFSET	204.0165 REMOVING GUARDRAIL LF
0010	1	STH 38/HOWELL AVENUE			
			198+29 - 199+03	10' RT	74
			198+29 - 198+78	10' RT/LT	52
			200+07 - 200+70	10' LT	64
			200+12 - 200+70	10' RT/LT	60
			428+44 - 431+29	4' LT	285
			428+44 - 431+29	6' LT	285
		SUBTOTAL			820
0010	2	STH 38/HOWELL AVENUE			
			198+00 - 199+20	62' RT	120
			199+81 - 201+00	65' LT	120
		SUBTOTAL			240
		TOTAL			1,060

REMOVING FENCE

CATEGORY	STAGE	LOCATION	STATION TO STATION	OFFSET	204.0170 REMOVING FENCE LF
0010	2	STH 38/HOWELL AVENUE			
			423+20 - 423+79	56' LT	58
		TOTAL			58

REMOVING MANHOLES

CATEGORY	STAGE	LOCATION	STATION	OFFSET	204.0210 REMOVING MANHOLES EACH
0010	2	STH 38/HOWELL AVENUE			
			261+74	54' RT	1
			276+00	31' RT	1
		TOTAL			2

REMOVING INLETS

CATEGORY	STAGE	LOCATION	STATION	OFFSET	204.0220 REMOVING INLETS EACH
0010	1	STH 38/HOWELL AVENUE			
			150+32	16' RT	1
			175+90	4' RT	1
			213+64	1' RT	1
			223+25	2' LT	1
			259+52	5' LT	1
			276+88	1' RT	1
			376+77	0' RT	1
			444+76	12' RT	1
			445+01	12' RT	1
			459+07	0' RT	1
		SUBTOTAL			10
0010	2	STH 38/HOWELL AVENUE			
			178+47	54' RT	1
			181+31	54' RT	1
			185+23	54' LT	1
			185+24	54' RT	1
			188+01	54' RT	1
			188+00	53' LT	1
			189+01	54' RT	1
			195+96	54' LT	1
			195+98	54' RT	1
			196+64	80' RT	1
			197+26	54' LT	1
			197+75	54' RT	1
			197+76	54' LT	1
			200+71	54' RT	1
			202+74	77' LT	1
			210+75	54' LT	1
			213+38	54' RT	1
			213+65	54' RT	1
			215+35	54' RT	1
			222+16	96' LT	1
			225+45	54' RT	1
			230+53	54' RT	1
			230+98	54' LT	1
			235+77	58' LT	1
			236+11	54' RT	1
			245+51	54' RT	1
			255+50	54' RT	1
			261+35	85' LT	1
			261+78	85' LT	1
			263+25	54' LT	1
			264+25	54' LT	1
			264+24	0' RT	1
			264+24	54' RT	1
			264+74	54' RT	1
			264+76	54' LT	1
			269+40	54' LT	1
			276+86	54' RT	1
			276+90	54' LT	1
			280+00	53' LT	1
			287+23	54' LT	1

REMOVING INLETS

CATEGORY	STAGE	LOCATION	STATION	OFFSET	204.0220 REMOVING INLETS EACH
			287+25	55' RT	1
			289+98	54' RT	1
			290+51	54' LT	1
			293+03	54' LT	1
			296+51	54' LT	1
			297+00	54' RT	1
			299+00	54' RT	1
			307+40	54' RT	1
			314+00	54' RT	1
			317+00	54' RT	1
			325+26	54' RT	1
			325+76	54' RT	1
			333+50	58' RT	1
			336+68	59' LT	1
			336+81	59' RT	1
			339+75	61' RT	1
			343+01	67' LT	1
			344+01	59' RT	1
			346+76	59' RT	1
			350+01	55' RT	1
			355+50	54' RT	1
			358+01	54' RT	1
			371+99	47' LT	1
			379+26	47' RT	1
			393+10	47' LT	1
			393+25	47' RT	1
			415+40	47' RT	1
			419+85	46' RT	1
			423+00	46' RT	1
			425+49	48' LT	1
			430+75	47' LT	1
			441+63	42' LT	1
			451+13	88' LT	1
			454+50	53' RT	1
			456+27	52' LT	1
			458+94	98' LT	1
			459+31	52' LT	1
			461+24	52' LT	1
			462+67	48' RT	1
2		STH 100/RYAN ROAD			
			1104+51	54' LT	1
			1105+75	54' LT	1
			1106+34	54' LT	1
2		FOREST HILL AVENUE-DEVELOPMENT			
			201+52	55' RT	1
2		COLLEGE AVENUE			
			5116+78	47' RT	1
		SUBTOTAL			84
		TOTAL			94

REMOVING SAND BARREL ARRAYS

CATEGORY	LOCATION	STATION	204.9105.S.0001 REMOVING SAND BARREL ARRAYS LS	204.9105.S.0002 REMOVING SAND BARREL ARRAYS LS	204.9105.S.0003 REMOVING SAND BARREL ARRAYS LS	204.9105.S.0004 REMOVING SAND BARREL ARRAYS LS	NUMBER OF SAND BARRELS FOR INFORMATION ONLY
0010	STH 38/HOWELL AVE						
		198+25	1				11
		200+75		1			11
		428+25			1		11
		439+50				1	11
		TOTAL	1	1	1	1	

CONCRETE PAVEMENT CONTINUOUS DIAMOND GRINDING

CATEGORY	STAGE	LOCATION	STATION	TO STATION	420.1000.S SY
0010	1	STH 38/HOWELL AVENUE			
			431+28	- 439+31	2,267
		SUBTOTAL			2,267
0010	2	STH 38/HOWELL AVENUE			
			431+28	- 439+31	4,121
	2	CTH BB/RAWSON AVENUE			
			4113+08	- 4114+65	1,488
			4118+46	- 4120+08	1,346
	2	RAMPS ER AND WC			6,218
		SUBTOTAL			13,173
		TOTAL			15,440

EXCAVATION, HAULING, AND DISPOSAL OF PETROLEUM CONTAMINATED SOIL

CATEGORY	STAGE	LOCATION	STATION		TO STATION	205.0501.S TONS
0010	2	STH 38/HOWELL AVENUE				
			181+20	-	181+75	80
			182+00	-	183+50	80
		TOTAL				160

FINISHING ROADWAY

CATEGORY	LOCATION	213.0100 FINISHING ROADWAY (ID 2060-15-71) EACH
0010	UNDISTRIBUTED	1
	TOTAL	1

REMOVING PAVEMENT MARKINGS

CATEGORY	STAGE	LOCATION	STATION		TO STATION	646.0600 REMOVING PAVEMENT MARKINGS LF	647.0955 REMOVING PAVEMENT MARKINGS ARROWS EACH	647.0965 REMOVING PAVEMENT MARKINGS WORDS EACH
0010	1	STH 38/HOWELL AVENUE						
			170+00	-	185+00	4,512	--	--
			185+00	-	200+00	4,627	--	--
			200+00	-	215+00	4,598	--	--
			215+00	-	230+00	5,208	--	1
			230+00	-	245+00	5,763	3	3
			245+00	-	260+00	5,522	--	--
			260+00	-	275+00	3,724	--	--
			275+00	-	290+00	4,661	2	1
			290+00	-	305+00	5,926	1	1
			305+00	-	320+00	4,835	--	--
			320+00	-	335+00	5,647	--	--
			335+00	-	350+00	7,069	2	2
			350+00	-	365+00	6,246	--	--
			365+00	-	380+00	3,808	--	--
			380+00	-	395+00	2,314	--	--
			395+00	-	410+00	756	--	--
			410+00	-	425+00	728	--	--
			425+00	-	440+00	725	--	--
			440+00	-	455+00	718	--	--
			455+00	-	462+87	262	--	--
		TOTAL				77,649	8	8

SAWING ITEMS

CATEGORY	LOCATION	STATION		TO STATION	690.0150 SAWING ASPHALT LF	* 690.0250 SAWING CONCRETE LF
0010	STH 38/HOWELL AVENUE					
		128+60	-	140+00	--	437
		140+00	-	155+00	--	232
		155+00	-	170+00	91	305
		170+00	-	185+00	13	1,747
		185+00	-	200+00	39	829
		200+00	-	215+00	--	440
		215+00	-	230+00	--	3,357
		230+00	-	245+00	--	2,218
		245+00	-	260+00	--	1,456
		260+00	-	275+00	89	3,026
		275+00	-	290+00	--	3,433
		290+00	-	305+00	--	2,066
		305+00	-	320+00	52	747
		320+00	-	335+00	52	1,368
		335+00	-	350+00	26	1,215
		350+00	-	365+00	26	867
		365+00	-	380+00	26	1,042
		380+00	-	395+00	39	1,306
		395+00	-	410+00	--	1,095
		410+00	-	425+00	--	222
		425+00	-	440+00	--	--
		440+00	-	455+00	--	606
		455+00	-	462+87	39	1,685
	STH 100/RYAN ROAD					
		1103+50	-	1107+00	--	734
	FOREST HILL AVENUE-DEVELOPMENT					
		200+00	-	203+00	--	320
	FOREST HILL AVENUE					
		102+00	-	105+50	--	46
	DREXEL AVENUE					
		3112+50	-	3113+50	--	116
		3118+00	-	3120+00	--	101
	CTH BB/RAWSON AVENUE					
		4113+50	-	4116+00	--	141
	CTH ZZ/COLLEGE AVENUE					
		5114+50	-	5116+50	--	99
	RAMP WC					
		19+50	-	20+00	--	62
		11+00	-	11+50	--	62
	REPLACE EXISTING INLET IN PLACE					
		PROJECT 2060-15-71			--	1,701
		SUBTOTAL			492	33,081
0040	STH 38/HOWELL AVENUE					
		380+00	-	395+00	--	25
		395+00	-	410+00	--	775
		410+00	-	425+00	--	700
		425+00	-	440+00	--	148
		440+00	-	455+00	--	199
		455+00	-	462+87	--	10
		SUBTOTAL			--	1,857
		TOTAL			492	34,938

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

EARTHWORK SUMMARY

Division	From/To Station	Location	205.0100 Common Excavation (1) Cut (2)	Salvaged/ Unusable Pavement Material (4)	Available Material (5)	Unexpanded Fill	Expanded Fill (13) Factor 1.20	Mass Ordinate +/- (14)	Waste	Comment:
Division 1/Stage	129+75 to 462+75	STH 38	23045	3016	20029	1812	2174	17855	17855	
Division 1 Subtotal			23045	3016	20029	1812	2174	17855	17855	
Division 2/Stage	129+75 to 462+75	STH 38	16585	777	15809	4130	4956	10853	10853	
	1103+60 to 1106+92	Ryan Rd	831	51	780	0	0	780	780	
	200+42 to 203+50	Forest Hill Ave (West)	1182	50	1132	2	3	1130	1130	
	100+55 to 105+40	Forest Hill Ave (East)	1898	495	1404	55	67	1337	1337	
	300+75 to 301+70	Susan Dr	182	156	26	0	0	26	26	
Intersection Curb Returns	222+00	Centennial SE	20	0	20	3	4	16	16	
	222+00	Centennial SW	0	0	0	3	3	-3	0	
	222+00	Centennial NW	10	0	10	1	1	8	8	
	235+00	Puetz Rd SW	3	0	3	1	1	2	2	
	235+00	Puetz Rd NW	8	0	8	0	0	8	8	
	235+00	Puetz Rd SE	6	0	6	0	0	6	6	
	235+00	Puetz Rd NE	1	0	1	0	1	1	1	
	262+00	Forest Hill NW	39	0	39	0	0	38	38	
	201+50 (Forest Hill)	Private Road E	27	0	27	0	0	27	27	
	262+00	Forest Hill SW	48	0	48	4	5	43	43	
	276+00	Susan Dr SE	25	0	25	0	0	25	25	
	277+00	Susan Dr NE	30	0	30	0	0	30	30	
	288+00	Drexel Ave SW	8	0	8	1	1	7	7	
	288+00	Drexel Ave SE	7	0	7	0	0	7	7	
	288+00	Drexel Ave NW	2	0	2	10	12	-10	0	
	288+00	Drexel Ave NE	3	0	3	1	1	2	2	
	394+00	College Ave SW	7	0	7	2	2	5	5	
	394+00	College Ave NW	2	0	2	1	1	1	1	
	394+00	College Ave SE	6	0	6	2	3	3	3	
	394+00	College Ave NE	14	0	14	0	0	14	14	
	452+00	STH 119 SW	0	0	0	0	0	0	0	
	452+00	STH 119 NW	1	0	1	1	1	0	0	
	452+00	STH 119 SE	1	0	1	1	1	0	0	
	458+00	Grange Ave SW	1	0	1	2	2	-1	0	
								0	0	
Curb Ramps	Undistributed		267	133	133	0	0	133	133	
Shoulder	131+02 -- 135+02	STH 38/Howell Ave	257	129	128	0	0	128	128	
Driveways	155+30	STH 38/Howell Ave	1	1	0	0	0	0	0	ASPHALT DRIVEWAY
	162+50	STH 38/Howell Ave	7	4	3	0	0	3	3	ASPHALT DRIVEWAY
	163+88	STH 38/Howell Ave	5	3	2	0	0	2	2	GRAVEL DRIVEWAY
	164+13	STH 38/Howell Ave	11	6	5	0	0	5	5	ASPHALT DRIVEWAY
	165+89	STH 38/Howell Ave	6	3	3	0	0	3	3	ASPHALT DRIVEWAY
	166+63	STH 38/Howell Ave	12	6	6	0	0	6	6	ASPHALT DRIVEWAY

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EARTHWORK SUMMARY

Division	From/To Station	Location	205.0100 Common Excavation (1) Cut (2)	Salvaged/ Unusable Pavement Material (4)	Available Material (5)	Unexpanded Fill	Expanded Fill (13) Factor 1.20	Mass Ordinate +/- (14)	Waste	Comment:
	167+08	STH 38/Howell Ave	4	2	2	0	0	2	2	ASPHALT DRIVEWAY
	168+75	STH 38/Howell Ave	6	3	3	0	0	3	3	GRAVEL DRIVEWAY
	169+21	STH 38/Howell Ave	7	4	3	0	0	3	3	ASPHALT DRIVEWAY
	170+29	STH 38/Howell Ave	8	4	4	0	0	4	4	ASPHALT DRIVEWAY
	185+48	STH 38/Howell Ave	20	10	10	0	0	10	10	ASPHALT DRIVEWAY
	278+33	STH 38/Howell Ave	11	6	5	0	0	5	5	ASPHALT DRIVEWAY
	311+49	STH 38/Howell Ave	36	18	18	0	0	18	18	ASPHALT DRIVEWAY
	313+04	STH 38/Howell Ave	9	5	4	0	0	4	4	ASPHALT DRIVEWAY
	314+80	STH 38/Howell Ave	14	7	7	0	0	7	7	ASPHALT DRIVEWAY
	327+65	STH 38/Howell Ave	6	3	3	0	0	3	3	ASPHALT DRIVEWAY
	329+90	STH 38/Howell Ave	5	3	2	0	0	2	2	GRAVEL DRIVEWAY
	329+98	STH 38/Howell Ave	1	1	0	0	0	0	0	ASPHALT GUTTER
	330+37	STH 38/Howell Ave	8	4	4	0	0	4	4	ASPHALT DRIVEWAY
	331+05	STH 38/Howell Ave	4	2	2	0	0	2	2	ASPHALT DRIVEWAY
	332+45	STH 38/Howell Ave	8	4	4	0	0	4	4	ASPHALT DRIVEWAY
	333+35	STH 38/Howell Ave	6	3	3	0	0	3	3	GRAVEL DRIVEWAY
	344+22	STH 38/Howell Ave	28	14	14	0	0	14	14	ASPHALT DRIVEWAY
	347+33	STH 38/Howell Ave	28	14	14	0	0	14	14	ASPHALT DRIVEWAY
	348+92	STH 38/Howell Ave	9	5	4	0	0	4	4	GRAVEL DRIVEWAY
	351+04	STH 38/Howell Ave	11	6	5	0	0	5	5	GRAVEL DRIVEWAY
	352+93	STH 38/Howell Ave	18	9	9	0	0	9	9	GRAVEL DRIVEWAY
	361+44	STH 38/Howell Ave	10	5	5	0	0	5	5	ASPHALT DRIVEWAY
	362+89	STH 38/Howell Ave	10	5	5	0	0	5	5	GRAVEL DRIVEWAY
	364+88	STH 38/Howell Ave	13	7	6	0	0	6	6	ASPHALT DRIVEWAY
	367+36	STH 38/Howell Ave	9	5	4	0	0	4	4	ASPHALT DRIVEWAY
	370+56	STH 38/Howell Ave	4	2	2	0	0	2	2	GRAVEL DRIVEWAY
	382+29	STH 38/Howell Ave	8	4	4	0	0	4	4	GRAVEL DRIVEWAY
	382+88	STH 38/Howell Ave	14	7	7	0	0	7	7	ASPHALT DRIVEWAY
	383+76	STH 38/Howell Ave	1	1	0	0	0	0	0	ASPHALT GUTTER
	383+70	STH 38/Howell Ave	7	4	3	0	0	3	3	GRAVEL DRIVEWAY
	384+57	STH 38/Howell Ave	31	16	15	0	0	15	15	ASPHALT DRIVEWAY
	385+30	STH 38/Howell Ave	6	3	3	0	0	3	3	ASPHALT DRIVEWAY
	386+43	STH 38/Howell Ave	4	2	2	0	0	2	2	ASPHALT DRIVEWAY
	387+31	STH 38/Howell Ave	3	2	1	0	0	1	1	GRAVEL DRIVEWAY
	3+88	STH 38/Howell Ave	4	2	2	0	0	2	2	GRAVEL DRIVEWAY
	390+40	STH 38/Howell Ave	9	5	4	0	0	4	4	GRAVEL DRIVEWAY
	391+47	STH 38/Howell Ave	3	2	1	0	0	1	1	GRAVEL DRIVEWAY
	391+86	STH 38/Howell Ave	5	3	2	0	0	2	2	GRAVEL DRIVEWAY
	461+62	STH 38/Howell Ave	19	10	9	0	0	9	9	ASPHALT DRIVEWAY
	462+36	STH 38/Howell Ave	17	9	8	0	0	8	8	ASPHALT DRIVEWAY
	101+00	Forest Hill Ave	12	6	6	0	0	6	6	ASPHALT DRIVEWAY
	101+55	Forest Hill Ave	5	3	2	0	0	2	2	GRAVEL DRIVEWAY
Division 2 Subtotal			21958	21958	19914	9292	19914	29706	14861	
Grand Total			45003	24974	39943	11103	22088	47562	32716	
		Total Common Exc		39943						

BACKFILL SLURRY

CATEGORY	LOCATION	SPV.0035.0010 CY
0010	PROJECT 2060-15-71	
	REPLACE EXISTING INLET IN PLACE	500
	TOTAL	500

CRACKING AND SEATING

CATEGORY	STAGE	LOCATION	STATION TO STATION	340.0110 CRACKING AND SEATING SY
0010	2	WEST PUETZ ROAD		
			2110+00 - 2114+70	2,030
		TOTAL		2,030

CONCRETE PAVEMENT REPAIR

CATEGORY	STAGE	LOCATION	STATION TO STATION	416.1715 CONCRETE PAVEMENT REPAIR SHES SY
0010	2	RAMP ER		
			148+37 - 149+37	180
				--
0010	2	RAMP WC		--
			5+42 - 6+44	210
		TOTAL		390

CONCRETE PAVEMENT REPLACEMENT

CATEGORY	STAGE	LOCATION	STATION TO STATION	416.1725 CONCRETE PAVEMENT REPLACEMENT SHES SY
0010	1	STH 38/HOWELL AVENUE		
			140+00 - 155+00	--
			155+00 - 170+00	--
			170+00 - 185+00	440
			185+00 - 200+00	100
			200+00 - 215+00	--
			215+00 - 230+00	65
			230+00 - 245+00	380
			245+00 - 260+00	30
			260+00 - 275+00	50
			275+00 - 290+00	270
			290+00 - 305+00	45
			305+00 - 320+00	--
			320+00 - 335+00	--
			335+00 - 350+00	440
			350+00 - 365+00	--
			365+00 - 380+00	--
			380+00 - 395+00	230
			395+00 - 410+00	35
			410+00 - 425+00	--
			425+00 - 440+00	--
			440+00 - 455+00	185
			455+00 - 462+87	155
		STAGE 1 CAT 0010 SUBTOTAL		2,425
				--
0070	1	STH 38/HOWELL AVENUE		--
			394+00 - 423+50	445
		STAGE 1 CAT 0070 SUBTOTAL		445
0010	2	STH 38/HOWELL AVENUE		
			128+60 - 140+00	--
			140+00 - 155+00	--
			155+00 - 170+00	--
			170+00 - 185+00	85
			185+00 - 200+00	180
			200+00 - 215+00	--
			215+00 - 230+00	475
			230+00 - 245+00	100
			245+00 - 260+00	45
			260+00 - 275+00	75
			275+00 - 290+00	70

CONCRETE PAVEMENT REPLACEMENT

CATEGORY	STAGE	LOCATION	STATION TO STATION	416.1725 CONCRETE PAVEMENT REPLACEMENT SHES SY
			290+00 - 305+00	80
			305+00 - 320+00	--
			320+00 - 335+00	--
			335+00 - 350+00	75
			350+00 - 365+00	--
			365+00 - 380+00	--
			380+00 - 395+00	80
			395+00 - 410+00	20
			410+00 - 425+00	--
			425+00 - 440+00	--
			440+00 - 455+00	290
			455+00 - 462+87	470
0010	2	STH 100/RYAN ROAD		
			1103+50 - 1107+00	535
0010	2	PUETZ ROAD		
			2114+50 - 2119+00	390
0010	2	FOREST HILL ROAD		
			100+50 - 105+50	--
			201+50 204+00	260
0010	2	SUSAN DRIVE		
			300+00 - 301+72	
0010	2	DREXEL AVENUE		
			3112+50 - 3118+00	520
0010	2	RAWSON AVENUE		
			4113+00 - 4120+00	1,220
0010	2	COLLEGE AVENUE		
			5114+50 - 5120+00	415
0010	2	RAMP ER		
			148+37 - 149+37	275
0010	2	RAMP WC		
			5+42 - 6+44	420
		STAGE 2 CAT 0010 SUBTOTAL		6,080
		TOTAL		8,950

ASPHALTIC ITEMS

CATEGORY	STAGE	LOCATION	STATION		TO STATION	455.0220 ASPHALTIC MATERIAL PG64-28 TON	455.0605 TACK COAT GAL	460.1101 HMA PAVEMENT TYPE E-1 TON
0050	1	STH 38/HOWELL AVENUE						
			140+00	-	155+00	1	--	1
			155+00	-	170+00	1	--	1
			170+00	-	185+00	41	318	731
			185+00	-	200+00	65	507	1,165
			200+00	-	215+00	55	432	994
			215+00	-	230+00	78	613	1,409
			230+00	-	245+00	62	483	1,110
			245+00	-	260+00	62	488	1,122
			260+00	-	275+00	81	635	1,460
			275+00	-	290+00	78	609	1,401
			290+00	-	305+00	63	492	1,132
			305+00	-	320+00	64	504	1,158
			320+00	-	335+00	73	571	1,314
			335+00	-	350+00	59	464	1,067
			350+00	-	365+00	62	490	1,127
			365+00	-	380+00	55	429	987
			380+00	-	395+00	49	386	888
			395+00	-	410+00	50	393	904
			410+00	-	425+00	50	394	906
			425+00	-	440+00	56	440	1,012
			440+00	-	455+00	58	453	1,042
			455+00	-	462+87	26	201	462
		STAGE 1 SUBTOTAL				1,189	9,302	21,393
	2	STH 38/HOWELL AVENUE						
			128+60	-	140+00	23	180	413
			140+00	-	155+00	29	227	521
			155+00	-	170+00	28	221	508
			170+00	-	185+00	75	592	1,362
			185+00	-	200+00	82	647	1,487
			200+00	-	215+00	83	653	1,503
			215+00	-	230+00	89	700	1,609
			230+00	-	245+00	100	788	1,812
			245+00	-	260+00	85	665	1,530
			260+00	-	275+00	91	718	1,652
			275+00	-	290+00	110	869	1,998
			290+00	-	305+00	92	724	1,666
			305+00	-	320+00	81	634	1,458
			320+00	-	335+00	80	630	1,448
			335+00	-	350+00	114	896	2,062
			350+00	-	365+00	90	704	1,620
			365+00	-	380+00	80	625	1,437
			380+00	-	395+00	88	693	1,594
			395+00	-	410+00	79	622	1,431
			410+00	-	425+00	81	637	1,466
			425+00	-	440+00	76	599	1,378
			440+00	-	455+00	106	831	1,911
			455+00	-	462+87	49	380	874
	2	STH 100/RYAN ROAD						
			1103+50	-	1107+00	11	83	191
	2	FOREST HILL ROAD						
			100+50	-	105+50	39	302	695

ASPHALTIC ITEMS

CATEGORY	STAGE	LOCATION	STATION		TO STATION	455.0220 ASPHALTIC MATERIAL PG64-28 TON	455.0605 TACK COAT GAL	460.1101 HMA PAVEMENT TYPE E-1 TON
			201+50		204+00	--	80	
	2	SUSAN DRIVE						
			300+00	-	301+72	11	86	197
	2	RAMP ER						
			148+37	-	154+73	11	79	182
	2	PROJECT 2060-15-71						
		REPLACE EXISTING INLET IN PLACE				6	42	97
		ASPHALTIC SURFACE LANE WEDGING				159	2,514	2,890
		STAGE 2 SUBTOTAL				2,048	14,865	36,992
		TOTAL				3,237	24,167	58,385

ASPHALTIC SURFACE TEMPORARY

CATEGORY	STAGE	LOCATION	465.0125 ASPHALTIC SURFACE TEMPORARY TON	SPV.0105.0110 MILLING AND REMOVING TEMPORARY JOINT LS	COMMENTS
0010	1	PROJECT 2060-15-71	100		MANHOLE/VALVE WEDGING
	2	PROJECT 2060-15-71		1	LONGITUDINAL AND MANHOLE/VALVE WEDGING
		TOTAL	100	1	

CONCRETE CURB & GUTTER

CATEGORY	STAGE	LOCATION	STATION TO STATION	601.0105 * CONCRETE CURB TYPE A LF	601.0331 ** CONCRETE CURB & GUTTER 31-INCH LF	601.0600 CONCRETE CURB PEDESTRIAN LF	601.0553 CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE D LF
0010	1	STH 38/HOWELL AVENUE					
			128+60 - 140+00	--	31	--	--
			140+00 - 155+00	--	42	--	--
			155+00 - 170+00	--	20	--	--
			170+00 - 185+00	--	482	--	--
			185+00 - 200+00	--	110	--	--
			200+00 - 215+00	--	90	--	--
			215+00 - 230+00	--	2,862	--	--
			230+00 - 245+00	--	--	--	--
			245+00 - 260+00	--	1,018	--	--
			260+00 - 275+00	--	1,662	--	--
			275+00 - 290+00	--	1,838	--	--
			290+00 - 305+00	--	1,054	--	--
			305+00 - 320+00	--	400	--	--
			320+00 - 335+00	--	1,070	--	--
			335+00 - 350+00	--	40	--	--
			350+00 - 365+00	--	415	--	--
			365+00 - 380+00	--	723	--	--
			380+00 - 395+00	--	57	--	--
			395+00 - 410+00	--	741	--	--
			410+00 - 425+00	--	47	--	--
			425+00 - 440+00	--	399	--	--
			440+00 - 455+00	--	18	--	--
			455+00 - 462+87	--	460	--	--
			SUBTOTAL	--	13,579	--	--
	2	STH 38/HOWELL AVENUE					
			128+60 - 140+00	--	146	--	--
			140+00 - 155+00	--	143	--	--
			155+00 - 170+00	--	230	--	--
			170+00 - 185+00	--	496	86	--
			185+00 - 200+00	--	273	34	--
			200+00 - 215+00	--	133	--	--
			215+00 - 230+00	--	299	--	--
			230+00 - 245+00	--	339	--	--
			245+00 - 260+00	--	208	--	--
			260+00 - 275+00	--	532	--	--
			275+00 - 290+00	--	1,092	--	--
			290+00 - 305+00	--	558	--	--
			305+00 - 320+00	--	204	--	--
			320+00 - 335+00	--	84	--	--
			335+00 - 350+00	--	203	--	--
			350+00 - 365+00	--	107	--	--
			365+00 - 380+00	--	133	--	--
			380+00 - 395+00	--	451	--	--
			395+00 - 410+00	--	102	--	--
			410+00 - 425+00	--	76	--	--
			425+00 - 440+00	--	--	--	--
			440+00 - 455+00	--	271	--	--
			455+00 - 462+87	9	600	--	--

CONCRETE CURB & GUTTER

CATEGORY	STAGE	LOCATION	STATION TO STATION	601.0105 * CONCRETE CURB TYPE A LF	601.0331 ** CONCRETE CURB & GUTTER 31-INCH LF	601.0600 CONCRETE CURB PEDESTRIAN LF	601.0553 CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE D LF
	2	STH 100/RYAN ROAD					
			1103+50 - 1107+00	--	41	--	334
	2	FOREST HILL ROAD					
			100+50 - 105+50	--	1,273	--	--
	2	SUSAN DRIVE					
			300+00 - 301+72		330	--	--
	2	RAMP ER					
			148+37 - 149+37	--	100	--	--
			148+37 - 149+37	--	100	--	--
	2	RAMP WC					
			5+42 - 6+44	--	102	--	--
			SUBTOTAL	9	8,626	120	334
			TOTAL	9	22,205	120	334

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

** GUTTER DEPTH IS 12 INCHES; TIE BARS ARE REQUIRED (QUANTIFIED SEPARATELY)

CONCRETE ITEMS

CATEGORY	STAGE	LOCATION	STATION TO STATION	320.0145 CONCRETE BASE 8-INCH SY	390.0303 BASE PATCHING CONCRETE SY	602.0410 CONCRETE SIDEWALK 5-INCH SF	** 602.0410 CONCRETE SIDEWALK 5-INCH (CITY OF OAK CREEK) SF	*** 602.0410 CONCRETE SIDEWALK 5-INCH (CITY OF MILWAUKEE) SF
0010	1	STH 38/HOWELL AVENUE						
			128+60 - 140+00	--	33	33	33	--
			140+00 - 155+00	5	33	118	118	--
			155+00 - 170+00	5	33	109	286	--
			170+00 - 185+00	524	149	106	--	--
			185+00 - 200+00	12	149	381	--	--
			200+00 - 215+00	10	149	228	--	--
			215+00 - 230+00	2,772	149	4,533	--	--
			230+00 - 245+00	36	149	--	--	--
			245+00 - 260+00	1,201	149	1,274	--	--
			260+00 - 275+00	2,464	149	1,692	--	--
			275+00 - 290+00	1,637	149	1,504	--	--
			290+00 - 305+00	1,153	149	--	--	--
			305+00 - 320+00	448	149	241	--	--
			320+00 - 335+00	1,218	149	100	--	--
			335+00 - 350+00	18	149	30	67	--
			350+00 - 365+00	571	149	88	--	--
			365+00 - 380+00	797	149	154	154	--
			380+00 - 395+00	43	149	61	--	--
			395+00 - 410+00	909	149	169	--	--
			410+00 - 425+00	5	149	63	--	--
			425+00 - 440+00	1,270	37	--	--	--
			440+00 - 455+00	2	37	97	--	--
			455+00 - 462+87	469	37	48	--	--
			SUBTOTAL	15,569	2,743	11,029	658	--
	2	STH 38/HOWELL AVENUE						
			128+60 - 140+00	790	66	258	12,960	--
			140+00 - 155+00	--	66	363	17,285	--
			155+00 - 170+00	24	67	97	16,682	--
			170+00 - 185+00	268	297	6,098	836	--
			185+00 - 200+00	452	297	1,527	--	--
			200+00 - 215+00	--	297	375	--	--
			215+00 - 230+00	171	297	1,722	--	--
			230+00 - 245+00	136	297	985	--	--
			245+00 - 260+00	21	297	681	--	--
			260+00 - 275+00	673	297	4,988	--	--
			275+00 - 290+00	1,435	297	5,760	--	--
			290+00 - 305+00	807	297	2,243	--	--
			305+00 - 320+00	37	297	403	6,296	--
			320+00 - 335+00	--	297	493	11,290	--
			335+00 - 350+00	32	297	1,057	13,941	--
			350+00 - 365+00	62	298	443	13,346	--
			365+00 - 380+00	5	298	--	15,925	--
			380+00 - 395+00	165	298	1,444	15,936	
			395+00 - 410+00	--	298	619	--	6,309
			410+00 - 425+00	--	298	450	--	6,663
			425+00 - 440+00	--	74	--	--	1,719
			440+00 - 455+00	46	74	1,766	--	2,363
			455+00 - 462+87	589	74	2,818	--	951
	2	PROJECT 2060-15-71						
			REPLACE EXISTING INLET IN PLACE	422	--	--	--	--
			SUBTOTAL	6,135	5,475	34,590	124,497	18,005
			TOTAL	21,704	8,218	45,619	125,155	18,005

** CATEGORY 0020
*** CATEGORY 0040

BASE ITEMS

CATEGORY	STAGE	LOCATION	STATION TO STATION	* 305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	310.0110 BASE AGGREGATE OPEN GRADED TON
0010	1	STH 38/HOWELL AVENUE				
			128+60 - 140+00	1	--	--
			140+00 - 155+00	4	--	--
			155+00 - 170+00	10	--	--
			170+00 - 185+00	4	266	--
			185+00 - 200+00	8	--	--
			200+00 - 215+00	6	--	--
			215+00 - 230+00	39	1,537	--
			230+00 - 245+00	--	28	--
			245+00 - 260+00	36	646	--
			260+00 - 275+00	47	1,243	--
			275+00 - 290+00	43	893	--
			290+00 - 305+00	--	559	--
			305+00 - 320+00	9	231	--
			320+00 - 335+00	4	638	--
			335+00 - 350+00	1	13	--
			350+00 - 365+00	3	281	--
			365+00 - 380+00	6	418	--
			380+00 - 395+00	2	9	--
			395+00 - 410+00	6	462	--
			410+00 - 425+00	2	--	--
			425+00 - 440+00	--	458	--
			440+00 - 455+00	4	--	--
			455+00 - 462+87	2	255	--
			SUBTOTAL	237	7,937	--
	2	STH 38/HOWELL AVENUE				
			128+60 - 140+00	470	292	--
			140+00 - 155+00	627	--	--
			155+00 - 170+00	605	8	--
			170+00 - 185+00	101	150	--
			185+00 - 200+00	52	205	--
			200+00 - 215+00	14	2	--
			215+00 - 230+00	59	105	--
			230+00 - 245+00	33	97	--
			245+00 - 260+00	22	12	--
			260+00 - 275+00	108	339	--
			275+00 - 290+00	223	68	--
			290+00 - 305+00	80	24	--
			305+00 - 320+00	238	1	--
			320+00 - 335+00	419	14	--
			335+00 - 350+00	504	35	--
			350+00 - 365+00	493	8	--
			365+00 - 380+00	575	164	--
			380+00 - 395+00	612	2	--
			395+00 - 410+00	12	2	--
			410+00 - 425+00	4	4	--
			425+00 - 440+00	10	--	--
			440+00 - 455+00	11	52	--
			455+00 - 462+87	94	297	--
	2	STH 100/RYAN ROAD				
			1103+50 - 1107+00	72	307	145
	2	FOREST HILL ROAD				
			100+50 - 105+50	--	1,026	483
			200+00 - 204+00	73	275	129
	2	SUSAN DRIVE				
			300+00 - 301+72	--	299	141
	2	PROJECT 2060-15-71				
			REPLACE EXISTING INLET IN PLACE	--	307	--
			SUBTOTAL	5,511	4,095	900
			TOTAL	5,748	12,032	900

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

DRIVEWAY ITEMS

CATEGORY	STAGE	LOCATION	STATION	OFFSET	416.0170 CONCRETE DRIVEWAY 7-INCH SY	416.0270 CONCRETE DRIVEWAY HES 7-INCH SY	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON	* 305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	NOTES
0010	2	STH 38/HOWELL AVENUE							
			155+31	55.1' LT	33	--	1	13	
			162+52	55.0' RT	--	31	--	15	GRAVEL DRIVEWAY
			163+89	55.0' RT	--	29	--	12	GRAVEL DRIVEWAY
			164+13	55.0' LT	--	14	8	17	
			165+89	54.8' LT	--	18	3	11	
			166+62	55.0' RT	--	30	7	21	
			167+08	54.9' LT	--	14	2	7	
			168+10	54.9' LT	--	26	5	17	
			168+76	55.0' RT	--	30	--	14	GRAVEL DRIVEWAY
			169+23	54.8' LT	--	14	--	5	
			170+29	54.6' LT	--	14	6	13	
			227+49	54.8' LT	--	40	--	15	
			228+89	55.2' RT	--	32	1	13	
			229+81	54.8' LT	--	29	--	11	
			238+13	54.8' LT	39	--	--	14	
			252+76	55.0' LT	44	--	--	16	
			279+47	55.2' RT	50	--	--	18	
			298+05	55.2' RT	74	--	--	27	
			311+54	55.0' LT	42	--	21	46	
			313+03	54.6' RT	--	29	4	17	
			324+56	54.8' LT	5	23	--	10	
			327+63	54.8' LT	--	27	1	11	
			329+90	55.1' RT	--	14	--	7	GRAVEL DRIVEWAY
			329+98	55.5' LT	34	--	--	12	
			330+38	55.2' RT	--	14	6	13	
			331+06	55.2' RT	--	14	--	6	
			332+46	56.2' RT	--	14	5	12	
			333+35	57.8' RT	--	14	--	11	GRAVEL DRIVEWAY
			336+51	60.2' RT	--	27	2	13	
			344+22	59.8' LT	56	--	11	36	
			344+50	59.9' RT	87	--	--	32	
			347+32	59.7' RT	60	--	12	39	
			348+95	58.2' RT	--	28	3	14	
			351+07	55.0' RT	--	33	--	16	GRAVEL DRIVEWAY
			352+90	54.9' LT	29	--	--	27	GRAVEL DRIVEWAY
			353+78	55.0' RT	73	--	--	27	
			361+44	55.3' RT	--	28	3	15	
			361+77	55.5' LT	5	19	--	9	
			362+85	54.9' LT	--	21	--	12	GRAVEL DRIVEWAY
			364+88	51.5' RT	40	--	2	17	
			367+32	48.4' LT	9	--	4	9	
			369+16	48.1' LT	14	--	2	8	
			370+58	48.1' RT	--	11	--	6	GRAVEL DRIVEWAY
			372+52	48.0' RT	86	--	--	32	
			382+29	48.0' RT	--	13	--	11	GRAVEL DRIVEWAY
			382+88	48.0' LT	7	--	13	21	
			383+72	48.0' RT	--	11	--	11	GRAVEL DRIVEWAY
			384+58	48.0' RT	139	33	--	63	
			385+30	47.9' LT	--	7	4	9	
			386+43	47.8' LT	7	--	1	4	
			387+31	47.8' LT	--	7	--	4	GRAVEL DRIVEWAY
			387+57	48.7' RT	--	32	--	14	GRAVEL DRIVEWAY
			390+41	47.9' LT	--	5	--	13	GRAVEL DRIVEWAY
			391+46	48.0' LT	--	7	--	4	GRAVEL DRIVEWAY
			391+87	48.0' LT	--	8	--	5	GRAVEL DRIVEWAY
			396+44	48.1' LT	35	--	--	13	
			397+20	47.7' RT	28	--	--	10	
			398+66	48.4' LT	33	--	--	12	
			400+58	48.3' LT	11	--	--	4	
			411+32	48.1' LT	--	19	--	7	
			415+02	48.4' LT	23	--	--	8	
			415+48	48.4' LT	25	--	--	9	
			417+46	48.4' LT	20	--	--	7	
			418+87	48.6' LT	26	--	--	10	
			422+28	48.9' LT	15	--	--	5	
			424+37	49.2' LT	--	16	--	6	
			461+62	64.7' LT	20	--	8	19	
			462+36	52.9' LT	--	14	13	23	
		SUBTOTAL			1,169	809	148	1,008	
	2	STH 100/RYAN ROAD							
			1105+08	72.4' LT	23	--	11	24	
		SUBTOTAL			23	--	11	24	
	2	FOREST HILL ROAD							
	℄		101+08	25.1' RT	11	--	2	7	
			101+60	21.6' LT	12	--	2	7	
			102+23	19.6' RT	13	--	6	13	
			102+57	21.6' LT	60	--	--	22	
			103+41	18.1' RT	9	--	2	6	
			103+42	20.0' LT	13	--	4	10	
			104+30	16.8' LT	14	--	2	8	
			104+72	13.6' RT	12	--	--	17	GRAVEL DRIVEWAY
			104+86	14.7' LT	13	--	5	13	
		SUBTOTAL			146	--	21	96	
	2	SUSAN DRIVE							
			301+22	21.' LT	24	--	--	9	
		SUBTOTAL			24	--	--	9	
		TOTAL			1,362	809	180	1,137	

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

3

DOWEL BARS

CATEGORY	STAGE	LOCATION	STATION TO STATION	416.0620 DRILLED DOWEL BARS EACH
0010	1	STH 38/HOWELL AVENUE		
			128+60 - 140+00	--
			140+00 - 155+00	--
			155+00 - 170+00	--
			170+00 - 185+00	4
			185+00 - 200+00	--
			200+00 - 215+00	--
			215+00 - 230+00	103
			230+00 - 245+00	--
			245+00 - 260+00	36
			260+00 - 275+00	95
			275+00 - 290+00	28
			290+00 - 305+00	16
			305+00 - 320+00	36
			320+00 - 335+00	94
			335+00 - 350+00	16
			350+00 - 365+00	35
			365+00 - 380+00	39
			380+00 - 395+00	12
			395+00 - 410+00	44
			410+00 - 425+00	--
			425+00 - 440+00	12
			440+00 - 455+00	--
			455+00 - 462+87	74
		SUBTOTAL		644
	2	STH 38/HOWELL AVENUE		
			128+60 - 140+00	12
			140+00 - 155+00	--
			155+00 - 170+00	15
			170+00 - 185+00	--
			185+00 - 200+00	--
			200+00 - 215+00	--
			215+00 - 230+00	--
			230+00 - 245+00	12
			245+00 - 260+00	--
			260+00 - 275+00	--
			275+00 - 290+00	--
			290+00 - 305+00	--
			305+00 - 320+00	--
			320+00 - 335+00	--
			335+00 - 350+00	--
			350+00 - 365+00	--
			365+00 - 380+00	--
			380+00 - 395+00	12
			395+00 - 410+00	--
			410+00 - 425+00	--
			425+00 - 440+00	--
			440+00 - 455+00	--
			455+00 - 462+87	12
		SUBTOTAL		63
		TOTAL		707

TIE BARS

CATEGORY	STAGE	LOCATION	STATION TO STATION	* 416.0610 DRILLED TIE BARS EACH
0010	1	STH 38/HOWELL AVENUE		
			128+60 - 140+00	--
			140+00 - 155+00	--
			155+00 - 170+00	--
			170+00 - 185+00	244
			185+00 - 200+00	--
			200+00 - 215+00	--
			215+00 - 230+00	846
			230+00 - 245+00	--
			245+00 - 260+00	300
			260+00 - 275+00	599
			275+00 - 290+00	562
			290+00 - 305+00	276
			305+00 - 320+00	158
			320+00 - 335+00	421
			335+00 - 350+00	17
			350+00 - 365+00	186
			365+00 - 380+00	297
			380+00 - 395+00	14
			395+00 - 410+00	297
			410+00 - 425+00	--
			425+00 - 440+00	320
			440+00 - 455+00	--
			455+00 - 462+87	216
		SUBTOTAL		4,753
	2	STH 38/HOWELL AVENUE		
			128+60 - 140+00	200
			140+00 - 155+00	--
			155+00 - 170+00	14
			170+00 - 185+00	117
			185+00 - 200+00	75
			200+00 - 215+00	--

TIE BARS

CATEGORY	STAGE	LOCATION	STATION TO STATION	* 416.0610 DRILLED TIE BARS EACH
			215+00 - 230+00	110
			230+00 - 245+00	139
			245+00 - 260+00	26
			260+00 - 275+00	215
			275+00 - 290+00	404
			290+00 - 305+00	215
			305+00 - 320+00	32
			320+00 - 335+00	--
			335+00 - 350+00	22
			350+00 - 365+00	36
			365+00 - 380+00	--
			380+00 - 395+00	137
			395+00 - 410+00	--
			410+00 - 425+00	--
			425+00 - 440+00	--
			440+00 - 455+00	53
			455+00 - 462+87	209
		SUBTOTAL		2,004
	2	STH 100/RYAN ROAD		
			1103+50 - 1107+00	133
	2	FOREST HILL ROAD		
			100+50 - 105+50	151
			201+50 204+00	117
	2	PROJECT 2060-15-71		
		REPLACE EXISTING INLET IN PLACE		693
		SUBTOTAL		1,094
		TOTAL		7,984

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

WALL ITEMS

CATEGORY	WALL NUMBER	STATION	OFFSET		TO STATION	OFFSET		532.0200.S WALL MODULAR BLOCK GRAVITY SF	* 612.0106 PIPE UNDERDRAIN 6-INCH LF
0010	STH 38/HOWELL AVENUE								
	1	156+50	71.5'	LT -	158+51	71.6'	LT	338	202
	5	169+33	67.7'	LT -	170+19	67.6'	LT	84	86
	6	201+76	51.4'	RT -	203+36	51.4'	RT	482	160
	7	263+40	81.0'	LT -	265+60	76.4'	LT	375	220
	8	311+05	75.0'	RT -	312+94	90.2'	RT	353	190
	9	327+99	65.0'	RT -	329+02	65.0'	RT	228	103
	13	330+47	90.0'	RT -	330+99	68.7'	RT	178	53
	15	367+46	55.8'	LT -	368+00	54.7'	LT	51	56
	17	382+39	60.0'	RT -	383+64	60.1'	RT	254	126
	19	383+00	58.1'	LT -	383+75	58.1'	LT	54	75
	21	389+33	60.1'	LT -	390+32	60.0'	LT	171	101
	23	459+07	115.0'	LT -	459+47	72.3'	LT	--	--
	TOTAL							2,568	1,372

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

CIP RETAINING WALL ITEMS

CATEGORY	STATION	OFFSET	TO STATION	OFFSET	206.3000 EXCAVATION FOR STRUCTURES RETAINING WALLS LS	210.0100 BACKFILL STRUCTURE CY	504.0500 CONCRETE MASONRY RETAINING WALLS CY	505.0415 BAR STEEL REINFORCEMENT HS RETAINING WALLS LB	505.0615 BAR STEEL REINFORCEMENT HS COATED RETAINING WALLS LB	516.0500 RUBBERIZED MEMBRANE WATERPROOFING SY	517.1010.S CONCRETE STAINING CIP RETAINING WALL SF	517.1015.S CONCRETE STAINING MULTI-COLOR CIP RETAINING WALL SF	517.1050.S ARCHITECTURAL SURFACE TREATMENT CIP RETAINING WALL SF	612.0206 PIPE UNDERDRAIN UNPERFORATED 6-INCH LF	612.0406 PIPE UNDERDRAIN WRAPPED 6-INCH LF
0010	STH 38/HOWELL AVENUE														
	459+06	116.96' LT -	459+48	73.23' LT	1	121	35	850	810	3	67	162	162	13	66
	TOTAL				1	121	35	850	810	3	67	162	162	13	66

CURB RAMP DETECTABLE WARNING FIELD YELLOW

CATEGORY	STAGE	LOCATION	STATION TO STATION	602.0505 CURB RAMP DETECTABLE WARNING FIELD YELLOW SF
0010	1	STH 38/HOWELL AVENUE		
			128+60 - 140+00	16
			140+00 - 155+00	32
			155+00 - 170+00	32
			170+00 - 185+00	16
			185+00 - 200+00	48
			200+00 - 215+00	32
			215+00 - 230+00	32
			230+00 - 245+00	--
			245+00 - 260+00	32
			260+00 - 275+00	48
			275+00 - 290+00	32
			290+00 - 305+00	--
			305+00 - 320+00	32
			320+00 - 335+00	16
			335+00 - 350+00	16
			350+00 - 365+00	16
			365+00 - 380+00	32
			380+00 - 395+00	16
			395+00 - 410+00	48
			410+00 - 425+00	16
			425+00 - 440+00	--
			440+00 - 455+00	16
			455+00 - 462+87	16
			SUBTOTAL	544
0010	2	STH 38/HOWELL AVENUE		
			128+60 - 140+00	80
			140+00 - 155+00	80
			155+00 - 170+00	80
			170+00 - 185+00	88
			185+00 - 200+00	80
			200+00 - 215+00	56
			215+00 - 230+00	64
			230+00 - 245+00	96
			245+00 - 260+00	56
			260+00 - 275+00	112
			275+00 - 290+00	128
			290+00 - 305+00	16
			305+00 - 320+00	48
			320+00 - 335+00	32
			335+00 - 350+00	128
			350+00 - 365+00	40
			365+00 - 380+00	80
			380+00 - 395+00	96
			395+00 - 410+00	72
			410+00 - 425+00	40
			425+00 - 440+00	--
			440+00 - 455+00	64
			455+00 - 462+87	48
			SUBTOTAL	1,584
			TOTAL	2,128

PIPE UNDERDRAIN

CATEGORY	LOCATION	STATION TO STATION	OFFSET	* 612.0106 PIPE UNDERDRAIN 6-INCH LF
0010	STH38			
		183+58 - 186+87	70.0' LT	335
		261+75 - 266+63	66.0' LT	475
		276+88 - 281+64	66.0' LT	475
		289+79 - 294+17	66.0' LT	540
		458+95 - 462+75	62.0' LT	380
	STH100/RYAN ROAD			
		1105+60 - 1106+91	70.0' LT	335
	FOREST HILL AVENUE			
		100+54 - 104+85	17.0' RT	465
		100+54 - 105+21	19.0' LT	500
		TOTAL		3,505

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

COLD PATCH

CATEGORY	LOCATION	SPV.0195.0010 COLD PATCH TON
0010	UNDISTRIBUTED	15
	TOTAL	15

CONCRETE MEDIAN SLOPED NOSE

CATEGORY	STAGE	LOCATION	STATION TO STATION	620.0300 CONCRETE MEDIAN SLOPED NOSE SF
0010	1	STH 38/HOWELL AVENUE		
			215+00 - 230+00	297
			245+00 - 260+00	89
			260+00 - 275+00	351
			275+00 - 290+00	174
			290+00 - 305+00	59
			305+00 - 320+00	40
			320+00 - 335+00	475
			335+00 - 350+00	39
			350+00 - 365+00	191
			365+00 - 380+00	40
			395+00 - 410+00	79
			455+00 - 462+87	79
			SUBTOTAL	1,913
	2	STH 38/HOWELL AVENUE		
			380+00 - 395+00	42
			440+00 - 455+00	45
			455+00 - 462+87	26
	2	STH 100/RYAN ROAD		
			1103+50 - 1107+00	41
	2	COLLEGE AVENUE		
			5117+17 - 5117+22	42
			SUBTOTAL	196
			TOTAL	2,109

RESTORATION ITEMS *

CATEGORY	STAGE	LOCATION	STATION TO STATION	625.0100 TOPSOIL SY	628.2033 EROSION MAT CLASS III TYPE B SY	629.0210 FERTILIZER TYPE B CWT	630.0140 SEEDING MIXTURE NO. 40 LB	630.0200 SEEDING TEMPORARY LB	631.0300 SOD WATER MGAL	631.1000 SOD LAWN SY	NOTES
0010	1	STH 38/HOWELL AVENUE									
			170+00 - 185+00	17	--	1	--	--	--	17	
			245+00 - 260+00	--	--	--	--	--	--	--	
			260+00 - 275+00	48	--	3	--	--	--	48	
			275+00 - 290+00	124	--	8	--	--	--	124	
			290+00 - 305+00	167	--	11	--	--	--	167	
			455+00 - 462+71	6	--		--	--	--	6	
		SUBTOTAL		362	--	23	--	--	--	362	
0010	2	STH 38/HOWELL AVENUE									
			155+00 - 170+00	55	--	3	--	--	--	55	
			170+00 - 185+00	97	--	6	--	--	--	97	
			185+00 - 200+00	6	--	1	--	--	--	6	
			215+00 - 230+00	31	--	2	--	--	--	31	
			230+00 - 245+00	3	--	1	--	--	--	3	
			245+00 - 260+00	106	--	7	--	--	--	106	
			275+00 - 290+00	78	--	5	--	--	--	78	
			290+00 - 305+00	3	--	1	--	--	--	3	
			305+00 - 320+00	187	--	12	--	--	--	187	
			320+00 - 335+00	81	--	5	--	--	--	81	
			335+00 - 350+00	29	--	2	--	--	--	29	
			350+00 - 365+00	34	--	2	--	--	--	34	
			365+00 - 380+00	15	--	1	--	--	--	15	
			380+00 - 395+00	73	--	5	--	--	--	73	
			395+00 - 410+00	6	--	1	--	--	--	6	
			410+00 - 425+00	20	--	1	--	--	--	20	
			455+00 - 462+71	6	--		--	--	--	6	
	2	RYAN ROAD									
			1103+25 60' RT	59	--	4	--	--	1	59	
	2	FOREST HILL AVENUE									
			101+07 29' RT	16	--	1	--	--		16	
	2	PROJECT 2060-15-71									
			REPLACE EXISTING INLET IN PLACE	376	--	--	--	--	--	376	
			128+74 - 462+71	2,878	--	181	--	--	32	2,878	USE ON DISTURBED SLOPES
		SUBTOTAL		4,159	--	241	--	--	33	4,159	
		UNDISTRIBUTED		--	180	--	4	5	--	--	
		TOTAL		4,521	180	264	4	5	33	4,521	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

TEMPORARY SETTLING BASIN

CATEGORY	STAGE	LOCATION	628.1104 EROSION BALES EACH	SPV.0180.0010 GEOTEXTILE FABRIC TYPE FF SY
0010	ALL	PROJECT	40	200
		TOTAL	40	200

TRACKING PADS

CATEGORY	STAGE	LOCATION	628.7560 EACH
0010	2	UNDISTRIBUTED	1
		TOTAL	1

INLET PROTECTION

CATEGORY	STAGE	LOCATION	STATION TO STATION	628.7005 INLET PROTECTION TYPE A EACH	628.7010 INLET PROTECTION TYPE B EACH	628.7015 INLET PROTECTION TYPE C EACH	628.7020 INLET PROTECTION TYPE D EACH
0010	1	STH 38/HOWELL AVENUE					
			128+74 - 140+00	--	--	7	6
			140+00 - 155+00	--	--	4	4
			155+00 - 170+00	--	--	6	--
			170+00 - 185+00	--	--	5	2
			185+00 - 200+00	4	1	1	1
			200+00 - 215+00	2	--	1	1
			215+00 - 230+00	3	--	3	--
			230+00 - 245+00	1	--	4	2
			245+00 - 260+00	3	--	3	1
			260+00 - 275+00	1	--	1	4
			275+00 - 290+00	--	--	1	2
			290+00 - 305+00	2	--	1	--
			305+00 - 320+00	2	--	2	2
			320+00 - 335+00	1	--	2	1
			335+00 - 350+00	3	--	5	--
			350+00 - 365+00	3	--	1	--
			365+00 - 380+00	2	--	--	3
			380+00 - 395+00	--	--	5	--
			395+00 - 410+00	2	--	4	--
			410+00 - 425+00	3	--	--	--
			425+00 - 440+00	1	--	2	--
			440+00 - 455+00	2	--	5	3
			455+00 - 462+71	2	--	1	2
		SUBTOTAL		37	1	64	34
	2	STH 38/HOWELL AVENUE					
			128+74 - 140+00	--	--	11	4
			140+00 - 155+00	2	1	11	4
			155+00 - 170+00	--	--	13	--
			170+00 - 185+00	2	1	23	2
			185+00 - 200+00	--	--	20	4
			200+00 - 215+00	--	3	9	4
			215+00 - 230+00	1	--	16	--
			230+00 - 245+00	--	--	15	4
			245+00 - 260+00	--	--	13	4
			260+00 - 275+00	--	--	5	4
			275+00 - 290+00	1	--	9	6
			290+00 - 305+00	1	1	9	1
			305+00 - 320+00	--	--	11	4
			320+00 - 335+00	--	--	6	2
			335+00 - 350+00	1	--	12	8
			350+00 - 365+00	2	--	9	--
			365+00 - 380+00	1	1	8	8
			380+00 - 395+00	--	--	9	--
			395+00 - 410+00	--	--	10	--
			410+00 - 425+00	2	1	10	--
			425+00 - 440+00	1	--	7	--
			440+00 - 455+00	12	1	12	2
			455+00 - 462+71	5	--	17	4

INLET PROTECTION

CATEGORY	STAGE	LOCATION	STATION TO STATION	628.7005 INLET PROTECTION TYPE A EACH	628.7010 INLET PROTECTION TYPE B EACH	628.7015 INLET PROTECTION TYPE C EACH	628.7020 INLET PROTECTION TYPE D EACH
	2	STH 100/RYAN ROAD					
			1104+51 - 1106+36	--	--	3	--
	2	FOREST HILL					
			-	1	--	3	--
	2	FOREST HILL AVENUE					
			102+05 - 104+48	--	--	--	8
	2	CTH ZZ/COLLEGE AVENUE					
			5116+78	--	1	4	--
	2	DREXEL AVENUE					
			3114+95	--	1	1	--
	2	RAMP ER		4	--	6	--
	2	RAMP WC		4	--	6	--
		SUBTOTAL		40	11	288	73
		UNDISTRIBUTED		19	3	88	27
		TOTAL		96	15	440	134

EROSION CONTROL ITEMS

CATEGORY	STAGE	LOCATION	STATION TO STATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH	*628.2033 EROSION MAT CLASS III TYPE B SY	628.7555 CULVERT PIPE CHECKS EACH
0010	2	STH 38/HOWELL AVENUE							
			128+74 - 140+00	482	482	--	--	--	--
			140+00 - 155+00	783	783	--	--	--	10
			155+00 - 170+00	225	225	--	--	--	--
			185+00 - 200+00	328	328	--	--	--	--
			200+00 - 215+00	91	91	--	--	--	--
			305+00 - 320+00	605	605	--	--	--	--
			320+00 - 335+00	568	568	--	--	--	--
			335+00 - 350+00	913	913	--	--	--	--
			350+00 - 365+00	584	584	--	--	--	--
			365+00 - 380+00	1,036	1,036	--	--	--	--
			380+00 - 395+00	98	98	--	--	--	--
			410+00 - 425+00	406	406	--	--	167	--
			455+00 - 459+00	--	--	--	--	698	--
		SUBTOTAL		6,119	6,119	--	--	865	10
		UNDISTRIBUTED		1,530	1,530	13	6	216	3
		TOTAL		7,649	7,649	13	6	1,082	13

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

STORM SEWER ITEMS

CATEGORY	STAGE	STRUCTURE NUMBER	STATION	OFFSET FT	* 611.2003 MANHOLES 3-FT DIAMETER EACH	* 611.2004 MANHOLES 4-FT DIAMETER EACH	* 611.2005 MANHOLES 5-FT DIAMETER EACH	* 611.2006 MANHOLES 6-FT DIAMETER EACH	611.2007 MANHOLES 7-FT DIAMETER EACH	611.2008 MANHOLES 8-FT DIAMETER EACH	* 611.3220 INLETS 2x2-FT EACH	* 611.0535 MANHOLE COVERS TYPE J-SPECIAL EACH	* 611.0654 INLET COVERS TYPE V EACH	* SPV.0060.0090 INLET COVERS TYPE 57 EACH
0010	FOREST HILL AVENUE													
	2	IN101	104+48	12.6' RT	--	--	--	--	--	--	1	--	1	--
	2	IN102	104+13	13.8' RT	--	--	--	--	--	--	1	--	1	--
	2	IN103	104+48	15.5' LT	--	--	--	--	--	--	1	--	1	--
	2	IN104	104+13	15.8' LT	--	1	--	--	--	--	--	--	1	--
	2	IN105	102+35	18.0' RT	1	--	--	--	--	--	--	--	1	--
	2	IN106	102+05	17.7' RT	--	1	--	--	--	--	--	--	1	--
	2	IN107	102+35	20.0' LT	1	--	--	--	--	--	--	--	1	--
	2	IN108	102+05	20.0' LT	--	1	--	--	--	--	--	--	1	--
	2	MH109	100+55	21.8' LT	--	1	--	--	--	--	1	1	--	--
	2	IN110	201+53	54.8' RT	1	--	--	--	--	--	--	--	1	--
		SUBTOTAL			3	4	--	--	--	--	4	1	9	--
	STH 100/RYAN ROAD													
	2	IN204	1104+51	70.9' LT	--	1	--	--	--	--	--	--	1	--
	2	MH205	1104+51	54.0' LT	--	--	--	1	--	--	--	1	--	--
	2	IN206	1105+76	71.0' LT	--	1	--	--	--	--	--	--	1	--
	2	MH207	1105+76	53.9' LT	--	1	--	--	--	--	--	1	--	--
	2	IN208	1106+35	66.8' LT	--	--	--	--	--	--	1	--	1	--
	2	MH209	1106+35	53.8' LT	--	1	--	--	--	--	--	1	--	--
		SUBTOTAL			--	4	--	1	--	--	1	3	3	--
	STH 38/HOWELL AVENUE													
	1	IN200A	175+89	7.3' LT	--	--	--	--	--	--	1	--	1	--
	1	IN200B	176+25	7.6' LT	--	--	--	--	--	--	1	--	1	--
	1	EX200C	176+25	1.0' RT	--	--	--	--	--	--	--	--	--	
	2	IN202	181+06	54.2' RT	--	--	--	--	1	--	--	--	1	--
	2	MH203	181+31	54.1' RT	--	--	--	--	--	1	--	1	--	--
	2	IN213	185+23	71.3' LT	--	--	--	--	--	--	1	--	1	--
	2	EX214	185+23	54.1' LT	--	--	--	--	--	--	--	--	--	--
	2	IN217	190+53	53.9' RT	--	--	--	--	--	--	1	--	1	--
	2	IN218	189+01	53.8' RT	--	--	--	--	--	--	1	--	1	--
	1	IN232	220+74	6.6' LT	--	--	--	--	--	--	1	--	1	--
	2	IN234	222+18	95.6' LT	--	--	--	--	--	--	1	--	1	--
	2	EX235	222+16	95.6' LT	--	--	--	--	--	--	--	--	--	--
	1	IN236	223+25	8.2' RT	--	--	--	--	--	--	1	--	1	--
	1	EX237	223+25	1.6' LT	--	--	--	--	--	--	--	--	--	--
	1	IN239	229+20	6.5' LT	--	--	--	--	--	--	1	--	1	--
	1	MH240	229+33	15.2' RT	--	1	--	--	--	--	--	1	--	--
	2	IN243	235+79	61.1' LT	--	--	--	--	--	--	1	--	1	--
	2	EX244	235+78	57.9' LT	--	--	--	--	--	--	--	--	--	--
	1	IN247	247+08	4.1' RT	--	--	--	--	--	--	1	--	1	--
	1	EX248	248+54	6.2' RT	--	--	--	--	--	--	--	--	--	--
	1	IN248A	257+94	8.4 RT	--	--	--	--	--	--	1	--	1	--
	1	IN248B	255+48	11.3' RT	--	--	--	--	--	--	1	--	1	--
	1	IN249A	259+50	8.1' LT	--	1	--	--	--	--	--	--	1	--
	2	IN250	261+15	84.8' LT	--	--	--	--	--	--	1	--	1	--
	2	MH251	261+35	84.9' LT	--	1	--	--	--	--	--	1	--	--
	2	EX251A	261+35	84.4' LT	--		--	--	--	--	--	--	--	--
	2	IN252	261+88	84.6' LT	--	--	--	--	--	--	1	--	1	--
	2	EX253	261+78	84.5' LT	--	--	--	--	--	--	--	--	--	--
	2	IN253A	263+25	67.0' LT	--	--	--	--	--	--	1	--	1	--
	2	MH253B	263+25	54.0' LT	--	1	--	--	--	--	--	1	--	--

NOTES

STORM SEWER ITEMS ARE CALLED OFF ON THE STORM SEWER PLANS

1) STATIONS, OFFSETS, AND PIPE LENGTHS ARE MEASURED TO THE CENTER OF STRUCTURES.
2) RIM ELEVATIONS ARE GIVEN AT THE FLANGE LINE FOR INLET GRATES OR THE CENTER OF THE MANHOLE COVER FOR MANHOLES
3) STRUCTURE DEPTH = RIM ELEVATION - INVERT - CASTING HEIGHT - ADJUSTMENT RINGS
   CASTING HEIGHT = 0.67 FOR TYPE 57 COVERS, 0.83 FT FOR V COVERS, 0.75 FT FOR J COVERS, 0 FT FOR TYPE MS COVERS
   ADJUSTMENT RINGS = 0.33 FT for TYPE 57, TYPE V, AND TYPE J COVERS, 0 FT FOR TYPE MS COVERS

CONTINUED ON NEXT PAGE

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

CONTINUED FROM PREVIOUS PAGE

STORM SEWER ITEMS

CATEGORY	STAGE	STRUCTURE NUMBER	STATION	OFFSET FT		RIM OR FLANGE ELEV	STR DEPTH FT	FROM STR	TO STR	INLET ELEV	DISCH ELEV	SLOPE	608.0312 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 12-INCH LF	608.0315 15-INCH LF	608.0318 18-INCH LF	608.0321 21-INCH LF	520.8000 CONCRETE COLLARS FOR PIPE EACH	NOTES
0010	FOREST HILL AVENUE																	
	2	IN101	104+48	12.6'	RT	711.95	1.93	IN101	IN102	708.86	708.77	0.003	35	--	--	--	--	
	2	IN102	104+13	13.8'	RT	712.01	2.08	IN102	IN104	708.77	708.69	0.003	30	--	--	--	--	
	2	IN103	104+48	15.5'	LT	711.89	1.95	IN103	IN104	708.78	708.69	0.003	35	--	--	--	--	
	2	IN104	104+13	15.8'	LT	711.91	2.06	IN104	IN107	708.69	708.17	0.003	--	178	--	--	--	
	2	IN105	102+35	18.0'	RT	712.29	2.82	IN105	IN106	708.31	708.17	0.005	--	30	--	--	--	
	2	IN106	102+05	17.7'	RT	712.36	3.03	IN106	IN108	708.17	708.00	0.005	--	38	--	--	--	
	2	IN107	102+35	20.0'	LT	712.06	2.77	IN107	IN108	708.13	708.00	0.005	--	30	--	--	--	
	2	IN108	102+05	20.0'	LT	712.12	2.96	IN108	MH109	708.00	707.27	0.005	--	150	--	--	--	
	2	MH109	100+55	21.8'	LT	714.49	6.14	--	--	707.27	--	--	--	--	--	--	--	
	2	IN110	201+53	54.8'	RT	716.31	1.92	--	--	713.23	--	--	--	--	--	--	--	
		SUBTOTAL											100	426	--	--	--	
		STH 100/RYAN ROAD																
	2	IN204	1104+51	70.9'	LT	689.24	6.77	IN204	MH205	681.31	681.22	0.005	--	--	17	--	--	
	2	MH205	1104+51	54.0'	LT	688.27	6.01	---	--	681.18	--	--	--	--	--	--	--	Build over existing 20" pipe
	2	IN206	1105+76	71.0'	LT	692.99	8.16	IN206	MH207	683.67	683.58	0.005	--	--	17	--	--	Connect to existing 10" pipe
	2	MH207	1105+76	53.9'	LT	692.18	7.54	--	--	683.56	--	--	--	--	--	--	--	Build over existing 18" pipe
	2	IN208	1106+35	66.8'	LT	694.66	8.53	IN208	MH209	684.97	684.90	0.005	--	13	--	--	--	
	2	MH209	1106+35	53.8'	LT	693.86	7.94	--	--	684.84	--	--	--	--	--	--	--	Build over existing 18" pipe
		SUBTOTAL											--	13	34	--	--	
		STH 38/HOWELL AVENUE																
	1	IN200A	175+89	7.3'	LT	695.68	3.21	IN200A	IN200B	691.31	691.13	0.005	36	--	--	--	--	
	1	IN200B	176+25	7.6'	LT	695.88	3.59	IN200B	EX200C	691.13	--	--	--	--	--	--	--	Build over existing 12" pipe
	1	EX200C	176+25	1.0'	RT	--	--	--	--	--	--	--	--	--	--	--	--	
	2	IN202	181+06	54.2'	RT	688.04	8.74	--	--	677.92	--	0.005	36	--	--	--	--	Build over existing 48" pipe
	2	MH203	181+31	54.1'	RT	687.58	9.02	--	--	677.48	--	--	9	--	--	--	--	
	2	IN213	185+23	71.3'	LT	680.45	2.46	IN213	EX214	676.84	676.75	0.005	17	--	--	--	1	Connect to existing 8" pipe
	2	EX214	185+23	54.1'	LT	--	--	--	--	--	--	--	--	--	--	--	--	
	2	IN217	190+53	53.9'	RT	677.60	3.29	IN217	IN218	673.15	672.39	0.005	152	--	--	--	--	
	2	IN218	189+01	53.8'	RT	677.19	3.64	--	--	672.39	--	--	--	--	--	--	--	
	1	IN232	220+74	6.6'	LT	696.90	8.74	--	--	687.00	--	--	--	--	--	--	--	Build over existing 18" pipe
	2	IN234	222+18	95.6'	LT	697.15	1.67	IN234	EX235	694.33	694.32	0.005	2	--	--	--	1	Connect to existing 12" pipe
	2	EX235	222+16	95.6'	LT	--	--	--	--	--	--	--	--	--	--	--	--	
	1	IN236	223+25	8.2'	RT	698.22	4.80	IN236	EX237	692.26	692.21	0.005	10	--	--	--	1	Connect to existing 12" pipe
	1	EX237	223+25	1.6'	LT	--	--	--	--	--	--	--	--	--	--	--	--	
	1	IN239	229+20	6.5'	LT	695.67	4.60	IN239	MH240	689.92	689.79	0.005	25	--	--	--	--	
	1	MH240	229+33	15.2'	RT	695.68	4.81	--	--	689.79	--	--	--	--	--	--	--	Build over existing 12" pipe
	2	IN243	235+79	61.1'	LT	697.19	1.94	IN243	EX244	694.09	694.07	0.005	4	--	--	--	1	Connect to existing 12" pipe
	2	EX244	235+78	57.9'	LT	--	--	--	--	--	--	--	--	--	--	--	--	
	1	IN247	247+08	4.1'	RT	705.33	2.20	IN247	EX248	701.98	701.29	0.005	137	--	--	--	--	Connect to existing inlet
	1	EX248	248+54	6.2'	RT	--	--	--	--	--	--	--	--	--	--	--	--	
	1	IN248A	257+94	8.4	RT	713.64	2.91	IN248A	IN248B	709.57	708.33	0.005	248	--	--	--	--	
	1	IN248B	255+48	11.3'	RT	713.16	3.67	--	--	708.33	--	--	--	--	--	--	--	Build over existing 12" pipe
	1	IN249A	259+50	8.1'	LT	714.33	3.81	--	--	709.36	--	--	--	--	--	--	--	
	2	IN250	261+15	84.8'	LT	713.53	3.72	IN250	MH251	708.65	708.60	0.005	10	--	--	--	1	Connect to existing 12" pipe
	2	MH251	261+35	84.9'	LT	713.66	3.77	EX251A	MH251	708.81	708.60	0.023	9	--	--	--	1	Connect to existing 12" pipe
	2	EX251A	261+35	84.4'	LT	--	--	--	--	--	--	--	--	--	--	--	--	
	2	IN252	261+88	84.6'	LT	713.41	2.99	IN252	EX253	709.26	709.21	0.005	10	--	--	--	1	Connect to existing 12" pipe
	2	EX253	261+78	84.5'	LT	--	--	--	--	--	--	--	--	--	--	--	--	
	2	IN253A	263+25	67.0'	LT	713.53	4.44	IN253A	MH253B	707.93	707.86	0.005	13	--	--	--	--	
	2	MH253B	263+25	54.0'	LT	713.77	5.66	--	--	707.03	--	--	--	--	--	--	--	

NOTES

STORM SEWER ITEMS ARE CALLED OFF ON THE STORM SEWER PLANS

1) STATIONS, OFFSETS, AND PIPE LENGTHS ARE MEASURED TO THE CENTER OF STRUCTURES.
2) RIM ELEVATIONS ARE GIVEN AT THE FLANGE LINE FOR INLET GRATES OR THE CENTER OF THE MANHOLE COVER FOR MANHOLES
3) STRUCTURE DEPTH = RIM ELEVATION - INVERT - CASTING HEIGHT - ADJUSTMENT RINGS
   CASTING HEIGHT = 0.67 FOR TYPE 57 COVERS, 0.83 FT FOR V COVERS, 0.75 FT FOR J COVERS, 0 FT FOR TYPE MS COVERS
   ADJUSTMENT RINGS = 0.33 FT for TYPE 57, TYPE V, AND TYPE J COVERS, 0 FT FOR TYPE MS COVERS

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

CONTINUED ON NEXT PAGE

CONTINUED FROM PREVIOUS PAGE

STORM SEWER ITEMS

CATEGORY	STAGE	STRUCTURE NUMBER	STATION	OFFSET	* 611.2003 MANHOLES 3-FT DIAMETER EACH	* 611.2004 MANHOLES 4-FT DIAMETER EACH	* 611.2005 MANHOLES 5-FT DIAMETER EACH	* 611.2006 MANHOLES 6-FT DIAMETER EACH	611.2007 MANHOLES 7-FT DIAMETER EACH	611.2008 MANHOLES 8-FT DIAMETER EACH	* 611.3220 INLETS 2x2-FT EACH	* 611.0535 MANHOLE COVERS TYPE J-SPECIAL EACH	* 611.0654 INLET COVERS TYPE V EACH	* SPV.0060.0090 INLET COVERS TYPE 57 EACH
	2	IN253C	264+26	67.4' RT	--	--	--	--	--	--	1	--	1	--
	2	MH253D	264+26	53.9' RT	--	1	--	--	--	--	--	--	--	--
	2	IN254A	264+76	67.0' RT	--	--	--	--	--	--	1	--	1	--
	2	MH254B	264+76	54.1' RT	1	--	--	--	--	--	--	1	--	--
	1	IN254C	264+75	2.4' RT	--	--	--	--	--	--	1	--	1	--
	1	IN254D	264+25	8.2' RT	--	--	--	--	--	--	1	--	1	--
	1	MH254E	264+25	0.0' RT	1	--	--	--	--	--	--	1	--	--
	1	IN254F	272+00	7.0' LT	--	--	--	--	--	--	1	--	1	--
	1	IN254G	270+14	7.1' RT	--	--	--	--	--	--	1	--	1	--
	1	EX254H	269+40	6.2' RT	--	--	--	--	--	--	--	--	--	--
	1	IN254J	273+65	4.9' RT	--	1	--	--	--	--	--	--	1	--
	2	MH255A	276+90	53.9' LT	--	1	--	--	--	--	--	1	--	--
	2	IN255B	277+54	67.1' LT	--	--	--	--	--	--	1	--	1	--
	2	MH255C	277+54	53.9' LT	--	1	--	--	--	--	--	1	--	--
	1	IN256A	277+51	8.2' RT	--	--	--	--	--	--	1	--	1	--
	1	MH256B	276+87	0.8' RT	--	1	--	--	--	--	--	1	--	--
	2	IN256C	277+06	53.8' RT	--	--	--	--	--	--	1	--	1	--
	2	MH256D	276+86	54.0' RT	--	1	--	--	--	--	--	1	--	--
	2	IN256E	276+20	74.0' RT	1	--	--	--	--	--	--	--	1	--
	2	MH256F	276+31	74.9' RT	--	--	1	--	--	--	--	1	--	--
	2	IN257	280+00	66.8' LT	--	--	--	--	--	--	1	--	1	--
	2	MH257A	280+00	53.7' LT	--	1	--	--	--	--	--	1	--	--
	2	IN257B	287+23	56.9' LT	--	--	--	--	--	--	1	--	1	--
	2	EX257C	287+23	54.0' LT	--	--	--	--	--	--	--	--	--	--
	2	IN258	287+24	57.1' RT	--	--	--	--	--	--	1	--	1	--
	2	EX259	287+25	54.9' RT	--	--	--	--	--	--	--	--	--	--
	2	IN260	290+62	66.7' LT	--	--	--	--	--	--	1	--	1	--
	2	EX260A	290+51	54.0' LT	--	--	--	--	--	--	--	--	--	--
	2	IN263	293+10	68.4' LT	--	--	--	--	--	--	1	--	1	--
	2	EX263A	293+03	54.0' LT	--	--	--	--	--	--	--	--	--	--
	1	IN263B	296+10	4.3' RT	1	--		--	--	--	--	--	1	--
	1	IN268	308+54	4.0' LT	--	--	--	--	--	--	1	--	1	--
	1	EX269	307+35	0.2' RT	--	--	--	--	--	--	--	--	--	--
	1	IN269B	310+50	7.3' LT	--	1	--	--	--	--	--	--	1	--
	1	EX269C	310+50	0.6' LT	--	--	--	--	--	--	--	--	--	--
	2	IN270	312+88	54.1' RT	--	1	--	--	--	--	--	--	1	--
	2	EX270A	310+50	54.2' RT	--	--	--	--	--	--	--	--	--	--
	1	IN275	328+41	4.1' LT	--	--	--	--	--	--	1	--	1	--
	1	MH276	326+55	7.3' LT	--	1	--	--	--	--	--	1	--	--
	1	IN279	334+18	8.8' RT	--	--	--	--	--	--	1	--	1	--
	1	IN289	356+33	4.0' RT	--	--	--	--	--	--	1	--	1	--
	1	EX290	355+50	0.2' RT	--	--	--	--	--	--	--	--	--	--
	2	IN291	358+01	61.0' RT	--	1	--	--	--	--	--	--	1	--
	2	EX292	358+01	54.2' RT	--	--	--	--	--	--	--	--	--	--
	1	IN293	371+51	7.3' RT	--	--	--	--	--	--	1	--	1	--

NOTES

STORM SEWER ITEMS ARE CALLED OFF ON THE STORM SEWER PLANS

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2) RIM ELEVATIONS ARE GIVEN AT THE FLANGE LINE FOR INLET GRATES OR THE CENTER OF THE MANHOLE COVER FOR MANHOLES
3) STRUCTURE DEPTH = RIM ELEVATION - INVERT - CASTING HEIGHT - ADJUSTMENT RINGS
   CASTING HEIGHT = 0.67 FOR TYPE 57 COVERS, 0.83 FT FOR V COVERS, 0.75 FT FOR J COVERS, 0 FT FOR TYPE MS COVERS
   ADJUSTMENT RINGS = 0.33 FT for TYPE 57, TYPE V, AND TYPE J COVERS, 0 FT FOR TYPE MS COVERS

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

CONTINUED ON NEXT PAGE

CONTINUED FROM PREVIOUS PAGE

STORM SEWER ITEMS

CATEGORY	STAGE	STRUCTURE NUMBER	STATION	OFFSET	RIM OR FLANGE ELEV	STR DEPTH FT	FROM STR	TO STR	INLET ELEV	DISCH ELEV	SLOPE	608.0312 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 12-INCH LF	608.0315 15-INCH LF	608.0318 18-INCH LF	608.0321 21-INCH LF	520.8000 CONCRETE COLLARS FOR PIPE EACH	NOTES
	2	IN253C	264+26	67.4' RT	713.14	2.90	IN253C	MH253D	709.08	709.01	0.005	13	--	--	--	--	
	2	MH253D	264+26	53.9' RT	713.38	4.80	--	--	708.58	--	--	--	--	--	--	--	
	2	IN254A	264+76	67.0' RT	713.22	2.75	IN254A	MH254B	709.31	709.24	0.005	13	--	--	--	--	
	2	MH254B	264+76	54.1' RT	713.45	3.13	--	--	709.24	--	--	--	--	--	--	--	
	1	IN254C	264+75	2.4' RT	713.77	2.51	IN254C	IN254D	710.10	709.86	0.005	49	--	--	--	--	
	1	IN254D	264+25	8.2' RT	713.61	2.60	IN254D	MH254E	709.86	709.81	0.005	9	--	--	--	--	Build over existing 12" pipe
	1	MH254E	264+25	0.0' RT	713.76	2.87	--	--	709.81	--	--	--	--	--	--	--	
	1	IN254F	272+00	7.0' LT	717.23	2.08	IN254F	IN254G	713.99	713.06	0.005	187	--	--	--	--	
	1	IN254G	270+14	7.1' RT	716.50	2.28	IN254G	EX254H	713.06	712.69	0.005	73	--	--	--	--	
	1	EX254H	269+40	6.2' RT	--	--	--	--	--	--	--	--	--	--	--	--	
	1	IN254J	273+65	4.9' RT	718.08	2.31	--	--	714.61	--	--	--	--	--	--	--	Build over existing 12" pipe
	2	MH255A	276+90	53.9' LT	719.39	3.60	--	--	714.71	--	--	--	--	--	--	1	Connect to existing 12" pipe
	2	IN255B	277+54	67.1' LT	719.51	2.99	--	--	715.36	715.29	0.005	13	--	--	--	--	
	2	MH255C	277+54	53.9' LT	719.75	3.38	--	--	715.29	--	--	--	--	--	--	--	
	1	IN256A	277+51	8.2' RT	721.00	4.94	IN256A	MH256B	714.90	714.58	0.005	64	--	--	--	--	
	1	MH256B	276+87	0.8' RT	720.70	5.14	--	--	714.48	--	--	--	--	--	--	--	
	2	IN256C	277+06	53.8' RT	720.83	5.48	IN256C	MH256D	714.19	714.09	0.005	20	--	--	--	--	
	2	MH256D	276+86	54.0' RT	720.57	5.81	--	--	713.68	--	--	--	--	--	--	--	
	2	IN256E	276+20	74.0' RT	720.01	5.74	IN256E	MH256F	713.12	713.06	0.005	11	--	--	--	--	Build over existing 15" pipe
	2	MH256F	276+31	74.9' RT	720.18	6.04	--	--	713.06	--	--	--	--	--	--	--	
	2	IN257	280+00	66.8' LT	721.70	3.08	IN257	MH257A	717.47	717.40	0.005	13	--	--	--	--	
	2	MH257A	280+00	53.7' LT	722.00	3.83	--	--	717.09	--	--	--	--	--	--	--	
	2	IN257B	287+23	56.9' LT	722.06	3.94	IN257B	EX257C	716.96	716.94	0.005	3	--	--	--	--	
	2	EX257C	287+23	54.0' LT	--	--	--	--	--	--	--	--	--	--	--	--	
	2	IN258	287+24	57.1' RT	723.43	2.68	IN258	EX259	719.59	719.58	0.005	2	--	--	--	1	Connect to existing 12" pipe
	2	EX259	287+25	54.9' RT	--	--	--	--	--	--	--	--	--	--	--	--	
	2	IN260	290+62	66.7' LT	720.58	3.35	IN260	EX260A	716.08	715.99	0.005	17	--	--	--	1	Connect to existing 12" pipe
	2	EX260A	290+51	54.0' LT	--	--	--	--	--	--	--	--	--	--	--	--	
	2	IN263	293+10	68.4' LT	723.61	2.24	IN263	EX263A	720.21	720.12	0.005	17	--	--	--	1	Connect to existing 12" pipe
	2	EX263A	293+03	54.0' LT	--	--	--	--	--	--	--	--	--	--	--	--	
	1	IN263B	296+10	4.3' RT	730.05	8.65	--	--	720.24	--	--	--	--	--	--	--	Build over existing 12" pipe
	1	IN268	308+54	4.0' LT	723.46	2.46	IN268	EX269	719.85	719.25	0.005	119	--	--	--	--	Connect to existing inlet
	1	EX269	307+35	0.2' RT	--	--	--	--	--	--	--	--	--	--	--	--	
	1	IN269B	310+50	7.3' LT	--	--	--	--	--	--	--	--	--	--	--	--	
	1	EX269C	310+50	0.6' LT	721.63	5.38	EX269C	IN269B	716.25	716.17	0.011	--	--	--	7	--	Connect to existing inlet
	2	IN270	312+88	54.1' RT	724.45	3.65	IN270	IN270A	719.64	718.45	0.005	--	238	--	--	--	Connect to existing inlet
	2	EX270A	310+50	54.2' RT	--	--	--	--	--	--	--	--	--	--	--	--	
	1	IN275	328+41	4.1' LT	742.76	3.89	IN275	MH276	737.72	736.92	0.005	159	--	--	--	--	
	1	MH276	326+55	7.3' LT	744.43	6.43	--	--	736.92	--	--	--	--	--	--	--	Build over existing 12" pipe
	1	IN279	334+18	8.8' RT	725.59	4.28	--	--	720.15	--	--	--	--	--	--	--	Build over existing 12" pipe
	1	IN289	356+33	4.0' RT	724.41	4.45	IN289	EX290	718.81	718.39	0.005	83	--	--	--	--	Connect to existing inlet
	1	EX290	355+50	0.2' RT	--	--	--	--	--	--	--	--	--	--	--	--	
	2	IN291	358+01	61.0' RT	724.28	3.50	IN291	EX292	719.62	719.58	0.005	--	--	7	--	1	Connect to existing 18" pipe
	2	EX292	358+01	54.2' RT	--	--	--	--	--	--	--	--	--	--	--	--	
	1	IN293	371+51	7.3' RT	715.57	4.93	IN293	EX294	709.48	709.42	0.005	12	--	--	--	--	Connect to existing inlet

NOTES

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3) STRUCTURE DEPTH = RIM ELEVATION - INVERT - CASTING HEIGHT - ADJUSTMENT RINGS
   CASTING HEIGHT = 0.67 FOR TYPE 57 COVERS, 0.83 FT FOR V COVERS, 0.75 FT FOR J COVERS, 0 FT FOR TYPE MS COVERS
   ADJUSTMENT RINGS = 0.33 FT for TYPE 57, TYPE V, AND TYPE J COVERS, 0 FT FOR TYPE MS COVERS

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

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STORM SEWER ITEMS

CATEGORY	STAGE	STRUCTURE NUMBER	STATION	OFFSET	* 611.2003 MANHOLES 3-FT DIAMETER	* 611.2004 MANHOLES 4-FT DIAMETER	* 611.2005 MANHOLES 5-FT DIAMETER	* 611.2006 MANHOLES 6-FT DIAMETER	611.2007 MANHOLES 7-FT DIAMETER	611.2008 MANHOLES 8-FT DIAMETER	* 611.3220 INLETS 2x2-FT	* 611.0535 MANHOLE COVERS TYPE J-SPECIAL	* 611.0654 INLET COVERS TYPE V	* SPV.0060.0090 INLET COVERS TYPE 57
				FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH
	1	EX294	371+64	0.4' RT	--	--	--	--	--	--	--	--	--	--
	1	IN295A	373+51	4.3' RT	--	--	--	--	--	--	1	--	1	--
	1	EX296A	375+49	4.5' LT	--	--	--	--	--	--	--	--	--	--
	2	IN300	393+09	50.0' LT	--	--	--	--	--	--	1	--	1	--
	2	EX301	393+10	47.4' LT	--	--	--	--	--	--	--	--	--	--
	1	IN303	403+28	1.6' LT	--	--	--	--	--	--	1	--	--	1
	1	EX305	402+38	4.4' LT	--	--	--	--	--	--	--	--	--	--
	1	IN317	456+62	3.9' RT	--	1	--	--	--	--	--	--	--	1
	1	EX318	456+48	1.1' RT	--	--	--	--	--	--	--	--	--	--
	2	MH319	458+94	98.4' LT	--	--	--	1	--	--	--	1	--	--
	2	IN320	459+03	86.8' LT	--	--	--	--	--	--	1	--	--	1
	2	IN321	461+24	61.2' LT	--	--	--	--	--	--	1	--	--	1
	2	IN322	459+40	63.8' LT	--	--	--	--	--	--	1	--	--	1
	2	EX323	459+32	52.0' LT	--	--	--	--	--	--	--	--	--	--
	1	IN324	459+41	2.7' LT	--	--	--	--	--	--	1	--	--	1
	1	EX325	459+07	0.0' RT	--	--	--	--	--	--	--	--	--	--
		SUBTOTAL			4	16	1	1	1	1	42	14	45	6
		TOTALS			7	24	1	2	1	1	47	18	57	6

NOTES

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3) STRUCTURE DEPTH = RIM ELEVATION - INVERT - CASTING HEIGHT - ADJUSTMENT RINGS
   CASTING HEIGHT = 0.67 FOR TYPE 57 COVERS, 0.83 FT FOR V COVERS, 0.75 FT FOR J COVERS, 0 FT FOR TYPE MS COVERS
   ADJUSTMENT RINGS = 0.33 FT for TYPE 57, TYPE V, AND TYPE J COVERS, 0 FT FOR TYPE MS COVERS

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

CONTINUED ON NEXT PAGE

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STORM SEWER ITEMS

CATEGORY	STAGE	STRUCTURE NUMBER	STATION	OFFSET	RIM OR FLANGE ELEV	STR DEPTH FT	FROM STR	TO STR	INLET ELEV	DISCH ELEV	SLOPE	608.0312 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 12-INCH LF	608.0315 15-INCH LF	608.0318 18-INCH LF	608.0321 21-INCH LF	520.8000 CONCRETE COLLARS FOR PIPE EACH	NOTES
	1	EX294	371+64	0.4' RT	--	--	--	--	--	--	--	--	--	--	--	--	
	1	IN295A	373+51	4.3' RT	715.09	3.13	IN295A	EX296A	710.80	709.81	0.005	198	--	--	--	--	
	1	EX296A	375+49	4.5' LT	--	--	--	--	--	--	--	--	--	--	--	--	Connect to existing field inlet
	2	IN300	393+09	50.0' LT	731.22	2.76	IN300	EX301	727.31	727.29	0.005	3	--	--	--	1	Connect to existing 6" pipe
	2	EX301	393+10	47.4' LT	--	--	--	--	--	--	--	--	--	--	--	--	
	1	IN303	403+28	1.6' LT	721.54	3.06	IN303	EX305	717.48	717.00	0.005	96	--	--	--	--	Connect to existing inlet
	1	EX305	402+38	4.4' LT	--	--	--	--	--	--	--	--	--	--	--	--	
	1	IN317	456+62	3.9' RT	685.60	4.60	IN317	EX318	680.01	679.93	0.005	--	15	--	--	--	Connect to existing inlet
	1	EX318	456+48	1.1' RT	--	--	--	--	--	--	--	--	--	--	--	--	
	2	MH319	458+94	98.4' LT	686.00	4.83	MH319	IN320	680.09	--	--	--	--	--	--	--	
	2	IN320	459+03	86.8' LT	686.02	3.17	IN320	IN322	681.85	681.63	0.005	44	--	--	--	--	
	2	IN321	461+24	61.2' LT	686.58	3.03	IN321	IN322	682.56	681.64	0.005	184	--	--	--	--	
	2	IN322	459+40	63.8' LT	686.68	4.04	IN322	EX323	681.64	681.56	0.005	15	--	--	--	--	
	2	EX323	459+32	52.0' LT	--	--	--	--	--	--	--	--	--	--	--	1	
	1	IN324	459+41	2.7' LT	689.58	5.14	IN324	EX323	683.45	683.27	0.005	35	--	--	--	--	
	1	EX325	459+07	0.0' RT	--	--	--	--	--	--	--	--	--	--	--	1	Connect to existing 12" pipe
		SUBTOTAL										2,170	253	7	7	15	
		TOTALS										2,270	692	41	7	15	

NOTES

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3) STRUCTURE DEPTH = RIM ELEVATION - INVERT - CASTING HEIGHT - ADJUSTMENT RINGS
   CASTING HEIGHT = 0.67 FOR TYPE 57 COVERS, 0.83 FT FOR V COVERS, 0.75 FT FOR J COVERS, 0 FT FOR TYPE MS COVERS
   ADJUSTMENT RINGS = 0.33 FT for TYPE 57, TYPE V, AND TYPE J COVERS, 0 FT FOR TYPE MS COVERS

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

RECONDITIONING INLETS

CATEGORY	STAGE	LOCATION	STATION	OFFSET	SPV.0060.0010 RECONDITIONING INLETS EACH
0010		STH 38/HOWELL AVENUE			
	1		130+07	5.5' RT	1
	1		131+83	16.0' RT	1
	1		133+82	16.2' RT	1
	2		136+33	53.8' RT	1
	1		138+31	15.9' RT	1
	2		138+32	53.9' RT	1
	1		138+32	16.0' LT	1
	2		138+32	53.9' LT	1
	2		140+32	53.9' RT	1
	2		145+81	54.0' LT	1
	1		146+82	6.0' RT	1
	2		146+82	53.8' RT	1
	2		147+13	54.0' LT	1
	2		147+67	88.7' LT	1
	1		150+31	15.9' LT	1
	2		150+32	53.7' RT	1
	2		151+11	54.2' LT	1
	1		151+11	16.2' RT	1
	1		151+33	9.5' RT	1
	2		151+74	53.7' RT	1
	2		152+91	94.3' LT	1
	2		153+34	54.1' LT	1
	1		153+62	16.2' LT	1
	1		153+66	16.2' RT	1
	1		159+82	16.6' LT	1
	2		160+08	53.8' RT	1
	2		160+62	75.3' RT	1
	2		162+82	54.0' LT	1
	2		164+82	53.9' LT	1
	1		164+82	16.3' LT	1
	1		164+82	16.0' RT	1
	2		166+82	53.8' RT	1
	1		168+83	16.1' LT	1
	1		168+83	16.2' RT	1
	2		168+97	53.6' LT	1
	2		168+98	54.0' RT	1
	2		172+98	54.0' RT	1
	1		173+00	16.2' RT	1
	1		173+97	16.1' LT	1
	2		173+97	53.8' LT	1
	2		178+45	54.0' LT	1
	1		185+24	7.8' RT	1
	1		187+50	4.5' LT	1
	2		189+01	53.7' LT	1
	2		191+79	53.8' RT	1
	2		192+01	54.1' LT	1
	2		193+01	54.0' RT	1
	1		197+24	1.0' RT	1
	2		197+25	54.1' RT	1
	2		200+00	54.0' LT	1
	2		202+38	76.3' LT	1
	2		202+73	54.0' LT	1
	2		203+25	53.4' LT	1
	2		209+20	53.9' LT	1
	2		213+38	53.8' LT	1
	2		217+74	54.0' RT	1
	2		218+09	53.7' LT	1
	2		220+74	54.0' RT	1
	2		220+75	53.6' LT	1
	2		221+66	95.4' LT	1
	2		223+25	54.2' RT	1
	2		228+50	54.0' RT	1
	2		229+01	54.0' LT	1
	2		230+76	54.0' RT	1
	2		232+74	58.1' RT	1
	1		232+75	10.2' LT	1
	2		236+76	54.1' LT	1

RECONDITIONING INLETS

CATEGORY	STAGE	LOCATION	STATION	OFFSET	SPV.0060.0010 RECONDITIONING INLETS EACH
	2		263+25	54.0' LT	1
	2		264+26	53.9' LT	1
	2		273+65	53.9' RT	1
	2		276+86	53.9' RT	1
	2		276+90	54.0' LT	1
	2		280+00	53.9' RT	1
	2		285+00	54.0' LT	1
	2		289+52	54.1' RT	1
	2		290+51	54.0' LT	1
	2		302+49	54.0' LT	1
	2		304+50	54.1' RT	1
	2		307+30	54.0' LT	1
	2		307+74	54.2' LT	1
	2		310+49	54.0' LT	1
	2		310+96	53.9' LT	1
	2		314+00	54.0' LT	1
	2		333+49	57.5' LT	1
	2		337+25	59.3' LT	1
	2		337+25	59.3' RT	1
	2		340+20	90.7' RT	1
	2		341+44	111.2' RT	1
	2		341+68	110.6' RT	1
	2		344+01	59.0' LT	1
	2		349+51	55.9' RT	1
	2		349+99	54.8' LT	1
	2		352+25	54.1' RT	1
	2		355+50	54.3' LT	1
	2		366+70	47.5' LT	1
	2		366+70	47.8' RT	1
	2		372+24	46.9' RT	1
	2		372+76	47.0' RT	1
	2		376+76	47.0' LT	1
	2		376+77	47.1' RT	1
	2		379+25	47.0' LT	1
	2		381+51	47.0' LT	1
	2		381+49	47.0' RT	1
	2		389+50	47.1' RT	1
	2		394+60	48.4' LT	1
	2		402+54	42.8' RT	1
	2		409+51	47.3' RT	1
	2		413+02	47.2' RT	1
	2		416+50	47.3' LT	1
	2		423+10	48.0' LT	1
	1		424+01	1.1' LT	1
	2		425+64	45.7' RT	1
	1		429+06	0.4' LT	1
	2		430+75	29.2' RT	1
	2		431+22	29.1' RT	1
	1		441+38	5.1' RT	1
	2		441+44	43.1' LT	1
	2		451+01	72.1' LT	1
	2		451+31	52.4' RT	1
	2		451+66	65.1' LT	1
	2		452+03	64.3' LT	1
	2		452+49	75.0' LT	1
	1		453+20	8.0' RT	1
	2		454+33	51.8' LT	1
	2		455+92	61.8' RT	1
	2		456+48	52.1' LT	1
	2		456+70	52.4' RT	1
	2		458+23	117.9' LT	1
	2		458+23	93.9' LT	1
	2		458+68	98.6' LT	1
	2		458+73	75.5' RT	1
	2		458+93	119.7' LT	1
	2		463+30	46.2' LT	1
TOTAL					133

ADJUSTING INLET COVERS

CATEGORY	STAGE	LOCATION	STATION	OFFSET	611.8115 ADJUSTING INLET COVERS EACH
0010	2	AIRPORT SPUR RAMP ER			
			154+33	RT	1
			154+51	RT	1
0010	2	AIRPORT SPUR RAMP WC			
			5+44	LT	1
			12+58	RT	1
			13+69	RT	1
			13+87	RT	1
			16+19	RT	1
			18+00	LT	1
TOTAL					8

REPLACING INLETS

CATEGORY	STAGE	STRUCTURE NUMBER	STATION	OFFSET FT	* 611.2003 MANHOLES 3-FT DIAMETER EACH	* 611.2004 MANHOLES 4-FT DIAMETER EACH	* 611.2005 MANHOLES 5-FT DIAMETER EACH	* 611.2006 MANHOLES 6-FT DIAMETER EACH	* 611.3220 INLETS 2x2-FT EACH	611.3901 INLETS MEDIAN 1 GRATE EACH	* 611.0535 MANHOLE COVERS TYPE J-SPECIAL EACH	611.0642 INLET COVERS TYPE MS EACH	* 611.0654 INLET COVERS TYPE V EACH	* SPV.0060.0090 INLET COVERS TYPE 57 EACH	RIM OR FLANGE ELEV	STR DEPTH FT	INLET ELEV
0010																	
		STH 38/HOWELL AVENUE															
	1	IN200	150+32	16.0' RT	--	--	--	--	1	--	--	--	1	--	709.41	3.33	704.92
	2	IN201	178+47	54.3' RT	--	--	--	1	--	--	--	--	1	--	691.56	6.59	683.81
	2	IN212	185+24	54.3' RT	--	--	--	--	1	--	--	--	1	--	680.77	2.85	676.76
	2	IN215	188+01	53.7' RT	--	--	--	--	1	--	--	--	1	--	677.08	2.81	673.11
	2	IN216	188+00	53.5' LT	--	1	--	--	--	--	--	--	1	--	677.05	3.13	672.76
	2	IN219	195+99	53.9' RT	--	--	--	--	1	--	--	--	1		677.09	2.82	673.11
	2	IN220	195+97	53.9' LT	--	--	--	--	1	--	--	--	1	--	677.07	2.80	673.11
	2	IN221	196+64	79.5' RT	--	1	--	--	--	--	--	--	1	--	676.12	4.40	670.56
	2	IN222	197+75	54.2' RT	--	--	--	--	1	--	--	--	1	--	677.20	2.83	673.21
	2	IN223	197+25	53.6' LT	--	--	--	--	1	--	--	--	1	--	677.07	2.90	673.01
	2	IN224	197+76	53.7' LT	--	--	--	--	1	--	--	--	1	--	677.17	2.80	673.21
	2	IN225	200+71	54.3' RT	--	--	--	--	1	--	--	--	1	--	679.36	2.74	675.46
	2	IN226	202+74	77.5' LT	--	--	--	--	1	--	--	--	1	--	682.92	2.61	679.15
	2	IN227	210+75	53.7' LT	--	--	--	--	1	--	--	--	1	--	688.62	3.50	683.96
	2	IN228	213+38	54.1' RT	--	--	--	--	--	1	--	1	--	--	683.34	4.88	678.46
	2	IN229	213+65	54.1' RT	--	1	--	--	--	--	--	--	1	--	683.21	3.59	678.46
	1	IN230	213+64	0.8' RT	--	--	--	--	1	--	--	--	1	--	684.08	2.61	680.31
	2	IN231	215+35	54.4' RT	--	--	--	1	--	--	--	--	1	--	685.38	8.01	676.21
	2	IN238	225+45	54.1' RT	--	--	--	--	1	--	--	--	1	--	698.24	2.94	694.14
	1	IN238A	229+51	6.4' RT	--	--	--	1	--	--	1	--	--	--	695.57	5.37	689.12
	2	IN241	230+53	54.4' RT	--	1	--	--	--	--	--	--	1	--	693.95	4.95	687.84
	2	IN242	230+98	54.1' LT	1	--	--	--	--	--	--	--	1	--	694.15	2.73	690.26
	2	IN245	236+11	54.1' RT	--	--	--	--	1	--	--	--	1	--	697.64	3.00	693.48
	2	IN246	245+51	53.7' RT	--	--	--	--	1	--	--	--	1	--	702.97	2.83	698.98
	2	IN249	255+50	53.9' RT	--	--	--	--	1	--	--	--	1	--	712.52	2.22	709.14
	2	IN254	264+23	53.9' RT	--	1	--	--	--	--	--	--	1	--	713.40	3.18	709.06
	2	IN255	264+74	53.8' RT	--	1	--	--	--	--	--	--	1	--	713.30	2.88	709.26
	2	IN256	269+40	54.0' LT	--	--	--	--	1	--	--	--	1	--	715.75	2.78	711.81
	2	IN262	289+98	54.1' RT	--	1	--	--	--	--	--	--	1	--	721.86	5.96	714.74
	2	IN264	296+50	53.9' LT	--	--	--	--	1	--	--	--	1	--	727.87	1.73	724.98
	2	IN265	297+00	54.1' RT	1	--	--	--	--	--	--	--	1	--	729.61	3.83	724.62
	2	IN266	298+99	54.3' RT	--	1	--	--	--	--	--	--	1	--	730.06	3.88	725.02
	2	IN267	307+40	54.2' RT	--	--	--	--	1	--	--	--	1	--	725.21	3.98	720.07
	2	IN271	314+01	54.2' RT	--	--	--	--	1	--		--	1	--	726.97	2.61	723.20
	2	IN272	317+00	54.0' RT	1	--	--	--	--	--	--	--	1	--	735.79	3.21	731.42
	2	IN273	325+26	54.2' RT	--	--	--	--	1	--	--	--	1	--	741.84	2.87	737.81
	2	IN274	325+76	54.2' RT	--	--	--	--	1	--	--	--	1	--	741.78	3.01	737.61
	2	IN278	333+50	57.8' RT	--	--	--	--	1	--	--	--	1	--	727.14	2.87	723.11
	2	IN281	336+81	59.0' RT	--	--	--	--	1	--	--	--	1	--	720.74	3.19	716.39
	2	IN282	336+69	59.1' LT	--	--	--	--	1	--	--	--	1	--	720.67	3.18	716.33
	2	IN283	339+75	61.1' RT	--	--	--	--	1	--	--	--	1	--	722.24	3.07	718.01
	2	IN284	343+01	67.3' LT	--	--	--	--	1	--	--	--	1	--	721.78	2.93	717.69
	2	IN285	344+01	59.2' RT	--	--	1	--	--	--	--	--	1	--	721.64	5.37	715.11
	2	IN286	346+75	59.0' RT	--	--	--	--	1	--	--	--	1	--	721.22	3.11	716.95
	2	IN287	350+01	55.1' RT	--	--	1	--	--	--	--	--	1	--	720.30	3.23	715.91
	2	IN288	355+50	54.3' RT	--	--	--	--	1	--	--	--	1	--	722.99	2.92	718.91
	2	IN295	371+99	46.9' LT	--	--	--	--	1	--	--	--	1	--	714.53	3.31	710.06
	1	IN296	376+77	0.8' RT	--	--	--	--	1	--	--	--	1	--	720.24	4.60	714.48
	2	IN297	379+26	47.1' RT	--	1	--	--	--	--	--	--	1	--	721.69	4.22	716.31
	2	IN298	393+24	48.2' RT	--	--	--	1	--	--		--	1	--	731.33	4.66	725.51
	2	IN302	393+35	99.0' LT	--	--	--	--	1	--	--	--	1	--	731.09	2.77	727.16
	2	IN306	415+40	46.7' RT	--	1	--	--	--	--	--	--	--	1	698.90	3.36	694.54
	2	IN307	419+86	46.3' RT	--	--	--	--	1	--	--	--	--	1	696.82	4.22	691.60
	2	IN308	423+00	46.2' RT	--	--	--	--	1	--	--	--	--	1	695.18	5.08	689.10
	2	IN309	425+50	48.3' LT	--	--	--	--	1	--	--	--	--	1	692.35	2.77	688.58
	2	IN310	430+75	47.2' LT	--	--	--	--	1	--	--	--	--	1	684.64	1.82	681.82
	2	IN311	441+63	42.2' LT	--	--	--	--	1	--	--	--	--	1	678.14	1.14	676.00
	1	IN312	444+75	11.8' RT	--	--	--	--	1	--	--	--	--	1	683.75	3.20	679.55
	1	IN313	445+01	12.5' RT	--	--	--	--	1	--	--	--	--	1	684.23	3.33	679.90
	2	IN314	451+13	88.4' LT	--	--	--	--	1	--	--	--	--	1	690.07	3.37	685.70
	2	IN315	454+50	52.3' RT	--	--	--	--	1	--	--	--	--	1	686.61	3.67	681.94
	2	IN316	456+27	52.0' LT	--	--	--	--	1	--	--	--	--	1	685.03	4.37	679.66
	2	IN325	462+67	47.4' RT	--	--	--	--	1	--	--	--	--	1	685.28	2.28	682.00
		TOTALS			3	10	2	4	43	1	1	1	49	12			

NOTES

REPLACING INLETS, RECONDITIONING INLETS, AND ADJUSTING INLETS ARE CALLED OFF ON PLAN AND PROFILE SHEETS

1) STATIONS, OFFSETS, AND PIPE LENGTHS ARE MEASURED TO THE CENTER OF STRUCTURES.
2) RIM ELEVATIONS ARE GIVEN AT THE FLANGE LINE FOR INLET GRATES OR THE CENTER OF THE MANHOLE COVER FOR MANHOLES
3) STRUCTURE DEPTH = RIM ELEVATION - INVERT - CASTING HEIGHT - ADJUSTMENT RINGS
   CASTING HEIGHT = 0.67 FOR TYPE 57 COVERS, 0.83 FT FOR V COVERS, 0.75 FT FOR J COVERS, 0 FT FOR TYPE MS COVERS
   ADJUSTMENT RINGS = 0.33 FT for TYPE A, TYPE V AND TYPE J COVERS, 0 FT FOR TYPE MS COVERS

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

PAVEMENT MARKING ITEMS

CATEGORY	LOCATION	STATION TO STATION	646.0106 PAVEMENT MARKING EPOXY 4-INCH WHITE LF	646.0106 PAVEMENT MARKING EPOXY 4-INCH YELLOW LF	647.0606 PAVEMENT MARKING ISLAND NOSE EPOXY EACH	647.0726 PAVEMENT MARKING DIAGONAL EPOXY 12-INCH WHITE LF	647.0726 PAVEMENT MARKING DIAGONAL EPOXY 12-INCH YELLOW LF	646.0881.S PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 4-INCH (12.5 FT LINE, 37.5 FT SKIP) LF	646.0883.S PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH LF	646.0883.S PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH (3 FT LINE, 12 FT SKIP) LF	646.0883.S PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH (2 FT LINE, 6 FT SKIP) LF
0010	STH 38/HOWELL AVENUE										
		128+60 -- 140+00	1,620	--	--	535	--	--	--	--	--
		140+00 -- 155+00	2,730	--	--	870	--	--	--	--	--
		155+00 -- 170+00	2,740	--	--	900	--	--	--	--	--
		170+00 -- 185+00	2,040	--	3	595	--	405	2,160	52	88
		185+00 -- 200+00	2,200	--	4	720	--	900	1,210	43	--
		200+00 -- 215+00	2,260	--	5	830	--	750	225	--	--
		215+00 -- 230+00	2,070	--	4	825	--	665	1,805	72	--
		230+00 -- 245+00	1,690	--	5	945	--	655	3,200	85	96
		245+00 -- 260+00	1,970	--	2	565	--	880	785	30	--
		260+00 -- 275+00	690	--	5	180	--	1,905	2,930	108	--
		275+00 -- 290+00	660	--	6	210	--	1,055	3,400	94	114
		290+00 -- 305+00	2,250	--	2	750	--	905	1,035	55	--
		305+00 -- 320+00	2,400	--	4	835	--	750	460	--	--
		320+00 -- 335+00	2,630	--	6	1,005	--	750	630	--	--
		335+00 -- 350+00	1,840	--	6	1,000	--	990	3,105	170	142
		350+00 -- 365+00	3,000	--	4	1,050	--	750	560	--	--
		365+00 -- 380+00	2,130	--	4	540	--	750	725	--	--
		380+00 -- 395+00	2,430	--	6	750	--	740	1,380	30	--
		395+00 -- 410+00	--	--	3	85	--	1,425	1,060	--	--
		410+00 -- 425+00	--	--	7	--	--	1,480	285	--	--
		425+00 -- 440+00	--	--	--	--	--	1,440	70	--	--
		440+00 -- 455+00	--	--	6	40	--	1,320	730	21	--
		455+00 -- 462+71	--	--	3	--	--	605	890	15	--
	STH 100/RYAN ROAD										
		1104+51 -- 1106+36	95	--	1	35	--	10	780	15	--
	FOREST HILL AVENUE										
		200+00 -- 204+00	--	650	--	--	--	120	500	--	--
		102+05 -- 104+48	40	940	--	--	60	--	150	15	--
	SUSAN DRIVE										
		300+00 -- 302+00	--	100	--	--	--	--	95	--	--
	UNDISTRIBUTED										
			--	--	--	--	--	--	--	--	--
	TOTAL		39,175		86	13,325		19,250	29,415		

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PAVEMENT MARKING ITEMS

CATEGORY	LOCATION	STATION TO STATION	SPV.0060.0030 PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC WORDS EACH	SPV.0060.0040 PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 2 EACH	SPV.0060.0050 PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 3 EACH	SPV.0090.0010 PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK 6-INCH LF	SPV.0090.0020 PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ZEBRA MARKING 24-INCH LF	SPV.0090.0030 PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC STOPLINE 18-INCH LF	647.0208 PAVEMENT MARKING ARROWS BIKE LANE PREFORMED THERMOPLASTIC EACH	647.0408 PAVEMENT MARKING WORDS BIKE LANE PREFORMED THERMOPLASTIC EACH	646.0900.S PAVEMENT MARKINGS LATE SEASON LF
0010	STH 38/HOWELL AVENUE										
		128+60 -- 140+00	2	2	--	633	--	79	--	--	--
		140+00 -- 155+00	--	--	--	--	--	--	--	--	--
		155+00 -- 170+00	--	--	--	--	--	--	--	--	--
		170+00 -- 185+00	10	9	--	987	--	132	1	1	--
		185+00 -- 200+00	3	3	--	81	132	--	1	1	--
		200+00 -- 215+00	--	--	--	--	--	--	--	--	--
		215+00 -- 230+00	10	10	--	667	--	158	--	--	--
		230+00 -- 245+00	--	--	--	818	--	201	--	--	--
		245+00 -- 260+00	3	3	--	71	246	--	--	--	--
		260+00 -- 275+00	14	13	--	748	--	109	2	2	--
		275+00 -- 290+00	21	27	--	1,618	--	366	3	3	--
		290+00 -- 305+00	1	1	--	--	--	--	1	1	--
		305+00 -- 320+00	--	--	--	247	--	--	--	--	--
		320+00 -- 335+00	--	--	--	--	--	--	--	--	--
		335+00 -- 350+00	14	19	--	1,001	--	275	--	--	--
		350+00 -- 365+00	--	--	--	167	--	--	--	--	--
		365+00 -- 380+00	--	--	--	348	--	--	--	--	--
		380+00 -- 395+00	3	7	--	777	--	221	--	--	--
		395+00 -- 410+00	2	1	--	--	--	--	--	--	--
		410+00 -- 425+00	--	--	--	--	--	--	--	--	--
		425+00 -- 440+00	--	--	--	--	--	--	--	--	--
		440+00 -- 455+00	2	7	1	182	--	167	--	--	--
		455+00 -- 462+71	5	8	1	407	--	176	2	2	--
	STH 100/RYAN ROAD										
		1104+51 -- 1106+36	2	2	--	--	--	66	2	2	--
	FOREST HILL AVENUE										
		200+00 -- 204+00	3	4	--						
		102+05 -- 104+48	1	2	1	--	--	75	--	--	--
	SUSAN DRIVE										
		300+00 -- 302+00	--	3	1	--	--	64	--	--	--
	UNDISTRIBUTED										
			--	--	--	--	--	--	--	--	20,742
	TOTAL		96	121	4	8,752	378	2,089	12	12	20,742

TRAFFIC CONTROL BARRIER ITEMS

CATEGORY	STAGE	LOCATION	STATION		TO STATION	OFFSET		603.8000 CONCRETE BARRIER TEMPORARY PRECAST DELIVERED LF	608.8125 CONCRETE BARRIER TEMPORARY PRECAST INSTALLED LF
0010	1	STH 38/HOWELL AVENUE							
			196+19	-	201+07	5.0'	RT	490	490
			197+98	-	202+83	38.0'	LT	487	487
			431+30	-	441+09	33.0'	LT	984	984
		SUBTOTAL						1,961	1,961
0010	2	STH 38/HOWELL AVENUE							
			197+02	-	200+55	50.0'	RT	355	355
			198+45	-	201+95	32.0'	LT	353	353
			422+23	-	423+99	44.0'	RT	166	166
			422+60	-	441+96	37.0'	LT	1,917	1,917
		SUBTOTAL						2,791	2,791
		TOTAL						4,752	4,752

CRASH CUSHION ITEMS

CATEGORY	STAGE	LOCATION	STATION		TO STATION	OFFSET		614.0800 CRASH CUSHIONS PERMANENT EACH	614.0905 CRASH CUSHIONS TEMPORARY EACH	BACK WIDTH FT	OBJECT MARKING PATTERN	CRASH TEST LEVEL	TRAFFIC DIRECTION	TRAFFIC LOCATION	CRASH CUSHION SHIELDS
0010	1	STH 38/HOWELL AVENUE													
			196+19	-	201+07	5.0'	RT	--	1	4.0	OM-3L	TL-3	Unidirectional	L	Concrete Barrier Temporary
			197+98	-	202+83	38.0'	LT	--	1	4.0	OM-3L	TL-3	Unidirectional	L	Concrete Barrier Temporary
			431+30	-	441+09	33.0'	LT	--	1	4.0	OM-3L	TL-2	Unidirectional	L	Concrete Barrier Temporary
		SUBTOTAL						--	3						
0010	2	STH 38/HOWELL AVENUE													
			197+02	-	200+55	50.0'	RT	--	1	4.0	OM-3R	TL-3	Unidirectional	R	Concrete Barrier Temporary
			198+45	-	201+95	32.0'	LT	--	1	4.0	OM-3R	TL-3	Unidirectional	R	Concrete Barrier Temporary
			422+23	-	423+99	44.0'	RT	--	1	4.0	OM-3R	TL-3	Unidirectional	R	Concrete Barrier Temporary
			422+60	-	441+96	37.0'	LT	--	1	4.0	OM-3R	TL-3	Unidirectional	R	Concrete Barrier Temporary
			431+28		--	0.0'	LT	1	--	2.0	OM-3C	TL-2	Bidirectional	L and R	Permanent Tunnel Support in Median
			439+35		--	0.0'	LT	1	--	2.0	OM-3C	TL-2	Bidirectional	L and R	Permanent Tunnel Support in Median
		SUBTOTAL						2	4						
		TOTAL						2	7						

TRAFFIC CONTROL COVERING SIGNS TYPE II

CATEGORY	STAGE	LOCATION	643.0920 NUMBER OF SIGNS	NUMBER OF CYCLES	EACH
0010	ALL	UNDISTRIBUTED	1	1	1
		TOTAL			1

TRAFFIC CONTROL ITEMS-RAMP CLOSURE

CATEGORY	STAGE	LOCATION	SIGN NO.	SIGN SIZE W X H FT X FT	NUMBER OF SIGNS	643.1000 TRAFFIC CONTROL SIGNS FIXED MESSAGE SF	SIGN MESSAGE
0010	2	RAMP CLOSURE					
			100	3 X 2	10	160	HOWELL AVENUE
		TOTAL				160	

TRAFFIC CONTROL ITEMS

CATEGORY	STAGE	LOCATION	DAYS	643.0100 TRAFFIC CONTROL (2060-15-71) EACH
0010	ALL	PROJECT		
			128	1
		TOTAL		1

TRAFFIC CONTROL ITEMS

CATEGORY	STAGE	LOCATION	DAYS	STATION	TO STATION	643.0300 TRAFFIC CONTROL DRUMS NUMBER	643.0300 TRAFFIC CONTROL DRUMS DAY	643.0410 TRAFFIC CONTROL BARRICADES TYPE II NUMBER	643.0410 TRAFFIC CONTROL BARRICADES TYPE II DAY	643.0420 TRAFFIC CONTROL BARRICADES TYPE III NUMBER	643.0420 TRAFFIC CONTROL BARRICADES TYPE III DAY	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A NUMBER	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A DAY	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C NUMBER	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C DAY	643.0800 TRAFFIC CONTROL ARROW BOARDS NUMBER	643.0800 TRAFFIC CONTROL ARROW BOARDS DAY	643.0900 TRAFFIC CONTROL SIGNS NUMBER	643.0900 TRAFFIC CONTROL SIGNS DAY
0010	1A	STH 38/HOWELL AVENUE																	
			23	125+00	- 140+00	32	736	8	184	1	23	2	46	12	276	2	46	19	437
				140+00	- 155+00	32	736	--	--	1	23	2	46	12	276	2	46	21	483
				155+00	- 170+00	0	--	--	--	--	--	--	--	--	--	--	--	14	322
				170+00	- 185+00	64	1,472	--	--	6	138	--	--	15	343	--	--	11	253
				185+00	- 200+00	116	2,670	--	--	14	322	--	--	24	558	2	46	28	644
				200+00	- 210+00	36	839	--	--	10	230	--	--	--	--	--	--	8	184
		STH 100/RYAN ROAD																	
			23	1105+00	- 1107+00	0	--	--	--	--	--	--	--	--	--	--	--	2	46
0010	1B	STH 38/HOWELL AVENUE																	
			23	210+00	- 215+00	20	460	--	--	4	92	--	--	--	--	--	--	3	69
				215+00	- 230+00	54	1,245	--	--	6	138	--	--	--	--	--	--	11	253
				230+00	- 245+00	60	1,387	--	--	13	299	--	--	--	--	--	--	13	299
				245+00	- 260+00	57	1,313	--	--	3	69	--	--	--	--	--	--	6	138
				260+00	- 275+00	55	1,263	--	--	6	138	--	--	--	--	--	--	9	207
				275+00	- 290+00	64	1,469	--	--	6	138	--	--	--	--	--	--	7	161
				290+00	- 300+00	38	874	--	--	6	138	--	--	--	--	--	--	5	115
		W. PUETZ ROAD																	
			23	2110+75	- 2120+00	0	--	--	--	--	--	--	--	--	--	--	--	4	92
		DEVELOPMENT-FOREST HILL WEST																	
			23	200+00	- 200+25	0	--	--	--	--	--	--	--	--	--	--	--	2	46
		FOREST HILL AVENUE																	
			23	102+25	- 102+50	0	--	--	--	--	--	--	--	--	--	--	--	2	46
		E. SUSAN DRIVE																	
			23	302+25	- 302+50	0	--	--	--	--	--	--	--	--	--	--	--	2	46
		DREXEL AVENUE																	
			23	3110+75	- 3120+00	0	--	--	--	--	--	--	--	--	--	--	--	4	92
0010	1C	STH 38/HOWELL AVENUE																	
			23	300+00	- 305+00	20	460	--	--	--	--	--	--	--	--	--	--	--	--
				305+00	- 320+00	60	1,380	--	--	6	138	--	--	--	--	--	--	10	230
				320+00	- 335+00	60	1,380	--	--	13	299	--	--	--	--	--	--	9	207
				335+00	- 350+00	47	1,080	--	--	8	184	--	--	--	--	--	--	8	184
				350+00	- 355+00	20	460	--	--	--	--	--	--	--	--	--	--	--	--
		CTH BB/RAWSON AVENUE																	
			23	4112+00	- 4120+00	0	--	--	--	--	--	--	--	--	--	--	--	4	92
0010	1D	STH 38/HOWELL AVENUE																	
			23	355+00	- 365+00	40	920	--	--	12	276	--	--	--	--	--	--	6	138
				365+00	- 380+00	56	1,285	--	--	8	184	--	--	--	--	--	--	13	299
				380+00	- 395+00	59	1,356	--	--	6	138	--	--	--	--	--	--	6	138
				395+00	- 410+00	62	1,416	--	--	7	161	--	--	--	--	--	--	9	207
				410+00	- 425+00	58	1,334	--	--	17	391	--	--	--	--	--	--	10	230
				425+00	- 440+00	43	979	--	--	2	46	--	--	--	--	--	--	2	46
				440+00	- 455+00	49	1,119	--	--	5	115	--	--	--	--	--	--	9	207
				455+00	- 470+00	70	1,611	--	--	3	69	--	--	20	451	1	23	16	368
		CTH ZZ/COLLEGE AVENUE																	
			56	5114+25	- 5120+25	0	--	--	--	--	--	--	--	--	--	--	--	4	224
		SUBTOTAL					29,244		184		3,749		92		1,904		161		6,503

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TRAFFIC CONTROL ITEMS

CATEGORY	STAGE	LOCATION	DAYS	STATION		TO STATION	643.0300 TRAFFIC CONTROL DRUMS		643.0410 TRAFFIC CONTROL BARRICADES TYPE II		643.0420 TRAFFIC CONTROL BARRICADES TYPE III		643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A		643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C		643.0800 TRAFFIC CONTROL ARROW BOARDS		643.0900 TRAFFIC CONTROL SIGNS	
							NUMBER	DAY	NUMBER	DAY	NUMBER	DAY	NUMBER	DAY	NUMBER	DAY	NUMBER	DAY	NUMBER	DAY
0010	2A	STH 38/HOWELL AVENUE																		
			38	125+00	-	140+00	75	2,839	8	304	4	152	2	76	12	456	2	76	16	608
				140+00	-	155+00	61	2,314	--	--	4	152	--	--	--	--	--	--	6	228
				155+00	-	170+00	65	2,453	8	304	3	114	--	--	--	--	--	--	9	342
				170+00	-	185+00	156	5,924	--	--	15	570	12	456	27	1,026	1	38	33	1,254
				185+00	-	200+00	83	3,160	8	304	5	190	2	76	12	456	2	76	17	646
				200+00	-	210+00	69	2,609	--	--	4	152	--	--	18	684	2	76	16	608
		STH 100/RYAN ROAD																		
			38	1103+00		1107+00	7	268	--	--	--	--	--	--	--	--	--	--	2	76
0010	2B	STH 38/HOWELL AVENUE																		
			38	210+00	-	215+00	22	844	8	304	1	38	--	--	--	--	--	--	1	38
				215+00	-	230+00	62	2,359	--	--	4	152	--	--	--	--	--	--	8	304
				230+00	-	245+00	119	4,534	8	304	7	266	4	152	--	--	--	--	13	494
				245+00	-	260+00	62	2,346	--	--	2	76	--	--	--	--	--	--	4	152
				260+00	-	275+00	64	2,433	8	304	8	304	--	--	--	--	--	--	7	266
				275+00	-	290+00	123	4,683	--	--	9	342	4	152	--	--	--	--	13	494
				290+00	-	300+00	72	2,736	--	--	3	114	2	76	12	456	2	76	11	418
		W. PUETZ ROAD																		
			38	2110+75	-	2120+00	0	--	--	--	--	--	--	--	--	--	--	--	4	152
		DEVELOPMENT-FOREST HILL WEST																		
			38	200+00	-	203+50	7	281	--	--	--	--	--	--	--	--	--	--	3	114
		FOREST HILL AVENUE																		
			38	105+00	-	110+50	0	--	--	--	2	76	4	152	--	--	--	--	3	114
		E. SUSAN DRIVE																		
			38	301+50	-	302+50	0	--	--	--	2	76	--	--	--	--	--	--	3	114
		DREXEL AVENUE																		
			38	3110+75	-	3120+00	0	--	--	--	--	--	--	--	--	--	--	--	4	152
0010	2C	STH 38/HOWELL AVENUE																		
			38	300+00	-	305+00	20	760	8	304	--	--	--	--	--	--	--	--	--	--
				305+00	-	320+00	63	2,388	--	--	4	152	--	--	--	--	--	--	8	304
				320+00	-	335+00	59	2,245	8	304	4	152	--	--	--	--	--	--	6	228
				335+00	-	350+00	56	2,109	--	--	2	76	--	--	--	--	--	--	2	76
				350+00	-	355+00	52	1,976	8	304	3	114	2	76	12	456	2	76	11	418
		CTH BB/RAWSON AVENUE																		
			38	4112+00	-	4120+00	0	--	--	--	--	--	--	--	--	--	--	--	4	152
0010	2D	STH 38/HOWELL AVENUE																		
			39	355+00	-	365+00	40	1,560	8	312	2	78	--	--	--	--	--	--	2	78
				365+00	-	380+00	59	2,318	--	--	4	156	--	--	--	--	--	--	10	390
				380+00	-	395+00	119	4,640	8	312	6	234	4	156	--	--	--	--	12	468
				395+00	-	410+00	64	2,482	--	--	3	117	--	--	--	--	--	--	3	117
				410+00	-	425+00	95	3,704	8	312	11	429	8	312	29	1,134	2	78	21	819
				425+00	-	440+00	61	2,365	--	--	2	78	--	--	--	--	--	--	2	78
				440+00	-	455+00	55	2,152	8	312	10	390	8	312	8	321	--	--	11	429
				455+00	-	470+00	133	5,194	--	--	5	195	4	156	10	390	1	39	24	936
		CTH ZZ/COLLEGE AVENUE																		
			39	5114+25	-	5120+25	0	--	--	--	--	--	--	--	--	--	--	--	4	156
		RAMP CLOSURE																		
			39				61	2,379	--	--	6	234	4	156	9	351	--	--	16	624
		SUBTOTAL						76,055		3,984		5,179		2,308		5,730		535		11,847
		TOTAL						105,299		4,168		8,928		2,400		7,635		696		18,350

TRAFFIC CONTROL PAVEMENT MARKING

CATEGORY	STAGE	LOCATION	STATION		TO STATION	649.0200 TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH 4-INCH SKIP (12.5 FT LINE, 37.5 FT SKIP) LF	649.0701 TEMPORARY PAVEMENT MARKING 8-INCH LF
0010	1	STH 38/HOWELL AVENUE					
			170+00	-	185+00	1,203	650	--
			185+00	-	200+00	--	548	--
			200+00	-	215+00	--	550	--
			215+00	-	230+00	--	643	496
			230+00	-	245+00	--	519	--
			245+00	-	260+00	--	583	103
			260+00	-	275+00	--	632	350
			275+00	-	290+00	--	567	--
			290+00	-	305+00	--	616	--
			305+00	-	320+00	--	641	--
			320+00	-	335+00	--	671	--
			335+00	-	350+00	--	532	454
			350+00	-	365+00	--	651	--
			365+00	-	380+00	--	621	59
			380+00	-	395+00	--	662	--
			395+00	-	410+00	--	569	--
			410+00	-	425+00	--	599	--
			425+00	-	440+00	--	713	--
			440+00	-	455+00	--	576	312
			455+00	-	470+00	242	260	--
		SUBTOTAL					13,248	1,774
0010	2	STH 38/HOWELL AVENUE						
			170+00	-	185+00	--	358	--
			185+00	-	200+00	--	611	--
			200+00	-	215+00	--	608	--
			215+00	-	230+00	--	664	--
			230+00	-	245+00	--	649	--
			245+00	-	260+00	--	750	--
			260+00	-	275+00	--	655	--
			275+00	-	290+00	--	656	--
			290+00	-	305+00	--	750	--
			305+00	-	320+00	--	750	--
			320+00	-	335+00	--	750	--
			335+00	-	350+00	--	652	--
			350+00	-	365+00	--	750	--
			365+00	-	380+00	--	750	--
			380+00	-	395+00	--	653	--
			395+00	-	410+00	--	713	--
			410+00	-	425+00	--	739	--
			425+00	-	440+00	--	719	--
			440+00	-	455+00	--	658	--
			455+00	-	470+00	--	304	--
		SUBTOTAL					13,139	--
		TOTAL					26,387	1,774

TRAFFIC CONTROL SIGNS PCMS

CATEGORY	STAGE	LOCATION	DAYS	643.1050 TRAFFIC CONTROL SIGNS PCMS NUMBER	DAY
0010	2	TRAFFIC CONTROL-RAMP CLOSURE			
			15	3	45
		UNDISTRIBUTED	5	2	10
		TOTAL			55

SECURITY FENCE

CATEGORY	STAGE	LOCATION	STATION		TO STATION	SPV.0090.0040 SECURITY FENCE SPECIAL LF	SPV.0090.0050 SECURITY FENCE TEMPORARY LF
0010	2	STH 38/HOWELL AVENUE					
			423+16	-	423+94	-	78
			423+16	-	423+20	30	-
			423+29	-	423+94	28	-
		TOTAL				58	78

TEMPORARY CROSSWALK/SIDEWALK

CATEGORY	STAGE	LOCATION	SPV.0045.0010 TEMPORARY CROSSWALK/SIDEWALK DAY
0010	2	PROJECT	228
		TOTAL	228

3

RBC PROGRESS SCHEDULE

CATEGORY	STAGE	LOCATION	108.4300 EACH
0010	ALL	PROJECT	1
		TOTAL	1

FENCING ITEMS

CATEGORY	STAGE	LOCATION	STATION TO STATION	OFFSET	615.0100 GUARD FENCE TIMBER RAIL LF
0010	2	STH 38/HOWELL AVENUE			
			370+73 - 375+58	59.9' LT	485
		TOTAL			485

3

MAINTENANCE AND REPAIR OF HAUL ROADS 2060-15-71

CATEGORY	STAGE	LOCATION	618.0100 EACH
0010	ALL	PROJECT	1
		TOTAL	1

MOBILIZATION

CATEGORY	STAGE	LOCATION	619.1000 LS
0010	ALL	PROJECT	1
		TOTAL	1

BEAM GUARD ITEMS

CATEGORY	LOCATION	STATION TO STATION	OFFSET	614.0200 STEEL THRIE BEAM STRUCTURE APPROACH LF	614.0220 STEEL THRIE BEAM BULLNOSE TERMINAL EACH	614.0230 STEEL THRIE BEAM LF	614.0396 GUARDRAIL MOW STRIP ASPHALT SY	614.2300 MGS GUARDRAIL 3 LF	614.2500 MGS THRIE BEAM TRANSITION LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH
0010	STH 38/HOWELL AVENUE									
		197+97 - 198+95	15.0' RT	20.6	1	25.0	10	--	--	--
		197+97 - 198+78	15.0' LT	20.6	--	7.2	3	--	--	--
		198+32 - 199+25	64.7' RT	--	--	--	--	25	39	1
		199+73 - 200+66	59.5' LT	--	--	--	--	25	39	1
		200+07 - 201+06	15.0' LT	20.6	1	25.0	10	--	--	--
		200+25 - 201+06	15.0' RT	20.6	--	7.2	3	--	--	--
		TOTAL		82.4	2	64.4	26	50	78	2

WATER

CATEGORY	STAGE	LOCATION	624.0100 MGAL
0010	ALL	PROJECT	4
		TOTAL	4

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	MISCELLANEOUS QUANTITIES	SHEET 564	E

LANDMARK REFERENCE MONUMENTS

CATEGORY	LOCATION	621.0100 EACH
0010	PROJECT	1
	TOTAL	1

DUST CONTROL SURFACE TREATMENT

CATEGORY	STAGE	LOCATION	623.0200 SY
0010	ALL	PROJECT	27,215
		TOTAL	27,215

FIELD OFFICE

CATEGORY	STAGE	LOCATION	642.5401 FIELD OFFICE TYPE D EACH
0010	ALL	PROJECT	1
		TOTAL	1

PARKING LOT BOLLARD

CATEGORY	STAGE	LOCATION	STATION TO STATION	OFFSET	SPV.0060.0020 PARKING LOT BOLLARD EACH
0010	2	STH 38/HOWELL AVENUE			
			459+22 - 459+49	87.0' LT	7
		TOTAL			7

EXPOSING EXISTING UTILITY

CATEGORY	STAGE	LOCATION	SPV.0060.0070 EXPOSING EXISTING UTILITIES PAVED AREA EACH	SPV.0060.0080 EXPOSING EXISTING UTILITIES UNPAVED AREA EACH
0010	ALL	PROJECT	20	50
		TOTAL	20	50

PAVEMENT CLEANUP PROJECT

CATEGORY	STAGE	LOCATION	SPV.0105.0010 PAVEMENT CLEANUP 2060-15-71 LS
0010	2	PROJECT	1
		TOTAL	1

QMP RIDE: INCENTIVE IRI RIDE

CATEGORY	LOCATION	440.4410.S DOL
0010	PROJECT	65,162
	TOTAL	65,162

SURVEY PROJECT

CATEGORY	STAGE	LOCATION	SPV.0105.0020 SURVEY PROJECT 2060-15-71 LS	CONSTRUCTION STAKING CONCRETE SIDEWALK LF	CONSTRUCTION STAKING STORM SEWER EACH	CONSTRUCTION STAKING SUBGRADE LF	FOR INFORMATION ONLY CONSTRUCTION STAKING ELECTRICAL INSTALLATIONS LS	CONSTRUCTION STAKING RESURFACING REFERENCE LF	CONSTRUCTION STAKING STRUCTURE LAYOUT LS	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL LS	CONSTRUCTION STAKING CURB AND GUTTER LF	CONSTRUCTION STAKING BASE LF
0010	ALL	PROJECT	1	30,400	145	18,900	1	33,400	1	1	22,700	18,900
		TOTAL	1	30,400	145	18,900	1	33,400	1	1	22,700	18,900

3

CITY OF MILWAUKEE - WATER

CATEGORY	LOCATION	STATION	TO	STATION	SPV.0060.5070 ADJUSTING CITY OF MILWAUKEE WATER VALVE EACH	SPV.0060.5110 ADJUSTING CITY OF MILWAUKEE WATER MANHOLE EACH
0070	PROJECT 2060-15-71					
		394+00	--	462+71	35	5
	TOTAL				35	5

CITY OF MILWAUKEE - SANITARY

CATEGORY	LOCATION	STATION	OFFSET	SPV.0060.5100 ADJUSTING CITY OF MILWAUKEE SANITARY MANHOLES EACH
0070	STH 38/HOWELL AVENUE			
		462+55	49' LT	1
	TOTAL			1

CITY OF OAK CREEK - WATER

CATEGORY	LOCATION	STATION	TO	STATION	SPV.0060.5060 ADJUSTING CITY OF OAK CREEK WATER VALVE EACH
0080	PROJECT 2060-15-71				
		128+60	--	394+00	29
	TOTAL				29

CITY OF OAK CREEK - SANITARY

CATEGORY	LOCATION	STATION	OFFSET	SPV.0060.5040 ADJUSTING CITY OF OAK CREEK SANITARY MANHOLE EACH	SPV.0060.5050 RECONSTRUCT CITY OF OAK CREEK SANITARY MANHOLE EACH
0080	STH 38/HOWELL AVENUE				
		155+90	68' LT	1	--
		164+62	62' LT	1	--
		165+38	68' RT	1	--
		168+62	68' RT	1	--
		181+35	68' RT	1	--
		185+31	69' LT	--	1
		185+61	69' LT	--	1
		235+80	66' LT	--	1
		245+80	66' LT	1	--
		288+58	70' RT	--	1
		298+12	61' RT	1	--
		329+17	59' RT	1	--
		331+70	60' RT	1	--
		331+80	61' RT	1	--
		333+20	63' RT	1	--
		336+25	80' RT	1	--
		336+25	70' LT	1	--
		338+25	80' RT	1	--
		339+70	70' LT	1	--
		344+00	76' LT	1	--
		346+34	81' RT	1	--
		350+60	62' LT	1	--
		354+68	62' LT	1	--
		357+80	70' RT	--	1
		359+78	73' RT	1	--
		360+90	70' RT	1	--
		362+71	68' LT	1	--
		366+38	60' LT	1	--
		367+81	50' LT	1	--
		377+86	63' RT	1	--
		381+55	50' RT	1	--
		383+28	50' RT	1	--
		385+54	54' RT	1	--
		386+65	50' LT	1	--
		389+60	50' LT	1	--
		393+10	50' LT	1	--
	STH 100/RYAN ROAD				
		1105+46	70' LT	--	1
	TOTAL			31	5

3

CITY OF MILWAUKEE CONDUIT ITEMS

CATEGORY	LOCATION	STATION	OFFSET	TO STATION	OFFSET	SPV.0060.5080 ADJUSTING TES MANHOLE COVERS EACH	SPV.0060.5090 4' DIAMETER MANHOLE TYPE TES EACH	SPV.0090.5100 3-DUCT CONDUIT CEMENT ENCASED 4-INCH RIGID NONMETALLIC CONDUIT DB-60 LF	SPV.0090.5110 2-DUCT CONDUIT CEMENT ENCASED 4-INCH RIGID NONMETALLIC CONDUIT DB-60 LF	* 204.0100 REMOVING PAVEMENT SY	* 204.0150 REMOVING CURB AND GUTTER LF	* 416.0610 DRILLED TIE BARS EACH	* 601.0331 CONCRETE CURB AND GUTTER 31-INCH LF	652.0610 CONDUIT SPECIAL 2 1/2-INCH LF	* 653.0905 REMOVING PULL BOXES EACH	* 690.02500 SAWING CONCRETE LF
0070	STH 38/HOWELL AVENUE															
		394+33	15.0' LT			1	1	--	--	--	--	--	--	--	--	--
		394+31	15.0' LT	410+00	101.8' LT	--	--	88	--	20	--	58	--	91	--	176
		394+31	101.8' LT	394+35	102.0 LT	--	--	--	4	--	--	--	--	--	--	--
		394+33	15.0' LT	400+18	7.5 RT	--	--	584	--	118	20	354	20	--	--	1060
		400+18	7.5' RT			--	1	--	--	--	--	--	--	--	--	--
		400+18	7.5' RT	406+50	8.0' LT	--	--	630	--	10	--	30	--	--	--	90
		406+50	8.0' LT			--	1	--	--	--	--	--	--	--	--	--
		406+50	40.5' LT	412+00	8.0' LT	--	--	547	--	--	20	--	20	--	--	--
		412+00	8.0' LT			--	1	--	--	--	--	--	--	--	--	--
		412+00	8.0' LT	417+50	4.0' LT	--	--	547	--	48	30	144	30	--	--	430
		417+50	4.0' LT			--	1	--	--	--	--	--	--	--	--	--
		417+50	4.0' LT	423+76	4.3' LT	--	--	622	--	58	30	172	30	--	--	520
		423+76	4.3' LT			--	1	--	--	--	--	--	--	--	--	--
		426+59	61.5' RT	431+05	59.8' LT	--	--	445	--	--	--	--	--	--	--	--
		431+05	59.8' LT			--	1	--	--	--	--	--	--	--	1	--
		431+05	59.8' LT	431+15	58.4' LT	--	--	8	--	--	--	--	--	--	--	--
		439+85	56.4' LT			1	--	--	--	--	--	--	--	--	--	--
		439+85	8.7' LT			1	--	--	--	--	--	--	--	--	--	--
		450+90	35.1' LT			1	--	--	--	--	--	--	--	--	--	--
		458+34	32.9' LT			1	--	--	--	--	--	--	--	--	--	--
TOTAL						5	7	3,471	4	254	100	758	100	91	1	2,276

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

CONTRACTOR
ATR - WAVETRONIX DETECTOR
CAT 0013

LOCATION	STATION	654.0102 CONCRETE BASE TYPE 2 (EACH)	657.0255 INSTALL TRANSFORMER BASES BREAKAWAY 11 1/2 BOLT CIRCLE (EACH)	SPV.0105.2000 REMOVING ATR CABINET AND CONCRETE BASE (LS)	SPV.0060.2000 INSTALLING POLES TYPE 5 (EACH)	SPV.0060.2010 INSTALLING POLE MOUNTED CABINET (EACH)	SPV.0060.2060 INSTALLING CONCRETE MAINTENANCE PLATFORM (EACH)	SPV.0060.2040 INSTALLING WAVETRONIX POWER MODULE (EACH)	SPV.0060.2030 INSTALLING WAVETRONIX CLICK 200 MODULE (EACH)	SPV.0060.2050 INSTALLING WAVETRONIX DETECTOR MODULE AND HD 125 CABLE (EACH)	SPV.0060.2070 INSTALLING CELLULAR/NEXTEL/ PCS DUAL BAND ANTENNA, 10dB GAIN & CABLE (EACH)	SPV.0060.2020 INSTALLING CABINET HEATER AND THERMOSTAT (EACH)	656.0200 ELECTRICAL SERVICE METER BREAKER PEDESTAL 11. ATR ATR 40-0027 (LS)
ATR-40-0027	228 + 17	1	1	1	1	1	1	1	1	1	1	1	1
Totals		1	1	1	1	1	1	1	1	1	1	1	1

STATE FURNISHED MATERIAL
ATR - WAVETRONIX DETECTOR

LOCATION	STATION	TYPE 5 POLE (EACH)	TRANSFORMER BASES 11 1/2 BOLT CIRCLE (EACH)	WAVETRONIX HD 125 UNIT (EACH)	WAVETRONIX HD 125 CABLE (L.F.)	WAVETRONIX MINI POWER MODULE (EACH)	WAVETRONIX CLICK 200 MODULE (EACH)	CABINET HEATER & THERMOSTAT (EACH)	CCTV POLE MOUNTED CABINET 24"X51" (EACH)	CELLULAR ANTENNA & CABLE (EACH)
ATR-40-0027	228 + 17	1	1	1	40	1	1	1	1	1
Totals		1	1	1	40	1	1	1	1	1

3

RECTANGULAR RAPID FLASH BEACON - MISC QUANTITIES

CATEGORY CODE 0010 2060-15-71

LOCATION	RECTANGULAR RAPID FLASH BEACON (RRFB) SYSTEM STA 196+00 SOUTHBOUND LEFT LS SPV.0105.0040	RECTANGULAR RAPID FLASH BEACON (RRFB) SYSTEM STA 196+00 NORTHBOUND RIGHT LS SPV.0105.0050	RECTANGULAR RAPID FLASH BEACON (RRFB) SYSTEM STA 196+00 NORTHBOUND LEFT LS SPV.0105.0060	RECTANGULAR RAPID FLASH BEACON (RRFB) SYSTEM STA 247+50 NORTHBOUND RIGHT LS SPV.0105.0070	RECTANGULAR RAPID FLASH BEACON (RRFB) SYSTEM STA 247+50 NORTHBOUND LEFT LS SPV.0105.0080	RECTANGULAR RAPID FLASH BEACON (RRFB) SYSTEM STA 248+50 SOUTHBOUND RIGHT LS SPV.0105.0090	RECTANGULAR RAPID FLASH BEACON (RRFB) SYSTEM STA 248+50 SOUTHBOUND LEFT LS SPV.0105.0100
STA 196+00 SB LEFT	1						
STA 196+00 NB RIGHT		1					
STA 196+00 NB LEFT			1				
STA 247+50 NB RIGHT				1			
STA 247+50 NB LEFT					1		
STA 247+50 SB RIGHT						1	
STA 247+50 SB LEFT							1
TOTAL	1	1	1	1	1	1	1

TYPE I & II PERMANENT SIGNING

CATEGORY CODE 0010

SIGN NO.		SIGN MESSAGE	TYPE II SIGN SIZE W [IN.] x H [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F [SF]	634.0616 WOOD POSTS 4"x 6"X16' [EA]	634.0618 WOOD POSTS 4"x 6"X18' [EA]	638.2102 MOVING SIGNS TYPE II [EA]	638.2602 REMOVING SIGNS TYPE II [EA]	638.3000 REMOVING SMALL SIGN SUPPORTS [EA]	REMARKS NEW SIGN LOCATION
101	W6-3(3)	--	36 x 36	--	--	9.00	1	--	--	--	--	--
102	R4-7(3)	--	36 x 48	12.00	--	--	--	1	--	1	1	--
	W5-56(2M)	--	18 x 18	--	--	2.25	--	--	--	--	--	--
103	R5-1(3)	--	36 x 36	9.00	--	--	1	--	--	1	1	--
104	W14-3	--	64 x 48	--	--	10.70	--	--	--	1	--	--
105	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	--	--	--
106	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	--	--	--
107	D1-65(M0D)	OAKWOOD RD, 10300 SOUTH, NEXT SIGNAL	90 x 48	30.00	--	--	2	--	--	--	--	--
108	R2-1	--	-- x --	--	--	--	--	--	--	1	1	--
109	R2-1	--	-- x --	--	--	--	--	--	--	1	1	--
110	R5-1A(3)	--	42 x 30	8.75	--	--	1	--	--	1	1	--
111	W6-2(2M)	--	36 x 36	--	--	9.00	--	1	--	1	1	--
112	W6-2(2M)	--	36 x 36	--	--	9.00	--	1	--	1	1	--
113	J4-1(3)	--	36 x 54	13.50	--	--	--	1	--	--	--	--
	M3-3	--	30 x 18	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	36 x 36	--	--	--	--	--	--	--	--	--
114	W4-2R(3)	--	36 x 36	--	--	9.00	1	--	--	--	--	--
115	R4-7(3)	--	36 x 48	12.00	--	--	--	--	--	1	--	--
116	R6-2L(2M)	--	30 x 36	7.50	--	--	--	--	--	1	--	--
116A	R1-1F(3)	--	36 x 36	--	7.46	--	--	--	--	1	--	--
	R6-3(2M)	--	30 x 24	5.00	--	--	--	--	--	--	--	--
117	R5-1(3)	--	36 x 36	9.00	--	--	--	--	--	1	--	--
118	R5-1(3)	--	36 x 36	9.00	--	--	--	--	--	1	--	--
119	R1-1F(3)	--	36 x 36	--	7.46	--	--	--	--	1	--	--
120	R1-1F(3)	--	36 x 36	--	7.46	--	--	--	--	1	--	--
121	R1-1F(3)	--	36 x 36	--	7.46	--	--	--	--	1	--	--
122	R1-1F(3)	--	36 x 36	--	7.46	--	--	--	--	1	--	--
123	R1-1F(3)	--	36 x 36	--	7.46	--	--	--	--	1	--	--
124	R4-7(3)	--	36 x 48	12.00	--	--	--	--	--	1	--	--
125	R3-55	--	-- x --	--	--	--	--	--	--	1	1	--
126	D1-65	--	-- x --	--	--	--	--	--	--	1	1	--
127	R5-1A(3)	--	42 x 30	8.75	--	--	1	--	--	1	1	--
128	R1-1F(3)	--	36 x 36	--	7.46	--	--	--	--	1	--	--
129	R5-1(3)	--	36 x 36	9.00	--	--	--	--	--	1	--	--
130	R5-1(3)	--	36 x 36	9.00	--	--	--	--	--	1	--	--
131	M1-94H(2)	OAKWOOD RD	84 x 24	14.00	--	--	--	--	--	--	--	ON SIGNAL MAST ARM
132	M1-94H(2)	OAKWOOD RD	84 x 24	14.00	--	--	--	--	--	--	--	ON SIGNAL MAST ARM
133	W12-1D(2M)	--	24 x 24	--	--	4.00	--	--	--	1	1	2' MOUNTING HEIGHT
134	R1-1F(3)	--	36 x 36	--	7.46	--	--	--	--	1	--	--
	R6-3(2M)	--	30 x 24	5.00	--	--	--	--	--	--	--	--
135	R6-2L(2M)	--	30 x 36	7.50	--	--	--	--	--	1	--	--
136	R1-2(2S)	--	36 x 31	3.88	--	--	--	--	--	1	--	--
137	W4-2R(3)	--	36 x 36	--	--	9.00	--	--	--	1	1	--
138	W4-2R(3)	--	36 x 36	--	--	9.00	--	--	--	1	1	--
139	R5-1A(3)	--	42 x 30	8.75	--	--	1	--	--	1	1	--
140	R3-55	--	-- x --	--	--	--	--	--	--	1	1	--
141	W9-1R	--	-- x --	--	--	--	--	--	--	1	1	--
142	W9-1R	--	-- x --	--	--	--	--	--	--	1	1	--
143	J4-1(3)	--	36 x 54	13.50	--	--	--	1	--	--	--	--
	M3-1	--	30 x 18	--	--	--	--	--	--	--	--	--

CONTINUED ON NEXT SHEET

TYPE I & II PERMANENT SIGNING

CATEGORY CODE 0010

SIGN NO.		SIGN MESSAGE	TYPE II SIGN SIZE W [IN.] x H [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F [SF]	634.0616 WOOD POSTS 4"x 6"X16' [EA]	634.0618 WOOD POSTS 4"x 6"X18' [EA]	638.2102 MOVING SIGNS TYPE II [EA]	638.2602 REMOVING SIGNS TYPE II [EA]	638.3000 REMOVING SMALL SIGN SUPPORTS [EA]	REMARKS NEW SIGN LOCATION
	M1-6	STH 38	36 x 36	--	--	--	--	--	--	--	--	--
144	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	1	1	--
145	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	1	1	--
146	D1-65	OAKWOOD RD, 10300 SOUTH, NEXT SIGNAL	90 x 48	30.00	--	--	--	2	--	--	--	--
147	D1-65	OAKWOOD RD, 10300 SOUTH, NEXT SIGNAL	90 x 48	30.00	--	--	--	2	--	1	1	--
148	W3-3(3)	--	36 x 36	--	--	9.00	--	1	--	1	1	--
149	W3-3(3)	--	36 x 36	--	--	9.00	--	1	--	1	1	--
150	R4-7(3)	--	36 x 48	12.00	--	--	--	1	--	1	1	--
151	R6-2L(2M)	--	30 x 36	7.50	--	--	1	--	--	--	--	--
152	R4-7(3)	--	36 x 48	12.00	--	--	--	1	--	1	1	--
153	R5-1(3)	--	36 x 36	9.00	--	--	1	--	--	--	--	--
154	R3-20LL(2M)	--	24 x 36	6.00	--	--	1	--	--	--	--	SHEET 2
155	R5-1(3)	--	36 x 36	9.00	--	--	1	--	--	--	--	--
156	R1-1(3)	--	36 x 36	7.46	--	--	--	1	--	1	1	--
	R6-3A(2S)	--	30 x 24	5.00	--	--	--	--	--	--	--	--
157	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	1	1	--
158	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	1	1	--
159	R4-7(3)	--	36 x 48	12.00	--	--	--	1	--	--	--	--
160	R5-1(3)	--	36 x 36	9.00	--	--	1	--	--	--	--	--
161	R4-7(3)	--	36 x 48	12.00	--	--	--	1	--	1	1	--
162	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	1	1	--
163	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	--	--	1	--	--
164	R6-2L(2M)	--	30 x 36	7.50	--	--	1	--	--	--	--	--
165	R3-21(2)	--	30 x 36	7.50	--	--	1	--	--	1	1	--
166	R9-3A(2S)	--	12 x 18	1.50	--	--	1	--	--	--	--	SHEET 19
	R9-3BR(2S)	--	18 12	1.50	--	--	--	--	--	--	--	--
167	R4-7(3)	--	36 x 48	12.00	--	--	--	1	--	--	--	--
168	R4-7(3)	--	36 x 48	12.00	--	--	--	1	--	1	1	--
169	R5-1(3)	--	36 x 36	9.00	--	--	1	--	--	--	--	--
170	W11-2(3)	--	36 x 36	--	--	9.00	--	1	--	--	--	--
	W16-9P(3)	--	30 x 18	--	--	3.75	--	--	--	--	--	--
171	W11-2(3)	--	36 x 36	--	--	9.00	--	1	--	--	--	--
	W16-9P(3)	--	30 x 18	--	--	3.75	--	--	--	--	--	--
172	R6-2L(2M)	--	30 x 36	7.50	--	--	1	--	--	--	--	--
173	R9-3A(2S)	--	12 x 18	1.50	--	--	1	--	--	--	--	SHEET 19
	R9-3BL(2S)	--	18 x 12	1.50	--	--	--	--	--	--	--	--
174	W11-2(3)	--	36 x 36	--	--	9.00	--	1	--	--	--	--
	W16-7L(3)	--	30 x 18	--	--	3.75	--	--	--	--	--	--
175	R4-7(3)	--	36 x 48	12.00	--	--	--	1	--	1	1	--
176	R6-2L(2M)	--	30 x 36	7.50	--	--	1	--	--	--	--	--
177	R4-7(3)	--	36 x 48	12.00	--	--	--	1	--	--	--	--
178	R4-7(3)	--	36 x 48	12.00	--	--	--	1	--	--	--	SHEET 19
179	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	1	1	--
180	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	1	1	--
181	W11-2(3)	--	36 x 36	--	--	9.00	--	1	--	--	--	--
	W16-9P(3)	--	30 x 18	--	--	3.75	--	--	--	--	--	--
182	W11-2(3)	--	36 x 36	--	--	9.00	--	1	--	--	--	--
	W16-9P(3)	--	30 x 18	--	--	3.75	--	--	--	--	--	--
183	R6-2L(2M)	--	30 x 36	7.50	--	--	1	--	--	--	--	--
184	R1-1	--	-- x --	--	--	--	--	1	1	--	1	--

CONTINUED ON NEXT SHEET

TYPE I & II PERMANENT SIGNING

CATEGORY CODE 0010

SIGN NO.		SIGN MESSAGE	TYPE II SIGN SIZE W [IN.] x H [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F [SF]	634.0616 WOOD POSTS 4"x 6"X16' [EA]	634.0618 WOOD POSTS 4"x 6"X18' [EA]	638.2102 MOVING SIGNS TYPE II [EA]	638.2602 REMOVING SIGNS TYPE II [EA]	638.3000 REMOVING SMALL SIGN SUPPORTS [EA]	REMARKS NEW SIGN LOCATION
	R6-3(2S)	--	30 x 24	5.00	--	--	--	--	--	--	--	--
185	W11-2(3)	--	36 x 36	--	--	9.00	--	1	--	--	--	--
	W16-7R(3)	--	30 x 18	--	--	3.75	--	--	--	--	--	--
186	W11-2(3)	--	36 x 36	--	--	9.00	--	1	--	--	--	--
	W16-7R(3)	--	30 x 18	--	--	3.75	--	--	--	--	--	--
187	R5-1(3)	--	36 x 36	9.00	--	--	1	--	--	--	--	--
188	R4-7(3)	--	36 x 48	12.00	--	--	--	1	--	1	1	--
189	R4-7(3)	--	36 x 48	12.00	--	--	--	1	--	1	1	--
190	W11-2(3)	--	36 x 36	--	--	9.00	--	1	--	--	--	--
	W16-7L(3)	--	30 x 18	--	--	3.75	--	--	--	--	--	--
191	R1-1(3)	--	36 x 36	7.46	--	--	--	1	--	1	1	--
	R6-3A(2S)	--	30 x 24	5.00	--	--	--	--	--	--	--	--
192	NOT USED	--	-- x --	--	--	--	--	--	--	--	--	--
193	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	1	--	--
194	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	--	--	1	1	--
195	R5-1(3)	--	36 x 36	9.00	--	--	1	--	--	--	--	--
196	R1-1(3)	--	36 x 36	7.46	--	--	--	1	--	1	1	--
	R6-3(2S)	--	30 x 24	5.00	--	--	--	--	--	--	--	--
197	R6-2L(2M)	--	30 x 36	7.50	--	--	1	--	--	--	--	--
198	R5-1(3)	--	36 x 36	9.00	--	--	1	--	--	--	--	--
199	NOT USED	--	-- x --	--	--	--	--	--	--	--	--	--
200	R3-21(2)	--	30 x 36	7.50	--	--	1	--	--	1	1	--
201	M1-94H(2)	S HOWELL AVE	114 x 24	19.00	--	--	--	--	--	--	--	ON SIGNAL MAST ARM, SHEET 2
202	M1-94H(2)	S HOWELL AVE	114 x 24	19.00	--	--	--	--	--	--	--	ON SIGNAL MAST ARM, SHEET 2
203	J3-2(2S)	--	48 x 57	19.00	--	--	--	1	--	--	--	SHEET 2
	M3-1	--	24 x 12	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	24 x 24	--	--	--	--	--	--	--	--	--
	M6-1	--	21 x 21	--	--	--	--	--	--	--	--	--
	M3-3	--	24 x 12	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	24 x 24	--	--	--	--	--	--	--	--	--
	M6-1	--	21 x 21	--	--	--	--	--	--	--	--	--
204	J3-2(2S)	--	48 x 57	19.00	--	--	--	1	--	--	--	SHEET 2
	M3-3	--	24 x 12	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	24 x 24	--	--	--	--	--	--	--	--	--
	M6-1	--	21 x 21	--	--	--	--	--	--	--	--	--
	M3-1	--	24 x 12	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	24 x 24	--	--	--	--	--	--	--	--	--
	M6-1	--	21 x 21	--	--	--	--	--	--	--	--	--
205	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	--	--	--
206	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	--	--	--
207	R2-1	--	-- x --	--	--	--	--	--	--	1	1	--
207A	R2-1	--	-- x --	--	--	--	--	--	--	1	1	--
208	R2-1	--	-- x --	--	--	--	--	--	--	1	--	--
208A	R2-1	--	-- x --	--	--	--	--	--	--	1	1	--
209	R6-2L(2M)	--	30 x 36	7.50	--	--	1	--	--	--	--	--
210	R1-1	--	-- x --	--	--	--	--	1	1	--	1	--
	R6-3(2S)	--	30 x 24	5.00	--	--	--	--	--	--	--	--
211	R4-7(3)	--	36 x 48	12.00	--	--	--	1	--	1	1	--
212	R4-7(3)	--	36 x 48	12.00	--	--	--	1	--	1	1	--
213	W11-2(3)	--	36 x 36	--	--	9.00	--	1	--	--	--	--

CONTINUED ON NEXT SHEET

TYPE I & II PERMANENT SIGNING

CATEGORY CODE 0010

SIGN NO.		SIGN MESSAGE	TYPE II SIGN SIZE W [IN.] x H [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F [SF]	634.0616 WOOD POSTS 4"x 6"X16' [EA]	634.0618 WOOD POSTS 4"x 6"X18' [EA]	638.2102 MOVING SIGNS TYPE II [EA]	638.2602 REMOVING SIGNS TYPE II [EA]	638.3000 REMOVING SMALL SIGN SUPPORTS [EA]	REMARKS NEW SIGN LOCATION
	W16-7R(3)	--	30 x 18	--	--	3.75	--	--	--	--	--	--
214	W11-2(3)	--	36 x 36	--	--	9.00	--	1	--	--	--	--
	W16-7R(3)	--	30 x 18	--	--	3.75	--	--	--	--	--	--
215	R3-55L	--	-- x --	--	--	--	--	--	--	1	1	--
216	R5-1(3)	--	36 x 36	9.00	--	--	1	--	--	--	--	--
217	W11-2(3)	--	36 x 36	--	--	9.00	--	1	--	--	--	--
	W16-7L(3)	--	30 x 18	--	--	3.75	--	--	--	--	--	--
218	R3-7	--	-- x --	--	--	--	--	--	--	1	1	--
219	D1-65	--	-- x --	--	--	--	--	--	--	1	2	--
220	W11-2(3)	--	36 x 36	--	--	9.00	--	1	--	--	--	--
	W16-9P(3)	--	30 x 18	--	--	3.75	--	--	--	--	--	--
221	W11-2(3)	--	36 x 36	--	--	9.00	--	1	--	--	--	--
	W16-9P(3)	--	30 x 18	--	--	3.75	--	--	--	--	--	--
222	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	--	--	--
223	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	--	--	--
224	J3-3	--	-- x --	--	--	--	--	--	--	1	2	SHEET 10
225	R5-1(3)	--	36 x 36	9.00	--	--	1	--	--	--	--	--
226	R1-1(3)	--	36 x 36	7.46	--	--	--	1	--	1	1	--
	R6-3(2S)	--	30 x 24	5.00	--	--	--	--	--	--	--	--
227	R6-2L(2M)	--	30 x 36	7.50	--	--	1	--	--	--	--	--
228	W11-2(3)	--	36 x 36	--	--	9.00	--	1	--	--	--	--
	W16-7L(3)	--	30 x 18	--	--	3.75	--	--	--	--	--	--
229	NOT USED	--	-- x --	--	--	--	--	--	--	--	--	--
230	R3-21(2)	--	30 x 36	7.50	--	--	1	--	--	1	1	--
231	W11-2(3)	--	36 x 36	--	--	9.00	--	1	--	--	--	--
	W16-9P(3)	--	30 x 18	--	--	3.75	--	--	--	--	--	--
231A	W11-2(3)	--	36 x 36	--	--	9.00	--	1	--	--	--	--
	W16-9P(3)	--	30 x 18	--	--	3.75	--	--	--	--	--	--
232	R5-1	--	-- x --	--	--	--	--	--	--	1	1	--
232A	R5-1	--	-- x --	--	--	--	--	--	--	1	1	--
233	R3-2	--	-- x --	--	--	--	--	--	--	1	1	--
234	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	1	--	--
235	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	--	--	--
236	R6-2R(2S)	--	24 x 30	5.00	--	--	1	--	--	--	--	--
237	R6-2R(2S)	--	24 x 30	5.00	--	--	1	--	--	--	--	--
238	J3-3	--	-- x --	--	--	--	--	--	--	1	2	SHEET 10
239	R3-20L(3)	--	36 x 54	13.50	--	--	--	1	--	--	--	--
240	J1-1(3)	--	36 x 57	14.25	--	--	--	1	--	1	1	--
	M2-1	--	30 x 21	--	--	--	--	--	--	--	--	--
	M1-6	STH 100	36 x 36	--	--	--	--	--	--	--	--	--
241	J1-1(3)	--	36 x 57	14.25	--	--	--	1	--	1	1	--
	M2-1	--	30 x 21	--	--	--	--	--	--	--	--	--
	M1-6	STH 100	36 x 36	--	--	--	--	--	--	--	--	--
242	R7-1D(3)	--	24 x 30	5.00	--	--	--	--	--	--	--	--
243	W3-3(3)	--	36 x 36	--	--	9.00	--	1	--	1	1	--
244	W3-3(3)	--	36 x 36	--	--	9.00	--	1	--	1	1	--
245	D1-65	RYAN RD, 9500 SOUTH, NEXT SIGNAL	84 x 48	28.00	--	--	--	2	--	--	--	--
246	R7-1D	--	-- x --	--	--	--	--	--	--	1	1	--
247	R4-7	--	-- x --	--	--	--	--	--	--	1	1	--
248	D1-65	RYAN RD, 9500 SOUTH	-- x --	--	--	--	--	--	--	1	2	--

CONTINUED ON NEXT SHEET

TYPE I & II PERMANENT SIGNING

CATEGORY CODE 0010

SIGN NO.		SIGN MESSAGE	TYPE II SIGN SIZE W [IN.] x H [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F [SF]	634.0616 WOOD POSTS 4"x 6"X16' [EA]	634.0618 WOOD POSTS 4"x 6"X18' [EA]	638.2102 MOVING SIGNS TYPE II [EA]	638.2602 REMOVING SIGNS TYPE II [EA]	638.3000 REMOVING SMALL SIGN SUPPORTS [EA]	REMARKS NEW SIGN LOCATION
249	J3-3(3)	--	108 x 84	63.00	--	--	--	2	--	--	--	--
	MB4-5	--	36 x 18	--	--	--	--	--	--	--	--	--
	M1-1	IH 94	36 x 36	--	--	--	--	--	--	--	--	--
	MB5-1R	--	30 x 30	--	--	--	--	--	--	--	--	--
	M3-4	--	30 x 15	--	--	--	--	--	--	--	--	--
	M1-6	STH 100	36 x 36	--	--	--	--	--	--	--	--	--
	M5-1L	--	30 x 30	--	--	--	--	--	--	--	--	--
	M3-2	--	36 x 18	--	--	--	--	--	--	--	--	--
	M1-6	STH 100	36 x 36	--	--	--	--	--	--	--	--	--
	M5-1R	--	30 x 30	--	--	--	--	--	--	--	--	--
250	J3-3(3)	--	108 x 84	63.00	--	--	--	2	--	--	--	--
	MB4-5	--	36 x 18	--	--	--	--	--	--	--	--	--
	M1-1	IH 94	36 x 36	--	--	--	--	--	--	--	--	--
	MB5-1R	--	30 x 30	--	--	--	--	--	--	--	--	--
	M3-4	--	30 x 15	--	--	--	--	--	--	--	--	--
	M1-6	STH 100	36 x 36	--	--	--	--	--	--	--	--	--
	M5-1L	--	30 x 30	--	--	--	--	--	--	--	--	--
	M3-2	--	36 x 18	--	--	--	--	--	--	--	--	--
	M1-6	STH 100	36 x 36	--	--	--	--	--	--	--	--	--
	M5-1R	--	30 x 30	--	--	--	--	--	--	--	--	--
251	R3-5	--	-- x --	--	--	--	--	--	--	1	--	--
252	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
253	R5-1A(3)	--	42 x 30	8.75	--	--	1	--	--	1	1	--
254	R6-2R	--	-- x --	--	--	--	--	--	--	1	--	--
255	W9-1R(3)	--	36 x 36	--	--	9.00	--	1	--	--	--	--
256	W4-2R(3)	--	36 x 36	--	--	9.00	--	--	--	--	--	--
	W16-9P(3)	--	30 x 18	--	--	3.75	--	--	--	--	--	--
257	J4-1(3)	--	36 x 54	13.50	--	--	--	1	--	1	1	--
	M3-3	--	30 x 18	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	36 x 36	--	--	--	--	--	--	--	--	--
258	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	--	--
259	R6-2L(2M)	--	30 x 36	7.50	--	--	--	--	--	--	--	--
260	M1-94H(2)	RYAN RD	90 x 24	15.00	--	--	--	--	--	--	--	ON SIGNAL MAST ARM
261	R10-11F(2M)	--	30 x 36	7.50	--	--	--	--	--	1	--	--
262	R5-1(2S)	--	30 x 30	6.25	--	--	1	--	--	--	--	SHEET 25
263	R5-1(2S)	--	30 x 30	6.25	--	--	1	--	--	--	--	SHEET 25
264	--	TRUCK EXIT ONLY	30 x 36	7.50	--	--	1	--	--	--	--	SHEET 24
265	--	TRUCK EXIT ONLY	30 x 36	7.50	--	--	1	--	--	--	--	SHEET 24
266	R5-1(2S)	--	30 x 30	6.25	--	--	--	--	--	--	--	SHEET 24
267	R5-1(2S)	--	30 x 30	6.25	--	--	--	--	--	--	--	SHEET 24
268	NOT USED	--	-- x --	--	--	--	--	--	--	--	--	--
269	NOT USED	--	-- x --	--	--	--	--	--	--	--	--	--
270	NOT USED	--	-- x --	--	--	--	--	--	--	--	--	--
271	R5-1(3)	--	36 x 36	9.00	--	--	--	--	--	1	--	--
272	M1-94H(2)	S HOWELL AVE	114 x 24	19.00	--	--	--	--	--	--	--	ON SIGNAL MAST ARM
273	NOT USED	--	-- x --	--	--	--	--	--	--	--	--	--
274	R6-2L(2M)	--	30 x 36	7.50	--	--	--	--	--	1	1	--
275	R6-2L(2M)	--	30 x 36	7.50	--	--	--	--	--	--	--	--
276	R1-1F(3)	--	-- x --	--	7.46	--	--	--	--	1	--	--
277	W12-1D(2M)	--	24 x 24	--	--	4.00	1	--	--	1	1	2' MOUNTING HEIGHT
278	J2-2(3)	--	72 x 84	42.00	--	--	--	2	--	1	2	--
	MB4-5	--	30 x 18	--	--	--	--	--	--	--	--	--
	M1-1	IH 94	36 x 36	--	--	--	--	--	--	--	--	--
	MB6-1	--	30 x 30	--	--	--	--	--	--	--	--	--
	M3-4	--	30 x 18	--	--	--	--	--	--	--	--	--

CONTINUED ON NEXT SHEET

FILE NAME: J:\projects\D2_20601538\71\SIGN\Quantities\ PLOT DATE : 10/28/2013 4:35:22 PM PLOT BY : MSCKVW PLOT NAME : 030202_mq PLOT SCALE : 1:1

TYPE I & II PERMANENT SIGNING

CATEGORY CODE 0010

SIGN NO.		SIGN MESSAGE	TYPE II SIGN SIZE W [IN.] x H [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F [SF]	634.0616 WOOD POSTS 4"x 6"X16' [EA]	634.0618 WOOD POSTS 4"x 6"X18' [EA]	638.2102 MOVING SIGNS TYPE II [EA]	638.2602 REMOVING SIGNS TYPE II [EA]	638.3000 REMOVING SMALL SIGN SUPPORTS [EA]	REMARKS NEW SIGN LOCATION
	M1-6	STH 100	36 x 36	--	--	--	--	--	--	--	--	--
	M6-1	--	30 x 30	--	--	--	--	--	--	--	--	--
279	R3-5L(2M)	--	42 x 48	--	--	--	--	--	--	1	--	--
280	R3-5L(2M)	--	42 x 48	--	--	--	--	--	--	1	--	--
281	J3-1(3)	--	36 x 84	21.00	--	--	--	1	--	1	--	--
	M3-4	--	30 x 18	--	--	--	--	--	--	--	--	--
	M1-6	STH 100	36 x 36	--	--	--	--	--	--	--	--	--
	M6-1	--	30 x 30	--	--	--	--	--	--	--	--	--
282	J3-1(2M)	--	36 x 84	21.00	--	--	--	--	--	1	--	--
	MB4-5	--	30 x 18	--	--	--	--	--	--	--	--	--
	M1-1	IH 94	36 x 36	--	--	--	--	--	--	--	--	--
	MB6-1	--	30 x 30	--	--	--	--	--	--	--	--	--
283	R3-20LL(2S)	--	24 x 36	6.00	--	--	1	--	--	--	--	SHEET 24
284	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
285	R1-1F(3)	--	-- x --	--	7.46	--	--	--	--	1	--	--
	R6-3(2M)	--	30 x 24	5.00	--	--	--	--	--	--	--	--
286	J3-1(3)	--	36 x 84	21.00	--	--	--	1	--	1	1	--
	M3-2	--	30 x 18	--	--	--	--	--	--	--	--	--
	M1-6	STH 100	36 x 36	--	--	--	--	--	--	--	--	--
	M6-1	--	30 x 30	--	--	--	--	--	--	--	--	--
287	J4-1(2S)	--	24 x 36	6.00	--	--	--	1	--	1	1	--
	M3-2	--	24 x 12	--	--	--	--	--	--	--	--	--
	M1-6	STH 100	24 x 24	--	--	--	--	--	--	--	--	--
288	R1-1F(3)	--	-- x --	--	7.46	--	--	--	--	1	--	--
289	R6-2L(2M)	--	30 x 36	7.50	--	--	1	--	--	1	--	--
290	R4-7(3)	--	36 x 48	12.00	--	--	--	--	--	1	--	--
291	J3-1	--	-- x --	--	--	--	--	--	--	1	--	--
292	R5-1(3)	--	36 x 36	9.00	--	--	--	--	--	1	--	--
293	R4-7(3)	--	36 x 48	12.00	--	--	--	--	--	1	--	--
294	R3-4(3)	--	36 x 36	9.00	--	--	--	--	--	1	--	--
295	R1-1F(3)	--	-- x --	--	7.46	--	--	--	--	1	--	--
	R6-3(2M)	--	30 x 24	5.00	--	--	--	--	--	--	--	--
296	M1-94H(2)	RYAN RD	90 x 24	15.00	--	--	--	--	--	--	--	ON SIGNAL MAST ARM
297	R4-7(3)	--	36 x 48	12.00	--	--	--	--	--	1	--	--
298	R5-1(3)	--	36 x 36	9.00	--	--	--	--	--	1	--	--
299	M1-94H(2)	S HOWELL AVE	114 x 24	19.00	--	--	--	--	--	--	--	ON SIGNAL MAST ARM
300	W12-1D(2M)	--	24 x 24	--	--	4.00	1	--	--	1	1	2' MOUNTING HEIGHT
301	R1-1F(3)	--	-- x --	--	7.46	--	--	--	--	1	--	--
302	R1-2(2M)	--	48 x 42	7.00	--	--	1	--	--	1	1	--
303	R6-2R(2S)	--	24 x 30	7.00	--	--	1	--	--	--	--	SHEET 24
304	J3-1(3)	--	36 x 84	21.00	--	--	--	1	--	1	1	--
	M3-2	--	30 x 18	--	--	--	--	--	--	--	--	--
	M1-6	STH 100	36 x 36	--	--	--	--	--	--	--	--	--
	M6-1	--	30 x 30	--	--	--	--	--	--	--	--	--
305	J4-1(3)	--	36 x 54	--	--	--	--	1	--	1	1	--
	M3-1	--	30 x 18	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	36 x 36	--	--	--	--	--	--	--	--	--
306	R3-5L(2M)	--	42 x 48	--	--	--	--	--	--	1	--	--
307	R3-5L(2M)	--	42 x 48	--	--	--	--	--	--	1	--	--
308	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--

CONTINUED ON NEXT SHEET

TYPE I & II PERMANENT SIGNING

CATEGORY CODE 0010

SIGN NO.		SIGN MESSAGE	TYPE II SIGN SIZE W [IN.] x H [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F [SF]	634.0616 WOOD POSTS 4"x 6"X16' [EA]	634.0618 WOOD POSTS 4"x 6"X18' [EA]	638.2102 MOVING SIGNS TYPE II [EA]	638.2602 REMOVING SIGNS TYPE II [EA]	638.3000 REMOVING SMALL SIGN SUPPORTS [EA]	REMARKS NEW SIGN LOCATION
309	R3-20L(3)	--	36 x 54	13.50	--	--	--	1	--	1	1	--
310	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
311	J3-3(3)	--	108 x 84	63.00	--	--	--	2	--	1	2	--
	M3-2	--	30 x 18	--	--	--	--	--	--	--	--	--
	M1-6	STH 100	36 x 36	--	--	--	--	--	--	--	--	--
	M5-1R	--	30 x 30	--	--	--	--	--	--	--	--	--
	MB4-5	--	30 x 18	--	--	--	--	--	--	--	--	--
	MB1-1	IH 94	36 x 36	--	--	--	--	--	--	--	--	--
	MB5-1R	--	30 x 30	--	--	--	--	--	--	--	--	--
	M3-4	--	30 x 18	--	--	--	--	--	--	--	--	--
	M1-6	STH 100	36 x 36	--	--	--	--	--	--	--	--	--
	M5-1R	--	30 x 30	--	--	--	--	--	--	--	--	--
312	J3-3(3)	--	108 x 84	63.00	--	--	--	2	--	1	2	--
	M3-2	--	30 x 18	--	--	--	--	--	--	--	--	--
	M1-6	STH 100	36 x 36	--	--	--	--	--	--	--	--	--
	M5-1R	--	30 x 30	--	--	--	--	--	--	--	--	--
	MB4-5	--	30 x 18	--	--	--	--	--	--	--	--	--
	MB1-1	IH 94	36 x 36	--	--	--	--	--	--	--	--	--
	MB5-1R	--	30 x 30	--	--	--	--	--	--	--	--	--
	M3-4	--	30 x 18	--	--	--	--	--	--	--	--	--
	M1-6	STH 100	36 x 36	--	--	--	--	--	--	--	--	--
	M5-1R	--	30 x 30	--	--	--	--	--	--	--	--	--
313	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
314	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	1	1	--
315	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	1	1	--
316	R3-20L(3)	--	36 x 54	13.50	--	--	--	1	--	--	--	--
317	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
318	R5-1(3)	--	36 x 36	9.00	--	--	--	--	--	--	--	SHEET 18
319	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	--	--	--
320	R6-2L(2M)	--	30 x 36	7.50	--	--	1	--	--	--	--	--
321	R4-7(3)	--	36 x 48	12.00	--	--	--	1	--	1	1	--
322	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
323	W3-3(3)	--	36 x 36	--	--	9.00	--	1	--	1	1	--
324	W3-3(3)	--	36 x 36	--	--	9.00	--	1	--	1	--	--
325	J1-1(3)	--	36 x 57	--	--	--	--	1	--	--	--	--
	M2-1	--	30 x 21	--	--	--	--	--	--	--	--	--
	M1-6	STH 100	36 x 36	--	--	--	--	--	--	--	--	--
326	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
327	J1-1	--	-- x --	--	--	--	--	--	--	1	1	--
328	W11-2(3)	--	36 x 36	--	--	9.00	--	--	--	--	--	POLE QUANTITIES SHOWN ELSEWHERE
	W16-7L(3)	--	30 x 18	--	--	3.75	--	--	--	--	--	--
	R10-25(2M)	--	9 x 12	0.75	--	--	--	--	--	--	--	--
328A	W11-2(3)	--	36 x 36	--	--	9.00	--	--	--	--	--	POLE QUANTITIES SHOWN ELSEWHERE
	W16-7R(3)	--	30 x 18	--	--	3.75	--	--	--	--	--	--
	R10-25(2M)	--	9 x 12	0.75	--	--	--	--	--	--	--	--
329	R6-2L(2M)	--	30 x 36	7.50	--	--	1	--	--	--	--	--
330	R5-1(3)	--	36 x 36	9.00	--	--	1	--	--	--	--	--
331	R4-7(3)	--	36 x 48	12.00	--	--	--	1	--	1	--	--
332	R5-1(3)	--	36 x 36	9.00	--	--	1	--	--	--	--	--
333	R4-7(3)	--	36 x 48	12.00	--	--	--	1	--	--	--	--

CONTINUED ON NEXT SHEET

TYPE I & II PERMANENT SIGNING

CATEGORY CODE 0010

SIGN NO.		SIGN MESSAGE	TYPE II SIGN SIZE W [IN.] x H [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F [SF]	634.0616 WOOD POSTS 4"x 6"X16' [EA]	634.0618 WOOD POSTS 4"x 6"X18' [EA]	638.2102 MOVING SIGNS TYPE II [EA]	638.2602 REMOVING SIGNS TYPE II [EA]	638.3000 REMOVING SMALL SIGN SUPPORTS [EA]	REMARKS NEW SIGN LOCATION
334	W11-2(3)	--	36 x 36	--	--	9.00	--	1	--	--	--	--
	W16-9P(3)	--	30 x 18	--	--	3.75	--	--	--	--	--	--
335	W11-2(3)	--	36 x 36	--	--	9.00	--	1	--	--	--	--
	W16-9P(3)	--	30 x 18	--	--	3.75	--	--	--	--	--	--
336	R7-1R	--	-- x --	--	--	--	--	--	--	1	1	--
337	R1-1(3)	--	36 x 36	7.46	--	--	--	1	--	1	1	--
	R6-3A(2M)	--	30 x 24	5.00	--	--	--	--	--	--	--	--
338	R5-1(3)	--	36 x 36	9.00	--	--	--	--	--	--	--	SHEET 18
339	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	1	1	--
340	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	1	--	--
341	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	1	--	--
342	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	1	--	--
343	W11-2(3)	--	36 x 36	--	--	9.00	--	--	--	--	--	POLE QUANTITIES SHOWN ELSEWHERE
	W16-7R(3)	--	30 x 18	--	--	3.75	--	--	--	--	--	--
	R10-25(2M)	--	9 x 12	0.75	--	--	--	--	--	--	--	--
344	R4-7(3)	--	36 x 48	12.00	--	--	--	1	--	--	--	--
345	W11-2(3)	--	36 x 36	--	--	9.00	--	--	--	--	--	POLE QUANTITIES SHOWN ELSEWHERE
	W16-7L(3)	--	30 x 18	--	--	3.75	--	--	--	--	--	--
	R10-25(2M)	--	9 x 12	0.75	--	--	--	--	--	--	--	--
346	R5-1(3)	--	36 x 36	9.00	--	--	1	--	--	--	--	--
347	R1-1(3)	--	36 x 36	7.46	--	--	--	1	--	1	1	--
	R6-3(2M)	--	30 x 24	5.00	--	--	--	--	--	--	--	--
348	R6-2L(2M)	--	30 x 36	7.50	--	--	1	--	--	--	--	--
349	R3-21(2)	--	30 x 36	7.50	--	--	1	--	--	1	1	--
350	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
351	W5-52L(3)	--	18 x 54	--	--	6.75	1	--	--	1	1	4' MOUNTING HEIGHT
352	W5-52R(3)	--	18 x 54	--	--	6.75	1	--	--	--	--	4' MOUNTING HEIGHT
353	R10-50(2M)	--	30 x 36	7.50	--	--	--	--	--	--	--	ON SIGNAL MAST ARM, SHEET 18
354	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	--	--	--
355	ADOPT	--	-- x --	--	--	--	1	--	1	--	1	--
356	R1-1(3)	--	36 x 36	7.46	--	--	--	1	--	1	1	--
	R6-3A(2M)	--	30 x 24	5.00	--	--	--	--	--	--	--	--
357	W11-2(3)	--	36 x 36	--	--	9.00	--	1	--	--	--	--
	W16-7R(3)	--	30 x 18	--	--	3.75	--	--	--	--	--	--
358	W11-2(3)	--	36 x 36	--	--	9.00	--	1	--	--	--	--
	W16-7R(3)	--	30 x 18	--	--	3.75	--	--	--	--	--	--
359	R6-2L(2M)	--	30 x 36	7.50	--	--	1	--	--	--	--	--
360	ADOPT	--	-- x --	--	--	--	1	--	1	--	1	--
361	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
362	W5-52L(3)	--	18 x 54	--	--	6.75	1	--	--	--	--	4' MOUNTING HEIGHT
363	W5-52R(3)	--	18 x 54	--	--	6.75	1	--	--	--	--	4' MOUNTING HEIGHT
364	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
365	R6-2L(2M)	--	30 x 36	7.50	--	--	--	--	--	--	--	SHEET 20
366	R4-7(3)	--	36 x 48	12.00	--	--	--	1	--	1	1	--
367	R5-1(3)	--	36 x 36	9.00	--	--	1	--	--	--	--	--
368	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
369	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	1	1	--
370	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	1	--	--
371	R10-50(2M)	--	30 x 36	7.50	--	--	--	--	--	--	--	ON SIGNAL MAST ARM, SHEET 18
372	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	1	1	--

CONTINUED ON NEXT SHEET

TYPE I & II PERMANENT SIGNING

CATEGORY CODE 0010

SIGN NO.		SIGN MESSAGE	TYPE II SIGN SIZE W [IN.] x H [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F [SF]	634.0616 WOOD POSTS 4"x 6"X16' [EA]	634.0618 WOOD POSTS 4"x 6"X18' [EA]	638.2102 MOVING SIGNS TYPE II [EA]	638.2602 REMOVING SIGNS TYPE II [EA]	638.3000 REMOVING SMALL SIGN SUPPORTS [EA]	REMARKS NEW SIGN LOCATION
373	R4-7(3)	--	36 x 48	12.00	--	--	--	1	--	1	1	--
374	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	1	1	--
375	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	1	--	--
376	R7-1D(3)	--	24 x 30	5.00	--	--	--	1	--	1	1	--
377	R3-21(2)	--	30 x 36	7.50	--	--	1	--	--	1	1	--
378	R3-20L(3)	--	36 x 54	13.50	--	--	--	1	--	1	1	--
379	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
380	R4-7(3)	--	36 x 48	12.00	--	--	--	1	--	1	1	--
381	R5-1(3)	--	36 x 36	9.00	--	--	1	--	--	--	--	--
382	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
383	R10-50(2M)	--	30 x 36	7.50	--	--	--	--	--	--	--	ON SIGNAL MAST ARM, SHEET 18
384	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
385	R6-2L(2M)	--	30 x 36	7.50	--	--	1	--	--	--	--	--
386	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
387	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
388	R1-1(3)	--	36 x 36	7.46	--	--	--	1	--	1	1	--
	R6-3A(2M)	--	30 x 24	5.00	--	--	--	--	--	--	--	
389	R5-1(3)	--	36 x 36	9.00	--	--	1	--	--	--	--	--
390	R4-7(3)	--	36 x 48	12.00	--	--	--	1	--	1	1	--
391	R3-20L(3)	--	36 x 54	13.50	--	--	--	1	--	--	--	--
392	R7-1D	--	-- x --	--	--	--	--	--	--	1	1	--
393	R10-50(2M)	--	30 x 36	7.50	--	--	--	--	--	--	--	ON SIGNAL MAST ARM, SHEET 18
394	R3-21(2)	--	30 x 36	7.50	--	--	1	--	--	1	1	--
395	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	1	--	--
396	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	1	1	--
397	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	--	--
398	R3-2(3)	--	36 x 36	9.00	--	--	1	--	--	1	1	--
399	R3-2(3)	--	36 x 36	9.00	--	--	1	--	--	1	--	--
400	W3-3(3)	--	36 x 36	--	--	9.00	--	1	--	1	1	--
401	W3-3(3)	--	36 x 36	--	--	9.00	--	1	--	1	--	--
402	R6-2L(2M)	--	30 x 36	7.50	--	--	1	--	--	--	--	--
403	D1-65	CENTENNIAL DRIVE, NEXT SIGNAL	120 x 30	25.00	--	--	--	2	--	--	--	--
404	D1-65	CENTENNIAL DRIVE, NEXT SIGNAL	120 x 30	25.00	--	--	--	2	--	1	2	--
405	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
406	W11-2	--	-- x --	--	--	--	--	--	--	2	--	--
407	W11-2	--	-- x --	--	--	--	--	--	--	2	1	--
408	R5-1A(3)	--	42 x 30	8.75	--	--	1	--	--	--	--	--
409	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
410	R5-1A	--	-- x --	--	--	--	--	--	--	1	1	--
411	R1-1F(3)	--	-- x --	--	7.46	--	--	--	--	1	--	SHEET 20
	R6-3(2M)	--	30 x 24	5.00	--	--	--	--	--	--	--	--
412	R1-1F(3)	--	-- x --	--	7.46	--	--	--	--	--	--	--
413	R6-2L(2M)	--	30 x 36	7.50	--	--	--	--	--	1	--	--
414	R1-1F(3)	--	-- x --	--	7.46	--	--	--	--	1	--	--
	R6-3(2M)	--	30 x 24	5.00	--	--	--	--	--	--	--	--
415	M1-94H(2)	CENTENNIAL DR	108 x 24	18.00	--	--	--	--	--	--	--	ON SIGNAL MAST ARM
416	M1-94H(2)	S HOWELL AVE	114 x 24	19.00	--	--	--	--	--	--	--	ON SIGNAL MAST ARM
417	--	WEIGHT LIMIT	-- x --	--	--	--	1	--	1	--	1	--
418	R5-1(3)	--	36 x 36	9.00	--	--	1	--	--	--	--	--
419	R1-1F(3)	--	-- x --	--	7.46	--	--	--	--	1	--	--

CONTINUED ON NEXT SHEET

TYPE I & II PERMANENT SIGNING

CATEGORY CODE 0010

SIGN NO.		SIGN MESSAGE	TYPE II SIGN SIZE W [IN.] x H [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F [SF]	634.0616 WOOD POSTS 4"x 6"X16' [EA]	634.0618 WOOD POSTS 4"x 6"X18' [EA]	638.2102 MOVING SIGNS TYPE II [EA]	638.2602 REMOVING SIGNS TYPE II [EA]	638.3000 REMOVING SMALL SIGN SUPPORTS [EA]	REMARKS NEW SIGN LOCATION
420	R1-1F(3)	--	-- x --	--	7.46	--	--	--	--	1	--	--
421	R5-1A(3)	--	42 x 30	8.75	--	--	1	--	--	1	1	--
422	R1-1F(3)	--	-- x --	--	7.46	--	--	--	--	1	--	--
423	R1-1F(3)	--	-- x --	--	7.46	--	--	--	--	1	--	--
424	R5-1(3)	--	36 x 36	9.00	--	--	--	--	--	1	--	--
425	R7-1D	--	-- x --	--	--	--	1	--	--	1	1	--
426	--	TRUCK ROUTE	-- x --	--	--	--	--	--	1	--	--	--
427	R7-1D(2S)	--	24 x 30	5.00	--	--	1	--	--	--	--	--
428	R4-7(3)	--	36 x 48	12.00	--	--	--	1	--	1	--	--
429	R4-7(3)	--	36 x 48	12.00	--	--	--	1	--	1	--	--
430	M1-94H(2)	S HOWELL AVE	114 x 24	19.00	--	--	--	--	--	--	--	ON SIGNAL MAST ARM
431	M1-94H(2)	CENTENNIAL DR	108 x 24	18.00	--	--	--	--	--	--	--	ON SIGNAL MAST ARM
432	R1-1F(3)	--	-- x --	--	7.46	--	--	--	--	1	--	--
	R6-3(2M)	--	30 x 24	5.00	--	--	--	--	--	--	--	--
433	R6-2L(2M)	--	30 x 36	7.50	--	--	--	--	--	1	--	--
434	R7-1D(2S)	--	18 x 24	3.00	--	--	1	--	--	1	--	--
435	R7-1D	--	24 x 30	5.00	--	--	1	--	--	1	1	--
436	W3-3(3)	--	36 x 36	--	--	9.00	--	1	--	1	--	--
437	W3-3(3)	--	36 x 36	--	--	9.00	--	1	--	1	1	--
438	R7-1D	--	-- x --	--	--	--	--	--	--	1	1	--
439	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	--	--	--
440	D1-65	--	-- x --	--	--	--	--	--	--	1	2	--
441	R7-1D	--	-- x --	--	--	--	--	--	--	1	1	--
442	W3-3(3)	--	36 x 36	--	--	9.00	--	1	--	--	--	--
443	W3-3(3)	--	36 x 36	--	--	9.00	--	1	--	--	--	--
444	D1-65	CENTENNIAL DRIVE, NEXT SIGNAL	120 x 30	25.00	--	--	--	2	--	--	--	--
445	D1-65	CENTENNIAL DRIVE, NEXT SIGNAL	120 x 30	25.00	--	--	--	2	--	--	--	--
446	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	--	--	--
447	R4-7(3)	--	36 x 48	12.00	--	--	--	1	--	1	--	--
448	W11-2	--	-- x --	--	--	--	--	--	--	2	1	--
449	R7-1D	--	-- x --	--	--	--	--	--	--	1	1	--
450	R3-21(2)	--	30 x 36	7.50	--	--	1	--	--	--	--	--
451	D1-65(MOD)	PUETS RD, 8700 SOUTH, NEXT SIGNAL	78 x 48	26.00	--	--	--	2	--	1	--	--
452	D1-65(MOD)	PUETS RD, 8700 SOUTH, NEXT SIGNAL	78 x 48	26.00	--	--	--	2	--	--	--	--
453	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
454	R3-21(2)	--	30 x 36	7.50	--	--	1	--	--	1	1	--
455	W11-2	--	-- x --	--	--	--	--	--	--	2	--	--
456	W11-2	--	-- x --	--	--	--	--	--	--	2	1	--
457	R7-1D(3)	--	24 x 30	5.00	--	--	--	1	--	--	--	--
458	S1-1(3)	--	36 x 36	--	--	6.75	--	1	--	1	1	--
	S16-9P(3)	--	30 x 18	--	--	3.75	--	--	--	1	--	--
459	S1-1(3)	--	36 x 36	--	--	6.75	--	1	--	1	1	--
	S16-9P(3)	--	30 x 18	--	--	3.75	--	--	--	1	--	--
460	R7-1D	--	-- x --	--	--	--	--	--	--	1	1	--
461	R3-20L(3)	--	36 x 54	13.50	--	--	--	1	--	1	1	--
462	R5-1A(3)	--	42 x 30	8.75	--	--	1	--	--	--	--	--
463	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	1	--	--
464	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	--	--	--
465	R7-1D(3)	--	24 x 30	5.00	--	--	--	--	--	--	--	--
466	R3-21	--	-- x --	--	--	--	--	--	--	1	1	--

CONTINUED ON NEXT SHEET

TYPE I & II PERMANENT SIGNING

CATEGORY CODE 0010

SIGN NO.		SIGN MESSAGE	TYPE II SIGN SIZE W [IN.] x H [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F [SF]	634.0616 WOOD POSTS 4"x 6"X16' [EA]	634.0618 WOOD POSTS 4"x 6"X18' [EA]	638.2102 MOVING SIGNS TYPE II [EA]	638.2602 REMOVING SIGNS TYPE II [EA]	638.3000 REMOVING SMALL SIGN SUPPORTS [EA]	REMARKS NEW SIGN LOCATION
467	R7-1D	--	-- x --	--	--	--	--	--	--	1	1	--
468	J4-1(3)	--	36 x 54	13.50	--	--	--	1	--	1	1	--
	M3-3	--	30 x 18	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	36 x 36	--	--	--	--	--	--	--	--	--
469	R6-2L(2M)	--	30 x 36	7.50	--	--	--	--	--	1	--	--
470	R1-1F(3)	--	-- x --	--	7.46	--	--	--	--	1	--	--
	R6-3(2M)	--	30 x 24	5.00	--	--	--	--	--	--	--	--
471	R1-1F(3)	--	-- x --	--	7.46	--	--	--	--	1	--	--
	R6-3(2M)	--	30 x 24	5.00	--	--	--	--	--	--	--	--
472	M1-94H(2)	PUETZ RD	72 x 24	12.00	--	--	--	--	--	1	--	ON SIGNAL MAST ARM
473	R5-1(3)	--	36 x 36	9.00	--	--	1	--	--	1	--	--
474	M1-94H(2)	S HOWELL AVE	114 x 24	19.00	--	--	--	--	--	--	--	ON SIGNAL MAST ARM
475	R1-1F(3)	--	-- x --	--	7.46	--	--	--	--	1	--	--
	R6-3(2M)	--	30 x 24	5.00	--	--	--	--	--	--	--	--
476	R5-1(3)	--	36 x 36	9.00	--	--	--	--	--	1	--	--
477	R4-7(3)	--	36 x 48	12.00	--	--	--	--	--	1	--	--
478	R5-1(3)	--	36 x 36	9.00	--	--	--	--	--	1	--	--
479	R5-1(3)	--	36 x 36	9.00	--	--	--	--	--	1	--	--
480	R4-7(3)	--	36 x 48	12.00	--	--	--	--	--	1	--	--
481	R4-7(3)	--	36 x 48	12.00	--	--	--	--	--	1	--	--
482	R5-1	--	-- x --	--	--	--	--	--	1	--	--	--
483	M1-94H(2)	PUETZ RD	72 x 24	12.00	--	--	--	--	--	1	--	ON SIGNAL MAST ARM
484	R1-1F(3)	--	-- x --	--	7.46	--	--	--	--	1	--	--
	R6-3(2M)	--	30 x 24	5.00	--	--	--	--	--	--	--	--
485	S1-1(3)	--	36 x 36	--	--	6.75	--	1	--	1	1	--
	S16-7L(3)	--	30 x 18	--	--	3.75	--	--	--	1	--	--
486	S1-1(3)	--	36 x 36	--	--	6.75	--	1	--	1	--	--
	S16-7R(3)	--	30 x 18	--	--	3.75	--	--	--	1	--	--
487	R3-5L(2M)	--	42 x 48	--	--	--	--	--	--	1	--	--
488	R3-5L(2M)	--	42 x 48	--	--	--	--	--	--	1	--	--
489	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	--	--	--
490	R3-5L(2M)	--	42 x 48	--	--	--	--	--	--	1	--	--
491	R3-5L(2M)	--	42 x 48	--	--	--	--	--	--	1	--	--
492	S1-1(3)	--	36 x 36	--	--	6.75	--	1	--	1	1	--
	S16-7R(3)	--	30 x 18	--	--	3.75	--	--	--	1	--	--
493	W12-1D(2M)	--	24 x 24	--	--	4.00	1	--	--	1	1	2' MOUNTING HEIGHT
494	S1-1(3)	--	36 x 36	--	--	6.75	--	1	--	1	1	--
	S16-7L(3)	--	30 x 18	--	--	3.75	--	--	--	1	--	--
495	R1-2(3)	--	36 x 48	7.00	--	--	--	1	--	1	1	--
496	--	WEIGHT LIMIT	-- x --	--	--	--	1	--	1	--	1	--
497	R1-1F(3)	--	-- x --	--	7.46	--	--	--	--	1	--	--
	R6-3(2M)	--	30 x 24	5.00	--	--	--	--	--	--	--	--
498	R1-1F(3)	--	-- x --	--	7.46	--	--	--	--	1	--	--
	R6-3(2M)	--	30 x 24	5.00	--	--	--	--	--	--	--	--
499	R4-7(3)	--	36 x 48	12.00	--	--	--	--	--	1	--	--
500	R6-2L(2M)	--	30 x 36	7.50	--	--	--	--	--	1	--	--
501	R1-1F(3)	--	-- x --	--	7.46	--	--	--	--	1	--	--
	R6-3(2M)	--	30 x 24	5.00	--	--	--	--	--	--	--	--
502	R1-1F(3)	--	-- x --	--	7.46	--	--	--	--	1	--	--
	R6-3(2M)	--	30 x 24	5.00	--	--	--	--	--	--	--	--

CONTINUED ON NEXT SHEET

TYPE I & II PERMANENT SIGNING

CATEGORY CODE 0010

SIGN NO.		SIGN MESSAGE	TYPE II SIGN SIZE W [IN.] x H [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F [SF]	634.0616 WOOD POSTS 4"x 6"X16' [EA]	634.0618 WOOD POSTS 4"x 6"X18' [EA]	638.2102 MOVING SIGNS TYPE II [EA]	638.2602 REMOVING SIGNS TYPE II [EA]	638.3000 REMOVING SMALL SIGN SUPPORTS [EA]	REMARKS NEW SIGN LOCATION
503	R1-1F(3)	--	-- x --	--	7.46	--	--	--	--	1	--	--
	R6-3(2M)	--	30 x 24	5.00	--	--	--	--	--	--	--	--
504	W12-1D(2M)	--	24 x 24	--	--	4.00	1	--	--	1	1	2' MOUNTING HEIGHT
505	R1-2(3)	--	36 x 48	7.00	--	--	--	1	--	1	1	--
506	R6-2L(2M)	--	30 x 36	7.50	--	--	--	--	--	1	--	--
507	J4-1(3)	--	36 x 54	13.50	--	--	--	1	--	1	1	--
	M3-1	--	30 x 18	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	36 x 36	--	--	--	--	--	--	--	--	--
508	R5-1A(3)	--	42 x 30	8.75	--	--	1	--	--	--	--	--
509	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
510	R3-20L(3)	--	36 x 54	13.50	--	--	--	1	--	1	1	--
511	R6-2L(2M)	--	30 x 36	7.50	--	--	1	--	--	--	--	--
512	R4-7(3)	--	36 x 48	12.00	--	--	--	--	--	1	--	--
513	R4-7(3)	--	36 x 48	12.00	--	--	--	--	--	1	1	--
514	R10-50(2M)	--	30 x 30	6.25	--	--	--	--	--	--	--	ON SIGNAL MAST ARM, SHEET 24
515	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	--	--	--
515A	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	1	1	--
516	R6-2L(2M)	--	30 x 36	7.50	--	--	1	--	--	--	--	--
517	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
518	S1-1(3)	--	36 x 36	--	--	6.75	--	1	--	1	1	--
	S16-9P(3)	--	30 x 18	--	--	3.75	--	--	--	1	--	--
519	S1-1(3)	--	36 x 36	--	--	6.75	--	1	--	1	--	--
	S16-9P(3)	--	30 x 18	--	--	3.75	--	--	--	1	--	--
520	R6-2R(2S)	--	24 x 30	5.00	--	--	--	--	--	--	--	--
521	R1-1(3)	--	36 x 36	7.46	--	--	--	1	--	1	1	--
522	R7-1D(3)	--	24 x 30	5.00	--	--	--	--	--	1	1	--
523	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
524	W11-2(3)	--	36 x 36	--	--	9.00	--	1	--	1	--	--
	W16-9P(3)	--	30 x 18	--	--	3.75	--	--	--	1	--	--
525	W11-2(3)	--	36 x 36	--	--	9.00	--	1	--	1	1	--
	W16-9P(3)	--	30 x 18	--	--	3.75	--	--	--	1	--	--
526	R1-1(3)	--	36 x 36	7.46	--	--	--	1	--	1	1	--
526A	R6-2R(2S)	--	24 x 30	5.00	--	--	1	--	--	--	--	--
527	R7-1D	--	-- x --	--	--	--	--	--	--	1	1	--
528	D1-65(MOD)	PUETZ RD, 8700 SOUTH, NEXT SIGNAL	78 x 48	26.00	--	--	--	2	--	--	--	--
529	D1-65(MOD)	PUETZ RD, 8700 SOUTH, NEXT SIGNAL	78 x 48	26.00	--	--	--	2	--	--	--	--
530	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	--	--	--
531	R10-50(2M)	--	30 x 30	6.25	--	--	--	--	--	--	--	ON SIGNAL MAST ARM, SHEET 24
532	W3-3(3)	--	36 x 36	--	--	9.00	--	1	--	1	1	--
533	W3-3(3)	--	36 x 36	--	--	9.00	--	1	--	1	--	--
534	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	--	--	--
535	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	--	--	--
536	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
537	W11-2(3)	--	36 x 36	--	--	9.00	--	--	--	1	1	POLE QUANTITIES SHOWN ELSEWHERE
	W16-7L(3)	--	30 x 18	--	--	3.75	--	--	--	1	--	--
	R10-25(2M)	--	9 x 12	0.75	--	--	--	--	--	--	--	--
538	R6-2L(2M)	--	30 x 36	7.50	--	--	1	--	--	--	--	--
539	W11-2(3)	--	36 x 36	--	--	9.00	--	--	--	--	--	POLE QUANTITIES SHOWN ELSEWHERE
	W16-7L(3)	--	30 x 18	--	--	3.75	--	--	--	--	--	--
	R10-25(2M)	--	9 x 12	0.75	--	--	--	--	--	--	--	--

CONTINUED ON NEXT SHEET

TYPE I & II PERMANENT SIGNING

CATEGORY CODE 0010

SIGN NO.		SIGN MESSAGE	TYPE II SIGN SIZE W [IN.] x H [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F [SF]	634.0616 WOOD POSTS 4"x 6"X16' [EA]	634.0618 WOOD POSTS 4"x 6"X18' [EA]	638.2102 MOVING SIGNS TYPE II [EA]	638.2602 REMOVING SIGNS TYPE II [EA]	638.3000 REMOVING SMALL SIGN SUPPORTS [EA]	REMARKS NEW SIGN LOCATION
540	R2-1	--	-- x --	--	--	--	--	--	--	1	1	--
541	R2-1	--	-- x --	--	--	--	--	--	--	1	--	--
542	W11-2(3)	--	36 x 36	--	--	9.00	--	--	--	1	--	POLE QUANTITIES SHOWN ELSEWHERE
	W16-7R(3)	--	30 x 18	--	--	3.75	--	--	--	1	--	--
	R10-25(2M)	--	9 x 12	0.75	--	--	--	--	--	--	--	--
543	W11-2(3)	--	36 x 36	--	--	9.00	--	--	--	1	--	--
	W16-7R(3)	--	30 x 18	--	--	3.75	--	--	--	1	--	--
	R10-25(2M)	--	9 x 12	0.75	--	--	--	--	--	--	--	--
544	R4-7(3)	--	36 x 48	12.00	--	--	--	1	--	1	1	--
545	R4-7(3)	--	36 x 48	12.00	--	--	--	1	--	--	--	--
546	R6-2L(2M)	--	30 x 36	7.50	--	--	1	--	--	--	--	--
547	W11-2(3)	--	36 x 36	--	--	9.00	--	--	--	--	--	POST QUANTITIES SHOWN ELSEWHERE
	W16-7R(3)	--	30 x 18	--	--	3.75	--	--	--	--	--	--
	R10-25(2M)	--	9 x 12	0.75	--	--	--	--	--	--	--	--
548	W11-2(3)	--	36 x 36	--	--	9.00	--	--	--	--	--	POST QUANTITIES SHOWN ELSEWHERE
	W16-7R(3)	--	30 x 18	--	--	3.75	--	--	--	--	--	--
	R10-25(2M)	--	9 x 12	0.75	--	--	--	--	--	--	--	--
549	R10-50(2M)	--	30 x 30	6.25	--	--	--	--	--	--	--	ON SIGNAL MAST ARM, SHEET 25
550	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
551	R3-21(2)	--	30 x 36	7.50	--	--	1	--	--	1	1	--
552	R10-50(2M)	--	30 x 30	6.25	--	--	--	--	--	--	--	ON SIGNAL MAST ARM, SHEET 25
553	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
554	W11-2(3)	--	36 x 36	--	--	9.00	--	--	--	1	1	POST QUANTITIES SHOWN ELSEWHERE
	W16-7L(3)	--	30 x 18	--	--	3.75	--	--	--	1	--	--
	R10-25(2M)	--	9 x 12	0.75	--	--	--	--	--	--	--	--
555	R5-1(3)	--	36 x 36	9.00	--	--	--	--	--	--	--	--
556	R1-1(3)	--	36 x 36	7.46	--	--	--	1	--	1	1	--
	R6-3A(2M)	--	30 x 24	5.00	--	--	--	--	--	--	--	--
557	W11-2(3)	--	36 x 36	--	--	9.00	--	--	--	--	--	POLE QUANTITIES SHOWN ELSEWHERE
	W16-7L(3)	--	30 x 18	--	--	3.75	--	--	--	--	--	--
	R10-25(2M)	--	9 x 12	0.75	--	--	--	--	--	--	--	--
558	R2-1	--	-- x --	--	--	--	--	--	--	1	1	--
559	R2-1	--	-- x --	--	--	--	--	--	--	1	--	--
560	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
561	W3-3	--	-- x --	--	--	--	--	1	1	--	--	--
562	W3-3	--	-- x --	--	--	--	--	1	1	--	1	--
563	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
564	W11-2(3)	--	36 x 36	--	--	9.00	--	1	--	1	1	--
	W16-9P(3)	--	30 x 18	--	--	3.75	--	--	--	1	--	--
565	W11-2(3)	--	36 x 36	--	--	9.00	--	1	--	1	--	--
	W16-9P(3)	--	30 x 18	--	--	3.75	--	--	--	1	--	--
566	R6-2L(2M)	--	30 x 36	7.50	--	--	1	--	--	1	1	--
567	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	--	--	--
568	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	--	--	--
569	R7-1D(3)	--	24 x 30	5.00	--	--	--	--	--	1	1	--
570	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
571	D1-65(MOD)	FOREST HILL AVE, NET SIGNAL	108 x 30	22.50	--	--	--	2	--	--	--	--
572	D1-65(MOD)	FOREST HILL AVE, NET SIGNAL	108 x 30	22.50	--	--	--	2	--	--	--	--
573	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	--	--	SHEET 25
574	R7-1L(2S)	--	18 x 24	3.00	--	--	--	--	--	1	--	SHEET 25

CONTINUED ON NEXT SHEET

TYPE I & II PERMANENT SIGNING

CATEGORY CODE 0010

SIGN NO.		SIGN MESSAGE	TYPE II SIGN SIZE W [IN.] x H [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F [SF]	634.0616 WOOD POSTS 4"x 6"X16' [EA]	634.0618 WOOD POSTS 4"x 6"X18' [EA]	638.2102 MOVING SIGNS TYPE II [EA]	638.2602 REMOVING SIGNS TYPE II [EA]	638.3000 REMOVING SMALL SIGN SUPPORTS [EA]	REMARKS NEW SIGN LOCATION
575	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
576	R3-21(2)	--	30 x 36	7.50	--	--	1	--	--	1	1	--
577	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	--	--	--
578	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	--	--	--
579	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
580	R2-1	--	-- x --	--	--	--	--	--	--	1	1	--
581	R2-1	--	-- x --	--	--	--	--	--	--	1	--	--
582	J4-1(3)	--	36 x 54	13.50	--	--	--	1	--	--	--	--
	M3-3	--	30 x 18	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	36 x 36	--	--	--	--	--	--	--	--	--
583	R6-2L(2M)	--	30 x 36	7.50	--	--	--	--	--	--	--	--
584	R1-1F(3)	--	-- x --	--	7.46	--	--	--	--	1	--	--
	R6-3(2M)	--	30 x 24	5.00	--	--	--	--	--	--	--	--
585	J3-2(2S)	--	48 x 57	19.00	--	--	--	1	--	--	--	--
	M3-1	--	24 x 12	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	24 x 24	--	--	--	--	--	--	--	--	--
	M6-1	--	21 x 21	--	--	--	--	--	--	--	--	--
	M3-3	--	24 x 12	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	24 x 24	--	--	--	--	--	--	--	--	--
	M6-1	--	21 x 21	--	--	--	--	--	--	--	--	--
586	R4-7(3)	--	36 x 48	12.00	--	--	--	1	--	1	1	--
587	M1-94H(2)	FOREST HILL AVE	108 x 24	18.00	--	--	--	--	--	--	--	ON SIGNAL MAST ARM
588	R1-1F(3)	--	-- x --	--	7.46	--	--	--	--	1	--	--
589	NOT USED	--	-- x --	--	--	--	--	--	--	--	--	--
590	R5-1(3)	--	36 x 36	9.00	--	--	--	--	--	--	--	--
591	M1-94H(2)	S HOWELL AVE	114 x 24	19.00	--	--	--	--	--	--	--	ON SIGNAL MAST ARM
592	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
593	R3-20L(3)	--	36 x 54	13.50	--	--	--	1	--	--	--	SHEET 23
594	R5-1A(3)	--	42 x 30	8.75	--	--	1	--	--	--	--	--
595	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
596	R1-1F(3)	--	-- x --	--	7.46	--	--	--	--	1	--	--
597	--	WEIGHT LIMIT	-- x --	--	--	--	1	--	1	--	1	STA 102+50
598	M1-94H(2)	S HOWELL AVE	114 x 24	19.00	--	--	--	--	--	--	--	ON SIGNAL MAST ARM
599	R5-1(3)	--	36 x 36	9.00	--	--	--	--	--	--	--	--
600	--	TRUCK ROUTE	-- x --	--	--	--	1	--	1	--	1	--
601	R1-1F(3)	--	-- x --	--	7.46	--	--	--	--	1	--	--
602	R1-1F(3)	--	-- x --	--	7.46	--	--	--	--	1	--	--
603	R5-1A(3)	--	42 x 30	8.75	--	--	1	--	--	--	--	--
604	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
605	R4-7(3)	--	36 x 48	12.00	--	--	--	1	--	1	1	--
606	M1-94H(2)	FOREST HILL AVE	108 x 24	18.00	--	--	--	--	--	--	--	ON SIGNAL MAST ARM
607	R1-1F(3)	--	-- x --	--	7.46	--	--	--	--	2	--	--
	R6-3(2M)	--	30 x 24	5.00	--	--	--	--	--	--	--	--
608	J3-2(2S)	--	48 x 57	19.00	--	--	--	1	--	--	--	--
	M3-3	--	24 x 12	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	24 x 24	--	--	--	--	--	--	--	--	--
	M6-1	--	21 x 21	--	--	--	--	--	--	--	--	--
	M3-1	--	24 x 12	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	24 x 24	--	--	--	--	--	--	--	--	--
	M6-1	--	21 x 21	--	--	--	--	--	--	--	--	--

CONTINUED ON NEXT SHEET

TYPE I & II PERMANENT SIGNING

CATEGORY CODE 0010

SIGN NO.		SIGN MESSAGE	TYPE II SIGN SIZE W [IN.] x H [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F [SF]	634.0616 WOOD POSTS 4"x 6"X16' [EA]	634.0618 WOOD POSTS 4"x 6"X18' [EA]	638.2102 MOVING SIGNS TYPE II [EA]	638.2602 REMOVING SIGNS TYPE II [EA]	638.3000 REMOVING SMALL SIGN SUPPORTS [EA]	REMARKS NEW SIGN LOCATION
609	R6-2L(2M)	--	30 x 36	7.50	--	--	--	--	--	--	--	--
610	J4-1(3)	--	36 x 54	13.50	--	--	--	1	--	--	--	--
	M3-1	--	30 x 18	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	36 x 36	--	--	--	--	--	--	--	--	--
611	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	1	1	--
612	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	--	--
613	R3-21	--	-- x --	--	--	--	--	--	--	1	1	--
614	R3-53R(2S)	--	24 x 30	5.00	--	--	1	--	--	--	--	--
615	R1-1(3)	--	36 x 36	7.46	--	--	1	--	--	1	1	--
616	R5-1(3)	--	36 x 36	9.00	--	--	1	--	--	--	--	--
617	D1-65(MOD)	FOREST HILL AVE, NET SIGNAL	108 x 30	22.50	--	--	--	2	--	--	--	--
618	D1-65(MOD)	FOREST HILL AVE, NET SIGNAL	108 x 30	22.50	--	--	--	2	--	--	--	--
619	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
620	W3-3	--	-- x --	--	--	--	--	--	--	1	--	--
621	W3-3	--	-- x --	--	--	--	--	--	--	1	--	--
622	R3-20L(3)	--	36 x 54	13.50	--	--	--	1	--	--	--	--
623	R3-2(3)	--	36 x 36	9.00	--	--	--	1	--	--	--	--
624	R5-1(3)	--	36 x 36	9.00	--	--	--	--	--	--	--	--
625	W12-1D(2M)	--	24 x 24	--	--	4.00	1	--	--	1	1	2' MOUNTING HEIGHT
626	R3-20L(3)	--	36 x 54	13.50	--	--	--	1	--	--	--	--
627	W3-3(3)	--	36 x 36	--	--	9.00	--	1	--	--	--	--
628	W3-3(3)	--	36 x 36	--	--	9.00	--	1	--	--	--	--
629	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
630	R3-53R(2S)	--	24 x 30	5.00	--	--	1	--	--	--	--	--
631	R1-1(3)	--	36 x 36	7.46	--	--	--	1	--	1	1	--
632	R4-7(3)	--	36 x 48	12.00	--	--	--	1	--	1	--	--
633	W12-1D(2M)	--	24 x 24	--	--	4.00	1	--	--	--	--	2' MOUNTING HEIGHT
634	R3-2(3)	--	36 x 36	9.00	--	--	--	1	--	--	--	--
635	R5-1(3)	--	36 x 36	9.00	--	--	--	--	--	--	--	--
636	R1-1(3)	--	36 x 36	7.46	--	--	1	--	--	1	1	--
637	R3-53R(2S)	--	24 x 30	5.00	--	--	1	--	--	--	--	--
638	R4-7(3)	--	36 x 48	12.00	--	--	--	1	--	1	1	--
639	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
640	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	--	--	--
641	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	--	--	--
642	R3-21(2)	--	30 x 36	7.50	--	--	1	--	--	--	--	--
643	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
644	R3-20L(3)	--	36 x 54	13.50	--	--	--	1	--	--	--	--
645	R6-2R(2S)	--	24 x 30	5.00	--	--	1	--	--	--	--	--
646	R4-7	--	-- x --	--	--	--	--	--	--	1	--	--
647	R5-1(3)	--	36 x 36	9.00	--	--	1	--	--	--	--	--
648	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	1	1	--
649	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	1	--	--
650	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
651	R4-7(3)	--	36 x 48	12.00	--	--	--	1	--	1	1	--
652	R6-2L(2M)	--	30 x 36	7.50	--	--	--	--	--	--	--	--
653	R5-1(3)	--	36 x 36	9.00	--	--	--	--	--	--	--	--
654	R1-1F(3)	--	36 x 36	--	7.46	--	--	--	--	1	1	--
	R6-3(2M)	--	30 x 24	5.00	--	--	--	--	--	--	--	--
655	R3-20LL(2S)	--	24 x 36	6.00	--	--	1	--	--	--	--	SHEET 25

CONTINUED ON NEXT SHEET

TYPE I & II PERMANENT SIGNING

CATEGORY CODE 0010

SIGN NO.		SIGN MESSAGE	TYPE II SIGN SIZE W [IN.] x H [IN.]	**637.2210** SIGNS TYPE II REFLECTIVE H [SF]	**637.2215** SIGNS TYPE II REFLECTIVE H FOLDING SF	**637.2230** SIGNS TYPE II REFLECTIVE F [SF]	**634.0616** WOOD POSTS 4"x 6"X16' [EA]	**634.0618** WOOD POSTS 4"x 6"X18' [EA]	**638.2102** MOVING SIGNS TYPE II [EA]	**638.2602** REMOVING SIGNS TYPE II [EA]	**638.3000** REMOVING SMALL SIGN SUPPORTS [EA]	REMARKS NEW SIGN LOCATION
656	NOT USED	--	-- x --	--	--	--	--	--	--	--	--	--
657	NOT USED	--	-- x --	--	--	--	--	--	--	--	--	--
658	R5-1(3)	--	36 x 36	9.00	--	--	1	--	--	--	--	--
659	R4-7(2M)	--	24 x 30	5.00	--	--	--	1	--	1	1	SMALLER SIZE DUE TO MEDIAN WIDTH
660	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
661	R5-1A(3)	--	42 x 30	8.75	--	--	1	--	--	--	--	--
662	R2-1	--	-- x --	--	--	--	--	--	--	1	1	--
663	R2-1	--	-- x --	--	--	--	--	--	--	1	--	--
664	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	--	--
665	R5-1(3)	--	36 x 36	9.00	--	--	1	--	--	--	--	--
666	NOT USED	--	-- x --	--	--	--	--	--	--	--	--	--
667	R1-1F(3)	--	36 x 36	--	7.46	--	--	--	--	1	1	--
	R6-3(2M)	--	30 x 24	5.00	--	--	--	--	--	--	--	--
668	R5-1(3)	--	36 x 36	9.00	--	--	1	--	--	--	--	--
669	W3-3(3)	--	36 x 36	--	--	9.00	--	1	--	--	--	--
670	W3-3(3)	--	36 x 36	--	--	9.00	--	1	--	1	1	--
671	R3-20LL(2S)	--	24 x 36	6.00	--	--	1	--	--	--	--	SHEET 28
672	R3-20L(3)	--	36 x 54	13.50	--	--	--	1	--	--	--	SHEET 28
673	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
674	R5-1A(3)	--	42 x 30	8.75	--	--	1	--	--	--	--	--
675	R4-7	--	-- x --	--	--	--	--	--	--	1	1	--
676	R3-20L(3)	--	36 x 54	13.50	--	--	--	1	--	--	--	SHEET 25
677	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
678	R3-21(2)	--	30 x 36	7.50	--	--	1	--	--	1	1	--
679	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	--	--	--
680	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	--	--	--
681	R5-1(3)	--	36 x 36	9.00	--	--	--	--	--	--	--	SHEET 29
682	R10-50(2M)	--	30 x 36	7.50	--	--	--	--	--	--	--	ON SIGNAL MAST ARM, SHEET 58
683	D1-65(MOD)	DREXEL AVE, 7900 SOUTH, NEXT SIGNAL	84 x 48	28.00	--	--	--	2	--	1	2	--
684	D1-65(MOD)	DREXEL AVE, 7900 SOUTH, NEXT SIGNAL	84 x 48	28.00	--	--	--	2	--	1	2	--
685	R10-50R(2M)	--	30 x 36	7.50	--	--	--	--	--	--	--	ON SIGNAL MAST ARM, SHEET 58
686	J22-1	--	-- x --	--	--	--	--	1	1	--	1	--
	J22-1	--	-- x --	--	--	--	--	1	1	--	--	--
687	R3-53R(2S)	--	24 x 30	5.00	--	--	1	--	--	--	--	--
688	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	--	--
689	R3-20L(3)	--	36 x 54	13.50	--	--	--	1	--	1	1	--
690	R3-20R(3)	--	36 x 54	13.50	--	--	--	1	--	--	--	--
691	R5-1A(3)	--	42 x 30	8.75	--	--	1	--	--	--	--	--
692	R2-1	--	-- x --	--	--	--	--	--	--	1	1	--
693	R2-1	--	-- x --	--	--	--	--	--	--	1	--	--
694	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	--	--	--
695	J4-1(3)	--	36 x 54	13.50	--	--	--	1	--	--	--	--
	M3-3	--	30 x 18	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	36 x 36	--	--	--	--	--	--	--	--	--
696	R7-1L	--	-- x --	--	--	--	--	--	--	1	1	--
697	R6-2L(2M)	--	30 x 36	7.50	--	--	1	--	--	1	1	--
698	R5-1(3)	--	36 x 36	9.00	--	--	--	--	--	--	--	--
699	R1-1F(3)	--	-- x --	--	7.46	--	--	--	--	1	--	--
	R6-3(2M)	--	30 x 24	5.00	--	--	--	--	--	--	--	--
700	M1-94H(2)	DREXEL AVE	70 x 24	--	--	--	--	--	--	1	--	ON SIGNAL MAST ARM

CONTINUED ON NEXT SHEET

TYPE I & II PERMANENT SIGNING

CATEGORY CODE 0010

SIGN NO.		SIGN MESSAGE	TYPE II SIGN SIZE W [IN.] x H [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F [SF]	634.0616 WOOD POSTS 4"x 6"X16' [EA]	634.0618 WOOD POSTS 4"x 6"X18' [EA]	638.2102 MOVING SIGNS TYPE II [EA]	638.2602 REMOVING SIGNS TYPE II [EA]	638.3000 REMOVING SMALL SIGN SUPPORTS [EA]	REMARKS NEW SIGN LOCATION
701	M1-94H(2)	S HOWELL AVE	114 x 24	19.00	--	--	--	--	--	--	--	ON SIGNAL MAST ARM
702	R7-1D	--	-- x --	--	--	--	--	--	--	1	--	--
703	R4-7	--	-- x --	--	--	--	--	--	1	--	--	--
704	R1-1F	--	-- x --	--	--	--	--	--	1	--	--	--
	R6-3(2M)	--	30 x 24	5.00	--	--	--	--	--	--	--	--
705	R6-2L(2M)	--	30 x 36	7.50	--	--	--	--	--	1	1	--
706	R5-1	--	-- x --	--	--	--	--	--	1	--	--	--
707	R1-1F	--	-- x --	--	--	--	--	--	1	--	--	--
708	R1-1(3)	--	36 x 36	7.46	--	--	1	--	--	1	1	--
709	W12-1D(2M)	--	24 x 24	--	--	4.00	1	--	--	--	--	2' MOUNTING HEIGHT
710	M1-94H(2)	DREXEL AVE	70 x 24	--	--	--	--	--	--	1	--	ON SIGNAL MAST ARM
711	R7-1D	--	-- x --	--	--	--	--	--	--	1	1	--
712	R3-5L	--	-- x --	--	--	--	--	--	1	--	--	--
713	R3-5L	--	-- x --	--	--	--	--	--	1	--	--	--
714	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	--	--
715	R1-1F	--	-- x --	--	--	--	--	--	1	--	--	--
	R6-3(2M)	--	30 x 24	5.00	--	--	--	--	--	--	--	--
716	R4-7	--	-- x --	--	--	--	--	--	1	--	--	--
717	R6-2L(2M)	--	30 x 36	7.50	--	--	--	--	--	1	--	--
718	R5-1(3)	--	36 x 36	9.00	--	--	--	--	--	--	--	--
719	R4-7	--	-- x --	--	--	--	--	--	1	--	--	--
720	R1-1F	--	-- x --	--	--	--	--	--	1	--	--	--
	R6-3(2M)	--	30 x 24	5.00	--	--	--	--	--	--	--	--
721	R3-5L(2M)	--	42 x 48	--	--	--	--	--	--	1	--	--
722	R3-5L(2M)	--	42 x 48	--	--	--	--	--	--	1	--	--
723	R1-1F	--	-- x --	--	--	--	--	--	1	--	--	--
	R6-3(2M)	--	30 x 24	5.00	--	--	--	--	--	--	--	--
724	R6-2L(2M)	--	30 x 36	7.50	--	--	--	--	--	1	--	--
725	R5-1	--	-- x --	--	--	--	--	--	1	--	--	--
726	R4-7	--	-- x --	--	--	--	--	--	1	--	--	--
727	R1-1F	--	-- x --	--	--	--	--	--	1	--	--	--
	R6-3(2M)	--	30 x 24	5.00	--	--	--	--	--	--	--	--
728	J3-1(3)	--	36 x 84	21.00	--	--	--	1	--	1	1	--
	M3-3	--	30 x 18	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	36 x 36	--	--	--	--	--	--	--	--	--
	M6-1	--	30 x 30	--	--	--	--	--	--	--	--	--
729	R1-1F	--	-- x --	--	--	--	--	--	1	--	--	--
	R6-3(2M)	--	30 x 24	5.00	--	--	--	--	--	--	--	--
730	J3-1(3)	--	36 x 84	21.00	--	--	--	1	--	1	1	--
	M3-1	--	30 x 18	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	36 x 36	--	--	--	--	--	--	--	--	--
	M6-1	--	30 x 30	--	--	--	--	--	--	--	--	--
731	J4-1(3)	--	36 x 54	13.50	--	--	--	1	--	--	--	--
	M3-1	--	30 x 18	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	36 x 36	--	--	--	--	--	--	--	--	--
732	R3-55R	--	-- x --	--	--	--	--	--	--	1	1	--
733	R5-1A(3)	--	42 x 30	8.75	--	--	1	--	--	--	--	--
734	R3-20L	--	-- x --	--	--	--	--	--	--	1	1	--
735	R6-2R	--	-- x --	--	--	--	--	--	--	1	1	--
736	R4-7	--	-- x --	--	--	--	--	--	--	1	1	--

CONTINUED ON NEXT SHEET

TYPE I & II PERMANENT SIGNING

CATEGORY CODE 0010

SIGN NO.		SIGN MESSAGE	TYPE II SIGN SIZE W [IN.] x H [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F [SF]	634.0616 WOOD POSTS 4"x 6"X16' [EA]	634.0618 WOOD POSTS 4"x 6"X18' [EA]	638.2102 MOVING SIGNS TYPE II [EA]	638.2602 REMOVING SIGNS TYPE II [EA]	638.3000 REMOVING SMALL SIGN SUPPORTS [EA]	REMARKS NEW SIGN LOCATION
737	R5-1	--	-- x --	--	--	--	--	--	--	1	1	--
738	R5-1	--	-- x --	--	--	--	--	1	--	1	1	--
739	R6-2R(2S)	--	24 x 30	5.00	--	--	1	--	--	--	--	--
740	W12-1D	--	-- x --	--	--	--	--	--	--	1	1	--
741	R3-20L(3)	--	36 x 54	13.50	--	--	--	1	--	--	--	--
742	R3-20R(3)	--	36 x 54	13.50	--	--	--	1	--	--	--	--
743	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
744	R4-7	--	-- x --	--	--	--	--	--	--	1	1	--
745	D1-65(MOD)	DREXEL AVE, 7900 SOUTH, NEXT SIGNAL	84 x 48	28.00	--	--	--	2	--	1	2	--
746	D1-65(MOD)	DREXEL AVE, 7900 SOUTH, NEXT SIGNAL	84 x 48	28.00	--	--	--	2	--	1	2	--
747	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	SHEET 29
748	W12-1D	--	-- x --	--	--	--	--	--	--	1	1	--
749	R3-53R(2S)	--	24 x 30	5.00	--	--	1	--	--	--	--	--
750	R6-2R(2S)	--	24 x 30	5.00	--	--	1	--	--	--	--	--
751	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
752	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	1	1	--
753	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	1	1	--
754	W3-3(3)	--	36 x 36	--	--	9.00	--	1	--	1	1	--
755	W3-3(3)	--	36 x 36	--	--	9.00	--	1	--	1	1	--
756	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
757	R6-2L(2M)	--	30 x 36	7.50	--	--	1	--	--	--	--	--
758	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	--	--
759	R3-21(2)	--	30 x 36	7.50	--	--	1	--	--	--	--	--
760	R5-1(3)	--	36 x 36	9.00	--	--	--	--	--	--	--	--
761	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
762	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
763	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
764	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
765	R4-7(3)	--	36 x 48	12.00	--	--	--	1	--	1	1	--
766	R4-7(3)	--	36 x 48	12.00	--	--	--	1	--	1	1	--
767	R6-2L(2M)	--	30 x 36	7.50	--	--	1	--	--	--	--	--
768	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
769	R5-1(3)	--	36 x 36	9.00	--	--	--	--	--	--	--	--
770	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
771	R5-1(3)	--	36 x 36	9.00	--	--	1	--	--	--	--	--
772	R1-1(3)	--	36 x 36	7.46	--	--	1	--	--	1	1	--
	R6-3A(2M)	--	30 x 24	5.00	--	--	--	--	--	--	--	--
773	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	1	1	--
774	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	1	--	--
775	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	--	--	--
776	R6-2R(2S)	--	24 x 30	5.00	--	--	1	--	--	1	--	--
777	R3-20L(3)	--	36 x 54	13.50	--	--	--	1	--	--	--	--
778	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
779	R3-21(2)	--	30 x 36	7.50	--	--	1	--	--	1	1	--
780	R6-2R(2S)	--	24 x 30	5.00	--	--	1	--	--	1	--	--
781	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	1	--	--
782	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	1	1	--
783	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
784	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
785	R7-1D	--	-- x --	--	--	--	--	--	--	1	1	--

CONTINUED ON NEXT SHEET

TYPE I & II PERMANENT SIGNING

CATEGORY CODE 0010

SIGN NO.		SIGN MESSAGE	TYPE II SIGN SIZE W [IN.] x H [IN.]	**637.2210** SIGNS TYPE II REFLECTIVE H [SF]	**637.2215** SIGNS TYPE II REFLECTIVE H FOLDING SF	**637.2230** SIGNS TYPE II REFLECTIVE F [SF]	**634.0616** WOOD POSTS 4"x 6"X16' [EA]	**634.0618** WOOD POSTS 4"x 6"X18' [EA]	**638.2102** MOVING SIGNS TYPE II [EA]	**638.2602** REMOVING SIGNS TYPE II [EA]	**638.3000** REMOVING SMALL SIGN SUPPORTS [EA]	REMARKS NEW SIGN LOCATION
786	R1-1(3)	--	36 x 36	7.46	--	--	1	--	--	1	1	--
	R6-3A(2M)	--	30 x 24	5.00	--	--	--	--	--	--	--	--
787	R4-7(3)	--	36 x 48	12.00	--	--	--	1	--	--	--	--
788	R4-7(3)	--	36 x 48	12.00	--	--	--	1	--	1	--	--
789	R5-1(3)	--	36 x 36	9.00	--	--	1	--	--	--	--	--
790	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
791	NOT USED	--	-- x --	--	--	--	--	--	--	--	--	--
792	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	1	--	--
793	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	1	1	--
794	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	--	--	--
795	R6-2L(2M)	--	30 x 36	7.50	--	--	1	--	--	--	--	--
796	R3-21(2)	--	30 x 36	7.50	--	--	1	--	--	1	1	--
797	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
798	R4-7(3)	--	36 x 48	12.00	--	--	--	1	--	1	1	--
799	R6-2L(2M)	--	30 x 36	7.50	--	--	1	--	--	--	--	--
800	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
801	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
802	R1-1(3)	--	36 x 36	7.46	--	--	1	--	--	1	1	--
	R6-3A(2M)	--	30 x 24	5.00	--	--	--	--	--	--	--	--
803	R5-1(2S)	--	30 x 30	6.25	--	--	--	--	--	--	--	SHEET 56
804	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	--	--	--
805	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	1	--	--
806	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	1	1	--
807	R7-1D	--	-- x --	--	--	--	--	--	--	1	--	--
808	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	--	--	--
809	R4-7(3)	--	36 x 48	12.00	--	--	--	1	--	--	--	--
810	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
811	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
812	R3-20L(3)	--	36 x 54	13.50	--	--	--	1	--	--	--	--
813	J1-1	--	-- x --	--	--	--	--	--	--	1	1	--
814	D1-65	RAWSON AVE, NEXT SIGNAL	-- x --	--	--	--	--	--	--	1	2	--
814A	D1-65	RAWSON AVE, NEXT SIGNAL	-- x --	--	--	--	--	--	--	1	2	--
815	R7-1D	--	-- x --	--	--	--	--	--	--	1	1	--
816	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	--	--	--
817	J1-1(3)	--	36 x 57	14.25	--	--	--	1	--	--	--	--
	M2-1	--	30 x 21	--	--	--	--	--	--	--	--	--
	M1-5A	CTH BB	36 x 36	--	--	--	--	--	--	--	--	--
818	J1-1(3)	--	36 x 57	14.25	--	--	--	1	--	--	--	--
	M2-1	--	30 x 21	--	--	--	--	--	--	--	--	--
	M1-5A	CTH BB	36 x 36	--	--	--	--	--	--	--	--	--
819	W4-2R(3)	--	36 x 36	--	--	9.00	--	--	--	--	--	SHEET 38
820	R7-1D	--	-- x --	--	--	--	--	--	--	1	1	--
821	W3-3(3)	--	36 x 36	--	--	9.00	--	1	--	1	--	--
822	W3-3(3)	--	36 x 36	--	--	9.00	--	1	--	1	1	--
823	J3-3	--	-- x --	--	--	--	--	--	--	1	2	--
824	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	--	--	--
825	D1-65(MOD)	RAWSON AVE, NEXT SIGNAL	90 x 30	--	--	--	--	2	--	--	--	--
826	D1-65(MOD)	RAWSON AVE, NEXT SIGNAL	90 x 30	--	--	--	--	2	--	--	--	--
827	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	--	--	--
828	R4-7(3)	--	36 x 48	12.00	--	--	--	1	--	--	--	--

CONTINUED ON NEXT SHEET

TYPE I & II PERMANENT SIGNING

CATEGORY CODE 0010

SIGN NO.		SIGN MESSAGE	TYPE II SIGN SIZE W [IN.] x H [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F [SF]	634.0616 WOOD POSTS 4"x 6"X16' [EA]	634.0618 WOOD POSTS 4"x 6"X18' [EA]	638.2102 MOVING SIGNS TYPE II [EA]	638.2602 REMOVING SIGNS TYPE II [EA]	638.3000 REMOVING SMALL SIGN SUPPORTS [EA]	REMARKS NEW SIGN LOCATION
828A	R4-7(3)	--	36 x 48	12.00	--	--	--	1	--	--	--	--
829	R3-20L(3)	--	36 x 54	13.50	--	--	--	1	--	1	1	--
830	R3-21(2)	--	30 x 36	7.50	--	--	1	--	--	1	1	--
831	R7-1D	--	-- x --	--	--	--	--	--	--	1	1	--
832	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	1	1	--
833	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	--	--	--
834	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	--	--	--
835	J3-1(3)	--	36 x 84	21.00	--	--	--	1	--	1	--	--
	M3-4	--	30 x 18	--	--	--	--	--	--	--	--	--
	M1-5A	CTH BB	36 x 36	--	--	--	--	--	--	--	--	--
	M6-1	--	30 x 30	--	--	--	--	--	--	--	--	--
836	R7-1D	--	-- x --	--	--	--	--	--	--	1	1	--
837	J23-1	--	36 x 84	--	--	--	--	1	--	1	1	--
	MB4-5	--	30 x 18	--	--	--	--	--	--	--	--	--
	M1-1	IH 94	36 x 36	--	--	--	--	--	--	--	--	--
	MB6-1	--	30 x 30	--	--	--	--	--	--	--	--	--
838	J3-3(3)	--	108 x 84	63.00	--	--	--	2	--	--	--	--
	MB4-5	--	30 x 15	--	--	--	--	--	--	--	--	--
	M1-1	IH 94	36 x 36	--	--	--	--	--	--	--	--	--
	MB5-1L	--	30 x 30	--	--	--	--	--	--	--	--	--
	M3-4	--	36 x 18	--	--	--	--	--	--	--	--	--
	M1-5A	CTH BB	36 x 36	--	--	--	--	--	--	--	--	--
	M5-1L	--	30 x 30	--	--	--	--	--	--	--	--	--
	M3-2	--	36 x 18	--	--	--	--	--	--	--	--	--
	M1-5A	CTH BB	36 x 36	--	--	--	--	--	--	--	--	--
	M5-1R	--	30 x 30	--	--	--	--	--	--	--	--	--
839	J3-3(3)	--	108 x 84	63.00	--	--	--	2	--	--	--	--
	MB4-5	--	30 x 15	--	--	--	--	--	--	--	--	--
	M1-1	IH 94	36 x 36	--	--	--	--	--	--	--	--	--
	MB5-1L	--	30 x 30	--	--	--	--	--	--	--	--	--
	M3-4	--	36 x 18	--	--	--	--	--	--	--	--	--
	M1-5A	CTH BB	36 x 36	--	--	--	--	--	--	--	--	--
	M5-1L	--	30 x 30	--	--	--	--	--	--	--	--	--
	M3-2	--	36 x 18	--	--	--	--	--	--	--	--	--
	M1-5A	CTH BB	36 x 36	--	--	--	--	--	--	--	--	--
	M5-1R	--	30 x 30	--	--	--	--	--	--	--	--	--
840	R7-1D	--	-- x --	--	--	--	--	--	--	1	1	--
841	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	--	--	--
842	J3-1(3)	--	36 x 84	21.00	--	--	--	1	--	1	--	--
	M3-2	--	30 x 18	--	--	--	--	--	--	--	--	--
	M1-5A	CTH BB	36 x 36	--	--	--	--	--	--	--	--	--
	M6-1	--	30 x 30	--	--	--	--	--	--	--	--	--
843	R3-20R(3)	--	36 x 54	13.50	--	--	--	1	--	--	--	--
844	R7-1D	--	-- x --	--	--	--	--	--	--	1	1	--
845	R5-1A(3)	--	42 x 30	8.75	--	--	1	1	--	1	1	--
846	R3-20L(3)	--	36 x 54	13.50	--	--	--	1	--	1	1	--
847	J3-1	--	-- x --	--	--	--	--	--	--	1	1	--
848	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	--	--	--
849	R3-5L(2M)	--	42 x 48	--	--	--	--	--	--	1	--	--
850	R3-5L(2M)	--	42 x 48	--	--	--	--	--	--	1	--	--

CONTINUED ON NEXT SHEET

TYPE I & II PERMANENT SIGNING

CATEGORY CODE 0010

SIGN NO.		SIGN MESSAGE	TYPE II SIGN SIZE W [IN.] x H [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F [SF]	634.0616 WOOD POSTS 4"x 6"X16' [EA]	634.0618 WOOD POSTS 4"x 6"X18' [EA]	638.2102 MOVING SIGNS TYPE II [EA]	638.2602 REMOVING SIGNS TYPE II [EA]	638.3000 REMOVING SMALL SIGN SUPPORTS [EA]	REMARKS NEW SIGN LOCATION
851	J4-1(3)	--	36 x 54	13.50	--	--	--	1	--	--	--	--
	M3-3	--	30 x 18	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	36 x 36	--	--	--	--	--	--	--	--	--
852	R1-2(3)	--	48 x 42	7.00	--	--	--	--	--	1	--	--
853	R1-1F(3)	--	-- x --	--	7.46	--	--	--	--	1	--	--
	R6-3(2M)	--	30 x 24	5.00	--	--	--	--	--	--	--	--
854	R1-1F(3)	--	-- x --	--	7.46	--	--	--	--	1	--	--
	R6-3(2M)	--	30 x 24	5.00	--	--	--	--	--	--	--	--
855	R10-11F(2M)	--	30 x 36	7.50	--	--	--	--	--	1	--	--
856	M1-94H(2)	RAWSON AVE	90 x 24	15.00	--	--	--	--	--	1	--	ON SIGNAL MAST ARM
857	R6-2L(2M)	--	30 x 36	7.50	--	--	--	--	--	1	--	--
858	R5-1(3)	--	36 x 36	9.00	--	--	--	--	--	1	--	--
859	R4-7(3)	--	36 x 48	12.00	--	--	--	--	--	1	--	--
860	W12-1D(2M)	--	24 x 24	--	--	4.00	1	--	--	1	1	2' MOUNTING HEIGHT
861	J3-1(2M)	--	24 x 57	9.50	--	--	--	1	--	1	--	--
	M3-1	--	24 x 12	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	24 x 24	--	--	--	--	--	--	--	--	--
	M6-1	--	30 x 30	--	--	--	--	--	--	--	--	--
862	M1-94H(2)	S HOWELL AVE	114 x 24	19.00	--	--	--	--	--	--	--	ON SIGNAL MAST ARM
863	R6-2L(2M)	--	30 x 36	7.50	--	--	--	--	--	1	--	--
864	R5-1(3)	--	36 x 36	9.00	--	--	--	--	--	--	--	--
865	R1-1F(3)	--	-- x --	--	7.46	--	--	--	--	1	--	--
866	R1-1(3)	--	36 x 36	7.46	--	--	--	--	--	1	--	--
867	J4-1(3)	--	36 x 54	13.50	--	--	--	1	--	--	--	--
	M3-4	--	30 x 18	--	--	--	--	--	--	--	--	--
	M1-5A	CTH BB	36 x 36	--	--	--	--	--	--	--	--	--
868	R7-1D	--	-- x --	--	--	--	--	--	--	1	1	--
869	W12-1D(2M)	--	24 x 24	--	--	4.00	1	--	--	--	--	2' MOUNTING HEIGHT
870	J23-1	--	-- x --	--	--	--	--	--	--	1	--	--
871	R1-1F(3)	--	-- x --	--	7.46	--	--	--	--	1	--	--
	R6-3(2M)	--	30 x 24	5.00	--	--	--	--	--	--	--	--
872	R7-1R	--	-- x --	--	--	--	--	--	--	1	--	--
873	J23-1	--	-- x --	--	--	--	--	--	--	1	--	--
874	R3-5L(2M)	--	42 x 48	--	--	--	--	--	--	1	--	--
875	R3-5L(2M)	--	42 x 48	--	--	--	--	--	--	1	--	--
876	R5-1A(3)	--	42 x 30	8.75	--	--	1	--	--	--	--	--
877	J3-1(3)	--	36 x 84	21.00	--	--	--	1	--	1	--	--
	M3-2	--	30 x 18	--	--	--	--	--	--	--	--	--
	M1-5A	CTH BB	36 x 36	--	--	--	--	--	--	--	--	--
	M6-1	--	30 x 30	--	--	--	--	--	--	--	--	--
878	J3-2(3)	--	72 x 84	42.00	--	--	--	2	--	--	--	--
	MB4-5	--	36 x 18	--	--	--	--	--	--	--	--	--
	M1-1	IH 94	36 x 36	--	--	--	--	--	--	--	--	--
	MB6-1	--	30 x 30	--	--	--	--	--	--	--	--	--
	M3-4	--	30 x 15	--	--	--	--	--	--	--	--	--
	M1-5A	CTH BB	36 x 36	--	--	--	--	--	--	--	--	--
	M6-1	--	30 x 30	--	--	--	--	--	--	--	--	--
879	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
880	R3-20LL(3)	--	36 x 54	13.50	--	--	--	1	--	1	1	--
881	R1-1F(3)	--	-- x --	--	7.46	--	--	--	--	1	--	--

CONTINUED ON NEXT SHEET

TYPE I & II PERMANENT SIGNING

CATEGORY CODE 0010

SIGN NO.		SIGN MESSAGE	TYPE II SIGN SIZE W [IN.] x H [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F [SF]	634.0616 WOOD POSTS 4"x 6"X16' [EA]	634.0618 WOOD POSTS 4"x 6"X18' [EA]	638.2102 MOVING SIGNS TYPE II [EA]	638.2602 REMOVING SIGNS TYPE II [EA]	638.3000 REMOVING SMALL SIGN SUPPORTS [EA]	REMARKS NEW SIGN LOCATION
882	R1-1F(3)	--	-- x --	--	7.46	--	--	--	--	1	--	--
	R6-3(2M)	--	30 x 24	5.00	--	--	--	--	--	--	--	--
883	R1-1F(3)	--	-- x --	--	7.46	--	--	--	--	1	--	--
	R6-3(2M)	--	30 x 24	5.00	--	--	--	--	--	--	--	--
884	R1-1F(3)	--	-- x --	--	7.46	--	--	--	--	1	--	--
	R6-3(2M)	--	30 x 24	5.00	--	--	--	--	--	--	--	--
885	R5-1(3)	--	36 x 36	9.00	--	--	--	--	--	1	--	--
885A	R5-1(3)	--	36 x 36	9.00	--	--	--	--	--	1	--	--
886	R4-7(3)	--	36 x 48	12.00	--	--	--	--	--	1	--	--
887	R6-2L(2M)	--	30 x 36	7.50	--	--	--	--	--	1	--	--
888	R4-7(3)	--	36 x 48	12.00	--	--	--	--	--	1	--	--
889	R6-2L(2M)	--	30 x 36	7.50	--	--	--	--	--	1	--	--
890	R5-1	--	-- x --	--	--	--	--	--	--	1	--	--
891	R4-7(3)	--	36 x 48	12.00	--	--	--	--	--	1	--	--
892	M1-94H(2)	RAWSON AVE	90 x 24	15.00	--	--	--	--	--	1	--	ON SIGNAL MAST ARM
893	R7-1R	--	-- x --	--	--	--	--	--	--	1	1	--
894	R1-2(3)	--	48 x 42	7.00	--	--	--	--	--	1	1	--
895	J4-1(3)	--	36 x 54	13.50	--	--	--	1	--	1	1	--
	M3-2	--	30 x 18	--	--	--	--	--	--	--	--	--
	M1-5A	CTH BB	36 x 36	--	--	--	--	--	--	--	--	--
896	M1-94H(2)	S HOWELL AVE	114 x 24	19.00	--	--	--	--	--	--	--	ON SIGNAL MAST ARM
897	R1-1F(3)	--	-- x --	--	7.46	--	--	--	--	1	--	--
	R6-3(2M)	--	30 x 24	5.00	--	--	--	--	--	--	--	--
898	R1-1F(3)	--	-- x --	--	7.46	--	--	--	--	1	--	--
899	W12-1D(2M)	--	24 x 24	--	--	4.00	1	--	--	1	1	2' MOUNTING HEIGHT
900	R1-2(3)	--	48 x 42	7.00	--	--	--	1	--	1	1	--
901	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
902	J4-1(3)	--	36 x 54	13.50	--	--	--	1	--	--	1	--
	M3-1	--	30 x 18	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	36 x 36	--	--	--	--	--	--	--	--	--
903	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	1	--	--
904	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	1	1	--
905	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
906	R3-20L(3)	--	36 x 54	13.50	--	--	--	1	--	1	1	--
907	R6-2L(2M)	--	30 x 36	7.50	--	--	--	--	--	--	--	--
908	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
909	J3-3(3)	--	108 x 84	63.00	--	--	--	2	--	--	--	--
	MB4-5	--	36 x 18	--	--	--	--	--	--	--	--	--
	M1-1	IH 94	36 x 36	--	--	--	--	--	--	--	--	--
	MB5-1L	--	30 x 30	--	--	--	--	--	--	--	--	--
	M3-2	--	36 x 18	--	--	--	--	--	--	--	--	--
	M1-5A	CTH BB	36 x 36	--	--	--	--	--	--	--	--	--
	M5-1L	--	30 x 30	--	--	--	--	--	--	--	--	--
	M3-4	--	30 x 15	--	--	--	--	--	--	--	--	--
	M1-6	STH 100	36 x 36	--	--	--	--	--	--	--	--	--
	M5-1L	--	30 x 30	--	--	--	--	--	--	--	--	--
910	J3-3(3)	--	108 x 84	63.00	--	--	--	2	--	--	--	--
	MB4-5	--	36 x 18	--	--	--	--	--	--	--	--	--
	M1-1	IH 94	36 x 36	--	--	--	--	--	--	--	--	--
	MB5-1L	--	30 x 30	--	--	--	--	--	--	--	--	--

CONTINUED ON NEXT SHEET

TYPE I & II PERMANENT SIGNING

CATEGORY CODE 0010

SIGN NO.		SIGN MESSAGE	TYPE II SIGN SIZE W [IN.] x H [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F [SF]	634.0616 WOOD POSTS 4"x 6"X16' [EA]	634.0618 WOOD POSTS 4"x 6"X18' [EA]	638.2102 MOVING SIGNS TYPE II [EA]	638.2602 REMOVING SIGNS TYPE II [EA]	638.3000 REMOVING SMALL SIGN SUPPORTS [EA]	REMARKS NEW SIGN LOCATION
	M3-2	--	36 x 18	--	--	--	--	--	--	--	--	--
	M1-5A	CTH BB	36 x 36	--	--	--	--	--	--	--	--	--
	M5-1L	--	30 x 30	--	--	--	--	--	--	--	--	--
	M3-4	--	30 x 15	--	--	--	--	--	--	--	--	--
	M1-6	STH 100	36 x 36	--	--	--	--	--	--	--	--	--
	M5-1L	--	30 x 30	--	--	--	--	--	--	--	--	--
911	W3-3	--	-- x --	--	--	--	--	--	--	1	1	--
912	W3-3	--	-- x --	--	--	--	--	--	--	1	--	--
913	D1-65(MOD)	RAWSON AVE, NEXT SIGNAL	90 x 30	--	--	--	--	2	--	--	--	--
914	D1-65(MOD)	RAWSON AVE, NEXT SIGNAL	90 x 30	--	--	--	--	2	--	--	--	--
915	W3-3(3)	--	36 x 36	--	--	9.00	--	1	--	--	--	--
916	W3-3(3)	--	36 x 36	--	--	9.00	--	1	--	--	--	--
917	R7-1D	--	-- x --	--	--	--	--	--	--	1	1	SHEET 43
918	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
919	R3-21(2)	--	30 x 36	7.50	--	--	1	--	--	1	1	--
920	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
921	J3-3	--	-- x --	--	--	--	--	--	--	1	2	--
922	R1-1(3)	--	36 x 36	7.46	--	--	--	1	--	1	1	--
	R6-3(2M)	--	30 x 24	5.00	--	--	--	--	--	--	--	
923	J1-1(3)	--	36 x 57	14.25	--	--	--	1	--	1	1	--
	M2-1	--	30 x 21	--	--	--	--	--	--	--	--	--
	M1-5A	CTH BB	36 x 36	--	--	--	--	--	--	--	--	--
924	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
925	D1-65	RAWSON AVE	-- x --	--	--	--	--	--	--	1	2	--
926	D1-65	RAWSON AVE	-- x --	--	--	--	--	--	--	1	2	--
927	R3-21(2)	--	30 x 36	7.50	--	--	1	--	--	1	1	--
928	R4-7(3)	--	36 x 48	12.00	--	--	--	1	--	1	--	--
929	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
930	R6-2L(2M)	--	30 x 36	7.50	--	--	--	--	--	--	--	SHEET 27
931	R5-1A(3)	--	42 x 30	8.75	--	--	1	--	--	--	--	--
932	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
933	R2-1	--	-- x --	--	--	--	--	--	--	1	--	--
934	R2-1	--	-- x --	--	--	--	--	--	--	1	1	--
935	R5-1(3)	--	36 x 36	9.00	--	--	1	--	--	--	--	--
936	R7-1L	--	-- x --	--	--	--	--	--	--	1	1	--
937	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
938	R2-1	--	-- x --	--	--	--	--	--	--	1	1	--
939	R2-1	--	-- x --	--	--	--	--	--	--	1	--	--
940	R2-1	--	-- x --	--	--	--	--	--	--	1	--	--
941	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
942	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	--	--	--
943	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	--	--	--
944	R7-1D	--	-- x --	--	--	--	--	--	--	1	1	--
945	R4-7(3)	--	36 x 48	12.00	--	--	--	1	--	1	1	--
946	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	--	--	--
947	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	--	--	--
948	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	--	--	--
949	R7-1D	--	-- x --	--	--	--	--	--	--	1	1	--
950	R4-7(2S)	--	24 x 30	5.00	--	--	--	--	--	--	--	SHEET 27
951	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--

CONTINUED ON NEXT SHEET

TYPE I & II PERMANENT SIGNING

CATEGORY CODE 0010

SIGN NO.		SIGN MESSAGE	TYPE II SIGN SIZE W [IN.] x H [IN.]	**637.2210** SIGNS TYPE II REFLECTIVE H [SF]	**637.2215** SIGNS TYPE II REFLECTIVE H FOLDING SF	**637.2230** SIGNS TYPE II REFLECTIVE F [SF]	**634.0616** WOOD POSTS 4"x 6"X16' [EA]	**634.0618** WOOD POSTS 4"x 6"X18' [EA]	**638.2102** MOVING SIGNS TYPE II [EA]	**638.2602** REMOVING SIGNS TYPE II [EA]	**638.3000** REMOVING SMALL SIGN SUPPORTS [EA]	REMARKS NEW SIGN LOCATION
952	R5-1(3)	--	36 x 36	9.00	--	--	1	--	--	--	--	--
953	R6-2L(2M)	--	30 x 36	7.50	--	--	1	--	--	--	--	--
954	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	--	--	--
955	R4-7(3)	--	36 x 48	12.00	--	--	--	1	--	--	--	--
956	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
957	R4-7(3)	--	36 x 48	12.00	--	--	--	1	--	1	1	--
958	R6-2L(2M)	--	30 x 36	7.50	--	--	1	--	--	--	--	--
959	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
960	R1-1(3)	--	36 x 36	7.46	--	--	--	1	--	1	1	--
	R6-3(2M)	--	30 x 24	5.00	--	--	--	--	--	--	--	--
961	R10-50(2M)	--	30 x 36	7.50	--	--	--	--	--	--	--	ON SIGNAL MAST ARM, SHEET 47
962	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
963	W14-1	--	-- x --	--	--	--	1	--	1	--	1	--
964	R5-1(3)	--	36 x 36	9.00	--	--	1	--	--	--	--	--
965	R1-1(3)	--	36 x 36	7.46	--	--	--	1	--	1	1	--
	R6-3(2M)	--	30 x 24	5.00	--	--	--	--	--	--	--	--
966	R7-1D(2S)	--	18 x 24	3.00	--	--	1	--	--	1	--	--
967	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
968	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	1	1	--
969	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	1	--	--
970	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	--	--	--
971	R3-21(2)	--	30 x 36	7.50	--	--	1	--	--	--	--	--
972	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	1	--	--
973	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	1	1	--
974	R7-1D	--	-- x --	--	--	--	--	--	--	1	1	--
975	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	--	--	--
976	R1-1F(3)	--	-- x --	--	7.46	--	--	--	--	--	--	SHEET 47
977	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
978	R3-21	--	-- x --	--	--	--	--	--	--	1	1	--
979	R6-2L(2M)	--	30 x 36	7.50	--	--	1	--	--	--	--	--
980	R4-7(3)	--	36 x 48	12.00	--	--	--	1	--	1	1	--
981	R4-7(3)	--	36 x 48	12.00	--	--	--	1	--	1	1	--
982	R5-1(3)	--	36 x 36	9.00	--	--	1	--	--	--	--	--
983	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
984	R10-50(2M)	--	30 x 36	7.50	--	--	--	--	--	--	--	ON SIGNAL MAST ARM, SHEET 47
985	R10-50(2M)	--	30 x 36	7.50	--	--	--	--	--	--	--	ON SIGNAL MAST ARM, SHEET 47
986	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
987	R5-1(3)	--	36 x 36	9.00	--	--	1	--	--	--	--	--
988	R1-1(3)	--	36 x 36	7.46	--	--	--	1	--	1	1	--
	R6-3(2M)	--	30 x 24	5.00	--	--	--	--	--	--	--	--
989	R6-2L(2M)	--	30 x 36	7.50	--	--	1	--	--	--	--	--
990	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
991	R3-21(2)	--	30 x 36	7.50	--	--	1	--	--	1	1	--
992	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
993	R2-1	--	-- x --	--	--	--	--	--	--	1	1	--
994	R2-1	--	-- x --	--	--	--	--	--	--	1	--	--
995	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
996	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
997	D1-65	COLLEGE AVE, NEXT SIGNAL	-- x --	--	--	--	--	--	--	1	2	--
998	D1-65	COLLEGE AVE, NEXT SIGNAL	-- x --	--	--	--	--	--	--	1	2	--

CONTINUED ON NEXT SHEET

TYPE I & II PERMANENT SIGNING

CATEGORY CODE 0010

SIGN NO.		SIGN MESSAGE	TYPE II SIGN SIZE W [IN.] x H [IN.]	**637.2210** SIGNS TYPE II REFLECTIVE H [SF]	**637.2215** SIGNS TYPE II REFLECTIVE H FOLDING SF	**637.2230** SIGNS TYPE II REFLECTIVE F [SF]	**634.0616** WOOD POSTS 4"x 6"X16' [EA]	**634.0618** WOOD POSTS 4"x 6"X18' [EA]	**638.2102** MOVING SIGNS TYPE II [EA]	**638.2602** REMOVING SIGNS TYPE II [EA]	**638.3000** REMOVING SMALL SIGN SUPPORTS [EA]	REMARKS NEW SIGN LOCATION
999	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
1000	R2-1(3)	35 MPH	36 x 48	12.00	--	--	--	1	--	1	1	--
1001	R2-1(3)	35 MPH	36 x 48	12.00	--	--	--	1	--	1	--	--
1002	J1-1(2S)	--	24 x 39	6.50	--	--	--	1	--	1	1	--
	M2-1	--	30 x 21	--	--	--	--	--	--	--	--	--
	M1-5A	CTH ZZ	36 x 36	--	--	--	--	--	--	--	--	--
1003	W3-3(3)	--	36 x 36	--	--	9.00	--	1	--	1	--	--
1004	W3-3(3)	--	36 x 36	--	--	9.00	--	1	--	1	1	--
1005	R7-1D(2S)	--	18 x 24	3.00	--	--	1	--	--	1	1	--
1006	J2-2	--	-- x --	--	--	--	--	--	--	1	1	--
1007	D1-65(MOD)	COLLEGE AVE, N6300 S, NEXT SIGNAL	90 x 48	30.00	--	--	--	2	--	--	--	--
1008	J3-3(2S)	--	72 x 57	28.50	--	--	--	2	--	--	--	--
	MB4-5	--	24 x 12	--	--	--	--	--	--	--	--	--
	M1-1	IH 94	24 x 24	--	--	--	--	--	--	--	--	--
	MB5-1L	--	21 x 21	--	--	--	--	--	--	--	--	--
	M3-4	--	24 x 12	--	--	--	--	--	--	--	--	--
	M1-5A	CTH ZZ	24 x 24	--	--	--	--	--	--	--	--	--
	M5-1L	--	21 x 21	--	--	--	--	--	--	--	--	--
	M3-2	--	24 x 12	--	--	--	--	--	--	--	--	--
	M1-5A	CTH ZZ	24 x 24	--	--	--	--	--	--	--	--	--
	M5-1R	--	21 x 21	--	--	--	--	--	--	--	--	--
1009	R4-7(2S)	--	24 x 30	5.00	--	--	1	--	1	--	1	--
1009A	R4-7(2S)	--	24 x 30	5.00	--	--	1	--	1	--	1	
1010	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	1	1	--
1011	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	1	--	--
1012	R7-1D(2S)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
1013	R3-21(2)	--	30 x 36	7.50	--	--	1	--	--	1	1	--
1014	R6-2R(2S)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
1015	R7-1D(2S)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
1016	R6-2R(2S)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
1017	J23-1	--	-- x --	--	--	--	--	--	--	1	--	--
1018	R7-1D(2S)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
1019	J3-2(2S)	--	48 x 57	19.00	--	--	--	1	--	--	--	--
	MB4-5	--	24 x 12	--	--	--	--	--	--	--	--	--
	M1-1	IH 94	24 x 24	--	--	--	--	--	--	--	--	--
	MB6-1		21 x 21	--	--	--	--	--	--	--	--	--
	M3-2	--	24 x 12	--	--	--	--	--	--	--	--	--
	M1-5A	CTH ZZ	24 x 24	--	--	--	--	--	--	--	--	--
	M6-1	--	21 x 21	--	--	--	--	--	--	--	--	--
1020	J3-1(2S)	--	24 x 57	9.50	--	--	--	1	--	--	--	--
	M3-2		24 x 12	--	--	--	--	--	--	--	--	--
	M1-5A	CTH ZZ	24 x 24	--	--	--	--	--	--	--	--	--
	M6-1	--	21 x 21	--	--	--	--	--	--	--	--	--
1021	R5-1A(2S)	--	36 x 24	6.00	--	--	1	--	--	--	--	--
1022	R7-1D	--	-- x --	--	--	--	--	--	--	1	1	--
1023	HOSP ASSEMB	--	24 x 45	7.50	--	--	--	1	--	1	--	--
	D9-2	--	24 x 24	--	--	--	--	--	--	--	--	--
	MB6-1	--	21 x 21	--	--	--	--	--	--	--	--	--
1024	W4-2R(3)	--	36 x 36	--	--	9.00	--	1	--	1	1	--
1025	R1-1F(3)	--	-- x --	--	7.46	--	--	--	--	1	--	--

CONTINUED ON NEXT SHEET

TYPE I & II PERMANENT SIGNING

CATEGORY CODE 0010

SIGN NO.		SIGN MESSAGE	TYPE II SIGN SIZE W [IN.] x H [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F [SF]	634.0616 WOOD POSTS 4"x 6"X16' [EA]	634.0618 WOOD POSTS 4"x 6"X18' [EA]	638.2102 MOVING SIGNS TYPE II [EA]	638.2602 REMOVING SIGNS TYPE II [EA]	638.3000 REMOVING SMALL SIGN SUPPORTS [EA]	REMARKS NEW SIGN LOCATION
1026	R1-1F(3)	--	-- x --	--	7.46	--	--	--	--	1	--	--
	R6-3(2M)	--	30 x 24	5.00	--	--	--	--	--	--	--	--
1027	M1-94H(2)	COLLEGE AVE	90 x 24	15.00	--	--	--	--	--	1	--	ON SIGNAL MAST ARM
1028	R6-2L(2M)	--	30 x 36	7.50	--	--	--	--	--	2	--	--
1029	R6-2L(2M)	--	30 x 36	7.50	--	--	--	--	--	--	--	--
1030	M1-94H(2)	S HOWELL AVE	114 x 24	19.00	--	--	--	--	--	--	--	ON SIGNAL MAST ARM
1031	R1-1(3)	--	36 x 36	7.46	--	--	--	--	--	2	--	--
1032	W12-1D(2M)	--	24 x 24	--	--	4.00	1	--	--	1	1	2' MOUNTING HEIGHT
1033	R7-1L	--	-- x --	--	--	--	--	--	--	1	1	--
1034	R5-1(2S)	--	30 x 30	6.25	--	--	--	--	--	--	--	--
1035	R1-1F(3)	--	-- x --	--	7.46	--	--	--	--	1	--	--
	R6-3(2M)	--	30 x 24	5.00	--	--	--	--	--	--	--	--
1036	R4-7(2S)	--	24 x 30	5.00	--	--	--	--	--	--	1	--
1037	R4-7(2S)	--	24 x 30	5.00	--	--	--	--	--	--	1	--
1038	R4-7(2S)	--	24 x 30	5.00	--	--	--	--	--	--	1	--
1039	R4-7(2S)	--	24 x 30	5.00	--	--	--	--	--	--	1	--
1040	J3-2(2S)	--	48 x 57	19.00	--	--	--	1	--	--	1	--
	MB4-5	--	24 x 12	--	--	--	--	--	--	--	--	--
	M1-1	IH 94	24 x 24	--	--	--	--	--	--	--	--	--
	MB6-1		21 x 21	--	--	--	--	--	--	--	--	--
	M3-4	--	24 x 12	--	--	--	--	--	--	--	--	--
	M1-5A	CTH ZZ	24 x 24	--	--	--	--	--	--	--	--	--
	M6-1	--	21 x 21	--	--	--	--	--	--	--	--	--
1041	HOSP ASSEMB	--	24 x 45	7.50	--	--	--	1	--	1	--	--
	D9-2	--	24 x 24	--	--	--	--	--	--	--	--	--
	MB6-1	--	21 x 21	--	--	--	--	--	--	--	--	--
1042	R3-7R(3)	--	36 x 36	9.00	--	--	--	1	--	--	--	--
1043	R5-1A(2S)	--	36 x 24	6.00	--	--	--	--	--	--	--	--
1044	R7-1D(2S)	--	24 x 30	5.00	--	--	1	--	--	--	--	--
1045	R3-55L	--	-- x --	--	--	--	--	--	--	1	1	--
1046	J3-1(2S)	--	24 x 57	9.50	--	--	--	1	--	--	--	--
	M3-2		24 x 12	--	--	--	--	--	--	--	--	--
	M1-5A	CTH ZZ	24 x 24	--	--	--	--	--	--	--	--	--
	M6-1	--	21 x 21	--	--	--	--	--	--	--	--	--
1047	W9-1R(3)	--	36 x 36	--	--	9.00	--	--	--	2	1	--
1048	R7-1D(2S)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
1049	R6-2L(2M)	--	30 x 36	7.50	--	--	--	--	--	1	--	--
1050	R1-1F(3)	--	-- x --	--	7.46	--	--	--	--	1	--	--
	R6-3(2M)	--	30 x 24	5.00	--	--	--	--	--	--	--	--
1051	R1-1F(3)	--	-- x --	--	7.46	--	--	--	--	1	--	--
1052	J3-1	--	-- x --	--	--	--	--	--	--	1	1	--
1053	R5-1(2S)	--	30 x 30	6.25	--	--	--	--	--	1	--	--
1054	R6-2L(2M)	--	30 x 36	7.50	--	--	--	--	--	1	--	--
1055	M1-94H(2)	S HOWELL AVE	114 x 24	19.00	--	--	--	--	--	--	--	ON SIGNAL MAST ARM
1056	J4-1(3)	--	36 x 54	13.50	--	--	--	1	--	1	1	--
	M3-2	--	30 x 18	--	--	--	--	--	--	--	--	--
	M1-5A	CTH BB	36 x 36	--	--	--	--	--	--	--	--	--
1057	J4-1	--	-- x --	--	--	--	--	--	--	2	1	--
1058	R1-1F(3)	--	-- x --	--	7.46	--	--	--	--	1	--	--
	R6-3(2M)	--	30 x 24	5.00	--	--	--	--	--	--	--	--

CONTINUED ON NEXT SHEET

TYPE I & II PERMANENT SIGNING

CATEGORY CODE 0010

SIGN NO.		SIGN MESSAGE	TYPE II SIGN SIZE W [IN.] x H [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F [SF]	634.0616 WOOD POSTS 4"x 6"X16' [EA]	634.0618 WOOD POSTS 4"x 6"X18' [EA]	638.2102 MOVING SIGNS TYPE II [EA]	638.2602 REMOVING SIGNS TYPE II [EA]	638.3000 REMOVING SMALL SIGN SUPPORTS [EA]	REMARKS NEW SIGN LOCATION
1059	J3-1(2S)	--	24 x 57	9.50	--	--	--	1	--	1	--	--
	M3-3		24 x 12	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	24 x 24	--	--	--	--	--	--	--	--	--
	M6-1		21 x 21	--	--	--	--	--	--	--	--	--
1060	J4-1	--	-- x --	--	--	--	--	--	--	1	1	--
1061	M1-94H(2)	COLLEGE AVE	90 x 24	15.00	--	--	--	--	--	1	--	ON SIGNAL MAST ARM
1062	J3-1(2S)	--	24 x 57	9.50	--	--	--	1	--	1	--	--
	M3-1		24 x 12	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	24 x 24	--	--	--	--	--	--	--	--	--
	M6-1		21 x 21	--	--	--	--	--	--	--	--	--
1063	I2-3(2)	POPULATION 594,833	78 x 24	13.00	--	--	2	--	--	1	2	--
1064	R6-2R(2S)	--	24 x 30	5.00	--	--	--	--	--	1	1	--
1065	R2-1(2S)	35 MPH	24 x 30	5.00	--	--	1	--	--	1	--	--
1066	R2-1(2S)	35 MPH	24 x 30	5.00	--	--	1	--	--	1	1	--
1067	--	PARKING REGULATIONS	-- x --	--	--	--	--	--	1	--	--	--
1068	R6-2R(2S)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
1069	W3-3	--	-- x --	--	--	--	--	--	--	1	1	--
1069A	W3-3	--	-- x --	--	--	--	--	--	--	1	--	--
1070	D1-65(MOD)	COLLEGE AVE, N6300 S, NEXT SIGNAL	90 x 48	30.00	--	--	--	2	--	1	2	--
1071	R7-1D(2S)	--	24 x 30	5.00	--	--	1	--	--	--	--	--
1072	--	NO PARKING	-- x --	--	--	--	--	--	--	1	1	--
1073	J3-3(2S)	--	72 x 57	28.50	--	--	--	2	--	1	2	--
	M3-2	--	24 x 12	--	--	--	--	--	--	--	--	--
	M1-5A	CTH ZZ	24 x 24	--	--	--	--	--	--	--	--	--
	M5-1L	--	21 x 21	--	--	--	--	--	--	--	--	--
	M3-4	--	24 x 12	--	--	--	--	--	--	--	--	--
	M1-5A	CTH ZZ	24 x 24	--	--	--	--	--	--	--	--	--
	M5-1R	--	21 x 21	--	--	--	--	--	--	--	--	--
	MB4-5	--	24 x 12	--	--	--	--	--	--	--	--	--
	M1-1	IH 94	24 x 24	--	--	--	--	--	--	--	--	--
	MB5-1L	--	21 x 21	--	--	--	--	--	--	--	--	--
1074	W3-3(2S)	--	36 x 36	--	--	9.00	--	1	--	--	--	--
1074A	W3-3(2S)	--	36 x 36	--	--	9.00	--	1	--	--	--	--
1075	J1-1(2S)	--	24 x 39	6.50	--	--	--	1	--	--	--	--
	M2-1	--	30 x 21	--	--	--	--	--	--	--	--	--
	M1-5A	CTH ZZ	36 x 36	--	--	--	--	--	--	--	--	--
1076	J1-1(2S)	--	24 x 39	6.50	--	--	--	1	--	--	--	--
	M2-1	--	30 x 21	--	--	--	--	--	--	--	--	--
	M1-5A	CTH ZZ	36 x 36	--	--	--	--	--	--	--	--	--
1077	R1-1(3)	--	36 x 36	7.46	--	--	--	1	--	1	--	--
	R6-3A(2M)	--	30 x 24	5.00	--	--	--	--	--	--	--	--
1078	R4-7(2S)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
1079	R5-1(2S)	--	30 x 30	6.25	--	--	1	--	--	--	--	--
1080	R7-7L(2S)	--	18 x 24	3.00	--	--	1	--	--	1	1	--
1081	J2-1(2S)	--	24 x 57	9.50	--	--	--	1	--	1	1	--
	MB4-5	--	24 x 12	--	--	--	--	--	--	--	--	--
	M1-1	IH 94	24 x 24	--	--	--	--	--	--	--	--	--
	MB6-1	--	21 x 21	--	--	--	--	--	--	--	--	--
1082	R4-7(2S)	--	24 x 30	5.00	--	--	1	--	--	--	--	--
1083	R10-50(2M)	--	30 x 36	7.50	--	--	--	--	--	--	--	ON SIGNAL MAST ARM, SHEET 47

CONTINUED ON NEXT SHEET

TYPE I & II PERMANENT SIGNING

CATEGORY CODE 0010

SIGN NO.		SIGN MESSAGE	TYPE II SIGN SIZE W [IN.] x H [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F [SF]	634.0616 WOOD POSTS 4"x 6"X16' [EA]	634.0618 WOOD POSTS 4"x 6"X18' [EA]	638.2102 MOVING SIGNS TYPE II [EA]	638.2602 REMOVING SIGNS TYPE II [EA]	638.3000 REMOVING SMALL SIGN SUPPORTS [EA]	REMARKS NEW SIGN LOCATION
1084	R7-2D(2S)	6-9 AM, 3-6 PM	18 x 24	3.00	--	--	1	--	--	1	1	--
1085	R7-2D(2S)	6-9 AM, 3-6 PM	18 x 24	3.00	--	--	1	--	--	1	1	--
1086	R6-2L(2M)	--	30 x 36	7.50	--	--	1	--	--	--	--	--
1087	R7-2D(2S)	6-9 AM, 3-6 PM	18 x 24	3.00	--	--	1	--	--	1	1	--
1088	R2-1(2S)	35 MPH	24 x 30	5.00	--	--	1	--	--	1	--	--
1089	R2-1(2S)	35 MPH	24 x 30	5.00	--	--	1	--	--	1	1	--
1090	NOT USED	--	-- x --	--	--	--	--	--	--	--	--	--
1091	R3-20L(2S)	--	24 x 36	6.00	--	--	1	--	--	--	--	--
1092	R7-2D(2S)	6-9 AM, 3-6 PM	18 x 24	3.00	--	--	1	--	--	1	--	--
1093	R7-2D(2S)	6-9 AM, 3-6 PM	18 x 24	3.00	--	--	1	--	--	1	--	--
1094	R1-1(3)	--	36 x 36	7.46	--	--	--	1	--	1	1	--
	R6-3A(2M)	--	30 x 24	5.00	--	--	--	--	--	--	--	--
1095	R2-1(2S)	35 MPH	24 x 30	5.00	--	--	--	--	--	1	--	--
1096	R7-2D(2S)	6-9 AM, 3-6 PM	18 x 24	3.00	--	--	1	--	--	1	--	--
1097	R3-20L(2S)	--	24 x 36	6.00	--	--	1	--	--	1	1	--
1098	R7-1L(2S)	--	18 x 24	3.00	--	--	1	--	--	1	1	--
1099	R7-2D(2S)	6-9 AM, 3-6 PM	18 x 24	3.00	--	--	--	--	--	1	--	--
1100	R5-1(2S)	--	30 x 30	6.25	--	--	1	--	--	--	--	--
1101	R2-1(2S)	35 MPH	24 x 30	5.00	--	--	1	--	--	1	--	--
1102	R2-1(2S)	35 MPH	24 x 30	5.00	--	--	1	--	--	1	1	--
1103	R7-1L(2S)	--	18 x 24	3.00	--	--	1	--	--	1	1	--
1104	R7-2D(2S)	6-9 AM, 3-6 PM	18 x 24	3.00	--	--	--	--	--	1	--	--
1105	R5-1(2S)	--	30 x 30	6.25	--	--	--	--	--	--	--	--
1106	R4-7(2S)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
1107	R4-7(2S)	--	24 x 30	5.00	--	--	1	--	--	--	--	--
1108	R7-2D(2S)	6-9 AM, 3-6 PM	18 x 24	3.00	--	--	1	--	--	1	1	--
1108A	R4-7(2S)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
1109	R6-2L(2M)	--	30 x 36	7.50	--	--	1	--	--	--	--	--
1109A	R2-1	--	-- x --	--	--	--	--	--	--	1	--	--
1110	R7-2D(2S)	6-9 AM, 3-6 PM	18 x 24	3.00	--	--	1	--	--	1	1	--
1111	R7-2D(2S)	6-9 AM, 3-6 PM	18 x 24	3.00	--	--	1	--	--	--	--	--
1112	W11-2	--	-- x --	--	--	--	--	--	--	2	--	--
1113	R2-1(2S)	35 MPH	24 x 30	5.00	--	--	1	--	--	--	--	--
1114	R7-51L(MOD)(2S)	HERE TO DRIVEWAY	18 x 24	3.00	--	--	1	--	--	1	1	--
1115	W11-2	--	-- x --	--	--	--	--	--	--	2	1	--
1116	W11-2	--	-- x --	--	--	--	--	--	--	2	1	--
1117	W11-2	--	-- x --	--	--	--	--	--	--	2	--	--
1118	W11-2	--	-- x --	--	--	--	--	--	--	2	1	--
1119	R6-2L(2M)	--	30 x 36	7.50	--	--	1	--	--	--	--	--
1120	R4-7(2S)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
1121	R7-2D(2S)	6-9 AM, 3-6 PM	18 x 24	3.00	--	--	1	--	--	1	--	--
1122	R5-1(2S)	--	30 x 30	6.25	--	--	--	--	--	--	--	SHEET 59
1123	R7-2D(2S)	6-9 AM, 3-6 PM	18 x 24	3.00	--	--	1	--	--	1	--	--
1124	R5-1(2S)	--	30 x 30	6.25	--	--	1	--	--	1	1	--
1125	R1-1(3)	--	36 x 36	7.46	--	--	--	1	--	1	1	--
	R6-3A(2M)	--	30 x 24	5.00	--	--	--	--	--	--	--	--
1126	R7-2L(2S)	6-9 AM, 3-6 PM	18 x 24	3.00	--	--	1	--	--	1	1	--
1127	R7-1R(2S)	--	18 x 24	3.00	--	--	--	--	--	1	--	--
1128	R5-1A(2S)	--	36 x 24	6.00	--	--	1	--	--	--	--	--
1129	R6-2L(2M)	--	30 x 36	7.50	--	--	1	--	--	--	--	--

CONTINUED ON NEXT SHEET

TYPE I & II PERMANENT SIGNING

CATEGORY CODE 0010

SIGN NO.		SIGN MESSAGE	TYPE II SIGN SIZE W [IN.] x H [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F [SF]	634.0616 WOOD POSTS 4"x 6"X16' [EA]	634.0618 WOOD POSTS 4"x 6"X18' [EA]	638.2102 MOVING SIGNS TYPE II [EA]	638.2602 REMOVING SIGNS TYPE II [EA]	638.3000 REMOVING SMALL SIGN SUPPORTS [EA]	REMARKS NEW SIGN LOCATION
1130	R4-7(2S)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
1130A	R7-1D(2S)	--	18 x 24	3.00	--	--	1	--	--	1	1	--
1131	D12-2A(2S)	--	60 x 42	17.50	--	--	--	1	--	1	1	--
1132	R3-20L(2S)	--	24 x 36	6.00	--	--	1	--	--	--	--	--
1133	W11-8(3)	--	36 x 36	--	--	9.00	--	--	--	1	--	REUSED EXISTING POST WITH FLASHERS
	W54-60(2S)	--	36 x 36	--	--	9.00	--	--	--	1	--	--
1134	W11-8(3)	--	36 x 36	--	--	9.00	--	1	--	1	--	REUSED EXISTING POST WITH FLASHERS
1135	R7-2R(2S)	6-9 AM, 3-6 PM	18 x 24	3.00	--	--	1	--	--	1	--	--
	R7-1L(2S)	--	18 x 24	3.00	--	--	--	--	--	1	--	--
1136	R1-1(3)	--	36 x 36	7.46	--	--	--	1	--	1	1	--
	R6-3A(2M)	--	30 x 24	5.00	--	--	--	--	--	--	--	--
1137	R4-7(2S)	--	24 x 30	5.00	--	--	1	--	--	--	--	--
1138	R7-1D(2S)	--	18 x 24	3.00	--	--	1	--	--	1	1	--
1139	R7-2D	--	-- x --	--	--	--	--	--	--	1	--	--
1140	W11-8(3)	--	36 x 36	--	--	9.00	--	--	--	1	--	--
1141	W11-8(3)	--	36 x 36	--	--	9.00	--	1	--	1	1	--
	W54-60(2S)	--	36 x 36	--	--	9.00	--	--	--	1	--	--
1142	R7-1D(2S)	--	18 x 24	3.00	--	--	1	--	--	--	--	--
1143	W11-2	--	-- x --	--	--	--	--	--	--	2	1	--
1144	W11-2	--	-- x --	--	--	--	--	--	--	2	--	--
1145	R7-1D	--	-- x --	--	--	--	--	--	--	1	--	--
1146	R2-1(2S)	35 MPH	24 x 30	5.00	--	--	1	--	--	1	--	--
1147	R2-1(2S)	35 MPH	24 x 30	5.00	--	--	1	--	--	1	1	--
1148	R7-2D(2S)	6-9 AM, 3-6 PM	18 x 24	3.00	--	--	1	--	--	--	--	--
1149	R2-1(2S)	35 MPH	24 x 30	5.00	--	--	--	--	--	1	--	--
1150	R2-1(2S)	35 MPH	24 x 30	5.00	--	--	1	--	--	1	--	--
1151	W5-52L(2S)	--	12 x 36	3.00	--	--	1	--	--	1	1	4' MOUNTING HEIGHT
1152	R7-1D(2S)	--	18 x 24	3.00	--	--	1	--	--	1	--	--
1153	R7-1D(2S)	--	18 x 24	3.00	--	--	1	--	--	1	--	--
1154	R2-1(2S)	35 MPH	24 x 30	5.00	--	--	1	--	--	1	--	--
1155	R7-1D	--	-- x --	--	--	--	--	--	--	1	--	--
1156	R7-1D(2S)	--	18 x 24	3.00	--	--	1	--	--	--	--	--
1157	R7-1D	--	-- x --	--	--	--	--	--	--	1	--	--
1158	R7-1D(2S)	--	18 x 24	3.00	--	--	1	--	--	--	--	--
1159	R7-1D(2S)	--	18 x 24	3.00	--	--	1	--	--	1	--	--
1160	R2-1(2S)	35 MPH	24 x 30	5.00	--	--	1	--	--	1	--	--
1161	R7-1D(2S)	--	18 x 24	3.00	--	--	1	--	--	1	--	--
1162	D1-65(MOD)	AMTRAK STATION,SECOND SIGNAL	108 x 21	15.75	--	--	2	--	--	1	2	--
1163	R5-1(2S)	--	30 x 30	6.25	--	--	1	--	--	--	--	SHEET 57
1164	J23-1(2S)	--	24 x 60	10.00	--	--	--	1	--	--	--	--
	MB4-5	--	24 x 12	--	--	--	--	--	--	--	--	--
	M1-1	IH 94	24 x 24	--	--	--	--	--	--	--	--	--
	M4-20L	--	24 x 24	--	--	--	--	--	--	--	--	--
1165	J1-1(2S)	--	24 x 39	6.50	--	--	--	1	--	--	--	--
	M2-1	--	21 x 15	--	--	--	--	--	--	--	--	--
	M1-6	STH 119	24 x 24	--	--	--	--	--	--	--	--	--
1166	J22-2	--	-- x --	--	--	--	--	--	--	1	2	--
1166A	J22-2	--	-- x --	--	--	--	--	--	--	1	2	--
1167	R7-1D(2S)	--	18 x 24	3.00	--	--	1	--	--	1	1	--
1168	R6-2L(2M)	--	30 x 36	7.50	--	--	1	--	--	--	--	--

CONTINUED ON NEXT SHEET

TYPE I & II PERMANENT SIGNING

CATEGORY CODE 0010

SIGN NO.		SIGN MESSAGE	TYPE II SIGN SIZE W [IN.] x H [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F [SF]	634.0616 WOOD POSTS 4"x 6"X16' [EA]	634.0618 WOOD POSTS 4"x 6"X18' [EA]	638.2102 MOVING SIGNS TYPE II [EA]	638.2602 REMOVING SIGNS TYPE II [EA]	638.3000 REMOVING SMALL SIGN SUPPORTS [EA]	REMARKS NEW SIGN LOCATION
1169	R4-7(2S)	--	24 x 30	5.00	--	--	--	--	--	--	--	--
1170	R4-7(2S)	--	24 x 30	5.00	--	--	--	--	--	--	--	--
1171	J2-2(2S)	--	48 x 57	19.00	--	--	--	1	--	1	1	--
	MB4-5	--	24 x 12	--	--	--	--	--	--	--	--	--
	M1-1	IH 94	24 x 24	--	--	--	--	--	--	--	--	--
	MB5-1L	--	21 x 21	--	--	--	--	--	--	--	--	--
	M3-4	--	24 x 12	--	--	--	--	--	--	--	--	--
	M1-6	STH 119	24 x 24	--	--	--	--	--	--	--	--	--
	M5-1L	--	21 x 21	--	--	--	--	--	--	--	--	--
1173	J23-1(2S)		24 x 57	9.50	--	--	--	1	--	--	--	--
	MB4-5	--	24 x 12	--	--	--	--	--	--	--	--	--
	M1-1	IH 94	24 x 24	--	--	--	--	--	--	--	--	--
	MB6-1	--	21 x 21	--	--	--	--	--	--	--	--	--
1174	R2-1(2S)	35 MPH	24 x 30	5.00	--	--	--	--	--	1	--	--
1175	J4-1	--	-- x --	--	--	--	--	--	--	1	--	--
1176	R2-1(2S)	35 MPH	24 x 30	5.00	--	--	1	--	--	1	1	--
1177	J4-1(2S)	--	24 x 36	6.00	--	--	--	1	--	--	--	--
	M3-3	--	24 x 12	--	--	--	--	--	--	--	--	--
	M1-6	--	24 x 24	--	--	--	--	--	--	--	--	--
1178	J23-1	--	-- x --	--	--	--	--	--	--	1	1	--
1179	R6-2L(2M)	--	30 x 36	7.50	--	--	--	--	--	--	--	--
1179A	W12-1D(2M)	--	24 x 24	--	--	4.00	1	--	--	1	1	2' MOUNTING HEIGHT
1180	R1-1F(3)	--	36 x 36	--	7.46	--	--	--	--	1	--	--
1181	R1-1F(3)	--	36 x 36	--	7.46	--	--	--	--	1	--	--
	R6-3(2M)	--	30 x 24	5.00	--	--	--	--	--	--	--	--
1182	R5-1(2S)	--	30 x 30	6.25	--	--	--	--	--	1	--	--
1183	R1-1F(3)	--	36 x 36	--	7.46	--	--	--	--	1	--	--
	R6-3(2M)	--	30 x 24	5.00	--	--	--	--	--	--	--	--
1184	R1-1F(3)	--	36 x 36	--	7.46	--	--	--	--	1	--	--
	R6-3(2M)	--	30 x 24	5.00	--	--	--	--	--	--	--	--
1185	R1-1F(3)	--	36 x 36	--	7.46	--	--	--	--	1	--	SHEET 57
	R6-3(2M)	--	30 x 24	5.00	--	--	--	--	--	--	--	--
1186	R1-1F(3)	--	36 x 36	--	7.46	--	--	--	--	1	--	--
	R6-3(2M)	--	30 x 24	5.00	--	--	--	--	--	--	--	--
1187	R1-1F(3)	--	36 x 36	--	7.46	--	--	--	--	1	--	--
1187A	W12-1D(2M)	--	24 x 24	--	--	4.00	1	--	--	1	1	2' MOUNTING HEIGHT, SHEET 57
1188	R4-7(2S)	--	24 x 30	5.00	--	--	--	--	--	1	--	--
1189	R4-7(2S)	--	24 x 30	5.00	--	--	--	--	--	1	--	--
1190	R6-2L(2M)	--	30 x 36	7.50	--	--	1	--	--	--	--	--
1191	R5-1(2S)	--	30 x 30	6.25	--	--	--	--	--	1	--	--
1192	R4-7(2S)	--	24 x 30	5.00	--	--	--	--	--	1	--	--
1193	R7-1D	--	-- x --	--	--	--	--	--	--	1	--	--
1193A	R1-2(2S)	--	36 x 31	3.88	--	--	1	--	--	--	--	--
1194	R3-20LL(2S)	--	24 x 36	6.00	--	--	1	--	--	1	1	--
1195	J23-1(2S)		24 x 57	9.50	--	--	--	1	--	1	1	--
	MB4-5	--	24 x 12	--	--	--	--	--	--	--	--	--
	M1-1	IH 94	24 x 24	--	--	--	--	--	--	--	--	--
	MB6-1	--	21 x 21	--	--	--	--	--	--	--	--	--
1196	R7-1D(2S)	--	18 x 24	3.00	--	--	--	--	--	1	--	--
1197	D1-2(2)	AMTRAK STATION, LEFT ARROW	60 x 24	10.00	--	--	1	--	--	1	2	--

CONTINUED ON NEXT SHEET

TYPE I & II PERMANENT SIGNING

CATEGORY CODE 0010

SIGN NO.		SIGN MESSAGE	TYPE II SIGN SIZE W [IN.] x H [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F [SF]	634.0616 WOOD POSTS 4"x 6"X16' [EA]	634.0618 WOOD POSTS 4"x 6"X18' [EA]	638.2102 MOVING SIGNS TYPE II [EA]	638.2602 REMOVING SIGNS TYPE II [EA]	638.3000 REMOVING SMALL SIGN SUPPORTS [EA]	REMARKS NEW SIGN LOCATION
1198	R3-20L(2S)	--	24 x 36	6.00	--	--	1	--	--	--	--	--
1199	J4-1(2S)	--	24 x 36	6.00	--	--	--	1	--	1	1	--
	M3-1	--	24 x 12	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	24 x 24	--	--	--	--	--	--	--	--	--
1200	R7-1D(2S)	--	18 x 24	3.00	--	--	1	--	--	1	1	--
1201	JV23-2	--	24 x 93	15.50	--	--	--	1	--	1	1	--
	MB4-5	--	24 x 12	--	--	--	--	--	--	--	--	--
	M1-1	IH 94	24 x 24	--	--	--	--	--	--	--	--	--
	M3-4	--	24 x 12	--	--	--	--	--	--	--	--	--
	M1-6	STH 119	24 x 24	--	--	--	--	--	--	--	--	--
	M5-1L	--	21 x 21	--	--	--	--	--	--	--	--	--
1202	R7-1D(2S)	--	18 x 24	3.00	--	--	1	--	--	1	1	--
1203	JV23-2	--	24 x 93	15.50	--	--	--	1	--	1	1	--
	MB4-5	--	24 x 12	--	--	--	--	--	--	--	--	--
	M1-1	IH 94	24 x 24	--	--	--	--	--	--	--	--	--
	M3-4	--	24 x 12	--	--	--	--	--	--	--	--	--
	M1-6	STH 119	24 x 24	--	--	--	--	--	--	--	--	--
	M6-1	--	21 x 21	--	--	--	--	--	--	--	--	--
1204	ADOPT	--	-- x --	--	--	--	1	--	1	--	--	--
1205	R1-1F(3)	--	36 x 36	--	7.46	--	--	--	--	1	--	--
1206	R1-1F(3)	--	36 x 36	--	7.46	--	--	--	--	1	--	--
	R6-3(2M)	--	30 x 24	5.00	--	--	--	--	--	--	--	--
1207	R4-7(2S)	--	24 x 30	5.00	--	--	--	--	--	--	--	--
1208	R6-2L(2M)	--	30 x 36	7.50	--	--	--	--	--	--	--	--
1209	R10-11	--	-- x --	--	--	--	--	--	--	1	--	--
1210	R10-11	--	-- x --	--	--	--	--	--	--	1	--	--
1211	R1-1F(3)	--	36 x 36	--	7.46	--	--	--	--	1	--	--
	R6-3(2M)	--	30 x 24	5.00	--	--	--	--	--	--	--	--
1212	R1-1F(3)	--	36 x 36	--	7.46	--	--	--	--	1	--	--
1213	R3-1(3)	--	36 x 36	9.00	--	--	1	--	--	1	--	--
1214	R4-7(2S)	--	24 x 30	5.00	--	--	--	--	--	1	--	--
1215	R4-7(2S)	--	24 x 30	5.00	--	--	--	--	--	1	--	--
1216	R1-1F(3)	--	36 x 36	--	7.46	--	--	--	--	2	--	--
1217	R3-2(3)	--	36 x 36	9.00	--	--	--	--	--	1	--	--
	R1-1F(3)	--	36 x 36	--	7.46	--	--	--	--	1	--	--
1218	JV23-2	--	24 x 93	15.50	--	--	--	1	--	1	1	--
	MB4-5	--	24 x 12	--	--	--	--	--	--	--	--	--
	M1-1	IH 94	24 x 24	--	--	--	--	--	--	--	--	--
	M3-4	--	24 x 12	--	--	--	--	--	--	--	--	--
	M1-6	STH 119	24 x 24	--	--	--	--	--	--	--	--	--
	M6-1	--	21 x 21	--	--	--	--	--	--	--	--	--
1219	R7-1D(2S)	--	18 x 24	3.00	--	--	1	--	--	1	--	--
1220	D1-2(2)	AMTRAK STATION, RIGHT ARROW	60 x 24	10.00	--	--	1	--	--	1	--	--
1221	JV23-2	--	24 x 93	15.50	--	--	--	1	--	1	1	--
	MB4-5	--	24 x 12	--	--	--	--	--	--	--	--	--
	M1-1	IH 94	24 x 24	--	--	--	--	--	--	--	--	--
	M3-4	--	24 x 12	--	--	--	--	--	--	--	--	--
	M1-6	STH 119	24 x 24	--	--	--	--	--	--	--	--	--
	M5-1L	--	21 x 21	--	--	--	--	--	--	--	--	--
1222	W3-3(2S)	--	36 x 36	--	--	9.00	--	1	--	--	1	--

CONTINUED ON NEXT SHEET

TYPE I & II PERMANENT SIGNING

CATEGORY CODE 0010

SIGN NO.		SIGN MESSAGE	TYPE II SIGN SIZE W [IN.] x H [IN.]	**637.2210** SIGNS TYPE II REFLECTIVE H [SF]	**637.2215** SIGNS TYPE II REFLECTIVE H FOLDING SF	**637.2230** SIGNS TYPE II REFLECTIVE F [SF]	**634.0616** WOOD POSTS 4"x 6"X16' [EA]	**634.0618** WOOD POSTS 4"x 6"X18' [EA]	**638.2102** MOVING SIGNS TYPE II [EA]	**638.2602** REMOVING SIGNS TYPE II [EA]	**638.3000** REMOVING SMALL SIGN SUPPORTS [EA]	REMARKS NEW SIGN LOCATION
1223	W3-3(2S)	--	36 x 36	--	--	9.00	--	1	--	--	--	--
1224	R1-1F(3)	--	36 x 36	--	7.46	--	--	--	--	1	--	--
1225	R7-1D(2S)	--	18 x 24	3.00	--	--	1	--	--	1	--	--
1226	J3-1(2S)	--	24 x 57	9.50	--	--	--	1	--	1	--	--
	M3-3		24 x 12	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	24 x 24	--	--	--	--	--	--	--	--	--
	M6-1		21 x 21	--	--	--	--	--	--	--	--	--
1227	J4-1(2S)	--	24 x 36	6.00	--	--	--	1	--	--	--	--
	M3-1	--	24 x 12	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	24 x 24	--	--	--	--	--	--	--	--	--
1228	R2-1(2S)	35 MPH	24 x 30	5.00	--	--	--	--	--	1	--	--
1229	R7-1D(2S)	--	18 x 24	3.00	--	--	--	--	--	1	--	--
1230	J1-1(2S)	--	24 x 39	6.50	--	--	--	1	--	--	--	--
	M2-1	--	21 x 15	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	24 x 24	--	--	--	--	--	--	--	--	--
1231	J1-1(2S)	--	24 x 39	6.50	--	--	--	1	--	--	--	--
	M2-1	--	21 x 15	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	24 x 24	--	--	--	--	--	--	--	--	--
1232	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
1233	R5-1(2S)	--	30 x 30	6.25	--	--	--	--	--	--	--	SHEET 47
1234	R5-1(2S)	--	30 x 30	6.25	--	--	--	--	--	--	--	SHEET 47
1235	M1-94H	GRANGE AVE RIGHT ARROW	96 x 24	16.00	--	--	--	--	--	--	--	ON SIGNAL MAST ARM, SHEET 56
1236	M1-94H	GRANGE AVE LEFT ARROW	96 x 24	16.00	--	--	--	--	--	--	--	ON SIGNAL MAST ARM, SHEET 57
1237	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
1238	R10-50(2M)	--	30 x 36	7.50	--	--	--	--	--	--	--	ON SIGNAL MAST ARM, SHEET 56
1239	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
1240	R10-50(2M)	--	30 x 36	7.50	--	--	--	--	--	--	--	ON SIGNAL MAST ARM, SHEET 57
1241	NOT USED	--	-- x --	--	--	--	--	--	--	--	--	--
1242	NOT USED	--	-- x --	--	--	--	--	--	--	--	--	--
1243	NOT USED	--	-- x --	--	--	--	--	--	--	--	--	--
1244	NOT USED	--	-- x --	--	--	--	--	--	--	--	--	--
1245	NOT USED	--	-- x --	--	--	--	--	--	--	--	--	--
1246	NOT USED	--	-- x --	--	--	--	--	--	--	--	--	--
1247	NOT USED	--	-- x --	--	--	--	--	--	--	--	--	--
1248	NOT USED	--	-- x --	--	--	--	--	--	--	--	--	--
1249	NOT USED	--	-- x --	--	--	--	--	--	--	--	--	--
1250	J3-1(3)	--	36 x 84	21.00	--	--	--	1	--	--	--	--
	M3-1	--	30 x 18	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	36 x 36	--	--	--	--	--	--	--	--	--
	M6-1	--	30 x 30	--	--	--	--	--	--	--	--	--
1251	J3-2	--	-- x --	--	--	--	--	--	--	1	2	--
1252	J3-1(3)	--	36 x 84	21.00	--	--	--	1	--	1	--	--
	M3-3	--	30 x 18	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	36 x 36	--	--	--	--	--	--	--	--	--
	M6-1	--	30 x 30	--	--	--	--	--	--	--	--	--
1253	R5-1A(3)	--	42 x 30	8.75	--	--	--	--	--	--	--	--
1254	R5-1A	--	-- x --	--	--	--	--	--	--	1	1	--
1255	R5-1A	--	-- x --	--	--	--	--	--	--	1	1	--
1256	R3-20L(3)	--	36 x 54	13.50	--	--	--	1	--	--	--	--
1257	R3-55	--	-- x --	--	--	--	--	--	--	1	1	--

CONTINUED ON NEXT SHEET

TYPE I & II PERMANENT SIGNING

CATEGORY CODE 0010

SIGN NO.		SIGN MESSAGE	TYPE II SIGN SIZE W [IN.] x H [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F [SF]	634.0616 WOOD POSTS 4"x 6"X16' [EA]	634.0618 WOOD POSTS 4"x 6"X18' [EA]	638.2102 MOVING SIGNS TYPE II [EA]	638.2602 REMOVING SIGNS TYPE II [EA]	638.3000 REMOVING SMALL SIGN SUPPORTS [EA]	REMARKS NEW SIGN LOCATION
1258	D1-1(3)	RACINE, LEFT ARROW	78 x 21	11.38	--	--	1	--	--	1	2	--
1259	J2-2(3)	--	72 x 84	42.00	--	--	--	2	--	1	2	--
	M3-3	--	30 x 18	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	36 x 36	--	--	--	--	--	--	--	--	--
	M6-1	--	30 x 30	--	--	--	--	--	--	--	--	--
	M3-1	--	30 x 18	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	36 x 36	--	--	--	--	--	--	--	--	--
	M5-1R	--	30 x 30	--	--	--	--	--	--	--	--	--
1260	J2-2(3)	--	72 x 84	42.00	--	--	--	2	--	1	2	--
	M3-3	--	30 x 18	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	36 x 36	--	--	--	--	--	--	--	--	--
	M6-1	--	30 x 30	--	--	--	--	--	--	--	--	--
	M3-1	--	30 x 18	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	36 x 36	--	--	--	--	--	--	--	--	--
	M5-1R	--	30 x 30	--	--	--	--	--	--	--	--	--
1261	R6-2L(2M)	--	30 x 36	7.50	--	--	1	--	--	--	--	--
1262	R4-7(3)	--	36 x 48	12.00	--	--	--	1	--	1	1	--
1263	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	1	1	--
1264	R2-1(3)	45 MPH	36 x 48	12.00	--	--	--	1	--	1	--	--
1265	R7-1D(3)	--	24 x 30	5.00	--	--	1	--	--	1	1	--
1266	S1-1(3)	--	36 x 36	--	--	6.75	--	1	--	--	--	SHEET 18
	W16-9P(3)	--	30 x 18	--	--	3.75	--	--	--	--	--	--
	R2-6P(3)	--	36 x 24	6.00	--	--	--	--	--	--	--	--
1267	S1-1(3)	--	36 x 36	--	--	6.75	--	1	--	--	--	SHEET 18
	W16-9P(3)	--	30 x 18	--	--	3.75	--	--	--	--	--	--
	R2-6P(3)	--	36 x 24	6.00	--	--	--	--	--	--	--	--
1268	S4-51(3)	35 MPH	36 x 72	--	--	18.00	--	1	--	--	--	SHEET 18
1269	S4-51(3)	35 MPH	36 x 72	--	--	18.00	--	1	--	--	--	SHEET 18
1270	S4-51(3)	35 MPH	36 x 72	--	--	18.00	--	1	--	--	--	SHEET 25
1271	S4-51(3)	35 MPH	36 x 72	--	--	18.00	--	1	--	--	--	SHEET 25
1272	J1-1(2S)	--	24 x 39	6.50	--	--	--	1	--	--	--	SHEET 18A
	M2-1	--	21 x 15	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	24 x 24	--	--	--	--	--	--	--	--	--
1273	W3-3(2S)	--	36 x 36	--	--	9.00	--	1	--	--	--	SHEET 18A
1274	J3-2(2S)	--	48 x 57	19.00	--	--	--	1	--	--	--	SHEET 18A
	M3-1	--	24 x 12	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	24 x 24	--	--	--	--	--	--	--	--	--
	M6-1		21 x 21	--	--	--	--	--	--	--	--	--
	M3-3	--	24 x 12	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	24 x 24	--	--	--	--	--	--	--	--	--
	M6-1		21 x 21	--	--	--	--	--	--	--	--	--
1275	J3-2(2S)	--	48 x 57	19.00	--	--	--	1	--	--	--	SHEET 18A
	M3-3	--	24 x 12	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	24 x 24	--	--	--	--	--	--	--	--	--
	M6-1		21 x 21	--	--	--	--	--	--	--	--	--
	M3-1	--	24 x 12	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	24 x 24	--	--	--	--	--	--	--	--	--
	M6-1		21 x 21	--	--	--	--	--	--	--	--	--
1276	W3-3(2S)	--	36 x 36	--	--	9.00	--	1	--	--	--	SHEET 18A
1277	J1-1(2S)	--	24 x 39	6.50	--	--	--	1	--	--	--	SHEET 18A

CONTINUED ON NEXT SHEET

TYPE I & II PERMANENT SIGNING

CATEGORY CODE 0010

SIGN NO.		SIGN MESSAGE	TYPE II SIGN SIZE W [IN.] x H [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F [SF]	634.0616 WOOD POSTS 4"x 6"X16' [EA]	634.0618 WOOD POSTS 4"x 6"X18' [EA]	638.2102 MOVING SIGNS TYPE II [EA]	638.2602 REMOVING SIGNS TYPE II [EA]	638.3000 REMOVING SMALL SIGN SUPPORTS [EA]	REMARKS NEW SIGN LOCATION
	M2-1	--	21 x 15	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	24 x 24	--	--	--	--	--	--	--	--	SHEET 18A
1278	R4-7(2S)	--	24 x 30	5.00	--	--	--	1	--	1	--	SHEET 20A
1279	R3-20L(2S)	--	24 x 36	6.00	--	--	1	--	--	1	1	SHEET 20A
1280	J1-1(2S)	--	24 x 39	6.50	--	--	--	1	--	--	--	SHEET 20A
	M2-1	--	21 x 15	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	24 x 24	--	--	--	--	--	--	--	--	--
1281	W3-3(2S)	--	36 x 36	--	--	9.00	--	1	--	--	--	SHEET 20A
1282	J2-2(2S)	--	48 x 57	19.00	--	--	--	1	--	--	--	SHEET 20A
	M3-1	--	24 x 12	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	24 x 24	--	--	--	--	--	--	--	--	--
	M5-1L		21 x 21	--	--	--	--	--	--	--	--	--
	M3-3	--	24 x 12	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	24 x 24	--	--	--	--	--	--	--	--	--
	M5-1R		21 x 21	--	--	--	--	--	--	--	--	--
1283	R3-20L(2S)	--	24 x 36	6.00	--	--	1	--	--	1	1	SHEET 20A
1284	J3-1(2S)	--	24 x 57	9.50	--	--	--	1	--	1	1	SHEET 20A
	M3-1		24 x 12	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	24 x 24	--	--	--	--	--	--	--	--	--
	M6-1		21 x 21	--	--	--	--	--	--	--	--	--
1285	R6-2R(2S)	--	24 x 30	5.00	--	--	1	--	--	--	--	SHEET 20A
1286	R5-1A(2S)	--	36 x 24	6.00	--	--	1	--	--	--	--	SHEET 20A
1287	J3-1(2S)	--	24 x 57	9.50	--	--	--	1	--	1	1	SHEET 20A
	M3-3		24 x 12	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	24 x 24	--	--	--	--	--	--	--	--	--
	M6-1		21 x 21	--	--	--	--	--	--	--	--	--
1288	J3-1(2S)	--	24 x 57	9.50	--	--	--	1	--	1	1	SHEET 20B
	M3-1		24 x 12	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	24 x 24	--	--	--	--	--	--	--	--	--
	M6-1		21 x 21	--	--	--	--	--	--	--	--	--
1289	R3-20LL(2S)	--	24 x 36	6.00	--	--	1	--	--	1	1	SHEET 20B
1290	R5-1A(2S)	--	36 x 24	6.00	--	--	1	--	--	--	--	SHEET 20B
1291	R6-2R(2S)	--	24 x 30	5.00	--	--	1	--	--	1	1	SHEET 20B
1292	R3-20L(2S)	--	24 x 36	6.00	--	--	1	--	--	1	1	SHEET 20B
1293	R4-7(2S)	--	24 x 30	5.00	--	--	--	1	--	1	1	--
1294	R6-2R(2S)	--	24 x 30	5.00	--	--	1	--	--	1	1	SHEET 20B
1295	J3-1(2S)	--	24 x 57	9.50	--	--	--	1	--	1	1	SHEET 20B
	M3-3		24 x 12	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	24 x 24	--	--	--	--	--	--	--	--	--
	M6-1		21 x 21	--	--	--	--	--	--	--	--	--
1296	R6-2R(2S)	--	24 x 30	5.00	--	--	1	--	--	1	--	SHEET 20B
1297	W3-3(2S)	--	36 x 36	--	--	9.00	--	1	--	--	--	SHEET 24A
1298	J1-1(2S)	--	24 x 39	6.50	--	--	--	1	--	--	--	SHEET 24A
	M2-1	--	21 x 15	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	24 x 24	--	--	--	--	--	--	--	--	--
1299	J3-2(2S)	--	48 x 57	19.00	--	--	--	1	--	--	--	SHEET 24A
	M3-3	--	24 x 12	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	24 x 24	--	--	--	--	--	--	--	--	--
	M6-1		21 x 21	--	--	--	--	--	--	--	--	--
	M3-1	--	24 x 12	--	--	--	--	--	--	--	--	--

CONTINUED ON NEXT SHEET

TYPE I & II PERMANENT SIGNING

CATEGORY CODE 0010

SIGN NO.		SIGN MESSAGE	TYPE II SIGN SIZE W [IN.] x H [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F [SF]	634.0616 WOOD POSTS 4"x 6"X16' [EA]	634.0618 WOOD POSTS 4"x 6"X18' [EA]	638.2102 MOVING SIGNS TYPE II [EA]	638.2602 REMOVING SIGNS TYPE II [EA]	638.3000 REMOVING SMALL SIGN SUPPORTS [EA]	REMARKS NEW SIGN LOCATION
	M1-6	STH 38	24 x 24	--	--	--	--	--	--	--	--	--
	M6-1		21 x 21	--	--	--	--	--	--	--	--	--
1300	J23-1	--	-- x --	--	--	--	--	--	1	--	--	SHEET 29
1301	R3-20L(3)	--	36 x 54	13.50	--	--	--	1	--	--	--	SHEET 30
1302	R5-1A(2S)	--	36 x 24	6.00	--	--	1	--	--	--	--	SHEET 24B
1303	R9-3A(2S)	--	12 x 18	1.50	--	--	1	--	--	--	--	SHEET 46
	R9-3BL(2S)	--	18 x 12	1.50	--	--	--	--	--	--	--	--
1304	J2-2(2S)	--	48 x 57	19.00	--	--	--	1	--	--	--	SHEET 24B
	M3-3	--	24 x 12	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	24 x 24	--	--	--	--	--	--	--	--	--
	M5-1L		21 x 21	--	--	--	--	--	--	--	--	--
	M3-1	--	24 x 12	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	24 x 24	--	--	--	--	--	--	--	--	--
	M5-1R		21 x 21	--	--	--	--	--	--	--	--	--
1305	J1-1(2S)	--	24 x 39	6.50	--	--	--	1	--	--	--	SHEET 24B
	M2-1	--	21 x 15	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	24 x 24	--	--	--	--	--	--	--	--	--
1306	W3-3(2S)	--	36 x 36	--	--	9.00	--	1	--	1	1	--
1307	R9-3A(2S)	--	12 x 18	1.50	--	--	1	--	--	--	--	SHEET 46
	R9-3BR(2S)	--	18 x 12	1.50	--	--	--	--	--	--	--	--
1308	W3-3(2S)	--	36 x 36	--	--	9.00	--	1	--	1	1	SHEET 29A
1309	J1-1(2S)	--	24 x 39	6.50	--	--	--	1	--	--	--	SHEET 29A
	M2-1	--	21 x 15	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	24 x 24	--	--	--	--	--	--	--	--	--
1310	R3-20L(2S)	--	24 x 36	6.00	--	--	1	--	--	1	1	SHEET 29A
1311	J3-1(2S)	--	24 x 57	9.50	--	--	--	1	--	1	1	SHEET 29A
	M3-1		24 x 12	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	24 x 24	--	--	--	--	--	--	--	--	--
	M6-1		21 x 21	--	--	--	--	--	--	--	--	--
1312	J3-1(2S)	--	24 x 57	9.50	--	--	--	1	--	1	1	SHEET 29A
	M3-3		24 x 12	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	24 x 24	--	--	--	--	--	--	--	--	--
	M6-1		21 x 21	--	--	--	--	--	--	--	--	--
1313	NOT USED	--	-- x --	--	--	--	--	--	--	--	--	--
1314	J2-1	--	-- x --	--	--	--	--	1	1	--	1	SHEET 29B
1315	R3-20L(2S)	--	24 x 36	6.00	--	--	1	--	--	1	1	SHEET 29B
1316	R6-2R(2S)	--	24 x 30	5.00	--	--	1	--	--	1	--	SHEET 29B
1317	J2-2	--	-- x --	--	--	--	--	--	--	1	1	SHEET 38A
1318	W3-3(2S)	--	36 x 36	--	--	9.00	--	1	--	--	--	SHEET 38A
1318A	W3-3(2S)	--	36 x 36	--	--	9.00	--	1	--	--	--	SHEET 38A
1319	J1-1(2S)	--	24 x 39	6.50	--	--	--	1	--	1	1	SHEET 38A
	M2-1	--	21 x 15	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	24 x 24	--	--	--	--	--	--	--	--	--
1320	D1-65(MOD)	S HOWELL AVE, NEXT SIGNAL	96 x 30	20.00	--	--	--	2	--	1	2	SHEET 38A
1320A	J2-1	--	-- x --	--	--	--	--	--	--	1	1	--
1321	J2-2(2S)	--	48 x 57	19.00	--	--	--	1	--	--	--	SHEET 38A
	M3-1	--	24 x 12	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	24 x 24	--	--	--	--	--	--	--	--	--
	M5-1L		21 x 21	--	--	--	--	--	--	--	--	--
	M3-3	--	24 x 12	--	--	--	--	--	--	--	--	--

CONTINUED ON NEXT SHEET

TYPE I & II PERMANENT SIGNING

CATEGORY CODE 0010

SIGN NO.		SIGN MESSAGE	TYPE II SIGN SIZE W [IN.] x H [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F [SF]	634.0616 WOOD POSTS 4"x 6"X16' [EA]	634.0618 WOOD POSTS 4"x 6"X18' [EA]	638.2102 MOVING SIGNS TYPE II [EA]	638.2602 REMOVING SIGNS TYPE II [EA]	638.3000 REMOVING SMALL SIGN SUPPORTS [EA]	REMARKS NEW SIGN LOCATION
	M1-6	STH 38	24 x 24	--	--	--	--	--	--	--	--	--
	M5-1R		21 x 21	--	--	--	--	--	--	--	--	--
1322	J2-2(2S)	--	48 x 57	19.00	--	--	--	1	--	--	--	SHEET 38A
	M3-1	--	24 x 12	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	24 x 24	--	--	--	--	--	--	--	--	--
	M5-1L		21 x 21	--	--	--	--	--	--	--	--	--
	M3-3	--	24 x 12	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	24 x 24	--	--	--	--	--	--	--	--	--
	M5-1R		21 x 21	--	--	--	--	--	--	--	--	--
1323	NOT USED	--	-- x --	--	--	--	--	--	--	--	--	--
1324	R3-20L(2S)	--	24 x 36	6.00	--	--	1	--	--	--	--	--
1325	R3-8Y(2S)	--	30 x 36	7.50	--	--	1	--	--	--	--	--
1326	J3-1(2S)	--	24 x 57	9.50	--	--	--	1	--	--	--	--
	M3-3		24 x 12	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	24 x 24	--	--	--	--	--	--	--	--	--
	M6-2		21 x 21	--	--	--	--	--	--	--	--	--
1327	R3-8Y(2S)	--	30 x 36	7.50	--	--	1	--	--	--	--	SHEET 38B
1328	J3-1(2S)	--	24 x 57	9.50	--	--	--	--	--	1	--	SHEET 38B
	M3-1		24 x 12	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	24 x 24	--	--	--	--	--	--	--	--	--
	M6-2		21 x 21	--	--	--	--	--	--	--	--	--
1329	J3-1(2S)	--	24 x 57	9.50	--	--	--	1	--	1	1	SHEET 38B
	M3-3		24 x 12	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	24 x 24	--	--	--	--	--	--	--	--	--
	M6-1		21 x 21	--	--	--	--	--	--	--	--	--
1330	R3-20L(2S)	--	24 x 36	6.00	--	--	1	--	--	1	1	SHEET 38B
1331	D1-65(MOD)	S HOWELL AVE, NEXT SIGNAL	96 x 30	20.00	--	--	--	2	--	1	2	SHEET 38B
1332	J2-2(2S)	--	48 x 57	19.00	--	--	--	1	--	--	--	SHEET 38B
	M3-1	--	24 x 12	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	24 x 24	--	--	--	--	--	--	--	--	--
	M5-1L		21 x 21	--	--	--	--	--	--	--	--	--
	M3-3	--	24 x 12	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	24 x 24	--	--	--	--	--	--	--	--	--
	M5-1R		21 x 21	--	--	--	--	--	--	--	--	--
1333	J1-1(2S)	--	24 x 39	6.50	--	--	--	1	--	--	--	--
	M2-1	--	21 x 15	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	24 x 24	--	--	--	--	--	--	--	--	--
1334	W3-3(3)	--	36 x 36	--	--	9.00	--	1	--	--	--	SHEET 26
1335	W3-3(3)	--	36 x 36	--	--	9.00	--	1	--	--	--	SHEET 26
1336	D1-65(MOD)	SUSAN DRIVE, NEXT SIGNAL	90 x 30	18.75	--	--	2	--	--	--	--	SHEET 26
1337	D1-65(MOD)	SUSAN DRIVE, NEXT SIGNAL	90 x 30	18.75	--	--	2	--	--	--	--	SHEET 26
1338	M1-94(H)	SUSAN DR	72 x 24	--	--	--	--	--	--	--	--	ON SIGNAL MAST ARM, SHEET 27
1339	M1-94(H)	SUSAN DR	72 x 24	--	--	--	--	--	--	--	--	ON SIGNAL MAST ARM, SHEET 27
1340	D1-65(MOD)	SUSAN DRIVE, NEXT SIGNAL	90 x 30	18.75	--	--	2	--	--	--	--	SHEET 28
1341	D1-65(MOD)	SUSAN DRIVE, NEXT SIGNAL	90 x 30	18.75	--	--	2	--	--	--	--	SHEET 28
1342	W3-3(3)	--	36 x 36	--	--	9.00	--	1	--	--	--	SHEET 28
1343	W3-3(3)	--	36 x 36	--	--	9.00	--	1	--	--	--	SHEET 28
1344	W11-2(3)	--	36 x 36	--	--	9.00	--	--	1	--	--	SHEET 32
	W16-7L(3)	--	30 x 18	--	--	3.75	--	--	--	--	--	--
1345	W11-2(3)	--	36 x 36	--	--	9.00	--	--	1	--	--	SHEET 32

CONTINUED ON NEXT SHEET

TYPE I & II PERMANENT SIGNING

CATEGORY CODE 0010

SIGN NO.		SIGN MESSAGE	TYPE II SIGN SIZE W [IN.] x H [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F [SF]	634.0616 WOOD POSTS 4"x 6"X16' [EA]	634.0618 WOOD POSTS 4"x 6"X18' [EA]	638.2102 MOVING SIGNS TYPE II [EA]	638.2602 REMOVING SIGNS TYPE II [EA]	638.3000 REMOVING SMALL SIGN SUPPORTS [EA]	REMARKS NEW SIGN LOCATION
	W16-7R(3)	--	30 x 18	--	--	3.75	--	--	--	--	--	--
1346	W11-2(3)	--	36 x 36	--	--	9.00	--	--	1	--	--	SHEET 32
	W16-7R(3)	--	30 x 18	--	--	3.75	--	--	--	--	--	--
1347	W11-2(3)	--	36 x 36	--	--	9.00	--	--	1	--	--	SHEET 32
	W16-7L(3)	--	30 x 18	--	--	3.75	--	--	--	--	--	--
1348	W11-2(3)	--	36 x 36	--	--	9.00	--	--	1	--	--	SHEET 34
	W16-7L(3)	--	30 x 18	--	--	3.75	--	--	--	--	--	--
1349	W11-2(3)	--	36 x 36	--	--	9.00	--	--	1	--	--	SHEET 34
	W16-7R(3)	--	30 x 18	--	--	3.75	--	--	--	--	--	--
1350	W11-2(3)	--	36 x 36	--	--	9.00	--	--	1	--	--	SHEET 34
	W16-7R(3)	--	30 x 18	--	--	3.75	--	--	--	--	--	--
1351	W11-2(3)	--	36 x 36	--	--	9.00	--	--	1	--	--	SHEET 34
	W16-7L(3)	--	30 x 18	--	--	3.75	--	--	--	--	--	--
1352	R5-1(3)	--	36 x 36	9.00	--	--	1	--	--	--	--	SHEET 34
1353	R6-2L(2M)	--	30 x 36	7.50	--	--	1	--	--	--	--	SHEET 41
1354	R6-2L(2M)	--	30 x 36	7.50	--	--	1	--	--	--	--	SHEET 50
1355	W11-2(3)	--	36 x 36	--	--	9.00	--	--	1	--	--	SHEET 31
	W16-9P(3)	--	30 x 18	--	--	3.75	--	--	--	--	--	--
1356	W11-2(3)	--	36 x 36	--	--	9.00	--	--	1	--	--	SHEET 31
	W16-9P(3)	--	30 x 18	--	--	3.75	--	--	--	--	--	--
1357	W11-2(3)	--	36 x 36	--	--	9.00	--	--	1	--	--	SHEET 33
	W16-9P(3)	--	30 x 18	--	--	3.75	--	--	--	--	--	--
1358	W11-2(3)	--	36 x 36	--	--	9.00	--	--	1	--	--	SHEET 33
	W16-9P(3)	--	30 x 18	--	--	3.75	--	--	--	--	--	--
1359	W11-2(3)	--	36 x 36	--	--	9.00	--	--	1	--	--	SHEET 33
	W16-9P(3)	--	30 x 18	--	--	3.75	--	--	--	--	--	--
1360	W11-2(3)	--	36 x 36	--	--	9.00	--	--	1	--	--	SHEET 33
	W16-9P(3)	--	30 x 18	--	--	3.75	--	--	--	--	--	--
1361	W11-2(3)	--	36 x 36	--	--	9.00	--	--	1	--	--	SHEET 35
	W16-9P(3)	--	30 x 18	--	--	3.75	--	--	--	--	--	--
1362	W11-2(3)	--	36 x 36	--	--	9.00	--	--	1	--	--	SHEET 35
	W16-9P(3)	--	30 x 18	--	--	3.75	--	--	--	--	--	--
1363	W11-2(3)	--	36 x 36	--	--	9.00	--	--	1	--	--	SHEET 44
	W16-7L(3)	--	30 x 18	--	--	3.75	--	--	--	--	--	--
1364	W11-2(3)	--	36 x 36	--	--	9.00	--	--	1	--	--	SHEET 44
	W16-7R(3)	--	30 x 18	--	--	3.75	--	--	--	--	--	--
1365	W11-2(3)	--	36 x 36	--	--	9.00	--	--	1	--	--	SHEET 44
	W16-7R(3)	--	30 x 18	--	--	3.75	--	--	--	--	--	--
1366	W11-2(3)	--	36 x 36	--	--	9.00	--	--	1	--	--	SHEET 44
	W16-7L(3)	--	30 x 18	--	--	3.75	--	--	--	--	--	--
1367	W11-2(3)	--	36 x 36	--	--	9.00	--	--	1	--	--	SHEET 42
	W16-7L(3)	--	30 x 18	--	--	3.75	--	--	--	--	--	--
1368	W11-2(3)	--	36 x 36	--	--	9.00	--	--	1	--	--	SHEET 42
	W16-7R(3)	--	30 x 18	--	--	3.75	--	--	--	--	--	--
1369	W11-2(3)	--	36 x 36	--	--	9.00	--	--	1	--	--	SHEET 42
	W16-7R(3)	--	30 x 18	--	--	3.75	--	--	--	--	--	--
1370	W11-2(3)	--	36 x 36	--	--	9.00	--	--	1	--	--	SHEET 42
	W16-7L(3)	--	30 x 18	--	--	3.75	--	--	--	--	--	--
1371	W11-2(3)	--	36 x 36	--	--	9.00	--	--	1	--	--	SHEET 41
	W16-9P(3)	--	30 x 18	--	--	3.75	--	--	--	--	--	--

CONTINUED ON NEXT SHEET

TYPE I & II PERMANENT SIGNING

CATEGORY CODE 0010

SIGN NO.		SIGN MESSAGE	TYPE II SIGN SIZE W [IN.] x H [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F [SF]	634.0616 WOOD POSTS 4"x 6"X16' [EA]	634.0618 WOOD POSTS 4"x 6"X18' [EA]	638.2102 MOVING SIGNS TYPE II [EA]	638.2602 REMOVING SIGNS TYPE II [EA]	638.3000 REMOVING SMALL SIGN SUPPORTS [EA]	REMARKS NEW SIGN LOCATION
1372	W11-2(3)	--	36 x 36	--	--	9.00	--	--	1	--	--	SHEET 41
	W16-9P(3)	--	30 x 18	--	--	3.75	--	--	--	--	--	--
1373	W11-2(3)	--	36 x 36	--	--	9.00	--	--	1	--	--	SHEET 45
	W16-9P(3)	--	30 x 18	--	--	3.75	--	--	--	--	--	--
1374	W11-2(3)	--	36 x 36	--	--	9.00	--	--	1	--	--	SHEET 45
	W16-9P(3)	--	30 x 18	--	--	3.75	--	--	--	--	--	--
1375	W11-2(2S)	--	30 x 30	--	--	6.25	--	--	1	--	--	SHEET 48
	W16-7L(2S)	--	24 x 12	--	--	2.00	--	--	--	--	--	--
1376	W11-2(2S)	--	30 x 30	--	--	6.25	--	--	1	--	--	SHEET 48
	W16-7R(2S)	--	24 x 12	--	--	2.00	--	--	--	--	--	--
1377	W11-2(2S)	--	30 x 30	--	--	6.25	--	--	1	--	--	SHEET 48
	W16-7R(2S)	--	24 x 12	--	--	2.00	--	--	--	--	--	--
1378	W11-2(2S)	--	30 x 30	--	--	6.25	--	--	1	--	--	SHEET 48
	W16-7L(2S)	--	24 x 12	--	--	2.00	--	--	--	--	--	--
1379	W11-2(3)	--	30 x 30	--	--	6.25	--	--	1	--	--	SHEET 48
	W16-9P(3)	--	24 x 12	--	--	2.00	--	--	--	--	--	--
1380	W11-2(3)	--	30 x 30	--	--	6.25	--	--	1	--	--	SHEET 48
	W16-9P(3)	--	24 x 12	--	--	2.00	--	--	--	--	--	--
1381	W11-2(3)	--	30 x 30	--	--	6.25	--	--	1	--	--	SHEET 49
	W16-9P(3)	--	24 x 12	--	--	2.00	--	--	--	--	--	--
1382	W11-2(3)	--	30 x 30	--	--	6.25	--	--	1	--	--	SHEET 49
	W16-9P(3)	--	24 x 12	--	--	2.00	--	--	--	--	--	--
1383	W11-2(2S)	--	30 x 30	--	--	6.25	--	--	1	--	--	SHEET 49
	W16-7L(2S)	--	24 x 12	--	--	2.00	--	--	--	--	--	--
1384	W11-2(2S)	--	30 x 30	--	--	6.25	--	--	1	--	--	SHEET 49
	W16-7R(2S)	--	24 x 12	--	--	2.00	--	--	--	--	--	--
1385	W11-2(2S)	--	30 x 30	--	--	6.25	--	--	1	--	--	SHEET 49
	W16-7R(2S)	--	24 x 12	--	--	2.00	--	--	--	--	--	--
1386	W11-2(2S)	--	30 x 30	--	--	6.25	--	--	1	--	--	SHEET 49
	W16-7L(2S)	--	24 x 12	--	--	2.00	--	--	--	--	--	--
1387	R3-20L(2S)	--	24 x 36	6.00	--	--	1	--	--	1	1	SHEET 47A
1388	R6-2R(2S)	--	24 x 30	5.00	--	--	1	--	--	1	1	SHEET 47A
1389	R6-2R(2S)	--	24 x 30	5.00	--	--	1	--	--	1	1	SHEET 47A
1390	J4-1(2S)	--	24 x 36	6.00	--	--	--	1	--	1	1	--
	M3-4	--	24 x 12	--	--	--	--	--	--	--	--	--
	M1-5A	CTH ZZ	24 x 24	--	--	--	--	--	--	--	--	--
1391	J1-1(2S)	--	24 x 39	6.50	--	--	--	1	--	1	1	SHEET 47A
	M2-1	--	21 x 15	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	24 x 24	--	--	--	--	--	--	--	--	--
1392	J2-2(2S)	--	48 x 57	19.00	--	--	--	1	--	--	--	SHEET 47A
	M3-1	--	24 x 12	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	24 x 24	--	--	--	--	--	--	--	--	--
	M5-1L		21 x 21	--	--	--	--	--	--	--	--	--
	M3-3	--	24 x 12	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	24 x 24	--	--	--	--	--	--	--	--	--
	M5-1R		21 x 21	--	--	--	--	--	--	--	--	--
1393	NOT USED	--	-- x --	--	--	--	--	--	--	--	--	--
1394	J3-1(2S)	--	24 x 57	9.50	--	--	--	1	--	--	--	SHEET 47A
	M3-1	--	24 x 12	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	24 x 24	--	--	--	--	--	--	--	--	--

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TYPE I & II PERMANENT SIGNING

CATEGORY CODE 0010

SIGN NO.		SIGN MESSAGE	TYPE II SIGN SIZE W [IN.] x H [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F [SF]	634.0616 WOOD POSTS 4"x 6"X16' [EA]	634.0618 WOOD POSTS 4"x 6"X18' [EA]	638.2102 MOVING SIGNS TYPE II [EA]	638.2602 REMOVING SIGNS TYPE II [EA]	638.3000 REMOVING SMALL SIGN SUPPORTS [EA]	REMARKS NEW SIGN LOCATION
	M6-2	--	21 x 21	--	--	--	--	--	--	--	--	--
1395	J3-1(2S)	--	24 x 57	9.50	--	--	--	1	--	--	--	SHEET 47A
	M3-3	--	24 x 12	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	24 x 24	--	--	--	--	--	--	--	--	--
	M6-1	--	21 x 21	--	--	--	--	--	--	--	--	--
1396	R6-2R(2S)	--	24 x 30	5.00	--	--	1	--	--	1	1	SHEET 47B
1397	NOT USED	--	-- x --	--	--	--	--	--	--	--	--	--
1398	R3-20L(2S)	--	24 x 36	6.00	--	--	1	--	--	1	1	SHEET 47B
1399	J2-2(2S)	--	48 x 57	19.00	--	--	--	1	--	--	--	SHEET 47B
	M3-3	--	24 x 12	--	--	--	--	--	--	--	--	SHEET 47B
	M1-6	STH 38	24 x 24	--	--	--	--	--	--	--	--	--
	M5-1L		21 x 21	--	--	--	--	--	--	--	--	--
	M3-1	--	24 x 12	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	24 x 24	--	--	--	--	--	--	--	--	--
	M5-1R	--	21 x 21	--	--	--	--	--	--	--	--	--
1400	D1-65(MOD)	S HOWELL AVE, NEXT SIGNAL	96 x 30	20.00	--	--	--	2	--	1	2	--
1401	J1-1	--	-- x --	--	--	--	--	1	1	--	--	--
1402	W3-3(2S)	--	36 x 36	--	--	9.00	--	1	--	--	--	SHEET 56
1403	W3-3(2S)	--	36 x 36	--	--	9.00	--	1	--	--	--	SHEET 56
1404	R5-1(2S)	--	30 x 30	6.25	--	--	--	--	--	--	--	SHEET 56
1405	R1-1(3)	--	36 x 36	7.46	--	--	--	1	--	1	1	SHEET 56
	R6-3A(2M)	--	30 x 24	5.00	--	--	--	--	--	--	--	--
1406	W3-3	--	-- x --	--	--	--	--	--	--	1	--	SHEET 56
1407	W3-3	--	-- x --	--	--	--	--	--	--	1	1	SHEET 56
1408	R7-1D(2S)	--	18 x 24	3.00	--	--	1	--	--	1	--	SHEET 56
1409	R3-20L(2S)	--	24 x 36	6.00	--	--	1	--	--	1	1	SHEET 56
1410	R1-2(2S)	--	36 x 31	3.88	--	--	--	--	--	--	--	SHEET 56
1411	R5-1A(2S)	--	36 x 24	6.00	--	--	1	--	--	1	1	SHEET 59
1412	R5-1A(2S)	--	36 x 24	6.00	--	--	1	--	--	1	1	SHEET 59
1413	J22-1(2S)	--	24 x 57	9.50	--	--	--	--	--	--	--	SHEET 59
	M4-5	--	24 x 12	--	--	--	--	--	--	--	--	--
	M1-6	STH 36	24 x 24	--	--	--	--	--	--	--	--	--
	M6-1	--	21 x 21	--	--	--	--	--	--	--	--	--
1414	R5-1(2S)	--	30 x 30	6.25	--	--	1	--	--	--	--	SHEET 59
	R5-1A(2S)	--	36 x 24	6.00	--	--	--	--	--	--	--	3' MOUNTING HEIGHT, SHEET 59
1415	R5-1(2S)	--	30 x 30	6.25	--	--	--	1	--	--	--	SHEET 59
	R5-1A(2S)	--	36 x 24	6.00	--	--	--	--	--	--	--	3' MOUNTING HEIGHT, SHEET 59
1416	J22-1(2S)	--	24 x 57	9.50	--	--	--	1	--	--	--	--
	MB4-5	--	24 x 12	--	--	--	--	--	--	--	--	--
	M1-1	IH 94	24 x 24	--	--	--	--	--	--	--	--	--
	MB6-1	--	21 x 21	--	--	--	--	--	--	--	--	--
1417	W3-3(2S)	--	36 x 36	--	--	9.00	--	1	--	1	--	SHEET 59
1418	W3-3(2S)	--	36 x 36	--	--	9.00	--	1	--	1	--	SHEET 59
1419	J3-1(2S)	--	24 x 57	9.50	--	--	--	1	--	1	1	SHEET 59
	M3-3	--	24 x 12	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	24 x 24	--	--	--	--	--	--	--	--	--
	M6-2	--	21 x 21	--	--	--	--	--	--	--	--	--
1420	J3-1(2S)	--	24 x 57	9.50	--	--	--	1	--	1	--	SHEET 59
	M3-1	--	24 x 12	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	24 x 24	--	--	--	--	--	--	--	--	--

CONTINUED ON NEXT SHEET

TYPE I & II PERMANENT SIGNING

CATEGORY CODE 0010

SIGN NO.		SIGN MESSAGE	TYPE II SIGN SIZE W [IN.] x H [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F [SF]	634.0616 WOOD POSTS 4"x 6"X16' [EA]	634.0618 WOOD POSTS 4"x 6"X18' [EA]	638.2102 MOVING SIGNS TYPE II [EA]	638.2602 REMOVING SIGNS TYPE II [EA]	638.3000 REMOVING SMALL SIGN SUPPORTS [EA]	REMARKS NEW SIGN LOCATION
	M6-1	--	21 x 21	--	--	--	--	--	--	--	--	--
1421	J2-2(2S)	--	48 x 57	19.00	--	--	--	1	--	--	--	SHEET 20B
	M3-3	--	24 x 12	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	24 x 24	--	--	--	--	--	--	--	--	--
	M5-1L		21 x 21	--	--	--	--	--	--	--	--	--
	M3-1	--	24 x 12	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	24 x 24	--	--	--	--	--	--	--	--	--
	M5-1R		21 x 21	--	--	--	--	--	--	--	--	--
1422	J1-1(2S)	--	24 x 39	6.50	--	--	--	1	--	--	--	SHEET 20B
	M2-1	--	21 x 15	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	24 x 24	--	--	--	--	--	--	--	--	--
1423	S4-51(3)	35 MPH	36 x 72	--	--	18.00	--	1	--	--	--	SHEET 22
1424	S4-51(3)	35 MPH	36 x 72	--	--	18.00	--	1	--	--	--	SHEET 22
1425	M1-94H(2)	S HOWELL AVE	114 x 24	19.00	--	--	--	--	--	--	--	ON SIGNAL MAST ARM. SHEET 29
1426	R7-1R(3)	--	24 x 30	5.00	--	--	1	--	--	1	--	--
1427	R7-1D	--	-- x --	--	--	--	--	--	--	1	1	SHEET 11
1428	R7-1D	--	-- x --	--	--	--	--	--	--	1	1	--
1429	R7-1R	--	-- x --	--	--	--	--	--	--	1	1	--
1430	R7-1D	--	-- x --	--	--	--	--	--	--	1	1	--
1431	J22-1	--	-- x --	--	--	--	--	--	1	--	--	SHEET 30
1432	W12-1D(2M)	--	24 x 24	--	--	4.00	1	--	--	--	--	2' MOUNTING HEIGHT, SHEET 38
1433	R6-2R(2S)	--	24 x 30	5.00	--	--	--	--	--	--	--	SHEET 45
1434	J3-1	--	-- x --	--	--	--	--	--	--	1	1	SHEET 46
1435	R5-1	--	-- x --	--	--	--	--	--	--	1	1	SHEET 46
1436	R10-16	--	-- x --	--	--	--	--	--	1	--	--	--
1437	M1-94H(2)	S HOWELL AVE	114 x 24	19.00	--	--	--	--	--	--	--	ON SIGNAL MAST ARM. SHEET 56
1438	J3-1(2S)	--	24 x 57	9.50	--	--	--	1	--	--	--	SHEET 59
	M3-3	--	24 x 12	--	--	--	--	--	--	--	--	--
	M1-6	STH 38	24 x 24	--	--	--	--	--	--	--	--	--
	M6-2	--	21 x 21	--	--	--	--	--	--	--	--	--
1439	R3-20LL(2S)	--	24 x 36	6.00	--	--	1	--	--	--	--	SHEET 3
	TOTALS			9,069.86	522.20	1,798.70	418	469	79	831	550	--

PROJECT NO:2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	MISCELLANEOUS QUANTITIES- PERMANENT SIGNING	SHEET: 609	E

FILE NAME: J:\projects\D2_20601538\71\SIGN\Quantities\ PLOT DATE : 1/28/2014 11:30:20 AM PLOT BY : MSCKVW PLOT NAME : 030202_mq PLOT SCALE : 1:1

INFORMATION ONLY
SUMMARY OF STATE FURNISHED MATERIALS FOR TRAFFIC SIGNALS
AT THE INTERSECTION OF STH 38 & STH 100

QUANT. EACH	DESCRIPTION
4	MONOTUBE POLE TYPE 10
4	MONOTUBE POLE TYPE 12
8	STEEL LUMINAIRE ARM 15-FT
3	MONOTUBE ARM 15-FT
1	MONOTUBE ARM 20-FT
1	MONOTUBE ARM 40-FT
2	MONOTUBE ARM 45-FT
1	MONOTUBE ARM 55-FT
4	ANCHOR RODS TYPE 10 BASE
4	ANCHOR RODS TYPE 13 BASE
1	TRAFFIC SIGNAL CONTROLLER AND CABINET
1	VIDEO DETECTION SYSTEM
4	EMERGENCY VEHICLE PREEMPTION (EVP) DETECTOR HEAD
50	PATCH PANEL WITH FIBER OPTIC CABLE PIGTAIL 6-CT
1	ETHERNET SWITCH 2-PORT

INFORMATION ONLY
SUMMARY OF STATE FURNISHED MATERIALS FOR TRAFFIC SIGNALS
AT THE INTERSECTION OF STH 38 & CENTENNIAL DRIVE

QUANT. EACH	DESCRIPTION
4	MONOTUBE POLE TYPE 13
4	STEEL LUMINAIRE ARM 15-FT
1	MONOTUBE ARM 35-FT
2	MONOTUBE ARM 40-FT
1	MONOTUBE ARM 45-FT
4	ANCHOR RODS TYPE 13 BASE
1	TRAFFIC SIGNAL CONTROLLER AND CABINET
1	VIDEO DETECTION SYSTEM
4	EMERGENCY VEHICLE PREEMPTION (EVP) DETECTOR HEAD
25	PATCH PANEL WITH FIBER OPTIC CABLE PIGTAIL 6-CT
1	ETHERNET SWITCH 2-PORT

INFORMATION ONLY
SUMMARY OF STATE FURNISHED MATERIALS FOR TRAFFIC SIGNALS
AT THE INTERSECTION OF STH 38 & PUETZ ROAD

QUANT. EACH	DESCRIPTION
1	ANCHOR RODS TYPE 13 BASE
1	TRAFFIC SIGNAL CONTROLLER AND CABINET
60	PATCH PANEL WITH FIBER OPTIC CABLE PIGTAIL 6-CT
1	ETHERNET SWITCH 2-PORT

INFORMATION ONLY
SUMMARY OF STATE FURNISHED MATERIALS FOR TRAFFIC SIGNALS
AT THE INTERSECTION OF STH 38 & FOREST HILL ROAD

QUANT. EACH	DESCRIPTION
4	MONOTUBE POLE TYPE 13
4	STEEL LUMINAIRE ARM 15-FT
4	MONOTUBE ARM 40-FT
4	ANCHOR RODS TYPE 13 BASE
1	TRAFFIC SIGNAL CONTROLLER AND CABINET
1	VIDEO DETECTION SYSTEM
4	EMERGENCY VEHICLE PREEMPTION (EVP) DETECTOR HEAD
40	PATCH PANEL WITH FIBER OPTIC CABLE PIGTAIL 6-CT
1	ETHERNET SWITCH 2-PORT

INFORMATION ONLY
SUMMARY OF STATE FURNISHED MATERIALS FOR TRAFFIC SIGNALS
AT THE INTERSECTION OF STH 38 & SUSAN DRIVE

QUANT. EACH	DESCRIPTION
2	MONOTUBE POLE TYPE 10
4	MONOTUBE POLE TYPE 12
4	STEEL LUMINAIRE ARM 15-FT
2	MONOTUBE ARM 15-FT
2	MONOTUBE ARM 35-FT
2	MONOTUBE ARM 40-FT
2	ANCHOR RODS TYPE 10 BASE
4	ANCHOR RODS TYPE 13 BASE
1	TRAFFIC SIGNAL CONTROLLER AND CABINET
1	VIDEO DETECTION SYSTEM
4	EMERGENCY VEHICLE PREEMPTION (EVP) DETECTOR HEAD
40	PATCH PANEL WITH FIBER OPTIC CABLE PIGTAIL 6-CT
1	ETHERNET SWITCH 2-PORT

INFORMATION ONLY
SUMMARY OF STATE FURNISHED MATERIALS FOR TRAFFIC SIGNALS
AT THE INTERSECTION OF STH 38 & DREXEL AVENUE

QUANT. EACH	DESCRIPTION
4	MONOTUBE POLE TYPE 10
4	MONOTUBE POLE TYPE 12
8	STEEL LUMINAIRE ARM 15-FT
4	MONOTUBE ARM 15-FT
1	MONOTUBE ARM 35-FT
3	MONOTUBE ARM 40-FT
4	ANCHOR RODS TYPE 10 BASE
4	ANCHOR RODS TYPE 13 BASE
1	TRAFFIC SIGNAL CONTROLLER AND CABINET
1	VIDEO DETECTION SYSTEM
4	EMERGENCY VEHICLE PREEMPTION (EVP) DETECTOR HEAD
60	PATCH PANEL WITH FIBER OPTIC CABLE PIGTAIL 6-CT
1	ETHERNET SWITCH 2-PORT

INFORMATION ONLY
SUMMARY OF STATE FURNISHED MATERIALS FOR TRAFFIC SIGNALS
AT THE INTERSECTION OF STH 38 & RAWSON AVENUE

QUANT. EACH	DESCRIPTION
4	MONOTUBE POLE TYPE 10
4	MONOTUBE POLE TYPE 12
8	STEEL LUMINAIRE ARM 15-FT
2	MONOTUBE ARM 15-FT
2	MONOTUBE ARM 25-FT
3	MONOTUBE ARM 40-FT
1	MONOTUBE ARM 45-FT
4	ANCHOR RODS TYPE 10 BASE
4	ANCHOR RODS TYPE 13 BASE
1	TRAFFIC SIGNAL CONTROLLER AND CABINET
1	VIDEO DETECTION SYSTEM
4	EMERGENCY VEHICLE PREEMPTION (EVP) DETECTOR HEAD
95	PATCH PANEL WITH FIBER OPTIC CABLE PIGTAIL 6-CT
1	ETHERNET SWITCH 2-PORT

INFORMATION ONLY
SUMMARY OF STATE FURNISHED MATERIALS FOR TRAFFIC SIGNALS
AT THE INTERSECTION OF STH 38 & COLLEGE AVENUE

QUANT. EACH	DESCRIPTION
2	MONOTUBE POLE TYPE 10
2	MONOTUBE POLE TYPE 13
4	STEEL LUMINAIRE ARM 15-FT
1	MONOTUBE ARM 25-FT
1	MONOTUBE ARM 30-FT
1	MONOTUBE ARM 35-FT
1	MONOTUBE ARM 45-FT
2	ANCHOR RODS TYPE 10 BASE
2	ANCHOR RODS TYPE 13 BASE
1	TRAFFIC SIGNAL CONTROLLER AND CABINET
1	VIDEO DETECTION SYSTEM
4	EMERGENCY VEHICLE PREEMPTION (EVP) DETECTOR HEAD
40	PATCH PANEL WITH FIBER OPTIC CABLE PIGTAIL 6-CT
1	ETHERNET SWITCH 2-PORT

INFORMATION ONLY
SUMMARY OF STATE FURNISHED MATERIALS FOR TRAFFIC SIGNALS
AT THE INTERSECTION OF STH 38 & STH 119

QUANT. EACH	DESCRIPTION
1	MONOTUBE POLE TYPE 9
2	MONOTUBE POLE TYPE 12
1	MONOTUBE ARM 25-FT
1	MONOTUBE ARM 40-FT
1	MONOTUBE ARM 50-FT
1	ANCHOR RODS TYPE 10 BASE
2	ANCHOR RODS TYPE 13 BASE
1	TRAFFIC SIGNAL CONTROLLER AND CABINET
1	VIDEO DETECTION SYSTEM
2	EMERGENCY VEHICLE PREEMPTION (EVP) DETECTOR HEAD
50	PATCH PANEL WITH FIBER OPTIC CABLE PIGTAIL 6-CT
1	ETHERNET SWITCH 2-PORT

INFORMATION ONLY
SUMMARY OF STATE FURNISHED MATERIALS FOR TRAFFIC SIGNALS
AT THE INTERSECTION OF STH 38 & GRANGE AVENUE

QUANT. EACH	DESCRIPTION
2	MONOTUBE POLE TYPE 9
2	MONOTUBE POLE TYPE 12
1	MONOTUBE ARM 25-FT
1	MONOTUBE ARM 30-FT
1	MONOTUBE ARM 45-FT
1	MONOTUBE ARM 50-FT
2	ANCHOR RODS TYPE 10 BASE
2	ANCHOR RODS TYPE 13 BASE
1	TRAFFIC SIGNAL CONTROLLER AND CABINET
1	VIDEO DETECTION SYSTEM
3	EMERGENCY VEHICLE PREEMPTION (EVP) DETECTOR HEAD
30	PATCH PANEL WITH FIBER OPTIC CABLE PIGTAIL 6-CT
1	ETHERNET SWITCH 2-PORT

INFORMATION ONLY
SUMMARY OF STATE FURNISHED MATERIALS FOR TRAFFIC SIGNALS
AT THE INTERSECTION OF STH 38 & OAKWOOD ROAD

QUANT. EACH	DESCRIPTION
30	PATCH PANEL WITH FIBER OPTIC CABLE PIGTAIL 6-CT
1	ETHERNET SWITCH 2-PORT

CATEGORY 0015
SHEET 1 OF 46

NON-METALLIC CONDUIT

LOCATION	LOCATION	652.0215 CONDUIT RIGID NONMETALLIC SCHEDULE 40 1 1/4-INCH L.F.	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH L.F.	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH L.F.	652.0605 CONDUIT, SPECIAL, 2-INCH L.F.	652.0615 * CONDUIT SPECIAL 3-INCH L.F.
STH 38 AT STH 100	CB1-PB1	-	-	30	-	-
	PB1-SB1	-	20	-	-	-
	PB1-PB2	-	-	70	-	-
	PB2-PB3	-	170	-	-	-
	PB3-PB4	-	175	-	-	-
	PB2-PB5	-	-	-	-	40
	PB5-SB2	-	15	-	-	-
	PB5-SB3	-	30	-	-	-
	PB2-PB6	-	-	-	-	210
	PB6-SB4	-	-	5	-	-
	PB6-PB7	-	-	-	-	110
	PB7-SB5	-	-	10	-	-
	PB7-PB8	-	-	80	-	-
	PB8-SB6	-	10	-	-	-
	PB8-PB9	-	200	-	-	-
	PB9-PB10	-	160	-	-	-
	PB8-PB11	-	-	-	-	30
	PB11-SB7	-	5	-	-	-
	PB11-SB8	-	20	-	-	-
	PB8-PB12	-	-	-	-	212
	PB12-SB9	-	-	20	-	-
	PB12-PB13	-	-	-	-	110
	PB13-SB10	-	-	10	-	-
	PB13-PB14	-	370	-	-	-
	PB13-PB15	-	-	70	-	-
	PB15-SB11	-	10	-	-	-
	PB15-PB16	-	175	-	-	-
	PB16-PB17	-	180	-	-	-
	PB15-PB18	-	-	-	-	70
	PB18-SB12	-	5	-	-	-
	PB18-SB13	-	20	-	-	-
	PB15-PB19	-	-	-	-	200
	PB19-SB14	-		5	-	-
	PB19-PB20	-	-	-	-	110
	PB20-SB15	-	-	25	-	-
	PB20-PB21	-	-	100	-	-
	PB21-SB16	-	10	-	-	-
	PB21-PB22	-	-	90	-	-
	PB22-PB23	-	170	-	-	-
	PB23-PB24	-	150	-	-	-
	PB22-PB25	-	-	-	-	180
	PB25-SB17	-	-	45	-	-
	PB25-SB18	-	25	-	-	-
	PB25-PB26	-	-	-	-	130
	PB26-SB19	-	-	20	-	-
	PB26-CB1	-	-	45	-	-
SUBTOTAL		0	1,920	625	0	1,402

NON-METALLIC CONDUIT - CONTINUED

LOCATION	LOCATION	652.0215 CONDUIT RIGID NONMETALLIC SCHEDULE 40 1 1/4-INCH L.F.	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH L.F.	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH L.F.	652.0605 CONDUIT, SPECIAL, 2-INCH L.F.	652.0615 * CONDUIT SPECIAL 3-INCH L.F.
STH 38 AT CENTENNIAL DR	CB1-PB1	-	-	45	-	-
	PB1-PB2	-	-	30	-	-
	PB2-SB1	-	15	-	-	-
	PB2-PB3	-	215	-	-	-
	PB2-PB4	-	-	-	-	130
	PB4-SB2	-	-	10	-	-
	PB4-SB3	-	25	-	-	-
	PB4-PB5	-	-	140	-	-
	PB5-SB4	-	20	-	-	-
	PB5-PB6	-	205	-	-	-
	PB6-PB7	-	150	-	-	-
	PB5-PB8	-	-	-	-	100
	PB8-SB5	-	20	-	-	-
	PB8-PB9	-	-	-	-	50
	PB9-PB10	-	-	-	-	100
	PB10-SB6	-	-	20	-	-
	PB10-PB11	-	-	140	-	-
	PB11-SB7	-	15	-	-	-
	PB11-PB12	-	215	-	-	-
	PB11-PB13	-	-	-	-	130
	PB13-SB8	-	-	10	-	-
	PB13-SB9	-	20	-	-	-
	PB13-PB14	-	-	140	-	-
	PB14-SB10	-	35	-	-	-
	PB14-SB11	-	25	-	-	-
	PB14-PB15	-	200	-	-	-
	PB15-PB16	-	150	-	-	-
	PB14-PB17	-	-	-	-	100
	PB17-SB12	-	35	-	-	-
	PB17-PB18	-	-	-	-	50
	PB18-PB19	-	-	-	-	100
	PB19-SB13	-	-	40	-	-
	PB19-PB20	-	-	80	-	-
	PB20-CB1	-	-	45	-	-
SUBTOTAL		0	1,345	700	0	760
STH 38 AT PUETZ RD	PB2-PB3	-	180	-	-	-
	PB3-PB4	-	150	-	-	-
	PB9-SB6	-	25	-	-	-
	PB17-PB18	-	200	-	-	-
	PB18-PB19	-	150	-	-	-
	PB21-PB22	-	365	-	-	-
	PB30-SB16	-	-	25	-	-
SUBTOTAL		0	1,070	25	0	0

NON-METALLIC CONDUIT - CONTINUED

LOCATION	LOCATION	652.0215 CONDUIT RIGID NONMETALLIC SCHEDULE 40 1 1/4-INCH L.F.	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH L.F.	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH L.F.	652.0605 CONDUIT, SPECIAL, 2-INCH L.F.	652.0615 * CONDUIT SPECIAL 3-INCH L.F.
STH 38 AT FOREST HILL AVE	CB1-PB1	-	-	15	-	-
	PB1-PB2	-	-	40	-	-
	PB2-SB1	-	15	-	-	-
	PB2-PB3	-	210	-	-	-
	PB3-PB4	-	150	-	-	-
	PB2-PB5	-	-	-	-	130
	PB5-SB2	-	15	-	-	-
	PB5-PB6	-	-	-	-	150
	PB6-SB3	-	-	15	-	-
	PB6-PB7	-	-	110	-	-
	PB7-SB4	-	25	-	-	-
	PB7-SB5	-	15	-	-	-
	PB7-PB8	-	240	-	-	-
	PB7-PB9	-	-	-	-	130
	PB9-SB6	-	-	15	-	-
	PB9-PB10	-	-	80	-	-
	PB10-SB7	-	15	-	-	-
	PB10-SB8	-	10	-	-	-
	PB10-PB11	-	230	-	-	-
	PB11-PB12	-	150	-	-	-
	PB10-PB13	-	-	-	-	110
	PB13-SB9	-	15	-	-	-
	PB13-PB14	-	-	-	-	160
	PB14-SB10	-	-	30	-	-
	PB14-SB11	-	15	-	-	-
	PB14-PB15	-	-	50	-	-
	PB15-SB12	-	15	-	-	-
	PB15-PB16	-	-	-	-	170
	PB16-SB13	-	-	10	-	-
	PB16-SB14	-	10	-	-	-
	PB16-CB1	-	-	45	-	-
SUBTOTAL		0	1,130	410	0	850
STH 38 AT SUSAN DR	CB1-PB1	-	-	15	-	-
	PB1-SB1	-	25	-	-	-
	PB1-PB2	-	-	80	-	-
	PB2-SB2	-	5	-	-	-
	PB2-PB3	-	-	-	-	120
	PB3-SB3	-	-	10	-	-
	PB3-PB4	-	-	150	-	-
	PB4-SB4	-	-	10	-	-
	PB4-PB5	-	215	-	-	-
	PB5-PB6	-	150	-	-	-
	PB4-PB7	-	-	-	-	140
	PB7-SB5	-	-	10	-	-
	PB7-PB8	-	-	-	-	100
	PB8-SB6	-	-	10	-	-
	PB8-PB9	-	-	100	-	-
	PB9-PB10	-	-	80	-	-
	PB10-SB7	-	20	-	-	-
	PB10-PB11	-	-	-	-	100
	PB11-SB8	-	-	5	-	-
	PB11-PB12	-	-	-	-	90
	PB12-SB9	-	-	20	-	-
	PB12-PB13	-	-	90	-	-
	PB13-SB10	-	10	-	-	-
	PB13-PB14	-	220	-	-	-
	PB14-PB15	-	155	-	-	-
	PB13-PB16	-	-	-	-	140
	PB16-SB11	-	10	-	-	-
	PB16-PB17	-	-	-	-	50
	PB17-SB12	-	-	10	-	-
	PB17-PB18	-	-	-	-	130
	PB18-SB13	-	-	15	-	-
	PB18-CB1	-	-	15	-	-
SUBTOTAL		0	810	620	0	870

NON-METALLIC CONDUIT - CONTINUED

LOCATION	LOCATION	652.0215 CONDUIT RIGID NONMETALLIC SCHEDULE 40 1 1/4-INCH L.F.	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH L.F.	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH L.F.	652.0605 CONDUIT, SPECIAL, 2-INCH L.F.	652.0615 * CONDUIT SPECIAL 3-INCH L.F.
STH 38 AT DREXEL AVE	CB1-PB1	-	-	15	-	-
	PB1-PB2	-	-	80	-	-
	PB2-SB1	-	35	-	-	-
	PB2-PB3	-	160	-	-	-
	PB3-PB4	-	180	-	-	-
	PB2-PB5	-	-	-	-	140
	PB5-SB2	-	-	10	-	-
	PB5-PB6	-	-	-	-	110
	PB6-SB3	-	-	20	-	-
	PB6-SB4	-	45	-	-	-
	PB6-PB7	-	-	190	-	-
	PB7-SB5	-	20	-	-	-
	PB7-PB8	-	235	-	-	-
	PB7-PB9	-	-	-	-	130
	PB9-SB6	-	-	10	-	-
	PB9-PB10	-	-	-	-	90
	PB10-SB7	-	-	15	-	-
	PB10-PB11	-	-	130	-	-
	PB11-SB8	-	45	-	-	-
	PB11-SB9	-	30	-	-	-
	PB11-PB12	-	195	-	-	-
	PB12-PB13	-	125	-	-	-
	PB11-PB14	-	-	-	-	60
	PB14-SB10	-	15	-	-	-
	PB11-PB15	-	-	-	-	200
	PB15-SB11	-	-	10	-	-
	PB15-PB16	-	-	-	-	100
	PB16-SB12	-	-	30	-	-
	PB16-PB17	-	-	305	-	-
	PB16-PB18	-	-	170	-	-
	PB18-SB13	-	20	-	-	-
	PB18-PB19	-	235	-	-	-
	PB18-PB20	-	-	-	-	130
	PB20-SB14	-	-	10	-	-
	PB20-PB21	-	-	-	-	90
	PB21-SB15	-	-	20	-	-
	PB21-PB22	-	-	60	-	-
	PB22-CB1	-	-	15	-	-
SUBTOTAL		0	1,340	1,090	0	1,050

NON-METALLIC CONDUIT - CONTINUED

LOCATION	LOCATION	652.0215 CONDUIT RIGID NONMETALLIC SCHEDULE 40 1 1/4-INCH L.F.	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH L.F.	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH L.F.	652.0605 CONDUIT, SPECIAL, 2-INCH L.F.	652.0615 * CONDUIT SPECIAL 3-INCH L.F.
STH 38 AT RAWSON AVE	CB1-PB1	-	-	30	-	-
	PB1-PB2	-	-	20	-	-
	PB2-SB1	-	5	-	-	-
	PB2-PB6	-	-	-	-	30
	PB6-SB2	-	5	-	-	-
	PB6-SB3	-	25	-	-	-
	PB2-PB3	-	-	110	-	-
	PB3-PB4	-	170	-	-	-
	PB4-PB5	-	150	-	-	-
	PB3-PB7	-	-	-	-	150
	PB7-PB8	-	45	-	-	-
	PB8-SB4	-	15	-	-	-
	PB7-PB9	-	-	-	-	70
	PB9-SB5	-	-	40	-	-
	PB9-SB6	-	30	-	-	-
	PB9-SB7	-	5	-	-	-
	PB9-PB10	-	-	-	-	110
	PB10-SB8	-	20	-	-	-
	PB10-PB11	-	-	120	-	-
	PB11-PB12	-	-	-	-	45
	PB12-SB9	-	-	35	-	-
	PB12-SB10	-	35	-	-	-
	PB12-SB11	-	25	-	-	-
	PB11-PB13	-	-	-	-	230
	PB13-SB12	-	-	20	-	-
	PB13-PB14	-	-	-	-	110
	PB14-SB13	-	-	15	-	-
	PB14-PB15	-	-	110	-	-
	PB15-SB14	-	35	-	-	-
	PB15-PB16	-	185	-	-	-
	PB16-PB17	-	150	-	-	-
	PB15-PB18	-	-	-	-	35
	PB18-SB15	-	15	-	-	-
	PB18-SB16	-	30	-	-	-
	PB15-PB19	-	-	-	-	150
	PB19-PB20	-	40	-	-	-
	PB20-SB17	-	10	-	-	-
	PB19-PB21	-	-	-	-	70
	PB21-SB18	-	-	15	-	-
	PB21-PB22	-	-	-	-	120
	PB22-SB19	-	-	10	-	-
	PB22-PB23	-	-	100	-	-
	PB23-SB20	-	20	-	-	-
	PB23-PB24	-	220	-	-	-
	PB23-PB25	-	-	-	-	30
	PB25-SB21	-	25	-	-	-
	PB25-SB22	-	45	-	-	-
	PB23-PB26	-	-	-	-	190
	PB26-SB23	-	-	10	-	-
	PB26-PB27	-	-	-	-	130
	PB27-SB24	-	-	15	-	-
	PB27-CB1	-	-	30	-	-
SUBTOTAL		0	1,305	680	0	1,470

NON-METALLIC CONDUIT - CONTINUED

LOCATION	LOCATION	652.0215 CONDUIT RIGID NONMETALLIC SCHEDULE 40 1 1/4-INCH L.F.	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH L.F.	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH L.F.	652.0605 CONDUIT, SPECIAL, 2-INCH L.F.	652.0615 * CONDUIT SPECIAL 3-INCH L.F.
STH 38 AT COLLEGE AVE	CB1-PB1	-	-	15	-	-
	PB1-PB2	-	-	70	-	-
	PB2-SB1	-	5	-	-	-
	PB2-PB3	-	245	-	-	-
	PB2-PB4	-	-	-	-	120
	PB4-SB2	-	5	-	-	-
	PB4-PB5	-	-	-	-	90
	PB5-SB3	-	-	10	-	-
	PB5-PB6	-	235	-	-	-
	PB5-PB7	-	-	90	-	-
	PB7-SB4	-	15	-	-	-
	PB7-PB8	-	240	-	-	-
	PB7-PB9	-	-	130	-	-
	PB9-SB5	-	20	-	-	-
	PB9-PB10	-	-	-	-	100
	PB10-SB6	-	-	20	-	-
	PB10-PB11	-	-	60	-	-
	PB11-PB12	-	240	-	-	-
	PB11-PB13	-	-	-	-	25
	PB13-SB7	-	25	-	-	-
	PB13-SB8	-	10	-	-	-
	PB11-PB14	-	-	-	-	180
	PB14-SB9	-	-	15	-	-
	PB14-PB15	-	-	-	-	90
	PB15-SB10	-	20	-	-	-
	PB15-PB16	-	-	90	-	-
	PB16-SB11	-	10	-	-	-
	PB16-PB17	-	245	-	-	-
	PB16-PB18	-	-	-	-	120
	PB18-SB12	-	15	-	-	-
	PB18-PB19	-	-	-	-	90
	PB19-SB13	-	15	-	-	-
	PB19-PB20	-	-	50	-	-
	PB20-SB14	-	-	25	-	-
	PB20-CB1	-	-	15	-	-
SUBTOTAL		0	1,345	590	0	815
STH 38 AT STH 119 EB OFF RAMP	CB1-PB1	-	-	30	-	-
	PB1-PB2	-	60	-	-	-
	PB1-PB3	-	-	-	-	160
	PB3-PB4	-	-	-	-	100
	PB4-PB5	-	-	80	-	-
	PB5-PB6	-	-	-	-	35
	PB6-SB3	-	20	-	-	-
	PB5-PB7	-	-	-	-	140
	PB7-SB4	-	30	-	-	-
	PB7-PB8	-	-	-	-	160
	PB8-SB5	-	-	30	-	-
	PB8-PB9	-	-	-	-	320
	PB9-SB6	-	-	45	-	-
	PB9-SB7	-	45	-	-	-
	PB9-PB10	-	-	-	-	110
	PB10-SB8	-	40	-	-	-
	PB10-PB11	-	-	-	-	170
	PB11-SB1	-	-	10	-	-
	PB11-PB12	-	-	40	-	-
	PB12-SB2	-	5	-	-	-
	PB11-PB13	-	-	50	-	-
	PB13-CB1	-	-	30	-	-
SUBTOTAL		0	200	315	0	1,195

CATEGORY 0015
SHEET 4 OF 46

NON-METALLIC CONDUIT - CONTINUED

LOCATION	LOCATION	652.0215 CONDUIT RIGID NONMETALLIC SCHEDULE 40 1 1/4-INCH L.F.	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH L.F.	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH L.F.	652.0605 CONDUIT, SPECIAL, 2-INCH L.F.	652.0615 * CONDUIT SPECIAL 3-INCH L.F.
STH 38 AT GRANGE AVE	CB1-PB1	-	-	60	-	-
	PB1-PB16	-	150	-	-	-
	PB1-PB2	-	-	-	-	120
	PB2-SB1	-	15	-	-	-
	PB2-SB10	-	25	-	-	-
	PB2-PB3	-	-	-	-	190
	PB3-SB2	-	-	20	-	-
	PB3-PB4	-	220	-	-	-
	PB3-PB5	-	-	-	-	160
	PB5-PB6	-	-	-	-	150
	PB6-SB3	-	-	25	-	-
	PB6-PB7	-	-	-	-	90
	PB7-SB4	-	20	-	-	-
	PB7-PB8	-	165	-	-	-
	PB7-PB9	-	-	-	-	100
	PB9-SB5	-	5	-	-	-
	PB9-PB10	-	-	-	-	100
	PB10-SB6	-	-	10	-	-
	PB10-SB7	-	20	-	-	-
	PB10-PB11	-	-	90	-	-
	PB11-SB8	-	10	-	-	-
	PB11-PB12	-	-	70	-	-
	PB12-PB13	-	-	-	-	130
	PB13-SB9	-	-	45	-	-
	PB13-PB15	-	-	-	-	160
	PB15-PB14	-	205	-	-	-
	PB15-CB1	-	-	60	-	-
SUBTOTAL		0	835	380	0	1,200

(NON-METALLIC CONDUIT - CONTINUED NEXT PAGE)

NON-METALLIC CONDUIT - CONTINUED

LOCATION	LOCATION	652.0215 CONDUIT RIGID NONMETALLIC SCHEDULE 40 1 1/4-INCH L.F.	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH L.F.	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH L.F.	652.0605 CONDUIT, SPECIAL, 2-INCH L.F.	652.0615 * CONDUIT SPECIAL 3-INCH L.F.
INTERCONNECT	CB1-CV1	15	-	-	-	-
	CV1-ICPB1	-	-	-	75	-
	ICPB1-ICPB2	-	60	-	-	-
	ICPB2-ICPB3	-	-	-	70	-
	ICPB3-ICPB4	-	1,180	-	-	-
	ICPB4-ICPB5	-	-	-	110	-
	ICPB5-ICPB6	-	400	-	-	-
	ICPB6-ICPB7	-	-	-	165	-
	ICPB7-ICPB8	-	360	-	-	-
	ICPB8-ICPB9	-	-	-	145	-
	ICPB9-ICPB10	-	180	-	-	-
	ICPB10-ICPB11	-	-	-	90	-
	ICPB11-ICPB12	-	370	-	-	-
	ICPB12-ICPB13	-	-	-	115	-
	ICPB13-ICPB14	-	1,005	-	-	-
	ICPB14-ICPB15	-	-	-	105	-
	ICPB15-ICPB16	-	380	-	-	-
	ICPB16-ICPB17	-	80	-	-	-
	ICPB17-ICPB18	-	400	-	-	-
	ICPB18-CV2	-	-	-	50	-
	CV2-CB1	35	-	-	-	-
	ICPB18-ICPB19	-	-	-	255	-
	ICPB19-ICPB20	-	850	-	-	-
	ICPB20-ICPB21	-	-	-	1,058	-
	ICPB21-ICPB22	-	315	-	-	-
	ICPB22-ICPB23	-	-	-	100	-
	ICPB23-ICPB24	-	140	-	-	-
	ICPB24-ICPB25	-	225	-	-	-
	ICPB25-ICPB26	-	150	-	-	-
	ICPB26-ICPB27	-	-	-	105	-
	ICPB27-ICPB28	-	530	-	-	-
	ICPB28-ICPB29	-	-	-	110	-
	ICPB29-ICPB30	-	500	-	-	-
	ICPB30-ICPB31	-	-	-	95	-
	ICPB30-ICPB32	-	500	-	-	-
	ICPB32-CV3	-	-	-	85	-
	CV3-CB1	10	-	-	-	-
	ICPB32-ICPB33	-	-	-	200	-
	ICPB33-ICPB34	-	630	-	-	-
	ICPB34-ICPB35	-	-	-	175	-
	ICPB35-ICPB36	-	300	-	-	-
	ICPB36-ICPB37	-	-	-	100	-
	ICPB37-CV4	-	50	-	-	-
	CV4-CB1	45	-	-	-	-
	CV4-ICPB38	-	-	-	155	-
	ICPB38-ICPB39	-	-	-	90	-
	ICPB39-ICPB40	-	450	-	-	-
	ICPB40-ICPB41	-	-	-	115	-
	ICPB41-ICPB42	-	560	-	-	-
	ICPB42-ICPB43	-	-	-	115	-
	ICPB43-ICPB44	-	1,220	-	-	-
	ICPB44-ICPB45	-	-	-	175	-
	ICPB45-CV5	-	-	-	100	-
	CV5-CB1	25	-	-	-	-
	ICPB45-ICPB46	-	495	-	-	-
	ICPB46-ICPB47	-	-	-	110	-
	ICPB47-ICPB48	-	705	-	-	-
	ICPB48-ICPB49	-	-	-	210	-
	ICPB49-CV6	-	-	-	50	-
	CV6-CB1	25	-	-	-	-

NON-METALLIC CONDUIT - CONTINUED

LOCATION	LOCATION	652.0215 CONDUIT RIGID NONMETALLIC SCHEDULE 40 1 1/4-INCH L.F.	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH L.F.	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH L.F.	652.0605 CONDUIT, SPECIAL, 2-INCH L.F.	652.0615 * CONDUIT SPECIAL 3-INCH L.F.
INTERCONNECT - CONTINUED	ICPB49-ICPB50	-	920	-	-	-
	ICPB50-CV7	-	-	-	80	-
	CV7-CB1	45	-	-	-	-
	CV7-ICPB51	-	-	-	250	-
	ICPB51-ICPB52	-	-	-	55	-
	ICPB52-ICPB53	-	815	-	-	-
	ICPB53-ICPB54	-	-	-	105	-
	ICPB54-ICPB55	-	875	-	-	-
	ICPB55-ICPB56	-	-	-	140	-
	ICPB56-ICPB57	-	755	-	-	-
	ICPB57-ICPB58	-	-	-	110	-
	ICPB58-ICPB59	-	370	-	-	-
	ICPB59-ICPB60	-	-	-	190	-
	ICPB60-ICPB61	-	460	-	-	-
	ICPB61-ICPB62	-	-	-	75	-
	ICPB62-ICPB63	-	620	-	-	-
	ICPB63-ICPB64	-	-	-	85	-
	ICPB64-ICPB65	-	430	-	-	-
	ICPB65-CV8	-	-	-	100	-
	CV8-CB1	80	-	-	-	-
	CV8-ICPB66	-	-	-	270	-
	ICPB66-ICPB67	-	-	-	70	-
	ICPB67-ICPB68	-	495	-	-	-
	ICPB68-ICPB69	-	-	-	85	-
	ICPB69-ICPB70	-	850	-	-	-
	ICPB70-ICPB71	-	-	-	180	-
	ICPB71-ICPB72	-	465	-	-	-
	ICPB72-ICPB73	-	-	-	120	-
	ICPB73-ICPB74	-	280	-	-	-
	ICPB74-ICPB75	-	-	-	115	-
	ICPB75-ICPB76	-	790	-	-	-
	ICPB76-ICPB77	-	-	-	135	-
	ICPB77-ICPB78	-	1,025	-	-	-
	ICPB78-ICPB79	-	-	-	70	-
	ICPB79-ICPB80	-	505	-	-	-
	ICPB80-CV9	-	-	-	80	-
	CV9-CB1	25	-	-	-	-
	ICPB80-ICPB81	-	-	-	195	-
	ICPB81-ICPB82	-	755	-	-	-
	ICPB82-ICPB83	-	-	-	105	-
	ICPV83-ICPB84	-	635	-	-	-
	ICPB84-ICPB85	-	-	-	100	-
	ICPB85-ICPB86	-	220	-	-	-
	ICPB86-ICPB87	-	-	-	150	-
	ICPB87-ICPB88	-	650	-	-	-
	ICPB88-ICPB89	-	-	-	85	-
	ICPB89-ICPB90	-	275	-	-	-
	ICPB90-ICPB91	-	-	-	180	-
	ICPB91-ICPB92	-	205	-	-	-
	ICPB92-ICPB93	-	-	-	50	-
	ICPB93-ICPB94	-	1,155	-	-	-
	ICPB94-ICPB95	-	-	-	45	-
	ICPB95-ICPB96	-	650	-	-	-
	ICPB96-ICPB97	-	-	-	120	-
	ICPB97-ICPB98	-	325	-	-	-
	ICPB98-CV10	-	-	-	75	-
	CV10-CB1	35	-	-	-	-
	ICPB98-ICPB99	-	-	-	175	-
	ICPB99-ICPB100	-	545	-	-	-
	ICPB100-ICPB101	-	-	-	85	-
	ICPB101-CV11	-	-	-	155	-
	CV11-CB1	15	-	-	-	-
SUBTOTAL		355	27,105	0	8,163	0
TOTAL		355	38,405	5,435	8,163	9,612

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

CATEGORY 0015
SHEET 6 OF 46

PULL BOXES

LOCATION	PB NO.	STATION	OFFSET	653.0135 PULLBOXES STEEL 24X36-INCH EACH	653.0140 PULLBOXES STEEL 24X42-INCH EACH	SPV.0060.3000 TRAFFIC SIGNAL INTERCONNECT VAULT EACH
STH 38 AT STH 100	PB1	180+98.9	89.1 LT	-	1	-
	PB2	181+23.4	107.1 LT	-	1	-
	PB3	1099+39.2	66.7 RT	1	-	-
	PB4	1097+64.4	67.5 RT	1	-	-
	PB5	181+58.8	90.1 LT	-	1	-
	PB6	182+25.8	108.7 LT	-	1	-
	PB7	182+79.1	109.6 LT	-	1	-
	PB8	183+10.5	85.4 LT	-	1	-
	PB9	185+09.4	75.7 LT	1	-	-
	PB10	186+59.5	66.3 LT	1	-	-
	PB11	182+95.1	63.3 LT	-	1	-
	PB12	183+13.4	11.9 RT	-	1	-
	PB13	183+14.9	64.0 RT	-	1	-
	PB14	186+82.6	62.9 RT	1	-	-
	PB15	183+02.9	96.6 RT	-	1	-
	PB16	1104+83.1	75.9 LT	1	-	-
	PB17	1106+59.6	65.6 LT	1	-	-
	PB18	182+77.3	79.5 RT	-	1	-
	PB19	182+06.6	98.7 RT	-	1	-
	PB20	181+53.4	99.5 RT	-	1	-
	PB21	181+23.8	61.2 RT	-	1	-
	PB22	180+78.8	58.5 RT	-	1	-
	PB23	179+13.4	65.2 RT	1	-	-
	PB24	177+63.4	64.9 RT	1	-	-
	PB25	180+78.7	11.7 LT	-	1	-
	PB26	180+80.7	75.4 LT	-	1	-
SUBTOTAL				9	17	0
STH 38 AT CENTENNIAL DR	PB1	221+47.0	92.0 LT	-	1	-
	PB2	221+61.0	89.4 LT	-	1	-
	PB3	221+62.2	303.0 LT	1	-	-
	PB4	222+25.2	90.7 LT	-	1	-
	PB5	222+75.8	57.9 LT	-	1	-
	PB6	224+76.6	58.4 LT	1	-	-
	PB7	226+26.9	58.5 LT	1	-	-
	PB8	222+75.7	11.0 LT	-	1	-
	PB9	222+75.8	12.1 RT	-	1	-
	PB10	222+75.7	60.3 RT	-	1	-
	PB11	222+17.0	91.7 RT	-	1	-
	PB12	222+17.0	301.5 RT	1	-	-
	PB13	221+52.4	92.5 RT	-	1	-
	PB14	220+95.2	59.6 RT	-	1	-
	PB15	218+97.8	59.5 RT	1	-	-
	PB16	217+47.8	59.1 RT	1	-	-
	PB17	220+95.0	11.3 RT	-	1	-
	PB18	220+94.9	11.9 LT	-	1	-
	PB19	220.95.0	58.7 LT	-	1	-
	PB20	221+24.7	83.6 LT	-	1	-
SUBTOTAL				6	14	0
STH 38 AT PUETZ RD	PB3	232+26.6	65.8 RT	1	-	-
	PB4	230+76.2	65.7 RT	1	-	-
	PB18	238+32.4	59.9 LT	1	-	-
	PB19	239+82.3	59.7 LT	1	-	-
	PB22	240+02.1	61.2 RT	1	-	-
SUBTOTAL				5	0	0

PULL BOXES - CONTINUED

LOCATION	PB NO.	STATION	OFFSET	653.0135 PULLBOXES STEEL 24X36-INCH EACH	653.0140 PULLBOXES STEEL 24X42-INCH EACH	SPV.0060.3000 TRAFFIC SIGNAL INTERCONNECT VAULT EACH
STH 38 AT FOREST HILL AVE	PB1	262+17.8	84.0 LT	-	1	-
	PB2	262+30.6	72.3 LT	-	1	-
	PB3	264+37.6	72.6 LT	1	-	-
	PB4	265+88.7	63.8 LT	1	-	-
	PB5	262+30.7	11.0 LT	-	1	-
	PB6	262+31.5	60.5 RT	-	1	-
	PB7	261+83.4	87.2 RT	-	1	-
	PB8	106+26.0	23.5 LT	1	-	-
	PB9	261+20.2	88.0 RT	-	1	-
	PB10	260+93.2	62.1 RT	-	1	-
	PB11	258+64.0	59.5 RT	1	-	-
	PB12	257+14.0	60.2 RT	1	-	-
	PB13	260+93.9	10.9 RT	-	1	-
	PB14	260+97.6	68.8 LT	-	1	-
	PB15	261+11.4	87.7 LT	-	1	-
	PB16	261+96.6	89.5 LT	-	1	-
SUBTOTAL				5	11	0
STH 38 AT SUSAN DR	PB1	277+10.6	72.2 RT	-	1	-
	PB2	276+74.8	72.3 RT	-	1	-
	PB3	276+15.3	72.8 RT	-	1	-
	PB4	275+47.8	58.0 RT	-	1	-
	PB5	273+33.5	59.6 RT	1	-	-
	PB6	271+83.4	59.3 RT	1	-	-
	PB7	275+48.7	12.3 LT	-	1	-
	PB8	275+47.8	62.7 LT	-	-	-
	PB9	275+86.9	77.6 LT	-	1	-
	PB10	276+9.4	110.2 LT	-	1	-
	PB11	276+56.3	110.9 LT	-	1	-
	PB12	276+95.7	110.5 LT	-	1	-
	PB13	277+26.3	76.8 LT	-	1	-
	PB14	279+44.1	72.4 LT	1	-	-
	PB15	280+94.5	63.6 LT	1	-	-
	PB16	277+31.4	10.6 LT	-	1	-
	PB17	277+33.0	11.7 RT	-	1	-
	PB18	277+26.1	72.0 RT	-	1	-
SUBTOTAL				4	13	0
STH 38 AT DREXEL AVE	PB1	287+10.3	88.7 RT	-	1	-
	PB2	286+90.6	58.1 RT	-	1	-
	PB3	285+31.3	60.7 RT	1	-	-
	PB4	283+54.1	61.9 RT	1	-	-
	PB5	286+90.8	11.0 LT	-	1	-
	PB6	286+90.7	61.7 LT	-	1	-
	PB7	287+44.4	116.4 LT	-	1	-
	PB8	3112+66.4	56.5 RT	1	-	-
	PB9	288+11.2	117.7 LT	-	1	-
	PB10	288+56.8	118.4 LT	-	1	-
	PB11	289+08.7	86.0 LT	-	1	-
	PB12	290+99.4	72.1 LT	1	-	-
	PB13	292+24.4	72.9 LT	1	-	-
	PB14	288+94.9	61.2 LT	-	1	-
	PB15	289+09.7	11.1 RT	-	1	-
	PB16	289+10.2	59.7 RT	-	1	-
	PB17	292+12.4	63.1 RT	1	-	-
	PB18	288+56.9	109.9 RT	-	1	-
	PB19	3119+59.3	52.2 LT	1	-	-
	PB20	287+91.8	111.6 RT	-	1	-
	PB21	287+49.1	112.8 RT	-	1	-
	PB22	287+21.8	99.4 RT	-	1	-
SUBTOTAL				7	15	0

PULL BOXES - CONTINUED

LOCATION	PB NO.	STATION	OFFSET	653.0135 PULLBOXES STEEL 24X36-INCH EACH	653.0140 PULLBOXES STEEL 24X42-INCH EACH	SPV.0060.3000 TRAFFIC SIGNAL INTERCONNECT VAULT EACH
STH 38 AT RAWSON AVE	PB1	340+08.4	108.0 RT	1	-	-
	PB2	340+09.1	98.2 RT	-	1	-
	PB3	339+56.3	87.7 RT	-	1	-
	PB4	337+92.1	64.9 RT	1	-	-
	PB5	336+36.6	66.9 RT	1	-	-
	PB6	340+08.6	68.7 RT	-	1	-
	PB7	339+55.5	17.0 RT	-	1	-
	PB8	340+00.4	17.1 RT	1	-	-
	PB9	339+55.1	15.9 LT	-	1	-
	PB10	339+54.5	67.7 LT	-	1	-
	PB11	339+85.4	116.7 LT	-	1	-
	PB12	340+24.3	101.5 LT	-	1	-
	PB13	340+98.7	118.8 LT	-	1	-
	PB14	341+53.4	119.2 LT	-	1	-
	PB15	341+98.5	89.0 LT	-	1	-
	PB16	343+80.4	70.2 LT	1	-	-
	PB17	345+29.6	68.2 LT	1	-	-
	PB18	341+73.4	66.6 LT	-	1	-
	PB19	342+01.1	17.3 LT	-	1	-
	PB20	341+63.5	17.5 LT	1	-	-
	PB21	342+02.3	17.2 RT	-	1	-
	PB22	342+04.0	65.0 RT	-	1	-
	PB23	341+75.4	112.9 RT	-	1	-
	PB24	4119+92.8	58.3 LT	1	-	-
	PB25	341+48.8	105.5 RT	-	1	-
	PB26	340+82.1	116.2 RT	-	1	-
	PB27	340+21.2	118.3 RT	-	1	-
SUBTOTAL				8	19	0
STH 38 AT COLLEGE AVE	PB1	393+17.8	80.7 RT	-	1	-
	PB2	393+09.4	50.8 RT	-	1	-
	PB3	390+62.5	51.2 RT	1	-	-
	PB4	393+01.7	8.4 LT	-	1	-
	PB5	392+95.9	51.4 LT	-	1	-
	PB6	390+64.2	49.6 LT	1	-	-
	PB7	393+27.7	79.4 LT	-	1	-
	PB8	5114+60.3	52.4 RT	1	-	-
	PB9	393+92.5	86.1 LT	-	1	-
	PB10	394+38.9	90.3 LT	-	1	-
	PB11	394+66.1	77.3 LT	-	1	-
	PB12	397+01.7	51.5 LT	1	-	-
	PB13	394+58.9	53.2 LT	-	1	-
	PB14	394+76.8	8.4 RT	-	1	-
	PB15	394+82.4	51.5 RT	-	1	-
	PB16	394+49.8	80.0 RT	-	1	-
	PB17	5121+12.8	48.6 LT	1	-	-
	PB18	393+93.7	85.0 RT	-	1	-
	PB19	393+50.8	89.3 RT	-	1	-
	PB20	393+32.6	90.7 RT	-	1	-
SUBTOTAL				5	15	0
STH 38 AT STH 119 EB OFF RAMP	PB1	450+98.3	111.3 LT	-	1	-
	PB2	451+12.0	170.1 LT	1	-	-
	PB3	451+78.5	111.0 LT	-	1	-
	PB4	452+29.0	111.0 LT	-	1	-
	PB5	452+53.0	78.0 LT	-	1	-
	PB6	452+28.2	58.1 LT	-	1	-
	PB7	452+52.6	10.6 LT	-	1	-
	PB8	452+52.5	67.2 RT	-	1	-
	PB9	450+92.6	66.2 RT	-	1	-
	PB10	450+92.6	11.3 RT	-	1	-
	PB11	450+92.9	72.5 LT	-	1	-
	PB12	451+30.8	67.7 LT	-	1	-
	PB13	450+86.8	96.9 LT	-	1	-
SUBTOTAL				1	12	0

PULL BOXES - CONTINUED

LOCATION	PB NO.	STATION	OFFSET	653.0135 PULLBOXES STEEL 24X36-INCH EACH	653.0140 PULLBOXES STEEL 24X42-INCH EACH	SPV.0060.3000 TRAFFIC SIGNAL INTERCONNECT VAULT EACH
STH 38 AT GRANGE AVE	PB1	459+67.0	77.9 RT	-	1	-
	PB2	459+12.3	66.8 RT	-	1	-
	PB3	458+19.6	66.4 RT	-	1	-
	PB4	455+99.0	56.5 RT	1	-	-
	PB5	457+94.6	6.4 LT	-	1	-
	PB6	457+84.7	76.4 LT	-	1	-
	PB7	458+16.9	103.7 LT	-	1	-
	PB8	457+91.5	263.0 LT	1	-	-
	PB9	458+63.7	103.0 LT	-	1	-
	PB10	459+10.2	102.3 LT	-	1	-
	PB11	459+40.0	68.0 LT	1	-	-
	PB12	459+73.5	68.0 LT	-	1	-
	PB13	459+73.8	6.4 LT	-	1	-
	PB14	461+78.3	52.9 RT	1	-	-
	PB15	459+74.3	71.5 RT	-	1	-
	PB16	459+67.7	215.4 RT	1	-	-
SUBTOTAL				5	11	0
INTERCONNECT	CV1	128+90.7	83.4 LT	-	-	1
	ICPB1	129+63.5	84.1 LT	-	1	-
	ICPB2	130+07.2	57.7 LT	-	1	-
	ICPB3	130+11.1	12.3 RT	-	1	-
	ICPB4	141+89.5	2.4 RT	-	1	-
	ICPB5	142+96.7	3.3 RT	-	1	-
	ICPB6	146+92.3	1.5 RT	-	1	-
	ICPB7	148+56.3	2.6 RT	-	1	-
	ICPB8	152+14.2	1.5 RT	-	1	-
	ICPB9	153+55.7	2.1 RT	-	1	-
	ICPB10	155+33.3	2.8 RT	-	1	-
	ICPB11	156+23.0	2.7 RT	-	1	-
	ICPB12	159+91.9	1.1 RT	-	1	-
	ICPB13	161+06.0	2.5 RT	-	1	-
	ICPB14	171+10.2	1.2 RT	-	1	-
	ICPB15	172+15.5	2.4 RT	-	1	-
	ICPB16	175+94.2	11.3 LT	-	1	-
	ICPB17	176+70.6	10.5 LT	-	1	-
	ICPB18	180+69.1	11.4 LT	-	1	-
	CV2	180+70.6	57.6 LT	-	-	1
	ICPB19	183+13.4	11.9 RT	-	1	-
	ICPB20	191+69.9	1.9 LT	-	1	-
	ICPB21	192+70.9	2.1 RT	-	1	-
	ICPB22	195+91.0	2.2 RT	-	1	-
	ICPB23	196+91.0	2.4 RT	-	1	-
	ICPB24	198+31.4	2.8 LT	-	1	-
	ICPB25	200+56.2	11.4 LT	-	1	-
	ICPB26	202+05.1	10.2 LT	-	1	-
	ICPB27	203+10.1	3.7 LT	-	1	-
	ICPB28	208+36.8	8.5 LT	-	1	-
	ICPB29	209+44.1	3.4 LT	-	1	-
	ICPB30	214+43.9	3.6 LT	-	1	-
	ICPB31	215+38.7	4.3 LT	-	1	-
	ICPB32	220+87.6	11.6 LT	-	1	-
	CV3	221+30.1	81.3 LT	-	-	1
	ICPB33	222+82.6	12.1 RT	-	1	-
	ICPB34	229+08.8	10.7 LT	-	1	-
	ICPB35	230+79.0	6.6 RT	-	1	-
	ICPB36	233+75.6	11.5 LT	-	1	-
	ICPB37	233+85.5	88.1 RT	-	1	-
	CV4	234+34.1	95.1 RT	-	-	1
	ICPB38	235+89.3	94.5 RT	-	1	-
	ICPB39	236+19.1	12.1 RT	-	1	-
	ICPB40	240+66.5	10.2 LT	-	1	-
	ICPB41	241+77.6	11.9 RT	-	1	-
	ICPB42	247+35.5	5.4 LT	-	1	-
	ICPB43	248+47.0	5.9 RT	-	1	-
	ICPB44	260+69.7	12.8 LT	-	1	-

PULL BOXES - CONTINUED

LOCATION	PB NO.	STATION	OFFSET	653.0135 PULLBOXES STEEL 24X36-INCH EACH	653.0140 PULLBOXES STEEL 24X42-INCH EACH	SPV.0060.3000 TRAFFIC SIGNAL INTERCONNECT VAULT EACH
INTERCONNECT (CONTINUED)	ICPB45	262+40.9	12.2 RT	-	1	-
	CV5	262+34.5	87.3 LT	-	-	1
	ICPB46	267+33.9	7.9 LT	-	1	-
	ICPB47	268+40.6	3.1 RT	-	1	-
	ICPB48	275+80.0	10.4 LT	-	1	-
	ICPB49	277+49.2	12.4 RT	-	1	-
	CV6	277+38.1	60.2 RT	-	-	1
	ICPB50	286+63.9	11.5 LT	-	1	-
	CV7	285+83.6	65.7 RT	-	-	1
	ICPB51	289+32.0	11.8 RT	-	1	-
	ICPB52	289+31.1	64.6 RT	-	1	-
	ICPB53	297+44.0	0.2 RT	-	1	-
	ICPB54	298+45.3	8.8 RT	-	1	-
	ICPB55	307+18.2	10.2 LT	-	1	-
	ICPB56	308+54.4	11.5 RT	-	1	-
	ICPB57	316+08.8	7.0 LT	-	1	-
	ICPB58	317+17.0	8.1 LT	-	1	-
	ICPB59	320+84.3	7.9 LT	-	1	-
	ICPB60	322+70.2	2.3 RT	-	1	-
	ICPB61	327+29.2	1.4 RT	-	1	-
	ICPB62	328+02.1	7.5 RT	-	1	-
	ICPB63	334+28.2	9.8 LT	-	1	-
	ICPB64	335+11.7	8.3 LT	-	1	-
	ICPB65	339+41.7	16.1 LT	-	1	-
	CV8	339+43.0	82.1 RT	-	-	1
	ICPB66	342+10.9	84.1 RT	-	1	-
	ICPB67	342+11.4	16.9 RT	-	1	-
	ICPB68	347+06.2	14.7 RT	-	1	-
	ICPB69	347+87.5	13.0 RT	-	1	-
	ICPB70	356+37.7	7.3 LT	-	1	-
	ICPB71	358+14.4	5.0 RT	-	1	-
	ICPB72	362+77.9	5.5 LT	-	1	-
	ICPB73	363+93.4	9.5 RT	-	1	-
	ICPB74	366+72.4	6.2 RT	-	1	-
	ICPB75	367+83.6	6.8 RT	-	1	-
	ICPB76	375+69.1	8.2 LT	-	1	-
	ICPB77	377+01.2	9.3 RT	-	1	-
	ICPB78	387+23.4	7.9 LT	-	1	-
	ICPB79	387+90.4	2.7 RT	-	1	-
	ICPB80	392+92.5	8.2 LT	-	1	-
	CV9	393+16.4	65.2 RT	-	-	1
	ICPB81	394+83.6	8.3 RT	-	1	-
	ICPB82	402+36.7	7.4 LT	-	1	-
	ISPB83	403+37.2	5.9 RT	-	1	-
	ICPB84	409+70.4	7.7 LT	-	1	-
	ICPB85	410+69.9	4.4 LT	-	1	-
	ICPB86	412+89.8	7.5 LT	-	1	-
	ICPB87	414+37.9	4.1 RT	-	1	-
	ICPB88	420+88.1	5.3 RT	-	1	-
	ICPB89	421+68.9	7.5 RT	-	1	-
	ICPB90	424+41.2	7.5 RT	-	1	-
	ICPB91	426+17.5	6.9 RT	-	1	-
	ICPB92	428+18.6	8.3 LT	-	1	-
	ICPB93	428+20.3	53.5 LT	-	1	-
	ICPB94	439+76.1	51.7 LT	-	1	-
	ICPB95	439+75.5	8.8 LT	-	1	-
	ICPB96	446+30.1	25.1 RT	-	1	-
	ICPB97	447+50.8	18.7 RT	-	1	-
	ICPB98	450+74.8	11.0 LT	-	1	-
	CV10	450+72.5	83.1 LT	-	-	1
	ICPB99	452+46.6	11.0 RT	-	1	-
	ICPB100	457+88.9	5.0 LT	-	1	-
	ICPB101	458+16.9	70.8 RT	-	1	-
	CV11	459+70.4	85.5 RT	-	-	1
SUBTOTAL				0	101	11
TOTAL				55	228	11

REMOVING PULL BOXES

LOCATION	PB NO.	STATION	OFFSET	653.0905 * REMOVING PULL BOXES EACH
STH 38 AT STH 100	PB1	FIELD	LOCATE	1
	PB2	FIELD	LOCATE	1
	PB3	FIELD	LOCATE	1
	PB4	FIELD	LOCATE	1
	PB5	FIELD	LOCATE	1
	PB6	FIELD	LOCATE	1
	PB7	FIELD	LOCATE	1
	PB8	FIELD	LOCATE	1
	PB9	FIELD	LOCATE	1
	PB10	FIELD	LOCATE	1
	PB11	FIELD	LOCATE	1
	PB12	FIELD	LOCATE	1
	PB13	FIELD	LOCATE	1
	PB14	FIELD	LOCATE	1
	PB15	FIELD	LOCATE	1
	PB16	FIELD	LOCATE	1
	PB17	FIELD	LOCATE	1
	PB18	FIELD	LOCATE	1
	PB19	FIELD	LOCATE	1
	PB20	FIELD	LOCATE	1
	PB21	FIELD	LOCATE	1
	PB22	FIELD	LOCATE	1
	PB23	FIELD	LOCATE	1
	PB24	FIELD	LOCATE	1
	PB25	FIELD	LOCATE	1
	PB26	FIELD	LOCATE	1
	PB27	FIELD	LOCATE	1
	PB28	FIELD	LOCATE	1
SUBTOTAL				28
STH 38 AT CENTENNIAL DR	PB1	FIELD	LOCATE	1
	PB2	FIELD	LOCATE	1
	PB3	FIELD	LOCATE	1
	PB4	FIELD	LOCATE	1
	PB5	FIELD	LOCATE	1
	PB6	FIELD	LOCATE	1
	PB7	FIELD	LOCATE	1
	PB8	FIELD	LOCATE	1
	PB9	FIELD	LOCATE	1
	PB10	FIELD	LOCATE	1
	PB12	FIELD	LOCATE	1
	PB13	FIELD	LOCATE	1
	PB14	FIELD	LOCATE	1
	PB15	FIELD	LOCATE	1
	PB16	FIELD	LOCATE	1
	PB17	FIELD	LOCATE	1
	PB18	FIELD	LOCATE	1
SUBTOTAL				17
STH 38 AT PUETZ RD	PB3	FIELD	LOCATE	1
	PB4	FIELD	LOCATE	1
	PB18	FIELD	LOCATE	1
	PB19	FIELD	LOCATE	1
	PB8	FIELD	LOCATE	1
	PB19	FIELD	LOCATE	1
SUBTOTAL				6

REMOVING PULL BOXES - CONTINUED

LOCATION	PB NO.	STATION	OFFSET	653.0905 * REMOVING PULL BOXES EACH
STH 38 AT FOREST HILL AVE	PB1	FIELD	LOCATE	1
	PB2	FIELD	LOCATE	1
	PB3	FIELD	LOCATE	1
	PB4	FIELD	LOCATE	1
	PB5	FIELD	LOCATE	1
	PB6	FIELD	LOCATE	1
	PB7	FIELD	LOCATE	1
	PB8	FIELD	LOCATE	1
	PB9	FIELD	LOCATE	1
	PB10	FIELD	LOCATE	1
	PB11	FIELD	LOCATE	1
	PB12	FIELD	LOCATE	1
	PB13	FIELD	LOCATE	1
	PB14	FIELD	LOCATE	1
	PB15	FIELD	LOCATE	1
	PB16	FIELD	LOCATE	1
	PB17	FIELD	LOCATE	1
	PB18	FIELD	LOCATE	1
	PB19	FIELD	LOCATE	1
	PB20	FIELD	LOCATE	1
SUBTOTAL				20
STH 38 AT DREXEL AVE	PB1	FIELD	LOCATE	1
	PB2	FIELD	LOCATE	1
	PB3	FIELD	LOCATE	1
	PB4	FIELD	LOCATE	1
	PB5	FIELD	LOCATE	1
	PB6	FIELD	LOCATE	1
	PB7	FIELD	LOCATE	1
	PB8	FIELD	LOCATE	1
	PB9	FIELD	LOCATE	1
	PB10	FIELD	LOCATE	1
	PB11	FIELD	LOCATE	1
	PB12	FIELD	LOCATE	1
	PB13	FIELD	LOCATE	1
	PB14	FIELD	LOCATE	1
	PB15	FIELD	LOCATE	1
	PB16	FIELD	LOCATE	1
	PB17	FIELD	LOCATE	1
	PB18	FIELD	LOCATE	1
	PB19	FIELD	LOCATE	1
	PB20	FIELD	LOCATE	1
	PB21	FIELD	LOCATE	1
	PB22	FIELD	LOCATE	1
	PB23	FIELD	LOCATE	1
	PB24	FIELD	LOCATE	1
SUBTOTAL				24

REMOVING PULL BOXES - CONTINUED

LOCATION	PB NO.	STATION	OFFSET	653.0905 * REMOVING PULL BOXES EACH
STH 38 AT RAWSON AVE	PB1	FIELD	LOCATE	1
	PB2	FIELD	LOCATE	1
	PB3	FIELD	LOCATE	1
	PB4	FIELD	LOCATE	1
	PB5	FIELD	LOCATE	1
	PB6	FIELD	LOCATE	1
	PB7	FIELD	LOCATE	1
	PB8	FIELD	LOCATE	1
	PB9	FIELD	LOCATE	1
	PB10	FIELD	LOCATE	1
	PB11	FIELD	LOCATE	1
	PB12	FIELD	LOCATE	1
	PB13	FIELD	LOCATE	1
	PB14	FIELD	LOCATE	1
	PB15	FIELD	LOCATE	1
	PB16	FIELD	LOCATE	1
	PB17	FIELD	LOCATE	1
	PB18	FIELD	LOCATE	1
	PB19	FIELD	LOCATE	1
	PB20	FIELD	LOCATE	1
	PB21	FIELD	LOCATE	1
	PB22	FIELD	LOCATE	1
	PB23	FIELD	LOCATE	1
	PB24	FIELD	LOCATE	1
	PB25	FIELD	LOCATE	1
	PB26	FIELD	LOCATE	1
	PB27	FIELD	LOCATE	1
	PB28	FIELD	LOCATE	1
	PB29	FIELD	LOCATE	1
SUBTOTAL				29
STH 38 AT COLLEGE AVE	PB1	FIELD	LOCATE	1
	PB2	FIELD	LOCATE	1
	PB3	FIELD	LOCATE	1
	PB4	FIELD	LOCATE	1
	PB5	FIELD	LOCATE	1
	PB6	FIELD	LOCATE	1
	PB7	FIELD	LOCATE	1
	PB8	FIELD	LOCATE	1
	PB9	FIELD	LOCATE	1
	PB10	FIELD	LOCATE	1
	PB11	FIELD	LOCATE	1
	PB12	FIELD	LOCATE	1
	PB13	FIELD	LOCATE	1
	PB14	FIELD	LOCATE	1
	PB15	FIELD	LOCATE	1
	PB16	FIELD	LOCATE	1
	PB17	FIELD	LOCATE	1
	PB18	FIELD	LOCATE	1
	PB19	FIELD	LOCATE	1
	PB20	FIELD	LOCATE	1
	PB21	FIELD	LOCATE	1
	PB22	FIELD	LOCATE	1
SUBTOTAL				22

REMOVING PULL BOXES - CONTINUED

LOCATION	PB NO.	STATION	OFFSET	653.0905 * REMOVING PULL BOXES EACH
STH 38 AT STH 119 EB OFF RAMP	PB1	FIELD	LOCATE	1
	PB2	FIELD	LOCATE	1
	PB3	FIELD	LOCATE	1
	PB4	FIELD	LOCATE	1
	PB5	FIELD	LOCATE	1
	PB6	FIELD	LOCATE	1
	PB7	FIELD	LOCATE	1
	PB8	FIELD	LOCATE	1
	PB10	FIELD	LOCATE	1
	PB11	FIELD	LOCATE	1
	PB12	FIELD	LOCATE	1
	PB13	FIELD	LOCATE	1
	PB14	FIELD	LOCATE	1
	PB15	FIELD	LOCATE	1
	PB16	FIELD	LOCATE	1
	PB17	FIELD	LOCATE	1
	PB18	FIELD	LOCATE	1
	PB19	FIELD	LOCATE	1
SUBTOTAL				18
STH 38 AT GRANGE AVE	PB1	FIELD	LOCATE	1
	PB2	FIELD	LOCATE	1
	PB3	FIELD	LOCATE	1
	PB4	FIELD	LOCATE	1
	PB5	FIELD	LOCATE	1
	PB6	FIELD	LOCATE	1
	PB7	FIELD	LOCATE	1
	PB8	FIELD	LOCATE	1
	PB9	FIELD	LOCATE	1
	PB10	FIELD	LOCATE	1
	PB11	FIELD	LOCATE	1
	PB12	FIELD	LOCATE	1
	PB13	FIELD	LOCATE	1
	PB14	FIELD	LOCATE	1
	PB15	FIELD	LOCATE	1
	PB16	FIELD	LOCATE	1
	PB17	FIELD	LOCATE	1
	PB18	FIELD	LOCATE	1
	PB19	FIELD	LOCATE	1
SUBTOTAL				19
TOTAL				183

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

CATEGORY 0015
SHEET 10 OF 46

CONCRETE BASES

LOCATION	SB NO.	STATION	OFFSET	654.0101 CONCRETE BASES TYPE 1 EACH	654.0102 CONCRETE BASES TYPE 2 EACH	654.0105 * CONCRETE BASES TYPE 5 EACH	654.0110 CONCRETE BASES TYPE 10 EACH	654.0113 CONCRETE BASES TYPE 13 EACH	654.0217 CONCRETE CONTROL CABINET BASES TYPE 9 SPECIAL EACH
STH 38 AT STH 100	CB1	180+88.1	89.0 LT	-	-	-	-	-	1
	SB1	181+15.5	82.4 LT	-	1	-	-	-	-
	SB2	181+60.1	79.0 LT	1	-	-	-	-	-
	SB3	181+61.0	63.5 LT	1	-	-	-	-	-
	SB4	182+25.4	105.1 LT	-	-	-	1	-	-
	SB5	182+80.2	116.4 LT	-	-	-	-	1	-
	SB6	183+17.3	83.3 LT	-	-	1	-	-	-
	SB7	182+92.2	63.9 LT	1	-	-	-	-	-
	SB8	182+79.4	61.8 LT	1	-	-	-	-	-
	SB9	182+95.7	11.8 RT	-	-	-	1	-	-
	SB10	183+9.5	67.5 RT	-	-	-	-	1	-
	SB11	182+97.6	104.0 RT	-	-	1	-	-	-
	SB12	182+77.4	76.2 RT	1	-	-	-	-	-
	SB13	182+76.1	63.1 RT	1	-	-	-	-	-
	SB14	182+07.0	94.6 RT	-	-	-	1	-	-
	SB15	181+47.8	75.8 RT	-	-	-	-	1	-
	SB16	181+33.1	63.9 RT	1	-	-	-	-	-
	SB17	181+20.8	11.8 LT	-	-	-	1	-	-
	SB18	181+00.2	12.0 LT	1	-	-	-	-	-
	SB19	180+88.7	60.9 LT	-	-	-	-	1	-
SUBTOTAL				8	1	2	4	4	1
STH 38 AT CENTENNIAL DR	CB1	221+34.3	92.8 LT	-	-	-	-	-	1
	SB1	221+59.1	74.9 LT	-	1	-	-	-	-
	SB2	222+32.4	89.9 LT	-	-	-	-	1	-
	SB3	222+40.6	74.8 LT	1	-	-	-	-	-
	SB4	222+56.7	64.7 LT	-	1	-	-	-	-
	SB5	222+57.3	10.7 LT	1	-	-	-	-	-
	SB6	222+58.0	60.3 RT	-	-	-	-	1	-
	SB7	222+17.8	76.7 RT	-	1	-	-	-	-
	SB8	221+48.6	86.0 RT	-	-	-	-	1	-
	SB9	221+43.7	78.8 RT	1	-	-	-	-	-
	SB10	221+26.8	67.7 RT	1	-	-	-	-	-
	SB11	221+17.4	59.2 RT	-	1	-	-	-	-
	SB12	221+25.8	11.3 RT	1	-	-	-	-	-
	SB13	221+33.7	57.8 LT	-	-	-	-	1	-
SUBTOTAL				5	4	0	0	4	1
STH 38 AT PUETZ RD	SB6	234+65.9	83.0 LT	1	-	-	-	-	-
	SB16	234+64.1	122.7 RT	-	-	-	1	-	-
SUBTOTAL				1	0	0	1	0	0
STH 38 AT FOREST HILL AVE	CB1	262+11.5	86.0 LT	-	-	-	-	-	1
	SB1	262+17.6	63.1 LT	-	1	-	-	-	-
	SB2	262+18.1	10.8 LT	1	-	-	-	-	-
	SB3	262+19.0	62.5 RT	-	-	-	-	1	-
	SB4	262+01.5	71.4 RT	1	-	-	-	-	-
	SB5	261+89.9	74.9 RT	-	1	-	-	-	-
	SB6	261+10.1	82.8 RT	-	-	-	-	1	-
	SB7	261+05.1	71.7 RT	1	-	-	-	-	-
	SB8	260+83.5	63.0 RT	-	1	-	-	-	-
	SB9	260+83.4	11.2 RT	1	-	-	-	-	-
	SB10	260+71.5	58.3 LT	-	-	-	-	1	-
	SB11	260+86.8	66.2 LT	1	-	-	-	-	-
	SB12	261+06.2	78.6 LT	-	1	-	-	-	-
	SB13	261+89.6	97.2 LT	-	-	-	-	1	-
	SB14	262+00.8	81.5 LT	1	-	-	-	-	-
SUBTOTAL				6	4	0	0	4	1

CONCRETE BASES - CONTINUED

LOCATION	SB NO.	STATION	OFFSET	654.0101 CONCRETE BASES TYPE 1 EACH	654.0102 CONCRETE BASES TYPE 2 EACH	654.0105 * CONCRETE BASES TYPE 5 EACH	654.0110 CONCRETE BASES TYPE 10 EACH	654.0113 CONCRETE BASES TYPE 13 EACH	654.0217 CONCRETE CONTROL CABINET BASES TYPE 9 SPECIAL EACH
STH 38 AT SUSAN DR	CB1	277+18.6	71.0 RT	-	-	-	-	-	1
	SB1	276+90.2	60.3 RT	1	-	-	-	-	-
	SB2	276+73.8	75.8 RT	-	1	-	-	-	-
	SB3	276+08.6	69.5 RT	-	-	-	-	1	-
	SB4	275+55.5	60.5 RT	1	-	-	-	-	-
	SB5	275+55.4	11.9 LT	-	-	-	1	-	-
	SB6	275+55.5	61.8 LT	-	-	-	-	1	-
	SB7	276+05.8	92.5 LT	1	-	-	-	-	-
	SB8	276+55.7	105.9 LT	-	1	-	-	-	-
	SB9	277+05.7	92.5 LT	-	-	-	-	1	-
	SB10	277+21.4	80.7 LT	1	-	-	-	-	-
	SB11	277+21.9	10.8 LT	1	-	-	-	-	-
	SB12	277+26.3	12.2 RT	-	-	-	1	-	-
	SB13	277+22.5	60.7 RT	-	-	-	-	1	-
SUBTOTAL				5	2	0	2	4	1
STH 38 AT DREXEL AVE	CB1	287+16.8	93.5 RT	-	-	-	-	-	1
	SB1	287+23.7	63.0 RT	-	1	-	-	-	-
	SB2	286+97.5	10.9 LT	-	-	-	1	-	-
	SB3	287+09.5	61.5 LT	-	-	-	-	1	-
	SB4	287+34.1	70.7 LT	1	-	-	-	-	-
	SB5	287+42.9	98.4 LT	-	1	-	-	-	-
	SB6	288+11.1	107.8 LT	-	-	-	1	-	-
	SB7	288+59.0	107.4 LT	-	-	-	-	1	-
	SB8	288+65.6	98.6 LT	1	-	-	-	-	-
	SB9	288+81.8	89.8 LT	-	-	1	-	-	-
	SB10	288+80.3	61.7 LT	1	-	-	-	-	-
	SB11	289+01.5	10.1 RT	-	-	-	1	-	-
	SB12	288+80.7	63.0 RT	-	-	-	-	1	-
	SB13	288+56.4	93.2 RT	-	1	-	-	-	-
	SB14	287+92.3	103.4 RT	-	-	-	1	-	-
	SB15	287+47.4	96.3 RT	-	-	-	-	1	-
SUBTOTAL				3	3	1	4	4	1
STH 38 AT RAWSON AVE	CB1	340+10.0	120.3 RT	-	-	-	-	-	1
	SB1	340+10.4	93.6 RT	-	1	-	-	-	-
	SB2	340+11.7	66.4 RT	1	-	-	-	-	-
	SB3	340+31.2	73.2 RT	1	-	-	-	-	-
	SB4	340+13.2	16.9 RT	1	-	-	-	-	-
	SB5	339+95.3	15.2 LT	-	-	-	1	-	-
	SB6	339+83.8	16.6 LT	1	-	-	-	-	-
	SB7	339+60.2	17.7 LT	1	-	-	-	-	-
	SB8	339+71.5	78.3 LT	-	1	-	-	-	-
	SB9	340+11.6	68.2 LT	-	-	-	-	1	-
	SB10	340+25.5	67.0 LT	1	-	-	-	-	-
	SB11	340+30.3	78.5 LT	1	-	-	-	-	-
	SB12	340+99.0	102.5 LT	-	-	-	1	-	-
	SB13	341+45.9	111.0 LT	-	-	-	-	1	-
	SB14	341+65.6	96.8 LT	-	-	1	-	-	-
	SB15	341+61.0	66.0 LT	1	-	-	-	-	-
	SB16	341+47.1	72.9 LT	1	-	-	-	-	-
	SB17	341+57.6	17.3 LT	1	-	-	-	-	-
	SB18	341+89.5	16.5 RT	-	-	-	1	-	-
	SB19	341+96.3	65.5 RT	-	-	-	-	1	-
	SB20	341+75.5	94.8 RT	-	-	1	-	-	-
	SB21	341+49.8	80.4 RT	1	-	-	-	-	-
	SB22	341+55.0	65.2 RT	1	-	-	-	-	-
	SB23	340+81.7	106.3 RT	-	-	-	1	-	-
	SB24	340+27.9	107.1 RT	-	-	-	-	1	-
SUBTOTAL				12	2	2	4	4	1

CATEGORY 0015
SHEET 12 OF 46

CONCRETE BASES - CONTINUED

LOCATION	SB NO.	STATION	OFFSET	654.0101 CONCRETE BASES TYPE 1 EACH	654.0102 CONCRETE BASES TYPE 2 EACH	654.0105 * CONCRETE BASES TYPE 5 EACH	654.0110 CONCRETE BASES TYPE 10 EACH	654.0113 CONCRETE BASES TYPE 13 EACH	654.0217 CONCRETE CONTROL CABINET BASES TYPE 9 SPECIAL EACH
STH 38 AT COLLEGE AVE	CB1	393+28.1	85.7 RT	-	-	-	-	-	1
	SB1	393+14.2	51.7 RT	-	1	-	-	-	-
	SB2	393+07.1	8.4 LT	1	-	-	-	-	-
	SB3	393+02.3	51.3 LT	-	-	-	1	-	-
	SB4	393+23.1	65.1 LT	-	1	-	-	-	-
	SB5	393+94.5	66.4 LT	1	-	-	-	-	-
	SB6	394+33.6	109.3 LT	-	-	-	-	1	-
	SB7	394+38.9	59.7 LT	1	-	-	-	-	-
	SB8	394+51.9	54.1 LT	-	1	-	-	-	-
	SB9	394+65.2	8.3 RT	-	-	-	1	-	-
	SB10	394+67.4	58.5 RT	1	-	-	-	-	-
	SB11	394+54.5	73.9 RT	-	1	-	-	-	-
	SB12	393+91.9	70.8 RT	1	-	-	-	-	-
	SB13	393+48.8	74.8 RT	1	-	-	-	-	-
	SB14	393+36.1	66.9 RT	-	-	-	-	1	-
SUBTOTAL				6	4	0	2	2	1
STH 38 AT STH 119 EB OFF RAMP	CB1	450+88.3	109.1 LT	-	-	-	-	-	1
	SB1	450+83.3	68.4 LT	-	-	-	-	1	-
	SB2	451+35.1	67.0 LT	1	-	-	-	-	-
	SB3	452+11.0	57.4 LT	1	-	-	-	-	-
	SB4	452+23.5	10.9 LT	1	-	-	-	-	-
	SB5	452+25.6	59.6 RT	-	-	-	-	1	-
	SB6	451+36.7	62.8 RT	-	-	-	1	-	-
	SB7	451+33.0	56.3 RT	1	-	-	-	-	-
	SB8	451+29.1	11.2 RT	1	-	-	-	-	-
SUBTOTAL				5	0	0	1	2	1
STH 38 AT GRANGE AVE	CB1	459+84.3	86.2 RT	-	-	-	-	-	1
	SB1	459+01.9	57.6 RT	1	-	-	-	-	-
	SB2	458+32.8	56.7 RT	-	-	-	1	-	-
	SB3	458+03.6	63.2 LT	-	-	-	-	1	-
	SB4	458+15.9	87.8 LT	1	-	-	-	-	-
	SB5	458+63.8	99.7 LT	1	-	-	-	-	-
	SB6	459+04.0	93.9 LT	-	-	-	1	-	-
	SB7	459+09.7	85.9 LT	1	-	-	-	-	-
	SB8	459+31.0	70.9 LT	1	-	-	-	-	-
	SB9	459+30.9	5.8 LT	-	-	-	-	1	-
	SB10	459+32.1	55.9 RT	1	-	-	-	-	-
SUBTOTAL				6	0	0	2	2	1
TOTAL				57	20	5	20	30	9

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

CATEGORY 0015
SHEET 13 OF 46

REMOVING CONCRETE BASES

LOCATION	SB NO.	STATION	OFFSET	204.0195 * REMOVING CONCRETE BASES EACH
STH 38 AT STH 100	CB1	FIELD	LOCATE	1
	SB1	FIELD	LOCATE	1
	SB2	FIELD	LOCATE	1
	SB3	FIELD	LOCATE	1
	SB4	FIELD	LOCATE	1
	SB5	FIELD	LOCATE	1
	SB6	FIELD	LOCATE	1
	SB7	FIELD	LOCATE	1
	SB8	FIELD	LOCATE	1
	SB9	FIELD	LOCATE	1
	SB10	FIELD	LOCATE	1
	SB11	FIELD	LOCATE	1
	SB12	FIELD	LOCATE	1
	SB13	FIELD	LOCATE	1
	SB14	FIELD	LOCATE	1
	SB15	FIELD	LOCATE	1
SUBTOTAL				16
STH 38 AT CENTENNIAL DR	CB1	FIELD	LOCATE	1
	SB1	FIELD	LOCATE	1
	SB2	FIELD	LOCATE	1
	SB3	FIELD	LOCATE	1
	SB4	FIELD	LOCATE	1
	SB5	FIELD	LOCATE	1
	SB6	FIELD	LOCATE	1
	SB7	FIELD	LOCATE	1
	SB8	FIELD	LOCATE	1
	SB9	FIELD	LOCATE	1
	SB10	FIELD	LOCATE	1
	SB11	FIELD	LOCATE	1
	SB12	FIELD	LOCATE	1
	SB13	FIELD	LOCATE	1
	SB14	FIELD	LOCATE	1
	SB15	FIELD	LOCATE	1
SUBTOTAL				16
STH 38 AT PUETZ RD	SB5	FIELD	LOCATE	1
	SB9	FIELD	LOCATE	1
	SB15	FIELD	LOCATE	1
SUBTOTAL				3
STH 38 AT FOREST HILL AVE	CB1	FIELD	LOCATE	1
	SB1	FIELD	LOCATE	1
	SB2	FIELD	LOCATE	1
	SB3	FIELD	LOCATE	1
	SB4	FIELD	LOCATE	1
	SB5	FIELD	LOCATE	1
	SB6	FIELD	LOCATE	1
	SB7	FIELD	LOCATE	1
	SB8	FIELD	LOCATE	1
	SB9	FIELD	LOCATE	1
	SB10	FIELD	LOCATE	1
SUBTOTAL				11

REMOVING CONCRETE BASES - CONTINUED

LOCATION	SB NO.	STATION	OFFSET	204.0195 * REMOVING CONCRETE BASES EACH
STH 38 AT DREXEL AVE	CB1	FIELD	LOCATE	1
	SB1	FIELD	LOCATE	1
	SB2	FIELD	LOCATE	1
	SB3	FIELD	LOCATE	1
	SB4	FIELD	LOCATE	1
	SB5	FIELD	LOCATE	1
	SB6	FIELD	LOCATE	1
	SB7	FIELD	LOCATE	1
	SB8	FIELD	LOCATE	1
	SB9	FIELD	LOCATE	1
	SB10	FIELD	LOCATE	1
	SB11	FIELD	LOCATE	1
	SB12	FIELD	LOCATE	1
SUBTOTAL				13
STH 38 AT RAWSON AVE	CB1	FIELD	LOCATE	1
	SB1	FIELD	LOCATE	1
	SB2	FIELD	LOCATE	1
	SB3	FIELD	LOCATE	1
	SB4	FIELD	LOCATE	1
	SB5	FIELD	LOCATE	1
	SB6	FIELD	LOCATE	1
	SB7	FIELD	LOCATE	1
	SB8	FIELD	LOCATE	1
	SB9	FIELD	LOCATE	1
	SB10	FIELD	LOCATE	1
	SB11	FIELD	LOCATE	1
	SB12	FIELD	LOCATE	1
	SB13	FIELD	LOCATE	1
	SB14	FIELD	LOCATE	1
SUBTOTAL				15
STH 38 AT COLLEGE AVE	CB1	FIELD	LOCATE	1
	SB1	FIELD	LOCATE	1
	SB2	FIELD	LOCATE	1
	SB3	FIELD	LOCATE	1
	SB4	FIELD	LOCATE	1
	SB5	FIELD	LOCATE	1
	SB6	FIELD	LOCATE	1
	SB7	FIELD	LOCATE	1
	SB8	FIELD	LOCATE	1
	SB9	FIELD	LOCATE	1
	SB10	FIELD	LOCATE	1
	SB11	FIELD	LOCATE	1
	SB12	FIELD	LOCATE	1
	SB13	FIELD	LOCATE	1
	SB14	FIELD	LOCATE	1
	SB15	FIELD	LOCATE	1
SUBTOTAL				16

REMOVING CONCRETE BASES - CONTINUED

LOCATION	SB NO.	STATION	OFFSET	204.0195 * REMOVING CONCRETE BASES EACH
STH 38 AT STH 119 EB OFF RAMP	CB1	FIELD	LOCATE	1
	SB1	FIELD	LOCATE	1
	SB2	FIELD	LOCATE	1
	SB3	FIELD	LOCATE	1
	SB4	FIELD	LOCATE	1
	SB5	FIELD	LOCATE	1
	SB6	FIELD	LOCATE	1
	SB7	FIELD	LOCATE	1
	SB8	FIELD	LOCATE	1
	SB10	FIELD	LOCATE	1
	SB11	FIELD	LOCATE	1
	SB12	FIELD	LOCATE	1
SUBTOTAL				12
STH 38 AT GRANGE AVE	CB1	FIELD	LOCATE	1
	SB1	FIELD	LOCATE	1
	SB2	FIELD	LOCATE	1
	SB3	FIELD	LOCATE	1
	SB4	FIELD	LOCATE	1
	SB5	FIELD	LOCATE	1
	SB6	FIELD	LOCATE	1
	SB7	FIELD	LOCATE	1
	SB8	FIELD	LOCATE	1
	SB9	FIELD	LOCATE	1
	SB10	FIELD	LOCATE	1
	SB11	FIELD	LOCATE	1
SUBTOTAL				12
TOTAL				114

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

CATEGORY 0015
SHEET 14 OF 46

TRAFFIC DETECTOR LOOPS

LOCATION	LOOP NO.	HOME RUN PB	STATION	OFFSET	SIZE	NO. TURNS	PAVEMENT TYPE	SDD INSTALLATION REFERENCE	652.0800 CONDUIT LOOP DETECTOR LF	655.0700 LOOP DETECTOR LEAD IN CABLE LF	655.0800 LOOP DETECTOR WIRE LF
STH 38 AT STH 100	21	PB10	186+60.0	35.6 LT	6 X 30	4	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	120	620	504
	22	PB9	185+10.0	35.4 LT	6 X 30	4	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	140	460	588
	41	PB4	1097+64.1	29.0 RT	6 X 20	4	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	106	405	445
	61	PB24	177+63.0	30.0 RT	6 X 20	4	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	106	505	445
	62	PB23	179+13.0	30.5 RT	6 X 20	4	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	106	355	445
	81	PB17	1106+60.0	35.0 LT	6 X 30	4	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	100	790	420
	82	PB16	1105+10.0	35.0 LT	6 X 30	4	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	144	610	605
	S1	PB10	186+76.0	48.4 LT	6 X 6	4	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	64	620	269
	S2	PB10	186+76.0	36.4 LT	6 X 6	4	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	88	620	370
	S3	PB10	186+76.0	24.4 LT	6 X 6	4	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	112	620	470
	S4	PB14	186+83.0	23.1 RT	6 X 6	4	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	94	785	395
	S5	PB14	186+83.0	35.1 RT	6 X 6	4	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	70	785	294
SUBTOTAL									1,250	7,175	5,250
STH 38 AT CENTENNIAL DR	21	PB7	226+26.7	28.7 LT	6 X 20	4	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	88	535	370
	22	PB6	224+76.7	29.0 LT	6 X 20	4	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	96	385	403
	41	PB3	221+73.4	303.0 LT	6 X 10	4	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	46	260	193
	61	PB16	217+47.8	29.5 RT	6 X 20	4	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	88	545	370
	62	PB15	218+97.8	29.5 RT	6 X 20	4	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	88	395	370
	81	PB12	222+05.7	302.0 RT	6 X 10	5	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	46	545	242
SUBTOTAL									452	2,665	1,948
STH 38 AT PUETZ RD	11	PB6	234+03.7	1.2 LT	6 X 20	3	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	70	185	221
	12	PB6	234+31.7	1.2 LT	6 X 20	3	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	84	185	265
	13	PB6	234+06.6	10.1 RT	6 X 20	3	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	92	185	290
	14	PB6	234+34.6	10.1 RT	6 X 20	3	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	100	185	315
	21	PB19	239+82.1	28.7 LT	6 X 20	4	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	90	745	378
	22	PB18	238+32.1	27.9 LT	6 X 20	4	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	92	595	386
	31	PB29	2117+29.1	0.0 LT	6 X 20	3	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	68	75	214
	32	PB29	2117+01.1	0.0 LT	6 X 20	3	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	64	75	202
	42	PB13	2114+65.8	22.1 RT	6 X 20	3	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	68	460	214
	43	PB13	2114+93.8	22.1 RT	6 X 20	3	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	68	460	214
	44	PB9	2114+65.8	33.5 RT	6 X 20	3	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	70	340	221
	45	PB9	2114+93.8	33.5 RT	6 X 20	3	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	70	340	221
	51	PB20	236+40.7	1.7 RT	6 X 20	3	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	68	320	214
	52	PB20	236+12.7	1.7 RT	6 X 20	3	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	64	320	202
	53	PB20	236+40.7	9.7 LT	6 X 20	3	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	88	320	277
	54	PB20	236+12.7	9.7 LT	6 X 20	3	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	86	320	271
	61	PB4	230+75.3	29.2 RT	6 X 20	3	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	102	415	321
	62	PB3	232+25.3	29.2 RT	6 X 20	3	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	102	265	321
	82	PB28	2116+83.4	22.6 LT	6 X 20	3	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	68	140	214
	83	PB28	2116+55.4	22.6 LT	6 X 20	3	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	78	140	246
	84	PB26	2116+85.4	33.9 LT	6 X 20	3	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	88	255	277
	85	PB26	2116+57.4	33.9 LT	6 X 20	3	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	76	255	239
	S5	PB19	239+95.5	34.9 LT	6 X 6	4	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	72	745	302
	S6	PB19	239+95.5	22.9 LT	6 X 6	4	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	92	745	386
	S7	PB22	240+02.5	23.7 RT	6 X 6	4	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	90	635	378
	S8	PB22	240+02.5	35.7 RT	6 X 6	4	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	66	635	277
SUBTOTAL									2,076	9,340	7,066
STH 38 AT FOREST HILL AVE	21	PB4	265+87.3	34.0 LT	6 X 30	4	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	98	400	412
	22	PB3	264+37.3	34.0 LT	6 X 30	4	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	116	250	487
	61	PB12	257+13.5	28.9 RT	6 X 20	4	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	92	655	386
	62	PB11	258+63.5	28.9 RT	6 X 20	4	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	90	505	378
	81	PB8	261+70.4	325.0 RT	6 X 6	5	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	36	470	189
SUBTOTAL									432	2,280	1,852

TRAFFIC DETECTOR LOOPS - CONTINUED

LOCATION	LOOP NO.	HOME RUN PB	STATION	OFFSET	SIZE	NO. TURNS	PAVEMENT TYPE	SDD INSTALLATION REFERENCE	652.0800 CONDUIT LOOP DETECTOR LF	655.0700 LOOP DETECTOR LEAD IN CABLE LF	655.0800 LOOP DETECTOR WIRE LF
STH 38 AT SUSAN DR	21	PB15	280+94.7	36.3 LT	6 X 30	4	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	94	550	395
	22	PB14	279+44.7	33.4 LT	6 X 30	4	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	116	395	487
	61	PB6	271+83.1	29.5 RT	6 X 20	4	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	88	560	370
	62	PB5	273+33.1	29.5 RT	6 X 20	4	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	88	410	370
SUBTOTAL									386	1,915	1,622
STH 38 AT DREXEL AVE	21	PB13	292+25.0	33.9 LT	6 X 30	4	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	116	715	487
	22	PB12	291+00.0	33.9 LT	6 X 30	4	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	114	590	479
	41	PB8	3112+66.5	28.0 RT	6 X 20	4	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	102	515	428
	61	PB4	283+53.5	29.2 RT	6 X 20	4	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	94	400	395
	62	PB3	285+28.5	30.1 RT	6 X 20	4	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	94	220	395
	81	PB19	3119+59.2	27.9 LT	6 X 20	4	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	80	395	336
	S9	PB13	292+03.8	45.4 LT	6 X 6	4	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	78	715	328
	S10	PB13	292+03.8	33.9 LT	6 X 6	4	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	102	715	428
	S11	PB13	292+03.8	23.1 LT	6 X 6	4	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	126	715	529
	S12	PB17	292+03.8	23.3 RT	6 X 6	4	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	94	550	395
	S13	PB17	292+03.8	34.5 RT	6 X 6	4	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	70	550	294
SUBTOTAL									1,070	6,080	4,494
STH 38 AT RAWSON AVE	21	PB17	345+31.0	34.1 LT	6 X 20	4	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	98	879	412
	22	PB16	343+81.0	34.1 LT	6 X 20	4	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	102	729	428
	61	PB5	336+41.5	34.0 RT	6 X 20	4	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	96	410	403
	62	PB4	337+91.5	34.0 RT	6 X 20	4	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	90	260	378
	81	PB24	4119+93.1	32.8 LT	6 X 30	4	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	90	405	378
SUBTOTAL									476	2,683	1,999
STH 38 AT COLLEGE AVE	21	PB12	397+01.9	28.3 LT	6 X 20	4	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	72	570	302
	41	PB8	5114+60.3	23.6 RT	6 X 20	4	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	86	445	361
	61	PB3	390+63.5	24.6 RT	6 X 20	4	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	84	300	353
	81	PB17	5121+12.8	23.0 LT	6 X 20	4	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	80	395	336
	S15	PB6	390+63.5	19.8 LT	6 X 6	4	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	82	395	344
	S16	PB6	390+63.5	31.6 LT	6 X 6	4	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	58	395	244
SUBTOTAL									462	2,500	1,940
STH 38 AT STH 119 EB OFF RAMP	S25	PB2	451+48.7	170.0 LT	6 X 6	4	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	88	85	370
	S26	PB2	451+59.3	170.0 LT	6 X 6	4	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	112	85	470
SUBTOTAL									200	170	840
STH 38 AT GRANGE AVE	41	PB8	458+11.6	270.0 LT	6 X 26	4	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	78	525	328
	61	PB4	455+99.0	33.5 RT	6 X 30	3	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	86	410	271
	71	PB16	459+51.9	226.0 RT	6 X 20	3	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	68	185	214
	S27	PB14	461+66.3	20.8 RT	6 X 6	4	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	80	240	336
	S28	PB14	461+66.3	31.7 RT	6 X 6	4	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	60	240	252
	S29	PB14	461+66.3	42.3 RT	6 X 6	4	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	40	240	168
	S30	PB14	461+82.3	20.8 RT	6 X 6	4	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	80	240	336
	S31	PB14	461+82.3	31.7 RT	6 X 6	4	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	60	240	252
	S32	PB14	461+52.3	42.3 RT	6 X 6	4	ASPHALT	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	40	240	168
SUBTOTAL									592	2,560	2,325
TOTAL									7,396	37,368	29,336

* LOCATION IS TO FRONT CENTER OF DETECTOR LOOP

SIGNAL FACES

LOCATION	SB NO.	HEAD NO.	658.0110 TRAFFIC SIGNAL FACES 3-12 INCH VERTICAL R-Y-G EACH	658.0110 TRAFFIC SIGNAL FACES 3-12 INCH VERTICAL <-R<-Y<-G EACH	658.0110 TRAFFIC SIGNAL FACES 3-12 INCH VERTICAL R-Y->G-> EACH	658.0115 TRAFFIC SIGNAL FACES 4-12 INCH VERTICAL <-R<-Y<-FY<-G EACH	658.0115 TRAFFIC SIGNAL FACES 4-12 INCH VERTICAL R-Y-G<-G EACH	658.0215 BACKPLATES SIGNAL FACE 3-SECTION 12-INCH EACH	658.0220 BACKPLATES SIGNAL FACE 4-SECTION 12-INCH EACH	658.0416 PEDESTRIAN SIGNAL FACES 16-INCH EACH	658.0600 LED MODULES 12-INCH RED BALL EACH	658.0605 LED MODULES 12-INCH YELLOW BALL EACH	658.0610 LED MODULES 12-INCH GREEN BALL EACH	658.0615 LED MODULES 12-INCH RED ARROW EACH	658.0620 LED MODULES 12-INCH YELLOW ARROW EACH	658.0625 LED MODULES 12-INCH GREEN ARROW EACH	658.0635 LED MODULES PEDESTRIAN COUNTDOWN TIMER 16-INCH EACH
STH 38 AT STH 100	SB1	18	-	-	1	-	-	1	-	-	1	-	-	-	1	1	-
		28	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB2	12	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		29	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
		30	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB3	26	-	1	-	-	-	1	-	-	-	-	-	1	1	1	-
		37	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB4	15	-	1	-	-	-	1	-	-	-	-	-	1	1	1	-
		27	-	1	-	-	-	1	-	-	-	-	-	1	1	1	-
	SB5	22	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		23	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		24	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
	SB7	6	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		32	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB8	31	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB9	4	-	1	-	-	-	1	-	-	-	-	-	1	1	1	-
		5	-	1	-	-	-	1	-	-	-	-	-	1	1	1	-
	SB10	2	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		3	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
	SB12	21	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		34	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB13	33	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB14	16	-	1	-	-	-	1	-	-	-	-	-	1	1	1	-
		25	-	1	-	-	-	1	-	-	-	-	-	1	1	1	-
	SB15	13	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		14	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		17	-	1	-	-	-	1	-	-	-	-	-	1	1	1	-
		36	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB16	1	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		35	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB17	10	-	1	-	-	-	1	-	-	-	-	-	1	1	1	-
		11	-	1	-	-	-	1	-	-	-	-	-	1	1	1	-
		19	-	-	1	-	-	1	-	-	1	-	-	-	1	1	-
	SB18	20	-	-	1	-	-	1	-	-	1	-	-	-	1	1	-
	SB19	7	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		8	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		9	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
SUBTOTAL			14	10	3	0	0	27	0	10	17	14	14	10	13	13	10

CATEGORY 0015
SHEET 17 OF 46

SIGNAL FACES - CONTINUED

LOCATION	SB NO.	HEAD NO.	658.0110 TRAFFIC SIGNAL FACES 3-12 INCH VERTICAL R-Y-G EACH	658.0110 TRAFFIC SIGNAL FACES, 3-12 INCH VERTICAL <-R<-Y<-G EACH	658.0110 TRAFFIC SIGNAL FACES, 3-12 INCH VERTICAL R-Y->G-> EACH	658.0115 TRAFFIC SIGNAL FACES 4-12 INCH VERTICAL <-R<-Y<-FY<-G EACH	658.0115 TRAFFIC SIGNAL FACES 4-12 INCH VERTICAL R-Y-G<-G EACH	658.0215 BACKPLATES SIGNAL FACE 3-SECTION 12-INCH EACH	658.0220 BACKPLATES SIGNAL FACE 4-SECTION 12-INCH EACH	658.0416 PEDESTRIAN SIGNAL FACES 16-INCH EACH	658.0600 LED MODULES 12-INCH RED BALL EACH	658.0605 LED MODULES 12-INCH YELLOW BALL EACH	658.0610 LED MODULES 12-INCH GREEN BALL EACH	658.0615 LED MODULES 12-INCH RED ARROW EACH	658.0620 LED MODULES 12-INCH YELLOW ARROW EACH	658.0625 LED MODULES 12-INCH GREEN ARROW EACH	658.0635 LED MODULES PEDESTRIAN COUNTDOWN TIMER 16-INCH EACH
STH 38 AT CENTENNIAL DR	SB1	11	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		19	-	-	-	1	-	-	1	-	-	-	-	1	2	1	-
		21	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB2	17	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		18	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		20	-	-	-	1	-	-	1	-	-	-	-	1	2	1	-
	SB3	22	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB4	4	-	-	-	1	-	-	1	-	-	-	-	1	2	1	-
		6	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		23	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB5	5	-	-	-	1	-	-	1	-	-	-	-	1	2	1	-
	SB6	2	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		3	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		24	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB7	14	-	-	-	1	-	-	1	-	-	-	-	1	2	1	-
		16	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		25	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB8	12	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		13	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		15	-	-	-	1	-	-	1	-	-	-	-	1	2	1	-
	SB9	26	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB10	27	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB11	1	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		9	-	-	-	1	-	-	1	-	-	-	-	1	2	1	-
	SB12	10	-	-	-	1	-	-	1	-	-	-	-	1	2	1	-
	SB13	7	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		8	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		28	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
SUBTOTAL			12	0	0	8	0	12	8	8	12	12	12	8	16	8	8
STH 38 AT PUETZ RD	SB6	18	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		25	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB16	19	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		20	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
SUBTOTAL			3	0	0	0	0	3	0	1	3	3	3	0	0	0	1

CATEGORY 0015
SHEET 18 OF 46

SIGNAL FACES - CONTINUED

LOCATION	SB NO.	HEAD NO.	658.0110 TRAFFIC SIGNAL FACES 3-12 INCH VERTICAL R-Y-G EACH	658.0110 TRAFFIC SIGNAL FACES 3-12 INCH VERTICAL <-R<-Y<-G EACH	658.0110 TRAFFIC SIGNAL FACES 3-12 INCH VERTICAL R-Y->G-> EACH	658.0115 TRAFFIC SIGNAL FACES 4-12 INCH VERTICAL <-R<-Y<-FY<-G EACH	658.0115 TRAFFIC SIGNAL FACES 4-12 INCH VERTICAL R-Y-G<-G EACH	658.0215 BACKPLATES SIGNAL FACE 3-SECTION 12-INCH EACH	658.0220 BACKPLATES SIGNAL FACE 4-SECTION 12-INCH EACH	658.0416 PEDESTRIAN SIGNAL FACES 16-INCH EACH	658.0600 LED MODULES 12-INCH RED BALL EACH	658.0605 LED MODULES 12-INCH YELLOW BALL EACH	658.0610 LED MODULES 12-INCH GREEN BALL EACH	658.0615 LED MODULES 12-INCH RED ARROW EACH	658.0620 LED MODULES 12-INCH YELLOW ARROW EACH	658.0625 LED MODULES 12-INCH GREEN ARROW EACH	658.0635 LED MODULES PEDESTRIAN COUNTDOWN TIMER 16-INCH EACH
STH 38 AT FOREST HILL AVE	SB1	4	-	-	-	1	-	-	1	-	-	-	-	1	2	1	-
		6	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		22	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB2	5	-	-	-	1	-	-	1	-	-	-	-	1	2	1	-
	SB3	2	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		3	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		23	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB4	24	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB5	15	-	-	-	1	-	-	1	-	-	-	-	1	2	1	-
		17	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
	SB6	13	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		14	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		16	-	-	-	1	-	-	1	-	-	-	-	1	2	1	-
	SB7	25	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB8	1	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		10	-	-	-	1	-	-	1	-	-	-	-	1	2	1	-
		26	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB9	11	-	-	-	1	-	-	1	-	-	-	-	1	2	1	-
	SB10	7	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		8	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		9	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
	SB11	27	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB12	12	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		20	-	-	-	1	-	-	1	-	-	-	-	1	2	1	-
		28	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB13	18	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		19	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		21	-	-	-	1	-	-	1	-	-	-	-	1	2	1	-
	SB13	29	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
SUBTOTAL			13	0	0	8	0	13	8	8	13	13	13	8	16	8	8

CATEGORY 0015
SHEET 19 OF 46

SIGNAL FACES - CONTINUED

LOCATION	SB NO.	HEAD NO.	658.0110 TRAFFIC SIGNAL FACES 3-12 INCH VERTICAL R-Y-G EACH	658.0110 TRAFFIC SIGNAL FACES, 3-12 INCH VERTICAL <-R<-Y<-G EACH	658.0110 TRAFFIC SIGNAL FACES, 3-12 INCH VERTICAL R-Y->G-> EACH	658.0115 TRAFFIC SIGNAL FACES 4-12 INCH VERTICAL <-R<-Y<-FY<-G EACH	658.0115 TRAFFIC SIGNAL FACES 4-12 INCH VERTICAL R-Y-G<-G EACH	658.0215 BACKPLATES SIGNAL FACE 3-SECTION 12-INCH EACH	658.0220 BACKPLATES SIGNAL FACE 4-SECTION 12-INCH EACH	658.0416 PEDESTRIAN SIGNAL FACES 16-INCH EACH	658.0600 LED MODULES 12-INCH RED BALL EACH	658.0605 LED MODULES 12-INCH YELLOW BALL EACH	658.0610 LED MODULES 12-INCH GREEN BALL EACH	658.0615 LED MODULES 12-INCH RED ARROW EACH	658.0620 LED MODULES 12-INCH YELLOW ARROW EACH	658.0625 LED MODULES 12-INCH GREEN ARROW EACH	658.0635 LED MODULES PEDESTRIAN COUNTDOWN TIMER 16-INCH EACH
STH 38 AT SUSAN DR	SB1	22	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB2	15	-	1	-	-	-	1	-	-	-	-	-	1	1	1	-
		17	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
	SB3	13	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		14	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		16	-	1	-	-	-	1	-	-	-	-	-	1	1	1	-
		23	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB4	1	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		10	-	-	-	1	-	-	1	-	-	-	-	1	2	1	-
		24	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB5	11	-	-	-	1	-	-	1	-	-	-	-	1	2	1	-
	SB6	7	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		8	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		9	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		25	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB7	12	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		20	-	-	-	1	-	-	1	-	-	-	-	1	2	1	-
		26	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB8	21	-	-	-	1	-	-	1	-	-	-	-	1	2	1	-
	SB9	18	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		19	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		27	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB10	6	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		28	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB12	4	-	1	-	-	-	1	-	-	-	-	-	1	1	1	-
		5	-	1	-	-	-	1	-	-	-	-	-	1	1	1	-
	SB13	2	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		3	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		29	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
SUBTOTAL			13	4	0	4	0	17	4	8	13	13	13	8	12	8	8

CATEGORY 0015
SHEET 20 OF 46

SIGNAL FACES - CONTINUED

LOCATION	SB NO.	HEAD NO.	658.0110 TRAFFIC SIGNAL FACES 3-12 INCH VERTICAL R-Y-G EACH	658.0110 TRAFFIC SIGNAL FACES, 3-12 INCH VERTICAL <-R<-Y<-G EACH	658.0110 TRAFFIC SIGNAL FACES, 3-12 INCH VERTICAL R-Y->G-> EACH	658.0115 TRAFFIC SIGNAL FACES 4-12 INCH VERTICAL <-R<-Y<-FY<-G EACH	658.0115 TRAFFIC SIGNAL FACES 4-12 INCH VERTICAL R-Y-G<-G EACH	658.0215 BACKPLATES SIGNAL FACE 3-SECTION 12-INCH EACH	658.0220 BACKPLATES SIGNAL FACE 4-SECTION 12-INCH EACH	658.0416 PEDESTRIAN SIGNAL FACES 16-INCH EACH	658.0600 LED MODULES 12-INCH RED BALL EACH	658.0605 LED MODULES 12-INCH YELLOW BALL EACH	658.0610 LED MODULES 12-INCH GREEN BALL EACH	658.0615 LED MODULES 12-INCH RED ARROW EACH	658.0620 LED MODULES 12-INCH YELLOW ARROW EACH	658.0625 LED MODULES 12-INCH GREEN ARROW EACH	658.0635 LED MODULES PEDESTRIAN COUNTDOWN TIMER 16-INCH EACH
STH 38 AT DREXEL AVE	SB1	1	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		26	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB2	4	-	1	-	-	-	1	-	-	-	-	-	1	1	1	-
		12	-	1	-	-	-	1	-	-	-	-	-	1	1	1	-
		13	-	1	-	-	-	1	-	-	-	-	-	1	1	1	-
	SB3	8	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		9	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		10	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
	SB4	27	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB5	14	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		28	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB6	17	-	1	-	-	-	1	-	-	-	-	-	1	1	1	-
		24	-	1	-	-	-	1	-	-	-	-	-	1	1	1	-
		25	-	1	-	-	-	1	-	-	-	-	-	1	1	1	-
	SB7	21	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		22	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
	SB8	29	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB10	7	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		30	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB11	5	-	1	-	-	-	1	-	-	-	-	-	1	1	1	-
		6	-	1	-	-	-	1	-	-	-	-	-	1	1	1	-
		11	-	1	-	-	-	1	-	-	-	-	-	1	1	1	-
	SB12	2	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		3	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		31	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB13	20	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		32	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB14	18	-	1	-	-	-	1	-	-	-	-	-	1	1	1	-
		19	-	1	-	-	-	1	-	-	-	-	-	1	1	1	-
		23	-	1	-	-	-	1	-	-	-	-	-	1	1	1	-
	SB15	15	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		5	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		33	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
SUBTOTAL			13	12	0	0	0	25	0	8	13	13	13	12	12	12	8

CATEGORY 0015
SHEET 21 OF 46

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	MISCELLANEOUS QUANTITIES	SHEET 630	E

FILE NAME : Miscellaneous Quantities.dgn PLOT DATE : 12/22/2013 PLOT BY : DSCHNABEL-TADI PLOT NAME : PLOT SCALE : 40.0000 sf / in.

WISDOT/CADDS SHEET 43

SIGNAL FACES - CONTINUED

LOCATION	SB NO.	HEAD NO.	658.0110 TRAFFIC SIGNAL FACES 3-12 INCH VERTICAL R-Y-G EACH	658.0110 TRAFFIC SIGNAL FACES 3-12 INCH VERTICAL <-R<-Y<-G EACH	658.0110 TRAFFIC SIGNAL FACES 3-12 INCH VERTICAL R-Y->G-> EACH	658.0115 TRAFFIC SIGNAL FACES 4-12 INCH VERTICAL <-R<-Y<-FY<-G EACH	658.0115 TRAFFIC SIGNAL FACES 4-12 INCH VERTICAL R-Y-G<-G EACH	658.0215 BACKPLATES SIGNAL FACE 3-SECTION 12-INCH EACH	658.0220 BACKPLATES SIGNAL FACE 4-SECTION 12-INCH EACH	658.0416 PEDESTRIAN SIGNAL FACES 16-INCH EACH	658.0600 LED MODULES 12-INCH RED BALL EACH	658.0605 LED MODULES 12-INCH YELLOW BALL EACH	658.0610 LED MODULES 12-INCH GREEN BALL EACH	658.0615 LED MODULES 12-INCH RED ARROW EACH	658.0620 LED MODULES 12-INCH YELLOW ARROW EACH	658.0625 LED MODULES 12-INCH GREEN ARROW EACH	658.0635 LED MODULES PEDESTRIAN COUNTDOWN TIMER 16-INCH EACH
STH 38 AT RAWSON AVE	SB2	1	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		29	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB3	38	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB5	4	-	1	-	-	-	1	-	-	-	-	-	1	1	1	-
		11	-	1	-	-	-	1	-	-	-	-	-	1	1	1	-
		12	-	1	-	-	-	1	-	-	-	-	-	1	1	1	-
	SB6	20	-	-	1	-	-	1	-	-	1	-	-	-	1	1	-
	SB7	21	-	-	1	-	-	1	-	-	1	-	-	-	1	1	-
	SB8	19	-	-	1	-	-	1	-	-	1	-	-	-	1	1	-
		31	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB9	8	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		9	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		32	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB10	30	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB11	13	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		33	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB12	16	-	1	-	-	-	1	-	-	-	-	-	1	1	1	-
		27	-	1	-	-	-	1	-	-	-	-	-	1	1	1	-
		28	-	1	-	-	-	1	-	-	-	-	-	1	1	1	-
	SB13	23	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		24	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		25	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
	SB15	7	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		35	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB16	34	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB18	5	-	1	-	-	-	1	-	-	-	-	-	1	1	1	-
		6	-	1	-	-	-	1	-	-	-	-	-	1	1	1	-
		10	-	1	-	-	-	1	-	-	-	-	-	1	1	1	-
	SB19	2	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		3	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
	SB21	22	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		37	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB22	36	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB23	17	-	1	-	-	-	1	-	-	-	-	-	1	1	1	-
		18	-	1	-	-	-	1	-	-	-	-	-	1	1	1	-
		26	-	1	-	-	-	1	-	-	-	-	-	1	1	1	-
	SB24	14	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		15	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
SUBTOTAL			13	12	3	0	0	28	0	10	16	13	13	12	15	15	10

CATEGORY 0015
SHEET 22 OF 46

SIGNAL FACES - CONTINUED

LOCATION	SB NO.	HEAD NO.	658.0110 TRAFFIC SIGNAL FACES 3-12 INCH VERTICAL R-Y-G EACH	658.0110 TRAFFIC SIGNAL FACES, 3-12 INCH VERTICAL <-R<-Y<-G EACH	658.0110 TRAFFIC SIGNAL FACES, 3-12 INCH VERTICAL R-Y->G-> EACH	658.0115 TRAFFIC SIGNAL FACES 4-12 INCH VERTICAL <-R<-Y<-FY<-G EACH	658.0115 TRAFFIC SIGNAL FACES 4-12 INCH VERTICAL R-Y-G<-G EACH	658.0215 BACKPLATES SIGNAL FACE 3-SECTION 12-INCH EACH	658.0220 BACKPLATES SIGNAL FACE 4-SECTION 12-INCH EACH	658.0416 PEDESTRIAN SIGNAL FACES 16-INCH EACH	658.0600 LED MODULES 12-INCH RED BALL EACH	658.0605 LED MODULES 12-INCH YELLOW BALL EACH	658.0610 LED MODULES 12-INCH GREEN BALL EACH	658.0615 LED MODULES 12-INCH RED ARROW EACH	658.0620 LED MODULES 12-INCH YELLOW ARROW EACH	658.0625 LED MODULES 12-INCH GREEN ARROW EACH	658.0635 LED MODULES PEDESTRIAN COUNTDOWN TIMER 16-INCH EACH
STH 38 AT COLLEGE AVE	SB1	1	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		9	-	-	-	1	-	-	1	-	-	-	-	1	2	1	-
		21	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB2	10	-	-	-	1	-	-	1	-	-	-	-	1	2	1	-
	SB3	7	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		8	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		22	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB4	11	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		19	-	-	-	1	-	-	1	-	-	-	-	1	2	1	-
		23	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB5	20	-	-	-	1	-	-	1	-	-	-	-	1	2	1	-
	SB6	17	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		18	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
	SB7	24	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB8	4	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		6	-	-	-	1	-	-	1	-	-	-	-	1	2	1	-
		25	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB9	2	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		3	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		5	-	-	-	1	-	-	1	-	-	-	-	1	2	1	-
	SB10	26	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB11	14	-	-	-	1	-	-	1	-	-	-	-	1	2	1	-
		16	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		27	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB12	15	-	-	-	1	-	-	1	-	-	-	-	1	2	1	-
	SB13	28	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB14	12	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		13	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
SUBTOTAL			12	0	0	8	0	12	8	8	12	12	12	8	16	8	8

CATEGORY 0015
SHEET 23 OF 46

SIGNAL FACES - CONTINUED

LOCATION	SB NO.	HEAD NO.	658.0110 TRAFFIC SIGNAL FACES 3-12 INCH VERTICAL R-Y-G EACH	658.0110 TRAFFIC SIGNAL FACES, 3-12 INCH VERTICAL <-R<-Y<-G EACH	658.0110 TRAFFIC SIGNAL FACES, 3-12 INCH VERTICAL R-Y->G-> EACH	658.0115 TRAFFIC SIGNAL FACES 4-12 INCH VERTICAL <-R<-Y<-FY<-G EACH	658.0115 TRAFFIC SIGNAL FACES 4-12 INCH VERTICAL R-Y-G<-G EACH	658.0215 BACKPLATES SIGNAL FACE 3-SECTION 12-INCH EACH	658.0220 BACKPLATES SIGNAL FACE 4-SECTION 12-INCH EACH	658.0416 PEDESTRIAN SIGNAL FACES 16-INCH EACH	658.0600 LED MODULES 12-INCH RED BALL EACH	658.0605 LED MODULES 12-INCH YELLOW BALL EACH	658.0610 LED MODULES 12-INCH GREEN BALL EACH	658.0615 LED MODULES 12-INCH RED ARROW EACH	658.0620 LED MODULES 12-INCH YELLOW ARROW EACH	658.0625 LED MODULES 12-INCH GREEN ARROW EACH	658.0635 LED MODULES PEDESTRIAN COUNTDOWN TIMER 16-INCH EACH
STH 38 AT STH 119 EB OFF RAMP	SB1	8	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		9	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		10	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
	SB2	13	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		17	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB3	5	-	-	-	1	-	-	1	-	-	-	-	1	2	1	-
		7	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		18	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB4	6	-	-	-	1	-	-	1	-	-	-	-	1	2	1	-
	SB5	2	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		3	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		4	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
	SB6	14	-	1	-	-	-	1	-	-	-	-	-	1	1	1	-
		15	-	-	-	-	1	-	1	-	1	1	1	-	-	1	-
		16	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
	SB7	1	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		11	-	-	-	1	-	-	1	-	-	-	-	1	2	1	-
	SB8	12	-	-	-	1	-	-	1	-	-	-	-	1	2	1	-
SUBTOTAL			10	1	0	4	1	11	5	2	11	11	11	5	9	6	2
STH 38 AT GRANGE AVE	SB1	16	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
	SB2	1	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		12	-	-	1	-	-	1	-	-	-	-	-	1	1	1	-
		14	-	1	-	-	-	1	-	-	-	-	-	1	1	1	-
		15	-	1	-	-	-	1	-	-	-	-	-	1	1	1	-
	SB3	8	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		9	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		10	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
	SB4	11	-	-	1	-	-	1	-	-	-	-	-	1	1	1	-
		19	-	1	-	-	-	1	-	-	-	-	-	1	1	1	-
		21	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB5	13	-	1	-	-	-	1	-	-	-	-	-	1	1	1	-
		20	-	1	-	-	-	1	-	-	-	-	-	1	1	1	-
	SB6	17	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		18	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
	SB7	22	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB8	7	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		23	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB9	2	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		3	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		4	1	-	-	-	-	1	-	-	1	1	1	-	-	-	-
		5	-	-	-	1	-	-	1	-	-	-	-	1	2	1	-
		6	-	-	-	1	-	-	1	-	-	-	-	1	2	1	-
	SB10	24	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
SUBTOTAL			11	5	2	2	0	18	2	4	11	11	11	9	11	9	4
TOTAL			114	44	8	34	1	166	35	67	121	115	115	80	120	87	67

CATEGORY 0015
SHEET 24 OF 46

TRAFFIC SIGNAL CABLE

LOCATION	LOCATION	655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG L.F.	655.0240 CABLE TRAFFIC SIGNAL 7-14 AWG L.F.	655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG L.F.
STH 38 AT STH 100	CB1-SB1	-	-	75
	CB1-SB2	-	-	145
	CB1-SB3	-	-	160
	CB1-SB4	-	-	200
	CB1-SB5	-	260	-
	CB1-SB7	-	-	325
	CB1-SB8	-	340	-
	CB1-SB9	-	410	-
	CB1-SB10	-	455	-
	CB1-SB12	-	-	505
	CB1-SB13	-	520	-
	CB1-SB14	-	-	370
	CB1-SB15	-	-	335
	CB1-SB16	-	-	270
	CB1-SB17	-	-	170
	CB1-SB18	-	150	-
	CB1-SB19	-	80	-
	SB1-HEAD 18	20	-	-
	SB1-HEAD 28	20	-	-
	SB2-HEAD 12	20	-	-
	SB2-HEAD 29	20	-	-
	SB2-HEAD 30	20	-	-
	SB3-HEAD 26	20	-	-
	SB3-HEAD 37	20	-	-
	SB4-HEAD 15	35	-	-
	SB4-HEAD 27	35	-	-
	SB5-HEAD 22	65	-	-
	SB5-HEAD 23	50	-	-
	SB5-HEAD 24	35	-	-
	SB7-HEAD 6	20	-	-
	SB7-HEAD 32	20	-	-
	SB8-HEAD 31	20	-	-
	SB9-HEAD 4	50	-	-
	SB9-HEAD 5	35	-	-
	SB10-HEAD 2	65	-	-
	SB10-HEAD 3	50	-	-
	SB12-HEAD 21	20	-	-
	SB12-HEAD 34	20	-	-
	SB13-HEAD 33	20	-	-
	SB14-HEAD 16	35	-	-
	SB14-HEAD 25	35	-	-
	SB15-HEAD 13	50	-	-
	SB15-HEAD 14	35	-	-
	SB15-HEAD 17	65	-	-
	SB15-HEAD 36	20	-	-
	SB16-HEAD 1	20	-	-
	SB16-HEAD 35	20	-	-
	SB17-HEAD 10	50	-	-
	SB17-HEAD 11	35	-	-
	SB17-HEAD 19	20	-	-
	SB18-HEAD 20	20	-	-
	SB19-HEAD 7	65	-	-
	SB19-HEAD 8	50	-	-
	SB19-HEAD 9	35	-	-
SUBTOTAL		1,235	2,215	2,555

TRAFFIC SIGNAL CABLE - CONTINUED

LOCATION	LOCATION	655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG L.F.	655.0240 CABLE TRAFFIC SIGNAL 7-14 AWG L.F.	655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG L.F.
STH 38 AT CENTENNIAL DR	CB1-SB1	-	-	90
	CB1-SB2	-	-	150
	CB1-SB3	-	165	-
	CB1-SB4	-	-	230
	CB1-SB5	-	-	280
	CB1-SB6	-	-	355
	CB1-SB7	-	-	375
	CB1-SB8	-	-	305
	CB1-SB9	-	315	-
	CB1-SB10	-	260	-
	CB1-SB11	-	-	250
	CB1-SB12	-	-	210
	CB1-SB13	-	-	70
	SB1-HEAD 11	20	-	-
	SB1-HEAD 19	-	20	-
	SB1-HEAD 21	20	-	-
	SB2-HEAD 17	50	-	-
	SB2-HEAD 18	20	-	-
	SB2-HEAD 20	-	65	-
	SB3-HEAD 22	20	-	-
	SB4-HEAD 4	-	20	-
	SB4-HEAD 6	20	-	-
	SB4-HEAD 23	20	-	-
	SB5-HEAD 5	-	20	-
	SB6-HEAD 2	50	-	-
	SB6-HEAD 3	35	-	-
	SB6-HEAD 24	20	-	-
	SB7-HEAD 14	-	20	-
	SB7-HEAD 16	20	-	-
	SB7-HEAD 25	20	-	-
	SB8-HEAD 12	50	-	-
	SB8-HEAD 13	20	-	-
	SB8-HEAD 15	-	65	-
	SB9-HEAD 26	20	-	-
	SB10-HEAD 27	20	-	-
	SB11-HEAD 1	20	-	-
	SB11-HEAD 9	-	20	-
	SB12-HEAD 10	-	20	-
	SB13-HEAD 7	65	-	-
	SB13-HEAD 8	50	-	-
	SB13-HEAD 28	20	-	-
SUBTOTAL		580	990	2,315
STH 38 AT PUETZ RD	CB1-SB6	-	-	360
	CB1-SB16	-	-	85
	SB6-HEAD 18	20	-	-
	SB6-HEAD 25	20	-	-
	SB16-HEAD 19	50	-	-
	SB16-HEAD 20	35	-	-
SUBTOTAL		125	0	445

CATEGORY 0015
SHEET 25 OF 46

TRAFFIC SIGNAL CABLE - CONTINUED

LOCATION	LOCATION	655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG L.F.	655.0240 CABLE TRAFFIC SIGNAL 7-14 AWG L.F.	655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG L.F.
STH 38 AT FOREST HILL AVE	CB1-SB1	-	-	85
	CB1-SB2	-	-	150
	CB1-SB3	-	-	225
	CB1-SB4	-	290	-
	CB1-SB5	-	-	280
	CB1-SB6	-	-	345
	CB1-SB7	-	320	-
	CB1-SB8	-	-	315
	CB1-SB9	-	-	265
	CB1-SB10	-	-	200
	CB1-SB11	-	185	-
	CB1-SB12	-	-	160
	CB1-SB13	-	-	70
	CB1-SB14	-	70	-
	SB1-HEAD 4	-	20	-
	SB1-HEAD 6	20	-	-
	SB1-HEAD 22	20	-	-
	SB2-HEAD 5	-	20	-
	SB3-HEAD 2	65	-	-
	SB3-HEAD 3	50	-	-
	SB3-HEAD 23	20	-	-
	SB4-HEAD 24	20	-	-
	SB5-HEAD 15	-	20	-
	SB5-HEAD 17	20	-	-
	SB6-HEAD 13	50	-	-
	SB6-HEAD 14	20	-	-
	SB6-HEAD 16	-	65	-
	SB7-HEAD 25	20	-	-
	SB8-HEAD 1	20	-	-
	SB8-HEAD 10	-	20	-
	SB8-HEAD 26	20	-	-
	SB9-HEAD 11	-	20	-
	SB10-HEAD 7	65	-	-
	SB10-HEAD 8	50	-	-
	SB10-HEAD 9	35	-	-
	SB11-HEAD 27	20	-	-
	SB12-HEAD 12	20	-	-
	SB12-HEAD 20	-	20	-
	SB12-HEAD 28	20	-	-
	SB13-HEAD 18	50	-	-
	SB13-HEAD 19	20	-	-
	SB13-HEAD 21	-	65	-
	SB14-HEAD 29	20	-	-
SUBTOTAL		645	1,115	2,095

TRAFFIC SIGNAL CABLE - CONTINUED

LOCATION	LOCATION	655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG L.F.	655.0240 CABLE TRAFFIC SIGNAL 7-14 AWG L.F.	655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG L.F.
STH 38 AT SUSAN DR	CB1-SB1	-	75	-
	CB1-SB2	-	-	95
	CB1-SB3	-	-	160
	CB1-SB4	-	-	235
	CB1-SB5	-	-	305
	CB1-SB6	-	-	355
	CB1-SB7	-	-	365
	CB1-SB8	-	-	300
	CB1-SB9	-	-	270
	CB1-SB10	-	-	215
	CB1-SB11	-	125	-
	CB1-SB12	-	-	65
	CB1-SB13	-	-	65
	SB1-HEAD 22	20	-	-
	SB2-HEAD 15	20	-	-
	SB2-HEAD 17	20	-	-
	SB3-HEAD 13	50	-	-
	SB3-HEAD 14	20	-	-
	SB3-HEAD 16	65	-	-
	SB3-HEAD 23	20	-	-
	SB4-HEAD 1	20	-	-
	SB4-HEAD 10	-	20	-
	SB4-HEAD 24	20	-	-
	SB5-HEAD 11	-	35	-
	SB6-HEAD 7	65	-	-
	SB6-HEAD 8	50	-	-
	SB6-HEAD 9	35	-	-
	SB6-HEAD 25	20	-	-
	SB7-HEAD 12	20	-	-
	SB7-HEAD 20	-	20	-
	SB7-HEAD 26	20	-	-
	SB8-HEAD 21	-	20	-
	SB9-HEAD 18	50	-	-
	SB9-HEAD 19	35	-	-
	SB9-HEAD 27	20	-	-
	SB10-HEAD 6	20	-	-
	SB10-HEAD 28	20	-	-
	SB12-HEAD 4	35	-	-
	SB12-HEAD 5	20	-	-
	SB13-HEAD 2	65	-	-
	SB13-HEAD 3	50	-	-
	SB13-HEAD 29	20	-	-
SUBTOTAL		800	295	2,430

TRAFFIC SIGNAL CABLE - CONTINUED

LOCATION	LOCATION	655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG L.F.	655.0240 CABLE TRAFFIC SIGNAL 7-14 AWG L.F.	655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG L.F.
STH 38 AT DREXEL AVE	CB1-SB1	-	-	125
	CB1-SB2	-	-	170
	CB1-SB3	-	-	235
	CB1-SB4	-	260	-
	CB1-SB5	-	-	330
	CB1-SB6	-	-	385
	CB1-SB7	-	-	435
	CB1-SB8	-	470	-
	CB1-SB10	-	-	470
	CB1-SB11	-	-	335
	CB1-SB12	-	-	305
	CB1-SB13	-	-	210
	CB1-SB14	-	-	135
	CB1-SB15	-	-	100
	SB1-HEAD 1	20	-	-
	SB1-HEAD 26	20	-	-
	SB2-HEAD 4	35	-	-
	SB2-HEAD 12	35	-	-
	SB2-HEAD 13	20	-	-
	SB3-HEAD 8	65	-	-
	SB3-HEAD 9	50	-	-
	SB3-HEAD 10	35	-	-
	SB4-HEAD 27	20	-	-
	SB5-HEAD 14	20	-	-
	SB5-HEAD 28	20	-	-
	SB6-HEAD 17	20	-	-
	SB6-HEAD 24	35	-	-
	SB6-HEAD 25	20	-	-
	SB7-HEAD 21	65	-	-
	SB7-HEAD 22	50	-	-
	SB8-HEAD 29	20	-	-
	SB10-HEAD 7	20	-	-
	SB10-HEAD 30	20	-	-
	SB11-HEAD 5	35	-	-
	SB11-HEAD 6	20	-	-
	SB11-HEAD 11	35	-	-
	SB12-HEAD 2	65	-	-
	SB12-HEAD 3	50	-	-
	SB12-HEAD 31	20	-	-
	SB13-HEAD 20	20	-	-
	SB13-HEAD 32	20	-	-
	SB14-HEAD 18	35	-	-
	SB14-HEAD 19	20	-	-
	SB14-HEAD 23	20	-	-
	SB15-HEAD 15	50	-	-
	SB15-HEAD 16	35	-	-
	SB15-HEAD 33	20	-	-
SUBTOTAL		1,035	730	3,235

TRAFFIC SIGNAL CABLE - CONTINUED

LOCATION	LOCATION	655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG L.F.	655.0240 CABLE TRAFFIC SIGNAL 7-14 AWG L.F.	655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG L.F.
STH 38 AT RAWSON AVE	CB1-SB2	-	-	100
	CB1-SB3	-	120	-
	CB1-SB4	-	255	-
	CB1-SB5	-	-	270
	CB1-SB6	-	260	-
	CB1-SB7	-	235	-
	CB1-SB8	-	-	305
	CB1-SB9	-	-	425
	CB1-SB10	-	425	-
	CB1-SB11	-	-	415
	CB1-SB12	-	-	480
	CB1-SB13	-	-	505
	CB1-SB15	-	-	485
	CB1-SB16	-	500	-
	CB1-SB17	-	410	-
	CB1-SB18	-	-	340
	CB1-SB19	-	-	275
	CB1-SB21	-	-	270
	CB1-SB22	-	290	-
	CB1-SB23	-	-	130
	CB1-SB24	-	-	70
	SB2-HEAD 1	20	-	-
	SB2-HEAD 29	20	-	-
	SB3-HEAD 38	20	-	-
	SB5-HEAD 4	35	-	-
	SB5-HEAD 11	50	-	-
	SB5-HEAD 12	35	-	-
	SB6-HEAD 20	20	-	-
	SB7-HEAD 21	20	-	-
	SB8-HEAD 19	20	-	-
	SB8-HEAD 31	20	-	-
	SB9-HEAD 8	65	-	-
	SB9-HEAD 9	50	-	-
	SB9-HEAD 32	20	-	-
	SB10-HEAD 30	20	-	-
	SB11-HEAD 13	20	-	-
	SB11-HEAD 33	20	-	-
	SB12-HEAD 16	35	-	-
	SB12-HEAD 27	35	-	-
	SB12-HEAD 28	20	-	-
	SB13-HEAD 23	65	-	-
	SB13-HEAD 24	50	-	-
	SB13-HEAD 25	35	-	-
	SB15-HEAD 7	20	-	-
	SB15-HEAD 35	20	-	-
	SB16-HEAD 34	20	-	-
	SB18-HEAD 5	50	-	-
	SB18-HEAD 6	35	-	-
	SB18-HEAD 10	35	-	-
	SB19-HEAD 2	65	-	-
	SB19-HEAD 3	50	-	-
	SB21-HEAD 22	20	-	-
	SB21-HEAD 37	20	-	-
	SB22-HEAD 36	20	-	-
	SB23-HEAD 17	35	-	-
	SB23-HEAD 18	20	-	-
	SB23-HEAD 26	35	-	-
	SB24-HEAD 14	65	-	-
	SB24-HEAD 15	50	-	-
SUBTOTAL		1,255	2,495	4,070

CATEGORY 0015
SHEET 27 OF 46

TRAFFIC SIGNAL CABLE - CONTINUED

LOCATION	LOCATION	655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG L.F.	655.0240 CABLE TRAFFIC SIGNAL 7-14 AWG L.F.	655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG L.F.
STH 38 AT COLLEGE AVE	CB1-SB1	-	-	90
	CB1-SB2	-	-	150
	CB1-SB3	-	-	200
	CB1-SB4	-	-	250
	CB1-SB5	-	-	320
	CB1-SB6	-	-	370
	CB1-SB7	-	410	-
	CB1-SB8	-	-	395
	CB1-SB9	-	-	285
	CB1-SB10	-	245	-
	CB1-SB11	-	-	190
	CB1-SB12	-	-	135
	CB1-SB13	-	90	-
	CB1-SB14	-	-	75
	SB1-HEAD 1	20	-	-
	SB1-HEAD 9	-	20	-
	SB1-HEAD 21	20	-	-
	SB2-HEAD 10	-	20	-
	SB3-HEAD 7	50	-	-
	SB3-HEAD 8	35	-	-
	SB3-HEAD 22	20	-	-
	SB4-HEAD 11	20	-	-
	SB4-HEAD 19	-	20	-
	SB4-HEAD 23	20	-	-
	SB5-HEAD 20	-	20	-
	SB6-HEAD 17	50	-	-
	SB6-HEAD 18	35	-	-
	SB7-HEAD 24	20	-	-
	SB8-HEAD 4	-	20	-
	SB8-HEAD 6	20	-	-
	SB8-HEAD 25	20	-	-
	SB9-HEAD 2	35	-	-
	SB9-HEAD 3	50	-	-
	SB9-HEAD 5	-	20	-
	SB10-HEAD 26	20	-	-
	SB11-HEAD 14	-	20	-
	SB11-HEAD 16	20	-	-
	SB11-HEAD 27	20	-	-
	SB12-HEAD 15	-	20	-
	SB13-HEAD 28	20	-	-
	SB14-HEAD 12	65	-	-
	SB14-HEAD 13	50	-	-
SUBTOTAL		610	905	2,460
STH 38 AT STH 119 EB OFF RAMP	CB1-SB1	-	-	90
	CB1-SB2	-	-	125
	CB1-SB3	-	-	280
	CB1-SB4	-	-	325
	CB1-SB5	-	-	405
	CB1-SB6	-	-	265
	CB1-SB7	-	-	265
	CB1-SB8	-	-	205
	SB1-HEAD 8	65	-	-
	SB1-HEAD 9	50	-	-
	SB1-HEAD 10	35	-	-
	SB2-HEAD 13	20	-	-
	SB2-HEAD 17	20	-	-
	SB3-HEAD 5	-	20	-
	SB3-HEAD 7	20	-	-
	SB3-HEAD 18	20	-	-
	SB4-HEAD 6	-	20	-
	SB5-HEAD 2	65	-	-
	SB5-HEAD 3	50	-	-
	SB5-HEAD 4	35	-	-
	SB6-HEAD 14	50	-	-
	SB6-HEAD 15	-	35	-
	SB6-HEAD 16	20	-	-
	SB7-HEAD 1	20	-	-
	SB7-HEAD 11	-	20	-
	SB8-HEAD 12	-	20	-
SUBTOTAL		470	115	1,960

TRAFFIC SIGNAL CABLE - CONTINUED

LOCATION	LOCATION	655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG L.F.	655.0240 CABLE TRAFFIC SIGNAL 7-14 AWG L.F.	655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG L.F.
STH 38 AT GRANGE AVE	CB1-SB1	-	140	-
	CB1-SB2	-	-	240
	CB1-SB3	-	400	-
	CB1-SB4	-	-	410
	CB1-SB5	-	-	345
	CB1-SB6	-	300	-
	CB1-SB7	-	310	-
	CB1-SB8	-	-	255
	CB1-SB9	-	-	190
	CB1-SB10	-	150	-
	SB1-HEAD 16	20	-	-
	SB2-HEAD 1	20	-	-
	SB2-HEAD 12	20	-	-
	SB2-HEAD 14	50	-	-
	SB2-HEAD 15	35	-	-
	SB3-HEAD 8	65	-	-
	SB3-HEAD 9	50	-	-
	SB3-HEAD 10	35	-	-
	SB4-HEAD 11	20	-	-
	SB4-HEAD 19	20	-	-
	SB4-HEAD 21	20	-	-
	SB5-HEAD 13	20	-	-
	SB5-HEAD 20	20	-	-
	SB6-HEAD 17	50	-	-
	SB6-HEAD 18	35	-	-
	SB7-HEAD 22	20	-	-
	SB8-HEAD 7	20	-	-
	SB8-HEAD 23	20	-	-
	SB9-HEAD 2	50	-	-
	SB9-HEAD 3	65	-	-
	SB9-HEAD 4	80	-	-
	SB9-HEAD 5	-	20	-
	SB9-HEAD 6	-	35	-
	SB10-HEAD 24	20	-	-
SUBTOTAL		755	1,355	1,440
TOTAL		7,510	10,215	23,005

CATEGORY 0015
SHEET 28 OF 46

EQUIPMENT GROUNDING CONDUCTORS

LOCATION	LOCATION	655.0515 * ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG (GREEN) L.F.
STH 38 AT STH 100	CB1-SB1	45
	SB1-SB2	125
	SB2-SB3	60
	SB3-SB4	195
	SB4-SB5	85
	SB5-SB6	75
	SB6-SB7	60
	SB7-SB8	40
	SB8-SB9	185
	SB9-SB10	95
	SB10-SB11	70
	SB11-SB12	65
	SB12-SB13	40
	SB13-SB14	175
	SB14-SB15	100
	SB15-SB16	100
	SB16-SB17	205
	SB17-SB18	85
	SB18-SB19	125
	SB19-CB1	50
SUBTOTAL		1,980
STH 38 AT CENTENNIAL DR	CB1-SB1	60
	SB1-SB2	105
	SB2-SB3	50
	SB3-SB4	130
	SB4-SB5	75
	SB5-SB6	130
	SB6-SB7	120
	SB7-SB8	105
	SB8-SB9	45
	SB9-SB10	140
	SB10-SB11	75
	SB11-SB12	125
	SB12-SB13	165
	SB13-CB1	110
SUBTOTAL		1,435
STH 38 AT PUETZ RD	SB5-SB6	50
	SB6-SB7	220
	SB15-SB16	95
	SB16-CB1	55
SUBTOTAL		420
STH 38 AT FOREST HILL AVE	CB1-SB1	55
	SB1-SB2	110
	SB2-SB3	120
	SB3-SB4	110
	SB4-SB5	55
	SB5-SB6	110
	SB6-SB7	85
	SB7-SB8	40
	SB8-SB9	95
	SB9-SB10	140
	SB10-SB11	60
	SB11-SB12	65
	SB12-SB13	120
	SB13-SB14	35
	SB14-CB1	40
SUBTOTAL		1,240

EQUIPMENT GROUNDING CONDUCTORS - CONTINUED

LOCATION	LOCATION	655.0515 * ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG (GREEN) L.F.
STH 38 AT SUSAN DR	CB1-SB1	45
	SB1-SB2	85
	SB2-SB3	90
	SB3-SB4	110
	SB4-SB5	105
	SB5-SB6	85
	SB6-SB7	135
	SB7-SB8	90
	SB8-SB9	85
	SB9-SB10	90
	SB10-SB11	105
	SB11-SB12	60
	SB12-SB13	105
	SB13-CB1	35
SUBTOTAL		1,225
STH 38 AT DREXEL AVE	CB1-SB1	95
	SB1-SB2	130
	SB2-SB3	100
	SB3-SB4	80
	SB4-SB5	175
	SB5-SB6	110
	SB6-SB7	85
	SB7-SB8	140
	SB8-SB9	90
	SB9-SB10	90
	SB10-SB11	170
	SB11-SB12	105
	SB12-SB13	150
	SB13-SB14	110
	SB14-SB15	90
	SB15-CB1	70
SUBTOTAL		1,790
STH 38 AT RAWSON AVE	CB1-SB1	40
	SB1-SB2	55
	SB2-SB3	45
	SB3-SB4	260
	SB4-SB5	150
	SB5-SB6	85
	SB6-SB7	50
	SB7-SB8	95
	SB8-SB9	175
	SB9-SB10	85
	SB10-SB11	75
	SB11-SB12	220
	SB12-SB13	105
	SB13-SB14	120
	SB14-SB15	100
	SB15-SB16	60
	SB16-SB17	205
	SB17-SB18	115
	SB18-SB19	100
	SB19-SB20	95
	SB20-SB21	90
	SB21-SB22	85
	SB22-SB23	195
	SB23-SB24	105
	SB24-CB1	40
SUBTOTAL		2,750

EQUIPMENT GROUNDING CONDUCTORS - CONTINUED

LOCATION	LOCATION	655.0515 * ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG (GREEN) L.F.
STH 38 AT COLLEGE AVE	CB1-SB1	60
	SB1-SB2	85
	SB2-SB3	75
	SB3-SB4	85
	SB4-SB5	115
	SB5-SB6	105
	SB6-SB7	115
	SB7-SB8	50
	SB8-SB9	155
	SB9-SB10	95
	SB10-SB11	90
	SB11-SB12	100
	SB12-SB13	90
	SB13-SB14	80
	SB14-CB1	45
SUBTOTAL		1,345
STH 38 AT STH 119 EB OFF RAMP	CB1-SB3	250
	SB3-SB4	170
	SB4-SB5	155
	SB5-SB6	250
	SB6-SB7	105
	SB7-SB8	155
	SB8-SB2	185
	SB2-SB1	70
	SB1-CB1	60
SUBTOTAL		1,400
STH 38 AT GRANGE AVE	CB1-SB1	110
	SB1-SB2	145
	SB2-SB3	215
	SB3-SB4	105
	SB4-SB5	90
	SB5-SB6	80
	SB6-SB7	45
	SB7-SB8	90
	SB8-SB9	170
	SB9-SB10	265
	SB10-CB1	120
SUBTOTAL		1,435
TOTAL		15,020

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

PULL BOX BONDING JUMPERS

LOCATION	LOCATION	655.0515 * ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG (GREEN) L.F.
STH 38 AT STH 100	CB1-PB1	25
	CB1-PB2	60
	SB2-PB5	30
	SB4-PB6	20
	SB5-PB7	25
	SB6-PB8	25
	SB7-PB11	20
	SB9-PB12	35
	SB10-PB13	25
	SB11-PB15	25
	SB12-PB18	20
	SB14-PB19	20
	SB15-PB20	40
	SB16-PB21	25
	SB16-PB22	70
	SB18-PB25	40
	CB1-PB26	30
SUBTOTAL		535
STH 38 AT CENTENNIAL DR	CB1-PB1	30
	CB1-PB2	45
	SB2-PB4	25
	SB4-PB5	35
	SB5-PB8	35
	SB5-PB9	60
	SB6-PB10	35
	SB7-PB11	30
	SB8-PB13	25
	SB11-PB14	40
	SB12-PB17	50
	SB12-PB18	75
	SB13-PB19	55
	CB1-PB20	30
SUBTOTAL		570
STH 38 AT PUETZ RD	SB16-PB30	40
	SB6-PB8	40
SUBTOTAL		80
STH 38 AT FOREST HILL AVE	CB1-PB1	20
	SB1-PB2	30
	SB2-PB5	30
	SB3-PB6	30
	SB5-PB7	30
	SB6-PB9	30
	SB8-PB10	25
	SB9-PB13	30
	SB10-PB14	45
	SB12-PB15	30
	SB13-PB16	25
SUBTOTAL		325

PULL BOX BONDING JUMPERS - CONTINUED

LOCATION	LOCATION	655.0515 * ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG (GREEN) L.F.
STH 38 AT SUSAN DR	CB1-PB1	20
	SB1-PB2	20
	SB3-PB3	25
	SB4-PB4	25
	SB5-PB7	25
	SB6-PB8	25
	SB6-PB9	75
	SB7-PB10	35
	SB8-PB11	20
	SB9-PB12	35
	SB10-PB13	25
	SB11-PB16	25
	SB12-PB17	25
	CB1-PB18	20
SUBTOTAL		400
STH 38 AT DREXEL AVE	CB1-PB1	20
	SB1-PB2	50
	SB2-PB5	25
	SB3-PB6	35
	SB5-PB7	35
	SB6-PB9	25
	SB7-PB10	30
	SB9-PB11	45
	SB10-PB14	30
	SB11-PB15	25
	SB12-PB16	45
	SB13-PB18	35
	SB14-PB20	25
	SB15-PB21	35
	CB1-PB22	20
SUBTOTAL		480
STH 38 AT RAWSON AVE	CB1-PB1	25
	SB1-PB2	20
	SB1-PB3	75
	SB2-PB6	20
	SB4-PB7	75
	SB4-PB8	30
	SB5-PB9	55
	SB8-PB10	35
	SB8-PB11	95
	SB9-PB12	50
	SB12-PB13	35
	SB13-PB14	30
	SB14-PB15	50
	SB15-PB18	30
	SB17-PB19	65
	SB17-PB20	25
	SB18-PB21	30
	SB19-PB22	25
	SB20-PB23	35
	SB21-PB25	40
	SB23-PB26	25
	CB1-PB27	25
SUBTOTAL		895

PULL BOX BONDING JUMPERS - CONTINUED

LOCATION	LOCATION	655.0515 * ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG (GREEN) L.F.
STH 38 AT COLLEGE AVE	CB1-PB1	20
	SB1-PB2	20
	SB2-PB4	20
	SB3-PB5	25
	SB4-PB7	30
	SB5-PB9	35
	SB6-PB10	35
	SB6-PB11	65
	SB8-PB13	25
	SB9-PB14	30
	SB10-PB15	35
	SB11-PB16	25
	SB12-PB18	30
	SB13-PB19	30
	CB1-PB20	20
SUBTOTAL		445
STH 38 AT STH 119 EB OFF RAMP	CB1-PB1	25
	CB1-PB3	105
	CB1-PB4	155
	SB3-PB5	70
	SB3-PB6	35
	SB4-PB7	45
	SB5-PB8	45
	SB6-PB9	60
	SB8-PB10	55
	SB1-PB11	25
	SB2-PB12	20
	CB1-PB13	25
SUBTOTAL		665
STH 38 AT GRANGE AVE	CB1-PB1	35
	SB1-PB2	40
	SB2-PB3	35
	SB3-PB5	115
	SB3-PB6	40
	SB4-PB7	35
	SB5-PB9	20
	SB6-PB10	25
	SB8-PB11	25
	SB8-PB12	60
	SB9-PB13	60
	CB1-PB15	35
SUBTOTAL		525
TOTAL		4,920

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

3

CATEGORY 0015
SHEET 30 OF 46

SIGNAL BASES, POLES, ARMS, AND LUMINAIRES

LOCATION	SB NO.	657.0100 PEDESTAL BASES EACH	657.0255 * TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE EACH	657.0315 POLES TYPE 4 EACH	657.0322 POLES, TYPE 5 ALUMINUM EACH	657.1345 INSTALL POLES TYPE 9 EACH	657.1350 INSTALL POLES TYPE 10 EACH	657.1355 INSTALL POLES TYPE 12 EACH	657.1360 INSTALL POLES TYPE 13 EACH	657.0405 TRAFFIC SIGNAL STANDARDS, ALUMINUM, 3.5-FT EACH	657.0430 TRAFFIC SIGNAL STANDARDS ALUMINUM 10-FT EACH	657.0420 TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT EACH	657.0425 TRAFFIC SIGNAL STANDARDS ALUMINUM 15-FT EACH	657.1515 INSTALL MONOTUBE ARMS 15-FT EACH
STH 38 AT STH 100	SB1	-	1	1	-	-	-	-	-	-	-	-	-	-
	SB2	1	-	-	-	-	-	-	-	-	-	1	-	-
	SB3	1	-	-	-	-	-	-	-	-	-	1	-	-
	SB4	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB5	-	-	-	-	-	-	1	-	-	-	-	-	-
	SB6	-	1	-	1	-	-	-	-	-	-	-	-	-
	SB7	1	-	-	-	-	-	-	-	-	-	1	-	-
	SB8	1	-	-	-	-	-	-	-	-	1	-	-	-
	SB9	-	-	-	-	-	1	-	-	-	-	-	-	-
	SB10	-	-	-	-	-	-	1	-	-	-	-	-	-
	SB11	-	1	-	1	-	-	-	-	-	-	-	-	-
	SB12	1	-	-	-	-	-	-	-	-	-	1	-	-
	SB13	1	-	-	-	-	-	-	-	-	1	-	-	-
	SB14	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB15	-	-	-	-	-	-	1	-	-	-	-	-	-
	SB16	1	-	-	-	-	-	-	-	-	-	1	-	-
	SB17	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB18	1	-	-	-	-	-	-	-	-	-	1	-	-
	SB19	-	-	-	-	-	-	1	-	-	-	-	-	-
SUBTOTAL		8	3	1	2	0	4	4	0	0	2	6	0	3

SIGNAL BASES, POLES, ARMS, AND LUMINAIRES - CONTINUED

LOCATION	SB NO.	657.1520 INSTALL MONOTUBE ARMS 20-FT EACH	657.1525 INSTALL MONOTUBE ARMS 25-FT EACH	657.1530 INSTALL MONOTUBE ARMS 30-FT EACH	657.1535 INSTALL MONOTUBE ARMS 35-FT EACH	657.1540 INSTALL MONOTUBE ARMS 40-FT EACH	657.1545 INSTALL MONOTUBE ARMS 45-FT EACH	657.1550 INSTALL MONOTUBE ARMS 50-FT EACH	657.1555 INSTALL MONOTUBE ARMS 55-FT EACH	658.0500 PEDESTRIAN PUSH BUTTONS EACH	657.1815 INSTALL LUMINAIRE ARMS STEEL 15-FT EACH	659.1125 LUMINAIRES UTILITY LED C EACH	657.0609 LUMINAIRE ARMS, SINGLE MEMBER, 4-INCH CLAMP, 6-FOOT EACH	SPV.0060.3002 CONTRACTOR PROVIDED HIGH-STRENGTH BOLT ASSEMBLIES FOR MONOTUBE ARMS POLE TYPE 9 OR 10 EACH	SPV.0060.3003 CONTRACTOR PROVIDED HIGH-STRENGTH BOLT ASSEMBLIES FOR MONOTUBE ARMS POLE TYPE 12 OR 13 EACH
STH 38 AT STH 100	SB1	-	-	-	-	-	-	-	-	1	-	1	1	-	-
	SB2	-	-	-	-	-	-	-	-	1	-	-	-	-	-
	SB3	-	-	-	-	-	-	-	-	1	-	-	-	-	-
	SB4	-	-	-	-	-	-	-	-	-	2	2	-	1	-
	SB5	-	-	-	-	-	1	-	-	-	-	-	-	-	1
	SB6	-	-	-	-	-	-	-	-	-	-	1	1	-	-
	SB7	-	-	-	-	-	-	-	-	1	-	-	-	-	-
	SB8	-	-	-	-	-	-	-	-	1	-	-	-	-	-
	SB9	1	-	-	-	-	-	-	-	-	2	2	-	1	-
	SB10	-	-	-	-	-	1	-	-	-	-	-	-	-	1
	SB11	-	-	-	-	-	-	-	-	-	-	1	1	-	-
	SB12	-	-	-	-	-	-	-	-	1	-	-	-	-	-
	SB13	-	-	-	-	-	-	-	-	1	-	-	-	-	-
	SB14	-	-	-	-	-	-	-	-	-	2	2	-	1	-
	SB15	-	-	-	-	-	-	-	1	1	-	-	-	-	1
	SB16	-	-	-	-	-	-	-	-	1	-	-	-	-	-
	SB17	-	-	-	-	-	-	-	-	-	2	2	-	1	-
	SB18	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB19	-	-	-	-	1	-	-	-	-	-	-	-	-	1
SUBTOTAL		1	0	0	0	1	2	0	1	9	8	11	3	4	4

CATEGORY 0015
SHEET 31 OF 46

SIGNAL BASES, POLES, ARMS, AND LUMINAIRES - CONTINUED

LOCATION	SB NO.	657.0100 PEDESTAL BASES EACH	657.0255 * TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE EACH	657.0315 POLES TYPE 4 EACH	657.0322 POLES, TYPE 5 ALUMINUM EACH	657.1345 INSTALL POLES TYPE 9 EACH	657.1350 INSTALL POLES TYPE 10 EACH	657.1355 INSTALL POLES TYPE 12 EACH	657.1360 INSTALL POLES TYPE 13 EACH	657.0405 TRAFFIC SIGNAL STANDARDS, ALUMINUM, 3.5-FT EACH	657.0430 TRAFFIC SIGNAL STANDARDS ALUMINUM 10-FT EACH	657.0420 TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT EACH	657.0425 TRAFFIC SIGNAL STANDARDS ALUMINUM 15-FT EACH	657.1515 INSTALL MONOTUBE ARMS 15-FT EACH
STH 38 AT CENTENNIAL DR	SB1	-	1	1	-	-	-	-	-	-	-	-	-	-
	SB2	-	-	-	-	-	-	-	1	-	-	-	-	-
	SB3	1	-	-	-	-	-	-	-	-	1	-	-	-
	SB4	-	1	1	-	-	-	-	-	-	-	-	-	-
	SB5	1	-	-	-	-	-	-	-	-	-	-	1	-
	SB6	-	-	-	-	-	-	-	1	-	-	-	-	-
	SB7	-	1	1	-	-	-	-	-	-	-	-	-	-
	SB8	-	-	-	-	-	-	-	1	-	-	-	-	-
	SB9	1	-	-	-	-	-	-	-	-	1	-	-	-
	SB10	1	-	-	-	-	-	-	-	-	1	-	-	-
	SB11	-	1	1	-	-	-	-	-	-	-	-	-	-
	SB12	1	-	-	-	-	-	-	-	-	-	-	1	-
	SB13	-	-	-	-	-	-	-	1	-	-	-	-	-
SUBTOTAL		5	4	4	0	0	0	0	4	0	3	0	2	0
STH 38 AT PUETZ RD	SB6	1	-	-	-	-	-	-	-	-	-	1	-	-
	SB16	-	-	-	-	-	-	1	-	-	-	-	-	-
SUBTOTAL		1	0	0	0	0	0	1	0	0	0	1	0	0

SIGNAL BASES, POLES, ARMS, AND LUMINAIRES - CONTINUED

LOCATION	SB NO.	657.1520 INSTALL MONOTUBE ARMS 20-FT EACH	657.1525 INSTALL MONOTUBE ARMS 25-FT EACH	657.1530 INSTALL MONOTUBE ARMS 30-FT EACH	657.1535 INSTALL MONOTUBE ARMS 35-FT EACH	657.1540 INSTALL MONOTUBE ARMS 40-FT EACH	657.1545 INSTALL MONOTUBE ARMS 45-FT EACH	657.1550 INSTALL MONOTUBE ARMS 50-FT EACH	657.1555 INSTALL MONOTUBE ARMS 55-FT EACH	658.0500 PEDESTRIAN PUSH BUTTONS EACH	657.1815 INSTALL LUMINAIRE ARMS STEEL 15-FT EACH	659.1125 LUMINAIRES UTILITY LED C EACH	657.0609 LUMINAIRE ARMS, SINGLE MEMBER, 4-INCH CLAMP, 6-FOOT EACH	SPV.0060.3002 CONTRACTOR PROVIDED HIGH-STRENGTH BOLT ASSEMBLIES FOR MONOTUBE ARMS POLE TYPE 9 OR 10 EACH	SPV.0060.3003 CONTRACTOR PROVIDED HIGH-STRENGTH BOLT ASSEMBLIES FOR MONOTUBE ARMS POLE TYPE 12 OR 13 EACH
STH 38 AT CENTENNIAL DR	SB1	-	-	-	-	-	-	-	-	1	-	1	1	-	-
	SB2	-	-	-	-	-	1	-	-	-	1	1	-	-	1
	SB3	-	-	-	-	-	-	-	-	1	-	-	-	-	-
	SB4	-	-	-	-	-	-	-	-	1	-	1	1	-	-
	SB5	-	-	-	-	-	-	-	-	1	-	-	-	-	-
	SB6	-	-	-	-	1	-	-	-	1	1	1	-	-	1
	SB7	-	-	-	-	-	-	-	-	1	-	1	1	-	-
	SB8	-	-	-	-	1	-	-	-	-	1	1	-	-	1
	SB9	-	-	-	-	-	-	-	-	1	-	-	-	-	-
	SB10	-	-	-	-	-	-	-	-	1	-	-	-	-	-
	SB11	-	-	-	-	-	-	-	-	-	-	1	1	-	-
	SB12	-	-	-	-	-	-	-	-	1	-	-	-	-	-
	SB13	-	-	-	1	-	-	-	-	1	1	1	-	-	1
SUBTOTAL		0	0	0	1	2	1	0	0	10	4	8	4	0	4
STH 38 AT PUETZ RD	SB6	-	-	-	-	-	-	-	-	1	-	-	-	-	-
	SB16	-	-	1	-	-	-	-	-	-	-	-	-	-	1
SUBTOTAL		0	0	1	0	0	0	0	0	1	0	0	0	0	1

CATEGORY 0015
SHEET 32 OF 46

SIGNAL BASES, POLES, ARMS, AND LUMINAIRES - CONTINUED

LOCATION	SB NO.	657.0100 PEDESTAL BASES EACH	657.0255 * TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE EACH	657.0315 POLES TYPE 4 EACH	657.0322 POLES, TYPE 5 ALUMINUM EACH	657.1345 INSTALL POLES TYPE 9 EACH	657.1350 INSTALL POLES TYPE 10 EACH	657.1355 INSTALL POLES TYPE 12 EACH	657.1360 INSTALL POLES TYPE 13 EACH	657.0405 TRAFFIC SIGNAL STANDARDS, ALUMINUM, 3.5-FT EACH	657.0430 TRAFFIC SIGNAL STANDARDS ALUMINUM 10-FT EACH	657.0420 TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT EACH	657.0425 TRAFFIC SIGNAL STANDARDS ALUMINUM 15-FT EACH	657.1515 INSTALL MONOTUBE ARMS 15-FT EACH
STH 38 AT FOREST HILL AVE	SB1	-	1	1	-	-	-	-	-	-	-	-	-	-
	SB2	1	-	-	-	-	-	-	-	-	-	-	1	-
	SB3	-	-	-	-	-	-	-	1	-	-	-	-	-
	SB4	1	-	-	-	-	-	-	-	-	1	-	-	-
	SB5	-	1	1	-	-	-	-	-	-	-	-	-	-
	SB6	-	-	-	-	-	-	-	1	-	-	-	-	-
	SB7	1	-	-	-	-	-	-	-	-	1	-	-	-
	SB8	-	1	1	-	-	-	-	-	-	-	-	-	-
	SB9	1	-	-	-	-	-	-	-	-	-	-	1	-
	SB10	-	-	-	-	-	-	-	1	-	-	-	-	-
	SB11	1	-	-	-	-	-	-	-	-	1	-	-	-
	SB12	-	1	1	-	-	-	-	-	-	-	-	-	-
	SB13	-	-	-	-	-	-	-	1	-	-	-	-	-
	SB14	1	-	-	-	-	-	-	-	-	1	-	-	-
SUBTOTAL		6	4	4	0	0	0	0	4	0	4	0	2	0

SIGNAL BASES, POLES, ARMS, AND LUMINAIRES - CONTINUED

LOCATION	SB NO.	657.1520 INSTALL MONOTUBE ARMS 20-FT EACH	657.1525 INSTALL MONOTUBE ARMS 25-FT EACH	657.1530 INSTALL MONOTUBE ARMS 30-FT EACH	657.1535 INSTALL MONOTUBE ARMS 35-FT EACH	657.1540 INSTALL MONOTUBE ARMS 40-FT EACH	657.1545 INSTALL MONOTUBE ARMS 45-FT EACH	657.1550 INSTALL MONOTUBE ARMS 50-FT EACH	657.1555 INSTALL MONOTUBE ARMS 55-FT EACH	658.0500 PEDESTRIAN PUSH BUTTONS EACH	657.1815 INSTALL LUMINAIRE ARMS STEEL 15-FT EACH	659.1125 LUMINAIRES UTILITY LED C EACH	657.0609 LUMINAIRE ARMS, SINGLE MEMBER, 4-INCH CLAMP, 6-FOOT EACH	SPV.0060.3002 CONTRACTOR PROVIDED HIGH-STRENGTH BOLT ASSEMBLIES FOR MONOTUBE ARMS POLE TYPE 9 OR 10 EACH	SPV.0060.3003 CONTRACTOR PROVIDED HIGH-STRENGTH BOLT ASSEMBLIES FOR MONOTUBE ARMS POLE TYPE 12 OR 13 EACH
STH 38 AT FOREST HILL AVE	SB1	-	-	-	-	-	-	-	-	1	-	1	1	-	-
	SB2	-	-	-	-	-	-	-	-	1	-	-	-	-	-
	SB3	-	-	-	-	1	-	-	-	1	1	1	-	-	1
	SB4	-	-	-	-	-	-	-	-	1	-	-	-	-	-
	SB5	-	-	-	-	-	-	-	-	-	-	1	1	-	-
	SB6	-	-	-	-	1	-	-	-	-	1	1	-	-	1
	SB7	-	-	-	-	-	-	-	-	1	-	-	-	-	-
	SB8	-	-	-	-	-	-	-	-	1	-	1	1	-	-
	SB9	-	-	-	-	-	-	-	-	1	-	-	-	-	-
	SB10	-	-	-	-	1	-	-	-	-	1	1	-	-	1
	SB11	-	-	-	-	-	-	-	-	1	-	-	-	-	-
	SB12	-	-	-	-	-	-	-	-	1	-	1	1	-	-
	SB13	-	-	-	-	1	-	-	-	-	1	1	-	-	1
	SB14	-	-	-	-	-	-	-	-	1	-	-	-	-	-
SUBTOTAL		0	0	0	0	4	0	0	0	10	4	8	4	0	4

CATEGORY 0015
SHEET 33 OF 46

SIGNAL BASES, POLES, ARMS, AND LUMINAIRES - CONTINUED

LOCATION	SB NO.	657.0100 PEDESTAL BASES EACH	657.0255 * TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE EACH	657.0315 POLES TYPE 4 EACH	657.0322 POLES, TYPE 5 ALUMINUM EACH	657.1345 INSTALL POLES TYPE 9 EACH	657.1350 INSTALL POLES TYPE 10 EACH	657.1355 INSTALL POLES TYPE 12 EACH	657.1360 INSTALL POLES TYPE 13 EACH	657.0405 TRAFFIC SIGNAL STANDARDS, ALUMINUM, 3.5-FT EACH	657.0430 TRAFFIC SIGNAL STANDARDS ALUMINUM 10-FT EACH	657.0420 TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT EACH	657.0425 TRAFFIC SIGNAL STANDARDS ALUMINUM 15-FT EACH	657.1515 INSTALL MONOTUBE ARMS 15-FT EACH
STH 38 AT SUSAN DR	SB1	1	-	-	-	-	-	-	-	-	1	-	-	-
	SB2	-	1	1	-	-	-	-	-	-	-	-	-	-
	SB3	-	-	-	-	-	-	1	-	-	-	-	-	-
	SB4	1	-	-	-	-	-	-	-	-	-	-	1	-
	SB5	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB6	-	-	-	-	-	-	1	-	-	-	-	-	-
	SB7	1	-	-	-	-	-	-	-	-	-	-	1	-
	SB8	-	1	1	-	-	-	-	-	-	-	-	-	-
	SB9	-	-	-	-	-	-	1	-	-	-	-	-	-
	SB10	1	-	-	-	-	-	-	-	-	-	1	-	-
	SB11	1	-	-	-	-	-	-	-	1	-	-	-	-
	SB12	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB13	-	-	-	-	-	-	1	-	-	-	-	-	-
SUBTOTAL		5	2	2	0	0	2	4	0	1	1	1	2	2

SIGNAL BASES, POLES, ARMS, AND LUMINAIRES - CONTINUED

LOCATION	SB NO.	657.1520 INSTALL MONOTUBE ARMS 20-FT EACH	657.1525 INSTALL MONOTUBE ARMS 25-FT EACH	657.1530 INSTALL MONOTUBE ARMS 30-FT EACH	657.1535 INSTALL MONOTUBE ARMS 35-FT EACH	657.1540 INSTALL MONOTUBE ARMS 40-FT EACH	657.1545 INSTALL MONOTUBE ARMS 45-FT EACH	657.1550 INSTALL MONOTUBE ARMS 50-FT EACH	657.1555 INSTALL MONOTUBE ARMS 55-FT EACH	658.0500 PEDESTRIAN PUSH BUTTONS EACH	657.1815 INSTALL LUMINAIRE ARMS STEEL 15-FT EACH	659.1125 LUMINAIRES UTILITY LED C EACH	657.0609 LUMINAIRE ARMS, SINGLE MEMBER, 4-INCH CLAMP, 6-FOOT EACH	SPV.0060.3002 CONTRACTOR PROVIDED HIGH-STRENGTH BOLT ASSEMBLIES FOR MONOTUBE ARMS POLE TYPE 9 OR 10 EACH	SPV.0060.3003 CONTRACTOR PROVIDED HIGH-STRENGTH BOLT ASSEMBLIES FOR MONOTUBE ARMS POLE TYPE 12 OR 13 EACH
STH 38 AT SUSAN DR	SB1	-	-	-	-	-	-	-	-	1	-	-	-	-	-
	SB2	-	-	-	-	-	-	-	-	-	-	1	1	-	-
	SB3	-	-	-	1	-	-	-	-	1	-	-	-	-	1
	SB4	-	-	-	-	-	-	-	-	1	-	-	-	-	-
	SB5	-	-	-	-	-	-	-	-	1	2	2	-	1	-
	SB6	-	-	-	-	1	-	-	-	1	-	-	-	-	1
	SB7	-	-	-	-	-	-	-	-	1	-	-	-	-	-
	SB8	-	-	-	-	-	-	-	-	-	-	2	2	-	-
	SB9	-	-	-	1	-	-	-	-	1	-	-	-	-	1
	SB10	-	-	-	-	-	-	-	-	1	-	-	-	-	-
	SB11	-	-	-	-	-	-	-	-	1	-	-	-	-	-
	SB12	-	-	-	-	-	-	-	-	-	2	2	-	1	-
	SB13	-	-	-	-	1	-	-	-	1	-	-	-	-	1
SUBTOTAL		0	0	0	2	2	0	0	0	10	4	7	3	2	4

SIGNAL BASES, POLES, ARMS, AND LUMINAIRES - CONTINUED

LOCATION	SB NO.	657.0100 PEDESTAL BASES EACH	657.0255 * TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE EACH	657.0315 POLES TYPE 4 EACH	657.0322 POLES, TYPE 5 ALUMINUM EACH	657.1345 INSTALL POLES TYPE 9 EACH	657.1350 INSTALL POLES TYPE 10 EACH	657.1355 INSTALL POLES TYPE 12 EACH	657.1360 INSTALL POLES TYPE 13 EACH	657.0405 TRAFFIC SIGNAL STANDARDS, ALUMINUM, 3.5-FT EACH	657.0430 TRAFFIC SIGNAL STANDARDS ALUMINUM 10-FT EACH	657.0420 TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT EACH	657.0425 TRAFFIC SIGNAL STANDARDS ALUMINUM 15-FT EACH	657.1515 INSTALL MONOTUBE ARMS 15-FT EACH
STH 38 AT DREXEL AVE	SB1	-	1	1	-	-	-	-	-	-	-	-	-	-
	SB2	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB3	-	-	-	-	-	-	1	-	-	-	-	-	-
	SB4	1	-	-	-	-	-	-	-	-	1	-	-	-
	SB5	-	1	1	-	-	-	-	-	-	-	-	-	-
	SB6	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB7	-	-	-	-	-	-	1	-	-	-	-	-	-
	SB8	1	-	-	-	-	-	-	-	-	1	-	-	-
	SB9	-	1	-	1	-	-	-	-	-	-	-	-	-
	SB10	1	-	-	-	-	-	-	-	-	1	-	-	-
	SB11	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB12	-	-	-	-	-	-	1	-	-	-	-	-	-
	SB13	-	1	1	-	-	-	-	-	-	-	-	-	-
	SB14	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB15	-	-	-	-	-	-	1	-	-	-	-	-	-
SUBTOTAL		3	4	3	1	0	4	4	0	0	3	0	0	4

SIGNAL BASES, POLES, ARMS, AND LUMINAIRES - CONTINUED

LOCATION	SB NO.	657.1520 INSTALL MONOTUBE ARMS 20-FT EACH	657.1525 INSTALL MONOTUBE ARMS 25-FT EACH	657.1530 INSTALL MONOTUBE ARMS 30-FT EACH	657.1535 INSTALL MONOTUBE ARMS 35-FT EACH	657.1540 INSTALL MONOTUBE ARMS 40-FT EACH	657.1545 INSTALL MONOTUBE ARMS 45-FT EACH	657.1550 INSTALL MONOTUBE ARMS 50-FT EACH	657.1555 INSTALL MONOTUBE ARMS 55-FT EACH	658.0500 PEDESTRIAN PUSH BUTTONS EACH	657.1815 INSTALL LUMINAIRE ARMS STEEL 15-FT EACH	659.1125 LUMINAIRES UTILITY LED C EACH	657.0609 LUMINAIRE ARMS, SINGLE MEMBER, 4-INCH CLAMP, 6-FOOT EACH	SPV.0060.3002 CONTRACTOR PROVIDED HIGH-STRENGTH BOLT ASSEMBLIES FOR MONOTUBE ARMS POLE TYPE 9 OR 10 EACH	SPV.0060.3003 CONTRACTOR PROVIDED HIGH-STRENGTH BOLT ASSEMBLIES FOR MONOTUBE ARMS POLE TYPE 12 OR 13 EACH
STH 38 AT DREXEL AVE	SB1	-	-	-	-	-	-	-	-	1	-	1	1	-	-
	SB2	-	-	-	-	-	-	-	-	-	2	2	-	1	-
	SB3	-	-	-	-	1	-	-	-	-	-	-	-	-	1
	SB4	-	-	-	-	-	-	-	-	1	-	-	-	-	-
	SB5	-	-	-	-	-	-	-	-	1	-	1	1	-	-
	SB6	-	-	-	-	-	-	-	-	-	2	2	-	1	-
	SB7	-	-	-	-	1	-	-	-	-	-	-	-	-	1
	SB8	-	-	-	-	-	-	-	-	1	-	-	-	-	-
	SB9	-	-	-	-	-	-	-	-	-	-	1	1	-	-
	SB10	-	-	-	-	-	-	-	-	1	-	-	-	-	-
	SB11	-	-	-	-	-	-	-	-	-	2	2	-	1	-
	SB12	-	-	-	-	1	-	-	-	1	-	-	-	-	1
	SB13	-	-	-	-	-	-	-	-	1	-	1	1	-	-
	SB14	-	-	-	-	-	-	-	-	-	2	2	-	1	-
	SB15	-	-	-	1	-	-	-	-	1	-	-	-	-	1
SUBTOTAL		0	0	0	1	3	0	0	0	8	8	12	4	4	4

CATEGORY 0015
SHEET 35 OF 46

SIGNAL BASES, POLES, ARMS, AND LUMINAIRES - CONTINUED

LOCATION	SB NO.	657.0100 PEDESTAL BASES EACH	657.0255 * TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE EACH	657.0315 POLES TYPE 4 EACH	657.0322 POLES, TYPE 5 ALUMINUM EACH	657.1345 INSTALL POLES TYPE 9 EACH	657.1350 INSTALL POLES TYPE 10 EACH	657.1355 INSTALL POLES TYPE 12 EACH	657.1360 INSTALL POLES TYPE 13 EACH	657.0405 TRAFFIC SIGNAL STANDARDS, ALUMINUM, 3.5-FT EACH	657.0430 TRAFFIC SIGNAL STANDARDS ALUMINUM 10-FT EACH	657.0420 TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT EACH	657.0425 TRAFFIC SIGNAL STANDARDS ALUMINUM 15-FT EACH	657.1515 INSTALL MONOTUBE ARMS 15-FT EACH
STH 38 AT RAWSON AVE	SB1	-	1	-	1	-	-	-	-	-	-	-	-	-
	SB2	1	-	-	-	-	-	-	-	-	-	1	-	-
	SB3	1	-	-	-	-	-	-	-	-	1	-	-	-
	SB4	1	-	-	-	-	-	-	-	1	-	-	-	-
	SB5	-	-	-	-	-	1	-	-	-	-	-	-	-
	SB6	1	-	-	-	-	-	-	-	-	-	1	-	-
	SB7	1	-	-	-	-	-	-	-	-	-	1	-	-
	SB8	-	1	1	-	-	-	-	-	-	-	-	-	-
	SB9	-	-	-	-	-	-	1	-	-	-	-	-	-
	SB10	1	-	-	-	-	-	-	-	-	1	-	-	-
	SB11	1	-	-	-	-	-	-	-	-	-	1	-	-
	SB12	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB13	-	-	-	-	-	-	1	-	-	-	-	-	-
	SB14	-	1	-	1	-	-	-	-	-	-	-	-	-
	SB15	1	-	-	-	-	-	-	-	-	-	1	-	-
	SB16	1	-	-	-	-	-	-	-	-	1	-	-	-
	SB17	1	-	-	-	-	-	-	-	1	-	-	-	-
	SB18	-	-	-	-	-	1	-	-	-	-	-	-	-
	SB19	-	-	-	-	-	-	1	-	-	-	-	-	-
	SB20	-	1	-	1	-	-	-	-	-	-	-	-	-
	SB21	1	-	-	-	-	-	-	-	-	-	1	-	-
	SB22	1	-	-	-	-	-	-	-	-	1	-	-	-
	SB23	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB24	-	-	-	-	-	-	1	-	-	-	-	-	-
SUBTOTAL		12	4	1	3	0	4	4	0	2	4	6	0	2

SIGNAL BASES, POLES, ARMS, AND LUMINAIRES - CONTINUED

LOCATION	SB NO.	657.1520 INSTALL MONOTUBE ARMS 20-FT EACH	657.1525 INSTALL MONOTUBE ARMS 25-FT EACH	657.1530 INSTALL MONOTUBE ARMS 30-FT EACH	657.1535 INSTALL MONOTUBE ARMS 35-FT EACH	657.1540 INSTALL MONOTUBE ARMS 40-FT EACH	657.1545 INSTALL MONOTUBE ARMS 45-FT EACH	657.1550 INSTALL MONOTUBE ARMS 50-FT EACH	657.1555 INSTALL MONOTUBE ARMS 55-FT EACH	658.0500 PEDESTRIAN PUSH BUTTONS EACH	657.1815 INSTALL LUMINAIRE ARMS STEEL 15-FT EACH	659.1125 LUMINAIRES UTILITY LED C EACH	657.0609 LUMINAIRE ARMS, SINGLE MEMBER, 4-INCH CLAMP, 6-FOOT EACH	SPV.0060.3002 CONTRACTOR PROVIDED HIGH-STRENGTH BOLT ASSEMBLIES FOR MONOTUBE ARMS POLE TYPE 9 OR 10 EACH	SPV.0060.3003 CONTRACTOR PROVIDED HIGH-STRENGTH BOLT ASSEMBLIES FOR MONOTUBE ARMS POLE TYPE 12 OR 13 EACH
STH 38 AT RAWSON AVE	SB1	-	-	-	-	-	-	-	-	-	-	1	1	-	-
	SB2	-	-	-	-	-	-	-	-	1	-	-	-	-	-
	SB3	-	-	-	-	-	-	-	-	1	-	-	-	-	-
	SB4	-	-	-	-	-	-	-	-	1	-	-	-	-	-
	SB5	-	1	-	-	-	-	-	-	-	2	2	-	1	-
	SB6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB7	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB8	-	-	-	-	-	-	-	-	1	-	1	1	-	-
	SB9	-	-	-	-	1	-	-	-	1	-	-	-	-	1
	SB10	-	-	-	-	-	-	-	-	1	-	-	-	-	-
	SB11	-	-	-	-	-	-	-	-	1	-	-	-	-	-
	SB12	-	-	-	-	-	-	-	-	-	2	2	-	1	-
	SB13	-	-	-	-	1	-	-	-	-	-	-	-	-	1
	SB14	-	-	-	-	-	-	-	-	-	-	1	1	-	-
	SB15	-	-	-	-	-	-	-	-	1	-	-	-	-	-
	SB16	-	-	-	-	-	-	-	-	1	-	-	-	-	-
	SB17	-	-	-	-	-	-	-	-	1	-	-	-	-	-
	SB18	-	1	-	-	-	-	-	-	-	2	2	-	1	-
	SB19	-	-	-	-	1	-	-	-	-	-	-	-	-	1
	SB20	-	-	-	-	-	-	-	-	-	-	1	1	-	-
	SB21	-	-	-	-	-	-	-	-	1	-	-	-	-	-
	SB22	-	-	-	-	-	-	-	-	1	-	-	-	-	-
	SB23	-	-	-	-	-	-	-	-	-	2	2	-	1	-
	SB24	-	-	-	-	-	1	-	-	-	-	-	-	-	1
SUBTOTAL		0	2	0	0	3	1	0	0	12	8	12	4	4	4

CATEGORY 0015
SHEET 36 OF 46

SIGNAL BASES, POLES, ARMS, AND LUMINAIRES - CONTINUED

LOCATION	SB NO.	657.0100 PEDESTAL BASES EACH	657.0255 * TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE EACH	657.0315 POLES TYPE 4 EACH	657.0322 POLES, TYPE 5 ALUMINUM EACH	657.1345 INSTALL POLES TYPE 9 EACH	657.1350 INSTALL POLES TYPE 10 EACH	657.1355 INSTALL POLES TYPE 12 EACH	657.1360 INSTALL POLES TYPE 13 EACH	657.0405 TRAFFIC SIGNAL STANDARDS, ALUMINUM, 3.5-FT EACH	657.0430 TRAFFIC SIGNAL STANDARDS ALUMINUM 10-FT EACH	657.0420 TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT EACH	657.0425 TRAFFIC SIGNAL STANDARDS ALUMINUM 15-FT EACH	657.1515 INSTALL MONOTUBE ARMS 15-FT EACH
STH 38 AT COLLEGE AVE	SB1	-	1	1	-	-	-	-	-	-	-	-	-	-
	SB2	1	-	-	-	-	-	-	-	-	-	-	1	-
	SB3	-	-	-	-	-	1	-	-	-	-	-	-	-
	SB4	-	1	1	-	-	-	-	-	-	-	-	-	-
	SB5	1	-	-	-	-	-	-	-	-	-	-	1	-
	SB6	-	-	-	-	-	-	-	1	-	-	-	-	-
	SB7	1	-	-	-	-	-	-	-	-	1	-	-	-
	SB8	-	1	1	-	-	-	-	-	-	-	-	-	-
	SB9	-	-	-	-	-	1	-	-	-	-	-	-	-
	SB10	1	-	-	-	-	-	-	-	-	1	-	-	-
	SB11	-	1	1	-	-	-	-	-	-	-	-	-	-
	SB12	1	-	-	-	-	-	-	-	-	-	-	1	-
	SB13	1	-	-	-	-	-	-	-	-	1	-	-	-
	SB14	-	-	-	-	-	-	-	1	-	-	-	-	-
SUBTOTAL		6	4	4	0	0	2	0	2	0	3	0	3	0

SIGNAL BASES, POLES, ARMS, AND LUMINAIRES - CONTINUED

LOCATION	SB NO.	657.1520 INSTALL MONOTUBE ARMS 20-FT EACH	657.1525 INSTALL MONOTUBE ARMS 25-FT EACH	657.1530 INSTALL MONOTUBE ARMS 30-FT EACH	657.1535 INSTALL MONOTUBE ARMS 35-FT EACH	657.1540 INSTALL MONOTUBE ARMS 40-FT EACH	657.1545 INSTALL MONOTUBE ARMS 45-FT EACH	657.1550 INSTALL MONOTUBE ARMS 50-FT EACH	657.1555 INSTALL MONOTUBE ARMS 55-FT EACH	658.0500 PEDESTRIAN PUSH BUTTONS EACH	657.1815 INSTALL LUMINAIRE ARMS STEEL 15-FT EACH	659.1125 LUMINAIRES UTILITY LED C EACH	657.0609 LUMINAIRE ARMS, SINGLE MEMBER, 4-INCH CLAMP, 6-FOOT EACH	SPV.0060.3002 CONTRACTOR PROVIDED HIGH-STRENGTH BOLT ASSEMBLIES FOR MONOTUBE ARMS POLE TYPE 9 OR 10 EACH	SPV.0060.3003 CONTRACTOR PROVIDED HIGH-STRENGTH BOLT ASSEMBLIES FOR MONOTUBE ARMS POLE TYPE 12 OR 13 EACH
STH 38 AT COLLEGE AVE	SB1	-	-	-	-	-	-	-	-	1	-	1	1	-	-
	SB2	-	-	-	-	-	-	-	-	1	-	-	-	-	-
	SB3	-	-	1	-	-	-	-	-	1	1	1	-	1	-
	SB4	-	-	-	-	-	-	-	-	1	-	1	1	-	-
	SB5	-	-	-	-	-	-	-	-	1	-	-	-	-	-
	SB6	-	-	-	1	-	-	-	-	-	1	1	-	-	1
	SB7	-	-	-	-	-	-	-	-	1	-	-	-	-	-
	SB8	-	-	-	-	-	-	-	-	1	-	1	1	-	-
	SB9	-	1	-	-	-	-	-	-	1	1	1	-	1	-
	SB10	-	-	-	-	-	-	-	-	1	-	-	-	-	-
	SB11	-	-	-	-	-	-	-	-	1	-	1	1	-	-
	SB12	-	-	-	-	-	-	-	-	1	-	-	-	-	-
	SB13	-	-	-	-	-	-	-	-	1	-	-	-	-	-
	SB14	-	-	-	-	-	1	-	-	-	1	1	-	-	1
SUBTOTAL		0	1	1	1	0	1	0	0	12	4	8	4	2	2

CATEGORY 0015
SHEET 37 OF 46

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	MISCELLANEOUS QUANTITIES	SHEET 646	E

FILE NAME : Miscellaneous Quantities.dgn PLOT DATE : 12/22/2013 PLOT BY : DSCHNABEL-TADI PLOT NAME : PLOT SCALE : 40.0000 sf / in.

WISDOT/CADDS SHEET 43

SIGNAL BASES, POLES, ARMS, AND LUMINAIRES - CONTINUED

LOCATION	SB NO.	657.0100 PEDESTAL BASES EACH	657.0255 * TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE EACH	657.0315 POLES TYPE 4 EACH	657.0322 POLES, TYPE 5 ALUMINUM EACH	657.1345 INSTALL POLES TYPE 9 EACH	657.1350 INSTALL POLES TYPE 10 EACH	657.1355 INSTALL POLES TYPE 12 EACH	657.1360 INSTALL POLES TYPE 13 EACH	657.0405 TRAFFIC SIGNAL STANDARDS, ALUMINUM, 3.5-FT EACH	657.0430 TRAFFIC SIGNAL STANDARDS ALUMINUM 10-FT EACH	657.0420 TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT EACH	657.0425 TRAFFIC SIGNAL STANDARDS ALUMINUM 15-FT EACH	657.1515 INSTALL MONOTUBE ARMS 15-FT EACH
STH 38 AT STH 119 EB OFF RAMP	SB1	-	-	-	-	-	-	1	-	-	-	-	-	-
	SB2	1	-	-	-	-	-	-	-	-	-	1	-	-
	SB3	1	-	-	-	-	-	-	-	-	-	-	1	-
	SB4	1	-	-	-	-	-	-	-	-	-	-	1	-
	SB5	-	-	-	-	-	-	1	-	-	-	-	-	-
	SB6	-	-	-	-	1	-	-	-	-	-	-	-	-
	SB7	1	-	-	-	-	-	-	-	-	-	-	1	-
	SB8	1	-	-	-	-	-	-	-	-	-	-	1	-
SUBTOTAL		5	0	0	0	1	0	2	0	0	0	1	4	0
STH 38 AT GRANGE AVE	SB1	1	-	-	-	-	-	-	-	-	-	1	-	-
	SB2	-	-	-	-	1	-	-	-	-	-	-	-	-
	SB3	-	-	-	-	-	-	1	-	-	-	-	-	-
	SB4	1	-	-	-	-	-	-	-	-	-	1	-	-
	SB5	1	-	-	-	-	-	-	-	-	-	1	-	-
	SB6	-	-	-	-	1	-	-	-	-	-	-	-	-
	SB7	1	-	-	-	-	-	-	-	-	1	-	-	-
	SB8	1	-	-	-	-	-	-	-	-	-	1	-	-
	SB9	-	-	-	-	-	-	1	-	-	-	-	-	-
	SB10	1	-	-	-	-	-	-	-	-	1	-	-	-
SUBTOTAL		6	0	0	0	2	0	2	0	0	2	4	0	0
TOTAL		57	25	19	6	3	16	21	10	3	22	19	13	11

SIGNAL BASES, POLES, ARMS, AND LUMINAIRES - CONTINUED

LOCATION	SB NO.	657.1520 INSTALL MONOTUBE ARMS 20-FT EACH	657.1525 INSTALL MONOTUBE ARMS 25-FT EACH	657.1530 INSTALL MONOTUBE ARMS 30-FT EACH	657.1535 INSTALL MONOTUBE ARMS 35-FT EACH	657.1540 INSTALL MONOTUBE ARMS 40-FT EACH	657.1545 INSTALL MONOTUBE ARMS 45-FT EACH	657.1550 INSTALL MONOTUBE ARMS 50-FT EACH	657.1555 INSTALL MONOTUBE ARMS 55-FT EACH	658.0500 PEDESTRIAN PUSH BUTTONS EACH	657.1815 INSTALL LUMINAIRE ARMS STEEL 15-FT EACH	659.1125 LUMINAIRES UTILITY LED C EACH	657.0609 LUMINAIRE ARMS, SINGLE MEMBER, 4-INCH CLAMP, 6-FOOT EACH	SPV.0060.3002 CONTRACTOR PROVIDED HIGH-STRENGTH BOLT ASSEMBLIES FOR MONOTUBE ARMS POLE TYPE 9 OR 10 EACH	SPV.0060.3003 CONTRACTOR PROVIDED HIGH-STRENGTH BOLT ASSEMBLIES FOR MONOTUBE ARMS POLE TYPE 12 OR 13 EACH
STH 38 AT STH 119 EB OFF RAMP	SB1	-	-	-	-	-	-	1	-	-	-	-	-	-	1
	SB2	-	-	-	-	-	-	-	-	1	-	-	-	-	-
	SB3	-	-	-	-	-	-	-	-	1	-	-	-	-	-
	SB4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB5	-	-	-	-	1	-	-	-	-	-	-	-	-	1
	SB6	-	1	-	-	-	-	-	-	-	-	-	-	1	-
	SB7	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB8	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SUBTOTAL		0	1	0	0	1	0	1	0	2	0	0	0	1	2
STH 38 AT GRANGE AVE	SB1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB2	-	1	-	-	-	-	-	-	-	-	-	-	1	-
	SB3	-	-	-	-	-	1	-	-	-	-	-	-	-	1
	SB4	-	-	-	-	-	-	-	-	1	-	-	-	-	-
	SB5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SB6	-	-	1	-	-	-	-	-	-	-	-	-	1	-
	SB7	-	-	-	-	-	-	-	-	1	-	-	-	-	-
	SB8	-	-	-	-	-	-	-	-	1	-	-	-	-	-
	SB9	-	-	-	-	-	-	1	-	1	-	-	-	-	1
	SB10	-	-	-	-	-	-	-	-	1	-	-	-	-	-
SUBTOTAL		0	1	1	0	0	1	1	0	5	0	0	0	2	2
TOTAL		1	5	3	5	16	6	2	1	79	40	66	26	19	31

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

CATEGORY 0015
SHEET 38 OF 46

3

LIGHTING ELECTRICAL CABLE

LOCATION	LOCATION	655.0305 CABLE TYPE UF, 2-12 AWG GROUNDED L.F.
STH 38 AT STH 100	CB1-SB1	75
	SB1-SB4	210
	SB4-SB6	155
	SB6-SB9	175
	CB1-SB17	170
	SB17-SB14	335
	SB14-SB11	160
SUBTOTAL		1,280
STH 38 AT CENTENNIAL DR	CB1-SB1	90
	SB1-SB2	135
	SB2-SB4	145
	SB4-SB6	210
	CB1-SB13	140
	SB13-SB11	235
	SB11-SB8	150
	SB8-SB7	135
SUBTOTAL		1,240
STH 38 AT FOREST HILL AVE	CB1-SB1	85
	SB1-SB3	215
	SB3-SB5	130
	SB5-SB6	140
	CB1-SB13	70
	SB13-SB12	155
	SB12-SB10	115
	SB10-SB8	220
SUBTOTAL		1,130
STH 38 AT SUSAN DR	CB1-SB2	95
	SB2-SB5	265
	CB1-SB12	125
	SB12-SB8	245
SUBTOTAL		730
STH 38 AT DREXEL AVE	CB1-SB1	125
	SB1-SB2	160
	SB2-SB5	225
	SB5-SB6	140
	CB1-SB14	135
	SB14-SB13	140
	SB13-SB11	210
	SB11-SB9	185
SUBTOTAL		1,320
STH 38 AT RAWSON AVE	CB1-SB1	70
	SB1-SB5	255
	SB5-SB8	160
	SB8-SB12	260
	CB1-SB23	130
	SB23-SB20	170
	SB20-SB18	190
	SB18-SB14	205
SUBTOTAL		1,440
STH 38 AT COLLEGE AVE	CB1-SB1	90
	SB1-SB3	165
	SB3-SB4	115
	SB4-SB6	195
	CB1-SB14	75
	SB14-SB11	210
	SB11-SB9	160
	SB9-SB8	185
SUBTOTAL		1,195
TOTAL		8,335

LIGHTING ELECTRICAL WIRE

LOCATION	LOCATION	655.0615 * ELECTRICAL WIRE, LIGHTING, 10 AWG L.F.
STH 38 AT STH 100	SB1-LUMINAIRE 1	120
	SB4-LUMINAIRE 1	120
	SB4-LUMINAIRE 2	120
	SB6-LUMINAIRE 1	120
	SB9-LUMINAIRE 1	120
	SB9-LUMINAIRE 2	120
	SB11-LUMINAIRE	120
	SB14-LUMINAIRE	120
	SB14-LUMINAIRE	120
	SB17-LUMINAIRE	120
SUBTOTAL		1,200
STH 38 AT CENTENNIAL DR	SB1-LUMINAIRE 1	120
	SB2-LUMINAIRE 1	120
	SB4-LUMINAIRE 1	120
	SB6-LUMINAIRE 1	120
	SB7-LUMINAIRE 1	120
	SB8-LUMINAIRE 1	120
	SB11-LUMINAIRE	120
	SB13-LUMINAIRE	120
SUBTOTAL		960
STH 38 AT FOREST HILL AVE	SB1-LUMINAIRE 1	120
	SB3-LUMINAIRE 1	120
	SB5-LUMINAIRE 1	120
	SB6-LUMINAIRE 1	120
	SB8-LUMINAIRE 1	120
	SB10-LUMINAIRE	120
	SB12-LUMINAIRE	120
	SB13-LUMINAIRE	120
SUBTOTAL		960
STH 38 AT SUSAN DR	SB2-LUMINAIRE 1	120
	SB5-LUMINAIRE 1	120
	SB5-LUMINAIRE 2	120
	SB8-LUMINAIRE 1	120
	SB8-LUMINAIRE 2	120
	SB12-LUMINAIRE	120
	SB12-LUMINAIRE	120
SUBTOTAL		840

LIGHTING ELECTRICAL WIRE - CONTINUED

LOCATION	LOCATION	655.0615 * ELECTRICAL WIRE, LIGHTING, 10 AWG L.F.
STH 38 AT DREXEL AVE	SB1-LUMINAIRE 1	120
	SB2-LUMINAIRE 1	120
	SB2-LUMINAIRE 2	120
	SB5-LUMINAIRE 1	120
	SB6-LUMINAIRE 1	120
	SB6-LUMINAIRE 2	120
	SB9-LUMINAIRE 1	120
	SB11-LUMINAIRE	120
	SB11-LUMINAIRE	120
	SB13-LUMINAIRE	120
	SB14-LUMINAIRE	120
	SB14-LUMINAIRE	120
SUBTOTAL		1,440
STH 38 AT RAWSON AVE	SB1-LUMINAIRE 1	120
	SB5-LUMINAIRE 1	120
	SB5-LUMINAIRE 2	120
	SB8-LUMINAIRE 1	120
	SB12-LUMINAIRE	120
	SB12-LUMINAIRE	120
	SB14-LUMINAIRE	120
	SB18-LUMINAIRE	120
	SB18-LUMINAIRE	120
	SB20-LUMINAIRE	120
	SB23-LUMINAIRE	120
	SB23-LUMINAIRE	120
SUBTOTAL		1,440
STH 38 AT COLLEGE AVE	SB1-LUMINAIRE 1	120
	SB3-LUMINAIRE 1	120
	SB4-LUMINAIRE 1	120
	SB6-LUMINAIRE 1	120
	SB8-LUMINAIRE 1	120
	SB9-LUMINAIRE 1	120
	SB11-LUMINAIRE	120
	SB14-LUMINAIRE	120
SUBTOTAL		960
TOTAL		7,800

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

CATEGORY 0015
SHEET 39 OF 46

3

FIBER OPTIC COMMUNICATIONS EQUIPMENT

LOCATION	LOCATION	SPV.0060.3001 INSTALL FIBER OPTIC COMMUNICATIONS IN CABINET EACH	INCIDENTAL TO SPV.0060.3001 CAT-5E CABLE 4-FT CONTRACTOR FURNISHED EACH	INCIDENTAL TO SPV.0060.3001 ST-ST SINGLE MODE FIBER JUMPER 2-CT CONTRACTOR FURNISHED EACH	INCIDENTAL TO SPV.0060.3001 PATCH PANEL WITH FIBER OPTIC CABLE PIGTAIL 6-CT WISDOT FURNISHED L.F.	INCIDENTAL TO SPV.0060.3001 ETHERNET SWITCH 2-PORT WISDOT FURNISHED EACH
STH 38 AT OAKWOOD RD		1	1	2	30	1
STH 38 AT STH 100		1	1	2	50	1
STH 38 AT CENTENNIAL DR		1	1	2	25	1
STH 38 AT PUETZ RD		1	1	2	60	1
STH 38 AT FOREST HILL AVE		1	1	2	40	1
STH 38 AT SUSAN DR		1	1	2	40	1
STH 38 AT DREXEL AVE		1	1	2	60	1
STH 38 AT RAWSON AVE		1	1	2	95	1
STH 38 AT COLLEGE AVE		1	1	2	40	1
STH 38 AT STH 119 EB OFF RAMP		1	1	2	50	1
STH 38 AT GRANGE AVE		1	1	2	30	1
TOTAL		11	11	22	520	11

FIBER OPTIC SPLICE

LOCATION	LOCATION	678.0200 FIBER OPTIC SPLICE ENCLOSURE EACH	678.0300 FIBER OPTIC SPLICE EACH
STH 38 AT STH 100		1	4
STH 38 AT CENTENNIAL DR		1	8
STH 38 AT PUETZ RD		1	8
STH 38 AT FOREST HILL AVE		1	8
STH 38 AT SUSAN DR		1	8
STH 38 AT DREXEL AVE		1	8
STH 38 AT RAWSON AVE		1	8
STH 38 AT COLLEGE AVE		1	8
STH 38 AT STH 119 EB OFF RAMP		1	8
STH 38 AT GRANGE AVE		1	4
TOTAL		10	72

INTERCONNECT TESTING AND INTEGRATION

LOCATION	670.0100 FIELD SYSTEM INTEGRATOR LS	670.0200 ITS DOCUMENTATION LS	678.0500 COMMUNICATIONS SYSTEM TESTING LS
2060-15-71	1	1	1
TOTAL	1	1	1

INTERCONNECT CABLE

LOCATION	LOCATION	678.0036 INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 36-CT L.F.	SPV.0090.3001 FIBER OPTIC TRACER WIRE L.F.	SPV.0090.3002 FIBER OPTIC WARNING TAPE L.F.
2060-15-71	CV1-CV2	5,340	5,340	5,340
	CV2-CV3	4,165	4,165	4,165
	CV3-CV4	1,540	1,540	1,540
	CV4-CV5	2,980	2,980	2,980
	CV5-CV6	1,670	1,670	1,670
	CV6-CV7	1,050	1,050	1,050
	CV7-CV8	5,430	5,430	5,430
	CV8-CV9	5,535	5,535	5,535
	CV9-CV10	6,050	6,050	6,050
	CV10-CV11	1,035	1,035	1,035
TOTAL		34,795	34,795	34,795

CATEGORY 0015
SHEET 40 OF 46

EVP DETECTOR HEAD INSTALLATION

LOCATION	SPV.0105.3020 EMERGENCY VEHICLE PREEMPTION (EVP) DETECTOR HEAD INSTALLATION LS	SPV.0105.3021 EMERGENCY VEHICLE PREEMPTION (EVP) DETECTOR HEAD INSTALLATION LS	SPV.0105.3022 EMERGENCY VEHICLE PREEMPTION (EVP) DETECTOR HEAD INSTALLATION LS	SPV.0105.3023 EMERGENCY VEHICLE PREEMPTION (EVP) DETECTOR HEAD INSTALLATION LS	SPV.0105.3024 EMERGENCY VEHICLE PREEMPTION (EVP) DETECTOR HEAD INSTALLATION LS	SPV.0105.3025 EMERGENCY VEHICLE PREEMPTION (EVP) DETECTOR HEAD INSTALLATION LS	SPV.0105.3026 EMERGENCY VEHICLE PREEMPTION (EVP) DETECTOR HEAD INSTALLATION LS	SPV.0105.3027 EMERGENCY VEHICLE PREEMPTION (EVP) DETECTOR HEAD INSTALLATION LS	SPV.0105.3028 EMERGENCY VEHICLE PREEMPTION (EVP) DETECTOR HEAD INSTALLATION LS
STH 38 AT STH 100	1	-	-	-	-	-	-	-	-
STH 38 AT CENTENNIAL DR	-	1	-	-	-	-	-	-	-
STH 38 AT FOREST HILL AVE	-	-	1	-	-	-	-	-	-
STH 38 AT SUSAN DR	-	-	-	1	-	-	-	-	-
STH 38 AT DREXEL AVE	-	-	-	-	1	-	-	-	-
STH 38 AT RAWSON AVE	-	-	-	-	-	1	-	-	-
STH 38 AT COLLEGE AVE	-	-	-	-	-	-	1	-	-
STH 38 AT STH 119 EB OFF RAMP	-	-	-	-	-	-	-	1	-
STH 38 AT GRANGE AVE	-	-	-	-	-	-	-	-	1
TOTAL	1	1	1	1	1	1	1	1	1

MODIFY TRAFFIC SIGNALS

	SPV.0105.3019 MODIFY TRAFFIC SIGNALS LS
STH 38 AT PUETZ RD	1
TOTAL	1

EVP DETECTOR CABLE

LOCATION	LOCATION	SPV.0090.3000 TRAFFIC SIGNAL EMERGENCY VEHICLE PREEMPTION DETECTOR CABLE INSTALLED L.F.
STH 38 AT STH 100	CB1-SB5	260
	CB1-SB10	455
	CB1-SB15	335
	CB1-SB19	80
SUBTOTAL		1,130
STH 38 AT CENTENNIAL DR	CB1-SB2	150
	CB1-SB6	355
	CB1-SB8	305
	CB1-SB13	140
SUBTOTAL		950
STH 38 AT FOREST HILL AVE	CB1-SB3	220
	CB1-SB6	340
	CB1-SB10	180
	CB1-SB12	70
SUBTOTAL		810
STH 38 AT SUSAN DR	CB1-SB3	160
	CB1-SB6	355
	CB1-SB9	275
	CB1-SB13	65
SUBTOTAL		855
STH 38 AT DREXEL AVE	CB1-SB3	235
	CB1-SB7	435
	CB1-SB12	305
	CB1-SB15	100
SUBTOTAL		1,075

EVP DETECTOR CABLE - CONTINUED

LOCATION	LOCATION	SPV.0090.3000 TRAFFIC SIGNAL EMERGENCY VEHICLE PREEMPTION DETECTOR CABLE INSTALLED L.F.
STH 38 AT RAWSON AVE	CB1-SB9	425
	CB1-SB13	505
	CB1-SB19	275
	CB1-SB24	70
SUBTOTAL		1,275
STH 38 AT COLLEGE AVE	CB1-SB3	200
	CB1-SB6	370
	CB1-SB9	245
	CB1-SB14	75
SUBTOTAL		890
STH 38 AT STH 119 EB OFF RAMP	CB1-SB5	405
	CB1-SB1	90
SUBTOTAL		495
STH 38 AT GRANGE AVE	CB1-SB2	240
	CB1-SB3	400
	CB1-SB9	190
SUBTOTAL		830
TOTAL		8,310

TRANSPORTING AND INSTALLING SIGNAL MATERIALS

	SPV.0105.3000 TRANSPORTING AND INSTALLING TRAFFIC SIGNAL MATERIALS LS	SPV.0105.3001 TRANSPORTING AND INSTALLING TRAFFIC SIGNAL MATERIALS LS	SPV.0105.3002 TRANSPORTING AND INSTALLING TRAFFIC SIGNAL MATERIALS LS	SPV.0105.3003 TRANSPORTING AND INSTALLING TRAFFIC SIGNAL MATERIALS LS	SPV.0105.3004 TRANSPORTING AND INSTALLING TRAFFIC SIGNAL MATERIALS LS	SPV.0105.3005 TRANSPORTING AND INSTALLING TRAFFIC SIGNAL MATERIALS LS	SPV.0105.3006 TRANSPORTING AND INSTALLING TRAFFIC SIGNAL MATERIALS LS	SPV.0105.3007 TRANSPORTING AND INSTALLING TRAFFIC SIGNAL MATERIALS LS	SPV.0105.3008 TRANSPORTING AND INSTALLING TRAFFIC SIGNAL MATERIALS LS	SPV.0105.3009 TRANSPORTING AND INSTALLING TRAFFIC SIGNAL MATERIALS LS
STH 38 AT STH 100	1	-	-	-	-	-	-	-	-	-
STH 38 AT CENTENNIAL DR	-	1	-	-	-	-	-	-	-	-
STH 38 AT PUETZ RD	-	-	1	-	-	-	-	-	-	-
STH 38 AT FOREST HILL AVE	-	-	-	1	-	-	-	-	-	-
STH 38 AT SUSAN DR	-	-	-	-	1	-	-	-	-	-
STH 38 AT DREXEL AVE	-	-	-	-	-	1	-	-	-	-
STH 38 AT RAWSON AVE	-	-	-	-	-	-	1	-	-	-
STH 38 AT COLLEGE AVE	-	-	-	-	-	-	-	1	-	-
STH 38 AT STH 119 EB OFF RAMP	-	-	-	-	-	-	-	-	1	-
STH 38 AT GRANGE AVE	-	-	-	-	-	-	-	-	-	1
TOTAL	1	1	1	1	1	1	1	1	1	1

VEHICLE DETECTION

	SPV.0105.3010 TRANSPORTING AND INSTALLING STATE FURNISHED VIDEO DETECTION SYSTEM LS	SPV.0105.3011 TRANSPORTING AND INSTALLING STATE FURNISHED VIDEO DETECTION SYSTEM LS	SPV.0105.3012 TRANSPORTING AND INSTALLING STATE FURNISHED VIDEO DETECTION SYSTEM LS	SPV.0105.3013 TRANSPORTING AND INSTALLING STATE FURNISHED VIDEO DETECTION SYSTEM LS	SPV.0105.3014 TRANSPORTING AND INSTALLING STATE FURNISHED VIDEO DETECTION SYSTEM LS	SPV.0105.3015 TRANSPORTING AND INSTALLING STATE FURNISHED VIDEO DETECTION SYSTEM LS	SPV.0105.3016 TRANSPORTING AND INSTALLING STATE FURNISHED VIDEO DETECTION SYSTEM LS	SPV.0105.3017 TRANSPORTING AND INSTALLING STATE FURNISHED VIDEO DETECTION SYSTEM LS	SPV.0105.3018 TRANSPORTING AND INSTALLING STATE FURNISHED VIDEO DETECTION SYSTEM LS
STH 38 AT STH 100	1	-	-	-	-	-	-	-	-
STH 38 AT CENTENNIAL DR	-	1	-	-	-	-	-	-	-
STH 38 AT FOREST HILL AVE	-	-	1	-	-	-	-	-	-
STH 38 AT SUSAN DR	-	-	-	1	-	-	-	-	-
STH 38 AT DREXEL AVE	-	-	-	-	1	-	-	-	-
STH 38 AT RAWSON AVE	-	-	-	-	-	1	-	-	-
STH 38 AT COLLEGE AVE	-	-	-	-	-	-	1	-	-
STH 38 AT STH 119 EB OFF RAMP	-	-	-	-	-	-	-	1	-
STH 38 AT GRANGE AVE	-	-	-	-	-	-	-	-	1
TOTAL	1	1	1	1	1	1	1	1	1

CATEGORY 0015
SHEET 42 OF 46

REMOVE TRAFFIC SIGNALS

	SPV.0105.3029 REMOVE TRAFFIC SIGNALS LS	SPV.0105.3030 REMOVE TRAFFIC SIGNALS LS	SPV.0105.3031 REMOVE TRAFFIC SIGNALS LS	SPV.0105.3032 REMOVE TRAFFIC SIGNALS LS	SPV.0105.3033 REMOVE TRAFFIC SIGNALS LS	SPV.0105.3034 REMOVE TRAFFIC SIGNALS LS	SPV.0105.3035 REMOVE TRAFFIC SIGNALS LS
STH 38 AT CENTENNIAL DR	1	-	-	-	-	-	-
STH 38 AT FOREST HILL AVE	-	1	-	-	-	-	-
STH 38 AT DREXEL AVE	-	-	1	-	-	-	-
STH 38 AT RAWSON AVE	-	-	-	1	-	-	-
STH 38 AT COLLEGE AVE	-	-	-	-	1	-	-
STH 38 AT STH 119 EB OFF RAMP	-	-	-	-	-	1	-
STH 38 AT GRANGE AVE	-	-	-	-	-	-	1
TOTAL	1	1	1	1	1	1	1

TEMPORARY SIGNALS

	661.0200.0001 TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS LS	661.0200.0002 TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS LS	661.0200.0003 TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS LS	661.0200.0004 TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS LS	661.0200.0005 TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS LS	661.0200.0006 TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS LS	661.0200.0007 TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS LS	661.0200.0008 TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS LS	661.0300 GENERATORS DAY
STH 38 AT STH 100	1	-	-	-	-	-	-	-	1
STH 38 AT CENTENNIAL DR	-	1	-	-	-	-	-	-	1
STH 38 AT FOREST HILL AVE	-	-	1	-	-	-	-	-	1
STH 38 AT DREXEL AVE	-	-	-	1	-	-	-	-	1
STH 38 AT RAWSON AVE	-	-	-	-	1	-	-	-	1
STH 38 AT COLLEGE AVE	-	-	-	-	-	1	-	-	1
STH 38 AT STH 119 EB OFF RAMP	-	-	-	-	-	-	1	-	1
STH 38 AT GRANGE AVE	-	-	-	-	-	-	-	1	1
TOTAL	1	1	1	1	1	1	1	1	8

CATEGORY 0015

SHEET 43 OF 46

TEMPORARY NON-INTRUSIVE VEHICLE DETECTION

	SPV.0105.3054 INHERIT TEMPORARY NON-INTRUSIVE VEHICLE DETECTION SYSTEM FOR INTERSECTIONS LS	SPV.0105.3055 TEMPORARY NON-INTRUSIVE VEHICLE DETECTION SYSTEM FOR INTERSECTIONS LS	SPV.0105.3056 TEMPORARY NON-INTRUSIVE VEHICLE DETECTION SYSTEM FOR INTERSECTIONS LS	SPV.0105.3057 TEMPORARY NON-INTRUSIVE VEHICLE DETECTION SYSTEM FOR INTERSECTIONS LS	SPV.0105.3058 TEMPORARY NON-INTRUSIVE VEHICLE DETECTION SYSTEM FOR INTERSECTIONS LS	SPV.0105.3059 TEMPORARY NON-INTRUSIVE VEHICLE DETECTION SYSTEM FOR INTERSECTIONS LS	SPV.0105.3060 TEMPORARY NON-INTRUSIVE VEHICLE DETECTION SYSTEM FOR INTERSECTIONS LS	SPV.0105.3061 TEMPORARY NON-INTRUSIVE VEHICLE DETECTION SYSTEM FOR INTERSECTIONS LS
STH 38 AT STH 100	1	-	-	-	-	-	-	-
STH 38 AT CENTENNIAL DR	-	1	-	-	-	-	-	-
STH 38 AT FOREST HILL AVE	-	-	1	-	-	-	-	-
STH 38 AT DREXEL AVE	-	-	-	1	-	-	-	-
STH 38 AT RAWSON AVE	-	-	-	-	1	-	-	-
STH 38 AT COLLEGE AVE	-	-	-	-	-	1	-	-
STH 38 AT STH 119 EB OFF RAMP	-	-	-	-	-	-	1	-
STH 38 AT GRANGE AVE	-	-	-	-	-	-	-	1
TOTAL	1	1	1	1	1	1	1	1

TEMPORARY INFRARED EVP SYSTEMS

	SPV.0105.3062 TEMPORARY INFRARED EVP SYSTEM TO REMAIN LS	SPV.0105.3063 TEMPORARY INFRARED EVP SYSTEM LS	SPV.0105.3064 TEMPORARY INFRARED EVP SYSTEM LS	SPV.0105.3065 TEMPORARY INFRARED EVP SYSTEM LS	SPV.0105.3066 TEMPORARY INFRARED EVP SYSTEM LS
STH 38 AT STH 100	1	-	-	-	-
STH 38 AT CENTENNIAL DR	-	1	-	-	-
STH 38 AT FOREST HILL AVE	-	-	1	-	-
STH 38 AT DREXEL AVE	-	-	-	1	-
STH 38 AT RAWSON AVE	-	-	-	-	1
TOTAL	1	1	1	1	1

ELECTRICAL SERVICE

	656.0200.0001 ELECTRICAL SERVICE METER BREAKER PEDESTAL LS	656.0200.0002 ELECTRICAL SERVICE METER BREAKER PEDESTAL LS	656.0200.0003 ELECTRICAL SERVICE METER BREAKER PEDESTAL LS	656.0200.0004 ELECTRICAL SERVICE METER BREAKER PEDESTAL LS	656.0200.0005 ELECTRICAL SERVICE METER BREAKER PEDESTAL LS	656.0200.0006 ELECTRICAL SERVICE METER BREAKER PEDESTAL LS	656.0200.0007 ELECTRICAL SERVICE METER BREAKER PEDESTAL LS	656.0200.0008 ELECTRICAL SERVICE METER BREAKER PEDESTAL LS	656.0200.0009 ELECTRICAL SERVICE METER BREAKER PEDESTAL LS
STH 38 AT STH 100	1	-	-	-	-	-	-	-	-
STH 38 AT CENTENNIAL DR	-	1	-	-	-	-	-	-	-
STH 38 AT FOREST HILL AVE	-	-	1	-	-	-	-	-	-
STH 38 AT SUSAN DR	-	-	-	1	-	-	-	-	-
STH 38 AT DREXEL AVE	-	-	-	-	1	-	-	-	-
STH 38 AT RAWSON AVE	-	-	-	-	-	1	-	-	-
STH 38 AT COLLEGE AVE	-	-	-	-	-	-	1	-	-
STH 38 AT STH 119 EB OFF RAMP	-	-	-	-	-	-	-	1	-
STH 38 AT GRANGE AVE	-	-	-	-	-	-	-	-	1
TOTAL	1	1	1	1	1	1	1	1	1

SIGNAL MOUNTING HARDWARE

	658.5069.0001 SIGNAL MOUNTING HARDWARE LS	658.5069.0002 SIGNAL MOUNTING HARDWARE LS	658.5069.0003 SIGNAL MOUNTING HARDWARE LS	658.5069.0004 SIGNAL MOUNTING HARDWARE LS	658.5069.0005 SIGNAL MOUNTING HARDWARE LS	658.5069.0006 SIGNAL MOUNTING HARDWARE LS	658.5069.0007 SIGNAL MOUNTING HARDWARE LS	658.5069.0008 SIGNAL MOUNTING HARDWARE LS	658.5069.0009 SIGNAL MOUNTING HARDWARE LS	658.5069.0010 SIGNAL MOUNTING HARDWARE LS
STH 38 AT STH 100	1	-	-	-	-	-	-	-	-	-
STH 38 AT CENTENNIAL DR	-	1	-	-	-	-	-	-	-	-
STH 38 AT PUETZ RD	-	-	1	-	-	-	-	-	-	-
STH 38 AT FOREST HILL AVE	-	-	-	1	-	-	-	-	-	-
STH 38 AT SUSAN DR	-	-	-	-	1	-	-	-	-	-
STH 38 AT DREXEL AVE	-	-	-	-	-	1	-	-	-	-
STH 38 AT RAWSON AVE	-	-	-	-	-	-	1	-	-	-
STH 38 AT COLLEGE AVE	-	-	-	-	-	-	-	1	-	-
STH 38 AT STH 119 EB OFF RAMP	-	-	-	-	-	-	-	-	1	-
STH 38 AT GRANGE AVE	-	-	-	-	-	-	-	-	-	1
TOTAL	1	1	1	1	1	1	1	1	1	1

INSTALL STATE FURNISHED TRAFFIC SIGNAL CABINETS

	SPV.0105.3044 INSTALL STATE FURNISHED TRAFFIC SIGNAL CABINET LS	SPV.0105.3045 INSTALL STATE FURNISHED TRAFFIC SIGNAL CABINET LS	SPV.0105.3046 INSTALL STATE FURNISHED TRAFFIC SIGNAL CABINET LS	SPV.0105.3047 INSTALL STATE FURNISHED TRAFFIC SIGNAL CABINET LS	SPV.0105.3048 INSTALL STATE FURNISHED TRAFFIC SIGNAL CABINET LS	SPV.0105.3049 INSTALL STATE FURNISHED TRAFFIC SIGNAL CABINET LS	SPV.0105.3050 INSTALL STATE FURNISHED TRAFFIC SIGNAL CABINET LS	SPV.0105.3051 INSTALL STATE FURNISHED TRAFFIC SIGNAL CABINET LS	SPV.0105.3052 INSTALL STATE FURNISHED TRAFFIC SIGNAL CABINET LS	SPV.0105.3053 INSTALL STATE FURNISHED TRAFFIC SIGNAL CABINET LS
STH 38 AT STH 100	1	-	-	-	-	-	-	-	-	-
STH 38 AT CENTENNIAL DR	-	1	-	-	-	-	-	-	-	-
STH 38 AT PUETZ RD	-	-	1	-	-	-	-	-	-	-
STH 38 AT FOREST HILL AVE	-	-	-	1	-	-	-	-	-	-
STH 38 AT SUSAN DR	-	-	-	-	1	-	-	-	-	-
STH 38 AT DREXEL AVE	-	-	-	-	-	1	-	-	-	-
STH 38 AT RAWSON AVE	-	-	-	-	-	-	1	-	-	-
STH 38 AT COLLEGE AVE	-	-	-	-	-	-	-	1	-	-
STH 38 AT STH 119 EB OFF RAMP	-	-	-	-	-	-	-	-	1	-
STH 38 AT GRANGE AVE	-	-	-	-	-	-	-	-	-	1
TOTAL	1	1	1	1	1	1	1	1	1	1

REMOVE LOOP DETECTOR WIRE AND LEAD-IN CABLE

	SPV.0105.3036 REMOVE LOOP DETECTOR WIRE AND LEAD-IN CABLE LS	SPV.0105.3037 REMOVE LOOP DETECTOR WIRE AND LEAD-IN CABLE LS	SPV.0105.3038 REMOVE LOOP DETECTOR WIRE AND LEAD-IN CABLE LS	SPV.0105.3039 REMOVE LOOP DETECTOR WIRE AND LEAD-IN CABLE LS	SPV.0105.3040 REMOVE LOOP DETECTOR WIRE AND LEAD-IN CABLE LS	SPV.0105.3041 REMOVE LOOP DETECTOR WIRE AND LEAD-IN CABLE LS	SPV.0105.3042 REMOVE LOOP DETECTOR WIRE AND LEAD-IN CABLE LS	SPV.0105.3043 REMOVE LOOP DETECTOR WIRE AND LEAD-IN CABLE LS
STH 38 AT CENTENNIAL DR	1	-	-	-	-	-	-	-
STH 38 AT PUETZ RD	-	1	-	-	-	-	-	-
STH 38 AT FOREST HILL AVE	-	-	1	-	-	-	-	-
STH 38 AT DREXEL AVE	-	-	-	1	-	-	-	-
STH 38 AT RAWSON AVE	-	-	-	-	1	-	-	-
STH 38 AT COLLEGE AVE	-	-	-	-	-	1	-	-
STH 38 AT STH 119 EB OFF RAMP	-	-	-	-	-	-	1	-
STH 38 AT GRANGE AVE	-	-	-	-	-	-	-	1
TOTAL	1	1	1	1	1	1	1	1

CATEGORY 0015
SHEET 46 OF 46

REMOVAL

CATEGORY	SYSTEM	DESCRIPTION	204.0195 REMOVING CONCRETE BASES * EACH	653.0905 REMOVING PULL BOXES * EACH	SPV.0060.1000 REMOVING LIGHTING UNITS EACH	SPV.0060.1003 REMOVING LIGHTING LOAD CENTERS CITY OF OAK CREEK AND SALVAGE EACH
0011						
	STH 38 (HOWELL AVENUE)					
	LOAD CENTER 8	8A3	1	--	1	--
		8A4	1	--	1	--
		8C1	1	--	1	--
		8C3	1	--	1	--
		8C4	1	--	1	--
		8B1	1	--	1	--
		8B2	1	--	1	--
		8B3	1	--	1	--
		8B4	1	--	1	--
	LOAD CENTER 7	PB(STA. 183+24,82'LT)	--	1	--	--
		PB(STA. 183+18,12'RT)	--	1	--	--
		7B21	1	--	1	--
		7B22	1	--	1	--
		7B23	1	--	1	--
		7A9	1	--	1	--
		7A10	1	--	1	--
		7A11	1	--	1	--
		7A12	1	--	1	--
		7A13	1	--	1	--
		7A14	1	--	1	--
		7A15	1	--	1	--
		7A16	1	--	1	--
		7A17	1	--	1	--
		PB(STA.222+65,9'RT)	--	1	--	--
		7A18	1	--	1	--
		7A19	1	--	1	--
		7A20	1	--	1	--
		LP (STA. 222+18,107' LT.	1	--	1	--
	LOAD CENTER 6	6B13	1	--	1	--
		6B4	1	--	1	--
		6B3	1	--	1	--
		6B2	1	--	1	--
		6B1	1	--	1	--
		PB(STA.262+09,6'RT.)	--	1	--	--
		6A1	1	--	1	--
		6A2	1	--	1	--
		6A3	1	--	1	--
		SUBTOTAL	33	4	33	0

CATEGORY	SYSTEM	DESCRIPTION	204.0195 REMOVING CONCRETE BASES * EACH	653.0905 REMOVING PULL BOXES * EACH	SPV.0060.1000 REMOVING LIGHTING UNITS EACH	SPV.0060.1003 REMOVING LIGHTING LOAD CENTERS CITY OF OAK CREEK AND SALVAGE EACH
0011						
	STH 38 (HOWELL AVENUE)					
	LOAD CENTER 6	LIGHTING LOAD CTR.	--	--	--	1
		PB(STA. 262+05, 79'LT.	--	1	--	--
		6A4	1	--	1	--
		6A9	1	--	1	--
		6A10	1	--	1	--
		6A11	1	--	1	--
		6A12	1	--	1	--
		6A13	1	--	1	--
		6A17	1	--	1	--
		6A14	1	--	1	--
		6A15	1	--	1	--
		6A16	1	--	1	--
		6A19	1	--	1	--
		6A22	1	--	1	--
		6A21	1	--	1	--
	--	STA. 3114+62, 11' LT	1	--	1	--
	LOAD CENTER 5	5B11	1	--	1	--
		5B12	1	--	1	--
		5B15	1	--	1	--
		5B16	1	--	1	--
		5B17	1	--	1	--
		5B18	1	--	1	--
		5B21	1	--	1	--
		5B20	1	--	1	--
		5A1	1	--	1	--
		5A18	1	--	1	--
		5A19	1	--	1	--
		5A28	1	--	1	--
		5A29	1	--	1	--
	LOAD CENTER 4	4B26	1	--	1	--
		4B25	1	--	1	--
	LOAD CENTER P	PC12	1	--	1	--
		PC13	1	--	1	--
	LOAD CENTER 3	3B21	1	--	1	--
		3B20	1	--	1	--
		3B7	1	--	1	--
		3A12	1	--	1	--
		3A13	1	--	1	--
		3A14	1	--	1	--
		3A24	1	--	1	--
		SUBTOTAL	38	1	38	1
		PROJECT TOTAL	71	5	71	1

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

3

LIGHTING CONTROLLER, CONDUIT AND WIRES

CATEGORY	SYSTEM	DESCRIPTION	FROM	TO	652.0615 CONDUIT SPECIAL 3-INCH * LF	655.0124 CABLE IN DUCT 3-4 AWG LF	SPV.0060.1004 LIGHTING LOAD CENTERS CITY OF OAK CREEK 480V 1 PHASE EACH
0011	STH 38 (HOWELL AVENUE)						
	LOAD CENTER 8		EXIST, LP	LP (STA. 176+84, 12' LT.)	--	97	--
			LP(STA. 176+84, 12' LT.)	LP(STA. 178+36, 12' LT.)	--	155	--
			LP(STA. 178+36, 12' LT.)	EXIST. LP	--	131	--
			LP(STA. 177+80,59' RT)	LP(STA. 179+00, 59' RT)	--	123	--
			LP(STA. 179+00, 59' RT)	LP(STA. 180+20, 59' RT)	--	123	--
			LP(STA. 180+20, 59' RT)	PB (STA. 180+67, 65' RT)	--	56	--
			PB (STA. 180+67, 65' RT)	EXIST. PB	93	103	--
			EXIST. PB	EXIST. LP (1104+84,8' RT)	--	164	--
			EXIST PB(STA.1099+94,75'RT)	IST PB(STA. 1101+20, 92'RT	--	274	--
			LP(STA.1104+40, 77' LT)	EXIST. PB	--	111	--
			LP(STA.1104+40, 77' LT)	LP (STA. 1105+60, 77' LT.)	--	123	--
			LP (STA. 1105+60, 77' LT.)	LP(STA. 1106+80, 61' LT)	--	123	--
	LOAD CENTER 7		EXIST. LP	PB (STA. 184+59, 76' LT)	103	108	--
			LP (STA. 184+40, 77' LT)	PB (STA. 184+59, 76' LT)	--	27	--
			PB (STA. 184+59, 76' LT)	LP (STA. 185+70, 77' LT)	--	118	--
			LP (STA. 185+70, 77' LT)	LP (STA. 186+90, 60' LT)	--	126	--
			EXIST. LP	LP (STA. 217+85, 8'LT.)	--	103	--
			LP (STA. 217+85, 8'LT.)	LP(STA. 218+80, 11' LT)	--	98	--
			LP(STA. 218+80, 11' LT)	LP(STA. 219+95, 12' LT)	--	118	--
			LP(STA. 219+95, 12' LT)	PB(STA. 220+10, 11' LT)	--	22	--
			PB(STA. 220+10, 11' LT)	PB(STA. 220+10, 60'RT)	71	81	--
			PB(STA. 220+10, 60'RT)	LP(STA. 219+95, 59' RT)	--	22	--
			LP(STA. 219+95, 59' RT)	LP(STA. 218+80, 59' RT.)	--	118	--
			LP(STA. 218+80, 59' RT.)	LP(STA. 217+60, 59' RT.)	--	123	--
			PB(STA. 220+10, 11' LT)	PB(STA. 220+24, 58'LT.)	50	60	--
			PB(STA. 220+24, 58'LT.)	PB(STA. 222+91, 58' LT.)	267	277	--
			PB(STA. 222+91, 58' LT.)	LP(STA. 223+75, 58' LT)	--	87	--
			PB(STA. 222+91, 58' LT.)	EXIST. LP	--	236	--
			LP(STA. 223+75, 58' LT)	LP(STA. 224+95, 59' LT.)	--	123	--
			LP(STA. 224+95, 59' LT.)	LP(STA. 226+15, 60' LT.)	--	123	--
			PB(STA. 222+91, 58' LT.)	PB(STA. 222+94, 15' RT.)	73	83	--
			PB(STA. 222+94, 15' RT.)	LP(STA.223+75, 12' RT.)	--	89	--
			LP(STA.223+75, 12' RT.)	LP(STA. 224+95, 10' RT.)	--	123	--
			LP(STA. 224+95, 10' RT.)	LP(STA. 226+15,0')	--	123	--
			LP(STA. 226+15,0')	LP(STA. 227+15, 8' LT.)	--	103	--
			LP(STA. 227+15, 8' LT.)	LP(STA. 228+10, 10' LT.)	--	98	--
			LP(STA. 228+10, 10' LT.)	LP(STA. 229+15, 11' LT.)	--	108	--
			LP(STA. 229+15, 11' LT.)	PB(STA. 229+28, 11' LT.)	--	21	--
			PB(STA. 229+28, 11' LT.)	EX. LP	160	168	--
	LOAD CENTER 1		LP(STA. 229+80, 60' RT.)	LP (STA. 231+00, 60' RT.)	--	123	--
			LP (STA. 231+00, 60' RT.)	LP(STA. 232+20, 60' RT)	--	123	--
			LP(STA. 232+20, 60' RT)	LP(STA. 233+40, 73' RT.)	--	124	--
			LP(STA. 233+40, 73' RT.)	EX. PB	--	48	--
	SUBTOTAL				817	4887	0

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

3

LIGHTING CONTROLLER, CONDUIT AND WIRES CONTINUED

CATEGORY	SYSTEM	DESCRIPTION	FROM	TO	652.0615 CONDUIT SPECIAL 3-INCH * LF	655.0124 CABLE IN DUCT 3-4 AWG LF	SPV.0060.1004 LIGHTING LOAD CENTERS CITY OF OAK CREEK 480V 1 PHASE EACH
0011	STH 38 (HOWELL AVENUE)						
	LOAD CENTER 6		LP(STA. 237+60, 60' LT.)	PB(STA.237+69, 60'LT.)	--	20	--
			PB(STA.237+69, 60'LT.)	EX. LP	113	120	--
			PB(STA.237+69, 60'LT.)	LP(STA. 238+75, 60'LT.)	--	116	--
			EXIST. LP	LP(STA. 247+40, 4'LT.)	--	110	--
			LP(STA. 247+40, 4'LT.)	EXIST. LP	--	124	--
			EXIST. LP	LP (STA. 257+53, 11' LT.)	--	110	--
			LP(STA. 257+53, 11' LT.)	PB(STA. 257+75, 8'LT)	--	25	--
			PB(STA. 257+75, 8'LT)	PB(STA. 257+75, 59' RT.)	70	80	--
			PB(STA. 257+75, 59' RT.)	LP(STA. 257+60, 60'RT.)	--	23	--
			PB(STA. 257+75, 59' RT.)	LP(STA. 258+80, 61' RT.)	--	115	--
			LP(STA. 258+80, 61' RT.)	LP(STA. 259+95, 60',RT.)	--	118	--
			LP(STA. 258+60, 11'LT.)	PB(STA. 257+75, 8'LT.)	--	93	--
			LP(STA. 258+60, 11'LT.)	LP(STA. 259+75, 12'LT.)	--	118	--
			LP(STA. 259+75, 12'LT.)	PB(STA. 259+98, 58'LT.)	52	60	--
			LOAD CENTER 6	PB(STA.262+39,81' LT.)	10	25	--
			PB(STA.262+39,81' LT.)	LP(STA. 263+20, 73' LT)	--	89	--
			PB(STA.262+39,81' LT.)	EXIST LP	--	210	--
			PB(STA.262+39,81' LT.)	PB(STA.259+98,58' LT.)	243	253	--
			LP(STA. 263+20, 59' LT.)	LP(STA. 264+30, 59' LT.)	--	113	--
			LP(STA. 264+30, 72' LT.)	LP(STA.265+45, 69' LT.)	--	118	--
			LP(STA.265+45, 69' LT.)	PB(STA. 265+66, 66' LT.)	--	41	--
			PB(STA. 265+66, 66' LT.)	PB(STA. 265+66, 3' RT.)	71	81	--
			PB(STA. 265+66, 3' RT.)	LP(STA. 265+45, 4'RT.)	--	30	--
			LP(STA. 265+45, 4'RT.)	LP(STA. 264+30, 12' RT.)	--	118	--
			LP(STA. 264+30, 12' RT.)	LP(STA. 263+20, 12'RT.)	--	113	--
			EXIST. LP	LP(STA. 271+15, 11' LT.)	--	113	--
			LP(STA. 271+15, 11' LT.)	LP(STA. 272+50, 12' LT.)	--	138	--
			LP(STA. 272+50, 12' LT.)	LP(STA. 273+70, 12'LT.)	--	123	--
			LP(STA. 273+70, 12'LT.)	LP(STA.274+75,12' LT.)	--	108	--
			LP(STA.274+75,12' LT.)	PB(STA.275+34,12' LT.)	--	66	--
			PB(STA.275+34,12' LT.)	PB(STA.276+43,13' LT.)	210	220	--
			PB(STA.276+43,13' LT.)	LP(STA3278+1007'RT.)	--	25	--
			LP(STA. 278+10, 7' RT.)	LP(STA. 279+20, 8'RT.)	--	113	--
			LP(STA. 279+20, 8'RT.)	LP (STA. 280+50, 11' RT.)	--	135	--
			LP (STA. 280+50, 11' RT.)	EXIST. LP	--	135	--
			EXIST. LP	LP (STA. 283+19, 6'LT.)	--	140	--
			LP (STA. 283+19, 6'LT.)	EXIST. LP	--	183	--
			LP(STA. 282+45, 60' RT.)	LP(STA. 284+70, 64' RT.)	--	125	--
			LP(STA. 284+70, 64' RT.)	PB(STA. 285+41, 63' RT.)	76	79	--
			PB(STA. 285+41, 63' RT.)	EXIST. LP	93	101	--
			PB(STA. 285+41, 63' RT.)	LP(STA. 286+00, 63'RT)	--	68	--
LIGHTING LOAD CENTER			-	-	-	-	1
SUBTOTAL					938	4295	1

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

3

LIGHTING CONTROLLER, CONDUIT AND WIRES CONTINUED

CATEGORY	SYSTEM	DESCRIPTION	FROM	TO	652.0615 CONDUIT SPECIAL 3-INCH * LF	655.0124 CABLE IN DUCT 3-4 AWG LF	SPV.0060.1004 LIGHTING LOAD CENTERS CITY OF OAK CREEK 480V 1 PHASE EACH
0011	STH 38 (HOWELL AVENUE)						
	LOAD CENTER 5		EXIST. PB	LP(STA. 290+53, 82' LT.)	--	120	--
			LP(STA. 290+53, 82' LT.)	LP(STA. 291+60, 81' LT.)	--	110	--
			LP(STA. 291+60, 81' LT.)	LP(STA. 292+90, 63' LT.)	--	133	--
			EXIST. PB	LP (STA. 290+29, 11' RT.)	--	117	--
			LP (STA. 290+29, 11' RT.)	LP(STA. 291+59, 12' RT.)	--	135	--
			LP(STA. 291+59, 12' RT.)	LP (STA. 292+89, 11' RT.)	--	133	--
			LP (STA. 292+89, 11' RT.)	EXIST. LP	--	134	--
			EXIST. LP	LP (STA. 296+44, 8' LT.)	--	119	--
			LP (STA. 296+44, 8' LT.)	LP (STA. 297+40, 2' LT.)	--	99	--
			LP (STA. 297+40, 2' LT.)	EXIST. LP	117	120	--
			EXIST. PB	EXIST LP(3118+68,9' RT.)	--	139	--
			EXIST. PB	LP(STA. 3118+30, 55' LT.)	--	89	--
			LP(STA. 3118+30, 55' LT.)	LP(STA. 3119+50, 51' LT.)	--	123	--
			EXIST. PB	LP(STA. 308+50, 7' RT.)	124	132	--
			LP(STA. 308+50, 7' RT.)	EXIST. LP	--	98	--
			EXIST. LP	LP(STA. 328+15, 7' RT.)	95	98	--
			LP(STA. 328+15, 7' RT.)	LP(STA. 329+15, 8' RT)	--	103	--
			LP(STA. 329+15, 8' RT)	EXIST. LP	--	114	--
	LOAD CENTER 4		EXIST. PB	LP(STA. 4114+95, 94' RT.)	42	50	--
			EXIST PB	LP(STA.4114+70,9' LT.)	86	93	--
			LP(STA.4114+70,9' LT.)	EXIST. LP	--	106	--
			LP(STA. 4114+95, 94' RT.)	LP(STA. 4113+75, 63' RT.)	--	127	--
	LOAD CENTER 3		EXIST. LP	LP(STA. 356+35, 8' LT.)	--	93	--
			LP(STA. 356+35, 8' LT.)	EXIST. LP	170	173	--
			EXIST. LP	LP(STA. 376+95, 6'RT.)	114	117	--
			LP(STA. 376+95, 6'RT.)	LP(STA. 378+00, 7'RT.)	--	108	--
			LP(STA. 378+00, 7'RT.)	LP(STA. 379+10, 6'RT.)	--	114	--
			LP(STA. 379+10, 6'RT.)	EXIST. LP	--	113	--
			EXIST. LP	PB(STA. 391+74, 51' RT.)	82	90	--
			PB(STA. 391+74, 51' RT.)	LP(STA. 391+95, 51' RT.)	--	29	--
			PB(STA. 391+74, 51' RT.)	LP(STA. 390+75, 51'RT.)	--	108	--
			LP(STA. 390+75, 51'RT.)	LP(STA. 389+55, 51' RT.)	--	121	--
	SUBTOTAL				830	3558	0
	PROJECT TOTAL				2585	12740	1

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

LIGHTING LUMINAIRE ARMS AND POLES

CATEGORY	SYSTEM	DESCRIPTION	STATION	OFFSET	654.0105 CONCRETE BASES TYPE5 * EACH	655.0610 ELECTRICAL WIRE LIGHTING 12 AWG * LF	657.0255 TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE * EACH	657.0710 LUMINAIRE ARMS TRUSS TYPE 4 1/2-INCH CLAMP 12-FT EACH	659.0115 LUMINAIRES UTILITY HPS 150 WATTS EACH	659.0802 PLAQUES SEQUENCE IDENTIFICATION EACH	SPV.0060.1001 LIGHT POLES TAPERED ROUND ALUMINUM CITY OF OAK CREEK 28-FT EACH
0011	STH 38 (HOWELL AVENUE)										
	LOAD CENTER 8		STA. 176+84	12' LT	1	270	1	2	2	1	1
			STA. 178+36	12' LT.	1	270	1	2	2	1	1
			STA. 177+80	59' RT	1	135	1	1	1	1	1
			STA. 179+00	59' RT	1	135	1	1	1	1	1
			STA. 180+20	59' RT	1	135	1	1	1	1	1
			STA. 1104+40	77' LT	1	135	1	1	1	1	1
			STA. 1105+60	77' LT	1	135	1	1	1	1	1
			STA. 1106+80	61' LT	1	135	1	1	1	1	1
	LOAD CENTER 7		STA. 184+40	83' LT	1	135	1	1	1	1	1
			STA. 185+70	83' LT	1	135	1	1	1	1	1
			STA. 186+90	60' LT	1	135	1	1	1	1	1
			STA. 217+85	8' LT	1	270	1	2	2	1	1
			STA. 218+80	11' LT	1	270	1	2	2	1	1
			STA. 219+95	12' LT	1	270	1	2	2	1	1
			STA. 219+95	59' RT	1	135	1	1	1	1	1
			STA. 218+80	59' RT	1	135	1	1	1	1	1
			STA. 217+60	59' RT	1	135	1	1	1	1	1
			STA. 223+75	58' LT	1	135	1	1	1	1	1
			STA. 224+95	59' LT	1	135	1	1	1	1	1
			STA. 226+15	60' LT	1	135	1	1	1	1	1
			STA. 223+75	12' RT	1	270	1	2	2	1	1
			STA. 224+95	10' RT	1	270	1	2	2	1	1
			STA. 226+15	0'	1	270	1	2	2	1	1
			STA. 227+15	8' LT	1	270	1	2	2	1	1
			STA. 228+10	10' LT	1	270	1	2	2	1	1
			STA. 229+15	11' LT	1	270	1	2	2	1	1
	LOAD CENTER 1		STA. 229+80	60' RT	1	135	1	1	1	1	1
			STA. 231+00	60' RT	1	135	1	1	1	1	1
			STA. 232+20	60' RT	1	135	1	1	1	1	1
			STA. 233+40	73' RT	1	135	1	1	1	1	1
	LOAD CENTER 6		STA. 237+60	60' LT	1	135	1	1	1	1	1
			STA. 238+75	60' LT	1	135	1	1	1	1	1
			STA. 247+40	4' LT	1	270	1	2	2	1	1
			STA. 258+60	11' LT	1	270	1	2	2	1	1
			STA. 259+75	12' LT	1	270	1	2	2	1	1
			STA. 257+53	11' LT	1	270	1	2	2	1	1
			STA. 257+60	60' RT	1	135	1	1	1	1	1
			STA. 258+80	61' RT	1	135	1	1	1	1	1
			STA. 259+95	60' RT	1	135	1	1	1	1	1
			STA. 263+20	72' LT	1	135	1	1	1	1	1
				SUBTOTAL	40	7425	40	55	55	40	40

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

LIGHTING LUMINAIRE ARMS AND POLES CONTINUED

CATEGORY	SYSTEM	DESCRIPTION	STATION	OFFSET	654.0105 CONCRETE BASES TYPE5 * EACH	655.0610 ELECTRICAL WIRE LIGHTING 12 AWG * LF	657.0255 TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE * EACH	657.0710 LUMINAIRE ARMS TRUSS TYPE 4 1/2-INCH CLAMP 12-FT EACH	659.0115 LUMINAIRES UTILITY HPS 150 WATTS EACH	659.0802 PLAQUES SEQUENCE IDENTIFICATION EACH	SPV.0060.1001 LIGHT POLES TAPERED ROUND ALUMINUM CITY OF OAK CREEK 28-FT EACH
0011	STH 38 (HOWELL AVENUE)										
	LOAD CENTER 6		STA. 264+30	72' LT	1	135	1	1	1	1	1
			STA. 265+45	69' LT	1	135	1	1	1	1	1
			STA. 263+20	12' RT	1	270	1	2	2	1	1
			STA. 264+30	12' RT	1	270	1	2	2	1	1
			STA. 265+45	4' RT	1	270	1	2	2	1	1
			STA. 271+15	11' LT.	1	270	1	2	2	1	1
			STA. 272+50	12' LT	1	270	1	2	2	1	1
			STA. 273+70	12' LT	1	270	1	2	2	1	1
			STA. 274+75	12' LT	1	270	1	2	2	1	1
			STA. 280+50	11' RT	1	270	1	2	2	1	1
			STA. 283+19	6' LT	1	270	1	2	2	1	1
			STA. 278+10	7' RT	1	270	1	2	2	1	1
			STA. 279+20	8' RT	1	270	1	2	2	1	1
			STA. 282+45	60' RT	1	135	1	1	1	1	1
			STA. 284+70	64' RT	1	135	1	1	1	1	1
			STA. 286+00	63' RT	1	135	1	1	1	1	1
	LOAD CENTER 5		STA. 3118+30	55' LT	1	135	1	1	1	1	1
			STA. 3119+50	51' LT	1	135	1	1	1	1	1
			STA. 290+29	11' RT	1	270	1	2	2	1	1
			STA. 291+59	12' RT	1	270	1	2	2	1	1
			STA. 292+89	11' RT	1	270	1	2	2	1	1
			STA. 296+44	8' LT	1	270	1	2	2	1	1
			STA. 297+40	2' LT	1	270	1	2	2	1	1
			STA. 290+53	81' LT	1	135	1	1	1	1	1
			STA. 291+60	81' LT	1	135	1	1	1	1	1
			STA. 292+90	81' LT	1	135	1	1	1	1	1
			STA. 308+50	7' RT	1	270	1	2	2	1	1
			STA. 328+15	7' RT	1	270	1	2	2	1	1
			STA. 329+15	8' RT	1	270	1	2	2	1	1
	LOAD CENTER 4		STA. 4114+95	94' RT	1	135	1	1	1	1	1
			STA. 4113+75	63' RT	1	135	1	1	1	1	1
	LOAD CENTER 3		STA. 356+35	8' LT	1	270	1	2	2	1	1
			STA. 376+95	6' RT	1	270	1	2	2	1	1
			STA 378+00	7' RT	1	270	1	2	2	1	1
			STA. 379+10	6' RT	1	270	1	2	2	1	1
			STA. 389+55	51' RT	1	135	1	1	1	1	1
			STA. 390+75	51' RT	1	135	1	1	1	1	1
			STA 391+95	51' RT	1	135	1	1	1	1	1
				SUBTOTAL	38	8235	38	61	61	38	38
				PROJECT TOTAL	78	15,660	78	116	116	78	78

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

TEMPORARY LIGHTING AND PULL BOXES

CATEGORY	SYSTEM	DESCRIPTION	FROM	TO	653.0120 PULL BOXES STEEL 18X24 INCH EACH	SPV.0060.1002 TEMPORARY WOOD POLE LIGHTING UNITS 50-FT MOUNTING HEIGHT EACH	SPV.0090.1000 TEMPORARY OVERHEAD LIGHTING CABLE TRIPLEX 4 AWG LF
0011	STH 38 (HOWELL AVENUE)						
	LOAD CENTER 1		TLP(STA. 223+50, 67' RT.)	TLP(STA. 225+60, 66'RT.)	--	--	207
			TLP(STA. 225+60, 66'RT.)	TLP(STA. 227+70, 66'RT.)	--	--	210
			TLP(STA. 227+70, 66'RT.)	LP(STA. 229+80, 60'RT.)	--	--	211
			LP(STA. 231+00, 60'RT.)	EX. LP	--	--	60
	LOAD CENTER 7	TLP(STA. 223+50, 67' RT.)	--	--	--	1	--
		TLP(STA. 225+60, 66'RT.)	--	--	--	1	--
		TLP(STA. 227+70, 66'RT.)	--	--	--	1	--
		LPB701(STA. 184+50, 75' LT.)	--	--	1	--	--
		LPB703(STA. 220+10, 60'RT.)	--	--	1	--	--
		LPB702(STA. 220+10, 11' LT.)	--	--	1	--	--
		LPB704(STA. 220+24, 58'LT.)	--	--	1	--	--
		LPB705(STA. 222+91, 58'LT.)	--	--	1	--	--
		LPB706(STA. 222+94, 15' RT.)	--	--	1	--	--
		LPB707(STA. 229+28, 11'LT.)	--	--	1	--	--
	LOAD CENTER 8	'B801(STA. 180+67, 65' RT.)	--	--	1	--	--
	LOAD CENTER 6	'B601(STA. 237+69, 60' LT.)	--	--	1	--	--
		LPB603(STA. 257+75, 59' RT.)	--	--	1	--	--
		LPB602(STA. 257+75, 13' LT.)	--	--	1	--	--
		LPB604(STA. 259+98, 58' LT.)	--	--	1	--	--
		LPB605(STA. 262+35, 82' LT.)	--	--	1	--	--
		LPB606(STA. 265+69, 67' LT.)	--	--	1	--	--
		LPB607(STA. 265+66, 3' RT.)	--	--	1	--	--
		LPB608(STA. 275+74, 11' LT.)	--	--	1	--	--
		LPB610(STA. 285+41, 63' RT.)	--	--	1	--	--
		LPB609(STA. 277+43, 13' RT.)	--	--	1	--	--
	LOAD CENTER 3	'B301(STA. 391+74, 51' RT.)	--	--	1	--	--
				PROJECT TOTAL	19	3	688

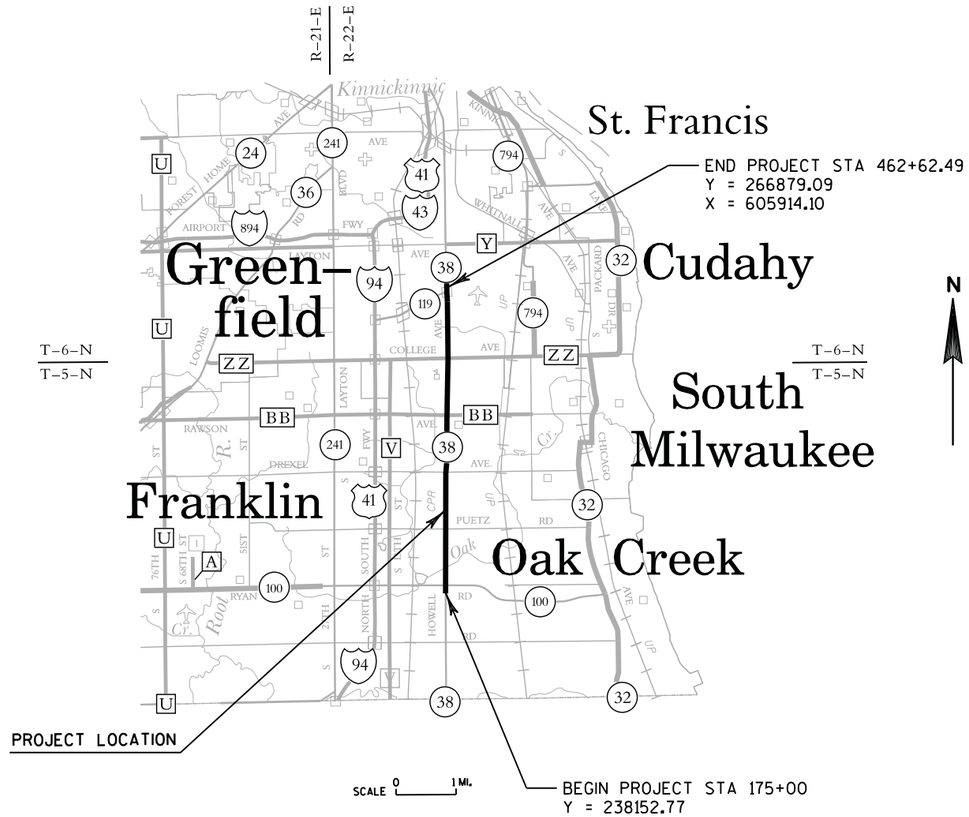
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

TRANSPORTATION PROJECT PLAT TITLE SHEET

PROJECT NO. 2060-15-20

CITY OF OAK CREEK - CITY OF MILWAUKEE
RYAN ROAD - GRANGE AVENUE

STH 38 (HOWELL AVENUE)
MILWAUKEE COUNTY



NOTES:

COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE MILWAUKEE COUNTY COORDINATE SYSTEM, MILWAUKEE COUNTY ZONE, NAD83 (2007) ADJUSTMENT. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT BY WisDOT SE REGION.

RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS OF PUBLIC RECORD".

PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY LINES, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE: EXISTING HIGHWAY RIGHT-OF-WAY FOR STH 38 ESTABLISHED FROM PREVIOUS PROJECT T0834(2), T0834(6), T0834(7), 2060-05-20, 2015-01-21 AND EXISTING HIGHWAY RIGHT-OF-WAY FOR SIDE ROADS ESTABLISHED FROM CENTERLINE OF EXISTING PAVEMENTS. EXISTING ACCESS CONTROL ALONG STH 38 ESTABLISHED FROM PREVIOUS PROJECTS

A **TEMPORARY LIMITED EASEMENT** (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE. ALL TLES EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO NEW REFERENCE LINES.

CONVENTIONAL ABBREVIATIONS

ACCESS POINT/ DRIVEWAY CONNECTION	AP	REFERENCE LINE	R/L
ACCESS RIGHTS	AR	RELEASE OF RIGHTS	ROR
ACRES	AC.	REMAINING	REM.
AND OTHERS	ET.AL.	RIGHT-OF-WAY	R/W
CENTERLINE	C/L	SECTION	SEC.
CERTIFIED SURVEY MAP	CSM	STATION	STA.
CORNER	COR.	TEMPORARY LIMITED EASEMENT	TLE
DOCUMENT	DOC.	VOLUME	V.
EASEMENT	EASE.	**CURVE DATA**	
HIGHWAY EASEMENT	H.E.	LONG CHORD	LCH
LAND CONTRACT	LC	LONG CHORD BEARING	LCB
MONUMENT	MON.	RADIUS	R
PAGE	P.	DEGREE OF CURVE	D
PERMANENT LIMITED EASEMENT	PLE	CENTRAL ANGLE OR DELTA	DELTA
PROPERTY LINE	PL	LENGTH OF CURVE	L
RECORDED AS	(100')	TANGENT	TAN

CONVENTIONAL SYMBOLS

FOUND IRON PIPE/PIN	⌀ (1" UNLESS NOTED)	PROPOSED R/W LINE	
		EXISTING H.E. LINE	
R/W MONUMENT	●(SET)	PROPERTY LINE	
R/W STANDARD	▲(SET)	LOT & TIE LINES	
SIGN	SIGN	SLOPE INTERCEPTS	
SECTION CORNER MONUMENT		CORPORATE LIMITS	
SECTION CORNER SYMBOL		ACCESS RESTRICTED (BY PREVIOUS ACQUISITION/CONTROL)	
FEE (HATCH VARIES)		ACCESS RESTRICTED (BY ACQUISITION)	
TEMPORARY LIMITED EASEMENT		ACCESS RESTRICTED (BY STATUTORY AUTHORITY)	
PERMANENT LIMITED EASEMENT		SECTION LINE	
R/W BOUNDARY POINT	RWB20	QUARTER LINE	
PARCEL NUMBER	102	SIXTEENTH LINE	
UTILITY PARCEL NUMBER	92	EXISTING CENTERLINE	
SIGN NUMBER (OFF PREMISE)	21-1	PROPOSED REFERENCE LINE	
BUILDING		PARALLEL OFFSET	

CONVENTIONAL UTILITY SYMBOLS

WATER	W	
GAS	G	
TELEPHONE	T	
OVERHEAD TRANSMISSION LINES	OH	
ELECTRIC	E	
CABLE TELEVISION	TV	
FIBER OPTIC	FO	
SANITARY SEWER	SAN	
STORM SEWER	SS	
	NON COMPENSABLE	COMPENSABLE
POWER POLE		
TELEPHONE POLE		
TELEPHONE PEDESTAL		
ELECTRIC TOWER		

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 2060-15-20 - 4.01
SHEET 2 OF 2
AMENDMENT NO:

663

TRANSPORTATION PROJECT PLAT NO: 2060-15-20 - 4.01

THAT PART OF LOT 1, CSM 81, LOCATED IN AND PART OF THE SW1/4 OF THE SW1/4 OF SECTION 21, PART OF PARCEL 1, CSM 4393, PART OF THE NW1/4 OF THE NW1/4 OF SECTION 28, ALSO PART OF THE SE1/4 OF THE SE1/4 OF SECTION 20, TOWNSHIP 5 NORTH, RANGE 22 EAST, CITY OF OAK CREEK, MILWAUKEE COUNTY, WISCONSIN

RELOCATION ORDER STH 38, MILWAUKEE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, MILWAUKEE COUNTY, NAD 83 (2007) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

(200) WE ENERGIES (ELECTRIC)
DOC. 3041970 - PAR. 2
DOC. 3796722 - PAR. 2
DOC. 9158893 - PAR. 2
DOC. 9111030 - PAR. 3
DOC. 3847701- PAR. 6
DOC. 4284191 - PAR. 6
DOC. 2671034 - PAR. 6, 7
DOC. 5464461 - PAR. 7

(204) AT&T WISCONSIN
DOC. 3796722 - PAR. 2
DOC. 4284191 - PAR. 6
NO EASEMENT OF RECORD - PAR 7

HIGHWAY	BASIS OF EXISTING R/W	R/W WIDTH	YEAR
STH 38	T0834 (7)	VARIES	1966
STH 38	CSM 5381	VARIES	1989
STH 38	CSM 585	VARIES	1966
STH 38	CSM 60	N/A	N/A
STH 38	CSM 4393	N/A	N/A
STH 38	CSM 81	N/A	N/A
STH 38	CSM 80	N/A	N/A
STH 38	OAK CREEK PARKWAY ESTATES	VARIES	1969

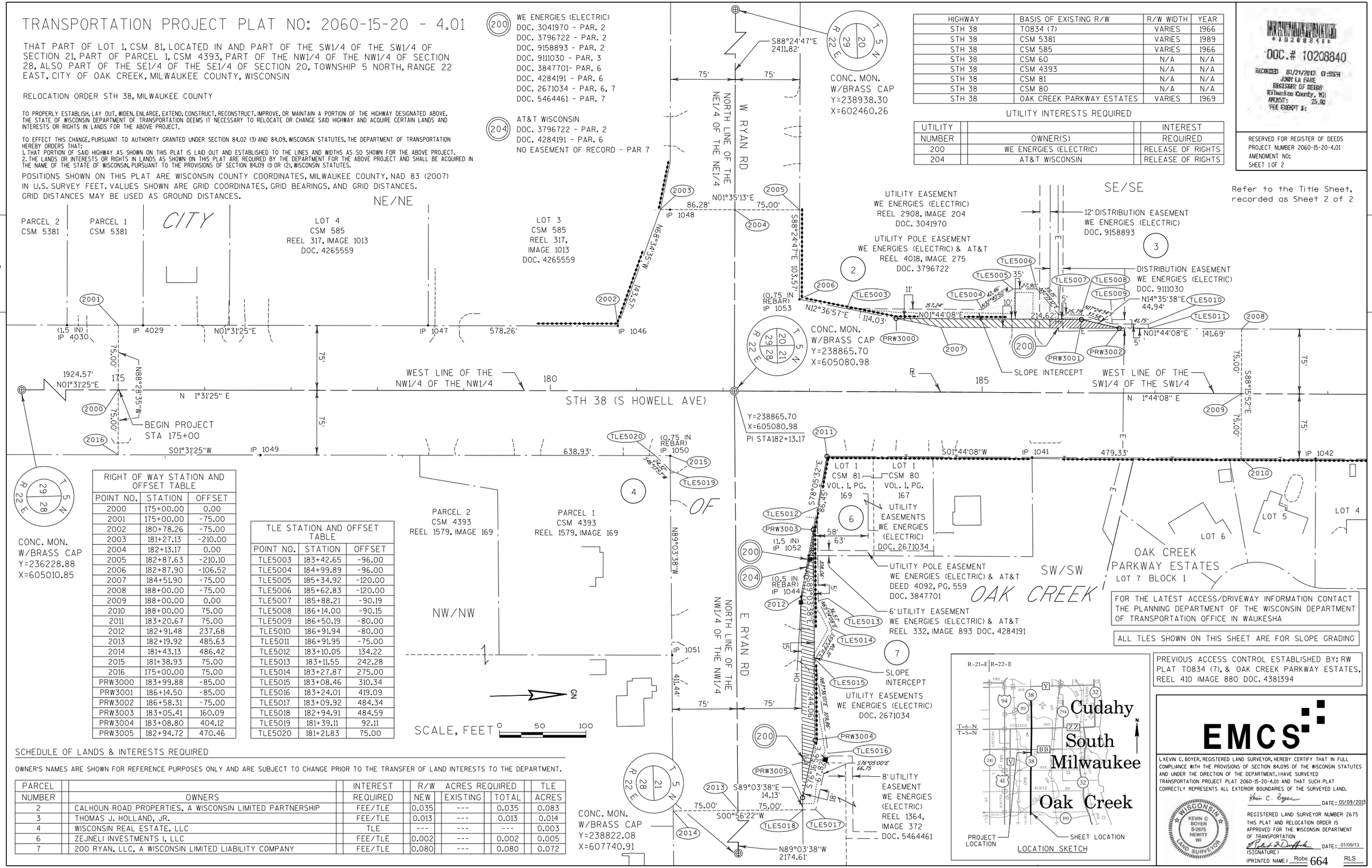
UTILITY INTERESTS REQUIRED

UTILITY NUMBER	OWNER(S)	INTEREST REQUIRED
200	WE ENERGIES (ELECTRIC)	RELEASE OF RIGHTS
204	AT&T WISCONSIN	RELEASE OF RIGHTS

DOC.# 10208840
RECORDED 03/21/2013 01:53PM
JOHN LA FAVE
REGISTER OF DEEDS
Milwaukee County, WI
AMOUNT: 25.00
FEE EXEMPT #:

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 2060-15-20-4.01
AMENDMENT NO:
SHEET 1 OF 2

Refer to the Title Sheet, recorded as Sheet 2 of 2



RIGHT OF WAY STATION AND OFFSET TABLE		
POINT NO.	STATION	OFFSET
2000	175+00.00	0.00
2001	175+00.00	-75.00
2002	180+78.26	-75.00
2003	181+27.13	-210.00
2004	182+13.17	0.00
2005	182+87.63	-210.10
2006	182+87.90	-106.52
2007	184+51.90	-75.00
2008	188+00.00	-75.00
2009	188+00.00	0.00
2010	188+00.00	75.00
2011	183+20.67	75.00
2012	182+91.48	237.68
2013	182+19.92	485.63
2014	181+43.13	486.42
2015	181+38.93	75.00
2016	175+00.00	75.00
PRW3000	183+99.88	-85.00
PRW3001	186+14.50	-85.00
PRW3002	186+58.31	-75.00
PRW3003	183+05.41	160.09
PRW3004	183+08.80	404.12
PRW3005	182+94.72	470.46

TLE STATION AND OFFSET TABLE		
POINT NO.	STATION	OFFSET
TLE5003	183+42.65	-96.00
TLE5004	184+99.89	-96.00
TLE5005	185+34.92	-120.00
TLE5006	185+62.83	-120.00
TLE5007	185+88.21	-90.19
TLE5008	186+14.00	-90.15
TLE5009	186+50.19	-80.00
TLE5010	186+91.94	-80.00
TLE5011	186+91.95	-75.00
TLE5012	183+10.05	134.22
TLE5013	183+11.55	242.28
TLE5014	183+27.87	275.00
TLE5015	183+08.46	310.34
TLE5016	183+24.01	419.09
TLE5017	183+09.92	484.34
TLE5018	182+94.91	484.59
TLE5019	181+39.11	92.11
TLE5020	181+21.83	75.00

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION CONTACT THE PLANNING DEPARTMENT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA

ALL TLES SHOWN ON THIS SHEET ARE FOR SLOPE GRADING

PREVIOUS ACCESS CONTROL ESTABLISHED BY: RW PLAT T0834 (7), & OAK CREEK PARKWAY ESTATES, REEL 410 IMAGE 880 DOC. 4381394

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT.

PARCEL NUMBER	OWNERS	INTEREST REQUIRED	R/W ACRES REQUIRED NEW	EXISTING	TOTAL	TLE ACRES
2	CALHOUN ROAD PROPERTIES, A WISCONSIN LIMITED PARTNERSHIP	FEE/TLE	0.035	---	0.035	0.083
3	THOMAS J. HOLLAND, JR.	FEE/TLE	0.013	---	0.013	0.014
4	WISCONSIN REAL ESTATE, LLC	TLE	---	---	---	0.003
6	ZEJNELI INVESTMENTS I, LLC	FEE/TLE	0.002	---	0.002	0.005
7	200 RYAN, LLC, A WISCONSIN LIMITED LIABILITY COMPANY	FEE/TLE	0.080	---	0.080	0.072

EMCS

I, KEVIN C. BOYER, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT, I HAVE SURVEYED TRANSPORTATION PROJECT PLAT 2060-15-20-4.01 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

Kevin C. Boyer DATE: 01/09/2013

WISCONSIN KEVIN C BOYER S-2675 HEWITT WI LAND SURVEYOR

REGISTERED LAND SURVEYOR NUMBER 2675

THIS PLAT AND RELOCATION ORDER IS APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION

(SIGNATURE) DATE: 01/09/13

(PRINTED NAME) Robe 664 RLS

FILE NAME : P:\46xx\4646_DP.11.STH38.MIL\CADDS\Plan\wisDOT Plat\040101_rp.dgn PLOT DATE : 1/11/2013 PLOT BY : tgr PLOT NAME : PLOT SCALE : 1:50

2060-15-71, STH 38, 2060-15-20 4.01

TRANSPORTATION PROJECT PLAT NO: 2060-15-20 - 4.02

THAT PART OF PARCEL 1, CSM 7627, LOCATED IN AND PART OF THE SE1/4 OF THE NE1/4, PART OF PARCEL 1, CSM 6166, PART OF THE NE1/4 OF THE NE1/4, ALL IN SECTION 20, PART OF PARCEL 2, CSM 6866, PART OF THE SW1/4 OF THE NW1/4, ALL IN SECTION 21, TOWNSHIP 5 NORTH, RANGE 22 EAST, CITY OF OAK CREEK, MILWAUKEE COUNTY, WISCONSIN

RELOCATION ORDER STH 38, MILWAUKEE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, MILWAUKEE COUNTY, NAD 83 (2007) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

PREVIOUS ACCESS CONTROL ESTABLISHED BY: CSM 7627, CSM 6866, CSM 6867

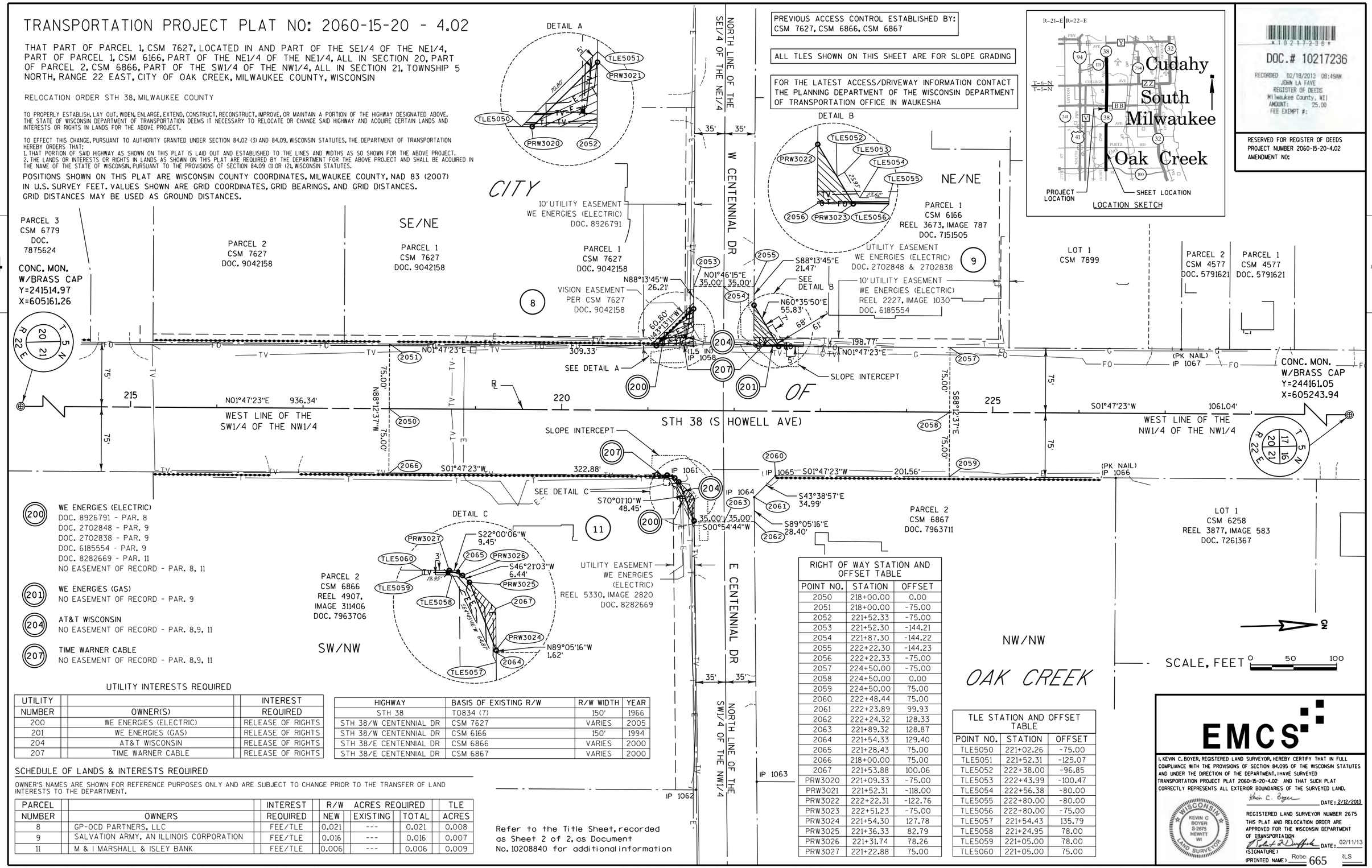
ALL TLES SHOWN ON THIS SHEET ARE FOR SLOPE GRADING

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION CONTACT THE PLANNING DEPARTMENT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA

LOCATION SKETCH

DOC.# 10217236
RECORDED 02/18/2013 08:49AM
JOHN LA FAVE
REGISTER OF DEEDS
Milwaukee County, WI
AMOUNT: 25.00
FEE EXEMPT #:

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 2060-15-20-4.02
AMENDMENT NO:



(200) WE ENERGIES (ELECTRIC)
DOC. 8926791 - PAR. 8
DOC. 2702848 - PAR. 9
DOC. 2702838 - PAR. 9
DOC. 6185554 - PAR. 9
DOC. 8282669 - PAR. 11
NO EASEMENT OF RECORD - PAR. 8, 11

(201) WE ENERGIES (GAS)
NO EASEMENT OF RECORD - PAR. 9

(204) AT&T WISCONSIN
NO EASEMENT OF RECORD - PAR. 8,9, 11

(207) TIME WARNER CABLE
NO EASEMENT OF RECORD - PAR. 8,9, 11

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	OWNER(S)	INTEREST REQUIRED
200	WE ENERGIES (ELECTRIC)	RELEASE OF RIGHTS
201	WE ENERGIES (GAS)	RELEASE OF RIGHTS
204	AT&T WISCONSIN	RELEASE OF RIGHTS
207	TIME WARNER CABLE	RELEASE OF RIGHTS

HIGHWAY	BASIS OF EXISTING R/W	R/W WIDTH	YEAR
STH 38	T0834 (7)	150'	1966
STH 38/W CENTENNIAL DR	CSM 7627	VARIES	2005
STH 38/W CENTENNIAL DR	CSM 6166	150'	1994
STH 38/E CENTENNIAL DR	CSM 6866	VARIES	2000
STH 38/E CENTENNIAL DR	CSM 6867	VARIES	2000

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT.

PARCEL NUMBER	OWNERS	INTEREST REQUIRED	R/W ACRES REQUIRED NEW	EXISTING	TOTAL	TLE ACRES
8	GP-OCD PARTNERS, LLC	FEE/TLE	0.021	---	0.021	0.008
9	SALVATION ARMY, AN ILLINOIS CORPORATION	FEE/TLE	0.016	---	0.016	0.007
11	M & I MARSHALL & ISLEY BANK	FEE/TLE	0.006	---	0.006	0.009

Refer to the Title Sheet, recorded as Sheet 2 of 2, as Document No. 10208840 for additional information

RIGHT OF WAY STATION AND OFFSET TABLE

POINT NO.	STATION	OFFSET
2050	218+00.00	0.00
2051	218+00.00	-75.00
2052	221+52.33	-75.00
2053	221+52.30	-144.21
2054	221+87.30	-144.22
2055	222+22.30	-144.23
2056	222+22.33	-75.00
2057	224+50.00	-75.00
2058	224+50.00	0.00
2059	224+50.00	75.00
2060	222+48.44	75.00
2061	222+23.89	99.93
2062	222+24.32	128.33
2063	221+89.32	128.87
2064	221+54.33	129.40
2065	221+28.43	75.00
2066	218+00.00	75.00
2067	221+53.88	100.06
PRW3020	221+09.33	-75.00
PRW3021	221+52.31	-118.00
PRW3022	222+22.31	-122.76
PRW3023	222+51.23	-75.00
PRW3024	221+54.30	127.78
PRW3025	221+36.33	82.79
PRW3026	221+31.74	78.26
PRW3027	221+22.88	75.00

TLE STATION AND OFFSET TABLE

POINT NO.	STATION	OFFSET
TLE5050	221+02.26	-75.00
TLE5051	221+52.31	-125.07
TLE5052	222+38.00	-96.85
TLE5053	222+43.99	-100.47
TLE5054	222+56.38	-80.00
TLE5055	222+80.00	-80.00
TLE5056	222+80.00	-75.00
TLE5057	221+54.43	135.79
TLE5058	221+24.95	78.00
TLE5059	221+05.00	78.00
TLE5060	221+05.00	75.00

SCALE, FEET 0 50 100

EMCS

I, KEVIN C. BOYER, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT, I HAVE SURVEYED TRANSPORTATION PROJECT PLAT 2060-15-20-4.02 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

Kevin C. Boyer DATE: 2/12/2013

WISCONSIN KEVIN C BOYER S-2675 HEWITT WI LAND SURVEYOR

REGISTERED LAND SURVEYOR NUMBER 2675
THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION

(SIGNATURE) DATE: 02/11/13

(PRINTED NAME) Robe 665 RLS

TRANSPORTATION PROJECT PLAT NO: 2060-15-20 - 4.03

THAT PART OF PARCEL 1, CSM 5946, LOCATED IN AND PART OF THE SE1/4 OF THE SE1/4, OF SECTION 17, TOWNSHIP 5 NORTH, RANGE 22 EAST, CITY OF OAK CREEK, MILWAUKEE COUNTY, WISCONSIN

RELOCATION ORDER STH 38, MILWAUKEE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, MILWAUKEE COUNTY, NAD 83 (2007) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

T 5 N R 22 E, 17, 20

CONC. MON. W/BRASS CAP Y=244244.84 X=602624.63

W PUETZ RD

NORTH LINE OF THE NE1/4 OF THE NE1/4

CITY

65' 65'

S88°10'04"E 2531.38'

NE/NE

PARCEL 1 CSM 4577 DOC. 5791621

PARCEL 2 CSM 5292 REEL 2349, IMAGE 408

PARCEL 1 CSM 2975

PARCEL 1 CSM 5946 REEL 3220, IMAGE 83 DOC. 6903586

10

LOT 1 CSM 65

N88°10'04"W 14.27'

2094

2092

65.00' N01°47'23"E

246.09' N01°47'23"E

2093

SLOPE INTERCEPT

65.00' N01°49'56"E

56'

61'

SEE DETAIL A

204

N01°49'09"E 415.41'

2091

2097

75.00'

S88°10'51"E

240

S01°49'09"W

2155.30'

75'

75'

WEST LINE OF THE NW1/4 OF THE NW1/4

230

N01°47'23"E 2336.34'

N88°12'37"W

75.00'

STH 38 (S HOWELL AVE)

2090

N 1°47'23" E

235

PI STA235+11.04 Y=244161.05 X=605243.94

N 1°49'09" E

WEST LINE OF THE SW1/4 OF THE SW1/4

2098

STH 38 (S HOWELL AVE)

CONC. MON. W/BRASS CAP Y=244161.05 X=605243.94

T 5 N R 22 E, 17, 20, 21, 16

OF

SLOPE INTERCEPT

S01°49'09"W 394.26'

2099

2105

2104

S10°49'09"W 196.54'

71.06'

S10°49'09"W 84.21'

2102

2100

2103

2101

S01°47'23"W 48.59'

S78°16'30"E 56.01'

PARCEL 1 CSM 1230 REEL 522, IMAGE 878 DOC. 4515253

LOT 1 CSM 1916 REEL 679, IMAGE 1214 DOC. 4710095

CONC. MON. W/BRASS CAP Y=241514.97 X=605161.26

NW/NW

SW/SW

N89°06'31"W 2550.52'

NORTH LINE OF THE NW1/4 OF THE NW1/4

E PUETZ RD

LOT 3 CSM 7756 DOC. 9234623

CONC. MON. W/BRASS CAP Y=244119.55 X=607911.15

T 5 N R 22 E, 21, 16

70' 65'

CONC. MON. W/BRASS CAP Y=246803.98 X=605327.89

T 5 N R 22 E, 17, 16

OAK CREEK

SCALE, FEET 0 50 100

(204) AT&T WISCONSIN
NO EASEMENT OF RECORD - PAR. 10

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	OWNER(S)	INTEREST REQUIRED
204	AT&T WISCONSIN	RELEASE OF RIGHTS

Refer to the Title Sheet, recorded as Sheet 2 of 2, as Document No. 10208840 for additional information

DETAIL A

SE/SE

2095 TLE5090 N39°33'39"E 10.79' S88°10'04"E 7.65' 15' 21.2' TLE5091 PRW3050 2096 PRW3051

PARCEL 1 CSM 5412 REEL 2447, IMAGE 1463 DOC. 6378561

DOC.# 10217237

RECORDED 02/18/2013 08:49AM
JOHN LA FAVE
REGISTER OF DEEDS
Milwaukee County, WI
AMOUNT: 25.00
FEE EXEMPT #:

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 2060-15-20-4.03
AMENDMENT NO:

HIGHWAY	BASIS OF EXISTING R/W	R/W WIDTH	YEAR
STH 38	T0834 (7)	VARIES	1966
STH 38/W PUETZ RD	CSM 2975	N/A	N/A
STH 38/W PUETZ RD	CSM 5946	VARIES	1991
STH 38	CSM 65	N/A	N/A
STH 38	CSM 5412	VARIES	1989
STH 38/E PUETZ RD	CSM 7756	VARIES	2006
STH 38	CSM 1230	VARIES	1970

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT.

PARCEL NUMBER	OWNERS	INTEREST REQUIRED	R/W ACRES REQUIRED NEW	EXISTING	TOTAL	TLE ACRES
10	SPEEDWAY-SUPERAMERICA, LLC, A DELAWARE LIMITED LIABILITY COMPANY	FEE/TLE	0.001	---	0.001	0.002

TLE STATION AND OFFSET TABLE

POINT NO.	STATION	OFFSET
TLE5090	235+76.06	-87.93
TLE5091	235+92.76	-75.00

RIGHT OF WAY STATION AND OFFSET TABLE

POINT NO.	STATION	OFFSET
2090	232+00.00	0.00
2091	232+00.00	-75.00
2092	234+46.09	-75.00
2093	235+11.05	-75.00
2094	235+11.06	-89.27
2095	235+76.06	-89.26
2096	235+76.05	-75.00
2097	240+00.00	-75.00
2098	240+00.00	0.00
2099	240+00.00	75.00
2100	236+05.74	75.00
2101	235+96.11	130.17
2102	235+12.93	117.00
2103	234+42.69	105.84
2104	232+48.59	75.00
2105	232+00.00	75.00
PRW3050	235+76.06	-81.60
PRW3051	235+84.59	-75.00

R-21-E | R-22-E
T-6-N / T-5-N
Cudahy, South Milwaukee, Oak Creek
PROJECT LOCATION — SHEET LOCATION
LOCATION SKETCH

PREVIOUS ACCESS CONTROL ESTABLISHED BY: RW PLAT T0834 (7)

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION CONTACT THE PLANNING DEPARTMENT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA

ALL TLES SHOWN ON THIS SHEET ARE FOR SLOPE GRADING

EMCS

I, KEVIN C. BOYER, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT, I HAVE SURVEYED TRANSPORTATION PROJECT PLAT 2060-15-20-4.03 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

Kevin C. Boyer DATE: 1/31/2013

WISCONSIN KEVIN C BOYER S-2675 HEWITT WI LAND SURVEYOR

REGISTERED LAND SURVEYOR NUMBER 2675
THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION

(SIGNATURE) DATE: 02/11/13

(PRINTED NAME) Rob 666 RLS

FILE NAME : P:\46xx\4646_DP.11.STH38.MIL\CADDS\Plan\wisDOT Plat\040103_rp.dgn PLOT DATE : 1/31/2013 PLOT BY : kcb PLOT NAME : PLOT SCALE : 1:50

2060-15-71, STH 38, 2060-15-20 4.03

TRANSPORTATION PROJECT PLAT NO: 2060-15-20 - 4.04

THAT PART OF LOT 1, CSM 232, LOCATED IN AND PART OF THE NW1/4 OF THE SW1/4, PART OF LOT 1, CSM 285, PART OF THE SW1/4 OF THE NW1/4, ALL IN SECTION 16, ALSO PART OF PARCEL 1, CSM 3011, PART OF THE NE1/4 OF THE SE1/4, PART OF LOT 2, CSM 8087, PART OF THE SE1/4 OF THE NE1/4 ALL IN SECTION 17, TOWNSHIP 5 NORTH, RANGE 22 EAST, CITY OF OAK CREEK, MILWAUKEE COUNTY, WISCONSIN

RELOCATION ORDER STH 38, MILWAUKEE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

CITY

RIGHT OF WAY STATION AND OFFSET TABLE		
POINT NO.	STATION	OFFSET
2135	256+00.00	0.00
2136	256+00.00	-75.00
2137	260+95.65	-75.00
2138	261+00.82	-95.30
2139	261+55.45	-105.05
2140	261+90.43	-95.00
2141	262+90.36	-75.00
2142	267+43.56	-75.00
2143	267+43.56	0.00
2144	267+43.56	75.00
2145	262+06.95	75.00
2146	262+07.13	83.25
2147	261+57.15	84.34
2148	261+06.88	85.28
2149	261+06.69	75.00
2150	256+00.00	75.00
PRW3090	260+35.64	-75.00
PRW3091	260+98.19	-85.00
PRW3092	261+90.45	-105.00
PRW3093	262+59.00	-81.28
PRW3094	261+06.88	85.00
PRW3095	260+56.00	75.00

CONC. MON. W/BRASS CAP Y=244161.05 X=605243.94

(200) WE ENERGIES (ELECTRIC)
DOC. 5094262 - PAR. 13
DOC. 8875263 - PAR. 13
DOC. 2705230 - PAR. 14

(204) AT&T WISCONSIN
DOC. 5041082 - PAR. 12
DOC. 8875263 - PAR. 13
NO EASEMENT OF RECORD - PAR. 13

(207) TIME WARNER CABLE
DOC. 8875263 - PAR. 13
NO EASEMENT OF RECORD - PAR. 13

(210) OAK CREEK WATER & SEWER UTILITY
DOC. 9654891 - PAR. 13

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, MILWAUKEE COUNTY, NAD 83 (2007) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

SCALE, FEET 0 50 100

DOC.# 10217238
RECORDED 02/18/2013 08:43AM
JOHN LA FAVE
REGISTER OF DEEDS
Milwaukee County, WI
AMOUNT: 25.00
FEE EXEMPT #:

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 2060-15-20-4.04
AMENDMENT NO:

NE/SE

SE/NE

SW/NW

NW/SW

E FOREST HILL AVE

NORTH LINE OF THE NE1/4 OF THE SE1/4

NORTH LINE OF THE NW1/4 OF THE SW1/4

LOT 2 CSM 8087 DOC. 9654891

LOT 3 CSM 7830 DOC. 9331040

8' UTILITY EASEMENT WE ENERGIES (ELECTRIC), AT&T & TIME WARNER DOC. 8875263

SIGNAGE EASEMENT DOC. 223466

25' UTILITY EASEMENT (CITY OF OAK CREEK) PER CSM 8087 DOC. 9654891

LOT 2 CSM 7830 DOC. 9331040

DETAIL A

PRW3092 N21°04'00"E 72.78'

N87°54'53"W 10.00'

2140 PRW3093

CONC. MON. W/BRASS CAP Y=249447.15 X=605420.34

PARCEL 1 CSM 3011 REEL 993, IMAGE 1516 DOC. 5076769

5' UTILITY EASEMENT AT&T REEL 962, IMAGE 921 DOC. 5041082

N73°53'14"W 20.94'

N07°15'50"W 63.34'

PRW3091

PRW3090

SLOPE INTERCEPT

N02°05'07"E 52.42'

35.00'

90°

2138 2139 2141

(1.5 IN) IP 1069

IP 1070

IP 1073

N02°00'12"E 453.21'

2142

N13°19'18"E 31.71'

SEE DETAIL A

CONC. MON. W/BRASS CAP Y=246803.98 X=605327.89

N01°49'09"E 435.64'

2136 IP 1068

N01°49'09"E 255 2088.96'

N88°10'51"W

2135

WEST LINE OF THE NW1/4 OF THE SW1/4

N 1°49'09" E

STH 38 (S HOWELL AVE)

N 2°00'12" E

265

WEST LINE OF THE SW1/4 OF THE NW1/4

S87°59'48"E

2143

2056.52' S02°00'12"W

Y=246803.98 X=605327.89

PI STA261+55.30

SEE DETAIL B

S89°15'10"E 8.25'

(1.5 IN) IP 1075

S02°00'12"W

IP 1074

536.61'

2144

N89°15'10"W 0.28'

PRW3095 2149

456.00'

S12°56'20"W 51.85'

PRW3094

2148 2147

S00°44'50"W

50.00'

50.00'

4'

LOT 1 CSM 285 REEL 189, IMAGE 75 DOC. 4100091

UTILITY EASEMENT WE ENERGIES (ELECTRIC) DOC. 2705230

LOT 1 CSM 232 REEL 124, IMAGE 752 DOC. 4033497

LOT 2 CSM 232 REEL 124, IMAGE 752 DOC. 4033497

LOT 3 CSM 232 REEL 124, IMAGE 752 DOC. 4033497

SLOPE INTERCEPT

LOT 2 CSM 285 REEL 189, IMAGE 75 DOC. 4100091

LOT 3 CSM 285 REEL 189, IMAGE 75 DOC. 4100091

(1.5 IN) IP 1078

(1.5 IN) IP 1076

(1.5 IN) IP 1077

TLE5128 TLE5129 TLE5127 TLE5126 TLE5130 TLE5125

44' 9' 30' 65'

LOT 1 CSM 103

DETAIL B

2145 (1.5 IN) IP 1075 TLE5120 TLE5122 TLE5121 2146 24.98'

PARCEL 3 CSM 5585

PARCEL 2 CSM 5585

PARCEL 1 CSM 5585

OAK CREEK

E OAKFIELD AVE

PARCEL 2 CSM 5780 DOC. 6697763

60'

GLENFIELD DR

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION CONTACT THE PLANNING DEPARTMENT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA

ALL TLES SHOWN ON THIS SHEET ARE FOR SLOPE GRADING

PREVIOUS ACCESS CONTROL ESTABLISHED BY: CSM 7830, CSM 8087, & CSM 5585

Refer to the Title Sheet, recorded as Sheet 2 of 2, as Document No. 10208840 for additional information

PROJECT LOCATION — SHEET LOCATION

LOCATION SKETCH

R-21-E R-22-E T-6-N T-5-N Cudahy South Milwaukee Oak Creek

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	OWNER(S)	INTEREST REQUIRED
200	WE ENERGIES (ELECTRIC)	RELEASE OF RIGHTS
204	AT&T WISCONSIN	RELEASE OF RIGHTS
207	TIME WARNER CABLE	RELEASE OF RIGHTS
210	OAK CREEK WATER & SEWER UTILITY	RELEASE OF RIGHTS

HIGHWAY	BASIS OF EXISTING R/W	R/W WIDTH	YEAR
STH 38	T0834 (7)	150'	1966
STH 38/E FOREST HILL AVE	CSM 3011	VARIES	1976
STH 38/E FOREST HILL AVE	CSM 7830	VARIES	2006
STH 38/E FOREST HILL AVE	CSM 8087	VARIES	2008
STH 38	CSM 2770	N/A	N/A
STH 38/E FOREST HILL AVE	CSM 232	N/A	N/A
STH 38/E FOREST HILL AVE	CSM 285	N/A	N/A
STH 38	CSM 103	N/A	N/A
STH 38	CSM 5585	VARIES	1991

TLE STATION AND OFFSET TABLE		
POINT NO.	STATION	OFFSET
TLE5120	262+32.00	75.00
TLE5121	262+32.00	78.00
TLE5122	262+07.02	78.00
TLE5125	261+09.38	486.17
TLE5126	261+08.50	439.18
TLE5127	261+29.50	438.78
TLE5128	261+28.68	395.08
TLE5129	261+37.68	395.08
TLE5130	261+39.38	485.61

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT.

PARCEL NUMBER	OWNERS	INTEREST REQUIRED	R/W ACRES REQUIRED NEW	EXISTING	TOTAL	TLE ACRES
12	C.S. MILWAUKEE, LLC, A DELAWARE LIMITED LIABILITY COMPANY	FEE	0.007	---	0.007	---
13	DEMCO WISCONSIN, LLC A MICHIGAN LIMITED LIABILITY COMPANY	FEE	0.008	---	0.008	---
14	ROBERT L. FETTIG & MARY ANN FETTIG, TRUSTEES OF THE ROBERT L. FETTIG & MARY ANN FETTIG FAMILY TRUST, DATED FEB. 23, 2000	FEE/AR	0.006	---	0.006	---
16	RAYMOND GOTTFRIED AND VIRGINIA E. GOTTFRIED, TRUSTEES OF THE RAMYOND & VIRGINIA E. GOTTFRIED REVOCABLE TRUST DATED MARCH 24, 1997	TLE	---	---	---	0.041
17	SUSANNA L. SMARS	TLE	---	---	---	0.002

EMCS

I, KEVIN C. BOYER, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT, I HAVE SURVEYED TRANSPORTATION PROJECT PLAT 2060-15-20-4.04 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

Kevin C. Boyer DATE: 2/12/2013

REGISTERED LAND SURVEYOR NUMBER 2675
THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION

(SIGNATURE) DATE: 02/11/13

(PRINTED NAME) Robe 667 RLS

KEVIN C BOYER S-2675 HEWITT WI LAND SURVEYOR

FILE NAME : P:\46xx\4646_DP.11.STH38.MIL\CADDS\Plan\wisDOT Plat\040104_rp.dgn PLOT DATE : 2/12/2013 PLOT BY : tgr PLOT NAME : PLOT SCALE : 1:50

2060-15-71, STH 38, 2060-15-20 4.04

TRANSPORTATION PROJECT PLAT NO: 2060-15-20 - 4.05

THAT PART LOT 3, CSM 7452, PART OF THE SE1/4 OF THE SE1/4, SECTION 8, PART OF PARCEL 1, CSM 3936, PART OF THE SW1/4 OF THE SW1/4, SECTION 9, PART OF PARCEL 1, CSM 6615, PART OF THE NW1/4 OF THE NW1/4, SECTION 16, ALSO PART OF LOT 1, CSM 7819, PART OF THE NE1/4 OF THE NE1/4, SECTION 17, TOWNSHIP 5 NORTH, RANGE 22 EAST, CITY OF OAK CREEK, MILWAUKEE COUNTY, WISCONSIN

RELOCATION ORDER STH 38, MILWAUKEE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, MILWAUKEE COUNTY, NAD 83 (2007) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT.

PARCEL NUMBER	OWNERS	INTEREST REQUIRED	R/W ACRES REQUIRED NEW	EXISTING	TOTAL	TLE ACRES
18	ONE WEST DREXEL, LLC. A WISCONSIN LIMITED LIABILITY COMPANY	FEE/TLE	0.001	---	0.001	0.008
19	R D INVESTMENTS OF WISCONSIN, LLC	FEE/TLE	0.007	---	0.007	0.004
21	GE CAPITAL FRANCHISE FINANCE CORP, A DELAWARE CORPORATION	FEE/TLE	0.024	---	0.024	0.009
22	STERLING OAK CREEK, LLC, A WISCONSIN LIMITED LIABILITY COMPANY	FEE/TLE	0.002	---	0.002	0.004

DOC.# 10217239
RECORDED 02/18/2013 08:49AM
JOHN LA FAVE
REGISTER OF DEEDS
Milwaukee County, WI
AMOUNT: 25.00
FEE EXEMPT #:

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 2060-15-20-4.05
AMENDMENT NO:

CONC. MON. W/BRASS CAP Y=249554.73 X=602776.925

W DREXEL AVE
NORTH LINE OF THE NE1/4 OF THE NE1/4
65' 65'
S87°40'10"E 2527.30'

DETAIL A

LOT 1 CSM 7819 DOC. 9036278 NE/NE

TLE5155, TLE5154, TLE5153, TLE5152, TLE5151, TLE5150, PRW3120, PRW3121, 2182, 2183, (CROSS CUT) IP 1084
25.18' 24.00' 40.83'

(204) AT&T WISCONSIN
NO EASEMENT OF RECORD - PAR. 18, 19

(210) OAK CREEK WATER & SEWER UTILITY
DOC. 8933110 - PAR. 19

CITY OF OAK CREEK

DETAIL B

LOT 3 CSM 7452 DOC. 8837313

N21°20'36"E 62.90'
PRW3122, TLE5160, 2185, PRW3123
5.3,10'

LOT 2 CSM 7452 DOC. 8837313

LOT 1 CSM 7452 DOC. 8837313

LOT 1 CSM 7750 DOC. 9226194

SE/SE

LOT 1 CSM 755

SEE DETAIL B

18

19

17.5' WATER MAIN EASEMENT CITY OF OAK CREEK DOC. 8933110

2184
65.00' 65.00'
N02°19'50"E
N87°40'10"W 30.34'
N61°26'39"W 14.91'
SEE DETAIL A
(1.5 IN) IP 1098
TLE5161, TLE5162, 2186
5.3,10'
N12°01'01"E 128.63'
(1.5 IN) IP 1097
N02°03'49"E
IP 1096 548.31'
2187

2181
FO N02°00'12"E FO FO 528.92' FO
75.00' 75'
N87°59'48"W
2180
75.00'
75'
2194

285
WEST LINE OF THE NW1/4 OF THE NW1/4
N 2°00'12" E 600.08'
S02°00'12"W IP 1088 490.90'

PARCEL 2 CSM 6615 REEL 4486, IMAGE 802 DOC. 7675949

NW/NW

PARCEL 1 CSM 6615 REEL 4486, IMAGE 802 DOC. 7675949

PRW3127, TLE5159, 2193
S46°17'58"W 65.85'
78.71'
PRW3126, 2192
65.00' 65.00'
S00°35'45"W
N89°24'15"W 7.59'
TLE5158
2191
21

SLOPE INTERCEPT
℄
PI STA 288+00.08
Y=249447.15
X=605420.34

CONC. MON. W/BRASS CAP Y=249447.15 X=605420.34

290
STH 38 (S HOWELL AVE)
N 2°03'49" E 799.92'

OF

PRW3124, SLOPE INTERCEPT
2190
IP 1093
S02°03'49"W
PRW3125, TLE5156
S50°35'22"E 20.34'
34.38'
TLE5157
S89°24'15"E 34.15'
2191
22

PARCEL 1 CSM 3936 REEL 1334, IMAGE 477 DOC. 5436227

295
WEST LINE OF THE SW1/4 OF THE SW1/4
N 2°03'49" E 799.92'
(1.5 IN) IP 1094 720.22'
2189
S87°26'11"E 1845.17'
S02°03'49"W
2188
75.00'
75'

CONC. MON. W/BRASS CAP Y=252090.52 X=605515.59

PARCEL 1 CSM 5617 REEL 2655, IMAGE 939 DOC. 6543502

SW/SW

OAK CREEK

N89°24'15"W 2544.50'
NORTH LINE OF THE NW1/4 OF THE NW1/4
E DREXEL AVE
65' 65'

CONC. MON. W/BRASS CAP Y=249419.37 X=608091.71

IP 1092

TLE STATION AND OFFSET TABLE

POINT NO.	STATION	OFFSET
TLE5150	286+85.00	-75.00
TLE5151	286+85.00	-80.00
TLE5152	287+25.83	-80.00
TLE5153	287+32.61	-93.58
TLE5154	287+32.69	-107.65
TLE5155	287+35.69	-107.63
TLE5156	288+88.58	75.00
TLE5157	288+67.72	102.33
TLE5158	287+38.22	128.57
TLE5159	286+83.32	75.00
TLE5160	289+01.70	-105.38
TLE5161	289+54.00	-96.20
TLE5162	289+53.31	-92.27

RIGHT OF WAY STATION AND OFFSET TABLE

POINT NO.	STATION	OFFSET
2180	282+00.00	0.00
2181	282+00.00	-75.00
2182	287+35.51	-75.00
2183	287+35.76	-118.67
2184	288+00.63	-118.30
2185	288+65.58	-107.66
2186	290+51.69	-75.00
2187	296+00.00	-75.00
2188	296+00.00	0.00
2189	296+00.00	75.00
2190	288+67.02	75.00
2191	288+68.31	125.31
2192	288+03.33	126.97
2193	287+36.90	75.00
2194	282+00.00	75.00
PRW3120	287+28.92	-75.00
PRW3121	287+35.58	-88.34
PRW3122	288+65.63	-118.00
PRW3123	289+25.00	-97.23
PRW3124	288+79.78	75.00
PRW3125	288+67.44	91.17
PRW3126	287+38.03	120.99
PRW3127	286+90.90	75.00

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	OWNER(S)	INTEREST REQUIRED
204	AT&T WISCONSIN	RELEASE OF RIGHTS
210	OAK CREEK WATER & SEWER UTILITY	RELEASE OF RIGHTS

HIGHWAY	BASIS OF EXISTING R/W	R/W WIDTH	YEAR
STH 38	T0834 (7)	VARIES	1966
STH 38/W DREXEL AVE	CSM 7819	VARIES	2006
STH 38/W DREXEL AVE	CSM 7452	VARIES	2003
STH 38	CSM 755	N/A	N/A
STH 38/E DREXEL AVE	CSM 6615	VARIES	1998
STH 38/E DREXEL AVE	CSM 3936	N/A	N/A
STH 38	CSM 5617	VARIES	1990

R-21-E | R-22-E
T-6-N T-5-N
Cudahy, South Milwaukee, Oak Creek
PROJECT LOCATION, SHEET LOCATION
LOCATION SKETCH

SCALE, FEET 0 50 100

Refer to the Title Sheet, recorded as Sheet 2 of 2, as Document No. 10208840 for additional information

PREVIOUS ACCESS CONTROL ESTABLISHED BY: RW PLAT T0834 (7) & CSM 7452

ALL TLES SHOWN ON THIS SHEET ARE FOR SLOPE GRADING

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION CONTACT THE PLANNING DEPARTMENT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA

EMCS

I, KEVIN C. BOYER, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT, I HAVE SURVEYED TRANSPORTATION PROJECT PLAT 2060-15-20-4.05 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

Kevin C. Boyer DATE: 1/31/2013

WISCONSIN KEVIN C BOYER S-2675 HEWITT WI LAND SURVEYOR

REGISTERED LAND SURVEYOR NUMBER 2675
THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION

(SIGNATURE) DATE: 02/11/13
(PRINTED NAME) Robe 668 RLS

FILE NAME : P:\46xx\4646_DP.11.STH38.MIL\CADDS\Plan\wisDOT Plat\040105_rp.dgn
PLOT DATE : 1/31/2013 PLOT BY : kcb PLOT NAME : PLOT SCALE : 1:50

2060-15-71, STH 38, 2060-15-20 4.05

TRANSPORTATION PROJECT PLAT NO: 2060-15-20 - 4.06

THAT PART OF THE THE NW1/4 OF THE NW1/4, SECTION 4, PART OF THE NE1/4 OF THE NE1/4, SECTION 5, ALL IN TOWNSHIP 5 NORTH, RANGE 22 EAST, CITY OF OAK CREEK; ALSO PART OF PARCEL 3, CSM 3335, PART OF THE SE1/4 OF THE SE1/4, SECTION 32, PART OF THE SW1/4 OF THE SW1/4, SECTION 33, TOWNSHIP 6 NORTH, RANGE 22 EAST, CITY OF MILWAUKEE, ALL IN MILWAUKEE COUNTY, WISCONSIN

RELOCATION ORDER STH 38, MILWAUKEE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

(204) AT&T WISCONSIN
NO EASEMENT OF RECORD - PAR. 23

(210) OAK CREEK WATER & SEWER UTILITY
DOC. 5373730 - PAR. 23
DOC. 6218337 - PAR. 23
DOC. 6218333 - PAR. 26
NO EASEMENT OF RECORD - PAR. 26

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT.

PARCEL NUMBER	OWNERS	INTEREST REQUIRED	R/W ACRES REQUIRED NEW	EXISTING	TOTAL	TLE ACRES
23	KME, LLC	FEE/TLE	0.010	---	0.010	0.015
24	EMRO MARKETING COMPANY	FEE/TLE	0.001	---	0.001	0.004
26	WHITE TOWER, LLC	FEE/TLE	0.030	---	0.030	0.099
27	DOMINIC J. GIUFFRE & FRANK A. GIUFFRE	FEE/TLE	0.004	---	0.004	0.006

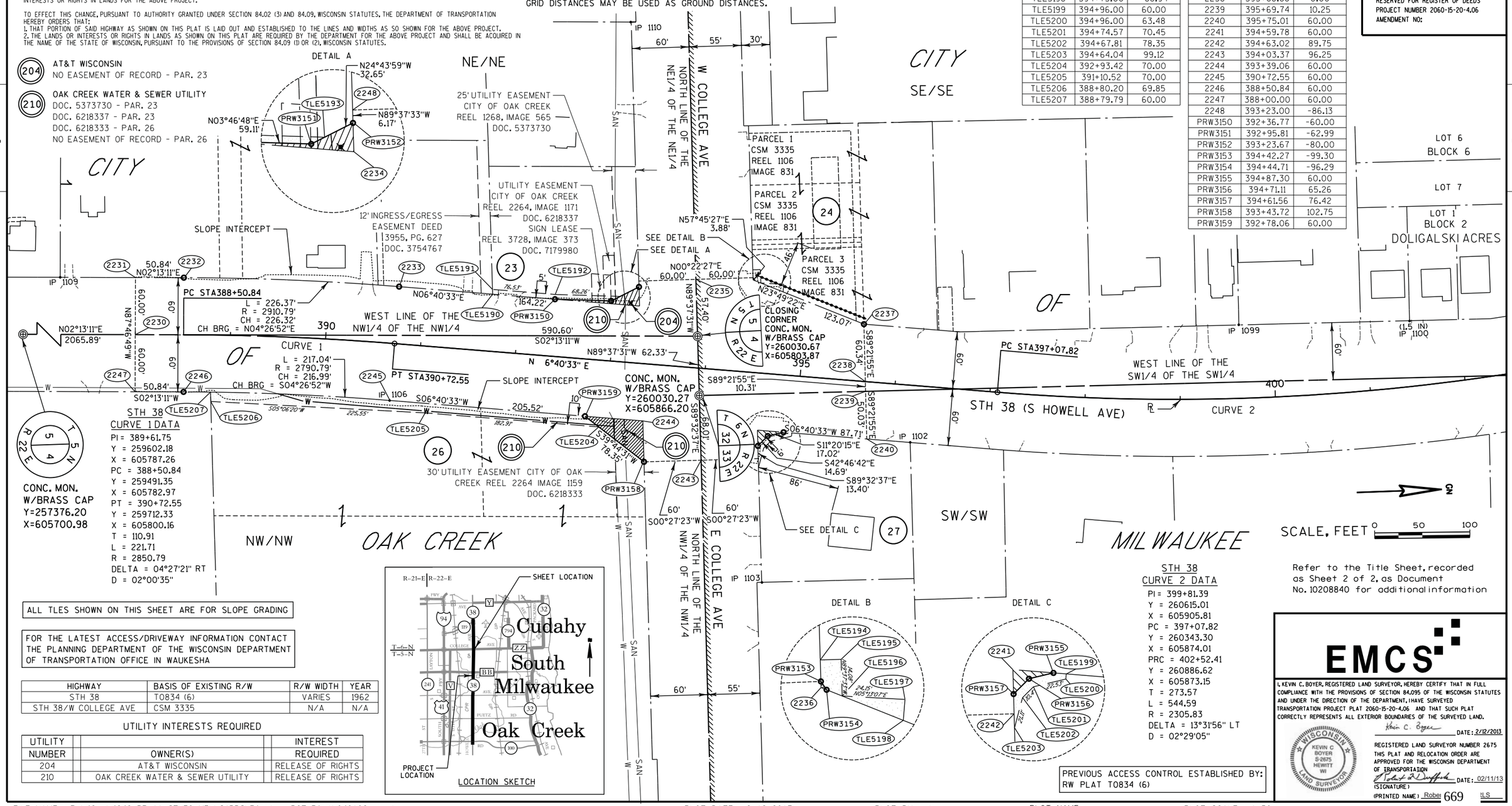
POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, MILWAUKEE COUNTY, NAD 83 (2007) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

TLE STATION AND OFFSET TABLE		
POINT NO.	STATION	OFFSET
TLE5190	391+71.06	-60.00
TLE5191	391+70.50	-65.00
TLE5192	392+36.65	-65.00
TLE5193	393+04.75	-68.44
TLE5194	394+41.37	-107.50
TLE5195	394+49.32	-108.38
TLE5196	394+50.86	-94.39
TLE5197	394+75.00	-95.00
TLE5198	394+75.00	-86.94
TLE5199	394+96.00	60.00
TLE5200	394+96.00	63.48
TLE5201	394+74.57	70.45
TLE5202	394+67.81	78.35
TLE5203	394+64.04	99.12
TLE5204	392+93.42	70.00
TLE5205	391+10.52	70.00
TLE5206	388+80.20	69.85
TLE5207	388+79.79	60.00

RIGHT OF WAY STATION AND OFFSET TABLE		
POINT NO.	STATION	OFFSET
2230	388+00.00	0.00
2231	388+00.00	-60.00
2232	388+50.84	-60.00
2233	390+72.55	-60.00
2234	393+25.88	-60.00
2235	393+82.63	-92.72
2236	394+42.53	-96.96
2237	395+62.31	-60.00
2238	395+68.66	0.00
2239	395+69.74	10.25
2240	395+75.01	60.00
2241	394+59.78	60.00
2242	394+63.02	89.75
2243	394+03.37	96.25
2244	393+39.06	60.00
2245	390+72.55	60.00
2246	388+50.84	60.00
2247	388+00.00	60.00
2248	393+23.00	-86.13
PRW3150	392+36.77	-60.00
PRW3151	392+95.81	-62.99
PRW3152	393+23.67	-80.00
PRW3153	394+42.27	-99.30
PRW3154	394+44.71	-96.29
PRW3155	394+87.30	60.00
PRW3156	394+71.11	65.26
PRW3157	394+61.56	76.42
PRW3158	393+43.72	102.75
PRW3159	392+78.06	60.00

DOC.# 10217240
RECORDED 02/18/2013 08:49AM
JOHN LA FAVE
REGISTER OF DEEDS
Milwaukee County, WI
AMOUNT: 25.00
FEE EXEMPT #:

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 2060-15-20-4.06
AMENDMENT NO:



LOCATION SKETCH

ALL TLES SHOWN ON THIS SHEET ARE FOR SLOPE GRADING

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION CONTACT THE PLANNING DEPARTMENT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA

HIGHWAY	BASIS OF EXISTING R/W	R/W WIDTH	YEAR
STH 38	T0834 (6)	VARIES	1962
STH 38/W COLLEGE AVE	CSM 3335	N/A	N/A

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	OWNER(S)	INTEREST REQUIRED
204	AT&T WISCONSIN	RELEASE OF RIGHTS
210	OAK CREEK WATER & SEWER UTILITY	RELEASE OF RIGHTS

PREVIOUS ACCESS CONTROL ESTABLISHED BY: RW PLAT T0834 (6)

Refer to the Title Sheet, recorded as Sheet 2 of 2, as Document No. 10208840 for additional information

EMCS

I, KEVIN C. BOYER, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT, I HAVE SURVEYED TRANSPORTATION PROJECT PLAT 2060-15-20-4.06 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

Kevin C. Boyer DATE: 2/12/2013

WISCONSIN KEVIN C BOYER S-2675 HEWITT WI LAND SURVEYOR

REGISTERED LAND SURVEYOR NUMBER 2675
THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION

(SIGNATURE) DATE: 02/11/13

(PRINTED NAME) Robert D. Duffield 669 PLS

FILE NAME : P:\46xx\4646_DP.11.STH38.MIL\CADDS\Plan\wisDOT Plat\040106_rp.dgn PLOT DATE : 2/12/2013 PLOT BY : tgr PLOT NAME : PLOT SCALE : 1:50

2060-15-71, STH 38, 2060-15-20 4.06

TRANSPORTATION PROJECT PLAT NO: 2060-15-20 - 4.07

THAT PART OF PARCELS A & B, CSM 3092, ALL IN AND PART OF THE SE1/4 OF THE SE1/4 OF SECTION 32, TOWNSHIP 6 NORTH, RANGE 22 EAST, CITY OF MILWAUKEE, MILWAUKEE COUNTY, WISCONSIN

RELOCATION ORDER STH 38, MILWAUKEE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, MILWAUKEE COUNTY, NAD 83 (2007) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

SCHEDULE OF LANDS & INTERESTS REQUIRED

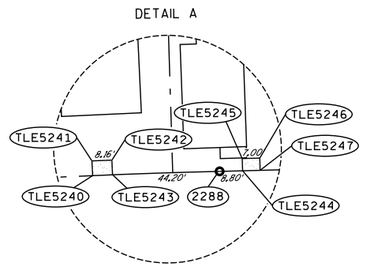
OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT.

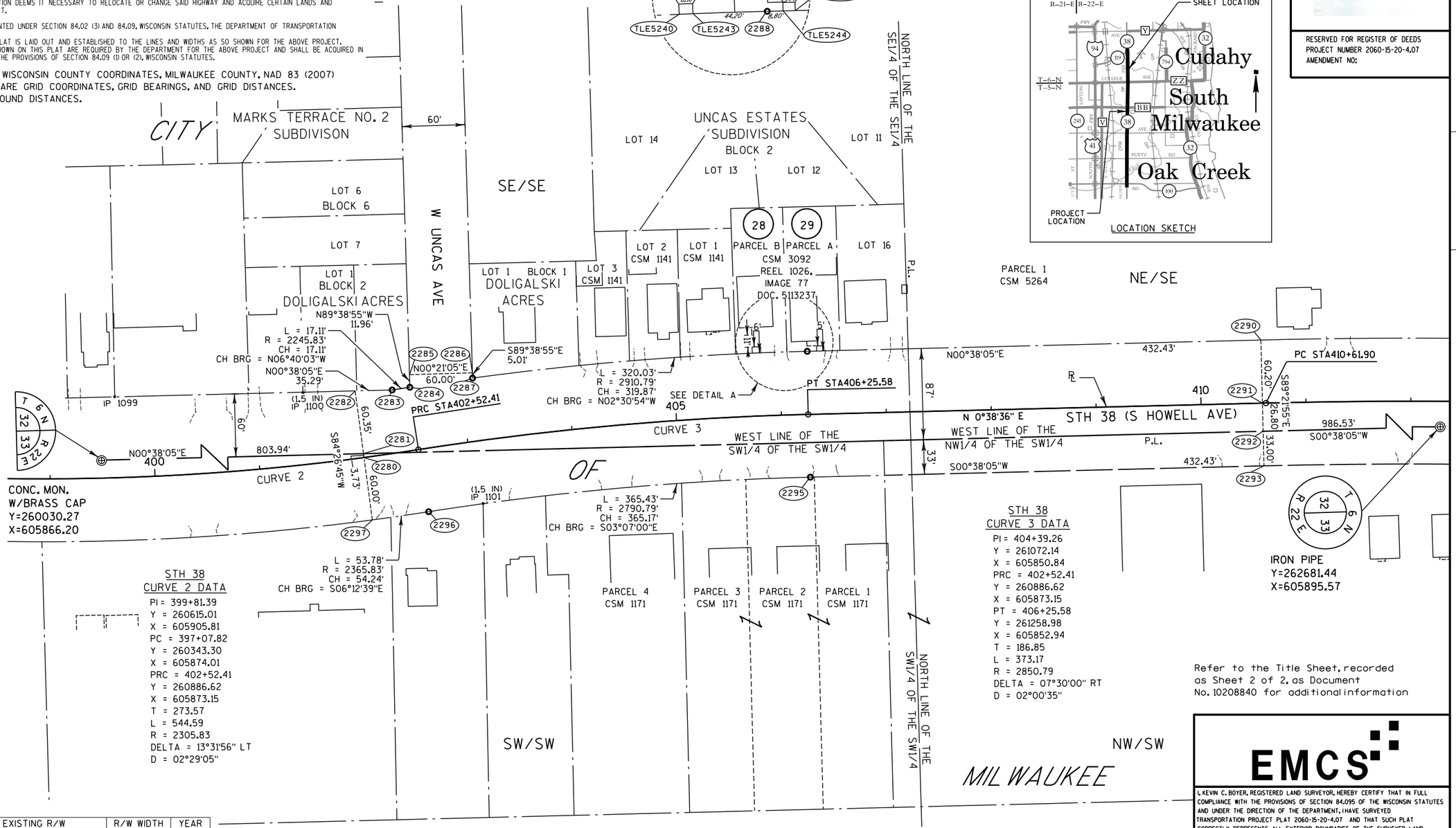
PARCEL NUMBER	OWNERS	INTEREST REQUIRED	TLE ACRES
28	EDWARD L. SMOGOLESKI	TLE	0.001
29	LUKE J. MEIER	TLE	0.001

DOC.# 10217241
RECORDED 02/18/2013 08:49AM
JOHN LA FAVE
REGISTER OF DEEDS
Milwaukee County, WI
AMOUNT: 25.00
FEE EXEMPT #:

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 2060-15-20-4.07
AMENDMENT NO:

LOCATION SKETCH





STH 38 CURVE 2 DATA

PI = 399+81.39
Y = 260615.01
X = 605905.81
PC = 397+07.82
Y = 260343.30
X = 605874.01
PRC = 402+52.41
Y = 260886.62
X = 605873.15
T = 273.57
L = 544.59
R = 2305.83
DELTA = 13°31'56" LT
D = 02°29'05"

STH 38 CURVE 3 DATA

PI = 404+39.26
Y = 261072.14
X = 605850.84
PRC = 402+52.41
Y = 260886.62
X = 605873.15
PT = 406+25.58
Y = 261258.98
X = 605852.94
T = 186.85
L = 373.17
R = 2850.79
DELTA = 07°30'00" RT
D = 02°00'35"

Refer to the Title Sheet, recorded as Sheet 2 of 2, as Document No. 10208840 for additional information

RIGHT OF WAY STATION AND OFFSET TABLE

POINT NO.	STATION	OFFSET
2280	402+00.00	0.00
2281	402+00.00	-3.73
2282	402+00.00	-64.08
2283	402+36.02	-60.00
2284	402+53.53	-60.00
2285	402+54.99	-71.87
2286	403+13.20	-65.00
2287	403+12.69	-60.00
2288	406+26.13	-60.13
2290	410+58.56	-60.20
2291	410+58.56	0.00
2292	410+58.87	26.80
2293	410+58.57	59.80
2295	406+26.15	59.87
2296	402+52.88	60.00
2297	402+00.00	60.00

TLE STATION AND OFFSET TABLE

POINT NO.	STATION	OFFSET
TLE5240	405+74.85	-60.11
TLE5241	405+74.81	-66.00
TLE5242	405+82.79	-66.00
TLE5243	405+82.83	-60.12
TLE5244	406+35.08	-60.13
TLE5245	406+35.08	-65.00
TLE5246	406+42.08	-65.00
TLE5247	406+42.08	-60.13

HIGHWAY	BASIS OF EXISTING R/W	R/W WIDTH	YEAR
STH 38	T0834 (6)	120'	1962
STH 38	CSM 1141	N/A	N/A
STH 38	CSM 3092	N/A	N/A
STH 38	CSM 5264	120'	1989
STH 38	CSM 1171	N/A	N/A
STH 38/W UNCAS AVE	DOLIGALSKI ACRES	VARIES	1936

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION CONTACT THE PLANNING DEPARTMENT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA

ALL TLES SHOWN ON THIS SHEET ARE FOR SLOPE GRADING

SCALE, FEET 0 50 100

EMCS

I, KEVIN C. BOYER, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT, I HAVE SURVEYED TRANSPORTATION PROJECT PLAT 2060-15-20-4.07 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

Kevin C. Boyer DATE: 2/12/2013

WISCONSIN KEVIN C BOYER S-2675 HEWITT WI LAND SURVEYOR

REGISTERED LAND SURVEYOR NUMBER 2675
THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION

(SIGNATURE) DATE: 02/11/13

(PRINTED NAME) Rober 670 LS

FILE NAME : P:\46xx\4646_DP.11.STH38.MIL\CADDS\Plan\wisDOT Plat\040107_rp.dgn PLOT DATE : 2/12/2013 PLOT BY : tgr PLOT NAME : PLOT SCALE : 1:50

2060-15-71, STH 38, 2060-15-20 4.07

TRANSPORTATION PROJECT PLAT NO: 2060-15-20 - 4.08
AMENDMENT NO. 1

AMENDS PARCEL 31 OF TPP NO: 2060-15-20-4.08, RECORDED AS DOCUMENT 10217242.

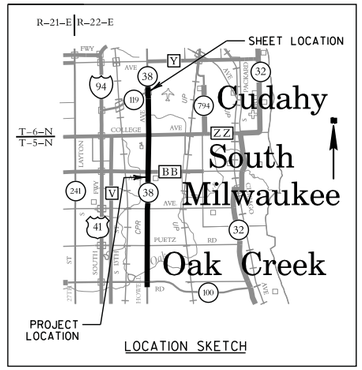
THAT PART OF PARCEL 1, CSM 5052, PART OF PARCEL 1, CSM 4641, LOCATED IN AND PART OF THE SE1/4 OF THE SE1/4 AND PART OF THE NE1/4 OF THE SE1/4, SECTION 29, TOWNSHIP 6 NORTH, RANGE 22 EAST, CITY OF MILWAUKEE, MILWAUKEE COUNTY, WISCONSIN.

RELOCATION ORDER STH 38, MILWAUKEE COUNTY

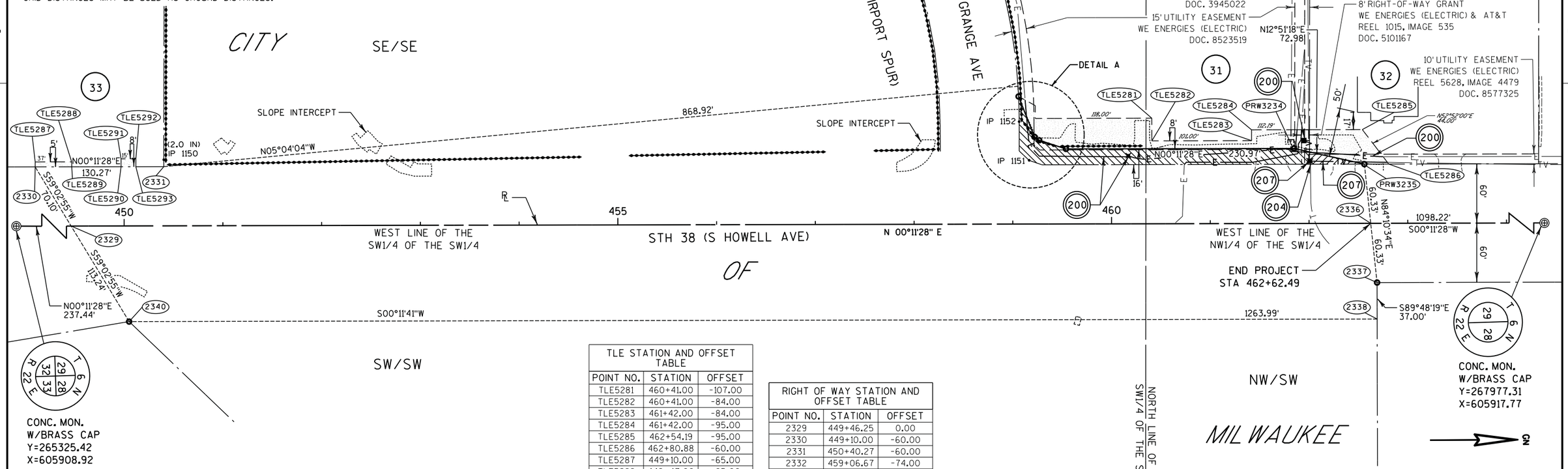
TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, MILWAUKEE COUNTY, NAD 83 (2007) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.



LOCATION SKETCH



TLE STATION AND OFFSET TABLE		
POINT NO.	STATION	OFFSET
TLE5281	460+41.00	-107.00
TLE5282	460+41.00	-84.00
TLE5283	461+42.00	-84.00
TLE5284	461+42.00	-95.00
TLE5285	462+54.19	-95.00
TLE5286	462+80.88	-60.00
TLE5287	449+10.00	-65.00
TLE5288	449+47.00	-65.00
TLE5289	449+47.00	-60.00
TLE5290	449+97.00	-60.00
TLE5291	449+97.00	-68.00
TLE5292	450+12.00	-68.00
TLE5293	450+12.00	-60.00
TLE5294	459+23.00	-120.00
TLE5295	459+23.00	-107.00

RIGHT OF WAY STATION AND OFFSET TABLE		
POINT NO.	STATION	OFFSET
2329	449+46.25	0.00
2330	449+10.00	-60.00
2331	450+40.27	-60.00
2332	459+06.67	-74.00
2333	459+16.67	-64.50
2334	459+29.67	-60.00
2335	459+06.67	-103.66
2336	462+62.49	0.00
2337	462+68.82	60.00
2338	462+68.81	97.00
2339	459+05.53	-139.64
2340	450+04.82	96.92
PRW3230	459+06.09	-129.28
PRW3231	459+22.10	-88.30
PRW3232	459+26.89	-84.85
PRW3233	459+54.00	-76.00
PRW3234	461+84.97	-76.00
PRW3235	462+56.17	-60.00

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	OWNER(S)	INTEREST REQUIRED
200	WE ENERGIES (ELECTRIC)	RELEASE OF RIGHTS
204	AT&T WISCONSIN	RELEASE OF RIGHTS
207	TIME WARNER CABLE	RELEASE OF RIGHTS

(200) WE ENERGIES (ELECTRIC)
DOC. 8523519 - PAR. 31
DOC. 5101167 - PAR. 31
DOC. 3945022 - PAR. 31
DOC. 8577325 - PAR. 32

(204) AT&T WISCONSIN
DOC. 5101167 - PAR. 31
DOC. 3945022 - PAR. 31
NO EASEMENT OF RECORD - PAR. 32

(207) TIME WARNER CABLE
NO EASEMENT OF RECORD - PAR. 31, 32

Refer to the Title Sheet, recorded as Sheet 2 of 2, as Document No. 10208840 for additional information

PREVIOUS ACCESS CONTROL ESTABLISHED BY: RW PLAT RW PLAT 2015-01-21, & CSM 5052

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION CONTACT THE PLANNING DEPARTMENT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA

ALL TLES SHOWN ON THIS SHEET ARE FOR SLOPE GRADING

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT.

PARCEL NUMBER	OWNERS	INTEREST REQUIRED	R/W ACRES REQUIRED NEW	EXISTING	TOTAL	TLE ACRES
31	AIRPORT INN, INC.	FEE/TLE	0.120	---	0.120	0.132
32	DHIR GROUP, LLC, A WISCONSIN LIMITED LIABILITY COMPANY	FEE/TLE	0.008	---	0.008	0.046
33	MILWAUKEE COUNTY, A MUNICIPAL BODY CORPORATE	TLE	---	---	---	0.007

HIGHWAY	BASIS OF EXISTING R/W	R/W WIDTH	YEAR
STH 38	T0834 (2)	120'	1950
STH 38	2015-01-21	VARIES	1970
STH 38/W GRANGE AVE	CSM 5052	VARIES	1987
STH 38	CSM 4641	N/A	N/A

DOC.# 10257714
RECORDED 06/11/2013 08:00AM
JOHN LA FAVE
REGISTER OF DEEDS
Milwaukee County, WI
AMOUNT: 25.00
FEE EXEMPT #:

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 2060-15-20-4.08
AMENDMENT NO: 1

This Is A Copy.
The Original Is At The Register Of Deeds Office.

EMCS

I, KEVIN C. BOYER, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT, I HAVE SURVEYED TRANSPORTATION PROJECT PLAT 2060-15-20-4.08 AMENDMENT NO. 1 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

Kevin C. Boyer DATE: 5/30/2013

WISCONSIN KEVIN C BOYER S-2675 HEWITT WI LAND SURVEYOR

REGISTERED LAND SURVEYOR NUMBER 2675

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION

Robert J. Ruffolo DATE: 05/30/2013
(SIGNATURE)
(PRINTED NAME) Rober 671 LS

TRANSPORTATION PROJECT PLAT NO: 2060-15-20 - 4.08

THAT PART OF PARCEL 1, CSM 5052, PART OF PARCEL 1, CSM 4641, LOCATED IN AND PART OF THE SE1/4 OF THE SE1/4 AND PART OF THE NE1/4 OF THE SE1/4, SECTION 29, TOWNSHIP 6 NORTH, RANGE 22 EAST, CITY OF MILWAUKEE, MILWAUKEE COUNTY, WISCONSIN

RELOCATION ORDER STH 38, MILWAUKEE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

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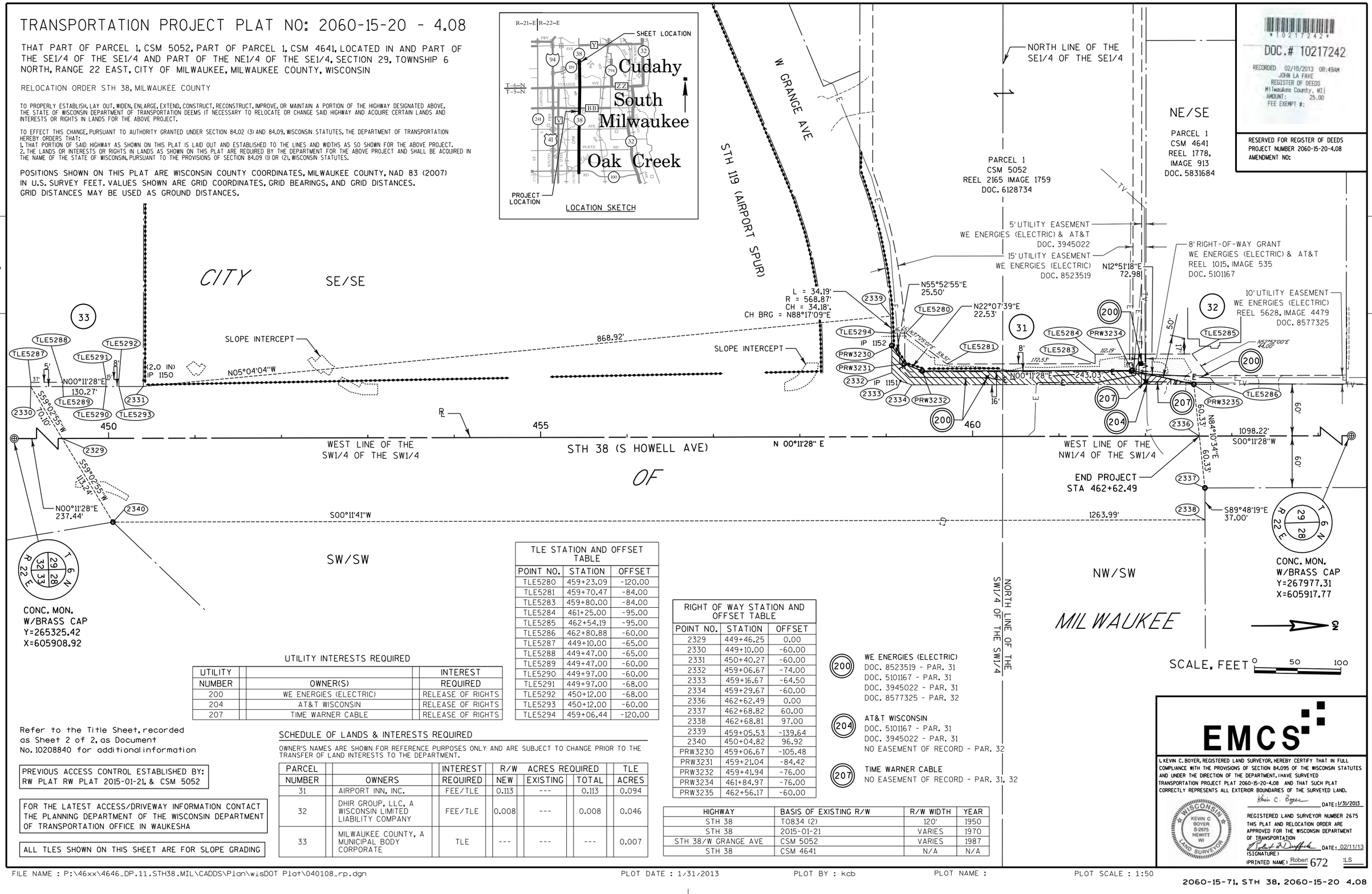
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, MILWAUKEE COUNTY, NAD 83 (2007) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

LOCATION SKETCH



TLE STATION AND OFFSET TABLE		
POINT NO.	STATION	OFFSET
TLE5280	459+23.09	-120.00
TLE5281	459+70.47	-84.00
TLE5283	459+80.00	-84.00
TLE5284	461+25.00	-95.00
TLE5285	462+54.19	-95.00
TLE5286	462+80.88	-60.00
TLE5287	449+10.00	-65.00
TLE5288	449+47.00	-65.00
TLE5289	449+47.00	-60.00
TLE5290	449+97.00	-60.00
TLE5291	449+97.00	-68.00
TLE5292	450+12.00	-68.00
TLE5293	450+12.00	-60.00
TLE5294	459+06.44	-120.00

RIGHT OF WAY STATION AND OFFSET TABLE		
POINT NO.	STATION	OFFSET
2329	449+46.25	0.00
2330	449+10.00	-60.00
2331	450+40.27	-60.00
2332	459+06.67	-74.00
2333	459+16.67	-64.50
2334	459+29.67	-60.00
2336	462+62.49	0.00
2337	462+68.82	60.00
2338	462+68.81	97.00
2339	459+05.53	-139.64
2340	450+04.82	96.92
PRW3230	459+06.67	-105.48
PRW3231	459+21.04	-84.42
PRW3232	459+41.94	-76.00
PRW3234	461+84.97	-76.00
PRW3235	462+56.17	-60.00

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	OWNER(S)	INTEREST REQUIRED
200	WE ENERGIES (ELECTRIC)	RELEASE OF RIGHTS
204	AT&T WISCONSIN	RELEASE OF RIGHTS
207	TIME WARNER CABLE	RELEASE OF RIGHTS

(200) WE ENERGIES (ELECTRIC)
DOC. 8523519 - PAR. 31
DOC. 5101167 - PAR. 31
DOC. 3945022 - PAR. 31
DOC. 8577325 - PAR. 32

(204) AT&T WISCONSIN
DOC. 5101167 - PAR. 31
DOC. 3945022 - PAR. 31
NO EASEMENT OF RECORD - PAR. 32

(207) TIME WARNER CABLE
NO EASEMENT OF RECORD - PAR. 31, 32

Refer to the Title Sheet, recorded as Sheet 2 of 2, as Document No. 10208840 for additional information

PREVIOUS ACCESS CONTROL ESTABLISHED BY: RW PLAT RW PLAT 2015-01-21, & CSM 5052

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION CONTACT THE PLANNING DEPARTMENT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA

ALL TLES SHOWN ON THIS SHEET ARE FOR SLOPE GRADING

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT.

PARCEL NUMBER	OWNERS	INTEREST REQUIRED	R/W ACRES REQUIRED NEW	EXISTING	TOTAL	TLE ACRES
31	AIRPORT INN, INC.	FEE/TLE	0.113	---	0.113	0.094
32	DHIR GROUP, LLC, A WISCONSIN LIMITED LIABILITY COMPANY	FEE/TLE	0.008	---	0.008	0.046
33	MILWAUKEE COUNTY, A MUNICIPAL BODY CORPORATE	TLE	---	---	---	0.007

HIGHWAY	BASIS OF EXISTING R/W	R/W WIDTH	YEAR
STH 38	T0834 (2)	120'	1950
STH 38	2015-01-21	VARIES	1970
STH 38/W GRANGE AVE	CSM 5052	VARIES	1987
STH 38	CSM 4641	N/A	N/A

DOC.# 10217242
RECORDED 02/18/2013 08:49AM
JOHN LA FAVE
REGISTER OF DEEDS
Milwaukee County, WI
AMOUNT: 25.00
FEE EXEMPT #:

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 2060-15-20-4.08
AMENDMENT NO:

EMCS

I, KEVIN C. BOYER, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT, I HAVE SURVEYED TRANSPORTATION PROJECT PLAT 2060-15-20-4.08 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

Kevin C. Boyer DATE: 1/31/2013

REGISTERED LAND SURVEYOR NUMBER 2675

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION

(SIGNATURE) DATE: 02/11/13

(PRINTED NAME) Robert 672 :LS

FILE NAME : P:\46xx\4646_DP.11.STH38.MIL\CADDS\Plan\wisDOT Plat\040108_rp.dgn PLOT DATE : 1/31/2013 PLOT BY : kcb PLOT NAME : PLOT SCALE : 1:50

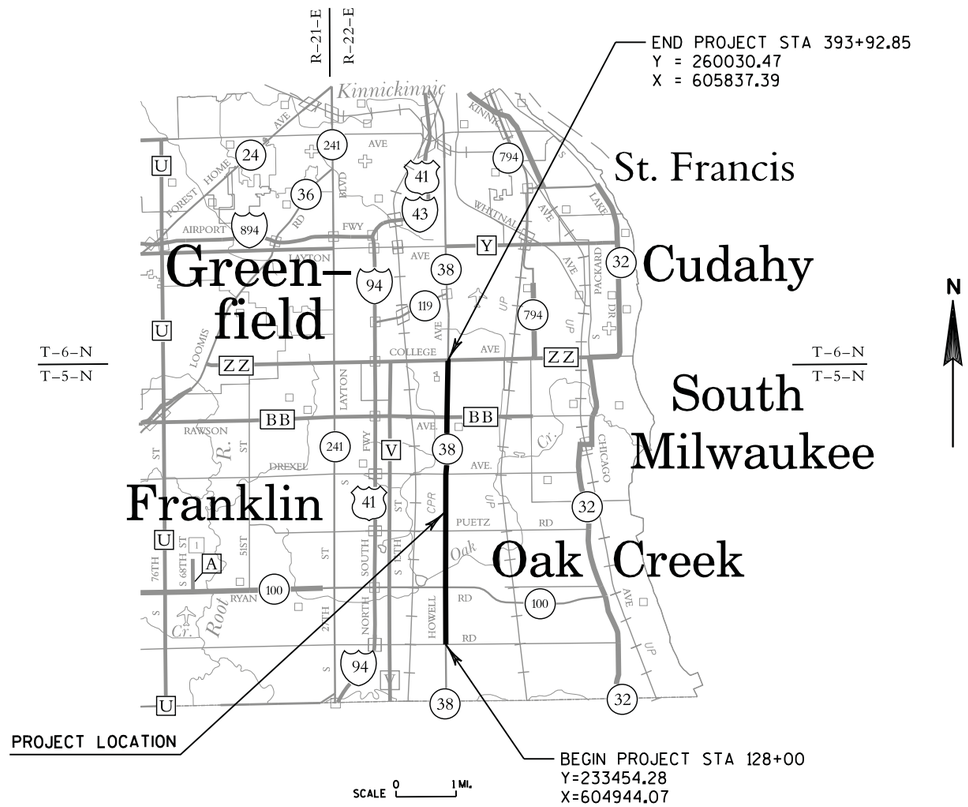
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

TRANSPORTATION PROJECT PLAT TITLE SHEET

PROJECT NO. 2060-15-21

CITY OF OAK CREEK
OAKWOOD ROAD - COLLEGE AVENUE

STH 38 (HOWELL AVENUE)
MILWAUKEE COUNTY



NOTES:

COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE MILWAUKEE COUNTY COORDINATE SYSTEM, MILWAUKEE COUNTY ZONE, NAD83 (2007) ADJUSTMENT. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT BY WisDOT SE REGION.

RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS OF PUBLIC RECORD".

PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY LINES, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE: EXISTING HIGHWAY RIGHT-OF-WAY FOR STH 38 ESTABLISHED FROM PREVIOUS PROJECT T0834(2), T0834(6), T0834(7), 2060-05-20, 2015-01-21 AND EXISTING HIGHWAY RIGHT-OF-WAY FOR SIDE ROADS ESTABLISHED FROM CENTERLINE OF EXISTING PAVEMENTS. EXISTING ACCESS CONTROL ALONG STH_38 ESTABLISHED FROM PREVIOUS PROJECTS

A **TEMPORARY LIMITED EASEMENT** (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE. ALL TLES EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

A **PERMANENT LIMITED EASEMENT** (PLE) IS A RIGHT FOR CONSTRUCTION AND MAINTENANCE PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE. BUT WITHOUT PREJUDICE TO THE OWNER'S RIGHT TO MAKE OR CONSTRUCT IMPROVEMENT ON SAID LANDS OR TO FLATTEN THE SLOPES, PROVIDING SAID ACTIVITIES WILL NOT IMPAIR OR OTHERWISE ADVERSELY AFFECT THE HIGHWAY FACILITIES.

DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO NEW REFERENCE LINES.

CONVENTIONAL ABBREVIATIONS

ACCESS POINT/ DRIVEWAY CONNECTION	AP	REFERENCE LINE	R/L
ACCESS RIGHTS	AR	RELEASE OF RIGHTS	ROR
ACRES	AC.	REMAINING	REM.
AND OTHERS	ET.AL.	RIGHT-OF-WAY	R/W
CENTERLINE	C/L	SECTION	SEC.
CERTIFIED SURVEY MAP	CSM	STATION	STA.
CORNER	COR.	TEMPORARY LIMITED EASEMENT	TLE
DOCUMENT	DOC.	VOLUME	V.
EASEMENT	EASE.	**CURVE DATA**	
HIGHWAY EASEMENT	H.E.	LONG CHORD	LCH
LAND CONTRACT	LC	LONG CHORD BEARING	LCB
MONUMENT	MON.	RADIUS	R
PAGE	P.	DEGREE OF CURVE	D
PERMANENT LIMITED EASEMENT	PLE	CENTRAL ANGLE OR DELTA	DELTA
PROPERTY LINE	PL	LENGTH OF CURVE	L
RECORDED AS	(100')	TANGENT	TAN

CONVENTIONAL SYMBOLS

FOUND IRON PIPE/PIN	UP (1" UNLESS NOTED)	PROPOSED R/W LINE
		EXISTING H.E. LINE
R/W MONUMENT	•(SET)	PROPERTY LINE
R/W STANDARD	▲(SET)	LOT & TIE LINES
SIGN	SIGN	SLOPE INTERCEPTS
SECTION CORNER MONUMENT		CORPORATE LIMITS
SECTION CORNER SYMBOL	POINT VISIBLE	ACCESS RESTRICTED (BY PREVIOUS ACQUISITION/CONTROL)
FEE (HATCH VARIES)		ACCESS RESTRICTED (BY ACQUISTION)
TEMPORARY LIMITED EASEMENT		ACCESS RESTRICTED (BY STATUTORY AUTHORITY)
PERMANENT LIMITED EASEMENT		SECTION LINE
R/W BOUNDARY POINT	RWB20	QUARTER LINE
PARCEL NUMBER	102	SIXTEENTH LINE
UTILITY PARCEL NUMBER	92	EXISTING CENTERLINE
SIGN NUMBER (OFF PREMISE)	21-1	PROPOSED REFERENCE LINE
BUILDING		PARALLEL OFFSET

CONVENTIONAL UTILITY SYMBOLS

WATER	W	
GAS	G	
TELEPHONE	T	
OVERHEAD TRANSMISSION LINES	OH	
ELECTRIC	E	
CABLE TELEVISION	TV	
FIBER OPTIC	FO	
SANITARY SEWER	SAN	
STORM SEWER	SS	
	NON COMPENSABLE	COMPENSABLE
POWER POLE		
TELEPHONE POLE		
TELEPHONE PEDESTAL		
ELECTRIC TOWER		

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 2060-15-21 - 4.01
SHEET 2 OF 2
AMENDMENT NO: 673

TRANSPORTATION PROJECT PLAT NO: 2060-15-21 - 4.01

THAT PART OF THE SW1/4 OF THE SW1/4 OF SECTION 28, PART OF LOT 1, CSM 7522, AND PART OF LOT 1, CSM 7843, LOCATED IN AND PART OF THE SE1/4 OF THE SE1/4 OF SECTION 29, ALL BEING LOCATED IN AND PART OF TOWNSHIP 5 NORTH, RANGE 22 EAST, CITY OF OAK CREEK, MILWAUKEE COUNTY, WISCONSIN

RELOCATION ORDER STH 38, MILWAUKEE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE CITY OF OAK CREEK DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 62.22, WISCONSIN STATUTES, THE CITY OF OAK CREEK HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE CITY FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE CITY OF OAK CREEK, PURSUANT TO THE PROVISIONS OF SECTION 62.22 (1) OR (1M), WISCONSIN STATUTES.

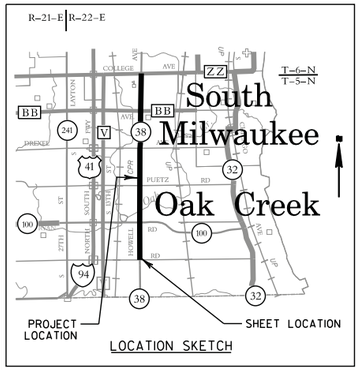
POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, MILWAUKEE COUNTY, NAD 83 (2007) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

RIGHT OF WAY STATION AND OFFSET TABLE		
POINT NO.	STATION	OFFSET
5400	128+00.00	0.00
5401	128+00.00	-75.00
5402	128+27.45	-75.00
5403	128+83.82	-95.99
5404	129+27.40	0.00
5405	129+72.01	-95.51
5406	129+72.09	-75.00
5407	142+51.20	-75.00
5408	142+51.41	0.00
5409	142+52.19	89.95
5410	142+19.19	89.85
5411	142+04.16	75.00
5412	130+32.23	75.00
5413	129+69.61	217.54
5414	129+29.63	220.46
5415	128+85.43	222.62
5416	128+73.09	94.03
5417	128+27.10	33.00
5418	128+00.00	33.00
5419	129+79.01	93.54
PRW6500	129+72.08	-76.92
PRW6501	129+73.80	-75.00

HIGHWAY	BASIS OF EXISTING R/W	R/W WIDTH	YEAR
STH 38	2060-05-20	150'	1987
STH 38/W OAKWOOD RD	CSM 8154	90'	2009
STH 38/W OAKWOOD RD	CSM 7843	150'	2006
STH 38/W OAKWOOD RD	CSM 7522	150'	2004
STH 38/E LISA DR	SHEPARD HILL ADD'N NO. 5	VARIES	N/A

PREVIOUS ACCESS CONTROL ESTABLISHED BY: CSM 7522, CSM 7843 & CSM 8154

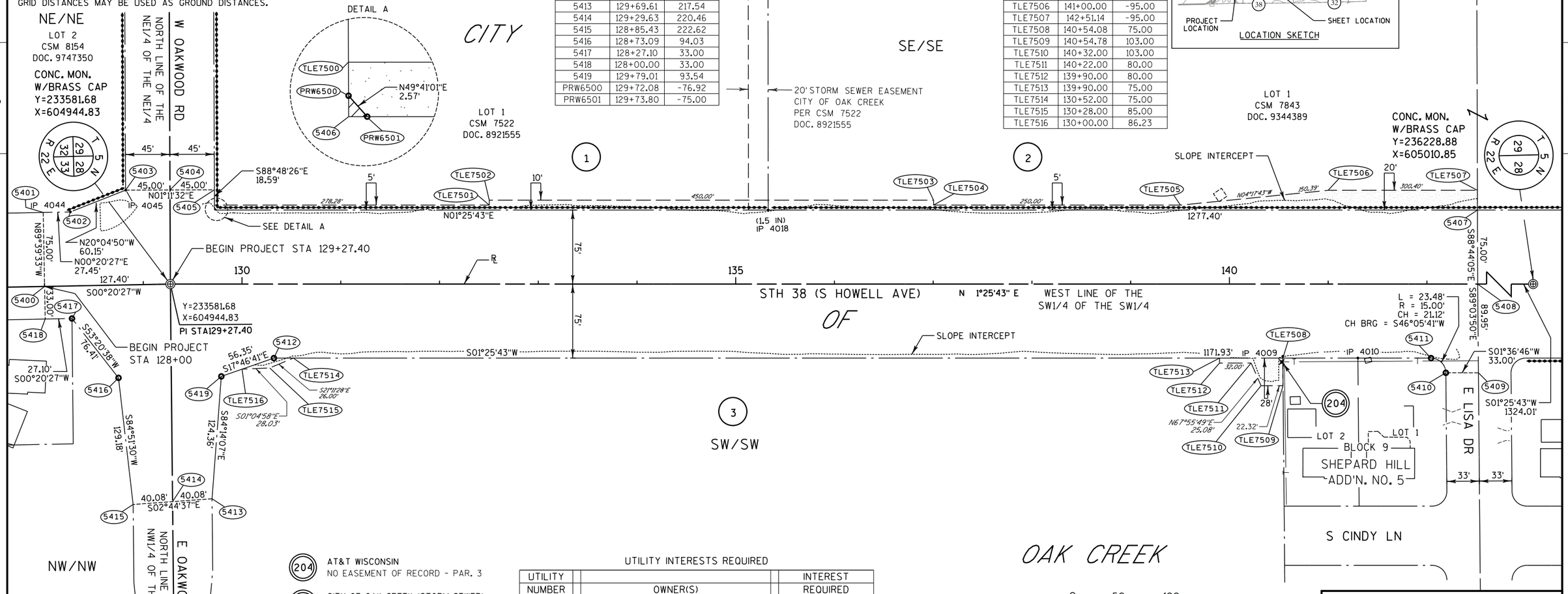
TLE STATION AND OFFSET TABLE		
POINT NO.	STATION	OFFSET
TLE7500	129+72.07	-80.00
TLE7501	132+50.35	-80.00
TLE7502	132+50.37	-85.00
TLE7503	137+00.37	-85.00
TLE7504	137+00.36	-80.00
TLE7505	139+50.36	-80.00
TLE7506	141+00.00	-95.00
TLE7507	142+51.14	-95.00
TLE7508	140+54.08	75.00
TLE7509	140+54.78	103.00
TLE7510	140+32.00	103.00
TLE7511	140+22.00	80.00
TLE7512	139+90.00	80.00
TLE7513	139+90.00	75.00
TLE7514	130+52.00	75.00
TLE7515	130+28.00	85.00
TLE7516	130+00.00	86.23



LOCATION SKETCH

DOC.# 10213836
RECORDED 02/07/2013 03:53PM
JOAN LA FAVE
REGISTER OF DEEDS
Milwaukee County, WI
AMOUNT: 25.00
FEE EXEMPT #:
Reel: 8058

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 2060-15-21-4.01
AMENDMENT NO:
SHEET 1 OF 2



(204) AT&T WISCONSIN
NO EASEMENT OF RECORD - PAR. 3

(211) CITY OF OAK CREEK (STORM SEWER)
DOC. 8921555 - PAR. 1

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	OWNER(S)	INTEREST REQUIRED
204	AT&T WISCONSIN	RELEASE OF RIGHTS
211	CITY OF OAK CREEK (STORM SEWER)	RELEASE OF RIGHTS

SCALE, FEET 0 50 100

Refer to the Title Sheet, recorded as Sheet 2 of 2, for additional information

GN

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE CITY OF OAK CREEK.

SEE ALSO SHEET ...-4.??	PARCEL NUMBER	OWNERS	REQUIRED	R/W ACRES REQUIRED NEW	EXISTING	TOTAL	TLE ACRES
	1	CENTERPOINT PROPERTIES TRUST	FEE/TLE	0.001	---	0.001	0.097
4.02	2	EVERGREEN GLEN APARTMENTS LIMITED PARTNERSHIP	TLE	---	---	---	0.180
---	3	MICJENSAR REALTY, WISCONSIN LIMITED PARTNERSHIP, A WISCONSIN LIMITED PARTNERSHIP	TLE	---	---	---	0.027

THE AREA SHOWN IN THE SCHEDULE OF LANDS AND INTERESTS IS ONLY THE AREA OF PARCEL SHOWN ON THIS SHEET. IF THE PARCEL IS ON MULTIPLE SHEETS, REFERENCE THE OTHER SHEET(S) FOR ADDITIONAL PARCEL AREAS.

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION CONTACT THE PLANNING DEPARTMENT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA

ALL TLES SHOWN ON THIS SHEET ARE FOR SLOPE GRADING EXISTING BUILDINGS WHICH OCCUPY TLE AREAS WILL NOT BE AFFECTED

EMCS

I, KEVIN C. BOYER, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 62.22 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE CITY OF OAK CREEK, I HAVE SURVEYED TRANSPORTATION PROJECT PLAT 2060-15-21-4.01 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

WISCONSIN KEVIN C BOYER S-2675 HEWITT WI LAND SURVEYOR

Kevin C. Boyer DATE: 1/2/2013

REGISTERED LAND SURVEYOR NUMBER 2675

THIS PLAT AND RELOCATION ORDER IS APPROVED FOR THE CITY OF OAK CREEK

DATE: 1/23/2013

(PRINTED NAME) STEPHANIE FIDI

674

TRANSPORTATION PROJECT PLAT NO: 2060-15-21 - 4.02

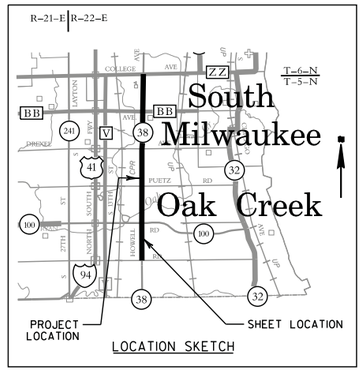
THAT PART OF LOT 75, FAIRFIELD SUBDIVISION II, LOCATED IN AND PART OF THE SE1/4 OF THE NE1/4, PART OF PARCELS 1 AND 2, CSM 6169, LOT 1, CSM 7843, LOCATED IN AND PART OF THE NE1/4 OF THE SE1/4, ALL LOCATED IN SECTION 28, ALSO PART OF LOT 11, BLOCK 6, HOWELL AVE ESTATES, AND PARCEL 1, CSM 5054, LOCATED IN AND PART OF THE SW1/4 OF THE NW1/4, PART OF LOT 1, BLOCK 1, SHEPARD HILL SUBDIVISION, LOCATED IN AND PART OF THE NW1/4 OF THE SW1/4, ALL IN SECTION 29, ALL BEING LOCATED IN AND PART OF TOWNSHIP 5 NORTH, RANGE 22 EAST, CITY OF OAK CREEK, MILWAUKEE COUNTY, WISCONSIN

RELOCATION ORDER STH 38, MILWAUKEE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE CITY OF OAK CREEK DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 62.22, WISCONSIN STATUTES, THE CITY OF OAK CREEK HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE CITY FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE CITY OF OAK CREEK, PURSUANT TO THE PROVISIONS OF SECTION 62.22 (1) OR (1M), WISCONSIN STATUTES.

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, MILWAUKEE COUNTY, NAD 83 (2007) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.



LOCATION SKETCH

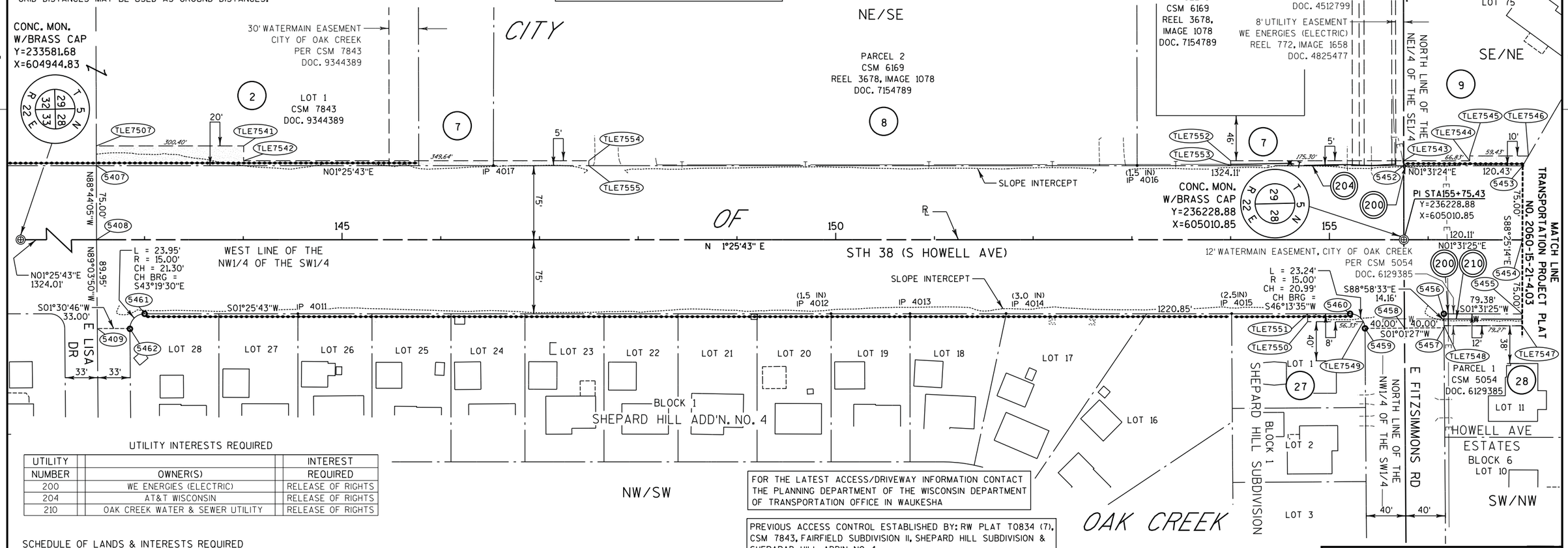
RIGHT OF WAY STATION AND OFFSET TABLE		
POINT NO.	STATION	OFFSET
5407	142+51.20	-75.00
5408	142+51.41	0.00
5409	142+52.19	89.95
5452	155+75.31	-75.00
5453	156+95.62	-75.00
5454	156+95.54	0.00
5455	156+95.47	75.00
5456	156+16.08	75.00
5457	156+16.21	89.16
5458	155+76.21	89.50
5459	155+36.06	89.79
5460	155+20.96	75.00
5461	143+00.06	75.00
5462	142+85.19	90.00

TLE STATION AND OFFSET TABLE		
POINT NO.	STATION	OFFSET
TLE7507	142+51.14	-95.00
TLE7541	144+00.40	-95.00
TLE7542	144+00.36	-80.00
TLE7543	155+75.30	-80.00
TLE7544	156+42.00	-80.00
TLE7545	156+42.00	-85.00
TLE7546	157+01.43	-85.00
TLE7547	156+95.46	87.00
TLE7548	156+16.19	87.00
TLE7549	155+34.33	83.00
TLE7550	154+78.00	83.00
TLE7551	154+78.00	75.00
TLE7552	154+00.00	-80.00
TLE7553	154+00.00	-75.00
TLE7554	147+50.00	-80.00
TLE7555	147+50.12	-75.00

DOC.# 10223179
RECORDED 02/08/2013 01:55PM
JOAN LA FAVE
REGISTER OF DEEDS
Milwaukee County, WI
AMOUNT: 25.00
FEE EXEMPT #:
Reel:8077

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 2060-15-21-4.02
AMENDMENT NO:

SCALE, FEET 0 50 100



UTILITY INTERESTS REQUIRED

UTILITY NUMBER	OWNER(S)	INTEREST REQUIRED
200	WE ENERGIES (ELECTRIC)	RELEASE OF RIGHTS
204	AT&T WISCONSIN	RELEASE OF RIGHTS
210	OAK CREEK WATER & SEWER UTILITY	RELEASE OF RIGHTS

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION CONTACT THE PLANNING DEPARTMENT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA

PREVIOUS ACCESS CONTROL ESTABLISHED BY: RW PLAT T0834 (7), CSM 7843, FAIRFIELD SUBDIVISION II, SHEPARD HILL SUBDIVISION & SHEPARAD HILL ADD'N NO. 4

ALL TLES SHOWN ON THIS SHEET ARE FOR SLOPE GRADING EXISTING BUILDINGS WHICH OCCUPY TLE AREAS WILL NOT BE AFFECTED

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE CITY OF OAK CREEK.

SEE ALSO SHEET ...-4.??	PARCEL NUMBER	OWNERS	INTEREST REQUIRED	TLE ACRES
4.01	2	EVERGREEN GLEN APARTMENTS LIMITED PARTNERSHIP	TLE	0.089
---	7	F.M. MANAGEMENT COMPANY LIMITED PARTNERSHIP, A WISCONSIN LIMITED PARTNERSHIP	TLE	0.029
---	8	F.M. REAL ESTATE COMPANY, LLC, A WISCONSIN LIMITED LIABILITY COMPANY	TLE	0.011
---	9	RONALD P. THIEL	TLE	0.021
---	27	MARK A. CORZAZLLA & NANCY J. CORZAZLLA	TLE	0.010
4.03	28	BRYAN J. HAZELTON & MICHELLE HAZELTON	TLE	0.010

THE AREA SHOWN IN THE SCHEDULE OF LANDS AND INTERESTS IS ONLY THE AREA OF PARCEL SHOWN ON THIS SHEET. IF THE PARCEL IS ON MULTIPLE SHEETS, REFERENCE THE OTHER SHEET(S) FOR ADDITIONAL PARCEL AREAS.

(200) WE ENERGIES (ELECTRIC)
DOC. 3301310 - PAR. 7
DOC. 5466907 - PAR. 7
DOC. 4512799 - PAR. 7
DOC. 4825477 - PAR. 7
NO EASEMENT OF RECORD - PAR 28

(204) AT&T WISCONSIN
DOC. 4512799 - PAR. 7

(210) OAK CREEK WATER & SEWER UTILITY
DOC. 9344389 - PAR. 2
DOC. 6129385 - PAR. 28

HIGHWAY	BASIS OF EXISTING R/W	R/W WIDTH	YEAR
STH 38	T0834 (7)	VARIES	1966
STH 38	2060-05-20	150'	1987
STH 38	CSM 7843	150'	2006
STH 38	CSM 6169	150'	1995
STH 38/E FITZSIMMONS RD	CSM 5054	VARIES	1987
STH 38	FAIRFIELD SUBDIVISION II	165'	1992
STH 38/E FITZSIMMONS RD	HOWELL AVE ESTATES	123'	1955
STH 38/E FITZSIMMONS RD	SHEPARD HILL SUBDIVISION	150'	1973
STH 38/E LISA DR	SHEPARD HILL ADD'N NO. 4	108'	1978

Refer to the Title Sheet, recorded as Sheet 2 of 2, as Document No. 10213836 for additional information

EMCS

I, KEVIN C. BOYER, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 62.22 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE CITY OF OAK CREEK, I HAVE SURVEYED TRANSPORTATION PROJECT PLAT 2060-15-21-4.02 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

Kevin C. Boyer DATE: 2/18/2013

KEVIN C BOYER S-2675 HEWITT WI — WISCONSIN LAND SURVEYOR

REGISTERED LAND SURVEYOR NUMBER 2675
THIS PLAT AND DELINEATION ORDER IS APPROVED FOR THE CITY OF OAK CREEK

(SIGNATURE) DATE: 2-21-13
(PRINTED NAME) Steve 675

TRANSPORTATION PROJECT PLAT NO: 2060-15-21 - 4.03

THAT PART OF LOT 74, FAIRFIELD SUBDIVISION II, LOT 57, FAIRFIELD SUBDIVISION, PARCEL 1, CSM 5380 AND LOT 1, CSM 158, LOCATED IN AND PART OF THE SE1/4 OF THE NE1/4, PART OF LOT 101, FAIRFIELD SUBDIVISION III, AND PARCEL 1, CSM 5355, LOCATED IN AND PART OF THE NE1/4 OF THE NE1/4, ALL IN SECTION 29, PART OF LOTS 1 AND 11, BLOCK 6, HOWELL AVE ESTATES, PARCEL 1, CSM 5054, LOCATED IN AND PART OF THE SW1/4 OF THE NW1/4, ALSO PART OF OUTLOT 1, RYAN OAKS SUBDIVISION, LOCATED IN AND PART OF THE NW1/4 OF THE NW1/4, ALL IN SECTION 28, ALL BEING LOCATED IN AND PART OF TOWNSHIP 5 NORTH, RANGE 22 EAST, CITIY OF OAK CREEK, MILWAUKEE COUNTY, WISCONSIN

RELOCATION ORDER STH 38, MILWAUKEE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE CITY OF OAK CREEK DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 62.22, WISCONSIN STATUTES, THE CITY OF OAK CREEK HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE CITY FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE CITY OF OAK CREEK, PURSUANT TO THE PROVISIONS OF SECTION 62.22 (1) OR (1M), WISCONSIN STATUTES.

HIGHWAY	BASIS OF EXISTING R/W	R/W WIDTH	YEAR
STH 38	T0834 (7)	VARIES	1966
STH 38	2060-05-20	VARIES	1987
STH 38/W SUMMERVILL PL	CSM 5828	VARIES	N/A
STH 38	CSM 5380	VARIES	1989
STH 38	CSM 158	VARIES	1961
STH 38	CSM 4097	108'	1981
STH 38	CSM 4733	VARIES	1986
STH 38/W FAIRFIELD DR	CSM 5355	VARIES	1989
STH 38/E FITZSIMMONS RD	CSM 5054	VARIES	1987
STH 38	FAIRFIELD SUBDIVISION II	165'	1992
STH 38/W SUMMERVILL PL	FAIRFIELD SUBDIVISION	165'	1990
STH 38	FAIRFIELD SUBDIVISION III	150'	1998
STH 38/E FITZSIMMONS RD	HOWELL AVE ESTATES	123'	1955
STH 38/E FAIRFIELD DR	RYAN OAKS SUBDIVISION	150'	2001

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	OWNER(S)	INTEREST REQUIRED
200	WE ENERGIES (ELECTRIC)	RELEASE OF RIGHTS
204	AT&T WISCONSIN	RELEASE OF RIGHTS
210	OAK CREEK WATER & SEWER UTILITY	RELEASE OF RIGHTS
211	CITY OF OAK CREEK (STORM SEWER)	RELEASE OF RIGHTS

(200) WE ENERGIES (ELECTRIC)
DOC. 6433959 - PAR. 31
DOC. 3441640 - PAR. 28, 42

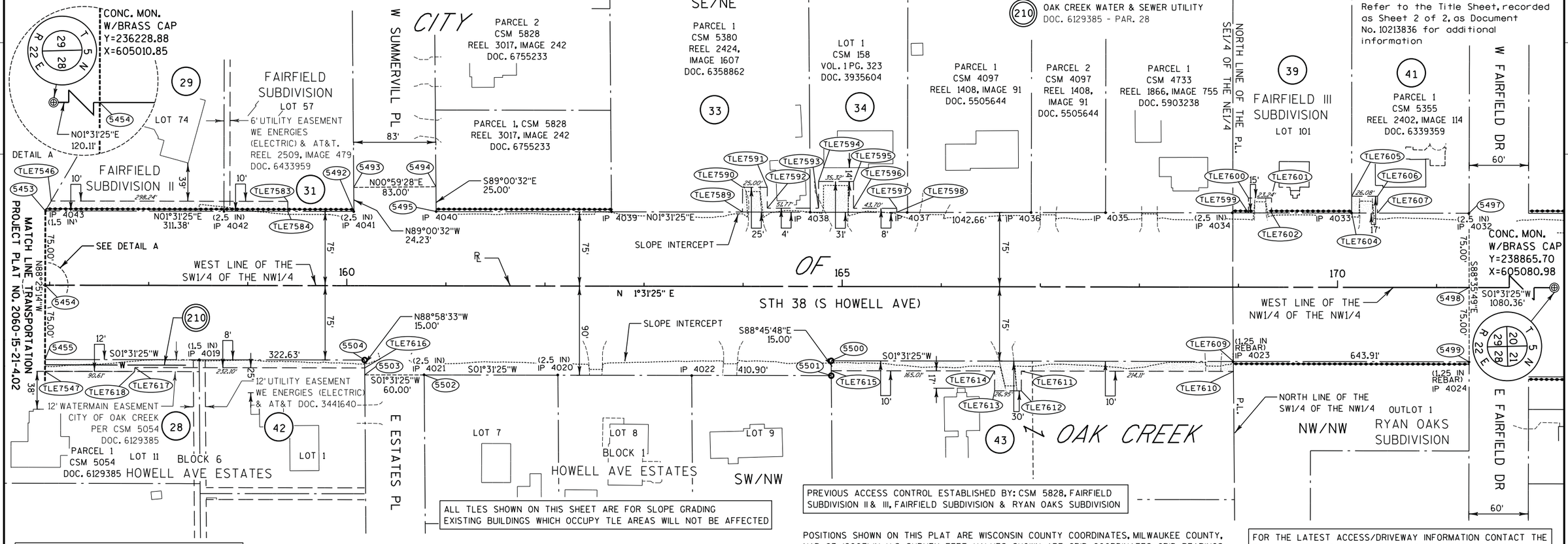
(204) AT&T WISCONSIN
DOC. 6433959 - PAR. 31
DOC. 3441640 - PAR. 28, 42

(210) OAK CREEK WATER & SEWER UTILITY
DOC. 6129385 - PAR. 28

SCALE, FEET 0 50 100

DOC.# 10223180
RECORDED 03/06/2013 01:59PM
JOHN LA FAVE
REGISTER OF DEEDS
Milwaukee County, WI
AMOUNT: 25.00
FEE EXEMPT #:
Rec'd 8077

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 2060-15-21-4.03
AMENDMENT NO:


CONC. MON. W/BRASS CAP Y=236228.88 X=605010.85
T 5 N R 22 E 29 28
29
FAIRFIELD SUBDIVISION LOT 57
6' UTILITY EASEMENT WE ENERGIES (ELECTRIC) & AT&T. REEL 2509, IMAGE 479 DOC. 6433959
LOT 74
N01°31'25"E 120.11'
DETAIL A
FAIRFIELD SUBDIVISION II
W SUMMERVILL PL
CITY
PARCEL 2 CSM 5828 REEL 3017, IMAGE 242 DOC. 6755233
PARCEL 1, CSM 5828 REEL 3017, IMAGE 242 DOC. 6755233
SE/NE
PARCEL 1 CSM 5380 REEL 2424, IMAGE 1607 DOC. 6358862
LOT 1 CSM 158 VOL. 1 PG. 323 DOC. 3935604
PARCEL 1 CSM 4097 REEL 1408, IMAGE 91 DOC. 5505644
PARCEL 2 CSM 4097 REEL 1408, IMAGE 91 DOC. 5505644
PARCEL 1 CSM 4733 REEL 1866, IMAGE 755 DOC. 5903238
NORTH LINE OF THE SE1/4 OF THE P.L.
FAIRFIELD III SUBDIVISION LOT 101
NE/NE
PARCEL 1 CSM 5355 REEL 2402, IMAGE 114 DOC. 6339359
W FAIRFIELD DR
60'
Refer to the Title Sheet, recorded as Sheet 2 of 2, as Document No. 10213836 for additional information
MATCH LINE TRANSPORTATION PROJECT PLAT NO. 2060-15-21-4.02
SEE DETAIL A
WEST LINE OF THE SW1/4 OF THE NW1/4
N88°25'14"W
N01°31'25"E 311.38'
IP 4043 (1.5 IN')
IP 4042
IP 4041
IP 4040
IP 4039
IP 4038
IP 4037
IP 4036
IP 4035
IP 4034
IP 4033
IP 4032
N89°00'32"W 24.23'
S89°00'32"E 25.00'
N00°59'28"E 83.00'
SLOPE INTERCEPT
1042.66'
N 1°31'25" E
STH 38 (S HOWELL AVE)
WEST LINE OF THE NW1/4 OF THE NW1/4
CONC. MON. W/BRASS CAP Y=238865.70 X=605080.98
S01°31'25"W 1080.36'
N88°58'33"W 15.00'
SLOPE INTERCEPT
S88°45'48"E 15.00'
S01°31'25"W 322.63'
S01°31'25"W 60.00'
S01°31'25"W 410.90'
S01°31'25"W 643.91'
(1.25 IN REBAR) IP 4023
(1.25 IN REBAR) IP 4024
IP 4022
12' UTILITY EASEMENT WE ENERGIES (ELECTRIC) & AT&T DOC. 3441640
12' WATERMAIN EASEMENT CITY OF OAK CREEK PER CSM 5054 DOC. 6129385
PARCEL 1 CSM 5054 DOC. 6129385
LOT 11 BLOCK 6 HOWELL AVE ESTATES
LOT 1
LOT 7
LOT 8 BLOCK 1 HOWELL AVE ESTATES
LOT 9
E ESTATES PL
OAK CREEK
SW/NW
NW/NW
RYAN OAKS SUBDIVISION
OUTLOT 1
NORTH LINE OF THE SW1/4 OF THE NW1/4
E FAIRFIELD DR
60'
SLOPE INTERCEPT
SLOPE INTERCEPT
SLOPE INTERCEPT

TRANSPORTATION PROJECT PLAT NO: 2060-15-21 - 4.04

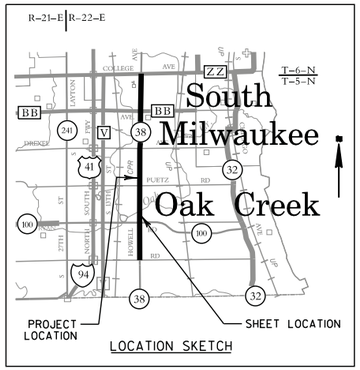
THAT PART OF THE NE1/4 OF THE SE1/4 OF SECTION 20, TOWNSHIP 5 NORTH, RANGE 22 EAST, CITY OF OAK CREEK, MILWAUKEE COUNTY WISCONSIN

RELOCATION ORDER STH 38, MILWAUKEE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE CITY OF OAK CREEK DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 62.22, WISCONSIN STATUTES, THE CITY OF OAK CREEK HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE CITY FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE CITY OF OAK CREEK, PURSUANT TO THE PROVISIONS OF SECTION 62.22 (1) OR (1M), WISCONSIN STATUTES.

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, MILWAUKEE COUNTY, NAD 83 (2007) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.



ALL TLES SHOWN ON THIS SHEET ARE FOR SLOPE GRADING

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION CONTACT THE PLANNING DEPARTMENT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA

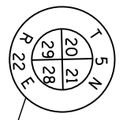
PREVIOUS ACCESS CONTROL ESTABLISHED BY: CSM 6952, OAK CREEK PARKWAY ESATES

Refer to the Title Sheet, recorded as Sheet 2 of 2, as Document No. 10213836 for additional information

DOC.# 10223181
RECORDED 03/08/2013 01:53PM
JOHN LA FAVE
REGISTER OF DEEDS
Milwaukee County, WI
AMOUNT: 25.00
FEE EXEMPT #:
Rec1: 8077

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 2060-15-21-4.04
AMENDMENT NO:

CONC. MON.
W/BRASS CAP
Y=238865.70
X=605080.98



SE/SE

CITY

NORTH LINE OF THE SE1/4 OF THE SE1/4

NE/SE

W OAK LEAF DR

66'

PARCEL2
CSM 6952
DOC.
8073479

44

TLE7651
TLE7652
TLE7650
TLE7653
10'
71.00'

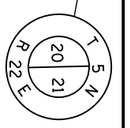
5531
N01°44'08"E
1223.26'
5533
N01°44'08"E
66.00"
5534
N01°44'08"E 110.74'
5535

75.00'
N88°15'52"W
786.83'
N01°44'08E
5530
190
WEST LINE OF THE SW1/4 OF THE SW1/4
195
R
75'
L = 23.29'
R = 15.00'
CH = 21.02'
CH BRG = S47°14'45"W
L = 23.29'
R = 15.00'
CH = 21.02'
CH BRG = S43°46'27"E
5539
IP 1042
S01°44'08"W
180.78'
(2.5 IN)
IP 1043
5542
5541
60'
S01°44'07"W
5540
5543
S01°44'08"W
STH 38 (S HOWELL AVE)
N 1°44'08" E
200
WEST LINE OF THE NW1/4 OF THE SW1/4
5536
N01°44'08"E
463.66'
S88°15'52"E
75.00'
1129.76'
5537

OF

NW/SW

OAK CREEK



CONC. MON.
W/BRASS CAP
Y=241514.97
X=605161.26

LOT 4
LOT 3
LOT 2
BLOCK 1
LOT 1
OAK CREEK PARKWAY ESTATES
LOT 1
LOT 2
BLOCK 4
LOT 3
LOT 4
LOT 5
LOT 6
LOT 7
S BURRELL ST
60'
E PARKWAY ESTATES DR
SW/SW
LOT 4
BLOCK 3
LOT 1
LOT 2
LOT 3
LOT 5
NORTH LINE OF THE SW1/4 OF THE SW1/4
P.L.

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE CITY OF OAK CREEK.

PARCEL NUMBER	OWNERS	INTEREST REQUIRED	TLE ACRES
44	MILWAUKEE COUNTY	TLE	0.016

HIGHWAY	BASIS OF EXISTING R/W	R/W WIDTH	YEAR
STH 38	T0834 (7)	150'	1966
STH 38/W OAK LEAF DR	CSM 6952	150'	2001
STH 38/E PARKWAY ESTATES DR	OAK CREEK PARKWAY ESTATES	VARIES	1969

RIGHT OF WAY STATION AND OFFSET TABLE

POINT NO.	STATION	OFFSET
5530	190+00.00	0.00
5531	190+00.00	-75.00
5533	202+23.26	-75.00
5534	202+89.26	-75.00
5535	204+00.00	-75.00
5536	204+00.00	0.00
5537	204+00.00	75.00
5539	192+70.24	75.00
5540	192+55.51	90.00
5541	191+95.51	90.00
5542	191+80.24	75.00
5543	190+00.00	75.00

TLE STATION AND OFFSET TABLE

POINT NO.	STATION	OFFSET
TLE7650	196+09.95	-75.00
TLE7651	196+09.93	-85.00
TLE7652	196+80.93	-85.00
TLE7653	196+80.95	-75.00

GN

SCALE, FEET 0 50 100

EMCS

I, KEVIN C. BOYER, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 62.22 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE CITY OF OAK CREEK, I HAVE SURVEYED TRANSPORTATION PROJECT PLAT 2060-15-21-4.04 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

Kevin C. Boyer
DATE: 2/18/2013

WISCONSIN KEVIN C BOYER S-2675 HEWITT WI LAND SURVEYOR

REGISTERED LAND SURVEYOR NUMBER 2675
THIS PLAT AND RELOCATION ORDER IS APPROVED FOR THE CITY OF OAK CREEK

SIGNATURE
DATE: 2-21-13
(PRINTED NAME)

FILE NAME : P:\46xx\4646_DP.11.STH38.MIL\CADDS\Plan\City of Oak Creek Plat\040104_rp.dgn
PLOT DATE : 2/18/2013
PLOT BY : kcb
PLOT NAME :
PLOT SCALE : 1:50

2060-15-71, STH 38, 2060-15-21 4.04

TRANSPORTATION PROJECT PLAT NO: 2060-15-21 - 4.05

THAT PART OF PARCELS 1 AND 2, CSM 6779, ALL LOCATED IN PART OF THE SE1/4 OF THE NE1/4 OF SECTION 20, TOWNSHIP 5 NORTH, RANGE 22 EAST, CITY OF OAK CREEK, MILWAUKEE COUNTY, WISCONSIN

RELOCATION ORDER STH 38, MILWAUKEE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE CITY OF OAK CREEK DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 62.22, WISCONSIN STATUTES, THE CITY OF OAK CREEK HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE CITY FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE CITY OF OAK CREEK, PURSUANT TO THE PROVISIONS OF SECTION 62.22 (1) OR (1M), WISCONSIN STATUTES.

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, MILWAUKEE COUNTY, NAD 83 (2007) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION CONTACT THE PLANNING DEPARTMENT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA

ALL TLES SHOWN ON THIS SHEET ARE FOR SLOPE GRADING

PREVIOUS ACCESS CONTROL ESTABLISHED BY: CSM 6952, CSM 6779, CSM 7627, CSM 6866

DOC.# 10223182
RECORDED 03/06/2013 01:53PM
JOHN LA FAVE
REGISTER OF DEEDS
Milwaukee County, WI
AMOUNT: 25.00
FEE EXEMPT #:
Reel : 3577

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 2060-15-21-4.05
AMENDMENT NO:

CONC. MON. W/BRASS CAP Y=241593.37 X=602534.83

S88°17'25"E 2552.60'

PARCEL 1 CSM 6779 DOC. 7875624

50' PUBLIC UTILITY EASEMENT CITY OF OAK CREEK (STORM & SANITARY SEWER) PER CSM 6779 DOC. 7875624

15' UTILITY EASEMENT WE ENERGIES (ELECTRIC) DOC. 8923000

NE/SE

CITY

SE/NE

NW/SW

SW/NW

OF

OAK CREEK

PARCEL2 CSM 6952 DOC. 8073479

LOT 1 CSM 208

NORTH LINE OF THE NE1/4 OF THE SE1/4

P.I.

PARCEL 4 CSM 6779 DOC. 7875624

PARCEL 2 CSM 6779 DOC. 7875624

PARCEL 3 CSM 6779 DOC. 7875624

PARCEL 2 CSM 7627 DOC. 9042158

PARCEL 1 CSM 7627 DOC. 9042158

PARCEL 2 CSM 6866 REEL 4907, IMAGE 311406 DOC. 7963706

UTILITY EASEMENT CITY OF OAK CREEK (STORM & SANITARY SEWER) REEL 420, IMAGE 800 DOC. 4393811

47 48 210

5535 5536 5537 2050 2051 2066 5575

TLE7685 TLE7686 TLE7687 TLE7688 TLE7689 TLE7690 TLE7691 TLE7692

10' 55.01' 60.10'

N01°44'08"E 463.63'

N01°47'23"E

IP 1059

936.44'

PI STA208+63.66
Y=241514.97
X=605161.26

205 210 215

N 1°44'08" E

WEST LINE OF THE NW1/4 OF THE SW1/4

WEST LINE OF THE SW1/4 OF THE NW1/4

N 1°47'23" E

75' 75.00'

N88°15'52"W

N01°44'08"E 2186.83'

S01°44'08W 464.71'

S01°47'23"W

935.22'

S88°12'37"E 1711.04'

S01°47'23"W

CONC. MON. W/BRASS CAP Y=238865.70 X=605080.98

CONC. MON. W/BRASS CAP Y=241514.97 X=605161.26

CONC. MON. W/BRASS CAP Y=244161.05 X=605243.94

NORTH LINE OF THE NW1/4 OF THE SW1/4

P.I.

S89°04'01"E 2588.19'

CONC. MON. W/BRASS CAP Y=241471.60 X=607824.10

RIGHT OF WAY STATION AND OFFSET TABLE		
POINT NO.	STATION	OFFSET
5535	204+00.00	-75.00
5536	204+00.00	0.00
5537	204+00.00	75.00
2050	218+00.00	0.00
2051	218+00.00	-75.00
2066	218+00.00	75.00
5575	208+64.78	75.00

TLE STATION AND OFFSET TABLE		
POINT NO.	STATION	OFFSET
TLE7685	208+63.63	-75.00
TLE7686	208+63.63	-85.00
TLE7687	209+18.56	-85.00
TLE7688	209+18.56	-75.00
TLE7689	214+53.06	-75.00
TLE7690	214+53.06	-85.00
TLE7691	215+13.16	-85.00
TLE7692	215+13.16	-75.00

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE CITY OF OAK CREEK.

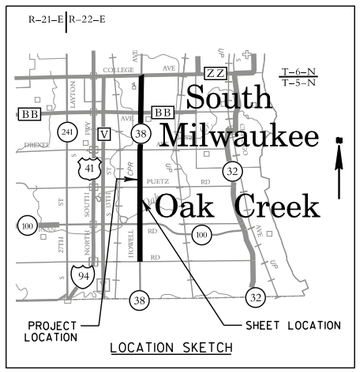
PARCEL NUMBER	OWNERS	INTEREST REQUIRED	TLE ACRES
47	CONTINENTAL 77 FUND, LLC, A WISCONSIN LIMITED LIABILITY COMPANY	TLE	0.013
48	CONTINENTAL 86 FUND, LLC, A WISCONSIN LIMITED LIABILITY COMPANY	TLE	0.014

(200) WE ENERGIES (ELECTRIC)
DOC. 8923000 - PAR. 48

(210) OAK CREEK WATER & SEWER UTILITY
DOC. 7875624 - PAR. 48
DOC. 4393811 - PAR. 48

(211) CITY OF OAK CREEK (STORM SEWER)
DOC. 7875624 - PAR. 48
DOC. 4393811 - PAR. 48

Refer to the Title Sheet, recorded as Sheet 2 of 2, as Document No. 10213836 for additional information



LOCATION SKETCH

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	OWNER(S)	INTEREST REQUIRED
200	WE ENERGIES (ELECTRIC)	RELEASE OF RIGHTS
210	OAK CREEK WATER & SEWER UTILITY	RELEASE OF RIGHTS
211	CITY OF OAK CREEK (STORM SEWER)	RELEASE OF RIGHTS

HIGHWAY	BASIS OF EXISTING R/W	R/W WIDTH	YEAR
STH 38	T0834 (7)	150'	1966
STH 38	CSM 6779	150'	1999
STH 38	CSM 7627	VARIES	2005
STH 38	CSM 6866	VARIES	2000
STH 38	CSM 208	N/A	N/A

SCALE, FEET 0 50 100

EMCS

I, KEVIN C. BOYER, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 62.22 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE CITY OF OAK CREEK, I HAVE SURVEYED TRANSPORTATION PROJECT PLAT 2060-15-21-4.05 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

Kevin C. Boyer DATE: 2/18/2013

KEVIN C. BOYER S-2675 HEWITT WI LAND SURVEYOR

REGISTERED LAND SURVEYOR NUMBER 2675
THIS PLAT AND RELOCATION ORDER IS APPROVED FOR THE CITY OF OAK CREEK

(SIGNATURE) DATE: 2-21-13

(PRINTED NAME) Sh

678

FILE NAME : P:\46xx\4646_DP.11.STH38.MIL\CADDS\Plan\City of Oak Creek Plat\040105_rp.dgn PLOT DATE : 2/18/2013 PLOT BY : kcb PLOT NAME : PLOT SCALE : 1:50

2060-15-71, STH 38, 2060-15-21 4.05

TRANSPORTATION PROJECT PLAT NO: 2060-15-21 - 4.06

THAT PART OF PARCEL 2, CSM 6867, LOT 1, CSM 6258, AND LOT 1, CSM 1916, ALL LOCATED IN AND PART OF THE NW1/4 OF THE NW1/4 OF SECTION 21, ALL BEING LOCATED IN AND PART OF TOWNSHIP 5 NORTH, RANGE 22 EAST, CITY OF OAK CREEK, MILWAUKEE COUNTY, WISCONSIN

RELOCATION ORDER STH 38, MILWAUKEE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE CITY OF OAK CREEK DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

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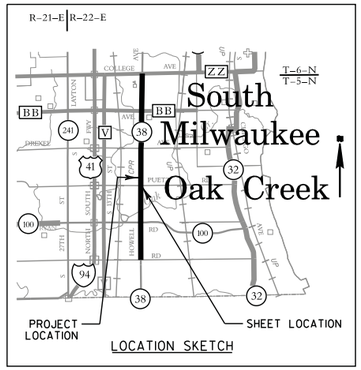
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE CITY FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE CITY OF OAK CREEK, PURSUANT TO THE PROVISIONS OF SECTION 62.22 (1) OR (1M), WISCONSIN STATUTES.

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, MILWAUKEE COUNTY, NAD 83 (2007) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.



LOCATION SKETCH

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE CITY OF OAK CREEK.

PARCEL NUMBER	OWNERS	INTEREST REQUIRED	TLE ACRES
49	MUTUAL SAVINGS AND LOAN ASSOCIATION OF WISCONSIN, A WISCONSIN SAVINGS AND LOAN ASSOCIATION	TLE	0.004

DOC.# 10223183
RECORDED 03/05/2013 01:53PM
JOHN LA FAVE
REGISTER OF DEEDS
Milwaukee County, WI
AMOUNT: 25.00
FEE EXEMPT #:
Reel: 3017

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 2060-15-21-4.06
AMENDMENT NO:

4

CITY

PARCEL 1
CSM 6166
REEL 3673, IMAGE 787
DOC. 7151505

LOT 1
CSM 7899

PARCEL 2
CSM 4577
DOC. 5791621

PARCEL 1
CSM 4577
DOC. 5791621

NE/NE

PARCEL 2
CSM 5292
REEL 2349, IMAGE 408

CONC. MON.
W/BRASS CAP
Y=244244.84
X=602624.63

PARCEL 1
CSM 2975

T 5 N R 22 E 20 17

S88°10'04"E
2545.65'

SE/SE

W PUETZ RD

NORTH LINE OF THE NE1/4 OF THE NE1/4

PARCEL 1
CSM 5946
REEL 3220, IMAGE 83
DOC. 6903586

LOT 1
CSM 65

4

65'
65'

2092
N01°47'23"E
65.00'
2093
S88°10'04"E
75.00'
5604

996.09'

2057
N01°47'23"E
1586.34'
75.00'
N88°12'37"W
2058
2059

225
230
235

WEST LINE OF THE NW1/4 OF THE NW1/4

STH 38 (S HOWELL AVE)

N 1°47'23" E

N 1°49'09" E

WEST LINE OF THE SW1/4 OF THE SW1/4

75'
75'
75'

PI STA235+11.04
Y=244161.05
X=605243.94

CONC. MON.
W/BRASS CAP
Y=244161.05
X=605243.94

T 5 N R 22 E 20 21 17 16

S89°06'31"E
117.01'

(PK NAIL)
IP 1066

S01°47'23"W
798.59'

TLE7723
7'
TLE7720
TLE7722
26.28'
32'
TLE7721

49

LOT 1
CSM 1916
REEL 679, IMAGE 1214
DOC. 4710095

10' UTILITY EASEMENT
CITY OF OAK CREEK
REEL 715, IMAGE 1849
DOC. 4775090

2104
S10°49'09"W
196.54'
71.06'
S10°49'09"W
2103
2102

LOT 1
CSM 6258
REEL 3877, IMAGE 583
DOC. 7261367

NW/NW

PARCEL 1
CSM 1230
REEL 522, IMAGE 878
DOC. 4515253

SW/SW

T 5 N R 22 E 20 21

CONC. MON.
W/BRASS CAP
Y=241514.97
X=605161.26

SCALE, FEET 0 50 100

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION CONTACT THE PLANNING DEPARTMENT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA

ALL TLES SHOWN ON THIS SHEET ARE FOR SLOPE GRADING

70'
65'

N89°06'31"W
2550.52'

NORTH LINE OF THE NW1/4 OF THE NW1/4

E PUETZ RD

CONC. MON.
W/BRASS CAP
Y=244119.55
X=607911.15

T 5 N R 22 E 21 16

LOT 3
CSM 7756
DOC. 9234623

OAK CREEK

Refer to the Title Sheet, recorded as Sheet 2 of 2, as Document No. 10213836 for additional information

PREVIOUS ACCESS CONTROL ESTABLISHED
BY: RW PLAT T0834 (7) & CSM 6867

210 OAK CREEK WATER & SEWER UTILITY
DOC. 4775090 - PAR. 49

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	OWNER(S)	INTEREST REQUIRED
210	OAK CREEK WATER & SEWER UTILITY	RELEASE OF RIGHTS

HIGHWAY	BASIS OF EXISTING R/W	R/W WIDTH	YEAR
STH 38	T0834 (7)	VARIES	1966
STH 38	CSM 6166	150'	1994
STH 38	CSM 7899	150'	2007
STH 38	CSM 4577	150'	1984
STH 38	CSM 5292	150'	1989
STH 38/W PUETZ RD	CSM 2975	N/A	N/A
STH 38	CSM 6867	VARIES	2000
STH 38	CSM 6258	VARIES	1996
STH 38	CSM 1916	N/A	N/A
STH 38/E PUETZ RD	CSM 7756	150'	2006

RIGHT OF WAY STATION AND OFFSET TABLE

POINT NO.	STATION	OFFSET
2057	224+50.00	-75.00
2058	224+50.00	0.00
2059	224+50.00	75.00
2092	234+46.09	-75.00
2093	235+11.05	-75.00
5604	235+11.04	0.00
2102	235+12.93	117.00
2103	234+42.69	105.84
2104	232+48.59	75.00

TLE STATION AND OFFSET TABLE

POINT NO.	STATION	OFFSET
TLE7720	229+02.16	75.00
TLE7721	229+02.16	82.00
TLE7722	228+75.89	82.00
TLE7723	228+75.89	75.00

EMCS

I, KEVIN C. BOYER, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 62.22 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE CITY OF OAK CREEK, I HAVE SURVEYED TRANSPORTATION PROJECT PLAT 2060-15-21-4.06 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

Kevin C. Boyer
DATE: 2/18/2013

WISCONSIN KEVIN C BOYER S-2675 HEWITT WI LAND SURVEYOR

REGISTERED LAND SURVEYOR NUMBER 2675
THIS PLAT AND RELOCATION ORDER IS APPROVED FOR THE CITY OF OAK CREEK

DATE: 2-21-13
(SIGNATURE)
(PRINTED NAME) Steve 679

TRANSPORTATION PROJECT PLAT NO: 2060-15-21 - 4.07

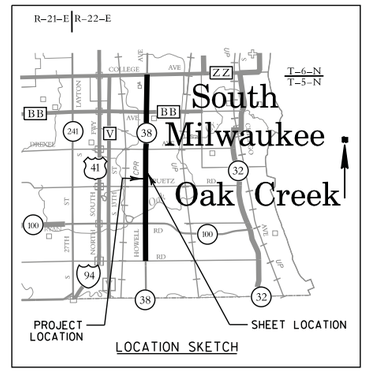
THAT PART OF PARCEL 1, CSM 5412, LOCATED IN AND PART OF THE SE1/4 OF THE SE1/4 OF SECTION 17, TOWNSHIP 5 NORTH, RANGE 22 EAST, CITY OF OAK CREEK, MILWAUKEE COUNTY, WISCONSIN

RELOCATION ORDER STH 38, MILWAUKEE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE CITY OF OAK CREEK DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 62.22, WISCONSIN STATUTES, THE CITY OF OAK CREEK HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE CITY FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE CITY OF OAK CREEK, PURSUANT TO THE PROVISIONS OF SECTION 62.22 (1) OR (1M), WISCONSIN STATUTES.

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, MILWAUKEE COUNTY, NAD 83 (2007) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.



DOC.# 10223184
RECORDED 03/08/2013 01:59PM
JOHN LA FAVE
REGISTER OF DEEDS
Milwaukee County, WI
AMOUNT: 25.00
FEE EXEMPT #:
Reel: 3077

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 2060-15-21-4.07
AMENDMENT NO:

CITY

SE/SE

LOT 1 CSM 65

PARCEL 1 CSM 5412 REEL 2447, IMAGE 1463 DOC. 6378561

51

LOT 1 CSM 34

NORTH LINE OF THE SE1/4 OF THE SE1/4 P.L.

PARCEL 1 CSM 7476 DOC. 8879794

NE/SE

LOT 1 CSM 7603 DOC. 9020418

CONC. MON. W/BRASS CAP Y=246803.98 X=605327.89

T 5 N R 22 E 17 16

TLE7751 TLE7752 TLE7750 TLE7753 20' 78.00'

TLE7755 TLE7756 TLE7754 TLE7757 10' 60.00'

2097 5632 5633

N01°49'09"E 1350.00'

N88°10'51"W 75.00' S88°10'51"E 75.00'

488.96' N01°49'09"E

240 245 250

75' 75'

℄

STH 38 (S HOWELL AVE)

N 1°49'09" E

WEST LINE OF THE SW1/4 OF THE SW1/4

WEST LINE OF THE NW1/4 OF THE SW1/4

805.30' N01°49'09"E

2098 5634

2099 5637 5636 5635

S01°49'09"W 768.47' S01°49'09"W 66.01' S01°49'09"W 515.52'

66'

E GROVERLAND DR

P.L.

OF

LOT 2 CSM 295

PARCEL 3 CSM 4769 REEL 1904, IMAGE 1178 DOC. 5928943

PARCEL 2 CSM 4769 REEL 1904, IMAGE 1178 DOC. 5928943

PARCEL 1 CSM 4769 REEL 1904, IMAGE 1178 DOC. 5928943

NORTH LINE OF THE SW1/4 OF THE SW1/4

T 5 N R 22 E 20 21 17 16

CONC. MON. W/BRASS CAP Y=244161.05 X=605243.94

PARCEL 1 CSM 1230 REEL 522, IMAGE 878 DOC. 4515253

SW/SW

NW/SW

OAK CREEK

HIGHWAY	BASIS OF EXISTING R/W	R/W WIDTH	YEAR
STH 38	T0834 (7)	150'	1966
STH 38	CSM 5412	VARIES	1989
STH 38	CSM 34	N/A	N/A
STH 38	CSM 7476	150'	2004
STH 38	CSM 7603	150'	2004
STH 38/E GROVERLAND DR	CSM 1230	VARIES	1970
STH 38	CSM 4769	VARIES	1986
STH 38/E GROVERLAND DR	CSM 295	N/A	N/A

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE CITY OF OAK CREEK.

PARCEL NUMBER	OWNERS	INTEREST REQUIRED	TLE ACRES
51	GATEWAY JACKSON, INC., A CALIFORNIA 501 (C)(25) CORPORATION	TLE	0.050

RIGHT OF WAY STATION AND OFFSET TABLE		
POINT NO.	STATION	OFFSET
2097	240+00.00	-75.00
2098	240+00.00	0.00
2099	240+00.00	75.00
5632	248+33.35	-75.00
5633	253+50.00	-75.00
5634	253+50.00	0.00
5635	253+50.00	75.00
5636	248+34.48	75.00
5637	247+68.47	75.00

TLE STATION AND OFFSET TABLE		
POINT NO.	STATION	OFFSET
TLE7750	240+82.16	-75.00
TLE7751	240+82.16	-95.00
TLE7752	241+60.16	-95.00
TLE7753	241+60.16	-75.00
TLE7754	245+56.16	-75.00
TLE7755	245+56.16	-85.00
TLE7756	246+16.16	-85.00
TLE7757	246+16.16	-75.00

Refer to the Title Sheet, recorded as Sheet 2 of 2, in Volume -- of Transportation Project Plats, Page --, as Document No. ------- for additional information

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION CONTACT THE PLANNING DEPARTMENT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA

ALL TLES SHOWN ON THIS SHEET ARE FOR SLOPE GRADING

SCALE, FEET 0 50 100

EMCS

I, KEVIN C. BOYER, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 62.22 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE CITY OF OAK CREEK, I HAVE SURVEYED TRANSPORTATION PROJECT PLAT 2060-15-21-4.07 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

Kevin C. Boyer DATE: 2/18/2013

WISCONSIN KEVIN C BOYER S-2675 HEWITT WI LAND SURVEYOR

REGISTERED LAND SURVEYOR NUMBER 2675
THIS PLAT AND RELOCATION ORDER IS APPROVED FOR THE CITY OF OAK CREEK

DATE: 2-21-13

(SIGNATURE)

(PRINTED NAME) Steve

680

FILE NAME : P:\46xx\4646_DP.11.STH38.MIL\CADDS\Plan\City of Oak Creek Plat\040107_rp.dgn PLOT DATE : 2/18/2013 PLOT BY : kcb PLOT NAME : PLOT SCALE : 1:50

2060-15-71, STH 38, 2060-15-21 4.07

TRANSPORTATION PROJECT PLAT NO: 2060-15-21 - 4.08

THAT PART OF LOT 2, CSM 8087, LOT 2, CSM 8185, ALL BEING LOCATED IN AND PART OF THE SE1/4 OF THE NE1/4, ALSO PART OF LOT 1, CSM 8185, LOCATED IN AND PART OF THE NE1/4 OF THE NE1/4, ALL BEING LOCTED IN AND PART OF SECTION 17, TOWNSHIP 5 NORTH, RANGE 22 EAST, CITY OF OAK CREEK, MILWAUKEE COUNTY, WISCONSIN

RELOCATION ORDER STH 38, MILWAUKEE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE CITY OF OAK CREEK DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 62.22, WISCONSIN STATUTES, THE CITY OF OAK CREEK HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE CITY FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE CITY OF OAK CREEK, PURSUANT TO THE PROVISIONS OF SECTION 62.22 (1) OR (1M), WISCONSIN STATUTES.

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, MILWAUKEE COUNTY, NAD 83 (2007) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

Refer to the Title Sheet, recorded as Sheet 2 of 2, as Document No. 10213836 for additional information

(210) OAK CREEK WATER & SEWER UTILITY
DOC. 9036278 - PAR. 54, 56
DOC. 9654891 - PAR. 52

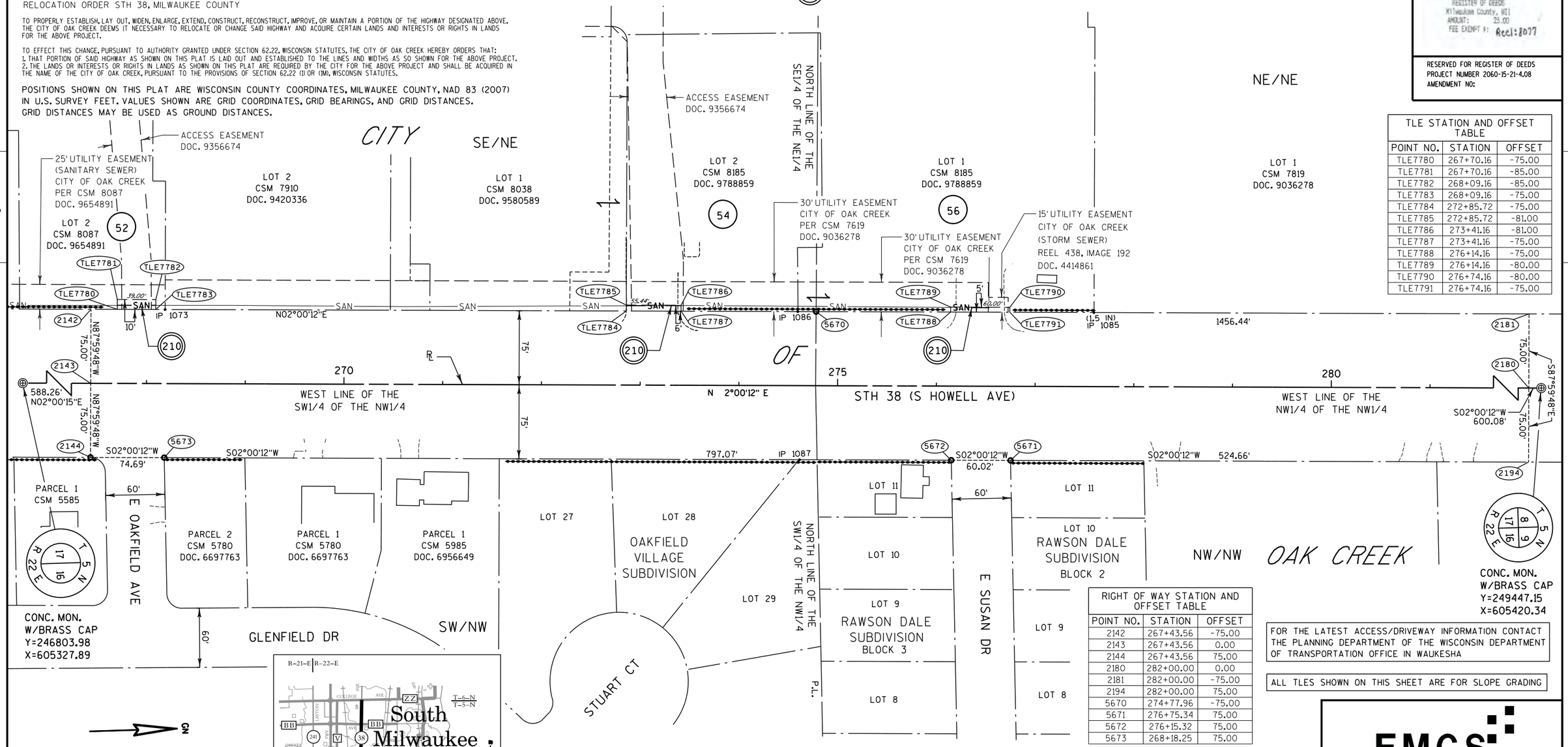
(211) CITY OF OAK CREEK (STORM SEWER)
DOC. 4414861 - PAR. 56

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	OWNER(S)	INTEREST REQUIRED
210	OAK CREEK WATER & SEWER UTILITY	RELEASE OF RIGHTS
211	CITY OF OAK CREEK (STORM SEWER)	RELEASE OF RIGHTS

DOC.# 10223185
RECORDED 03/08/2013 01:53PM
JOHN LA FAYE
REGISTER OF DEEDS
Milwaukee County, WI
AMOUNT: 25.00
FEE EXEMPT #: Rec1:8077

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 2060-15-21-4.08
AMENDMENT NO:



TLE STATION AND OFFSET TABLE

POINT NO.	STATION	OFFSET
TLE7780	267+70.16	-75.00
TLE7781	267+70.16	-85.00
TLE7782	268+09.16	-85.00
TLE7783	268+09.16	-75.00
TLE7784	272+85.72	-75.00
TLE7785	272+85.72	-81.00
TLE7786	273+41.16	-81.00
TLE7787	273+41.16	-75.00
TLE7788	276+14.16	-75.00
TLE7789	276+14.16	-80.00
TLE7790	276+74.16	-80.00
TLE7791	276+74.16	-75.00

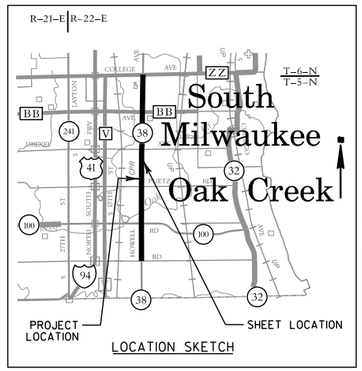
RIGHT OF WAY STATION AND OFFSET TABLE

POINT NO.	STATION	OFFSET
2142	267+43.56	-75.00
2143	267+43.56	0.00
2144	267+43.56	75.00
2180	282+00.00	0.00
2181	282+00.00	-75.00
2194	282+00.00	75.00
5670	274+77.96	-75.00
5671	276+75.34	75.00
5672	276+15.32	75.00
5673	268+18.25	75.00

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION CONTACT THE PLANNING DEPARTMENT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA

ALL TLES SHOWN ON THIS SHEET ARE FOR SLOPE GRADING

SCALE, FEET 0 50 100



LOCATION SKETCH

PREVIOUS ACCESS CONTROL ESTABLISHED BY: RW PLAT T0834 (7), CSM 8087, CSM 8185, CSM 5585, CSM 5780, OAKFIELD VILLAGE SUBDIVISION, RAWSON DALE SUBDIVISION

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE CITY OF OAK CREEK.

PARCEL NUMBER	OWNERS	INTEREST REQUIRED	TLE ACRES
52	DEMCO WISCONSIN , LLC A MICHIGAN LIMITED LIABILITY COMPANY	TLE	0.009
54	HOWELL OAKS III, LLC	TLE	0.008
56	GIUFFRE XX, LLC, A WISCONSIN LIMITED LIABILITY	TLE	0.007

HIGHWAY	BASIS OF EXISTING R/W	R/W WIDTH	YEAR
STH 38	T0834 (7)	150'	1966
STH 38	CSM 8087	VARIES	2008
STH 38	CSM 7910	VARIES	2007
STH 38	CSM 8038	VARIES	2008
STH 38	CSM 8185	VARIES	2009
STH 38	CSM 7819	VARIES	2006
STH 38/E OAKFIELD AVE	CSM 5585	VARIES	1991
STH 38/E OAKFIELD AVE	CSM 5780	VARIES	1992
STH 38	CSM 5985	VARIES	1993
STH 38	OAKFIELD VILLAGE SUBDIVISION	150'	1991
STH 38	RAWSON DALE SUBDIVISION	VARIES	1947

EMCS

I, KEVIN C. BOYER, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 62.22 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE CITY OF OAK CREEK, I HAVE SURVEYED TRANSPORTATION PROJECT PLAT 2060-15-21-4.08 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

Kevin C. Boyer DATE: 2/18/2013

KEVIN C BOYER S-2675 HEWITT WI — REGISTERED LAND SURVEYOR

REGISTERED LAND SURVEYOR NUMBER 2675
THIS PLAT AND RELOCATION ORDER IS APPROVED FOR THE CITY OF OAK CREEK

(SIGNATURE) DATE: 2-21-13
(PRINTED NAME)

FILE NAME : P:\46xx\4646_DP.11.STH38.MIL\CADDS\Plan\City of Oak Creek Plat\040108_rp.dgn PLOT DATE : 2/18/2013 PLOT BY : kcb PLOT NAME : PLOT SCALE : 1:50

2060-15-71, STH 38, 2060-15-21 4.08

TRANSPORTATION PROJECT PLAT NO: 2060-15-21 - 4.09

THAT PART OF PARCEL 1, CSM 3936, LOCATED IN AND PART OF THE SW1/4 OF THE SW1/4 OF SECTION 9, ALL BEING LOCATED IN AND PART OF TOWNSHIP 5 NORTH, RANGE 22 EAST, CITY OF OAK CREEK, MILWAUKEE COUNTY, WISCONSIN

RELOCATION ORDER STH 38, MILWAUKEE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE CITY OF OAK CREEK DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 62.22, WISCONSIN STATUTES, THE CITY OF OAK CREEK HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE CITY FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE CITY OF OAK CREEK, PURSUANT TO THE PROVISIONS OF SECTION 62.22 (1) OR (1M), WISCONSIN STATUTES.

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, MILWAUKEE COUNTY, NAD 83 (2007) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

TLE STATION AND OFFSET TABLE		
POINT NO.	STATION	OFFSET
TLE7824	292+73.17	75.00
TLE7825	292+73.17	85.00
TLE7826	292+35.17	85.00
TLE7827	292+35.17	75.00

RIGHT OF WAY STATION AND OFFSET TABLE		
POINT NO.	STATION	OFFSET
2180	282+00.00	0.00
2181	282+00.00	-75.00
2182	287+35.51	-75.00
5701	287+35.70	-108.33
5702	288+00.58	-107.96
2185	288+65.58	-107.66
2186	290+51.69	-75.00
2187	296+00.00	-75.00
2188	296+00.00	0.00
2189	296+00.00	75.00
2190	288+67.02	75.00
2193	287+36.90	75.00
2194	282+00.00	75.00
5700	288+02.00	75.03

DOC.# 10223186
RECORDED 03/06/2013 01:59PM
JOHN LA FAVE
REGISTER OF DEEDS
Milwaukee County, WI
AMOUNT: 25.00
FEE EXEMPT #:
Rec'd # 8077

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 2060-15-21-4.09
AMENDMENT NO:

CONC. MON.
W/BRASS CAP
Y=246803.98
X=605327.89

NE/NE

CITY

LOT 1
CSM 7819
DOC. 9036278

CONC. MON.
W/BRASS CAP
Y=249554.73
X=602776.925

W DREXEL AVE
NORTH LINE OF THE NE1/4 OF THE NE1/4

65' 65'

2537.64'
N87°40'10"W

LOT 3
CSM 7452
DOC. 8837313

SE/SE

LOT 2
CSM 7452
DOC. 8837313

LOT 1
CSM 7452
DOC. 8837313

LOT 1
CSM 7750
DOC. 9226194

LOT 1
CSM 755

33.33'
N87°40'10"W

5701 5702 2185

65.00' N02°19'50"E 65.00'

(1.5 IN) IP 1098

N12°01'01"E 188.95'

2186

(1.5 IN) IP 1097

N02°03'49"E 548.31'

IP 1096

2182
(CROSS CUT) IP 1084

N02°00'12"E 535.51'

CONC. MON.
W/BRASS CAP
Y=249447.15
X=605420.34

2181 2187

75.00' S87°59'11"E 75.00'

75' 75'

N87°59'48"W 75.00'

285 290 295

WEST LINE OF THE NW1/4 OF THE NW1/4

N 2°00'12" E

℄

PI STA 288+00.08
Y=249447.15
X=605420.34

STH 38 (S HOWELL AVE)

N 2°03'49" E

WEST LINE OF THE SW1/4 OF THE SW1/4

S02°00'12"W 1845.17'

2180 2188

75.00' S87°59'11"E 75.00'

2194

N02°00'12"E 2044.70'

S02°00'12"W IP 1088

536.90'

S02°02'04"W IP 1093

S02°03'49"W

10'

TLE7827 TLE7824

TLE7826 TLE7825

38.00'

(1.5 IN) IP 1094

732.98'

2189

CONC. MON.
W/BRASS CAP
Y=252090.52
X=605515.59

2193 5700 2190

65.02' 65.02'

58

PARCEL 2
CSM 6615
REEL 4486,
IMAGE 802
DOC. 7675949

PARCEL 1
CSM 6615
REEL 4486,
IMAGE 802
DOC. 7675949

PARCEL 1
CSM 3936
REEL 1334,
IMAGE 477
DOC. 5436227

PARCEL 1
CSM 5617
REEL 2655,
IMAGE 939
DOC. 6543502

NW/NW

65' 65'

S89°24'15"E 2596.46'

E DREXEL AVE
NORTH LINE OF THE NW1/4 OF THE NW1/4

SW/SW

OAK CREEK

Refer to the Title Sheet, recorded as Sheet 2 of 2, as Document No. 10213836 for additional information

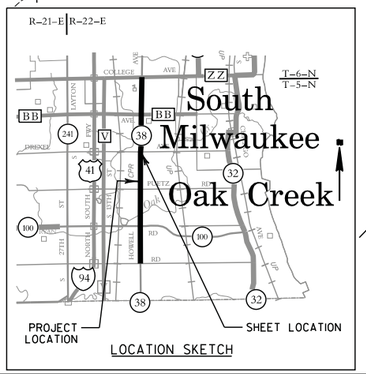
HIGHWAY	BASIS OF EXISTING R/W	R/W WIDTH	YEAR
STH 38	T0834 (7)	VARIES	1966
STH 38/W DREXEL AVE	CSM 7819	VARIES	2006
STH 38/W DREXEL AVE	CSM 7452	150'	2003
STH 38	CSM 755	N/A	N/A
STH 38/E DREXEL AVE	CSM 6615	VARIES	1998
STH 38/E DREXEL AVE	CSM 3936	N/A	N/A
STH 38	CSM 5617	VARIES	1990

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE CITY OF OAK CREEK.

PARCEL NUMBER	OWNERS	INTEREST REQUIRED	TLE ACRES
58	STERLING OAK CREEK, LLC, A WISCONSIN LIMITED LIABILITY COMPANY	TLE	0.009

CONC. MON.
W/BRASS CAP
Y=249419.37
X=608091.71



LOCATION SKETCH

SCALE, FEET 0 50 100

PREVIOUS ACCESS CONTROL ESTABLISHED BY: RW PLAT T0834 (7) & CSM 7452

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION CONTACT THE PLANNING DEPARTMENT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA

ALL TLES SHOWN ON THIS SHEET ARE FOR SLOPE GRADING

EMCS

I, KEVIN C. BOYER, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 62.22 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE CITY OF OAK CREEK, I HAVE SURVEYED TRANSPORTATION PROJECT PLAT 2060-15-21-4.09 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

Kevin C. Boyer DATE: 2/18/2013

WISCONSIN KEVIN C BOYER S-2675 HEWITT WI LAND SURVEYOR

REGISTERED LAND SURVEYOR NUMBER 2675
THIS PLAT AND RELOCATION ORDER IS APPROVED FOR THE CITY OF OAK CREEK

(SIGNATURE) DATE: 2-28-13

(PRINTED NAME) Skw 682

TRANSPORTATION PROJECT PLAT NO: 2060-15-21 - 4.10

THAT PART OF PARCEL 1, CSM 4936, LOCATED IN AND PART OF THE NE1/4 OF THE SE1/4, PART OF PARCEL 1 AND 4, CSM 2195, LOCATED IN PART OF THE SE1/4 OF THE NE1/4, ALL IN SECTION 8, ALSO PART OF THE NW1/4 OF THE SW1/4 OF SECTION 9, ALL BEING LOCATED IN AND PART OF TOWNSHIP 5 NORTH, RANGE 22 EAST, CITY OF OAK CREEK, MILWAUKEE COUNTY, WISCONSIN

RELOCATION ORDER STH 38, MILWAUKEE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE CITY OF OAK CREEK DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 62.22, WISCONSIN STATUTES, THE CITY OF OAK CREEK HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE CITY FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE CITY OF OAK CREEK, PURSUANT TO THE PROVISIONS OF SECTION 62.22 (1) OR (1M), WISCONSIN STATUTES.

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, MILWAUKEE COUNTY, NAD 83 (2007) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

SCHEDULE OF LANDS & INTERESTS REQUIRED

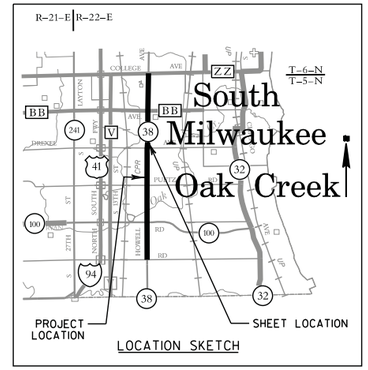
OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE CITY OF OAK CREEK.

PARCEL NUMBER	OWNERS	INTEREST REQUIRED	PLE ACRES	TLE ACRES
59	BUTCH INVESTMENTS, LLC	TLE	---	0.245
61	UNION BUILDING CORPORATION, A MICHIGAN NON-PROFIT CORPORATION	TLE	---	0.081
64	MARGARET A. KNUDSON, F/K/A MARGARET A. SALER & CHARLES D. KNUDSON	PLE/TLE	0.011	0.047

ALL TLES SHOWN ON THIS SHEET ARE FOR SLOPE GRADING EXISTING BUILDINGS WHICH OCCUPY TLE AREAS WILL NOT BE AFFECTED

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION CONTACT THE PLANNING DEPARTMENT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA

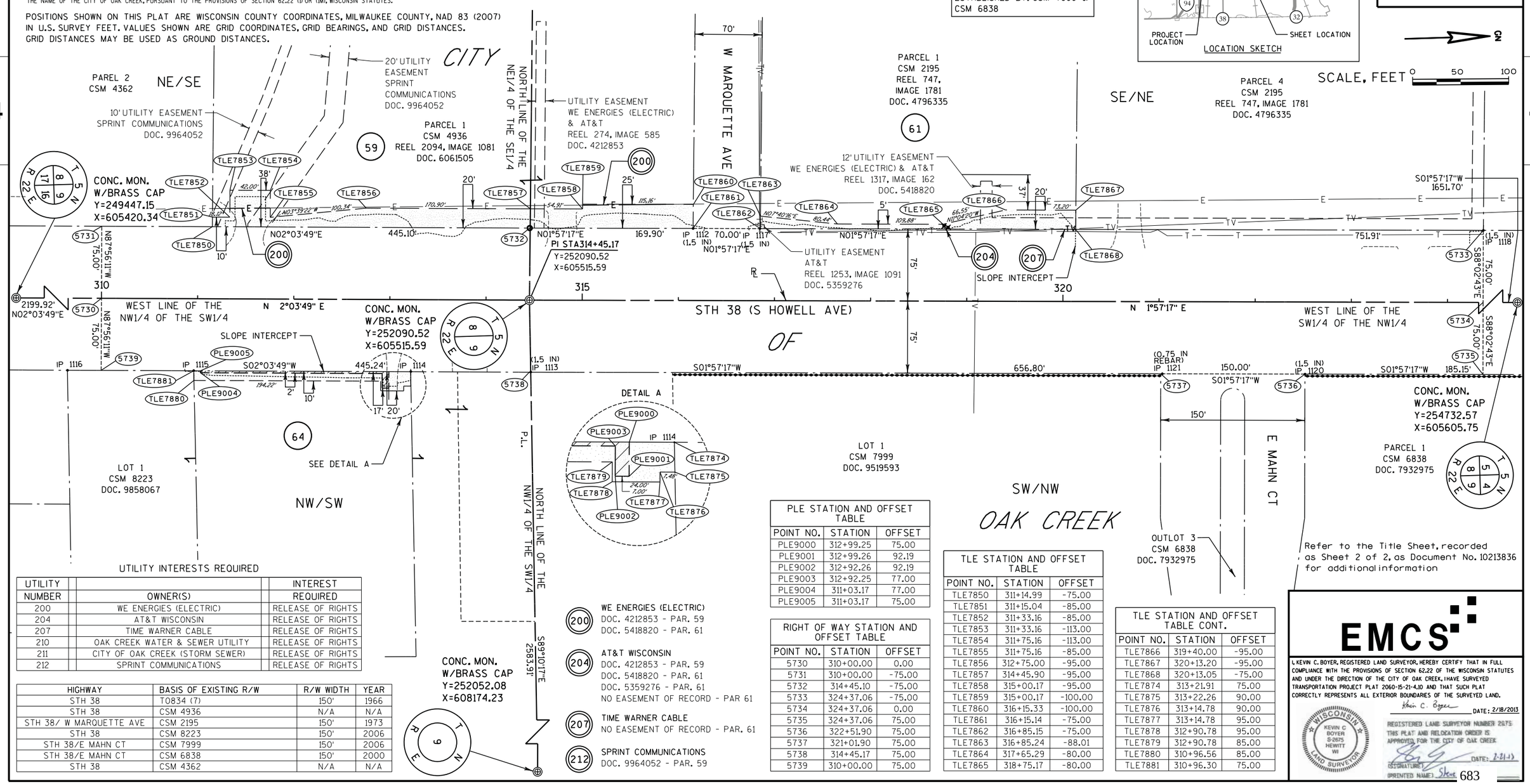
PREVIOUS ACCESS CONTROL ESTABLISHED BY: CSM 7999 & CSM 6838



LOCATION SKETCH

DOC.# 10223187
RECORDED 03/08/2013 01:58PM
JOHN LA FAVE
REGISTER OF DEEDS
Milwaukee County, WI
AMOUNT: 25.00
FEE EXEMPT #: Reel: 8077

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 2060-15-21-4.10
AMENDMENT NO:



UTILITY INTERESTS REQUIRED

UTILITY NUMBER	OWNER(S)	INTEREST REQUIRED
200	WE ENERGIES (ELECTRIC)	RELEASE OF RIGHTS
204	AT&T WISCONSIN	RELEASE OF RIGHTS
207	TIME WARNER CABLE	RELEASE OF RIGHTS
210	OAK CREEK WATER & SEWER UTILITY	RELEASE OF RIGHTS
211	CITY OF OAK CREEK (STORM SEWER)	RELEASE OF RIGHTS
212	SPRINT COMMUNICATIONS	RELEASE OF RIGHTS

HIGHWAY	BASIS OF EXISTING R/W	R/W WIDTH	YEAR
STH 38	T0834 (7)	150'	1966
STH 38	CSM 4936	N/A	N/A
STH 38/ W MARQUETTE AVE	CSM 2195	150'	1973
STH 38	CSM 8223	150'	2006
STH 38/E MAHN CT	CSM 7999	150'	2006
STH 38/E MAHN CT	CSM 6838	150'	2000
STH 38	CSM 4362	N/A	N/A

(200) WE ENERGIES (ELECTRIC)
DOC. 4212853 - PAR. 59
DOC. 5418820 - PAR. 61

(204) AT&T WISCONSIN
DOC. 4212853 - PAR. 59
DOC. 5418820 - PAR. 61
DOC. 5359276 - PAR. 61
NO EASEMENT OF RECORD - PAR 61

(207) TIME WARNER CABLE
NO EASEMENT OF RECORD - PAR. 61

(212) SPRINT COMMUNICATIONS
DOC. 9964052 - PAR. 59

PLE STATION AND OFFSET TABLE		
POINT NO.	STATION	OFFSET
PLE9000	312+99.25	75.00
PLE9001	312+99.26	92.19
PLE9002	312+92.26	92.19
PLE9003	312+92.25	77.00
PLE9004	311+03.17	77.00
PLE9005	311+03.17	75.00

RIGHT OF WAY STATION AND OFFSET TABLE		
POINT NO.	STATION	OFFSET
5730	310+00.00	0.00
5731	310+00.00	-75.00
5732	314+45.10	-75.00
5733	324+37.06	-75.00
5734	324+37.06	0.00
5735	324+37.06	75.00
5736	322+51.90	75.00
5737	321+01.90	75.00
5738	314+45.17	75.00
5739	310+00.00	75.00

TLE STATION AND OFFSET TABLE		
POINT NO.	STATION	OFFSET
TLE7850	311+14.99	-75.00
TLE7851	311+15.04	-85.00
TLE7852	311+33.16	-85.00
TLE7853	311+33.16	-113.00
TLE7854	311+75.16	-113.00
TLE7855	311+75.16	-85.00
TLE7856	312+75.00	-95.00
TLE7857	314+45.90	-95.00
TLE7858	315+00.17	-95.00
TLE7859	315+00.17	-100.00
TLE7860	316+15.33	-100.00
TLE7861	316+15.14	-75.00
TLE7862	316+85.15	-75.00
TLE7863	316+85.24	-88.01
TLE7864	317+65.29	-80.00
TLE7865	318+75.17	-80.00

TLE STATION AND OFFSET TABLE CONT.		
POINT NO.	STATION	OFFSET
TLE7866	319+40.00	-95.00
TLE7867	320+13.20	-95.00
TLE7868	320+13.05	-75.00
TLE7874	313+21.91	75.00
TLE7875	313+22.26	90.00
TLE7876	313+14.78	90.00
TLE7877	313+14.78	95.00
TLE7878	312+90.78	95.00
TLE7879	312+90.78	85.00
TLE7880	310+96.56	85.00
TLE7881	310+96.30	75.00

Refer to the Title Sheet, recorded as Sheet 2 of 2, as Document No. 10213836 for additional information

EMCS

I, KEVIN C. BOYER, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 62.22 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE CITY OF OAK CREEK, I HAVE SURVEYED TRANSPORTATION PROJECT PLAT 2060-15-21-4.10 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

DATE: 2/18/2013

KEVIN C BOYER S-2675 HEWITT WI — WISCONSIN — LAND SURVEYOR

REGISTERED LAND SURVEYOR NUMBER 2675

THIS PLAT AND RELOCATION ORDER IS APPROVED FOR THE CITY OF OAK CREEK

DATE: 2-21-13

(SIGNATURE)

(PRINTED NAME) Steve

683

FILE NAME : P:\46xx\4646_DP.11.STH38.MIL\CADDS\Plan\City of Oak Creek Plat\040110_rp.dgn

PLOT DATE : 2/18/2013

PLOT BY : kcb

PLOT NAME :

PLOT SCALE : 1:50

2060-15-71, STH 38, 2060-15-21 4.10

TRANSPORTATION PROJECT PLAT NO: 2060-15-21 - 4.11

THAT PART OF LOTS 2-5, BLOCK 2, ASSESSMENT SUBDIVISION 59, LOCATED IN AND PART OF THE NW1/4 OF THE NW1/4, PART OF PARCEL 1, CSM 6838, LOCATED IN AND PART OF THE SW1/4 OF THE NW1/4, ALL IN SECTION 9, ALSO PART OF LOT 1, CSM 172, AND PARCEL 3, CSM 3593, LOCATED IN AND PART OF THE SE1/4 OF THE NE1/4, PART OF LOT 1, CSM 7751, LOCATED IN AND PART OF THE NE1/4 OF THE NE1/4, ALL IN SECTION 8, ALL BEING LOCATED IN AND PART OF TOWNSHIP 5 NORTH, RANGE 22 EAST, CITY OF OAK CREEK, MILWAUKEE COUNTY, WISCONSIN

RELOCATION ORDER STH 38, MILWAUKEE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE CITY OF OAK CREEK DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 62.22, WISCONSIN STATUTES, THE CITY OF OAK CREEK HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE CITY FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE CITY OF OAK CREEK, PURSUANT TO THE PROVISIONS OF SECTION 62.22 (1) OR (1M), WISCONSIN STATUTES.

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	OWNER(S)	INTEREST REQUIRED
200	WE ENERGIES (ELECTRIC)	RELEASE OF RIGHTS
204	AT&T WISCONSIN	RELEASE OF RIGHTS
210	OAK CREEK WATER & SEWER UTILITY	RELEASE OF RIGHTS

HIGHWAY	BASIS OF EXISTING R/W	R/W WIDTH	YEAR
STH 38	T0834 (7)	VARIES	1966
STH 38	CSM 172	VARIES	1962
STH 38	CSM 3593	150'	1979
STH 38	CSM 7751	VARIES	2005
STH 38	CSM 6838	150'	2000
STH 38	ASSESSMENT SUBDIVISION 59	VARIES	1930

(200) WE ENERGIES (ELECTRIC)
DOC. 7225579 - PAR. 66
DOC. 8460403 - PAR. 69
NO EASEMENT OF RECORD - PAR. 68, 73

(204) AT&T WISCONSIN
DOC. 7225579 - PAR. 66
NO EASEMENT OF RECORD - PAR. 73

(210) OAK CREEK WATER & SEWER UTILITY
DOC. 8187888 - PAR. 66
NO EASEMENT OF RECORD - PAR. 66

SCHEDULE OF LANDS & INTERESTS REQUIRED

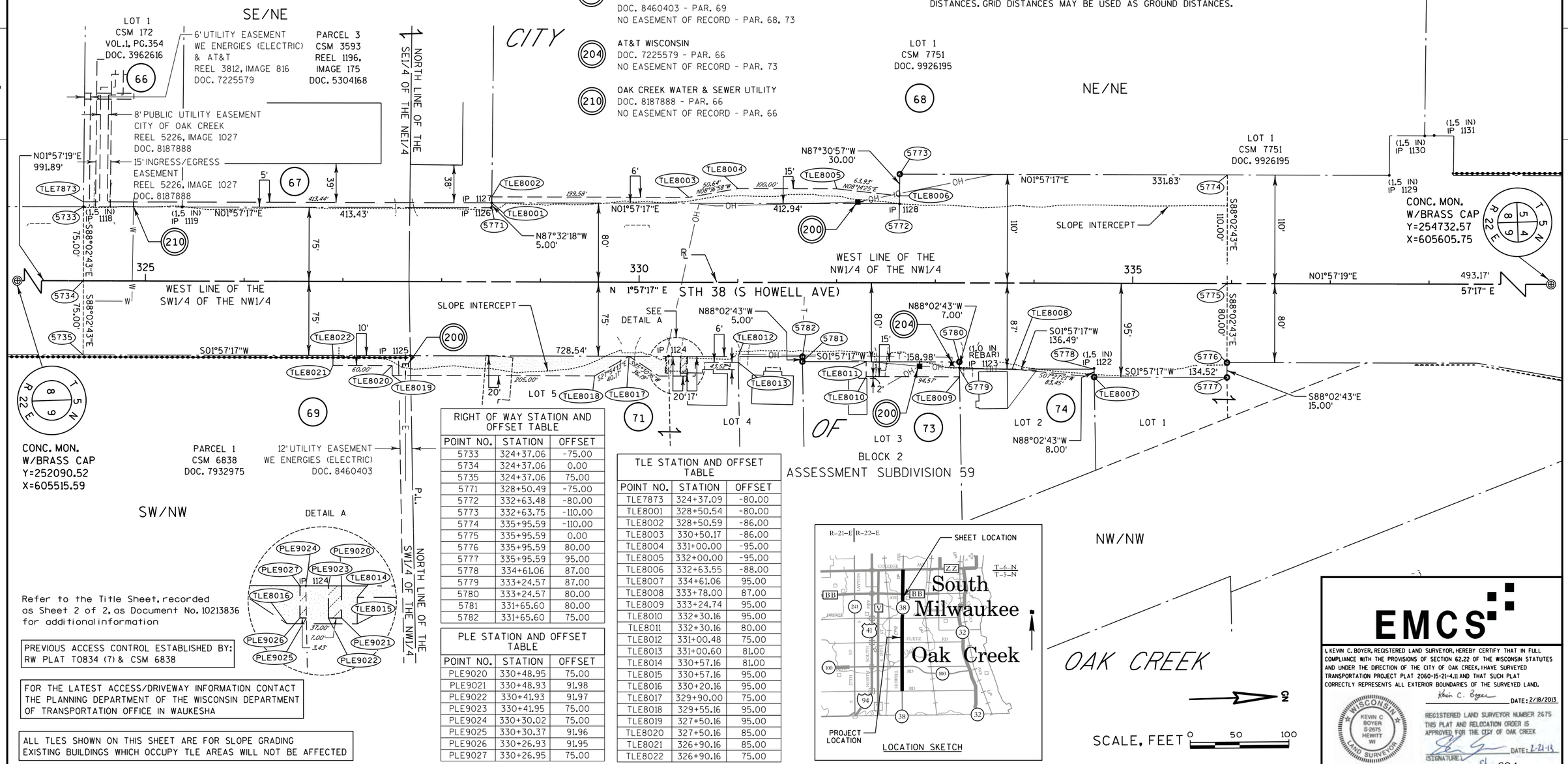
OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE CITY OF OAK CREEK.

PARCEL NUMBER	OWNERS	INTEREST REQUIRED	PLE ACRES	TLE ACRES
66	CITY OF OAK CREEK	TLE	---	0.012
67	S & G PARTNERSHIP	TLE	---	0.036
68	MCADAMS GRAPHICS, INC, A WISCONSIN CORPORATION	TLE	---	0.091
69	MAHN COURT, LLC	TLE	---	0.022
71	WALTER WICKMAN JR	PLE/TLE	0.004	0.120
73	ROSE FLEISCHMAN	TLE	---	0.033
74	DAVID D & DIANE C PISCHKE	TLE	---	0.008

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, MILWAUKEE COUNTY, NAD 83 (2007) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

DOC.# 10223188
RECORDED 03/05/2013 01:53PM
JOHN LA FAVE
REGISTER OF DEEDS
Milwaukee County, WI
AMOUNT: 25.00
FEE EXEMPT #:
Rec1:8077

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 2060-15-21-4.11
AMENDMENT NO:



Refer to the Title Sheet, recorded as Sheet 2 of 2, as Document No. 10213836 for additional information

PREVIOUS ACCESS CONTROL ESTABLISHED BY: RW PLAT T0834 (7) & CSM 6838

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION CONTACT THE PLANNING DEPARTMENT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA

ALL TLES SHOWN ON THIS SHEET ARE FOR SLOPE GRADING EXISTING BUILDINGS WHICH OCCUPY TLE AREAS WILL NOT BE AFFECTED

RIGHT OF WAY STATION AND OFFSET TABLE

POINT NO.	STATION	OFFSET
5733	324+37.06	-75.00
5734	324+37.06	0.00
5735	324+37.06	75.00
5771	328+50.49	-75.00
5772	332+63.48	-80.00
5773	332+63.75	-110.00
5774	335+95.59	-110.00
5775	335+95.59	0.00
5776	335+95.59	80.00
5777	335+95.59	95.00
5778	334+61.06	87.00
5779	333+24.57	87.00
5780	333+24.57	80.00
5781	331+65.60	80.00
5782	331+65.60	75.00

PLE STATION AND OFFSET TABLE

POINT NO.	STATION	OFFSET
PLE9020	330+48.95	75.00
PLE9021	330+48.93	91.98
PLE9022	330+41.93	91.97
PLE9023	330+41.95	75.00
PLE9024	330+30.02	75.00
PLE9025	330+30.37	91.96
PLE9026	330+26.93	91.95
PLE9027	330+26.95	75.00

TLE STATION AND OFFSET TABLE

POINT NO.	STATION	OFFSET
TLE7873	324+37.09	-80.00
TLE8001	328+50.54	-80.00
TLE8002	328+50.59	-86.00
TLE8003	330+50.17	-86.00
TLE8004	331+00.00	-95.00
TLE8005	332+00.00	-95.00
TLE8006	332+63.55	-88.00
TLE8007	334+61.06	95.00
TLE8008	333+78.00	87.00
TLE8009	333+24.74	95.00
TLE8010	332+30.16	95.00
TLE8011	332+30.16	80.00
TLE8012	331+00.48	75.00
TLE8013	331+00.60	81.00
TLE8014	330+57.16	81.00
TLE8015	330+57.16	95.00
TLE8016	330+20.16	95.00
TLE8017	329+90.00	75.00
TLE8018	329+55.16	95.00
TLE8019	327+50.16	95.00
TLE8020	327+50.16	85.00
TLE8021	326+90.16	85.00
TLE8022	326+90.16	75.00

EMCS

I, KEVIN C. BOYER, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 62.22 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE CITY OF OAK CREEK, I HAVE SURVEYED TRANSPORTATION PROJECT PLAT 2060-15-21-4.11 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

Kevin C. Boyer DATE: 2/18/2013

WISCONSIN KEVIN C BOYER S-2675 HEWITT WI LAND SURVEYOR

REGISTERED LAND SURVEYOR NUMBER 2675

THIS PLAT AND RELOCATION ORDER IS APPROVED FOR THE CITY OF OAK CREEK

(SIGNATURE) DATE: 2-21-13

(PRINTED NAME) Stan

684

TRANSPORTATION PROJECT PLAT NO: 2060-15-21 - 4.12

THAT PART OF PARCEL 1 AND 2, CSM 7591, LOT 1, CSM 8364, ALL LOCATED IN PART OF THE SE1/4 OF THE SE1/4 OF SECTION 5, ALSO PART OF THE NW1/4 OF THE NW1/4 OF SECTION 9, ALL BEING LOCATED IN AND PART OF TOWNSHIP 5 NORTH, RANGE 22 EAST, CITY OF OAK CREEK, MILWAUKEE COUNTY, WISCONSIN

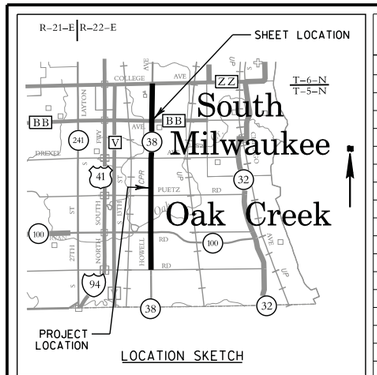
RELOCATION ORDER STH 38, MILWAUKEE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE CITY OF OAK CREEK DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 62.22, WISCONSIN STATUTES, THE CITY OF OAK CREEK HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE CITY FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE CITY OF OAK CREEK, PURSUANT TO THE PROVISIONS OF SECTION 62.22 (1) OR (1M), WISCONSIN STATUTES.

DOC.# 10223189
RECORDED 03/06/2013 01:15PM
JOAN LA FAVE
REGISTER OF DEEDS
Milwaukee County, WI
AMOUNT: 25.00
FEE EXEMPT #:
Reel: 3077

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 2060-15-21-4.12
AMENDMENT NO:



LOCATION SKETCH

Refer to the Title Sheet, recorded as Sheet 2 of 2, as Document No. 10213836 for additional information

RIGHT OF WAY STATION AND OFFSET TABLE		
POINT NO.	STATION	OFFSET
5774	335+95.59	-110.00
5775	335+95.59	0.00
5776	335+95.59	80.00
5810	337+59.41	-110.00
5811	337+59.80	-149.99
5812	338+24.80	-150.00
5813	338+24.41	-110.00
5814	339+74.85	-110.00
5815	340+89.64	-109.83
5816	342+09.61	-104.88
5817	343+52.32	-80.00
5818	347+50.82	-80.00
5819	347+51.01	-100.00
5820	350+50.00	-100.00
5821	350+50.00	0.00
5822	350+50.00	90.00
5823	347+52.09	90.00
5824	347+52.43	105.00
5825	342+31.13	105.00
5826	340+91.08	104.19
5827	339+85.84	103.38
5828	338+48.81	80.00

PREVIOUS ACCESS CONTROL ESTABLISHED BY: RW PLAT T0834 (7) & CSM 7591

TLE STATION AND OFFSET TABLE		
POINT NO.	STATION	OFFSET
TLE8052	343+92.16	-80.00
TLE8053	344+00.16	-100.00
TLE8054	344+45.16	-100.00
TLE8055	344+45.16	-85.00
TLE8056	344+74.61	-85.00
TLE8057	344+74.61	-80.00
TLE8061	339+86.05	113.56
TLE8062	338+47.97	90.00
TLE8063	335+95.59	90.00

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, MILWAUKEE COUNTY, NAD 83 (2007) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

CONC. MON. W/BRASS CAP Y=254849.78 X=602948.96

CONC. MON. W/BRASS CAP Y=257376.20 X=605700.98

CONC. MON. W/BRASS CAP Y=254732.57 X=605605.75

CONC. MON. W/BRASS CAP Y=254696.33 X=608254.03

PI STA340+88.75 Y=254732.57 X=605605.75

W RAWSON AVE — NORTH LINE OF THE NE1/4 OF THE NE1/4 — N87°28'26"W 2549.54'

E RAWSON AVE — NORTH LINE OF THE NW1/4 OF THE NW1/4 — S89°12'58"E 2544.31'

STH 38 (S HOWELL AVE)

WEST LINE OF THE NW1/4 OF THE NW1/4 — N 1°57'17" E 493.17'

WEST LINE OF THE SW1/4 OF THE SW1/4 — N 2°03'47" E 961.25'

NE/NE — LOT 1 CSM 7751 DOC. 9926195

PARCEL 2 CSM 2448 REEL 821, IMAGE 511 DOC. 4882116

PARCEL 1 CSM 7591 DOC. 9006079

PARCEL 2 CSM 7591 DOC. 9006079

LOT 1 CSM 8364 DOC. 10012516

SE/SE

NW/NW — OUTLOT 1 CSM 3765 REEL 1255, IMAGE 1621 DOC. 5361363

SW/SW — OAK CREEK

WATERMAIN UTILITY EASEMENT CITY OF OAK CREEK DOC. 8981793

UTILITY EASEMENT CITY OF OAK CREEK REEL 913, IMAGE 1517 DOC. 4985555

5' SANITARY SEWER EASEMENT CITY OF OAK CREEK REEL 2299, IMAGE 1246 DOC. 6249127

125' UTILITY EASEMENT AMERICAN TRANSMISSION COMPANY REEL 1526, IMAGE 237 DOC. 5614654

100' UTILITY EASEMENT AMERICAN TRANSMISSION COMPANY DOC. 3341663

35' UTILITY EASEMENT AMERICAN TRANSMISSION COMPANY DOC. 3353178 & 3356920

SEE DETAIL A

DETAIL A

SLOPE INTERCEPT

ALL TLES SHOWN ON THIS SHEET ARE FOR SLOPE GRADING

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE CITY OF OAK CREEK.

PARCEL NUMBER	OWNERS	INTEREST REQUIRED	TLE ACRES
76	MRT INVESTMENTS, LLC	TLE	0.005
77	150 WEST RAWSON, LLC, A WISCONSIN LIMITED LIABILITY COMPANY	TLE	0.021
79	MILWAUKEE COUNTY	TLE	0.090

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	OWNER(S)	INTEREST REQUIRED
200	WE ENERGIES (ELECTRIC)	RELEASE OF RIGHTS
201	WE ENERGIES (GAS)	RELEASE OF RIGHTS
204	AT&T WISCONSIN	RELEASE OF RIGHTS
205	AMERICAN TRANSMISSION COMPANY	RELEASE OF RIGHTS
207	TIME WARNER CABLE	RELEASE OF RIGHTS
210	OAK CREEK WATER & SEWER UTILITY	RELEASE OF RIGHTS

200 WE ENERGIES (ELECTRIC)
NO EASEMENT OF RECORD - PAR. 76

201 WE ENERGIES (GAS)
NO EASEMENT OF RECORD - PAR. 79

204 AT&T WISCONSIN
NO EASEMENT OF RECORD - PAR. 76

205 AMERICAN TRANSMISSION COMPANY
DOC. 3341663 - PAR. 76, 77
DOC. 5614654 - PAR. 79
DOC. 3353178 - PAR. 79
DOC. 3356920 - PAR. 79

207 TIME WARNER CABLE
NO EASEMENT OF RECORD - PAR. 79

210 OAK CREEK WATER & SEWER UTILITY
DOC. 4985555 - PAR. 76, 77
DOC. 6249127 - PAR. 79
DOC. 8981793 - PAR. 76, 77

HIGHWAY	BASIS OF EXISTING R/W	R/W WIDTH	YEAR
STH 38	T0834 (7)	VARIES	1966
STH 38	CSM 7751	VARIES	2005
STH 38/W RAWSON AVE	CSM 2448	N/A	N/A
STH 38/W RAWSON AVE	CSM 7591	VARIES	1999
STH 38	CSM 8364	VARIES	2011
STH 38/E RAWSON AVE	CSM 3765	N/A	N/A
STH 38/E RAWSON AVE	CSM 205	VARIES	1962
STH 38	CSM 3670	N/A	N/A
STH 38	CSM 500	N/A	N/A

LOT 4 CSM 500 REEL 286, IMAGE 1405-1406 DOC. 4228646

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION CONTACT THE PLANNING DEPARTMENT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA

SCALE, FEET 0 50 100

EMCS

I, KEVIN C. BOYER, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 62.22 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE CITY OF OAK CREEK, I HAVE SURVEYED TRANSPORTATION PROJECT PLAT 2060-15-21-4.12 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

Kevin C. Boyer DATE: 2/18/2013

WISCONSIN KEVIN C. BOYER S-2675 HEWITT WI LAND SURVEYOR

REGISTERED LAND SURVEYOR NUMBER 2675
THIS PLAT AND RELOCATION ORDER IS APPROVED FOR THE CITY OF OAK CREEK

(SIGNATURE) DATE: 2-4-13

(PRINTED NAME) Steve

685

FILE NAME : P:\46xx\4646_DP.11.STH38.MIL\CADDS\Plan\City of Oak Creek Plat\040112_rp.dgn PLOT DATE : 2/18/2013 PLOT BY : kcb PLOT NAME : PLOT SCALE : 1:50

2060-15-71, STH 38, 2060-15-21 4.12

TRANSPORTATION PROJECT PLAT NO: 2060-15-21 - 4.13

THAT PART OF LOTS 1, 2, AND 3, CSM 500, LOCATED IN AND PART OF THE SW1/4 OF THE SW1/4, PART OF PARCEL 2, CSM 5856, PARCEL 1, CSM 8253, LOCATED IN AND PART OF THE NW1/4 OF THE SW1/4, ALL IN SECTION 4, ALSO PART OF LOT 1, CSM 90, LOCATED IN AND PART OF NE1/4 OF THE SE1/4, PART OF THE SE1/4 OF THE SE1/4, ALL IN SECTION 5, ALL BEING PART OF AND LOCATED IN TOWNSHIP 5 NORTH, RANGE 22 EAST, CITY OF OAK CREEK, MILWAUKEE COUNTY, WISCONSIN

RELOCATION ORDER STH 38, MILWAUKEE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE CITY OF OAK CREEK DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 62.22, WISCONSIN STATUTES, THE CITY OF OAK CREEK HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE CITY THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE CITY OF OAK CREEK, PURSUANT TO THE PROVISIONS OF SECTION 62.22 (1) OR (1M), WISCONSIN STATUTES.

HIGHWAY	BASIS OF EXISTING R/W	R/W WIDTH	YEAR
STH 38	T0834 (7)	VARIES	1966
STH 38	CSM 90	N/A	N/A
STH 38	CSM 500	N/A	N/A
STH 38	CSM 5856	VARIES	1993
STH 38	CSM 8253	VARIES	2010
STH 38	OAKDALE HEIGHTS	120'	1950

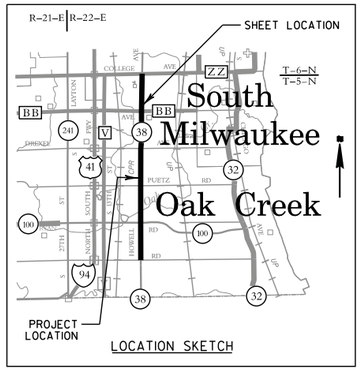
TLE STATION AND OFFSET TABLE		
POINT NO.	STATION	OFFSET
TLE8090	352+45.01	-80.00
TLE8091	352+70.06	-80.00
TLE8092	352+70.06	-100.00
TLE8093	353+10.16	-100.00
TLE8094	353+10.16	-90.00
TLE8095	354+12.35	-90.00
TLE8096	354+12.40	-95.00
TLE8097	354+70.16	-95.00
TLE8098	354+70.16	-80.00
TLE8099	358+72.25	-80.00
TLE8100	358+72.19	-75.00
TLE8101	360+59.16	-75.00
TLE8102	360+59.16	-83.00
TLE8103	360+86.00	-83.00
TLE8104	360+86.00	-80.00
TLE8105	362+72.27	-80.00
TLE8106	362+72.32	-85.00
TLE8107	363+00.00	-85.00
TLE8108	363+00.00	-80.00
TLE8109	364+00.00	-85.00
TLE8110	364+50.00	-85.00
TLE8111	364+05.67	84.97
TLE8112	364+00.16	84.97
TLE8113	364+00.16	75.00

TLE STATION AND OFFSET TABLE CONT.		
POINT NO.	STATION	OFFSET
TLE8114	363+76.16	75.00
TLE8115	363+76.16	85.00
TLE8116	363+01.16	85.00
TLE8117	363+01.16	75.00
TLE8118	361+75.16	75.00
TLE8119	361+75.16	92.00
TLE8120	361+00.00	92.00
TLE8121	360+65.16	85.00
TLE8122	359+69.10	81.00
TLE8123	358+00.16	81.00
TLE8124	357+85.00	100.00
TLE8125	356+65.16	100.00
TLE8126	356+65.16	75.00
TLE8129	354+13.09	75.00
TLE8130	354+13.38	83.00
TLE8131	353+50.00	83.00
TLE8132	353+50.00	79.00
TLE8133	352+81.15	79.00
TLE8134	352+30.00	95.00
TLE8135	351+95.16	95.00
TLE8136	351+95.16	85.00
TLE8137	350+83.98	85.00

RIGHT OF WAY STATION AND OFFSET TABLE		
POINT NO.	STATION	OFFSET
5820	350+50.00	-100.00
5821	350+50.00	0.00
5822	350+50.00	90.00
5850	352+45.01	-100.00
5851	352+45.01	-75.00
5853	364+50.00	-75.00
5854	364+50.00	0.00
5855	364+50.00	90.00
5856	364+05.67	90.00
5857	364+05.67	75.00
5858	350+83.76	75.00
5859	350+84.09	90.00

ALL TLES SHOWN ON THIS SHEET ARE FOR SLOPE GRADING

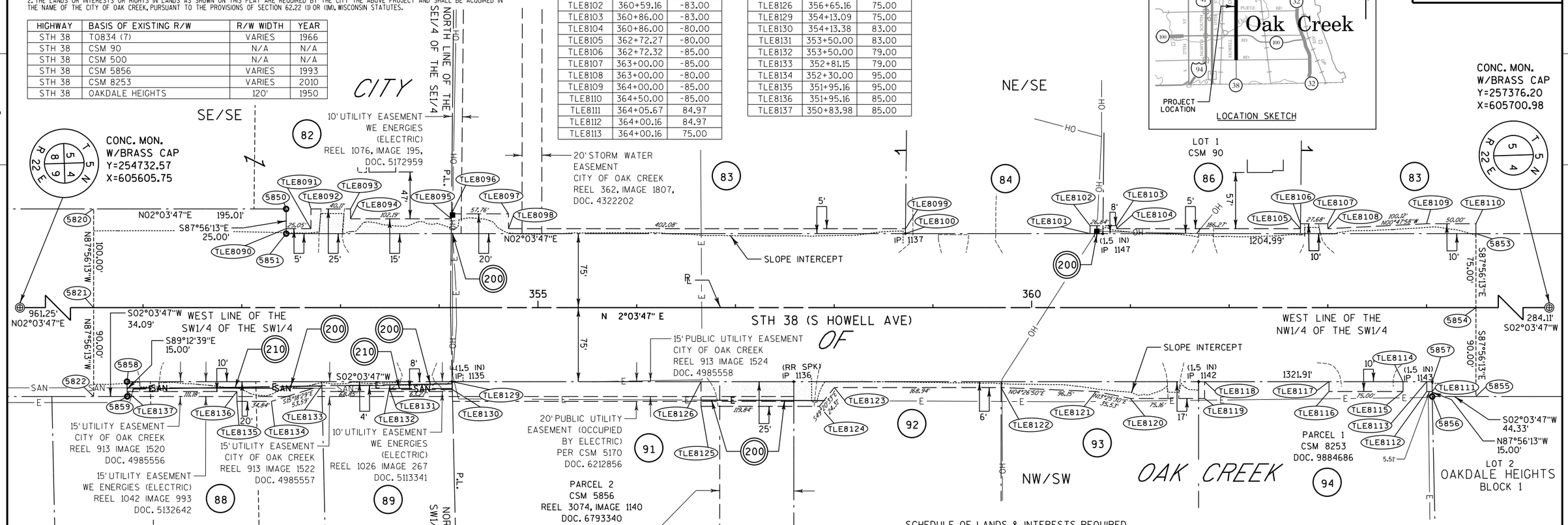
FOR THE LATEST ACCESS/DRIVEWAY INFORMATION CONTACT THE PLANNING DEPARTMENT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA



LOCATION SKETCH

DOC.# 10223190
RECORDED 02/05/2013 01:53PM
JOHN LA FAVE
REGISTER OF DEEDS
Milwaukee County, WI
AMOUNT: 25.00
FEE EXEMPT #:
Reel: 8077

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 2060-15-21-4.13
AMENDMENT NO:



SCHEDULE OF LANDS & INTERESTS REQUIRED			
PARCEL NUMBER	OWNERS	INTEREST REQUIRED	TLE ACRES
82	HERMAN C. KOPPLIN & ELIZABETH J. KOPPLIN	TLE	0.061
83	BROOKIND CORPORATION, AN ILLINOIS	TLE	0.108
84	SHARON A. DULL	TLE	0.002
86	ROBERT POLINSKI	TLE	0.024
88	RAYMOND GOTTFRIED & VIRGINIA E. GOTTFRIED, TRUSTEES OF THE RAYMOND & VIRGINIA E. GOTTFRIED REVOCABLE TRUST	TLE	0.056
89	KEVIN J. POLINSKI & DARLENE M. POLINSKI	TLE	0.018
91	PRC INVESTORS, LLC A WISCONSIN LIMITED LIABILITY COMPANY	TLE	0.054
92	JNW BUILDING CORPORATION, A WISCONSIN CORPORATION	TLE	0.044
93	ARTHUR RATAYCZAK SR & MARGARET RATAYCZAK	TLE	0.055
94	BUCYRUS WISCONSIN PROPERTY, LLC, A DELAWARE LIMITED LIABILITY COMPANY	TLE	0.021

(200) WE ENERGIES (ELECTRIC)
DOC. 5172959 - PAR 83
DOC. 5132642 - PAR. 88
DOC. 5113341 - PAR. 89
NO EASEMENT OF RECORD - PAR. 84

(210) OAK CREEK WATER & SEWER UTILITY
DOC. 4985556 - PAR. 88
DOC. 4985557 - PAR. 89
DOC. 4985558 - PAR. 91

(211) CITY OF OAK CREEK (STORM SEWER)
DOC. 4322202 - PAR. 83

Refer to the Title Sheet, recorded as Sheet 2 of 2, as Document No. 10213836 for additional information

UTILITY INTERESTS REQUIRED		
UTILITY NUMBER	OWNER(S)	INTEREST REQUIRED
200	WE ENERGIES (ELECTRIC)	RELEASE OF RIGHTS
210	OAK CREEK WATER & SEWER UTILITY	RELEASE OF RIGHTS
211	CITY OF OAK CREEK (STORM SEWER)	RELEASE OF RIGHTS

SCALE, FEET 0 50 100

EMCS

I, KEVIN C. BOYER, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 62.22 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE CITY OF OAK CREEK, I HAVE SURVEYED TRANSPORTATION PROJECT PLAT 2060-15-21-4.13 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

Kevin C. Boyer DATE: 2/18/2013

WISCONSIN KEVIN C BOYER S-2675 HEWITT WI LAND SURVEYOR

REGISTERED LAND SURVEYOR NUMBER 2675
THIS PLAT AND RELOCATION ORDER IS APPROVED FOR THE CITY OF OAK CREEK

(SIGNATURE) DATE: 2-21-13
(PRINTED NAME) Steve 686

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, MILWAUKEE COUNTY, NAD 83 (2007) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

TRANSPORTATION PROJECT PLAT NO: 2060-15-21 - 4.14

THAT PART OF PARCEL 1 AND 2, CSM 4961, LOCATED IN AND PART OF THE SW1/4 OF THE NW1/4 OF SECTION 4, ALSO PART OF THE SE1/4 OF THE NE1/4 OF SECTION 5, ALL BEING LOCATED IN AND PART OF TOWNSHIP 5 NORTH, RANGE 22 EAST, CITY OF OAK CREEK, MILWAUKEE COUNTY, WISCONSIN

RELOCATION ORDER STH 38, MILWAUKEE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE CITY OF OAK CREEK DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 62.22, WISCONSIN STATUTES, THE CITY OF OAK CREEK HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
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(200) WE ENERGIES (ELECTRIC)
DOC. 4439348 - PAR. 98
DOC. 5260358 - PAR. 101
NO EASEMENT OF RECORD - PAR. 96

(201) WE ENERGIES (GAS)
DOC. 4554567 - PAR. 98

(204) AT&T WISCONSIN
DOC. 4439348 - PAR. 98
NO EASEMENT OF RECORD - PAR. 97, 98

(208) WEST SHORE PIPE LINE COMPANY
DOC. 3887429 - PAR. 98

(210) OAK CREEK WATER & SEWER UTILITY
DOC. 5378047 - PAR. 97
DOC. 4323365 - PAR. 97
DOC. 5286297 - PAR. 98
DOC. 8179404 - PAR. 98
DOC. 9329714 - PAR. 98
DOC. 5364775 - PAR. 98
DOC. 6218339 - PAR. 101
DOC. 5286298 - PAR. 101, 102
DOC. 8179409 - PAR. 102
DOC. 6218340 - PAR. 99
DOC. 9029440 - PAR. 99
DOC. 8179410 - PAR. 103
DOC. 6218338 - PAR. 103
NO EASEMENT OF RECORD - PAR. 97

(211) CITY OF OAK CREEK (STORM SEWER)
DOC. 4323366 - PAR. 97

TLE STATION AND OFFSET TABLE		
POINT NO.	STATION	OFFSET
TLE8160	367+50.12	-75.04
TLE8161	367+50.15	-65.00
TLE8162	370+50.00	-65.00
TLE8163	370+50.00	-67.00
TLE8164	371+10.00	-67.00
TLE8165	371+10.00	-65.00
TLE8166	373+18.00	-65.00
TLE8167	373+18.00	-68.00
TLE8168	373+42.00	-68.00
TLE8169	373+42.00	-65.00
TLE8170	376+05.16	-65.00
TLE8171	376+05.16	-60.00
TLE8172	376+50.16	-60.00
TLE8173	376+50.16	-65.00
TLE8174	379+15.00	-65.00
TLE8175	378+05.00	60.00
TLE8176	378+05.00	70.00

RIGHT OF WAY STATION AND OFFSET TABLE		
POINT NO.	STATION	OFFSET
5853	364+50.00	-75.00
5854	364+50.00	0.00
5855	364+50.00	90.00
5885	367+34.82	-75.00
5886	367+34.68	-60.00
5887	379+15.00	-60.00
5888	379+15.00	0.00
5889	379+15.00	60.00
5890	377+95.07	60.00
5891	377+95.89	90.00
5892	376+61.21	90.00
5893	376+01.18	90.00
5894	374+66.84	90.00
5895	374+66.04	60.00
5896	367+35.59	60.00
5897	367+36.33	89.99
5898	366+91.07	90.00

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, MILWAUKEE COUNTY, NAD 83 (2007) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE CITY OF OAK CREEK.

SEE ALSO SHEET ...-4.??	PARCEL NUMBER	OWNERS	INTEREST REQUIRED	TLE ACRES
---	96	JERRY D. SMITH & ELLEN L. SMITH	TLE	0.013
4.15	97	MILWAUKEE AREA VOCATIONAL, TECHNICAL AND ADULT EDUCATION DISTRICT	TLE	0.125
---	98	ELECTRONIC CONSTRUCTION CORPORATION	TLE	0.026
---	99	RICKY A & ROBIN L MOGA	TLE	0.014
---	101	HARVEST COMMUNITY CHURCH	TLE	0.087
---	102	RICHARD A. LEHOCKY & MELODY S. STELL	TLE	0.008
---	103	STRAMOWSKI 6508 S HOWELL, LLC	TLE	0.002

THE AREA SHOWN IN THE SCHEDULE OF LANDS AND INTERESTS IS ONLY THE AREA OF PARCEL SHOWN ON THIS SHEET. IF THE PARCEL IS ON MULTIPLE SHEETS, REFERENCE THE OTHER SHEET(S) FOR ADDITIONAL PARCEL AREAS.

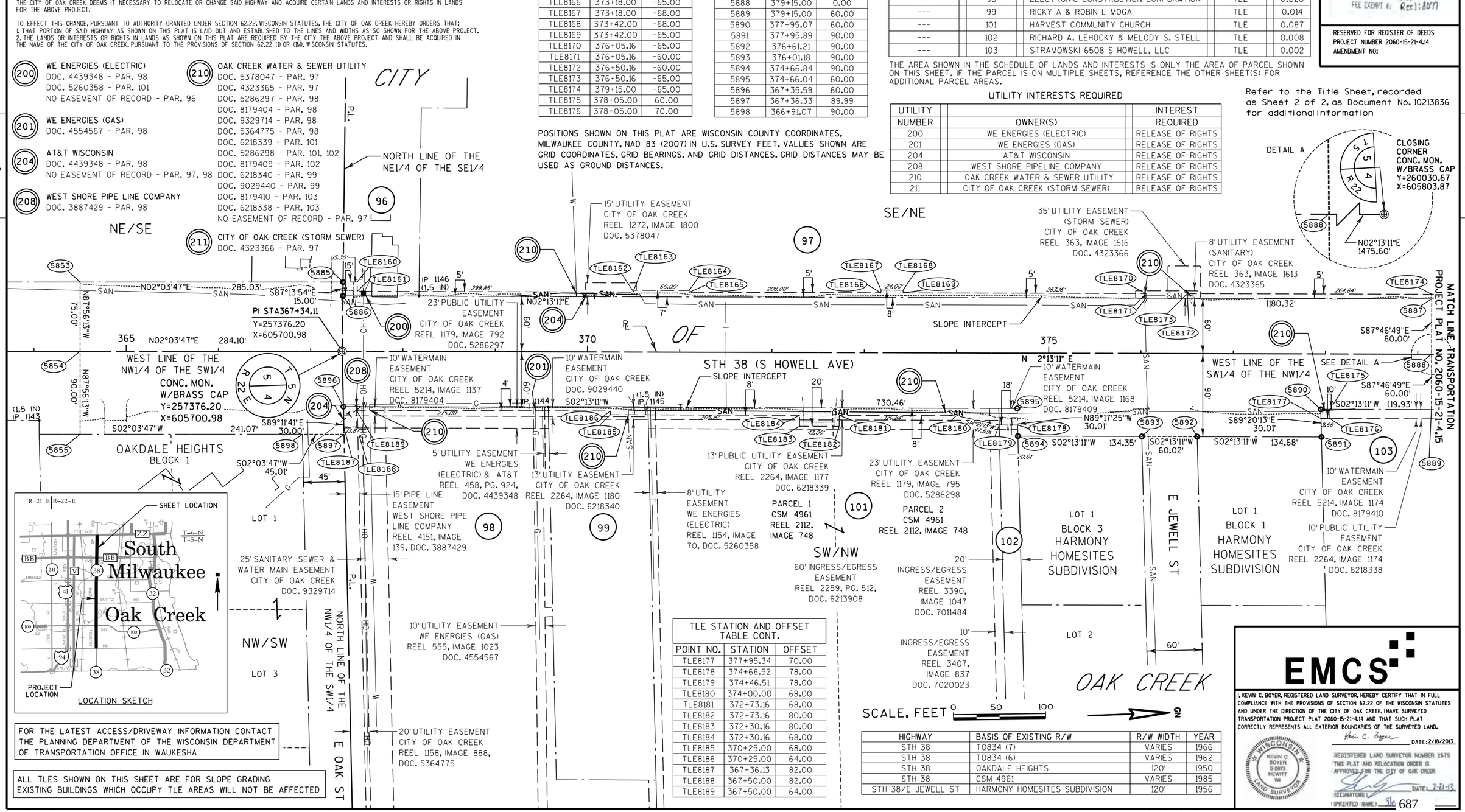
UTILITY INTERESTS REQUIRED

UTILITY NUMBER	OWNER(S)	INTEREST REQUIRED
200	WE ENERGIES (ELECTRIC)	RELEASE OF RIGHTS
201	WE ENERGIES (GAS)	RELEASE OF RIGHTS
204	AT&T WISCONSIN	RELEASE OF RIGHTS
208	WEST SHORE PIPELINE COMPANY	RELEASE OF RIGHTS
210	OAK CREEK WATER & SEWER UTILITY	RELEASE OF RIGHTS
211	CITY OF OAK CREEK (STORM SEWER)	RELEASE OF RIGHTS

DOC.# 10223191
RECORDED 03/06/2013 01:53PM
JOHN LA FAVE
REGISTER OF DEEDS
Milwaukee County, WI
AMOUNT: 25.00
FEE EXEMPT #: Rec[1:8077]

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 2060-15-21-4.14
AMENDMENT NO:

Refer to the Title Sheet, recorded as Sheet 2 of 2, as Document No. 10213836 for additional information



FOR THE LATEST ACCESS/DRIVEWAY INFORMATION CONTACT THE PLANNING DEPARTMENT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA

ALL TLES SHOWN ON THIS SHEET ARE FOR SLOPE GRADING EXISTING BUILDINGS WHICH OCCUPY TLE AREAS WILL NOT BE AFFECTED

TLE STATION AND OFFSET TABLE CONT.		
POINT NO.	STATION	OFFSET
TLE8177	377+95.34	70.00
TLE8178	374+66.52	78.00
TLE8179	374+46.51	78.00
TLE8180	374+00.00	68.00
TLE8181	372+73.16	68.00
TLE8182	372+73.16	80.00
TLE8183	372+30.16	80.00
TLE8184	372+30.16	68.00
TLE8185	370+25.00	68.00
TLE8186	370+25.00	64.00
TLE8187	367+36.13	82.00
TLE8188	367+50.00	82.00
TLE8189	367+50.00	64.00

HIGHWAY	BASIS OF EXISTING R/W	R/W WIDTH	YEAR
STH 38	T0834 (7)	VARIES	1966
STH 38	T0834 (6)	VARIES	1962
STH 38	OAKDALE HEIGHTS	120'	1950
STH 38	CSM 4961	VARIES	1985
STH 38/E JEWELL ST	HARMONY HOMESITES SUBDIVISION	120'	1956

EMCS

I, KEVIN C. BOYER, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 62.22 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE CITY OF OAK CREEK, I HAVE SURVEYED TRANSPORTATION PROJECT PLAT 2060-15-21-4.14 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

Kevin C. Boyer DATE: 2/18/2013

WISCONSIN KEVIN C BOYER S-2675 HEWITT WI LAND SURVEYOR

REGISTERED LAND SURVEYOR NUMBER 2675
THIS PLAT AND RELOCATION ORDER IS APPROVED FOR THE CITY OF OAK CREEK

(SIGNATURE) DATE: 2-21-13
(PRINTED NAME) Stk

FILE NAME : P:\46xx\4646_DP.11.STH38.MIL\CADDS\Plan\City of Oak Creek Plat\040114_rp.dgn
PLOT DATE : 2/18/2013
PLOT BY : kcb
PLOT NAME :
PLOT SCALE : 1:50

2060-15-71, STH 38, 2060-15-21 4.14

TRANSPORTATION PROJECT PLAT NO: 2060-15-21 - 4.15

THAT PART OF PARCEL 1, 2 AND OUTLOT 1, CSM 4697, LOCATED IN AND PART OF THE NW1/4 OF THE NW1/4, PART OF THE SW1/4 OF THE NW1/4, ALL IN SECTION 4; ALSO PART OF THE SE1/4 OF THE NE1/4 AND THE NE1/4 OF THE NE1/4 OF SECTION 5; ALL BEING PART OF TOWNSHIP 5 NORTH, RANGE 22 EAST, CITY OF OAK CREEK, MILWAUKEE COUNTY, WISCONSIN.

RELOCATION ORDER STH 38, MILWAUKEE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE CITY OF OAK CREEK DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 62.22, WISCONSIN STATUTES, THE CITY OF OAK CREEK HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE CITY THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE CITY OF OAK CREEK, PURSUANT TO THE PROVISIONS OF SECTION 62.22 (1) OR (1M), WISCONSIN STATUTES.

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, MILWAUKEE COUNTY, NAD 83 (2007) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

DOC.# 10223192
RECORDED 03/06/2013 01:53PM
JOHN LA FAVE
REGISTER OF DEEDS
Milwaukee County, WI
AMOUNT: 25.00
FEE EXEMPT #: Reel: 3077

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 2060-15-21-4.15
AMENDMENT NO:

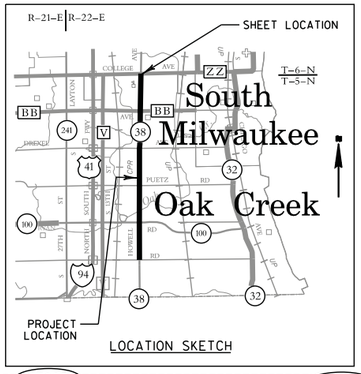
SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE CITY OF OAK CREEK.

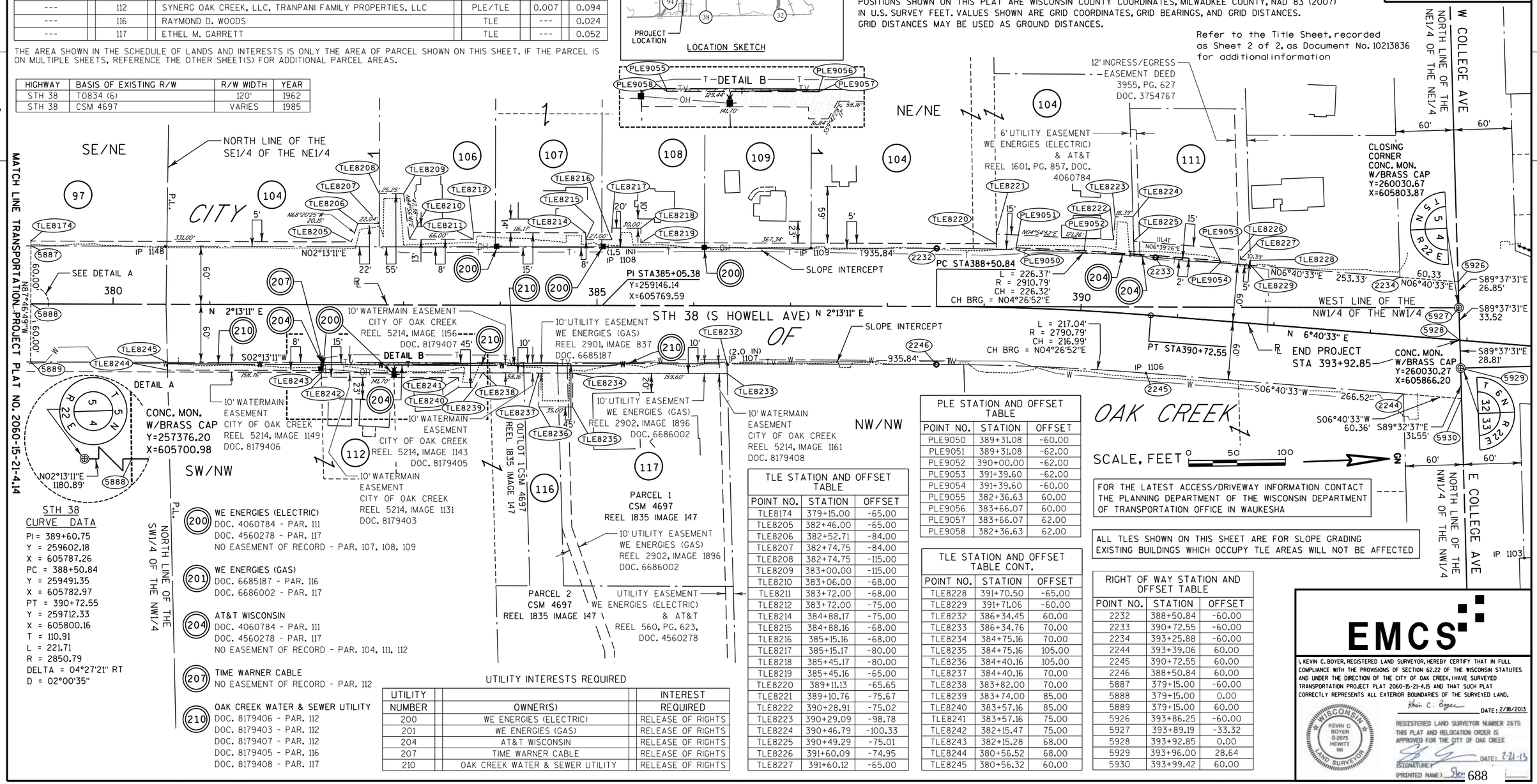
SEE ALSO SHEET ...-4.??	PARCEL NUMBER	OWNERS	INTEREST REQUIRED	PLE ACRES	TLE ACRES
4.14	97	MILWAUKEE AREA VOCATIONAL, TECHNICAL AND ADULT EDUCATION	TLE	---	0.016
---	104	6349-6475 HOWELL AVENUE, LLC, A WISCONSIN LIMITED LIABILITY	PLE/TLE	0.005	0.113
---	106	JANICE B. HITTMAN	TLE	---	0.056
---	107	TOM M. MENNING	TLE	---	0.035
---	108	SELAHATTIN S KURTER DBA SPECTRUM HEALTHCARE, LLC	TLE	---	0.023
---	109	MICHAEL QUARTANA, AN UNDIVIDED 1/2 INTEREST AND DANIEL J CARMODY, AND UNDIVIDED 1/2 INTEREST, AS TENANTS IN COMMON	TLE	---	0.013
---	111	DELPHIN P. & MARGARET BRAHM & THOMAS J. KRENZ, JOHN F. KRENZ, KATHRYN A. KRENZ & MARK LEO KRENZ	PLE/TLE	0.004	0.035
---	112	SYNERG OAK CREEK, LLC, TRANPANI FAMILY PROPERTIES, LLC	PLE/TLE	0.007	0.094
---	116	RAYMOND D. WOODS	TLE	---	0.024
---	117	ETHEL M. GARRETT	TLE	---	0.052

THE AREA SHOWN IN THE SCHEDULE OF LANDS AND INTERESTS IS ONLY THE AREA OF PARCEL SHOWN ON THIS SHEET. IF THE PARCEL IS ON MULTIPLE SHEETS, REFERENCE THE OTHER SHEET(S) FOR ADDITIONAL PARCEL AREAS.

HIGHWAY	BASIS OF EXISTING R/W	R/W WIDTH	YEAR
STH 38	T0834 (6)	120'	1962
STH 38	CSM 4697	VARIES	1985



Refer to the Title Sheet, recorded as Sheet 2 of 2, as Document No. 10213836 for additional information



PLE STATION AND OFFSET TABLE

POINT NO.	STATION	OFFSET
PLE9050	389+31.08	-60.00
PLE9051	389+31.08	-62.00
PLE9052	390+00.00	-62.00
PLE9053	391+39.60	-62.00
PLE9054	391+39.60	-60.00
PLE9055	382+36.63	60.00
PLE9056	383+66.07	60.00
PLE9057	383+66.07	62.00
PLE9058	382+36.63	62.00

TLE STATION AND OFFSET TABLE

POINT NO.	STATION	OFFSET
TLE8174	379+15.00	-65.00
TLE8205	382+46.00	-65.00
TLE8206	382+52.71	-84.00
TLE8207	382+74.75	-84.00
TLE8208	382+74.75	-115.00
TLE8209	383+00.00	-115.00
TLE8210	383+06.00	-68.00
TLE8211	383+72.00	-68.00
TLE8212	383+72.00	-75.00
TLE8214	384+88.17	-75.00
TLE8215	384+88.16	-68.00
TLE8216	385+15.16	-68.00
TLE8217	385+15.17	-80.00
TLE8218	385+45.17	-80.00
TLE8219	385+45.16	-65.00
TLE8220	389+11.13	-65.65
TLE8221	389+10.76	-75.67
TLE8222	390+28.91	-75.02
TLE8223	390+29.09	-98.78
TLE8224	390+46.79	-100.33
TLE8225	390+49.29	-75.01
TLE8226	391+60.09	-74.95
TLE8227	391+60.12	-65.00

TLE STATION AND OFFSET TABLE CONT.

POINT NO.	STATION	OFFSET
TLE8228	391+70.50	-65.00
TLE8229	391+71.06	-60.00
TLE8232	386+34.45	60.00
TLE8233	386+34.76	70.00
TLE8234	384+75.16	70.00
TLE8235	384+75.16	105.00
TLE8236	384+40.16	105.00
TLE8237	384+40.16	70.00
TLE8238	383+82.00	70.00
TLE8239	383+74.00	85.00
TLE8240	383+57.16	85.00
TLE8241	383+57.16	75.00
TLE8242	382+15.47	75.00
TLE8243	382+15.28	68.00
TLE8244	380+56.52	68.00
TLE8245	380+56.32	60.00

RIGHT OF WAY STATION AND OFFSET TABLE

POINT NO.	STATION	OFFSET
2232	388+50.84	-60.00
2233	390+72.55	-60.00
2234	393+25.88	-60.00
2244	393+39.06	60.00
2245	390+72.55	60.00
2246	388+50.84	60.00
5887	379+15.00	-60.00
5888	379+15.00	0.00
5889	379+15.00	60.00
5926	393+86.25	-60.00
5927	393+89.19	-33.32
5928	393+92.85	0.00
5929	393+96.00	28.64
5930	393+99.42	60.00

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	OWNER(S)	INTEREST REQUIRED
200	WE ENERGIES (ELECTRIC)	RELEASE OF RIGHTS
201	WE ENERGIES (GAS)	RELEASE OF RIGHTS
204	AT&T WISCONSIN	RELEASE OF RIGHTS
207	TIME WARNER CABLE	RELEASE OF RIGHTS
210	OAK CREEK WATER & SEWER UTILITY	RELEASE OF RIGHTS

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION CONTACT THE PLANNING DEPARTMENT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA

ALL TLES SHOWN ON THIS SHEET ARE FOR SLOPE GRADING EXISTING BUILDINGS WHICH OCCUPY TLE AREAS WILL NOT BE AFFECTED

EMCS

I, KEVIN C. BOYER, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 62.22 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE CITY OF OAK CREEK, I HAVE SURVEYED TRANSPORTATION PROJECT PLAT 2060-15-21-4.15 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

Kevin C. Boyer DATE: 2/18/2013

WISCONSIN KEVIN C BOYER S-2675 HEWITT WI LAND SURVEYOR

REGISTERED LAND SURVEYOR NUMBER 2675
THIS PLAT AND RELOCATION ORDER IS APPROVED FOR THE CITY OF OAK CREEK

(SIGNATURE) DATE: 2-21-13
(PRINTED NAME) Steve 688

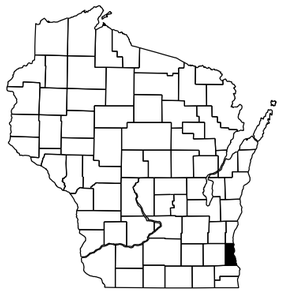
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

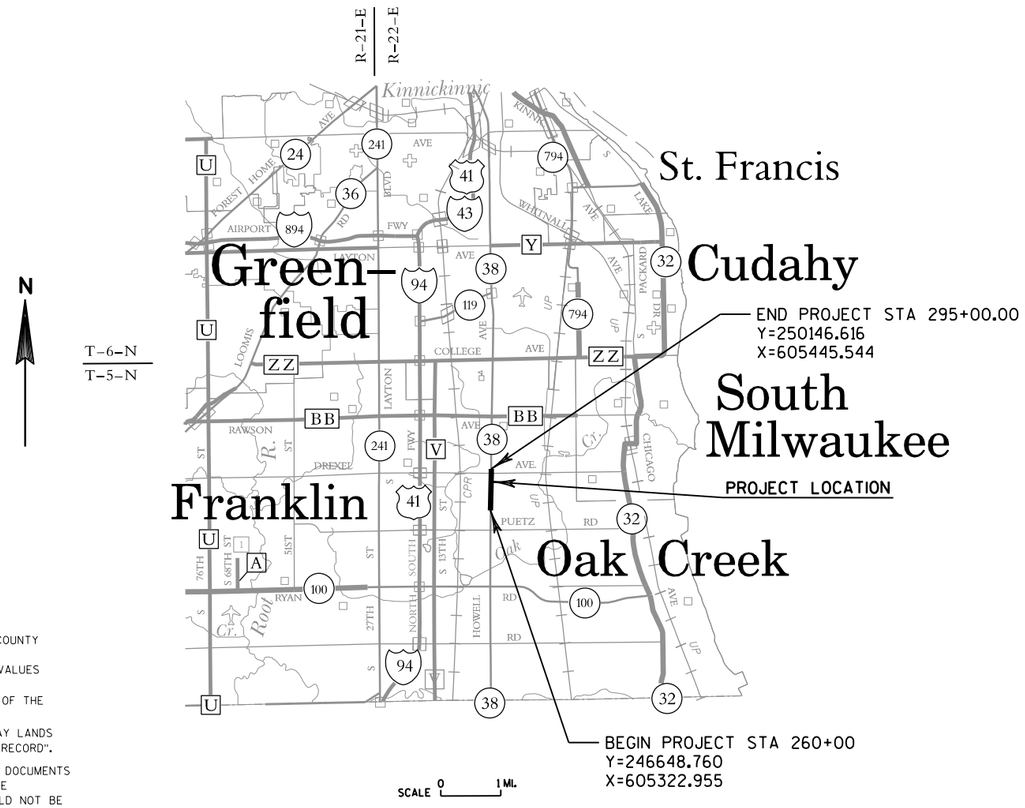
TRANSPORTATION PROJECT PLAT TITLE SHEET

PROJECT NO. 2060-15-22

CITY OF OAK CREEK
FOREST HILL DR - DREXEL AVENUE

STH 38 (HOWELL AVENUE)
MILWAUKEE COUNTY





N

T-6-N
T-5-N

NOTES:

COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE MILWAUKEE COUNTY COORDINATE SYSTEM, MILWAUKEE COUNTY ZONE, NAD83 (2007) ADJUSTMENT. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT BY WisDOT SE REGION.

RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS OF PUBLIC RECORD".

PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY LINES, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE: EXISTING HIGHWAY RIGHT-OF-WAY FOR STH 38 ESTABLISHED FROM PREVIOUS PROJECT 2060-15-20, 2060-15-21, T0834(7) AND EXISTING HIGHWAY RIGHT-OF-WAY FOR SIDE ROADS ESTABLISHED FROM CENTERLINE OF EXISTING PAVEMENTS. EXISTING ACCESS CONTROL ALONG STH 38 ESTABLISHED FROM PREVIOUS PROJECTS

A **TEMPORARY LIMITED EASEMENT** (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE. ALL TLES EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO NEW REFERENCE LINES.

CONVENTIONAL ABBREVIATIONS

ACCESS POINT/ DRIVEWAY CONNECTION	AP	REFERENCE LINE	R/L
ACCESS RIGHTS	AR	RELEASE OF RIGHTS	ROR
ACRES	AC.	REMAINING	REM.
AND OTHERS	ET.AL.	RIGHT-OF-WAY	R/W
CENTERLINE	C/L	SECTION	SEC.
CERTIFIED SURVEY MAP	CSM	STATION	STA.
CORNER	COR.	TEMPORARY LIMITED EASEMENT	TLE
DOCUMENT	DOC.	VOLUME	V.
EASEMENT	EASE.	**CURVE DATA**	
HIGHWAY EASEMENT	H.E.	LONG CHORD	LCH
LAND CONTRACT	LC	LONG CHORD BEARING	LCB
MONUMENT	MON.	RADIUS	R
PAGE	P.	DEGREE OF CURVE	D
PERMANENT LIMITED EASEMENT	PLE	CENTRAL ANGLE OR DELTA	DELTA
PROPERTY LINE	PL	LENGTH OF CURVE	L
RECORDED AS	(100')	TANGENT	TAN

CONVENTIONAL SYMBOLS

FOUND IRON PIPE/PIN	LP (1" UNLESS NOTED)	PROPOSED R/W LINE
		EXISTING H.E. LINE
R/W MONUMENT	•(SET)	PROPERTY LINE
R/W STANDARD	▲(SET)	LOT & TIE LINES
SIGN	ISIGN	SLOPE INTERCEPTS
SECTION CORNER MONUMENT		CORPORATE LIMITS
SECTION CORNER SYMBOL		ACCESS RESTRICTED (BY PREVIOUS ACQUISITION/CONTROL)
FEE (HATCH VARIES)		ACCESS RESTRICTED (BY ACQUISITION)
TEMPORARY LIMITED EASEMENT		ACCESS RESTRICTED (BY STATUTORY AUTHORITY)
PERMANENT LIMITED EASEMENT		SECTION LINE
R/W BOUNDARY POINT	RWB20	QUARTER LINE
PARCEL NUMBER	102	SIXTEENTH LINE
UTILITY PARCEL NUMBER	92	EXISTING CENTERLINE
SIGN NUMBER (OFF PREMISE)	21-1	PROPOSED REFERENCE LINE
BUILDING		PARALLEL OFFSET

CONVENTIONAL UTILITY SYMBOLS

	NON COMPENSABLE	COMPENSABLE
WATER	W	
GAS	G	
TELEPHONE	T	
OVERHEAD	OH	
TRANSMISSION LINES ELECTRIC	E	
CABLE TELEVISION	TV	
FIBER OPTIC	FO	
SANITARY SEWER	SAN	
STORM SEWER	SS	
POWER POLE		
TELEPHONE POLE		
TELEPHONE PEDESTAL		
ELECTRIC TOWER		

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 2060-15-22 - 4.01
SHEET 2 OF 2
AMENDMENT NO:

FILE NAME : P:\48xx\4820_DS13.STH38.MIL.Ryan.Grange.2060-15-30\CADDS\Plan\040100_rp_title.DGN PLOT DATE : 12/19/2013
PLOT BY : kcb PLOT NAME : PLOT SCALE : 1:200
APPRAISAL PLAT DATE :

2060-15-70, STH 38, 2060-15-22-4.00

TRANSPORTATION PROJECT PLAT NO: 2060-15-22 - 4.01

THAT PART PARCEL 1 CSM 3011, LOCATED IN AND PART OF THE NE1/4 OF THE SE1/4, ALSO PART OF LOT 2, CSM 8087, LOT 3 CSM 7830, LOCATED IN AND PART OF THE SE1/4 OF THE NE1/4, ALL BEING LOCATED IN SECTION 17, TOWNSHIP 5 NORTH, RANGE 22 EAST, CITY OF OAK CREEK, MILWAUKEE COUNTY, WISCONSIN

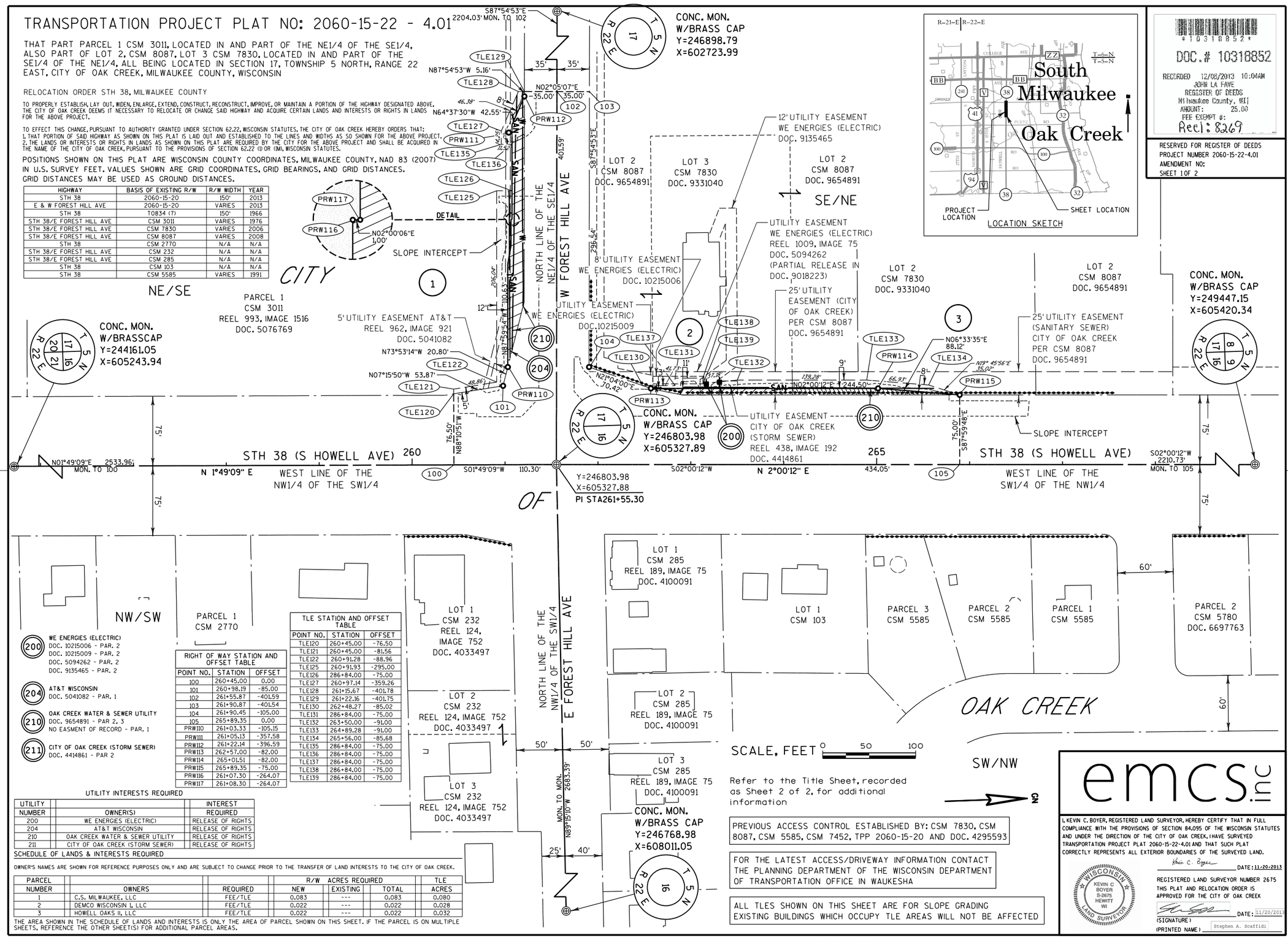
RELOCATION ORDER STH 38, MILWAUKEE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE CITY OF OAK CREEK DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 62.22, WISCONSIN STATUTES, THE CITY OF OAK CREEK HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE CITY FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE CITY OF OAK CREEK, PURSUANT TO THE PROVISIONS OF SECTION 62.22 (1) OR (1M), WISCONSIN STATUTES.

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, MILWAUKEE COUNTY, NAD 83 (2007) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

HIGHWAY	BASIS OF EXISTING R/W	R/W WIDTH	YEAR
STH 38	2060-15-20	150'	2013
E & W FOREST HILL AVE	2060-15-20	VARIES	2013
STH 38	T0834 (7)	150'	1966
STH 38/E FOREST HILL AVE	CSM 3011	VARIES	1976
STH 38/E FOREST HILL AVE	CSM 7830	VARIES	2006
STH 38/E FOREST HILL AVE	CSM 8087	VARIES	2008
STH 38	CSM 2770	N/A	N/A
STH 38/E FOREST HILL AVE	CSM 232	N/A	N/A
STH 38/E FOREST HILL AVE	CSM 285	N/A	N/A
STH 38	CSM 103	N/A	N/A
STH 38	CSM 5585	VARIES	1991



(200) WE ENERGIES (ELECTRIC)
DOC. 10215006 - PAR. 2
DOC. 10215009 - PAR. 2
DOC. 5094262 - PAR. 2
DOC. 9135465 - PAR. 2

(204) AT&T WISCONSIN
DOC. 5041082 - PAR. 1

(210) OAK CREEK WATER & SEWER UTILITY
DOC. 9654891 - PAR 2, 3
NO EASMENT OF RECORD - PAR. 1

(211) CITY OF OAK CREEK (STORM SEWER)
DOC. 4414861 - PAR 2

RIGHT OF WAY STATION AND OFFSET TABLE

POINT NO.	STATION	OFFSET
100	260+45.00	0.00
101	260+98.19	-85.00
102	261+55.87	-401.59
103	261+90.87	-401.54
104	261+90.45	-105.00
105	265+89.35	0.00
PRW110	261+03.33	-105.15
PRW111	261+05.13	-357.58
PRW112	261+22.14	-396.59
PRW113	262+57.00	-82.00
PRW114	265+01.51	-82.00
PRW115	265+89.35	-75.00
PRW116	261+07.30	-264.07
PRW117	261+08.30	-264.07

TLE STATION AND OFFSET TABLE

POINT NO.	STATION	OFFSET
TLE120	260+45.00	-76.50
TLE121	260+45.00	-81.56
TLE122	260+91.28	-88.96
TLE125	260+91.93	-295.00
TLE126	286+84.00	-75.00
TLE127	260+97.14	-359.26
TLE128	261+15.67	-401.78
TLE129	261+22.16	-401.75
TLE130	262+48.27	-85.02
TLE131	286+84.00	-75.00
TLE132	263+50.00	-91.00
TLE133	264+89.28	-91.00
TLE134	265+56.00	-85.68
TLE135	286+84.00	-75.00
TLE136	286+84.00	-75.00
TLE137	286+84.00	-75.00
TLE138	286+84.00	-75.00
TLE139	286+84.00	-75.00

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	OWNER(S)	INTEREST REQUIRED
200	WE ENERGIES (ELECTRIC)	RELEASE OF RIGHTS
204	AT&T WISCONSIN	RELEASE OF RIGHTS
210	OAK CREEK WATER & SEWER UTILITY	RELEASE OF RIGHTS
211	CITY OF OAK CREEK (STORM SEWER)	RELEASE OF RIGHTS

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE CITY OF OAK CREEK.

PARCEL NUMBER	OWNERS	REQUIRED	R/W ACRES REQUIRED NEW	EXISTING	TOTAL	TLE ACRES
1	C.S. MILWAUKEE, LLC	FEE/TLE	0.083	---	0.083	0.080
2	DEMCO WISCONSIN 1, LLC	FEE/TLE	0.022	---	0.022	0.028
3	HOWELL OAKS II, LLC	FEE/TLE	0.022	---	0.022	0.032

THE AREA SHOWN IN THE SCHEDULE OF LANDS AND INTERESTS IS ONLY THE AREA OF PARCEL SHOWN ON THIS SHEET. IF THE PARCEL IS ON MULTIPLE SHEETS, REFERENCE THE OTHER SHEET(S) FOR ADDITIONAL PARCEL AREAS.

emcs.inc

I, KEVIN C. BOYER, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE CITY OF OAK CREEK, I HAVE SURVEYED TRANSPORTATION PROJECT PLAT 2060-15-22-4.01 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

Kevin C. Boyer DATE: 11/20/2013

REGISTERED LAND SURVEYOR NUMBER 2675

THIS PLAT AND RELOCATION ORDER IS APPROVED FOR THE CITY OF OAK CREEK

(SIGNATURE) DATE: 11/20/2013

(PRINTED NAME) Stephen A. Scaffidi

FILE NAME : P:\48xx\4820_DS13.STH38.MIL.Ryan.Grange.2060-15-30\CADDS\Plan\040101_rp.dgn PLOT DATE : 12/19/2013 PLOT BY : kcb PLOT NAME : PLOT SCALE : 1:100

APPRAISAL PLAT DATE :

2060-15-70, STH 38, 2060-15-22-4.01

TRANSPORTATION PROJECT PLAT NO: 2060-15-22 - 4.02

THAT PART OF LOT 1 CSM 8185 AND LOT 1 CSM 7819, ALL BEING LOCATED IN AND PART OF THE NE1/4 OF THE NE1/4 OF SECTION 17, ASLO PART OF LOT 11, BLOCK 3 AND LOT 11, BLOCK 2 OF THE RAWSON DALE SUBDIVISION, LOCATED IN THE NW1/4 OF THE NW1/4 OF SECTION 16, ALL BEING LOCATED IN TOWNSHIP 5 NORTH, RANGE 22 EAST, CITY OF OAK CREEK, MILWAUKEE COUNTY, WISCONSIN

RELOCATION ORDER STH 38, MILWAUKEE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE CITY OF OAK CREEK DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 62.22, WISCONSIN STATUTES, THE CITY OF OAK CREEK HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.

2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE CITY FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE CITY OF OAK CREEK, PURSUANT TO THE PROVISIONS OF SECTION 62.22 (1) OR (1M), WISCONSIN STATUTES.

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, MILWAUKEE COUNTY, NAD 83 (2007) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE CITY OF OAK CREEK.

SEE ALSO SHEET ...-4.??	PARCEL NUMBER	OWNERS	R/W ACRES REQUIRED				TLE ACRES
			REQUIRED	NEW	EXISTING	TOTAL	
---	4	GIUFFRE XX, LLC	FEE/TLE	0.057	---	0.057	0.145
4.03	6	ONE WEST DREXEL, LLC	FEE/TLE	0.039	---	0.039	0.047
---	7	KARI S. MANN	TLE	---	---	---	0.012
---	8	SCOTT BUTH	TLE	---	---	---	0.008

THE AREA SHOWN IN THE SCHEDULE OF LANDS AND INTERESTS IS ONLY THE AREA OF PARCEL SHOWN ON THIS SHEET. IF THE PARCEL IS ON MULTIPLE SHEETS, REFERENCE THE OTHER SHEET(S) FOR ADDITIONAL PARCEL AREAS.

(204) AT&T WISCONSIN
DOC. 5268786 - PAR. 7

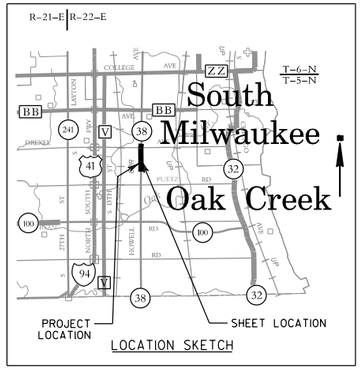
(207) TIME WARNER CABLE
NO EASMENT OF RECORD - PAR. 4, 6

(210) OAK CREEK WATER & SEWER UTILITY
DOC. 9036278 - PAR. 4

(211) CITY OF OAK CREEK (STORM SEWER)
DOC. 4414861 - PAR 4

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	OWNER(S)	INTEREST REQUIRED
204	AT&T WISCONSIN	RELEASE OF RIGHTS
207	TIME WARNER CABLE	RELEASE OF RIGHTS
210	OAK CREEK WATER & SEWER UTILITY	RELEASE OF RIGHTS
211	CITY OF OAK CREEK (STORM SEWER)	RELEASE OF RIGHTS



LOCATION SKETCH

10321490
DOC.# 10321490
RECORDED 12/17/2013 08:54AM
JOHN LA FAVE
REGISTER OF DEEDS
Milwaukee County, WI
AMOUNT: 25.00
FEE EXEMPT #:
Reel: 3276

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 2060-15-22-4.02
AMENDMENT NO:

SE/NE
CITY
LOT 1
CSM 8038
DOC. 9580589

LOT 2
CSM 8185
DOC. 9788859

NORTH LINE OF THE SE1/4 OF THE NE1/4

30' UTILITY EASEMENT
CITY OF OAK CREEK
PER CSM 7619
DOC. 9036278

LOT 1
CSM 8185
DOC. 9788859

NE/NE

LOT 1
CSM 7819
DOC. 9036278

DETAIL A

CONC. MON.
W/BRASS CAP
Y=249447.15
X=605420.34

CONC. MON.
W/BRASS CAP
Y=246803.98
X=605327.89

WEST LINE OF THE SW1/4 OF THE NW1/4

1395.70'
N02°00'12"E
MON. TO 200

N 2°00'12" E

UTILITY EASEMENT
AT&T
REEL 1162, IMAGE 170
DOC. 5268786

15' UTILITY EASEMENT
CITY OF OAK CREEK
(STORM SEWER)
REEL 438, IMAGE 192
DOC. 4414861

STH 38 (S HOWELL AVE)

SLOPE INTERCEPT

663.61'
S02°00'12"W
MON. TO 201

WEST LINE OF THE NW1/4 OF THE NW1/4

PARCEL 1
CSM 5985
DOC. 6956649

LOT 27

LOT 28

OAKFIELD VILLAGE SUBDIVISION

LOT 29

LOT 10

LOT 11

LOT 9
RAWSON DALE SUBDIVISION
BLOCK 3

LOT 8

LOT 7

LOT 6

E SUSAN DR

60'

LOT 9
RAWSON DALE SUBDIVISION
BLOCK 2

LOT 8

LOT 7

LOT 6

NORTH LINE OF THE SW1/4 OF THE NW1/4

SW/NW

OAK CREEK

NW/NW

PARCEL 2
CSM 6615
REEL 4486,
IMAGE 802
DOC. 7675949

SCALE, FEET 0 50 100

Refer to the Title Sheet, recorded as Sheet 2 of 2, of Document No. 10318852 for additional information

HIGHWAY	BASIS OF EXISTING R/W	R/W WIDTH	YEAR
STH 38	2060-15-21	150'	2013
STH 38	T0834 (7)	150'	1966
STH 38	CSM 7910	VARIES	2007
STH 38	CSM 8038	VARIES	2008
STH 38	CSM 8185	VARIES	2009
STH 38	CSM 7819	VARIES	2006
STH 38	CSM 5780	VARIES	1992
STH 38	CSM 5985	VARIES	1993
STH 38	CSM 6615	VARIES	1998
STH 38	OAKFIELD VILLAGE SUBDIVISION	150'	1991
STH 38	RAWSON DALE SUBDIVISION	VARIES	1947

PREVIOUS ACCESS CONTROL ESTABLISHED BY: CSM 8185, CSM 5585, CSM 5780, OAKFIELD VILLAGE SUBDIVISION, RAWSON DALE SUBDIVISION, RW PLAT T0834(7) & TPP 2060-15-21

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION CONTACT THE PLANNING DEPARTMENT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA

ALL TLES SHOWN ON THIS SHEET ARE FOR SLOPE GRADING EXISTING BUILDINGS WHICH OCCUPY TLE AREAS WILL NOT BE AFFECTED

CURVE NO.	CHORD LENGTH	ARC LENGTH	DELTA	RADIUS
1	21.09'	21.43'	35°24'40" LT	34.68'
2	24.46'	24.80'	32°39'33" LT	43.50'

LINE NO.	BEARING	DISTANCE
1	N50°38'38"E	6.19"

RIGHT OF WAY STATION AND OFFSET TABLE

POINT NO.	STATION	OFFSET
200	275+51.00	0.00
201	281+36.47	0.00
202	281+36.47	75.00
203	276+75.34	75.00
204	276+76.70	132.98
205	276+15.32	75.00
PRW210	275+85.41	-75.00
PRW211	275+97.90	-92.00
PRW212	277+19.63	-92.00
PRW213	277+23.72	-87.35
PRW214	277+47.37	-81.08
PRW215	279+97.64	-81.11
PRW216	280+73.91	-75.00

TLE STATION AND OFFSET TABLE

POINT NO.	STATION	OFFSET
TLE220	275+50.00	-75.00
TLE221	275+93.55	-100.00
TLE222	276+00.95	-135.00
TLE223	277+10.00	-135.00
TLE225	277+39.08	-90.08
TLE226	278+10.00	-90.09
TLE227	278+60.00	-86.09
TLE228	279+97.84	-86.11
TLE229	281+36.47	-75.00
TLE230	277+50.00	75.00
TLE231	277+50.00	79.00
TLE232	276+82.00	79.00
TLE233	276+75.69	90.00
TLE234	276+16.69	132.98
TLE235	276+12.69	132.98
TLE236	276+11.44	80.00
TLE237	275+52.00	80.00
TLE238	275+52.00	75.00

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I, KEVIN C. BOYER, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE CITY OF OAK CREEK, I HAVE SURVEYED TRANSPORTATION PROJECT PLAT 2060-15-22-4.02 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

Kevin C. Boyer DATE: 12/10/2013

WISCONSIN KEVIN C BOYER S-2675 HEWITT WI LAND SURVEYOR

REGISTERED LAND SURVEYOR NUMBER 2675

THIS PLAT AND RELOCATION ORDER IS APPROVED FOR THE CITY OF OAK CREEK

(SIGNATURE) DATE: 12/10/2013

(PRINTED NAME) Stephen A. Scaffidi

FILE NAME : P:\48xx\4820_DS13.STH38.MIL.Ryan.Grange.2060-15-30\CADDS\Plan\040102_rp.dgn
PLOT DATE : 12/19/2013
PLOT BY : kcb
PLOT NAME :
PLOT SCALE : 1:100
APPRAISAL PLAT DATE :

TRANSPORTATION PROJECT PLAT NO: 2060-15-22 - 4.03

THAT PART OF LOT 1 CSM 7819, LOCATED IN AND PART OF THE NE1/4 OF THE NE1/4, SECTION 17, ALSO THAT PART OF OF LOT 3 CSM 7452, LOTS 1 & 2 CSM 7452, LOCATED IN PART OF THE SE1/4 OF THE SE1/4, SECTION 8, ALL BEING LOCATED IN AND PART OF TOWNSHIP 5 NORTH, RANGE 22 EAST, CITY OF OAK CREEK, MILWAUKEE COUNTY, WISCONSIN

RELOCATION ORDER STH 38, MILWAUKEE COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE CITY OF OAK CREEK DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 62.22, WISCONSIN STATUTES, THE CITY OF OAK CREEK HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE CITY FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE CITY OF OAK CREEK, PURSUANT TO THE PROVISIONS OF SECTION 62.22 (1) OR (1M), WISCONSIN STATUTES.

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, MILWAUKEE COUNTY, NAD 83 (2007) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ALL TLES SHOWN ON THIS SHEET ARE FOR SLOPE GRADING EXISTING BUILDINGS WHICH OCCUPY TLE AREAS WILL NOT BE AFFECTED

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION CONTACT THE PLANNING DEPARTMENT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA

PREVIOUS ACCESS CONTROL ESTABLISHED BY: CSM 7452, RW PLAT T0834(7) & TPP 2060-15-20

DOC.# 10321491
RECORDED 12/17/2013 08:54AM
JOHN LA FAVE
REGISTER OF DEEDS
Milwaukee County, WI
AMOUNT: 25.00
FEE EXEMPT #:
Reel: 8276

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 2060-15-22-4.03
AMENDMENT NO:

CONC. MON. W/BRASS CAP Y=249554.73 X=602776.925

CITY

NE/NE

NORTH LINE OF THE NE1/4 OF THE NE1/4

W DREXEL AVE

S87°40'10"E 2632.81' MON. TO 301

N01°56'14"E 4.78'

N87°40'10"W 3.97'

N87°38'58"W 11.02'

N62°31'17"W 15.81'

N62°31'17"W 19.63'

N16°44'49"E 19.85'

N02°27'38"W 65.38'

65.23'

SLOPE INTERCEPT

N02°00'12"E 38.38'

N87°59'48"W 75.00'

MON. TO 300 N02°00'12"E 2528.70'

N 2°00'12" E

S02°00'12"W 116.08'

PI STA 288+00.08
Y=249447.15
X=605420.34

WEST LINE OF THE NW1/4 OF THE NW1/4

CONC. MON. W/BRASS CAP Y=246803.98 X=605327.89

65' 65'

NW/NW

NORTH LINE OF THE NW1/4 OF THE NW1/4

E DREXEL AVE

S89°24'15"E 267.15' MON. TO MON.

CONC. MON. W/BRASS CAP Y=249419.37 X=608091.71

CONC. MON. W/BRASS CAP Y=249447.15 X=605420.34

LOT 3 CSM 7452 DOC. 8837313

LOT 2 CSM 7452 DOC. 8837313

LOT 1 CSM 7452 DOC. 8837313

SE/SE

LOT 1 CSM 755

LOT 1 CSM 7750 DOC. 9226194

CROSS ACCESS EASEMENT PER CSM 7750

17.5' WATER MAIN EASEMENT CITY OF OAK CREEK DOC. 8933110

17.5' WATER MAIN EASEMENT CITY OF OAK CREEK DOC. 8933108

17.5' WATER MAIN EASEMENT CITY OF OAK CREEK DOC. 8933109

N27°20'36"E 62.74'

N12°01'01"E 113.79'

N01°41'18"E 281.27'

N06°19'07"E 59.38'

N02°03'49"E 67.39'

SLOPE INTERCEPT

S87°56'11"E 75.00'

STH 38 (S HOWELL AVE)

S02°03'49"W

N 2°03'49" E 644.88'

290 295

WEST LINE OF THE SW1/4 OF THE SW1/4

S02°03'49"W 2000.21' MON. TO 304

CONC. MON. W/ BRASS CAP Y=252090.52 X=605515.58

OF

OAK CREEK

SW/SW

PARCEL 1 CSM 3936 REEL 1334, IMAGE 477 DOC. 5436227

PARCEL 1 CSM 5617 REEL 2655, IMAGE 939 DOC. 6543502

HIGHWAY	BASIS OF EXISTING R/W	R/W WIDTH	YEAR
STH 38	2060-15-20	150'	2013
E & W DREXEL AVE	2060-15-20	130'	2013
STH 38	T0834 (7)	VARIES	1966
STH 38/W DREXEL AVE	CSM 7819	VARIES	2006
STH 38/W DREXEL AVE	CSM 7452	VARIES	2003
STH 38	CSM 755	N/A	N/A
STH 38/E DREXEL AVE	CSM 6615	VARIES	1998
STH 38/E DREXEL AVE	CSM 3936	N/A	N/A
STH 38	CSM 5617	VARIES	1990

RIGHT OF WAY STATION AND OFFSET TABLE

POINT NO.	STATION	OFFSET
300	286+84.00	0.00
301	288+00.61	-112.79
302	288+65.63	-118.00
303	289+25.00	-97.23
304	294+44.96	0.00
PRW310	287+22.38	-75.00
PRW311	287+30.82	-92.72
PRW312	287+30.89	-103.74
PRW313	287+35.67	-103.75
PRW314	290+37.08	-77.56
PRW315	293+18.35	-79.41
PRW316	293+77.57	-75.00

TLE STATION AND OFFSET TABLE

POINT NO.	STATION	OFFSET
TLE320	286+84.00	-75.00
TLE321	286+84.00	-85.00
TLE322	287+00.00	-85.00
TLE323	287+19.20	-79.95
TLE324	287+26.00	-94.22
TLE325	287+26.00	-107.77
TLE326	287+35.69	-107.71
TLE327	289+97.00	-84.60
TLE328	289+97.00	-87.64
TLE329	290+20.85	-83.46
TLE330	292+26.00	-84.80
TLE331	292+26.00	-94.80
TLE332	292+79.00	-95.15
TLE333	292+79.00	-85.15
TLE334	293+06.16	-85.33
TLE335	294+44.96	-75.00

AT&T WISCONSIN
NO EASEMENT OF RECORD - PAR. 6, 9

OAK CREEK WATER & SEWER UTILITY
DOC. 8933108 - PAR 11
DOC. 8933109 - PAR 11
DOC. 8933110 - PAR 9

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	OWNER(S)	INTEREST REQUIRED
204	AT&T WISCONSIN	RELEASE OF RIGHTS
210	OAK CREEK WATER & SEWER UTILITY	RELEASE OF RIGHTS

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE CITY OF OAK CREEK.

SEE ALSO SHEET ...-4.??	PARCEL NUMBER	OWNERS	REQUIRED	R/W ACRES REQUIRED NEW	EXISTING	TOTAL	TLE ACRES
4.02	6	ONE WEST DREXEL, LLC	FEE/TLE	0.004	---	0.004	0.011
---	9	R D INVESTMENTS OF WISCONSIN, LLC	FEE/TLE	0.005	---	0.005	0.014
---	11	GUARDIAN CREDIT UNION	FEE/TLE	0.020	---	0.020	0.051

THE AREA SHOWN IN THE SCHEDULE OF LANDS AND INTERESTS IS ONLY THE AREA OF PARCEL SHOWN ON THIS SHEET. IF THE PARCEL IS ON MULTIPLE SHEETS, REFERENCE THE OTHER SHEET(S) FOR ADDITIONAL PARCEL AREAS.

LOCATION SKETCH

SCALE, FEET 0 50 100

Refer to the Title Sheet, recorded as Sheet 2 of 2, of Document No. 10318852 for additional information

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I, KEVIN C. BOYER, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE CITY OF OAK CREEK, I HAVE SURVEYED TRANSPORTATION PROJECT PLAT 2060-15-22-4.03 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

Kevin C. Boyer
DATE: 12/10/2013

WISCONSIN KEVIN C BOYER S-2675 HEWITT WI LAND SURVEYOR

REGISTERED LAND SURVEYOR NUMBER 2675

THIS PLAT AND RELOCATION ORDER IS APPROVED FOR THE CITY OF OAK CREEK

DATE: 12/10/2013

(SIGNATURE)

(PRINTED NAME) Stephen A. Scaffidi

FILE NAME : P:\48xx\4820_DS13.STH38.MIL.Ryan.Grange.2060-15-30\CADDS\Plan\040103_rp.dgn PLOT DATE : 12/19/2013 PLOT BY : kcb PLOT NAME : PLOT SCALE : 1:100

APPRAISAL PLAT DATE :

2060-15-70, STH 38, 206015-22-4.03

LEGEND

(1) REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT

(4) CONCRETE CURB AND GUTTER 31-INCH

[P] RECONDITIONING INLETS

(10) REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT

(11) CONTINUOUS DIAMOND GRINDING

(INXXX) REPLACE EXISTING INLET IN PLACE

NOTE: STORM SEWER ITEMS ARE CALLED OFF ON STORM SEWER PLANS

REPLACING NLETS, RECONDITIONING INLETS, AND ADJUSTING INLETS CALLED OFF ON PLAN AND PROFILE SHEETS

N

BEGIN SHOULDER RESURFACING
STA 130+01.14

SLOPE INTERCEPT

WETLAND BOUNDARY

TLE

125+00 126+00 128+00 130+00 132+00 134+00 136+00 138+00 140

MATCH LINE STA 140+00

STH 38/HOWELL AVENUE

PGL

R/W

BEGIN PROJECT
STA 128+61.24

OAKWOOD ROAD

BEGIN SHOULDER RESURFACING
STA 130+35.54

SLOPE INTERCEPT

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
2	183+01.38, 193.44' RT	RR SPIKE IN POWER POLE	688.92

730 725 720 715 710 705 700 695

VPC STA 129+58.00
VPC EL 711.29

-1.37%

VCL = 300'
K = 121

VPI STA 131+08.00
VPI EL 709.22

BEGIN PROJECT 128+73.87
BEGIN PROJECT EL 712.44

VPT STA 132+58.00
VPT EL 710.88

1.10%

VPC STA 134+65.00
VPC EL 713.17

VPI STA 135+65.00
VPI EL 714.27

VCL = 200'
K = 331

VPT STA 136+65.00
VPT EL 714.77

EXISTING GROUND AT NB PGL

0.50%

NOTE:
PROFILE SHOWN FOR INFORMATION ONLY.
BEST FIT OF EXISTING GROUND AT NB
INSIDE EDGE OF PAVEMENT SHOWN.

128 130 132 134 136 138 140

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN AND PROFILE	SHEET 693	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\050101_pp.dgn PLOT DATE : 1/30/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 40

LEGEND

(1) REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT

(4) CONCRETE CURB AND GUTTER 31-INCH

[P] RECONDITIONING INLETS

(10) REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT

(11) CONTINUOUS DIAMOND GRINDING

(INXXX) REPLACE EXISTING INLET IN PLACE

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
2	183+01.38, 193.44' RT	RR SPIKE IN POWER POLE	688.92

WETLAND BOUNDARY

N

WETLAND BOUNDARY

TLE

SLOPE INTERCEPT

R/W

MATCH LINE STA 140+00

MATCH LINE STA 155+00

140+00 142+00 144+00 146+00 148+00 150+00 152+00 154+00

CAUTION

PGL

IN200

STH 38/HOWELL AVENUE

LISA DRIVE

SLOPE INTERCEPT

5

5

730 725 720 715 710 705 700 695

VPI STA 143+82.49
VPI EL 718.36

VPT STA 146+82.49
VPT EL 713.73

VPC STA 148+36.82
VPC EL 711.35

VPC STA 140+82.49
VPC EL 716.86

VPI STA 150+86.82
VPI EL 707.49

VPT STA 153+36.82
VPT EL 710.56

0.50%

VCL = 600'
K = 294

-1.54%

VCL = 500'
K = 180

1.23%

EXISTING GROUND AT NB PGL

NOTE:
PROFILE SHOWN FOR INFORMATION ONLY.
BEST FIT OF EXISTING GROUND AT NB
INSIDE EDGE OF PAVEMENT SHOWN.

140 142 144 146 148 150 152 154

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN AND PROFILE	SHEET 694	E

LEGEND

(1) REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT

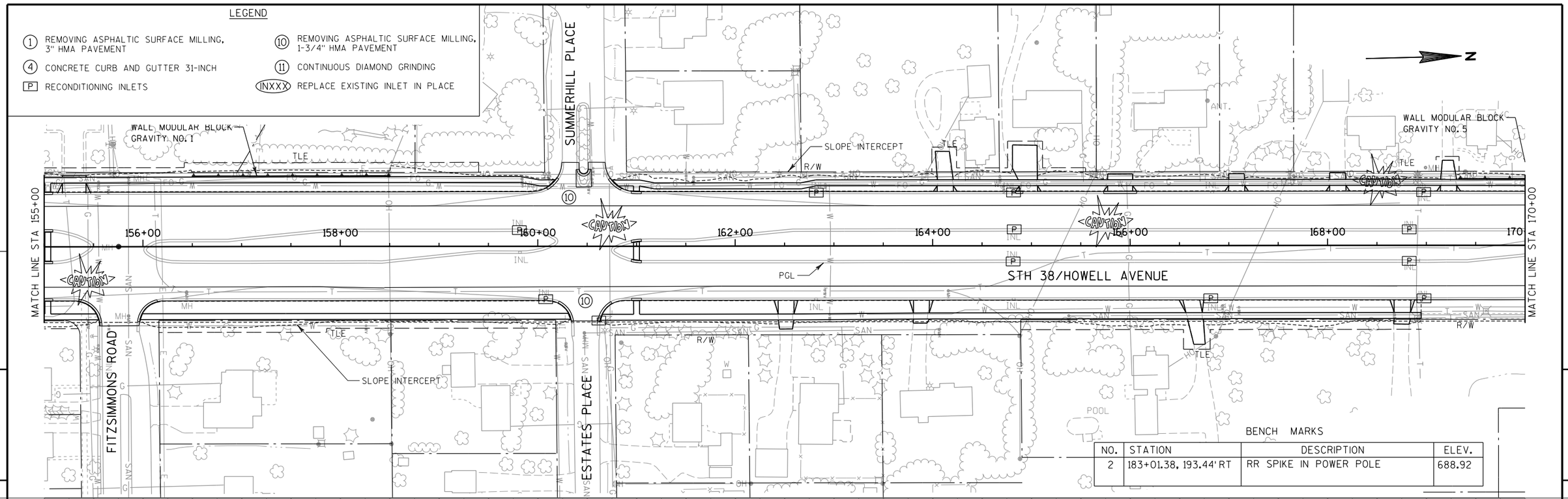
(4) CONCRETE CURB AND GUTTER 31-INCH

[P] RECONDITIONING INLETS

(10) REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT

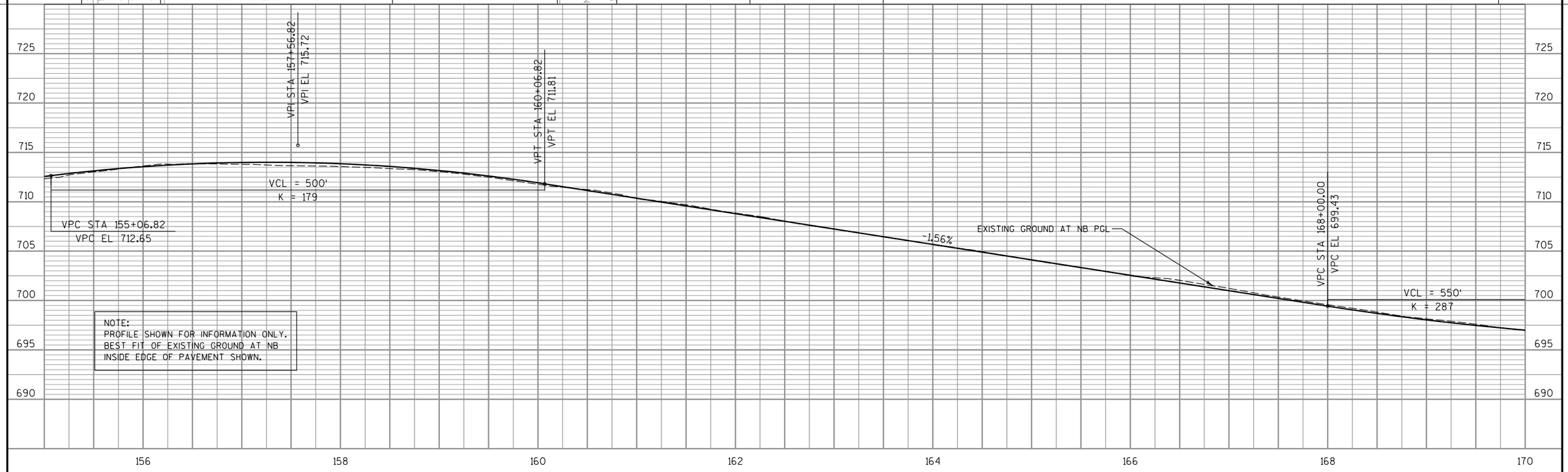
(11) CONTINUOUS DIAMOND GRINDING

(INXXX) REPLACE EXISTING INLET IN PLACE



BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
2	183+01.38, 193.44' RT	RR SPIKE IN POWER POLE	688.92



NOTE:
PROFILE SHOWN FOR INFORMATION ONLY.
BEST FIT OF EXISTING GROUND AT NB INSIDE EDGE OF PAVEMENT SHOWN.

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN AND PROFILE	SHEET 695	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\050103_pp.dgn PLOT DATE : 1/31/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 40

LEGEND

(1) REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT

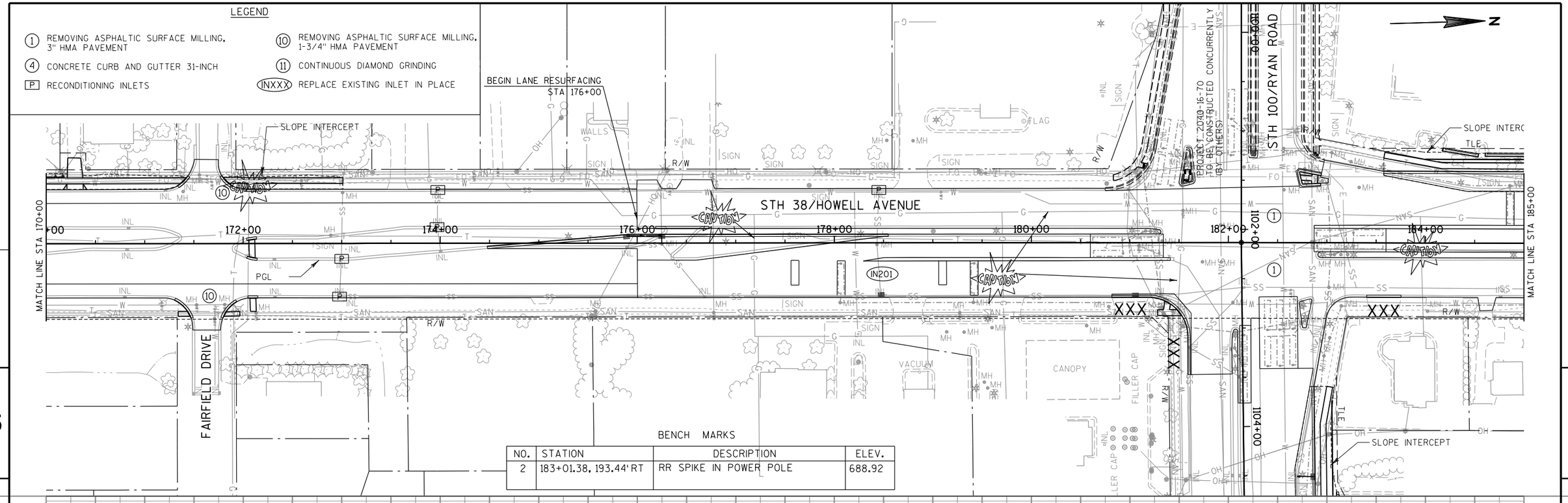
(4) CONCRETE CURB AND GUTTER 31-INCH

[P] RECONDITIONING INLETS

(10) REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT

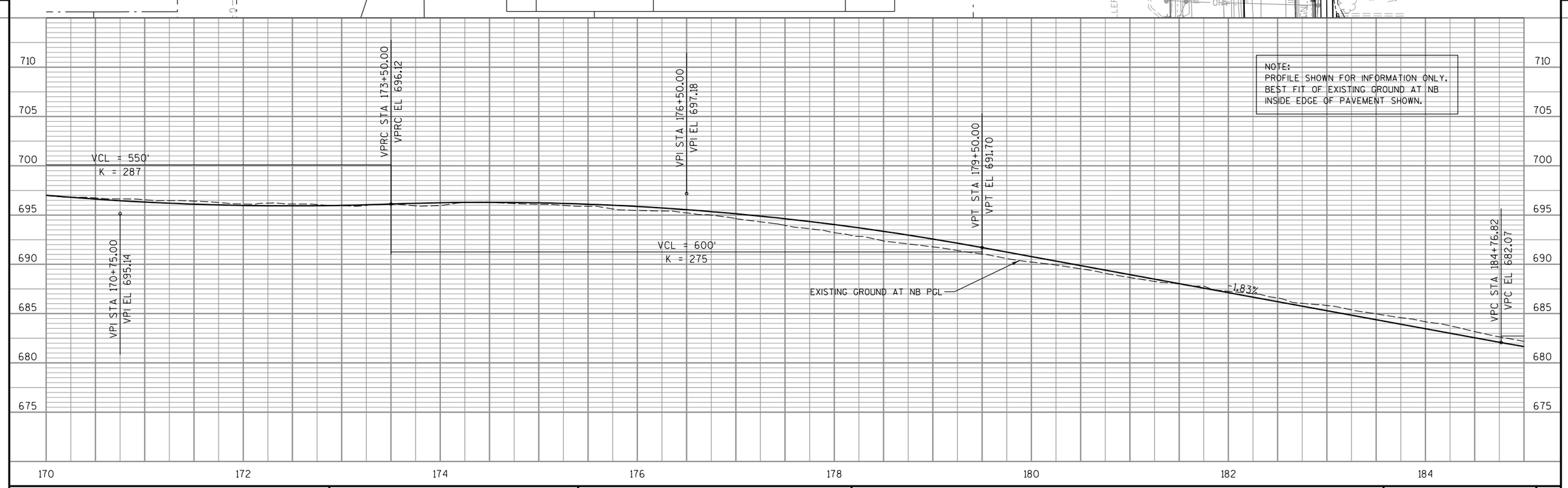
(11) CONTINUOUS DIAMOND GRINDING

(INXXX) REPLACE EXISTING INLET IN PLACE



BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
2	183+01.38, 193.44' RT	RR SPIKE IN POWER POLE	688.92



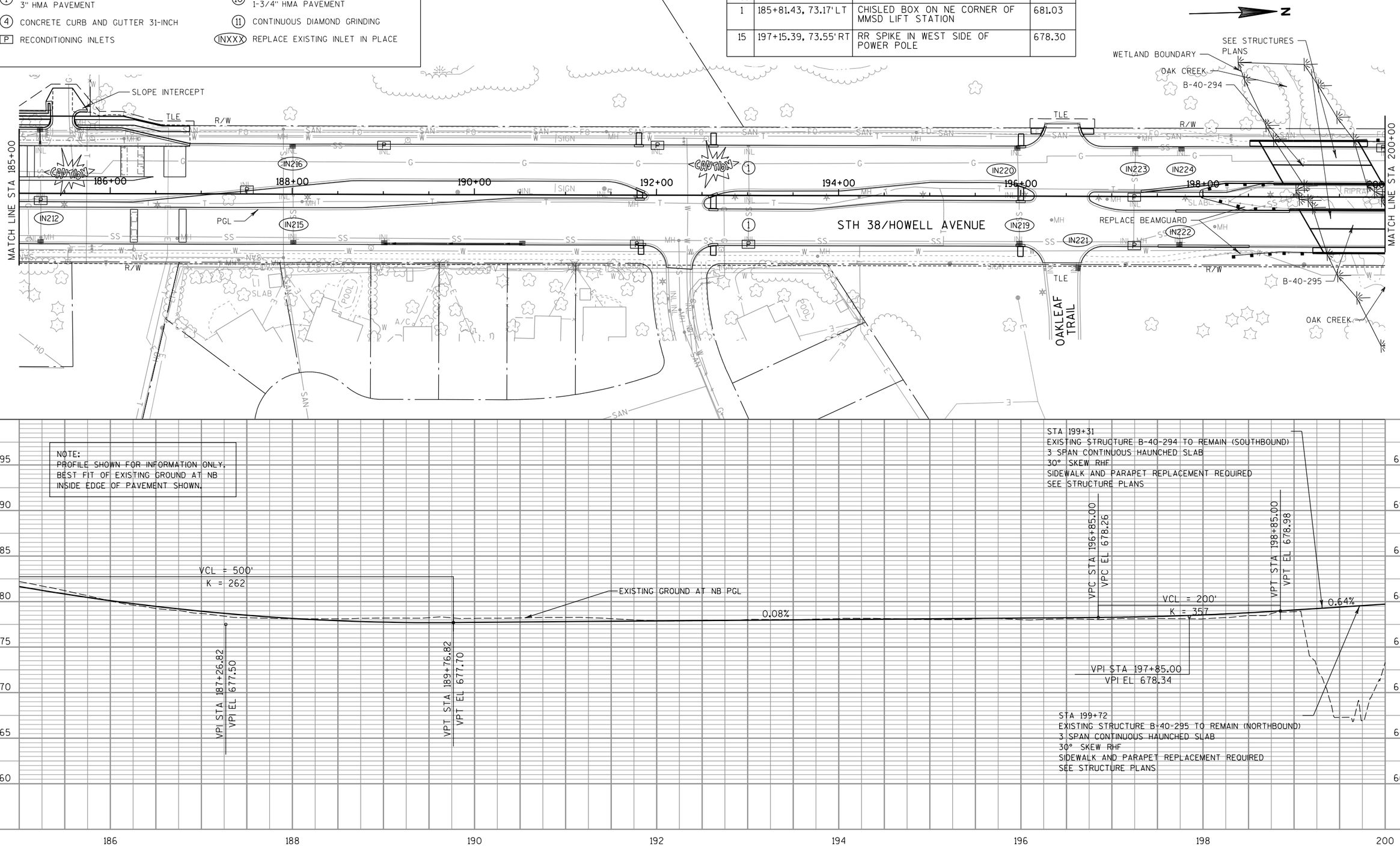
PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN AND PROFILE	SHEET 696	E

LEGEND

(1) REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
(4) CONCRETE CURB AND GUTTER 31-INCH
[P] RECONDITIONING INLETS
(10) REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
(11) CONTINUOUS DIAMOND GRINDING
(INXXX) REPLACE EXISTING INLET IN PLACE

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
1	185+81.43, 73.17'LT	CHISLED BOX ON NE CORNER OF MMSD LIFT STATION	681.03
15	197+15.39, 73.55'RT	RR SPIKE IN WEST SIDE OF POWER POLE	678.30



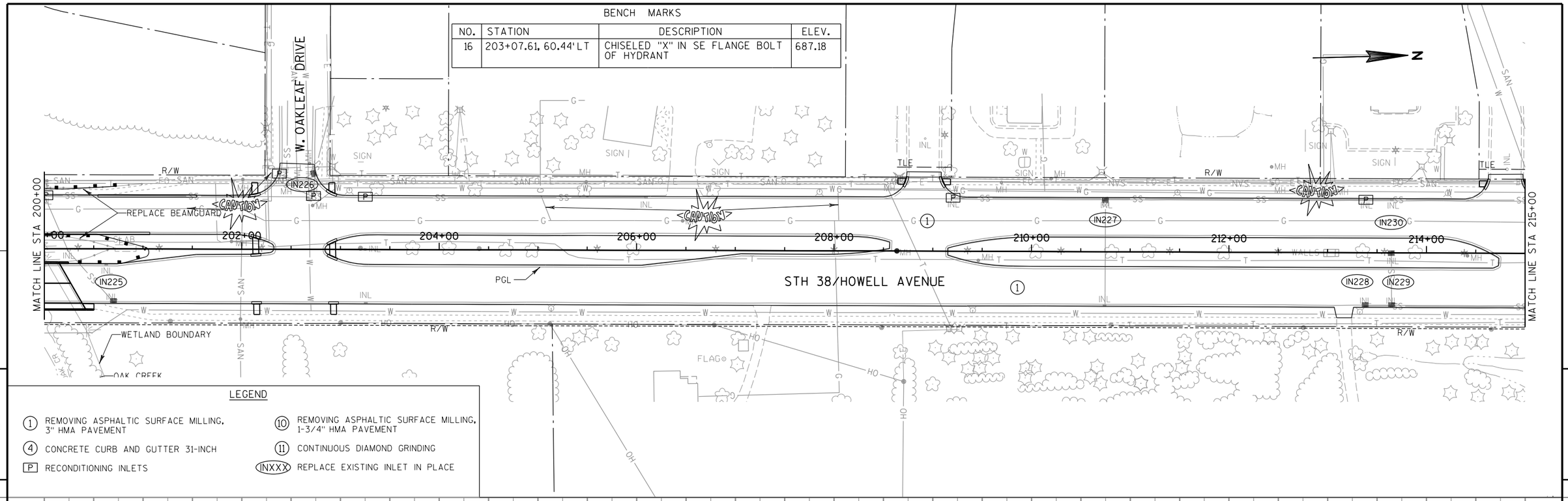
PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN AND PROFILE	SHEET 697	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\050105_pp.dgn PLOT DATE : 1/30/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 40

BENCH MARKS

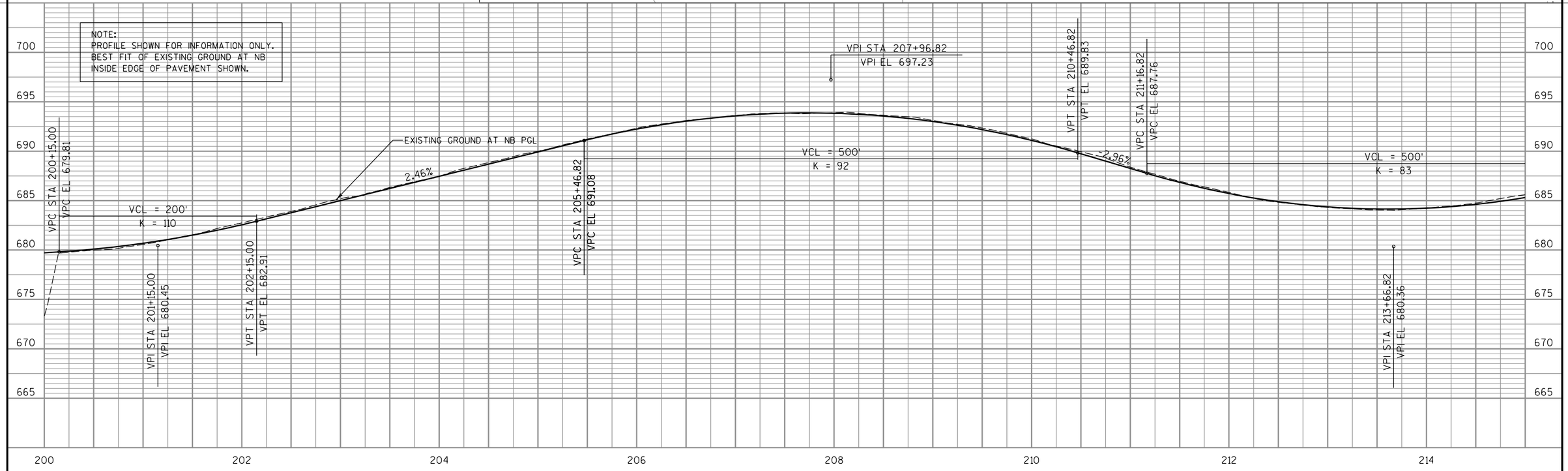
NO.	STATION	DESCRIPTION	ELEV.
16	203+07.61, 60.44'LT	CHISELED "X" IN SE FLANGE BOLT OF HYDRANT	687.18



LEGEND

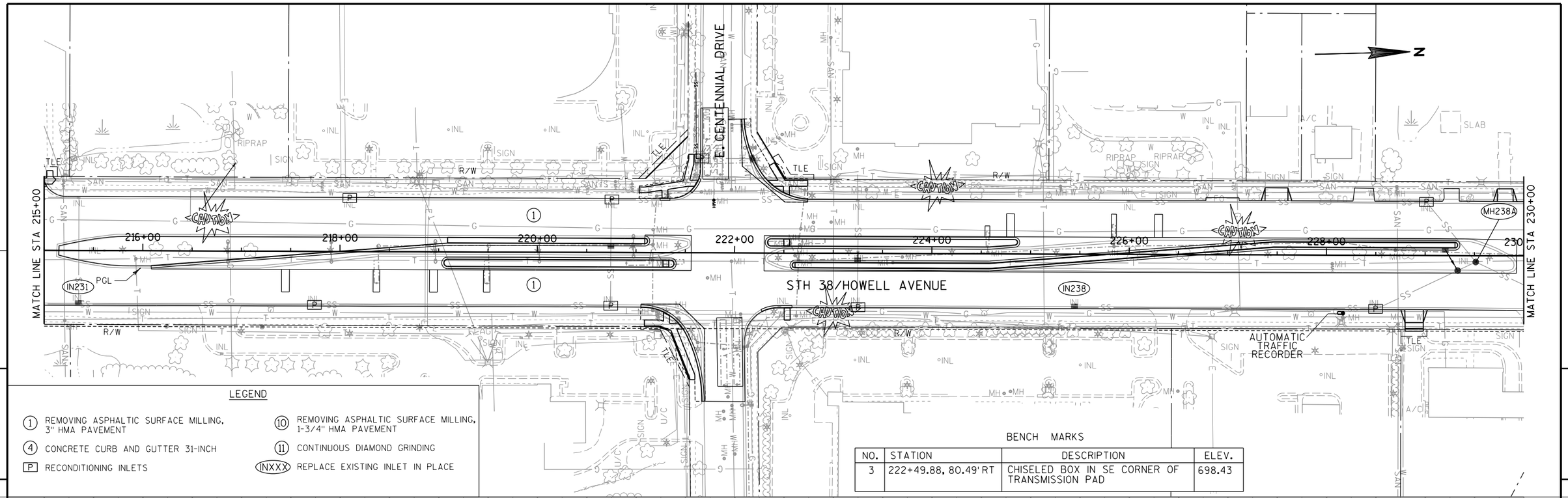
(1) REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT	(10) REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
(4) CONCRETE CURB AND GUTTER 31-INCH	(11) CONTINUOUS DIAMOND GRINDING
(P) RECONDITIONING INLETS	(INXXX) REPLACE EXISTING INLET IN PLACE

NOTE:
PROFILE SHOWN FOR INFORMATION ONLY.
BEST FIT OF EXISTING GROUND AT NB
INSIDE EDGE OF PAVEMENT SHOWN.



PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN AND PROFILE	SHEET 698	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\050106_pp.dgn PLOT DATE : 1/30/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100
WISDOT/CADDS SHEET 40

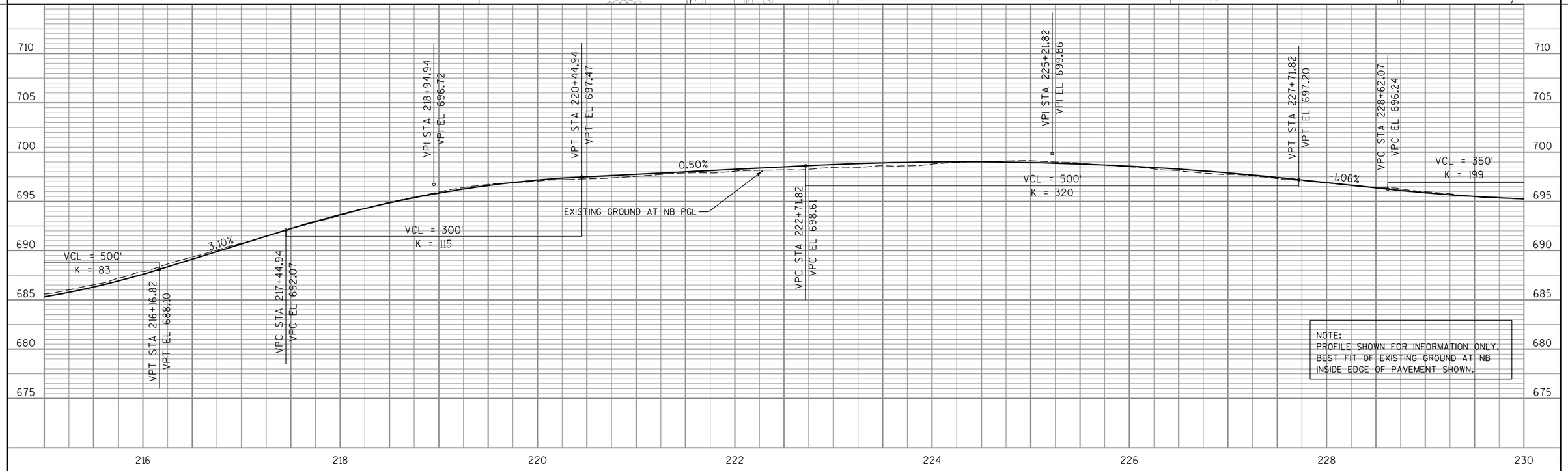


LEGEND

(1) REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT	(10) REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
(4) CONCRETE CURB AND GUTTER 31-INCH	(11) CONTINUOUS DIAMOND GRINDING
[P] RECONDITIONING INLETS	(INXXX) REPLACE EXISTING INLET IN PLACE

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
3	222+49.88, 80.49' RT	CHISELED BOX IN SE CORNER OF TRANSMISSION PAD	698.43



NOTE:
PROFILE SHOWN FOR INFORMATION ONLY.
BEST FIT OF EXISTING GROUND AT NB INSIDE EDGE OF PAVEMENT SHOWN.

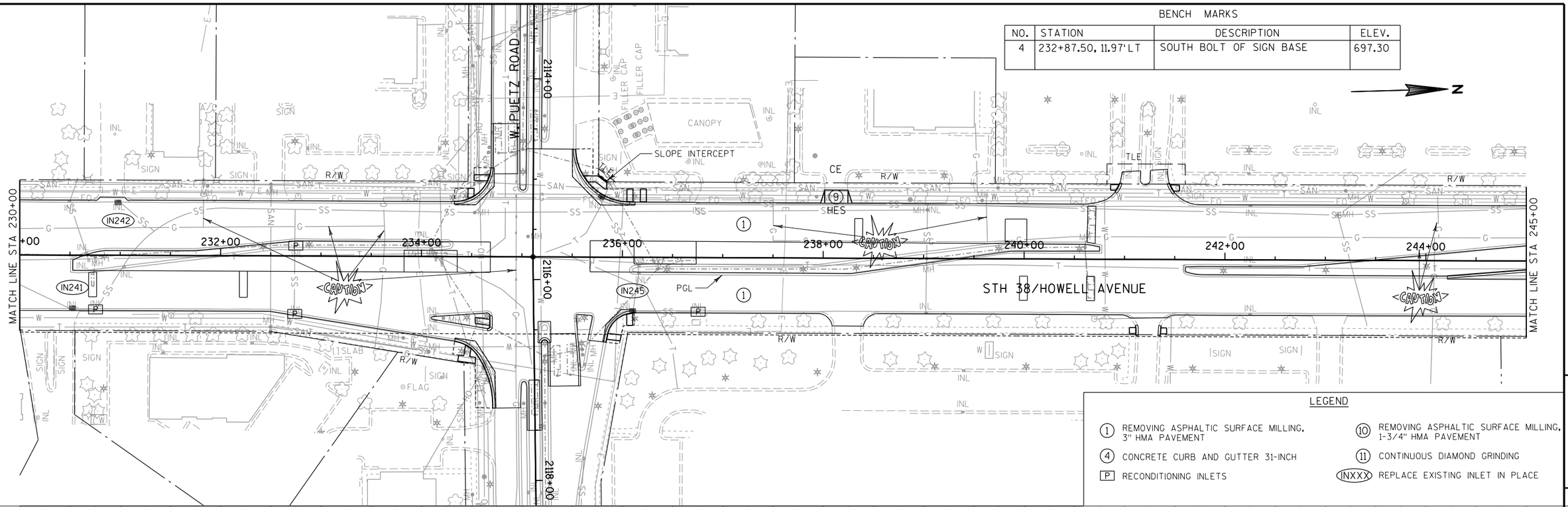
PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN AND PROFILE	SHEET 699	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\050107_pp.dgn PLOT DATE : 1/30/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 40

BENCH MARKS

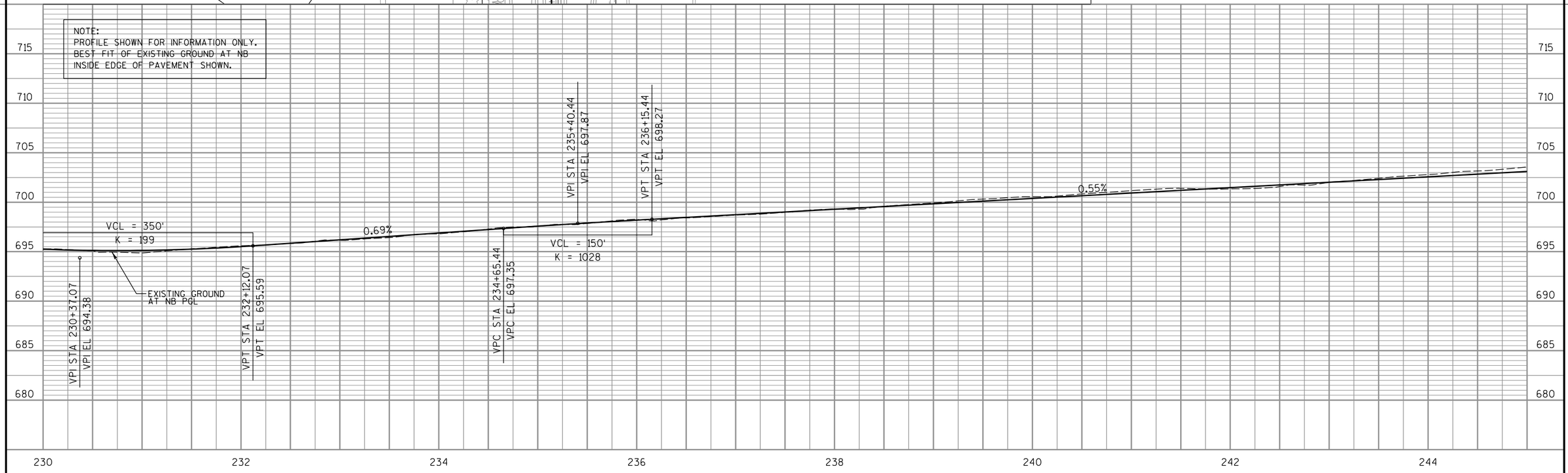
NO.	STATION	DESCRIPTION	ELEV.
4	232+87.50, 11.97'LT	SOUTH BOLT OF SIGN BASE	697.30



LEGEND

- (1) REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
- (4) CONCRETE CURB AND GUTTER 31-INCH
- (P) RECONDITIONING INLETS
- (10) REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
- (11) CONTINUOUS DIAMOND GRINDING
- (INXXX) REPLACE EXISTING INLET IN PLACE

NOTE:
PROFILE SHOWN FOR INFORMATION ONLY.
BEST FIT OF EXISTING GROUND AT NB
INSIDE EDGE OF PAVEMENT SHOWN.



PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN AND PROFILE	SHEET 700	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\050108_pp.dgn PLOT DATE : 1/30/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 40

LEGEND

(1) REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT

(4) CONCRETE CURB AND GUTTER 31-INCH

[P] RECONDITIONING INLETS

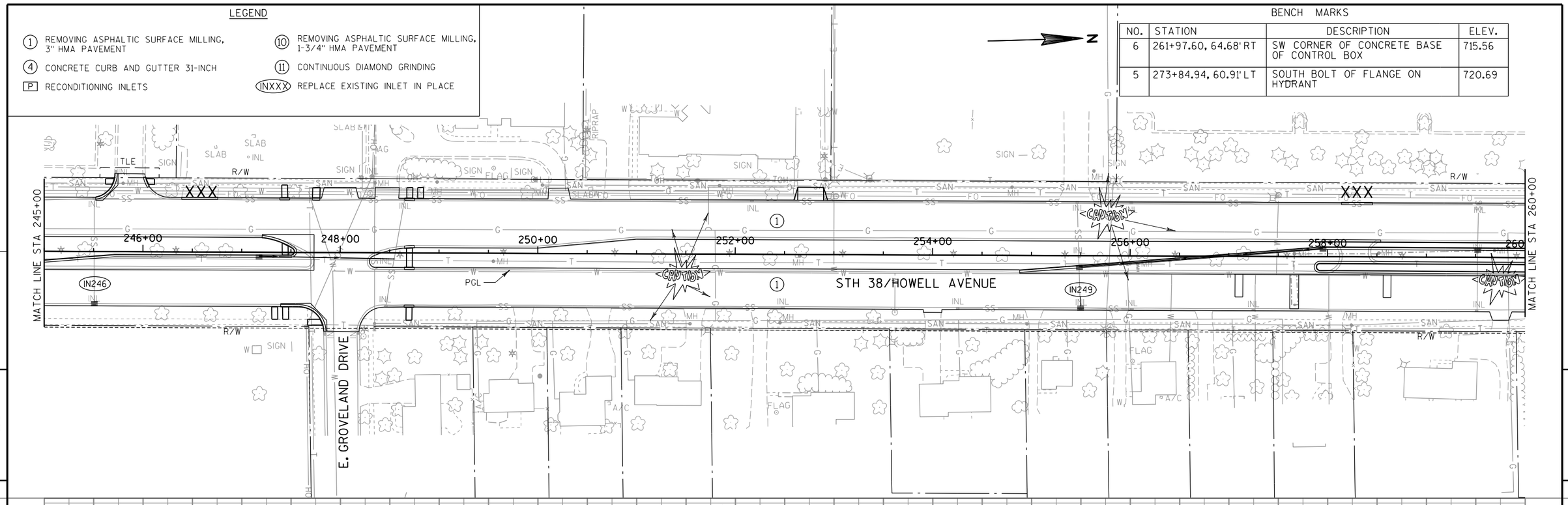
(10) REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT

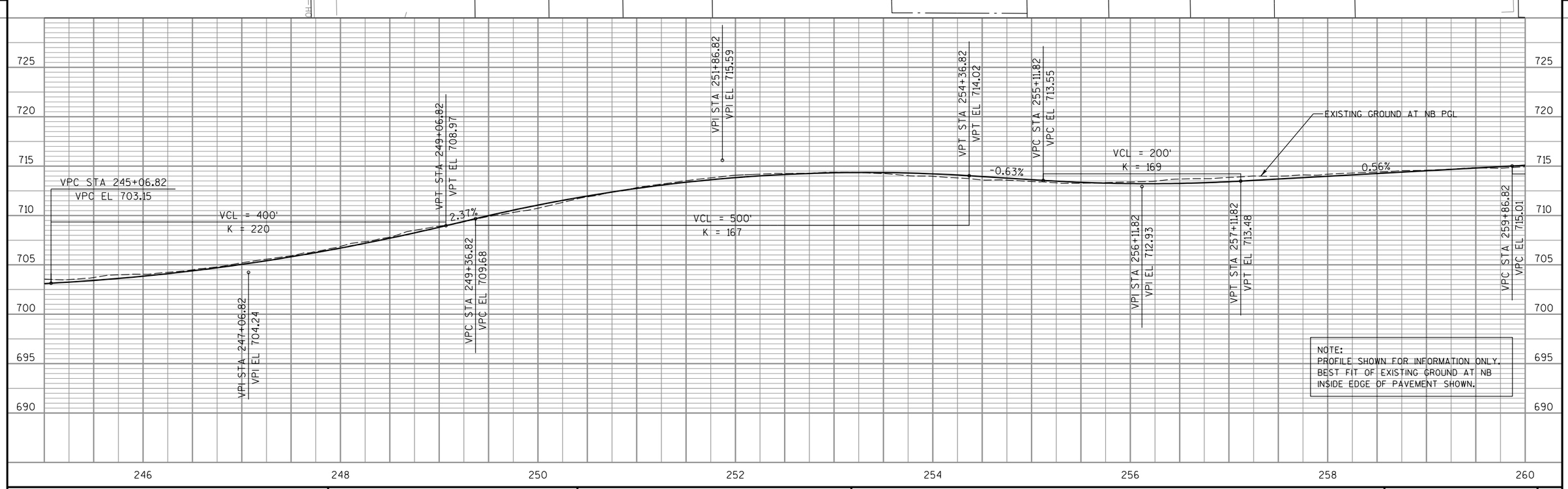
(11) CONTINUOUS DIAMOND GRINDING

(INXXX) REPLACE EXISTING INLET IN PLACE

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
6	261+97.60, 64.68' RT	SW CORNER OF CONCRETE BASE OF CONTROL BOX	715.56
5	273+84.94, 60.91' LT	SOUTH BOLT OF FLANGE ON HYDRANT	720.69





NOTE:
PROFILE SHOWN FOR INFORMATION ONLY.
BEST FIT OF EXISTING GROUND AT NB INSIDE EDGE OF PAVEMENT SHOWN.

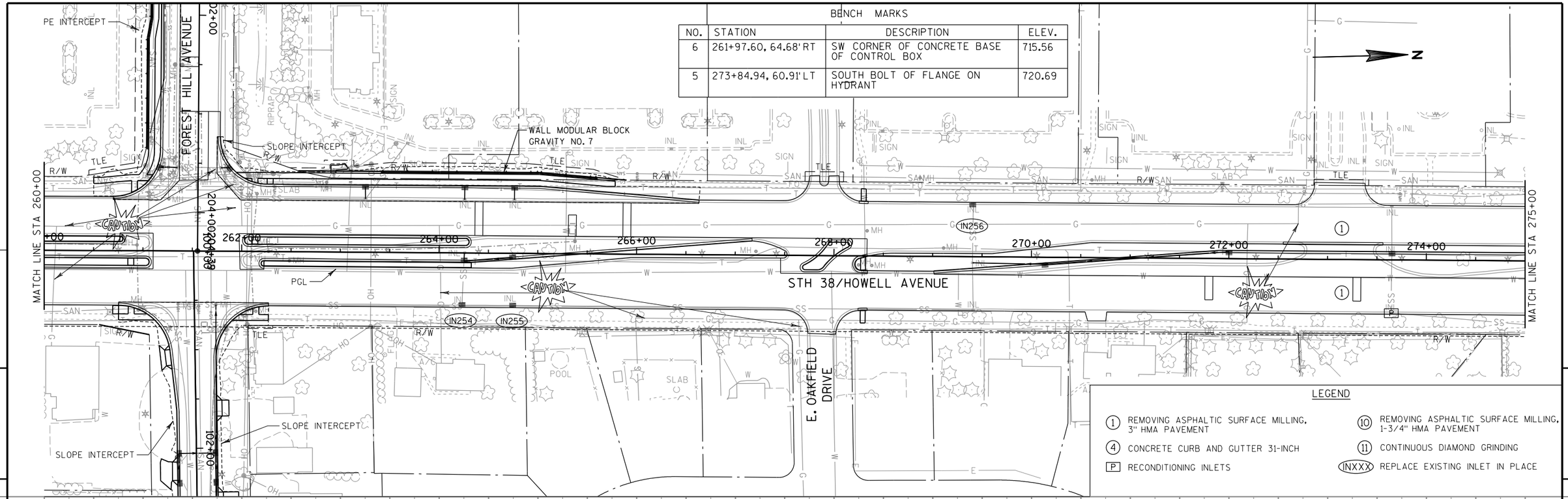
PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN AND PROFILE	SHEET 701	E

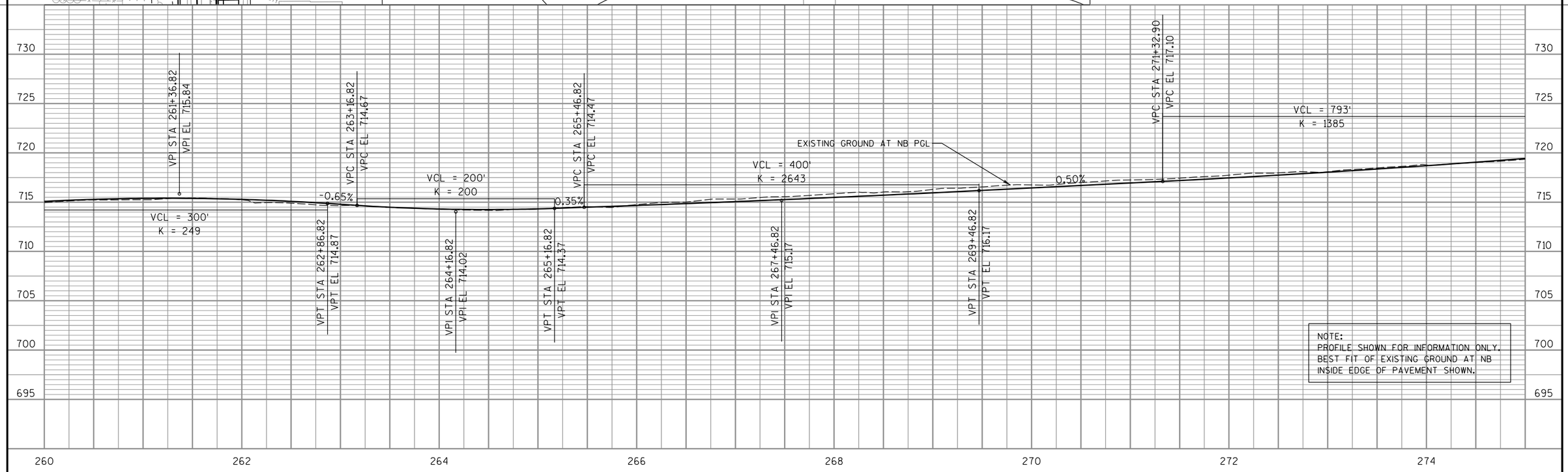
FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\050109_pp.dgn PLOT DATE : 1/30/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 40

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
6	261+97.60, 64.68' RT	SW CORNER OF CONCRETE BASE OF CONTROL BOX	715.56
5	273+84.94, 60.91' LT	SOUTH BOLT OF FLANGE ON HYDRANT	720.69





PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN AND PROFILE	SHEET 702	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\050110_pp.dgn PLOT DATE : 1/30/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 40

LEGEND

(1) REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
(4) CONCRETE CURB AND GUTTER 31-INCH
[P] RECONDITIONING INLETS
(10) REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
(11) CONTINUOUS DIAMOND GRINDING
(INXXX) REPLACE EXISTING INLET IN PLACE

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
7	281+79.60, 58.39' RT	TOP CENTER BOLT OF HYDRANT	728.43

(BY OTHERS)

MATCH LINE STA 275+00

MATCH LINE STA 290+00

NEW TRAFFIC SIGNALS PROPOSED

STH 38/HOWELL AVENUE

E. SUSAN DRIVE

DREXEL AVENUE

PGL

CAUTION

IN262

276+00 278+00 280+00 282+00 284+00 286+00 288+00 290

300+00 302+00 302+

3114+00 3116+00 3118+00

NOTE:
PROFILE SHOWN FOR INFORMATION ONLY.
BEST FIT OF EXISTING GROUND AT NB INSIDE EDGE OF PAVEMENT SHOWN.

EXISTING GROUND AT NB PGL

VCL = 793'
K = 1385

1.07%

VCL = 500'
K = 217

-1.23%

VCL = 500'
K = 155

VPI STA 275+29.15
VPI EL 719.08

VPT STA 279+25.40
VPT EL 723.33

VPC STA 281+26.82
VPC EL 725.49

VPI STA 283+76.82
VPI EL 728.17

VPT STA 286+26.82
VPT EL 725.09

VPC STA 287+36.82
VPC EL 723.74

VPI STA 289+86.82
VPI EL 720.66

740 735 730 725 720 715 710 705

276 278 280 282 284 286 288 290

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN AND PROFILE	SHEET 703	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\050111_pp.dgn PLOT DATE : 1/30/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 40

LEGEND

(1) REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT

(4) CONCRETE CURB AND GUTTER 31-INCH

[P] RECONDITIONING INLETS

(10) REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT

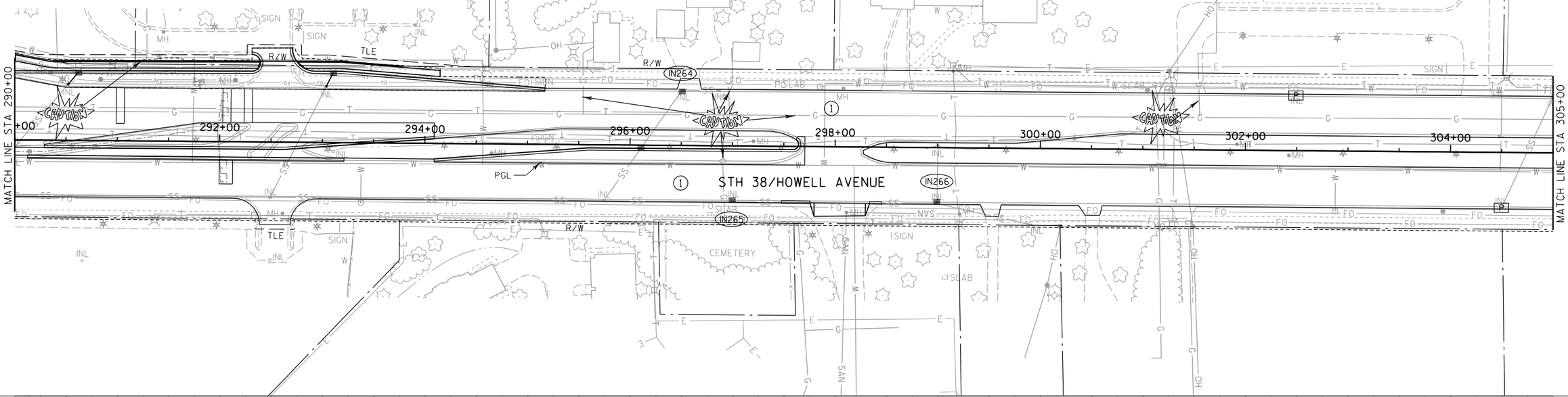
(11) CONTINUOUS DIAMOND GRINDING

(INXXX) REPLACE EXISTING INLET IN PLACE

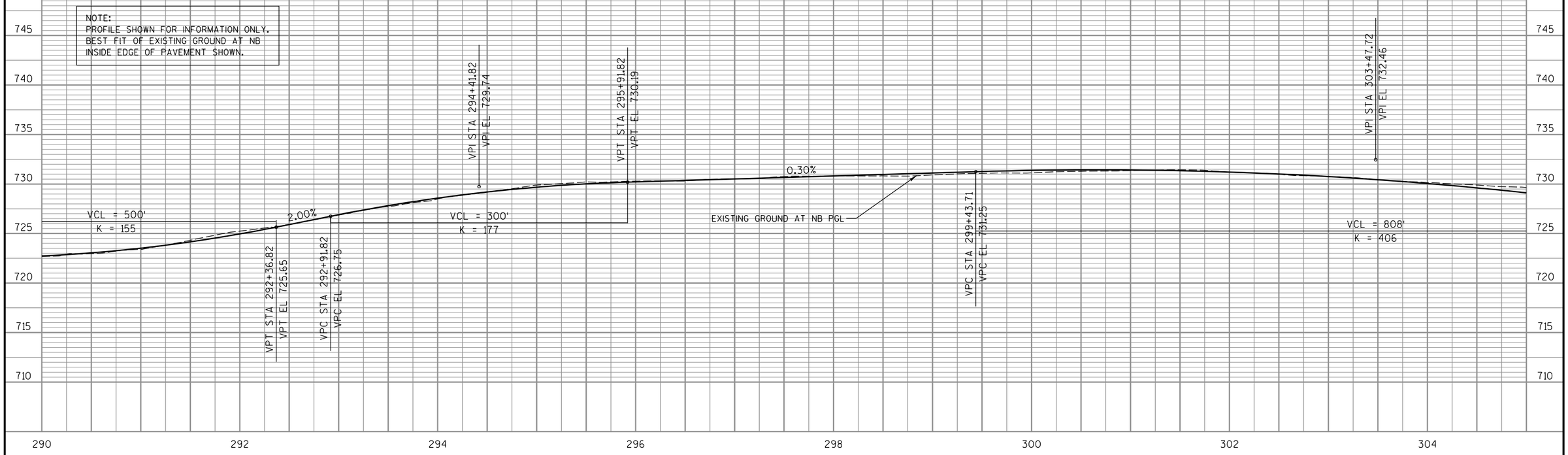
BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
12	311+01.34, 80.85' RT	WEST FACE OF 20" TREE	725.38

N



NOTE:
PROFILE SHOWN FOR INFORMATION ONLY.
BEST FIT OF EXISTING GROUND AT NB INSIDE EDGE OF PAVEMENT SHOWN.



PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN AND PROFILE	SHEET 704	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\050112_pp.dgn PLOT DATE : 1/30/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 40

LEGEND

(1) REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT

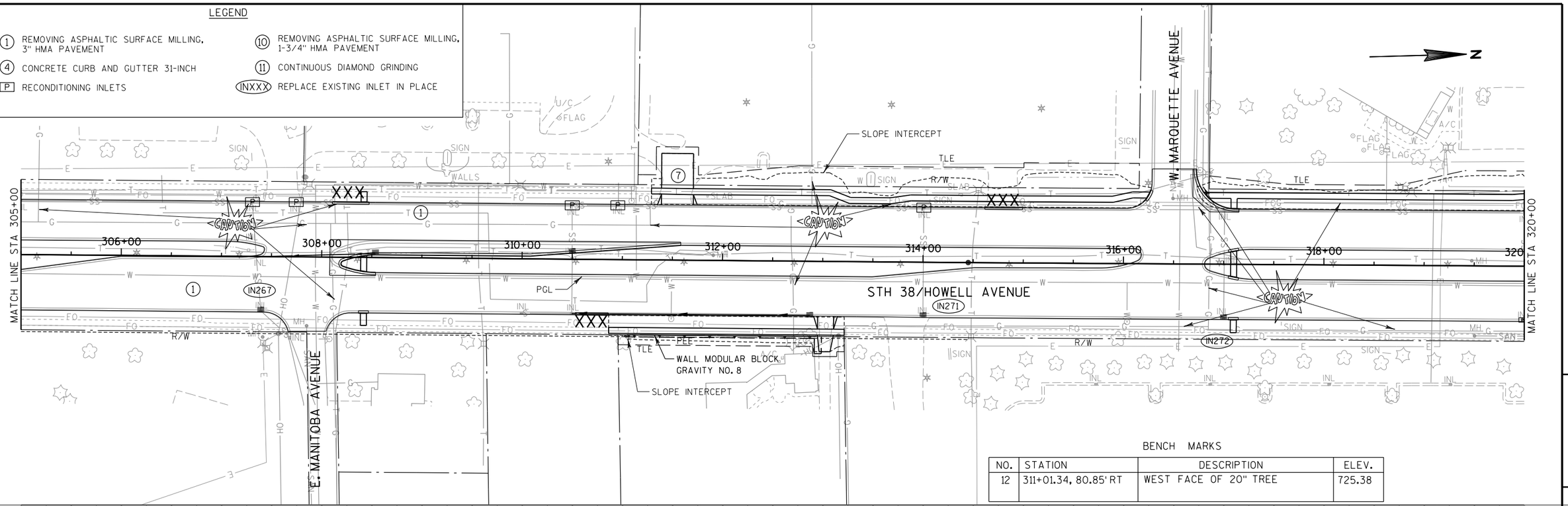
(4) CONCRETE CURB AND GUTTER 31-INCH

[P] RECONDITIONING INLETS

(10) REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT

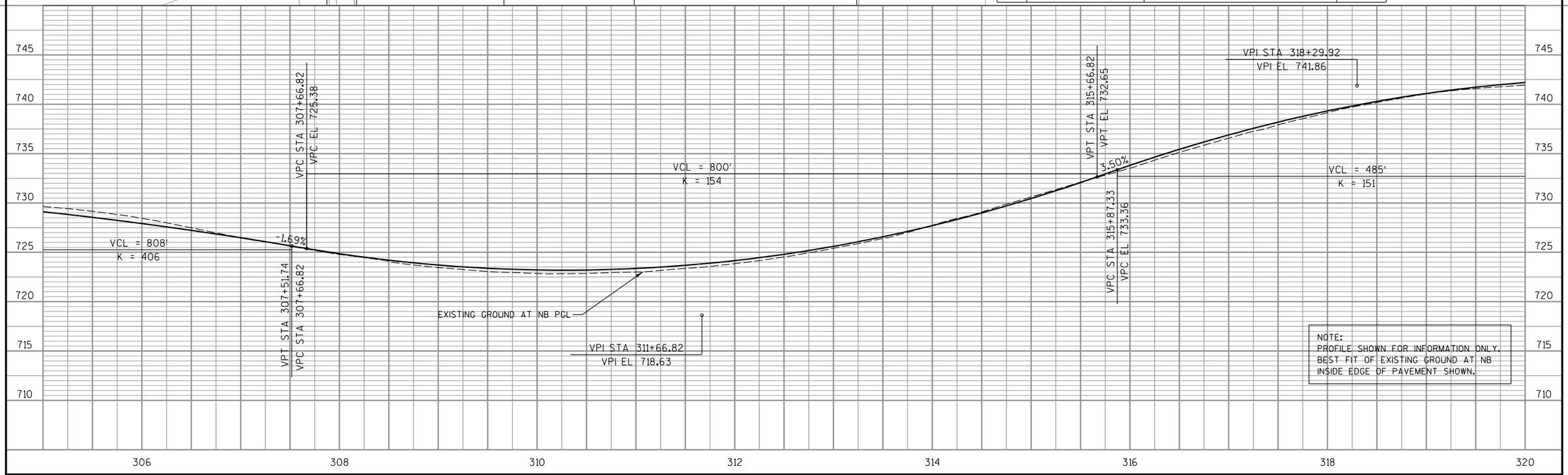
(11) CONTINUOUS DIAMOND GRINDING

(INXXX) REPLACE EXISTING INLET IN PLACE



BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
12	311+01.34, 80.85' RT	WEST FACE OF 20" TREE	725.38



NOTE:
PROFILE SHOWN FOR INFORMATION ONLY.
BEST FIT OF EXISTING GROUND AT NB INSIDE EDGE OF PAVEMENT SHOWN.

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN AND PROFILE	SHEET 705	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\050113_pp.dgn PLOT DATE : 1/30/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 40

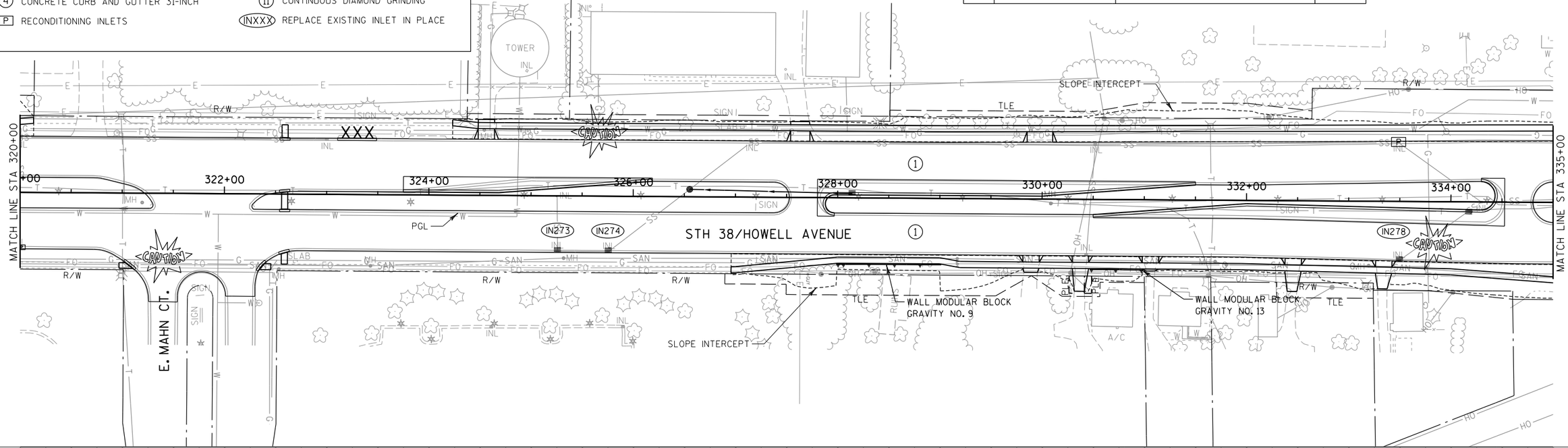
LEGEND

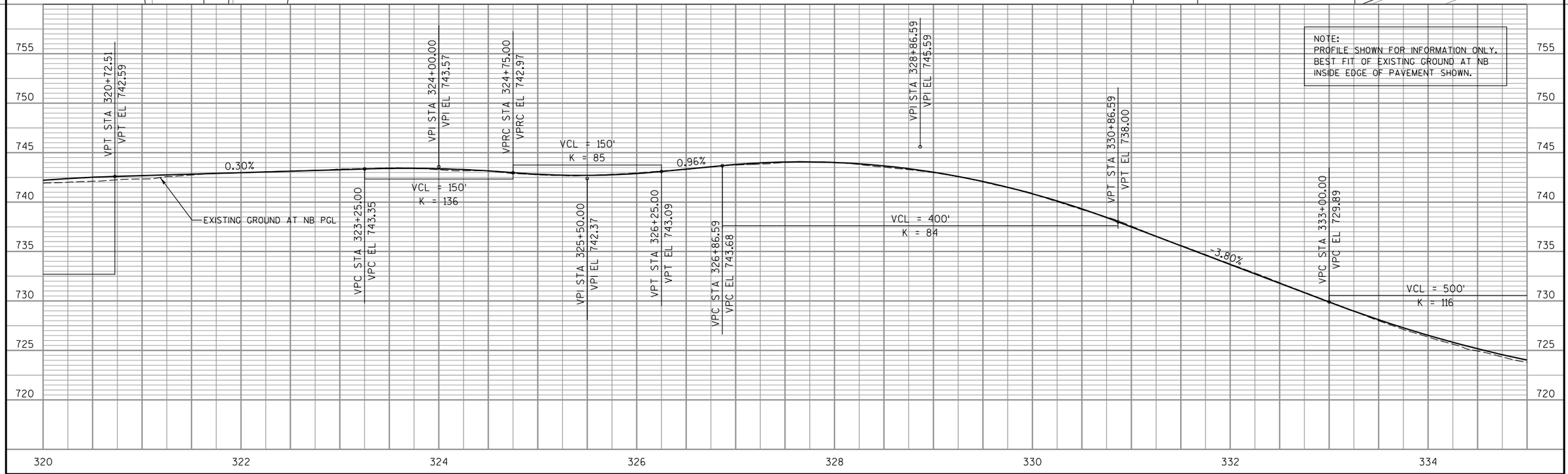
(1) REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
(4) CONCRETE CURB AND GUTTER 31-INCH
[P] RECONDITIONING INLETS
(10) REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
(11) CONTINUOUS DIAMOND GRINDING
(INXXX) REPLACE EXISTING INLET IN PLACE

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
13	329+74.36, 63.78'LT	CHISELED "X" ON HYDRANT FLANGE BOLT	739.39

N





PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN AND PROFILE	SHEET 706	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\050114_pp.dgn
PLOT DATE : 1/30/2014
PLOT BY : tmk
PLOT NAME :
PLOT SCALE : 1:100
WISDOT/CADDS SHEET 40

LEGEND

(1) REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT

(4) CONCRETE CURB AND GUTTER 31-INCH

[P] RECONDITIONING INLETS

(10) REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT

(11) CONTINUOUS DIAMOND GRINDING

(INXXX) REPLACE EXISTING INLET IN PLACE

N

MATCH LINE STA 335+00

MATCH LINE STA 350+00

CTH BB/RAWSON AVENUE

STH 38/HOWELL AVENUE

PGL

SLOPE INTERCEPT

R/W

TLE

CAUTION

IN281 IN282 IN283 IN284 IN285 IN286 IN287

336+00 338+00 340+00 342+00 344+00 346+00 348+00 350

4116+00 4118+00

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
13	329+74.36, 63.78'LT	CHISELED "X" ON HYDRANT FLANGE BOLT	739.39

VCL = 500'
K = 116

VPI STA 335+50.00
VPI EL 720.40

EXISTING GROUND AT NB PGL

0.52%

VPT STA 338+00.00
VPT EL 721.69

VCL = 250'
K = 307

VPC STA 339+99.94
VPC EL 722.72

VPI STA 341+24.94
VPI EL 723.36

VPT STA 342+49.94
VPT EL 722.99

-0.30%

VPC STA 346+53.16
VPC EL 721.78

VCL = 900'
K = 865

735 730 725 720 715 710 705 700

336 338 340 342 344 346 348 350

NOTE:
PROFILE SHOWN FOR INFORMATION ONLY.
BEST FIT OF EXISTING GROUND AT NB INSIDE EDGE OF PAVEMENT SHOWN.

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN AND PROFILE	SHEET 707	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\050115_pp.dgn PLOT DATE : 1/30/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

LEGEND

(1) REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT

(4) CONCRETE CURB AND GUTTER 31-INCH

[P] RECONDITIONING INLETS

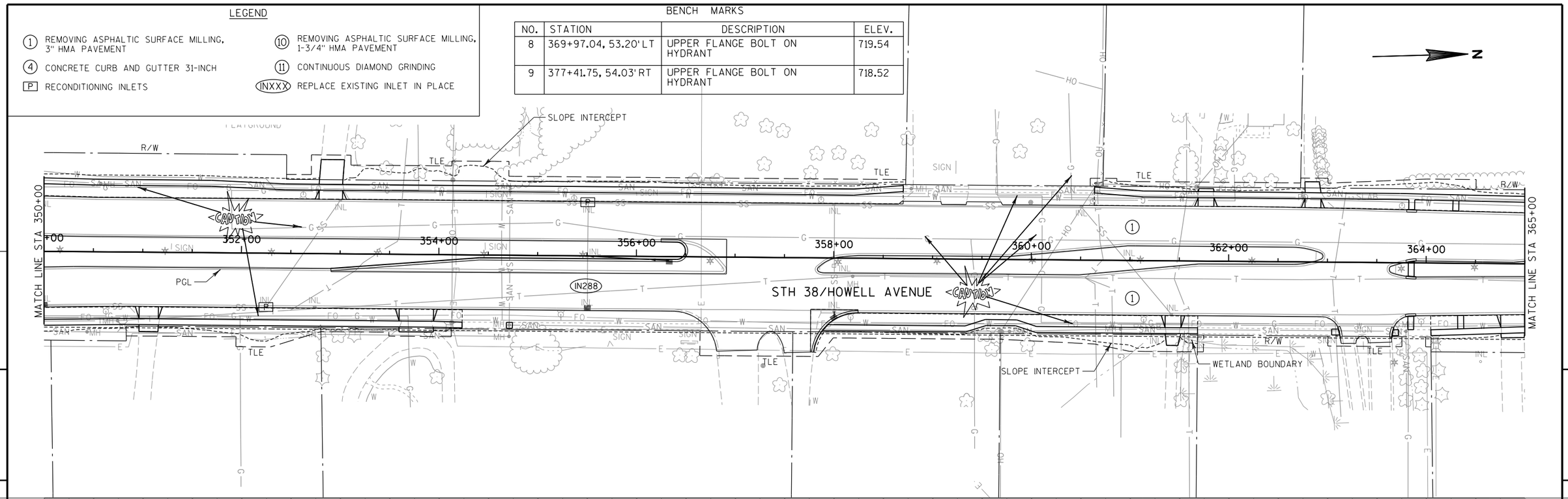
(10) REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT

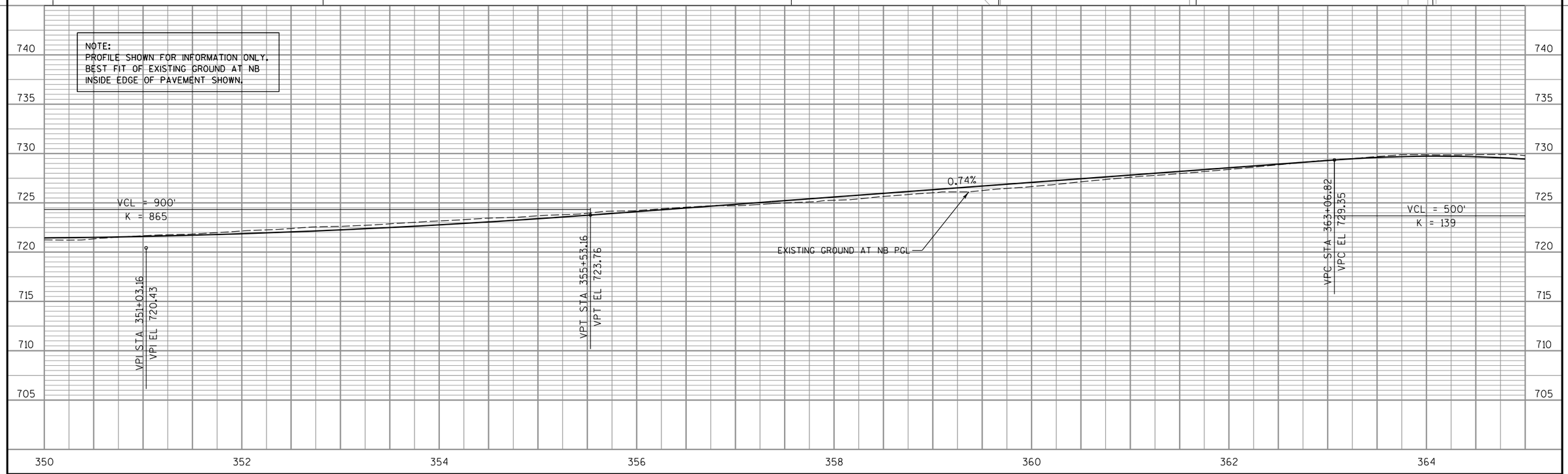
(11) CONTINUOUS DIAMOND GRINDING

(INXXX) REPLACE EXISTING INLET IN PLACE

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
8	369+97.04, 53.20' LT	UPPER FLANGE BOLT ON HYDRANT	719.54
9	377+41.75, 54.03' RT	UPPER FLANGE BOLT ON HYDRANT	718.52





PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN AND PROFILE	SHEET 708	E

LEGEND

(1) REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT

(4) CONCRETE CURB AND GUTTER 31-INCH

[P] RECONDITIONING INLETS

(10) REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT

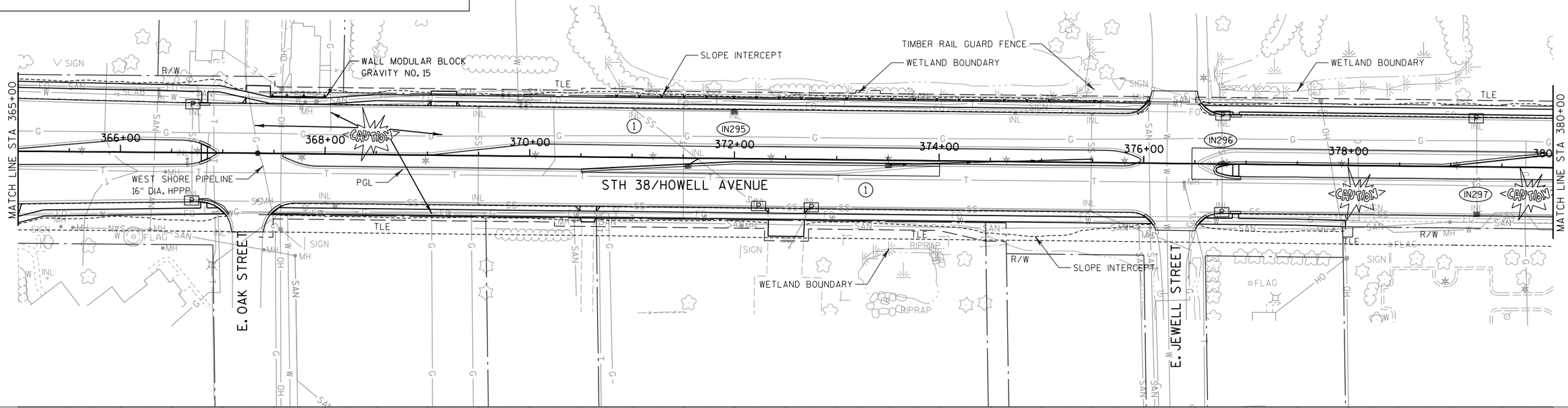
(11) CONTINUOUS DIAMOND GRINDING

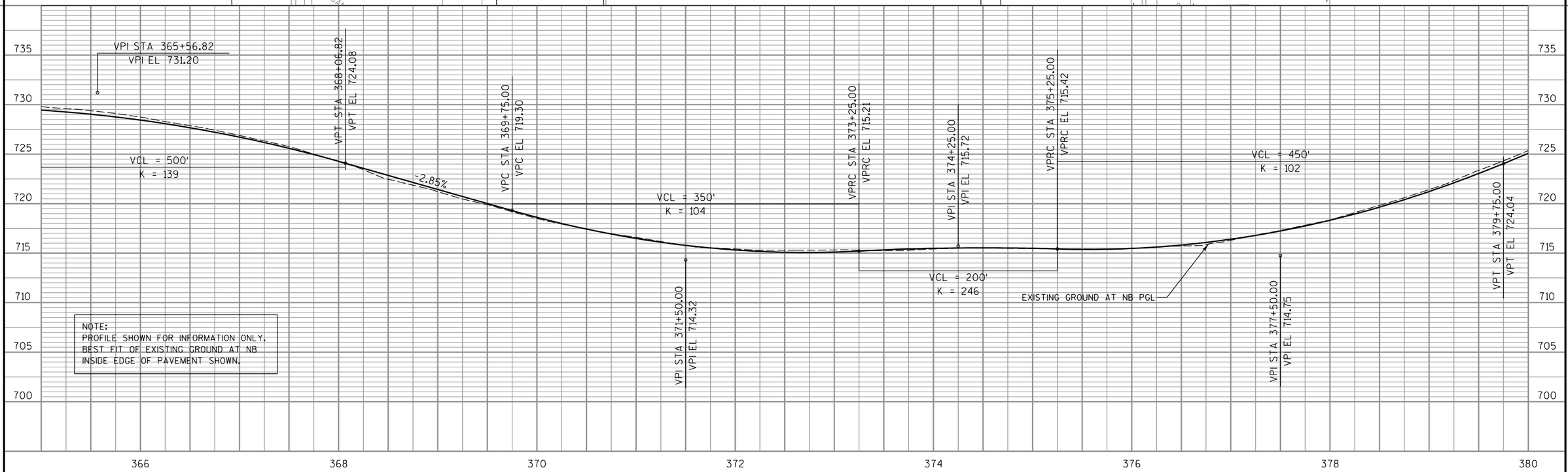
(INXXX) REPLACE EXISTING INLET IN PLACE

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
8	369+97.04, 53.20'LT	UPPER FLANGE BOLT ON HYDRANT	719.54
9	377+41.75, 54.03'RT	UPPER FLANGE BOLT ON HYDRANT	718.52

N

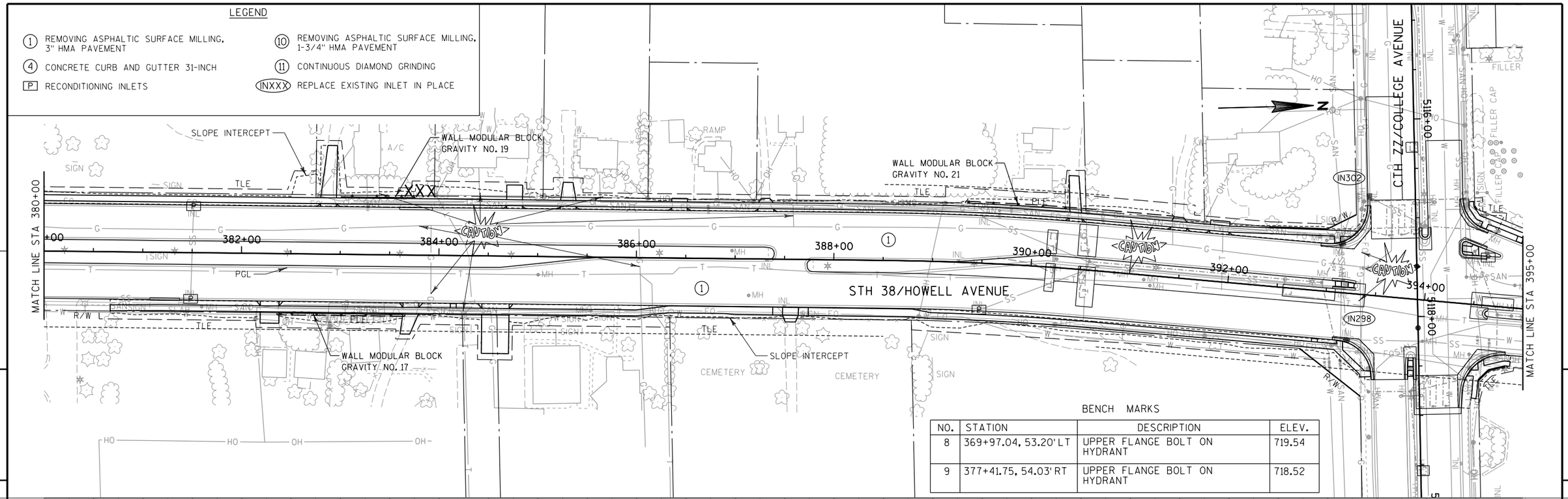




PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN AND PROFILE	SHEET 709	E

LEGEND

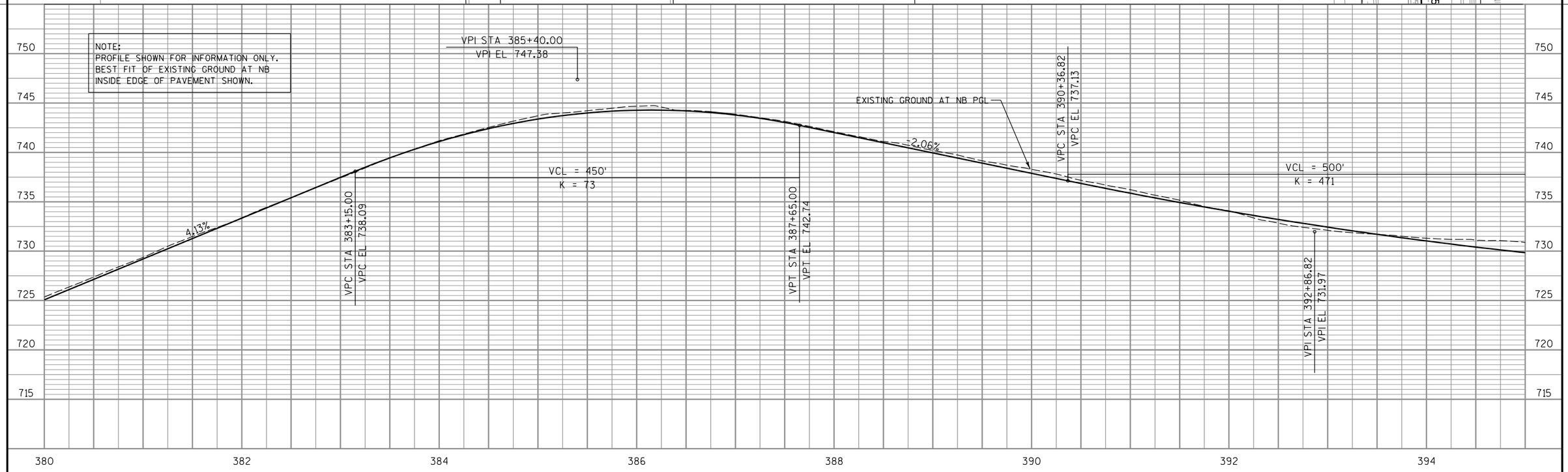
(1) REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
(4) CONCRETE CURB AND GUTTER 31-INCH
[P] RECONDITIONING INLETS
(10) REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
(11) CONTINUOUS DIAMOND GRINDING
(INXXX) REPLACE EXISTING INLET IN PLACE



BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
8	369+97.04, 53.20' LT	UPPER FLANGE BOLT ON HYDRANT	719.54
9	377+41.75, 54.03' RT	UPPER FLANGE BOLT ON HYDRANT	718.52

NOTE:
PROFILE SHOWN FOR INFORMATION ONLY.
BEST FIT OF EXISTING GROUND AT NB INSIDE EDGE OF PAVEMENT SHOWN.



PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN AND PROFILE	SHEET 710	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\050118_pp.dgn PLOT DATE : 1/30/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 40

LEGEND

(1) REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT

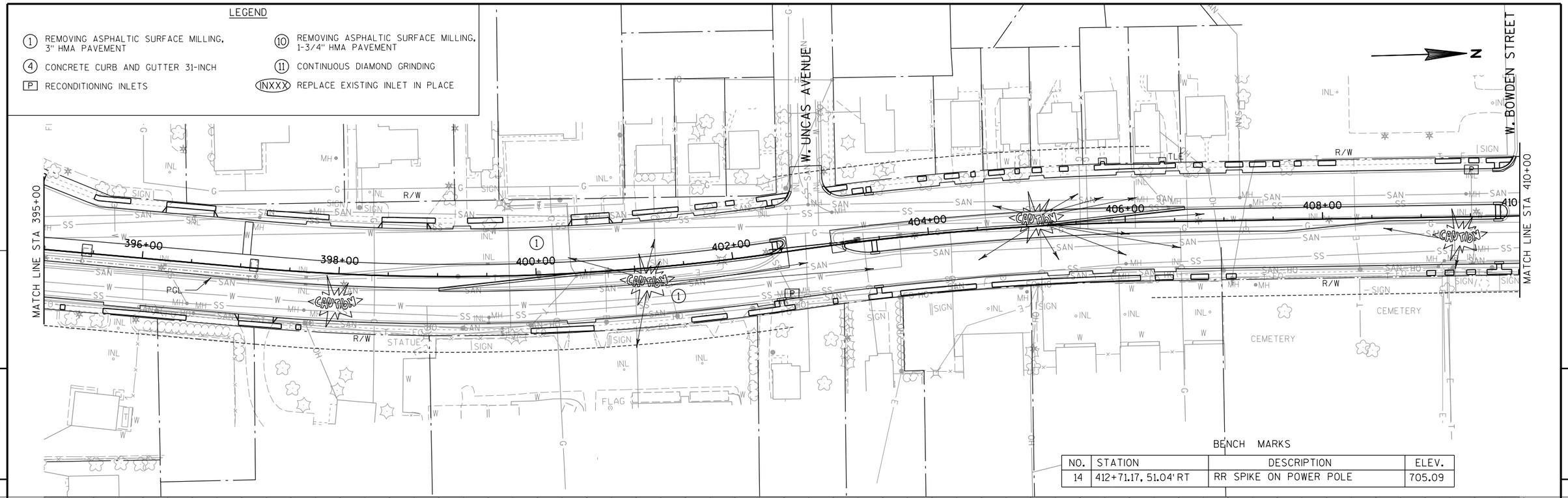
(4) CONCRETE CURB AND GUTTER 31-INCH

[P] RECONDITIONING INLETS

(10) REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT

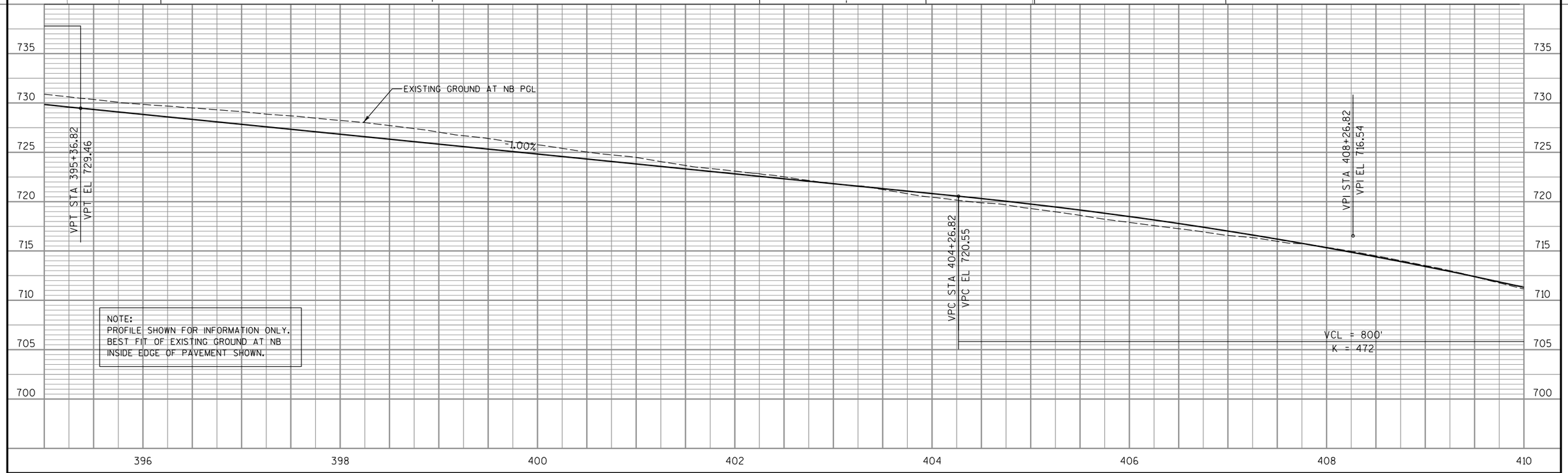
(11) CONTINUOUS DIAMOND GRINDING

(INXXX) REPLACE EXISTING INLET IN PLACE



BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
14	412+71.17, 51.04' RT	RR SPIKE ON POWER POLE	705.09



NOTE:
PROFILE SHOWN FOR INFORMATION ONLY.
BEST FIT OF EXISTING GROUND AT NB
INSIDE EDGE OF PAVEMENT SHOWN.

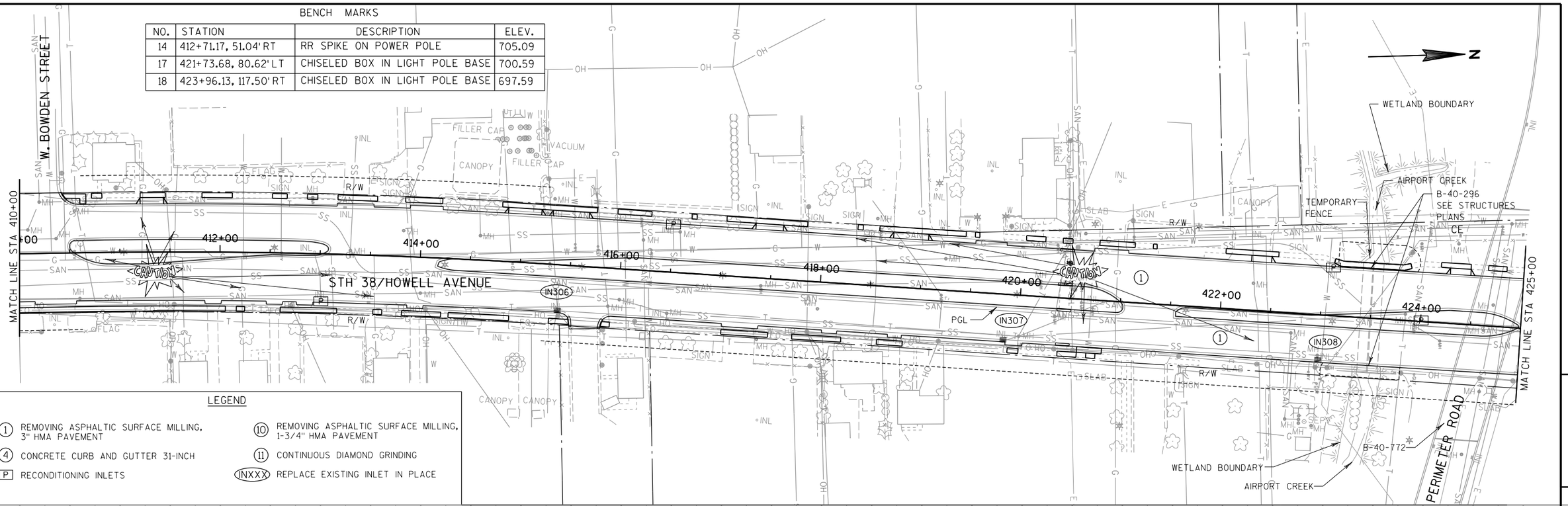
PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN AND PROFILE	SHEET 711	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\050119_pp.dgn PLOT DATE : 1/30/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 40

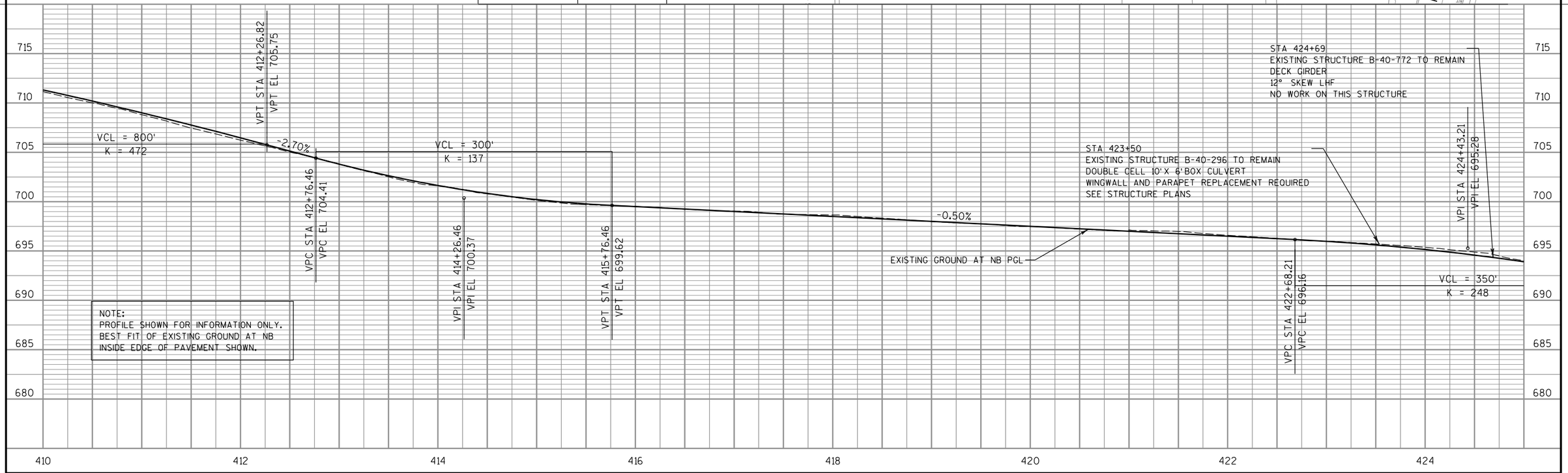
BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
14	412+71.17, 51.04' RT	RR SPIKE ON POWER POLE	705.09
17	421+73.68, 80.62' LT	CHISELED BOX IN LIGHT POLE BASE	700.59
18	423+96.13, 117.50' RT	CHISELED BOX IN LIGHT POLE BASE	697.59



LEGEND

(1) REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT	(10) REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
(4) CONCRETE CURB AND GUTTER 31-INCH	(11) CONTINUOUS DIAMOND GRINDING
[P] RECONDITIONING INLETS	(INXXX) REPLACE EXISTING INLET IN PLACE



NOTE:
PROFILE SHOWN FOR INFORMATION ONLY.
BEST FIT OF EXISTING GROUND AT NB
INSIDE EDGE OF PAVEMENT SHOWN.

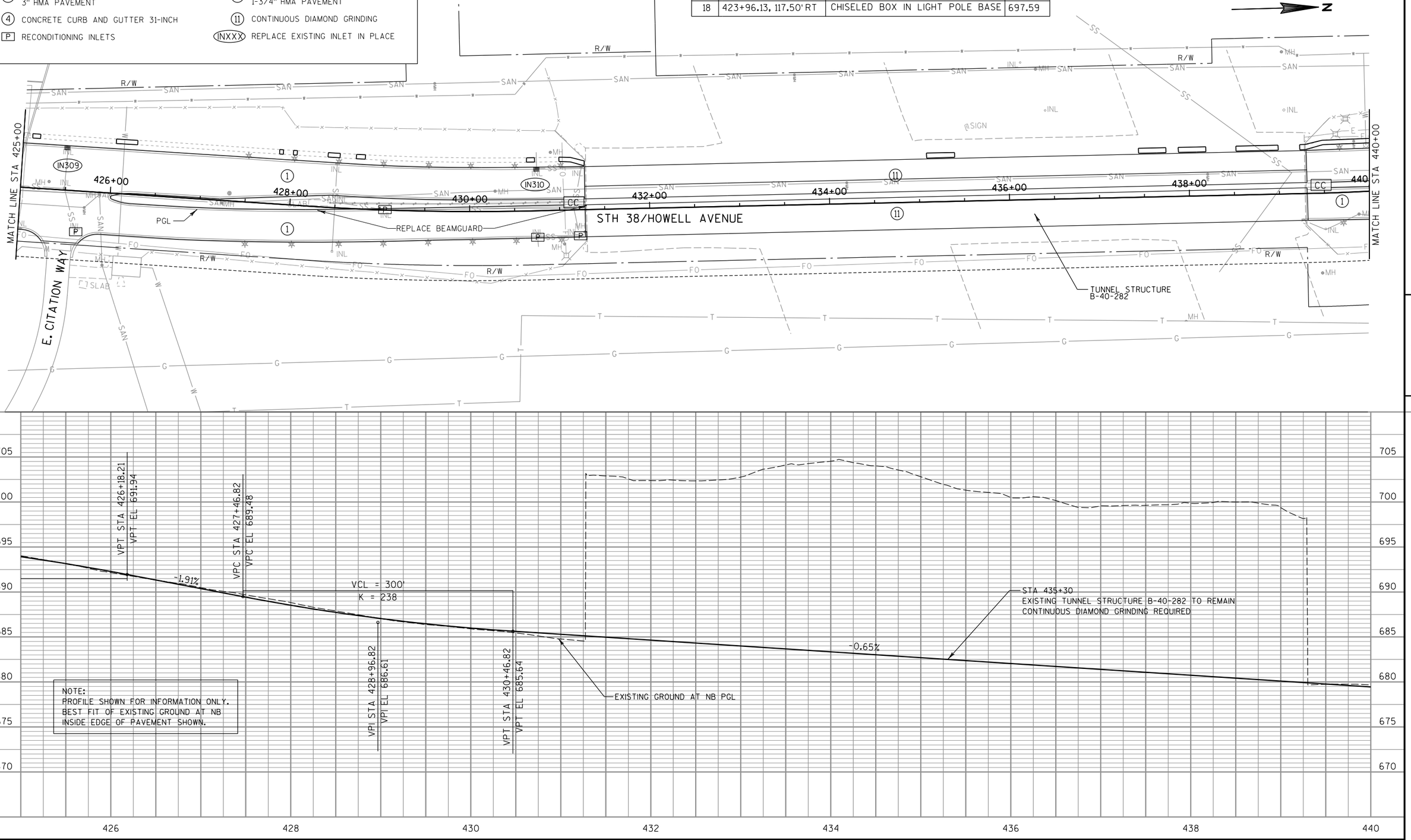
PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN AND PROFILE	SHEET 712	E

LEGEND

(1) REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
(4) CONCRETE CURB AND GUTTER 31-INCH
[P] RECONDITIONING INLETS
(10) REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
(11) CONTINUOUS DIAMOND GRINDING
(INXXX) REPLACE EXISTING INLET IN PLACE

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
18	423+96.13, 117.50' RT	CHISELED BOX IN LIGHT POLE BASE	697.59



PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN AND PROFILE	SHEET 713	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\050121_pp.dgn PLOT DATE : 1/30/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 40

LEGEND

(1) REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT

(4) CONCRETE CURB AND GUTTER 31-INCH

[P] RECONDITIONING INLETS

(10) REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT

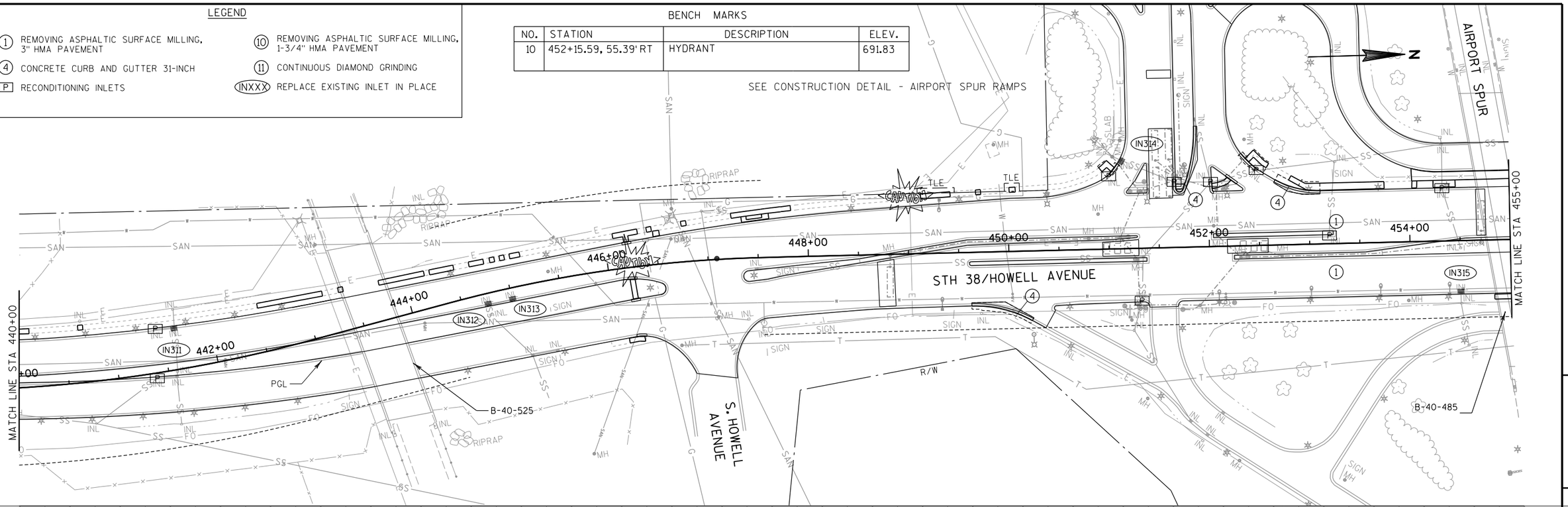
(11) CONTINUOUS DIAMOND GRINDING

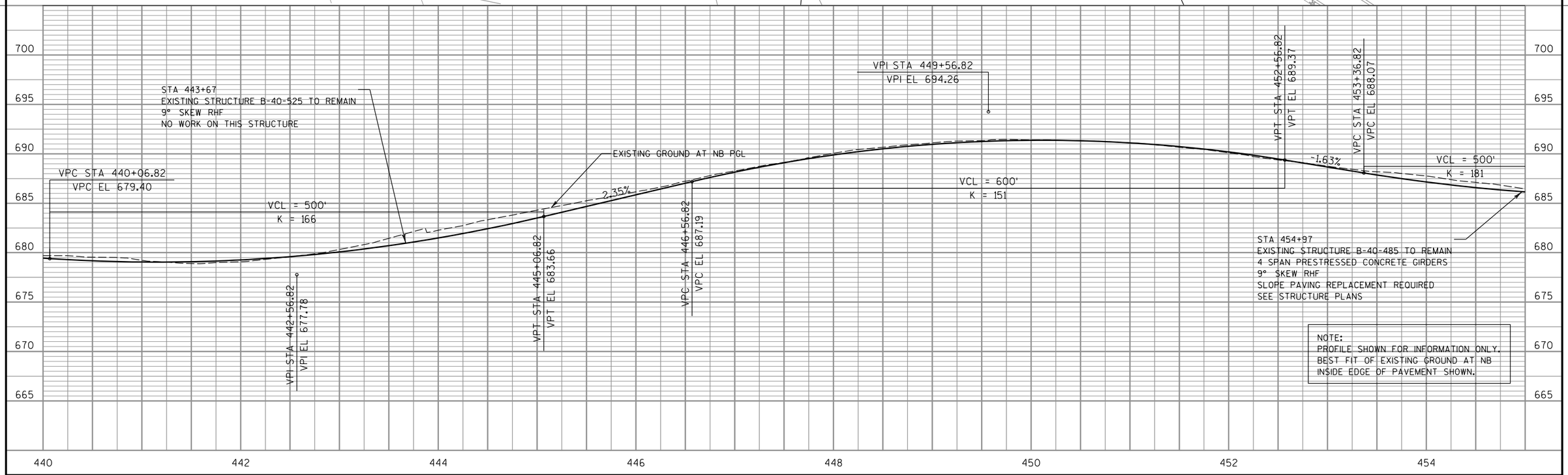
(INXXX) REPLACE EXISTING INLET IN PLACE

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
10	452+15.59, 55.39' RT	HYDRANT	691.83

SEE CONSTRUCTION DETAIL - AIRPORT SPUR RAMPS





PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN AND PROFILE	SHEET 714	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\050122_pp.dgn PLOT DATE : 1/30/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 40

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
11	460+15.16, 72.28' LT	SW CORNER OF CONCRETE BASE FOR ELECTRIC CONTROL BOX	689.71

N

STH 119/AIRPORT SPUR

GRANGE AVENUE

CIP RETAINING WALL

TLE

SLOPE INTERCEPT

END RESURFACING STA 462+21.55

MATCH LINE STA 455+00

IN316

456+00

458+00

460+00

462+00

464+00

466+00

468+00

470+00

PGL

IN325

STH 38/HOWELL AVENUE

R/W

CANOPY

B-40-484

END PROJECT STA 462+75.39

LEGEND

(1) REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT

(4) CONCRETE CURB AND GUTTER 31-INCH

[P] RECONDITIONING INLETS

(10) REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT

(11) CONTINUOUS DIAMOND GRINDING

(INXXX) REPLACE EXISTING INLET IN PLACE

NOTE:
PROFILE SHOWN FOR INFORMATION ONLY.
BEST FIT OF EXISTING GROUND AT NB
INSIDE EDGE OF PAVEMENT SHOWN.

VPI STA 455+86.82
VPI EL 684.00

VCL = 500'
K = 181

VPI STA 458+36.82
VPT EL 686.84

1.14%

VPC STA 458+66.82
VPC EL 687.18

VPI STA 460+16.82
VPI EL 688.88

VCL = 300'
K = 126

VPT STA 461+66.82
VPT EL 687.00

-1.25%

EXISTING GROUND AT NB PGL

END PROJECT STA 462+71.28
END PROJECT EL 685.69

STA 457+62
EXISTING STRUCTURE B-40-484 TO REMAIN
3 SPAN PRESTRESSED CONCRETE GIRDERS
21° SKEW RHF
SLOPE PAVING REPLACEMENT REQUIRED
SEE STRUCTURE PLANS

700 695 690 685 680 675 670 665

456 458 460 462 464 466 468

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN AND PROFILE	SHEET 715	E

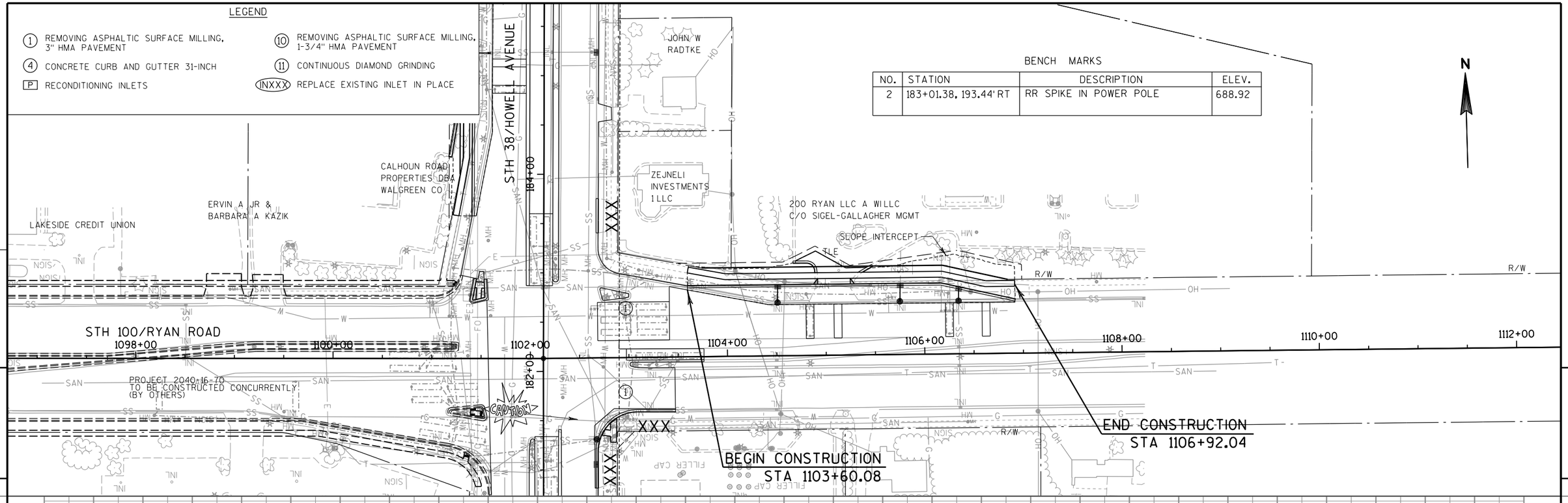
FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\050123_pp.dgn PLOT DATE : 1/30/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

LEGEND

(1) REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
(4) CONCRETE CURB AND GUTTER 31-INCH
[P] RECONDITIONING INLETS
(10) REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
(11) CONTINUOUS DIAMOND GRINDING
(INXXX) REPLACE EXISTING INLET IN PLACE

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
2	183+01.38, 193.44' RT	RR SPIKE IN POWER POLE	688.92



NO PROFILE THIS SHEET

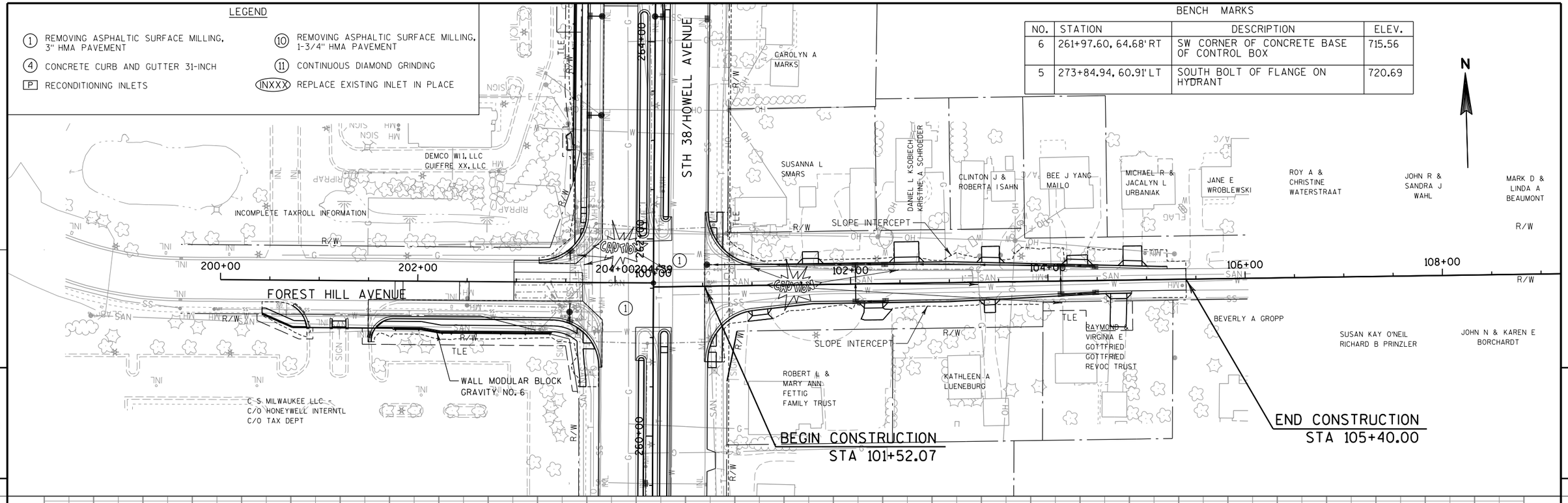
PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN AND PROFILE	SHEET 716	E

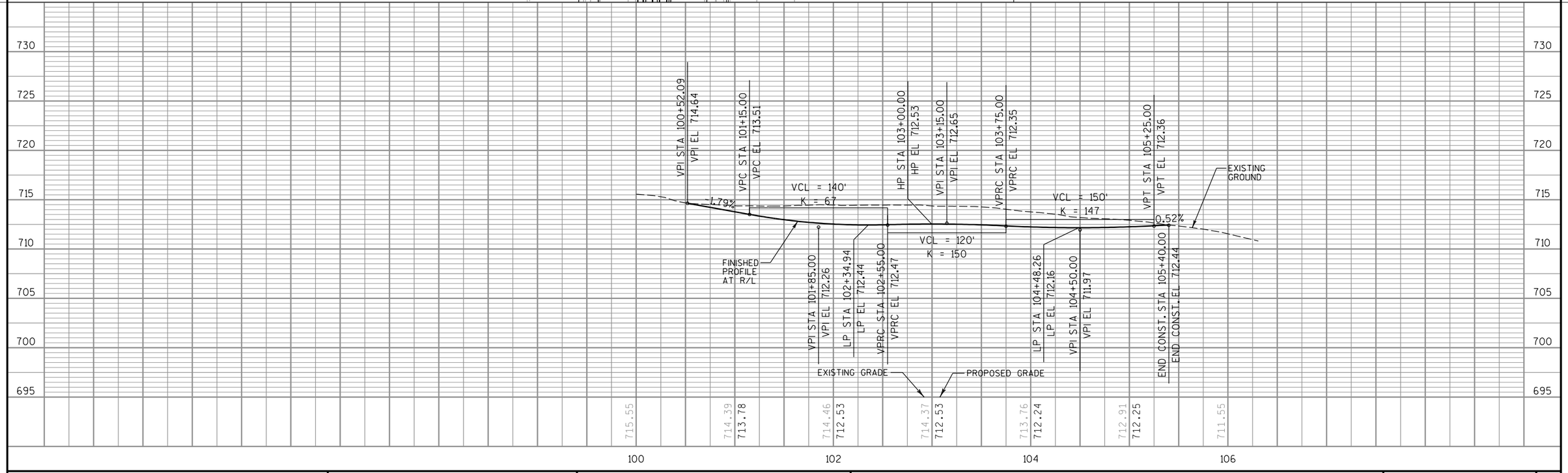
LEGEND

(1) REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT
(4) CONCRETE CURB AND GUTTER 31-INCH
[P] RECONDITIONING INLETS
(10) REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
(11) CONTINUOUS DIAMOND GRINDING
(INXXX) REPLACE EXISTING INLET IN PLACE

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
6	261+97.60, 64.68' RT	SW CORNER OF CONCRETE BASE OF CONTROL BOX	715.56
5	273+84.94, 60.91' LT	SOUTH BOLT OF FLANGE ON HYDRANT	720.69





PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN AND PROFILE	SHEET 717	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\050125_pp.dgn
PLOT DATE : 1/30/2014
PLOT BY : tmk
PLOT NAME :
PLOT SCALE : 1:100
WISDOT/CADDS SHEET 40

LEGEND

(1) REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT

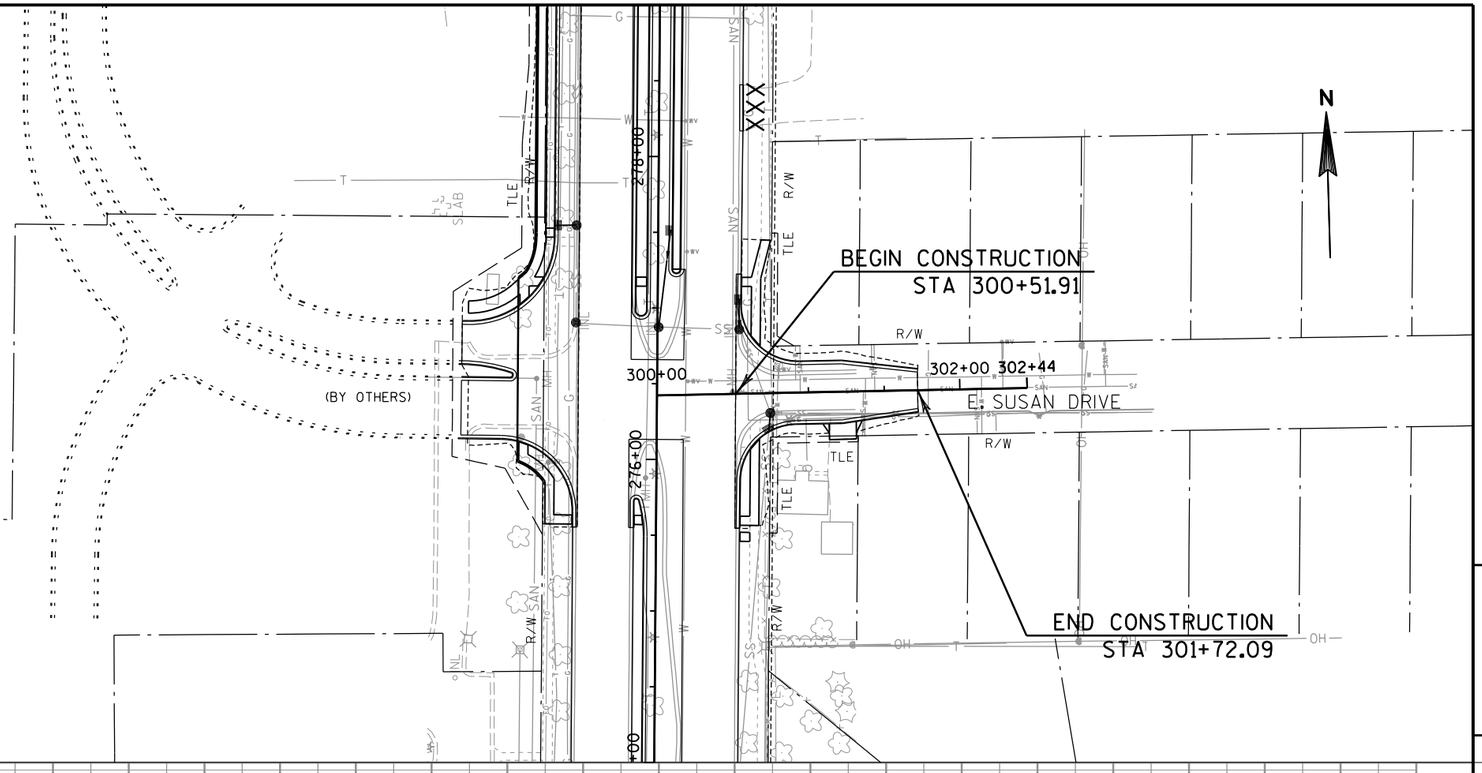
(4) CONCRETE CURB AND GUTTER 31-INCH

[P] RECONDITIONING INLETS

(10) REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT

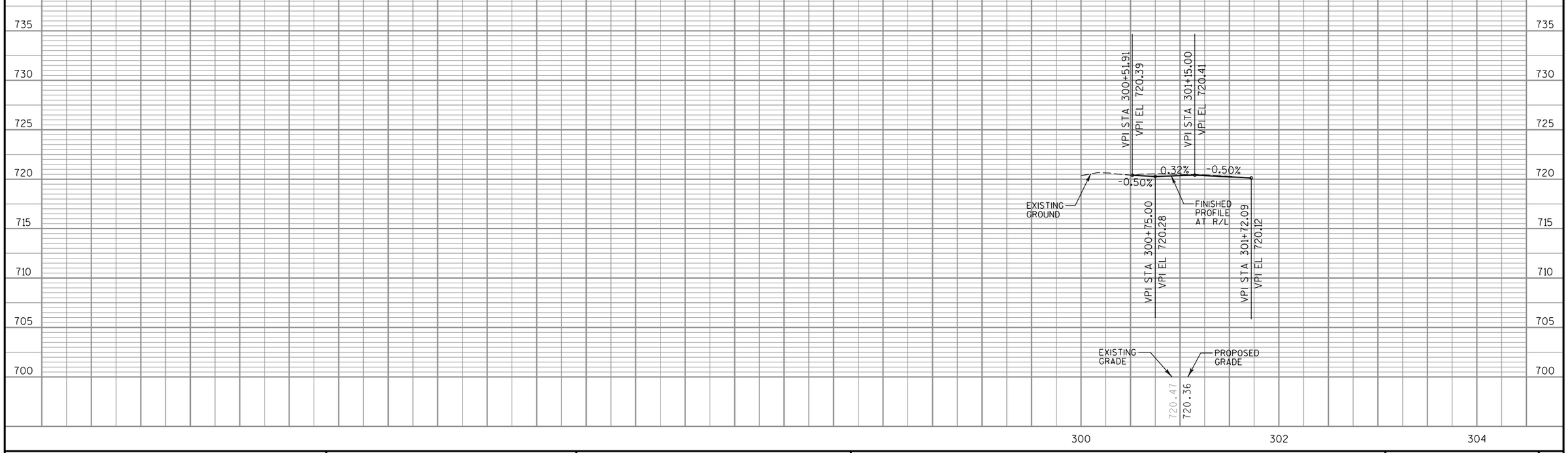
(11) CONTINUOUS DIAMOND GRINDING

(INXXX) REPLACE EXISTING INLET IN PLACE

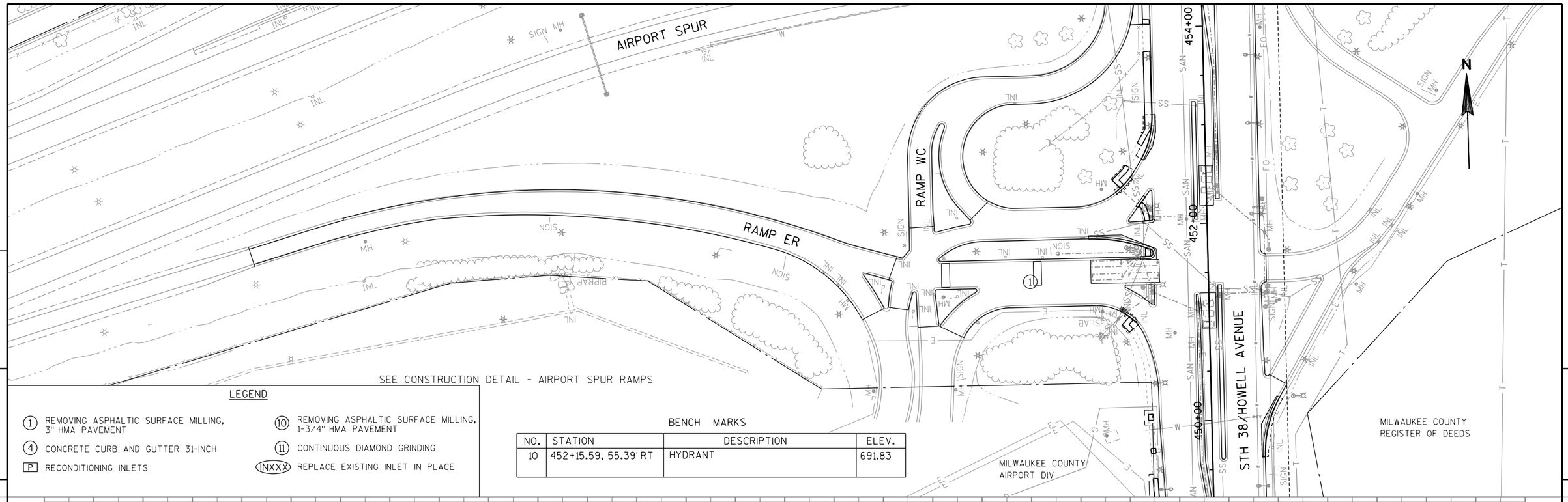


BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
7	281+79.60, 58.39' RT	TOP CENTER BOLT OF HYDRANT	728.43



PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN AND PROFILE	SHEET 718	E



LEGEND

(1) REMOVING ASPHALTIC SURFACE MILLING, 3" HMA PAVEMENT	(10) REMOVING ASPHALTIC SURFACE MILLING, 1-3/4" HMA PAVEMENT
(4) CONCRETE CURB AND GUTTER 31-INCH	(11) CONTINUOUS DIAMOND GRINDING
(P) RECONDITIONING INLETS	(INXXX) REPLACE EXISTING INLET IN PLACE

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
10	452+15.59, 55.39' RT	HYDRANT	691.83

NO PROFILE THIS SHEET

730 725 720 715 710 705 700 695

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	PLAN AND PROFILE	SHEET 719	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\050127_pp.dgn PLOT DATE : 1/30/2014 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:100

WISDOT/CADDS SHEET 40

Standard Detail Drawing List

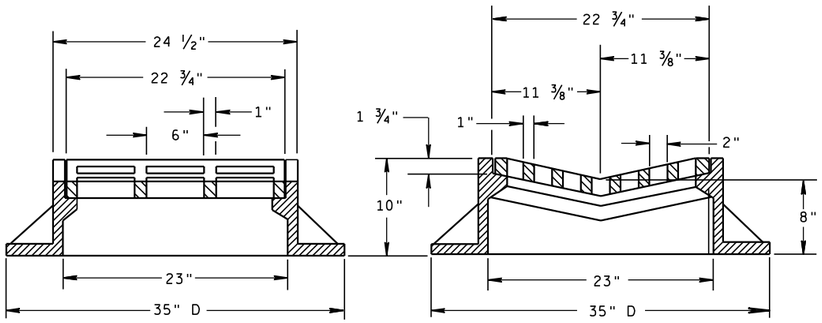
08A05-18B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08A05-18C	INLET COVERS TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S
08A05-18D	INLET COVER, TYPE BW, Z MANHOLE COVERS, TYPE K, J, J-S, L & M
08B09-01	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
08C07-01	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08C08-01	INLETS MEDIAN 1 AND 2 GRATE
08D01-17	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D05-15A	CURB RAMPS TYPES 1 AND 1-A
08D05-15B	CURB RAMPS TYPES 2 AND 3
08D05-15C	CURB RAMPS TYPES 4A AND 4A1
08D05-15D	CURB RAMPS TYPE 4B AND 4B1
08D05-15E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D16-10	CONCRETE GUTTER, CURB AND GUTTER AND PAVEMENT TIES
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E14-01	TRACKING PAD
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09B02-07	CONDUIT
09B04-10	PULL BOX
09C02-06	CONCRETE BASES, TYPES 1, 2 & 5
09C03-03	TRANSFORMER/PEDESTAL BASES
09C06-05	CONCRETE CONTROL CABINET BASE, TYPE 9, SPECIAL
09C11-03	CONCRETE BASE TYPE 10
09C12-03A	CONCRETE BASE TYPE 13
09C12-03B	CONCRETE BASE TYPE 13
09C13-01	CONCRETE BASE TYPE 10 & TYPE 13 EXTENSION
09D01-04	CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)
09D02-02	SIGNAL OR LIGHTING CONTROL CABINET
09E01-12C	POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS, TYPE 4
09E01-12D	POLE MOUNTINGS FOR LIGHTING UNITS, TYPE 5 (30 FEET)
09E01-12G	HARDWARE DETAILS FOR POLE MOUNTINGS
09E03-04	NON-FREEWAY LIGHTING UNIT POLE WIRING
09E06-05	TRAFFIC SIGNAL STANDARD POLY BRACKET MOUNTINGS (TYPICAL) 13 FT. OR 15 FT.
09E07-05	TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER TYPICAL MOUNTING DETAILS
09E08-04A	TYPE 9 POLE 15'-30' MONOTUBE ARM
09E08-04B	TYPE 10 POLE 15'-30' MONOTUBE ARM
09E08-04C	TYPE 12 POLE 35'-55' MONOTUBE ARM
09E08-04D	TYPE 13 POLE 35'-55' MONOTBE ARM
09E08-04E	GENERAL NOTES AND HARDWARE DETAILS FOR TYPE 9, 10, 12 & 13 POLES WITH MONOTUBE ARMS
09F15-03A	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)
09G01-03A	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-03B	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-03C	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-03D	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-03E	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-03F	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-03G	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
10A01-02	ELECTRICAL HANDHOLE WIRING
10A18-04B	LUMINAIRE ARMS, TRUSS TYPE 6-INCH CLAMP
11B02-02	CONCRETE MEDIAN NOSE
12A03-10	NAME PLATE (STRUCTURES)
13C04-16	URBAN NON-DOWELED CONCRETE PAVEMENT
13C09-10A	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C09-10B	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C09-10C	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C14-04A	BASE PATCHING CONCRETE
13C14-04B	BASE PATCHING CONCRETE
13C14-04C	BASE PATCHING CONCRETE
13C15-05A	CONCRETE BASE
13C15-05B	CONCRETE BASE
14B07-13A	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13B	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13C	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13D	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13E	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13F	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-13G	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

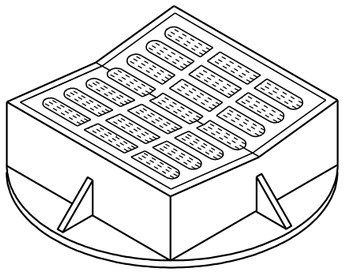
6

Standard Detail Drawing List

14B07-13H	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B08-01A	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-01B	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-01C	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-01D	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-01E	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B20-11A	STEEL THRIE BEAM STRUCTURE APPROACH
14B20-11B	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO SQUARE END PARAPETS
14B20-11C	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO VERTICAL FACED PARAPETS
14B20-11D	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO SLOPED END PARAPETS
14B20-11E	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO BRIDGE RAILING TYPES "F" AND "W"
14B20-11F	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO BRIDGE RAILING TYPE "M"
14B20-11G	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTOR PLATE DETAIL
14B20-11H	STEEL THRIE BEAM STRUCTURE APPROACH, SINGLE SLOPE ATTACHMENT
14B26-02A	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-02B	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-02C	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-02D	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-02E	STEEL THRIE BEAM BULLNOSE TERMINAL
14B28-02	GUARDRAIL MOW STRIP
14B42-02A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-02B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-02C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-01A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-01B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-01C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-03A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03E	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03F	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03G	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03H	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03I	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-03J	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14C01-02	TIMBER RAIL GUARD FENCE, CURB AND GUARD POST AND MARKER POST
15C03-02	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C05-02	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C07-12B	PAVEMENT MARKING WORDS
15C07-12C	PAVEMENT MARKING ARROWS
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C08-16B	PAVEMENT MARKING (INTERSECTIONS)
15C08-16E	PAVEMENT MARKING (LEFT TURN LANE)
15C08-16F	PAVEMENT MARKING (ISLANDS)
15C12-04	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
15C27-01	DOUBLE ARROW WARNING SIGN PLACEMENT
15C29-03B	BICYCLE LANE MARKING
15C29-03E	PAVEMENT MARKING FOR BIKE LANES
15C33-01	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D03-02	TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H. WITH BARRIER
15D12-03	TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H.
15D15-01	TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE
15D16-02	TRAFFIC CONTROL, EXIT RAMP CLOSURE
15D20-02	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D21-02	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D22-02	TRAFFIC CONTROL, TWO LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D23-02	TRAFFIC CONTROL, INTERSECTION WITHIN TWO LANE CLOSURE
15D27-02	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH
15D30-01	TRAFFIC CONTROL, SIDEWALK CLOSURE
16A01-06	LANDMARK REFERENCE MONUMENTS AND COVERS

6

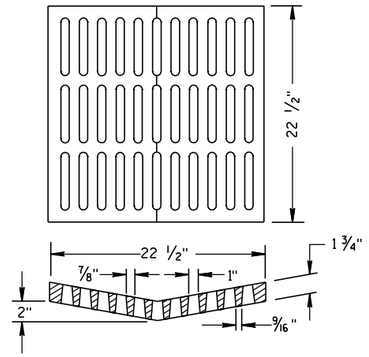




TYPE "B"

(APPROXIMATE WEIGHT 405 LBS.)

FRAME..... 294 LBS.
GRATE..... 111 LBS.

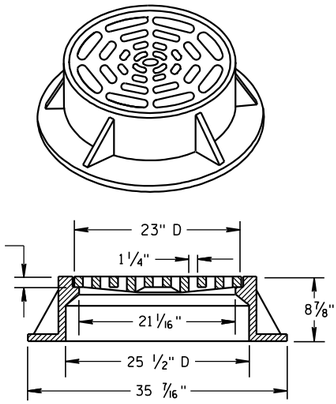


ALTERNATIVE GRATE FOR TYPE "B" COVER

(APPROXIMATE GRATE WEIGHT 134 LBS.)

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS POSSIBLE.

NOTED AS TYPE B-A ON THE DRAINAGE TABLE



TYPE "C"

(APPROXIMATE WEIGHT 259 LBS.)

FRAME..... 152 LBS.
GRATE..... 107 LBS.

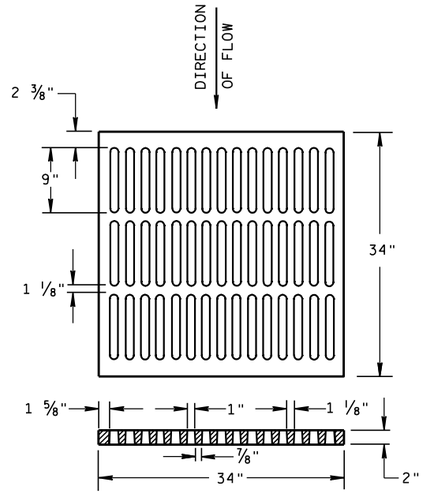
GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

THE ACTUAL WEIGHT OF COVERS MAY VARY WITHIN 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.

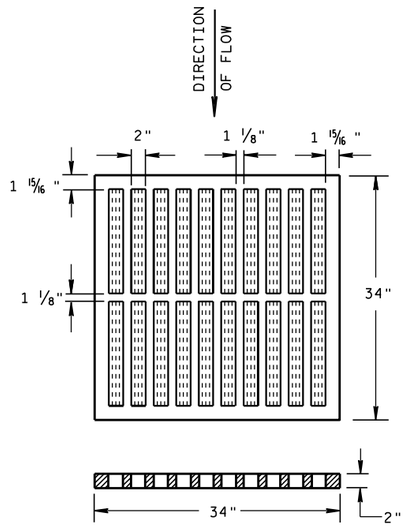


ALTERNATIVE TYPE "MS"

(APPROXIMATE GRATE WEIGHT 329 LBS.)

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS PERMITTED

NOTED AS TYPE MS-A ON THE DRAINAGE TABLE

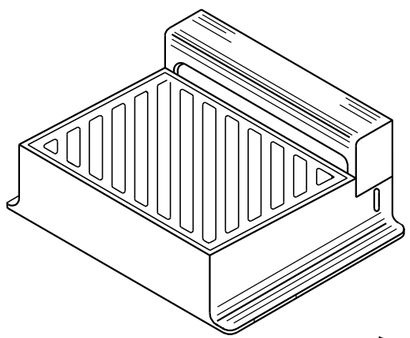


TYPE "MS"

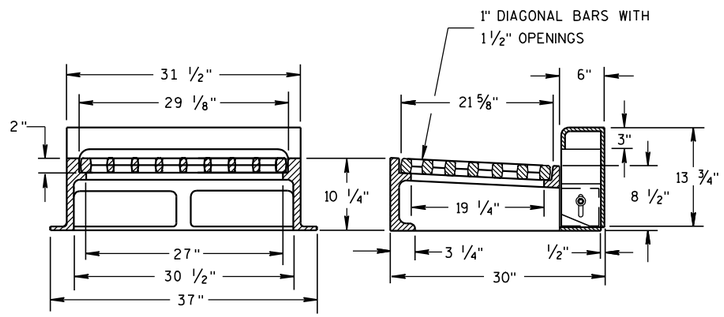
(APPROXIMATE GRATE WEIGHT 268 LBS.)

USE ON FREEWAYS AND EXPRESSWAYS

NOTED AS TYPE MS ON DRAINAGE TABLE



DIAGONAL SLOTS, SHALL BE ORIENTED TO THE DIRECTION OF FLOW AS ILLUSTRATED. GRATES ARE MANUFACTURED TO BE REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

TYPE "WM"

(APPROXIMATE WEIGHT 648 LBS.)

FRAME..... 355 LBS.
GRATE..... 156 LBS.
CURB BOX..... 137 LBS.

INLET COVERS
TYPE B, B-A, C, MS, MS-A, & WM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/5/2012 DATE

/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER

722

ENT

FHWA

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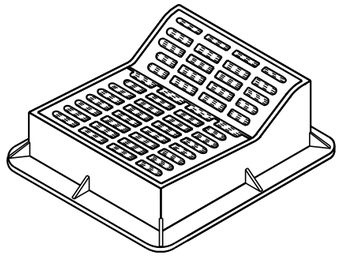
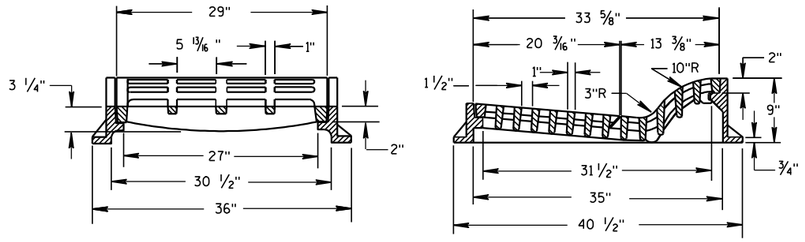
S.D.D. 8 A 5-18b

6

S.D.D. 8 A 5-18b



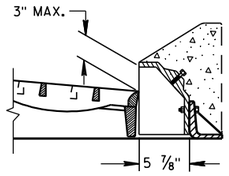


TYPE "F"

(APPROXIMATE WEIGHT 644 LBS.)

FRAME.....302 LBS.
GRATE.....160 LBS.
GRATE.....182 LBS.

USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.



ALTERNATIVE CURB BOX FOR TYPE "HM" COVER

(APPROXIMATE WEIGHT CURB BOX 68 LBS.)

USE WITH TYPES G & J CONCRETE CURB & GUTTER, 30 INCH
NOTED AS TYPE HM-GJ ON DRAINAGE TABLE

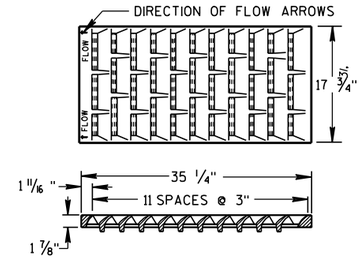
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM-GJ" COVER
NOTED AS TYPE HM-GJ-S ON DRAINAGE TABLE

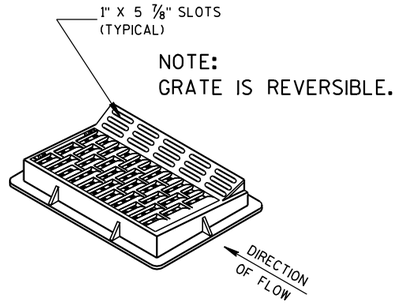
GENERAL NOTES

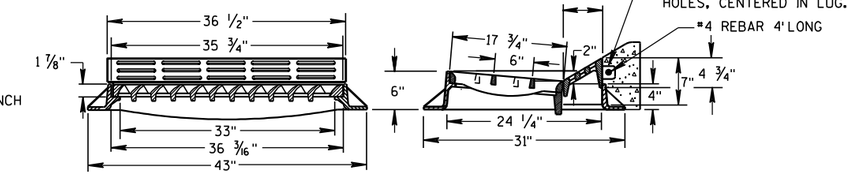
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

THE ACTUAL WEIGHT OF COVERS MAY VARY WITHIN 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.





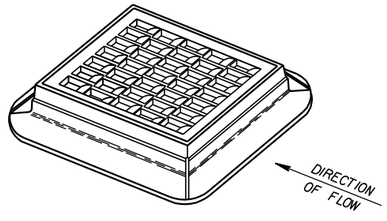


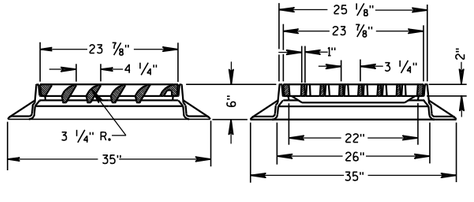
TYPE "HM"

(APPROXIMATE WEIGHT 414 LBS.)
FRAME..... 181 LBS.
GRATE..... 159 LBS.
CURB BOX..... 74 LBS.

USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.

NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM" COVER
NOTED AS TYPE HM-S ON DRAINAGE TABLE

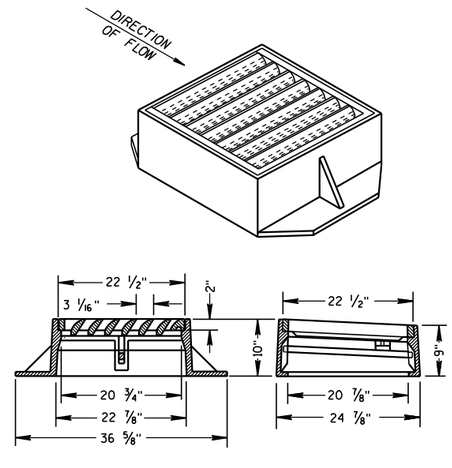




TYPE "S"

(APPROXIMATE WEIGHT 333 LBS.)

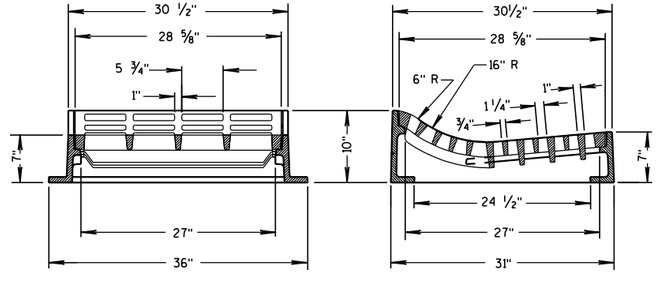
FRAME.....164 LBS.
GRATE..... 169 LBS.

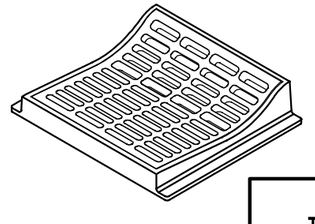


TYPE "V"

(APPROXIMATE WEIGHT 410 LBS.)

FRAME..... 269 LBS.
GRATE..... 136 LBS.
SAFETY BAR..... 5 LBS.





TYPE "T"

(APPROXIMATE WEIGHT 530 LBS.)
FRAME.....270 LBS.
GRATE.....260 LBS.
USE WITH TYPES R & T CONCRETE CURB & GUTTER, 36 INCH.

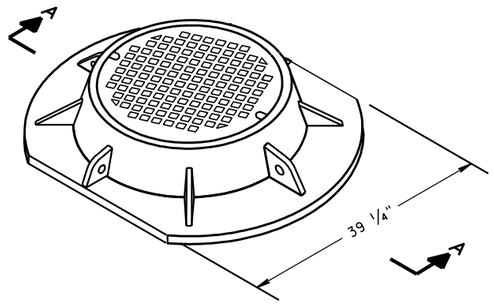
INLET COVERS TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S

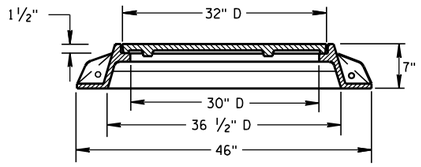
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
723
FHWA

6

S.D.D. 8 A 5-18c



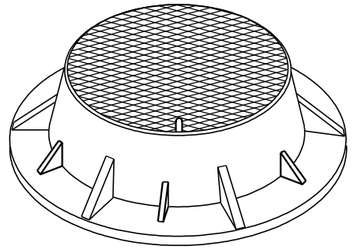


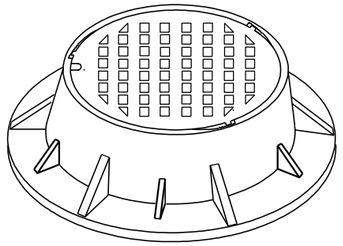
SECTION A-A

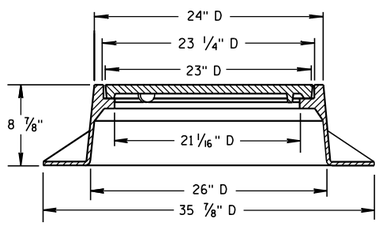
TYPE "K"

(APPROXIMATE WEIGHT 439 LBS.)

FRAME.....216 LBS.
LID.....223 LBS.



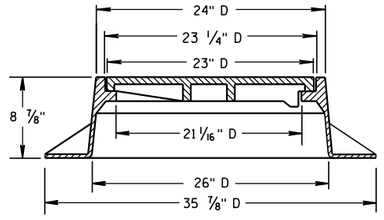




TYPE "J"

(APPROXIMATE WEIGHT 267 LBS.)

FRAME.....152 LBS.
LID.....115 LBS.



TYPE "J" SPECIAL

TYPE "B" NON-ROCKING SELF-SEAL LID

(APPROXIMATE WEIGHT 267 LBS.)

FRAME.....158 LBS.
LID.....109 LBS.

(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)

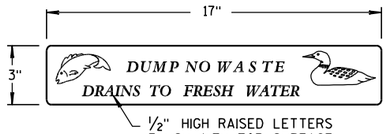
GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

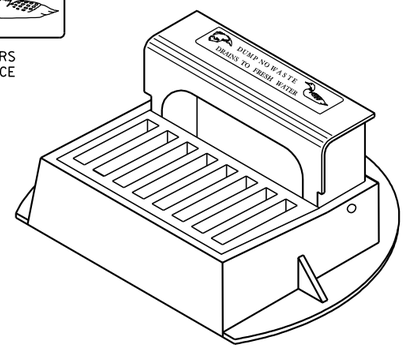
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

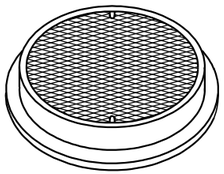
ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

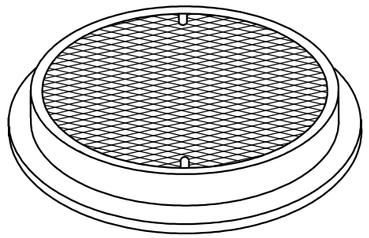
THE ACTUAL WEIGHT OF COVERS MAY VARY WITH 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.

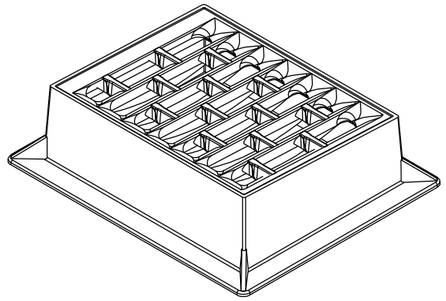


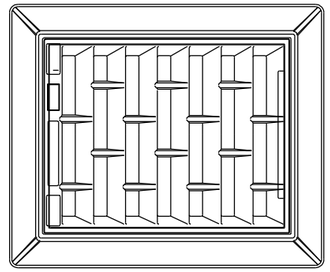
LOGO DETAIL

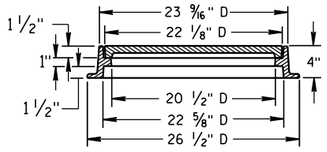








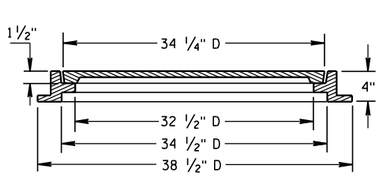




TYPE "L"

(APPROXIMATE WEIGHT 158 LBS.)

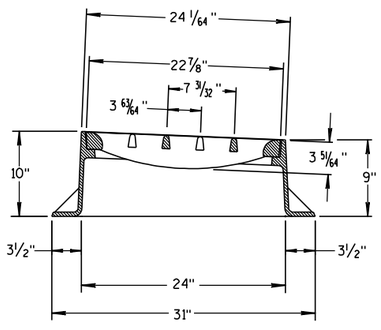
FRAME.....81 LBS.
LID.....77 LBS.

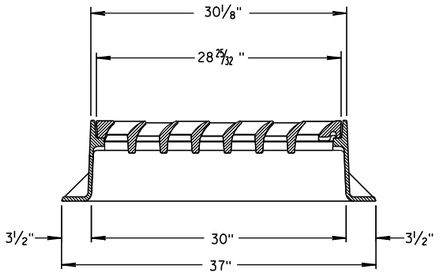


TYPE "M"

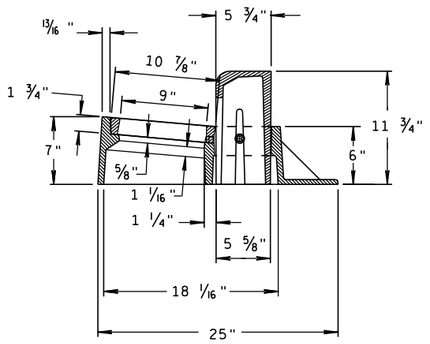
(APPROXIMATE WEIGHT 377 LBS.)

FRAME..... 125 LBS.
LID..... 252 LBS.





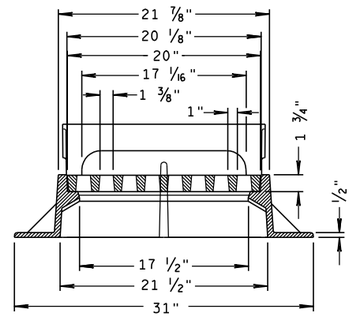
INLET COVER TYPE "BW"



INLET COVER TYPE "Z"

(APPROXIMATE WEIGHT 344 LBS.)

FRAME.....206 LBS.
GRATE..... 46 LBS.
CURB BOX..... 92 LBS.



INLET COVERS, TYPE BW, Z
MANHOLE COVERS, TYPE K, J, J-S, L & M

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/5/2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS I 724
ENGINEER

FHWA

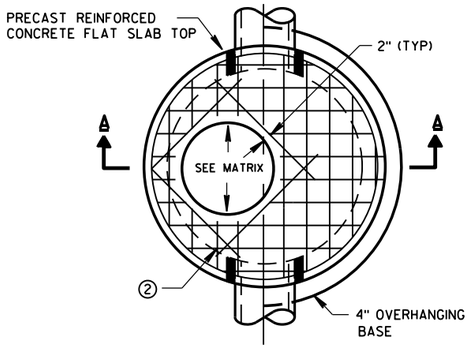
NT

6

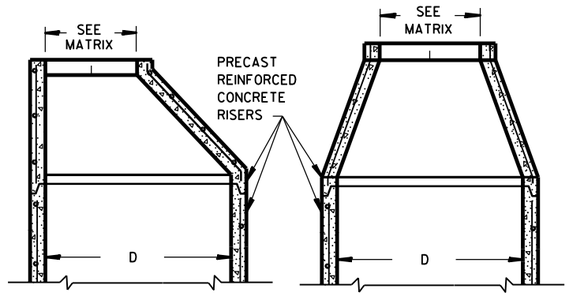
S.D.D. 8 A 5-18d

6

S.D.D. 8 A 5-18d

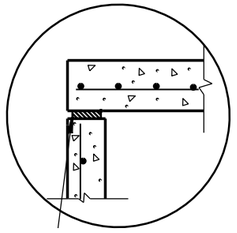


PLAN VIEW CIRCULAR OPENING

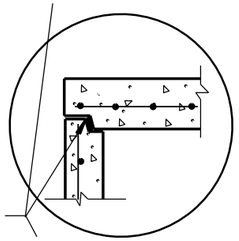


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

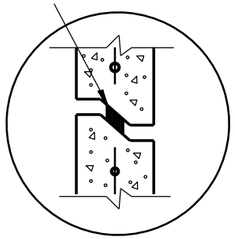


TOP WITH PLAIN END JOINT



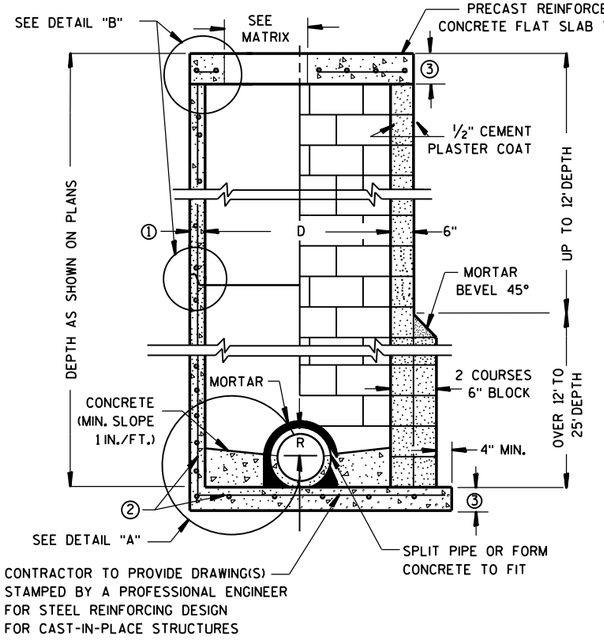
JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C990 (TYP)

TOP WITH TONGUE AND GROOVE JOINT



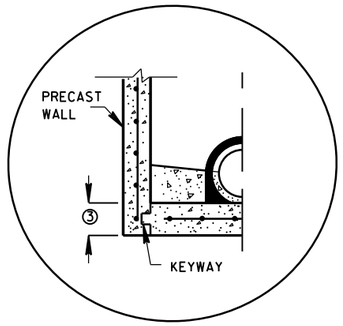
RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

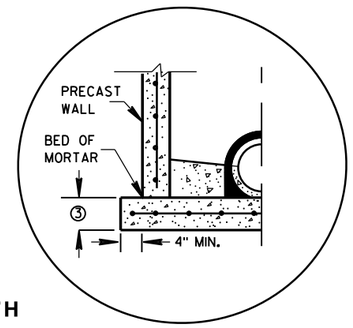


PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

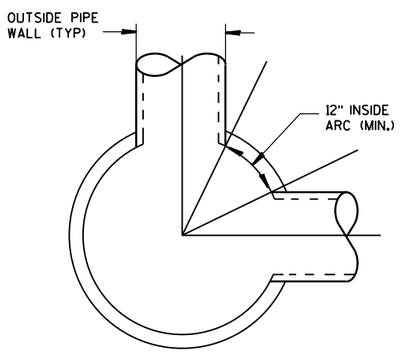


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "C"

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST MANHOLE UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF GRANULAR BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

PRECAST REINFORCED CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES. THE CONE TOPS SHALL BE INSTALLED ON A BED OF MORTAR.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES, AND CONCENTRIC CONE TOPS SHALL BE USED ONLY ON STRUCTURES 5 FEET OR LESS IN DEPTH, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF ½" AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

CONCRETE BLOCK WILL NOT BE PERMITED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

ALL PRECAST MANHOLE UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M 199.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

① MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT, 5 INCHES FOR 4-FT, 6 INCHES FOR 5-FT, 7 INCHES FOR 6-FT, 8 INCHES FOR 7-FT AND 9 INCHES FOR 8-FT DIAMETER PRECAST MANHOLES.

② FOR PRECAST MANHOLES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

③ PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER OF 48" AND LESS SHALL HAVE A MINIMUM THICKNESS OF 6". PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER LARGER THAN 48" SHALL HAVE A MINIMUM THICKNESS OF 8".

MANHOLE COVER OPENING MATRIX

MANHOLE COVER TYPE	C	ALL J'S	K	L	M
OPENING SIZE (FT)					
2 DIA.	X	X		X	
3 DIA.			X		X

PIPE MATRIX

MANHOLE SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18
5-FT	36	24
6-FT	42	36
7-FT	48	36
8-FT	60	42

MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER

STATE OF WISCONSIN
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6/5/2012 — DATE
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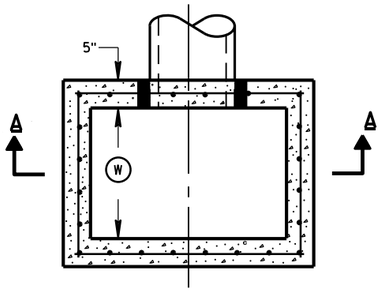
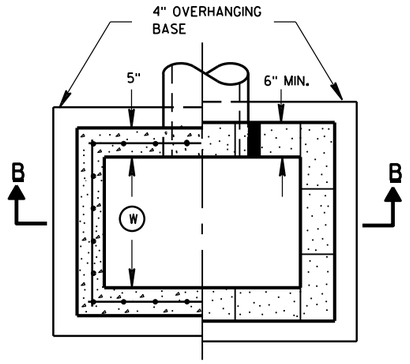
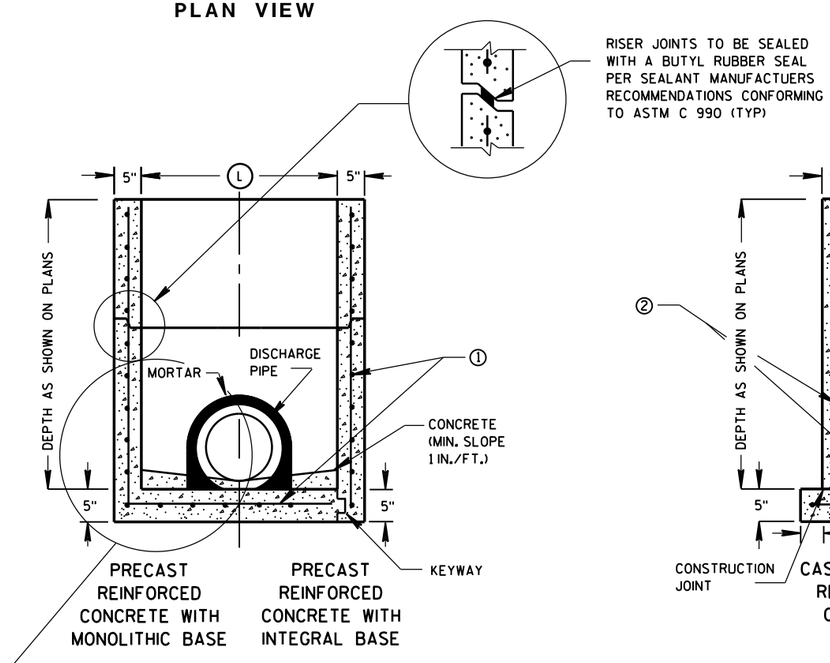


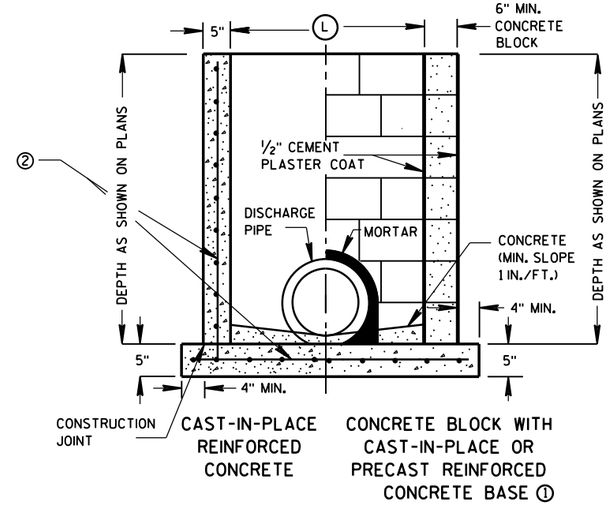
PLAN VIEW



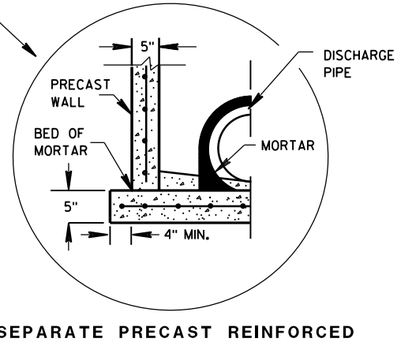
PLAN VIEW



SECTION A-A



SECTION B-B



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATES THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF GRANULAR BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

4" OVERHANGING BASES ARE REQUIRED FOR CAST-IN-PLACE REINFORCED CONCRETE AND CONCRETE BLOCK INSTALLATIONS.
4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED.
OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3 INCH CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

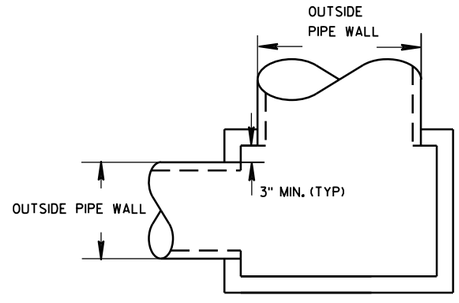
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

INLET COVER MATRIX

INLET SIZE		INLET COVER TYPE	ALL A'S	ALL B'S	BW	F	ALL H'S	S	T	V	WM
	WIDTH (W) (FT)	LENGTH (L) (FT)									
2X2-FT	2	2	X	X				X		X	
2X2.5-FT	2	2.5			X			X	X	X	X
2X3-FT	2	3					X				
2.5X3-FT	2.5	3				X					

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (IN)	LENGTH (IN)
2X2-FT	12	12
2X2.5-FT	12	18
2X3-FT	12	24
2.5X3-FT	18	24



DETAIL "A"

INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

STATE OF WISCONSIN
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/S/ Jerry H. Zogg
ROADWAY STANDARDS DE ENGINEER
FHWA

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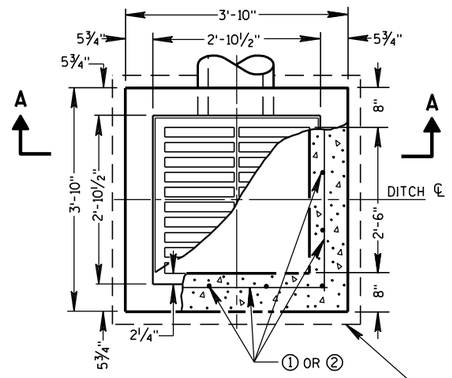
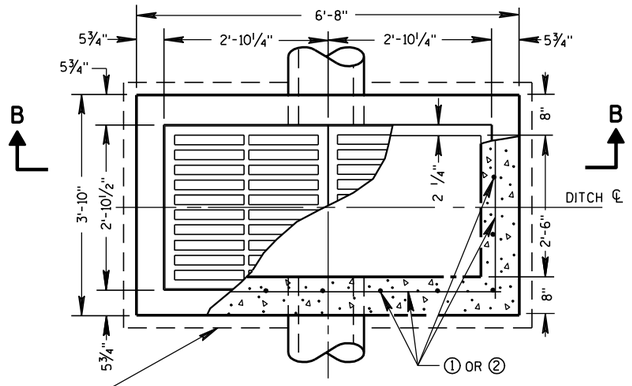
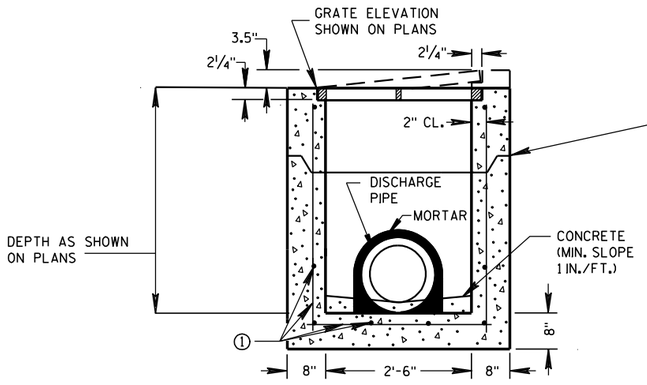


PLAN VIEW

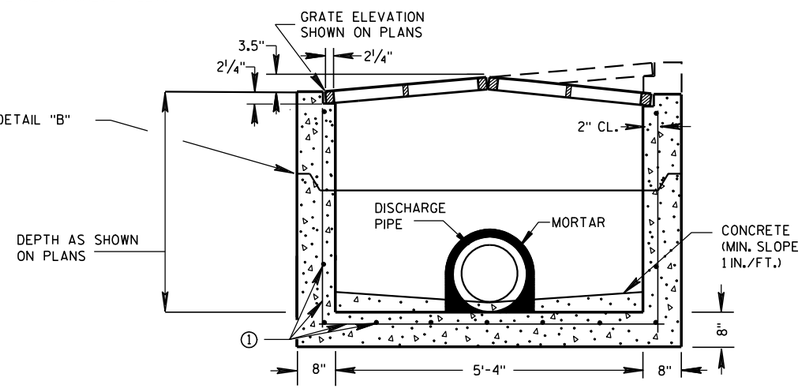


PLAN VIEW

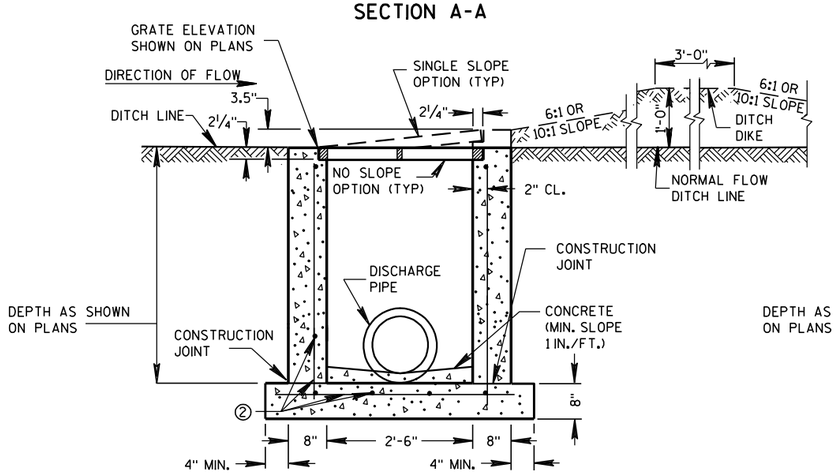
4" OVERHANGING BASE ON REINFORCED CAST-IN-PLACE CONCRETE INLETS



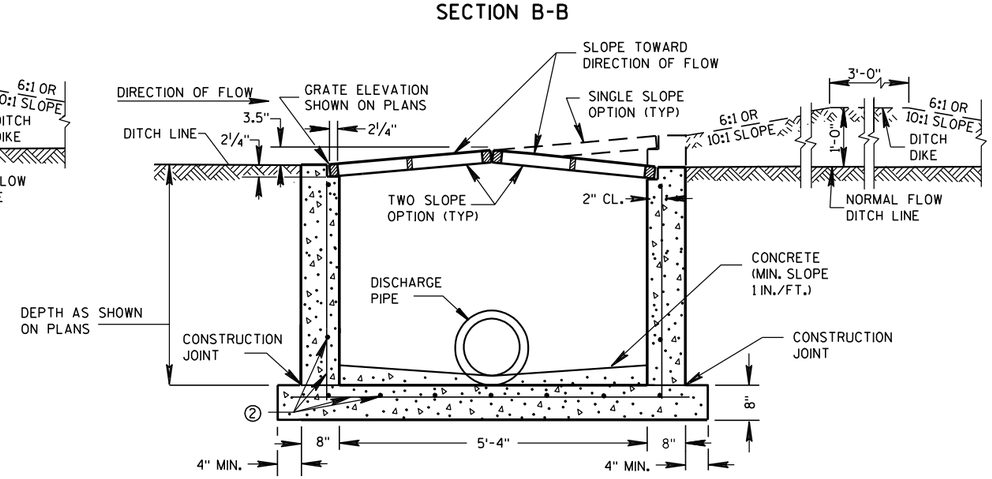
PRECAST REINFORCED CONCRETE SECTION A-A



PRECAST REINFORCED CONCRETE SECTION B-B



REINFORCED CAST-IN-PLACE CONCRETE SECTION A-A



REINFORCED CAST-IN-PLACE CONCRETE SECTION B-B

INLETS MEDIAN 1 GRATE

INLETS MEDIAN 2 GRATE

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLETS WHICH MAY INCLUDE PRECAST REINFORCED CONCRETE INLETS, SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL MEDIAN INLETS ARE DESIGNATED ON THE PLANS AS "INLETS, 1G-MS", ETC. THE FIRST NUMBER AND LETTER DESIGNATE THE TYPE OF STRUCTURE, AND THE FOLLOWING LETTERS DESIGNATE THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

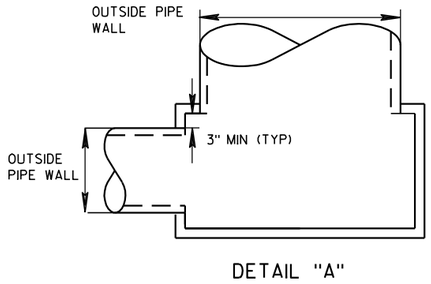
MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

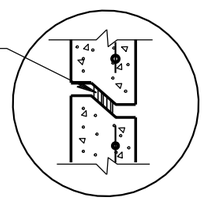
PIPE MATRIX

	MAXIMUM INSIDE PIPE DIAMETER	
INLET SIZE	WIDTH (IN)	LENGTH (IN)
1 GRATE	18	18
2 GRATE	18	42



DETAIL "A"

JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)



DETAIL "B"

INLETS MEDIAN 1 AND 2 GRATE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/5/2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

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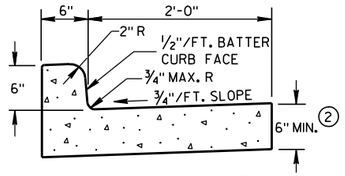
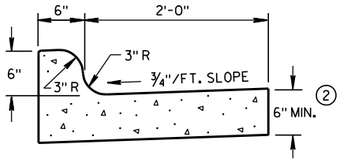
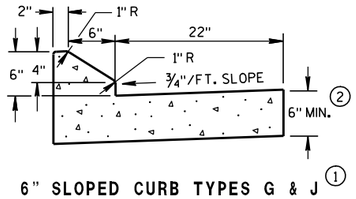
S.D.D. 8 C 8-1



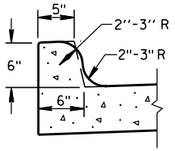
TYPES A & D (1)



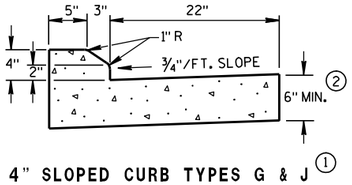
TYPES K & L (1)



6" SLOPED CURB TYPES G & J (1)

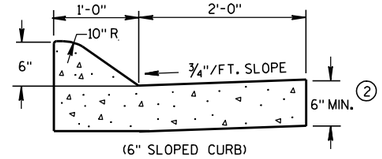


OPTIONAL CURB SHAPE FOR TYPES K & L (1)

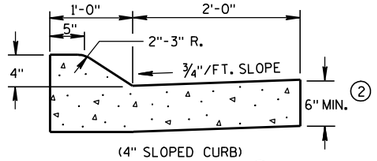


4" SLOPED CURB TYPES G & J (1)

CONCRETE CURB & GUTTER 30"

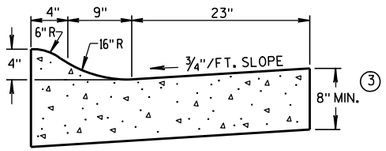


(6" SLOPED CURB)



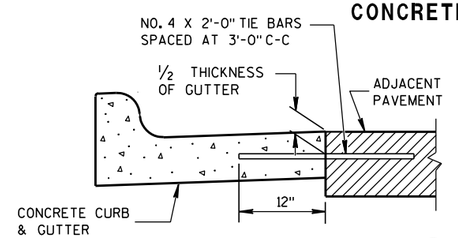
(4" SLOPED CURB)

TYPES A & D (1)

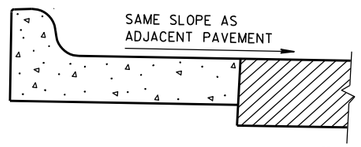


4" SLOPED CURB TYPES R & T (1) (4)

CONCRETE CURB & GUTTER 36"



TYPICAL TIE BAR LOCATION (1)



REVERSE SLOPE GUTTER (5)
(TYPICAL FOR ALL CURB & GUTTER TYPES)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

INTEGRAL CURB & GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB & GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE. A LONGITUDINAL CONSTRUCTION JOINT IS NOT REQUIRED WITH INTEGRAL CURB AND GUTTER.

WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2'-0" BEHIND THE BACK OF CURBS.

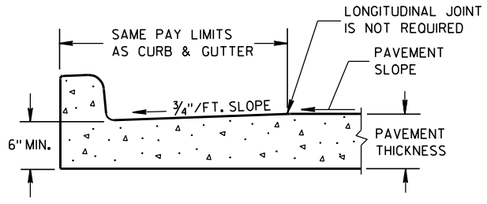
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K AND R.

(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

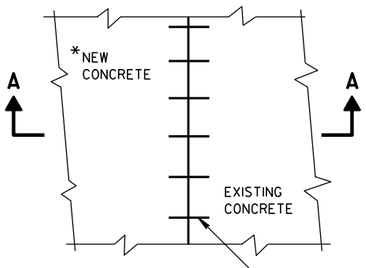
(3) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(4) THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

(5) WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.

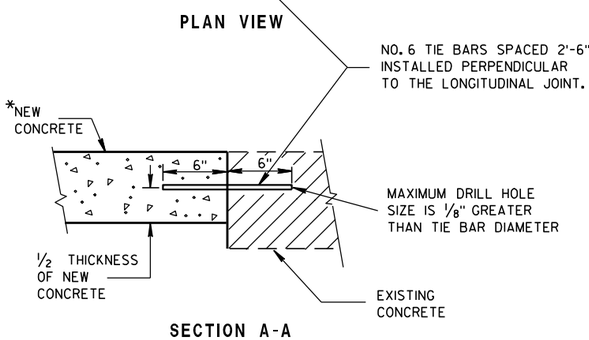


PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB & GUTTER



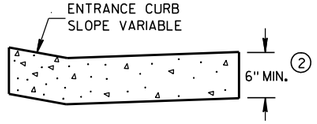
PLAN VIEW

*NEW CURB & GUTTER, SURFACE DRAINS, CONCRETE PAVEMENT OR OTHER NEW CONCRETE.

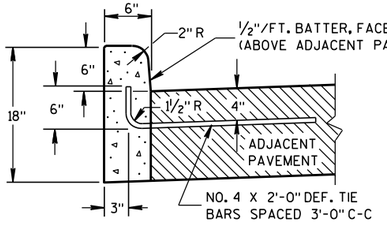


SECTION A-A

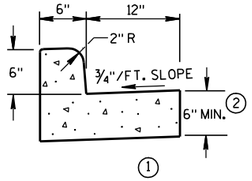
TIE BARS DRILLED INTO EXISTING PAVEMENT



DRIVEWAY ENTRANCE CURB
(WHEN DIRECTED BY THE ENGINEER)

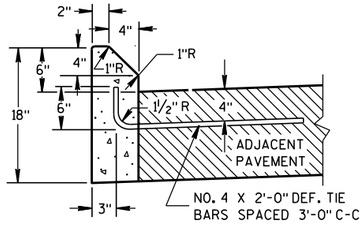


(1) TYPES A & D

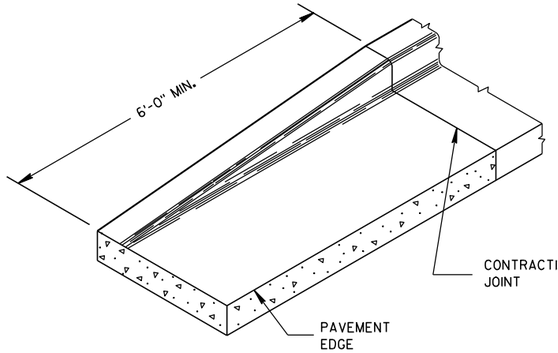


(1) TYPES A & D

CONCRETE CURB & GUTTER 18"



(1) TYPES G & J



END SECTION CURB & GUTTER

CONCRETE CURB

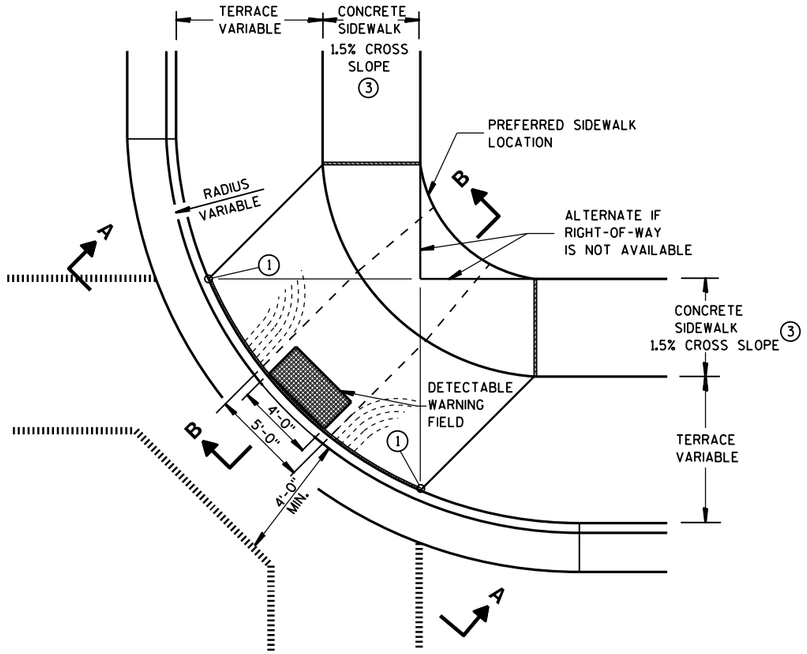
CONCRETE CURB, CONCRETE CURB & GUTTER AND TIES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
9/4/08 DATE	/S/ Jerry H. [illegible] ROADWAY STANDARDS ENGINEER
FHWA	728 ENT

6

S.D.D. 8 D 1-17

6

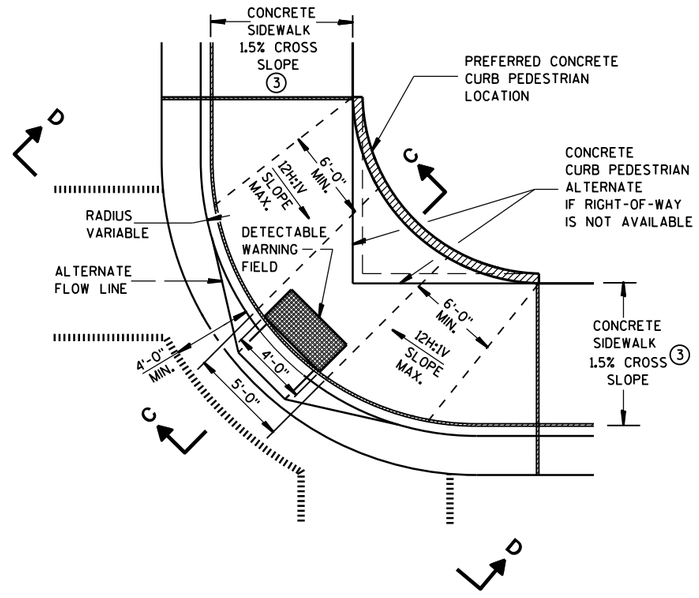
S.D.D. 8 D 1-17



PLAN VIEW

TYPE 1 RAMP

(CENTER OF CORNER RADIUS)



PLAN VIEW

TYPE 1-A RAMP

(NO TERRACE)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

RAMPS SHALL BE BUILT AT 12H:1V OR FLATTER. WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.

TYPE 1 RAMPS SHALL HAVE A NORMAL SIDEWALK APRON AND CURB ON BOTH SIDES OF RAMP.

DETECTABLE WARNING FIELD SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS "CURB RAMP DETECTABLE WARNING FIELD". THE CONCRETE PEDESTRIAN CURB, IF NEEDED, SHALL BE MEASURED AND PAID BY THE LINEAL FOOT AS "CONCRETE CURB PEDESTRIAN". CONCRETE SIDEWALK IN THE CURB RAMP AREA SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS CONCRETE SIDEWALK, INCLUDING THE AREA UNDER THE DETECTABLE WARNING FIELD.

SELECT CURB RAMP DETECTABLE WARNING FIELD MATERIALS AND DEVICES FROM THE DEPARTMENT'S APPROVED MATERIALS LIST. THE COLOR OF THE DETECTABLE WARNING FIELD IS SPECIFIED ELSEWHERE AND IS INCIDENTAL TO THE BID ITEM OF "CURB RAMP DETECTABLE WARNING FIELD".

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP.

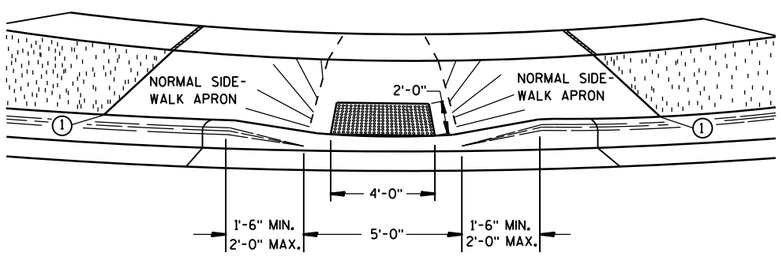
① THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB.

② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE.

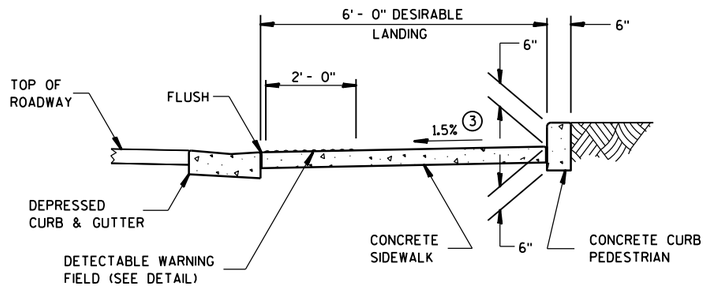
③ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

LEGEND

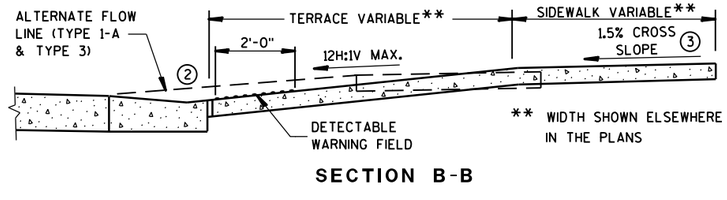
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



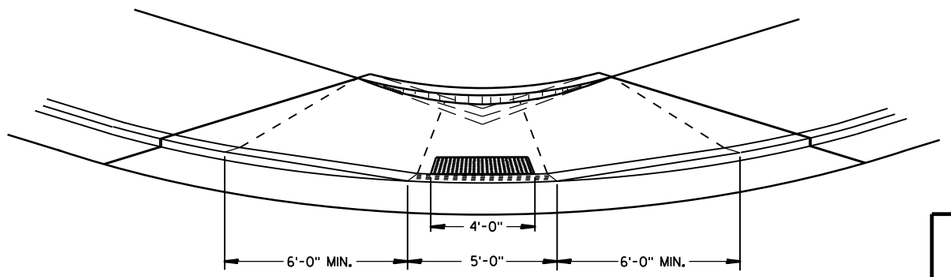
VIEW A-A



SECTION C-C



SECTION B-B



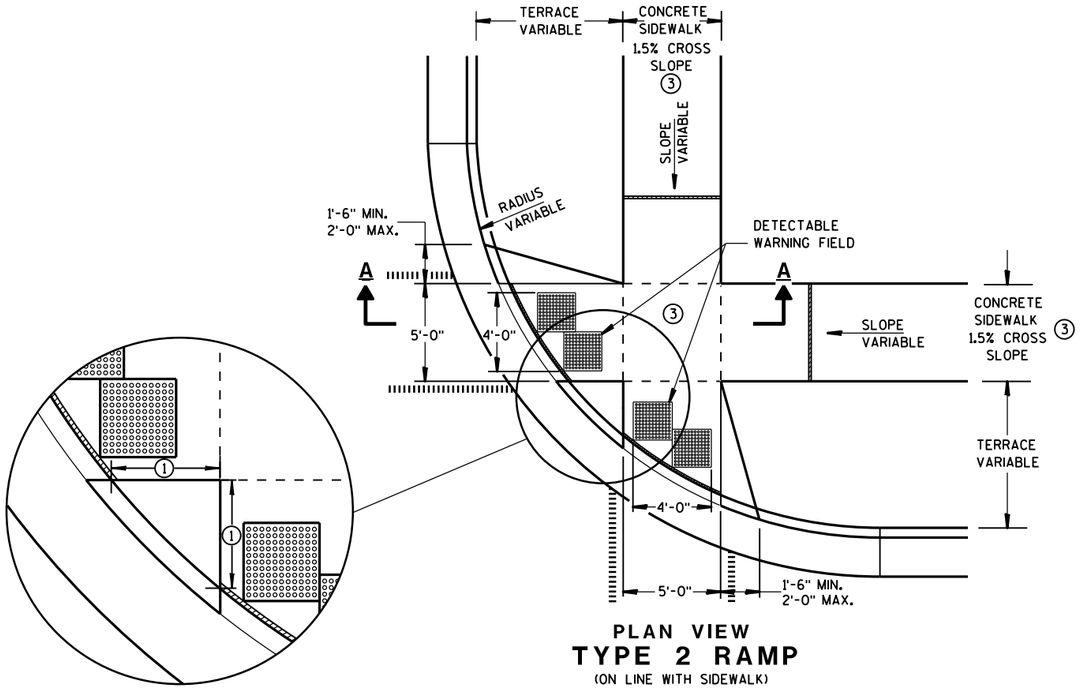
VIEW D-D

CURB RAMPS TYPES 1 AND 1-A

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

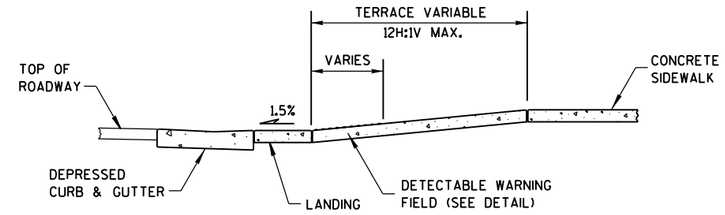
S.D.D. 8 D 5-15a



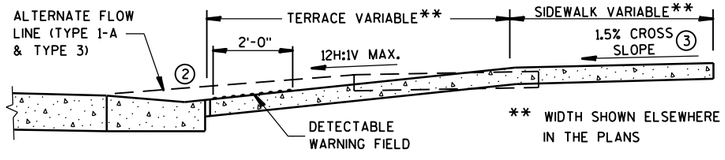
PLAN VIEW

TYPE 2 RAMP

(ON LINE WITH SIDEWALK)



SECTION A-A



SECTION B-B

GENERAL NOTES

USE THE TYPE 3 RAMP ONLY WHEN A TYPE 1 OR TYPE 2 CANNOT BE ACHIEVED BECAUSE OF FIELD CONDITIONS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

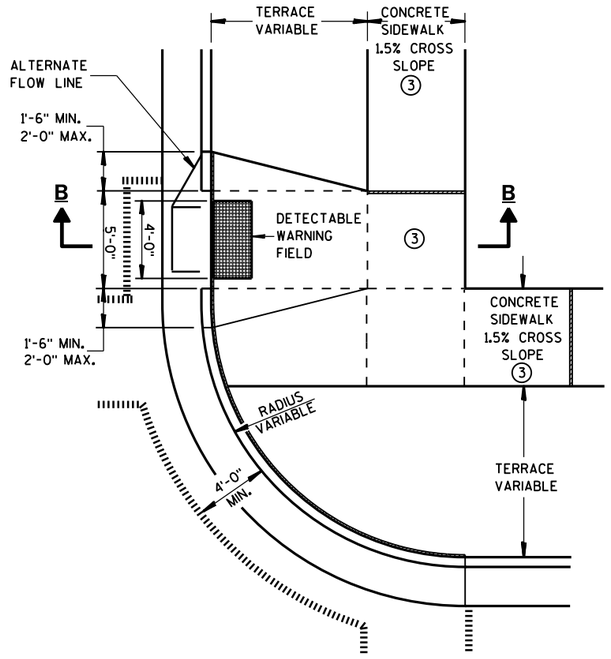
① WHEN THIS DISTANCE IS LESS THAN 6'-0" IT MAY BE DIFFICULT TO ACHIEVE A 12H:1V SLOPE, OR FLATTER, ON THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 12H:1V SLOPE, OR FLATTER, ON RAMP. 2" MINIMUM CURB HEIGHT.

② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE.

③ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

LEGEND

- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



PLAN VIEW

TYPE 3 RAMP

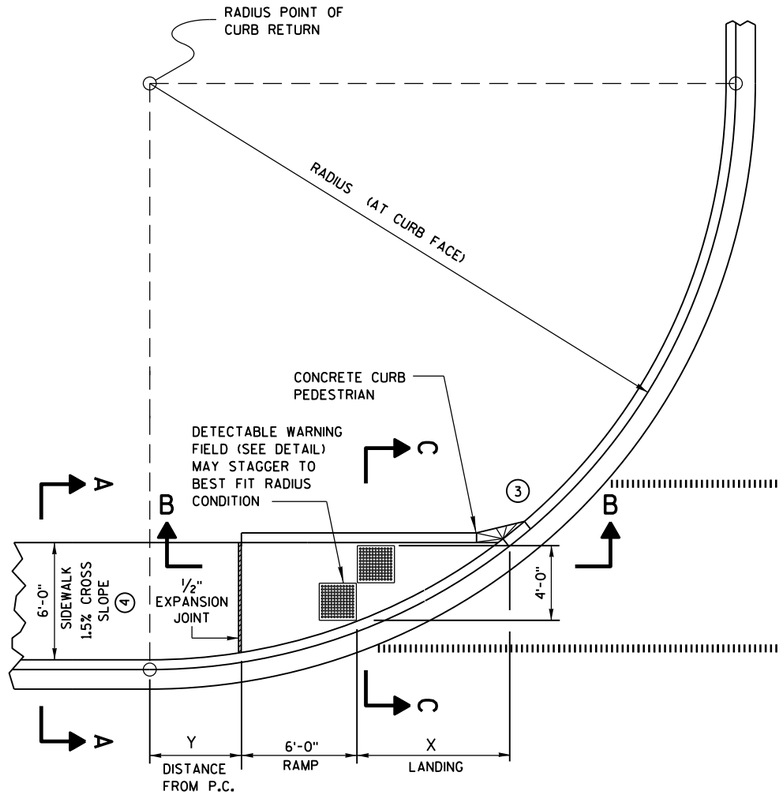
(OUTSIDE OF CROSSWALK AREA)

CURB RAMPS
TYPES 2 AND 3

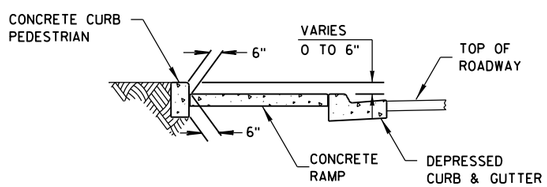
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

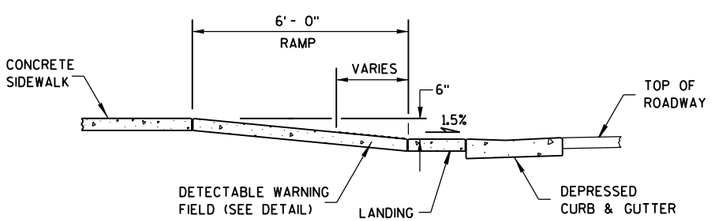
S.D.D. 8 D 5-15b



CURB RAMP TYPE 4A
PLAN VIEW



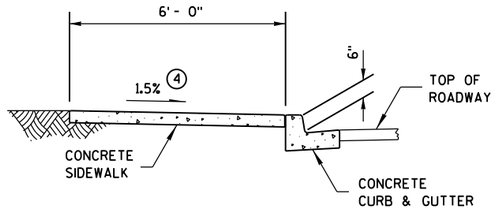
SECTION C-C FOR TYPE 4A



SECTION B-B FOR TYPE 4A

RADIUS (AT CURB FACE)	X	Y
20 FEET	6'-1¾"	2'-7¼"
30 FEET	7'-11¾"	4'-8¼"
40 FEET	9'-5¼"	6'-5"
50 FEET	10'-8¾"	7'-11¼"
60 FEET	11'-10¼"	9'-3½"

INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION A-A FOR TYPE 4A

GENERAL NOTES

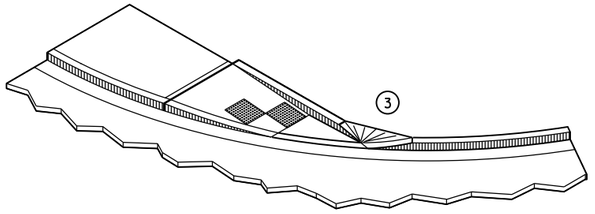
AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

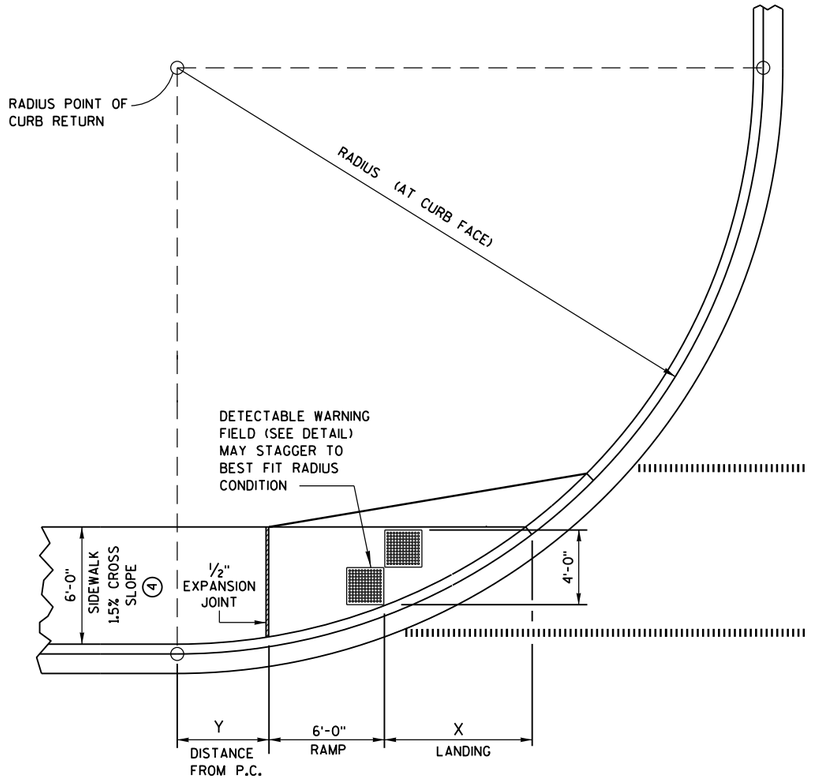
DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(3) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.) DO NOT MARK TRANSITION NOSE.

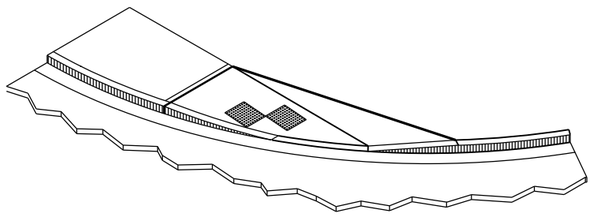
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.



ISOMETRIC VIEW FOR TYPE 4A



CURB RAMP TYPE 4A1
PLAN VIEW



ISOMETRIC VIEW FOR TYPE 4A1

LEGEND

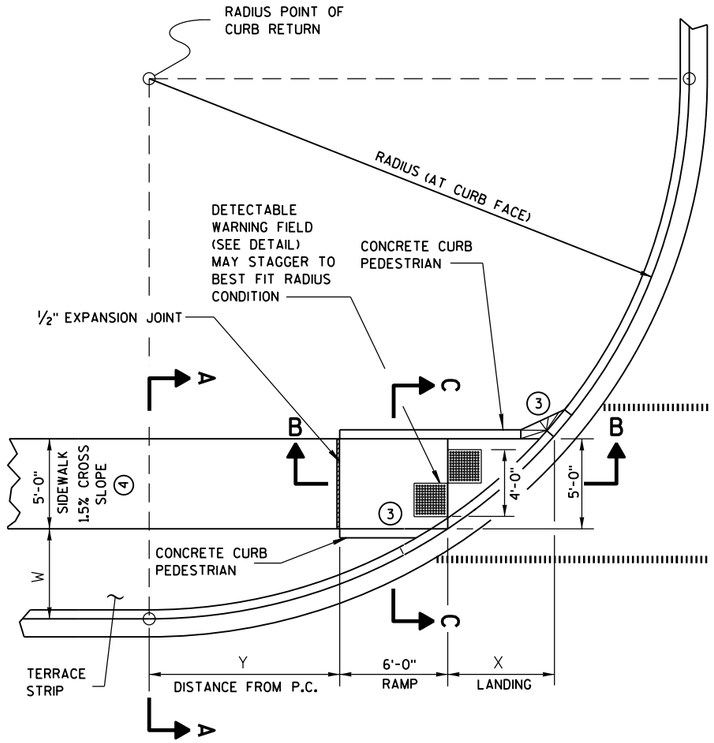
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPES 4A AND 4A1

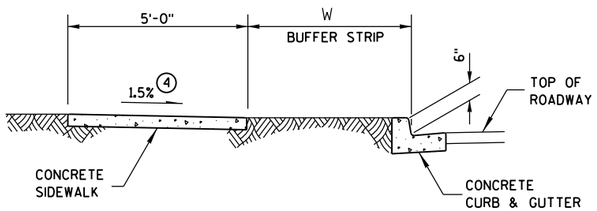
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

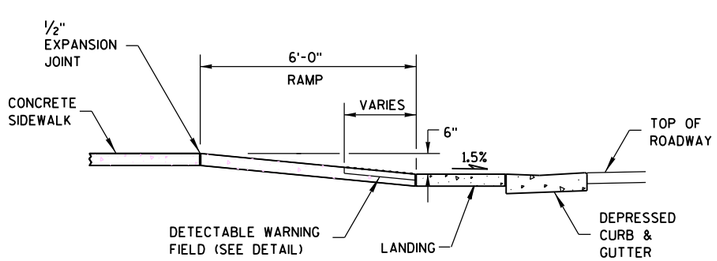
S.D.D. 8 D 5-15c



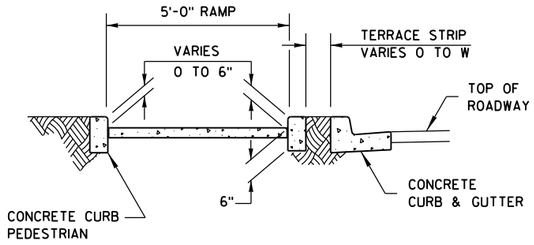
CURB RAMP TYPE 4B
PLAN VIEW



SECTION A-A FOR TYPE 4B



SECTION B-B FOR TYPE 4B



SECTION C-C FOR TYPE 4B

LEGEND

½" EXPANSION JOINT-SIDEWALK

CONTRACTION JOINT FIELD LOCATED

PAVEMENT MARKING CROSSWALK (WHITE)

RADIUS (AT CURB FACE)	W = 3'-0"		W = 4'-0"		W = 5'-0"		W = 6'-0"		W = 7'-0"	
	X	Y	X	Y	X	Y	X	Y	X	Y
20 FEET	5'-5½"	4'-6½"	4'-8½"	6'-0"	4'-1"	7'-2¾"	3'-7"	8'-3½"	3'-1½"	9'-2½"
30 FEET	7'-3¾"	7'-1"	6'-5½"	8'-11½"	5'-9¼"	10'-7"	5'-2½"	12'-0"	4'-8¾"	13'-3¼"
40 FEET	8'-9½"	9'-2½"	7'-10"	11'-5¼"	7'-1"	13'-4½"	6'-5¾"	15'-¾"	5'-11½"	16'-7¼"
50 FEET	10'-¾"	11'-¾"	9'-¼"	13'-7¼"	8'-2½"	15'-9½"	7'-6½"	17'-9"	6'-11¾"	19'-6¼"
60 FEET	11'-2½"	12'-8¾"	10'-¾"	15'-6½"	9'-2¼"	17'-11¾"	8'-5¾"	20'-1¾"	7'-10½"	22'-1½"

INTERMEDIATE RADII CAN BE INTERPOLATED

GENERAL NOTES

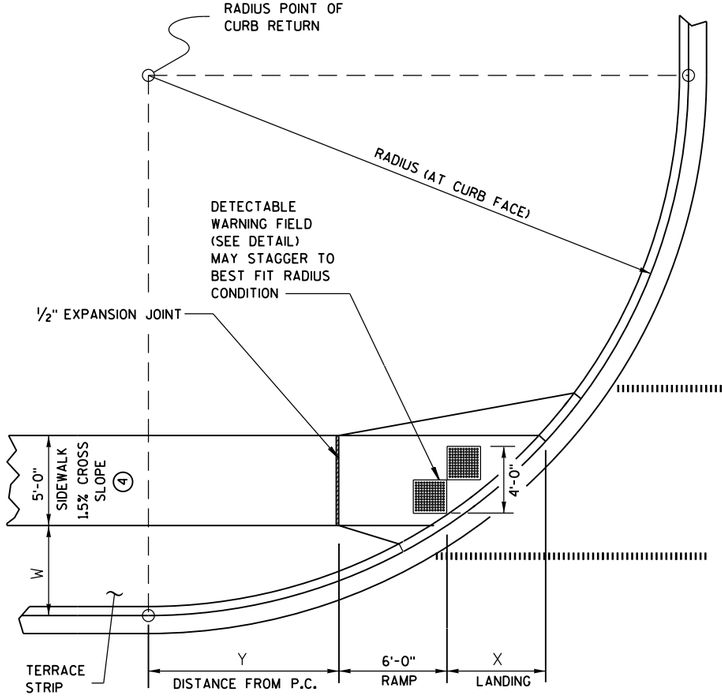
AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

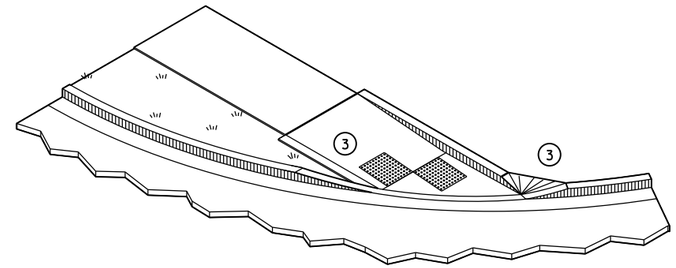
DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(3) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.) DO NOT MARK TRANSITION NOSE.

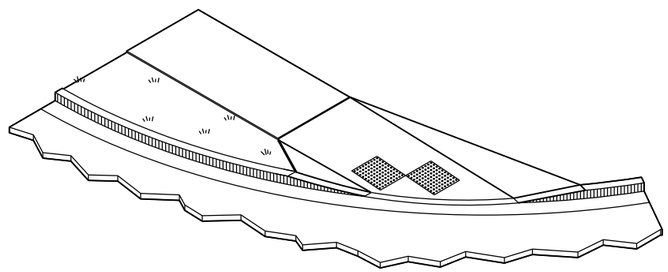
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.



CURB RAMP TYPE 4B1
PLAN VIEW



ISOMETRIC VIEW FOR TYPE 4B



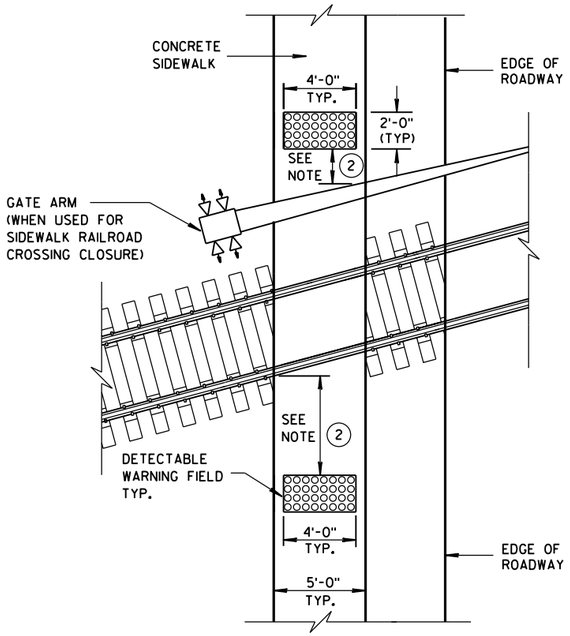
ISOMETRIC VIEW FOR TYPE 4B1

CURB RAMPS TYPE 4B AND 4B1

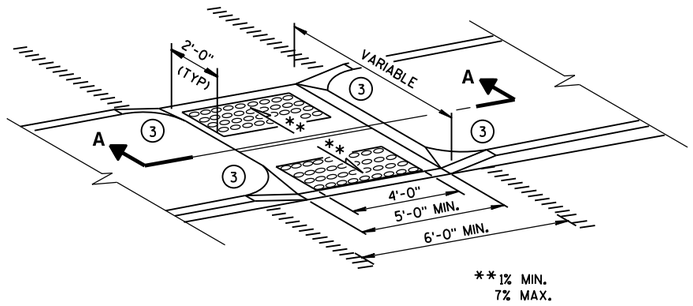
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 8 D 5-15d



TYPE 8
DETECTABLE WARNINGS AT RAILROAD CROSSING



MEDIAN ISLAND
NON-ELEVATED CROSSING
TYPE 5

GENERAL NOTES

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

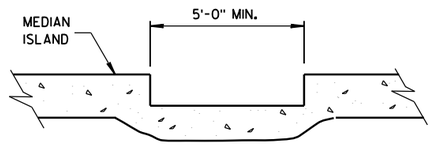
DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(1) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

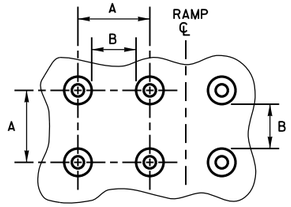
(2) THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET ± 0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD CROSSING SHALL BE 15 FEET FROM THE NEAREST RAIL.

(3) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.) DO NOT MARK TRANSITION NOSE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.



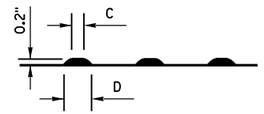
SECTION A-A



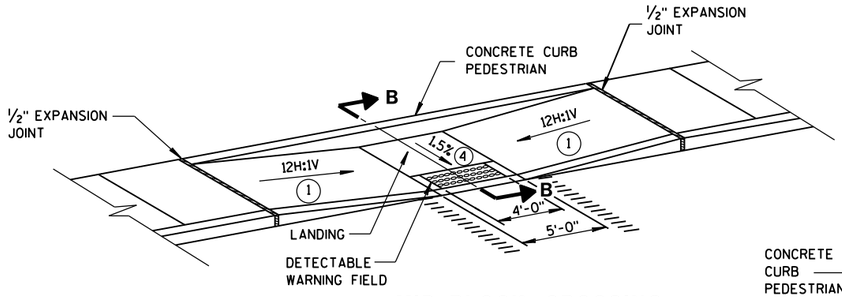
PLAN VIEW

	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	*	*
D	0.9"	1.4"

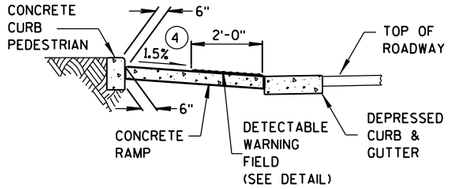
* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.



ELEVATION VIEW

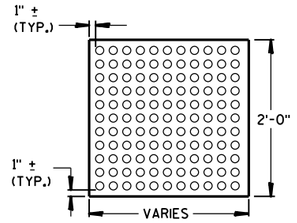


MID-BLOCK CROSSING
TYPE 7A



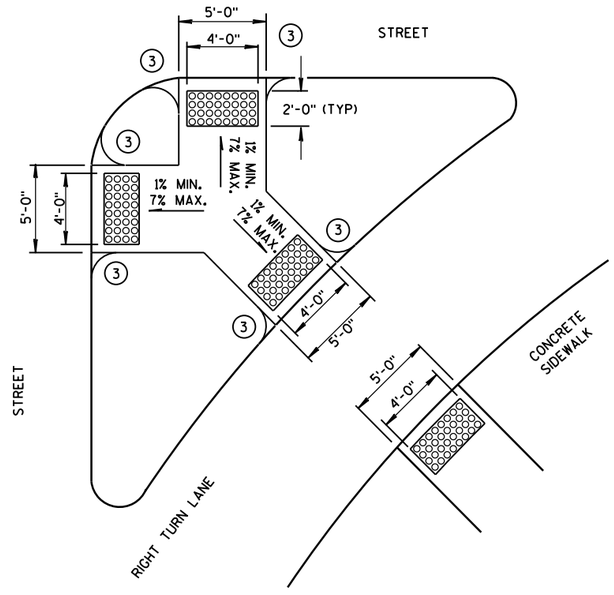
SECTION B-B

TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL

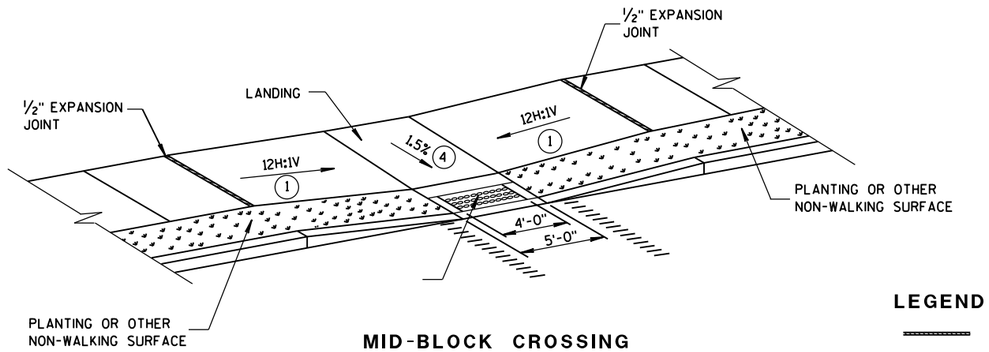


PLAN VIEW

DETECTABLE WARNING FIELD (TYPICAL)



TYPE 6
DETECTABLE WARNING AT ISLANDS



MID-BLOCK CROSSING
TYPE 7B

NOTE: THESE PARALLEL AND PARALLEL/PERPENDICULAR CURB RAMPS MAY BE USED AT INTERSECTIONS AND MID BLOCK LOCATIONS.

LEGEND

- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPES 5, 6, 7A, 7B & 8

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
2-6-2013 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 D 5-15e

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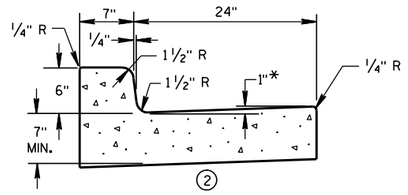
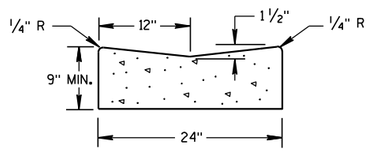
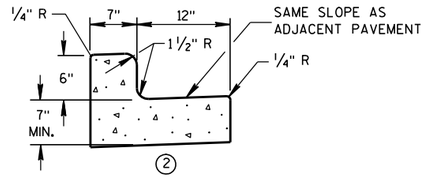
S.D.D. 8 D 5-15e



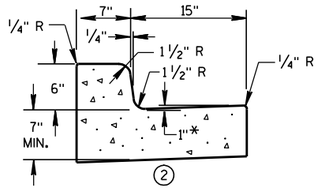
① CONCRETE CURB & GUTTER 31"



① CONCRETE GUTTER 24"

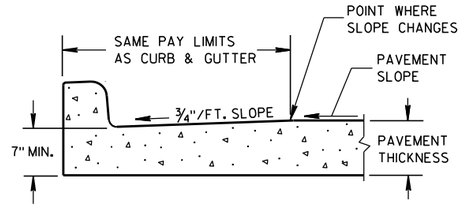


① CONCRETE CURB & GUTTER 19"



① CONCRETE CURB & GUTTER 22"

* TO BE MEASURED TO A MAXIMUM OF 3" WHERE DRAINAGE PROBLEMS EXIST.



PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB & GUTTER

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

INTEGRAL CURB & GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB & GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE. A LONGITUDINAL CONSTRUCTION JOINT IS NOT REQUIRED WITH INTEGRAL CURB AND GUTTER.

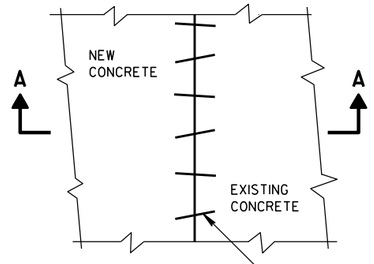
WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE COURSE AND UNCLASSIFIED EXCAVATION LIMITS ARE 2'-0" BEHIND THE BACK OF CURB.

① WHEN PLACED ADJACENT TO NEW CONCRETE, TIE BARS ARE REQUIRED FOR CURB AND GUTTER 31", 22", 19" AND CONCRETE GUTTER 24".

② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE COURSE PROVIDED A 7" MIMIMUM GUTTER THICKNESS IS MAINTAINED.

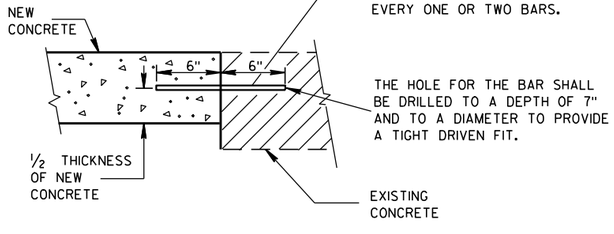
③ WHEN HIGH SIDE CURB SECTION IS REQUIRED, THE LOCATION(S) WILL BE NOTED ON THE PLAN.



PLAN VIEW

EXISTING AND NEW CONCRETE MAY BE CURB & GUTTER, SURFACE DRAIN, PAVEMENT OR OTHER CONCRETE STRUCTURE.

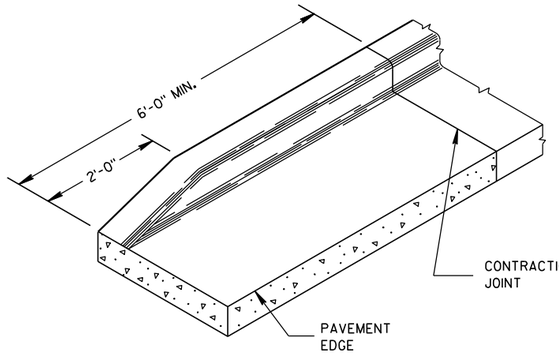
NO. 6 X 12" DEF. BARS SPACED 3'-0" C-C, INSTALLED ON 6:1 SKEW HORIZONTALLY. DIRECTION OF SKEW ALTERNATING AFTER EVERY ONE OR TWO BARS.



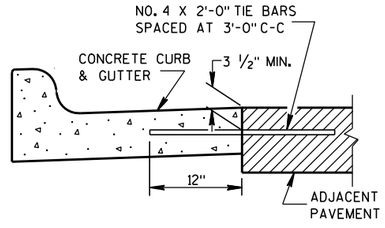
THE HOLE FOR THE BAR SHALL BE DRILLED TO A DEPTH OF 7" AND TO A DIAMETER TO PROVIDE A TIGHT DRIVEN FIT.

SECTION A-A

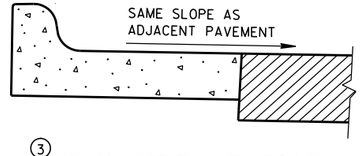
PAVEMENT TIES



END SECTION CURB & GUTTER



① TYPICAL TIE BAR LOCATION



③ HIGH SIDE SECTION

(TYPICAL FOR ALL CURB & GUTTER)

CONCRETE GUTTER, CURB AND GUTTER AND PAVEMENT TIES

(For Optional Use in Milwaukee Co. Only)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/2/2010 — DATE

/S/ Jerry Zogg — ROADWAY STANDARDS ENGINEER

734 ENT

FHWA

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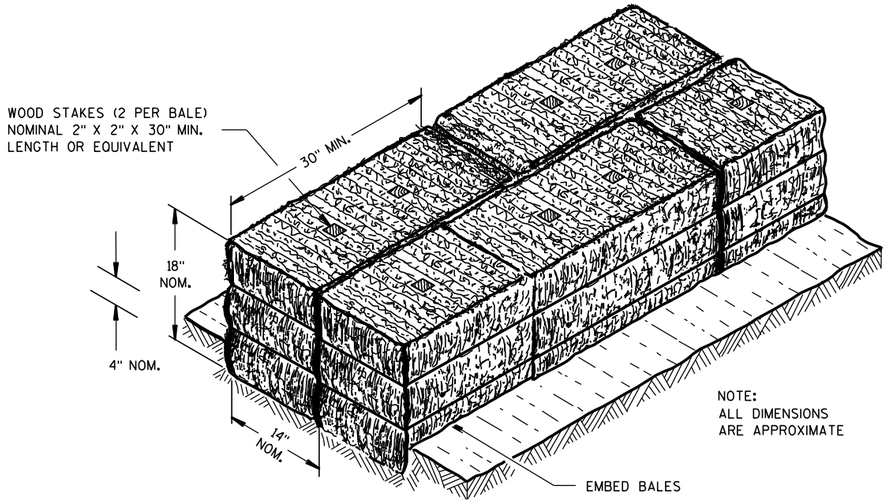
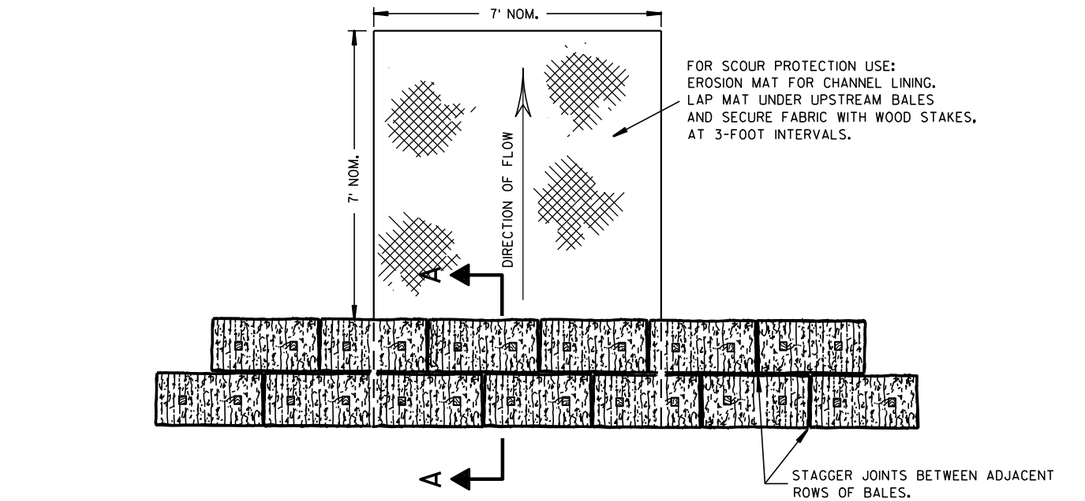
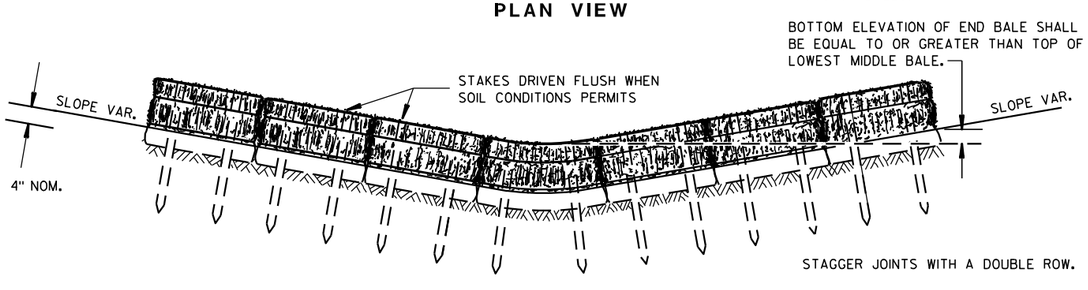
S.D.D. 8 D 16-10



SECTION A-A



PLAN VIEW



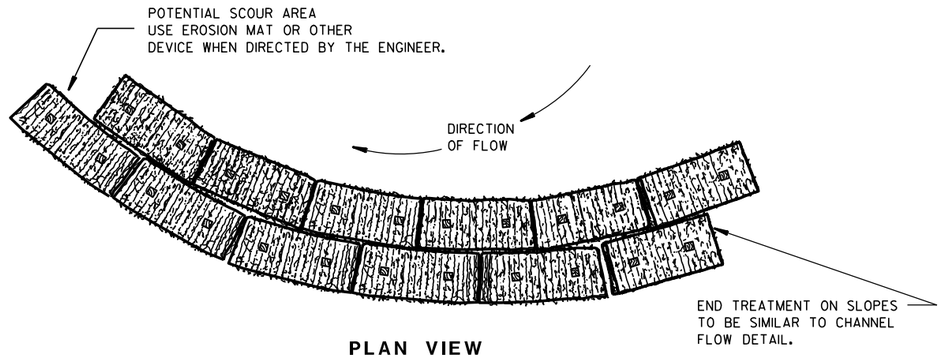
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

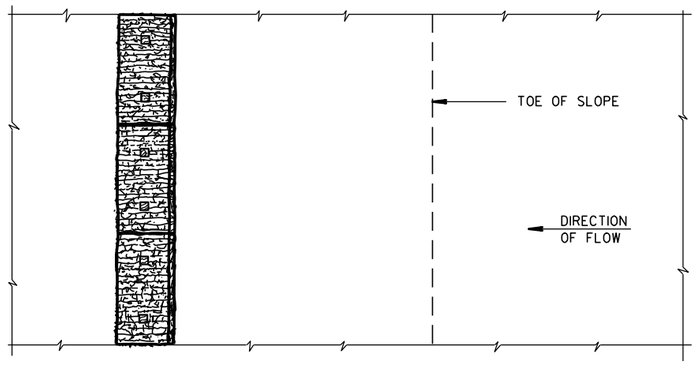
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

(1) TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.

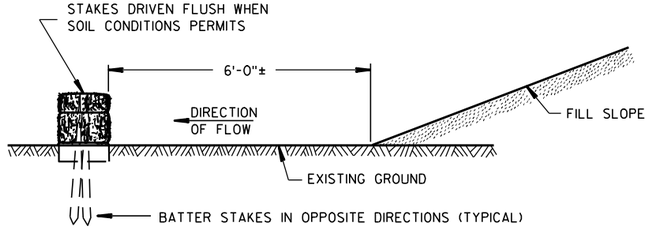


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/04/02 — DATE

/S/ Beth Cannestra — CHIEF ROADWAY DEVELOPMENT ENGINEER

735

FHWA

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S.D.D. 8 E 8-3

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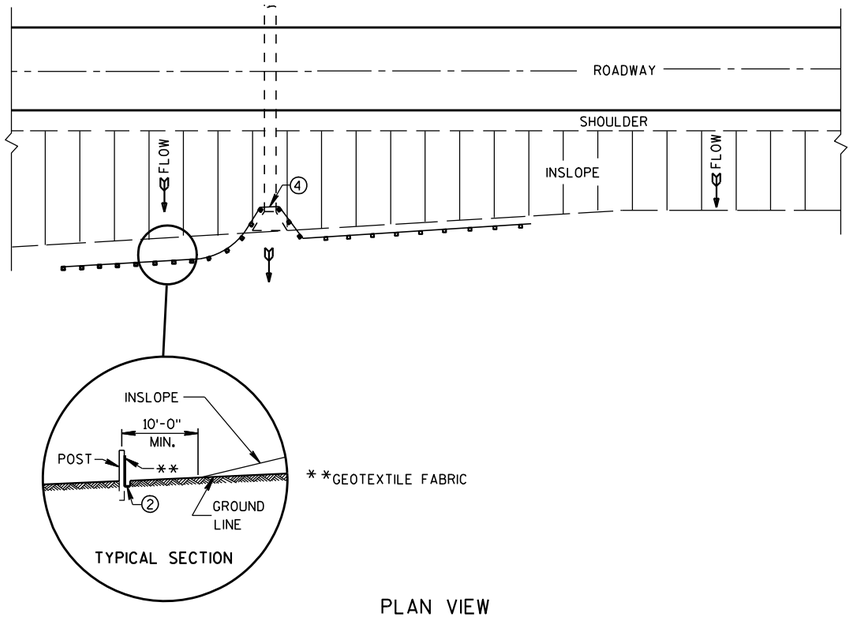
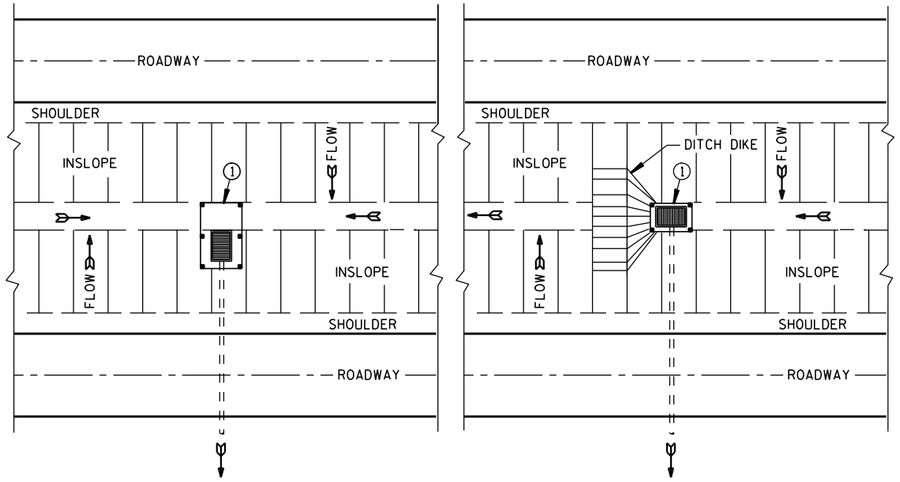
S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



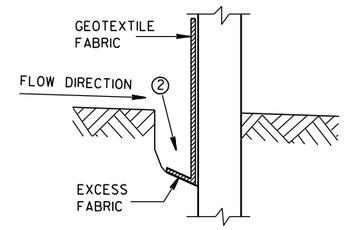
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

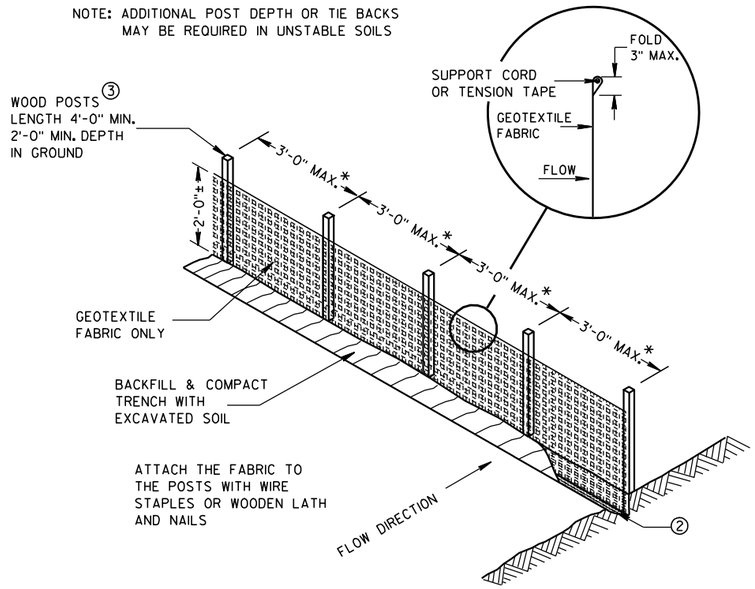
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

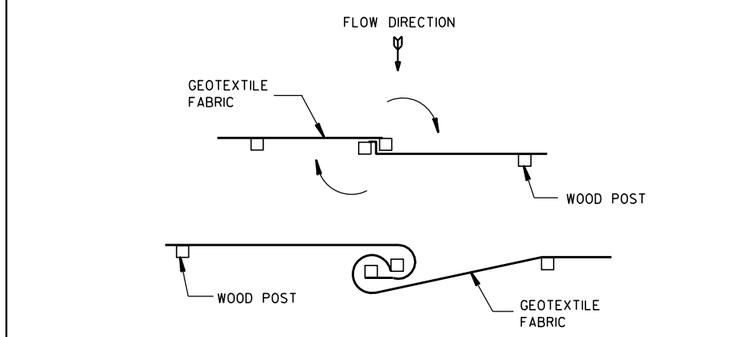
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.
4. SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
5. CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



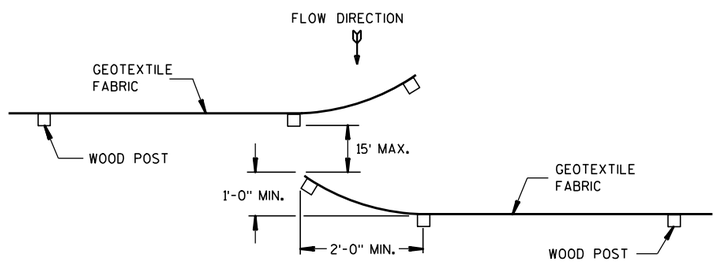
TRENCH DETAIL



SILT FENCE

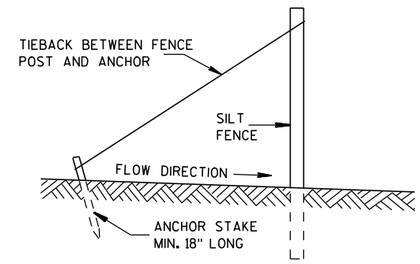


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE 5



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 E 9-6

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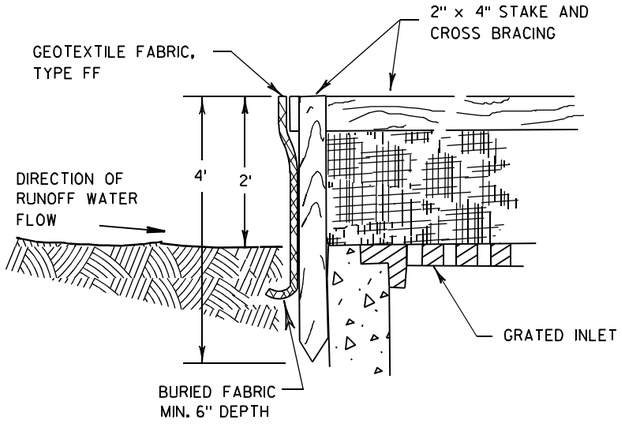
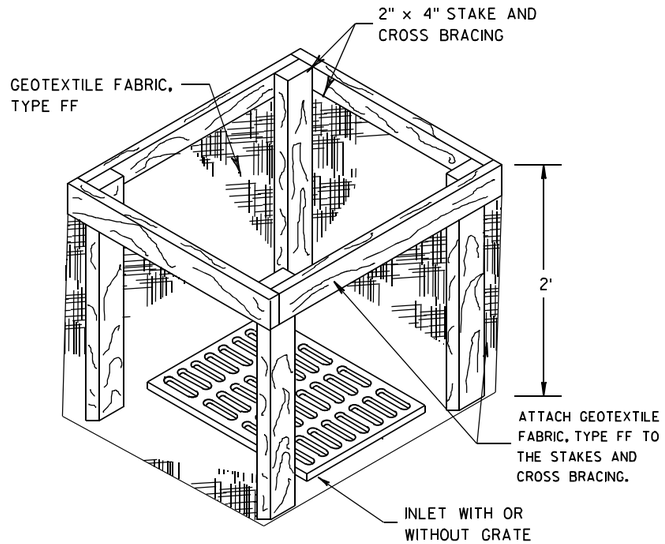
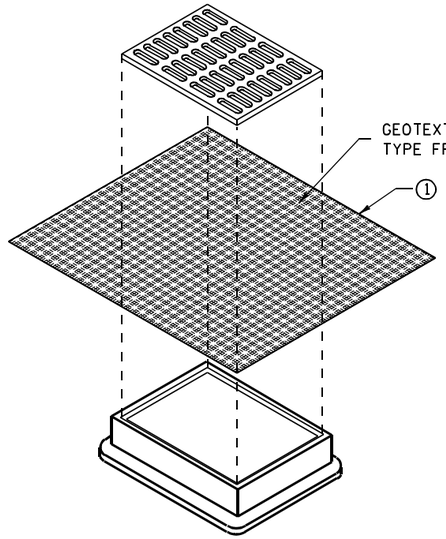
S.D.D. 8 E 9-6



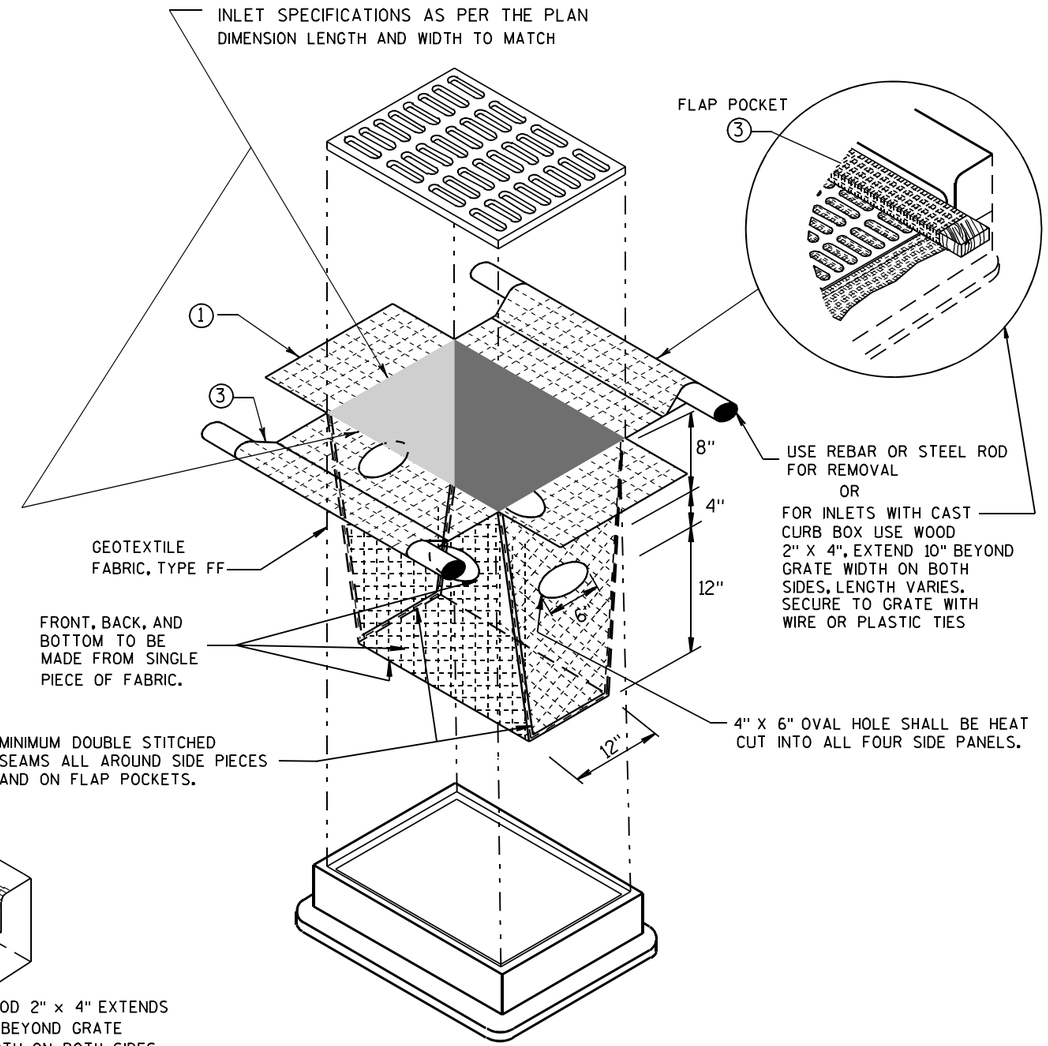


INLET PROTECTION, TYPE A



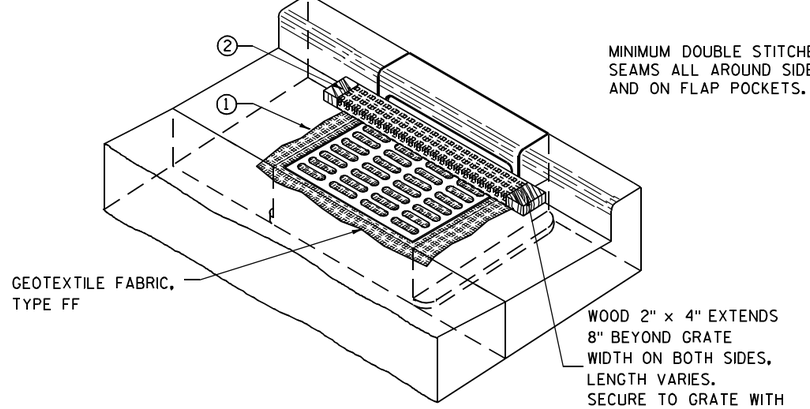
INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE D

(CAN BE INSTALLED IN ANY INLET TYPE WITH
OR WITHOUT A CURB BOX AS PER NOTE ②)



INLET PROTECTION, TYPE C (WITH CURB BOX)

GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.

③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

INSTALLATION NOTES

TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/16/02
DATE

/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

6

S.D.D. 8 E 10-2

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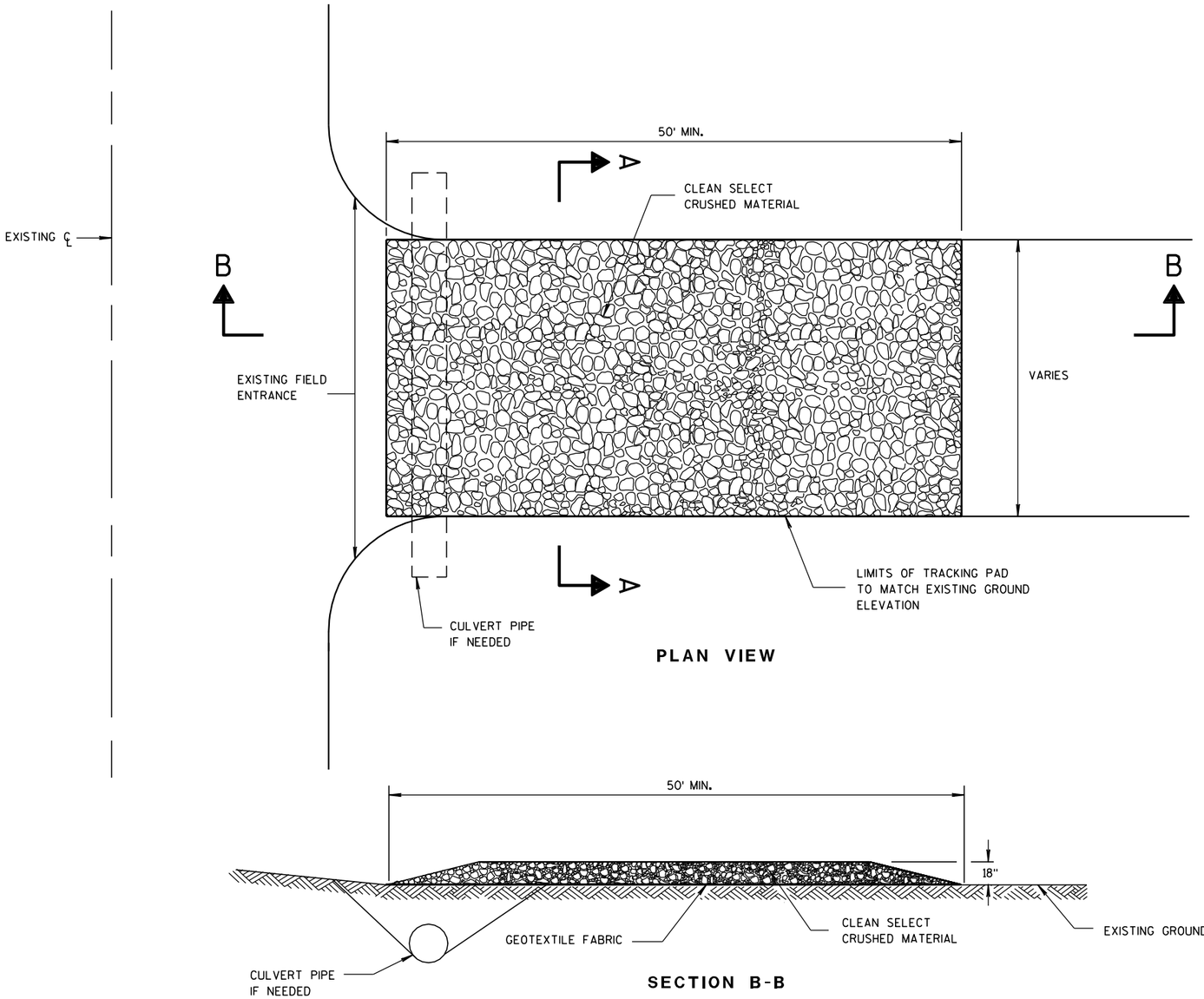
S.D.D. 8 E 10-2



PLAN VIEW

SECTION B-B

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

TRACKING PAD SHALL BE INSPECTED DAILY. DEFICIENT AREAS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

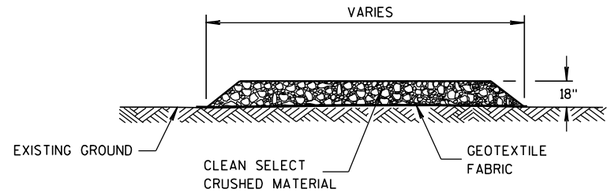
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT.

SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. FLOWS SHALL BE DIVERTED AWAY, AROUND OR CONVEYED UNDER THE TRACKING PAD.

CULVERT PIPE OR OTHER BMP USED TO DIVERT WATER AWAY, AROUND OR UNDER THE TRACKING PAD SHALL BE DESIGNED TO CONVEY THE 2 YEAR - 24 HOUR EVENT.

THE COST OF ADDITIONAL BMP TO DIVERT WATER ARE INCIDENTAL TO THE TRACKING PAD BID ITEM.



SECTION A-A

TRACKING PAD

TRACKING PAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/24/2011 — DATE
/S/ Jerry H. Zoda — ROADWAY STANDARDS ENGINEER
FHWA

6

S.D.D. 8 E 14-1

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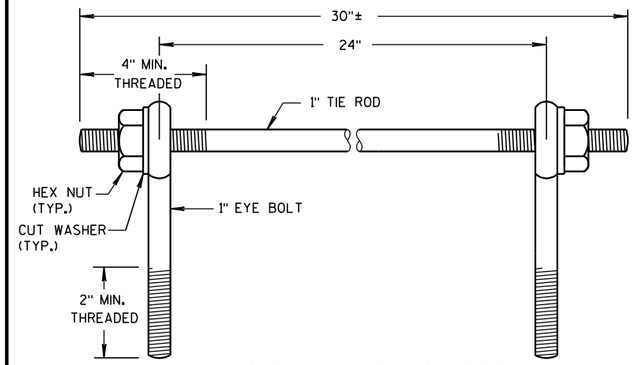
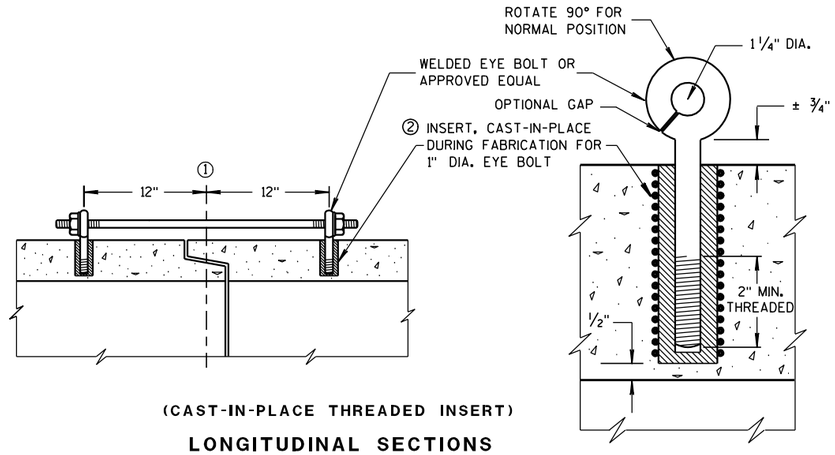
S.D.D. 8 E 14-1



EYE BOLTS AND TIE ROD



(CAST-IN-PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 1)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT AND STORM SEWER PIPE SHALL BE TIED TOGETHER IN THE MANNER ILLUSTRATED BY THIS DETAIL AT LOCATIONS DESIGNATED IN THE STANDARD SPECIFICATIONS AND THE PLAN. THE CONTRACTOR MAY USE EITHER ALTERNATE 1, 2 OR 3 FOR DRAINAGE STRUCTURES. ONLY ALTERNATE 1 AND 3 MAY BE USED FOR CATTLE PASSES, UNLESS OTHERWISE STATED IN THE CONTRACT. THE MATERIALS, FABRICATION AND WORK NECESSARY TO TIE THE PIPE BY THIS DETAIL WILL BE CONSIDERED INCIDENTAL TO THE PIPE AND APRON ENDWALLS IF REQUIRED.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

① ℄ OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.

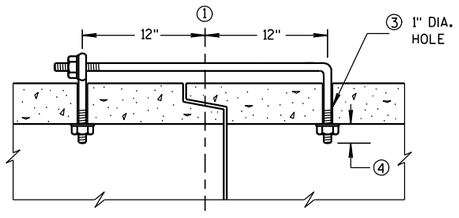
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12 INCHES FROM ℄ OF TONGUE AND GROOVE.

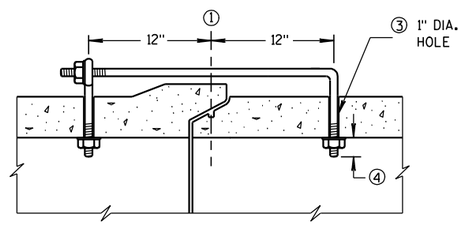
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.

⑥ LENGTH ADEQUATE TO EXTEND TO WITHIN 1/2 INCH OF THE INNER SURFACE OF THE PIPE.



(TONGUE & GROOVE PIPE)

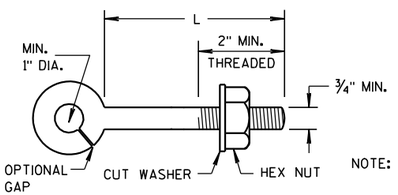


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

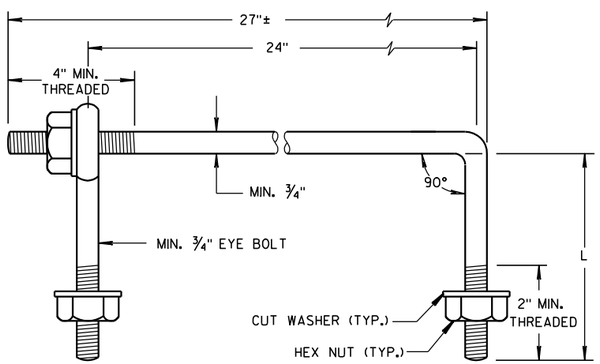
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



NOTE:

EYE BOLT

NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD

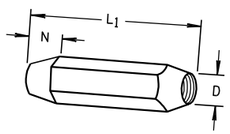
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)

ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12-60	5/8	5/8	5	1/2
66-84	3/4	3/4	5	1/2
90-108	1	1	7	1 1/16

DIMENSIONS SHOWN ARE IN INCHES



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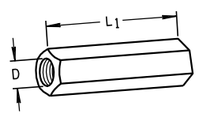
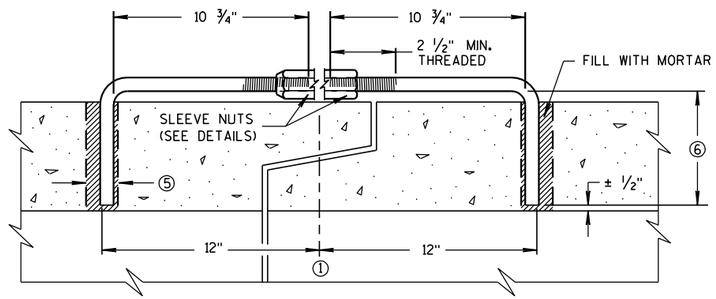


PLAIN

RIGHT AND LEFT THREADS

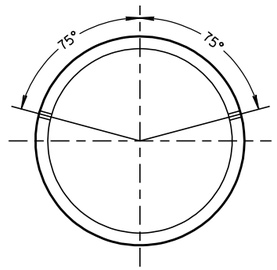
SLEEVE NUTS



LONGITUDINAL SECTION

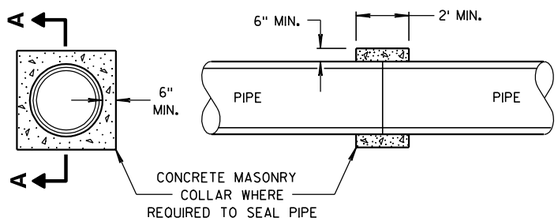
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



PLACEMENT OF (2) CAST-IN-PLACE INSERTS OR HOLES DURING FABRICATION FOR PIPE SECTIONS REQUIRING TIE RODS

TRANSVERSE SECTION



SECTION A-A

CONCRETE COLLAR DETAIL

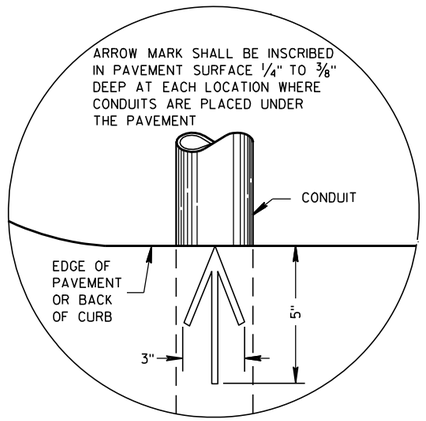
JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
739
FHWA

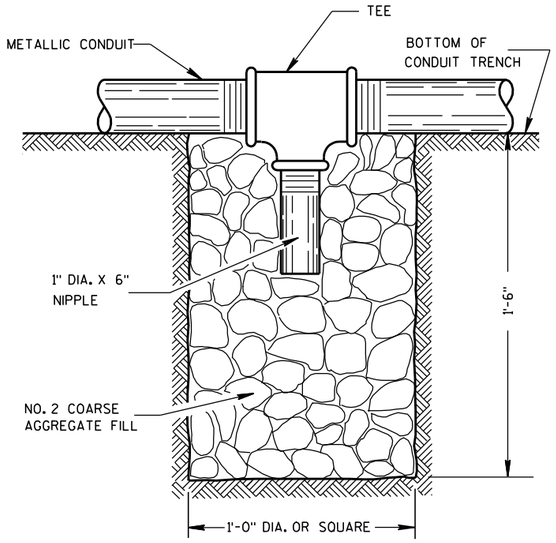
6

S.D.D. 8 F 4-7



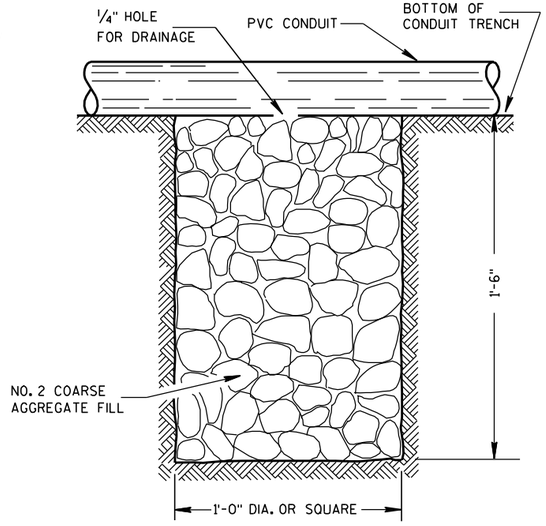
PLAN VIEW

ARROW MARK



NOTE: INSTALL AT LOCATIONS WHERE METALLIC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR METALLIC CONDUIT



NOTE: INSTALL AT LOCATIONS WHERE PVC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR PVC CONDUIT

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

METALLIC (STANDARD SPECIFICATION 652.2.2) OR NONMETALLIC (STANDARD SPECIFICATION 652.2.3) CONDUIT SHALL BE FURNISHED AND PLACED AS SHOWN.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

THE TRENCH SHALL NOT BE BACKFILLED PRIOR TO INSPECTION OF THE CONDUIT.

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

ALL METALLIC CONDUIT IN WHICH WIRE OR CABLE IS TO BE INSTALLED SHALL BE BUSHED WITH APPROVED THREADED BUSHINGS BEFORE INSTALLATION OF THE WIRE OR CABLE.

ALL METALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT TO BE INSTALLED SHALL BE CAPPED WITH THREADED PROTECTIVE CAPS, AS APPROVED BY THE ENGINEER.

ALL NONMETALLIC CONDUIT SHALL BE CAPPED OR PLUGGED IMMEDIATELY AFTER INSTALLATION AND SHALL REMAIN CAPPED OR PLUGGED UNTIL WIRE/CABLES ARE INSTALLED.

NONMETALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BENDING OF PVC ELECTRICAL CONDUIT SHALL BE ACCOMPLISHED BY USING A BLANKET OR EMERSION TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT.

ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON NONMETALLIC CONDUIT. (SEE NEC 347.5)

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY U.L. LISTED ADAPTER FITTINGS SHALL BE USED.

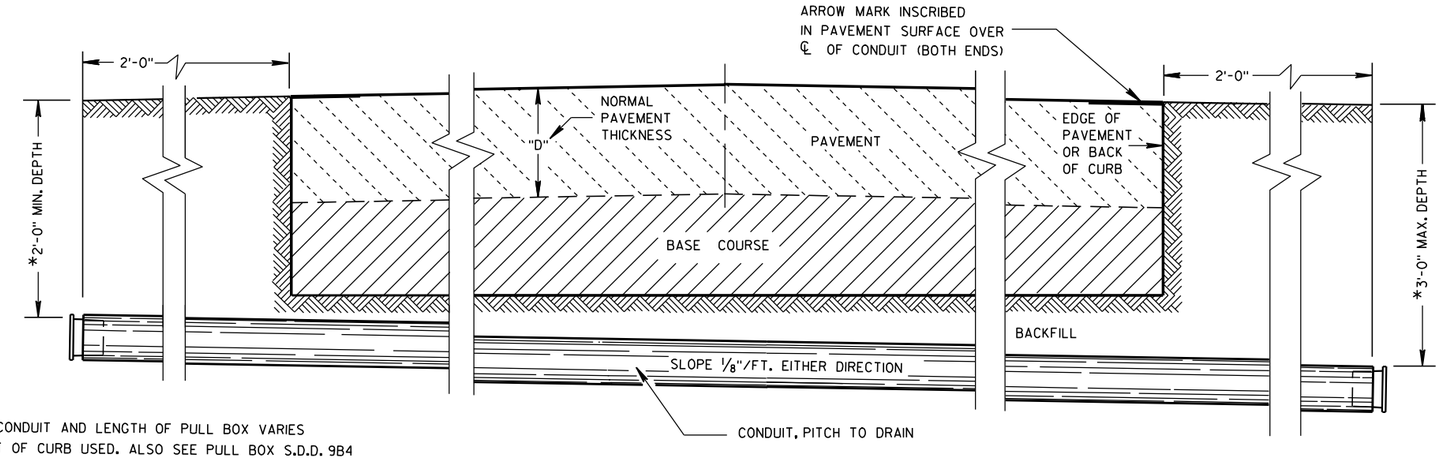
PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

ALL CONDUIT BEING FURNISHED AND INSTALLED SHALL HAVE THE U.L. LABEL FIRMLY ATTACHED.

CONDUIT RUNS SHALL BE THE SAME SIZE OF CONDUIT FROM ONE END TO THE OTHER (FROM PULL BOX TO PULL BOX-OR-JUNCTION BOX TO JUNCTION BOX-OR-BASE TO BASE, ETC.).

POLY ROPE OR A PULL WIRE SHALL BE INSTALLED AS STATED IN THE STANDARD SPECIFICATION, ITEM 652.3.1.1.

ALL CONDUIT RUNS SHALL BE STRAIGHT (WITHOUT BENDS) FROM PULL BOX TO PULL BOX, PULL BOX TO BASE AND BASE TO BASE AS SHOWN ON THE PLANS.



*DEPTH OF CONDUIT AND LENGTH OF PULL BOX VARIES WITH HEIGHT OF CURB USED. ALSO SEE PULL BOX S.D.D. 9B4

SIDE ELEVATION

DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/23/03 — DATE

/S/ Balu Ananthanarayanan — STATE ELECTRICAL ENGI

740 — HWYS

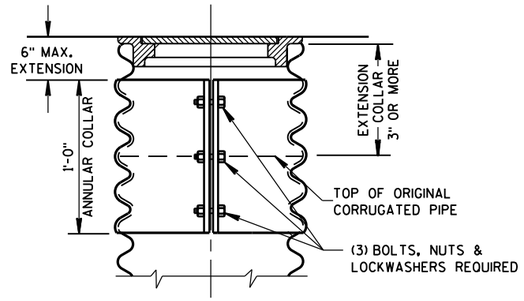
FHWA

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

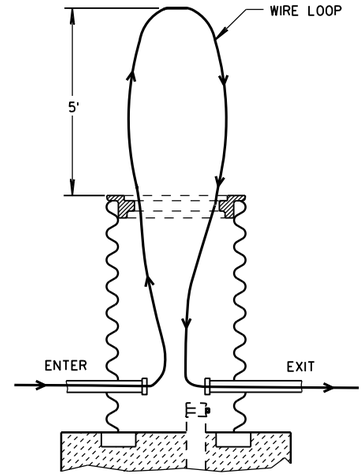
DIMENSION IN INCHES		CORRUGATED STEEL PIPE								
PIPE DIAMETER (INSIDE)	A	12	12	12	18	18	18	24	24	24
PIPE LENGTH **	B	24	30	36	24	30	36	36	42	48
WALL THICKNESS	C	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064
COVER	D	10 1/4	10 1/4	10 1/4	16 1/4	16 1/4	16 1/4	22 1/4	22 1/4	22 1/4
FRAME	E	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2	26 1/2	26 1/2	26 1/2
FRAME	F	8 1/2	8 1/2	8 1/2	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2
FRAME	G	11 1/2	11 1/2	11 1/2	17 1/2	17 1/2	17 1/2	23 1/2	23 1/2	23 1/2
WEIGHT IN POUNDS *										
FRAME AND COVER		60	60	60	110	110	110	155	155	155

* THE ACTUAL WEIGHT OF THE MANHOLE FRAME AND COVER MAY VARY WITHIN 5 PERCENT PLUS OR MINUS OF THE WEIGHTS SHOWN.

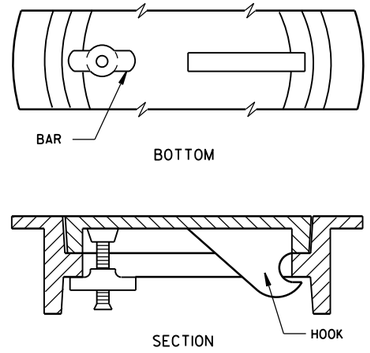
** NORMALLY USED LENGTHS. THE PROJECT ENGINEER SHALL DETERMINE IF PIPE LENGTHS, OTHER THAN THOSE SPECIFIED, SHALL BE USED, TO A MAXIMUM OF 48" (CONTINUOUS LENGTH, NON-SPLICED). THE ADDITIONAL LENGTH SHALL BE INCIDENTAL TO THE PULL BOX BID PRICE.



CORRUGATED PIPE EXTENDER

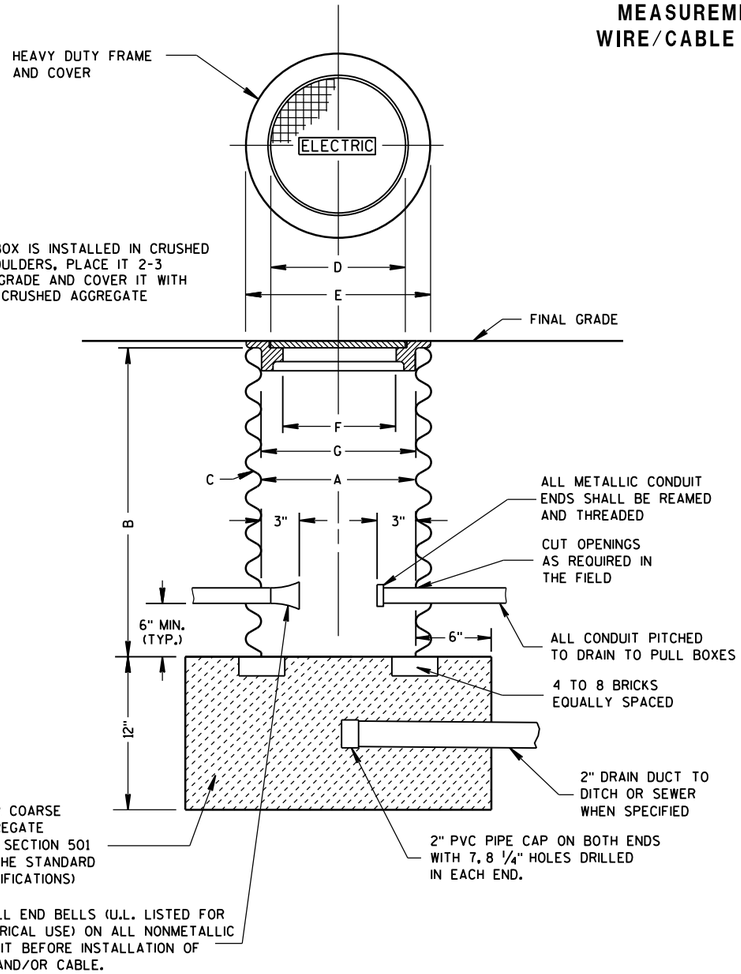


MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX



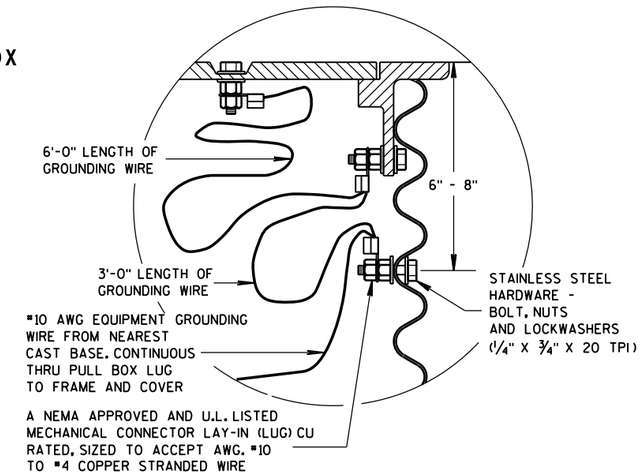
ALTERNATE COVER (LOCKING)

TIGHTENING BAR TYPE



WHEN A PULL BOX IS INSTALLED IN CRUSHED AGGREGATE SHOULDERS, PLACE IT 2-3 INCHES BELOW GRADE AND COVER IT WITH 2-3 INCHES OF CRUSHED AGGREGATE

PULL BOX



EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

ALL FRAMES AND COVERS SHALL BE HEAVY DUTY TYPE, SUITABLE FOR VEHICULAR TRAFFIC LOADS.

PULL BOXES LOCATED IN THE ROADWAYS SHALL HAVE LOCKING COVERS.

ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN 1/4".

THE CONTRACTOR SHALL NOT INSTALL WIRE IN ANY PULL BOX UNTIL ITS INSTALLATION HAS BEEN INSPECTED AND ACCEPTED BY THE ENGINEER.

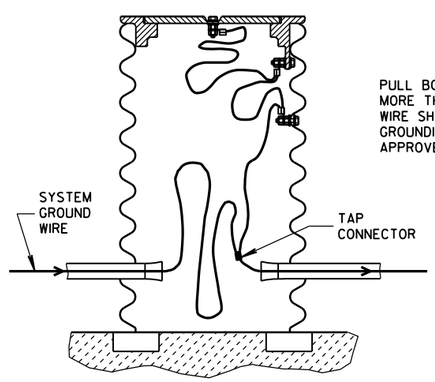
GROUNDING LUGS (MECHANICAL CONNECTORS) SHALL BE U.L. LISTED AND APPROVED FOR USE WITH COPPER WIRE.

GROUNDING LUGS ARE NOT REQUIRED IN PULL BOXES WHEN VOLTAGES OF LESS THAN 50 VOLTS AC ARE THE ONLY VOLTAGES ENCOUNTERED IN THE BOXES.

ALL METALLIC CONDUIT IN WHICH WIRE AND/OR CABLE IS TO BE INSTALLED, SHALL BE BUSHED BEFORE INSTALLATION OF THE WIRE AND/OR CABLE.

S.D.D. 9B2, "CONDUIT", APPLIES TO THIS DRAWING.

WHEN PULL BOXES ARE INSTALLED FOR FUTURE USE, DO NOT INSTALL THE EQUIPMENT GROUNDING LUG. THE EQUIPMENT GROUNDING LUG, THE EQUIPMENT GROUNDING ELECTRODE AND THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE REQUIRED AND INSTALLED UNDER A FUTURE WIRING CONTRACT.



PULL BOX TO NEAREST BASE DISTANCE MORE THAN 20 FEET. PULL BOX GROUND WIRE SHALL CONNECT AT SYSTEM GROUNDING WIRE. USE DEPARTMENT APPROVED TAP CONNECTOR.

EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES

PULL BOX

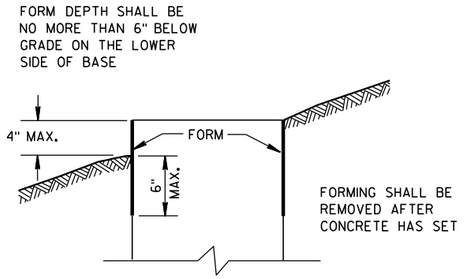
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
2-7-2013
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL
741

FHWA

6

S.D.D. 9 B 4-10



FORMING DETAIL

QUANTITY REQUIREMENTS	CONCRETE BASE TYPE		
	1	2	5
APPROX. CUBIC YARDS OF CONCRETE	0.40	0.57	0.40
LBS. OF HOOP BAR STEEL	NONE	23	16
LBS. OF VERTICAL BAR STEEL	NONE	60	18

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

TOP SURFACES OF CONCRETE BASES SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN AT THE ENTRANCE OF THE BASE.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 1 INCH. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

GENERAL NOTES (CONTINUED)

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

ENDS OF CONDUIT INSTALLED BELOW GRADE FOR FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD) FOR TYPE 2 AND TYPE 5 BASES.

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE OF THE TYPE 2 AND TYPE 5 BASES THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD. ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 AND 641.2.2 OF THE STANDARD SPECIFICATIONS, ASTM A-449, OR ASTM A-687 (GRADE 105).

WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4" "L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND END SHALL NOT BE THREADED.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TIE WIRES SHALL BE USED.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).

(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN APPROVAL BY THE ENGINEER.

(2) (4) 1" DIA. X 3'-6" ANCHOR RODS.

(3) (4) 1" DIA. X 5'-0" ANCHOR RODS.

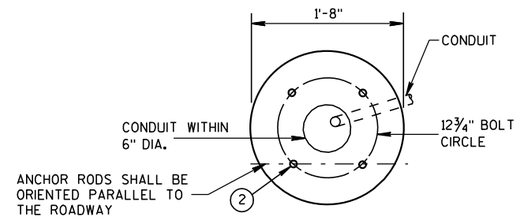
(4) (6) NO. 6 X 6'-8" BAR STEEL REINFORCEMENT.

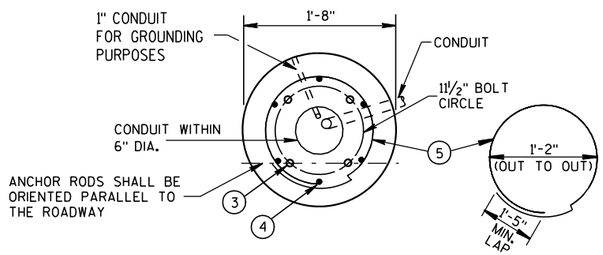
(5) (7) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

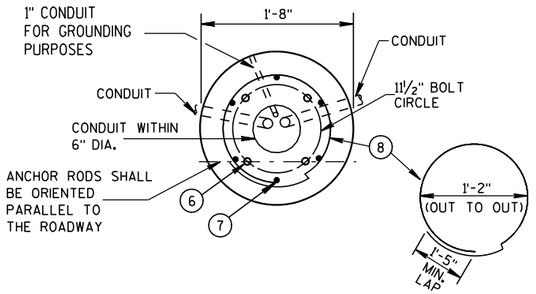
(6) (4) 1" DIA. X 3'-6" ANCHOR RODS.

(7) (6) NO.4 X 4'-8" BAR STEEL REINFORCEMENT.

(8) (5) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.



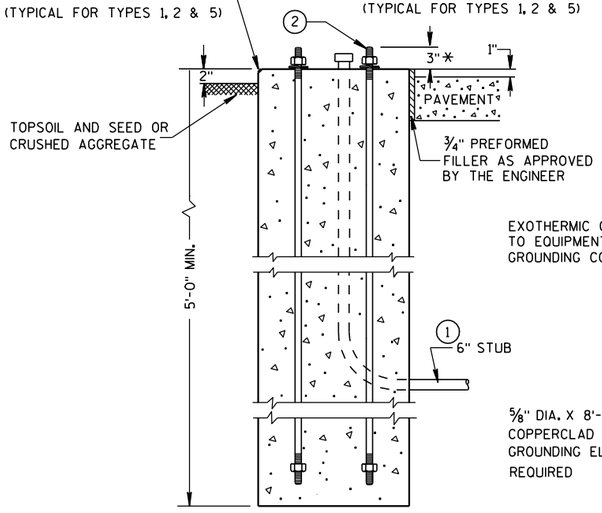




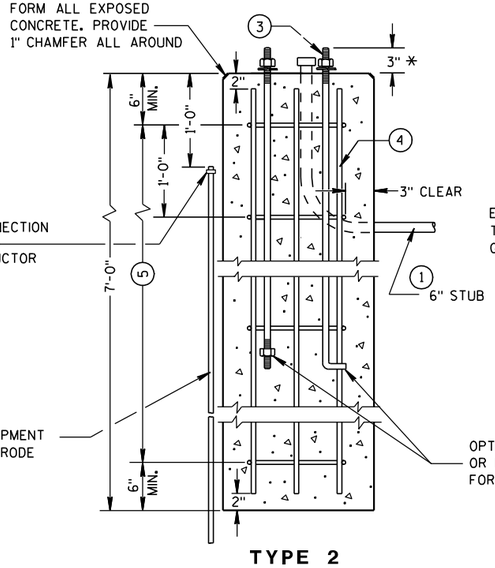
FORM ALL EXPOSED CONCRETE. PROVIDE 1" CHAMFER ALL AROUND

HALF SECTION IN UNPAVED AREA
(TYPICAL FOR TYPES 1, 2 & 5)

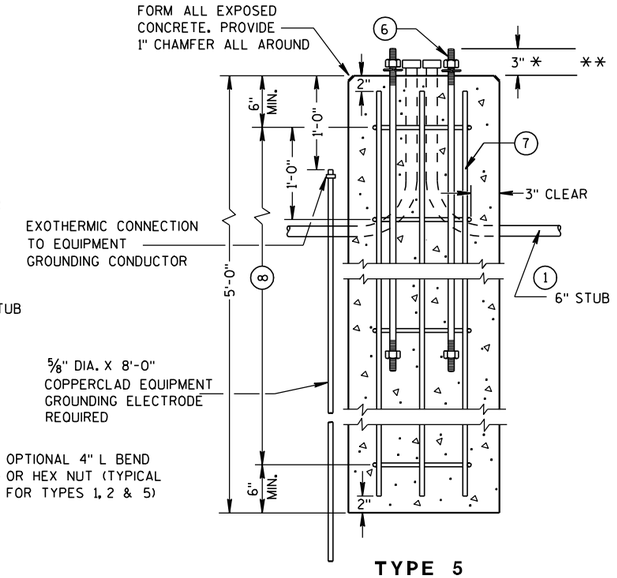
HALF SECTION IN PAVEMENT
(TYPICAL FOR TYPES 1, 2 & 5)



TYPE 1



TYPE 2



TYPE 5

CONCRETE BASES

* ANY ANCHOR ROD PROJECTION SHORTER THAN 2¾" OR LONGER THAN 3¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

** FOR NONBREAKAWAY INSTALLATIONS, 4½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

CONCRETE BASES, TYPES 1, 2 & 5

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/3/10 — DATE
/S/ Joanna L. Rush — STATE ELECTRICAL ENGI 742 — HWYS
FHWA

6

S.D.D. 9 C 2-6

6

S.D.D. 9 C 2-6

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

FOUR (4) BOLTS SHALL BE FURNISHED WITH EACH TRANSFORMER BASE. BOLTS SHALL BE 1" DIAMETER, 4" IN LENGTH, WITH WASHERS, LOCK WASHERS AND NUTS. BOLTS, NUTS AND WASHERS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 641.2.2 OF THE STANDARD SPECIFICATIONS, ASTM A-325, (92,000 YIELD) HEAVY HEX NUT AND BE GALVANIZED IN ACCORDANCE WITH ASTM A-153, CLASS C.

LEVELING SHIMS, IF NEEDED, SHALL BE DESIGNED FOR THE PURPOSE AND USED UNDER CAST BASES WHEN PLUMBING POLES OR STANDARDS DURING INSTALLATION. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE.

SHIM LENGTH SHALL BE LONG ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.

DOUBLE NUTTING IS NOT ACCEPTABLE FOR LEVELING OR MOUNTING PURPOSES.

A NEMA APPROVED AND U.L. LISTED MECHANICAL CONNECTOR (LUG) AL/CU RATED AND SIZED TO ACCEPT #10 AWG STRANDED WIRE, SHALL BE FURNISHED AND INSTALLED IN THE PEDESTAL AND TRANSFORMER BASES.

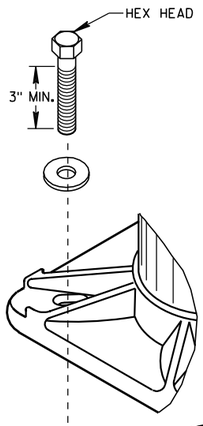
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

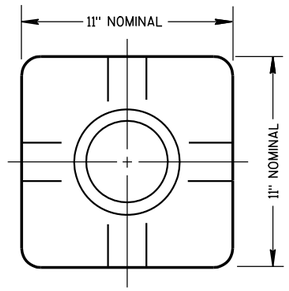
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

PEDESTAL BASE COLLAR THREADING SHALL BE TAPERED AND IN ACCORDANCE WITH NATIONAL PIPE THREADING DIMENSIONS.

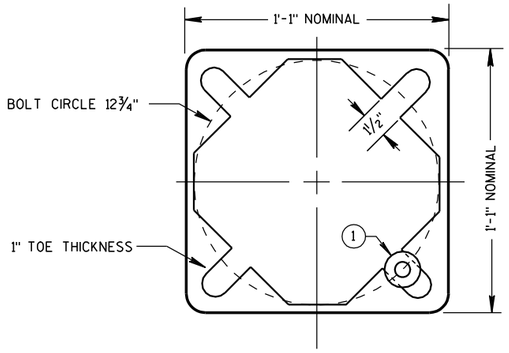
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1½", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

THE ACCESS DOOR SHALL BE OF THE SAME MATERIAL AS THE BASE.

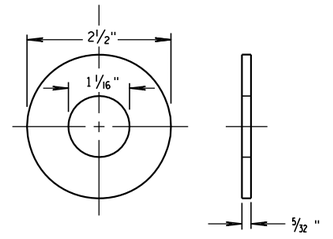




TOP VIEW
(PEDESTAL BASE)

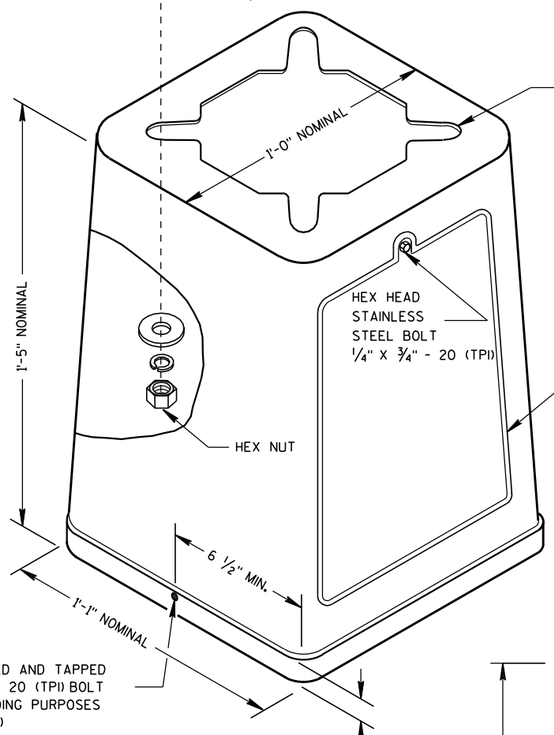


BOTTOM VIEW
(PEDESTAL BASE)

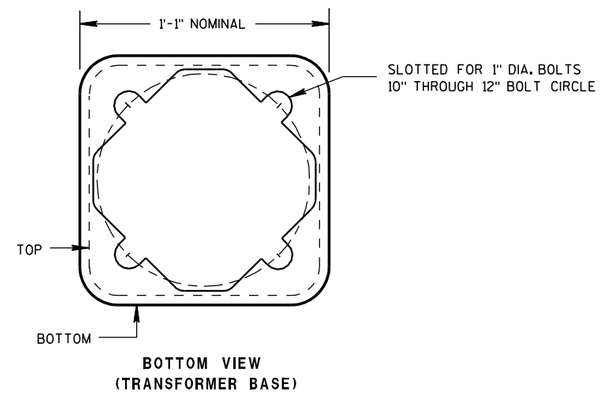


ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

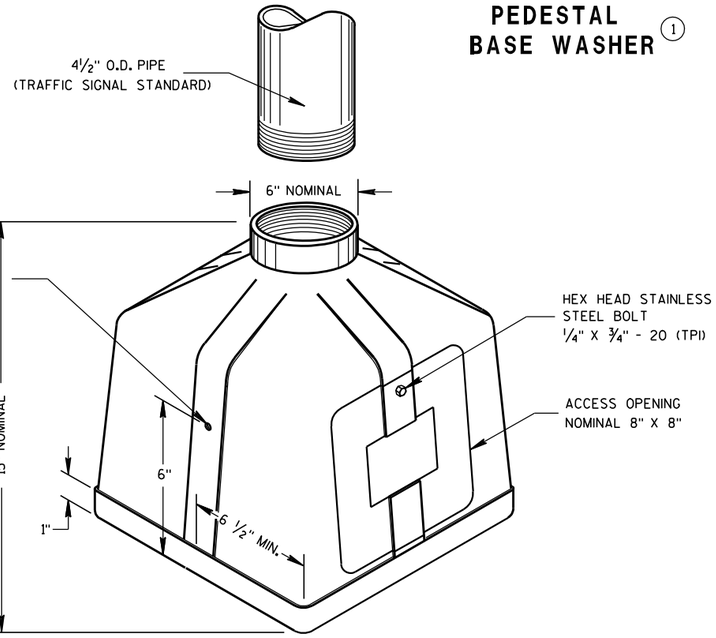
PEDESTAL BASE WASHER (1)



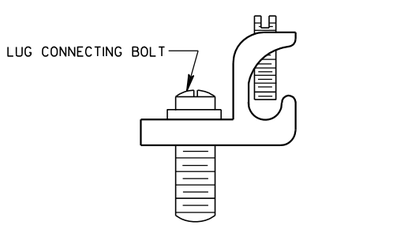
ISOMETRIC VIEW



BOTTOM VIEW
(TRANSFORMER BASE)



ISOMETRIC VIEW
PEDESTAL BASE

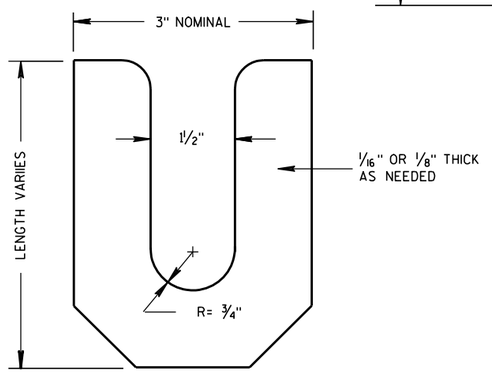


TYPICAL MECHANICAL CONNECTOR LUG

TO BE FURNISHED WITH EACH BASE

TRANSFORMER BASE

INTENDED FOR USE WITH TYPE 2, 3, 4, 5 & 6 POLES



LEVELING SHIM

TRANSFORMER/PEDESTAL BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

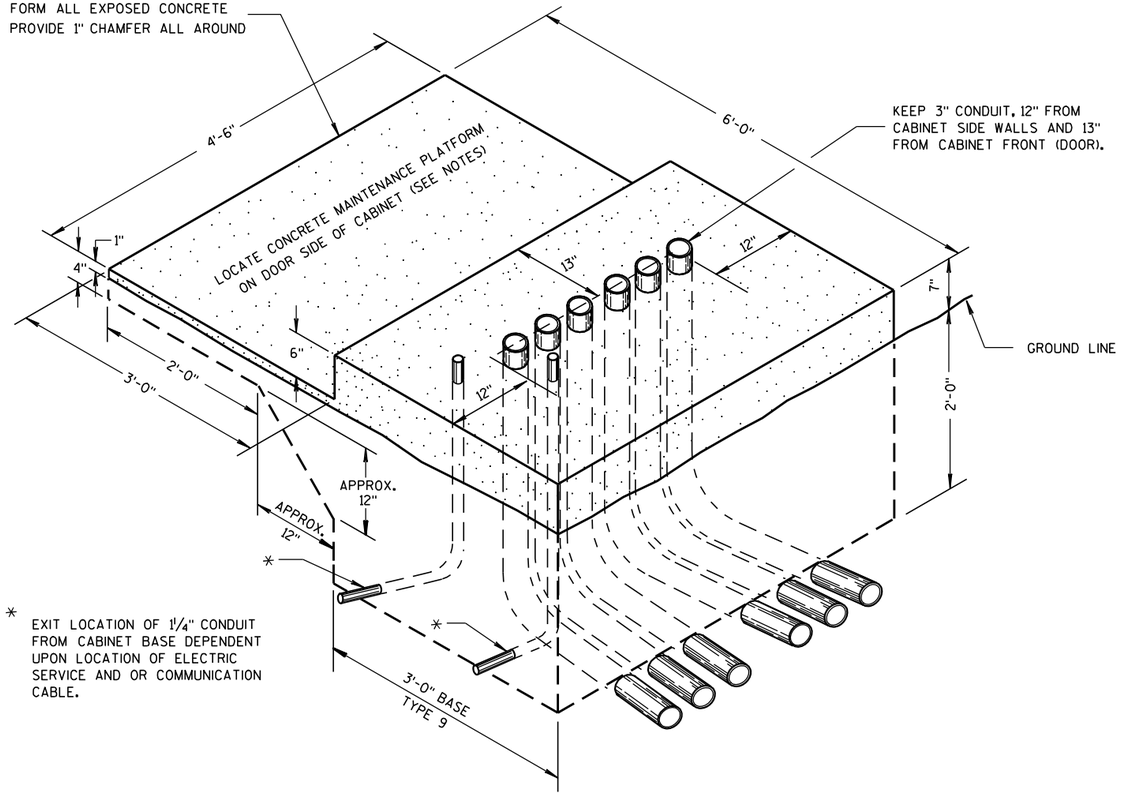
APPROVED
10/27/09 — DATE
/S/ Joanna L. Rich — STATE ELECTRICAL ENGI 743 — HWYS
FHWA

6

6

S.D.D. 9 C 3-3

S.D.D. 9 C 3-3

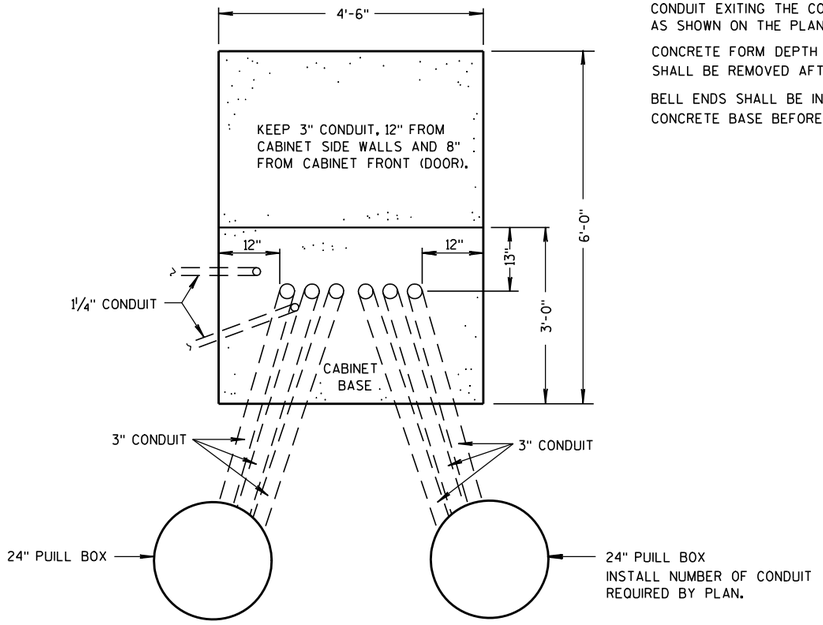


* EXIT LOCATION OF 1¼" CONDUIT FROM CABINET BASE DEPENDENT UPON LOCATION OF ELECTRIC SERVICE AND OR COMMUNICATION CABLE.

ISOMETRIC VIEW

TYPE 9, SPECIAL

(C.Y. CONCRETE = APPROX. 1.56)



PLAN VIEW

CONCRETE CONTROL CABINET BASE, TYPE 9, SPECIAL

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

INSTALL FOUR ½ INCH MINIMUM DIAMETER X 4 INCH MINIMUM LENGTH STAINLESS STEEL APPROVED CONCRETE MASONRY ANCHORS TO ANCHOR THE CABINET TO TYPE 6, 7, 8, AND 9 BASES. THE ANCHOR STUDS SHALL BE LOCATED AS DIRECTED BY THE ENGINEER TO PROPERLY ANCHOR THE CONTROL CABINET TO THE BASE.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

CONDUIT HEIGHT ABOVE THE CONCRETE BASE SHALL BE 1 INCH.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

CONTROL CABINET BASE TOP SURFACE SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

MAINTENANCE PLATFORM SHALL BE FLOAT OR BROOM FINISHED AND BE LEVEL.

MAINTENANCE PLATFORMS ARE NOT REQUIRED WHEN THE SURROUNDING AREA IS PAVED.

MINIMUM BENDING RADIUS OF CONDUIT = 6 X THE DIAMETER.

ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

CAP ALL BELOW GRADE METALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

PLUG ALL BELOW GRADE NONMETALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

CONDUIT EXITING THE CONCRETE BASE (SIX THREE INCH) SHALL TERMINATE IN PULL BOXES AS SHOWN ON THE PLANS.

CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6" MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF THE CONCRETE BASE BEFORE INSTALLATION OF CABLE OR WIRE.

CONCRETE CONTROL CABINET BASE, TYPE 9, SPECIAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

2/27/07 — DATE

/S/ Balu Ananthapadmanabhan — STATE ELECTRICAL ENGI 744 — HWYS

FHWA

6

6

S.D.D. 9 C 6-5

S.D.D. 9 C 6-5

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

TOP SURFACES OF CONCRETE BASES SHALL BE TROWEL FINISHED AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN AT THE ENTRANCE OF THE BASE.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 4 INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NONMETALLIC CONDUIT SHALL HAVE BELL END INSTALLED. ALL CONDUIT SHALL BE SLOPED TO PULL BOX.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUIT IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

ENDS OF CONDUIT INSTALLED BELOW GRADE FOR FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD).

THE EQUIPMENT GROUNDING CONDUCTOR SHALL ENTER THE BASE THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TEMPLATES SHALL BE USED.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).

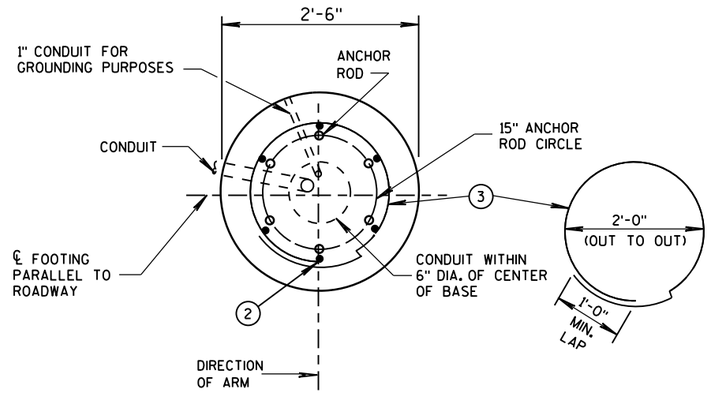
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

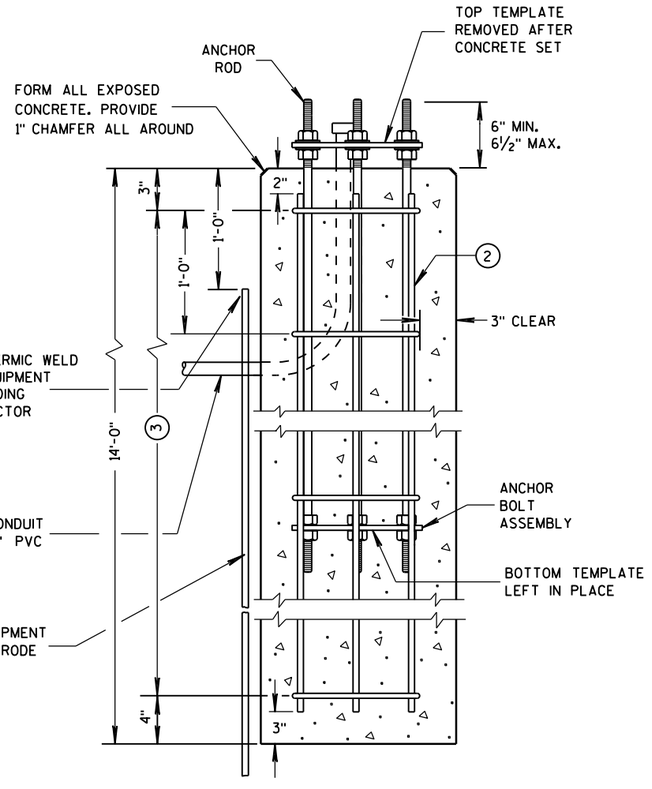
(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES, (GREATER THAN 36 INCHES IF INSTALLED IN BREAKER-RUN), EXCEPT WITH WRITTEN APPROVAL BY THE ENGINEER.

(2) (6) NO. 6 X 13'-7" BAR STEEL REINFORCEMENT.

(3) (15) NO. 4 X 7'-4" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

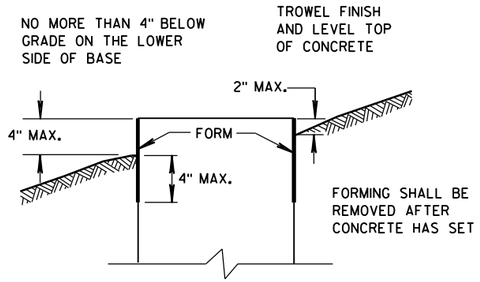
CONCRETE MASONRY	fc=3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy=60,000 p.s.i.
ANCHOR RODS, AASHTO M314 GRADE 55	fy=55,000 p.s.i.
TEMPLATES, ASTM, A709 GRADE 36	fy=36,000 p.s.i.



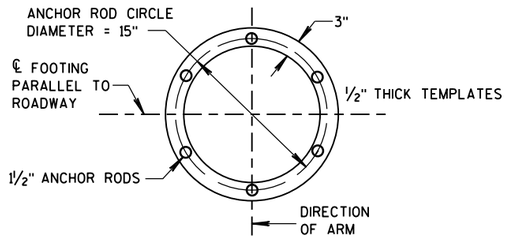


CONCRETE BASE TYPE 10
(FOR TYPE 9 & 10 POLES)

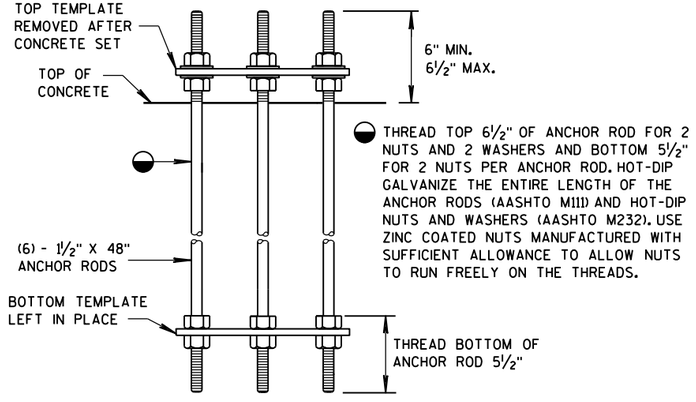
TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION. SEE S.D.D. 9C13-1 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.



FORMING DETAIL



TOP AND BOTTOM TEMPLATES



ANCHOR BOLT ASSEMBLY DETAIL

CONCRETE BASE TYPE 10 ANCHOR ASSEMBLY

QUANTITY REQUIREMENTS	
APPROX. CUBIC YARDS OF CONCRETE	2.5
LBS. OF HOOP BAR STEEL	69
LBS. OF VERTICAL BAR STEEL	122

CONCRETE BASE TYPE 10

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

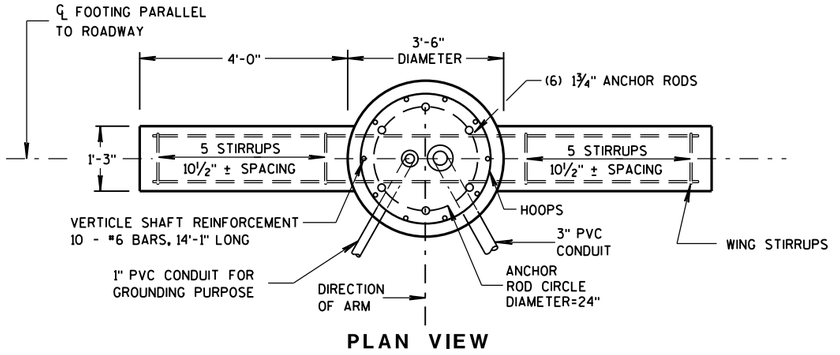
1-16-2013 DATE

/S/ Ahmet Demirbilek STATE ELECTRICAL

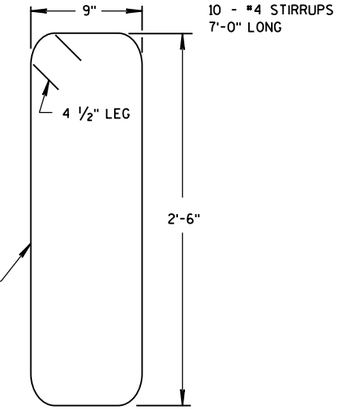
FHWA

6

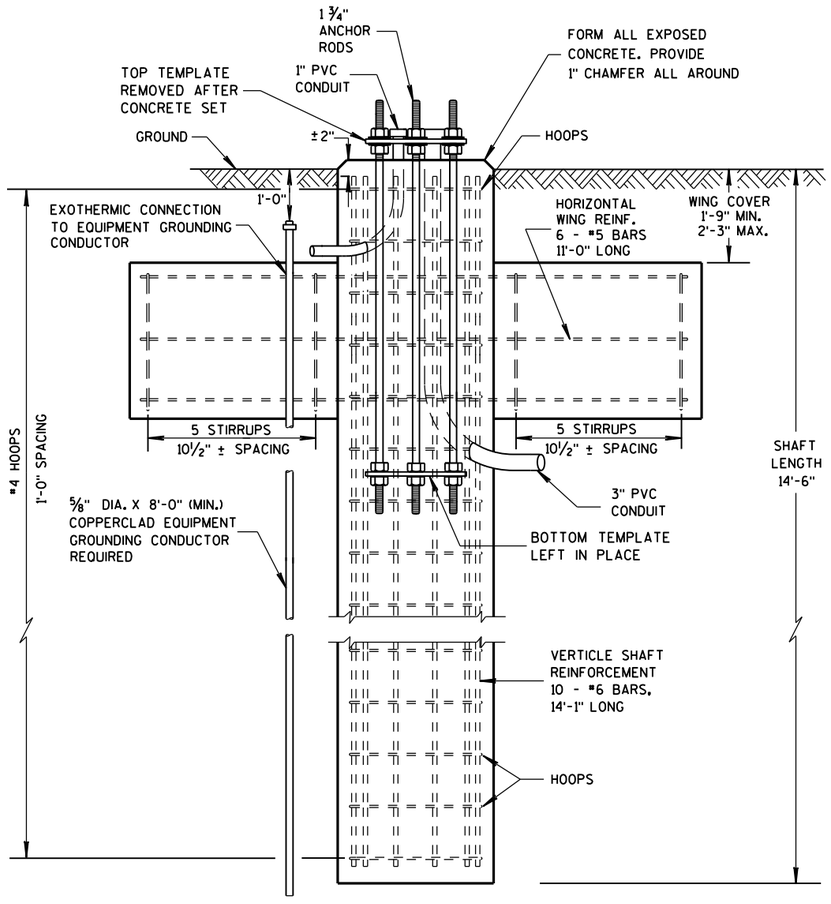
S.D.D. 9 C 11-3



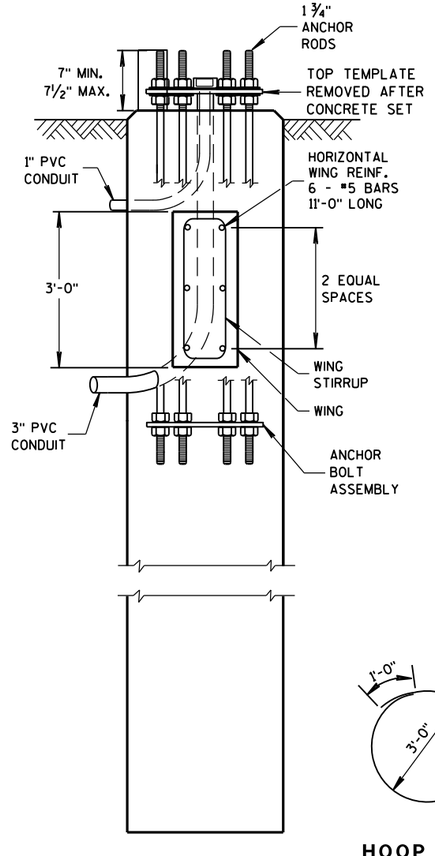
PLAN VIEW



WING STIRRUP

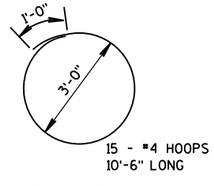


ELEVATION VIEW



SIDE VIEW

DOES NOT SHOW HOOPS OR VERTICAL SHAFT REINFORCEMENT



HOOP DETAIL

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

ORIENT ANCHOR RODS IN FOOTING AND PROVIDE ANCHOR ROD PROJECTION ABOVE TOP OF CONCRETE FOOTING BASE PER THIS SHEET.

BENDING DIMENSIONS FOR REINFORCING BARS ARE OUT TO OUT.

USE 3" CLEAR FOR ALL REINFORCEMENT UNLESS NOTED OTHERWISE.

THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO THE TYPE AND LOCATION OF THE UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO.

WELDING OF ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TEMPLATES SHALL BE USED.

BASES (SHAFT), BELOW THE WING, SHALL BE EXCAVATED BY THE USE OF A CIRCULAR AUGER. IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE SOIL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUNG THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

TOP SURFACE OF THE CONCRETE BASE SHALL BE TROWEL FINISHED AND LEVEL.

CONDUIT SIZE AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASE SHALL BE 4½" INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NONMETALLIC CONDUIT SHALL HAVE BELL ENDS INSTALLED. ALL CONDUIT SHALL SLOPE TO PULL BOX.

ALL CONDUIT ENDS AT THE TOP OF THE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTOR FITTINGS, UL LISTED FOR ELECTRICAL USE, SHALL BE USED.

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD).

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE THROUGH A 1-INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4-FOOT COIL OF WIRE ABOVE THE CONCRETE BASE, THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS.

THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVEL WAY SHALL BE 24-INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18-INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36-INCHES, (GREATER THAN 36-INCHES IF INSTALLED IN BREAKER-RUN), EXCEPT WITH THE WRITTEN APPROVAL OF THE ENGINEER.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

CONCRETE MASONRY	fc=3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy=60,000 p.s.i.
ANCHOR RODS, AASHTO M314 GRADE 55	fy=55,000 p.s.i.
TEMPLATES, ASTM A709 GRADE 36	fy=36,000 p.s.i.

(FOR TYPE 12 & 13 POLES)

CONCRETE = 6.3 C.Y.
H.S. REINFORCEMENT = 433 LBS.

TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION.
SEE S.D.D. 9C13-1 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.

CONCRETE BASE TYPE 13

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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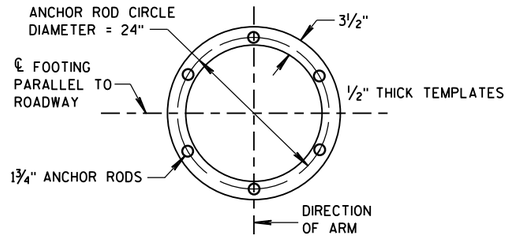
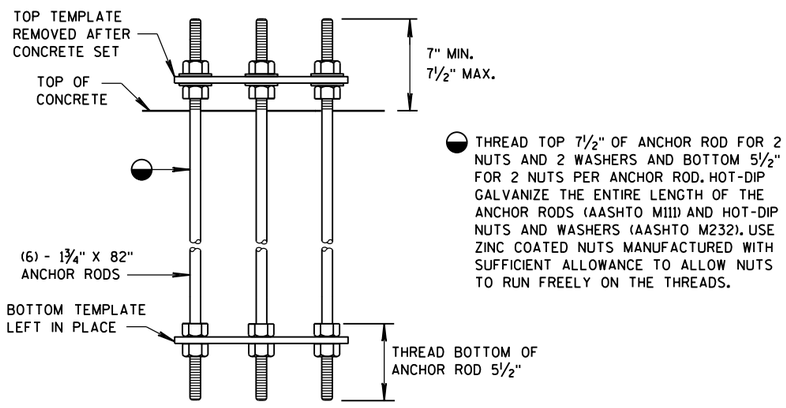
S.D.D. 9 C 12-3a



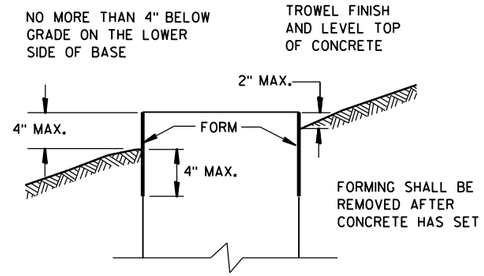
TOP AND BOTTOM TEMPLATES



◒ THREAD TOP 7½" OF ANCHOR ROD FOR 2 NUTS AND 2 WASHERS AND BOTTOM 5½" FOR 2 NUTS PER ANCHOR ROD. HOT-DIP GALVANIZE THE ENTIRE LENGTH OF THE ANCHOR RODS (AASHTO M111) AND HOT-DIP NUTS AND WASHERS (AASHTO M232). USE ZINC COATED NUTS MANUFACTURED WITH SUFFICIENT ALLOWANCE TO ALLOW NUTS TO RUN FREELY ON THE THREADS.

ANCHOR BOLT ASSEMBLY DETAIL

CONCRETE BASE TYPE 13 ANCHOR ASSEMBLY



FORMING DETAIL

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CONCRETE BASE TYPE 13

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

1-16-2013
DATE

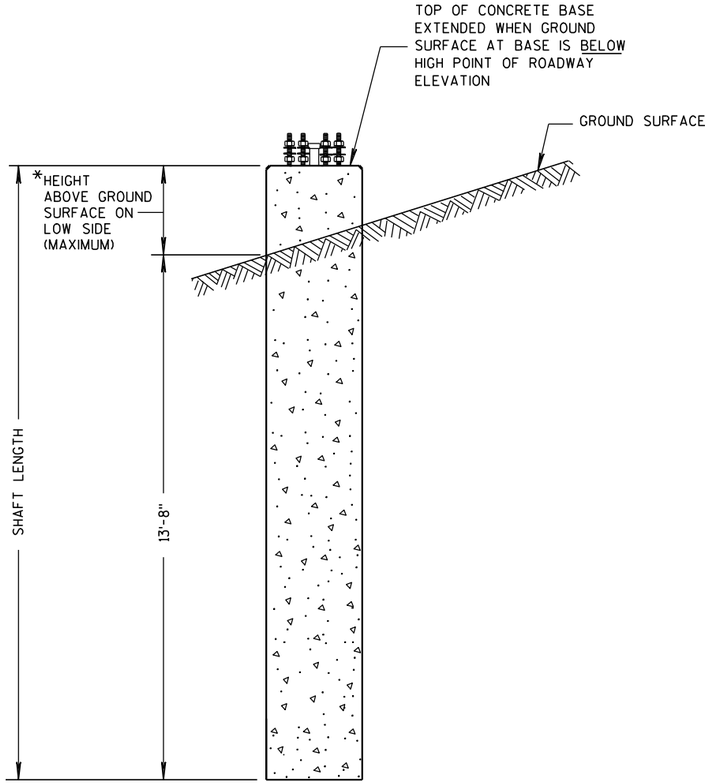
/S/ Ahmet Demirbilek
STATE ELECTRICAL 747

FHWA

S.D.D. 9 C 12-3b

REINFORCEMENT AND CONCRETE QUANTITIES
ADJUSTED FOR EXTENDED TYPE 10 CONCRETE BASE

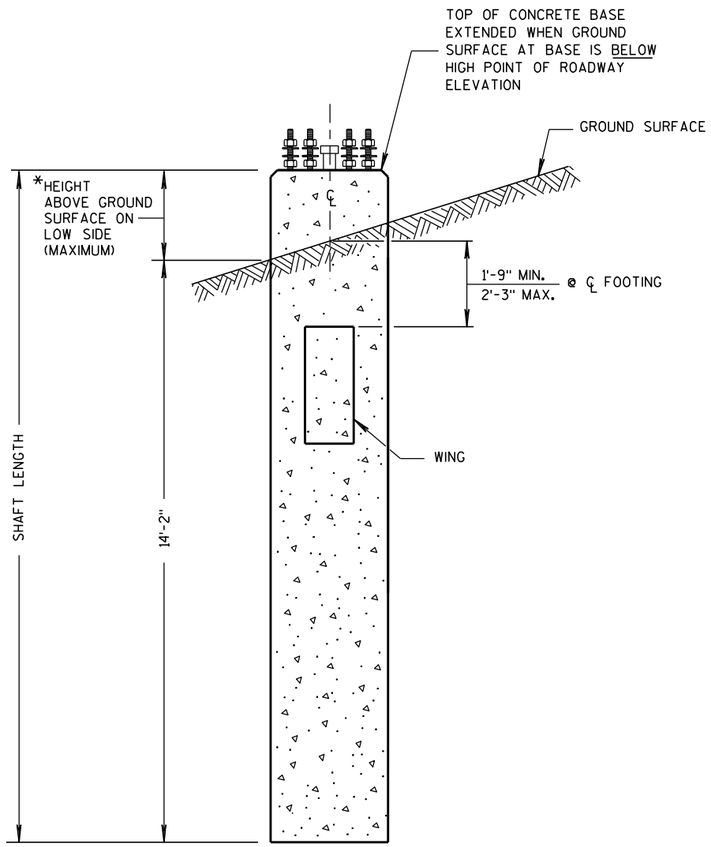
HEIGHT INCREASE REQUIRED	* HEIGHT ABOVE GROUND SURFACE ON LOW SIDE (MAXIMUM)	SHAFT LENGTH	LENGTH OF #6 VERTICAL REINF.	NO. OF #4 HOOPS	C.Y. OF CONCRETE	LBS. OF HOOP BAR STEEL	LBS. OF VERTICAL BAR STEEL
>0" TO 6"	10"	14'-6"	14'-1"	16	2.6	78	127
>6" TO 1'-0"	1'-4"	15'-0"	14'-7"	16	2.7	78	131
>1'-0" TO 1'-6"	1'-10"	15'-6"	15'-1"	17	2.8	83	136
>1'-6" TO 2'-0"	2'-4"	16'-0"	15'-7"	17	2.9	83	141



CONCRETE BASE TYPE 10 (EXTENDED)

REINFORCEMENT AND CONCRETE QUANTITIES
ADJUSTED FOR EXTENDED TYPE 13 CONCRETE BASE

HEIGHT INCREASE REQUIRED	* HEIGHT ABOVE GROUND SURFACE ON LOW SIDE (MAXIMUM)	SHAFT LENGTH	LENGTH OF #6 VERTICAL REINF.	NO. OF #4 HOOPS	C.Y. OF CONCRETE	LBS. OF H.S. BAR STEEL
>0" TO 6"	10"	15'-0"	14'-7"	16	6.5	447
>6" TO 1'-0"	1'-4"	15'-6"	15'-1"	16	6.6	454
>1'-0" TO 1'-6"	1'-10"	16'-0"	15'-7"	17	6.8	469
>1'-6" TO 2'-0"	2'-4"	16'-6"	16'-1"	17	7.0	476



CONCRETE BASE TYPE 13 (EXTENDED)

CONCRETE BASE
TYPE 10 & TYPE 13 EXTENSION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3-3-10 DATE — /S/ Joanna L. Rush STATE ELECTRICAL ENGI — HWYS

FHWA

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S.D.D. 9 C 13-1

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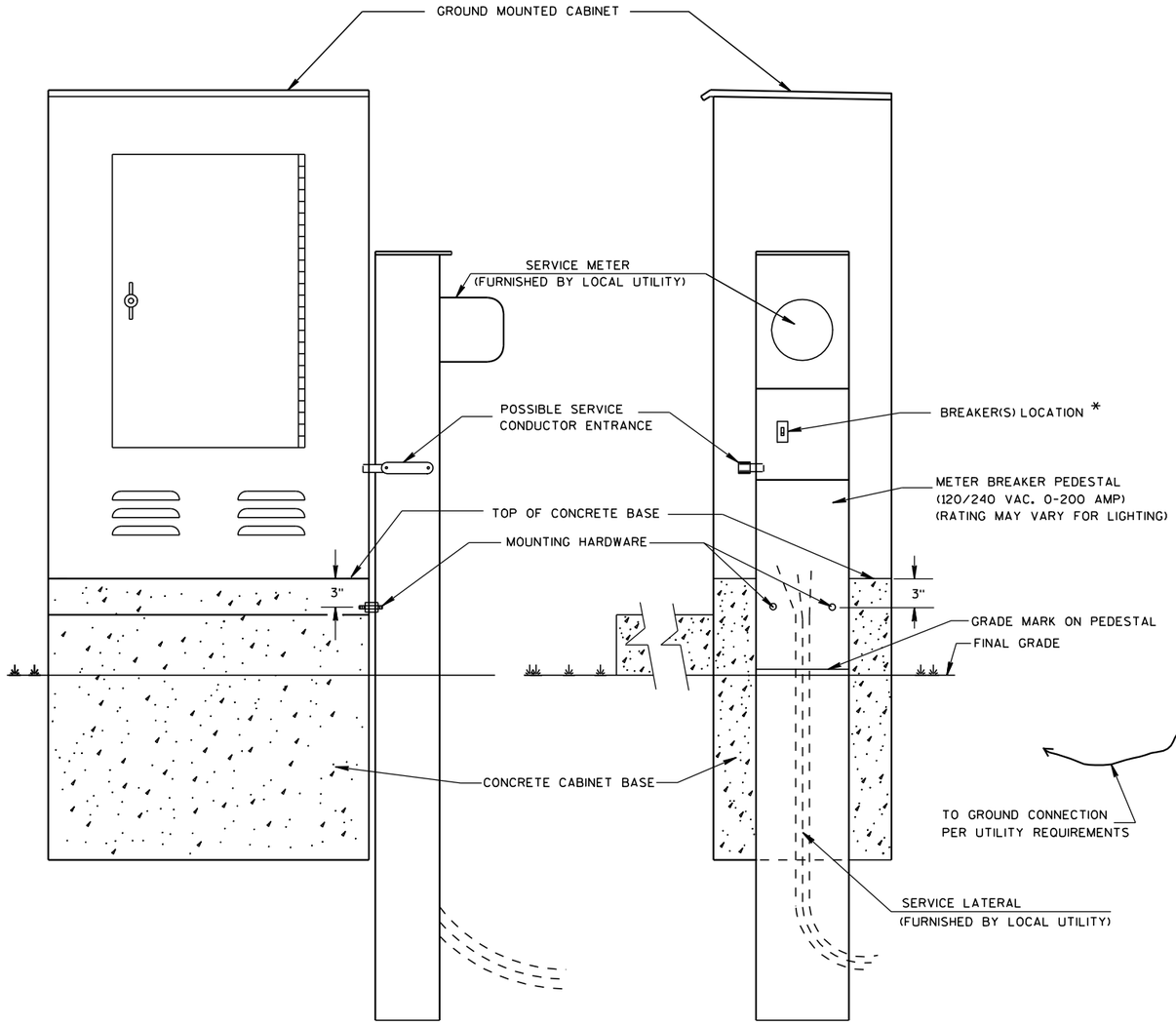
S.D.D. 9 C 13-1



TYPICAL CABINET SERVICE INSTALLATION

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

THE EXACT LOCATION OF THE METER BREAKER PEDESTAL SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

THE TYPE OF CONCRETE CABINET BASE TO BE INSTALLED SHALL BE AS CALLED FOR IN THE PLANS.

TO FACILITATE FLUSH MOUNTING OF THE METER BREAKER PEDESTAL AGAINST THE SIDE OF THE CABINET BASE (IF FLUSH MOUNTING POSSIBLE. CONFER WITH THE LOCAL UTILITY TO DETERMINE WHICH SIDE OF THE CONCRETE BASE THE ELECTRICAL SERVICE LATERAL WILL APPROACH. THEN FORM THAT INDICATED SIDE FOR FULL SIDE DEPTH.

WHILE FLUSH MOUNTING IS THE MOST DESIRABLE MOUNTING CONFIGURATION UTILITY REQUIREMENTS MAY PRECLUDE THIS OPTION. CONTRACTOR MUST PROVIDE UTILITY APPROVED PEDESTAL AND INSTALL PER UTILITY AND MANUFACTURERS REQUIREMENTS.

SERVICE CONDUCTOR ENTRANCES SHALL BE RIGID METALLIC CONDUIT, NIPPLES AND/OR CONDULETS AS REQUIRED.

SERVICE CONDUCTOR ENTRANCES SHALL BE SIZED AND LOCATED AS REQUIRED BY THE LOCAL UTILITY AND IN ACCORDANCE WITH APPROPRIATE ARTICLES OF THE LATEST ACCEPTED NATIONAL ELECTRICAL CODE.

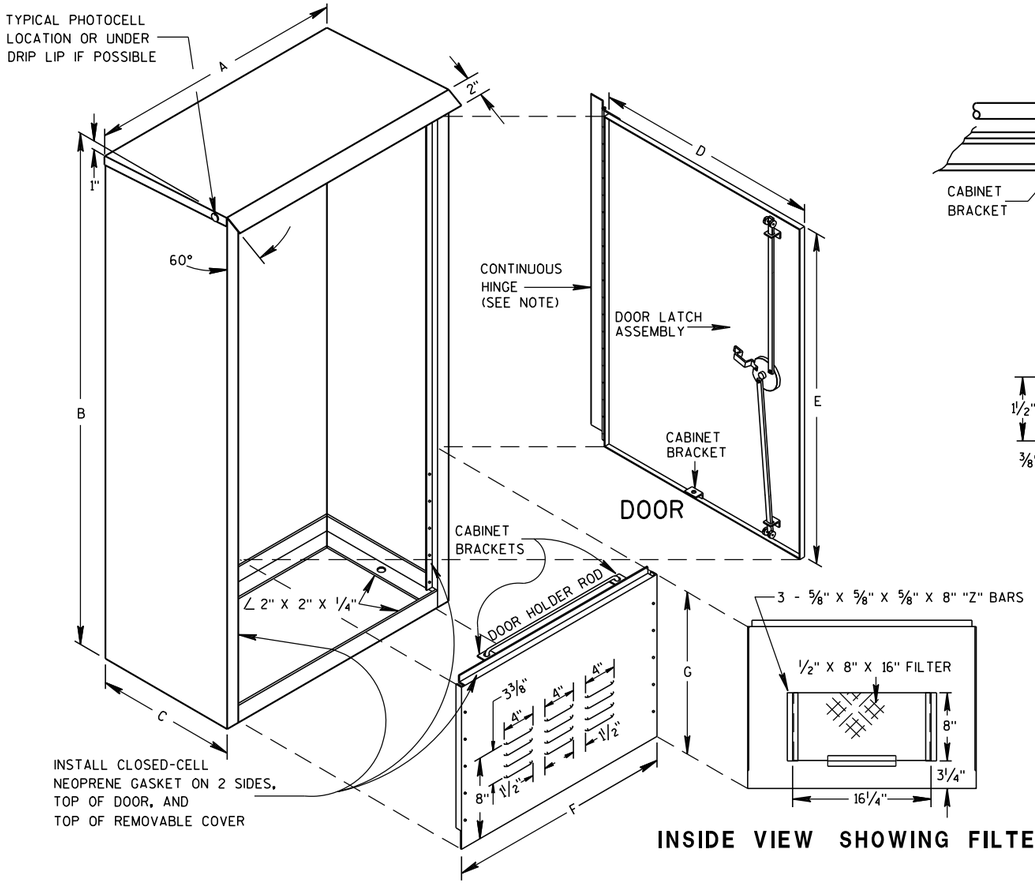
IF MORE THAN ONE GROUNDING ELECTRODE IS REQUIRED, THE DISTANCE APART SHALL BE 6 FEET OR PER LOCAL UTILITY REGULATIONS.

* SOME PEDESTAL LIGHTING PLANS SHOW MAIN LUGS ONLY.

CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)

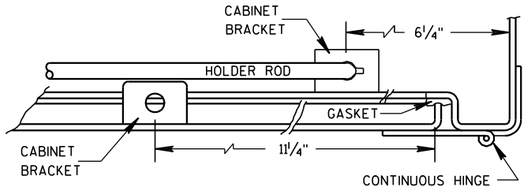
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/27/09 DATE
/S/ Joanna L. Bush
STATE ELECTRICAL ENGI 749 HWYS
FHWA

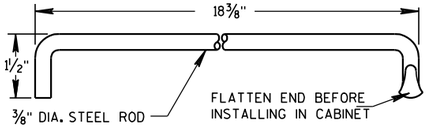


REMOVABLE COVER

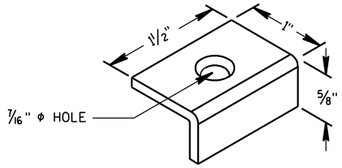
INSIDE VIEW SHOWING FILTER



HINGE & DOOR HOLDER



HOLDER ROD



CABINET BRACKET

MOUNTING BASE

TABLE OF DIMENSIONS (INCHES)

MARK	CABINET TYPE		
	3060	3860	3866
A	30	38	38
B	60	60	66
C	16 1/2	16 1/2	24
D	26 1/2	34 3/4	33 3/4
E	38 3/4	38 3/4	38 3/4
F	26 1/2	34 3/4	33 3/4
G	19	19	25
H	16 1/2	16 1/2	24
H/2	8 1/4	8 1/4	12
J	30	38	38
J/2	15	19	19
K	13 3/4	13 3/4	21 1/4
L	27 1/2	35 1/2	35 1/2

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

PRIME WITH PHOSPHATE TREATMENT AND PRIMER.

FINISH EXTERIOR SURFACES WITH RUSTOLEUM #906 SILVER GRAY OR APPROVED EQUAL.

FINISH INTERIOR WITH RUSTOLEUM #2766 HIGH GLOSS WHITE ENAMEL OR APPROVED EQUAL.

ALL SHEET METAL PARTS SHALL BE .125 INCH THICK ALUMINUM.

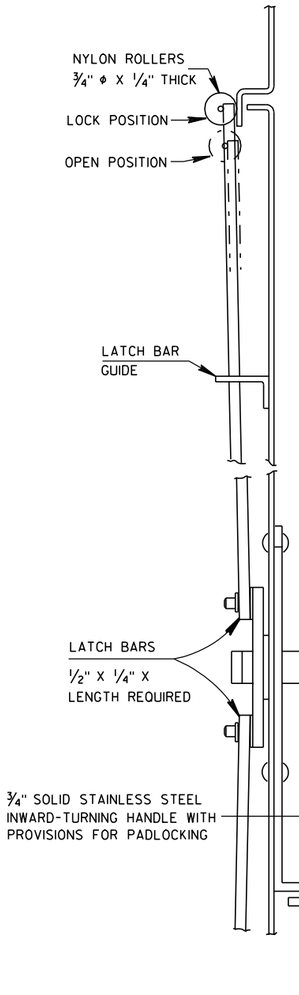
ALL SEAMS SHALL BE CONTINUOUSLY WELDED.

ALUMINUM SHALL BE TYPE 5052-H32.

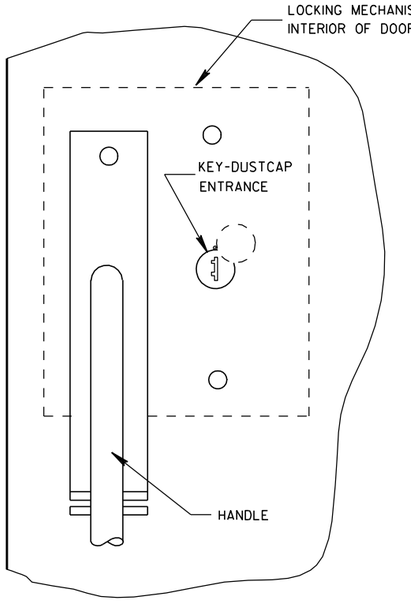
CONTINUOUS HINGE SHALL BE HEAVY GAUGE ALUMINUM WITH 1/4" DIAMETER STAINLESS STEEL HINGE PIN. HINGE IS SECURED WITH 1/4" X 20 TPI STAINLESS STEEL CARRIAGE BOLTS AND STAINLESS STEEL NYLOCK NUTS.

A SINGLE PHOTOCELL SHALL BE LOCATED ON THE NORTH-NORTHEAST SIDE OF THE CABINET UNLESS OTHERWISE CALLED FOR IN THE SPECIAL PROVISIONS. THE PHOTOCELL SHALL BE PLACED AS SHOWN AND SHALL BE AN APPROVED TYPE.

DOOR LATCH ASSEMBLY TO BE PROVIDED WITH THREE-POINT LOCKING MECHANISM.

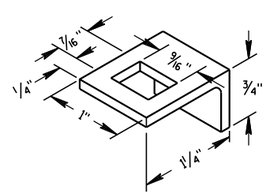


SIDE VIEW



FRONT VIEW

LATCH ASSEMBLY



LATCH BAR GUIDE

SIGNAL OR LIGHTING CONTROL CABINET

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/21/96
DATE

/S/ Balu Ananthanarayanan
STATE ELECTRICAL ENGI 750 HWYS

FHWA

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S.D.D. 9 D 2-2

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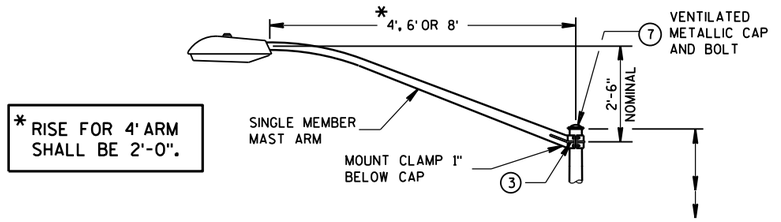
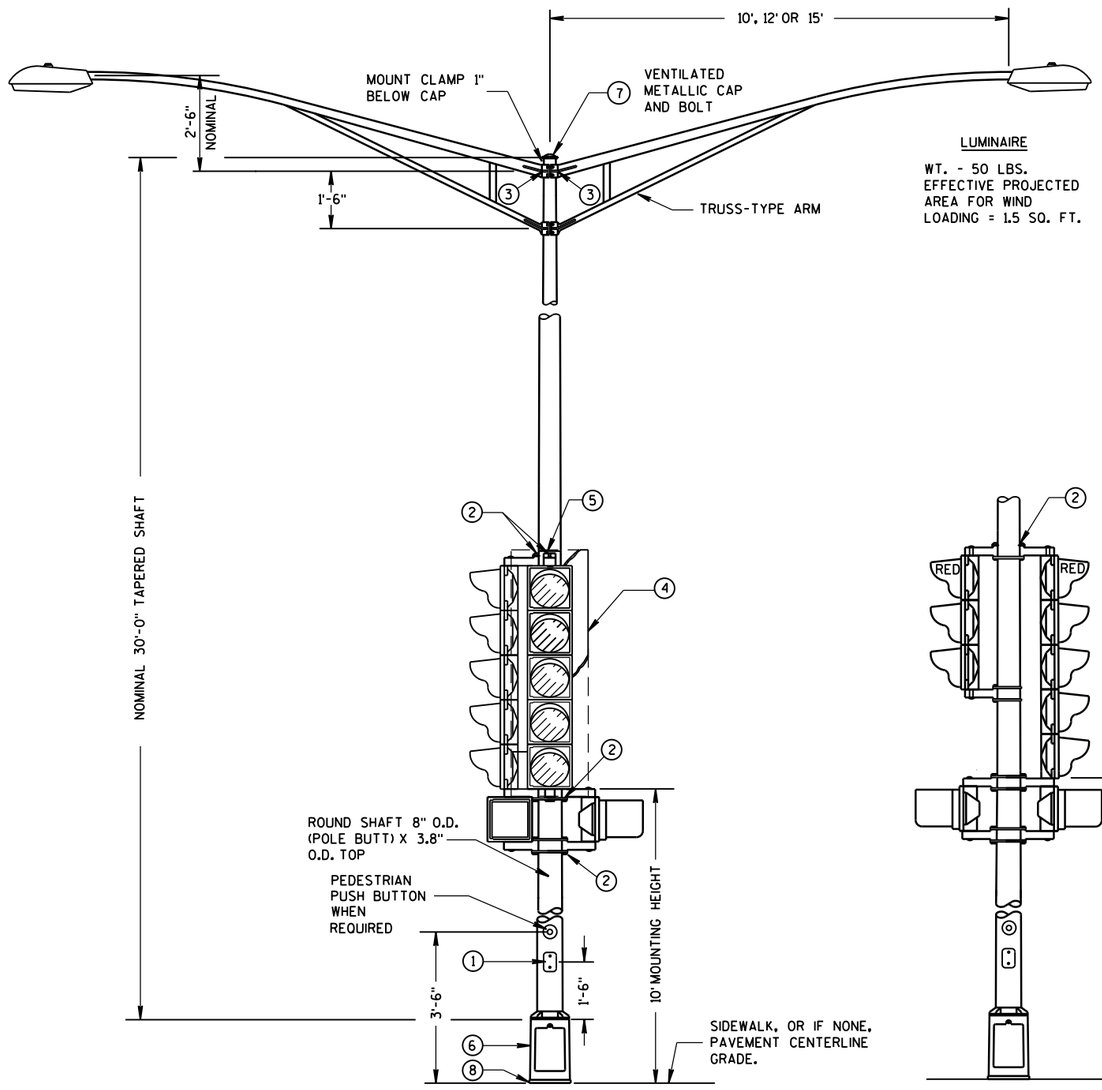
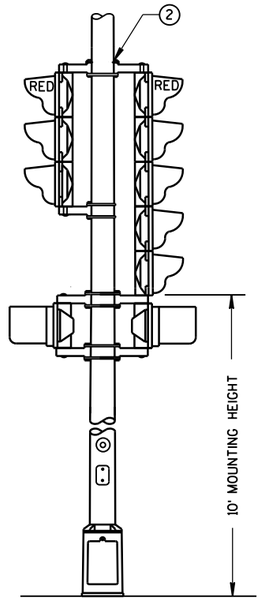
S.D.D. 9 D 2-2

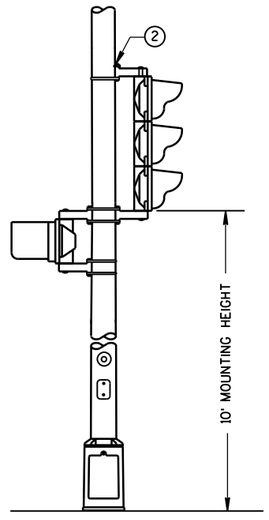




(MAXIMUM LOAD)

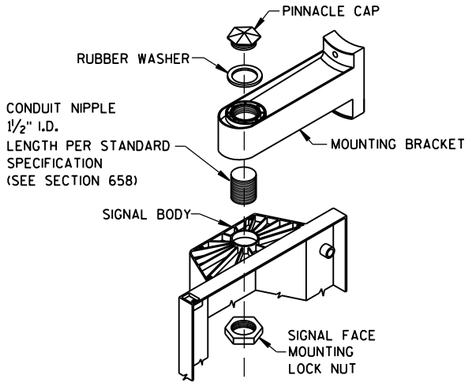


TYPICAL MOUNTING OF BACK TO BACK 3 AND 5 SECTION SIGNAL FACES



TYPICAL MOUNTING OF 3 SECTION SIGNAL FACE

TYPE 4 POLE MOUNTING CONFIGURATION



SIGNAL FACE MOUNTING DETAIL

(BANDED)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

ALL TYPE 4 POLE MOUNTINGS SHALL BE DESIGNED TO INCLUDE TWIN 15' ARMS WITH LUMINAIRES.

POLES SHALL BE GALVANIZED STEEL WITH A MINIMUM WALL THICKNESS OF U.S. STANDARD 11 GAGE (.1196").

SECTION 657, POLES, OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2⅜ INCHES IN OUTSIDE DIAMETER. THE STRAIGHT PORTION OF THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 12 INCHES IN LENGTH.

WHEN TRANSFORMER BASES ARE USED, CONNECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

(1) 4" X 6" REINFORCED HANDHOLE & COVER ASSEMBLY WITH 2 (TWO) ¼" X ¾" - 20 TPI HEX HEAD STAINLESS STEEL BOLTS.

(2) SIGNAL FACE MOUNTING BRACKETS, MOUNT WITH CAP SCREWS AND BANDING. (SEE STANDARD SPECIFICATIONS - SEC. 658).

(3) GROMMETS, 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1⅜" HOLE IN POLE SHAFT FOR WIRING.

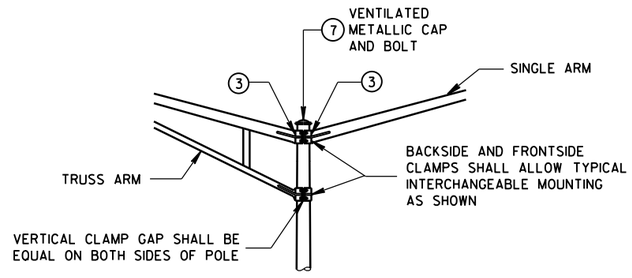
(4) SECURELY MOUNT DULL BLACK POLYCARBONATE BACKPLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURER'S RECOMMENDATIONS.

(5) POLE MOUNTED SIGNAL FACES SHALL REQUIRE 1 OR MORE MOUNTING SPACERS UNDER THE TOP MOUNTING BRACKET(S) AS REQUIRED, TO PLUMB THE SIGNAL FACE.

(6) CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.

(7) FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

(8) SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND THE TRANSFORMER BASE.



INTERCHANGEABLE MOUNTING DETAIL

POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS, TYPE 4

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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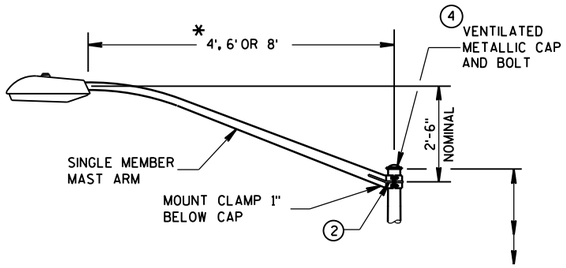
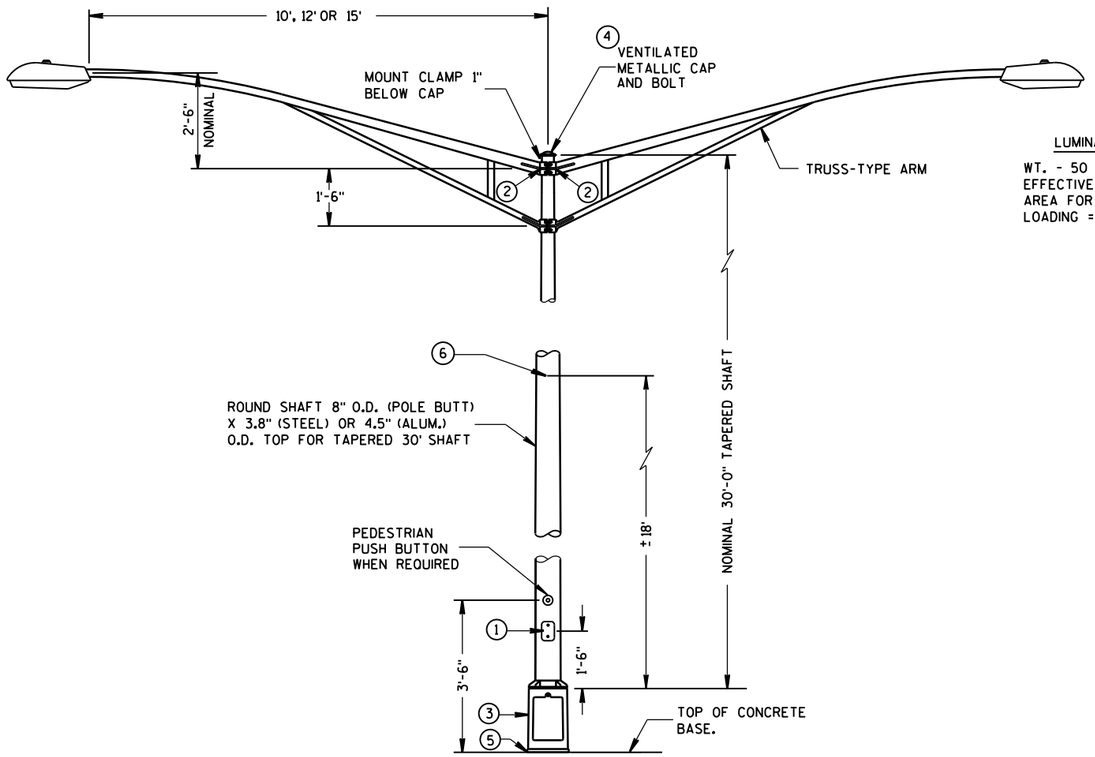
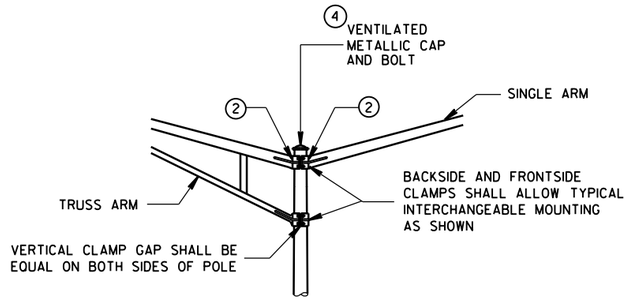
S.D.D. 9 E 1-12c

*RISE FOR 4' ARM SHALL BE 2'-0".





TYPE 5 POLE MOUNTING CONFIGURATION
(MAXIMUM LOAD)
LIGHTING ONLY



INTERCHANGEABLE MOUNTING DETAIL

LUMINAIRE

WT. - 50 LBS.
EFFECTIVE PROJECTED
AREA FOR WIND
LOADING = 1.5 SQ. FT.

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

ALL TYPE 5 POLE MOUNTINGS SHALL BE DESIGNED TO INCLUDE TWIN 15' ARMS WITH LUMINAIRES.

POLES SHALL BE GALVANIZED STEEL OR ALUMINUM, AS CALLED FOR IN THE CONTRACT.

TYPE 5 ALUMINUM POLES SHALL BE CONSTRUCTED OF 6063-T6 ALUMINUM ALLOY. SLEEVING INSIDE THE POLE IS NOT ACCEPTABLE.

THE TYPE 5 ALUMINUM POLES SHALL HAVE A MINIMUM WALL THICKNESS OF 0.188".

TYPE 5 STEEL POLES SHALL HAVE A MINIMUM WALL THICKNESS OF U.S. STANDARD 11 GAGE (.1196").

THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2⅜ INCHES IN OUTSIDE DIAMETER. THE STRAIGHT PORTION OF THE SLIPFITTER END OF THE LUMINAIRE ARM SHALL BE A NOMINAL 12 INCHES IN LENGTH.

WHEN TRANSFORMER BASES ARE USED, WIRE CONEECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

(1) 4" x 6" REINFORCED HANDHOLE & COVER ASSEMBLY WITH 2 (TWO) ¼" X ¾" - 20 TPI HEX HEAD STAINLESS STEEL BOLTS.

(2) GROMMETS, 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1⅜" HOLE IN POLE SHAFT FOR WIRING.

(3) CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.

(4) FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

(5) SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND THE TRANSFORMER BASE.

(6) INTERNAL DUMBBELL-TYPE VIBRATION DAMPER.

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S.D.D. 9 E 1-12d

POLE MONTINGS FOR
LIGHTING UNITS, TYPE 5
(30 FEET)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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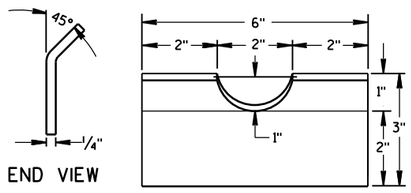
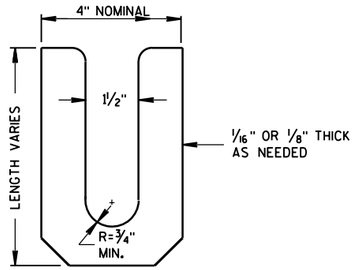
S.D.D. 9 E 1-12d



FRONT VIEW

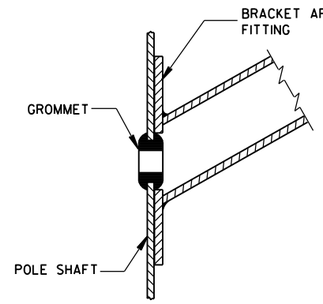
RECTANGULAR CLAMP SHIM

(4 TO A SET)

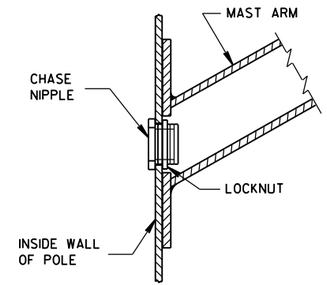


LEVELING SHIM (15)

SHALL BE ALUMINUM



TYPICAL APPLICATION OF GROMMET IN POLE SHAFT



TYPICAL APPLICATION OF CHASE NIPPLE IN POLE SHAFT

GENERAL NOTES

CLAMP BOLT-NUT TIGHTENING TORQUE SHALL BE INDICATED BY INDENT STAMPING (1/2 INCH NUMERALS AND LETTERS) OR WEATHERPROOF PRINTING ON THE INSIDE OF THE CLAMP THAT IS WELDED TO THE ARM MEMBER.

(10) 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP.
6.625" I.D. FOR TROMBONE MAST ARM CLAMP.

(11) INDIVIDUAL BASE PLATE ANCHOR ROD COVERS. (4 REQUIRED)

(12) BASE PLATE SLOTTED TO ACCEPT 11" THROUGH 12" BOLT CIRCLE USING 1" DIAMETER ANCHOR RODS.

(13) OUTSIDE SHIM DIAMETER - (4.5" O.D. FOR LUMINAIRE MAST ARM)
(6.625" O.D. FOR TROMBONE MAST ARM)

(14) VARIABLE SHIM THICKNESS - (0.10", 0.25", 0.35", 0.53" OR 0.70")

SHIM THICKNESS FOR TROMBONE MAST ARMS MAY BE TYPICALLY 0.25", 0.35", 0.53" OR 0.70".

SHIM THICKNESS FOR LUMINAIRE MAST ARMS MAY BE TYPICALLY 0.10", 0.25" OR 0.35".

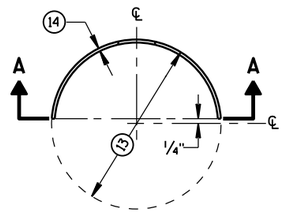
SHIM MATERIAL SHALL BE ALUMINUM ALLOY.

SHIM THICKNESS SHALL BE IMPRESSED INTO EACH SHIM. NUMERALS SHALL BE 1/4" HIGH AND LEGIBLE.

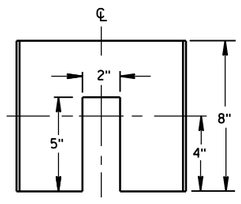
THE CONTRACTOR SHALL SUBMIT TWO COPIES OF ALL SHIM SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL.

(15) LEVELING SHIMS, DESIGNED FOR THE PURPOSE, SHALL BE USED WHEN PLUMBING POLES. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE. LEVELING SHIMS SHALL BE USED ONLY BETWEEN THE TOP OF THE CONCRETE BASE AND A METALLIC BASE PLATE.

SHIMS SHALL BE LONG ENOUGH AND WIDE ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.



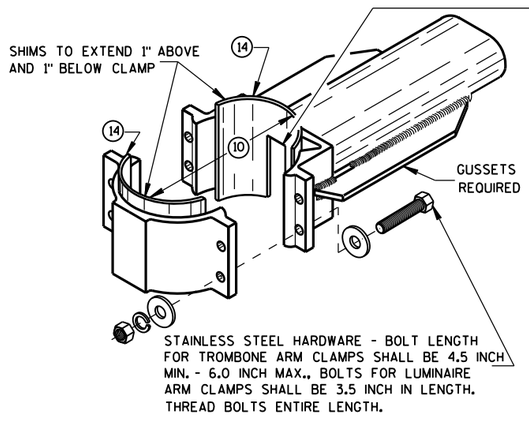
PLAN VIEW



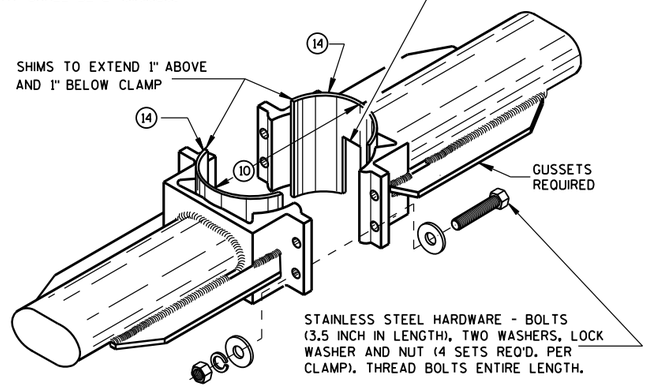
SECTION A-A

CIRCULAR CLAMP SHIM

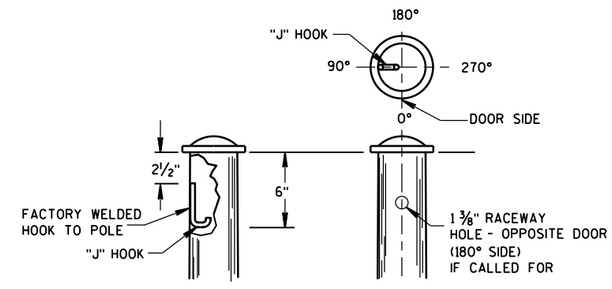
(2 TO A SET)



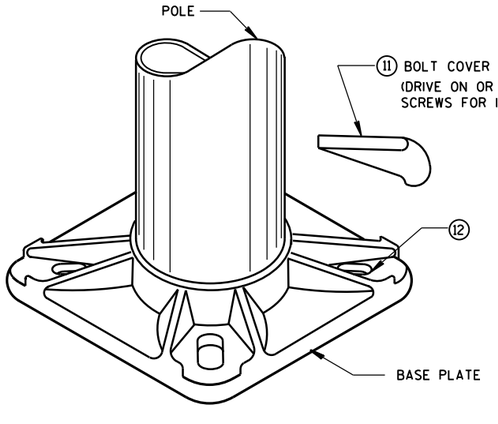
TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP



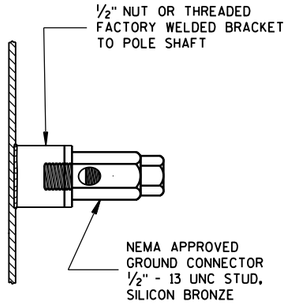
TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS

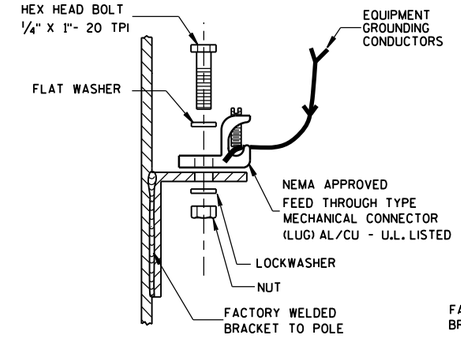


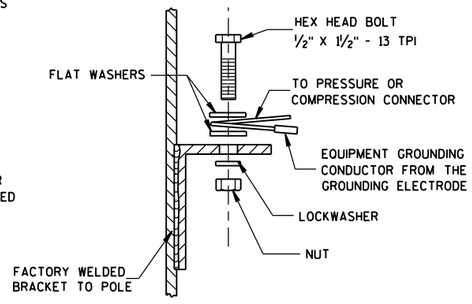
TYPICAL "J" HOOK LOCATION



BASE PLATE







TYPICAL GROUNDING CONNECTIONS

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

HARDWARE DETAILS FOR POLE MOUNTINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
2/7/2013 DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL 753
FHWA

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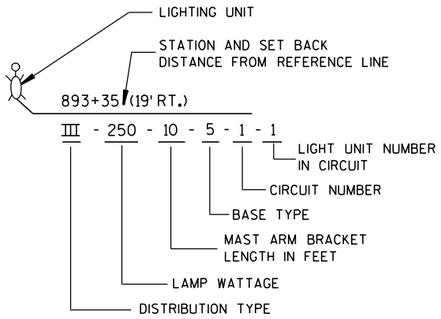
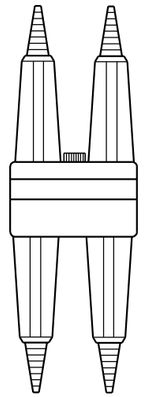
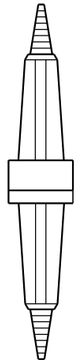
S.D.D. 9 E 1-12g



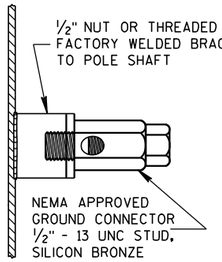
LIGHTING UNIT CODE
(TYPICAL)

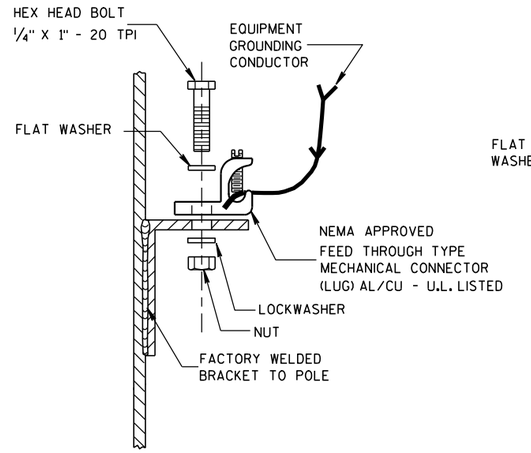


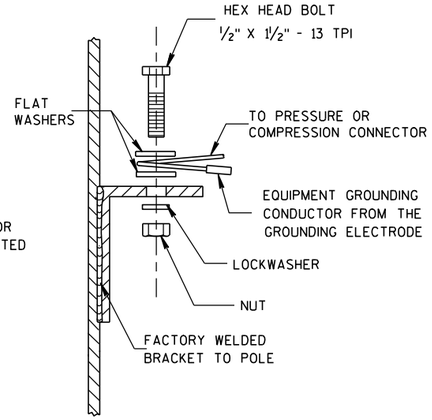
DETAIL "A"
BREAKAWY
DOUBLE POLE WITH
WATERPROOF
INSULATING BOOT



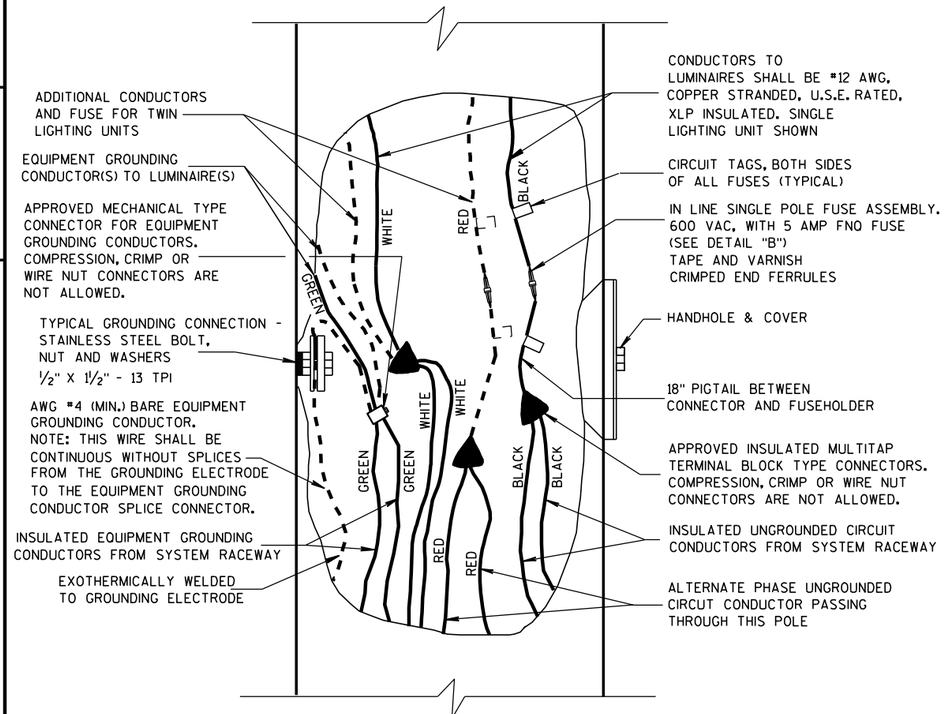
DETAIL "B"
BREAKAWY
SINGLE POLE WITH
WATERPROOF
INSULATING BOOT



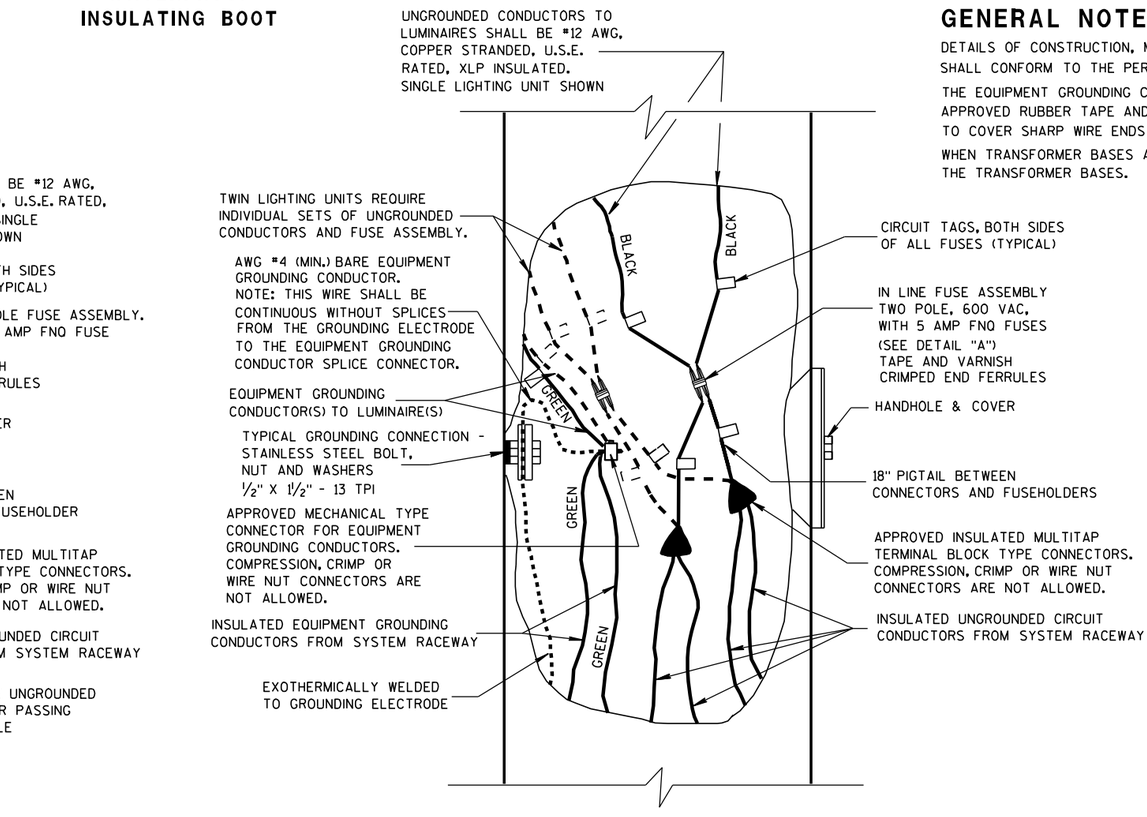




TYPICAL GROUNDING CONNECTIONS
NUT, BOLT, WASHERS AND LOCKWASHERS SHALL BE STAINLESS STEEL



3 WIRE - 120, 240 OR 480 VAC (UNGROUNDED CONDUCTOR) WITH GROUNDED CONDUCTOR AND WITH EQUIPMENT GROUNDING CONDUCTOR



2 WIRE - 240 OR 480 VAC (UNGROUNDED CONDUCTORS) WITH EQUIPMENT GROUNDING CONDUCTOR

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

THE EQUIPMENT GROUNDING CONNECTOR SHALL BE TAPED WITH 3 WRAPS (MINIMUM) OF APPROVED RUBBER TAPE AND THEN 3 WRAPS (MINIMUM) OF APPROVED VINYL TAPE TO COVER SHARP WIRE ENDS AFTER THE CONNECTION IS COMPLETED.

WHEN TRANSFORMER BASES ARE USED, ALL WIRING CONNECTIONS SHALL OCCUR WITHIN THE TRANSFORMER BASES.

NON-FREEWAY LIGHTING UNIT POLE WIRING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/2/2011 DATE — /S/ Thomas J. Gosnell STATE ELECTRICAL ENGI — 754 HWYS

FHWA

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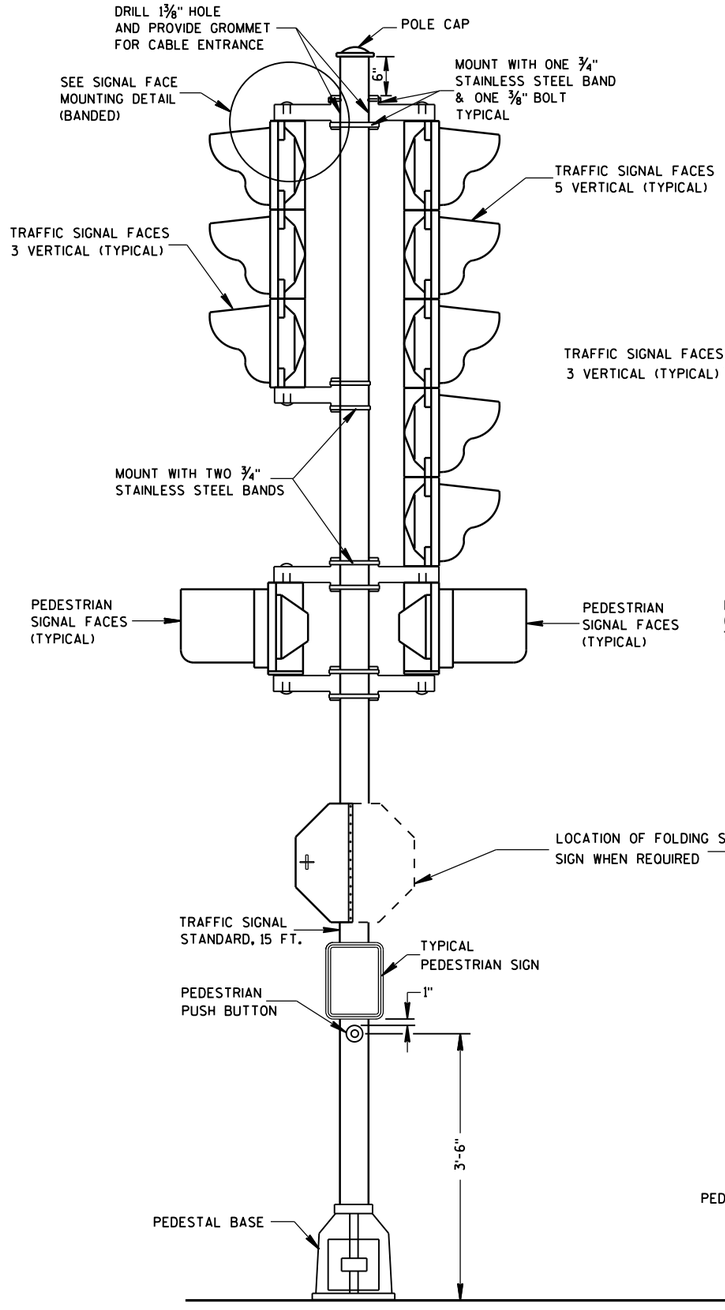
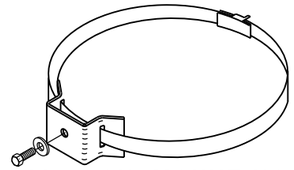
S.D.D. 9 E 3-4

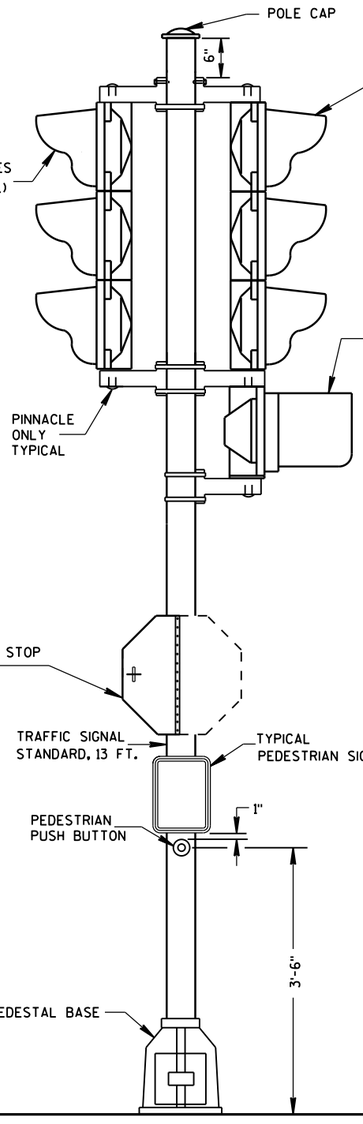


TRAFFIC SIGNAL STANDARD-15 FT.

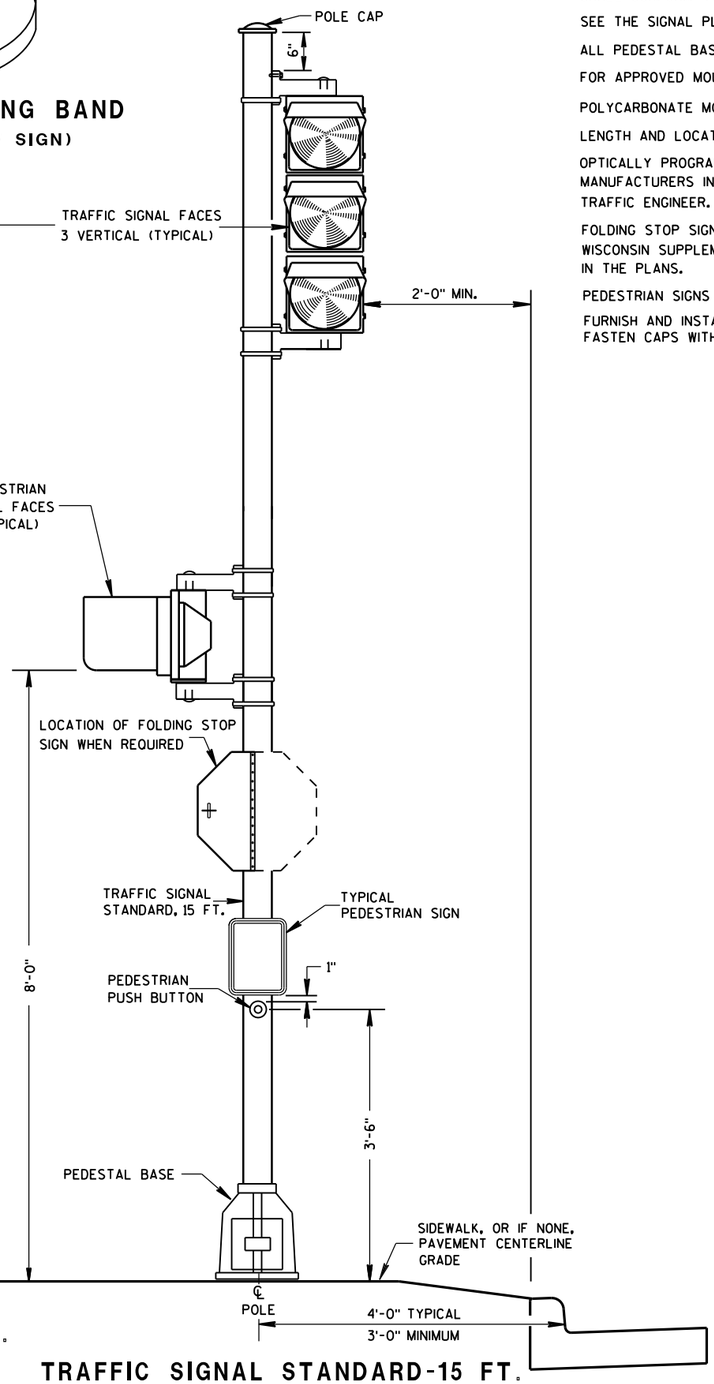


TYPICAL SIGN MOUNTING BAND

(TOP AND BOTTOM OF SIGN)



TRAFFIC SIGNAL STANDARD-13 FT.



TRAFFIC SIGNAL STANDARD-15 FT.

3M MOUNTING (TYPICAL)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIAL PROVISIONS.

POLYCARBONATE MOUNTING BRACKETS SHALL BE USED.

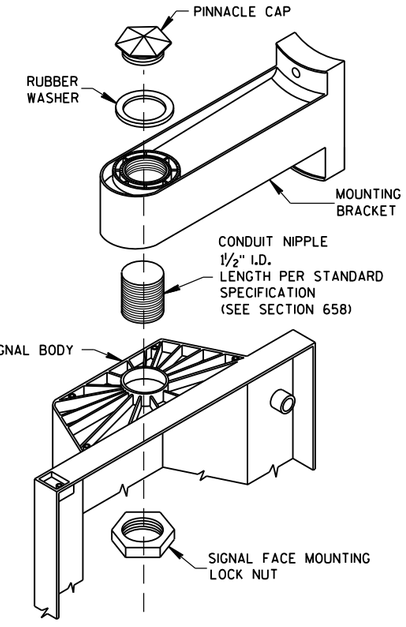
LENGTH AND LOCATION OF TRAFFIC SIGNAL STANDARDS SHALL BE AS SHOWN ON THE PLANS.

OPTICALLY PROGRAMMED SIGNAL FACES SHALL BE MASKED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS, AND UNDER THE DIRECTIONS OF THE REGION TRAFFIC ENGINEER.

FOLDING STOP SIGNS SHALL BE IN ACCORDANCE WITH THE MUTCD AND/OR THE LATEST WISCONSIN SUPPLEMENT. THE SIGNS SHALL BE SIZED AND LOCATED AS CALLED FOR IN IN THE PLANS.

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.



SIGNAL FACE MOUNTING DETAIL

(BANDED)

TRAFFIC SIGNAL STANDARD
POLY BRACKET MOUNTINGS
(TYPICAL) 13 FT. OR 15 FT.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
2/28/2013
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL 755

FHWA

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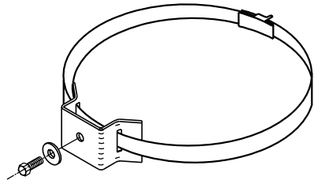
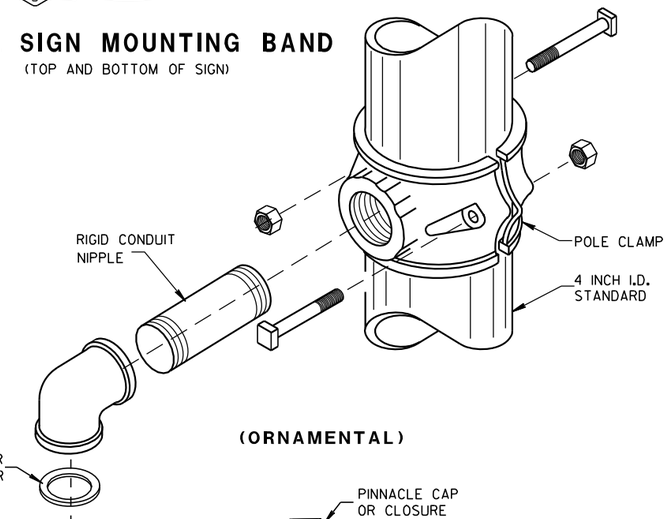
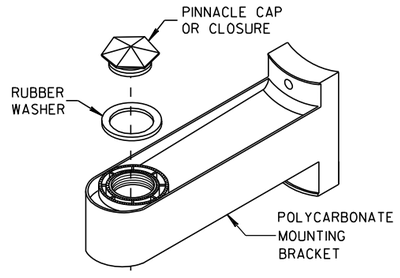
S.D.D. 9 E 6-5



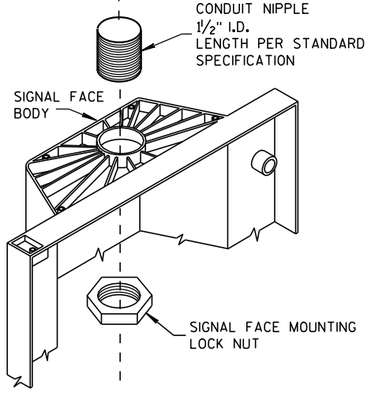
TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)



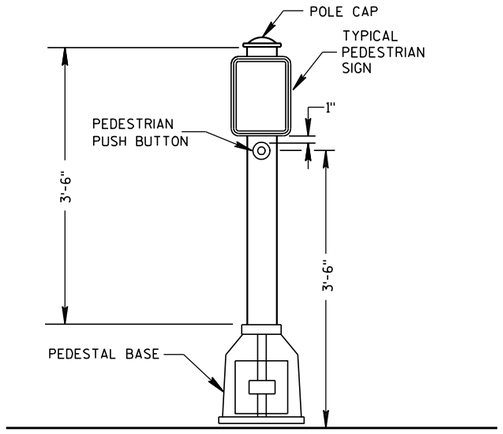
(ORNAMENTAL)



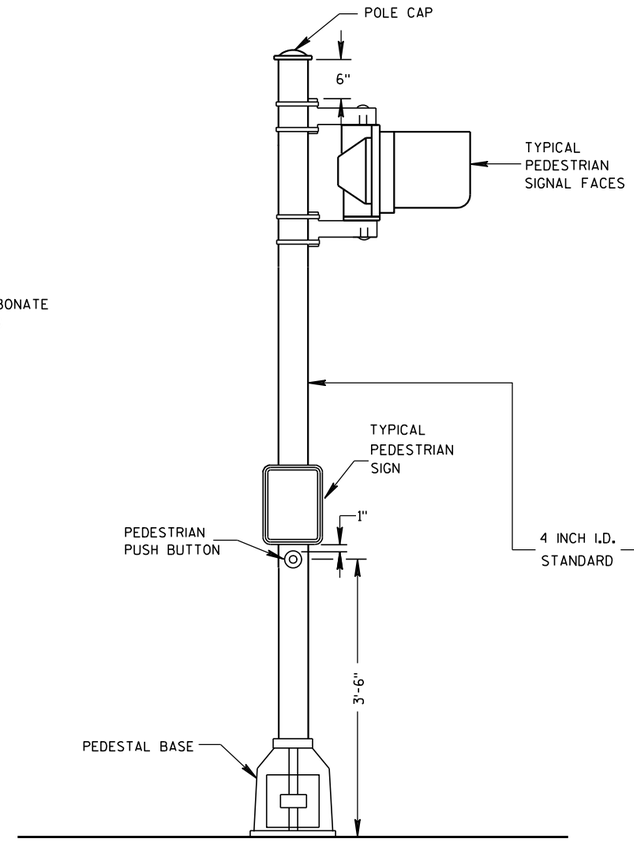
(BANDED)



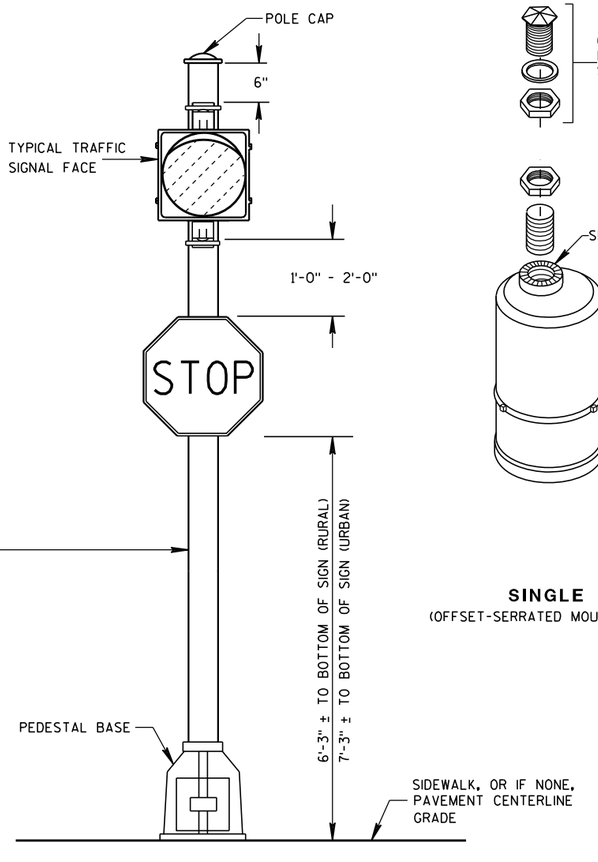
SIGNAL FACE MOUNTING DETAILS



PEDESTRIAN PUSH BUTTON TYPICAL MOUNTING



PEDESTRIAN FACE STANDARD-10 FT.
(WALK-DON'T WALK)



STANDARD FLASHER.
10 FOOT, 13 FOOT OR 15 FOOT AS REQUIRED

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIFICATIONS.

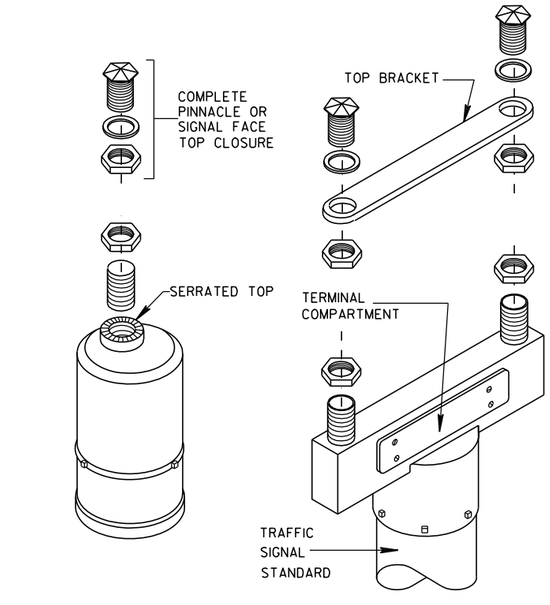
POLYCARBONATE SIGNAL FACE MOUNTING BRACKETS SHALL BE USED UNLESS ORNAMENTAL POLE CLAMPS ARE SPECIFIED.

LENGTH OF TRAFFIC STANDARDS SHALL BE AS SHOWN ON THE PLANS.

MOUNTINGS AND BRACKETS SHALL BE AS SHOWN ON THE PLANS OR DESCRIBED IN THE SPECIAL PROVISIONS (BY THE DISTRICT TRAFFIC ENGINEER).

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.



SINGLE
(OFFSET-SERRATED MOUNTING)

DOUBLE
(SERRATED MOUNTING)

SLIPFITTERS

TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER TYPICAL MOUNTING DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5/11/10
DATE

/S/ John Corbin
STATE ELECTRICAL ENGI 756

HWYS

FHWA

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S.D.D. 9 E 7-5

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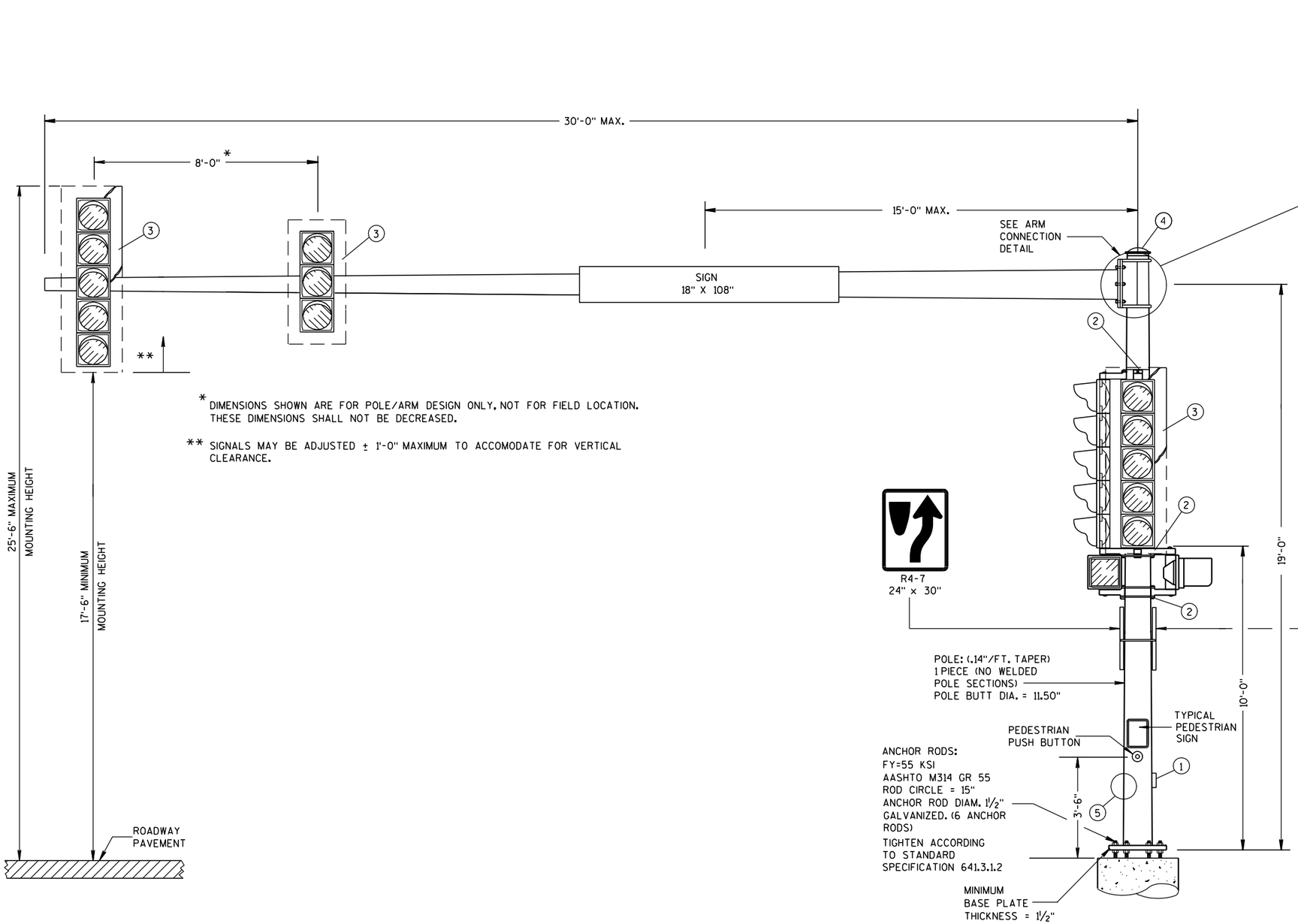
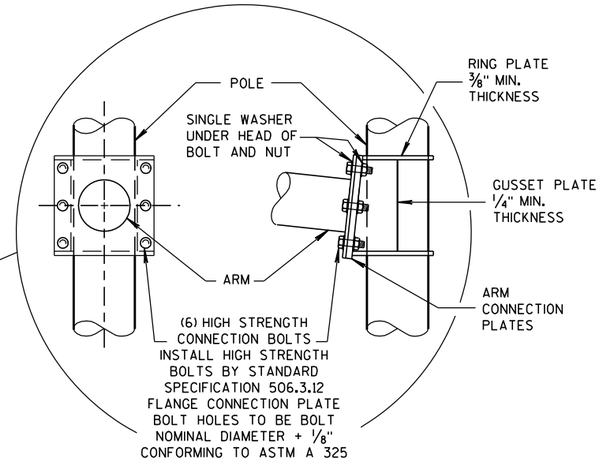
S.D.D. 9 E 7-5



* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY. NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.



6 BOLT ARM CONNECTION DETAIL

ANCHOR ROD LOCATION

(MAXIMUM LOAD)

TYPE 9 POLE 15'- 30' MONOTUBE ARM

TYPE 9 POLE
15' - 30' MONOTUBE ARM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/2/2011 DATE
/S/ Thomas J. Corrigan
STATE ELECTRICAL ENGI 757 HWYS
FHWA

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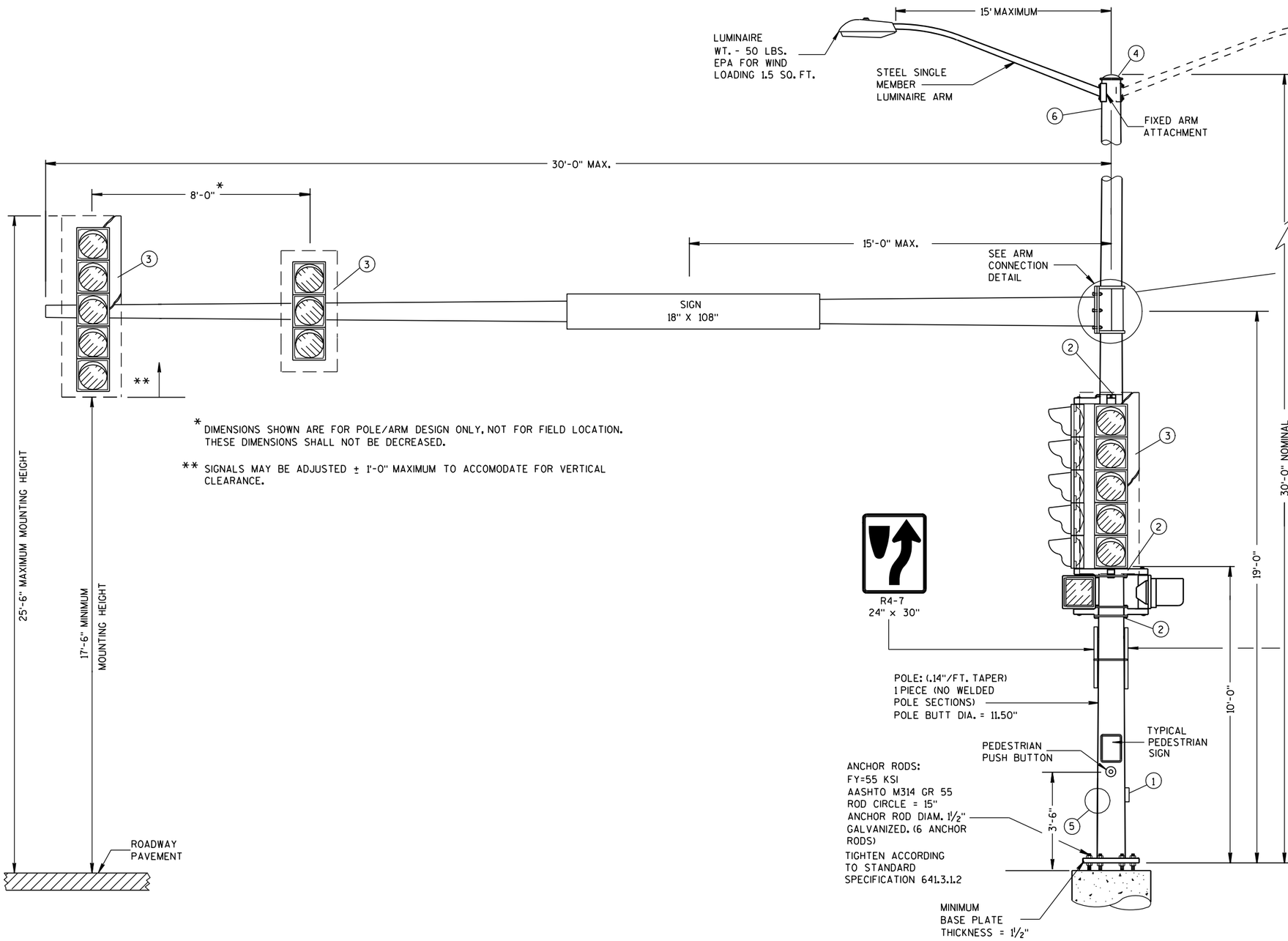
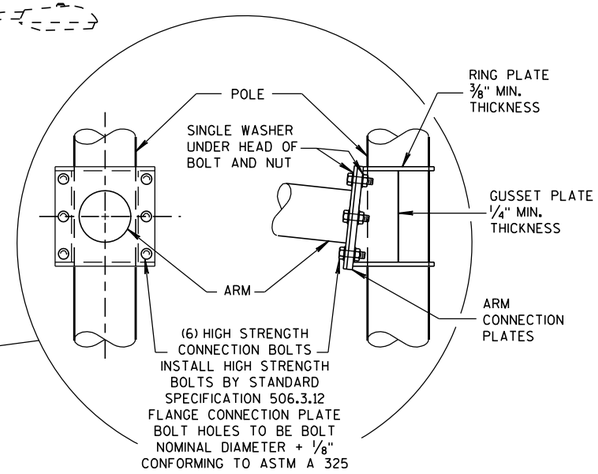
S.D.D. 9 E 8-4a

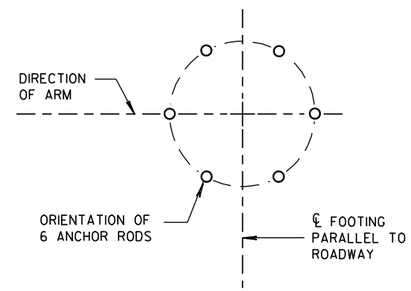


* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.



6 BOLT ARM CONNECTION DETAIL



ANCHOR ROD LOCATION

(MAXIMUM LOAD)

TYPE 10 POLE
15'- 30' MONOTUBE ARM

TYPE 10 POLE 15' - 30' MONOTUBE ARM	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
3/2/2011 DATE	/S/ Thomas J. Corrigan STATE ELECTRICAL ENGI 758 HWYS
FHWA	

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S.D.D. 9 E 8-4b

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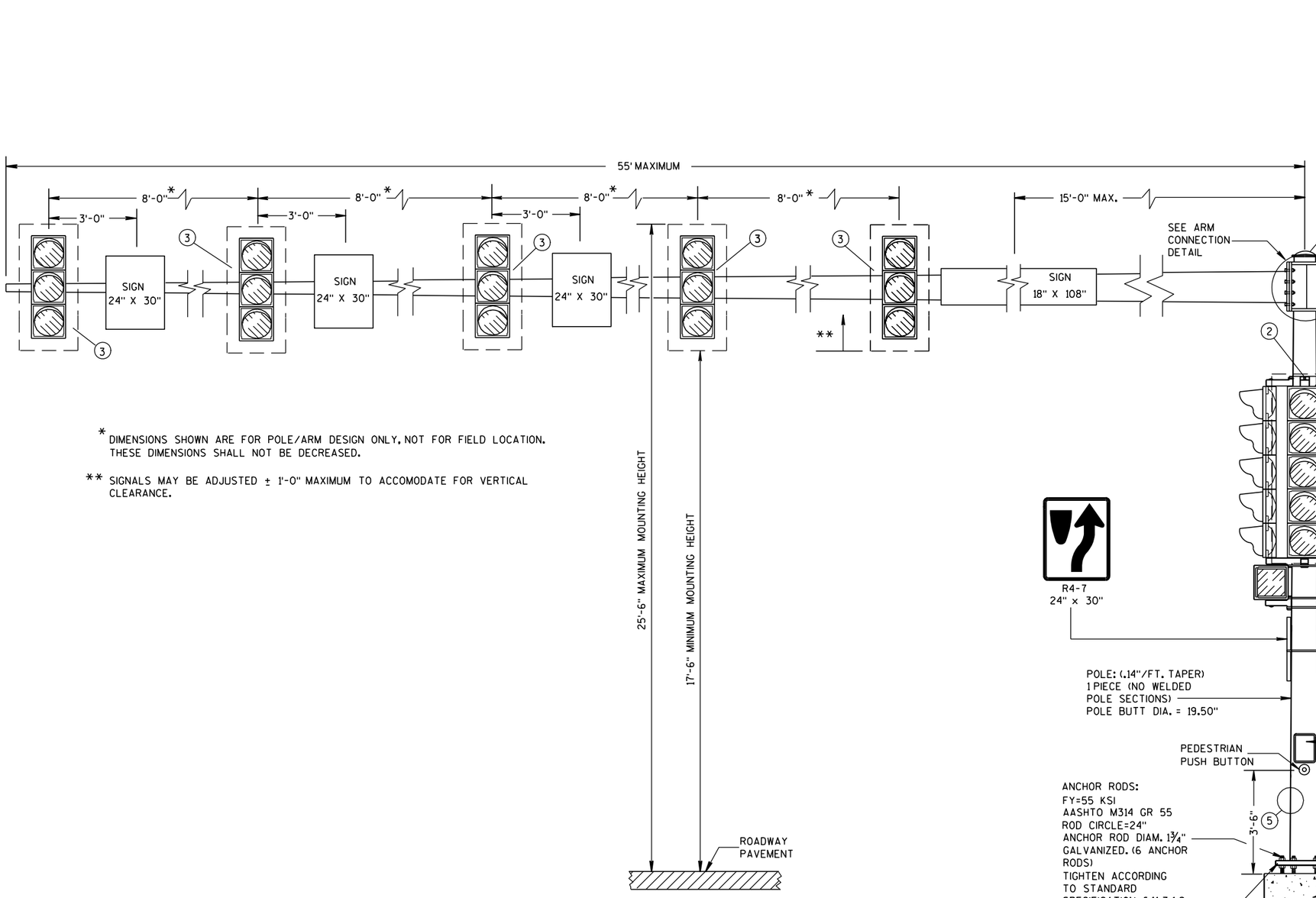
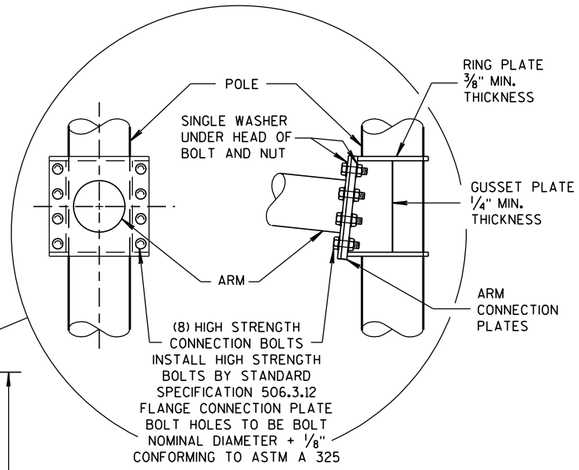
S.D.D. 9 E 8-4b

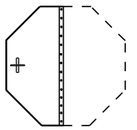


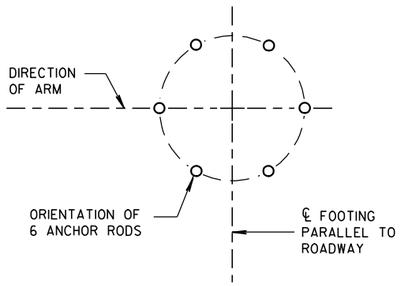
* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.



8 BOLT ARM CONNECTION DETAIL





ANCHOR ROD LOCATION

(MAXIMUM LOAD)

TYPE 12 POLE 35'- 55' MONOTUBE ARM

TYPE 12 POLE
35' - 55' MONOTUBE ARM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/2/2011 — DATE
/S/ Thomas J. Gonring — STATE ELECTRICAL ENGI 759 — HWYS
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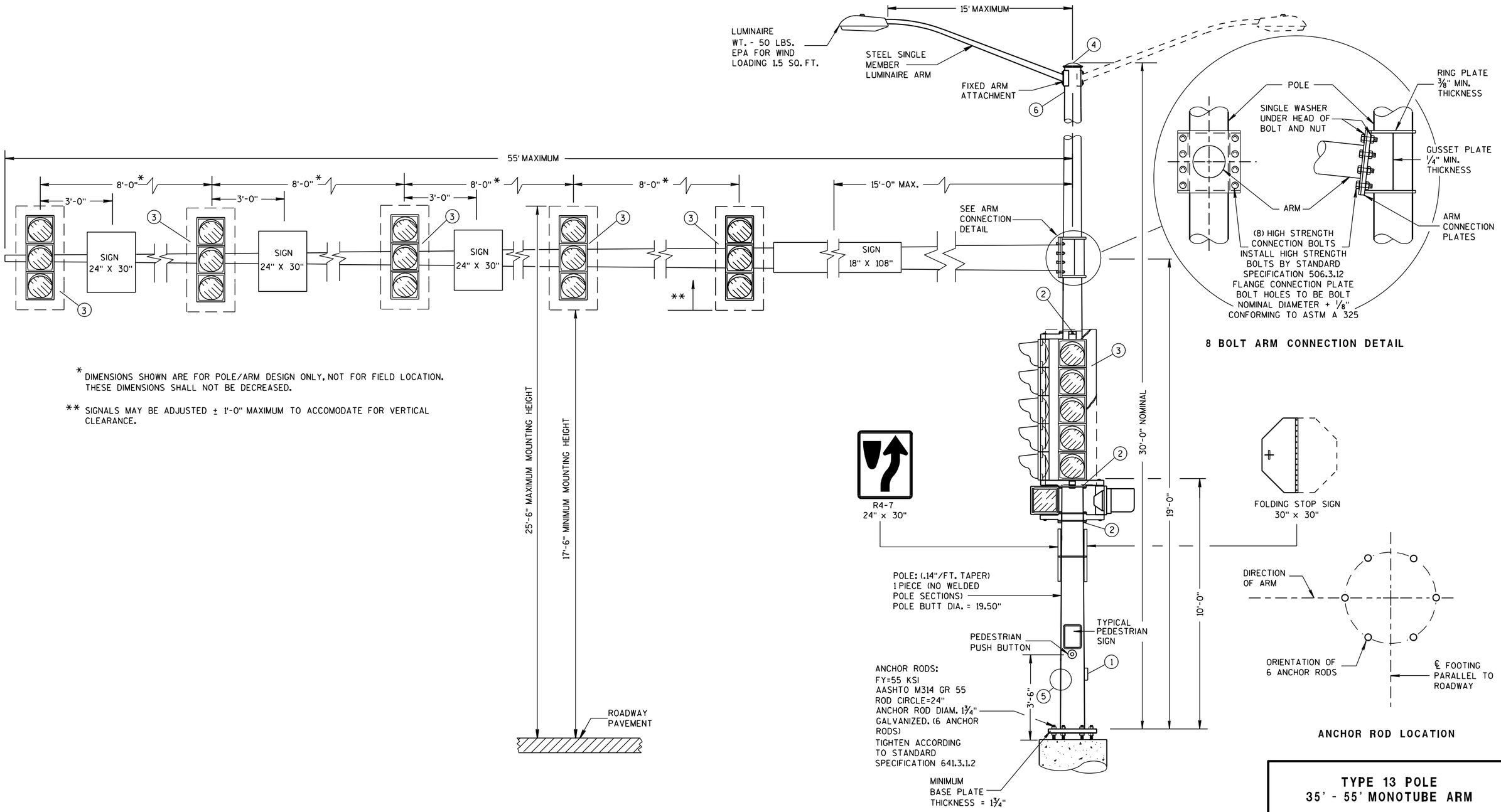

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8 BOLT ARM CONNECTION DETAIL

ANCHOR ROD LOCATION

(MAXIMUM LOAD)

TYPE 13 POLE 35'- 55' MONOTUBE ARM

TYPE 13 POLE 35' - 55' MONOTUBE ARM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/2/2011 DATE

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GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

POLE TYPES 9 AND 10 ARE FOR ARM LENGTHS 15-FOOT TO 30-FOOT.

POLE TYPES 12 AND 13 ARE FOR ARM LENGTHS 35-FOOT TO 55-FOOT.

MONOTUBE POLE AND ARM SHALL BE GALVANIZED STEEL.

RING-STIFFENED BUILT-UP BOX TYPE OF ATTACHMENT FOR TRAFFIC SIGNAL ARM.

ONE (1) PIECE POLE CONSTRUCTION (NO WELDED POLE SECTIONS).

STANDARD STRAIGHT ARM DESIGN (3 % ± RISE).

SECTION 657, POLES OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

PROVIDE WIREWAY THRU POLE WALL AND ARM CONNECTION PLATES. PROVIDE ROUND, SMOOTH INSIDE SURFACE.

MANUFACTURER'S SUBMITTED POLE DESIGNS AND DRAWINGS SHALL BE SIGNED AND STAMPED BY A REGISTERED PROFESSIONAL ENGINEER AND CERTIFIED AS BEING IN COMPLIANCE WITH THE LATEST AASHTO AND ALL PERTINENT WISDOT SPECIFICATIONS AND DRAWINGS FOR TRAFFIC AND LIGHTING STRUCTURES AND AS FOLLOWS:

- CATEGORY III FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 9 AND TYPE 10 STRUCTURES.
- CATEGORY II FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 12 AND TYPE 13 STRUCTURES.
- 90 MPH (3-SECOND GUST) WIND SPEED AND A 50 YEAR DESIGN LIFE.

SECURE THE OPENING BELOW THE BASE PLATE WITH STAINLESS STEEL OR GALVANIZED STEEL MESH AND SECURE THE MESH WITH ¾" S.S. BANDING AROUND THE LEVELING NUTS.

INDENT PRINT (NOMINAL ½" HIGH) THE POLE LENGTH AND FIRST TWO LETTERS OF THE MANUFACTURERS NAME ON TWO SIDES OF THE BASE PLATE 180 DEGREES APART, BEFORE GALVANIZING. THE ARM SHALL BE IDENTIFIED WITH THE SAME INFORMATION BY INDENT PRINT.

SIGNAL FACE SHALL BE MOUNTED 6 INCHES (NOMINAL) FROM THE END OF THE MONOTUBE ARM OR AS SHOWN ON THE PLAN CONSTRUCTION DETAIL OR AS DIRECTED BY THE PROJECT ENGINEER/ELECTRICAL OPERATIONS PERSONNEL. MOUNT ALL LIKE HEADS AT SAME ELEVATION.

SIGN MOUNTING BRACKETS SHALL BE FURNISHED IN ACCORDANCE WITH SECTION 637 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.

(1) DESIGN FOR MAXIMUM ALLOWABLE HANDHOLE WITH COVER ASSEMBLY WITH TWO ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLTS.

(2) SIGNAL MOUNTING BRACKETS FOR POLE MOUNTING, MOUNT WITH CAP SCREW AND BANDING, (SEE SPECIFICATIONS SEC. 658).

(3) SECURELY MOUNT BACKPLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURERS RECOMMENDATIONS.

(4) THE TOP OF THE POLE SHAFT AND THE END OF THE MONOTUBE ARM SHALL BE EQUIPPED WITH A REMOVABLE, VENTILATED CAP HELD SECURELY IN PLACE WITH SET SCREWS.

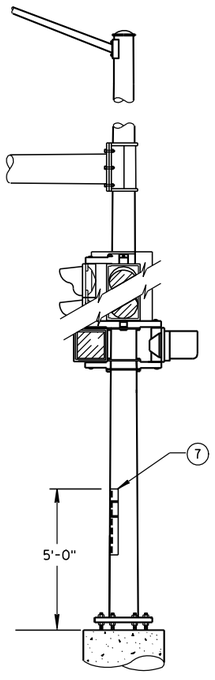
(5) FACTORY-WELDED BRACKET FOR GROUNDING LUG, OPPOSITE HANDHOLE, (LUG AND HARDWARE PAID UNDER SEPARATE ITEM). PROVIDE HOLE IN BRACKET FOR ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLT.

(6) FACTORY-WELDED "J" HOOK FOR STRAIN RELIEF FOR POLE LUMINAIRE WIRE.

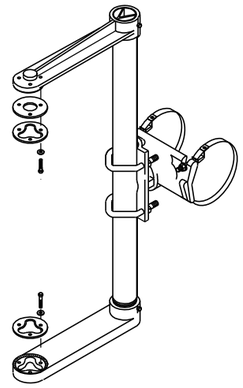
(7) INSTALL DEPARTMENT PROVIDED STRUCTURAL IDENTIFICATION PLAQUES.

STRUCTURAL IDENTIFICATION PLAQUES SHALL BE PLACED ON THE POLES IN THE SAME DIRECTION AS THE ARM.

MOUNTING HEIGHT SHALL BE 5'-0" ABOVE THE CURB OR SHOULDER . ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL BE OBSTRUCTED.

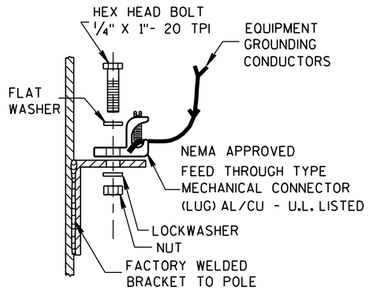


STRUCTURAL IDENTIFICATION PLAQUE PLACEMENT



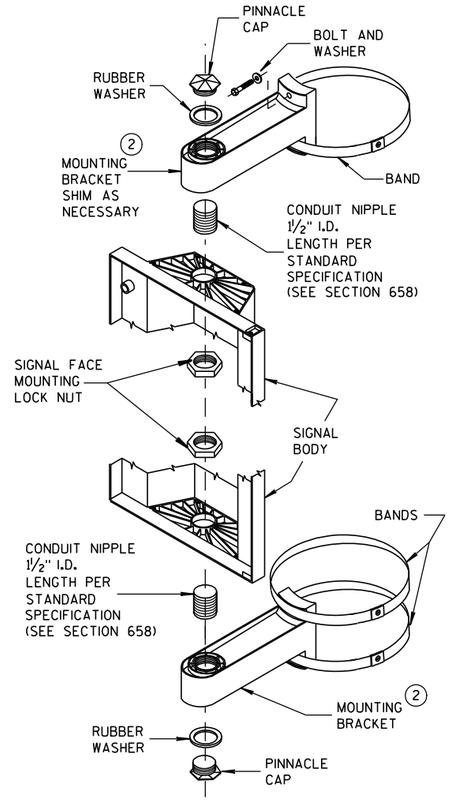
SIGNAL FACE MOUNTING BRACKET DETAIL FOR MONOTUBE ARM

(MOUNT PER MANUFACTURER'S RECOMMENDATION)

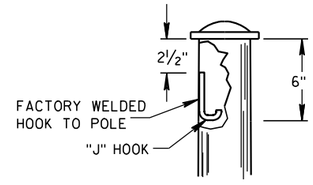


TYPICAL GROUNDING CONNECTIONS (5)

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



SIGNAL FACE VERTICAL MOUNTING DETAIL



"J" HOOK WIRE SUPPORT (6)

GENERAL NOTES AND HARDWARE DETAILS FOR TYPE 9, 10, 12 & 13 POLES WITH MONOTUBE ARMS

STATE OF WISCONSIN
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3/2/2011 DATE

/S/ Thomas J. Corrigan STATE ELECTRICAL ENGI

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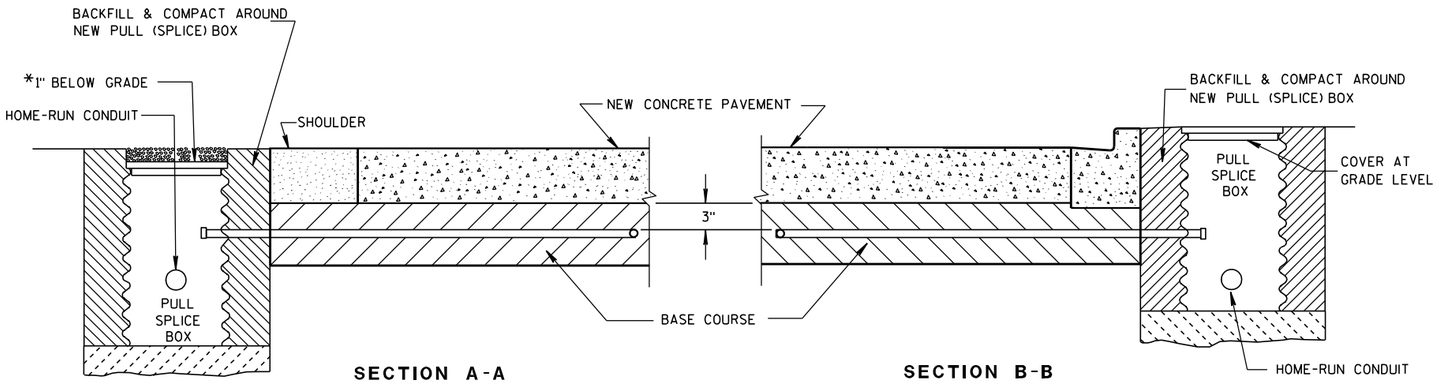


SECTION A-A
NO CURB & GUTTER

SECTION B-B
CURB & GUTTER

*RECESS PULL (SPLICE) BOX SO THAT THE COVER IS 3" BELOW GRADE IN SHOULDER AREAS OF CRUSHED AGGREGATE. BACKFILL OVER COVER WITH THE CRUSHED AGGREGATE TO BRING THE AREA TO GRADE LEVEL.

LOOP DETECTOR INSTALLATION DETAIL

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

LOOP SIZE, CONFIGURATION LOCATION, NUMBER OF TURNS OF WIRE AND ASSOCIATED SIGNAL PHASE SHALL BE AS SHOWN ON THE PLANS.

PITCH LEAD OUT CONDUIT TO DRAIN TO ROADSIDE PULL (SPLICE) BOX.

SPLICES SHALL BE INSTALLED BY USING CAST IN PLACE SPLICE KITS SUCH AS 3M TYPE 82A1 OR APPROVED EQUAL. NON-INSULATED BUTT SPLICES TO FIT #12 AWG STRANDED WIRE SHALL BE USED. SPLICES SHALL BE SOLDERED AND INSULATED FROM EACH OTHER AS PER INSTRUCTIONS INCLUDED IN THE SPLICE KIT.

MEASURE GROUND RESISTANCE USING A MEGGER. REPLACE LOOP WIRE NOT ATTAINING A READING OF INFINITY TO GROUND.

AFTER SPLICING THE LOOP WIRE TO THE LOOP LEAD-IN CABLE, THE CONTRACTOR SHALL MEASURE INDUCTANCE, GROUND RESISTANCE AND WIRE RESISTANCE AT THE CABINET END OF THE LEAD-IN CABLE AND FURNISH A COPY OF THE READINGS TO THE PROJECT ENGINEER FOR EVALUATION.

LOOP DETECTOR LEADS SHALL BE IDENTIFIED WITH THEIR ASSOCIATED LOOP BY USE OF WATERPROOF TAGS AT BOTH ENDS OF THE CABLE. A LISTING OF THE CABLE IDENTIFICATION PER INDIVIDUAL LOOP LEAD-IN SHALL BE PLACED IN THE CABINET.

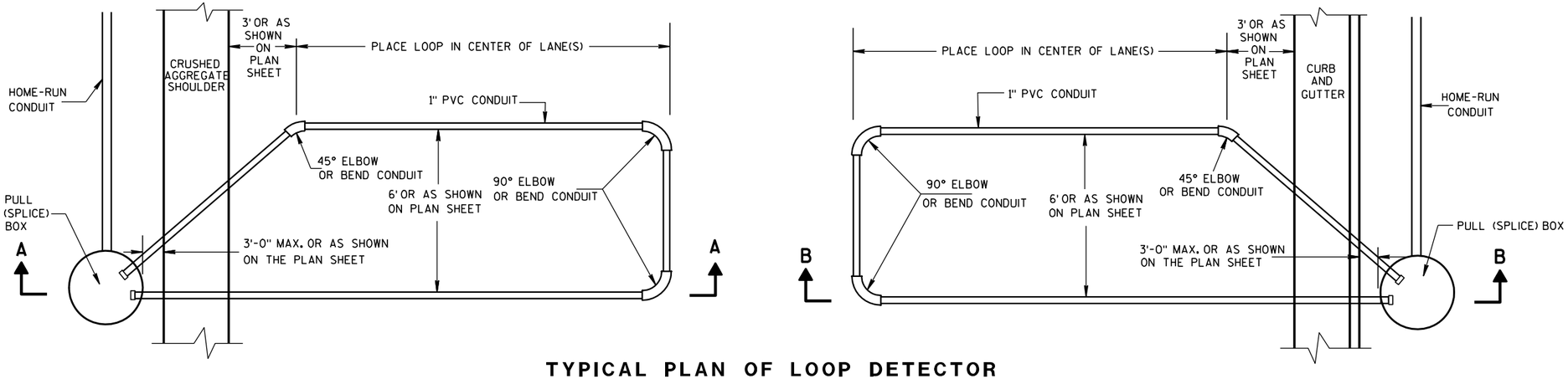
THE #12 AWG. LOOP WIRE IN THE PULL (SPLICE) BOX SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE BEING SPLICED TO THE LOOP LEAD-IN CABLE.

SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL (SPLICE) BOXES AT THE SIDE OF THE ROAD.

THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL (SPLICE) BOX THROUGH THE LOOP CONDUIT, BACK TO THE ROADSIDE PULL (SPLICE) BOX, AND BE INSTALLED IN ONE, NON-SPLICE CONTINUOUS LENGTH.

PROTECTION OF THE CONDUIT IN THE BASE COURSE, SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE NEW PAVEMENT IS INSTALLED.

SHOULD INSTALLATION REPAIR BE REQUIRED, IT SHALL BE DONE UNDER THE DIRECTION OF THE PROJECT ENGINEER.



TYPICAL PLAN OF LOOP DETECTOR WITH 18" OR 24" PULL (SPLICE) BOX

LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)

STATE OF WISCONSIN
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6/7/06 — DATE
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S.D.D. 9 F 15-3a

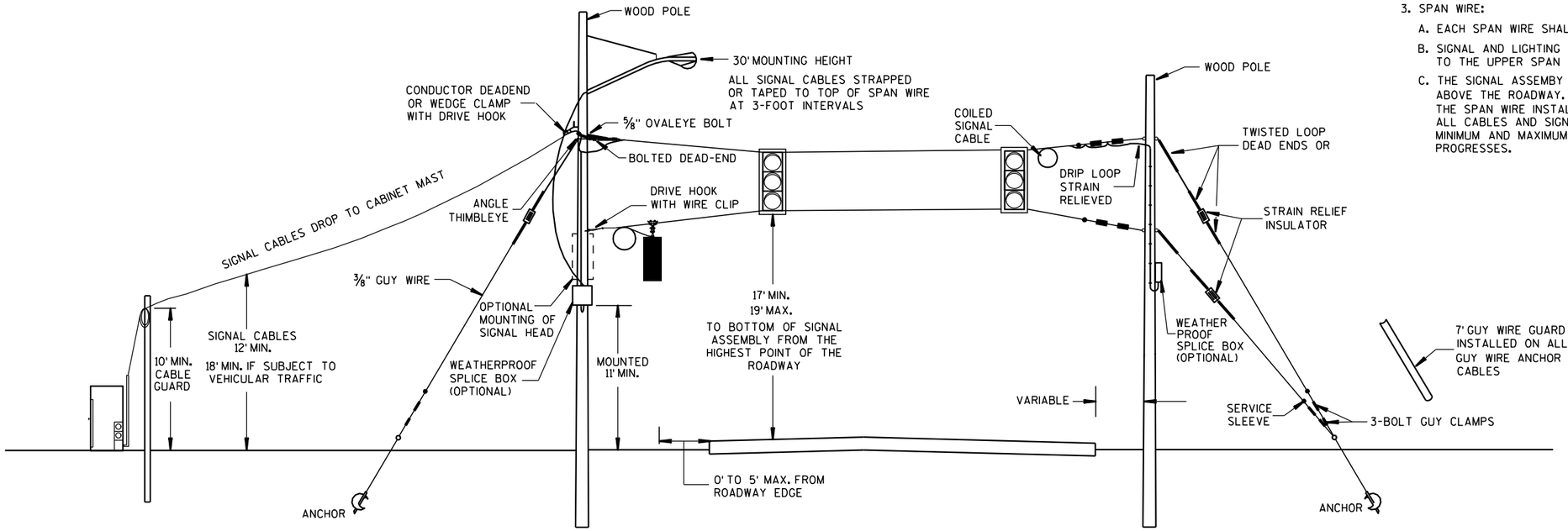
GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

1. WOOD POLES SHALL BE CLASS 4. LENGTH DETERMINED BY SIGNAL PLAN.

2. SIGNAL FACES:
   A. ALL SECTIONS SHALL BE 12" AND POLYCARBONATE.
   B. EACH SHALL CONTAIN A 5" WIDE DULL BLACK POLYCARBONATE BACKPLATE.
   C. EACH SHALL BE WIRED FROM THE TOP SIGNAL MOUNTING BRACKET.
   D. NEAR RIGHT SIGNAL FACE SUSPENDED ON THE TETHER (NO BACKPLATE) SHALL NOT BE OVER THE TRAVELED WAY. IF THE POLE IS WITHIN 5 FEET OF THE TRAVELED WAY MOUNT THE SIGNAL FACE ON THE WOOD POLE WITH BACKPLATE.

3. SPAN WIRE:
   A. EACH SPAN WIRE SHALL BE INDIVIDUALLY DOWN GUYED.
   B. SIGNAL AND LIGHTING CABLES SHALL ONLY BE ATTACHED TO THE UPPER SPAN WIRE.
   C. THE SIGNAL ASSEMBY SHALL HAVE A 17' MIN. HEIGHT ABOVE THE ROADWAY. THIS SHALL BE MEASURED AFTER THE SPAN WIRE INSTALLATION IS COMPLETED WITH ALL CABLES AND SIGNAL FACES IN PLACE. MAINTAIN MINIMUM AND MAXIMUM HEIGHTS AS ROADWAY WORK PROGRESSES.



SPAN WIRE
TEMPORARY SIGNALS

MINIMUM POLE LENGTHS	POLE BURIEL DEPTHS
25'	5'
30'	6'
35'	7'
40'	8'
45'	9'

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

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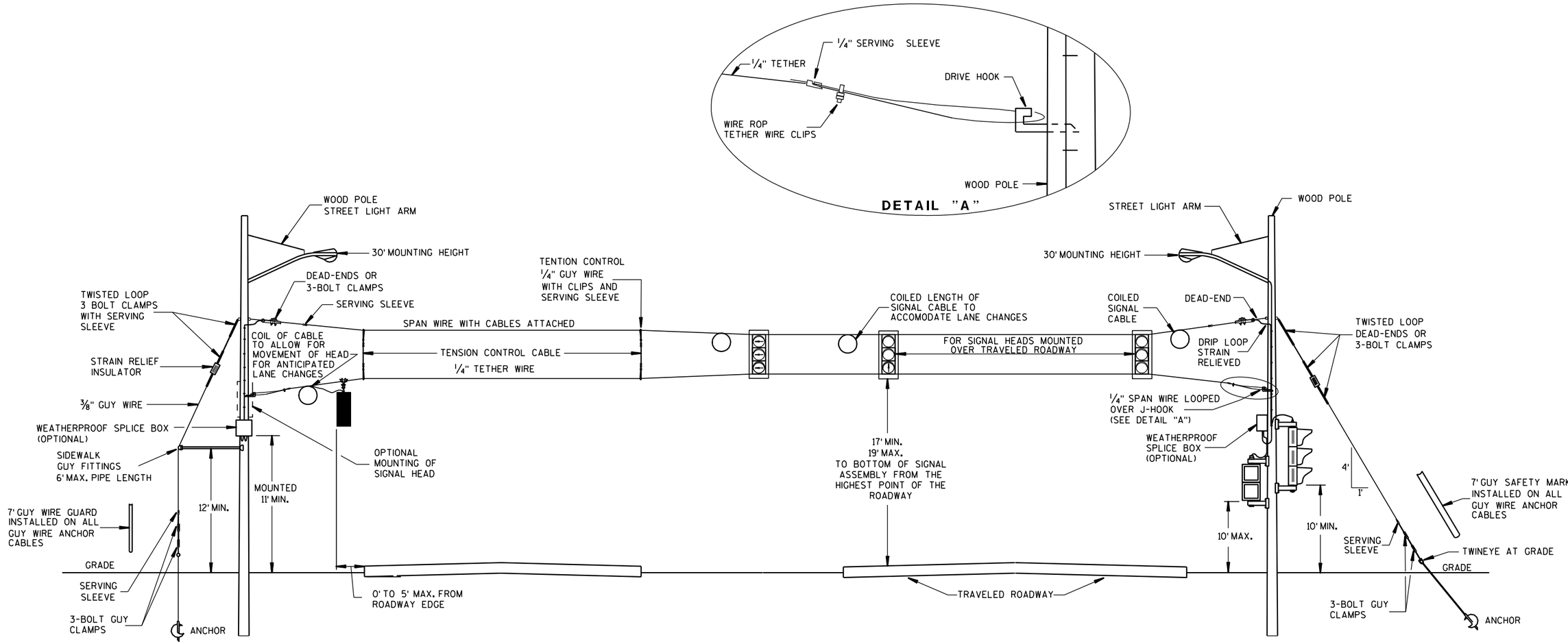

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   D. NEAR RIGHT SIGNAL FACE SUSPENDED ON THE TETHER (NO BACKPLATE) SHALL NOT BE OVER THE TRAVELED WAY. IF THE POLE IS WITHIN 5 FEET OF THE TRAVELED WAY MOUNT THE SIGNAL FACE ON THE WOOD POLE WITH BACKPLATE.
   E. FAR INDICATION SHALL BE MAINTAINED OVER CENTER OF TRAFFIC LANE.
3. SPAN WIRE:
   A. EACH SPAN WIRE SHALL BE INDIVIDUALLY DOWN GUYED.
   B. SIGNAL AND LIGHTING CABLES SHALL ONLY BE ATTACHED TO THE UPPER SPAN WIRE.
   C. THE SIGNAL ASSEMBY SHALL HAVE A 17' MIN. HEIGHT ABOVE THE ROADWAY. THIS SHALL BE MEASURED AFTER THE SPAN WIRE INSTALLATION IS COMPLETED WITH ALL CABLES AND SIGNAL FACES IN PLACE. MAINTAIN MINIMUM AND MAXIMUM HEIGHTS AS ROADWAY WORK PROGRESSES.

SPAN WIRE
TEMPORARY SIGNALS
4 LANE ROADWAYS

MINIMUM POLE LENGTHS	CLASS	MIN. BURIAL DEPTHS
25'	V	5'
30'	V	6'
35'	IV	7'
40'	IV	8'
45'	IV	9'

SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
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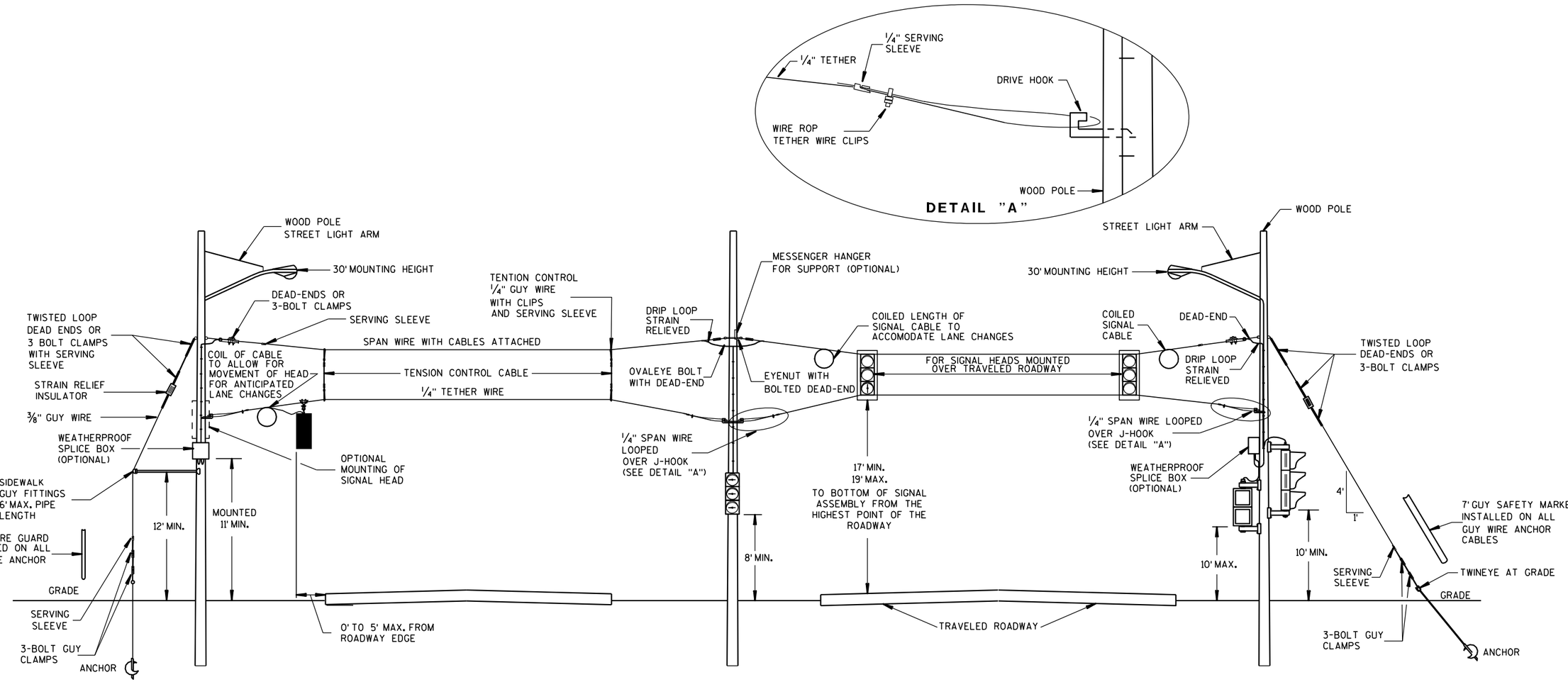

SPAN WIRE
TEMPORARY SIGNALS
4 LANE ROADWAYS

GENERAL NOTES

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2. SIGNAL FACES:
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   E. FAR INDICATION SHALL BE MAINTAINED OVER CENTER OF TRAFFIC LANE.

3. SPAN WIRE:
   A. EACH SPAN WIRE SHALL BE INDIVIDUALLY DOWN GUYED.
   B. SIGNAL AND LIGHTING CABLES SHALL ONLY BE ATTACHED TO THE UPPER SPAN WIRE.
   C. THE SIGNAL ASSEMBY SHALL HAVE A 17' MIN. HEIGHT ABOVE THE ROADWAY. THIS SHALL BE MEASURED AFTER THE SPAN WIRE INSTALLATION IS COMPLETED WITH ALL CABLES AND SIGNAL FACES IN PLACE. MAINTAIN MINIMUM AND MAXIMUM HEIGHTS AS ROADWAY WORK PROGRESSES.

MINIMUM POLE LENGTHS	CLASS	MIN. BURIAL DEPTHS
25'	V	5'
30'	V	6'
35'	IV	7'
40'	IV	8'
45'	IV	9'

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
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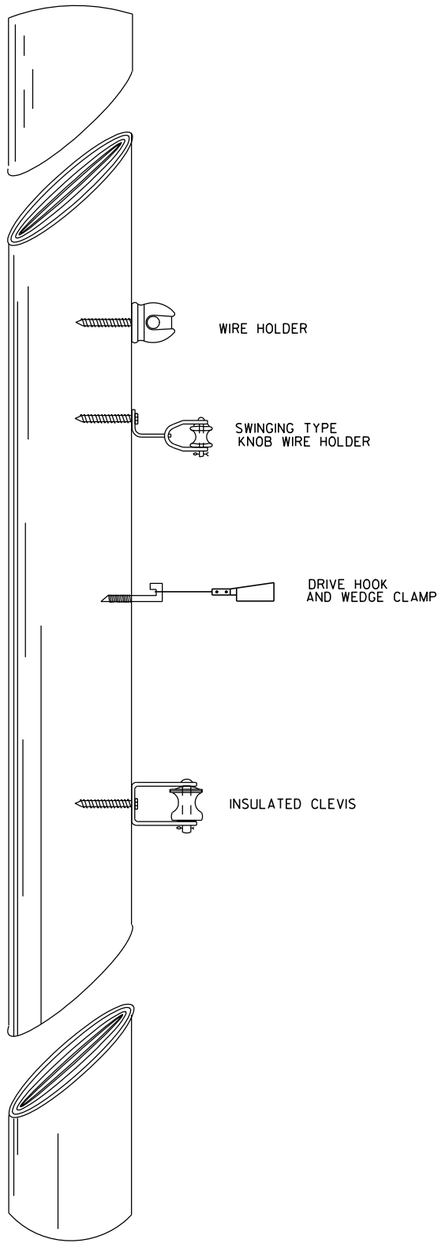
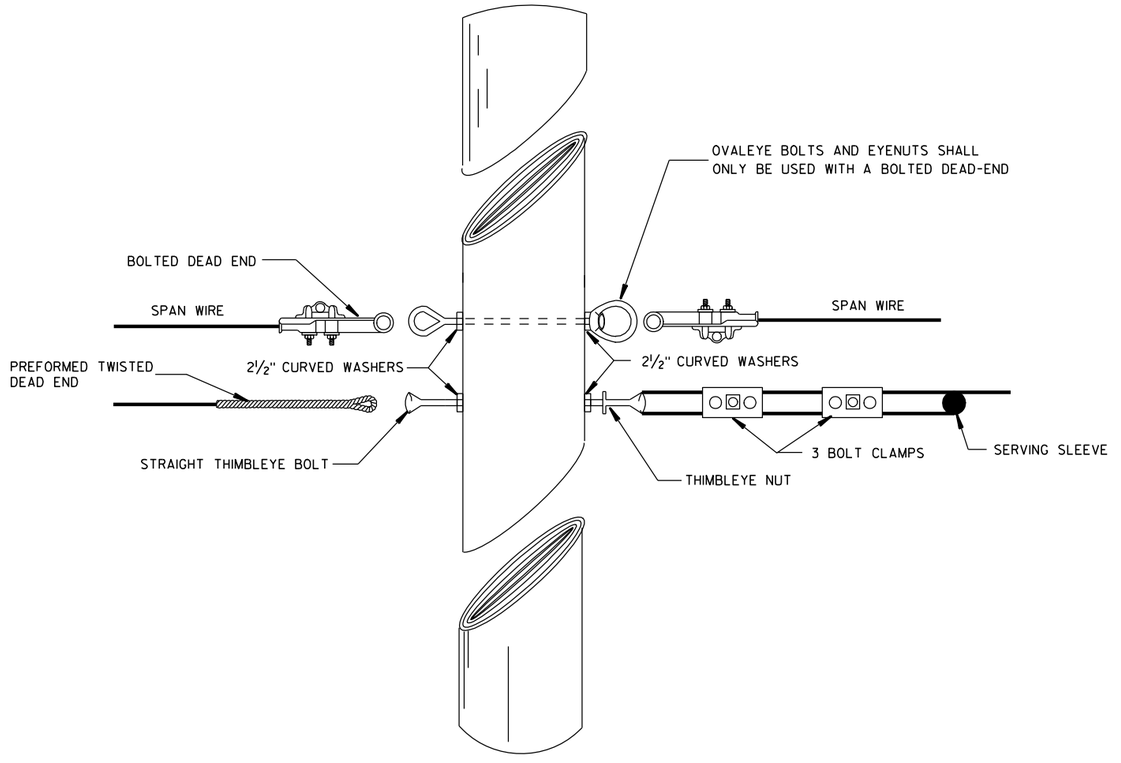


TYPICAL CABLE HANGERS



TYPICAL DEAD-ENDING

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SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
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7-14-08
DATE

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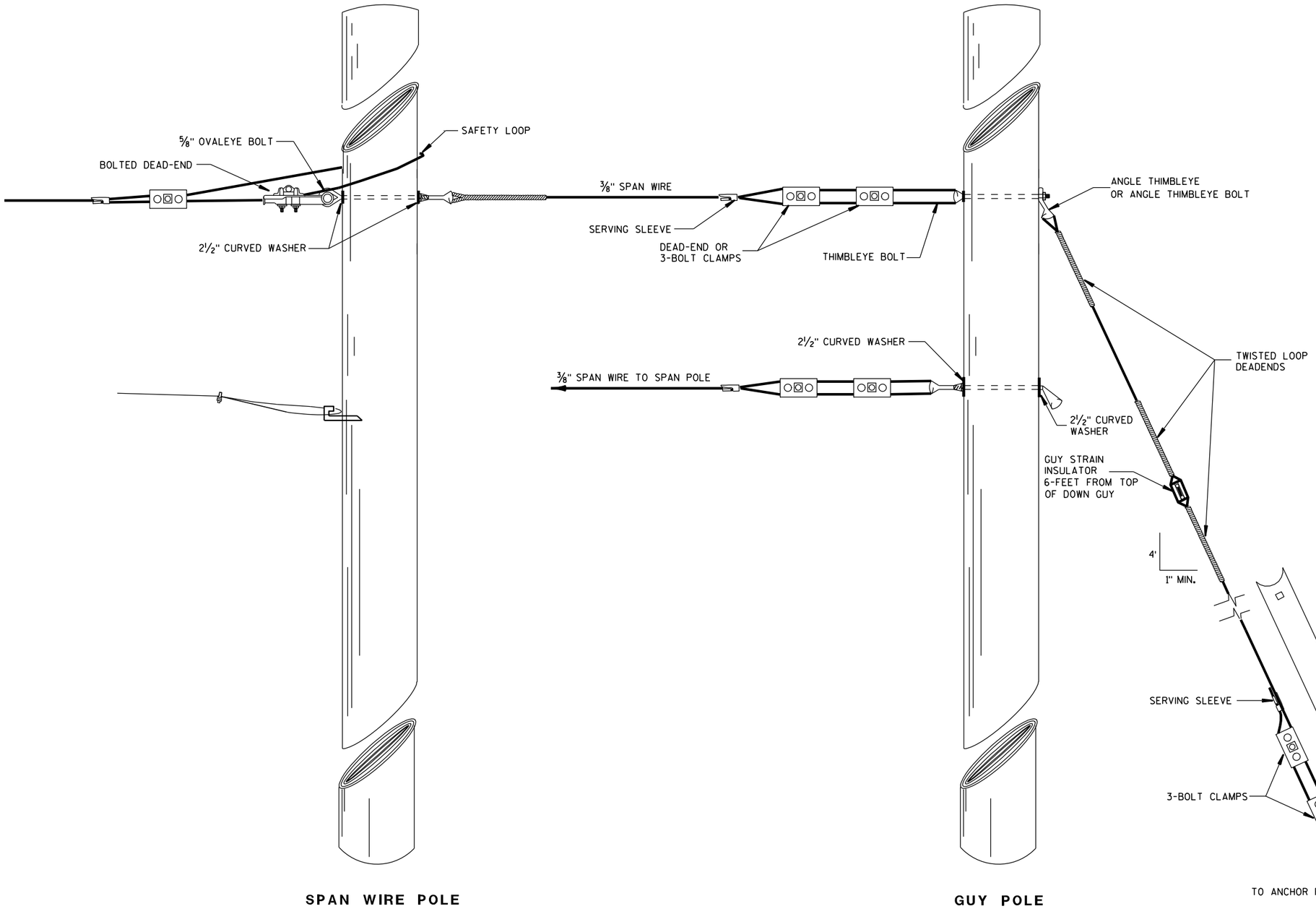
GENERAL NOTES

1. USE ¾" DRILL IN WOOD POLE TO PROVIDE HOLE FOR ⅝" BOLTS.
2. SAFTY LOOP REQUIRED ON EACH END OF ALL SPAN WIRES.



SPAN WIRE POLE

GUY POLE

TYPICAL DEAD-ENDINGS OR GUYING

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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7-14-08 DATE
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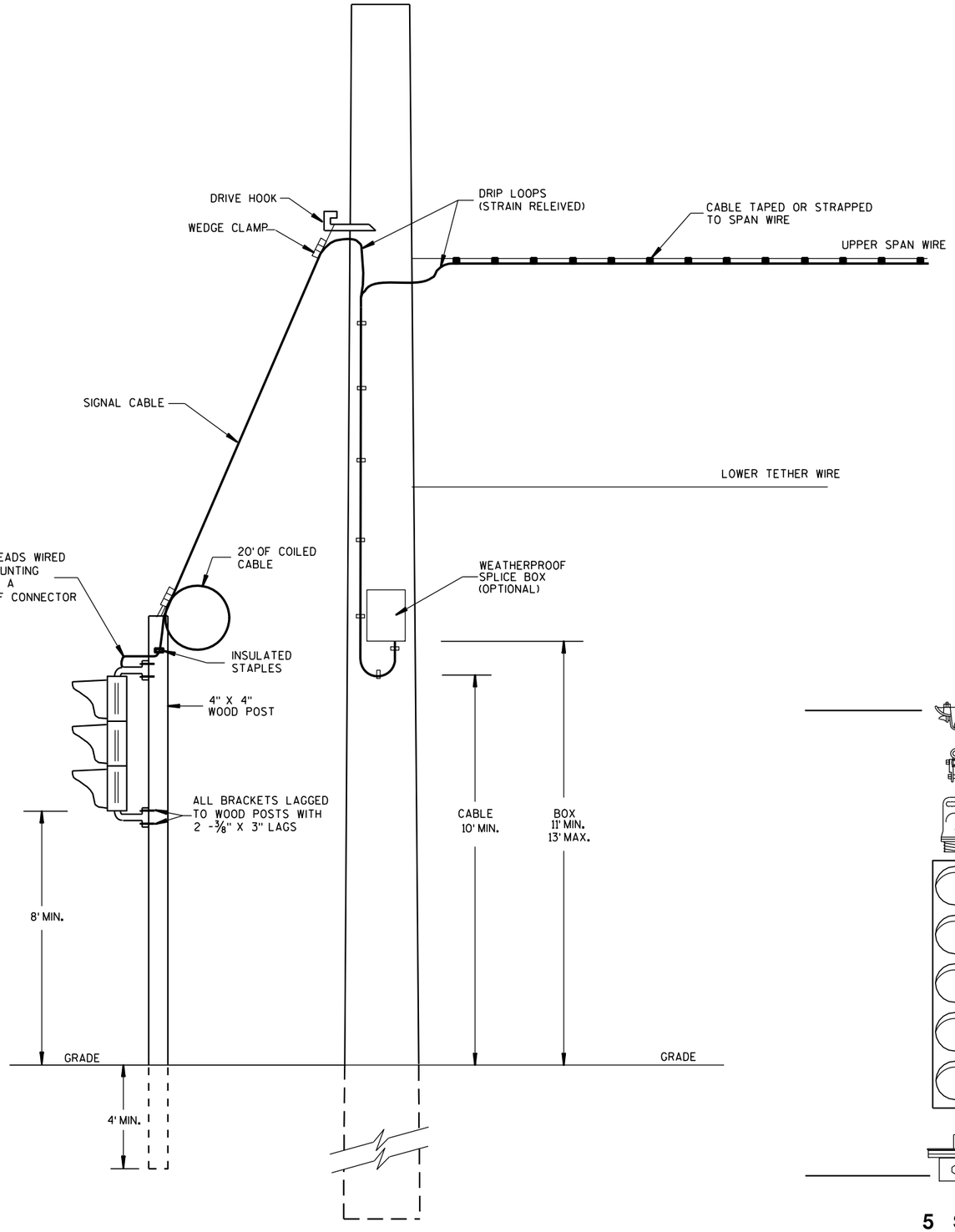
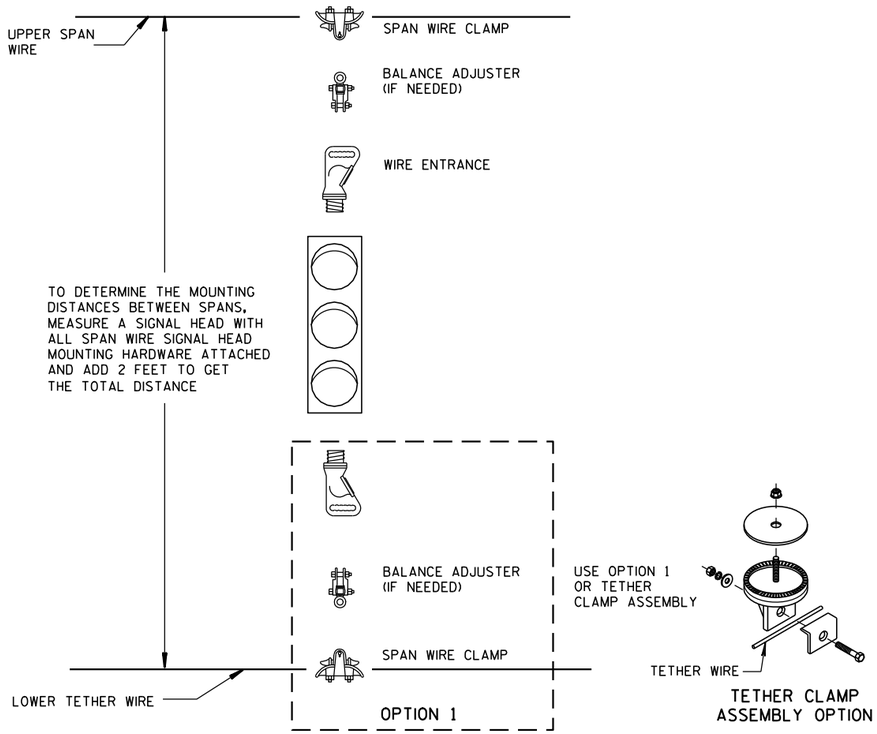
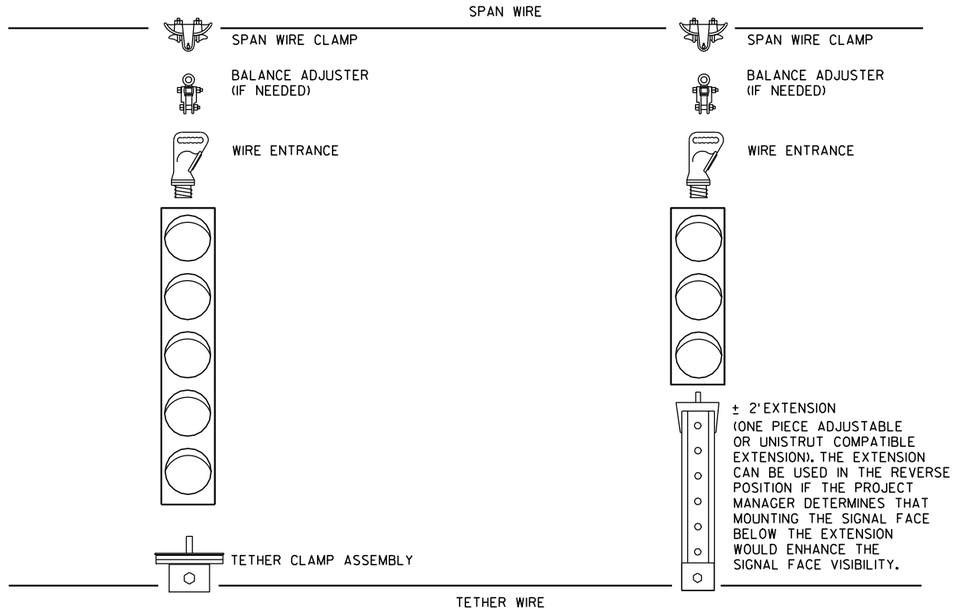


TYPICAL DROP TO TEMPORARY MOVEABLE SIGNAL



TYPICAL SPAN WIRE MOUNTING HARDWARE



5 SECTION VERTICAL WITH 3 SECTION VERTICAL ON ONE SPAN WIRE

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7-14-08
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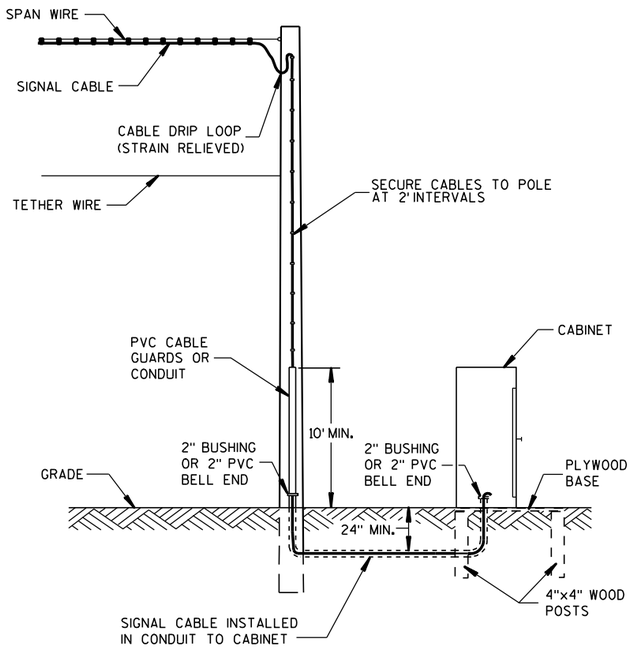
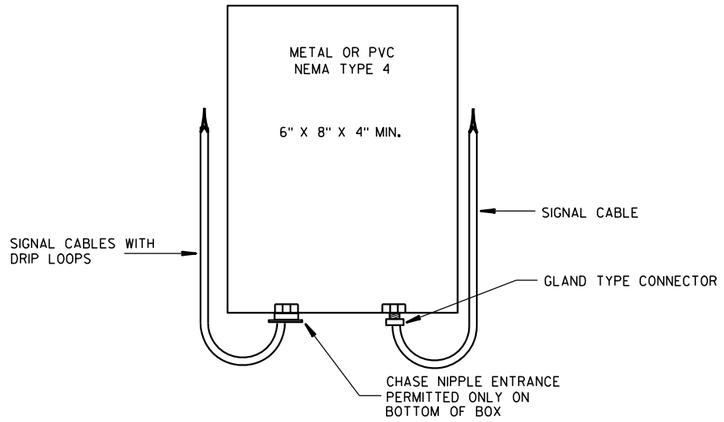
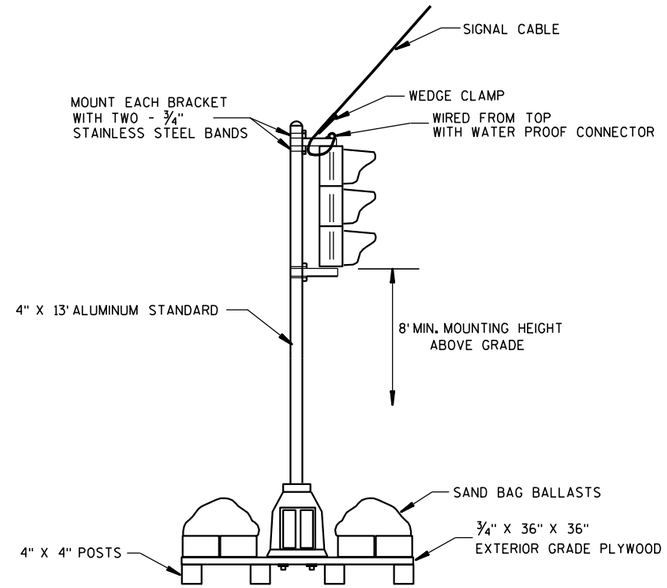
S.D.D. 9 G 1-3f

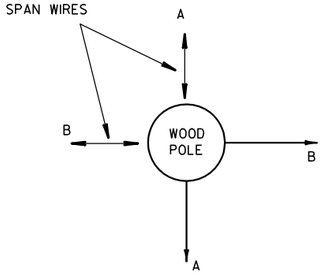




SPLICE BOX

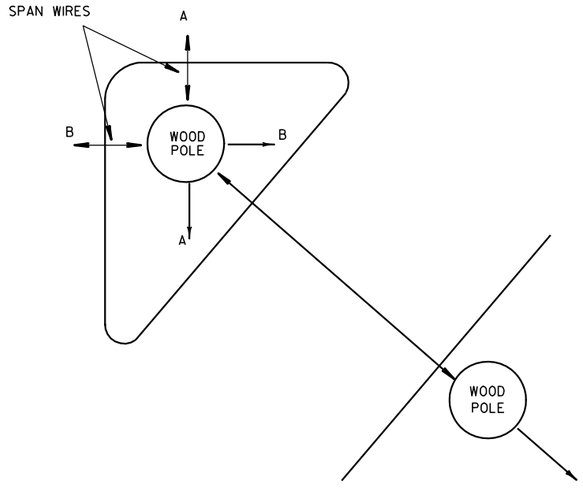


TYPICAL SKID TYPE TEMPORARY

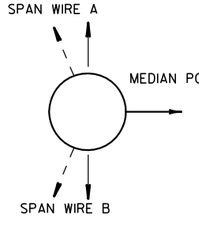


ALL DOWN OR SIDEWALK GUYS
SHALL BE INSTALLED IN THE
OPPOSITE DIRECTION OF THE
STRAIN OF THE SPAN WIRE

CORNER POLES



ISLAND POLES



GUY AWAY FROM
INTERSECTION OR IN
OPPOSITE DIRECTION OF THE
SPAN LOADING

MEDIAN POLES

SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7-14-08
DATE

/S/ Balu Aganthangayanan
STATE ELECTRICAL ENGI 769 HWYS

FHWA

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S.D.D. 9 G 1-3g

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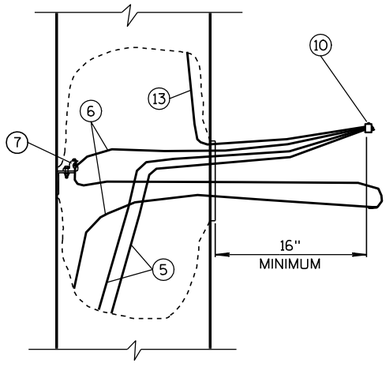
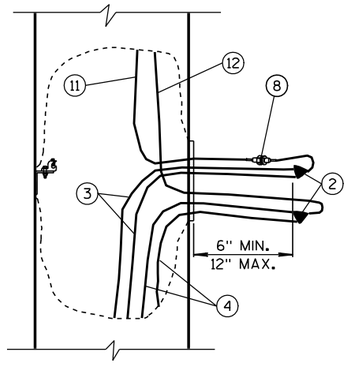
S.D.D. 9 G 1-3g

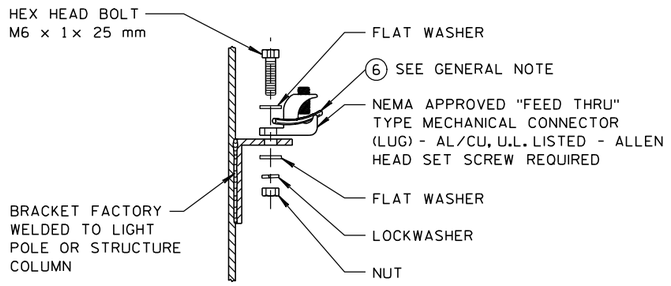


EQUIPMENT GROUNDING CONDUCTOR SLACK



UNGROUNDED CONDUCTOR SLACK (AND GROUNDED NEUTRAL SLACK IN GROUNDED NEUTRAL SYSTEM)

TYPICAL CONDUCTOR SLACK AT HANDHOLES



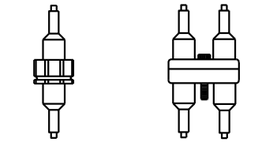
HANDHOLE GROUNDING LUG

(NUT, BOLT, WASHERS, AND LOCK WASHERS SHALL BE STAINLESS STEEL)

CONDUCTOR COLOR CODES

KEY	CONDUCTOR	COLOR
3	UNGROUNDED LINE WIRE	*
4	GROUNDED LINE WIRE	WHITE
5	SYSTEM GROUNDING LINE WIRE	GREEN
6	GROUNDING ELECTRODE CONDUCTOR	BARE
11	UNGROUNDED POLE WIRE	*
12	GROUNDED POLE WIRE	WHITE
13	EQUIPMENT GROUNDING POLE WIRE	GREEN

* FOLLOW COLOR CODING SHOWN IN THE PLANS. WHERE THE PLANS DO NOT SHOW COLOR CODING, USE BLACK FOR SINGLE LUMINAIRE POLES; BLACK AND RED FOR TWIN LUMINAIRE POLES.



FUSE ASSEMBLIES

GENERAL NOTES

DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN IN THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

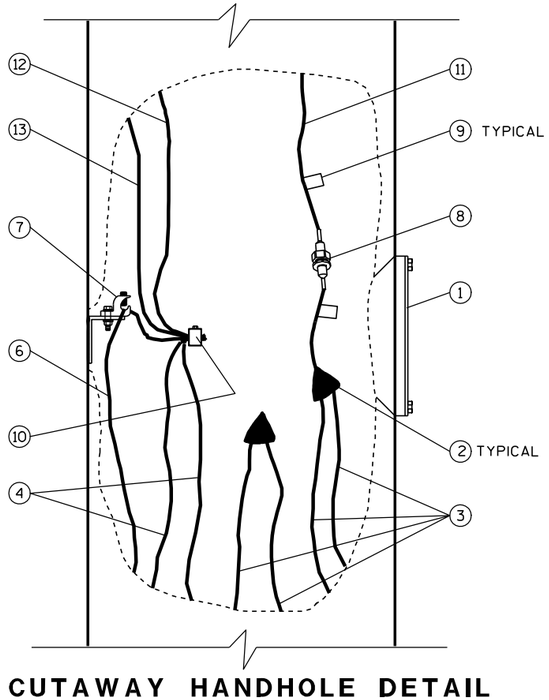
USE THIS DETAIL IN CONJUNCTION WITH THE ELECTRICAL DETAILS FOR THE APPLICATION, WHICH MAY BE A LIGHT POLE, SIGN BRIDGE, ETC.

THE GROUNDING ELECTRODE CONDUCTOR SHALL BE CONTINUOUS WITHOUT SPLICES FROM THE GROUNDING ELECTRODE THROUGH THE HANDHOLE GROUNDING LUG TO THE CONNECTOR.

THREE POLE WIRES ARE SHOWN FOR A SINGLE LUMINAIRE LIGHT POLE. THREE ADDITIONAL POLE WIRES REQUIRED FOR TWIN LUMINAIRE LIGHT POLES ARE OMITTED FROM THE DRAWING FOR CLARITY. IN THE TWIN POLE CASE, BUNDLE EACH SET OF THREE WIRES WITH A NYLON CABLE TIE.

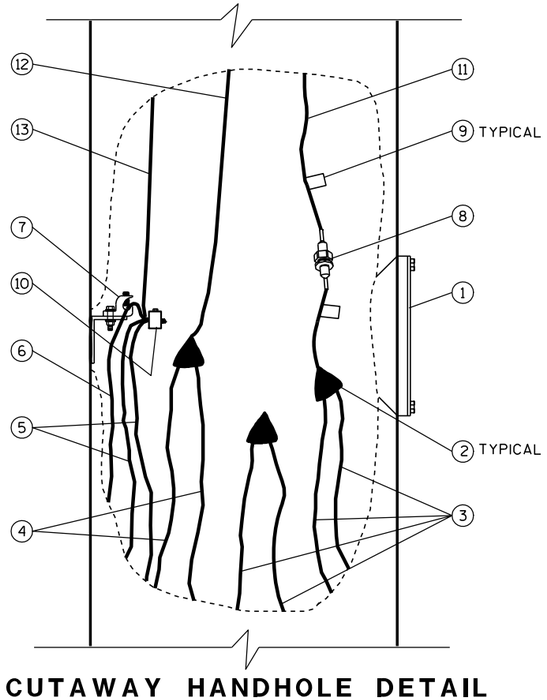
IN 3-PHASE SYSTEMS, THERE WILL BE ONE MORE UNGROUNDED LINE WIRE, WHICH IS OMITTED FROM THE DRAWING FOR CLARITY.

CIRCUIT TAGS SHALL BE INSTALLED ONLY WHERE REQUIRED IN THE SPECIAL PROVISIONS.



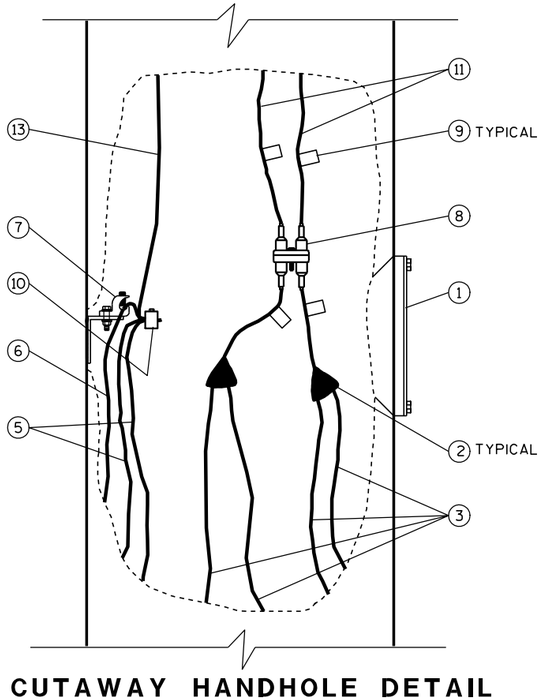
CUTAWAY HANDHOLE DETAIL

GROUNDED NEUTRAL SYSTEMS
1-φ



CUTAWAY HANDHOLE DETAIL

ISOLATED NEUTRAL SYSTEMS
1-φ SHOWN; 3-φ WYE SIMILAR
(SEE GENERAL NOTE)



CUTAWAY HANDHOLE DETAIL

PHASE-TO-PHASE SYSTEMS
1-φ SHOWN; 3-φ DELTA SIMILAR
(SEE GENERAL NOTE)

NOTE: REQUIRED CONDUCTOR SLACK NOT SHOWN ON "CUTAWAY HAND HOLE" DETAILS FOR DRAWING CLARITY, SEE "TYPICAL CONDUCTOR SLACK AT HANDHOLES" ON THIS SHEET.

1. HANDHOLE AND COVER
2. INSULATED SPLICE
3. UNGROUNDED LINE WIRE
4. GROUNDED LINE WIRE
5. SYSTEM GROUNDING LINE WIRE
6. GROUNDING ELECTRODE CONDUCTOR
7. HANDHOLE GROUNDING LUG
8. FUSE ASSEMBLY, 1P OR 2P AS REQUIRED
9. CIRCUIT TAG (SEE GENERAL NOTE)
10. REVERSIBLE PRESSURE OR COMPRESSION GROUNDING CONNECTOR (NOT INSULATED)
11. UNGROUNDED POLE WIRE
12. GROUNDED POLE WIRE
13. EQUIPMENT GROUNDING POLE WIRE

ELECTRICAL HANDHOLE WIRING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/25/2010
DATE

/S/ John Corbin
STATE ELECTRICAL ENGI 770 HWYS

FHWA

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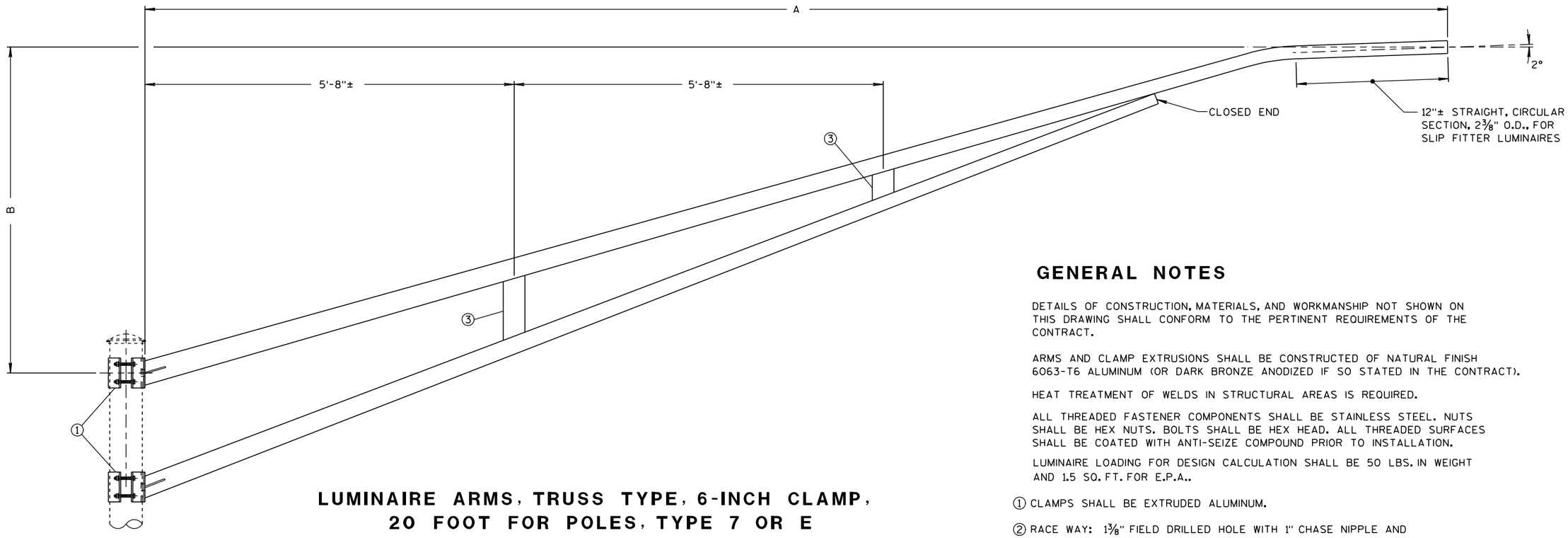
S.D.D. 10 A 1-2



LUMINAIRE ARMS, TRUSS TYPE, 6-INCH CLAMP, 20 FOOT FOR POLES, TYPE 7 OR E

UPPER AND LOWER TRUSS CHORD CLAMPS SIMILIAR

TYPE	DIM. A NOMINAL ARM LENGTH (FT)	DIM. B APPROX. RISE (FT)
TRUSS TYPE	20.0	5.0

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

ARMS AND CLAMP EXTRUSIONS SHALL BE CONSTRUCTED OF NATURAL FINISH 6063-T6 ALUMINUM (OR DARK BRONZE ANODIZED IF SO STATED IN THE CONTRACT).

HEAT TREATMENT OF WELDS IN STRUCTURAL AREAS IS REQUIRED.

ALL THREADED FASTENER COMPONENTS SHALL BE STAINLESS STEEL. NUTS SHALL BE HEX NUTS. BOLTS SHALL BE HEX HEAD. ALL THREADED SURFACES SHALL BE COATED WITH ANTI-SEIZE COMPOUND PRIOR TO INSTALLATION.

LUMINAIRE LOADING FOR DESIGN CALCULATION SHALL BE 50 LBS. IN WEIGHT AND 1.5 SQ. FT. FOR E.P.A..

① CLAMPS SHALL BE EXTRUDED ALUMINUM.

② RACE WAY: 1⅜" FIELD DRILLED HOLE WITH 1" CHASE NIPPLE AND NUT (OR NEOPRENE GROMMET) PER EACH REQUIRED LUMINAIRE ARM. PROVIDE 1½" HOLE IN CLAMP EXTRUSION TO CONTINUE RACEWAY. NOTE: NO RACEWAY ON LOWER TRUSS CORD CLAMP. FOR INFORMATION ONLY.

③ STIFFENER.

④ GUSSETS REQUIRED.

⑤ CLAMP BOLT ASSEMBLY (BOLT - ½"-13 UNC, 2 EACH - FLAT WASHER, LOCK WASHER, NUT) - 4 EACH PER CLAMP.

LUMINAIRE ARMS, TRUSS TYPE 6-INCH CLAMP

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/25/2010 DATE

/S/ John Corbin
STATE ELECTRICAL ENGI 771 HWYS

FHWA

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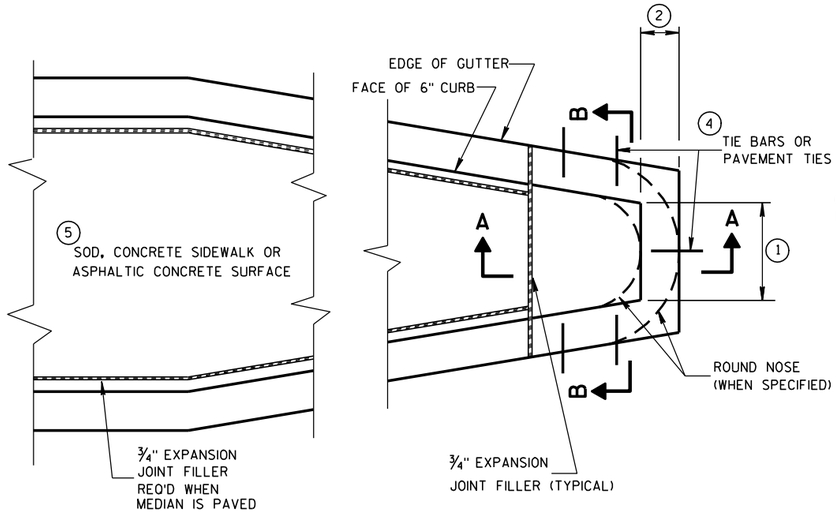
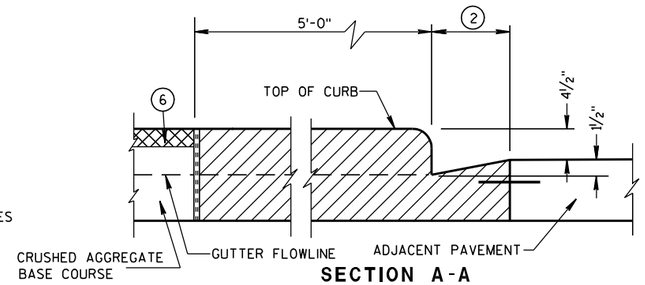
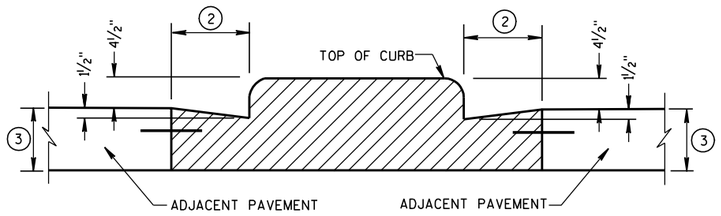
S.D.D. 10 A 18-4b





SECTION A-A



SECTION B-B

CONCRETE MEDIAN BLUNT NOSE DETAIL

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

(1) SEE PLAN FOR MEDIAN NOSE WIDTH AND RADIUS (FOR ROUND NOSE ALTERNATE).

(2) WIDTH OF GUTTER TO MATCH EXISTING ADJACENT GUTTER OR AS SPECIFIED ELSEWHERE IN THE PLAN.

(3) DEPTH EQUAL TO ADJACENT PAVEMENT. ADJACENT PAVEMENT STRUCTURE DETAILS ARE SHOWN ON THE PLAN. TYPICAL OPTIONS ARE:

(1) NEW OR EXISTING CONCRETE PAVEMENT.

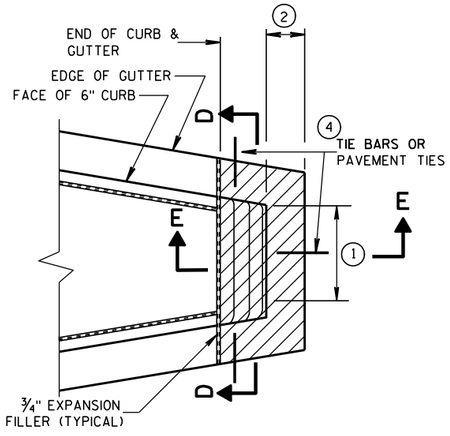
(2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.

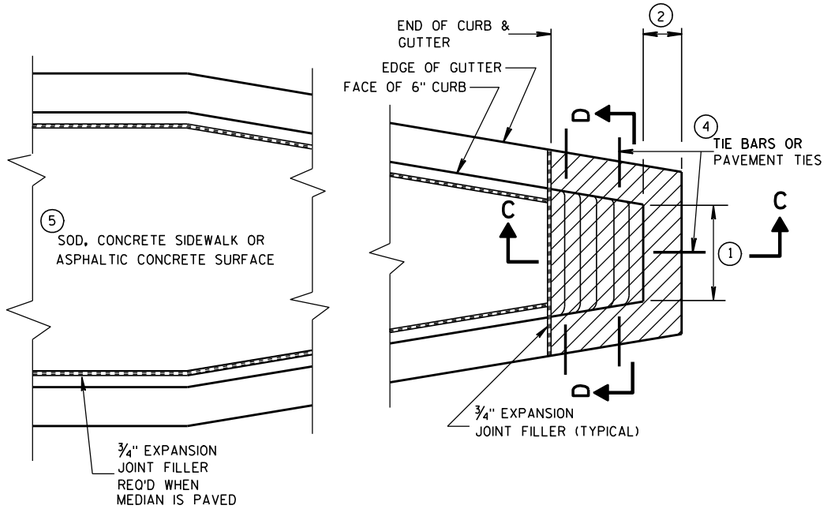
(3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

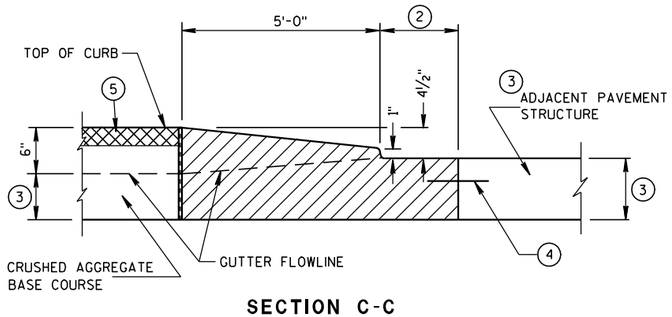
(4) TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C.

PAVEMENT TIES REQUIRED IN EXISTING CONCRETE BASE COURSE. PAVEMENT TIES SHALL BE NO. 6 X 1'-0" SPACED AT 3'-0" C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1. THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.

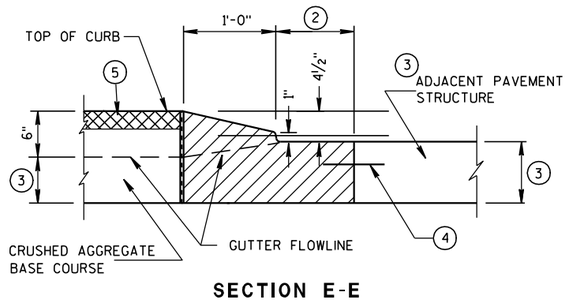
(5) SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.







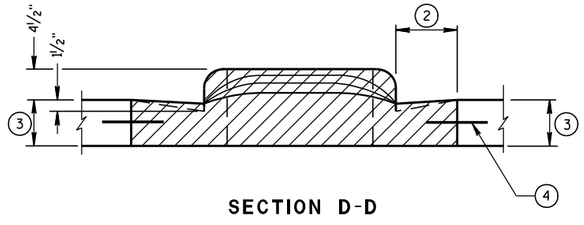
SECTION C-C



SECTION E-E

CONCRETE MEDIAN SLOPED NOSE TYPE 1

CONCRETE MEDIAN SLOPED NOSE TYPE 2



SECTION D-D

CONCRETE MEDIAN NOSE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 6/8/2006 DATE FHWA	/S/ Jerry H. [illegible] ROADWAY STANDARDS ENGINEER 1772 NT

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S.D.D. 11 B 2-2

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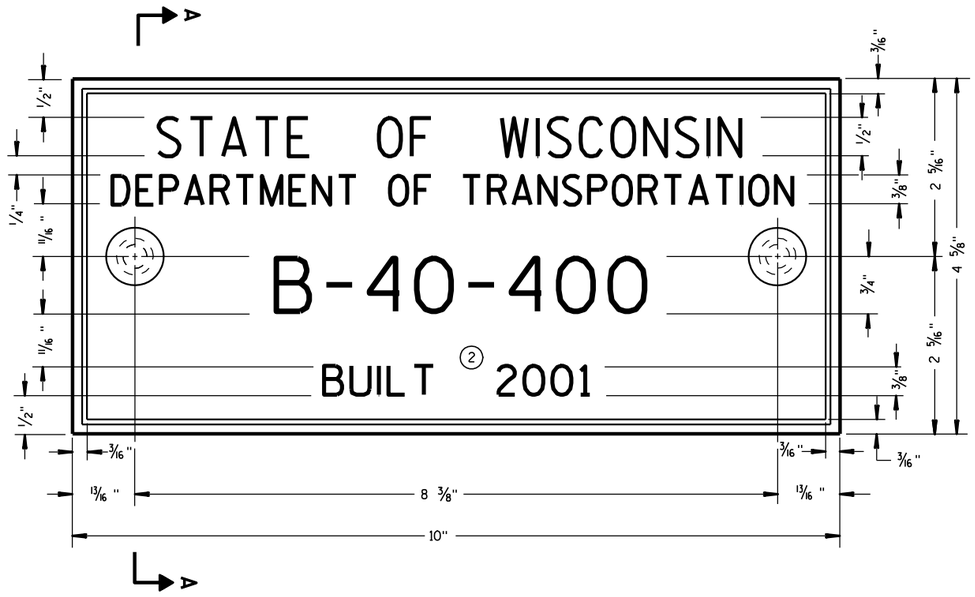
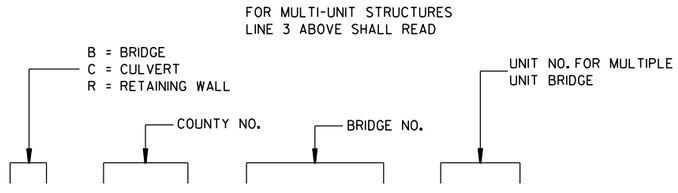
S.D.D. 11 B 2-2



TYPICAL NAME PLATE

(BRIDGES, CULVERTS, AND RETAINING WALLS)



NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES

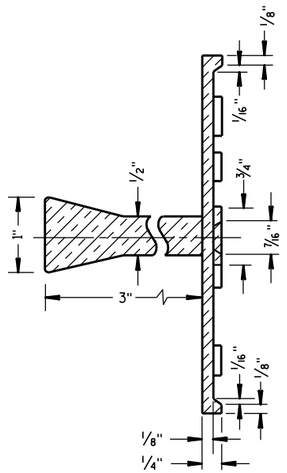
GENERAL NOTES

NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

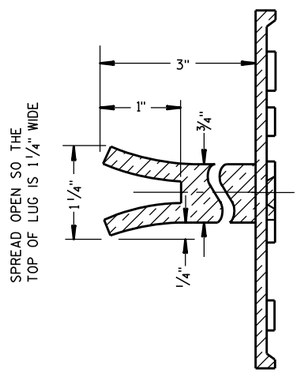
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

(1) EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

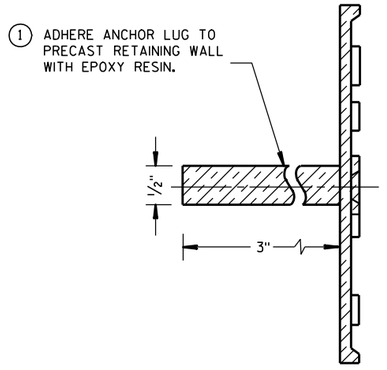
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG



ALTERNATE LUG

(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
3/26/10 DATE	/S/ Scot Beck -- CHIEF STRUCTURAL DEVELOP 773 ENGINEER
FHWA	

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S.D.D. 12 A 3-10

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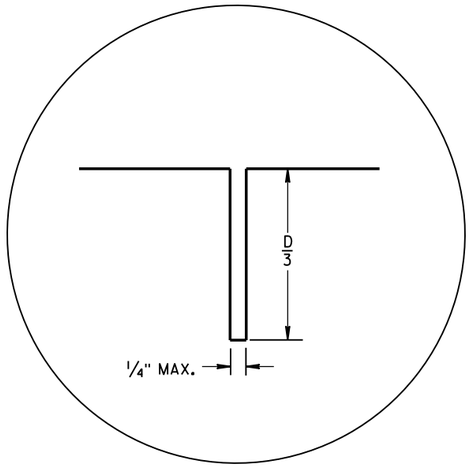
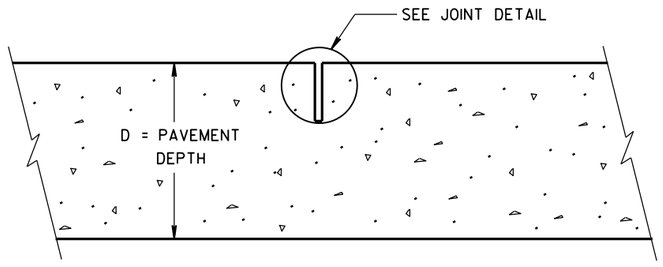
S.D.D. 12 A 3-10



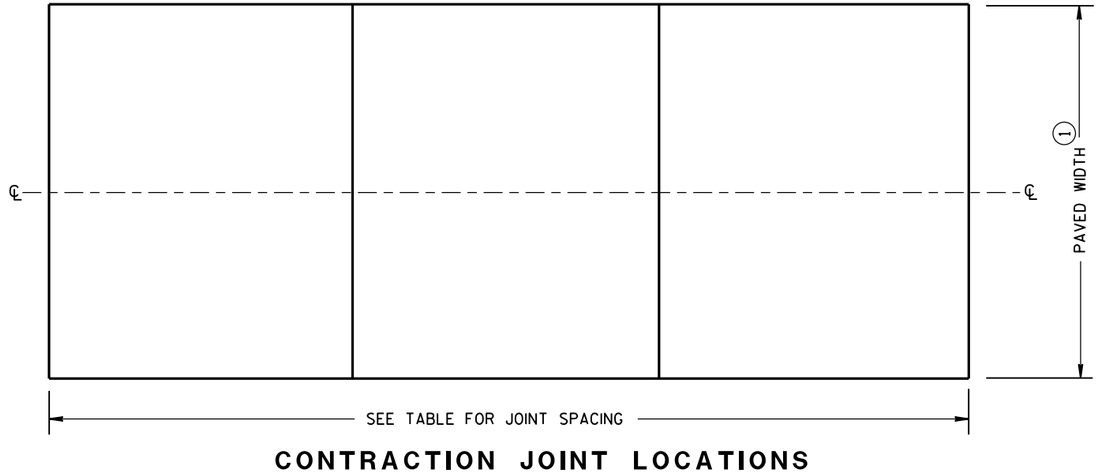
JOINT DETAIL



CONTRACTION JOINT

PAVEMENT DEPTH AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6 1/2"	12'
7", 7 1/2"	14'
8" & ABOVE	15'



CONTRACTION JOINT LOCATIONS

GENERAL NOTES

CONTRACTION JOINTS

CONSTRUCT TRANSVERSE CONTRACTION JOINTS NORMAL TO THE CENTERLINE.

LOCATE AND ORIENT CONTRACTION JOINTS THROUGH INTERSECTIONS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

DO NOT SEAL OR FILL CONTRACTION JOINTS.

CONSTRUCTION JOINTS

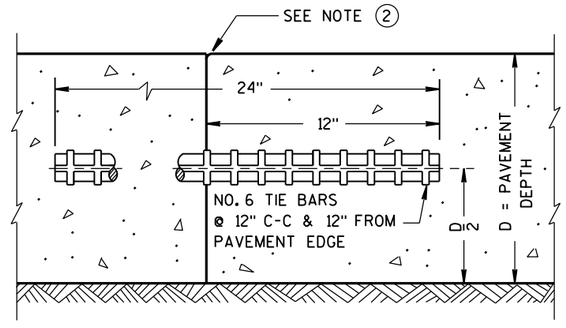
LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO THE CONTRACTION JOINTS.

FORM OR SAW CONSTRUCTION JOINTS.

THE CONTRACTOR MAY INSERT TIE BARS THROUGH THE HEADER BOARD AFTER THE CONCRETE HAS BEEN PLACED.

(1) REFER TO TYPICAL CROSS SECTIONS FOR PAVED WIDTH AND LOCATION OF LONGITUDINAL JOINTS.

(2) PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS. PROVIDE A 1/4-INCH RADIUS AT FORMED JOINTS.



TIED TRANSVERSE CONSTRUCTION JOINT

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S.D.D. 13 C 4-16

S.D.D. 13 C 4-16

URBAN NON-DOWELED CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5/3/2013
DATE

/S/ Deb Bischoff
PAVEMENT POLICY & DE

FHWA

IEER

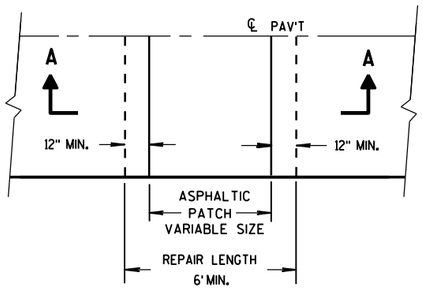
GENERAL NOTES

SAW CUT, DRILL, AND LIFT OUT EXISTING CONCRETE PAVEMENT WITHIN THE BOUNDARIES OF CONCRETE REPAIR AREAS. THE CONTRACTOR MAY MAKE ADDITIONAL SAW CUTS INSIDE THE REPAIR LIMITS TO REDUCE WEIGHT AND SIZE OF CONCRETE PIECES. ADDITIONAL SAW CUTS ARE NOT PAID FOR BY THE DEPARTMENT.

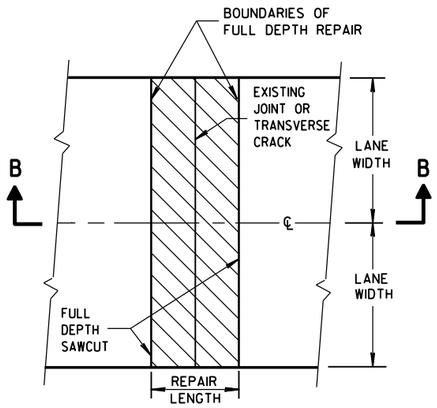
PROVIDE A 6-FOOT MINIMUM DISTANCE FROM BOUNDARIES OF CONCRETE REPAIR AREAS TO ADJACENT TRANSVERSE JOINT OR CRACK IN THE SAME LANE.

THE LENGTH OF THE REPAIRS MAY VARY FROM THE DIMENSIONS SHOWN IF THE EXISTING CONCRETE PAVEMENT IS NONDOWELED AND THE PAVEMENT IS TO BE OVERLAID AFTER REPAIRING.

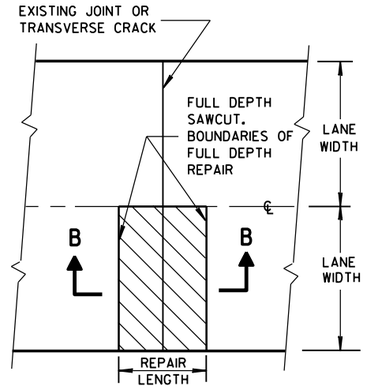
(1) DOWEL BARS MIGHT NOT EXIST.



PLAN VIEW



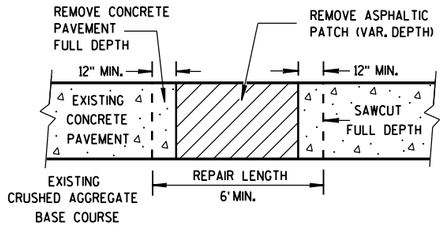
PLAN VIEW
(DOUBLE LANE REPAIR)



PLAN VIEW
(SINGLE LANE REPAIR)

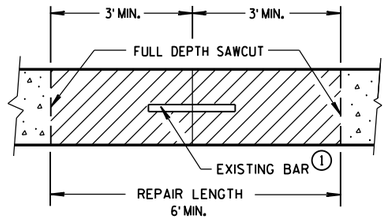
FULL DEPTH CONCRETE PAVEMENT REMOVAL

(SEE NOTE)



SECTION A-A

HMA PATCH REMOVAL



SECTION B-B

CONCRETE REMOVAL

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

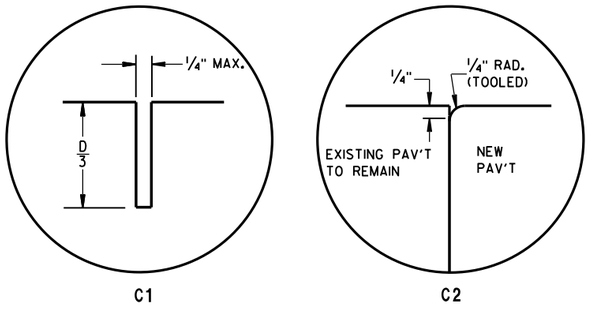
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO 775

6

S.D.D. 13 C 9-10a

6

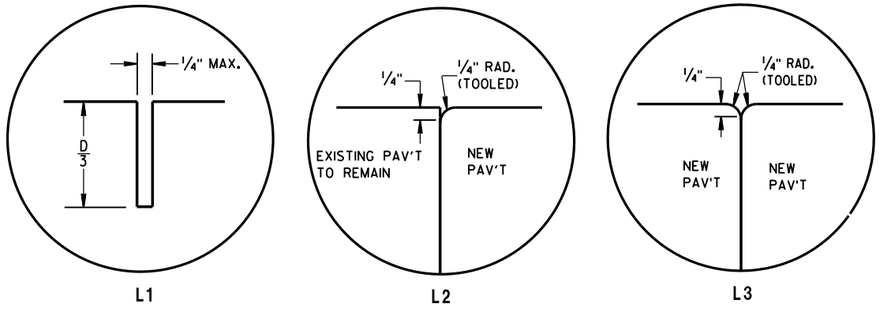
S.D.D. 13 C 9-10a



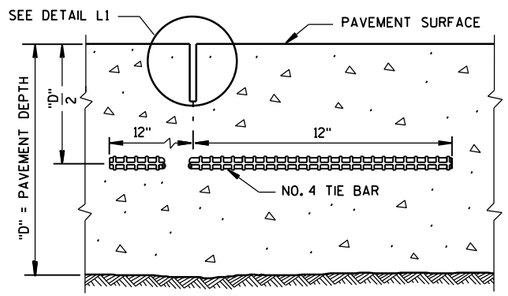
TRANSVERSE JOINTS

TIE BAR TABLE

PAVEMENT DEPTH "D"	CLEAR COVER "C"	MAXIMUM TIE BAR SPACING "S"	
		PAVEMENT WIDTH	
		24' OR 26'	≥ 30'
6, 6 1/2"	3"±1/2"	48"	42"
7, 7 1/2"	3 1/4"±1"	45"	36"
8, 8 1/2"	3 3/4"±1"	39"	30"
9, 9 1/2"	4 1/4"±1"	33"	27"
10, 10 1/2"	4 3/4"±1"	30"	24"
11, 11 1/2"	5 1/4"±1"	27"	21"
12"	5 3/4"±1"	24"	21"



LONGITUDINAL JOINTS



SECTION C-C

SAWED LONGITUDINAL JOINT

GENERAL NOTES

INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

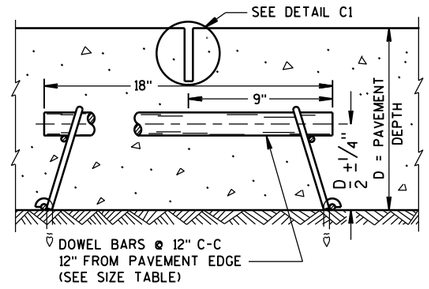
CONCRETE PAVEMENT REPAIRS OF EXISTING NONDOWELED CONCRETE PAVEMENTS DO NOT NEED TO BE DOWELED.

DO NOT SEAL OR FILL JOINTS.

ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

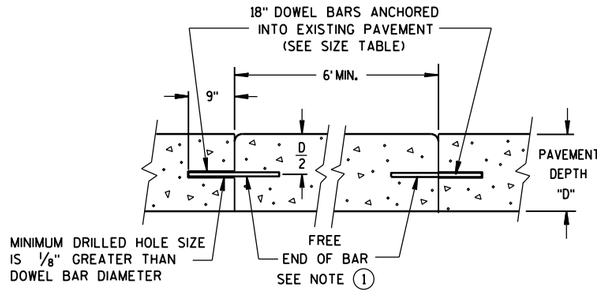
FOR MULTI-LANE CONCRETE PAVEMENT REPLACEMENTS, PROVIDE A MINIMUM DISTANCE OF 15 INCHES FROM ALL TRANSVERSE JOINTS OR EDGES OF REPLACEMENT TO THE CENTER OF THE TIE BAR NEAREST THAT JOINT OR EDGE.

(1) APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.

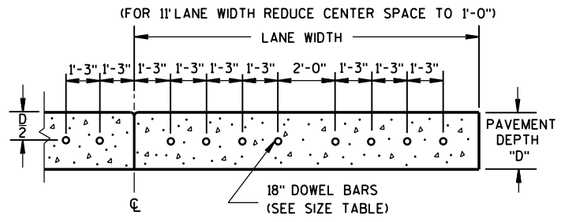


SECTION F-F

CONTRACTION JOINT



SECTION D-D

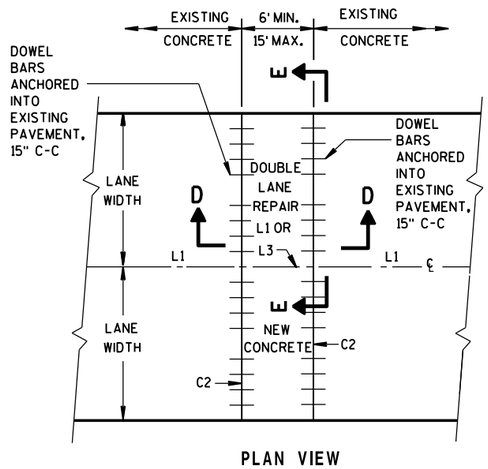


SECTION E-E

DRILLED DOWEL BAR CONSTRUCTION JOINT

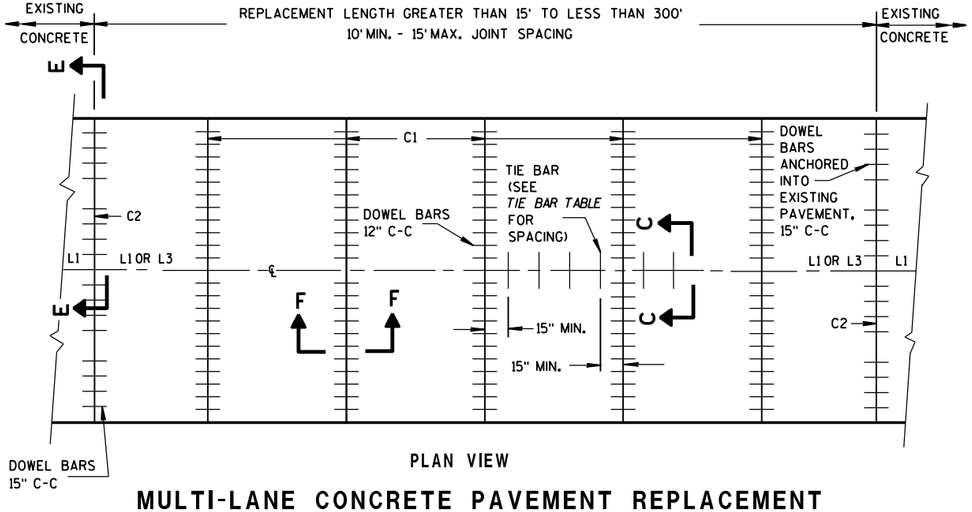
PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 1/2", 6",6 1/2"	NONE	12'
7",7 1/2"	1"	14'
8",8 1/2"	1 1/4"	15'
9",9 1/2"	1 1/4"	15'
10" & ABOVE	1 1/2"	15'



PLAN VIEW

MULTI-LANE CONCRETE PAVEMENT REPAIR



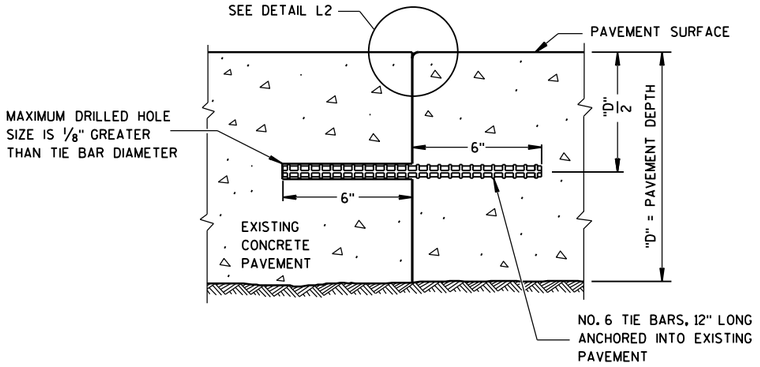
PLAN VIEW

MULTI-LANE CONCRETE PAVEMENT REPLACEMENT

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR 776

6
S.D.D. 13 C 9-10b



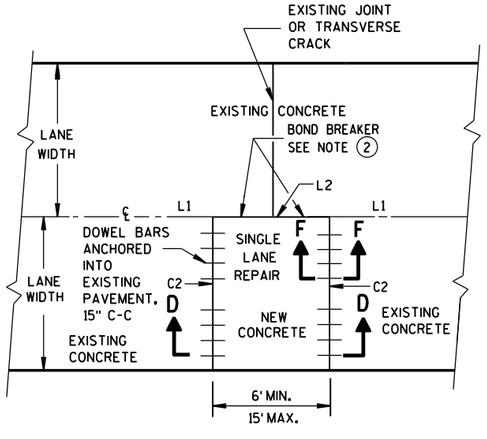
SECTION G-G

TIE BARS ANCHORED INTO EXISTING PAVEMENT

GENERAL NOTES

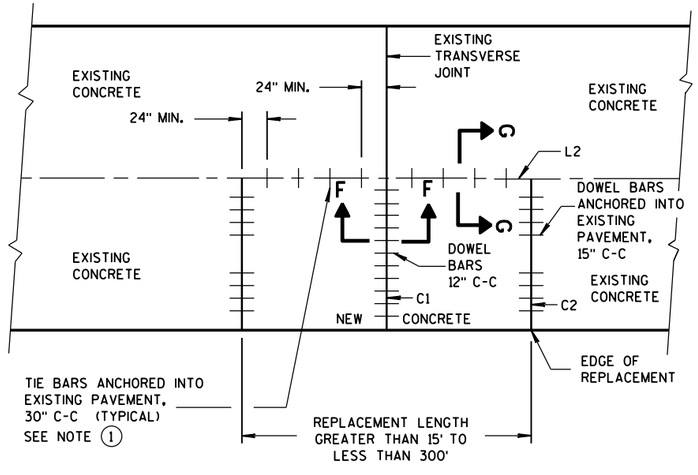
(1) WITH THE APPROVAL OF THE ENGINEER, FOR SINGLE LANE PAVEMENT REPLACEMENTS LESS THAN 30 FEET IN LENGTH, THE CONTRACTOR MAY INSTALL DRILLED TIE BARS ON 6:1 SKEW HORIZONTALLY, DIRECTION OF SKEW ALTERNATING WITH EACH SUCCESSIVE BAR. DRIVE SKEWED TIE BARS TO A DEPTH OF 6 INCHES AND TO SUCH A DIAMETER AS TO PROVIDE A TIGHT DRIVEN FIT.

(2) USE AN ENGINEER-APPROVED BOND BREAKER (E.G. RELEASE AGENT, CURING COMPOUND) FOR SINGLE LANE REPAIRS UP TO 15 FEET IN LENGTH.



PLAN VIEW

SINGLE LANE CONCRETE PAVEMENT REPAIR



PLAN VIEW

SINGLE LANE CONCRETE PAVEMENT REPLACEMENT

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5-3-2013 DATE
/S/ Deb Bischoff PAVEMENT POLICY & DE: 777 IEER
FHWA

6
S.D.D. 13 C 9-10c

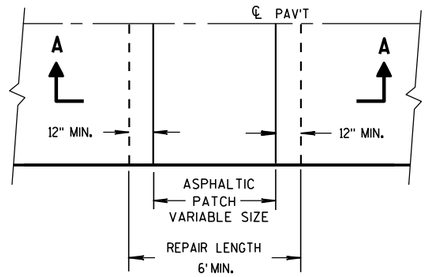
GENERAL NOTES

SAW CUT, DRILL, AND LIFT OUT EXISTING CONCRETE PAVEMENT WITHIN THE BOUNDARIES OF CONCRETE REPAIR AREAS. THE CONTRACTOR MAY MAKE ADDITIONAL SAW CUTS INSIDE THE REPAIR LIMITS TO REDUCE WEIGHT AND SIZE OF CONCRETE PIECES. ADDITIONAL SAW CUTS ARE NOT PAID FOR BY THE DEPARTMENT.

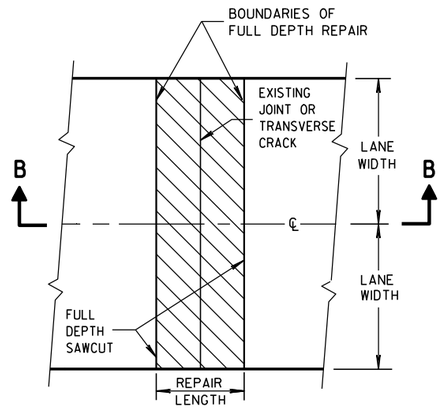
PROVIDE 6-FOOT MINIMUM DISTANCE FROM BOUNDARIES OF CONCRETE REPAIR AREAS TO ADJACENT TRANSVERSE JOINT OR CRACK.

THE LENGTH OF THE REPAIRS MAY VARY FROM THE DIMENSIONS SHOWN IF THE EXISTING CONCRETE PAVEMENT IS NONDOWELED AND THE PAVEMENT IS TO BE OVERLAID AFTER REPAIRING.

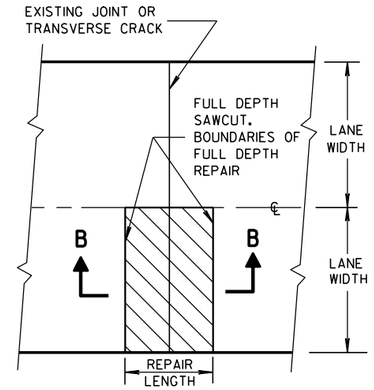
(1) DOWEL BARS MIGHT NOT EXIST.



PLAN VIEW



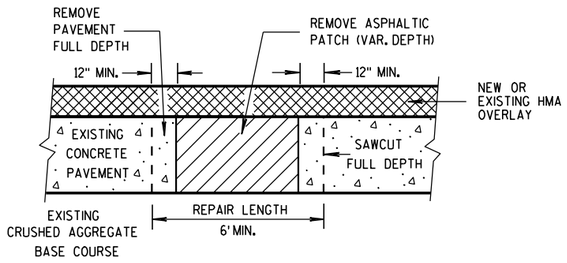
PLAN VIEW
(DOUBLE LANE REPAIR)



PLAN VIEW
(SINGLE LANE REPAIR)

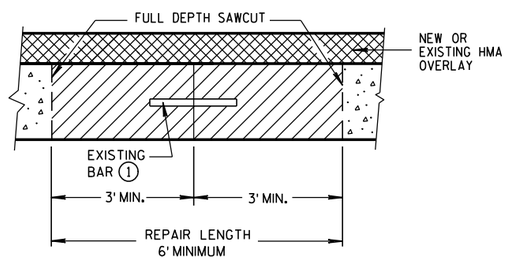
FULL DEPTH CONCRETE PAVEMENT REMOVAL

(SEE NOTE)



SECTION A-A

HMA PATCH REMOVAL



SECTION B-B

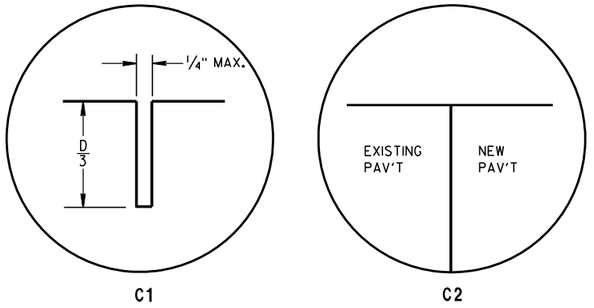
CONCRETE REMOVAL

BASE PATCHING CONCRETE

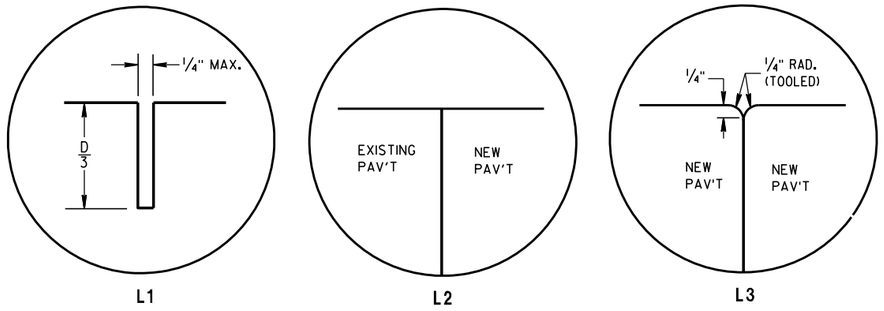
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

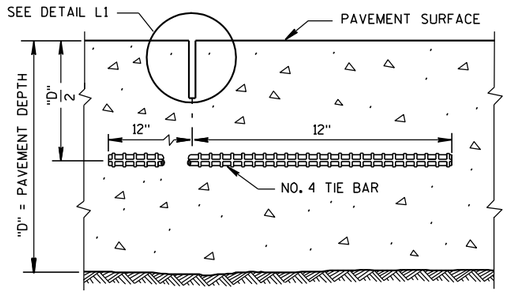
S.D.D. 13 C 14-4a



TRANSVERSE JOINTS

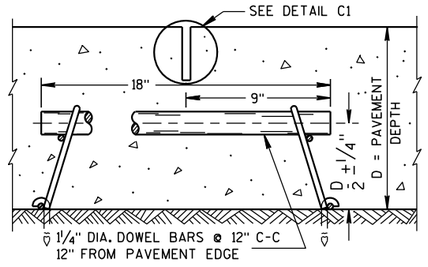


LONGITUDINAL JOINTS



SECTION C-C

SAWED LONGITUDINAL JOINT



SECTION F-F

CONTRACTION JOINT

GENERAL NOTES

INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

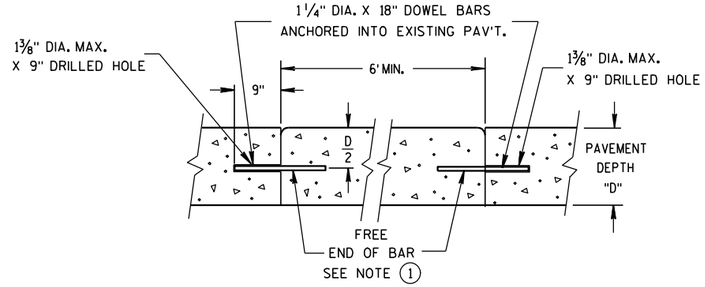
CONCRETE BASE PATCHES OF EXISTING NONDOWELED CONCRETE PAVEMENTS DO NOT NEED TO BE DOWELED.

DO NOT SEAL OR FILL JOINTS.

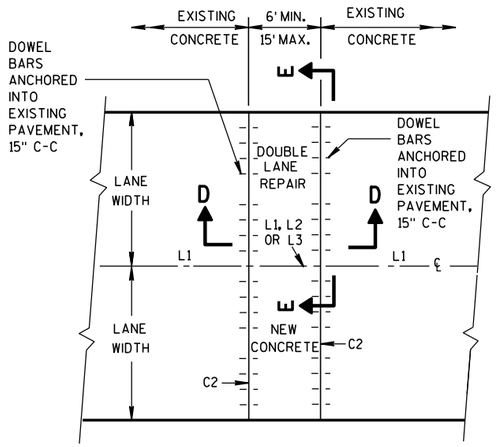
ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

PROVIDE A MINIMUM DISTANCE OF 24 INCHES FROM AN EXISTING TRANSVERSE JOINT OR THE EDGE OF REPLACEMENT TO THE CENTER OF THE TIE BAR NEAREST THAT JOINT OR EDGE.

(1) APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.

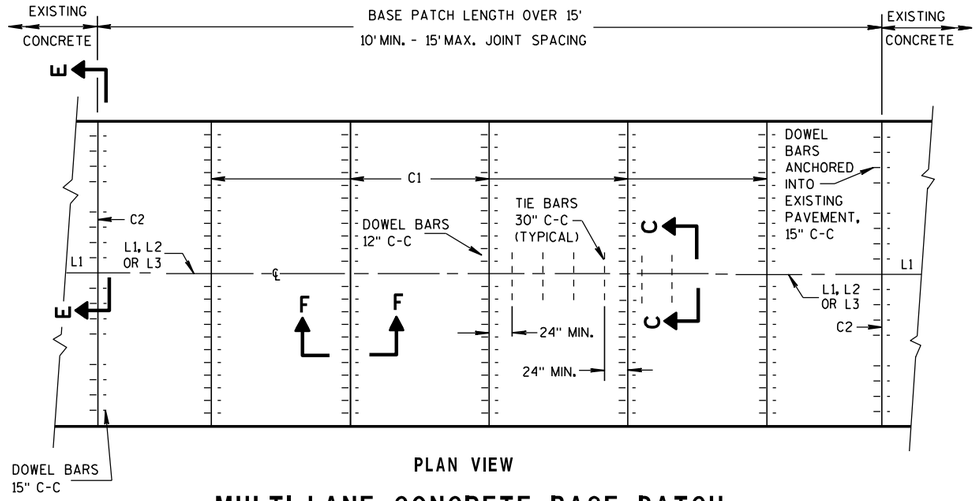


SECTION D-D



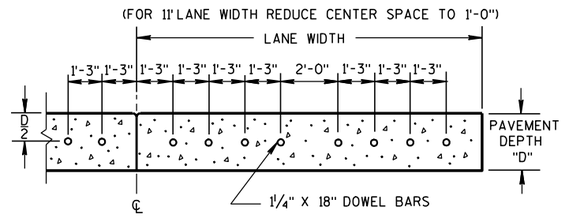
PLAN VIEW

MULTI-LANE CONCRETE BASE PATCH 15' MAXIMUM LENGTH



PLAN VIEW

MULTI-LANE CONCRETE BASE PATCH GREATER THAN 15' IN LENGTH



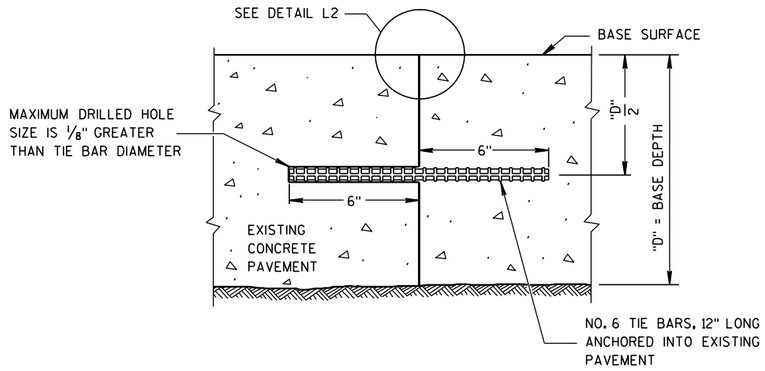
SECTION E-E

SPACING OF DOWEL BARS ANCHORED INTO EXISTING PAVEMENT

BASE PATCHING CONCRETE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 13 C 14-4b



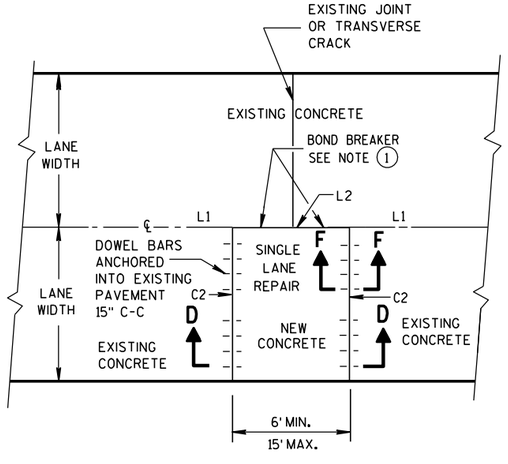
SECTION G-G

TIE BARS ANCHORED INTO EXISTING PAVEMENT

GENERAL NOTES

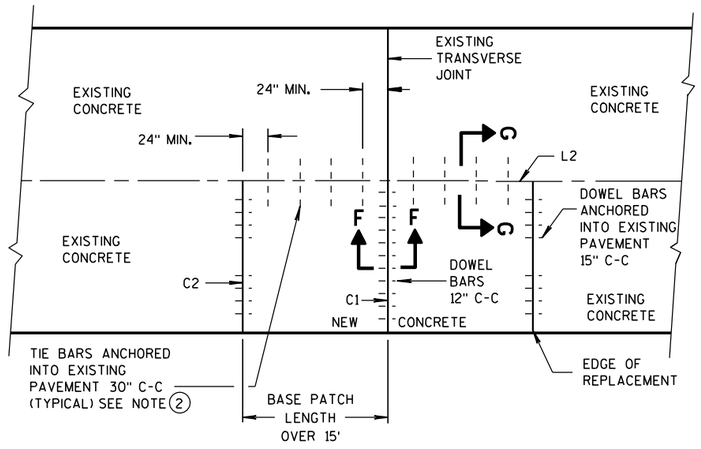
(1) USE AN ENGINEER-APPROVED BOND BREAKER FOR SINGLE LANE BASE PATCHES UP TO 15 FEET IN LENGTH.

(2) WITH THE APPROVAL OF THE ENGINEER, FOR SINGLE LANE PAVEMENT REPLACEMENTS LESS THAN 30 FEET IN LENGTH, DRILLED TIE BARS MAY BE INSTALLED ON 6:1 SKEW HORIZONTALLY, DIRECTION OF SKEW ALTERNATING WITH EACH SUCCESSIVE BAR. DRIVE SKEWED TIE BARS TO A DEPTH OF 6 INCHES AND TO SUCH A DIAMETER AS TO PROVIDE A TIGHT DRIVEN FIT.



PLAN VIEW

SINGLE LANE CONCRETE BASE PATCH 15' MAXIMUM LENGTH



PLAN VIEW

SINGLE LANE CONCRETE BASE PATCH GREATER THAN 15' IN LENGTH

BASE PATCHING CONCRETE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

12-11-2009 DATE

/S/ Deb Bischoff
PAVEMENT POLICY & DE 780 NEER

FHWA

6

S.D.D. 13 C 14-4c

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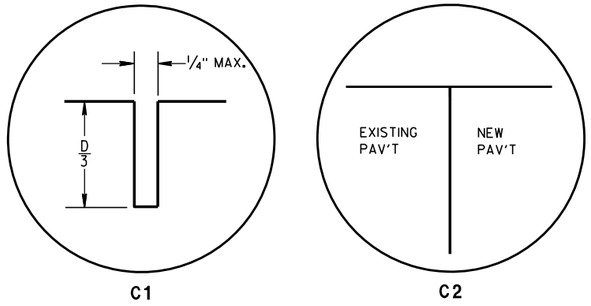
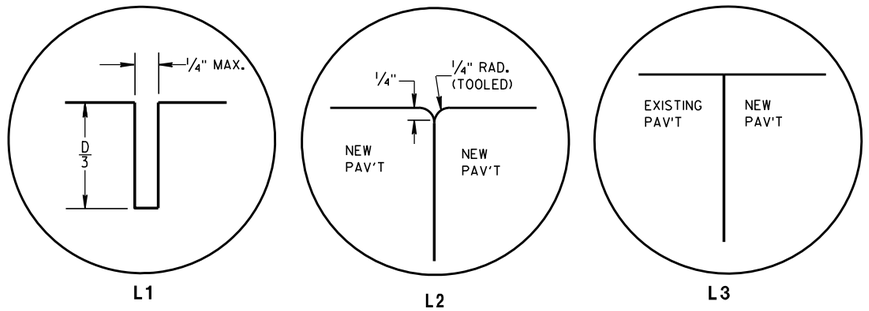
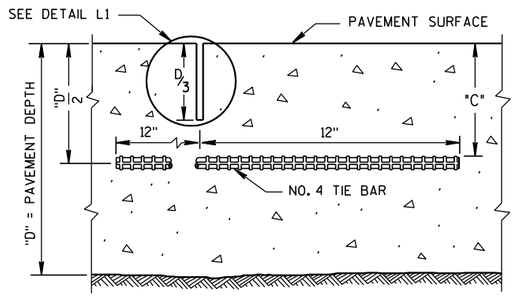
S.D.D. 13 C 14-4c



TRANSVERSE JOINTS

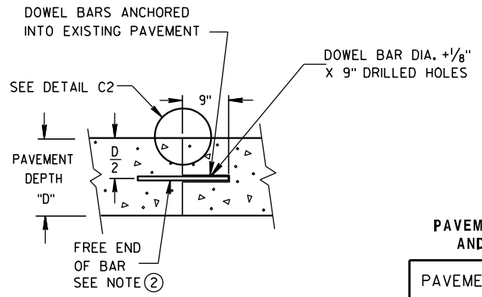


LONGITUDINAL JOINTS



SECTION C-C

SAWED JOINT



SECTION D-D

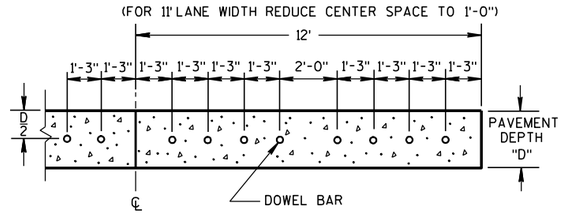
GENERAL NOTES

ANCHOR TIE BARS AND DOWEL BARS INTO DRILLED HOLES WITH AN EPOXY.

PROVIDE A MINIMUM DISTANCE OF 24 INCHES FROM AN EXISTING TRANSVERSE JOINT OR THE EDGE OF REPLACEMENT TO THE CENTER OF THE TIE BAR NEAREST THAT JOINT OR EDGE.

(1) INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

(2) APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.



SECTION E-E

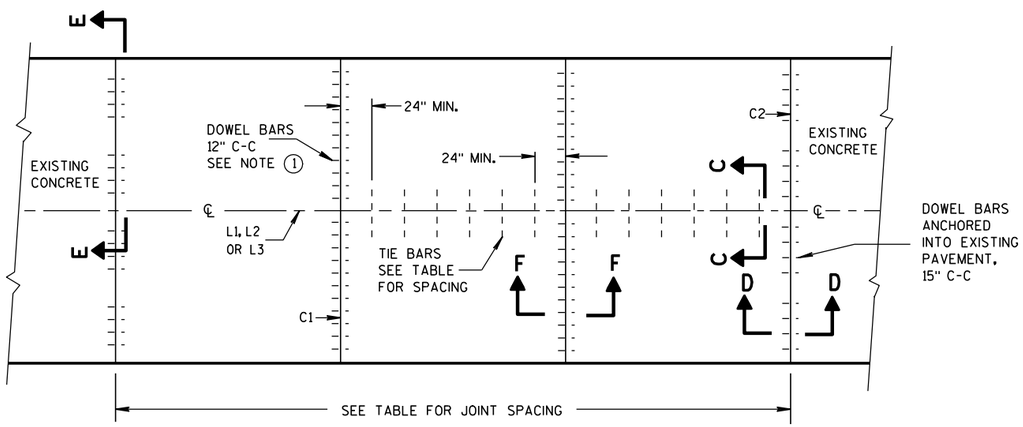
SPACING OF DOWEL BARS ANCHORED INTO EXISTING PAVEMENT

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH "D"	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5½", 6, 6 ½"	NONE	12'
7, 7 ½"	1"	14'
8, 8 ½"	1 ¼"	15'
9, 9 ½"	1 ¼"	15'
10" & ABOVE	1 ½"	15'

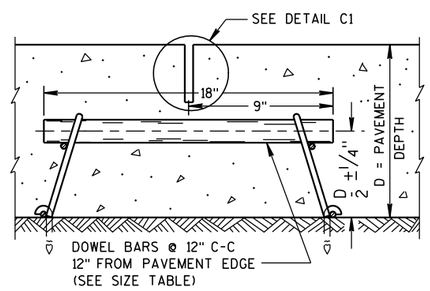
TIE BAR LOCATION TABLE

PAVEMENT DEPTH "D"	CLEAR COVER "C"	MAXIMUM TIE BAR SPACING C-C	
		PAVEMENT WIDTH	
		24' OR 26'	≥ 30'
6, 6 ½"	3"±½"	48"	42"
7, 7 ½"	3 ¼"±1"	45"	36"
8, 8 ½"	3 ¾"±1"	39"	30"
9, 9 ½"	4 ¼"±1"	33"	27"
10, 10 ½"	4 ¾"±1"	30"	24"
11, 11 ½"	5 ¼"±1"	27"	21"
12"	5 ¾"±1"	24"	21"



PLAN VIEW

CONCRETE BASE CONTRACTION JOINT LOCATIONS



SECTION F-F

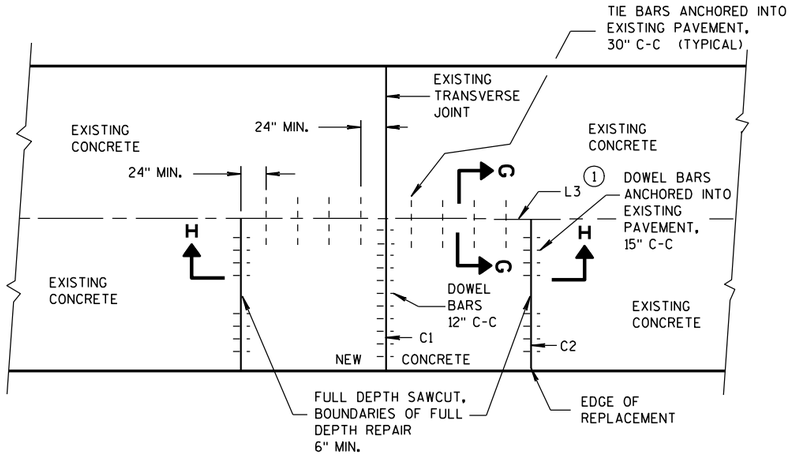
CONTRACTION JOINT

CONCRETE BASE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 13 C 15-5a

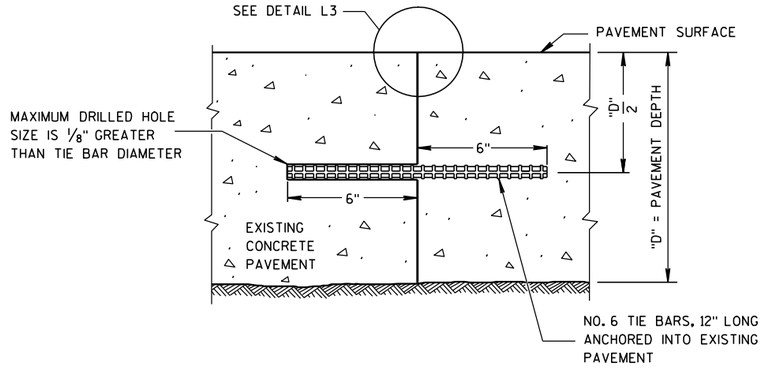


PLAN VIEW

SINGLE LANE CONCRETE BASE REPAIR

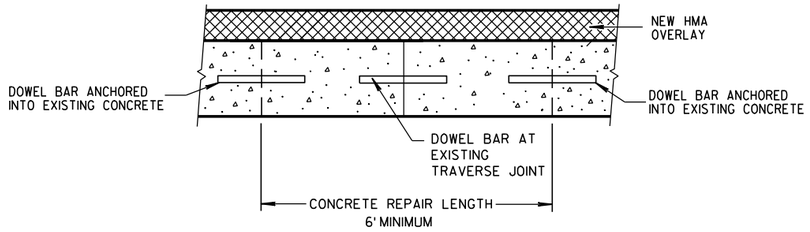
GENERAL NOTES

(1) USE AN ENGINEER-APPROVED BOND BREAKER AT THE LONGITUDINAL JOINT IN LIEU OF TIE BARS FOR SINGLE LANE CONCRETE BASE REPAIRS UP TO 15 FEET IN LENGTH.



SECTION G-G

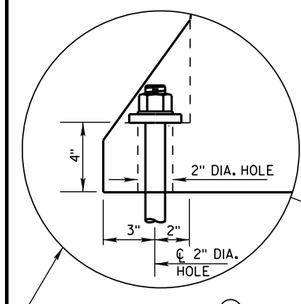
TIE BARS ANCHORED INTO EXISTING PAVEMENT



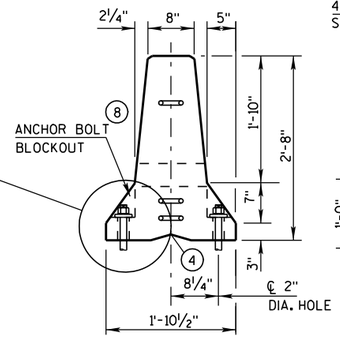
SECTION H-H

CONCRETE BASE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 12-11-2009 DATE FHWA	/S/ Deb Bischoff PAVEMENT POLICY & D 782 ENGINEER

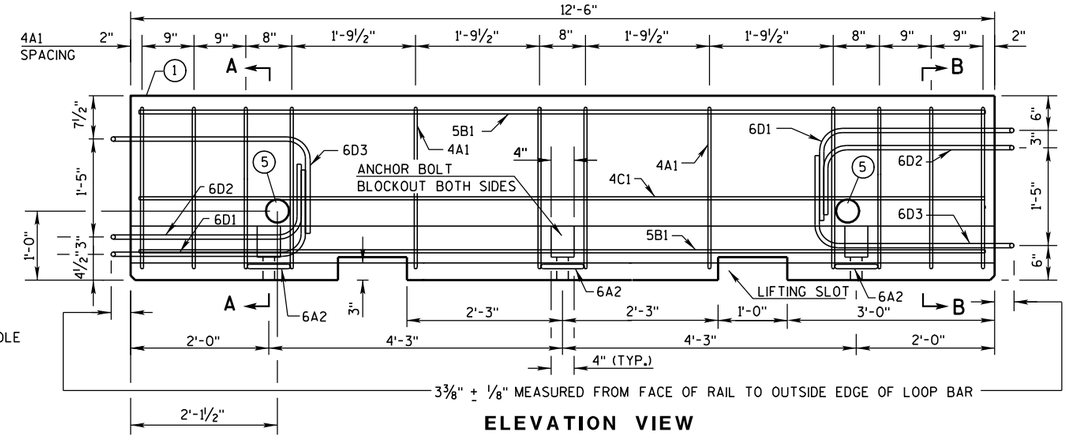
6
S.D.D. 13 C 15-5b



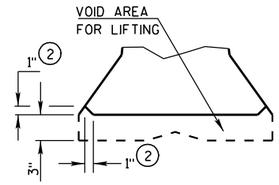
ANCHOR ON TRAFFIC SIDE (8) ONLY WHEN REQUIRED (SEE SHEET D FOR ADDITIONAL ANCHOR DETAIL)



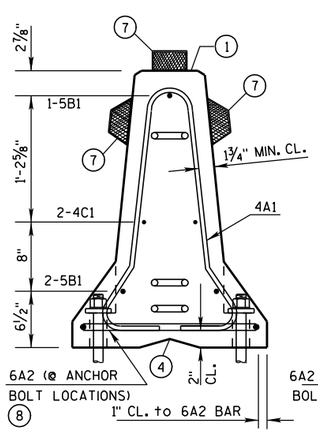
END VIEW



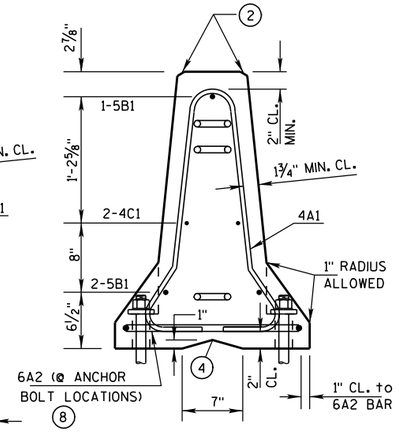
ELEVATION VIEW



DETAIL "B"
LIFTING SLOT DETAIL



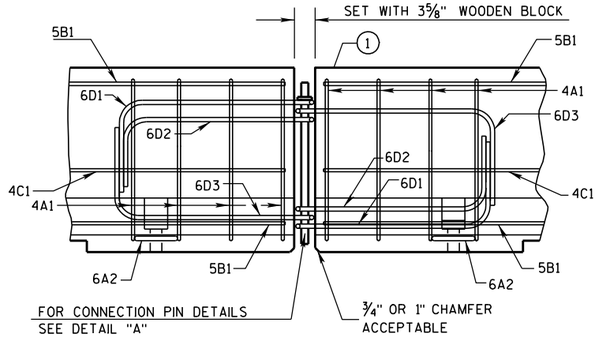
SECTION A-A
(STIRRUP PLACEMENT)



SECTION B-B
(STIRRUP PLACEMENT)

PLAN VIEW

DETAILS OF BARRIER SECTION



DETAILS OF BARRIER CONNECTION

1/2" TOP PLATE DETAIL

DETAIL "A"
CONNECTION PIN
(A36 STEEL (10.9 LB EACH))

GENERAL NOTES

THESE GENERAL NOTES APPLY TO SHEETS 14B7-13(a) THRU 14B7-13(h).

DO NOT INTERMIX CONCRETE BARRIER TEMPORARY PRCAST, 12'-6" (CBTP12.5) WITH OTHER TEMPORARY CONCRETE BARRIERS.

USE ASTM A-615, GRADE 60, DEFORMED STEEL BARS FOR BARS 4A1, 6A2, 5B1 AND 4C1 IN THE BARRIER SECTION AND FOR 4V1, 4V2, 4V3, 4V4, 4V5, 4V6, 4F1, 4F2 AND 5F3 IN THE BARRIER TAPER SECTION.

LOOP BARS 6D1, 6D2 AND 6D3 SHALL BE ¾" SMOOTH STEEL BARS WITH A MINIMUM YIELD STRENGTH OF 60 KSI, A TENSILE STRENGTH OF NOT LESS THAN 1.25 TIMES THE YIELD STRENGTH BUT A MINIMUM OF 80 KSI, A MINIMUM 14% ELONGATION IN 8 INCHES AND PASSING A 180 DEGREE BEND TEST USING A 3-½" PIN BEND DIAMETER FOR BEND TESTS. THE LOOPS SHALL BE INSTALLED WITHIN ⅛" OF THE PLAN DIMENSION.

CONSTRUCT LIFTING SLOTS AS SPECIFIED ON THE PLANS TO FACILITATE THE DRAINAGE OF WATER AFTER INSTALLATION.

PLACE BARRIER ON A PAVED SURFACE. REMOVE ALL LOOSE DIRT AND SAND FROM THE ROADWAY SURFACE PRIOR TO PLACEMENT OF THE BARRIER.

INSTALL MECHANICAL OR EPOXY ANCHORS PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE MANUFACTURER'S INFORMATION TO PROJECT ENGINEER.

(1) MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
- a. TYPE: WICBTP
- b. MANUFACTURER
- c. DATE MANUFACTURED (MONTH AND YEAR)

(2) 1" CHAMFER TO PREVENT SPALLING.

(3) A ⅜" HOLE IN THE CONNECTION PIN, AT THE LOCATION SHOWN, IS ACCEPTABLE, BUT NOT REQUIRED..

(4) "V" NOTCH IS OPTIONAL.

(5) THE 4" DIAMETER, 11 GAUGE STEEL, ROUND MECHANICAL TUBING SLEEVE FOR LIFTING (OPTIONAL).

(6) NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

(7) USE DELINEATORS CONFORMING TO SECTION 633 OF THE STANDARD SPECIFICATIONS. CONTRACTOR MAY USE ALTERNATE SHAPES AND HOUSING. INSTALL DELINEATORS ACCORDING TO MANUFACTURES INSTRUCTION. INSTALL YELLOW REFLECTORS WHEN BARRIER IS LOCATED TO THE LEFT OF TRAFFIC AND WHITE REFLECTORS WHEN BARRIER IS LOCATED TO THE RIGHT OF TRAFFIC. SPACE DELINEATORS A MAXIMUM OF 25 FEET APART. PROVIDE TOP MOUNTED DELINEATORS IN ADDITION TO THE SIDE MOUNTED DELINEATORS ON ALL BARRIER INSTALLATIONS LOCATED ON A CURVED ALIGNMENT LONGER THAN 200 FEET AND ON BARRIERS USED TO SEPARATE OPPOSING TRAFFIC.

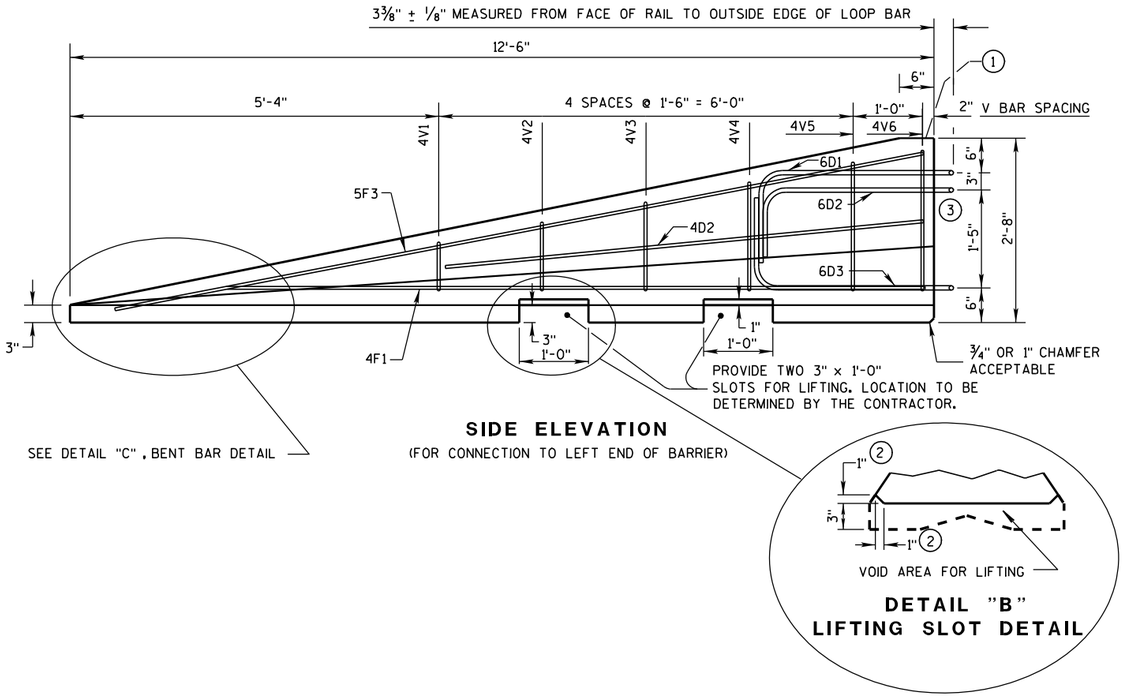
(8) SEE SHEET D FOR ANCHORING CRITERIA.

(9) 1" CHAMFER OPTIONAL.

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

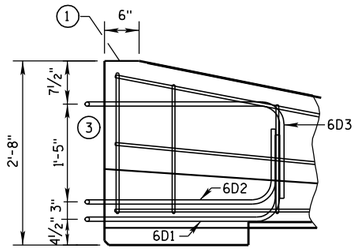
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO...

6
S.D.D. 14 B 7-13a



SIDE ELEVATION
(FOR CONNECTION TO LEFT END OF BARRIER)

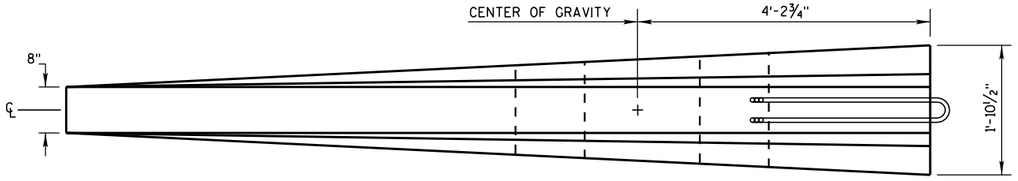
DETAIL "B"
LIFTING SLOT DETAIL



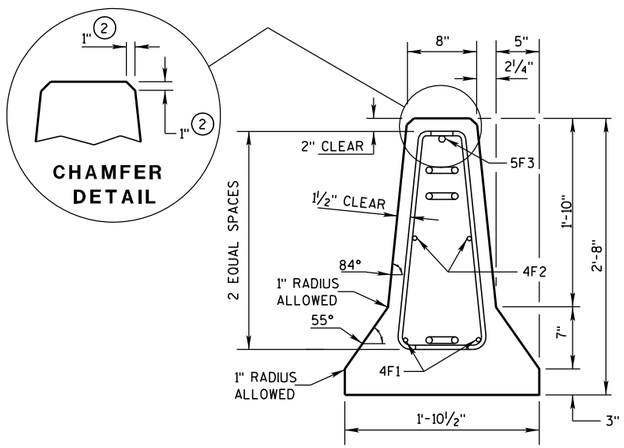
SIDE ELEVATION
LOOP BAR ASSEMBLY INVERTED
FOR OPPOSITE END.
(FOR CONNECTION TO RIGHT END OF BARRIER)

GENERAL NOTES

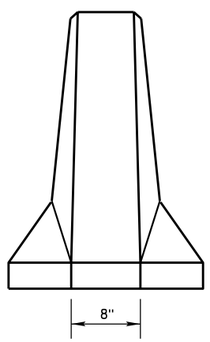
1. MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
   a. TYPE WICBTP
   b. MANUFACTURER
   c. DATE MANUFACTURED (MONTH AND YEAR)
2. 1" CHAMFER TO PREVENT SPALLING.
3. NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.



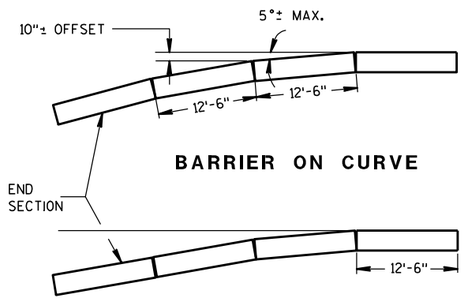
PLAN VIEW



END SECTION



FRONT ELEVATION



BARRIER ON CURVE

FLARE AT BARRIER END

POSTED SPEED, (MPH)	FLARE RATE
40 OR LESS	6:1
45 OR GREATER	8:1

DETAILS OF BARRIER TAPER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

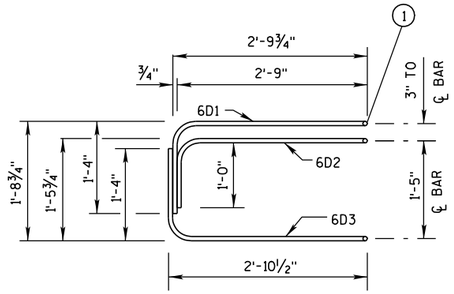
6

S.D.D. 14 B 7-13b

BARRIER TAPER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER TAPER SECTION)

BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4V1	4	2	1'-11"
4V2	4	2	2'-2"
4V3	4	2	2'-6"
4V4	4	2	2'-9"
4V5	4	2	3'-2"
4V6	4	2	3'-4"
4F1	4	2	12'-0"
4F2	4	2	7'-6"
5F3	5	1	11'-9"
LOOP ASSEMBLY			
6D1	6	1	8'-5"
6D2	6	1	7'-7"
6D3	6	1	8'-6"



ELEVATION
LOOP BAR ASSEMBLY

DETAIL "C"
BENT BAR DETAIL

BAR	a	b
V1	10"	1"
V2	1'-1"	1¼"
V3	1'-5"	1⅝"
V4	1'-8"	1⅞"
V5	2'-0½"	2⅜"
V6	2'-3"	2¾"

4V BARS
2 AT EACH SIZE REQUIRED
FOR STIRRUP ASSEMBLY

TAPER BARRIER SECTION

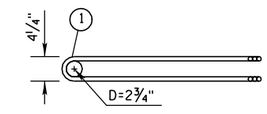
GENERAL NOTES

(1) NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

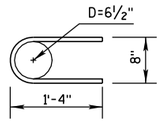
BARRIER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER SECTION)

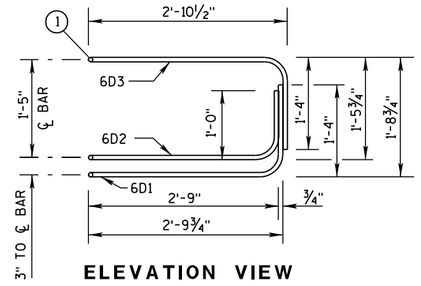
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4A1	4	12	6'-0"
6A2	6	6	2'-11"
5B1	5	3	12'-2"
4C1	4	2	12'-2"
LOOP ASSEMBLY			
6D1	6	2	8'-5"
6D2	6	2	7'-7"
6D3	6	2	8'-6"



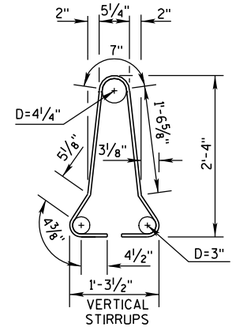
PLAN VIEW
LOOP BAR ASSEMBLY
(MARKED END SHOWN, INVERT FOR OTHER END)



6A2



ELEVATION VIEW



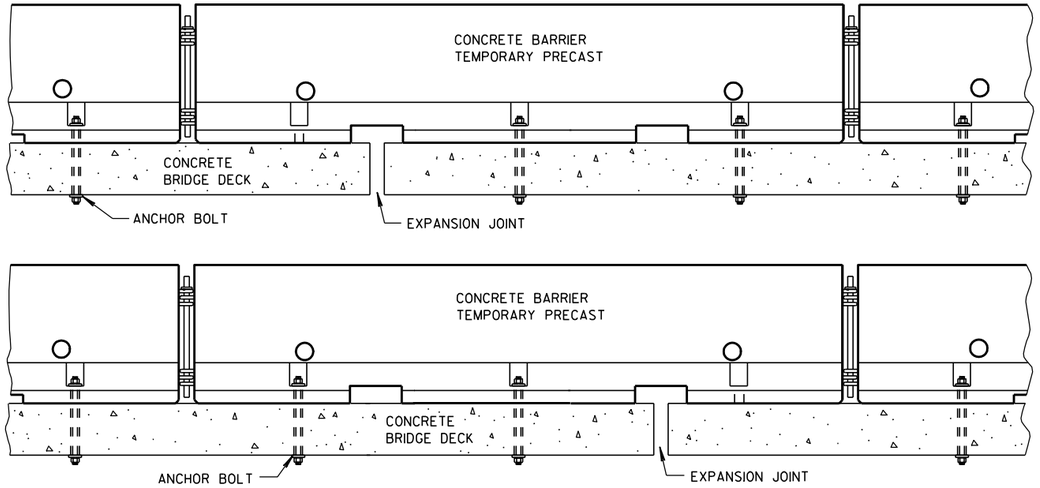
4A1

BARRIER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

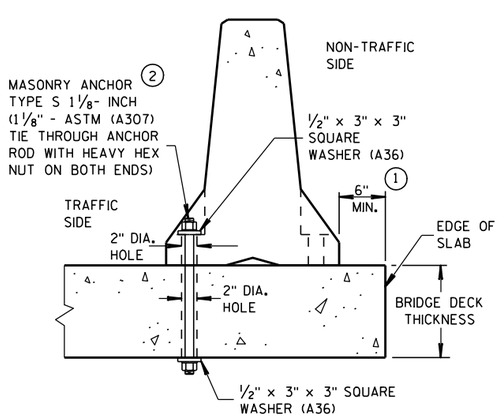
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 14 B 7-13c



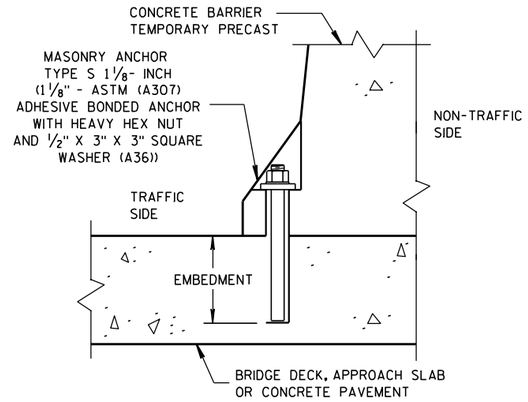
TREATMENT AT BRIDGE DECK EXPANSION JOINTS

(NO SINGLE CONCRETE BARRIER SECTION SHALL BE ANCHORED TO BOTH THE BRIDGE DECK AND THE APPROACH SLAB. ALL ANCHOR BOLT LOCATIONS SHALL BE ANCHORED TO THE DECK IN ACCORDANCE WITH THE DETAIL. NO MORE THAN ONE ANCHOR BOLT SHALL BE ELIMINATED FROM A BARRIER SECTION WHEN SPANNING AN EXPANSION JOINT.)



THROUGH BOLTED ANCHOR INSTALLATION ON BRIDGE DECK

(DO NOTUSE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY)



REMOVABLE ADHESIVE BONDED ANCHOR INSTALLATION ON CONCRETE BRIDGE DECK, CONCRETE APPROACH SLAB, OR CONCRETE PAVEMENT

2

(DO NOT USE ON CONCRETE WITH AN ASPHALTIC OVERLAY)

GENERAL NOTES

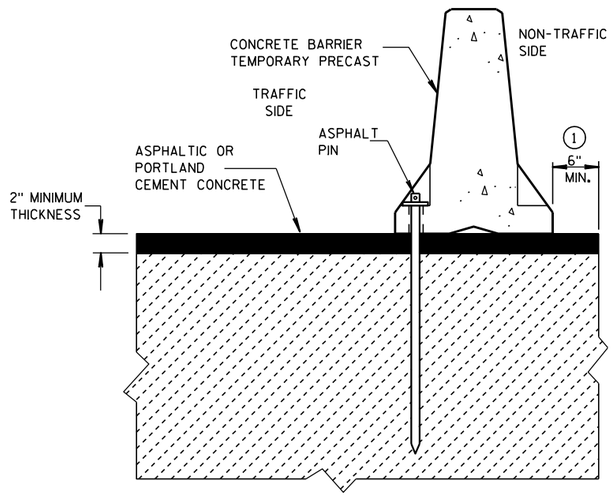
1. CONCRETE BARRIER TEMPORARY PRECAST, 12'-6" SHALL BE ANCHORED IF:
   THE DISTANCE TO A 2 FOOT OR GREATER DROPOFF THAT IS STEEPER THAN 3H : 1V, FOR EXAMPLE THE EDGE OF A BRIDGE DECK OR A DROPOFF AT THE EDGE OF PAVEMENT, IS LESS THAN 4 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROPOFF AND THE POSTED SPEED IS 45 MPH OR GREATER, OR

   THE DISTANCE TO A 2 FOOT OR GREATER DROPOFF THAT IS STEEPER THAN 3H : 1V, FOR EXAMPLE THE EDGE OF A BRIDGE DECK OR A DROPOFF AT THE EDGE OF PAVEMENT. IS LESS THAN 2 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROPOFF AND THE POSTED SPEED IS 40 MPH OR LESS.

2. ANCHORING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST.

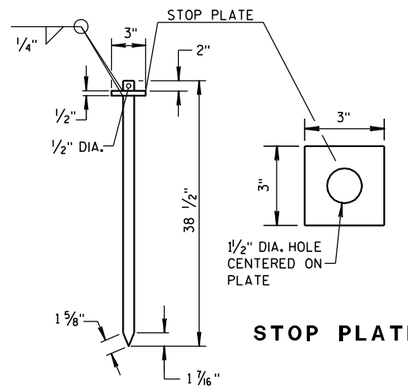
   WITH THE APPROVAL OF THE ENGINEER, REMOVABLE ADHESIVE BONDED (EPOXY) ANCHOR BOLT INSTALLATION MAY BE USED IN LIEU OF THROUGH BOLTED ANCHOR INSTALLATION. THE ADHESIVE BONDED ANCHOR BOLT MUST BE REMOVABLE. USE ASTM (A307) MASONRY ANCHORS TYPE S 1⅛-INCH, EMBEDDED TO A DEPTH SUFFICIENT TO DEVELOP THE ULTIMATE CAPACITY OF THE ANCHOR BOLT AND PROVIDE DOCUMENTATION TO CONFIRM THIS.

   UPON REMOVAL OR RELOCATION OF THE BARRIER UNITS, REMOVE ALLANCHOR BOLTS AND COMPLETELY FILL IN THE REMAINING HOLES IN CONCRETE BRIDGE DECKS, CONCRETE APPROACH SLABS AND CONCRETE PAVEMENTS THAT ARE TO REMAIN, WITH A NON-SHRINK COMMERICAL GROUT OR EPOXY MATERIAL IDENTIFIED ON THE CURRENT WISDOT APPROVED PRODUCTS LIST.



STAKE DOWN INSTALLATION FOR ASPHALTIC OR PORTLAND CEMENT CONCRETE SURFACE

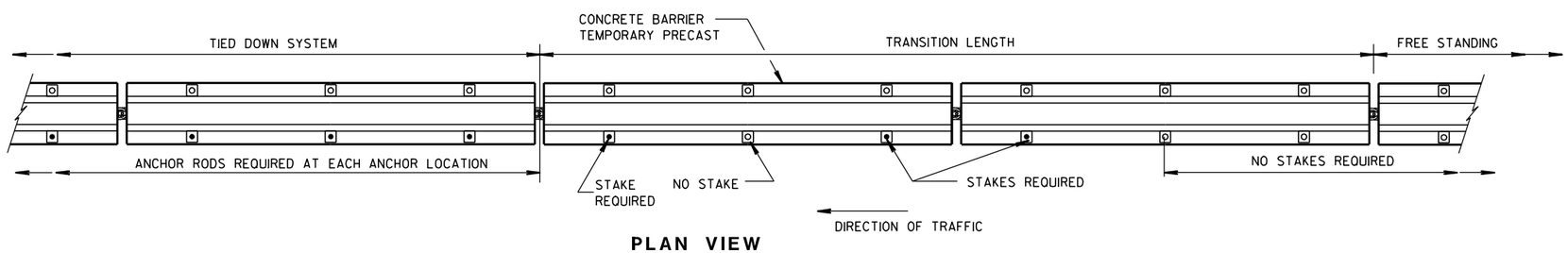
(STAKING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST)



STOP PLATE

ASPHALT PIN

(ASTM A36 STEEL)



PLAN VIEW

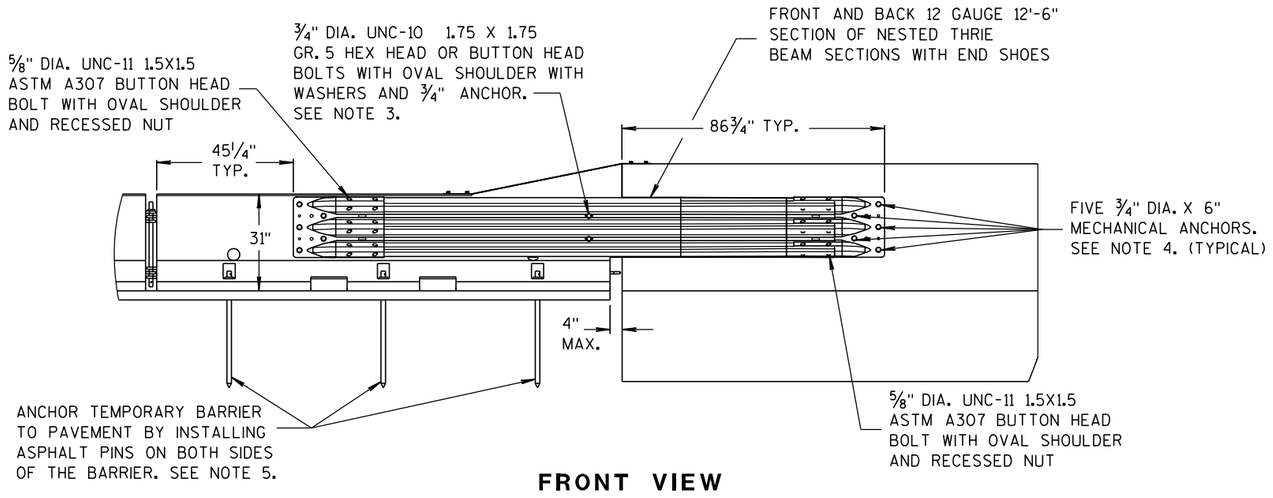
FREE STANDING TRANSITION TO TIED-DOWN SYSTEM

(PLACE TRANSITION IN A TANGENT SECTION OF BARRIER PARALLEL TO THE ROADWAY. IF TRANSITION OCCURS ON STRUCTURAL SLAB, ANCHOR AS SHOWN.)

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO...

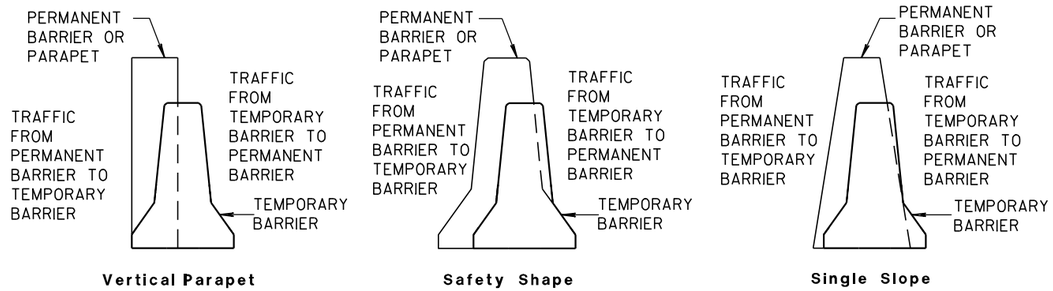
6
S.D.D. 14 B 7-13d



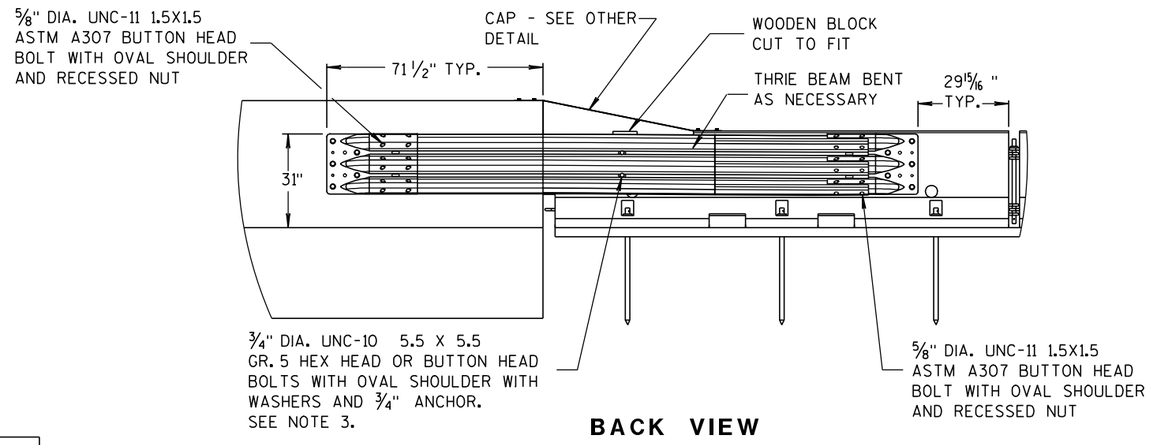
FRONT VIEW

NOTES

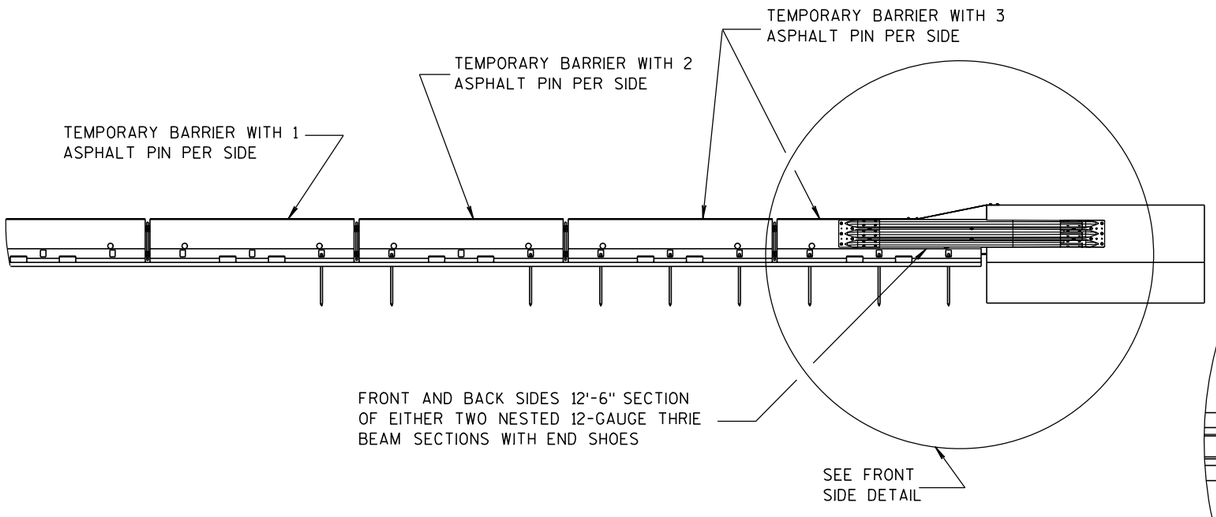
1. CAP END PLATE PLACED FLUSH WITH UPSTREAM END OF PERMANENT BARRIER OR PARAPET.
2. THRIE BEAM PIECES ARE OFFSET 15 1/4" TO PREVENT INTERFERENCE FROM THE ANCHORS ON OPPOSING SIDES.
3. MINIMUM MECHANICAL OR EPOXY ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 9.48 KIPS AND ULTIMATE SHEAR LOAD 10.48 KIPS.
4. MINIMUM MECHANICAL OR EPOXY ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 17.9 KIPS AND ULTIMATE SHEAR LOAD 21.96 KIPS.
5. MAY BE USED ON CONCRETE OR ASPHALT PAVEMENTS. ASPHALT OPTION SHOWN. FOR CONCRETE OPTION SEE OTHER DETAILS.
6. MINIMUM MECHANICAL OR EPOXY ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 12.14 KIPS AND ULTIMATE SHEAR LOAD 17.5 KIPS.



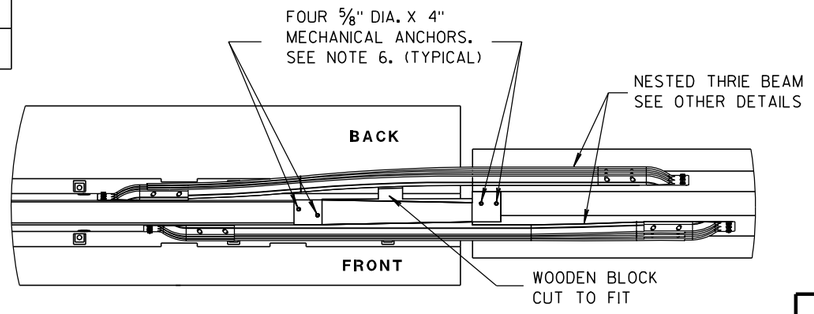
TEMPORARY BARRIER PLACEMENT FOR BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM



BACK VIEW



FRONT VIEW



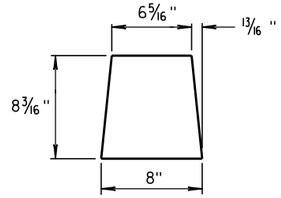
PLAN VIEW

BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM

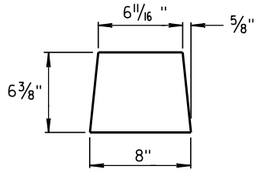
CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 14 B 7-13e



GUSSET 1



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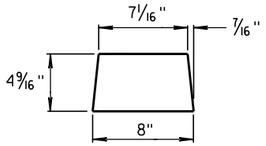
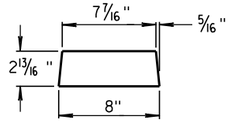
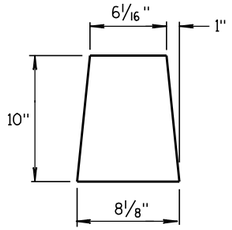


GUSSET 3

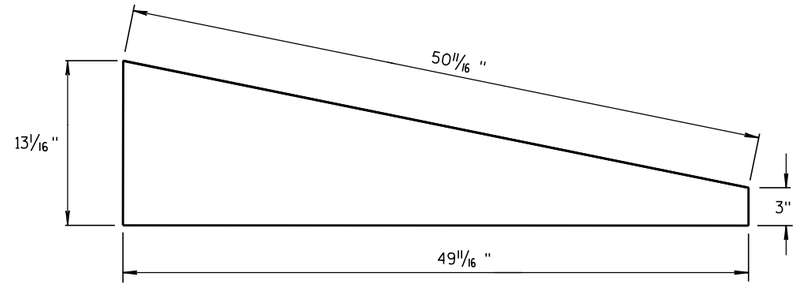


GUSSET 4

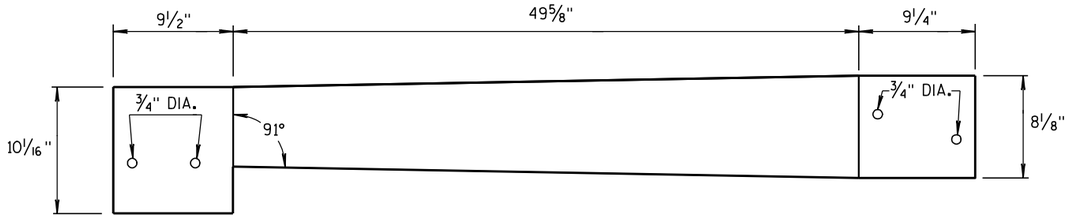
GUSSETS

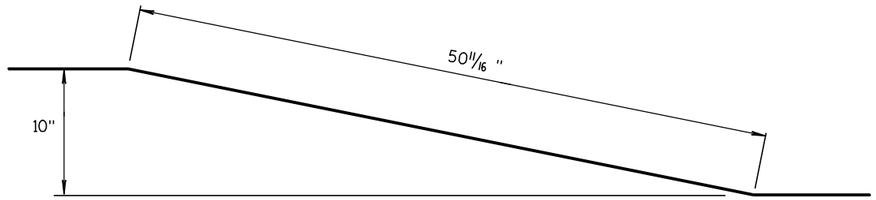


END PLATE

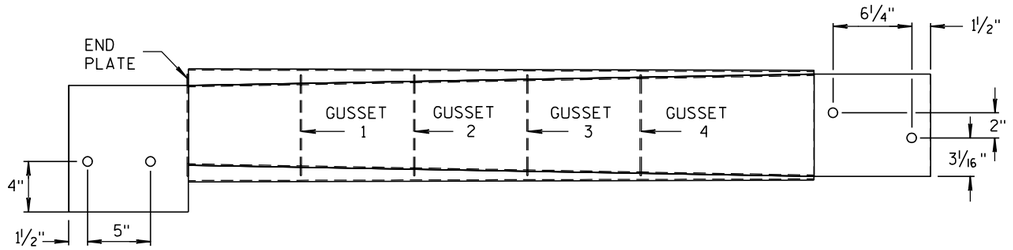


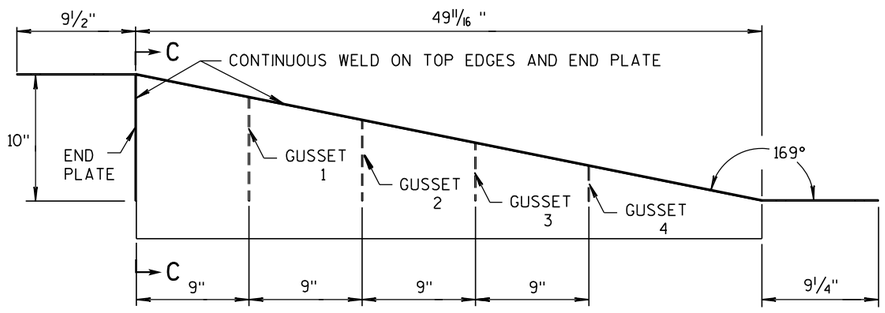
SIDE PLATE

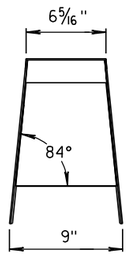




TOP PLATE







SECTION C-C

NOTES

1. FOUR GUSSETS AND END PLATE ARE STITCH WELDED ON THREE SIDES.
2. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE, AND GUSSETS.

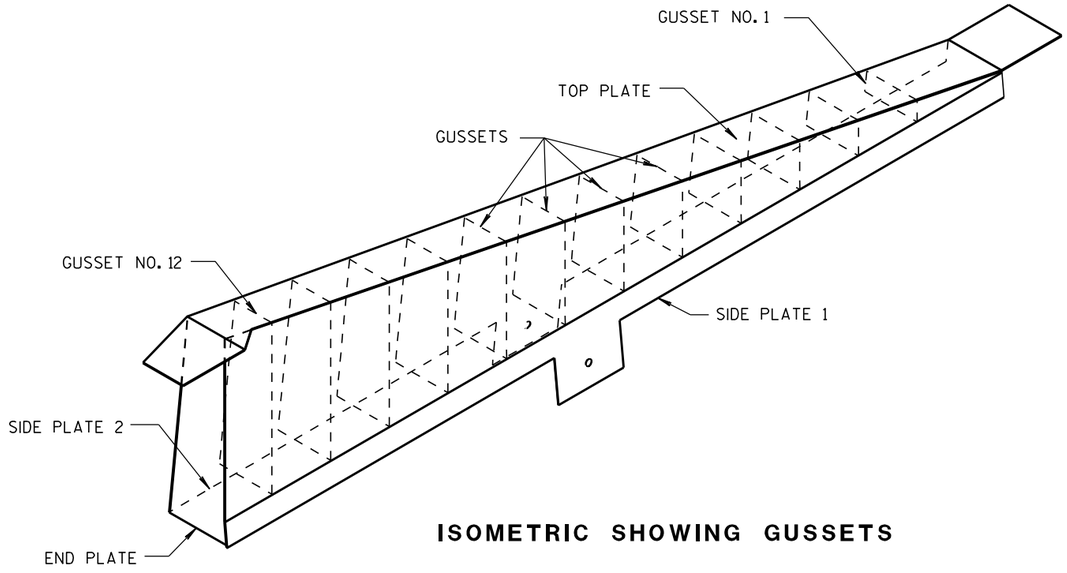
CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

SIDE, TOP AND END PLATES FOR CAP FROM TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

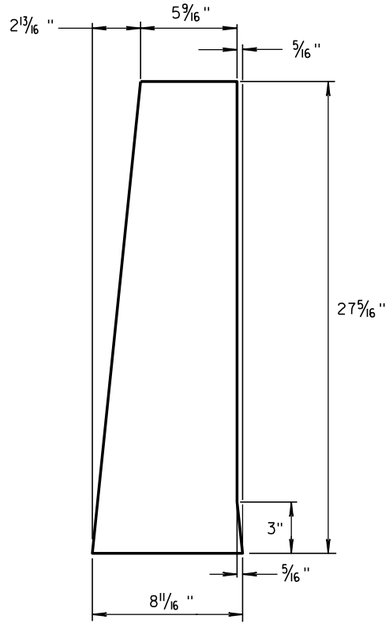
SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 GALVANIZED STEEL.

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO...

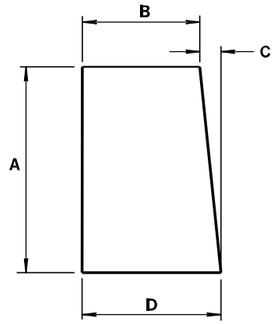


ISOMETRIC SHOWING GUSSETS



END PLATE

1/8" STEEL PLATE



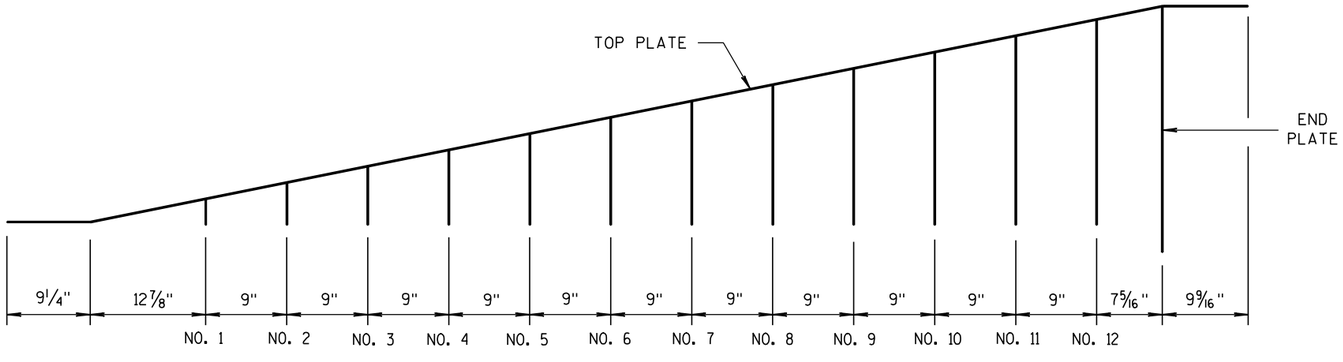
GUSSETS 1 - 12

ALL GUSSETS 1/8" STEEL PLATE

GUSSET DIMENSIONS				
GUSSET NO.	A	B	C	D
1	2 7/8"	7 3/4"	1/4"	8
2	4 11/16 "	7 9/16 "	1/2"	8
3	6 1/2"	7 3/8"	11/16 "	8 1/16 "
4	8 5/16 "	7 3/16 "	7/8"	8 1/16 "
5	10 1/8"	7"	1 1/16 "	8 1/16 "
6	11 15/16 "	6 13/16 "	1 1/4"	8 1/16 "
7	13 3/4"	6 5/8"	1 7/16 "	8 1/16 "
8	15 9/16 "	6 7/16 "	1 9/16 "	8 1/16 "
9	17 3/8"	6 1/4"	1 13/16 "	8 1/16 "
10	19 3/16 "	6 1/16 "	1 15/16 "	8 1/16 "
11	21"	5 7/8"	2 3/16 "	8 1/16 "
12	22 13/16 "	5 11/16 "	2 5/16 "	8 1/16 "

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 STEEL AND GALVANIZED.

GUSSETS AND END PLATE ARE STITCH WELDED ON 3 SIDES. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE AND GUSSETS.



GUSSET LOCATION

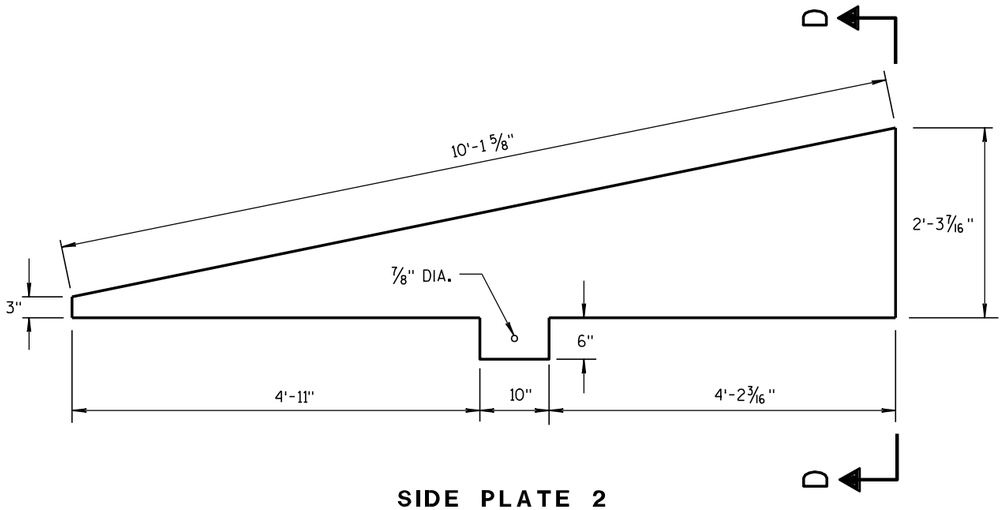
CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

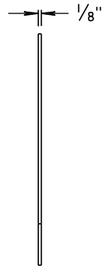
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO...

6

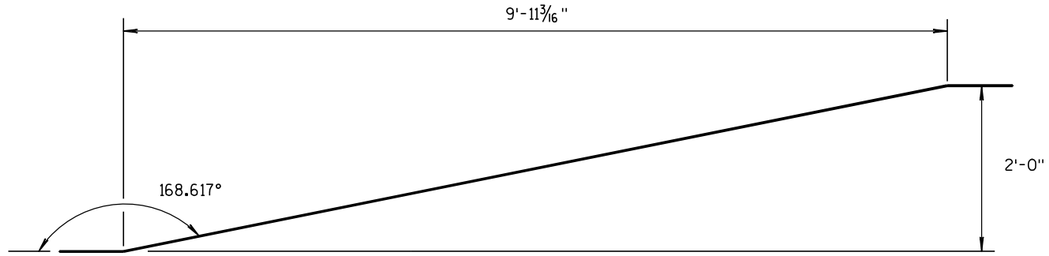
S.D.D. 14 B 7-13g



SIDE PLATE 2

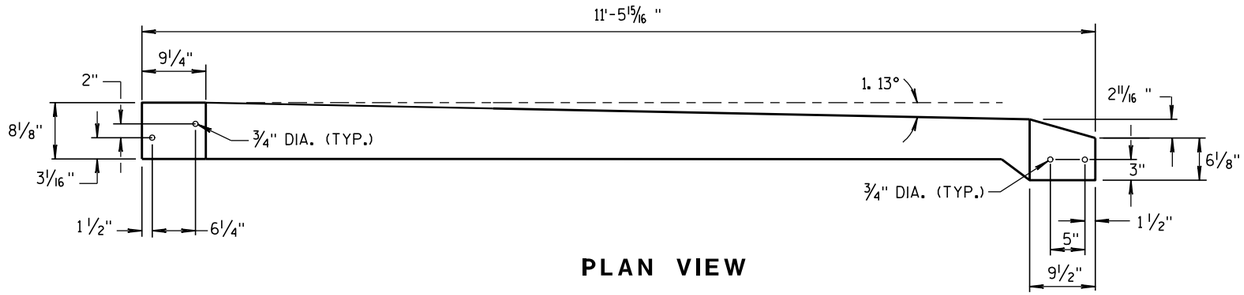


END VIEW



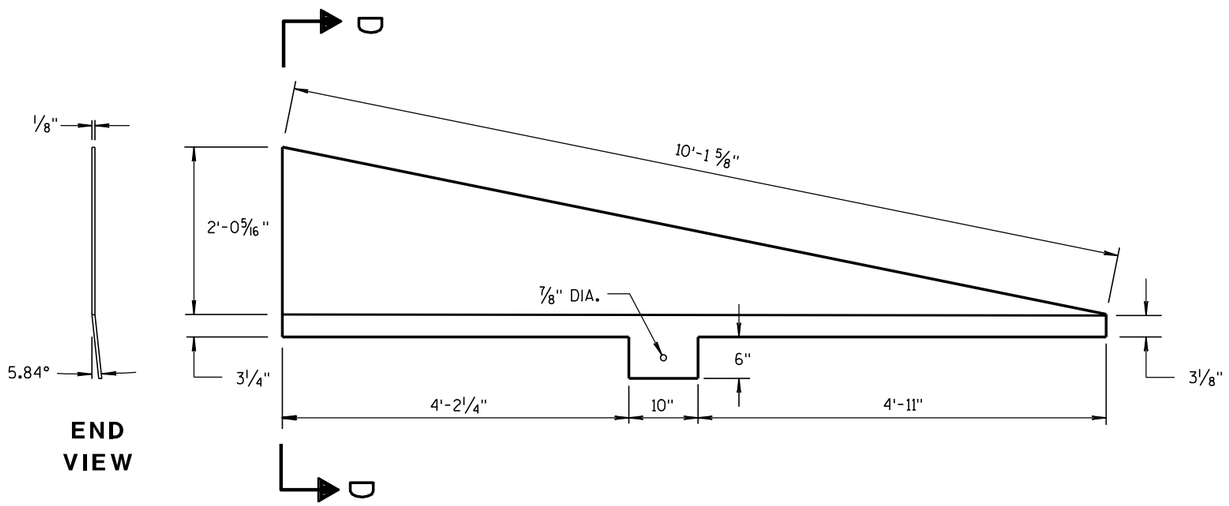
SIDE VIEW

TOP PLATE



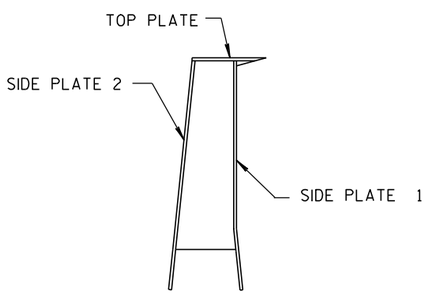
PLAN VIEW

TOP PLATE



END VIEW

SIDE PLATE 1



SECTION D-D

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012 — DATE

/S/ Jerry H. ---- — ROADWAY STANDARDS ENGINEER

790 — ENT

FHWA

6

S.D.D. 14 B 7-13h

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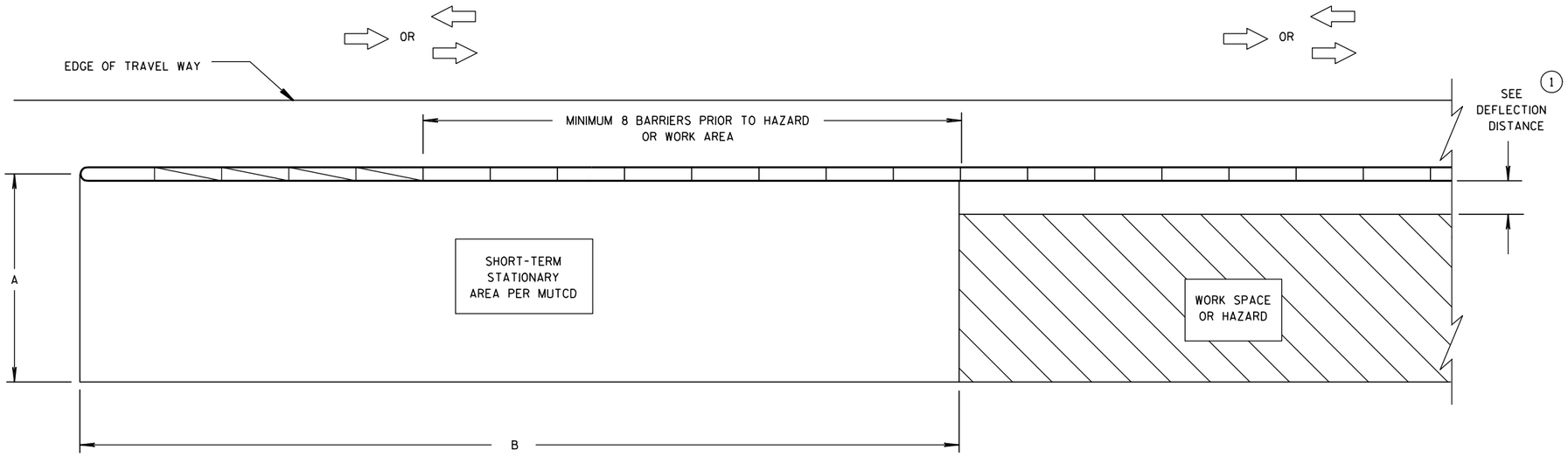
S.D.D. 14 B 7-13h



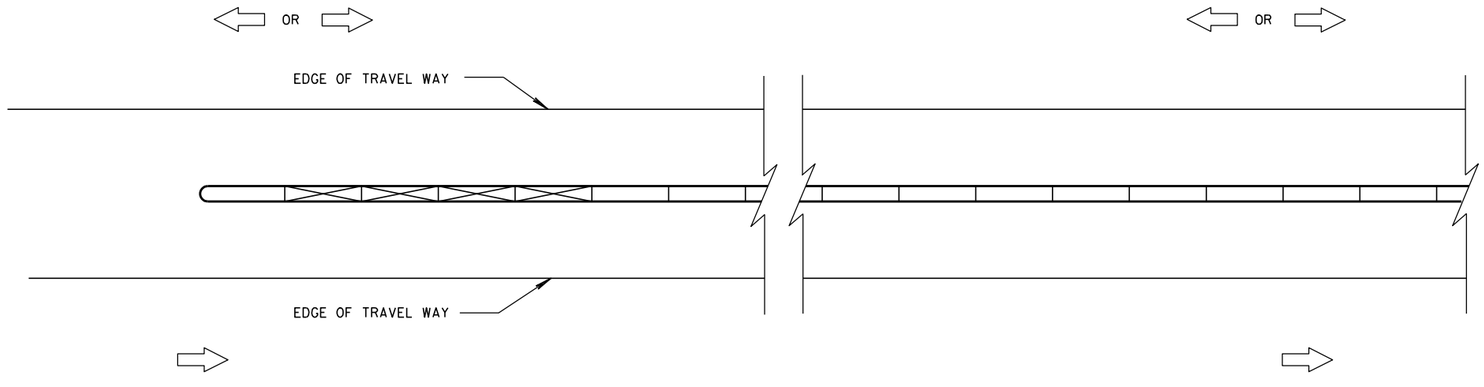
CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE OF BARRIER

DIMENSION A TABLE (2)

FACILITY	POSTED SPEED MPH	DIMENSION A	
		MIN. FT	MAX. FT
FREEWAY/EXPRESSWAY	ALL	15	20
NON-FREEWAY/EXPRESSWAY	GREATER THAN OR EQUAL TO 45	10	15
NON-FREEWAY/EXPRESSWAY	LESS THAN 45	8	10
AADT LESS THAN 1,500	ALL	8	10

DIMENSION B TABLE (2)

POSTED SPEEDS MPH	DIMENSION B FT
20	115
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645



CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON BOTH SIDES OF BARRIER

LEGEND

- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

GENERAL NOTES

SEE STANDARD DETAIL DRAWING 14B7 FOR MORE INFORMATION.

DETAILS PROVIDE A GENERAL LAYOUT OF TEMPORARY CONCRETE BARRIER, CRASH CUSHIONS, SAND BARREL ARRAYS AND TIE DOWN TRANSITIONS. DETAILS PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

ADDITIONAL TEMPORARY BARRIER MAY BE REQUIRED TO PROTECT TRAVELING PUBLIC FROM HAZARDS, CONTRACTOR'S OPERATIONS OR TO CONTROL TRAFFIC.

TEMPORARY BARRIER MAY BE REQUIRED TO BE ANCHORED TO PAVEMENT OR BRIDGE DECK.

FOR DETAILS ON CRASH CUSHION OR SAND BARREL ARRAYS SEE OTHER SECTIONS OF THE PLAN AND MANUFACTURE'S DETAILS.

SLOPES LEADING TO TEMPORARY BARRIER, CRASH CUSHION OR SAND BARREL ARRAY ARE 10:1 OR LESS.

(1) FOR DEFLECTION INFORMATION SEE STANDARD DETAIL DRAWING 14B7.

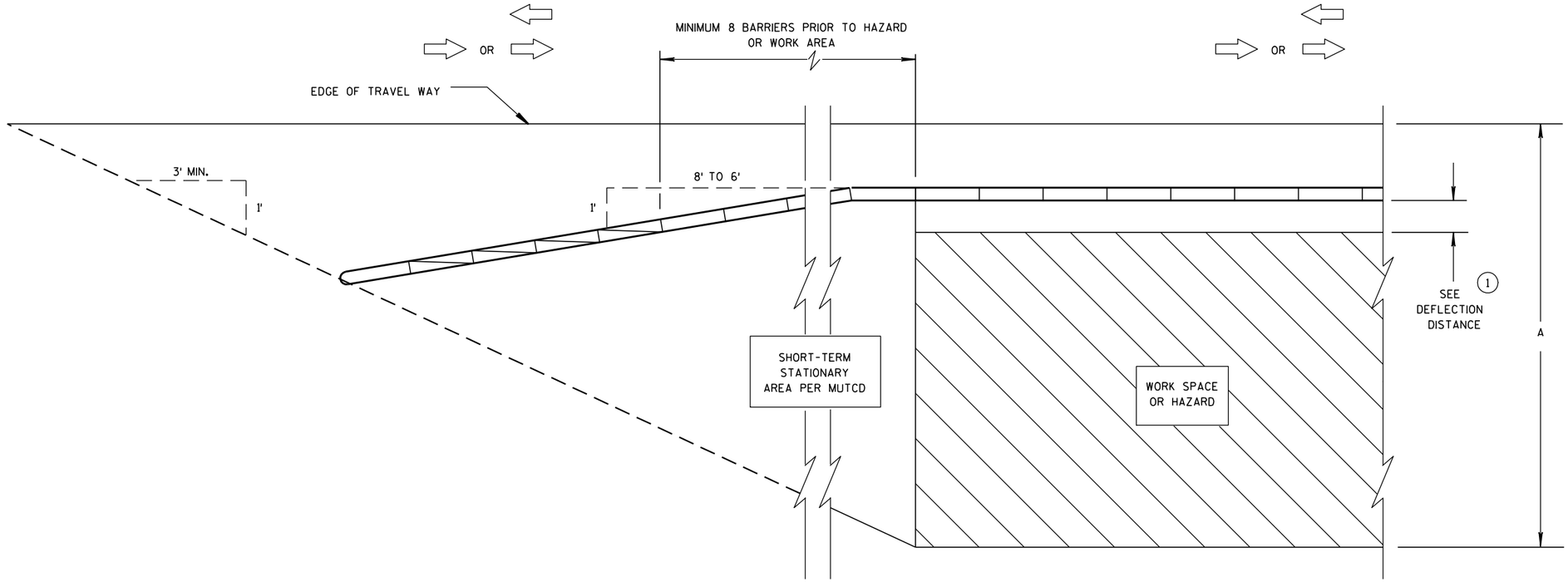
(2) VALUES PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

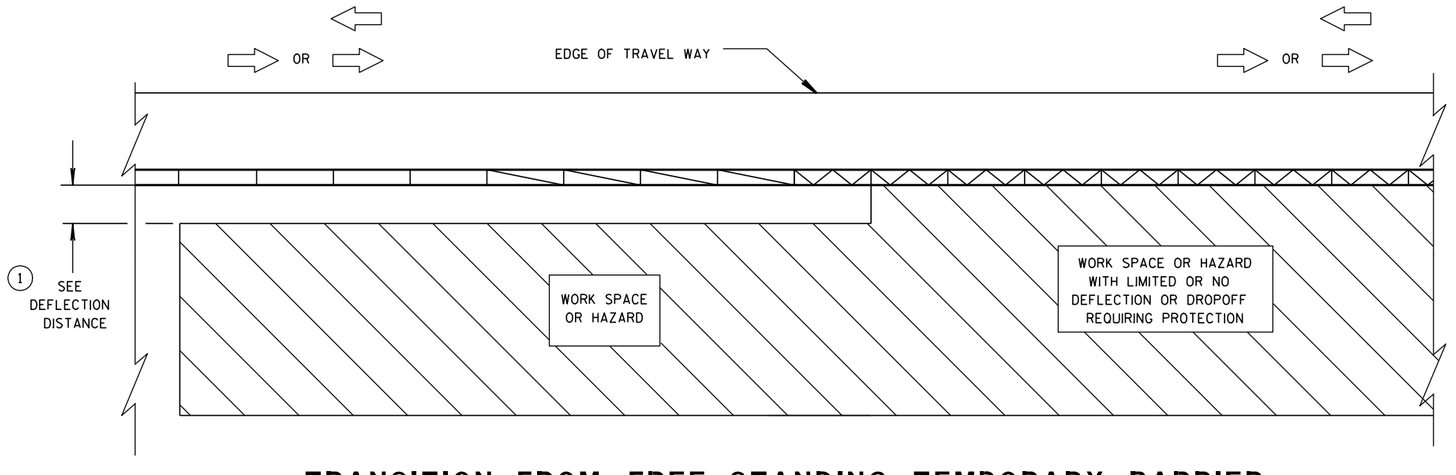
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 14 B 8-1a



CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE - FLARED INSTALLATION



TRANSITION FROM FREE STANDING TEMPORARY BARRIER TO ANCHORED BARRIER

LEGEND

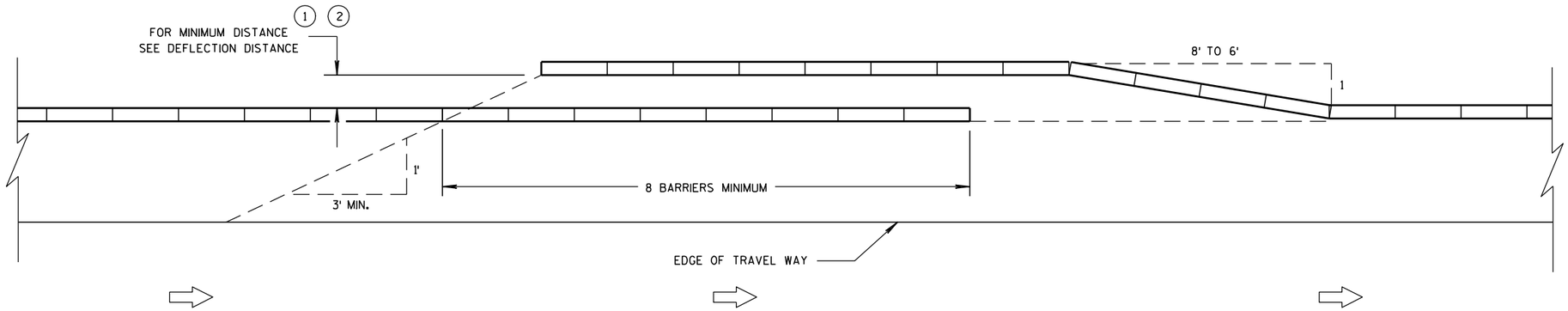
- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

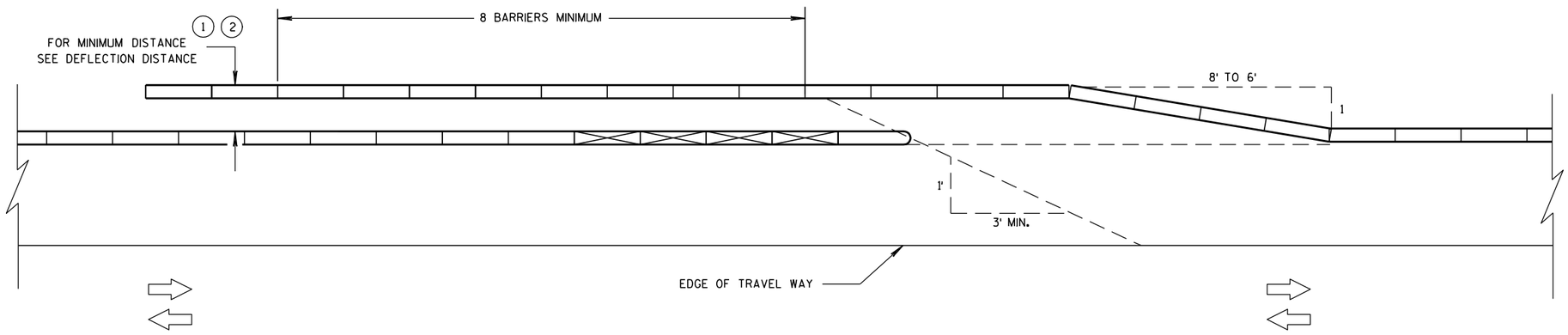
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

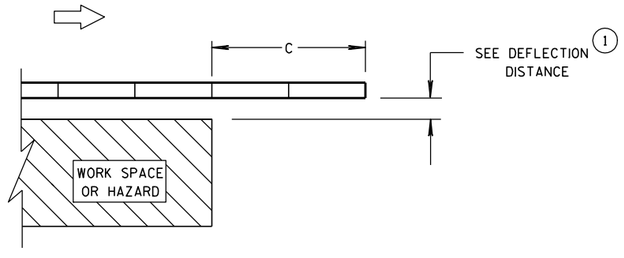
S.D.D. 14 B 8-1b



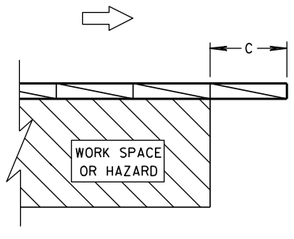
TEMPORARY BARRIER OVERLAP - ONE-WAY TRAFFIC



TEMPORARY BARRIER OVERLAP - TWO-WAY TRAFFIC



ENDING TEMPORARY BARRIER DOWNSTREAM - UNANCHORED



ENDING TEMPORARY BARRIER DOWNSTREAM - ANCHORED

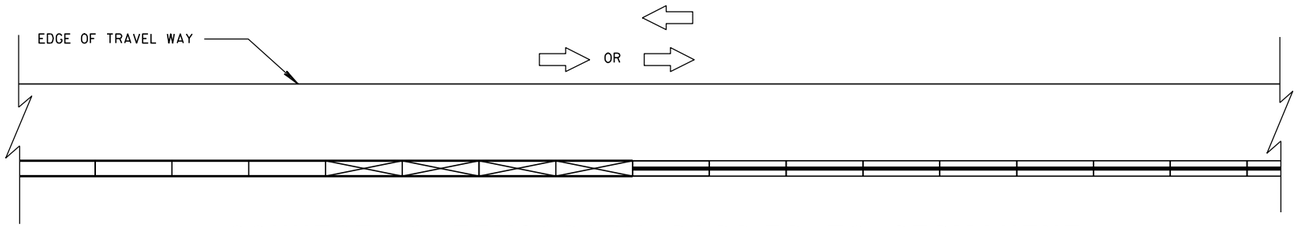
LEGEND

- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

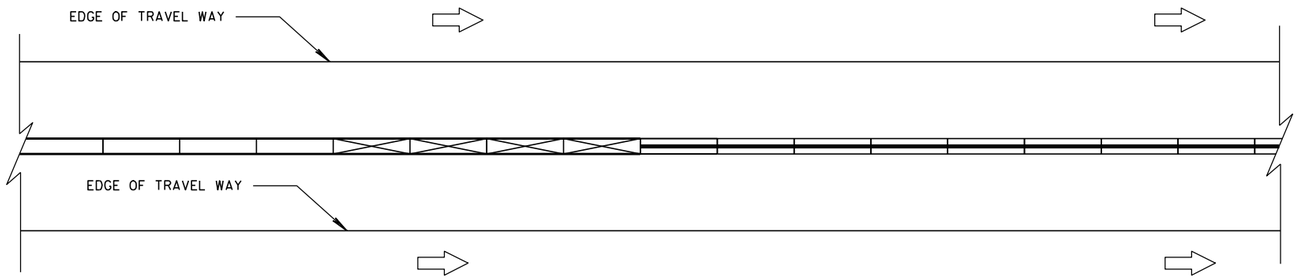
CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 14 B 8-1c



CONNECTING TEMPORARY BARRIER TO PERMANENT
CONCRETE BARRIER-TRAFFIC ON ONE SIDE



CONNECTING TEMPORARY BARRIER TO PERMANENT
CONCRETE BARRIER-TRAFFIC ON BOTH SIDES

LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR
SAND BARREL ARRAY

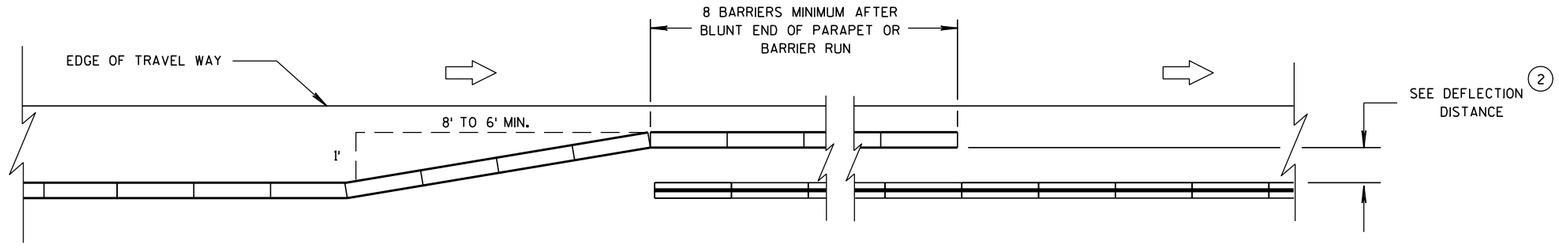
SEE FREE STANDING TRANSITION
TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION
TO TIED-DOWN SYSTEM DETAILS

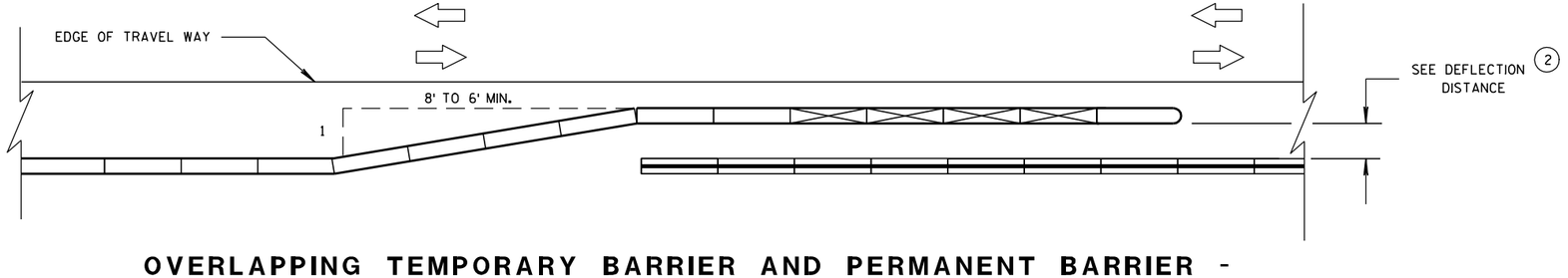
3 PINS PLACED ON
TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER
OR CONCRETE PARAPET

FREE STANDING TEMPORARY
BARRIER



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
ONE WAY TRAFFIC



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
TWO WAY TRAFFIC

CRASH CUSHION/SAND BARREL
ARRAY AND OTHER TEMPORARY
BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 14 B 8-1d

LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR SAND BARREL ARRAY

SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS

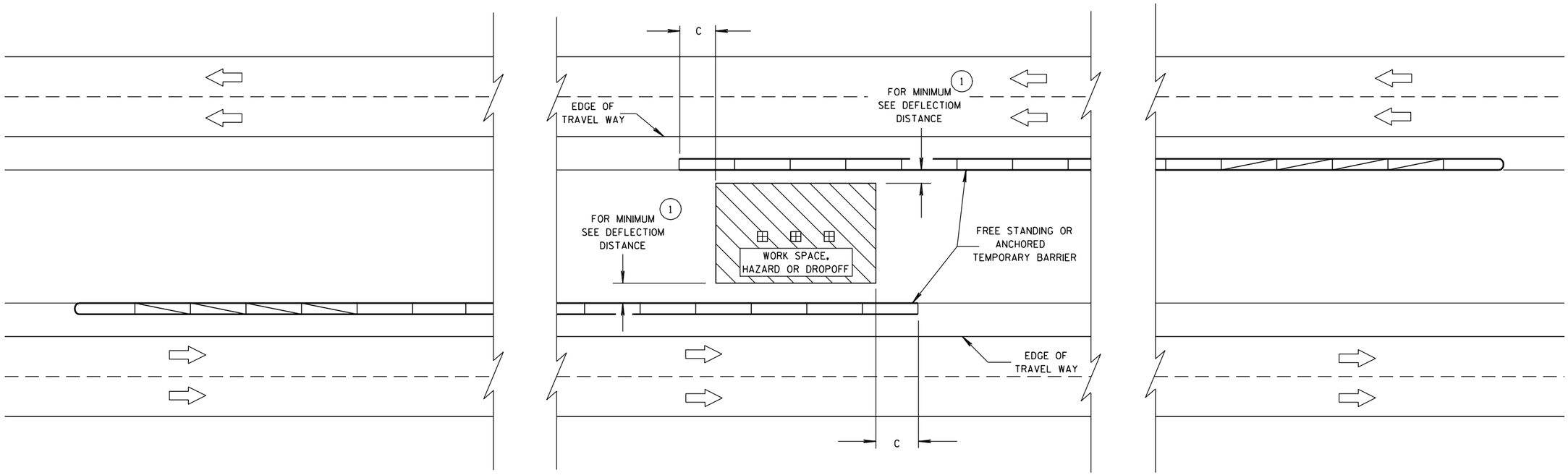
3 PINS PLACED ON TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET

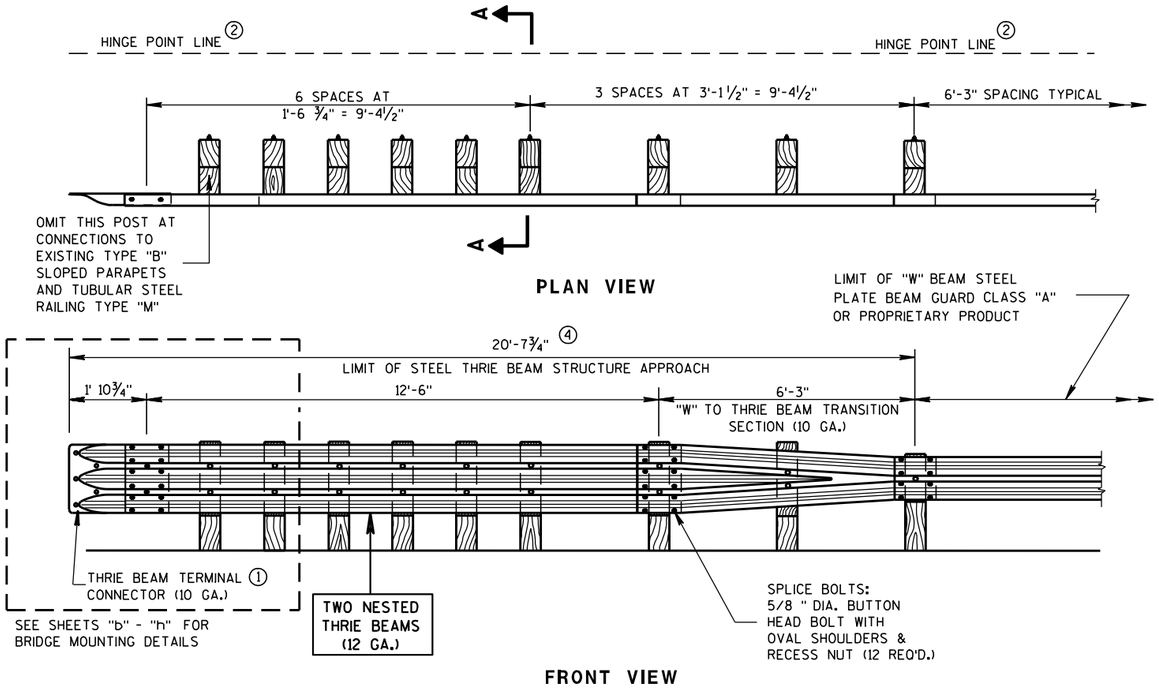
FREE STANDING TEMPORARY BARRIER

DIMENSION C TABLE (2)

AVAILABLE DEFLECTION DISTANCE	MINIMUM LENGTH OF BARRIER BEYOND HAZARD FT
GREATER THAN 8'	12.5
LESS THAN OR EQUAL TO 8' BUT GREATER THAN 4'	50
LESS THAN OR EQUAL TO 4'	100



CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
8/31/2012 DATE	/S/ Jerry H. Zogg ROADWAY STANDARDS ENGINNER
FHWA	795



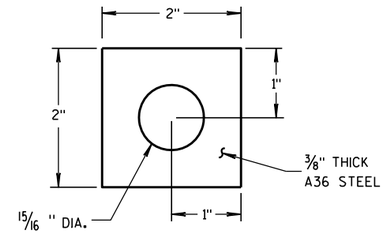


PLATE WASHER DETAIL

GENERAL NOTES

BOLT THE THRIE BEAM TO ALL POSTS AND BLOCKOUTS. DRILL OR PUNCH BOLT HOLES IN THE BEAM IF THE POST SPACING IS LESS THAN 6'-3".

DO NOT USE STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS IN THE STEEL THRIE BEAM STRUCTURAL APPROACH AND THE TRANSITION SECTION OF STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATIONS.

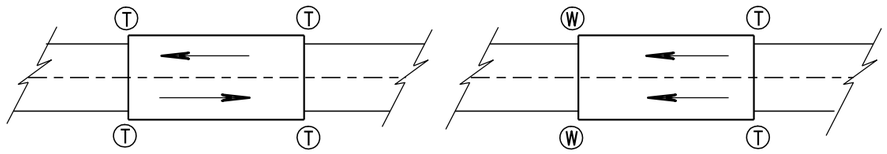
IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2 1/2" , AND 12" DIAMETER AROUND POST. SEE 14B15 FOR MORE DETAILS.

① BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

② MINIMUM EMBEDMENT SHALL BE 4'-0". WHERE EXISTING CONDITIONS DO NOT PERMIT THE APPROPRIATE EARTHWORK SHOWN ON THE PLAN TYPICAL SECTIONS OR DETAILS, THE ENGINEER MAY ALLOW THE REDUCTION OR ELIMINATION OF THE 2 FOOT DISTANCE TO THE HINGE POINT. OTHERWISE BUILD AS THE PLAN SHOWS OR AS THE ENGINEER DIRECTS. IF THE 2 FOOT DISTANCE TO THE HINGE POINT IS REDUCED OR ELIMINATED, INCREASE THE POST EMBEDMENT DEPTH TO 4'-6" OR MORE.

③ POST BOLTS ARE 5/8" DIAMETER ASTM A307 BUTTON HEAD BOLT. A POST BOLT REQUIRES A 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX AND A 5/8" DIAMETER F844 FLAT WASHER. LENGTH OF POST BOLT MAY VARY.

④ ALL WOOD POSTS MUST BE 6" X 8" AND AT LEAST 7'-0" LONG.



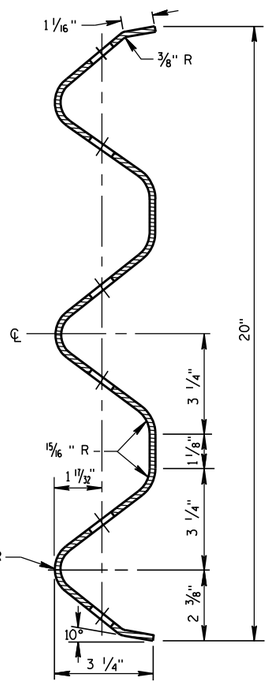
TWO WAY TRAFFIC

ONE WAY TRAFFIC

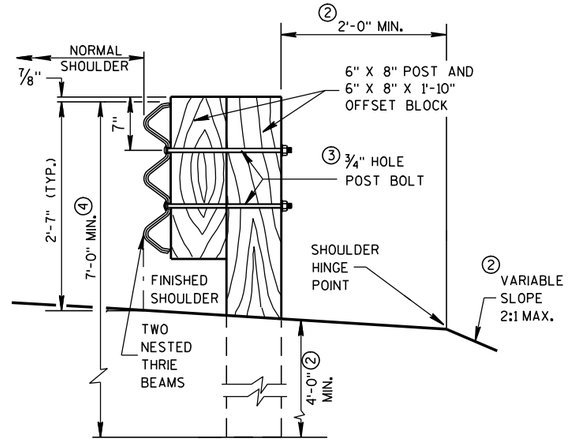
T THRIE BEAM CONNECTION

W W-BEAM CONNECTION WHEN REQUIRED

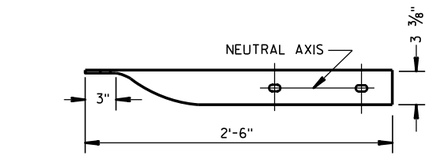
TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE

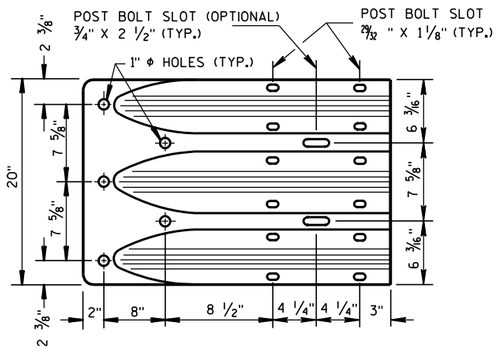


SECTION THRU THRIE BEAM RAIL ELEMENT

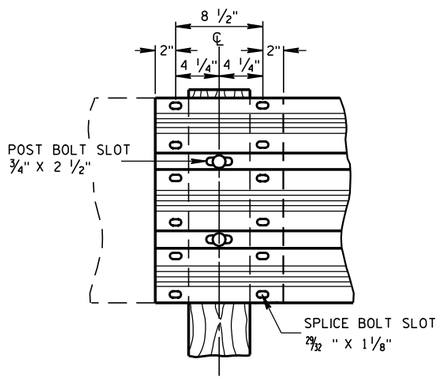


SECTION A-A





THRIE BEAM TERMINAL CONNECTOR



THRIE BEAM SPLICE

STEEL THRIE BEAM STRUCTURE APPROACH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

1796

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S.D.D. 14 B 20-11a

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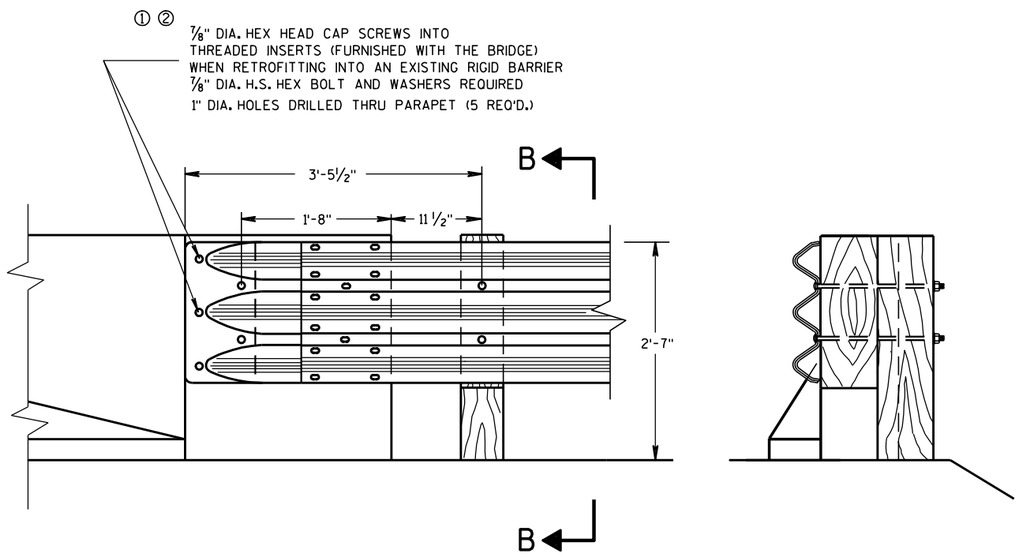


FRONT VIEW

SECTION B-B

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM A325, A449 AND GALVANIZED PER STANDARD SPECIFICATIONS 614.

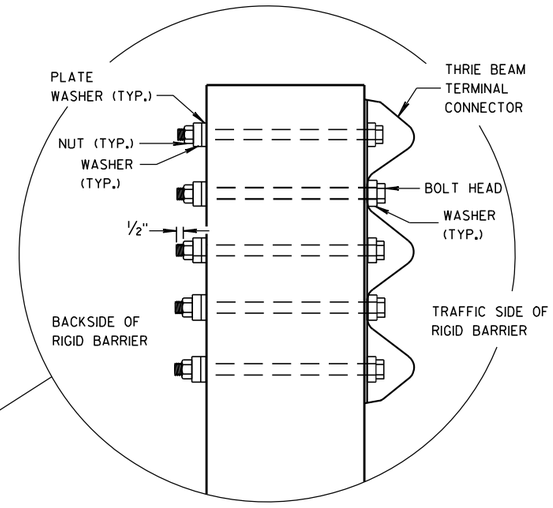
① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

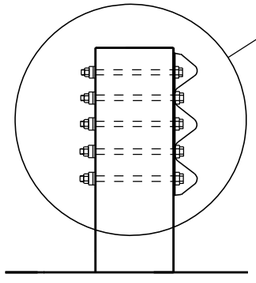
② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM TERMINAL CONNECTOR. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X ⅝" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

③ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 ½".

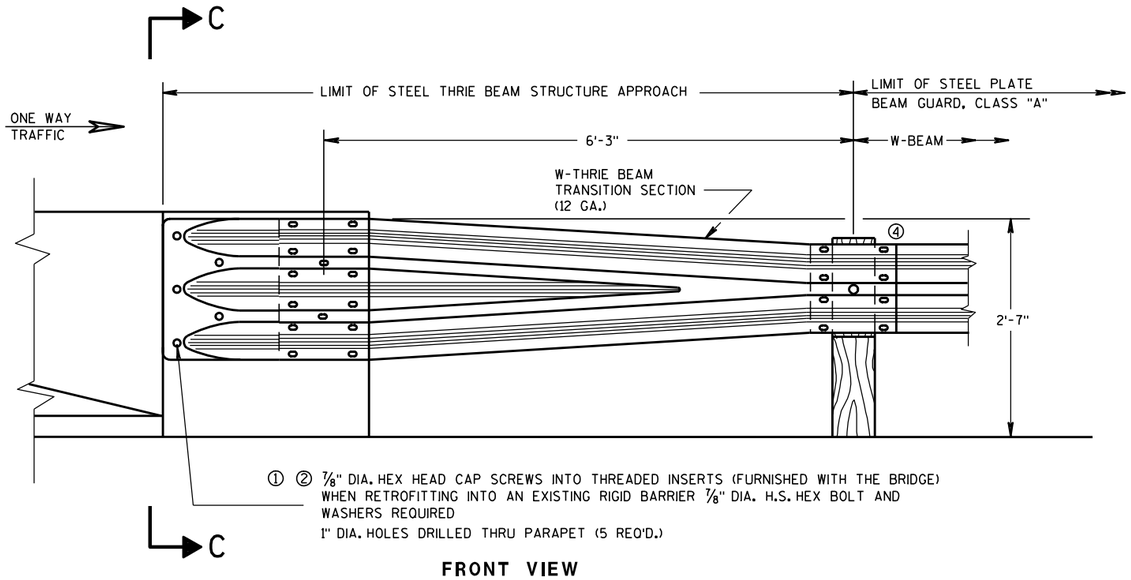
④ W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POST WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS.

DO NOT USE STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS IN THE STEEL THRIE BEAM STRUCTURAL APPROACH AND THE TRANSITION SECTION OF STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATIONS.





SECTION C-C



① ② ⅞" DIA. HEX HEAD CAP SCREWS INTO THREADED INSERTS (FURNISHED WITH THE BRIDGE) WHEN RETROFITTING INTO AN EXISTING RIGID BARRIER ⅞" DIA. H.S. HEX BOLT AND WASHERS REQUIRED
1" DIA. HOLES DRILLED THRU PARAPET (5 REQ'D.)

FRONT VIEW

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO SQUARE END PARAPETS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS [797
ENGINEER

FHWA

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S.D.D. 14 B 20-11b

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S.D.D. 14 B 20-11b

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM A325, A449 AND GALVANIZED PER STANDARD SPECIFICATIONS 614.

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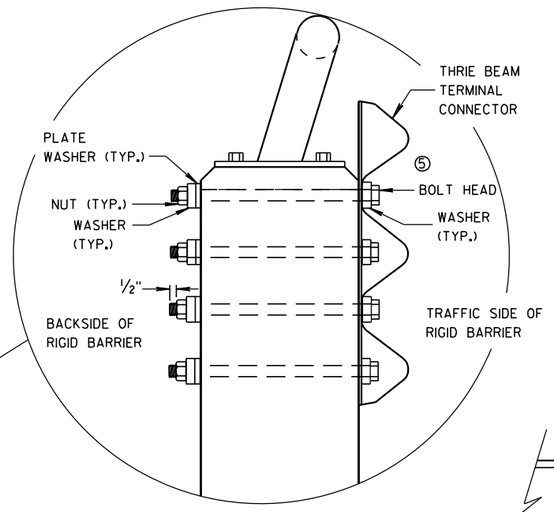
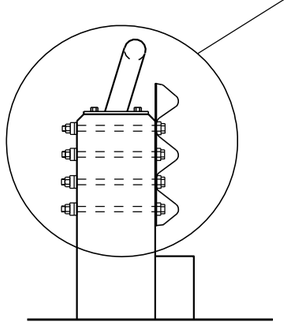
③ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 ½".

④ W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POST WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS.

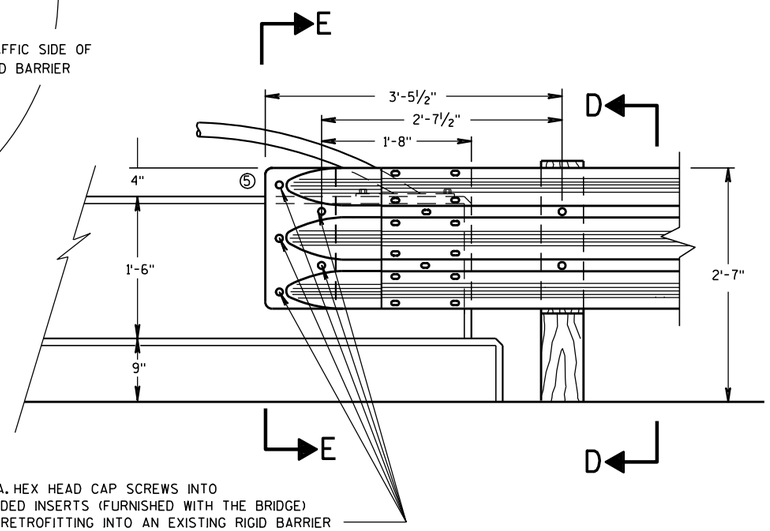
⑤ BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.

DO NOT USE STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS IN THE STEEL THRIE BEAM STRUCTURAL APPROACH AND THE TRANSITION SECTION OF STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATIONS.





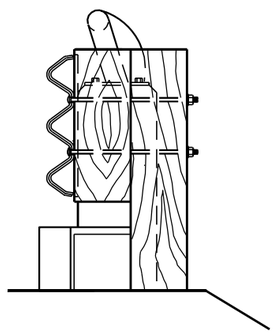
SECTION E-E



①② ⅞" DIA. HEX HEAD CAP SCREWS INTO THREADED INSERTS (FURNISHED WITH THE BRIDGE) WHEN RETROFITTING INTO AN EXISTING RIGID BARRIER
⅞" DIA. H.S. HEX BOLT AND WASHERS REQUIRED

1" DIA. HOLES DRILLED THRU PARAPET (4 REQ'D.)

FRONT VIEW

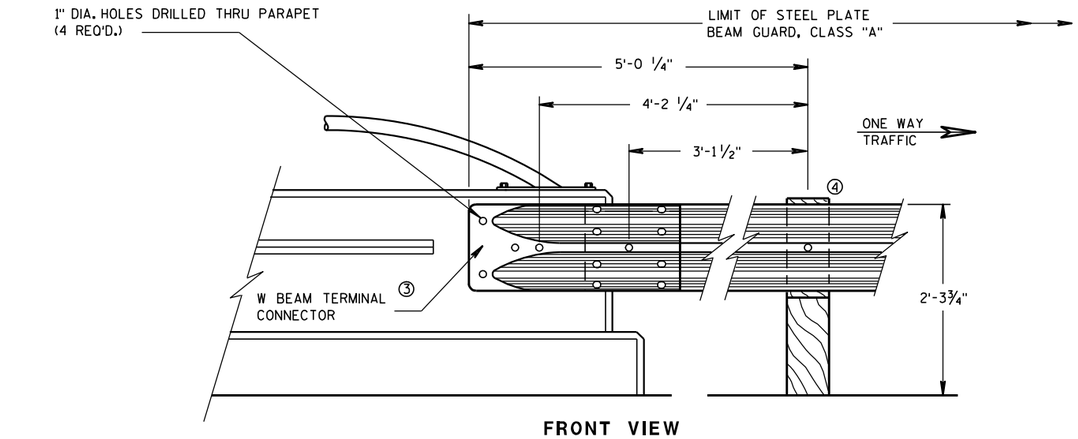


SECTION D-D

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS

①② ⅞" DIA. HEX HEAD CAP SCREWS INTO THREADED INSERTS (FURNISHED WITH THE BRIDGE) WHEN RETROFITTING INTO AN EXISTING RIGID BARRIER
⅞" DIA. HEX HEAD CAP SCREWS INTO THREADED INSERTS (FURNISHED WITH THE BRIDGE) WHEN RETROFITTING INTO AN EXISTING RIGID BARRIER
⅞" DIA. H.S. HEX BOLT AND WASHERS REQUIRED

1" DIA. HOLES DRILLED THRU PARAPET (4 REQ'D.)



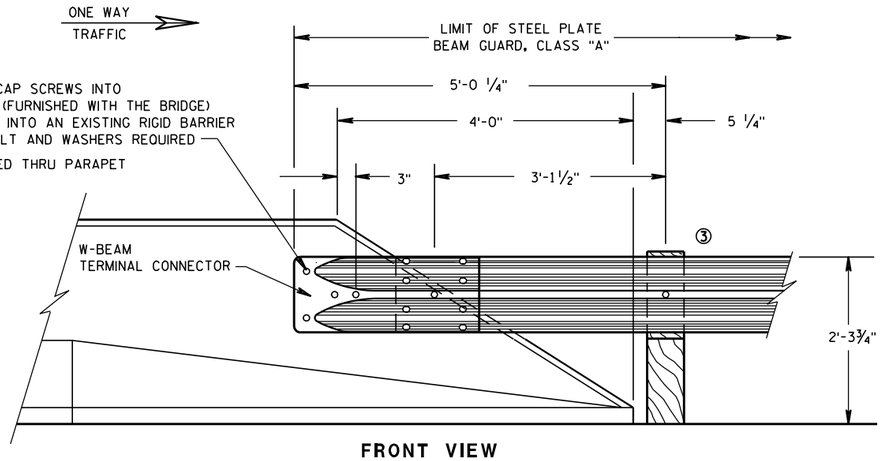
FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET
(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO VERTICAL FACED PARAPETS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/31/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA



FRONT VIEW

W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS

(USE ONLY AT TRAFFIC EXIT END OF ONE WAY BRIDGE)

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

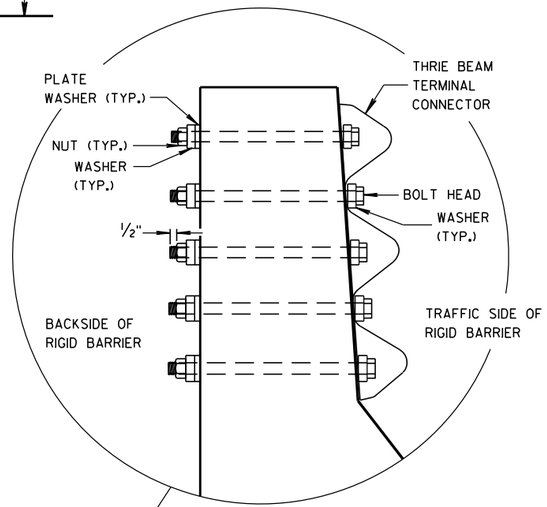
BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM A325, A449 AND GALVANIZED PER STANDARD SPECIFICATIONS 614.

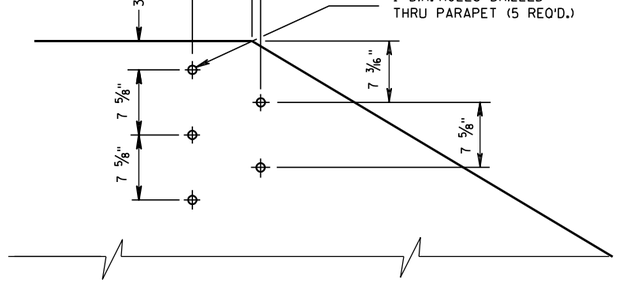
① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM TERMINAL CONNECTOR. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

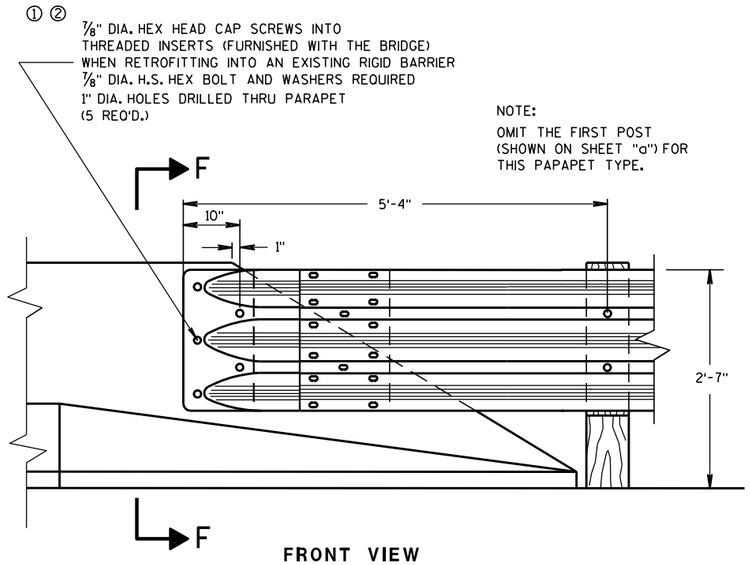
③ W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POST WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS.

DO NOT USE STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS IN THE STEEL THRIE BEAM STRUCTURAL APPROACH AND THE TRANSITION SECTION OF STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATIONS.

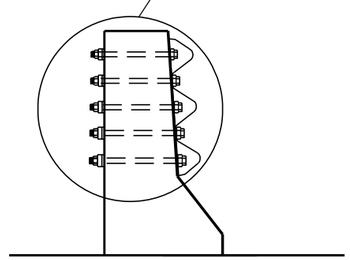




DRILL HOLE LOCATION AND PATTERN FOR THRIE BEAM CONNECTION



FRONT VIEW



SECTION F-F

THRIE BEAM CONNECTION TO BRIDGE PARAPETS WITH SLOPED ENDS

STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO SLOPED END PARAPETS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/31/2012 — DATE
/S/ Jerry H. [illegible] — ROADWAY STANDARDS [illegible] ENGINEER
FHWA

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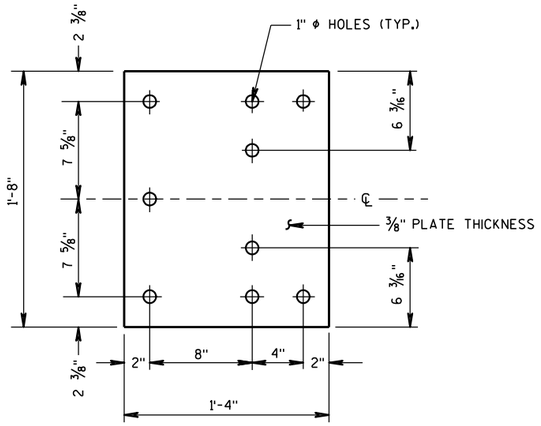
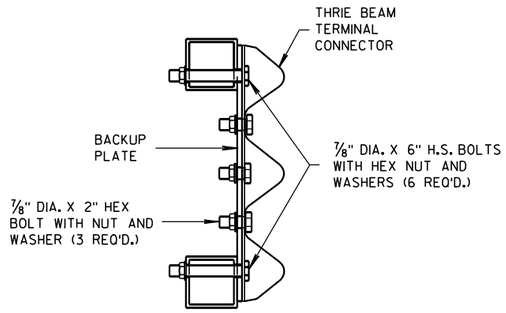
S.D.D. 14 B 20-11d



BACK-UP PLATE DETAIL



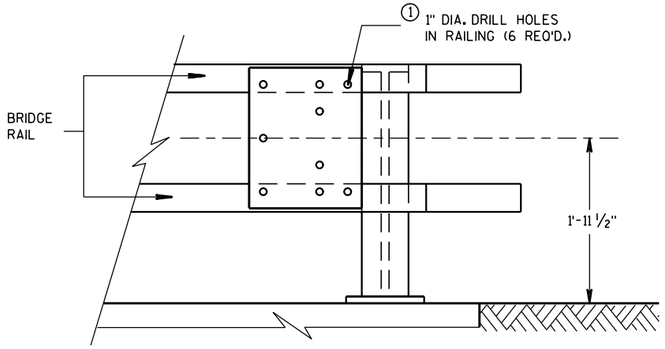
SECTION G-G

GENERAL NOTES

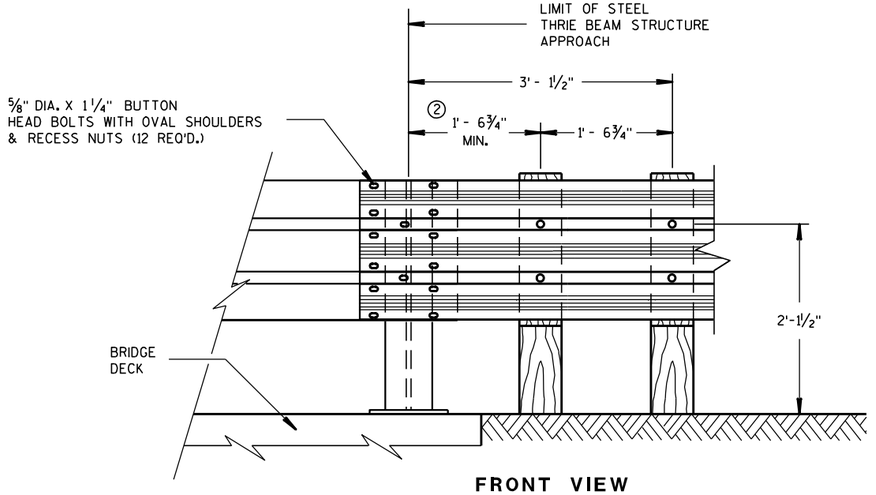
BOLTS, PLATES, NUTS AND WASHERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM SPECIFICATION A 325 AND BE GALVANIZED IN ACCORDANCE WITH ASTM A 153.

① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

② VARY THIS DIMENSION DEPENDING ON ABUTMENT TYPE, WINGWALL DETAILS, AND ANGLE OF SKEW. PLACE THE FIRST WOOD POST OFF THE BRIDGE SHALL AS CLOSE AS FEASIBLE TO THE STEEL END POST.

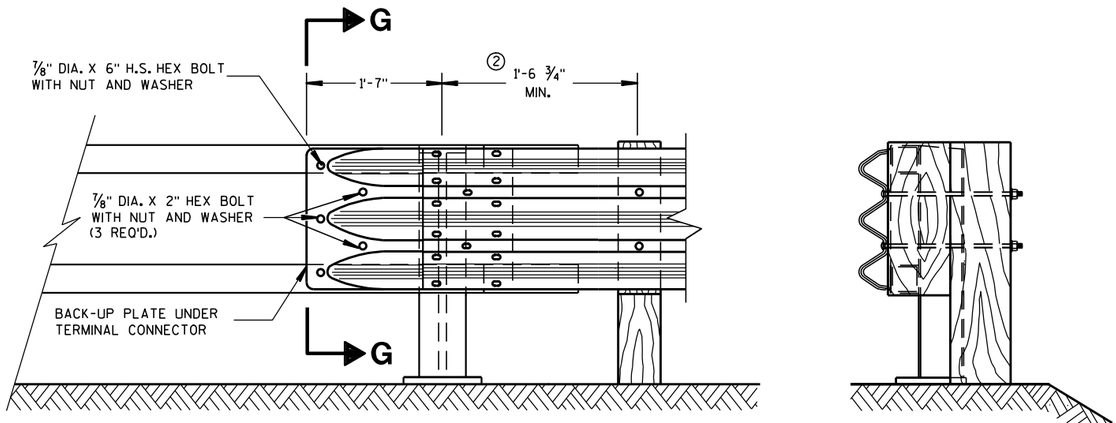


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING



FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"



FRONT VIEW

END VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"

STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO BRIDGE RAILING TYPES "F" AND "W"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012
DATE

/S/ Jerry H Zogg
ROADWAY STANDARDS ENGINEER

800 ENT

FHWA

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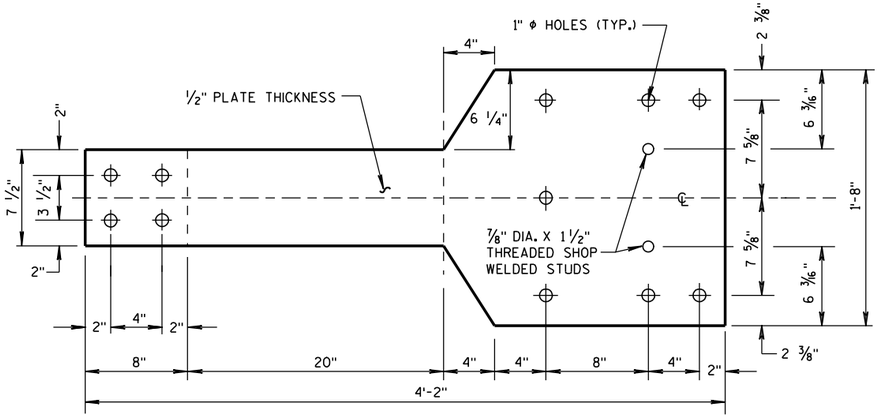
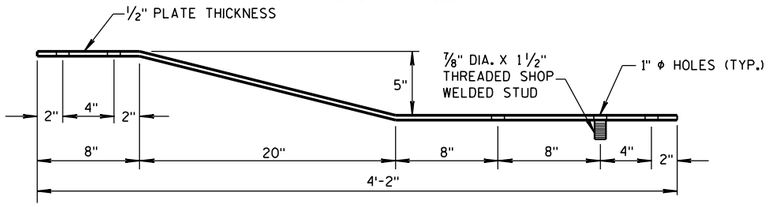
S.D.D. 14 B 20-11e

GENERAL NOTES

① VARY THIS DIMENSION DEPENDING ON ABUTMENT TYPE, WINGWALL DETAILS, AND ANGLE OF SKEW. PLACE THE FIRST WOOD POST OFF THE BRIDGE SHALL BE AS CLOSE AS FEASIBLE TO THE STEEL END POST.

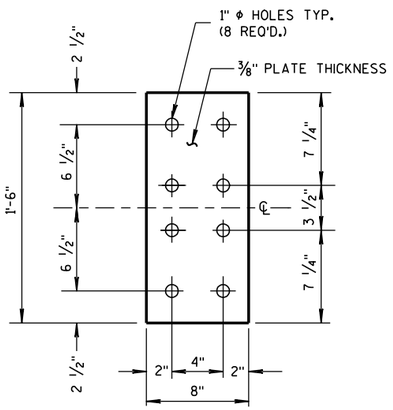


FRONT VIEW



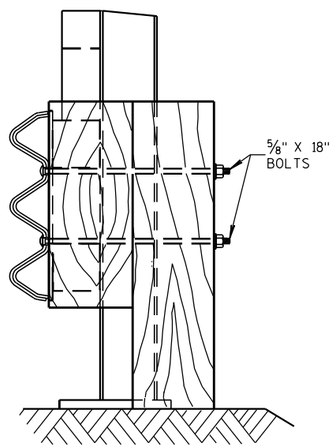
PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

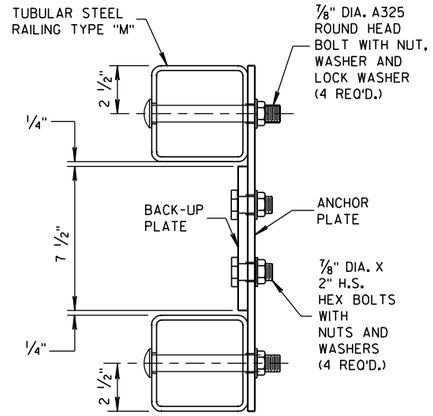


FRONT VIEW

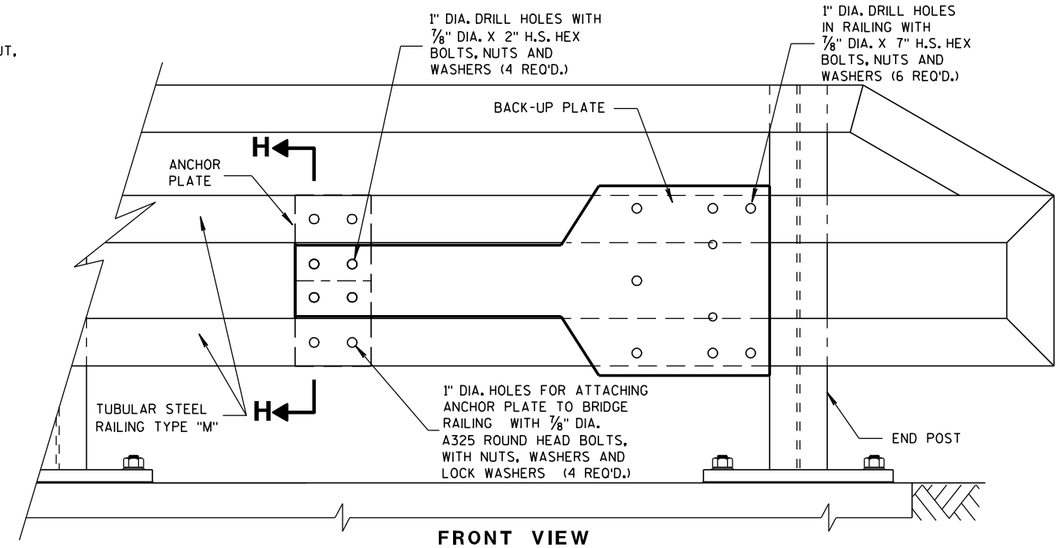
ANCHOR PLATE DETAIL, TYPE "M"



SECTION I-I

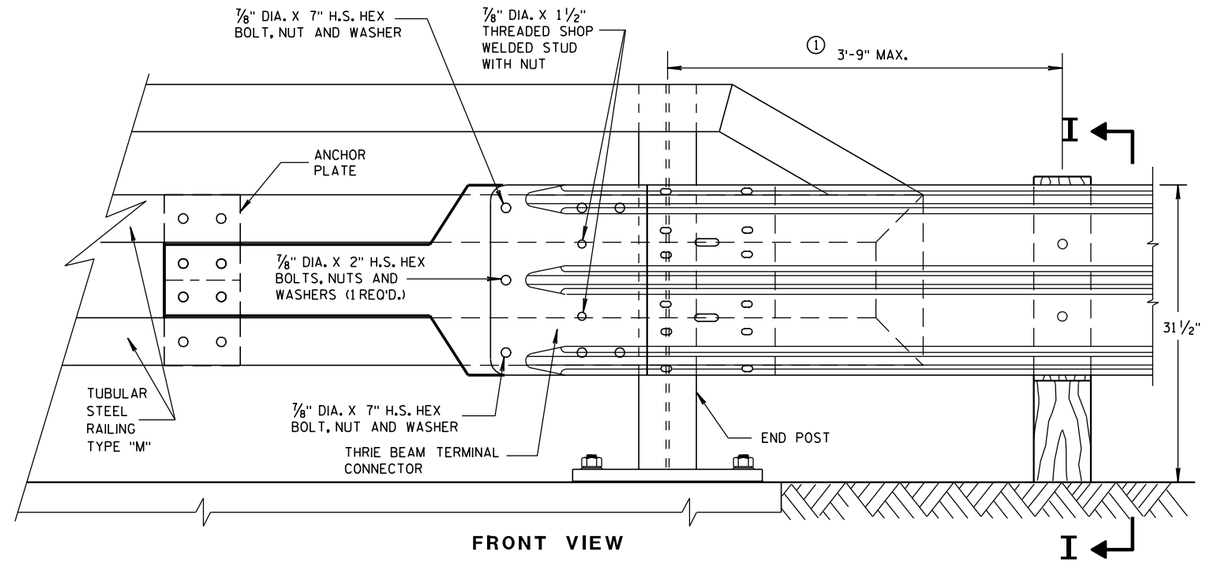


SECTION H-H

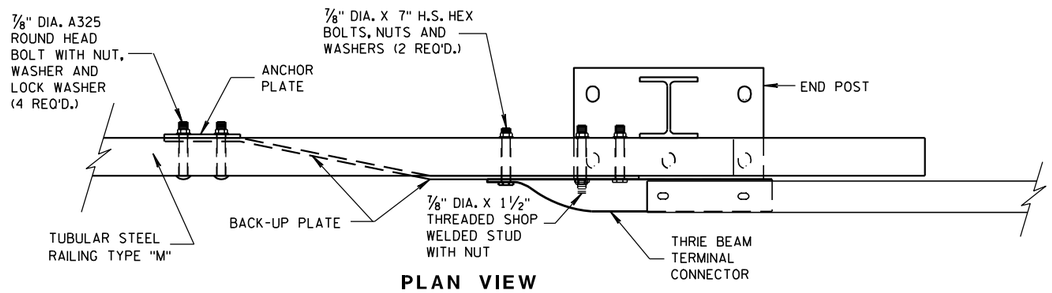


FRONT VIEW

ANCHOR AND BACK-UP PLATE MOUNTING TO BRIDGE RAILING, TYPE "M"



FRONT VIEW



PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO BRIDGE RAILING TYPE "M"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/31/2012 — DATE
/S/ Jerry H. [illegible] — ROADWAY STANDARDS ENGINEER
801 ENT
FHWA

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S.D.D. 14 B 20-11f

6

S.D.D. 14 B 20-11f

GENERAL NOTES

COVER PLATE PANELS ARE 3/16" THICK.

ALL STIFFENERS ARE 1/4" THICK.

CONNECTOR PLATE SHALL BE FABRICATED FROM ASTM GRADE A36 STEEL AND GALVANIZED.

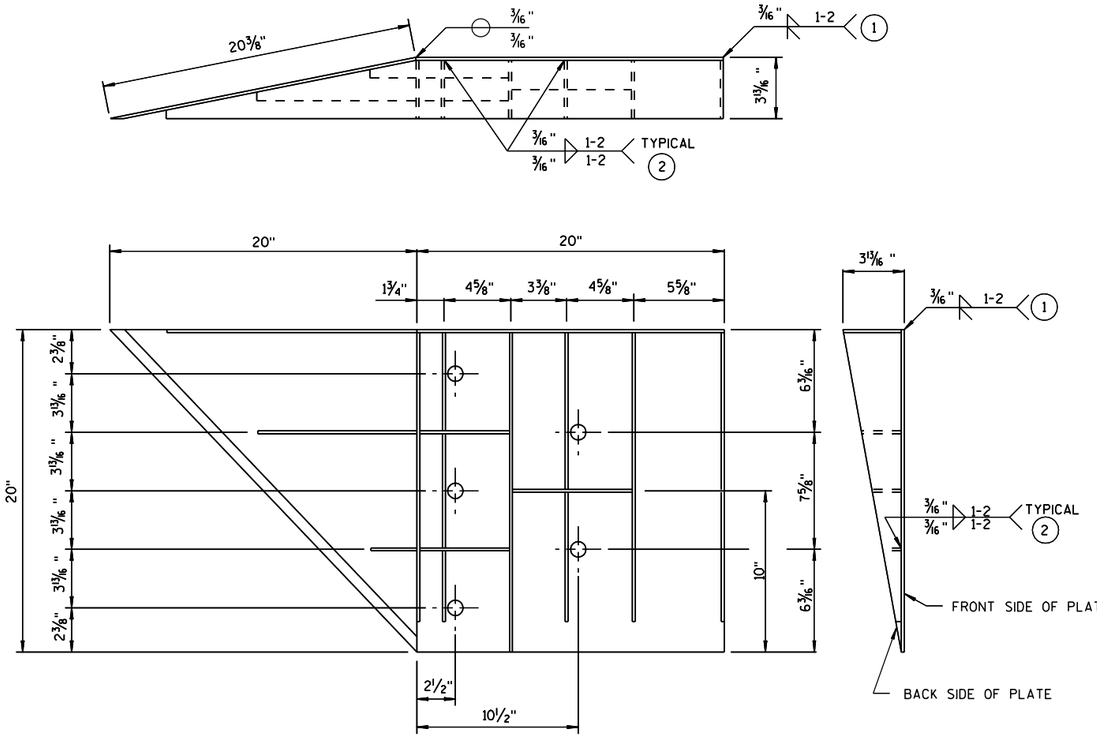
FOR GALVANIZED REQUIREMENTS, SEE SECTION 614 OF THE STANDARD SPECIFICATIONS.

ALL HOLE DIAMETERS SHALL BE 1".

FOR OPPOSITE SIDE INSTALLATION MIRROR DRAWINGS.

(1) STIFFENERS LOCATED AT THE OUTSIDE EDGES OF THE COVER PLATES SHALL BE WELDED AS FOLLOWS:
SINGLE BEVEL GROOVE WELD ON EXTERNAL SIDES AND 3/16" FILLET WELD BY 1" LONG SPACED AT 2" ON INTERNAL SIDES.

(2) STIFFENERS LOCATED ON THE INSIDE OF THE COVER PLATE SHALL BE WELDED AS FOLLOWS:
3/16" FILLET WELD BY 1" LONG SPACED AT 2".



WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)

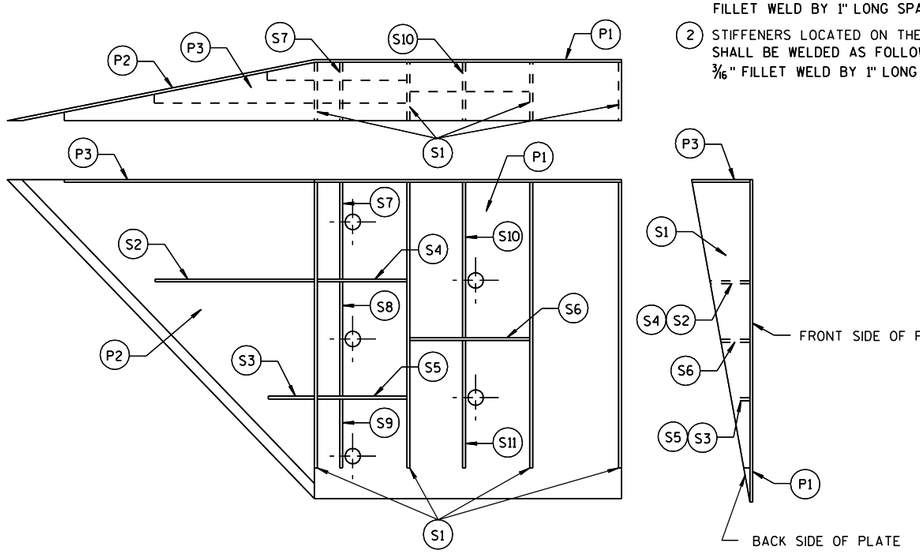


PLATE AND STIFFENER IDENTIFICATION

(VIEWED FROM BACK SIDE OF PLATE)

CONNECTOR PLATE DIMENSION (PER ASSEMBLY)

PLATE	QUANTITY	SHAPE	SIZE (A x B x C x D)	THICKNESS
P1	1		20" x 20"	3/16"
P2	1		20" x 20" x 28 9/16"	3/16"
P3	1		39" x 3 5/8" x 20" x 19 5/16"	3/16"
S1	4		18 7/16" x 3 5/8" x 18 3/4"	1/4"
S2	1		10 1/4" x 2 7/16" x 10 3/8" x 1/2"	1/4"
S3	1		3" x 1 1/16" x 3 1/8" x 1/2"	1/4"
S4	1		6 1/8" x 2 7/16"	1/4"
S5	1		6 1/8" x 1 1/16"	1/4"
S6	1		7 3/4" x 1 3/4"	1/4"
S7	1		2 9/16" x 6" x 3 5/8" x 5 7/8"	1/4"
S8	1		1 5/32" x 7 1/2" x 2 1/2" x 7 3/8"	1/4"
S9	1		6 1/16" x 6 3/16" x 1 3/32"	1/4"
S10	1		1 7/8" x 9 7/8" x 3 5/8" x 9 11/16"	1/4"
S11	1		8 1/2" x 8 3/4" x 1 13/16"	1/4"

STEEL THRIE BEAM STRUCTURE APPROACH

STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTOR PLATE DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/31/2012 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
802 TENT
FHWA

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S.D.D. 14 B 20-11g

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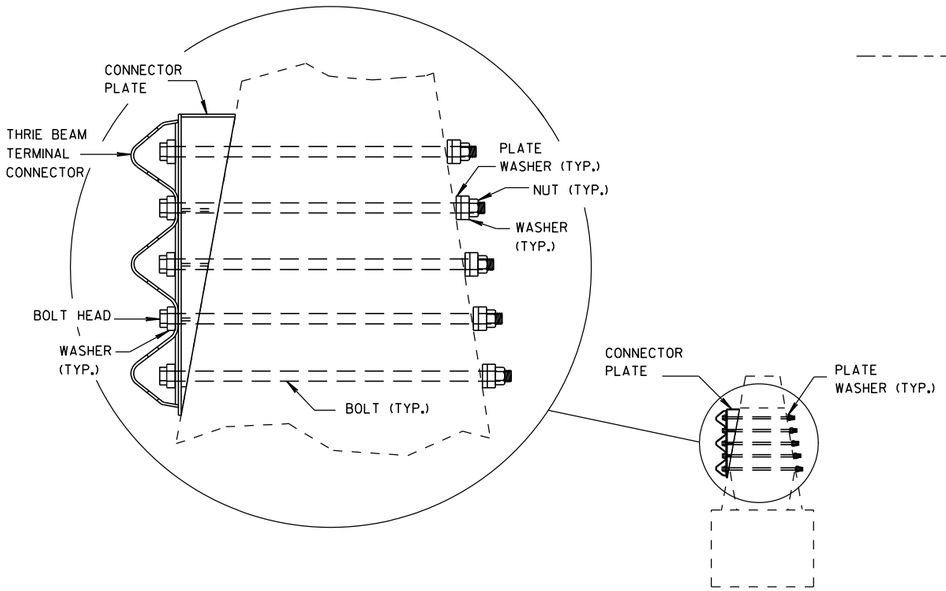
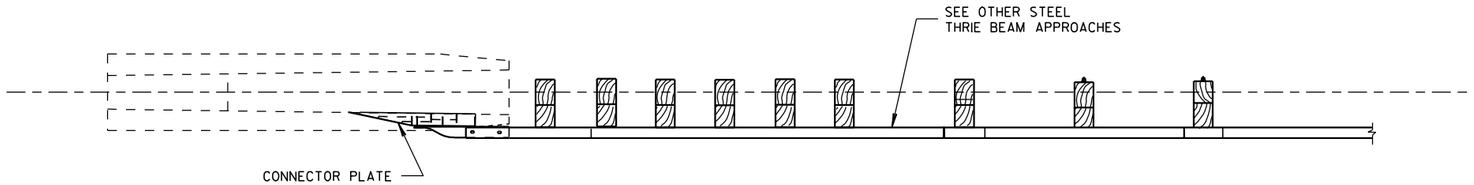
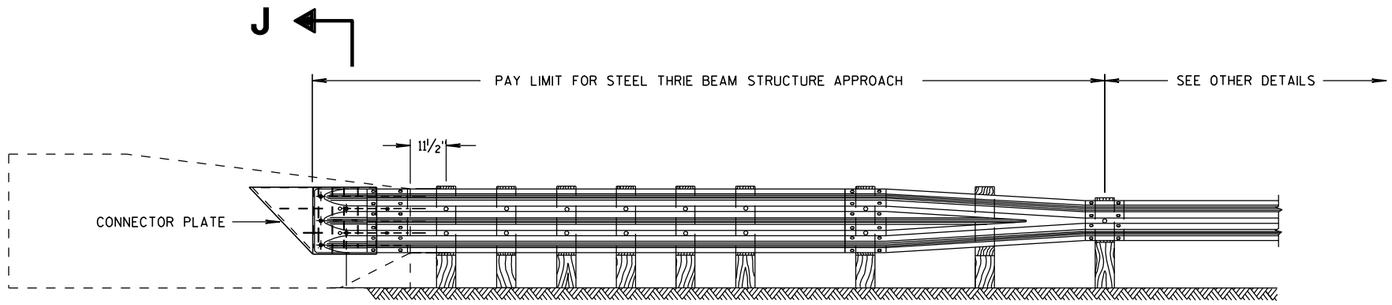
S.D.D. 14 B 20-11g



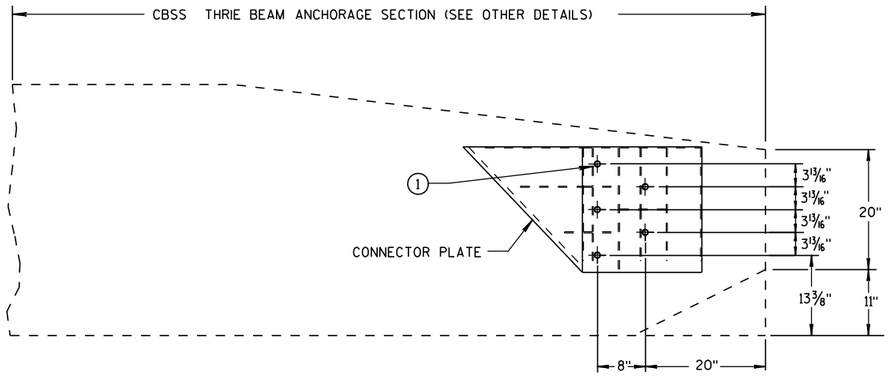
SECTION J-J



PLAN VIEW



FRONT VIEW



CONNECTOR PLATE LOCATION

GENERAL NOTES

CONSTRUCT PER STANDARD SPECIFICATION 614.

CONNECTOR PLATE, DRILLING HOLES THROUGH PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(1) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM TERMINAL CONNECTOR. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

STEEL THRIE BEAM STRUCTURE APPROACH

STEEL THRIE BEAM STRUCTURE APPROACH, SINGLE SLOPE ATTACHMENT

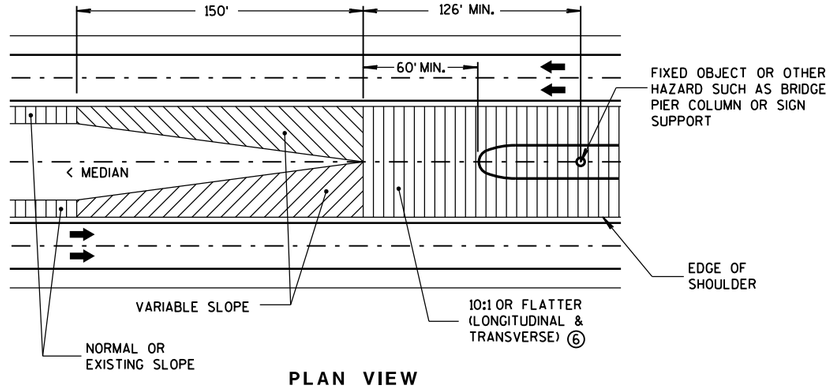
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012
DATE

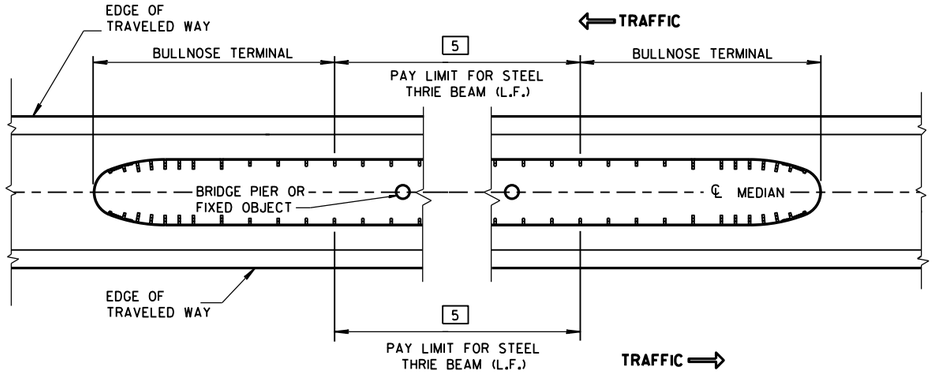
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

FHWA

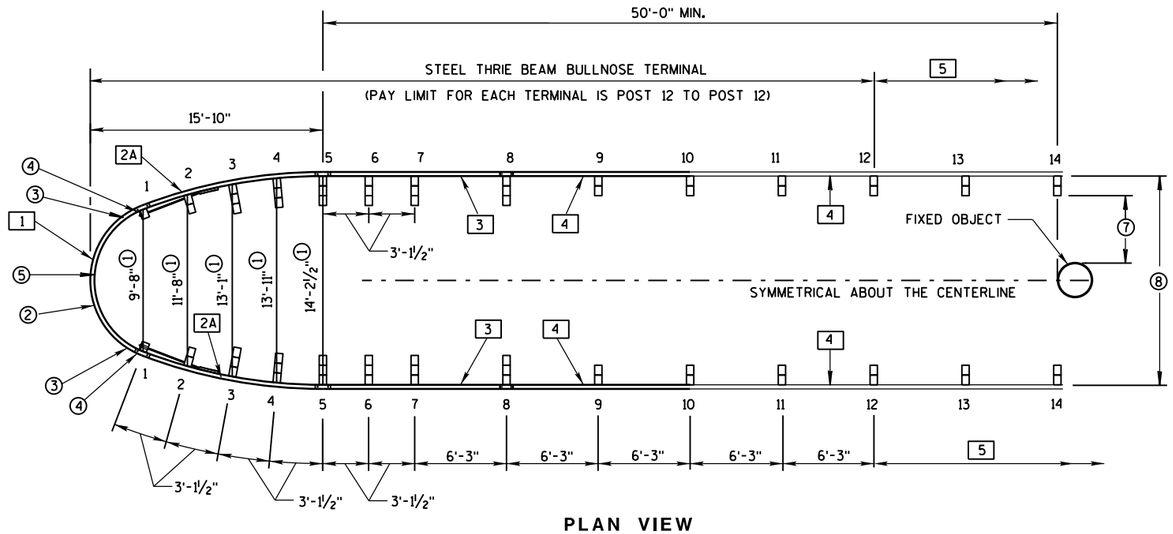


PLAN VIEW

GRADING AT BULLNOSE
(ALL INSTALLATIONS)

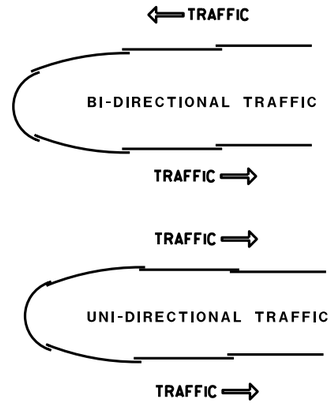


MEDIAN HAZARD PROTECTION PAY LIMITS



PLAN VIEW

TYPICAL BULLNOSE LAYOUT



LAPPING DETAIL
(ALL INSTALLATIONS)

GENERAL NOTES

SEE STANDARD DETAIL DRAWINGS 14 B 26a-e.

PUNCHING, DRILLING, CUTTING OR WELDING IS NOT PERMITTED ON ANY GALVANIZED THRIE BEAM ACCESSORY OR TERMINAL ACCESSORY.

OTHER ANCHOR CABLE ASSEMBLIES HAVING 40,000 LBS. MIN. BREAKING STRENGTH MAY BE USED.

FOR POSTS 2 THROUGH 14, IF POST CANNOT BE INSTALLED AT SPECIFIED LOCATION 1 EXTRA STANDARD WOOD BLOCK MAY BE ADDED.

THE USE OF STEEL POSTS ON THE BULLNOSE IS NOT ALLOWED.

BOLTS AND ALL NECESSARY HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A 153.

ALL THRIE BEAM SHALL BE 12-GAUGE.

[1] SLOTTED THRIE BEAM RAIL NO. 1. (POST 1 TO POST 1)

[2A] SLOTTED THRIE BEAM RAIL NO. 2A. (POST 1 TO POST 5)

[3] SLOTTED THRIE BEAM RAIL NO. 3. (POST 5 TO POST 8)

[4] UNBENT STANDARD THRIE-BEAM RAIL NO.4. (POST 8 TO POST 10 & POST 10 TO POST 12)

[5] BEYOND POST 12: CONSTRUCT STEEL THRIE BEAM - USE UNBENT STANDARD THRIE BEAM RAIL NO. 5.

① DIMENSIONS ARE FROM BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO POST OR BLOCK.

② U-BOLT CABLE CLIPS (3 PER CABLE) SPACED OUT ON NOSE, TO HOLD CABLE TO BACKSIDE OF THE RAIL.

③ NOSE CABLE W/SWAGGED END BUTTONS.

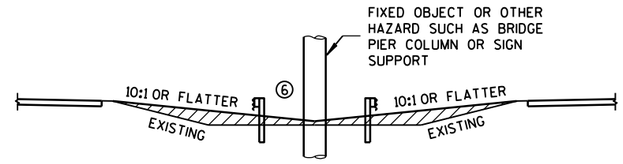
④ NOSE CABLE ANCHOR PLATE (BACKSIDE OF SPLICE).

⑤ THE SLACK IN THE NOSE CABLES SHALL BE EVENLY DISTRIBUTED BETWEEN THE CABLE CLIP FASTENERS AND POST NO. 1 ON EITHER SIDE OF THE NOSE.

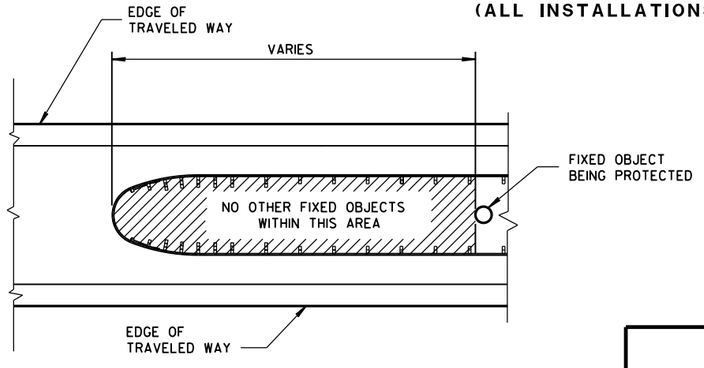
⑥ PROVIDE SUITABLE DRAINAGE WHEN MEDIAN GRADING IMPEDES NORMAL FLOW.

⑦ 2'-6" MINIMUM LATERAL DISTANCE BETWEEN BACK OF POST AND FACE OF FIXED OBJECT.

⑧ MAXIMUM WIDTH OF SYSTEM IS 14'-2½" MEASURED FROM BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO A POST OR BLOCK.



MEDIAN GRADING SECTION
(ALL INSTALLATIONS)



HAZARD FREE AREA INSIDE BULLNOSE

STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

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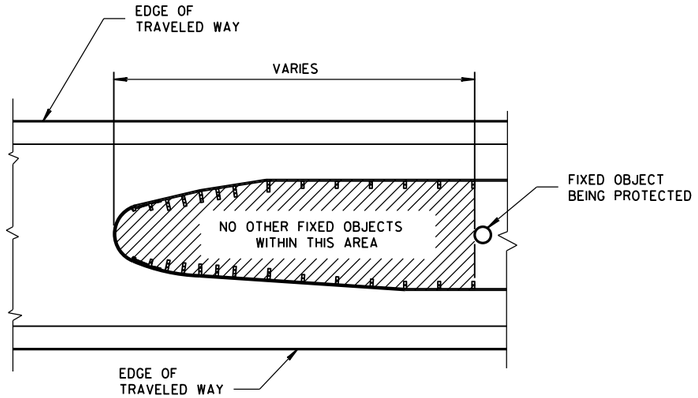
S.D.D. 14 B 26-2a



HAZARD FREE
AREA INSIDE BULLNOSE

GENERAL NOTES

SEE STANDARD DETAIL DRAWINGS 14 B 26a-e.

FOR POSTS 2 THROUGH 14, IF POST CANNOT BE INSTALLED AT SPECIFIED LOCATION 1 EXTRA STANDARD WOOD BLOCK MAY BE ADDED.

[1] SLOTTED THRIE BEAM RAIL NO. 1. (POST 1 TO POST 1)

[2A] SLOTTED THRIE BEAM RAIL NO. 2A, (POST 1 TO POST 5)

[2B] SLOTTED THRIE BEAM RAIL NO. 2B, (POST 1 TO POST 5)

[3] SLOTTED THRIE BEAM RAIL NO. 3. (POST 5 TO POST 8)

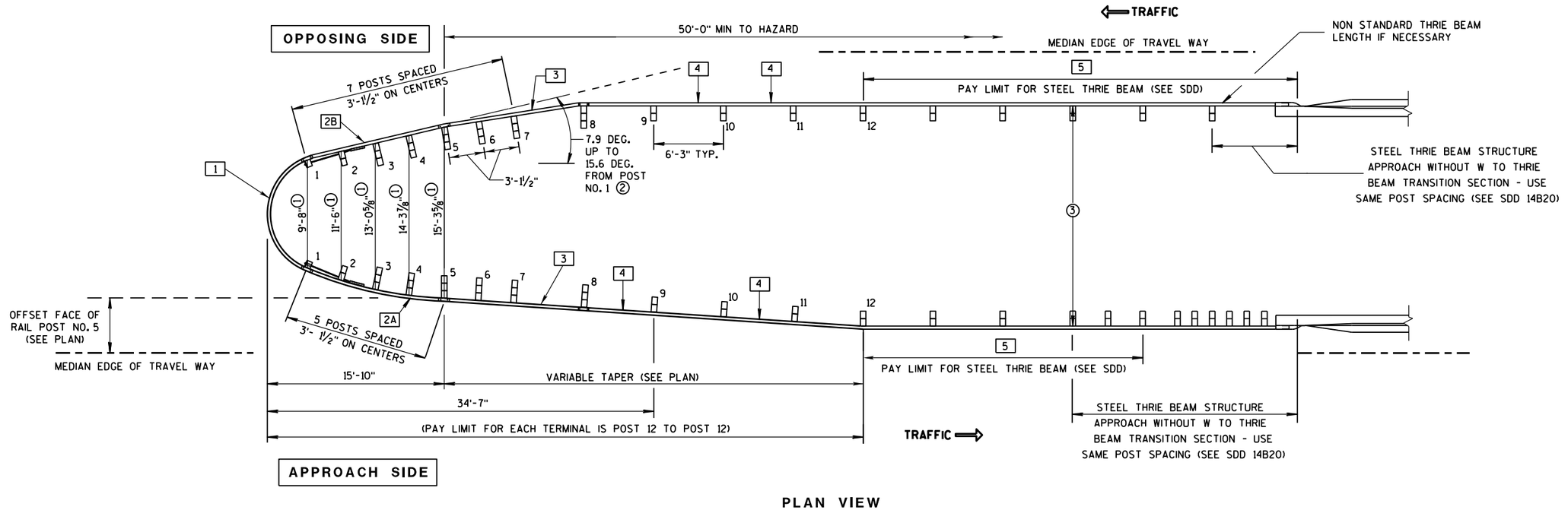
[4] UNBENT STANDARD THRIE-BEAM RAIL NO. 4, (POST 8 TO POST 10 & POST 10 TO POST 12)

[5] BEYOND POST 12: CONSTRUCT STEEL THRIE BEAM - USE UNBENT STANDARD THRIE BEAM RAIL NO. 5.

① DIMENSIONS ARE FROM BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO POST.

② TAPER BEGINNING AT POST NO. 1 MUST CONTINUE TO POST NO. 5. PAST POST NO. 5 TAPER MAY END OR BE EXTENDED UP TO 15.6 DEGREES TO FIT VARIABLE MEDIAN WIDTHS. (SEE PLAN)

③ FOR MEDIANS WIDER THAN 14'-2½" MEASURED FROM BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO A POST OR BLOCK.



PLAN VIEW

WIDENED BULLNOSE DESIGN

(INSTALLATION AT TWIN BRIDGES WITH BI-DIRECTIONAL TRAFFIC SHOWN)

STEEL THRIE BEAM
BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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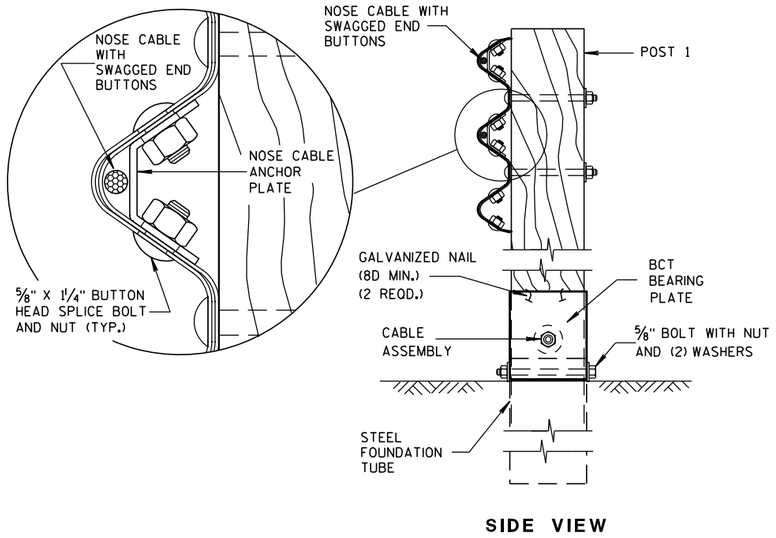
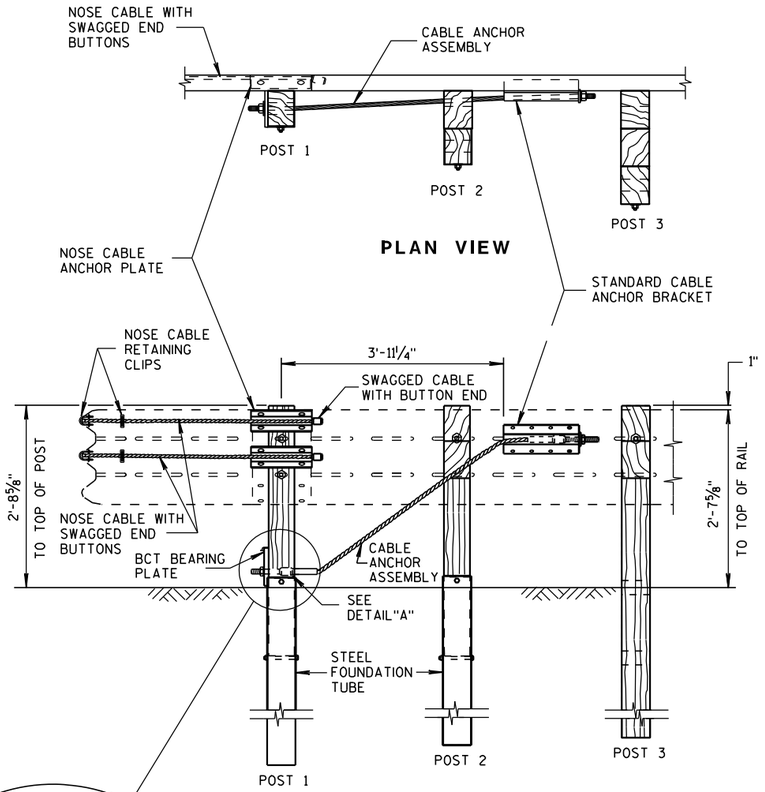
S.D.D. 14 B 26-2b



SIDE VIEW

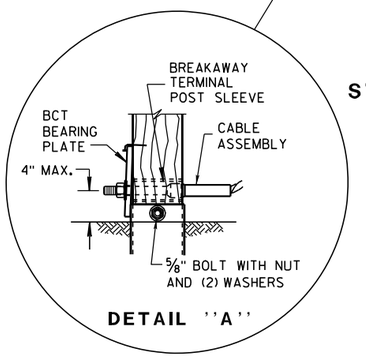
NOSE CABLE ASSEMBLY AT POST NO. 1



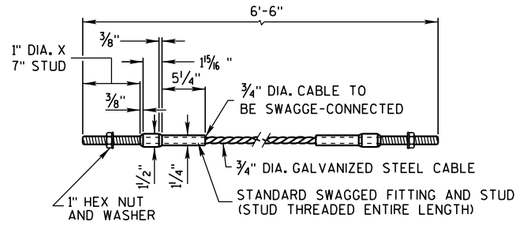
PLAN VIEW

FRONT VIEW

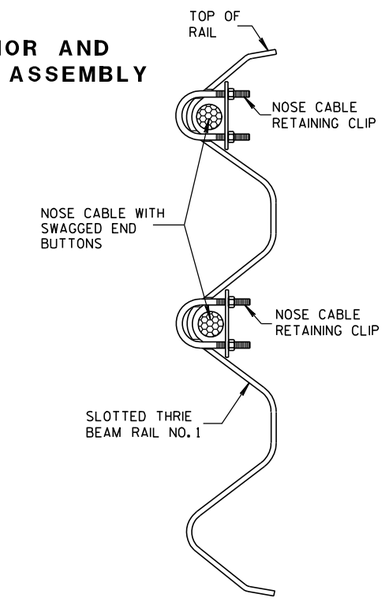
NOSE CABLE ANCHOR AND STANDARD BRACKET ASSEMBLY



DETAIL ''A''



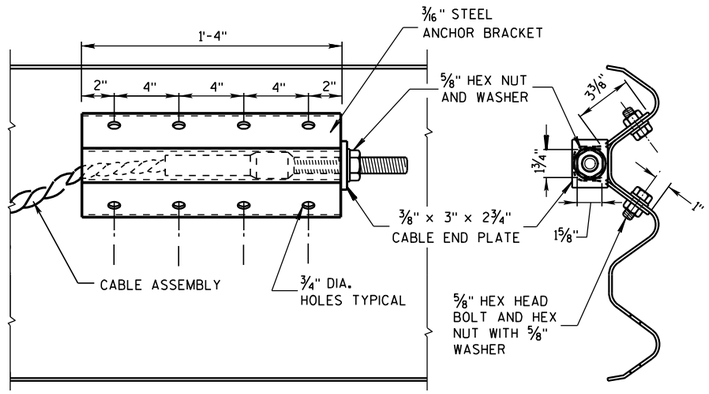
DETAILS OF CABLE ANCHOR ASSEMBLY



PLACEMENT OF NOSE CABLE RETAINING CLIP

GENERAL NOTES

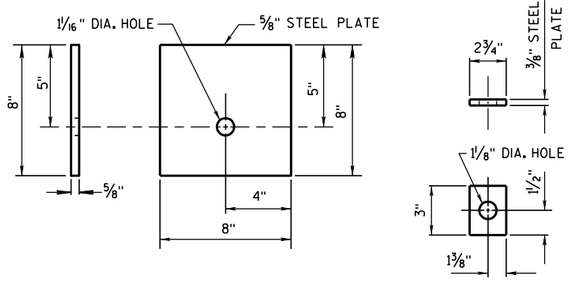
SEE STANDARD DETAIL DRAWINGS 14 B 26a-e.



FRONT VIEW

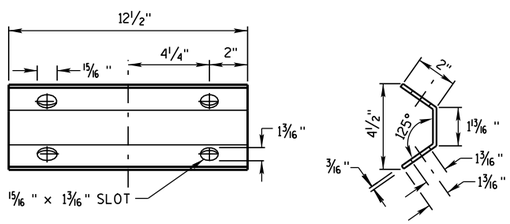
END VIEW

DETAILS OF CABLE ANCHOR BRACKET



BCT BEARING PLATE

CABLE END PLATE

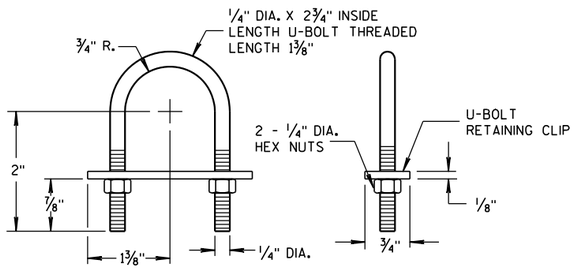


ELEVATION VIEW

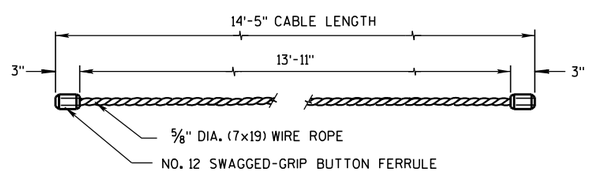
END VIEW

NOSE CABLE ANCHOR PLATE

NOTE: 12 1/2" x 5 13/16" x 3/16" STEEL PLATE (A306)



NOSE CABLE RETAINING CLIP



NOSE CABLE WITH SWAGGED END BUTTONS

TO PULL OFF SWAGGED GRIP BUTTON FERRULE FROM WIRE ROPE REQUIRES A FORCE EQUAL TO 98% OF THE WIRE ROPE'S BREAKING STRENGHT.

STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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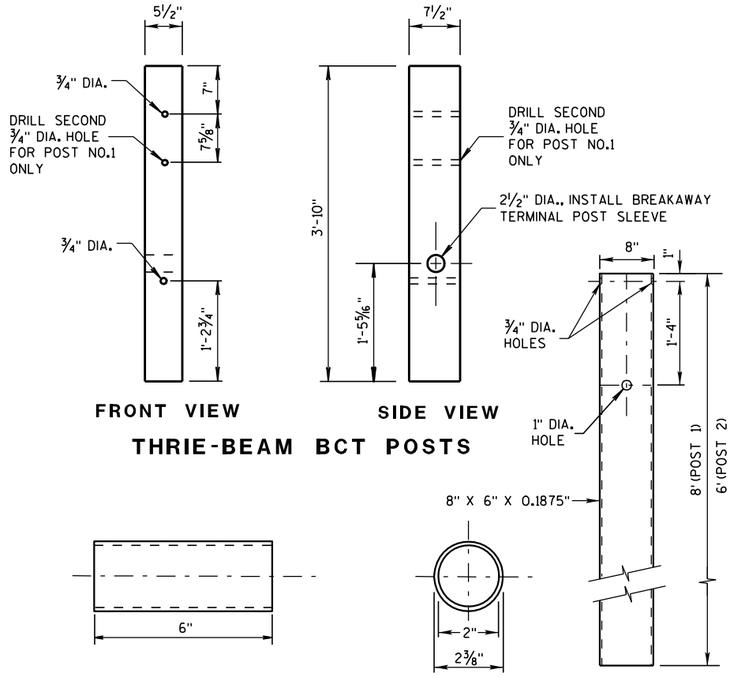
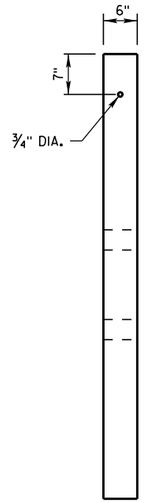
S.D.D. 14 B 26-2c

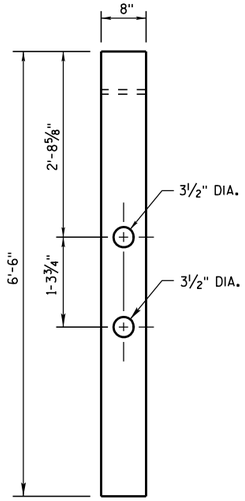


THRIE-BEAM BCT POSTS

BREAKAWAY TERMINAL POST SLEEVE

STEEL FOUNDATION TUBE

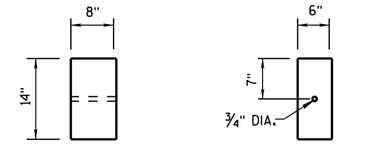




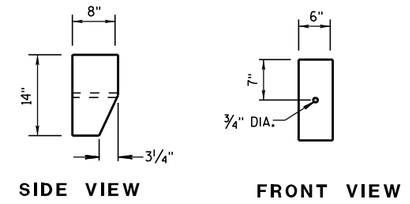
THRIE-BEAM CRT WOOD POSTS

GENERAL NOTES

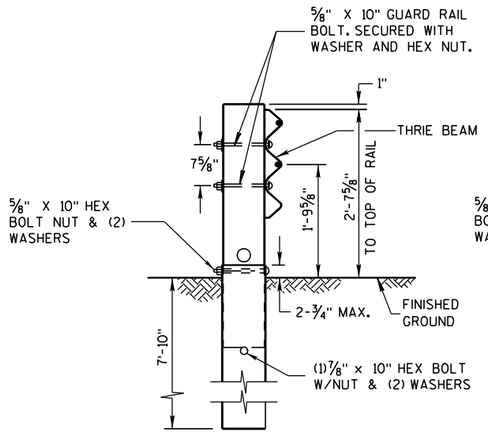
SEE STANDARD DETAIL DRAWINGS 14 B 26a-e.



STANDARD WOOD BLOCK

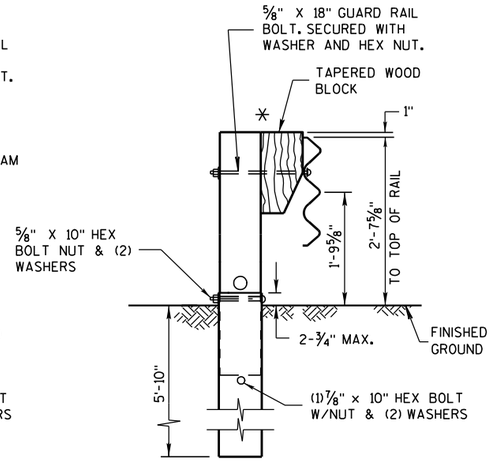


TAPERED WOOD BLOCK



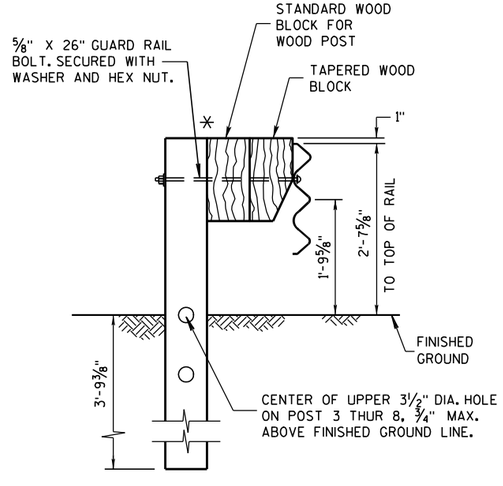
THRIE-BEAM BCT POST
(WITH 8'-0" FOUNDATION TUBE)

POST NO. 1



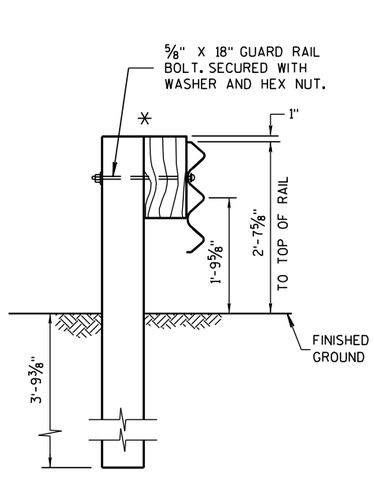
THRIE-BEAM BCT POST
(WITH 6'-0" FOUNDATION TUBE AND 1'-2" TAPERED BLOCK)

POST NO. 2



THRIE-BEAM CRT POST
(6'-6" LONG POST WITH 1'-2" BLOCK AND 1'-2" TAPERED BLOCK)

POST NO. 3,4,5,6,7, & 8



THRIE-BEAM POST
(6'-6" LONG POST WITH 1'-2" BLOCK)

POST NO. 9,10,11,& 12
(ALSO USE FOR STEEL THRIE BEAM BEYOND POST 12)

✳ IF NEEDED DUE TO AN UNDERGROUND OBSTACLE ADD 1 ADDITIONAL STANDARD BLOCKOUT TO POST.

STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO...

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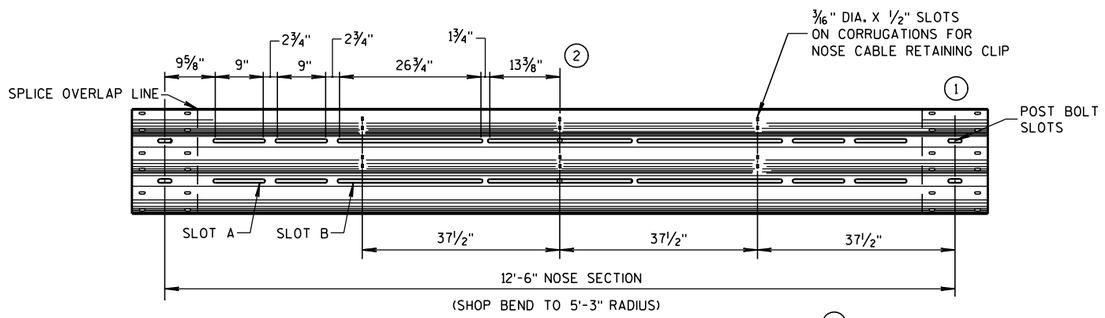
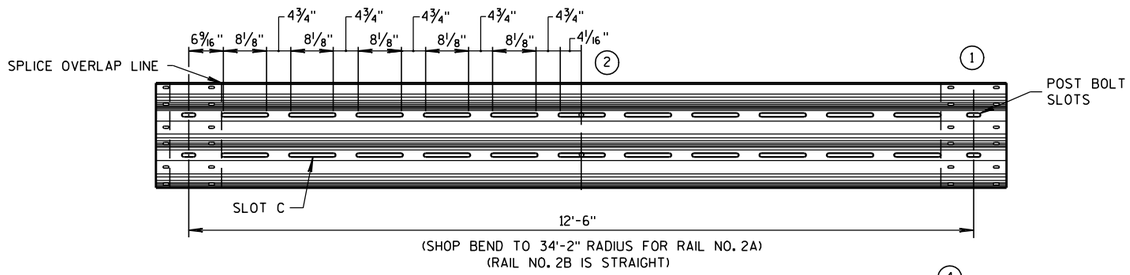
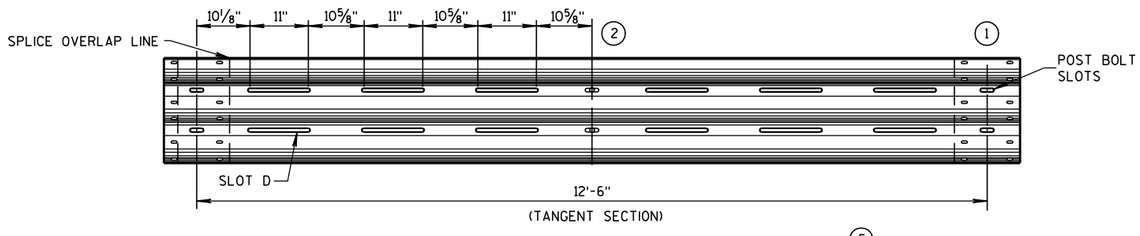
S.D.D. 14 B 26-2d



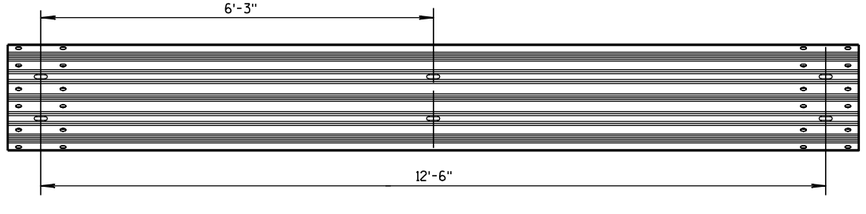
SLOTTED THRIE BEAM RAIL NO. 1 (3)



SLOTTED THRIE BEAM RAILS NO. 2A AND NO. 2B (4)



SLOTTED THRIE BEAM RAIL NO. 3 (5)



UNBENT STANDARD THRIE BEAM RAIL NO. 4 AND NO. 5

GENERAL NOTES

SEE STANADRD DETAIL DRAWINGS 14 B 26a-e.

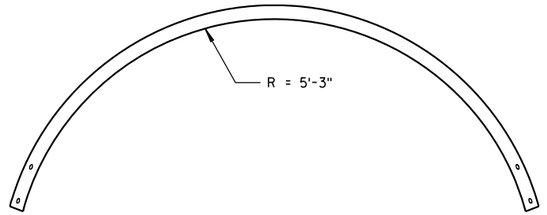
(1) SLOTTED THRIE BEAM RAIL DIMENSIONS SHOWN ARE BEFORE BENDING TO THE RADIUS SHOWN.

(2) SLOT SIZE AND SPACING SYMMETRIC.

(3) SLOTTED THRIE BEAM RAIL NO. 1, 12'-6", SHOP BEND TO R=5'-3".

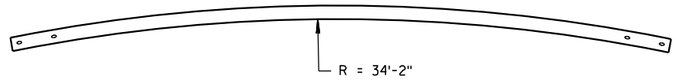
(4) SLOTTED THRIE BEAM RAIL NO. 2A, 12'-6", SHOP BEND TO R=34'-2".
SLOTTED THRIE BEAM RAIL NO. 2B, 12'-6", RAIL IS STRAIGHT.

(5) SLOTTED THRIE BEAM RAIL NO. 3, 12'-6", TANGENT.



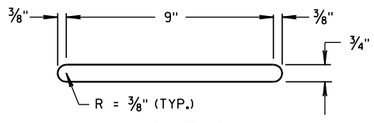
PLAN VIEW

SLOTTED THRIE BEAM RAIL NO. 1

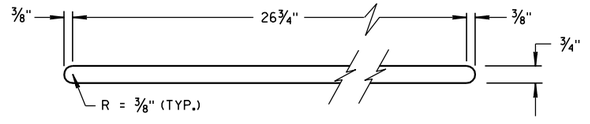


PLAN VIEW

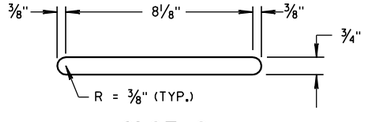
SLOTTED THRIE BEAM RAIL NO. 2A



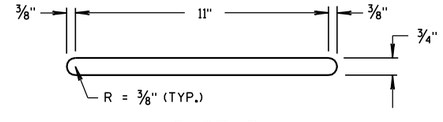
SLOT A



SLOT B



SLOT C



SLOT D

SLOT DETAILS

STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

9-16-2010
DATE

/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER

1808

[illegible]ENT

FHWA

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S.D.D. 14 B 26-2e

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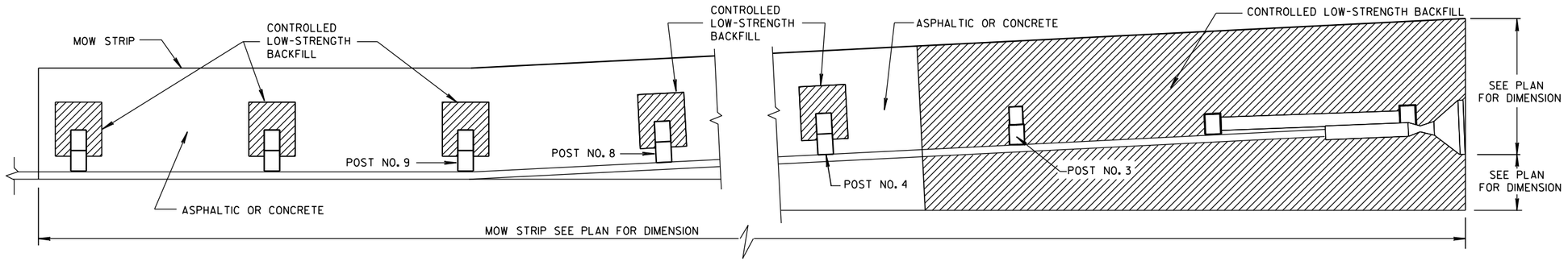
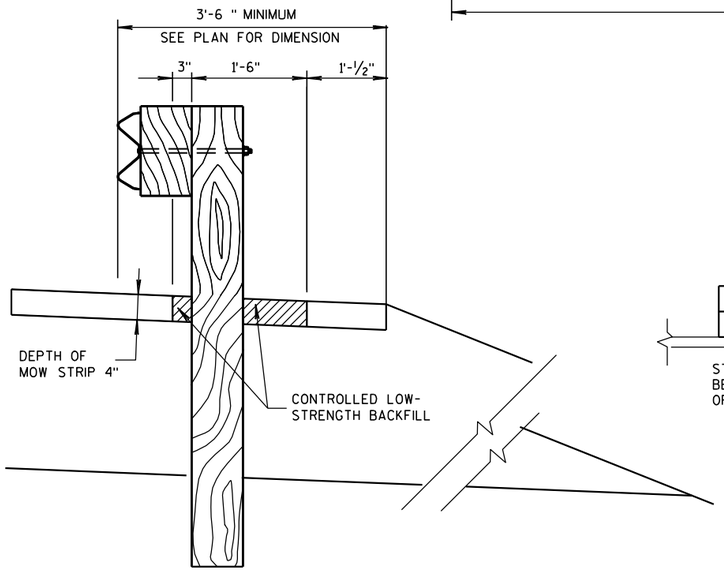
S.D.D. 14 B 26-2e

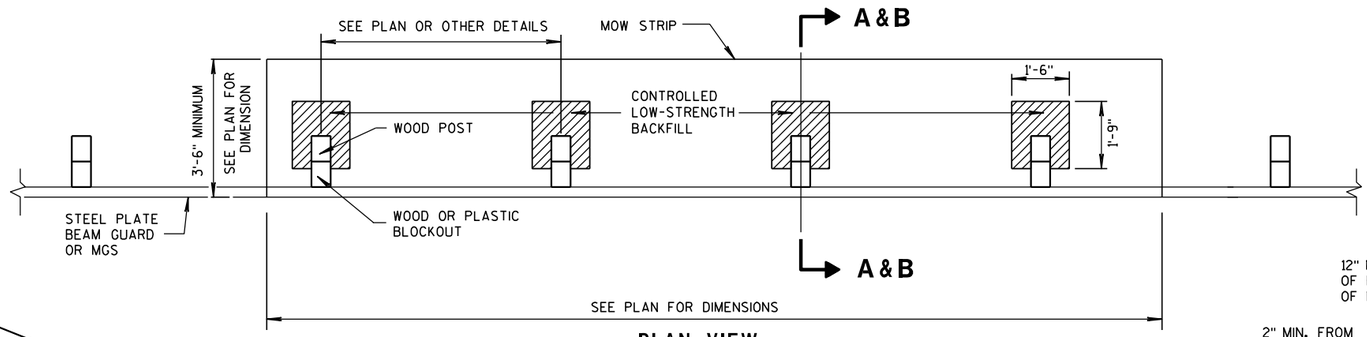


PLAN VIEW

MOW STRIP FOR STEEL PLATE BEAM GUARD ENERGY ABORBING TERMINAL

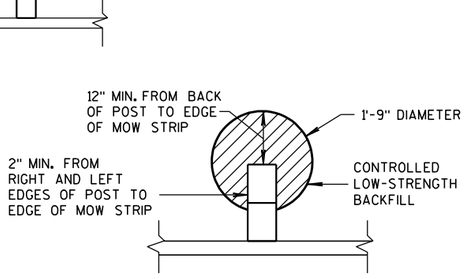


SECTION A-A

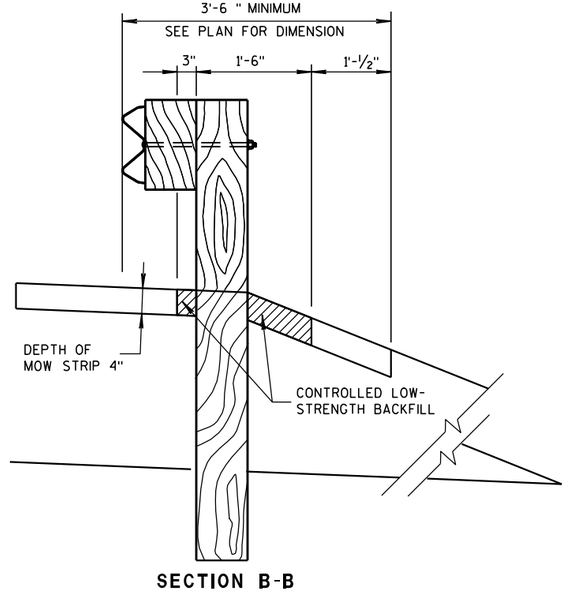


PLAN VIEW

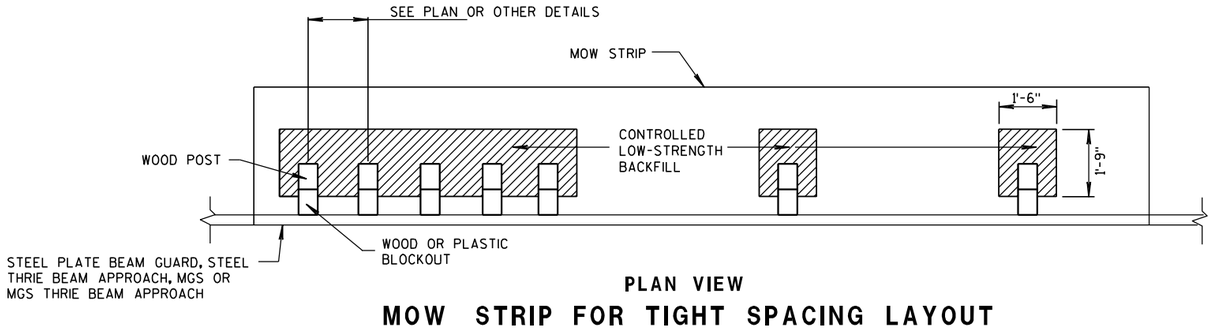
MOW STRIP FOR TYPICAL BLOCKOUT LAYOUT



ALTERNATIVE HMA
MOW STRIP DESIGN

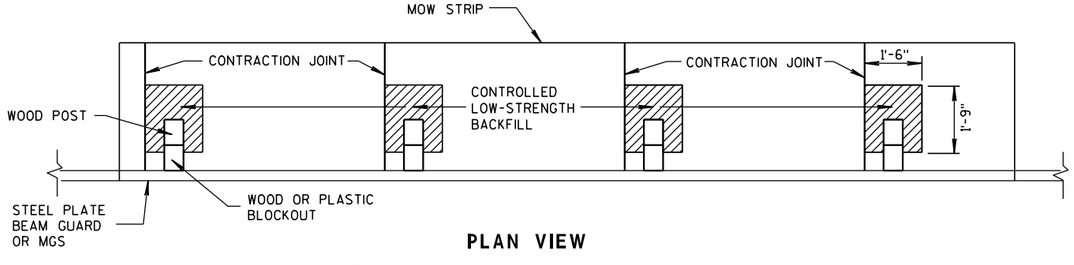


SECTION B-B



PLAN VIEW

MOW STRIP FOR TIGHT SPACING LAYOUT



PLAN VIEW

JOINT PLACEMENT FOR CONCRETE MOW STRIP

GUARDRAIL MOW STRIP

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

1/27/12
DATE

/S/ Jerry H. Zaas
ROADWAY STANDARDS 1809 ENT
ENGINEER

FHWA

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S.D.D. 14 B 28-2

6

S.D.D. 14 B 28-2

GENERAL NOTES

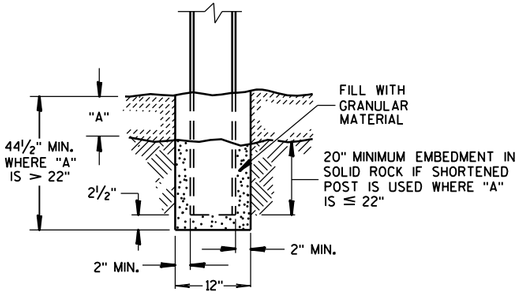
1. WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

2. USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.

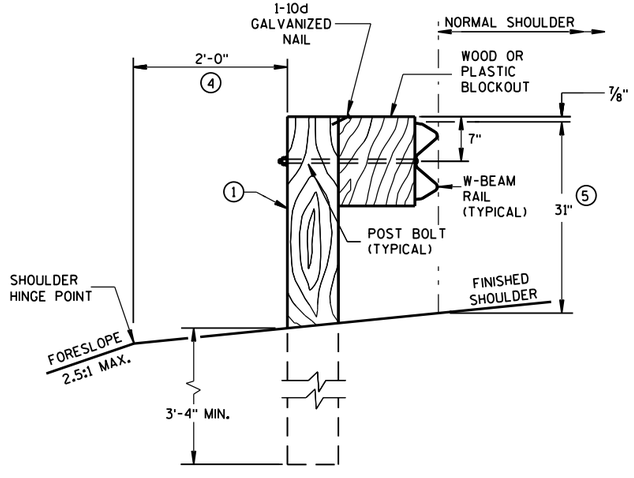
3. IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2½ INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS TO BE FREE OF LARGE ROCKS.

4. WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).

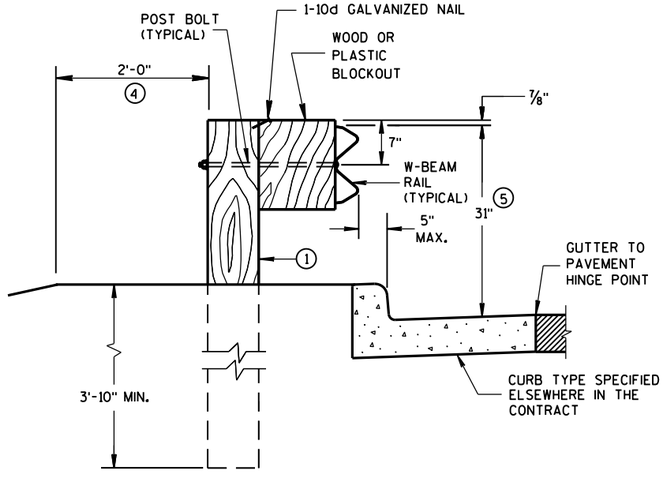
5. FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ± 1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27¾" TO 32".



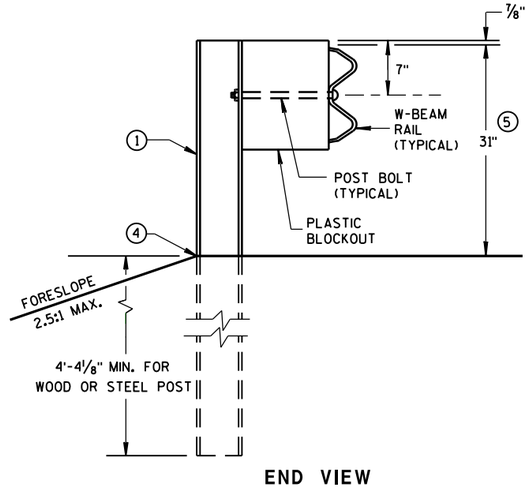
END VIEW
SETTING STEEL OR WOOD POST IN ROCK ③



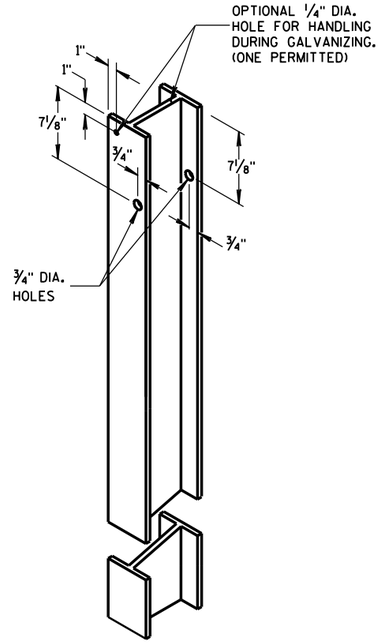
END VIEW
LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



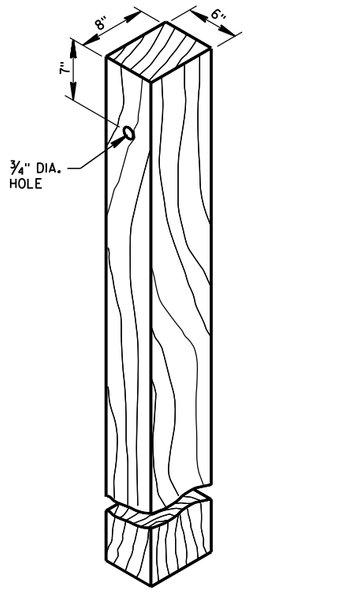
END VIEW
LOCATED ALONG A CURBED ROADWAY



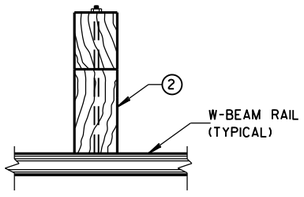
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



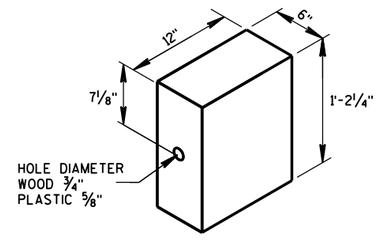
STEEL POST &
HOLE PUNCHING DETAIL
(w6X9) ①



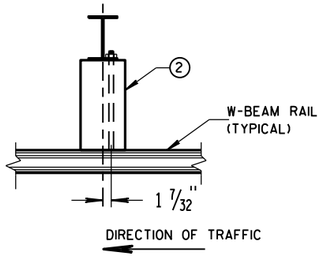
WOOD POST
(6" X 8") NOMINAL ①



PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



WOOD OR
PLASTIC BLOCKOUT ②

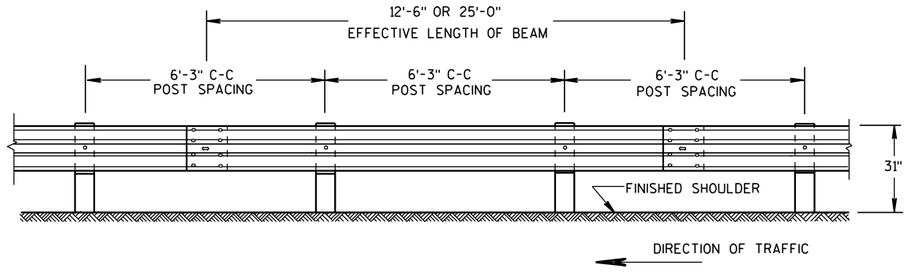


PLAN VIEW
STEEL POST,
PLASTIC BLOCKOUT & BEAM

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

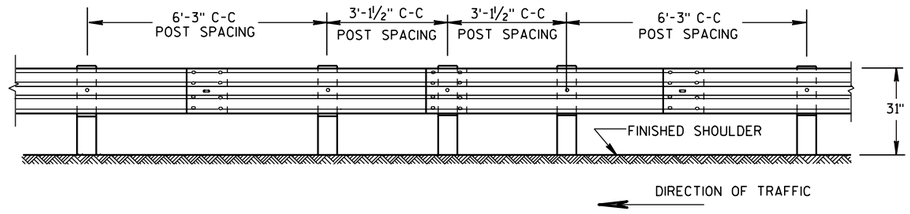
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6
S.D.D. 14 B 42-2a



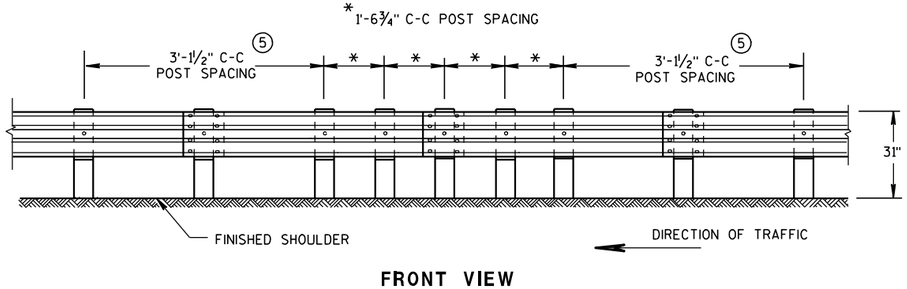
FRONT VIEW

POST SPACING STANDARD INSTALLATION



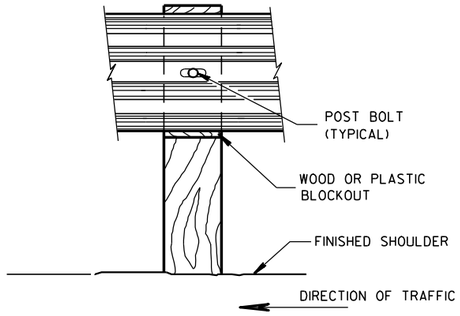
FRONT VIEW

HALF POST SPACING (HS) AND HALF POST SPACING WITH LONGER POSTS (K)

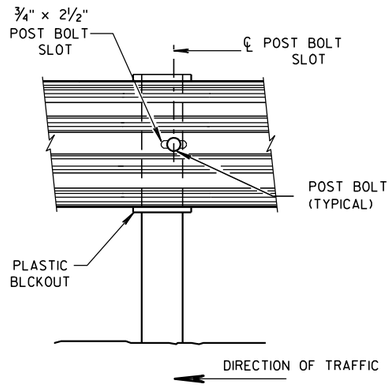


FRONT VIEW

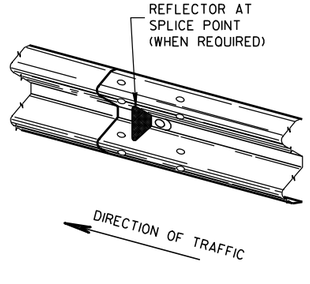
QUARTER POST SPACING (QS)

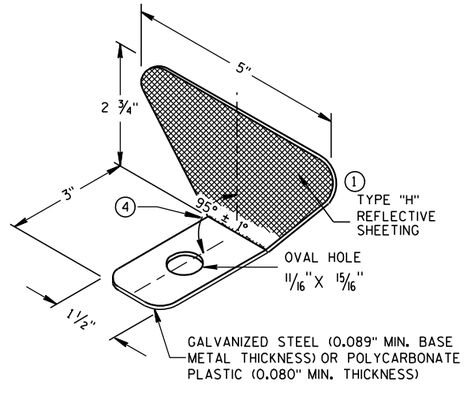


FRONT VIEW AT WOOD POST

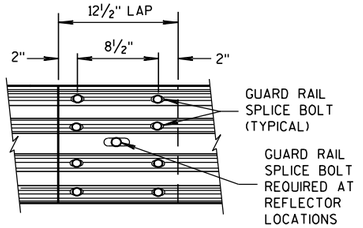


FRONT VIEW AT STEEL POST



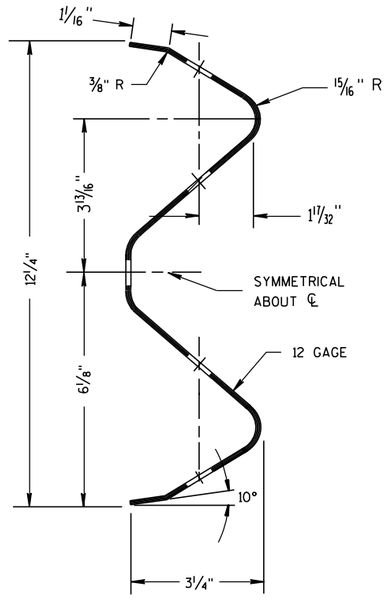


ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION ①



FRONT VIEW

MID-SPAN BEAM SPLICE



SECTION THRU W-BEAM RAIL

GENERAL NOTES

① PROVIDE TYPE "H" SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH TYPE "H" YELLOW REFLECTIVE SHEETING.

② DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL. RAIL SPLICE LOCATIONS ARE THE ONLY ACCEPTABLE LOCATIONS FOR REFLECTORS.

③ REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.

④ PROVIDE AN ANGLE OF BEND OF 90° ± 1° FOR TWO-SIDED REFLECTORS.

⑤ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

POST BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND ⅝" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

REFLECTOR SPACING ②

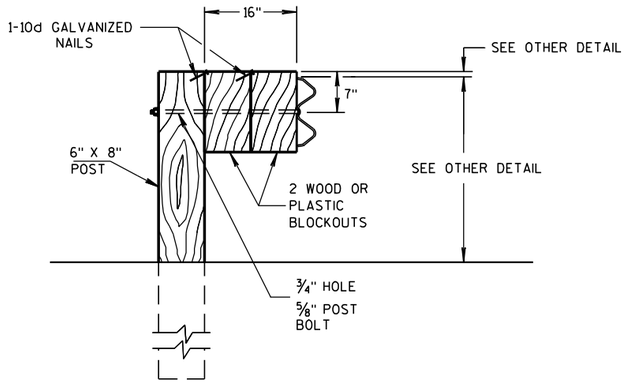
	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200' > 200'	50' C-C 100' C-C	1 1	3
TWO WAY TRAFFIC	< 200' > 200'	25' C-C 50' C-C	1 ③ 1	6
TWO WAY TRAFFIC	< 200' > 200'	50' C-C 100' C-C	2 ④ 2	3

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

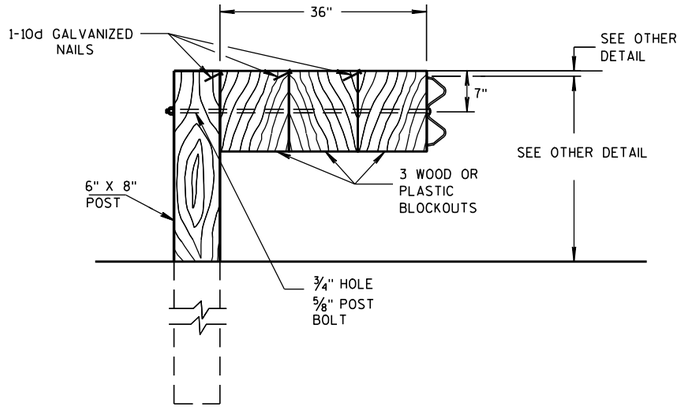
S.D.D. 14 B 42-2b

S.D.D. 14 B 42-2b



DETAIL FOR 16" BLOCKOUT DEPTH

IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.

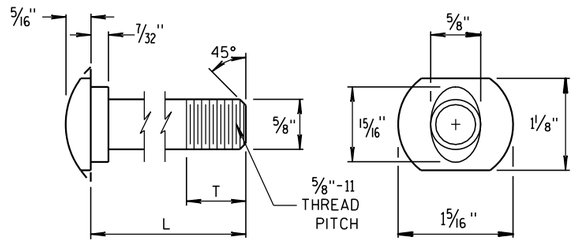


DETAIL FOR 36" BLOCKOUT DEPTH

NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

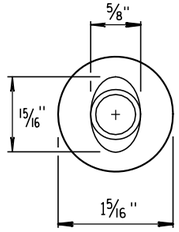
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

NOTE: 1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 1/16".
2. IF THE BOLT EXTENDS MORE THAN 1/4" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

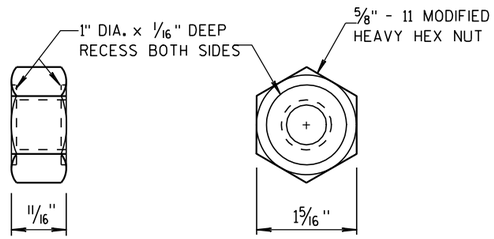


POST BOLT TABLE

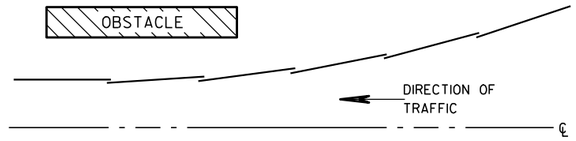
L	T (MIN.)
1 1/4"	1 1/8"
2"	1 3/4"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



ALTERNATE BOLT HEAD

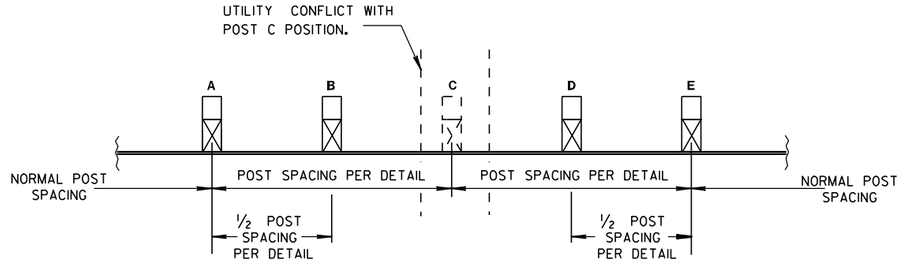


POST BOLT AND RECESS NUT

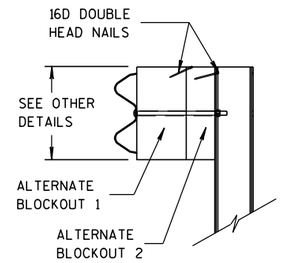


PLAN VIEW

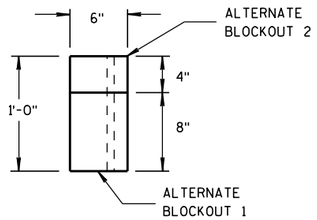
BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



SIDE VIEW



TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/15/2011
DATE

/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER

FHWA

812

ENT

6

S.D.D. 14 B 42-2c

6

S.D.D. 14 B 42-2c

GENERAL NOTES

(A) THE SLOPE IN THE AREA BOUNDED BY THE EXTENDED VEHICLE RUNOUT PATH (EVRP), THE HINGE POINT LINE (HPL),AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.

(B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED.

(C) DIFFERENT MANUFACTURES REQUIRE DIFFERENT PERFORATED W-BEAM RAIL END PANELS. SEE MANUFACTURES INFORMATION.

(D) THE TOP OF THE STEEL TUBE ON POST 1 AND POST 2 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.

(F) SHEETING IS ATTACHED TO 0.040 ALUMINUM SHEET AND ATTACHED TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS. ONE SCREW PER CORNER OF E.A.T.

(G) ½" DIAMETER X 3" LONG LAG BOLT AND WASHER.

(H) HARDWARE VARIES BETWEEN DIFFERENT MANUFACTURES. SEE MANUFACTURE'S DRAWING FOR INFORMATION.

(I) DIMENSIONS MAY VARY. SEE MANUFACTURE'S INFORMATION.

SEE SDD 14B42 FOR MORE INFORMATION.

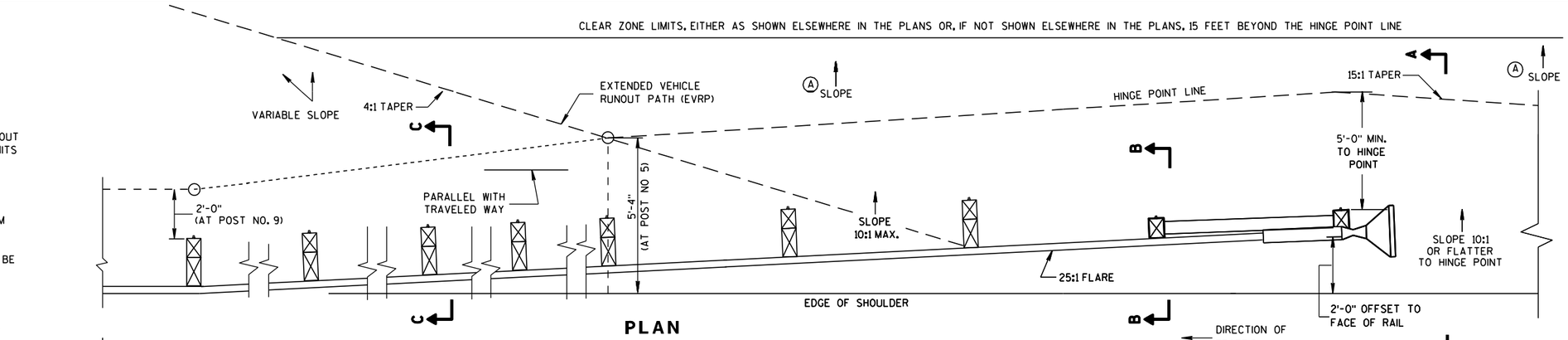
* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

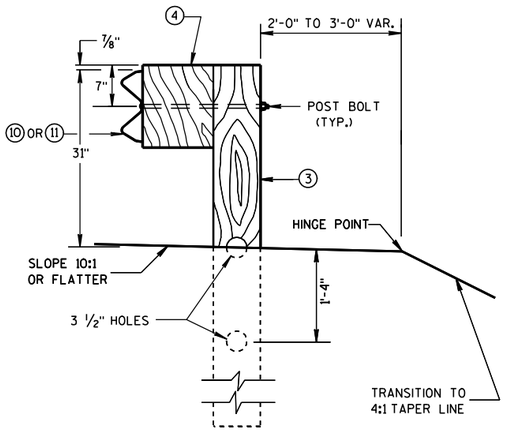
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

W-BEAM RAIL SPLICES ARE LOCATED AT POST NUMBER 3, AND BETWEEN POST 5 AND 6, BETWEEN POSTS 7 AND 8, AND MIDDLE OF THE SPAN AFTER POST 9.

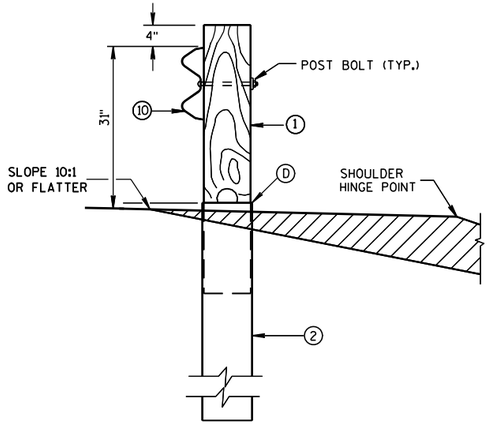
PATTERN AND COLORS ON REFLECTIVE SHEETING TYPE H ARE TO CONFORM TO OM3-L OR OM3-R OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

THE CENTER OF THE UPPER 3½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE (± ¾")

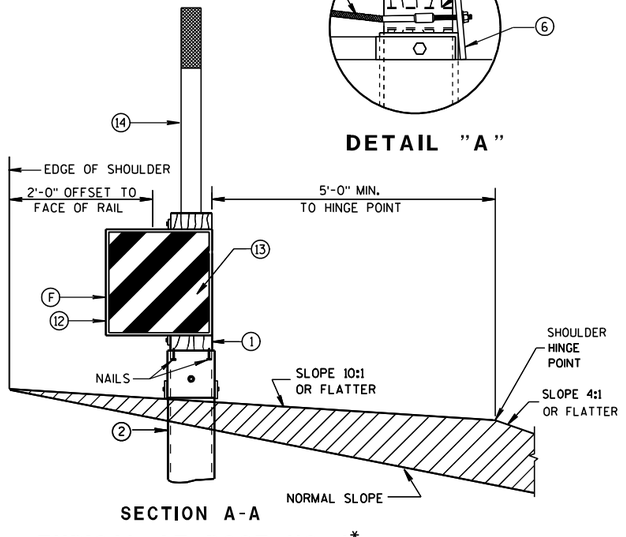




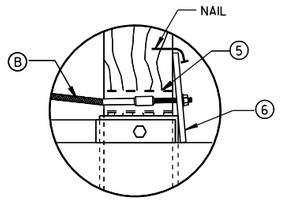
SECTION C-C
TYPICAL AT POST NOS. 3-9



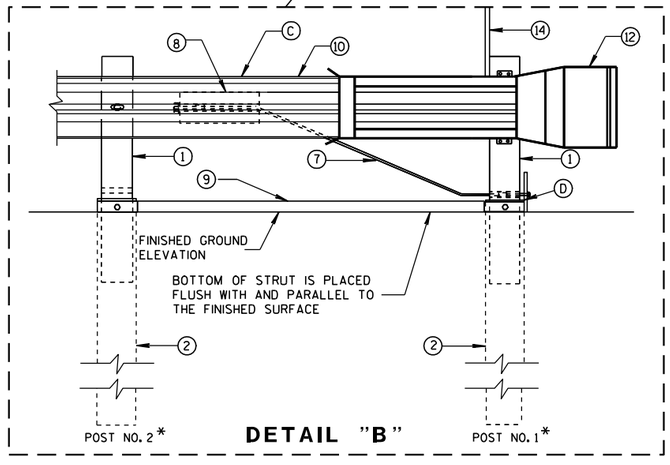
SECTION B-B
TYPICAL AT POST NO. 2*



SECTION A-A
TYPICAL AT POST NO. 1*



DETAIL "A"



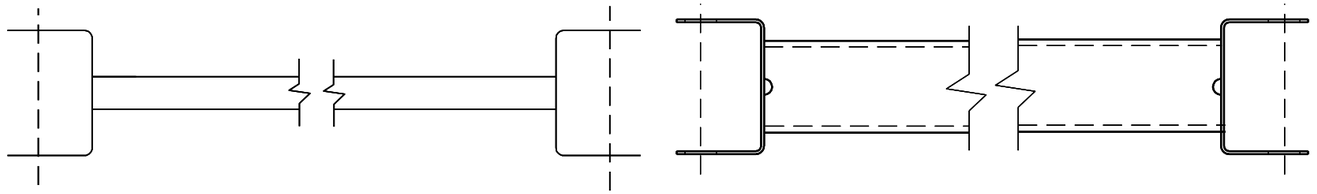
DETAIL "B"

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

S.D.D. 14 B 44-1a

6

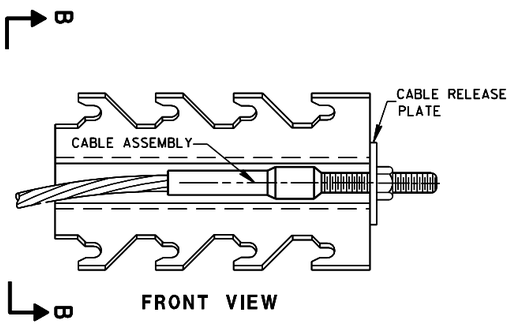


(9) (H)

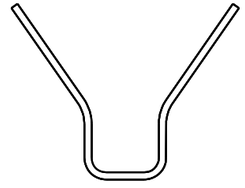
GENERIC GROUND STRUT

BILL OF MATERIALS

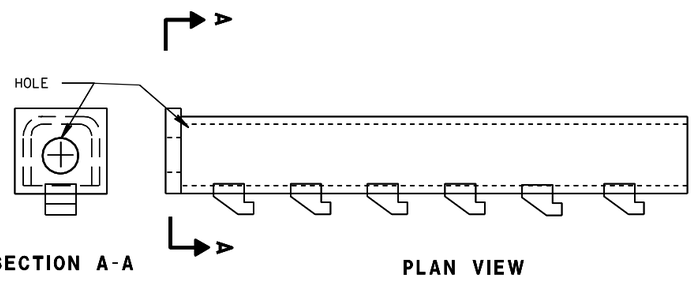
PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.
(1)	WOOD BREAKAWAY POST
(2)	6" X 8" X 0.188", 6'-0" LONG FOUNDATION TUBE AT POSTS 1 AND 2
(3)	WOOD CRT
(4)	WOOD BLOCKOUT
(5)	PIPE SLEEVE
(6)	BEARING PLATE
(7)	BCT CABLE ASSEMBLY
(8)	ANCHOR CABLE BOX
(9)	GROUND STRUT
(10)	PERFORATED W-BEAM RAIL END PANEL, 12'-6" LONG.
(11)	STANDARD W-BEAM RAIL. MULTIPLE SECTIONS REQUIRED. SECTIONS VARY IN LENGTH.
(12)	END SECTION EAT
(13)	0.040" ALUMINUM SHEET WITH REFLECTIVE SHEETING TYPE H (ONLY THE SHEETING IS SUPPLIED BY THE MANUFACTURER)
(14)	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)



FRONT VIEW



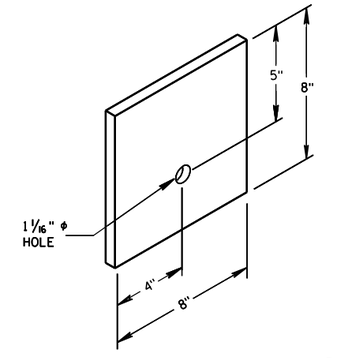
SECTION B-B



SECTION A-A

PLAN VIEW

GENERIC ANCHOR CABLE BOX (8) (H)



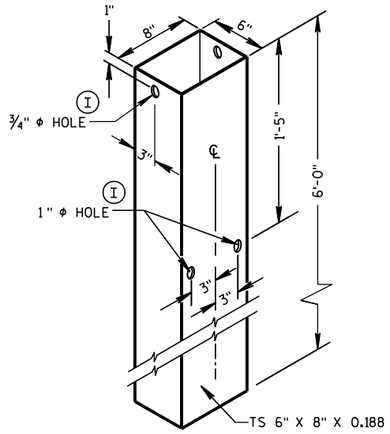
BEARING PLATE (6)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

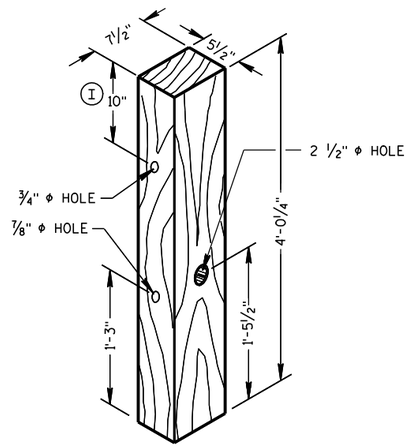
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 14 B 44-1b

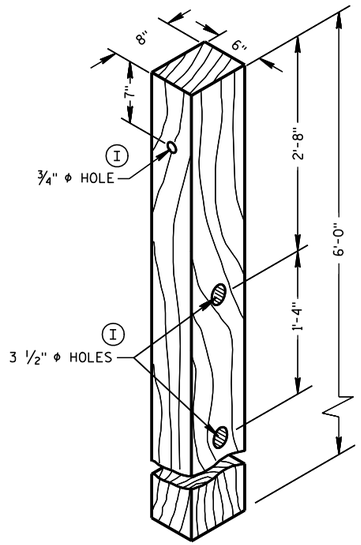


FOUNDATION TUBE (2)



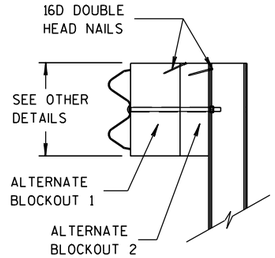
POSTS NUMBER 1 AND 2

WOOD BREAKAWAY POST (1)

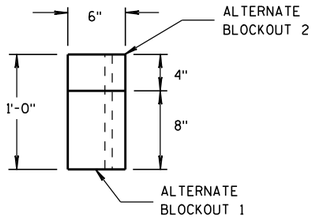


POSTS NUMBER 3-9

WOOD CRT POST (3)

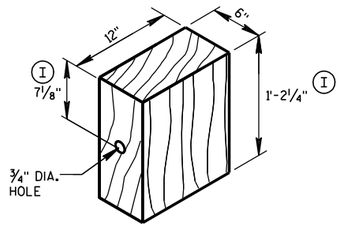


SIDE VIEW



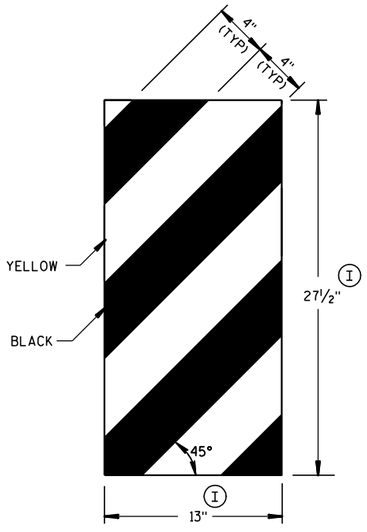
TOP VIEW

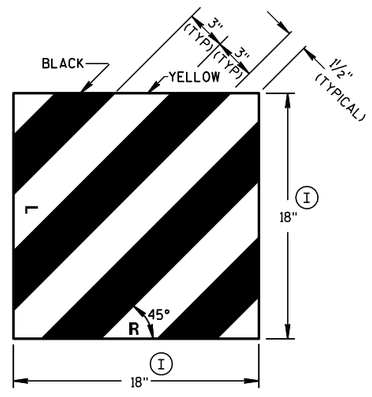
ALTERNATE WOOD BLOCKOUT DETAIL



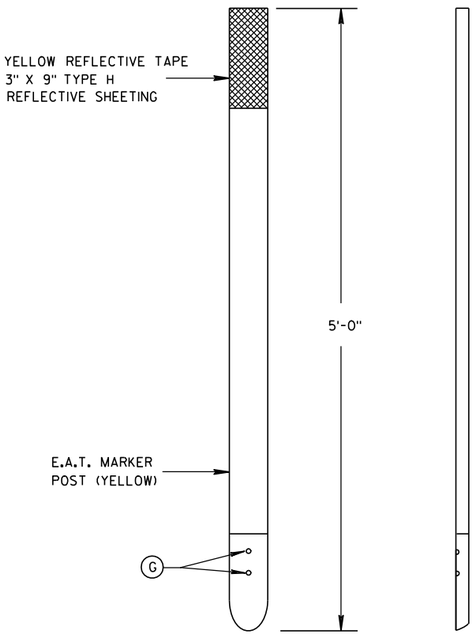
WOOD BLOCKOUT (4)

REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



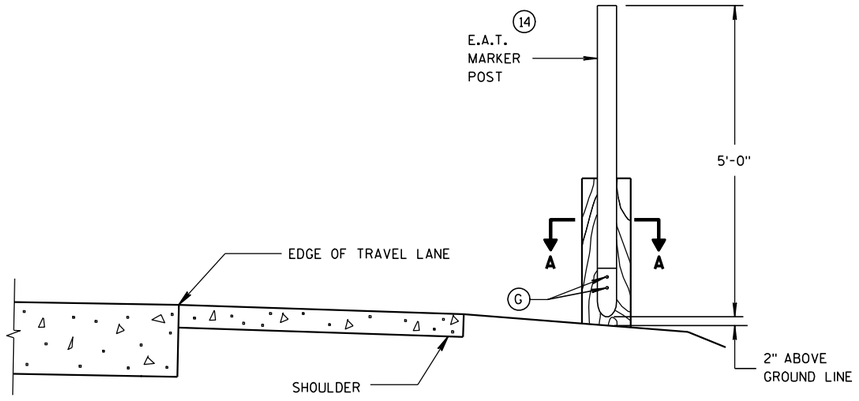


GENERIC REFLECTIVE SHEETING (13) (H)



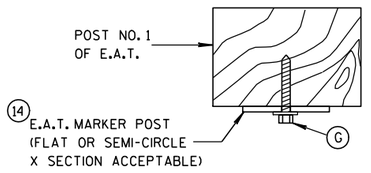
FRONT VIEW **SIDE VIEW**

E.A.T. MARKER POST (14)



TYPICAL INSTALLATION OF E.A.T. MARKER POST BACKSIDE OF POST NO. 1

(E.A.T. AND RAIL REMOVED FOR CLARITY)



SECTION A-A

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

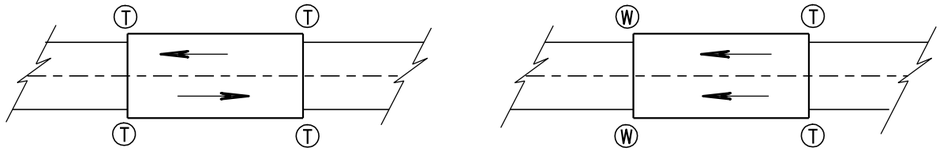
APPROVED
5/23/2011 — DATE
/S/ Jerry H. [illegible] — ROADWAY STANDARDS ENGINEER
815 [illegible]
FHWA

6

S.D.D. 14 B 44-1c

6

S.D.D. 14 B 44-1c



TWO WAY TRAFFIC

ONE WAY TRAFFIC

Ⓣ THRIE BEAM CONNECTION

Ⓦ W-BEAM CONNECTION WHEN REQUIRED

TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE

GENERAL NOTES

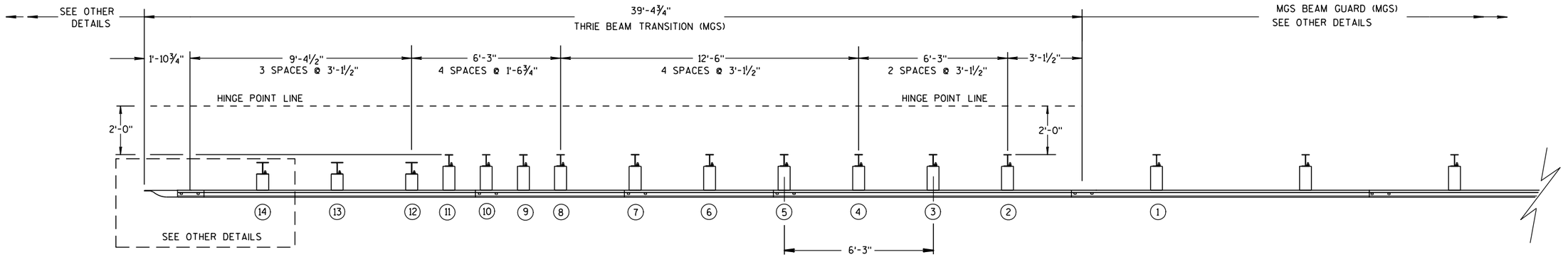
BOLT THE THRIE BEAM TO ALL POSTS AND BLOCKOUTS. DRILL OR PUNCH BOLT HOLES IN THE BEAM IF THE POST SPACING IS LESS THAN 6'-3.

IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2½", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

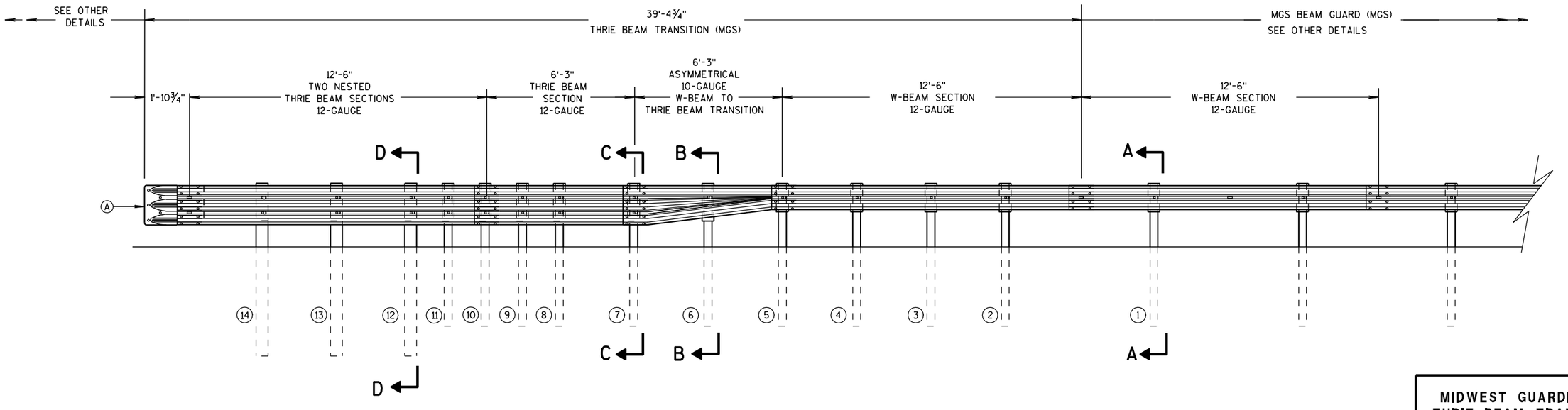
TRANSITION USES STEEL POSTS ONLY.

SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

Ⓐ BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

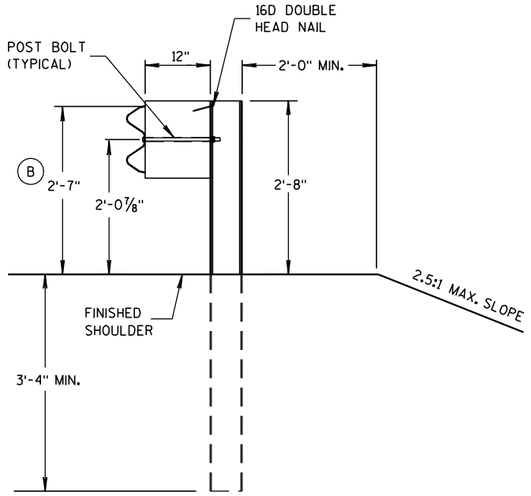
MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 14 B 45-3a

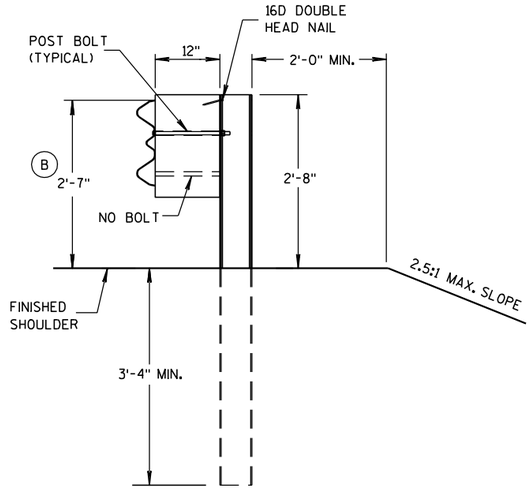
GENERAL NOTES

(B) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".



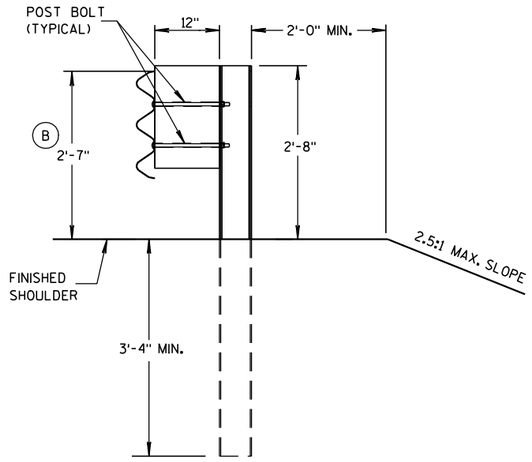
SECTION A-A

POSTS 1-5



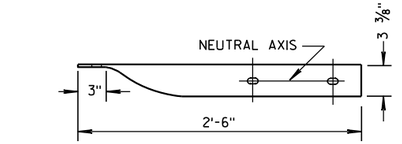
SECTION B-B

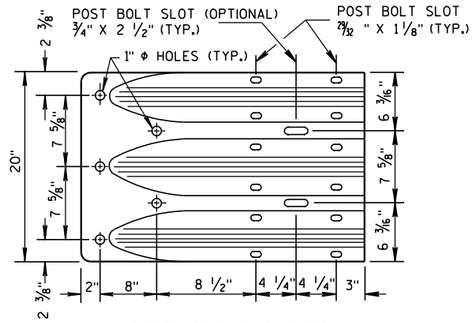
POST 6



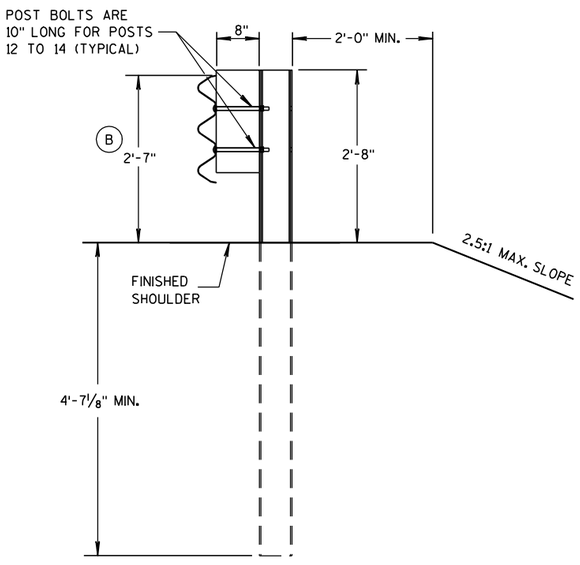
SECTION C-C

POSTS 7-11



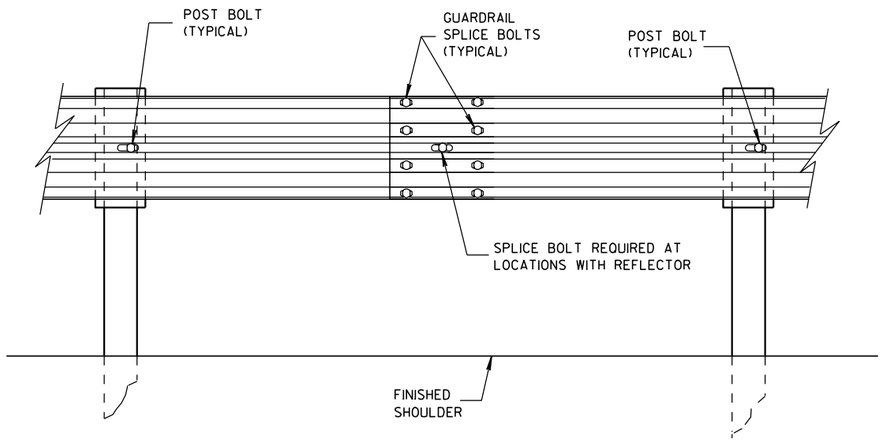


THRIE BEAM TERMINAL CONNECTOR



SECTION D-D

POSTS 12-14



SPLICE DETAIL

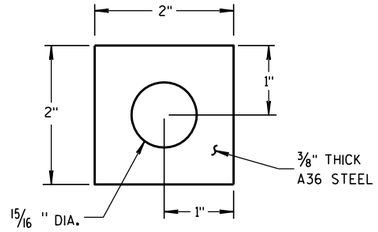
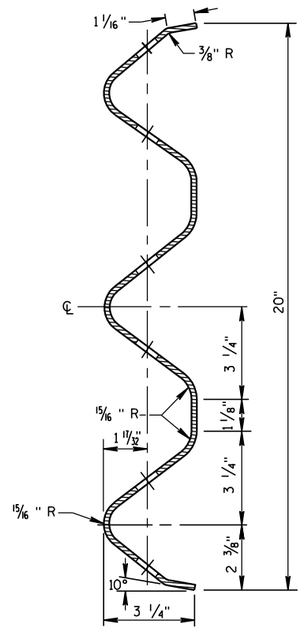


PLATE WASHER DETAIL

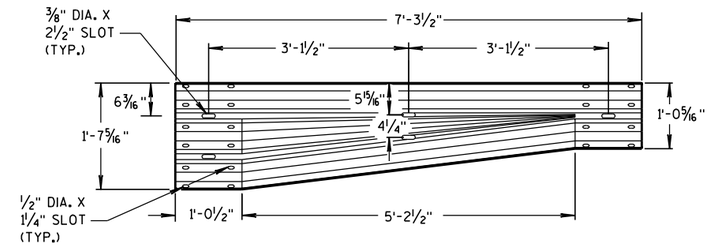


SECTION THRU THRIE BEAM RAIL ELEMENT

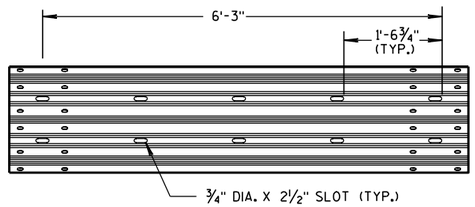
MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

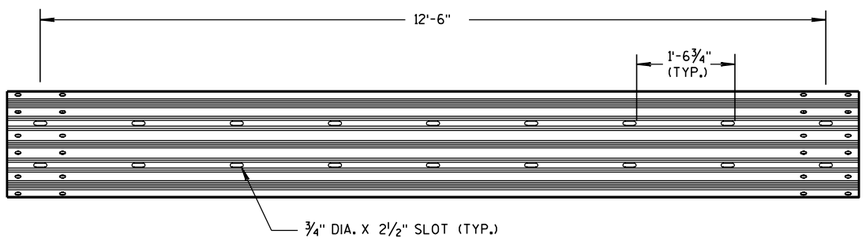
6
S.D.D. 14 B 45-3b



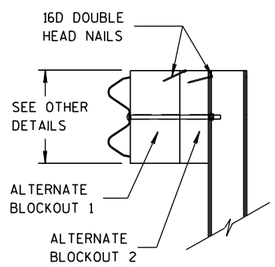
W-BEAM TO THRIE BEAM TRANSITION SECTION



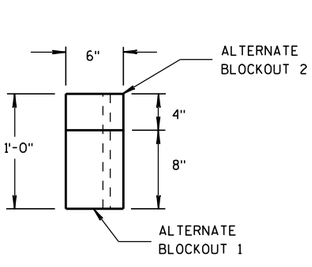
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

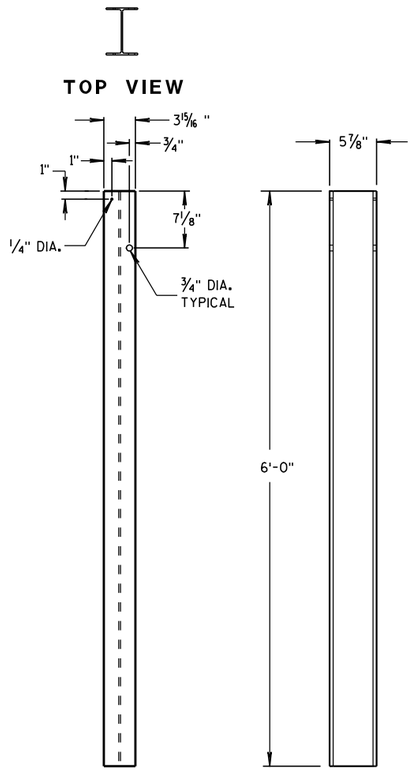


SIDE VIEW

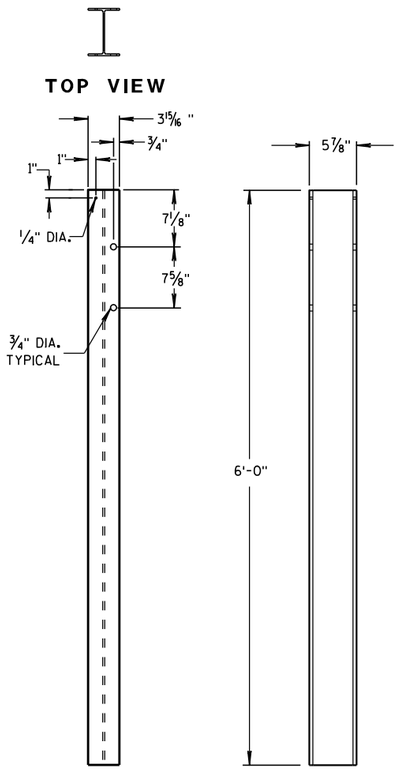


TOP VIEW

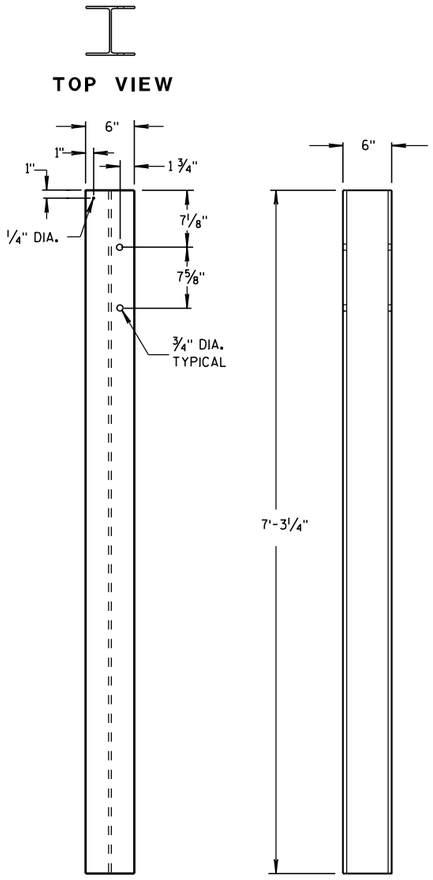
ALTERNATE WOOD BLOCKOUT DETAIL



STEEL POSTS 1-5

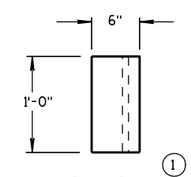


STEEL POSTS 6-11

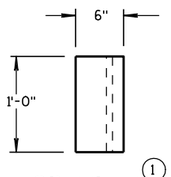


STEEL POSTS 12-14

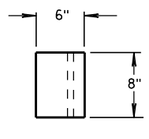
1 WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.



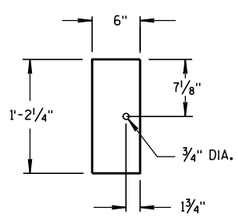
TOP VIEW (1)



TOP VIEW (1)

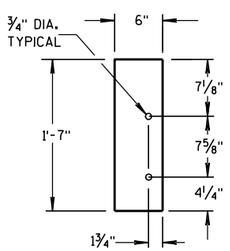


TOP VIEW



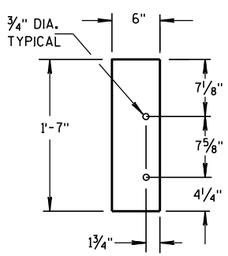
FRONT VIEW

BLOCKOUT POSTS 1-5



FRONT VIEW

BLOCKOUT POSTS 6-11



FRONT VIEW

BLOCKOUT POSTS 12-14

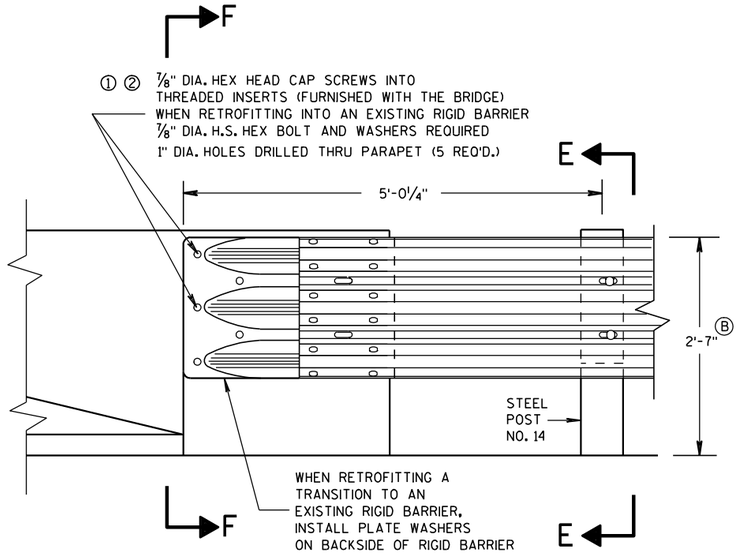
STEEL POST SIZES

POST NUMBER	SECTION TYPE	LENGTH
1	W6x9	72"
2	W6x9	72"
3	W6x9	72"
4	W6x9	72"
5	W6x9	72"
6	W6x9	72"
7	W6x9	72"
8	W6x9	72"
9	W6x9	72"
10	W6x9	72"
11	W6x9	72"
12	W6x15	87 1/8"
13	W6x15	87 1/8"
14	W6x15	87 1/8"

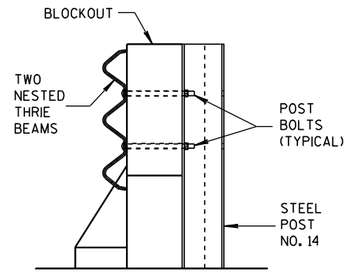
MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 14 B 45-3c



FRONT VIEW



SECTION E-E

GENERAL NOTES

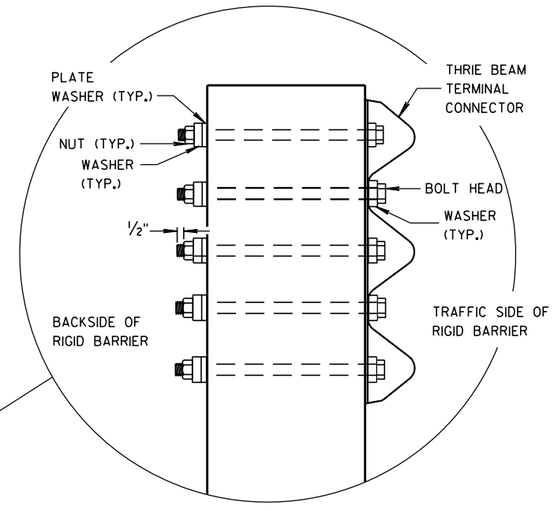
THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

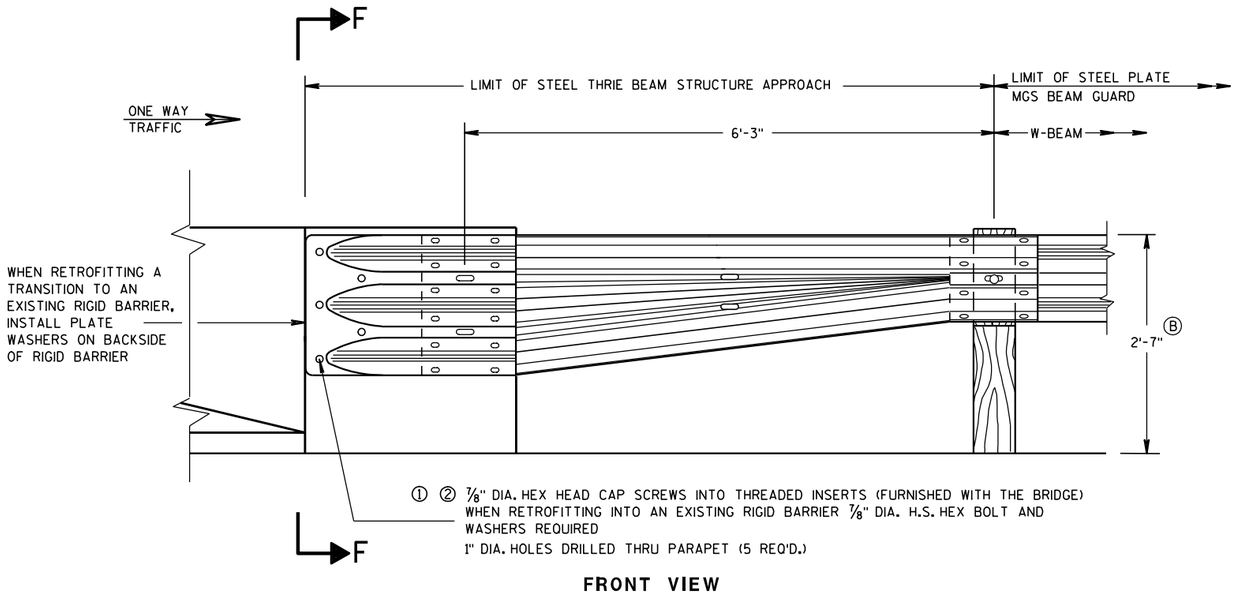
② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

③ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

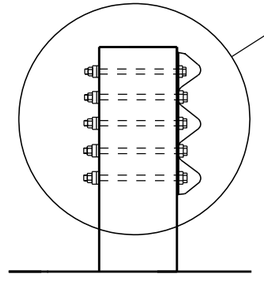
Ⓑ TOLERANCE FOR TOP OF BEAM IS ± 1".



THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS



FRONT VIEW



SECTION F-F

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/31/2012 — DATE
/S/ Jerry H. [illegible] — ROADWAY STANDARDS [illegible] ENGINEER
FHWA

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

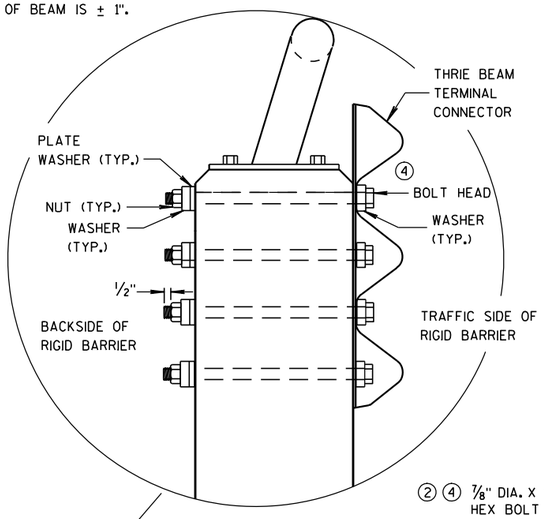
① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

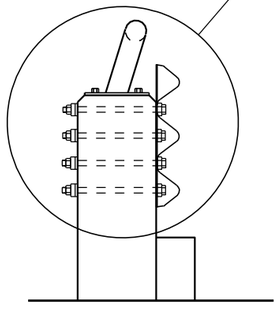
② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

③ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2". BLOCK IS INCIDENTAL TO THE CONTRACT.

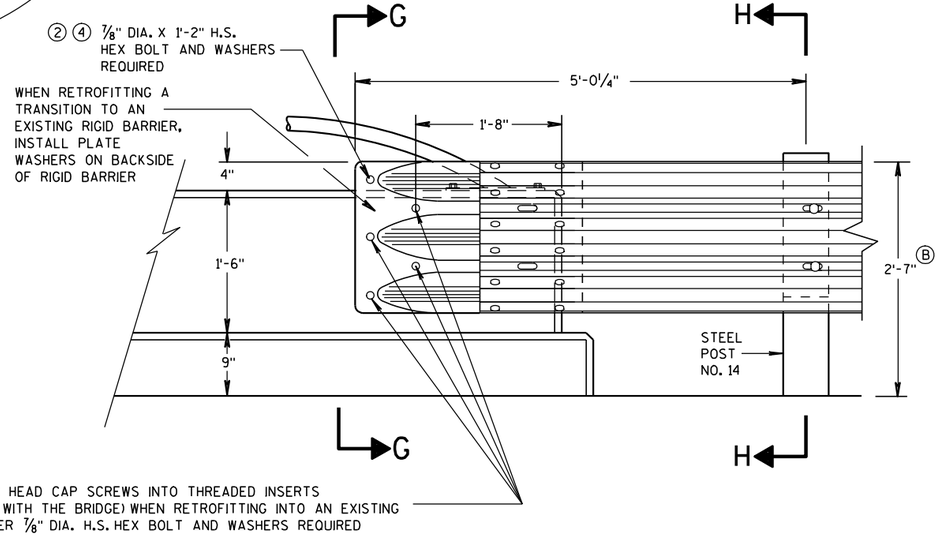
④ BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.

Ⓑ TOLERANCE FOR TOP OF BEAM IS ± 1".

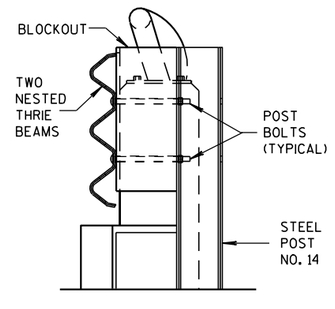




SECTION G-G

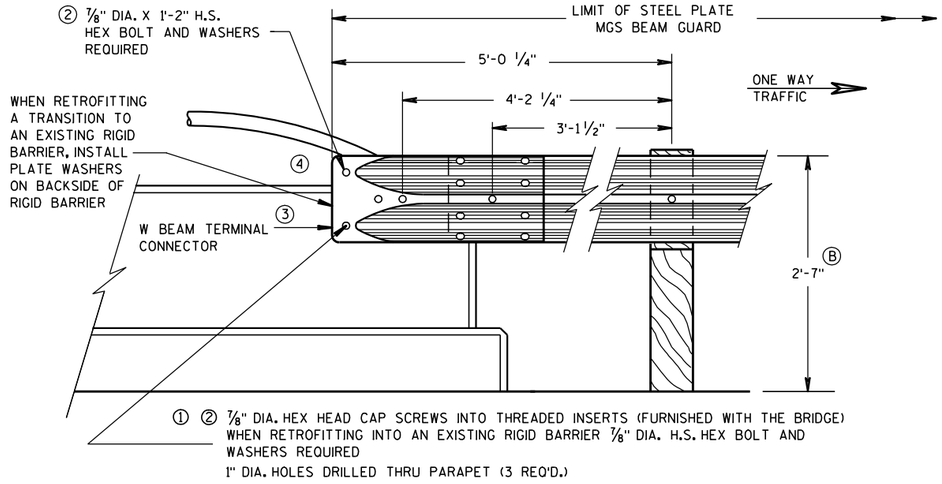


FRONT VIEW



SECTION H-H

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS



FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8-31-2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS (820) ENGINEER

FHWA

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S.D.D. 14 B 45-3e

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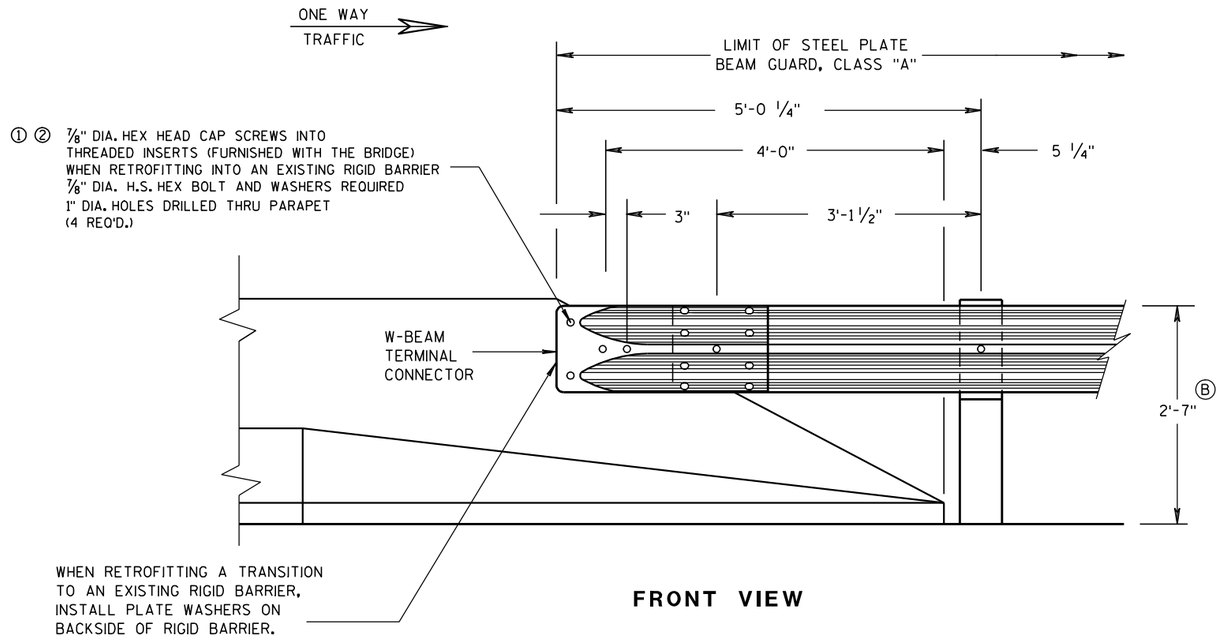
S.D.D. 14 B 45-3e



FRONT VIEW

W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS

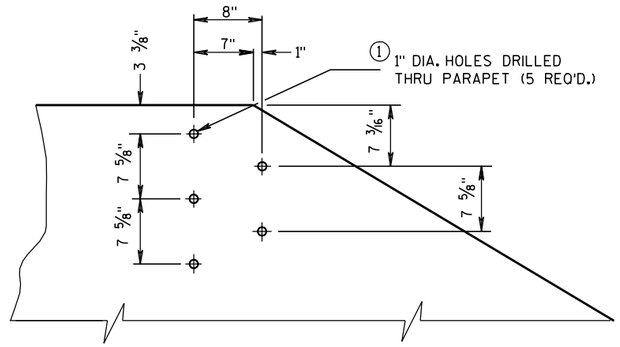
(USE ONLY AT TRAFFIC EXIT END OF ONE WAY BRIDGE)

GENERAL NOTES

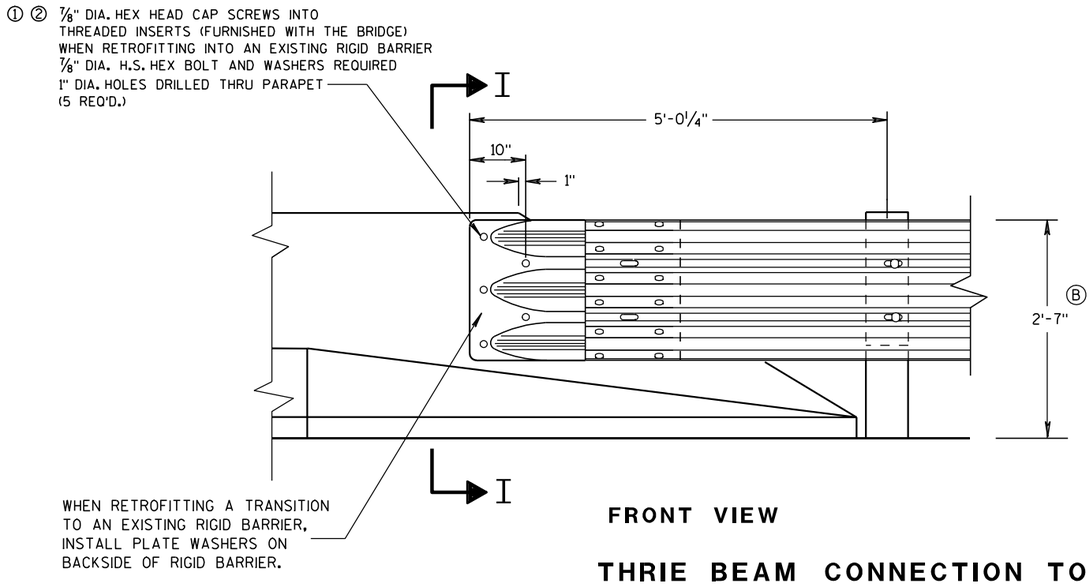
① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

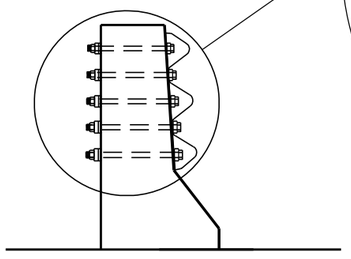
Ⓑ TOLERANCE FOR TOP OF BEAM IS ± 1".



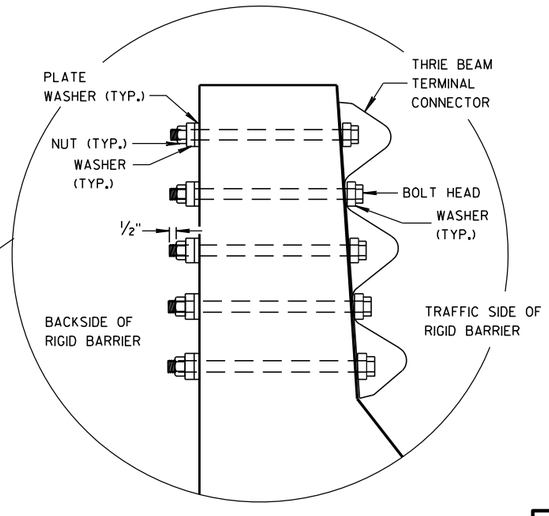
DRILL HOLE LOCATION AND PATTERN FOR THRIE BEAM CONNECTION



FRONT VIEW



SECTION I-I



THRIE BEAM CONNECTION TO BRIDGE PARAPETS WITH SLOPED ENDS

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

821

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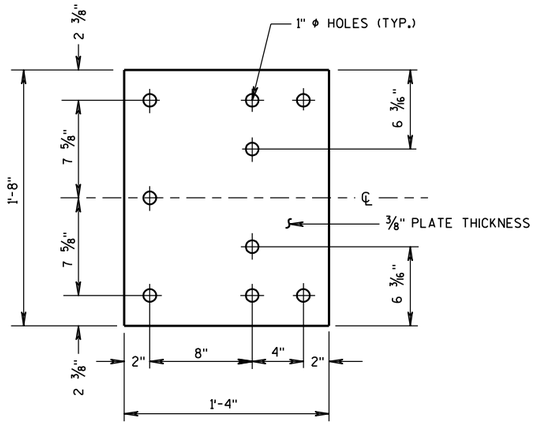
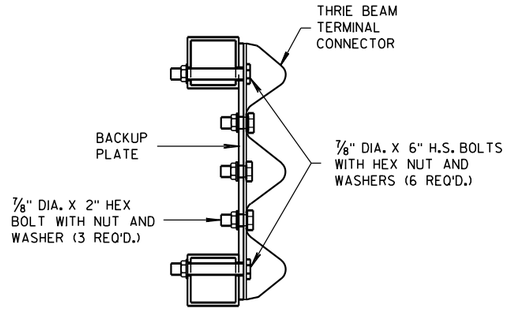


BACK-UP PLATE DETAIL

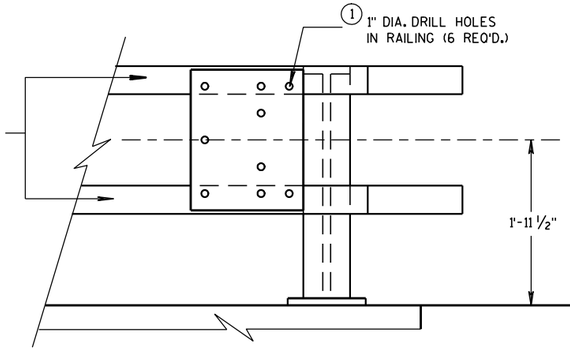


SECTION J-J

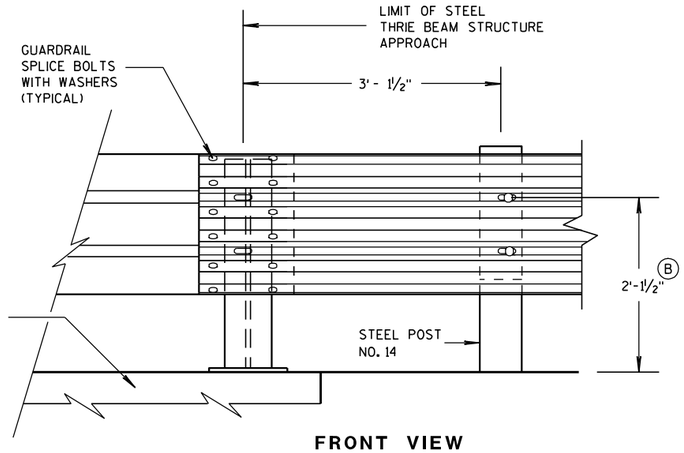
GENERAL NOTES

(1) DRILLING HOLES THROUGH THE PAPRPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(B) TOLERANCE FOR TOP OF BEAM IS ± 1".

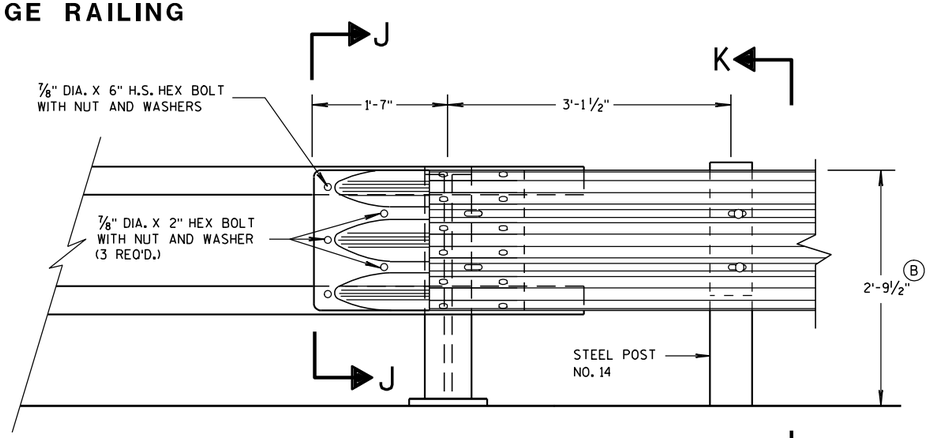


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING

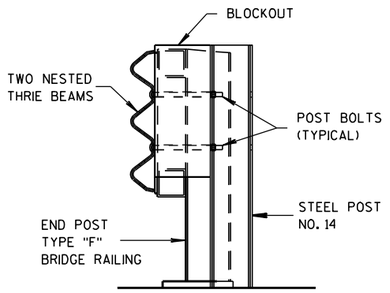


FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"



FRONT VIEW



SECTION K-K

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/31/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

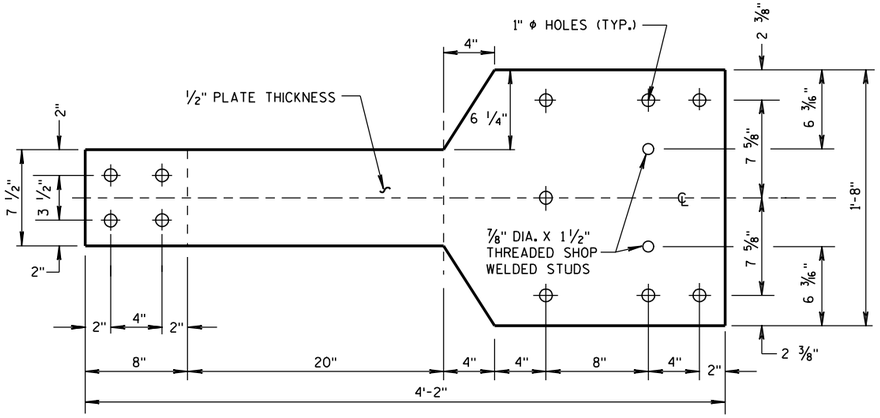
S.D.D. 14 B 45-3g

6

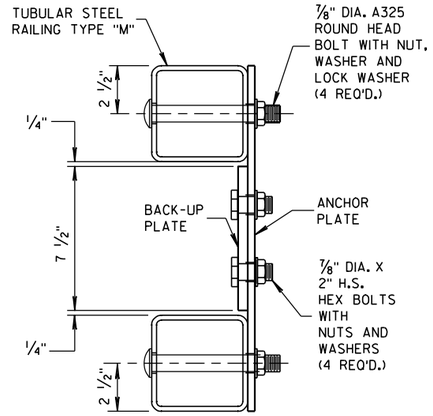
S.D.D. 14 B 45-3g

GENERAL NOTES

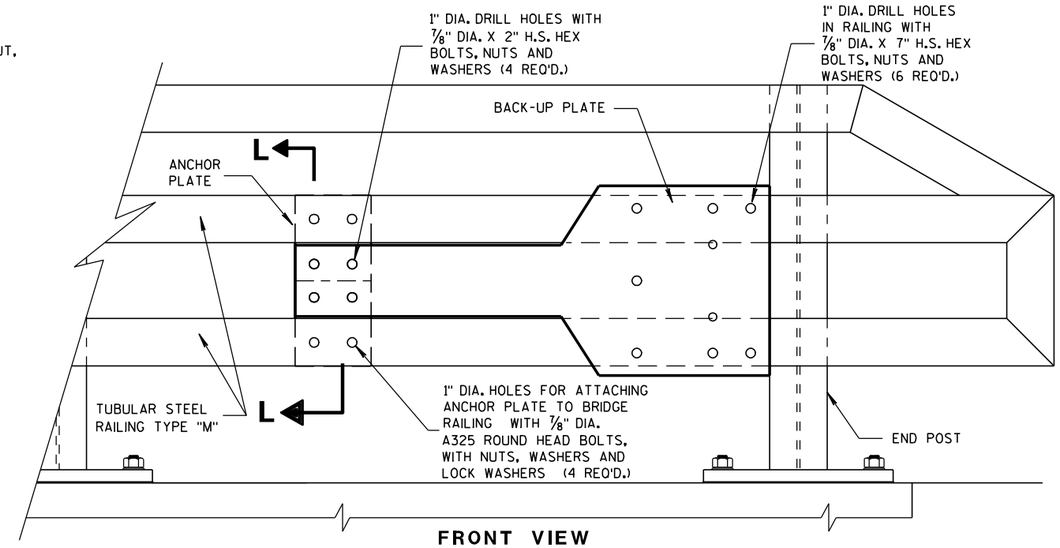
(B) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".



FRONT VIEW

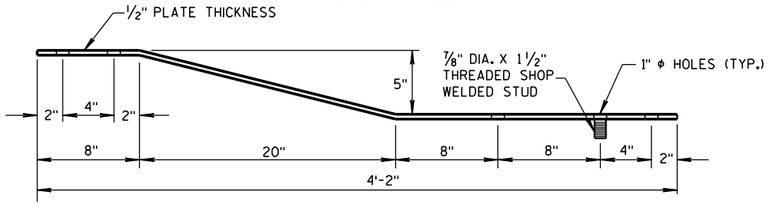


SECTION L-L



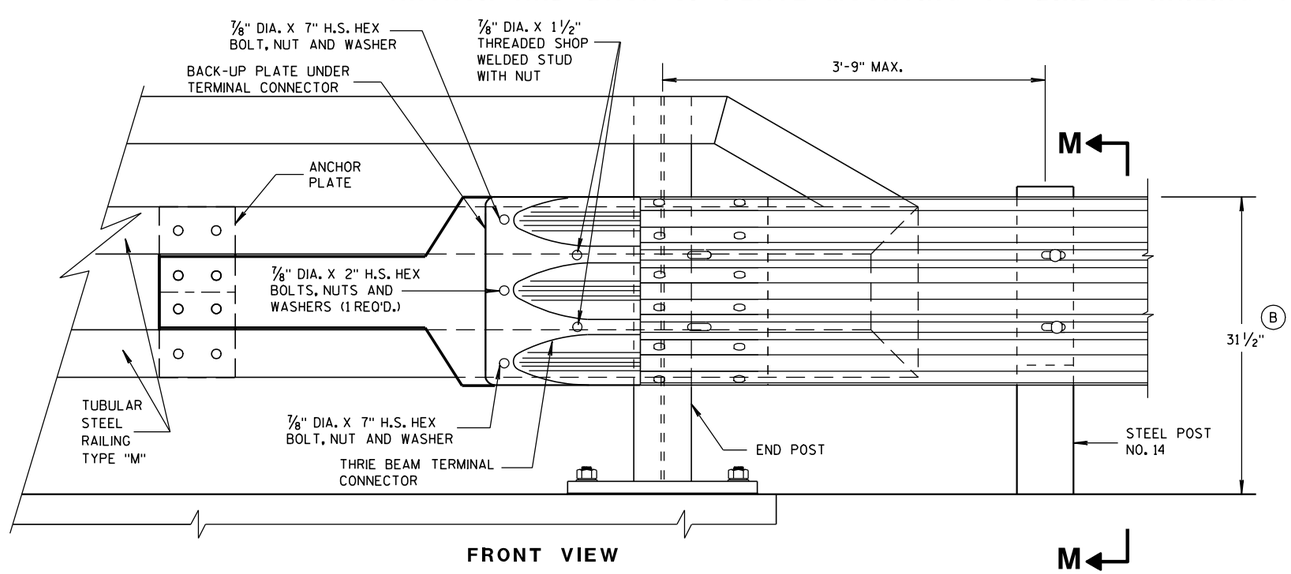
FRONT VIEW

ANCHOR AND BACK-UP PLATE MOUNTING TO BRIDGE RAILING, TYPE "M"

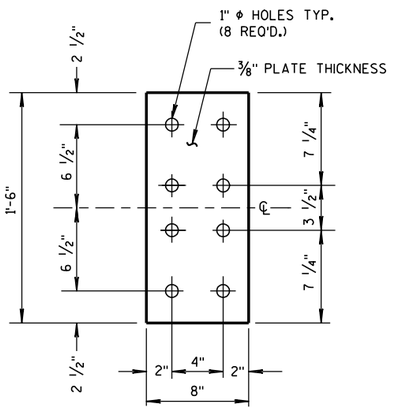


PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

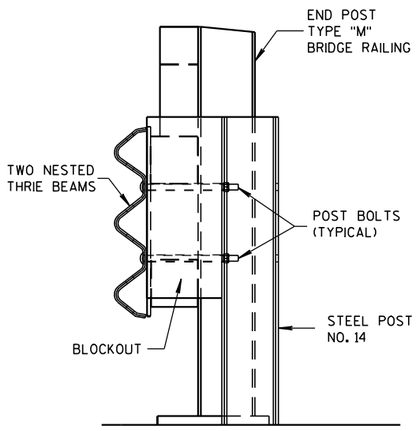


FRONT VIEW

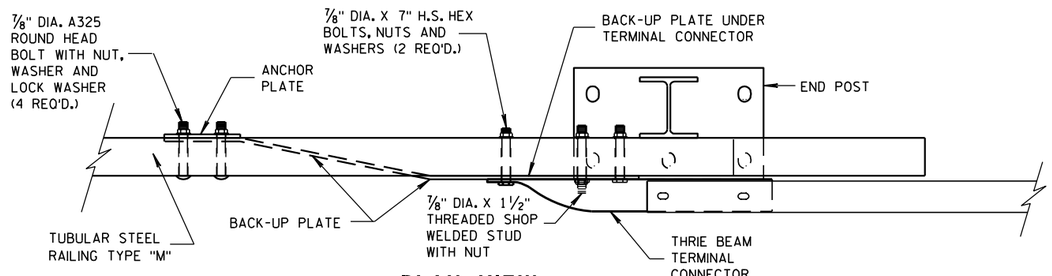


FRONT VIEW

ANCHOR PLATE DETAIL, TYPE "M"



SECTION M-M



PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
8-31-2012 DATE	/S/ Jerry H. Zogg ROADWAY STANDARDS ENGINEER
FHWA	823 ENT

6

S.D. 14 B 45-3h

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S.D. 14 B 45-3h

GENERAL NOTES

COVER PLATE PANELS ARE 3/16" THICK.

ALL STIFFENERS ARE 1/4" THICK.

CONNECTOR PLATE SHALL BE FABRICATED FROM ASTM GRADE A36 STEEL AND GALVANIZED.

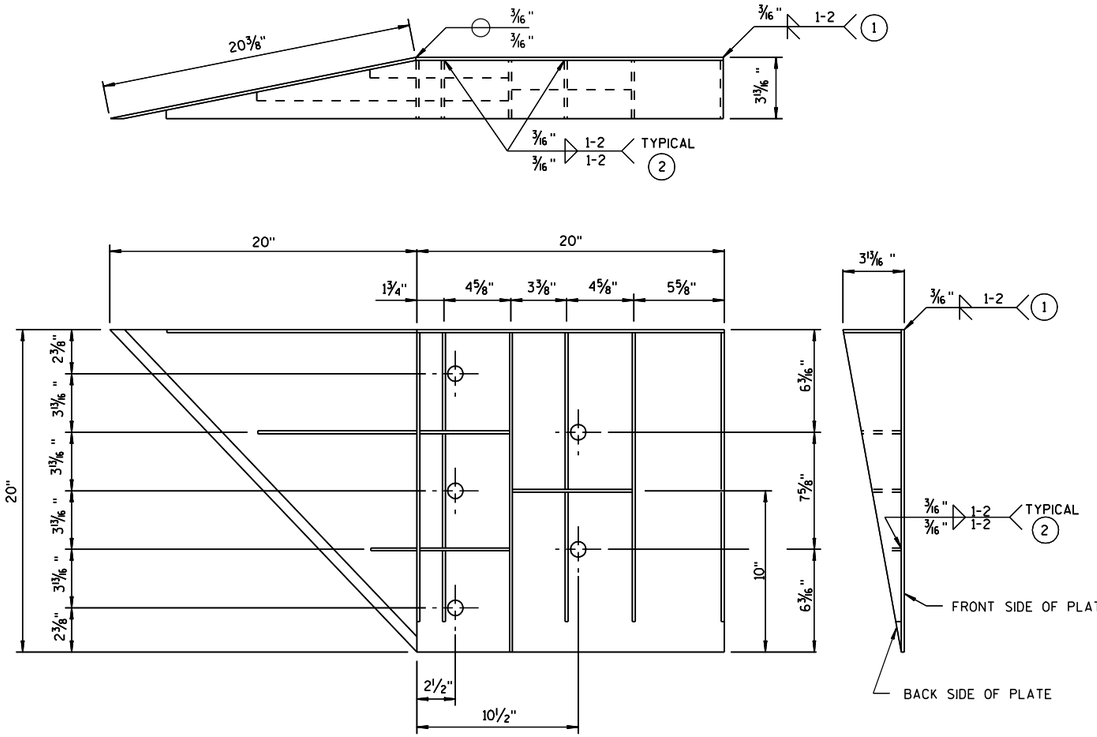
FOR GALVANIZED REQUIREMENTS, SEE SECTION 614 OF THE STANDARD SPECIFICATIONS.

ALL HOLE DIAMETERS SHALL BE 1".

FOR OPPOSITE SIDE INSTALLATION MIRROR DRAWINGS.

(1) STIFFENERS LOCATED AT THE OUTSIDE EDGES OF THE COVER PLATES SHALL BE WELDED AS FOLLOWS:
SINGLE BEVEL GROOVE WELD ON EXTERNAL SIDES AND 3/16" FILLET WELD BY 1" LONG SPACED AT 2" ON INTERNAL SIDES.

(2) STIFFENERS LOCATED ON THE INSIDE OF THE COVER PLATE SHALL BE WELDED AS FOLLOWS:
3/16" FILLET WELD BY 1" LONG SPACED AT 2".



WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)

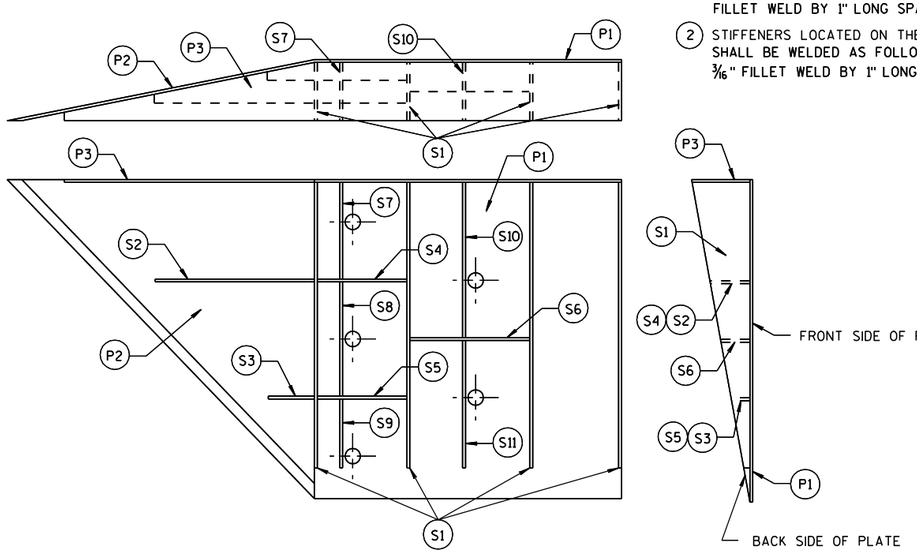


PLATE AND STIFFENER IDENTIFICATION

(VIEWED FROM BACK SIDE OF PLATE)

CONNECTOR PLATE DIMENSION (PER ASSEMBLY)

PLATE	QUANTITY	SHAPE	SIZE (A x B x C x D)	THICKNESS
P1	1		20" x 20"	3/16"
P2	1		20" x 20" x 28 9/16"	3/16"
P3	1		39" x 3 5/8" x 20" x 19 5/16"	3/16"
S1	4		18 7/16" x 3 5/8" x 18 3/4"	1/4"
S2	1		10 1/4" x 2 7/16" x 10 3/8" x 1/2"	1/4"
S3	1		3" x 1 1/16" x 3 1/8" x 1/2"	1/4"
S4	1		6 1/8" x 2 7/16"	1/4"
S5	1		6 1/8" x 1 1/16"	1/4"
S6	1		7 3/4" x 1 3/4"	1/4"
S7	1		2 9/16" x 6" x 3 5/8" x 5 7/8"	1/4"
S8	1		1 5/32" x 7 1/2" x 2 1/2" x 7 3/8"	1/4"
S9	1		6 1/16" x 6 3/16" x 1 3/32"	1/4"
S10	1		1 7/8" x 9 7/8" x 3 5/8" x 9 11/16"	1/4"
S11	1		8 1/2" x 8 3/4" x 1 13/16"	1/4"

SINGLE SLOPE CONNECTION PLATE

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/31/2012
DATE
/S/ Jerry H ...
ROADWAY STANDARDS 824
ENGINEER
...MENT
FHWA

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S.D.D. 14 B 45-3i

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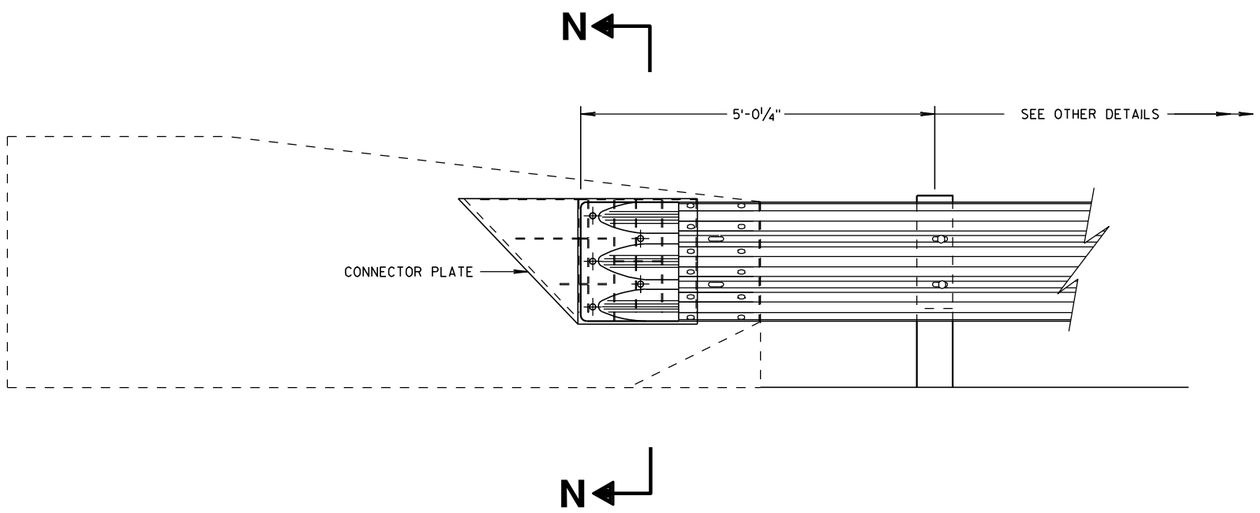
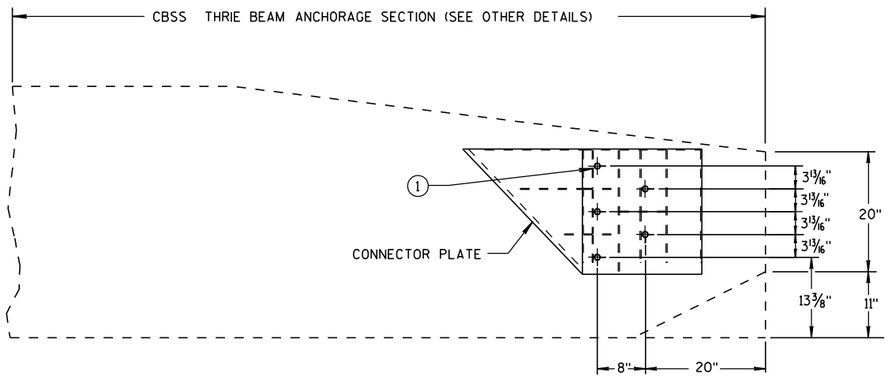
S.D.D. 14 B 45-3i



THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER

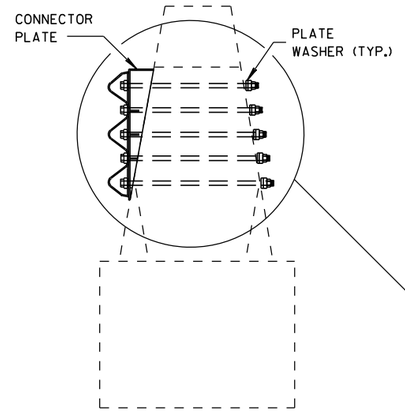


SINGLE SLOPE CONNECTION PLATE PLACEMENT

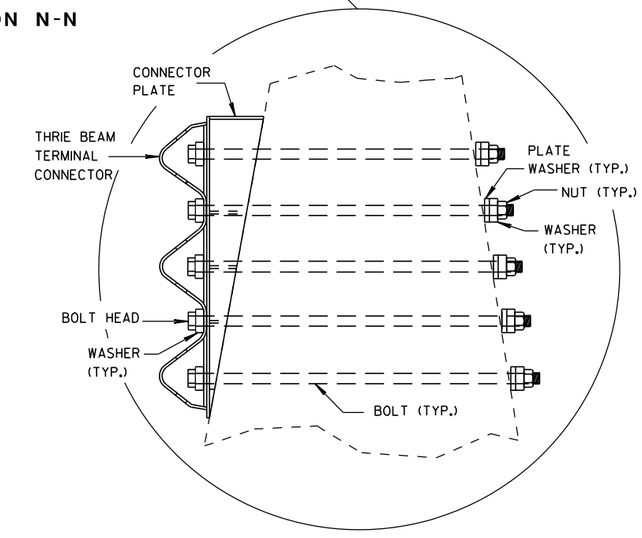
GENERAL NOTES

CONNECTOR PLATE, DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(1) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X ⅝" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



SECTION N-N



MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012
DATE

/S/ Jerry H. [illegible]
ROADWAY STANDARDS 1825 ENGINEER

FHWA

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S.D.D. 14 B 45-3j

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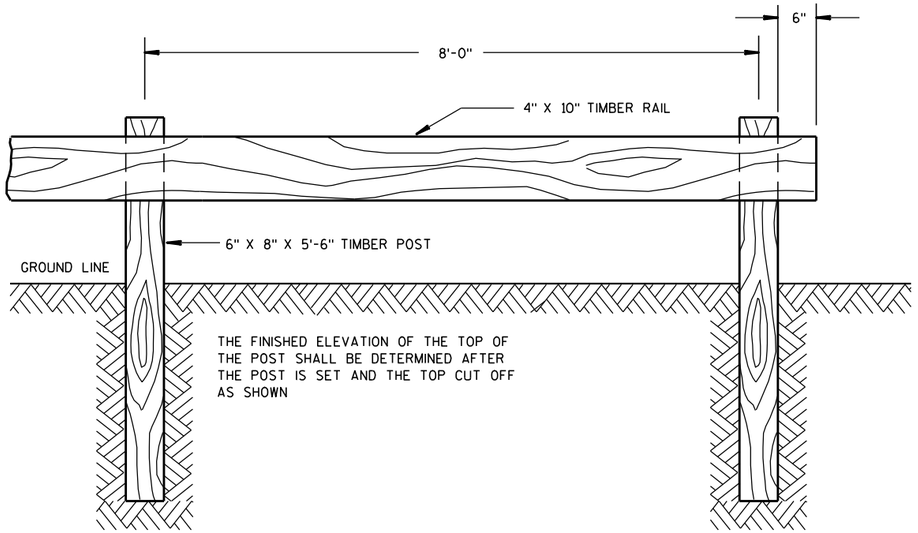
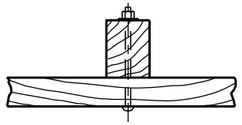
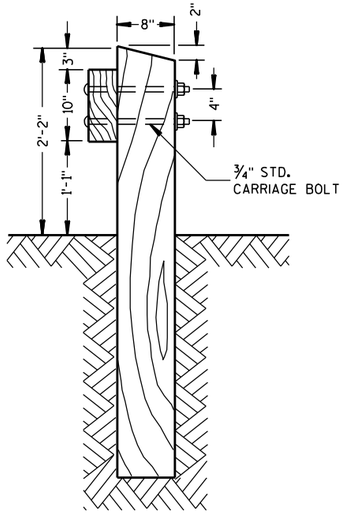
S.D.D. 14 B 45-3j



FRONT VIEW



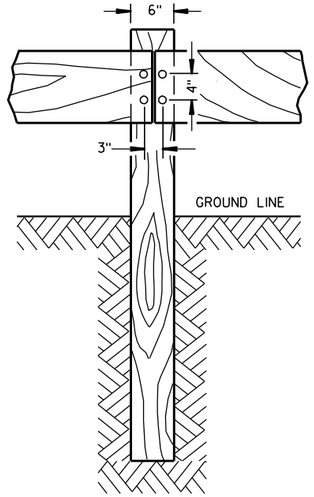
TOP VIEW



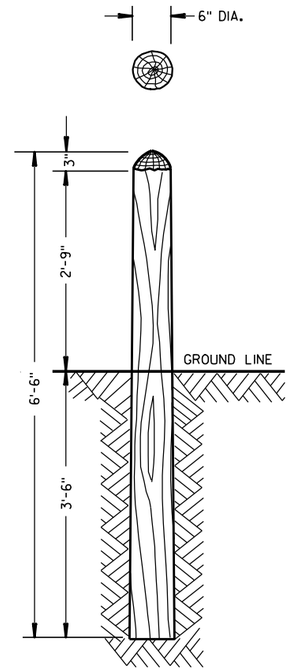
SIDE VIEW

TIMBER RAIL GUARD FENCE

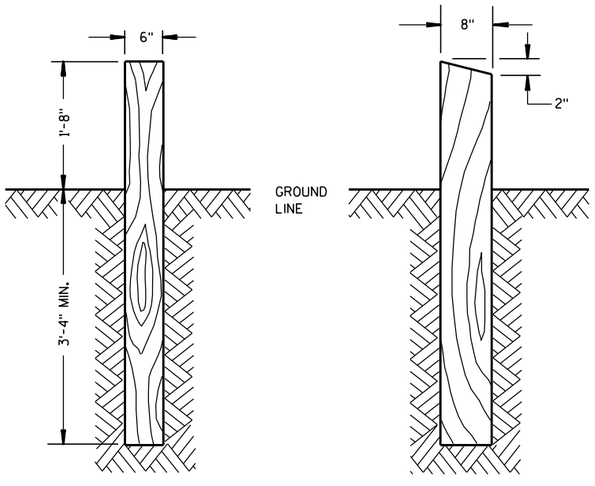
(PARKING LOT PROTECTION)



SPLICE POST



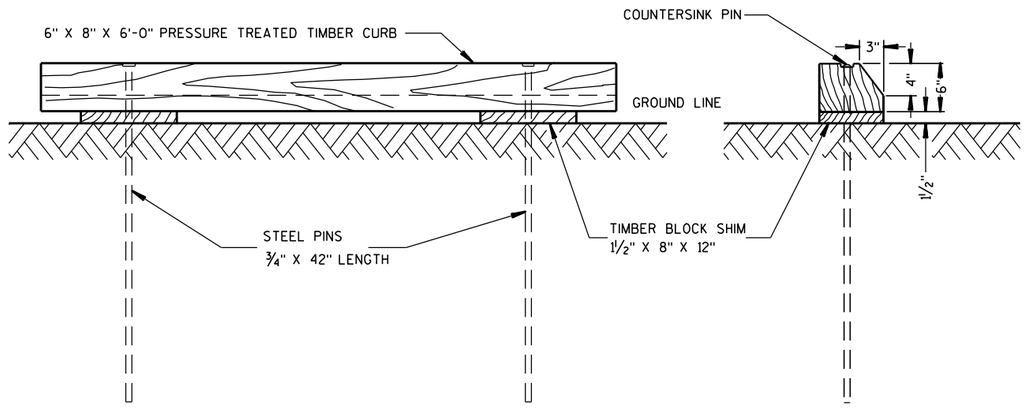
RUSTIC MARKER POST



FRONT VIEW SIDE VIEW

TIMBER GUARD POST

(REQUIREMENTS SHALL BE THE SAME AS POSTS FOR TIMBER RAIL GUARD FENCE)



FRONT VIEW END VIEW

TREATED TIMBER CURB

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE STANDARD SPECIFICATIONS. ALL POST AND RAIL DIMENSIONS ARE NOMINAL DIMENSIONS.

TIMBER POSTS, RAILS AND MARKER POSTS

THE GALVANIZING OR CADMIUM PLATING OF HARDWARE WILL NOT BE REQUIRED.

POSTS WHEN UNTREATED SHALL BE PAINTED WITH TWO COATS OF BROWN WOOD STAIN CONFORMING TO THE REQUIREMENTS OF THE APPLICABLE STANDARD SPECIFICATIONS. TOPS OF POSTS, IF TREATED, SHALL BE PAINTED WITH TWO COATS OF CREOSOTE AFTER ERECTION. IF UNTREATED POST ARE USED, PAINT TOPS WITH TWO COATS OF PRESERATIVE WOOD STAIN AFTER ERECTION.

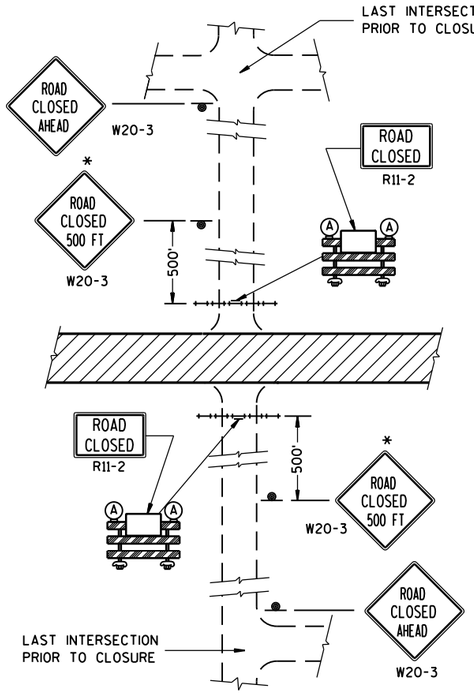
TIMBER RAIL GUARD FENCE, CURB AND GUARD POST AND MARKER POST

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4/23/1974 DATE
/S/ H. Fiedler
STATE HIGHWAY ENGINEER
FHWA

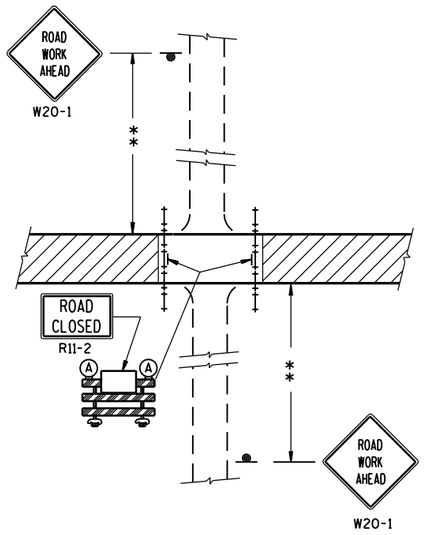
6

S.D.D. 14 C 1-2



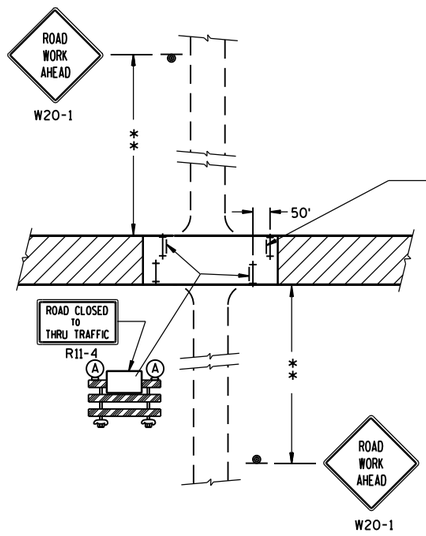
DETAIL 1

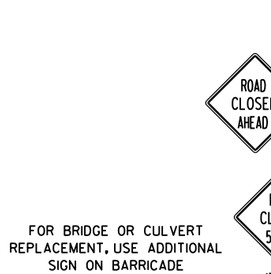
(NO ACCESS TO PROJECT)

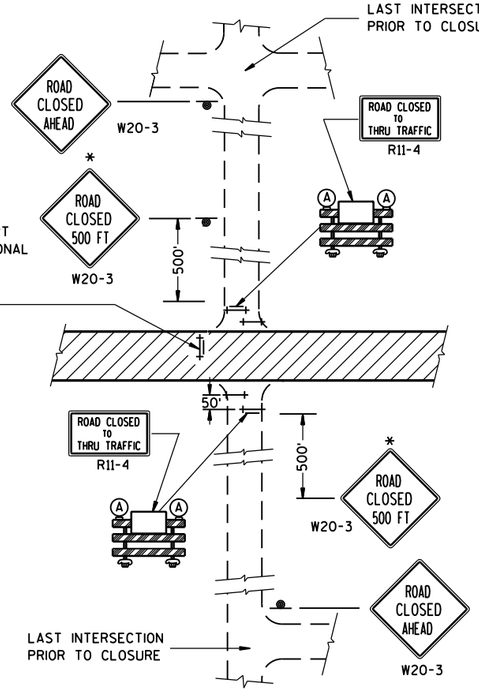


DETAIL 2

(PUBLIC CROSS-TRAFFIC MAINTAINED. NO ACCESS TO PROJECT).







DETAIL 3

(PUBLIC CROSS-TRAFFIC MAINTAINED. CONTRACTOR, LOCAL BUSINESS AND RESIDENT ACCESS).

DETAIL 4

(CONTRACTOR, LOCAL BUSINESS AND RESIDENT ACCESS TO PROJECT)

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND BARRICADES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS RE-ESTABLISHED.

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL D FOR FULL ROAD CLOSURES.

TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11-2, R11-3 AND R11-4 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
R11-2 SHALL BE 48" X 30".
R11-4 AND R11-3 SHALL BE 60" X 30".

*OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FT. OR LESS FROM THE WORK ZONE.

**500' MAX. OR AT LAST INTERSECTION WHICHEVER IS CLOSER.

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

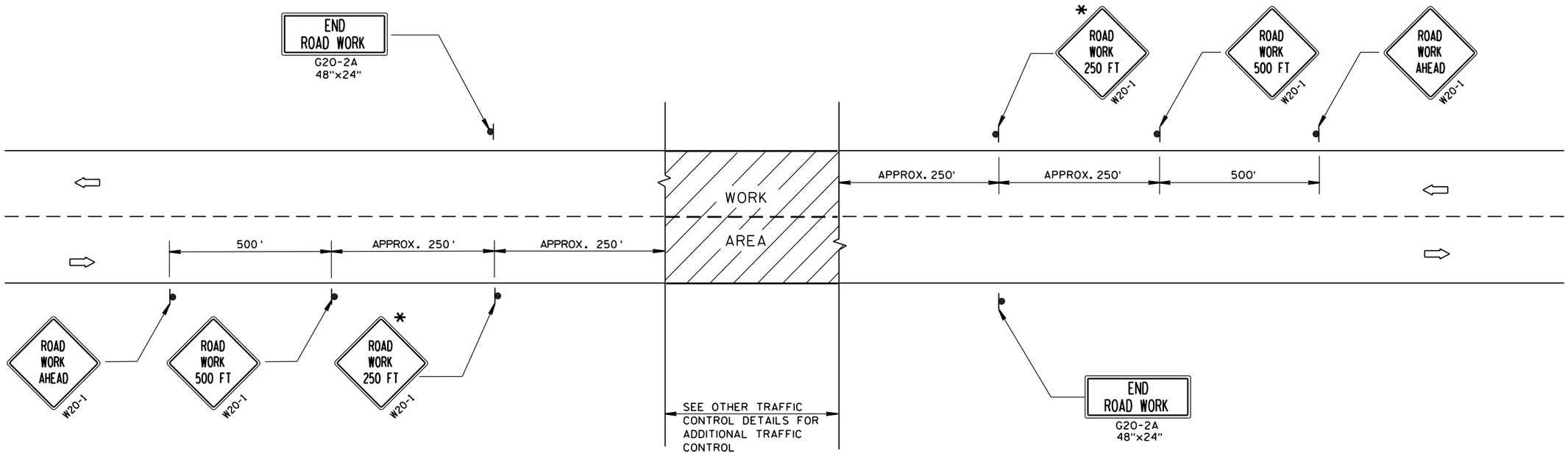
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/2013
DATE
/S/ Travis Feltes
STATE TRAFFIC ENGINEER
FHWA

6

S.D.D. 15 C 3-2

TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL



GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

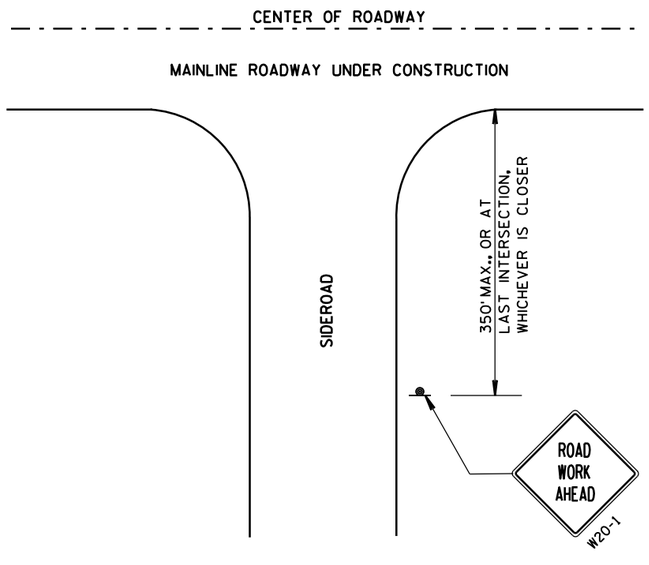
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"x36" SIGNS MAY BE USED INSTEAD OF 48"x48" SIGNS.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS RE-ESTABLISHED.

* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FT" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.



LEGEND

- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/2013 (DATE) — /S/ Travis Feltes (STATE TRAFFIC ENGINEER) — 828 (SIGN)

FHWA

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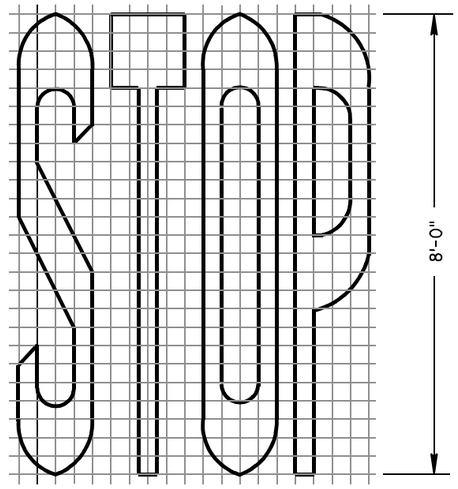
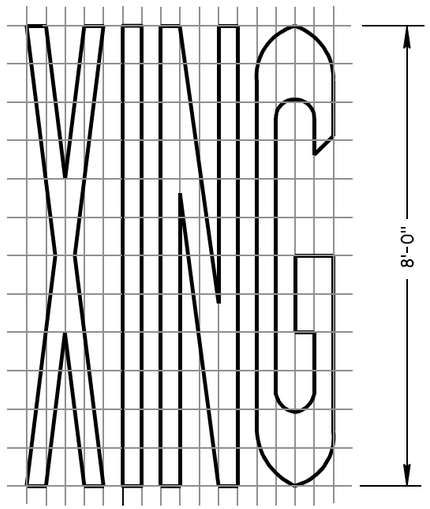
S.D.D. 15 C 5-2

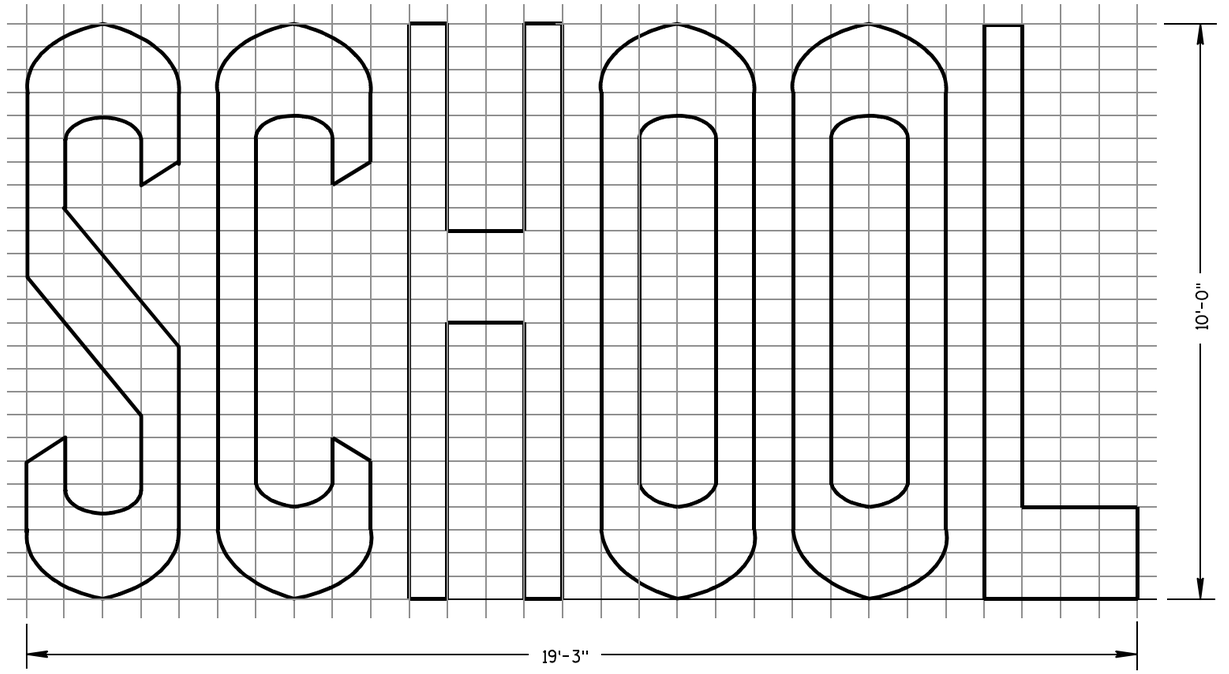
GENERAL NOTES

DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

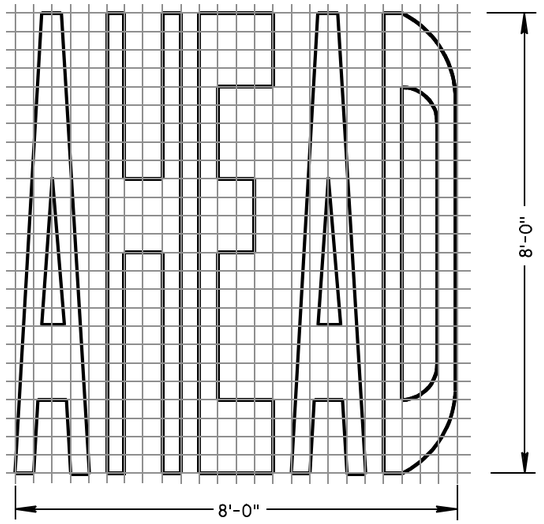
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES OF THAT BOOK ARE ACCEPTABLE.

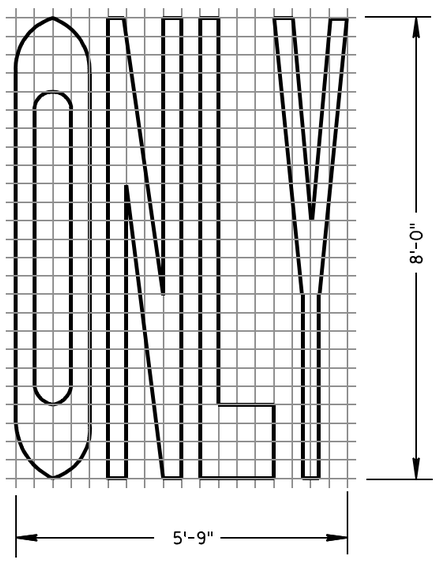


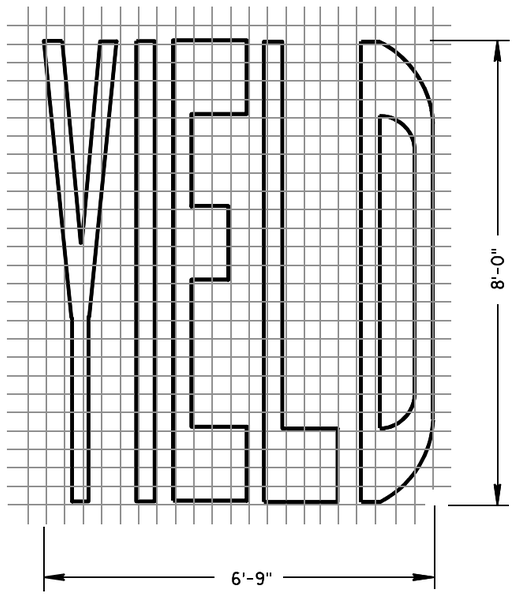


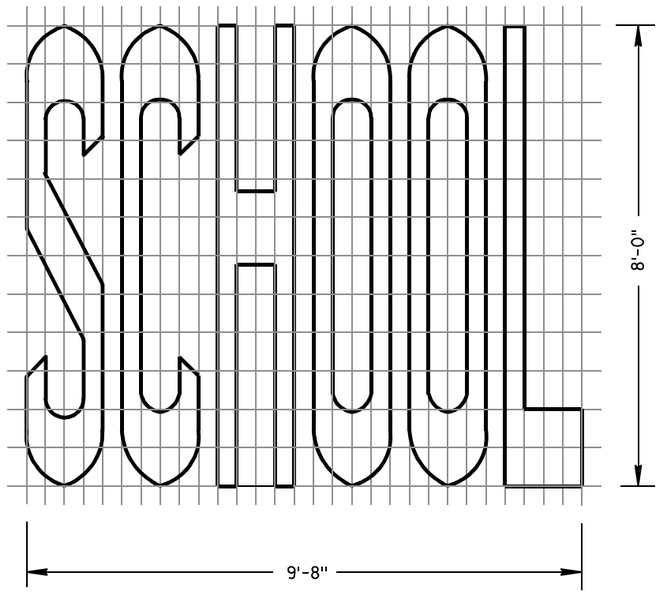


TWO-LANE









SINGLE-LANE

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7-1-11 DATE — /S/ Thomas N. Nothohm STATE TRAFFIC ENGINEER

FHWA

IGN

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S.D.D. 15 C 7-12b

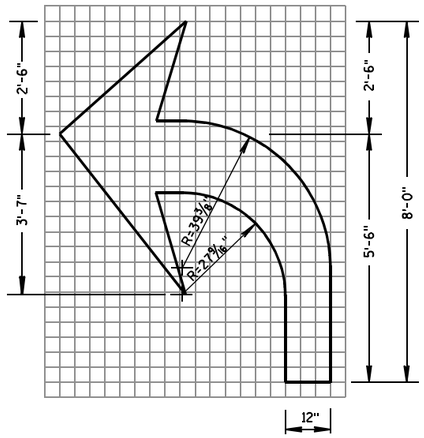
6

S.D.D. 15 C 7-12b

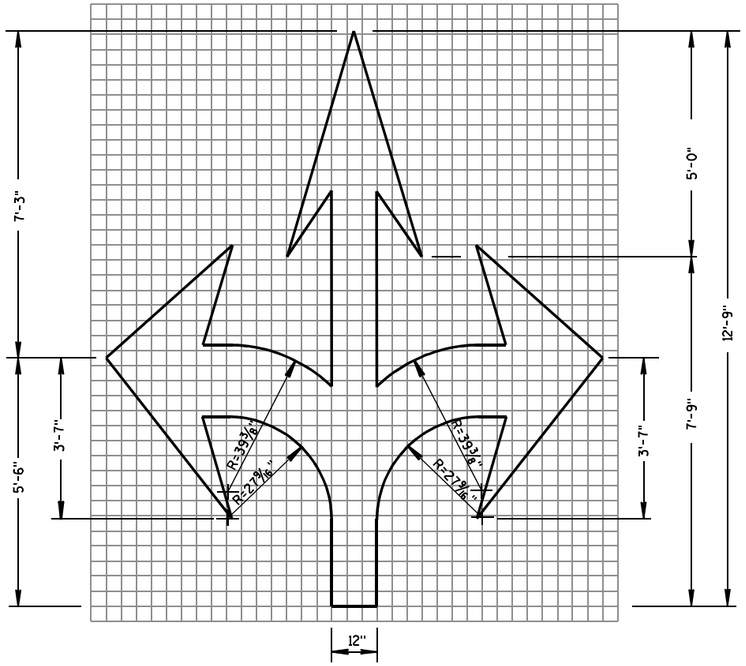
GENERAL NOTES

DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES OF THAT BOOK ARE ACCEPTABLE.



TYPE 2



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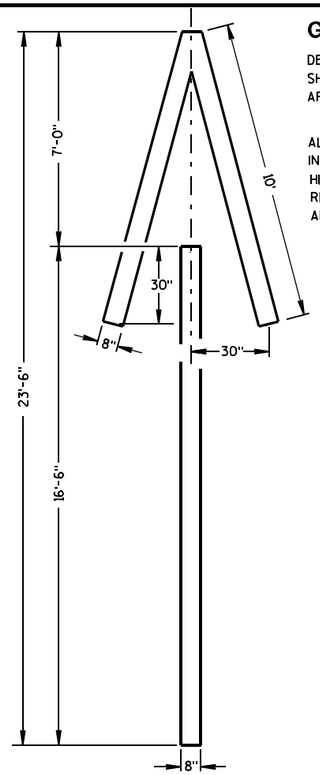

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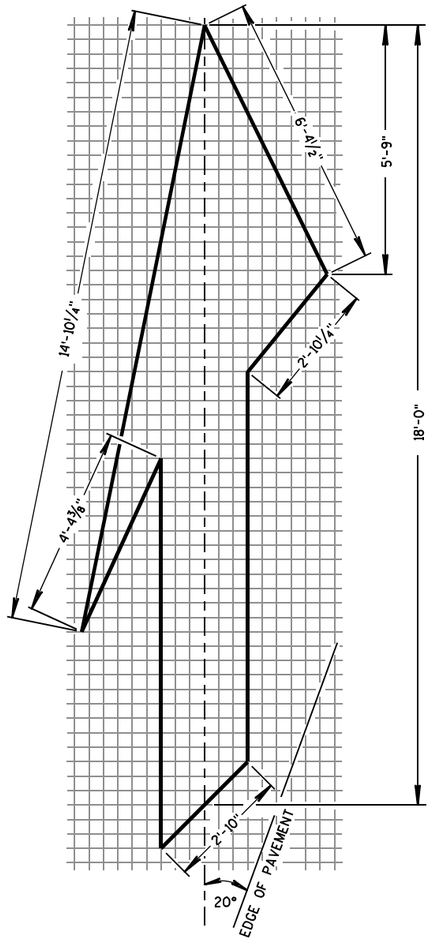
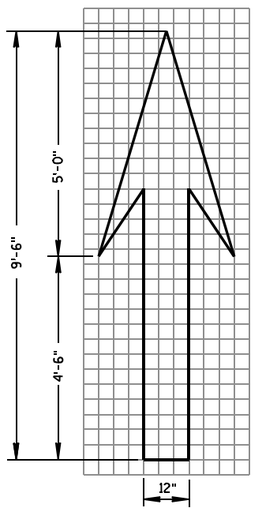
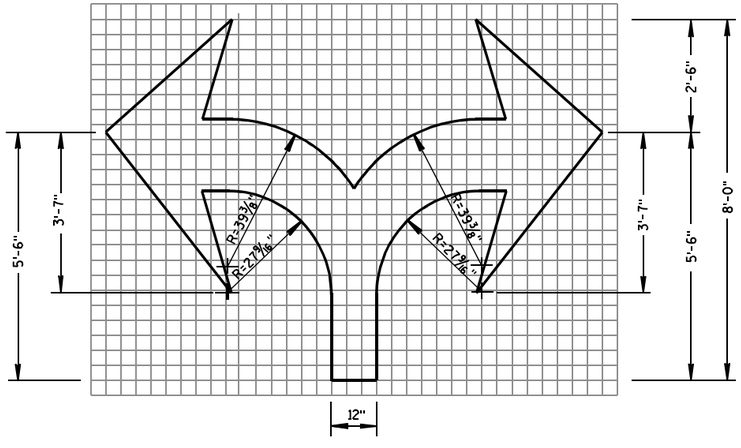


TYPE 5 LANE DROP ARROW



TYPE 1



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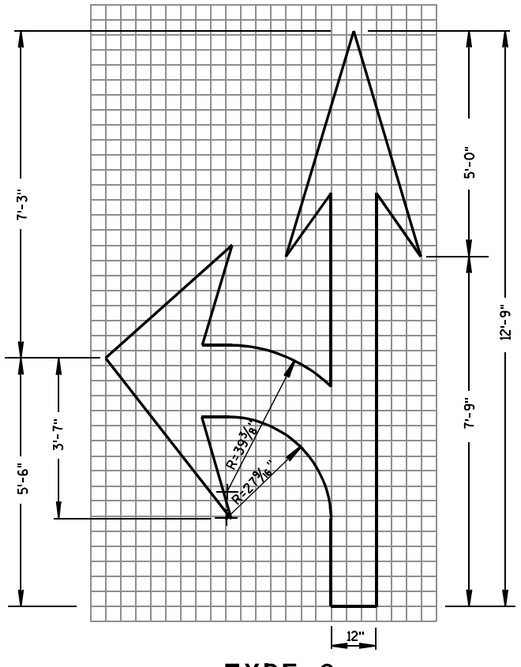

TYPE 3

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/1/11 — DATE

/S/ Thomas N. Nothohm — STATE TRAFFIC ENGINEER

FHWA

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S.D.D. 15 C 7-12c

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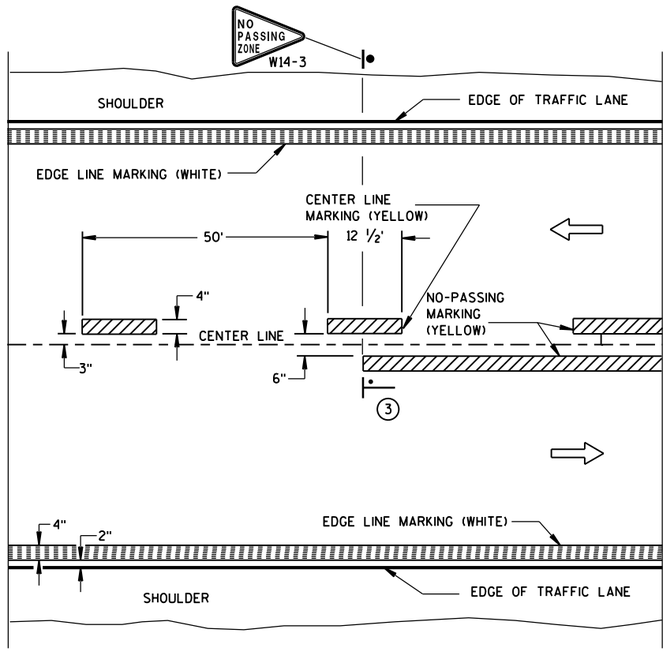
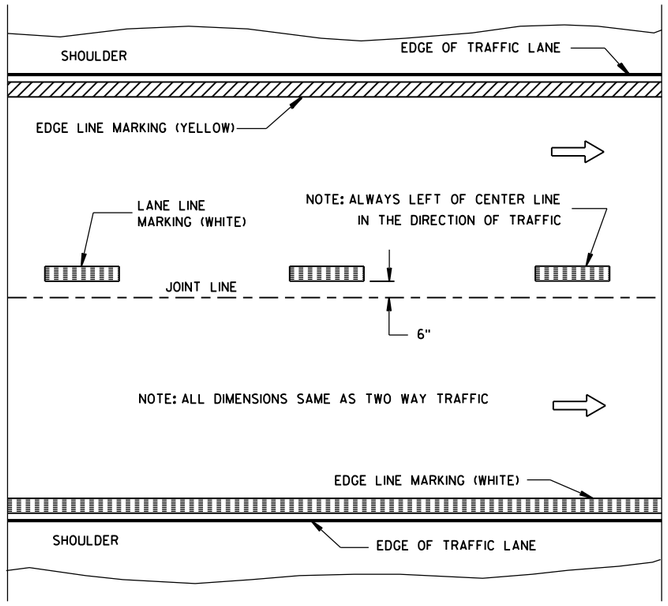
S.D.D. 15 C 7-12c

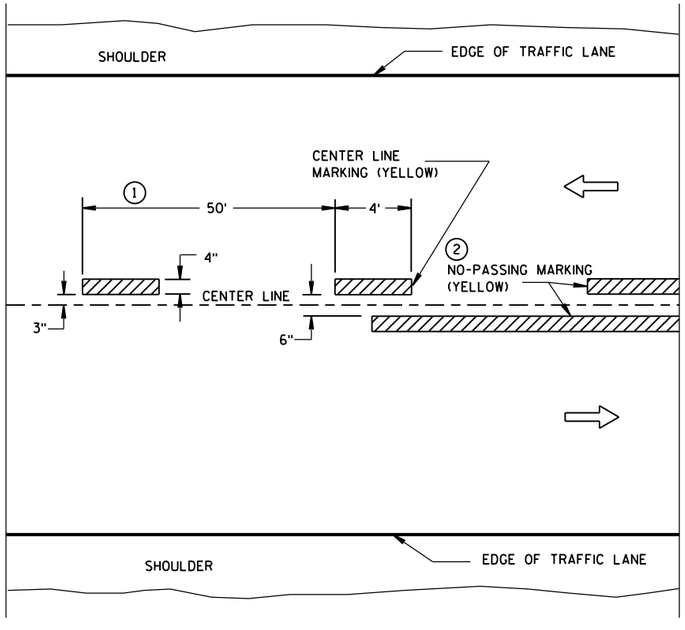


TWO WAY TRAFFIC

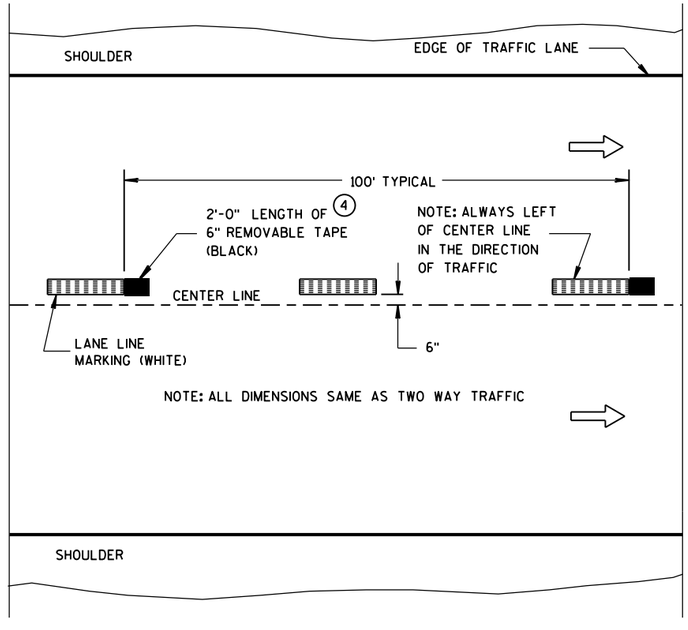


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

(SHOWS CYCLE FOR TEMPORARY CENTER LINE OR TEMPORARY LANE LINE MARKING)

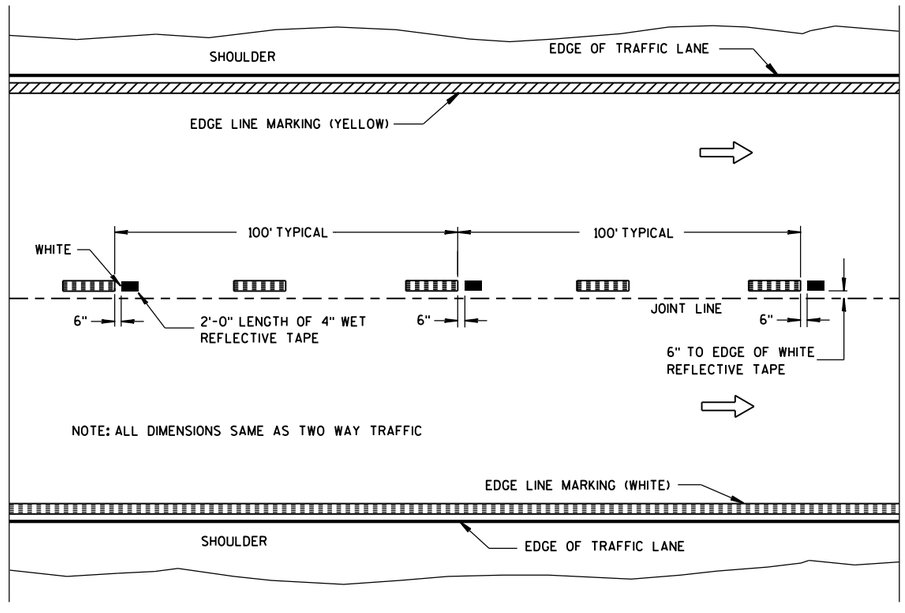
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

1. HALF CYCLE LENGTHS (25'±) WITH 2' MINIMUM STRIPE LENGTHS SHALL BE PROVIDED ON ROADWAYS (INCLUDING TEMPORARY TRAVELED WAYS) WITH REVERSE CURVATURE, CURVATURE OF OVER 5 DEGREES OR WHEN DIRECTED BY THE ENGINEER TO MARK UNUSUAL ALIGNMENT OF THE TRAVELED WAY.
2. NO PASSING ZONE TEMPORARY PAVEMENT MARKING IS REQUIRED TO BE PLACED, WHERE APPROPRIATE, ALONG WITH CENTERLINE TEMPORARY PAVEMENT MARKING WHEN A SAME DAY PERMANENT PAVEMENT MARKING ITEM IS INCLUDED IN THE CONTRACT.
3. NO PASSING ZONE MARKINGS ARE PLACED ACCORDING TO "T" MARKINGS. IF EXISTING NO PASSING ZONE W14-3 SIGNS ARE BEYOND 50 FEET IN EITHER DIRECTION, THE SIGNS SHALL BE MOVED TO THE "T" MARKINGS.
4. CONCRETE ONLY.

NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL



WET REFLECTIVE TAPE SUPPLEMENT TO
SPRAYED OR NON WET REFLECTIVE TAPE LANE LINE

LEGEND

"T" MARKING

POST MOUNTED SIGN

PAVEMENT MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5-13-2013 — DATE

/S/ Travis Feltes — STATE TRAFFIC E

FHWA

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S.D.D. 15 C 8-16a

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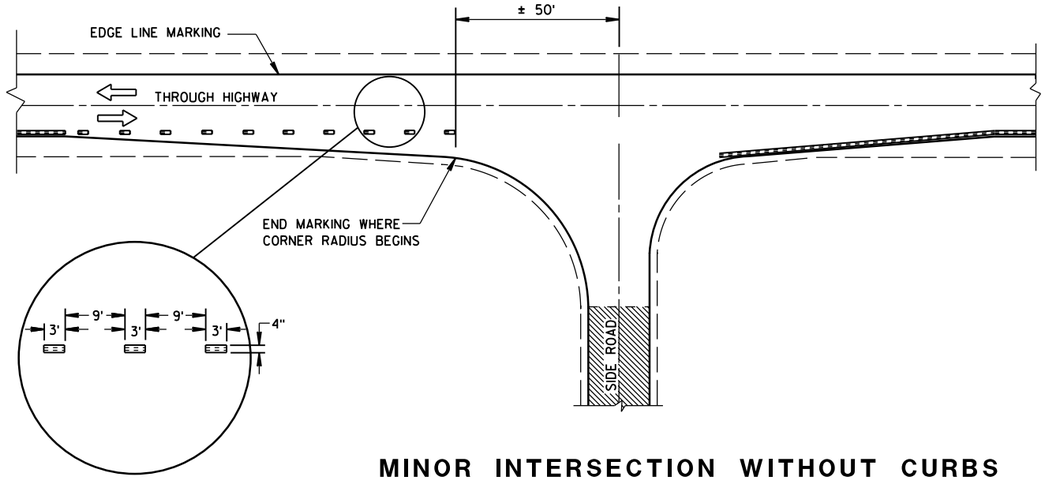
S.D.D. 15 C 8-16a



MINOR INTERSECTION WITHOUT CURBS

GENERAL NOTES

EDGE LINES SHALL BE OMITTED THROUGH INTERSECTIONS. EDGE LINES SHALL BE CONTINUED THROUGH DRIVEWAYS.

(1) WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.

(2) WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.

(3) ALTERNATIVE MARKING SHALL BE PROVIDED WHEN SPECIFIED IN THE CONTRACT. TYPICAL SITUATIONS WHERE THIS MARKING MAY BE REQUIRED ARE WHERE THE INTERSECTION IS ON A SHARP HORIZONTAL CURVE OR CREST VERTICAL CURVE IN AN UNLIGHTED AREA SUCH THAT THE EDGE LINE MAY BE MISLEADING TO THE MOTORIST OR DISAPPEAR FROM SIGHT.

(4) THE EDGE LINE IN THE TAPER AREAS OF THE BYPASS LANE AND THE BYPASS LANE SHALL BE LOCATED 1-FOOT FROM EDGE OF PAVEMENT TO THE OUTSIDE EDGE OF EDGE LINE.

(5) BARRIER LINE ENDS AT SIDE ROAD PAVEMENT/SURFACE EDGE EXTENSION.

(6) BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.

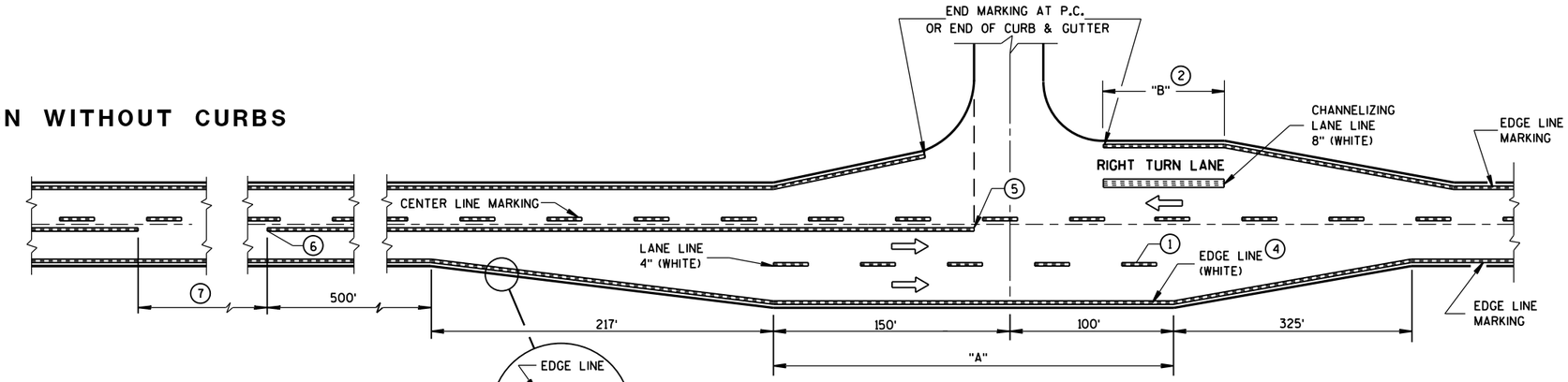
(7) IF THE DISTANCE BETWEEN 2 SUCCESSIVE NO-PASSING ZONES IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES, CONNECT THE 2 ZONES.

(8) 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

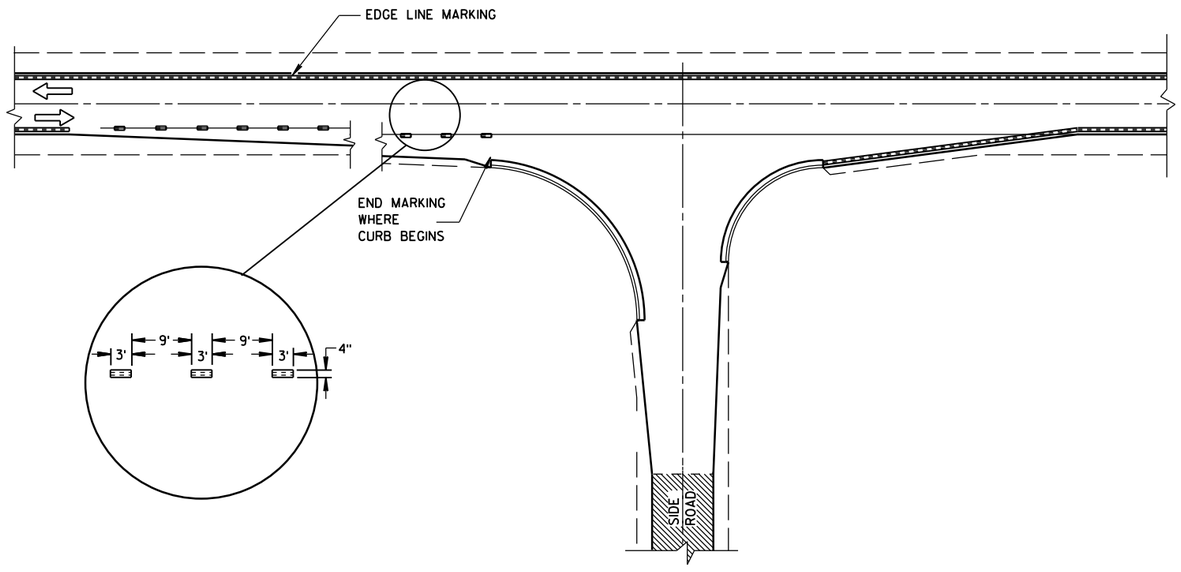
(7)

POSTED SPEED (MPH)	MINIMUM DISTANCE BETWEEN ZONES (FEET)
25 - 30	528
35 - 40	528
45 - 50	686
55	792



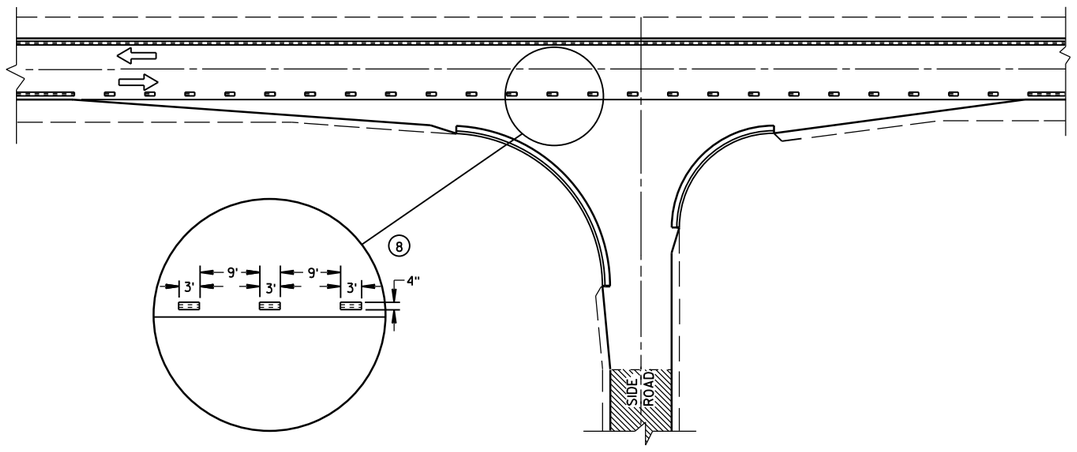
MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANES)



MINOR INTERSECTION WITH CURBS

(TYPICAL MARKING)



MINOR INTERSECTION WITH CURBS

(3) (FOR SPECIAL CONDITIONS AS SPECIFIED)

PAVEMENT MARKING
(INTERSECTIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR 832

6

S.D.D. 15 C 8-16b

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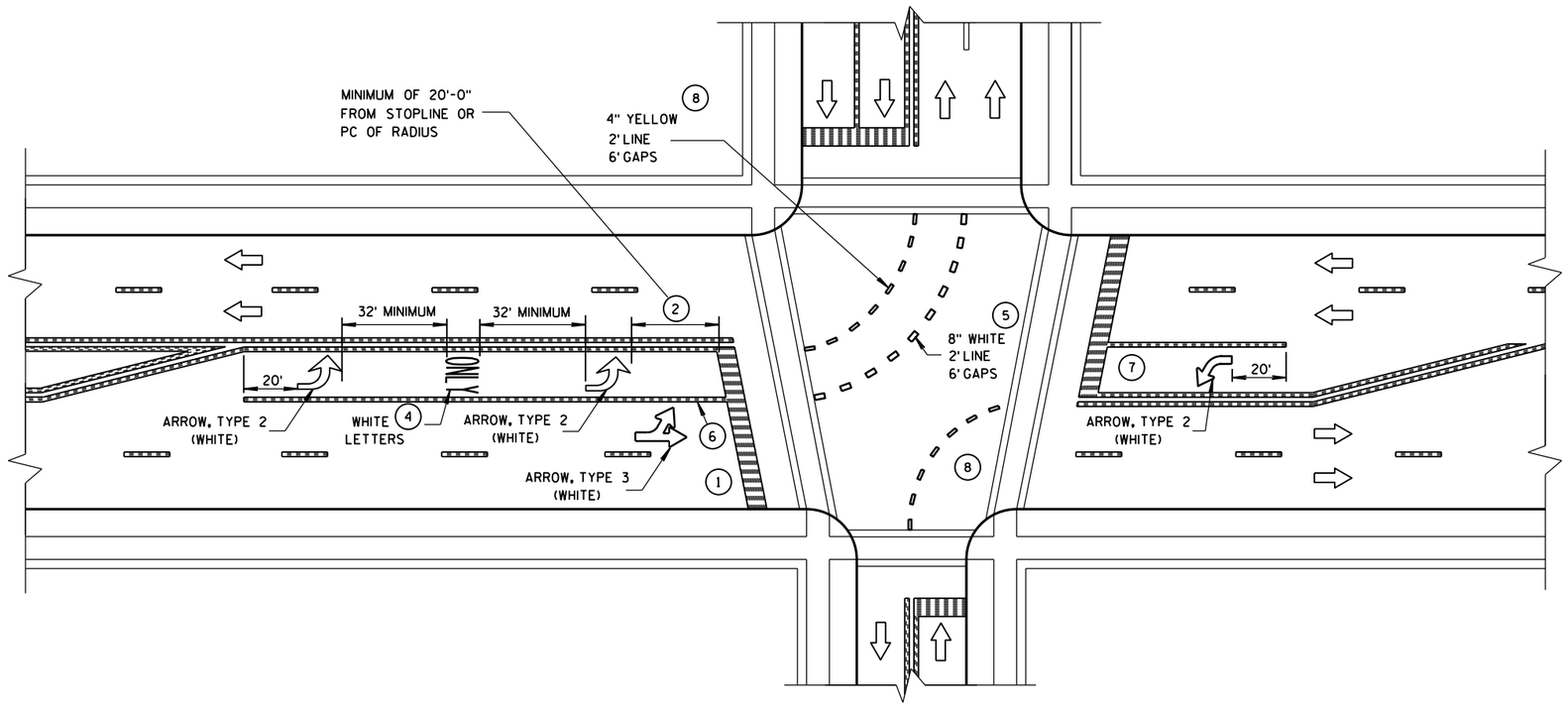
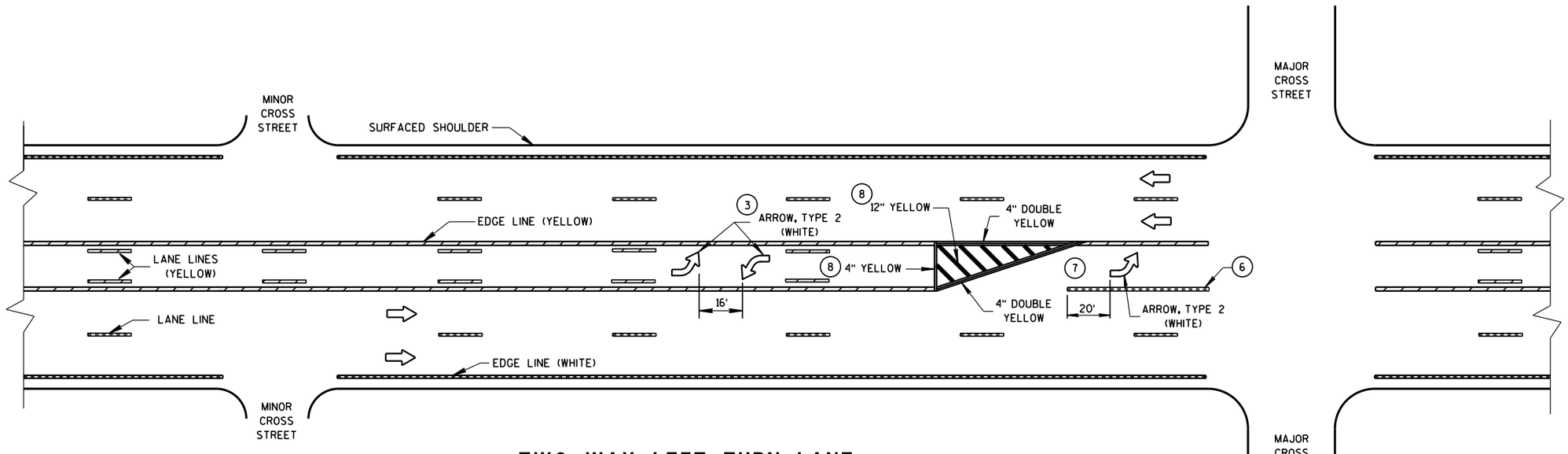
S.D.D. 15 C 8-16b



GENERAL NOTES

1. STOP BAR IS REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.
2. DISTANCE MAY BE ADJUSTED TO ACCOMODATE SHORT LEFT TURN LANES. AS APPROVED BY THE ENGINEER.
3. A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
4. ADD EXTRA SETS OF ONE ARROW AND ONE ONLY PER 160 FEET OR WHEN ON A CURVE.
5. 8" WHITE WITH 2' LINE 6' GAPS FOR DUAL TURN LANE.
6. 8" WHITE
7. ADD SECOND ARROW WHEN TURN BAY IS GREATER THAN OR EQUAL TO 108 FEET.
8. REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.

NOTE:
ARROW SYMBOL (⇨)
SHOWS DIRECTION OF TRAVEL



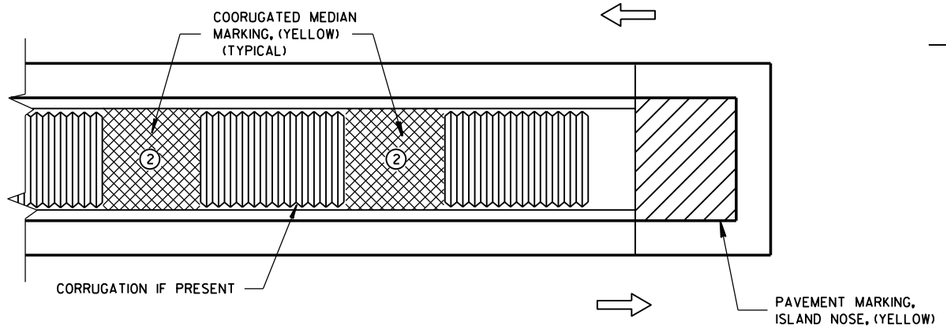
TWO WAY LEFT TURN LANE

PAVEMENT MARKING (LEFT TURN LANE)

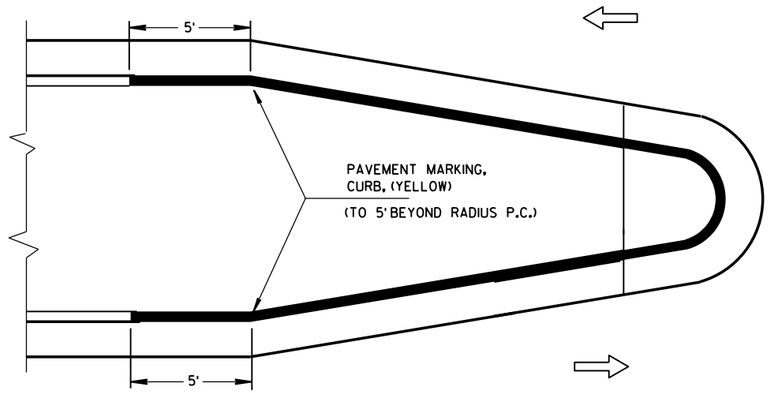
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

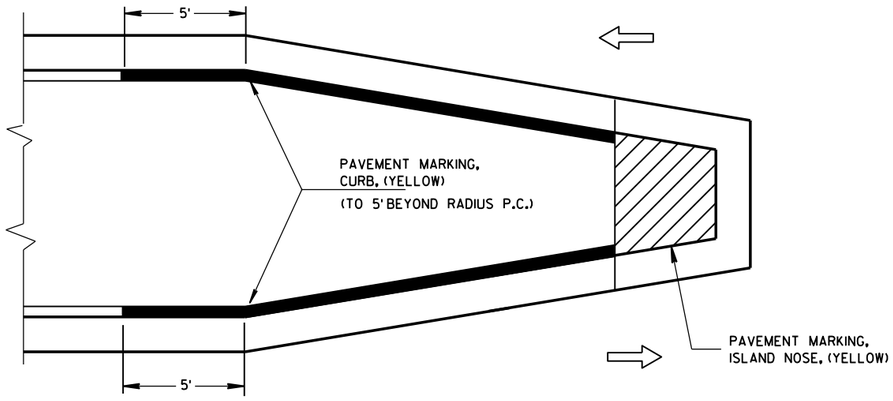
S.D.D. 15 C 8-16e



MEDIAN ISLAND WITH SQUARE BLUNT NOSE

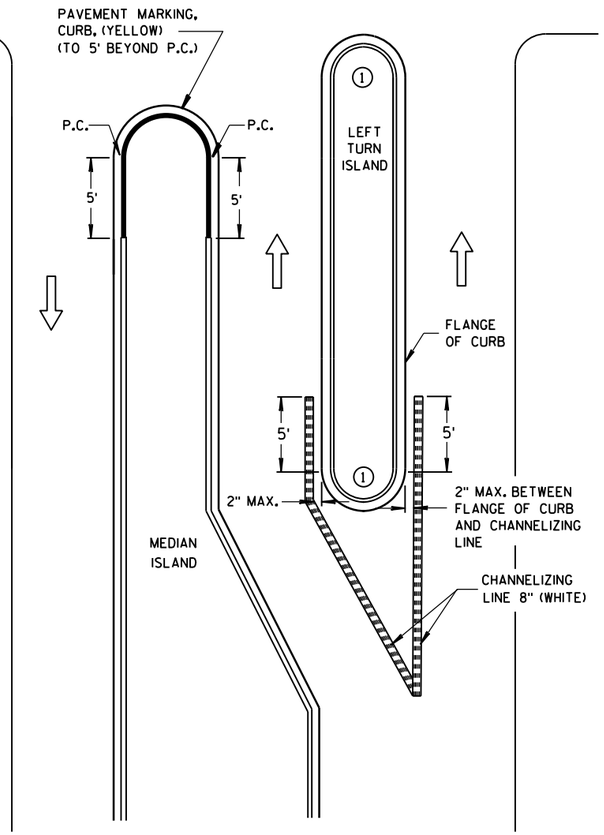


MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS

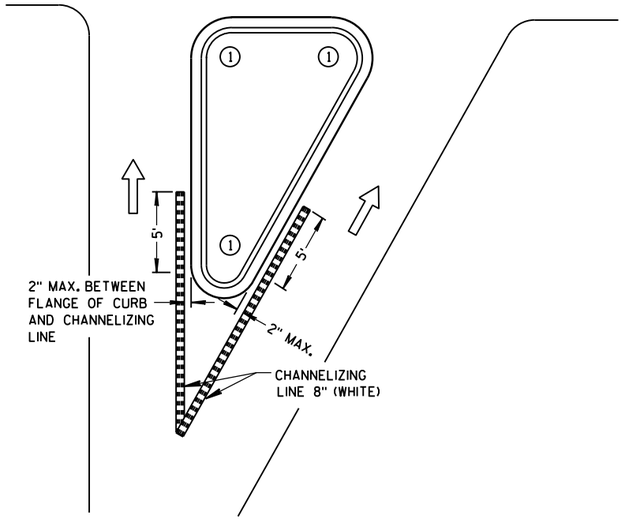


LEFT TURN & MEDIAN ISLAND

GENERAL NOTES

1. DO NOT MARK CURB NOSES THAT SEPARATE LANES OF TRAFFIC TRAVELING IN THE SAME DIRECTION.

2. WHEN CONCRETE CORRUGATED MEDIAN IS CONSTRUCTED TO SEPARATE TRAFFIC OPERATING IN THE OPPOSING DIRECTION YELLOW PAVEMENT MARKING SHALL BE APPLIED TO THE FLAT PORTION OF THE CONCRETE CORRUGATED MEDIAN. THE ITEM OF PAVEMENT MARKING, CONCRETE CORRUGATED MEDIAN, WILL BE MEASURED IN PLACE AND AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.



RIGHT TURN ISLAND

LEGEND

- ISLAND NOSE MARKING
- CURB MARKING
- CORRUGATED MEDIAN MARKING
- DIRECTION OF TRAVEL

PAVEMENT MARKING
(ISLANDS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 15 C 8-16f

LEGEND

SIGN ON PORTABLE OR PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA

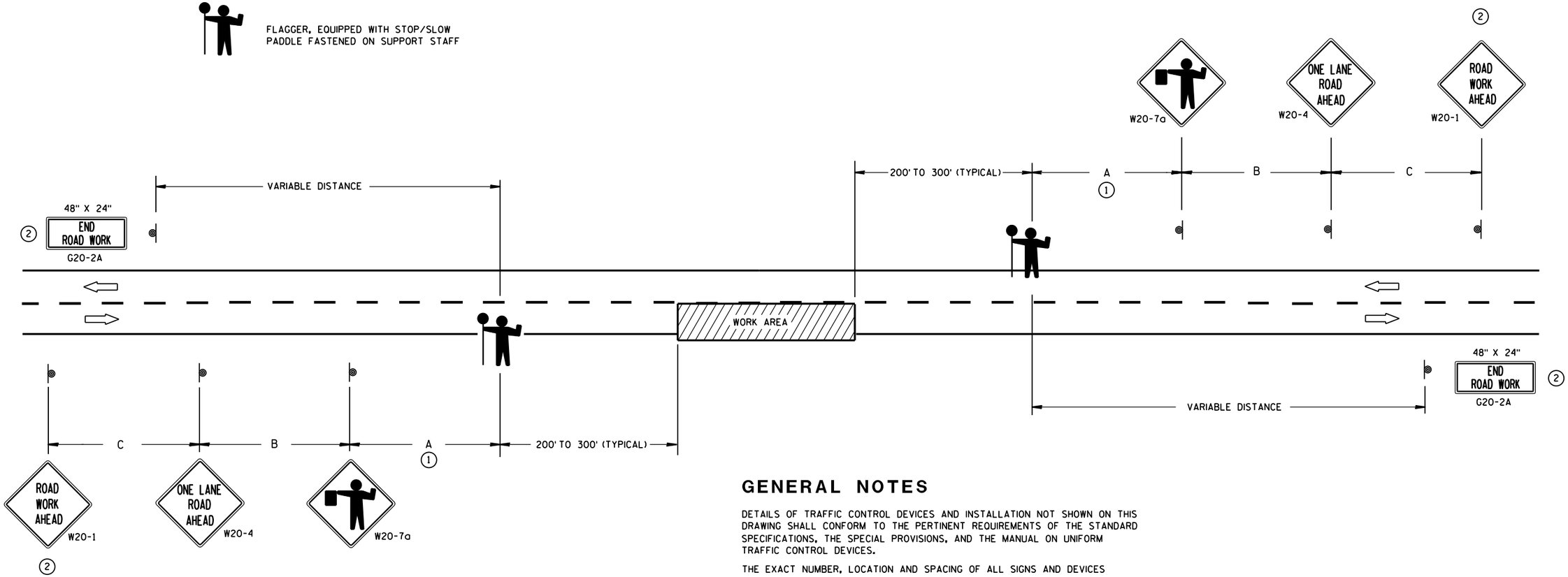
FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

SIGN SPACING TABLE

SPEED LIMIT	SIGN SPACING A,B,C
25-35 MPH	200'
35-40 MPH	350'
45-55 MPH	500'

BE PREPARED TO STOP
W3-4

USE OF THE "BE PREPARED TO STOP" SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7a AND W20-4 SIGNS. A 500' TYPICAL SPACING SHALL BE PROVIDED BETWEEN THE SIGNS.



(1) FOR A MOVING WORK OPERATION,
SIGNING FOR BOTH DIRECTIONS SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3500 FOOT INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.

(2) SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

GENERAL NOTES

DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES (AND THE LOCATION OF ALL FLAGGERS) SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE FIRST ADVANCE WARNING SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR QUEUE.

WHEN A SIDE ROAD OR RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT, COVER OR REMOVE ALL TEMPORARY TRAFFIC CONTROL SIGNS.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/2013
DATE
/S/ Travis Feltes
STATE TRAFFIC ENGINEER

FHWA

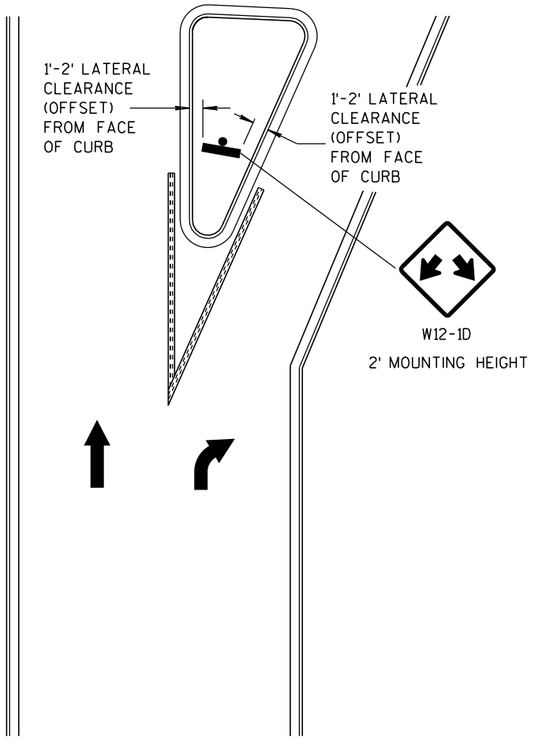
6

S.D.D. 15 C 12-4

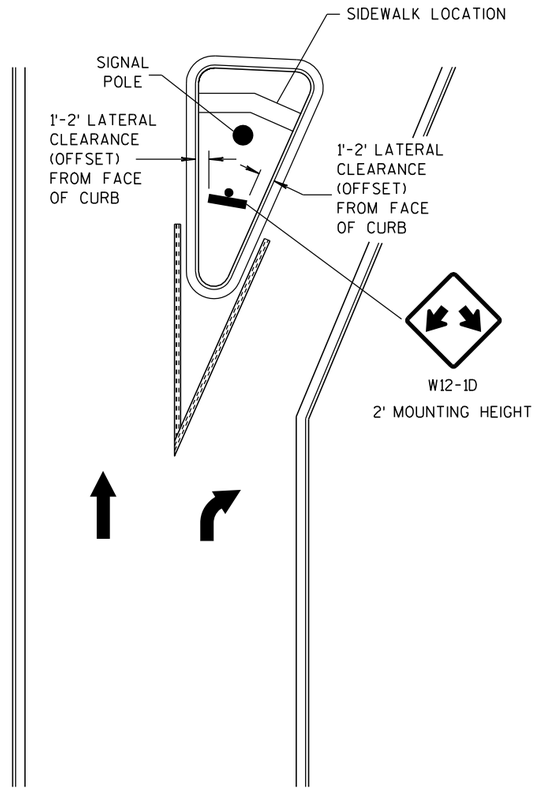
GENERAL NOTE

APPLIES TO ISLANDS AT LEFT TURNS AT ONE WAY ROADWAYS AS WELL.

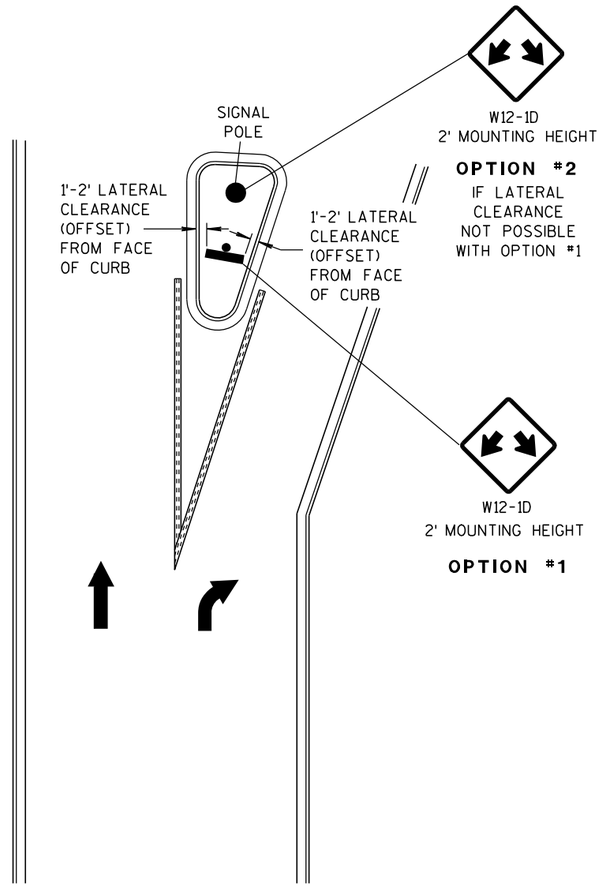
SEE MISCELLANEOUS QUANTITIES FOR SIGN SIZE.



LARGE RIGHT TURN ISLAND



LARGE RIGHT TURN ISLAND
WITH SIGNAL POLE



SMALL RIGHT TURN ISLAND

DOUBLE ARROW WARNING SIGN PLACEMENT

DOUBLE ARROW WARNING SIGN PLACEMENT	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
10-22-08 DATE	/S/ Thomas N. Nothdurft STATE TRAFFIC ENGINEER 836 IGN
FHWA	

6

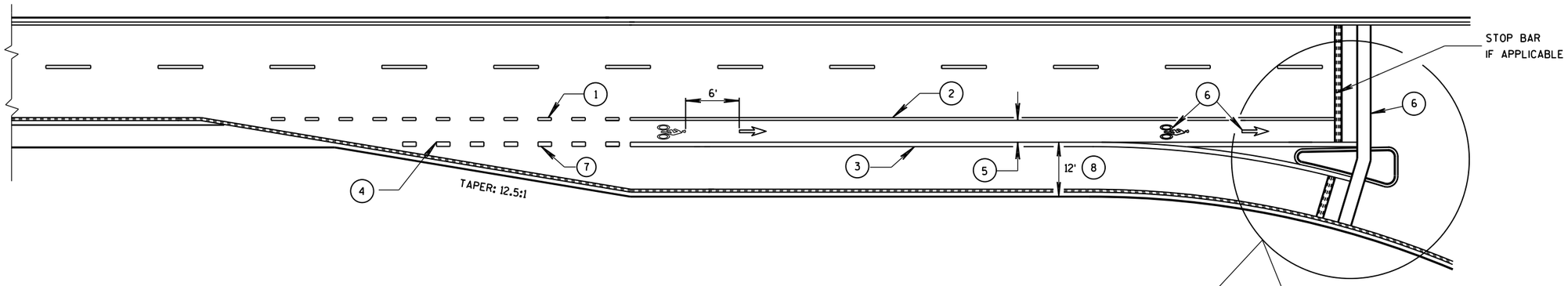
S.D.D. 15 C 27-1

6

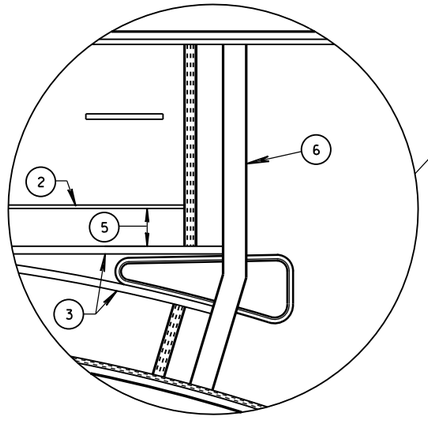
S.D.D. 15 C 27-1

GENERAL NOTES

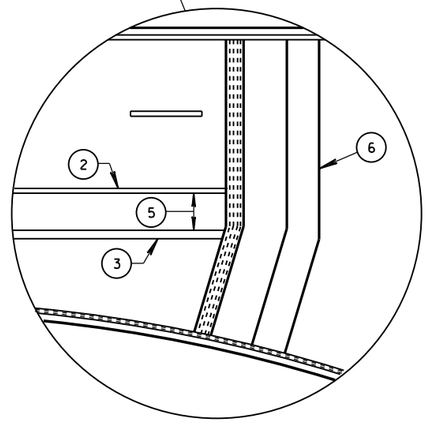
1. 3' LINE, 9' GAP - 4-INCH WIDE, WHITE.
2. 4-INCH, WHITE.
3. 8-INCH, WHITE.
4. IF SIGNED AND/OR MARKED AS A BICYCLE FACILITY INCLUDE SECOND LINE OF LINE-SPACE MARKING, OTHERWISE DO NOT.
5. 5' TYPICAL.
6. REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.
7. 3' LINE, 9' GAP - 8-INCH WIDE, WHITE.
8. REFER TO CONTRACT PLANS.



BIKE LANE - 4-LANE DIVIDED WITH RIGHT TURN LANE



4 LANE DIVIDED WITH ISLAND



4 LANE DIVIDED WITHOUT ISLAND

BICYCLE LANE MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4/30/2013 — DATE
/S/ Travis Feltes — STATE TRAFFIC E
FHWA

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S.D.D. 15 C 29-3b

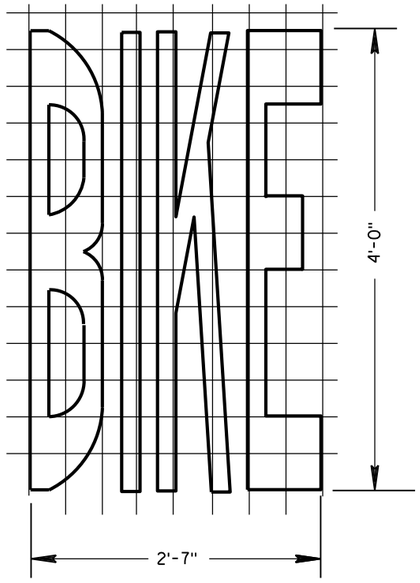
6

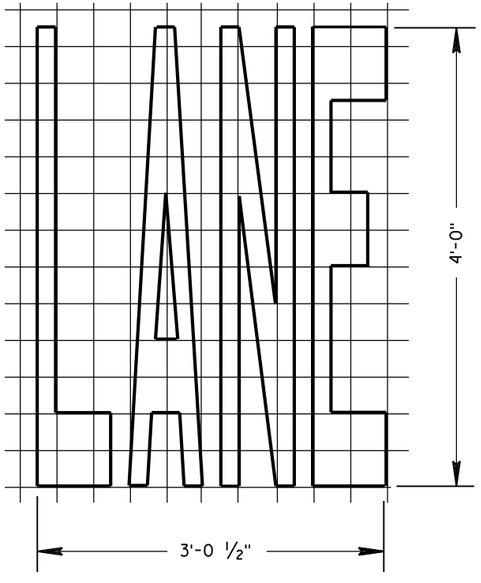
S.D.D. 15 C 29-3b

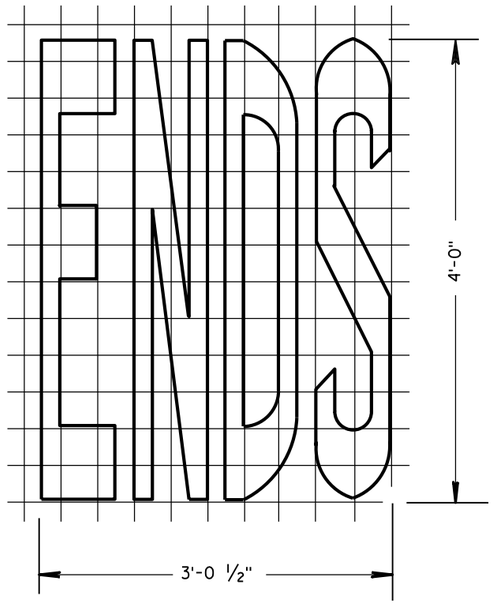
GENERAL NOTES

DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

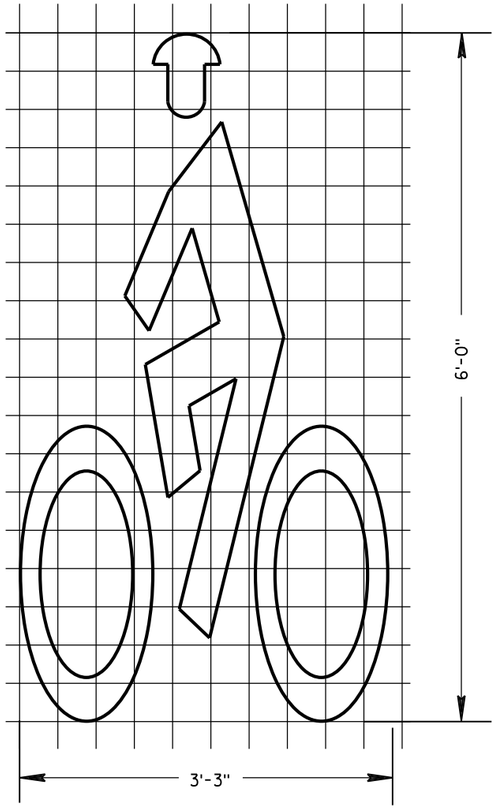
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES OF THAT BOOK ARE ACCEPTABLE.



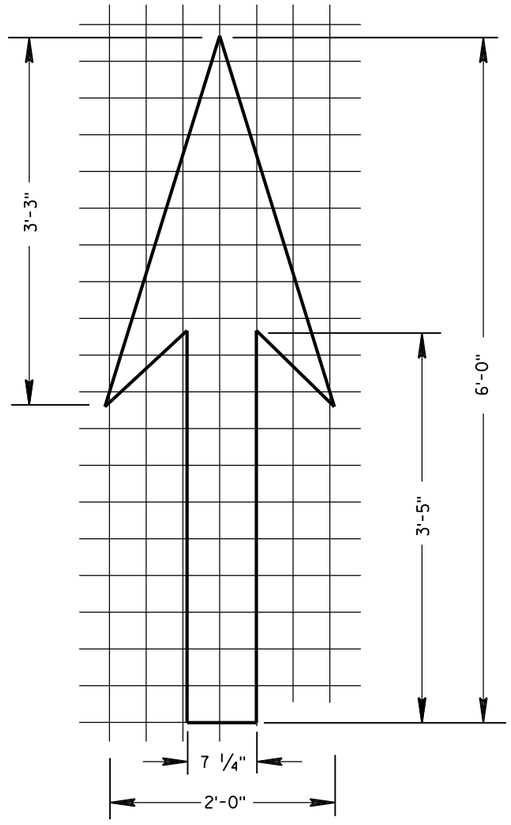




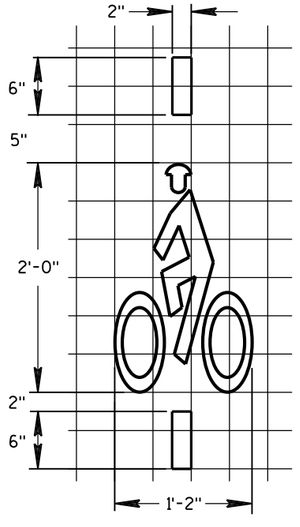
BIKE LANE WORDS



BIKE LANE SYMBOL



BIKE LANE ARROW



BICYCLE DETECTOR PAVEMENT MARKING

PAVEMENT MARKING FOR BIKE LANES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4-30-2013
DATE

/S/ Travis Feltes
STATE TRAFFIC EN

FHWA

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S.D.D. 15 C 29-3e

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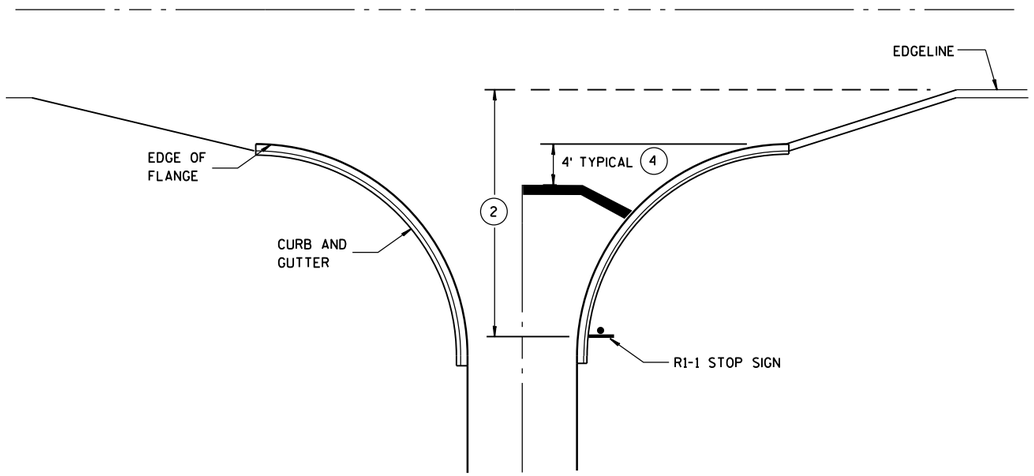
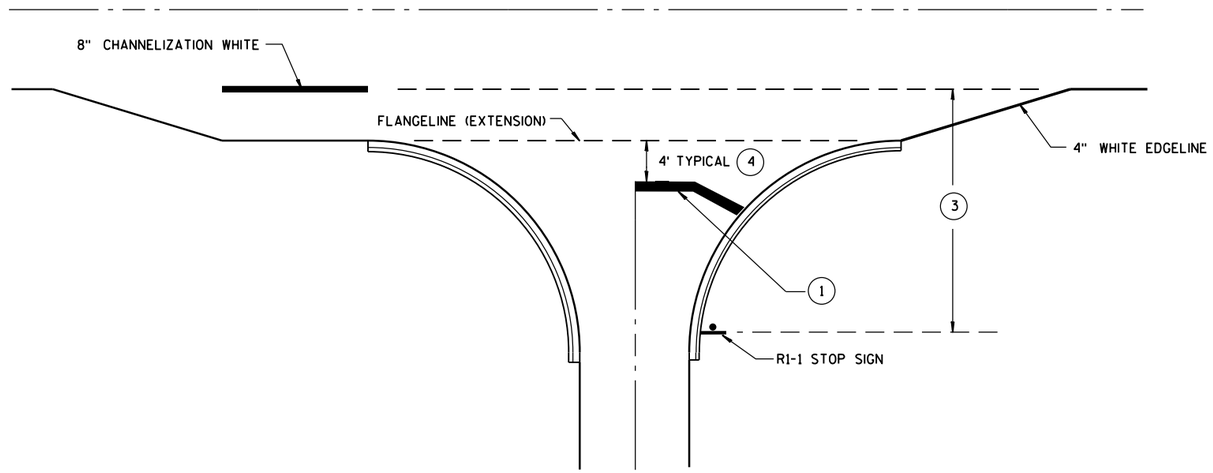
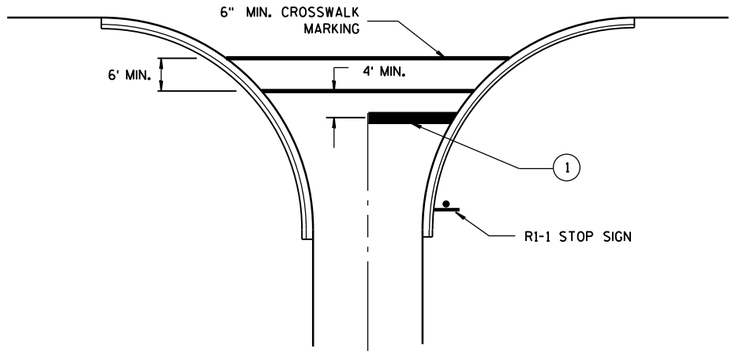
S.D.D. 15 C 29-3e



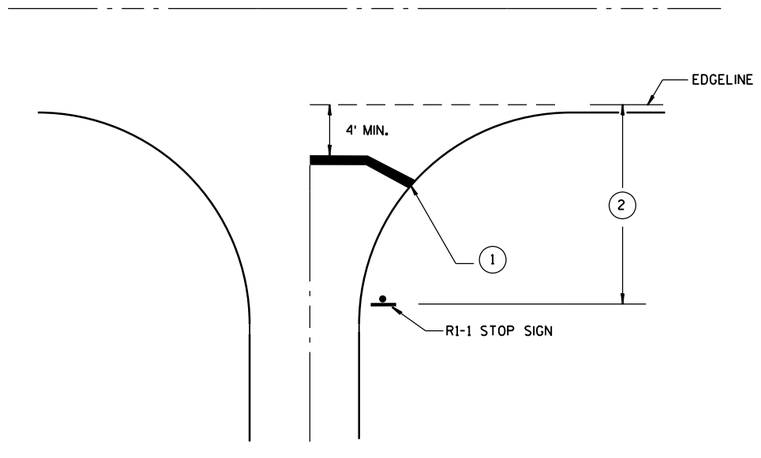
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

GENERAL NOTES

1. 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE PROJECT ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
2. IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE THAN NO STOP LINE IS REQUIRED.
3. IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION THAN NO STOP LINE IS REQUIRED.
4. MOVE CLOSER TO EDGE OF TRAVEL LANE AS NEEDED FOR VISIBILITY AND SIGHT LINES.

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4/30/2013 DATE
/S/ Travis Feltes
STATE TRAFFIC E
FHWA

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S.D.D. 15 C 33-1

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- REMOVING PAVEMENT MARKING
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK AREA

W057-52
36"x24"

INSTALL ON EACH APPROACH AT THE CLOSEST INTERSECTION WITH A STATE OR COUNTY TRUNK HIGHWAY, OR AS DIRECTED BY THE ENGINEER. WIDTH ON SIGN TO BE APPROX. 1 FOOT LESS THAN AVAILABLE WIDTH (OMIT IF AVAILABLE WIDTH IS MORE THAN 16 FEET).

LOCATED 500 FEET IN ADVANCE OF R2-1 SIGN AND 500 FEET BEYOND THE "ROAD WORK 1 MILE" SIGN.

R2-1
48"x60"
(BLACK AND WHITE)

IF THE REGULATORY SPEED HAS BEEN REDUCED, A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. THERE SHOULD BE A SPEED LIMIT SIGN INCORPORATED A MINIMUM OF EVERY 2 OR 3 MILES.

* INCLUDE RESUME SPEED LIMIT SIGN A MINIMUM OF 200 FEET (500 FEET DESIRABLE) AFTER END ROAD WORK SIGNS.

GENERAL NOTES

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED OR AS APPROVED BY THE ENGINEER.

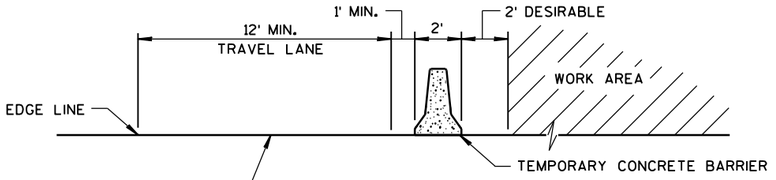
(1) CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUM TAPER.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

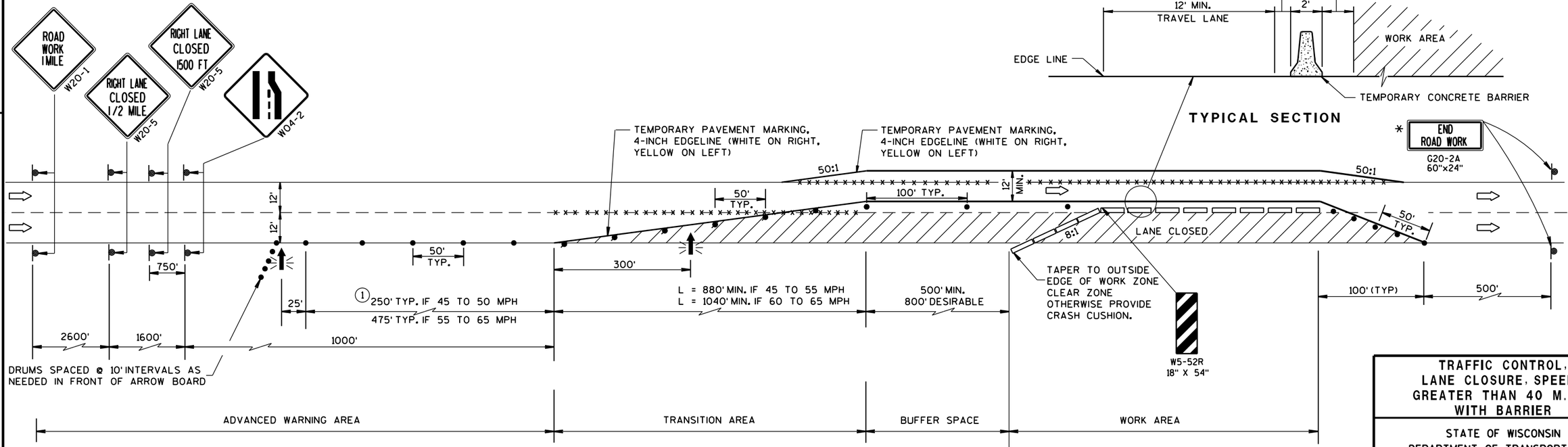
REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP OR INTERSECTION. THE LANE CLOSURE MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.



TYPICAL SECTION



TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H. WITH BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/2013 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER — SIGN
FHWA

840

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S.D.D. 15 D 3-2

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S.D.D. 15 D 3-2

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMENENT SUPPORT
- POST WITH ATTACHED SIGN IN DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC
- WORK AREA

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIREABLE) DISTANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

ALL SIGNS ARE 48"×48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 4 OR MORE DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

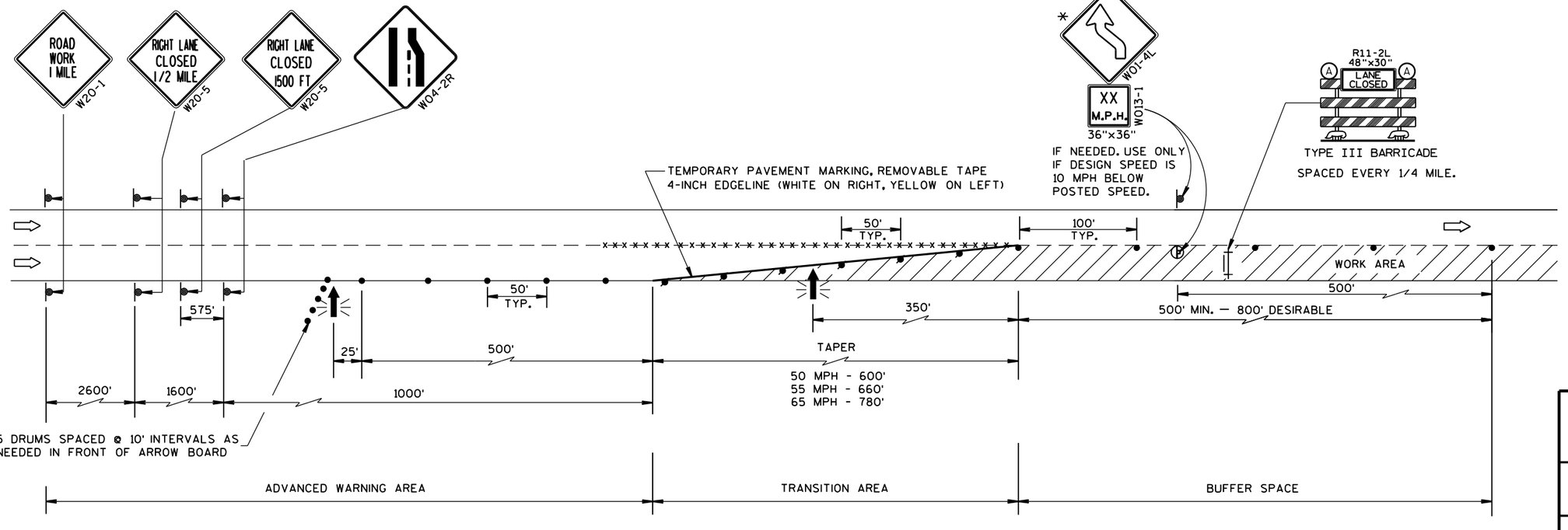
ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE CLOSURE MUST MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

* THE LEFT REVERSE CURVE SIGN (W01-4L) IS ONLY REQUIRED WHEN THIS DETAIL IS USED IN COMBINATION WITH "SINGLE LANE CROSSOVER" DETAIL.

LOCATED 500 FEET IN ADVANCE OF R2-1 SIGN AND 500 FEET BEYOND THE "ROAD WORK 1 MILE" SIGN.

R2-1
48"×60"
(BLACK AND WHITE)

IF THE REGULATORY SPEED HAS BEEN REDUCED, A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. THERE SHOULD BE A SPEED LIMIT SIGN INCORPORATED A MINIMUM OF EVERY 2 OR 3 MILES.



TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/2013 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
SIGN
FHWA

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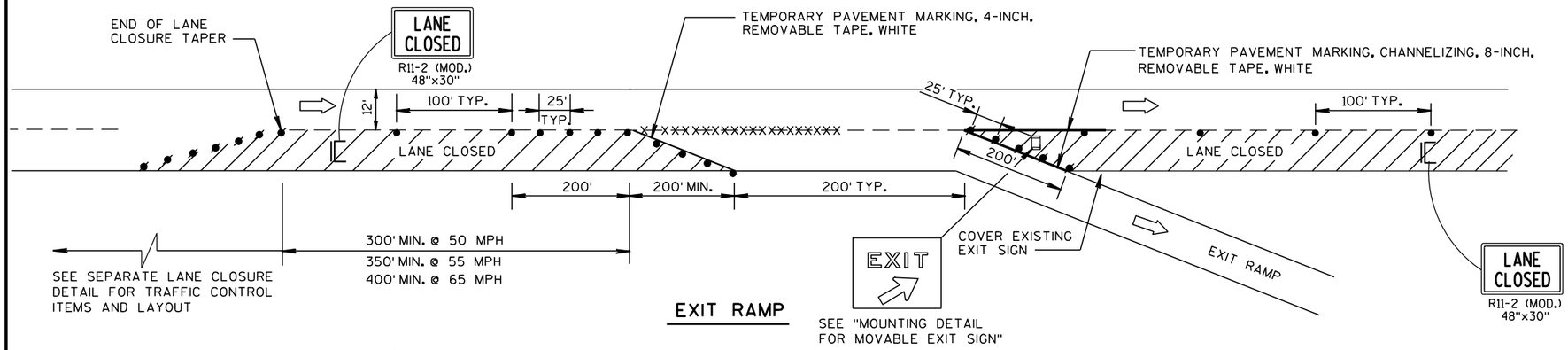
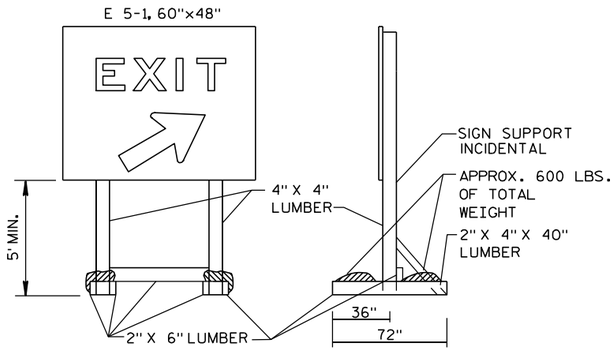
S.D.D. 15 D 12-3

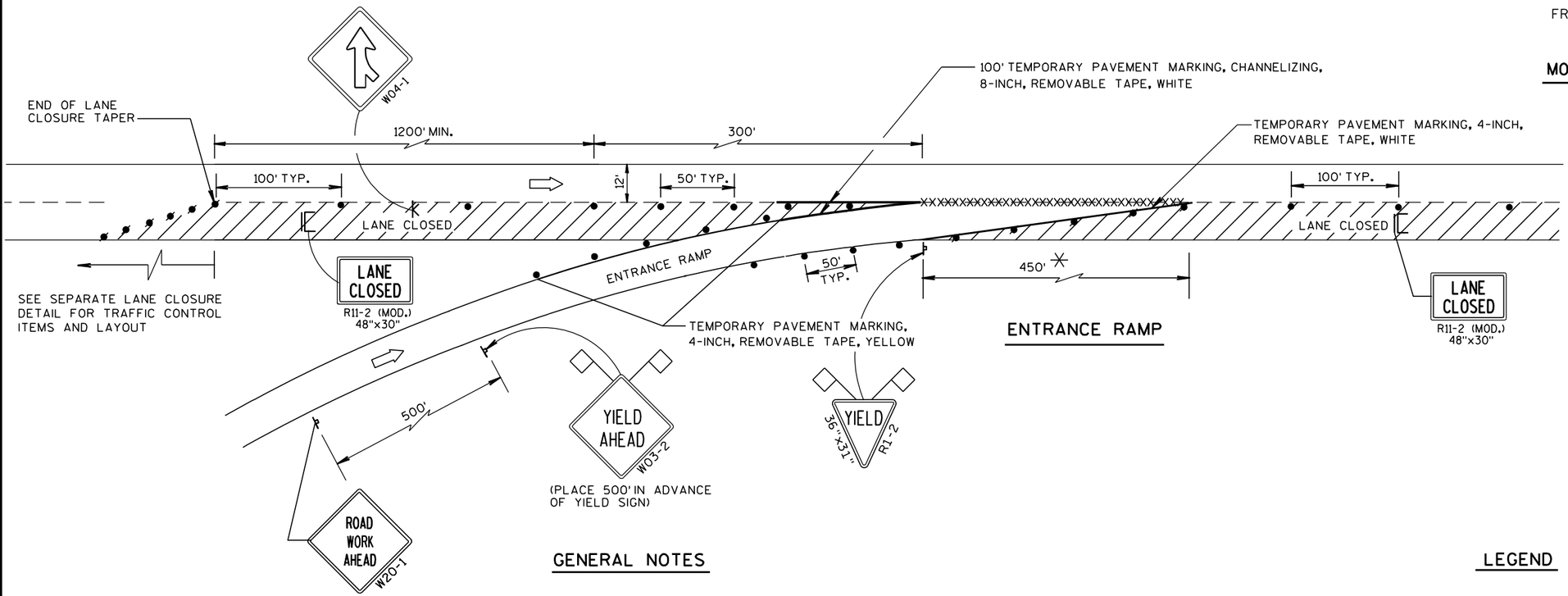


EXIT RAMP



NOTE: ALL LUMBER DIMENSIONS ARE NOMINAL

MOUNTING DETAIL FOR MOVABLE EXIT SIGN



ENTRANCE RAMP

GENERAL NOTES

THE INSTALLATIONS SHOWN ON THIS SHEET ARE TYPICAL EXAMPLES AND ARE NOT INTENDED TO REPRESENT ANY PARTICULAR RAMP. AT SPECIFIC FIELD LOCATIONS, SIMILAR INSTALLATIONS SHALL BE USED AND ADJUSTED TO THE GEOMETRICS OF THE RAMP AS COORDINATED WITH THE ENGINEER.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

SEE SEPARATE LANE CLOSURE DETAIL FOR TYPICAL SPACING OF TYPE III BARRICADES AND R11-2 (MOD.) "LANE CLOSED" SIGNS.

YIELD SIGN AND WARNING SIGNS ON ENTRANCE RAMP ARE ALSO APPROPRIATE FOR CLOSURE OF THE MAINLINE LEFT LANE. OMIT THE YIELD SIGN IF MORE THAN ONE LANE REMAINS OPEN ON THE MAINLINE AND THE RAMP TAPER IS AT LEAST AS LONG AS THE NORMAL ENTRANCE RAMP TAPER AT THE SITE.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE ENTRANCE RAMP AND MAINLINE TRAFFIC.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 7 OR MORE CONTINUOUS DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

✳ LENGTH OF OPENING MAY BE REDUCED TO 150 FEET DURING STAGING OF WORK IN IMMEDIATE AREA OF RAMP TAPER.

LEGEND

- POST MOUNTED SIGN
- SIGN ON PORTABLE SUPPORT
- TRAFFIC CONTROL, DRUM
- TRAFFIC CONTROL, DRUM WITH WARNING LIGHT, TYPE C (STEADY-BURN)
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- TYPE III BARRICADE (8' EQUIVALENT) WITH SIGN
- FLAGS, 16"x16" MIN., ORANGE
- DIRECTION OF TRAFFIC FLOW

TRAFFIC CONTROL, EXIT AND ENTRANCE RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/24/2000
DATE
/S/ Chester J. [illegible]
CHIEF SIGNS AND MARKINGS ENGINEER
FHWA

6
S.D.D. 15 D 15-1

LEGEND

TYPE III BARRICADE

TYPE III BARRICADE WITH ATTACHED SIGN

TRAFFIC CONTROL DRUM

SIGN ON PERMANENT SUPPORT

TYPE "A" WARNING LIGHT (FLASHING)

DIRECTION OF TRAFFIC

GENERAL NOTES

THIS RAMP CLOSURE DETAIL IS TYPICAL FOR CLOSING A RIGHT SIDE EXIT RAMP. FOR A LEFT SIDE EXIT RAMP, REVERSE THE TRAFFIC CONTROL.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

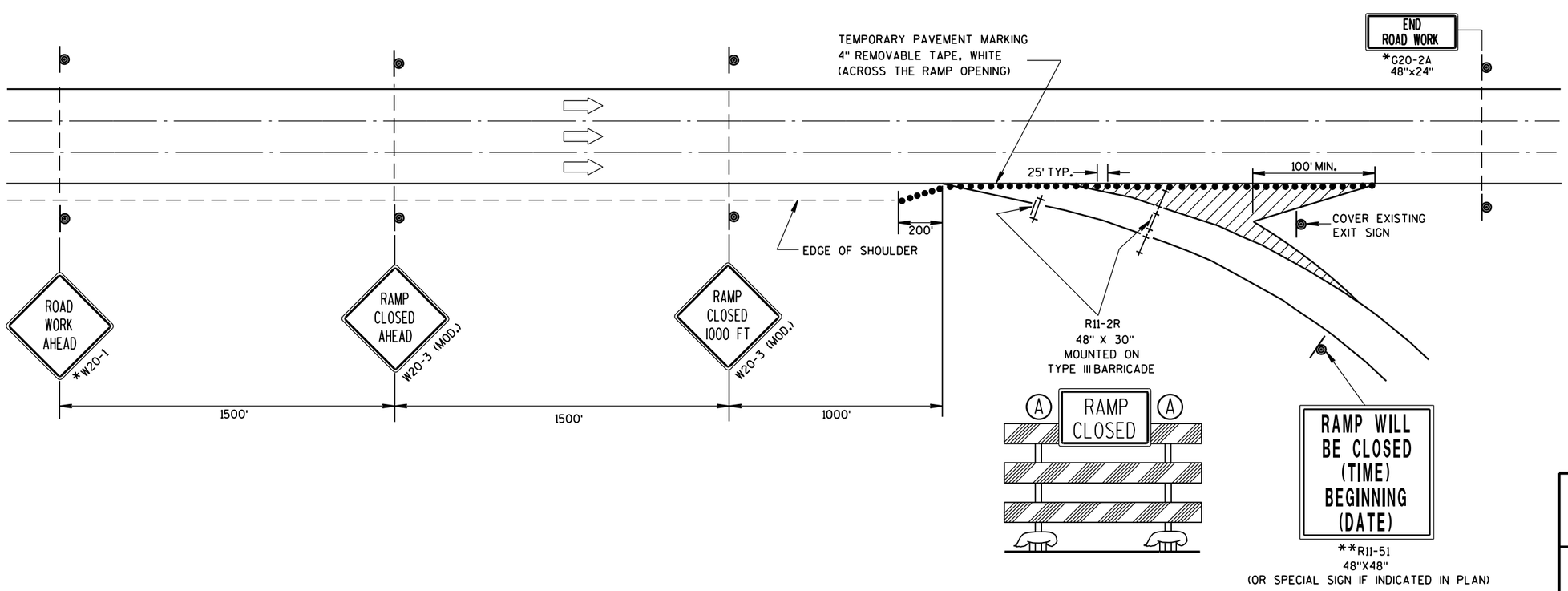
PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF RAMP CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

WORK AREAS WITH A DROPOFF ALONG THE EDGE OF AN OPEN TRAVEL LANE SHALL BE LEVELED WITH TEMPORARY FILL WHEN THE CONTRACTOR IS NOT WORKING ADJACENT TO THE TRAVEL LANE. DRUMS SHALL BE PLACED ENTIRELY OUTSIDE THE TRAVEL LANE, ALLOWING THE FULL UNOBSTRUCTED LANE WIDTH, WHEN THE WORK IS NOT IN PROGRESS.

WHERE MEDIAN BARRIER IS IN PLACE, SIGNS SHOWN ON LEFT SIDE OF ROADWAY MAY BE OMITTED FOR RIGHT SIDE RAMP CLOSURES OF LESS THAN 12-HOUR DURATION.

*W20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE RAMP CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

** PLACE "RAMP WILL BE CLOSED" SIGN 10 CALENDAR DAYS PRIOR TO CLOSURE OR AS DIRECTED BY THE ENGINEER. SEE WISCONSIN STANDARD SIGN PLATES FOR SIGN LAYOUT.



TRAFFIC CONTROL,
EXIT RAMP CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/2013
DATE

/S/ Travis Feltes
STATE TRAFFIC ENGINEER

DESIGN

FHWA

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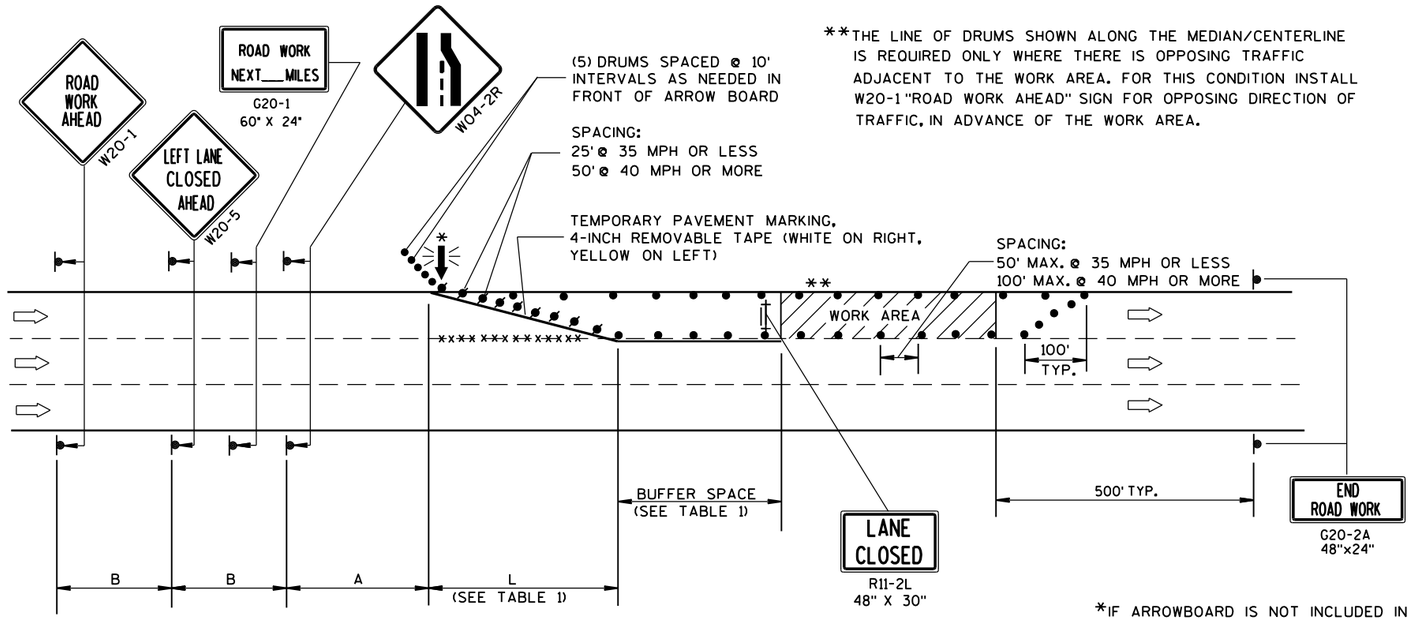
S.D.D. 15 D 16-2



**THE LINE OF DRUMS SHOWN ALONG THE MEDIAN/CENTERLINE IS REQUIRED ONLY WHERE THERE IS OPPOSING TRAFFIC ADJACENT TO THE WORK AREA. FOR THIS CONDITION INSTALL W20-1 "ROAD WORK AHEAD" SIGN FOR OPPOSING DIRECTION OF TRAFFIC, IN ADVANCE OF THE WORK AREA.

B=400' AT 25-30 MPH
700' AT 35-40 MPH
1000' AT 45-55 MPH

A=200' AT 25-30 MPH
350' AT 35-40 MPH
500' AT 45-55 MPH

(PLACE BARRICADE AND SIGN APPROX. EVERY 1000' ACROSS THE CLOSED LANE)

*IF ARROWBOARD IS NOT INCLUDED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE A TYPE III BARRICADE WITH W01-6 SIGN IN THE LANE CLOSURE TAPER.

W01-6
48"x24"

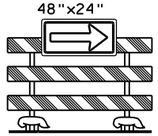


TABLE 1
TAPER AND BUFFER SPACE FOR 12' LANE WIDTH

S	L	BUFFER SPACE
25	125'	55'
30	180'	85'
35	245'	120'
40	320'	170'
45	540'	220'
50	600'	280'
55	660'	335'

FOR LANE WIDTH OTHER THAN 12':

L = WS AT 45 MPH OR GREATER

$L = \frac{WS^2}{60}$ AT 40 MPH OR LESS

L = TAPER LENGTH IN FEET

S = NON-CONSTRUCTION SPEED LIMIT (MPH)

W = WIDTH OF LANE CLOSURE

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- WORK AREA

GENERAL NOTES

THIS LANE CLOSURE DETAIL IS TYPICAL FOR CLOSING THE LEFT LANE. FOR A RIGHT LANE CLOSURE, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

ON UNDIVIDED ROADWAYS, OMIT THE SIGNS SHOWN ON LEFT SIDE OF ROAD.

W20-1, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROWBOARDS AND LANE CLOSURE DRUMS.

PLACE THE ARROWBOARD AS CLOSE AS POSSIBLE TO THE BEGINNING OF THE LANE CLOSURE TAPER, PREFERABLY ON THE SHOULDER OR TERRACE.

CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

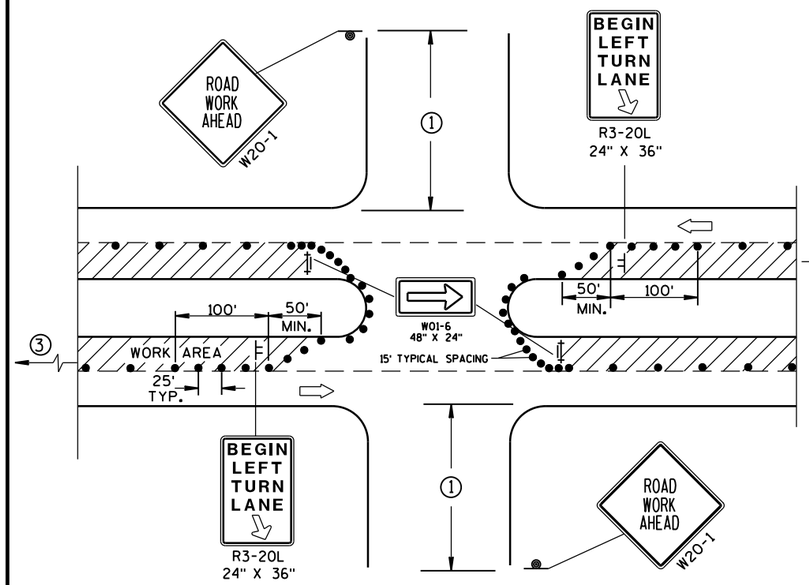
TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/2013 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

6

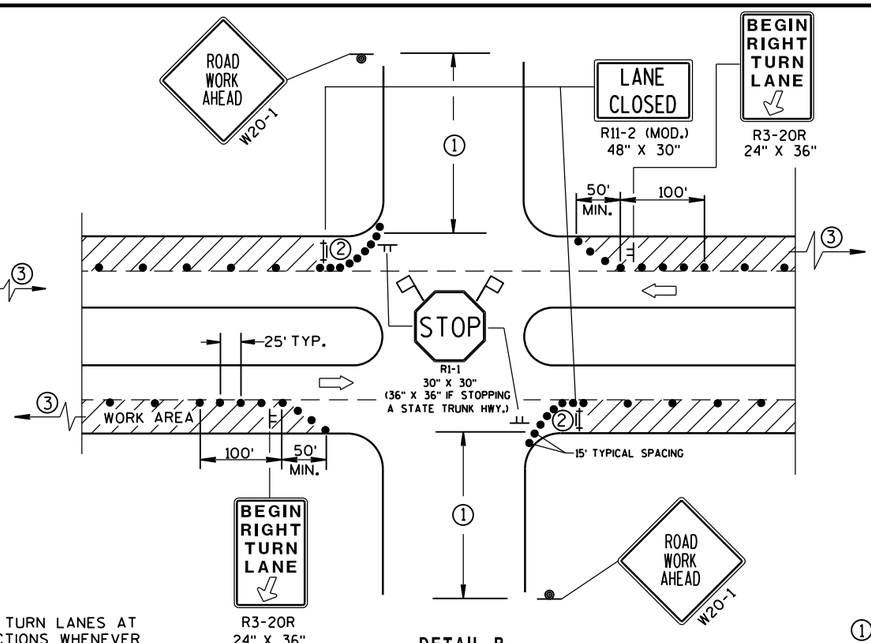
S.D.D. 15 D 20-2



DETAIL A

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING

PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.



DETAIL B

FOR RIGHT LANE CLOSURE AT INTERSECTION

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

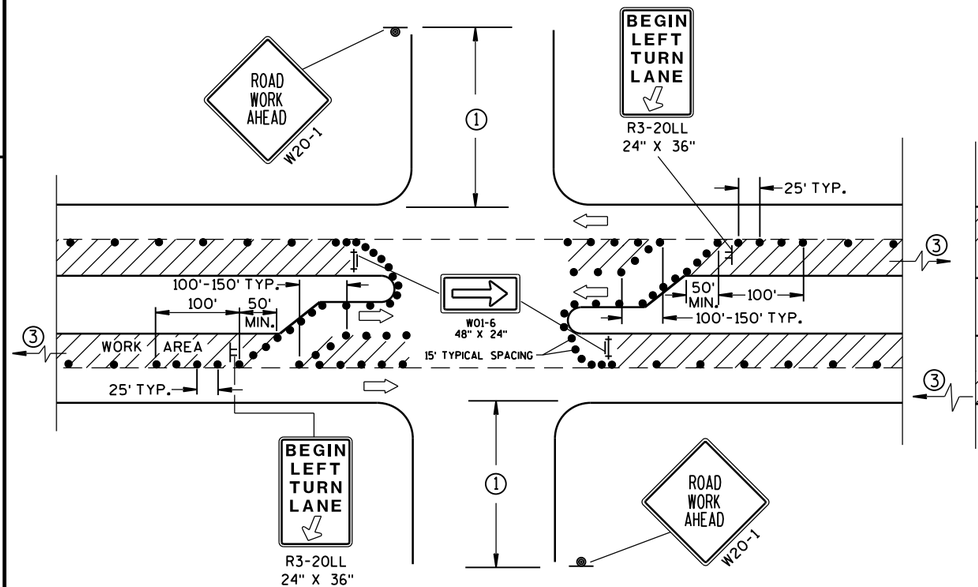
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

① 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35-40 MPH.
200' IF 25-30 MPH.

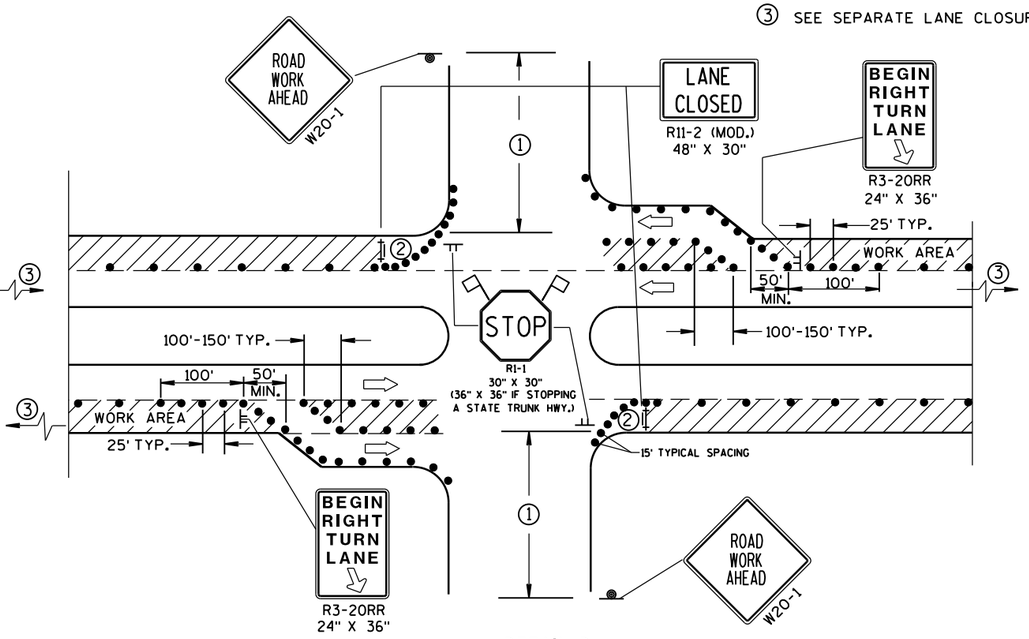
② ALSO USE BARRICADE AND 15-FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS.

③ SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.



DETAIL C

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING (WITH LEFT TURN BAY OPEN)



DETAIL D

FOR RIGHT LANE CLOSURE AT INTERSECTION (WITH RIGHT TURN BAY OPEN)

LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT (5' MIN. MOUNTING HEIGHT)
- TYPE III BARRICADE WITH ATTACHED SIGN AND TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., (ORANGE)
- WORK AREA

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/2013	/S/ Travis Feltes
DATE	STATE TRAFFIC ENGINEER

FHWA

6

S.D.D. 15 D 21-2

TABLE 1
TAPER AND BUFFER SPACE
FOR 12' LANE WIDTH

S	L	BUFFER SPACE
25	125'	55'
30	180'	85'
35	245'	120'
40	320'	170'
45	540'	220'
50	600'	280'
55	660'	335'

FOR LANE WIDTH OTHER THAN 12':

L = WS AT 45 MPH OR GREATER

$L = \frac{WS^2}{60}$ AT 40 MPH OR LESS

L = TAPER LENGTH IN FEET

S = NON-CONSTRUCTION SPEED LIMIT (MPH)

W = WIDTH OF LANE CLOSURE

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- WORK AREA

GENERAL NOTES

THIS DETAIL IS TYPICAL FOR CLOSING THE RIGHT TWO LANES. FOR CLOSING THE LEFT TWO LANES, REVERSE THE TRAFFIC CONTROL.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY THE DISTRICT TRAFFIC UNIT.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

W20-1, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

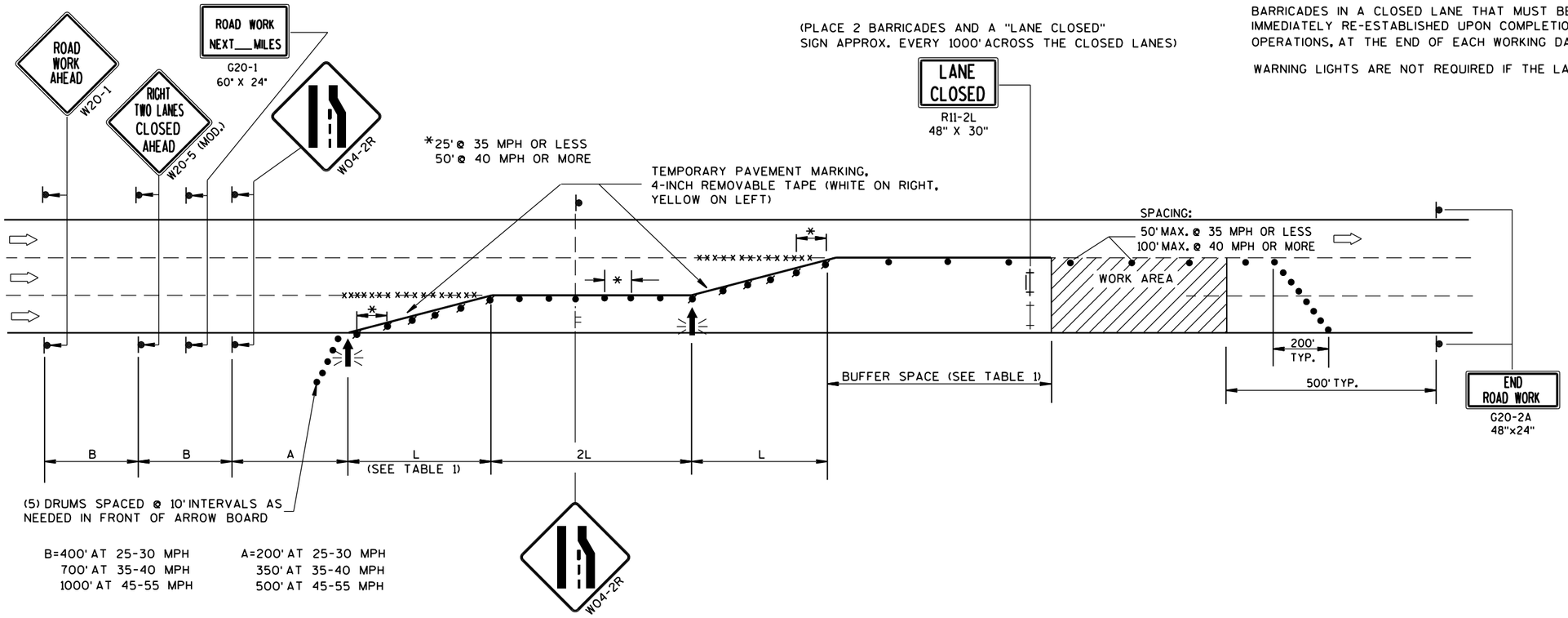
CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROWBOARDS AND LANE CLOSURE DRUMS.

WHERE THE SHOULDER OR TERRACE HAS INSUFFICIENT SPACE TO LOCATE THE ARROWBOARD AS SHOWN, PLACE THE ARROWBOARD IN THE LANE CLOSURE TAPER AS CLOSE AS POSSIBLE TO THE BEGINNING OF THE TAPER.

CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.



B=400' AT 25-30 MPH
700' AT 35-40 MPH
1000' AT 45-55 MPH

A=200' AT 25-30 MPH
350' AT 35-40 MPH
500' AT 45-55 MPH

TRAFFIC CONTROL, TWO LANE CLOSURE, NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/2013 DATE

/S/ Travis Feltes
STATE TRAFFIC ENGINEER

FHWA

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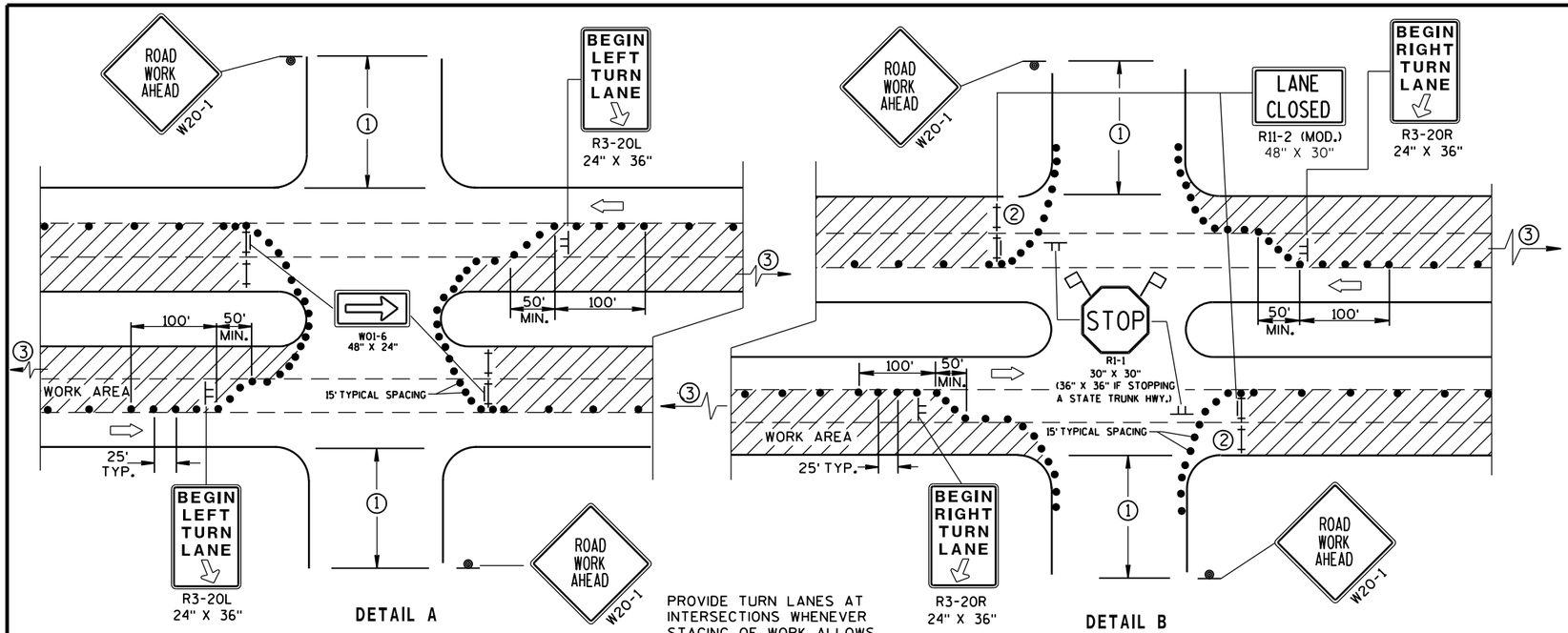
S.D.D. 15 D 22-2



FOR LEFT TWO LANES CLOSED AT INTERSECTION OR MEDIAN BREAK

FOR RIGHT TWO LANES CLOSED AT INTERSECTION

PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

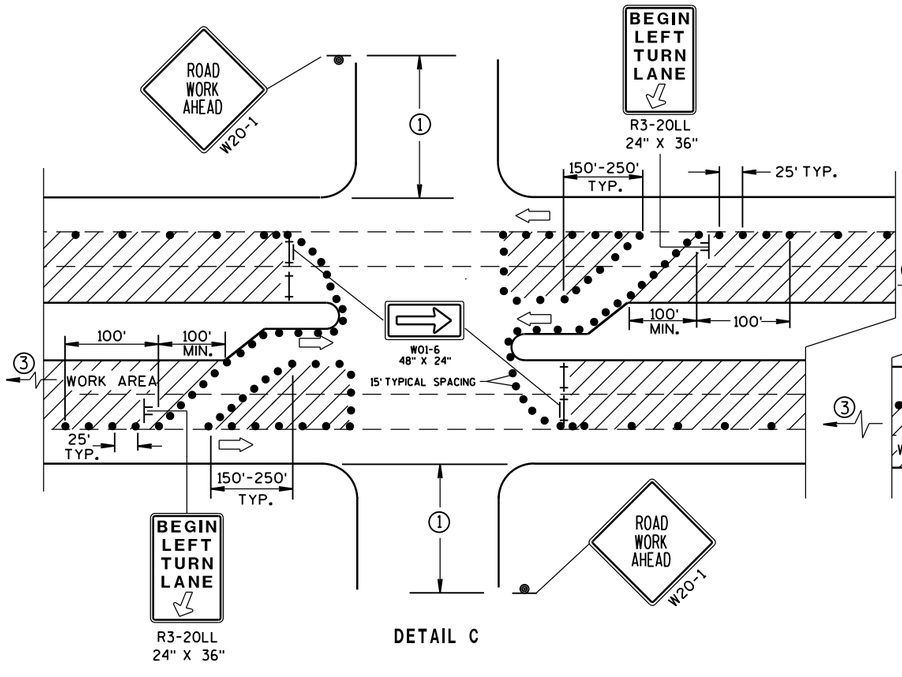
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

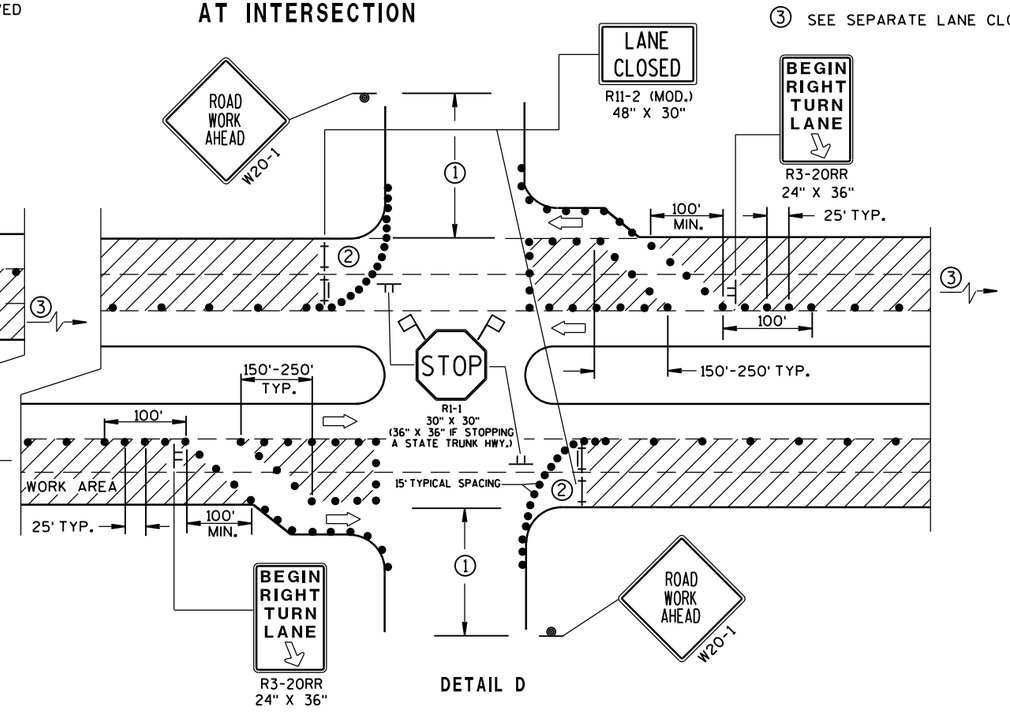
① 500 FEET TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350 FEET IF 35-40 MPH.
200 FEET IF 25-30 MPH.

② ALSO USE BARRICADES AND 15-FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS.

③ SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.



FOR LEFT TWO LANES CLOSED AT INTERSECTION OR MEDIAN BREAK (WITH LEFT TURN BAY OPEN)



FOR RIGHT TWO LANES CLOSED AT INTERSECTION (WITH RIGHT TURN BAY OPEN)

LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT (5' MIN. MOUNTING HEIGHT)
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN AND TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., (ORANGE)
- WORK AREA

TRAFFIC CONTROL, INTERSECTION WITHIN TWO LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/2013 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

6

S.D.D. 15 D 23-2

LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- FLASHING ARROW BOARD
- WORK AREA

GENERAL NOTES

THIS DETAIL IS TYPICAL FOR CLOSING THE RIGHT SHOULDER. FOR CLOSING THE LEFT SHOULDER, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR DIVIDED ROADWAYS WITH ANY NUMBER OF TRAVEL LANES.

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

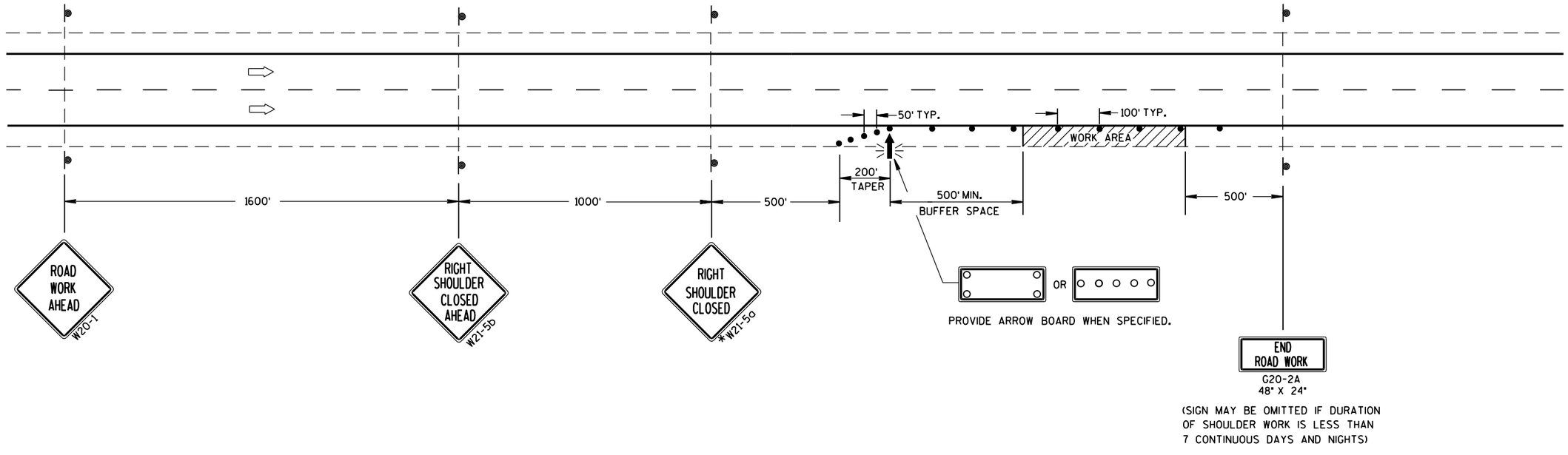
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

*FOR SHORT DURATION SHOULDER WORK OF LESS THAN ONE HOUR, THE W21-5a SIGN MAY BE OMITTED.



TRAFFIC CONTROL SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/2013 — DATE

/S/ Travis Feltes — STATE TRAFFIC ENGINEER

FHWA

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S.D.D. 15 D 27-2

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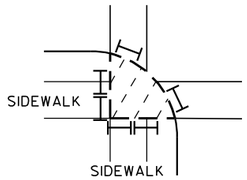
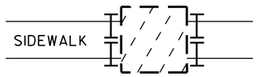
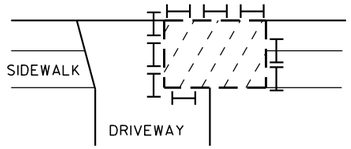
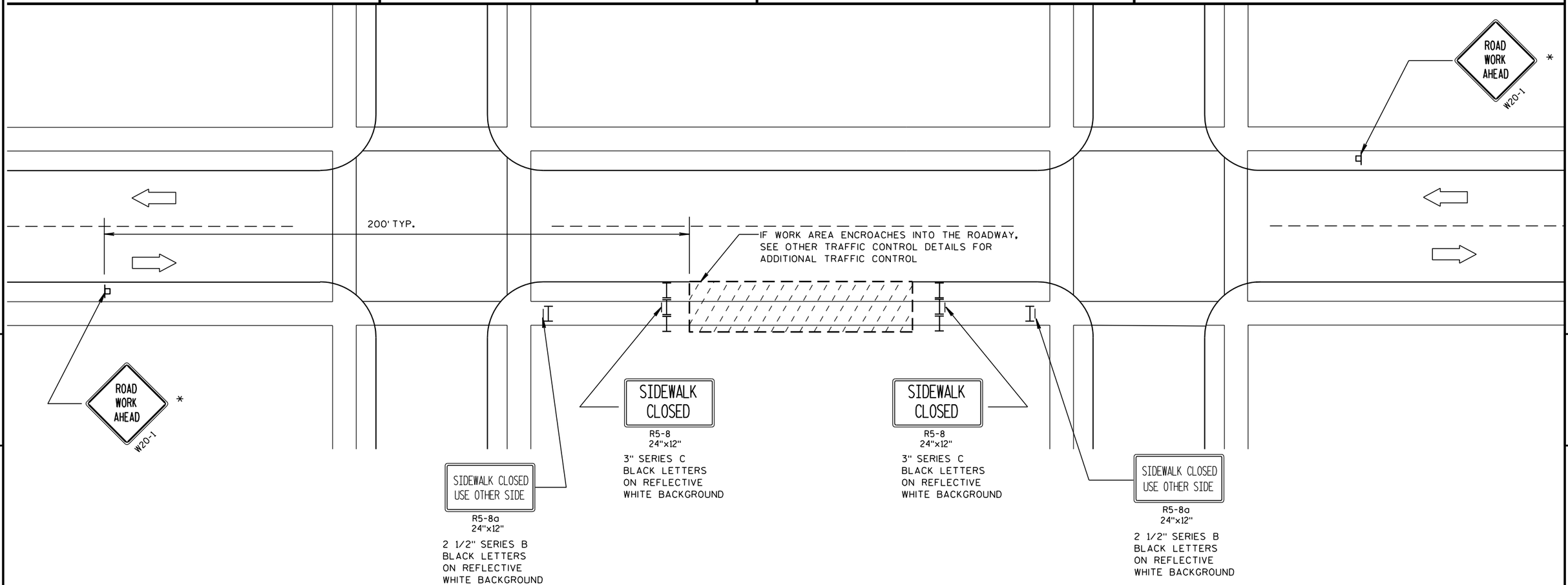
S.D.D. 15 D 27-2

WARNING OF LOCALIZED SIDEWALK WORK AREAS









LEGEND

- POST MOUNTED SIGN
- TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)
- WORK AREA
- DIRECTION OF TRAFFIC FLOW

GENERAL NOTES :

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"x36" SIGNS MAY BE USED INSTEAD OF 48"x48" SIGNS, IF APPROVED BY DISTRICT TRAFFIC UNIT.

THE EXACT LOCATION AND PLACEMENT OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

* "ROAD WORK AHEAD" SIGNS ARE NOT REQUIRED IF THE SIDEWALK CLOSURE OCCURS WITHIN A LARGER WORK ZONE WHERE ADVANCE WARNING SIGNS ARE ALREADY PRESENT, OR IF THE WORK AREA AND EQUIPMENT ARE MORE THAN 2 FEET BEHIND THE CURB.

WARNING SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

TRAFFIC CONTROL, SIDEWALK CLOSURE

TRAFFIC CONTROL, SIDEWALK CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5/23/2000 DATE

/S/ Chester J. [illegible] CHIEF SIGNS AND MARK 849 NEER

FHWA

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S.D.D. 15 D 30-1

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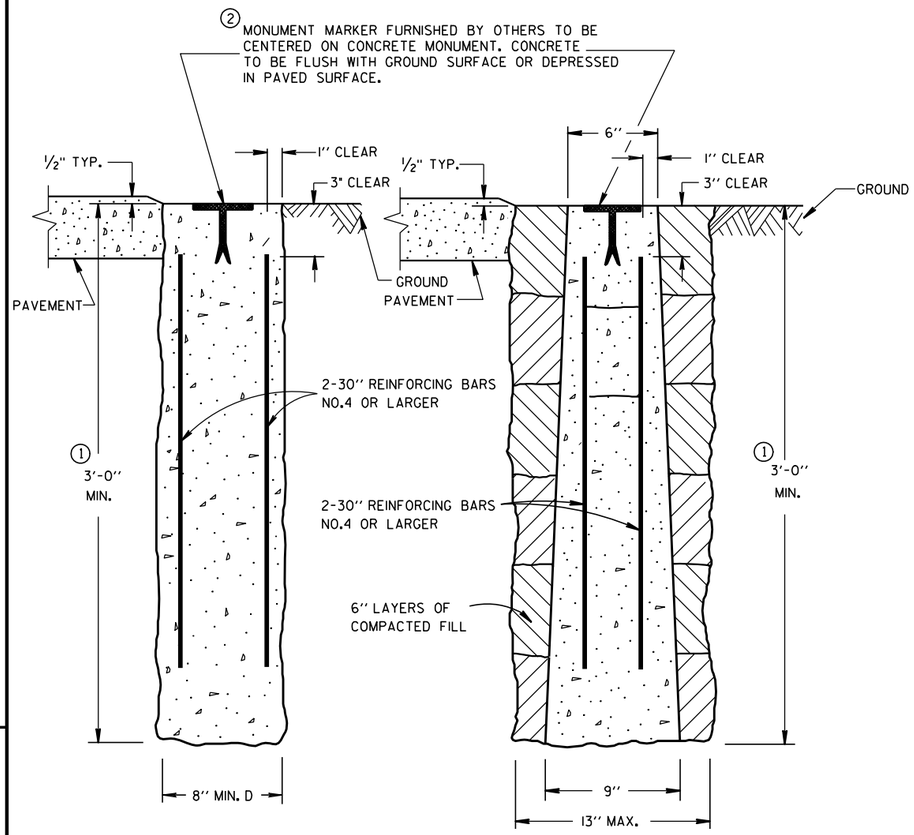
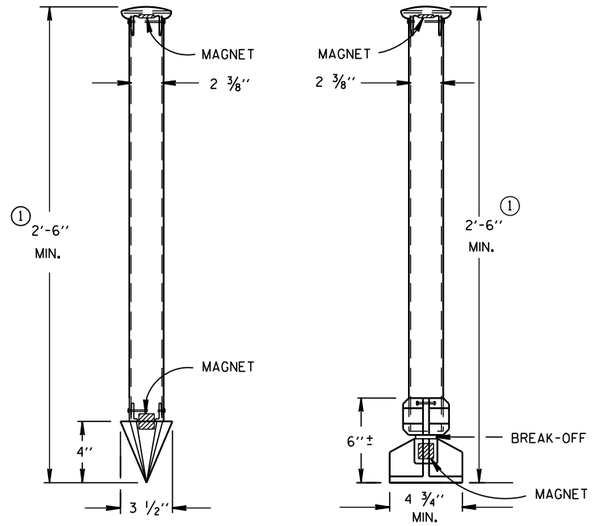
S.D.D. 15 D 30-1



CAST-IN-PLACE PRECAST

CONCRETE MONUMENTS

TYPE A



TYPE C DRIVE-IN MONUMENT

TYPE D BREAK-OFF MONUMENT

ALUMINUM MONUMENTS

(INCLUDES MARKER)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETAILED DRAWINGS OF PROPOSED ALTERNATE DESIGNS FOR METAL MONUMENTS OR MONUMENT COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

INSTALLED METAL MONUMENTS MUST BE EASILY DETECTED WITH A DIP NEEDLE. INSERT PERMANENT MAGNETS SHALL BE ATTACHED NEAR THE TOP AND BOTTOM OF THOSE MONUMENTS CONSTRUCTED OF A METAL ALLOY WHICH IS NOT ATTRACTIVE TO A DIP NEEDLE.

THE CAST IRON MONUMENT COVER SHALL BE A "NON-ROCKING" TYPE. ADJUSTMENT OF THE COVER TO GRADE MAY BE ACCOMPLISHED BY THE USE OF MORTAR AND BRICK, OR BY EITHER PRECAST OR CAST-IN-PLACE REINFORCED CONCRETE GRADE RINGS.

MONUMENTS SHALL BE LOCATED AND PLACED AT THE DIRECTION OF THE ENGINEER.

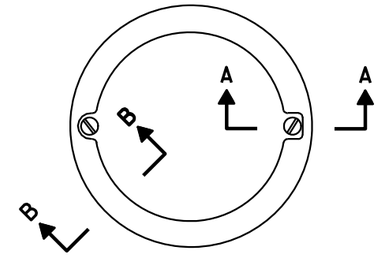
ALUMINUM MONUMENTS AND MONUMENT COVERS SHALL BE MADE FROM AN ALUMINUM AND MAGNESIUM ALLOY AS DETERMINED BY THE MANUFACTURER.

THE MONUMENT COVERS DETAILED ON THIS DRAWING ARE NOT EQUAL ALTERNATES. MONUMENT COVERS SHALL BE CAST IRON UNLESS ALUMINUM IS SPECIFIED ELSEWHERE IN THE CONTRACT.

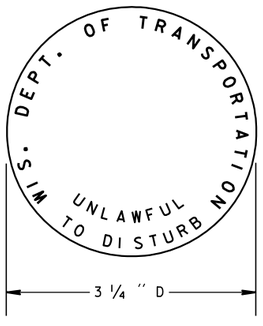
MONUMENT SHALL BE CAST-IN-PLACE CONCRETE UNLESS PRECAST CONCRETE OR ALUMINUM MONUMENTS ARE SPECIFIED IN THE CONTRACT OR PERMITTED BY THE ENGINEER.

① MINIMUM LENGTH SHALL BE 4'-0" FOR MONUMENTS INSTALLED IN PAVED AREAS.

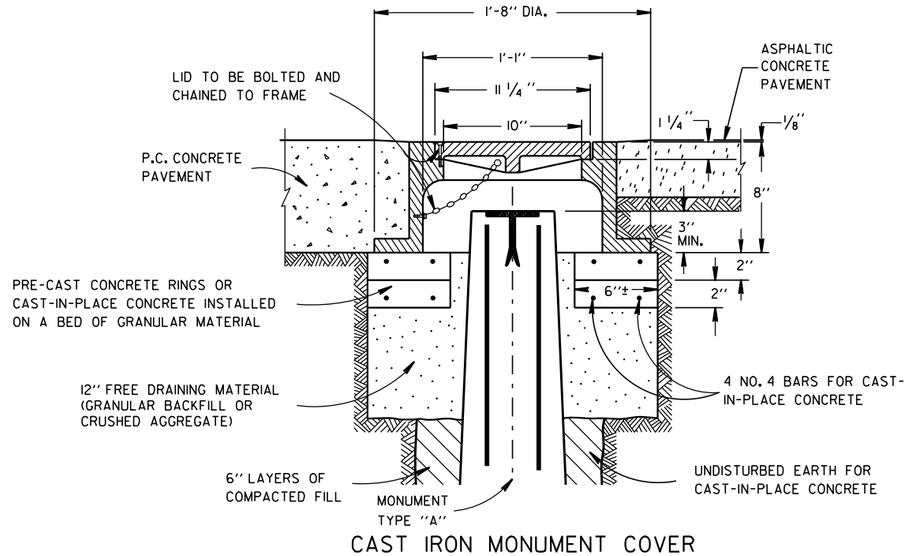
② AN OFFICIAL COUNTY MONUMENT MARKER SUPPLIED BY A COUNTY MAY BE REQUIRED FOR SOME SECTION CORNERS AND WITNESS MONUMENTS INSTEAD OF THIS WIS DOT MARKER.



TOP VIEW

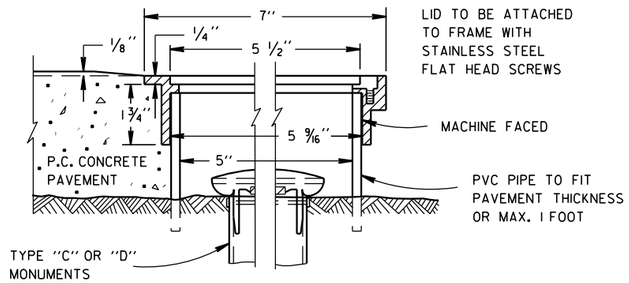


② WIS DOT MONUMENT MARKER LOGO FOR TYPES "A", "C" & "D"



CAST IRON MONUMENT COVER

(APPROXIMATE WEIGHT - 95 LBS.)



SECTION B-B SECTION A-A

ALUMINUM MONUMENT COVER

(APPROXIMATE WEIGHT 2 LBS)

(FOR CONCRETE PAVEMENT ONLY)

LANDMARK REFERENCE MOUNMENTS AND COVERS

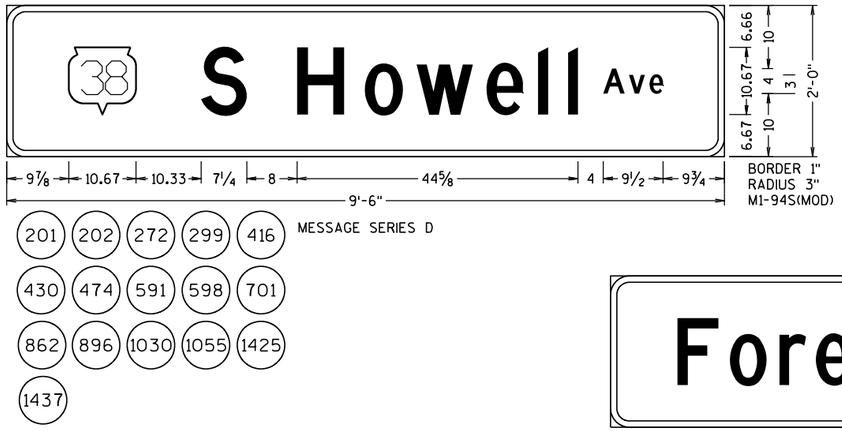
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

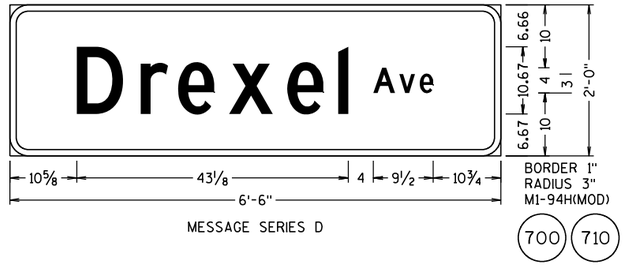
APPROVED

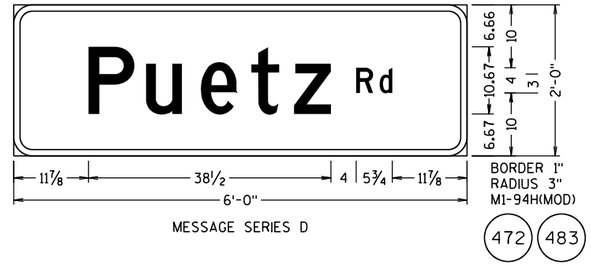
9/22/1999 DATE

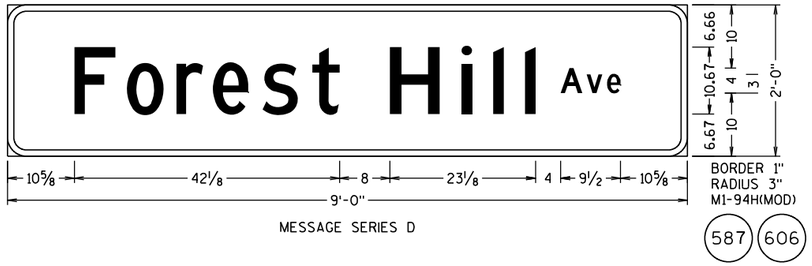
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER

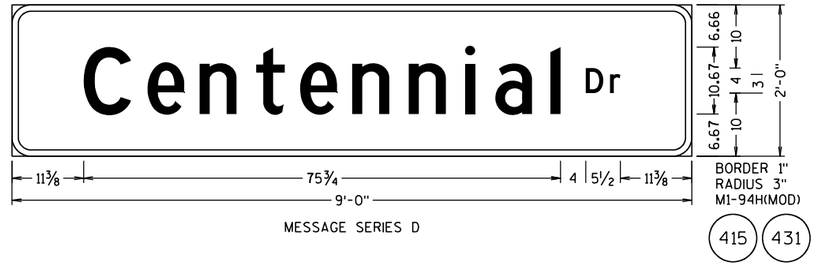
FHWA

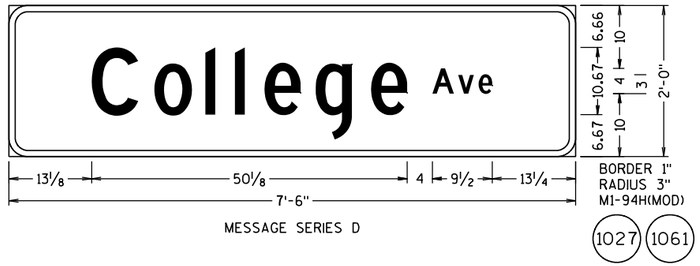


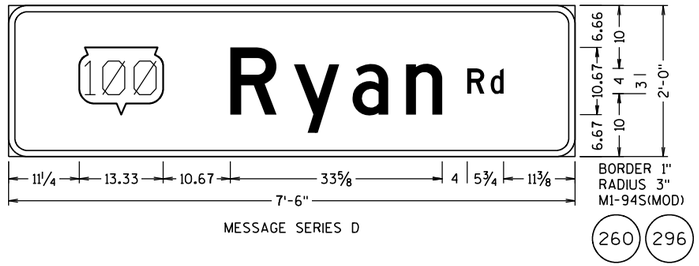


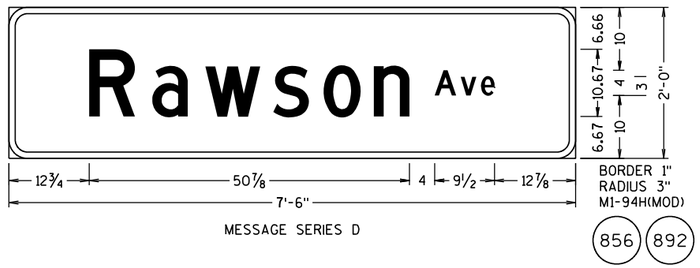


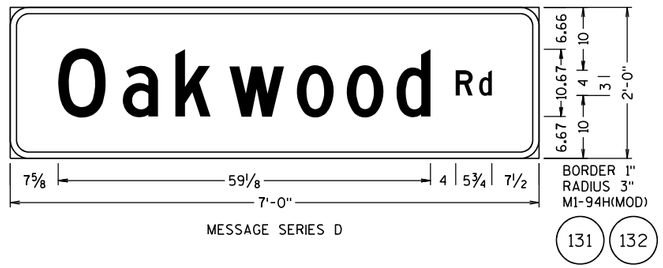


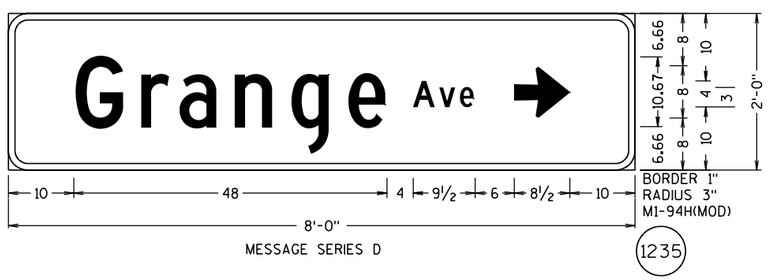


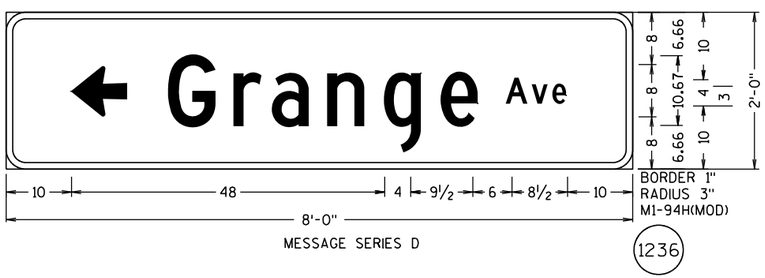












GENERAL NOTES:

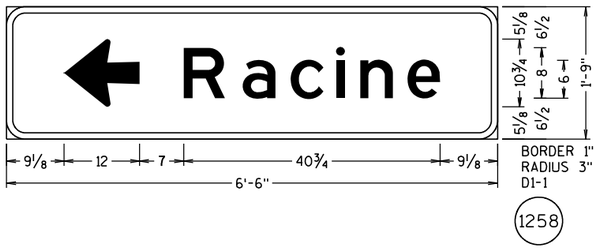
1. DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE PLANS.
2. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET ARE "SIGNS, TYPE II".
3. UNLESS OTHERWISE NOTED, TYPE II SIGNS ON THIS SHEET SHALL HAVE "TYPE H REFLECTIVE SHEETING" AND, "TYPE H MESSAGE MATERIAL". TYPE I SIGNS SHALL HAVE TYPE SH REFLECTIVE SHEETING.
4. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET SHALL HAVE A GREEN BACKGROUND AND WHITE MESSAGE.
5. TYPE II SIGNS ALL UPPER CASE MESSAGE (EXCEPT ON SHIELDS OR WHERE OTHERWISE NOTED) SHALL BE "SERIES E. ALL LOWER CASE MESSAGE WITH AN INITIAL UPPER CASE LETTER SHALL BE "SERIES E.
6. TYPE I SIGNS - ALL UPPER CASE MESSAGE (EXCEPT ON SHIELDS OR WHERE OTHERWISE NOTED) SHALL BE SERIES "E" MODIFIED. ALL LOWER CASE MESSAGE WITH AN INITIAL UPPER CASE LETTER SHALL BE SERIES "E" MODIFIED. ALL CAP WORDS ARE "SERIES E"
7. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET SHALL HAVE "TYPE A" OR "TYPE C" ARROWS AS SHOWN. SEE THE STANDARD SIGN PLATES FOR FURTHER DETAILS.
8. SEE THE STANDARD SIGN PLATES FOR FURTHER DETAILS ON ROUTE MARKER SHIELDS.
9. THE SIGN NUMBER IS DENOTED IN THE CIRCLE NEAR EACH DETAIL.
10. NUMBER FRACTIONS FOR INTERCHANGE SEQUENCE SIGNS SHALL BE SERIES "E" PER PLATES A11-7 AND A11-10
11. DO NOT SCALE.

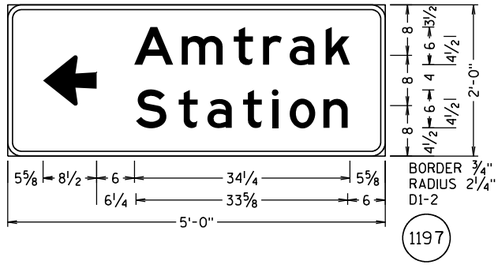
7

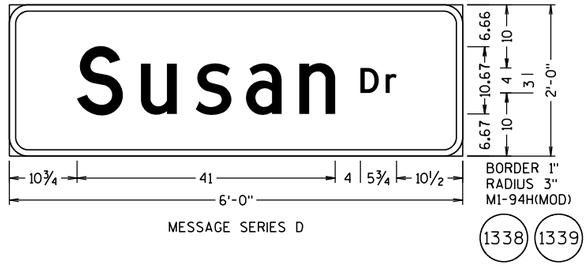
7

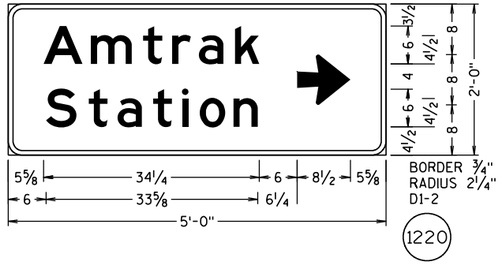
PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	SIGNING DETAIL - TYPE II SIGNS	SCALE: 0 ½" 1"	SHEET	E

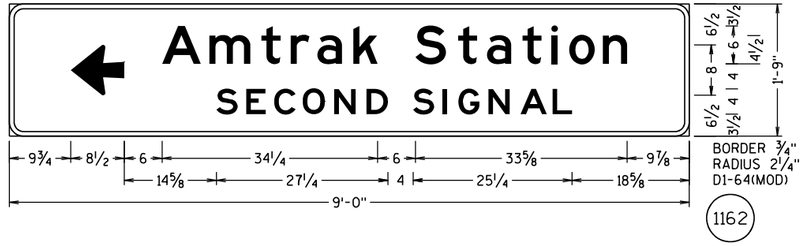
SHEET 1 OF 3











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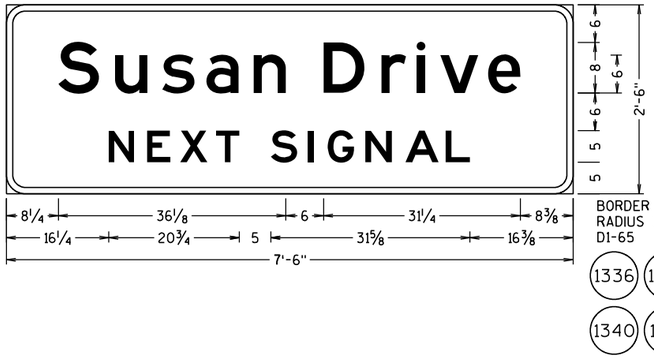
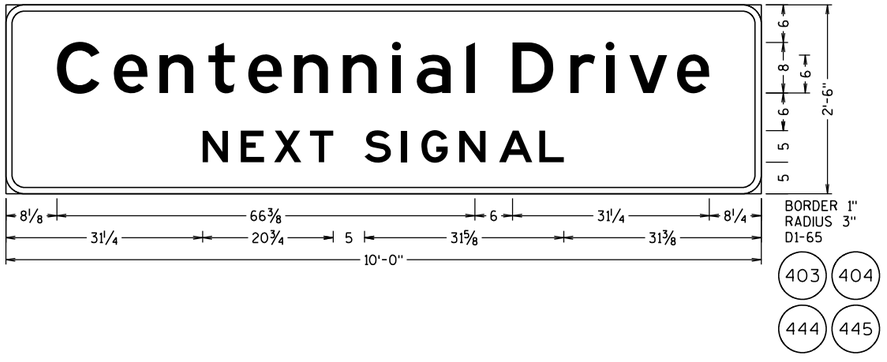
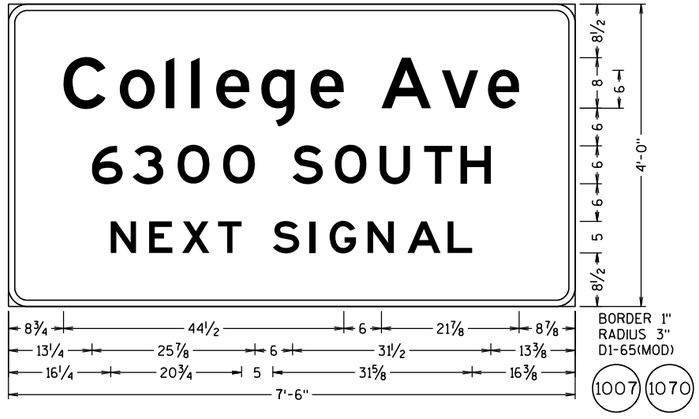
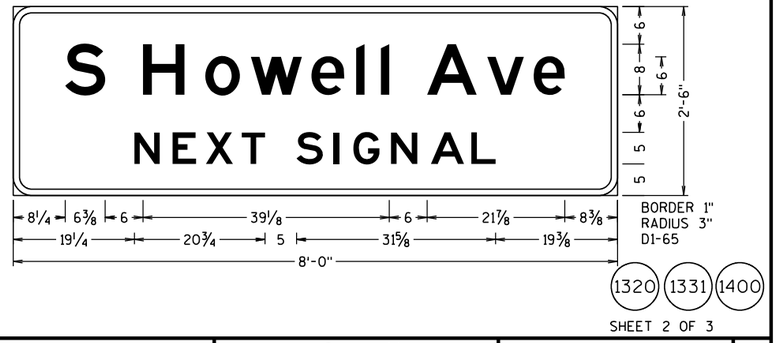
11. DO NOT SCALE.



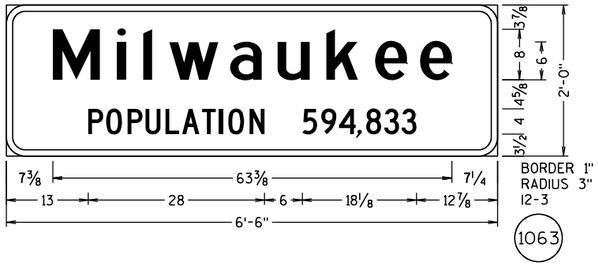


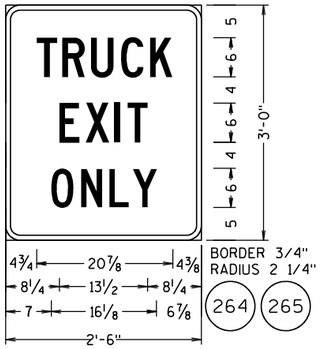


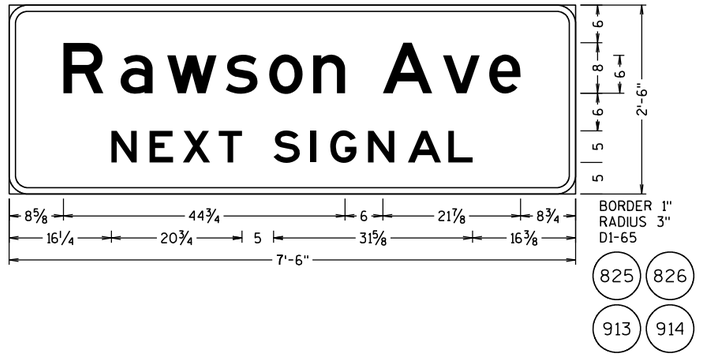


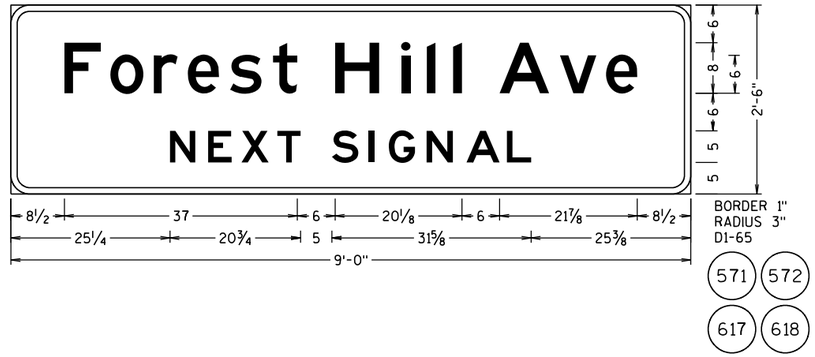
SHEET 2 OF 3

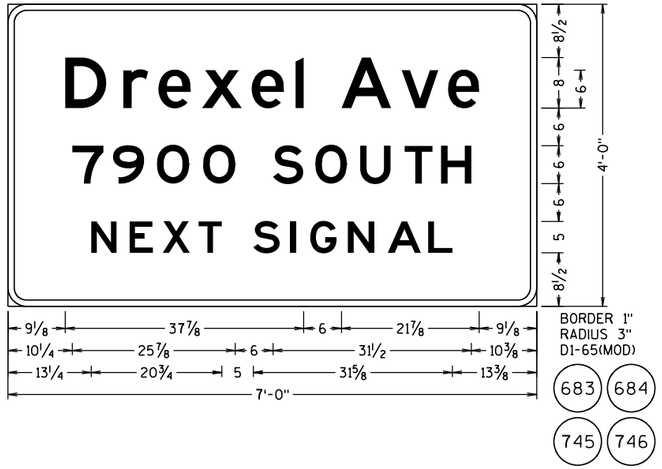
PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	SIGNING DETAIL - TYPE II SIGNS	SCALE: 0 ½" 1"	SHEET E

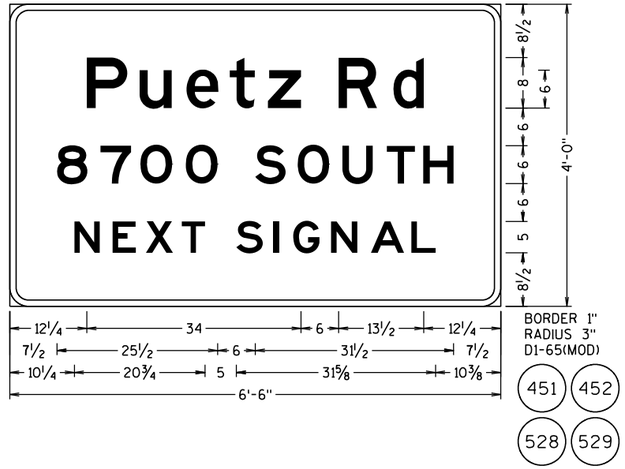


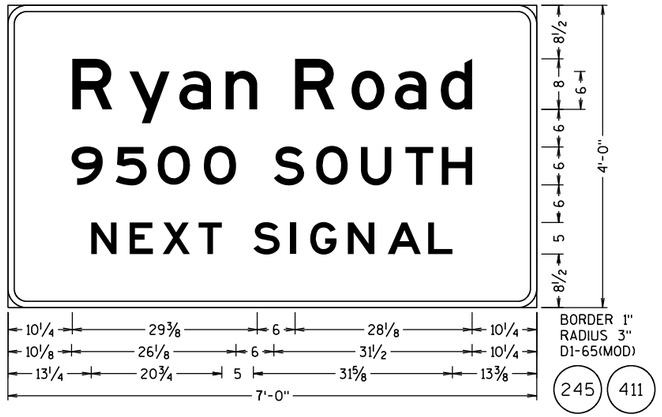


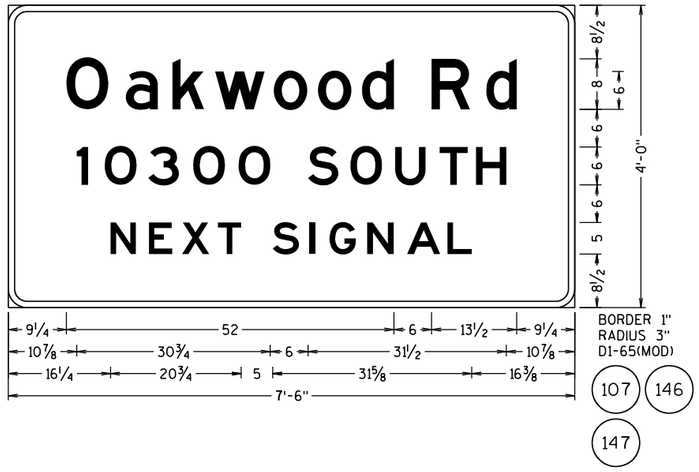












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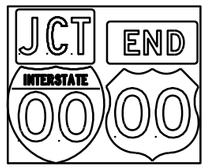
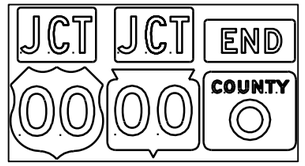
11. DO NOT SCALE.

TYPICAL ASSEMBLIES

J1-1

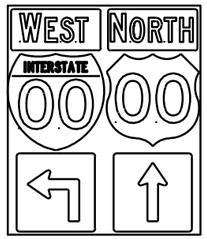


J1-2

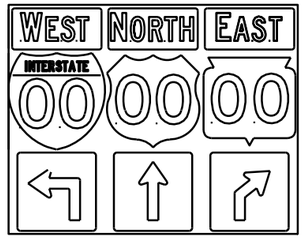


J1-3

J2-1



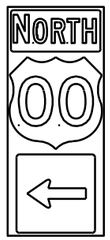
J2-2



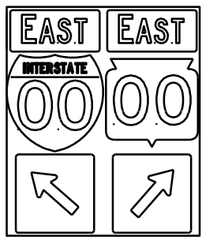
J2-3

JV

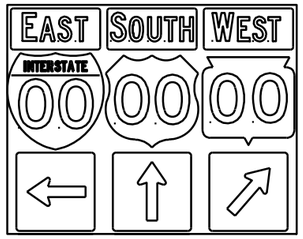
(Typical Vertical J-Assembly
See Note 10 and 11)



J3-1

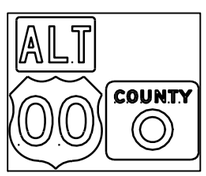


J3-2

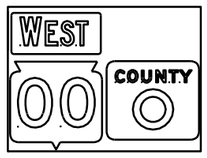


J3-3

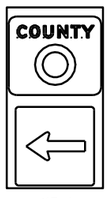
J4-1



J4-2



J4-2



J13-1

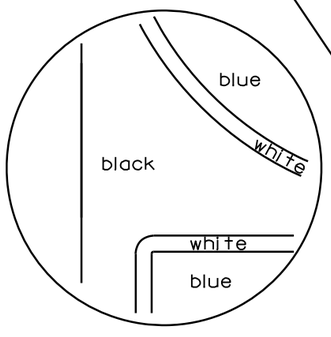
J12-1

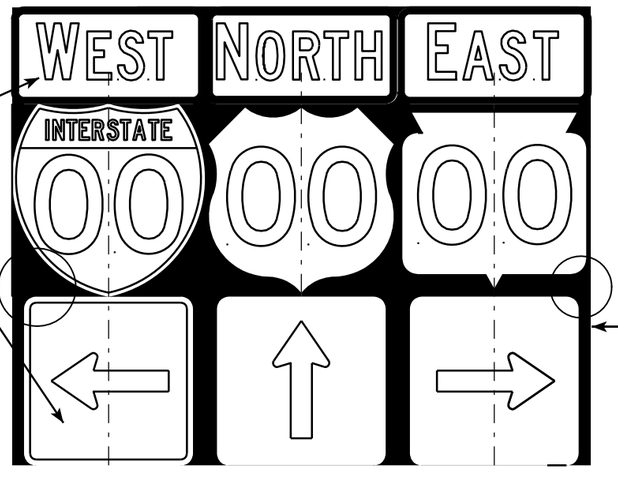
J32-1

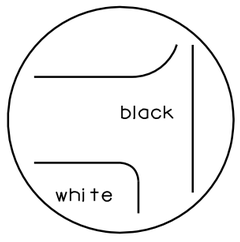
J33-1

J23-1

J22-1







[black background]

NOTES

1. Signs are Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Black Non-reflective
   Message - see Note 5
3. Message Series - See Note 5
4. Corners shall be square or rounded if base material is plywood. If base material is metal the corners shall be rounded.
5. The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
6. Certain marker heads require the component pieces to be the same color. As an example, all the components used with an M1-1 interstate marker shall be blue.
7. Single panel j-assemblies shall only be used with route marker shields that are same size. If the route marker shields are different size use multiple piece component.
8. Route assemblies that have 24 inch route shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have one horizontal splice between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 inches or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
9. Route assemblies that have 36 inch shields and have dimensions greater than 48 inchs (both vertical and horizontal) shall have two horizontal splices. One horizontal splice shall be between the cardinal direction and route shields and the other horizontal splice shall be between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
10. All Vertical J Assemblies are given a Sign Code of JV
11. For JV Assemblies that have a mixture of interstate and non interstate shields, arrows and cardinals shall be white on blue.

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

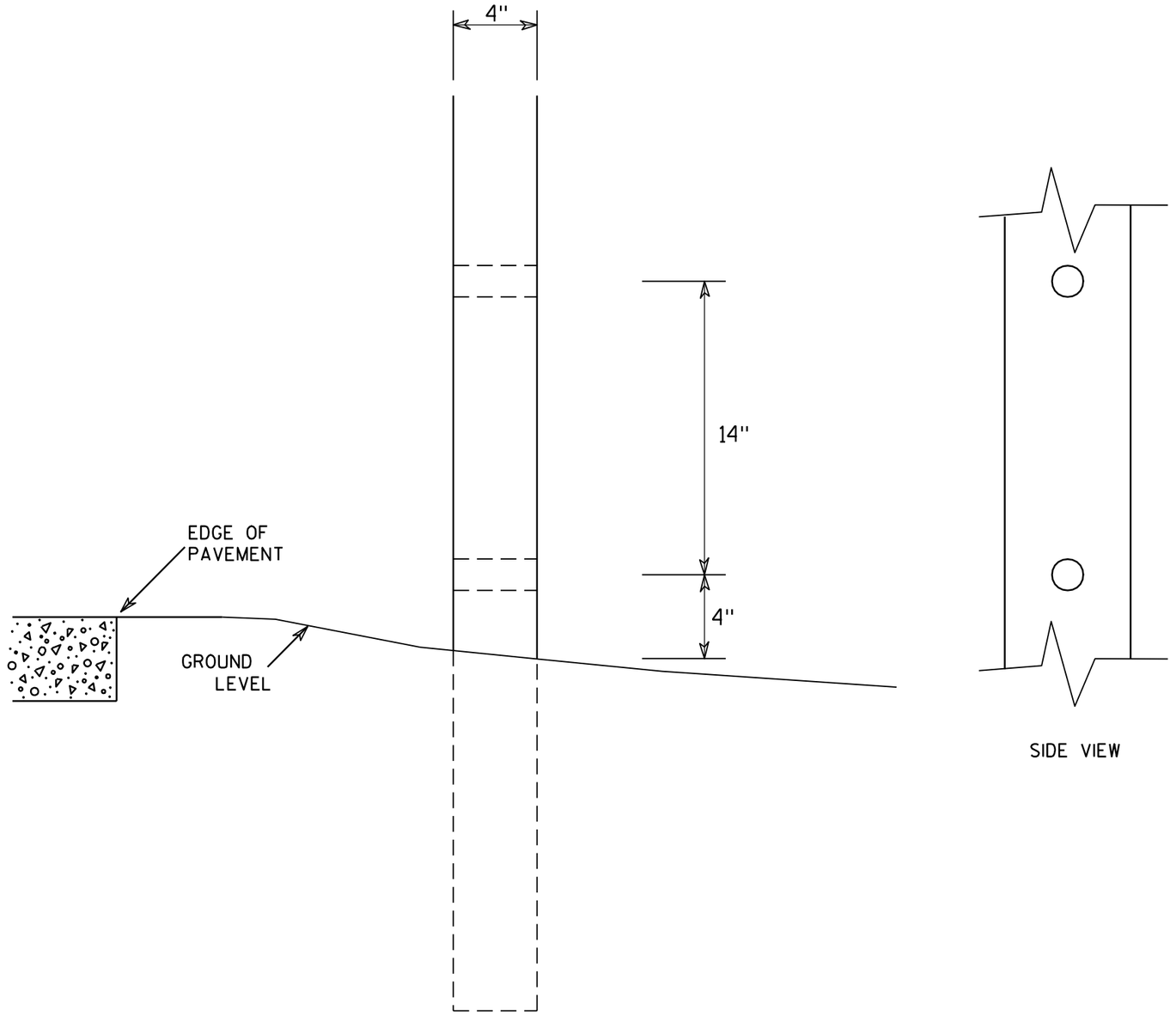
DATE 3/25/13 PLATE NO. A2-1S.7

7

7

PROJECT NO:

SHEET NO: 854 E



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

4 X 6 WOOD POST MODIFICATIONS

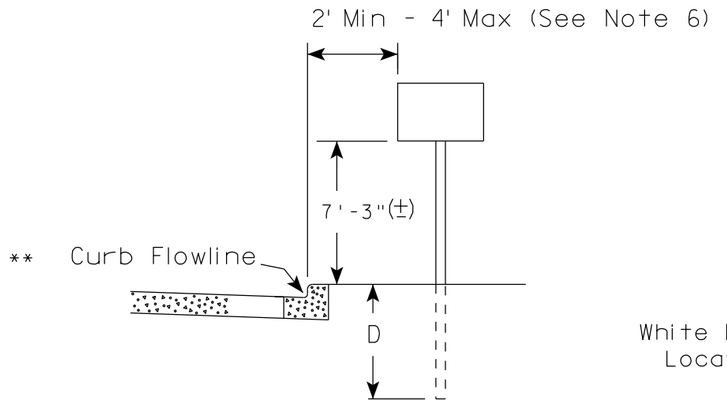
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

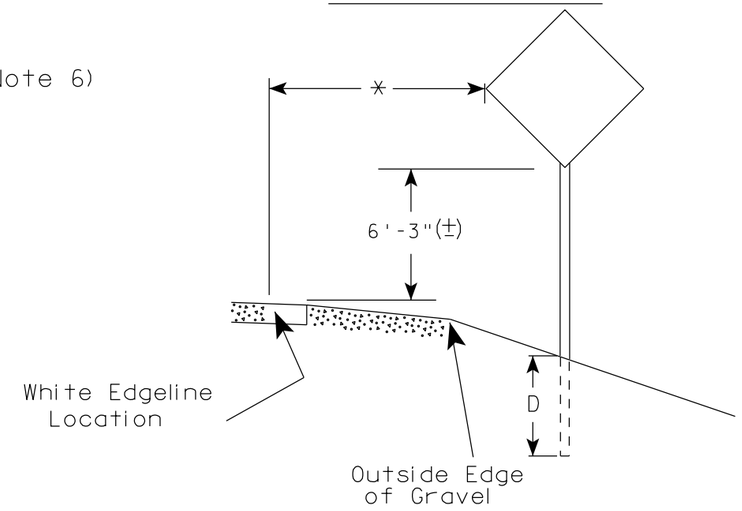
DATE 3/27/97 PLATE NO. A4-11.2

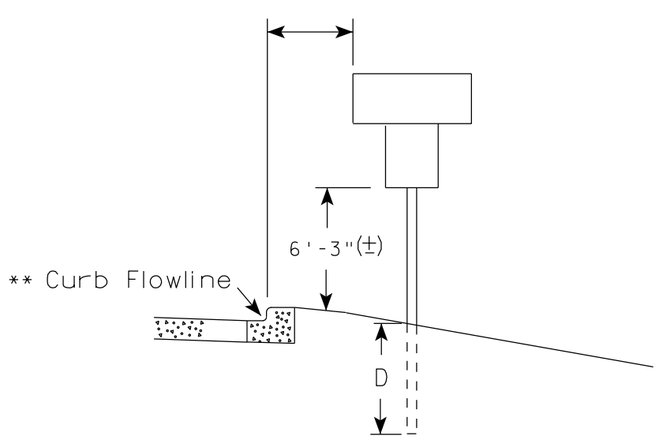
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 855	E

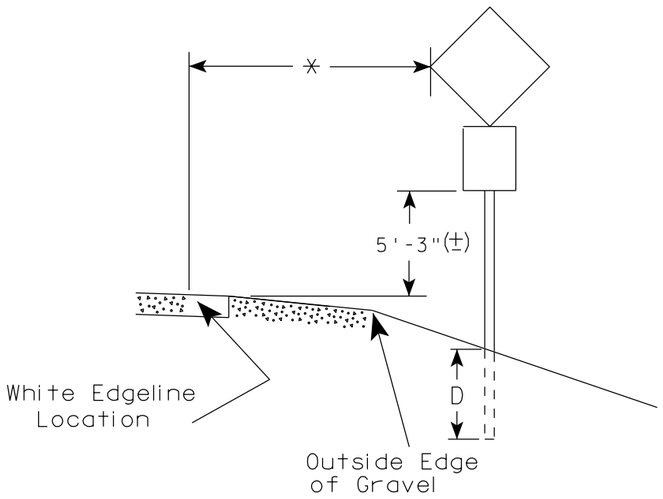
URBAN AREA



RURAL AREA (See Note 2)







** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

GENERAL NOTES

1. Signs wider than 4 feet, 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for J assemblies (A4-5) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding stop signs (R1-1F) shall be mounted at a height of 5'-3" (±) or as directed by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series) & End of Rod Markers (W5-56 & W5-56A) shall be mounted at a height of 4'-3" (+).

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

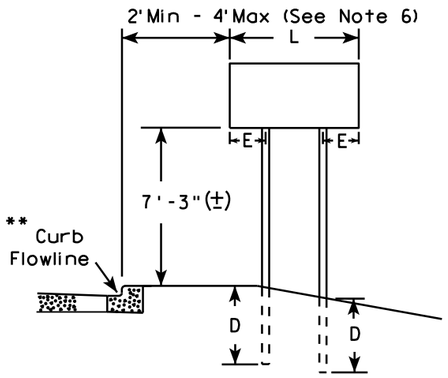
APPROVED Matthew R Rauch
for State Traffic Engineer

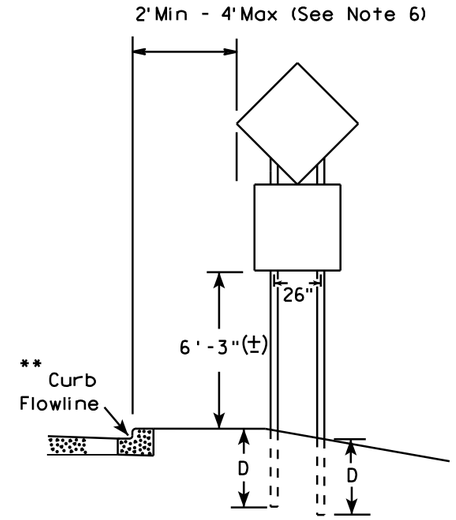
DATE 9/30/13 PLATE NO. A4-3.18

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

7

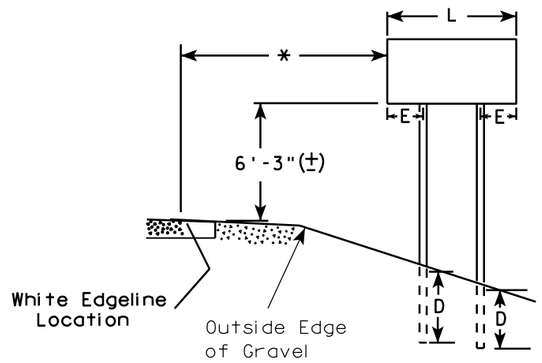
URBAN AREA

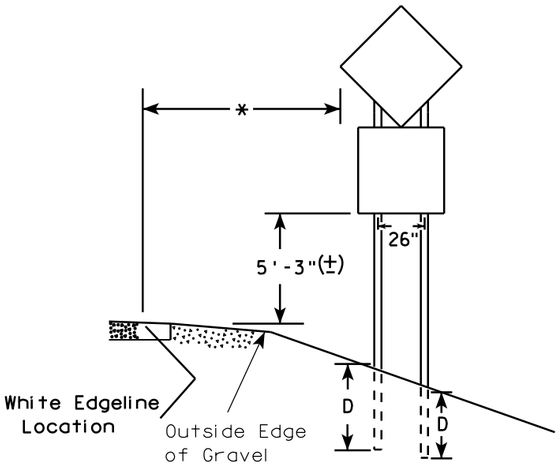




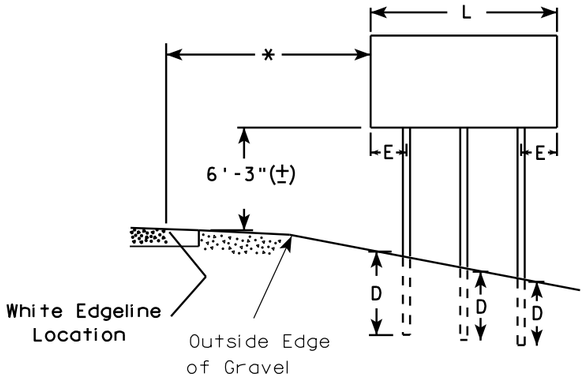
48" DIAMOND WARNING SIGN

RURAL AREA (See Note 3)





48" DIAMOND WARNING SIGN



GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. Minimum mounting height for J assemblies (A4-5) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding stop signs (R1-1F) shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series) & End of Road Markers (W5-56 & W5-56A) shall be mounted at a height of 4"-3" (±).

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

*** See A4-3 sign plate for signs 4' or less in width or 20 S.F. or less in area.

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
Greater than 48" Less than 60"	12"
60" to 120"	L/5

***

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 120" less than 168"	12"

SIGN SHAPE OTHER THAN DIAMOND (FOUR POSTS REQUIRED)	
L	E
168" and greater	12"

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/30/13 PLATE NO. A4-4 12
857

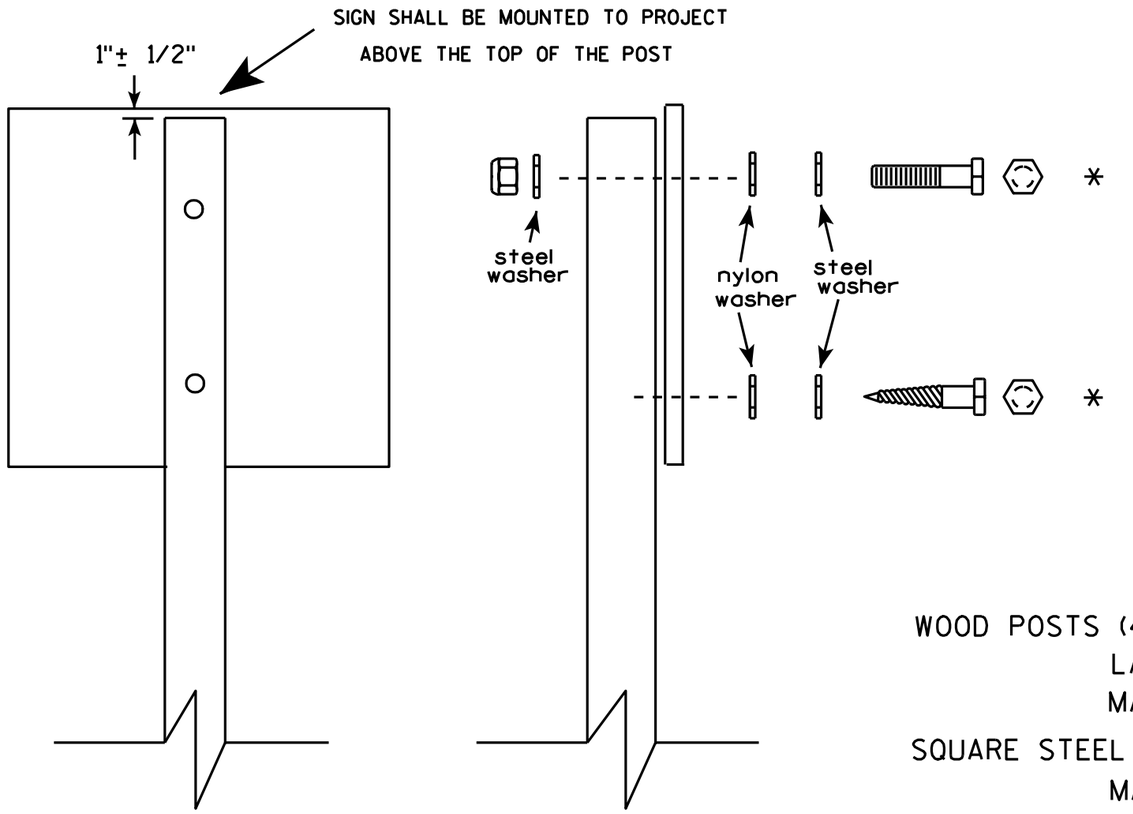
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A44.DGN PLOT DATE : 30-SEP-2013 13:27 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 107.021305:1.000000

WISDOT/CADDS SHEET 42

7

7



Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3

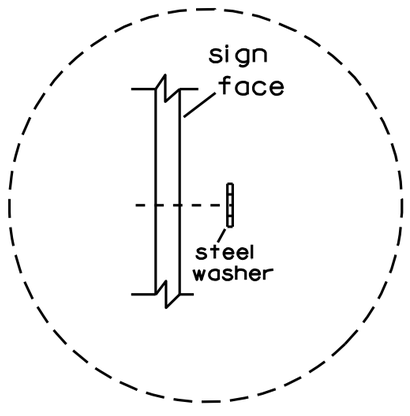
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

WOOD POSTS (4" x 4" or 4" x 6")
LAG SCREWS - 3/8" X 3"
MACHINE BOLTS - 5/16" X 6-1/2" or 7" Length w/ nuts

SQUARE STEEL POSTS (2" x 2")
MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts
RIVETS - 9/32 " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON for all Type H signs.



Washer Placement when Sign Has Other Than Type H or Type F Face

* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require the use of 3 fasteners.

ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

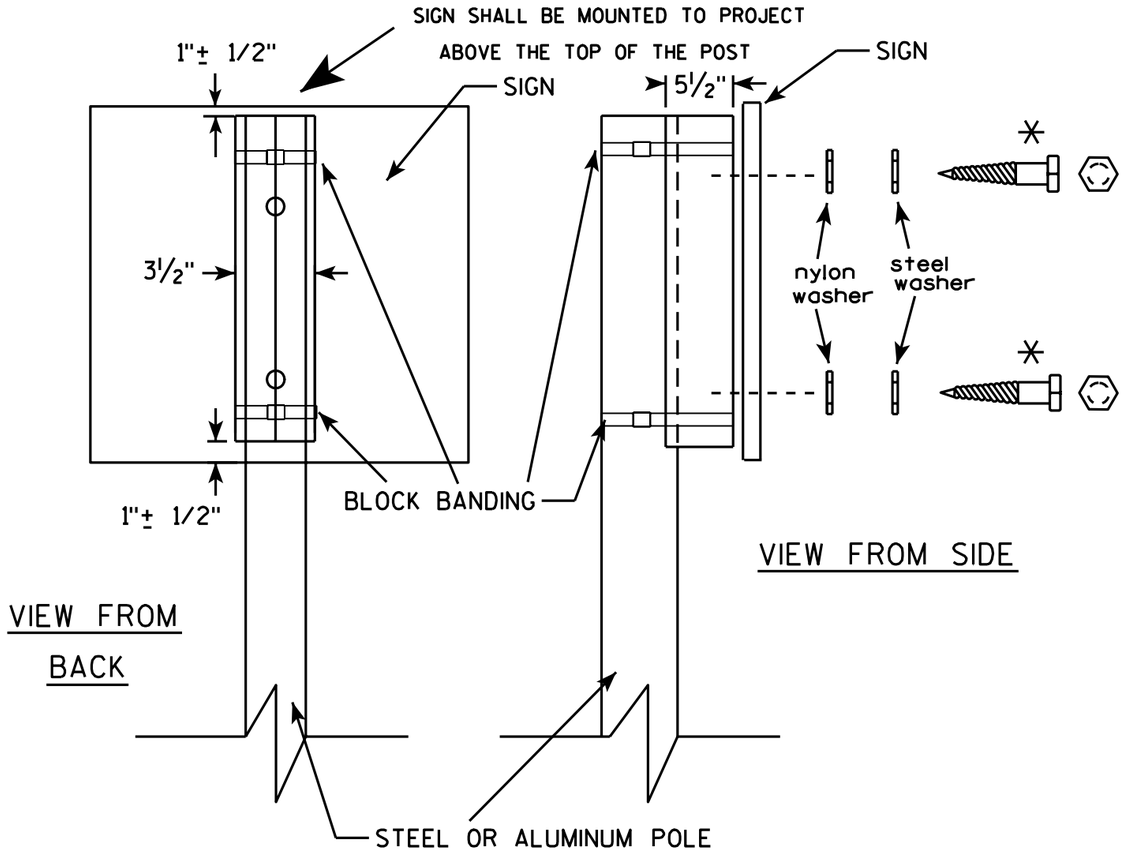
DATE 3/23/10 PLATE NO. A4-8.7

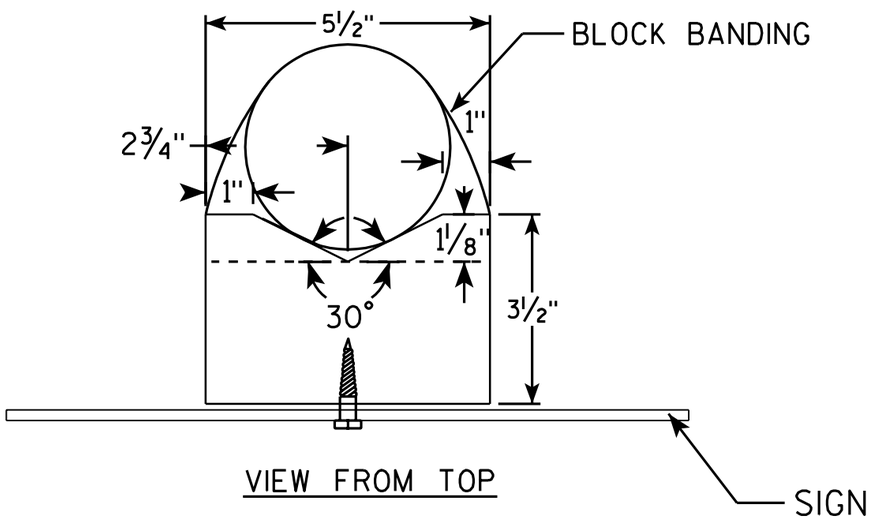
7

7

PROJECT NO:

SHEET NO: 858 E





GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, ¾" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORNALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D, or
   b. Cadmium plated in accordance with ASTM Designation : B 766 TYPE 3, Class 12, or
   c. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

BLOCK BANDING DETAIL (V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/12/07 PLATE NO. A5-10.1

PROJECT NO: | SHEET NO: 859 | E

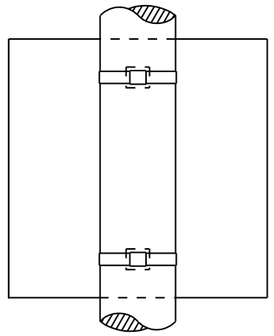
FILE NAME : C:\Users\Projects\tr_stdplate\A510.dgn PLOT DATE : 06-AUG-2007 13:37 PLOT BY : ditjph

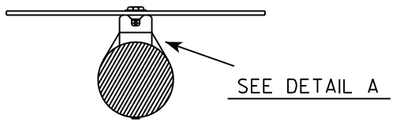
WISDOT/CADDS SHEET 42

7 7

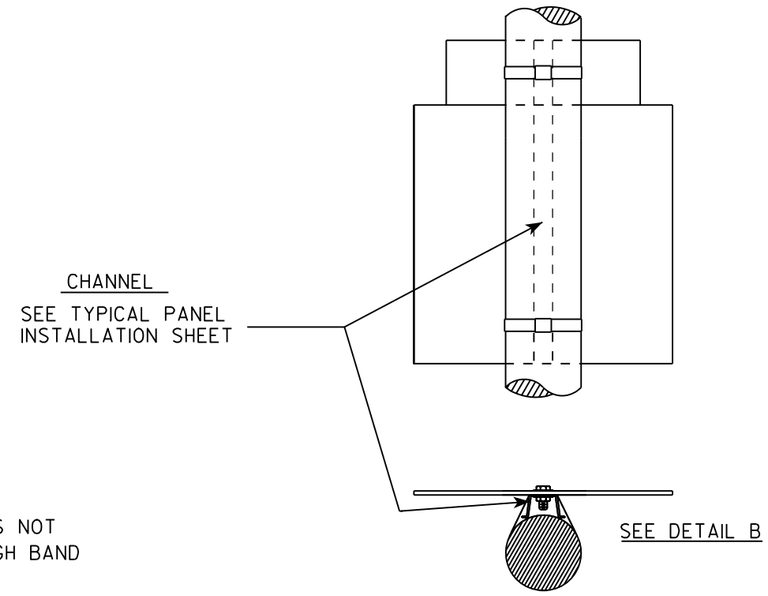
BANDING

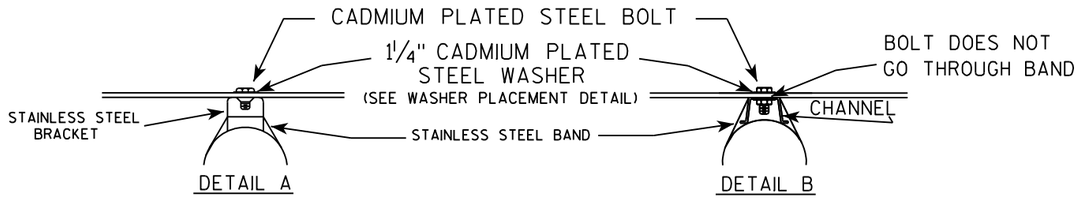
SINGLE SIGN



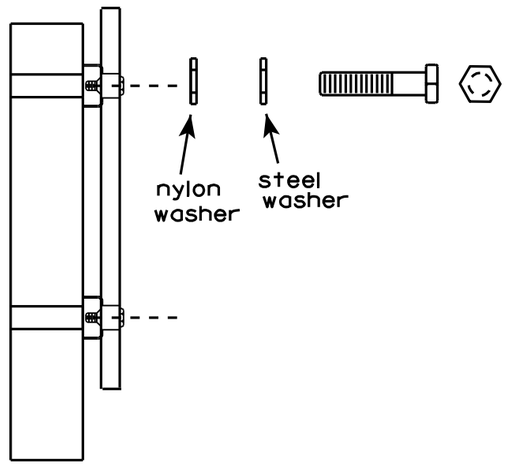


"J" ASSEMBLY





WASHER PLACEMENT



WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be 3/4" in width and 0.025" thickness.

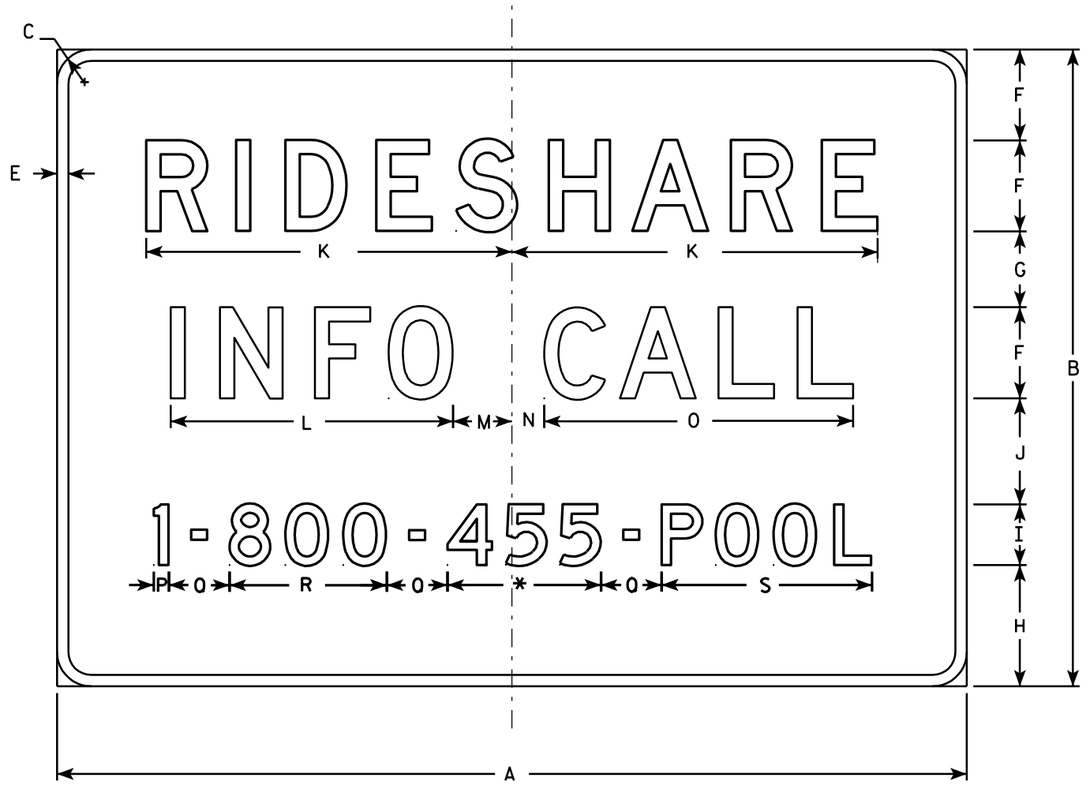
STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/16/13 PLATE NO. A5-9.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 860	E



D12-2A

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Blue
   Message - White - Type H Reflective
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and adjust spacing as required to achieve proper balance.

Metric equivalent for this sign is:

SIZE	
1	1200 mm X 525 mm
2	1500 mm X 1050 mm
3	
4	1500 mm X 1050 mm
5	1950 mm X 1350 mm

* Variable (See note 5)

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1	48	21	1 1/2		1/2	3	2 3/4	3 1/2	3	2 3/4	12 1/8	9 3/8	2	1 1/8	10 1/4	3/4	3	7 3/4	10 5/8								7.0	0.63
2	60	42	2 1/4		3/4	6	5	8	4	7	24 1/8	18 5/8	3 7/8	2 1/8	20 1/8	1	4	10 3/8	13 7/8								17.5	1.58
3																												
4	60	42	2 1/4		3/4	6	5	8	4	7	24 1/8	18 5/8	3 7/8	2 1/8	20 1/8	1	4	10 3/8	13 7/8								17.5	1.58
5	78	54	3		1	8	6	10	6	8	30 7/8	23 5/8	4 7/8	2 1/8	26 3/8	1 1/2	5	15 1/2	21 1/4								29.25	2.63

STANDARD SIGN
D12-2A

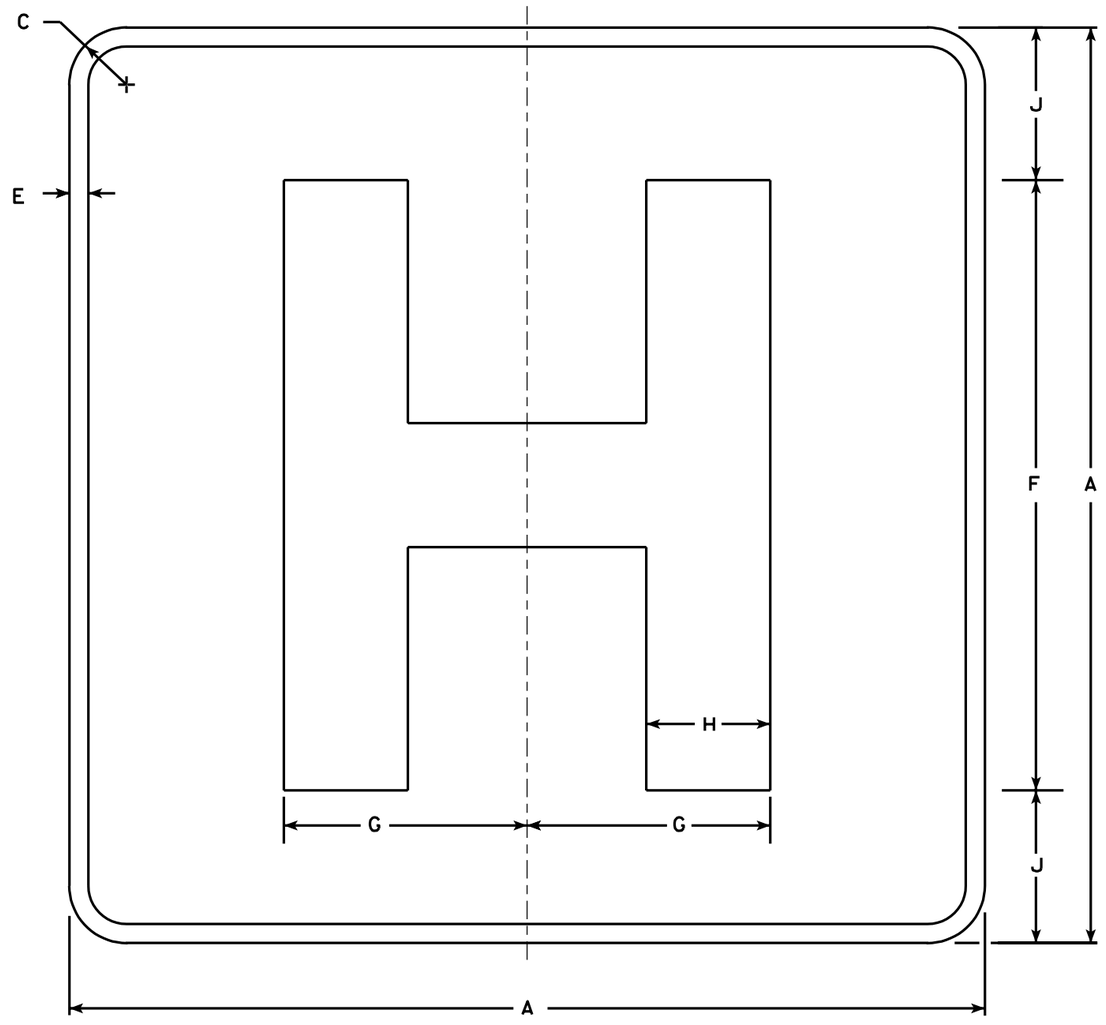
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spay for State Traffic Engineer

DATE 1/16/02 PLATE NO. D12-2A.3

PROJECT NO:

SHEET NO: 861 E



D9-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Blue
   Message - White - Type H Reflective
3. Message Series - E Modified
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

Metric equivalent for this sign is:

SIZE	
1	450 mmX 450 mm
2	600 mmX 600 mm
3	900 mmX 900 mm
4	X
5	X

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18		1 1/8		1/2	12	4 3/4	2 3/8		3																	4.0
2	24		1 1/2		1/2	16	6 3/8	3 1/4		4																	4.0
3	36		2 1/4		3/4	24	9 1/2	4 7/8		6																	9.0
4																											
5																											

STANDARD SIGN
D9-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spong
for State Traffic Engineer

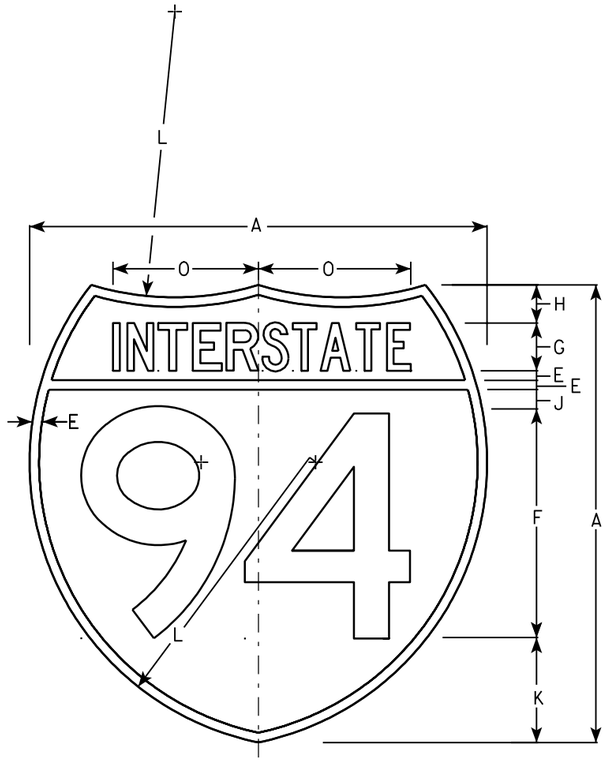
DATE 1/15/02 PLATE NO. D9-2.4

PROJECT NO:

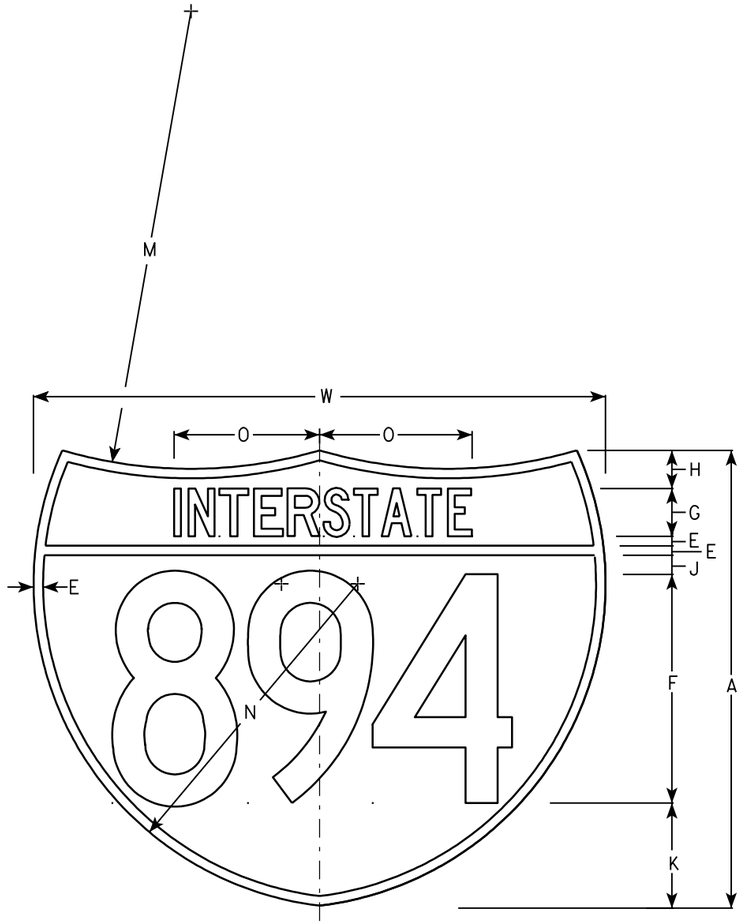
SHEET NO: 862 E

FILE NAME : C:\Users\Projects\tr_stdplate\D92.DGN PLOT DATE : 21-OCT-2005 10:28 PLOT BY : DOTSJA

WISDOT/CADDS SHEET 42



M1-1



M1-1A

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Top Red - Bottom Blue (See Note 6)
   Message - White - See Note 6
3. Message Series - See note 5
4. Substitute appropriate numerals & ajust spacing as per plate A10-1.
5. M1-1 - Numerals - D
   Interstate - C
   M1-1A - All copy - C
6. Permanent Signs
   Message - Type H Reflective
   Detour or other temporary signs
   Background - Reflective
   Message - Reflective

Metric equivalent for these signs are:

SIZE	M1-1	SIZE	M1-1A
1			
2	600 mm X 600 mm	2	600 mm X 750 mm
3	900 mm X 900 mm	3	900 mm X 1125 mm
4	900 mm X 900 mm	4	900 mm X 1125 mm
5	900 mm X 900 mm	5	900 mm X 1125 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	M1-1 Area sq. ft.	M1-1A Area sq. ft.	M1-1 Area m2	M1-1A Area m2
1																													
2	24				1/2	12	2 1/2	2		1	5 1/2	15	24	17	7 7/8								30			3.13	3.91	.36	.46
3	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
4	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
5	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05

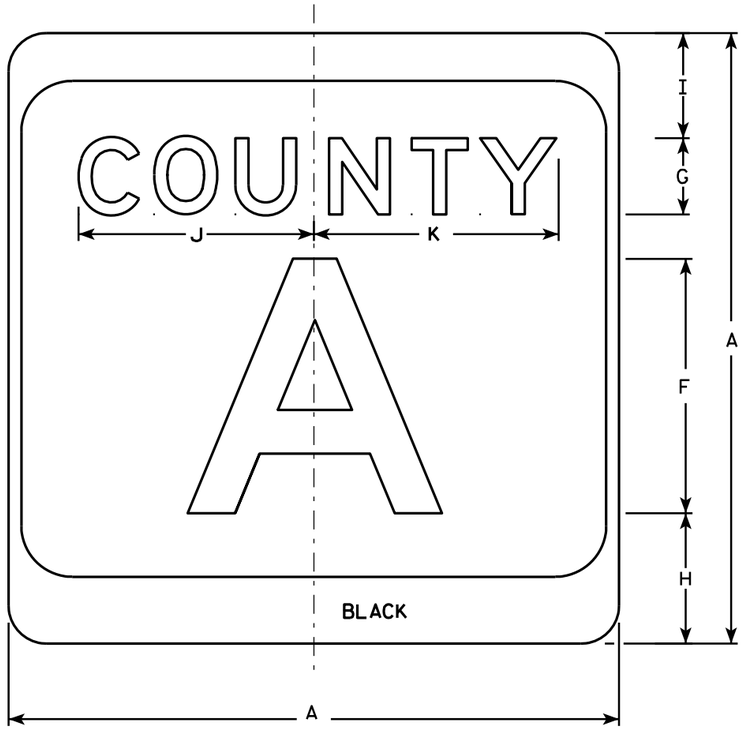
INTERSTATE ROUTE MARKER
M1-1 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

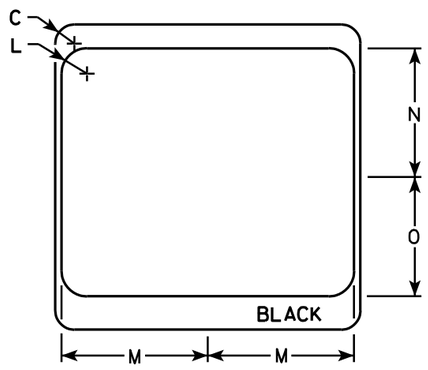
APPROVED Matthew R Rauch
for State Traffic Engineer

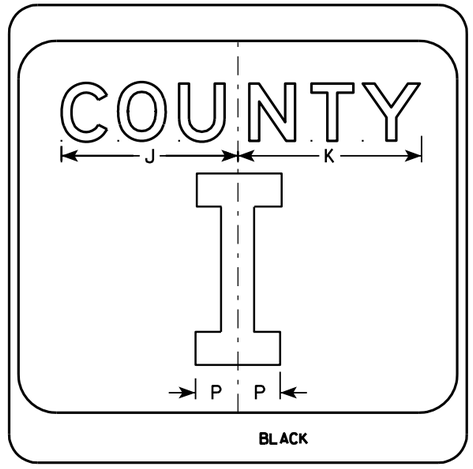
DATE 08/23/05 PLATE NO. M1-1.8

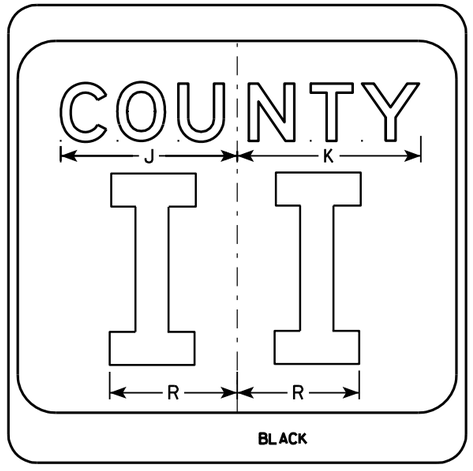
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 863	E



M1-5A







NOTES

1. Sign is Type II - see Note 7 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White & Black - See Note 7
   Message - Black
3. Message Series - see Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Message Series E for 1 letter.
   Message Series D for 2 letters unless message is too big then Series C.
   Message Series C for 3 letters unless message is too big then Series B.
6. Substitute appropriate letters & optically center to achieve proper balance.
7. Permanent Signs
   Background - Type H Reflective
   Detour or temporary Signs
   Background - Reflective

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24		1 1/2			10	3	5 1/8	4 1/8	9 1/4	9 5/8	2	11 1/2	10 1/8	9 3/8	2 1/4		6 5/8									4.0
3	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
4	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
5	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0

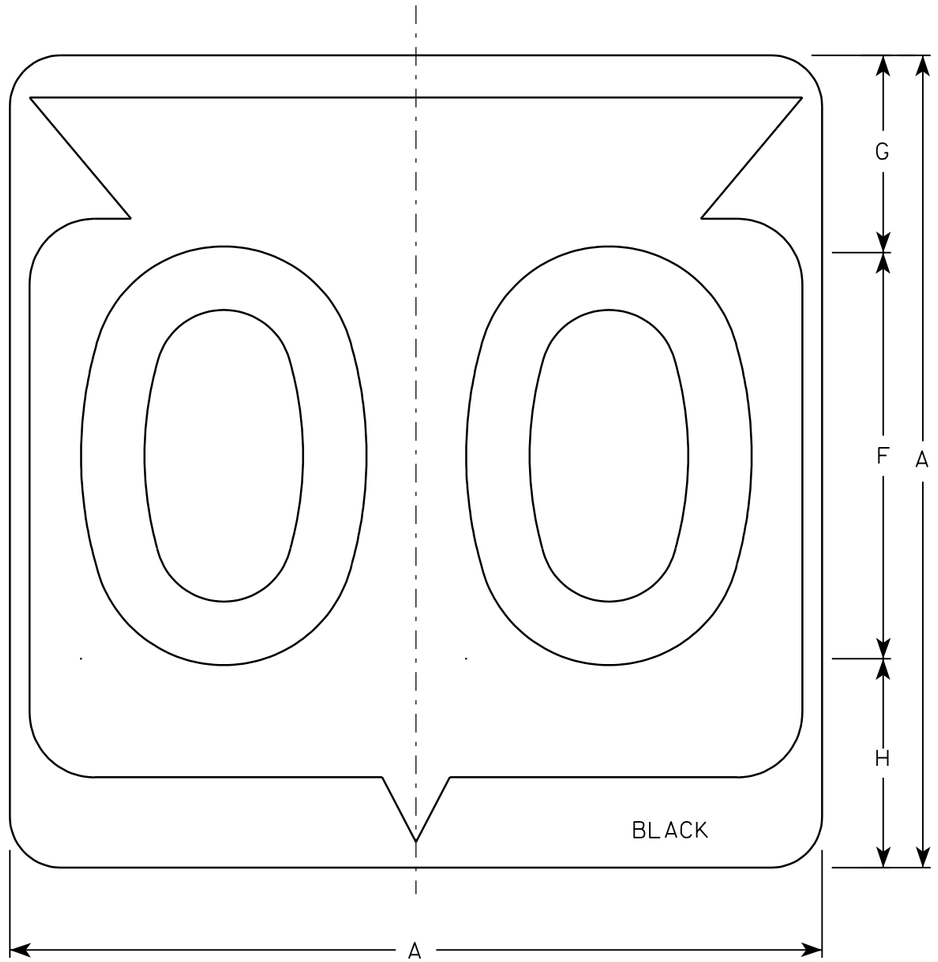
CTH MARKER
M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/27/11 PLATE NO. M1-5A.8

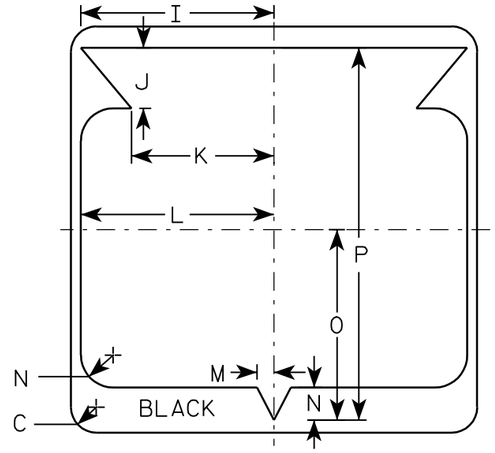
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 864	E



M1-6

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White & Black - See Note 6
   Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate Series numerals and adjust spacing as per plate A10-1.
6. Permanent Signs
   Background - Type H Reflective
   Detour or temporary Signs
   Background - Reflective



Metric equivalent for this sign is:

SIZE	
1	
2	600 mm X 600 mm
3	900 mm X 900 mm
4	900 mm X 900 mm
5	900 mm X 900 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0	.36
3	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
4	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
5	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81

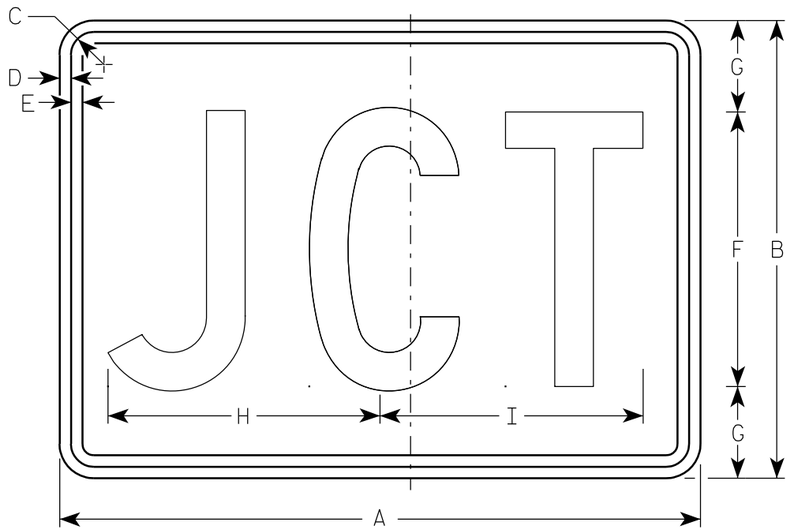
STATE ROUTE MARKER
M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

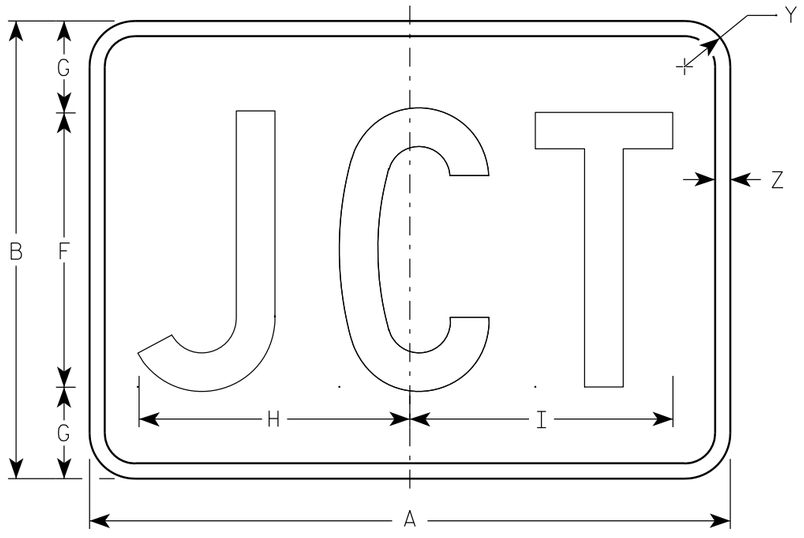
APPROVED Chester J Spang for State Traffic Engineer

DATE 3/20/02 PLATE NO. M1-6.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 865	E



M2-1
MK2-1
MM2-1
MR2-1



MB2-1
MG2-1
MN2-1

NOTES

1. Sign is Type II - See Note 5 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M2-1 Background - White - Type H Reflective
   (Detour or temporary Signs - Reflective)
   Message - Black
   MB2-1 Background - Blue
   Message - White - Type H Reflective
   (Detour or temporary Signs - Reflective)
   MG2-1 Background - Green
   Message - White - Type H Reflective
   MK2-1 Background - Green
   Message - White - Type H Reflective
   MM2-1 Background - White - Type H Reflective
   Message - Green
   MN2-1 Background - Brown
   Message - White - Type H Reflective
   MR2-1 Background - Brown
   Message - Yellow - Type H Reflective

Metric equivalent for this sign is:

SIZE	
1	
2	525 mm X 375 mm
3	750 mm X 525 mm
4	750 mm X 525 mm
5	750 mm X 525 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	21	15	1 1/8	3/8	3/8	9	3	8 7/8	8 5/8																1 1/2	1/2	2.20	0.20
3	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40	0.20
4	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40	0.20
5	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40	0.20

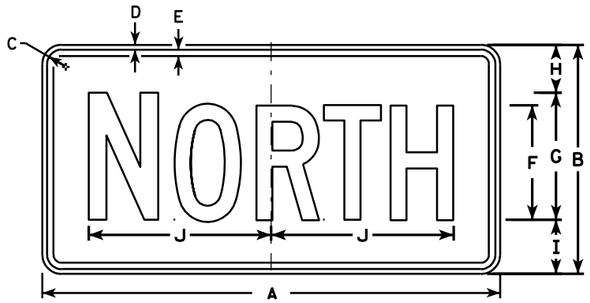
STANDARD SIGN
M2-1

WISCONSIN DEPT OF TRANSPORTATION

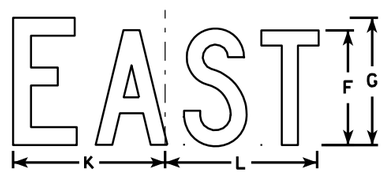
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/16/10 PLATE NO. M2-1.10

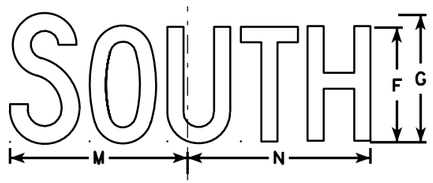
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 866	E



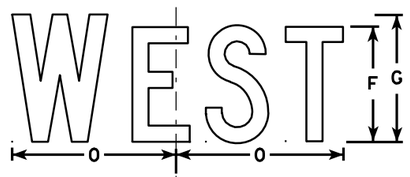
M3-1
MK3-1
MO3-1



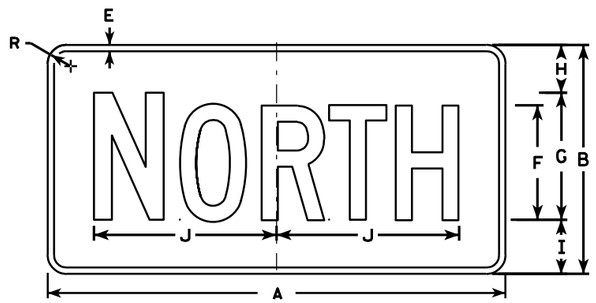
M3-2
MK3-2
MO3-2



M3-3
MK3-3
MO3-3

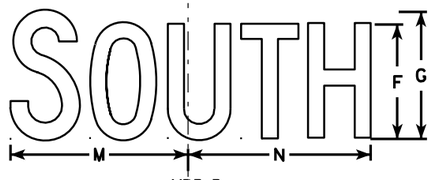


M3-4
MK3-4
MO3-4

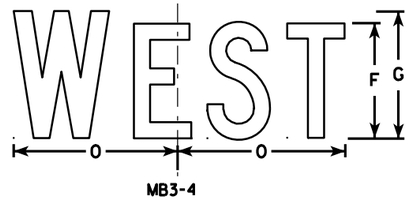


MB3-1
MG3-1
MM3-1
MN3-1

MB3-2
MG3-2
MM3-2
MN3-2



MB3-3
MG3-3
MM3-3
MN3-3



MB3-4
MG3-4
MM3-4
MN3-4

NOTES

1. All Signs Type II - See Note 5 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White - Type H Reflective
   (Detour or temporary signs - Reflective)
   Message - Black
   MB3-1 thru MB3-4 Background - Blue
   Message - White - Type H Reflective
   (Detour or temporary signs - Reflective)
   MG3-1 thru MG3-4 Background - Green
   Message - White - Type H Reflective
   MK3-1 thru MK3-4 Background - Green
   Message - White - Type H Reflective
   MM3-1 thru MM3-4 Background - White - Type H Reflective
   Message - Green
   MN3-1 thru MN3-4 Background - Brown
   Message - White - Type H Reflective
   M03-1 thru M03-4 Background - Orange - Reflective
   Message - Black
6. Note the first letter of each direction is larger than the remainder of the message.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
5	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5

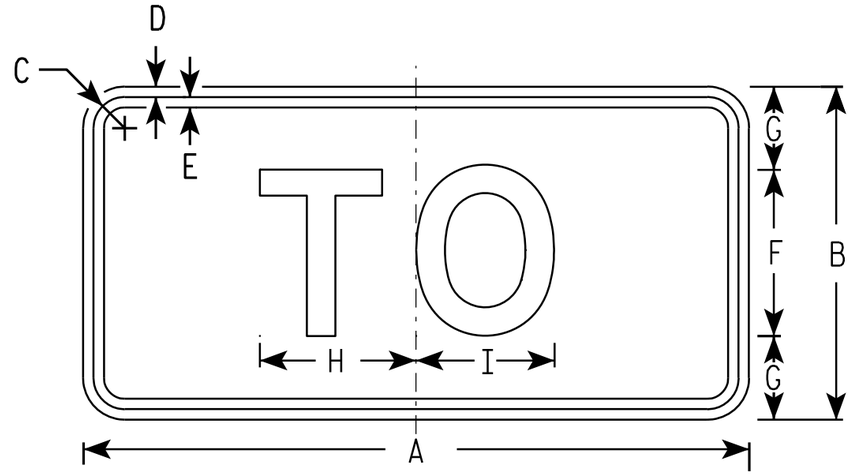
STANDARD SIGNS
M3-1 thur M3-4
SERIES

WISCONSIN DEPT OF TRANSPORTATION

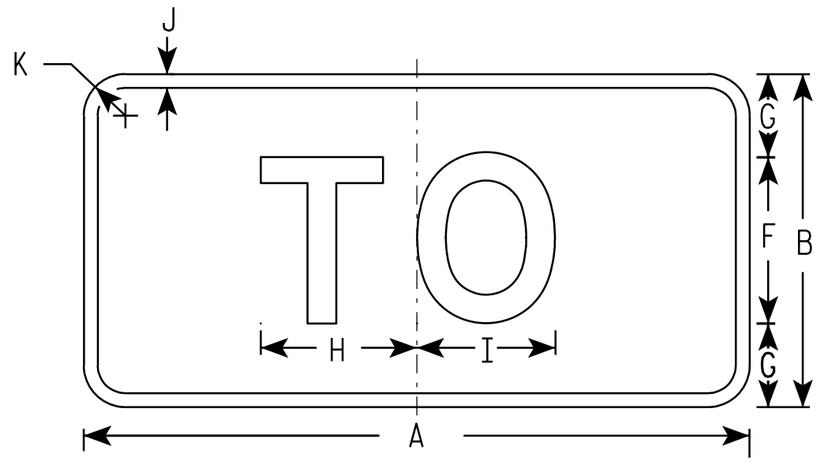
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 11/10/10 PLATE NO. M3-1.12

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 867	E



M4-5
MK4-5
MM4-5



MB4-5
MG4-5
MN4-5

NOTES

1. Sign is Type II - See Note 5 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-5 Background - White - Type H Reflective (Detour or temporary Signs - Reflective)
   Message - Black
   MB4-5 Background - Blue
   Message - White - Type H Reflective (Detour or temporary Signs - Reflective)
   MG4-5 Background - Green
   Message - White - Type H Reflective
   MK4-5 Background - Green
   Message - White - Type H Reflective
   MM4-5 Background - White - Type H Reflective
   Message - Green
   MN4-5 Background - Brown
   Message - White - Type H Reflective

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	3	5 3/8	5 1/4	1/2	1 1/2																2.00
3	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5
4	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5
5	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5

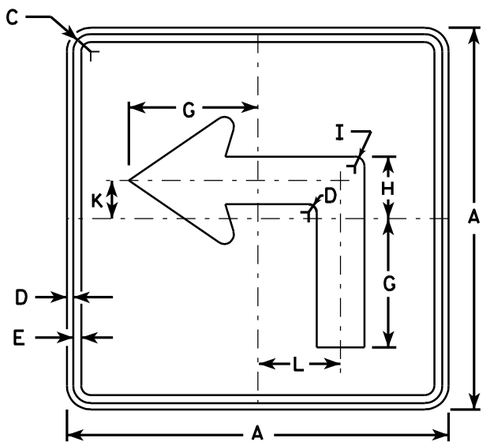
STANDARD SIGN
M4-5

WISCONSIN DEPT OF TRANSPORTATION

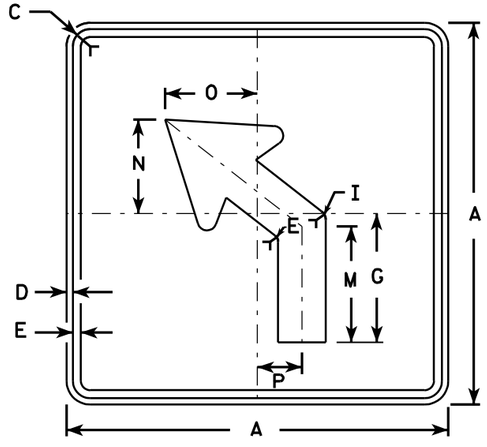
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/10/10 PLATE NO. M4-5.6

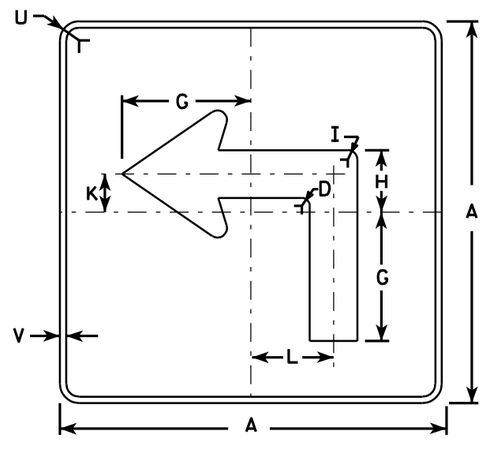
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 868 | E



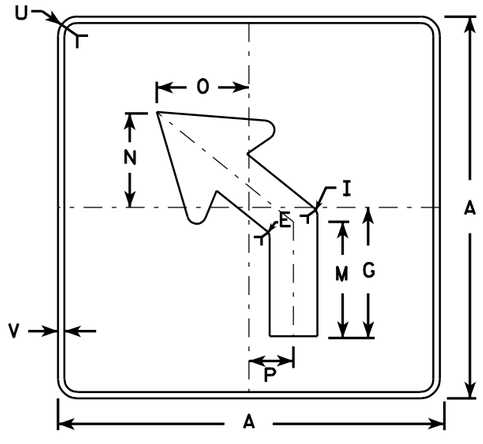
M5-1L
MK5-1L
MM5-1L
MO5-1L
MP5-1L
MR5-1L



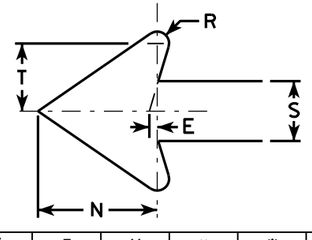
M5-2L
MK5-2L
MM5-2L
MO5-2L
MP5-2L
MR5-2L



MB5-1L
MG5-1L
MN5-1L



MB5-2L
MG5-2L
MN5-2L



NOTES

1. Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M5-1 and M5-2 Background - White - Type H Reflective
   Message - Black
   MB5-1 and MB5-2 Background - Blue
   Message - White - Type H Reflective
   MG5-1 and MG5-2 Background - Green
   Message - White - Type H Reflective
   MK5-1 and MK5-2 Background - Green
   Message - White Type H Reflective
   MM5-1 and MM5-2 Background - White - Type H Reflective
   Message - Green
   MN5-1 and MN5-2 Background - Brown
   Message - White - Type H Reflective
   MO5-1 and MO5-2 Background - Orange - Type F Reflective
   Message - Black
   MP5-1 and MP5-2 Background - White - Type H Reflective
   Message - Blue
   MR5-1 and MR5-2 Background - Brown
   Message - Yellow - Type H Reflective
5. M5-1R same as M5-1L except arrow points right.
6. M5-2R same as M5-2L except arrow tilts right.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3	1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 1/8	4 1/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 1/8	4 1/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 1/8	4 1/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25

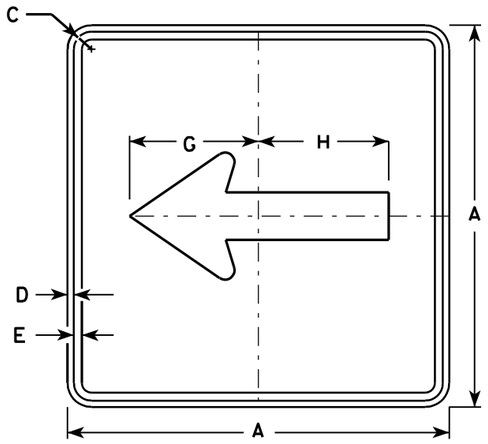
STANDARD SIGN
M5-1 & M5-2

WISCONSIN DEPT OF TRANSPORTATION

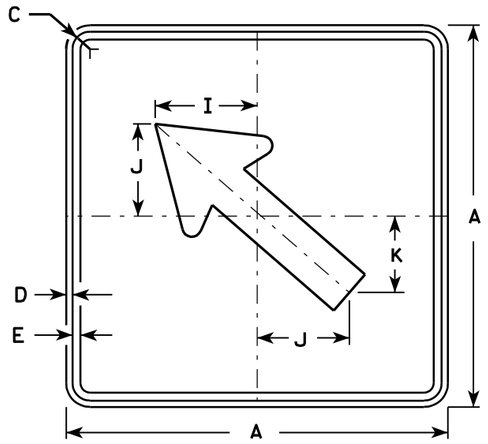
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/29/13 PLATE NO. M5-1.12

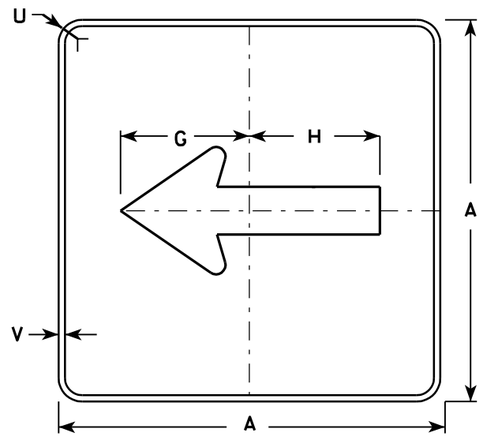
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 869 | E



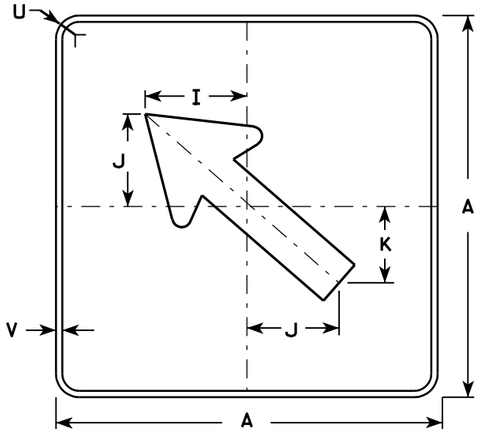
M6-1
MK6-1
MM6-1
MO6-1
MP6-1
MR6-1



M6-2
MK6-2
MM6-2
MO6-2
MP6-2
MR6-2



MB6-1
MG6-1
MN6-1



MB6-2
MG6-2
MN6-2

NOTES

1. Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White - Type H Reflective
   Message - Black

   MB6-1 and MB6-2 Background - Blue
   Message - White - Type H Reflective

   MG6-1 and MG6-2 Background - Green
   Message - White - Type H Reflective

   MK6-1 and MK6-2 Background - Green
   Message - White - Type H Reflective

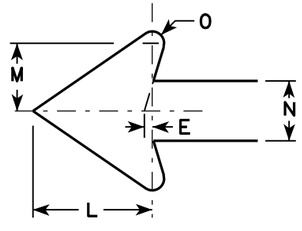
   MM6-1 and MM6-2 Background - White - Type H Reflective
   Message - Green

   MN6-1 and MN6-2 Background - Brown
   Message - White - Type H Reflective

   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black

   MP6-1 and MP6-2 Background - White - Type H Reflective
   Message - Blue

   MR6-1 and MR6-2 Background - Brown
   Message - Yellow - Type H Reflective



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2						1 1/2	1/2						3.06
3	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25
4	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25
5	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25

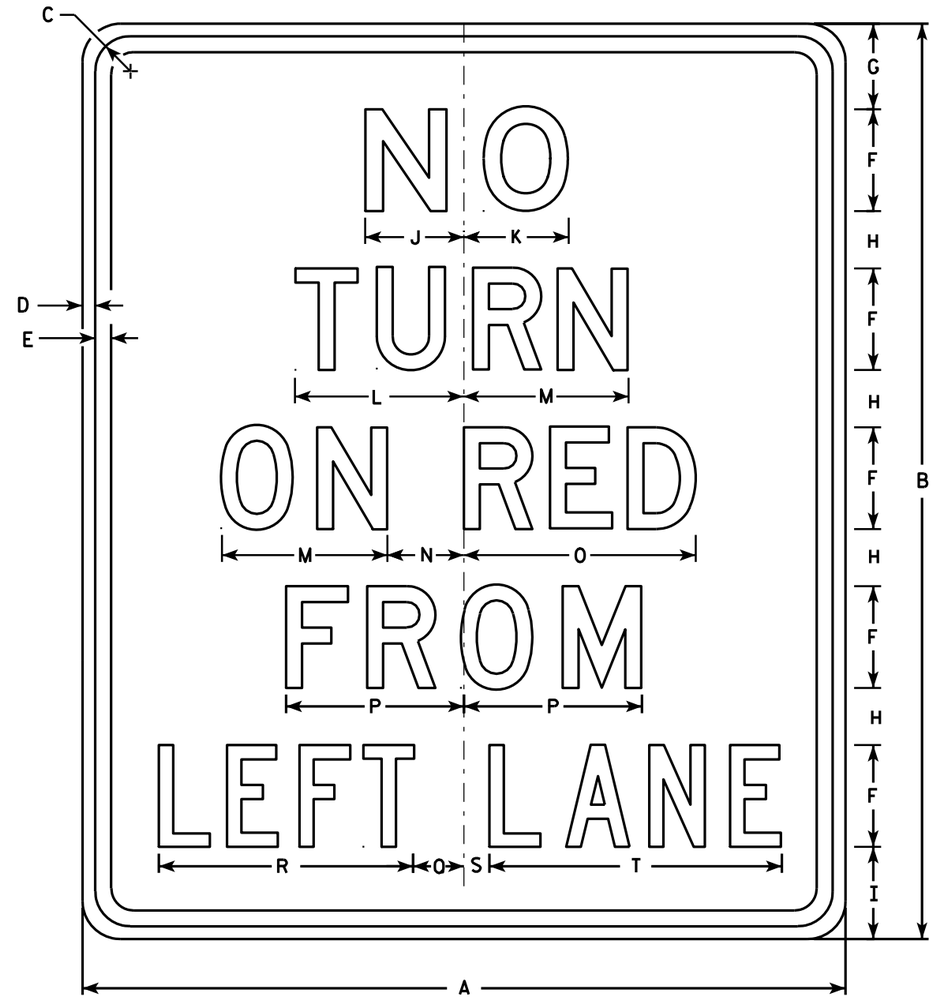
STANDARD SIGN M6-1 & M6-2 SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/29/13 PLATE NO. M6-1.13

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 870	E



R10-11F

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - see note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 1 is Series E.
   Lines 2, 3 and 4 are Series D.
   Line 5 is Series C.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	36	1 3/8	1/2	5/8	4	3 3/8	2 1/4	3 5/8	3 7/8	4 1/8	6 5/8	6 1/2	3	9 1/8	7	2	10	1	11 1/2							7.5
2M	30	36	1 3/8	1/2	5/8	4	3 3/8	2 1/4	3 5/8	3 7/8	4 1/8	6 5/8	6 1/2	3	9 1/8	7	2	10	1	11 1/2							7.5
3																											
4																											
5																											

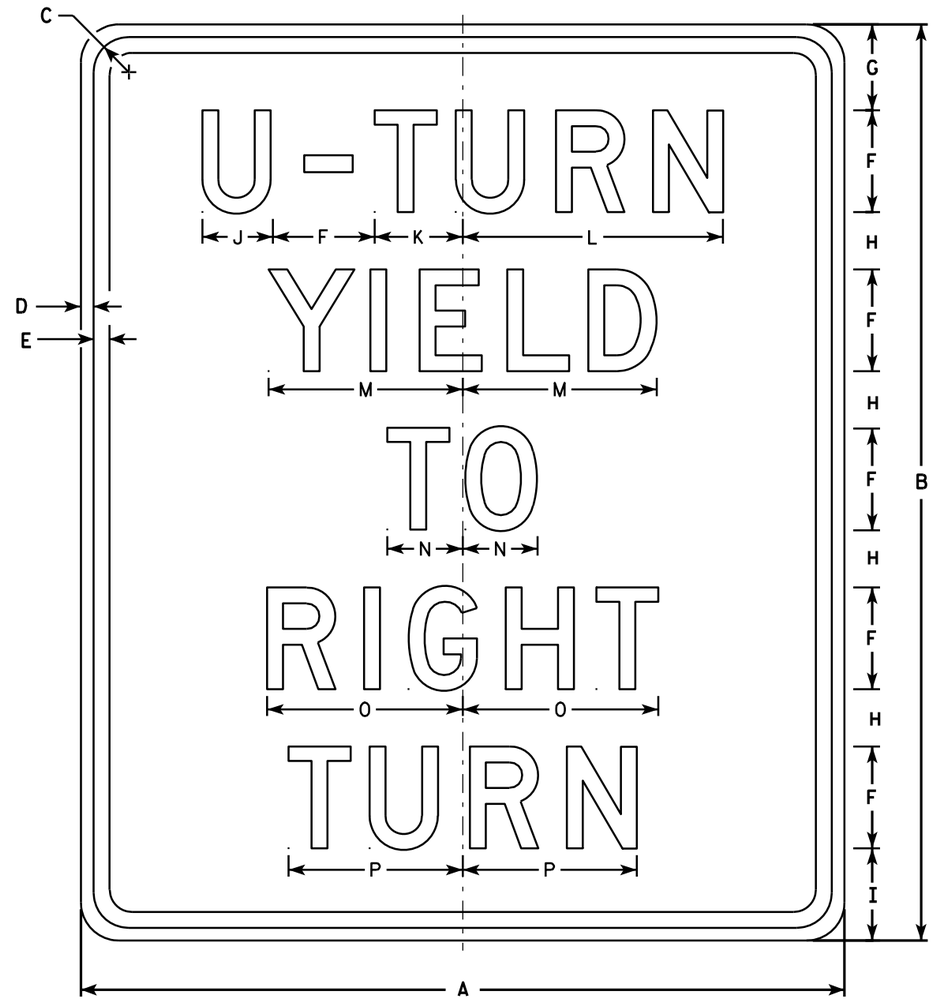
STANDARD SIGN
R10-11F

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/5/11 PLATE NO. R10-11F.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 871	E



R10-16

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	36	1 3/8	1/2	5/8	4	3 3/8	2 1/4	3 5/8	2 3/4	3 1/2	10 1/4	7 5/8	3	7 3/4	6 7/8											7.5
2M	30	36	1 3/8	1/2	5/8	4	3 3/8	2 1/4	3 5/8	2 3/4	3 1/2	10 1/4	7 5/8	3	7 3/4	6 7/8											7.5
3																											
4																											
5																											

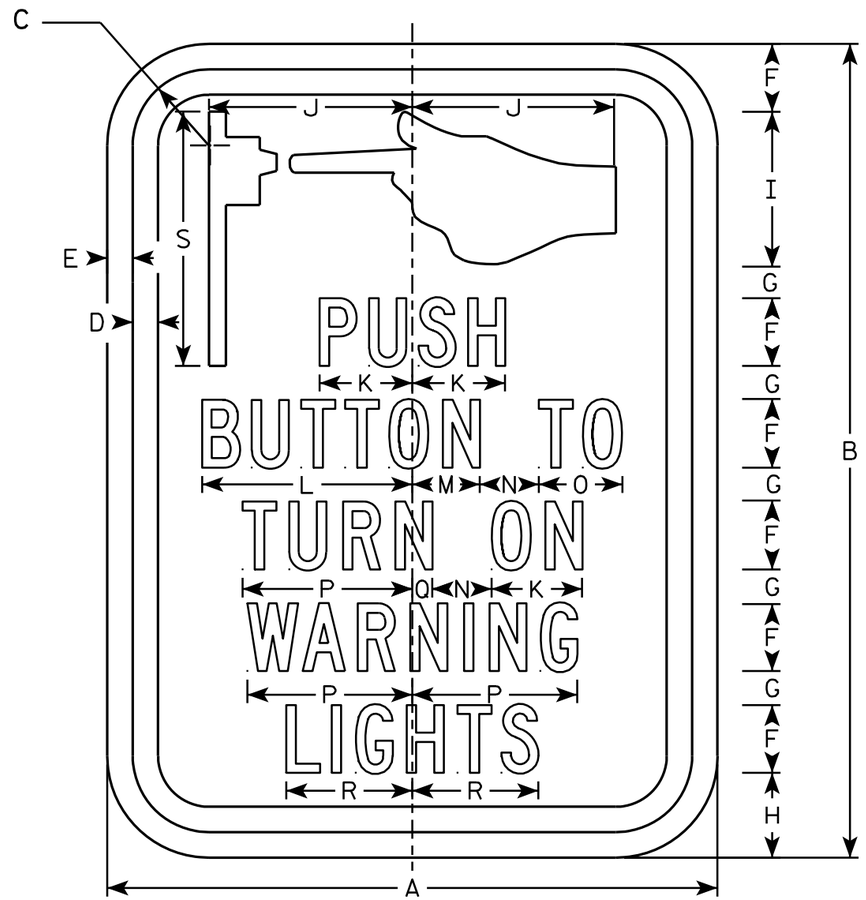
STANDARD SIGN
R10-16

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/2/12 PLATE NO. R10-16.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 872	E



R10-25

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Size (1) comes as a decal only.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	6	9	1 1/8	3/8	3/8	3/4	3/8	1	1 3/4	2	7/8	2 1/8	5/8	5/8	7/8	1 5/8	1/4	1 1/4	2 7/8								.38
2S	9	12	1 1/8	3/8	3/8	1	1/2	1 1/4	2 1/4	3	1 3/8	3 1/8	1	7/8	1 1/4	2 1/2	1/4	1 7/8	3 3/4								.75
2M	9	12	1 1/8	3/8	3/8	1	1/2	1 1/4	2 1/4	3	1 3/8	3 1/8	1	7/8	1 1/4	2 1/2	1/4	1 7/8	3 3/4								.75
3																											
4																											
5																											

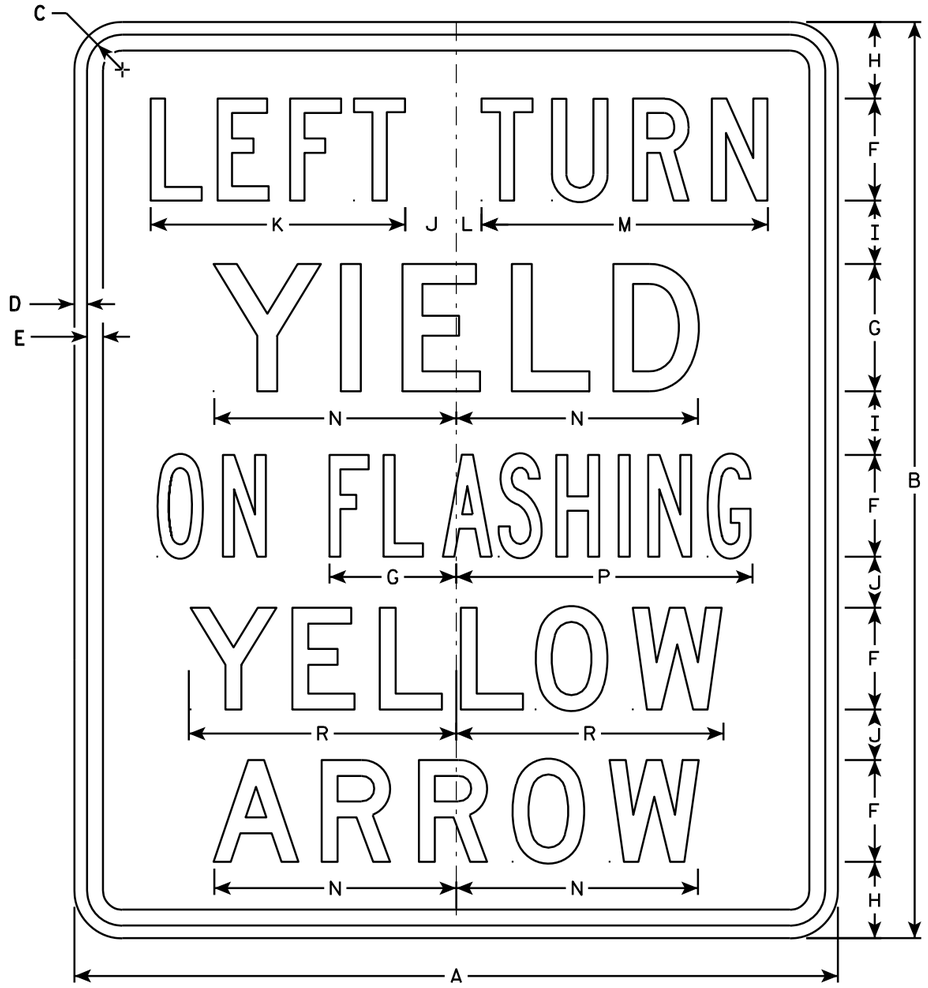
STANDARD SIGN
R10-25

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/8/10 PLATE NO. R10-25.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 873	E

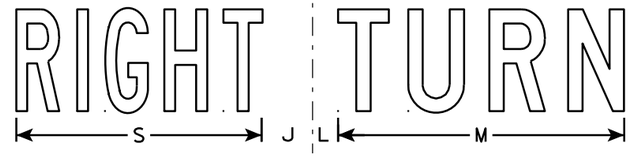


R10-50L

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - see note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 1 is Series C.
   Lines 2, 4 and 5 are Series D.
   Line 3 is Series B.

"RIGHT" Is Series B



R10-50R

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	36	1 3/8	1/2	5/8	4	5	3	2 1/2	2	10	1	11 1/4	9 1/2	4 1/4	11 5/8		10 1/2	9 5/8								7.5
2M	30	36	1 3/8	1/2	5/8	4	5	3	2 1/2	2	10	1	11 1/4	9 1/2	4 1/4	11 5/8		10 1/2	9 5/8								7.5
3																											
4																											
5																											

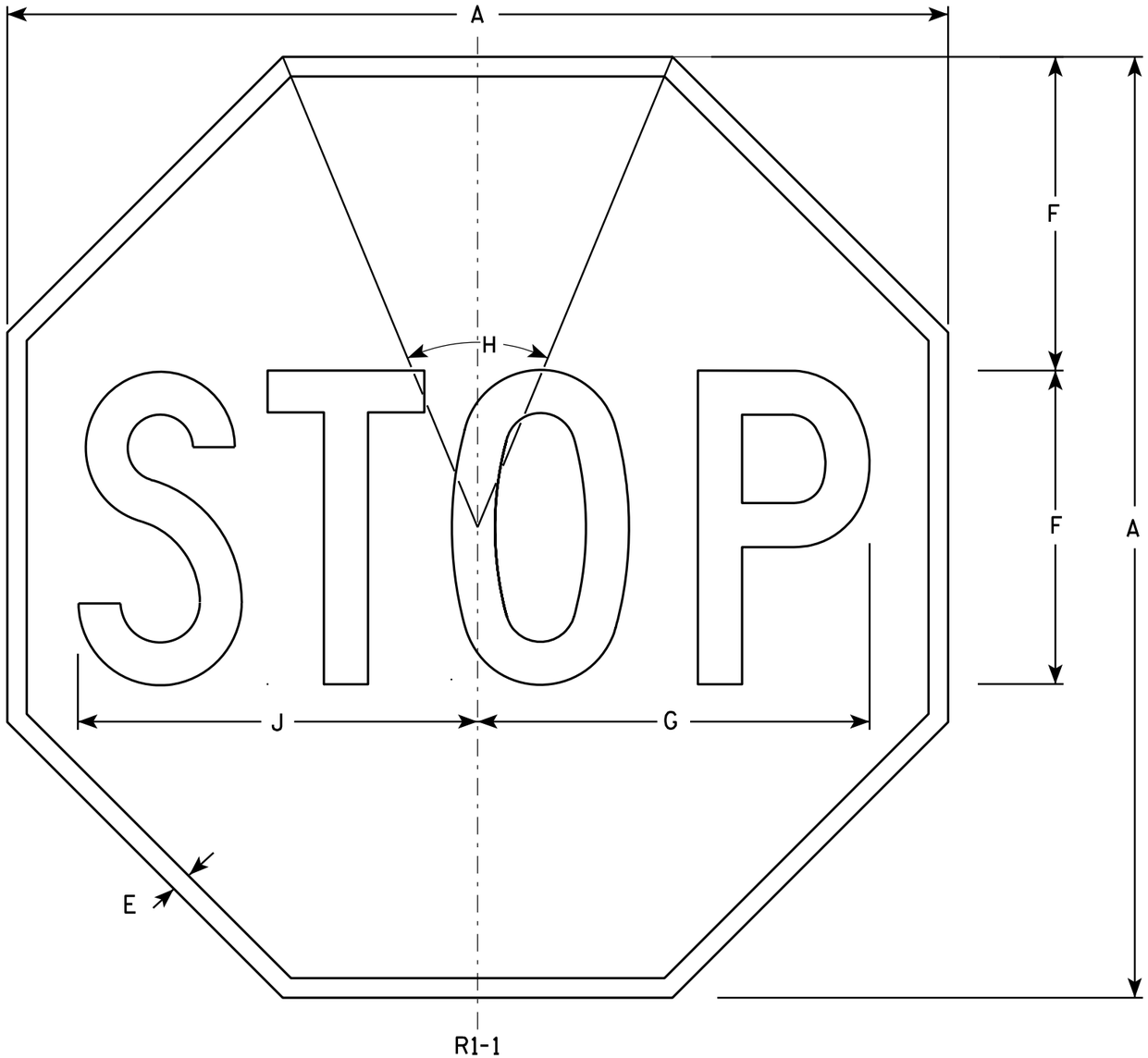
STANDARD SIGN
R10-50

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/11/13 PLATE NO. R10-50.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 874	E



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24				3/8	8	10	45°		10 1/4																	3.31
2S	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2M	36				3/4	12	15	45°		15 3/8																	7.46
3	36				3/4	12	15	45°		15 3/8																	7.46
4	48				1	16	20	45°		20 1/2																	13.25
5	48				1	16	20	45°		20 1/2																	13.25
6	18				3/8	6	7 3/4	45°		7 3/4																	1.86
7	12				1/4	4	5	45°		5 1/8																	0.78

STANDARD SIGN
R1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-1.12

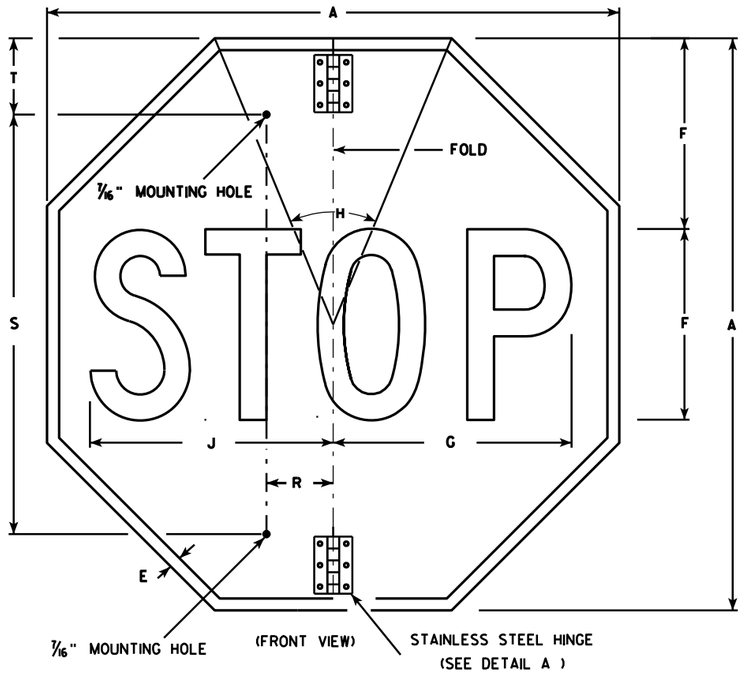
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 875	E

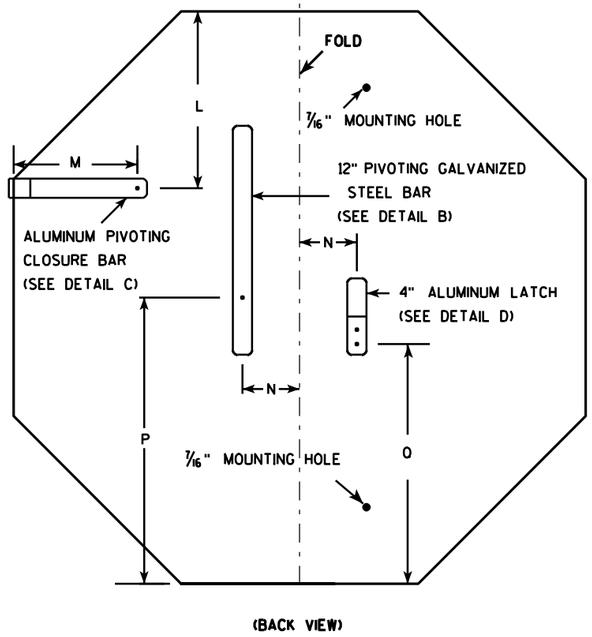
FILE NAME : C:\Users\PROJECTS\tr_stdplate\R11.DGN PLOT DATE : 02-DEC-2010 15:09 PLOT BY : dotsja PLOT NAME : PLOT SCALE : 4.469282:1.000000

WISDOT/CADDS SHEET 42

7

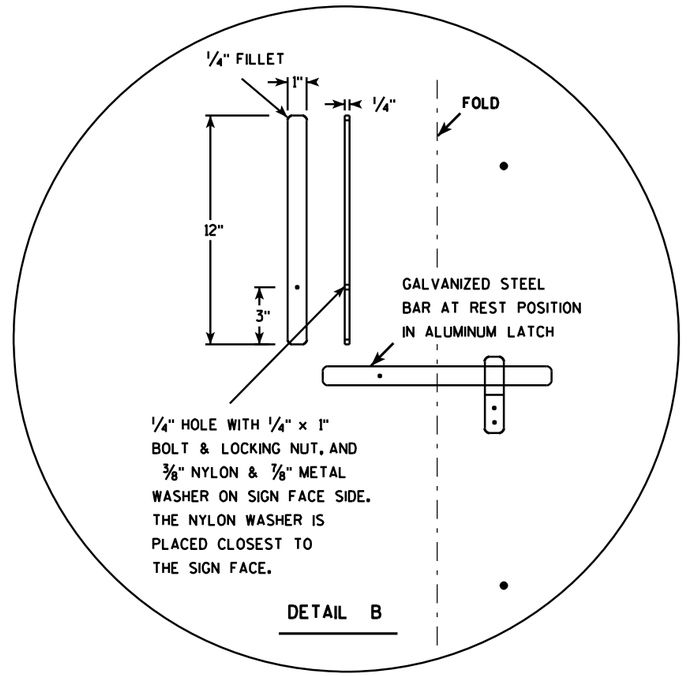
7

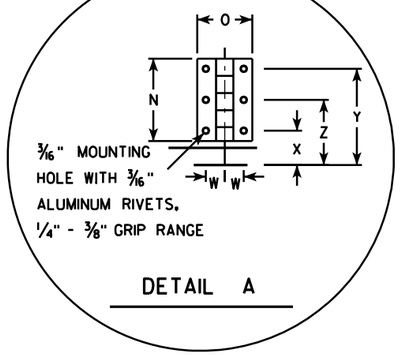


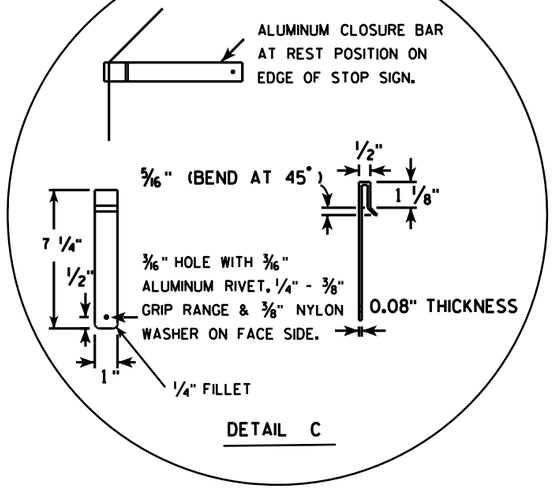


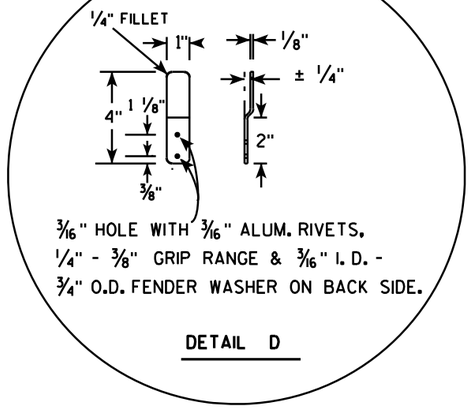
NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C
4. All hardware used on the folding STOP sign installation shall conform to 637.2.4 of the WIS DOT Standard Specification.









SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30				5/8	10	12 1/2	45		12 3/4		9 1/4	6 1/2	3	2	15	12 3/8	2 1/2	22	5			11/16	1 1/4	3 1/2	2 3/8	5.18
2M	36				3/4	12	15	45		15 3/8		11	6 1/2	3	2	18	15 3/8	2 1/2	26	5			11/16	1 1/4	3 1/2	2 3/8	7.46
3	36				3/4	12	15	45		15 3/8		11	6 1/2	3	2	18	15 3/8	2 1/2	26	5			11/16	1 1/4	3 1/2	2 3/8	7.46
4																											
5																											

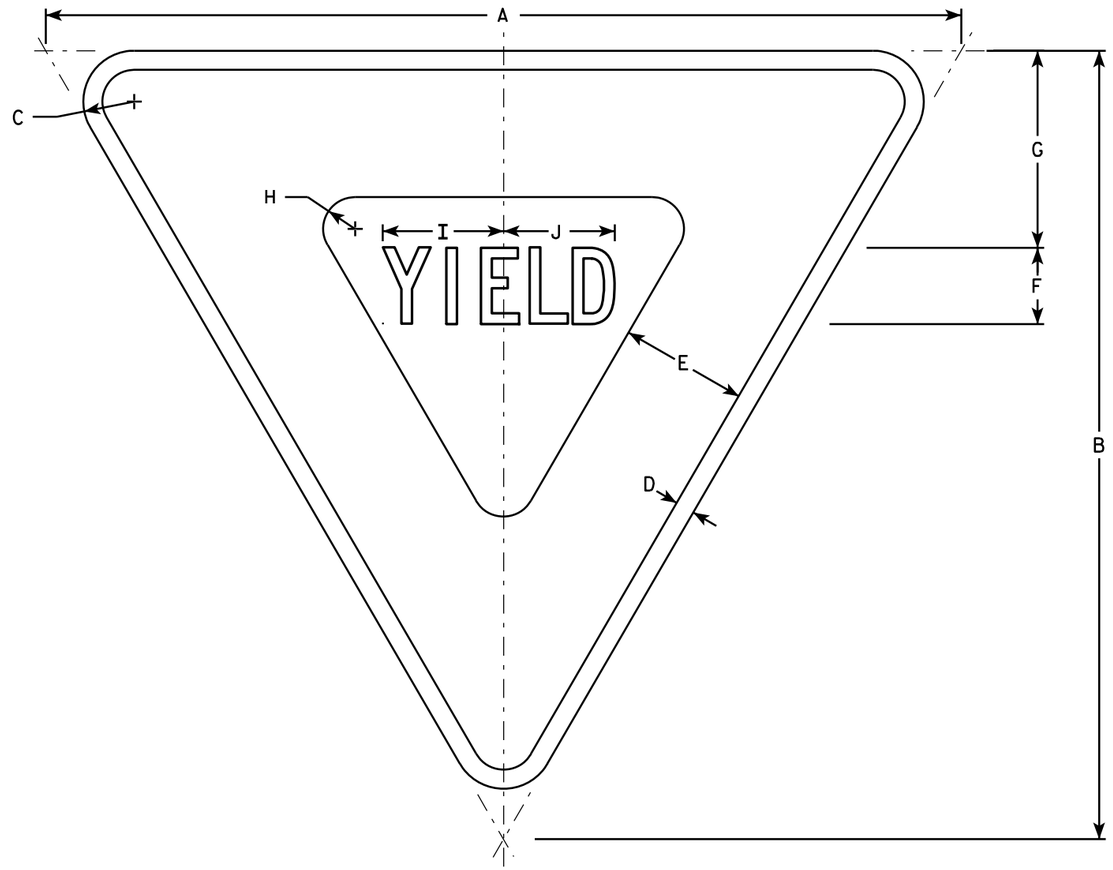
STANDARD SIGN
R1-1F

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-1F.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 876	E



R1-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. The border strip and word message are reflectorized red.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30	26	1 1/2	5/8	4	2 1/2	6 3/8	7/8	4	3 5/8																	2.71
2S	36	31	2	3/4	5	3	7 3/4	1 1/4	4 3/4	4 3/8																	3.88
2M	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
3	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
4	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
5	60	52	3	1 1/2	8	5	13	2 1/2	7 7/8	7 1/4																	10.83
6	24	21	1 1/2	3/8	3	2	4 3/4	7/8	3 1/4	3																	1.75
7	18	15 1/2	1	3/8	2 1/2	1 1/2	3 7/8	5/8	2 3/8	2 1/4																	0.97

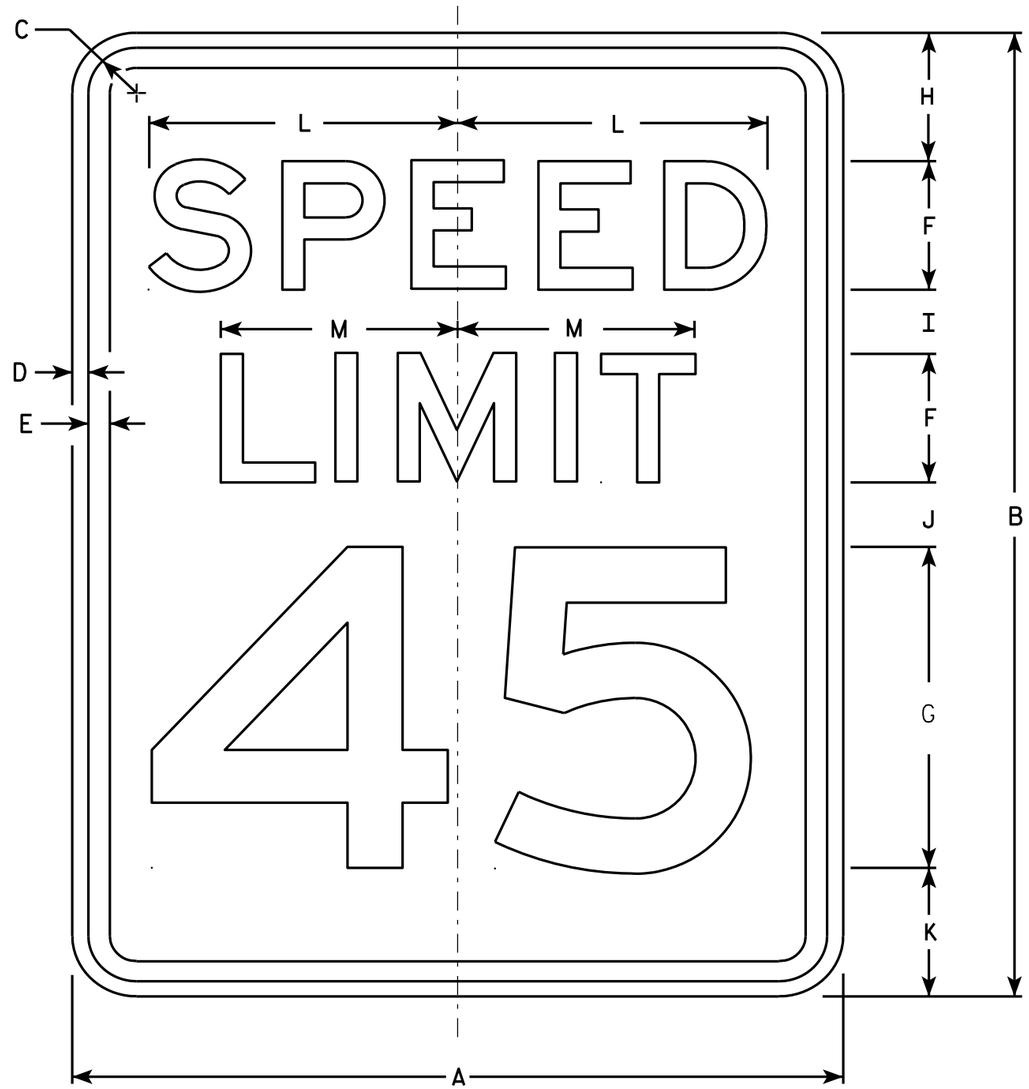
STANDARD SIGN
R1-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/02/10 PLATE NO. R1-2.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 877 | E



R2-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/8	3/8	1/2	4	10	3	2 1/4	3 3/8	3 3/8	9 5/8	7 3/8														5.0
2M	30	36	1 3/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
4	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
5	48	60	2 1/4	3/4	1	8	20	6	4 1/2	6 3/4	6 3/4	19 1/4	14 5/8														20.0

STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

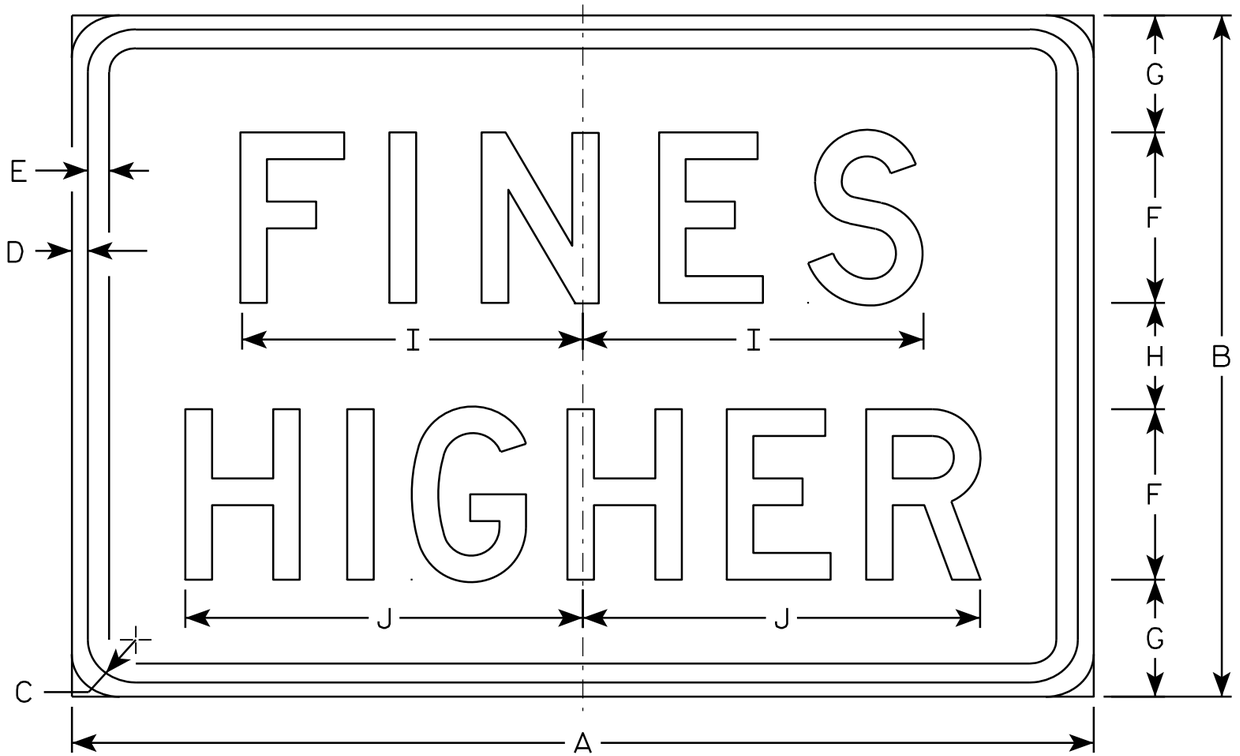
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/26/10 PLATE NO. R2-1.13

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 878 | E

7

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R21.DGN PLOT DATE : 28-MAY-2010 08:32 PLOT BY : ditjph PLOT NAME : PLOT SCALE : 4.717577:1.000000
WISDOT/CADDS SHEET 42



R2-6P

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	18	1 1/8	3/8	3/8	4	3 1/2	3	7 5/8	9 1/4																	3.0
2M	24	18	1 1/8	3/8	3/8	4	3 1/2	3	7 5/8	9 1/4																	3.0
3	36	24	1 1/8	3/8	1/2	6	4 1/8	3 3/4	12	14																	6.0
4	36	24	1 1/8	3/8	1/2	6	4 1/8	3 3/4	12	14																	6.0
5	48	36	1 3/8	1/2	5/8	8	7	6	15 1/8	19																	12.0

STANDARD SIGN
R2-6P

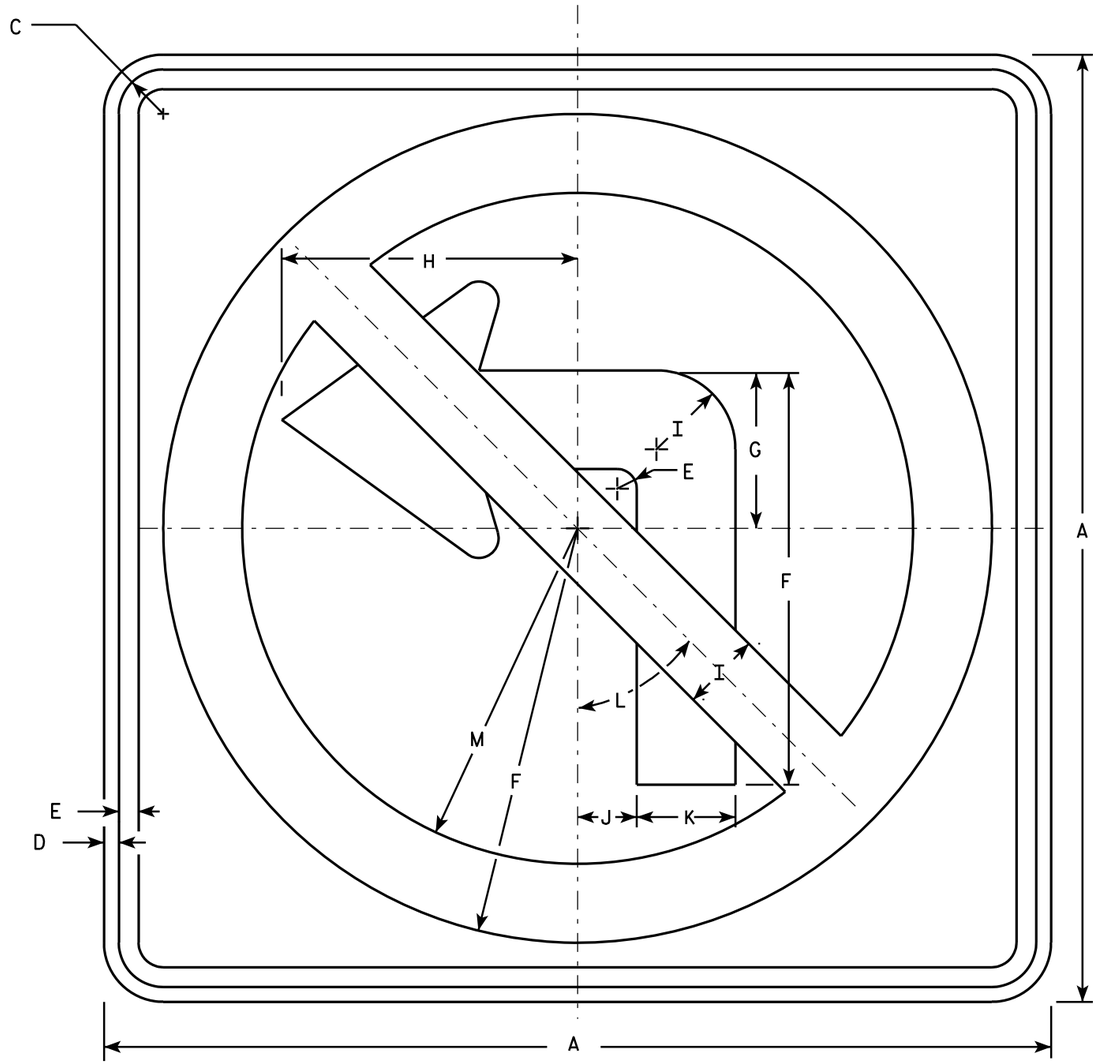
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/20/10 PLATE NO. R2-6P.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 879 | E

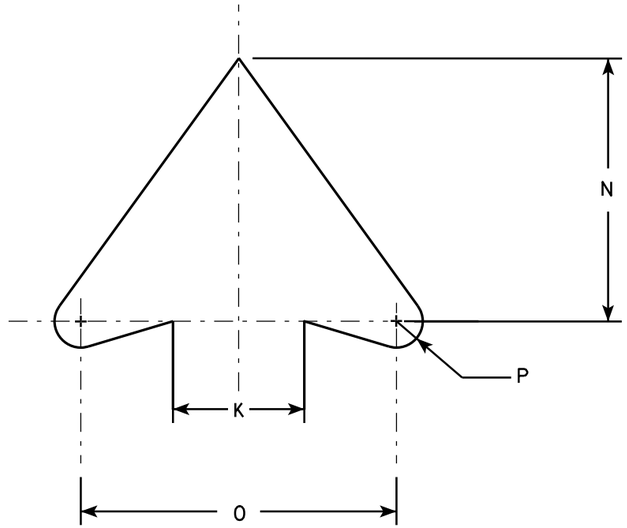
7



R3-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2S	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2M	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
3	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
4	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1											16.0

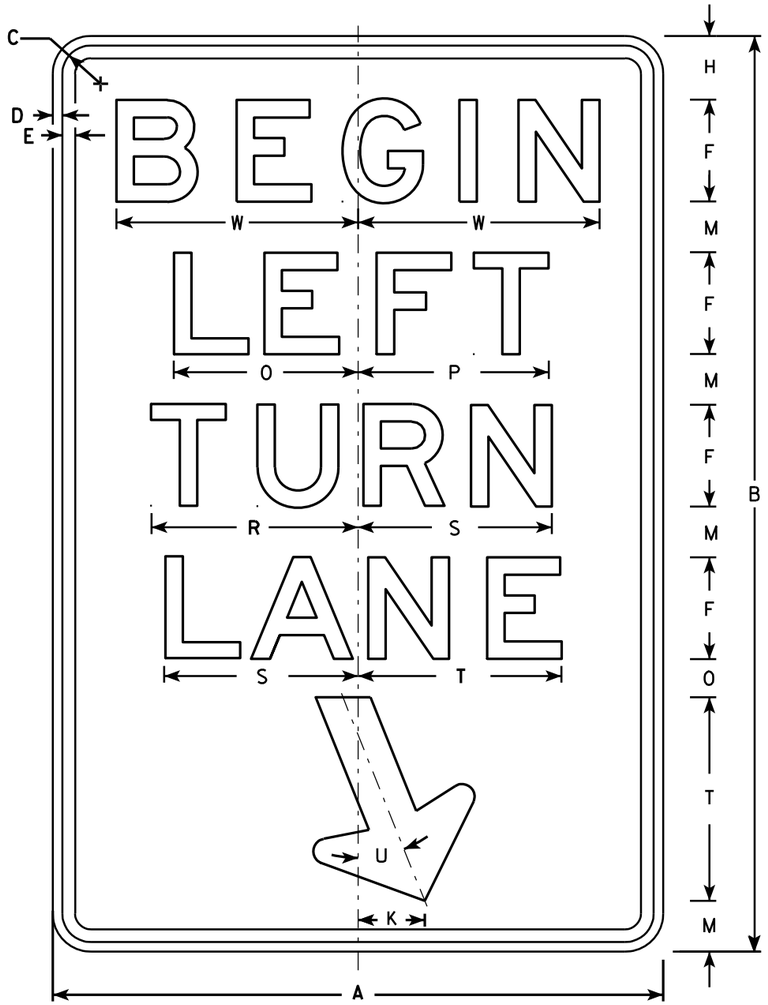
STANDARD SIGN
R3-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-2.10

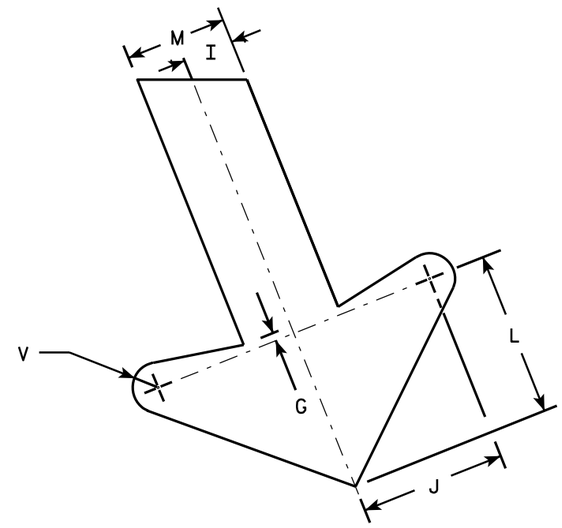
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 880	E



R3-20L

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	7 1/4	7 1/2		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
2M	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	7 1/4	7 1/2		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
3	36	54	1 3/4	1/2	5/8	6	3/8	3 3/4	1 1/2	4 1/4	4	4 7/8	3	2 1/4	10 7/8	11 1/4		12 1/4	11 1/2	12	22°	3/4	13 1/4				13.5
4																											
5																											

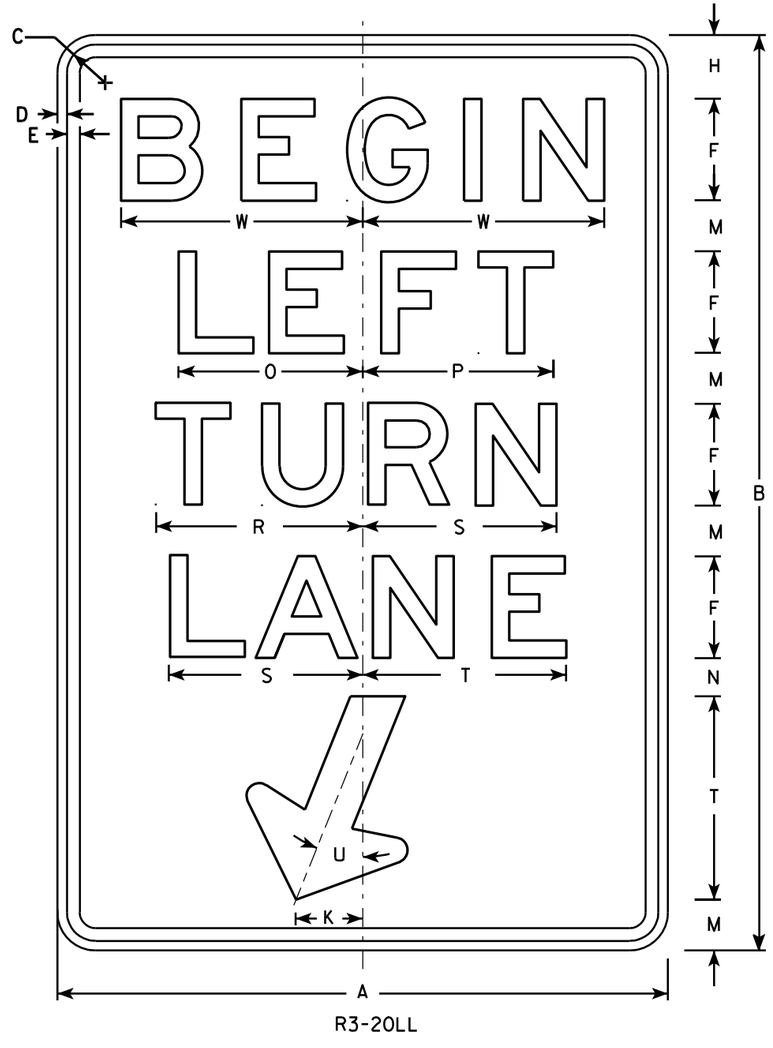
STANDARD SIGN
R3-20L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/18/10 PLATE NO. R3-20L.7

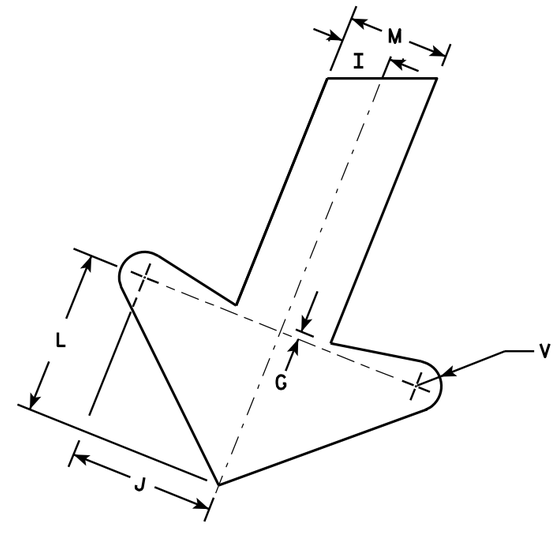
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 881 | E



R3-20LL

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	7 1/4	7 1/2		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
2M	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	7 1/4	7 1/2		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
3	36	54	1 3/4	1/2	5/8	6	3/8	3 3/4	1 1/2	4 1/4	4	4 7/8	3	2 1/4	10 7/8	11 1/4		12 1/4	11 1/2	12	22°	3/4	13 1/4				13.5
4																											
5																											

STANDARD SIGN
R3-20LL

WISCONSIN DEPT OF TRANSPORTATION

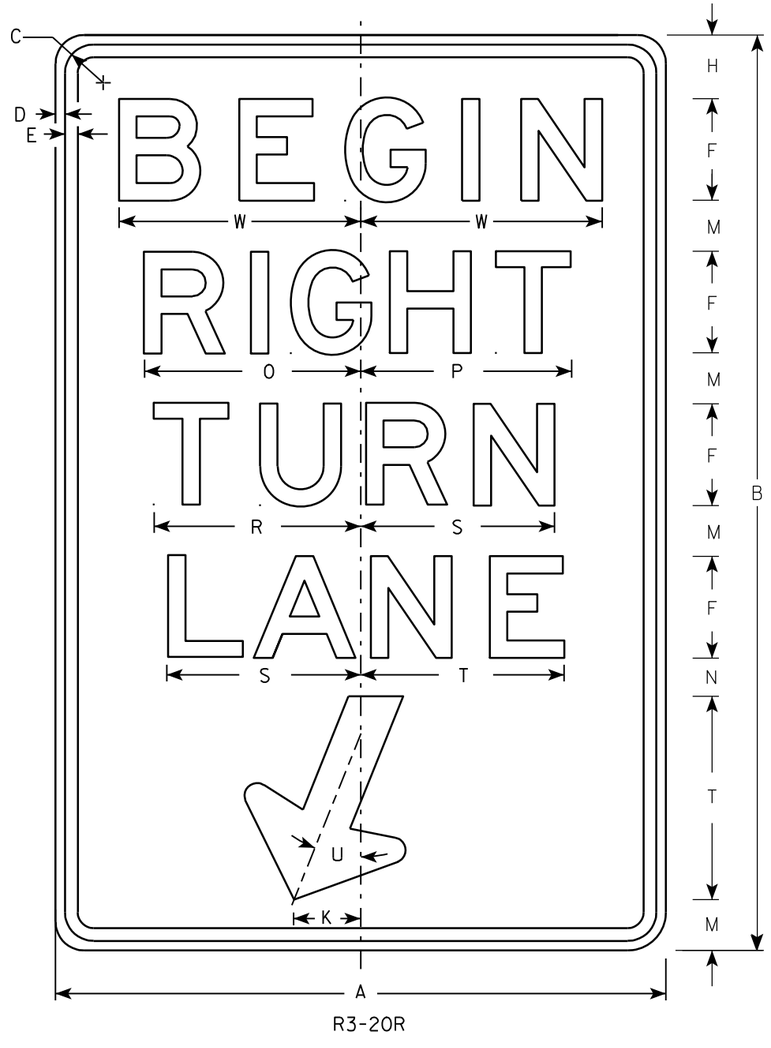
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/18/10 PLATE NO. R3-20LL.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 882	E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R320LL.DGN PLOT DATE : 15-OCT-2010 14:38 PLOT BY : dotsja PLOT NAME : PLOT SCALE : 5.959043:1.000000

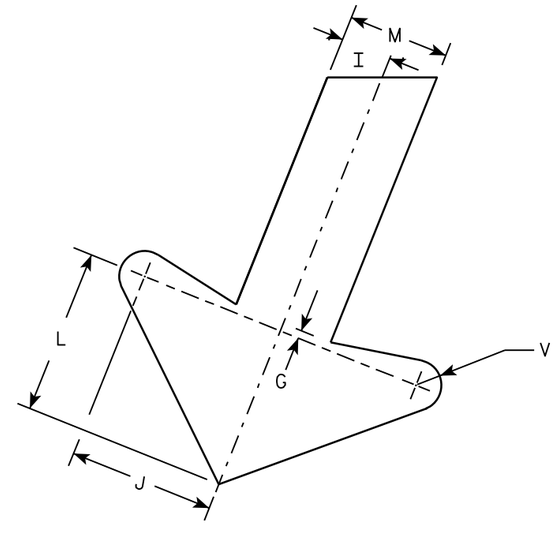
WISDOT/CADDS SHEET 42



R3-20R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	8 1/2	8 1/4		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
2M	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	8 1/2	8 1/4		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
3	36	54	1 3/4	1/2	5/8	6	3/8	3 3/4	1 1/2	4 1/4	4	4 7/8	3	2 1/4	12 3/4	12 1/2		12 1/4	11 1/2	12	22°	3/4	13 1/4				13.5
4																											
5																											

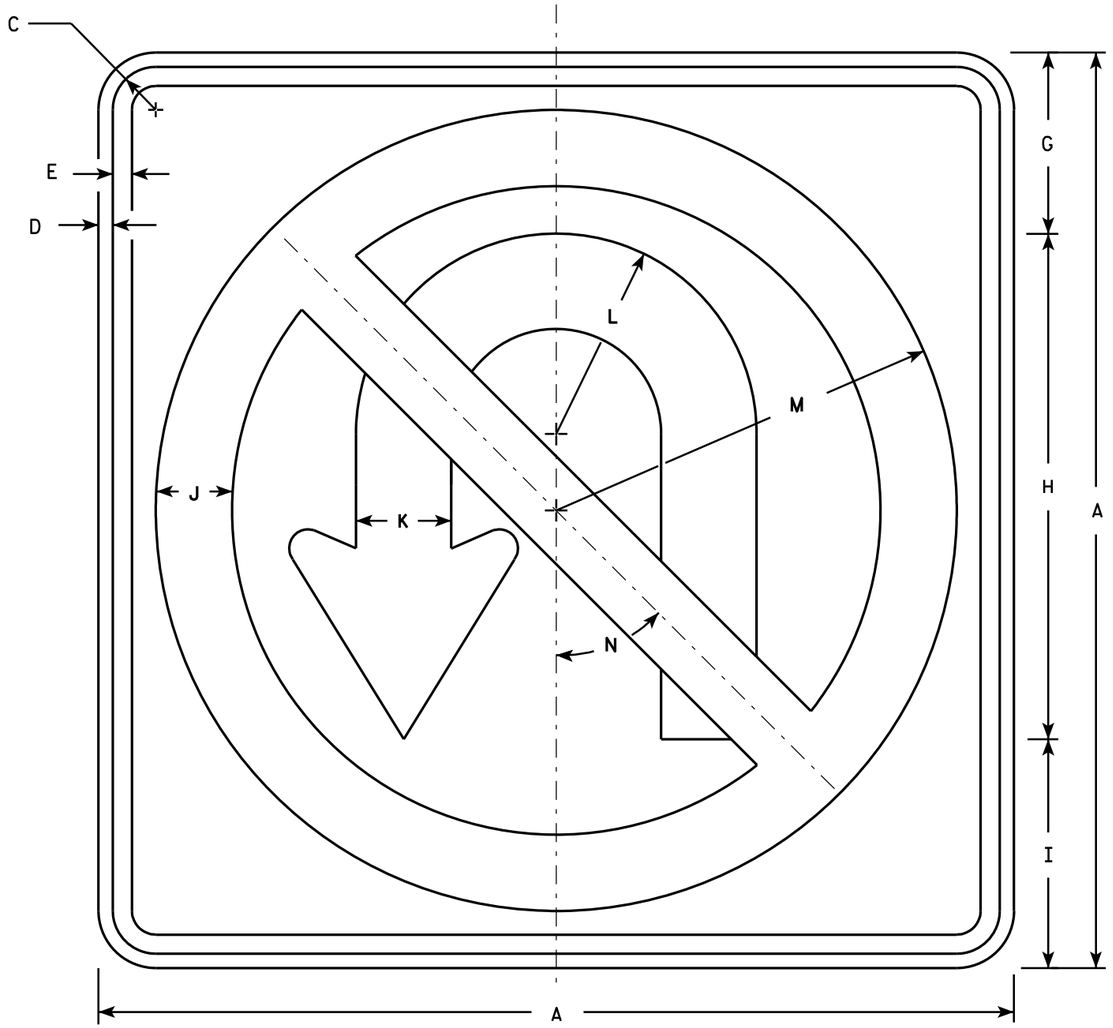
STANDARD SIGN
R3-20R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/18/10 PLATE NO. R3-20R.6

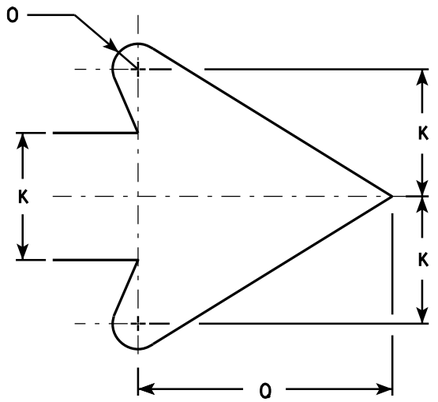
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 883 | E



R3-4

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24		1 1/8	3/8	1/2		4 3/4	13 1/4	6	2	2 1/2	5 1/4	10 1/2	45°	1/2		5										4.0
2M	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0
3	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0
4	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0
5	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0

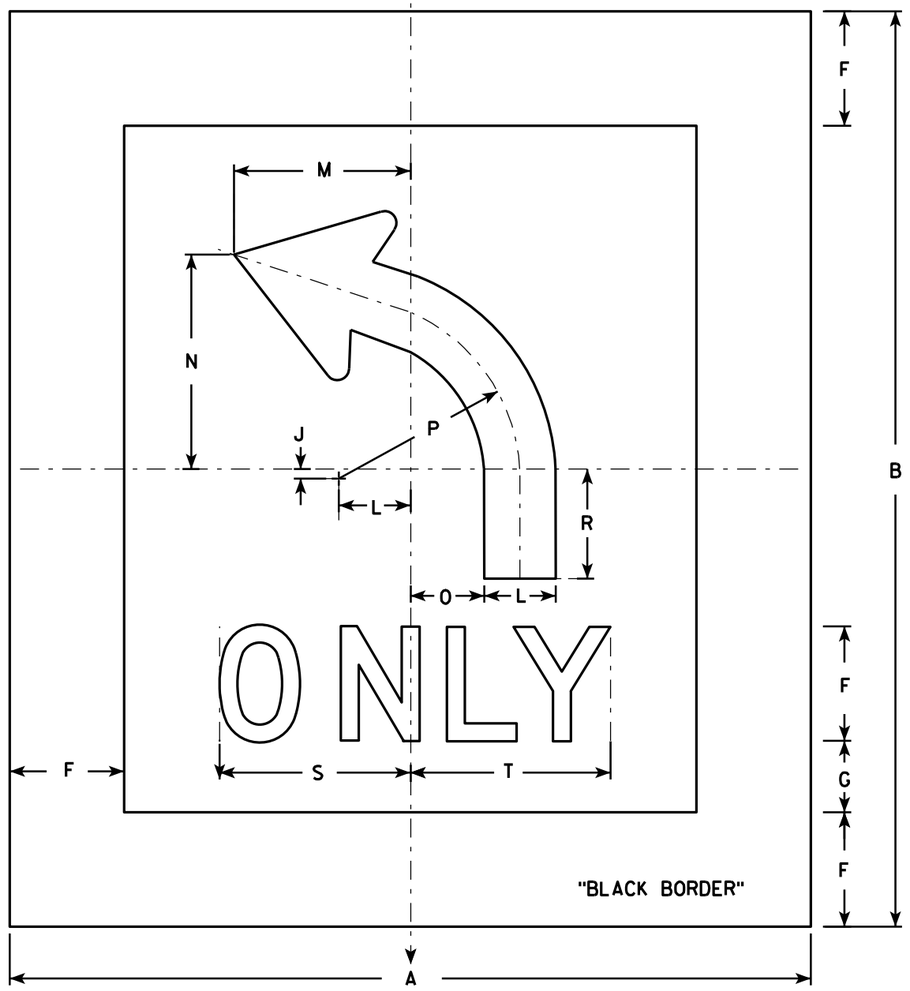
STANDARD SIGN
R3-4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-4.11

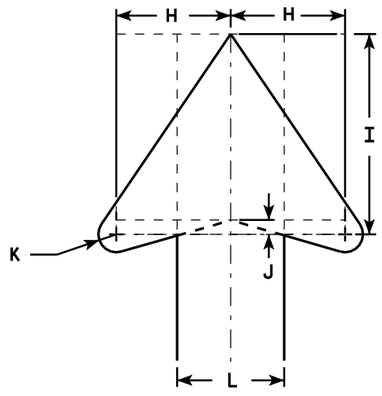
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 884	E



R3-5L

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood. When base material is metal, the corners shall be rounded.
5. R3-5R is the same as R3-5L except curved portion of arrow points right.
6. The 6" border is non-reflective black.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	42	48				6	3 3/4	4	7	1/2	5/8	3 3/4	9 1/4	11 1/4	3 7/8	9 1/2		5 3/4	10	10 1/2							1.26
2M	42	48				6	3 3/4	4	7	1/2	5/8	3 3/4	9 1/4	11 1/4	3 7/8	9 1/2		5 3/4	10	10 1/2							1.26
3																											
4																											
5																											

STANDARD SIGN
R3-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/24/11 PLATE NO. R3-5.6

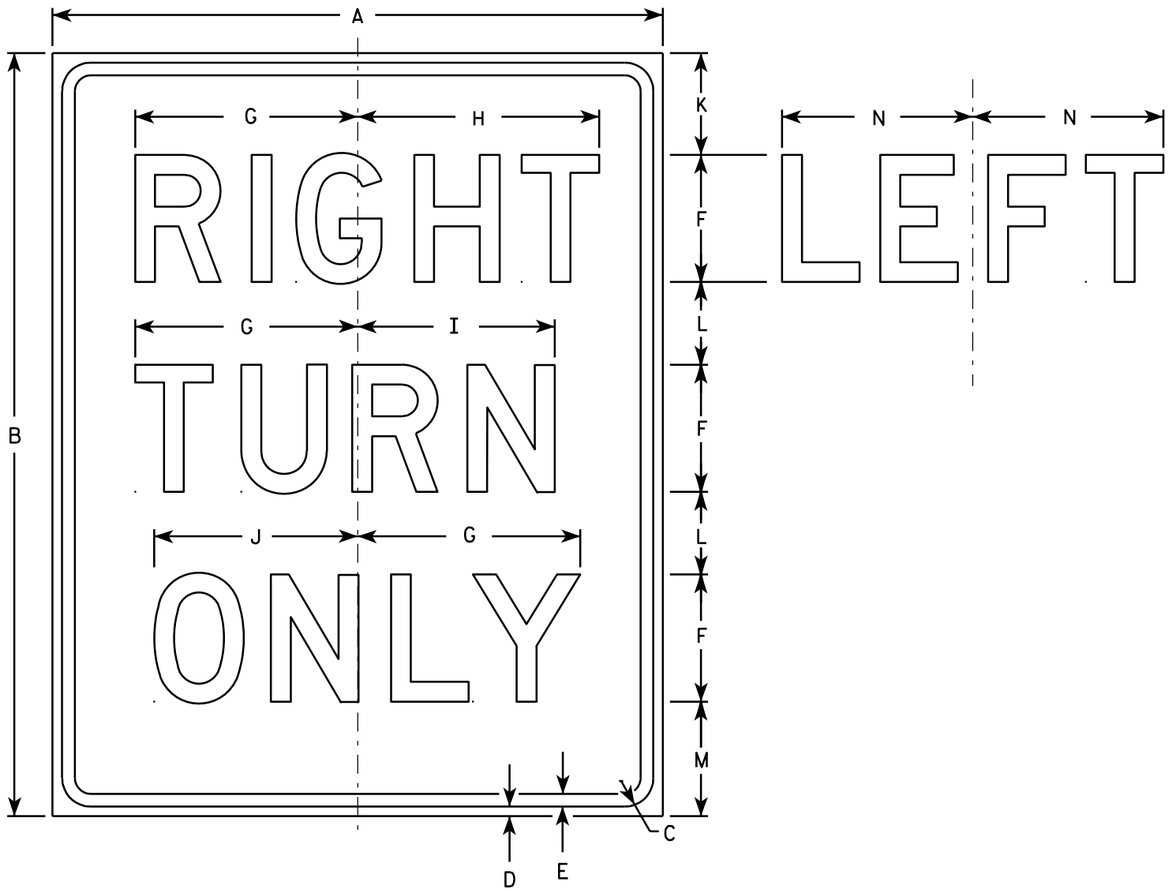
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 885 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R35.DGN PLOT DATE : 24-FEB-2011 14:53 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 7.945391:1.000000

WISDOT/CADDS SHEET 42

7

7



R3-53R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. R3-53L same as R3-53R except LEFT is substituted for RIGHT.

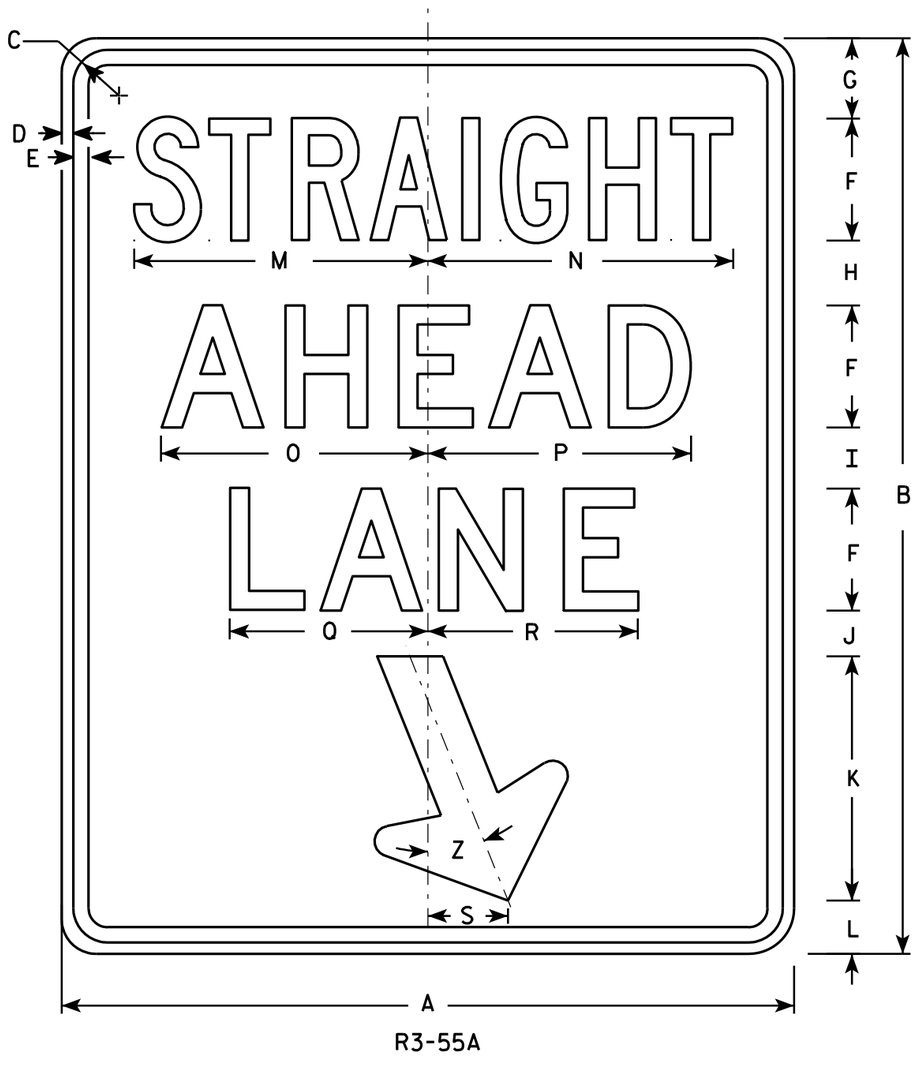
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	30	1 1/8	3/8	1/2	5	8 3/4	9 1/2	7 3/4	8	4	3 1/4	4 1/2	7 1/2													5.0
2M	24	30	1 1/8	3/8	1/2	5	8 3/4	9 1/2	7 3/4	8	4	3 1/4	4 1/2	7 1/2													5.0
3	24	30	1 1/8	3/8	1/2	5	8 3/4	9 1/2	7 3/4	8	4	3 1/4	4 1/2	7 1/2													5.0
4																											
5																											

STANDARD SIGN
R3-53

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer
DATE 3/24/2011 PLATE NO. R3-53.8

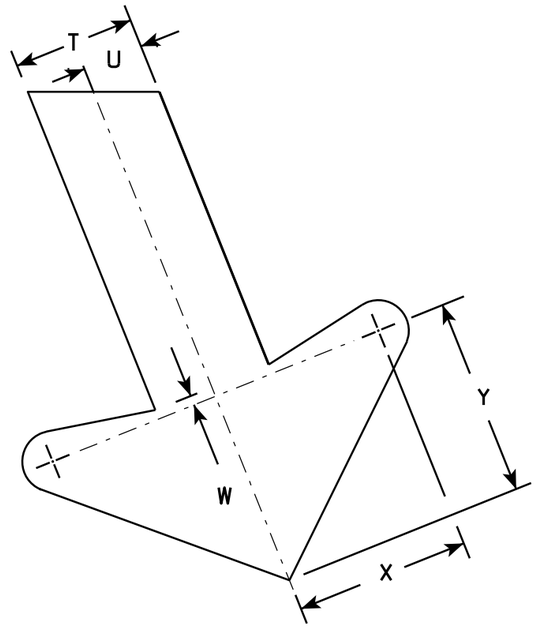
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 886	E



R3-55A

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - See Note 3
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 1 is Series - C
   Lines 2 and 3 Series - D



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	30	1 1/8	3/8	1/2	4	2 5/8	2 1/8	2	2	1 1/2	8	9 5/8	10	8 3/4	8 5/8	6 1/2	6 7/8	2 5/8	2	1	1/2	1/4	2 7/8	3 1/4	22°	5.0
2M	24	30	1 1/8	3/8	1/2	4	2 5/8	2 1/8	2	2	1 1/2	8	9 5/8	10	8 3/4	8 5/8	6 1/2	6 7/8	2 5/8	2	1	1/2	1/4	2 7/8	3 1/4	22°	5.0
3	36	48	1 3/4	1/2	5/8	6	4 1/2	3 3/4	3 5/8	3 5/8	2 7/8	12	14 1/2	14 7/8	13 1/8	12 7/8	9 3/4	10 1/4	4	3	1 1/2	3/4	3/8	4 1/4	4 7/8	22°	12.0
4																											
5																											

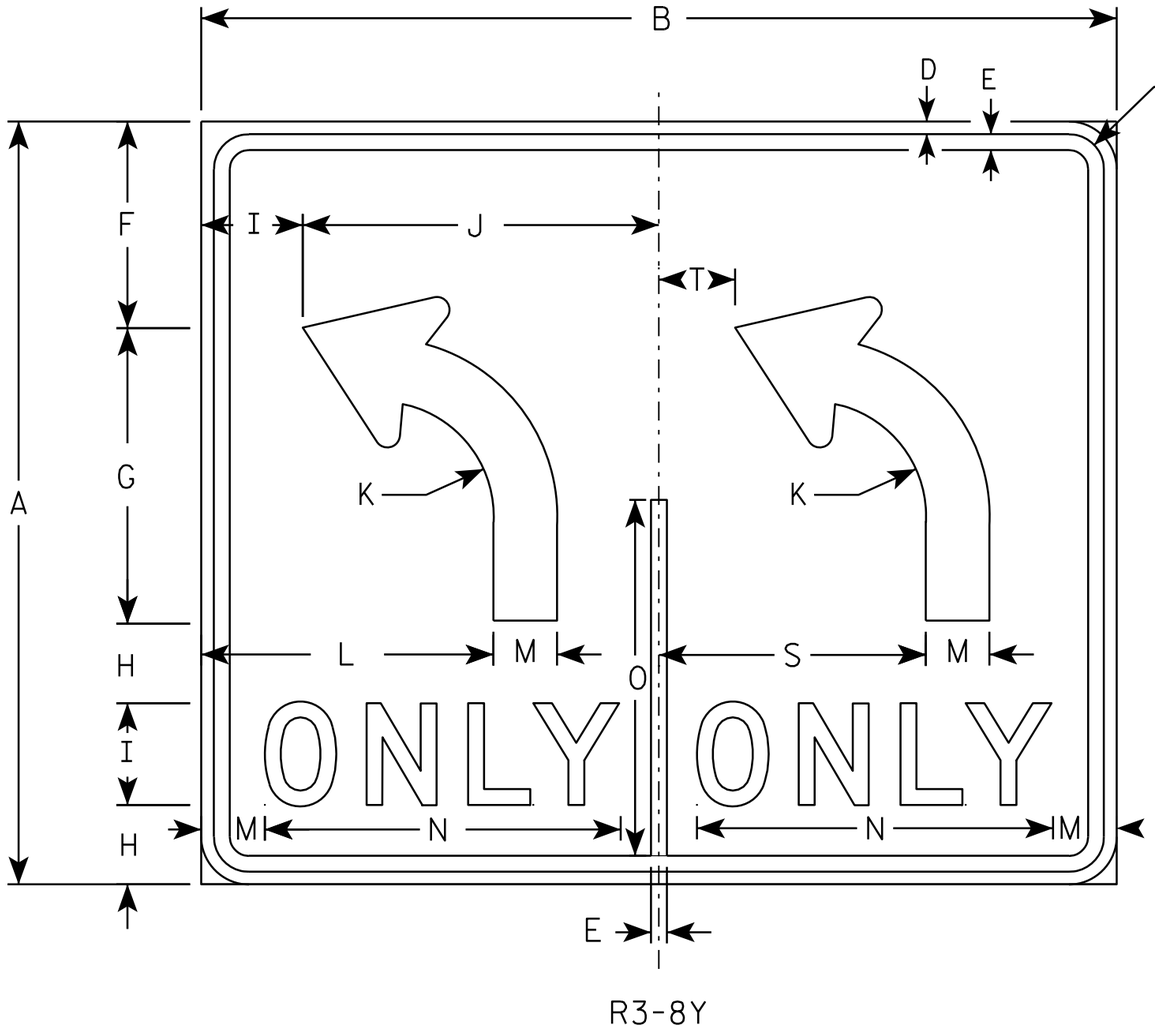
STANDARD SIGN
R3-55A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/24/2011 PLATE NO. R3-55A.5

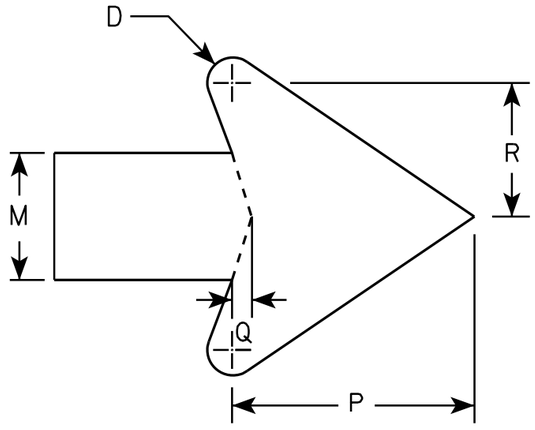
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 887	E



R3-8Y

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - WHITE
   Message - BLACK
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	36	1 3/8	1/2	5/8	8 1/8	11 5/8	3 1/8	4	14	4 1/2	11 1/2	2 1/2	14	14	4 3/4	3/8	2 5/8	10 1/2	3							7.5
2M	30	36	1 3/8	1/2	5/8	8 1/8	11 5/8	3 1/8	4	14	4 1/2	11 1/2	2 1/2	14	14	4 3/4	3/8	2 5/8	10 1/2	3							7.5
3																											
4	48	54	2 1/4	3/4	1	13 1/4	18 1/2	5 1/8	6	21	7 1/4	17 1/4	3 3/4	20 5/8	22 3/8	7 1/8	5/8	4	15 3/4	4 1/2							18.0
5	48	54	2 1/4	3/4	1	13 1/4	18 1/2	5 1/8	6	21	7 1/4	17 1/4	3 3/4	20 5/8	22 3/8	7 1/8	5/8	4	15 3/4	4 1/2							18.0

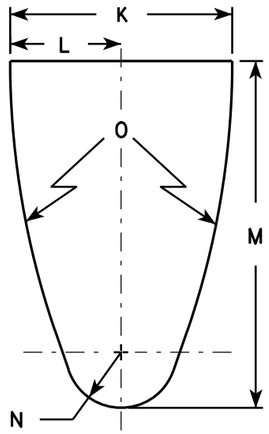
STANDARD SIGN
R3-8Y

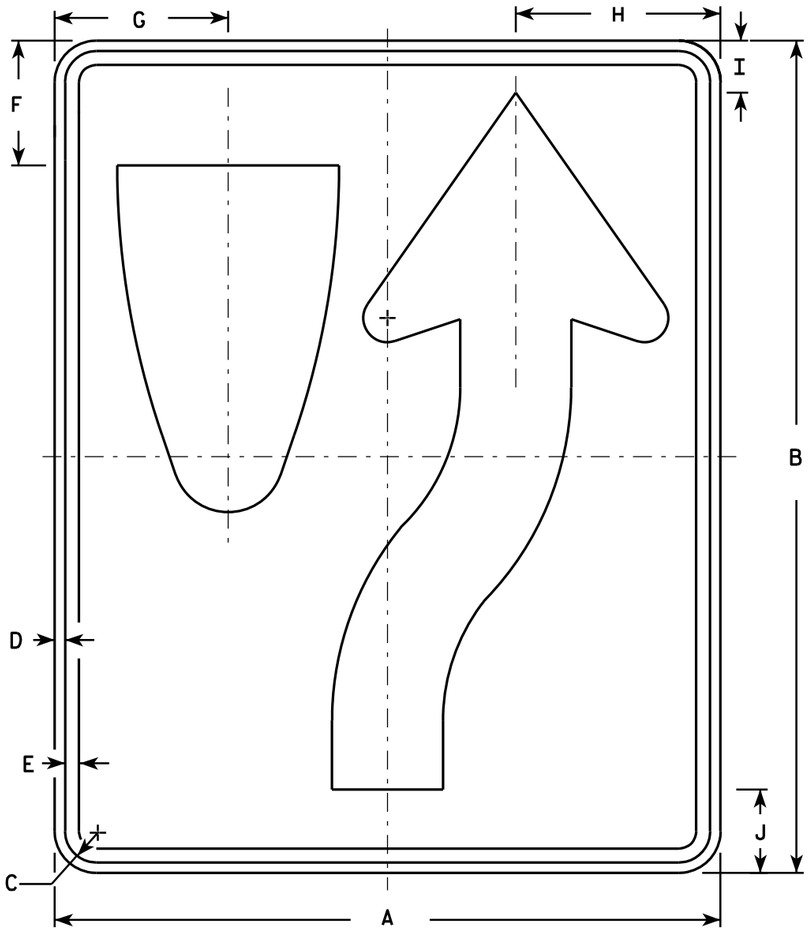
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/24/2011 PLATE NO. R3-8Y.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 888	E

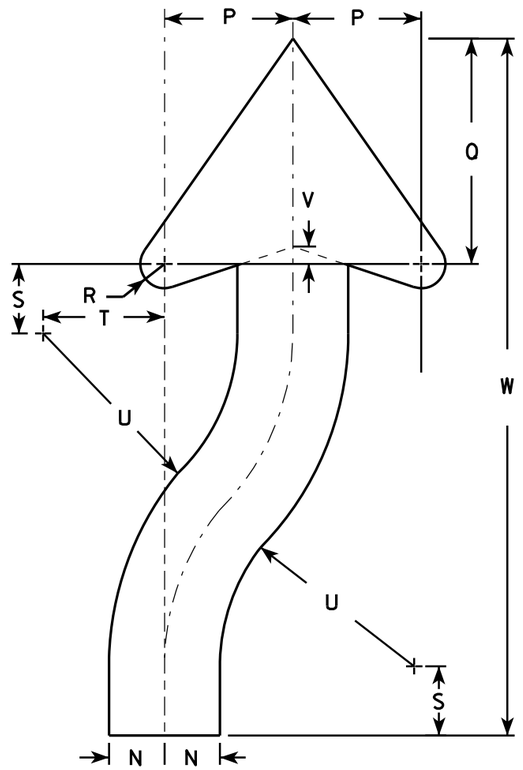




R4-7

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition. material is plywood but borders shall be rounded
2. Color:
   Background - White
   Message - Black
3. Corners may be square or rounded when base as shown. When base material is metal, the corners and borders shall be rounded.
4. R4-8 is the same as R4-7 except Legend is reversed.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3 3/8	4 3/4	5 1/2	1 3/8	2 1/4	6	3	9 3/8	1 1/2	22 1/2	3 1/2	6 1/8	5/8	1 7/8	3 1/4	6 3/4	1/2	20 3/8				3.0
2S	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
2M	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
3	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
4	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
5	48	60	2 1/4	3/4	1	9	12 1/2	14 3/4	3 3/4	6	16	8	25	4	60	9 1/4	16 1/4	1 5/8	5	8 3/4	18	1 1/4	50 1/4				20.0

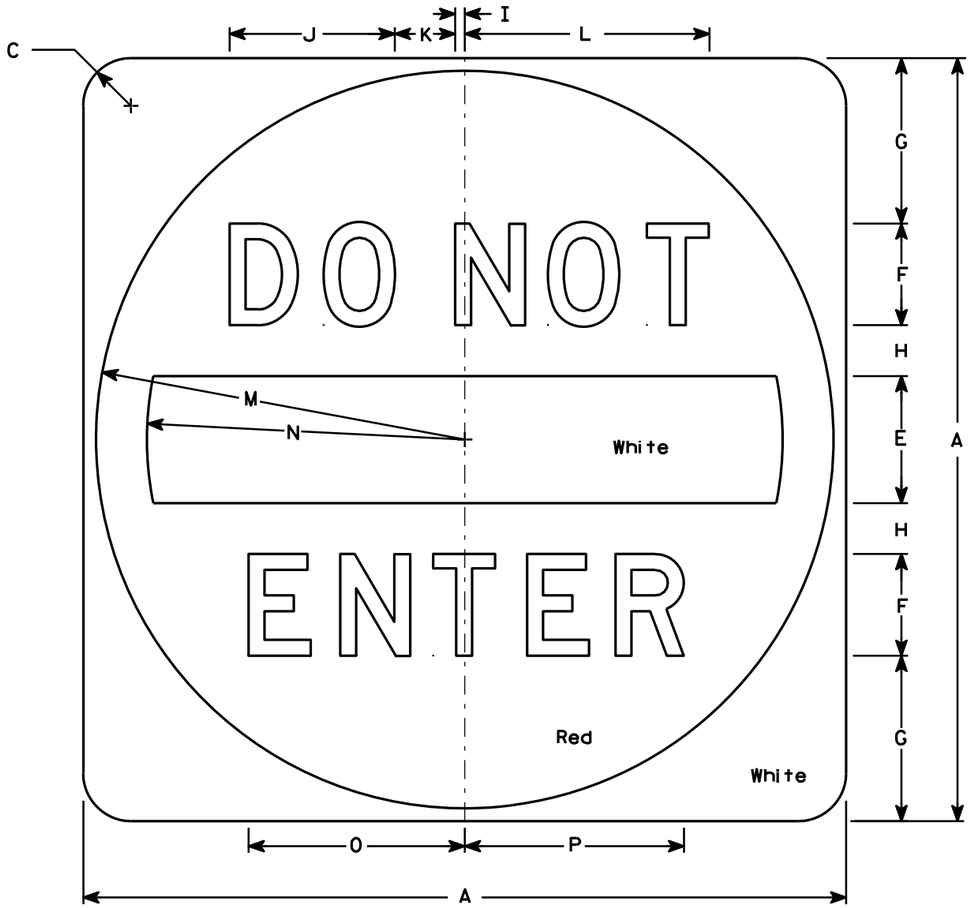
STANDARD SIGN
R4-7 & R4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-7.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 889	E



R5-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See detail
   Message - White - Type H Reflective
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but when base material is metal, the cornors shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30		1 7/8		5	4	6 1/2	2	3/8	6 1/2	2 3/8	9 5/8	14 1/2	12 1/2	8 1/2	8 5/8											6.26
2M	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
3	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
4	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
5	48		3		8	6	11	3	5/8	9 3/4	3 5/8	14 1/2	23 1/2	20	12 3/4	12 7/8											16.0

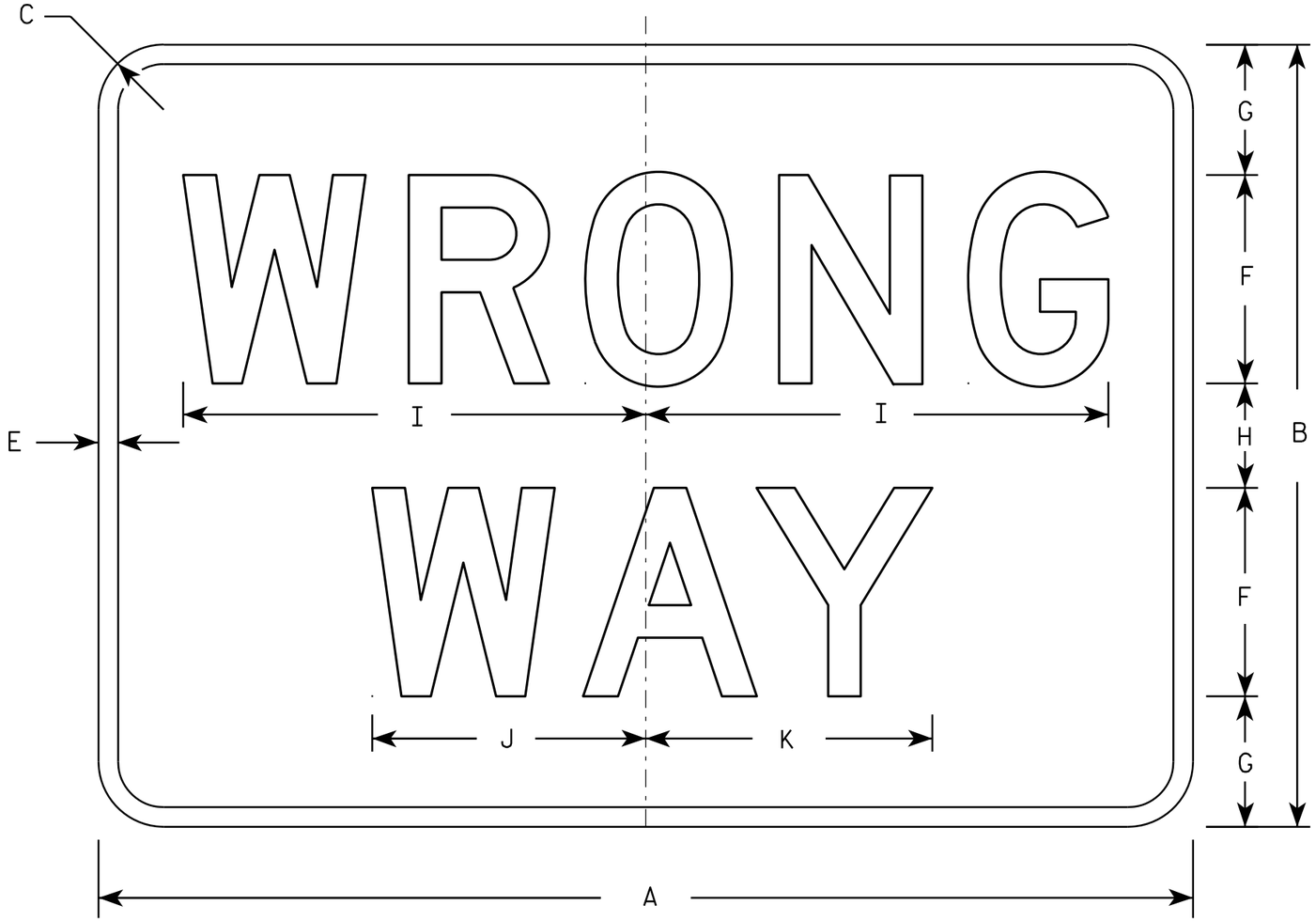
STANDARD SIGN
R5-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/17/10 PLATE NO. R5-1.15

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 890 | E



R5-1A

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30	18	1 1/2		1/2	5	3	2	11	6 1/2	6 7/8																3.75
2S	36	24	2		5/8	6	4 1/2	3	13 1/4	7 7/8	8 1/4																6.00
2M	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
3	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
4	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
5	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75

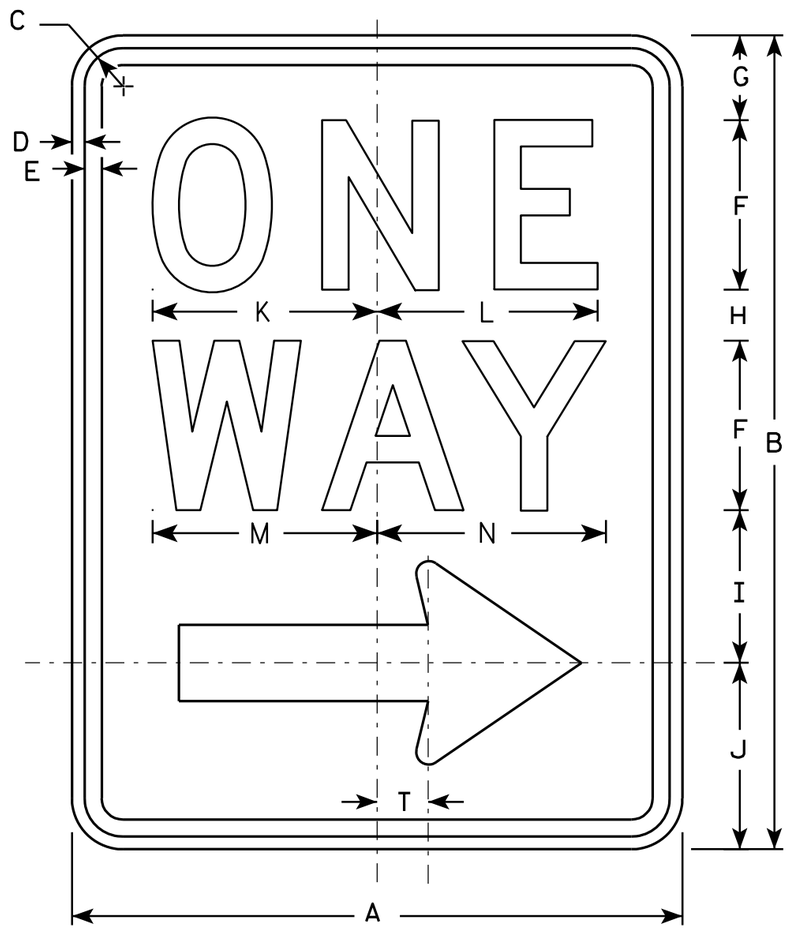
STANDARD SIGN
R5-1A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/17/10 PLATE NO. R5-1A.2

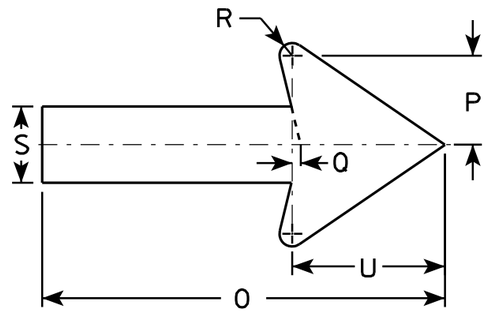
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 891 | E



R6-2R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. R6-2L same as R6-2R except arrow points to the left.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z
1	18	24	1 1/8	3/8	1/2	5	2 1/2	1 1/2	4 1/2	5 1/2	6 5/8	6 1/2	6 5/8	6 3/4	11 7/8	2 5/8	1/4	3/8	2 1/4	1 1/2	4 1/2					
2S	24	30	1 1/8	3/8	1/2	6	3	2 1/2	5 1/2	7	8 1/8	8 1/8	8 1/2	8 5/8	16	3 1/2	3/8	1/2	3	2	6					
2M	30	36	1 3/8	1/2	5/8	8	2 1/2	2 5/8	6 7/8	8	10 1/2	10 1/2	11 1/4	11 1/4	20	4 3/8	1/2	5/8	3 3/4	2 1/2	7 1/2					
3	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
4	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
5																										

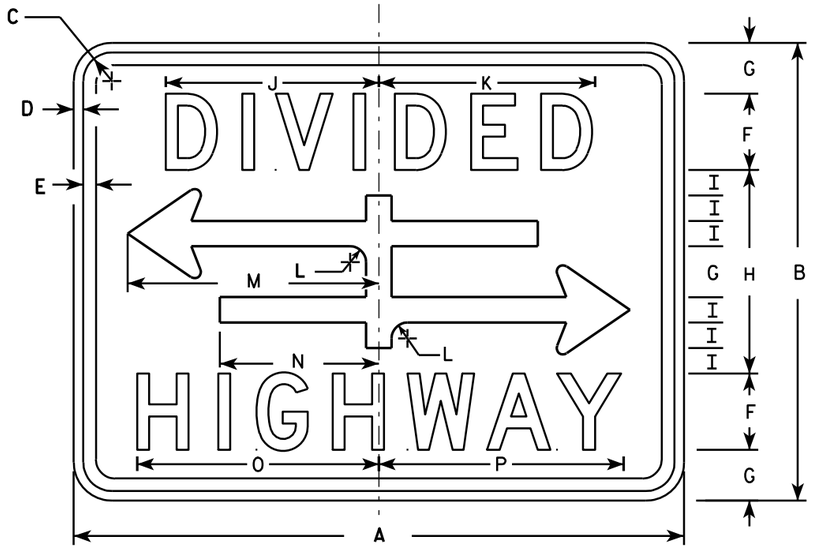
STANDARD SIGN
R6-2 R&L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/2/10 PLATE NO. R6-2.8

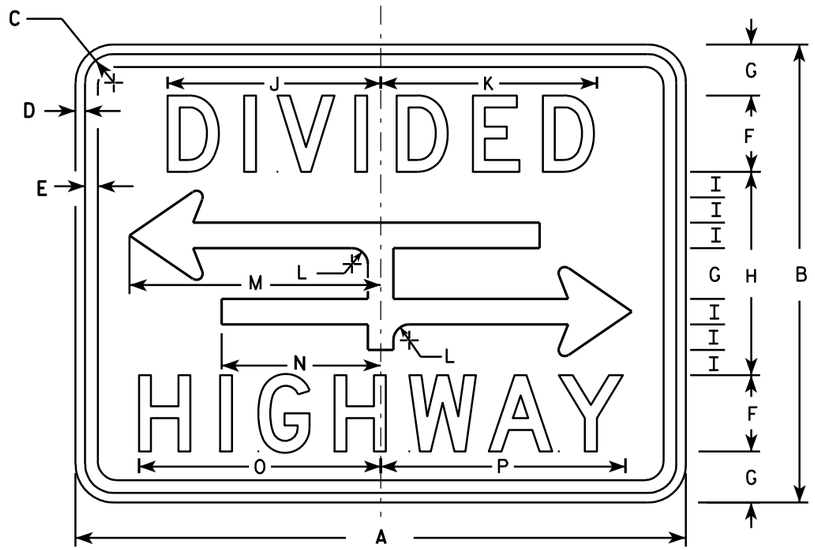
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 892	E



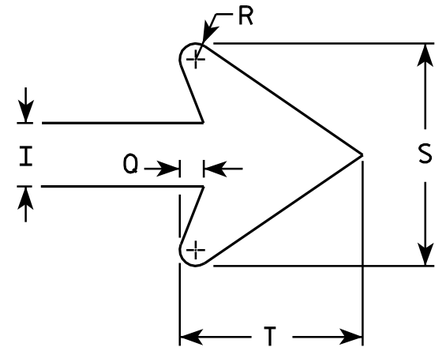
R6-3

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



R6-3A



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24	18	1 1/8	3/8	3/8	3	2	8	1	8 3/8	8 1/2	5/8	9 7/8	6 1/4	9 1/2	9 5/8	3/8	1/4	3 1/2	2 3/4							3.0
2S	30	24	1 1/8	3/8	1/2	4	2 5/8	10 3/4	1 3/8	10 1/2	10 5/8	7/8	12 1/2	7 7/8	12 1/4	12 3/8	1/2	3/8	4 5/8	3 5/8							5.0
2M	30	24	1 1/8	3/8	1/2	4	2 5/8	10 3/4	1 3/8	10 1/2	10 5/8	7/8	12 1/2	7 7/8	12 1/4	12 3/8	1/2	3/8	4 5/8	3 5/8							5.0
3																											
4																											
5																											

STANDARD SIGN
R6-3 & R6-3A

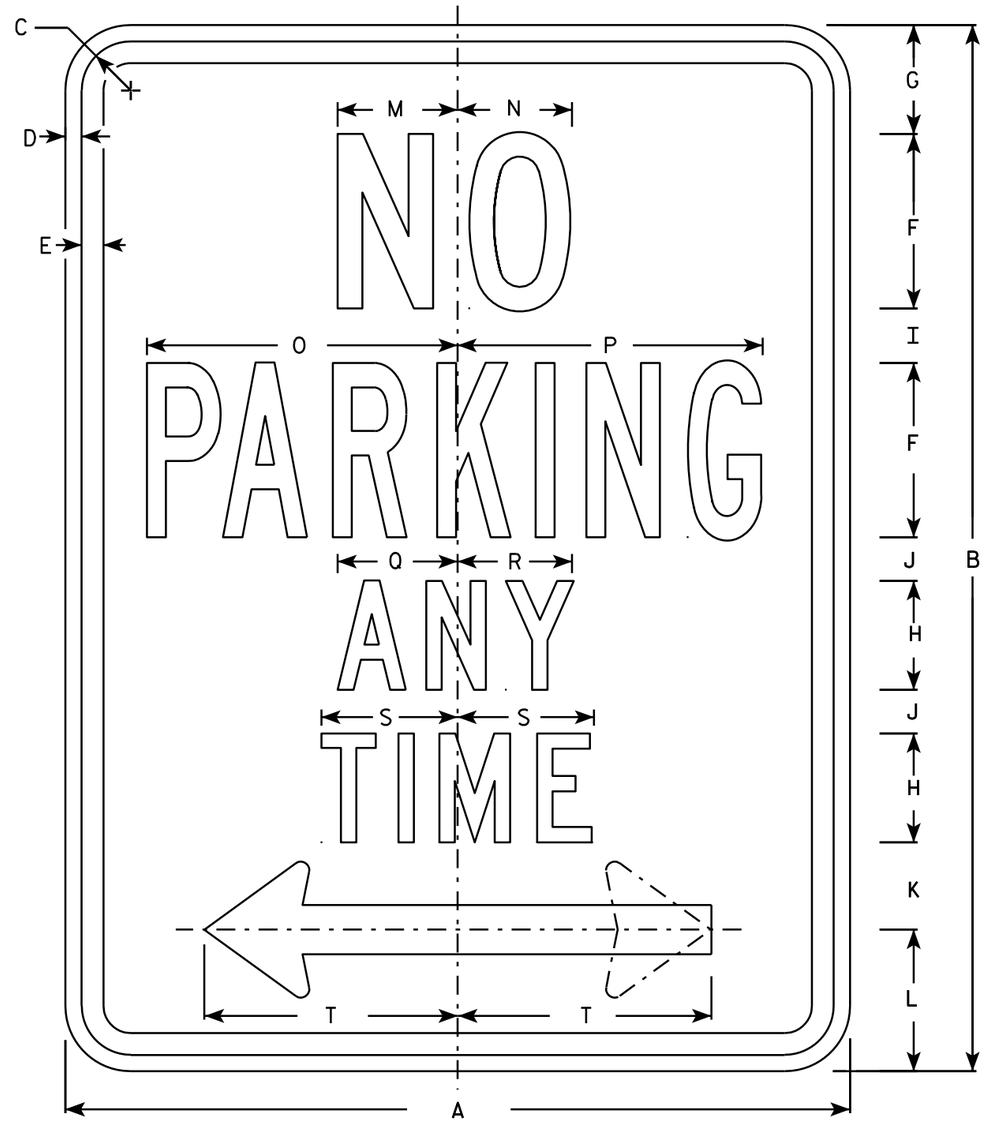
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R6-3.5

PROJECT NO:

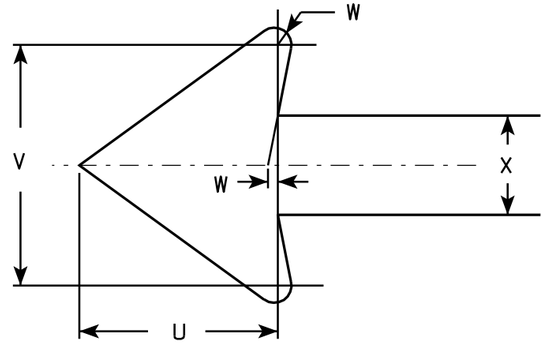
SHEET NO: 893 E



R7-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Red
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Lines 1, 3 and 4 are series C, line 2 is series B.
6. R7-1D (double arrow)
   R7-1L (left arrow)
   R7-1R (right arrow)



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	12	18	1 1/8	3/8	3/8	3	1 7/8	2	7/8	5/8	1 1/2	2 1/2	2	2	4 7/8	4 7/8	2 1/4	2 1/8	2 1/2	3 7/8	1 1/2	1 3/4	1/8	3/4			1.5
2S	18	24	1 1/8	3/8	1/2	4	2 1/2	2 1/2	1 1/4	1	2	3 1/4	2 3/4	2 5/8	7 1/8	7	2 3/4	2 5/8	3 1/8	5 7/8	2 1/4	2 5/8	1/4	1 1/8			3.0
2M	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	3 1/4	3 1/4	3 3/4	7 3/4	3	3 1/2	1/4	1 1/2			5.0
3	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	3 1/4	3 1/4	3 3/4	7 3/4	3	3 1/2	1/4	1 1/2			5.0
4																											
5																											

STANDARD SIGN
R7-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R7-1.9

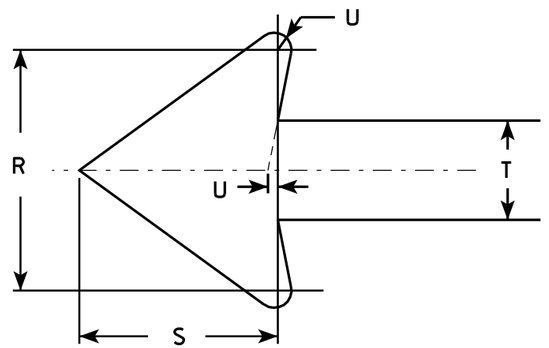
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 894	E

R7-2

*- See Note 5

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Red
3. Message Series - See Note 7
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals as required & adjust spacing to achieve proper balance.
6. R7-2D (double arrow)
   R7-2L (left arrow)
   R7-2R (right arrow)
7. Lines 1, 3 and 4 are series C, line 2 is series B.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	12	18	1 1/8	3/8	3/8	3	1 7/8	1 1/2	7/8	7/8	2	2 1/2	2	2	4 7/8	4 7/8	3 7/8	1 3/4	1 1/2	3/4	1/8						1.5
2S	18	24	1 1/8	3/8	1/2	4	2 1/2	2 1/2	1 1/4	1	2	3 1/4	2 3/4	2 5/8	7 1/8	7	5 7/8	2 5/8	2 1/4	1 1/8	1/4						3.0
2M	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	7 3/4	3 1/2	3	1 1/2	1/4						5.0
3	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	7 3/4	3 1/2	3	1 1/2	1/4						5.0
4																											
5																											

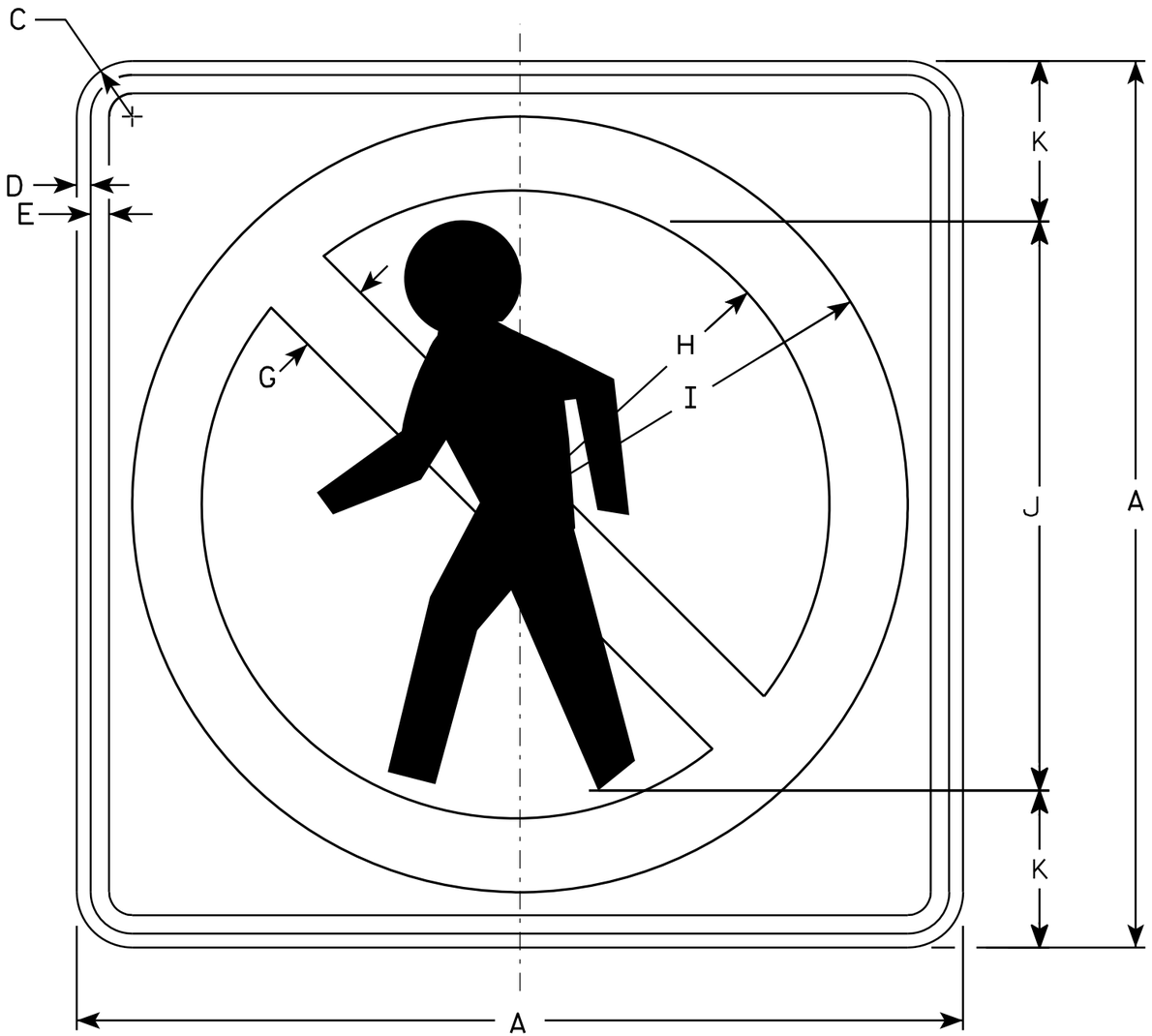
STANDARD SIGN
R7-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R7-2.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 895	E



R9-3A

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Pedistrian are non-reflective black. Circle with diagonal bar is reflective red.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	18		1 1/8	3/8	3/8		1 1/2	6 1/4	7 7/8	12	3																2.25
2M	18		1 1/8	3/8	3/8		1 1/2	6 1/4	7 7/8	12	3																2.25
3																											
4	24		1 1/8	3/8	1/2		2	8 1/2	10 1/2	15	4																4.00
5																											

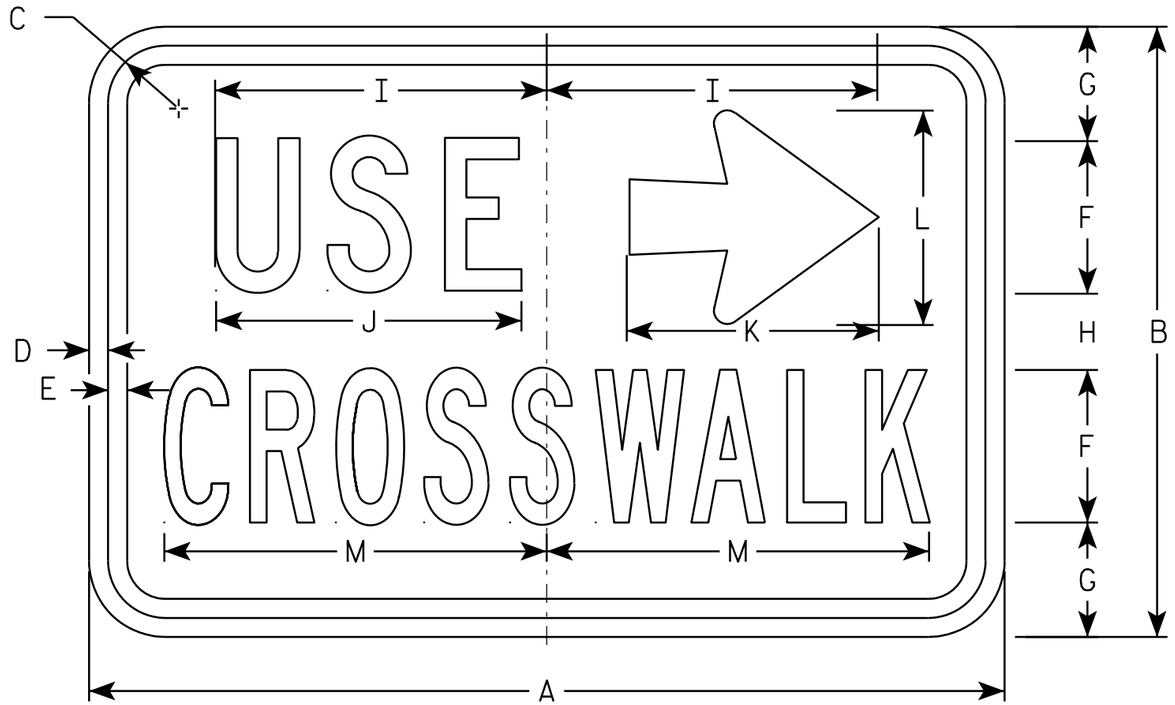
STANDARD SIGN
R9-3A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/4/10 PLATE NO. R9-3A.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 896 | E



R9-3BR

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - C Line 1, Series B Line 2
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. R9-3BL is the same as R9-3BR except USE and the arrow are switched.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	18	12	1 1/8	3/8	3/8	3	2 1/4	1 1/2	6 1/2	6	5	4 1/4	7 1/2														1.5
2M	18	12	1 1/8	3/8	3/8	3	2 1/4	1 1/2	6 1/2	6	5	4 1/4	7 1/2														1.5
3																											
4																											
5																											

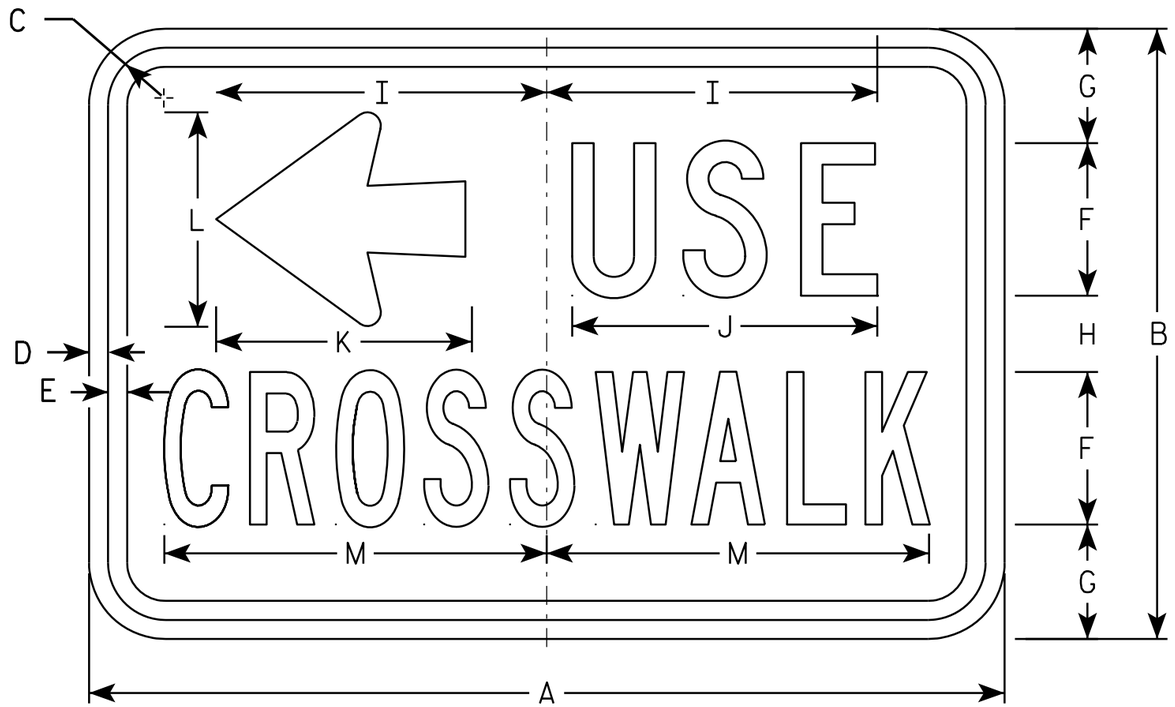
STANDARD SIGN
R9-3BR&L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/4/10 PLATE NO. R9-3B.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 897 | E



R9-3BL

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - C Line 1, Series B Line 2
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

Metric equivalent for this sign is:

SIZE	
1	
2	450 mm X 300 mm
3	
4	
5	

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	18	12	1⅛	⅜	⅜	3	2 ¼	1 ½	6 ½	6	5	4 ¼	7 ½														1.5	0.14
3																												
4																												
5																												

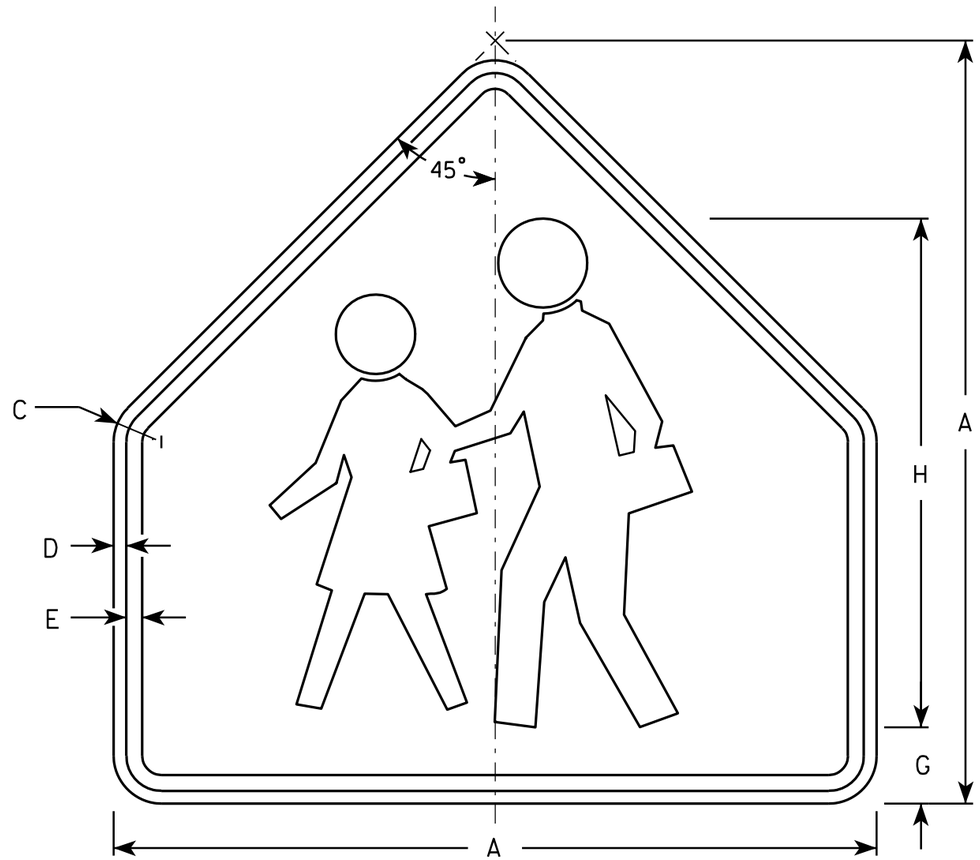
STANDARD SIGN
R9-3BL

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/05/09 PLATE NO. R9-3BL.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 898 | E



S1-1

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow-Green
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8		3	20																			4.69
2	36		1 5/8	5/8	3/4		3 1/2	24																			6.75
3	36		1 5/8	5/8	3/4		3 1/2	24																			6.75
4	48		2 1/4	3/4	1		4 3/4	32																			12
5																											

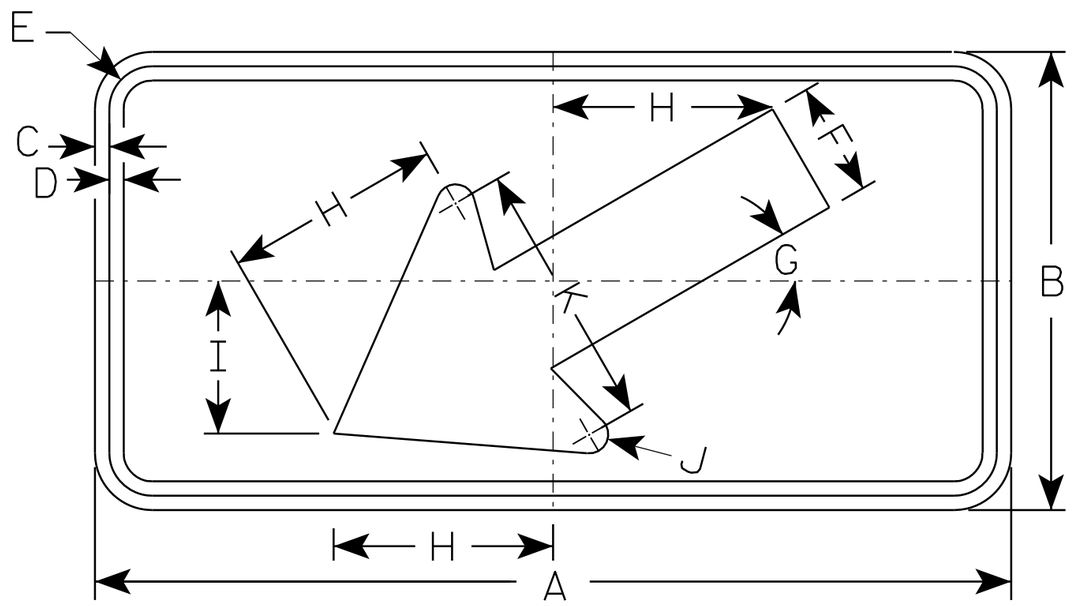
STANDARD SIGN
S1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/30/05 PLATE NO. S1-1.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 899	E



S16-7L

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow-Green
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. S16-7R are the same as S16-7L except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24	12	3/8	3/8	1 1/8	3	30°	5 3/4	4	1/2	7																2.0
2S	30	18	3/8	1/2	1 1/8	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
2M	30	18	3/8	1/2	1 1/8	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
3	30	18	3/8	1/2	1 1/8	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
4	48	24	1/2	5/8	1 3/8	6	30°	11 1/2	8	1	14																8.0
5																											

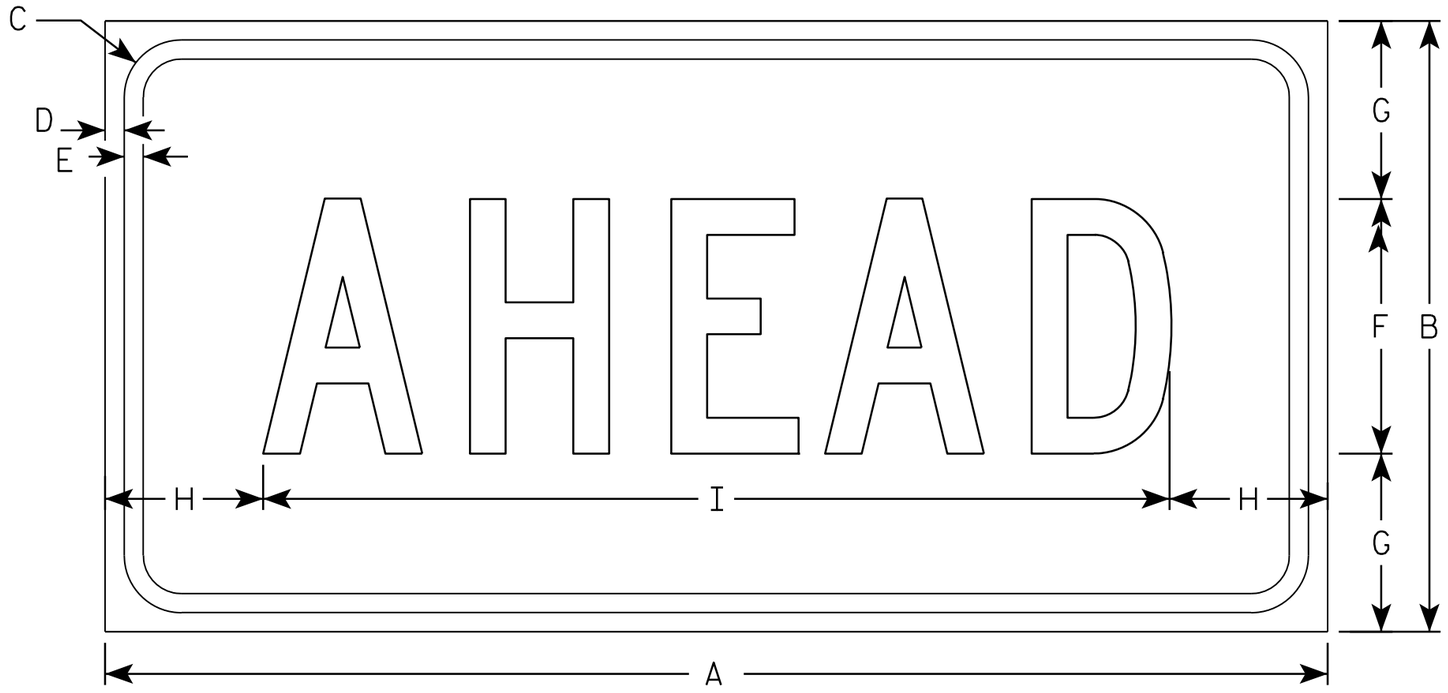
STANDARD SIGN
S16-7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/22/13 PLATE NO. S16-7.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 900 | E



S16-9P

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow-Green
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24	12	1 1/8	3/8	3/8	5	3 1/2	3 1/8	17 3/4																		2.0
2S	30	18	1 1/8	3/8	1/2	7	5 1/2	2 3/4	24 1/2																		3.75
2M	30	18	1 1/8	3/8	1/2	7	5 1/2	2 3/4	24 1/2																		3.75
3	30	18	1 1/8	3/8	1/2	7	3 1/2	2 3/4	24 1/2																		3.75
4	48	24	1 3/8	1/2	5/8	10	7	6 1/8	35 3/4																		8.0
5																											

STANDARD SIGN
S16-9P

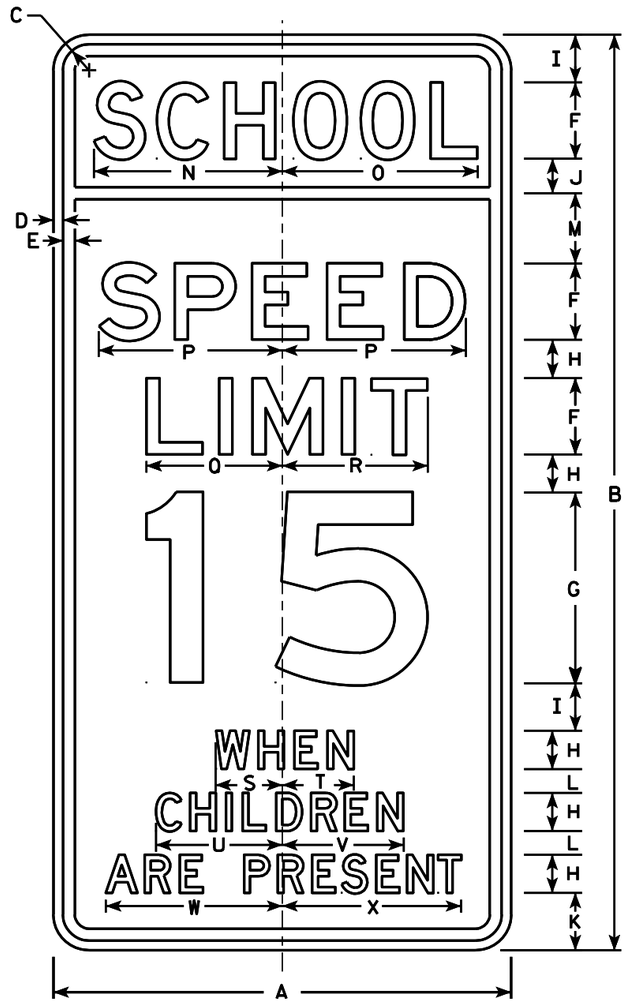
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/22/13 PLATE NO. S16-9P.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 901 | E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\S169P.dgn PLOT DATE : 22-JUL-2013 10:32 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 2.977140:1.000000



S4-51

NOTES

1. Sign is Type II - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition. (See note 5).
2. Color:
   Background - See note 5
   Message - Black
3. Message Series - See note 6
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Top panel (SCHOOL) background - Yellow Green -Type F Reflective.
   Lower panel background - White -Type H Reflective.
6. From top to bottom:
   Lines 1, 5, 6 & 7 are series D
   Lines 2, 3 & 4 are series E
7. Line 4 substitute appropriate numerals and adjust spacing to achieve proper balance.

Metric equivalent for this sign is:

SIZE	
1	
2	600 mm X 1200 mm
3	900 mm X 1800 mm
4	
5	

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	24	48	1 3/8	1/2	5/8	4	10	2	2 1/2	1 3/4	3	1 1/4	3 3/4	9 7/8	10 1/4	9 5/8	7 1/8	7 5/8	3 1/2	3 3/8	6 5/8	6 3/8	9 1/4	9 3/8			8.00	0.72
3	36	72	2 1/4	3/4	1	6	15	3	3 3/4	2 3/4	4 1/2	1 7/8	5 1/2	15	15 1/4	14 1/2	11 1/4	11 1/2	5 1/2	5 3/4	10	9 3/4	14	14 1/8			18.00	1.62
4																												
5																												

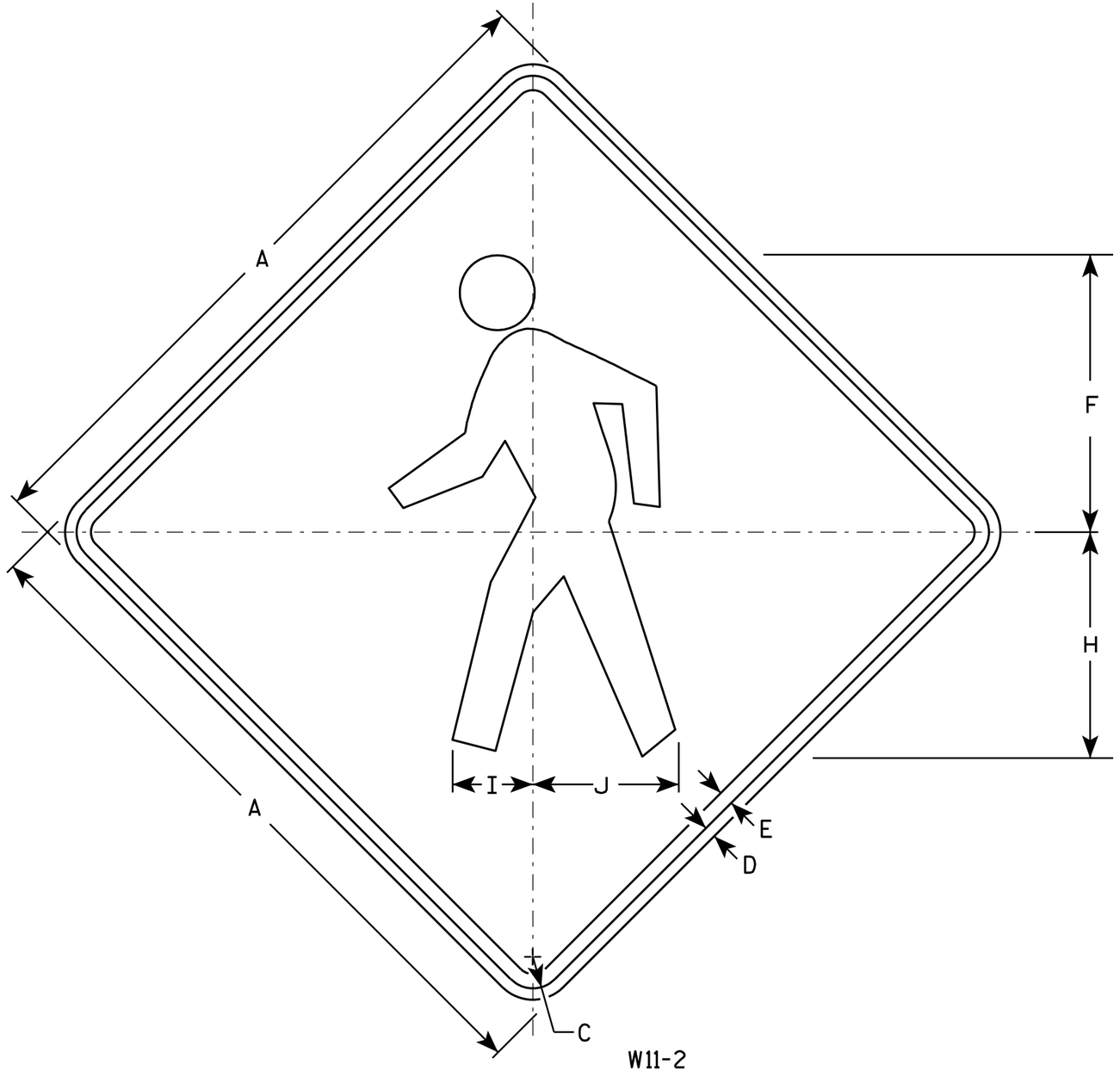
STANDARD SIGN
S4-51

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/26/10 PLATE NO. S4-51.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 902	E



W11-2

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	9 3/4		7 7/8	2 7/8	5 1/8																	4.0
2S	30		1 3/8	1/2	5/8	12 1/8		9 7/8	3 1/2	6 3/8																	6.25
2M	36		1 5/8	5/8	3/4	14 1/2		11 7/8	4 1/4	7 5/8																	9.0
3	36		1 5/8	5/8	3/4	14 1/2		11 7/8	4 1/4	7 5/8																	9.0
4	48		2 1/4	3/4	1	19 3/8		15 3/4	5 5/8	10 1/4																	16.0
5																											

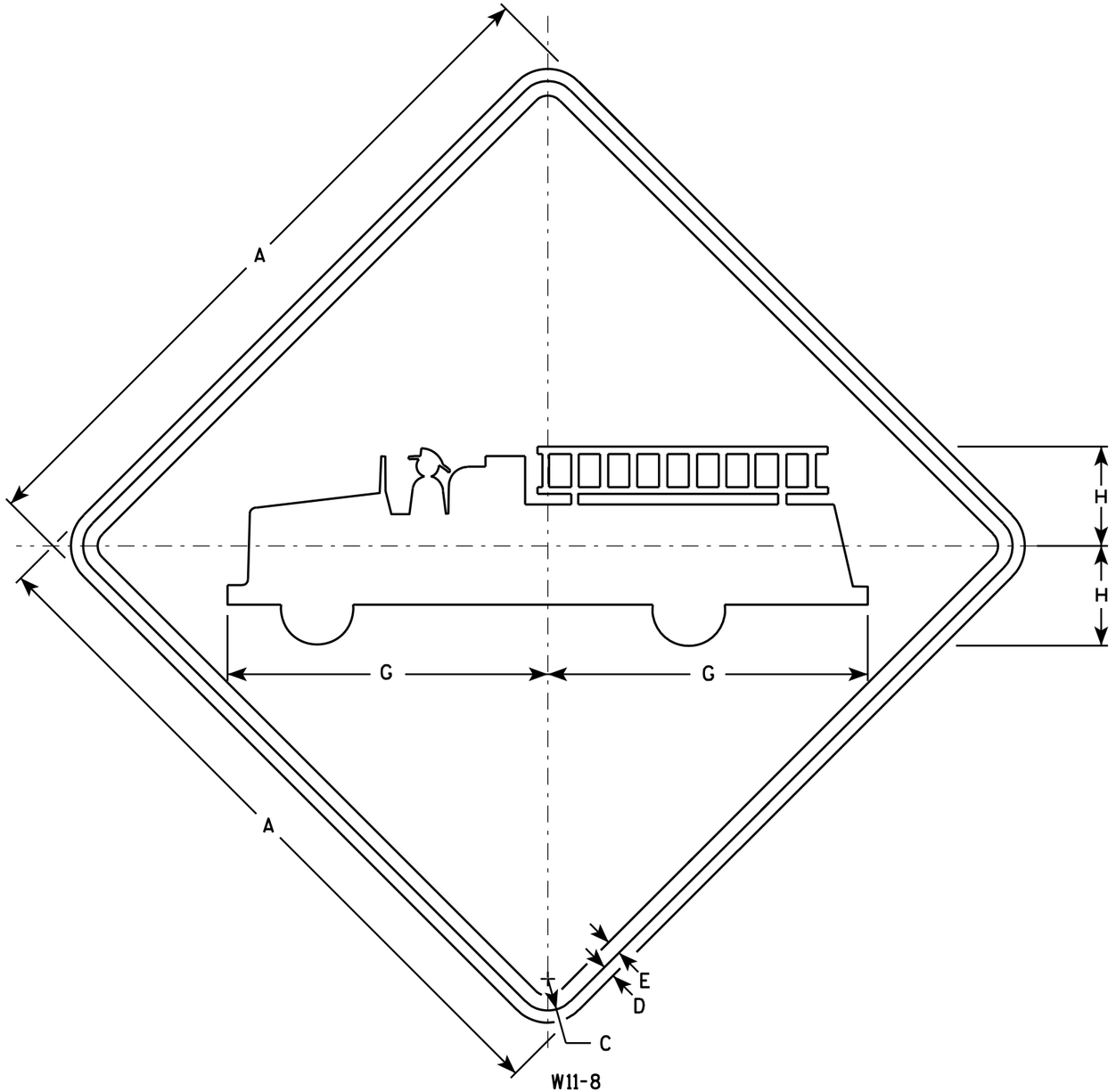
STANDARD SIGN
W11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W11-2.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 903	E



W11-8

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2		11	3 3/8																			4.0
2S	30		1 3/8	1/2	5/8		13 3/4	4 3/8																			6.25
2M	30		1 3/8	1/2	5/8		13 3/4	4 3/8																			6.25
3	36		1 5/8	5/8	3/4		16 1/2	5 1/4																			9.0
4	48		2 1/4	3/4	1		22	7																			16.0
5																											

STANDARD SIGN
W11-8

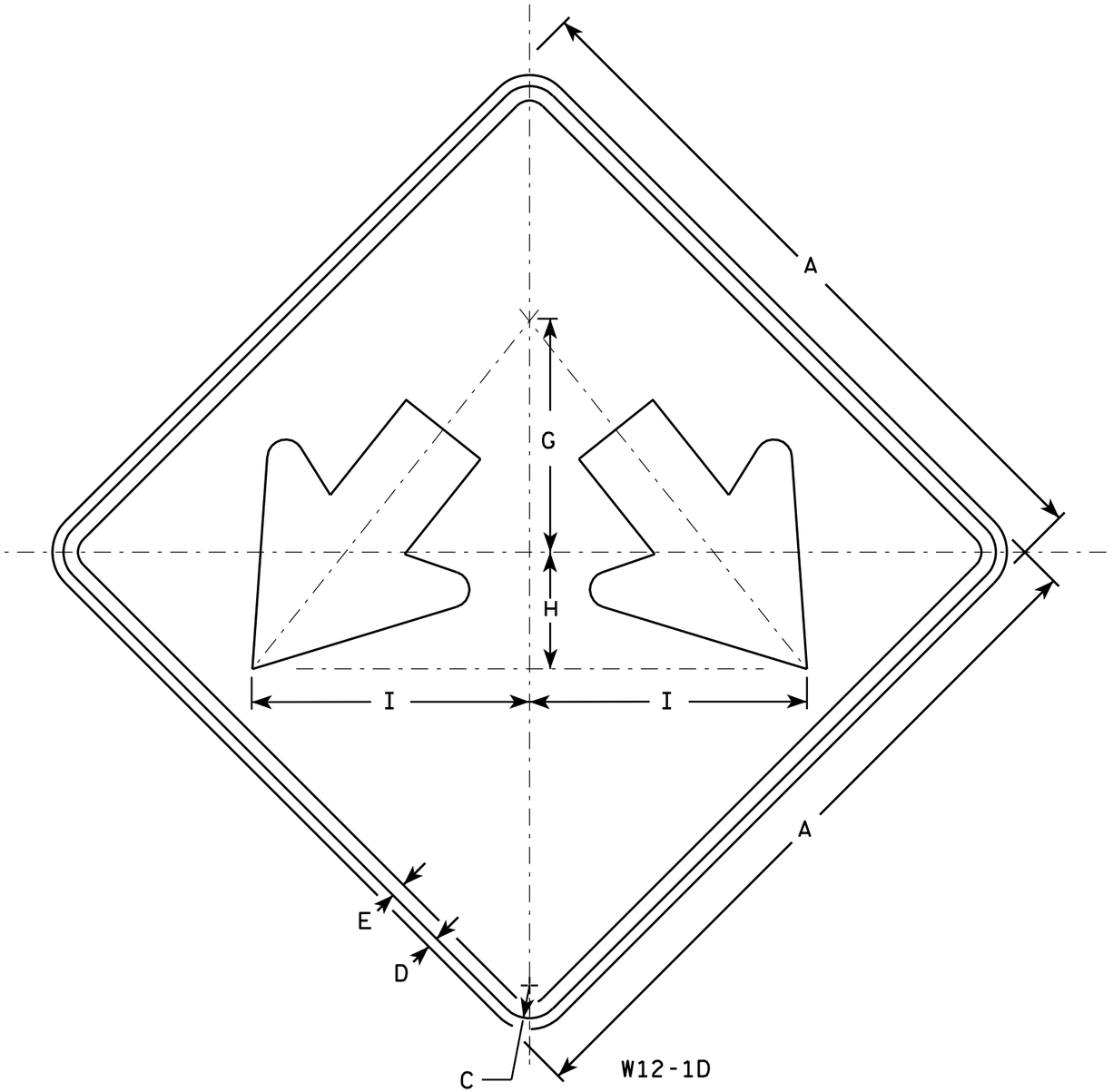
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/13/13 PLATE NO. W11-8.7

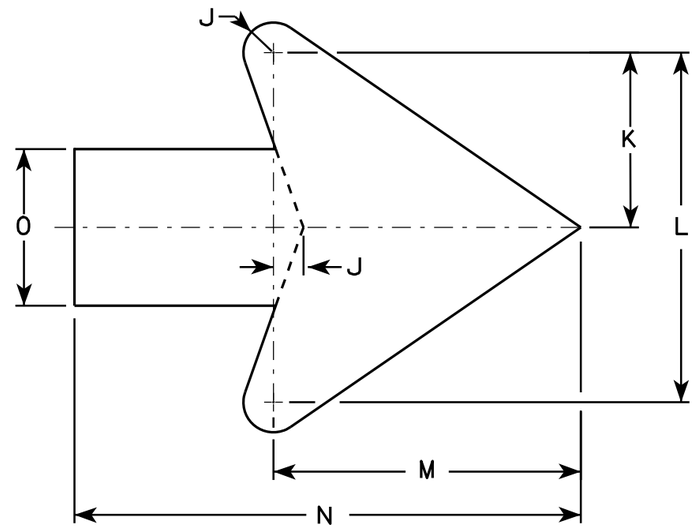
PROJECT NO:

SHEET NO: 904 E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
2M	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
3	30		1 3/8	1/2	5/8		10	5	11 7/8	3/4	4 1/2	9	7 7/8	13	4												6.25
4	36		1 3/8	1/2	5/8		12	6	14 1/4	1	5 1/2	10 7/8	9 5/8	15 3/4	4 3/4												9.0
5	48		2 1/4	3/4	1		16	8	19	1 1/4	7 1/4	14 1/2	12 3/4	21	6 1/4												16.0

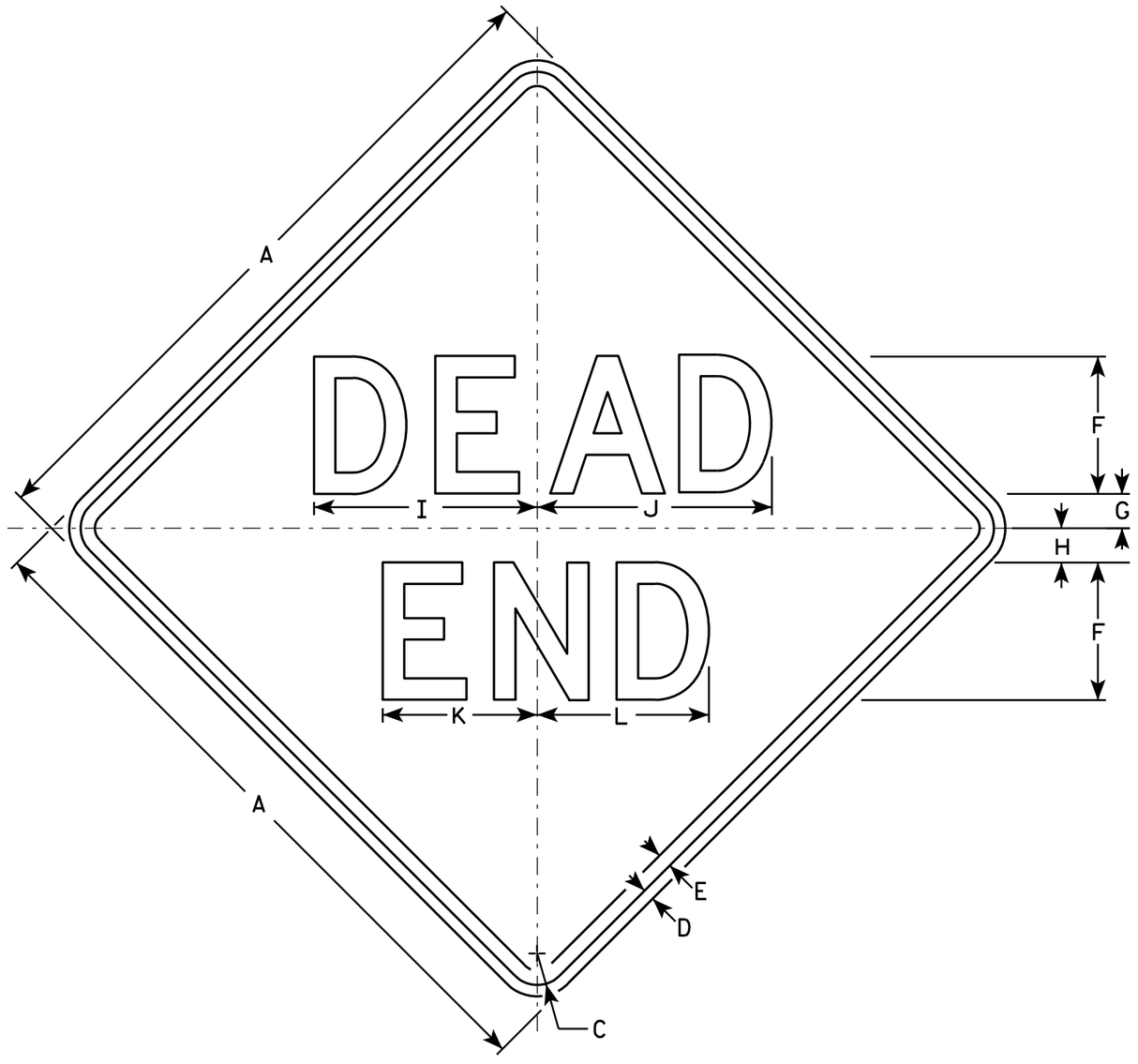
STANDARD SIGN
W12-1D

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/13/13 PLATE NO. W12-1D.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 905	E



W14-1

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	5	1	2	8 1/4	8 5/8	5 5/8	6 1/4															4.0
2S	30		1 3/8	1/2	5/8	6	1 1/2	2 1/2	9 3/4	10 1/4	6 3/4	7 1/2															6.25
2M	30		1 3/8	1/2	5/8	6	1 1/2	2 1/2	9 3/4	10 1/4	6 3/4	7 1/2															6.25
3	36		1 5/8	5/8	3/4	7	2	3	11 3/8	12	7 7/8	8 3/4															9.0
4																											
5																											

STANDARD SIGN
W14-1

WISCONSIN DEPT OF TRANSPORTATION

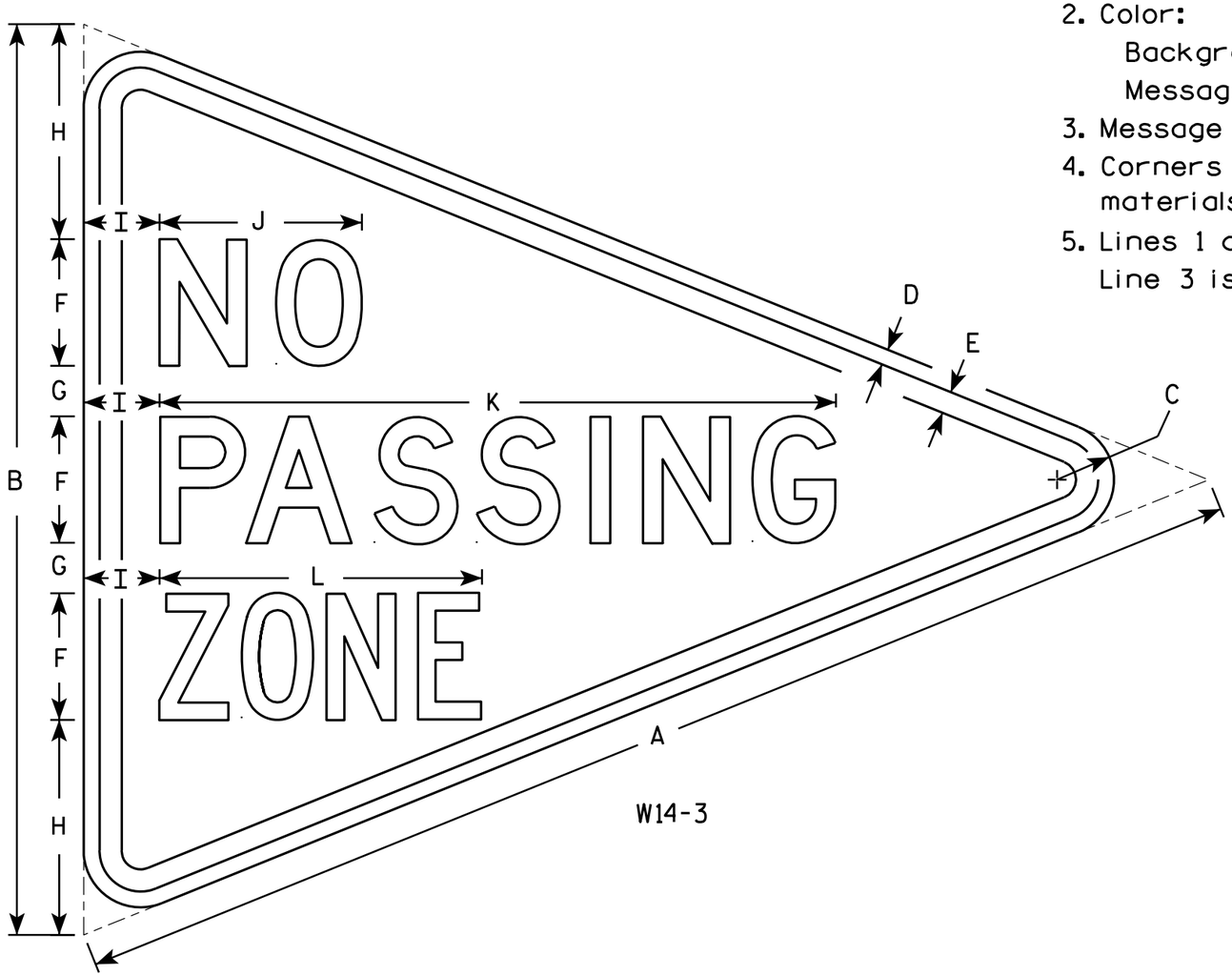
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/13/13 PLATE NO. W14-1.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 906	E

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - See note 5
4. Corners and borders shall be rounded on all base materials for this sign.
5. Lines 1 and 2 are Series D.
   Line 3 is series C.



W14-3

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	36	2 1/4	5/8	7/8	5	2	8 1/2	3	8	26 3/4	12 3/4															6.0
2M	48	36	2 1/4	5/8	7/8	5	2	8 1/2	3	8	26 3/4	12 3/4															6.0
3	64	48	3	3/4	1 1/4	6	3	12	4	10 3/4	33 5/8	16 1/2															10.7
4																											
5																											

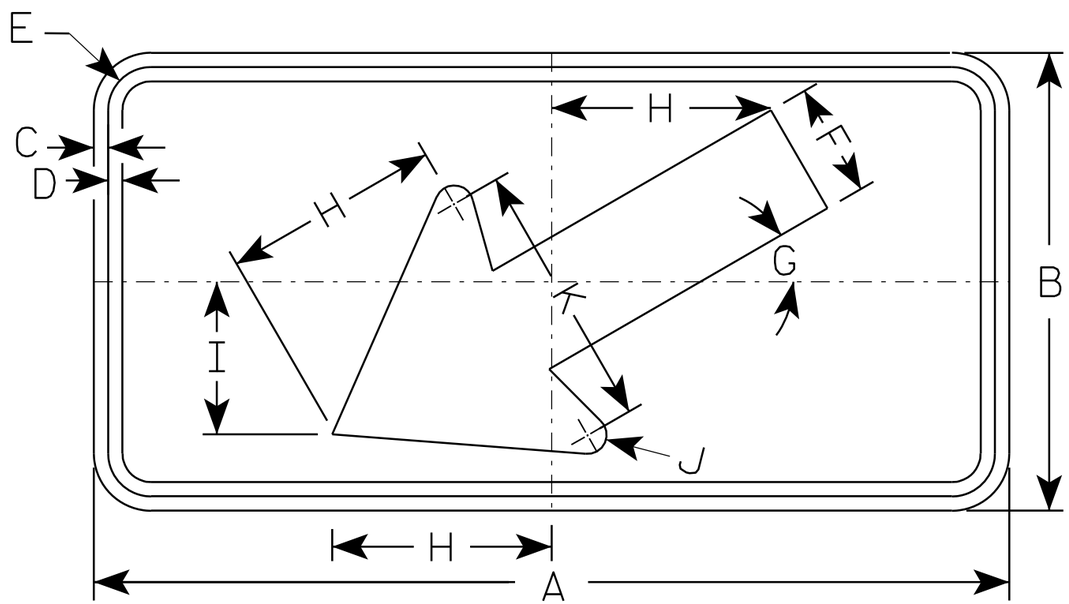
STANDARD SIGN
W14-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W14-3.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 907	E



W16-7L

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W16-7R is the same as W16-L except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	3/8	3/8	1 1/8	3	30°	5 3/4	4	1/2	7																2.0
2M	30	18	3/8	1/2	1 1/8	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
3	30	18	3/8	1/2	1 1/8	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
4																											8
5																											8

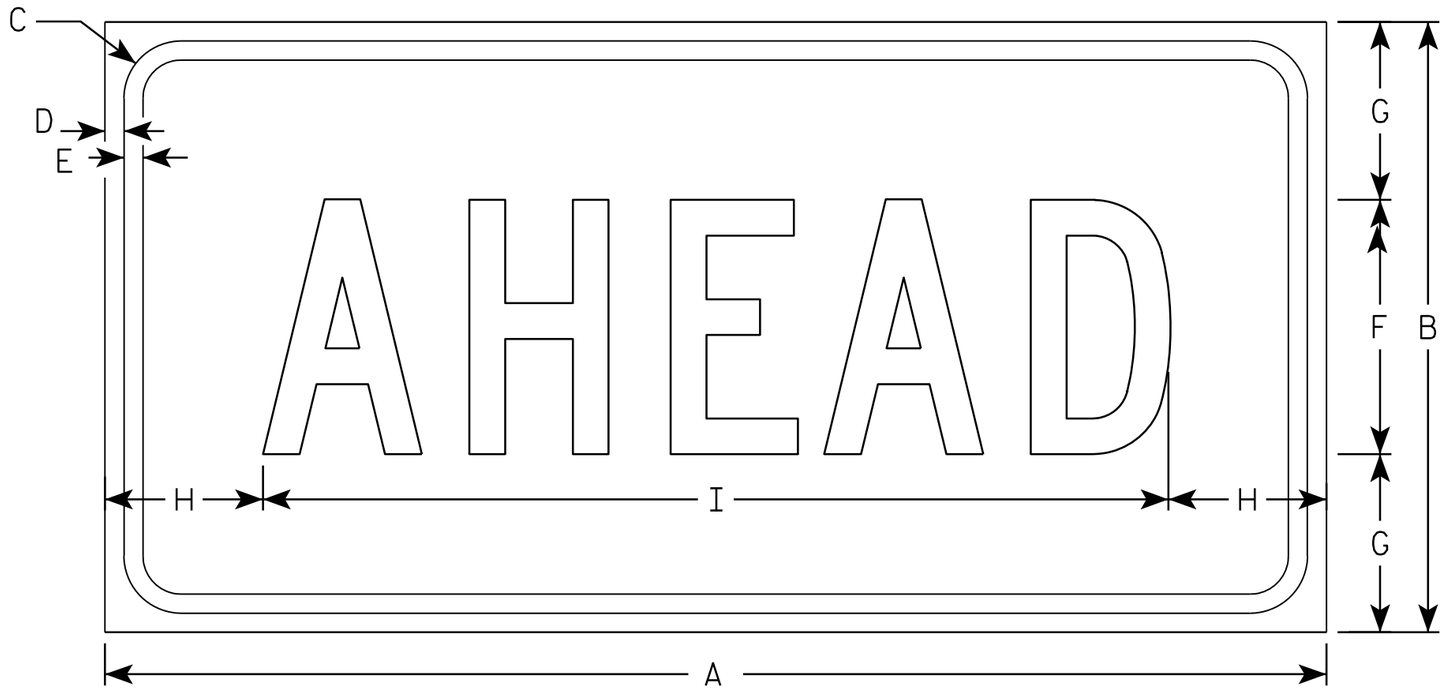
STANDARD SIGN
W16-7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/02/10 PLATE NO. W16-7.5

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 908	E



W16-9P

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 1/8	3/8	3/8	5	3 1/2	3 1/8	17 3/4																		2.0
2M	30	18	1 1/8	3/8	1/2	7	5 1/2	2 3/4	24 1/2																		3.75
3	30	18	1 1/8	3/8	1/2	7	3 1/2	2 3/4	24 1/2																		3.75
4	48	24	1 3/8	1/2	5/8	10	7	6 1/8	35 3/4																		8.0
5																											

STANDARD SIGN
W16-9P

WISCONSIN DEPT OF TRANSPORTATION

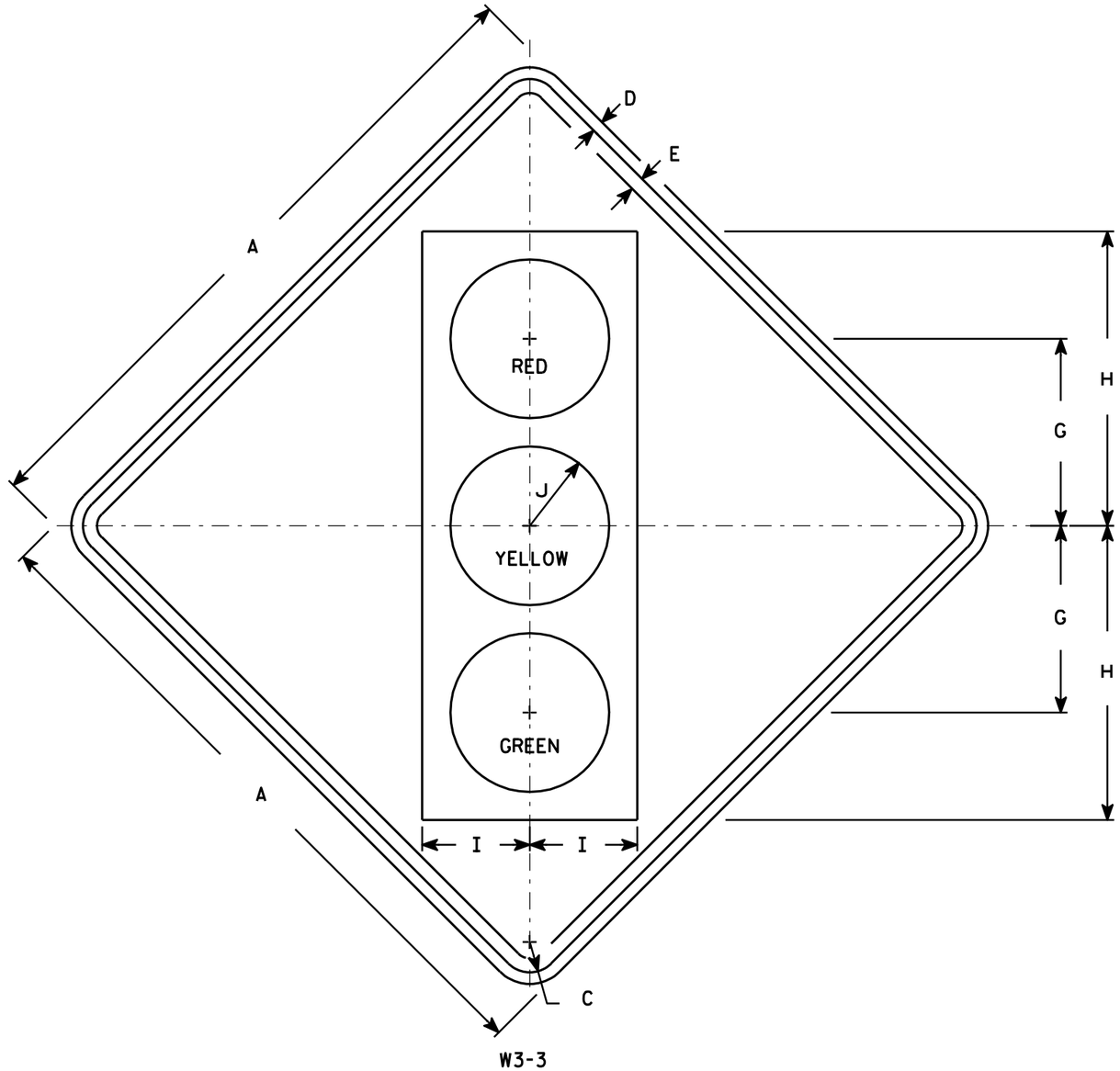
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/28/10 PLATE NO. W16-9P.6

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 909 | E

7

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W169P.DGN PLOT DATE : 28-DEC-2010 13:39 PLOT BY : dotsja PLOT NAME : PLOT SCALE : 2.979524:1.000000



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - See Note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Symbol and border are non-reflective black.
   Top circle - Type H Reflectorized Red
   Center circle - Same as background
   Bottom circle - Type H Reflectorized Green

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8		8 3/4	13 3/4	5	3 3/4																	6.25
2S	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
2M	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
3	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
4	48		2 1/4	3/4	1		12 1/2	20	7 1/2	5																	16.0
5	48		2 1/4	3/4	1		12 1/2	20	7 1/2	5																	16.0

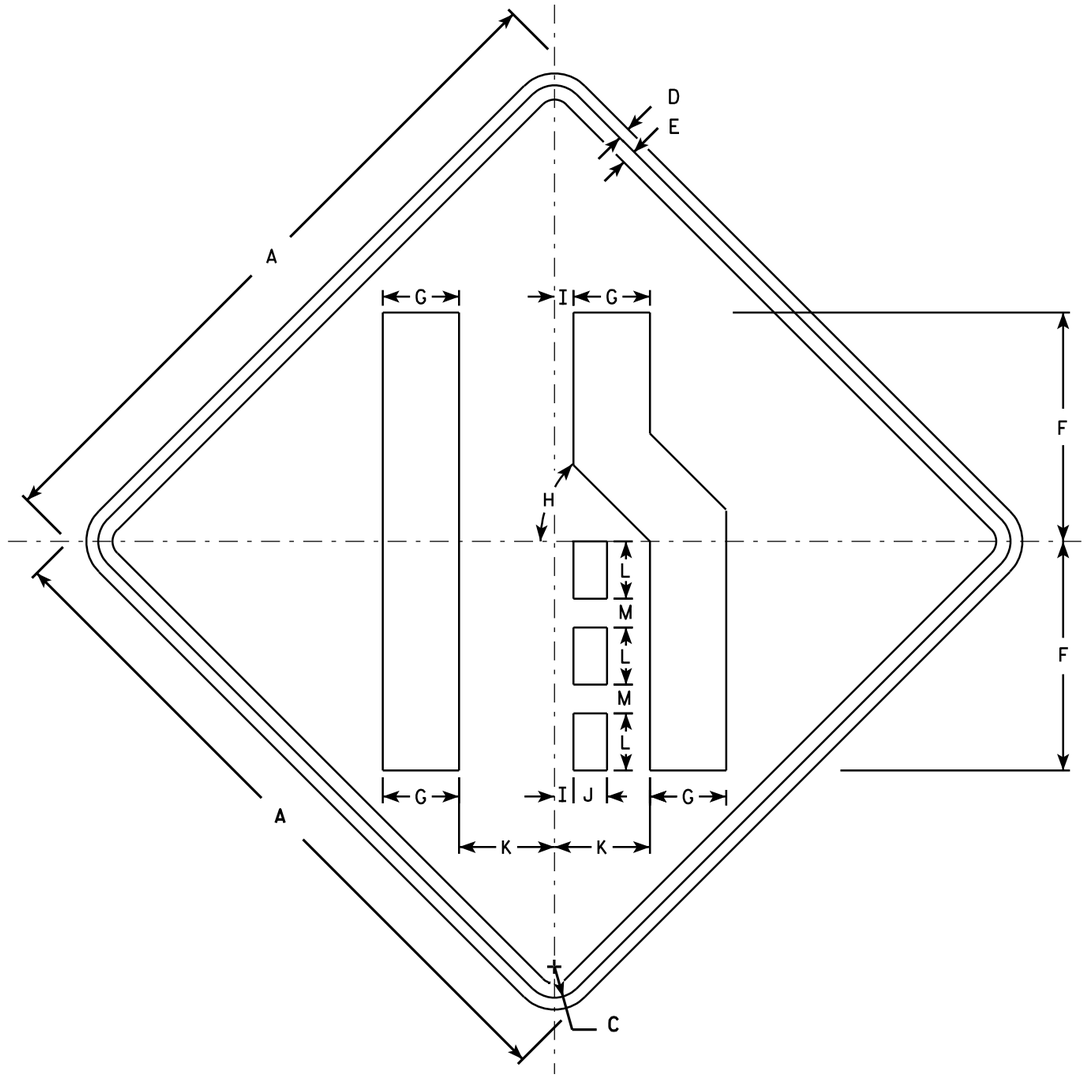
STANDARD SIGN
W3-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W3-3.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 910 | E



W4-2R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W4-2L is the same as W4-2R except the symbol is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	10	3 3/8	45°	7/8	1 1/2	4 1/4	2 1/2	1 1/4														6.25
2S	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2M	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
3	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
4	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
5	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0

STANDARD SIGN
W4-2

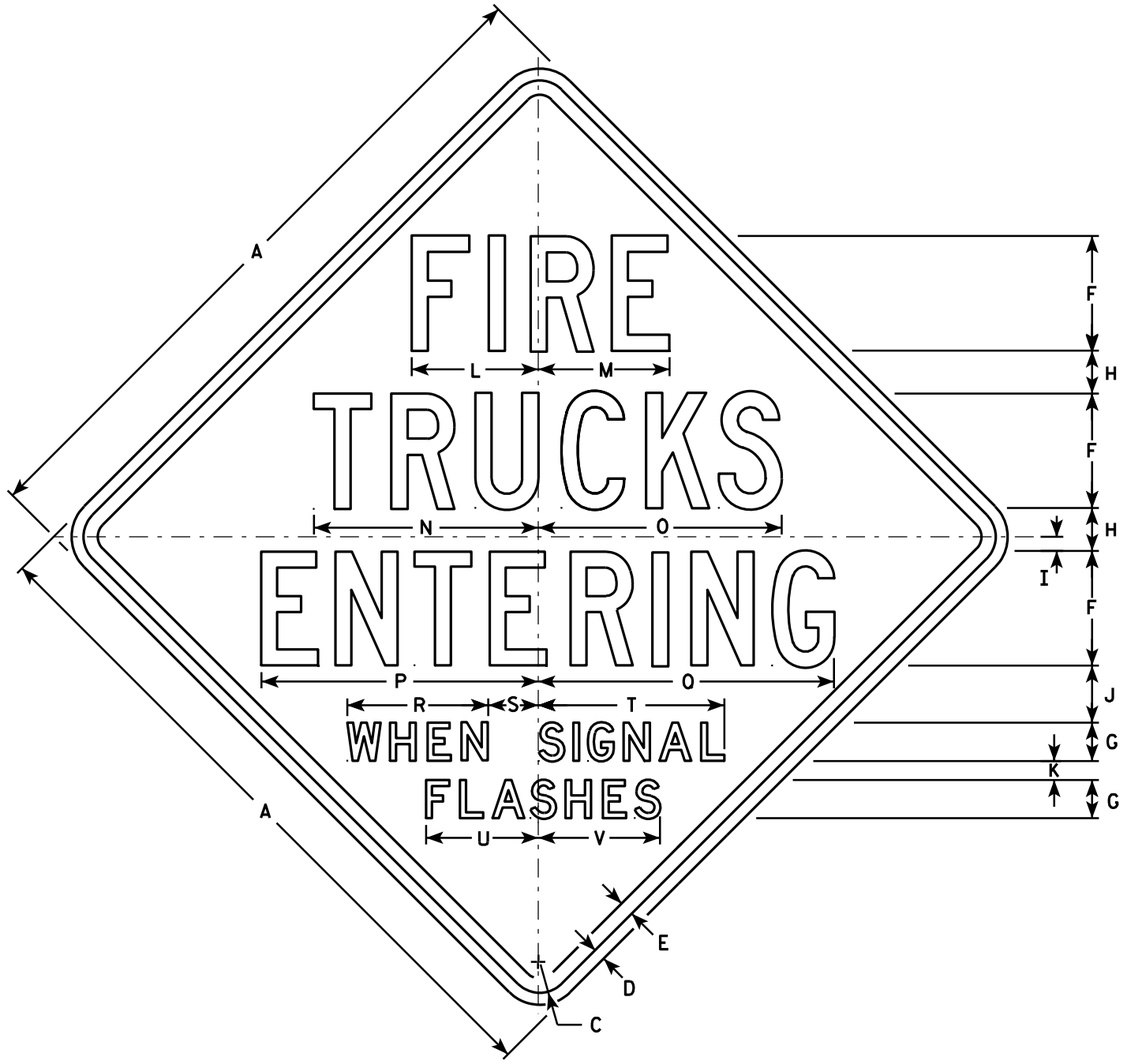
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/12/13 PLATE NO. W4-2.14

PROJECT NO:

SHEET NO: 911 E



W54-60

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - Lines 1, 2, & 3 are Series C
   Lines 4 & 5 are Series D.
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	4	1 1/2	1 1/2	1/2	1 3/4	3/4	4 3/8	4 1/2	7 1/8	8 1/2	9 5/8	10 1/4	5 1/2	1 3/4	7 1/8	4 1/2	4 5/8					4.00
2S	36		1 5/8	5/8	3/4	6	2	2 1/4	3/4	3	1	6 5/8	6 7/8	11 3/4	12 3/4	14 1/2	15 1/2	7 3/8	2 5/8	9 3/4	5 7/8	6 3/8					9.00
2M	36		1 5/8	5/8	3/4	6	2	2 1/4	3/4	3	1	6 5/8	6 7/8	11 3/4	12 3/4	14 1/2	15 1/2	7 3/8	2 5/8	9 3/4	5 7/8	6 3/8					9.00
3	36		1 5/8	5/8	3/4	6	2	2 1/4	3/4	3	1	6 5/8	6 7/8	11 3/4	12 3/4	14 1/2	15 1/2	7 3/8	2 5/8	9 3/4	5 7/8	6 3/8					9.00
4																											
5																											

STANDARD SIGN
W54-60

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/13/13 PLATE NO. W54-60.8

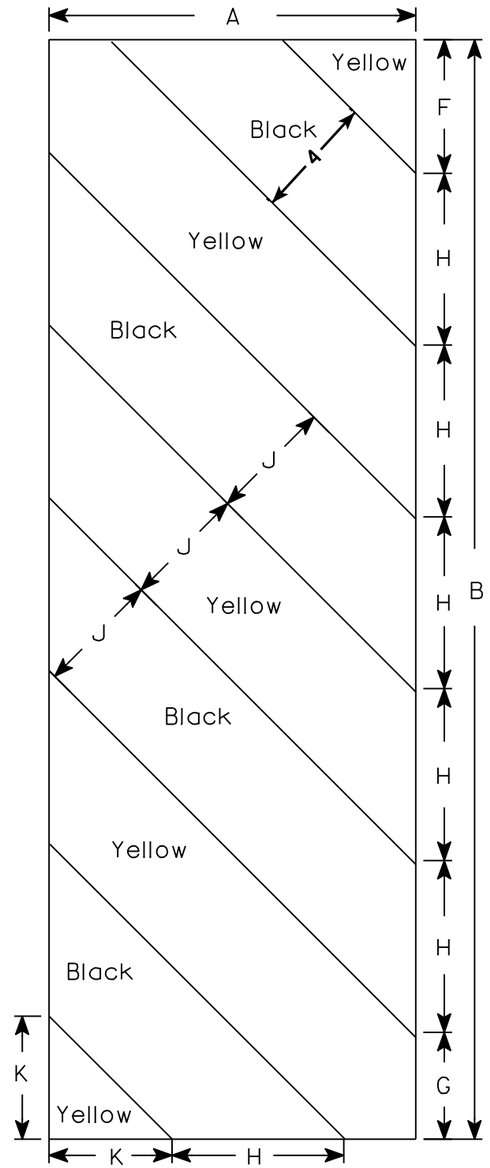
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 912	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W5460.DGN PLOT DATE : 13-MAR-2013 14:07 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 7.939035:1.000000

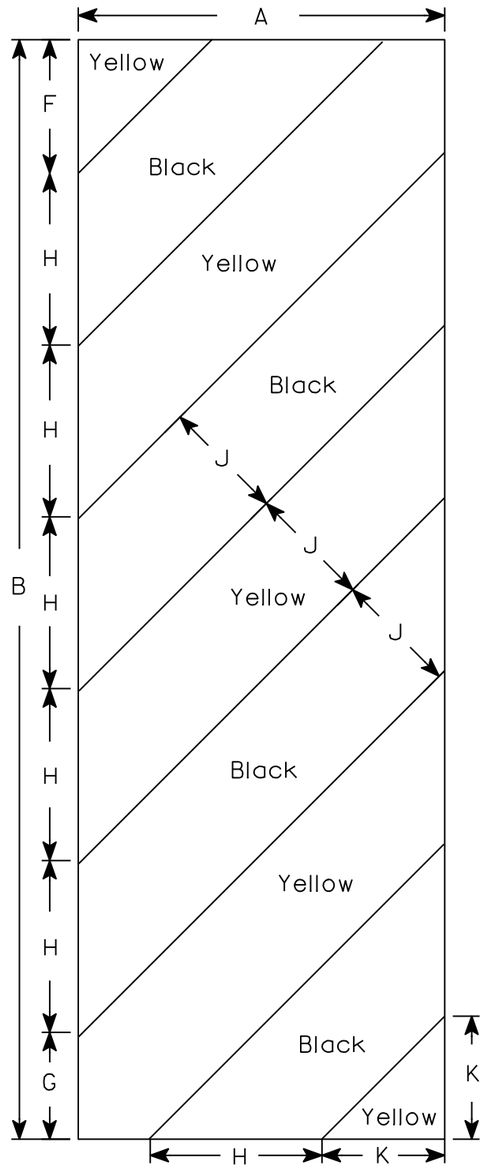
WISDOT/CADDS SHEET 42

7

7



W5-52L



W5-52R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Alternate colors of stripes as shown.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
2M	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
3	18	54				6	5 1/2	8 1/2	45°	6	6 9/16																6.75
4																											
5																											

STANDARD SIGN

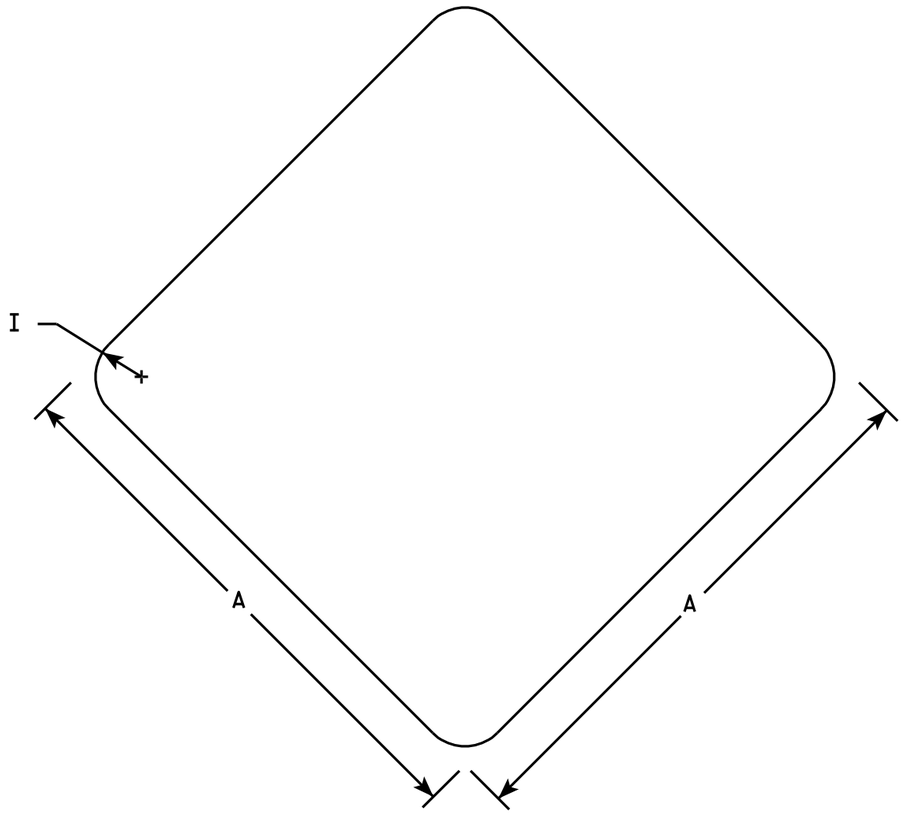
W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W5-52.9

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 913 | E



W5-56

NOTES

1. Sign is Type II - Type SH Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
3. Corners may be square or rounded when base material is plywood. When base material is metal the corners shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	12								1																		1.0
2S	18								1 ½																		2.25
2M	18								1 ½																		2.25
3																											
4																											
5																											

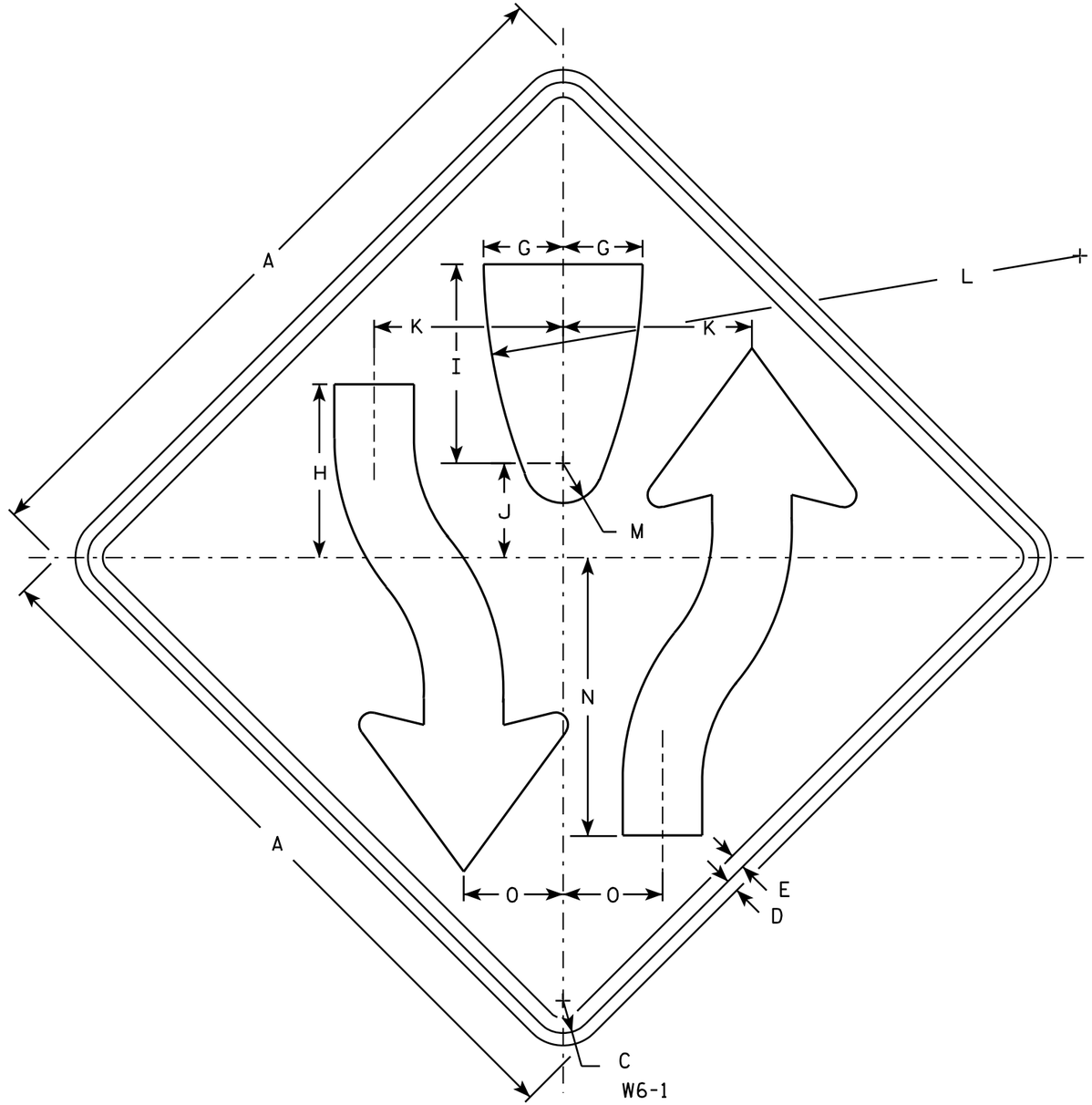
STANDARD SIGN
W5-56

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

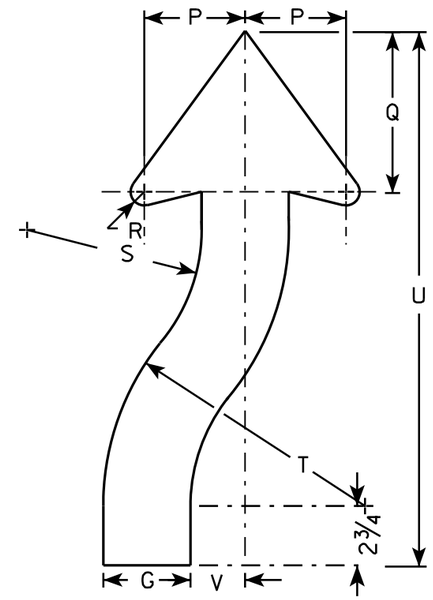
DATE 11/2/10 PLATE NO. W5-56.6

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 914	E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W6-2 same as W6-1 but is rotated 180° when mounted.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8		3 1/4	8	8 1/4	4 1/8	7 7/8	25	1 3/4	11 5/8	4 1/8	3 7/8	6 3/4	5/8	6 5/8	9 7/8	21 5/8	2					6.25
2S	36		1 5/8	5/8	3/4		4	8 3/4	10	4 3/4	9 1/2	30	2	14	5	4 5/8	7 3/8	7/8	8	12	24 1/2	2 1/2					9.0
2M	36		1 5/8	5/8	3/4		4	8 3/4	10	4 3/4	9 1/2	30	2	14	5	4 5/8	7 3/8	7/8	8	12	24 1/2	2 1/2					9.0
3																											
4	48		2 1/4	3/4	1		5 3/8	11 5/8	13 3/8	6 3/8	12 5/8	40	2 5/8	18 5/8	6 5/8	6 1/4	9 7/8	1 1/4	10 5/8	16	32 5/8	3 3/8					16.0
5	48		2 1/4	3/4	1		5 3/8	11 5/8	13 3/8	6 3/8	12 5/8	40	2 5/8	18 5/8	6 5/8	6 1/4	9 7/8	1 1/4	10 5/8	16	32 5/8	3 3/8					16.0

STANDARD SIGN
W6-1 & W6-2

WISCONSIN DEPT OF TRANSPORTATION

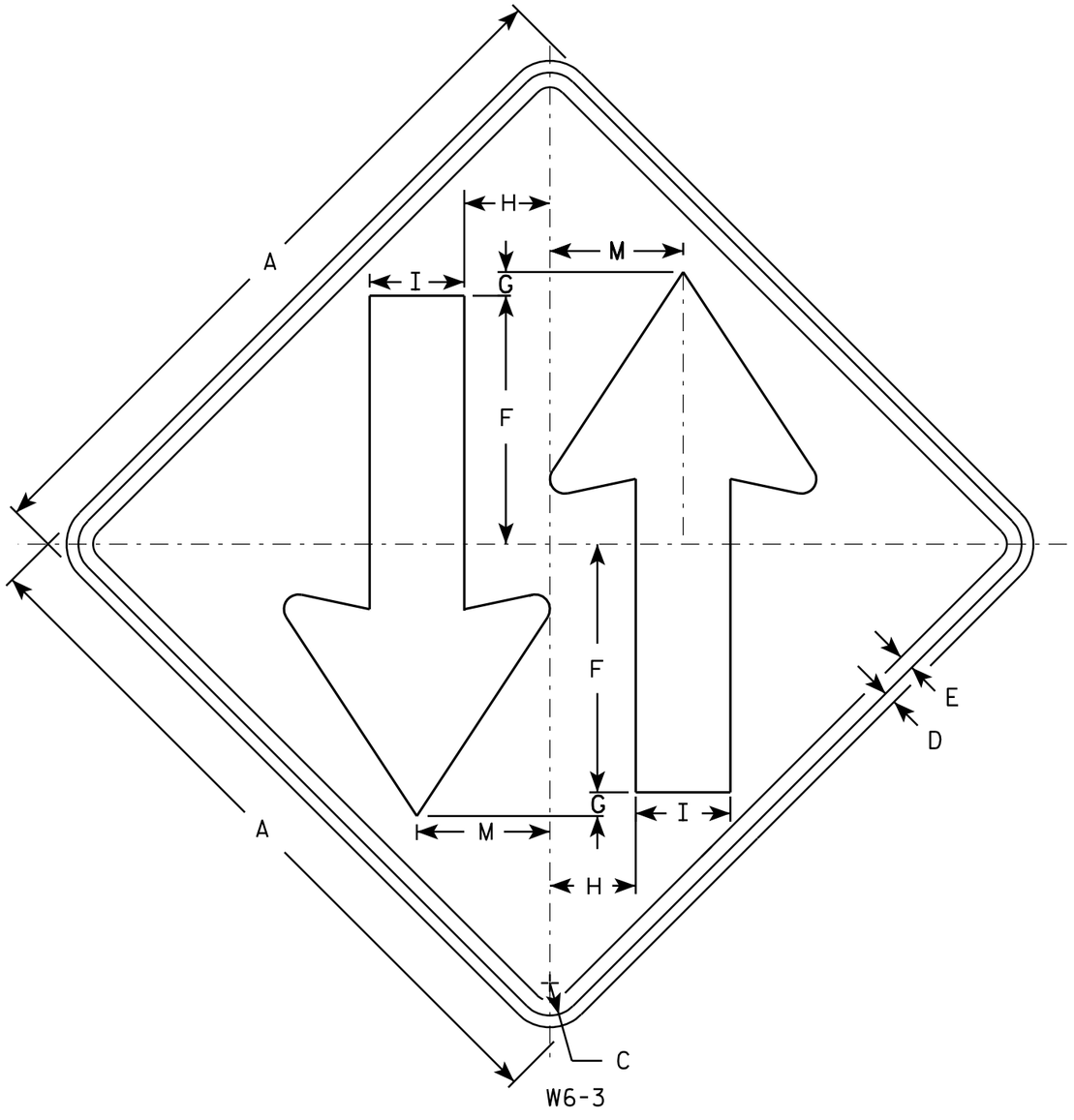
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 03/12/13 PLATE NO. W6-1.14

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 915	E

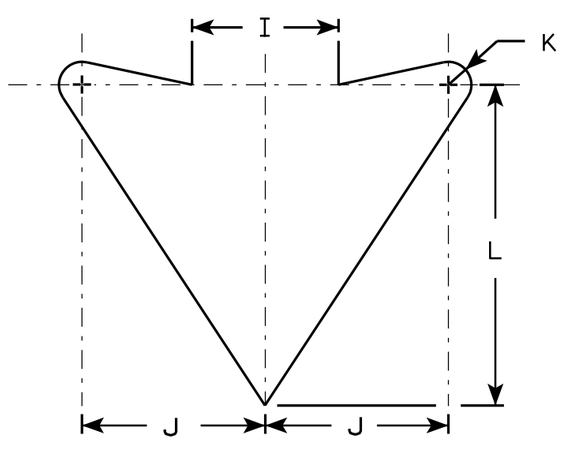
7

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W61.DGN PLOT DATE : 12-MAR-2013 14:02 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 6.946657:1.000000
WISDOT/CADDS SHEET 42



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	10 1/2	1	3 5/8	4	5	5/8	8 3/4	5 5/8														6.25
2S	36		1 5/8	5/8	3/4	12	1	4 1/4	5	6	3/4	10 1/2	6 3/4														9.0
2M	36		1 5/8	5/8	3/4	12	1	4 1/4	5	6	3/4	10 1/2	6 3/4														9.0
3																											
4	48		2 1/4	3/4	1	15 1/2	1	6	6	8	1	14	9														16.0
5	48		2 1/4	3/4	1	15 1/2	1	6	6	8	1	14	9														16.0

STANDARD SIGN
W6-3

WISCONSIN DEPT OF TRANSPORTATION

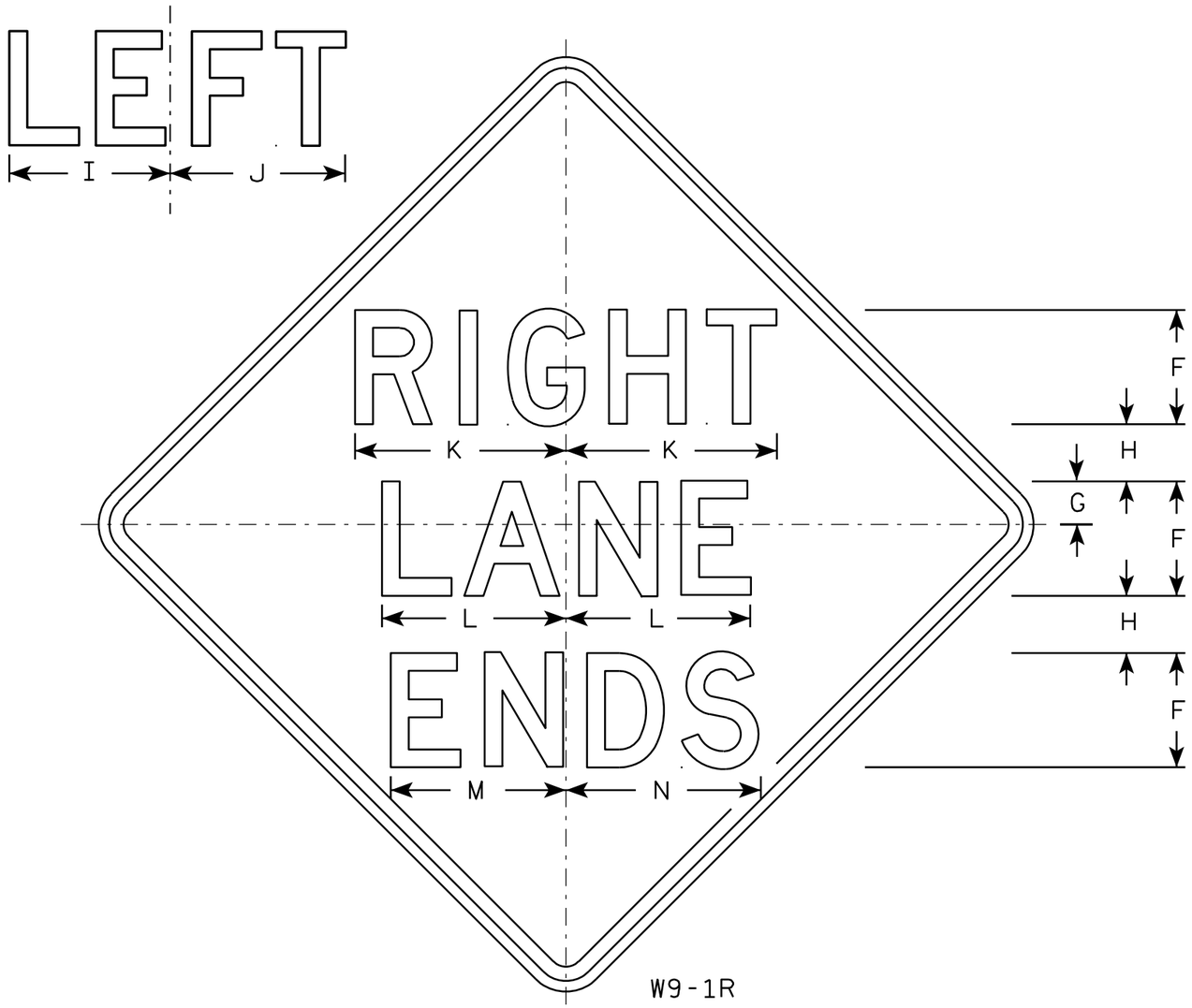
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 03/12/13 PLATE NO. W6-3.10

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 916 | E

7

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W63.DGN PLOT DATE : 12-MAR-2013 14:11 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 6.202372:1.000000



W9-1R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. W9-1L same as W9-1R except the word Left replaces Right.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	5	1 1/2	2 1/2	7 1/8	7 5/8	9 1/4	8 1/8	7 5/8	8 5/8													6.25
2S	36		1 5/8	5/8	3/4	6	2	3	8 1/2	9 1/8	11	9 3/4	9	10 3/8													9.0
2M	36		1 5/8	5/8	3/4	6	2	3	8 1/2	9 1/8	11	9 3/4	9	10 3/8													9.0
3	36		1 5/8	5/8	3/4	6	2	3	8 1/2	9 1/8	11	9 3/4	9	10 3/8													9.0
4	36		1 5/8	5/8	3/4	6	2	3	8 1/2	9 1/8	11	9 3/4	9	10 3/8													9.0
5	48		2 1/4	3/4	1	8	3	4	11 1/4	12 1/4	14 3/4	12 7/8	12 1/4	13 5/8													16.0

STANDARD SIGN
W9-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 03/18/13 PLATE NO. W9-1.8

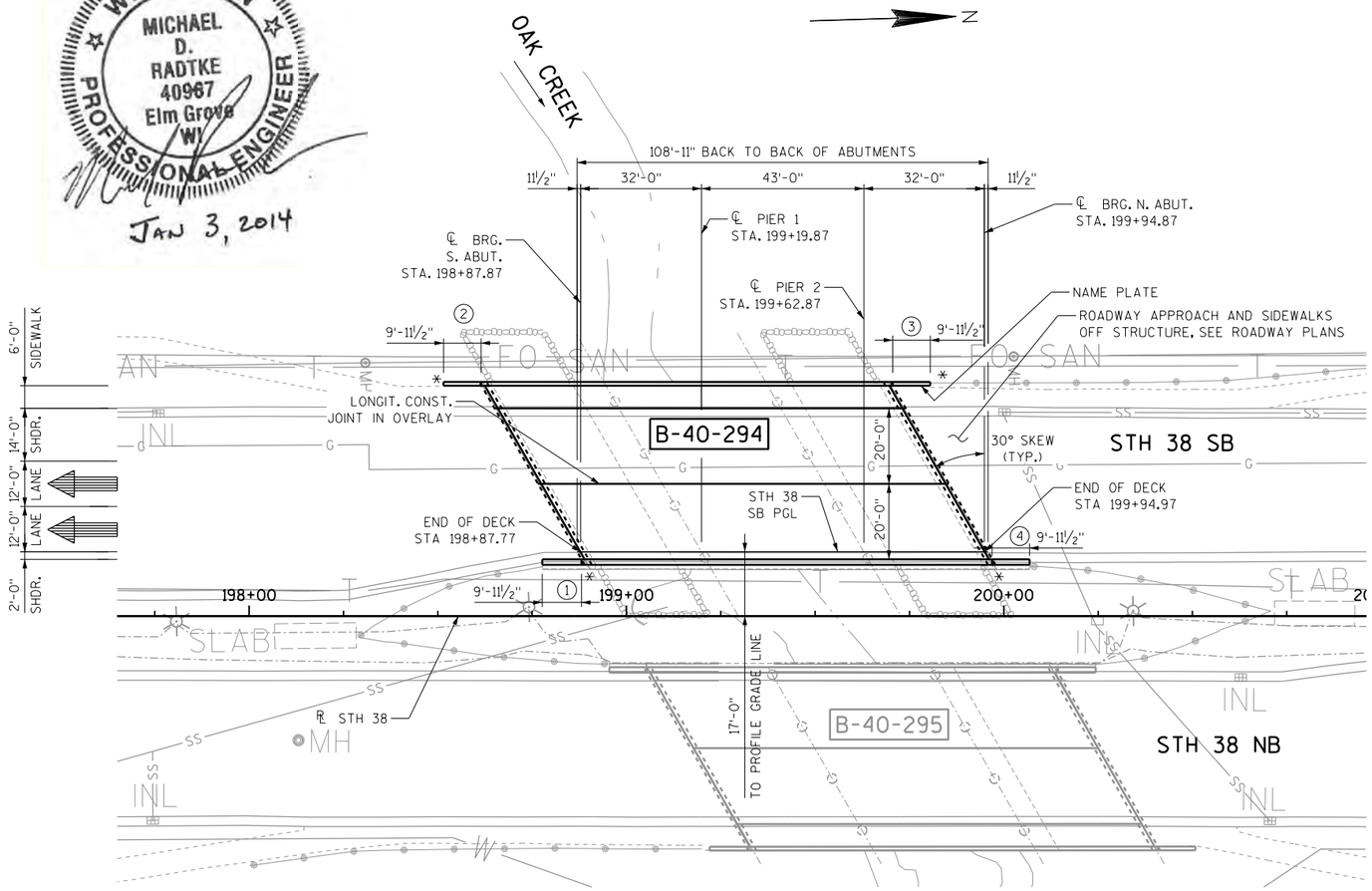
PROJECT NO:

SHEET NO: 917 E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W91.DGN PLOT DATE : 18-MAR-2013 11:42 PLOT BY : mscsja

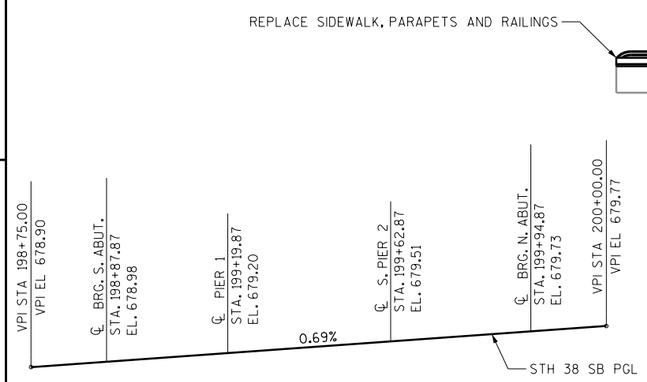
WISDOT/CADDS SHEET 42

STATE PROJECT NUMBER
2060-15-71

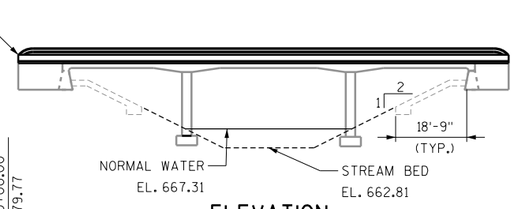


PLAN

(3-SPAN CONTINUOUS HAUNCHED SLAB)



BEST FIT PROFILE GRADE LINE - STH 38 SB



ELEVATION

(LOOKING WEST NORMAL TO ABUTMENT FACE)

LIST OF DRAWINGS

1. GENERAL PLAN
2. TYPICAL SECTION AND QUANTITIES
3. DECK INSPECTION
4. SOUTH ABUTMENT
5. NORTH ABUTMENT
6. SUPERSTRUCTURE DETAILS
7. SINGLE SLOPED PARAPET 32SS
8. VERTICAL FACE PARAPET 'A'
9. TUBULAR RAILING TYPE 'H'(ALUM.)
10. CONCRETE SURFACE REPAIR

NOTES

(X) DENOTES WING WALL NUMBER

* PROVIDE FOR THRIE BEAM RAIL ATTACHMENT. PAID FOR AS ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD. ALL UNUSED HOLES SHALL BE FILLED WITH 100% SILICONE CAULK.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS OF EXISTING SHOWN ARE BASED ON ORIGINAL AS-BUILT STRUCTURE PLANS FROM 1968.

THE EXISTING STRUCTURE B-40-294 IS A 3-SPAN CONTINUOUS HAUNCHED SLAB STRUCTURE WITH AN OVERALL WIDTH OF 49'-6" AND AN OVERALL LENGTH OF 108'-11".

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

UTILIZE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND 24 BAR DIAMETERS INTO NEW WORK, UNLESS SPECIFIED OTHERWISE.

A MINIMUM OF 1½ INCH OF CONCRETE SHALL BE REMOVED FROM THE ENTIRE BRIDGE DECK UNDER THE BID ITEM "CLEANING DECKS".

THE ENTIRE DECK SURFACE IS TO BE PREPARED FOR NEW CONCRETE OVERLAY.

"PREPARATION DECKS TYPE 1 AND TYPE 2" AREAS SHALL BE DETERMINED BY THE FIELD ENGINEER. REFER TO "DECK INSPECTION" SHEET FOR PROPOSED AERAS FOR "PREPARATION DECKS TYPE 1", "PREPARATION DECKS TYPE 2, AND "FULL-DEPTH DECK REPAIR".

THE BID ITEM "CONCRETE MASONRY OVERLAY DECKS" INCLUDES CONCRETE FOR THE PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, AND CONCRETE OVERLAY.

THE BID ITEM "CONCRETE MASONRY BRIDGES" INCLUDES CONCRETE FOR SIDEWALK AND PARAPETS.

ALL CONCRETE REMOVAL NOT COVERED WITH CONCRETE OVERLAY SHALL BE DEFINED BY A 1-INCH DEEP SAW CUT.

VARIATIONS TO THE NEW GRADE LINE OVER ¼" MUST BE SUBMITTED BY THE FIELD ENGINEER TO THE STRUCTURES DESIGN SECTION FOR REVIEW.

PROTECTIVE SURFACE TREATMENT SHALL BE APPLIED TO THE ENTIRE BRIDGE DECK, SIDEWALK, CURBFACE, AND THE FRONT FACE AND TOP OF THE PARAPETS.

ANY EXCAVATION REQUIRED TO COMPLETE THE OVERLAY AT THE ABUTMENTS IS TO BE INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

IF THE EXISTING NAME PLATE IS DAMAGED AND A NEW NAME PLATE IS REQUIRED, THE ORIGINAL CONSTRUCTION DATE IS 1968.

WITH EXTENSIVE SPALLING IN THE NEGATIVE MOMENT AREA, NOT MORE THAN ⅓ OF THE TOP BAR STEEL SHOULD BE EXPOSED IF THE BAR ENDS ARE NOT ANCHORED. THIS IS TO MAINTAIN THE CONTINUITY OF THE CONTINUOUS SPANS. IF MORE THAN ⅓ OF THE STEEL IS EXPOSED, EITHER THE CENTERS OF THE ADJACENT SPANS MUST BE SHORED OR ONLY LONGITUDINALLY OVERLAY ⅓ OF THE BRIDGE AT A TIME.

THE EXISTING TYPE 'H' TUBULAR ALUMINUM RAILING SHALL BE SALVAGED AND PICKED UP BY COUNTY FORCES.

DESIGN DATA

LIVE LOAD
LOADING:
DESIGN RATING: HS-20
INVENTORY RATING: HS-19
OPERATING RATING: HS-32
MAX. STD. PERMIT VEHICLE LOAD = 170 kips

ULTIMATE DESIGN STRESSES:
CONCRETE MASONRY SLAB _____ f'c = 4,000 psi
ALL OTHER _____ f'c = 3,500 psi
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60 _____ fy = 60,000 psi

EXISTING ULTIMATE DESIGN STRESSES PER AS-BUILTS:
CONCRETE MASONRY _____ f'c = 3,500 psi
BAR STEEL REINFORCEMENT, GRADE 40 _____ fy = 40,000 psi

TRAFFIC DATA

ADT(2034) = 28,600 - 35,500
RDS = 50 M.P.H.

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE: WILLIAM DREHER (608) 266-8489
CONSULTANT: MICHAEL RADTKE (414) 347-1607

NO.	DATE	REVISION	BY

emcs inc
1300 W. Canal Street, Suite 200
Milwaukee, WI 53233
414.347.1607 Fax 414.347.1347

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
ACCEPTED William C. Dreher — CHIEF STRUCTURES DESIGN ENGINEER — 1/10/14 DATE

STRUCTURE B-40-294

STH 38 SB OVER OAK CREEK

COUNTY	CITY
MILWAUKEE	OAK CREEK

DESIGN SPEC. REHABILITATION N/A

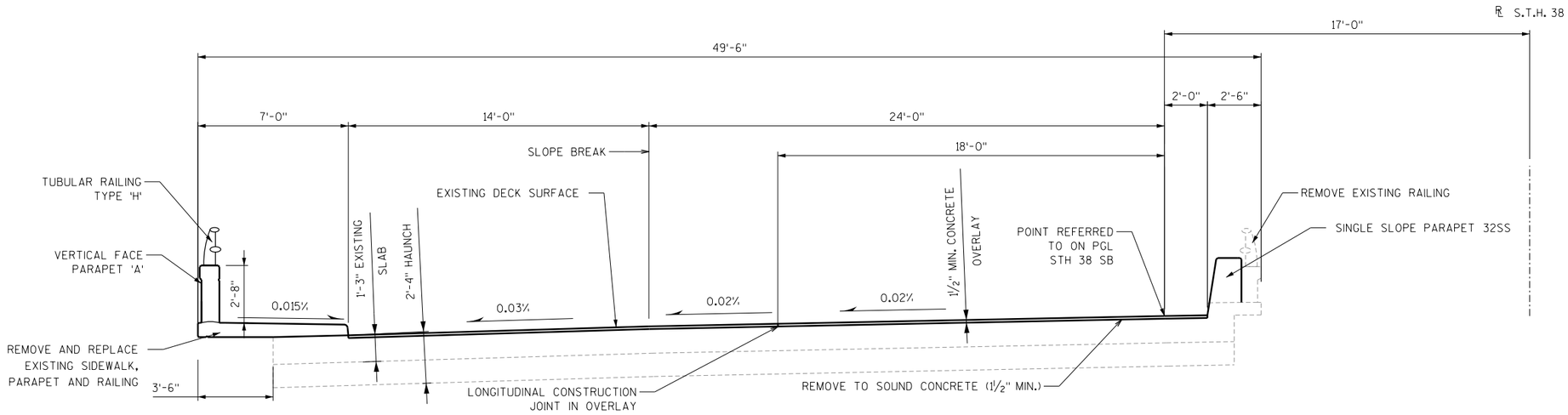
DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
SKR	DRB	TEO	SKR

GENERAL PLAN

SHEET 1 OF 10
918

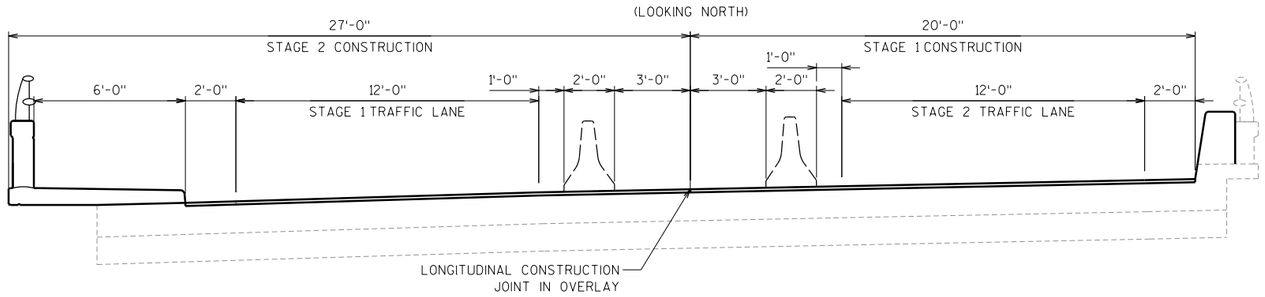
STATE PROJECT NUMBER

2060-15-71



CROSS SECTION THRU ROADWAY

(LOOKING NORTH)



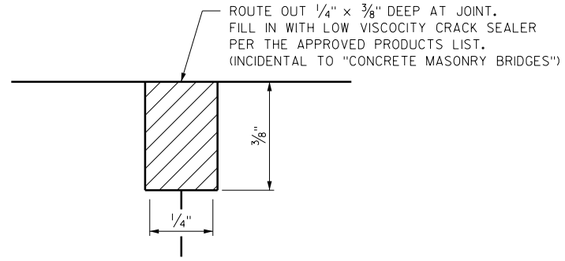
STAGING CROSS SECTION THRU ROADWAY

(LOOKING NORTH)

TOTAL ESTIMATED QUANTITIES

ITEM NO.	BID ITEM	UNIT	TOTAL
203.0210.S.0001	ABATEMENT OF ASBESTOS CONTAINING MATERIAL STRUCTURE B-40-294	LS	1
203.0600.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS (STA 199+41)	LS	1
502.0100	CONCRETE MASONRY BRIDGES	CY	50
502.3200	PROTECTIVE SURFACE TREATMENT	SY	673
502.5005	MASONRY ANCHORS TYPE L NO. 5 BARS	EA	389
505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	9,710
509.0301	PREPARATION DECKS TYPE 1	SY	162
509.0302	PREPARATION DECKS TYPE 2	SY	81
509.0500	CLEANING DECKS	SY	485
509.1500	CONCRETE SURFACE REPAIR	SF	555
509.2000	FULL-DEPTH DECK REPAIR	SY	9
509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	37
513.4055	RAILING TUBULAR TYPE H (B-40-294)	LS	1
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	4
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EA	4
	NON-BID ITEMS		
	FILLER	SIZE	1/2"
	NON-BITUMINOUS JOINT SEALER		

ALL BID ITEMS ARE CATEGORY 0021



LONGITUDINAL CONSTRUCTION JOINT DETAIL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-294

DRAWN BY TEO | PLANS CK'D. SKR

TYPICAL SECTION AND QUANTITIES

SHEET 2 OF 10
919

8

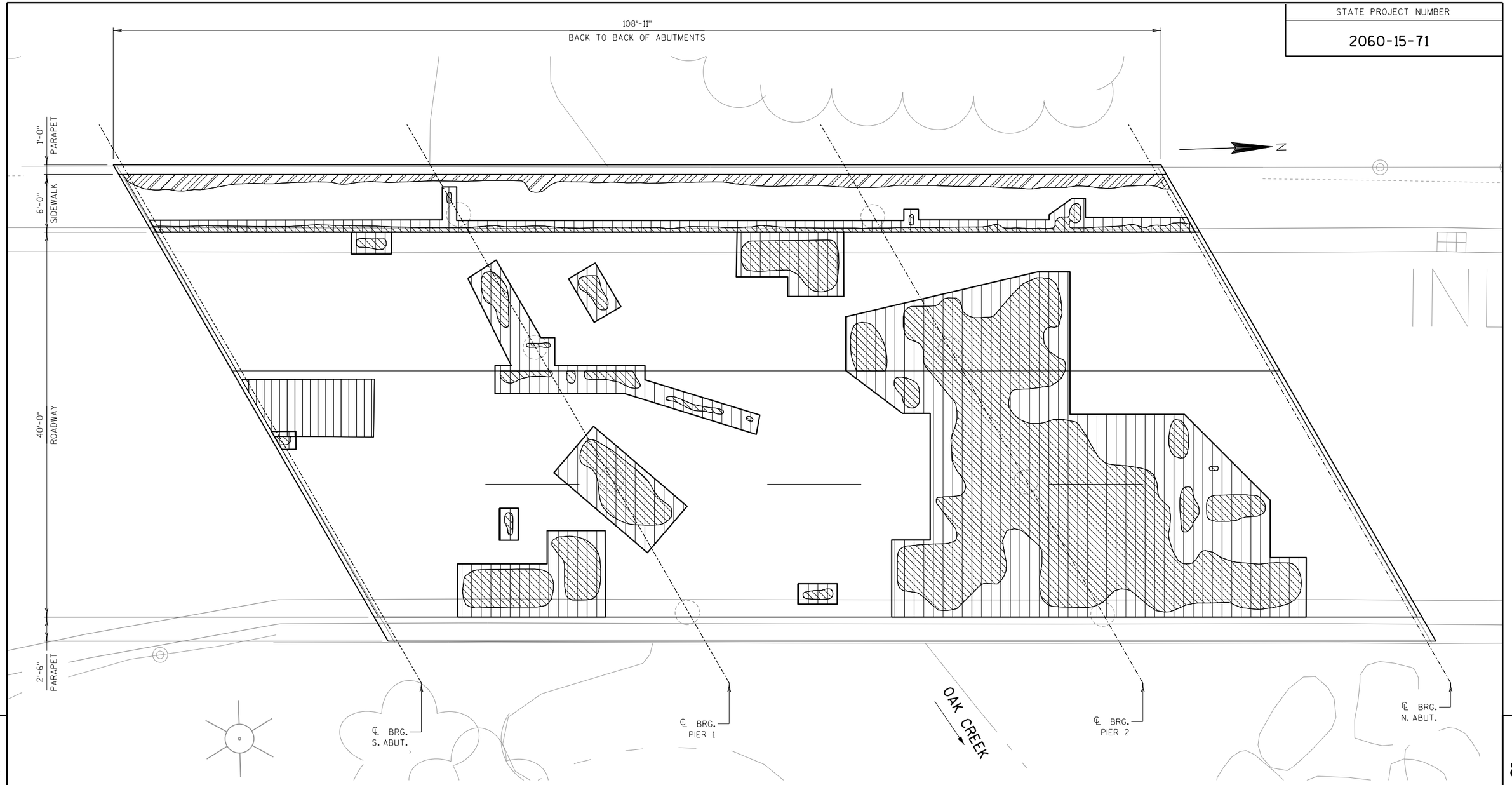
8

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\B-40-294\080102_ts.dgn

PLOT DATE : 1/2/2014

PLOT BY : ajc

STATE PROJECT NUMBER
2060-15-71



8

8

PLAN - DECK INSPECTION RESULTS

DECK INSPECTION RESULTS

FIELD OBSERVATIONS SUMMARY		ROADWAY		SIDEWALK	
ITEM	UNIT	QUANT.	%	QUANT.	%
TOTAL AREA	ft²	4288		643	
SHADE/DEBRIS	ft²	0		116	
DELAMINATION	ft²	829	19.3	65	12.3
SPALL	ft²	0	0	0	0
DEBOND	ft²	0	0	N/A	N/A
ASPHALT PATCH	ft²	0	0	0	0
CONCRETE PATCH	ft²	72	1.7	0	0

LEGEND
- DELAMINATION
- SPALL
- DEBOND
- ASPHALT PATCH
- CONCRETE PATCH
- SHADE/DEBRIS

DECK INSPECTION NOTES

DECK INFRARED THERMOGRAPHIC INVESTIGATION
PERFORMED BY AECOM.
INFRARED INSPECTION DATE: 5/14/2013

SHEET INCLUDED FOR INFORMATION PURPOSES ONLY.

SCALE 0' 5' 10' 20'

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-294

DRAWN BY SKR | PLANS CK'D. DRB

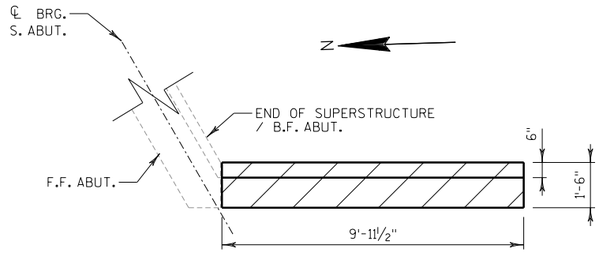
DECK INSPECTION

SHEET 3 OF 10
920

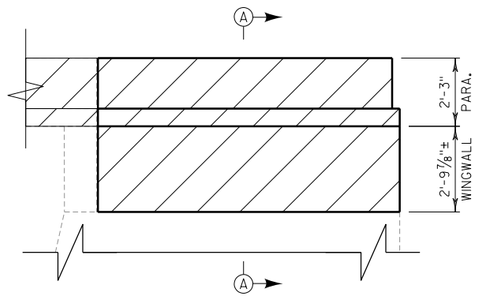
FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\B-40-294\080103_di.dgn

PLOT DATE : 1/2/2014

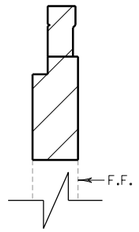
PLOT BY : ajc



WING 2 PLAN REMOVAL



WING 2 ELEVATION - REMOVAL



SECTION A-A

GENERAL NOTES

REMOVE EXISTING WINGWALLS TO EXISTING HORIZONTAL CONSTRUCTION JOINT. SALVAGE EXISTING VERTICAL BAR REINFORCEMENT AND EXTEND 24 BAR DIAMETERS INTO NEW WORK.

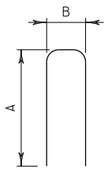
TUBULAR RAILING TYPE H NOT SHOWN IN DETAILS FOR CLARITY.

MASONRY ANCHORS TYPE L NO. 5 BARS. EMBED 1'-6" IN CONCRETE.

◥ 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL VERTICAL AND HORIZONTAL JOINTS ON BACK FACE OF ABUTMENT.

◭ PRESERVE AND INCORPORATE EXISTING REINFORCEMENT INTO NEW WORK (1'-8" MIN. EMBEDMENT INTO NEW WORK).

◐ ADD NEW ½" FILLER MATERIAL BETWEEN NEW WINGWALL AND EXISTING DIAPHRAGM.

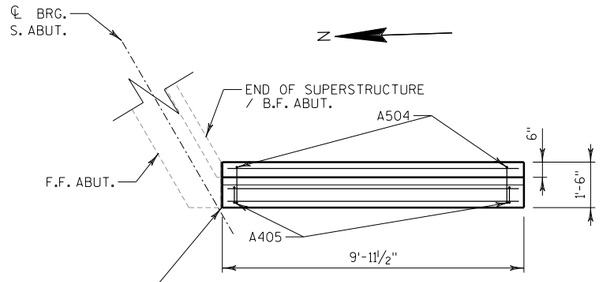


A504, A405

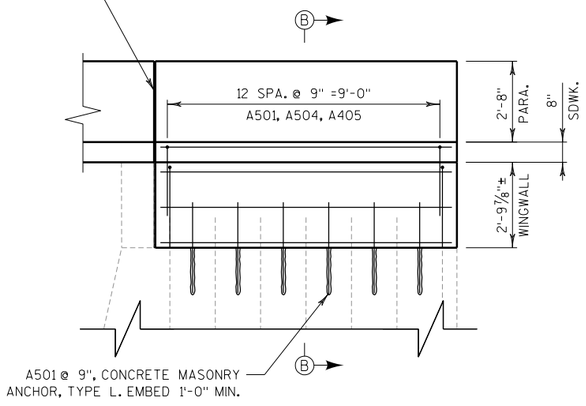
BAR MARK	A	B
A504	2'-5"	1'-2"
A405	1'-4"	0'-8"

BILL OF BARS

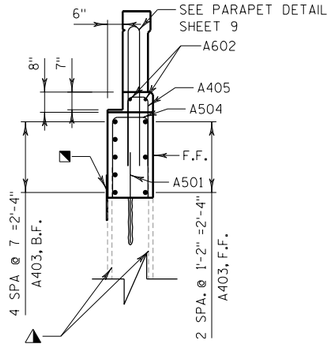
BAR MARK	COAT	WING 2	LENGTH	BENT	LOCATION
A501	X	13	2'-6"		WING - VERT. DOWELS
A602	X	2	9'-8"		WING HORIZONTAL
A403	X	8	9'-8"		WING HORIZONTAL
A504	X	13	5'-9"	X	WING VERTICAL
A405	X	13	3'-2"	X	WING VERTICAL



WING 2 PLAN DETAIL



WING 2 ELEVATION - DETAIL



SECTION B-B

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-294

DRAWN BY SKR | PLANS CK'D. DRB

SOUTH ABUTMENT

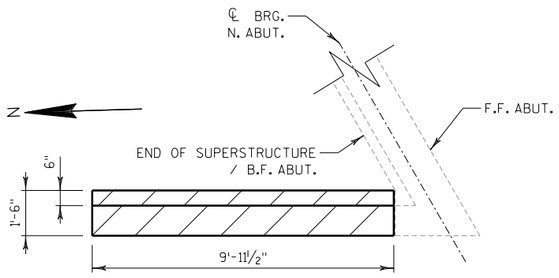
SHEET 4 OF 10
921

8

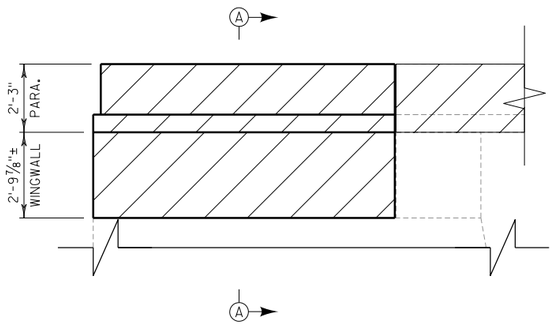
8

STATE PROJECT NUMBER

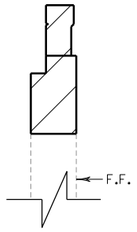
2060-15-71



WING 3 PLAN REMOVAL



WING 3 ELEVATION - REMOVAL



SECTION A-A

GENERAL NOTES

REMOVE EXISTING WINGWALLS TO EXISTING HORIZONTAL CONSTRUCTION JOINT. SALVAGE EXISTING VERTICAL BAR REINFORCEMENT AND EXTEND 24 BAR DIAMETERS INTO NEW WORK.

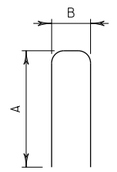
TUBULAR RAILING TYPE H NOT SHOWN FOR CLARITY.

MASONRY ANCHORS TYPE L NO. 5 BARS. EMBED 1'-6" IN CONCRETE.

◥ 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL VERTICAL AND HORIZONTAL JOINTS ON BACK FACE OF ABUTMENT.

◮ PRESERVE AND INCORPORATE EXISTING REINFORCEMENT INTO NEW WORK (1'-8" MIN. EMBEDMENT INTO NEW WORK).

◐ ADD NEW ½" FILLER MATERIAL BETWEEN NEW WINGWALL AND EXISTING DIAPHRAGM.

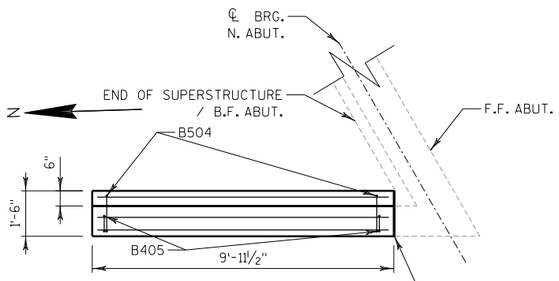


B504, B405

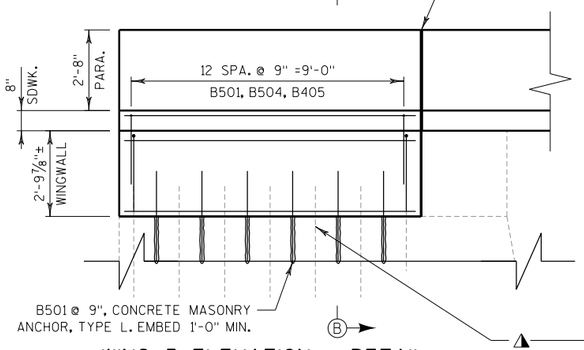
BAR MARK	A	B
B504	2'-5"	1'-2"
B405	1'-4"	0'-8"

BILL OF BARS

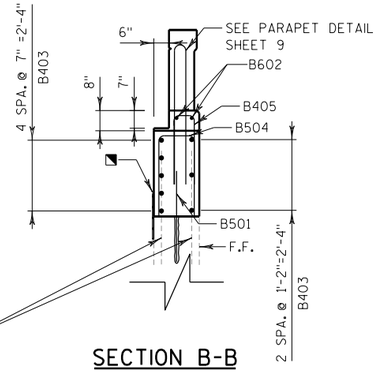
BAR MARK	COAT	WING 3	LENGTH	BENT	LOCATION
B501	X	13	2'-6"		WING - VERT. DOWELS
B602	X	2	9'-8"		WING HORIZONTAL
B403	X	8	9'-8"		WING HORIZONTAL
B504	X	13	5'-9"	X	WING VERTICAL
B405	X	13	3'-2"	X	WING VERTICAL



WING 3 PLAN DETAIL



WING 3 ELEVATION - DETAIL



SECTION B-B

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-294

DRAWN BY SKR | PLANS CK'D. DRB

NORTH ABUTMENT

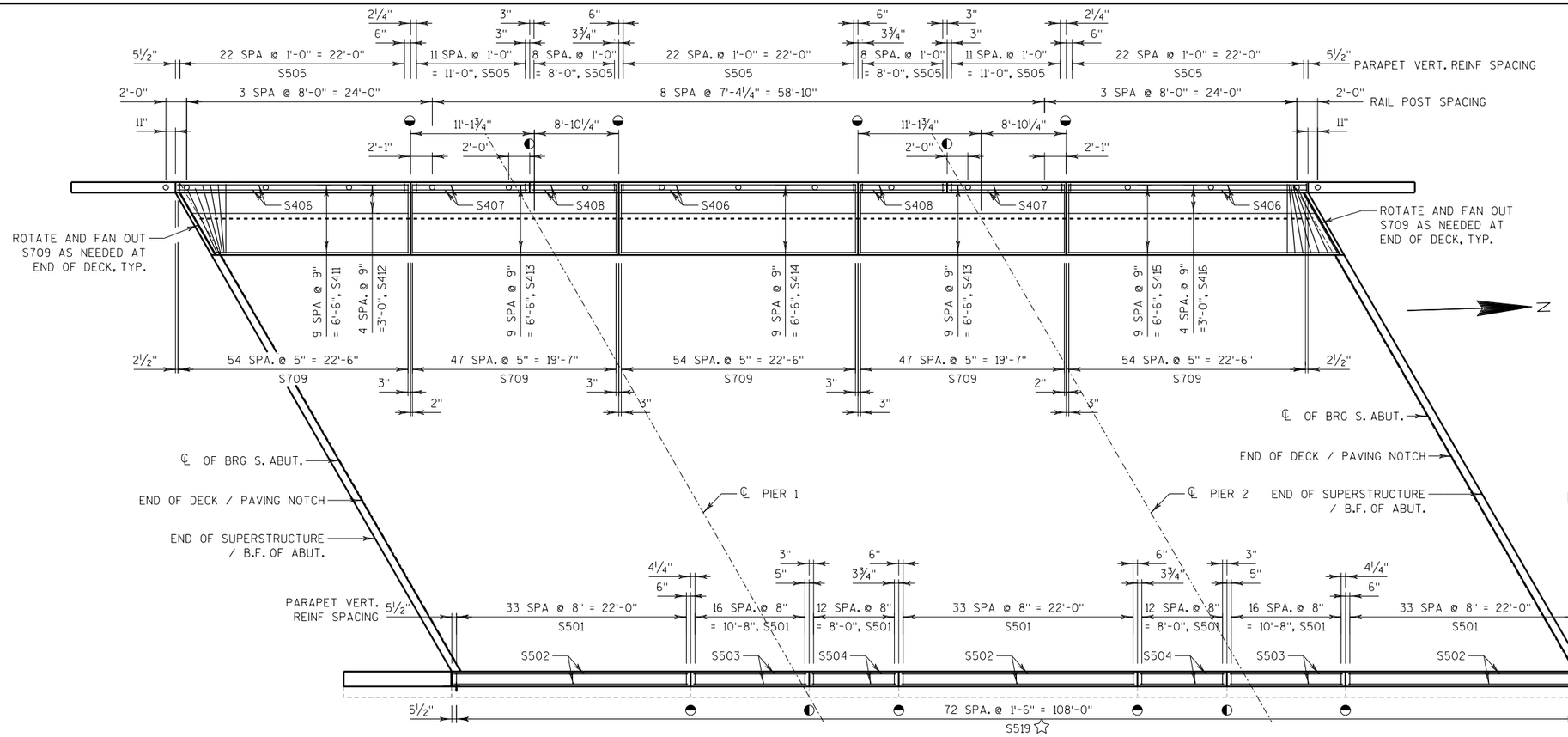
SHEET 5 OF 10
922

8

8

STATE PROJECT NUMBER

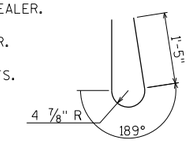
2060-15-71



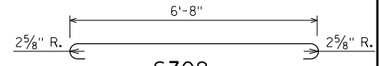
SUPERSTRUCTURE PLAN

NOTES

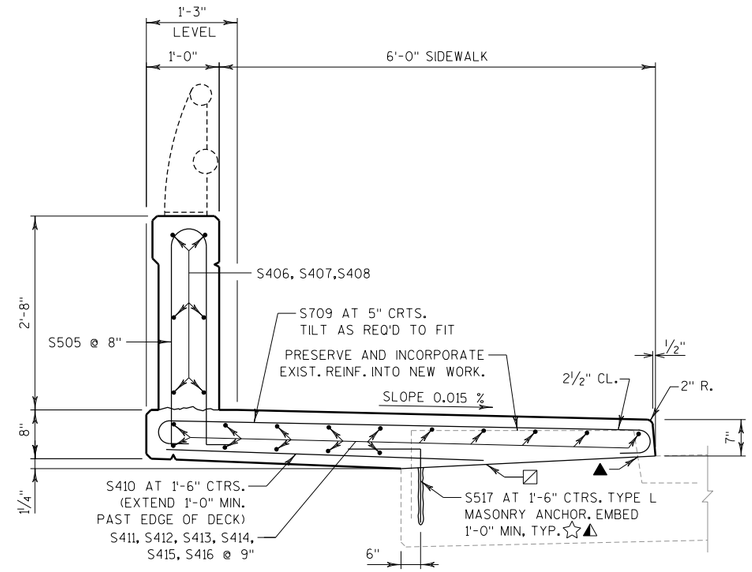
- ◐ DENOTES DEFLECTION JOINT IN PARAPET ONLY.
- ◒ DENOTES DEFLECTION JOINT IN CURB OR SIDEWALK AND PARAPET.
- ▨ CONSTRUCTION JOINT - STRIKE OFF AS SHOWN AND LEAVE ROUGH. FOR DECK POUR, MATCH BRIDGE CROSS SLOPE.
- ◭ AVOID EXISTING TRANS. REINF. WHILE DRILLING HOLE FOR NEW ANCHORS. EXISTING REINF. SPACED AT 1'-0" CTRS. FOR SPANS 1 AND 3 AND 1'-3" CTRS FOR SPAN 2. SEE EXISTING PLANS.
- ▲ EXISTING REINF ARE #5 BARS AT 10" CTRS. PRESERVE AND INCORPORATE EXIST. REINF. INTO NEW WORK. NOTIFY ENGINEER IMMEDIATELY OF ANY DAMAGE THAT OCCURS TO EXIST. REINF. DURING CONSTRUCTION. ANY REPAIR SOLUTION MUST BE APPROVED BY ENGINEER PRIOR TO INSTALLATION.
- ⊠ REMOVE EXISTING RAILING.
- ▪ SEAL HORIZ. JOINT WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.
- ☆ TYPE L MASONRY ANCHOR.
- ▨ CONCRETE REMOVAL LIMITS.



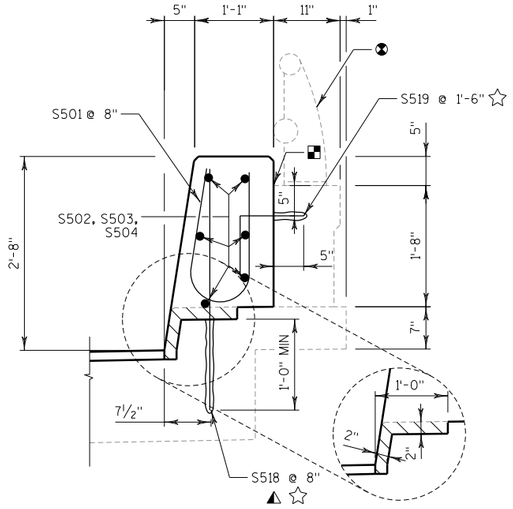
S501



S709



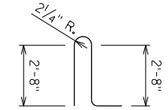
SECTION THRU SIDEWALK ON BRIDGE



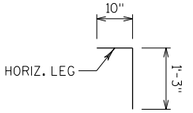
SECTION THRU SINGLE SLOPE PARAPET ON BRIDGE

BILL OF BARS - SUPERSTRUCTURE

MARK	COAT	NO.	LENGTH	BENT	SERIES	LOCATION
S501	X	162	4'-2"	X		32SS PARAPET - VERTICAL SUPERSTRUCTURE
S502	X	18	22'-6"			32SS PARAPET HORIZONTAL SUPERSTRUCTURE
S503	X	12	11'-0"			32SS PARAPET HORIZONTAL SUPERSTRUCTURE
S504	X	12	8'-3"			32SS PARAPET HORIZONTAL SUPERSTRUCTURE
S505	X	111	6'-8"	X		VERTICAL FACE PARAPET 'A' - SUPER. VERT.
S406	X	18	22'-6"			'A' PARAPET HORIZONTAL - SUPERSTRUCTURE
S407	X	12	11'-0"			'A' PARAPET HORIZONTAL - SUPERSTRUCTURE
S408	X	12	8'-3"			'A' PARAPET HORIZONTAL - SUPERSTRUCTURE
S709	X	219	8'-4"	X		SIDEWALK - TRANSVERSE
S410	X	74	5'-0"			SIDEWALK - TRANSVERSE AT OVERHANG
S411	X	10	20'-8"		Δ	SIDEWALK - LONGITUDINAL TOP SERIES 1
S412	X	5	21'-7"		Δ	SIDEWALK - LONGITUDINAL BOT SERIES 1
S413	X	30	19'-6"			SIDEWALK - LONGITUDINAL TOP AND BOT
S414	X	15	22'-6"			SIDEWALK - LONGITUDINAL TOP AND BOT
S415	X	10	22'-11"		Δ	SIDEWALK - LONGITUDINAL BOT SERIES 2
S416	X	5	22'-0"		Δ	SIDEWALK - LONGITUDINAL BOT SERIES 2
S517	X	74	2'-0"	X		SIDEWALK - DOWEL AT DECK EDGE
S518	X	162	3'-0"			32SS PARAPET - VERT. DOWEL
S519	X	73	2'-0"	X		32SS PARAPET - HORIZ DOWEL



S505



S517, S519

BAR SERIES

MARK	NO. REQ'D.	LENGTHS FOR EACH SERIES
S411	1 SERIES OF 10	18'-8" TO 22'-6"
S412	1 SERIES OF 5	20'-8" TO 22'-6"
S415	1 SERIES OF 10	21'-0" TO 24'-8"
S416	1 SERIES OF 5	21'-0" TO 22'-10"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-294

DRAWN BY AJC | PLANS CK'D. DRB

SUPERSTRUCTURE DETAILS

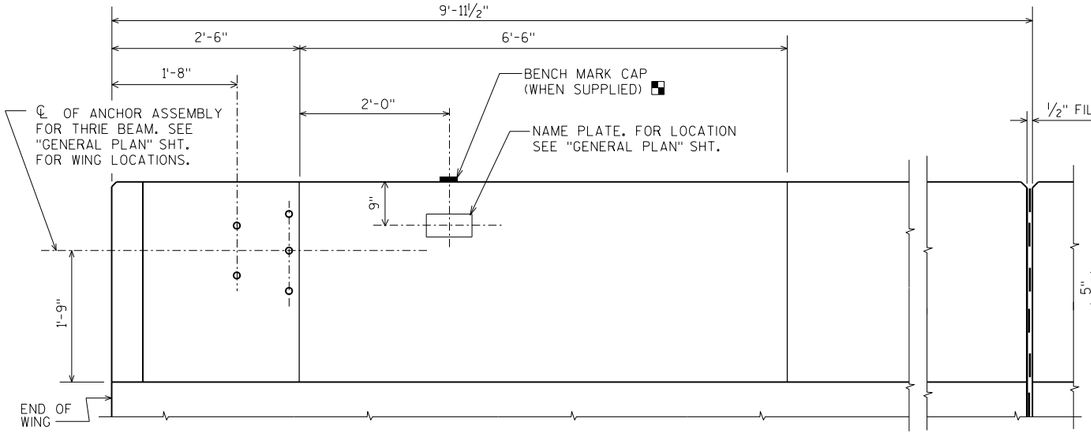
SHEET 6 OF 10
923

8

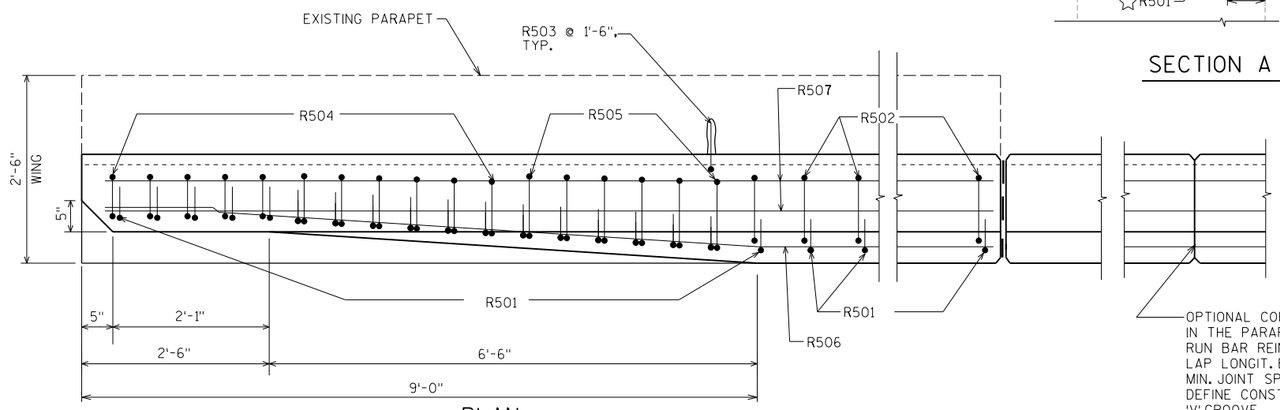
8

STATE PROJECT NUMBER

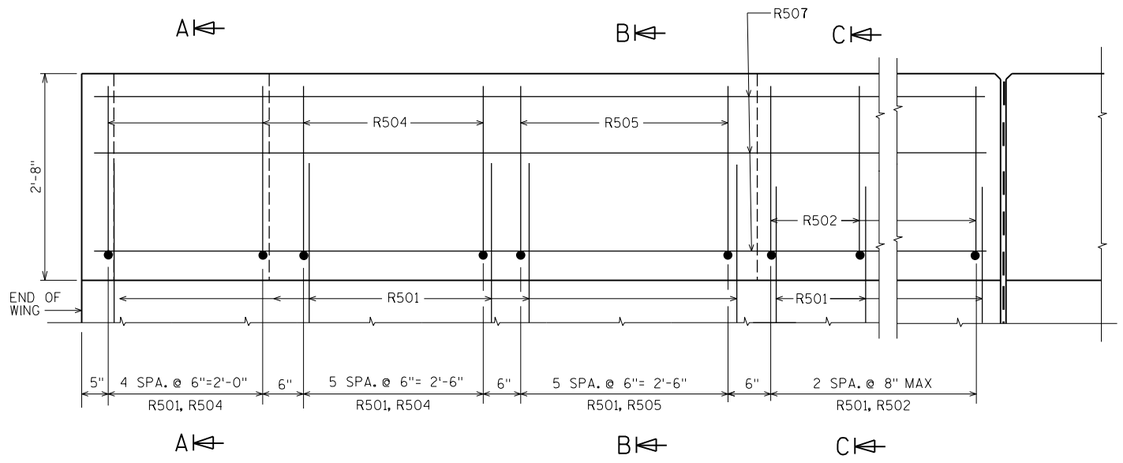
2060-15-71



INSIDE ELEVATION

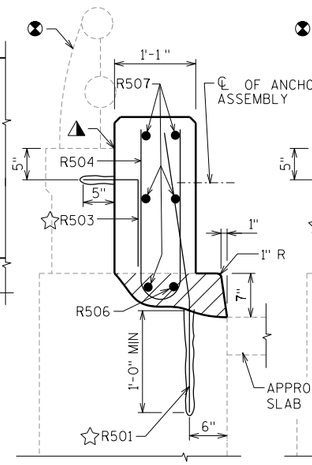


PLAN

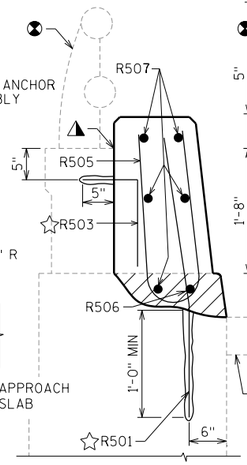


OUTSIDE ELEVATION

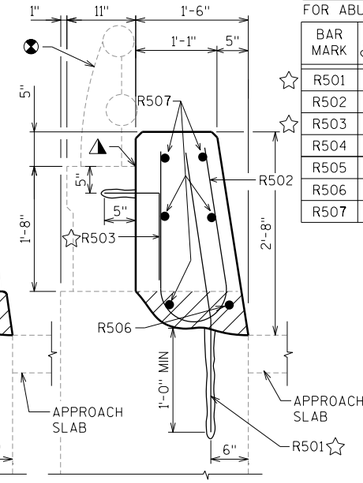
OPTIONAL CONSTRUCTION JOINTS IN THE PARAPETS MAY BE USED. RUN BAR REINF. THRU THE JOINT. LAP LONGIT. BARS A MIN. OF 1'-9". MIN. JOINT SPACING OF 80'-0". DEFINE CONST. JOINT WITH A ¾" - 'V' GROOVE.



SECTION A



SECTION B

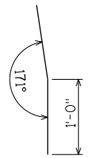


SECTION C

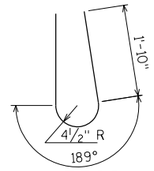
BILL OF BARS

FOR ABUTMENT PARAPETS

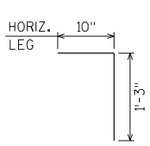
BAR MARK	COAT	S. ABUT.	N. ABUT.	LENGTH	BENT	BAR SERIES	LOCATION
R501	X	20	20	3'-6"	X		PARAPET VERT.
R502	X	3	3	5'-0"	X		PARAPET VERT.
R503	X	7	7	2'-0"	X		PARAPET VERT.
R504	X	11	11	4'-9"	X		PARAPET VERT.
R505	X	6	6	4'-10"	X		PARAPET VERT.
R506	X	1	1	9'-7"	X		PARAPET HORIZ.
R507	X	5	5	9'-8"			PARAPET HORIZ.



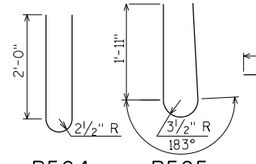
R501



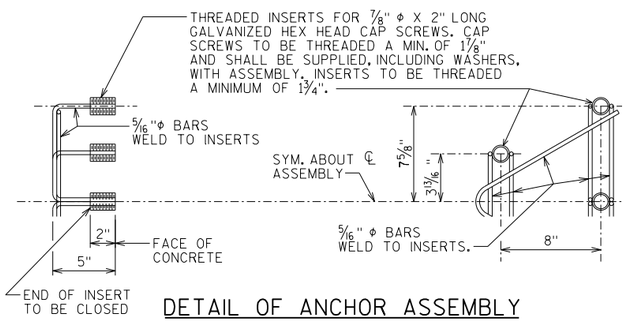
R502



R503



R504 R505 R506



DETAIL OF ANCHOR ASSEMBLY

NOTE: HEX HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C.

ASSEMBLY SHALL BE BID ITEM "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD", EACH.

LEGEND

- AVOID PLACING A BENCH MARK CAP BELOW A RAIL OR FENCE SYSTEM THAT IS ATTACHED TO THE TOP OF THE PARAPET.
- SEAL HORIZ. JOINT WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER
- REMOVE EXISTING RAILING
- TYPE L MASONRY ANCHOR
- CONC. REMOVAL LIMITS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-294

DRAWN BY TEO | PLANS CK'D. SKR

SINGLE SLOPE PARAPET 32SS

SHEET 7 OF 10
924

8

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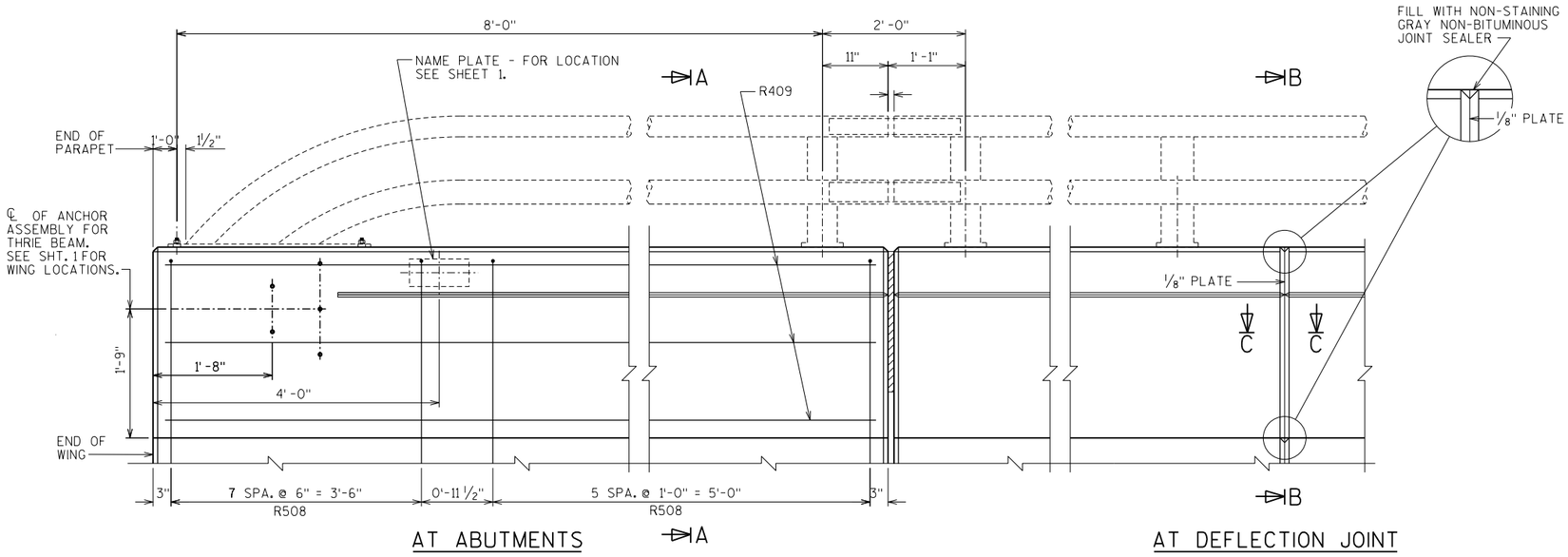
FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\B-40-294\080107_ps.DGN

PLOT DATE : 1/2/2014

PLOT BY : ajc

STATE PROJECT NUMBER

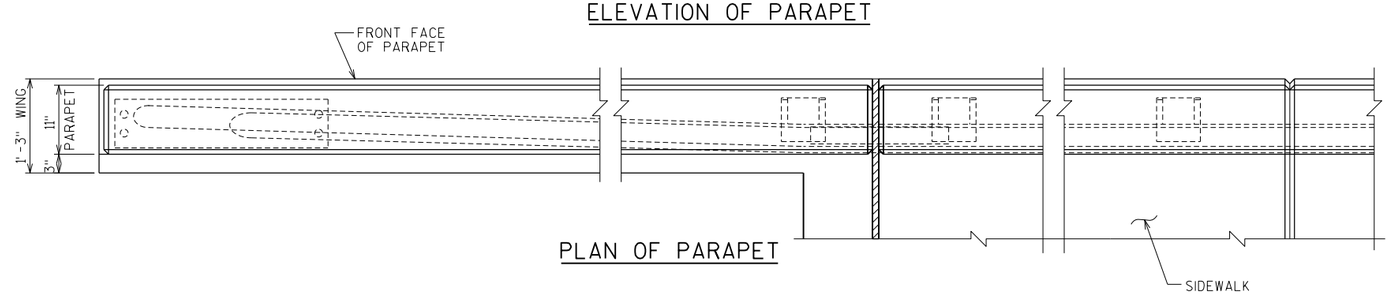
2060-15-71



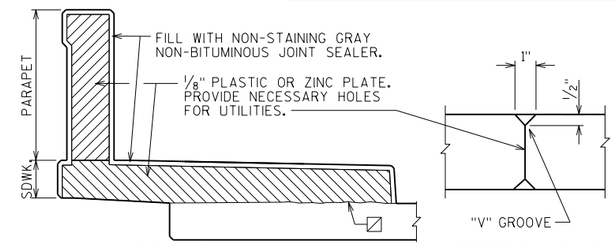
AT ABUTMENTS

AT DEFLECTION JOINT

ELEVATION OF PARAPET



PLAN OF PARAPET

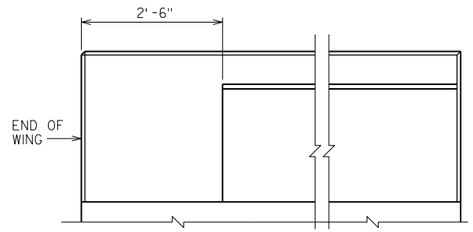


SECTION B-B

SECTION C-C

(SHOWING DEFLECTION JOINT IN PARAPET AND SIDEWALK.)

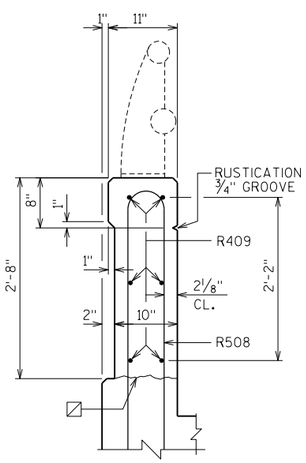
WHEN PARAPETS ARE POURED CONTINUOUSLY FROM END TO END, THEY SHALL BE SEPARATED AT THE DEFLECTION JOINTS BY A PIECE OF 1/8" ZINC OR PLASTIC PLATE CUT AS SHOWN IN SECTION B-B BY SHADED AREA. IF CONSTRUCTION JOINTS IN PARAPETS ARE USED AT THE DEFLECTION JOINTS, ONE SIDE OF JOINT SHALL BE COATED WITH AN APPROVED LIQUID BOND BREAKER AND PLATE SEPARATORS MAY BE OMITTED.



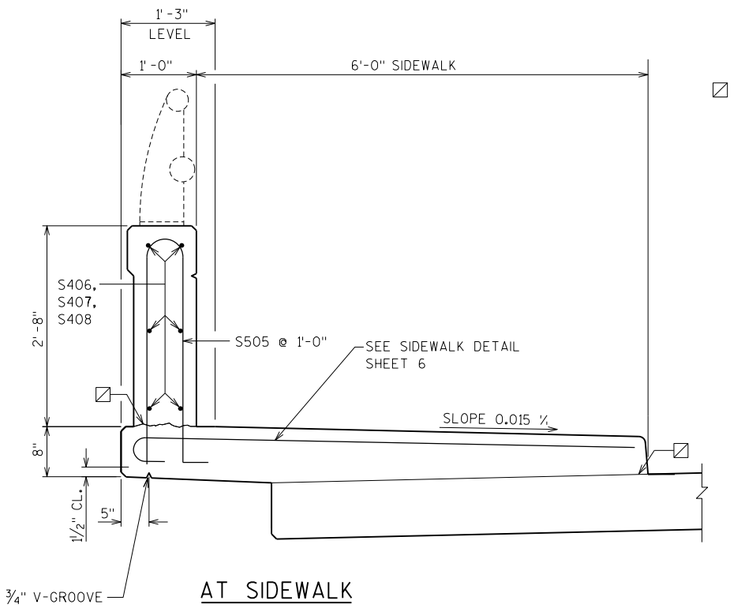
FRONT FACE OF PARAPET

BILL OF BARS

BAR MARK	COAT	S. ABUT.	N. ABUT.	LENGTH	BENT	BAR SERIES	LOCATION
R508	X	14	14	9'-5"	X		PARAPET VERT.
R409	X	6	6	9'-8"			PARAPET HORIZ.

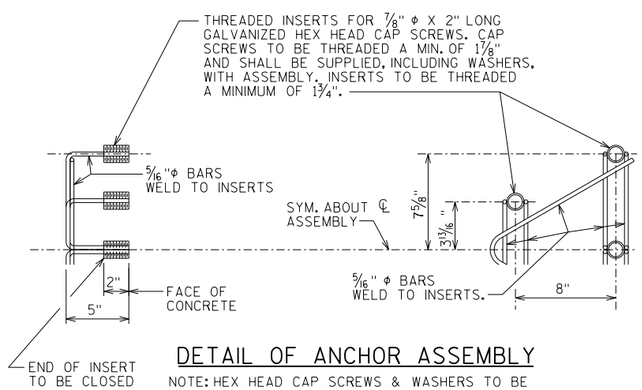


SECTION A-A



AT SIDEWALK

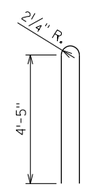
CONST. JOINT - STRIKE OFF AS SHOWN AND LEAVE ROUGH. FOR DECK POUR, MATCH BRIDGE X-SLOPE.



DETAIL OF ANCHOR ASSEMBLY

NOTE: HEX HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C.

ASSEMBLY BID ITEM SHALL BE "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD", EACH.



R509

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-294

DRAWN BY SKR | PLANS CK'D. DRB

VERTICAL FACE PARAPET "A"

SHEET 8 OF 10

925

8

8

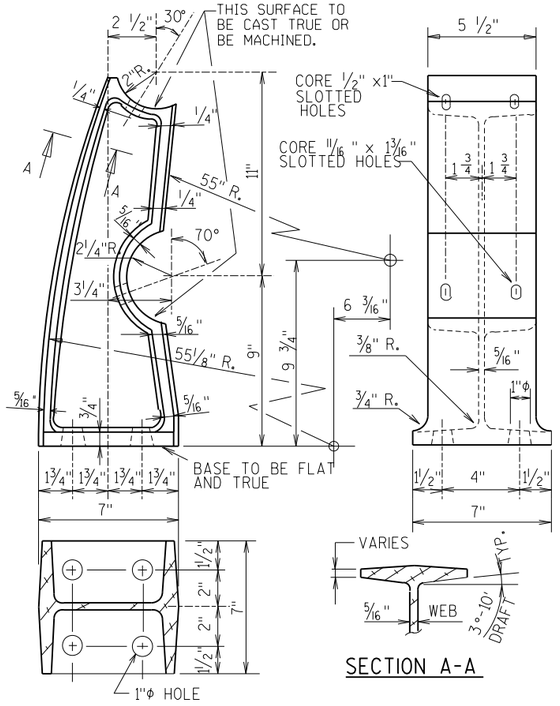
FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\B-40-294\080108_pa.dgn

PLOT DATE : 1/2/2014

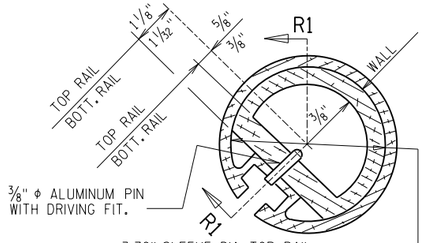
PLOT BY : ajc

STATE PROJECT NUMBER

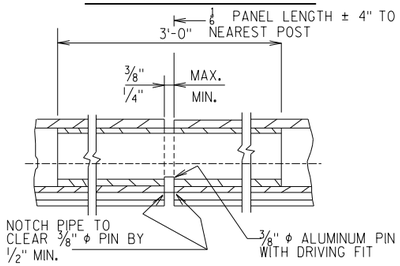
2060-15-71



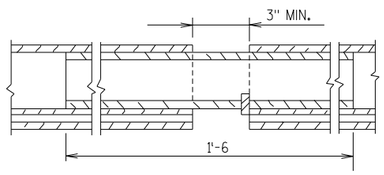
ALUMINUM POST CASTING



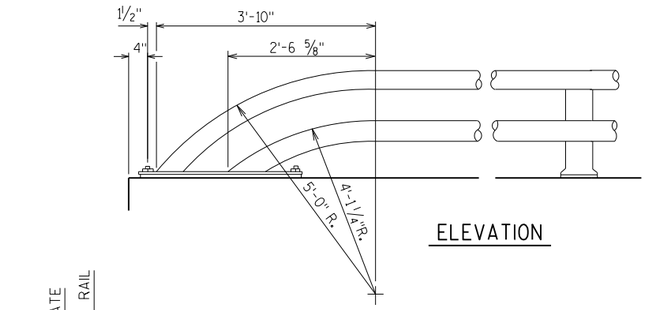
RAIL SPLICE DETAIL



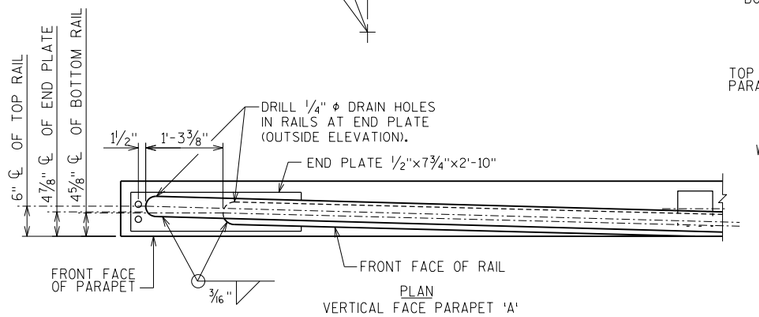
SECTION R1



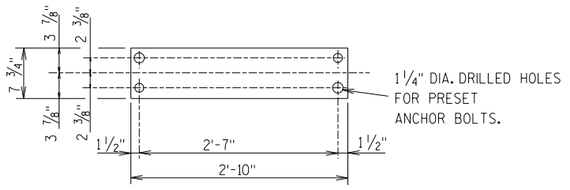
SLEEVE DETAIL AT ABUTMENT



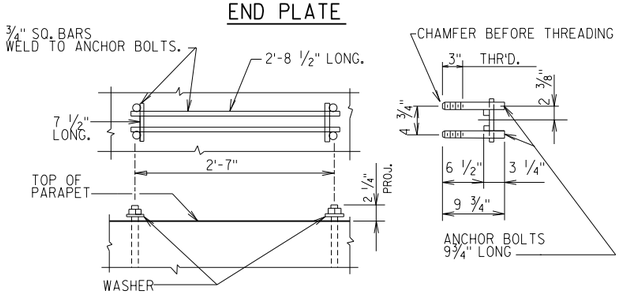
ELEVATION



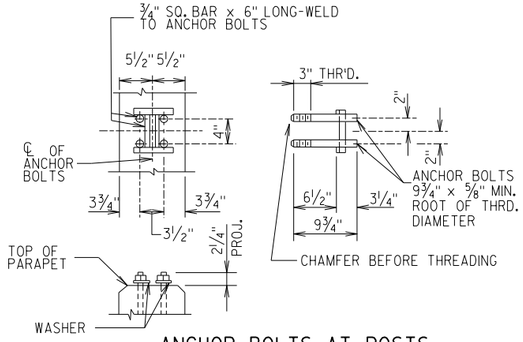
DETAIL OF RAIL BEND AT ABUTMENTS



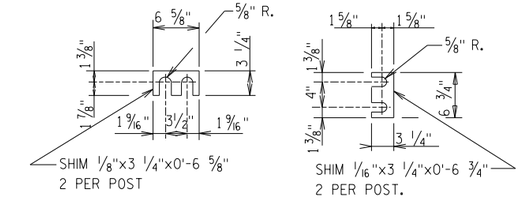
END PLATE



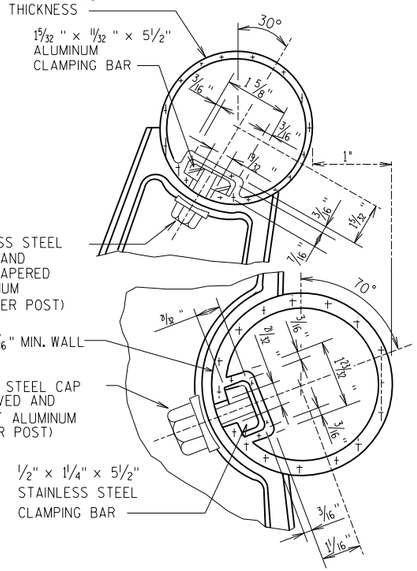
ANCHOR BOLTS AT END PLATE



ANCHOR BOLTS AT POSTS

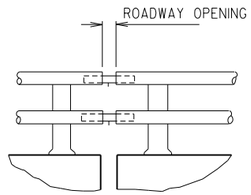


POST SHIM DETAILS



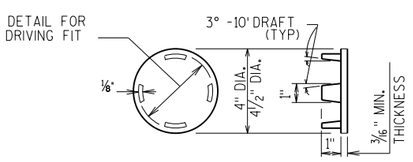
DETAIL OF RAIL ATTACHMENT TO POST

NOTES: MAX. REDUCTION IN DIAMETER OF BENT SECTION SHALL BE 3% WALL THICKNESS OF TUBING SHOWN ABOVE SHALL BE MIN. NOMINAL AVERAGE WALL THICKNESS.
MAX. REDUCTION IN SLOT WIDTH IN BENT TUBING SHALL BE 3/16".

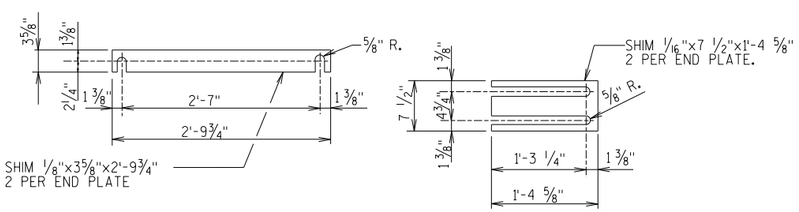


DETAIL AT RAIL OPENINGS

ALL SLEEVE DETAILS SAME AS "RAIL SPLICE DETAIL" UNLESS SHOWN OTHERWISE



RAIL CLOSURE CAP DETAIL



END PLATE SHIM DETAILS

GENERAL NOTES

BID ITEM SHALL BE "RAILING TUBULAR TYPE H B-40-294" WHICH INCLUDES ALL ITEMS SHOWN.

THE SHANK AND ROOT DIAMETER OF THREAD FOR ANCHOR BOLTS SHALL BE A MIN. OF 5/8".

ANCHOR BOLTS, NUTS AND WASHERS SHALL BE STAINLESS STEEL.

SHIMS SHALL CONFORM TO SAME MATERIAL AS POSTS.

RAILINGS SHALL BE FABRICATED IN 2 AND 3 PANEL LENGTHS.

RAILING POSTS SHALL BE SET NORMAL TO GRADE LINE.

ALL POST SPACINGS ARE MEASURED HORIZONTALLY ALONG CENTERLINE OF THE POST BASE.

SHIMS SHALL BE USED UNDER POSTS AND END PLATES WHERE REQ'D. FOR ALIGNMENT.

FILL ALL EXPOSED OPENINGS BETWEEN SHIMS AND POST ANCHOR BOLT HOLES WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

RAILS SHALL BE BUILT STRAIGHT AND SPRUNG INTO PLACE FOR STRUCTURES CURVED UP TO 3°. FOR STRUCTURES CURVED GREATER THAN 3°, RAILS SHALL BE CURVED TO FIT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-294

DRAWN BY SKR | PLANS CK'D. DRB

TUBULAR RAILING
TYPE 'H'(ALUM.)

SHEET 9 OF 10
926

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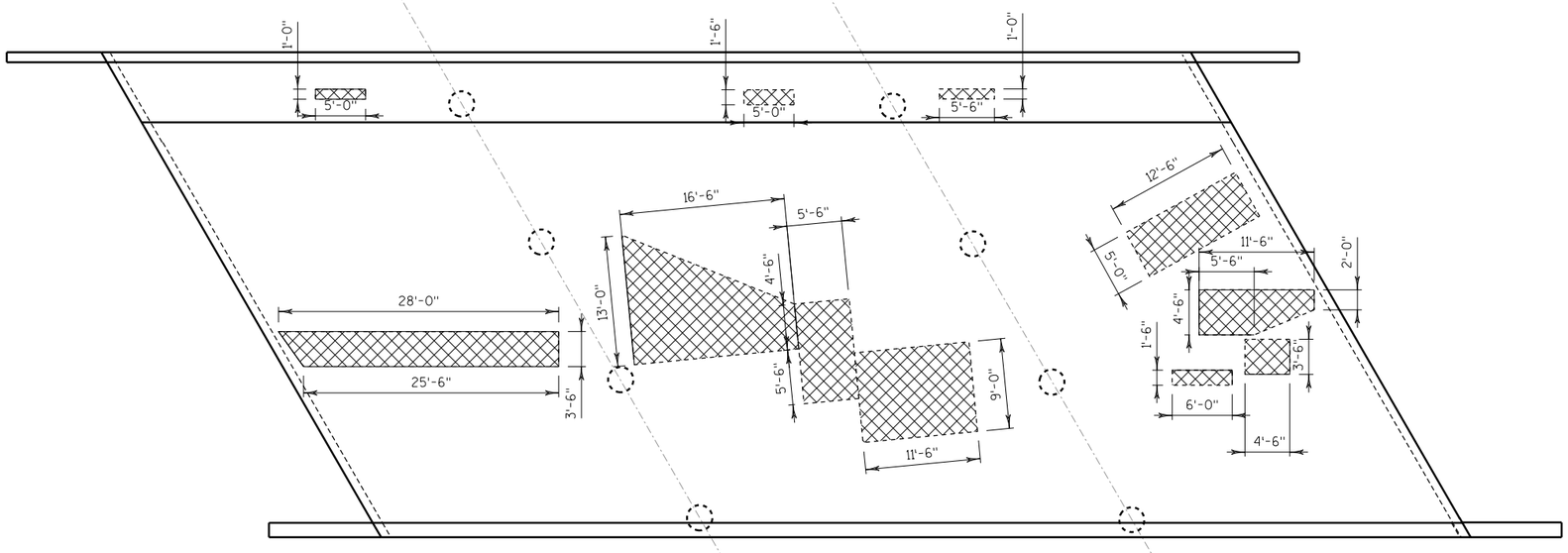
8

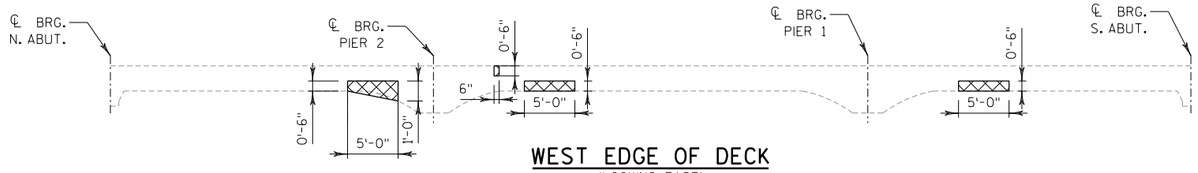
STATE PROJECT NUMBER

2060-15-71

N



SLAB PLAN



WEST EDGE OF DECK
(LOOKING EAST)

EAST EDGE OF DECK
(LOOKING WEST)

NOTES

⊠ CONCRETE SURFACE REPAIR REQUIRED. LOCATIONS AND DIMENSIONS OF SPALL AREAS ARE APPROXIMATE AND SHOULD BE USED AS A GUIDE ONLY. AREAS TO BE DETERMINED BY ENGINEER IN THE FIELD. ALL AREAS SHOWN IN THE SLAB PLAN VIEW ARE ON THE UNDERSIDE OFTHE SLAB SUPERSTRUCTURE. PAID FOR UNDER BID ITEM "CONCRETE SURFACE REPAIR".

8

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-294

DRAWN BY SKR | PLANS CK'D. DRB

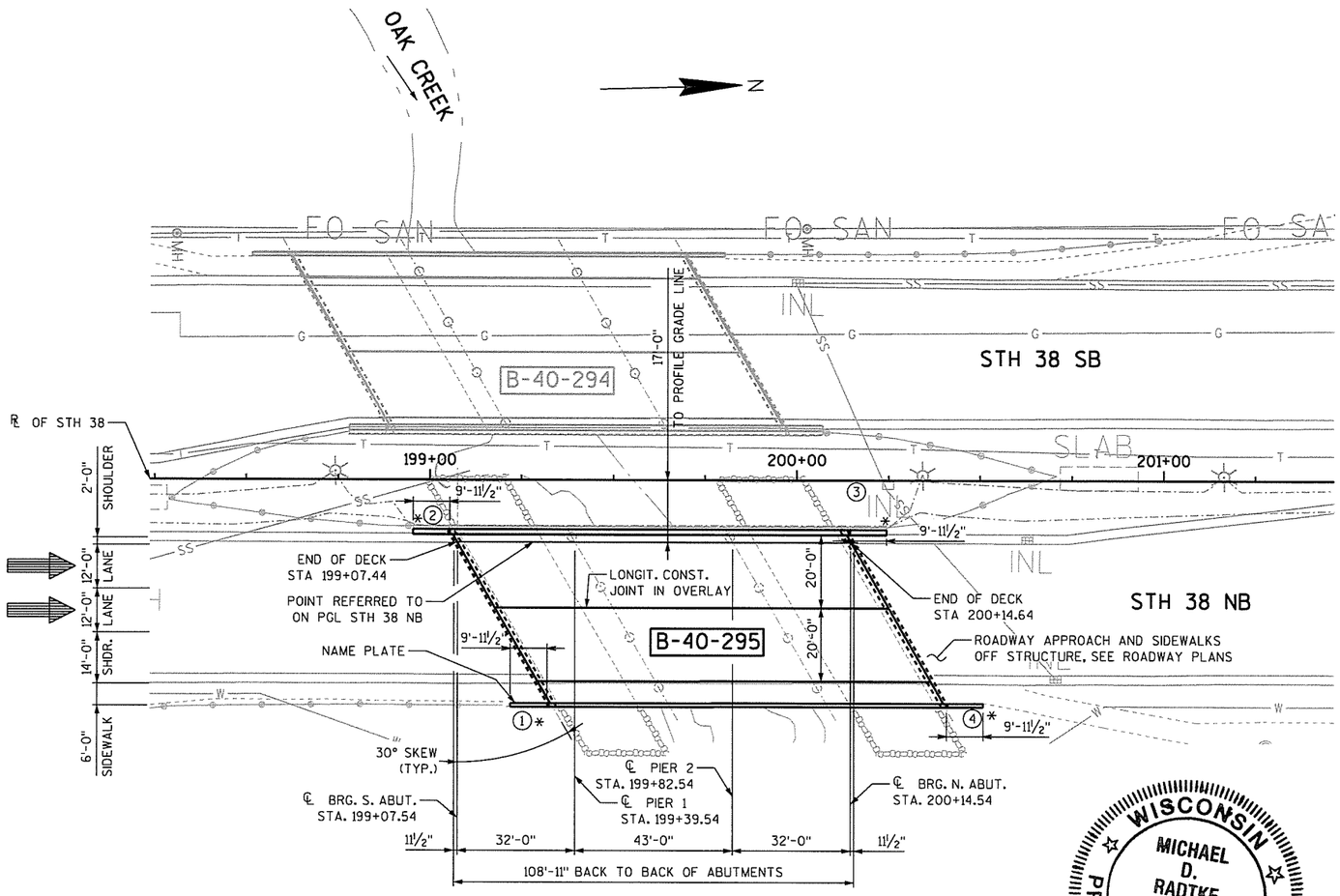
CONCRETE SURFACE REPAIR

SHEET 10 OF 10

927

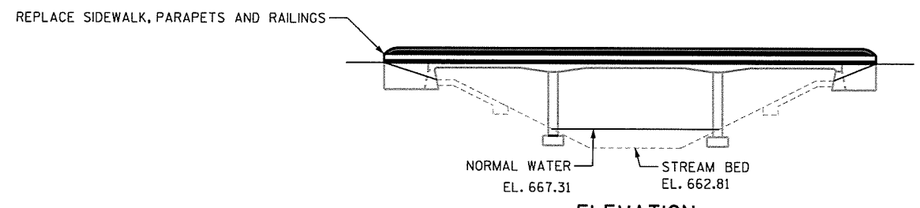
STATE PROJECT NUMBER

2060-15-71



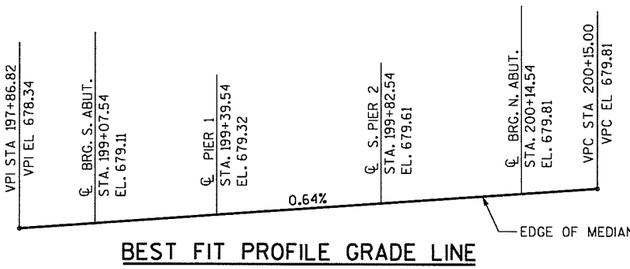
PLAN

(3-SPAN CONTINUOUS HAUNCHED SLAB)

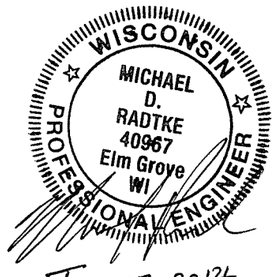


ELEVATION

(LOOKING WEST NORMAL TO ABUTMENT FACE)



BEST FIT PROFILE GRADE LINE



LIST OF DRAWINGS

1. GENERAL PLAN
2. TYPICAL SECTION AND QUANTITIES
3. DECK INSPECTION
4. SOUTH ABUTMENT
5. NORTH ABUTMENT
6. SUPERSTRUCTURE DETAILS
7. SINGLE SLOPED PARAPET 32SS
8. VERTICAL FACE PARAPET 'A'
9. TUBULAR RAILING TYPE 'H' (ALUM.)
10. CONCRETE SURFACE REPAIR

NOTES

(X) DENOTES WING WALL NUMBER

* PROVIDE FOR THRIE BEAM RAIL ATTACHMENT. PAID FOR AS ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD. ALL UNUSED HOLES SHALL BE FILLED WITH 100% SILICONE CAULK.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS OF EXISTING STRUCTURE SHOWN ARE BASED ON ORIGINAL STRUCTURE PLANS FROM 1968.

THE EXISTING STRUCTURE B-40-295 IS A 3-SPAN CONTINUOUS HAUNCHED SLAB STRUCTURE WITH AN OVERALL WIDTH OF 49'-6" AND AN OVERALL LENGTH OF 108'-11".

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

UTILIZE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND 24 BAR DIAMETERS INTO NEW WORK, UNLESS SPECIFIED OTHERWISE.

A MINIMUM OF 1½ INCH OF CONCRETE SHALL BE REMOVED FROM THE ENTIRE BRIDGE DECK UNDER THE BID ITEM "CLEANING DECKS".

THE ENTIRE DECK SURFACE IS TO BE PREPARED FOR NEW CONCRETE OVERLAY.

"PREPARATION DECKS TYPE 1 AND TYPE 2" AREAS SHALL BE DETERMINED BY THE FIELD ENGINEER. REFER TO "DECK INSPECTION" SHEET FOR PROPOSED AERAS FOR "PREPARATION DECKS TYPE 1", "PREPARATION DECKS TYPE 2, AND "FULL-DEPTH DECK REPAIR".

THE BID ITEM "CONCRETE MASONRY OVERLAY DECKS" INCLUDES CONCRETE FOR THE PREPARATION DECKS TYPE 1, PREPARATION DECKS TYPE 2, AND CONCRETE OVERLAY.

THE BID ITEM "CONCRETE MASONRY BRIDGES" INCLUDES CONCRETE FOR SIDEWALK AND PARAPETS.

ALL CONCRETE REMOVAL NOT COVERED WITH CONCRETE OVERLAY SHALL BE DEFINED BY A 1-INCH DEEP SAW CUT.

VARIATIONS TO THE NEW GRADE LINE OVER ¼" MUST BE SUBMITTED BY THE FIELD ENGINEER TO THE STRUCTURES DESIGN SECTION FOR REVIEW.

PROTECTIVE SURFACE TREATMENT SHALL BE APPLIED TO THE ENTIRE BRIDGE DECK, SIDEWALK, CURBFACE, AND THE FRONT FACE AND TOP OF THE PARAPETS.

ANY EXCAVATION REQUIRED TO COMPLETE THE OVERLAY AT THE ABUTMENTS IS TO BE INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

IF THE EXISTING NAME PLATE IS DAMAGED AND A NEW NAME PLATE IS REQUIRED, THE ORIGINAL CONSTRUCTION DATE IS 1968.

WITH EXTENSIVE SPALLING IN THE NEGATIVE MOMENT AREA, NOT MORE THAN ⅓ OF THE TOP BAR STEEL SHOULD BE EXPOSED IF THE BAR ENDS ARE NOT ANCHORED. THIS IS TO MAINTAIN THE CONTINUITY OF THE CONTINUOUS SPANS. IF MORE THAN ⅓ OF THE STEEL IS EXPOSED, EITHER THE CENTERS OF THE ADJACENT SPANS MUST BE SHORED OR ONLY LONGITUDINALLY OVERLAY ⅓ OF THE BRIDGE AT A TIME.

THE EXISTING TYPE 'H' TUBULAR ALUMINUM RAILING SHALL BE SALVAGED AND PICKED UP BY COUNTY FORCES.

DESIGN DATA

LIVE LOAD
LOADING:
DESIGN RATING: HS-20
INVENTORY RATING: HS-19
OPERATING RATING: HS-32
MAX. STD. PERMIT VEHICLE LOAD = 170 kips

ULTIMATE DESIGN STRESSES:
CONCRETE MASONRY SLAB _____ f'c = 4,000 psi
ALL OTHER _____ f'c = 3,500 psi
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60 _____ fy = 60,000 psi

EXISTING ULTIMATE DESIGN STRESSES PER AS-BUILTS:
CONCRETE MASONRY _____ f'c = 3,500 psi
BAR STEEL REINFORCEMENT, GRADE 40 _____ fy = 40,000 psi

TRAFFIC DATA

ADT(2034) = 28,600 - 35,500
RDS = 50 M.P.H.

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE: WILLIAM DREHER (608) 266-8489
CONSULTANT: MICHAEL D. RADTKE (414) 347-1607

NO.	DATE	REVISION	BY

emcs inc
1300 W. Canal Street, Suite 200
Milwaukee, WI 53233
414.347.1607 Fax 414.347.1347

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher KAR 01/27/14
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-40-295

STH 38 NB OVER OAK CREEK

COUNTY	CITY
MILWAUKEE	OAK CREEK

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
SKR	DRB	TEO	SKR

GENERAL PLAN

928 OF 10

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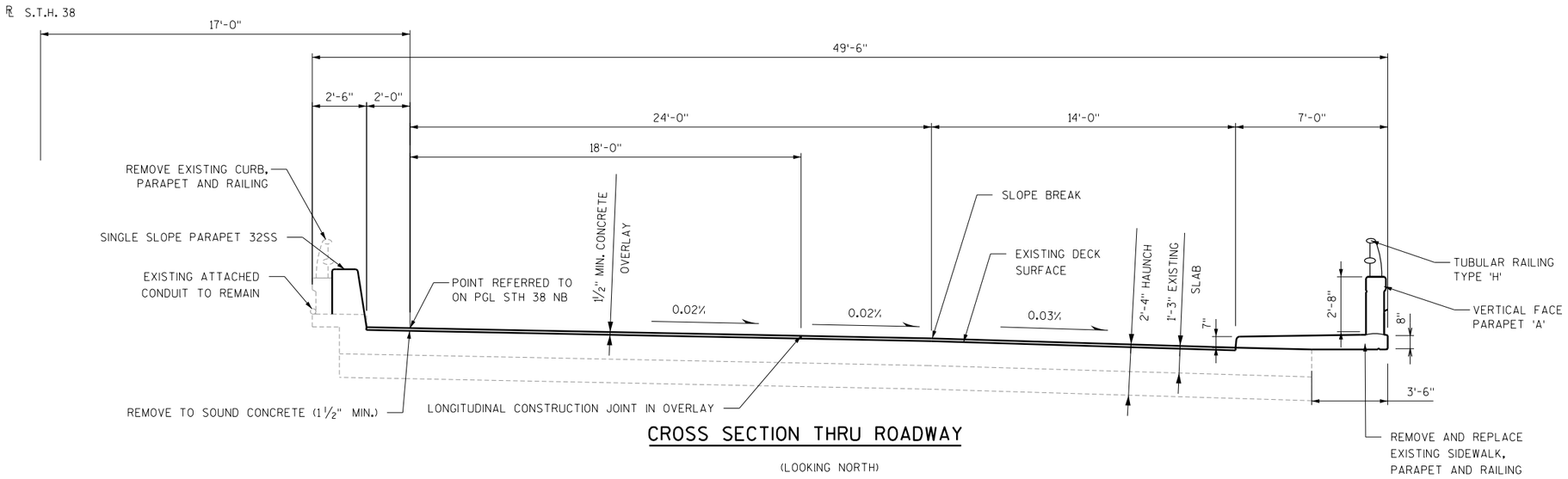
FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\B-40-295\080201_gp.dgn

PLOT DATE : 1/27/2014

PLOT BY : skr

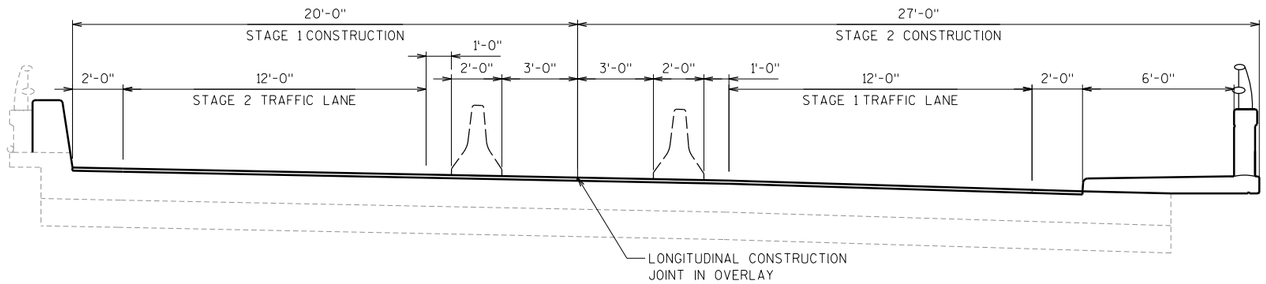
STATE PROJECT NUMBER

2060-15-71



CROSS SECTION THRU ROADWAY

(LOOKING NORTH)



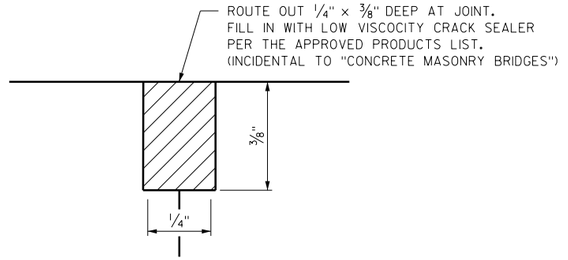
STAGING CROSS SECTION THRU ROADWAY

(LOOKING NORTH)

TOTAL ESTIMATED QUANTITIES

ITEM NO.	BID ITEM	UNIT	TOTAL
203.0210.S.0002	ABATEMENT OF ASBESTOS CONTAINING MATERIAL STRUCTURE B-40-295	LS	1
203.0600.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS (STA 199+61)	LS	1
502.0100	CONCRETE MASONRY BRIDGES	CY	50
502.3200	PROTECTIVE SURFACE TREATMENT	SY	673
502.5005	MASONRY ANCHORS TYPE L NO. 5 BARS	EA	389
505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	9,710
509.0301	PREPARATION DECKS TYPE 1	SY	301
509.0302	PREPARATION DECKS TYPE 2	SY	226
509.0500	CLEANING DECKS	SY	485
509.1500	CONCRETE SURFACE REPAIR	SF	273
509.2000	FULL-DEPTH DECK REPAIR	SY	34
509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	65
513.4055	RAILING TUBULAR TYPE H (B-40-295)	LS	1
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	4
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EA	4
	NON-BID ITEMS		
	FILLER	SIZE	1/2"
	NON-BITUMINOUS JOINT SEALER		

ALL ITEMS ARE CATEGORY 0022



LONGITUDINAL CONSTRUCTION JOINT DETAIL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-295

DRAWN BY TEO | PLANS CK'D. SKR

TYPICAL SECTION AND QUANTITIES

SHEET 2 OF 10
929

8

8

STATE PROJECT NUMBER
2060-15-71

PLAN - DECK INSPECTION RESULTS

DECK INSPECTION RESULTS

FIELD OBSERVATIONS SUMMARY		ROADWAY		SIDEWALK	
ITEM	UNIT	QUANT.	%	QUANT.	%
TOTAL AREA	ft^2	4288		643	
SHADE/DEBRIS	ft^2	0		162	
DELAMINATION	ft^2	2214	51.6	294	61.1
SPALL	ft^2	0	0	0	0
DEBOND	ft^2	0	0	N/A	N/A
ASPHALT PATCH	ft^2	0	0	0	0
CONCRETE PATCH	ft^2	0	0	83	17.3

LEGEND

DELAMINATION
SPALL
DEBOND
ASPHALT PATCH
CONCRETE PATCH
SHADE/DEBRIS

DECK INSPECTION NOTES

DECK INFRARED THERMOGRAPHIC INVESTIGATION
PERFORMED BY AECOM.
INFRARED INSPECTION DATE: 5/14/2013

SHEET INCLUDED FOR INFORMATION PURPOSES ONLY.

SCALE 0' 5' 10' 20'

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-295

DRAWN BY SKR | PLANS CK'D. DRB

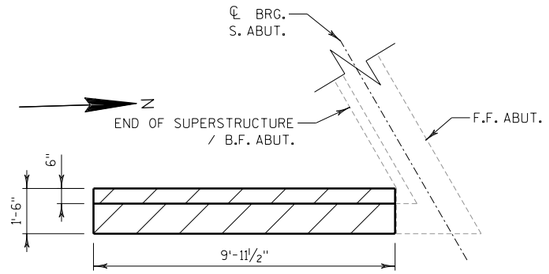
DECK INSPECTION

SHEET 3 OF 10
930

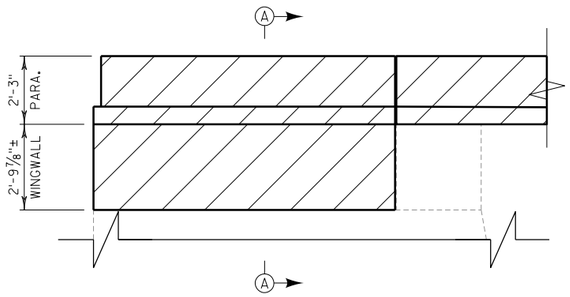
8

8

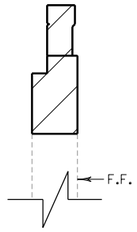
STATE PROJECT NUMBER
2060-15-71



WING 1 PLAN REMOVAL



WING 1 ELEVATION - REMOVAL



SECTION A-A

GENERAL NOTES

REMOVE EXISTING WINGWALLS TO EXISTING HORIZONTAL CONSTRUCTION JOINT. SALVAGE EXISTING VERTICAL BAR REINFORCEMENT AND EXTEND 24 BAR DIAMETERS INTO NEW WORK.

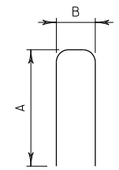
TUBULAR RAILING TYPE H NOT SHOWN FOR CLARITY.

MASONRY ANCHORS TYPE L NO. 5 BARS. EMBED 1'-6" IN CONCRETE.

◥ 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL VERTICAL AND HORIZONTAL JOINTS ON BACK FACE OF ABUTMENT.

◭ PRESERVE AND INCORPORATE EXISTING REINFORCEMENT INTO NEW WORK (1'-8" MIN. EMBEDMENT INTO NEW WORK).

◐ ADD NEW ½" FILLER MATERIAL BETWEEN NEW WINGWALL AND EXISTING DIAPHRAGM.

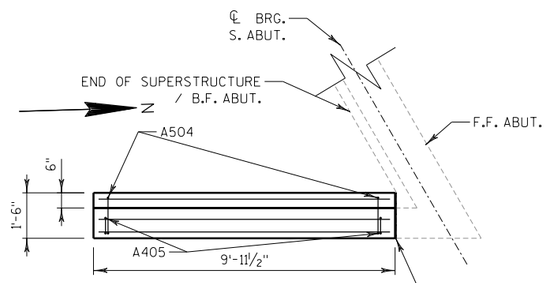


A504, A405

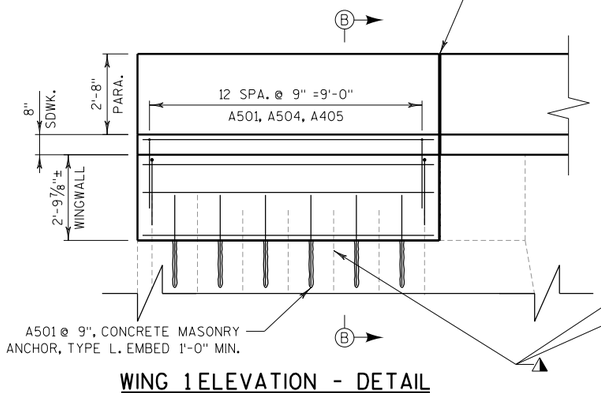
BAR MARK	A	B
A504	2'-5"	1'-2"
A405	1'-4"	0'-8"

BILL OF BARS

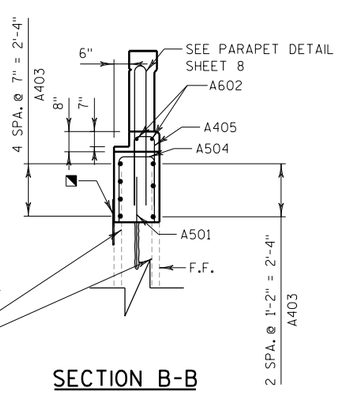
BAR MARK	COAT	WING 1	LENGTH	BENT	LOCATION
A501	X	13	2'-6"		WING - VERT. DOWELS
A602	X	2	9'-8"		WING HORIZONTAL
A403	X	8	9'-8"		WING HORIZONTAL
A504	X	13	5'-9"	X	WING VERTICAL
A405	X	13	3'-2"	X	WING VERTICAL



WING 1 PLAN DETAIL



WING 1 ELEVATION - DETAIL



SECTION B-B

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-295

DRAWN BY SKR | PLANS CK'D. DRB

SOUTH ABUTMENT

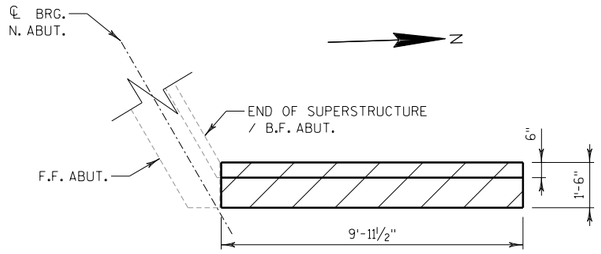
SHEET 4 OF 10
931

8

8

STATE PROJECT NUMBER

2060-15-71



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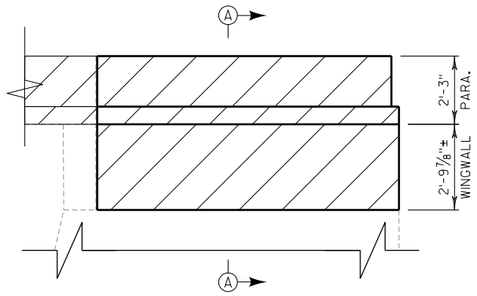
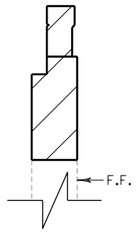


WING 4 ELEVATION - REMOVAL



SECTION A-A

GENERAL NOTES

REMOVE EXISTING WINGWALLS TO EXISTING HORIZONTAL CONSTRUCTION JOINT. SALVAGE EXISTING VERTICAL BAR REINFORCEMENT AND EXTEND 24 BAR DIAMETERS INTO NEW WORK.

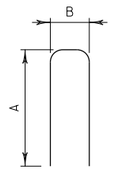
TUBULAR RAILING TYPE H NOT SHOWN FOR CLARITY.

MASONRY ANCHORS TYPE L NO. 5 BARS. EMBED 1'-6" IN CONCRETE.

◹ 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL VERTICAL AND HORIZONTAL JOINTS ON BACK FACE ABOVE FOOTING.

◭ PRESERVE AND INCORPORATE EXISTING REINFORCEMENT INTO NEW WORK (1'-8" MIN. EMBEDMENT INTO NEW WORK).

◐ ADD NEW ½" FILLER MATERIAL BETWEEN NEW WINGWALL AND EXISTING DIAPHRAGM.

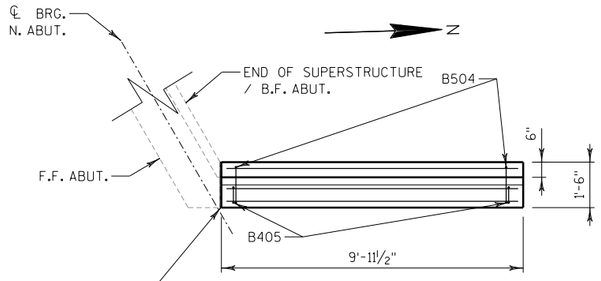


B504, B405

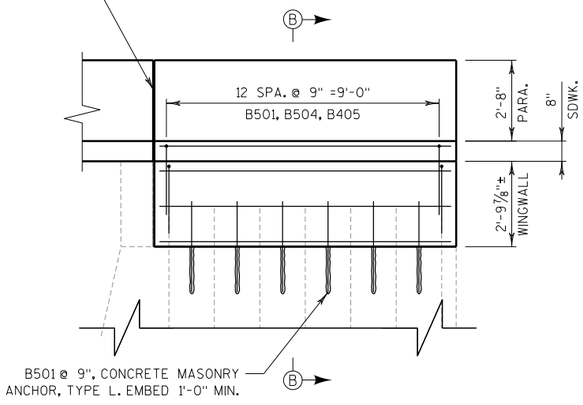
BAR MARK	A	B
A504	2'-5"	1'-2"
B405	1'-4"	0'-8"

BILL OF BARS

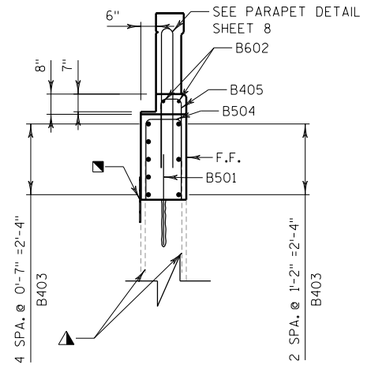
BAR MARK	COAT	WING 4	LENGTH	BENT	LOCATION
B501	X	13	2'-6"		WING - VERT. DOWELS
B602	X	2	9'-8"		WING HORIZONTAL
B403	X	8	9'-8"		WING HORIZONTAL
B504	X	13	5'-9"	X	WING VERTICAL
B405	X	13	3'-2"	X	WING VERTICAL



WING 4 PLAN DETAIL



WING 4 ELEVATION - DETAIL



SECTION B-B

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-295

DRAWN BY SKR | PLANS CK'D. DRB

NORTH ABUTMENT

SHEET 5 OF 10
932

8

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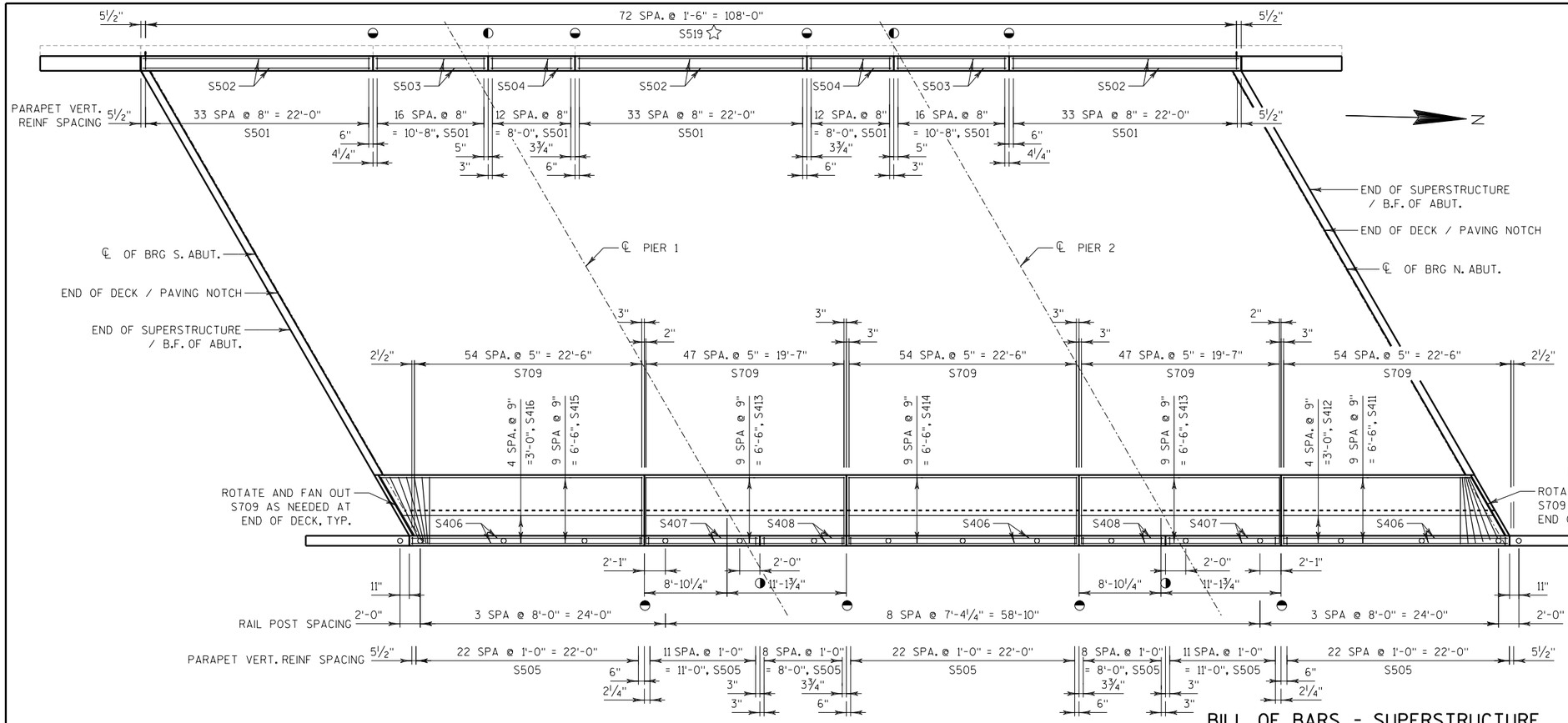
FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\B-40-295\080205_na.dgn

PLOT DATE : 1/27/2014

PLOT BY : skr

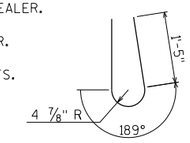
STATE PROJECT NUMBER

2060-15-71

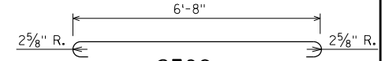


NOTES

- ◐ DENOTES DEFLECTION JOINT IN PARAPET ONLY.
- ◒ DENOTES DEFLECTION JOINT IN CURB OR SIDEWALK AND PARAPET.
- ▨ CONSTRUCTION JOINT - STRIKE OFF AS SHOWN AND LEAVE ROUGH. FOR DECK POUR, MATCH BRIDGE CROSS SLOPE.
- ◭ AVOID EXISTING TRANS. REINF. WHILE DRILLING HOLE FOR NEW ANCHORS. EXISTING REINF. SPACED AT 1'-0" CTRS. FOR SPANS 1 AND 3 AND 1'-3" CTRS FOR SPAN 2. SEE EXISTING PLANS.
- ▲ EXISTING REINF ARE #5 BARS AT 10" CTRS. PRESERVE AND INCORPORATE EXIST. REINF. INTO NEW WORK. NOTIFY ENGINEER IMMEDIATELY OF ANY DAMAGE THAT OCCURS TO EXIST. REINF. DURING CONSTRUCTION. ANY REPAIR SOLUTION MUST BE APPROVED BY ENGINEER PRIOR TO INSTALLATION.
- ◙ REMOVE EXISTING RAILING.
- ▪ SEAL HORIZ. JOINT WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.
- ☆ TYPE L MASONRY ANCHOR.
- ▨ CONCRETE REMOVAL LIMITS.



S501



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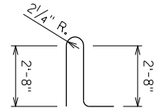

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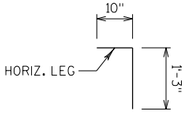


S517, S519

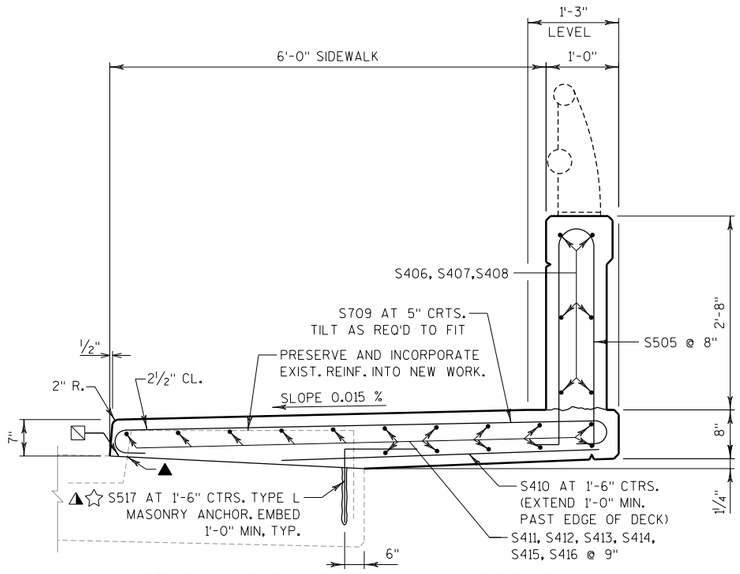
SUPERSTRUCTURE PLAN

BILL OF BARS - SUPERSTRUCTURE

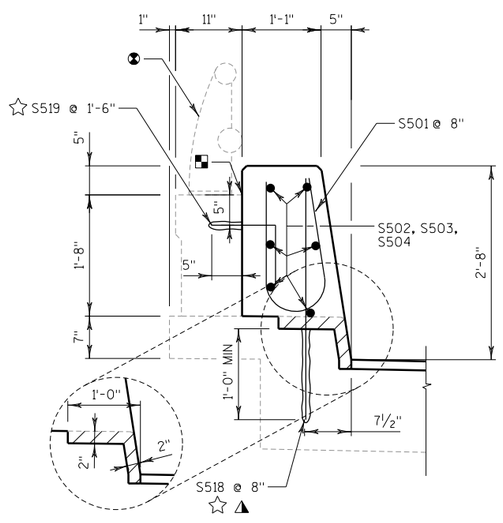
MARK	COAT	NO.	LENGTH	BENT	SERIES	LOCATION
S501	X	162	4'-2"	X		32SS PARAPET - VERTICAL SUPERSTRUCTURE
S502	X	18	22'-6"			32SS PARAPET HORIZONTAL SUPERSTRUCTURE
S503	X	12	11'-0"			32SS PARAPET HORIZONTAL SUPERSTRUCTURE
S504	X	12	8'-3"			32SS PARAPET HORIZONTAL SUPERSTRUCTURE
S505	X	111	6'-8"	X		VERTICAL FACE PARAPET 'A' - SUPER. VERT.
S406	X	18	22'-6"			'A' PARAPET HORIZONTAL - SUPERSTRUCTURE
S407	X	12	11'-0"			'A' PARAPET HORIZONTAL - SUPERSTRUCTURE
S408	X	12	8'-3"			'A' PARAPET HORIZONTAL - SUPERSTRUCTURE
S709	X	219	8'-4"	X		SIDEWALK - TRANSVERSE
S410	X	74	5'-0"			SIDEWALK - TRANSVERSE AT OVERHANG
S411	X	10	20'-8"		Δ	SIDEWALK - LONGITUDINAL TOP SERIES 1
S412	X	5	21'-7"		Δ	SIDEWALK - LONGITUDINAL BOT SERIES 1
S413	X	30	19'-6"			SIDEWALK - LONGITUDINAL TOP AND BOT
S414	X	15	22'-6"			SIDEWALK - LONGITUDINAL TOP AND BOT
S415	X	10	22'-11"		Δ	SIDEWALK - LONGITUDINAL BOT SERIES 2
S416	X	5	22'-0"		Δ	SIDEWALK - LONGITUDINAL BOT SERIES 2
S517	X	74	2'-0"	X		SIDEWALK - DOWEL AT DECK EDGE
S518	X	162	3'-0"			32SS PARAPET - VERT. DOWEL
S519	X	73	2'-0"	X		32SS PARAPET - HORIZ DOWEL

BAR SERIES

MARK	NO. REQ'D.	LENGTHS FOR EACH SERIES
S411	1 SERIES OF 10	18'-10"" TO 22'-6"
S412	1 SERIES OF 5	20'-8" TO 22'-6"
S415	1 SERIES OF 10	21'-1" TO 24'-9"
S416	1 SERIES OF 5	21'-1" TO 22'-11"



SECTION THRU SIDEWALK ON BRIDGE



SECTION THRU SINGLE SLOPE PARAPET ON BRIDGE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-295

DRAWN BY AJC | PLANS CK'D. DRB

SUPERSTRUCTURE DETAILS

SHEET 6 OF 10
933

8

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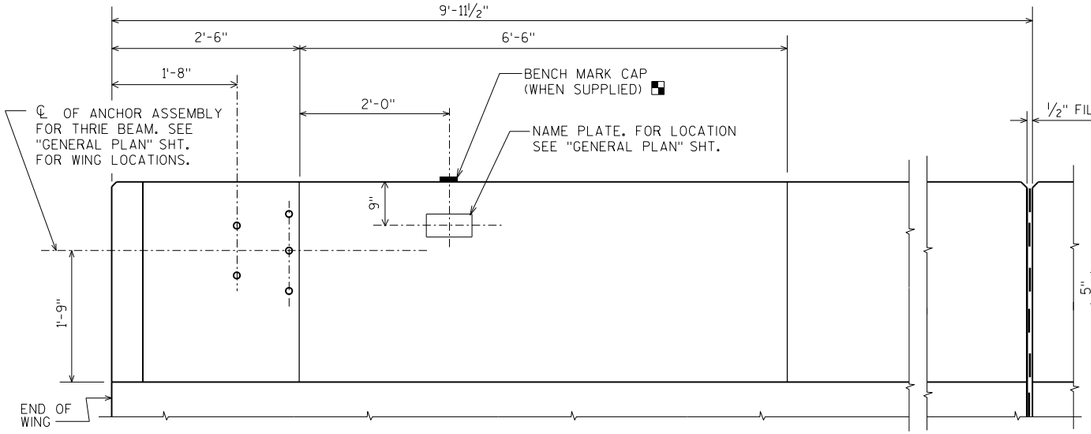
FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\B-40-295\080206_sd.dgn

PLOT DATE : 1/27/2014

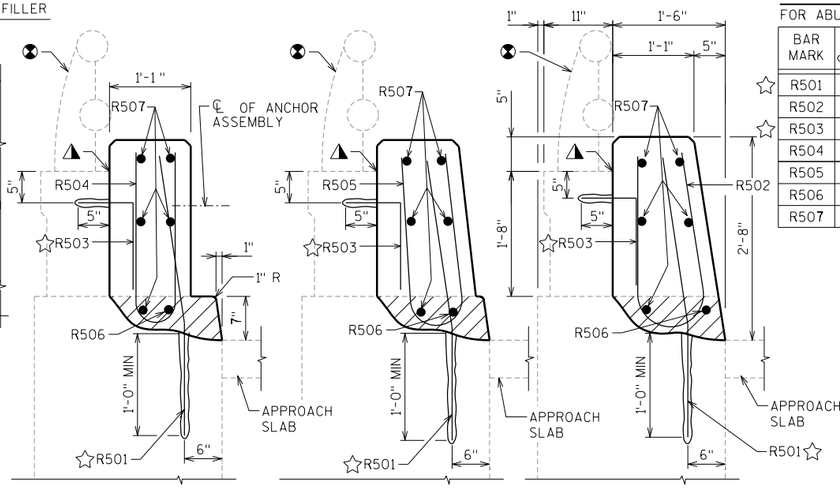
PLOT BY : skr

STATE PROJECT NUMBER

2060-15-71



INSIDE ELEVATION

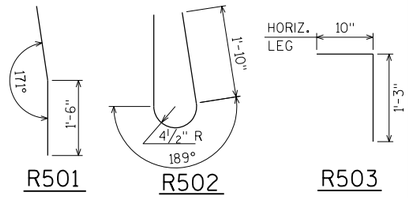


SECTION A SECTION B SECTION C

BILL OF BARS

FOR ABUTMENT PARAPETS

BAR MARK	COAT	S. ABUT.	N. ABUT.	LENGTH	BENT	BAR SERIES	LOCATION
R501	X	20	20	3'-6"	X		PARAPET VERT.
R502	X	3	3	5'-0"	X		PARAPET VERT.
R503	X	7	7	2'-0"	X		PARAPET VERT.
R504	X	11	11	4'-9"	X		PARAPET VERT.
R505	X	6	6	4'-10"	X		PARAPET VERT.
R506	X	1	1	9'-7"	X		PARAPET HORIZ.
R507	X	5	5	9'-8"			PARAPET HORIZ.



R501 R502 R503

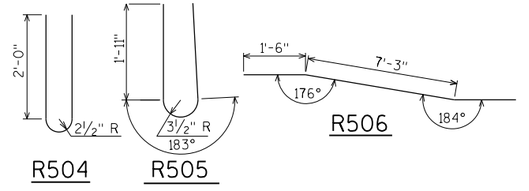
PLAN

OPTIONAL CONSTRUCTION JOINTS IN THE PARAPETS MAY BE USED. RUN BAR REINF. THRU THE JOINT. LAP LONGIT. BARS A MIN. OF 1'-9". MIN. JOINT SPACING OF 80'-0". DEFINE CONST. JOINT WITH A ¾" - 'V' GROOVE.

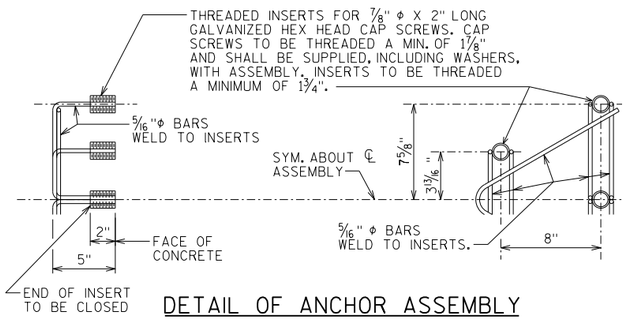
OUTSIDE ELEVATION

LEGEND

- AVOID PLACING A BENCH MARK CAP BELOW A RAIL OR FENCE SYSTEM THAT IS ATTACHED TO THE TOP OF THE PARAPET.
- SEAL HORIZ. JOINT WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER
- REMOVE EXISTING RAILING
- TYPE L MASONRY ANCHOR
- CONC. REMOVAL LIMITS



R504 R505 R506



DETAIL OF ANCHOR ASSEMBLY

NOTE: HEX HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C.

ASSEMBLY SHALL BE BID ITEM "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD", EACH.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-295

DRAWN BY TEO | PLANS CK'D. SKR

SINGLE SLOPE PARAPET 32SS

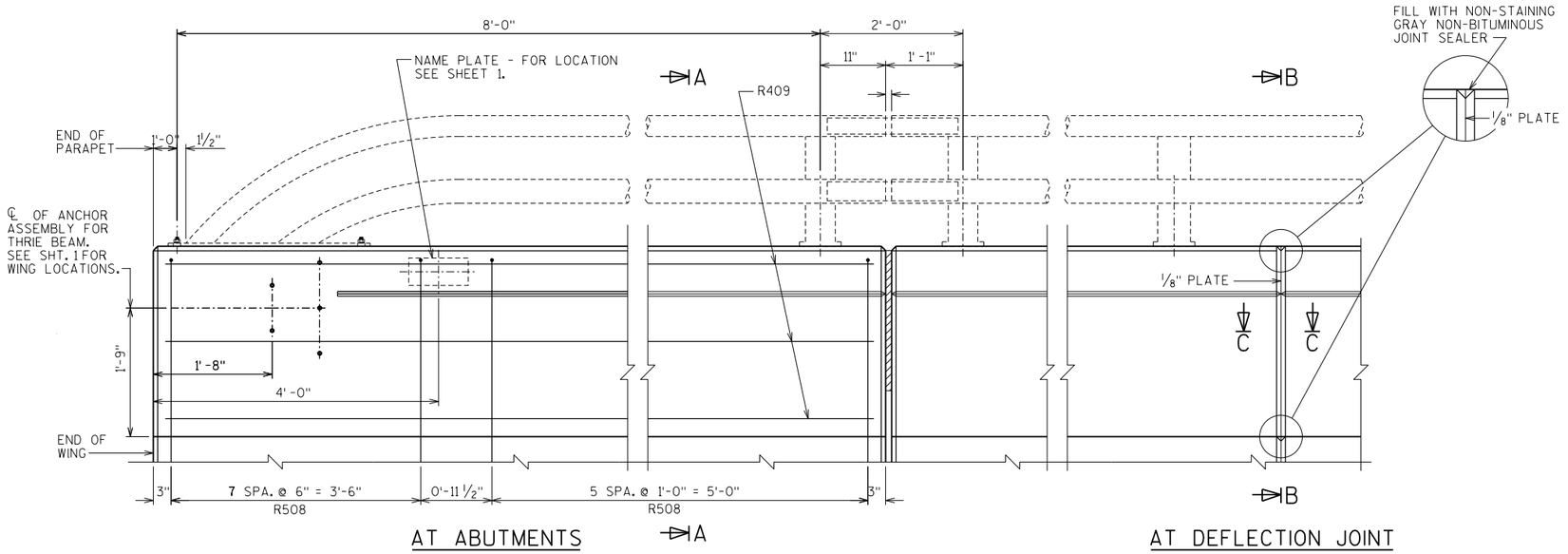
SHEET 7 OF 10
934

8

8

STATE PROJECT NUMBER

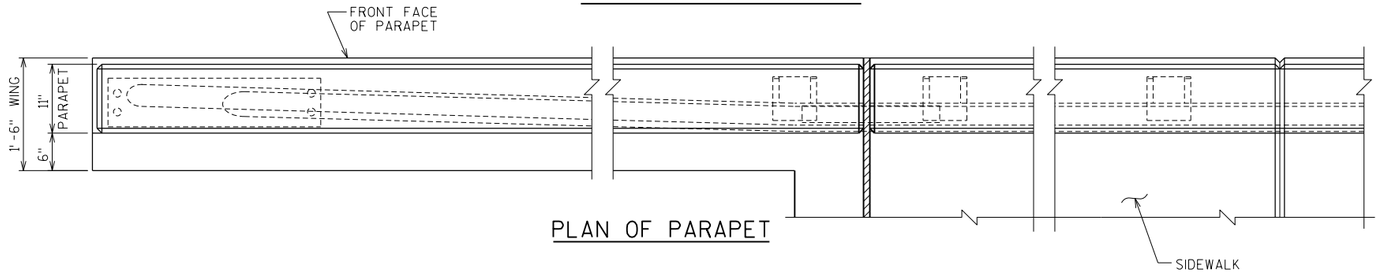
2060-15-71



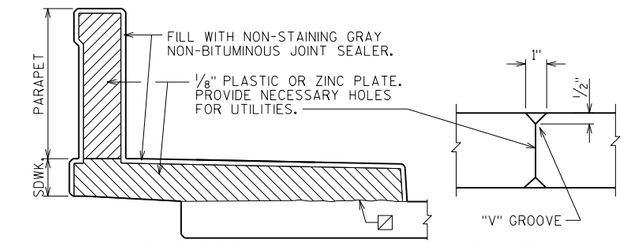
AT ABUTMENTS

AT DEFLECTION JOINT

ELEVATION OF PARAPET



PLAN OF PARAPET

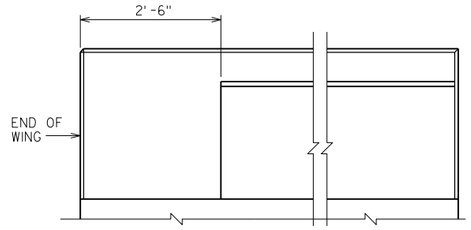


SECTION B-B

SECTION C-C

(SHOWING DEFLECTION JOINT IN PARAPET AND SIDEWALK.)

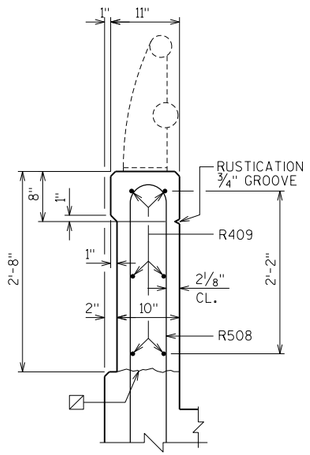
WHEN PARAPETS ARE POURED CONTINUOUSLY FROM END TO END, THEY SHALL BE SEPARATED AT THE DEFLECTION JOINTS BY A PIECE OF 1/8" ZINC OR PLASTIC PLATE CUT AS SHOWN IN SECTION B-B BY SHADED AREA. IF CONSTRUCTION JOINTS IN PARAPETS ARE USED AT THE DEFLECTION JOINTS, ONE SIDE OF JOINT SHALL BE COATED WITH AN APPROVED LIQUID BOND BREAKER AND PLATE SEPARATORS MAY BE OMITTED.



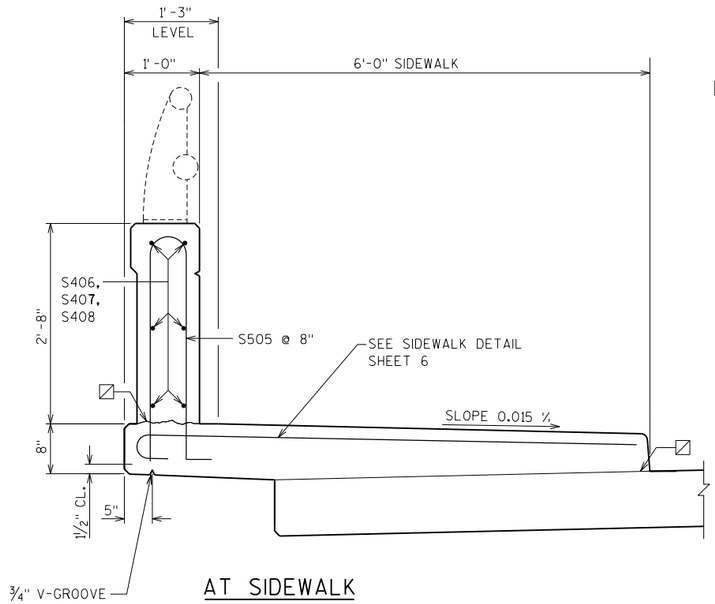
FRONT FACE OF PARAPET

BILL OF BARS

BAR MARK	COAT	S. ABUT.	N. ABUT.	LENGTH	BENT	BAR SERIES	LOCATION
R508	X	14	14	9'-5"	X		PARAPET VERT.
R409	X	6	6	9'-8"			PARAPET HORIZ.

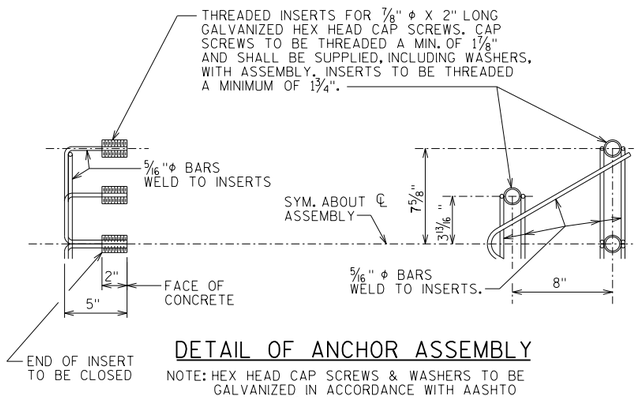


SECTION A-A



AT SIDEWALK

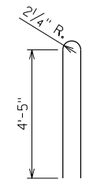
☑ CONST. JOINT - STRIKE OFF AS SHOWN AND LEAVE ROUGH. FOR DECK POUR, MATCH BRIDGE X-SLOPE.



DETAIL OF ANCHOR ASSEMBLY

NOTE: HEX HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C.

ASSEMBLY BID ITEM SHALL BE "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD", EACH.



R508

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-295

DRAWN BY TEO | PLANS CK'D. SKR

VERTICAL FACE PARAPET "A"

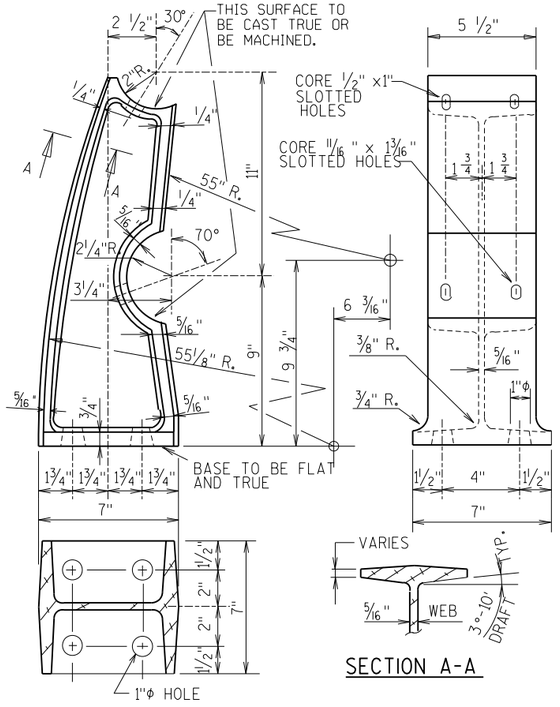
SHEET 8 OF 10
935

8

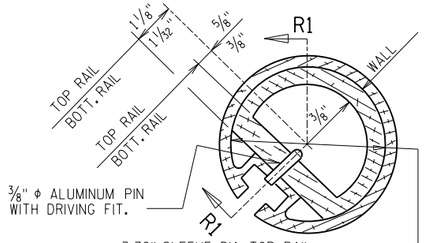
8

STATE PROJECT NUMBER

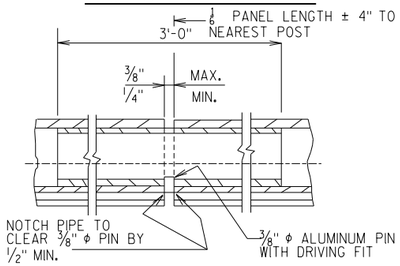
2060-15-71



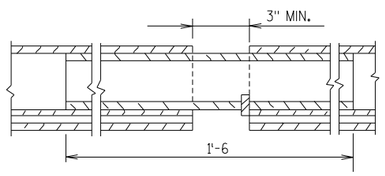
ALUMINUM POST CASTING



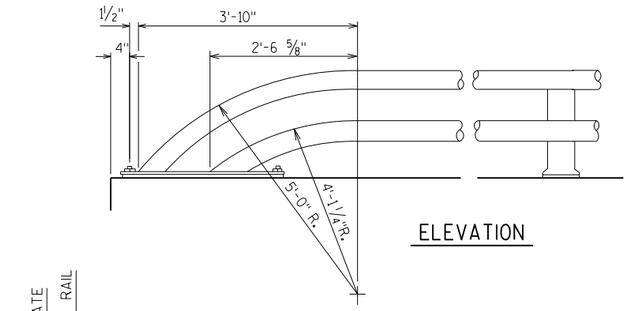
RAIL SPLICE DETAIL



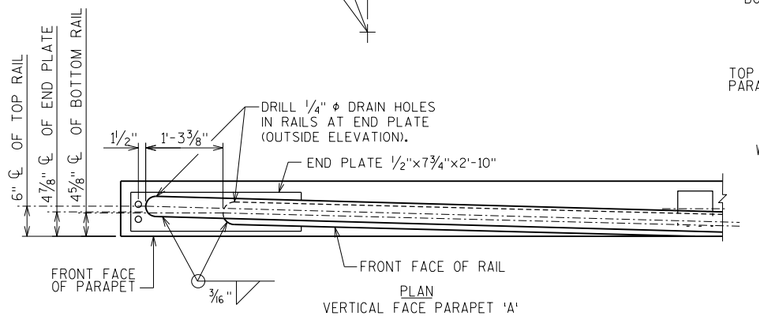
SECTION R1



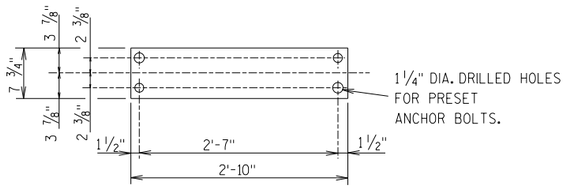
SLEEVE DETAIL AT ABUTMENT



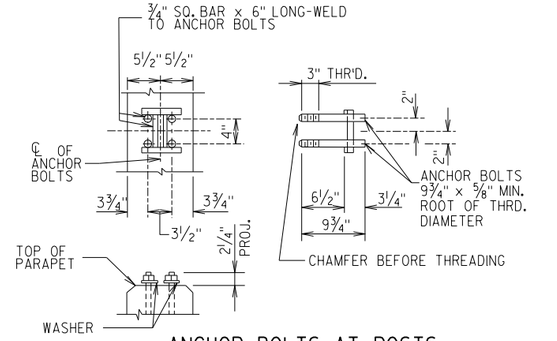
ELEVATION



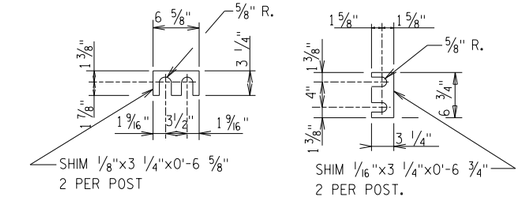
DETAIL OF RAIL BEND AT ABUTMENTS



END PLATE



ANCHOR BOLTS AT POSTS



POST SHIM DETAILS

GENERAL NOTES

BID ITEM SHALL BE "RAILING TUBULAR TYPE H B-40-295" WHICH INCLUDES ALL ITEMS SHOWN.

THE SHANK AND ROOT DIAMETER OF THREAD FOR ANCHOR BOLTS SHALL BE A MIN. OF 5/8".

ANCHOR BOLTS, NUTS AND WASHERS SHALL BE STAINLESS STEEL.

SHIMS SHALL CONFORM TO SAME MATERIAL AS POSTS.

RAILINGS SHALL BE FABRICATED IN 2 AND 3 PANEL LENGTHS.

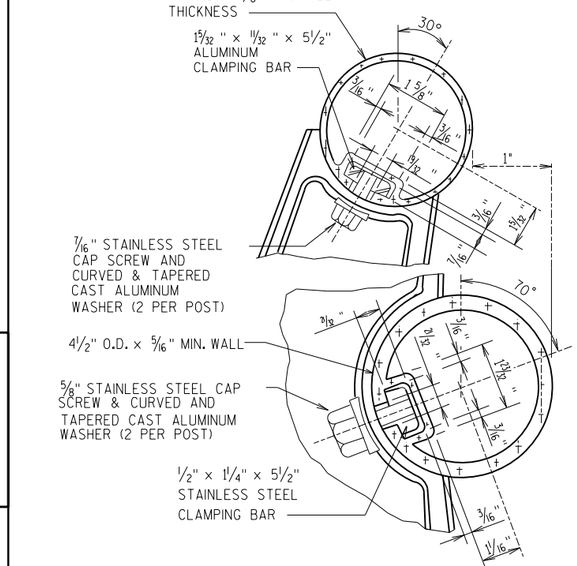
RAILING POSTS SHALL BE SET NORMAL TO GRADE LINE.

ALL POST SPACINGS ARE MEASURED HORIZONTALLY ALONG CENTERLINE OF THE POST BASE.

SHIMS SHALL BE USED UNDER POSTS AND END PLATES WHERE REQ'D. FOR ALIGNMENT.

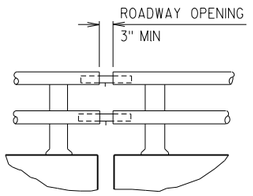
FILL ALL EXPOSED OPENINGS BETWEEN SHIMS AND POST ANCHOR BOLT HOLES WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

RAILS SHALL BE BUILT STRAIGHT AND SPRUNG INTO PLACE FOR STRUCTURES CURVED UP TO 3°. FOR STRUCTURES CURVED GREATER THAN 3°, RAILS SHALL BE CURVED TO FIT.



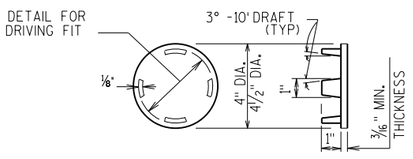
DETAIL OF RAIL ATTACHMENT TO POST

NOTES: MAX. REDUCTION IN DIAMETER OF BENT SECTION SHALL BE 3% WALL THICKNESS OF TUBING SHOWN ABOVE SHALL BE MIN. NOMINAL AVERAGE WALL THICKNESS. MAX. REDUCTION IN SLOT WIDTH IN BENT TUBING SHALL BE 3/16".

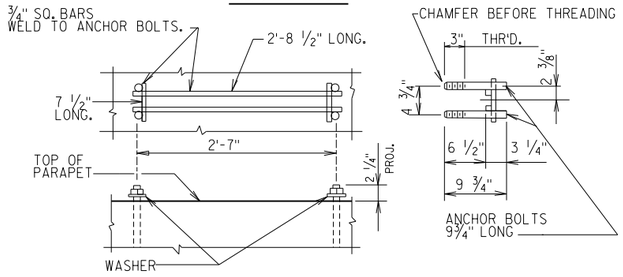


DETAIL AT RAIL OPENINGS

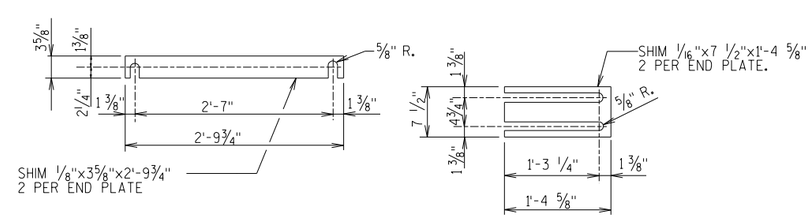
ALL SLEEVE DETAILS SAME AS "RAIL SPLICE DETAIL" UNLESS SHOWN OTHERWISE



RAIL CLOSURE CAP DETAIL



ANCHOR BOLTS AT END PLATE



END PLATE SHIM DETAILS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-295

DRAWN BY SKR | PLANS CK'D. DRB

TUBULAR RAILING TYPE 'H' (ALUM.)

SHEET 9 OF 10

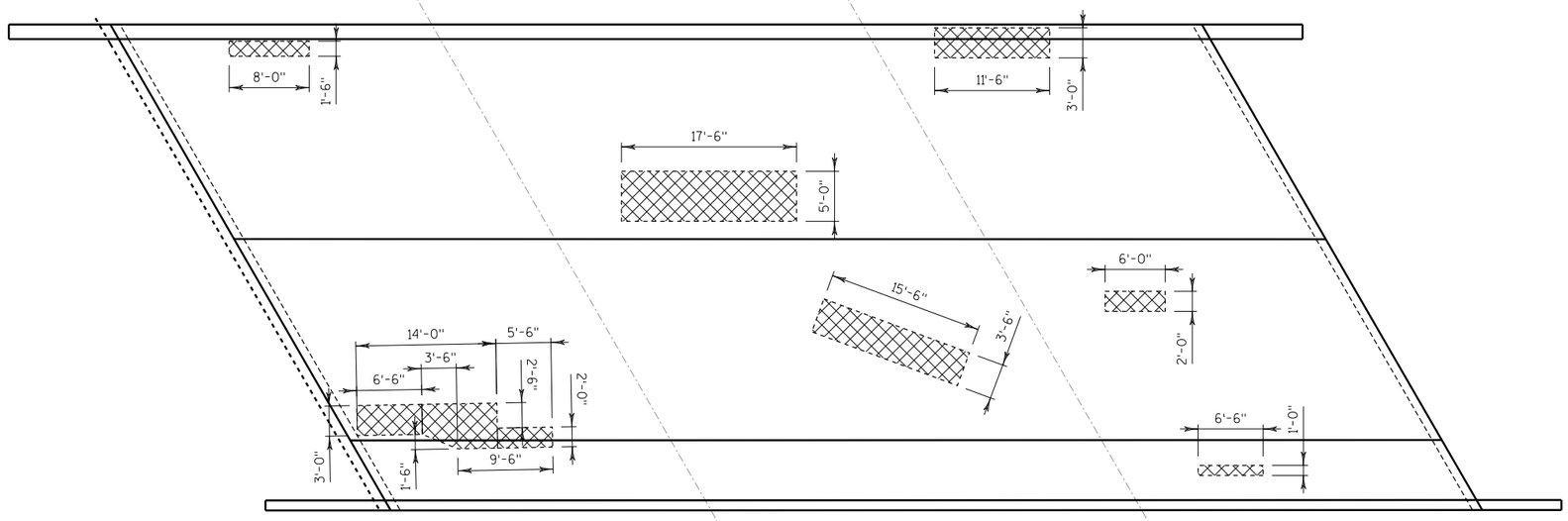
936

8

8

STATE PROJECT NUMBER
2060-15-71

N



SLAB PLAN

NOTES

⊠ CONCRETE SURFACE REPAIR REQUIRED. LOCATIONS AND DIMENSIONS OF SPALL AREAS ARE APPROXIMATE AND SHOULD BE USED AS A GUIDE ONLY. AREAS TO BE DETERMINED BY ENGINEER IN THE FIELD. ALL AREAS SHOWN IN THE SLAB PLAN VIEW ARE ON THE UNDERSIDE OF THE SLAB SUPERSTRUCTURE. PAID FOR UNDER BID ITEM "CONCRETE SURFACE REPAIR".

WEST EDGE OF DECK
(LOOKING EAST)

EAST EDGE OF DECK
(LOOKING WEST)

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-295

DRAWN BY SKR | PLANS CK'D. DRB

CONCRETE SURFACE REPAIR

SHEET 10 OF 10
937

STATE PROJECT NUMBER

2060-15-71

ULTIMATE DESIGN STRESSES

CONCRETE MASONRY ——— f'c = 3.5 K.S.I.

HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60 ——— fy = 60 K.S.I.

DESIGN DATA

LIVE LOAD SURCHARGE ——— 240 PSF

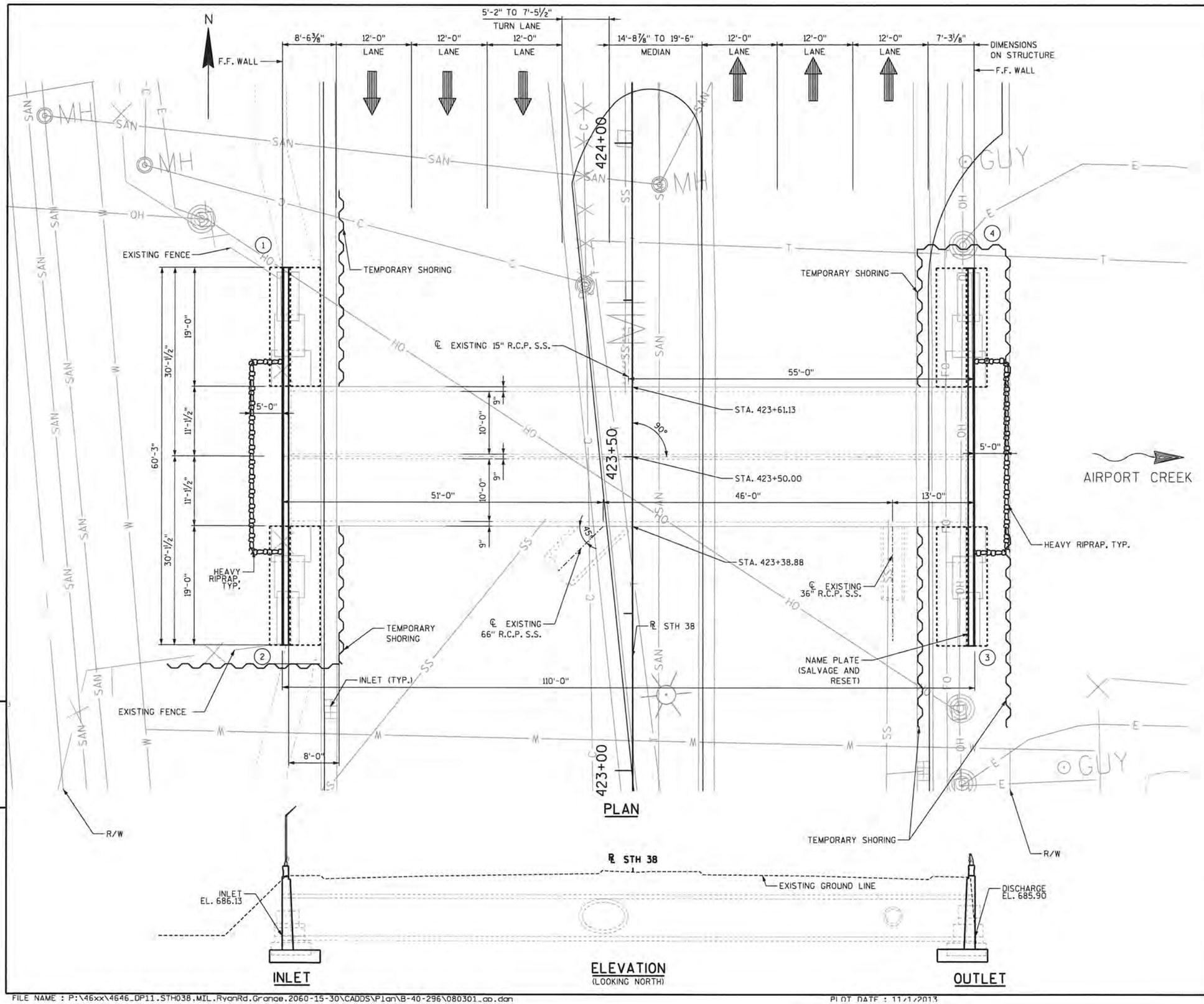
TRAFFIC DATA

A.A.D.T. (2014) = 24,100 - 28,400
A.A.D.T. (2034) = 28,600 - 35,500
RDS = 40 M.P.H.

LIST OF DRAWINGS

1. GENERAL PLAN
2. SUBSURFACE EXPLORATION
3. REMOVALS AND QUANTITIES
4. WEST WALLS
5. EAST WALLS
6. VERTICAL FACE PARAPET 'A'
7. TUBULAR RAILING TYPE 'H' (ALUM.)
8. SECURITY FENCING
9. BILL OF BARS

(X) INDICATES WING NUMBER



PLAN

INLET — ELEVATION (LOOKING NORTH) — OUTLET

WISCONSIN
SARAH K. ROBKE
E-41770-6
MUKWONAGO
WI
PROFESSIONAL ENGINEER
Sarah K. Robke
11/1/2013

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE: WILLIAM DREHER (608) 266-8489
CONSULTANT: MICHAEL D. RADTKE (414) 347-1607

NO.	DATE	REVISION	BY

emcs inc
1300 W. Canal Street, Suite 200
Milwaukee, WI 53233
414.347.1607 Fax 414.347.1347

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
ACCEPTED William C. Dreher KAR 12/10/13
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-40-296

STH 38 OVER AIRPORT CREEK

COUNTY	CITY
MILWAUKEE	MILWAUKEE

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
SKR	AJC	TEO	AJC

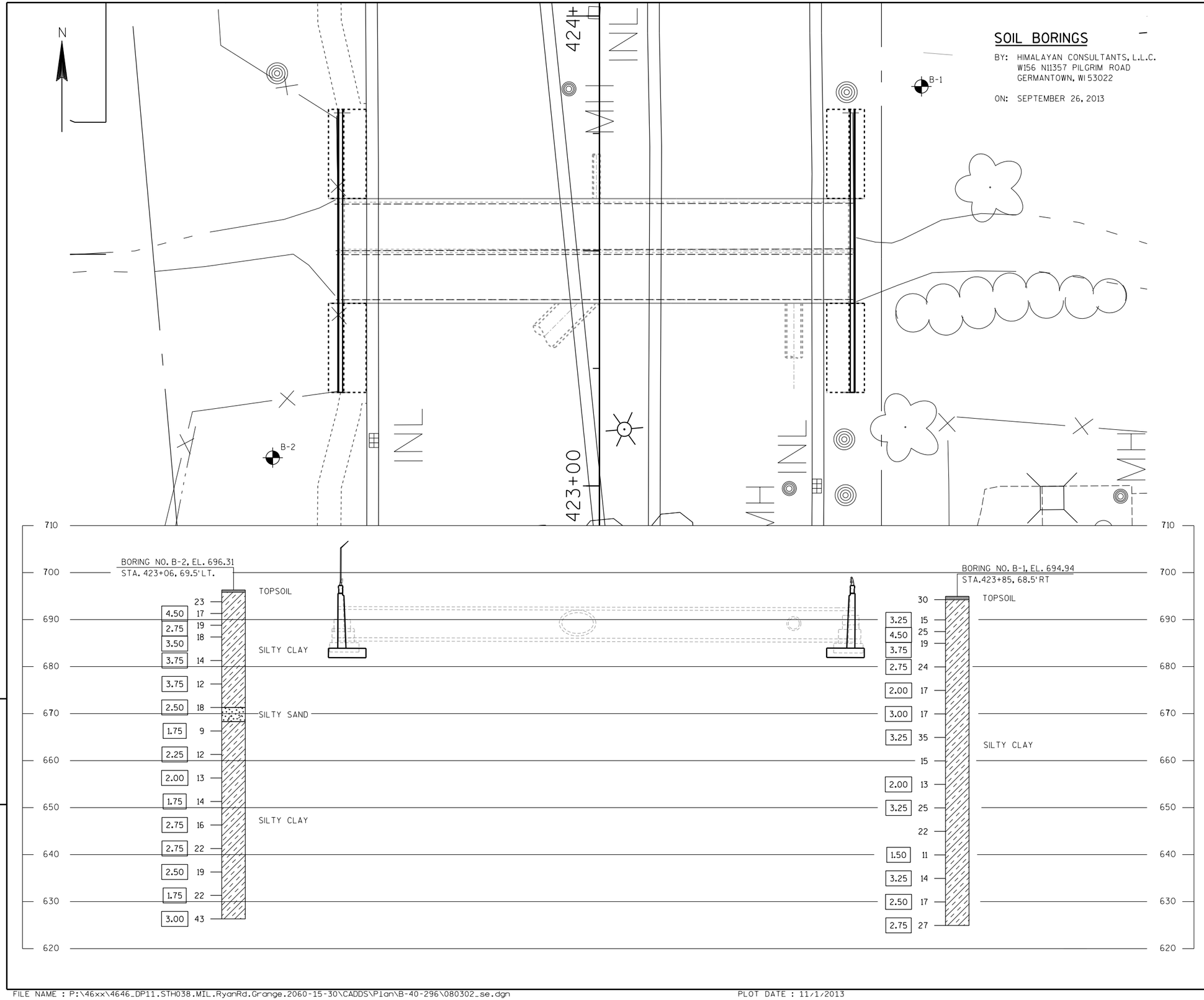
GENERAL PLAN

938 OF 9

8

8

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\B-40-296\080301_gp.dgn
PLOT DATE : 11/1/2013
PLOT BY : skr



STATE PROJECT NUMBER

2060-15-71

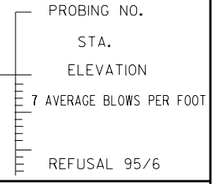
ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

MATERIAL SYMBOLS

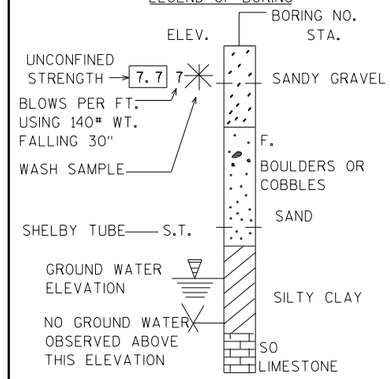
TOPSOIL, SILT, SANDSTONE
SAND, PEAT, LIMESTONE
GRAVEL, CLAY, IGNEOUS ROCK

LEGEND OF PROBING



95/6=95 BLOWS FOR 6" PENETRATION
PROBING TAKEN WITH A 350#WT.
FALLING 18" ON A 2" O.D. POINT.

LEGEND OF BORING



UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D.X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-296

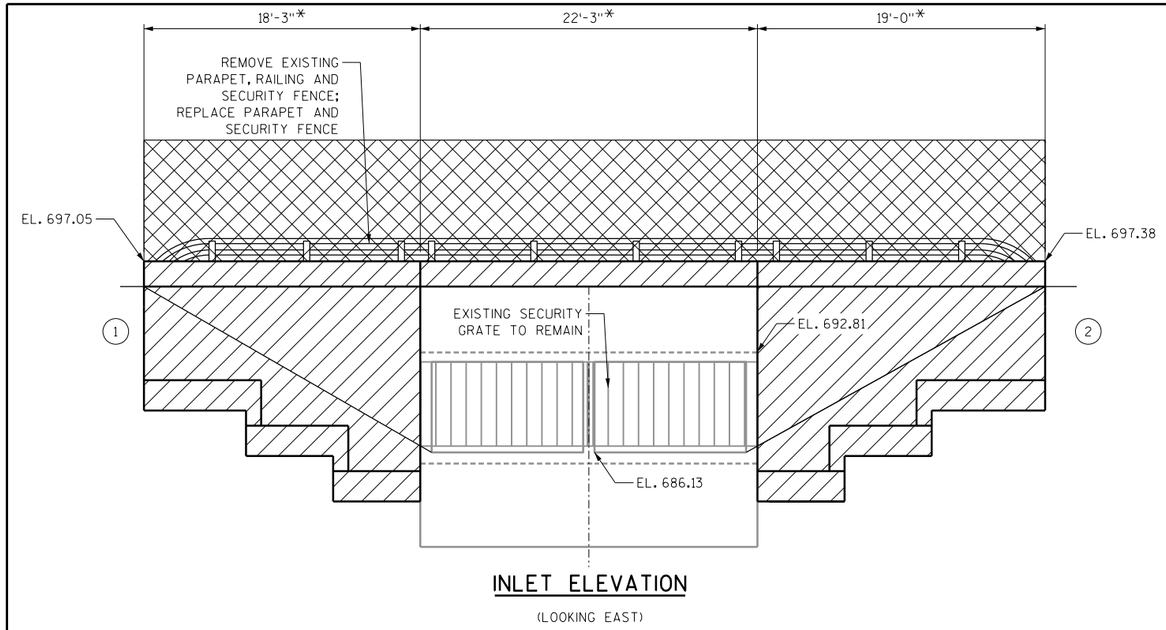
DRAWN BY SKR | PLANS CK'D. MDR

SUBSURFACE EXPLORATION

SHEET 2 OF 9
939

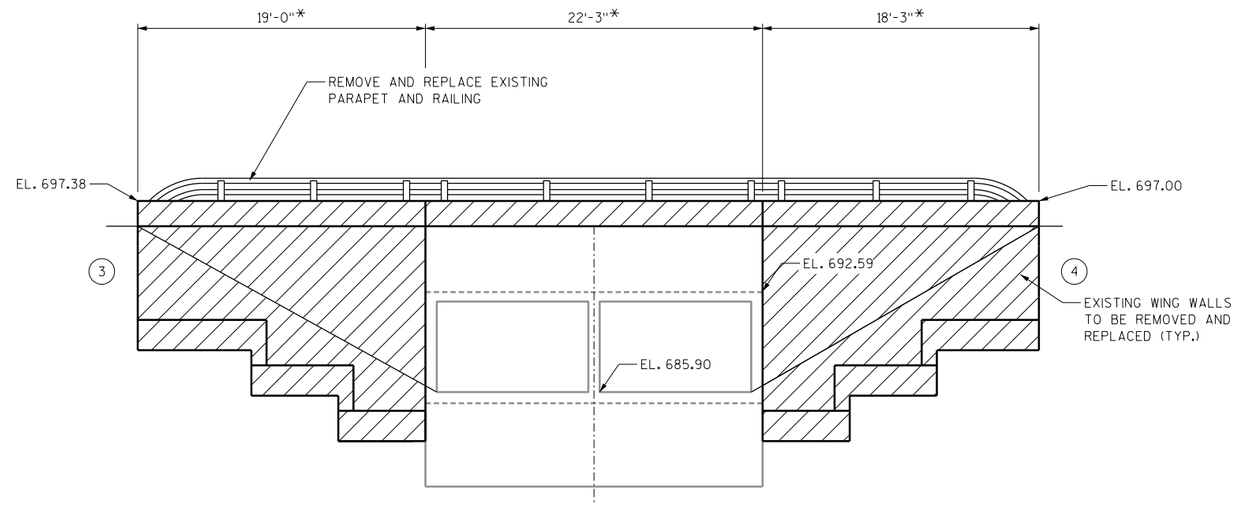
8

8



INLET ELEVATION

(LOOKING EAST)



OUTLET ELEVATION

(LOOKING WEST)

LEGEND

(X) INDICATES WING NUMBER

* DIMENSIONS SHOWN ARE BASED ON ORIGINAL STRUCTURES PLANS

REMOVAL AREAS

STATE PROJECT NUMBER

2060-15-71

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

THE FIRST OR FIRST TWO DIGITS OF A BAR MARK SIGNIFIES THE BAR SIZE.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURES PLANS.

OTHER REMOVAL THAT IS NOT SPECIFICALLY INDICATED ON THE PLANS BUT IS TO BE REMOVED FOR CONSTRUCTION OF THE NEW WORK IS TO BE INCLUDED UNDER THE BID ITEM "REMOVING OLD STRUCTURE".

ALL SPACES EXCAVATED AND NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL TO THE TOP OF THE RETAINING WALL OR THE BOTTOM OF ROADWAY PAVEMENT SECTION.

UTILIZE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND 24 BAR DIAMETERS INTO NEW WORK, UNLESS SPECIFIED OTHERWISE.

PROTECTIVE SURFACE TREATMENT SHALL BE APPLIED TO THE FRONT FACE AND TOP OF PARAPETS.

TRAFFIC WILL BE MAINTAINED OVER THE CULVERT DURING CONSTRUCTION. SEE ROADWAY PLANS FOR TRAFFIC STAGING PLAN.

IF THE EXISTING NAME PLATE IS DAMAGED AND A NEW NAME PLATE IS REQUIRED, THE ORIGINAL CONSTRUCTION DATE IS 1964.

"CONCRETE SURFACE REPAIR" SHALL BE USED FOR NEEDED REPAIRS ON THE EXISTING CULVERT AND CULVERT HEADWALLS. LOCATION AND LIMITS OF REPAIR SHALL BE DETERMINED IN THE FIELD BY THE ENGINEER.

TOTAL ESTIMATED QUANTITIES

ITEM NO.	BID ITEM	UNIT	TOTAL
203.0200	REMOVING OLD STRUCTURE STATION 423+50	LS	1
203.0210.S	ABATEMENT OF ASBESTOS CONTAINING MATERIAL STRUCTURE B-40-0296	LS	1
206.2000	EXCAVATION FOR STRUCTURES CULVERTS (B-40-0296)	LS	1
206.6000.S	TEMPORARY SHORING	SF	3090
210.0100	BACKFILL STRUCTURE	CY	330
502.3200	PROTECTIVE SURFACE TREATMENT	SY	42
504.0100	CONCRETE MASONRY CULVERTS	CY	103
505.0610	BAR STEEL REINFORCEMENT HS COATED CULVERTS	LB	8200
509.1500	CONCRETE SURFACE REPAIR	SF	66
513.4055	RAILING TUBULAR TYPE H (B-40-0296)	LS	1
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	10
606.0300	RIPRAP HEAVY	CY	24
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	76
645.0105	GEOTEXTILE FABRIC TYPE C	SY	137
645.0120	GEOTEXTILE FABRIC TYPE HR	SY	35
SPV.0090.0040	SECURITY FENCE SPECIAL	LF	61
	NON-BID ITEMS		
	PREFORMED JOINT FILLER	SIZE	1/4",1/2"

ALL ITEMS ARE CATEGORY 0023

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-296

DRAWN BY SKR | PLANS CK'D. AJC

REMOVALS AND QUANTITIES

SHEET 3 OF 9

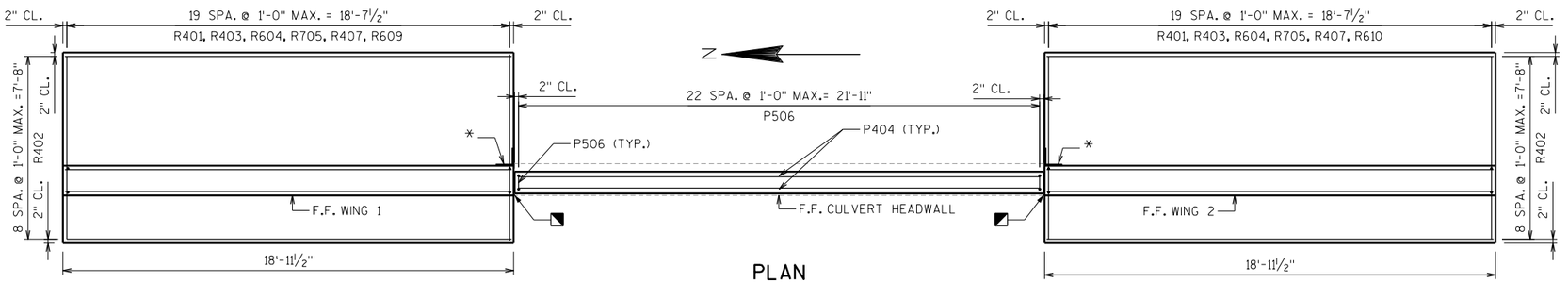
940

8

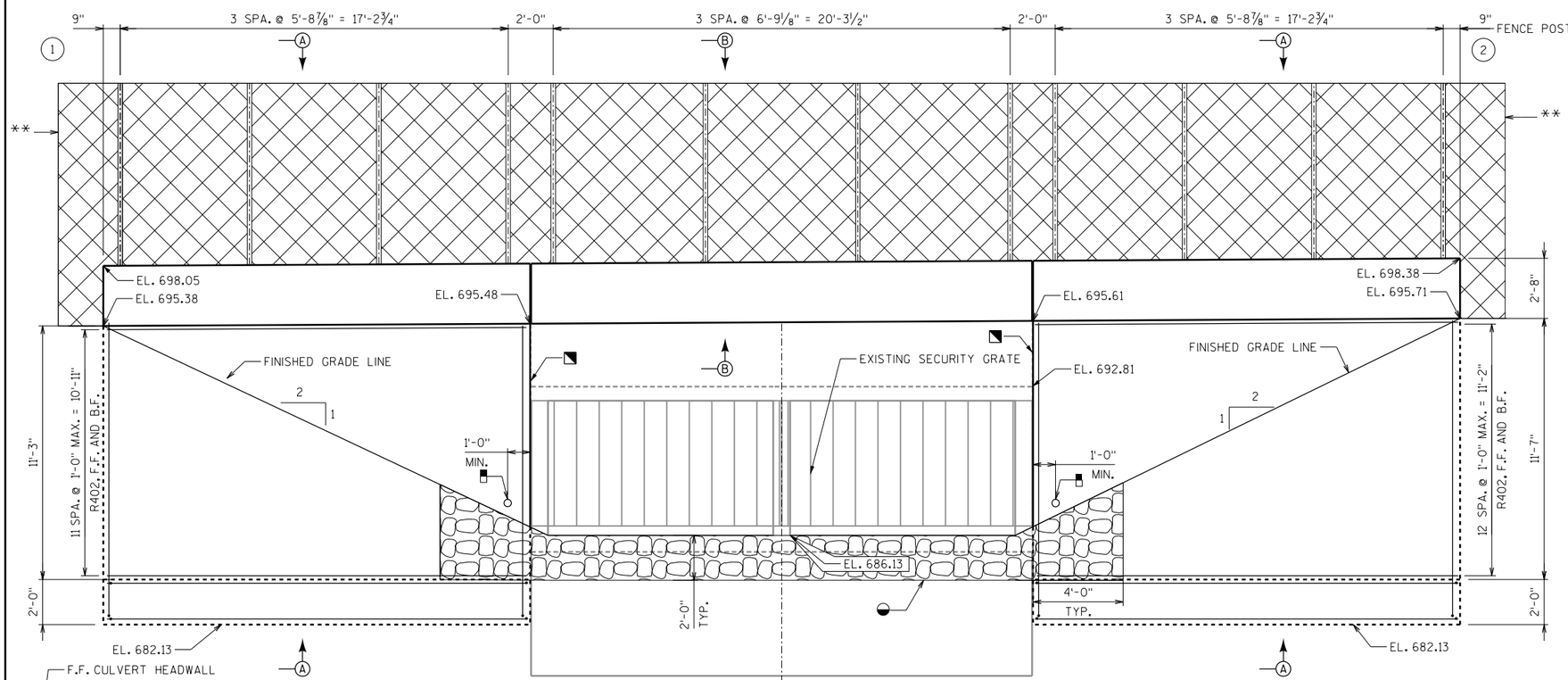
8

STATE PROJECT NUMBER

2060-15-71

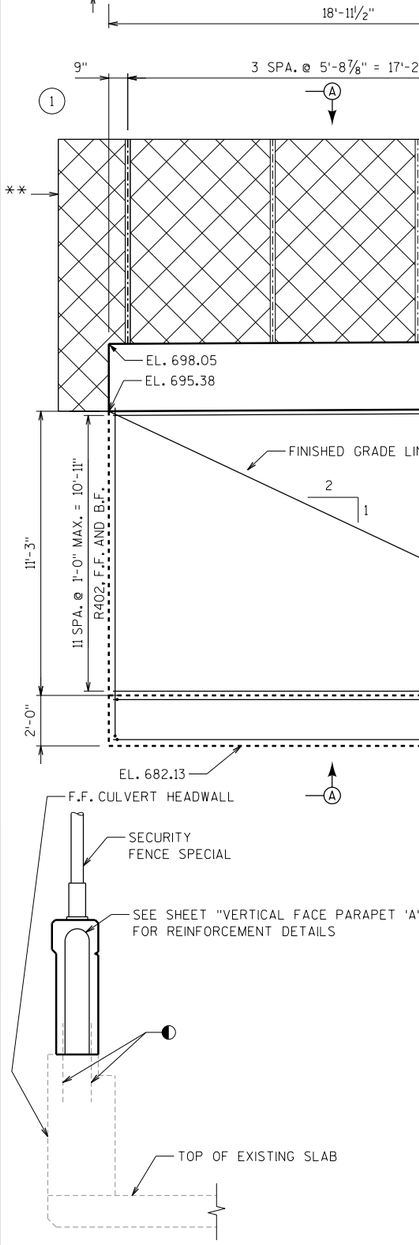


PLAN

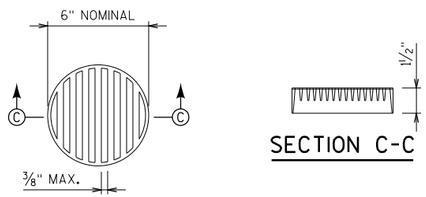


INLET ELEVATION

(LOOKING EAST)



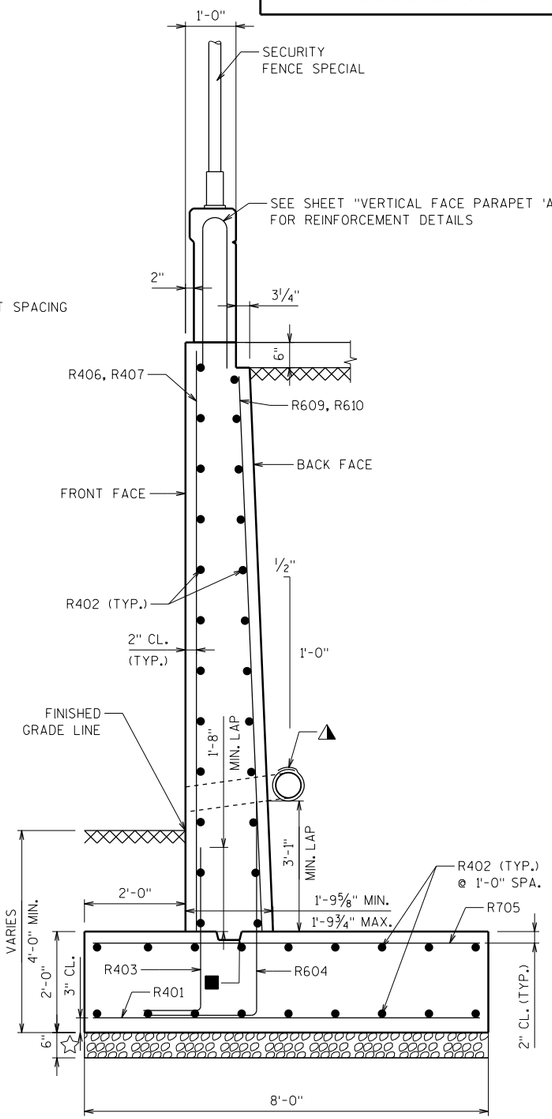
SECTION B-B



RODENT SHIELD

NOTE: ORIENT SHIELD SO SLOTS ARE VERTICAL.

SECTION C-C



SECTION A-A

LEGEND

- (X) DENOTES WING WALL NUMBER
- ½" JOINT FILLER
- UTILIZE EXISTING BAR STEEL REINFORCEMENT AND EXTEND 24 BAR DIAMETERS INTO NEW WORK. IF EXISTING BARS ARE DAMAGED DURING DEMOLITION, SEE FIELD ENGINEER AS MASONRY ANCHORS MAY BE REQUIRED. TO BE PAID UNDER BID ITEM "REMOVING OLD STRUCTURE".
- UNDERCUT 0'-6" (INCLUDED IN EXCAVATION FOR STRUCTURES), PLACE GEOTEXTILE FABRIC TYPE 'C', AND BACKFILL WITH 'BASE AGGREGATE DENSE 3-INCH'. EXTEND 3'-0" BEYOND THE FOOTPRINT OF THE WALL FOOTING.
- PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN.
- KEYED CONST. JOINT FORMED BY 2" X 6".
- HEAVY RIPRAP PLACED ON GEOTEXTILE FABRIC TYPE 'HR'.
- 6" Φ WEEP HOLE FOR PIPE UNDERDRAIN TO DAYLIGHT PLACED A MIN. 6" ABOVE FINISHED GRADE.
- * 18" MIN. WIDTH RUBBERIZED MEMBRANE WATERPROOFING ALONG VERTICAL CONSTRUCTION JOINT.
- ** CONNECT FENCE TO EXISTING SECURITY FENCE OFF THE STRUCTURE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-296

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WEST WALLS

SHFFT 4 OF 9
941

8

8

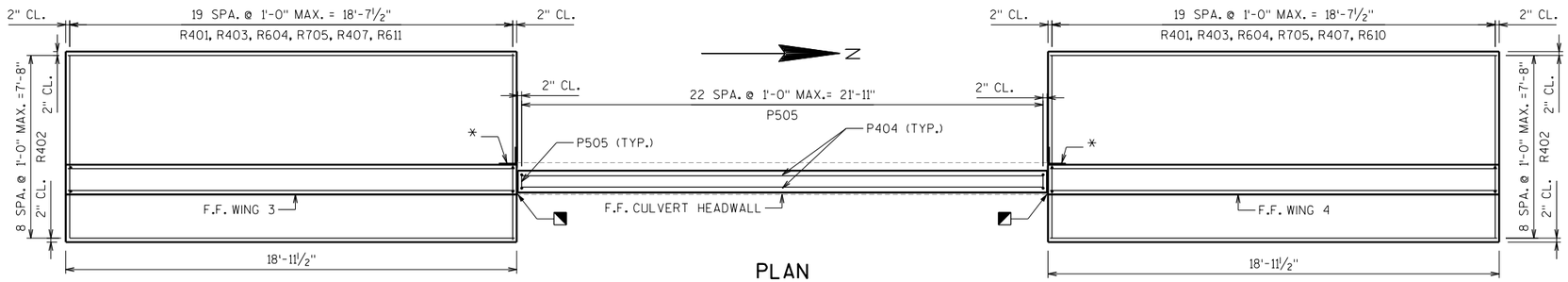
FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\B-40-296\080304_ww.dgn

PLOT DATE : 11/1/2013

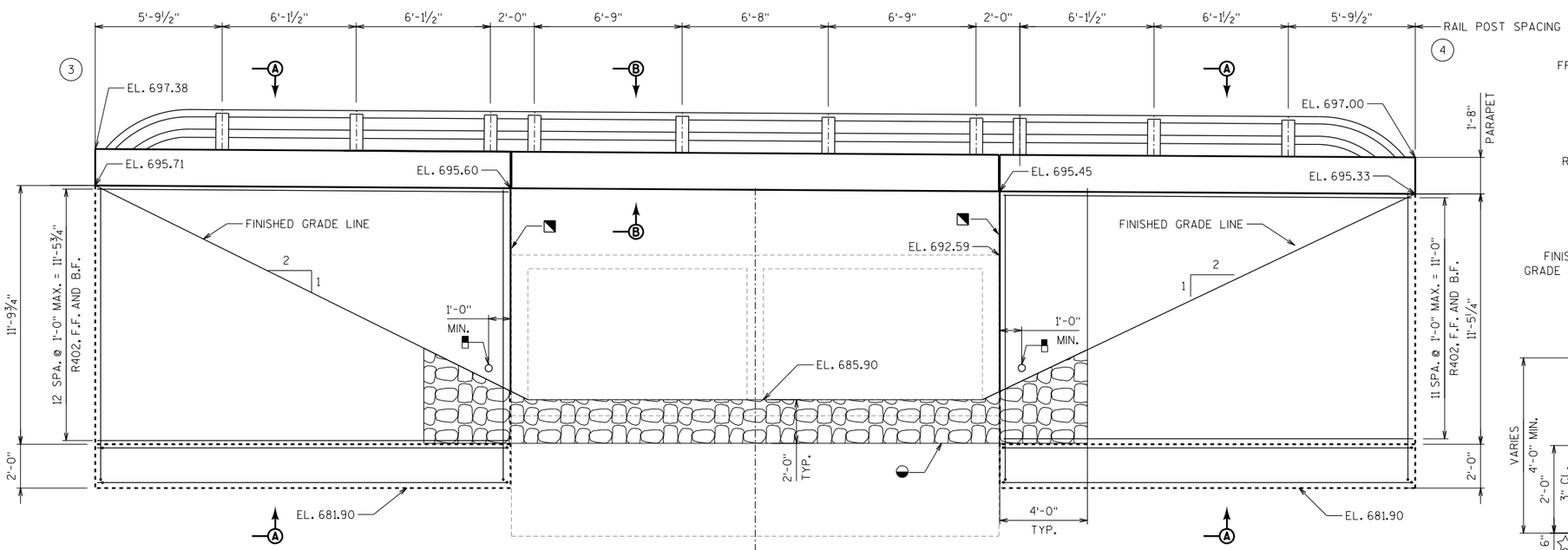
PLOT BY : skr

STATE PROJECT NUMBER

2060-15-71

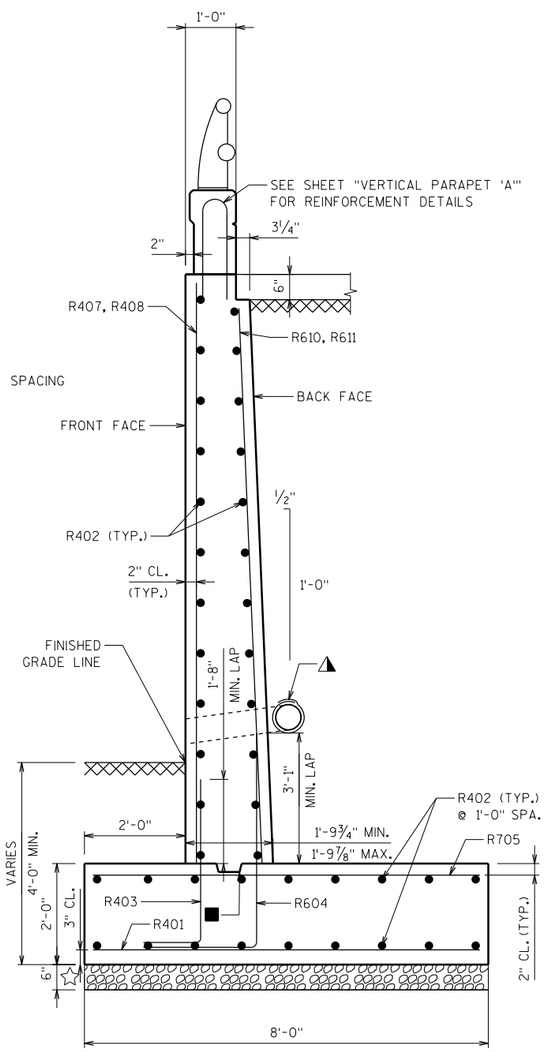


PLAN

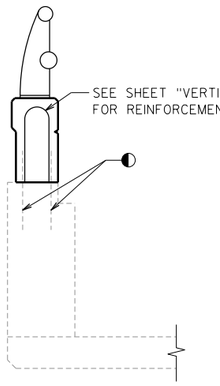


OUTLET ELEVATION

(LOOKING WEST)



SECTION A-A



SECTION B-B

LEGEND

- (X) DENOTES WING WALL NUMBER
- ½" JOINT FILLER
- UTILIZE EXISTING BAR STEEL REINFORCEMENT AND EXTEND 24 BAR DIAMETERS INTO NEW WORK. IF EXISTING BARS ARE DAMAGED DURING DEMOLITION, SEE FIELD ENGINEER AS MASONRY ANCHORS MAY BE REQUIRED. TO BE PAID UNDER BID ITEM "REMOVING OLD STRUCTURE".
- UNDERCUT 0'-6" (INCLUDED IN EXCAVATION FOR STRUCTURES), PLACE GEOTEXTILE FABRIC TYPE 'C', AND BACKFILL WITH 'BASE AGGREGATE DENSE 3-INCH'. EXTEND 3'-0" BEYOND THE FOOTPRINT OF THE WALL FOOTING.
- PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN.
- KEYED CONST. JOINT FORMED BY 2" X 6".
- HEAVY RIPRAP PLACED ON GEOTEXTILE FABRIC TYPE 'HR'.
- 6" Φ WEEP HOLE FOR PIPE UNDERDRAIN TO DAYLIGHT PLACED A MIN. 6" ABOVE FINISHED GRADE.
- * 18" MIN. WIDTH RUBBERIZED MEMBRANE WATERPROOFING ALING VERTICAL CONSTRUCTION JOINT.
- ** CONNECT FENCE TO EXISTING SECURITY FENCE OFF THE STRUCTURE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-296

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EAST WALLS

SHEET 5 OF 9

942

8

8

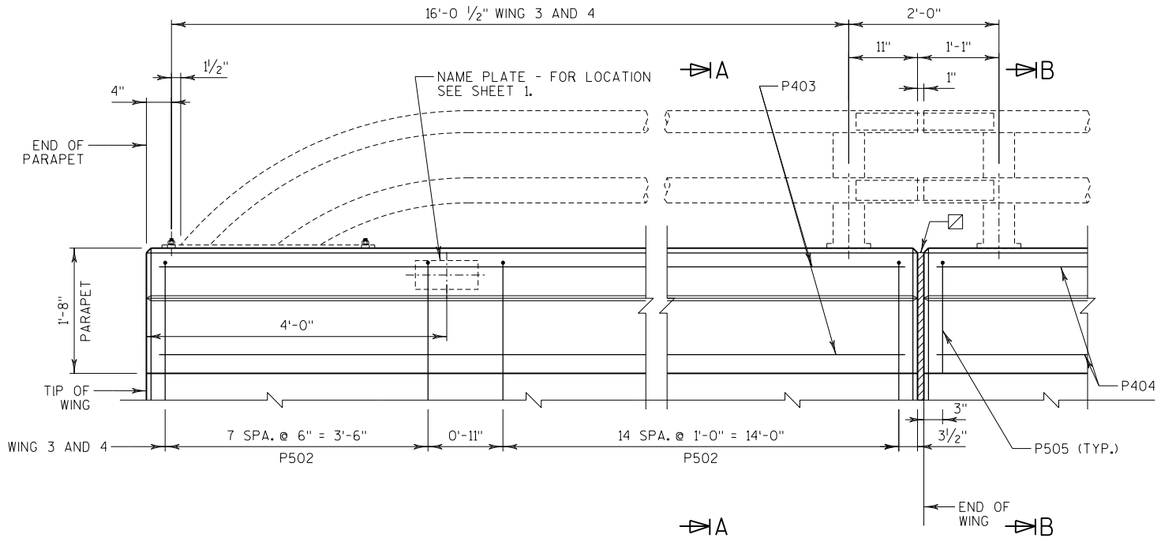
FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\B-40-296\080305_ew.dgn

PLOT DATE : 11/1/2013

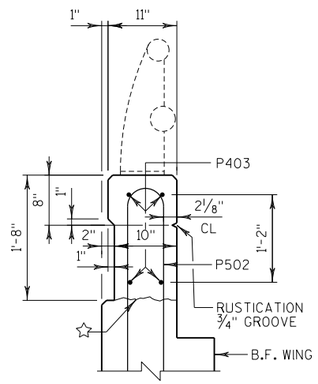
PLOT BY : skr

STATE PROJECT NUMBER

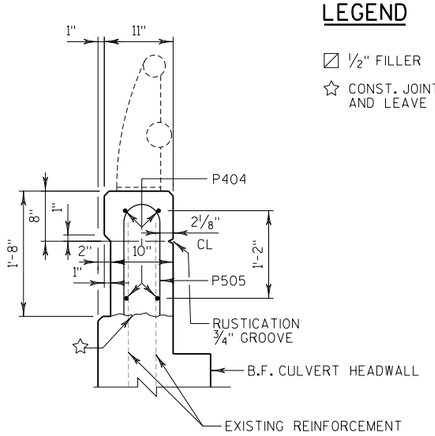
2060-15-71



ELEVATION OF PARAPET AT WINGWALLS 3 AND 4



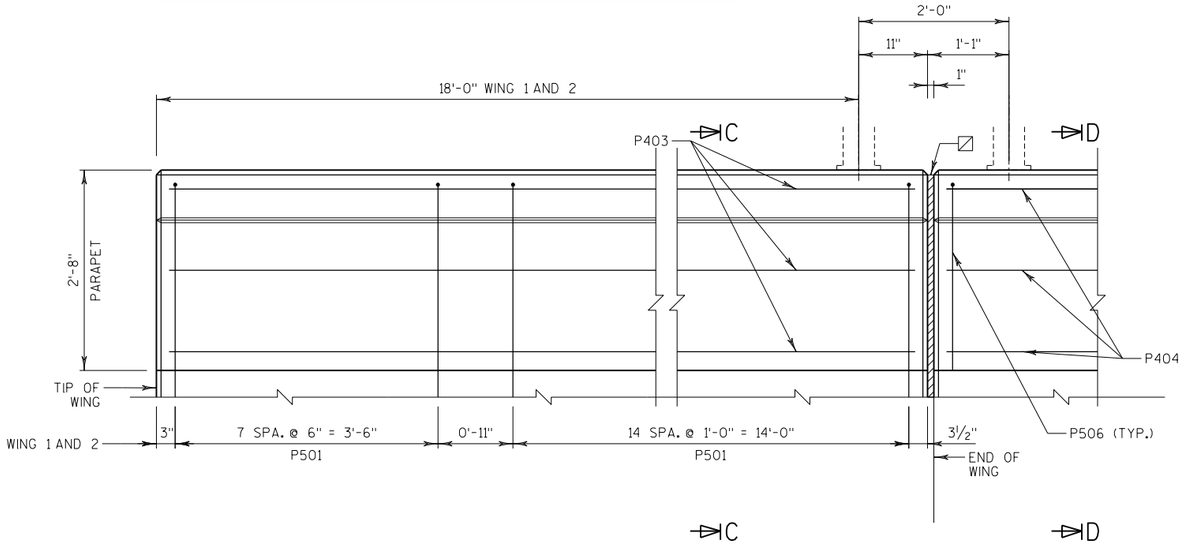
SECTION A-A



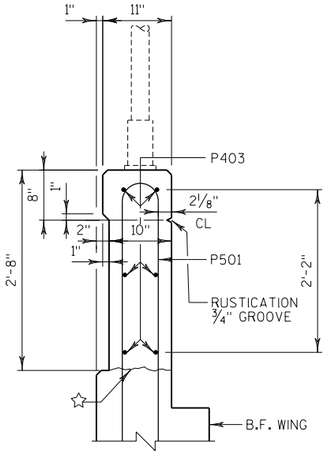
SECTION B-B

LEGEND

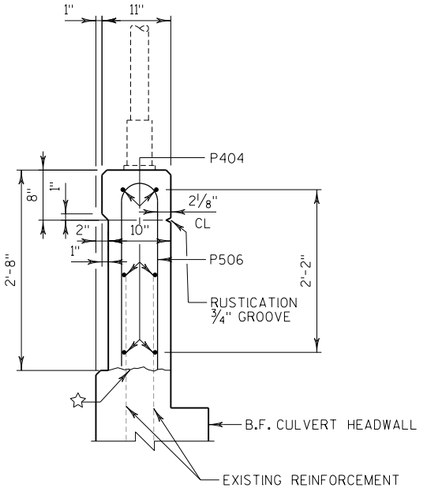
- ½" FILLER
- CONST. JOINT - STRIKE OFF AS SHOWN AND LEAVE ROUGH



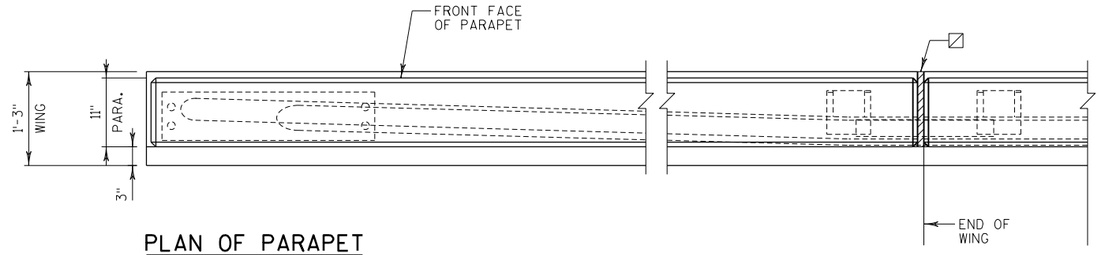
ELEVATION OF PARAPETS AT WINGWALLS 1 AND 2



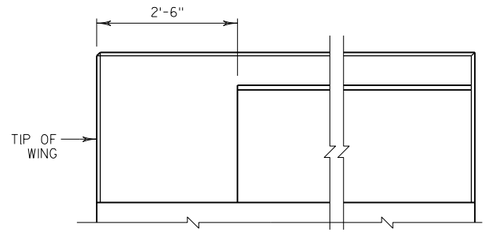
SECTION C-C



SECTION D-D



PLAN OF PARAPET



OUTSIDE FACE OF PARAPET

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-296

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VERTICAL FACE PARAPET "A"

SHEET 6 OF 9
943

8

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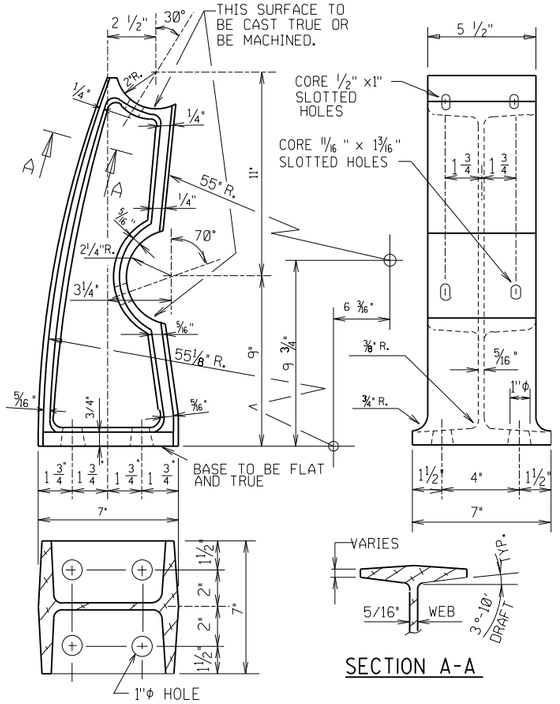
FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\B-40-296\080306_pa.dgn

PLOT DATE : 11/1/2013

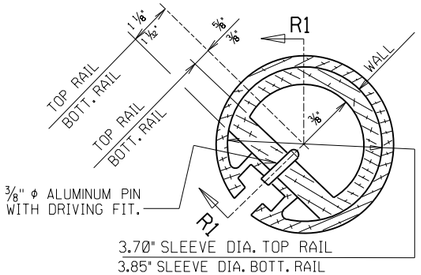
PLOT BY : skr

STATE PROJECT NUMBER

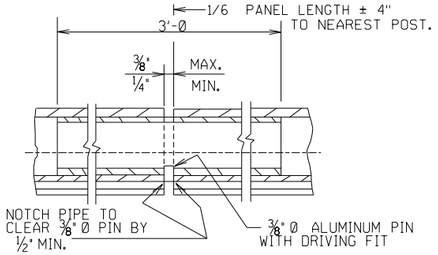
2060-15-71



ALUMINUM POST CASTING

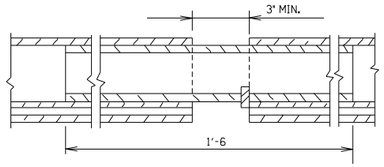


RAIL SPLICE DETAIL

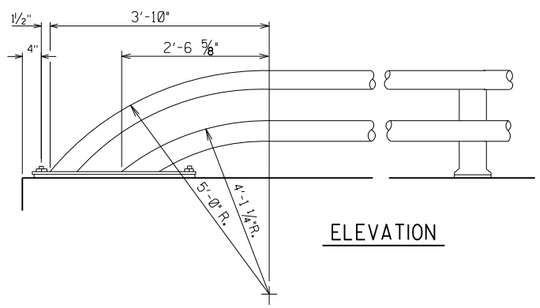


SECTION A-A

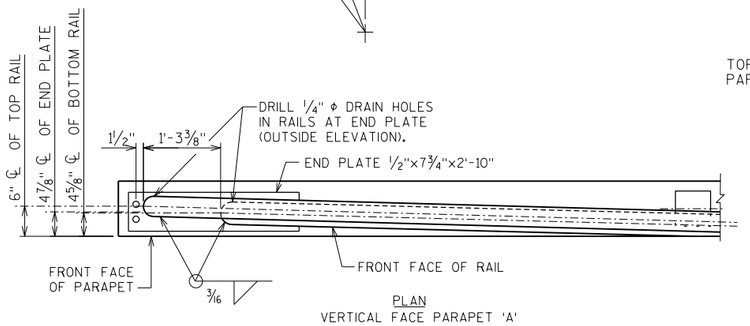
SECTION R1



SLEEVE DETAIL AT WINGWALLS

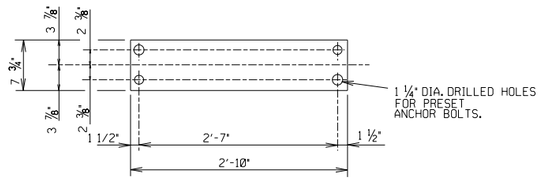


ELEVATION

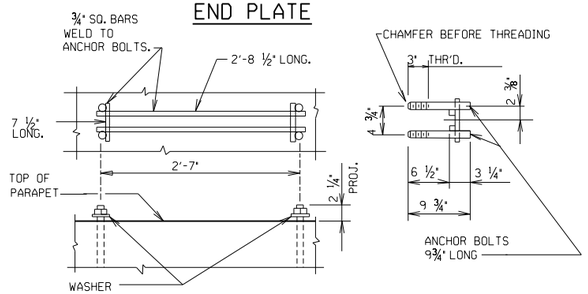


PLAN
VERTICAL FACE PARAPET 'A'

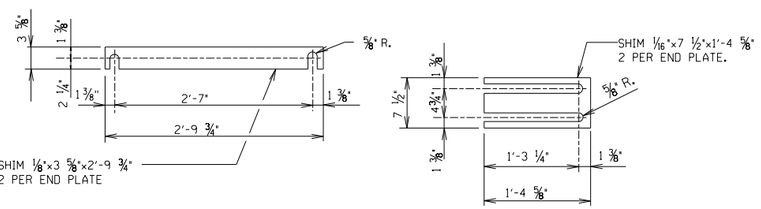
DETAIL OF RAIL BEND AT WINGWALLS



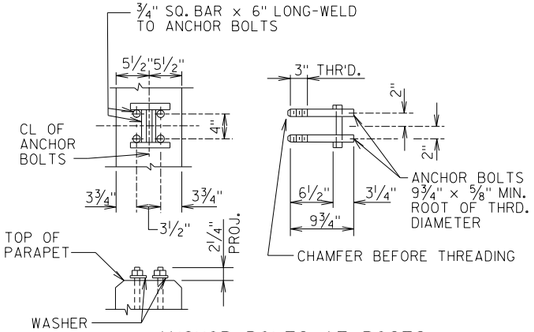
END PLATE



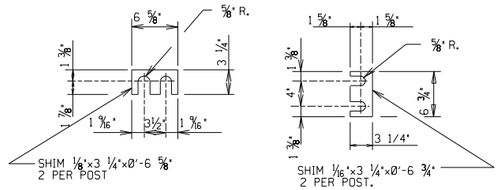
ANCHOR BOLTS AT END PLATE



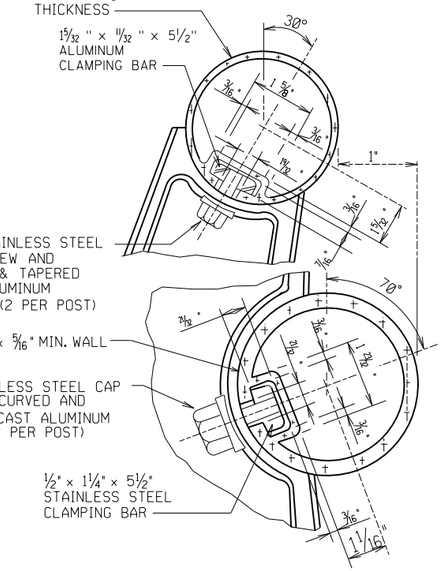
END PLATE SHIM DETAILS



ANCHOR BOLTS AT POSTS

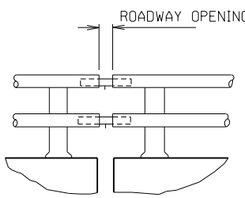


POST SHIM DETAILS



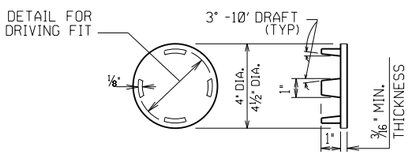
DETAIL OF RAIL ATTACHMENT TO POST

NOTES: MAX. REDUCTION IN DIAMETER OF BENT SECTION SHALL BE 3% WALL THICKNESS OF TUBING SHOWN ABOVE SHALL BE MIN. NOMINAL AVERAGE WALL THICKNESS.
MAX. REDUCTION IN SLOT WIDTH IN BENT TUBING SHALL BE 3/16".



DETAIL AT RAIL OPENINGS

ALL SLEEVE DETAILS SAME AS "RAIL SPLICE DETAIL" UNLESS SHOWN OTHERWISE



RAIL CLOSURE CAP DETAIL

GENERAL NOTES

BID ITEM SHALL BE "RAILING TUBULAR TYPE H (B-40-0296)" WHICH INCLUDES ALL ITEMS SHOWN.

THE SHANK AND ROOT DIAMETER OF THREAD FOR ANCHOR BOLTS SHALL BE A MIN. OF 5/8".

ANCHOR BOLTS, NUTS AND WASHERS SHALL BE STAINLESS STEEL.

SHIMS SHALL CONFORM TO SAME MATERIAL AS POSTS.

RAILINGS SHALL BE FABRICATED IN 2 AND 3 PANEL LENGTHS.

RAILING POSTS SHALL BE SET NORMAL TO GRADE LINE.

ALL POST SPACINGS ARE MEASURED HORIZONTALLY ALONG CENTERLINE OF THE POST BASE. SEE SHEET 4 FOR POST SPACING.

SHIMS SHALL BE USED UNDER POSTS AND END PLATES WHERE REQ'D. FOR ALIGNMENT.

FILL ALL EXPOSED OPENINGS BETWEEN SHIMS AND POST ANCHOR BOLT HOLES WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

RAILS SHALL BE BUILT STRAIGHT AND SPRUNG INTO PLACE FOR STRUCTURES CURVED UP TO 3°. FOR STRUCTURES CURVED GREATER THAN 3°, RAILS SHALL BE CURVED TO FIT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-296

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TUBULAR RAILING TYPE 'H' (ALUM.)

SHEET 7 OF 9
944

8

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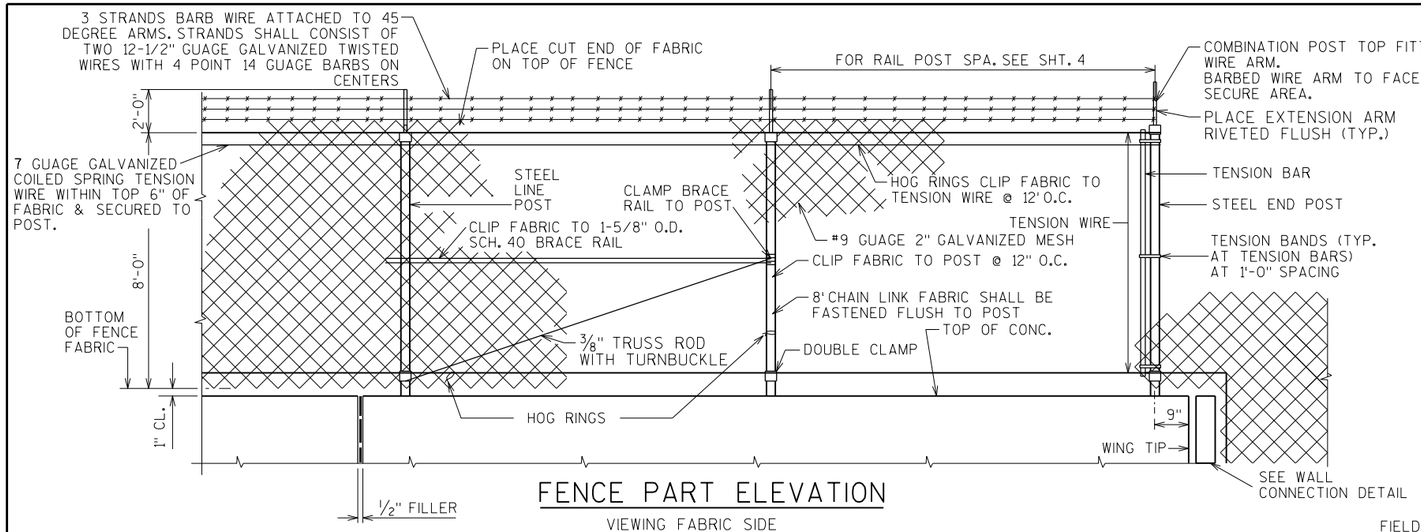
FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\B-40-296\080307_rh.dgn

PLOT DATE : 11/1/2013

PLOT BY : skr

STATE PROJECT NUMBER

2060-15-71

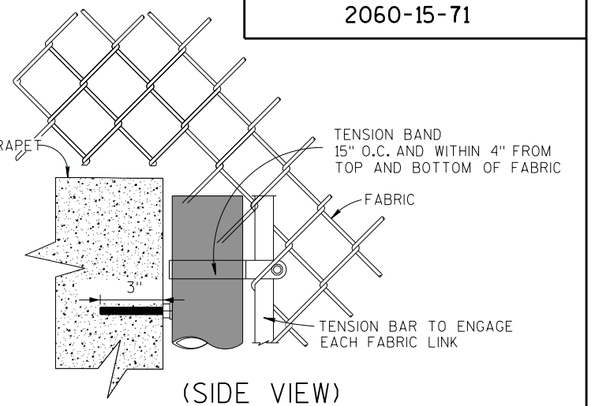


FENCE PART ELEVATION

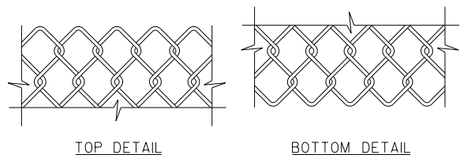
VIEWING FABRIC SIDE

FENCE MEMBER SIZE & WEIGHT

STEEL FENCE MEMBER	OUTSIDE DIAMETER (INCHES)	WEIGHT (LB/FT)
END POST	2.875	5.80
LINE POST	2.375	3.65
POST SLEEVE	4.000	9.12

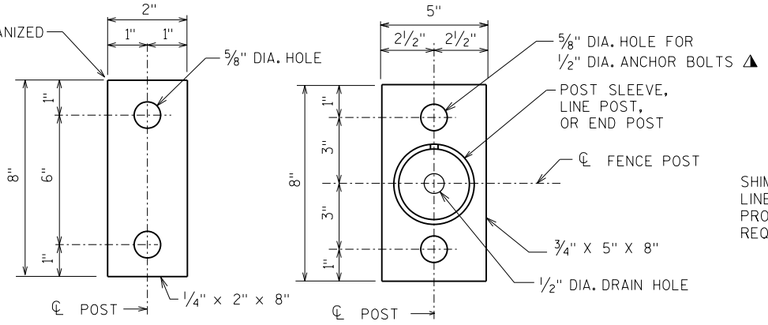


(SIDE VIEW)



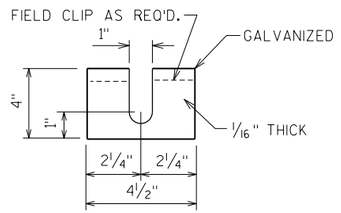
FENCE FABRIC

FENCE FABRIC WOVEN OF 9-GAGE WIRE IN 2" DIAMOND PATTERN MESH WITH BOTH THE TOP AND BOTTOM SELVAGES KNUCKLED.



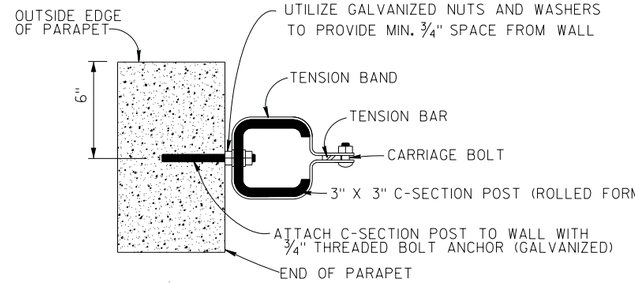
ANCHOR PLATE

BASE PLATE



POST SHIM DETAILS

SHIMS REQUIRED ONLY WHEN END POSTS AND LINE POSTS ARE WELDED TO BASE PLATES. PROVIDE 4 SHIMS PER POST. USE WHERE REQUIRED FOR ALIGNMENT.



(TOP VIEW)

WALL CONNECTION DETAIL

GENERAL NOTES

POSTS ARE TO BE SET VERTICAL.

ALL FENCE COMPONENTS SHALL BE GALVANIZED STEEL, EXCEPT THE FENCE FABRIC WHICH MAY BE ALUMINUM-COATED STEEL OR GALVANIZED STEEL.

FABRIC SHALL CONFORM TO ASTM A491 OR A392, CLASS 2. STEEL RAILS, POSTS AND POST SLEEVES SHALL CONFORM TO ASTM F1083, STANDARD WEIGHT PIPE (SCHEDULE 40). FITTINGS SHALL CONFORM TO ASTM F626.

THE BID ITEM SHALL BE "SECURITY FENCE SPECIAL", LF.

COMPLETE ANY REQUIRED WELDING OF COMPONENTS BEFORE GALVANIZING.

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.

BASE PLATES, ANCHOR PLATES AND SHIMS SHALL BE ASTM A709, GRADE 36.

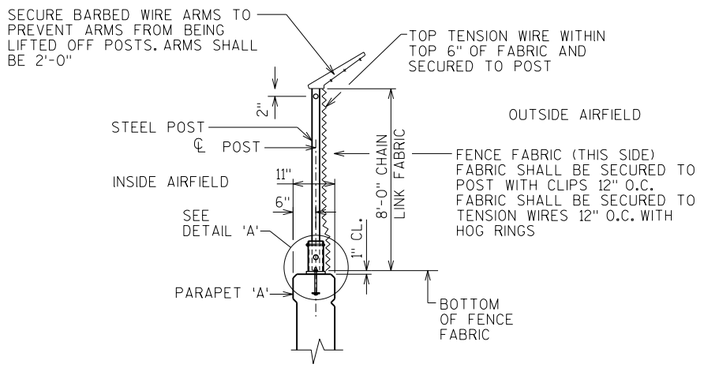
ALL POST SPACINGS ARE MEASURED HORIZONTALLY ALONG THE C/L OF THE POST.

■ CAULK AROUND PERIMETER OF BASE PLATE AND FILL PORTION OF SLOTTED HOLE AROUND ANCHOR BOLT IN SHIM WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

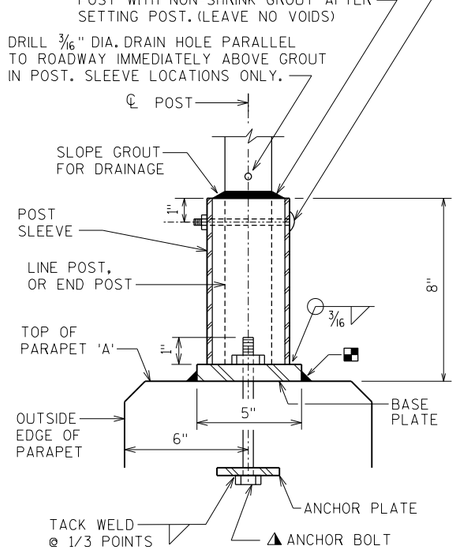
▲ 1/2" DIA. X 6 7/8" LONG GALVANIZED HEX BOLT WITH NUT & WASHER. TYPE "S", 1/2" DIA. CONCRETE MASONRY ANCHORS MAY BE SUBSTITUTED FOR 1/2" DIA. BOLTS. ANCHOR PLATE NOT REQUIRED WHEN TYPE "S" ANCHORS ARE USED. SEE ☆

☆ MASONRY ANCHOR TYPE S 1/2-INCH. EMBED 6" IN CONCRETE. ANCHOR, WASHER, AND NUT SHALL BE GALVANIZED.

◨ ATTACH FABRIC TO TENSION WIRE, AND TO POSTS WITHOUT TENSION BANDS, WITH HOG RINGS SPACED AT 1'-0".



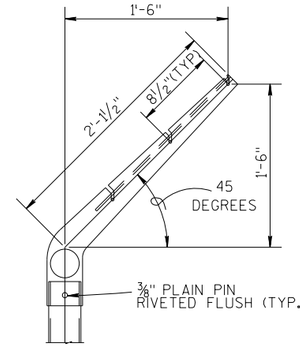
SECTION THRU FENCE



DETAIL 'A'

UNIT SHALL BE GALVANIZED AFTER FABRICATION

NOTE: IN LIEU OF USING THE POST SLEEVE, THE FENCE POST MAY BE WELDED TO THE BASE PLATE.



LINE POST EXTENSION ARM DETAILS

NO SCALE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-296

DRAWN BY SKR | PLANS CK'D. AJC

SECURITY FENCING

SHFFT 8 OF 9

945

8

8

STATE PROJECT NUMBER

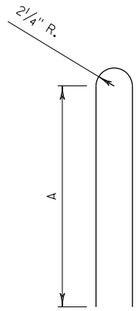
2060-15-71

BILL OF BARS

BAR MARK	COAT	NO.	LENGTH	BENT	LOCATION
R401	X	80	7'-8"		TRANS.- FOOTING TOE
R402	X	172	18'-8"		HORIZ. - FOOTING AND STEM
R403	X	80	4'-0"	X	F.F. DOWELS
R604	X	80	7'-5"	X	B.F. DOWELS
R705	X	80	7'-8"		TRANS. - FOOTING HEEL
R406	X	20	11'-0"		VERT. F.F. WING 1
R407	X	40	11'-2"		VERT. F.F. WING 2 & 4
R408	X	20	11'-5"		VERT. F.F. WING 3
R609	X	20	10'-6"		VERT. B.F. WING 1
R610	X	40	10'-8"		VERT. B.F. WING 2 & 4
R611	X	20	10'-11"		VERT. B.F. WING 3

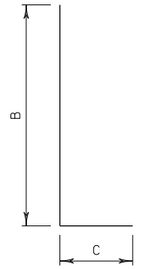
PARAPET BILL OF BARS

BAR MARK	COAT	NO.	LENGTH	BENT	LOCATION
P501	X	46	9'-5"	X	PARRAPET VERT. - WINGS 1 & 2
P502	X	46	7'-5"	X	PARRAPET VERT. WINGS 3 & 4
P403	X	20	18'-8"		PARA. HORIZ.
P404	X	10	21'-11"		PARA. HORIZ. - BOX HEADER
P505	X	23	3'-1"	X	PARAPET VERT. - BOX HEADER EAST
P506	X	23	5'-1"	X	PARAPET VERT. - BOX HEADER WEST



P501, P502, P505, P506

BAR MARK	A
P501	4'-5"
P502	3'-5"
P505	1'-2"
P506	2'-2"



R403, R604

BAR MARK	B	C
R403	3'-5"	0'-8"
R604	4'-10"	2'-9"

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-40-296

DRAWN BY SKR | PLANS CK'D. AJC

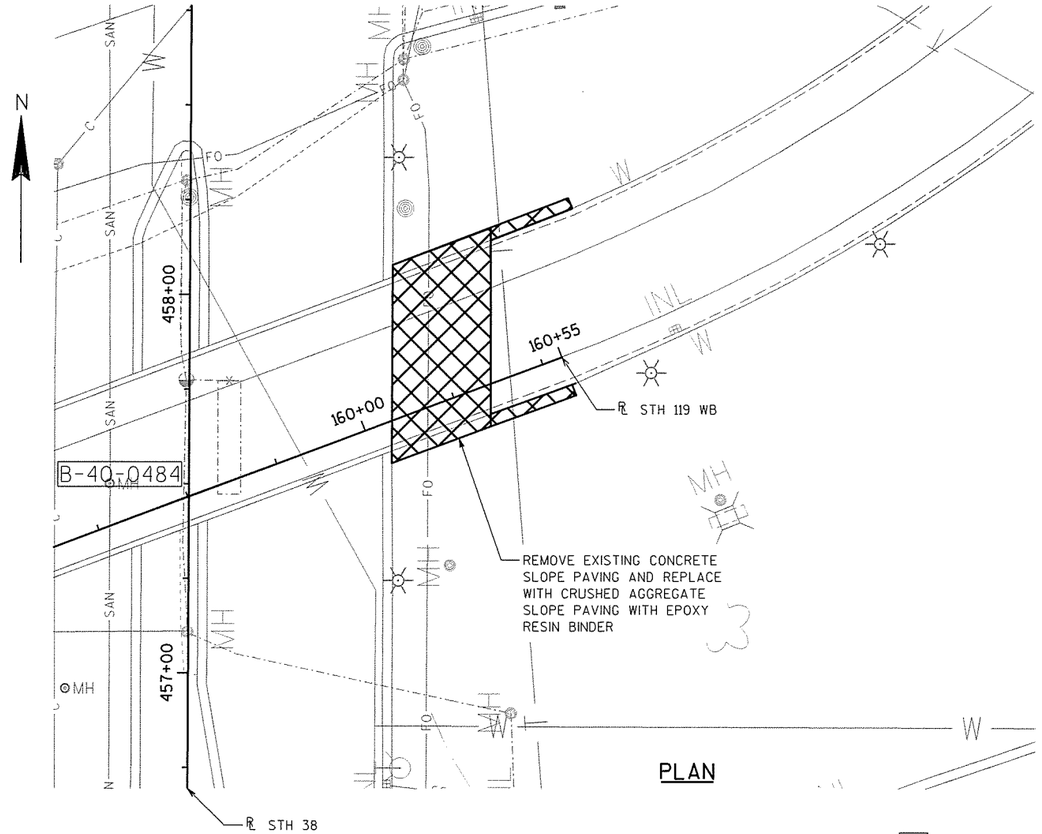
BILL OF BARS

SHEET 9 OF 9

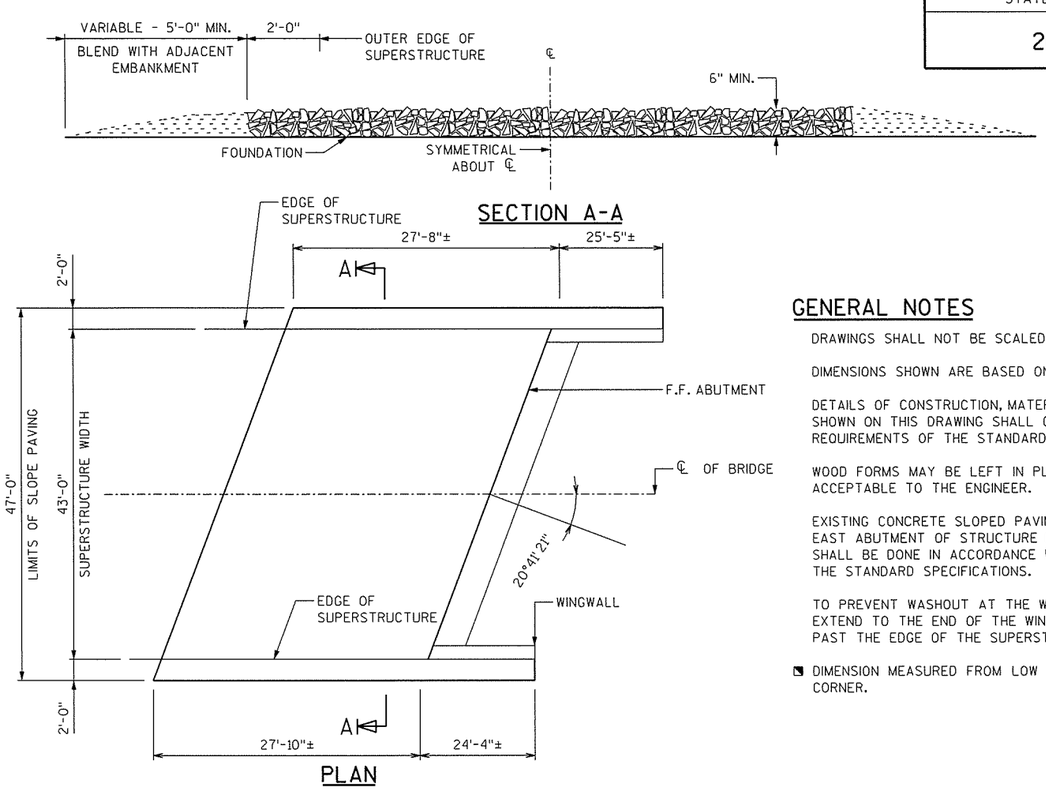
946

STATE PROJECT NUMBER

2060-15-71



PLAN



SECTION A-A

PLAN

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON ORIGINAL STRUCTURES PLANS.

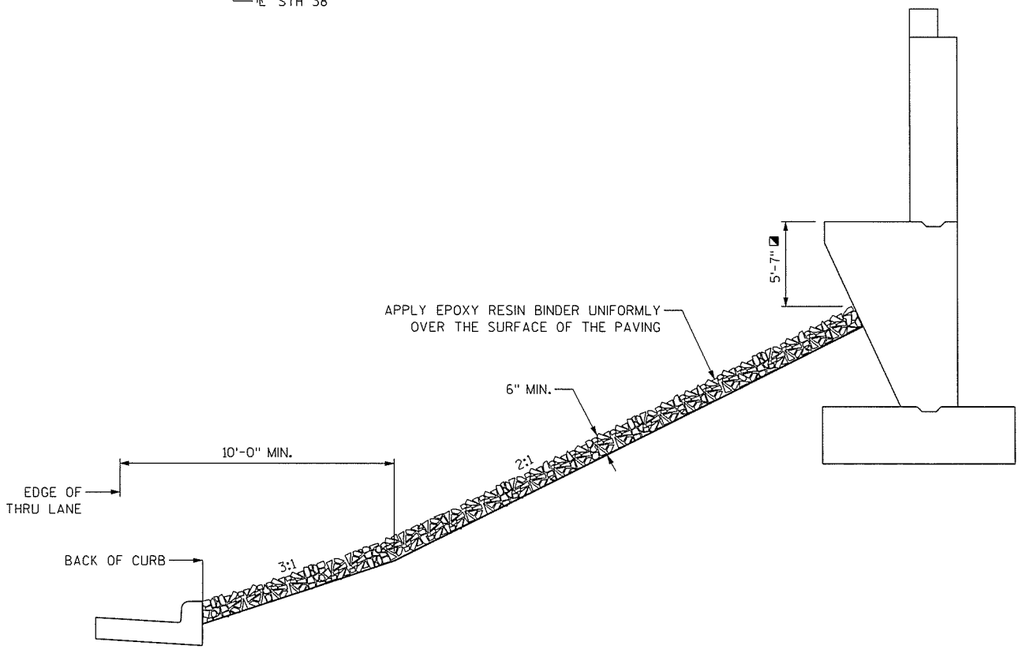
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS.

WOOD FORMS MAY BE LEFT IN PLACE WHEN OF A QUALITY ACCEPTABLE TO THE ENGINEER.

EXISTING CONCRETE SLOPED PAVING TO BE REMOVED AT EAST ABUTMENT OF STRUCTURE B-40-484. THIS WORK SHALL BE DONE IN ACCORDANCE WITH SECTION 204 OF THE STANDARD SPECIFICATIONS.

TO PREVENT WASHOUT AT THE WINGWALLS, SLOPE PAVING SHALL EXTEND TO THE END OF THE WINGWALLS FOR THE 2'-0" WIDTH PAST THE EDGE OF THE SUPERSTRUCTURE.

◪ DIMENSION MEASURED FROM LOW BEAM SEAT AT SOUTHEAST CORNER.



STANDARD CROSS SECTION

TOTAL ESTIMATED QUANTITIES

BID ITEM NO.	BID ITEMS	UNIT	TOTAL
204.0175	REMOVING CONCRETE SLOPE PAVING	SY	170
SPV.0180.4500	SLOPE PAVING CRUSHED AGGREGATE SPECIAL	SY	175

WISCONSIN
DAVID R. BROSE
E-26268
MILWAUKEE WIS.
PROFESSIONAL ENGINEER

David R. Brose 8-30-13

LIST OF DRAWINGS

1. SLOPE PAVING

STRUCTURE DESIGN CONTACTS

BRIDGE OFFICE: WILLIAM DREHER (608) 266-8489
CONSULTANT: DAVE BROSE (414) 347-1607

NO.	DATE	REVISION	BY

emcs inc
1300 W. Canal Street, Suite 200
Milwaukee, WI 53233
414.347.1607 Fax 414.347.1347

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher KAR 12/10/13
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-40-484

STH 119 WB OVER HOWELL AVENUE (STH 38)

COUNTY	CITY
MILWAUKEE	MILWAUKEE

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
SKR	DRB	SKR	DRB

SLOPE PAVING

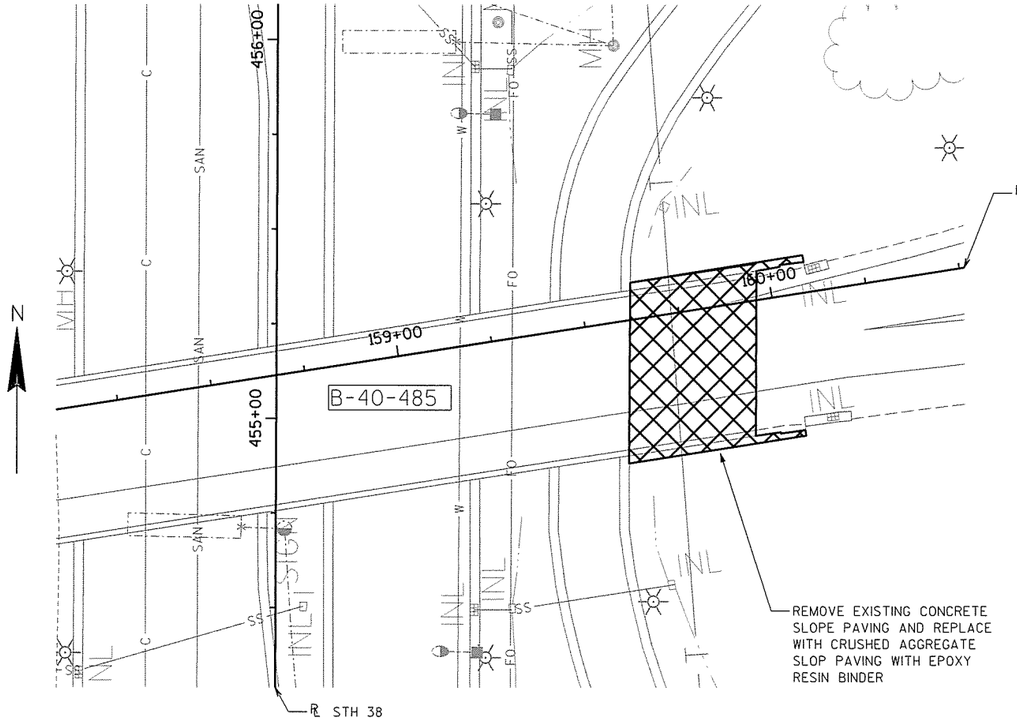
SHEET 1 OF 1
947

8

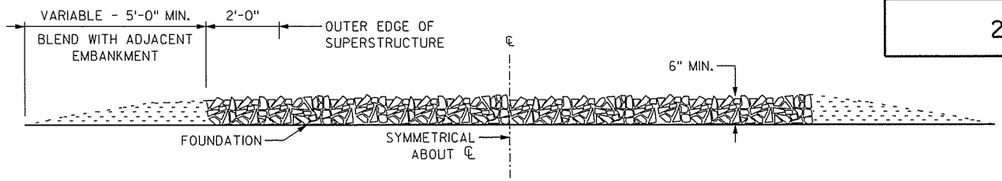
8

STATE PROJECT NUMBER

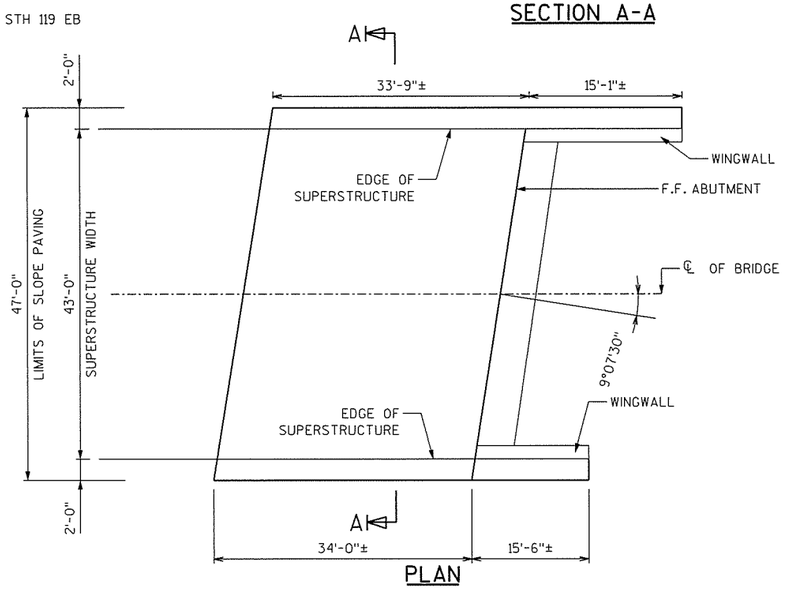
2060-15-71



PLAN



SECTION A-A



PLAN

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON ORIGINAL STRUCTURES PLANS.

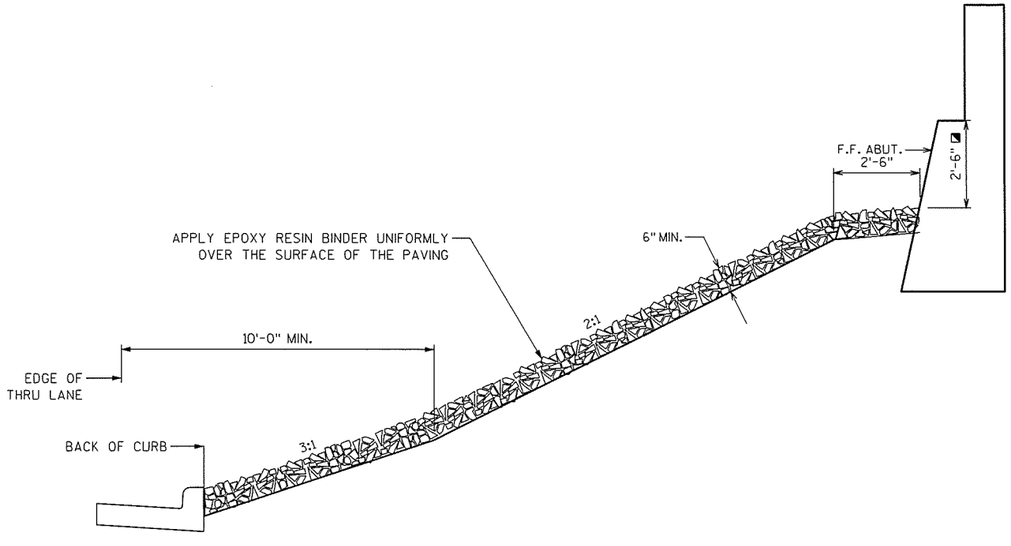
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS.

WOOD FORMS MAY BE LEFT IN PLACE WHEN OF A QUALITY ACCEPTABLE TO THE ENGINEER.

EXISTING CONCRETE SLOPED PAVING TO BE REMOVED AT EAST ABUTMENT OF STRUCTURE B-40-484. THIS WORK SHALL BE DONE IN ACCORDANCE WITH SECTION 204 OF THE STANDARD SPECIFICATIONS.

TO PREVENT WASHOUT AT THE WINGWALLS, SLOPE PAVING SHALL EXTEND TO THE END OF THE WINGWALLS FOR THE 2'-0" WIDTH PAST THE EDGE OF THE SUPERSTRUCTURE.

◥ DIMENSION MEASURED FROM LOW BEAM SEAT AT NORTHEAST CORNER.



STANDARD CROSS SECTION

TOTAL ESTIMATED QUANTITIES

BID ITEM NO.	BID ITEMS	UNIT	TOTAL
204.0175	REMOVING CONCRETE SLOPE PAVING (STRUCTURE B-40-0485)	SY	210
SPV.0180.4500	SLOPE PAVING CRUSHED AGGREGATE SPECIAL	SY	210

WISCONSIN
DAVID R. BROSE
E-26268
MILWAUKEE
WIS.
PROFESSIONAL ENGINEER

8-30-13

LIST OF DRAWINGS

1. SLOPE PAVING

STRUCTURE DESIGN CONTACTS

BRIDGE OFFICE: WILLIAM DREHER (608) 266-8489
CONSULTANT: DAVE BROSE (414) 347-1607

NO.	DATE	REVISION	BY

emcs inc
1300 W. Canal Street, Suite 200
Milwaukee, WI 53233
414.347.1607 Fax 414.347.1347

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher KAR 12/10/13
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-40-485

STH 119 EB OVER HOWELL AVENUE (STH 38)

COUNTY	CITY
MILWAUKEE	MILWAUKEE

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
SKR	DRB	SKR	DRB

SLOPE PAVING

SHEET 1 OF 1
948

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\B-40-485\08050PLQ5.dgn PLOT DATE : 8/30/2013 PLOT BY : ajc PLOT NAME : ORG DATE : Originator : Dist PLOT SCALE : 1:40

STH 38 - STAGE 1

STATION	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.2	Mass Ordinate
129+75 AH	0.00	0	0	0	0	0	0	0
130+00	25.40	0	0	0	0	0	0	0
130+36	35.54	0	0	0	0	0	0	0
130+50	14.46	0	0	0	0	0	0	0
131+00	50.00	0	0	0	0	0	0	0
131+50	50.00	0	0	0	0	0	0	0
132+00	50.00	0	0	0	0	0	0	0
132+50	50.00	0	0	0	0	0	0	0
133+00	50.00	0	0	0	0	0	0	0
133+50	50.00	0	0	0	0	0	0	0
134+00	50.00	0	0	0	0	0	0	0
134+50	50.00	0	0	0	0	0	0	0
135+00	50.00	0	0	0	0	0	0	0
135+50	50.00	0	0	0	0	0	0	0
136+00	50.00	0	0	0	0	0	0	0
136+50	50.00	0	0	0	0	0	0	0
137+00	50.00	0	0	0	0	0	0	0
137+50	50.00	0	0	0	0	0	0	0
138+00	50.00	0	0	0	0	0	0	0
138+50	50.00	0	0	0	0	0	0	0
139+00	50.00	0	0	0	0	0	0	0
139+50	50.00	0	0	0	0	0	0	0
140+00	50.00	0	0	0	0	0	0	0
140+50	50.00	0	0	0	0	0	0	0
141+00	50.00	0	0	0	0	0	0	0
141+50	50.00	0	0	0	0	0	0	0
142+00	50.00	0	0	0	0	0	0	0
142+50	50.00	0	0	0	0	0	0	0
143+00	50.00	0	0	0	0	0	0	0
143+50	50.00	0	0	0	0	0	0	0
144+00	50.00	0	0	0	0	0	0	0
144+50	50.00	0	0	0	0	0	0	0
145+00	50.00	0	0	0	0	0	0	0
145+50	50.00	0	0	0	0	0	0	0
146+00	50.00	0	0	0	0	0	0	0
146+50	50.00	0	0	0	0	0	0	0
147+00	50.00	0	0	0	0	0	0	0
147+50	50.00	0	0	0	0	0	0	0
148+00	50.00	0	0	0	0	0	0	0
148+50	50.00	0	0	0	0	0	0	0
149+00	50.00	0	0	0	0	0	0	0
149+50	50.00	0	0	0	0	0	0	0
150+00	50.00	0	0	0	0	0	0	0
150+50	50.00	0	0	0	0	0	0	0
151+00	50.00	0	0	0	0	0	0	0
151+50	50.00	0	0	0	0	0	0	0
152+00	50.00	0	0	0	0	0	0	0
152+50	50.00	0	0	0	0	0	0	0
153+00	50.00	0	0	0	0	0	0	0
153+50	50.00	0	0	0	0	0	0	0
154+00	50.00	0	0	0	0	0	0	0
154+50	50.00	0	0	0	0	0	0	0
155+00	50.00	0	0	0	0	0	0	0
155+30	30.48	0	0	0	0	0	0	0

STH 38 - STAGE 1

STATION	Distance		AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.2	Mass Ordinate
155+50	19.52		0	0	0	0	0	0	0
156+00	50.00		0	0	0	0	0	0	0
156+50	50.00		0	0	0	0	0	0	0
157+00	50.00		0	0	0	0	0	0	0
157+50	50.00		0	0	0	0	0	0	0
158+00	50.00		0	0	0	0	0	0	0
158+50	50.00		0	0	0	0	0	0	0
159+00	50.00		0	0	0	0	0	0	0
159+50	50.00		0	0	0	0	0	0	0
160+00	50.00		0	0	0	0	0	0	0
160+50	50.00		0	0	0	0	0	0	0
161+00	50.00		0	0	0	0	0	0	0
161+50	50.00		0	0	0	0	0	0	0
162+00	50.00		0	0	0	0	0	0	0
162+50	50.00		0	0	0	0	0	0	0
163+00	50.00		0	0	0	0	0	0	0
163+50	50.00		0	0	0	0	0	0	0
163+89	38.57		0	0	0	0	0	0	0
164+00	11.43		0	0	0	0	0	0	0
164+13	12.74		0	0	0	0	0	0	0
164+50	37.26		0	0	0	0	0	0	0
165+00	50.00		0	0	0	0	0	0	0
165+50	50.00		0	0	0	0	0	0	0
165+91	40.61		0	0	0	0	0	0	0
166+00	9.39		0	0	0	0	0	0	0
166+50	50.00		0	0	0	0	0	0	0
166+67	16.64		0	0	0	0	0	0	0
167+00	33.36		0	0	0	0	0	0	0
167+08	8.29		0	0	0	0	0	0	0
167+50	41.71		0	0	0	0	0	0	0
168+00	50.00		0	0	0	0	0	0	0
168+10	10.36		0	0	0	0	0	0	0
168+50	39.64		0	0	0	0	0	0	0
168+76	25.76		0	0	0	0	0	0	0
168+95	18.88		0	0	0	0	0	0	0
169+00	5.36		0	0	0	0	0	0	0
169+23	22.57		0	0	0	0	0	0	0
169+50	27.43		0	0	0	0	0	0	0
170+00	50.00		0	0	0	0	0	0	0
170+29	29.33		0	0	0	0	0	0	0
170+50	20.67		0	0	0	0	0	0	0
171+00	50.00		0	0	0	0	0	0	0
171+50	50.00		0	0	0	0	0	0	0
172+00	50.00		0	0	0	0	0	0	0
172+50	50.00		0	0	0	0	0	0	0
173+00	50.00		0	0	0	0	0	0	0
173+01	1.28	BK	0	0	0	0	0	0	0
174+48	0.00	AH	0	0	0	0	0	0	0
174+50	2.09		0.46	0	0	0	0	0	0
175+00	50.00		19.02	0.01	18	0	18	0	18
175+50	50.00		34.24	0.01	49	0	67	0	67
175+93	42.57		46.27	0	63	0	131	0	131
176+00	7.43		9.89	0	8	0	139	0	139
176+19	18.77		31.61	0	14	0	153	0	153

STH 38 - STAGE 1

STATION		Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.2	Mass Ordinate
176+50		31.23	66.68	0	57	0	210	0	210
176+73		22.58	51.76	0	50	0	259	0	259
177+00		27.42	58.39	0	56	0	315	0	315
177+50		50.00	82.59	0	131	0	446	0	446
178+00		50.00	54.74	0	127	0	573	0	573
178+50		50.00	27.12	0	76	0	649	0	649
178+55	BK	4.88	1.42	0	3	0	651	0	651
183+59	AH	0.00	0	0	0	0	651	0	651
184+00		41.35	0	0	0	0	651	0	651
184+50		50.00	0	0	0	0	651	0	651
185+00		50.00	0	0	0	0	651	0	651
185+50		50.00	0	0	0	0	651	0	651
186+00		50.00	0	0	0	0	651	0	651
186+12		12.12	0	0	0	0	651	0	651
186+50		37.88	0	0	0	0	651	0	651
186+87	BK	36.98	0	0	0	0	651	0	651
216+09	AH	0.00	283.32	367.04	0	0	651	0	651
216+50		41.23	12.73	10.67	226	288	877	346	531
217+00		50.00	27.87	10.22	38	19	915	369	546
217+50		50.00	39.75	5.41	63	14	978	387	591
218+00		50.00	52.57	3.24	85	8	1063	396	667
218+50		50.00	67.75	1.41	111	4	1174	401	773
219+00		50.00	83.69	0.01	140	1	1315	403	912
219+09		8.96	15.88	0	17	0	1331	403	928
219+50		41.04	71.1	0	66	0	1397	403	994
220+00		50.00	87.49	0	147	0	1544	403	1141
220+50		50.00	89.2	0	164	0	1708	403	1305
221+00		50.00	93.48	0	169	0	1877	403	1474
221+50		50.00	100.77	0	180	0	2057	403	1654
221+55		4.78	9.86	0	10	0	2067	403	1664
222+31		76.01	76.12	0	121	0	2188	403	1785
222+50		19.21	21.59	0	35	0	2222	403	1819
223+00		50.00	107.66	0	120	0	2342	403	1939
223+50		50.00	101.16	0	193	0	2535	403	2132
224+00		50.00	96.86	0	183	0	2719	403	2316
224+50		50.00	96.33	0	179	0	2898	403	2495
224+58		7.73	15.28	0	16	0	2914	403	2511
225+00		42.27	87.4	0	80	0	2994	403	2591
225+50		50.00	106.12	0	179	0	3173	403	2770
226+00		50.00	110.29	0	200	0	3374	403	2971
226+50		50.00	108.82	0	203	0	3576	403	3173
227+00		50.00	96.84	0	190	0	3767	403	3364
227+50		50.00	95.03	0	178	0	3945	403	3541
228+00		50.00	106.65	0	187	0	4131	403	3728
228+50		50.00	115.11	0	205	0	4337	403	3934
228+89		38.87	85.73	0	145	0	4481	403	4078
229+00		11.13	23.17	0	22	0	4504	403	4101
229+50		50.00	90.94	0	106	0	4609	403	4206
229+92	BK	42.44	71.62	0	128	0	4737	403	4334
244+22	AH	0.00	1425	224.52	0	0	4737	403	4334
244+50		28.17	7.93	7.72	748	121	5485	548	4936
245+00		50.00	25.08	9.97	31	16	5515	568	4947
245+50		50.00	40.85	4.85	61	14	5576	585	4992
245+71		21.22	23.85	0.69	25	2	5602	587	5014

9

9

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	EARTHWORK	SHEET 951	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090101_ew.dgn PLOT DATE : 10/31/2013 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:20

STH 38 - STAGE 1

STATION		Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.2	Mass Ordinate
246+00		28.78	33.63	0.51	31	1	5632	588	5044
246+50		50.00	55.28	0	82	0	5715	588	5126
247+00		50.00	54.25	0	101	0	5816	588	5227
247+50		50.00	78.63	0	123	0	5939	588	5350
247+73	BK	23.21	44.62	0	53	0	5992	588	5403
254+88	AH	0.00	0	0	0	0	5992	588	5403
255+00		11.73	2.87	0.55	1	0	5993	589	5404
255+50		50.00	20.05	3.42	21	4	6014	593	5421
256+00		50.00	33.11	2.73	49	6	6063	600	5463
256+50		50.00	46.52	1.07	74	4	6137	604	5533
257+00		50.00	59.88	1.13	99	2	6235	607	5629
257+50		50.00	78	0.71	128	2	6363	609	5754
257+92		42.40	82.01	0	126	1	6489	609	5879
257+97		4.19	9.05	0	7	0	6496	609	5886
258+00		3.41	7.69	0	1	0	6497	609	5887
258+50		50.00	109.03	0	108	0	6605	609	5996
258+54		3.80	7.94	0	8	0	6613	609	6004
259+00		46.20	91.45	0	85	0	6698	609	6089
259+50		50.00	84.9	0	163	0	6861	609	6252
260+00		50.00	85.7	0	158	0	7019	609	6410
260+50		50.00	95.3	0	168	0	7187	609	6578
261+00		50.00	98.21	0	179	0	7366	609	6757
261+10		10.21	20.37	0	22	0	7388	609	6779
262+00		89.79	179.79	0	333	0	7721	609	7112
262+50		50.00	102.83	0	262	0	7983	609	7374
263+00		50.00	98.97	0	187	0	8170	609	7561
263+50		50.00	94.9	0	180	0	8349	609	7740
264+00		50.00	94.37	0	175	0	8525	609	7915
264+33		32.56	64.85	0	96	0	8621	609	8011
264+50		17.44	34.43	0	32	0	8653	609	8043
265+00		50.00	84.37	0	110	0	8763	609	8153
265+50		50.00	68.98	0	142	0	8905	609	8295
265+78		27.79	31.46	0.31	52	0	8956	609	8347
266+00		22.21	22.21	0.35	22	0	8978	610	8369
266+50		50.00	39.91	0.47	58	1	9036	611	8425
266+63		12.72	7.61	0.3	11	0	9047	611	8436
267+00		37.28	16.11	1.54	16	1	9064	612	8451
267+17		16.77	4.41	0	6	0	9070	613	8457
267+50		33.23	40.18	0	27	0	9097	613	8484
268+00		50.00	107.29	0	137	0	9234	613	8621
269+01		0.00	120.04	0.05	0	0	9234	613	8621
269+50		48.51	19.82	2.27	126	2	9360	616	8744
270+00		50.00	36.16	2.32	52	4	9411	621	8791
270+50		50.00	54.01	0.47	83	3	9495	624	8871
271+00		50.00	69.36	0.78	114	1	9609	625	8984
271+50		50.00	84.02	0.31	142	1	9751	626	9125
271+91		40.93	83.02	0	127	0	9878	627	9251
272+00		9.07	19.83	0	17	0	9895	627	9268
272+50		50.00	109.58	0	67	6	67	7	60
272+55		5.07	11.77	0	11	0	78	7	71
273+00		44.93	106.32	0	98	0	176	7	169
273+50		50.00	115.03	0	205	0	381	7	374
273+56		5.91	13.52	0	14	0	395	7	388
274+00		44.09	100.13	0	93	0	488	7	481

STH 38 - STAGE 1

STATION		Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.2	Mass Ordinate
274+50		50.00	110.29	0	195	0	683	7	676
275+00		50.00	108.01	0	202	0	885	7	878
275+50		50.00	101.38	0	194	0	1079	7	1072
276+00		50.00	102.16	0	188	0	1268	7	1261
276+13		13.14	42.12	0	35	0	1303	7	1296
276+50		36.86	77.83	0	82	0	1385	7	1378
276+66		15.99	31.46	0	32	0	1417	7	1410
277+00		34.01	96.72	0.04	81	0	1498	7	1491
277+50		50.00	81.83	0.06	165	0	1663	7	1656
278+00		50.00	75.61	0	146	0	1809	7	1801
278+50		50.00	80.03	0	144	0	1953	7	1946
279+00		50.00	82.37	0	150	0	2103	7	2096
279+50		50.00	78.89	0	149	0	2253	7	2245
279+95		45.03	56.76	0.85	113	1	2366	8	2358
280+00		4.97	7.28	0.09	6	0	2372	8	2363
280+50		50.00	84.39	0.19	85	0	2456	9	2448
280+74		23.97	38.81	0.09	55	0	2511	9	2502
280+80		5.90	10.91	0.03	5	0	2517	9	2508
281+00		20.13	33.78	0.9	17	0	2533	9	2524
281+29		28.54	37.79	3.83	38	2	2571	12	2559
281+45		16.56	19.89	2.74	18	2	2589	15	2574
281+50		4.90	6.08	0.7	2	0	2591	15	2576
281+64		13.61	16.91	1.83	6	1	2597	16	2581
282+00		36.39	46.24	3.19	43	3	2639	20	2620
282+50		50.00	59.7	7.37	98	10	2738	31	2706
283+00		50.00	48.17	15.36	100	21	2837	57	2781
283+50		50.00	42.54	15.32	84	28	2921	91	2831
284+00		50.00	42.73	8.85	79	22	3000	118	2883
284+06		6.02	5.1	0.62	5	1	3006	119	2887
284+24		17.58	14.74	0.85	6	0	3012	120	2893
284+50		26.40	17.78	0.02	16	0	3028	120	2908
284+89	BK	38.79	17.14	0	25	0	3053	120	2933
289+79	AH	0.00	89.99	0	0	0	3053	120	2933
290+00		20.76	0	0	35	0	3088	120	2968
290+13		12.85	1.99	0	0	0	3088	120	2968
290+36		22.72	11.06	0	5	0	3094	120	2974
290+50		14.43	10.89	0	6	0	3100	120	2980
291+00		50.00	61.76	0	67	0	3167	120	3047
291+50		50.00	100.85	0	151	0	3317	120	3197
292+00		50.00	135.5	0	219	0	3536	120	3416
292+26		26.08	73.37	0	101	0	3637	120	3517
292+33		7.27	19.1	0	12	0	3650	120	3530
292+50		16.65	44.15	0	20	0	3669	120	3549
292+63		12.53	32.45	0.01	18	0	3687	120	3567
293+00		37.47	91.67	0.4	86	0	3773	120	3653
293+18		17.94	39.49	0.18	44	0	3817	121	3696
293+50		32.06	53.94	1.46	55	1	3872	122	3750
294+00		50.00	56.73	9.98	102	11	3974	134	3840
294+09		9.22	9.5	2.74	11	2	3986	137	3849
294+14		4.92	3.47	1.41	1	0	3987	138	3849
294+50		35.86	13.48	13.19	11	10	3998	149	3849
295+00		50.00	27.91	32.82	38	43	4037	200	3836
295+16		16.46	10.95	13.94	12	14	4048	217	3831
295+50		33.54	24.19	26.15	22	25	4070	247	3823

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PROJECT NO: 2060-15-71 | HWY: STH 38 | COUNTY: MILWAUKEE | EARTHWORK | SHEET 953 | E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090101_ew.dgn PLOT DATE : 10/31/2013 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:20

STH 38 - STAGE 1

STATION		Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.2	Mass Ordinate
295+59		9.09	6.8	6.49	5	5	4075	254	3822
296+00		40.91	31.55	27.7	29	26	4105	285	3820
296+50		50.00	42.07	31.09	68	54	4173	350	3822
297+00		50.00	45.64	26.85	81	54	4254	415	3839
297+50		50.00	50.71	12.54	89	36	4343	458	3885
297+70	BK	20.41	27.74	0.14	30	5	4373	464	3909
308+08	AH	0.00	3369.76	0	0	0	4373	464	3909
308+50		41.69	82.79	0	2665	0	7038	464	6574
309+00		50.00	76.46	2.23	147	2	7186	467	6719
309+50		50.00	47.39	6.31	115	8	7300	476	6824
310+00		50.00	48.2	5.11	89	11	7389	489	6900
310+08		8.17	8.59	0.38	9	1	7397	490	6908
310+50		41.83	41.74	1.38	39	1	7436	491	6945
310+87		36.96	27.72	1.24	48	2	7484	494	6990
311+00		13.04	7.19	0.62	8	0	7492	494	6998
311+29		28.51	12.56	0.75	10	1	7503	495	7008
311+50		21.49	6.84	0.22	8	0	7511	496	7015
311+58		8.19	1.11	0.04	1	0	7512	496	7016
312+00		41.81	0	0	1	0	7513	496	7017
312+50		50.00	0	0	0	0	7513	496	7017
313+00		50.00	0	0	0	0	7513	496	7017
313+22		22.02	0	0	0	0	7513	496	7017
313+50		27.98	0	0	0	0	7513	496	7017
314+00		50.00	0	0	0	0	7513	496	7017
314+50		50.00	0	0	0	0	7513	496	7017
315+00		50.00	0	0	0	0	7513	496	7017
315+50		50.00	0	0	0	0	7513	496	7017
316+00		50.00	0	0	0	0	7513	496	7017
316+50		50.00	0	0	0	0	7513	496	7017
317+00		50.00	0	0	0	0	7513	496	7017
317+50		50.00	0	0	0	0	7513	496	7017
318+00		50.00	0	0	0	0	7513	496	7017
318+50		50.00	0	0	0	0	7513	496	7017
319+00		50.00	0	0	0	0	7513	496	7017
319+50		50.00	0	0	0	0	7513	496	7017
320+00		50.00	0	0	0	0	7513	496	7017
320+13		12.80	0	0	0	0	7513	496	7017
320+69	BK	55.97	0	0	0	0	7513	496	7017
323+75	AH	0.00	149.32	0	0	0	7513	496	7017
324+00		24.98	23.59	0.14	80	0	7593	496	7097
324+23		22.88	21.12	0.83	19	0	7612	496	7115
324+50		27.12	23.68	1.88	22	1	7634	498	7136
325+00		50.00	34.17	8.64	54	10	7688	509	7178
325+50		50.00	22.98	11.02	53	18	7741	531	7209
326+00		50.00	9.15	4.33	30	14	7770	548	7222
326+19		18.62	0	0	3	1	7773	550	7223
326+96		77.50	0	0	0	0	7773	550	7223
327+63		66.54	0	0	0	0	7773	550	7223
327+80		17.55	19.36	0	6	0	7780	550	7230
328+00		19.79	32.79	0	19	0	7799	550	7249
328+50		50.00	53.82	0.01	80	0	7879	550	7329
329+00		50.00	51.89	1.92	98	2	7977	552	7425
329+50		50.00	54.48	2	98	4	8075	557	7519
329+90		39.54	44.65	0.07	73	2	8148	559	7590

STH 38 - STAGE 1

STATION	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.2	Mass Ordinate
330+00	10.46	11.61	0	11	0	8159	559	7600
330+00	0.09	0.1	0	0	0	8159	559	7600
330+38	37.86	37.05	3.66	26	3	8185	562	7623
330+50	12.05	9.73	2.72	10	1	8195	563	7632
331+00	50.00	42.7	21.39	49	22	8244	590	7654
331+07	7.16	6.69	4.33	7	3	8251	594	7656
331+50	42.84	36.3	33.26	34	30	8285	630	7655
332+00	50.00	33.18	46.45	64	74	8349	719	7630
332+00	0.16	0.09	0.15	0	0	8349	719	7630
332+45	44.96	26.19	41.65	22	35	8371	760	7610
332+50	4.88	3.01	4.52	3	4	8374	765	7608
333+00	50.00	35.29	44.09	35	45	8409	819	7590
333+34	34.31	28.82	27.22	41	45	8450	874	7576
333+50	15.69	14.11	11.2	12	11	8462	887	7575
334+00	50.00	46.2	32.87	56	41	8518	936	7582
334+50	50.00	91.84	15.75	128	45	8646	990	7656
334+53	2.62	6.97	0	5	1	8651	991	7660
335+00	47.38	61.38	0	60	0	8711	991	7720
335+50	50.00	0	0	57	0	8768	991	7776
336+00	50.00	0	0	0	0	8768	991	7776
336+50	50.00	0	0	0	0	8768	991	7776
337+00	50.00	0	0	0	0	8768	991	7776
337+50	50.00	0	0	0	0	8768	991	7776
338+00	50.00	0	0	0	0	8768	991	7776
338+50	50.00	0	0	0	0	8768	991	7776
339+00	50.00	0	0	0	0	8768	991	7776
339+50	50.00	0	0	0	0	8768	991	7776
340+00	50.00	0	0	0	0	8768	991	7776
342+00	0.00	0	0	0	0	8768	991	7776
342+08	8.49	0	0	0	0	8768	991	7776
342+50	41.51	0	0	0	0	8768	991	7776
343+00	50.00	0	0	0	0	8768	991	7776
343+50	50.00	0	0	0	0	8768	991	7776
344+00	50.00	0	0	0	0	8768	991	7776
344+24	23.66	0	0	0	0	8768	991	7776
344+50	26.34	0	0	0	0	8768	991	7776
344+83	32.87	0	0	0	0	8768	991	7776
345+00	17.13	0	0	0	0	8768	991	7776
345+50	50.00	0	0	0	0	8768	991	7776
346+00	50.00	0	0	0	0	8768	991	7776
346+50	50.00	0	0	0	0	8768	991	7776
347+00	50.00	0	0	0	0	8768	991	7776
347+29	28.66	0	0	0	0	8768	991	7776
347+50	21.34	0	0	0	0	8768	991	7776
347+51	0.81	0	0	0	0	8768	991	7776
348+00	49.19	0	0	0	0	8768	991	7776
348+50	50.00	0	0	0	0	8768	991	7776
349+00	50.00	0	0	0	0	8768	991	7776
349+50	50.00	0	0	0	0	8768	991	7776
350+00	50.00	0	0	0	0	8768	991	7776
350+50	50.00	0	0	0	0	8768	991	7776
351+00	50.00	0	0	0	0	8768	991	7776
351+50	50.00	0	0	0	0	8768	991	7776
352+00	50.00	0	0	0	0	8768	991	7776

STH 38 - STAGE 1

STATION	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.2	Mass Ordinate
352+50	50.00	0	0	0	0	8768	991	7776
352+91	40.85	4.01	5.05	3	4	8771	996	7775
353+00	9.15	2.05	2.23	1	1	8772	997	7774
353+50	50.00	20.15	10.42	21	12	8792	1011	7781
353+77	27.16	17.21	3.79	19	7	8811	1020	7791
354+00	22.84	17.84	1.97	15	2	8826	1023	7803
354+24	24.05	22.03	1.53	18	2	8843	1025	7819
354+41	16.72	17.4	0.74	12	1	8856	1025	7830
354+50	9.23	10.45	0.18	5	0	8860	1026	7835
355+00	50.00	57.57	0.17	63	0	8923	1026	7897
355+50	50.00	55.05	1.94	104	2	9028	1028	7999
356+00	50.00	52.16	3.71	99	5	9127	1035	8092
356+50	50.00	78.04	1.77	121	5	9248	1041	8207
356+91	41.30	85.61	0	125	1	9373	1042	8330
357+00	8.70	8.9	0	15	0	9388	1042	8346
357+50	50.00	0	0	8	0	9396	1042	8354
358+00	50.00	0	0	0	0	9396	1042	8354
358+50	50.00	0	0	0	0	9396	1042	8354
358+70	19.80	0	0	0	0	9396	1042	8354
359+00	30.20	0	0	0	0	9396	1042	8354
359+50	50.00	0	0	0	0	9396	1042	8354
360+00	50.00	0	0	0	0	9396	1042	8354
360+50	50.00	0	0	0	0	9396	1042	8354
360+63	13.43	0	0	0	0	9396	1042	8354
361+00	36.57	0	0	0	0	9396	1042	8354
361+44	44.17	0	0	0	0	9396	1042	8354
361+50	5.83	0	0	0	0	9396	1042	8354
361+69	19.06	0	0	0	0	9396	1042	8354
361+76	7.10	0	0	0	0	9396	1042	8354
362+00	23.84	0	0	0	0	9396	1042	8354
362+50	50.00	0	0	0	0	9396	1042	8354
362+86	35.66	0	0	0	0	9396	1042	8354
363+00	14.34	0	0	0	0	9396	1042	8354
363+50	50.00	0	0	0	0	9396	1042	8354
364+00	50.00	0	0	0	0	9396	1042	8354
364+06	5.64	0	0	0	0	9396	1042	8354
364+50	44.36	0	0	0	0	9396	1042	8354
364+89	39.16	0	0	0	0	9396	1042	8354
365+00	10.84	0	0	0	0	9396	1042	8354
365+50	50.00	0	0	0	0	9396	1042	8354
366+00	50.00	0	0	0	0	9396	1042	8354
366+50	50.00	0	0	0	0	9396	1042	8354
367+00	50.00	0	0	0	0	9396	1042	8354
367+34	34.16	0	0	0	0	9396	1042	8354
367+50	15.84	0	0	0	0	9396	1042	8354
368+00	50.00	0	0	0	0	9396	1042	8354
368+50	50.00	0	0	0	0	9396	1042	8354
369+00	50.00	0	0	0	0	9396	1042	8354
369+15	14.66	0	0	0	0	9396	1042	8354
369+50	35.34	0	0	0	0	9396	1042	8354
370+00	50.00	0	0	0	0	9396	1042	8354
370+50	50.00	0	0	0	0	9396	1042	8354
370+51	0.74	0.08	0.01	0	0	9396	1042	8354
370+59	7.92	1.94	0.19	0	0	9396	1042	8354

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PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	EARTHWORK	SHEET 956	E

STH 38 - STAGE 1

STATION	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.2	Mass Ordinate
371+00	41.34	13.61	1.65	12	1	9408	1044	8364
371+50	50.00	24.34	3.45	35	5	9444	1050	8394
372+00	50.00	34.51	2.54	54	6	9498	1056	8442
372+01	0.62	0.5	0.01	0	0	9498	1056	8442
372+50	49.38	40.67	0.96	38	1	9536	1058	8479
373+00	50.00	42.27	0.51	77	1	9613	1059	8554
373+50	50.00	41.73	0.64	78	1	9691	1060	8630
374+00	49.66	38.95	0.87	74	1	9765	1062	8703
374+00	0.34	0.25	0	0	0	9765	1062	8703
374+50	50.00	18.74	0.23	18	0	9783	1062	8720
375+00	50.00	0	0	17	0	9800	1063	8737
375+50	50.00	0	0	0	0	9800	1063	8737
376+00	50.00	0	0	0	0	9800	1063	8737
376+47	47.07	38.35	0	33	0	9833	1063	8771
376+50	2.93	4.79	0	2	0	9836	1063	8773
377+00	50.00	68.3	0.7	68	1	9903	1063	8840
377+50	50.00	54.8	0.7	114	1	10017	1065	8952
377+97	47.49	54.22	0	96	1	10113	1066	9048
378+00	2.51	2.97	0	3	0	10116	1066	9050
378+50	50.00	56.78	0	55	0	10171	1066	9106
378+93	42.68	45.87	0.06	81	0	10252	1066	9187
379+00	7.32	7.56	0.05	7	0	10260	1066	9194
379+50	50.00	39.57	1.91	44	2	10303	1068	9235
379+93	42.68	16.69	3.83	44	5	10348	1073	9274
380+00	7.32	0.72	0.41	2	1	10350	1074	9276
380+50	50.00	0	0	1	0	10351	1075	9276
380+68	17.59	0	0	0	0	10351	1075	9276
381+00	32.41	0	0	0	0	10351	1075	9276
381+50	50.00	0	0	0	0	10351	1075	9276
382+00	50.00	0	0	0	0	10351	1075	9276
382+30	30.16	0	0	0	0	10351	1075	9276
382+50	19.84	0	0	0	0	10351	1075	9276
382+88	38.16	0	0	0	0	10351	1075	9276
383+00	11.84	0	0	0	0	10351	1075	9276
383+50	50.00	0	0	0	0	10351	1075	9276
383+68	18.47	0	0	0	0	10351	1075	9276
384+00	31.53	0	0	0	0	10351	1075	9276
384+50	50.00	0	0	0	0	10351	1075	9276
384+76	26.16	0	0	0	0	10351	1075	9276
385+00	23.84	0	0	0	0	10351	1075	9276
385+29	29.16	0	0	0	0	10351	1075	9276
385+50	20.84	0	0	0	0	10351	1075	9276
386+00	50.00	0	0	0	0	10351	1075	9276
386+50	50.00	0	0	0	0	10351	1075	9276
387+00	50.00	0	0	0	0	10351	1075	9276
387+32	32.16	0	0	0	0	10351	1075	9276
387+50	17.84	0	0	0	0	10351	1075	9276
387+58	7.84	0	0	0	0	10351	1075	9276
388+00	42.16	0	0	0	0	10351	1075	9276
388+50	50.00	0	0	0	0	10351	1075	9276
389+00	50.00	0	0	0	0	10351	1075	9276
389+50	50.00	0	0	0	0	10351	1075	9276
390+00	50.00	0	0	0	0	10351	1075	9276
390+41	41.29	0	0	0	0	10351	1075	9276

STH 38 - STAGE 1

STATION		Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.2	Mass Ordinate
390+50		8.71	0	0	0	0	10351	1075	9276
391+00		50.00	0	0	0	0	10351	1075	9276
391+50		50.00	0	0	0	0	10351	1075	9276
391+88		38.33	0	0	0	0	10351	1075	9276
392+00		11.67	0	0	0	0	10351	1075	9276
392+50		50.00	0	0	0	0	10351	1075	9276
393+00		50.00	0	0	0	0	10351	1075	9276
393+15	BK	15.45	0	0	0	0	10351	1075	9276
399+02	AH	0.00	58.5	58.44	0	0	10351	1075	9276
399+50		48.42	16.65	6.23	67	58	10418	1144	9274
400+00		50.00	35.64	1.68	48	7	10467	1153	9314
400+50		50.00	51.91	0.45	81	2	10548	1155	9392
400+51		0.88	1.01	0.01	1	0	10549	1155	9393
401+00		49.12	56.72	0.57	53	1	10601	1156	9445
401+50		50.00	58.83	0.65	107	1	10708	1157	9551
402+00		50.00	61.51	0.24	111	1	10819	1158	9661
402+50	BK	50.00	74.56	0	126	0	10945	1159	9787
403+50	AH	0.00	144.34	0	0	0	10945	1159	9787
404+00		50.00	57.92	0	187	0	11133	1159	9974
404+50		50.00	57.34	0.01	107	0	11239	1159	10081
405+00		50.00	57	0.15	106	0	11345	1159	10187
405+10		10.17	11.64	0.03	13	0	11358	1159	10199
405+50		39.83	43.57	0.01	41	0	11399	1159	10240
406+00		50.00	43.11	0	80	0	11479	1159	10320
406+50		50.00	24.48	1.55	63	1	11542	1161	10381
406+60	BK	9.98	2.41	0.76	5	0	11547	1161	10386
455+24	AH	0.00	1075.59	305.14	0	0	11547	1161	10386
455+50		26.43	9.74	1.01	531	150	12078	1341	10737
455+97		46.66	41.78	1.72	45	2	12123	1344	10779
456+00		3.34	4.43	0.12	3	0	12125	1344	10782
456+50		50.00	59.02	2.8	59	3	12184	1347	10837
457+00		50.00	46.1	2.14	86	16	10437	1094	9343
457+04		3.58	3	0.09	6	1	10357	1076	9281
457+78	BK	74.57	44.68	7.78	131	24	10482	1103	9379
458+94	AH	0.00	117.51	9.74	0	0	10351	1075	9276
459+00		5.83	10.17	0	11	2	10362	1077	9285
459+50		50.00	73.41	0	96	17	10447	1094	9353
460+00		50.00	27.76	0	98	17	10448	1094	9354
460+50		50.00	0	0	98	17	10448	1094	9354
461+00		50.00	0	0	98	17	10448	1094	9354
461+50		50.00	0	0	98	17	10448	1094	9354
461+83		33.39	0	0	65	11	10416	1088	9328
462+00		16.61	0	0	32	5	10383	1081	9302
462+36		36.49	0	0	71	12	10422	1089	9333
462+50		13.51	0	0	26	4	10377	1080	9297
462+75	BK	25.39	0	0	50	8	10400	1085	9316
Column totals					23045	1812			

STH 38 - STAGE 2

STATION	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.2	Mass Ordinate
129+75 AH	0.00	0	0	0	0	0	0	0
130+00	25.40	6.78	0.22	3	0	3	0	3
130+36	35.54	10.85	3.39	12	2	15	3	12
130+50	14.46	4.9	1.8	4	1	19	5	14
131+00	50.00	22.89	2.65	26	4	45	10	35
131+50	50.00	26.11	0.78	45	3	90	13	77
132+00	50.00	23.17	0.01	46	1	136	14	121
132+50	50.00	20.24	0	40	0	176	14	162
133+00	50.00	18.57	0.03	36	0	212	14	198
133+50	50.00	18.98	0.03	35	0	247	14	232
134+00	50.00	16.57	4.36	33	4	280	19	260
134+50	50.00	15.3	5.88	30	9	309	31	278
135+00	50.00	19.81	1.7	33	7	342	39	303
135+50	50.00	33.07	0.18	49	2	391	41	349
136+00	50.00	53.43	0	80	0	471	41	429
136+50	50.00	58.96	0	104	0	575	41	533
137+00	50.00	50.33	0	101	0	676	41	635
137+50	50.00	35.91	0	80	0	756	41	714
138+00	50.00	25.63	0.05	57	0	813	41	771
138+50	50.00	27.98	1.55	50	1	862	43	819
139+00	50.00	26.55	3.07	50	4	913	48	865
139+50	50.00	16.67	3.93	40	6	953	56	897
140+00	50.00	11.73	5.73	26	9	979	67	912
140+50	50.00	11.14	7.93	21	13	1000	82	918
141+00	50.00	12.99	4.83	22	12	1023	96	926
141+50	50.00	18.81	0.54	29	5	1052	102	950
142+00	50.00	31.12	0.41	46	1	1098	103	995
142+50	50.00	65.73	0.14	90	1	1188	104	1084
143+00	50.00	105.45	0	159	0	1347	104	1243
143+50	50.00	103.11	0	193	0	1540	104	1436
144+00	50.00	65.5	0	156	0	1696	104	1592
144+50	50.00	35.31	0	93	0	1789	104	1685
145+00	50.00	21.09	2.41	52	2	1841	107	1735
145+50	50.00	17.72	4.1	36	6	1877	114	1763
146+00	50.00	24.89	2.23	39	6	1917	121	1796
146+50	50.00	35.35	0.55	56	3	1973	124	1848
147+00	50.00	42.15	0.09	72	1	2044	125	1920
147+50	50.00	32.32	0.12	69	0	2113	125	1988
148+00	50.00	25.19	0.08	53	0	2166	125	2041
148+50	50.00	27.51	0.12	49	0	2215	125	2090
149+00	50.00	24.96	0.41	49	0	2264	126	2138
149+50	50.00	23.69	2	45	2	2309	129	2180
150+00	50.00	20.96	2.87	41	5	2350	134	2216
150+50	50.00	18.22	1.65	36	4	2387	139	2247
151+00	50.00	20.1	0.45	35	2	2422	141	2281
151+50	50.00	21.33	0	38	0	2460	142	2318
152+00	50.00	12.85	177.16	32	164	2492	339	2153
152+50	50.00	13.47	1.54	24	165	2516	537	1979
153+00	50.00	17.88	0.16	29	2	2545	539	2006
153+50	50.00	16.95	1.38	32	1	2578	541	2037
154+00	50.00	20.61	1.81	35	3	2612	544	2068
154+50	50.00	24.84	1.38	42	3	2655	548	2106
155+00	50.00	23.72	15.11	45	15	2699	566	2133
155+30	30.48	12.33	12.66	20	16	2720	585	2135

STH 38 - STAGE 2

STATION	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.2	Mass Ordinate
155+50	19.52	7.75	2.93	7	6	2727	592	2135
156+00	50.00	22.89	1.44	28	4	2755	597	2159
156+50	50.00	28.54	13.55	48	14	2803	613	2190
157+00	50.00	37.24	25.49	61	36	2864	657	2207
157+50	50.00	47.14	17.88	78	40	2942	705	2237
158+00	50.00	53.29	5.44	93	22	3035	731	2304
158+50	50.00	58.73	0.05	104	5	3139	737	2402
159+00	50.00	45.53	0	97	0	3235	737	2498
159+50	50.00	22.67	0.93	63	1	3299	738	2560
160+00	50.00	12.04	5.04	32	6	3331	745	2586
160+50	50.00	4.31	4.12	15	8	3346	755	2591
161+00	50.00	9.43	3.91	13	7	3359	764	2595
161+50	50.00	16.19	4.38	24	8	3382	773	2609
162+00	50.00	13.17	2.77	27	7	3409	781	2628
162+50	50.00	21.87	2.31	32	5	3442	787	2655
163+00	50.00	26.86	1.65	45	4	3487	791	2696
163+50	50.00	22.02	2.33	52	10	67	15	52
163+89	38.57	21.19	0.66	31	2	98	18	80
164+00	11.43	6.31	0.2	6	0	103	18	86
164+13	12.74	12.77	0.19	5	0	108	18	90
164+50	37.26	45.04	0.4	40	0	148	18	129
165+00	50.00	66.68	0.51	103	1	251	19	232
165+50	50.00	66.5	0	123	0	375	20	355
165+91	40.61	37.58	0	78	0	453	20	433
166+00	9.39	8.89	0	8	0	461	20	441
166+50	50.00	41.85	0.01	47	0	508	20	488
166+67	16.64	24.78	0	21	0	528	20	509
167+00	33.36	46.96	0.6	44	0	573	20	552
167+08	8.29	5.96	0.23	8	0	581	21	560
167+50	41.71	28.2	0.44	26	1	607	21	586
168+00	50.00	29.79	0.92	54	1	661	23	638
168+10	10.36	7.14	0.39	7	0	668	23	645
168+50	39.64	19.55	2.3	20	2	688	25	662
168+76	25.76	11.07	1.07	15	2	702	27	675
168+95	18.88	7.8	1.45	7	1	709	28	681
169+00	5.36	0.92	0.45	1	0	710	29	681
169+23	22.57	12.92	0.27	6	0	715	29	687
169+50	27.43	23.64	0	19	0	734	29	705
170+00	50.00	27.2	0.05	47	0	781	29	752
170+29	29.33	22.58	0.03	27	0	808	29	779
170+50	20.67	13.97	0.04	14	0	822	29	793
171+00	50.00	10.54	0.1	23	0	845	29	815
171+50	50.00	5.55	0	15	0	860	29	830
172+00	50.00	5.63	0	10	0	870	29	841
172+50	50.00	8.54	0.68	13	1	883	30	853
173+00	50.00	5.71	2.63	13	3	896	34	863
173+01 BK	1.28	0.14	0.11	0	0	897	34	863
183+59 AH	0.00	790.03	73.97	0	0	897	34	863
184+00	41.35	66.06	0.88	656	57	1552	103	1449
184+50	50.00	117.38	0	170	1	1722	104	1618
185+00	50.00	146.35	0	244	0	1966	104	1862
185+50	50.00	171.17	0	294	0	2260	104	2156
186+00	50.00	142.05	0.34	290	0	2550	104	2446
186+12	12.12	22.55	0.12	37	0	2587	104	2483

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9

PROJECT NO: 2060-15-71 | HWY: STH 38 | COUNTY: MILWAUKEE | EARTHWORK | SHEET 960 | E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090101_ew.dgn PLOT DATE : 10/31/2013 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 49

STH 38 - STAGE 2

STATION		Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.2	Mass Ordinate
186+50		37.88	59.44	0.13	58	0	2645	104	2540
186+87	BK	36.98	30.41	0	62	0	2706	105	2602
216+09	AH	0.00	613.74	0.03	0	0	2706	105	2602
216+50		41.23	0	0	469	0	3175	105	3070
217+00		50.00	0	0	0	0	3175	105	3070
217+50		50.00	0	0	0	0	3175	105	3070
218+00		50.00	0	0	0	0	3175	105	3070
218+50		50.00	0	0	0	0	3175	105	3070
219+00		50.00	0	0	0	0	3175	105	3070
219+09		8.96	0	0	0	0	3175	105	3070
219+50		41.04	0	0	0	0	3175	105	3070
220+00		50.00	0	0	0	0	3175	105	3070
220+50		50.00	0	0	0	0	3175	105	3070
221+00		50.00	0	0	0	0	3175	105	3070
221+50		50.00	59.94	2.77	56	3	3230	108	3123
221+55		4.78	11.34	0.34	6	0	3237	108	3129
222+31		76.01	114.33	1.15	177	2	3413	110	3303
222+50		19.21	14.66	0.24	46	0	3459	111	3348
223+00		50.00	21.61	0.64	34	1	3493	112	3381
223+50		50.00	0	0	20	1	3513	113	3400
224+00		50.00	0	0	0	0	3513	113	3400
224+50		50.00	0	0	0	0	3513	113	3400
224+58		7.73	0	0	0	0	3513	113	3400
225+00		42.27	0	0	0	0	3513	113	3400
225+50		50.00	0	0	0	0	3513	113	3400
226+00		50.00	0	0	0	0	3513	113	3400
226+50		50.00	0	0	0	0	3513	113	3400
227+00		50.00	0	0	0	0	3513	113	3400
227+50		50.00	0	0	0	0	3513	113	3400
228+00		50.00	0	0	0	0	3513	113	3400
228+50		50.00	0	0	0	0	3513	113	3400
228+89		38.87	0	0	0	0	3513	113	3400
229+00		11.13	0	0	0	0	3513	113	3400
229+50		50.00	0	0	0	0	3513	113	3400
229+92		42.44	0	0	0	0	3513	113	3400
244+22	BK	0.00	0	0	0	0	3513	113	3400
244+50	AH	28.17	0	0	0	0	3513	113	3400
245+00		50.00	0	0	0	0	3513	113	3400
245+50		50.00	0	0	0	0	3513	113	3400
245+71		21.22	0	0	0	0	3513	113	3400
246+00		28.78	0	0	0	0	3513	113	3400
246+50		50.00	0	0	0	0	3513	113	3400
247+00		50.00	0	0	0	0	3513	113	3400
247+50		50.00	0	0	0	0	3513	113	3400
247+73	BK	23.21	0	0	0	0	3513	113	3400
254+88	AH	0.00	0	0	0	0	3513	113	3400
255+00		11.73	0	0	0	0	3513	113	3400
255+50		50.00	0	0	0	0	3513	113	3400
256+00		50.00	0	0	0	0	3513	113	3400
256+50		50.00	0	0	0	0	3513	113	3400
257+00		50.00	0	0	0	0	3513	113	3400
257+50		50.00	0	0	0	0	3513	113	3400
257+92		42.40	0	0	0	0	3513	113	3400
257+97		4.19	0	0	0	0	3513	113	3400

STH 38 - STAGE 2

STATION	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.2	Mass Ordinate
258+00	3.41	0	0	0	0	3513	113	3400
258+50	50.00	0	0	0	0	3513	113	3400
258+54	3.80	0	0	0	0	3513	113	3400
259+00	46.20	0	0	0	0	3513	113	3400
259+50	50.00	0	0	0	0	3513	113	3400
260+00	50.00	0	0	0	0	3513	113	3400
260+50	50.00	4.07	0.35	4	0	3517	113	3404
261+00	50.00	71.77	0.35	70	1	3587	114	3473
261+10	10.21	33.96	0	20	0	3607	114	3493
262+00	89.79	343.19	0	627	0	4234	114	4120
262+50	50.00	126.56	0.03	435	0	4669	114	4555
263+00	50.00	71.81	0.03	184	0	4853	114	4739
263+50	50.00	84.18	0.1	144	0	4997	114	4883
264+00	50.00	100.35	0.1	171	0	5168	114	5053
264+33	32.56	72.47	0	104	0	5272	115	5158
264+50	17.44	39.94	0.01	36	0	5308	115	5194
265+00	50.00	115.36	0.02	144	0	5452	115	5338
265+50	50.00	97.89	0.34	197	0	5650	115	5535
265+78	27.79	36.43	0.19	69	0	5719	115	5603
266+00	22.21	19.27	0	23	0	5742	115	5626
266+50	50.00	26.62	0	42	0	5784	115	5669
266+63	12.72	4.08	0	7	0	5791	115	5676
267+00	37.28	5.17	0	6	0	5798	115	5682
267+17	16.77	0	0	2	0	5799	115	5684
267+50	33.23	0	0	0	0	5799	115	5684
268+00	50.00	0	0	0	0	5799	115	5684
269+01	101.49	0	0	0	0	5799	115	5684
269+50	48.51	0	0	0	0	5799	115	5684
270+00	50.00	0	0	0	0	5799	115	5684
270+50	50.00	0	0	0	0	5799	115	5684
271+00	50.00	0	0	0	0	5799	115	5684
271+50	50.00	0	0	0	0	5799	115	5684
271+91	40.93	0	0	0	0	5799	115	5684
272+00	9.07	0	0	0	0	5799	115	5684
272+50	50.00	0	0	0	0	5799	115	5684
272+55	5.07	0	0	0	0	5799	115	5684
273+00	44.93	0	0	0	0	5799	115	5684
273+50	50.00	0	0	0	0	5799	115	5684
273+56	5.91	0	0	0	0	5799	115	5684
274+00	44.09	0	0	0	0	5799	115	5684
274+50	50.00	0	0	0	0	5799	115	5684
275+00	50.00	0	0	0	0	5799	115	5684
275+50	50.00	0	0	0	0	5799	115	5684
276+00	50.00	57.18	0.24	53	0	5852	116	5737
276+13	13.14	33.53	0	22	0	5874	116	5759
276+50	36.86	51.91	0	58	0	5933	116	5817
276+66	15.99	12.61	49.07	19	15	5952	133	5819
277+00	34.01	107.5	55.26	76	66	6028	212	5815
277+50	50.00	156.11	0.52	244	52	6272	274	5998
278+00	50.00	75	2.74	214	3	6486	278	6208
278+50	50.00	76.04	2.82	140	5	6625	284	6342
279+00	50.00	77.68	0.54	142	3	6768	288	6480
279+50	50.00	79.89	0.05	146	1	6914	288	6625
279+95	45.03	75.59	0	130	0	7043	288	6755

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STH 38 - STAGE 2

STATION		Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.2	Mass Ordinate
280+00		4.97	8.49	0	8	0	7051	288	6763
280+50		50.00	73.4	0	76	0	7127	288	6839
280+74		23.97	26.72	0.03	44	0	7171	288	6883
280+80		5.90	5.58	0.02	4	0	7175	288	6887
281+00		20.13	15.66	0.06	8	0	7183	288	6894
281+29		28.54	15.88	0	17	0	7199	288	6911
281+45		16.56	6.78	0.11	7	0	7206	288	6918
281+50		4.90	1.65	0.13	1	0	7207	288	6919
281+64		13.61	3.84	1.74	1	0	7209	289	6920
282+00		36.39	4.4	3.97	6	4	7214	294	6921
282+50		50.00	0	0	4	4	7218	298	6920
283+00		50.00	0	0	0	0	7218	298	6920
283+50		50.00	0	0	0	0	7218	298	6920
284+00		50.00	0	0	0	0	7218	298	6920
284+06		6.02	0	0	0	0	7218	298	6920
284+24		17.58	0	0	0	0	7218	298	6920
284+50		26.40	0	0	0	0	7218	298	6920
284+89	BK	38.79	0	0	0	0	7218	298	6920
289+79	AH	0.00	60.49	7.18	0	0	7218	298	6920
290+00		20.76	8.1	0.6	26	3	7245	302	6943
290+13		12.85	8.27	0.19	4	0	7248	302	6947
290+36		22.72	24.39	0.01	14	0	7262	302	6960
290+50		14.43	21.91	0	12	0	7275	302	6973
291+00		50.00	83.96	0	98	0	7373	302	7071
291+50		50.00	86.1	0.71	157	1	7530	303	7227
292+00		50.00	85.19	0.71	159	1	7689	304	7384
292+26		26.08	42.64	0	62	0	7750	305	7446
292+33		7.27	9.27	0	7	0	7757	305	7453
292+50		16.65	27.9	0	11	0	7769	305	7464
292+63		12.53	20.64	0	11	0	7780	305	7475
293+00		37.47	49.43	0	49	0	7829	305	7524
293+18		17.94	31.39	0	27	0	7856	305	7551
293+50		32.06	53.18	0	50	0	7906	305	7601
294+00		50.00	66.85	0.16	111	0	8017	305	7712
294+09		9.22	10.01	0.06	13	0	8030	305	7725
294+14		4.92	5.05	0.04	1	0	8031	305	7726
294+50		35.86	29.19	0.15	23	0	8054	305	7749
295+00		50.00	24.11	0	49	0	8104	305	7798
295+16		16.46	4.76	0	9	0	8112	305	7807
295+50		33.54	4.08	0	5	0	8118	305	7813
295+59		9.09	0	0	1	0	8118	305	7813
296+00		40.91	0	0	0	0	8118	305	7813
296+50		50.00	0	0	0	0	8118	305	7813
297+00		50.00	0	0	0	0	8118	305	7813
297+50		50.00	0	0	0	0	8118	305	7813
297+70	BK	20.41	0	0	0	0	8118	305	7813
308+08	AH	0.00	0	0	0	0	8118	305	7813
308+50		41.69	0	0	0	0	8118	305	7813
309+00		50.00	0	0	0	0	8118	305	7813
309+50		50.00	0	0	0	0	8118	305	7813
310+00		50.00	0	0	0	0	8118	305	7813
310+08		8.17	0	0	0	0	8118	305	7813
310+50		41.83	0	0	0	0	8118	305	7813
310+87		36.96	2.62	0.3	2	0	8120	306	7815

STH 38 - STAGE 2

STATION		Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.2	Mass Ordinate
311+00		13.04	2.02	0.14	1	0	8121	306	7816
311+29		28.51	11.67	0.31	7	0	8129	306	7823
311+50		21.49	18.21	2.52	12	1	8141	307	7833
311+58		8.19	8.45	2.12	4	1	8145	308	7836
312+00		41.81	41.56	13.53	39	12	8183	323	7861
312+50		50.00	56.76	20.85	91	32	8274	361	7913
313+00		50.00	52.06	32.3	101	49	8375	420	7955
313+22		22.02	9.74	10.01	25	17	8400	441	7960
313+50		27.98	3.33	1.73	7	6	8407	448	7959
314+00		50.00	4.81	7.51	8	9	8415	458	7956
314+50		50.00	1.52	20.45	6	26	8420	489	7931
315+00		50.00	0.35	30.12	2	47	8422	545	7877
315+50		50.00	0.44	45.39	1	70	8423	629	7794
316+00		50.00	0.16	45.33	1	84	8423	730	7693
316+50		50.00	0	16.61	0	57	8424	799	7625
317+00		50.00	0	14.38	0	29	8424	833	7590
317+50		50.00	1.68	17.6	2	30	8425	869	7556
318+00		50.00	3.52	5.9	5	22	8430	895	7535
318+50		50.00	9.88	2.68	12	8	8442	905	7538
319+00		50.00	20.09	0	28	2	8470	908	7563
319+50		50.00	39.29	0	55	0	8525	908	7618
320+00		50.00	53.27	0	86	0	8611	908	7703
320+13		12.80	13.19	0	16	0	8627	908	7719
320+69	BK	55.97	42.65	0	58	0	8684	908	7777
323+75	AH	0.00	105.08	4.42	0	0	8684	908	7777
324+00		24.98	5.36	0.37	51	2	8736	910	7825
324+23		22.88	3.7	1.4	4	1	8739	911	7828
324+50		27.12	8.19	1.65	6	2	8745	913	7832
325+00		50.00	13.84	3.56	20	5	8766	919	7847
325+50		50.00	2.56	5.96	15	9	8781	929	7852
326+00		50.00	4.71	3.78	7	9	8788	940	7848
326+19		18.62	1.88	1.39	2	2	8790	942	7848
326+96		77.50	10.5	10.67	18	17	8808	963	7845
327+63		66.54	88.84	6.02	122	21	8930	988	7942
327+80		17.55	41.98	0.06	43	2	8973	990	7983
328+00		19.79	32	1.08	27	0	9000	991	8009
328+50		50.00	53.88	3.33	80	4	9079	996	8084
329+00		50.00	58.97	3.37	104	6	9184	1003	8181
329+50		50.00	56.68	8.54	107	11	9291	1016	8275
329+90		39.54	32.66	20.57	65	21	9356	1042	8315
330+00		10.46	5.16	8.17	7	6	9364	1048	8315
330+00		0.09	0.04	0.07	0	0	9364	1048	8315
330+38		37.86	29.75	20.7	21	15	9384	1066	8319
330+50		12.05	14.75	4.35	10	6	9394	1073	8322
331+00		50.00	43.27	28.84	54	31	9448	1110	8339
331+07		7.16	2.22	5.2	6	5	9454	1115	8339
331+50		42.84	7.46	35.07	8	32	9462	1153	8309
332+00		50.00	6.66	45.09	13	74	9475	1242	8233
332+00		0.16	0.02	0.14	0	0	9475	1242	8232
332+45		44.96	27.54	25.23	23	21	9498	1268	8230
332+50		4.88	5.36	1.19	3	2	9501	1271	8230
333+00		50.00	33.77	11.16	36	11	9537	1284	8253
333+34		34.31	8.77	7.41	27	12	9564	1299	8266
333+50		15.69	3.05	4.37	3	3	9568	1303	8265

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PROJECT NO: 2060-15-71 | HWY: STH 38 | COUNTY: MILWAUKEE | EARTHWORK | SHEET 964 | E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090101_ew.dgn PLOT DATE : 10/31/2013 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 49

STH 38 - STAGE 2

STATION		Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.2	Mass Ordinate
334+00		50.00	7.17	20.16	9	23	9577	1330	8247
334+50		50.00	4.48	37.22	11	53	9588	1394	8194
334+53		2.62	0.04	2.76	0	2	9588	1396	8192
335+00		47.38	2.37	54.3	2	50	9590	1456	8134
335+50		50.00	5.76	37.35	8	85	9598	1558	8040
336+00		50.00	6.71	11.99	12	46	9609	1613	7996
336+50		50.00	9.83	7.84	15	18	9625	1635	7990
337+00		50.00	9.58	8.7	18	15	9643	1653	7989
337+50		50.00	4.5	21.28	13	28	9656	1686	7969
338+00		50.00	2.85	30.36	7	48	9662	1744	7918
338+50		50.00	1.37	30.01	4	56	9666	1811	7855
339+00		50.00	0.74	29.16	2	55	9668	1877	7792
339+50		50.00	2.97	21.12	3	47	9672	1933	7739
340+00	BK	50.00	5.69	7.77	8	27	9680	1965	7715
342+00	AH	0.00	71.51	6.67	0	0	9680	1965	7715
342+08		8.49	3.46	0.44	12	1	9691	1966	7725
342+50		41.51	4.71	11.16	6	9	9698	1977	7721
343+00		50.00	0.11	20.04	4	29	9702	2011	7691
343+50		50.00	0.32	16.96	0	34	9703	2052	7650
344+00		50.00	2.31	16.82	2	31	9705	2090	7615
344+24		23.66	5.3	5.65	3	10	9708	2102	7607
344+50		26.34	13.43	3.71	9	5	9718	2107	7610
344+83		32.87	12.02	8.33	15	7	9733	2116	7617
345+00		17.13	1.22	5.72	4	4	9737	2121	7616
345+50		50.00	4.98	12.12	6	17	9743	2141	7602
346+00		50.00	7.87	7.93	12	19	9755	2164	7591
346+50		50.00	7.01	10.24	14	17	9769	2184	7585
347+00		50.00	3.75	18.74	10	27	9779	2216	7563
347+29		28.66	9.52	8.68	7	15	9786	2233	7552
347+50		21.34	8.76	5.88	7	6	9793	2240	7553
347+51		0.81	0.17	0.34	0	0	9793	2240	7553
348+00		49.19	5.38	23.53	5	22	9798	2267	7532
348+50		50.00	0.4	27.81	5	48	9803	2324	7480
349+00		50.00	8.67	20.28	8	45	9812	2377	7435
349+50		50.00	8.72	20.05	16	37	9828	2422	7406
350+00		50.00	1.22	24.11	9	41	9837	2471	7366
350+50		50.00	1.11	25.26	2	46	9839	2526	7314
351+00		50.00	13.16	22.96	13	45	9852	2579	7273
351+50		50.00	14.29	20.81	25	41	9878	2628	7250
352+00		50.00	1.13	34.94	14	52	9892	2690	7202
352+50		50.00	0	40.12	1	70	9893	2773	7120
352+91		40.85	7.54	21.72	6	47	9899	2829	7069
353+00		9.15	4.15	2.68	2	4	9901	2834	7067
353+50		50.00	14.98	20	18	21	9919	2860	7059
353+77		27.16	8.31	12.1	12	16	9930	2879	7051
354+00		22.84	7.64	7.45	7	8	9937	2889	7048
354+24		24.05	1.44	13.65	4	9	9941	2900	7041
354+41		16.72	0.03	15.08	0	9	9942	2911	7031
354+50		9.23	0.05	8.15	0	4	9942	2916	7026
355+00		50.00	0.66	38.87	1	44	9942	2968	6974
355+50		50.00	0.45	40.16	1	73	9943	3056	6888
356+00		50.00	0.16	34.71	1	69	9944	3139	6805
356+50		50.00	0.49	22.62	1	53	9944	3203	6742
356+91		41.30	1.38	9.52	1	25	9946	3232	6714

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PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	EARTHWORK	SHEET 965	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090101_ew.dgn PLOT DATE : 10/31/2013 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 49

STH 38 - STAGE 2

STATION	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.2	Mass Ordinate
357+00	8.70	0.46	0.87	0	2	9946	3234	6712
357+50	50.00	2.66	4.81	3	5	9949	3240	6709
358+00	50.00	2.43	4.83	5	9	9954	3251	6703
358+50	50.00	3.82	10	6	14	9960	3268	6692
358+70	19.80	3.34	4.17	3	5	9962	3274	6688
359+00	30.20	4.39	3.92	4	5	9966	3279	6687
359+50	50.00	2.2	5.72	6	9	9973	3290	6683
360+00	50.00	1.87	5.14	4	10	9976	3302	6674
360+50	50.00	1.22	10.3	3	14	9979	3319	6660
360+63	13.43	0	5.08	0	4	9980	3324	6656
361+00	36.57	0	31.07	0	24	9980	3353	6626
361+44	44.17	8.7	32.02	7	52	9987	3415	6572
361+50	5.83	2.52	1.13	1	4	9988	3419	6569
361+69	19.06	8.97	1.69	4	1	9992	3421	6571
361+76	7.10	3.54	0	2	0	9994	3421	6573
362+00	23.84	7.37	0.91	5	0	9998	3421	6577
362+50	50.00	3.63	5.15	10	6	10009	3428	6581
362+86	35.66	5.07	2.56	6	5	10014	3434	6580
363+00	14.34	1.66	1.92	2	1	10016	3436	6581
363+50	50.00	0	18.88	2	19	10018	3459	6559
364+00	50.00	0	26.92	0	42	10018	3510	6508
364+06	5.64	0.09	3.8	0	3	10018	3513	6504
364+50	44.36	1.03	28.54	1	27	10019	3545	6473
364+89	39.16	9.15	12.51	7	30	10026	3581	6445
365+00	10.84	3.57	1.94	3	3	10028	3584	6444
365+50	50.00	10.07	9.1	13	10	10041	3597	6444
366+00	50.00	12.16	5.48	21	14	10062	3613	6449
366+50	50.00	16.7	6.14	27	11	10088	3626	6463
367+00	50.00	17.75	3.9	32	9	10120	3637	6483
367+34	34.16	9.22	0.04	17	2	10137	3640	6497
367+50	15.84	4.09	0	4	0	10141	3640	6501
368+00	50.00	24.13	0.64	26	1	10167	3641	6527
368+50	50.00	22.35	1.98	43	2	10210	3644	6567
369+00	50.00	11.27	2.91	31	5	10242	3649	6593
369+15	14.66	4.44	0.65	4	1	10246	3650	6596
369+50	35.34	12.93	0.64	11	1	10257	3651	6606
370+00	50.00	13.44	1.85	24	2	10282	3654	6628
370+50	50.00	10.77	4.49	22	6	10304	3661	6643
370+51	0.74	0.18	0.09	0	0	10304	3661	6643
370+59	7.92	2.34	1.04	0	0	10305	3661	6643
371+00	41.34	10.57	6.1	10	5	10314	3668	6647
371+50	50.00	8.17	6.71	17	12	10332	3682	6650
372+00	50.00	9.92	4.43	17	10	10349	3694	6654
372+01	0.62	0.15	0.04	0	0	10349	3695	6654
372+50	49.38	18.28	2.78	17	3	10366	3698	6668
373+00	50.00	16.96	4.01	33	6	10398	3705	6693
373+50	50.00	7.18	6.77	22	10	10420	3717	6703
374+00	49.66	5.15	9.93	11	15	10432	3736	6696
374+00	0.34	0.03	0.08	0	0	10432	3736	6696
374+50	50.00	3.45	19.7	3	18	10435	3758	6677
375+00	50.00	3.37	27.72	6	44	10441	3810	6631
375+50	50.00	4.74	21.4	8	45	10449	3865	6584
376+00	50.00	5.62	7.56	10	27	10459	3897	6561
376+47	47.07	2.92	0.13	7	7	10466	3905	6561

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STH 38 - STAGE 2

STATION	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.2	Mass Ordinate
376+50	2.93	0	0	0	0	10466	3905	6561
377+00	50.00	3.87	4.54	4	4	10470	3910	6559
377+50	50.00	7	9.24	10	13	10480	3926	6554
377+97	47.49	6.03	7.69	11	15	10491	3943	6548
378+00	2.51	0.28	0.21	0	0	10492	3944	6548
378+50	50.00	3.9	2.22	4	2	10495	3947	6549
378+93	42.68	3.05	2.27	5	4	10501	3951	6550
379+00	7.32	0.58	0.38	0	0	10501	3951	6550
379+50	50.00	4.87	1.97	5	2	10506	3954	6553
379+93	42.68	4.19	1.64	7	3	10514	3957	6556
380+00	7.32	0.56	0.36	1	0	10514	3958	6557
380+50	50.00	4.28	1.72	4	2	10519	3960	6559
380+68	17.59	2.31	0.92	2	1	10521	3961	6560
381+00	32.41	5.61	2.94	5	2	10526	3964	6562
381+50	50.00	8.67	5.32	13	8	10539	3973	6566
382+00	50.00	7.7	8.57	15	13	10554	3988	6566
382+30	30.16	9.01	3.55	9	7	10563	3996	6567
382+50	19.84	14.25	0.16	9	1	10572	3998	6574
382+88	38.16	91.99	0.09	75	0	10647	3998	6649
383+00	11.84	31.77	0.04	27	0	10674	3998	6676
383+50	50.00	70.4	0.53	95	1	10769	3999	6770
383+68	18.47	24.37	0.42	32	0	10801	3999	6802
384+00	31.53	31.11	1	32	1	10833	4000	6833
384+50	50.00	33.34	3.25	60	4	10893	4005	6888
384+76	26.16	18.42	4.08	25	4	10918	4009	6909
385+00	23.84	11.92	3.81	13	3	10932	4013	6918
385+29	29.16	20.91	2.04	18	3	10949	4017	6932
385+50	20.84	15.87	1.43	14	1	10964	4019	6945
386+00	50.00	20.62	2.76	34	4	10997	4024	6974
386+50	50.00	18.18	1.43	36	4	11033	4028	7005
387+00	50.00	16.22	2.46	32	4	11065	4033	7033
387+32	32.16	12.67	1.09	17	2	11082	4035	7047
387+50	17.84	8.84	0.29	7	0	11089	4036	7054
387+58	7.84	4.31	0.12	2	0	11091	4036	7056
388+00	42.16	16.58	1.88	16	2	11108	4038	7070
388+50	50.00	11.62	3.41	26	5	11134	4043	7090
389+00	50.00	11.4	2.33	21	5	11155	4050	7105
389+50	50.00	24.4	1.01	33	3	11188	4054	7135
390+00	50.00	43.26	3.15	63	4	11251	4058	7193
390+41	41.29	45.18	6.9	68	8	11318	4067	7251
390+50	8.71	6.97	1.91	8	1	11327	4069	7258
391+00	50.00	31.59	8.84	36	10	11363	4081	7282
391+50	50.00	29.69	7.16	57	15	11419	4099	7321
391+88	38.33	9.95	5.89	28	9	11447	4110	7338
392+00	11.67	1.89	2	3	2	11450	4112	7338
392+50	50.00	5.55	11.73	7	13	11457	4127	7330
393+00	50.00	11.47	10.07	16	20	11473	4151	7321
393+15 BK	15.45	12.73	1.23	7	3	11480	4155	7324
399+02 AH	0.00	376.03	11.3	0	0	11480	4155	7324
399+50	48.42	0	0	337	10	11817	4167	7649
400+00	50.00	0	0	0	0	11817	4167	7649
400+50	50.00	0	0	0	0	11817	4167	7649
400+51	0.88	0	0	0	0	11817	4167	7649
401+00	49.12	0	0	0	0	11817	4167	7649

STH 38 - STAGE 2

STATION	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.2	Mass Ordinate
401+50	50.00	0	0	0	0	11817	4167	7649
402+00	50.00	0	0	0	0	11817	4167	7649
402+50	50.00	0	0	0	0	11817	4167	7649
403+50	100.00	0	0	0	0	11817	4167	7649
404+00	50.00	0	0	0	0	11817	4167	7649
404+50	50.00	0	0	0	0	11817	4167	7649
405+00	50.00	0	0	0	0	11817	4167	7649
405+10	10.17	0	0	0	0	11817	4167	7649
405+50	39.83	0	0	0	0	11817	4167	7649
406+00	50.00	0	0	0	0	11817	4167	7649
406+50	50.00	0	0	0	0	11817	4167	7649
406+60 BK	9.98	0	0	0	0	11817	4167	7649
455+24 AH	0.00	0	0	0	0	11817	4167	7649
455+50	26.43	0	0	0	0	11817	4167	7649
455+97	46.66	0	0	0	0	11817	4167	7649
456+00	3.34	0	0	0	0	11817	4167	7649
456+50	50.00	0	0	0	0	11817	4167	7649
457+00	50.00	0	0	0	0	11817	4167	7649
457+04	3.58	0	0	0	0	11817	4167	7649
457+78 BK	74.57	0	0	0	0	11817	4167	7649
458+94 AH	0.00	0	0	0	0	11817	4167	7649
459+00	5.83	9.92	0	1	0	11818	4167	7650
459+50	50.00	157.8	0	155	0	11973	4167	7806
460+00	50.00	134.98	0	271	0	12244	4167	8077
460+50	50.00	112.79	0	229	0	12474	4167	8306
461+00	50.00	101.72	0	199	0	12672	4167	8505
461+50	50.00	109.26	0	195	0	12868	4167	8700
461+83	33.39	74.13	0	113	0	12981	4167	8814
462+00	16.61	31.08	0	32	0	13013	4167	8846
462+36	36.49	67.2	0	66	0	13080	4167	8912
462+50	13.51	18.04	0.09	21	0	13101	4167	8934
462+75 BK	25.39	7.82	0.16	12	0	13113	4168	8946
Column totals				16585	4130			

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PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	EARTHWORK	SHEET 968	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090101_ew.dgn PLOT DATE : 10/31/2013 PLOT BY : tmk PLOT NAME : PLOT SCALE : 1:20

RYAN ROAD

STATION		Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Mass Ordinate
1103+60	AH		40.21	0.37	0	0	0
1104+00		39.92	53.67	0	69	69	69
1104+50		50.00	75.1	0	119	189	188
1105+00		50.00	71.88	0	136	325	324
1105+50		50.00	66.33	0	128	453	452
1106+00		50.00	94.04	0	148	601	601
1106+17		16.87	103.42	0	62	663	663
1106+50		33.13	66	0	104	767	766
1106+85		34.79	24.39	0	58	825	825
1106+92	BK	7.09	18.88	0	6	831	830
				Column total	831		

FOREST HILL AVENUE (WEST)

STATION		Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.2	Mass Ordinate
200+42	AH		0	0	0	0	0	0	0
200+50		7.55	1.17	0.23	0	0	0	0	0
200+83		32.93	6.89	0.94	5	1	5	1	4
201+76		93.06	165.77	0	298	2	303	3	300
202+00		24.01	81.27	0	110	0	412	3	410
202+50		50.00	173.81	0	236	0	649	3	646
203+00		50.00	163.14	0	312	0	961	3	958
203+50	BK	50.00	76.23	0	222	0	1182	3	1179
				Column totals	1182	2			

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FOREST HILL AVENUE (EAST)

STATION		Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.2	Mass Ordinate
100+55	AH		22.21	0.31	0	0	0	0	0
101+00		45.46	31.87	2.26	46	2	46	3	43
101+50		50.00	123.27	0.44	144	3	189	6	184
101+60		9.57	137.81	0.56	46	0	235	6	230
102+00		40.43	130.43	0.62	201	1	436	7	429
102+23		22.75	161.3	0	123	0	559	7	552
102+50		27.25	168.05	0.93	166	0	725	8	718
103+00		50.00	118.51	2.57	265	3	991	12	979
103+41		40.56	166.25	0	214	2	1205	14	1191
103+50		9.44	143.54	0.01	54	0	1259	14	1245
104+00		50.00	100.94	11.7	226	11	1485	27	1458
104+28		28.30	100.39	6.49	106	10	1591	38	1552
104+50		21.70	80.51	17.78	73	10	1663	50	1613
104+72		21.51	81.89	5.66	65	9	1728	61	1667
104+85		13.82	78.67	0	41	1	1769	63	1706
105+00		14.67	72.47	2.61	41	1	1810	64	1746
105+40	BK	39.99	46.33	0.37	88	2	1898	67	1832
			Column totals		1898	55			

SUSAN DRIVE

STATION		Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.2	Mass Ordinate
300+75	AH		0	0	0	0	0	0	0
301+00		25.00	39.08	0	18	0	18	0	18
301+22		22.09	69.09	0	44	0	62	0	62
301+50		27.91	76.69	0	75	0	138	0	138
301+70	BK	20.25	42.68	0.01	45	0	182	0	182
			Column totals		182	0			

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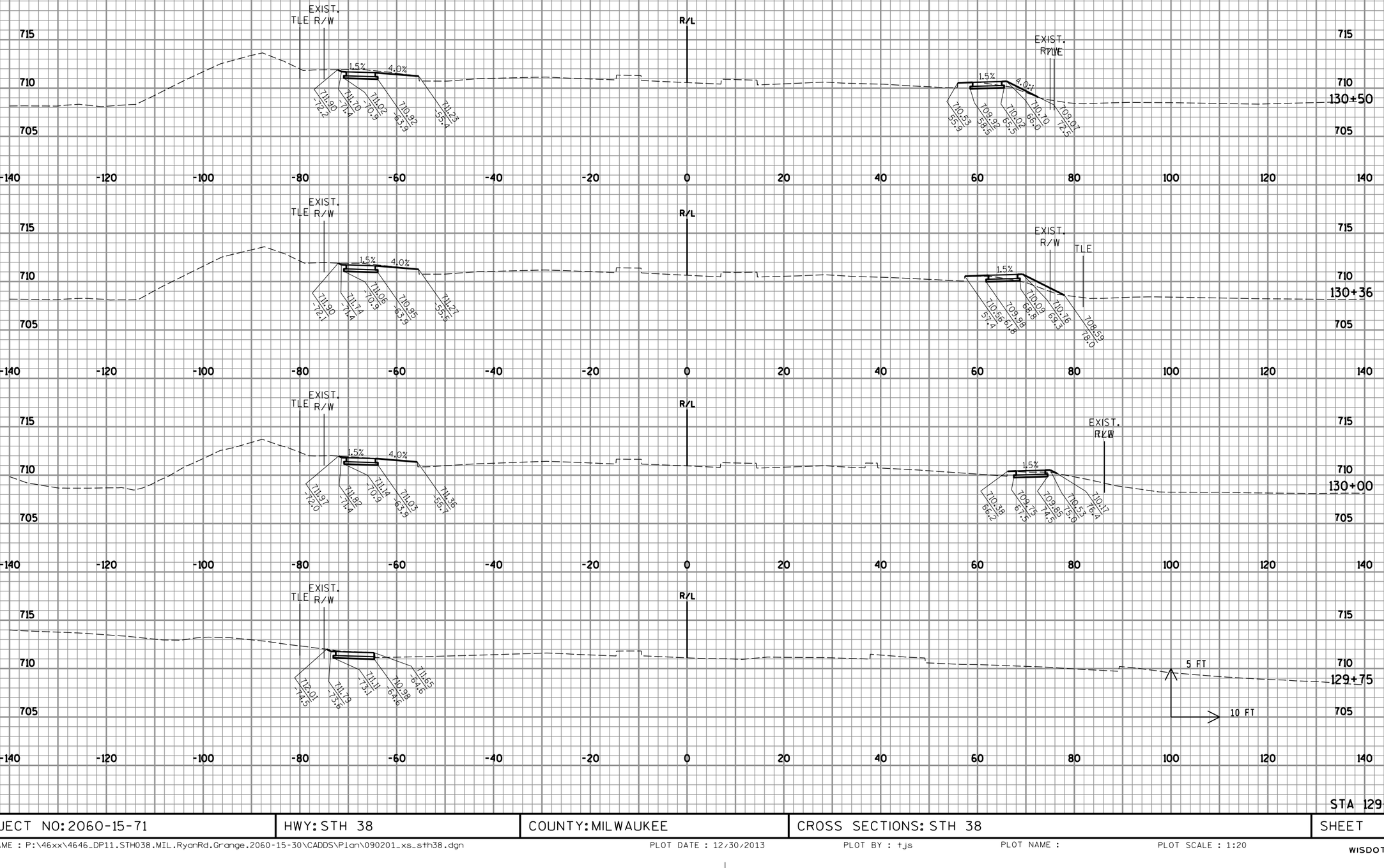
NOTES:

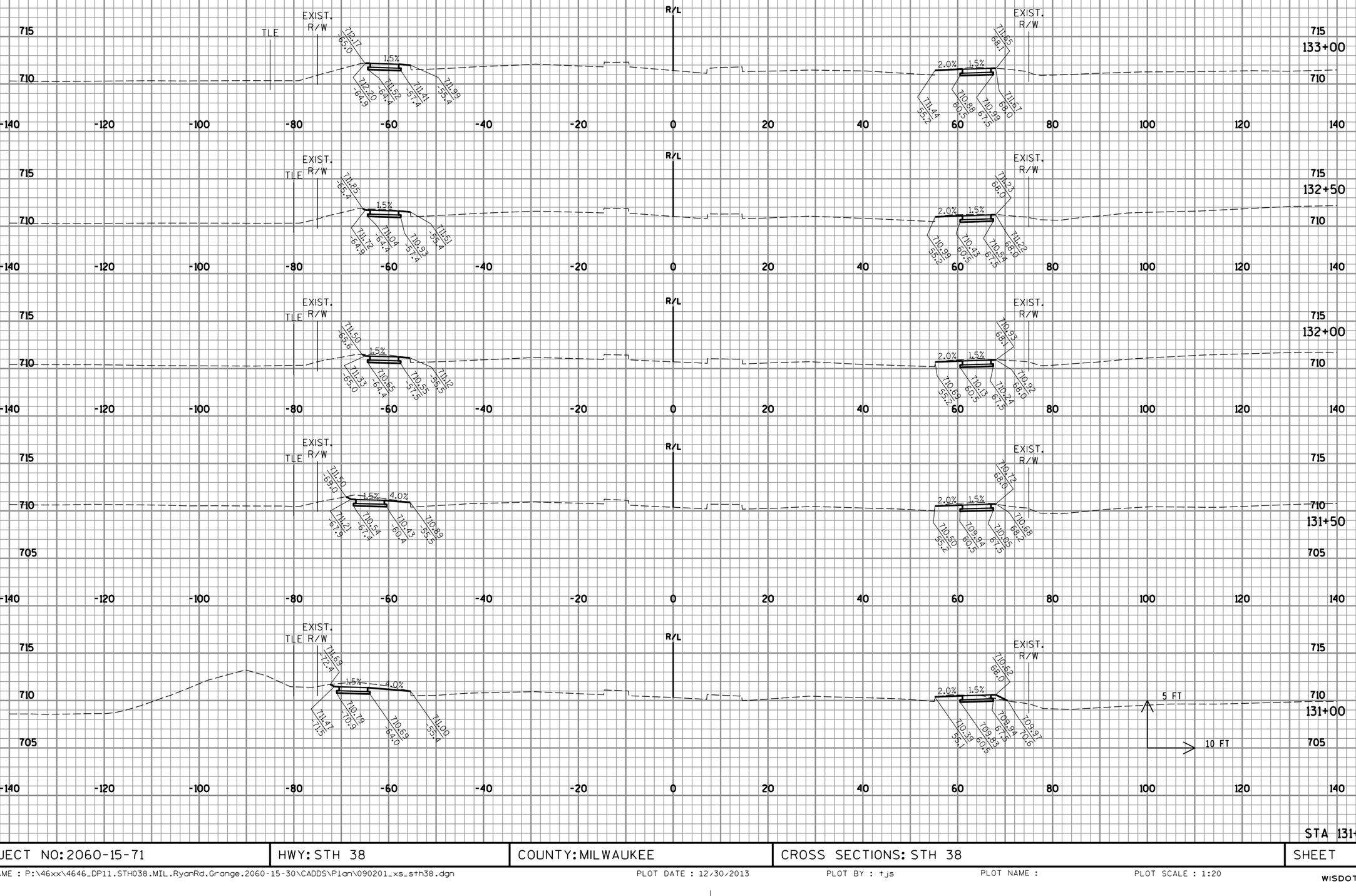
DRIVEWAY CROSS SECTIONS ARE ONLY INCLUDED WHERE DRIVEWAYS ARE BEING UPDATED.

SUBGRADE ELEVATIONS ON THE CROSS SECTIONS ARE APPROXIMATE. VERIFY SUBGRADE ELEVATIONS BASED ON EXISTING PAVEMENT ELEVATIONS AT THE MATCH POINT.



STA 129+75 TO 130+50

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 971	E

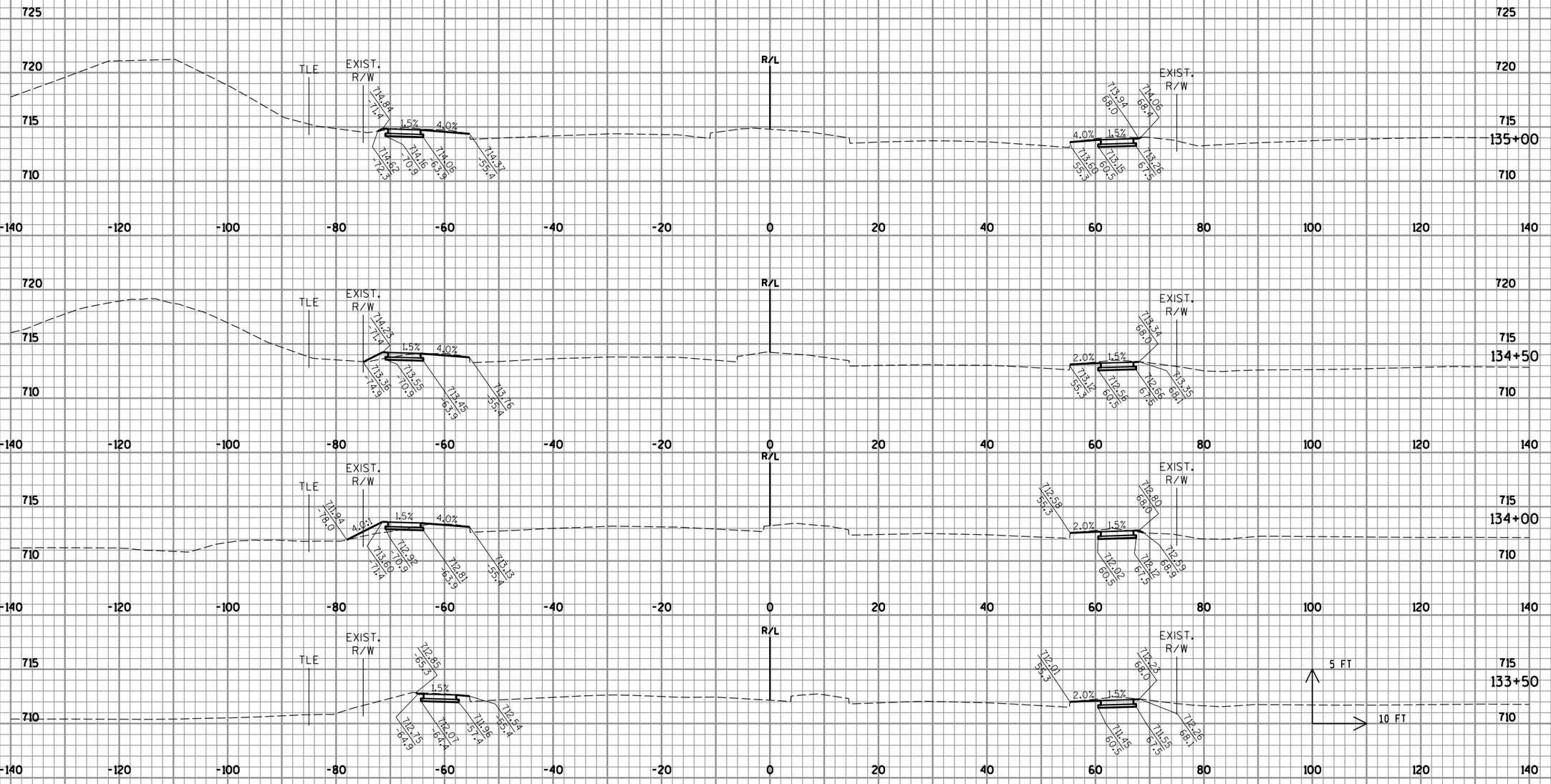


STA 131+00 TO 133+00

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 972	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



9

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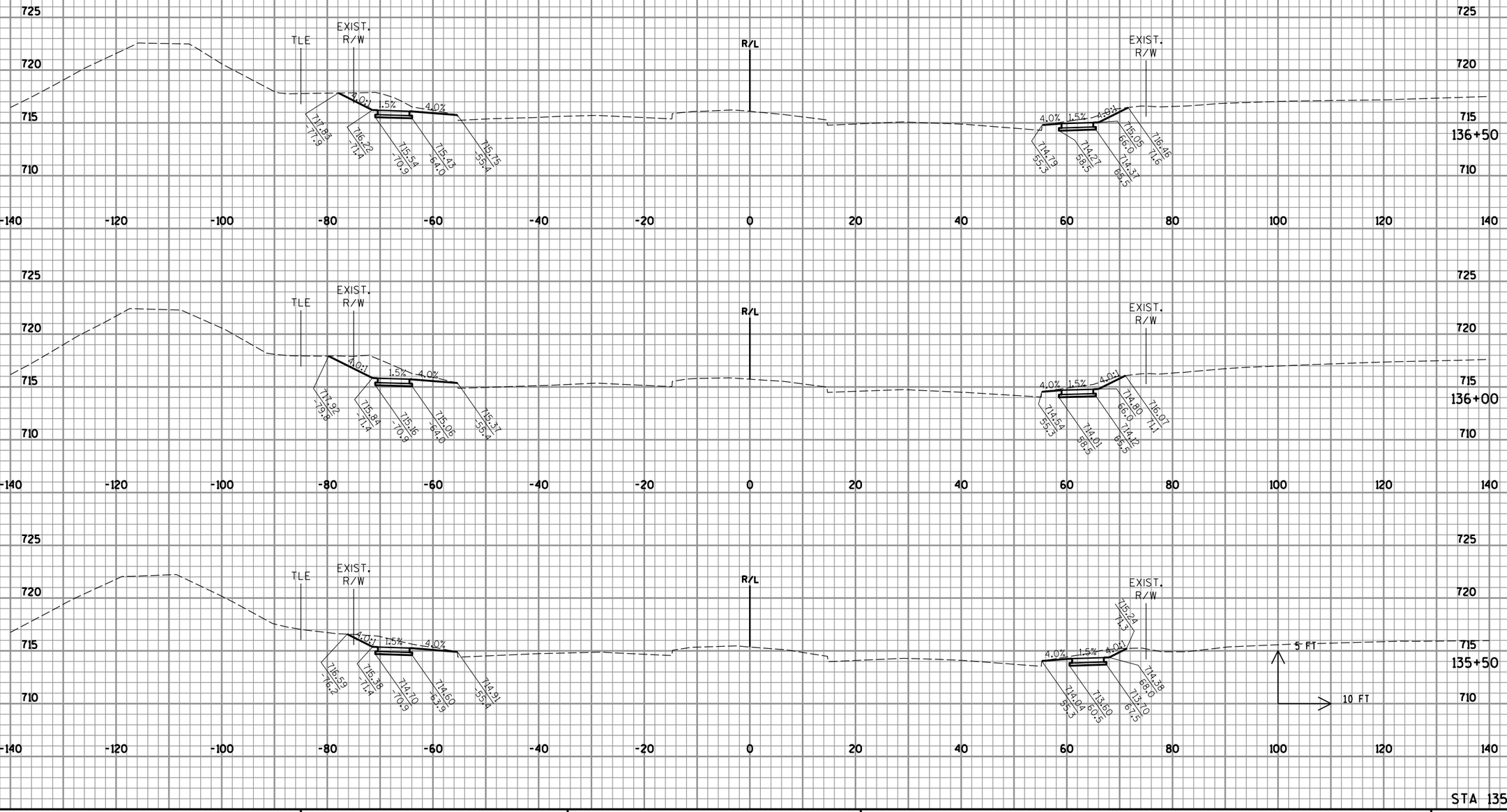
STA 133+50 TO 135+00

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 973	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

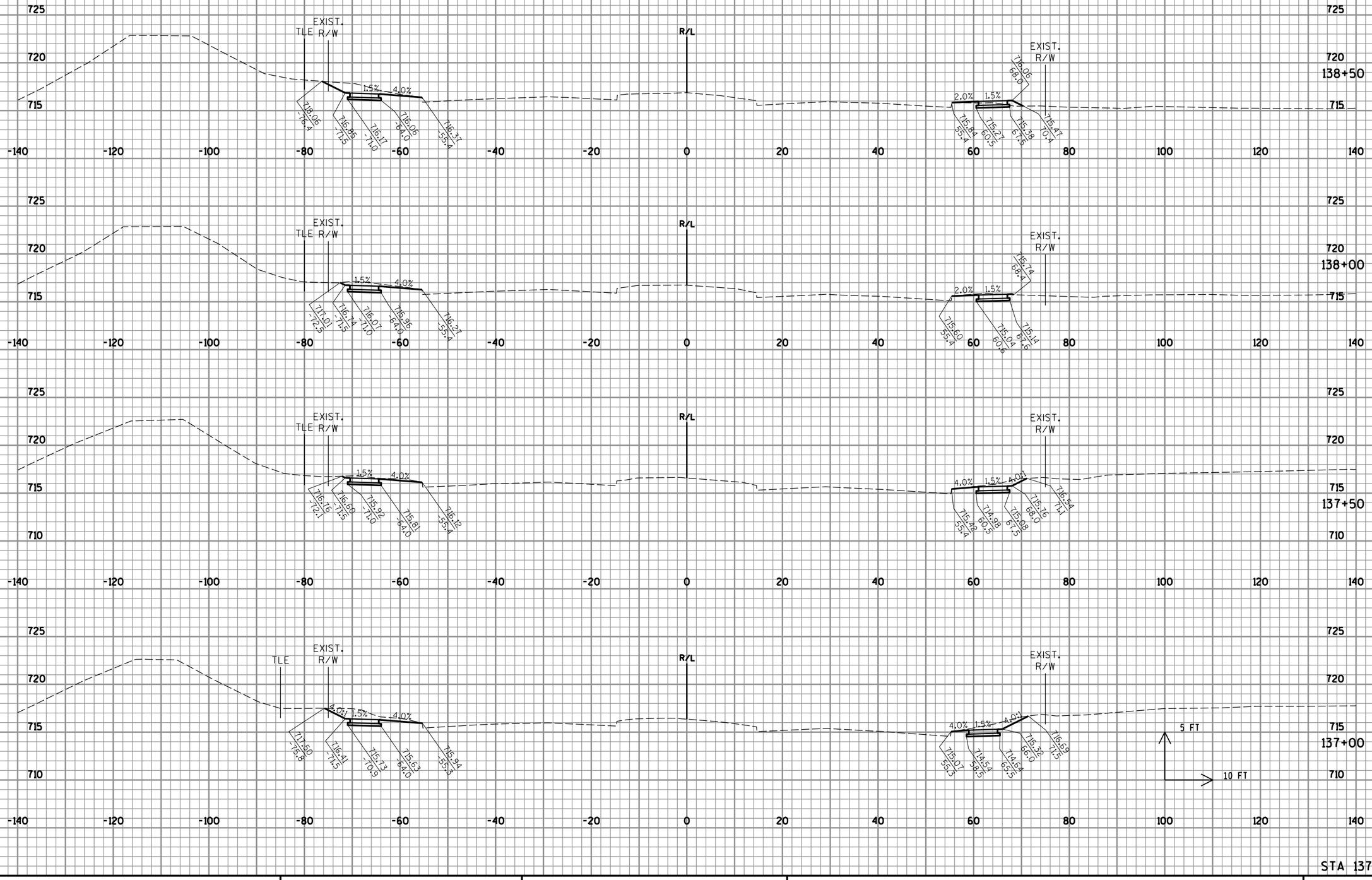
WISDOT/CADDS SHEET 21



PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 974	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



STA 137+00 TO 138+50

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 975 E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

9

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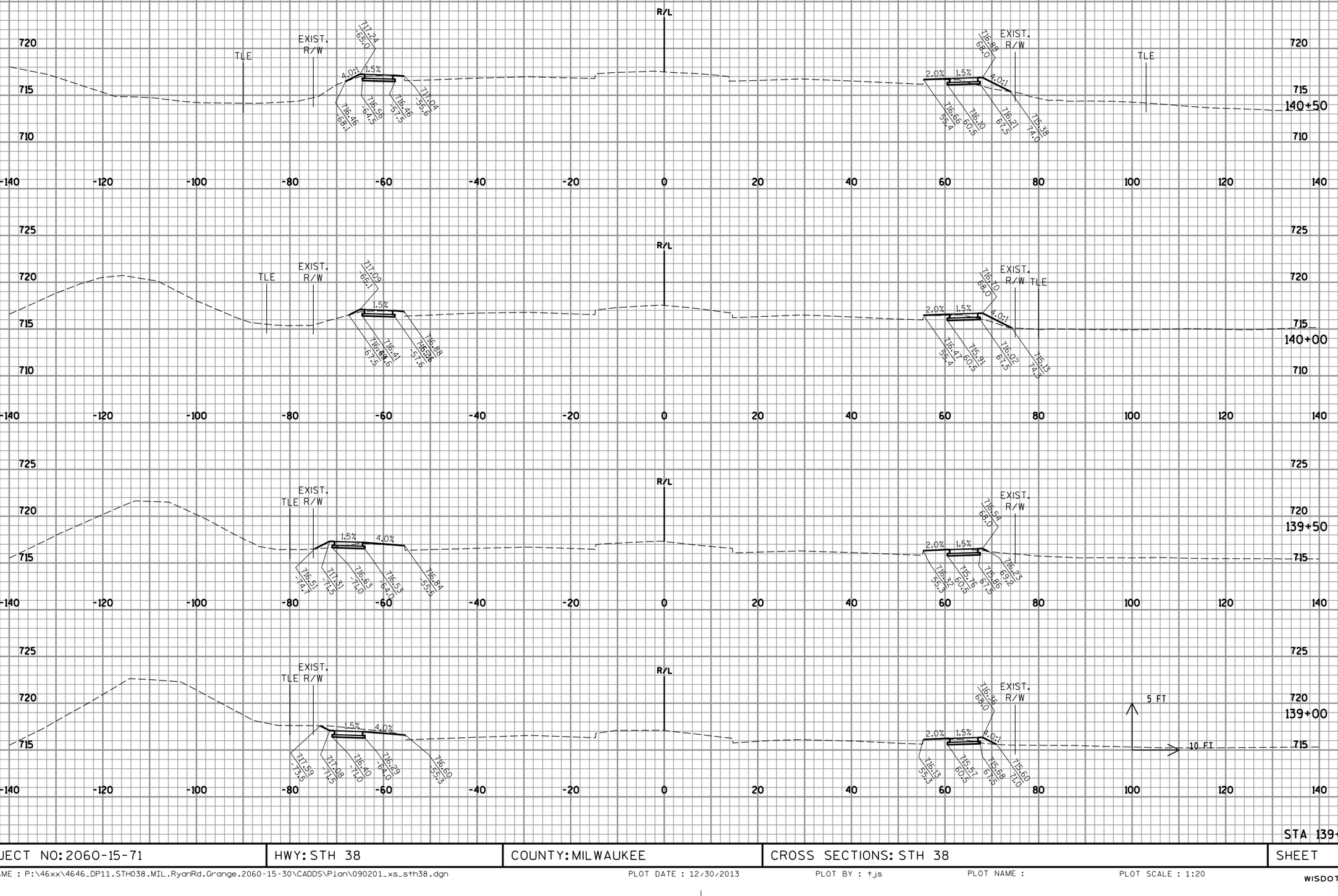

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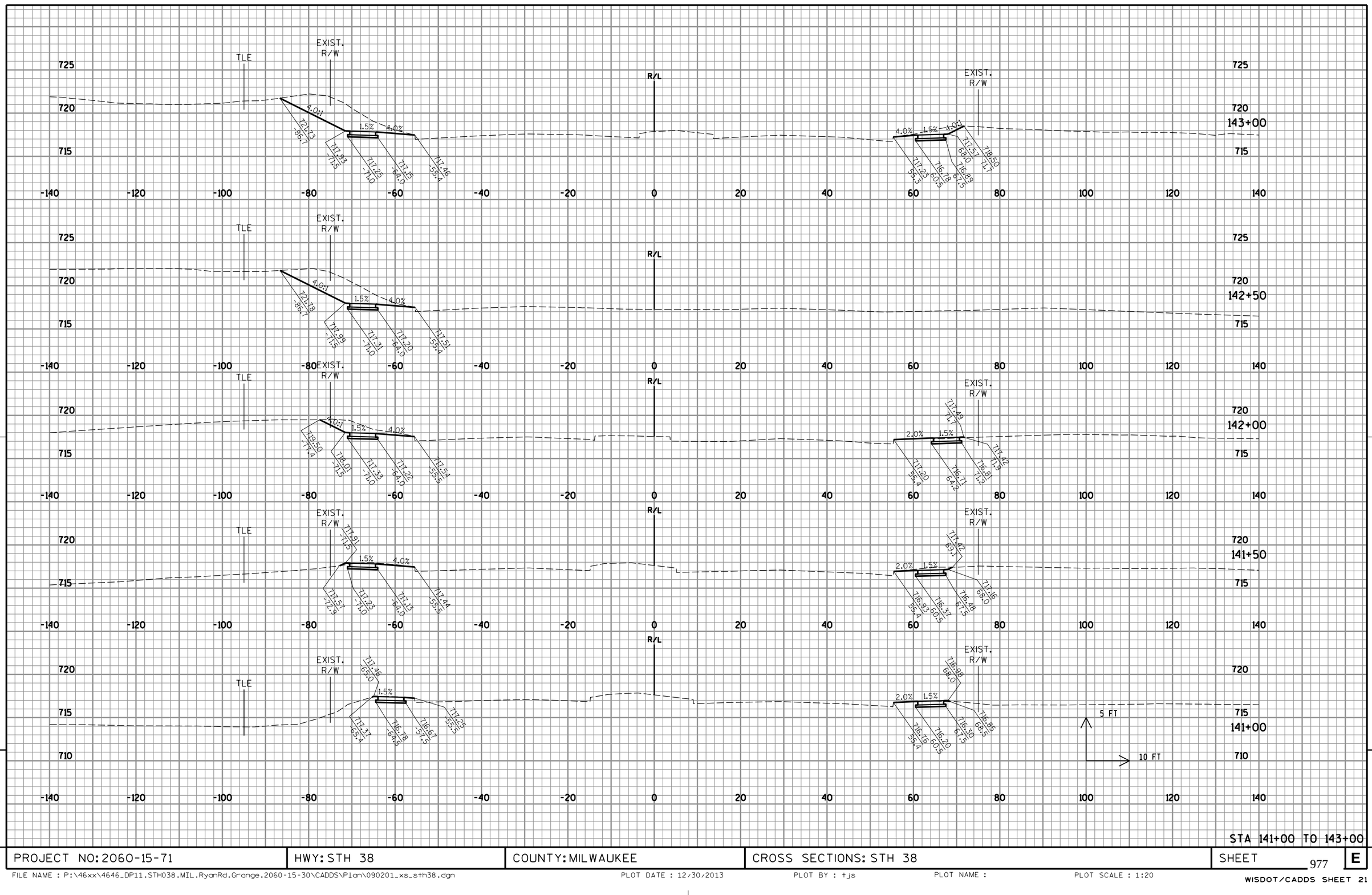
STA 139+00 TO 140+50

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



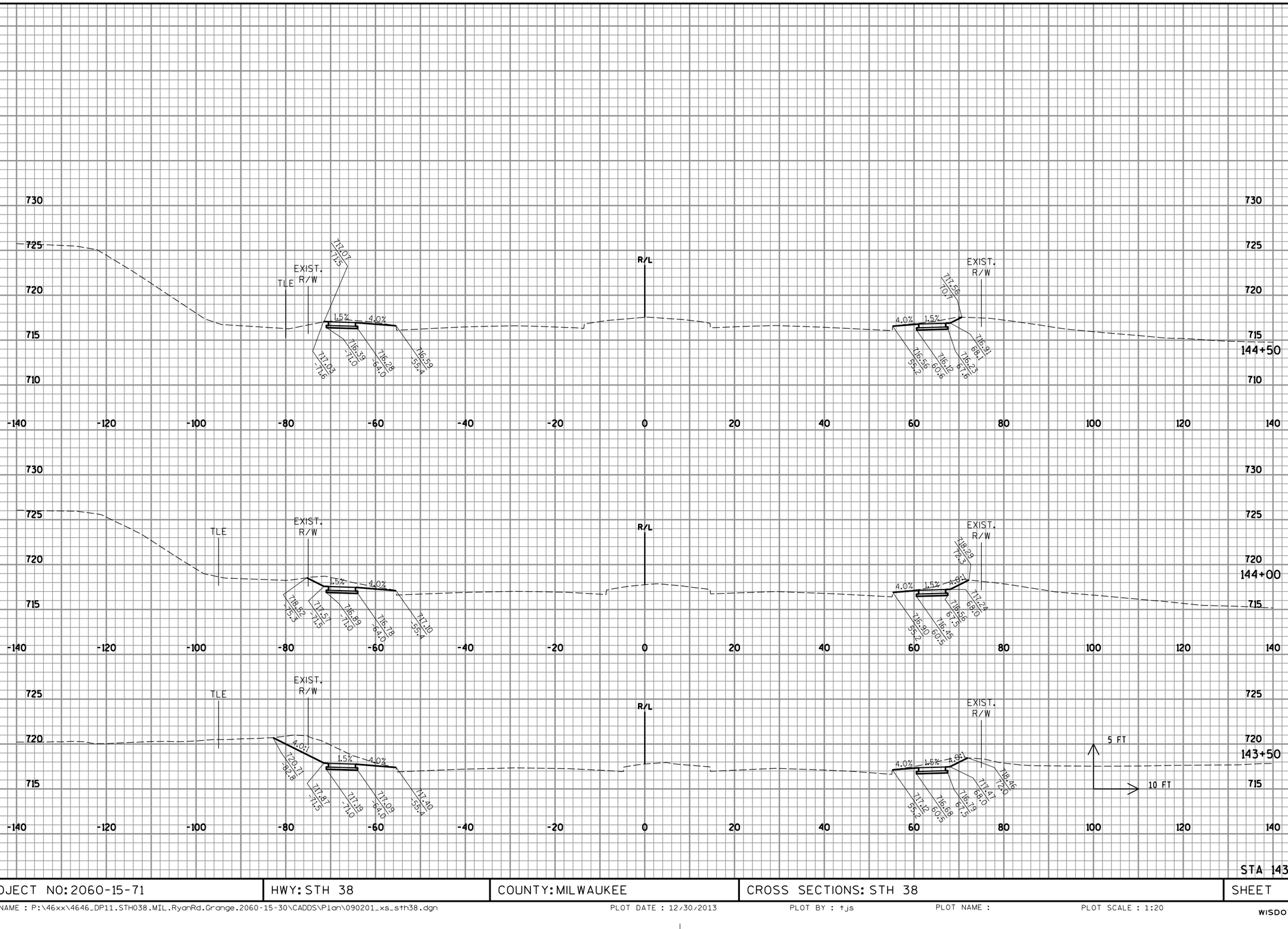
STA 141+00 TO 143+00

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 977	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

9



9

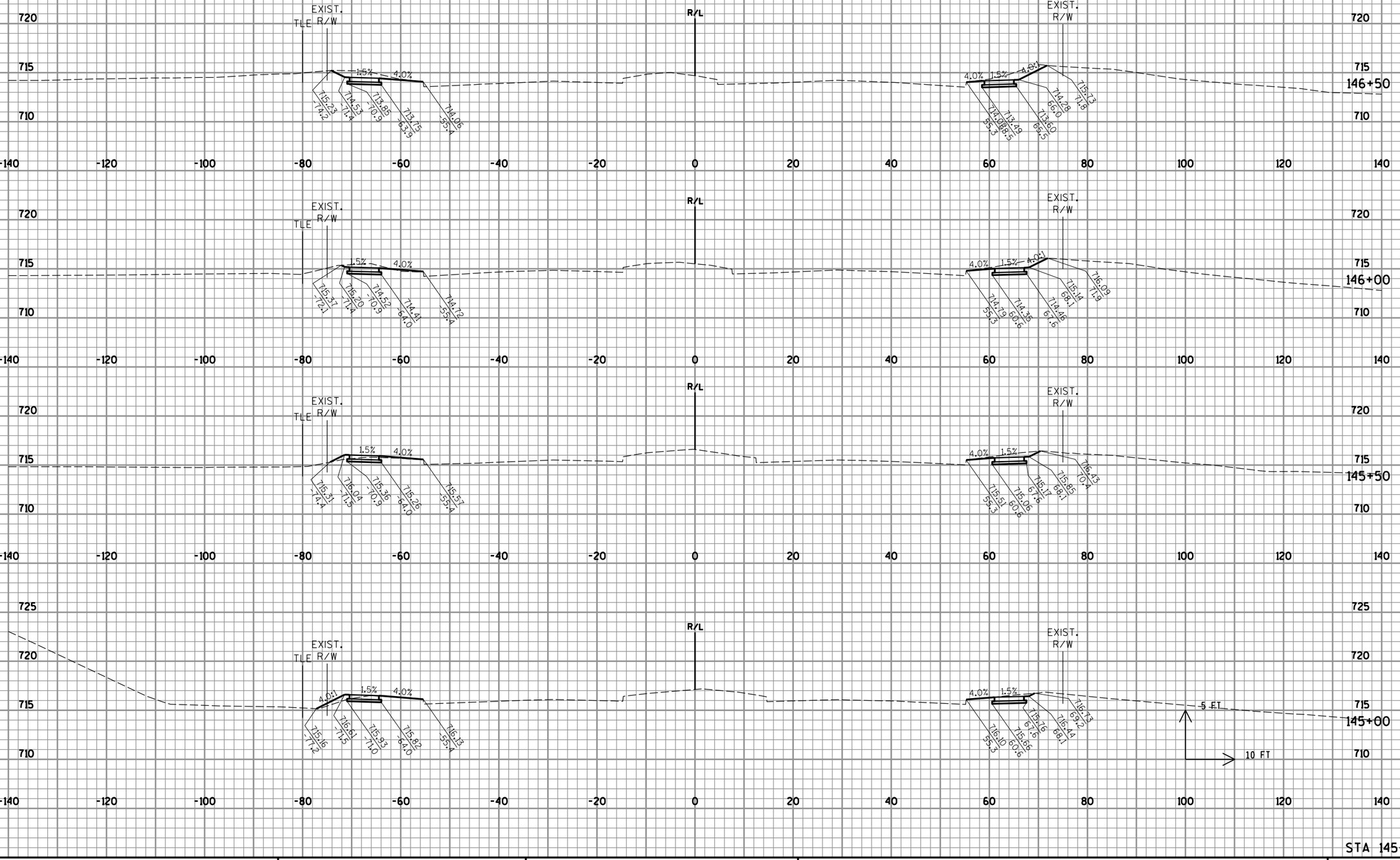
9

STA 143+50 TO 144+50

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 978	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

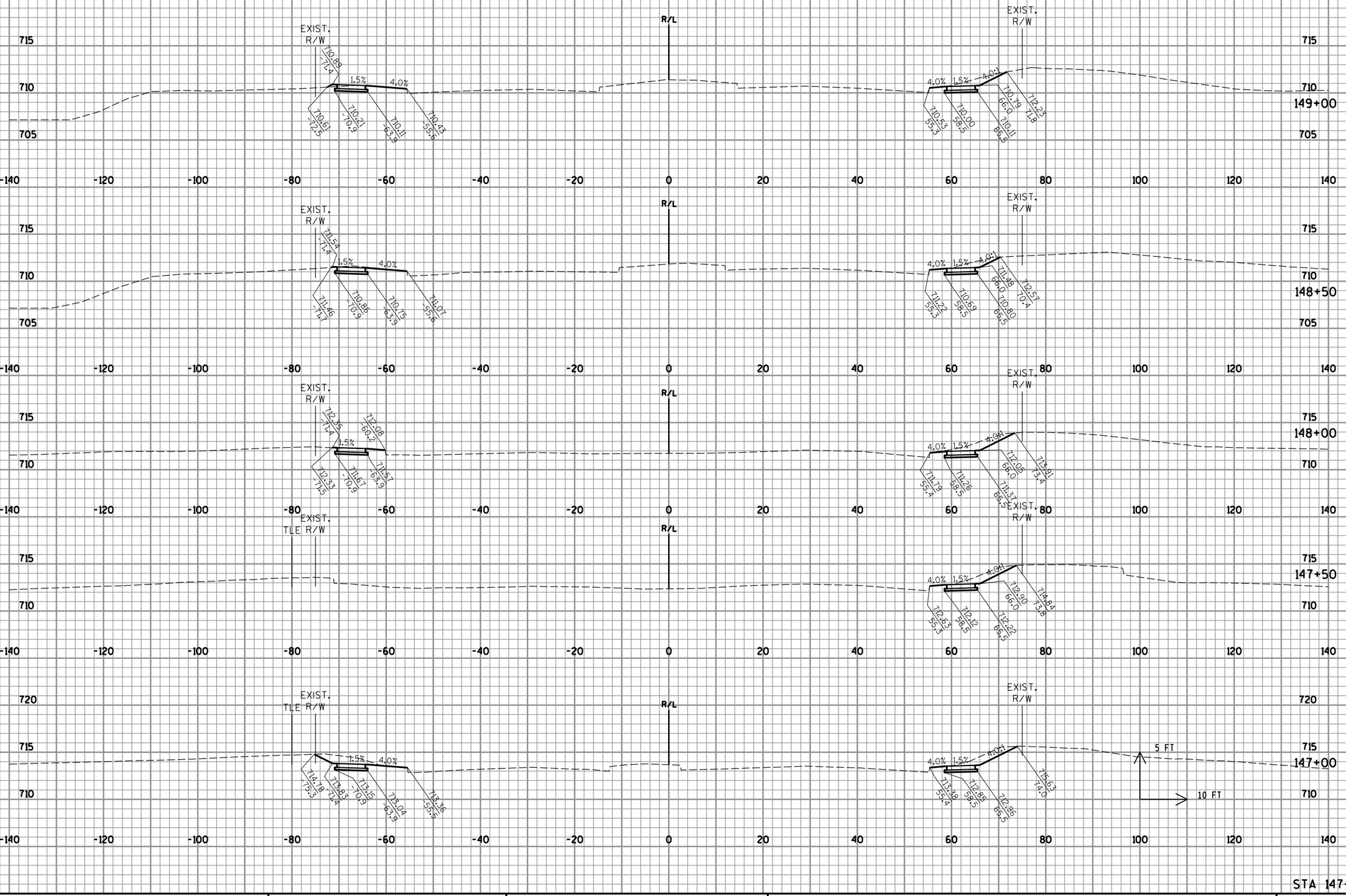


STA 145+00 TO 146+50

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 979	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



STA 147+00 TO 149+00

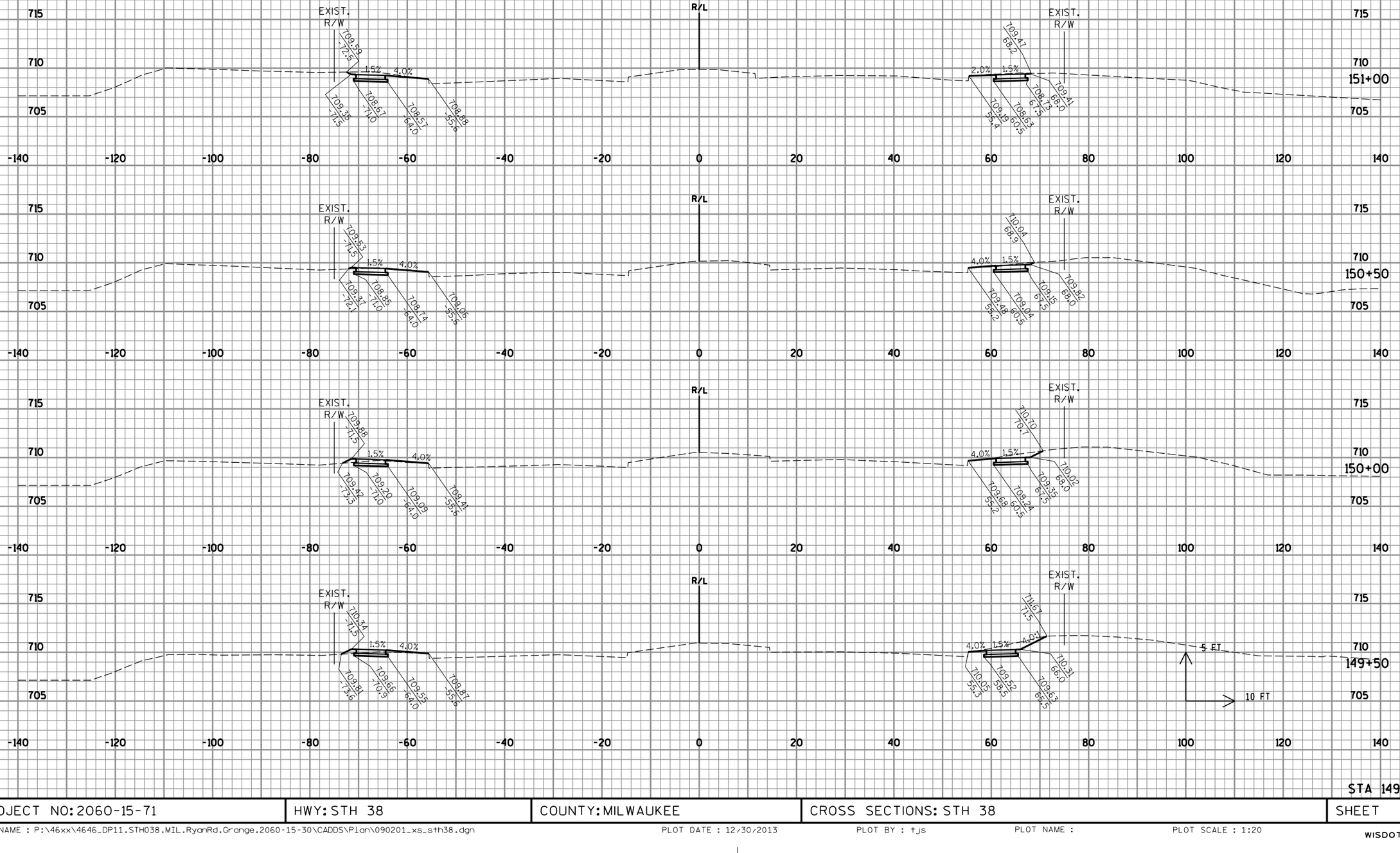
PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 980	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

9

9

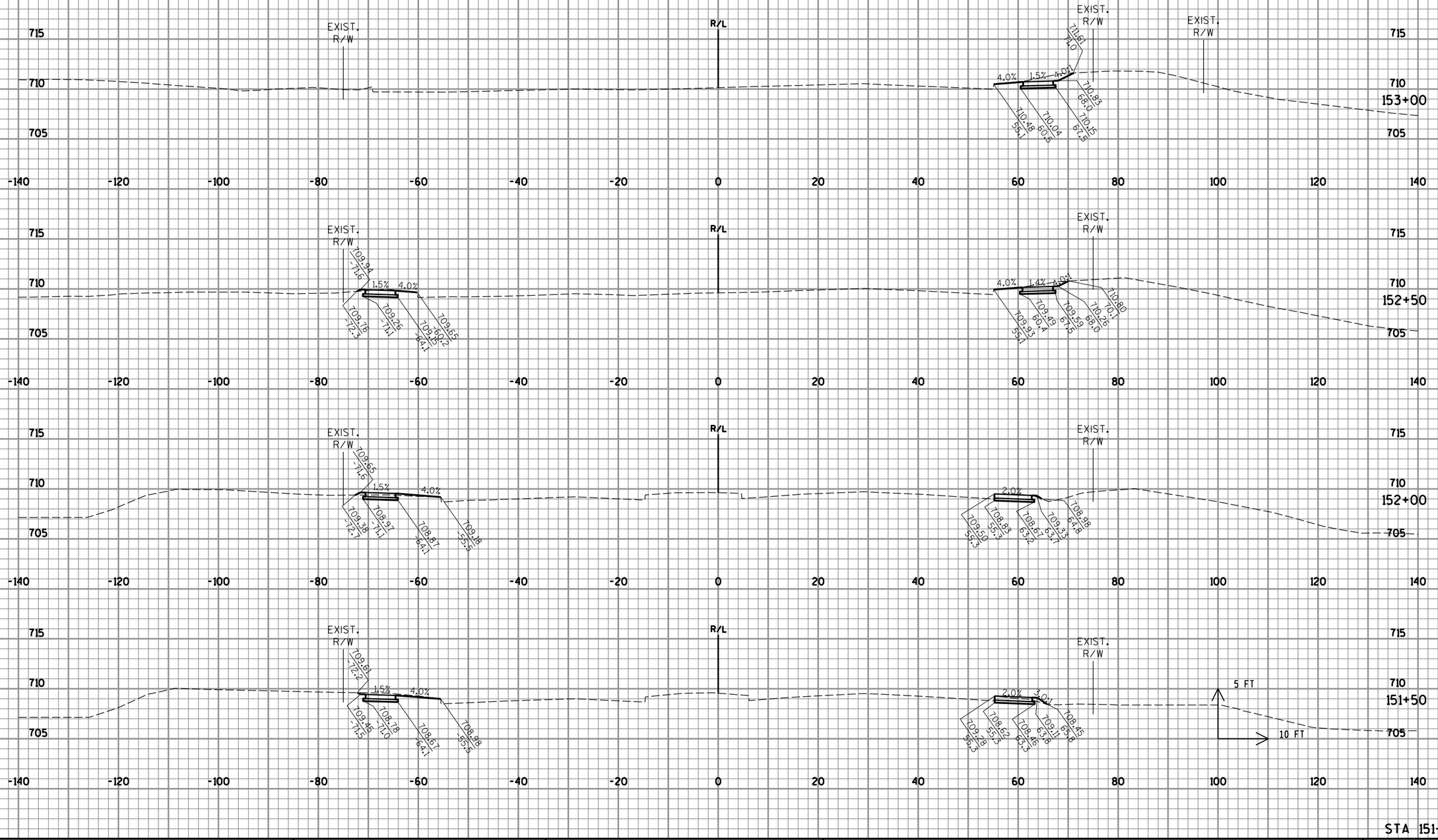


9

9

STA 149+50 TO 151+00

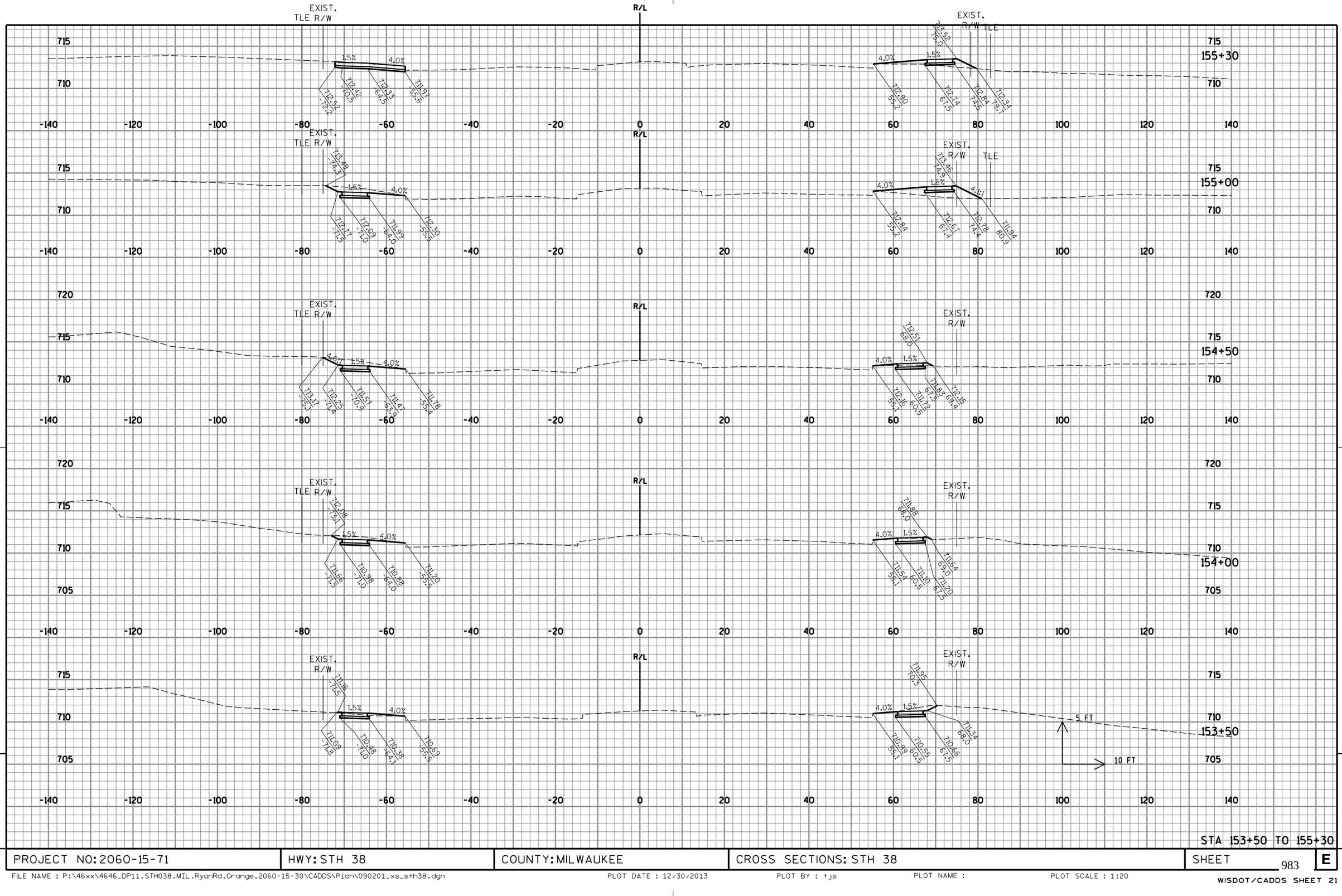
PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 981	E



PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 982	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



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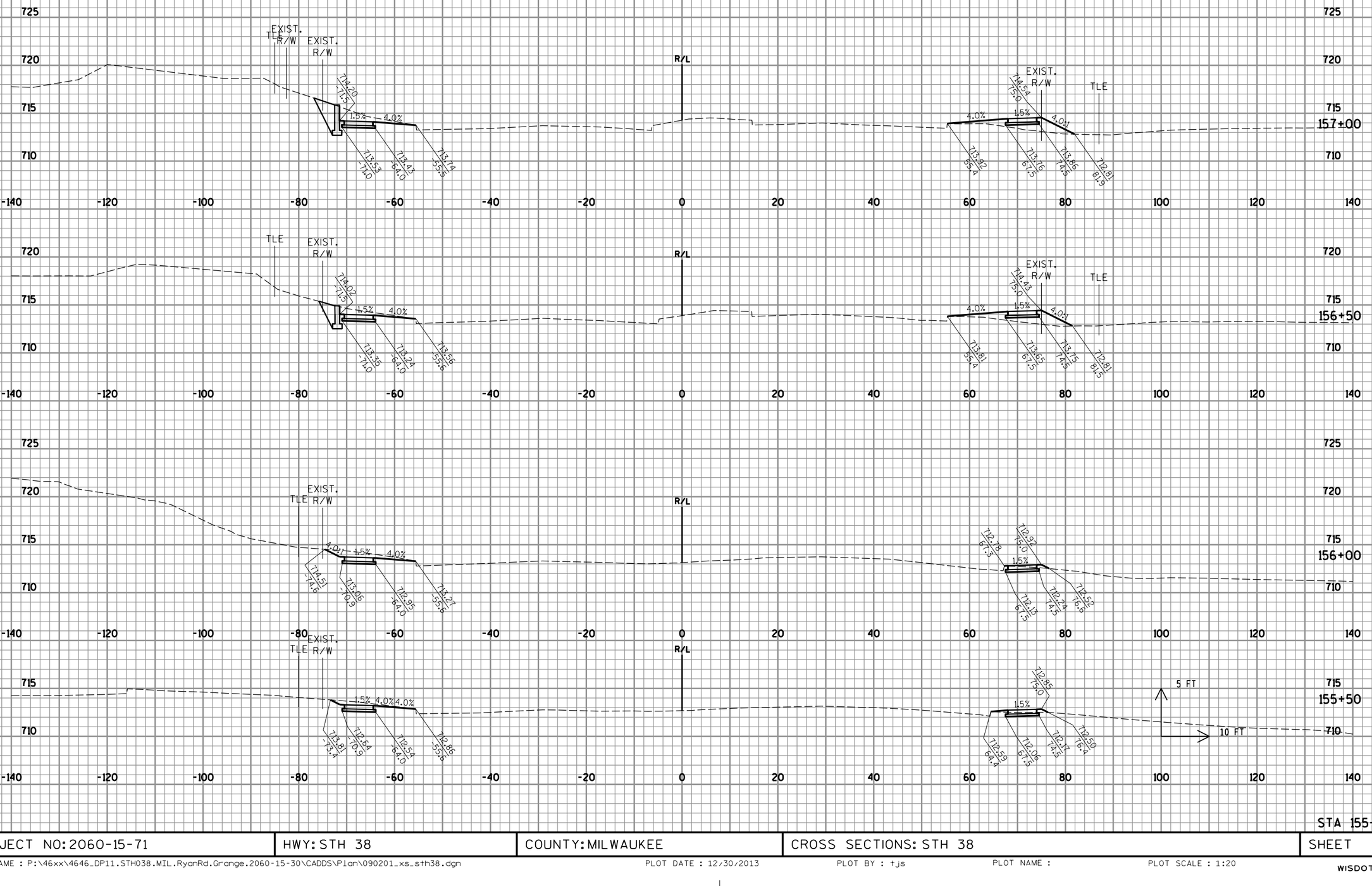
9

STA 153+50 TO 155+30

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 983	E

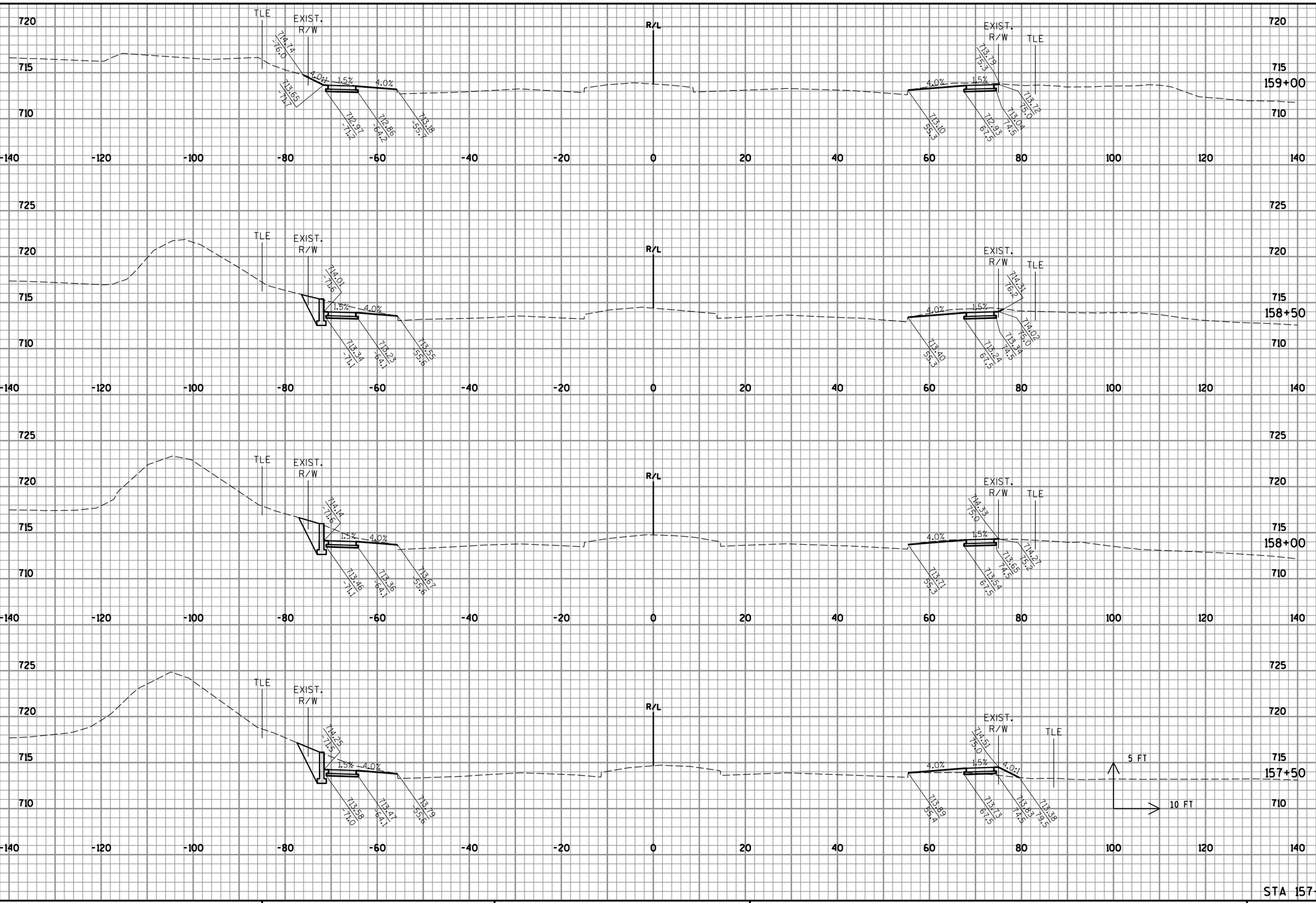
FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



STA 155+50 TO 157+00

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 984	E



9

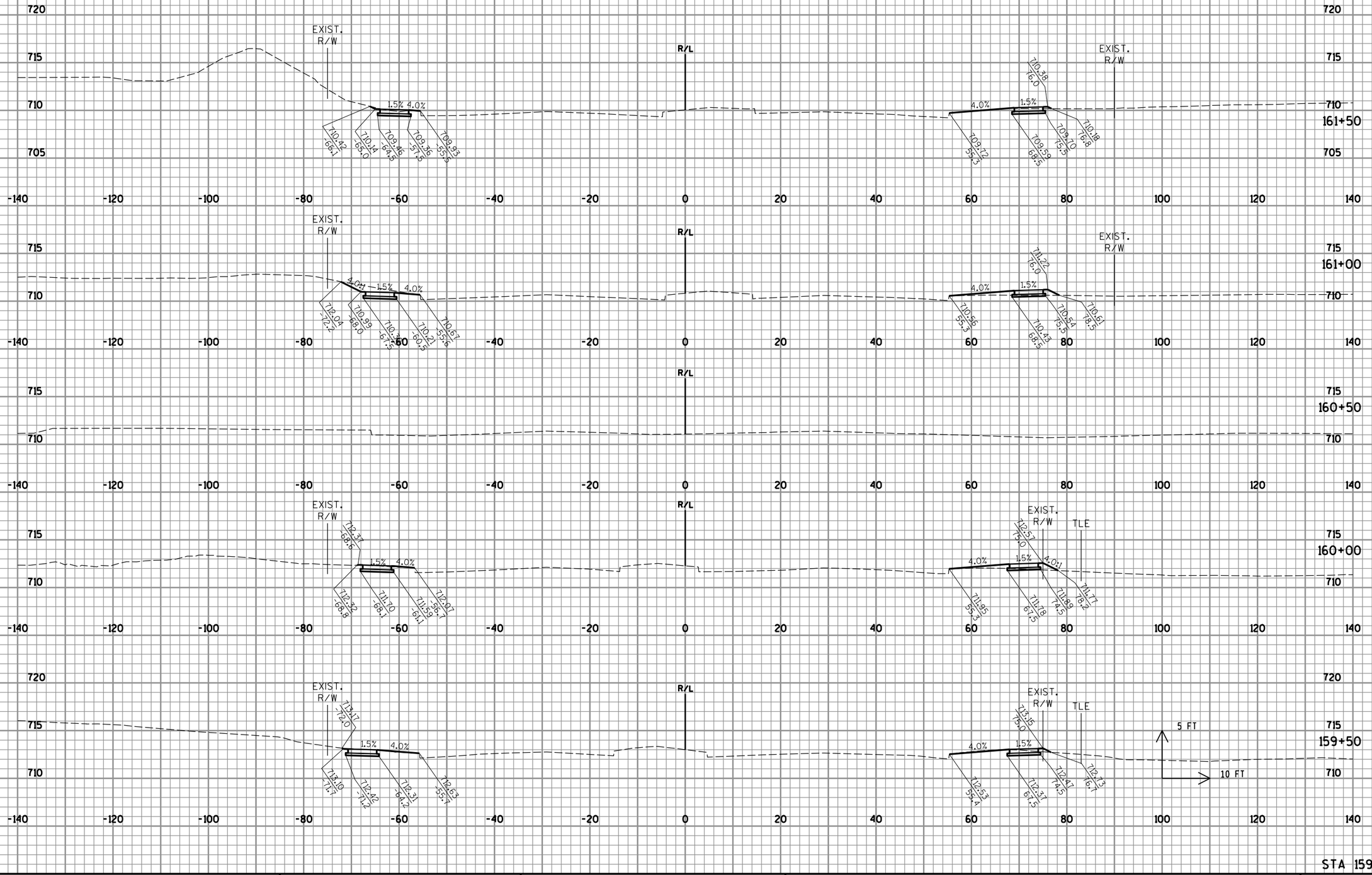
9

STA 157+50 TO 159+00

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 985	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

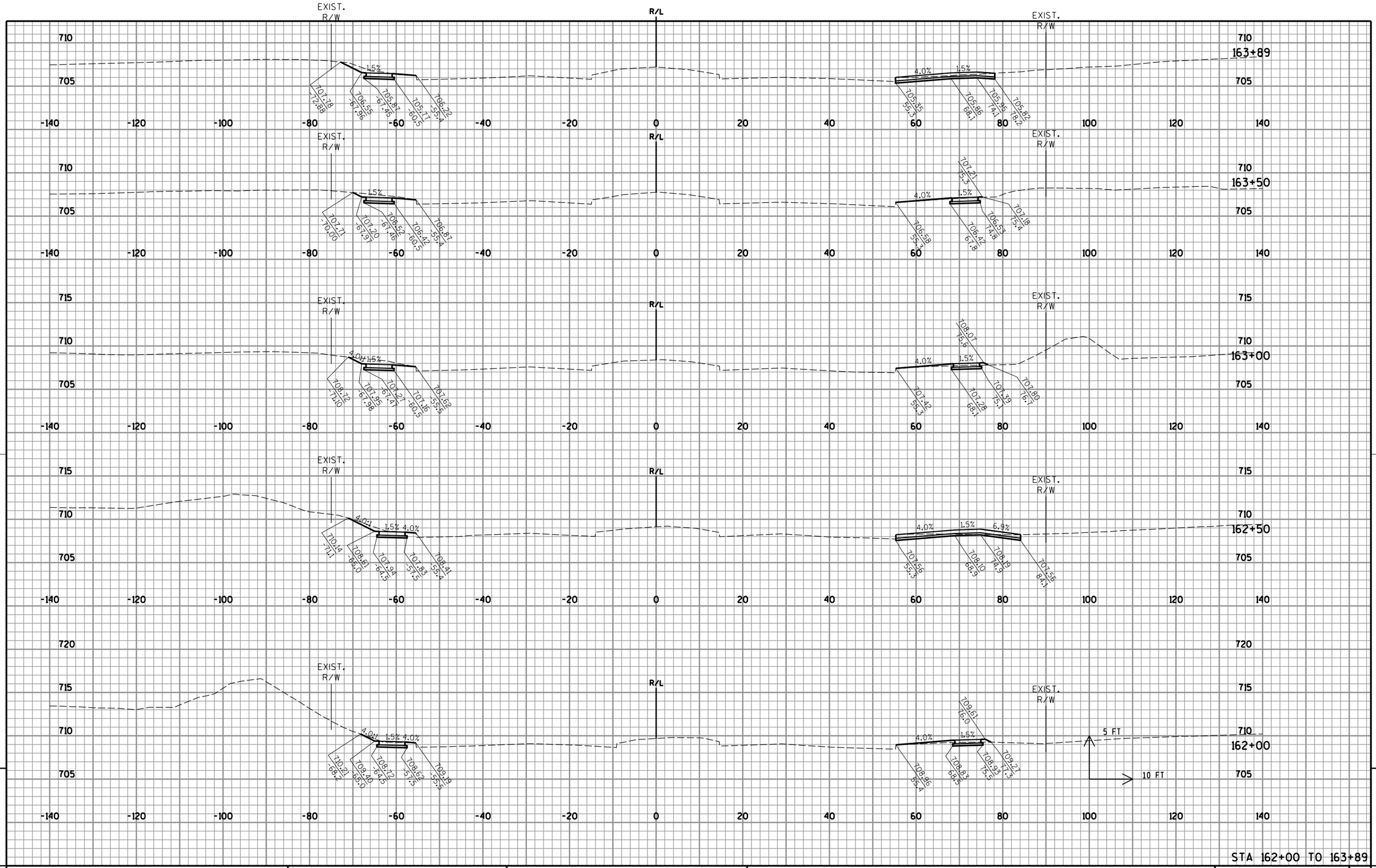


9

STA 159+50 TO 161+50

9

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 986	E



STA 162+00 TO 163+89

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 987	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

9

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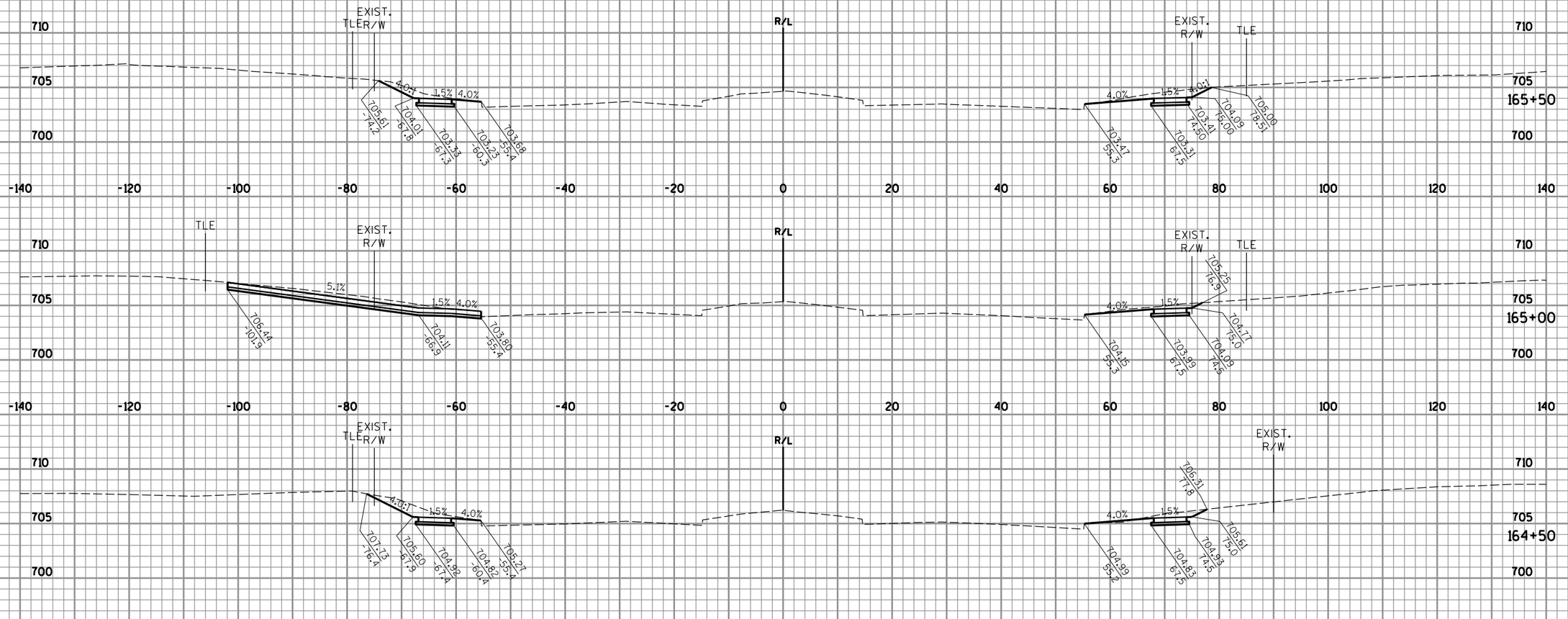

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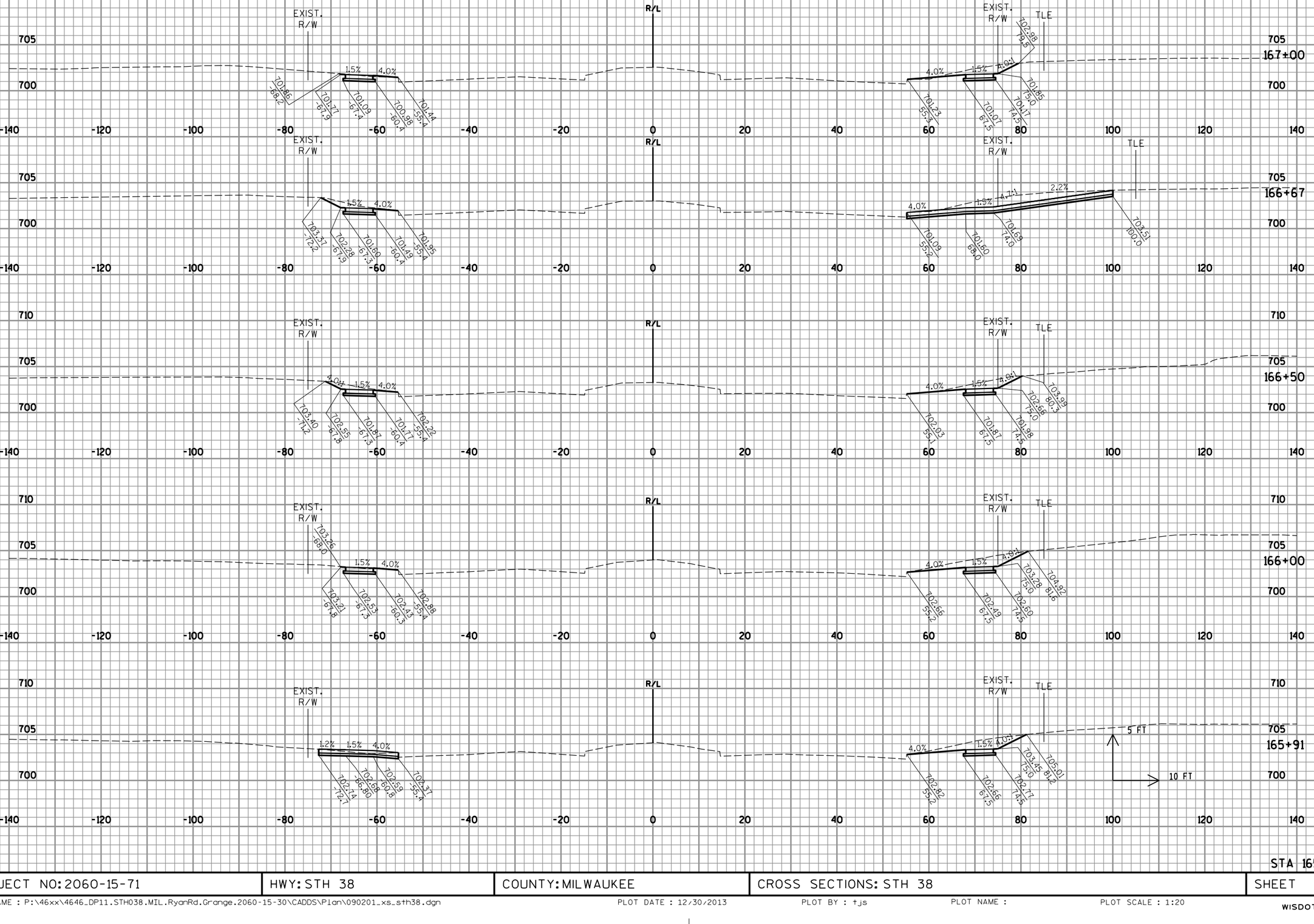
STA 164+00 TO 165+50

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 988	E

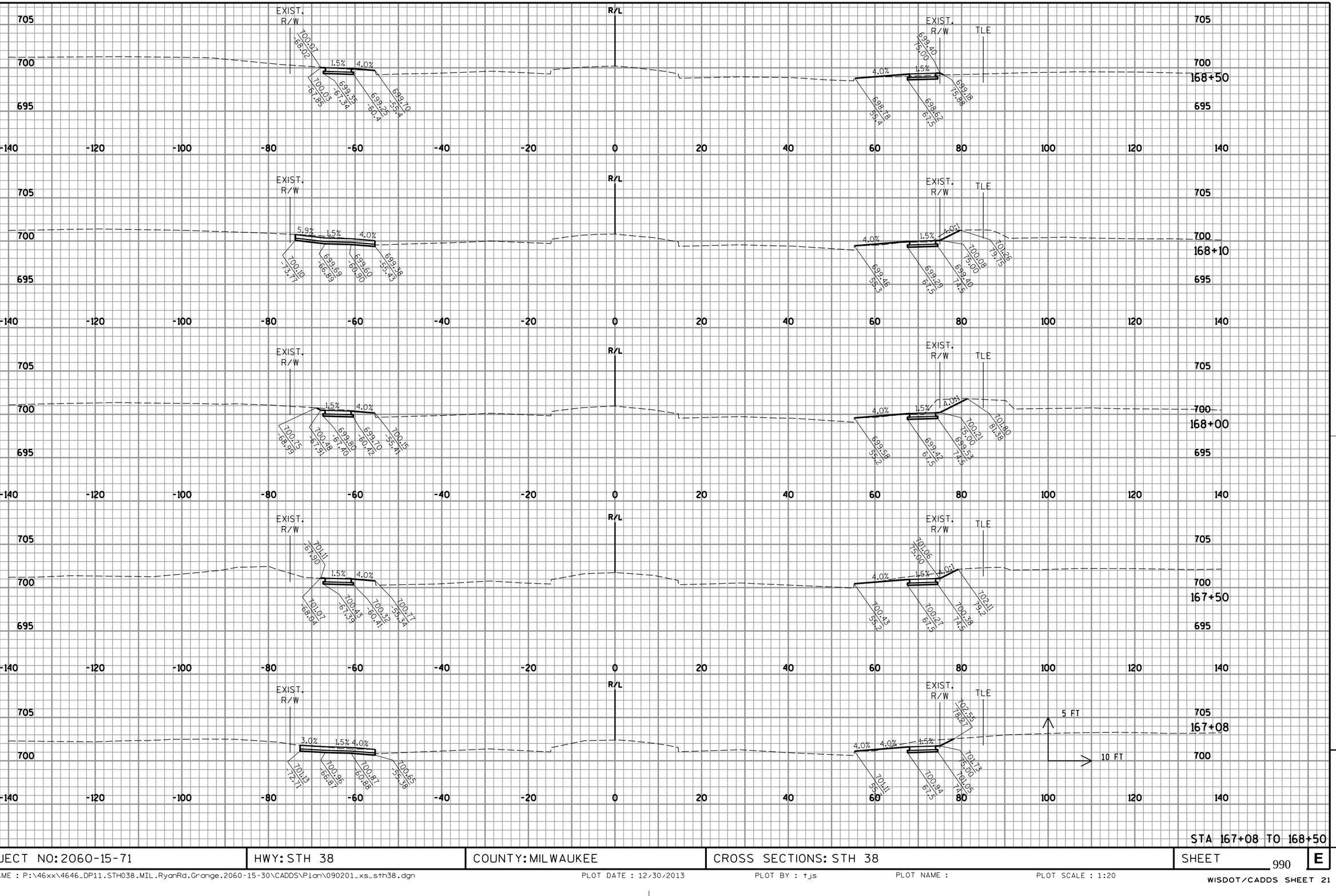
FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 989 E

STA 165+91 TO 167+00



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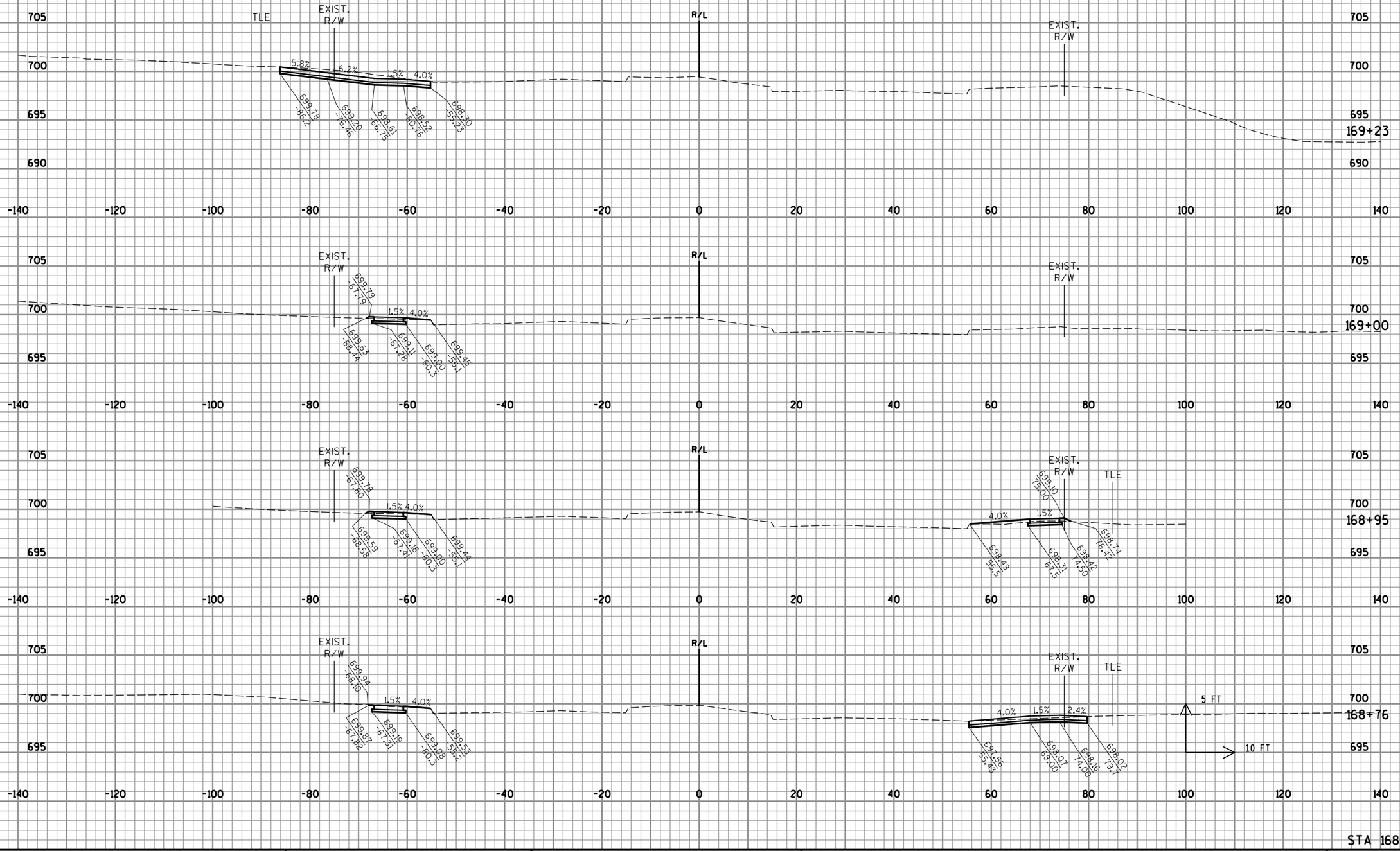
STA 167+08 TO 168+50

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 990	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



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STA 168+76 TO 169+23

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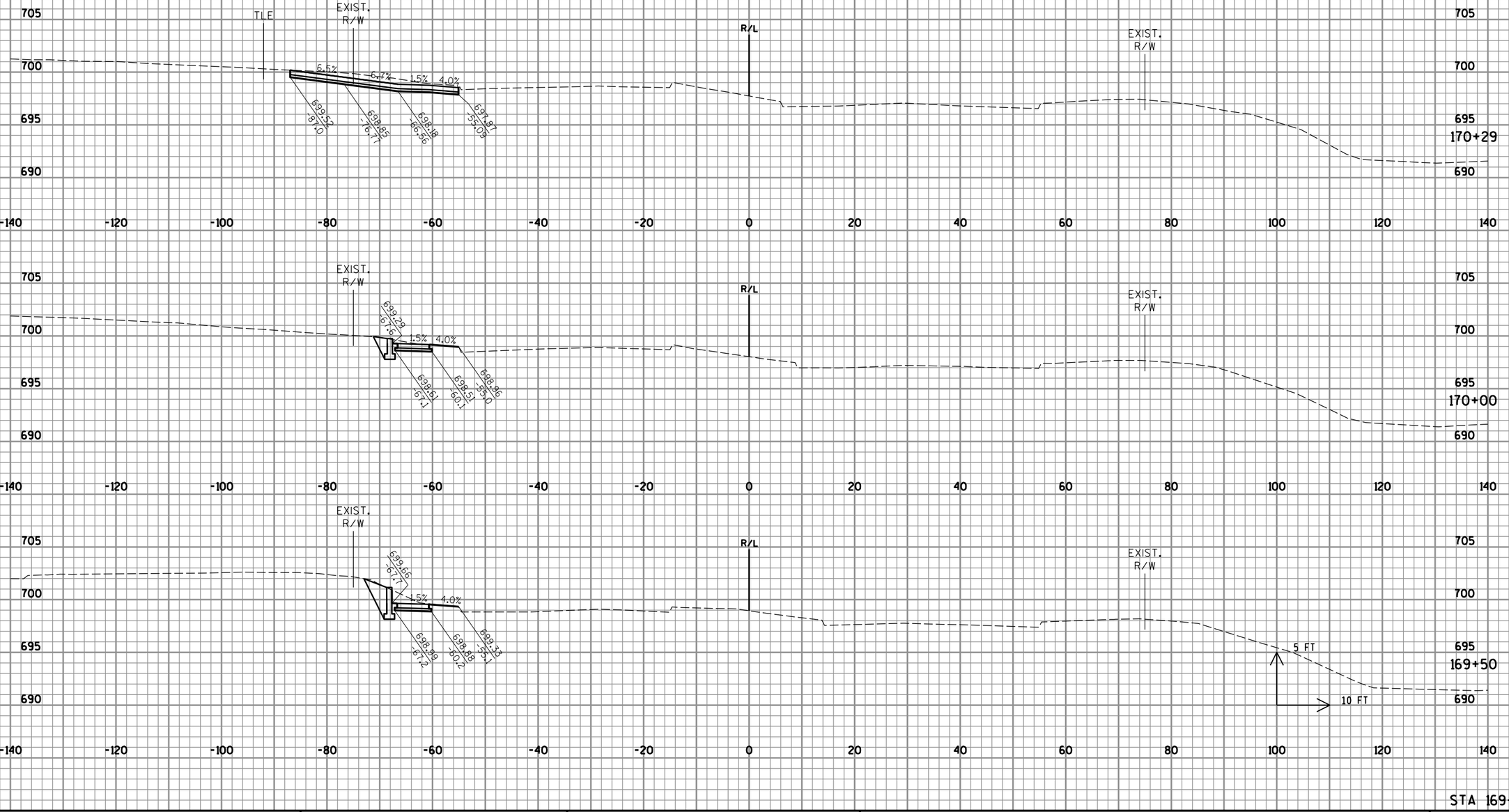
PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 991	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



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STA 169+50 TO 170+29

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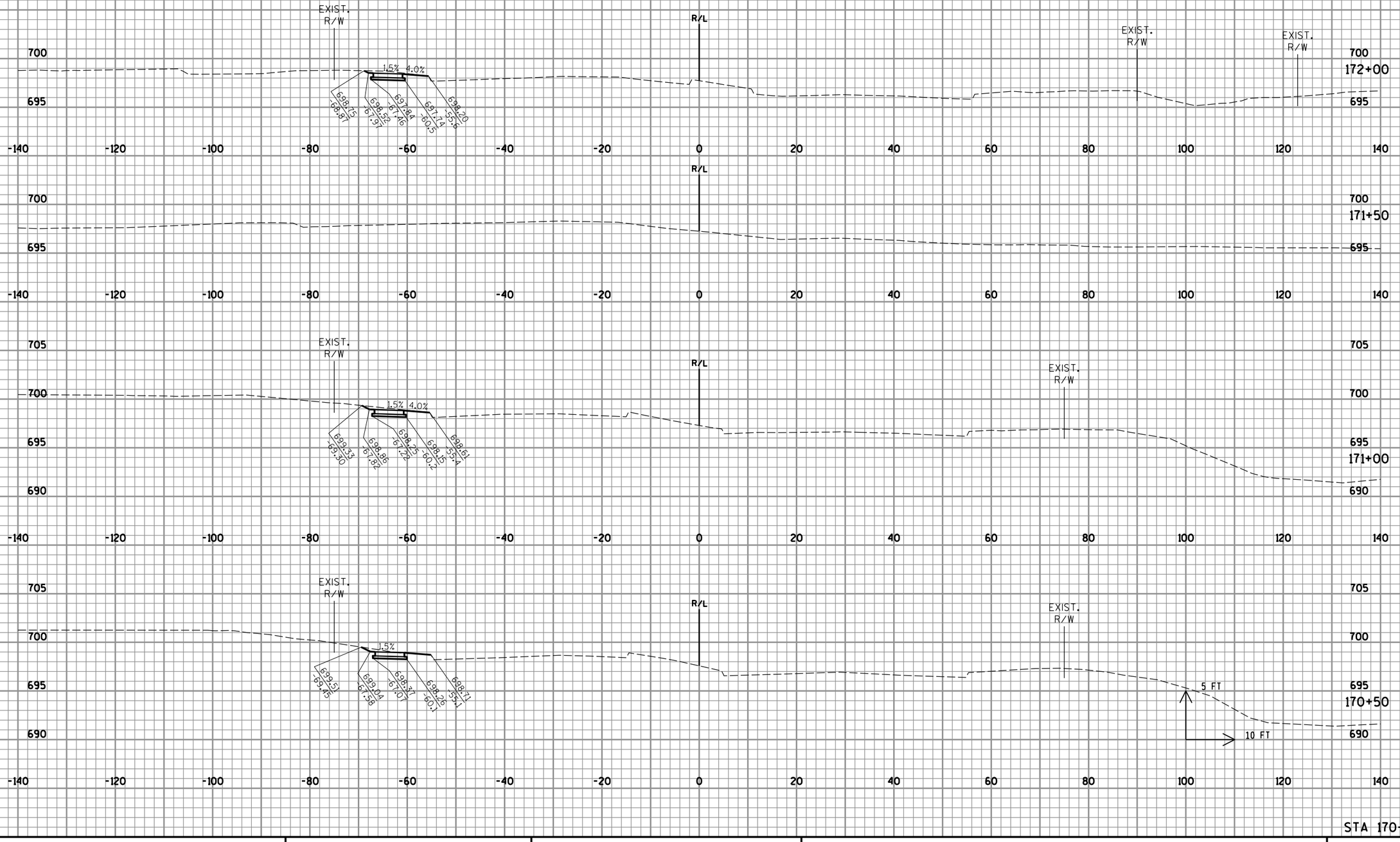
PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20



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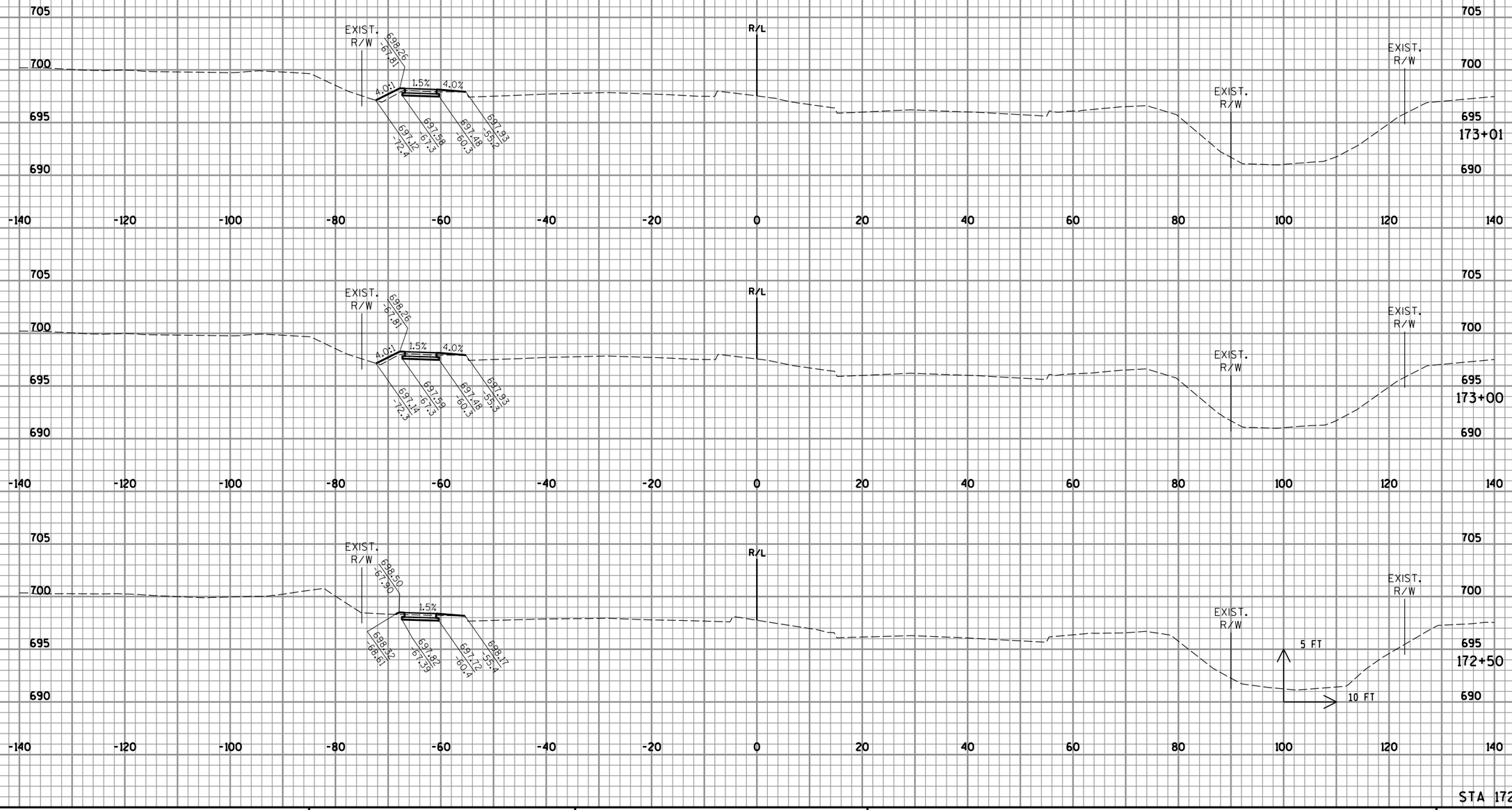
STA 170+50 TO 172+00

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 993	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



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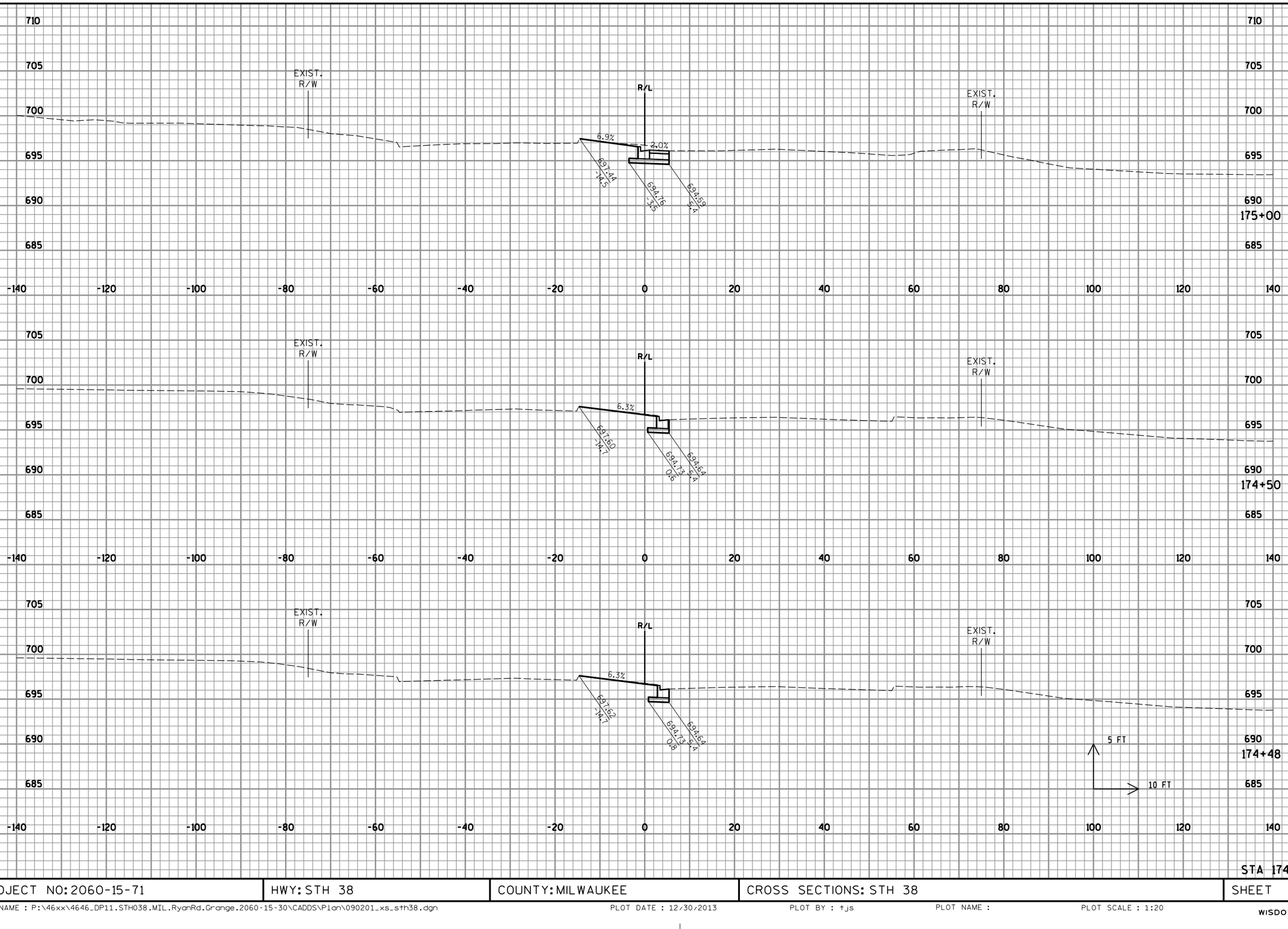
STA 172+50 TO 173+01

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

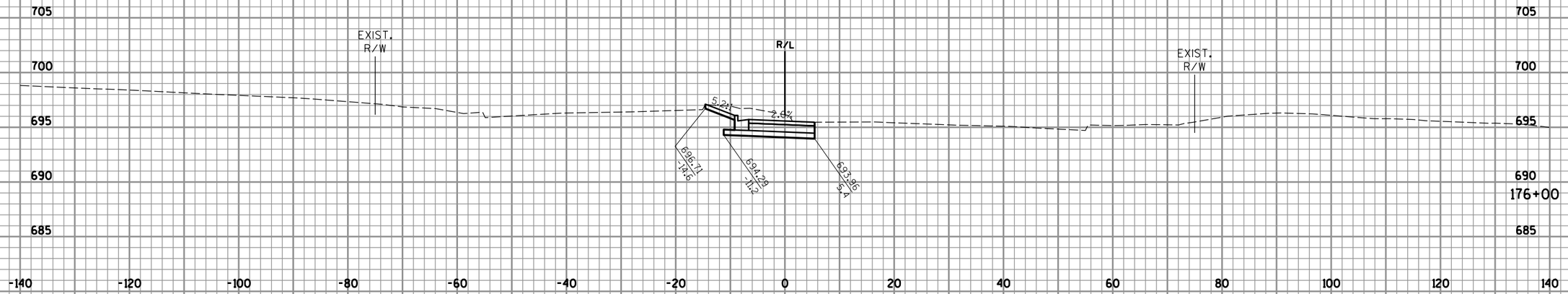


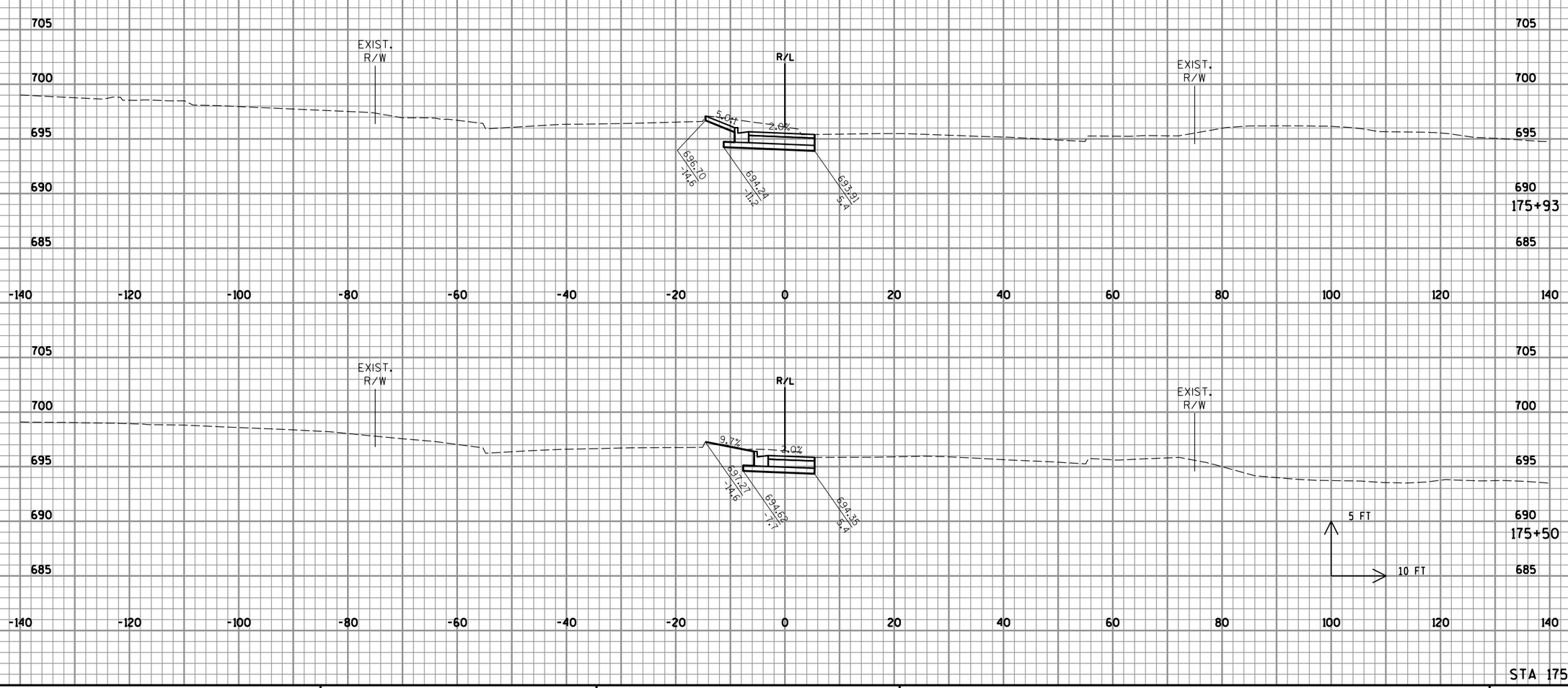
STA 174+48 TO 175+00

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 995	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21





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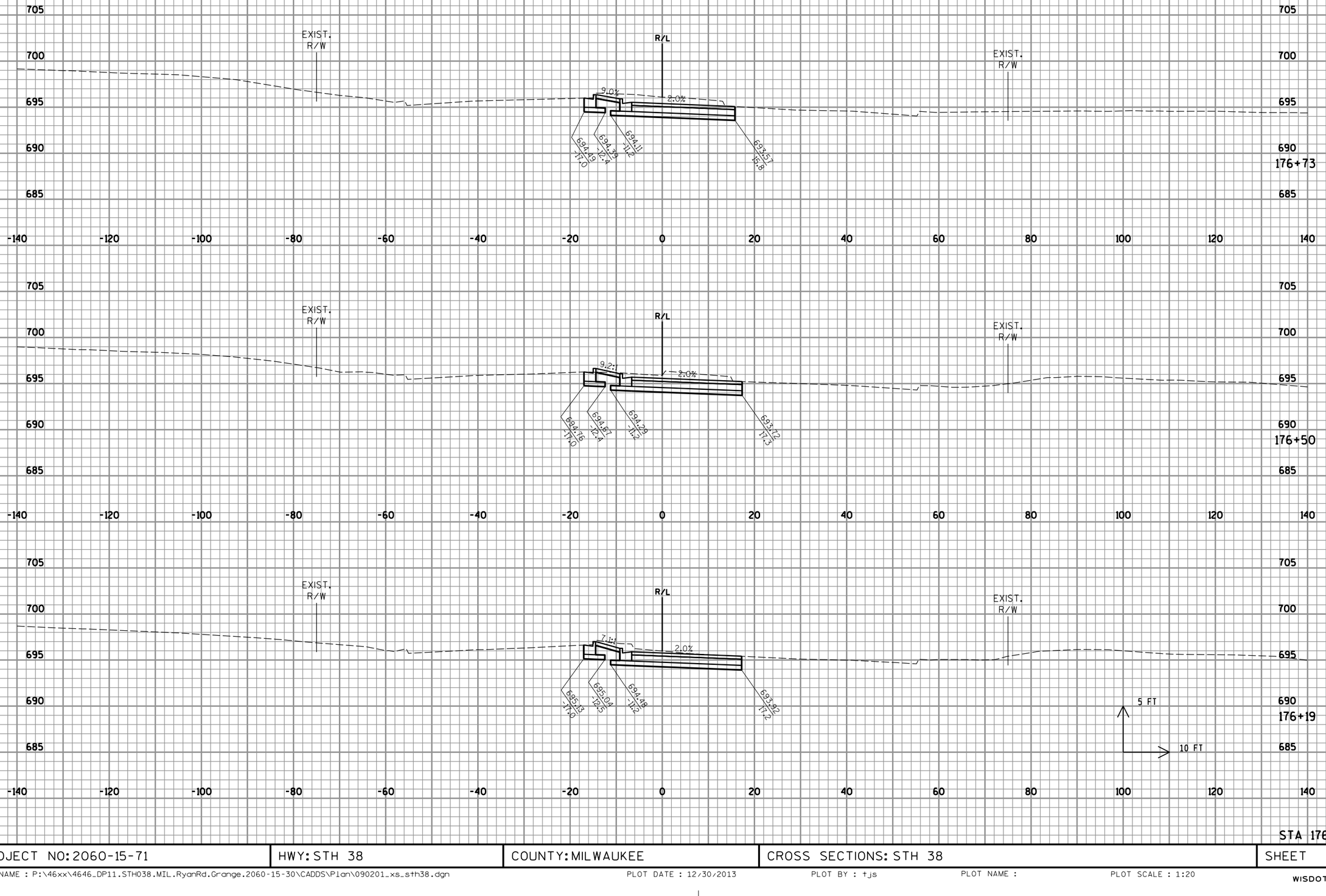
STA 175+50 TO 176+00

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 996	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



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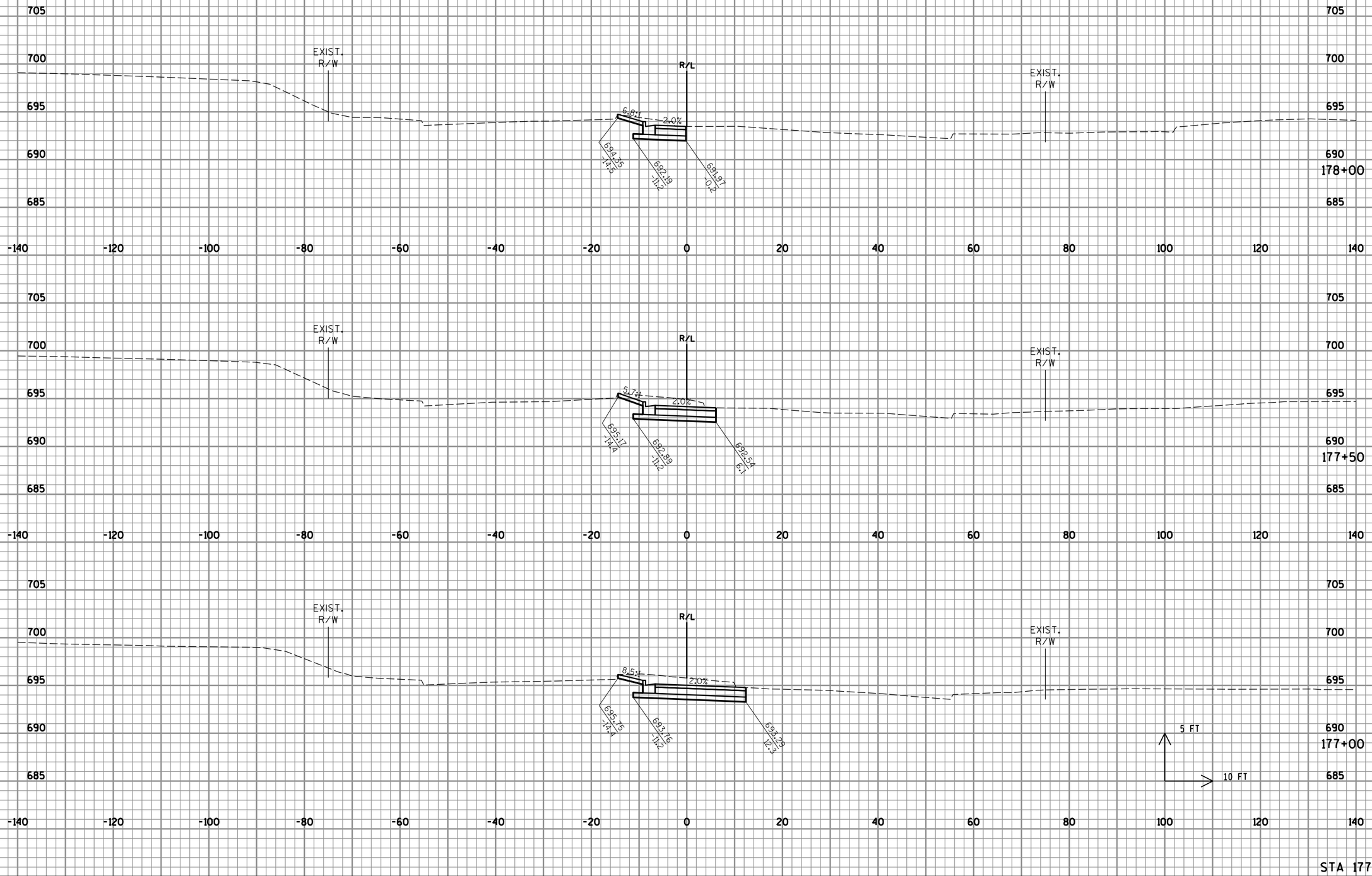
STA 176+19 TO 176+73

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 997	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

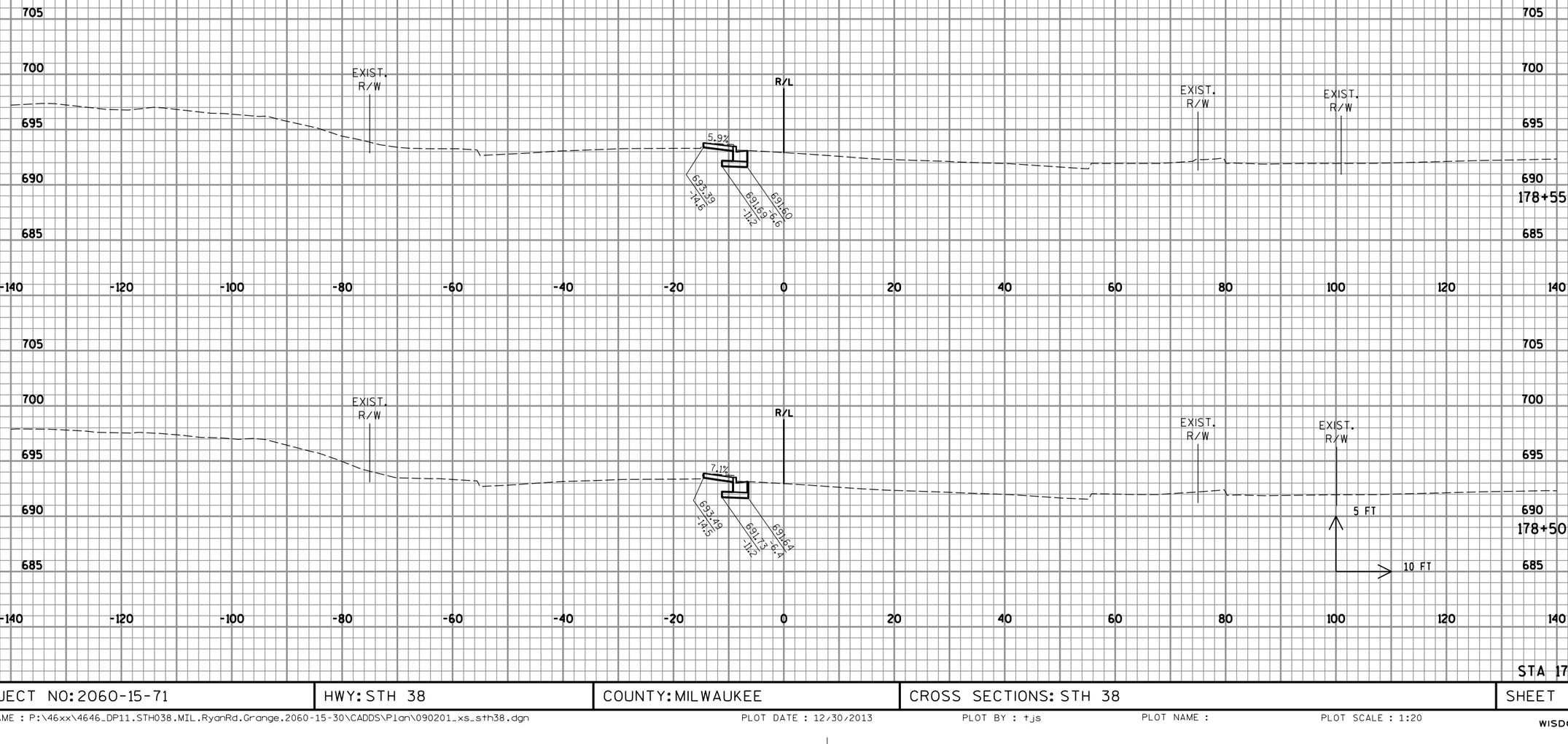


STA 177+00 TO 178+00

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 998	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



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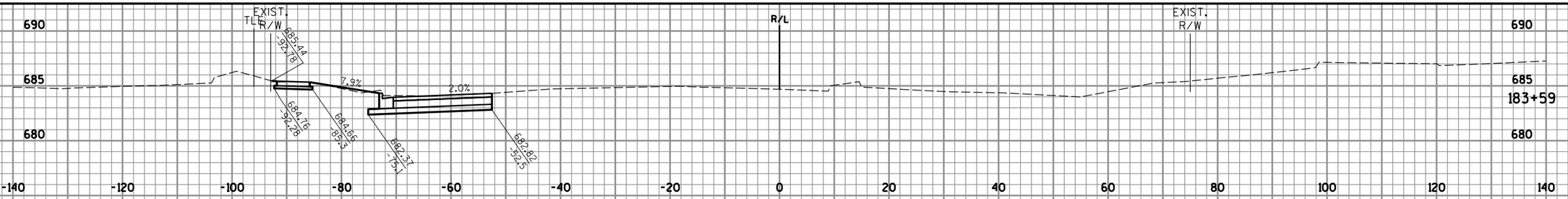
9

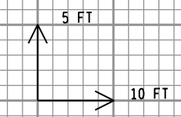
STA 178+50 TO 178+55

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 999	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21





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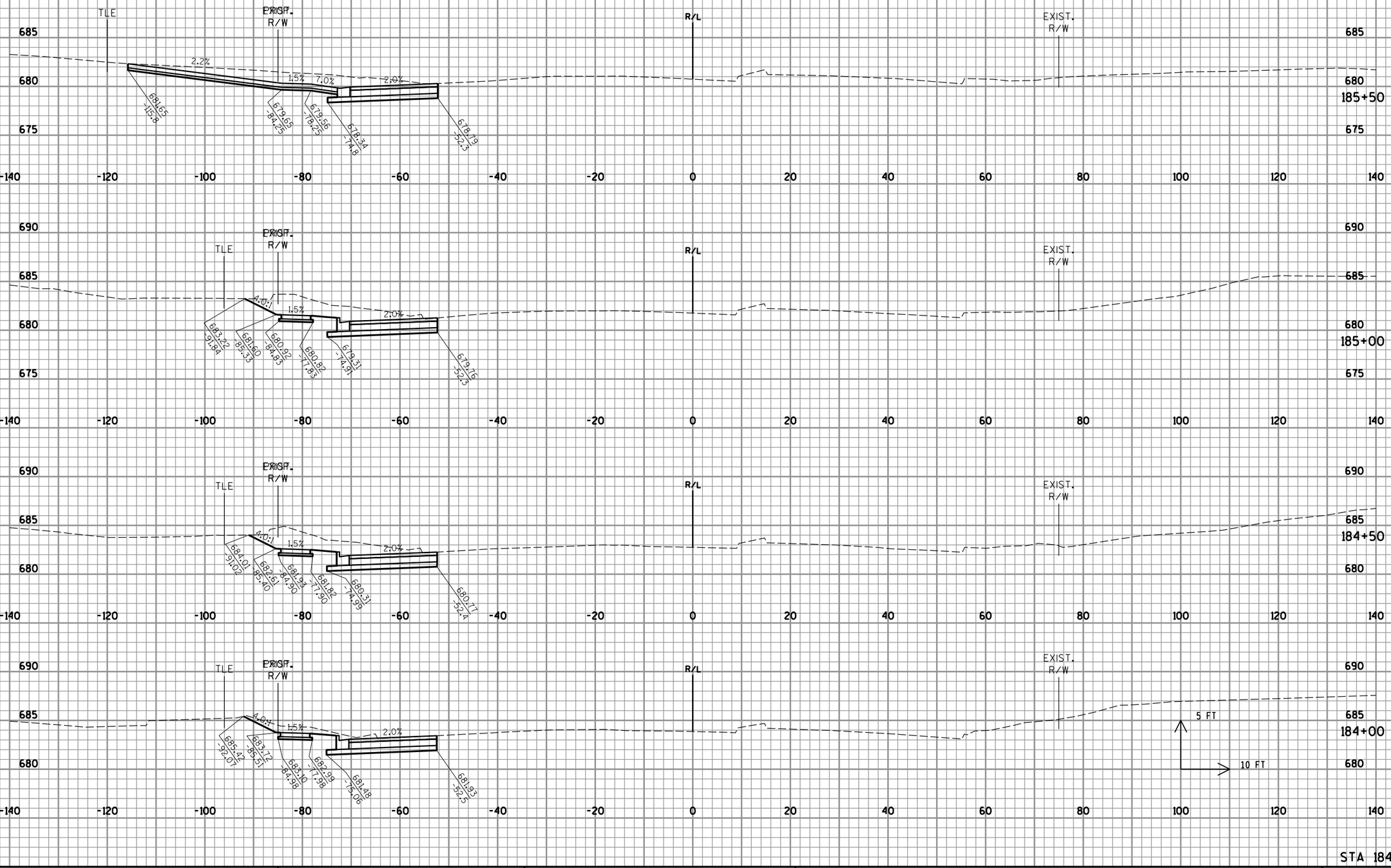
9

STA 183+59 TO 183+59

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1000	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



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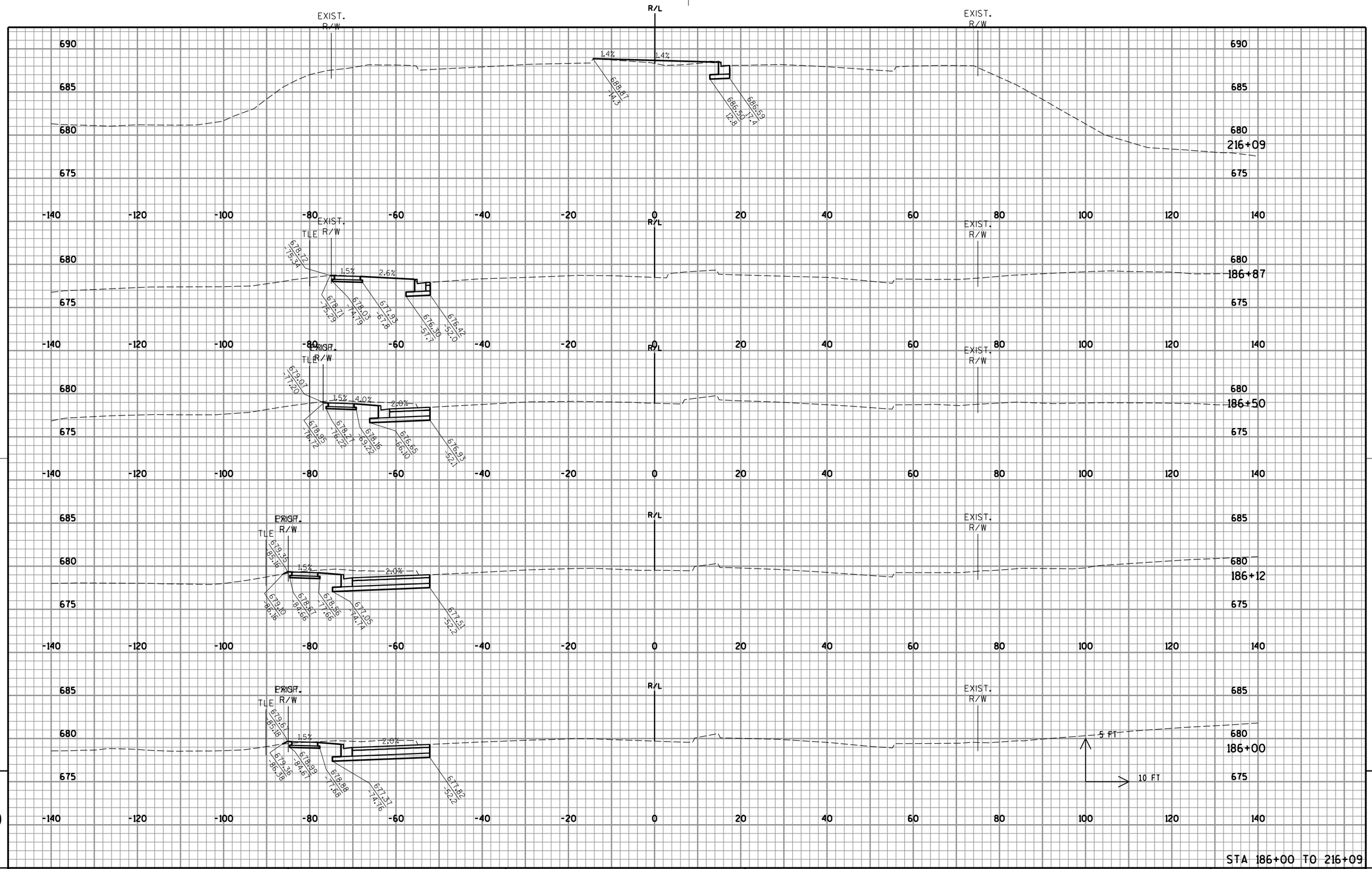
9

STA 184+00 TO 185+50

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1001	E



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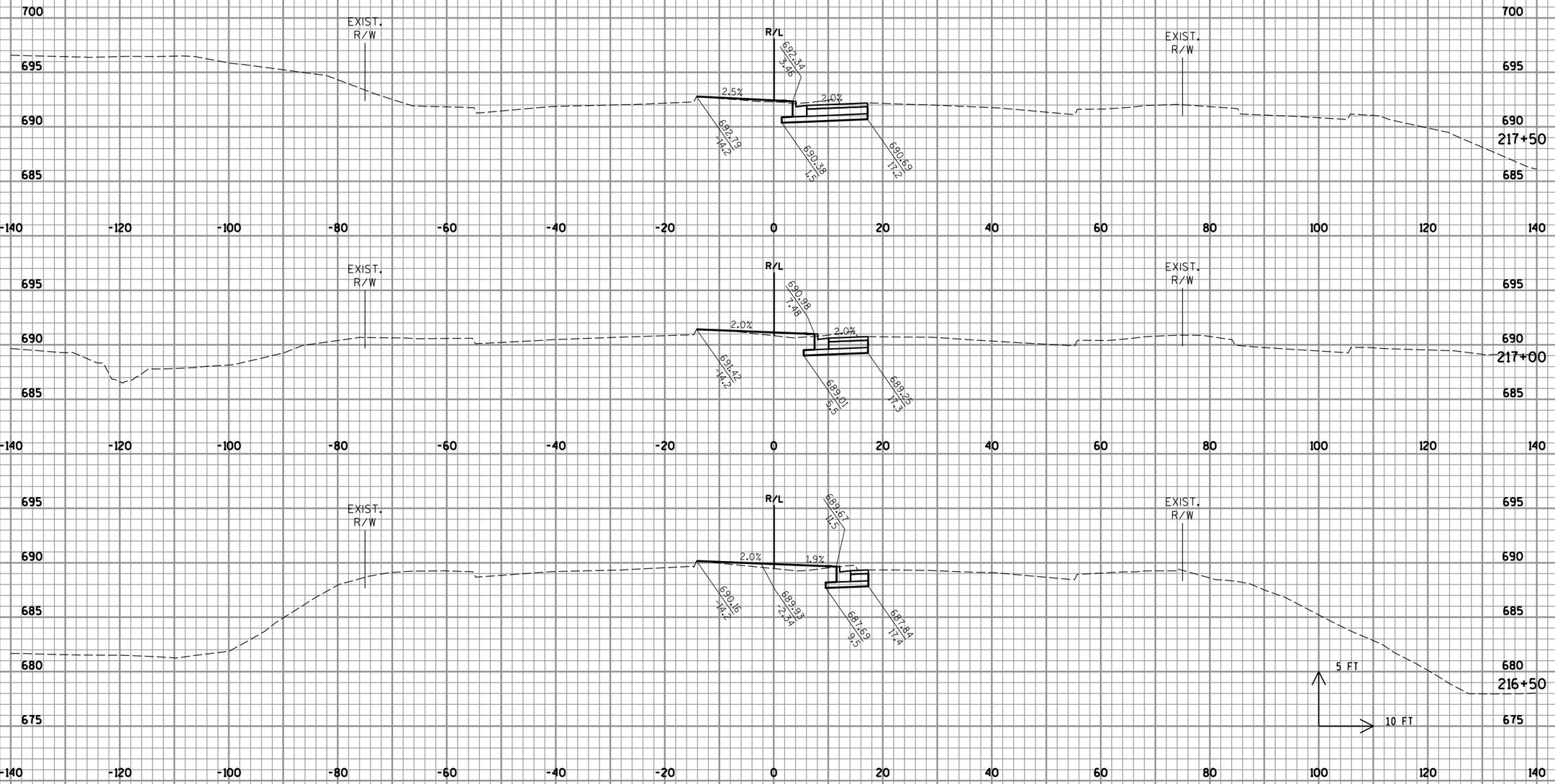
9

STA 186+00 TO 216+09

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1002	E



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9

STA 216+50 TO 217+50

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1003	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

9

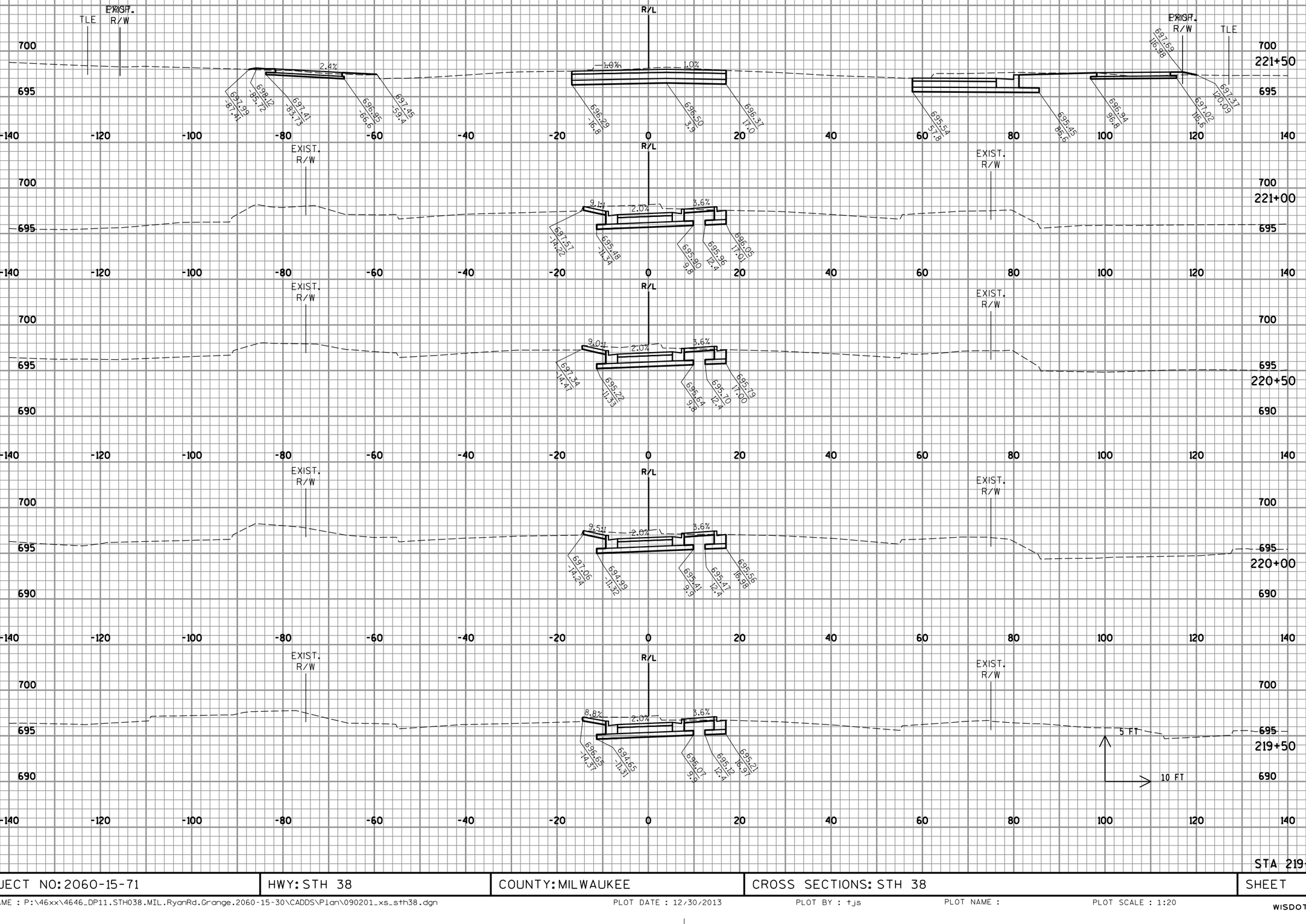
9

STA 218+00 TO 219+09

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1004	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

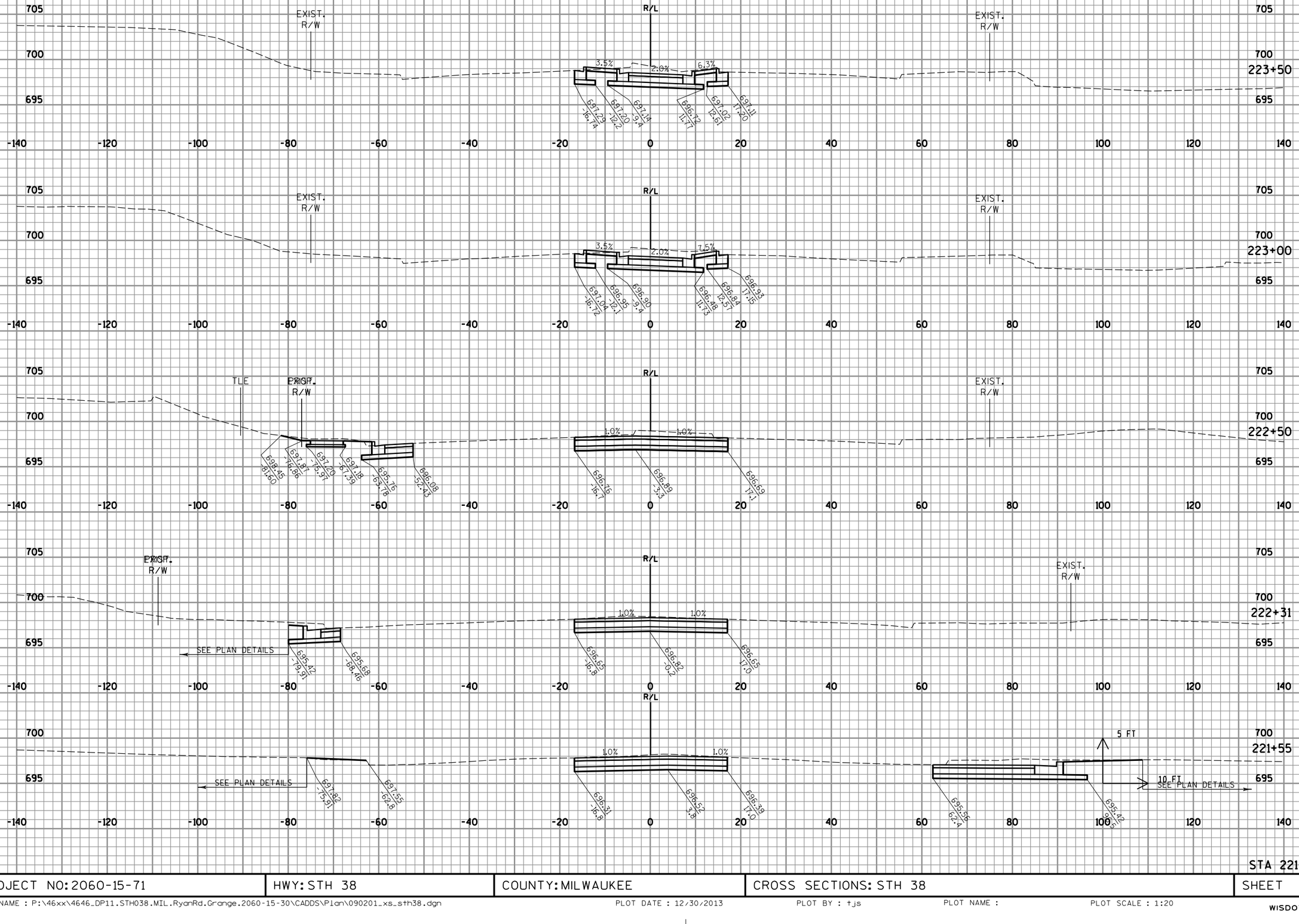


9

9

STA 219+50 TO 221+50

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1005	E



STA 221+55 TO 223+50

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1006 E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

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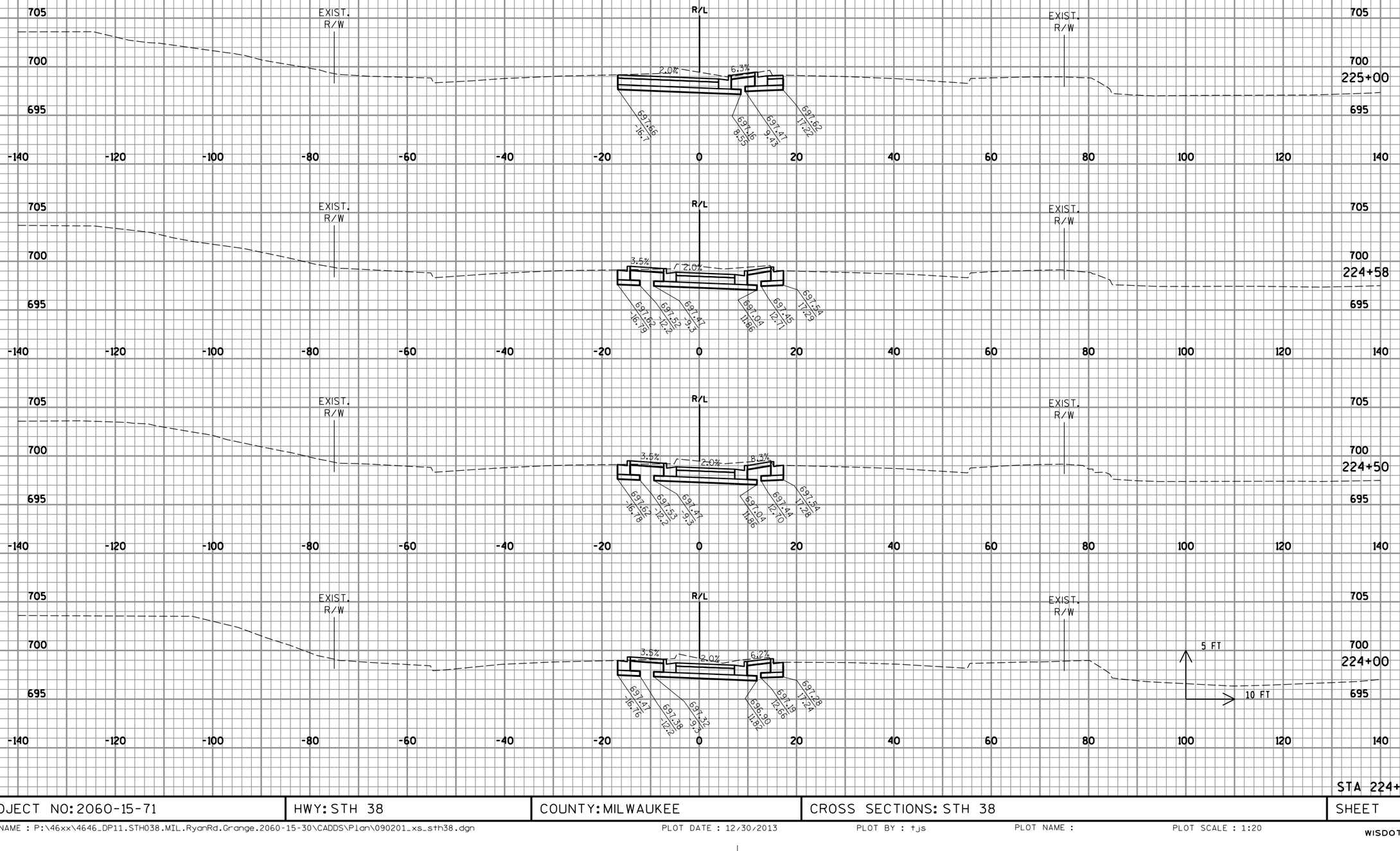

9

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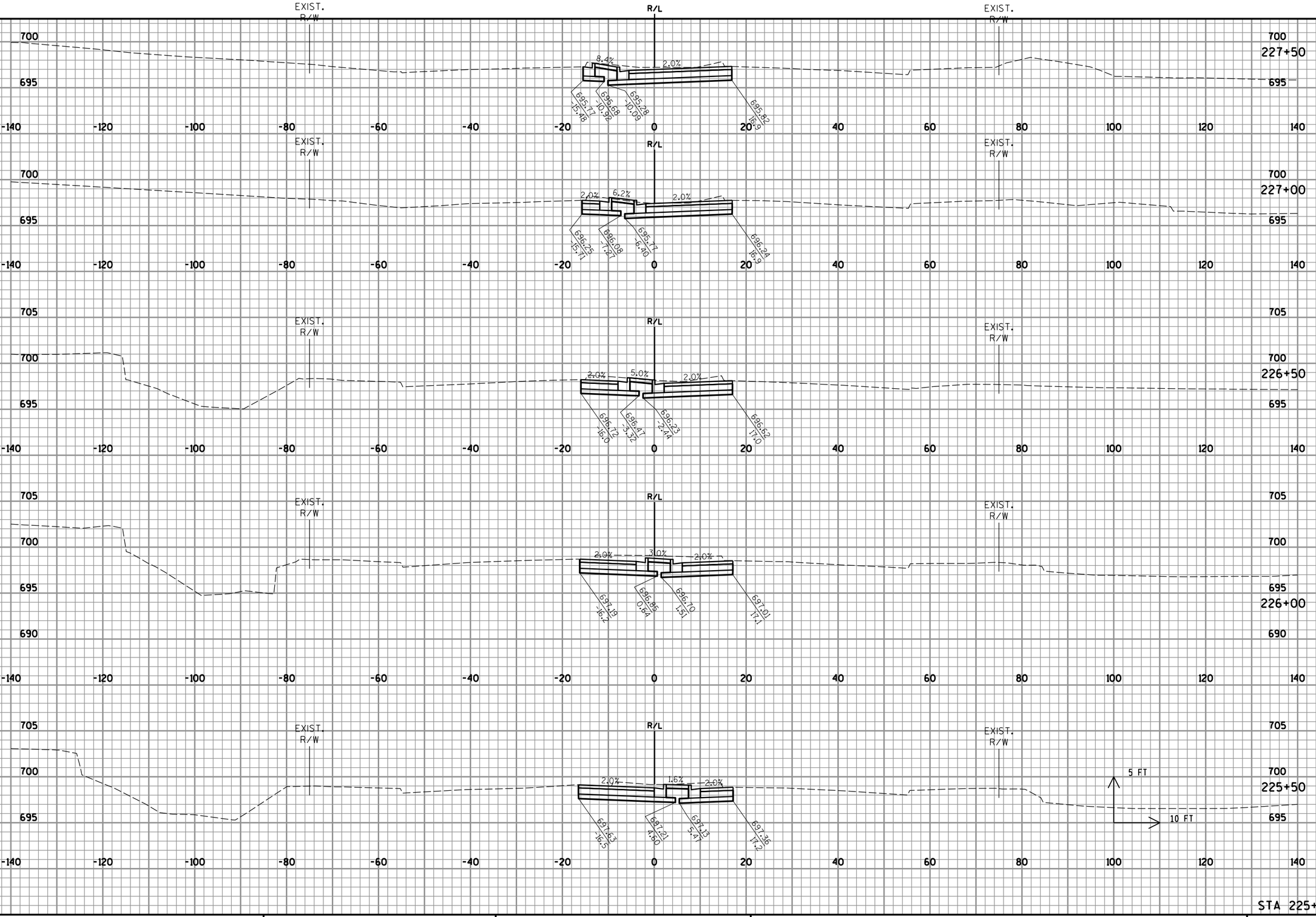
STA 224+00 TO 225+00

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1007	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn
PLOT DATE : 12/30/2013
PLOT BY : tjs
PLOT NAME :
PLOT SCALE : 1:20
WISDOT/CADDS SHEET 21



9

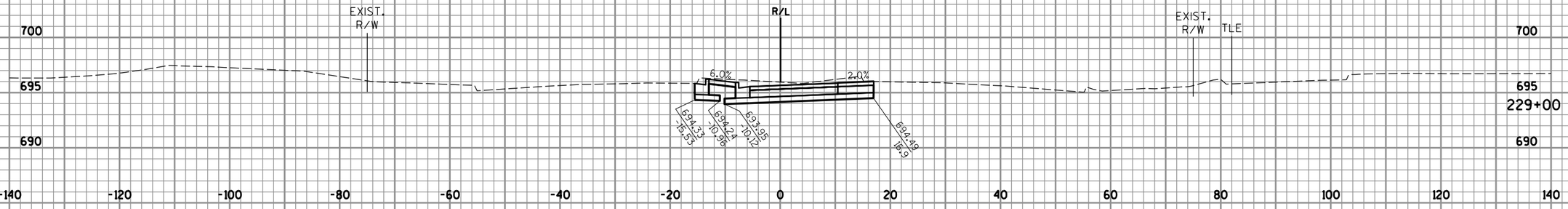
9

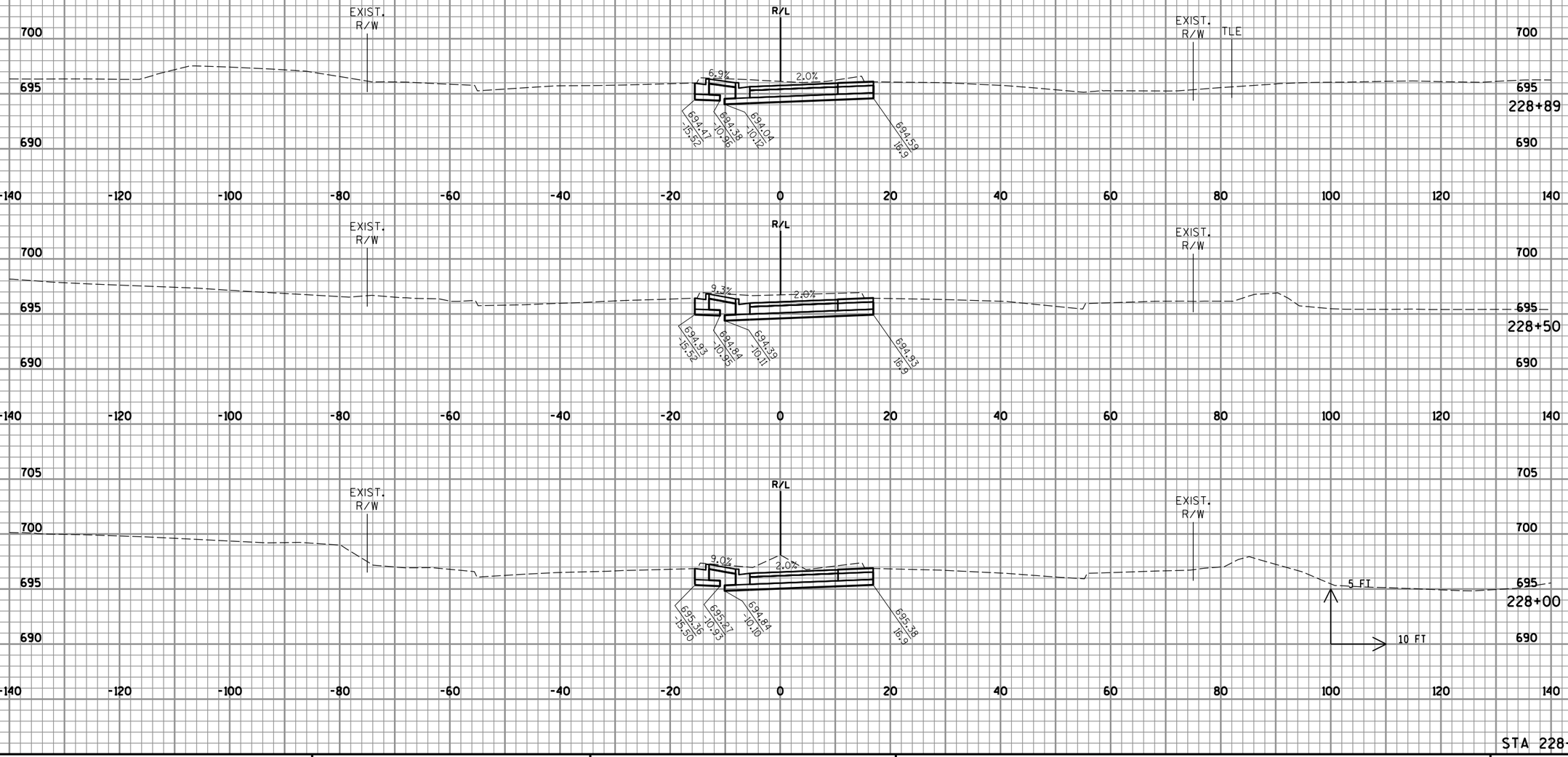
STA 225+50 TO 227+50

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1008 E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

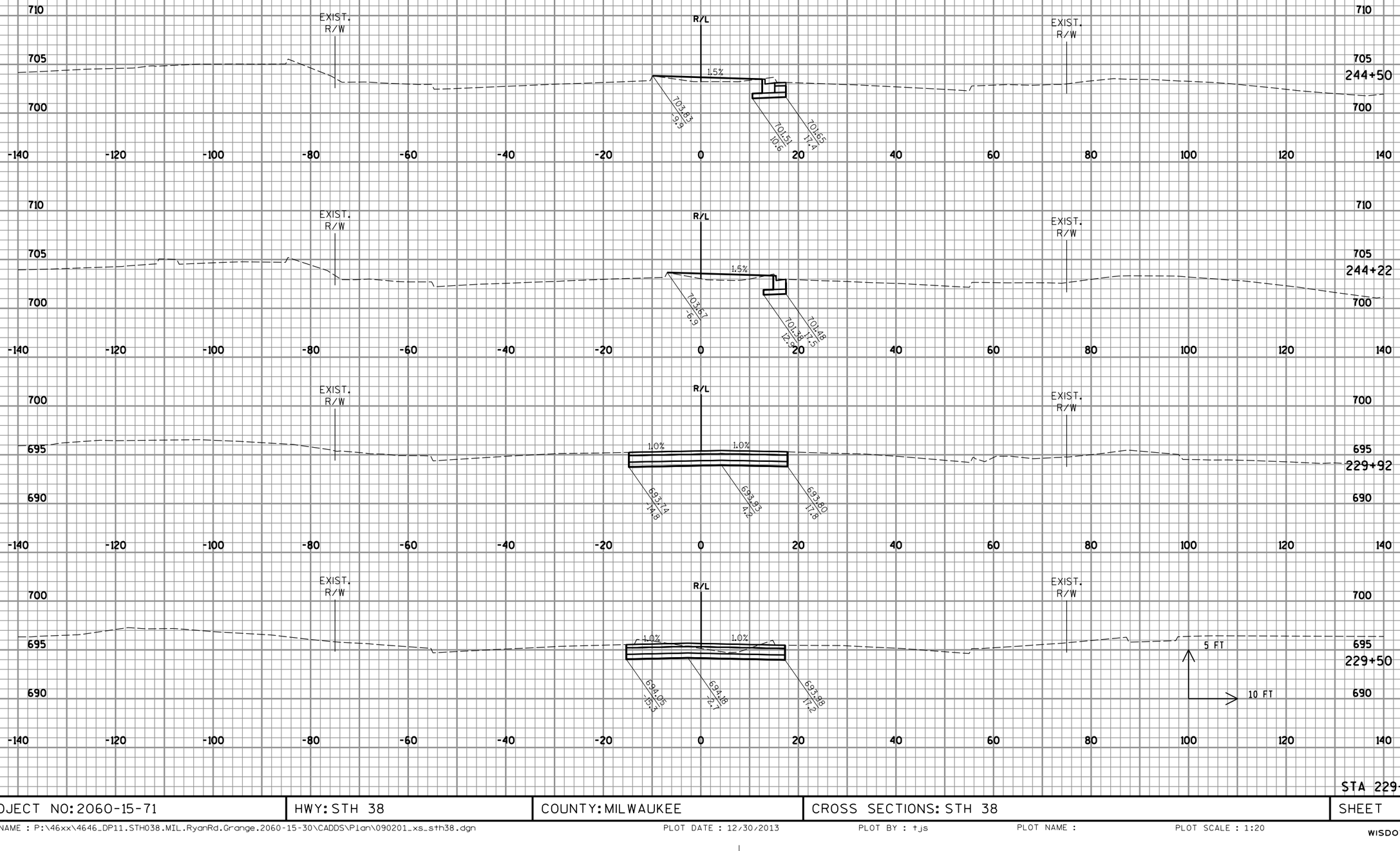




PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1009	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



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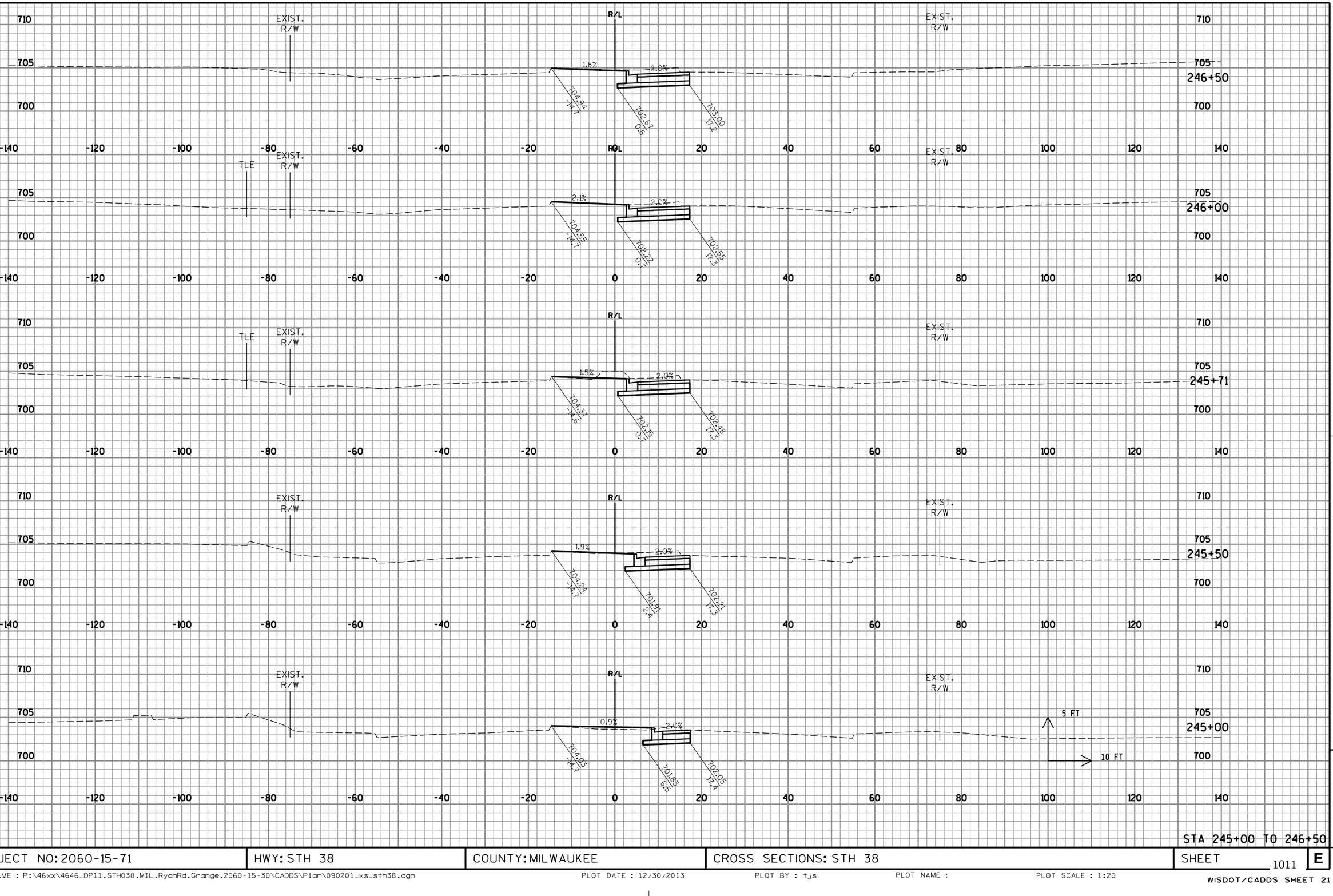
STA 229+50 TO 244+50

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1010	E



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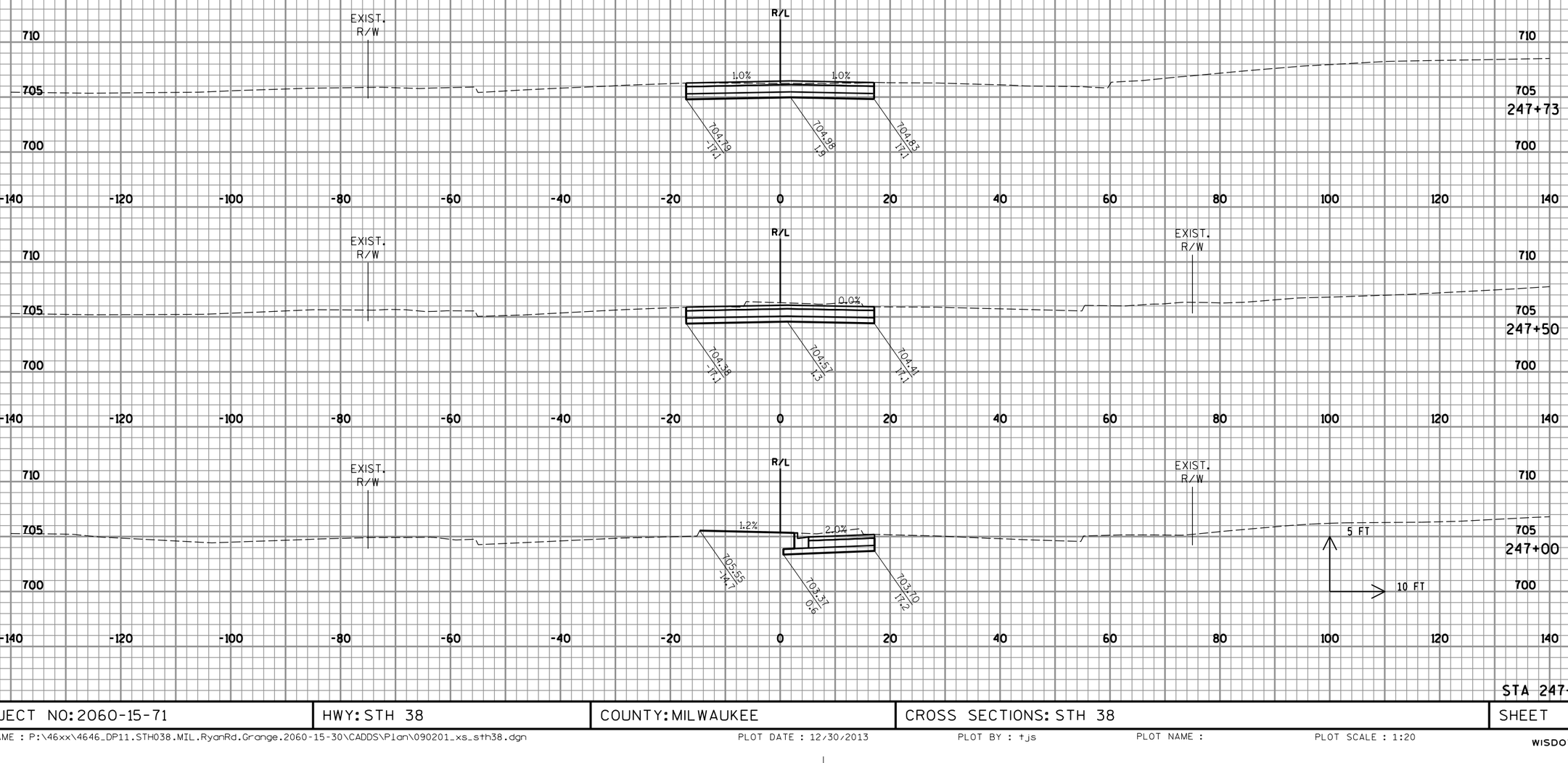
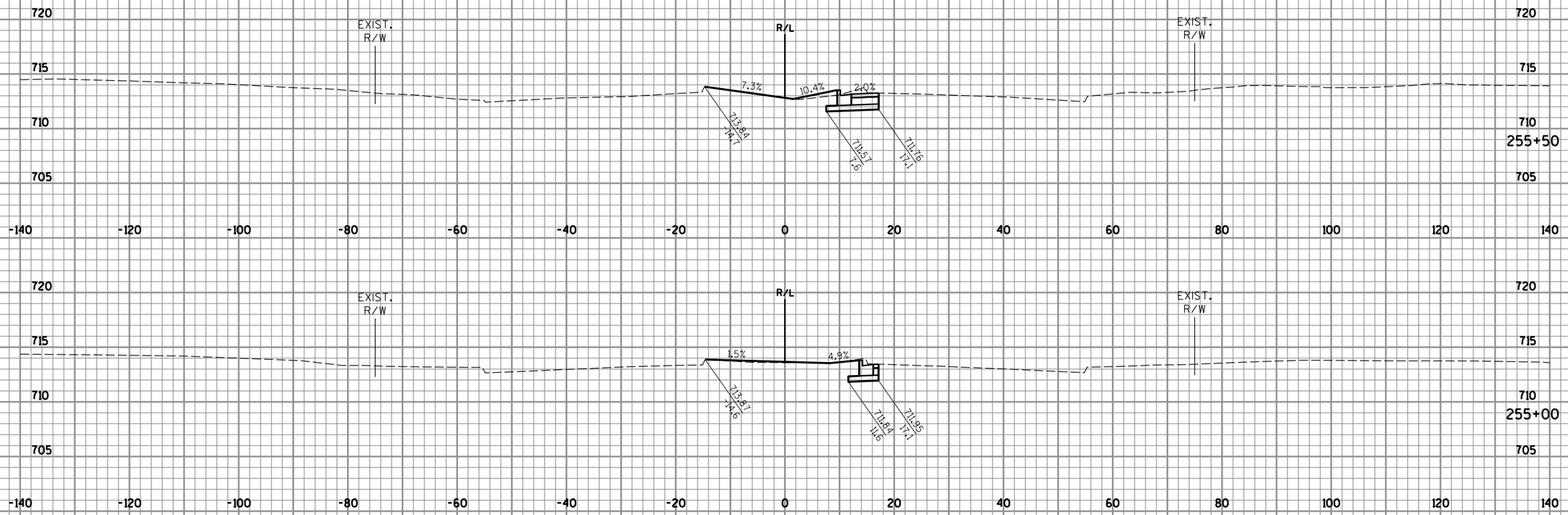
STA 245+00 TO 246+50

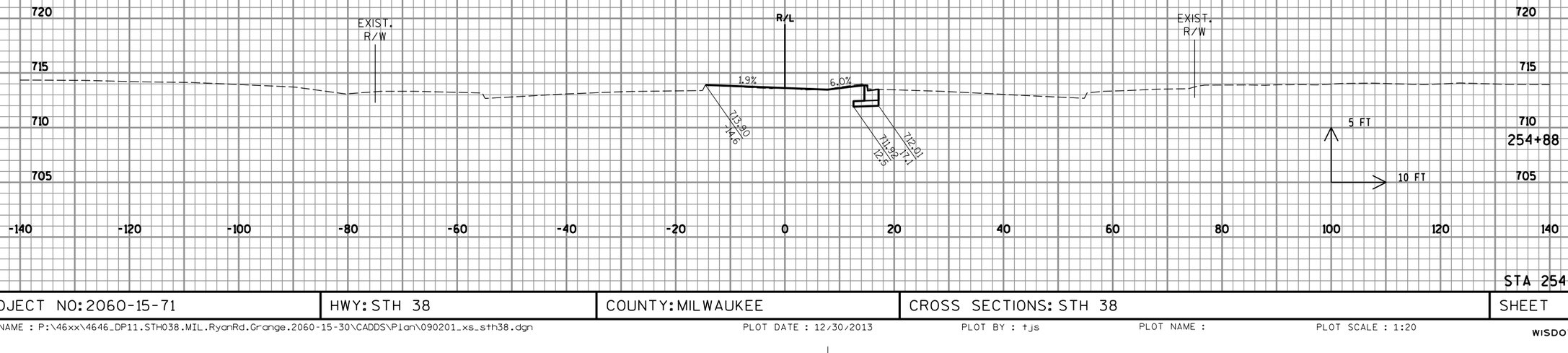
PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1011	E



STA 247+00 TO 247+73

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1012	E





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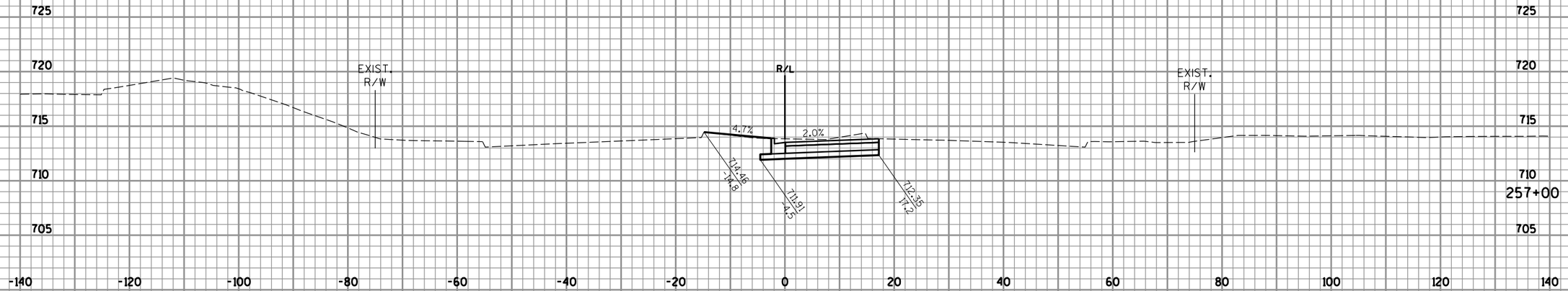
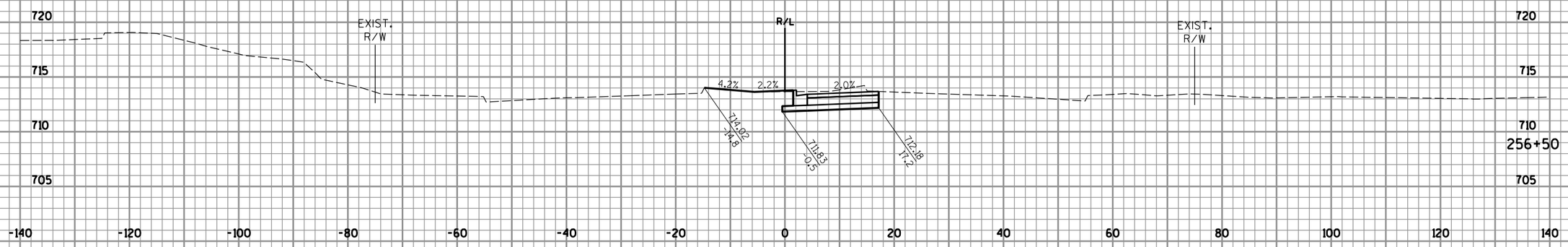
STA 254+88 TO 255+50

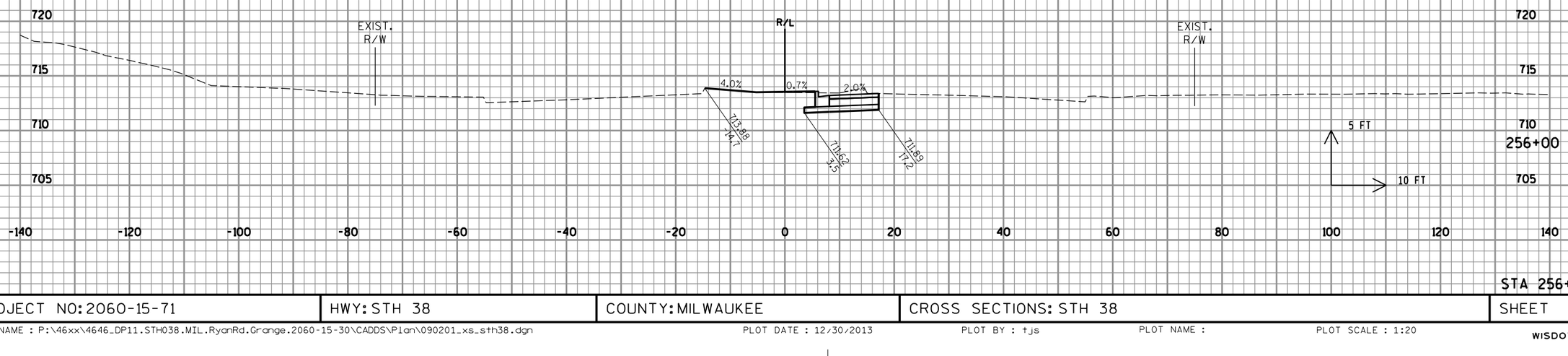
PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1013	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21







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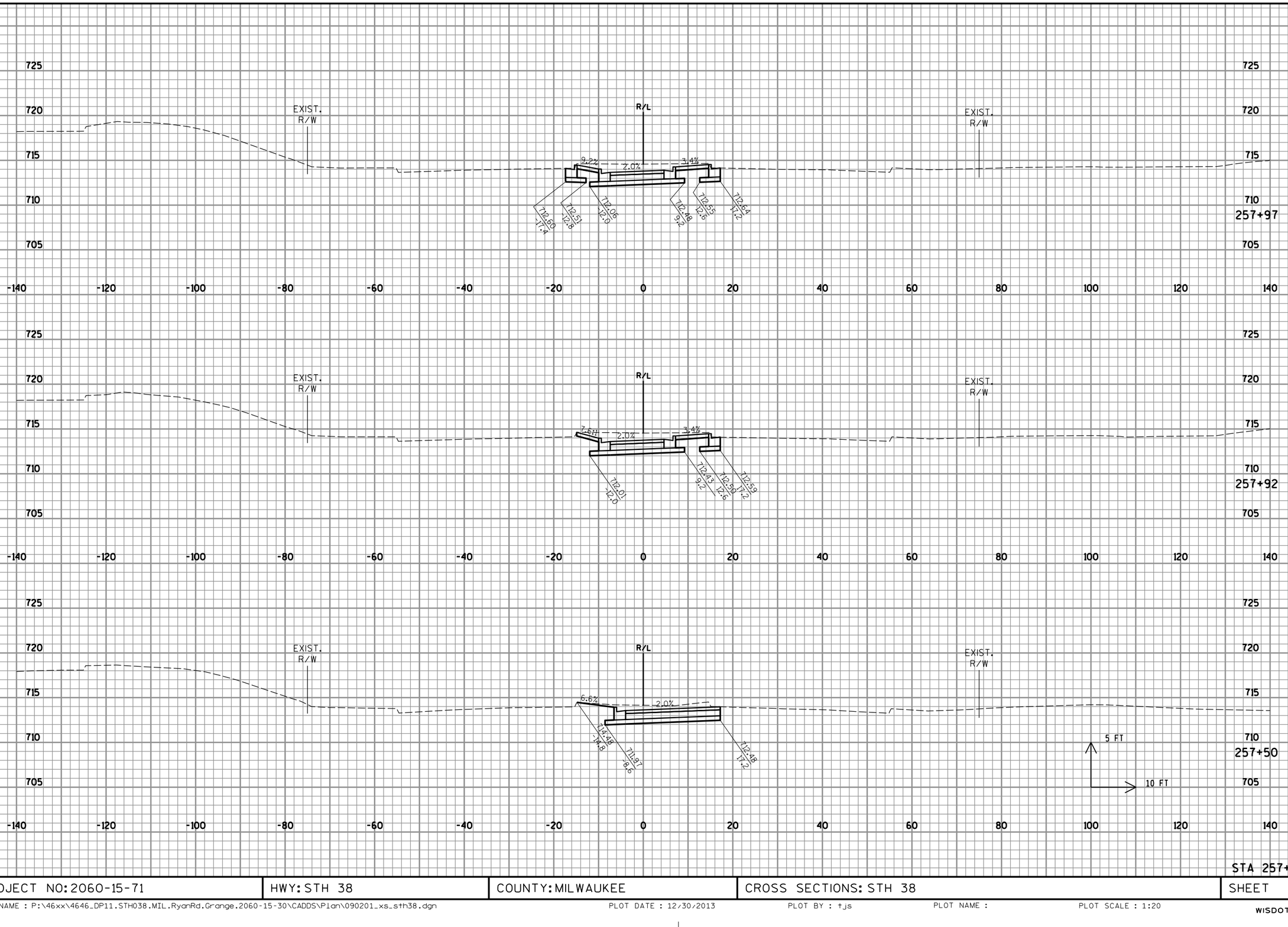
STA 256+00 TO 257+00

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1014	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



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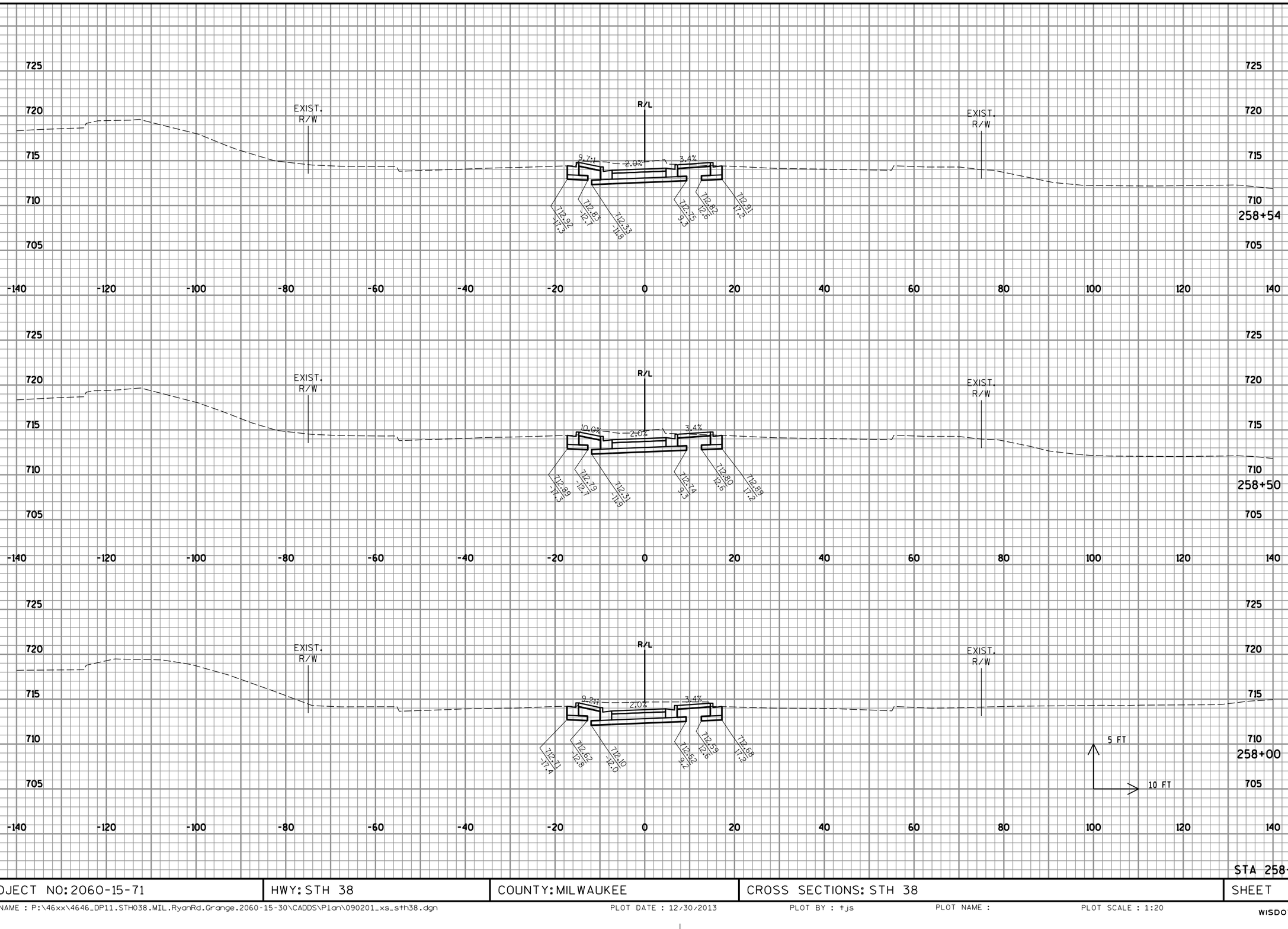
9

STA 257+50 TO 257+97

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1015	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



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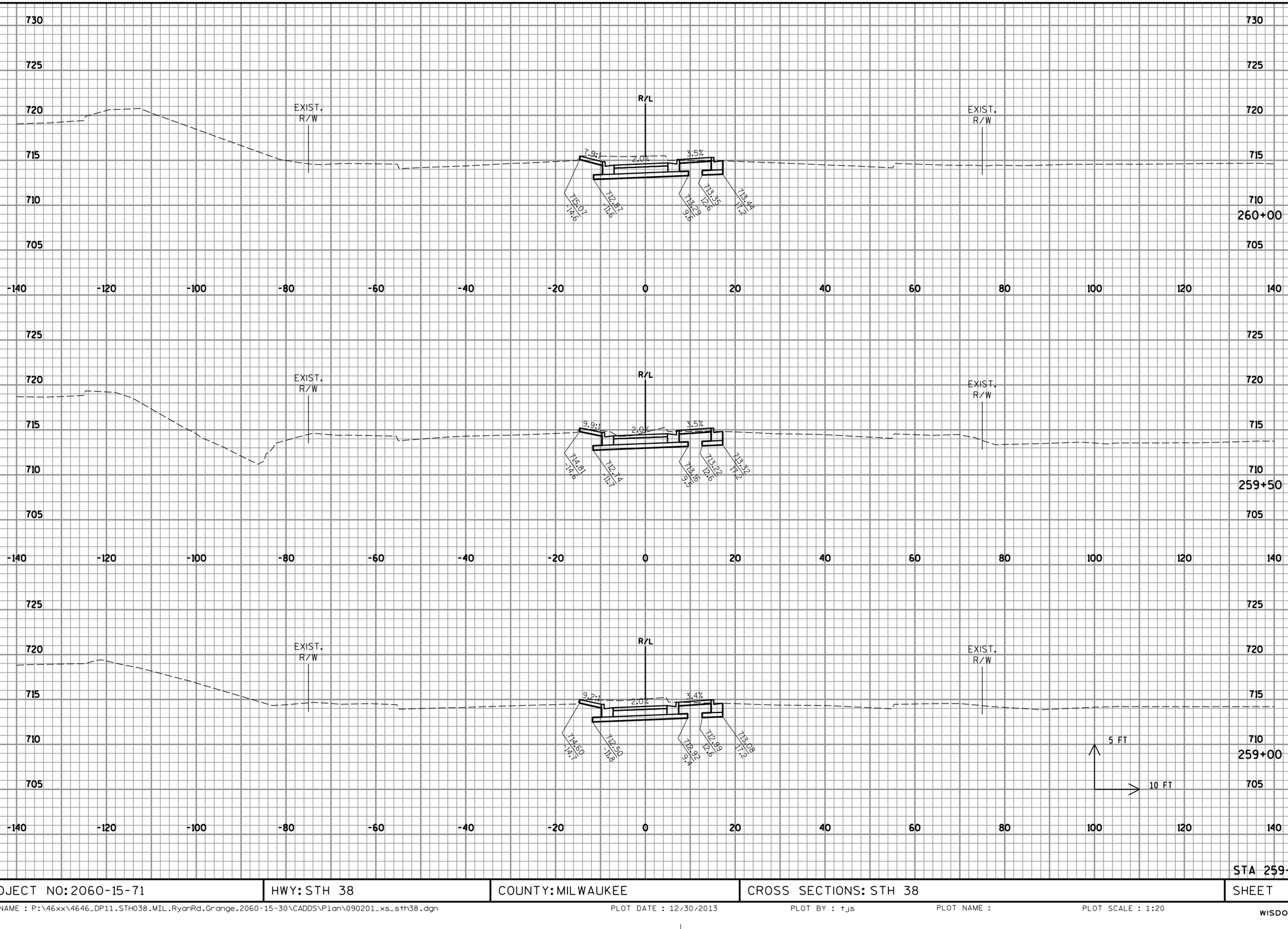
PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1016	E

STA 258+00 TO 258+54



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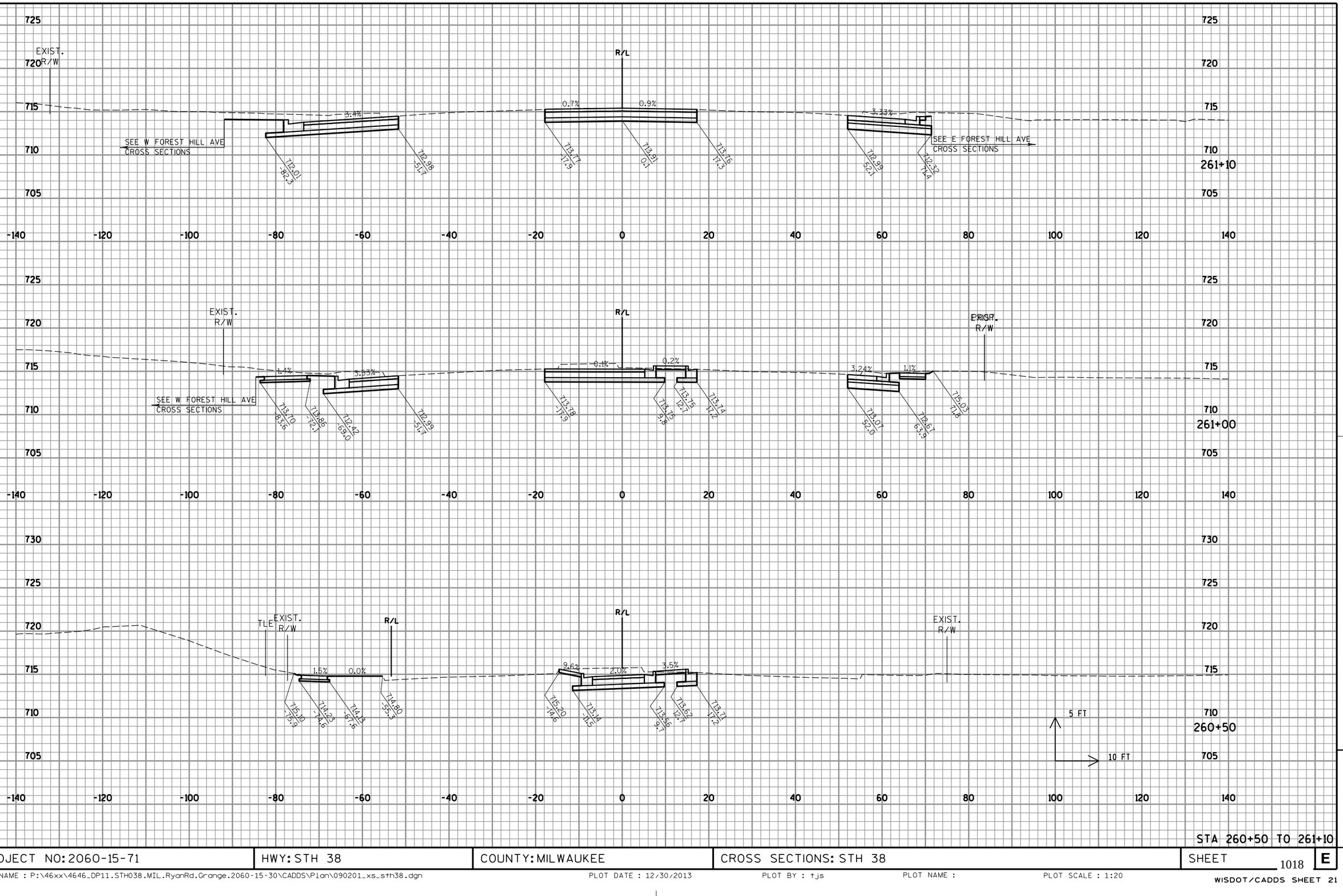
STA 259+00 TO 260+00

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1017 E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



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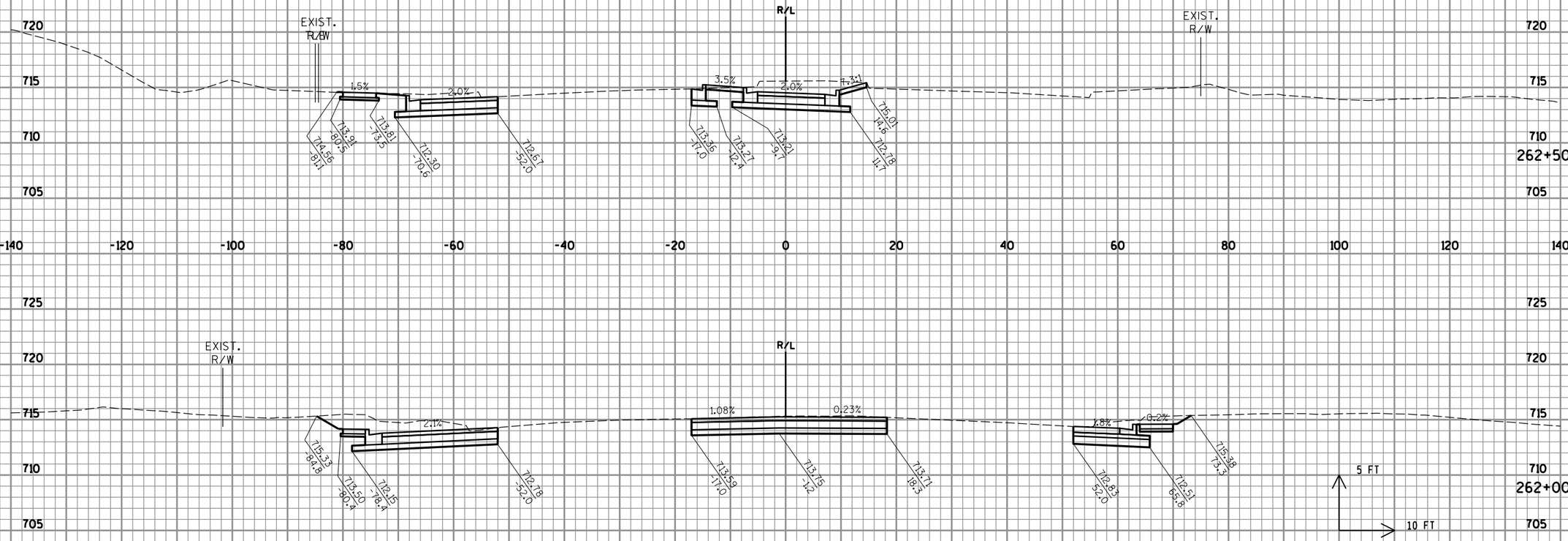
STA 260+50 TO 261+10

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1018	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

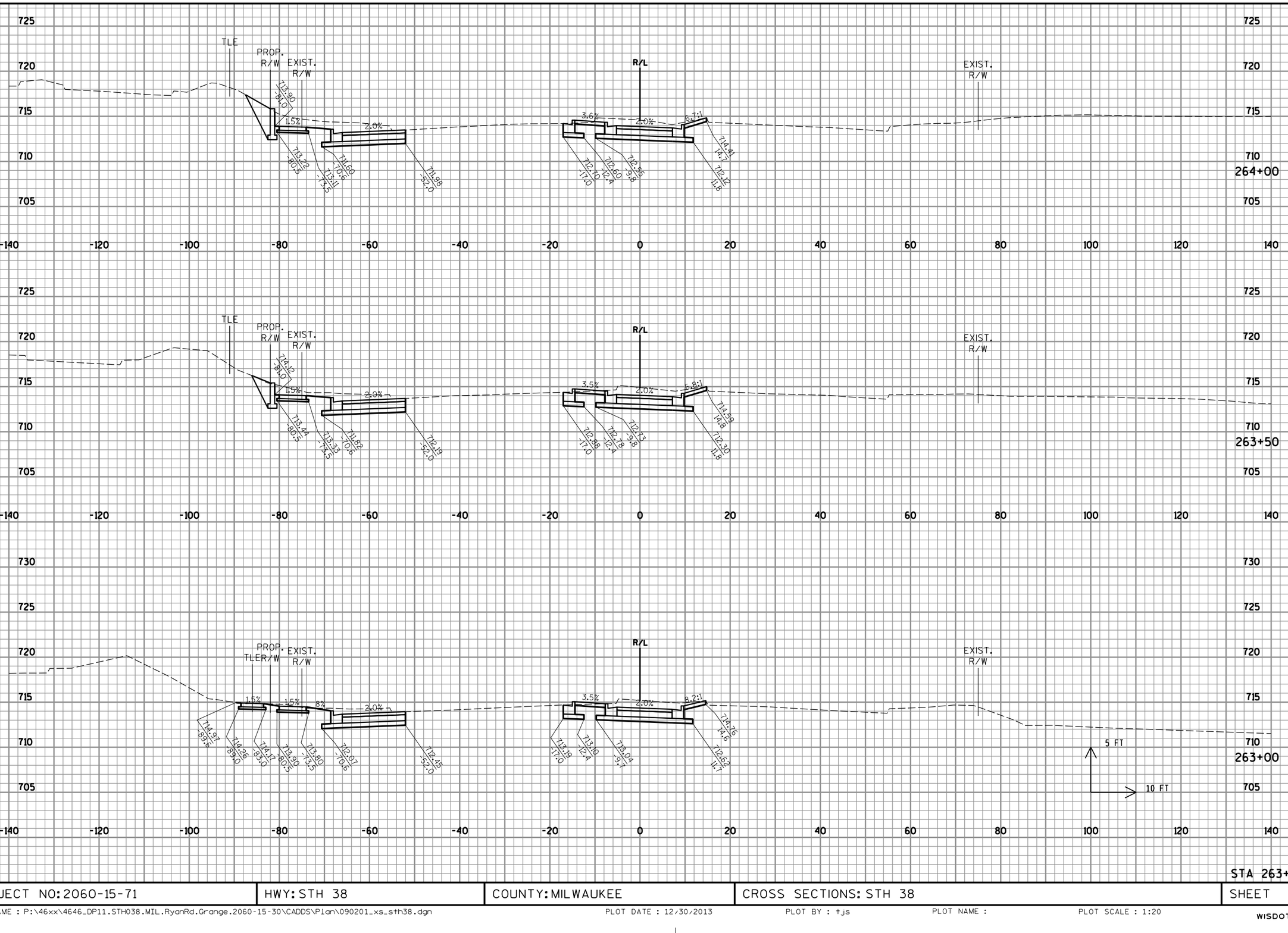
WISDOT/CADDS SHEET 21



PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1019 E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



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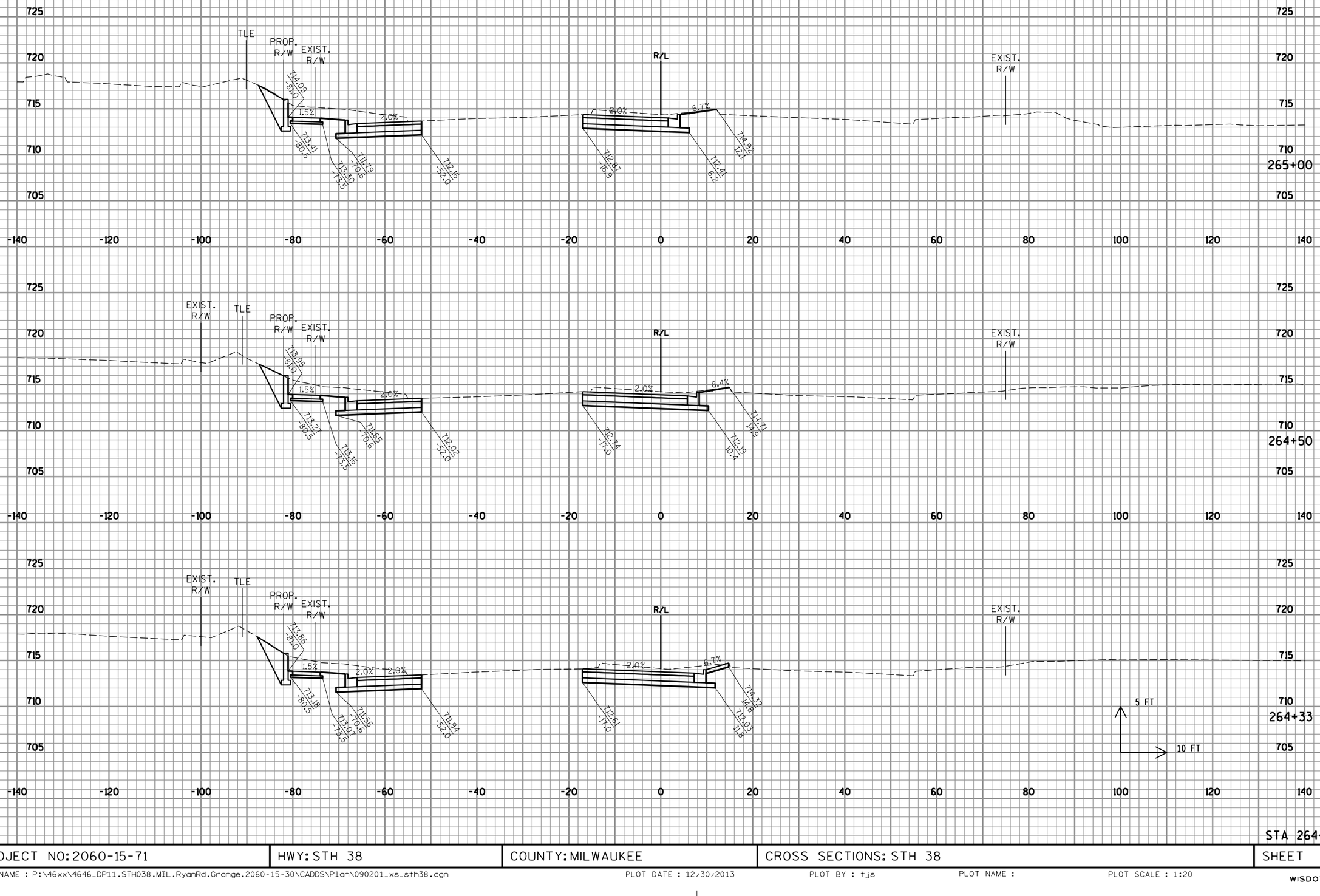
STA 263+00 TO 264+00

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1020	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



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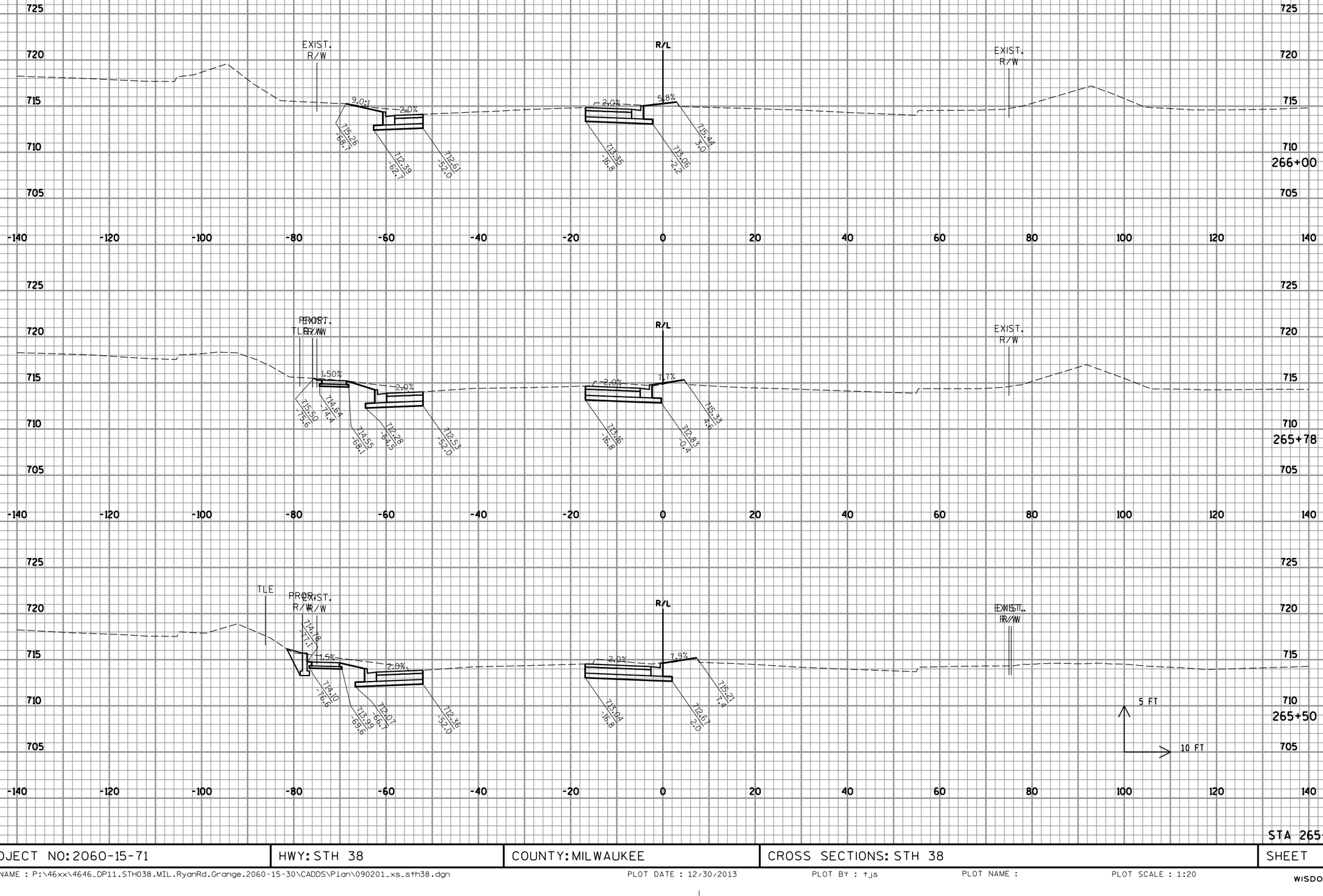
STA 264+33 TO 265+00

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1021	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn
PLOT DATE : 12/30/2013
PLOT BY : tjs
PLOT NAME :
PLOT SCALE : 1:20
WISDOT/CADDS SHEET 21



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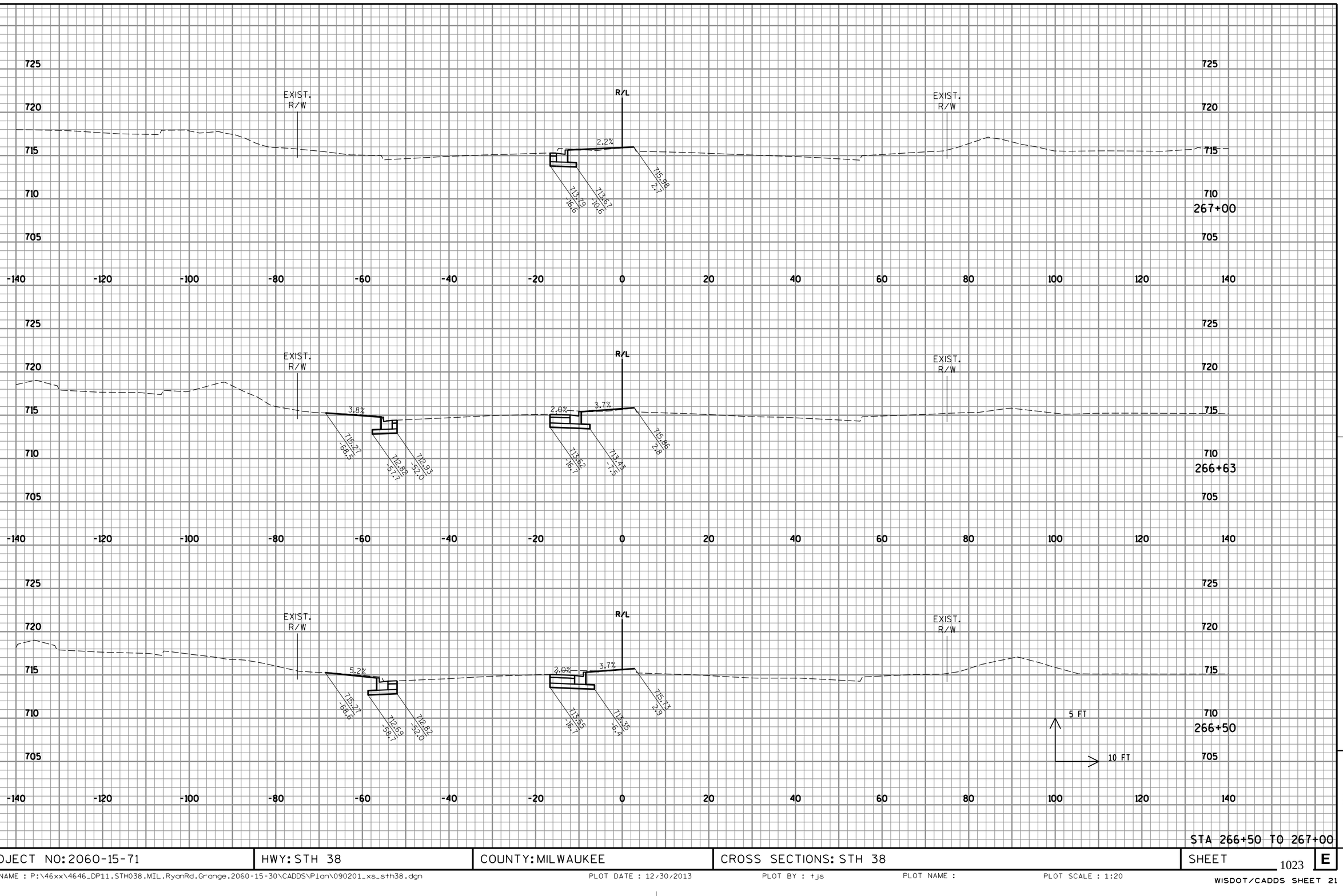
STA 265+50 TO 266+00

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1022	E



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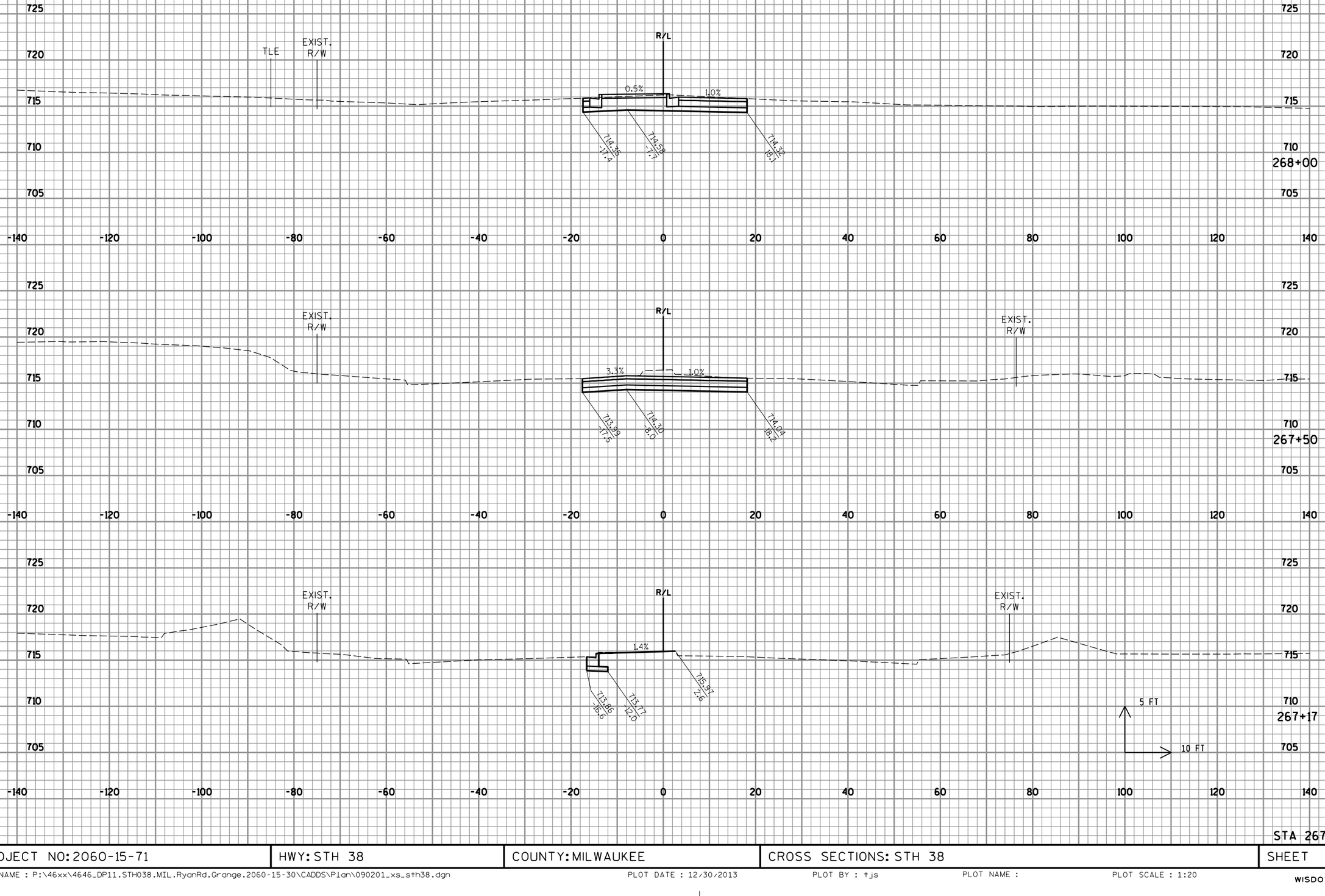
STA 266+50 TO 267+00

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1023 E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn | PLOT DATE : 12/30/2013 | PLOT BY : tjs | PLOT NAME : | PLOT SCALE : 1:20



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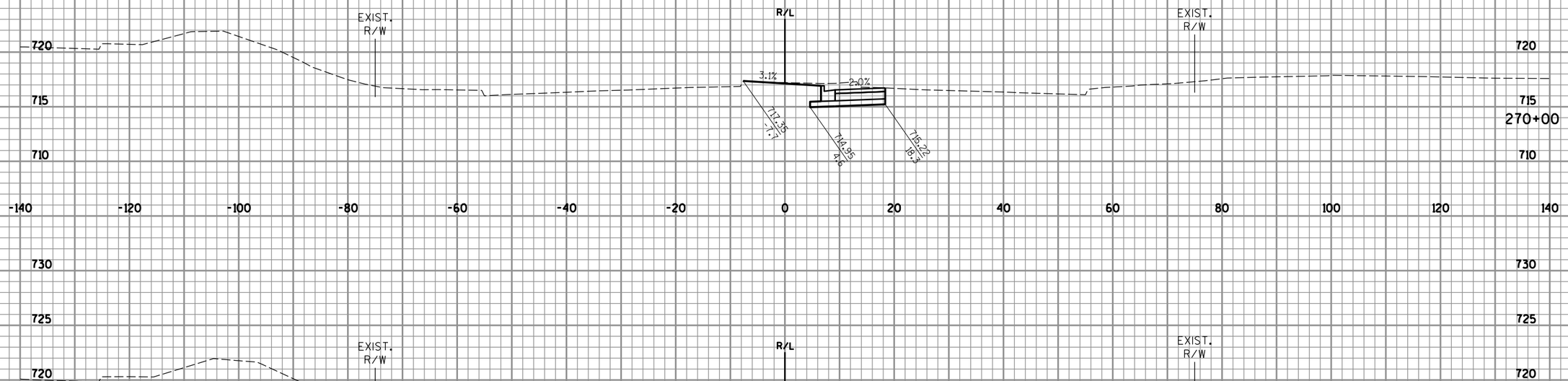
9

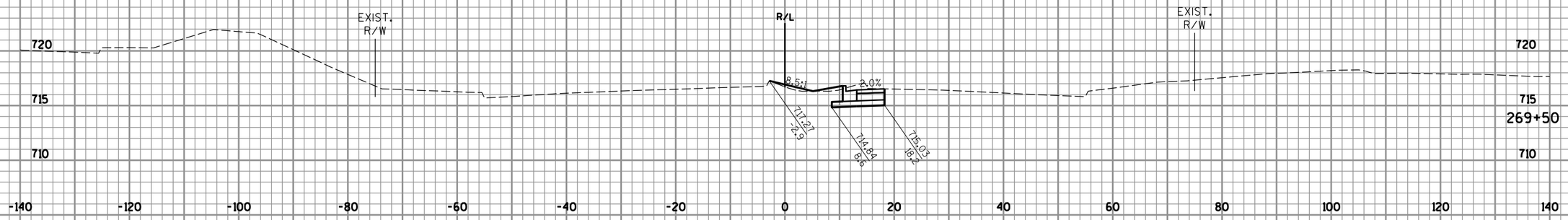
STA 267+17 TO 268+00

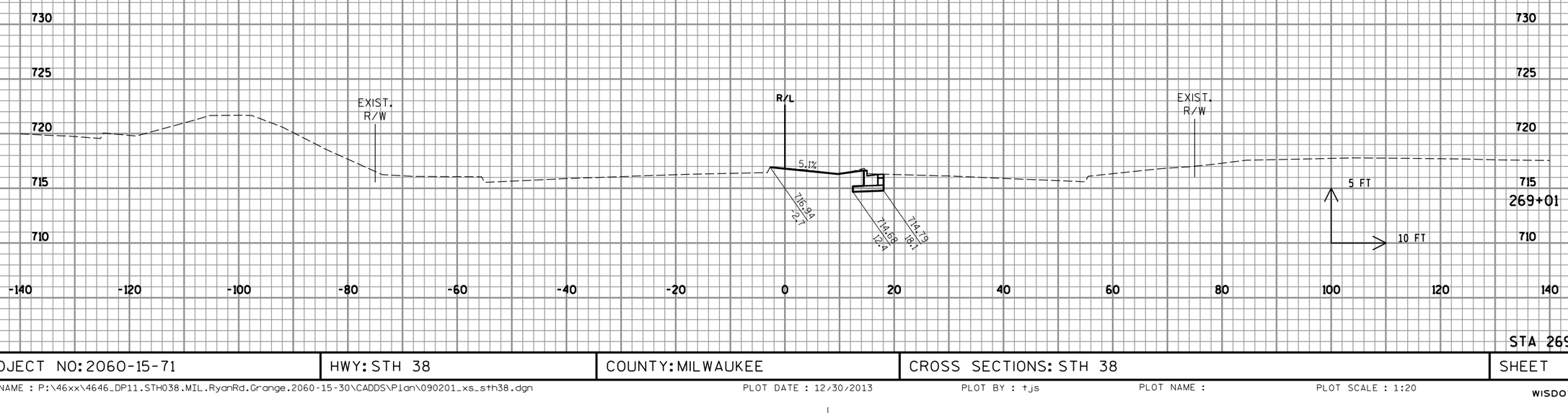
PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1024 E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21







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STA 269+01 TO 270+00

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1025	E

9

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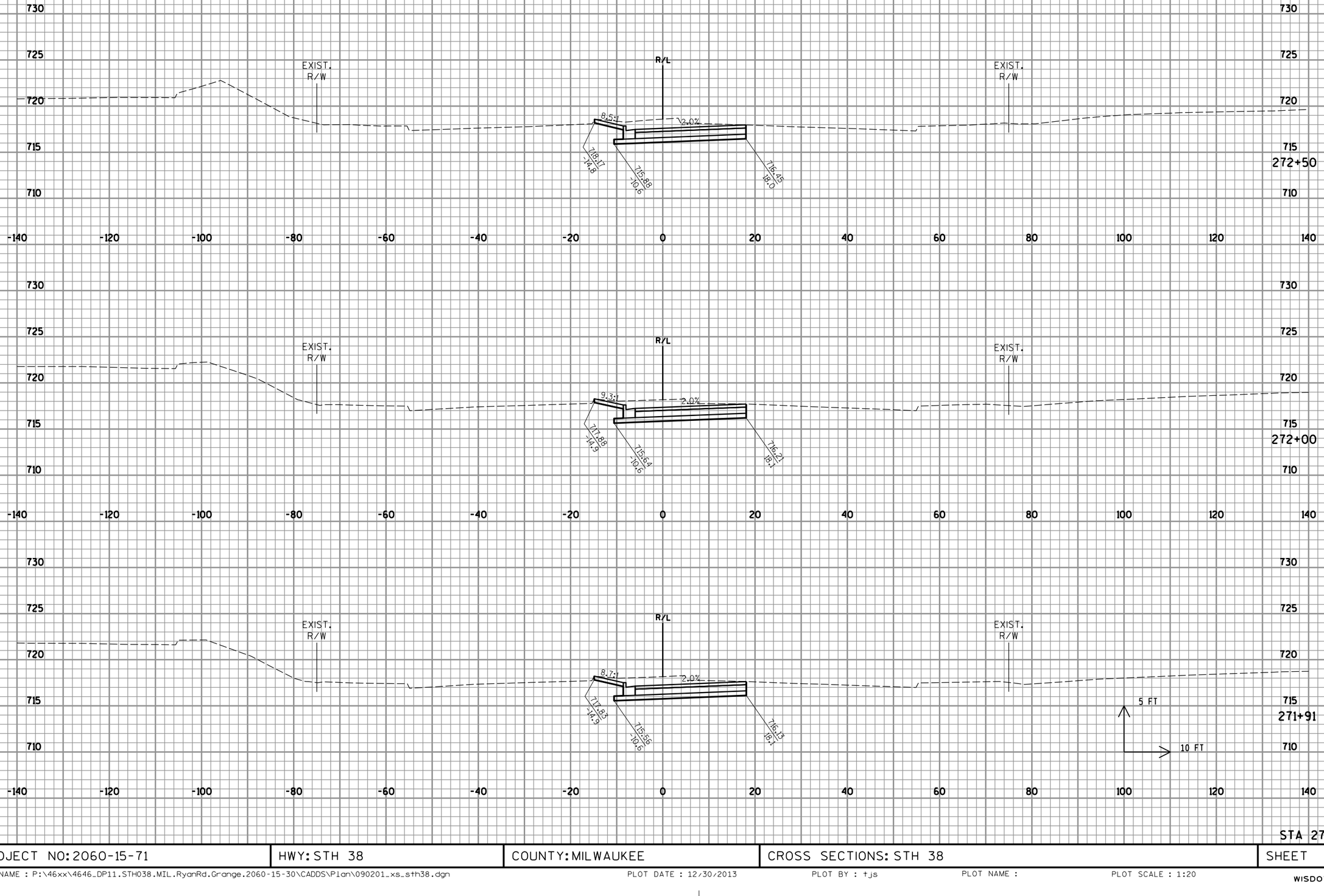
STA 270+50 TO 271+50

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1026	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



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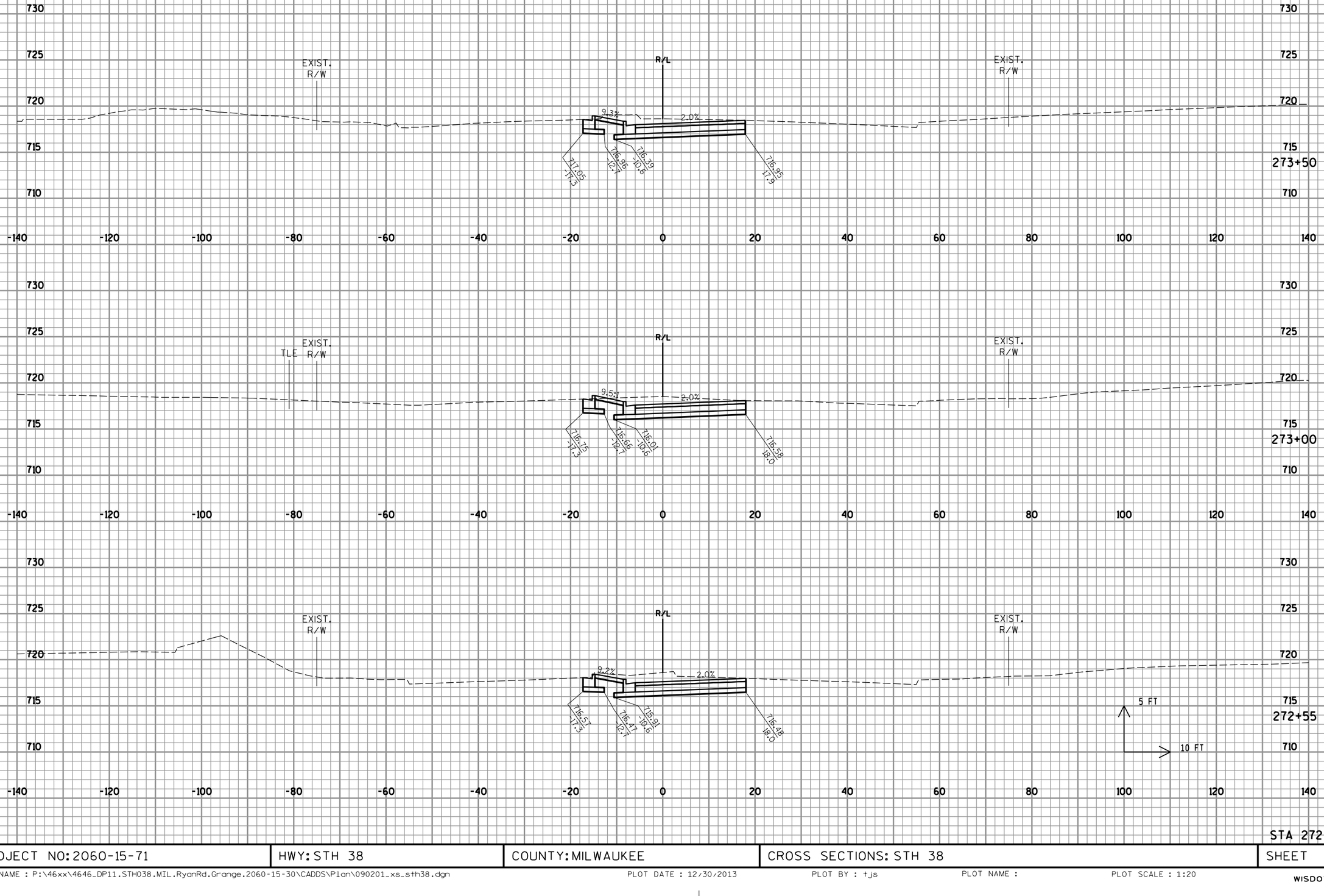
9

STA 271+91 TO 272+50

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1027	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn
PLOT DATE : 12/30/2013
PLOT BY : tjs
PLOT NAME :
PLOT SCALE : 1:20
WISDOT/CADDS SHEET 21



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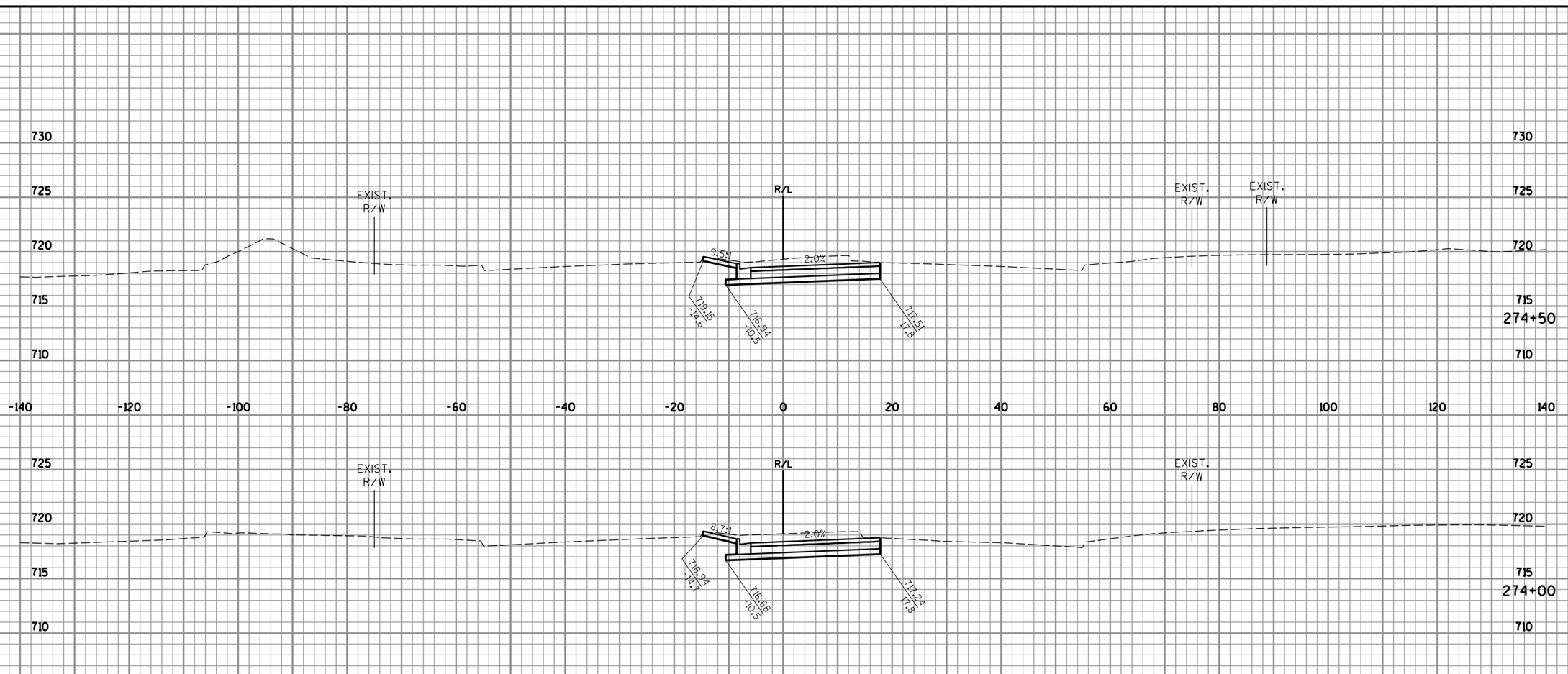
9

STA 272+55 TO 273+50

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1028	E



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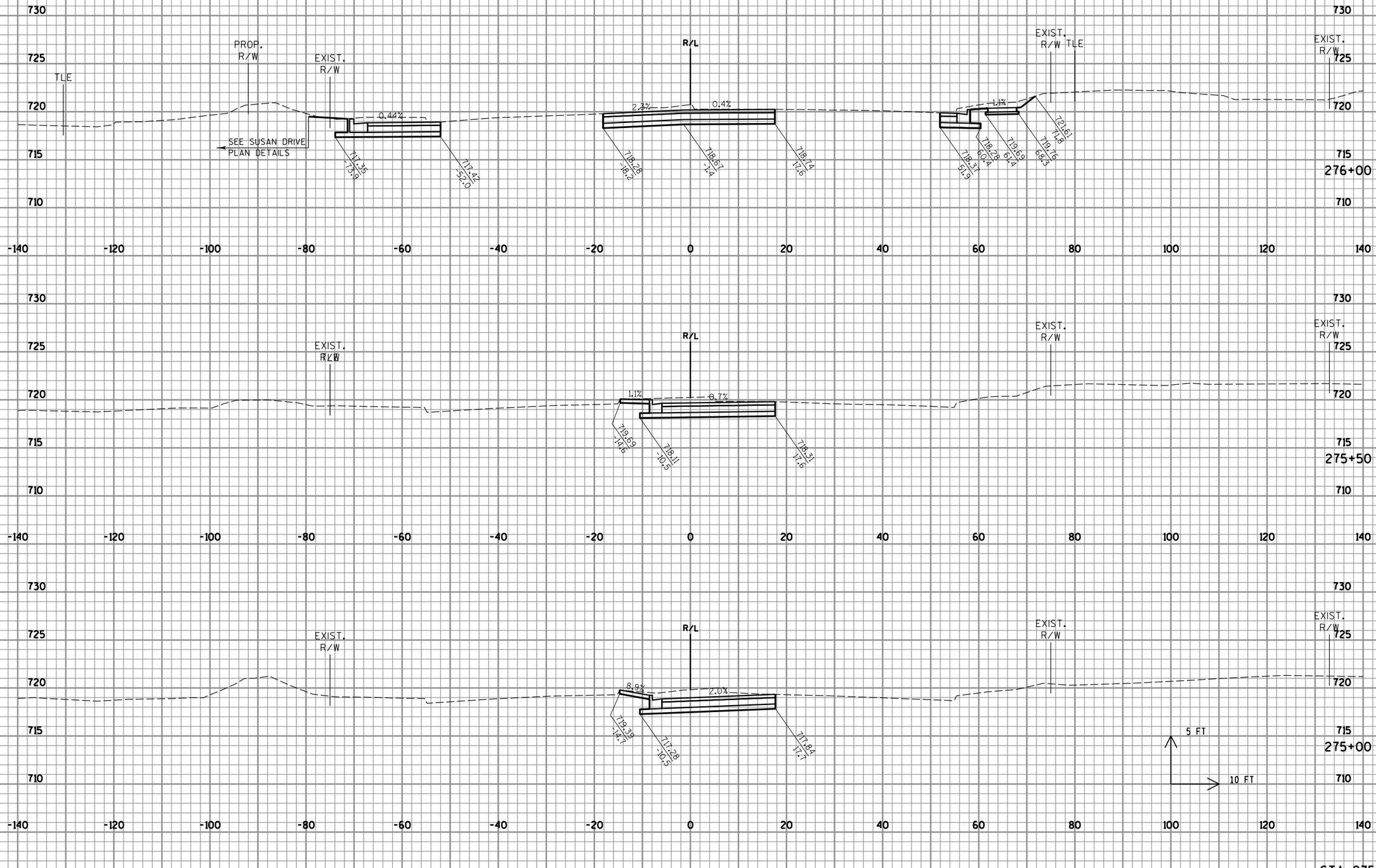
STA 273+56 TO 274+50

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1029	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn

PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



9

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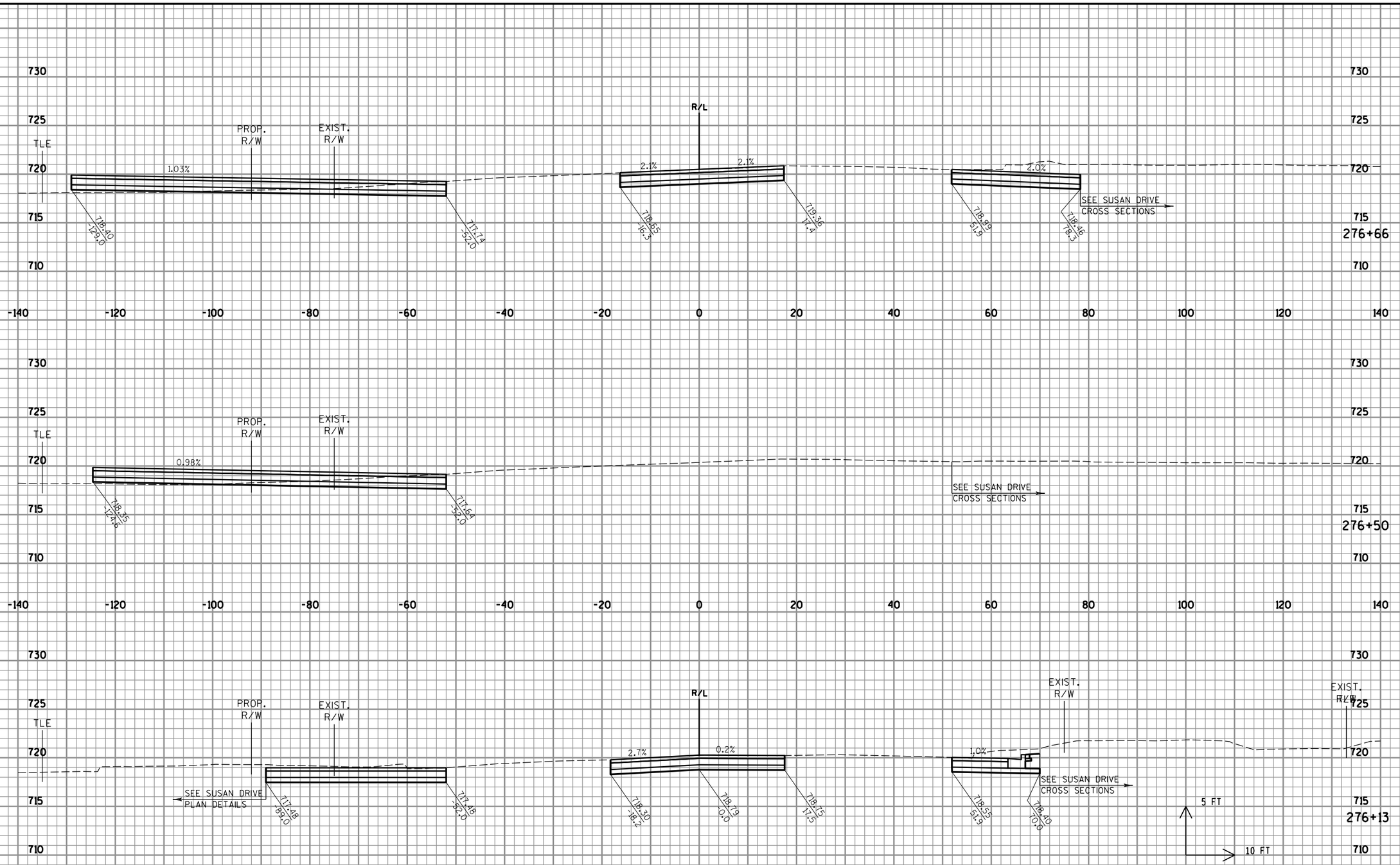
STA 275+00 TO 276+00

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1030	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

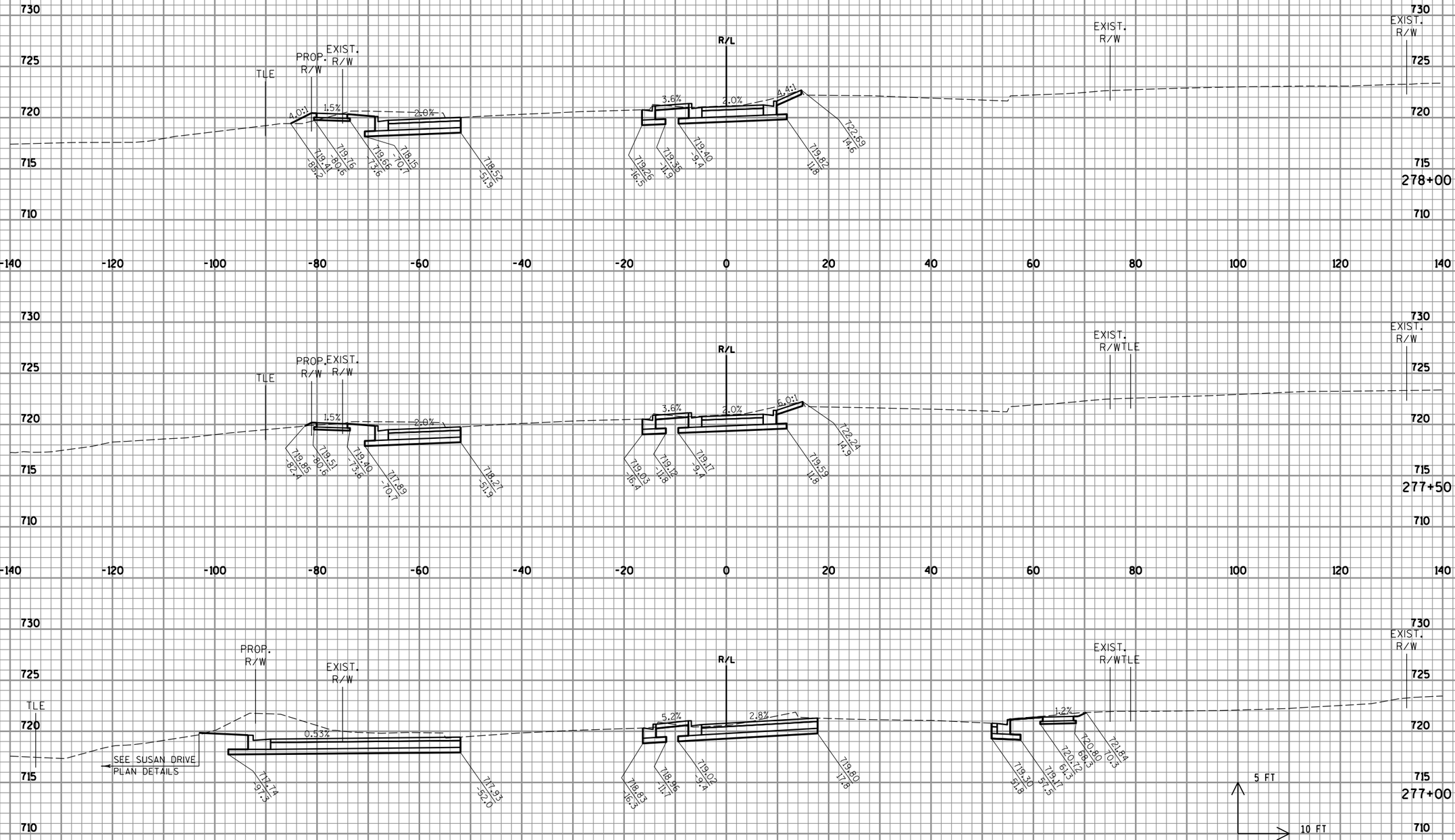


STA 276+13 TO 276+66

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1031 E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

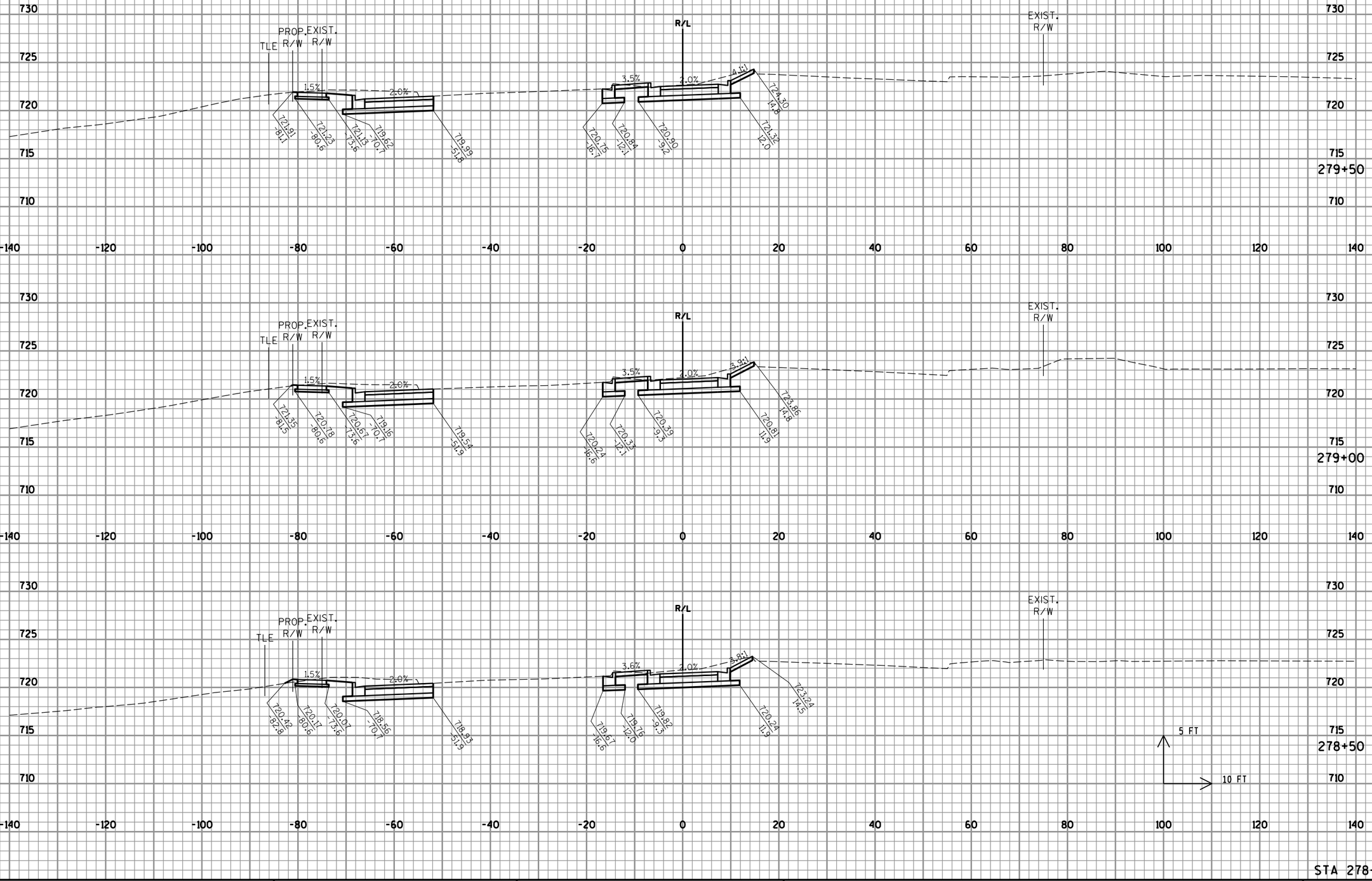
WISDOT/CADDS SHEET 21



PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1032 E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn | PLOT DATE : 12/30/2013 | PLOT BY : tjs | PLOT NAME : | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



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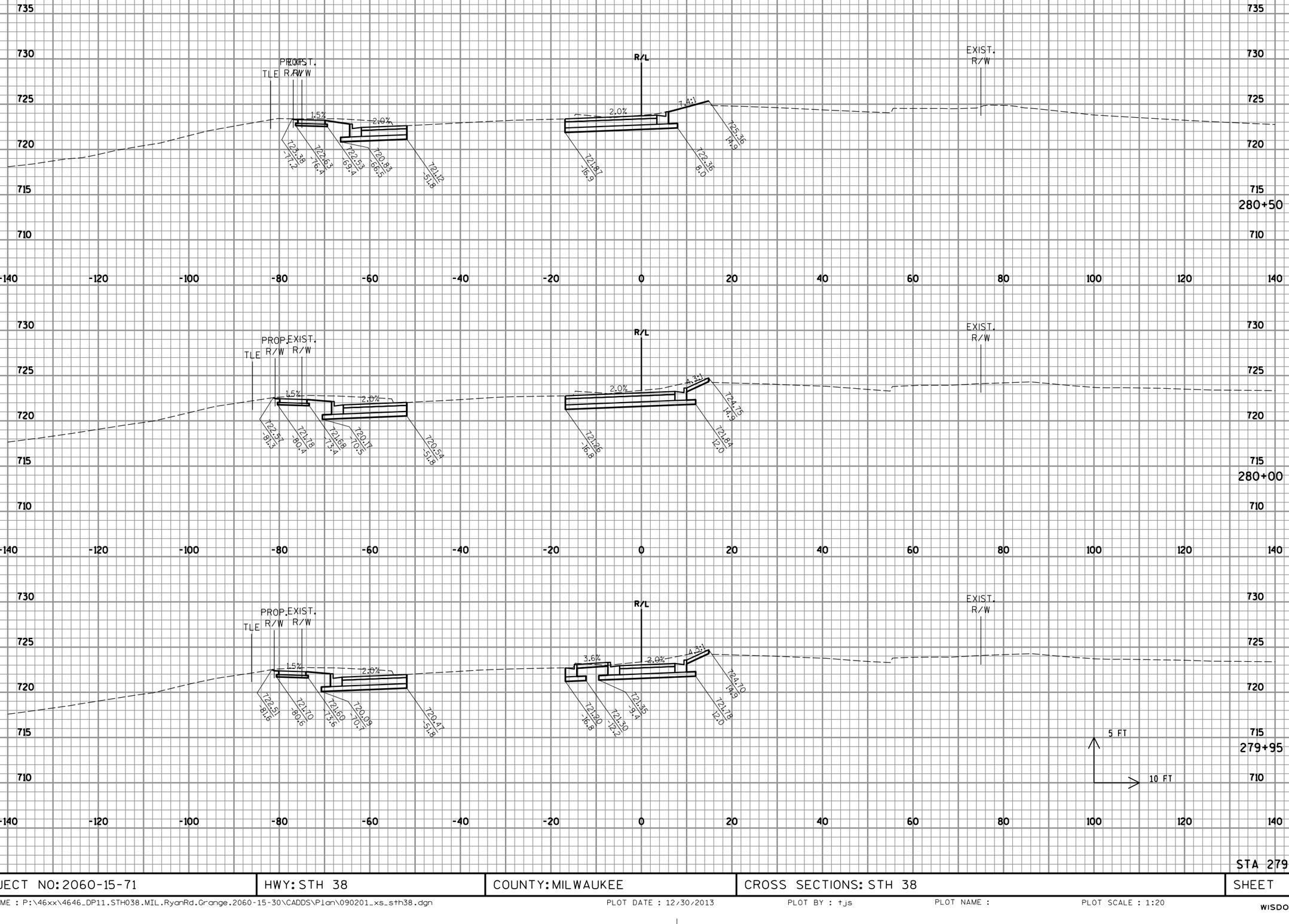
9

STA 278+50 TO 279+50

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1033	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



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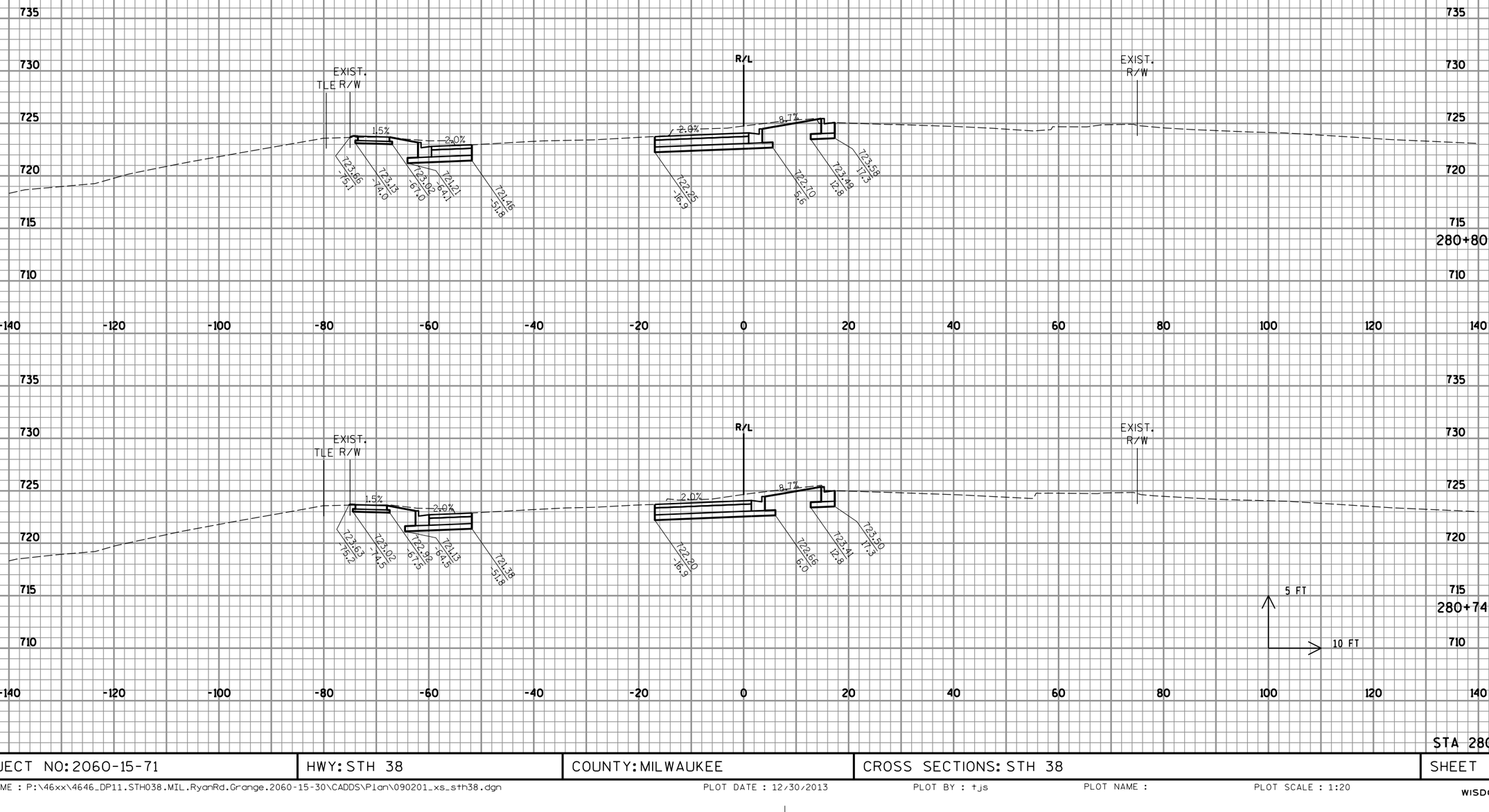
STA 279+95 TO 280+50

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1034	E



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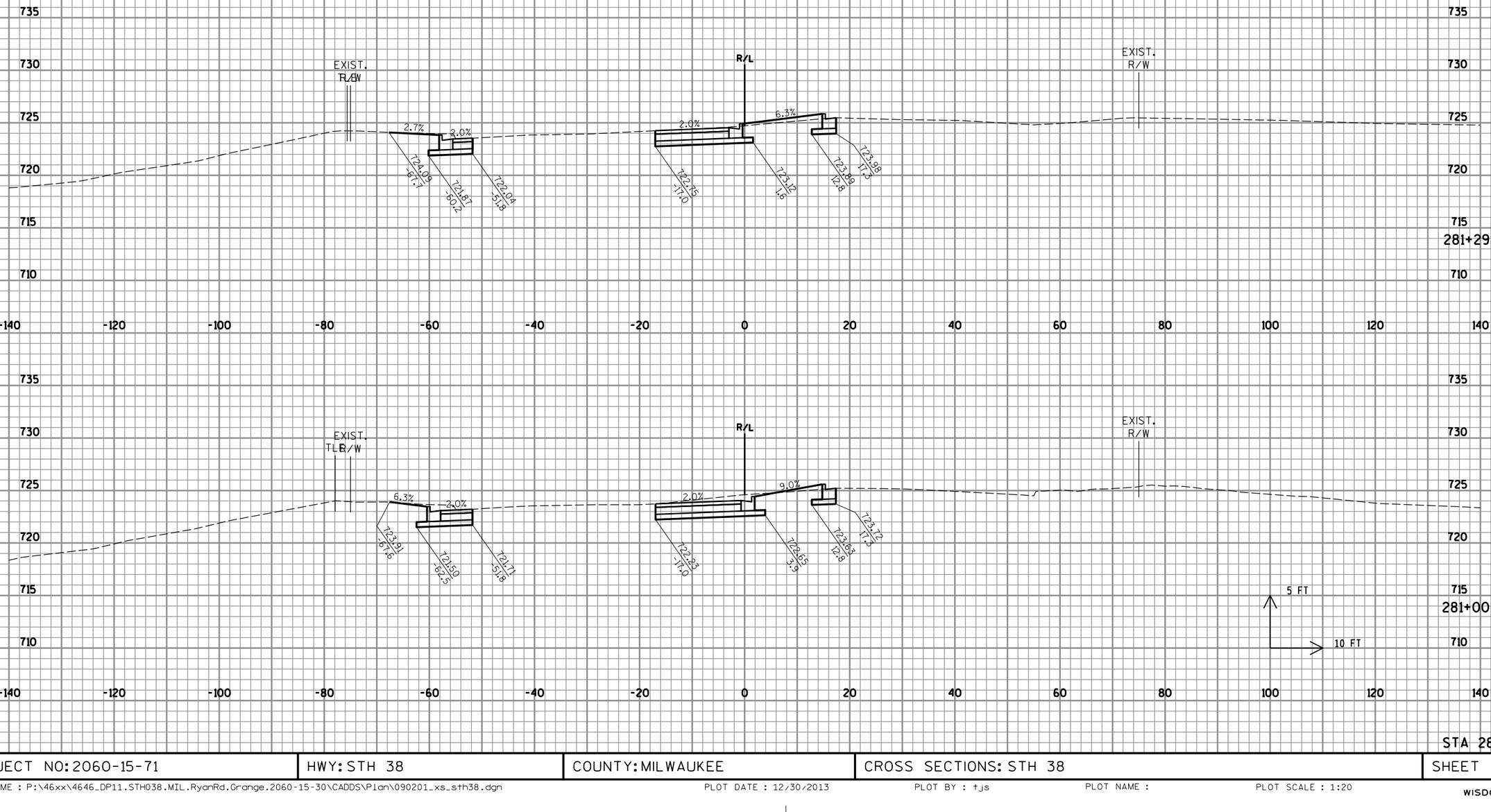
9

STA 280+74 TO 280+80

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1035	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



9

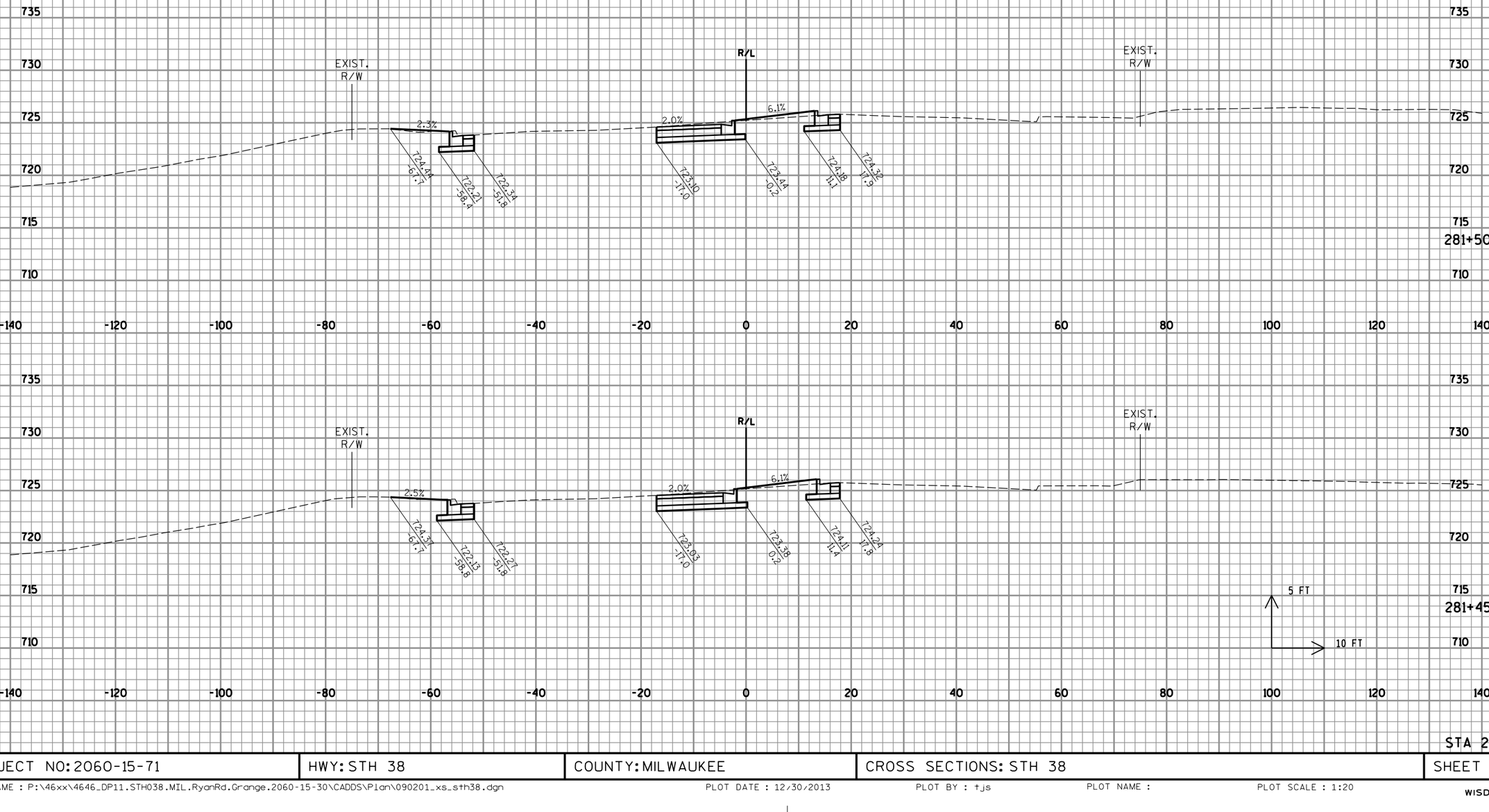
9

STA 281+00 TO 281+29

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1036	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



9

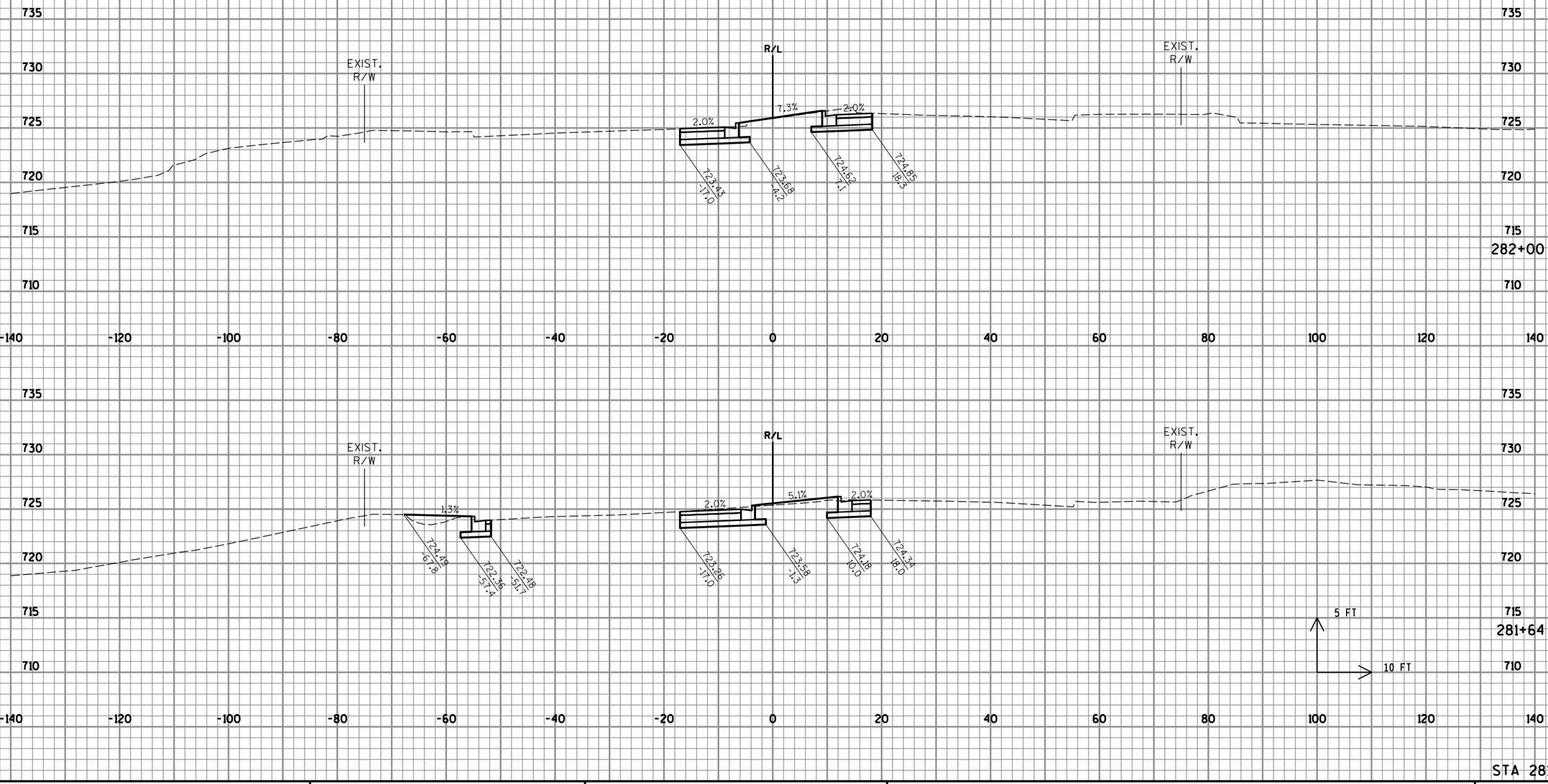
9

STA 281+45 TO 281+50

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1037	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

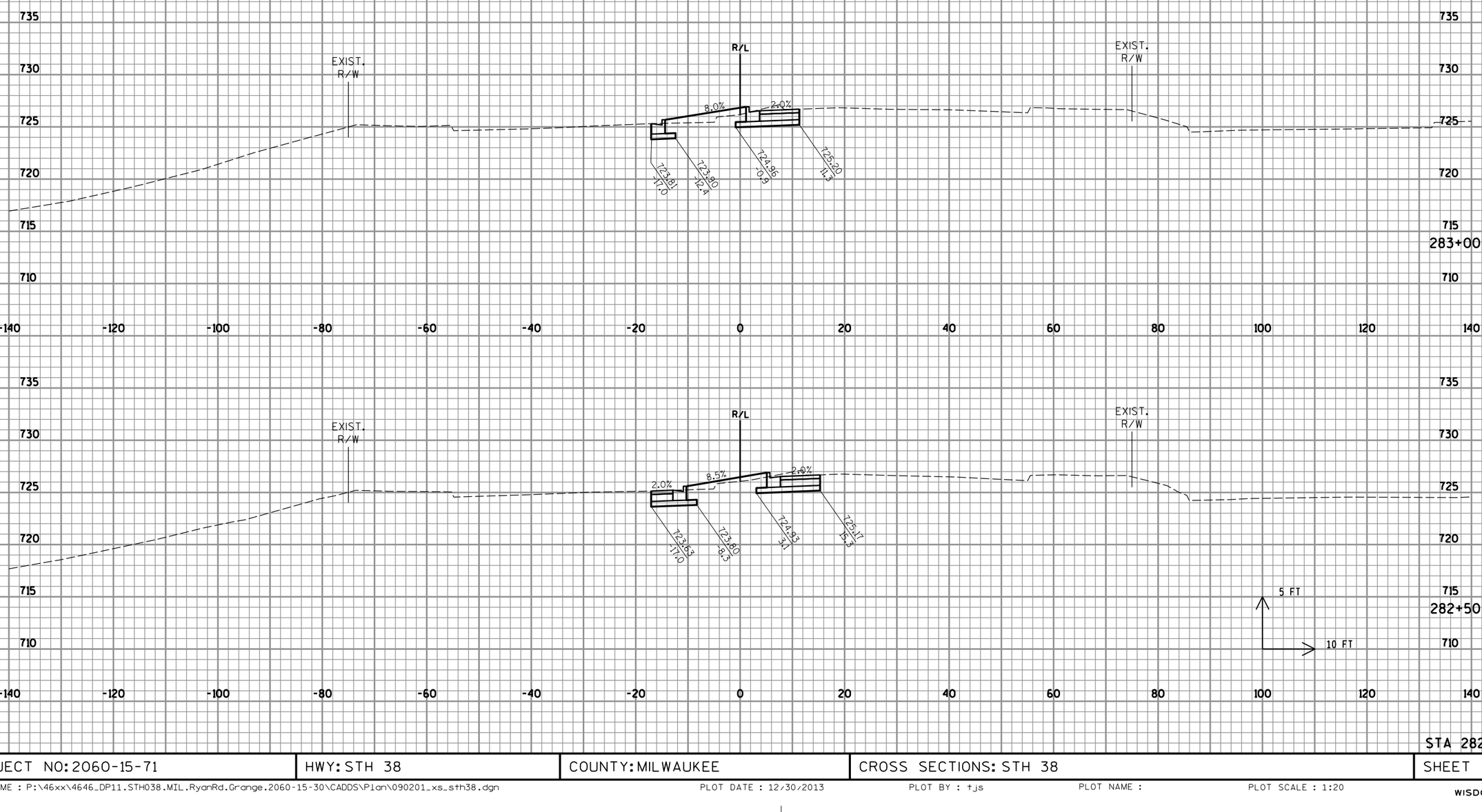
WISDOT/CADDS SHEET 21



PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1038	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



9

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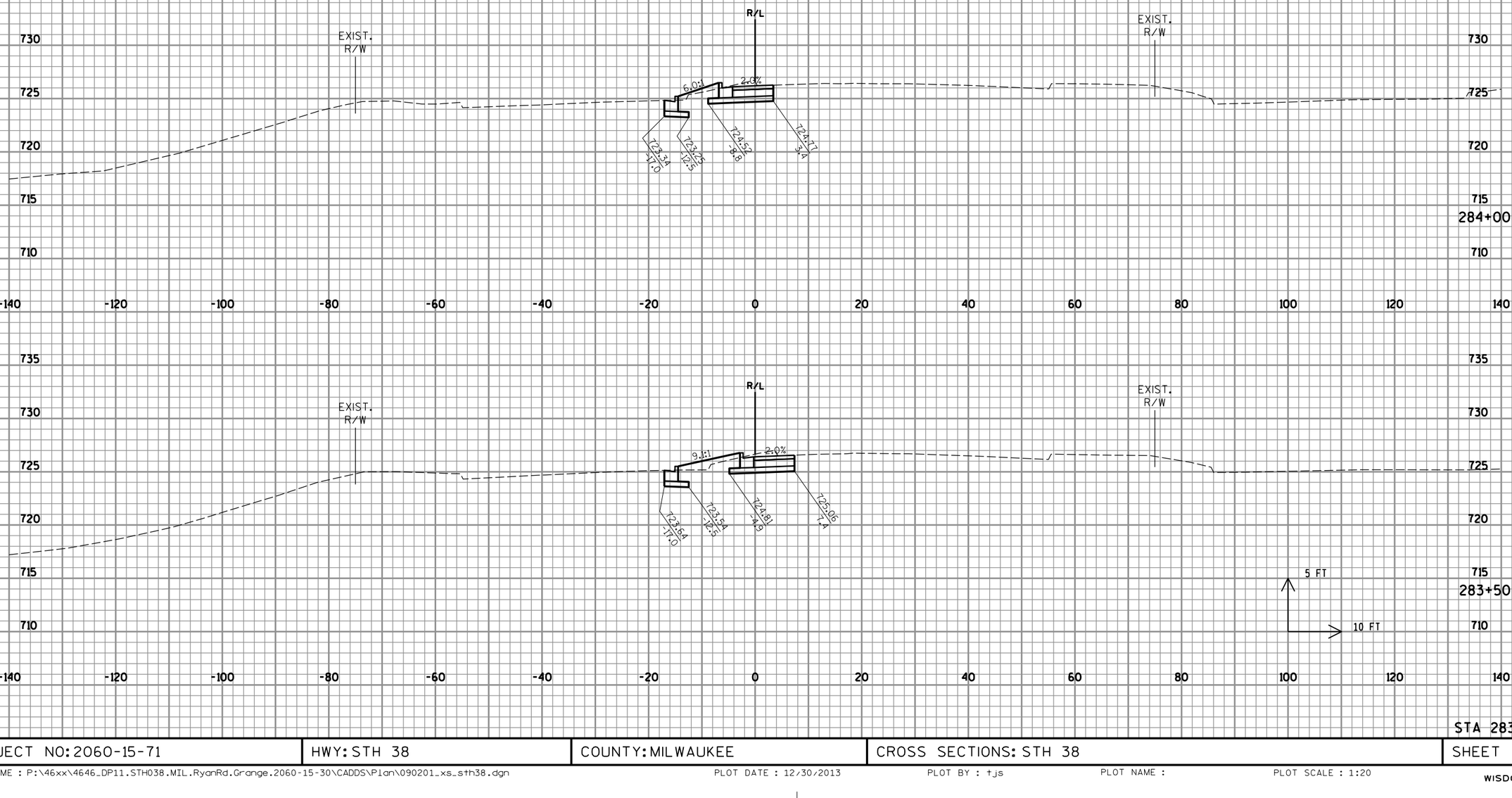
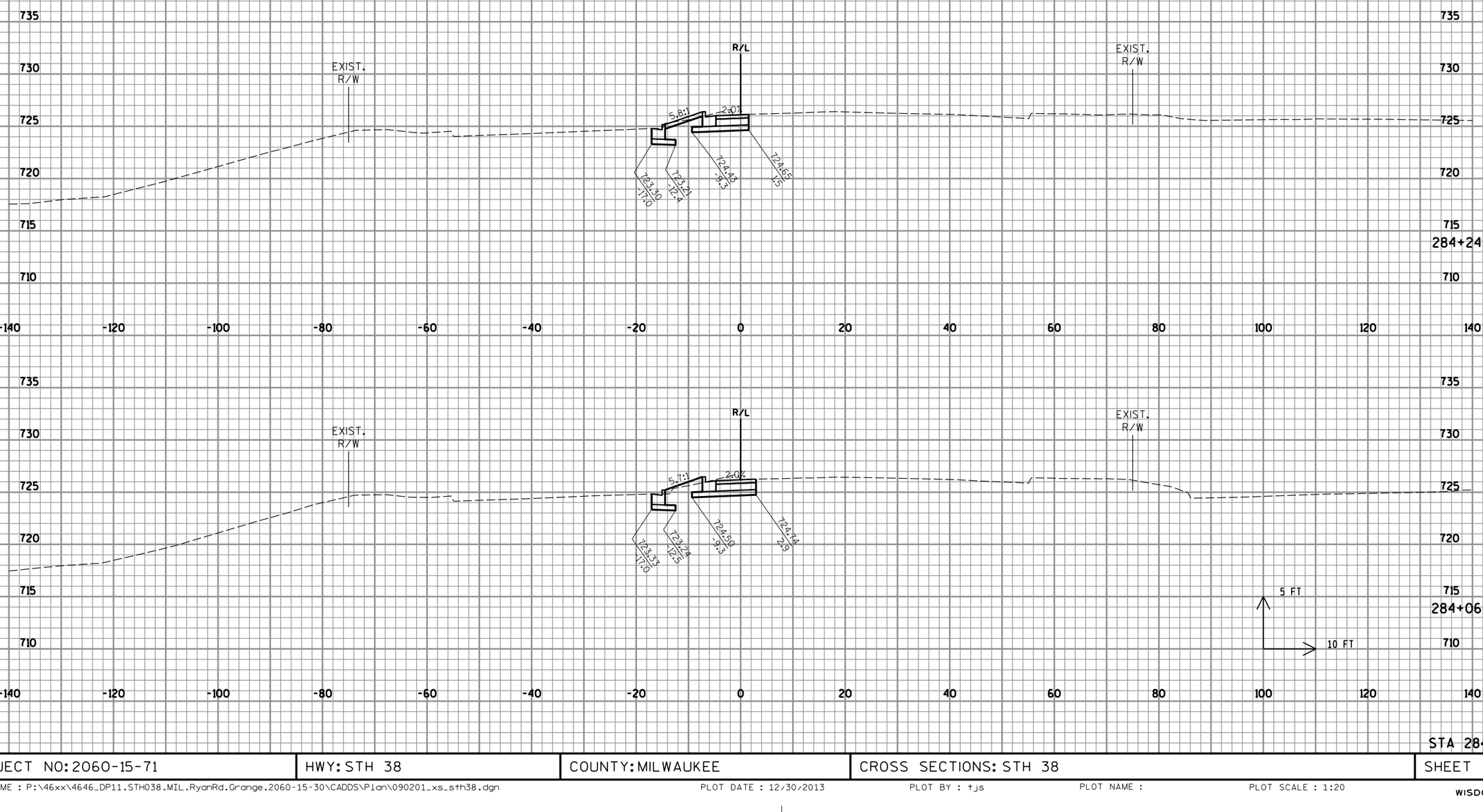
STA 282+50 TO 283+00

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1039	E



PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1040	E

STA 283+50 TO 284+00



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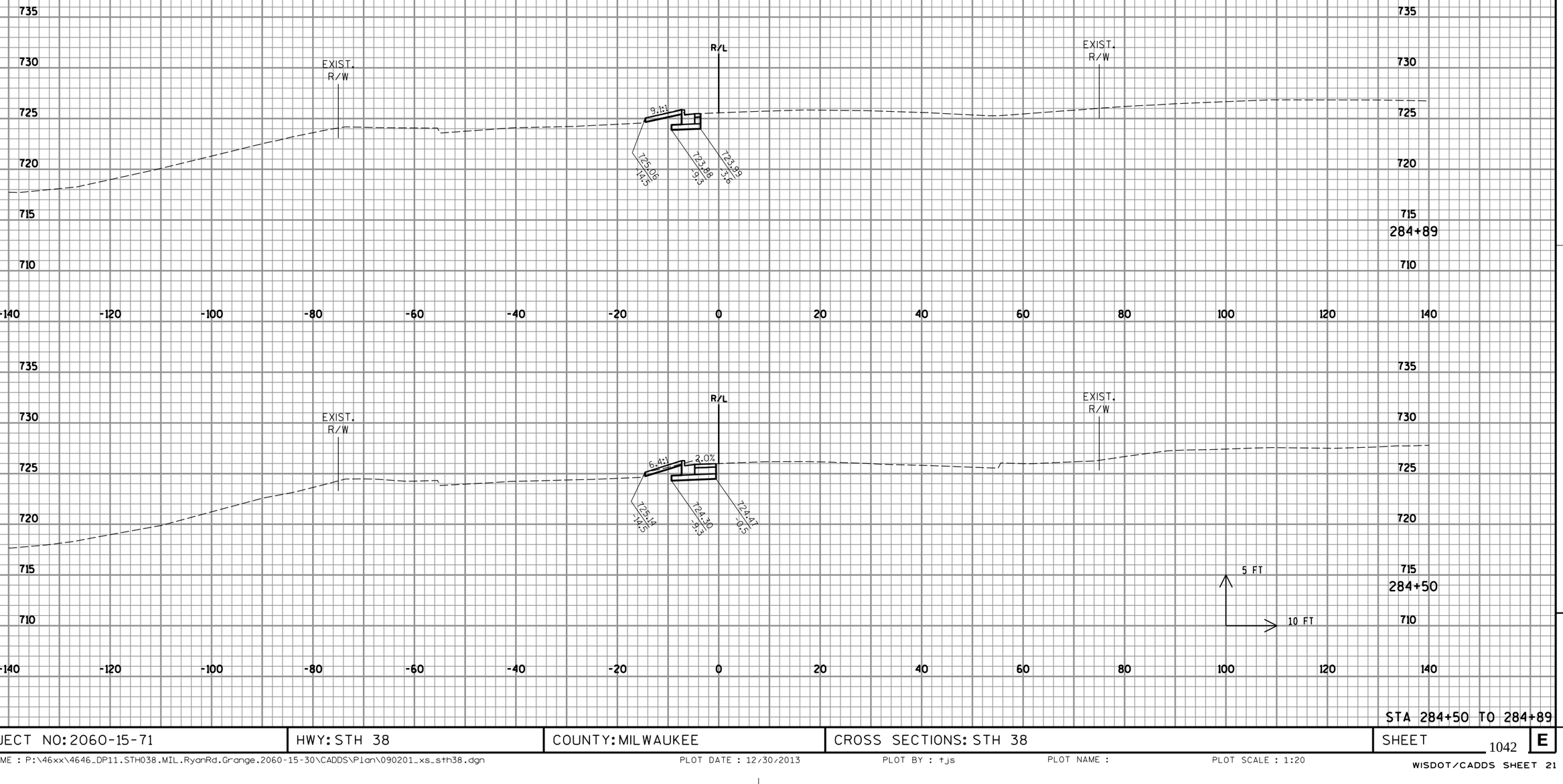
9

STA 284+06 TO 284+24

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1041	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



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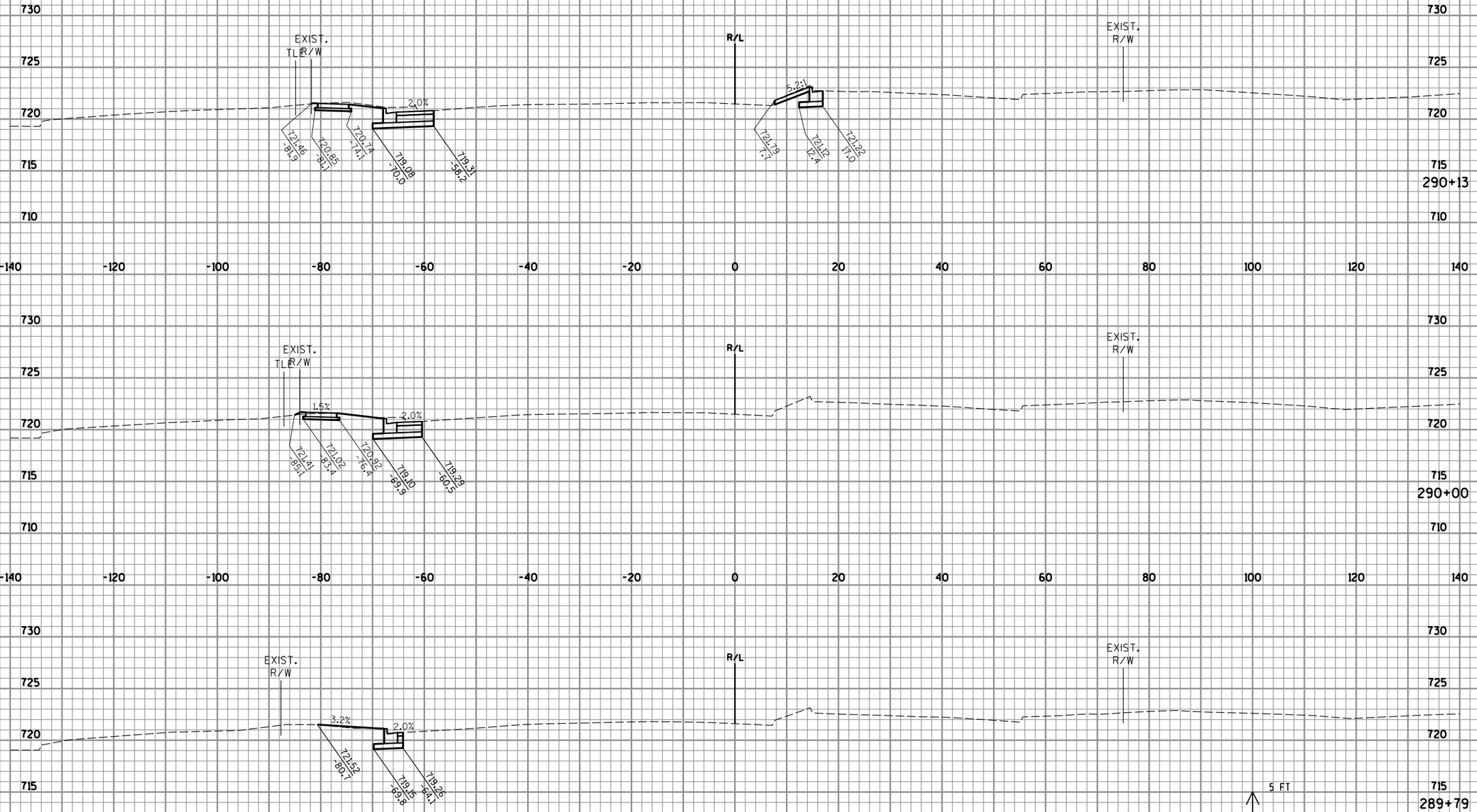
9

STA 284+50 TO 284+89

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1042	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



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9

STA 289+79 TO 290+13

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1043 E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

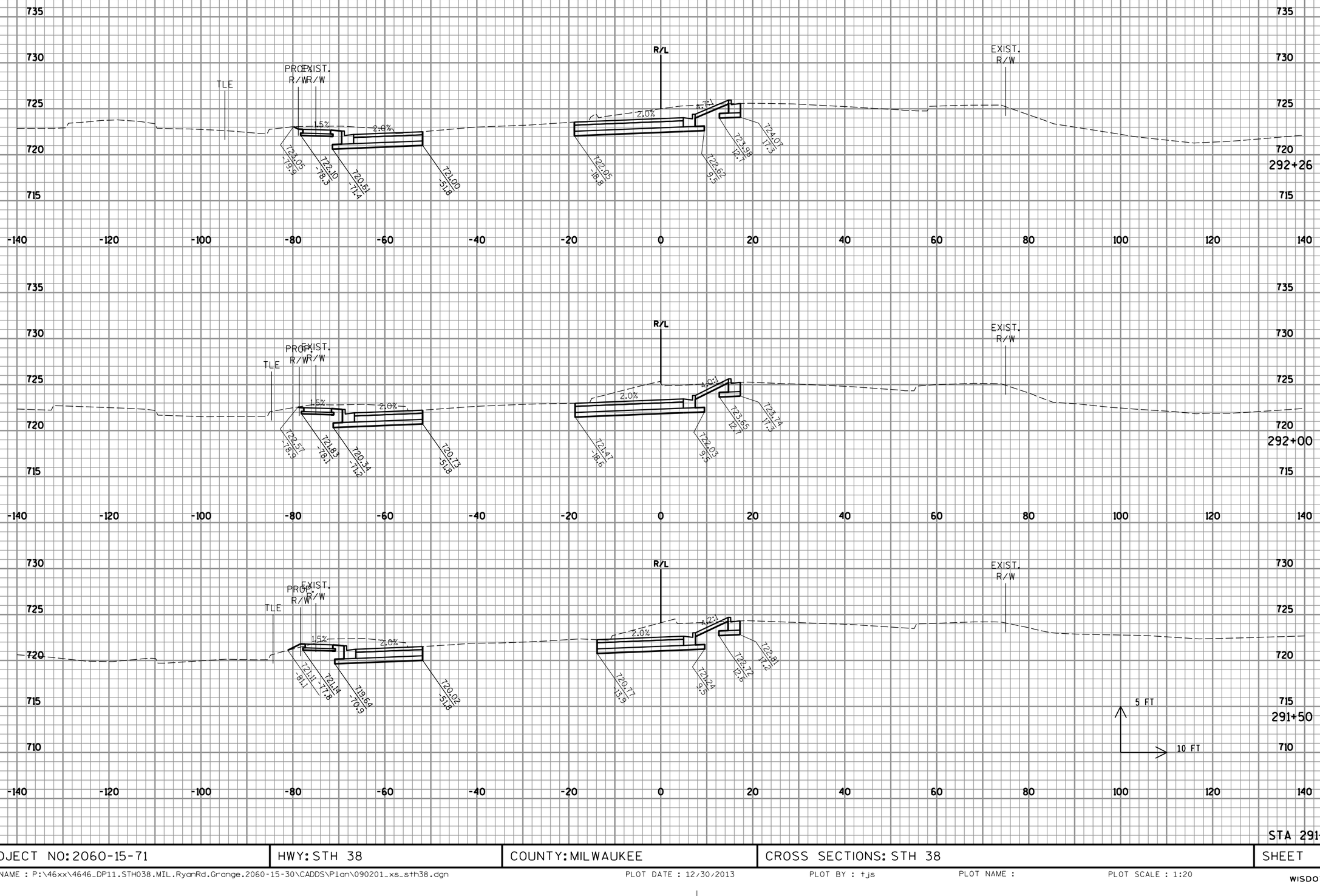
STA 290+36 TO 291+00

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1044	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

9 9



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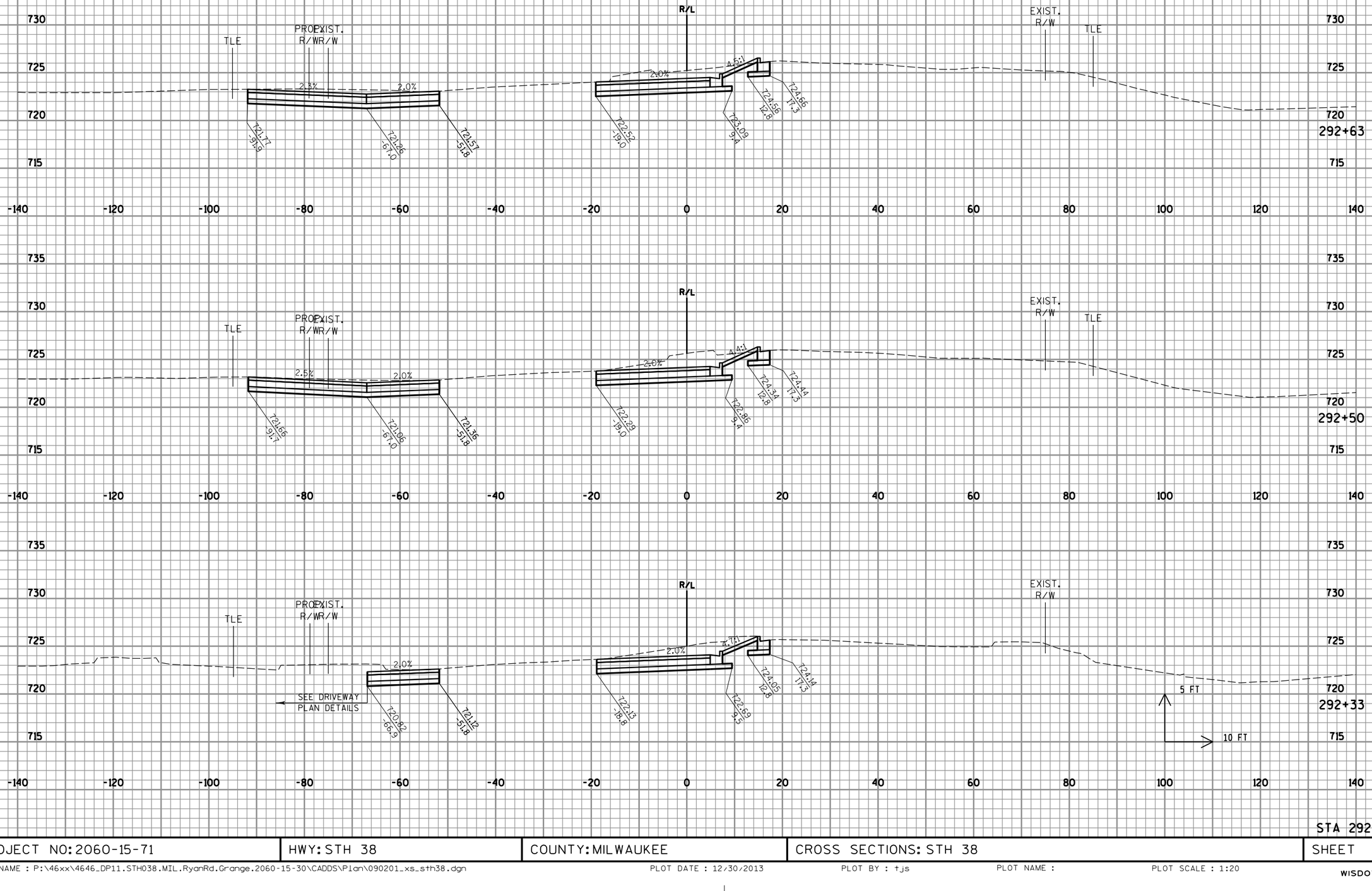
9

STA 291+50 TO 292+26

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1045	E



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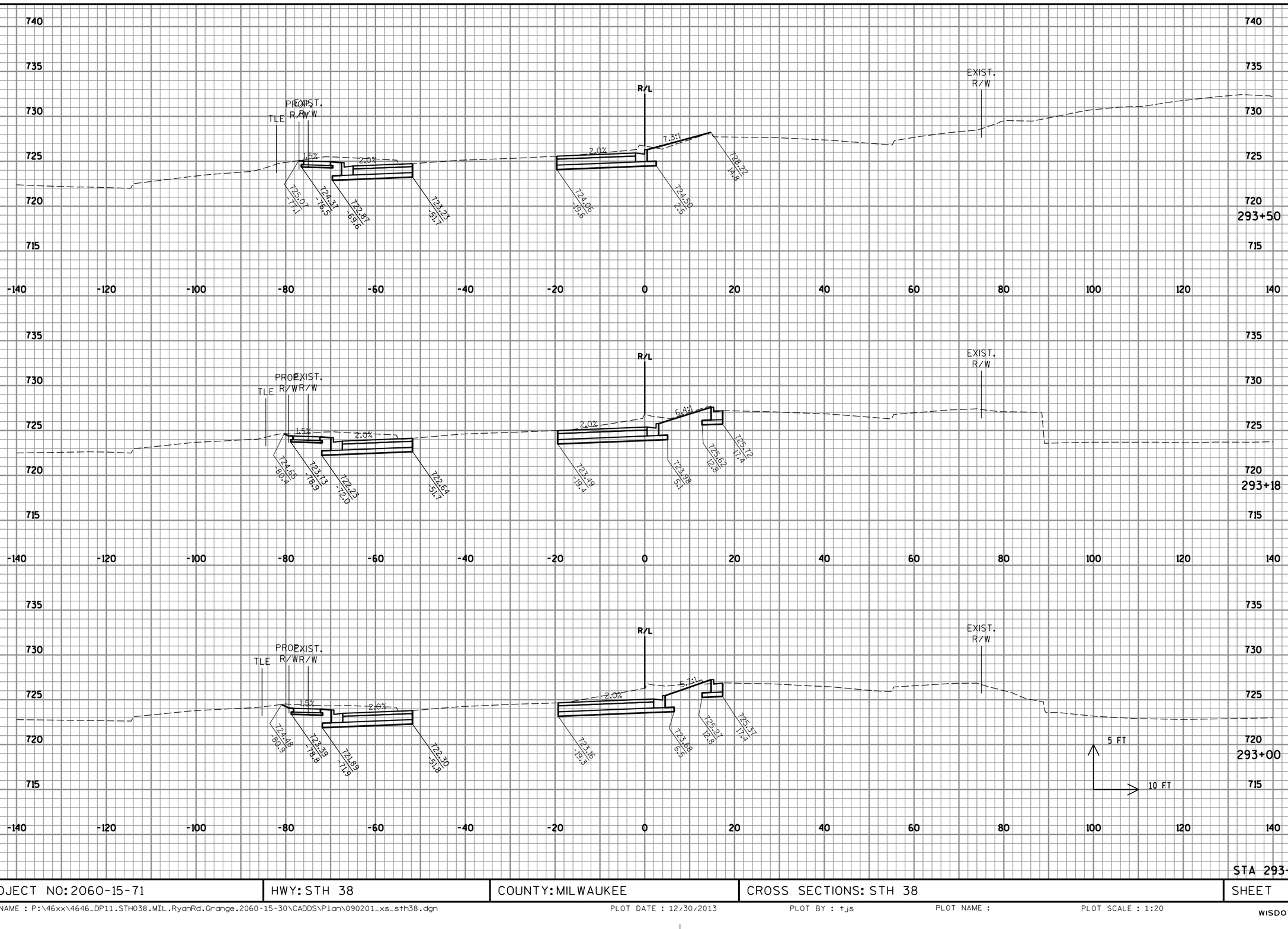
PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1046	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



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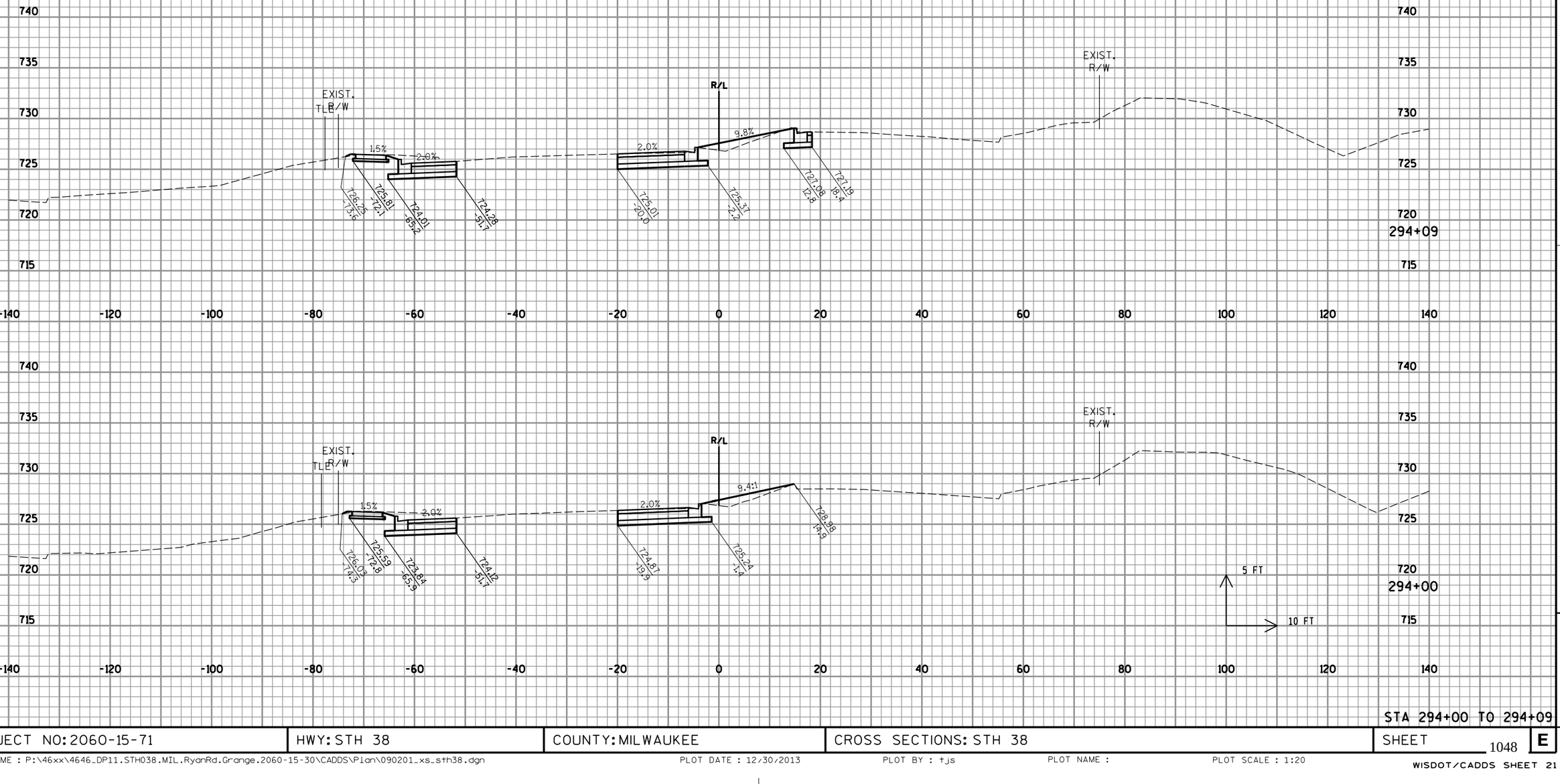
STA 293+00 TO 293+50

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1047 E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn | PLOT DATE : 12/30/2013 | PLOT BY : tjs | PLOT NAME : | PLOT SCALE : 1:20



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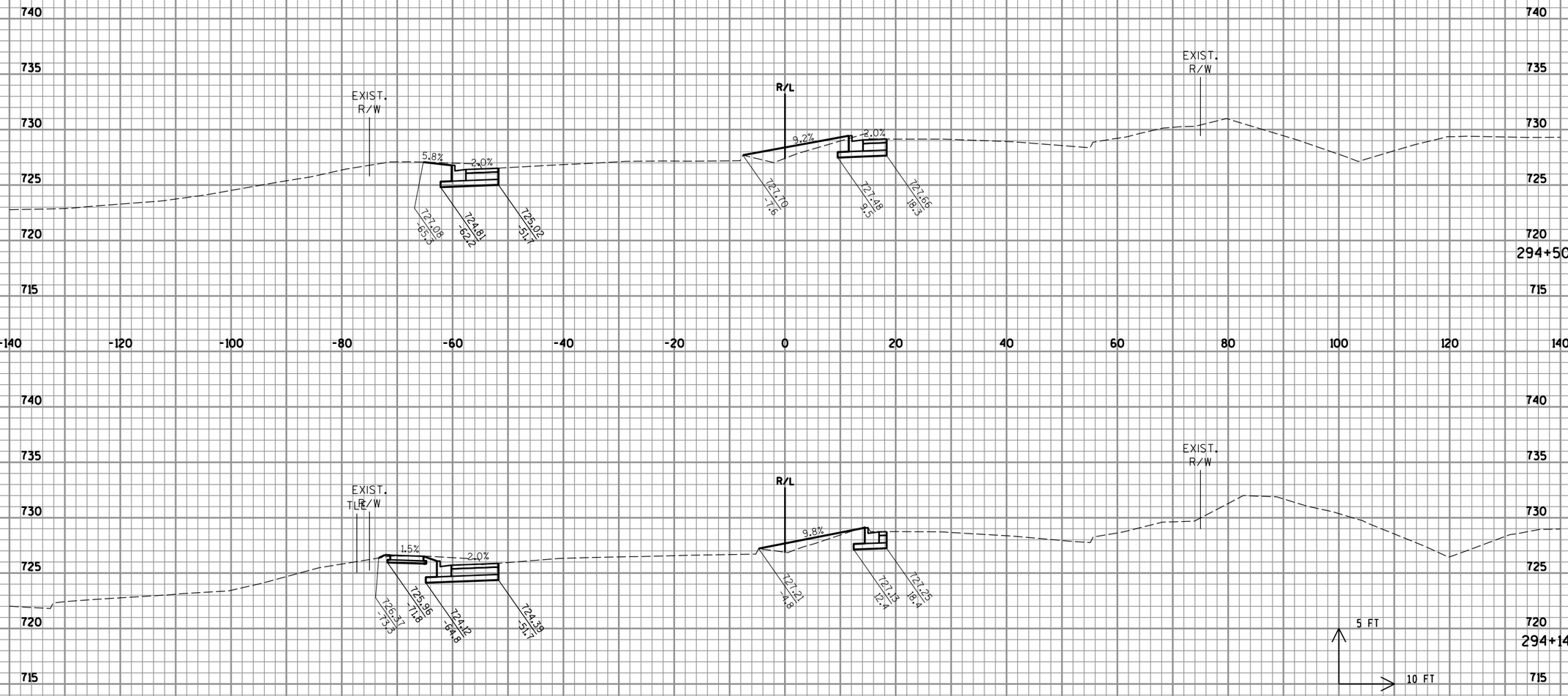
STA 294+00 TO 294+09

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1048	E



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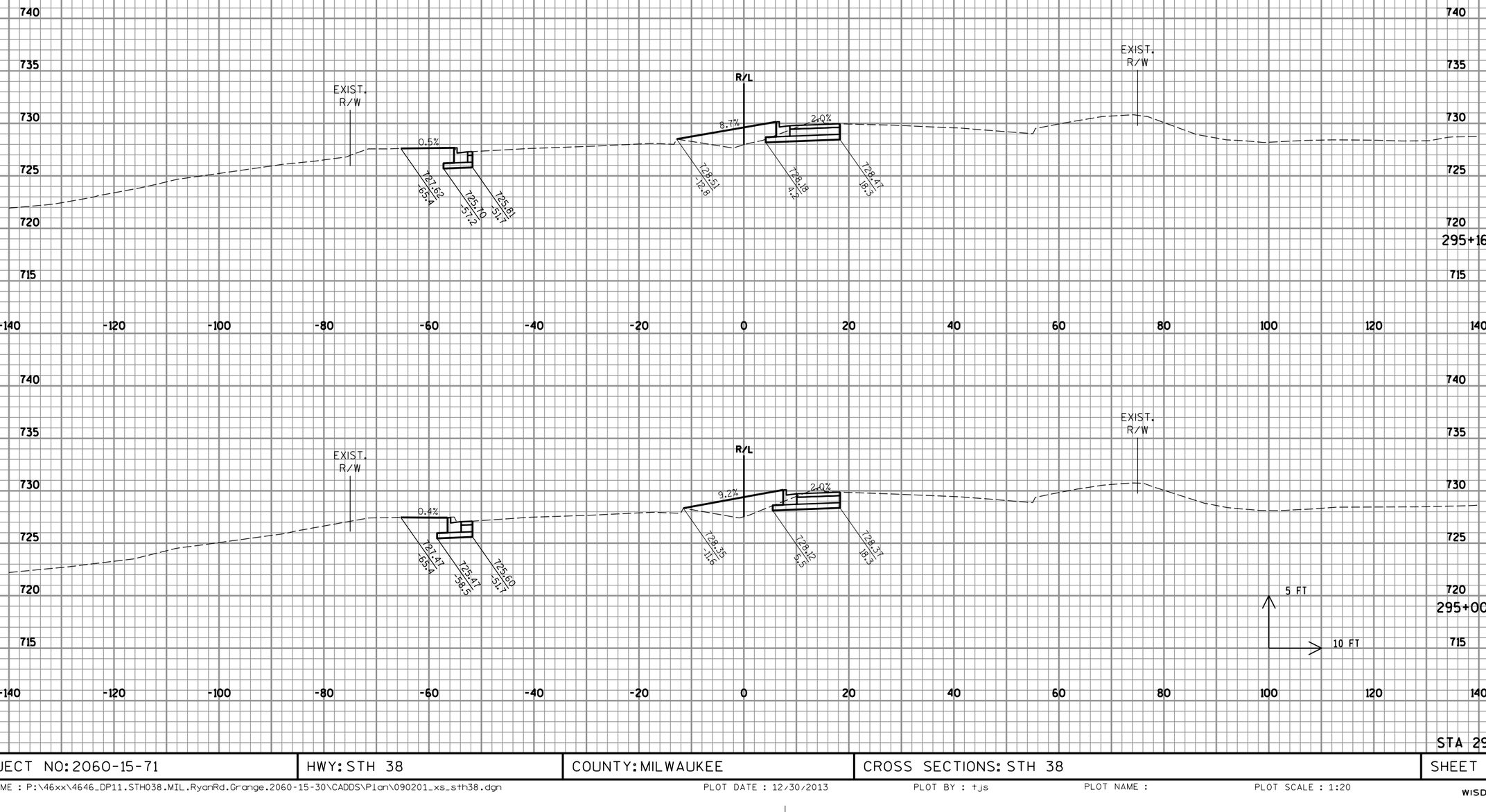
STA 294+14 TO 294+50

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1049	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



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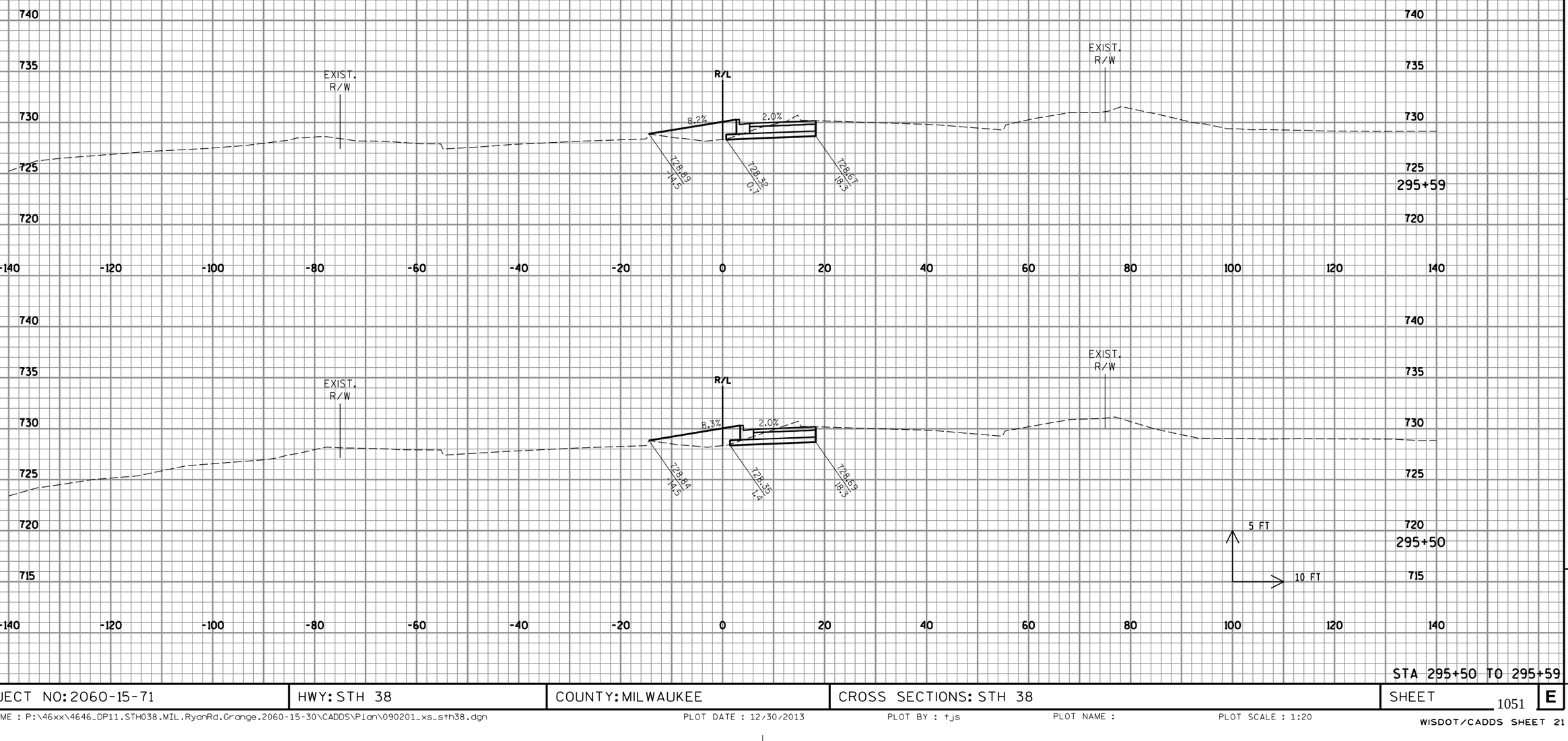
STA 295+00 TO 295+16

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1050	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn
PLOT DATE : 12/30/2013
PLOT BY : tjs
PLOT NAME :
PLOT SCALE : 1:20
WISDOT/CADDS SHEET 21



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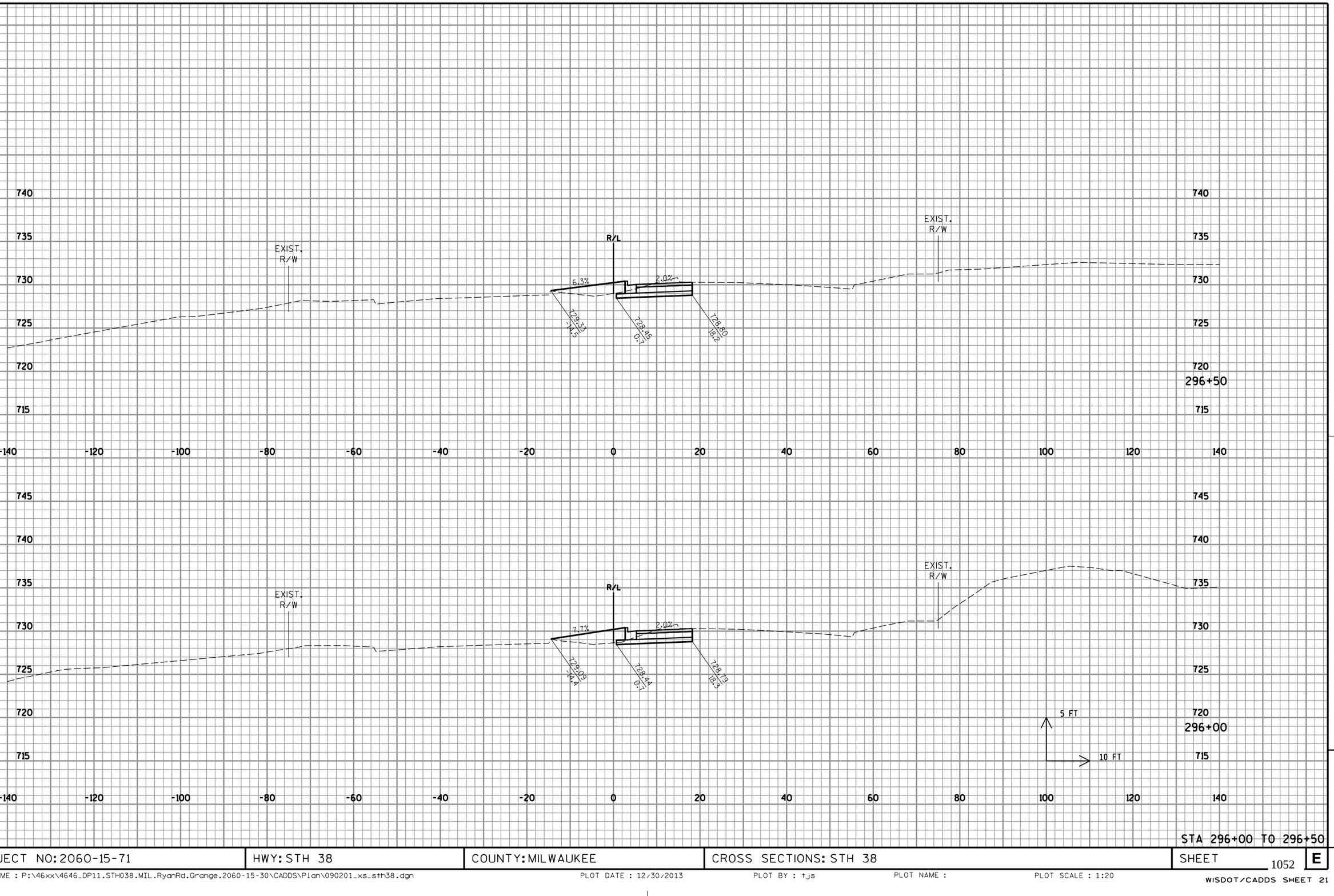
STA 295+50 TO 295+59

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1051	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



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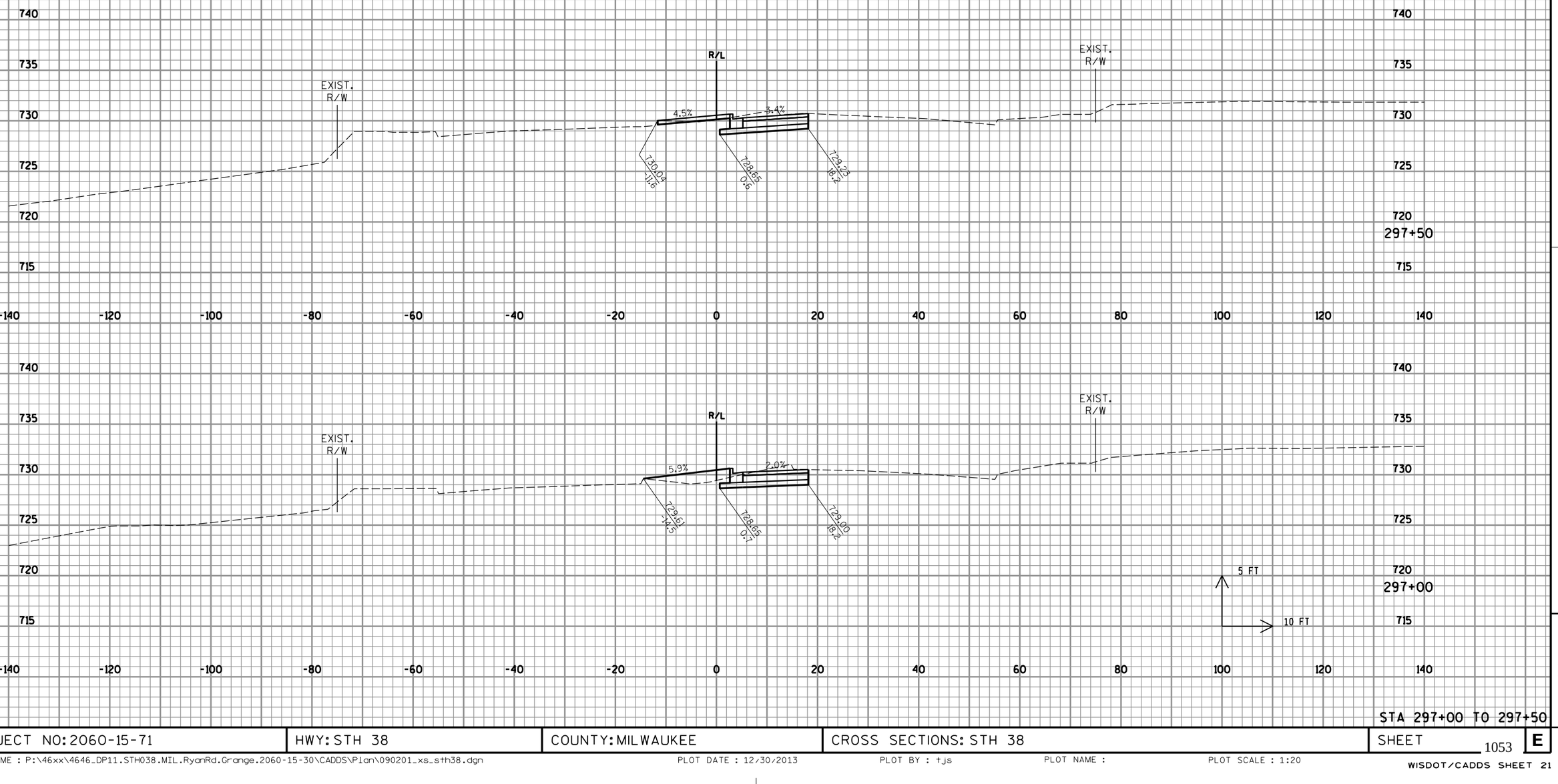
STA 296+00 TO 296+50

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



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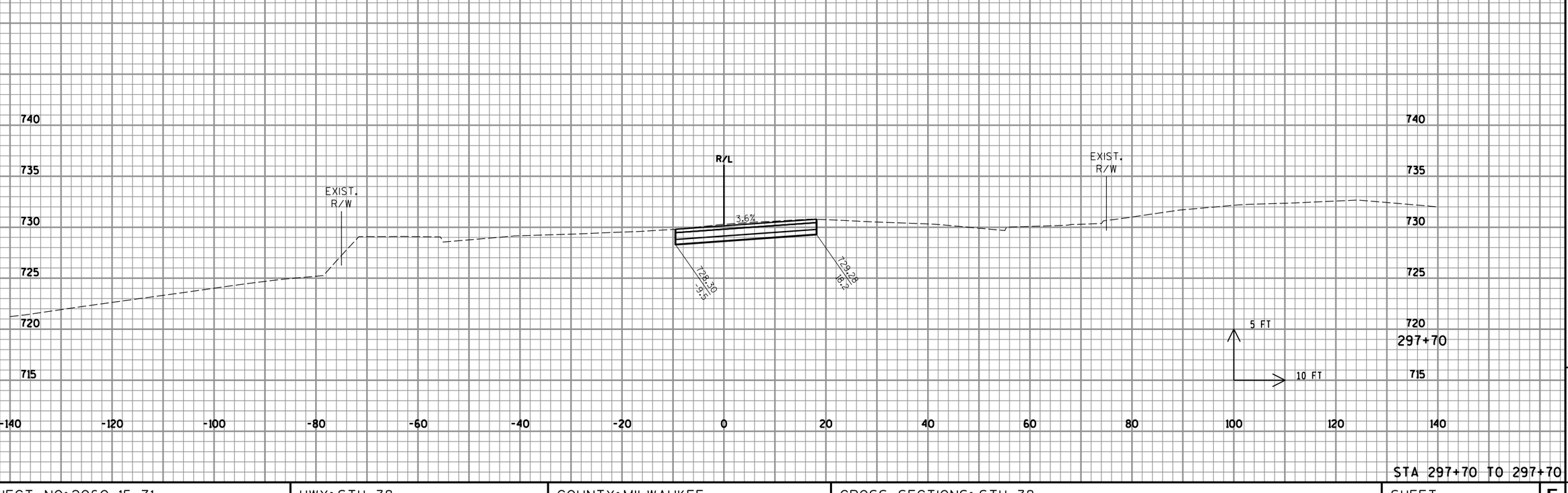
STA 297+00 TO 297+50

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1053	E



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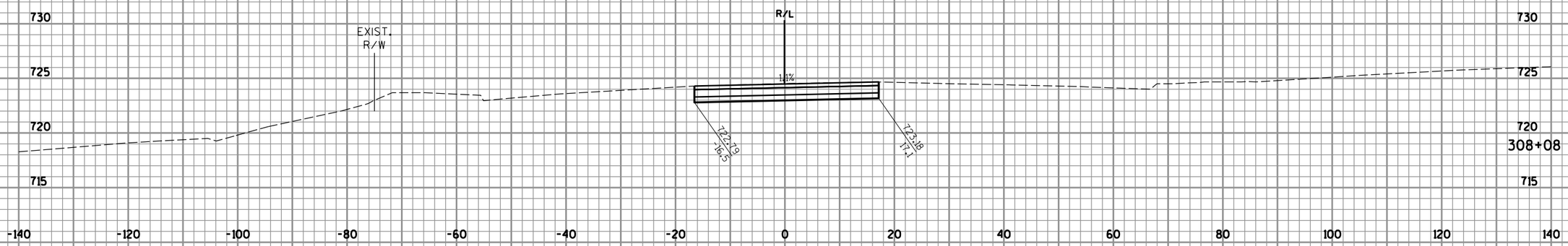
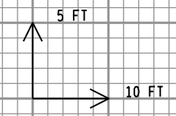
STA 297+70 TO 297+70

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21





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STA 308+08 TO 308+08

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1055	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

9

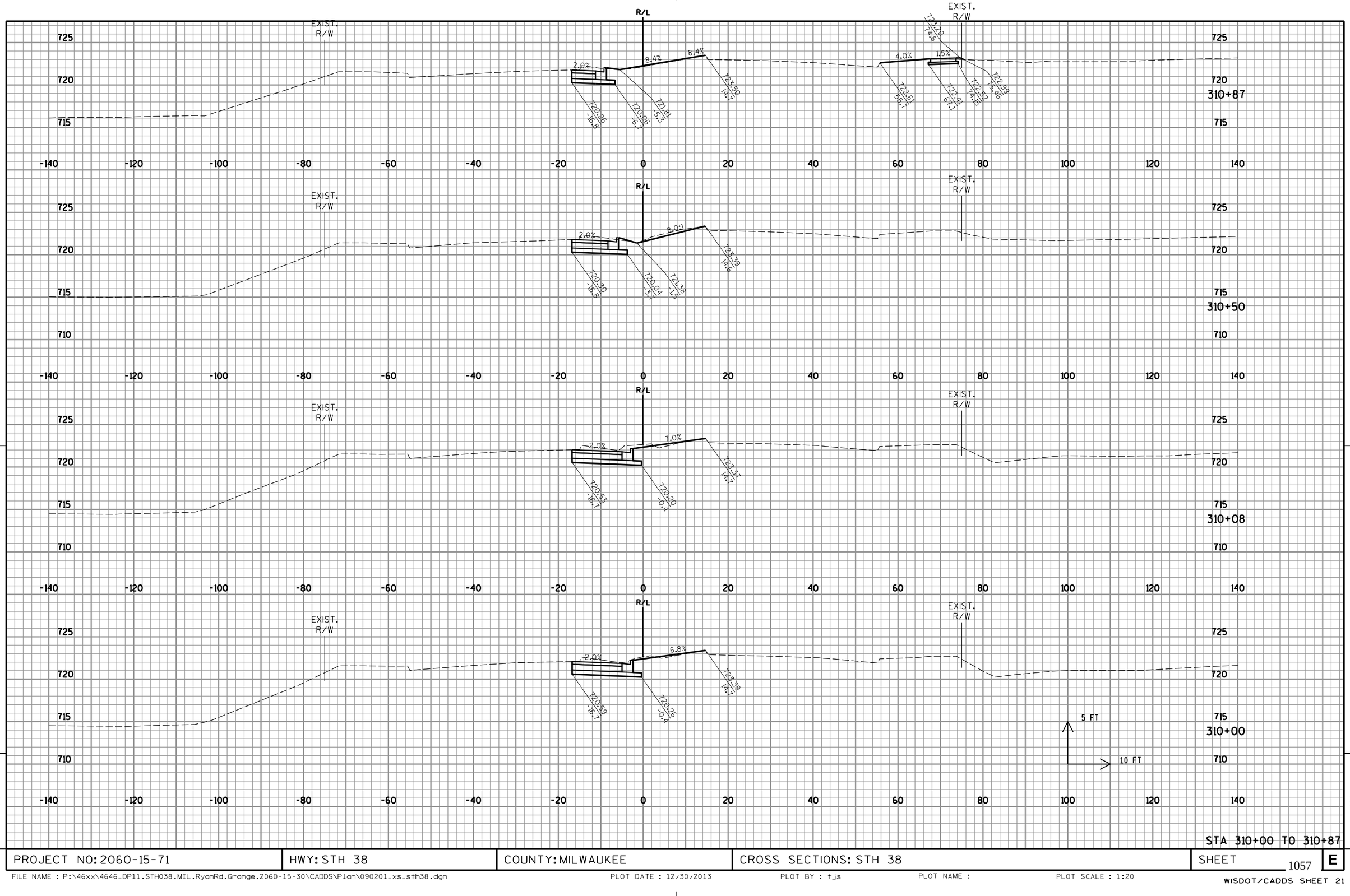
9

STA 308+50 TO 309+50

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1056	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



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STA 310+00 TO 310+87

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

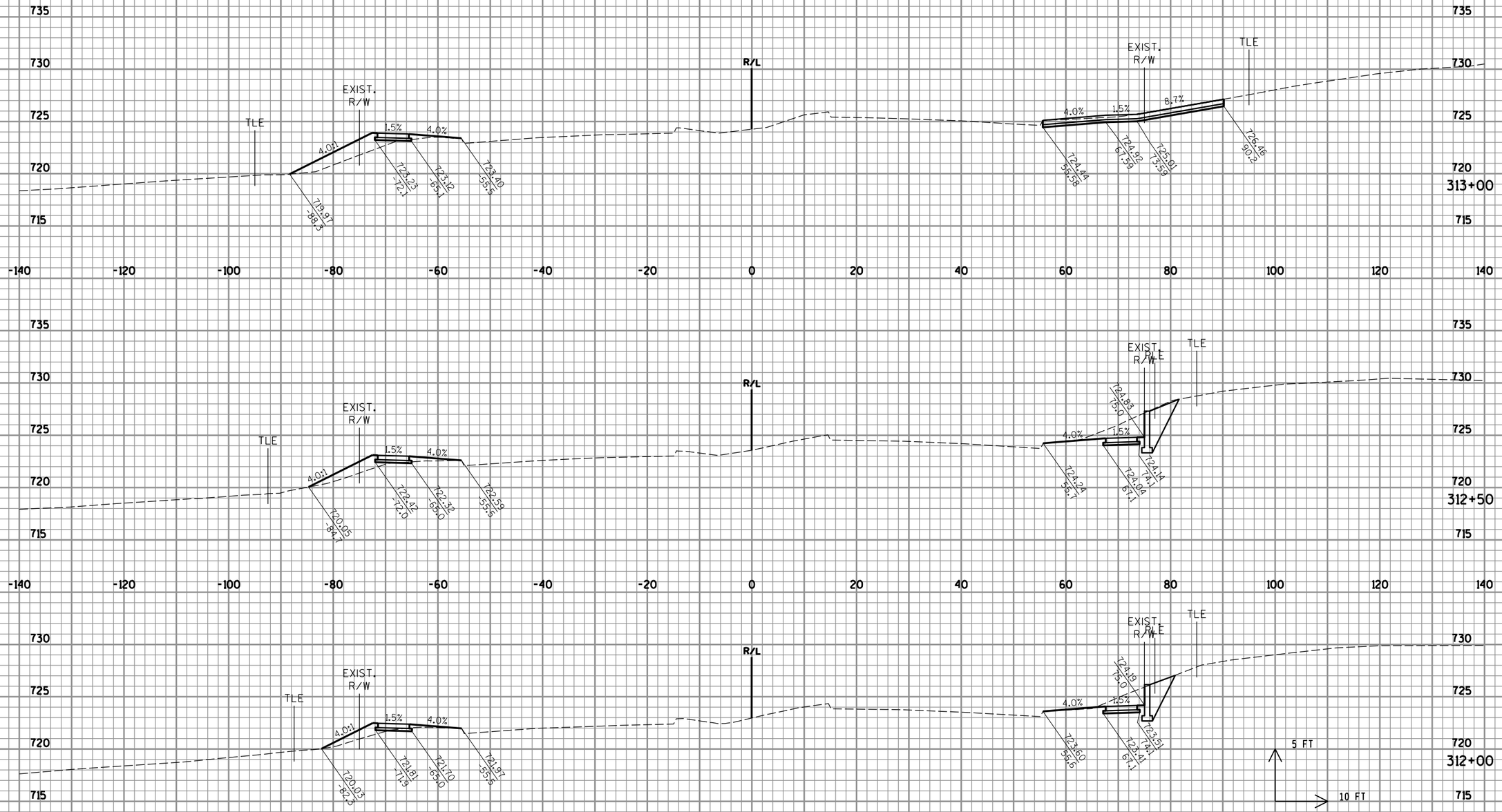
WISDOT/CADDS SHEET 21

STA 311+00 TO 311+58

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1058 E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



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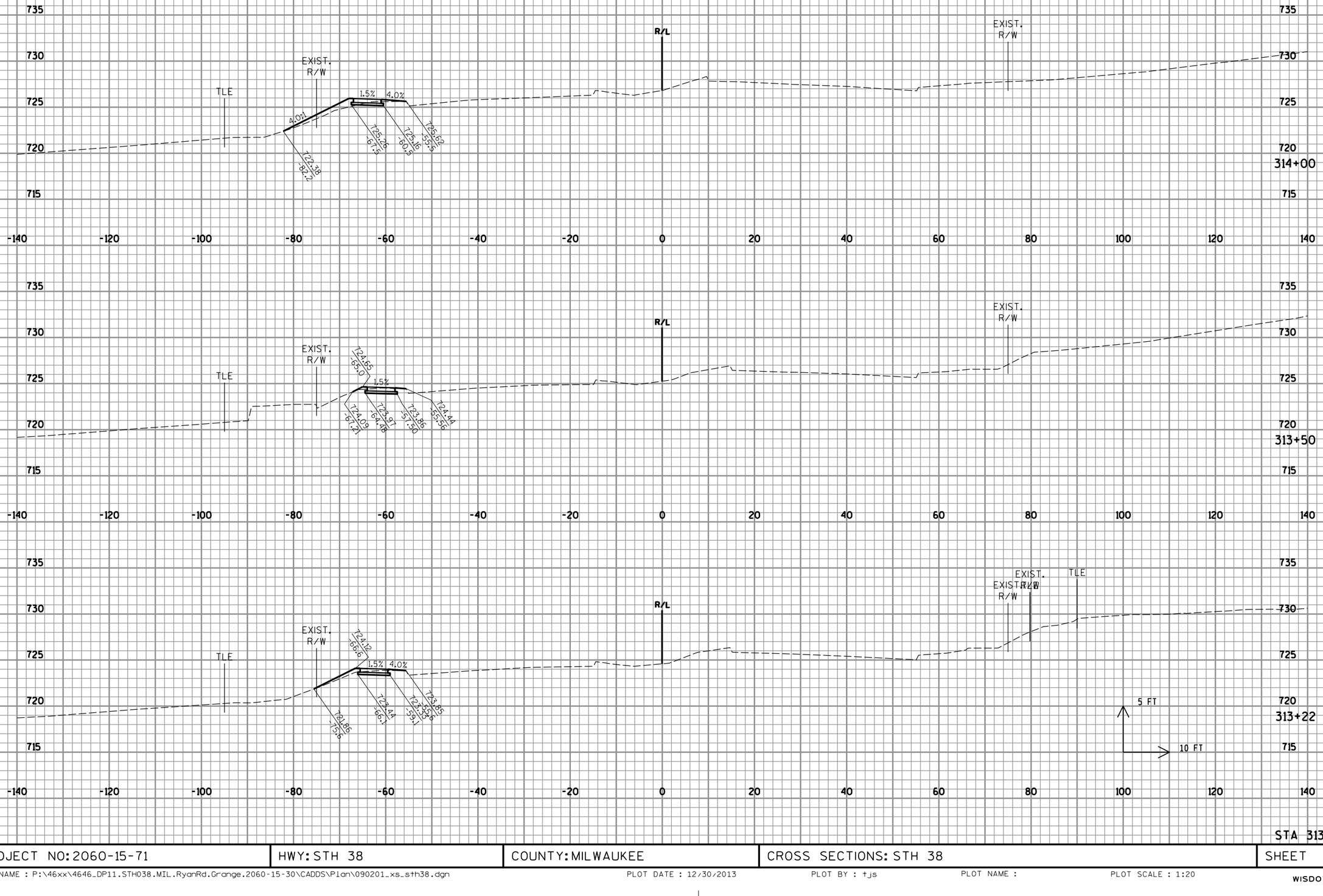
STA 312+00 TO 313+00

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1059 E

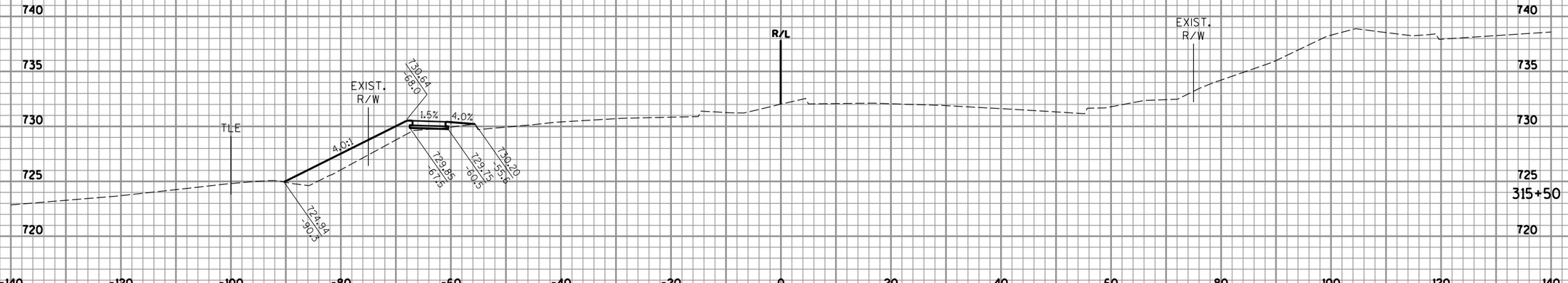
FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

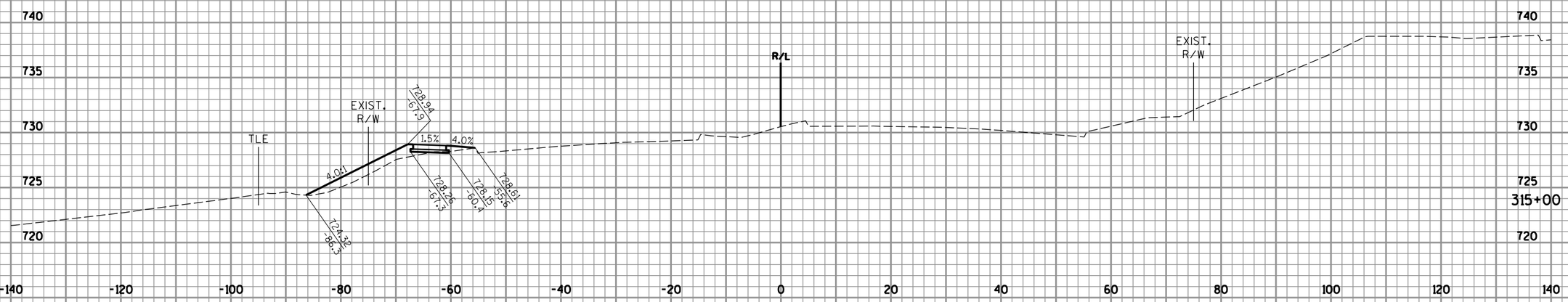


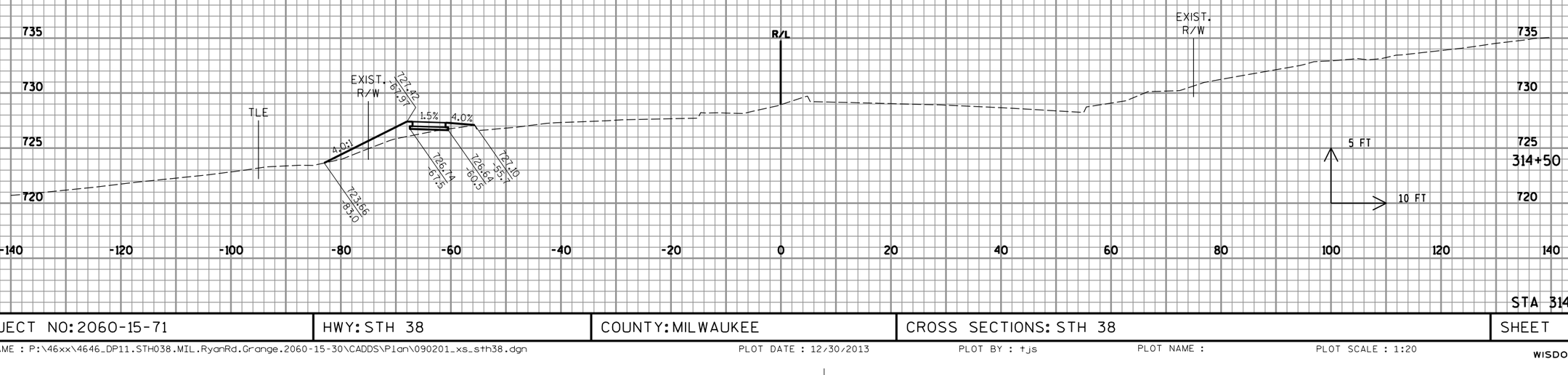
PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1060 E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21







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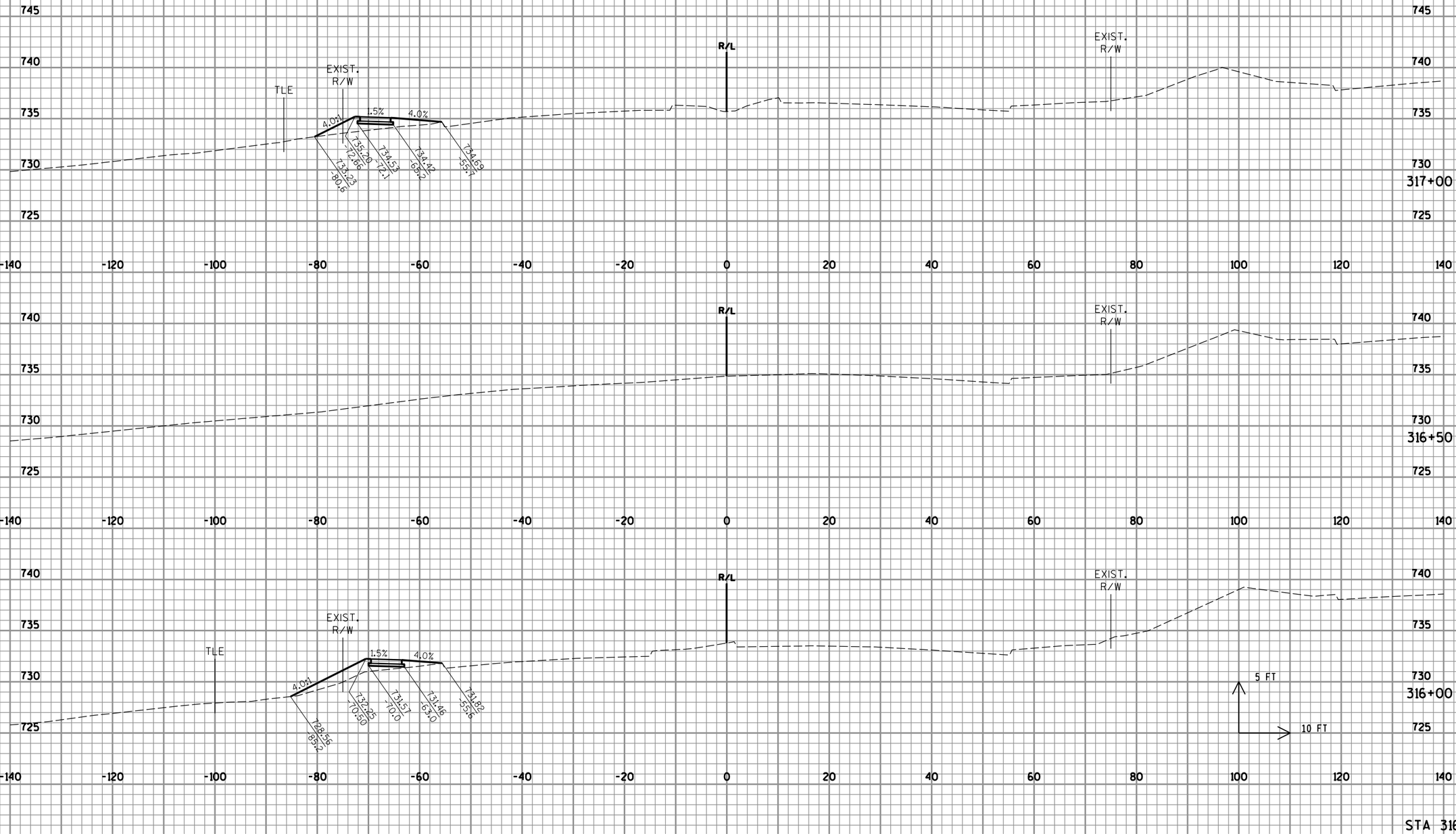
STA 314+50 TO 315+50

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1061 E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn | PLOT DATE : 12/30/2013 | PLOT BY : tjs | PLOT NAME : | PLOT SCALE : 1:20



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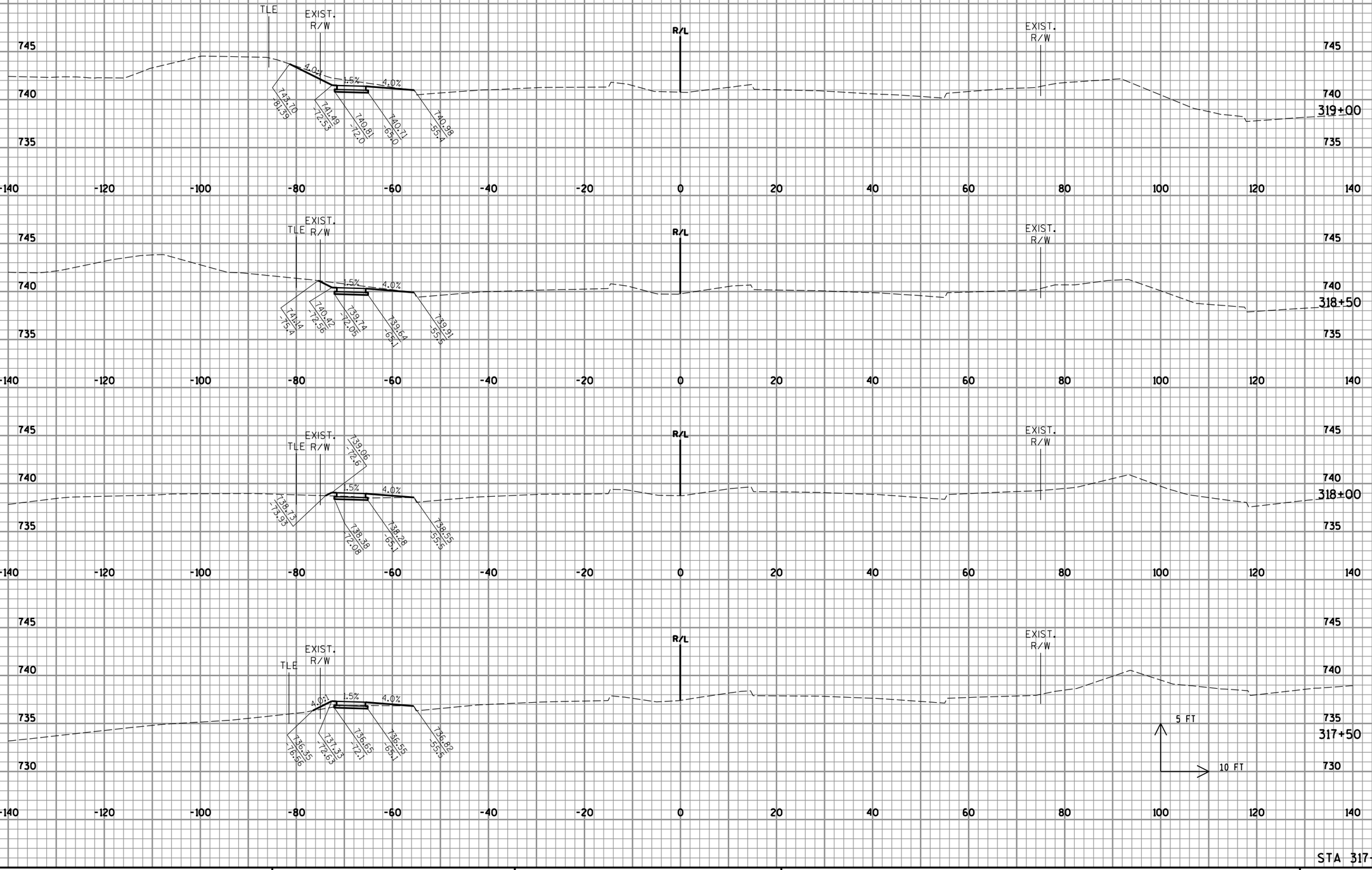
STA 316+00 TO 317+00

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1062 E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



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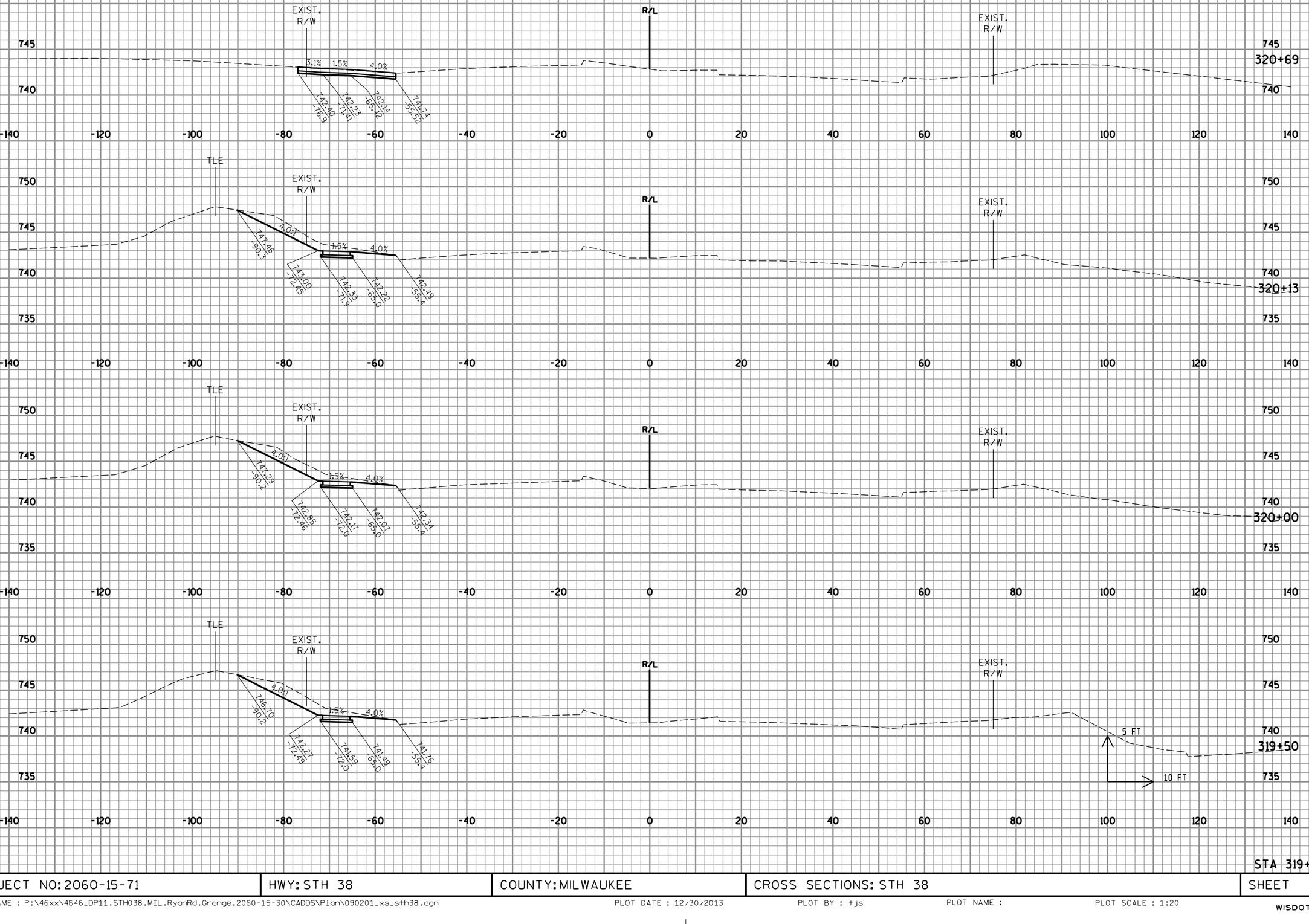
STA 317+50 TO 319+00

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1063	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



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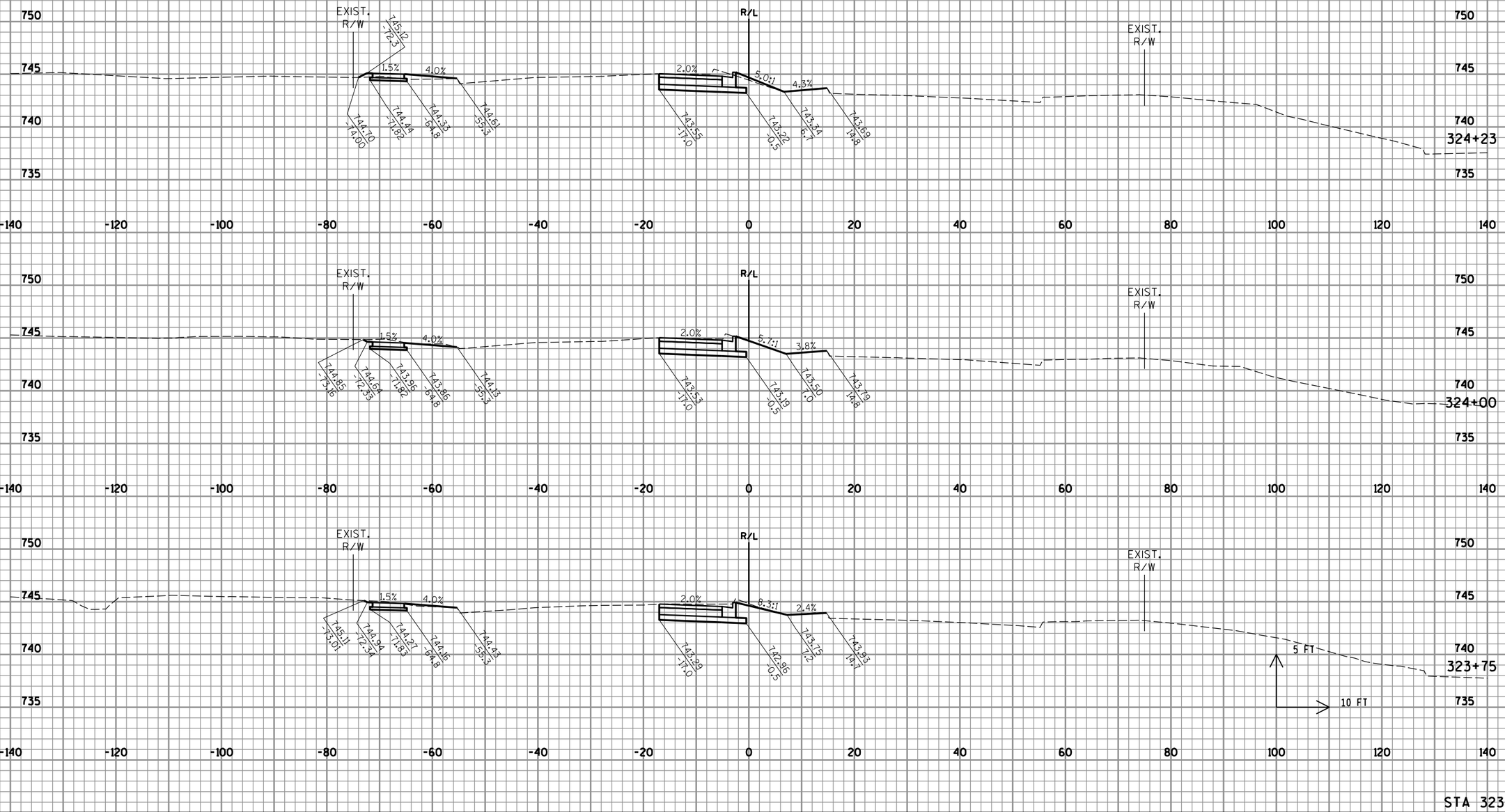
STA 319+50 TO 320+69

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1064 E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



STA 323+75 TO 324+23

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1065 E

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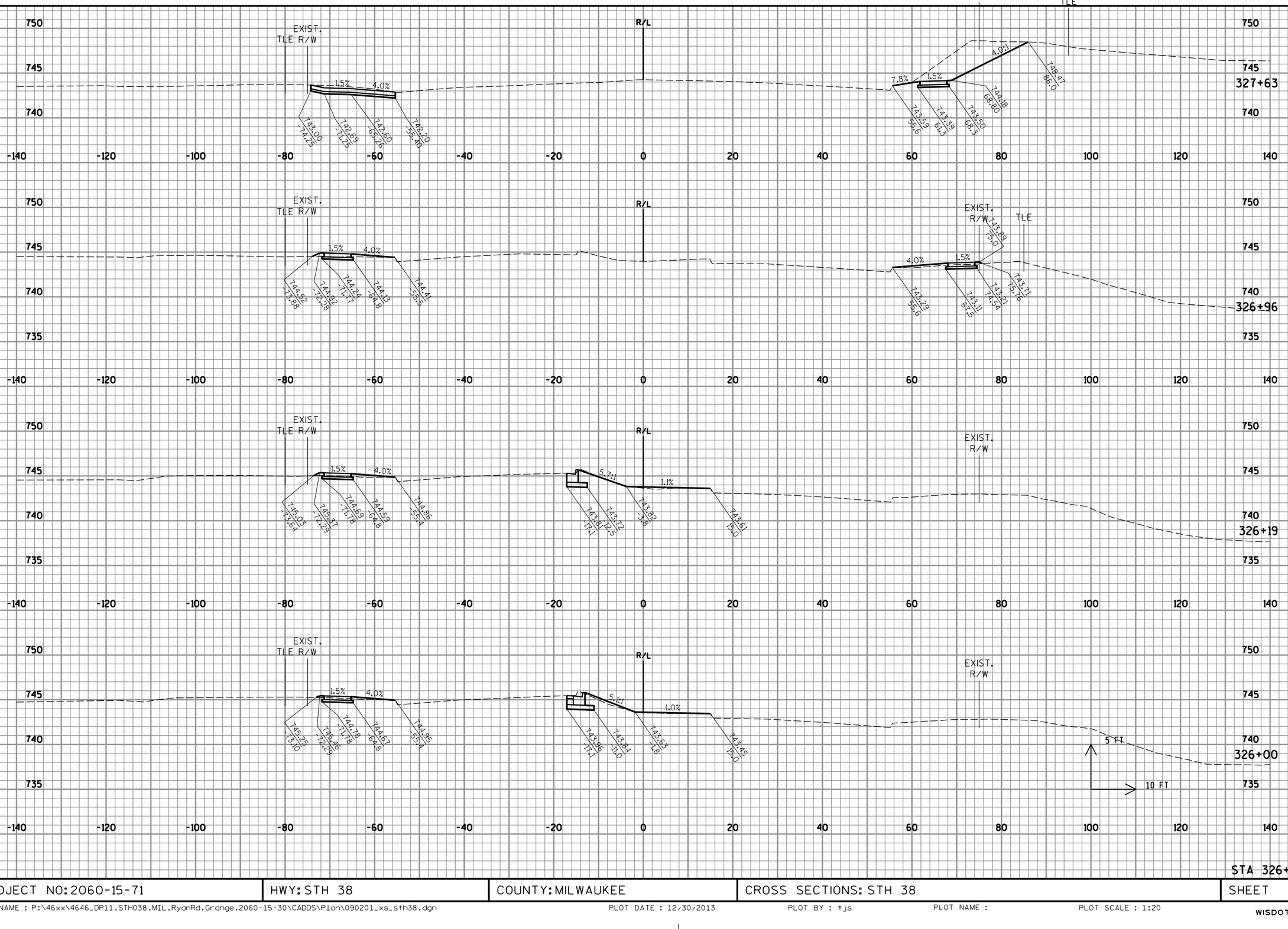
STA 324+50 TO 325+50

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1066 E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

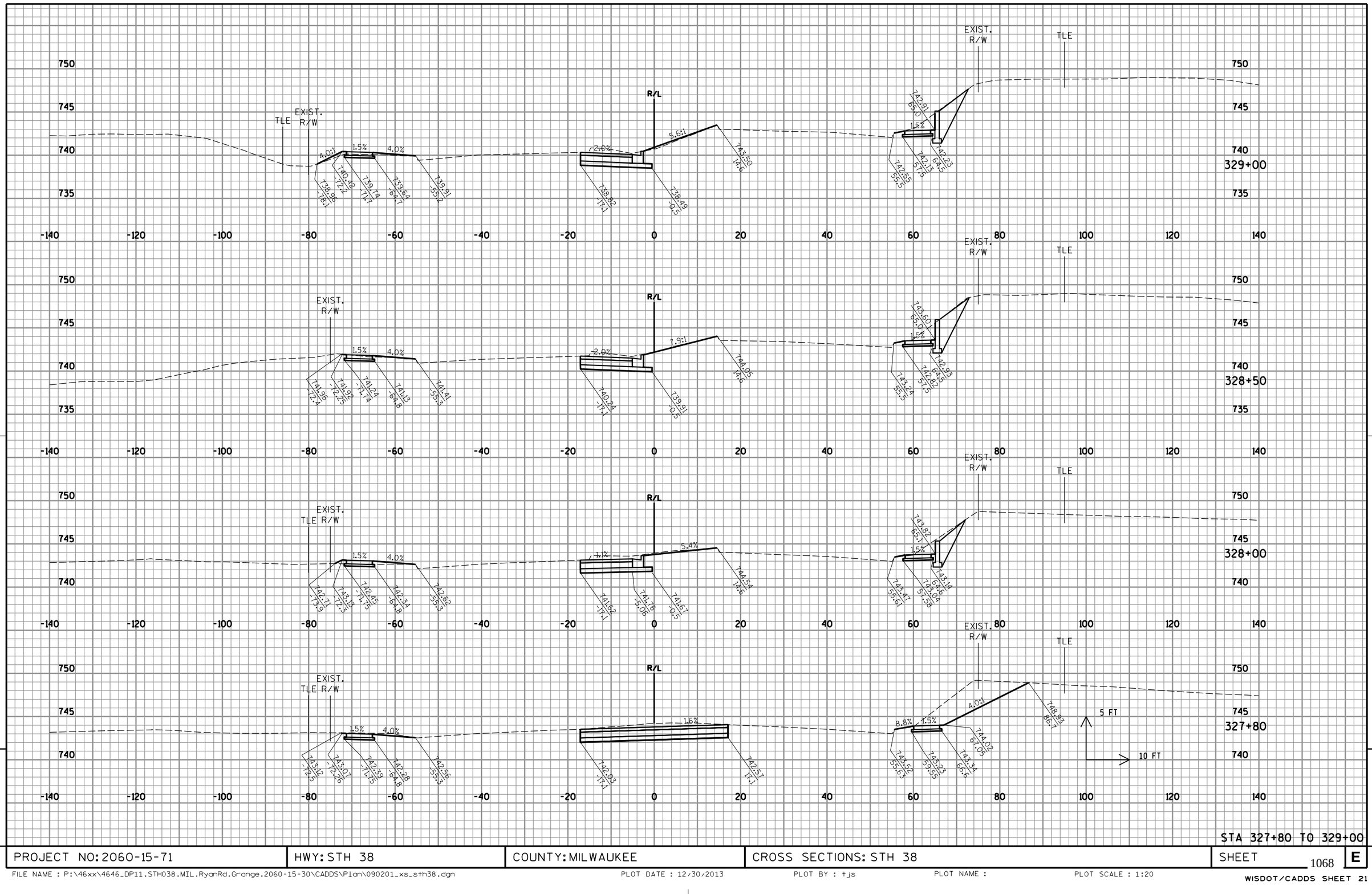


STA 326+00 TO 327+63

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1067 E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn | PLOT DATE : 12/30/2013 | PLOT BY : tjs | PLOT NAME : | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



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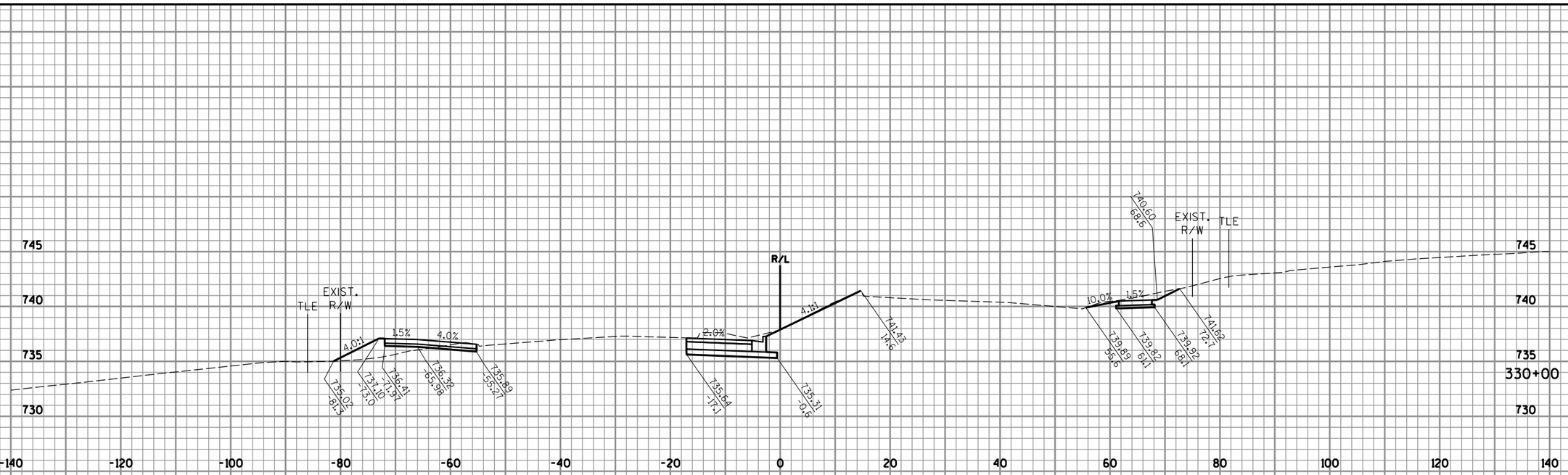
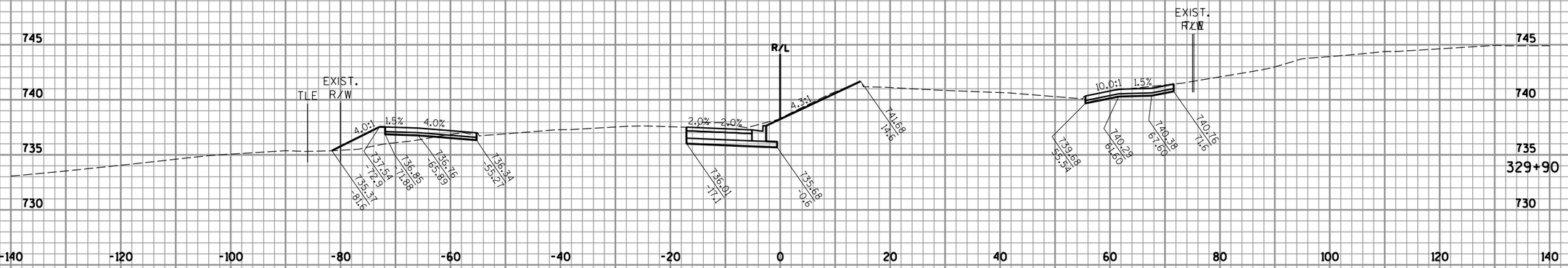
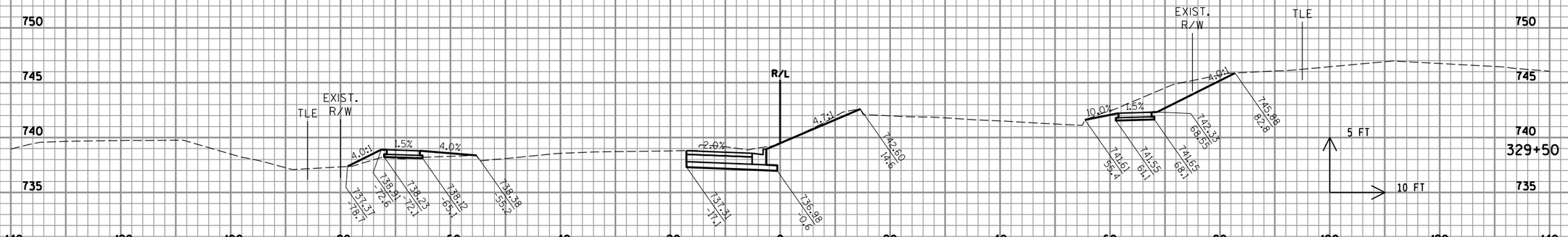
STA 327+80 TO 329+00

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1068 E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn
PLOT DATE : 12/30/2013
PLOT BY : tjs
PLOT NAME :
PLOT SCALE : 1:20
WISDOT/CADDS SHEET 21







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STA 329+50 TO 330+00

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1069	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn

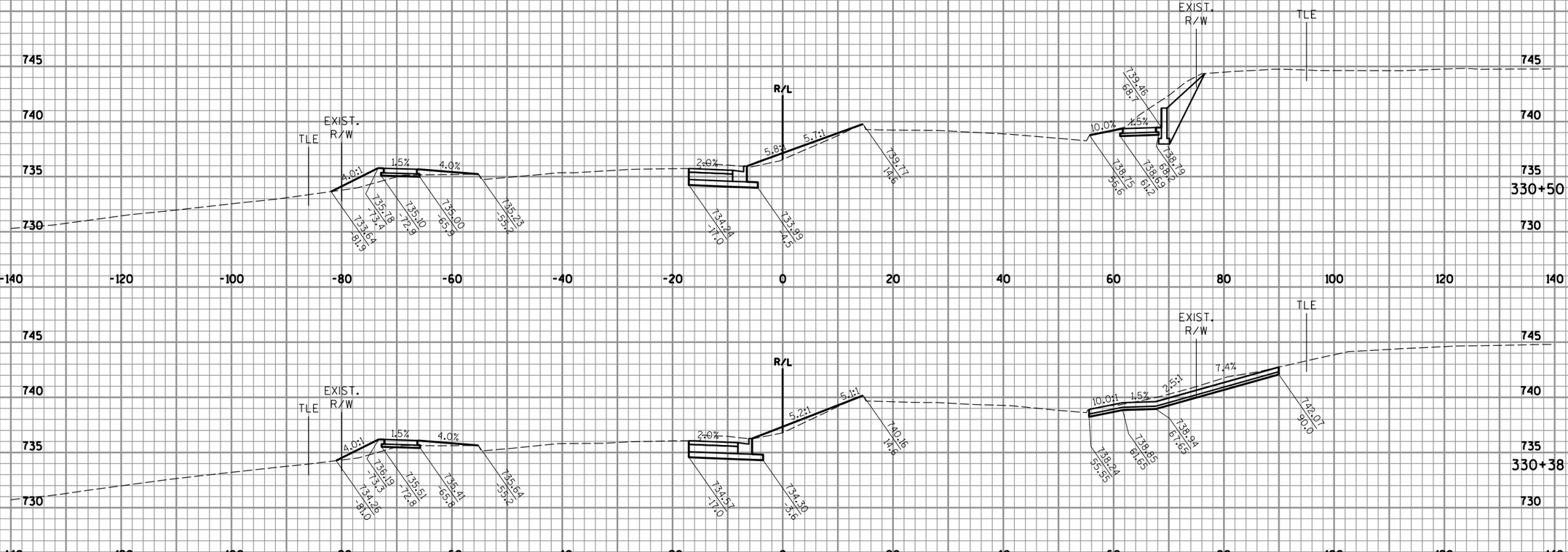
PLOT DATE : 12/30/2013

PLOT BY : tjs

PLOT NAME :

PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



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STA 330+00 TO 330+50

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1070 E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

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9

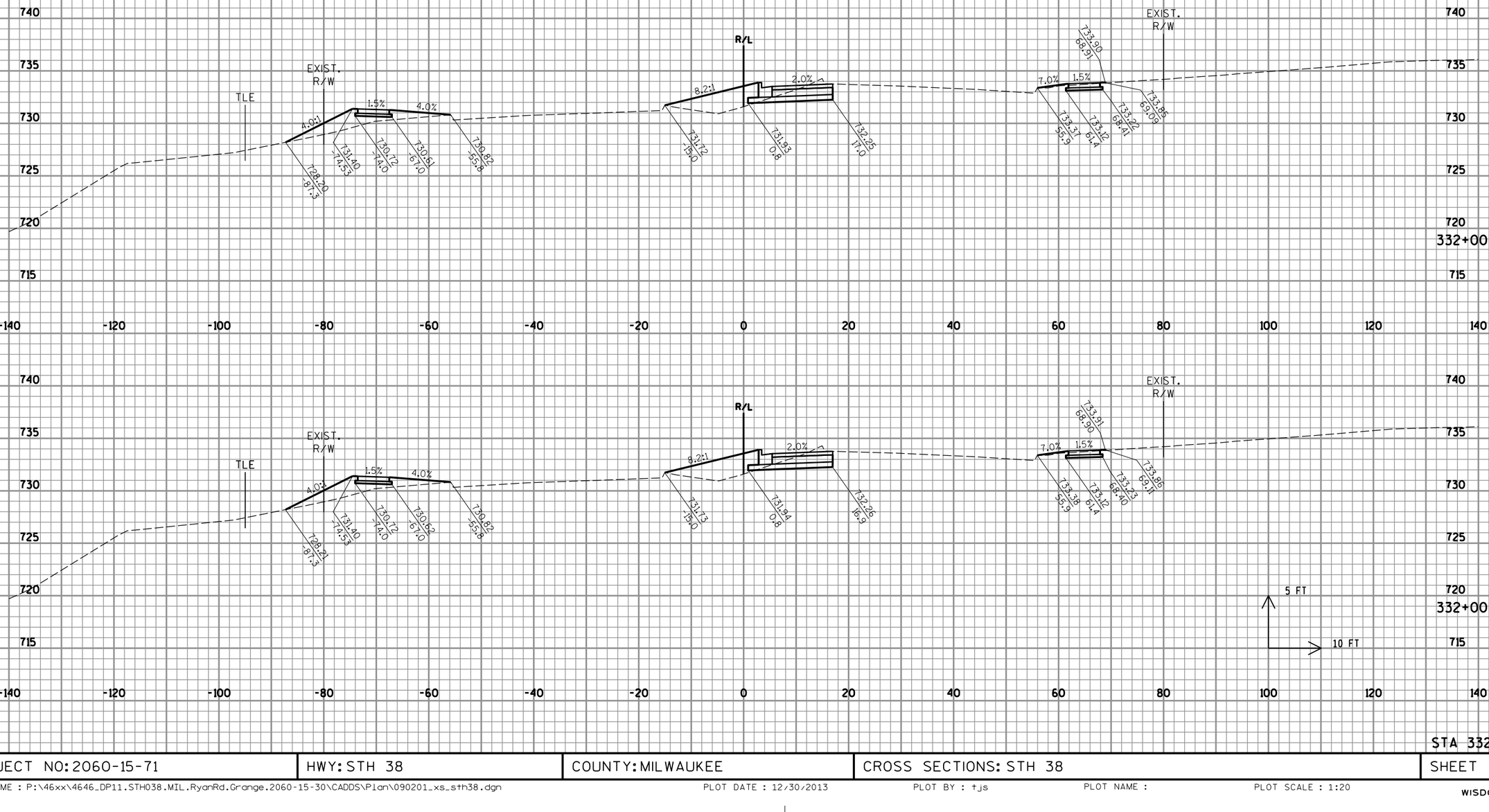
STA 331+00 TO 331+50

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1071	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn

PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



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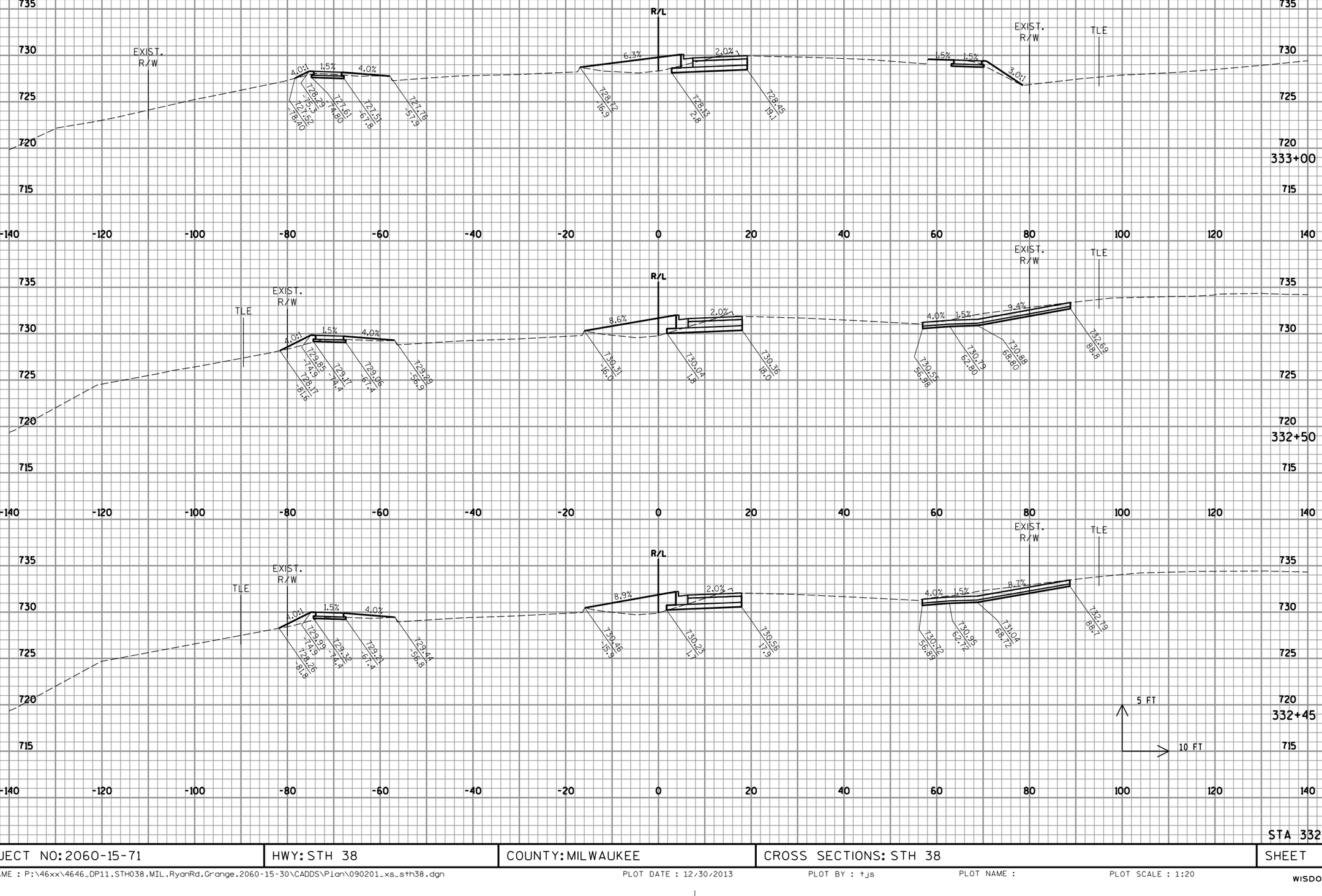
STA 332+00 TO 332+00

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1072	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



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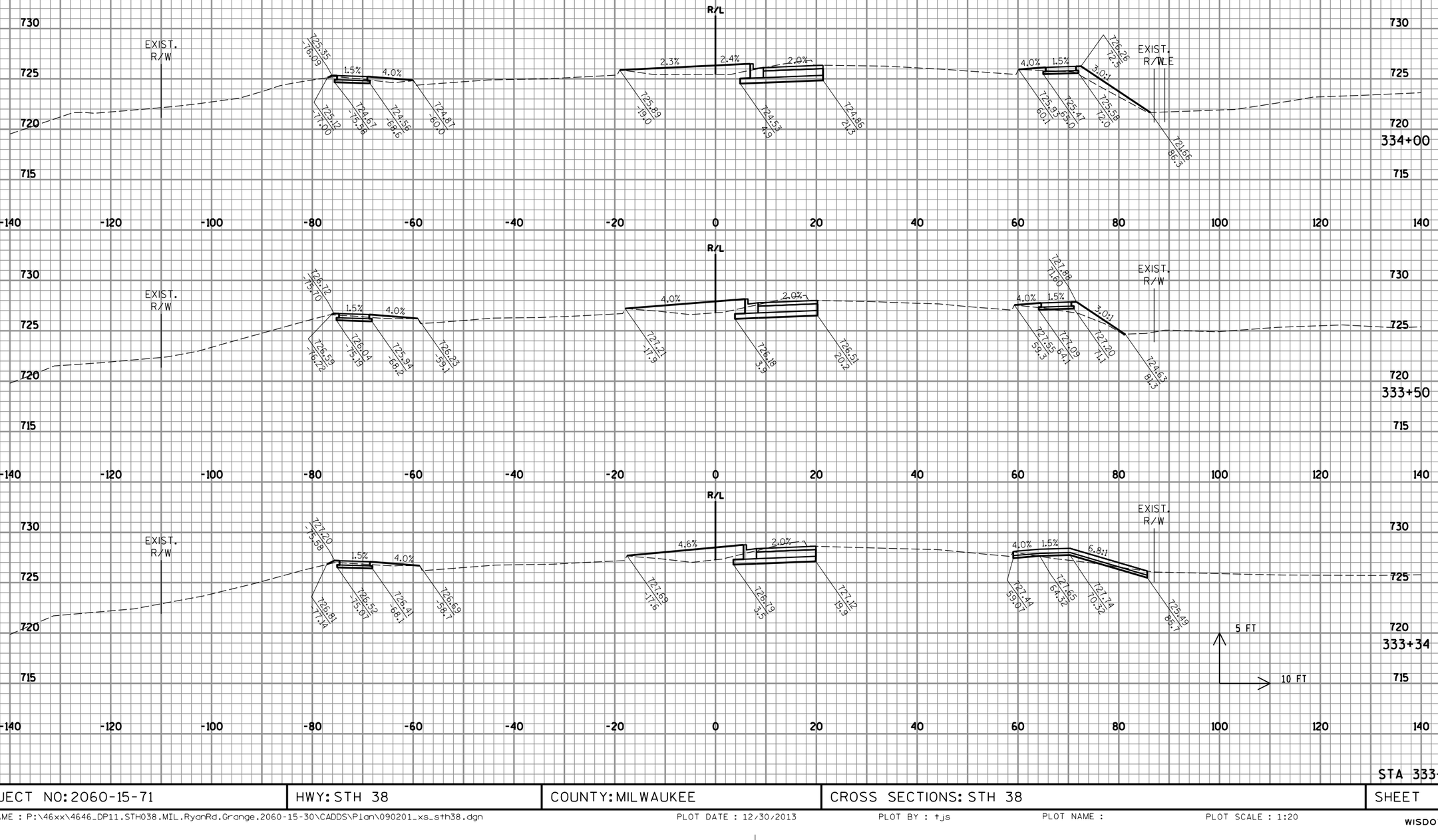
STA 332+45 TO 333+00

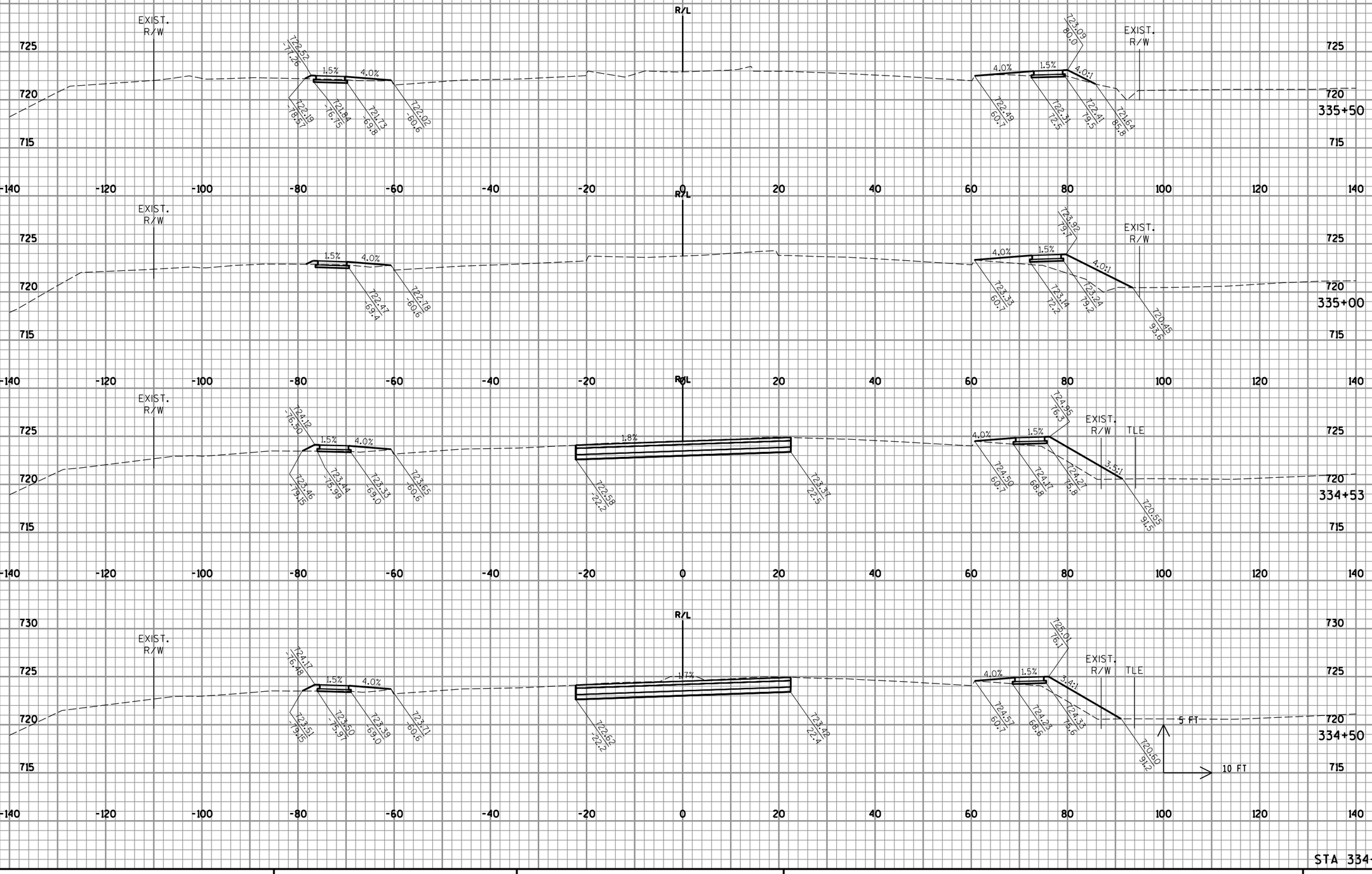
PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1073	E



STA 333+34 TO 334+00

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1074 E

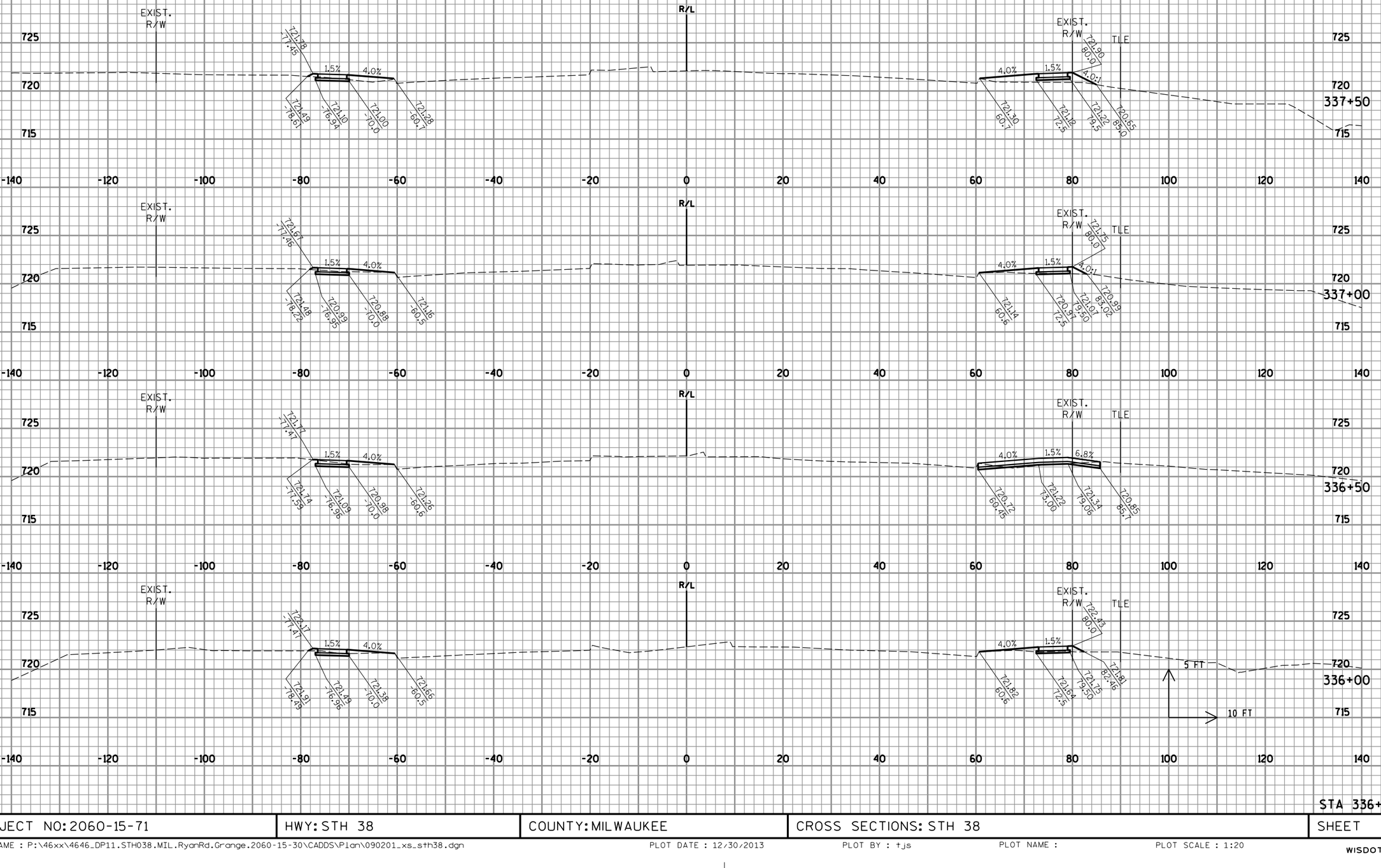
FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20



PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1075 E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



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STA 336+00 TO 337+50

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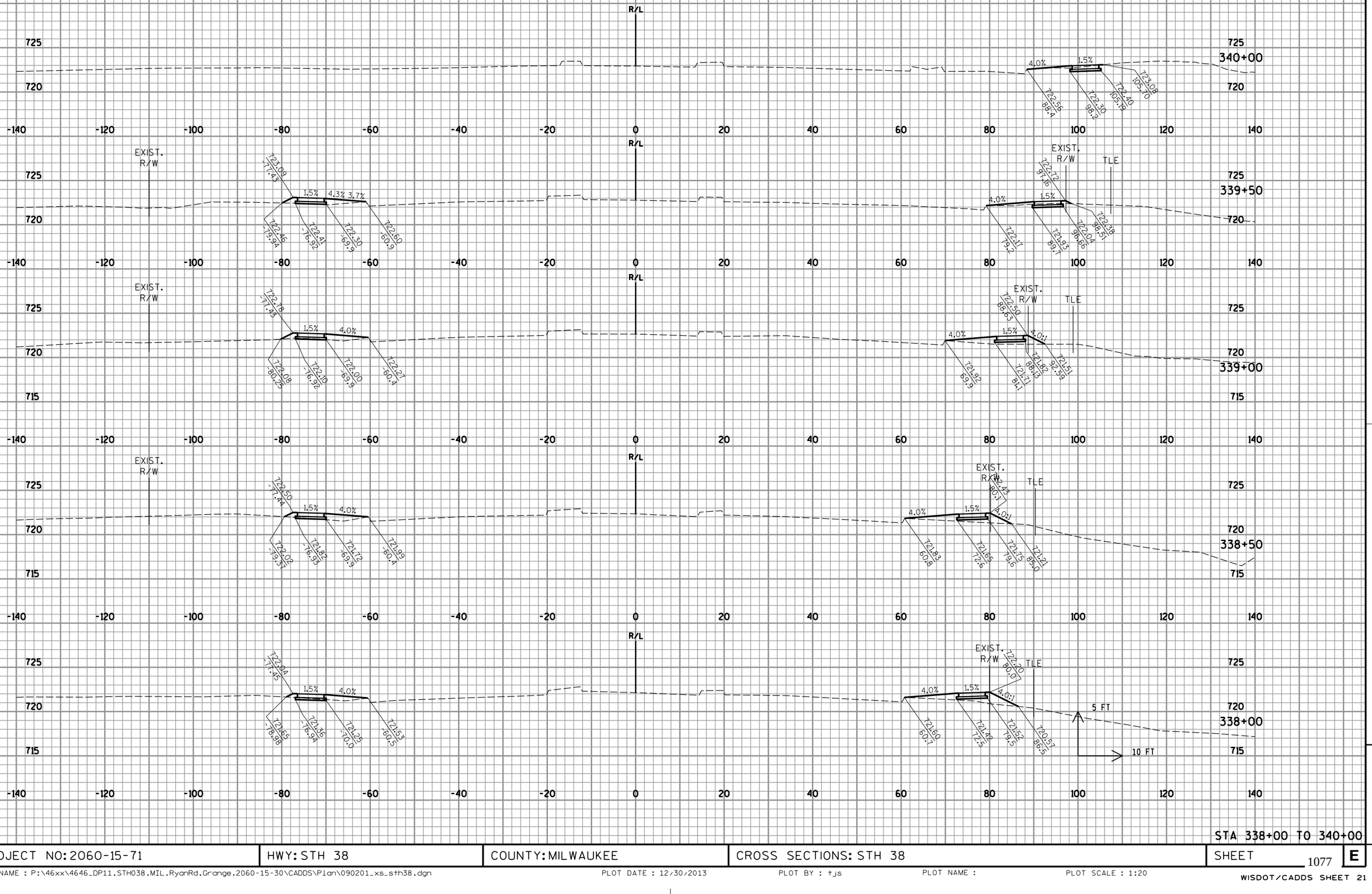
PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

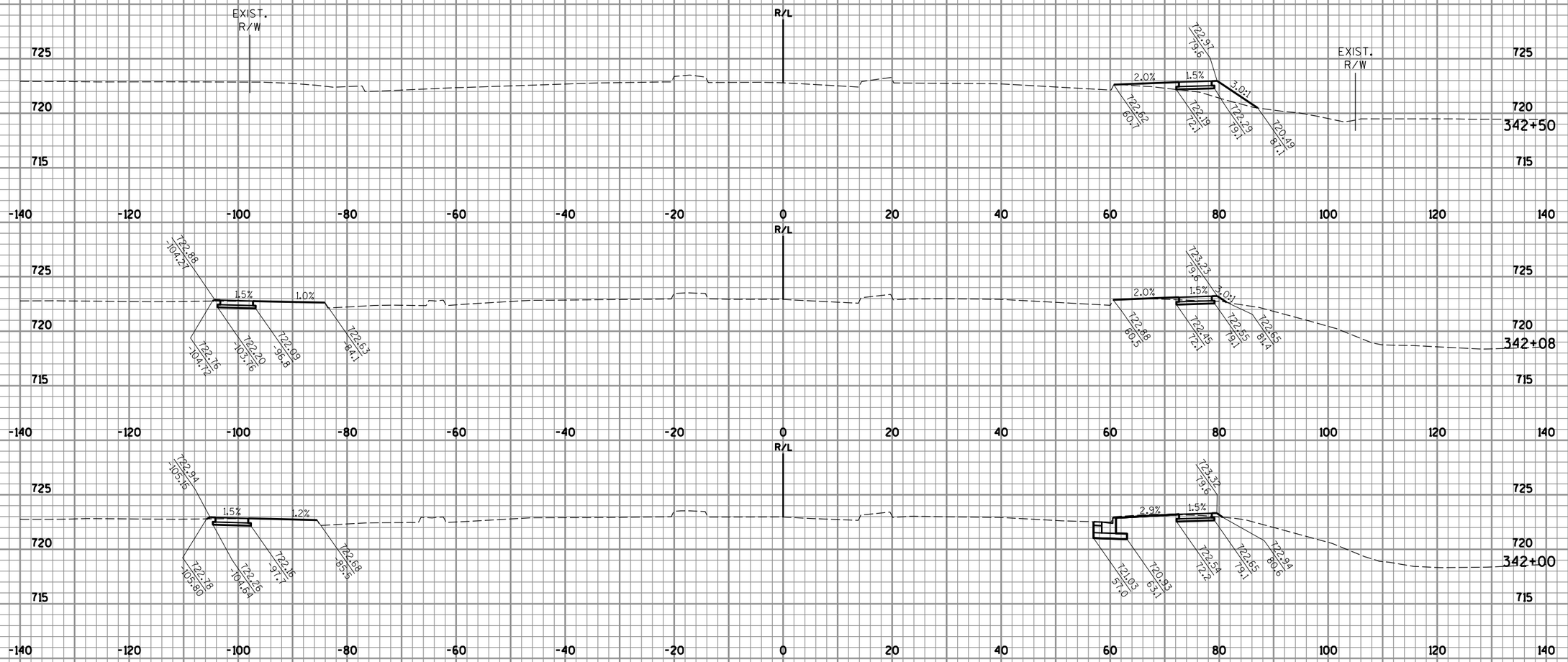


PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1077 E

STA 338+00 TO 340+00

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



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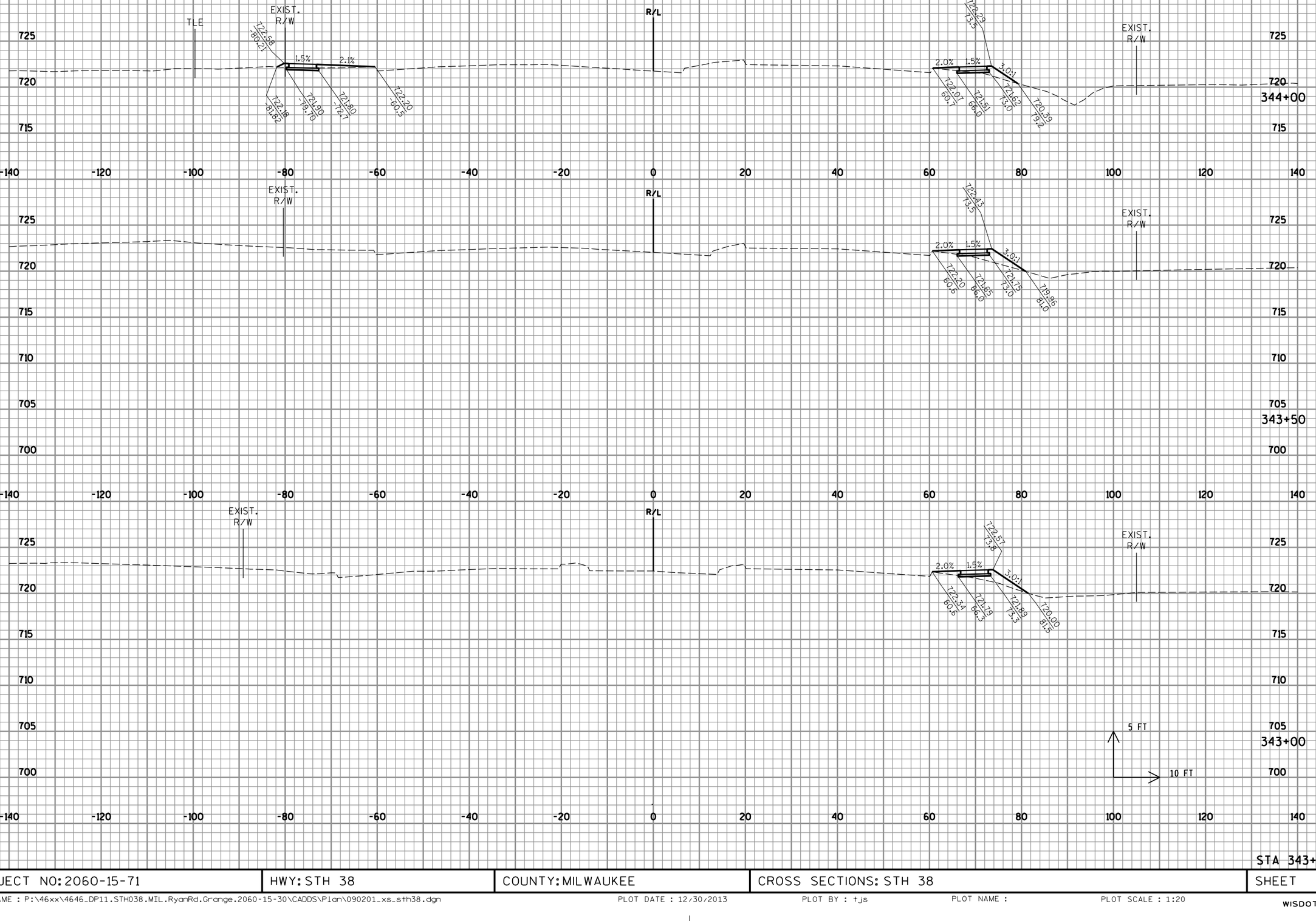
STA 341+39 TO 342+50

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1078	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

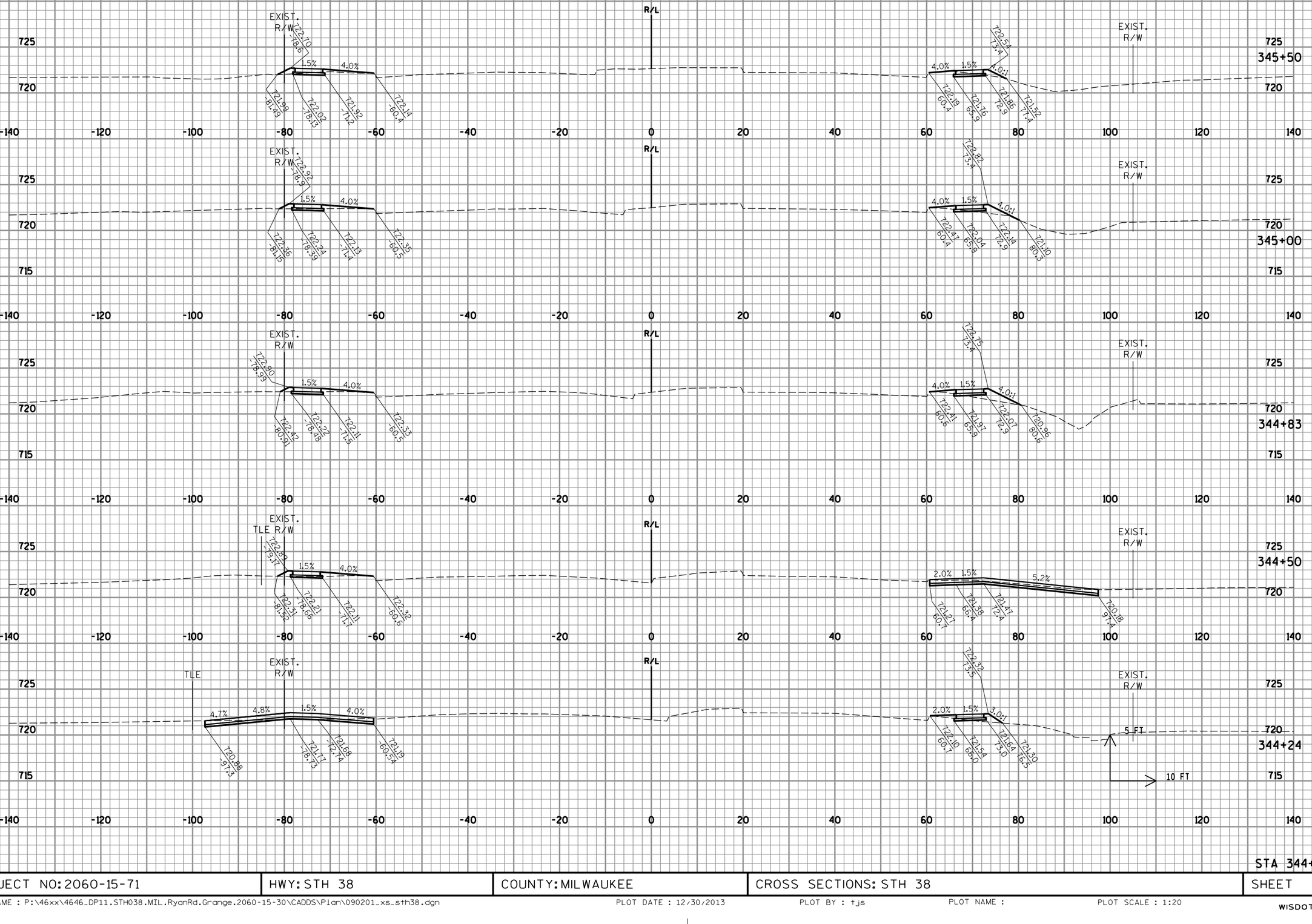


PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1079	E

STA 343+00 TO 344+00

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

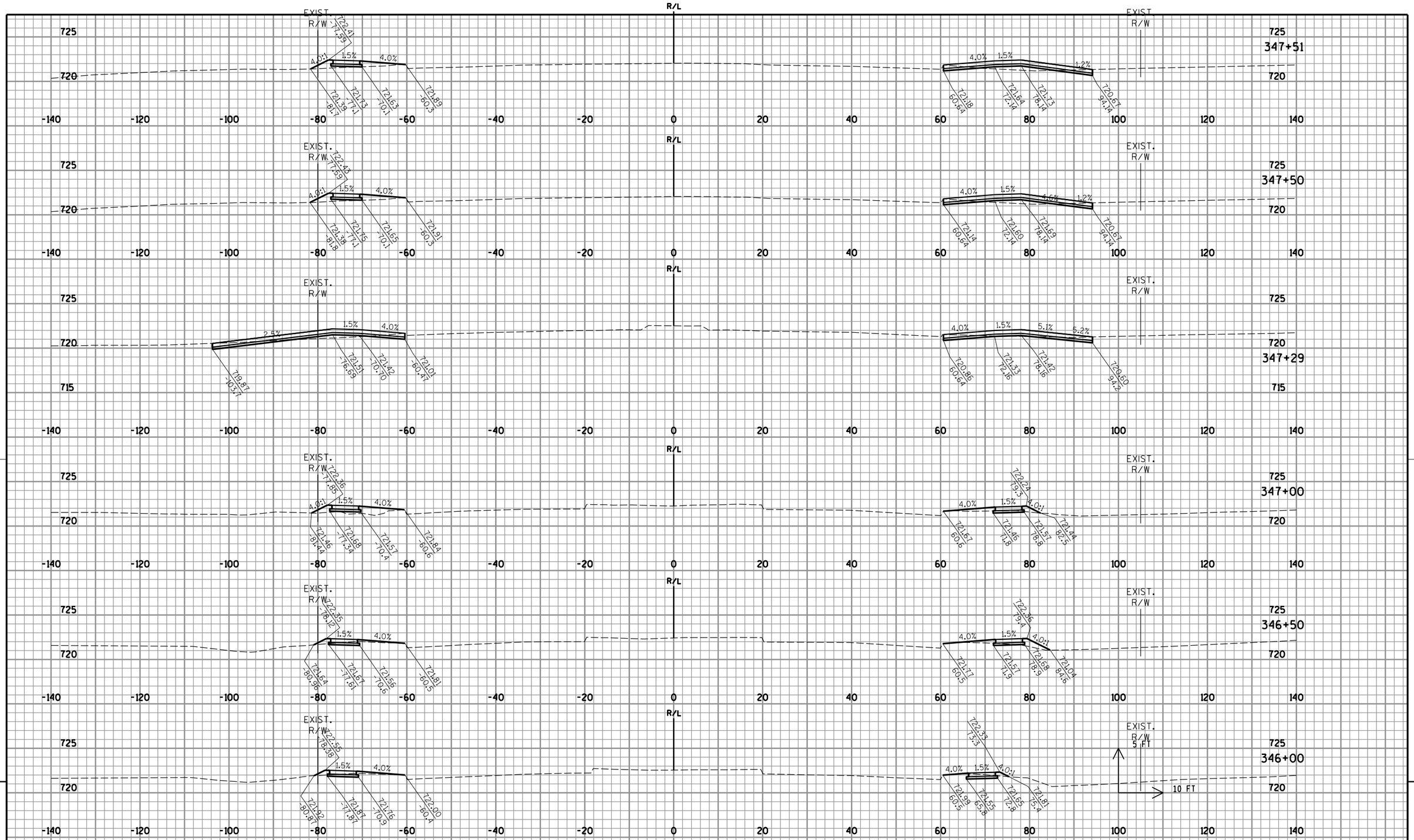


STA 344+24 TO 345+50

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1080	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1081	E

STA 346+00 TO 347+51

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

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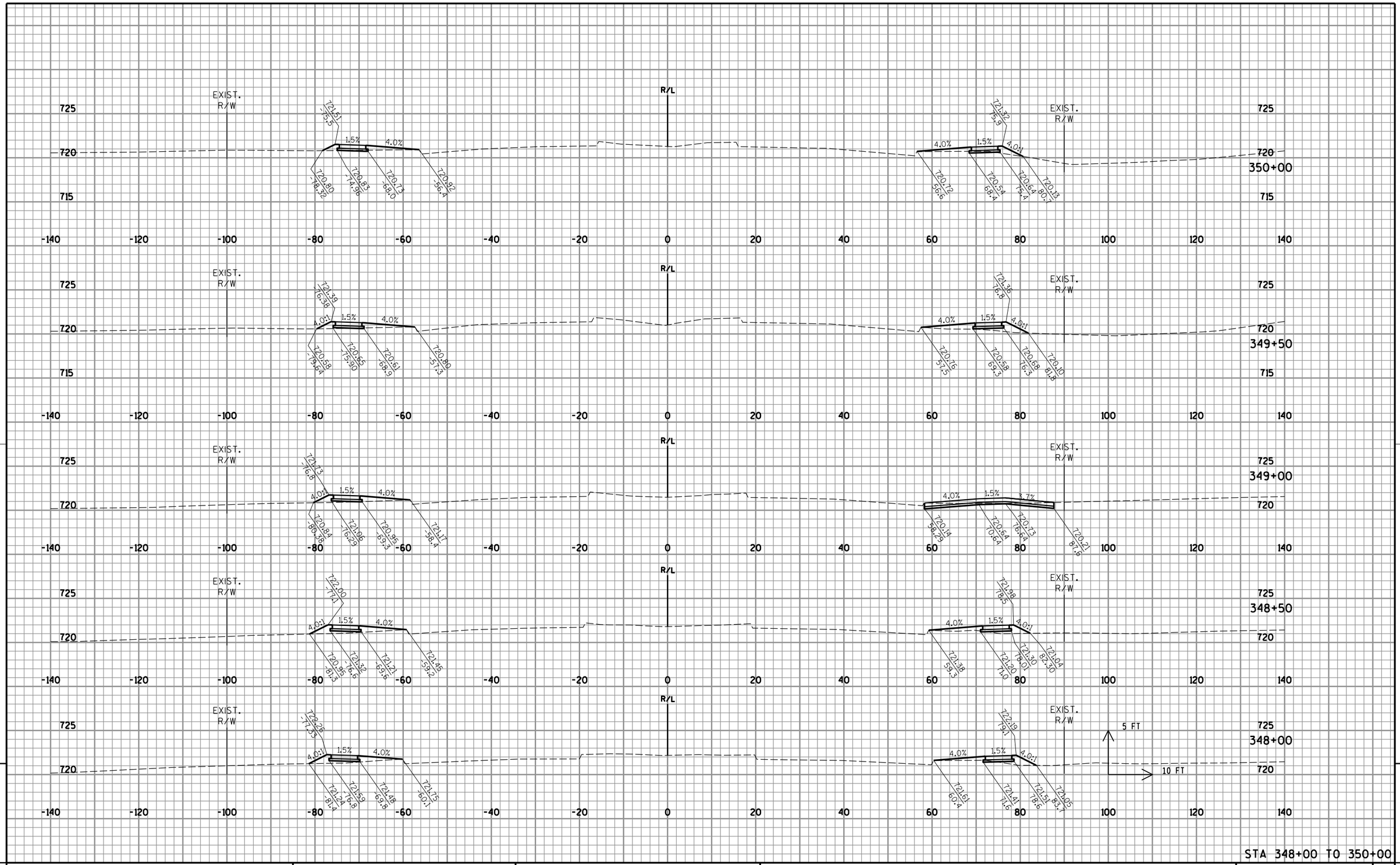


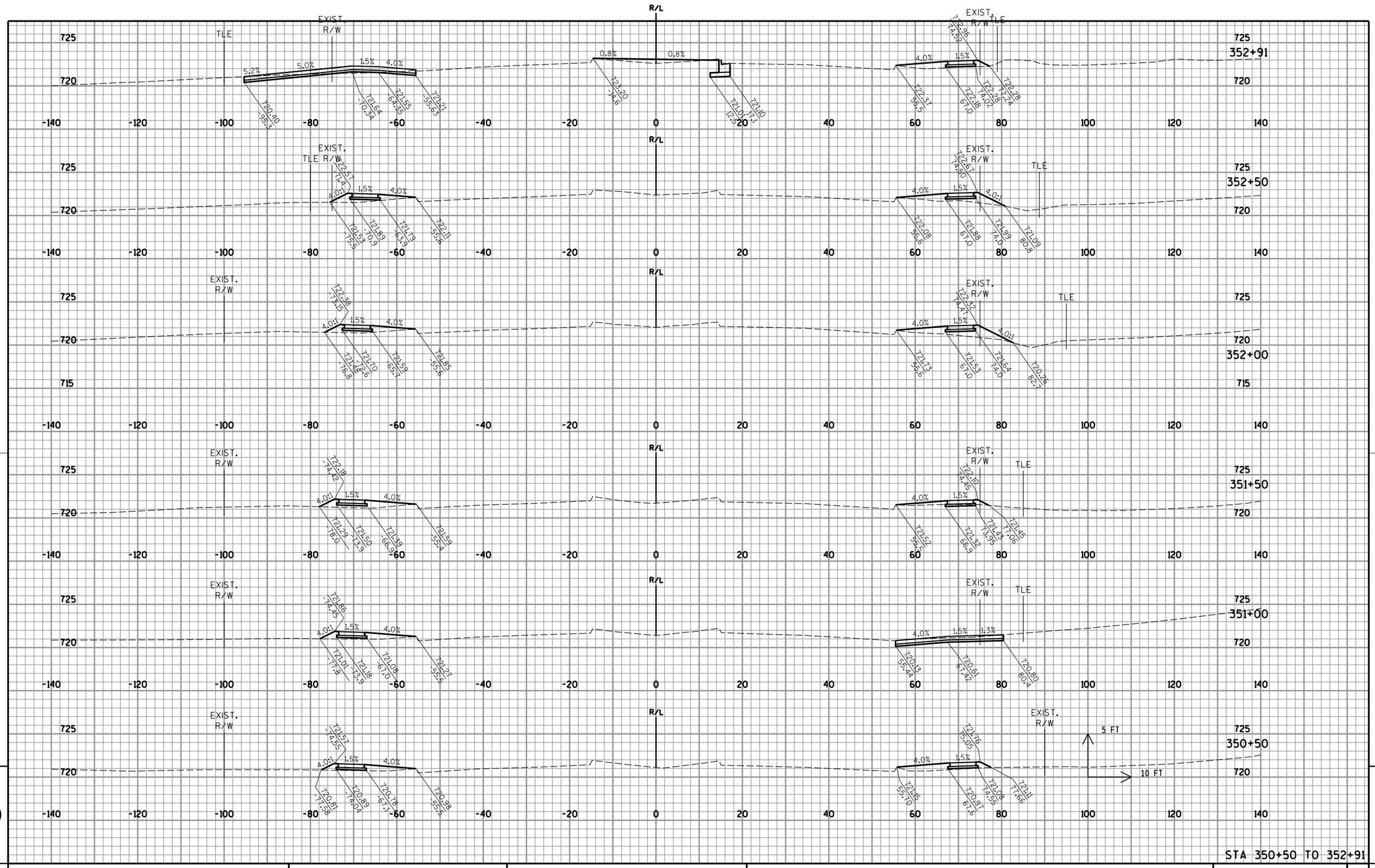
STA 348+00 TO 350+00

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1082 E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

9 9



STA 350+50 TO 352+91

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1083 E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

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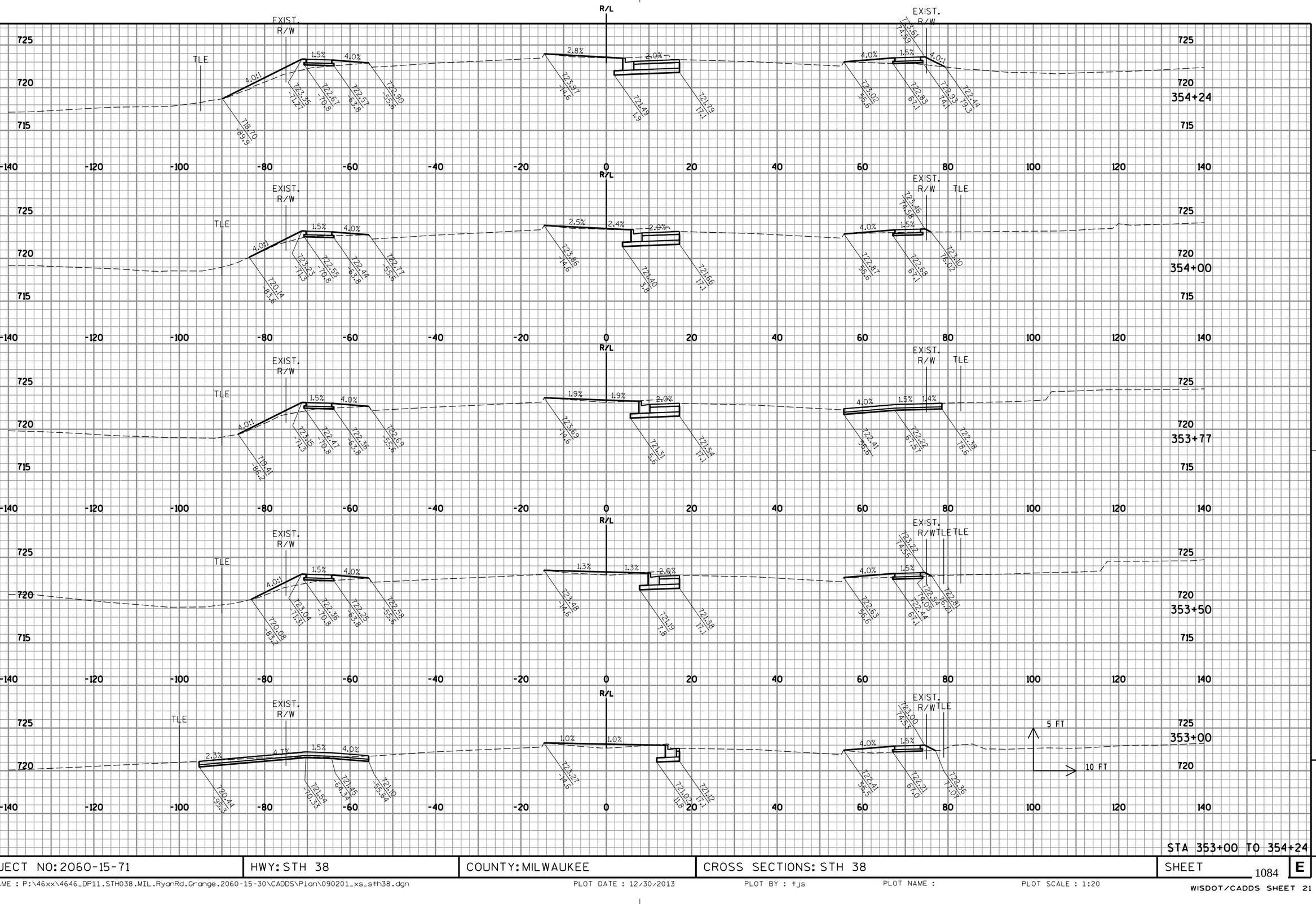

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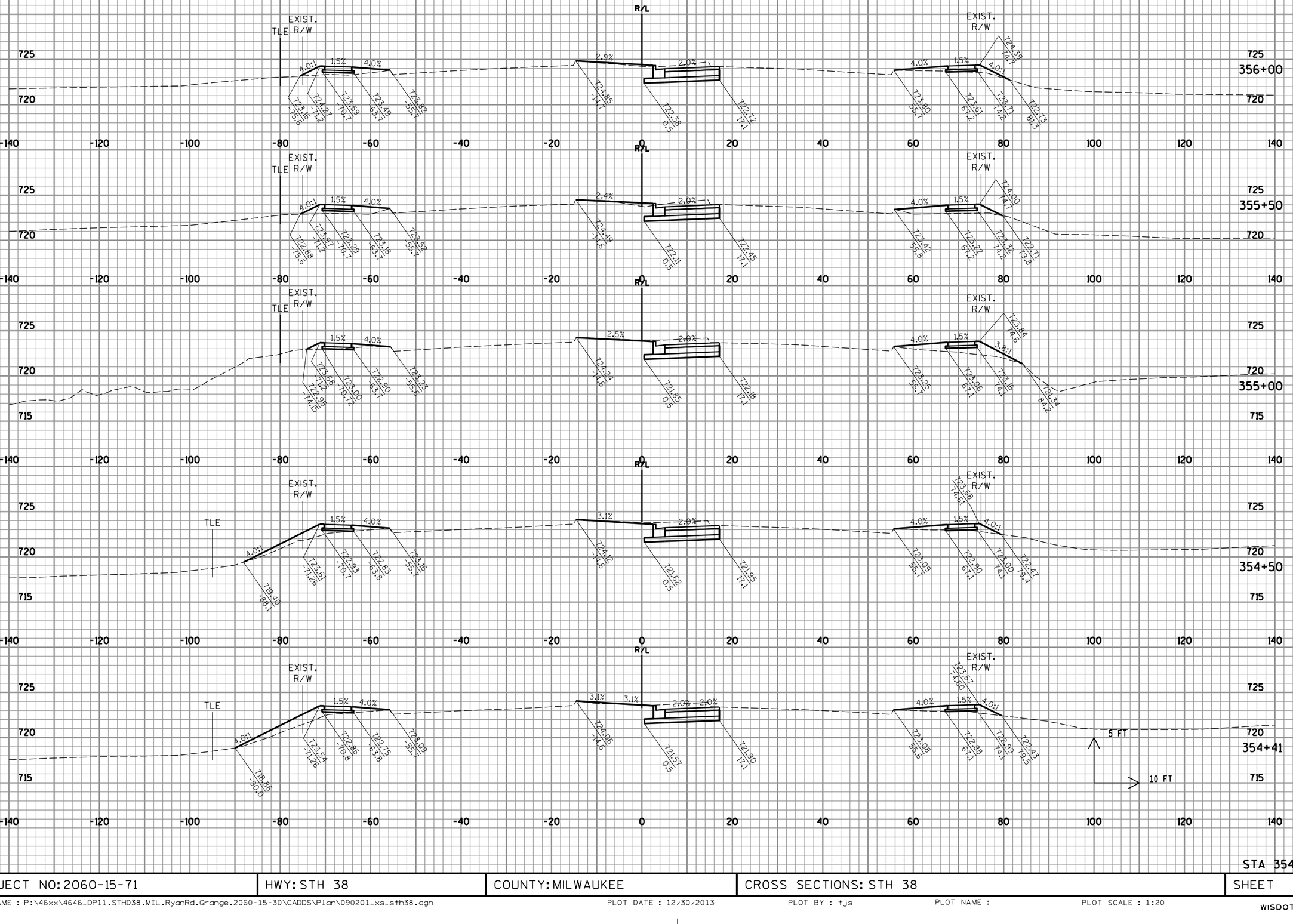
STA 353+00 TO 354+24

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1084	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

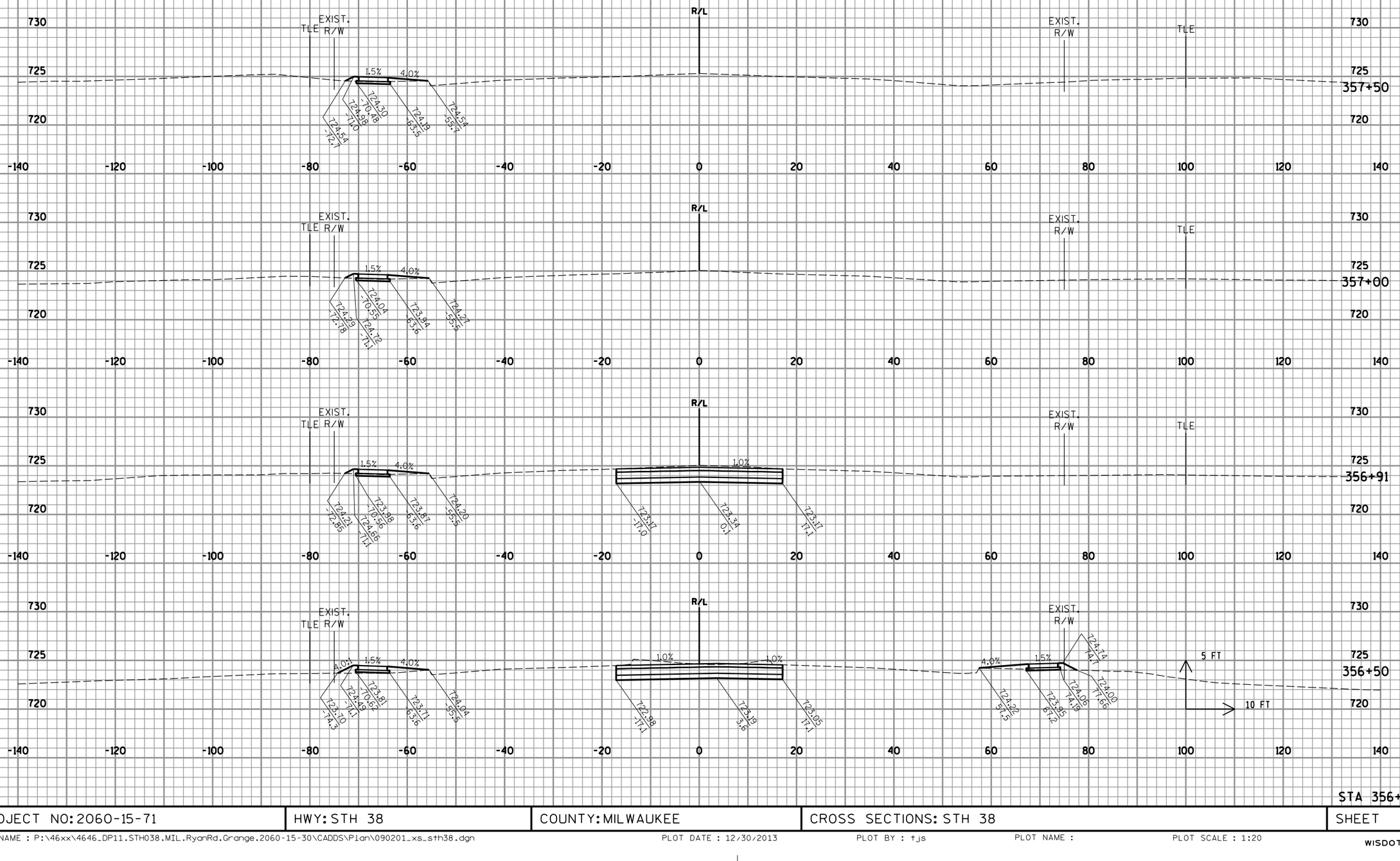


STA 354+41 TO 356+00

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1085 E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



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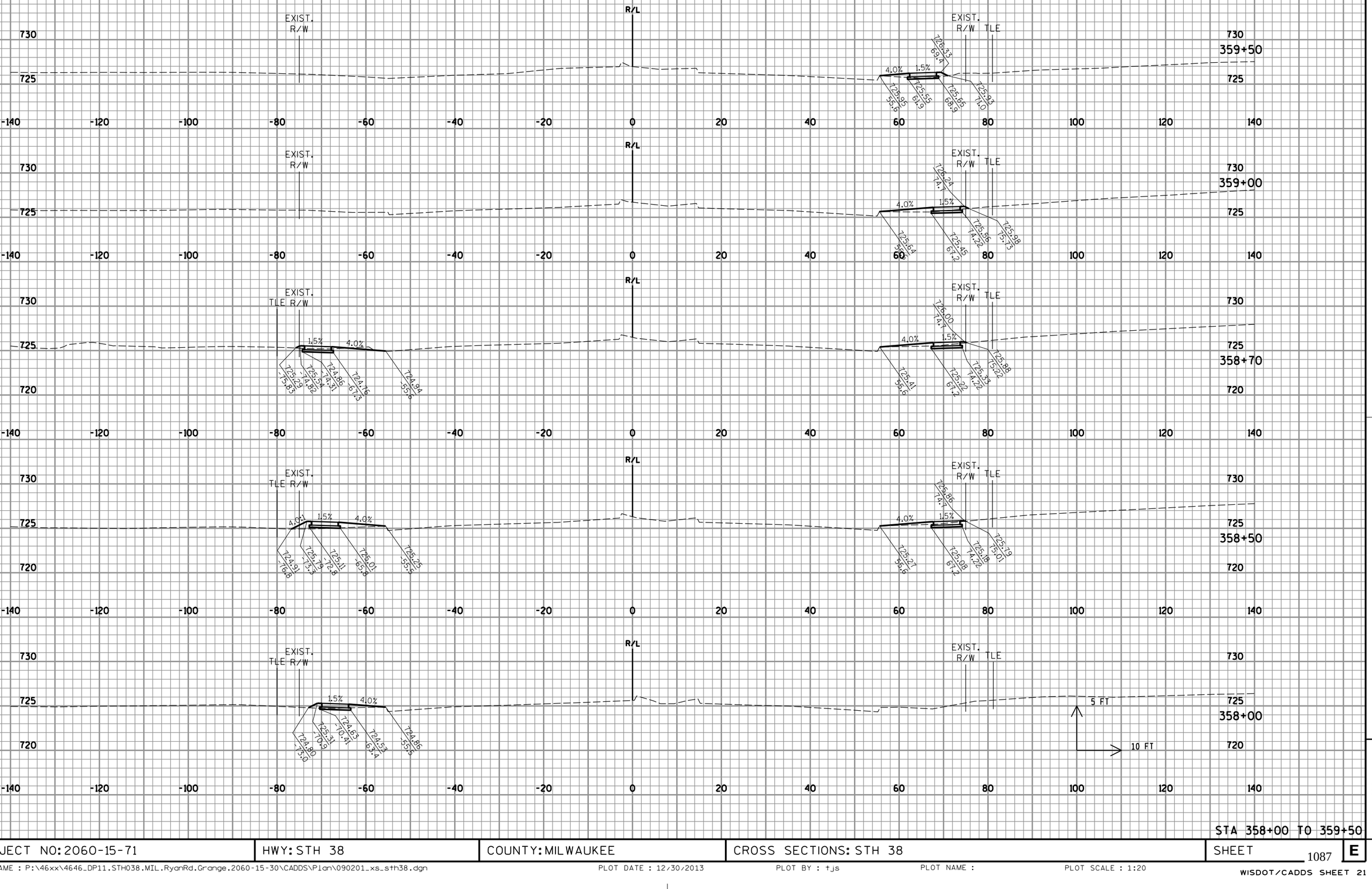
STA 356+50 TO 357+50

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1086	E



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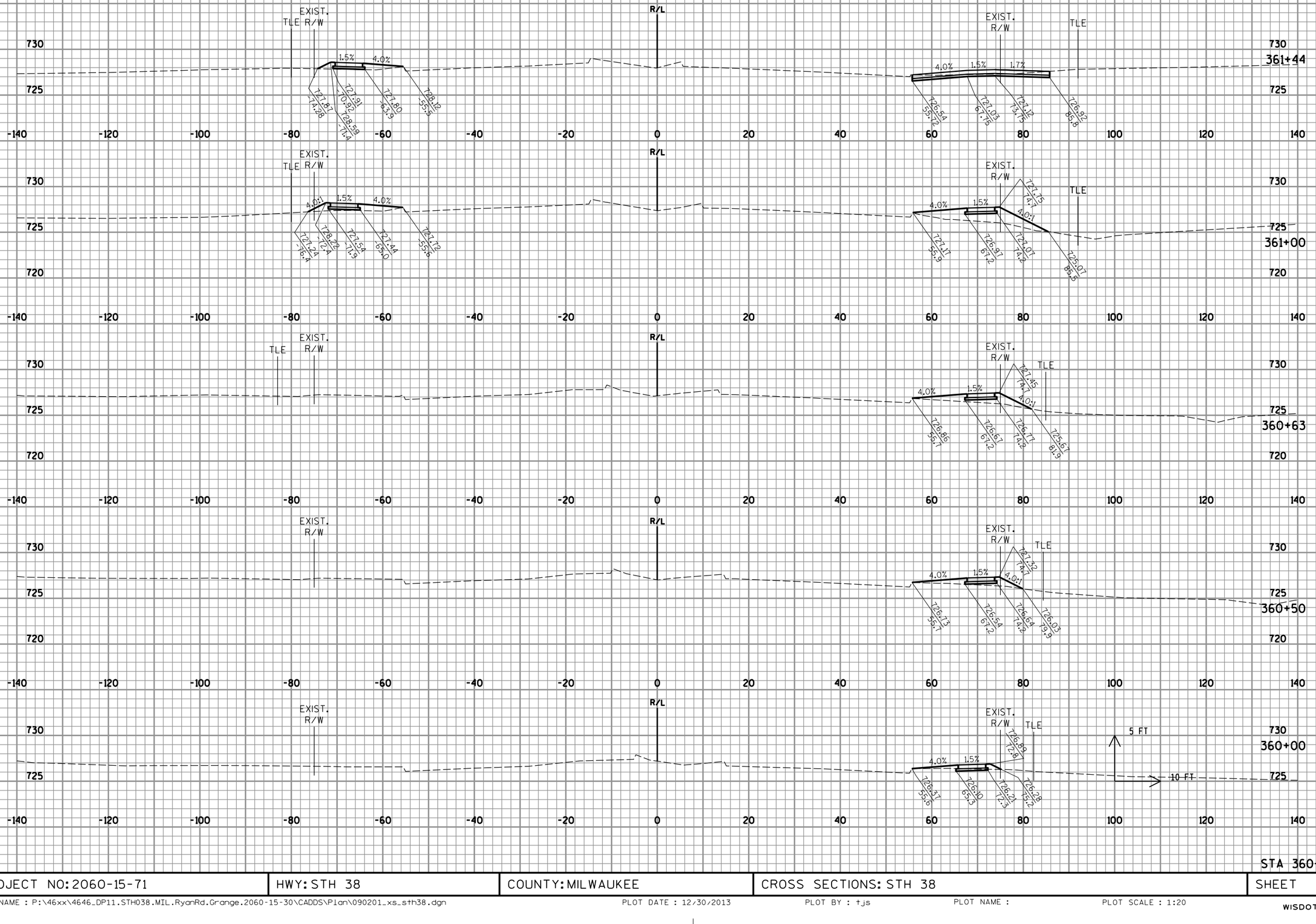
STA 358+00 TO 359+50

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1087 E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn | PLOT DATE : 12/30/2013 | PLOT BY : tjs | PLOT NAME : | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



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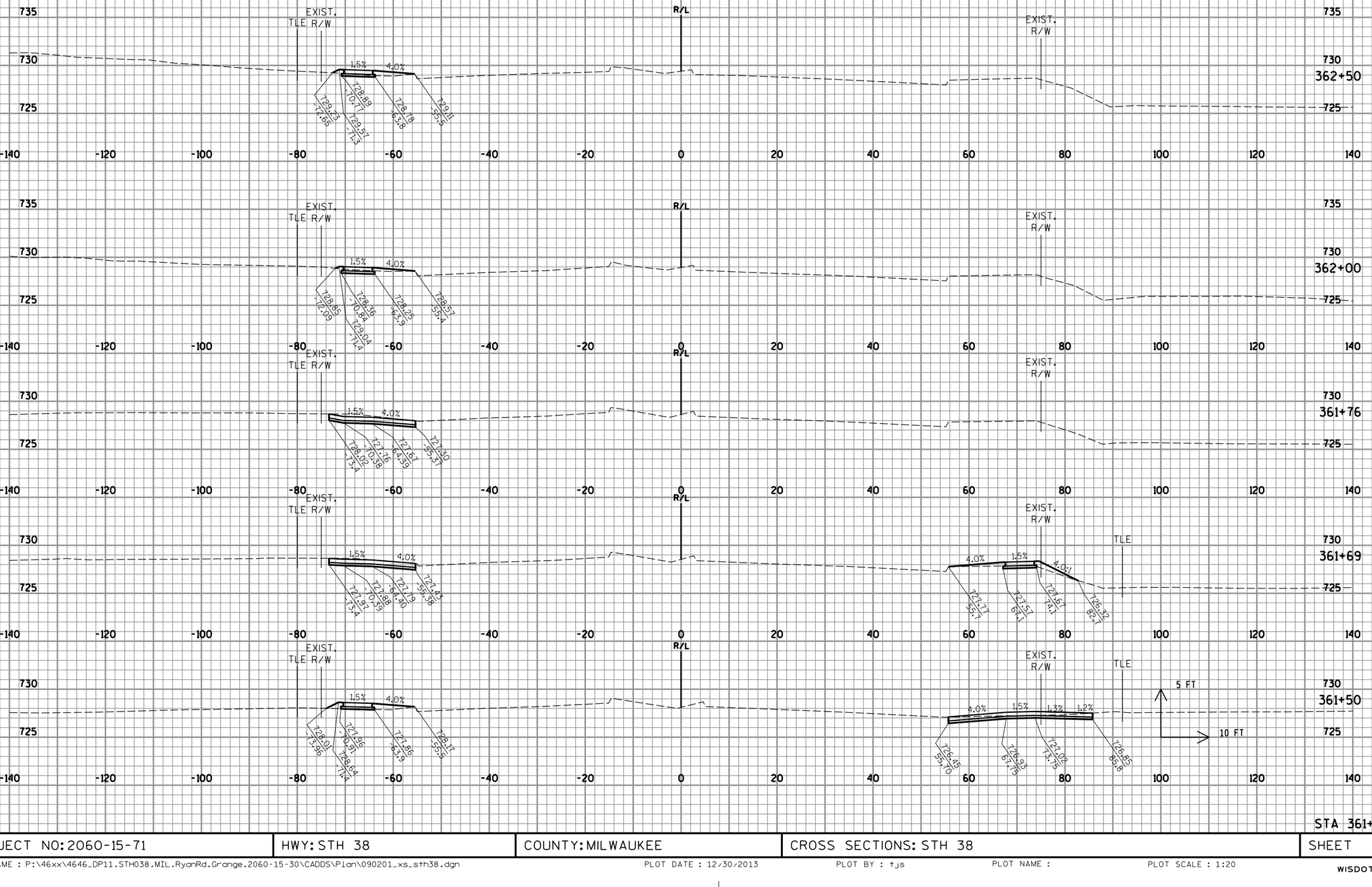
STA 360+00 TO 361+44

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1088	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

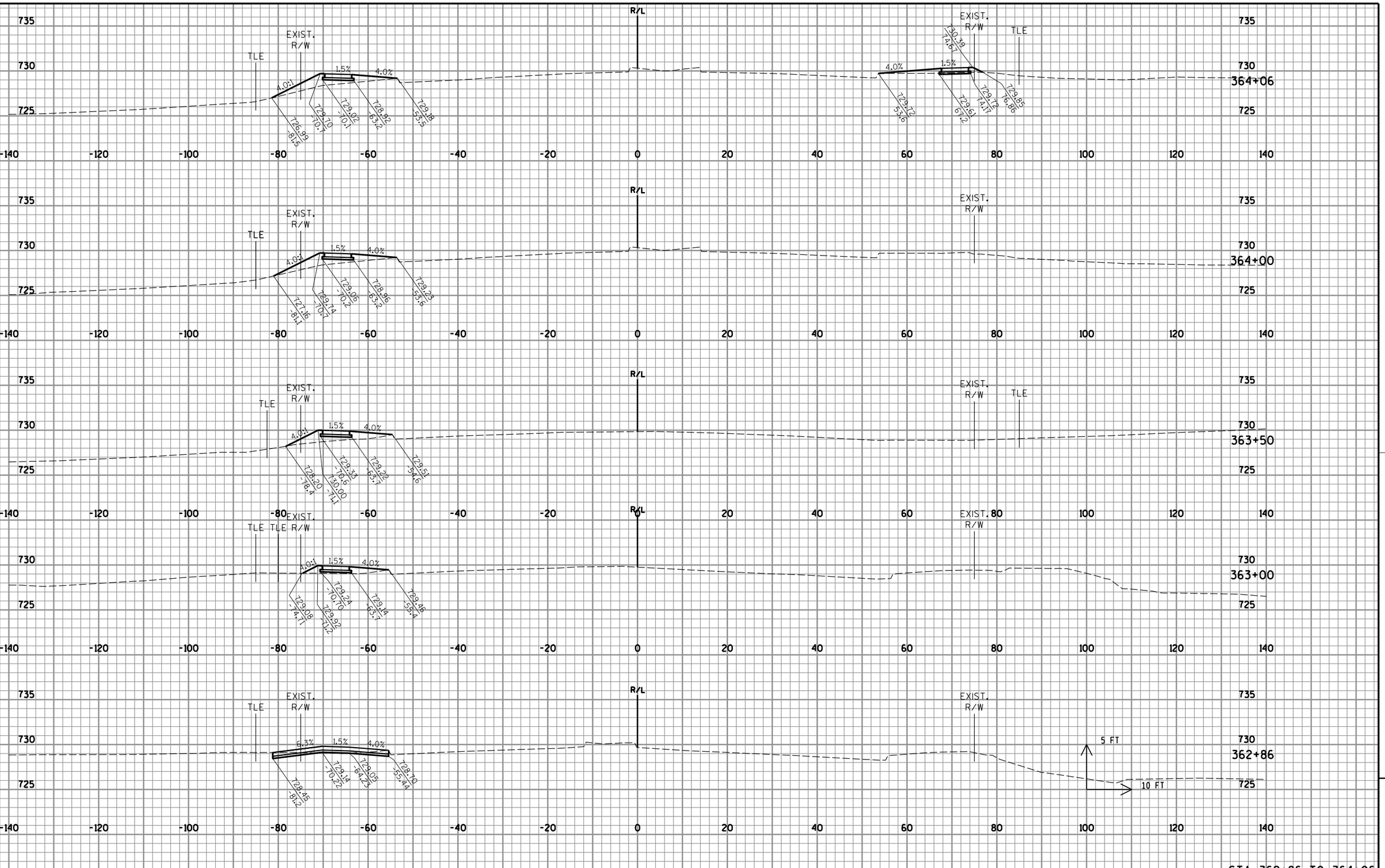


STA 361+50 TO 362+50

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1089 E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



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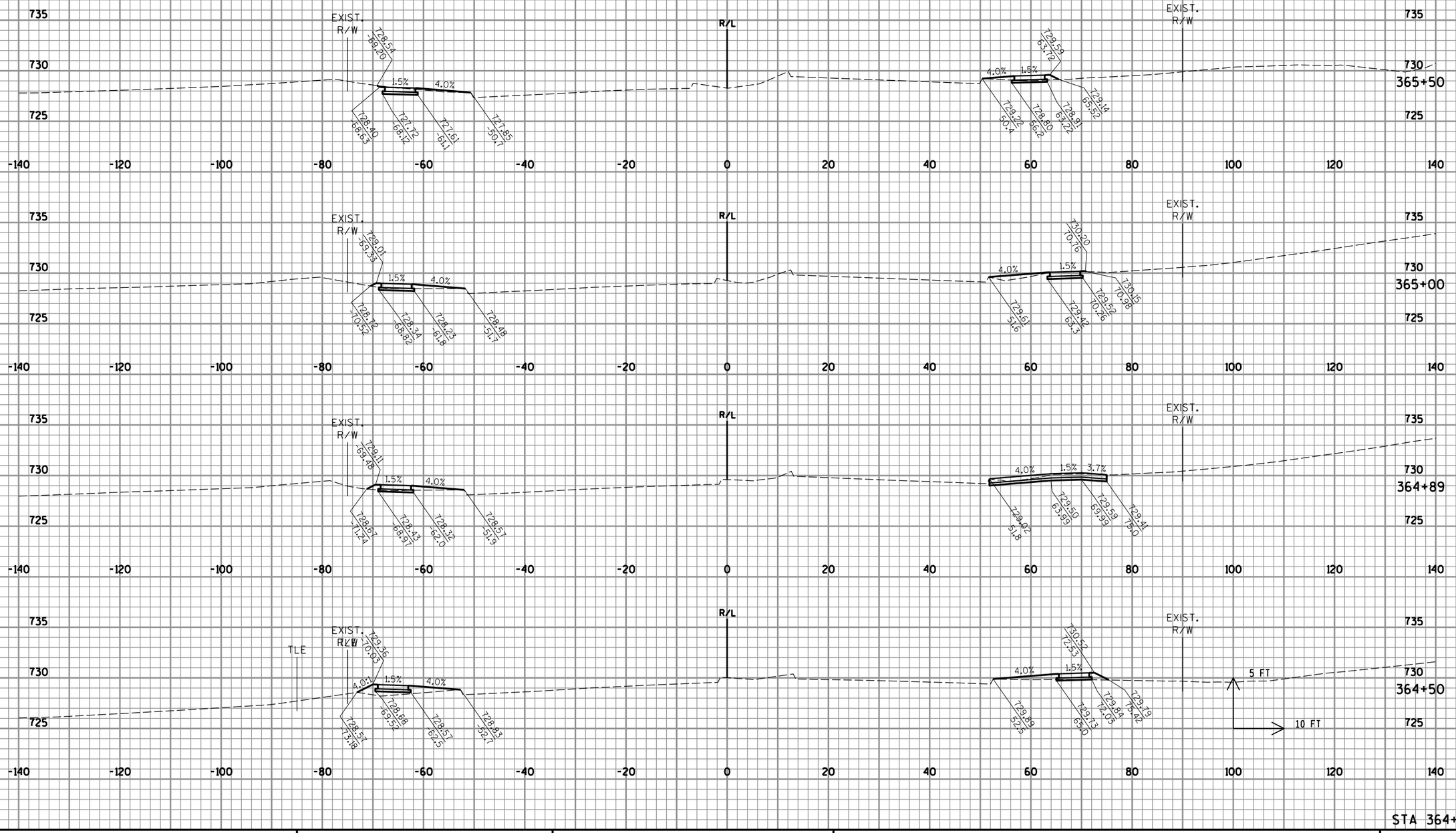
STA 362+86 TO 364+06

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1090	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



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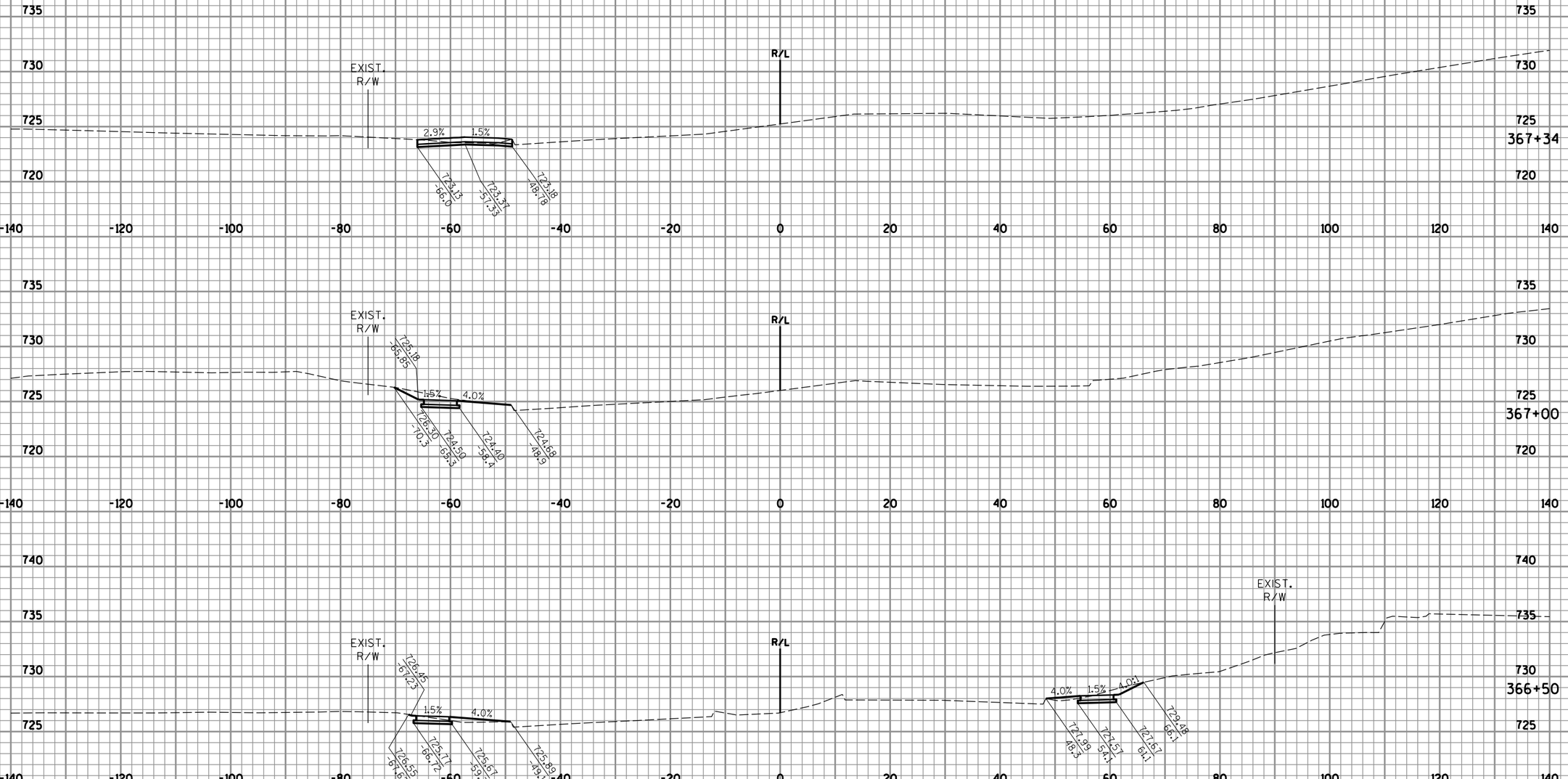
STA 364+50 TO 365+50

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1091	E

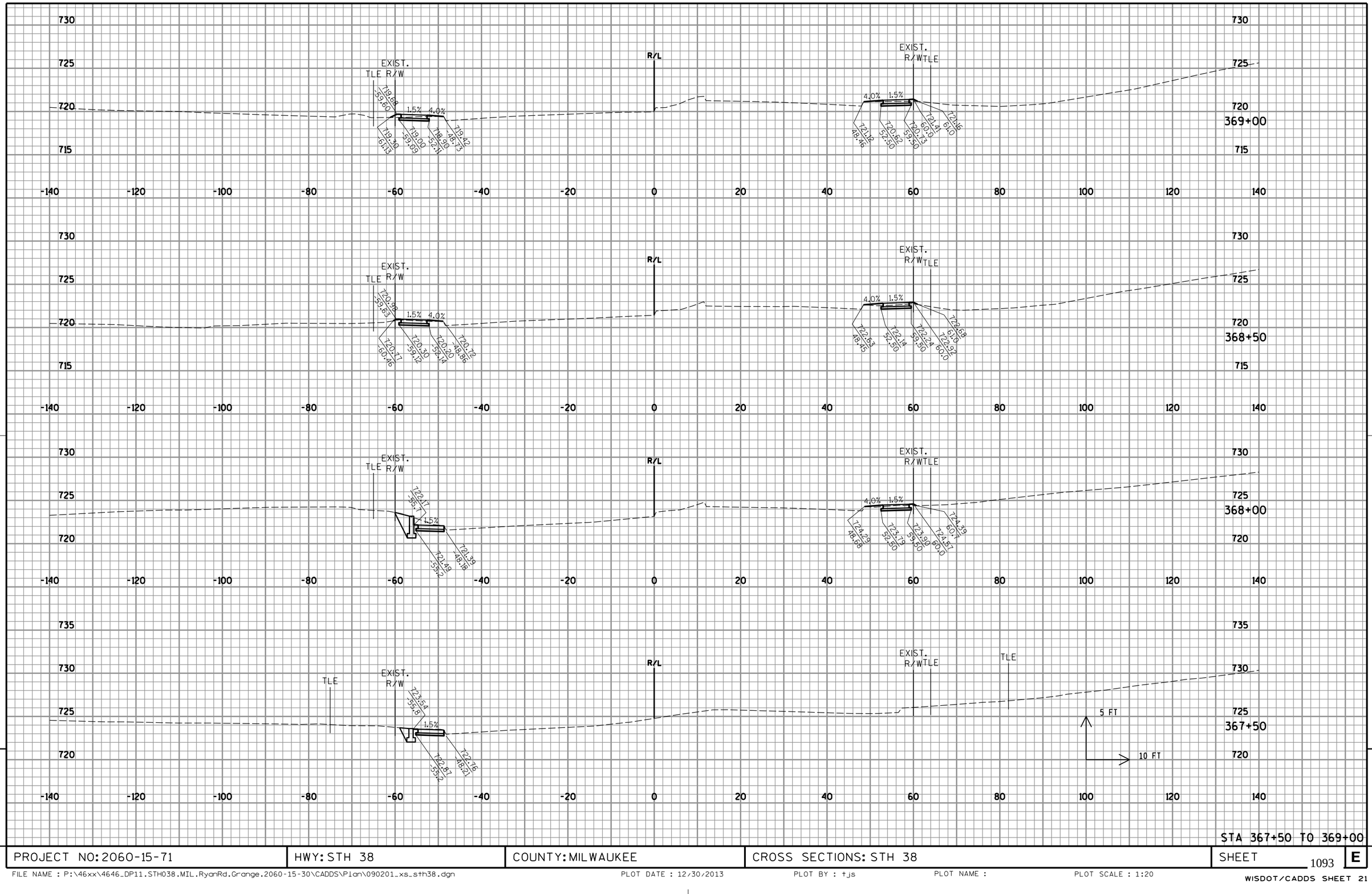
FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20



STA 367+50 TO 369+00

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1093	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

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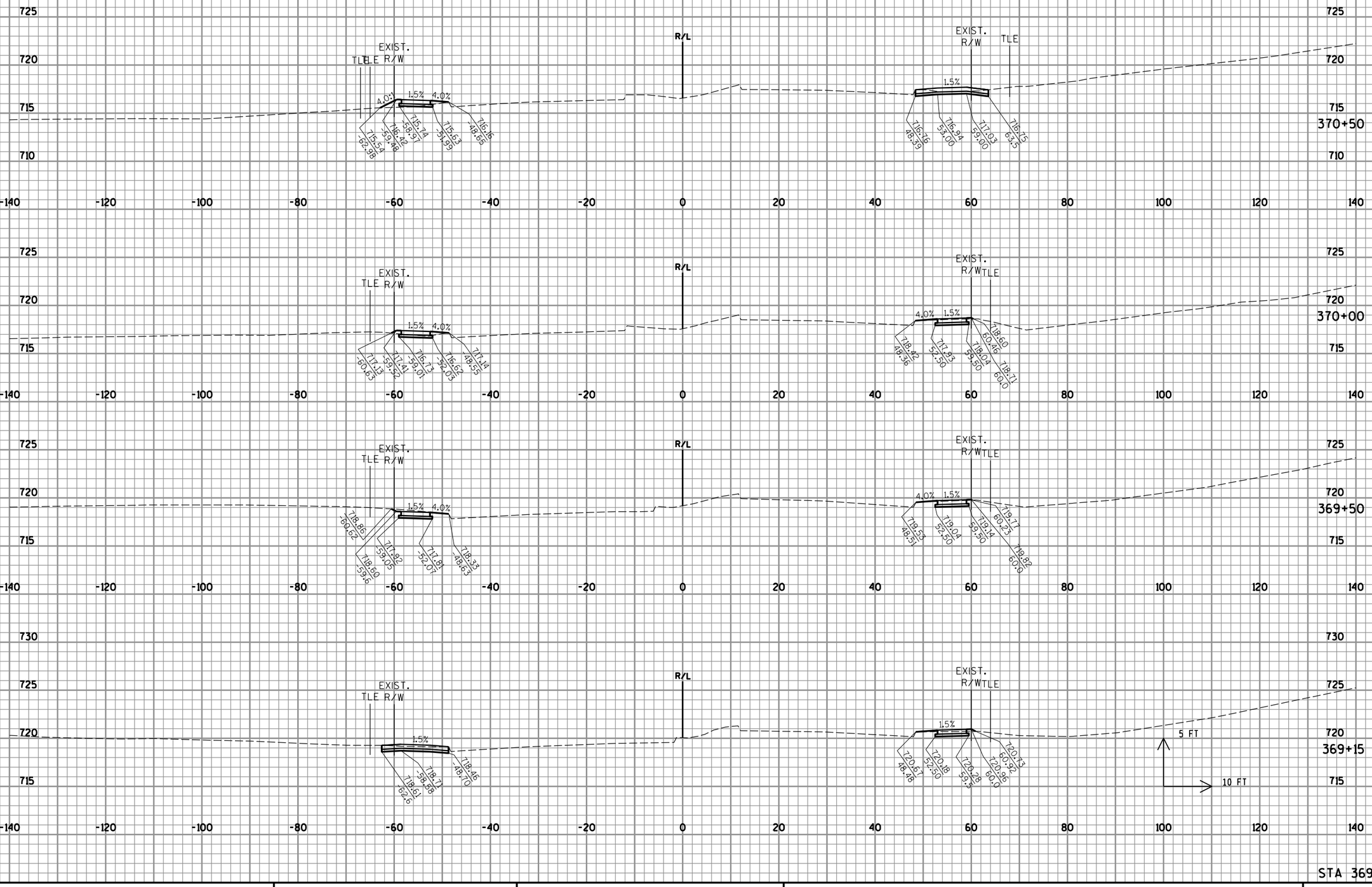

STA 369+15 TO 370+50

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1094 E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

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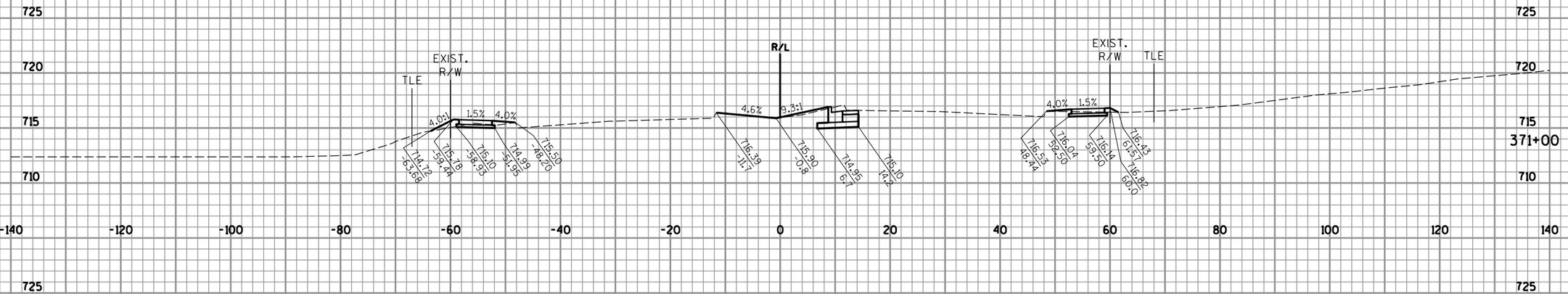

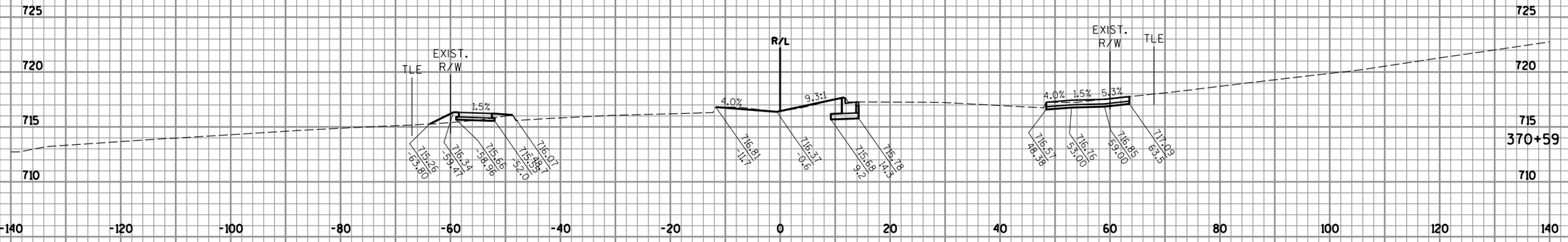

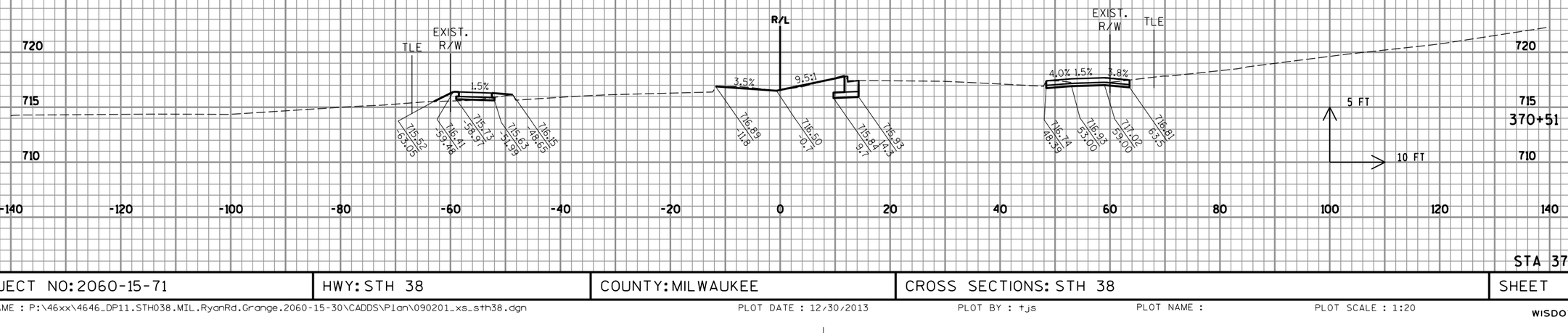

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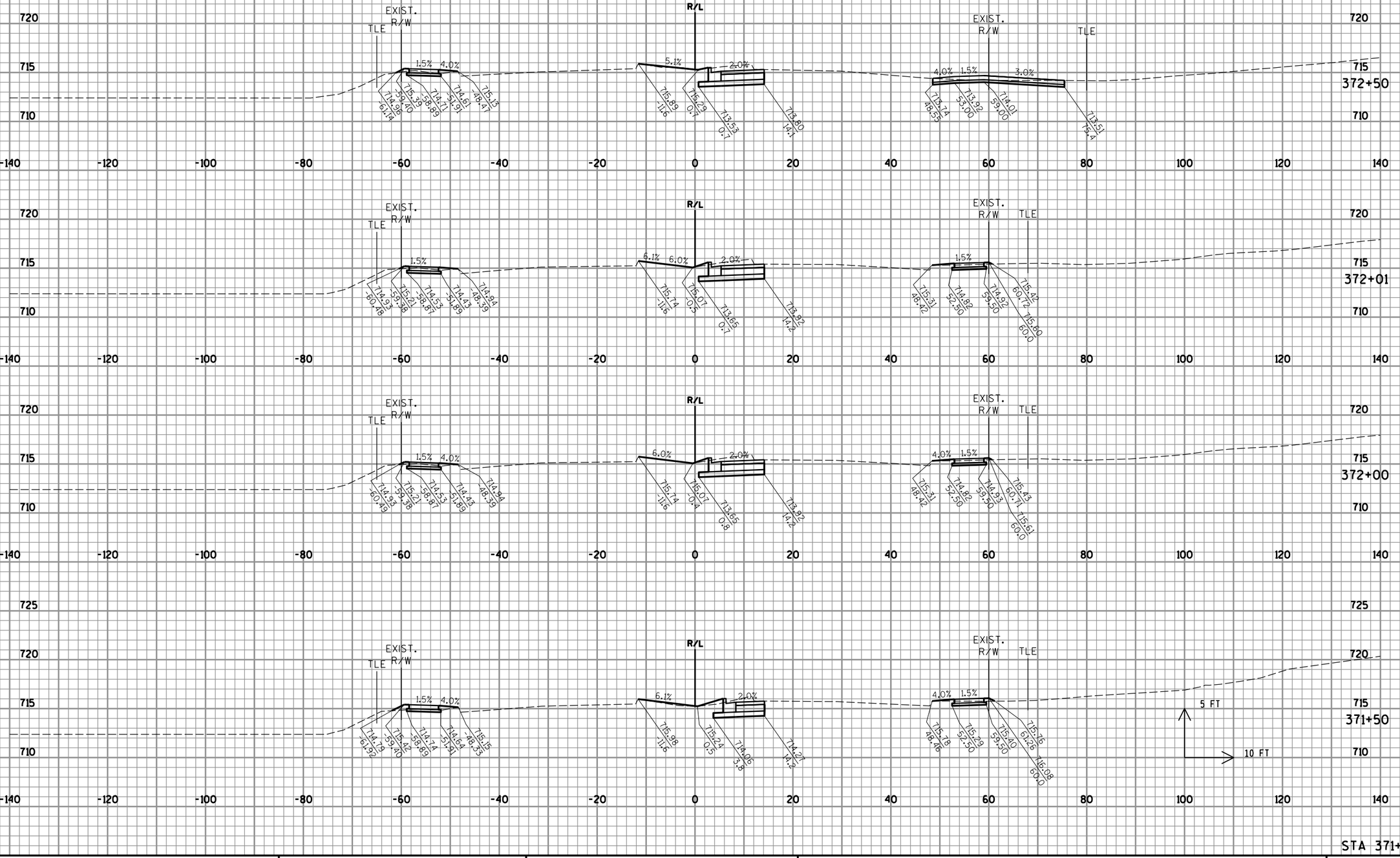
STA 370+51 TO 371+00

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1095	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



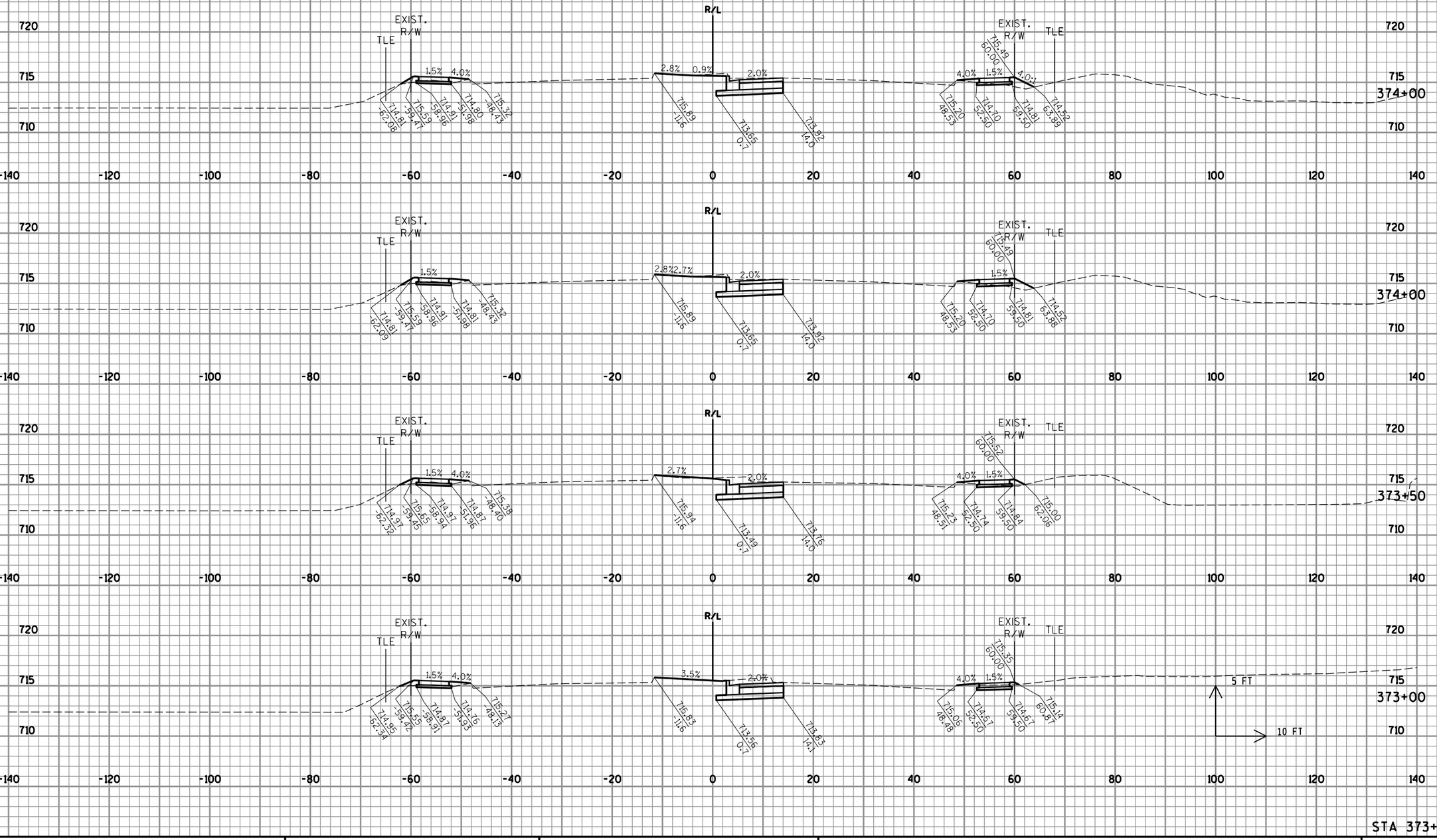
STA 371+50 TO 372+50

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1096 E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

9 9

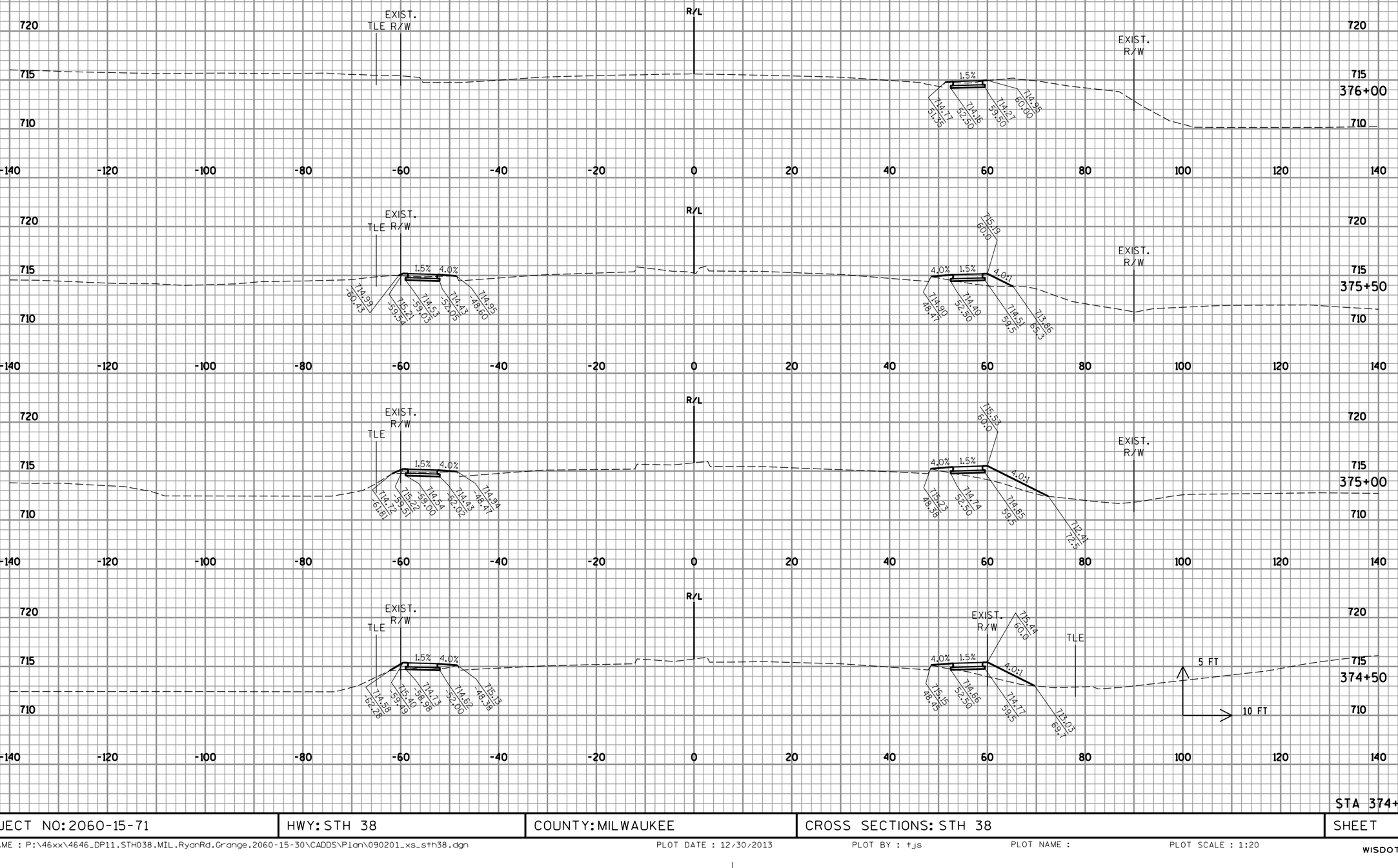


STA 373+00 TO 374+00

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1097	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



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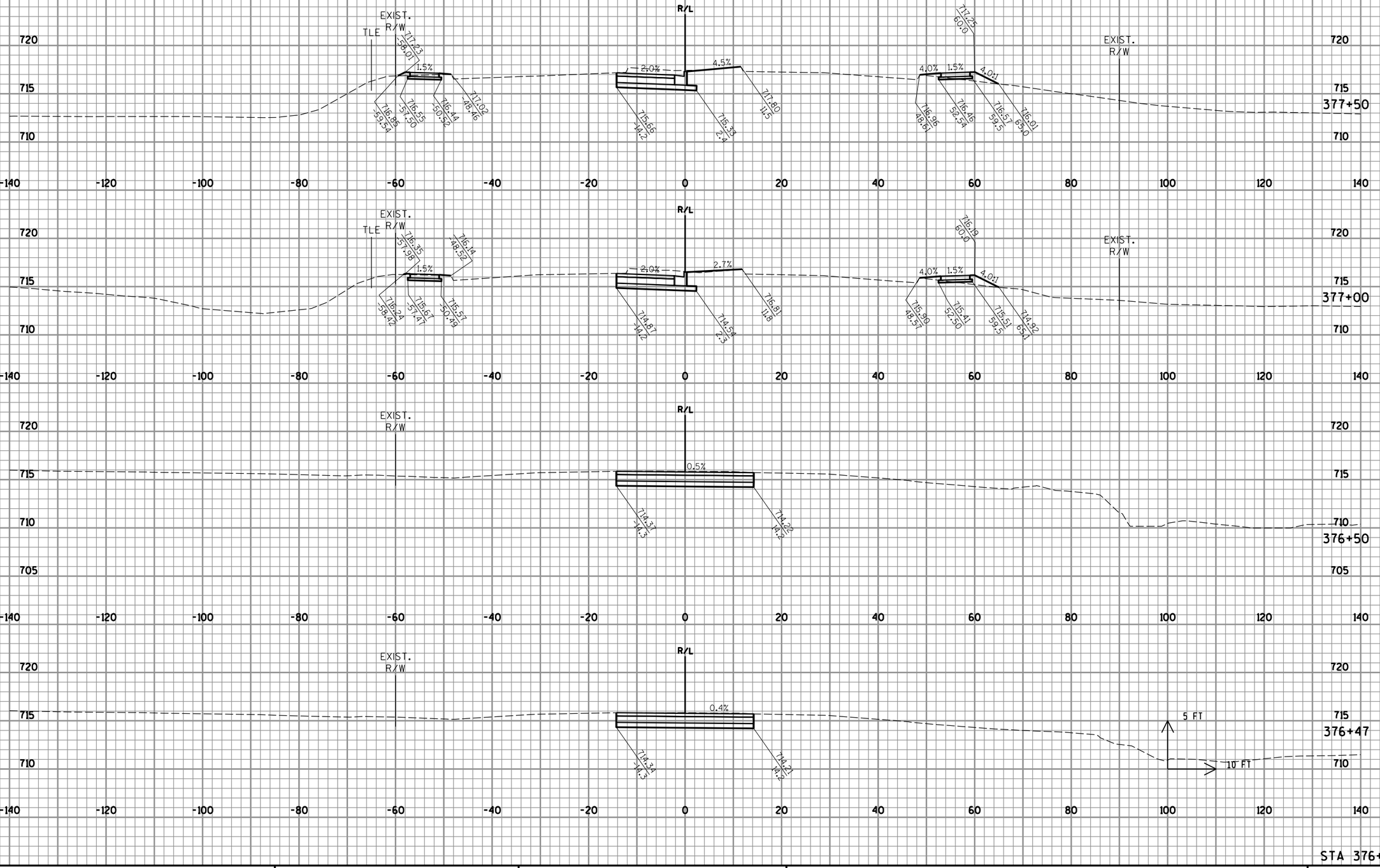
STA 374+50 TO 376+00

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



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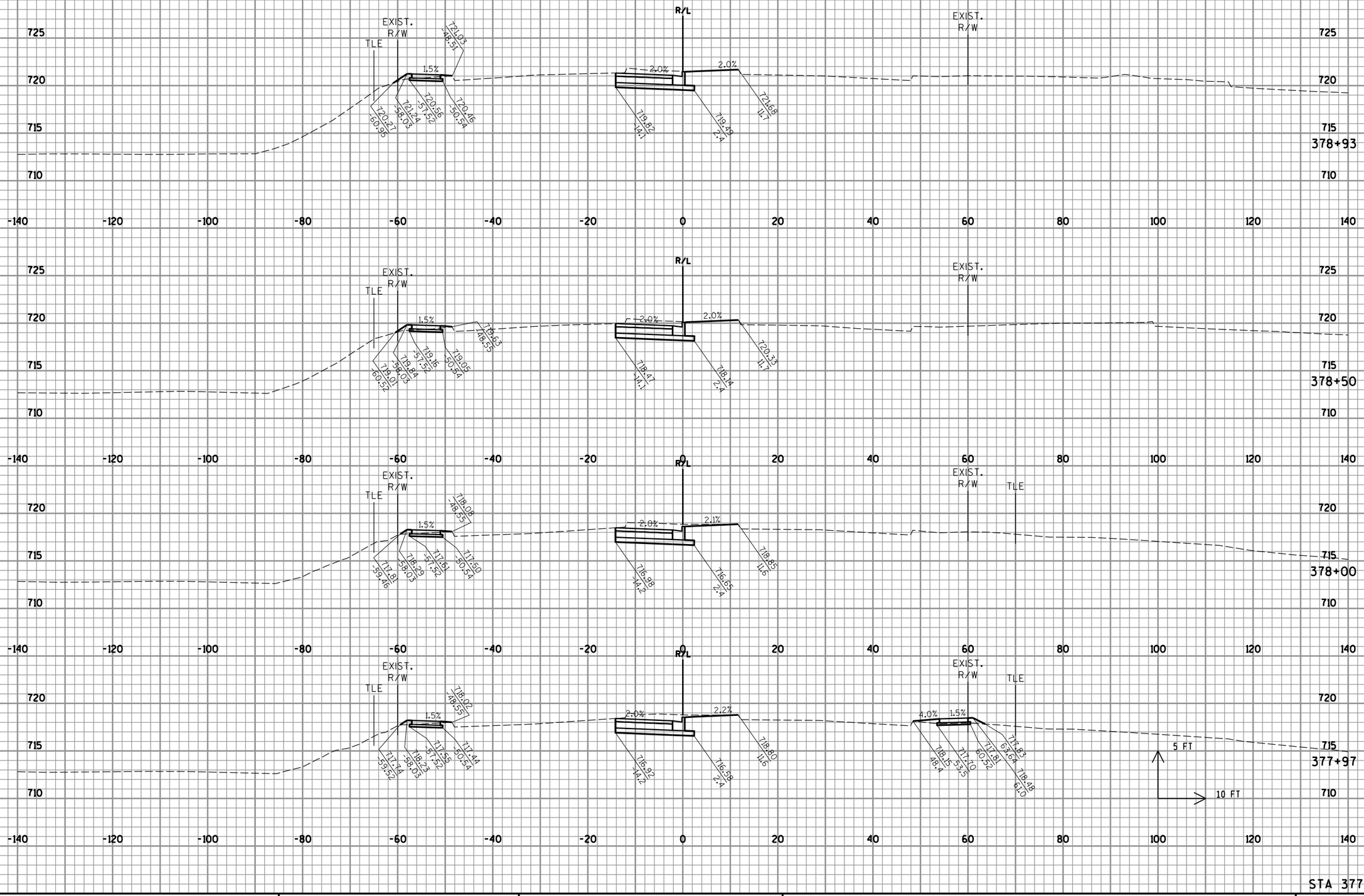
PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1099 E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

9



PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1100	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

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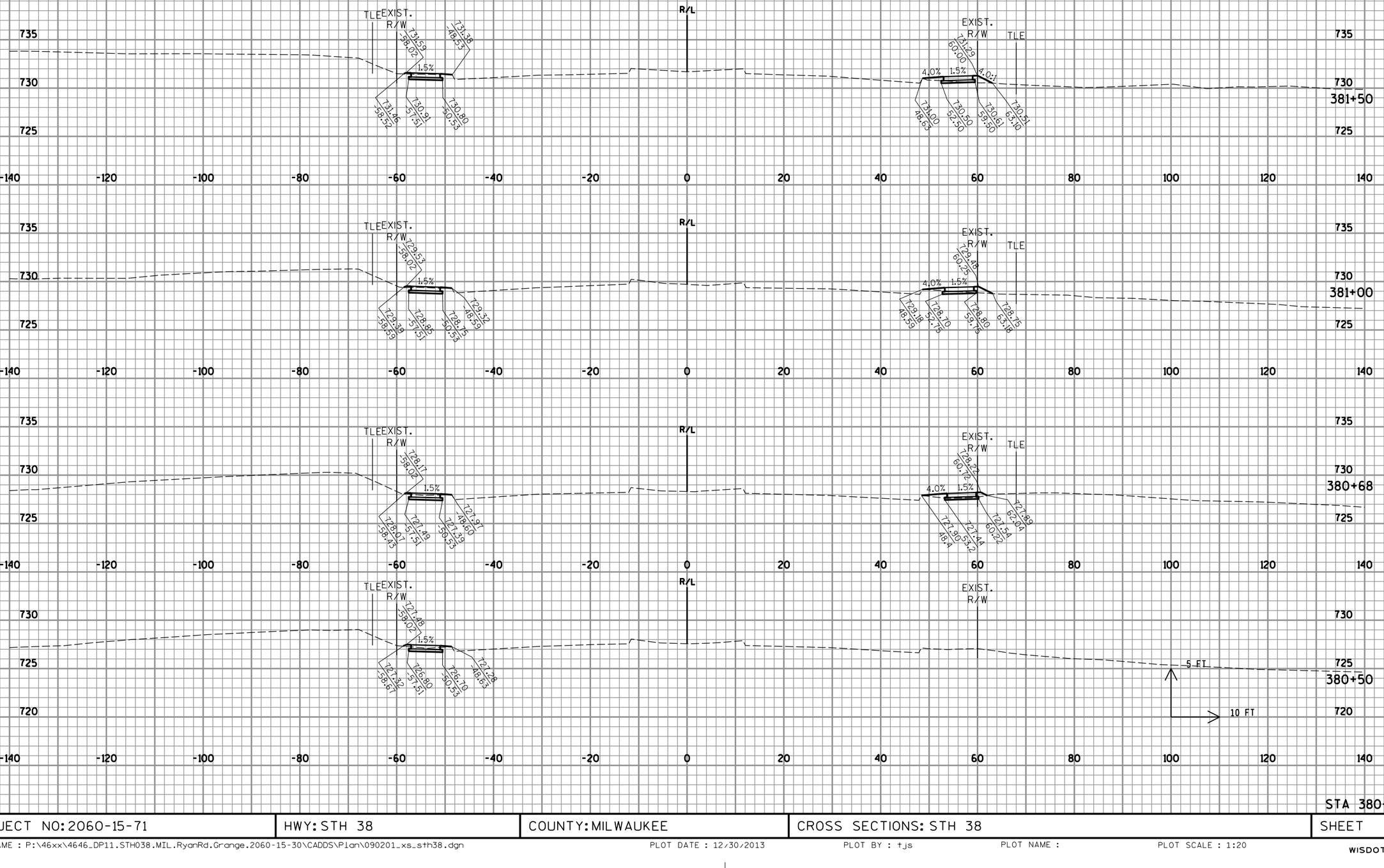
STA 379+00 TO 380+00

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1101	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

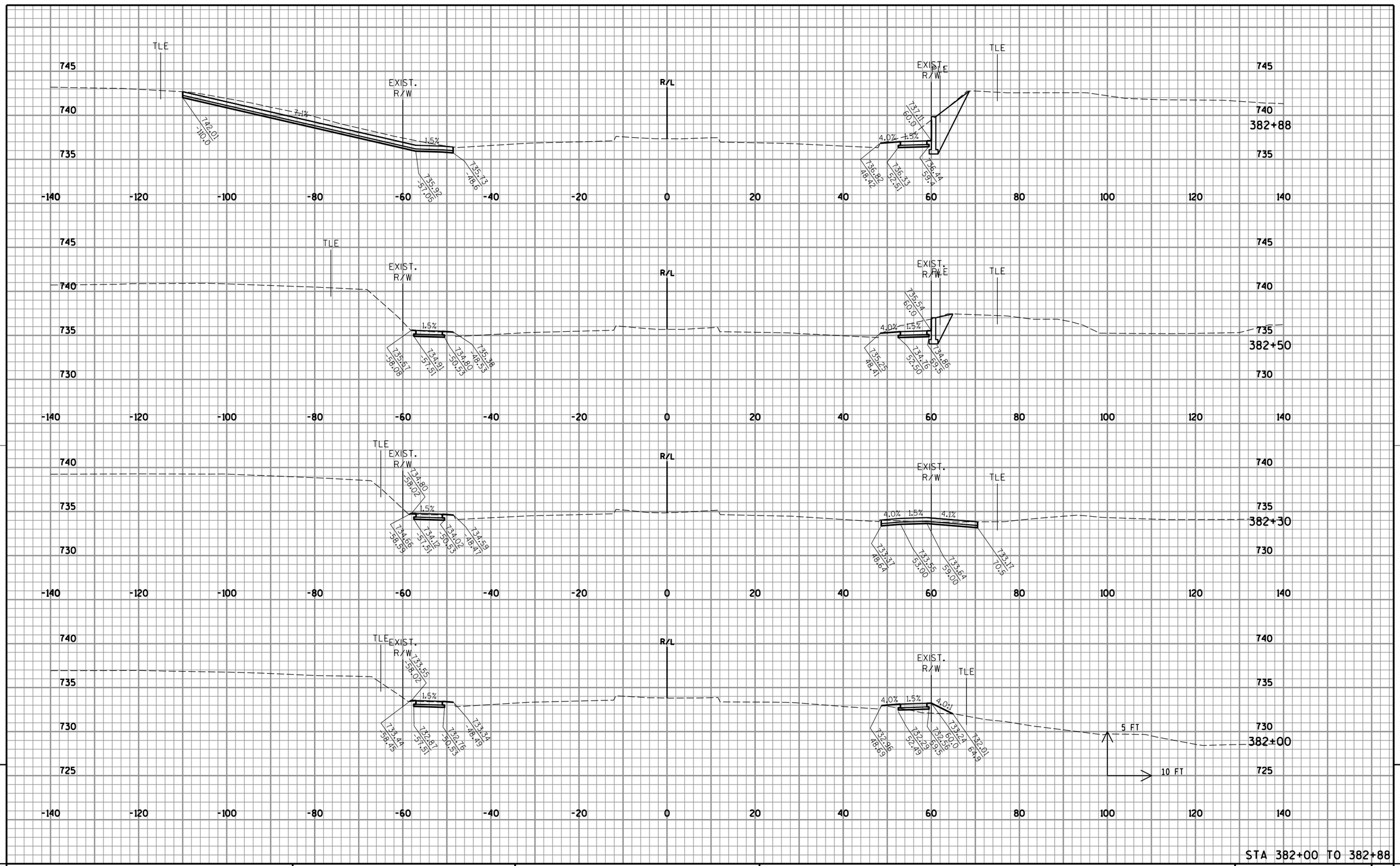


STA 380+50 TO 381+50

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1102	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn | PLOT DATE : 12/30/2013 | PLOT BY : tjs | PLOT NAME : | PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



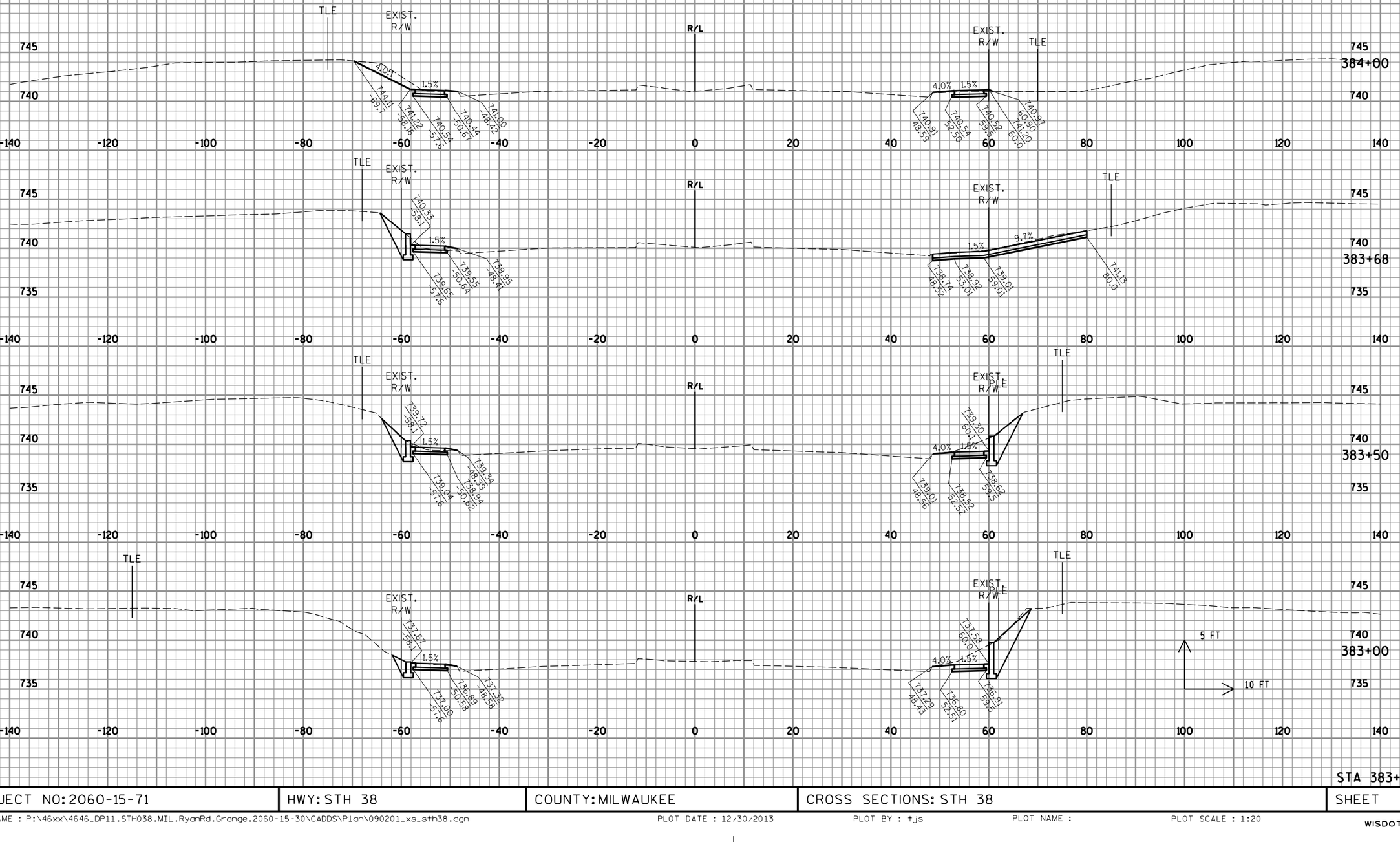
STA 382+00 TO 382+88

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1103 E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

9 9



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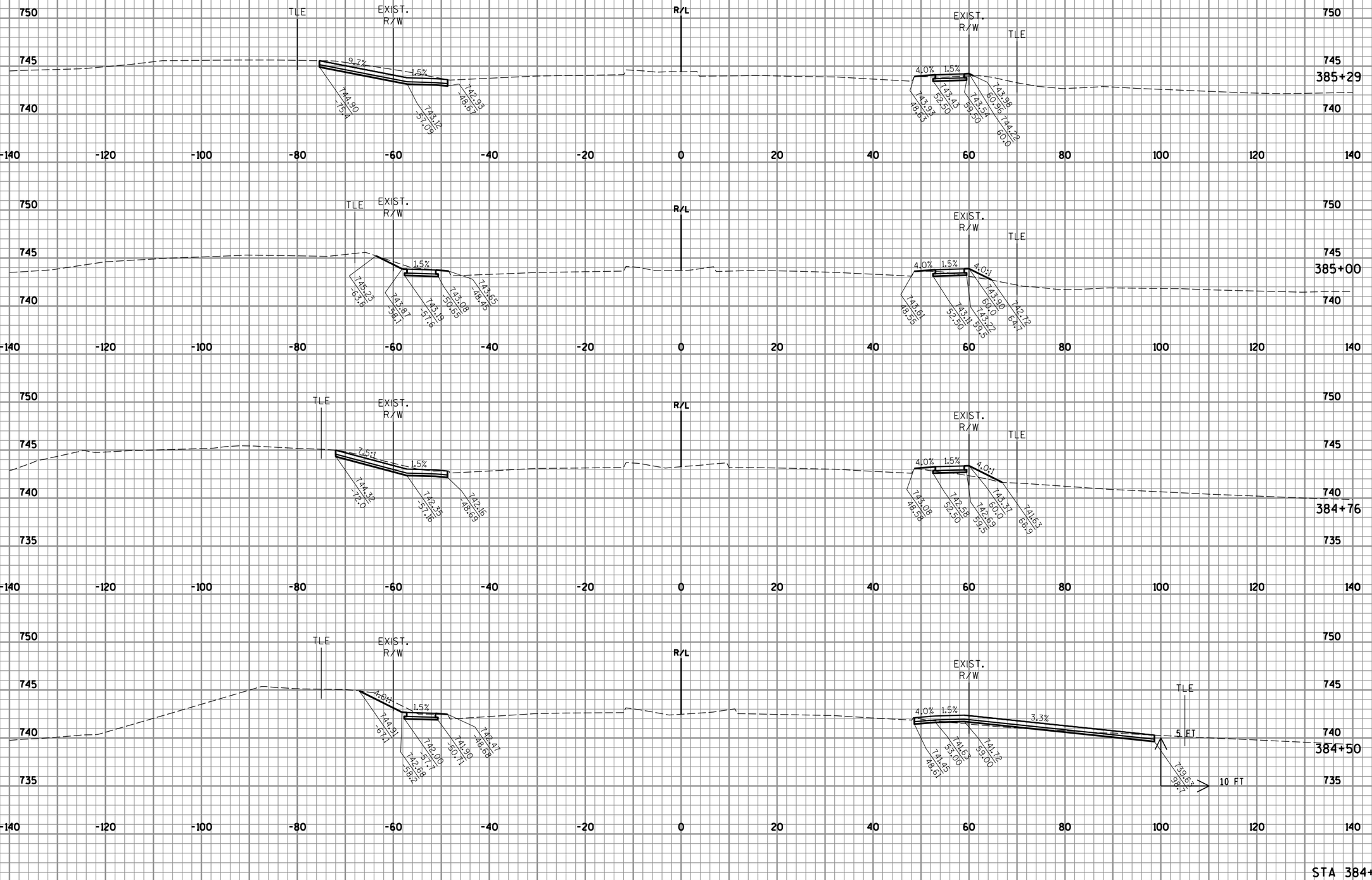
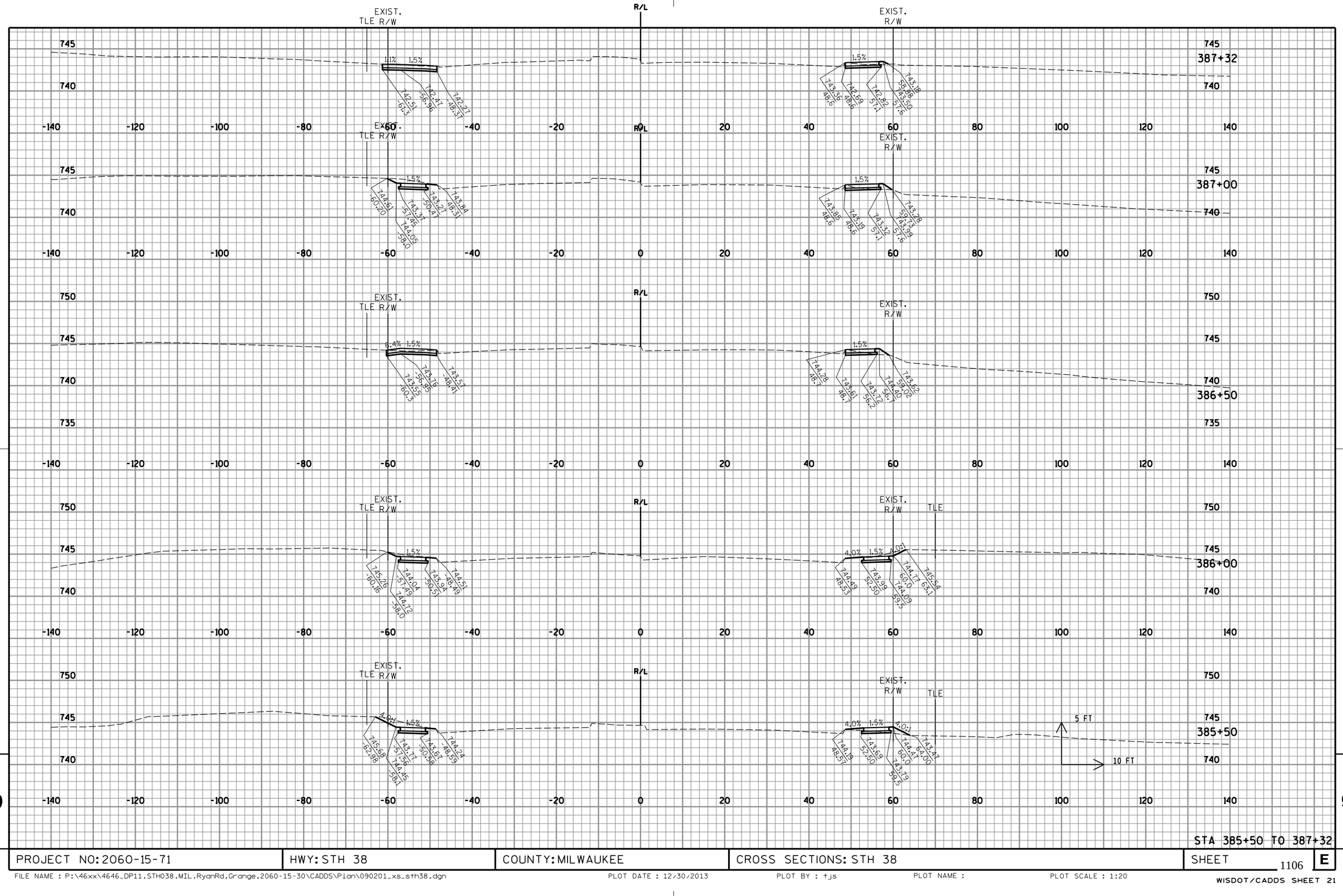
STA 383+00 TO 384+00

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1104	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21


750
745
740
735
-140
-120
-100
-80
-60
-40
-20
0
20
40
60
80
100
120
140
TLE
EXIST. R/W
R/L
9.1%
1.5%
744.90
75.4
743.12
51.09
742.93
48.57
4.0%
743.93
48.53
743.43
52.50
743.54
59.50
743.98
60.96
744.22
60.10
385+29
745.23
63.6
743.87
56.1
743.18
57.6
743.98
50.65
743.65
48.45
385+00
7.5:1
744.32
72.0
742.35
57.16
742.16
46.69
384+76
4.6:1
744.91
67.1
742.00
57.1
742.69
58.2
741.90
50.71
742.47
48.65
743.08
46.58
742.58
52.50
742.69
59.5
741.37
60.0
741.63
66.9
741.63
53.00
741.72
55.00
741.45
48.67
3.3%
5 FT
739.63
97.7
10 FT
384+50
STA 384+50 TO 385+29
9
PROJECT NO: 2060-15-71
HWY: STH 38
COUNTY: MILWAUKEE
CROSS SECTIONS: STH 38
SHEET
1105
E
FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn
PLOT DATE : 12/30/2013
PLOT BY : tjs
PLOT NAME :
PLOT SCALE : 1:20
WISDOT/CADDS SHEET 21

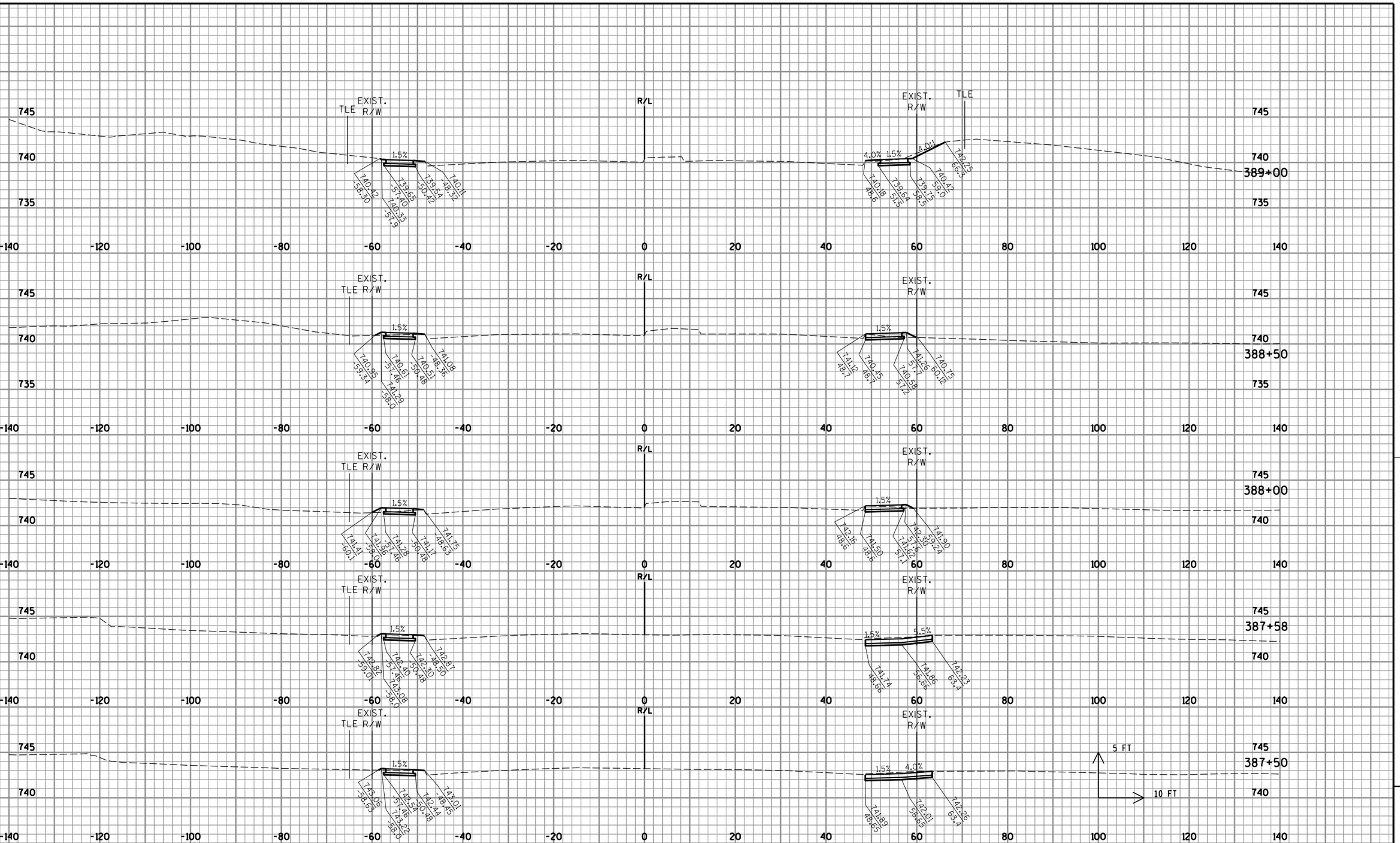


STA 385+50 TO 387+32

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1106	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



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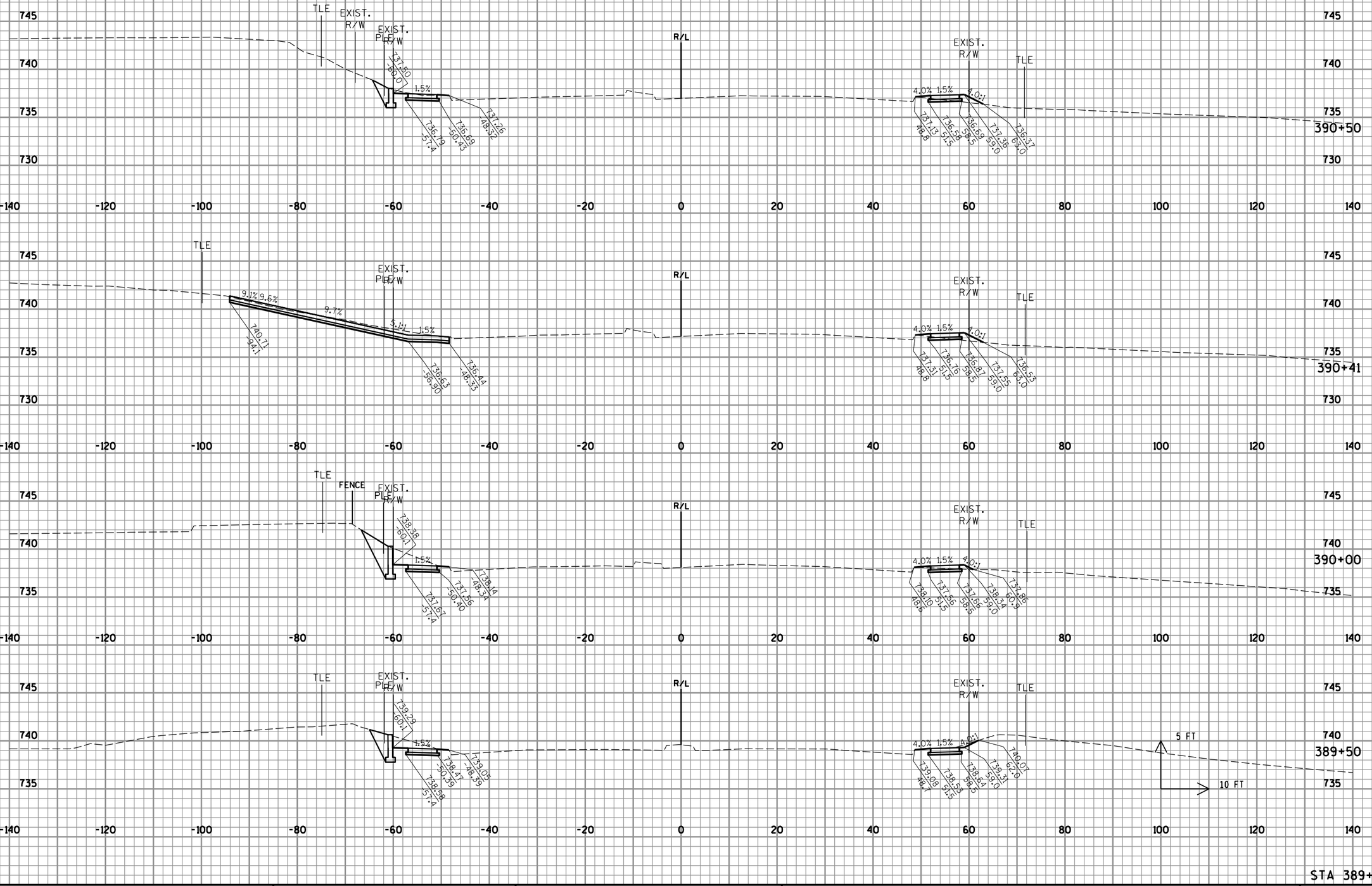
STA 387+50 TO 389+00

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1107	E



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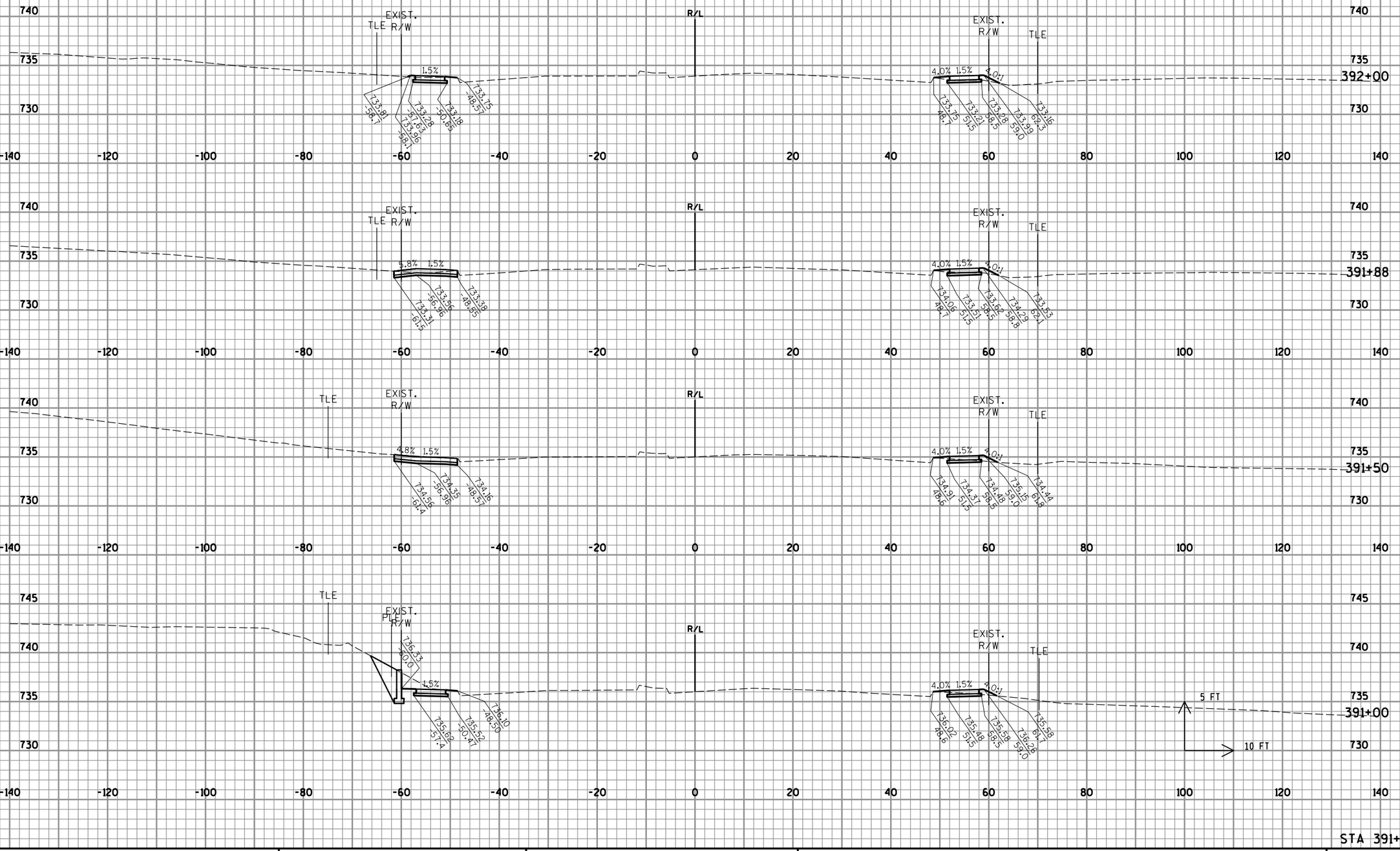
STA 389+50 TO 390+50

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



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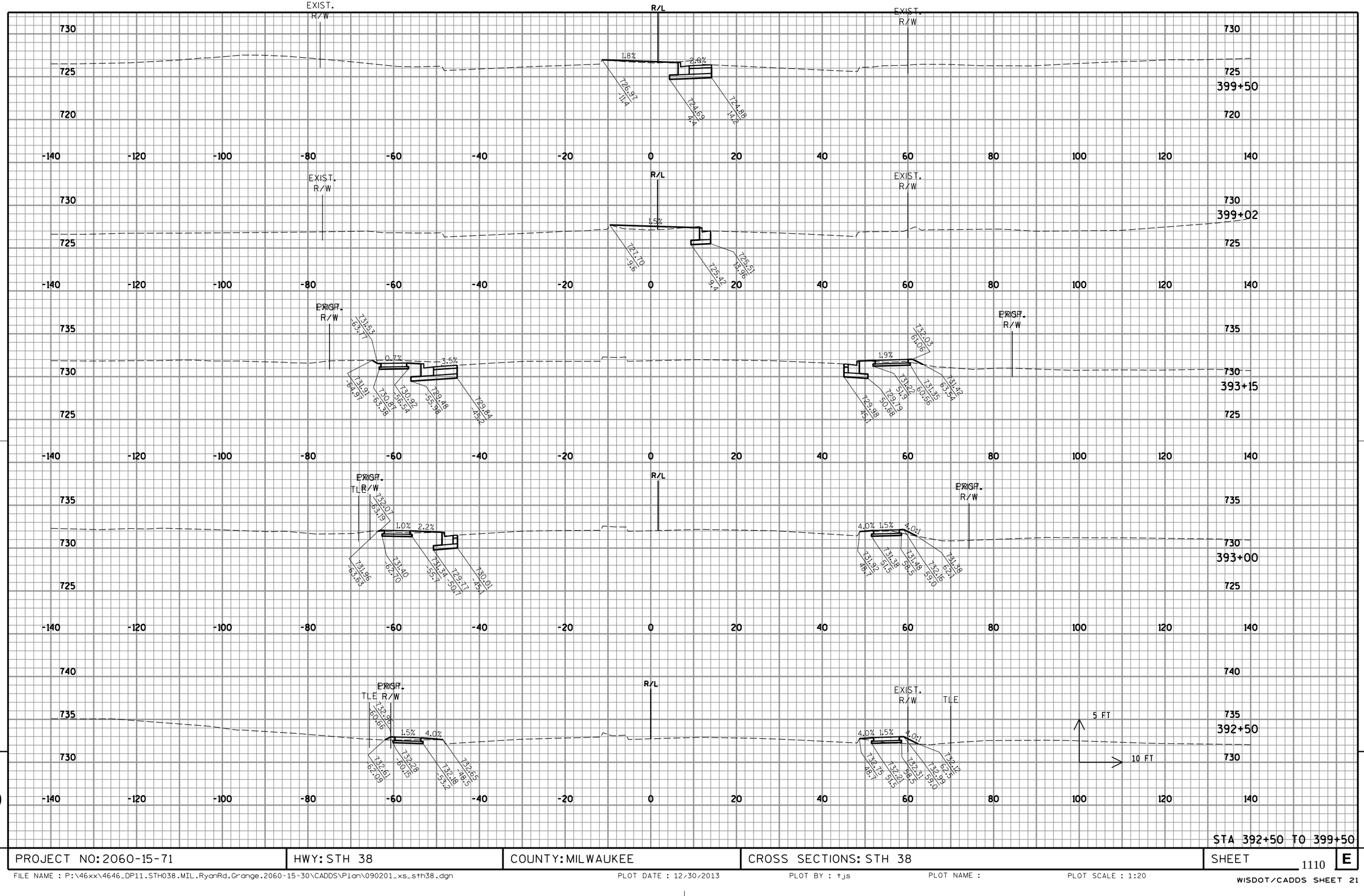
PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1109	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



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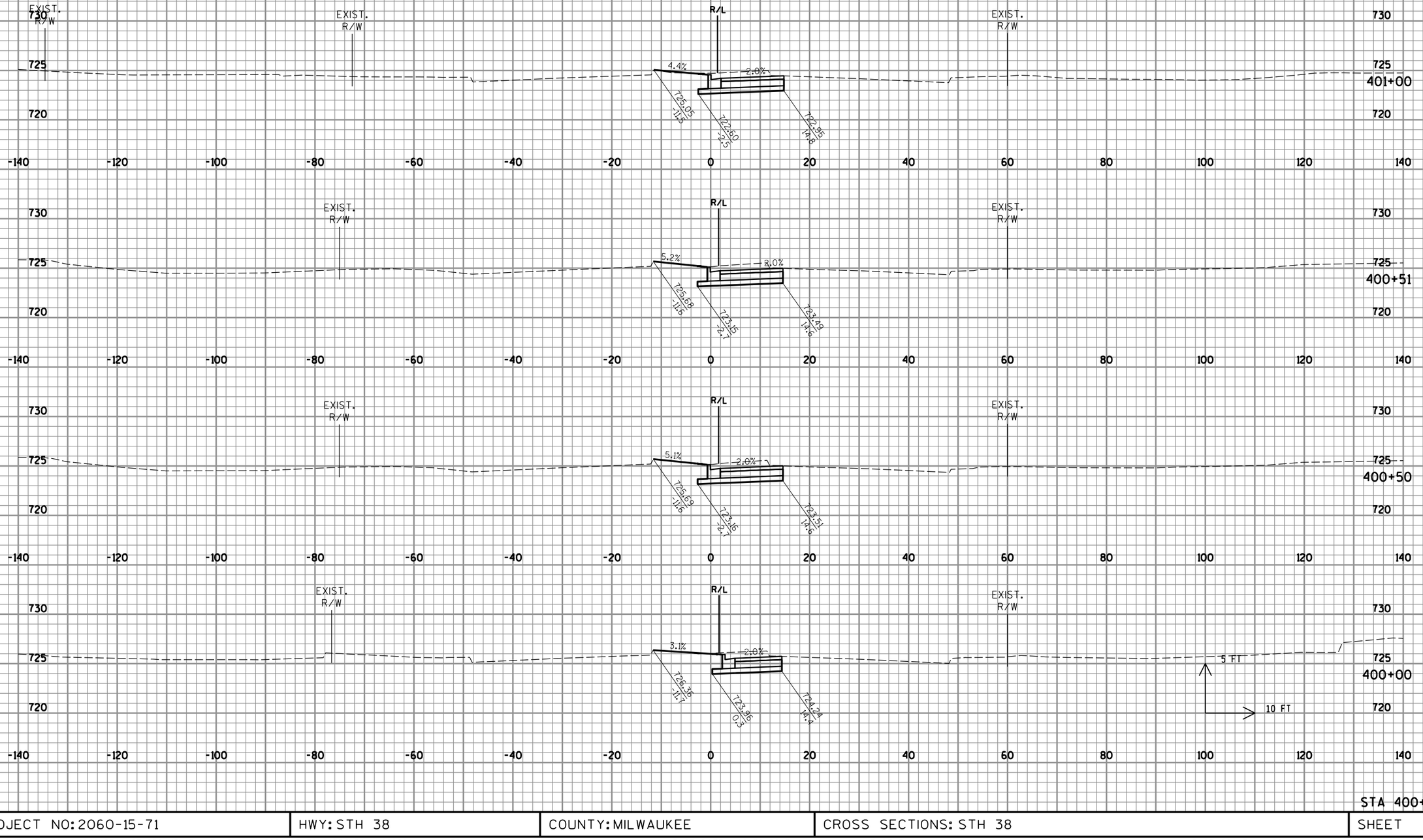
STA 392+50 TO 399+50

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1110	E



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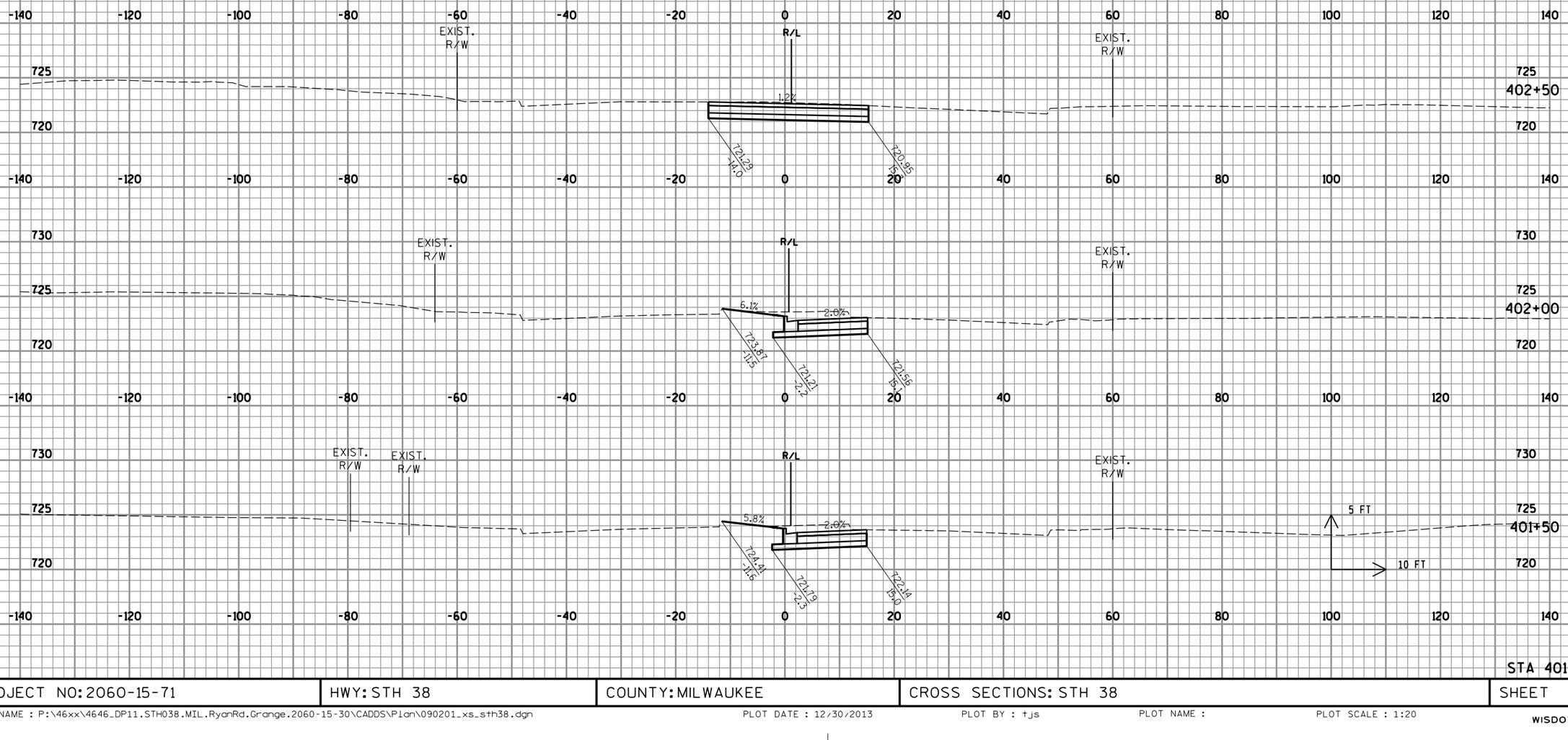
STA 400+00 TO 401+00

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1111	E



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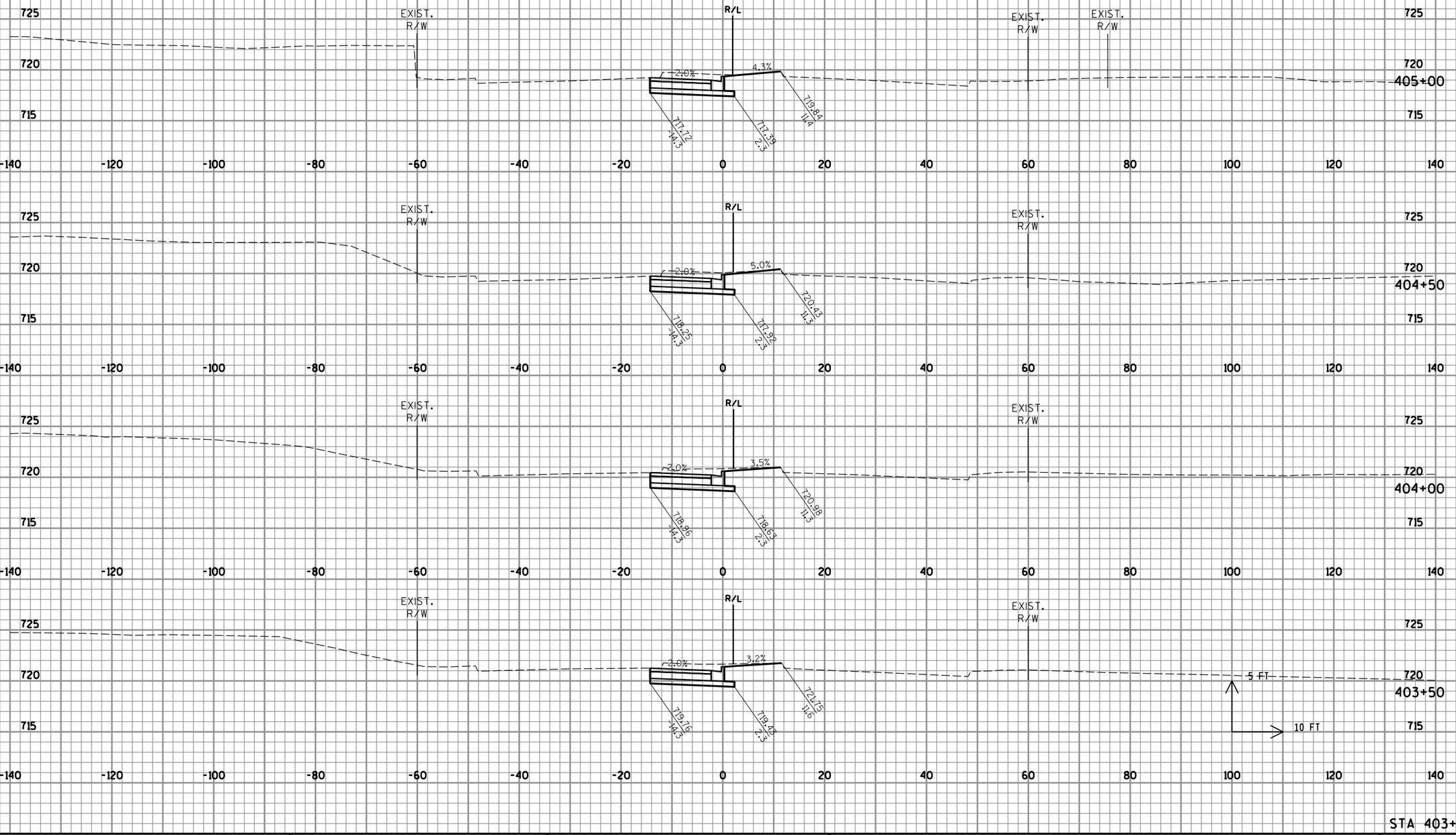
STA 401+50 TO 403+01

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1112	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



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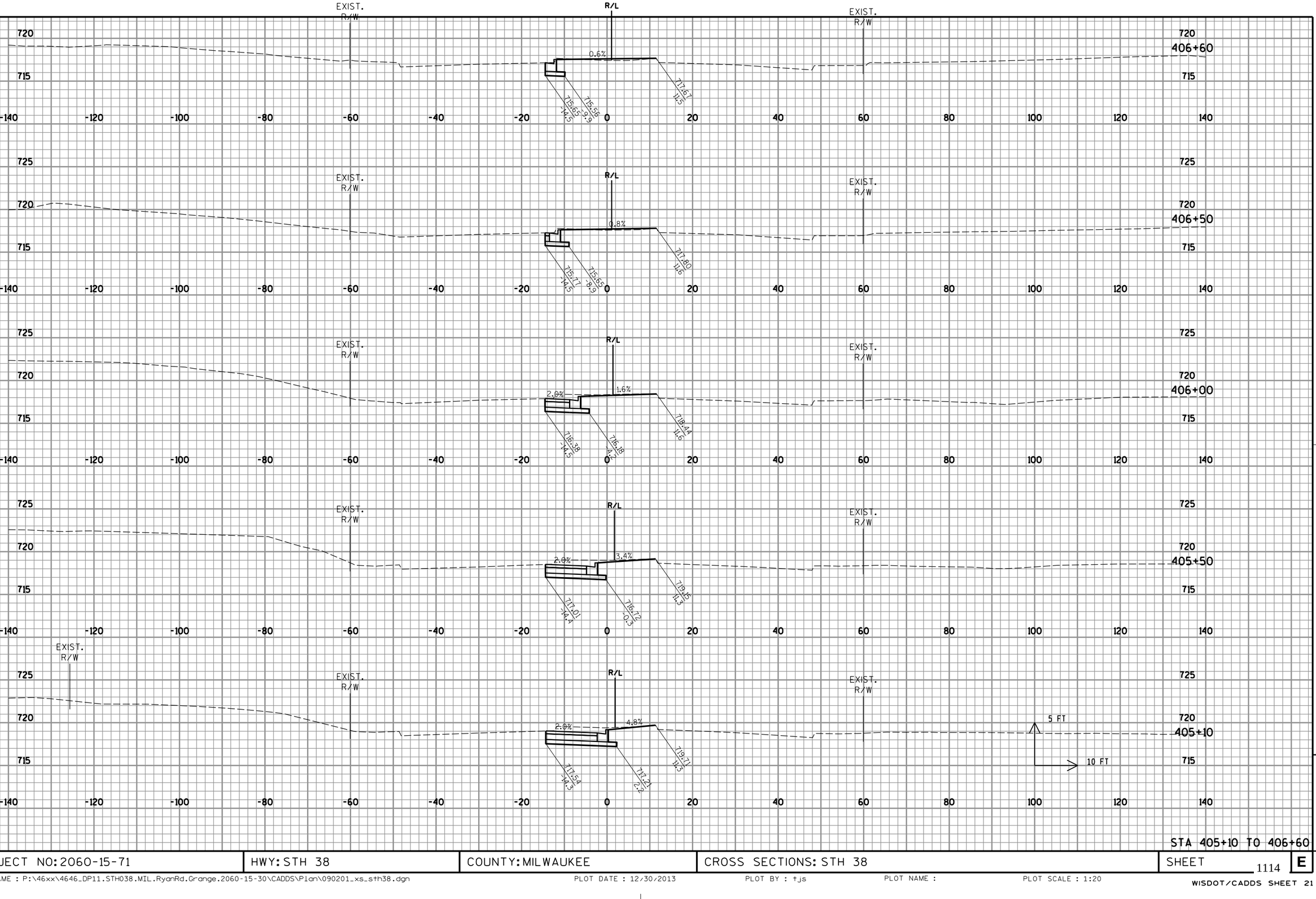
STA 403+50 TO 405+00

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1113	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



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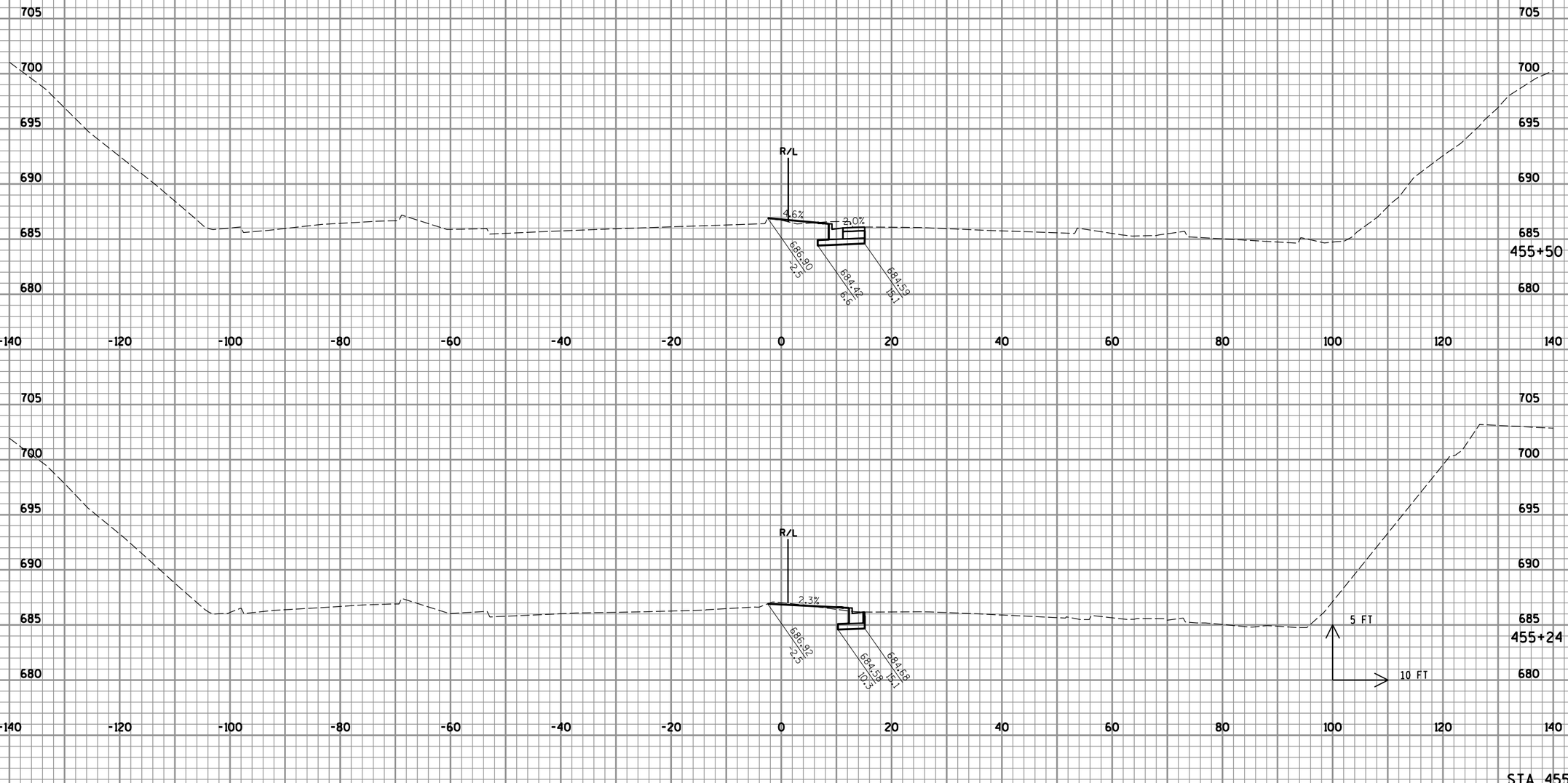
STA 405+10 TO 406+60

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1114	E



STA 455+24 TO 455+50

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1115 E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

9

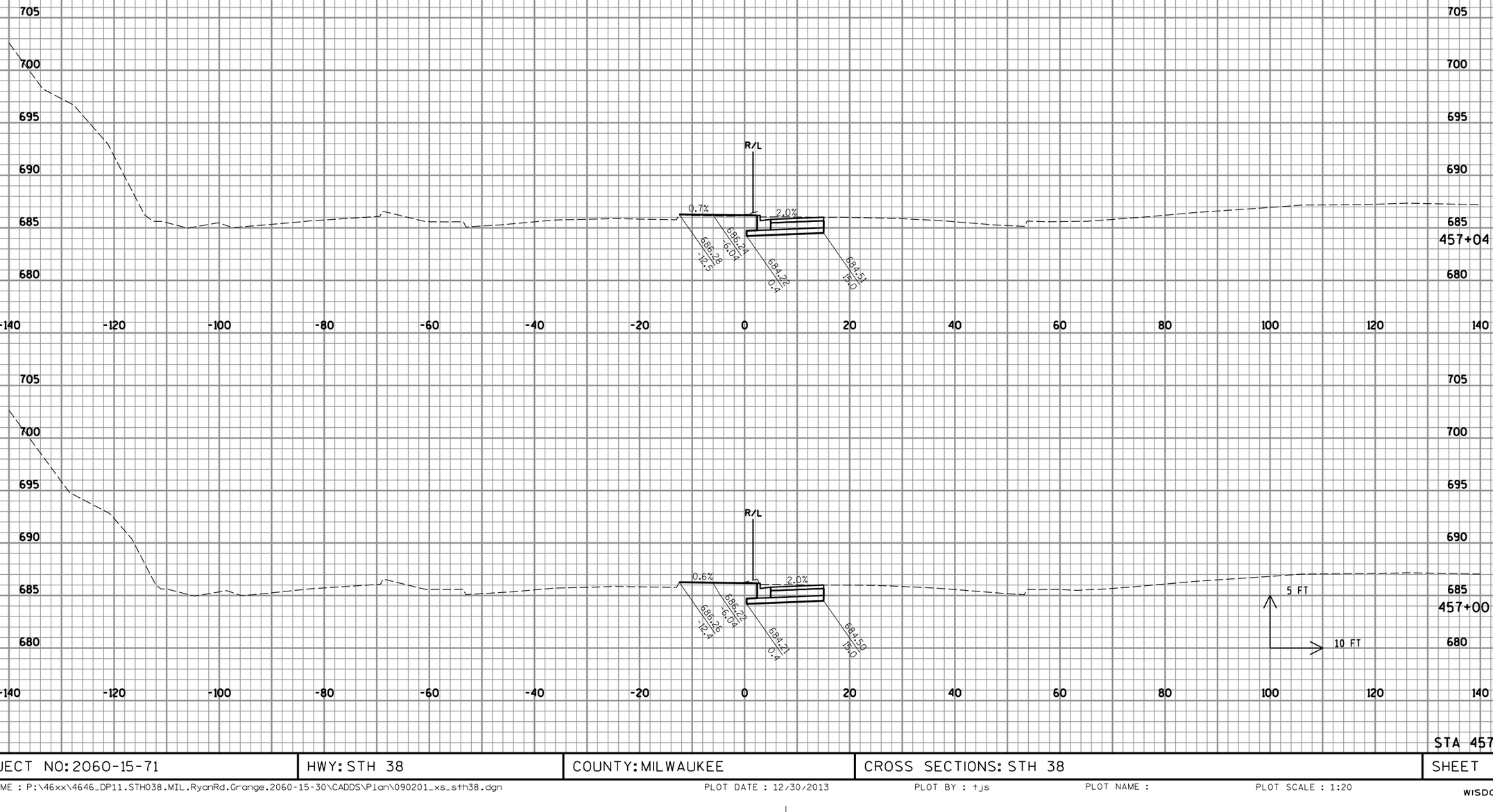
9

STA 455+97 TO 456+50

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1116 E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



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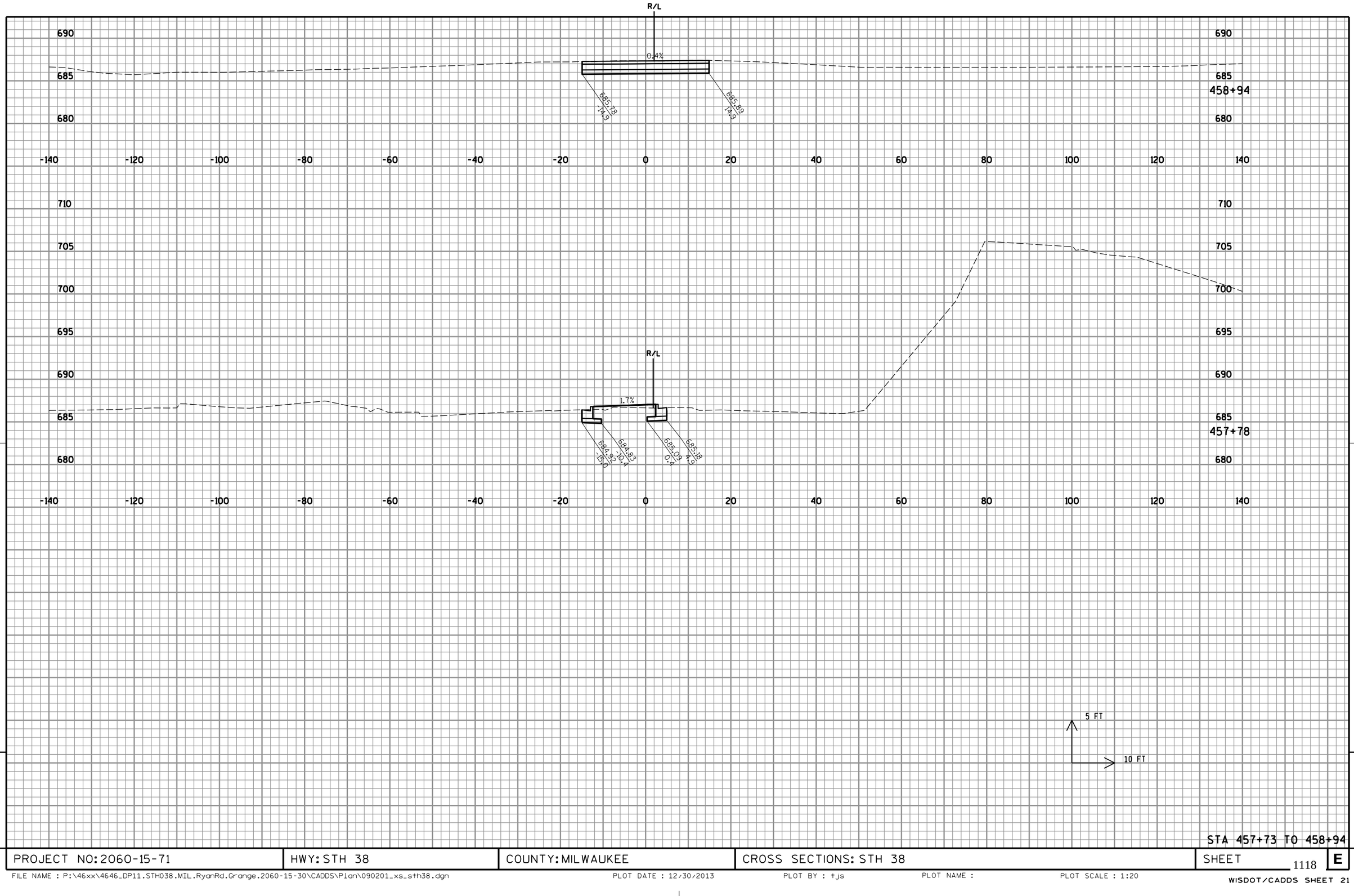
STA 457+00 TO 457+04

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1117	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



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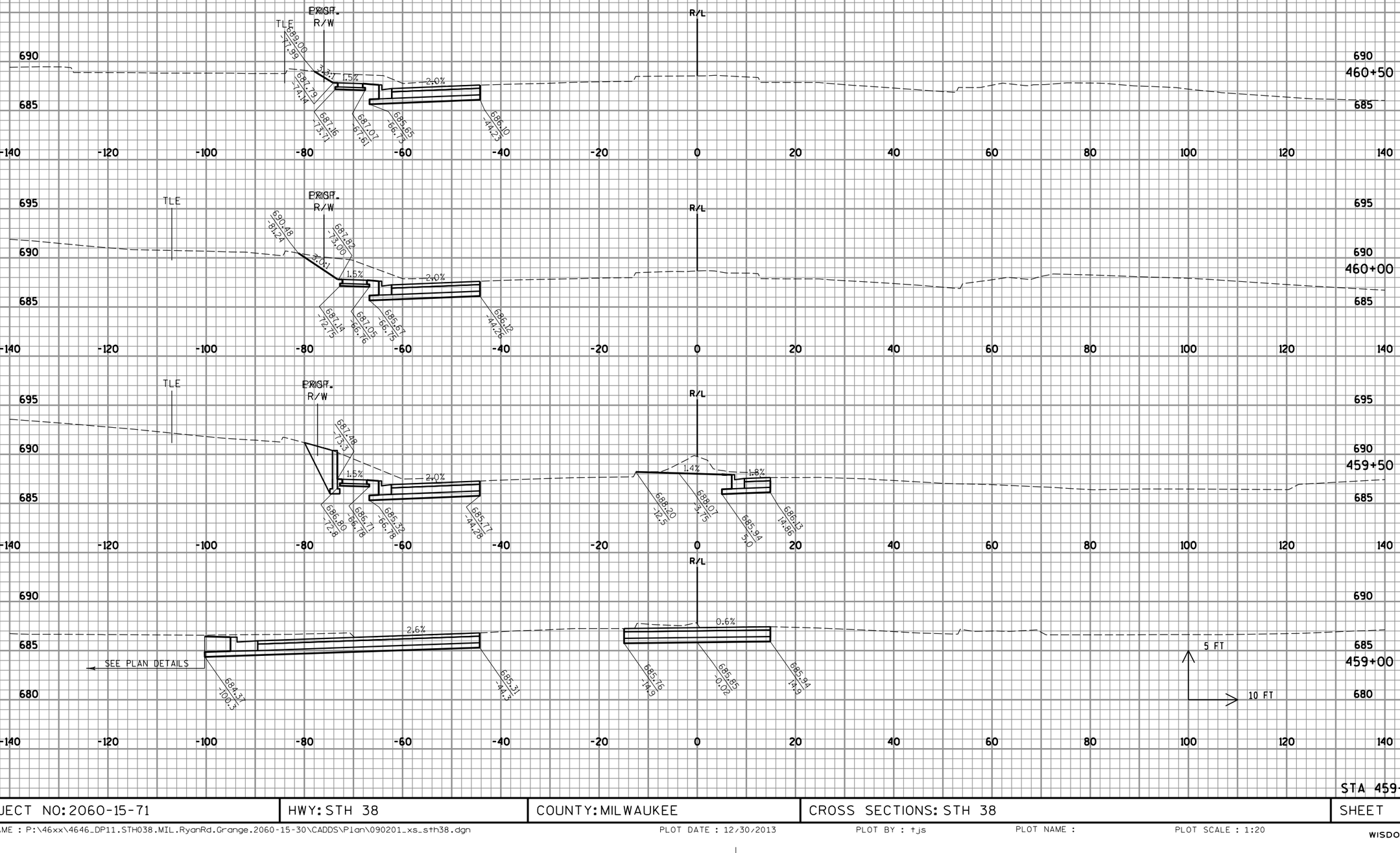
STA 457+73 TO 458+94

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1118	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



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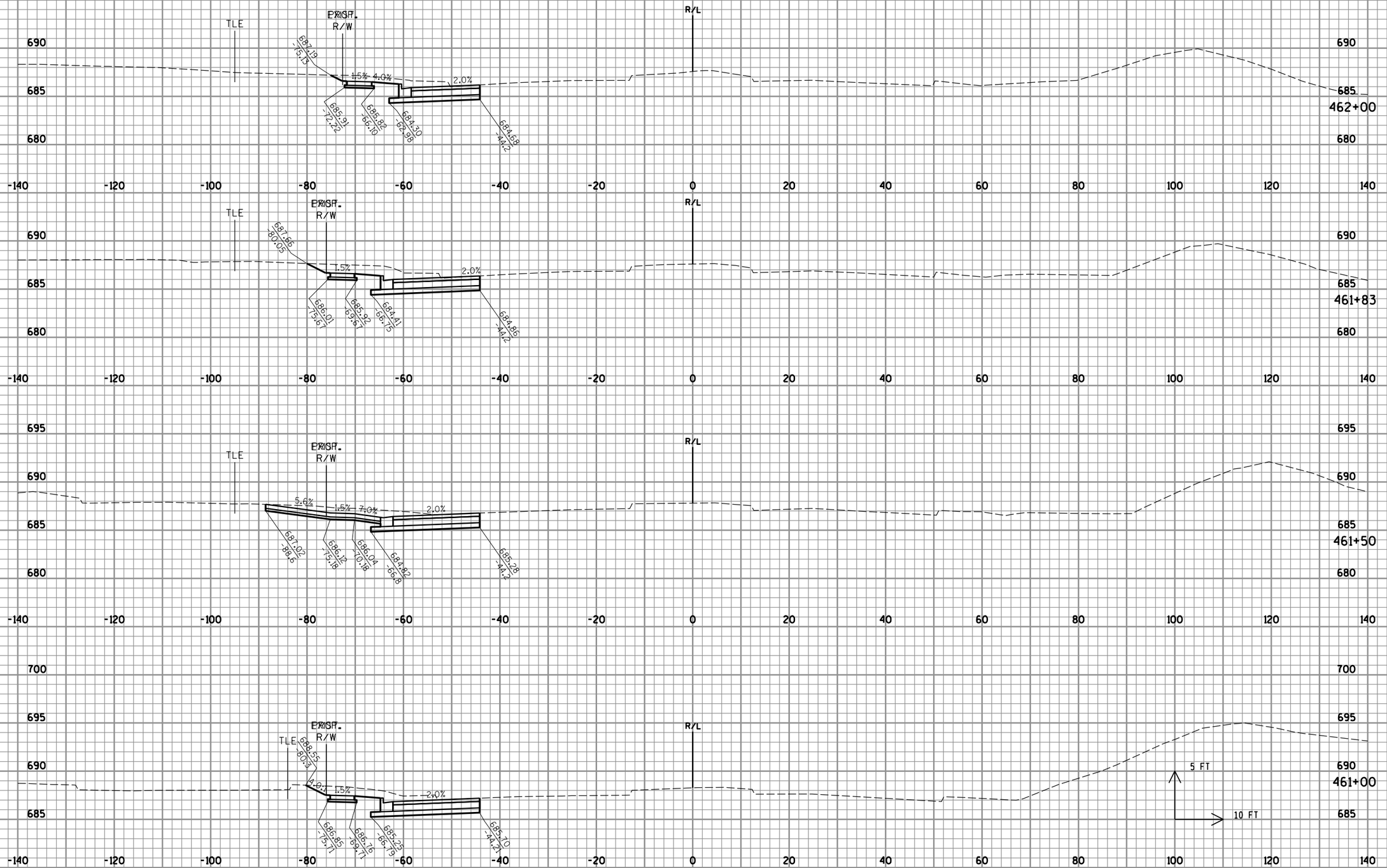
STA 459+00 TO 460+50

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1119	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



9

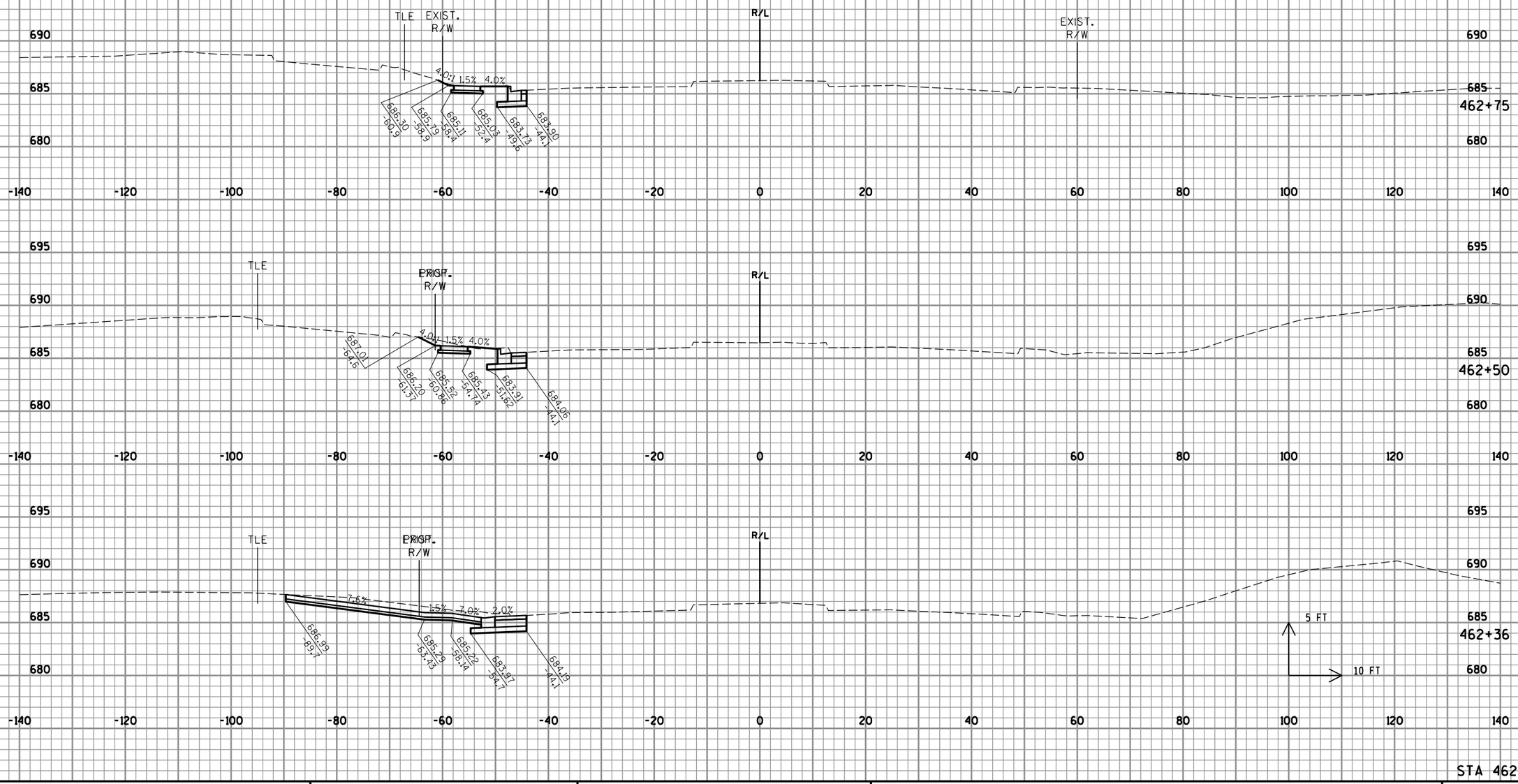
9

STA 461+00 TO 462+00

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1120	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



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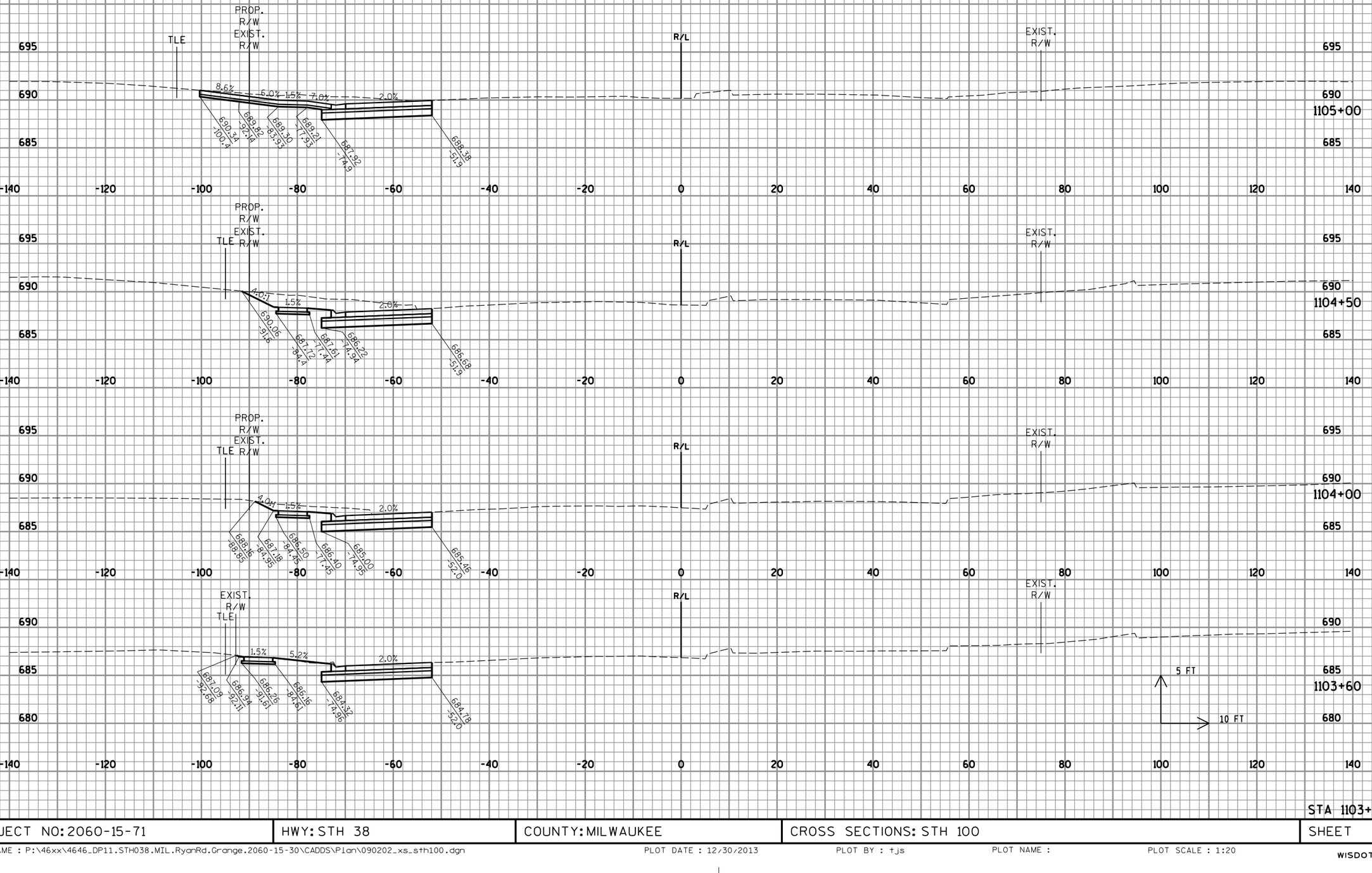
STA 462+36 TO 462+75

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 38	SHEET 1121	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090201_xs_sth38.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



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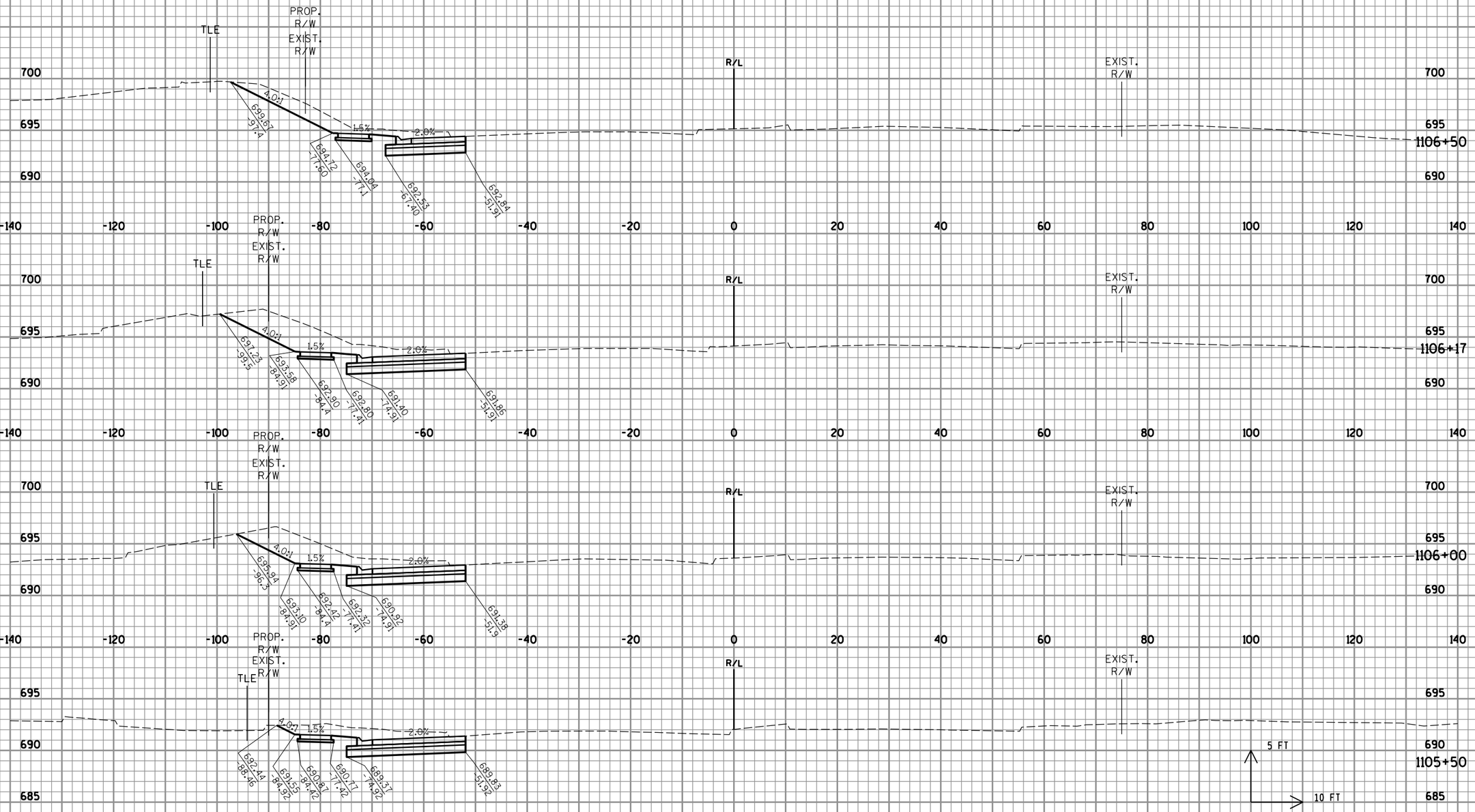
STA 1103+60 TO 1105+00

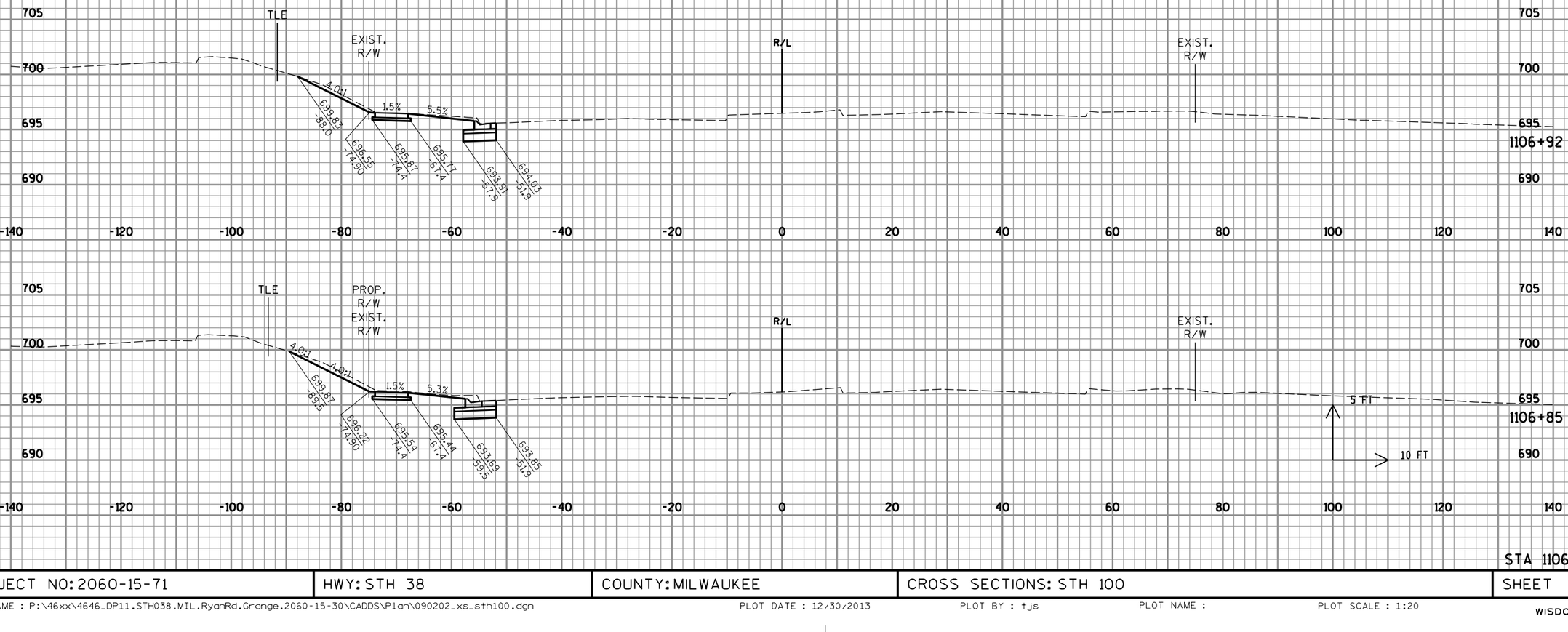
PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 100	SHEET 1122	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090202_xs_sth100.dgn
PLOT DATE : 12/30/2013
PLOT BY : tjs
PLOT NAME :
PLOT SCALE : 1:20
WISDOT/CADDS SHEET 21



STA 1105+50 TO 1106+50

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 100	SHEET 1123	E



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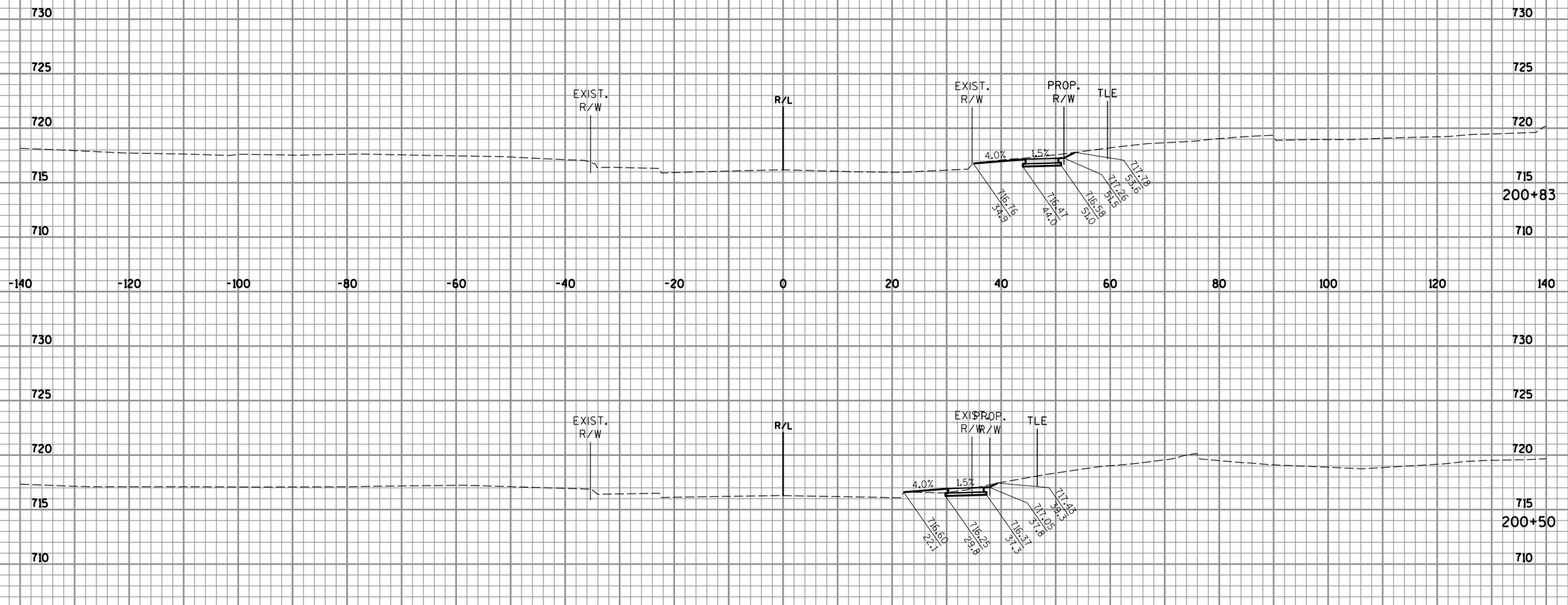
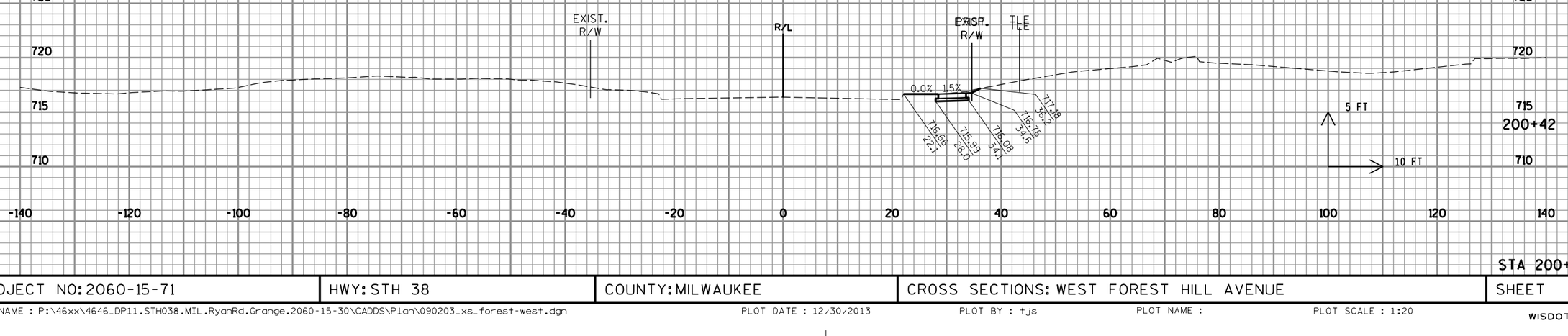
STA 1106+85 TO 1106+92

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: STH 100	SHEET 1124	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090202_xs_sth100.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



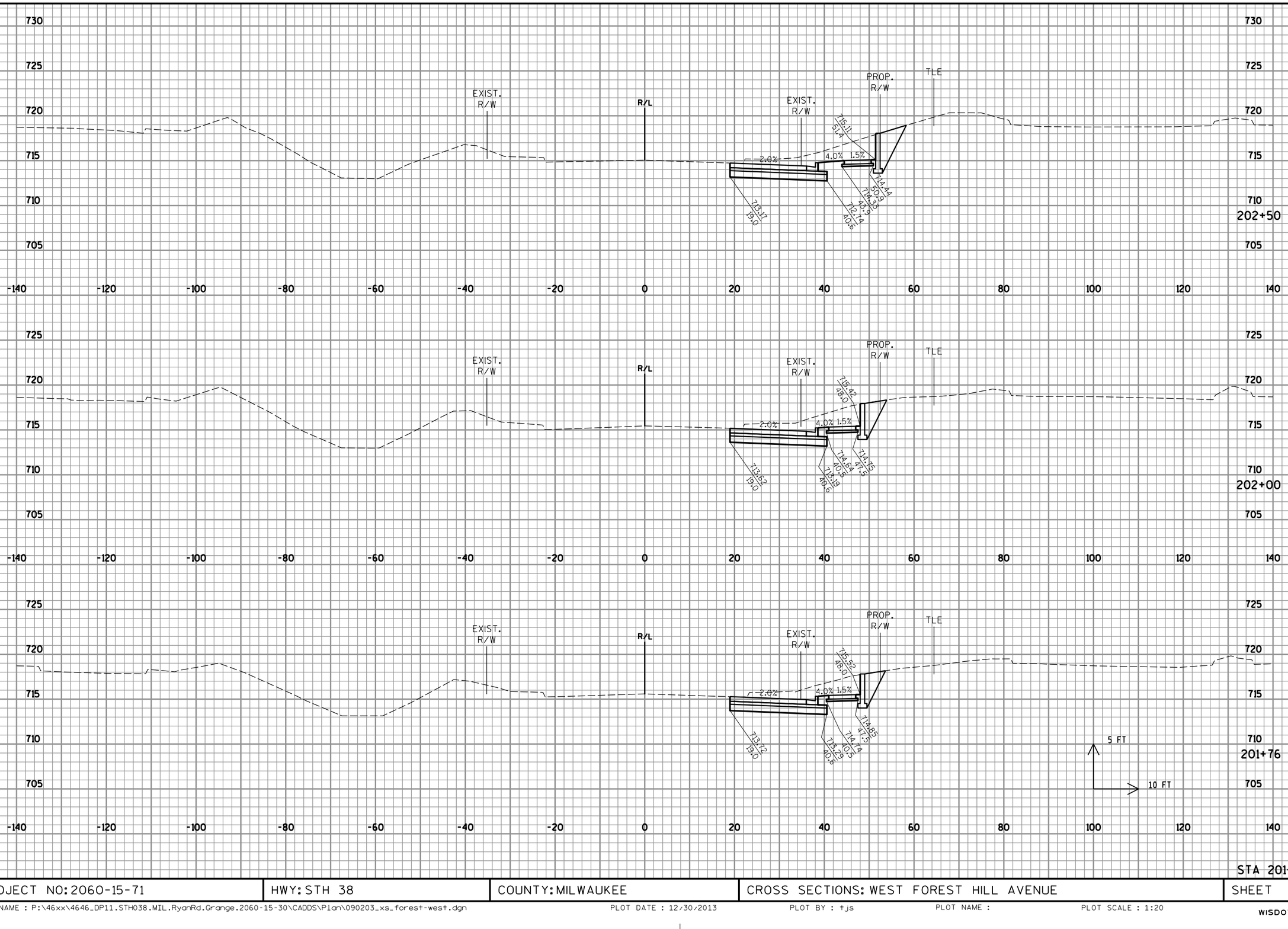


STA 200+42 TO 200+83

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: WEST FOREST HILL AVENUE	SHEET 1125	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090203_xs_forest-west.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



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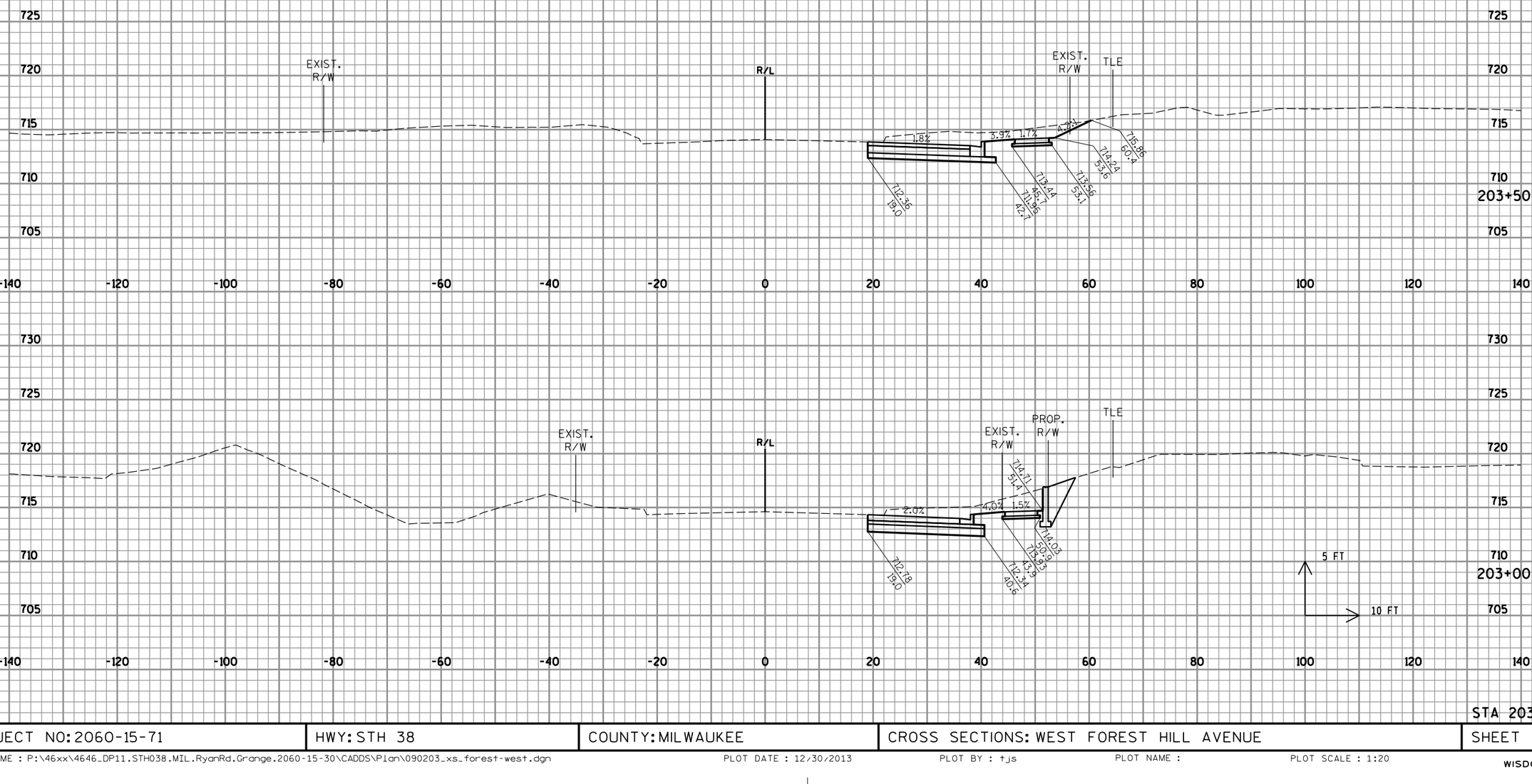
STA 201+76 TO 202+50

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: WEST FOREST HILL AVENUE	SHEET 1126	E



9

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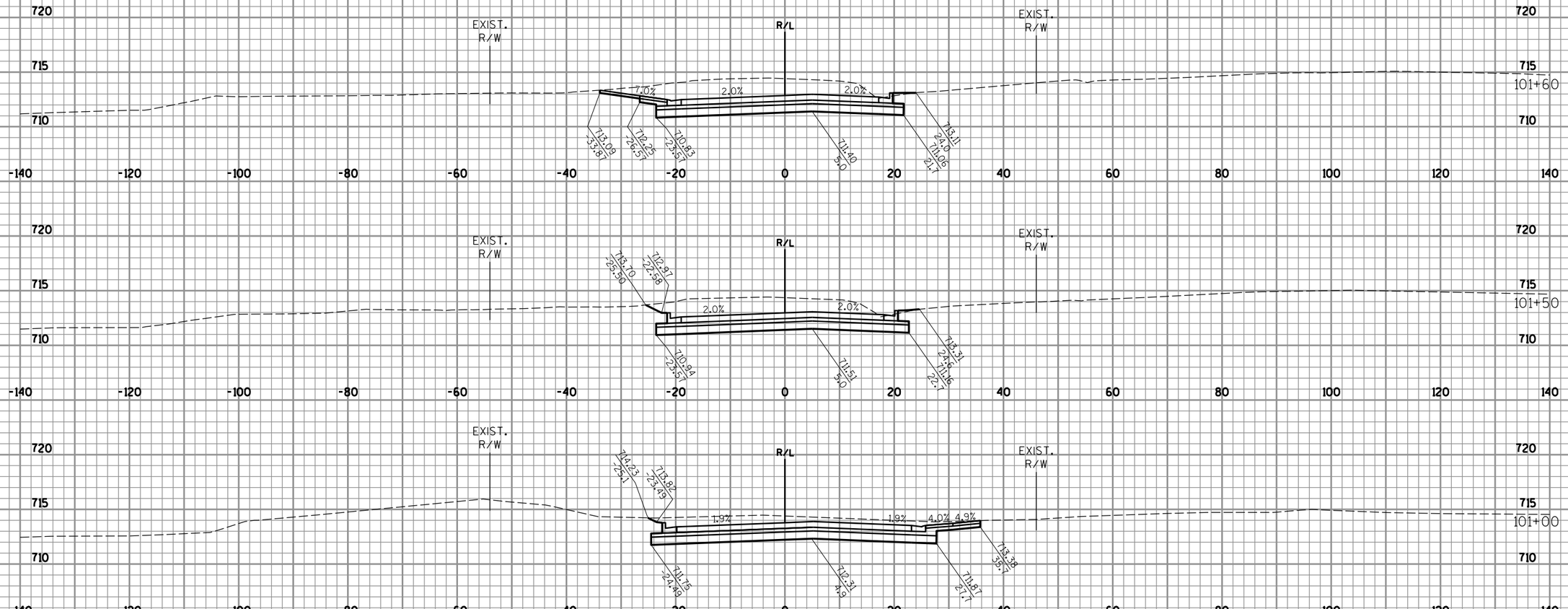
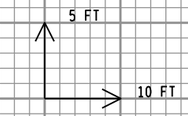
STA 203+00 TO 203+50

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: WEST FOREST HILL AVENUE	SHEET 1127	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090203_xs_forest-west.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



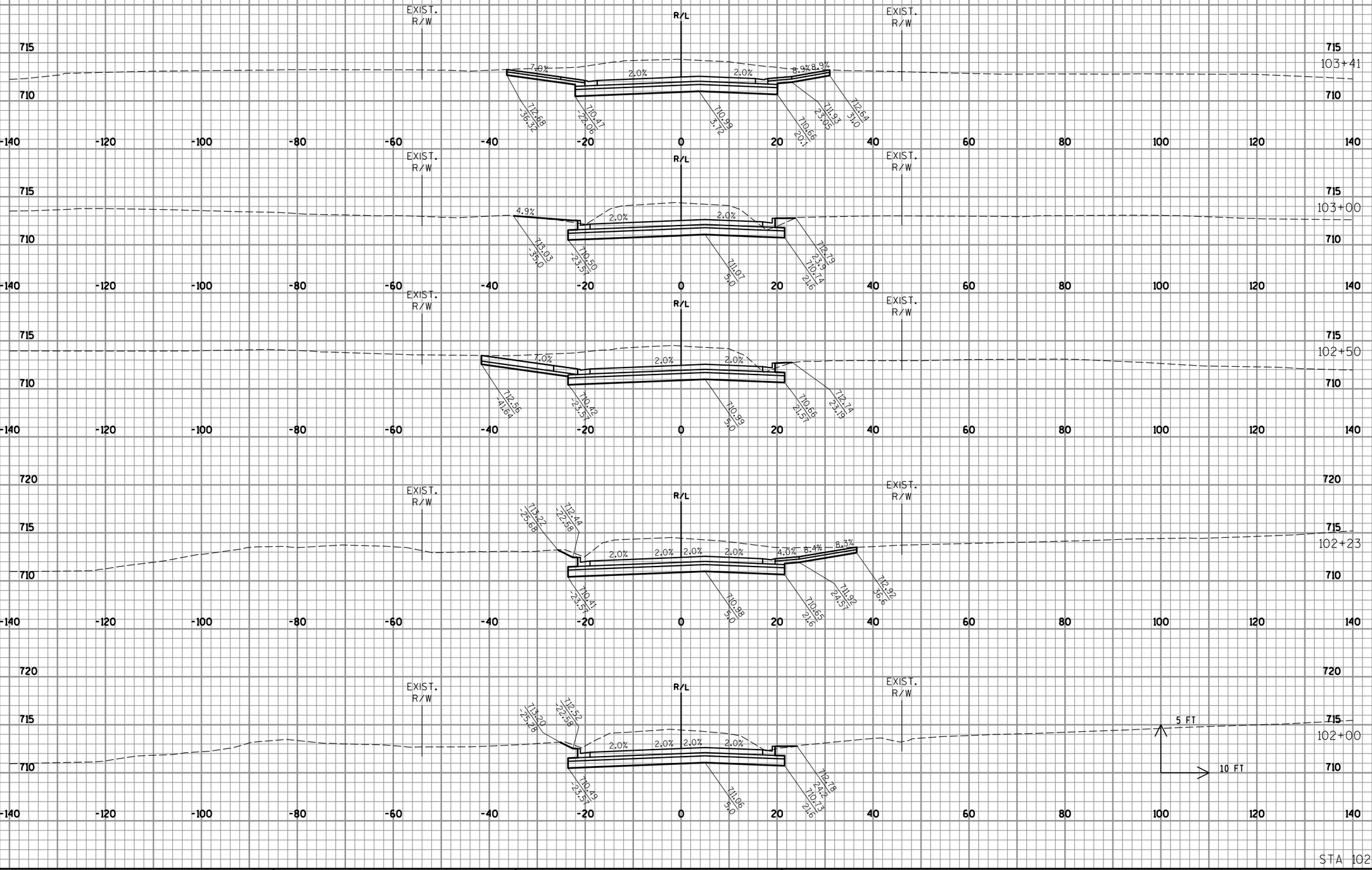


STA 100+55 TO 101+60

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: EAST FOREST HILL AVENUE	SHEET 1128	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090204_xs_forest-east.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



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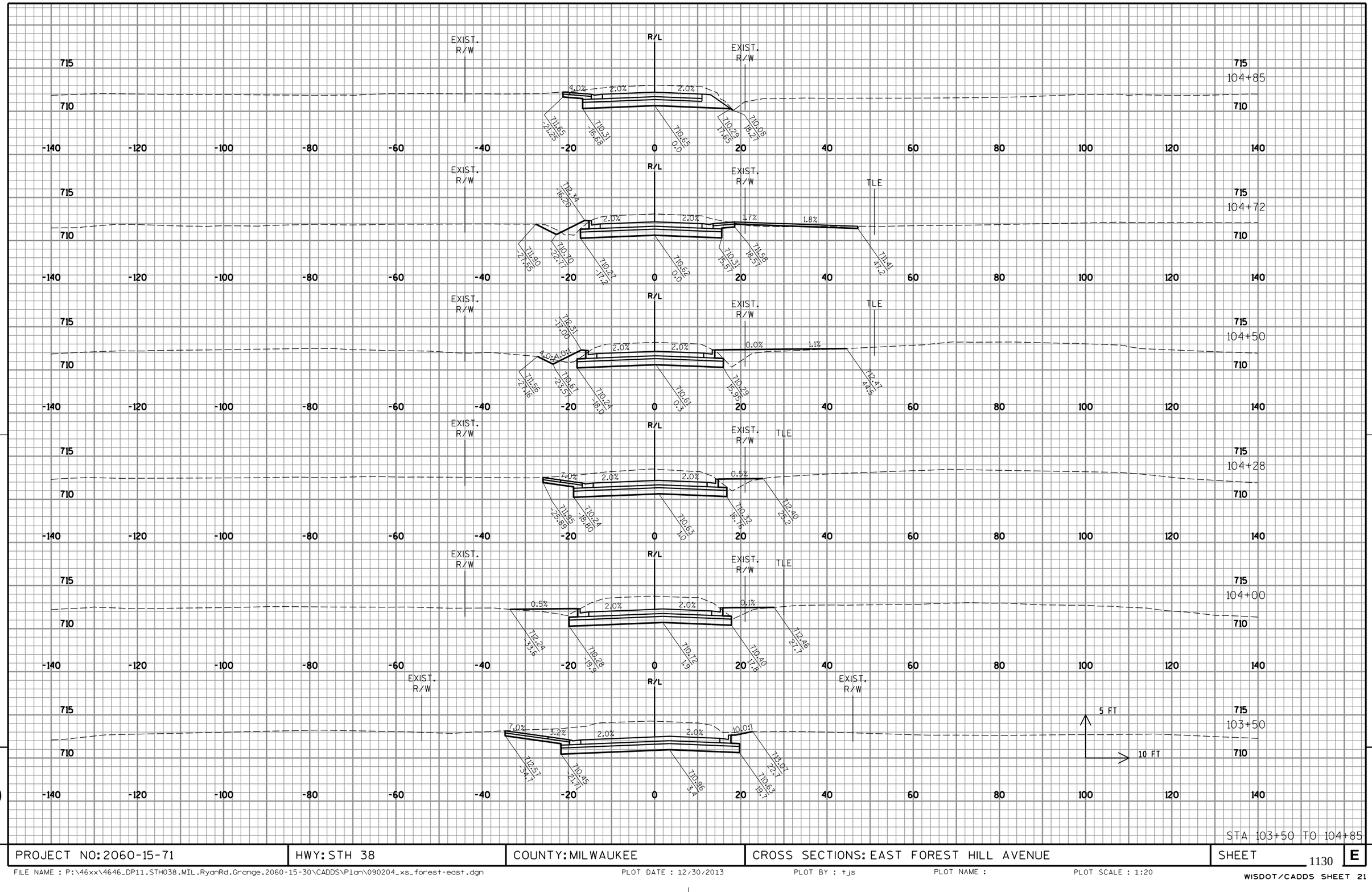
STA 102+00 TO 103+41

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: EAST FOREST HILL AVENUE	SHEET 1129	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090204_xs_forest-east.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

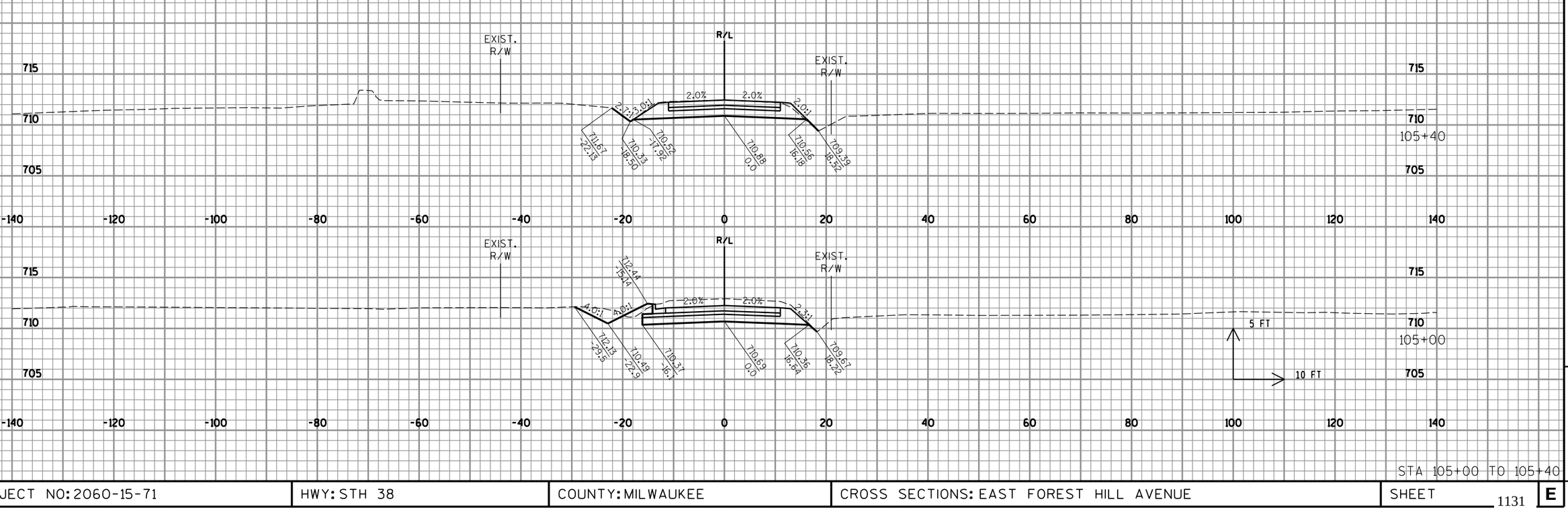


STA 103+50 TO 104+85

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: EAST FOREST HILL AVENUE	SHEET 1130	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090204_xs_forest-east.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



9

9

STA 105+00 TO 105+40

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: EAST FOREST HILL AVENUE	SHEET 1131	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090204_xs_forest-east.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

9

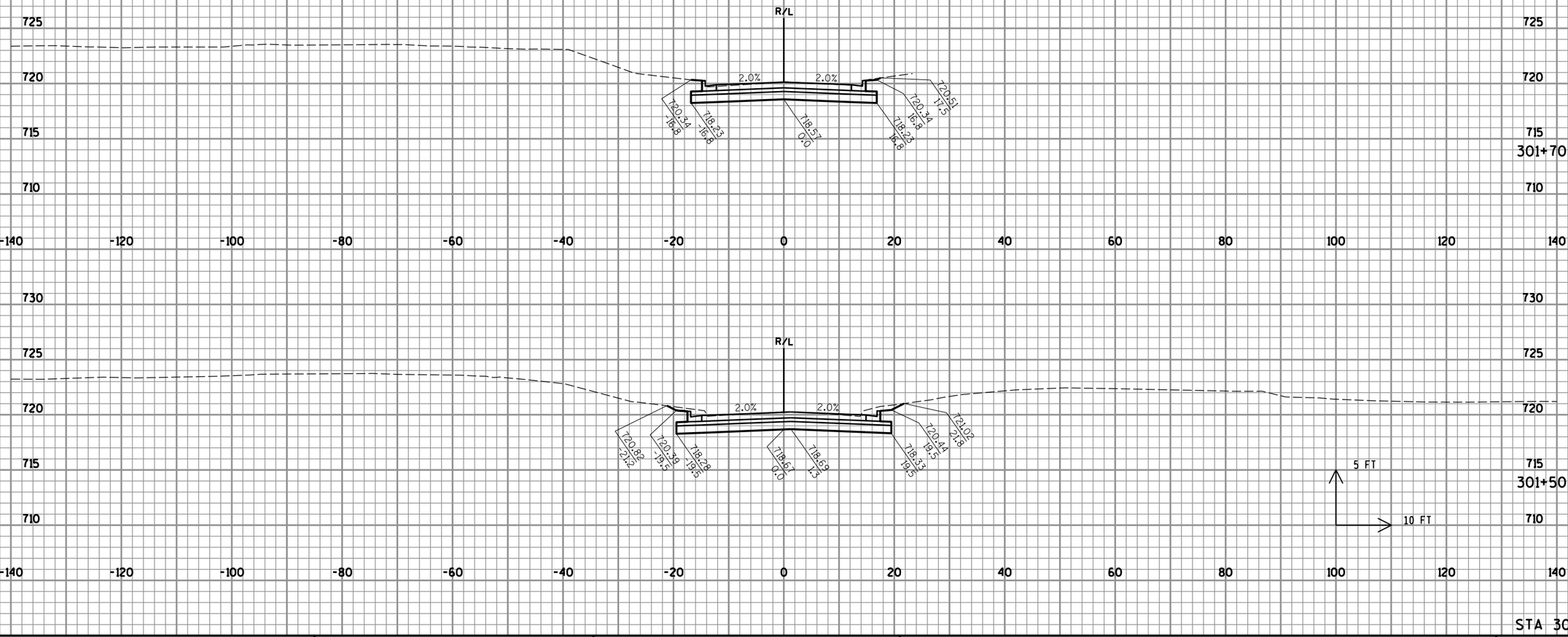
9

STA 300+75 TO 301+22

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: SUSAN DRIVE	SHEET 1132 E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090205_xs_susan.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21



9

9

STA 301+50 TO 301+70

PROJECT NO: 2060-15-71	HWY: STH 38	COUNTY: MILWAUKEE	CROSS SECTIONS: SUSAN DRIVE	SHEET 1133	E

FILE NAME : P:\46xx\4646_DP11.STH038.MIL.RyanRd.Grange.2060-15-30\CADDS\Plan\090205_xs_susan.dgn PLOT DATE : 12/30/2013 PLOT BY : tjs PLOT NAME : PLOT SCALE : 1:20

WISDOT/CADDS SHEET 21

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