WKE

PROJECT ID: 1060-34-84/1060-35-85

COUNTY: MILWAUKEE

DEC 2015

ORDER OF SHEETS

Section No.	1	Title
Section No.	2	Typical Sections and Details
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 = 502

STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1060-34-84		
1060-35-85		

ZOO IC
CENTER STREET BRIDGE

OVER USH 45

USH 45

MILWAUKEE COUNTY

STATE PROJECT NUMBER
1060-34-84

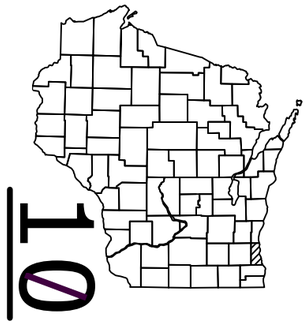
ZOO IC
CENTER STREET SIDEWALK

114TH STREET TO 117TH STREET

OFF SYSTEM

MILWAUKEE COUNTY

STATE PROJECT NUMBER
1060-35-85



10

N

DESIGN DESIGNATION — CENTER STREET / IH 41/USH 45

A.A.D.T.	2017	= 5,260	(2015)	144,000
A.A.D.T.	2037	= 5,770	(2035)	193,000
D.H.V.	2037	= 162	(2035)	6,680 NB/6991 SB
D.D.		= 59% EB 41% WB		48.9% NB 51.1% SB
T.		= 3.3%		11.6%
DESIGN SPEED		= 30 MPH		60 MPH
ESALS		= 401,500		31,835,300

CONVENTIONAL SYMBOLS

PLAN

- CORPORATE LIMITS
- PROPERTY LINE
- LOT LINE
- LIMITED HIGHWAY EASEMENT
- EXISTING RIGHT OF WAY
- PROPOSED OR NEW R/W LINE
- SLOPE INTERCEPT
- REFERENCE LINE
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

PROFILE

- GRADE LINE
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such) (ROCK)
- SPECIAL DITCH (LABEL)
- GRADE ELEVATION (95.36)
- CULVERT (Profile View)

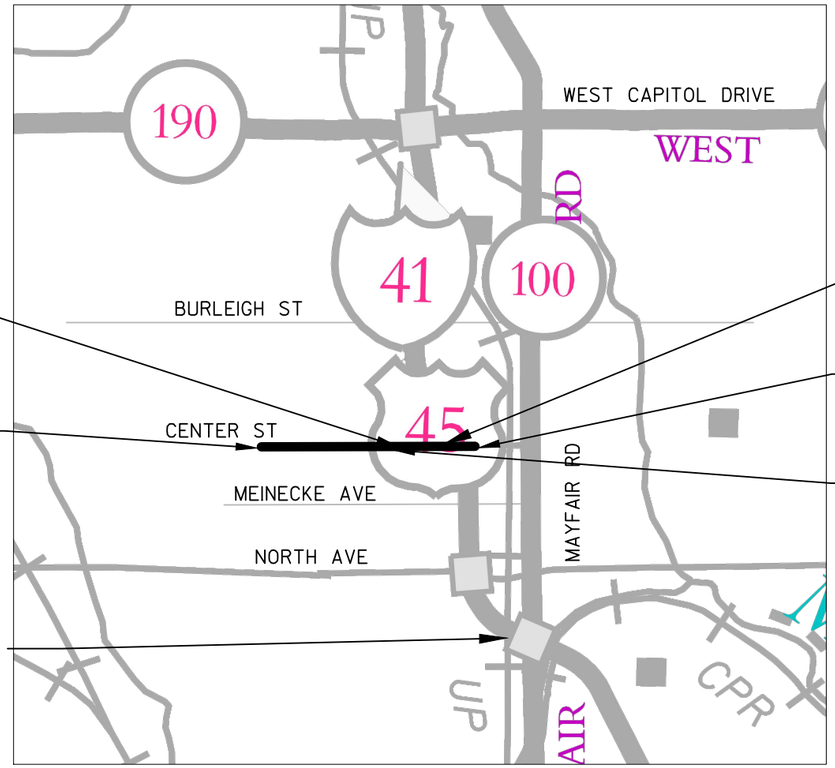
UTILITIES

- ELECTRIC (E)
- FIBER OPTIC (FO)
- GAS (G)
- SANITARY SEWER (SAN)
- STORM SEWER (SS)
- TELEPHONE (T)
- WATER (W)
- UTILITY PEDESTAL
- POWER POLE
- TELEPHONE POLE

BEGIN PROJECT 1060-34-84
STA. 14+20CE
X=566,939.99
Y=310,083.39

BEGIN PROJECT 1060-35-85
STA. 4+67CE
X=565,987.12
Y=310,067.87

SANITARY SEWER AND WATERMAIN



LAYOUT
SCALE 0 1 MI.

TOTAL NET LENGTH OF CENTERLINE = 0.000 MI.

STRUCTURE SUMMARY TABLE
ID: 1060-34-84

BRIDGES	RETAINING WALLS
B-40-880	R-40-577
	R-40-578

EXISTING STRUCTURE B-40-284
NEW STRUCTURE B-40-880

END PROJECT 1060-34-84
STA. 24+60CE

END PROJECT 1060-35-85
STA. 14+33CE

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, MILWAUKEE COUNTY, NAD83 (2007), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM NAVD 88 (2007)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	FORWARD 45
Designer	WISDOT
Project Manager	CHRIS ZACHARIAS, P.E.
Regional Examiner	WISDOT
Regional Supervisor	WILLIAM S. MOHR, P.E.

APPROVED FOR THE DEPARTMENT

DATE: 7/31/15 (Signature)

E

FILE NAME : W:\PDS\C3D\CAD\10603484\010101_TI.DWG

PLOT DATE : 9/9/2015 10:23 AM

PLOT BY : WAGNER, SCOTT H

PLOT NAME :

ORDER OF SECTION 2 DETAIL SHEETS

UTILITY CONTACTS
GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
REMOVAL PLANS
PLAN DETAILS
PAVING GRADES
FTMS PLANS
CONTOUR MAP
CROSS SECTION MATCHLINES
EROSION CONTROL
STORM SEWER
UTILITY – CITY OF WAUWATOSA SANITARY SEWER
UTILITY – CITY OF WAUWATOSA WATER
PLANTING
PERMANENT SIGNING
LIGHTING PLANS
PAVEMENT MARKING
TRAFFIC CONTROL
DETOURS
FENCING
ALIGNMENT INFORMATION & SURVEY CONTROL

STANDARD ABBREVIATIONS

AEW	APRON ENDWALL
AGG	AGGREGATE
BAD	BASE AGGREGATE DENSE
BM	BENCHMARK
C&G	CURB AND GUTTER
CL OR $^{C}_{L}$	CENTER LINE OR CONSTRUCTION LINE
CMCP	CULVERT PIPE CORRUGATED METAL
CONC	CONCRETE
CP	CULVERT PIPE
CPRC	CULVERT PIPE REINFORCED CONCRETE
CPRCHE	CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL
CSD	CONCRETE SURFACE DRAIN
CY	CUBIC YARD
D	DEGREE OF CURVE
Δ	DELTA
DISCH	DISCHARGE
FE	FIELD ENTRANCE
HMA	HOT MIX ASPHALTIC
INV	INVERT
L	LENGTH OF CURVE
LHF	LEFT HAND FORWARD
LT	LEFT
MIN	MINIMUM
M/L	MATCHLINE
NB	NORTHBOUND
NC	NORMAL CROWN
PAVT	PAVEMENT
PC	POINT OF CURVE
PCC	POINT OF COMPOUND CURVE
PE	PRIVATE ENTRANCE
PI	POINT OF INTERSECTION
PLE	PERMANENT LIMITED EASEMENT
PT	POINT OF TANGENT
R	RADIUS OF CURVE
R/L	REFERENCE LINE
R/W	RIGHT OF WAY
RC	REVERSE CROWN
RCAEW	APRON END WALL FOR CULVERT PIPE REINFORCED CONCRETE
REQD	REQUIRED
RHF	RIGHT HAND FORWARD
RO	RUN OFF LENGTH
RRSP	RAILROAD SPIKE
RT	RIGHT
SLV	SALVAGED
SB	SOUTHBOUND
SDD	STANDARD DETAIL DRAWING
SE	SUPER ELEVATION
SF	SQUARE FOOT
SI	SLOPE INTERCEPT
STA	STATION
SY	SQUARE YARD
T	TANGENT LENGTH
TLE	TEMPORARY LIMITED EASEMENT
VCL	VERTICAL CURVE LENGTH
VPC	POINT VERTICAL CURVE
VPI	POINT OF VERTICAL INTERSECTION
VPT	POINT OF VERTICAL TANGENT

UTILITY CONTACTS

AT&T WISCONSIN - COMMUNICATION LINE
JAY BULANEK
2005 PEWAUKEE RD
WAUKESHA, WI 53188
(262) 896-7669
CELL: (414) 491-2855
JB5175@ATT.COM

CITY OF WAUWATOSA - SEWER
BILL WEHRLEY
7725 W NORTH AVE
WAUWATOSA, WI 53213
(414) 479-8929
WWEHRLEY@WAUWATOSA.NET

CITY OF WAUWATOSA - STREET LIGHTING
RANDY MICHELZ
11100 W WALNUT RD
WAUWATOSA, WI 53226
(414) 471-8429
RMICHELZ@WAUWATOSA.NET

TCA – OVERHEAD COMMUNICATIONS LINE
DEBBIE SADDLER
NORTHWIND TECHNICAL SERVICES, LLC
6070 N. FLINT ROAD
GLENDALE, WI 53209
(414) 459-3572
CELL: (414) 651-0036
D.SADDLER@NORTHWINDTECH.COM

TIME WARNER CABLE, A DELAWARE LIMITED PARTNERSHIP - COMMUNICATION LINE
STEVEN CRAMER
1320 N DR MARTIN LUTHER KING JR DR
MILWAUKEE, WI 53212-4002
(414) 277-4045
WIS.ENGINEERING@TWCABLE.COM

SPRINT COMMUNICATIONS CO LP- COMMUNICATION LINE
GERRY CRAIN
5600 N. RIVER ROAD
SUITE 200
ROSEMONT, IL 60018
(847) 445-1869
GERRY.A.CRAIN@SPRINT.COM

UNION PACIFIC RAILROAD COMPANY
JOHN VENICE
101 N. WACKER DRIVE
SUITE 1920
CHICAGO, IL 60606
(312) 777-2043
JNVENICE@UP.COM

WAUWATOSA WATER UTILITY
JAMES WOJCEHOWICZ
7725 W NORTH AVE
WAUWATOSA, WI 53213
(414) 479-8965
JWOJCEHOWICZ@WAUWATOSA.NET

WE ENERGIES - ELECTRICITY
SEND ALL CORRESPONDENCE TO:
DAN SANDE
ROOM A299
333 WEST EVERETT ST
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ERICH.WUESTENHAGEN@WE-ENERGIES.COM

WE ENERGIES - GAS/PETROLEUM
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333 WEST EVERETT ST
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(414) 221-4578
DAN.SANDE@WE-ENERGIES.COM

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WISCONSIN DEPARTMENT OF TRANSPORTATION - COMMUNICATION LINE
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433 W. ST. PAUL AVE.
MILWAUKEE, WI 53203-3007
(414) 225-3723
JEFFREY.MADSON@DOT.WI.GOV

STATE AGENCIES

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
KRISTINA BETZOLD - ENVIRONMENTAL ANALYSIS AND REVIEW SPECIALIST
2300 N DR. MARTIN LUTHER KING JR. DRIVE
MILWAUKEE, WI 53212
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WISCONSIN DEPARTMENT OF TRANSPORTATION
CHRIS ZACHARIAS, PROJECT MANAGER
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WISCONSIN DEPARTMENT OF TRANSPORTATION
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GREGORY.BERRY@DOT.WI.GOV

WISDOT - LIGHTING
ERIC PEREA - LIGHTING
141 NW BARSTOW ST.
WAUKESHA, WI 53187-0798
(262)574-5422
CELL: (414) 750-0935
ERIC.PEREA@DOT.WI.GOV

OTHER AGENCIES

CITY OF WAUWATOSA – CITY ENGINEER
BILLWEHRLEY
7725 W NORTH AVE
WAUWATOSA, WI 53213
(414) 479-8929
WWEHRLEY@WAUWATOSA.NET

SCHOOL DISTRICT MANAGER OF BUILDINGS AND GROUNDS
MELISSA NETTESHEIM
WAUWATOSA SCHOOL DISTRICT – FISHER BUILDING
12121 W NORTH AVENUE
WAUWATOSA, WI 53226
(414)773-1053
NEITESME@WAUWATOSA.K12.WI.US

WAUWATOSA SCHOOL DISTRICT
LAURA WAINSCOTT
WAUWATOSA SCHOOL DISTRICT – FISCHER BUILDING
12121 W NORTH AVENUE
WAUWATOSA, WI 53226
(414) 773-1062
WAINSCLA@WAUWATOSA.K12.WI.US

WAUWATOSA SCHOOL DISTRICT –BUSINESS SERVICES
JOHN MACK
WAUWATOSA SCHOOL DISTRICT – FISCHER BUILDING
12121 W NORTH AVENUE
WAUWATOSA, WI 53226
(414) 773-1050
MACKJO@WAUWATOSA.K12.WI.US

MILWAUKEE COUNTY TRANSIT SYSTEM
MELANIE FLYNN
COORDINATOR OF STREET SUPERVISION
1942 N. 17TH STREET
MILWAUKEE, WI 53205
(414) 343-1764
MFLYNN@MCTS.ORG

SOUTHEASTERN WISONSIN REGIONAL PLANNING COMMISSION
ROB MERRY
W239 N1812 ROCKWOOD DRIVE
P.O. BOX 1607
WAUKESHA, WI 53187-1607
PHONE: (262) 953-4289
CELL: (920) 912-1036
RMERRY@SEWRPC.ORG

CITY OF WAUWATOSA – DEPARTMENT OF PUBLIC WORKS
WILLIAM PORTER – DIRECTOR
7725 W. NORTH AVE
WAUWATOSA, WI 53213
(414) 479-8933
BPORTER@WAUWATOSA.NET

MILWAUKEE METROPOLITAN SEWERAGE DISTRICT- SEWER
DEBRA JENSEN
260 W SEEBOTH ST
MILWAUKEE, WI 53204-1446
(414) 225-2143
DJENSEN@MMSD.COM

TO OBTAIN LOCATION OF PARTICIPANTS' UNDERGOURND FACILITIES BEFORE YOU DIG IN WISCONSIN

WIS. STATUTE 182.0175 (1974) REQUIRES MIN. OF 3 WORK DAYS NOTICE BEFORE YOU EXCAVATE

DIGGERS HOTLINE
Dial 811 or (800) 242-8511
www.DiggersHotline.com

2

GENERAL NOTES

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

ANY REINFORCEMENT LOCATED IN EXISTING CONCRETE PAVEMENT SHALL BE CONSIDERED INCIDENTAL TO THE REMOVING PAVEMENT ITEM, AND NO ADDITIONAL COMPENSATION WILL BE GRANTED.

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATION AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

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

CURB HEIGHTS AT THE END OF CURB AND GUTTER SHALL BE TAPERED FROM 0 TO 6 INCHES IN 8 FEET.

CURB AND GUTTER GRADES ARE GIVEN TO THE FLANGE OF CURB AND GUTTER. CURB AND GUTTER RADII ARE MEASURED TO THE FLANGE OF CURB AND GUTTER, UNLESS OTHERWISE NOTED.

PROVIDE A TYPICAL SIDEWALK CROSS SLOPE OF 1.5% WITH A CONSTRUCTION TOLERANCE OF +/- 0.5%.

CROSS SECTIONS SHOWN INCLUDE THE THICKNESS OF TOPSOIL WHERE REQUIRED. TOPSOIL SHALL BE REPLACED WITH 6-INCH TYPICAL DEPTH THROUGHOUT THE PROJECT.

SAWCUT ASPHALTIC CONCRETE DRIVEWAYS AND/OR PARKING LOTS AT THE MATCHLINE AS SHOWN ON THE REMOVAL PLANS AND PLAN DETAILS OR AS DIRECTED BY THE ENGINEER.

REMOVAL OF EROSION CONTROL DEVICES IS INCLUDED IN THE COST OF THEIR RESPECTIVE BID ITEMS.

VERIFY EXISTING PAVEMENT ELEVATIONS AT ALL TIE-INS TO EXISTING PAVEMENT PRIOR TO CONSTRUCTION. IF A DISCREPANCY IS FOUND BETWEEN PROPOSED PLAN ELEVATIONS AND THE EXISTING PAVEMENT ELEVATIONS, CONTRACTOR IS TO NOTIFY THE ENGINEER.

THE EXACT LOCATION OF EXCAVATION BELOW SUBGRADE (EBS) WILL BE DETERMINED BY THE ENGINEER.

PROVIDE A CONCRETE JOINT DETAIL 14 DAYS PRIOR TO PAVING FOR APPROVAL BY THE ENGINEER. 15' MAXIMUM SPACING FOR LONGITUDINAL JOINTS. 15' MAXIMUM SPACING FOR TRANSVERSE JOINTS.

THE EROSION CONTROL FEATURES AS SHOWN IN THE PLANS ARE AT SUGGESTED LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.

INLET PROTECTION IS REQUIRED AT ALL INLETS AS PER DETAIL OR AS DIRECTED BY THE ENGINEER.

EXISTING DRIVEWAYS AND FIELD ENTRANCES SHALL BE RESTORED IN KIND AS DIRECTED BY THE ENGINEER IN THE FIELD AND AT THE LOCATION DETERMINED BY THE ENGINEER.

CONTACT PROJECT ENGINEER AND THE SOUTHEASTERN WISCONSIN REGINAL PLANNING COMMISSION (SEWRPC) AT LEAST TWO WEEKS PRIOR TO WORK NEAR ANY PUBLIC SURVEY MONUMENT.

FERTILIZER SHALL NOT BE USED WITHIN 100’ OF NAVIGABLE WATERWAYS OR WETLANDS.

ALL TYPES OF HMA PAVEMENT SHALL BE CONSTRUCTED WITH THE FOLLOWING LAYERS AND GRADATIONS:

PAVEMENT TYPE	TOTAL LAYER PAVEMENT THICKNESS	LAYERS	NOMINAL MAXIMUM SIZE GRADATION	ASPHALTIC MATERIAL
ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES	3“ MIN	3“ MIN	---	---
ASPHALTIC SURFACE	2”	ONE 2” LAYER	---	---
ASPHALTIC SURFACE	3”	ONE 3” LAYER	---	---
E-1	2”	2” UPPER	12.5 MM	PG58-28
E-1	4-1/4"	1-3/4" UPPER	12.5 MM	PG58-28
		2-1/2" LOWER	19.0 MM	PG58-28
E-10	8”	1-3/4" UPPER	12.5 MM	PG64-28P
		2-1/4" LOWER	19.0 MM	PG64-28
		4” LOWER	19.0 MM	PG64-28

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WAUWATOSA WEST
HIGH SCHOOL

EISENHOWER
ELEMENTARY
SCHOOL

WHITMAN MIDDLE
SCHOOL

UNION PACIFIC RAILROAD

R/L WMS

EXISTING STRUCTURE B-40-284
NEW STRUCTURE B-40-880

BEGIN PROJECT 1060-34-84
STA. 14+20CE

END PROJECT 1060-35-85
STA. 14+33CE

END PROJECT 1060-34-84
STA. 24+60CE

BEGIN PROJECT 1060-35-85
STA. 4+67CE

R-40-577

R/L CE

W. CENTER STREET

N. 117TH STREET

N. 116TH STREET

N. 115TH STREET

CONSTRUCTION LIMIT 1060-35-85
STA. 124+28TS

N. 114TH STREET

R/L TS

CONSTRUCTION LIMIT 1060-35-85
STA. 32+18TW

R/L TW

CONSTRUCTION LIMIT 1060-34-84
STA. 35+15TA

N. 113TH STREET

IH 41 / USH 45

CONSTRUCTION LIMIT 1060-34-84
STA. 33+00TB

R-40-578

R/L TB

R/L TA

R/L NS

N. 112TH STREET

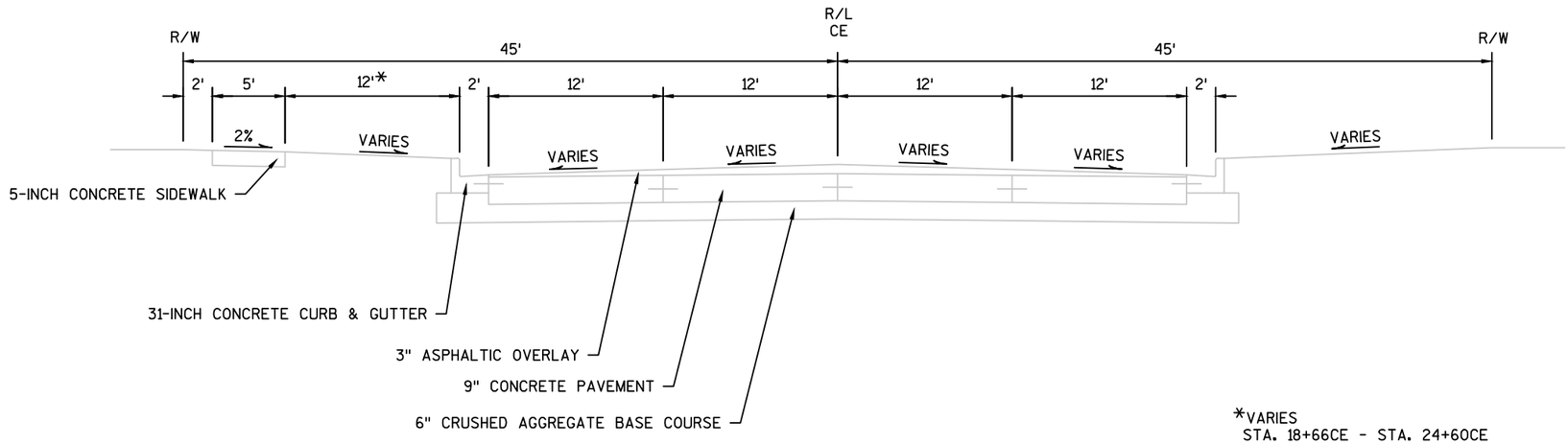
W. CLARKE STREET

W. CLARKE STREET

PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	PROJECT OVERVIEW	SHEET 5	E

FILE NAME : W:\PDS\C3D\CAD\10603484\020201_PO.DWG PLOT DATE : 7/30/2015 6:53 AM PLOT BY : AUSEN, CRAIG D PLOT NAME : ---------- PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 42

2



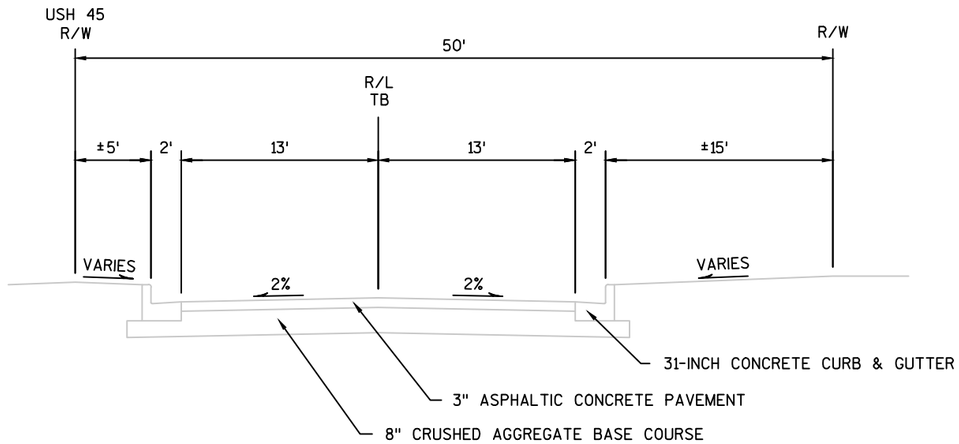
*VARIES
STA. 18+66CE - STA. 24+60CE

TYPICAL EXISTING SECTION
W. CENTER STREET
STA. 4+67CE TO STA. 24+60CE

PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SHEET 6	E

FILE NAME : W:\PDS\C3D\10603484\DSN\PLAN\020300_TS.DWG PLOT DATE : 7/29/2015 6:25 AM PLOT BY : SCHWENN, BRANDON C PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

2

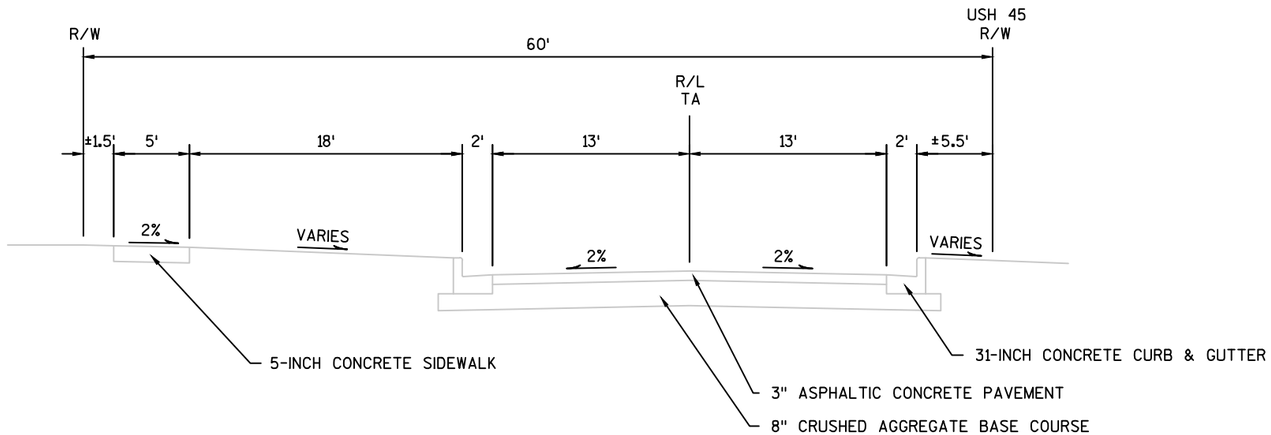


TYPICAL EXISTING SECTION
N. 112TH STREET
STA. 33+00TB TO STA. 36+33TB

PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SHEET 7	E

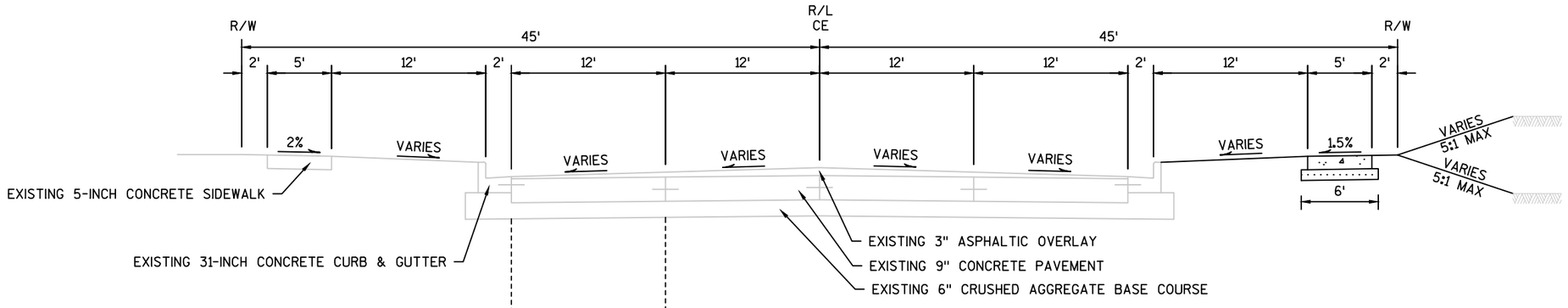
FILE NAME : W:\PDS\C3D\10603484\DSN\PLAN\020300_TS.DWG PLOT DATE : 7/29/2015 6:26 AM PLOT BY : SCHWENN, BRANDON C PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

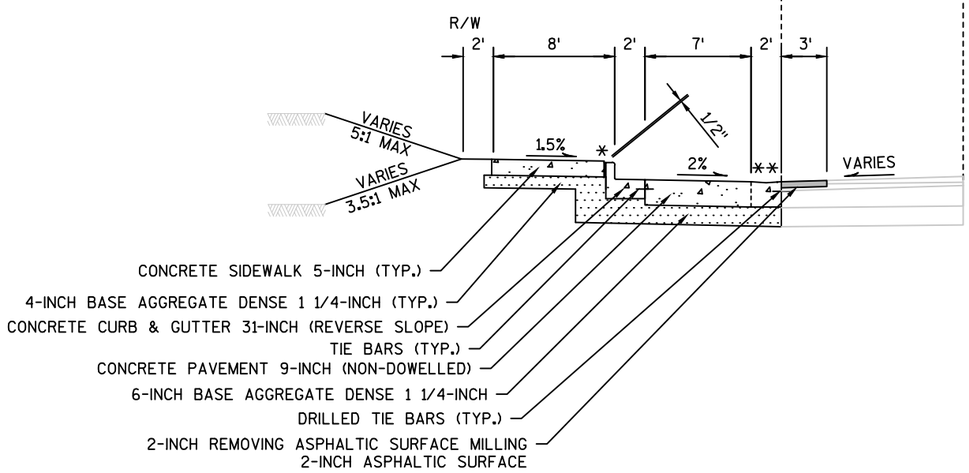
2



TYPICAL EXISTING SECTION
N. 113TH STREET
STA. 35+15TA TO STA. 36+32TA

PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SHEET 8	E





STA. 6+21CE TO STA. 7+85CE

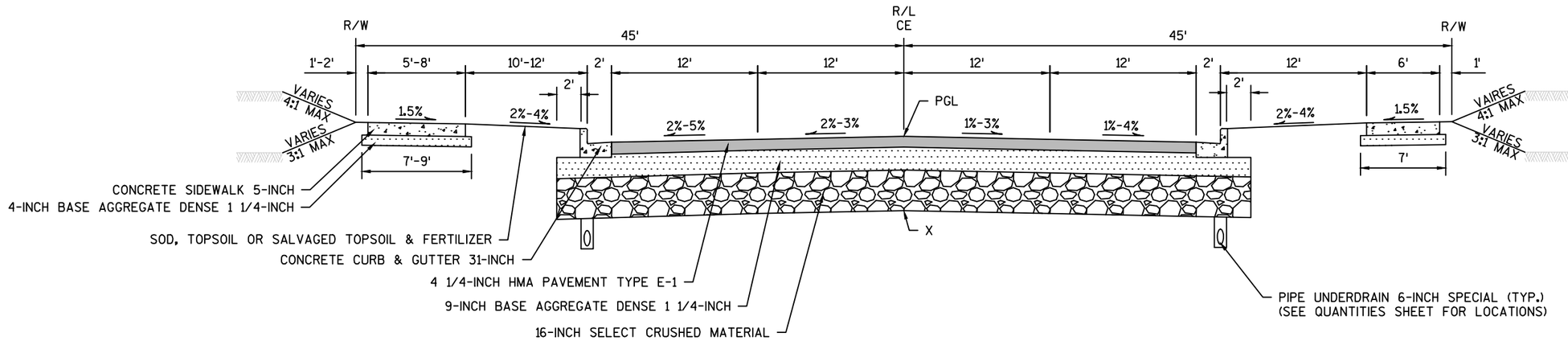
TYPICAL FINISHED SECTION
W. CENTER STREET
STA. 4+67CE TO STA. 14+33CE

NOTES:
*FINISH CONCRETE SIDEWALK 1/2" HIGHER THAN TOP-OF-CURB. PLACE 1/2" EXPANSION JOINT FILLER ALONG BACK OF CURB.

**FINISHED FLOW LINE (3/4-INCH DEPTH) IS INCIDENTAL TO CONCRETE PAVEMENT 9-INCH (NON-DOWELLED).

PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SHEET 9	E

2

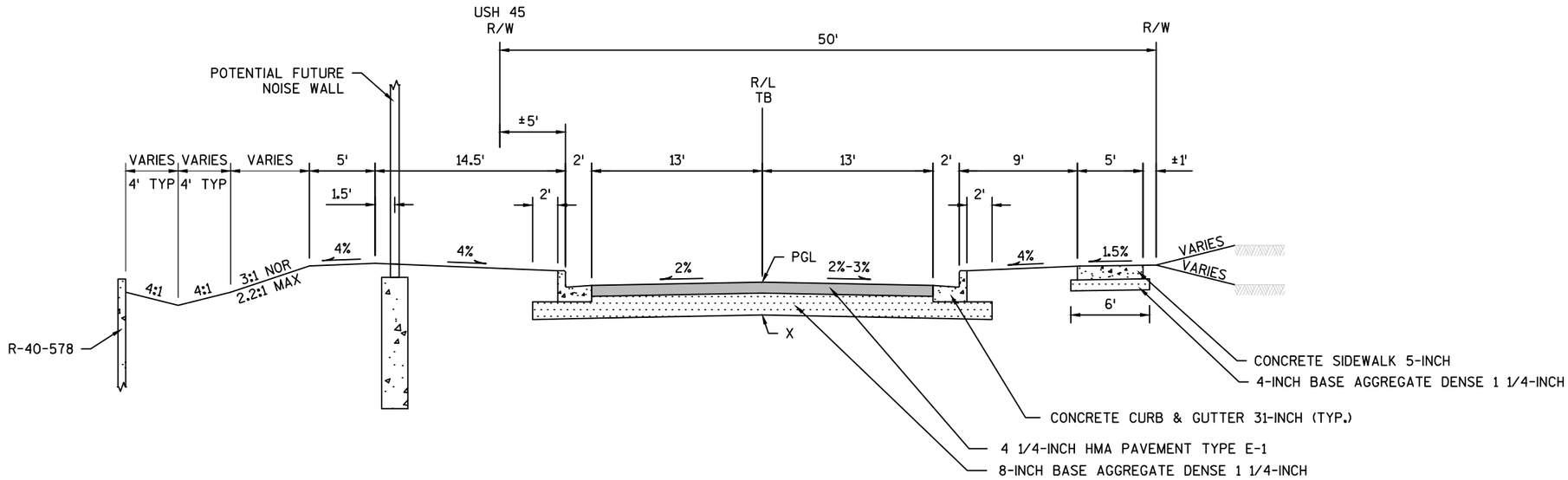


TYPICAL FINISHED SECTION
W. CENTER STREET
STA. 14+20CE TO STA. 24+60CE

NOTES:
X = POINT REFERRED TO ON CROSS-SECTION
PGL = POINT REFERRED TO ON PROFILE
AND PIVOT POINT FOR SUPERELEVATION

PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SHEET 10	E

2

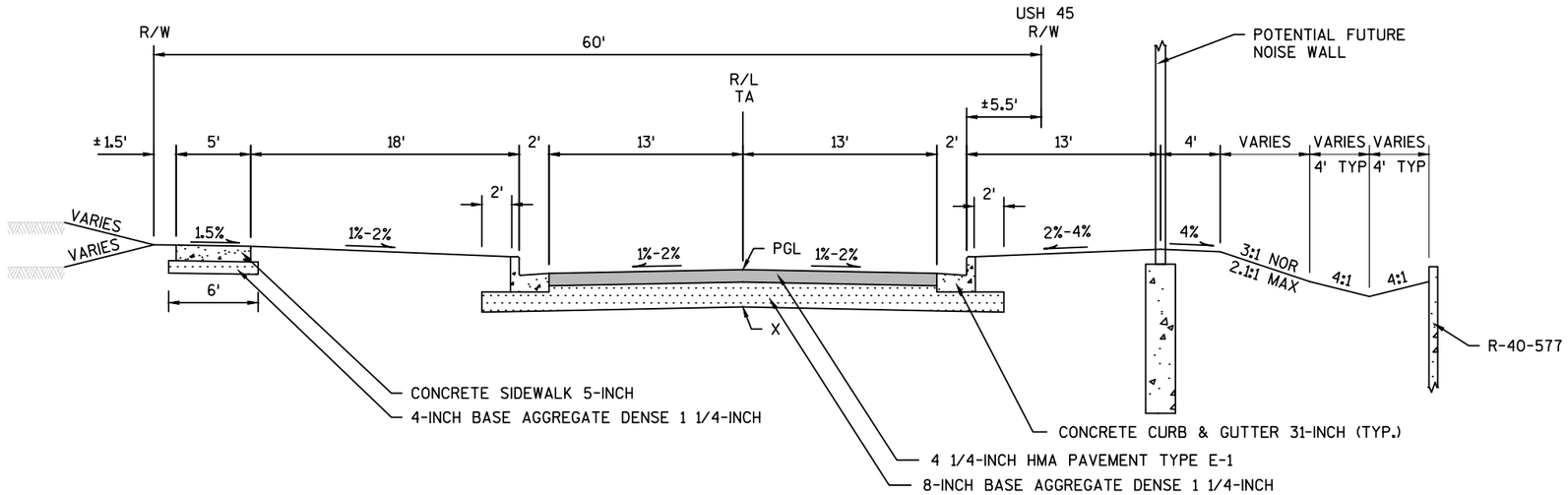


TYPICAL FINISHED SECTION
N. 112TH STREET
STA. 33+00TB TO STA. 36+33TB

NOTES:
X = POINT REFERRED TO ON CROSS-SECTION
PGL = POINT REFERRED TO ON PROFILE
AND PIVOT POINT FOR SUPERELEVATION

PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SHEET 11	E

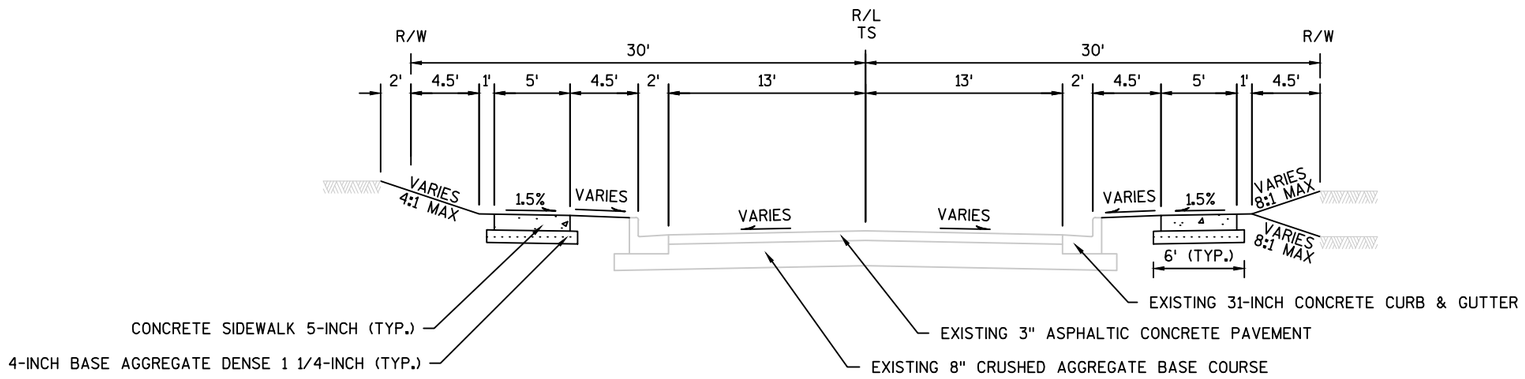
2



TYPICAL FINISHED SECTION
N. 113TH STREET
STA. 35+15TA TO STA. 36+32TA

NOTES:
X = POINT REFERRED TO ON CROSS-SECTION
PGL = POINT REFERRED TO ON PROFILE
AND PIVOT POINT FOR SUPERELEVATION

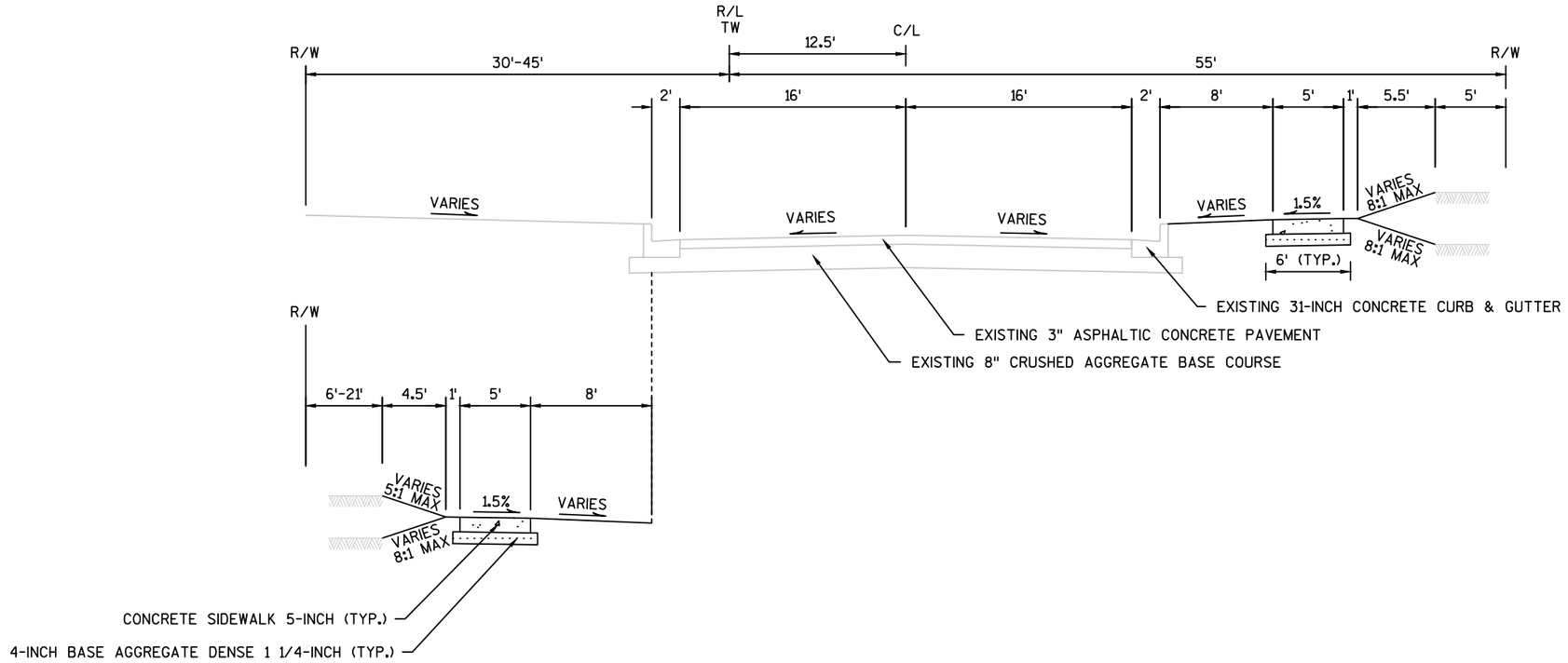
2



TYPICAL FINISHED SECTION
N. 114TH STREET
STA. 124+28TS TO STA. 126+11TS

PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SHEET 13	E

2

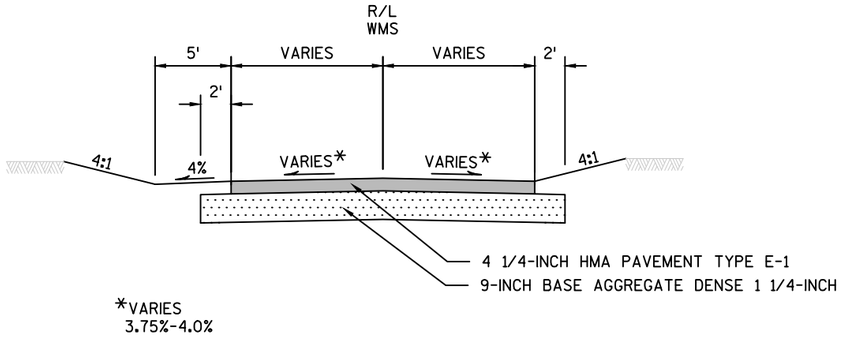


STA. 34+00TW TO STA. 36+11TW

TYPICAL FINISHED SECTION
N. 116TH STREET
STA. 32+18TW TO STA. 36+11TW

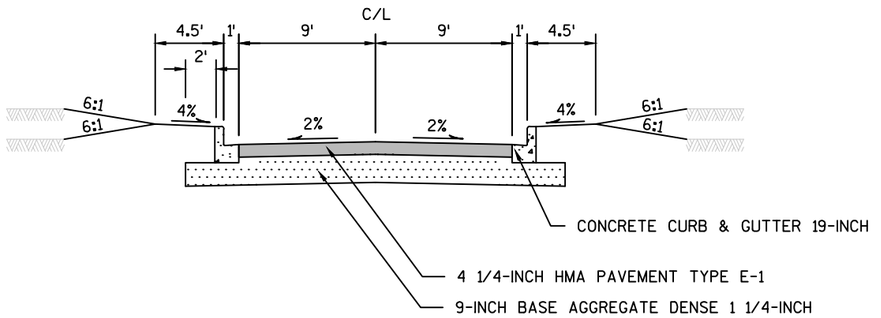
PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SHEET 14	E

2



*VARIES
3.75%-4.0%

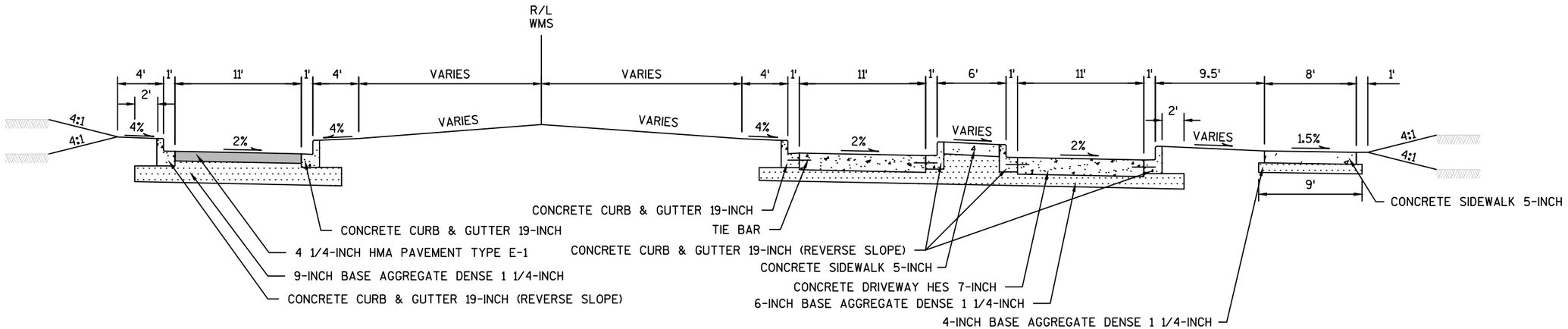
TYPICAL FINISHED SECTION
WHITMAN MIDDLE SCHOOL
PARKING LOT
STA. 11+74WMS TO
STA. 14+00WMS



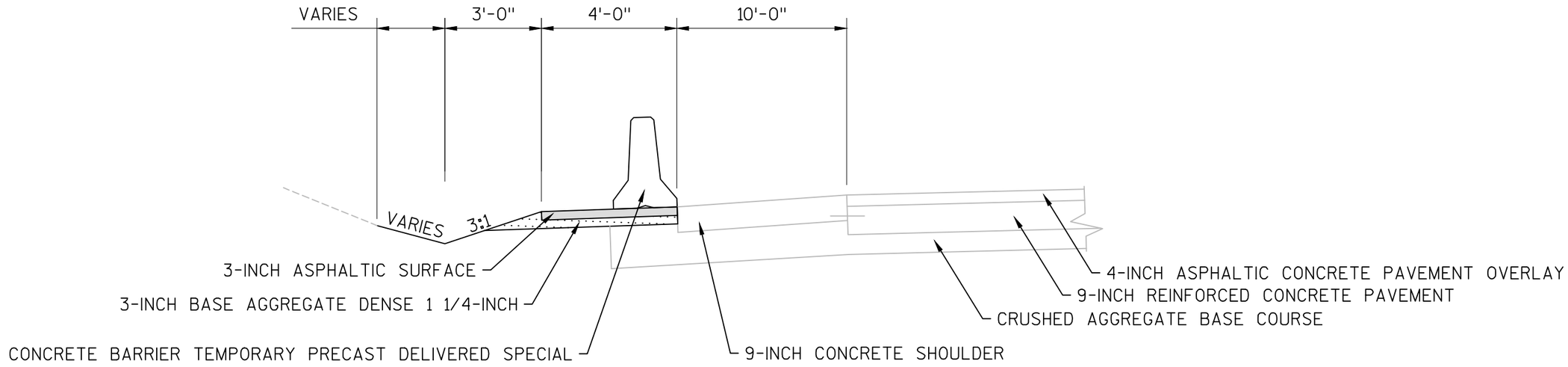
TYPICAL FINISHED SECTION
WAUWATOSA WEST HIGH
SCHOOL DRIVEWAY

PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SHEET 15	E

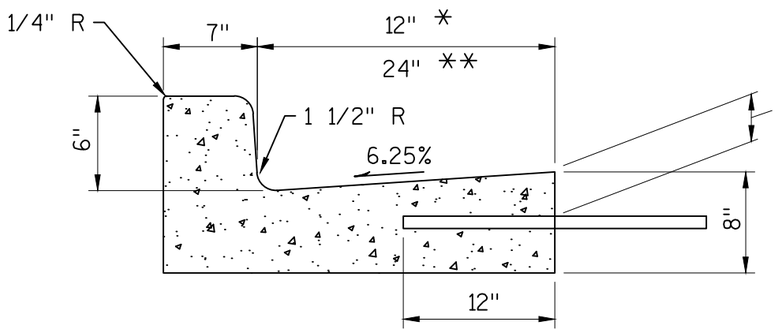
2



TYPICAL FINISHED SECTION
WHITMAN MIDDLE SCHOOL EAST
& WEST DRIVEWAYS
STA. 10+24WMS TO STA. 11+74WMS



USH 45 TEMPORARY WIDENING AND DITCHING
(LOOKING NORTH)
STA. 450NS+82 TO STA. 461NS+90



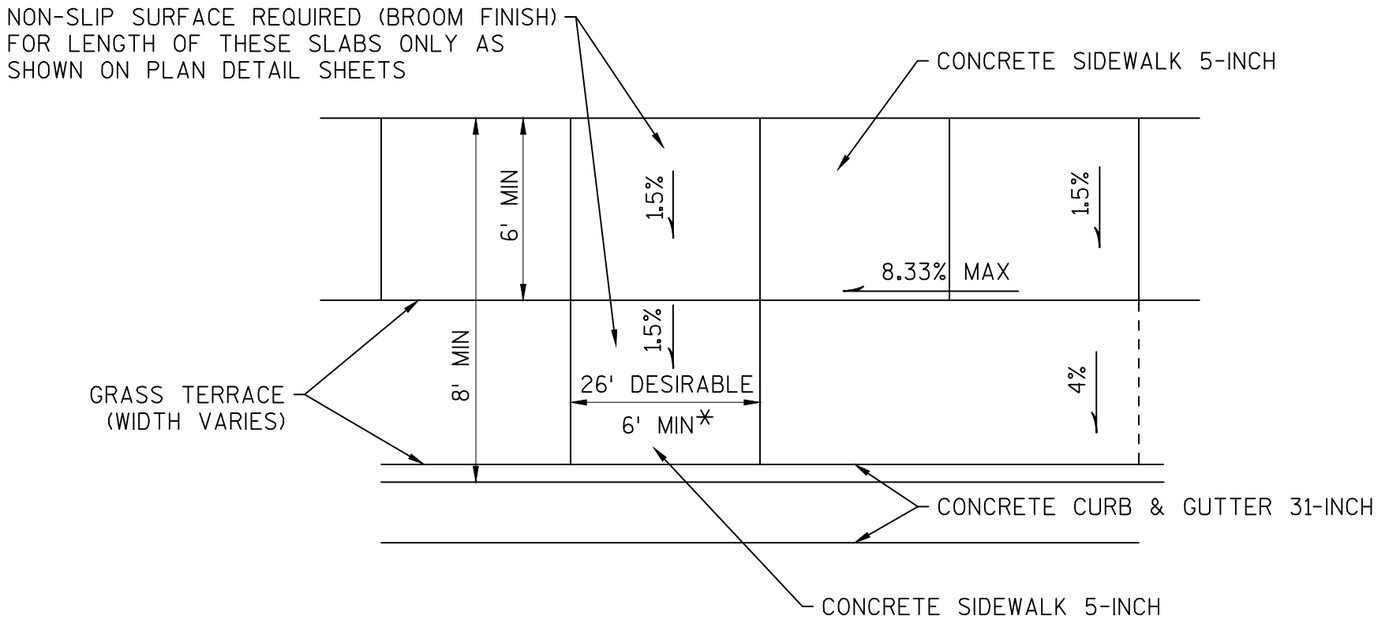
CONCRETE CURB AND GUTTER 19-INCH* 31-INCH**

GENERAL NOTES:

1. TIE BARS ARE REQUIRED FOR CURB AND GUTTER ADJACENT TO NEW CONCRETE PAVEMENT.
2. OMIT TIE BARS WHERE INTEGRAL CURB AND GUTTER IS REQUIRED.
3. SEE STANDARD DETAIL DRAWING FOR DETAILS NOT SHOWN HERE.

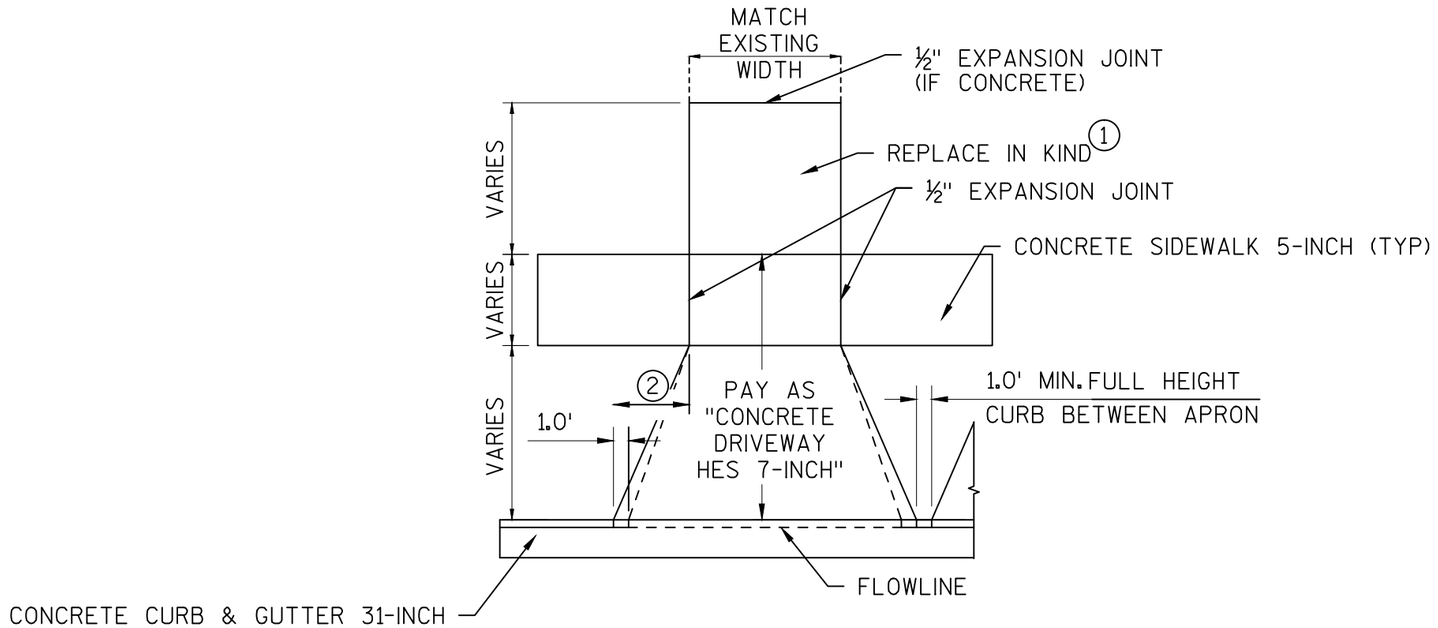
PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CONSTRUCTION DETAIL	SHEET 17	E

2

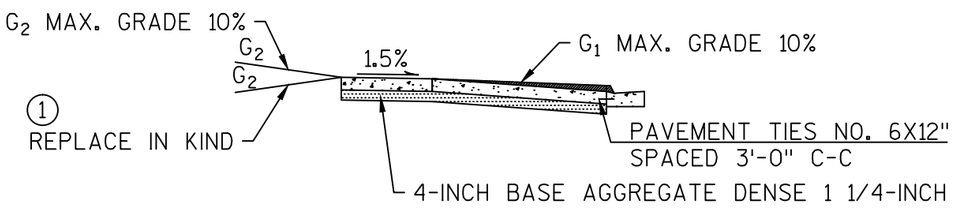


*SEE PLAN DETAILS FOR DIMENSION

TYPICAL DETAIL OF ADA BUS STOP
SEE PLAN DETAILS FOR ADA BUS STOP LOCATIONS



PLAN



PROFILE

RESIDENTIAL DRIVEWAY DETAIL

SEE PLAN DETAILS FOR DRIVEWAY LOCATIONS

NOTES:

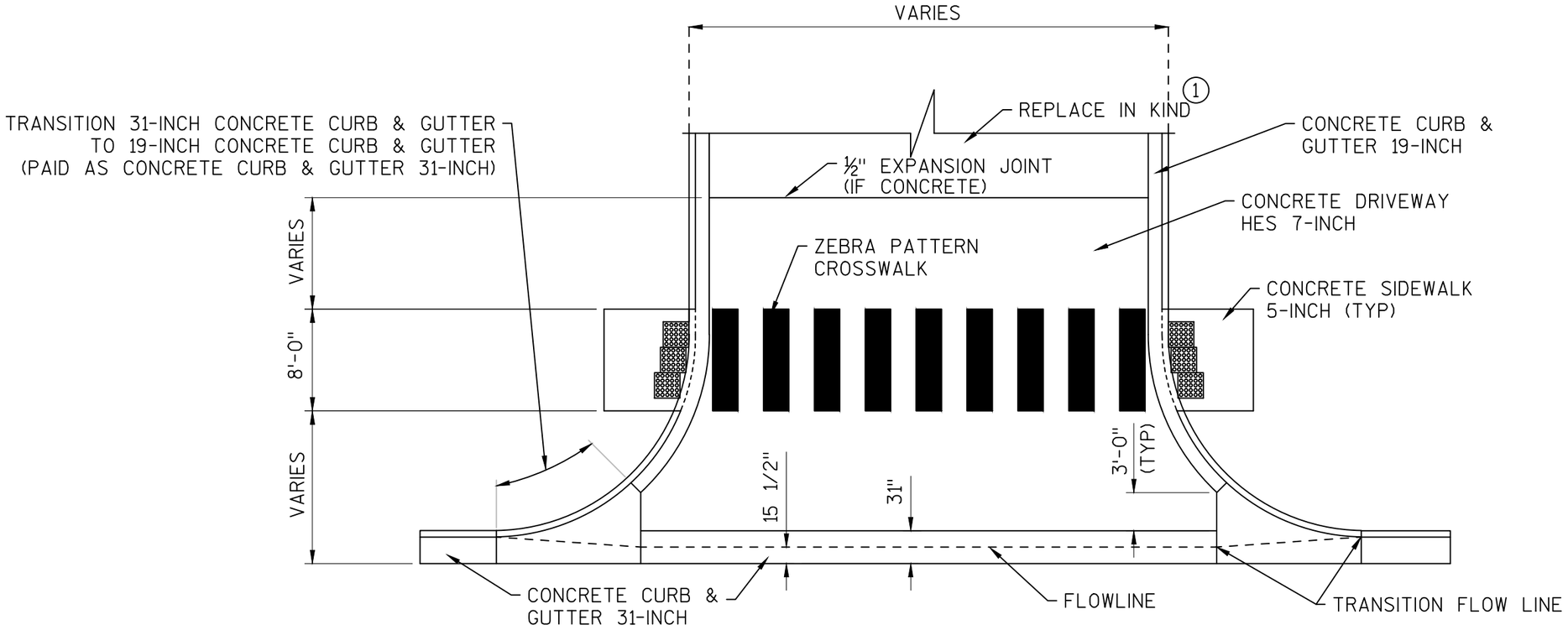
(1) DRIVEWAY SURFACE SHALL BE REPLACED IN-KIND UNLESS OTHERWISE NOTED ON THE PLAN WITH MINIMUM SECTION OF:

ASPHALT - 3" ASPHALTIC SURFACE DRIVEWAYS & FIELD ENTRANCES ON 4" BASE AGGREGATE DENSE 1 1/4-INCH

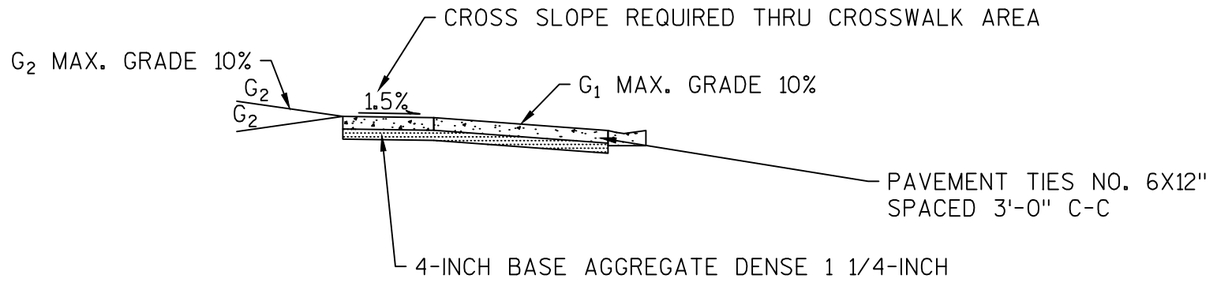
CONCRETE - 7" CONCRETE DRIVEWAY HES 7-INCH ON 4" BASE AGGREGATE DENSE 1 1/4-INCH

(2) 1/2 TERRACE WIDTH (5-FT MAX) UNLESS OTHERWISE APPROVED BY THE ENGINEER

2



PLAN



PROFILE

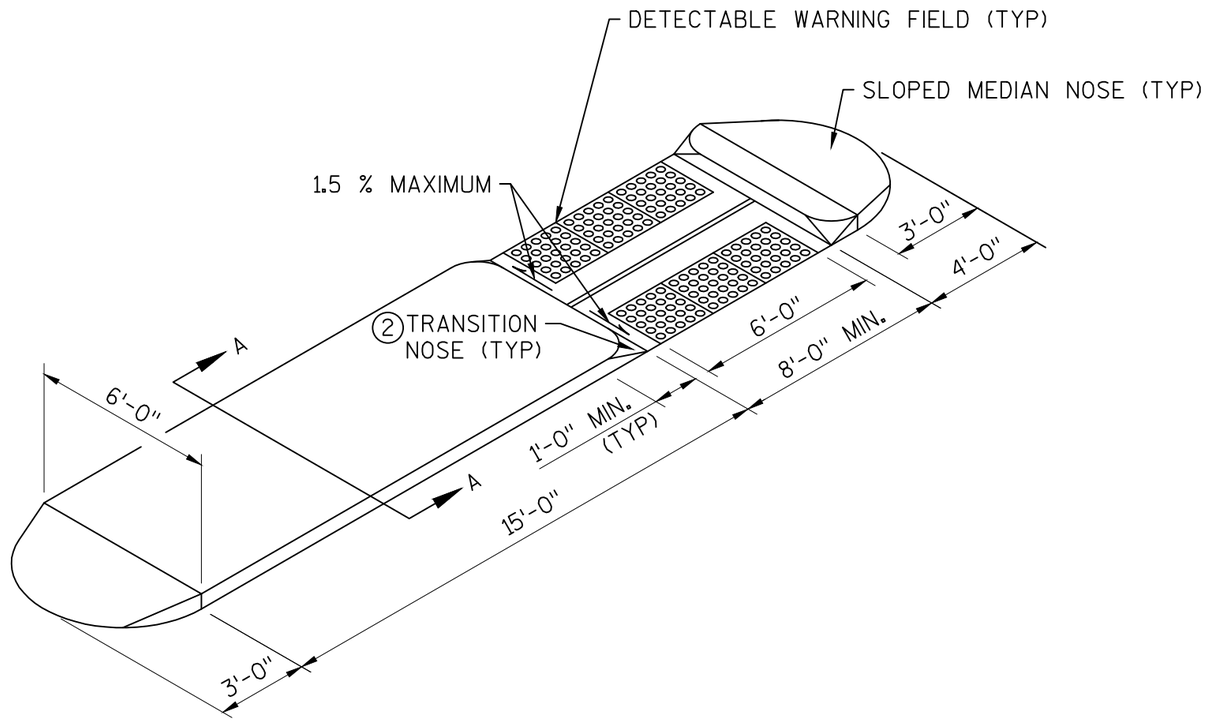
NOTES:

(1) DRIVEWAY SURFACE SHALL BE REPLACED IN-KIND UNLESS OTHERWISE NOTED ON THE PLAN WITH MINIMUM SECTION OF:

ASPHALT - 3" ASPHALTIC SURFACE DRIVEWAYS & FIELD ENTRANCES ON 4" BASE AGGREGATE DENSE 1 1/4-INCH

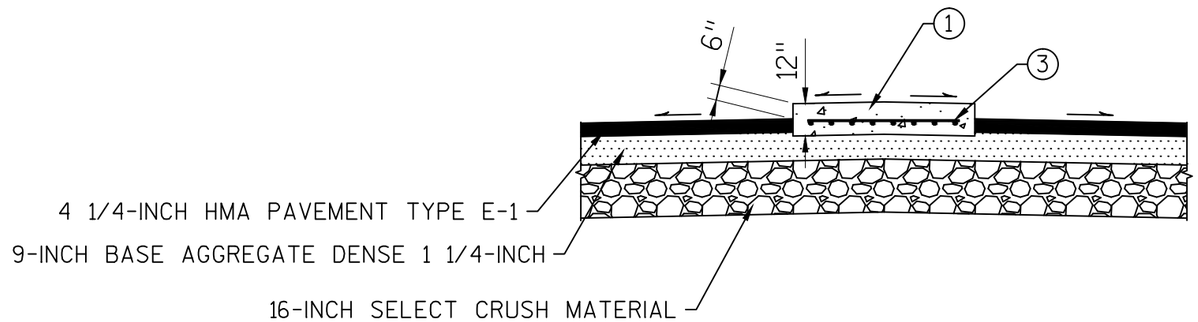
CONCRETE - 7" CONCRETE DRIVEWAY HES 7-INCH ON 4" BASE AGGREGATE DENSE 1 1/4-INCH

HIGH SCHOOL & MIDDLE SCHOOL DRIVEWAY DETAIL
SEE PLAN DETAIL FOR DRIVEWAY LOCATIONS



TYPICAL DETAIL OF CONCRETE PEDESTRIAN REFUGE ISLAND

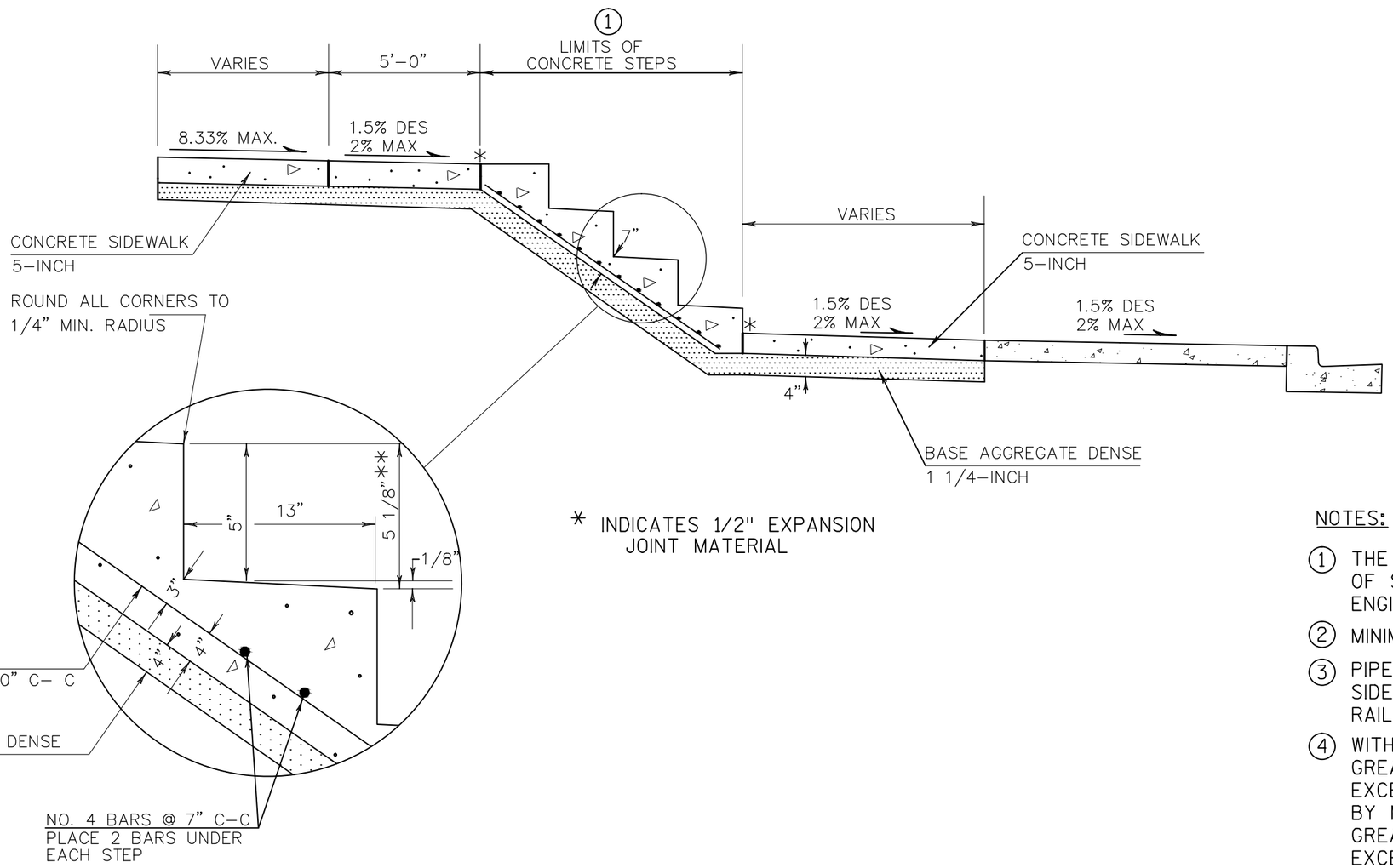
SEE PLAN DETAILS FOR DRIVEWAY LOCATION
PAY AS "CONCRETE SAFETY ISLAND"



SECTION A-A

GENERAL NOTES:

1. CONCRETE - 12-INCH CONCRETE ON BASE AGGREGATE DENSE 1-1/4-INCH.
2. INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.) DO NOT MARK TRANSITION NOSE.
3. MINIMUM REINFORCEMENT SHALL BE 6" X 6" - W4.0 X W4.0 OR NO. 3 LONGITUDINAL AND TRANSVERSE SPACING 12" C-C.
   ALL STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR.



* INDICATES 1/2" EXPANSION JOINT MATERIAL

CONCRETE STEPS DETAIL

AT WAUWATOSA WEST HIGH SCHOOL
(NOT DRAWN TO SCALE)

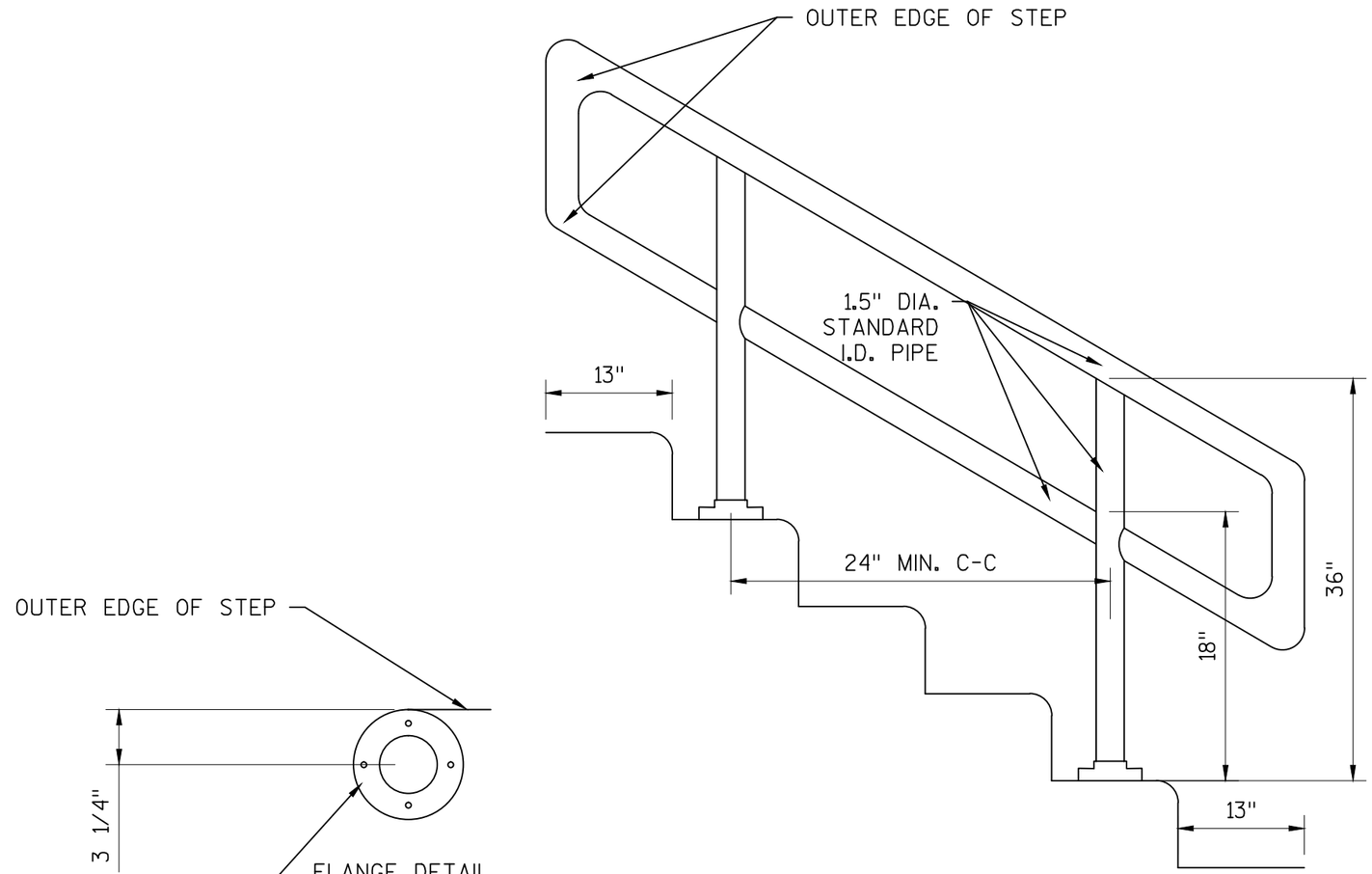
NOTES:

1. THE EXACT LOCATION & NUMBER OF STEPS TO BE DETERMINED BY THE ENGINEER IN THE FIELD.
2. MINIMUM WIDTH OF STEP EQUALS 10 FEET.
3. PIPE RAILING TO BE INSTALLED ON BOTH SIDES OF STAIRS. "SEE GALVANIZED PIPE RAILING DETAIL".
4. WITHIN A STAIRWAY FLIGHT, THE GREATEST TREAD DEPTH MAY NOT EXCEED THE SMALLEST TREAD DEPTH BY MORE THAN 3/8-INCH AND THE GREATEST RISER HEIGHT MAY NOT EXCEED THE SMALLEST RISER HEIGHT BY MORE THAN 3/8-INCH.

** 5. STAIR RISER HEIGHTS SHALL BE 5 1/8-INCH DESIRABLE, 7-INCH MAXIMUM AND 4-INCH MINIMUM.

6. STAIR TREAD DEPTHS SHALL BE 11-INCH MINIMUM AND 13-INCH MAXIMUM.

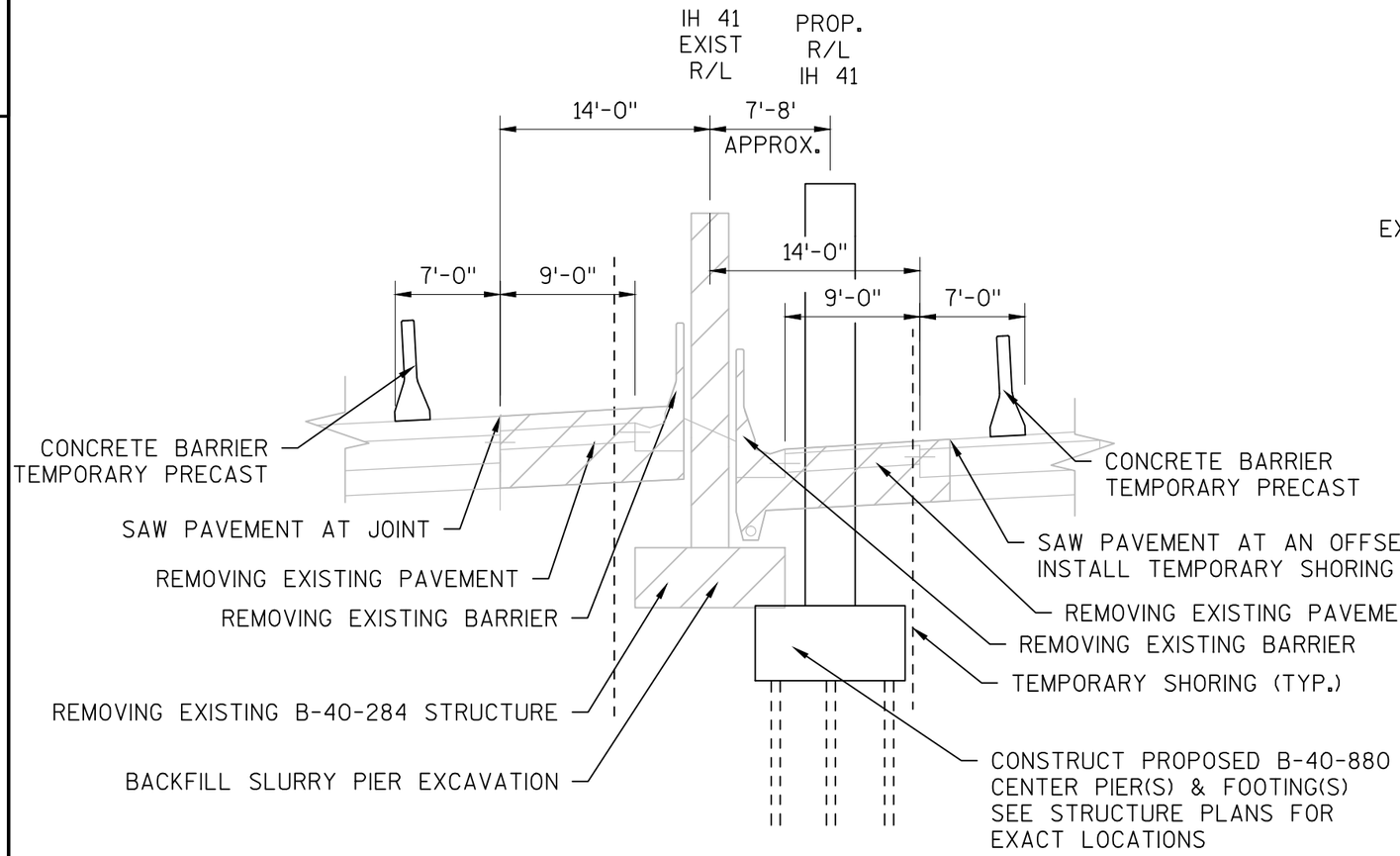
2



NOTE:
THE NUMBER OF STAIR TREADS WILL BE DETERMINED IN THE FIELD BASED ON FIELD ELEVATIONS.

GALVANIZED PIPE RAILING DETAIL

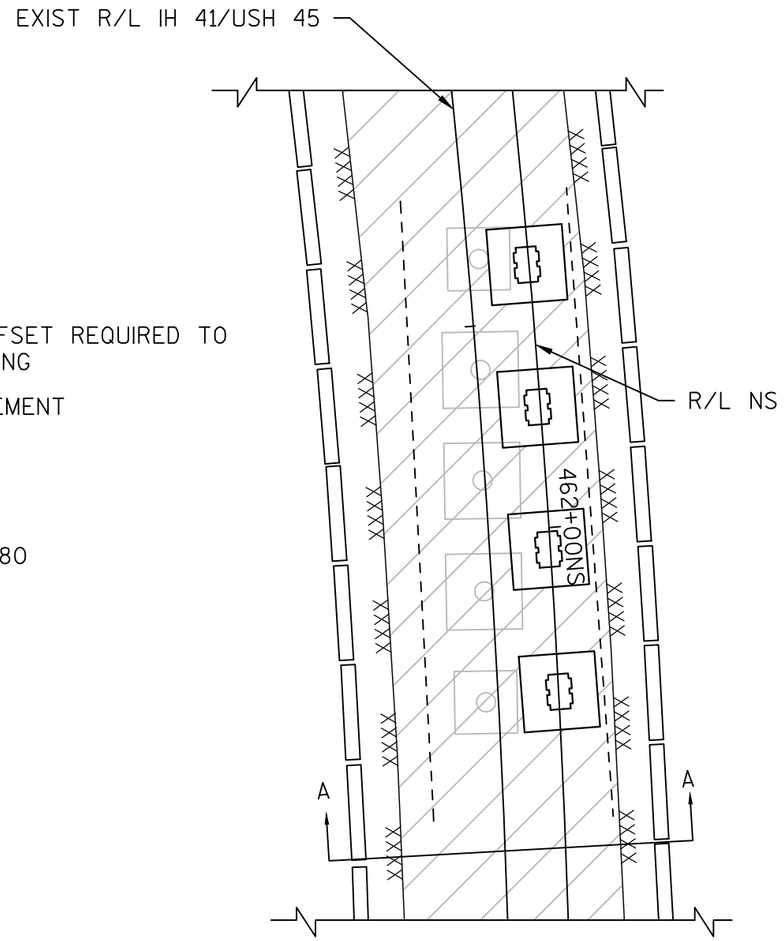
AT WAUWATOSA WEST HIGH SCHOOL
(NOT DRAWN TO SCALE)



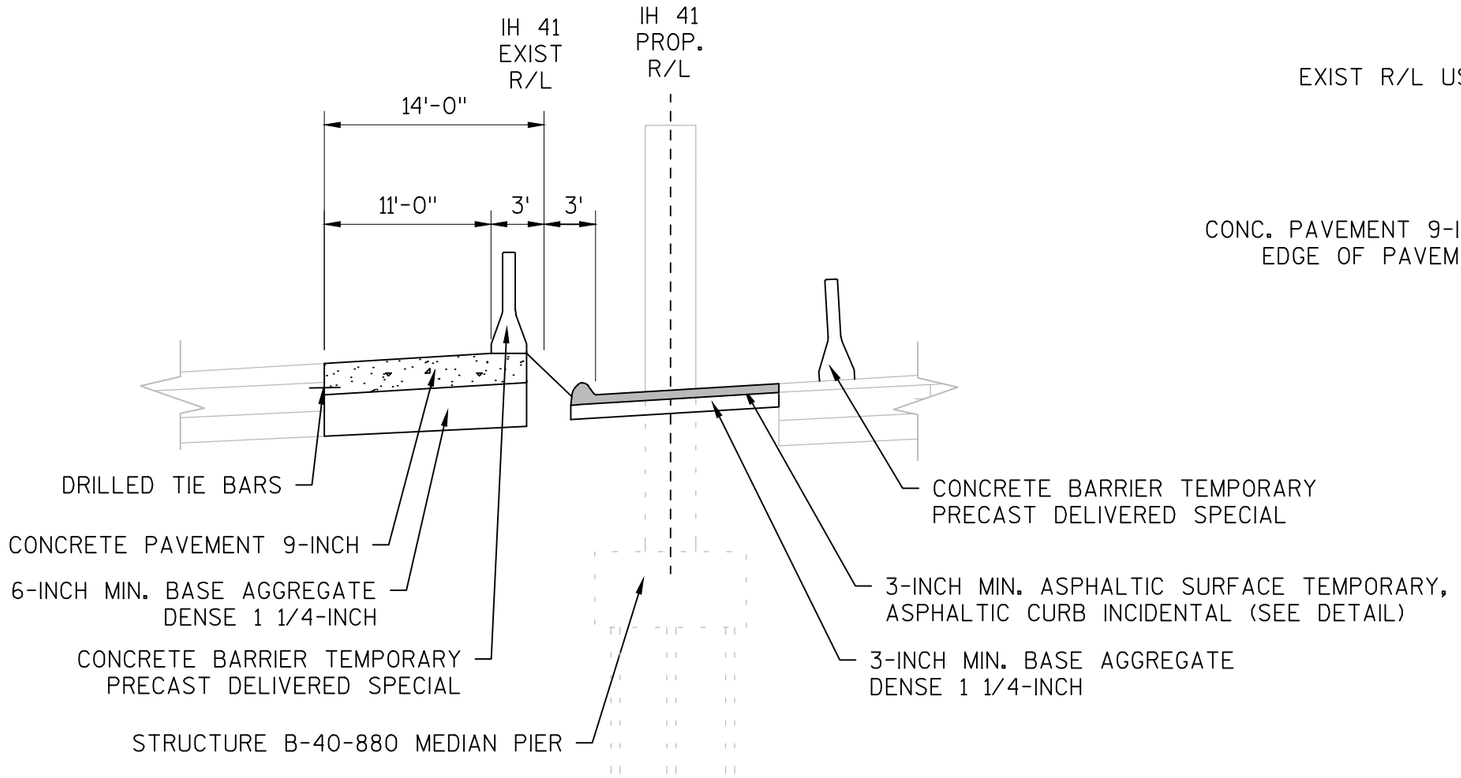
TYPICAL CENTER PIER REMOVALS AND TRAFFIC STAGING DETAIL
(SECTION A-A)
IH 41/USH 45
STA. 461+60NS TO STA. 462+50NS

GENERAL NOTES:

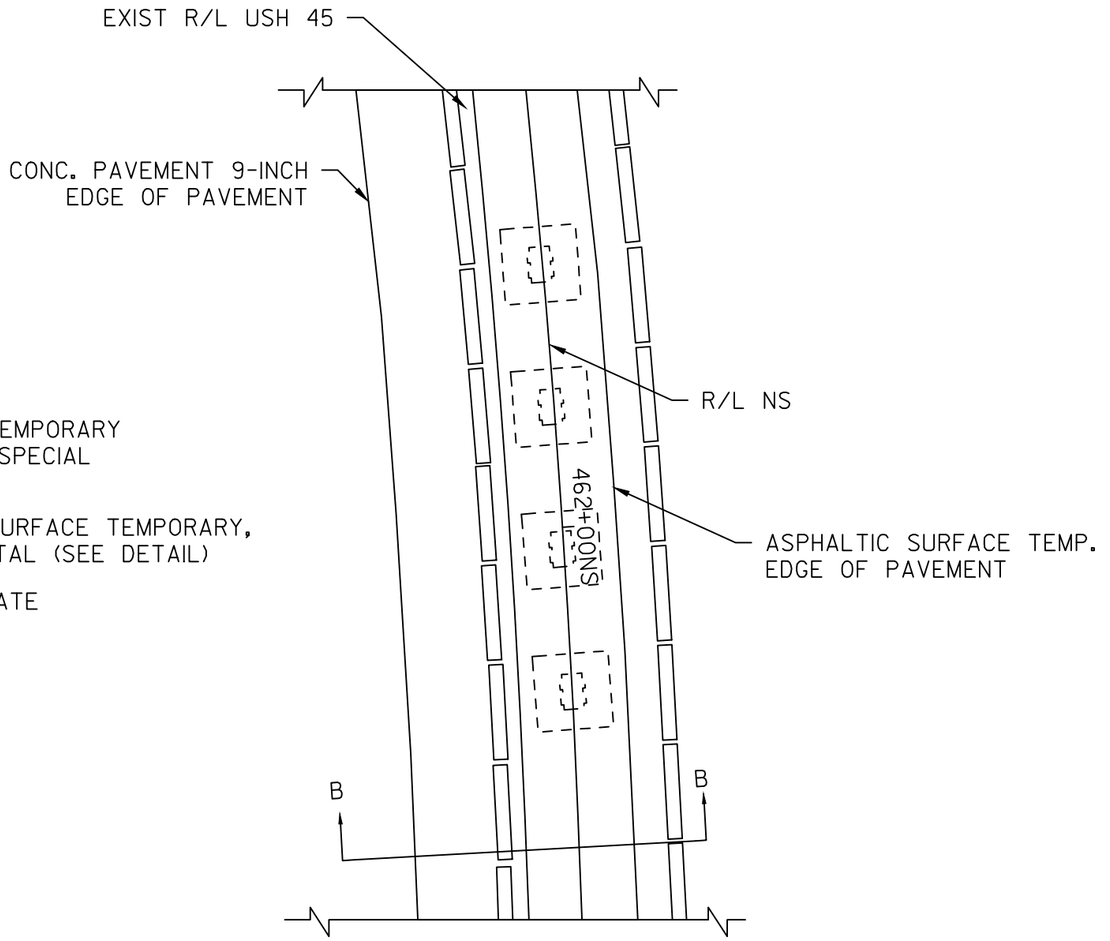
1. TEMPORARY SHORING SHALL BE LOCATED AND INSTALLED BY THE CONTRACTOR AS REQUIRED TO PROPERLY CONSTRUCT CENTER PIERS
2. MAINTAIN DRAINAGE TO EXISTING INLETS AND EROSION CONTROL DEVICES AT ALL TIMES
3. SEE TRAFFIC CONTROL PLAN SHEETS FOR ADDITIONAL INFORMATION
4. NOT DRAWN TO SCALE



TYPICAL CENTER PIER REMOVALS AND TRAFFIC STAGING DETAIL
(PLAN VIEW)
IH 41/USH 45
STA. 461+60NS TO STA. 462+50NS



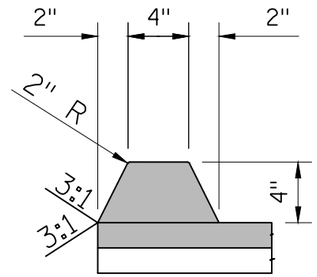
TYPICAL CENTER PIER CONSTRUCTION DETAIL
(SECTION B-B)
IH 41/USH 45
STA. 461+60NS TO STA. 462+50NS



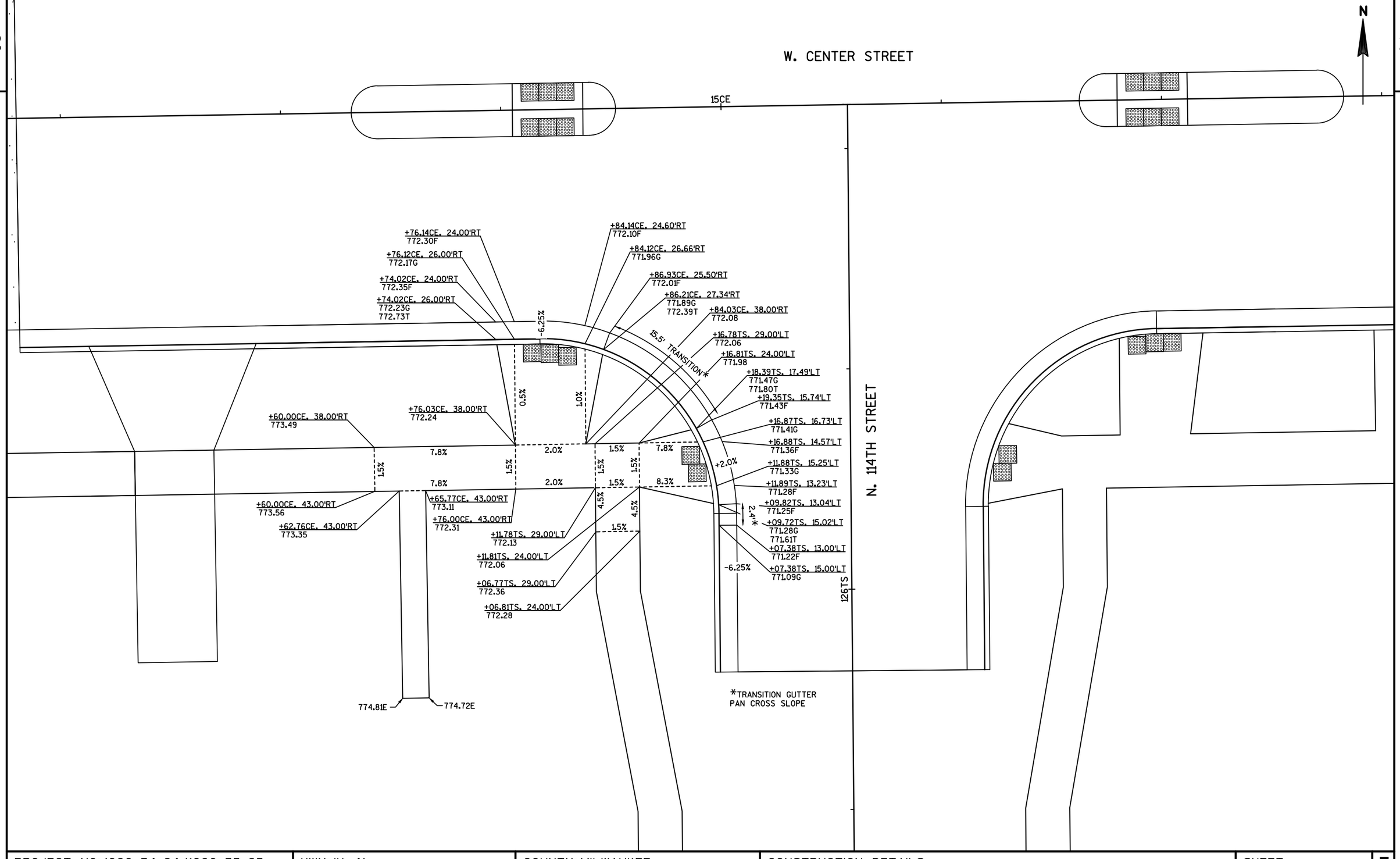
TYPICAL CENTER PIER CONSTRUCTION DETAIL
(PLAN VIEW)
IH 41
STA. 461+60NS TO STA. 462+50NS

GENERAL NOTES:

1. THE TEMPORARY ASPHALT CURB IS INCIDENTAL TO ASPHALTIC SURFACE
2. MAINTAIN DRAINAGE TO EXISTING INLETS
3. SEE TRAFFIC CONTROL PLAN SHEETS FOR ADDITIONAL INFORMATION
4. NOT DRAWN TO SCALE



ASPHALTIC CURB DETAIL
IH 41
STA. 461+60NS TO STA. 462+50NS



PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET 26	E

WAUWATOSA WEST HIGH SCHOOL

2

N

+58.11CE, 61.95'LT
772.92E

+75.68CE, 61.84'LT
772.89E

0.2%E

0.1%

1.7%

*TRANSITION GUTTER
PAN CROSS SLOPE

+75.68CE, 44.00'LT
772.59

+76.65CE, 44.00'LT
772.57

+84.59CE, 44.00'LT
772.46

+94.59CE, 44.00'LT
772.16

+58.11CE, 44.00'LT
772.89

+58.11CE, 43.20'LT
772.88

+47.80CE, 43.20'LT
773.33

4.5%

1.7%

1.5%

+76.59CE, 36.00'LT
772.46

+58.11CE, 38.20'LT
772.80

+69.59CE, 36.00'LT
772.57

4.5%

1.7%

1.5%

3.0%

+47.80CE, 38.20'LT
773.26

+58.11CE, 36.00'LT
772.77

+94.59CE, 36.00'LT
772.04

+84.59CE, 36.00'LT
772.33

+58.11CE, 26.00'LT
772.20G
772.7T

+47.80CE, 26.00'LT
772.29G
772.79T

+69.59CE, 26.00'LT
771.96G
772.46T

+86.51CE, 26.00'LT
771.51G
772.01T

+94.52CE, 26.00'LT
771.16G
771.66T

-6.25%

10.3' TRANSITION*

-3.0%

8' TRANSITION*

-6.25%

+47.80CE, 24.00'LT
772.42F

+58.11CE, 24.00'LT
772.26F

+69.59CE, 24.00'LT
772.02F

+76.51CE, 26.00'LT
771.80G

+76.50CE, 24.00'LT
771.86F

+84.51CE, 26.00'LT
771.59G

+84.50CE, 24.00'LT
771.65F

+86.50CE, 24.00'LT
771.57F

+94.50CE, 24.00'LT
771.29F

0.8%

1.2%

6.6%

7.5%

W. CENTER STREET

14CE

15CE

N. 114TH STREET

PROJECT NO:1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET 27	E

2

N

WAUWATOSA WEST HIGH SCHOOL EAST DRIVEWAY

+25.71CE, 76.28'LT
762.84F

+08.40CE, 71.33'LT
762.84F

+31.21CE, 57.05'LT
763.92F

+13.90CE, 52.10'LT
764.13F

+32.59CE, 52.24'LT
764.13F

+35.36CE, 46.17'LT
764.20G
764.70T

+15.28CE, 47.29'LT
764.39F

+43.90CE, 44.00'LT
764.37

+00.31CE, 44.00'LT
764.88

+08.31CE, 44.00'LT
764.66

+14.69CE, 45.65'LT
764.36G
764.86T

+48.90CE, 44.00'LT
764.44

+34.40CE, 45.89'LT
764.27F

+53.90CE, 44.00'LT
764.37

+92.31CE, 44.00'LT
765.19

+15.66CE, 45.87'LT
764.42F

+79.90CE, 44.00'LT
764.40

+88.41CE, 44.00'LT
764.45

+96.41CE, 44.00'LT
764.51

+04.41CE, 44.00'LT
764.39

+12.41CE, 44.00'LT
764.48

+28.41CE, 44.00'LT
765.07

+15.99CE, 44.00'LT
764.47F

+34.94CE, 44.00'LT
764.31F

+14.99CE, 44.00'LT
764.40G

+35.98CE, 44.00'LT
764.24G

+13.94CE, 36.00'LT
764.28G

+48.90CE, 36.00'LT
764.17

+15.02CE, 36.00'LT
764.36F

+38.37CE, 36.00'LT
764.10G

+79.90CE, 36.00'LT
764.28

+12.41CE, 36.01'LT
764.36

+28.41CE, 36.00'LT
764.95

+43.90CE, 36.00'LT
764.25

+53.90CE, 36.00'LT
764.25

+88.41CE, 36.00'LT
764.33

+04.41CE, 36.00'LT
764.27

+92.31CE, 36.00'LT
765.07

+14.02CE, 33.82'LT
764.28F

+37.29CE, 36.00'LT
764.18F

+96.41CE, 36.00'LT
764.39

+12.41CE, 26.00'LT
763.91G

+00.31CE, 36.00'LT
764.66

+08.31CE, 36.00'LT
764.54

+13.14CE, 34.30'LT
764.22G
764.72T

+38.64CE, 33.22'LT
764.06F

+43.37CE, 29.37'LT
763.89G
764.39T

+04.41CE, 26.00'LT
763.83G

+13.95CE, 26.00'LT
763.93G
764.43T

+08.94CE, 29.37'LT
764.17G
764.67T

+39.50CE, 33.73'LT
764.00G
764.50T

+02.76CE, 26.00'LT
763.82G
764.32T

+09.55CE, 28.58'LT
764.13F

+28.41CE, 24.00'LT
764.20F

+92.31CE, 24.00'LT
764.32F

+09.55CE, 26.58'LT
764.05

+42.76CE, 28.58'LT
763.86F

+53.20CE, 24.00'LT
763.73F

+53.90CE, 26.00'LT
763.61G
764.11T

+79.90CE, 26.00'LT
763.64G
764.14T

+13.95CE, 24.00'LT
764.05F

+99.11CE, 24.00'LT
764.20F

+09.55CE, 24.00'LT
764.05F

+42.76CE, 26.58'LT
763.78

+53.90CE, 24.00'LT
763.73F

+88.41CE, 24.00'LT
763.81F

+12.41CE, 24.00'LT
764.04F

+79.90CE, 24.00'LT
763.76F

+96.41CE, 24.00'LT
763.88F

+02.76CE, 24.00'LT
763.94F

+04.41CE, 24.00'LT
763.96F

+42.76CE, 24.00'LT
763.78F

BUS STOP

5.2% 1.5% 2.8% 1.6% 1.5% 1.5% 0.6% 0.9% 1.0% 1.0% 3.7% 1.5% 4.5% 2.4%

W. CENTER STREET

17CE

18CE

PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET 28	E

2

21CE

22CE

N

W. CENTER STREET

*TRANSITION GUTTER
PAN CROSS SLOPE

+19.58CE, 24.00'RT
763.31F

+19.58CE, 26.00'RT
763.18G
763.68T

+19.58CE, 29.00'RT
763.72

+19.58CE, 35.00'RT
763.81

+18.41TB, 23.35'LT
761.61

+20.66TB, 17.86'LT
761.55G
762.05T

+21.69TB, 16.15'LT
761.67F

+18.45TB, 16.71'LT
761.47G

+18.46TB, 14.55'LT
761.57F

+18.39TB, 28.33'LT
761.69

+12.47TB, 13.12'LT
761.45F

+12.46TB, 15.11'LT
761.33G

+10.31TB, 13.00'LT
761.41F

+10.31TB, 15.00'LT
761.28G
761.78T

+12.39TB, 28.30'LT
761.78

+12.41TB, 23.32'LT
761.70

7.5%
7.5%
1.5%
2.2%
1.5%
1.5%
1.5%
4.5%
-6.25%

+03.25CE, 24.61'RT
760.21F

+03.25CE, 26.67'RT
760.16G
760.66T

+00.41CE, 25.49'RT
760.29F

+03.25CE, 38.00'RT
760.71

+02.51CE, 38.00'RT
760.72

+97.51CE, 38.00'RT
760.64

+21.83TB, 16.01'RT
760.58F

+20.83TB, 17.73'RT
760.45G
760.95T

+18.62TB, 16.62'RT
760.47G

+18.61TB, 14.46'RT
760.57F

+12.62TB, 15.09'RT
760.33G

+12.61TB, 13.09'RT
760.45F

+10.48TB, 13.00'RT
760.41F

+10.48TB, 15.00'RT
760.28G
760.78T

+07.69TB, 13.00'RT
760.35F

+07.69TB, 15.00'RT
760.22G
760.72T

14.6' TRANSITION*

+11.25CE, 24.00'RT
759.93F

+13.35CE, 24.00'RT
759.85F

+13.35CE, 26.00'RT
759.79G
760.29T

+21.25CE, 24.00'RT
759.53F

10' TRANSITION*

+21.25CE, 25.99'RT
759.43G
759.93T

+11.25CE, 38.00'RT
760.59

+21.25CE, 38.00'RT
760.36

+21.25CE, 44.00'RT
760.45

+12.69TB, 29.09'RT
760.81

+11.25CE, 44.00'RT
760.68

+12.66TB, 24.09'RT
760.73

+07.69TB, 29.09'RT
761.13

+07.69TB, 24.09'RT
761.06

-3.0%
-6.25%
4.8%
6.0%
2.4%
1.5%
2.2%
6.5%

36TB

N. 112TH STREET

PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET 29	E

2

N

WHITMAN MIDDLE SCHOOL
WEST DRIVEWAY

+19.58CE, 38.00'LT
763.85

+19.58CE, 30.00'LT
763.73

+19.58CE, 26.00'LT
763.18G
763.68T

+19.58CE, 24.00'LT
763.31F

+45.15CE, 42.93'LT
762.46

+45.15CE, 34.93'LT
762.34

+50.71CE, 44.00'LT
762.37

+50.71CE, 36.00'LT
762.25

+53.04CE, 44.00'LT
762.34

+40.95CE, 26.00'LT
762.42G
762.92T

+40.95CE, 24.00'LT
762.54F

+53.06CE, 29.45'LT
762.13G
762.63T

+53.59CE, 28.60'LT
762.10F

+53.59CE, 24.00'LT
762.08F

+64.74CE, 53.57'LT
761.58F

+64.76CE, 45.99'LT
761.80F

+63.77CE, 46.12'LT
761.82G
762.32T

+64.42CE, 44.00'LT
761.85F

+63.40CE, 44.00'LT
761.87G

+59.92CE, 36.00'LT
761.92G

+61.12CE, 36.00'LT
761.90F

+58.17CE, 33.75'LT
761.97G
762.47T

+58.92CE, 33.09'LT
761.95F

+53.04CE, 36.00'LT
762.22

+75.71CE, 54.42'LT
761.36F

+75.96CE, 46.23'LT
761.41F

+76.96CE, 46.23'LT
761.35G
761.85T

+75.96CE, 44.00'LT
761.42F

+76.96CE, 44.00'LT
761.36G

+82.55CE, 44.00'LT
761.48

+82.55CE, 36.00'LT
761.36

+88.55CE, 36.00'LT
761.45

+76.96CE, 36.00'LT
761.28G

+75.96CE, 36.00'LT
761.34F

+76.96CE, 34.00'LT
761.26G
761.76T

+75.96CE, 34.00'LT
761.32F

+75.96CE, 28.99'LT
761.27F

+76.96CE, 29.00'LT
761.21G
761.71T

+75.96CE, 26.58'LT
761.25F

+79.96CE, 26.00'LT
760.97G
761.47T

+79.96CE, 24.00'LT
761.10F

+03.25CE, 44.00'LT
760.49

+88.55CE, 44.00'LT
761.57

+03.25CE, 36.00'LT
760.37

+01.12CE, 26.00'LT
760.18G
760.68T

+01.12CE, 24.00'LT
760.31F

+03.25CE, 26.00'LT
760.10G

+03.25CE, 24.00'LT
760.23F

+11.25CE, 44.00'LT
760.37

+19.25CE, 44.00'LT
760.47

+19.25CE, 36.00'LT
760.35

+11.25CE, 36.00'LT
760.25

+19.25CE, 26.00'LT
759.48G
759.98T

+19.25CE, 24.00'LT
759.60F

+13.37CE, 26.00'LT
759.72G
760.22T

+13.37CE, 24.00'LT
759.85F

+11.25CE, 26.00'LT
759.80G

+11.25CE, 24.00'LT
759.93F

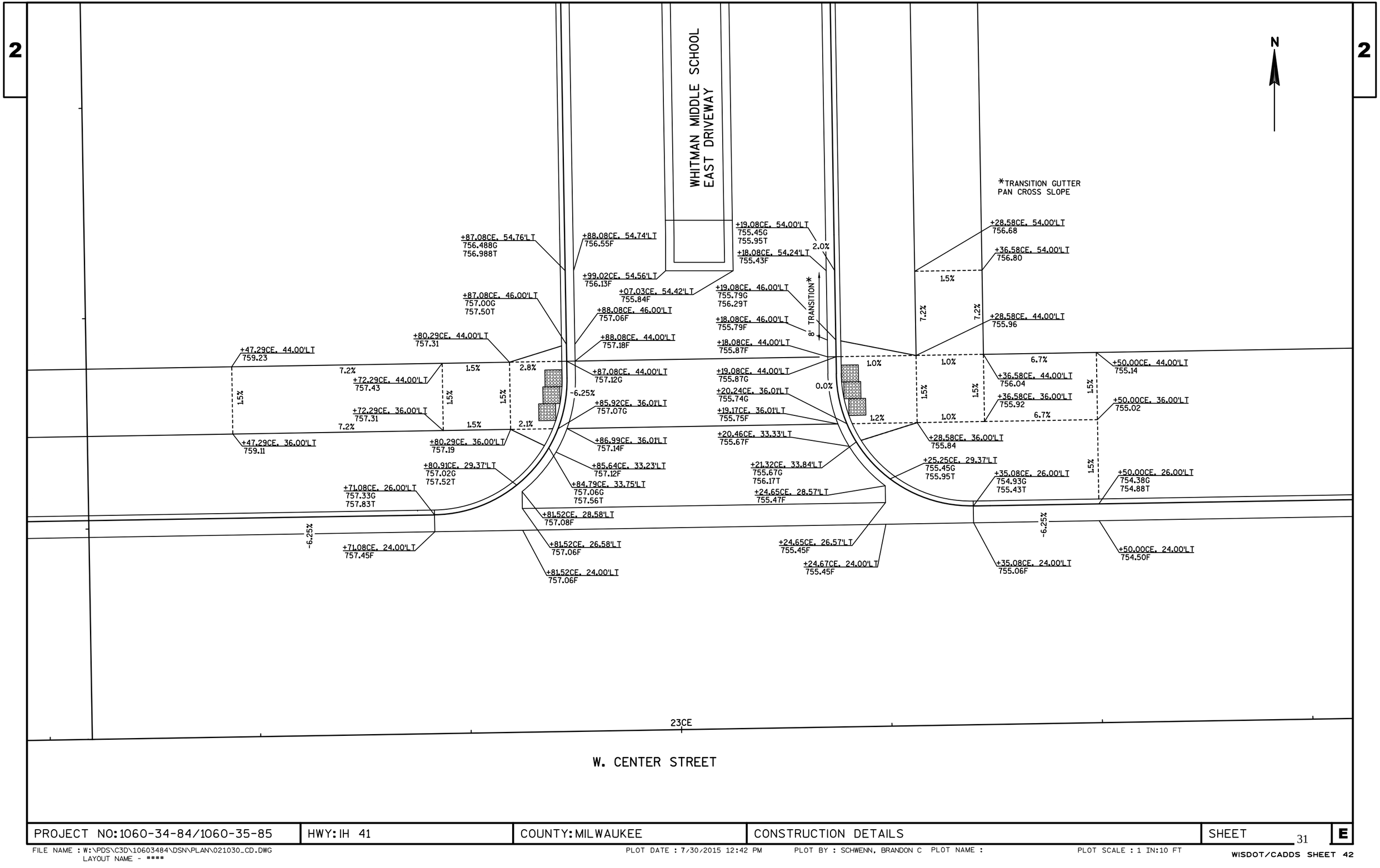
5.4%
4.5%
4.3%
7.4%
2.2%
1.5%
1.2%
4.0%

W. CENTER STREET

21CE

22CE

PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET 30	E



PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET 31	E

2

GENERAL NOTES:

1) ALL ITEMS ASSOCIATED WITH LIGHTING REMOVALS ARE SHOWN IN LIGHTING PLAN.

2) ALL ITEMS ASSOCIATED WITH BRIDGE REMOVALS ARE SHOWN IN BRIDGE PLAN.

3) ALL ITEMS ASSOCIATED WITH FTMS REMOVALS ARE SHOWN IN FTMS PLAN.

4) ALL ITEMS ASSOCIATED WITH STORM SEWER REMOVALS ARE SHOWN IN STORM SEWER PLANS.

5) THE LOCATION OF THE EXISTING UTILITY INSTALLATIONS AS SHOWN ON THE PLANS IS APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN, INCLUDING BUILDING SERVICES AND LATERALS.

REMOVAL LEGEND

X^xx"	CLEARING AND GRUBBING (I.D.)
	CLEARING AND GRUBBING (STA.)
	REMOVING PAVEMENT
	REMOVING ASPHALTIC SURFACE
	REMOVING ASPHALTIC SURFACE MILLING
	REMOVING CONCRETE SIDEWALK
	REMOVING CURB AND GUTTER, REMOVING CURB
	REMOVING CONCRETE BARRIER
—x—	REMOVING FENCE
- - - -	SLOPE INTERCEPT
X X X X X.	SAWING ASPHALT
X X X X X	SAWING CONCRETE PAVEMENT
	REMOVING GUARDRAIL

2

PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	REMOVAL PLANS - LEGEND	SHEET 32	E

2

BEGIN PROJECT 1060-35-85
STA. 4+67CE

END PROJECT 1060-35-85
STA. 14+33CE

BEGIN PROJECT 1060-34-84
STA. 14+20CE

REMOVE CURB

REMOVE CONCRETE STAIRS
PAY AS REMOVING CONCRETE SIDEWALK

CENTER STREET

5CE

10CE

15CE

TLE

SI

PLE

END CONSTRUCTION 1060-35-85
STA. 126+11TS

BEGIN CONSTRUCTION 1060-35-85
STA. 124+28TS

BEGIN CONSTRUCTION 1060-35-85
STA. 32+18TW

117TH ST

116TH ST

115TH ST

114TH ST

113TH ST

35TW

30TW

120TS

36TA

34TA

32TA

30TA

464NS

IH 41 / USH 45 SB

N

PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	REMOVALS	SHEET 33	E

FILE NAME : W:\PDS\C3D\CAD\10603484\021101_RM.DWG
LAYOUT NAME - ****

PLOT DATE : 7/29/2015 10:38 AM PLOT BY : WAGNER, SCOTT H PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

N

16TA 18TA 20TA 22TA 24TA N. 113TH STREET 26TA 28TA 30TA

TLE

SI

MEINECKE AVE

IH 41 / USH 45 SB

440NS 442NS 444NS 446NS 448NS 450NS 452NS 454NS

IH 41 / USH 45 NB

CLEAR ONLY

18TB 20TB 22TB N. 112TH STREET 24TB 26TB 28TB 30TB

TLE

PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	REMOVALS	SHEET 34 E

FILE NAME : W:\PDS\C3D\CAD\10603484\021101_RM.DWG
LAYOUT NAME - 021102_RM
PLOT DATE : 10/20/2015 2:08 PM PLOT BY : GIBSON, NICOLE E PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

TOSA WEST HIGH SCHOOL

TLE

PLE

SI

30TA 32TA 34TA 36TA

113TH ST

IH 41 / USH 45 SB

454NS 456NS 458NS 460NS 462NS 464NS 466NS 468NS

REMOVE NB & SB CONCRETE BARRIER
STA. 461+00NS TO 463+00NS

REMOVING OLD STRUCTURE
(STA. 462+03NS)
*SEE STRUCTURE PLAN
FOR DETAILS

IH 41 / USH 45 NB

REMOVE
CONCRETE BASE

30TB 32TB 34TB 36TB

112TH ST

CENTER STREET

REMOVING
CURB

15WMS

REMOVING
CURB

TLE

SI

HOUSE AND GARAGE
TO BE RAZED UNDER
A SEPARATE CONTRACT
PRIOR TO CONSTRUCTION

SI

TLE

WHITMAN
MIDDLE
SCHOOL

25CE

END PROJECT 1060-34-84
STA. 24+60CE

PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	REMOVALS	SHEET 35	E

2

BEGIN CONSTRUCTION 1060-34-84
STA. 592+03

REMOVE RETAINING WALL
STA. 595+66 TO STA. 596+74

END CONSTRUCTION 1060-34-84
STA. 596+79

REMOVE CRASH CUSHION

IH 41 / USH 45 SB

IH 41 / USH 45 NB

N. MAYFAIR ROAD / STH 100

590M 592M 594M 596M 598M 600M 602M

414NS 412NS 410NS 408NS 416NS

PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	REMOVALS	SHEET	E

2

LEGEND

- (CP07) CONCRETE PAVEMENT 9-INCH (NON-DOWELLED)

- (AP02) HMA PAVEMENT TYPE E-1, 2-INCH
- (AP24) HMA PAVEMENT TYPE E-10, 8-INCH
- (AP26) HMA PAVEMENT TYPE E-10, 4-INCH
- (AP35) HMA PAVEMENT TYPE E-1, 4 1/4-INCH
- (PV09) ASPHALTIC SURFACE, 2-INCH
- (PV10) ASPHALTIC SURFACE, 3-INCH

- (CG03) CURB RAMP TYPE 2*
- (CG04) CURB RAMP TYPE 3*
- (CG06) CURB RAMP TYPE 4B*
- (CG07) CURB RAMP TYPE 5*
- (CG13) CONCRETE GUTTER 24-INCH
- (CG14) CONCRETE CURB AND GUTTER 19-INCH
- (CG15) CONCRETE CURB AND GUTTER 19-INCH REVERSE SLOPE
- (CG16) CONCRETE CURB AND GUTTER 31-INCH
- (CG17) CONCRETE CURB AND GUTTER 31-INCH REVERSE SLOPE
- (CG19) CONCRETE CURB AND GUTTER 18-INCH TYPE D
- (CG21) CONCRETE CURB AND GUTTER 30-INCH TYPE D
- (CG22) CONCRETE CURB PEDESTRIAN
- (CG46) CONCRETE CURB AND GUTTER 30-INCH TYPE A

- (CM01) CONCRETE MEDIAN SLOPED NOSE TYPE 1
- (CM05) CONCRETE SAFETY ISLANDS
- (CM07) CONCRETE SIDEWALK 5-INCH

- (DR09) CONCRETE DRIVEWAY HES 7-INCH

- (CB32) CONCRETE BARRIER TEMPORARY PRECAST DELIVERED SPECIAL

- (SW01) SAWING ASPHALT
- (SW02) SAWING CONCRETE

- (BS01) BUS STOP

- (CONC) CONCRETE DRIVEWAY MATCH EXISTING
- (ASPH) ASPHALTIC SURFACE DRIVEWAY MATCH EXISTING

- ● PROPOSED MANHOLE
- ■ PROPOSED INLET

NOTES:
RADIUS INFORMATION IS GIVEN TO THE FLANGE OF THE CURB AND GUTTER. CURB AND GUTTER RADII ARE MEASURED TO THE FLANGE OF CURB AND GUTTER.

RADII THAT ARE NOT CALLED OUT IN THE PLAN ARE ASSUMED TO BE PARALLEL TO ASSOCIATED R/L. SEE ALIGNMENT DIAGRAM FOR ADDITIONAL INFORMATION.

FULL WIDTH SIDEWALK DIMENSIONS AND TERRACE DIMENSIONS ARE MEASURE TO FACE OF CURB.

CONCRETE BARRIER TEMPORARY PRECAST STATIONS AND OFFSET ARE GIVEN TO THE FACE OF BARRIER.

*MODIFY STANDARD DETAIL DRAWING CURB RAMP WIDTHS TO MATCH SIDEWALK WIDTHS GREATER THAN 5 FEET.

RADIUS TABLE			
POINT	STATION	OFFSET	RADIUS
1	4+70.48CE	46.00' RT	22'
2	5+40.38CE	46.00' RT	22'
3	8+24.81CE	46.00' RT	22'
	36+07.45TW	25.50' LT	
4	9+03.77CE	46.00' RT	22'
	36+08.00TW	50.50' RT	

11708
11704
11700
11640
11627
11609
2677
2672
2670

N

BEGIN PROJECT 1060-35-85
STA. 4+67CE

4CE 5CE 6CE 7CE R/L CE 8CE 9CE 10CE

+76.32
+36.49
+03.35 24.00' LT
+21.88 33.00' LT
+21.27
+83.30 33.00' LT
+02.27 24.00' LT
+84.41
+96.70 38.00' RT
+93.79 43.00' RT
+36.49 38.00' RT
46.00' RT
46.00' RT
+20.00 38.00' RT
+94.00 38.00' RT
+76.32 43.00' RT
+83.32 43.00' RT
MATCH 50.00' RT
MATCH 52.00' RT
+31.83 43.00' RT
MATCH 48.00' RT

W. CENTER STREET
N. 117TH STREET
N. 116TH STREET

CM07 CG03 CG04 PV09 CG17 BS01 CPO7 SW02 DR09 CG16 SW01 ASPH CONC

SI TLE R/W

1 2 3 4

PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 38 E

RADIUS TABLE			
POINT	STATION	OFFSET	RADIUS
5	11+60.37CE	46.00' RT	22'
6	12+30.25CE	46.00' RT	22'

WAUWATOSA WEST
HIGH SCHOOL

N

2" REMOVING ASPHALTIC
SURFACE MILLING

BEGIN PROJECT 1060-34-84
STA. 14+20CE

W. CENTER STREET

END PROJECT 1060-35-85
STA. 14+33CE

BEGIN CONSTRUCTION 1060-34-84
STA. 125+91

END CONSTRUCTION 1060-35-85
STA. 126+11TS

BEGIN CONSTRUCTION 1060-35-85
STA. 124+28TS

N. 115TH STREET

N. 114TH STREET

ADJUST/SALVAGE
INLET COVER

+18.02

+25.02
38.00' RT

+15.00CE

MATCH
48.00' RT
SIDEWALK
BRICK
SALVAGED

MATCH
50.00' RT

MATCH
30.00' LT

MATCH
32.00' RT

MATCH
36.00' RT

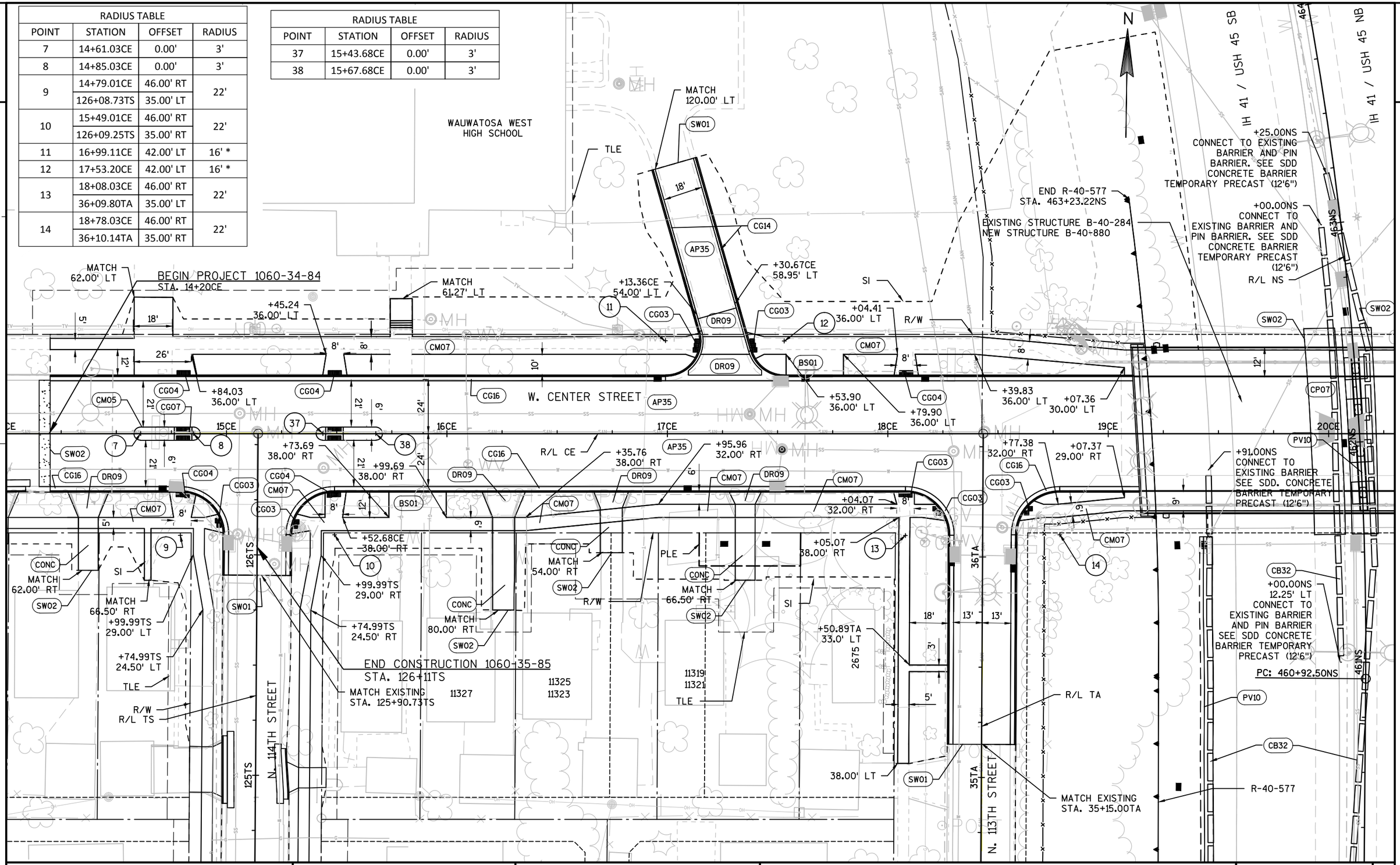
MATCH
36.00' LT

11519
11517
11427
11421
11415
11409
11403
11327
2673
2672
2663
2662

PROJECT NO: 1060-34-84/1060-35-85 | HWY: IH 41 | COUNTY: MILWAUKEE | PLAN DETAILS | SHEET 39 E

RADIUS TABLE			
POINT	STATION	OFFSET	RADIUS
7	14+61.03CE	0.00'	3'
8	14+85.03CE	0.00'	3'
9	14+79.01CE	46.00' RT	22'
	126+08.73TS	35.00' LT	
10	15+49.01CE	46.00' RT	22'
	126+09.25TS	35.00' RT	
11	16+99.11CE	42.00' LT	16' *
12	17+53.20CE	42.00' LT	16' *
13	18+08.03CE	46.00' RT	22'
	36+09.80TA	35.00' LT	
14	18+78.03CE	46.00' RT	22'
	36+10.14TA	35.00' RT	

RADIUS TABLE			
POINT	STATION	OFFSET	RADIUS
37	15+43.68CE	0.00'	3'
38	15+67.68CE	0.00'	3'



PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 40	E

2

EXISTING STRUCTURE
B-40-284
NEW STRUCTURE
B-40-880

BEGIN R-40-578
STA. 462+95.00NS

RECONSTRUCT SCHOOL
PARKING LOT AND
DRIVEWAYS

WHITMAN MIDDLE SCHOOL

N

463NS
R/L NS
+45.63NS
6.95' RT

11WMS
R/L WMS
+10.86
36.00' LT
+30.71
36.00' LT
R/W
SI
36.58
44.00' LT
TLE

2" REMOVING ASPHALTIC
SURFACE MILLING

+80.00CE

21CE
22CE
23CE
24CE
25CE
26CE

R/L CE

W. CENTER STREET

+19.58
30.00' LT
+19.58
29.00' RT
+45.08
38.00' RT
+10.86
38.00' RT
+50.02
38.00' RT
+26.02
28.00' RT

END PROJECT 1060-34-84
STA. 24+60CE

MATCH EXISTING
STA. 24+75.00CE

+66.00
34.00' RT

+02.47
44.00' RT

MATCH
71.84' RT

+50.00NS
5.40' RT

R-40-578

R/L TB

IH 41 / USH 45 NB

N. 112TH STREET

+00.00NS
CONCRETE EXISTING
BARRIER SEE SDD
CONCRETE BARRIER
TEMPORARY PRECAST
12'6"

+11.38NS
CONCRETE EXISTING BARRIER
SEE SDD CONCRETE BARRIER
TEMPORARY PRECAST 12'6"

HOUSE AND GARAGE TO BE
RAZED UNDER A SEPARATE
CONTRACT PRIOR TO
CONSTRUCTION

NOTE: *RADIUS MEASURED
TO FACE OF CURB.

RADIUS TABLE			
POINT	STATION	OFFSET	RADIUS
15	21+38.37CE	46.00' RT	22'
	36+10.35TB	35.00' LT	
16	22+08.37CE	46.00' RT	22'
	36+10.72TB	35.00' RT'	
17	21+40.95CE	49.00' LT	23' *
	10+49.00WMS	89.05' LT	
18	21+99.96CE	49.00' LT	3' *
	10+49.00WMS	30.04' LT	
19	22+69.08CE	44.00' LT	16' *
	10+44.00WMS	39.08' RT	
20	23+37.08CE	44.00' LT	16' *
	10+44.00WMS	107.08' RT	

PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 41	E

FILE NAME : W:\PDS\C3D\CAD\10603484\021202_PD.DWG PLOT DATE : 7/29/2015 9:33 AM PLOT BY : WAGNER, SCOTT H PLOT NAME : ---------- PLOT SCALE : 1:40_XREF

IH 41 / USH 45 SB

+00.00NS
CONNECT TO EXISTING BARRIER AND PIN
BARRIER. SEE SDD CONCRETE BARRIER
TEMPORARY PRECAST, 12'6"

456NS 457NS 458NS 459NS 460NS 461NS 462NS

R/L NS

CB32 SW02 CP07 PV10

+50.00NS,
5.40' RT

IH 41 / USH 45 NB

EXISTING STRUCTURE B-40-284
NEW STRUCTURE B-40-880

W. CENTER STREET

453+86.42NS, 63.92' RT
END CONCRETE BARRIER
TEMPORARY PRECAST
DELIVERED SPECIAL

CB32

+11.38NS
CONNECT TO EXISTING BARRIER
SEE SDD CONCRETE BARRIER
TEMPORARY PRECAST 12'6"

END R-40-578
STA. 456+01.61NS

R-40-578

20CE 21CE 22CE 23CE

SW01 R/L TB CG16 AP35 13' 31TB 32TB 33TB 34TB 35TB 36TB

MATCH EXISTING
STA. 33+00.00TB

N. 112TH STREET

CG16 AP35 13' CM07

DR09 CM07 DR09 9'

29.09' RT

ASPH SW01 5'

MATCH
36.00' RT

ASPH SI R/W

TLE SW01

MATCH
47.00' RT

12' 24' 6'

HOUSE AND GARAGE TO BE
RAZED UNDER A SEPARATE
CONTRACT PRIOR TO CONSTRUCTION

PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 42	E

2

N

R/W

29TA 30TA 31TA 32TA N. 113TH STREET 33TA 34TA 35TA

R/L TA

END TEMPORARY WIDENING AND BARRIER
STA. 450+75.65NS
CONNECT TO EXISTING BARRIER.
~~SEE SDD CONCRETE BARRIER TEMPORARY~~
PRECAST, 12'6"

SI

PV10

BEGIN R-40-577
STA. 457+75.00NS

R-40-577

SIGN

CB32 PLACE AT EDGE OF EXISTING SHOULDER

R/L NS

IH 41 / USH 45 SB

+00.00NS
CONNECT TO EXISTING BARRIER AND PIN BARRIER.
SEE SDD CONCRETE BARRIER TEMPORARY PRECAST, 12'6"

CB32

455NS 456NS 457NS 458NS 459NS 460NS

IH 41 / USH 45 NB

PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 43	E

FILE NAME : W:\PDS\C3D\CAD\10603484\021205_PD.DWG
LAYOUT NAME - ****

PLOT DATE : 7/27/2015 7:51 AM PLOT BY : WAGNER, SCOTT H PLOT NAME : PLOT SCALE : 1:40_XREF

2

N

2649

2661

POST

MATCH
31.00' LT

TLE

SW02

R/W
SI

18.50' LT

CONC

DR09

5"

8"

30TW

31TW

32TW

33TW

34TW

35TW

CM07

R/L TW

PV09

SW02

DR09

BEGIN CONSTRUCTION 1060-35-85
STA. 32+18TW

N. 116TH STREET

43.50' RT

CONC

MATCH
50.00' RT

SI

MATCH
50.00' RT

CONC

SW02

R/W

+67.84
44.25' RT

+69.35
44.25' RT

MATCH
50.00' RT

ASPH

SW01

MATCH
50.00' RT

2642

2648

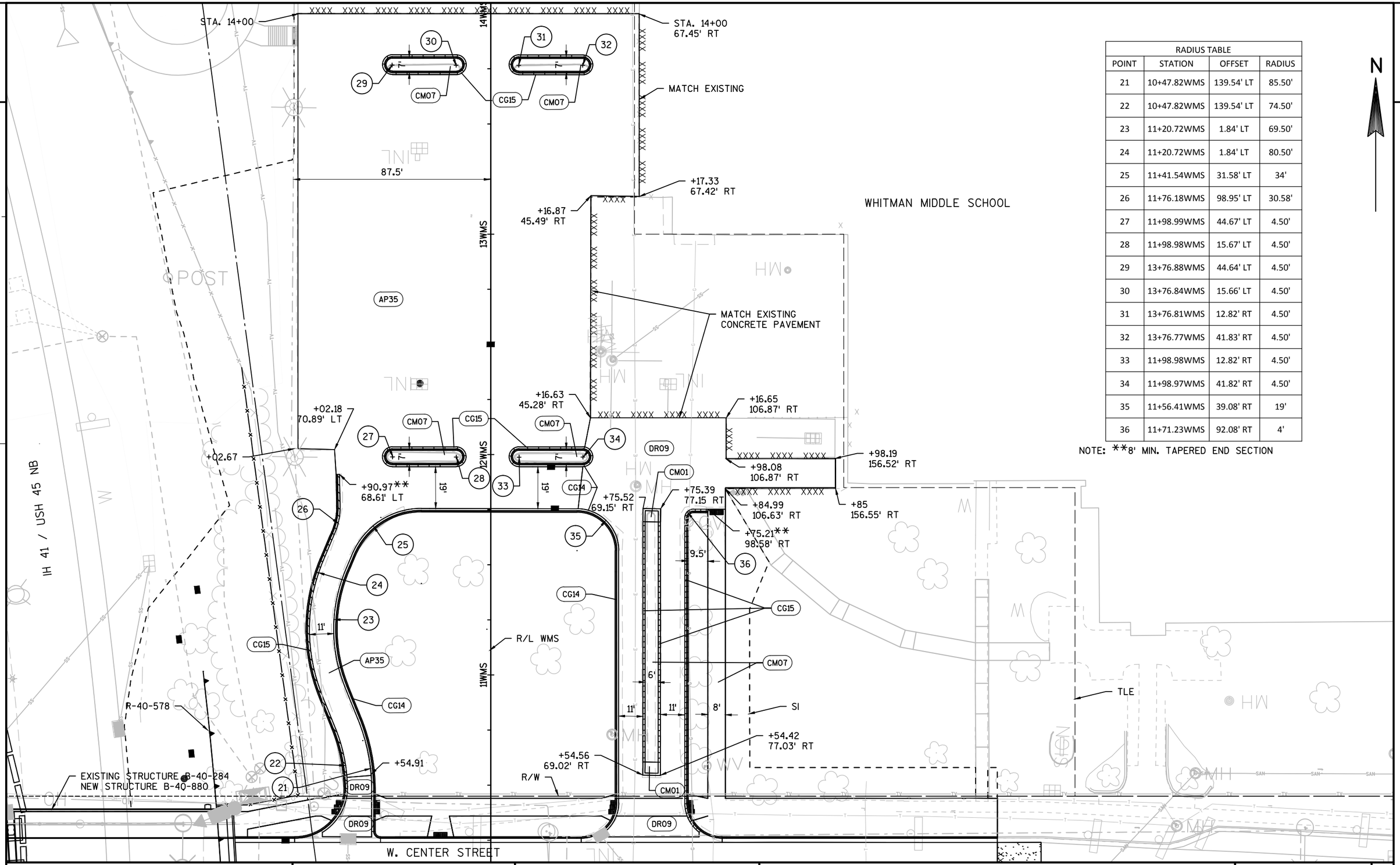
2656

2658

2660

2670

PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 44	E



RADIUS TABLE			
POINT	STATION	OFFSET	RADIUS
21	10+47.82WMS	139.54' LT	85.50'
22	10+47.82WMS	139.54' LT	74.50'
23	11+20.72WMS	1.84' LT	69.50'
24	11+20.72WMS	1.84' LT	80.50'
25	11+41.54WMS	31.58' LT	34'
26	11+76.18WMS	98.95' LT	30.58'
27	11+98.99WMS	44.67' LT	4.50'
28	11+98.98WMS	15.67' LT	4.50'
29	13+76.88WMS	44.64' LT	4.50'
30	13+76.84WMS	15.66' LT	4.50'
31	13+76.81WMS	12.82' RT	4.50'
32	13+76.77WMS	41.83' RT	4.50'
33	11+98.98WMS	12.82' RT	4.50'
34	11+98.97WMS	41.82' RT	4.50'
35	11+56.41WMS	39.08' RT	19'
36	11+71.23WMS	92.08' RT	4'

NOTE: **8' MIN. TAPERED END SECTION

N

2

2

N

IH 41 / USH 45 SB

IH 41 / USH 45 NB

413NS

412NS

411NS

410NS

TLE

EXISTING R/W

TLE

R/W

INSTALL 24" CRASH CUSHION PERMANENT
LOW MAINTENANCE (FOOTING INCIDENTAL)

SI

EXISTING INLET
TO REMAIN

DR09 ASPH +61 CM07

CG19 +21.6 47' LT AP24

+48.5 34.5' LT

CM07 CG21 +75.5 17' LT AP24

CONCRETE MEDIAN
SLOPED NOSE

+81.9 44' RT 58' R

+81.9 66' LT 58' R

AP26 OVER CONCRETE PAVEMENT 9-INCH

AP26 OVER CONCRETE PAVEMENT 9-INCH

CG46 +13.2 46.4' LT

+53.8 42.2' LT CG46

CM07 CM07

EXISTING R/W

R/W

CM07 +66.3 AP24

CM07

CG19 +22.3 40.3' LT

CG19 10' +78.8 AP24

+64.8 41.9' LT

592M 593M 594M 595M 596M 597M

MAYFAIR ROAD / STH 100

*PROVIDE 18-INCH DRIVEWAY CURB
PAID AS 18-INCH CURB & GUTTER

PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET	E

FILE NAME : W:\PDS\C3D\CAD\10603484\021206_PD.DWG
LAYOUT NAME - ****

PLOT DATE : 7/30/2015 4:13 PM

PLOT BY : MCGILLICUDDY, BENJAMPLOT NAME :

PLOT SCALE : 1 IN:40 FT

NOTES:

CURB AND GUTTER GRADES ARE GIVEN TO THE FLANGE OF CURB AND GUTTER

EXISTING GROUND ELEVATIONS TO BE VERIFIED BY CONTRACTOR

XXX.XXE = EXISTING GRADES

XXX.XX = PROPOSED GRADES

N

W. CENTER STREET

R/L CE

26.5'

25'

760.22E 760.40E 760.22E

761.55 761.73 761.55

762.81 764.00 763.02 762.81

764.11 764.31 763.81

764.56 764.18

764.20 764.19

772.59E 773.24E 773.60E

772.58 772.39 771.89 771.09 770.12 769.07 768.01 767.02 766.11 765.31 764.67 763.88 763.75 763.69 763.74 763.91 764.16 764.41 764.69 764.98

5.4% 4.0% 4.0% 3.8% 4.3% 4.0% 4.0% 2.5% 2.0%

773.19 772.87 772.37 771.57 770.60 769.55 768.49 767.50 766.59 765.79 765.15 764.67 764.36 764.20 764.22 764.40 764.64 764.89 765.14 765.28

3.0% 3.0% 3.0% 2.5% 2.0%

772.64 769.84

14CE 15CE 16CE 17CE 18CE 19CE

12' 12' 12'

773.55 773.23 771.93 770.96 768.85 767.80 766.83 766.03 765.39 764.91 764.60 764.44 764.46 764.64 764.88 765.13 765.38 765.52

1.0% 1.7% 772.68 769.86 1.7% 2.0% 2.0% 2.5% 3.0% 3.0% 2.5% 2.1%

773.48E 773.42 773.03 772.53 771.72 770.76 769.70 768.65 767.56 766.59 765.79 765.09 764.55 764.24 764.08 764.16 764.38 764.64 764.89 765.14 765.28

1.3% 1.7% 2.9% 4.0% 4.0% 3.0% ??? 764.94

773.33E 773.26 772.82 772.32 772.23 771.52 770.55 769.54 769.50 768.44 767.22 766.11 765.31 764.61 764.07 763.76 763.60 763.80 ??? 764.22 764.40 764.65 764.90 765.04

771.66 771.24 770.95 770.31 770.11 764.26 764.01 764.45 764.28 764.64

771.20 770.86 770.38 763.92 764.05 764.18

126TS 4.0% 3.6% 1.0% 36TA 1.0%

771.25E 770.97E 770.46E 764.32 764.58 764.45

2.0% 1.0%

764.96 765.22 764.96

2.0%

R/L TS

R/L TA

N. 114TH STREET

125TS

765.54 765.80 765.49

3.1% 2.4%

765.76E 35TA 766.01E 765.61E

N. 113TH STREET

IH 41/USH 45 SB

PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	GRADES	SHEET 47	E

FILE NAME : W:\PDS\C3D\CAD\10603484\021401_GR.DWG PLOT DATE : 7/30/2015 10:06 AM PLOT BY : SCHWENN, BRANDON C PLOT NAME : ---------- PLOT SCALE : 1:40_XREF

WISDOT/CADDS SHEET 42

2

N

IH 41/USH 45 SB

IH 41/USH 45 NB

N. 112TH STREET

W. CENTER STREET

R/L NS

R/L WMS

R/L CE

R/L TB

463NS

461NS

460NS

11WMS

36TB

35TB

20CE 21CE 22CE 23CE 24CE 25CE

763.12 762.54 762.21 761.28 761.10 760.35 759.34 758.24 757.30 756.37 755.44 754.50 753.57 752.63 751.70 750.76 750.59E

763.36 762.46 761.52 760.59 759.65 758.72 757.78 756.85 755.91 754.98 754.05 753.11 752.18 751.24 750.87E

763.60 762.70 761.76 760.83 759.89 758.96 758.02 757.09 756.15 755.22 754.29 753.35 752.42 751.48 751.11E

763.36 762.46 761.52 760.59 759.65 758.72 757.72 756.73 755.79 754.86 753.93 752.99 752.06 751.12 750.73E

762.64 763.12 762.22 761.28 760.03 760.35 759.38 758.36 757.30 756.25 755.31 754.38 753.51 752.63 751.70 750.76 750.35E

763.12 761.90 761.41 760.50 760.41 761.19 761.07 760.58 760.11 759.74 759.63 759.24 758.41 758.67 758.28 757.48 757.74 757.35 757.43 757.69 757.30 757.64 757.90 757.51 757.86 758.11 757.72 750.34E

2.0% 2.6% 4.0% 2.0% 2.5% 3.0% 4.0% 3.5% 3.0% 3.0% 3.2% 3.7% 3.7% 3.0% 2.0% 0.9% 2.0% 2.3% 3.5%

12' 12' 12' 12' 12'

NOTES:

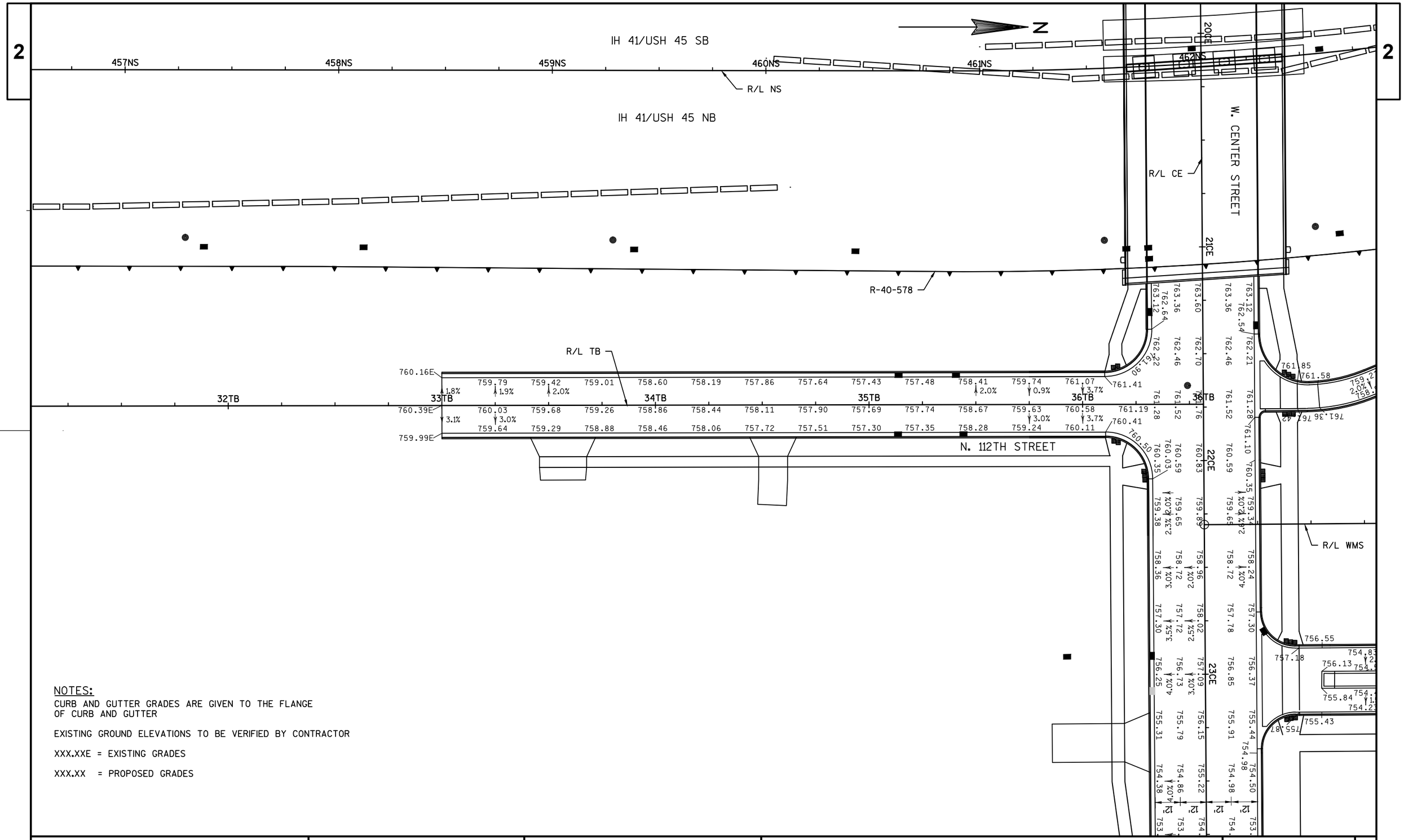
CURB AND GUTTER GRADES ARE GIVEN TO THE FLANGE OF CURB AND GUTTER

EXISTING GROUND ELEVATIONS TO BE VERIFIED BY CONTRACTOR

XXX.XXE = EXISTING GRADES

XXX.XX = PROPOSED GRADES

PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	GRADES	SHEET 48	E



NOTES:

CURB AND GUTTER GRADES ARE GIVEN TO THE FLANGE OF CURB AND GUTTER

EXISTING GROUND ELEVATIONS TO BE VERIFIED BY CONTRACTOR

XXX.XXE = EXISTING GRADES

XXX.XX = PROPOSED GRADES

PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	GRADES	SHEET 49	E

NOTES:

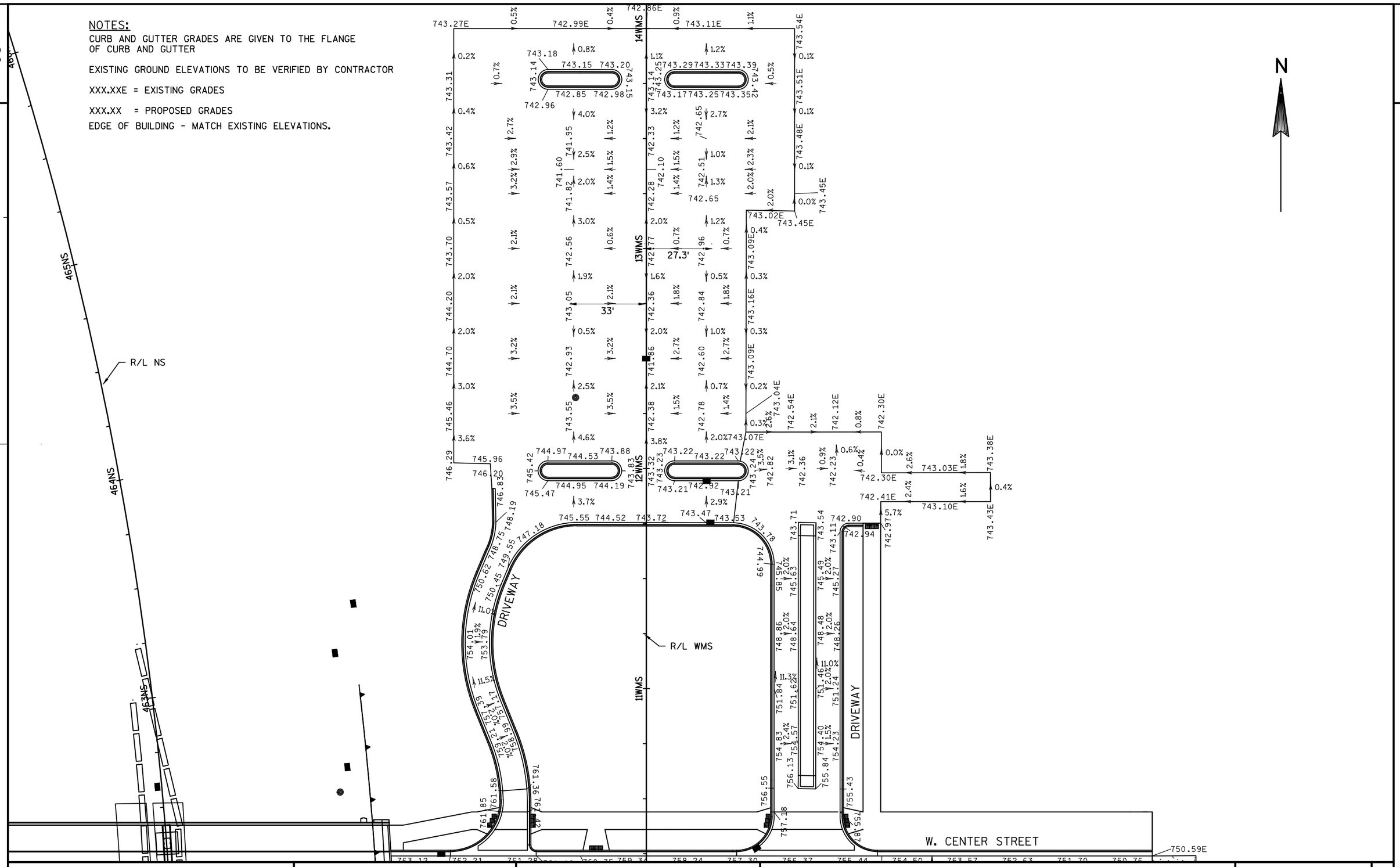
CURB AND GUTTER GRADES ARE GIVEN TO THE FLANGE OF CURB AND GUTTER

EXISTING GROUND ELEVATIONS TO BE VERIFIED BY CONTRACTOR

XXX.XXE = EXISTING GRADES

XXX.XX = PROPOSED GRADES

EDGE OF BUILDING - MATCH EXISTING ELEVATIONS.



PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	GRADES	SHEET 50	E

2

LEGEND	EXISTING	PROPOSED
FTMS CONVENTIONAL SYMBOLS		
CCTV CAMERA AND POLE		
FTMS FIELD CABINET AND BASE		
POLE MOUNTED CABINET		
METER BREAKER PEDESTAL		
STEEL PULL BOX (24X36-INCH OR 24x42-INCH)		
TYPE 5 OR WOOD POLE		
MANHOLE		
FTMS (ITS) CONDUIT		
BREAKER DISCONNECT BOX		
COMMUNICATIONS VAULT, TYPE 1	V	V
MICROWAVE VEHICLE DETECTOR		
LOOP DETECTOR		
DETECTION ZONE		
SOLAR POWER SYSTEM PANEL		
SOLAR POWER SYSTEM CABINET		

FTMS STANDARD ABBREVIATIONS

CB	CONTROLLER CABINET
CCTV	CLOSED CIRCUIT TELEVISION SITE
CV	COMMUNICATIONS VAULT
PB	PULL BOX
EX	EXISTING
CS	COUNT STATION
MD	MICROWAVE DETECTOR
F.O.	FIBER OPTIC
FOC	FIBER OPTIC CABLE

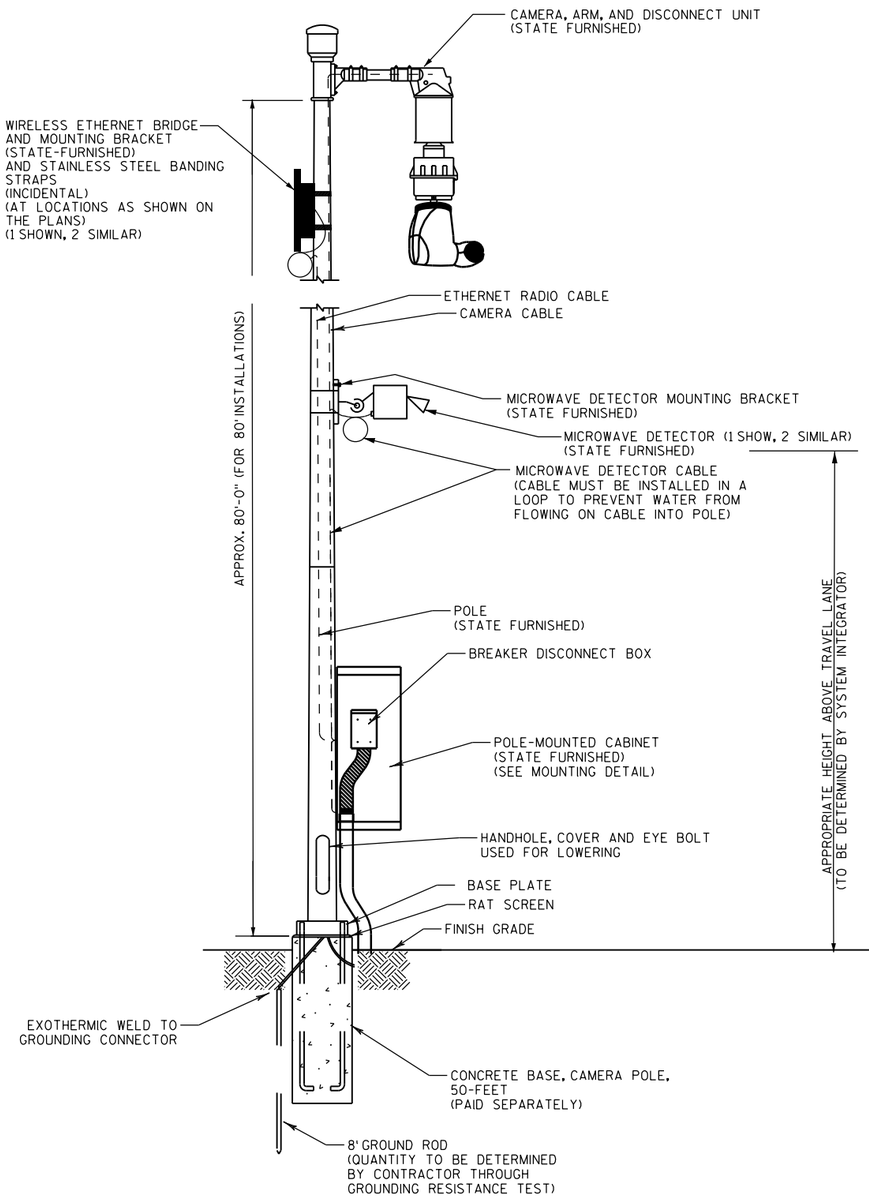
SUMMARY OF SLACK CABLE IN PULL BOXES AND VAULTS

	SLACK	
CABLE OR WIRE	PULL BOX	VAULT
POWER WIRES (NO. 6 AND LARGER)	NONE	N/A
TRACER WIRE (NO. 12)	9-FT	9-FT
MULTI-CONDUCTOR TRAFFIC SIGNAL CABLE	6-FT	N/A
LOOP DETECTOR LEAD-IN CABLE	NONE	N/A
MICROWAVE DETECTOR CABLE	6-FT	N/A
CAMERA CABLE	6-FT	N/A
FIBER OPTIC CABLE	50-FT	100-FT

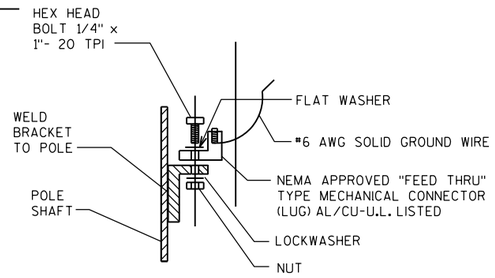
PLACE THE ABOVE QUANTITIES OF EACH RESPECTIVE CABLE TYPE IN EACH PULL BOX OR VAULT AS SLACK.

FTMS GENERAL NOTES

1. THESE PLANS AND THE ASSOCIATED SPECIAL PROVISIONS REFLECT CONDITIONS KNOWN DURING THE DEVELOPMENT OF THE PLANS AND TECHNICAL SPECIAL PROVISIONS. ALL SCALES, DIMENSIONS AND LOCATIONS SHOWN IN THESE PLANS ARE APPROXIMATE. ACTUAL PHYSICAL FIELD CONDITIONS SHALL PROVIDE THE BASIS FOR THE APPLICATION OF WORK SHOWN IN THE PLANS. THE CONTRACTOR IS FULLY RESPONSIBLE FOR THE APPLICATION OF ALL WORK SHOWN IN THE PLANS TO THE ACTUAL PHYSICAL FIELD CONDITIONS TO PROVIDE A COMPLETE AND ACCEPTED PROJECT. IN THE EVENT THAT ACTUAL PHYSICAL FIELD CONDITIONS AFFECT OR PREVENT THE APPLICATION OR PROGRESSION OF ANY WORK SHOWN IN THE PLANS OR TECHNICAL SPECIAL PROVISIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY, AND PRIOR TO ANY FURTHER WORK ACTIVITY. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY LOCATION CHANGES OTHER THAN MINOR ADJUSTMENTS.
2. BE AWARE THAT ALL EXISTING UNDERGROUND AND ABOVE GROUND STRUCTURES AND FACILITIES WITHIN THE SCOPE OF THIS PROJECT MAY NOT BE LOCATED IN THE PLANS. THE CONTRACTOR IS FULLY RESPONSIBLE FOR LOCATING AND AVOIDING ALL UNDERGROUND AND ABOVE GROUND STRUCTURES AND FACILITIES.
3. BE AWARE THAT NO TEST BORINGS WERE MADE WHERE CONDUITS, PULLBOXES, POLES, CABINET FOUNDATIONS, OR OTHER EQUIPMENT IS TO BE INSTALLED. THE CONTRACTOR IS FULLY RESPONSIBLE FOR EXAMINING THE JOB SITE CONDITIONS BEFORE SUBMITTING BID PROPOSALS.
4. NO TREES (AND/OR SHRUBS) SHALL BE REMOVED WITHOUT APPROVAL OF THE ENGINEER.
5. AREAS WITHIN THE RIGHT-OF-WAY DISTURBED SPECIFICALLY FOR FTMS CONSTRUCTION SHALL BE RESTORED TO THE ORIGINAL CONDITION WITH TOPSOIL, FERTILIZER, SEED, AND EROSION MAT, AND SHALL BE INCLUDED IN THE COST OF INSTALLING FTMS ITEMS. RESTORATION FOR AREAS DISTURBED FOR OTHER CONSTRUCTION OPERATIONS BUT ALSO CONTAINING FTMS CONSTRUCTION SHALL BE DONE ACCORDING TO REQUIREMENTS AND PAYMENT PROVISIONS FOR THE OTHER CONSTRUCTION OPERATIONS.
6. THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.
7. DUE TO RAMP, LANE, SHOULDER CLOSURE RESTRICTIONS, AND WORK UNDER OTHER CONTRACTS, SOME WORK MAY BE REQUIRED TO BE PERFORMED AT NIGHT.
8. THE CONTRACTOR IS FULLY RESPONSIBLE FOR COORDINATING RAMP, LANE, SHOULDER, AND ROADWAY CLOSURES WITH OTHER CONTRACTS IN THE AREA.
9. THE CONTRACTOR SHALL CONTACT THE WISDOT STATEWIDE TRAFFIC OPERATIONS CENTER AT (414) 227-2166 FIVE (5) WORKING DAYS PRIOR TO ENTERING ANY EXISTING WISDOT FTMS OR ITS CABINET.
10. ALL LOOP DETECTORS ARE STATIONED TO CENTER OF LEADING EDGE AS APPROACHED BY NORMAL VEHICLE PATH.
11. HAND DIG TRENCHES CROSSING EXISTING CONDUIT CONTAINING FIBER OPTIC CABLE.
12. VISUALLY VERIFY DEPTHS OF EXISTING CONDUITS CONTAINING FIBER OPTIC CABLE PRIOR TO CROSSING BY DIRECTIONAL BORE OR SPECIAL METHOD.

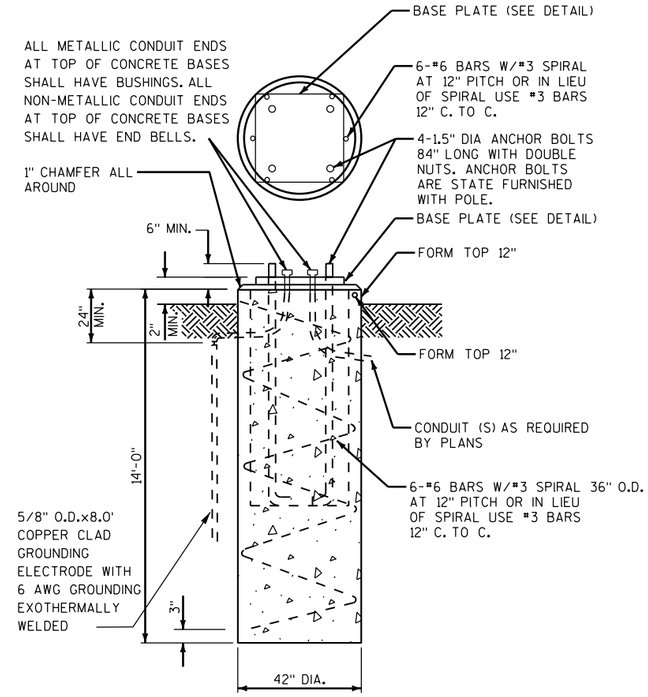


CAMERA POLE WITH CAMERA LOWERING HARDWARE



FIELD INSTALLED GROUNDING LUG

CAMERA POLES & FOUNDATIONS



MATERIALS DATA

CONCRETE	f'c=3,500 psi
HIGH STRENGTH BAR STEEL REINFORCEMENT	fy = 60,000 psi

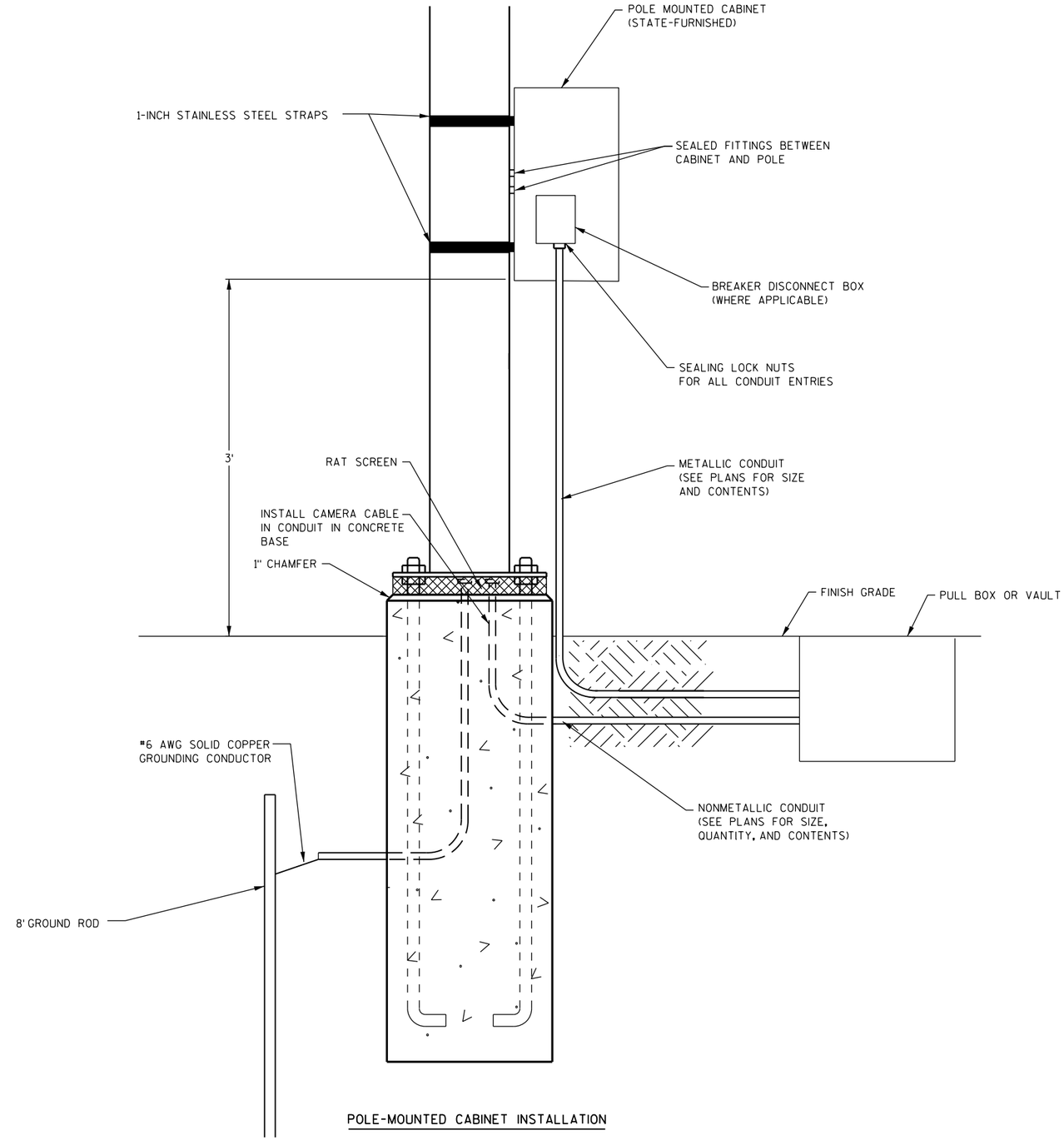
CONCRETE BASE, 80' CAMERA POLE

NOT TO SCALE

NOTES

1) ALL HARDWARE AND FASTENERS SHALL BE STAINLESS STEEL
2) POLE DRAWINGS SHOWN FOR BIDDING INFORMATION PURPOSES ONLY. POLES WILL BE STATE FURNISHED. BASE TO BE CONTRACTOR DESIGNED.
3) CONTRACTOR SHALL CONFIRM BOLT PATTERN OF CAMERA POLE PRIOR TO CONSTRUCTION OF CONCRETE BASE.
4) CONTRACTOR SHALL INSTALL GROUNDING LUG AS SHOWN

2



POLE-MOUNTED CABINET INSTALLATION

2

2

EXCV465
(1) INSTALL PROPOSED CONDUIT
INTO EXISTING VAULT

N

CCTV-40-0040
(1) 80-FOOT CCTV CAMERA POLE BASE
(1) 80-FOOT CCTV CAMERA POLE (S-F)
(1) CCTV CAMERA (S-F)
(2) MICROWAVE VEHICLE DETECTORS (S-F)
(1) 5.8 GHZ ETHERNET RADIO (S-F)
(1) POLE-MOUNTED CABINET (S-F)
(1) ETHERNET SWITCH (S-F)
(1) GROUND ROD
(1) BREAKER DISCONNECT BOX
(CONNECT OTHER END OF 5.8 GHZ
ETHERNET BRIDGE LINK TO EXISTING 5.8 GHZ
ETHERNET RADIO ON DMS-40-0004 AT IH 41 AT
BURLEIGH ST.)

(2) 2-INCH NONMETALLIC CONDUITS
(1) WITH (1) NO. 12 AWG TRAFFIC SIGNAL WIRE

(3) 2-INCH HDPE DUCTS
(1) WITH (1) NO. 12 AWG TRAFFIC
SIGNAL WIRE

IH 41 / USH 45 SB

IH 41 / USH 45 NB

CAMERA ORIENTATION

PB464

(1) 2-INCH METALLIC CONDUIT
WITH (3) NO. 6 AWG TRAFFIC
SIGNAL WIRES

CV463

(1) 2-INCH NONMETALLIC CONDUIT
WITH (3) NO. 6 AWG TRAFFIC
SIGNAL WIRES

PB463

(1) 2-INCH NONMETALLIC CONDUIT
WITH (3) NO. 6 AWG TRAFFIC
SIGNAL WIRES

MB22CE

(3) 2-INCH HDPE DUCTS
(1) WITH (1) NO. 12 AWG TRAFFIC
SIGNAL WIRE

CV461

W. CENTER ST.

N 113th ST

N 112th ST

PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	FTMS DESIGN	SHEET 54	E

FILE NAME : \\mlww400\ingrproj\63099\zoo_n_leg\10603484_center_st\10603484_fm_10.dgn PLOT DATE : 7/23/2015 PLOT BY : pkutz PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

W. CLARK STREET

N

23TA 24TA 25TA 26TA 27TA 28TA

N. 113TH STREET

775 780 775 780 775 770 765

IH 41/USH 45 SB

449NS 450NS 451NS 452NS 453NS 454NS

IH 41/USH 45 NB

CC

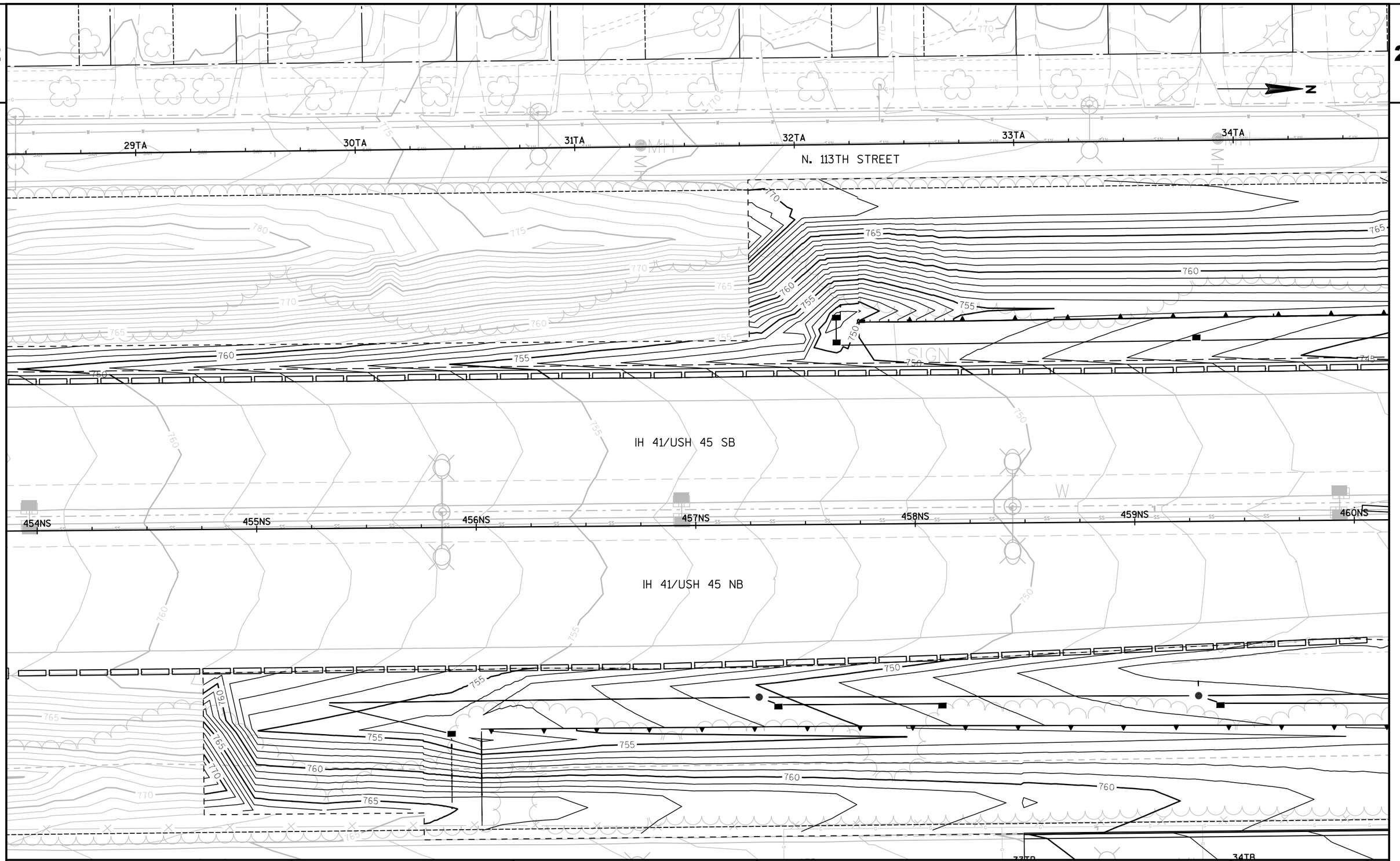
765 770 775 780 775

PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CONTOUR MAP	SHEET 55 E

FILE NAME : W:\PDS\C3D\CAD\10603484\021601_CM.DWG
LAYOUT NAME - 021607_CM

PLOT DATE : 10/21/2015 8:55 AM PLOT BY : GIBSON, NICOLE E PLOT NAME : PLOT SCALE : 1 IN:40 FT

2



PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CONTOUR MAP	SHEET 56 E

FILE NAME : W:\PDS\C3D\CAD\10603484\021601_CM.DWG
LAYOUT NAME - 021608_CM

PLOT DATE : 10/21/2015 8:56 AM PLOT BY : GIBSON, NICOLE E PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

N

W. CENTER STREET

4CE 5CE 6CE 7CE 8CE 9CE 10CE

N. 117TH STREET

N. 116TH STREET

36TW

35TW

PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CONTOUR MAP	SHEET 57	E

FILE NAME : W:\PDS\C3D\CAD\10603484\021601_CM.DWG
LAYOUT NAME - 021601_CM

PLOT DATE : 7/30/2015 10:22 AM PLOT BY : SCHWENN, BRANDON C PLOT NAME :

PLOT SCALE : 1 IN:40 FT

2

N

10CE 11CE 12CE 13CE 14CE 15CE 16CE

W. CENTER STREET

N. 115TH STREET

N. 114TH STREET

125TS

125TS

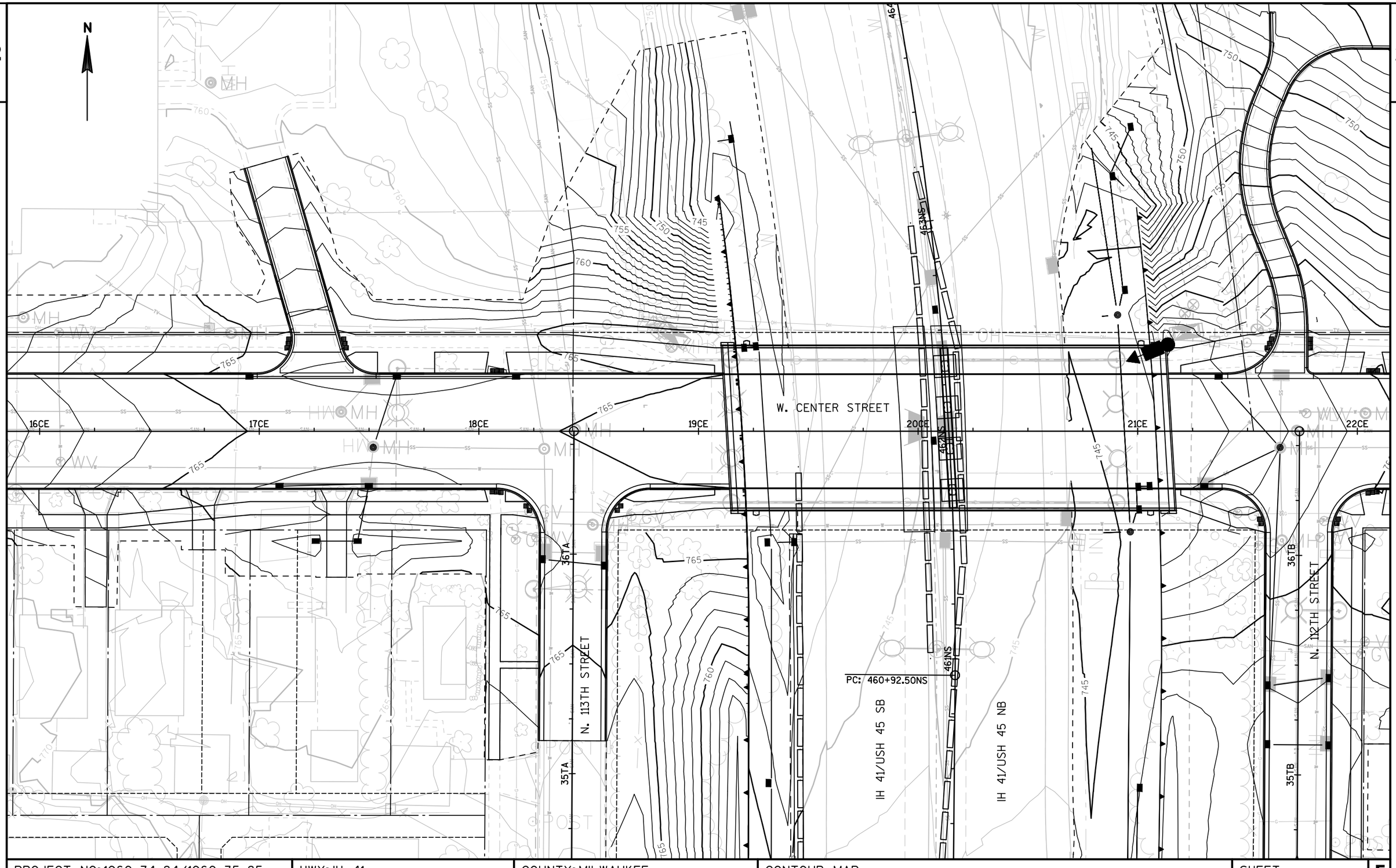
PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CONTOUR MAP	SHEET 58	E

FILE NAME : W:\PDS\C3D\CAD\10603484\021601_CM.DWG
LAYOUT NAME - 021602_CM

PLOT DATE : 7/30/2015 10:23 AM PLOT BY : SCHWENN, BRANDON C PLOT NAME :

PLOT SCALE : 1 IN:40 FT

2



PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CONTOUR MAP	SHEET E

FILE NAME : W:\PDS\C3D\CAD\10603484\021601_CM.DWG
LAYOUT NAME - 021603_CM

PLOT DATE : 7/30/2015 10:25 AM PLOT BY : SCHWENN, BRANDON C PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

N

W. CENTER STREET

21CE

22CE

23CE

24CE

25CE

26CE

11WMS

36TB

35TB

N. 12TH STREET

IH 41/USH 45 NB

PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CONTOUR MAP	SHEET 60	E

FILE NAME : W:\PDS\C3D\CAD\10603484\021601_CM.DWG
LAYOUT NAME - 021604_CM

PLOT DATE : 7/30/2015 10:27 AM PLOT BY : SCHWENN, BRANDON C PLOT NAME : PLOT SCALE : 1 IN:40 FT

IH 41/USH 45 SB

IH 41/USH 45 NB

455NS 456NS 457NS 458NS 459NS 460NS

PC: 460+9

N. 112TH STREET

30TB 31TB 32TB 33TB 34TB 35TB

PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CONTOUR MAP	SHEET 61 E

FILE NAME : W:\PDS\C3D\CAD\10603484\021601_CM.DWG
LAYOUT NAME - 021609_CM

PLOT DATE : 10/21/2015 8:57 AM PLOT BY : GIBSON, NICOLE E PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

N

32TW

33TW

34TW

35TW

36TW

N. 116TH STREET

W. CENTER STREET

70E

80E

90E

100E

780

775

770

POST

SAN

SS

OH

MH

PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CONTOUR MAP	SHEET 62	E

FILE NAME : W:\PDS\C3D\CAD\10603484\021601_CM.DWG
LAYOUT NAME - 021601_CM

PLOT DATE : 7/30/2015 10:30 AM PLOT BY : SCHWENN, BRANDON C PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

N

IH 41/USH 45 SB

IH 41/USH 45 NB

PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CONTOUR MAP	SHEET 63 E

FILE NAME : W:\PDS\C3D\CAD\10603484\021601_CM.DWG
LAYOUT NAME - 021604_CM

PLOT DATE : 7/30/2015 10:31 AM PLOT BY : SCHWENN, BRANDON C PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

N

R/L TA

20TA 22TA 24TA 26TA N. 113TH STREET 28TA 30TA 32TA 34TA

47.81' 47.89' 48.07' 48.24' 48.42' 48.60'

M/L

IH 41/USH 45 SB

84.00' 84.00' 84.00' 84.00' 84.00' 84.00' 84.00' 84.00' 84.00' 84.00' 84.00' 84.00' 84.00' 125.00' 125.00' 125.00' 125.00' 125.00'

44NS 446NS 448NS 450NS 452NS 454NS 456NS 458NS

R/L NS

IH 41/USH 45 NB

110.00' 110.00' 110.00' 110.00' 110.00' 110.00' 110.00' 110.00' 110.00' 110.00' 110.00'

48.21' 48.14' 47.97' 47.81' 47.65' 47.49' 47.32' 47.16' 47.00' 46.84' 46.67'

20TB 22TB 24TB 26TB 28TB N. 112TH STREET 30TB 32TB 34TB

R/L TB M/L

17.5' 35.00' 32.00'

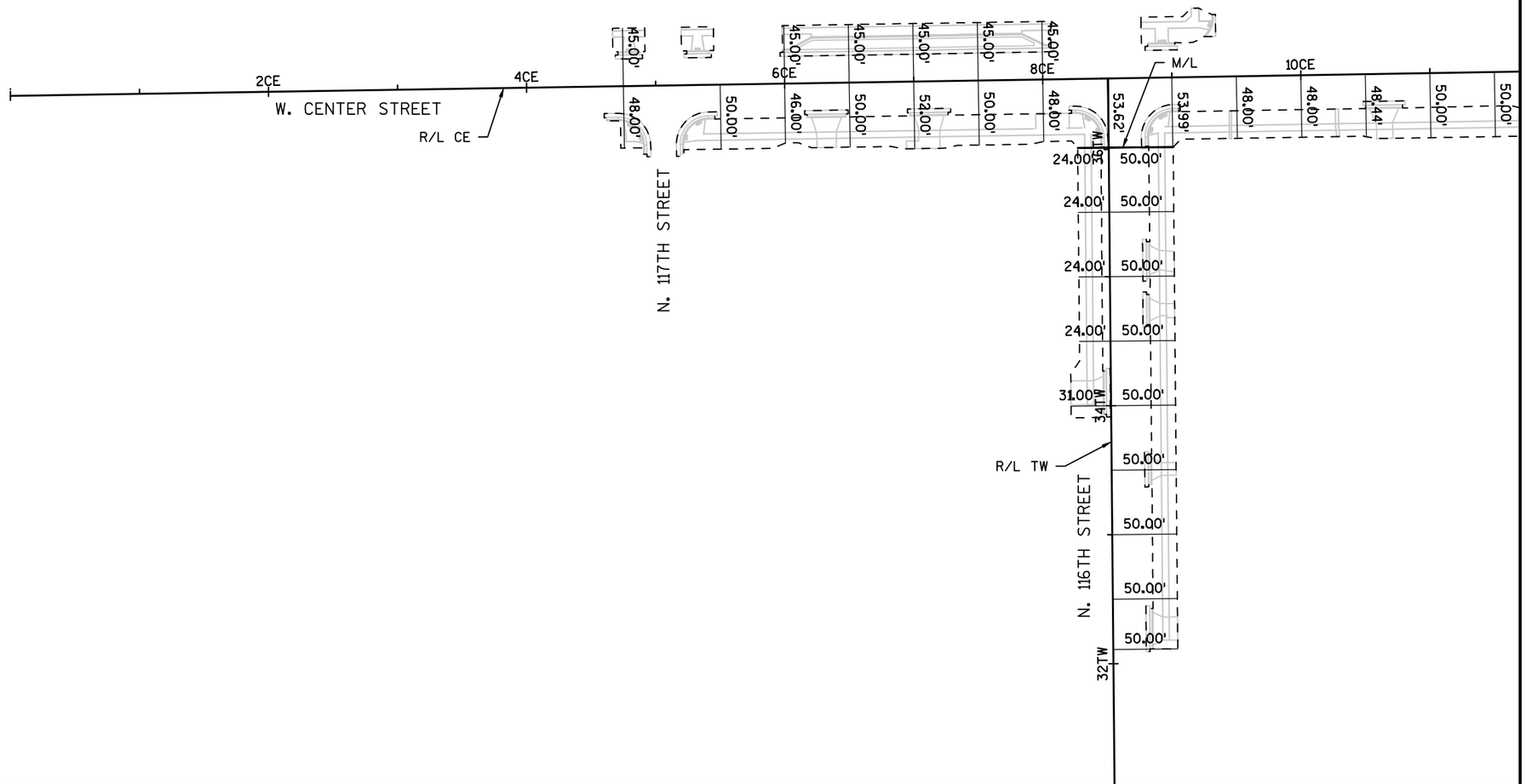
PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTION MATCHLINES	SHEET 64 E

FILE NAME : W:\PDS\C3D\CAD\10603484\021701_XM.DWG
LAYOUT NAME - ****

PLOT DATE : 10/20/2015 2:13 PM PLOT BY : GIBSON, NICOLE E PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2



PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTION MATCHLINES	SHEET 65	E

2

N

IH 41/USH 45 SB

IH 41/USH 45 NB

469NS

464NS

R/L NS

M/L

R/L WMS

121WMS

141WMS

87.50' 67.45'

89.30' 67.43'

149.41' 45.45'

138.07' 45.35'

125.18' 106.87'

119.31'

150.49' 105.00'

96.15' 105.00'

100.99' 105.00'

104.39' 105.96'

125.72' 125.81'

119.30' 117.59'

110.00' 170.00'

R/L CE

12CE 14CE 16CE 18CE 22CE 24CE 26CE

W. CENTER STREET

N. 115TH STREET

N. 114TH STREET

N. 113TH STREET

N. 112TH STREET

R/L TS

R/L TA

R/L TB

122TS

124TS

32TA

34TA

36TA

36TB

34TB

32TB

460NS

458NS

M/L

35.94' 35.23'

32.04' 30.00'

30.00' 32.00'

30.00' 30.00'

36.00' 36.00'

42.98'

67.02

49.13'

40.00' 49.01'

48.95'

48.78'

48.60'

48.42'

48.24'

48.07'

47.89'

47.81'

125.00' 110.00'

84.00' 110.00'

51.92' 76.69'

46.19' 76.95'

46.35' 32.00'

46.51' 46.66'

46.67' 32.00'

46.84' 35.00'

47.00' 17.51'

47.16'

47.32'

47.49'

142.50'

PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTION MATCHLINES	SHEET 66	E

LEGEND

SOD LAWN

EROSION MAT URBAN CLASS I TYPE B

EROSION MAT CLASS I TYPE B

SILT FENCE

SURFACE WATER FLOW

INLET PROTECTION TYPE A

INLET PROTECTION TYPE C

INLET PROTECTION TYPE D

SLOPE INTERCEPT

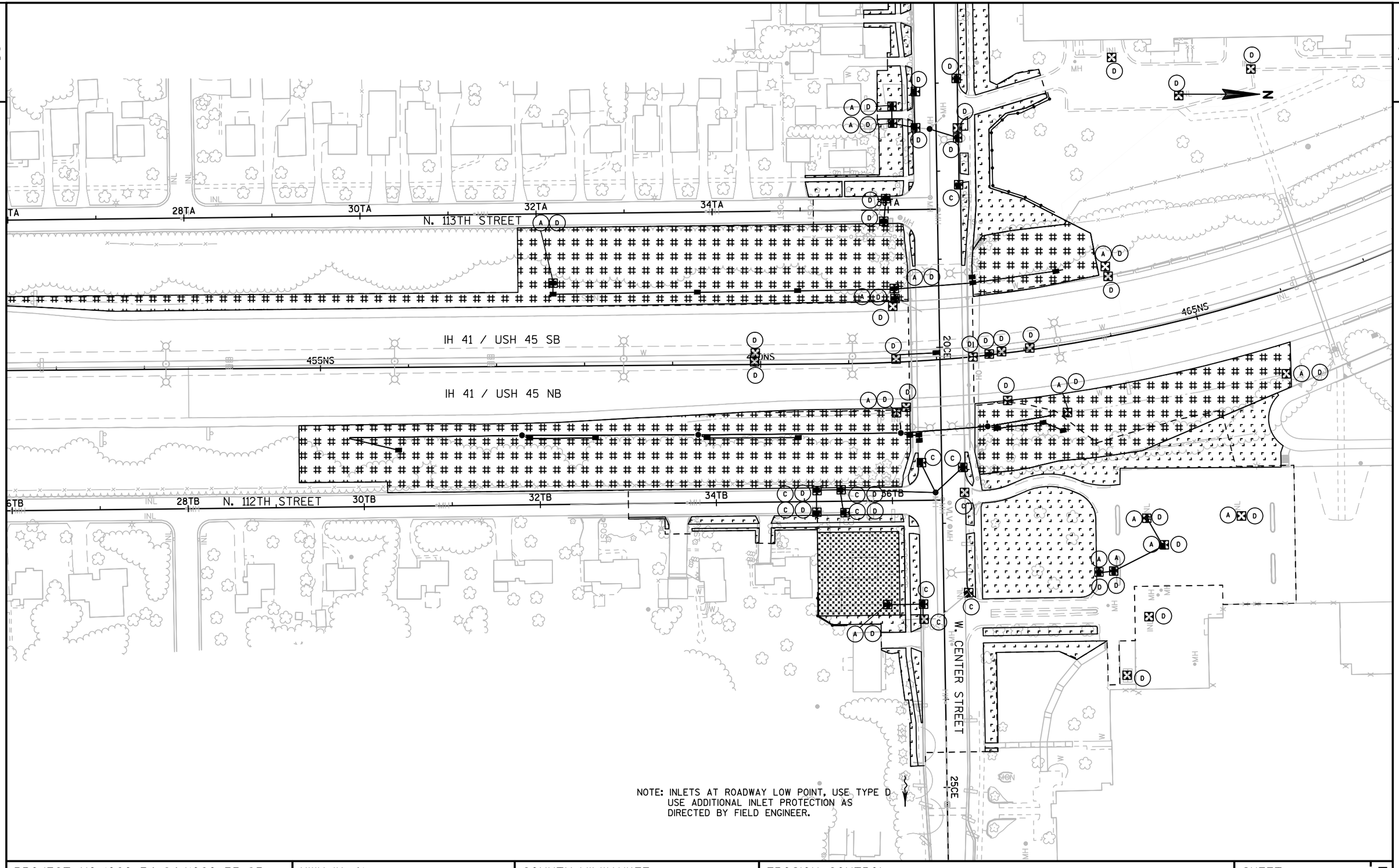
NOTES:

1. USE EROSION MAT CLASS I TYPE B WITHIN THE RIGHT-OF-WAY FENCE. EROSION MAT URBAN CLASS 1 TYPE B SHOULD BE USED ON DISTURBED AREAS OUTSIDE THE RIGHT-OF-WAY FENCE THAT ARE NOT SHOWN AS SOD LAWN. EROSION MATS ARE NOT TO BE INSTALLED IN WATER.

2. INSTALL TYPE A INLET PROTECTION AS SHOWN IN THE PLANS, UNTIL GRADES ARE FINALIZED. AFTER GRADING AROUND INLETS IS FINISHED, INSTALL ALTERNATE INLET PROTECTION AS IDENTIFIED IN THE PLANS.

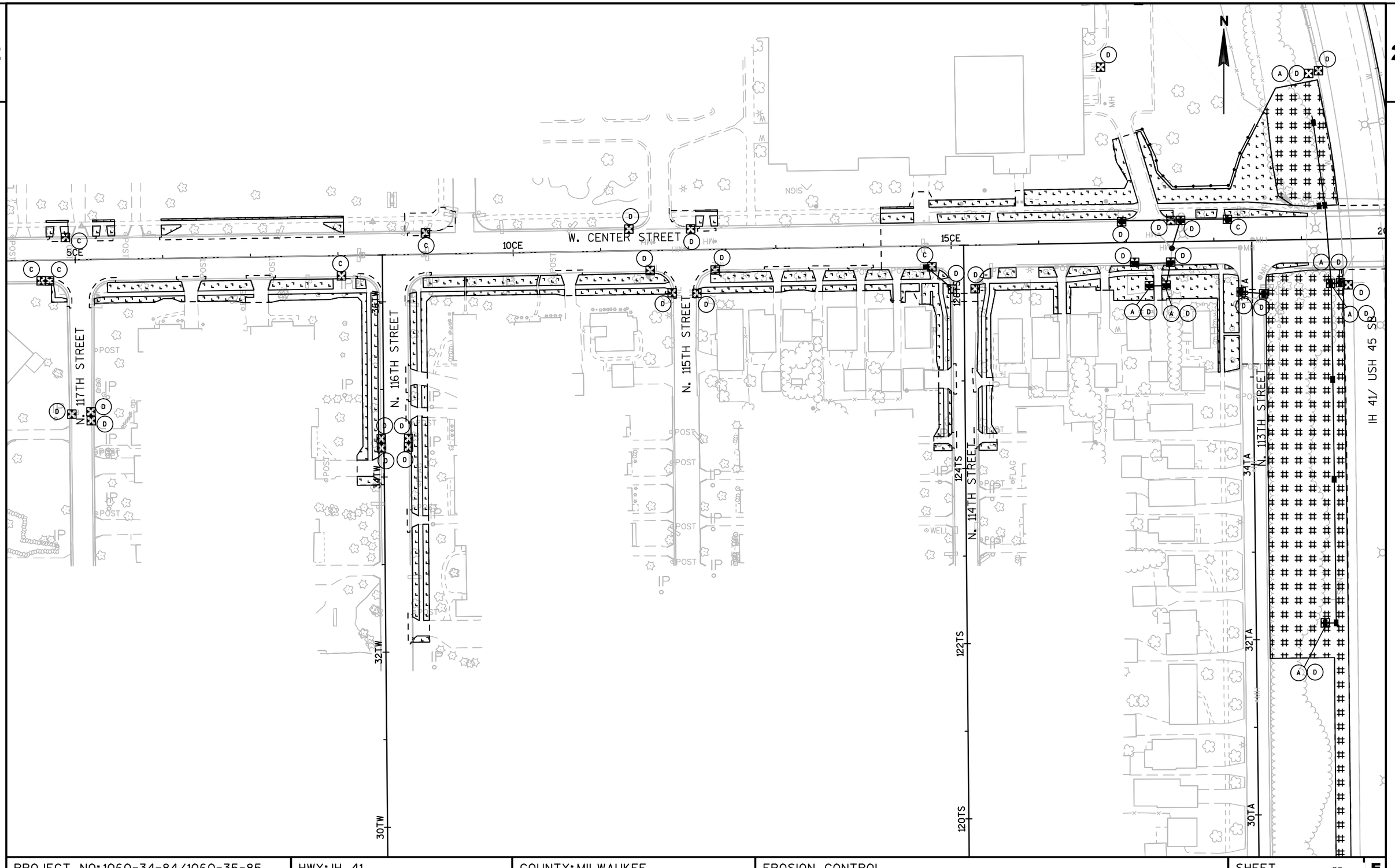
PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	EROSION CONTROL - LEGEND	SHEET	E

2



PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	EROSION CONTROL	SHEET 68 E

2



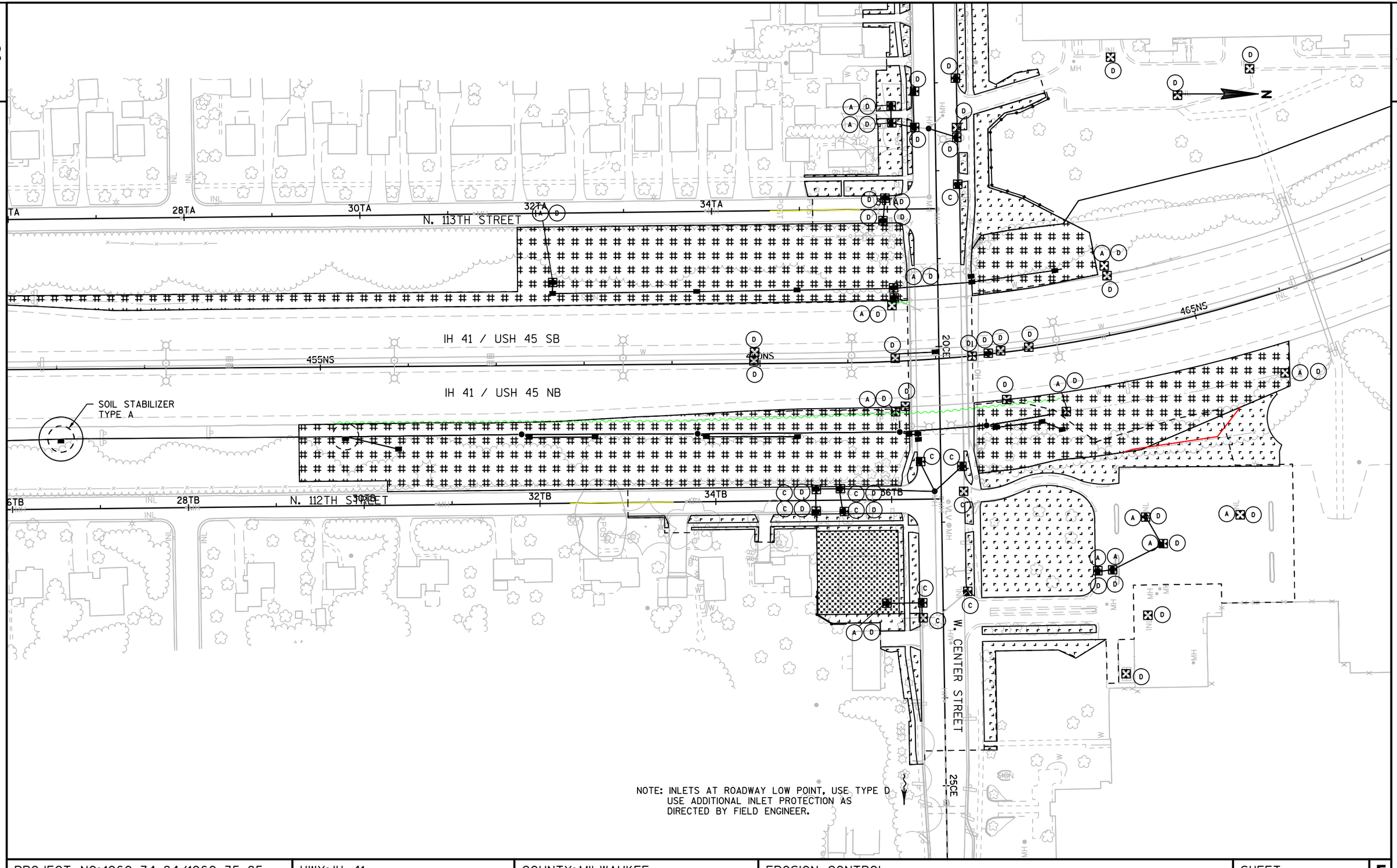
PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	EROSION CONTROL	SHEET 69 E

FILE NAME : W:\PDS\C3D\CAD\10603484\022001_EC.DWG
LAYOUT NAME - ****

PLOT DATE : 10/21/2015 2:55 PM PLOT BY : MCGILLICUDDY, BENJAMPLOT NAME :

PLOT SCALE : 1 IN:100 FT

2



PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	EROSION CONTROL	SHEET 70	E

2

IH 41 / USH 45 SB

IH 41 / USH 45 NB

USH 45

USH 45

414NS

412NS

410NS

408NS

416NS

N. MAYFAIR ROAD / STH 100

590M

592M

594M

596M

598M

600M

602M

MAYFAIR RD

POST

FLAG

DAM

SIGN

GUY

PILE

INL

MH

W

D

A

PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	EROSION CONTROL	SHEET	E

GENERAL DRAINAGE NOTES

LOCATION OF STRUCTURES IN CURB AND GUTTER OR BARRIER SECTION REFER TO CURB AND GUTTER OR BARRIER FLOW LINE. LOCATION OF STRUCTURES NOT IN CURB AND GUTTER SECTION REFER TO CENTER OF STRUCTURE OR AS NOTED ON PLAN.

RIM ELEVATIONS ARE GIVEN AT FLOW LINE OF INLET GRATE OR AT CENTER OF MANHOLE GRATE. SEE STRUCTURE LOCATION DETAIL.

ADJUSTMENT RINGS MAY BE USED TO A COMBINED MAXIMUM THICKNESS OF 6-INCHES.

PLAN LENGTH REPRESENTS LENGTH OF PIPE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE AND IS USED FOR ESTIMATING. PIPE LENGTH REPRESENTS LENGTH OF PIPE MEASURED FROM INSIDE FACE OF STRUCTURE TO INSIDE FACE OF STRUCTURE AND IS USED TO COMPUTE PIPE SLOPE.

INLET AND DISCHARGE ELEVATIONS FOR DRAINAGE STRUCTURES AND PIPES SHOWN ON THE PLANS MAY BE ADJUSTED BY THE ENGINEER TO FIT EXISTING FIELD CONDITIONS.

UTILITY INFORMATION SHOWN ON THE PLANS IS APPROXIMATE. LOCATIONS SHOWN ARE TAKEN FROM EXISTING RECORDS AND BEST INFORMATION AVAILABLE FROM EXISTING PLANS. IT IS EXPECTED THAT THERE MAY BE DISCREPANCIES AND OMISSIONS IN THE LOCATION OF UTILITIES AND STRUCTURES SHOWN. VERIFY ALL LOCATIONS IN THE FIELD.

COORDINATE WITH DIGGERS HOTLINE TO FIELD LOCATE UTILITIES. SHEETING SHALL NOT GO THROUGH UTILITIES. ANY UTILITIES DAMAGED DUE TO CONTRACTOR ACTIVITIES SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE COMPLETE SATISFACTION OF THE UTILITY FACILITY.

VERIFY THE STORM SEWER SYSTEM CONNECTIONS, LOCATIONS, AND ELEVATIONS PRIOR TO ORDERING DRAINAGE STRUCTURES AND PIPES. NOTIFY THE ENGINEER OF ANY DEVIATIONS FROM THE INFORMATION SHOWN ON THE PLANS PRIOR TO INSTALLING THE PROPOSED STORM SEWER.

PROVIDE TEMPORARY POSITIVE DRAINAGE THROUGHOUT THE PROJECT DURING ALL PROJECT STAGES. PROVIDING TEMPORARY POSITIVE DRAINAGE IS INCIDENTAL TO CONSTRUCTION.

SEE STORM SEWER STAGING PLANS FOR REMOVAL OF EXISTING STORM SEWER SYSTEM.

PROVIDE BOLTED COVERS FOR DRAINAGE STRUCTURE COVER TYPES V. COST OF PROVIDING BOLTED COVERS IS CONSIDERED INCIDENTAL TO COVER TYPE.

SUPPORTING UTILITIES DURING STORM SEWER CONSTRUCTION IS INCIDENTAL TO STORM SEWER PIPE AND/OR STORM SEWER STRUCTURE.

CONCRETE PIPE JOINT TIES SHALL CONNECT ALL CONCRETE APRON ENDWALLS AND THE LAST THREE PIPE SEGMENTS PRECEDING THE APRON ENDWALL. THE COST OF JOINT TIES SHALL BE INCIDENTAL TO THE STORM SEWER PIPE.

FOR CONCRETE BARRIER TEMPORARY PRECAST, PROVIDE TWO (2) LIFTING SLOTS PER UNIT (12'-6") ONE (1) FOOT WIDE BY THREE (3) INCHES HIGH AS PER S.D.D. "CONCRETE BARRIER TEMPORARY PRECAST 12'-6".

STORM SEWER PLAN & PROFILE NOTE:
PLAN VIEW HIGHLIGHTS CORRESPOND TO PROFILES SHOWN IN PROFILE BELOW PLAN VIEW (SAME SHEET). STORM SEWER STRUCTURES AND PIPES LABELED IN PLAN VIEW WITHOUT HIGHLIGHT ARE SHOWN ON THE NEXT PROFILE ONLY SHEET(S).

STORM SEWER REMOVAL LEGEND

- REMOVING INLETS
- REMOVING MANHOLES
- RM — REMOVING STORM SEWER

STORM SEWER LEGEND

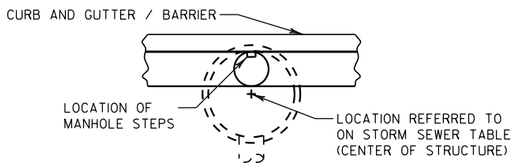
- EXISTING NE*** — EXISTING DRAINAGE STRUCTURE
- N*** — PROPOSED DRAINAGE STRUCTURE
- PROPOSED MANHOLE
- PROPOSED INLET
- PROPOSED STORM SEWER PIPE
- EXISTING PE*** — EXISTING STORM SEWER PIPE
- P*** — PROPOSED STORM SEWER PIPE

2

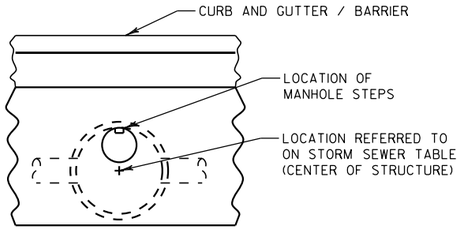
NOTE

1) LOCATION OF STRUCTURE MAY BE ADJUSTED TO FIT FIELD CONDITIONS.

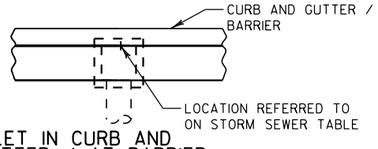
2) LOCATION AND SIZE OF STRUCTURE COVER OPENINGS DEPENDS ON TYPE OF CASTING. CASTING TYPES ARE SHOWN ON THE STORM SEWER TABLE.



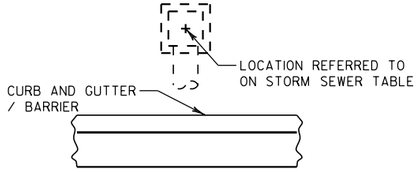
MANHOLE IN CURB AND GUTTER / AT BARRIER



MANHOLE NOT IN CURB AND GUTTER / NOT AT BARRIER

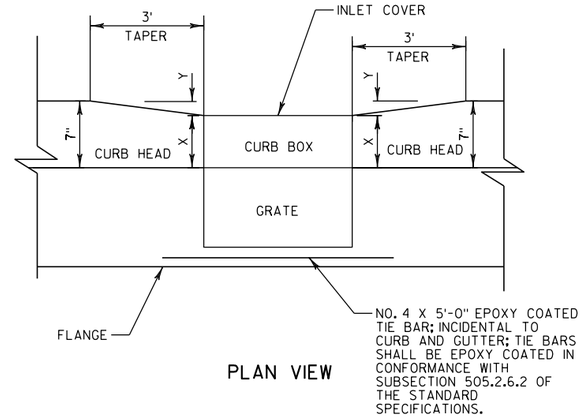


INLET IN CURB AND GUTTER / AT BARRIER



INLET NOT IN CURB AND GUTTER / NOT AT BARRIER

STRUCTURE LOCATION DETAIL



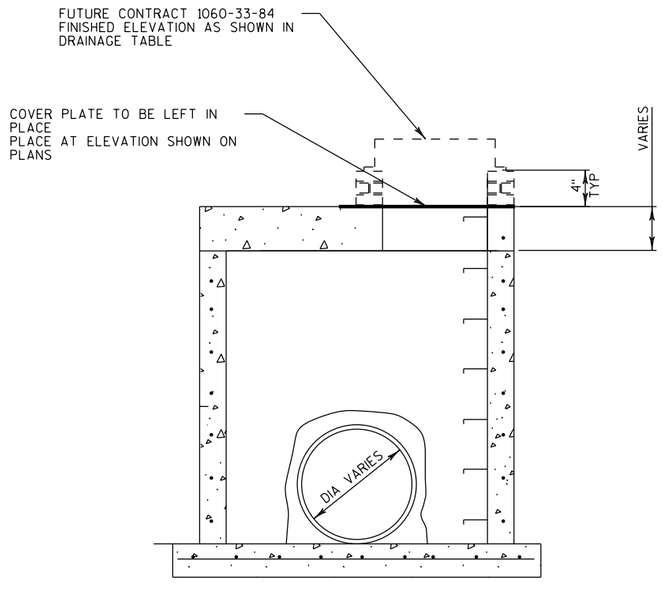
PLAN VIEW

CURB HEAD TRANSITION FOR INLET COVERS

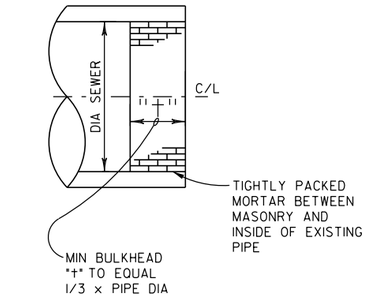
TYPE H OR TYPE R-SPECIAL

NOTE:
TAPER BACK CURBHEAD EDGE. MAINTAIN FRONT CURB FACE.
PAID FOR AS CONCRETE CURB AND GUTTER 31-INCH OR CONCRETE CURB AND GUTTER 19-INCH.

INLET COVERS	X	Y
TYPE H OR TYPE R-SPECIAL	5-3/4"	1-1/4"

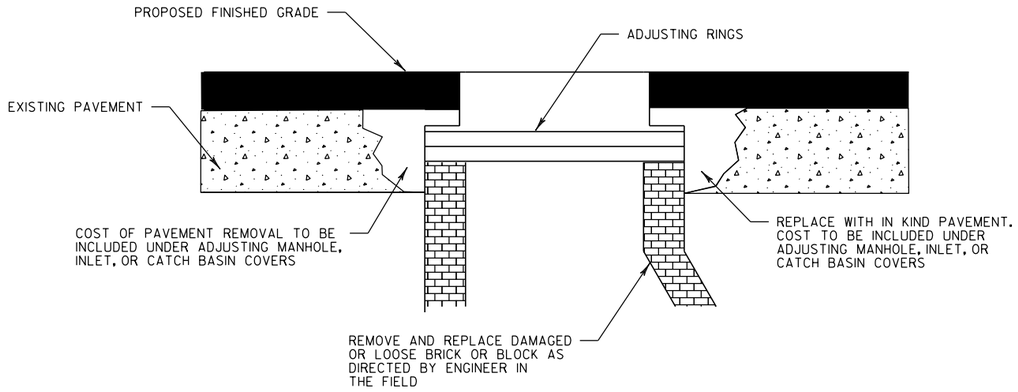


COVER PLATE LEFT IN PLACE



BULKHEAD PIPE MASONRY

ITEM TO BE PAID FOR UNDER ITEM "SEALING PIPES"
FOR LOCATIONS SEE MISCELLANEOUS QUANTITIES SHEETS



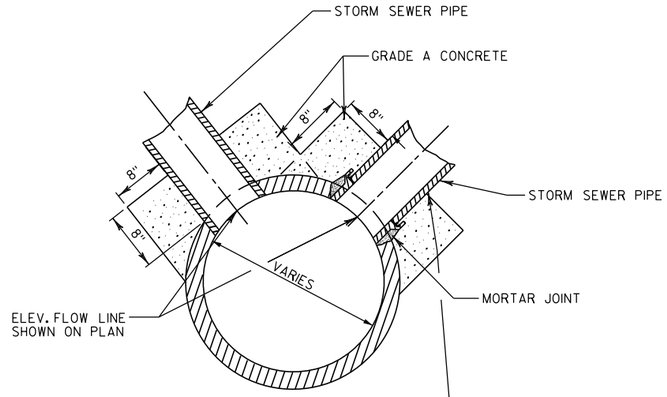
PAVED LOCATION

NOTES

1. ADJUST CHIMNEY WITH PROPER SIZE CONCRETE ADJUSTING RINGS (SIZE OF OPENING OF CONCRETE ADJUSTING RING TO BE DETERMINED BY SIZE OF OPENING IN FRAME) AND REINSTALL EXISTING FRAME AND LID TO FINISHED GRADE. BACKFILL AND OTHER WORK TO BE DONE IN ACCORDANCE WITH ITEM ADJUSTING INLET COVERS.

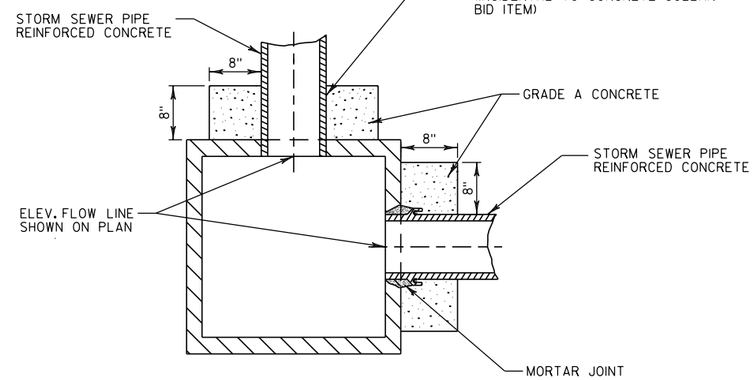
2. SAWING ASPHALT OR SAWING CONCRETE IS INCIDENTAL TO ADJUSTING MANHOLE OR INLET COVERS

ADJUSTING MANHOLE OR INLET COVERS



AT MANHOLE

INCIDENTAL TO NEW STRUCTURE AND NEW PIPE ITEMS



AT STORM SEWER INLET

INCIDENTAL TO NEW STRUCTURE AND NEW PIPE ITEMS

NOTE

CONCRETE COLLAR TO BE PAID AS A BID ITEM WHEN CONNECTING AN EXISTING PIPE TO A NEW STRUCTURE.

CONCRETE COLLAR DETAIL

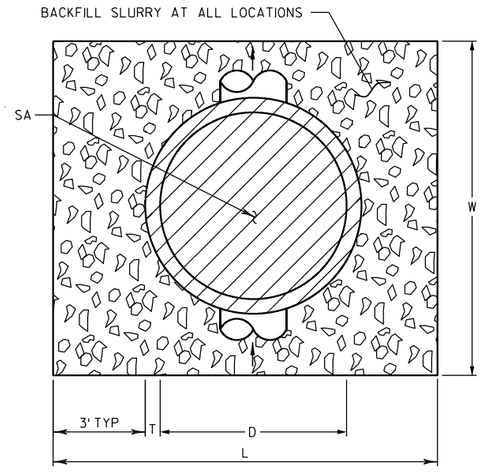
FOR LOCATIONS SEE MISCELLANEOUS QUANTITIES SHEETS

BACKFILL SLURRY STRUCTURES (FOR INFORMATION ONLY)

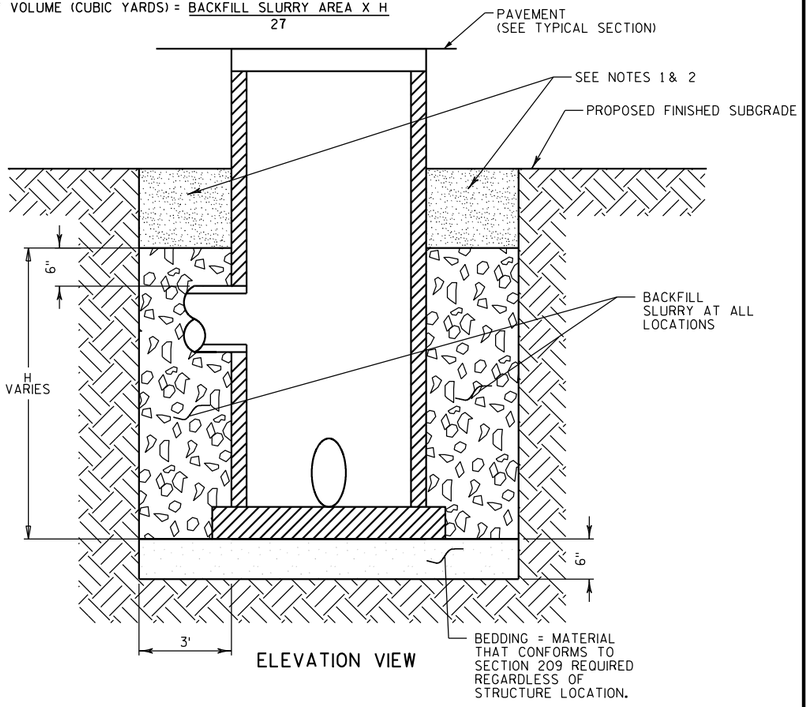
DESCRIPTION	DIAMETER / STR LENGTH D FT	RECTANGULAR STR WIDTH RW FT	WALL THICKNESS T INCH	STRUCTURE EXCAVATION LENGTH L FT	STRUCTURE EXCAVATION WIDTH W FT	STRUCTURE EXCAVATION AREA SF	STRUCTURE AREA SA SF	BACKFILL SLURRY AREA SF
INLETS 2x3-FT	2	3	5	8.83	9.83	87	11	76
INLETS MEDIAN 1 GRATE	2.5	2.5	8	9.83	9.83	97	15	82
INLETS MEDIAN 2 GRATE	2.5	5.33	8	9.83	12.66	125	26	99
INLETS 3-FT DIAMETER	3	---	4	9.67	9.67	93	11	83
INLETS 4-FT DIAMETER	4	---	5	10.83	10.83	117	18	99
MANHOLES 4-FT DIAMETER	4	---	5	10.83	10.83	117	18	99
MANHOLES 5-FT DIAMETER	5	---	6	12.00	12.00	144	28	116
MANHOLES 6-FT DIAMETER	6	---	7	13.17	13.17	173	40	133
MANHOLES 8-FT DIAMETER	8	---	9	15.50	15.50	240	71	169
MANHOLES 9-FT SPECIAL	9	---	10	16.67	16.67	278	89	188

H = UP TO 6" ABOVE THE TOP OF THE HIGHEST PIPE IN THE STRUCTURE

BACKFILL SLURRY VOLUME (CUBIC YARDS) = $\frac{\text{BACKFILL SLURRY AREA X H}}{27}$



PLAN VIEW



ELEVATION VIEW

NOTES

(1) IF THE STRUCTURE IS OUTSIDE THE PROPOSED OR FUTURE TRAVELED WAY INCLUSIVE OF SHOULDERS AND AUXILIARY LANES, NATIVE BACKFILL MAY BE USED ABOVE BACKFILL SLURRY AND SHALL CONFORM TO SECTION 209.

(2) IF THE STRUCTURE IS WITHIN THE PROPOSED OR FUTURE TRAVELED WAY INCLUSIVE OF SHOULDERS AND AUXILIARY LANES, BACKFILL ABOVE BACKFILL SLURRY SHALL CONFORM TO SECTION 209.

(3) BACKFILL SLURRY IS CONSIDERED INCIDENTAL TO DRAINAGE STRUCTURES. NO SEPARATE PAYMENTS WILL BE MADE.

(4) WHEN TEMPORARY SUBGRADE IS HIGHER THAN PROPOSED FINISHED SUBGRADE, PROVIDE GRANULAR BACKFILL AT ALL LOCATIONS. COST FOR GRANULAR BACKFILL IS CONSIDERED INCIDENTAL TO CONSTRUCTION.

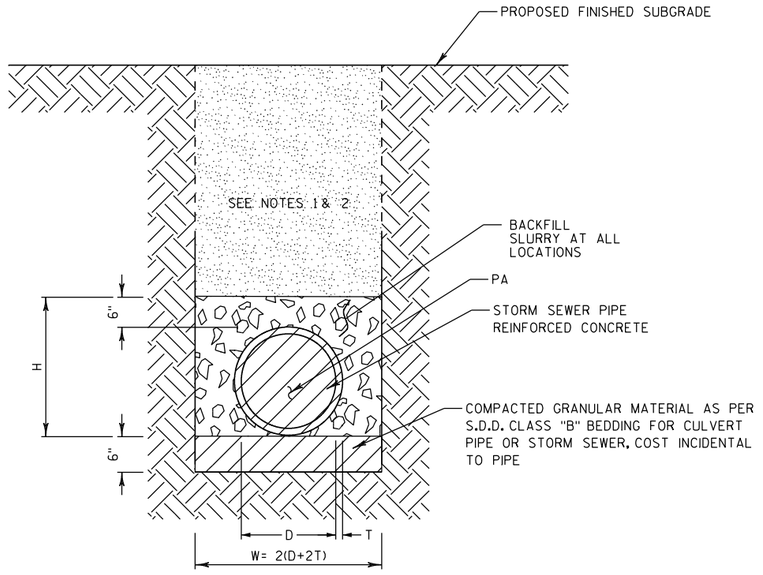
BACKFILL SLURRY DETAIL - STORM SEWER STRUCTURES

BACKFILL SLURRY TRENCHES (FOR INFORMATION ONLY)

PIPE DIAMETER D INCHES	Wall Thickness T Inches	Trench Width W FT	Height of Pipe Zone H (From pipe bottom to 6" above top of pipe)	Area of Pipe Zone SF	Area of Pipe PA SF	Backfill Slurry Area SF
12	2.00	2.67	1.83	4.89	1.40	3.49
15	2.25	3.25	2.13	6.91	2.07	4.83
18	2.50	3.83	2.42	9.26	2.89	6.38
24	3.00	5.00	3.00	15.00	4.91	10.09
30	3.50	6.17	3.58	22.10	7.47	14.63
60	6.75	12.25	6.63	81.16	29.46	51.69

*H.E. PIPE ARE APPROXIMATED TO EQUIVALENT CIRCULAR PIPE FOR BACKFILL SLURRY PURPOSES

BACKFILL SLURRY VOLUME (CUBIC YARDS) = $\frac{\text{(PIPE ZONE AREA - PIPE AREA) X PIPE PLAN LENGTH}}{27}$



NOTES

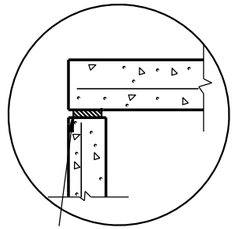
(1) IF THE PIPE IS OUTSIDE THE PROPOSED OR FUTURE TRAVELED WAY INCLUSIVE OF SHOULDERS AND AUXILIARY LANES, NATIVE BACKFILL MAY BE USED ABOVE BACKFILL SLURRY AND SHALL CONFORM TO SECTION 209.

(2) IF THE PIPE IS WITHIN THE PROPOSED OR FUTURE TRAVELED WAY INCLUSIVE OF SHOULDERS AND AUXILIARY LANES, BACKFILL ABOVE BACKFILL SLURRY SHALL CONFORM TO SECTION 209.

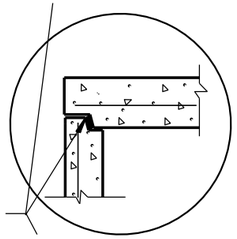
(3) BACKFILL SLURRY IS CONSIDERED INCIDENTAL TO DRAINAGE PIPE. NO SEPARATE PAYMENTS WILL BE MADE.

(4) WHEN TEMPORARY SUBGRADE IS HIGHER THAN PROPOSED FINISHED SUBGRADE, PROVIDE GRANULAR BACKFILL AT ALL LOCATIONS. COST FOR GRANULAR BACKFILL IS CONSIDERED INCIDENTAL TO CONSTRUCTION.

BACKFILL SLURRY DETAIL - STORM SEWER TRENCH

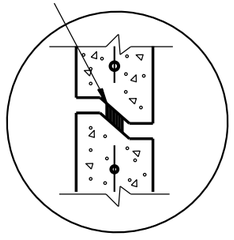


TOP WITH PLAIN END JOINT



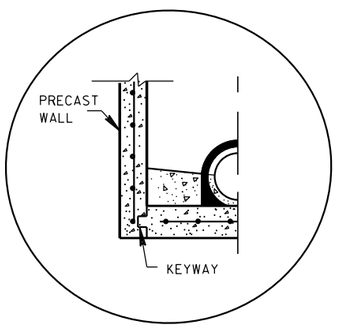
JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C990 (TYP)

TOP WITH TONGUE AND GROOVE JOINT

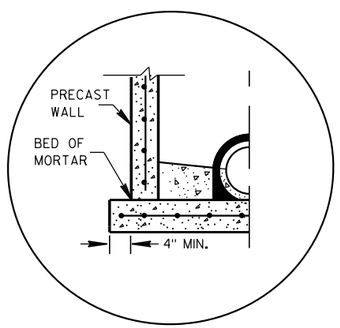


RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"



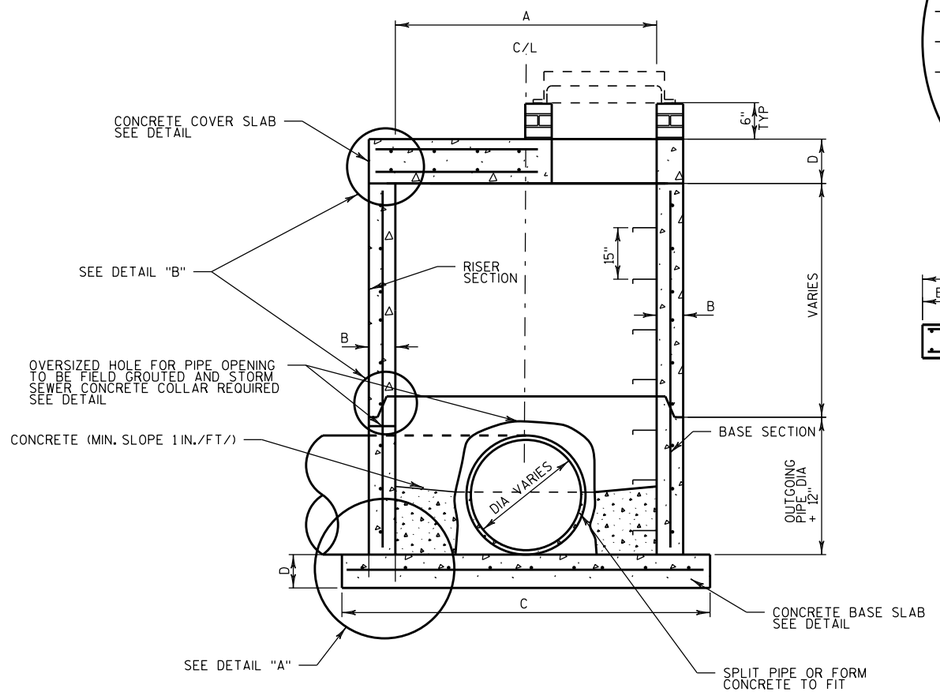
PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"

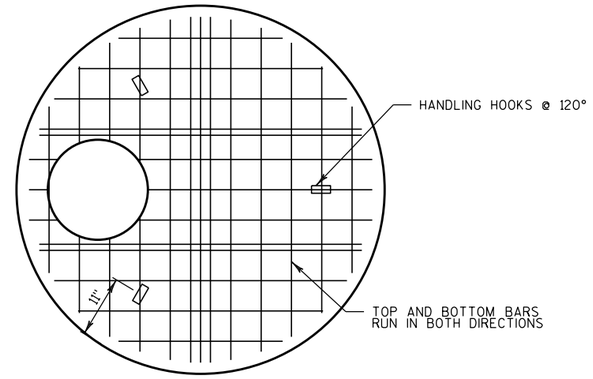
	A	B	C	D
MANHOLE 9-FT SPECIAL	108"	10"	132"	12"

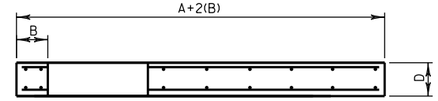


MANHOLE 9-FT SPECIAL

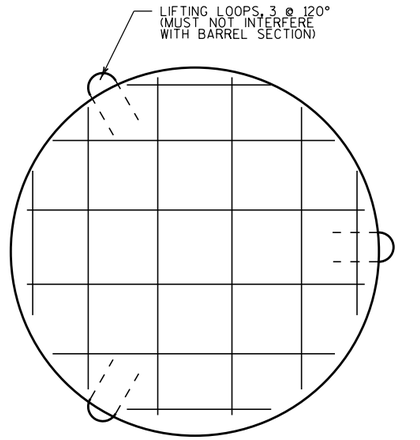
NOTES

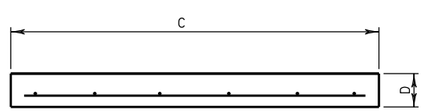
1) REINFORCING COMPLIES WITH ASTM C-478.
2) STEPS PLACED AT 15". STEPS COMPLY WITH ASTM C-478.
3) RISER & SLABS DESIGN FOR HS20 LOADING.





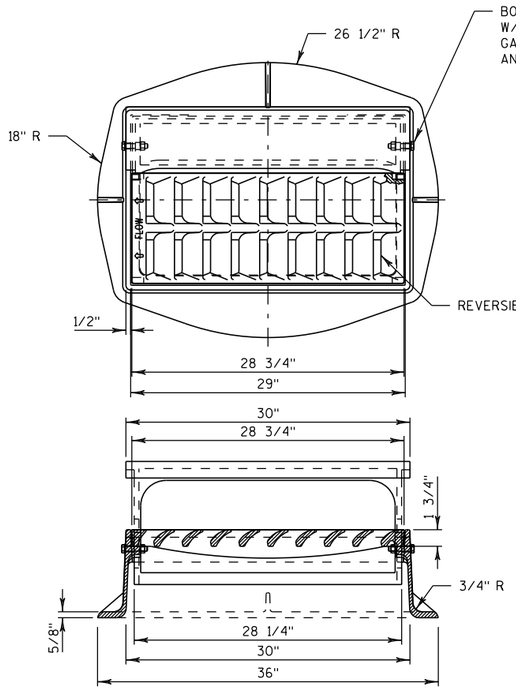
CONCRETE COVER SLAB

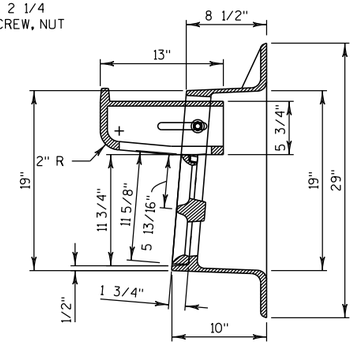


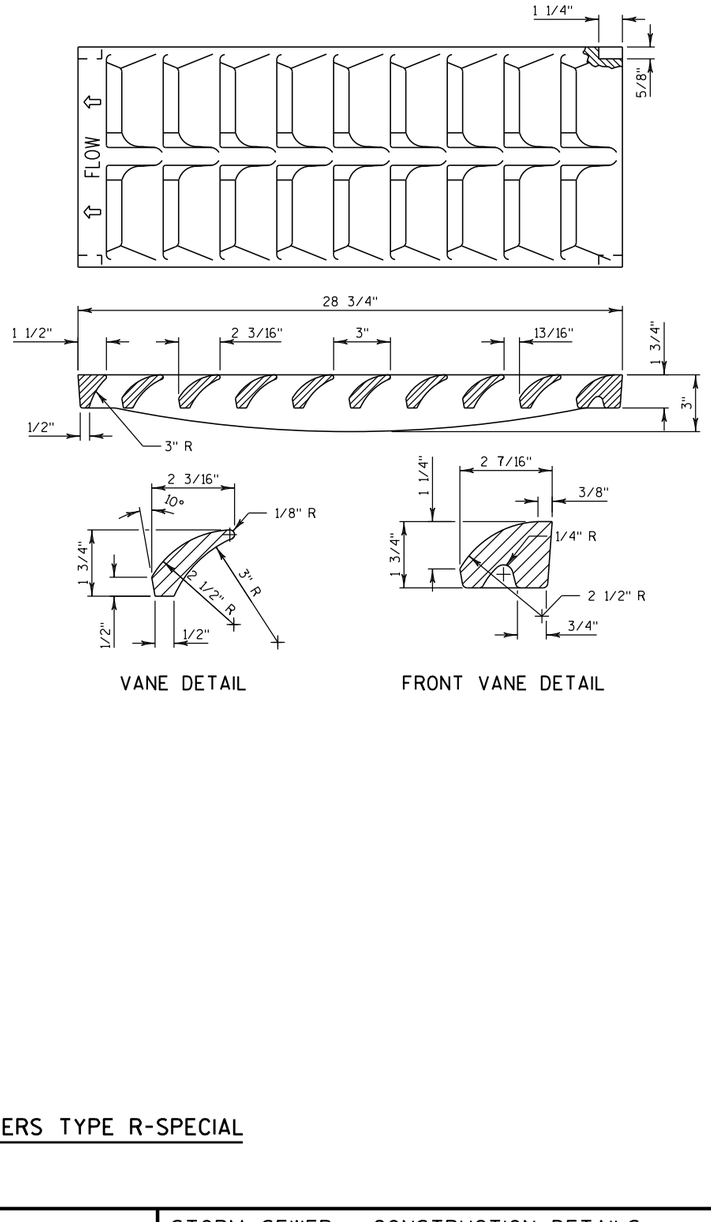


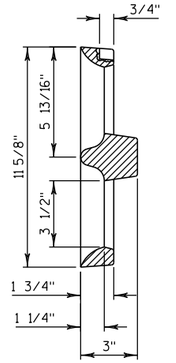
CONCRETE BASE SLAB

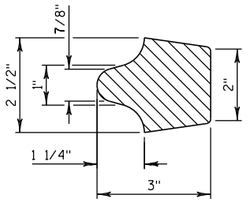
2



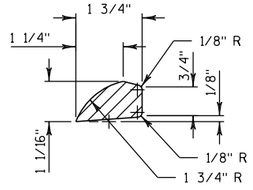








MIDDLE RIB DETAIL

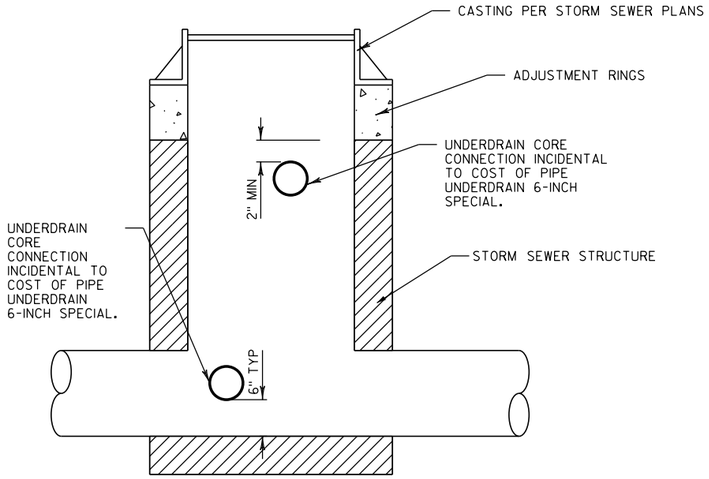


SIDE RIB DETAIL

INLET COVERS TYPE R-SPECIAL

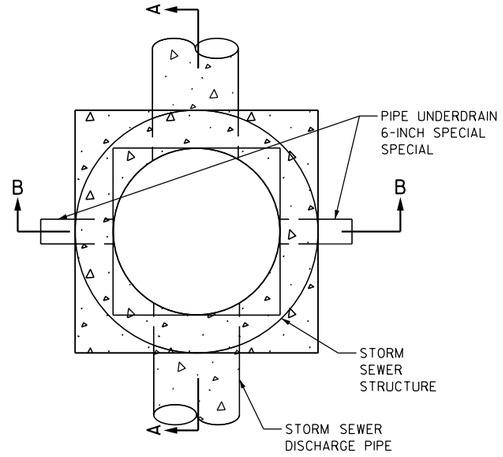
PROJECT NO: 1060-34-84	HWY: IH 41	COUNTY: MILWAUKEE	STORM SEWER - CONSTRUCTION DETAILS	SHEET E

FILE NAME : W:\Cadd\Final\10603484_ZN2\Roads\cds\022500_ss.dgn PLOT DATE : 21-OCT-2015 05:50 PLOT BY : MSCJXF PLOT NAME : 022500_ss5 PLOT SCALE : 2:1
WISDOT/CADDS SHEET 42

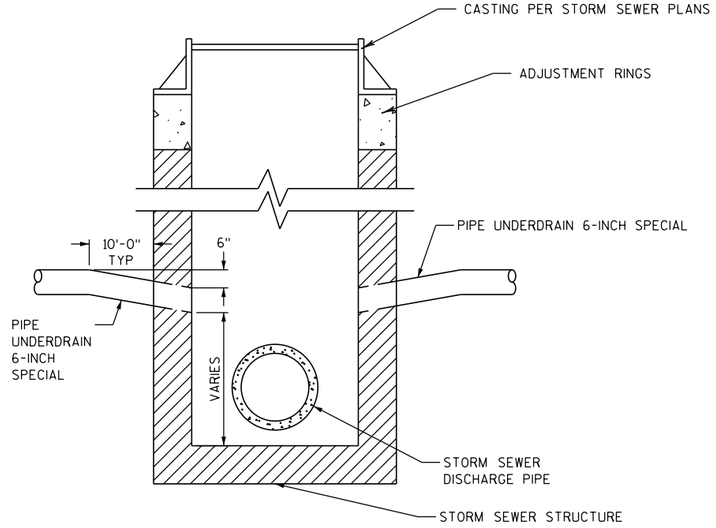


SECTION A-A

MINIMUM AND MAXIMUM CORED PIPE UNDERDRAIN 6-INCH SPECIAL UNDERDRAIN CORE LOCATIONS WITH CROSSPIPE.



PLAN VIEW



SECTION B-B

TYPICAL INLET CONFIGURATION WITH UNDERDRAIN CORED INTO WALL

NOTE

(1) TYPICAL ELEVATION OF PIPE UNDERDRAIN 6-INCH SPECIAL SHALL BE PLACED BELOW THE SELECT CRUSHED MATERIAL.

NOTE

(1) BOTTOM OF CORE PLACED A MINIMUM OF 6" ABOVE THE INVERT OF THE REINFORCED CONCRETE STORM SEWER PIPE.

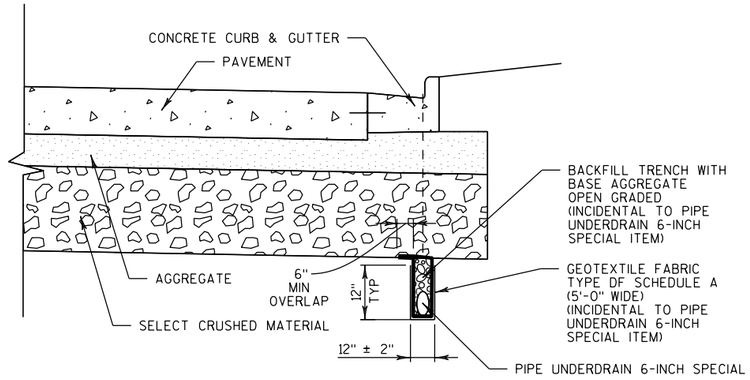
(2) TOP OF CORE HOLES WILL BE A MINIMUM OF 2" BELOW THE TOP OF THE INLET STRUCTURES (BOTTOM OF RINGS)

(3) PIPE UNDERDRAIN 6-INCH SPECIAL SHALL NOT BE ALLOWED IN THE RING OF THE STRUCTURE OF INLETS OR SEWER ACCESS STRUCTURES.

(4) CORE HOLES SHALL PROVIDE FOR A MINIMUM OF 2" OF CONCRETE BETWEEN THE CUTOUT FOR A CONCRETE PIPE AND THE EDGE OF THE CORE HOLE.

(5) CORE HOLES MAY HAVE 0" CLEARANCE FROM THE INSIDE WALL OF A STRUCTURE.

(6) DIMENSIONS GIVEN ARE FOR TYPICAL PERMANENT CONDITIONS. FOR TEMPORARY CONDITIONS OR WHEN INLET DEPTH IS SHALLOW, PROVIDE POSITIVE DRAINAGE TO BE COORDINATED WITH ENGINEER IN FIELD.



CURB AND GUTTER SECTION

PIPE UNDERDRAIN 6-INCH SPECIAL - OUTFALL AT INLET/MANHOLE (ROUND OR SQUARE)

N.T.S.

NOTES

1. CONNECTIONS TO INLETS OR MANHOLES SHALL EXTEND PIPE UNDERDRAIN 6-INCH SPECIAL TO THE INSIDE WALL OF STORM SEWER STRUCTURE.
2. PROVIDE UNDERDRAIN PIPE CORED HOLES AT OR BETWEEN ELEVATIONS SHOWN IN SECTION A-A.
3. SEE MISCELLANEOUS QUANTITIES FOR PIPE UNDERDRAIN LOCATIONS.
4. PROVIDE POSITIVE DRAINAGE (0.5% MINIMUM GRADE) THROUGH PIPE UNDERDRAIN 6-INCH SPECIAL AND CORE INTO STORM SEWER STRUCTURE.
5. WHEN INLET DEPTH IS SHALLOW, PIPE UNDERDRAIN 6-INCH SPECIAL MAY BE PLACED AT A DEPTH TO PROVIDE POSITIVE DRAINAGE TO BE COORDINATED WITH ENGINEER IN FIELD.
6. ATTACHMENT OF PIPE UNDERDRAIN 6-INCH SPECIAL TO REAR OF INLET IS SATISFACTORY IF REINFORCED CONCRETE STORM SEWER PIPE SIZE RESTRICTS SPACE FOR UNDERDRAIN CORE.
7. COORDINATE LOCATION AND TIMING OF ANY CONNECTIONS BEING MADE TO PIPE UNDERDRAIN 6-INCH SPECIAL FOR RETAINING WALL PIPE UNDERDRAIN STRUCTURES WITH WALL CONTRACTOR.
8. CONNECT PIPE UNDERDRAIN 6-INCH SPECIAL AT STORM SEWER STRUCTURES SUCH THAT ANY SINGLE RUN DOES NOT EXCEED 800 FEET IN LENGTH.
9. SEE PIPE UNDERDRAIN 6-INCH SPECIAL TRENCH DETAIL - BARRIER SECTION, CURB AND GUTTER SECTION, MEDIAN SECTION, AND OR RETAINING WALL SECTION.

PIPE UNDERDRAIN 6-INCH SPECIAL - TRENCH DETAIL

N.T.S.

2

2

N

W. CENTER STREET

N. 114TH STREET

N. 113TH STREET

N. 112TH STREET

IH 41/USH 45 SB

IH 41/USH 45 NB

12CE

14CE

16CE

18CE

20CE

22CE

24CE

26CE

REMOVING STORM SEWER PIPE (15-INCH)

BULKHEAD PIPE MASONRY

RECONSTRUCTING MANHOLES

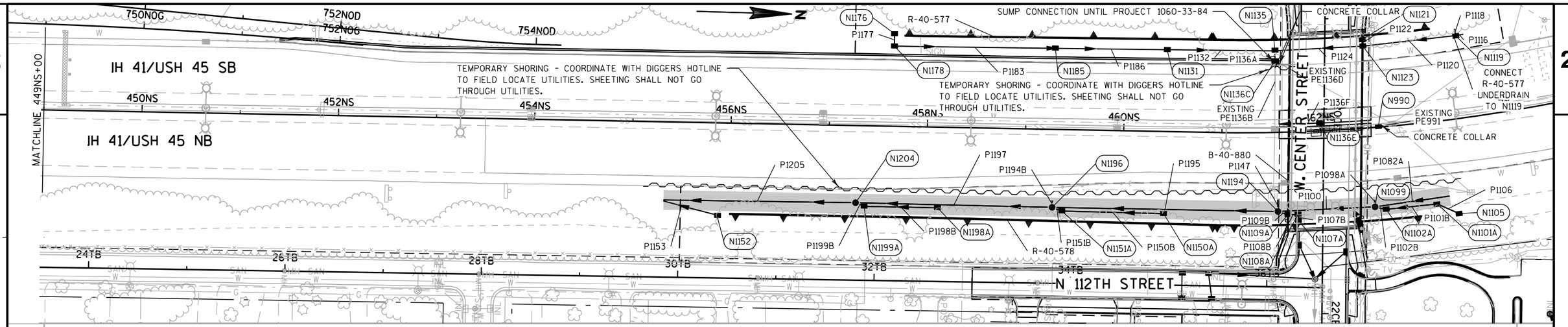
ADJUSTING MANHOLE COVERS

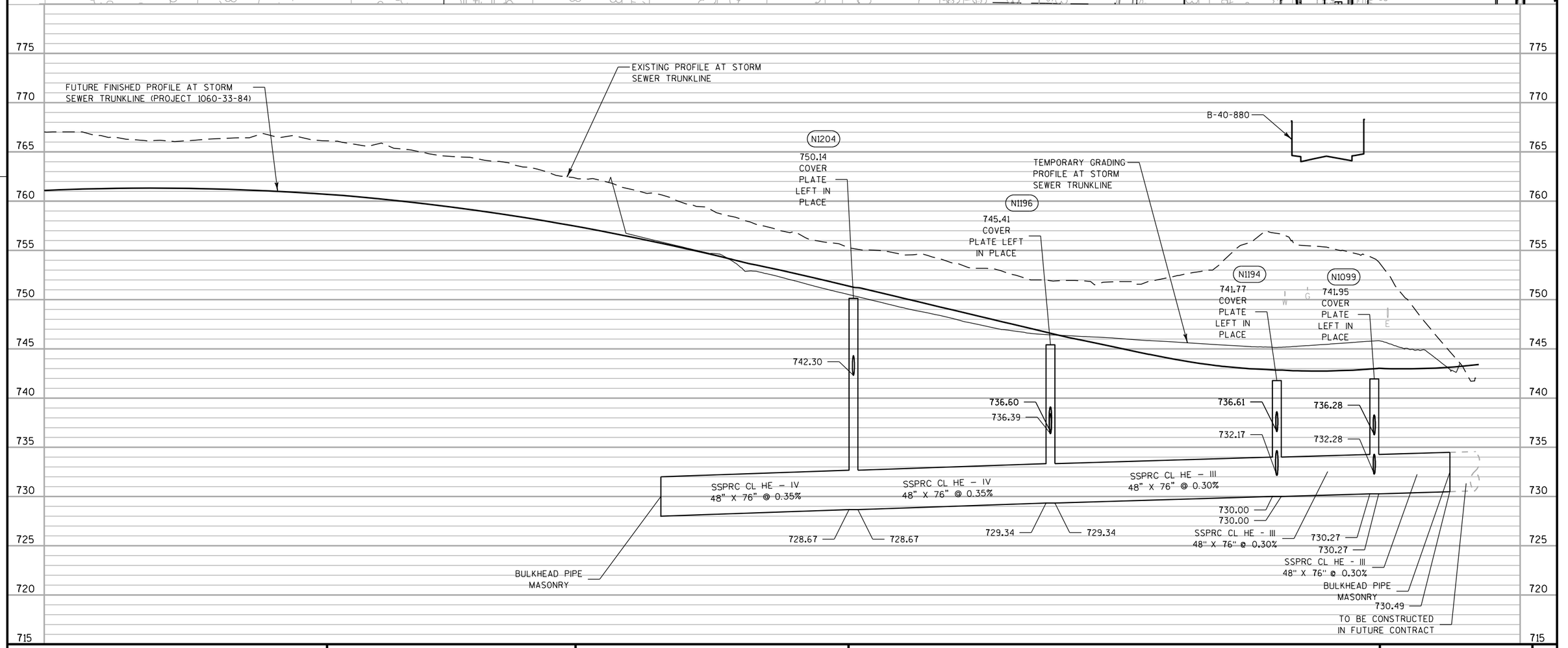
ADJUSTING INLET COVERS

REMOVING STORM SEWER PIPE (12-INCH)

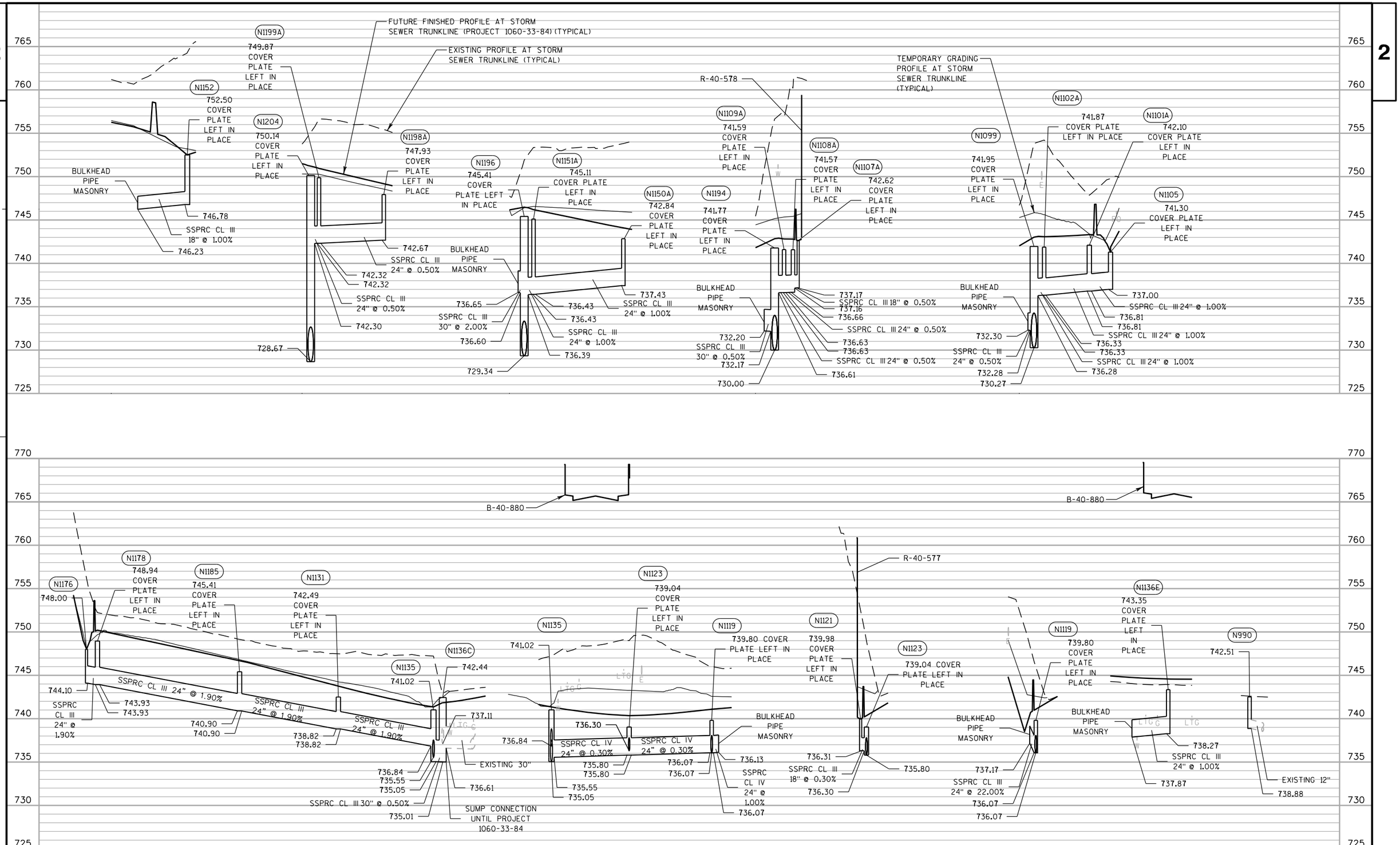
REMOVING STORM SEWER PIPE (18-INCH)

PROJECT NO: 1060-34-84	HWY: IH 41	COUNTY: MILWAUKEE	STORM SEWER - REMOVALS	SHEET	E





PROJECT NO: 1060-34-84	HWY: IH 41	COUNTY: MILWAUKEE	STORM SEWER	SHEET E



PROJECT NO: 1060-34-84	HWY: IH 41	COUNTY: MILWAUKEE	STORM SEWER	SHEET	E

AS BUILT PLANS NOT AVAILABLE. EXISTING STRUCTURE IS A FUNNEL STRUCTURE. DISCHARGE IS IN NORTH DIRECTION. AFTER INLET REMOVAL AND PRIOR TO ORDERING AND STRUCTURE INSTALLATION VERIFY PIPE DISCHARGE SIZE, LOCATION, AND ELEVATION AND COORDINATE WITH ENGINEER.

IH 41/USH 45 SB

IH 41/USH 45 NB

N. 114TH STREET

N. 113TH STREET

N. 112TH STREET

W. CENTER STREET

12CE 14CE 16CE 18CE 20CE 22CE 24CE 26CE

EXISTING PE503 CONCRETE COLLAR P501 N500 EXISTING NE502

EXISTING PE515 CONCRETE COLLAR P529 P527 N530 N526 N528 P531 N532 EXISTING PE533 N522 P523 EXISTING PE525 N516 P517 N524 N540 P519 N518 P539 N538

EXISTING PE541 CONCRETE COLLAR R-40-577 R-40-578

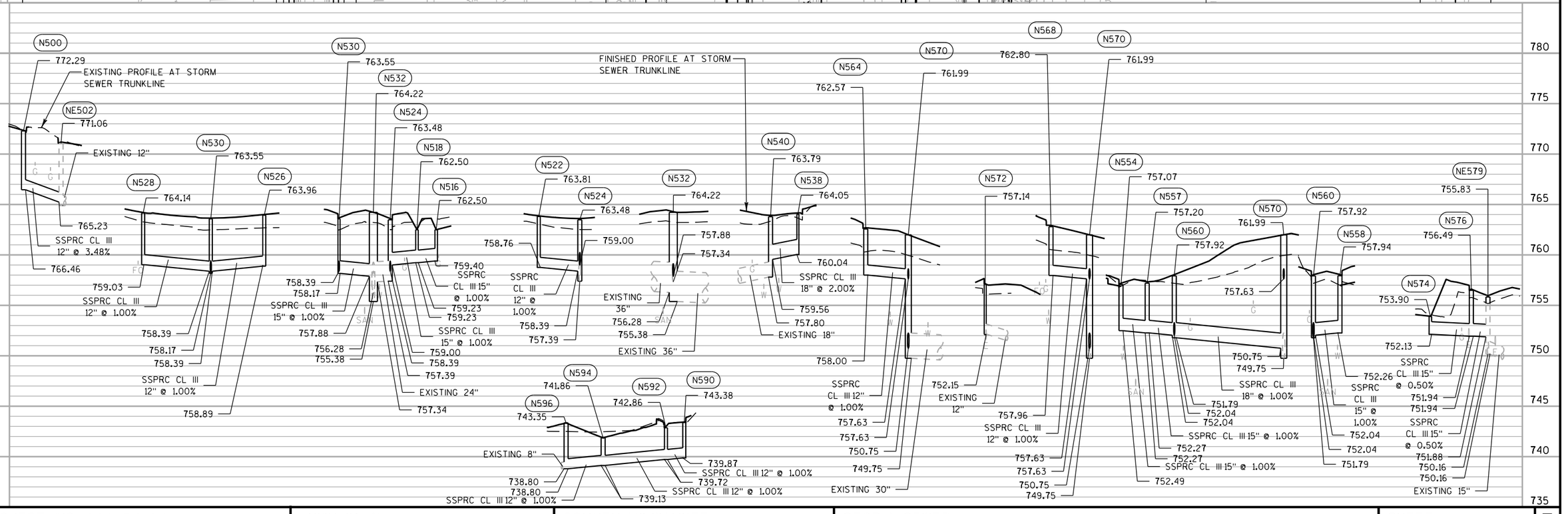
B-40-0

P569 N568 CONCRETE COLLAR P577 EXISTING NE579 EXISTING PE578 P575 N576 P561 N560 P559 N558 N574 P556 N557 P555 N554

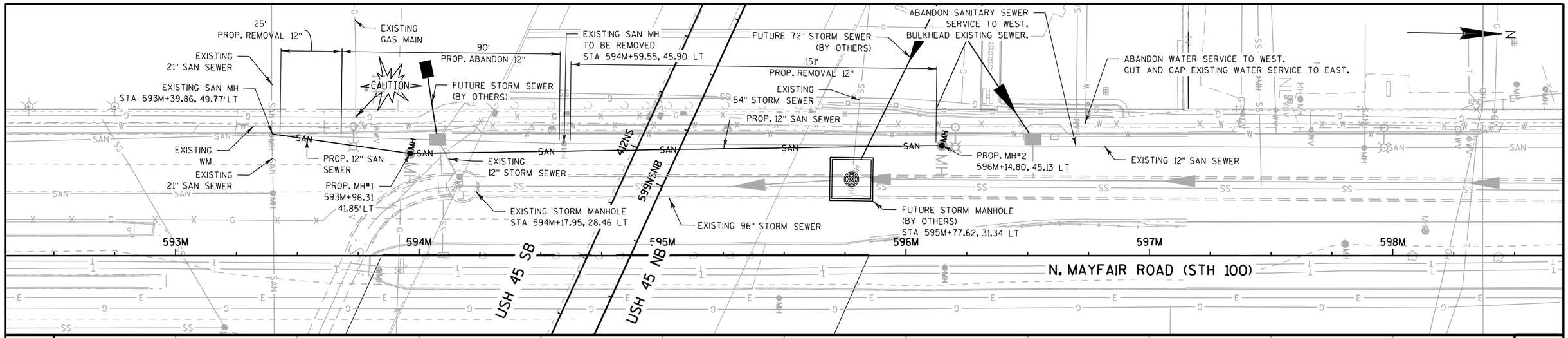
EXISTING PE597 CONCRETE COLLAR N596 P595 N594 P593 N592 P591 N590

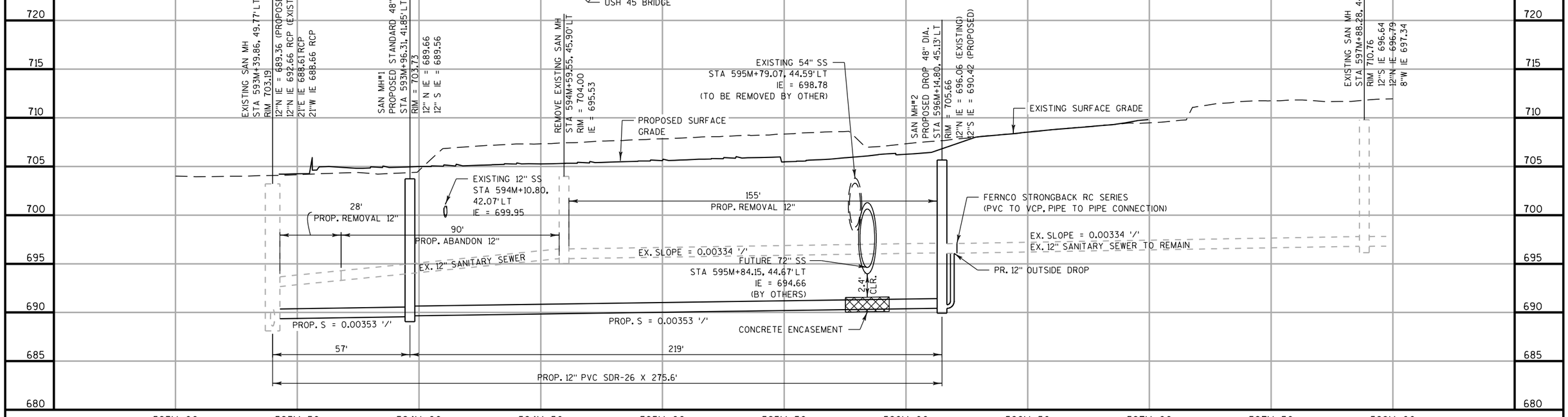
N564 P565 N570 N572 EXISTING PE573 PIPE CONNECTION TO EXISTING STRUCTURE EXISTING PE571 EXISTING PE580

N



PROJECT NO:1060-34-84	HWY: IH 41	COUNTY: MILWAUKEE	STORM SEWER	SHEET	E





IN ACCORDANCE WITH WISCONSIN STATUTE 182.0175, DAMAGE TO TRANSMISSION FACILITIES, EXCAVATOR SHALL BE SOLELY RESPONSIBLE TO PROVIDE ADVANCE NOTICE TO THE DESIGNATED "ONE CALL SYSTEM" NOT LESS THAN THREE WORKING DAYS PRIOR TO COMMENCEMENT OF ANY EXCAVATION REQUIRED TO PERFORM WORK CONTAINED ON THIS DRAWING, AND FURTHER, EXCAVATOR SHALL COMPLY WITH ALL OTHER REQUIREMENTS OF THIS STATUTE RELATIVE TO EXCAVATOR'S WORK.

SCALE, FEET 0 20 40

WISCONSIN
GREGORY L. GOVERNATORI
E-36034
RACINE, WI
PROFESSIONAL ENGINEER
7-28-15

SUBMITTED FOR APPROVAL:

DATE

CITY ENGINEER

CITY OF WAUWATOSA, WISCONSIN
ENGINEERING DIVISION

PROPOSED SANITARY SEWER RELAY

N. MAYFAIR ROAD (STH 100) - FROM: 85-FT SOUTH OF USH 45 SB. TO: 58-FT. NORTH OF USH 45 NB.

REFERENCES: CONTRACT: 1060-34-84

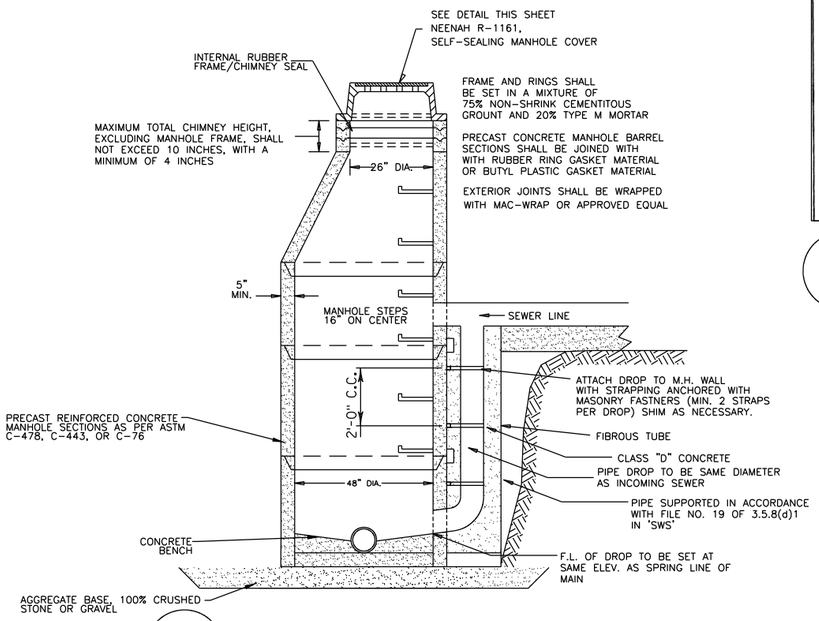
SCALE: HORIZ.: 1" = 20' VERT.: 1" = 5' DRAWN BY: KKC CHECKED BY: GLG

83

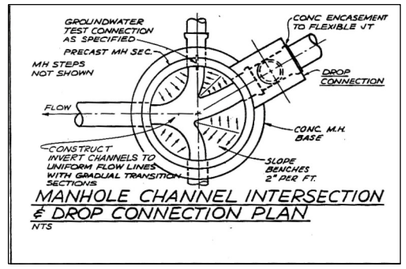
IGUST 2015
IGUST 2015

SHEET 1 OF 2 SHEETS FILE NO.

PLOT DATE : $$...plotfingdate...$$
$TIME$
PLOT NAME : 022710_sn

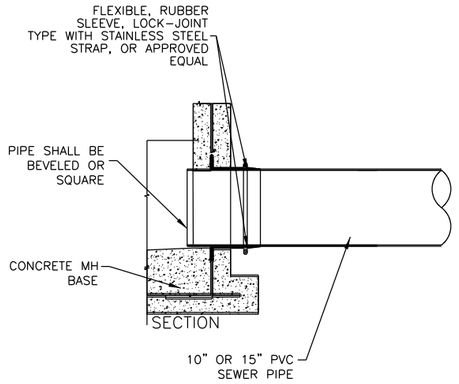


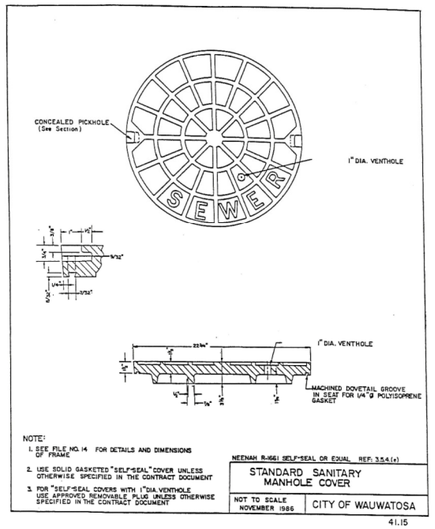
1 SANITARY OUTSIDE DROP
N.T.S



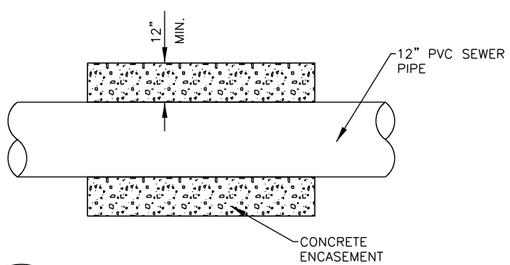
MANHOLE CHANNEL INTERSECTION & DROP CONNECTION PLAN
NTS

3 MANHOLE DROP CONNECTION PLAN
N.T.S

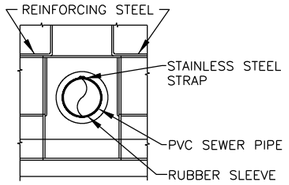




2 STANDARD SANITARY MANHOLE COVER
N.T.S

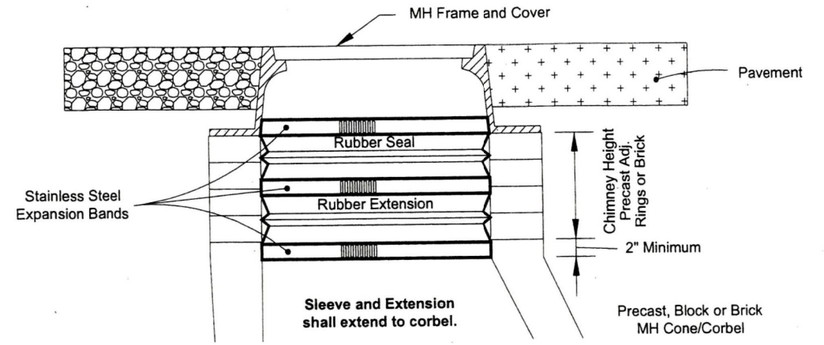


6 CONCRETE ENCASEMENT DETAIL
N.T.S



4 FLEXIBLE CONNECTION TO MANHOLE DETAILS
N.T.S

INTERNAL MANHOLE FRAME CHIMNEY SEAL



NPC FlexRib Seal		
Chimney Height	Seal Width & Quantity	Extension Quantity Required
0" – 5"	1 - 8½" Seal	None
2" – 7"	1 - 10½" Seal	None
5" – 13"	1 - 8½" Seal	1 - Extension
7" – 15"	1 - 10½" Seal	1 - Extension
15" – 22"	1 - 10½" Seal	2 - Extension
22" – 29"	1 - 10½" Seal	3 - Extension

Cretex Specialty Products MH Chimney Seal			
Combinations of Seals & Extensions	To Span Chimney Heights of: w / Std Seal	w / Wide Seal	w / Extra Wide Seal
Seal Only	0" - 4½"	2" - 7½"	6" – 12"
Seal + 7" Extension	Over 4½" - 10½"	Over 7½" - 13½"	Over 12" – 18"
Seal + 10" Extension	Over 10½" – 13"	Over 13½" – 16"	Over 18" - 20½"
Seal + Mult Extensions	Over 13"	Over 16"	Over 20.5"
Add 6" of Coverage for each additional 7" Extension			
Add 8½" of Coverage for each additional 10" Extension			

Unless the manholes are to be adjusted and set to grade under a separate contract, the frame chimney joints shall be as specified in the Standard Specs. Sanitary sewer manholes shall be constructed with a Type I, flexible watertight frame/chimney joint as detailed in Section 3.5.4(f)1.(a) of the Standard Specs.

The approved Manhole frame/chimney seal, where required, shall consist of a flexible rubber sleeve, overlapping extension or extensions and stainless steel bands. They shall be furnished and installed by the Contractor and shall be an internal rubber sleeve as manufactured by Cretex Specialty Products, 2002 Southwest Avenue, Waukesha, Wisconsin 53187, NPC, Inc., 250 Elm Street, PO Box 301, Milford, NH 03055 or Engineer pre-approved equal. The contractor shall use the proper tools for installation of the seals.

1. Surface Preparation. Surface preparation shall be as follows or as recommended by the manufacturer if their requirements are more stringent:

a) Remove manhole cover and allow any accumulated fumes to dissipate, open additional manholes or use blower to ventilate, if necessary.
b) Power wire brush the lower 3" of the manhole frame to remove any loose rust or scale and repair any imperfections by either grinding smooth or filling with mortar. A reasonably smooth clean sealing surface is required.
c) Realign the casting if it is offset more than approximately 2" from the chimney.
d) As a guide for proper seal alignment, make a visible line or series of alignment marks around the frame 2-3/4" up from the bottom edge of the frame for normal positioning. The sleeve can be installed higher in the frame if necessary, in which case the marks should be raised accordingly.
e) Remove all loose and protruding mortar and brick from the upper 7" chimney and clean surface by power wire brushing. Provide a 4" wide sealing surface starting 2" down from the bottom of the frame.
f) All sealing surfaces must be circular, reasonably smooth, clean and free of any loose material or excessive voids. If such a surface does not exist for the bottom of the sleeve to seal against, the contractor shall prepare one. The contractor shall use one-component, quick-set, high strength, non-shrink, polymer modified patching mortar which has been formulated for vertical or overhead use to prepare the uniform vertical sealing surface.
g) If the bottom of the sleeve is to seal against the top of an eccentric (straight side) cone and an inadequately high vertical surface does not exist, the contractor shall contact the manufacturer to obtain details for build the required vertical surface.
h) If any caulk is used to fill minor irregularities in the bottom sealing surface, the caulk shall be a butyl rubber caulk conforming to AASHTO M-198, Type B. When used, the contractor shall apply a single bead of the caulk to the center portion of the lower sealing surface of the sleeve. The contractor shall not use any other type of caulking material. Any flaws in the manhole frame, such as minor cracks, pits or protrusions, shall be repaired by either filling with mortar or grinding smooth.

2. Internal MH Fra/Chim Seal Installation. The contractor shall also refer to the mfg's literature for additional installation variations and options.

a) Install the rubber sleeve with the printing at the top and the top edge lined up with the previously applied alignment marks.
b) Wipe off the outside of one of the stainless steel bands and apply a moderate coating of band lubricant to the slot area and a light to moderate coating to the remainder of the band's outside surface. The contractor shall install either the top band or the smaller band, if two different sized bands are being used, first.
c) Install the band in the appropriate band recess with the slotted end against the rubber surface. Position the expansion tool and expand the band until the locking tabs poop into the tightest slots possible. Loosen the tool slowly until the tabs a fully engaged in the slots, then continue to loosen and remove the tool. When installing a larger diameter band, use one of the auxiliary tool slots to start the expansion process. Move one leg of the tool to the primary tool slot if necessary to complete the process.
d) Lubricate the second band and install it in the other band recess, attach the tool and expand as before, keeping the bands parallel. The bands can be put closer together only if a limited height is available or if excessive sleeve expansion is desired.
e) Check the top and bottom edges of the installed sleeve to insure that it has been properly compressed against the two surfaces.

5 INTERNAL MH FRAME CHIMNEY SEAL
N.T.S

IN ACCORDANCE WITH WISCONSIN STATUTE 182.0175, DAMAGE TO TRANSMISSION FACILITIES, EXCAVATOR SHALL BE SOLELY RESPONSIBLE TO PROVIDE ADVANCE NOTICE TO THE DESIGNATED "ONE CALL SYSTEM" NOT LESS THAN THREE WORKING DAYS PRIOR TO COMMENCEMENT OF ANY EXCAVATION REQUIRED TO PERFORM WORK CONTAINED ON THIS DRAWING, AND FURTHER, EXCAVATOR SHALL COMPLY WITH ALL OTHER REQUIREMENTS OF THIS STATUTE RELATIVE TO EXCAVATOR'S WORK.

WISCONSIN PROFESSIONAL ENGINEER
GREGORY L. GOVERNATORI
E-36034
RACINE, WI
7-28-15

SUBMITTED FOR APPROVAL:

DATE

CITY ENGINEER

CITY OF WAUWATOSA, WISCONSIN
ENGINEERING DIVISION

PROPOSED SANITARY SEWER RELAY

N. MAYFAIR ROAD (STH 100) – FROM: 85-FT SOUTH OF USH 45 SB. TO: 58-FT. NORTH OF USH 45 NB.

REFERENCES: CONTRACT: 1060-34-8

SCALE: HORIZ.: VERT.: DRAWN BY: KKC CHECKED BY: GLG

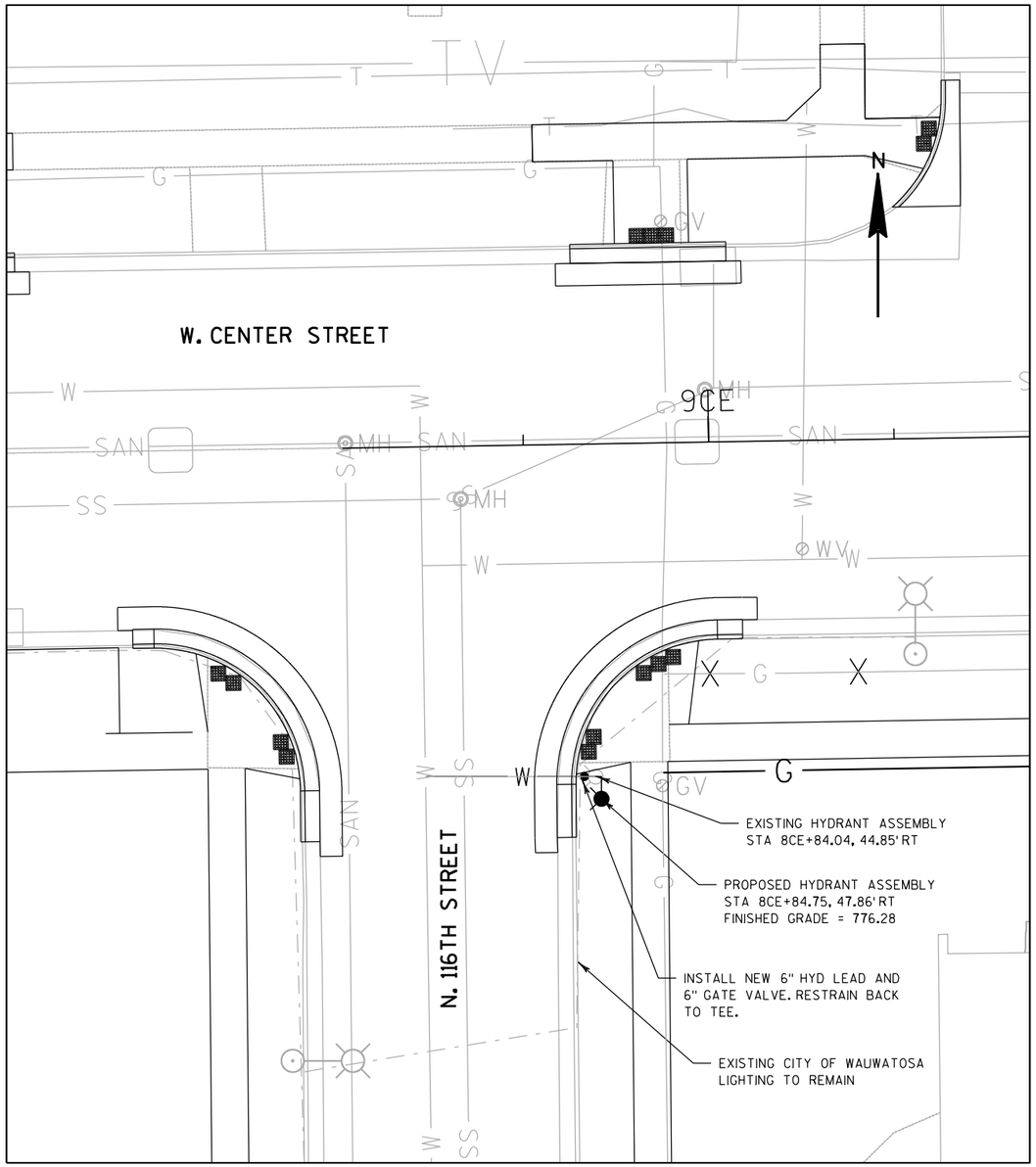
84

DATE: AUGUST 2015

SHEET 2 OF 2 SHEETS FILE NO.

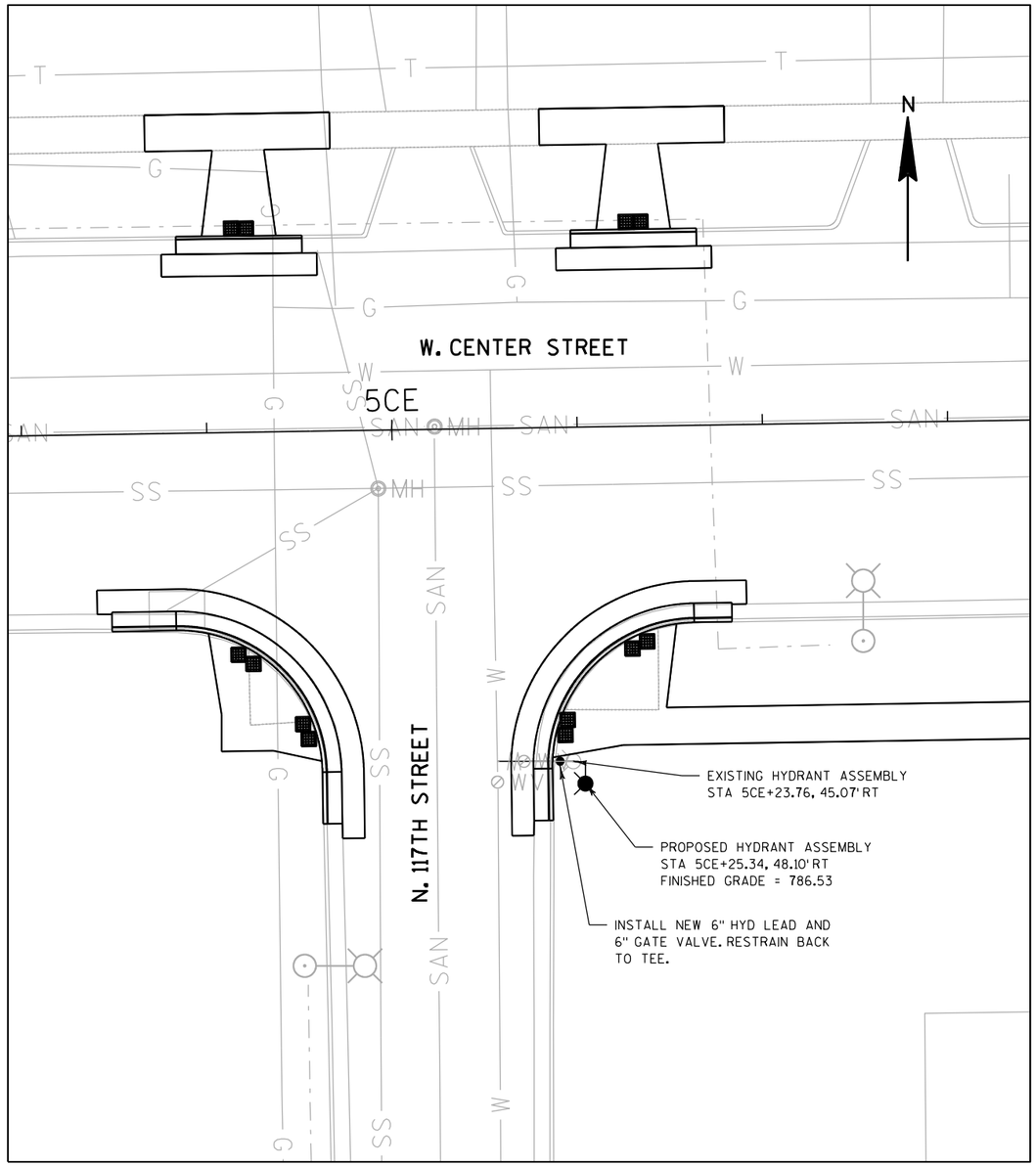
2 OF 2

PLOT DATE : $$...plottingdate...$$
$TIME$
PLOT NAME : 022711_sn



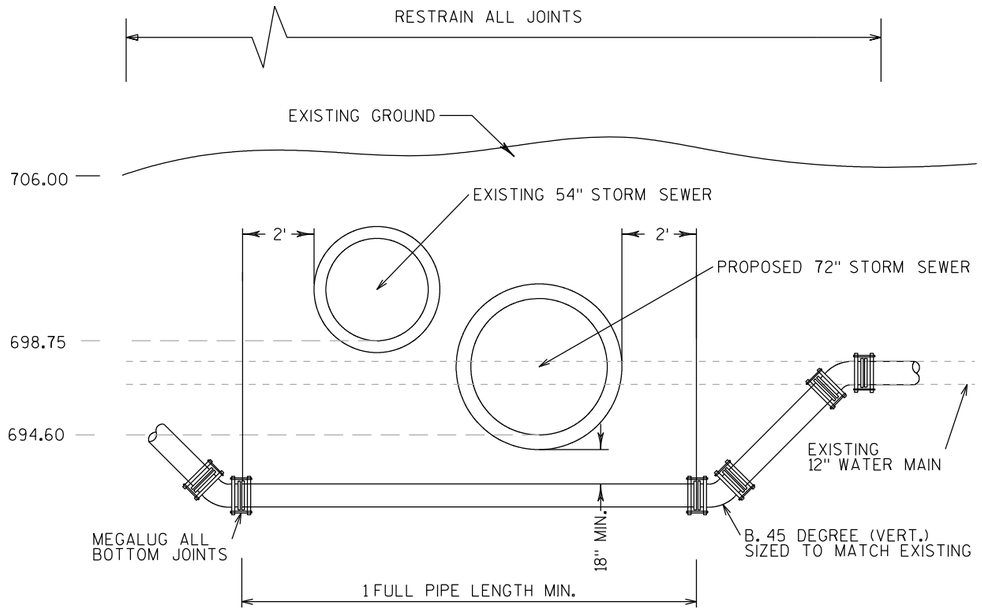
HYDRANT RELOCATION

N. 116TH STREET & W. CENTER STREET
SCALE: 1"=20'



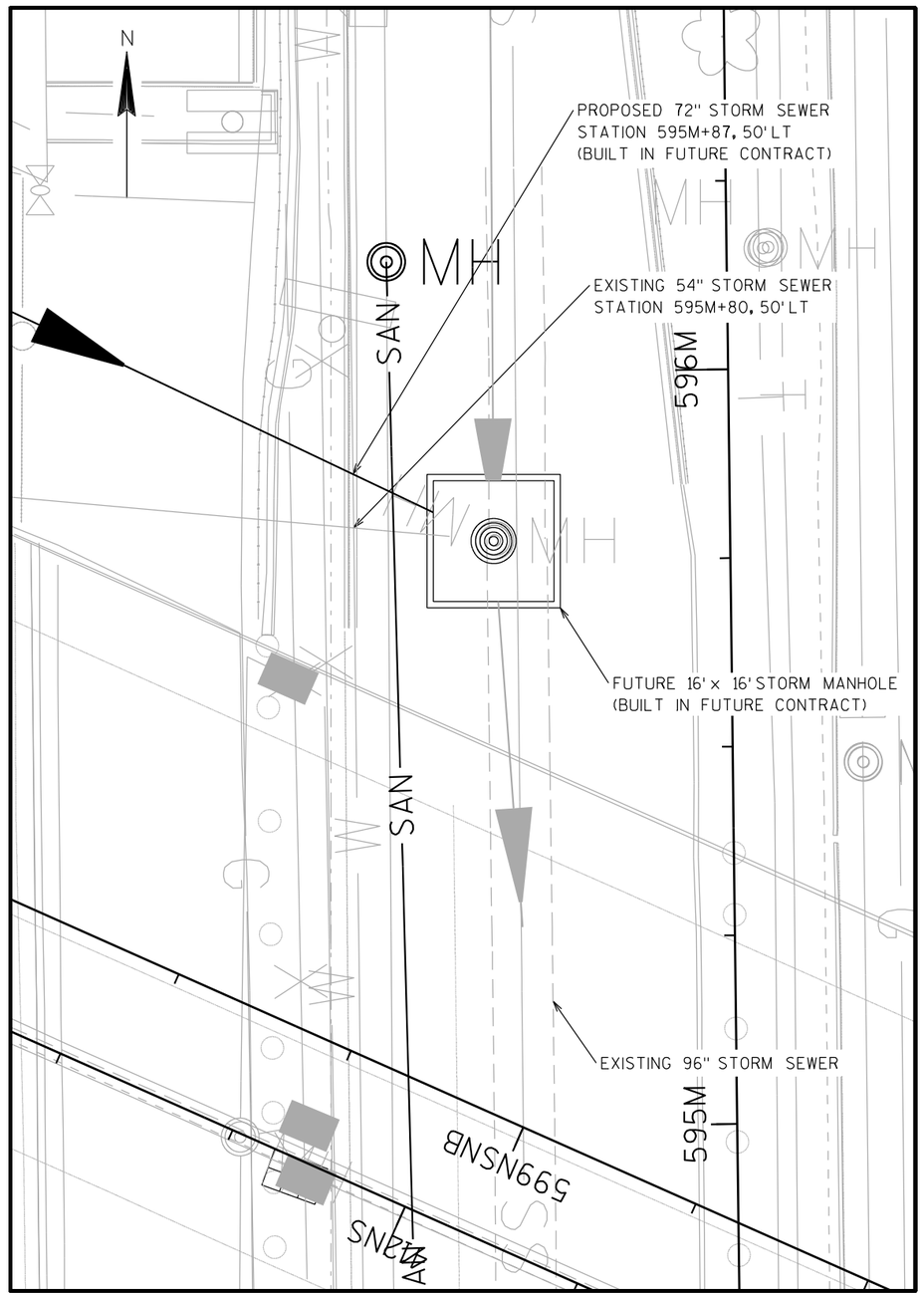
HYDRANT RELOCATION

N. 117TH STREET & W. CENTER STREET
SCALE: 1"=20'



WATER MAIN VERTICAL OFFSET

N.T.S.

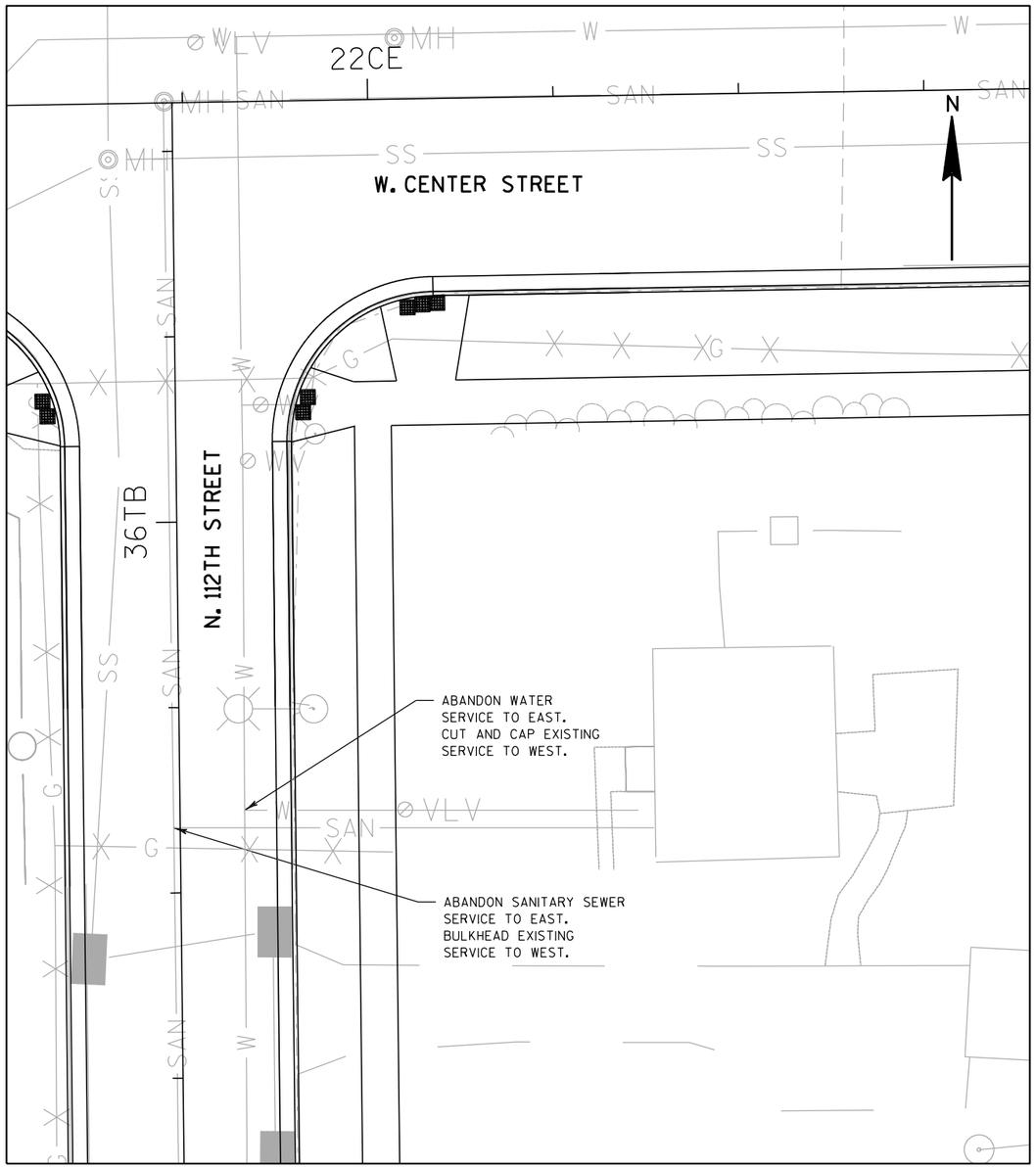


PLAN

SCALE: 1"=20'

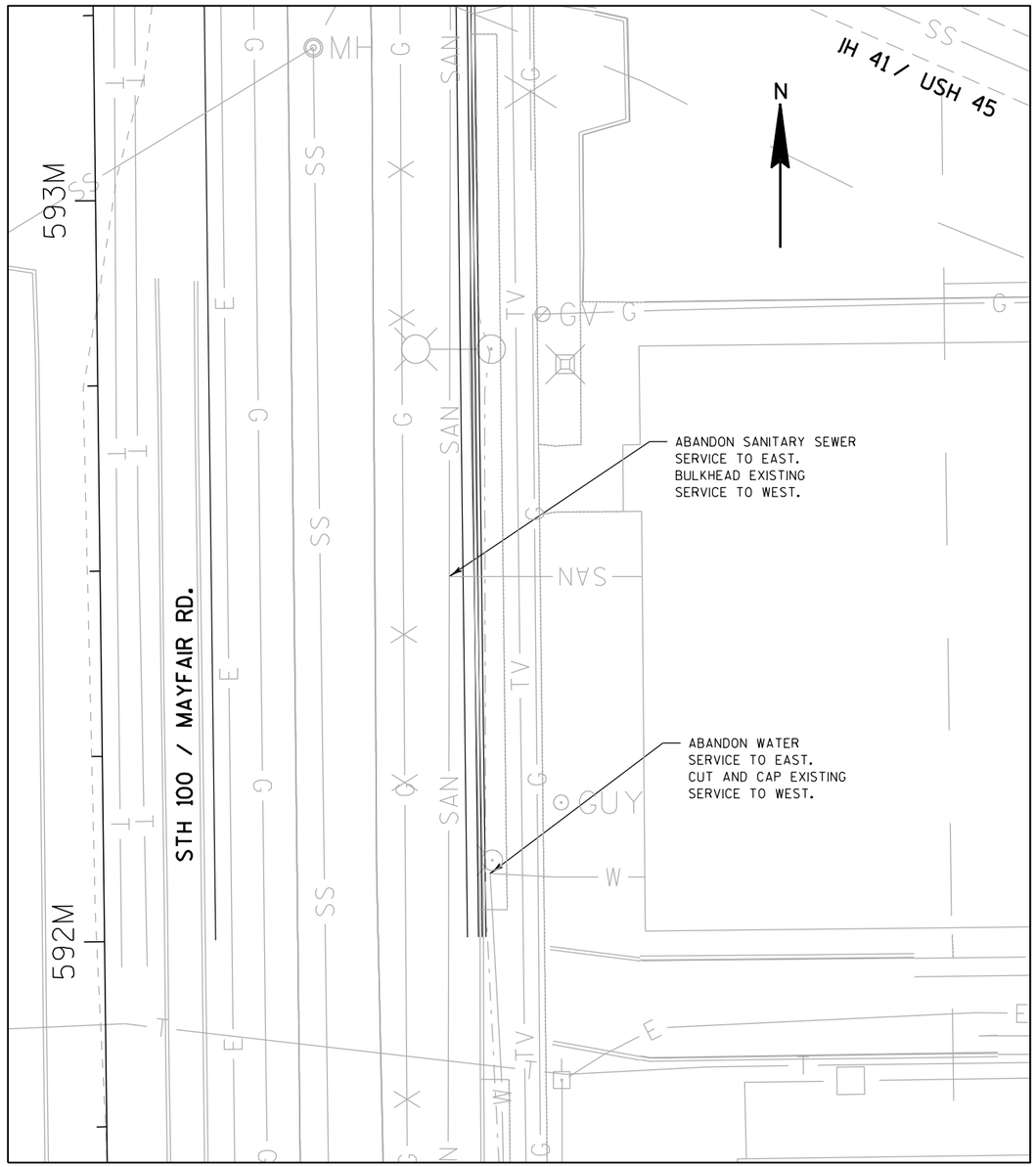
WATER MAIN VERTICAL OFFSET

PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET 86	E



ABANDON SERVICES

N. 112TH STREET & W. CENTER STREET
SCALE: 1"=20'



ABANDON SERVICES

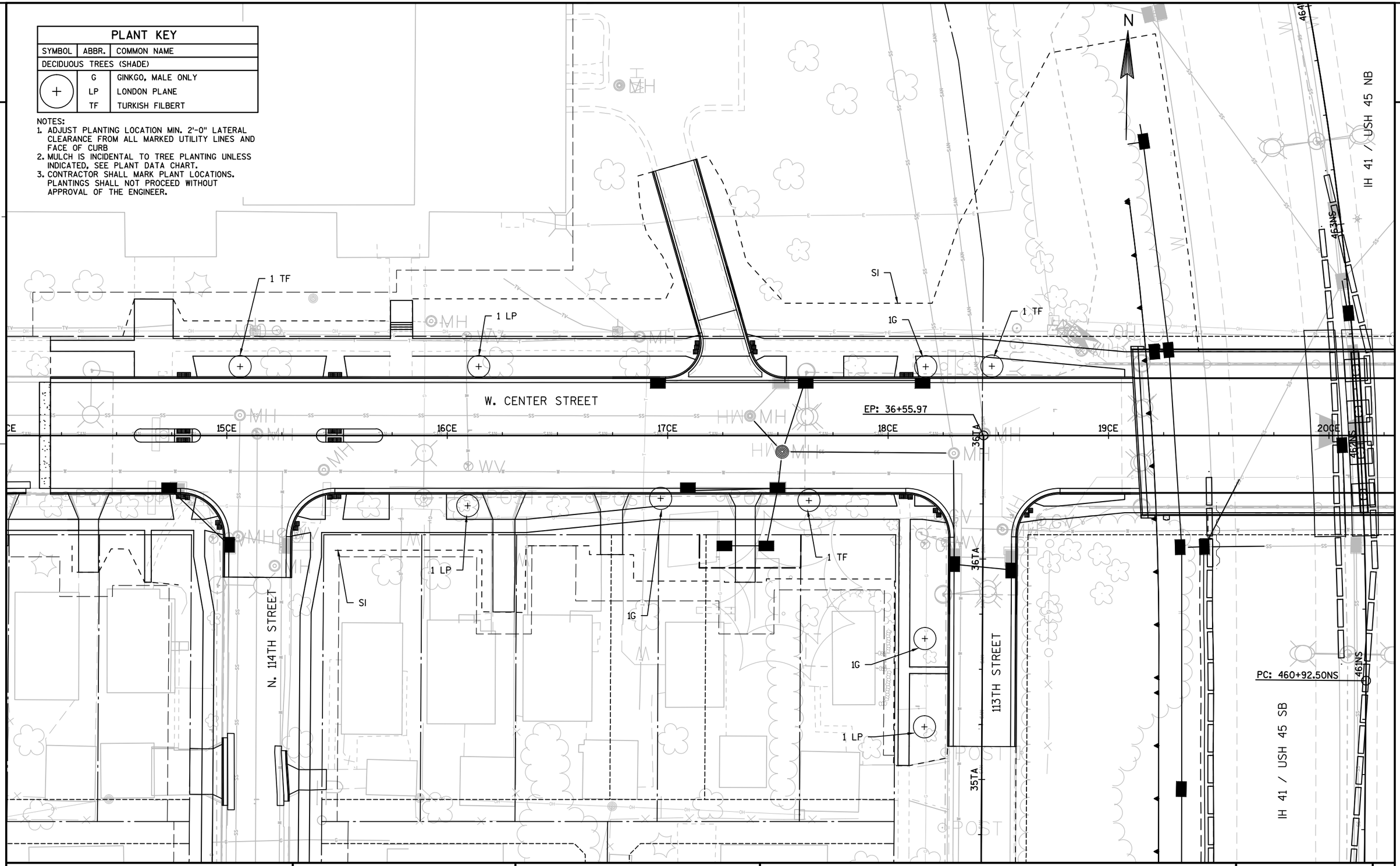
STH 100 AND IH 41/USH 45
SCALE: 1"=20'

2

SCIENTIFIC NAME	AVE. MATURE HEIGHT	SIZE WHEN PLANTED	ROOT ZONE MODE	MINIMUM BALL OR POT SIZE		MINIMUM HOLE SIZE		BRACE OR GUY	FERT. UNITS REQ'D	RODENT PROT'CT REQ'D	MULCH RIGH DIAM.
				DIAM.	DEPTH	DIAM.	DEPTH				
Ginkgo biloba	60'	2 1/2" CAL	B&B	28"	17"	52"	17"	GUY	4	NO	64"
Plantanus occidentails	50'	2 1/2" CAL	B&B	28"	17"	52"	17"	GUY	4	NO	64"
Corlyus colurna	50'	2 1/2" CAL	B&B	28"	17"	52"	17"	GUY	4	NO	64"

PLANT KEY		
SYMBOL	ABBR.	COMMON NAME
DECIDUOUS TREES (SHADE)		
+	G	GINKGO, MALE ONLY
	LP	LONDON PLANE
	TF	TURKISH FILBERT

NOTES:
1. ADJUST PLANTING LOCATION MIN. 2'-0" LATERAL CLEARANCE FROM ALL MARKED UTILITY LINES AND FACE OF CURB
2. MULCH IS INCIDENTAL TO TREE PLANTING UNLESS INDICATED, SEE PLANT DATA CHART.
3. CONTRACTOR SHALL MARK PLANT LOCATIONS. PLANTINGS SHALL NOT PROCEED WITHOUT APPROVAL OF THE ENGINEER.



PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	PLANTING	SHEET 89	E

FILE NAME : W:\PDS\C3D\CAD\10603484\023101_PL.DWG PLOT DATE : 7/27/2015 10:34 AM PLOT BY : WAGNER, SCOTT H PLOT NAME : PLOT SCALE : 1:40_XREF

WISDOT/CADDS SHEET 42

2

N

W. CENTER STREET

21CE

EP: 36+56.54

22CE

23CE

24CE

25CE

26CE

36TB

35TB

N. 112TH STREET

IH 41 / USH 45 NB

46INS

1 LP

1G

1 TF

1G

PLANT KEY		
SYMBOL	ABBR.	COMMON NAME
DECIDUOUS TREES (SHADE)		
+	G	GINKGO, MALE ONLY
	LP	LONDON PLANE
	TF	TURKISH FILBERT

NOTES:
1. ADJUST PLANTING LOCATION MIN. 2'-0" LATERAL CLEARANCE FROM ALL MARKED UTILITY LINES AND FACE OF CURB
2. MULCH IS INCIDENTAL TO TREE PLANTING UNLESS INDICATED, SEE PLANT DATA CHART.
3. CONTRACTOR SHALL MARK PLANT LOCATIONS. PLANTINGS SHALL NOT PROCEED WITHOUT APPROVAL OF THE ENGINEER.

PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	PLANTING	SHEET 90	E

FILE NAME : W:\PDS\C3D\CAD\10603484\023102_PL.DWG PLOT DATE : 7/27/2015 10:37 AM PLOT BY : WAGNER, SCOTT H PLOT NAME : PLOT SCALE : 1:40_XREF

IH 41 / USH 45 SB

455NS 456NS 457NS 458NS 459NS 460NS

IH 41 / USH 45 NB

N. 112TH STREET

30TB 31TB 32TB 33TB 34TB 35TB

1 TF

1 LP

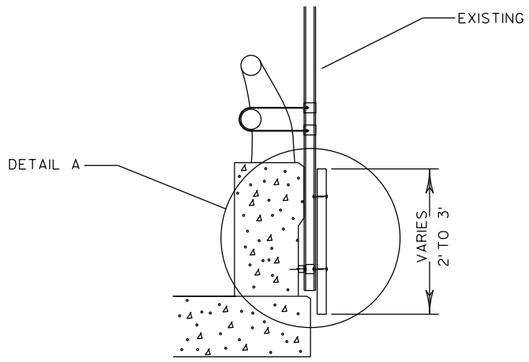
1G

PLANT KEY		
SYMBOL	ABBR.	COMMON NAME
DECIDUOUS TREES (SHADE)		
+	G	GINKGO, MALE ONLY
	LP	LONDON PLANE
	TF	TURKISH FILBERT

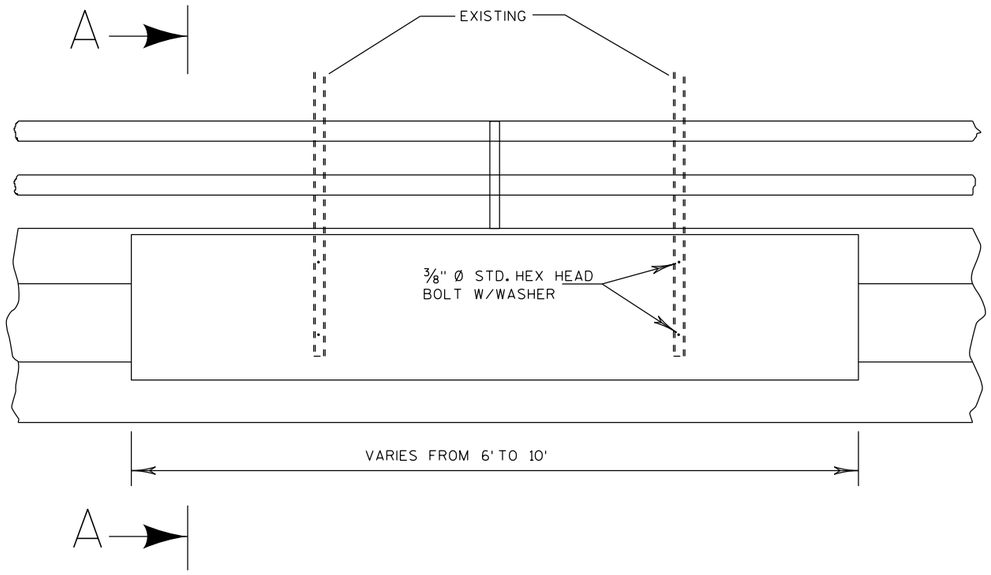
NOTES:
1. ADJUST PLANTING LOCATION MIN. 2'-0" LATERAL CLEARANCE FROM ALL MARKED UTILITY LINES AND FACE OF CURB
2. MULCH IS INCIDENTAL TO TREE PLANTING UNLESS INDICATED, SEE PLANT DATA CHART.
3. CONTRACTOR SHALL MARK PLANT LOCATIONS. PLANTINGS SHALL NOT PROCEED WITHOUT APPROVAL OF THE ENGINEER.

PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	PLANTING	SHEET 91 E

2



SECTION A-A
SIDE VIEW

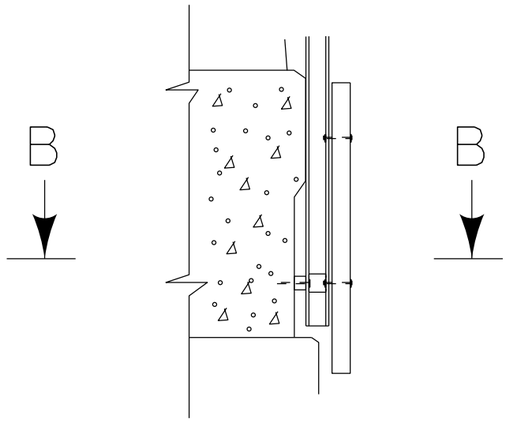


FRONT VIEW

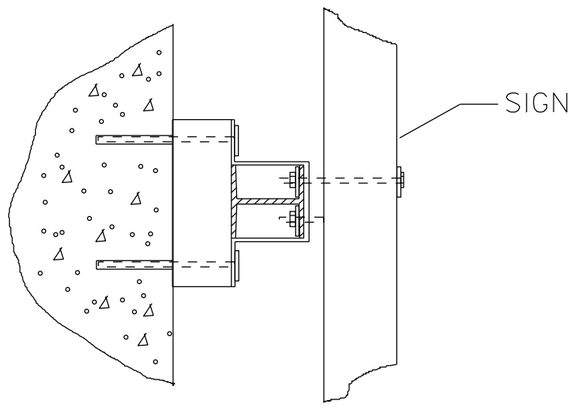
NOTES:

PROVIDE NEW BOLTS.

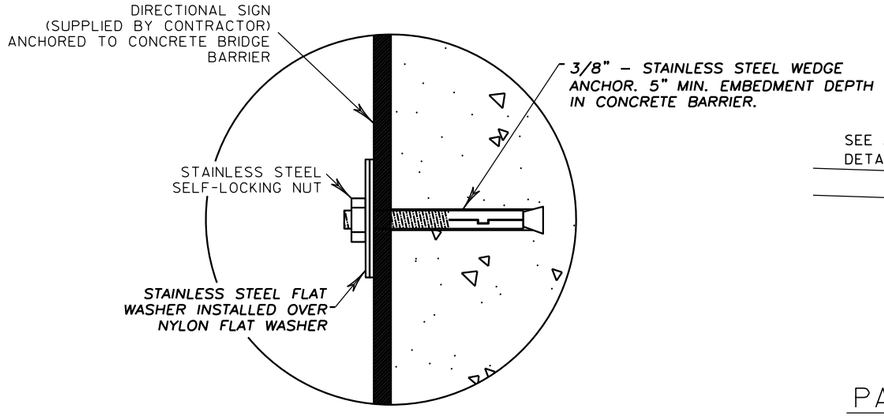
MOUNTING DETAIL COSTS ARE INCIDENTAL TO PAY ITEM "TYPE II SIGNS, REFLECTIVE".



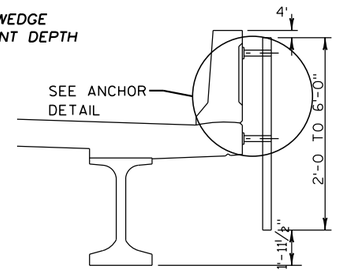
DETAIL A



SECTION B-B
TOP VIEW



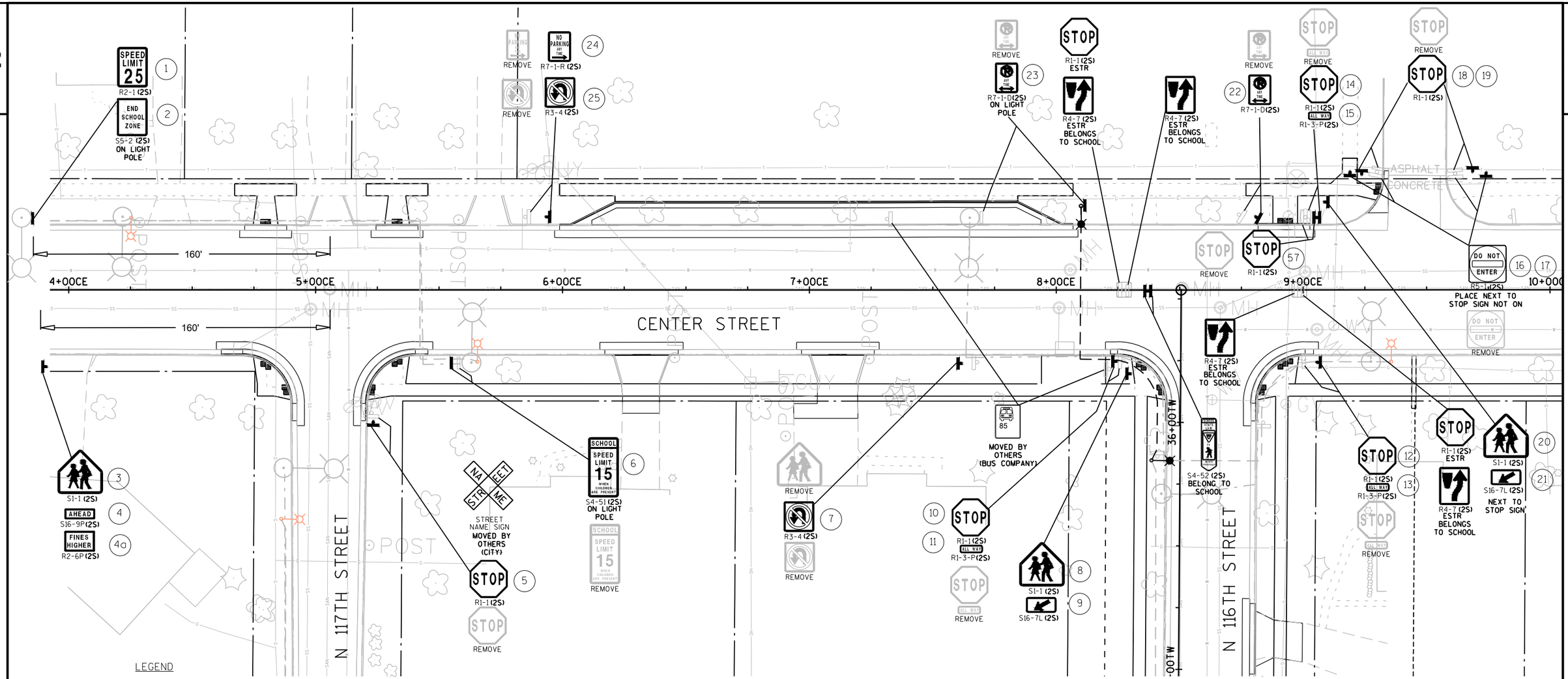
ANCHOR DETAIL
N.T.S.



PARAPET OPTION
WITHOUT RAIL

PROJECT NO: 1060-34-84	HWY: IH 41 - CENTER STREET	COUNTY: MILWAUKEE	SIGN MOUNTING DETAIL ON BRIDGE	SHEET 92	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
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- DELINEATOR - 60' SPACING
  WHITE/RIGHT YELLOW/LEFT
- XXX — DENOTES SIGN NUMBER

(XX) INDICATES SIGN SIZE

N

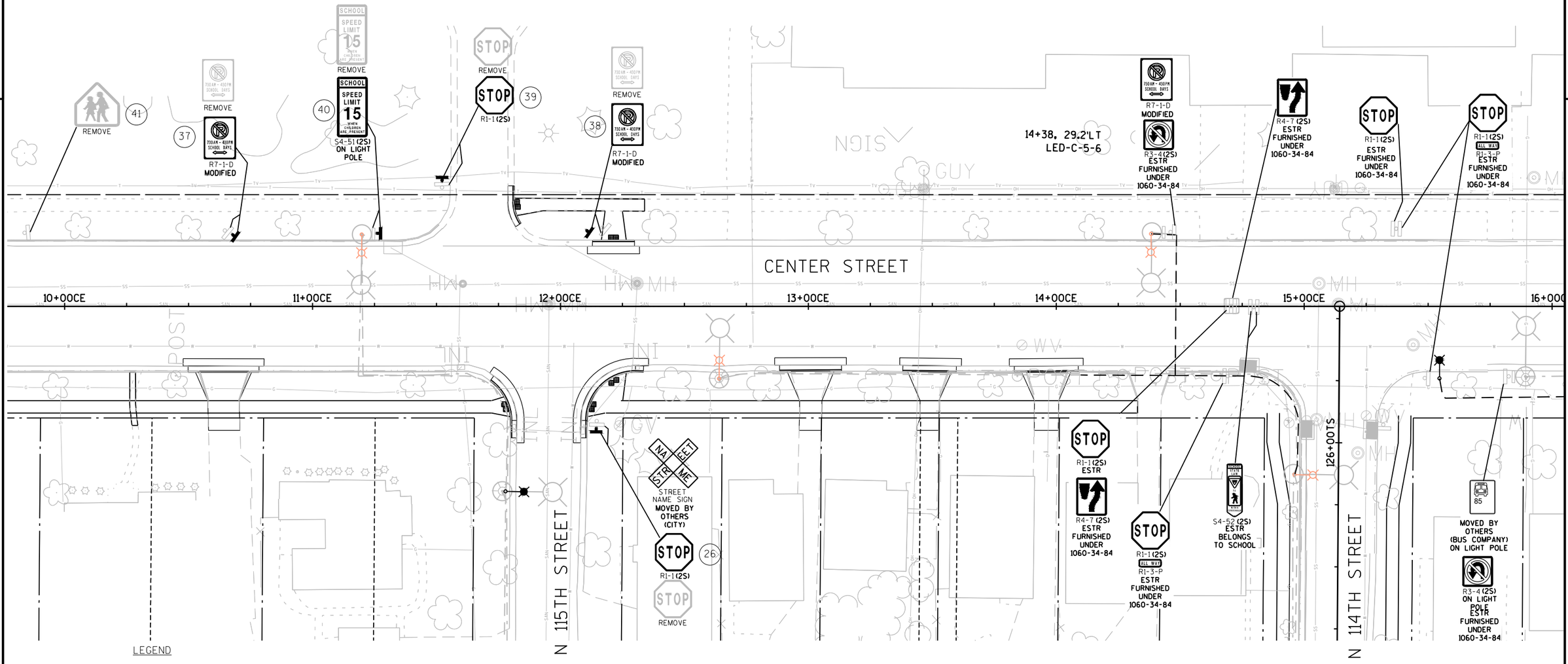
NOTE:
CONTACT CITY OF WAUWATOSA SIGN DEPARTMENT TO REMOVE STREET NAME SIGNS. PROVIDE 2 WEEKS NOTICE TO CITY PRIOR TO IMPACT TO SIGNS.

SHEET 1 OF 4

PROJECT NO: 1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	PERMANENT SIGNING PLAN	SHEET 93	E

FILE NAME : W:\PDS\C3D\CAD\10603316\85\023201_PS.DWG
LAYOUT NAME - 023201_PS
PLOT DATE : 9/10/2015 6:41 AM
PLOT BY : DODGE, BRIAN M
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
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
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- DELINEATOR - 60' SPACING
  WHITE/RIGHT YELLOW/LEFT
- (XXX) DENOTES SIGN NUMBER

(XX) INDICATES SIGN SIZE

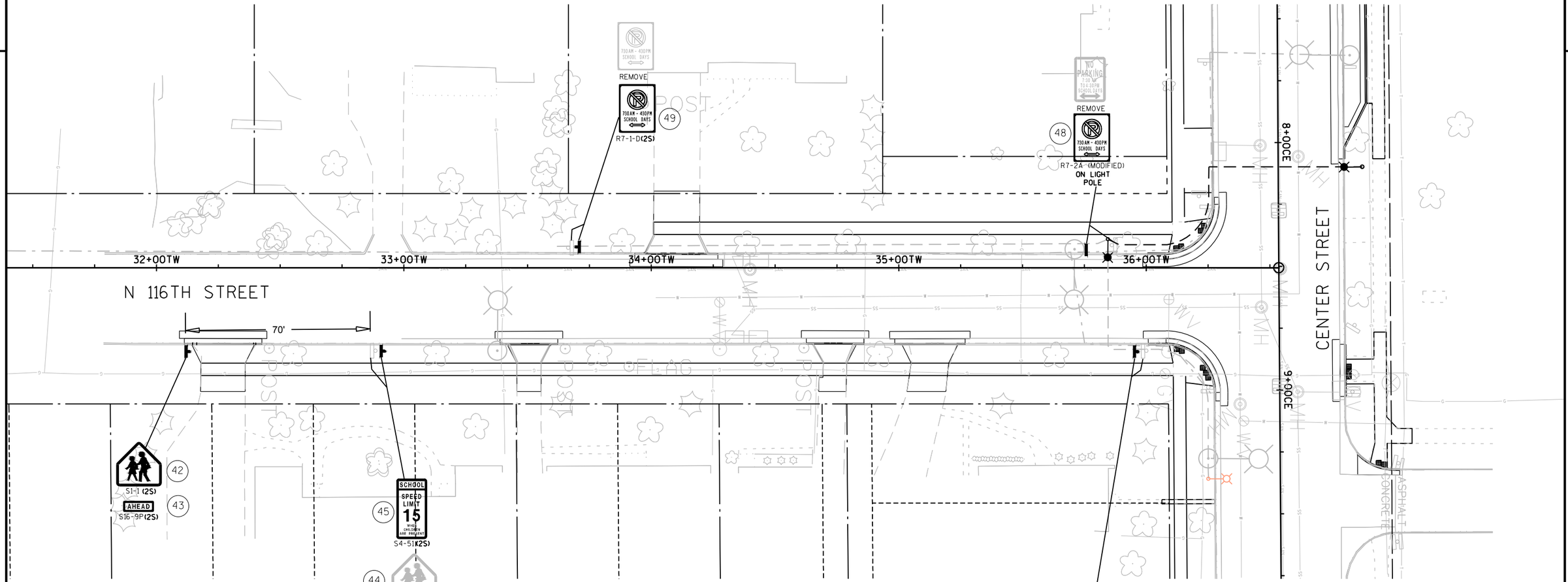
N

NOTE:
CONTACT CITY OF WAUWATOSA SIGN DEPARTMENT TO REMOVE STREET NAME SIGNS. PROVIDE 2 WEEKS NOTICE TO CITY PRIOR TO IMPACT TO SIGNS.

SHEET 2 OF 4

PROJECT NO: 1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	PERMANENT SIGNING PLAN	SHEET 94	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
- VMS — VARIABLE MESSAGE SIGN
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- DELINEATOR - 60' SPACING
  WHITE/RIGHT YELLOW/LEFT
- (XXX) DENOTES SIGN NUMBER

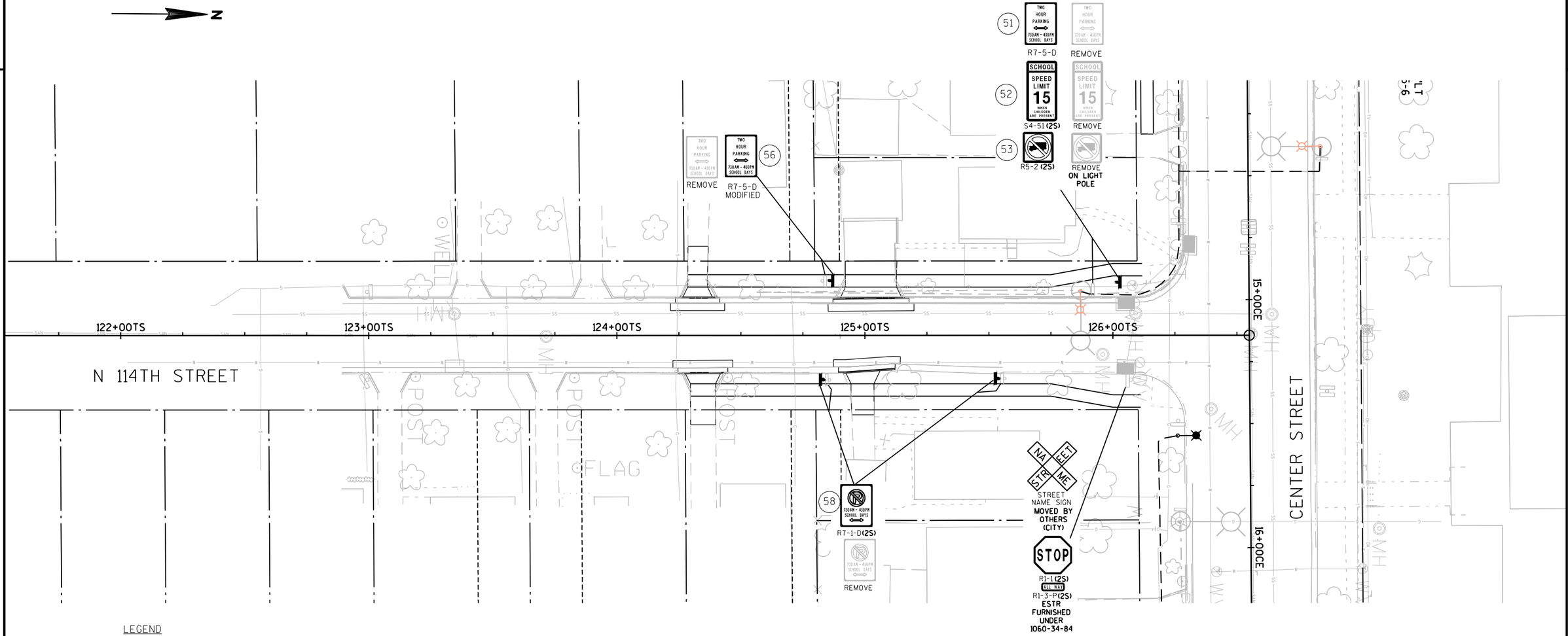
(XX) INDICATES SIGN SIZE

NOTE:
CONTACT CITY OF WAUWATOSA SIGN DEPARTMENT TO REMOVE STREET NAME SIGNS. PROVIDE 2 WEEKS NOTICE TO CITY PRIOR TO IMPACT TO SIGNS.

SHEET 3 OF 4

PROJECT NO: 1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	PERMANENT SIGNING PLAN	SHEET 95	E

FILE NAME : W:\PDS\C3D\CAD\10603316\85\023201_PS.DWG
LAYOUT NAME - 023203_PS
PLOT DATE : 9/10/2015 6:42 AM
PLOT BY : DODGE, BRIAN M
PLOT NAME :
PLOT SCALE : 1 IN:40 FT



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
- DELINEATOR - 60' SPACING WHITE/RIGHT YELLOW/LEFT
- (XXX) DENOTES SIGN NUMBER
- (XX) INDICATES SIGN SIZE

NOTE:
CONTACT CITY OF WAUWATOSA SIGN DEPARTMENT TO REMOVE STREET NAME SIGNS. PROVIDE 2 WEEKS NOTICE TO CITY PRIOR TO IMPACT TO SIGNS.

SHEET 4 OF 4

PROJECT NO: 1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	PERMANENT SIGNING PLAN	SHEET 96	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 LIGHTING UNIT
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE

N

USH 45 NB

USH 45 SB

CENTER STREET

114TH STREET

113TH STREET

DRIVEWAY

1 STOP R1-1 (2S)

2 R4-7 (2S)

REMOVE

3 R4-7 (2S)

4 STOP R1-1 (2S) ALL WAY R1-3-P (2S)

5 REMOVE

6 STOP R1-1 (2S) ALL WAY R1-3-P (2S)

7 Center St 114th St MOVE BY OTHERS

8 STOP R1-1 (2S) ALL WAY R1-3-P (2S)

REMOVE

9 NO PARKING 7:00-9:00 4:00-6:00 SCHOOL DAYS

MOVE

10 BUS

MOVE BY OTHERS

R3-4 (2S)

REMOVE

11 NO PARKING 7:00-9:00 4:00-6:00 SCHOOL DAYS

MOVE

12 2 HOUR PARKING 7:00-4:00 SCHOOL DAYS

MOVE

13 STOP R1-1 (2S) ALL WAY R1-3-P (2S)

MOUNT ON LIGHT POLE

14 STOP R1-1 (2S)

REMOVE

15 NO PARKING ANY TIME R7-1-D (2S)

16 NO DOGS ALLOWED

MOVE

REMOVE

17 13'-0" W12-2 (2S) LOW CLEARANCE

MOVE

18 AHEAD W16-9P (2S)

19 NO PARKING ON BRIDGE R8-52 (2S)

20 MOUNT ON LIGHT POLE

13'-0" AHEAD NO PARKING ON BRIDGE

REMOVE

21 R3-4 (2S)

MOUNT ON LIGHT POLE

22 NO PARKING 7:00-9:00 4:00-6:00 SCHOOL DAYS

MOVE

23 STOP R1-1 (2S)

REMOVE

24 STOP R1-1 (2S) ALL WAY R1-3-P (2S)

MOUNT ON LIGHT POLE

25 STOP R1-1 (2S) ALL WAY R1-3-P (2S)

26 STOP R1-1 (2S) ALL WAY R1-3-P (2S)

REMOVE

27 STOP R1-1 (2S) ALL WAY R1-3-P (2S)

28 NO PARKING 7:00-9:00 4:00-6:00 SCHOOL DAYS

MOVE

29 STOP R1-1 (2S)

REMOVE

30 BUS

MOVE BY OTHERS ON LIGHT POLE

31 NO PARKING 7:00-9:00 4:00-6:00 SCHOOL DAYS

MOVE

32 NO PARKING ON BRIDGE R8-52 (2S)

REMOVE

MOUNT ON LIGHT POLE

88 CENTER ST 2700 NORTH M1-94(MOD)

MOUNT ON BRIDGE (SEE DETAIL)

00 15+00 125+55 16+00 17+00 18+00 36+56 19+00 20+00

126+00 125+00 36+00 35+00

463+00 462+00 461+00

SHEET 1 OF 6

PROJECT NO: 1060-34-84	HWY: IH 41	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 97	E

FILE NAME : W:\PDS\C3D\CAD\10603484\SIGN\023201_PS.DWG PLOT DATE : 9/10/2015 8:11 AM PLOT BY : DODGE, BRIAN M PLOT NAME : ---------- PLOT SCALE : 1:40_XREF

WISDOT/CADDS SHEET 42

2

WHITMAN MIDDLE SCHOOL

N

CENTER STREET

DRIVEWAY

DRIVEWAY

112TH STREET

USH 45 NB

112th St
Center St
MOVE BY OTHERS

CENTER ST
2700 NORTH
M1-94(MOD)
MOUNT ON BRIDGE
(SEE DETAIL)
87

53 NO PARKING ON BRIDGE R8-52 (2S) MOUNT ON LIGHT POLE
REMOVE

72 S1-1 (2S)
73 AHEAD S16-9P (2S)
74 FINES HIGHER R2-6P (2S)

70 SPEED LIMIT 25 R2-1 (2S)

52 NO PARKING SCHOOL DAYS
MOVE

50 NO PARKING SCHOOL DAYS
MOVE
REMOVE

51 R3-4 (2S)
MOUNT ON LIGHT POLE

48 NO PARKING BUS STOP R7-7-R (2S)
REMOVE

49 NO PARKING SCHOOL DAYS
MOVE

MOVE BY OTHERS ON LIGHT POLE
BUS

78 S1-1 (2S)
REMOVE

79 S16-7L (2S)

SPEED LIMIT 25 R2-1 (2S) 35
NO PARKING ON BRIDGE R8-52 (2S) 36
MOUNT ON LIGHT POLE
REMOVE

38 STOP R1-1 (2S)
REMOVE

39 NO PARKING SCHOOL DAYS
MOVE

75 SCHOOL SPEED LIMIT 15 WHEN CHILDREN ARE PRESENT S4-51 (2S)

40 S1-1 (2S)
41 SCHOOL SPEED LIMIT 15 WHEN CHILDREN ARE PRESENT S4-51
REMOVE

42 NO PARKING SCHOOL DAYS
MOVE

43 R3-4 (2S)
44 NO PARKING SCHOOL DAYS
MOVE
REMOVE

13'-0" W12-2 (2S) 45
NO PARKING BUS STOP R7-7-L (2S) 46
MOUNT ON LIGHT POLE
13'-0"
REMOVE

MOVE BY OTHERS
BUS

76 S1-1 (2S)
77 S16-7L (2S)
REMOVE

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 LIGHTING UNIT
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE

SHEET 2 OF 6

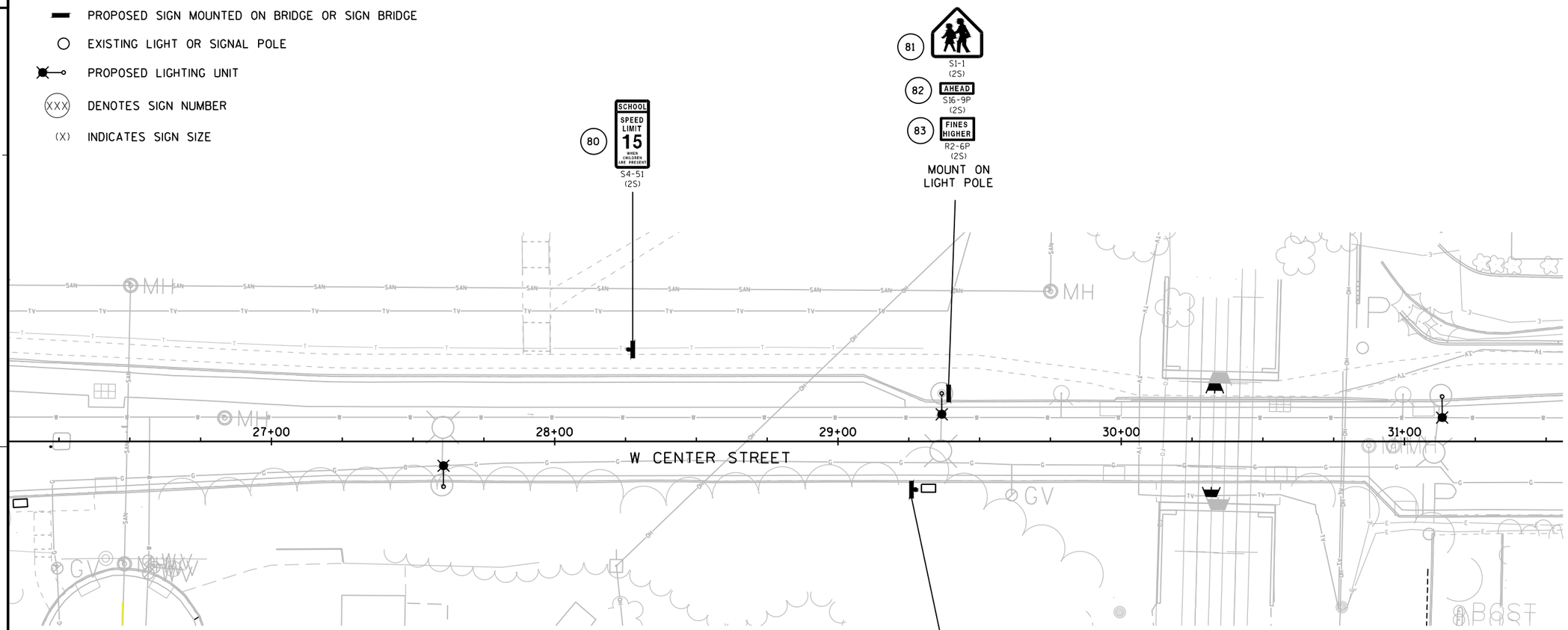
PROJECT NO: 1060-34-84	HWY: IH 41	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 98	E

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 LIGHTING UNIT
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE

N



SHEET 3 OF 6

PROJECT NO: 1060-34-84	HWY: IH 41	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 99	E

FILE NAME : W:\PDS\C3D\CAD\10603484\SIGN\023201_PS.DWG PLOT DATE : 9/10/2015 8:11 AM PLOT BY : DODGE, BRIAN M PLOT NAME : ---------- PLOT SCALE : 1:40_XREF

WISDOT/CADDS SHEET 42

USH 45

457+00 458+00 459+00 460+00 461+00 462+00

20+00 21+00 22+00 23+00

CENTER STREET

112TH STREET

31+00 32+00 33+00 34+00 35+00 36+00 36+57

N

REMOVE

54 NO PARKING ANY TIME R7-1-D (2S)

REMOVE

55 NO PARKING ANY TIME R7-1-D (2S)

56 3 HOUR PARKING 8AM - 6PM EX. SAT SUN

MOVE ON LIGHT POLE

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 LIGHTING UNIT
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE

SHEET 4 OF 6

PROJECT NO: 1060-34-84	HWY: IH 41	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 100	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 LIGHTING UNIT
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE

N

WHITMAN MIDDLE SCHOOL PARKING LOT

REMOVE

63 R4-7 (2S)

64 W5-52L (2S)

61 86 CAUTION SEMI DRIVERS DO NOT USE WEST DRIVE FOR EXIT

MOVE BOTH

NO STOPPING STANDING PARKING ANYTIME 62

MOVE

60 WE ♡ OUR CHILDREN PLEASE DRIVE CAREFULLY

MOVE

65 WE ♡ OUR CHILDREN PLEASE DRIVE CAREFULLY

MOVE

66 CAUTION NO STOPPING ON RAMP

MOVE

STOP

RIGHT TURN ONLY

REMOVE

57 STOP R1-1 (2S)

58 RIGHT TURN ONLY R3-53-R (2S)

89 DO NOT ENTER R5-1 (2S)

TRIM TO OCTAGON SHAPE

STOP

REMOVE

59 STOP R1-1 (2S)

ONE WAY

REMOVE

ONE WAY 67 R6-2-L (2S)

21+00 22+00 23+00 24+00 25+00 26+00

36+57

CENTER STREET

SHEET 5 OF 6

PROJECT NO: 1060-34-84	HWY: IH 41	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET	E

FILE NAME : W:\PDS\C3D\CAD\10603484\SIGN\023201_PS.DWG PLOT DATE : 9/10/2015 8:12 AM PLOT BY : DODGE, BRIAN M PLOT NAME : ---------- PLOT SCALE : 1:40_XREF

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 LIGHTING UNIT
- (XXX) DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE

EXIT 42B
North Ave
WEST
NEXT RIGHT
94

RIDESHARE
INFO CALL
1-800-455-POOL
95
D12-2A
TYPE II SIGN
MOVE

TEMPORARY LOCATION
ON WOOD POSTS

TYPE I SIGN
MOVE TEMPORARILY TO
WOOD POSTS AND THEN TO
STEEL POSTS AT END OF
PROJECT

96
W5-52L (5)
4' HEIGHT

W. CLARKE ST.

24TA 26TA 28TA 30TA 32TA 34TA 36TA

450NS 452NS 454NS 456NS 458NS 460NS 462NS 464NS

24TB 26TB 28TB 30TB 32TB 34TB 36TB

91
W4-2R
TYPE II SIGN
MOVE

92
10'-0"
REMOVE
REMOVE TYPE II SIGN
AFTER BRIDGE IS
CONSTRUCTED

EXIT 43
Burleigh St
1/2 MILE
90
TYPE I SIGN
MOVE TEMPORARILY TO
WOOD POSTS AND THEN TO
STEEL POSTS AT END OF
PROJECT

93
Mount Mary
College
EXIT 43
TYPE I SIGN
MOVE TEMPORARILY TO
WOOD POSTS AND THEN TO
STEEL POSTS AT END OF
PROJECT

CENTER STREET

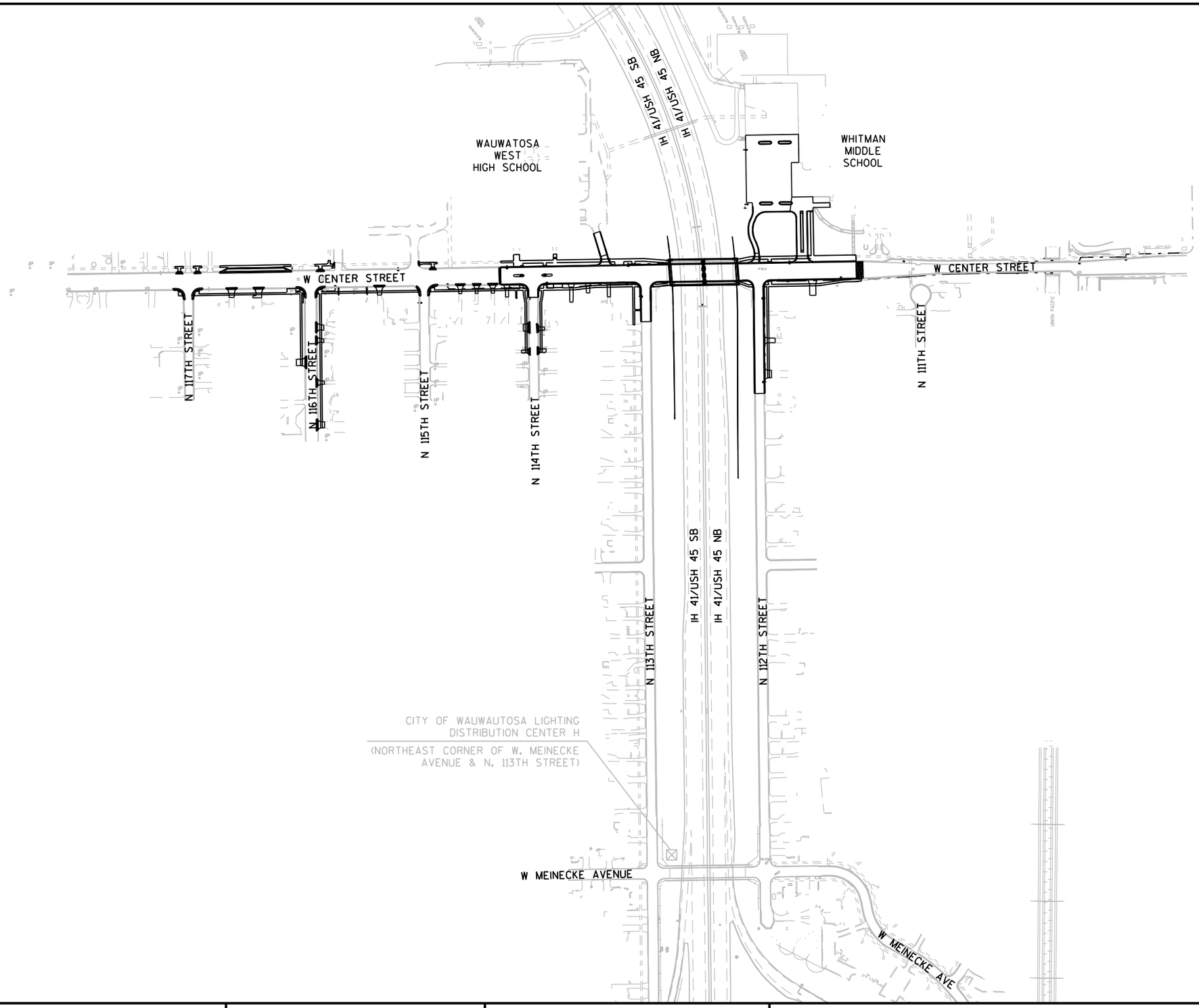
TEMPORARY LOCATION
ON WOOD POSTS

SHEET 6 OF 6

PROJECT NO: 1060-34-84	HWY: IH 41	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET	E

FILE NAME : W:\PDS\C3D\CAD\10603484\SIGN\023206_PS.DWG PLOT DATE : 9/10/2015 8:16 AM PLOT BY : DODGE, BRIAN M PLOT NAME : ---------- PLOT SCALE : 1:100_XREF
WISDOT/CADDS SHEET 42

2



PROJECT NO: 1060-34-84 / 1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	LIGHTING PLAN OVERVIEW	SHEET	E

FILE NAME : W:\PDS\C3D\CAD\10603484\DSN\LTG\023500_LP.DWG PLOT DATE : 7/30/2015 3:48 PM PLOT BY : DODGE, BRIAN M PLOT NAME : PLOT SCALE : 1" = 40'

2

GENERAL NOTES:

HIGHWAY LIGHTING SHALL BE INSTALLED IN COMPLIANCE WITH WISCONSIN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS SECTION 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 INDENTIFIED 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 OF THE CONDUIT.

4. ALL OPEN AND UNTERMINATED CONDUITS SHALL BE CAPPED OR PLUGGED WITH ENGINEER APPROVED FITTINGS IMMEDIATLY 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. PITCH ALL CONDUITS TOWARD PULL BOXES. INSTALL A 2" DRAIN DUCT TO STORM SEWER OR DRAIN SUMP AS REQUIRED FOR DRAINAGE. THE 2" DRAIN DUCT OR SUMP IS INCIDENTAL TO THE PULL BOX BID ITEM AND IS NOT SHOWN.

13. THE LOCATION OF EXISTING AND PROPOSED UTILITIES AS SHOWN ON THE PLANS ARE APPROXIMATE, IN ADDITION, THERE MAY BE OTHER UTILITIES WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL UTILITIES PRIOR TO CONSTRUCTION.

14. HAND DIGGING MAY BE REQUIRED FOR LOCATIONS ADJACENT TO EXISTING GAS AND POWER LINES. HAND EXCAVATION SHOULD BE ANTICIPATED & WILL BE CONSIDERED INCIDENTAL TO THE CONCRETE BASES BID ITEM. COORDINATE ALL WORK NEAR GAS LINE WITH WE ENERGIES.

15. UNDERGROUND WIRE & CONDUIT SHOWN ON REMOVAL PLANS FOR REMOVAL SHALL BE ABANDONED IN PLACE UNLESS DIRECTED BY THE ENGINEER. CONTRACTOR MAY CHOOSE TO REMOVE CONDUCTOR AT THEIR OWN EXPENSE.

16. EXISTING CONDUIT AND CID NO LONGER BEING USED IS ABANDONED IN PLACE. THE CONTRACTOR MAY REMOVE ABANDONED WIRING A THE CONTRACTOR'S EXPENSE. ABANDONED PULL BOX REMOVAL IS INCIDENTAL TO THE ROAD CONSTRUCTION.

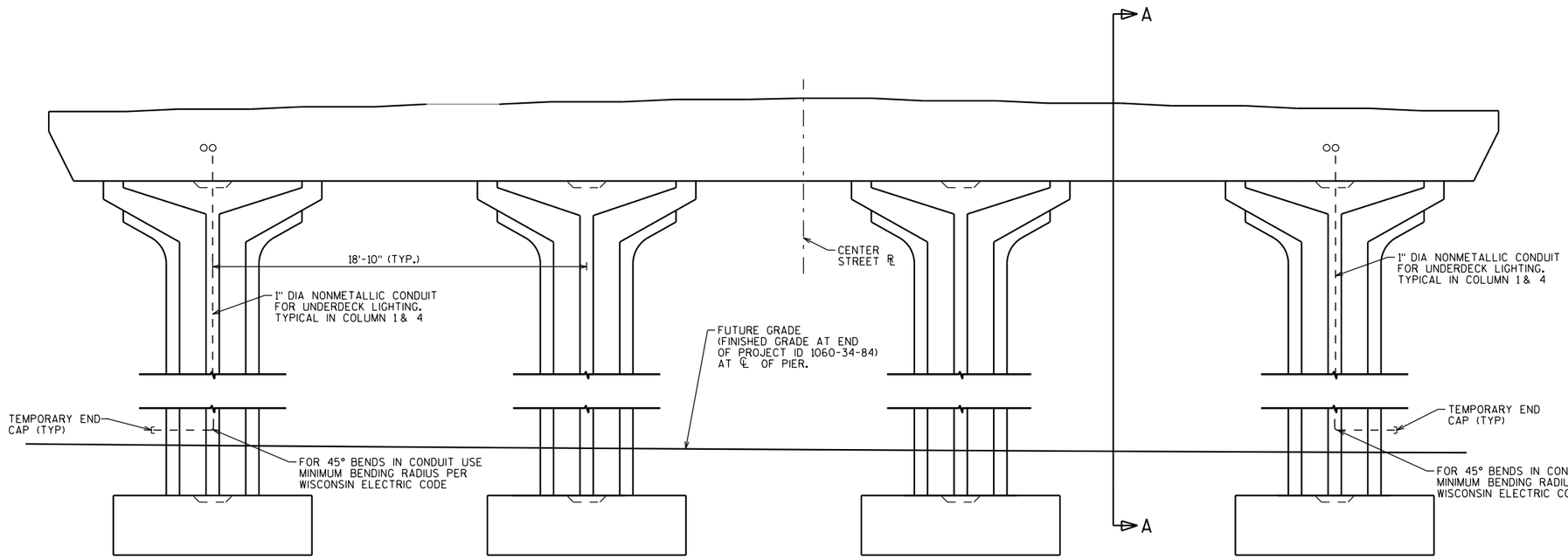
17. ALL UNDERGROUND WIRING AND CONDUIT FOR POLES BEING REMOVED IS ABANDONED IN PLACE UNLESS NOTED OTHERWISE. CONTRACTOR MAY SALVAGE ABANDONED WIRING AT HIS OWN EXPENSE.

18. PROVIDE REMOVABLE SEALANT SUCH AS DUCT SEAL IN THE CONDUITS AT THE CABINET, PULL BOXES, AND JUNCTION BOXES TO AVOID CONDENSATION CAUSED BY AIRFLOW THROUGH THE CONDUITS DUE TO TEMPERATURE DIFFERENCE. THIS WORK SHALL BE INCIDENTAL TO THE ASSOCIATED CONDUIT PAY ITEM.

19. PROVIDE MINIMUM CABLE SLACK AS MENTIONED BELOW:

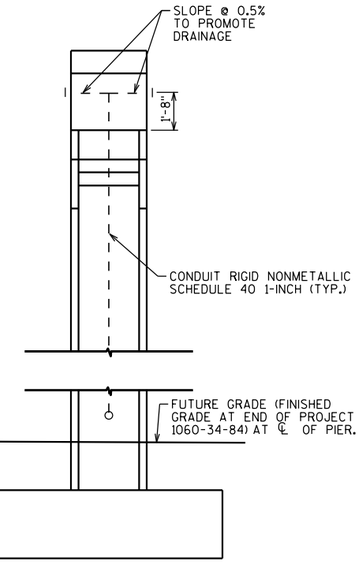
PULL BOXES:	10-FT
EMBEDDED JUCTION BOXES:	3-FT
DISTRIBUTION CENTER/LOAD CENTER:	10-FT
POLES:	5-FT IN AND 5-FT OUT

2

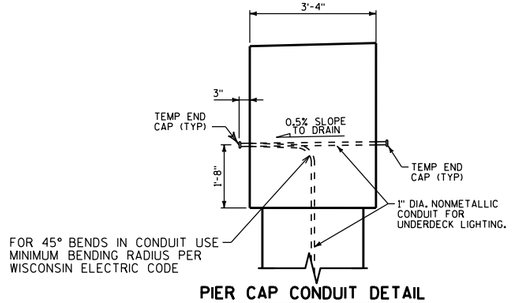


STRUCTURE B-40-880

ELEVATION LOOKING EAST



SECTION A-A

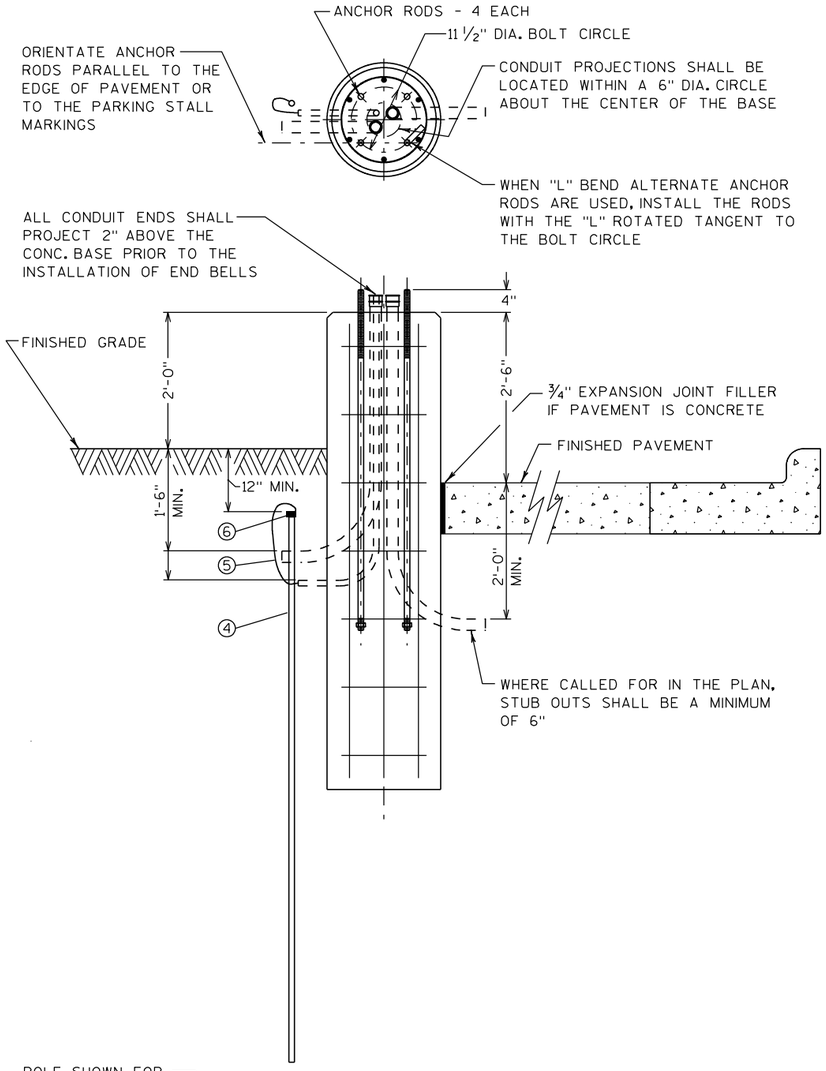


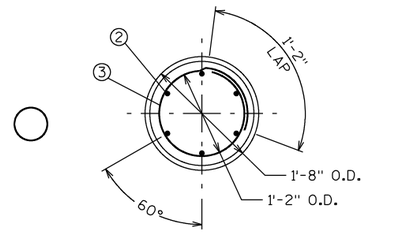
PIER CAP CONDUIT DETAIL

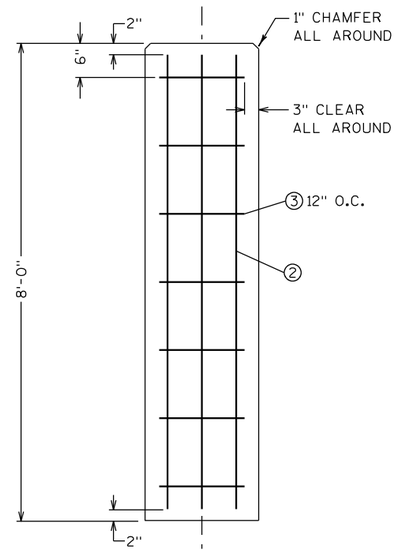
LOOKING NORTH
FOR LOCATIONS, SEE PIER CAP PLAN AND ELEVATION
PIER REINFORCEMENT NOT SHOWN FOR CLARITY

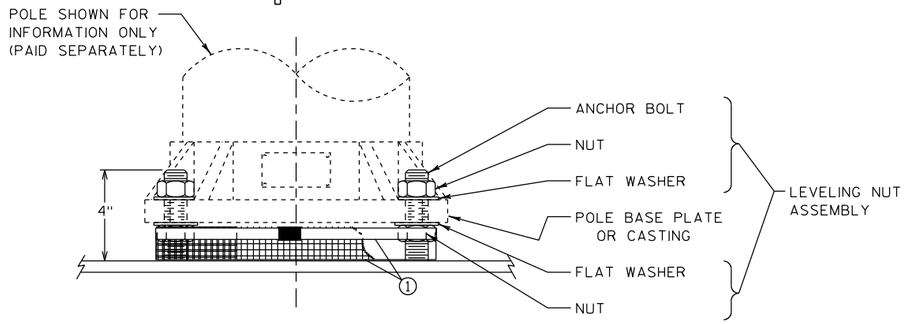
PROJECT NO: 1060-34-84 / 1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	LIGHTING DETAIL - UNDERDECK LIGHTING	SHEET	E

FILE NAME : W:\PDS\C3D\CAD\10603484\DSN\LTG\Detail_Pier.DGN PLOT DATE : 30-JUL-2015 15:54 PLOT BY : MSCBXD PLOT NAME : PLOT SCALE : 6.666667:1
WISDOT/CADDS SHEET 42

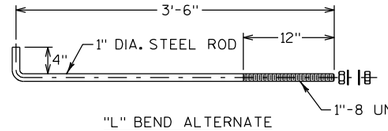




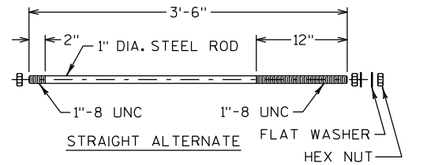




RAT SCREEN & LEVELING NUT DETAIL
(RAT SCREEN AND BANDING INCIDENTAL TO POLE, LEVELING NUT ASSEMBLIES INCIDENTAL TO CONCRETE BASE)



"L" BEND ALTERNATE



STRAIGHT ALTERNATE

ANCHOR ROD ASSEMBLY DETAIL
(INCIDENTAL TO CONCRETE BASE - 4 EACH PER BASE)

GENERAL NOTES:

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF SECTION 654 OF THE STANDARD SPECIFICATIONS AND THE SPECIAL PROVISIONS.

CONCRETE BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

FORMING SHALL BE LIMITED TO 6" BELOW THE EXISTING GRADE. UNLESS LOOSE SOIL OR FILL IS ENCOUNTERED. FORMING SHALL BE STRIPPED AFTER CONCRETE HAS SET.

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE SOIL OR FILL, THE FORM SHALL BE STRIPPED BEFORE BACK FILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE STRIPPED CONCRETE BASE IN LAYERS OF 6" OR LESS.

TOP SURFACE OF CONCRETE BASES SHALL BE TROWEL FINISHED AND LEVEL.

THE NUMBER, SIZE, AND LOCATION OF LINE AND LOAD SIDE CONDUITS WILL BE SHOWN IN THE PLANS. NOTE, SOME BASES MAY HAVE MORE THAN ONE LOAD SIDE CONDUIT REQUIRED (SEE THE PLAN). ALL BASES SHALL HAVE A 1" CONDUIT FOR THE EQUIPMENT GROUNDING CONDUCTOR.

CONDUIT ENDS PROJECTING ABOVE THE BASE SHALL BE SUITABLY PLUGGED BEFORE THE CONCRETE IS POURED, TO PREVENT DEBRIS CONTAMINATION OF THE RACEWAY.

ENDS OF CONDUIT INSTALLED BELOW GRADE FOR FUTURE USE (STUB OUTS) SHALL BE PLUGGED.

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE INSTALLED WITH A MINIMUM OF 6'-6" OF SLACK MEASURED FROM THE TOP OF THE CONCRETE BASE TO THE END OF THE CONDUCTOR. THE SLACK SHALL BE NEATLY TIED IN A COIL THAT FITS INSIDE THE ANCHOR BOLT CIRCLE UNTIL THE LIGHT POLE IS INSTALLED. GREAT CARE SHALL BE EXERCISED TO AVOID DAMAGE TO THE CONDUCTOR.

THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24". THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18". THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36". THE MAXIMUM DEPTH MAY ONLY BE EXCEEDED WITH THE WRITTEN APPROVAL OF THE ENGINEER.

ANCHOR RODS SHALL NOT BE WELDED TO THE BAR STEEL REINF. HOWEVER, TIE WIRES MAY BE USED.

BAR STEEL REINF. SHALL BE "COATED HIGH STRENGTH BAR STEEL REINFORCEMENT".

① STAINLESS STEEL MESH (RAT SCREEN) AND ¾" STAINLESS STEEL BANDING

② NO. 6 BAR STEEL REINF., 6'-8" LONG (6 EACH)

③ NO. 4 BAR STEEL REINF., 5'-0" LONG (7 EACH)

④ ⅝" × 8'-0" COPPER CLAD EQUIPMENT GROUNDING ELECTRODE (GROUND ROD) TOP OF ROD 12" MIN. BELOW FINISHED GRADE OR FINISHED PAVEMENT.

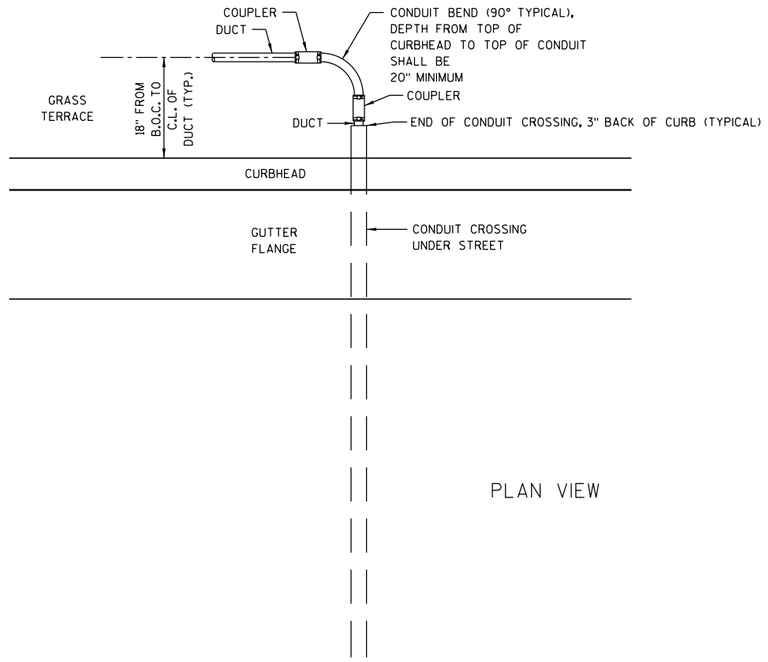
⑤ A NO. 4 AWG, STRANDED COPPER GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUNDING ROD)

⑥ EXOTHERMIC WELD (CAD WELD)

CONCRETE BASE, TYPE 5, SPECIAL

(1" ANCHOR RODS, 11.5" BOLT CIRCLE, 4" PROJECTION)

2



PLAN VIEW

CONNECTION SPECIFICATIONS FOR INSTALLATIONS USING 1¼" I.D. DUCT:

COUPLERS SHALL BE DURA-LINE 1¼" SDR SHUR-LOCK™ II, ETL LISTED TO UL-514B STANDARDS (DURA-LINE PART NO. 20000120)

CONDUIT BEND SHALL BE 1¼" I.D. SCHEDULE 40 PVC

CONNECTION SPECIFICATIONS FOR INSTALLATIONS USING 1½" I.D. DUCT:

COUPLERS SHALL BE DURA-LINE 1½" SDR SHUR-LOCK™ II, ETL LISTED TO UL-514B STANDARDS (DURA-LINE PART NO. 20000122)

CONDUIT BEND SHALL BE 1½" I.D. SCHEDULE 40 PVC

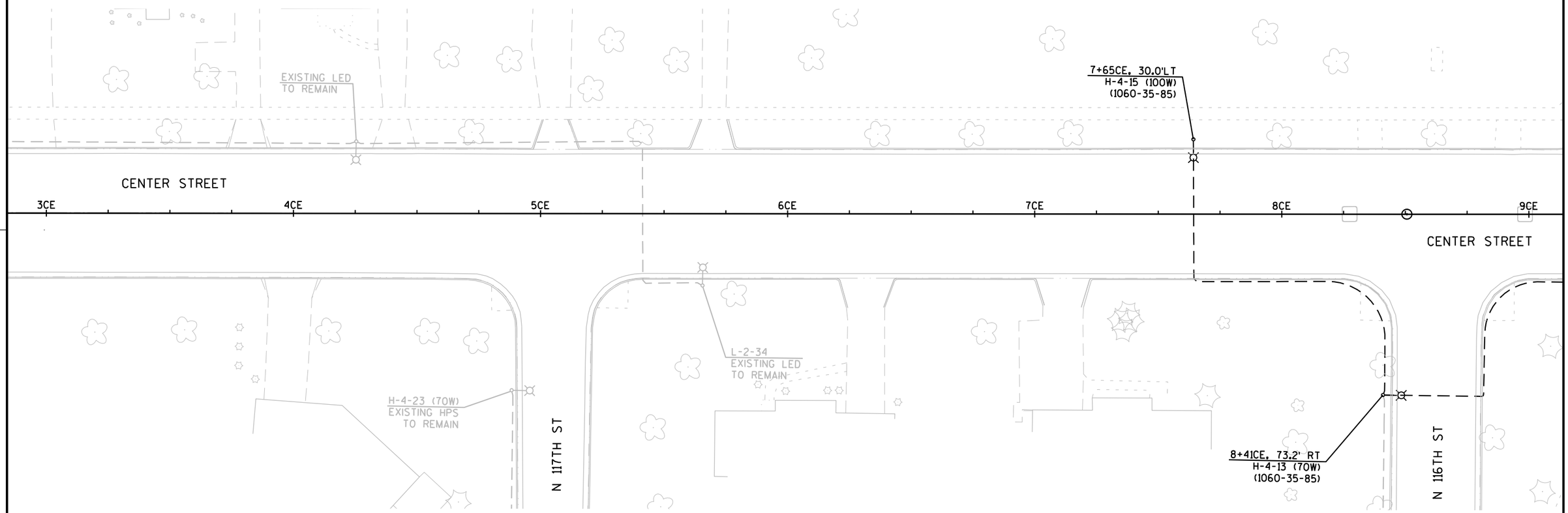
NOTES:
1. SEE PLANS FOR LOCATIONS AND SIZE OF REQUIRED DUCT INSTALLATIONS.
2. DO NOT SUBSTITUE ALTERNATIVES WITHOUT EXPRESS APPROVAL OF THE ENGINEER.

DETAIL OF TYPICAL DUCT TO CONDUIT BEND CONNECTION FOR STREET LIGHTING

PROJECT NO: 1060-34-84 / 1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	LIGHTING DETAIL - TYPICAL DUCT	SHEET	E

LEGEND

- MUNICIPAL LIGHT POLE TO BE REMOVED
- MUNICIPAL LIGHT POLE TO REMAIN
- DOT TWIN LIGHT POLE TO BE REMOVED
- DOT TWIN LIGHT POLE TO REMAIN
- EXISTING UNDERDECK LIGHTING TO BE REMOVED



SHEET 1 OF 8

PROJECT NO: 1060-34-84 / 1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	LIGHTING REMOVAL PLAN	SHEET 108	E

FILE NAME : W:\PDS\C3D\CAD\10603484\023501_LP.DWG PLOT DATE : 7/30/2015 3:15 PM PLOT BY : DODGE, BRIAN M PLOT NAME : PLOT SCALE : 1" = 40'_XREF

WISDOT/CADDS SHEET 42

LEGEND

- MUNICIPAL LIGHT POLE TO BE REMOVED
- MUNICIPAL LIGHT POLE TO REMAIN
- DOT TWIN LIGHT POLE TO BE REMOVED
- DOT TWIN LIGHT POLE TO REMAIN
- EXISTING UNDERDECK LIGHTING TO BE REMOVED

N

11+20CE, 29.0'LT
H-5-16 (100W)
(1060-35-85)

14+38CE, 29.2'LT
H-6-14 (100W)

ASPHALT
CONCRETE

CENTER STREET

10CE 11CE 12CE 13CE 14CE 15CE

CENTER STREET

126TS

9+36CE, 29.1'RT
H-4-14 (70W)
(1060-35-85)

11+77CE, 74.6' RT
H-5-15 (70W)
(1060-35-85)

12+64CE, 29.2'RT
H-6-15 (100W)

125+87TS, 17.1'LT
H-6-13 (70W)

N 115TH ST

N 114TH ST

126TS

125TS

SHEET 2 OF 8

PROJECT NO: 1060-34-84 / 1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	LIGHTING REMOVAL PLAN	SHEET	E

FILE NAME : W:\PDS\C3D\CAD\10603484\023501_LP.DWG PLOT DATE : 7/30/2015 3:16 PM PLOT BY : DODGE, BRIAN M PLOT NAME : PLOT SCALE : 1" = 40'_XREF
WISDOT/CADDS SHEET 42

LEGEND

- MUNICIPAL LIGHT POLE TO BE REMOVED
- MUNICIPAL LIGHT POLE TO REMAIN
- DOT TWIN LIGHT POLE TO BE REMOVED
- DOT TWIN LIGHT POLE TO REMAIN
- EXISTING UNDERDECK LIGHTING TO BE REMOVED

N

CENTER STREET

16CE 17CE 18CE 19CE 20CE 21CE

36TA 35TA

N 113TH ST

IH 41/USH 45 SB

IH 41/USH 45 NB

464NS 463NS 462NS 461NS

463+39NS, 6.0'LT
CBS11/DBS11

17+63CE, 28.9'LT
H-6-07 (100W)

19+15CE, 32.9'LT
H-6-16 (100W)

20+90CE, 32.9'LT
H-6-17 (100W)

H-6-07JB

H-6-07JB1

2 UDL
A/B/NA

H-6-04JB

H-6-04JB1

15+89CE, 28.3'RT
H-6-08 (100W)

19+15CE, 32.4'RT
H-6-05 (100W)

20+90CE, 33.0'RT
H-6-06 (100W)

35+85TA, 17.9'LT
H-6-04 (70W)

REMOVE/ABANDON EXISTING CONDUCTORS FROM POLE ANA10/BNA10 UNDER THE REMOVING UNDERDECK LIGHTING PAY ITEM

COORDINATE WITH WISDOT FOR DISCONNECT/CONNECT OF LIGHTING CONTROL CABINET HL-40-NA

461+05NS, 8.5'LT
ANA10/BNA10

SHEET 3 OF 8

PROJECT NO:1060-34-84 / 1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	LIGHTING REMOVAL PLAN	SHEET 110	E

2

2

WHITMAN
MIDDLE
SCHOOL

N

SHEET 6

B B

PARKING LOT ENTRANCE

11WMS

22+55CE, 29.1'LT
H-1-13 (250W)

26+00CE, 30.2'LT
H-1-15 (250W)

CENTER STREET

21CE 22CE 23CE 24CE 25CE 26CE 27CE

35TB

10WMS

25+97CE, 22.7'RT
H-1-14JB

24+17CE, 28.2'RT
H-1-14 (250W)

35+75TB, 18.3'RT
H-1-12 (70W)

N 112TH ST

35TB

36TB

A A

SHEET 5

LEGEND

- MUNICIPAL LIGHT POLE TO BE REMOVED
- MUNICIPAL LIGHT POLE TO REMAIN
- DOT TWIN LIGHT POLE TO BE REMOVED
- DOT TWIN LIGHT POLE TO REMAIN
- EXISTING UNDERDECK LIGHTING TO BE REMOVED

SHEET 4 OF 8

PROJECT NO: 1060-34-84 / 1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	LIGHTING REMOVAL PLAN	SHEET 111	E

FILE NAME : W:\PDS\C3D\CAD\10603484\023501_LP.DWG PLOT DATE : 7/30/2015 3:16 PM PLOT BY : DODGE, BRIAN M PLOT NAME : PLOT SCALE : 1" = 40'_XREF

WISDOT/CADDS SHEET 42

LEGEND

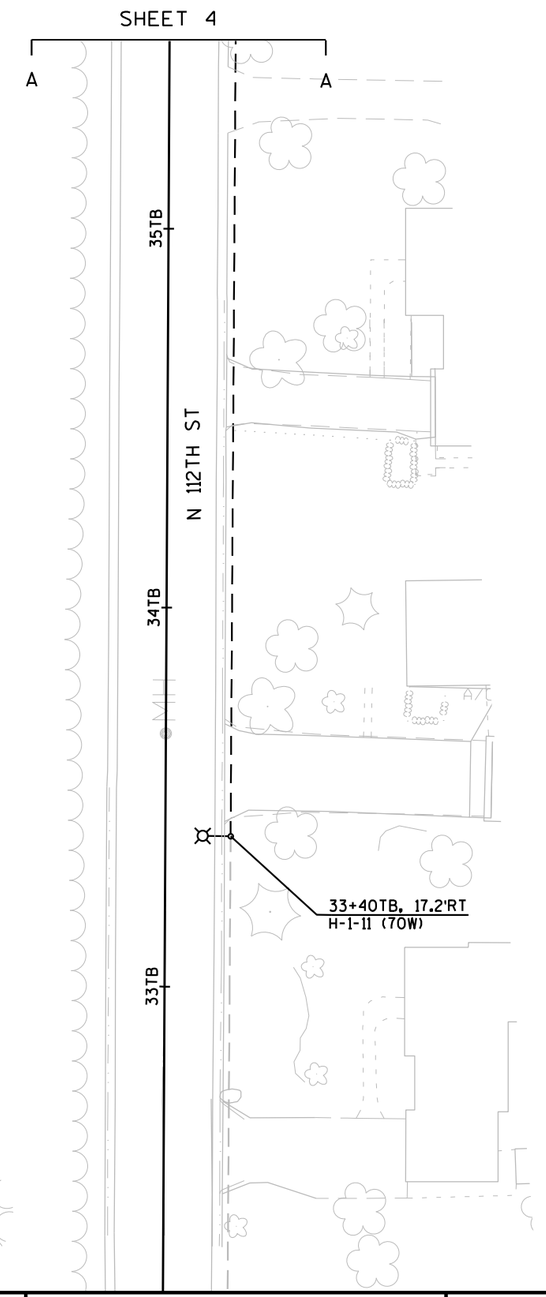
MUNICIPAL LIGHT POLE TO BE REMOVED

MUNICIPAL LIGHT POLE TO REMAIN

DOT TWIN LIGHT POLE TO BE REMOVED

DOT TWIN LIGHT POLE TO REMAIN

EXISTING UNDERDECK LIGHTING TO BE REMOVED



N

SHEET 5 OF 8

PROJECT NO: 1060-34-84 / 1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	LIGHTING REMOVAL PLAN	SHEET 112	E

2

2

16WMS

15WMS

14WMS

13WMS

12WMS

468NS

467NS

466NS

465NS

464NS

IH 41/USH 45 SB

IH 41/USH 45 NB

H-1-22 (250W)
(PROJECT ID 1060-33-83)

H-1-23 (250W)
(PROJECT ID 1060-33-83)

SCHOOL
PARKING
LOT

13+56WMS, 92.3'LT
H-1-21 (250W)

11+97WMS, 91.9'LT
H-1-20 (250W)

B

B

SHEET 4

HW

HW

HW

HW

ACCESS ROAD

N

LEGEND

- MUNICIPAL LIGHT POLE TO BE REMOVED
- MUNICIPAL LIGHT POLE TO REMAIN
- DOT TWIN LIGHT POLE TO BE REMOVED
- DOT TWIN LIGHT POLE TO REMAIN
- EXISTING UNDERDECK LIGHTING TO BE REMOVED

SHEET 6 OF 8

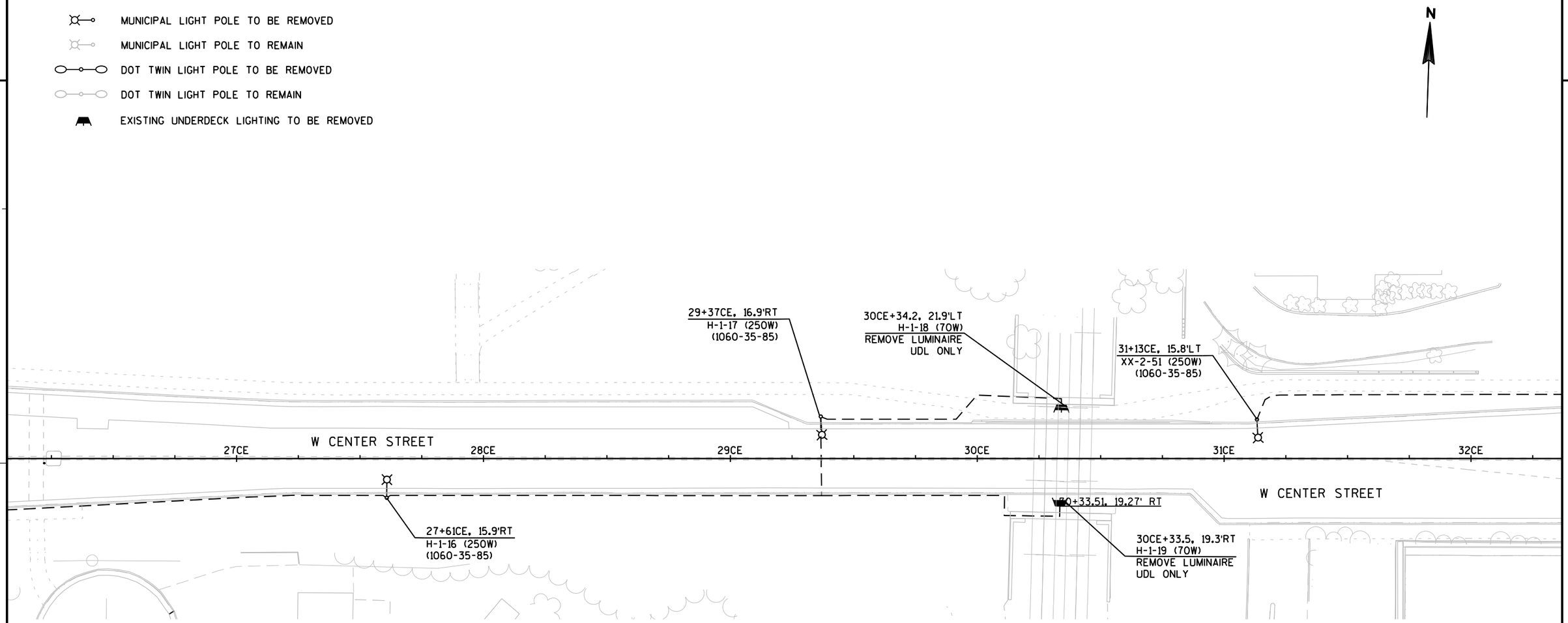
PROJECT NO: 1060-34-84 / 1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	LIGHTING REMOVAL PLAN	SHEET	E

FILE NAME : W:\PDS\C3D\CAD\10603484\023501_LP.DWG PLOT DATE : 7/30/2015 3:17 PM PLOT BY : DODGE, BRIAN M PLOT NAME : PLOT SCALE : 1:50_XREF

WISDOT/CADDS SHEET 42

LEGEND

- MUNICIPAL LIGHT POLE TO BE REMOVED
- MUNICIPAL LIGHT POLE TO REMAIN
- DOT TWIN LIGHT POLE TO BE REMOVED
- DOT TWIN LIGHT POLE TO REMAIN
- EXISTING UNDERDECK LIGHTING TO BE REMOVED



SHEET 7 OF 8

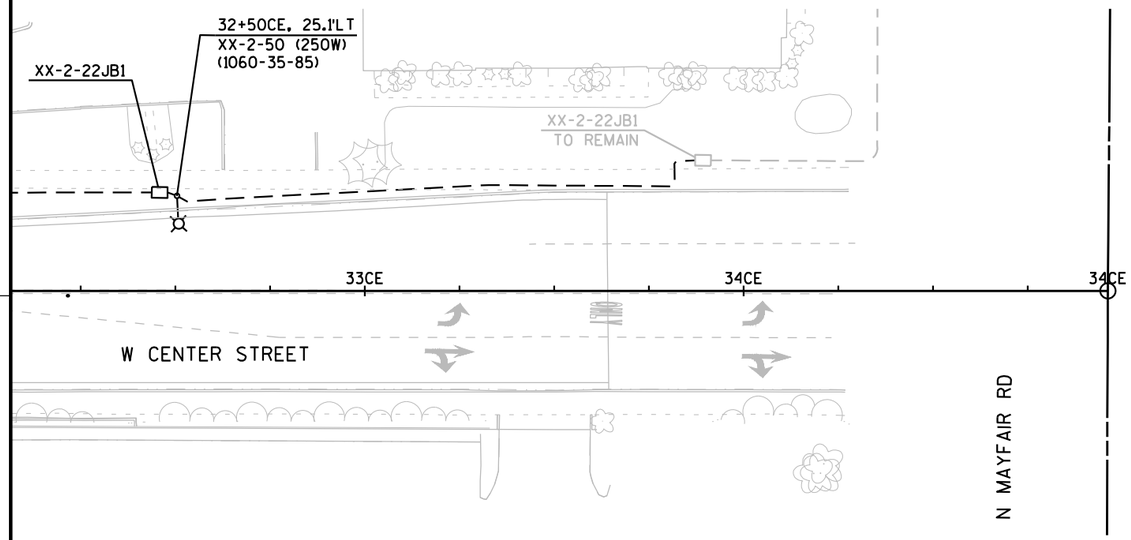
PROJECT NO:1060-34-84 / 1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	LIGHTING REMOVAL PLAN	SHEET 114	E

2

LEGEND

- MUNICIPAL LIGHT POLE TO BE REMOVED
- MUNICIPAL LIGHT POLE TO REMAIN
- DOT TWIN LIGHT POLE TO BE REMOVED
- DOT TWIN LIGHT POLE TO REMAIN
- EXISTING UNDERDECK LIGHTING TO BE REMOVED
- PULL BOX, POLYMER CONCRETE
  CITY OF WAUWATOSA

N



2

SHEET 8 OF 8

PROJECT NO:1060-34-84 / 1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	LIGHTING REMOVAL PLAN	SHEET 115	E

FILE NAME : W:\PDS\C3D\CAD\10603484\023501_LP.DWG PLOT DATE : 7/30/2015 3:17 PM PLOT BY : DODGE, BRIAN M PLOT NAME : PLOT SCALE : 1" = 40'_XREF

WISDOT/CADDS SHEET 42

2

2

LEGEND

PERMANENT MUNICIPAL LIGHT POLE

MUNICIPAL LIGHT POLE TO REMAIN

PERMANENT DOT TWIN LIGHT POLE

DOT TWIN LIGHT POLE TO REMAIN

CONDUIT - 2" UNLESS OTHERWISE NOTED

PROPOSED CONDUCTORS IN DUCT (CID):
2-4 AWG AND 1-8 AWG GND
IN 1 1/4-INCH DUCT UNLESS NOTES

PULL BOX, POLYMER CONCRETE (17"x30"x24")
CITY OF WAUWATOSA

PROPOSED UNDERDECK LIGHTING UNIT (UDL)

STATION - OFFSET
LED C-5(30)-6-H-6-15

- LUMINAIRE NUMBER
- CIRCUIT
- DISTRIBUTION CENTER
- LUMINAIRE ARM LENGTH
- POLE TYPE, AND HEIGHT (H)
- LUMINAIRE UTILITY CATEGORY
- LUMINAIRE TYPE SOURCE

N

L-2-33
LED

8+10CE, 34.0'LT
LEDC-5(30)-6-H-4-15
(1060-35-85)

1-3" CONDUIT
SEE TYPICAL
DUCT DETAIL

W CENTER STREET

3CE 4CE 5CE 6CE 7CE 8CE

2-4 AWG
1-8 AWG
IN CID

W CENTER STREET

1-3"

L-2-34
LED

8+25CE, 35.6' RT
LPB-W-H-4-1

H-4-23
70 W

8+39CE, 69.0'RT
LED A-5(25)-6-H-4-13
(1060-35-85)

EXTEND EXISTING CONDUCTORS
TO THE PROPOSED POLE

N 117TH ST

N 116TH ST

SHEET 1 OF 8

PROJECT NO: 1060-34-84 / 1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	LIGHTING PLAN	SHEET	E

FILE NAME : W:\PDS\C3D\CAD\10603484\023601_LP.DWG PLOT DATE : 7/30/2015 3:22 PM PLOT BY : DODGE, BRIAN M PLOT NAME : PLOT SCALE : 1" = 40'_XREF

WISDOT/CADDS SHEET 42

2

N

11+20CE, 29.0'LT
LED C-5(30)-6-H-5-16
(1060-35-85)

14+38CE, 29.2'LT
LED C-5(30)-6-H-6-14

1-3" CONDUIT
SEE TYPICAL
DUCT DETAIL

W CENTER STREET

9CE 10CE 11CE 12CE 13CE 14CE

2-4 AWG
1-8 AWG
IN CID

1-3" CONDUIT
SEE TYPICAL
DUCT DETAIL

1-3"

9+36CE, 29.1'RT
LED C-5(30)-6-H-4-14
(1060-35-85)

11+78CE, 74.7' RT
LED A-5(25)-6-H-5-15
(1060-35-85)

EXTEND EXISTING CONDUCTORS
TO THE PROPOSED POLE

N 116TH ST

W CENTER STREET

2-4 AWG
1-8 AWG
IN CID

12+64CE, 29.2'RT
LED C-5(30)-6-H-6-15

14+47CE, 35.5' RT
LPB-W-H-6-1

N 115TH ST

STATION - OFFSET
LED C-5(30)-6-H-6-15

- LUMINAIRE NUMBER
- CIRCUIT
- DISTRIBUTION CENTER
- LUMINAIRE ARM LENGTH
- POLE TYPE, AND HEIGHT (H)
- LUMINAIRE UTILITY CATEGORY
- LUMINAIRE TYPE SOURCE

LEGEND

- PERMANENT MUNICIPAL LIGHT POLE
- MUNICIPAL LIGHT POLE TO REMAIN
- PERMANENT DOT TWIN LIGHT POLE
- DOT TWIN LIGHT POLE TO REMAIN
- CONDUIT - 2" UNLESS OTHERWISE NOTED
- PROPOSED CONDUCTORS IN DUCT (CID):
  2-4 AWG AND 1-8 AWG GND
  IN 1 1/4-INCH DUCT UNLESS NOTES
- PULL BOX, POLYMER CONCRETE (17"x30"x24")
  CITY OF WAUWATOSA
- PROPOSED UNDERDECK LIGHTING UNIT (UDL)

SHEET 2 OF 8

PROJECT NO: 1060-34-84 / 1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	LIGHTING PLAN	SHEET	E

FILE NAME : W:\PDS\C3D\CAD\10603484\023601_LP.DWG PLOT DATE : 7/30/2015 3:22 PM PLOT BY : DODGE, BRIAN M PLOT NAME : PLOT SCALE : 1" = 40'_XREF

WISDOT/CADDS SHEET 42

LEGEND

- PERMANENT MUNICIPAL LIGHT POLE
- MUNICIPAL LIGHT POLE TO REMAIN
- PERMANENT DOT TWIN LIGHT POLE
- DOT TWIN LIGHT POLE TO REMAIN
- CONDUIT - 2" UNLESS OTHERWISE NOTED
- PROPOSED CONDUCTORS IN DUCT (CID): 2-4 AWG AND 1-8 AWG GND IN 1 1/4-INCH DUCT UNLESS NOTES
- PULL BOX, POLYMER CONCRETE (17"x30"x24") CITY OF WAUWATOSA
- PROPOSED UNDERDECK LIGHTING UNIT (UDL)

STATION - OFFSET
LED C-5(30)-6-H-6-15
- LUMINAIRE NUMBER
- CIRCUIT
- DISTRIBUTION CENTER
- LUMINAIRE ARM LENGTH
- POLE TYPE, AND HEIGHT (H)
- LUMINAIRE UTILITY CATEGORY
- LUMINAIRE TYPE SOURCE

W CENTER ST

IH 41/USH 45 SB

IH 41/USH 45 NB

N

463+39NS, 5.7'LT
CBS11/DBS11

463NS

19+06CE, 40.7'LT
LPB-W-H-6-4
(VERIFY IF NEEDED)

19+22CE, 40.1'LT
LED C-5(25)-6-H-6-16

17+93CE, 30.1'LT
LED C-5(30)-6-H-6-07

1-3" CONDUIT
SEE TYPICAL
DUCT DETAIL

2-4 AWG
1-8 AWG
IN CID

15CE 126TS 16CE 17CE 18CE 36TA 19CE 20CE 462NS

17+88CE, 30.0' RT
LPB-W-H-6-2

1-3"

2-4 AWG
1-6 AWG

19+26CE, 37.1'RT
LED C-5(25)-6-H-6-05

19+12CE, 37.0'RT
LPB-W-H-6-3
(VERIFY IF NEEDED)

461+05NS, 8.5'LT
ANA10/BNA10

461NS

15+55CE, 29.1'RT
H-6-08 LED C

125+87TS, 17.7'LT
LED A-5(25)-6-H-6-13

EXTEND EXISTING CONDUCTORS
TO THE PROPOSED POLE

35+89TA, 17.8'LT
LED A-5(25)-6-H-6-04

EXTEND EXISTING CONDUCTORS
TO THE PROPOSED POLE

N 114TH ST

N 113TH ST

126TS

125TS

36TA

35TA

IH 41/USH 45 SB

IH 41/USH 45 NB

SHEET 3 OF 8

PROJECT NO: 1060-34-84 / 1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	LIGHTING PLAN	SHEET E

FILE NAME : W:\PDS\C3D\CAD\10603484\023601_LP.DWG PLOT DATE : 7/30/2015 3:23 PM PLOT BY : DODGE, BRIAN M PLOT NAME : PLOT SCALE : 1" = 40'_XREF
WISDOT/CADDS SHEET 42

2

WHITMAN MIDDLE SCHOOL
PARKING LOT

PARKING LOT ENTRANCE

N

SHEET 6

B B

463NS

IH 41/USH 45 NB

21+02CE, 40.1'LT
LED C-5(25)-6-H-6-17

11WMS

22+65CE, 30.0'LT
LED C-5(30)-6-H-1-13

26+00CE, 30.2'LT
LED C-5(30)-6-H-1-15

OH

W CENTER ST

20CE 21CE 22CE 23CE 24CE 25CE 26CE

36TB

10WMS

2-4 AWG
1-8 AWG
IN CID

1-3" CONDUIT
SEE TYPICAL
DUCT DETAIL

W CENTER ST

2-4 AWG
1-8 AWG
IN CID

1-3" CONDUIT
SEE TYPICAL
DUCT DETAIL

22+60CE, 29.0'RT
LPB-W-H-1-1

24+15CE, 28.0'RT
LED C-5(30)-6-H-1-14

26+11CE, 21.8' RT
LPB-W-H-1-2

463NS

IH 41/USH 45 NB

21+06CE, 37.1'RT
LED C-5(25)-6-H-6-6

36TB

35+79TB, 18.2'RT
LED A-5(25)-6-H-1-12

N 112TH ST

461NS

461+05NS, 8.5'LT
ANA10/BNA10

35TB

A A

SHEET 5

STATION - OFFSET
LED C-5(30)-6-H-6-15

- LUMINAIRE NUMBER
- CIRCUIT
- DISTRIBUTION CENTER
- LUMINAIRE ARM LENGTH
- LUMINAIRE TYPE SOURCE

LEGEND

- PERMANENT MUNICIPAL LIGHT POLE
- MUNICIPAL LIGHT POLE TO REMAIN
- PERMANENT DOT TWIN LIGHT POLE
- DOT TWIN LIGHT POLE TO REMAIN
- CONDUIT - 2" UNLESS OTHERWISE NOTED
- PROPOSED CONDUCTORS IN DUCT (CID): 2-4 AWG AND 1-8 AWG GND IN 1 1/4-INCH DUCT UNLESS NOTES
- PULL BOX, POLYMER CONCRETE (17"x30"x24") CITY OF WAUWATOSA
- PROPOSED UNDERDECK LIGHTING UNIT (UDL)

SHEET 4 OF 8

PROJECT NO: 1060-34-84 / 1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	LIGHTING PLAN	SHEET 119	E

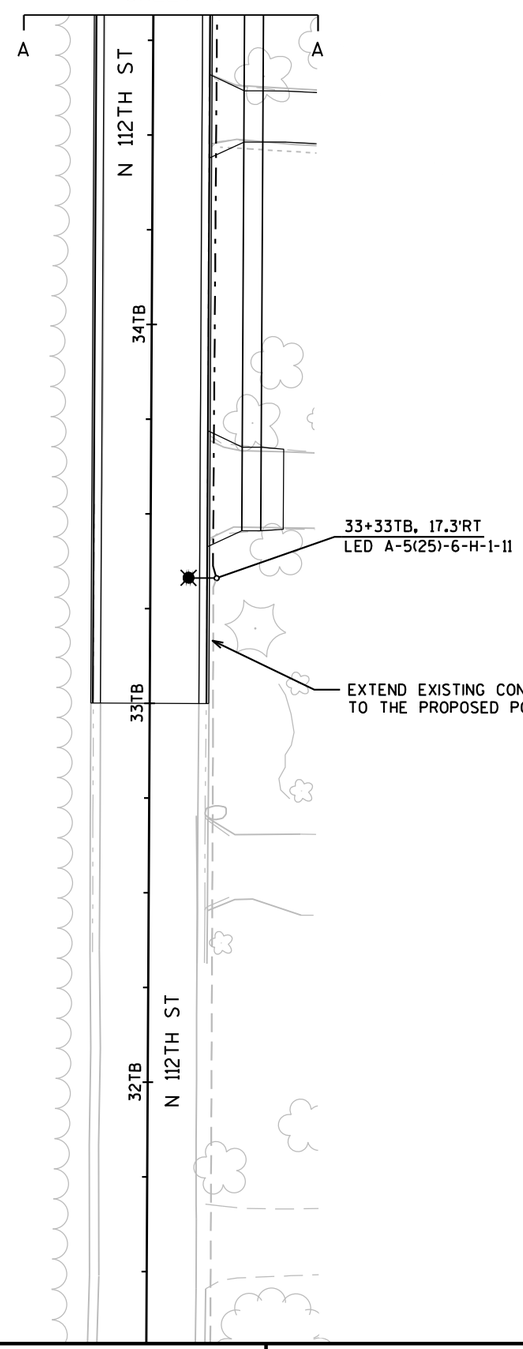
LEGEND

- PERMANENT MUNICIPAL LIGHT POLE
- MUNICIPAL LIGHT POLE TO REMAIN
- PERMANENT DOT TWIN LIGHT POLE
- DOT TWIN LIGHT POLE TO REMAIN
- CONDUIT - 2" UNLESS OTHERWISE NOTED
- PROPOSED CONDUCTORS IN DUCT (CID): 2-4 AWG AND 1-8 AWG GND IN 1 1/4-INCH DUCT UNLESS NOTES
- PULL BOX, POLYMER CONCRETE (17"x30"x24") CITY OF WAUWATOSA
- PROPOSED UNDERDECK LIGHTING UNIT (UDL)

STATION - OFFSET
LED C-5(30)-6-H-6-15

- LUMINAIRE NUMBER
- CIRCUIT
- DISTRIBUTION CENTER
- LUMINAIRE ARM LENGTH
- POLE TYPE, AND HEIGHT (H)
- LUMINAIRE UTILITY CATEGORY
- LUMINAIRE TYPE SOURCE

SHEET 4



N

2

SHEET 5 OF 8

PROJECT NO: 1060-34-84 / 1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	LIGHTING PLAN	SHEET 120	E

2

2

LEGEND

- PERMANENT MUNICIPAL LIGHT POLE
- MUNICIPAL LIGHT POLE TO REMAIN
- PERMANENT DOT TWIN LIGHT POLE
- DOT TWIN LIGHT POLE TO REMAIN
- CONDUIT - 2" UNLESS OTHERWISE NOTED
- PROPOSED CONDUCTORS IN DUCT (CID): 2-4 AWG AND 1-8 AWG GND IN 1 1/4-INCH DUCT UNLESS NOTES
- PULL BOX, POLYMER CONCRETE (17"x30"x24") CITY OF WAUWATOSA
- PROPOSED UNDERDECK LIGHTING UNIT (UDL)

N

STATION - OFFSET
LED C-5(30)-6-H-6-15

- LUMINAIRE NUMBER
- CIRCUIT
- DISTRIBUTION CENTER
- LUMINAIRE ARM LENGTH
- POLE TYPE, AND HEIGHT (H)
- LUMINAIRE UTILITY CATEGORY
- LUMINAIRE TYPE SOURCE

4-8 AWG

13+58WMS, 97.0'LT
LED C-5(30)

4-8 AWG

11+89WMS, 96.7'LT
LED C-5(30)

14WMS

13WMS

12WMS

11WMS

WHITMAN
MIDDLE SCHOOL
PARKING LOT

WHITMAN
MIDDLE
SCHOOL

PARKING LOT

ACCESS ROAD

IH 41/USH 45 SB

IH 41/USH 45 NB

469NS

465NS

464NS

463NS

B B

SHEET 4

SHEET 6 OF 8

PROJECT NO: 1060-34-84 / 1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	LIGHTING PLAN	SHEET 121	E

2

2

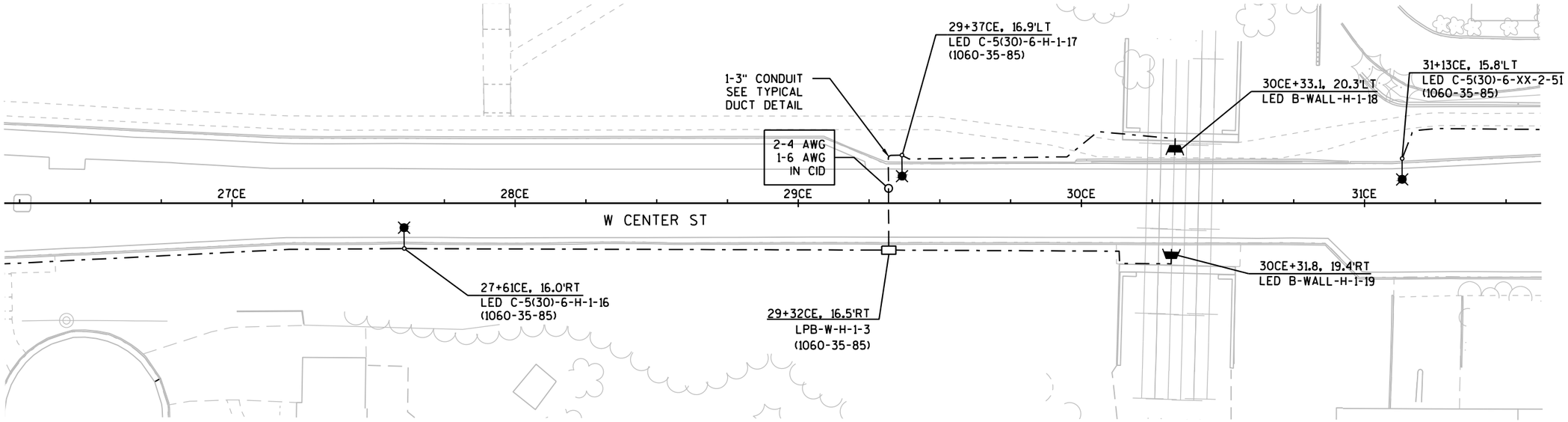
LEGEND

- PERMANENT MUNICIPAL LIGHT POLE
- MUNICIPAL LIGHT POLE TO REMAIN
- PERMANENT DOT TWIN LIGHT POLE
- DOT TWIN LIGHT POLE TO REMAIN
- CONDUIT - 2" UNLESS OTHERWISE NOTED
- PROPOSED CONDUCTORS IN DUCT (CID): 2-4 AWG AND 1-8 AWG GND IN 1 1/4-INCH DUCT UNLESS NOTES
- PULL BOX, POLYMER CONCRETE (17"x30"x24") CITY OF WAUWATOSA
- PROPOSED UNDERDECK LIGHTING UNIT (UDL)

STATION - OFFSET
LED C-5(30)-6-H-6-15

- LUMINAIRE NUMBER
- CIRCUIT
- DISTRIBUTION CENTER
- LUMINAIRE ARM LENGTH
- POLE TYPE, AND HEIGHT (H)
- LUMINAIRE UTILITY CATEGORY
- LUMINAIRE TYPE SOURCE

N



SHEET 7 OF 8

PROJECT NO: 1060-34-84 / 1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	LIGHTING PLAN	SHEET 122	E

FILE NAME : W:\PDS\C3D\CAD\10603484\023601_LP.DWG PLOT DATE : 7/30/2015 3:23 PM PLOT BY : DODGE, BRIAN M PLOT NAME : PLOT SCALE : 1" = 40'_XREF

WISDOT/CADDS SHEET 42

LEGEND

PERMANENT MUNICIPAL LIGHT POLE

MUNICIPAL LIGHT POLE TO REMAIN

PERMANENT DOT TWIN LIGHT POLE

DOT TWIN LIGHT POLE TO REMAIN

CONDUIT - 2" UNLESS OTHERWISE NOTED

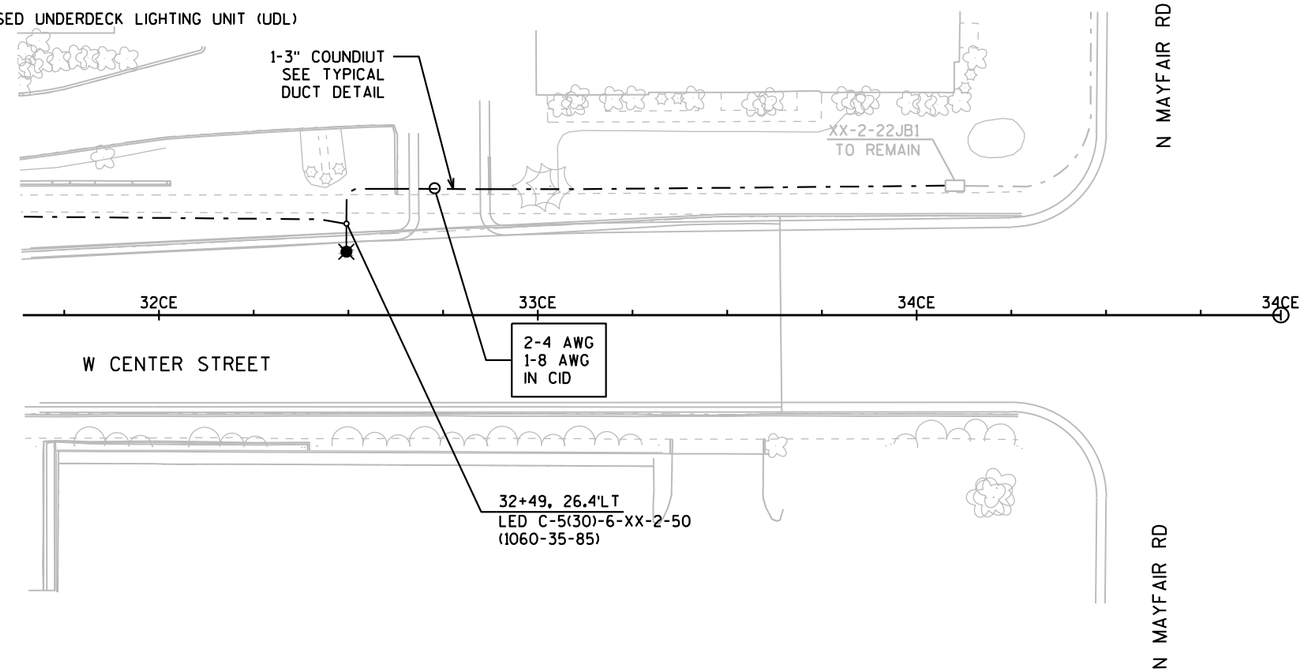
PROPOSED CONDUCTORS IN DUCT (CID):
2-4 AWG AND 1-8 AWG GND
IN 1 1/4-INCH DUCT UNLESS NOTES

PULL BOX, POLYMER CONCRETE (17"x30"x24")
CITY OF WAUWATOSA

PROPOSED UNDERDECK LIGHTING UNIT (UDL)

STATION - OFFSET
LED C-5(30)-6-H-6-15
- LUMINAIRE NUMBER
- CIRCUIT
- DISTRIBUTION CENTER
- LUMINAIRE ARM LENGTH
- POLE TYPE, AND HEIGHT (H)
- LUMINAIRE UTILITY CATEGORY
- LUMINAIRE TYPE SOURCE

N



SHEET 8 OF 8

PROJECT NO:1060-34-84 / 1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	LIGHTING PLAN	SHEET 123	E

FILE NAME : W:\PDS\C3D\CAD\10603484\023601_LP.DWG PLOT DATE : 7/30/2015 3:23 PM PLOT BY : DODGE, BRIAN M PLOT NAME : PLOT SCALE : 1" = 40'_XREF

WISDOT/CADDS SHEET 42

2

LEGEND

(1) PAVEMENT MARKING EPOXY 4-INCH (YELLOW)

(2) PAVEMENT MARKING EPOXY 4-INCH (WHITE)

(3) PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE)
(12.5 FT LINE 37.5 FT SKIP)

(4) PAVEMENT MARKING EPOXY 4-INCH (DOT PATTERN WHITE)
(3 FT LINE 9 FT SKIP)

(7) PAVEMENT MARKING STOP LINE EPOXY 18-INCH (WHITE)

(16) PAVEMENT MARKING ARROWS EPOXY TYPE 2 (YELLOW)

(19) PAVEMENT MARKING ARROWS EPOXY TYPE 5 (WHITE)

(20) PAVEMENT MARKING CURB EPOXY (YELLOW)

(21) PAVEMENT MARKING ISLAND NOSE EPOXY (YELLOW)

(31) PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH (WHITE)

(40) PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 4-INCH (DASHED WHITE)
(12.5 FT LINE 37.5 FT SKIP)

(68) PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC STOP LINE 18-INCH (WHITE)

(139) PAVEMENT MARKING GROOVED PREFORMED PLASTIC TAPE 4-INCH (YELLOW)

(140) PAVEMENT MARKING PARKING STALL EPOXY (YELLOW)*

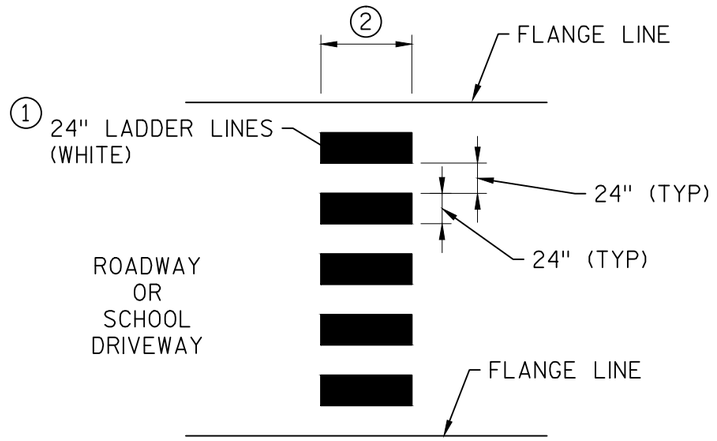
(171) PAVEMENT MARKING CROSSWALK EPOXY 24-INCH (WHITE)

(172) PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK 24-INCH (WHITE)

NOTES:

*PAVEMENT MARKING PARKING STALL EPOXY (YELLOW) SHALL BE INSTALLED WITH A 4" WIDTH.

2



ZEBRA PATTERN CROSSWALK DETAIL
SEE PLAN DETAILS FOR LOCATIONS

GENERAL NOTES:

① PAID AS PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC 24-INCH (WHITE) OR PAVEMENT MARKING CROSSWALK EPOXY 24-INCH

② SAME WIDTH OF PATH OR SIDEWALK THE ZEBRA PATTERN CROSSWALK EXTENDS FROM

2

W. CLARKE STREET

24TA 26TA 28TA 30TA 32TA 34TA 36TA

N. 113TH STREET

N. 113TH ST.

19CE

18CE

68

N

139 DOUBLE YELLOW CENTER LINE

172 SEE ZEBRA PATTERN CROSSWALK DETAIL

4 1 3 2

IH 41 / USH 45 SB

IH 41 / USH 45 NB

450NS 452NS 454NS 456NS 458NS 460NS 462NS 464NS

PC 460+92.50NS

20CE

+00.00NS

MATCH GORE STA. 448+51.00NS

+00.00NS

+46.08NS

+10.00NS 6.85'RT

+10.00NS 6.21' RT

240' LANE NARROWING

+10.00NS 8.52' RT

+50.00 11.6' RT BEGIN LANE WIDENING

6TB 8TB 10TB 12TB 14TB 16TB

N. 112TH STREET

W. CLARKE STREET

22CE

W. CENTER STREET

24CE

172 SEE ZEBRA PATTERN CROSSWALK DETAIL

139 DOUBLE YELLOW CENTER LINE

+00.00CE

PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET	E

FILE NAME : W:\PDS\C3D\CAD\10603484\024504_PM.DWG PLOT DATE : 7/28/2015 12:00 PM PLOT BY : WAGNER, SCOTT H PLOT NAME : PLOT SCALE : 1:100_XREF

2

W. CENTER STREET

308'

N

ATHLETIC FIELD

BLEACHERS

TENNIS COURT

TENNIS COURT

INL

464NS

466NS

468NS

470NS

472NS

474NS

476NS

478NS

PT: 471+91.27NS

+75.00NS

IH 41 / USH 45 SB

IH 41 / USH 45 NB

USH 45

USH 45

12'

12'

12'

12'

12'

12'

240' LANE WIDENING

+90.00NS
11.14' RT

+75.00NS

NS+50.00

1

2

3

TENNIS COURT

ATHLETIC FIELD

BLEACHERS

BLEACHERS

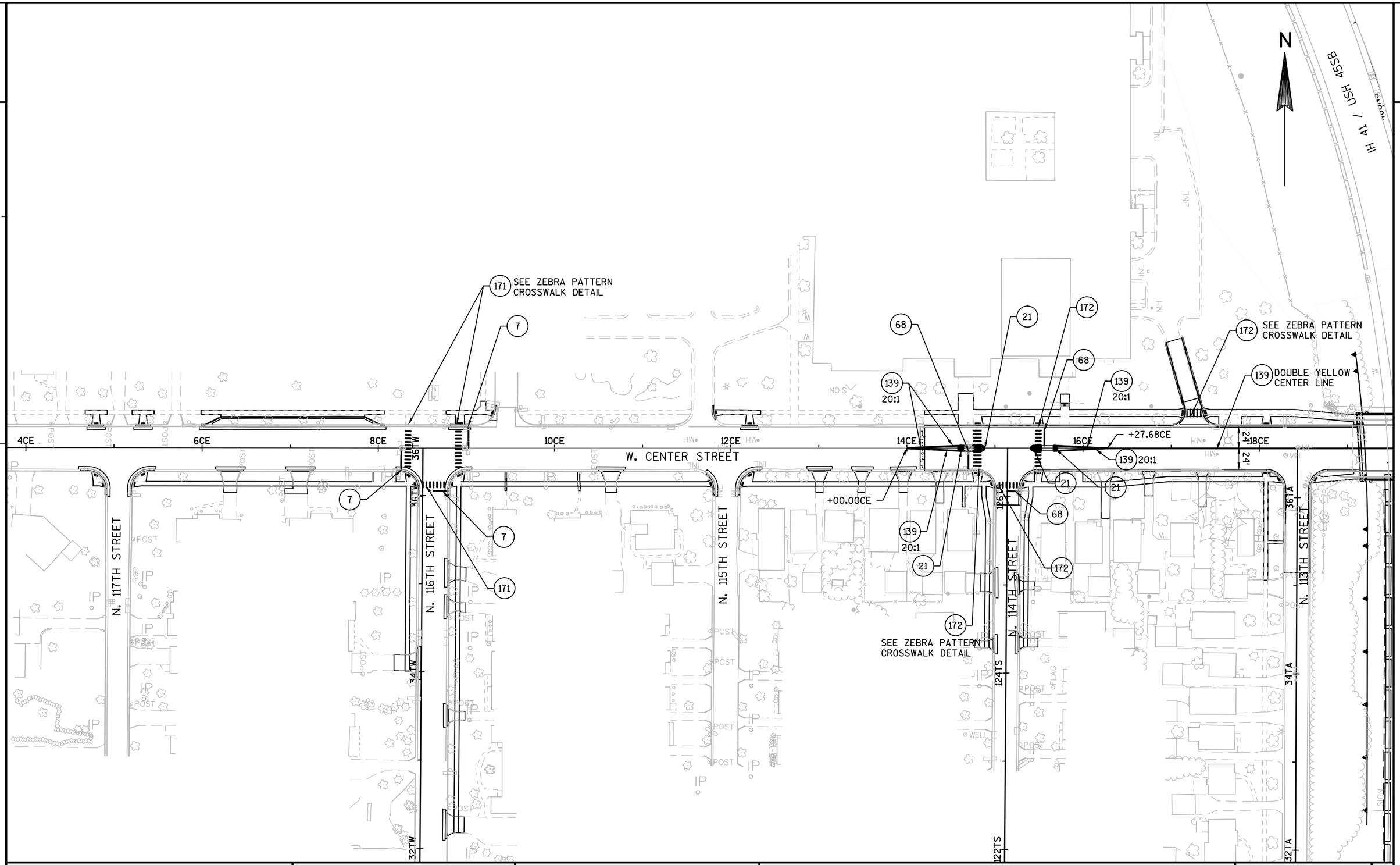
BLEACHERS

W. LOCUST STREET

N. 114TH STREET

PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 127	E

2



PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 128	E

2

N

4" DIAGONAL @ 45°
2' SPACING, TYP

16.4'

18'

29'(TYP)

21.30' (TYP)

36'(TYP)

21 SPACES @ 8.5' = 178.5'

14WMS

13WMS

12WMS

11WMS

30.19'

27.31'

12.19'

9.31'

36'(TYP)

20 SPACES @ 8.5' = 170'

465NS

464NS

463NS

R/L NS

IH 41 / USH 45 SB

IH 41 / USH 45 NB

R/L WMS

140

21

1

172
SEE ZEBRA PATTERN CROSSWALK

16

15'

W. CENTER STREET

MH

INL

OH

M

PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET	E

FILE NAME : W:\PDS\C3D\CAD\10603484\024503_PM.DWG PLOT DATE : 7/28/2015 3:13 PM PLOT BY : WAGNER, SCOTT H PLOT NAME : ---------- PLOT SCALE : 1" = 40'_XREF

2

48.94NS

416NS

IH 41 / USH 45 SB

IH 41 / USH 45 NB

414NS

412NS

410NS

408NS

N

+32.00M

+65.00M

590M

592M

594M

596M

598M

600M

602M

20

40

20

21

31

N. MAYFAIR ROAD / STH 100

MAYFAIR RD

PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 130	E

GENERAL NOTES FOR TRAFFIC CONTROL

1) THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

2) LOCAL STREETS - A FLAGGER MAY BE REQUIRED WHERE CONSTRUCTION VEHICLES ENTER OR LEAVE WORK AREAS IF WARRANTED BY CONDITIONS OR AS DIRECTED BY THE ENGINEER.
FLAGGING IS NOT PERMITTED ON FREEWAY LANES.

3) ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

4) "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

5) FOR NIGHTTIME OPERATION ALL DRUMS IN TAPERS SHALL HAVE A TYPE C STEADY BURN WARNING LIGHT.

6) ALL TYPE III BARRICADES SHALL BE 8' WIDE, UNLESS OTHERWISE NOTED, AND EQUIPPED WITH TWO TYPE "A" (LOW INTENSITY FLASHING) LIGHTS.

7) DIMENSIONS TO CONCRETE BARRIER TEMPORARY PRECAST ARE TO THE FACE OF BARRIER ADJACENT TO TRAFFIC. STATION CALL-OUTS TO CONCRETE BARRIER TEMPORARY PRECAST ARE TO THE FACE OF BARRIER.

8) WORK AREAS SHOWN MAY NOT ILLUSTRATE ALL REMOVALS.
SEE REMOVAL SHEETS FOR ADDITIONAL INFORMATION.

9) WHEN A SEGMENT OF THE PROJECT IS NOT SHOWN ON THE STAGING PLANS, USE THE SAME TRAFFIC CONTROL AS THE PREVIOUS STAGE FOR THAT SEGMENT.

10) TRAFFIC CONTROL DRUM SPACING SHALL BE 50' UNLESS OTHERWISE NOTED.

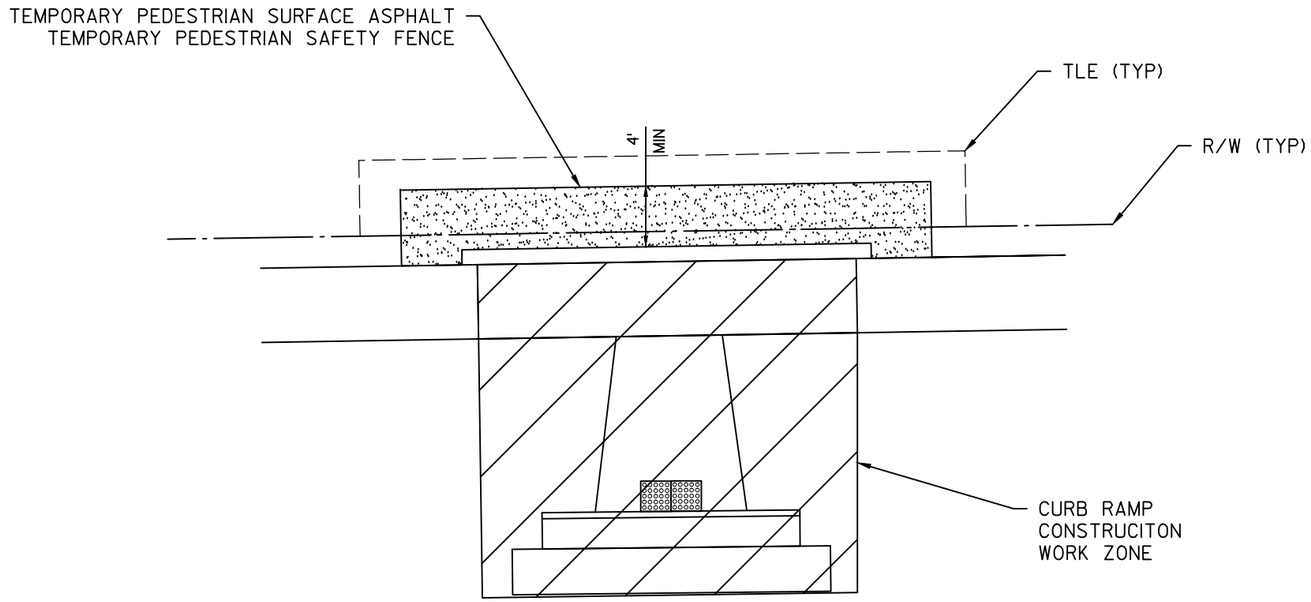
LEGEND

- TRAFFIC CONTROL BARRICADE TYPE III WITH LIGHTS TYPE A
- TRAFFIC CONTROL BARRICADE TYPE III WITH LIGHTS TYPE A AND ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- FIXED MESSAGE SIGN GROUND MOUNT
- TRAFFIC CONTROL ARROW BOARD
- CC — CRASH CUSHION TEMPORARY
- CC — CRASH CUSHION TEMPORARY PLACED IN PRIOR STAGE
- PCMS — TRAFFIC CONTROL SIGN PORTABLE CHANGEABLE MESSAGE
- TRAFFIC CONTROL DRUM WITH WITH LIGHT TYPE C
- TRAFFIC CONTROL DRUM
- CONCRETE BARRIER TEMPORARY PRECAST (CBTP)
- CONCRETE BARRIER TEMPORARY PRECAST PLACED IN PRIOR STAGE
- TRAFFIC FLOW ARROW
- WORK ZONE THIS STAGE

TEMPORARY PAVEMENT MARKING LEGEND

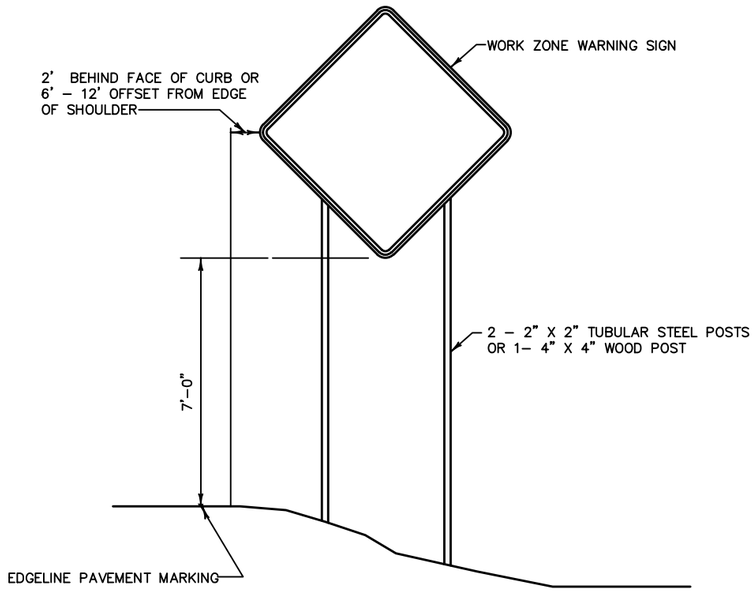
- (1) PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
- (2) PAVEMENT MARKING EPOXY 4-INCH (WHITE)
- (3) PAVEMENT MARKING EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
- (7) PAVEMENT MARKING STOP LINE EPOXY 18-INCH (WHITE)
- (19) PAVEMENT MARKING ARROWS EPOXY TYPE 5 (WHITE)
- (45) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (YELLOW)
- (46) TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH (WHITE)
- (P) PERMANENT PAVEMENT MARKING, SEE PAVEMENT MARKING PLAN
- ▶ TEMPORARY RAISED PAVEMENT MARKERS (ONE-WAY REFLECTOR)

2



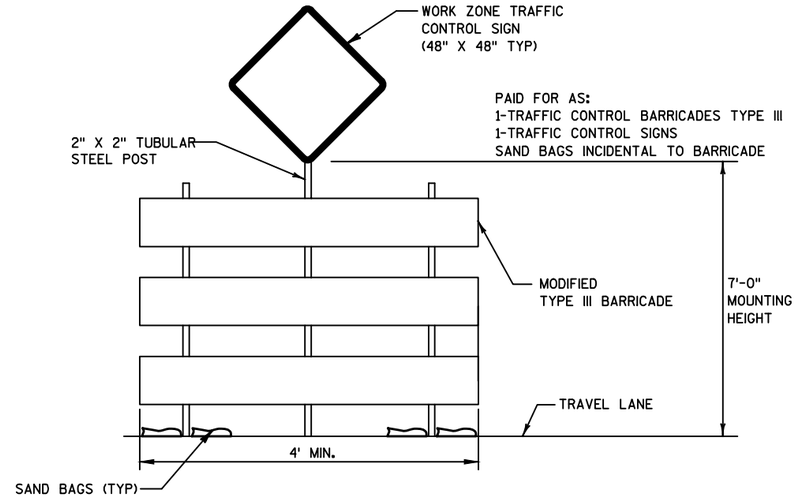
CURB RAMP CONSTRUCTION
TEMPORARY PEDESTRIAN ACCOMMODATION

SEE SDD 'TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION' FOR SIDEWALK DIVERSION DETAILS.

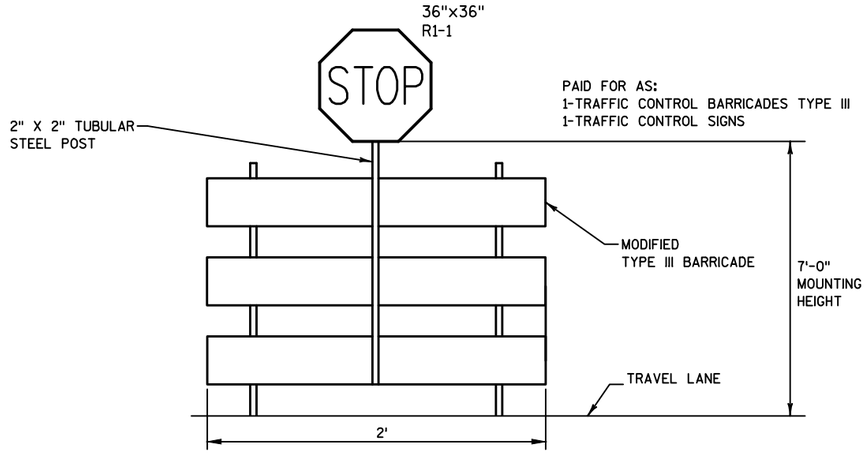


TYPICAL TEMPORARY TRAFFIC CONTROL SIGN
MOUNTING ON FIXED SUPPORT

LONG TERM
7 DAYS OR MORE

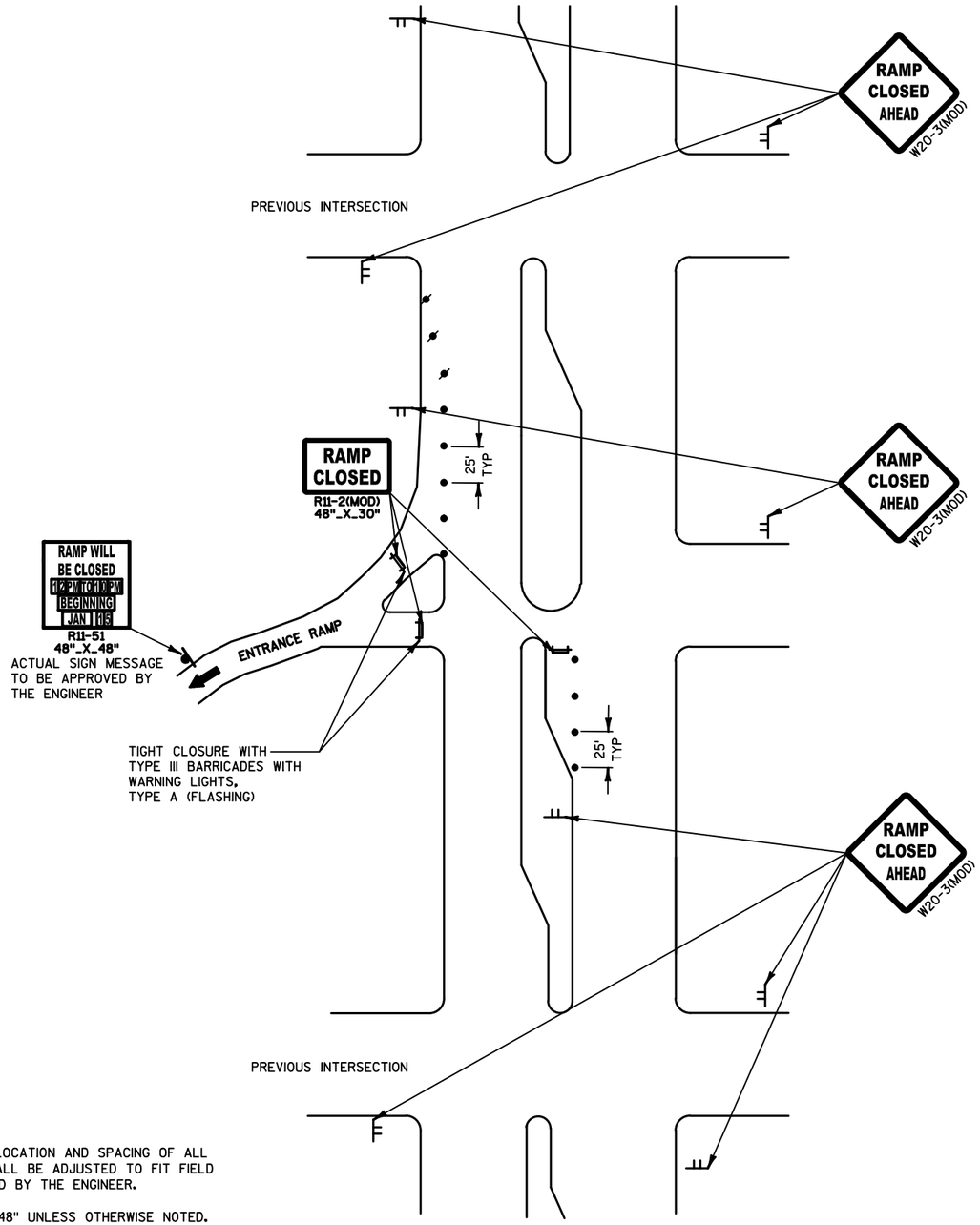


TYPICAL TEMPORARY TRAFFIC CONTROL DETAIL
MOUNTING ON TEMPORARY SUPPORT



TEMPORARY STOP SIGN

2



NOTES

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

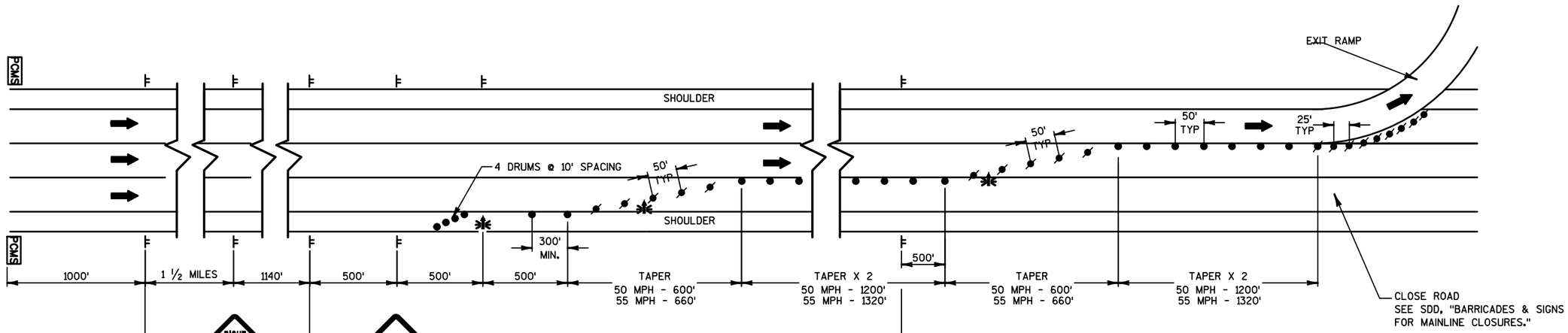
LEGEND

- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH LIGHT TYPE C
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL III BARRICADE FOR SHORT TERM 3 DAYS OR LESS
- TRAFFIC CONTROL III BARRICADE WITH LIGHT TYPE A AND ATTACHED SIGN
- DIRECTION OF TRAFFIC

TRAFFIC CONTROL FOR ENTRANCE RAMP CLOSURE

(SHORT TERM ONLY)

2



OR

OR

OR

OR

OR

LEGEND

- ● TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH LIGHT TYPE C
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL ARROW BOARD
- DIRECTION OF TRAFFIC
- PCMS TRAFFIC CONTROL SIGN PORTABLE CHANGEABLE MESSAGE

FULL FREEWAY CLOSURE DETAIL

3 LANE CLOSURE - SPEEDS 45 MPH OR GREATER

TRAFFIC CONTROL NOTES

RIGHT LANE CLOSURE SHOWN (LEFT LANE CLOSURE SIMILAR).

THREE LANE CLOSURE SHOWN. ADJUST DETAIL ACCORDINGLY FOR ROADWAY WITH FEWER LANES.
THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

FOR NIGHTTIME OPERATION ALL DRUMS IN TAPERS SHALL HAVE A WARNING LIGHT, TYPE C (STEADY BURN).

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

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 DIRECTED BY THE ENGINEER.

ALL SHORT TERM LANE CLOSURE SIGNS SHALL BE REMOVED OR COVERED AND ALL ARROW BOARDS AND DEVICES REMOVED BEYOND THE SHOULDER WHEN THE WORK IS NOT IN PROGRESS AND THE LANE IS RESTORED TO A SAFE OPERATING CONDITION.

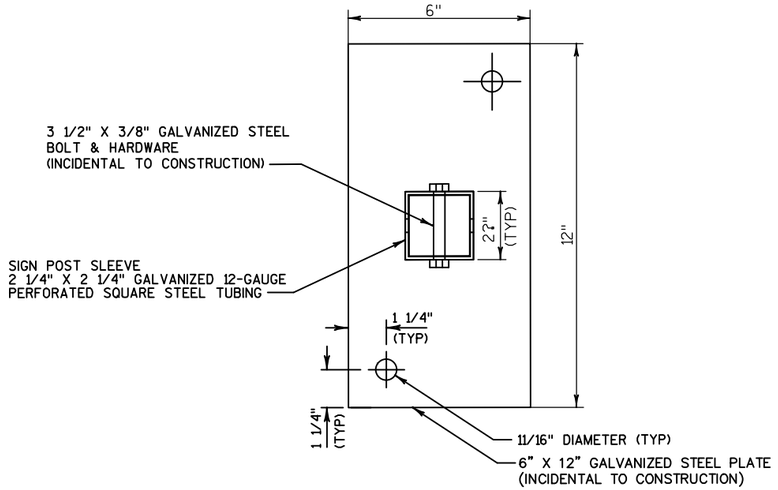
ALL WARNING SIGNS FOR LONG TERM OPERATIONS SHALL BE NON-FLUORESCENT DIAMOND GRADE SHEETING. TYPE A LIGHTS AND FLAGS ARE NOT REQUIRED.

IF LANE CLOSURE IS MORE THAN 1 MILE, PLACE A TYPE III BARRICADE APPROXIMATELY EVERY 1000' ACROSS THE CLOSED LANE TO HELP ENFORCE THE DRUM LINE.

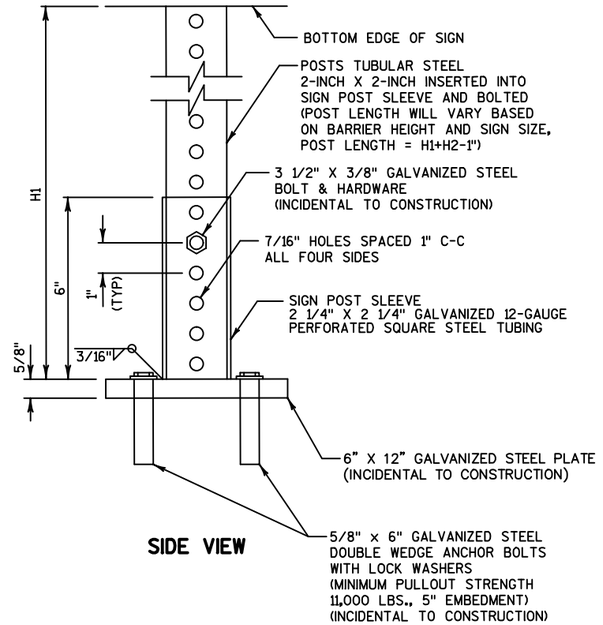
CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500' IN FRONT OF DRUMS WITH LANE CLOSED SIGN.

SEE DETOUR PLANS FOR ADDITIONAL SIGNING REQUIREMENTS.

2

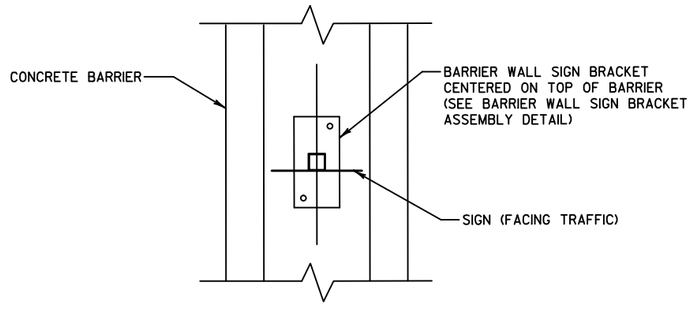


PLAN VIEW

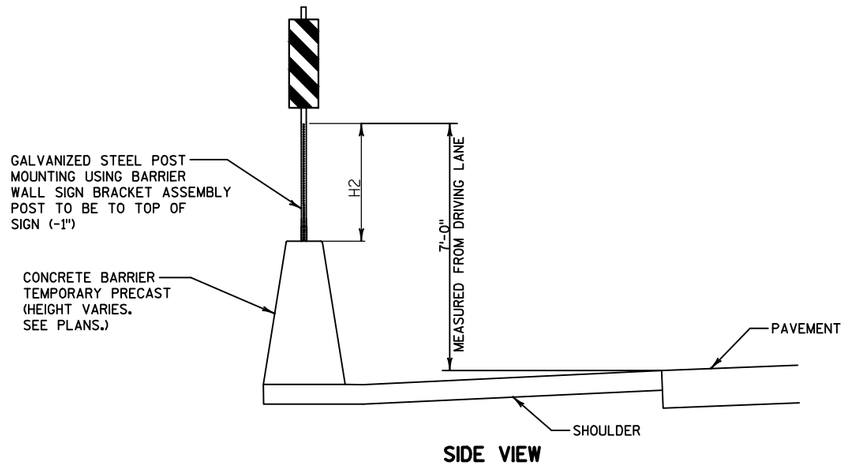


SIDE VIEW

BARRIER WALL SIGN BRACKET ASSEMBLY DETAIL



PLAN VIEW

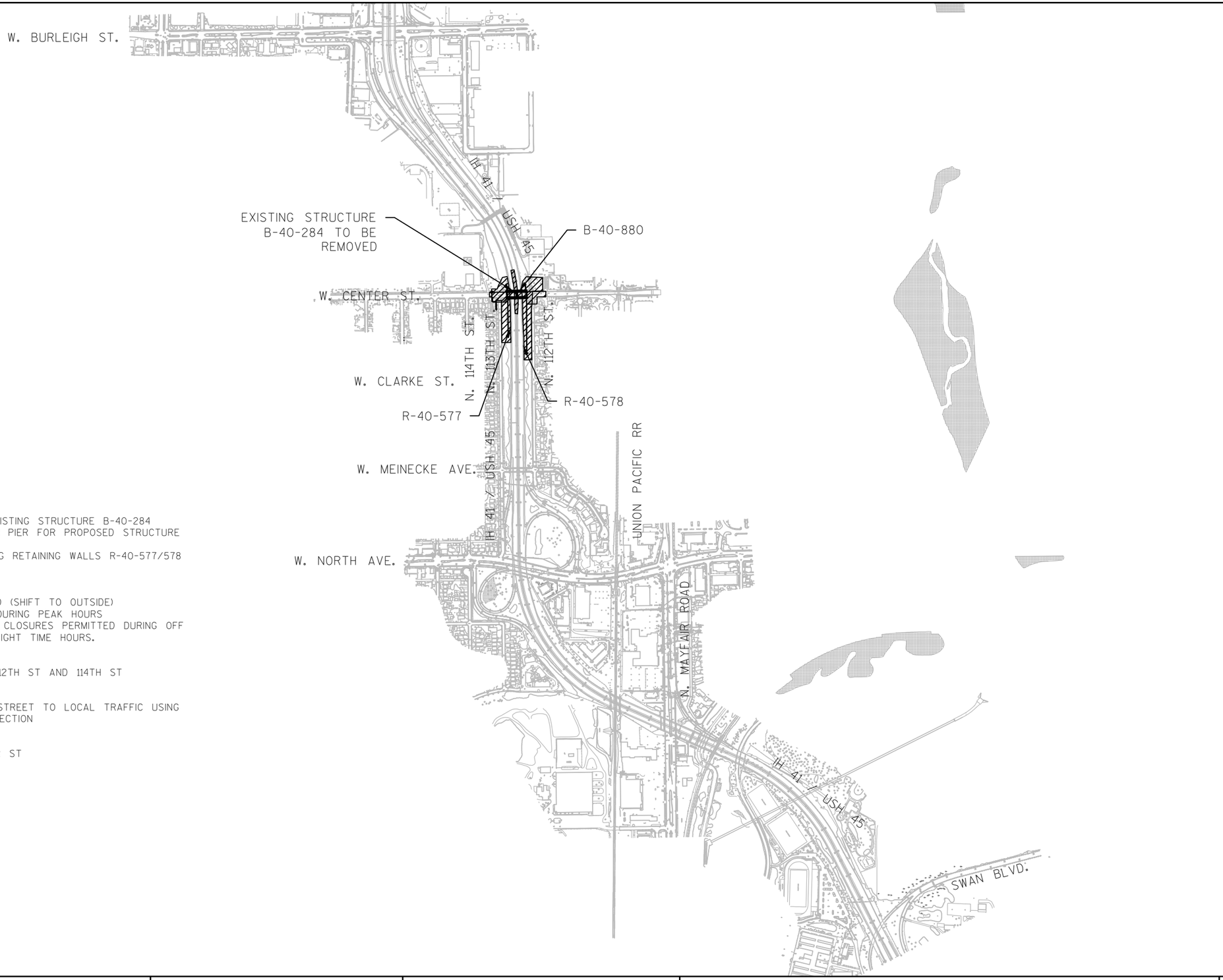


SIDE VIEW

MEDIAN BARRIER MOUNTING DETAIL

MOUNTING SIGNS TO MEDIAN BARRIER

NOT TO SCALE



STAGE 1

CONSTRUCTION:
- USH 45:
  - BEGIN REMOVING EXISTING STRUCTURE B-40-284
  - CONSTRUCT CENTER PIER FOR PROPOSED STRUCTURE B-40-880
  - BEGIN CONSTRUCTING RETAINING WALLS R-40-577/578

TRAFFIC:
- USH 45:
  - ALL LANES SHIFTED (SHIFT TO OUTSIDE)
  - ALL LANES OPEN DURING PEAK HOURS
  - SHORT TERM LANE CLOSURES PERMITTED DURING OFF PEAK HOURS AND NIGHT TIME HOURS.
- CENTER ST:
  - CLOSED BETWEEN 112TH ST AND 114TH ST
- 112TH ST:
  - OPEN AT CENTER STREET TO LOCAL TRAFFIC USING TEMPORARY INTERSECTION
- 113TH ST:
  - CLOSED AT CENTER ST

PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL - OVERVIEW STAGE 1	SHEET 137	E

NOTE:
COORDINATE ALL SPEED LIMIT SIGNS WITH OTHER ZOO IC PROJECTS. ALL SPEED LIMIT SIGNS SHOULD BE POSTED AT 50 MPH, PER TEMPORARY SPEED ZONE DECLARATION.

1300'

1000'

ROAD WORK 1 MILE
W20-1-F

RAMP WORK AHEAD
W20-3-A

TRUCKS ENTERING & LEAVING
W8-6-A

RAMP
24"X12"

500'

W21-62-Q
48"X30"

WORK ZONE

SPEED LIMIT 50
R2-1
48"X60"

FINES DOUBLE
W21-62-R
48"X30"

RAMP WORK AHEAD
W20-3-A

ROAD WORK 1/2 MILE
W20-1-G

N. 113TH ST.

W. GARFIELD AVE.

IH 41 / USH 45 SB

IH 41 / USH 45 NB

USH 45

NORTH AVE.

N. NORTH AVE.

W NORTH AVE

420NS

422NS

424NS

426NS

428NS

430NS

432NS

434NS

PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1 - USH 45	SHEET 138 E

FILE NAME : W:\PDS\C3D\CAD\10603484\025995_S1.DWG
LAYOUT NAME - 025995_S1

PLOT DATE : 7/20/2015 12:34 PM PLOT BY : WAGNER, SCOTT H PLOT NAME : PLOT SCALE : 1:100_XREF

WISDOT/CADDS SHEET 42

2

2

N

W. NORTH AVE.

N. 113TH ST.

N 113th ST

434NS

436NS

438NS

440NS

442NS

444NS

446NS

448NS

USH 45

USH 45

W. MEINECKE AVE.

IH 41 / USH 45 SB

IH 41 / USH 45 NB

2' MIN

N 112th ST

N. 112TH ST.

ROAD WORK 1500 FT
W20-1-B

ROAD WORK AHEAD
W20-1-A

STA. 444+72NS, 65.85' RT
BEGIN CONCRETE BARRIER
TEMPORARY PRECAST
CONNECT TO EXISTING
BARRIER SEE SDD
CONCRETE BARRIER
TEMPORARY PRECAST
12'-6"

LANES NARROW AHEAD
W20-1(MOD)

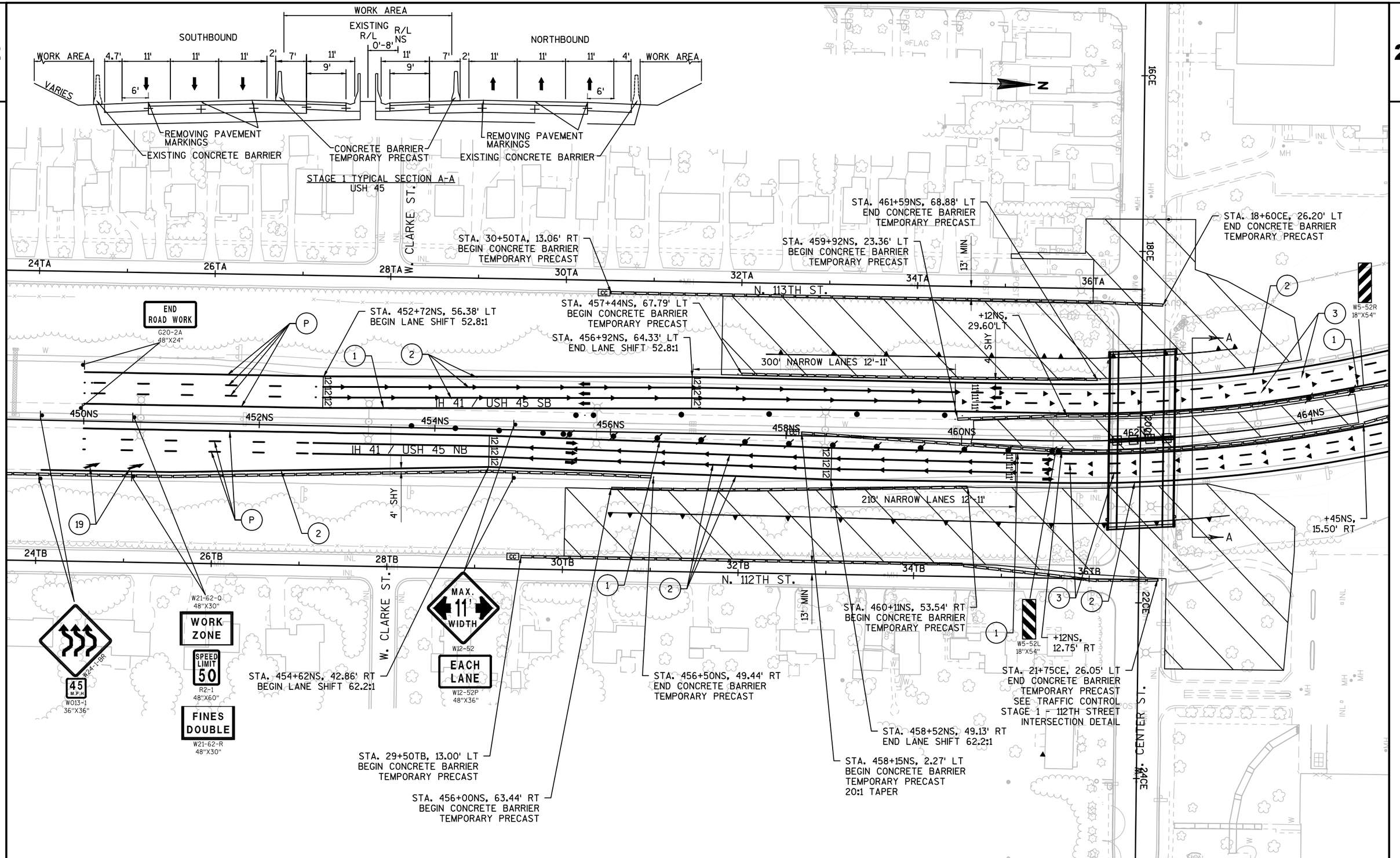
W4-2R
36"X36"
RAMP

PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1 - USH 45	SHEET 139 E

FILE NAME : W:\PDS\C3D\CAD\10603484\025996_S1_1.DWG
LAYOUT NAME - 025996_S1

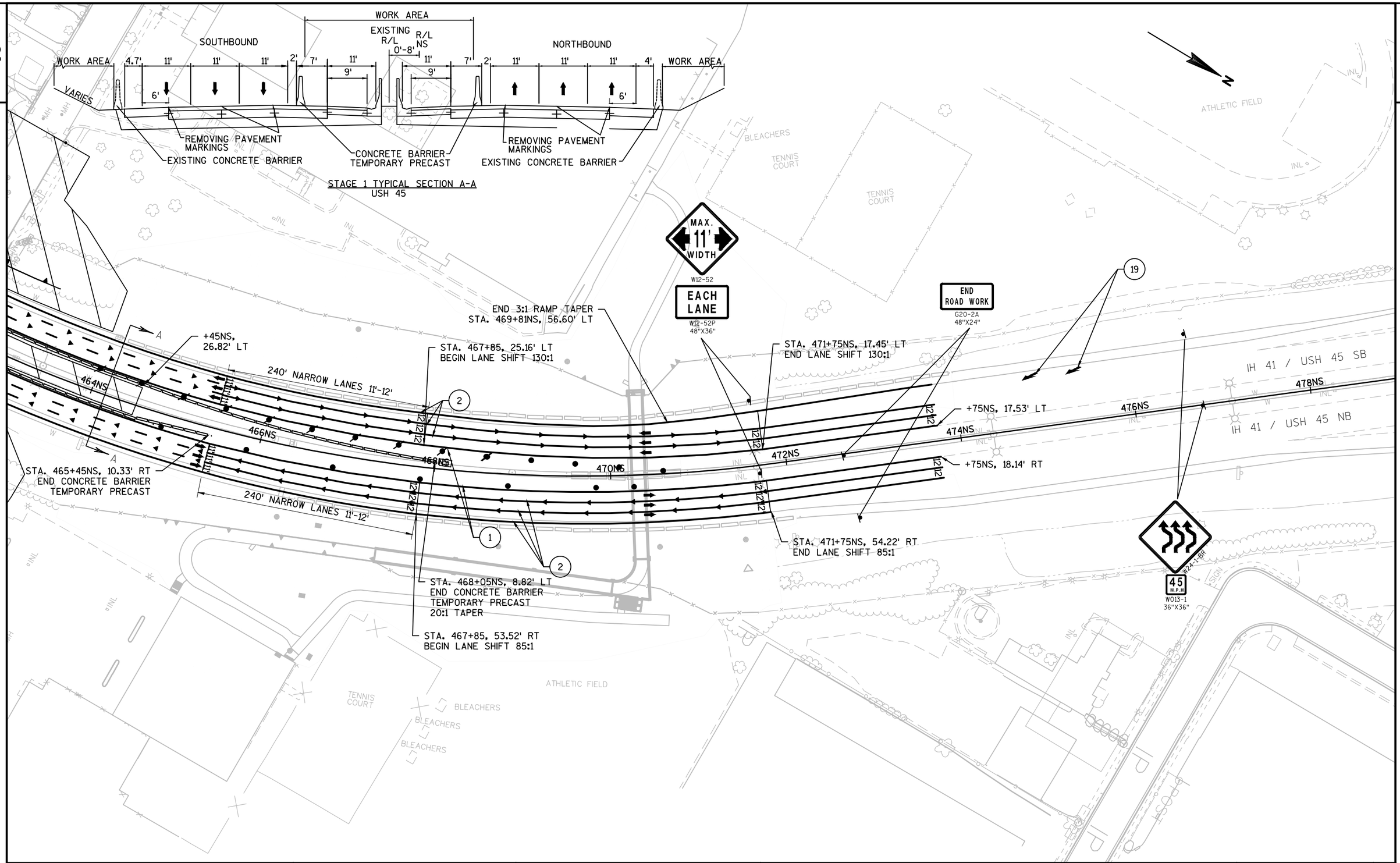
PLOT DATE : 10/20/2015 3:23 PM PLOT BY : GIBSON, NICOLE E PLOT NAME : PLOT SCALE : 1:100_XREF

STAGE 1 TYPICAL SECTION A-A
USH 45



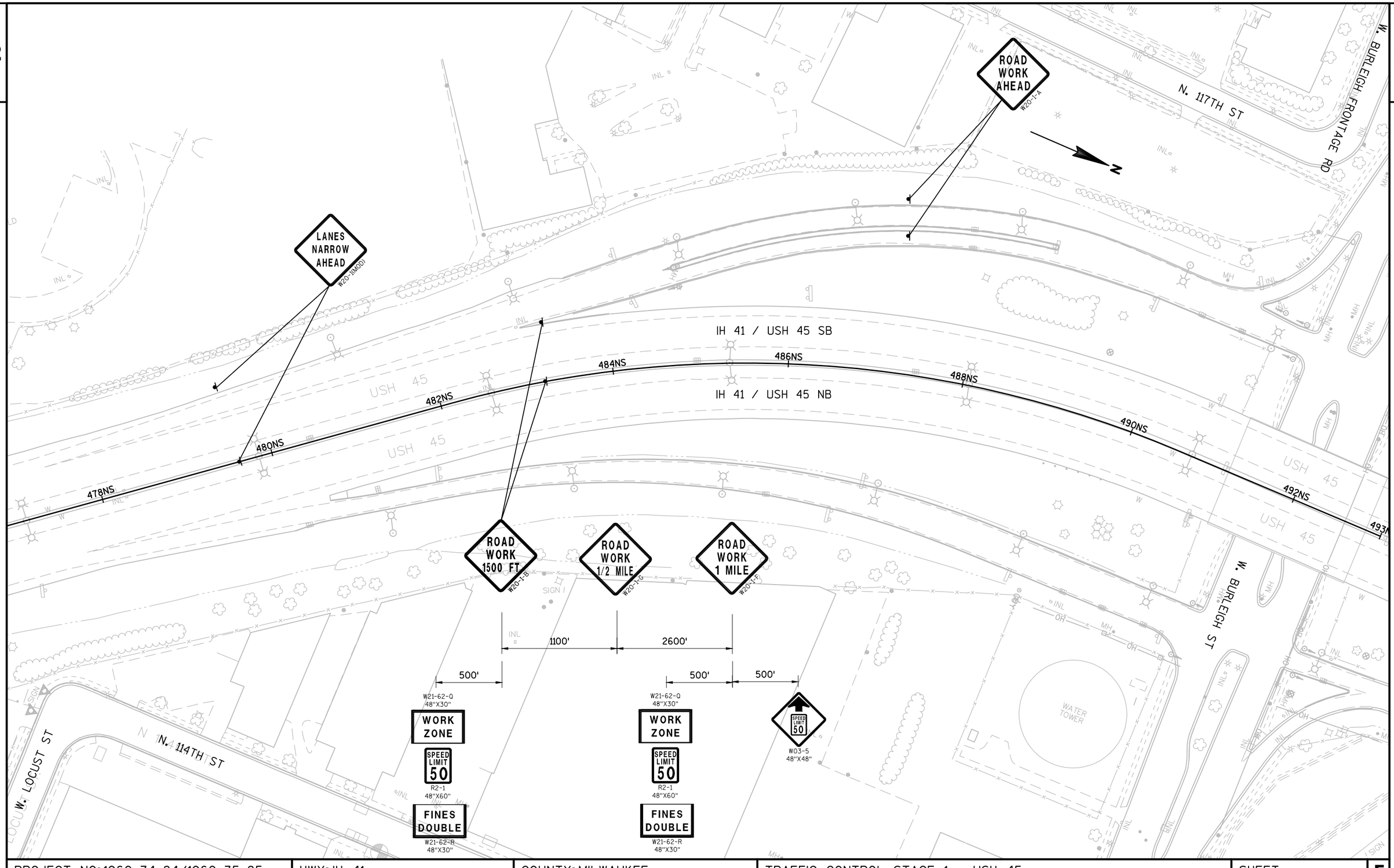
PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1 - USH 45	SHEET 140 E

STAGE 1 TYPICAL SECTION A-A
USH 45



PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1 - USH 45	SHEET 141	E

2



PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1 - USH 45	SHEET 142	E

2

N

IH 41 / USH 45

124TH ST

BRIDGE OUT
R11-2-B
48"X30"

ROAD WORK 500 FT
W20-1-D

ROAD CLOSED TO THRU TRAFFIC
R11-4
60"X30"

MAYFAIR RD

ROAD WORK AHEAD
W20-1-A

W. CENTER ST

CENTER ST CLOSED AT 114TH ST
ROAD OPEN TO HIGH SCHOOL
(SEE FIXED MESSAGE SIGN DETAIL)

ROAD CLOSED TO THRU TRAFFIC
R11-4
60"X30"

ROAD WORK AHEAD
W20-1-A

ROAD WORK 500 FT
W20-1-D

SIDEWALK CLOSED AHEAD
R9-9 (MOD)

N. 113TH ST

N. 112TH ST

BRIDGE OUT
R11-2-B
48"X30"

CENTER ST CLOSED AT IH-41
ROAD OPEN TO MIDDLE SCHOOL
(SEE FIXED MESSAGE SIGN DETAIL)

CLARKE ST

ROAD CLOSED AHEAD
LOCAL TRAFFIC ONLY
R11-3 (MOD)

ROAD WORK 500 FT
W20-1-D

ROAD CLOSED AHEAD
W20-3-A

ROAD WORK AHEAD
W20-1-A

100'

100'

MEINECKE AVE

PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1 - LOCAL STREETS	SHEET 143	E

STAGE 1

SEE TRAFFIC CONTROL SHEETS FOR USH 45 FOR DETAILS ON USH 45 TRAFFIC CONTROL.
ESTIMATED CLOSURE
FEBURARY 2016 TO JUNE 12, 2016
- CENTER STREET CLOSED FROM 112TH ST TO 113TH ST
- 113TH ST CLOSED AT CENTER ST
- MAINTAIN ACCESS TO ALL HOMES & DRIVEWAYS WITHIN CONSTRUCTION ZONE.
- 112TH ST WILL REMAIN OPEN DURING SCHOOL YEAR
- TEMPORARY SHIFT ON 112TH ST WILL ALLOW INTERSECTION TO STAY OPEN DURING CONSTRUCTION OF ABUTMENT & WING WALLS.

N

SIDEWALK CLOSED AHEAD
R9-9 (MOD)

ROAD CLOSED
R11-2
48" X 30"

SIDEWALK CLOSED
R9-9
24"X12"

ROAD CLOSED
R11-2
48" X 30"

BRIDGE CLOSED
R11-2-B
48"X30"

W01-6
48" X 24"

SIDEWALK CLOSED
R9-9
24"X12"

SIDEWALK CLOSED AHEAD
R9-9 (MOD)

W. CENTER ST

12CE 14CE 16CE 18CE 20CE 22CE 24CE 26CE

BRIDGE OUT AHEAD
R11-2-B (MOD)
48"X30"

BRIDGE OUT
R11-2-B
48"X30"

SIDEWALK CLOSED
R9-9
24"X12"

ROAD CLOSED
R11-2
48" X 30"

36TA
36TB
34TA
34TB
32TA
32TB

N. 113TH ST

IH 41 / USH 45

N. 112TH ST

STOP
R1-1
30" X 30"

*SEE "TRAFFIC CONTROL STAGE 1 112TH STREET INTERSECTION DETAIL"

PROJECT NO:1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 1 - LOCAL STREETS	SHEET 144	E

2

PC: 460+92.

460NS

462NS

464NS

200E

220E

N

IH 41 / USH 45 NB

W. CENTER ST

112TH ST

WORK ZONE

STA. 34+43TB, 13.00' LT

EP: 36+56.54TB

STA. 21+75CE, 26.05' LT

34TB

36TB

36TB

STA. 36+05TB, 2.57' RT

END SHIFT 10: 1
STA. 36+31TB, 19.67' RT

13'

15'

15'

A

A

STA. 34+00TB, 15.55' RT

BEGIN SHIFT 10:1
STA. 34+21.70
+45.28TB,
35.00' RT

+61.76TB, 35.00' RT

CONCRETE PAVEMENT
7-INCH

STA. 36+07.67, 35.57' RT

25' R

STA. 22+34CE, 51.58' RT =
STA. 36+05TB, 60.45' RT

STA. 22+46.32CE, 26.58' RT

1

7

CONCRETE
PAVEMENT
7-INCH

VARIES
2.5'-23'

**

12"

4'

6:1

6:1

2%

6"

2'

CONCRETE PAVEMENT 7-INCH

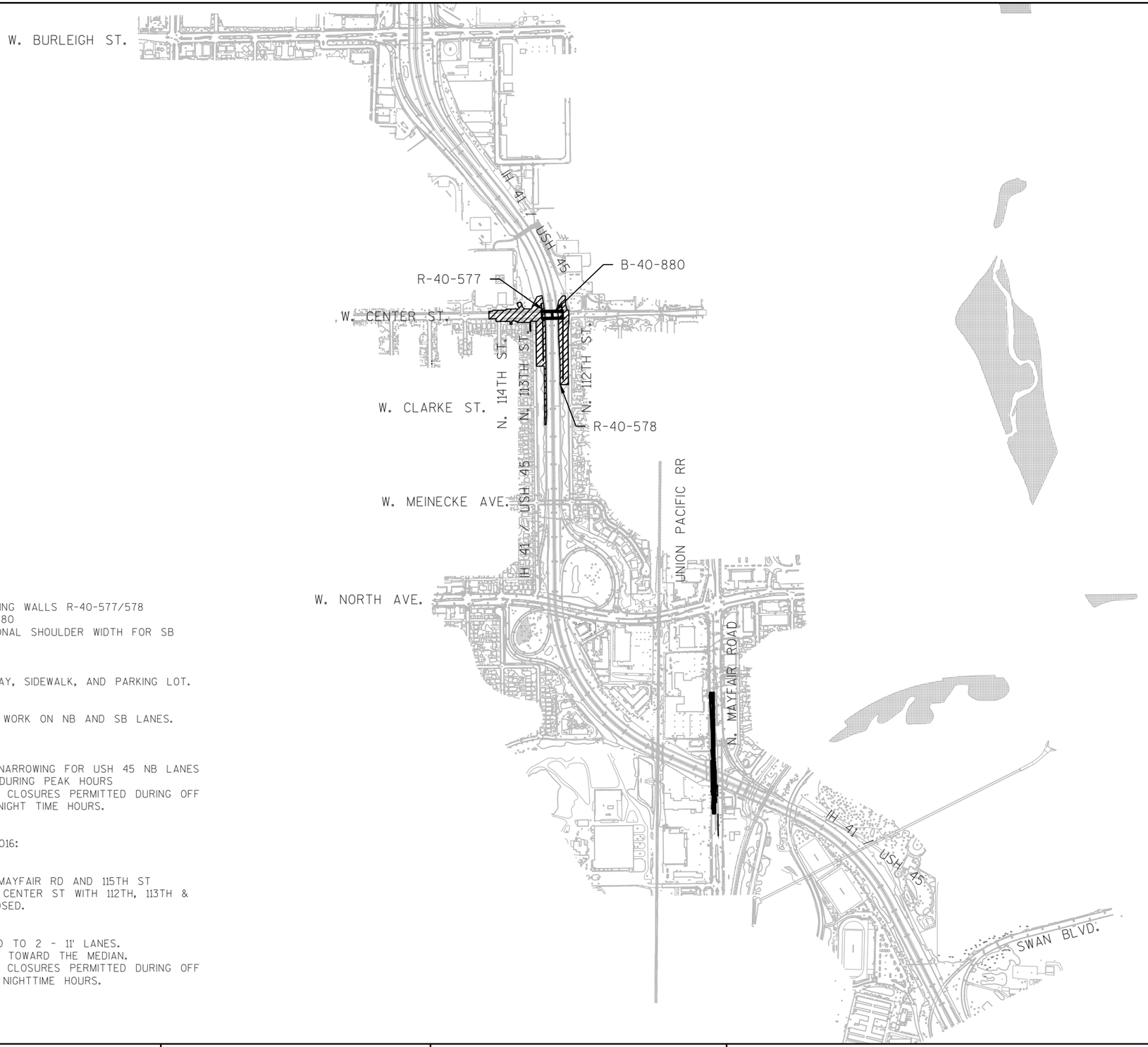
6-INCH BASE AGGREGATE DENSE 1¼-INCH

SECTION A-A

NOTE: * - INTEGRAL CURB HEAD TO BE PAID FOR AS CONCRETE PAVEMENT 7-INCH

** SPACE DRUMS AT 25' INTERVAL DURING CONSTRUCTION OF TEMPORARY WIDENING. NIGHT-TIME WORK AND FLAGGING OPERATIONS TO BE UTILIZED TO MAINTAIN ACCESS AT ALL TIMES TO 112TH STREET.

PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1 - 112TH STREET INTERSECTION DETAIL	SHEET 145	E



2

N

STAGE 2

CONSTRUCTION:
- USH 45:
  - CONSTRUCT RETAINING WALLS R-40-577/578
  - CONSTRUCT B-40-880
  - CONSTRUCT ADDITIONAL SHOULDER WIDTH FOR SB OUTSIDE SHOULDER
- LOCAL ST:
  - CONSTRUCT ROADWAY, SIDEWALK, AND PARKING LOT.
- MAYFAIR RD:
  - COMPLETE UTILITY WORK ON NB AND SB LANES.

TRAFFIC:
- USH 45:
  - PERMANENT LANE NARROWING FOR USH 45 NB LANES
  - ALL LANES OPEN DURING PEAK HOURS
  - SHORT TERM LANE CLOSURES PERMITTED DURING OFF PEAK HOURS AND NIGHT TIME HOURS.
- LOCAL STREETS:
  - AFTER JUNE 12, 2016:
- CENTER ST:
  - CLOSED BETWEEN MAYFAIR RD AND 115TH ST
  - INTERSECTIONS AT CENTER ST WITH 112TH, 113TH & 114TH STREETS CLOSED.
- MAYFAIR RD:
  - SB LANES REDUCED TO 2 - 11' LANES.
  - SB LANES SHIFTED TOWARD THE MEDIAN.
  - SHORT TERM LANE CLOSURES PERMITTED DURING OFF PEAK HOURS AND NIGHTTIME HOURS.

PROJECT NO: 1060-34-84	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL - OVERVIEW STAGE 2	SHEET 146	E

NOTE:
COORDINATE ALL SPEED LIMIT SIGNS WITH OTHER ZOO IC PROJECTS. ALL SPEED LIMIT SIGNS SHOULD BE POSTED AT 50 MPH, PER THE TEMPORARY SPEED ZONE DECLARATION.

1300' 1000'

ROAD WORK 1 MILE
W20-1-F

RAMP WORK AHEAD
W20-3-A

TRUCKS ENTERING & LEAVING
W8-6A

RAMP
24"X12"

500'

W21-62-0
48"X30"

WORK ZONE

SPEED LIMIT 50
R2-1
48"X60"

FINES DOUBLE
W21-62-R
48"X30"

RAMP WORK AHEAD
W20-3-A

ROAD WORK 1/2 MILE
W20-1-G

N. 113TH ST.

W. GARFIELD AVE.

IH 41 / USH 45 SB

IH 41 / USH 45 NB

USH 45

420NS 422NS 424NS 425NS 428NS 430NS 432NS 434NS

N. NORTH AVE.

NORTH AVE.

2

2

N

W. NORTH AVE.

N. 113TH ST.

N 113th ST

USH 45

USH 45

W. MEINECKE AVE.

IH 41 / USH 45 SB

IH 41 / USH 45 NB

2' MIN SHY

N 112th ST

N. 112TH ST.

434NS

436NS

438NS

440NS

442NS

444NS

446NS

448NS

ROAD WORK 1500 FT
W20-1-B

ROAD WORK AHEAD
W20-1-A

LANES NARROW AHEAD
W20-4(MOD)

CONCRETE BARRIER TEMPORARY PRECAST SEE STAGE 1 FOR STATION INFORMATION

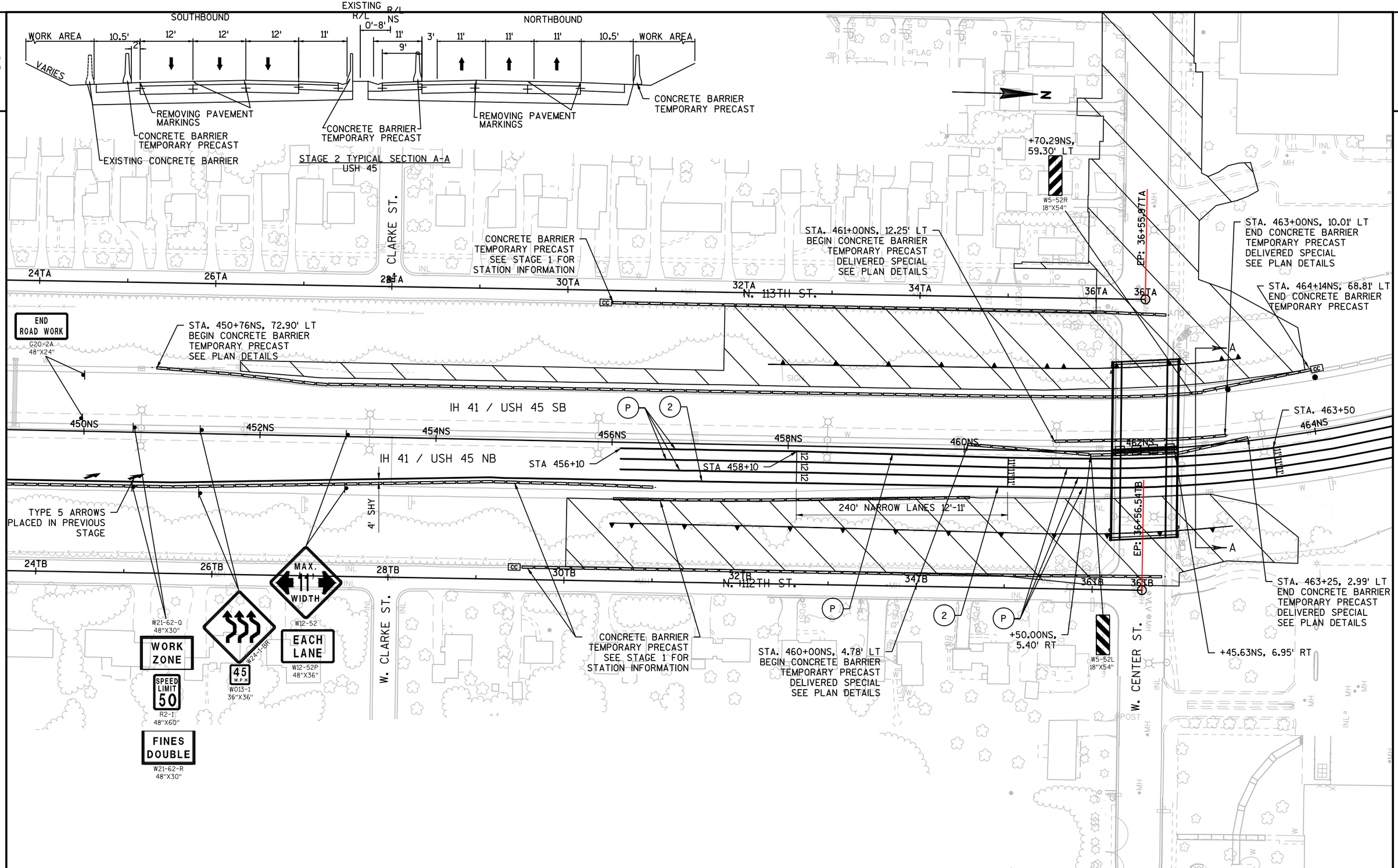
PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2 - USH 45	SHEET 148 E

FILE NAME : W:\PDS\C3D\CAD\10603484\026096_S2_1.DWG
LAYOUT NAME - 026096_S2

PLOT DATE : 10/20/2015 3:46 PM PLOT BY : GIBSON, NICOLE E PLOT NAME : PLOT SCALE : 1:100_XREF

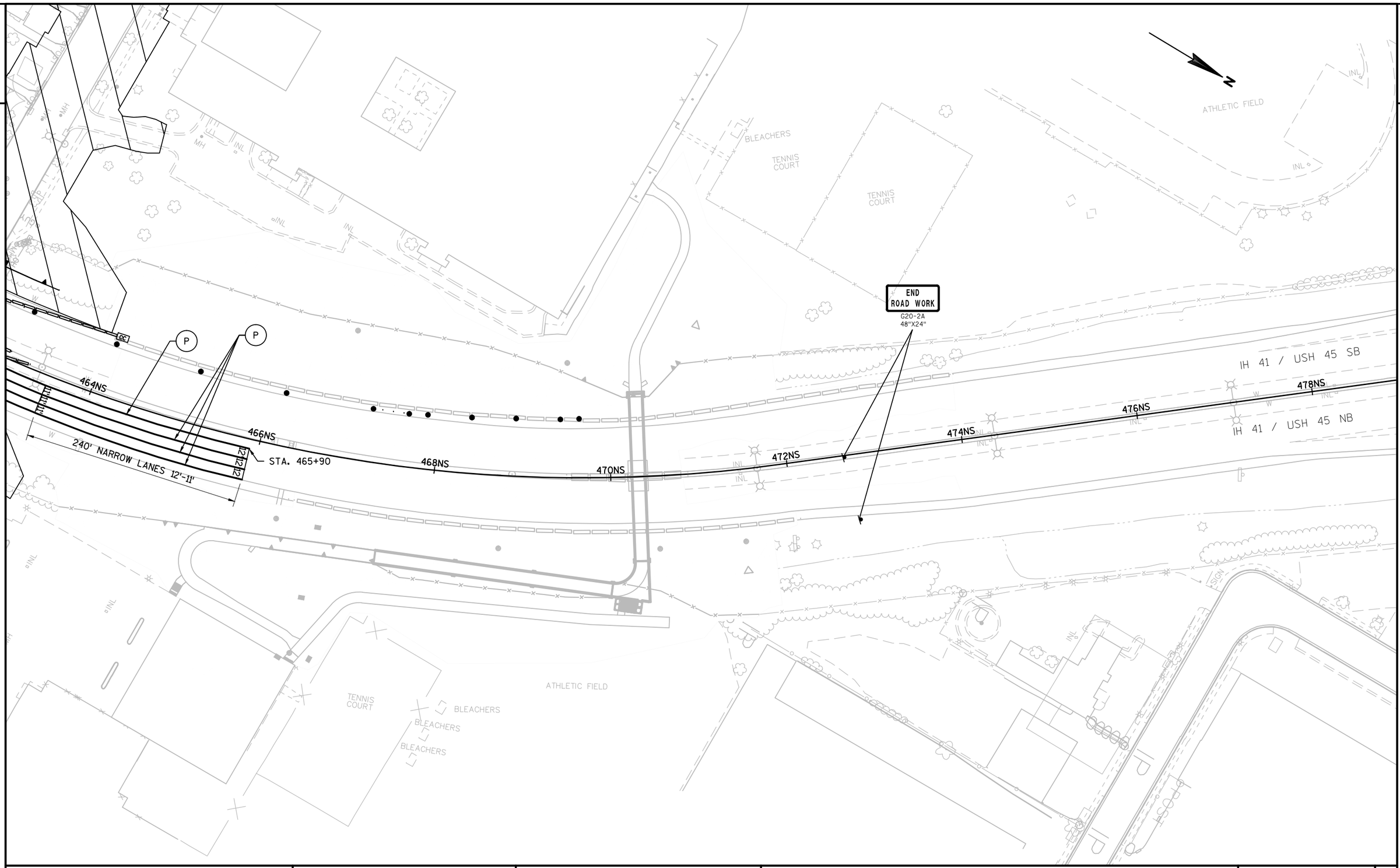
WISDOT/CADDS SHEET 42

STAGE 2 TYPICAL SECTION A-A
USH 45



PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2 - USH 45	SHEET 149 E

2



PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2 - USH 45	SHEET 150	E

2

ROAD WORK AHEAD
W20-1-A

N. 117TH ST

W. BURLEIGH FRONTAGE RD

N

IH 41 / USH 45 SB

IH 41 / USH 45 NB

482NS

484NS

486NS

488NS

490NS

492NS

478NS

480NS

USH 45

ROAD WORK 1500 FT
W20-1-B

ROAD WORK 1/2 MILE
W20-1-G

ROAD WORK 1 MILE
W20-1-F

1100'

2600'

500'

500'

500'

W21-62-Q
48"X30"

WORK ZONE

SPEED LIMIT 50
R2-1
48"X60"

FINES DOUBLE
W21-62-R
48"X30"

W21-62-Q
48"X30"

WORK ZONE

SPEED LIMIT 50
R2-1
48"X60"

FINES DOUBLE
W21-62-R
48"X30"

SPEED LIMIT 50
W03-5
48"X48"

W. LOCUST ST

N. 114TH ST

W. BURLEIGH ST

WATER TOWER

PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2 - USH 45	SHEET 151	E

2

N

CENTER ST
CLOSED
AT 114TH ST

ROAD OPEN
TO
HIGH SCHOOL

(SEE FIXED
MESSAGE SIGN
DETAIL)

ROAD
CLOSED
AHEAD
W20-3-A

N. 124TH ST

BRIDGE
OUT
R11-2-B
48"X30"

W. CENTER ST

ROAD CLOSED
TO
THRU TRAFFIC
R11-4
60"X30"

N. 117TH ST

N. 116TH ST

N. 115TH ST

N. 114TH ST

SIDEWALK
CLOSED
AHEAD
R9-9 (MOD)

N. 113TH ST

IH 41 / USH 45

N. 112TH ST

CLARKE ST

ROAD
WORK
AHEAD
W20-1-A

MEINECKE AVE

100'

ROAD CLOSED
AHEAD
LOCAL TRAFFIC ONLY
R11-3 (MOD)

ROAD
CLOSED
AHEAD
W20-3-A

ROAD
CLOSED
AHEAD
W20-3-A

ROAD CLOSED
TO
THRU TRAFFIC
R11-4
60"X30"

MAYFAIR RD

CENTER ST
CLOSED
AT IH-41

ROAD OPEN
TO
MIDDLE SCHOOL

(SEE FIXED
MESSAGE SIGN
DETAIL)

BRIDGE
OUT
R11-2-B
48"X30"

ROAD
CLOSED
AHEAD
W20-3-A

PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2	SHEET 152	E

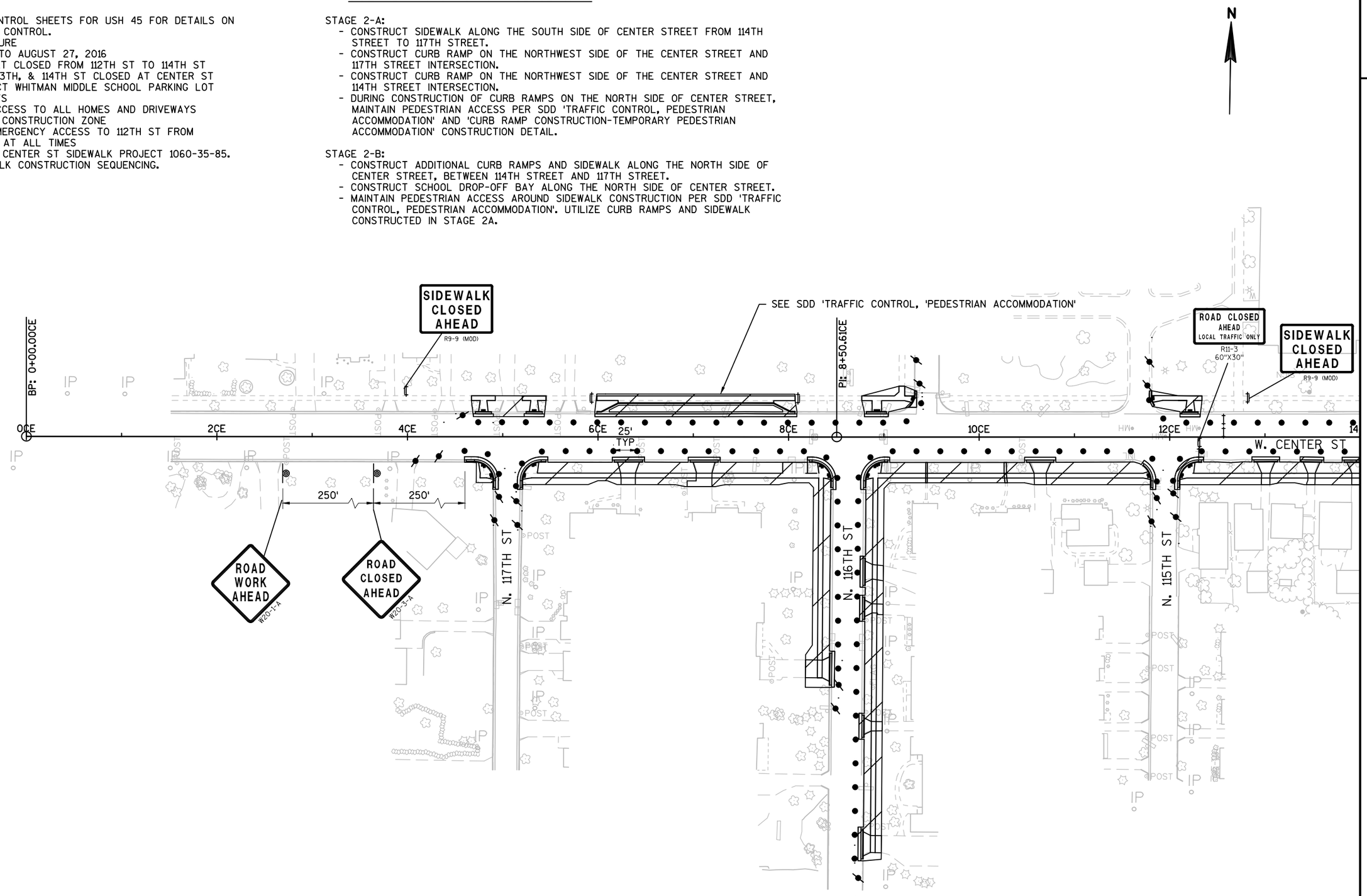
STAGE 2

SEE TRAFFIC CONTROL SHEETS FOR USH 45 FOR DETAILS ON USH 45 TRAFFIC CONTROL.
ESTIMATED CLOSURE
JUNE 13, 2016 TO AUGUST 27, 2016
- CENTER STREET CLOSED FROM 112TH ST TO 114TH ST
  - 112TH ST, 113TH, & 114TH ST CLOSED AT CENTER ST
  - RECONSTRUCT WHITMAN MIDDLE SCHOOL PARKING LOT & DRIVEWAYS
  - MAINTAIN ACCESS TO ALL HOMES AND DRIVEWAYS WITHIN THE CONSTRUCTION ZONE
  - MAINTAIN EMERGENCY ACCESS TO 112TH ST FROM CENTER ST AT ALL TIMES
  - CONSTRUCT CENTER ST SIDEWALK PROJECT 1060-35-85. SEE SIDEWALK CONSTRUCTION SEQUENCING.

SIDEWALK CONSTRUCTION SEQUENCING:

STAGE 2-A:
- CONSTRUCT SIDEWALK ALONG THE SOUTH SIDE OF CENTER STREET FROM 114TH STREET TO 117TH STREET.
- CONSTRUCT CURB RAMP ON THE NORTHWEST SIDE OF THE CENTER STREET AND 117TH STREET INTERSECTION.
- CONSTRUCT CURB RAMP ON THE NORTHWEST SIDE OF THE CENTER STREET AND 114TH STREET INTERSECTION.
- DURING CONSTRUCTION OF CURB RAMPS ON THE NORTH SIDE OF CENTER STREET, MAINTAIN PEDESTRIAN ACCESS PER SDD 'TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION' AND 'CURB RAMP CONSTRUCTION-TEMPORARY PEDESTRIAN ACCOMMODATION' CONSTRUCTION DETAIL.

STAGE 2-B:
- CONSTRUCT ADDITIONAL CURB RAMPS AND SIDEWALK ALONG THE NORTH SIDE OF CENTER STREET, BETWEEN 114TH STREET AND 117TH STREET.
- CONSTRUCT SCHOOL DROP-OFF BAY ALONG THE NORTH SIDE OF CENTER STREET.
- MAINTAIN PEDESTRIAN ACCESS AROUND SIDEWALK CONSTRUCTION PER SDD 'TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION'. UTILIZE CURB RAMPS AND SIDEWALK CONSTRUCTED IN STAGE 2A.



PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2 - LOCAL STREETS	SHEET 153	E

2

2

N

SIDEWALK CLOSED
R9-9
24"X12"

BRIDGE OUT
R11-2-B
48"X30"

ROAD CLOSED AHEAD
W20-3-A
500'

W. CENTER ST

14CE 16CE 18CE 20CE 22CE 24CE 26CE 28CE

ROAD CLOSED
R11-2
48" X 30"

N. 114TH ST
25' TYP

ROAD CLOSED
R11-2
48" X 30"

SIDEWALK CLOSED
R9-9
24"X12"

ROAD CLOSED
R11-2
48" X 30"

361A
341A
321A

N. 113TH ST

IH 41 / USH 45 SB
IH 41 / USH 45 NB

361B
341B
321B

N. 112TH ST

BRIDGE OUT
R11-2-B
48"X30"

SIDEWALK CLOSED
R9-9
24"X12"

ROAD CLOSED
R11-2
48" X 30"

PROJECT NO:1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL STAGE 2 - LOCAL STREETS	SHEET 154	E

2

IH 41 / USH 45

SEE SDD TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION FOR SIGNING REQUIRED FOR MID-BLOCK SIDEWALK CLOSURE. USE NORTH AVENUE AND WALNUT ROAD FOR ALTERNATE CROSSINGS.

SEE SDD TRAFFIC CONTROL, SINGLE LANE CLOSURE NON-FREEWAY / EXPRESSWAY

END ROAD WORK G20-2A 48"X24"

LANE CLOSED R11-2-L 48"X30"

500'

STA. 591+32M, 14.93' LT

STA. 592+32M, 14.93' LT BEGIN LANE SHIFT 16:1 TAPER

25' TYP

ASPHALTIC SURFACE TEMPORARY, 5-INCH

STA. 593+05M, 46.18' LT BEGIN CONCRETE BARRIER TEMPORARY PRECAST

SIDEWALK CLOSED R9-9 24"X12"

+98M, 30.51' LT

STA. 593+72M, 6.20' LT END LANE SHIFT

W05-52R 18"X54"

STA. 595+22M, 6.12' LT BEGIN LANE SHIFT 16:1 TAPER

STA. 597+20M, 46.06' LT END CONCRETE BARRIER TEMPORARY PRECAST

SIDEWALK CLOSED R9-9 24"X12"

+22M, 36.31' LT

STA. 596+63M, 14.96' LT END LANE SHIFT

W05-52L 18"X54"

STA. 598+63M, 36.96' LT END LANE DROP

W24-1-AL

30 M.P.H. W13-1 18"X18"

STA. 601+92M, 49.16' LT BEGIN LANE DROP

W04-2R 48"X48"

RIGHT LANE CLOSED AHEAD W20-5-A

ROAD WORK AHEAD W20-1-A

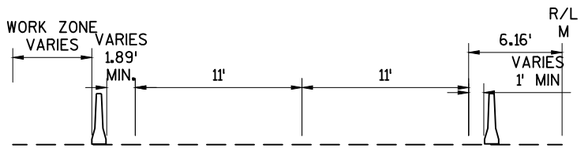
350' 700' 700'

R/L M

MAYFAIR RD

STA. 602+65M, 15.29' LT

SEE SDD 'TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/ EXPRESSWAY' AND 'TRAFFIC CONTROL TWO-LANE CLOSURE, NON-FREEWAY/ EXPRESSWAY' FOR ANY WORK REQUIRING SHORT-TERM LANE CLOSURES OF NORTH BOUND LANES ON STH 100 / MAYFAIR RD.



TYPICAL SECTION A-A
MAYFAIR RD (SB)

PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	TRAFFIC CONTROL - MAYFAIR RD	SHEET 155	E

2

SIGN CODE & SIGN SIZES

EAST	M3-2	(2) 24"X12"	(3) 36"X12"
WEST	M3-4	(2) 24"X12"	(3) 36"X12"
NORTH	M3-1	(2) 24"X12"	(3) 36"X18"
SOUTH	M3-3	(2) 24"X12"	(3) 36"X18"
TO	M04-5	(2) 24"X12"	(3) 36"X18"
END	M04-6	(2) 24"X12"	(3) 36"X18"
DETOUR	M4-8	(2) 24"X12"	(3) 36"X18"
INTERSTATE 41	M1-1	(2) 24"X24"	(3) 36"X36"
45	M1-4	(2) 24"X24"	(3) 36"X36"
M05-1R, M05-2R		(2) 21"X21"	(3) 30"X30"
M06-1, M06-2R		(2) 21"X21"	(3) 30"X30"
M05-1L		(2) 21"X21"	(3) 30"X30"

LEGEND

- DETOUR ROUTE
- WORK ZONE
- ROADWAY CLOSED
- EXISTING SIGN ON MOUNTED POST(S)
- PROPOSED SIGN ON MOUNTED POST(S)
- ( ) SIGN SIZE

DETOUR SIGNING - GENERAL NOTES

THE EXACT NUMBER, LOCATION AND SPACING BETWEEN ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED NOT TO CONFLICT WITH AND TO PROVIDE A MINIMUM 200 FEET (500 FEET DESIREABLE) CLEARANCE TO EXISTING SIGNS.

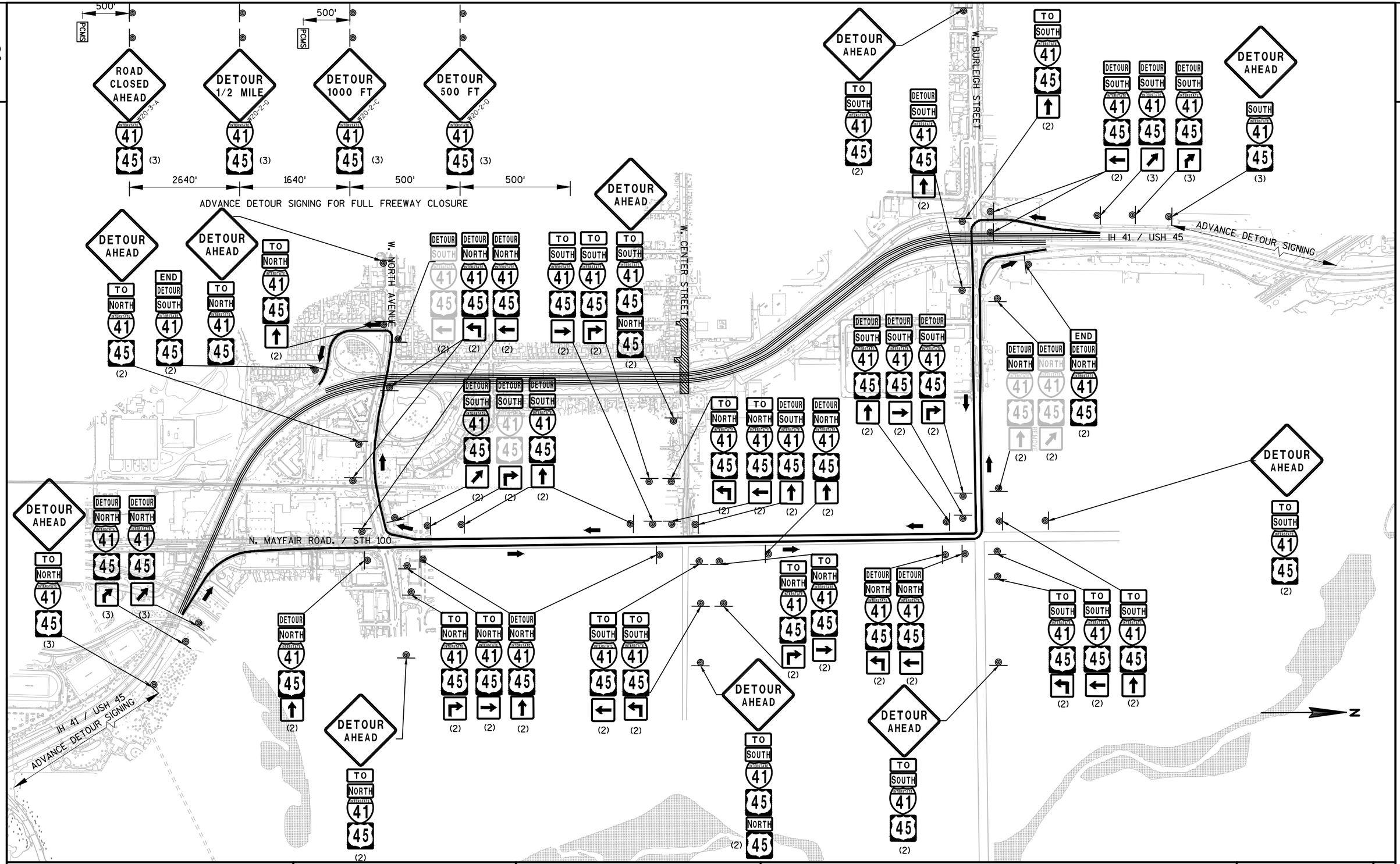
ANY SIGNS, TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

ALL WARNING SIGNS ARE 48"X48".

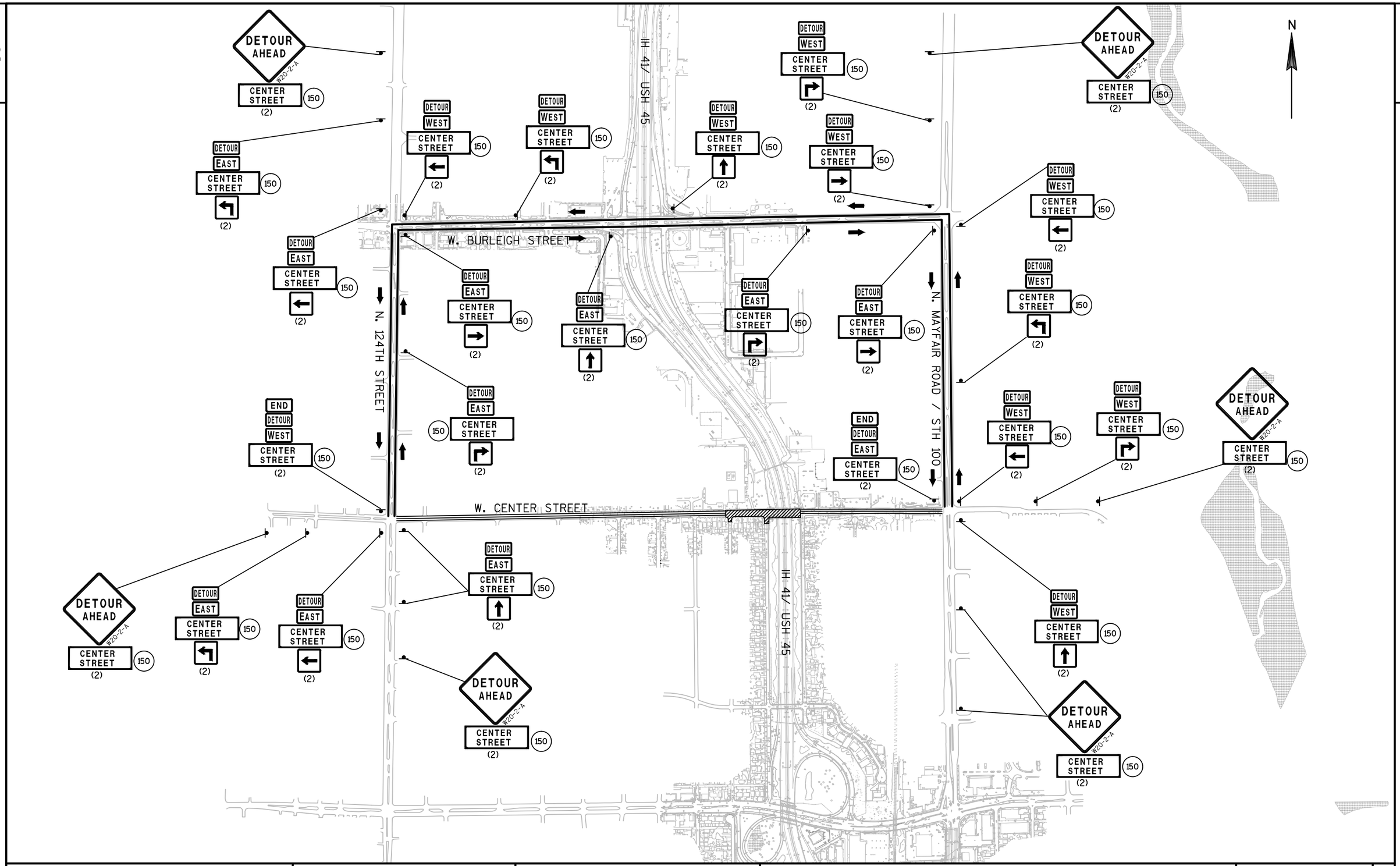
COVERING AND UNCOVERING SIGNS ARE INCIDENTAL TO DETOUR SIGNING.

A STAND-ALONE PROPOSED DETOUR SIGN ASSEMBLY MAY BE INSTALLED NEAR AN EXISTING J-ASSEMBLY AS AN ALTERNATIVE TO MODIFYING AN EXISTING J-ASSEMBLY AND VISE VERSA.

PROJECT NO: 1060-34-84/1060-35-85	HWY: USH 45	COUNTY: MILWAUKEE	DETOUR ROUTE - MAINLINE USH 45 AND CENTER ST CLOSURE	SHEET 156	E



PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	DETOUR ROUTE - MAINLINE IH 41 CLOSURE	SHEET 157	E



PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	DETOUR ROUTE - CENTER ST CLOSURE	SHEET 158	E

FILE NAME : W:\PDS\C3D\10603484\DSN\DISPLAY\CENTER ST_DETOURS.DWG PLOT DATE : 7/29/2015 10:56 AM PLOT BY : WAGNER, SCOTT H PLOT NAME : PLOT SCALE : 1IN:800

WISDOT/CADDS SHEET 42

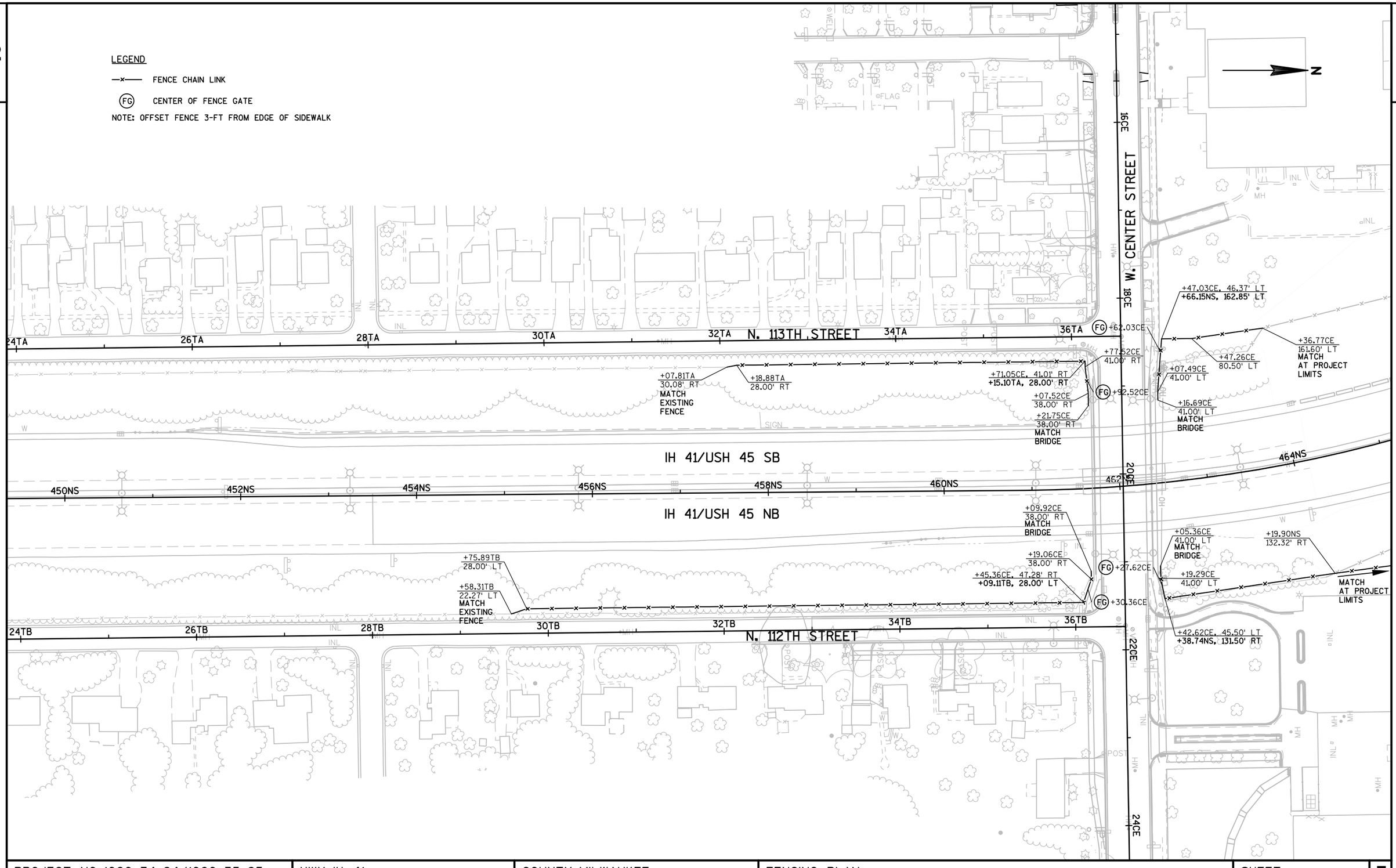
2

LEGEND

—x— FENCE CHAIN LINK

(FG) CENTER OF FENCE GATE

NOTE: OFFSET FENCE 3-FT FROM EDGE OF SIDEWALK



PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	FENCING PLAN	SHEET 159	E

2

2

584M

X=569081.94
Y=304800.15
STA. 585+07.40, STH 100

N89° 33' 53"E 2691.38'

1/4 LINE

590M

N0° 41' 49"W

R/L = SECTION LINE

2659.14'

420NS

CURVE NS5

425NS

N66° 03' 08"W 415NS

PC
NS5

594+69.30M STH 100 =
411+51.40NS, IH 41 / USH 45
X = 569070.24
Y = 305761.98

410NS

595M

405NS

IH 41 / USH 45

395NS

CURVE NS4

400NS

PT
NS4

R/L NS

N. MAYFAIR ROAD / STH 100

R/L M

600M

PI
NS4

CURVE DATA													
CURVE NO.	PI STA	PI EASTING	PI NORTHING	DELTA	D	T	L	E	R	PC	PT	Ds	e
NS4	397+48.50NS	570400.54	305171.14	39°01'06"	2°59'59"	676.71	1300.71	109.66	1910.00	390+71.79NS	403+72.50NS	60mph	5.5%

NOTE:

** IH 41 / USH 45 R/L NS DOES NOT
EQUAL THE EXISTING IH 41 / USH 45 C/L

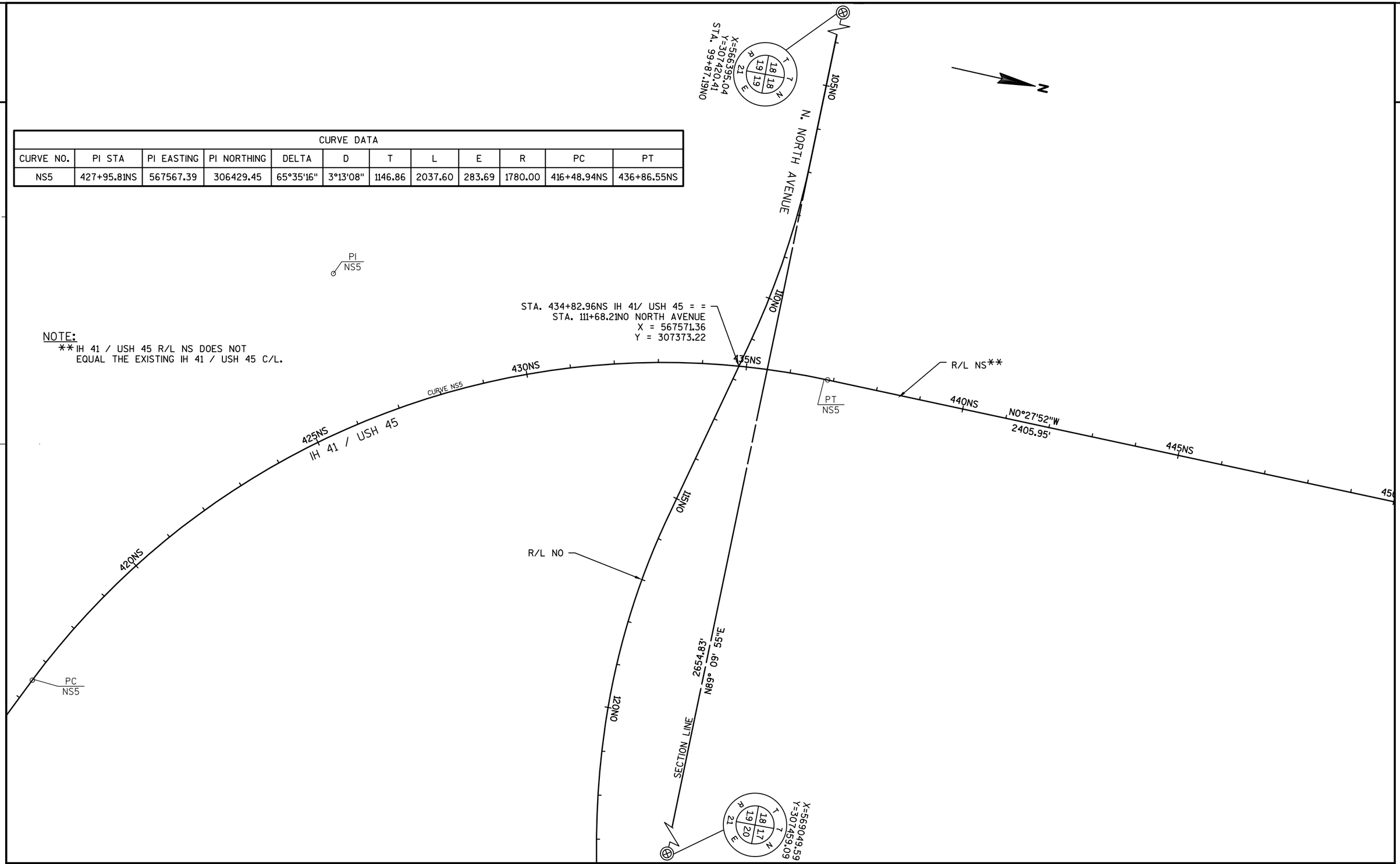
X=569049.59
Y=307459.09
STA. 611+66.54, STH 100

W. NORTH AVENUE

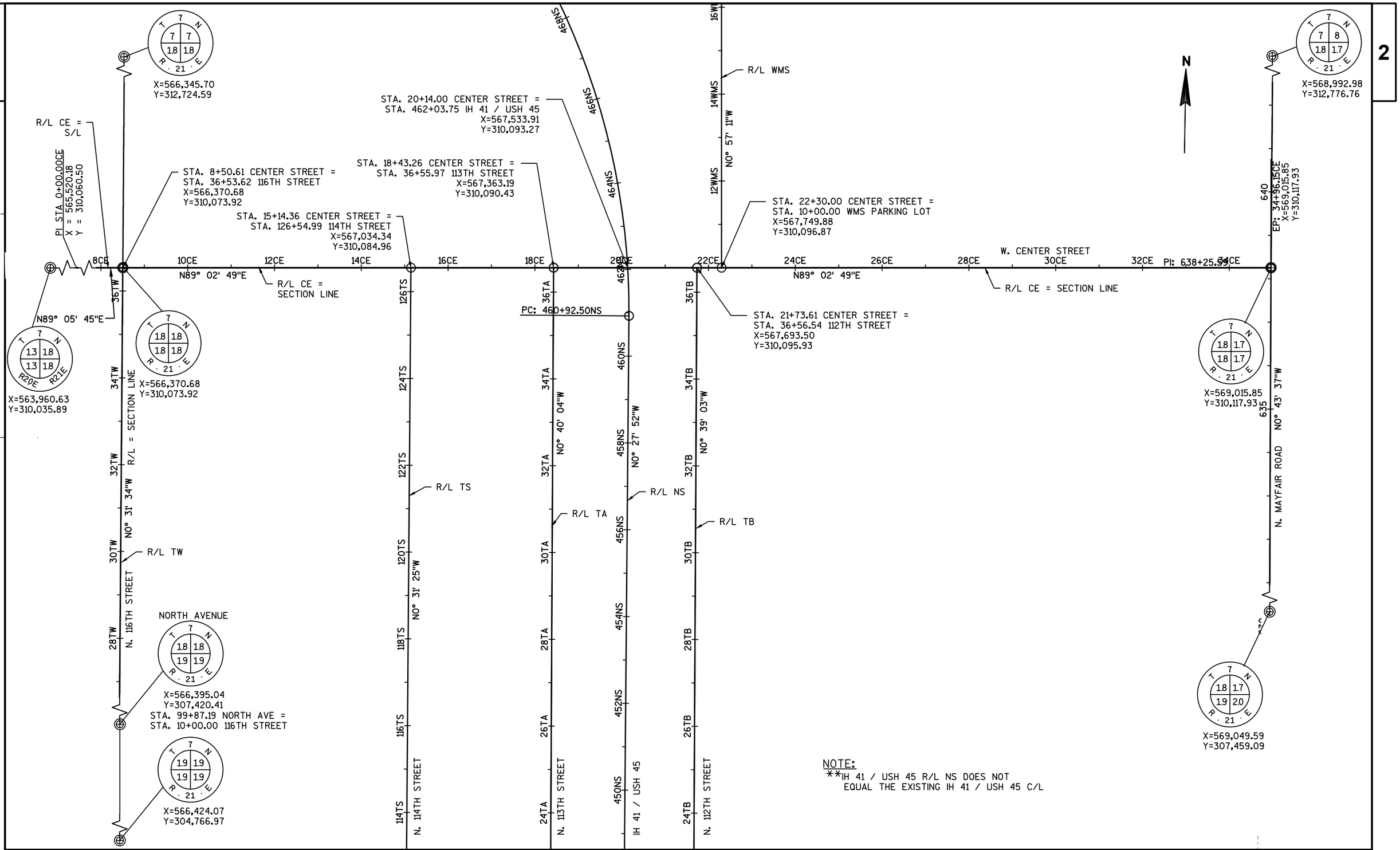
PROJECT NO:1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	ALIGNMENT LAYOUT	SHEET 160	E

2

CURVE DATA											
CURVE NO.	PI STA	PI EASTING	PI NORTHING	DELTA	D	T	L	E	R	PC	PT
NS5	427+95.81NS	567567.39	306429.45	65°35'16"	3°13'08"	1146.86	2037.60	283.69	1780.00	416+48.94NS	436+86.55NS

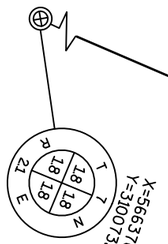


PROJECT NO: 1060-34-84/1060-35-85	HWY: USH 45	COUNTY: MILWAUKEE	ALIGNMENT LAYOUT	SHEET 161	E

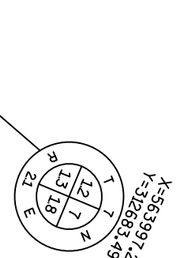


PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	ALIGNMENT PLAN	SHEET 162 E

2



¼ LINE N0°32'24"W
2650.79'



SECTION LINE 2348.86'
N88°59'51"E

BURLEIGH STREET

PI
NS7

485NS

CURVE NS7

480NS

PC
NS7

490NS

N38°51'06"W

N0° 30' 04"W
NS 250.57'

493NS

475NS

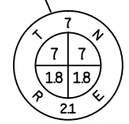
IH 41 / USH 45

STA. 493+07.43NS
X=566253.68
Y=312823.65

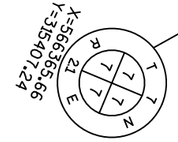
470NS CURVE NS6

PT
NS6

R/L NS**

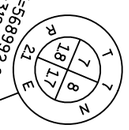


¼ LINE N0°25'35"E
2682.72'



2647.79'
N88°52'16"E

SECTION LINE



CURVE DATA											
CURVE NO.	PI STA	PI EASTING	PI NORTHING	DELTA	D	T	L	E	R	PC	PT
NS6	466+63.40NS	567533.95	310553.03	38°23'14"	3°29'37"	570.90	1098.77	91.16	1640.00	460+92.50NS	471+91.27NS
NS7	486+51.65NS	566259.71	312134.93	38°21'02"	4°32'50"	438.17	843.37	69.91	1260.00	482+13.49NS	490+56.86NS

NOTE:
** IH 41 / USH 45 R/L NS DOES NOT EQUAL THE EXISTING IH 41 / USH 45 C/L.

PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	ALIGNMENT LAYOUT	SHEET 163	E

2

LEGEND

XXX CONTROL POINT

N

647
751.901
CP

646
765.484
CP

644
760.513
CP

645
759.850
CP

705
734.822
CP

643
778.061
CP

W. CENTER STREET

N. 116TH STREET

N. 114TH STREET

N. 113TH STREET

IH 41/USH 45

N. 112TH STREET

W. CLARKE STREET

N. MAYFAIR ROAD / STH 100

PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	ALIGNMENT LAYOUT - SURVEY CONTROL OVERVIEW	SHEET 164	E

2

LEGEND

XXX CONTROL POINT

N

642
779.630
CP

641
774.843
CP

639
754.998
CP

640
740.442
CP

638
723.493
CP

N. 113TH STREET

N. 112TH STREET

W. MEINECKE AVENUE

IH 41 / USH 45

W. NORTH AVENUE

N. MAYFAIR ROAD / STH 100

PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	ALIGNMENT LAYOUT - SURVEY CONTROL OVERVIEW	SHEET

E

FILE NAME : W:\PDS\C3D\CAD\10603484\027279_AD.DWG PLOT DATE : 10/21/2015 11:11 AM PLOT BY : GIBSON, NICOLE E PLOT NAME : ---------- PLOT SCALE : 1 IN:400 FT

WISDOT/CADDS SHEET 42

2

N. 113TH STREET

IH 41 / USH 45 SB

CP643
BERNTSEN FENO F1000 SPK MONUMENT
W/ ALUMINUM CAP, NORTHWEST QUAD. OF
N. 113TH ST. AND W. CLARKE ST.,
5.3' WEST OF WEST BACK OF CURB, 7.0'
NORTH OF NORTH BACK OF CURB.
STA. 28+22.22TA, 21.7' LT
N=309,256.49
E=567,351.17
ELEV. 778.06

643
778.061
CP

28TA

W. CLARK STREET

CP645
BERNTSEN FENO F1000 SPK MONUMENT
W/ ALUMINUM CAP. NORTHWEST QUAD.
OF N. 112TH ST. AND W. CENTER ST.,
6.5' NORTH OF NORTH EDGE OF SIDEWALK,
5.7' WEST OF WEST BACK OF CURB ON
WEST DRIVEWAY
STA. 21+57.65CE, 40.7' LT
N=310,136.35
E=567,676.87
ELEV. 759.85

645
759.850
CP

W. CENTER STREET

36TB

N. 112TH STREET

N. MAYFAIR ROAD

705
734.822
CP

CP705
BERNTSEN FENO F1000 SPK
MONUMENT W/ ALUMINUM
CAP, NORTHWEST QUAD. OF
MAYFAIR RD. & W. CENTER ST.
STA. 34+31.92CE, 46.5' LT
N=310,163.33
E=568,950.86
ELEV. 734.82

638M

W. CENTER STREET

CP644
BERNTSEN FENO F1000 SPK MONUMENT
W/ ALUMINUM CAP, NORTHWEST QUAD.
OF N. 113TH ST. AND W. CENTER ST.,
20' NORTH OF NORTH EDGE OF SIDEWALK,
100' EAST OF EAST BACK OF CURB ON
DRIVEWAY
STA. 18+30.25CE, 63.1' LT
N=310,153.26
E=567,349.14
644 ELEV. 760.51
760.513
CP

W. CENTER STREET

36TA

N. 113TH STREET

BURLEIGH STREET ENTRANCE RAMP

IH 41 / USH 45 SB

CP646
BERNTSEN FENO F1000 SPK MONUMENT
W/ ALUMINUM CAP, WEST OF USH 45 SB
ENTRANCE RAMP AT BURLEIGH ST., WEST
OF RAMP GORE AREA, 6.5' SOUTH WEST OF
OUTSIDE EDGE OF PAVED SHOULDER ON SB
ENTRANCE RAMP, 9.7' NORTHWEST OF LIGHT POLE.
STA. 483+11.04NS, 116.1' LT
N=311,806.37
E=566,380.64
ELEV. 765.48

646
765.484
CP

PC: 482+13.49

482NS

PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	ALIGNMENT LAYOUT - SURVEY CONTROL	SHEET 166	E

2

W. NORTH AVENUE

120NO

MH

WV

SIGN

638
723.493
CP

CP638
BERNTSEN FENO MONUMENT
W/ ALUMINUM CAP,
33 FT SW OF FIRE PLUG
BETWEEN SIDEWALK AND
PARKING LOT SOUTH SIDE
OF N. NORTH AVE.
STA. 119+61.20NO, 60.339' RT
N=307189.982
E=568353.606
ELEV. 723.49

N

INL

W. NORTH AVENUE

MH

98TS

N. 114TH STREET

CP639
BERNTSEN FENO MONUMENT
W/ ALUMINUM CAP,
BETWEEN USH 45 SB ON RAMP
AT N. NORTH AVE
AND N. 114TH ST., 15 FT FROM
BACK OF CURB
STA. 106+74.49NO, 137.053' RT
N=307293.227
E=567082.581
ELEV. 755.00

639
754.998
CP

N

W. NORTH AVENUE

116NO

WV

MH

INL

WALLS

640
740.442
CP

CP640
BERNTSEN FENO MONUMENT
W/ ALUMINUM CAP,
54.5 FT SW OF FIRE PLUG
THAT IS BETWEEN SIDEWALK
AND BACK OF CURB.
STA. 115+90.34NO, 81.737' RT
N=307193.381
E=567968.982
ELEV. 740.44

N

2

W. MEINECKE AVENUE

MH

WV

641
774.843
CP

CP641
BERNTSEN FENO MONUMENT
W/ ALUMINUM CAP,
91 FT SOUTH OF C/L OF W.
MEINECKE AVE. BETWEEN BACK
OF CURB AND FENCE WEST
SIDE OF N. 112TH ST.
STA. 443+57.36NS, 144.842' RT
N=308248.233
E=567697.485
ELEV. 774.84

18TB

N. 112TH STREET

17TB

N

OH

HWY

HWY

CP642
BERNTSEN FENO MONUMENT
W/ ALUMINUM CAP,
82.8 FT NORTH OF C/L OF W.
MEINECKE AVE. WEST SIDE
N. 113TH ST. 13.8 FT FROM
BACK OF CURB
STA. 445+28.80NS, 197.798' LT
N=308416.894
E=567353.466
ELEV. 779.63

642
779.630
CP

20TA

N. 113TH STREET

POST

W. MEINECKE AVENUE

MH

N

PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	ALIGNMENT LAYOUT - SURVEY CONTROL	SHEET 167	E

DATE 26OCT15 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	1060-34-84 QUANTITY	1060-35-85 QUANTITY
0010	108.4400	CPM Progress Schedule 0001. 1060-34-84	EACH	1.000	1.000	
0020	201.0105	Clearing	STA	27.000	27.000	
0030	201.0120	Clearing	ID	681.000	467.000	214.000
0040	201.0205	Grubbing	STA	26.000	26.000	
0050	201.0220	Grubbing	ID	681.000	467.000	214.000
0060	203.0200	Removing Old Structure (station) 0001. 20+14	LS	1.000	1.000	
0070	203.0210.S	Abatement of Asbestos Containing Material (structure) 0001. B-40-284	LS	1.000	1.000	
0080	204.0100	Removing Pavement	SY	8,216.000	7,745.000	471.000
0090	204.0120	Removing Asphaltic Surface Milling	SY	476.000	133.000	343.000
0100	204.0130	Removing Curb	LF	852.000	852.000	
0110	204.0150	Removing Curb & Gutter	LF	2,025.000	1,107.000	918.000
0120	204.0155	Removing Concrete Sidewalk	SY	1,347.000	1,135.000	212.000
0130	204.0157	Removing Concrete Barrier	LF	400.000	400.000	
0140	204.0165	Removing Guardrail	LF	170.000	170.000	
0150	204.0170	Removing Fence	LF	1,767.000	1,767.000	
0160	204.0195	Removing Concrete Bases	EACH	3.000	3.000	
0170	204.0210	Removing Manholes	EACH	2.000	2.000	
0180	204.0220	Removing Inlets	EACH	13.000	13.000	
0190	204.0245	Removing Storm Sewer (size) 0001. (12-INCH)	LF	111.000	111.000	
0200	204.0245	Removing Storm Sewer (size) 0002. (15-INCH)	LF	114.000	114.000	
0210	204.0245	Removing Storm Sewer (size) 0003. (18-INCH)	LF	108.000	108.000	
0220	204.0280	Sealing Pipes	EACH	10.000	10.000	
0230	204.9105.S	Removing (item description) 0001. CRASH CUSHION	LS	1.000	1.000	
0240	205.0100	Excavation Common **P**	CY	20,425.000	19,585.000	840.000
0250	206.1000	Excavation for Structures Bridges (structure) 0001. B-40-880	LS	1.000	1.000	
0260	206.3000	Excavation for Structures Retaining Walls (structure) 0001. R-40-577	LS	1.000	1.000	
0270	206.3000	Excavation for Structures Retaining Walls (structure) 0002. R-40-578	LS	1.000	1.000	
0280	210.0100	Backfill Structure	CY	533.000	533.000	
0290	213.0100	Finishing Roadway (project) 0001. 1060-34-84	EACH	1.000	1.000	
0300	213.0100	Finishing Roadway (project) 0002. 1060-35-85	EACH	1.000		1.000
0310	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	9,036.000	8,342.000	694.000
0320	312.0110	Select Crushed Material	TON	4,621.000	4,621.000	
0330	415.0070	Concrete Pavement 7-Inch	SY	363.000	363.000	
0340	415.0090	Concrete Pavement 9-Inch	SY	141.000	5.000	136.000
0350	416.0270	Concrete Driveway HES 7-Inch	SY	1,742.000	1,256.000	486.000
0360	416.0610	Drilled Tie Bars	EACH	276.000	5.000	271.000
0370	455.0105	Asphaltic Material PG58-28	TON	134.000	134.000	
0380	455.0120	Asphaltic Material PG64-28	TON	10.000	10.000	
0390	455.0140	Asphaltic Material PG64-28P	TON	3.000	3.000	
0400	455.0605	Tack Coat	GAL	500.000	500.000	
0410	460.1101	HMA Pavement Type E-1	TON	2,431.000	2,431.000	
0420	460.1110	HMA Pavement Type E-10	TON	211.000	211.000	
0430	460.2000	Incentive Density HMA Pavement	DOL	1,700.000	1,700.000	
0440	465.0105	Asphaltic Surface	TON	207.000	119.000	88.000

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DATE 26OCT15 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	1060-34-84 QUANTITY	1060-35-85 QUANTITY
0450	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	10.000	7.000	3.000
0460	502.0100	Concrete Masonry Bridges **P**	CY	236.000	236.000	
0470	502.3200	Protective Surface Treatment **P**	SY	1,657.000	1,657.000	
0480	502.3210	Pigmented Surface Sealer **P**	SY	43.000	43.000	
0490	503.0137	Prestressed Girder Type I 36W-Inch **P**	LF	2,397.000	2,397.000	
0500	505.0400	Bar Steel Reinforcement HS Structures	LB	11,320.000	11,320.000	
0510	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	157,360.000	157,360.000	
0520	506.2605	Bearing Pads Elastomeric Non-Laminated	EACH	48.000	48.000	
0530	506.4000	Steel Diaphragms (structure) 0001. B-40-880	EACH	44.000	44.000	
0540	511.1200	Temporary Shoring (structure) 0001. B-40-880	SF	1,665.000	1,665.000	
0550	511.1300	Temporary Shoring (location) 8001. 455NS+12 TO 463NS+36	SF	23,311.000	23,311.000	
0560	511.1300	Temporary Shoring (location) 8002. 461NS+45 TO 461NS+76	SF	272.000	272.000	
0570	513.2001	Railing Pipe (structure) 0001. R-40-577	LF	465.000	465.000	
0580	513.2001	Railing Pipe (structure) 0002. R-40-578	LF	634.000	634.000	
0590	516.0500	Rubberized Membrane Waterproofing	SY	53.000	53.000	
0600	520.8000	Concrete Collars for Pipe	EACH	12.000	12.000	
0610	550.0500	Pile Points	EACH	44.000	44.000	
0620	550.1100	Piling Steel HP 10-Inch X 42 Lb	LF	1,250.000	1,250.000	
0630	550.1120	Piling Steel HP 12-Inch X 53 Lb	LF	960.000	960.000	
0640	601.0205	Concrete Gutter 24-Inch	LF	208.000		208.000
0650	601.0319	Concrete Curb & Gutter 19-Inch	LF	1,533.000	1,533.000	
0660	601.0331	Concrete Curb & Gutter 31-Inch	LF	3,487.000	2,537.000	950.000
0670	601.0407	Concrete Curb & Gutter 18-Inch Type D	LF	133.000	133.000	
0680	601.0409	Concrete Curb & Gutter 30-Inch Type A	LF	16.000	16.000	
0690	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	131.000	131.000	
0700	602.0410	Concrete Sidewalk 5-Inch	SF	29,363.000	17,704.000	11,659.000
0710	602.0505	Curb Ramp Detectable Warning Field Yellow	SF	539.000	395.000	144.000
0720	602.1500	Concrete Steps	SF	52.000	52.000	
0730	602.2400	Concrete Safety Islands	SF	346.000	346.000	
0740	603.8000	Concrete Barrier Temporary Precast Delivered	LF	6,666.000	6,666.000	
0750	603.8125	Concrete Barrier Temporary Precast Installed	LF	9,167.000	9,167.000	
0760	604.0400	Slope Paving Concrete	SY	57.000	57.000	
0770	608.0312	Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	LF	395.000	395.000	
0780	608.0315	Storm Sewer Pipe Reinforced Concrete Class III 15-Inch	LF	216.000	216.000	
0790	608.0318	Storm Sewer Pipe Reinforced Concrete Class III 18-Inch	LF	211.000	211.000	
0800	608.0324	Storm Sewer Pipe Reinforced Concrete Class III 24-Inch	LF	769.000	769.000	
0810	608.0330	Storm Sewer Pipe Reinforced Concrete Class III 30-Inch	LF	30.000	30.000	
0820	608.0424	Storm Sewer Pipe Reinforced Concrete Class IV 24-Inch	LF	193.000	193.000	
0830	610.0148	Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 48x76-Inch	LF	406.000	406.000	

DATE 26OCT15 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	1060-34-84 QUANTITY	1060-35-85 QUANTITY
0840	611.0420	Reconstructing Manholes	EACH	2.000	2.000	
0850	611.0535	Manhole Covers Type J-Special	EACH	3.000	3.000	
0860	611.0624	Inlet Covers Type H	EACH	16.000	16.000	
0870	611.0642	Inlet Covers Type MS	EACH	5.000	5.000	
0880	611.0654	Inlet Covers Type V	EACH	2.000	2.000	
0890	611.0663	Inlet Covers Type X	EACH	2.000	2.000	
0900	611.2004	Manholes 4-FT Diameter	EACH	1.000	1.000	
0910	611.2005	Manholes 5-FT Diameter	EACH	4.000	4.000	
0920	611.2006	Manholes 6-FT Diameter	EACH	2.000	2.000	
0930	611.2008	Manholes 8-FT Diameter	EACH	2.000	2.000	
0940	611.3003	Inlets 3-FT Diameter	EACH	2.000	2.000	
0950	611.3004	Inlets 4-FT Diameter	EACH	22.000	22.000	
0960	611.3230	Inlets 2x3-FT	EACH	6.000	6.000	
0970	611.3901	Inlets Median 1 Grate	EACH	5.000	5.000	
0980	611.3902	Inlets Median 2 Grate	EACH	3.000	3.000	
0990	611.8110	Adjusting Manhole Covers	EACH	4.000	4.000	
1000	611.8115	Adjusting Inlet Covers	EACH	9.000	4.000	5.000
1010	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	1,310.000	1,310.000	
1020	614.0805	Crash Cushions Permanent Low Maintenance	EACH	1.000	1.000	
1030	614.0905	Crash Cushions Temporary	EACH	5.000	5.000	
1040	616.0206	Fence Chain Link 6-FT	LF	1,641.000	1,641.000	
1050	616.0329	Gates Chain Link (width) 0001. 10-FT	EACH	4.000	4.000	
1060	616.0406	Fence Chain Link Salvaged 6-FT	LF	400.000	400.000	
1070	616.0700.S	Fence Safety	LF	300.000	300.000	
1080	619.1000	Mobilization	EACH	1.000	1.000	
1090	620.0300	Concrete Median Sloped Nose	SF	25.000	25.000	
1100	623.0200	Dust Control Surface Treatment	SY	12,840.000	12,840.000	
1110	624.0100	Water	MGAL	192.000	181.000	11.000
1120	628.1504	Silt Fence	LF	361.000	361.000	
1130	628.1520	Silt Fence Maintenance	LF	361.000	361.000	
1140	628.1905	Mobilizations Erosion Control	EACH	7.000	7.000	
1150	628.1910	Mobilizations Emergency Erosion Control	EACH	4.000	4.000	
1160	628.2004	Erosion Mat Class I Type B	SY	17,111.000	17,111.000	
1170	628.2008	Erosion Mat Urban Class I Type B	SY	1,389.000	1,389.000	
1180	628.6505	Soil Stabilizer Type A	ACRE	1.000	1.000	
1190	628.7005	Inlet Protection Type A	EACH	20.000	20.000	
1200	628.7015	Inlet Protection Type C	EACH	21.000	15.000	6.000
1210	628.7020	Inlet Protection Type D	EACH	89.000	73.000	16.000
1220	628.7560	Tracking Pads	EACH	7.000	7.000	
1230	629.0205	Fertilizer Type A	CWT	3.700	3.700	
1240	629.0210	Fertilizer Type B	CWT	3.300	2.600	0.700
1250	630.0130	Seeding Mixture No. 30	LB	333.000	333.000	
1260	630.0140	Seeding Mixture No. 40	LB	186.000	142.000	44.000
1270	630.0200	Seeding Temporary	LB	777.000	712.000	65.000
1280	631.0300	Sod Water	MGAL	187.000	143.000	44.000
1290	631.1000	Sod Lawn	SY	10,430.000	7,855.000	2,575.000
1300	632.0101	Trees (species) (size) (root) 0001. GINKGO - MALE ONLY 2 1/2 INCH CAL B&B	EACH	5.000	5.000	
1310	632.0101	Trees (species) (size) (root) 0002. LONDON PLANE 2 1/2 INCH CAL B&B	EACH	5.000	5.000	
1320	632.0101	Trees (species) (size) (root) 0003. TURKISH FILBERT 2 1/2 INCH CAL B&B	EACH	5.000	5.000	
1330	632.9101	Landscape Planting Surveillance and Care Cycles	EACH	20.000	20.000	

DATE 26OCT15 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	1060-34-84 QUANTITY	1060-35-85 QUANTITY
1340	634.0618	Posts Wood 4x6-Inch X 18-FT	EACH	6.000	6.000	
1350	634.0622	Posts Wood 4x6-Inch X 22-FT	EACH	12.000	12.000	
1360	634.0816	Posts Tubular Steel 2x2-Inch X 16-FT	EACH	59.000	35.000	24.000
1370	635.0200	Sign Supports Structural Steel HS	LB	2,600.000	2,600.000	
1380	636.0100	Sign Supports Concrete Masonry	CY	4.400	4.400	
1390	636.0500	Sign Supports Steel Reinforcement	LB	264.000	264.000	
1400	637.2210	Signs Type II Reflective H	SF	337.530	213.230	124.300
1410	637.2230	Signs Type II Reflective F	SF	158.750	84.750	74.000
1420	638.2101	Moving Signs Type I	EACH	6.000	6.000	
1430	638.2102	Moving Signs Type II	EACH	22.000	22.000	
1440	638.2602	Removing Signs Type II	EACH	67.000	43.000	24.000
1450	638.3000	Removing Small Sign Supports	EACH	67.000	48.000	19.000
1460	643.0100	Traffic Control (project) 0002. 1060-35-85	EACH	1.000		1.000
1470	643.0200	Traffic Control Surveillance and Maintenance (project) 0001. 1060-34-84	DAY	200.000	200.000	
1480	643.0300	Traffic Control Drums	DAY	18,447.000	8,524.000	9,923.000
1490	643.0420	Traffic Control Barricades Type III	DAY	7,354.000	6,619.000	735.000
1500	643.0705	Traffic Control Warning Lights Type A	DAY	14,708.000	13,238.000	1,470.000
1510	643.0715	Traffic Control Warning Lights Type C	DAY	5,063.000	3,372.000	1,691.000
1520	643.0800	Traffic Control Arrow Boards	DAY	63.000	63.000	
1530	643.0900	Traffic Control Signs	DAY	24,256.000	23,521.000	735.000
1540	643.0920	Traffic Control Covering Signs Type II	EACH	72.000	72.000	
1550	643.1050	Traffic Control Signs PCMS	DAY	516.000	516.000	
1560	643.1055.S	Truck or Trailer Mounted Attenuator	DAY	60.000	60.000	
1570	643.2000	Traffic Control Detour (project) 0001. 1060-34-84	EACH	1.000	1.000	
1580	643.3000	Traffic Control Detour Signs	DAY	23,356.000	23,356.000	
1590	644.1410.S	Temporary Pedestrian Surface Asphalt	SF	296.000		296.000
1600	644.1616.S	Temporary Pedestrian Safety Fence	LF	224.000		224.000
1610	646.0106	Pavement Marking Epoxy 4-Inch	LF	30,950.000	30,950.000	
1620	646.0600	Removing Pavement Markings	LF	28,025.000	28,025.000	
1630	646.0881.S	Pavement Marking Grooved Wet Reflective Tape 4-Inch	LF	200.000	200.000	
1640	646.0883.S	Pavement Marking Grooved Wet Reflective Tape 8-Inch	LF	567.000	567.000	
1650	647.0166	Pavement Marking Arrows Epoxy Type 2	EACH	1.000	1.000	
1660	647.0196	Pavement Marking Arrows Epoxy Type 5	EACH	6.000	6.000	
1670	647.0456	Pavement Marking Curb Epoxy	LF	30.000	30.000	
1680	647.0566	Pavement Marking Stop Line Epoxy 18-Inch	LF	110.000	45.000	65.000
1690	647.0606	Pavement Marking Island Nose Epoxy	EACH	7.000	7.000	
1700	647.0656	Pavement Marking Parking Stall Epoxy	LF	2,300.000	2,300.000	
1710	647.0796	Pavement Marking Crosswalk Epoxy 24-Inch	LF	512.000		512.000
1720	649.0400	Temporary Pavement Marking Removable Tape 4-Inch	LF	2,193.000	2,193.000	
1730	649.2100	Temporary Raised Pavement Markers	EACH	144.000	144.000	
1740	652.0125	Conduit Rigid Metallic 2-Inch	LF	24.000	24.000	
1750	652.0210	Conduit Rigid Nonmetallic Schedule 40 1-Inch	LF	60.000	60.000	
1760	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	936.000	936.000	
1770	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	330.000	250.000	80.000
1780	652.0615	Conduit Special 3-Inch	LF	275.000	115.000	160.000
1790	652.0700.S	Install Conduit into Existing Item	EACH	1.000	1.000	

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DATE 26OCT15 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	1060-34-84 QUANTITY	1060-35-85 QUANTITY
1800	653.0140	Pull Boxes Steel 24x42-Inch	EACH	2.000	2.000	
1810	653.0222	Junction Boxes 18x12x6-Inch	EACH	4.000	4.000	
1820	653.0905	Removing Pull Boxes	EACH	2.000	1.000	1.000
1830	654.0105	Concrete Bases Type 5	EACH	20.000	13.000	7.000
1840	655.0510	Electrical Wire Traffic Signals 12 AWG	LF	410.000	410.000	
1850	655.0610	Electrical Wire Lighting 12 AWG	LF	3,070.000	2,166.000	904.000
1860	655.0620	Electrical Wire Lighting 8 AWG	LF	3,906.000	2,911.000	995.000
1870	655.0625	Electrical Wire Lighting 6 AWG	LF	210.000	210.000	
1880	655.0630	Electrical Wire Lighting 4 AWG	LF	7,812.000	5,822.000	1,990.000
1890	656.0200	Electrical Service Meter Breaker Pedestal (location) 2001. MB22CE	LS	1.000	1.000	
1900	656.0500	Electrical Service Breaker Disconnect Box (location) 2001. CB-CCTV-40-0040	LS	1.000	1.000	
1910	657.0322	Poles Type 5-Aluminum	EACH	16.000	10.000	6.000
1920	657.0610	Luminaire Arms Single Member 4 1/2-Inch Clamp 6-FT	EACH	26.000	19.000	7.000
1930	657.6005.S	Anchor Assemblies Light Poles on Structures	EACH	4.000	4.000	
1940	659.1115	Luminaires Utility LED A	EACH	7.000	5.000	2.000
1950	659.1125	Luminaires Utility LED C	EACH	20.000	14.000	6.000
1960	659.1210	Luminaires Underdeck LED B	EACH	2.000		2.000
1970	670.0100	Field System Integrator 2001. FTMS	LS	1.000	1.000	
1980	670.0200	ITS Documentation 2001. FTMS	LS	1.000	1.000	
1990	671.0132	Conduit HDPE 3-Duct 2-Inch	LF	330.000	330.000	
2000	672.0280	Base Camera Pole 80-FT	EACH	1.000	1.000	
2010	673.0105	Communication Vault Type 1	EACH	2.000	2.000	
2020	673.0225.S	Install Pole Mounted Cabinet	EACH	1.000	1.000	
2030	675.0300	Install Mounted Controller Microwave Detector Assembly	EACH	2.000	2.000	
2040	675.0400.S	Install Ethernet Switch	EACH	1.000	1.000	
2050	677.0100	Install Camera Pole	EACH	1.000	1.000	
2060	677.0200	Install Camera Assembly	EACH	1.000	1.000	
2070	678.0500	Communication System Testing 2001. FTMS	LS	1.000	1.000	
2080	690.0150	Sawing Asphalt	LF	1,225.000	1,198.000	27.000
2090	690.0250	Sawing Concrete	LF	1,949.000	764.000	1,185.000
2100	715.0415	Incentive Strength Concrete Pavement	DOL	500.000	500.000	
2110	715.0502	Incentive Strength Concrete Structures	DOL	1,416.000	1,416.000	
2120	SPV.0035	Special 0001. EBS EXCAVATION	CY	400.000	400.000	
2130	SPV.0035	Special 0002. EBS BACKFILL	CY	400.000	400.000	
2140	SPV.0035	Special 4000. HPC MASONARY STRUCTURES **P**	CY	669.000	669.000	
2150	SPV.0045	Special 0001. PORTABLE SPEED TRAILER	DAY	400.000	400.000	
2160	SPV.0060	Special 0001. CRASH CUSION TEMPORARY LEFT IN PLACE	EACH	1.000	1.000	
2170	SPV.0060	Special 0002. TRAFFIC CONTROL FULL FREEWAY CLOSURE	EACH	14.000	14.000	
2180	SPV.0060	Special 0003. TRAFFIC CONTROL CLOSE-OPEN FREEWAY ENTRANCE RAMP	EACH	160.000	160.000	
2190	SPV.0060	Special 0004. TRAFFIC CONTROL INTERIM FREEWAY LANE CLOSURE	EACH	40.000	40.000	
2200	SPV.0060	Special 0005. TRAFFIC CONTROL INTERIM FREEWAY TWO LANE CLOSURE	EACH	120.000	120.000	
2210	SPV.0060	Special 0006. TRAFFIC CONTROL LOCAL ROAD LANE CLOSURES	EACH	21.000	21.000	
2220	SPV.0060	Special 1001. REMOVING LIGHTING UNITS	EACH	26.000	17.000	9.000

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DATE 26OCT15 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	1060-34-84 QUANTITY	1060-35-85 QUANTITY
2230	SPV.0060	Special 1002. REMOVING LUMINAIRES UNDERDECK	EACH	2.000		2.000
2240	SPV.0060	Special 1003. REMOVING UNDERDECK LIGHTING	EACH	1.000	1.000	
2250	SPV.0060	Special 1004. LAMP DISPOSAL HID	EACH	30.000	19.000	11.000
2260	SPV.0060	Special 1005. LIGHTING PULL BOXES WAUWATOSA	EACH	8.000	6.000	2.000
2270	SPV.0060	Special 1006. CONCRETE BASES TYPE 5 SPECIAL	EACH	2.000	2.000	
2280	SPV.0060	Special 1007. POLES TYPE 5 ALUMINUM 25-FT	EACH	9.000	9.000	
2290	SPV.0060	Special 2012. INSTALL 5.8 GHZ ETHERNET BRIDGE	EACH	1.000	1.000	
2300	SPV.0060	Special 2013. GROUND ROD	EACH	1.000	1.000	
2310	SPV.0060	Special 4001. PILE DYNAMIC ANALYZER (PDA) TESTING	EACH	6.000	6.000	
2320	SPV.0060	Special 4002. PILE DYN AMIC ANALYZER (PDA) RESTRIKES	EACH	6.000	6.000	
2330	SPV.0060	Special 4003. CASE PILE WAVE ANALY. PROGRAM (CAP WAP) EVALUATION	EACH	3.000	3.000	
2340	SPV.0060	Special 5010. SANITARY MANHOLE TYPE A	EACH	1.000	1.000	
2350	SPV.0060	Special 5020. SANITARY MANHOLE TYPE D	EACH	1.000	1.000	
2360	SPV.0060	Special 5030. REMOVING SANITARY MANHOLE WAUWTOSA	EACH	1.000	1.000	
2370	SPV.0060	Special 5040. WATER MAIN VERTICAL OFFSET	EACH	1.000	1.000	
2380	SPV.0060	Special 5050. ADJUSTING WATER VALVES	EACH	14.000	14.000	
2390	SPV.0060	Special 5060. ADJUSTING WATER MANHOLE	EACH	3.000	3.000	
2400	SPV.0060	Special 5070. ABANDONING WATER MANHOLE	EACH	2.000	2.000	
2410	SPV.0060	Special 5080. ADJUSTING SANITARY MANHOLE	EACH	1.000	1.000	
2420	SPV.0060	Special 5090. RECONSTRUCT SANITARY MANHOLE	EACH	2.000	2.000	
2430	SPV.0060	Special 5100. ABANDON WATER SERVICE	EACH	3.000	3.000	
2440	SPV.0060	Special 5110. ABANDON SANITARY SEWER SERVICE	EACH	3.000	3.000	
2450	SPV.0060	Special 5120. HYDRANT ASSEMBLY RELOCATION	EACH	2.000		2.000
2460	SPV.0060	Special 8005. COVER PLATES LEFT IN PLACE	EACH	22.000	22.000	
2470	SPV.0060	Special 8006. INLET COVERS TYPE R-SPECIAL	EACH	2.000	2.000	
2480	SPV.0060	Special 8012. MANHOLES 9-FT SPECIAL	EACH	4.000	4.000	
2490	SPV.0060	Special 8015. PIPE CONNECTION TO EXISTING STRUCTURE	EACH	1.000	1.000	
2500	SPV.0090	Special 0001. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC STOP LINE 18-INCH WHITE	LF	55.000	55.000	
2510	SPV.0090	Special 0002. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK 24-INCH WHITE	LF	766.000	766.000	
2520	SPV.0090	Special 0003. PAVEMENT MARKING GROOVED PREFORMED PLASTIC TAPE 4-INCH YELLOW	LF	2,040.000	2,040.000	
2530	SPV.0090	Special 0004. CONCRETE BARRIER TEMPORARY PRECAST DELIVERED SPECIAL	LF	2,263.000	2,263.000	
2540	SPV.0090	Special 0005. MAINTAIN CONCRETE BARRIER TEMPORARY PRECAST	LF	1,813.000	1,813.000	
2550	SPV.0090	Special 0006. GALVANIZED PIPE RAILING	LF	36.000	36.000	
2560	SPV.0090	Special 0007. PIPE UNDERDRAIN 6-INCH SPECIAL	LF	1,285.000	1,285.000	

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DATE 26OCT15 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	1060-34-84 QUANTITY	1060-35-85 QUANTITY
2570	SPV.0090	Special 0008. FENCE TEMPORARY 6-FT	LF	1,500.000	1,500.000	
2580	SPV.0090	Special 1001. POLYETHYLENE DUCT 1 1/4-INCH	LF	3,540.000	2,545.000	995.000
2590	SPV.0090	Special 4004. FENCE DECORATIVE BRIDGE B-40-880	LF	402.000	402.000	
2600	SPV.0090	Special 5010. SANITARY SEWER 12-INCH PVC	LF	276.000	276.000	
2610	SPV.0090	Special 5020. ABANDONING SANITARY SEWER 12-INCH	LF	90.000	90.000	
2620	SPV.0090	Special 5030. REMOVING SANITARY SEWER PIPE	LF	183.000	183.000	
2630	SPV.0090	Special 8010. SS PIPE RF CONC HORIZ ELLIP 48X76"	LF	400.000	400.000	
2640	SPV.0105	Special 0001. SURVEY PROJECT 1060-34-84	LS	1.000	1.000	
2650	SPV.0105	Special 0002. SURVEY PROJECT 1060-35-85	LS	1.000		1.000
2660	SPV.0105	Special 0003. PAVEMENT CLEANUP PROJECT 1060-34-84	LS	1.000	1.000	
2670	SPV.0105	Special 0004. PAVEMENT CLEANUP PROJECT 1060-35-85	LS	1.000		1.000
2680	SPV.0105	Special 0005. CONTROL OF WATER 1060-34-84	LS	1.000	1.000	
2690	SPV.0135	Special 0001. VIBRATION MONITORING	MON	6.000	6.000	
2700	SPV.0165	Special 0001. MULCH SHREDDED BARK	SF	150.000	150.000	
2710	SPV.0165	Special 0002. SIDEWALK BRICK SALVAGED	SF	48.000		48.000
2720	SPV.0165	Special 4005. WALL CONC PANEL MSE LRFD/QMP **P**	SF	15,760.000	15,760.000	
2730	SPV.0180	Special 0001. TOPSOIL SPECIAL	SY	28,930.000	26,355.000	2,575.000
2740	SPV.0195	Special 0001. COLD PATCH	TON	10.000	10.000	

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CLEARING AND GRUBBING

ROADWAY	STATION	TO	STATION	OFFSET	201.0105 CLEARING STA	201.0120 CLEARING ID	201.0205 GRUBBING STA	201.0220 GRUBBING ID
PROJECT ID 1060-34-84								
CENTER ST								
	15+23CE			LT	--	7	--	7
	16+07CE			RT	--	9	--	9
	16+23CE			LT	--	11	--	11
	17+64CE			RT	--	6	--	6
	17+86CE			RT	--	25	--	25
	18+36CE			LT	--	3	--	3
	21+89CE			LT	--	16	--	16
	21+95CE			LT	--	17	--	17
	22+01CE			LT	--	22	--	22
	22+14CE			LT	--	14	--	14
	22+20CE			LT	--	17	--	17
	22+56CE			LT	--	15	--	15
	22+70CE			LT	--	16	--	16
	22+00CE		23+00CE	RT	1	--	1	--
	23+59CE			RT	--	13	--	13
	23+82CE			RT	--	13	--	13
IH 41	440+00NS		441+00NS	RT	1	--	1	--
	450+00NS		462+00NS	RT	12	--	12	--
	456+00NS		462+00NS	LT	6	--	6	--
	462+00NS		464+00NS	LT	2	--	2	--
	462+00NS		464+00NS	RT	2	--	2	--
113TH ST	18+00TA		20+00TA	RT	2	--	2	--
	35+20TA			LT	--	12	--	12
	35+56TA			LT	--	14	--	14
112TH ST	19+00TB		20+00TB	LT	1	--	--	--
	35+13TB			RT	--	25	--	25
	35+22TB			RT	--	17	--	17
	35+23TB			RT	--	29	--	29
	35+36TB			RT	--	43	--	43
	35+43TB			RT	--	46	--	46
	35+49TB			RT	--	17	--	17
	35+78TB			RT	--	33	--	33
	36+08TB			RT	--	27	--	27
SUBTOTAL PROJECT ID 1060-34-84					27	467	26	467

CLEARING AND GRUBBING (CONTINUED)

ROADWAY	STATION	TO	STATION	OFFSET	201.0105 CLEARING STA	201.0120 CLEARING ID	201.0205 GRUBBING STA	201.0220 GRUBBING ID
PROJECT ID 1060-35-85								
CENTER ST	6+36CE			LT	--	7	--	7
	6+74CE			LT	--	8	--	8
	7+14CE			LT	--	6	--	6
	7+35CE			RT	--	4	--	4
	7+36CE			RT	--	3	--	3
	7+37CE			RT	--	3	--	3
	7+38CE			RT	--	4	--	4
	7+77CE			RT	--	15	--	15
	7+99CE			LT	--	14	--	14
114TH ST	124+52TS			RT	--	28	--	28
	124+54TS			LT	--	25	--	25
	125+16TS			RT	--	24	--	24
	125+31TS			LT	--	25	--	25
	125+72TS			LT	--	24	--	24
	125+77TS			RT	--	24	--	24
SUBTOTAL PROJECT ID 1060-35-85					0	214	0	214
CONTRACT TOTAL					27	681	26	681

REMOVING CONCRETE BARRIER

ROADWAY	STATION	TO	STATION	OFFSET	204.0157 REMOVING CONCRETE BARRIER LF	COMMENTS
PROJECT ID 1060-34-84						
IH 41	461+00NS		463+00NS	LT	200	NORTH BOUND MEDIAN BARRIER
	461+00NS		463+00NS	LT	200	SOUTH BOUND MEDIAN BARRIER
CONTRACT TOTAL					400	

CATEGORY 1000 UNLESS OTHERWISE NOTED

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REMOVING PAVEMENT ITEMS

ROADWAY	STATION	TO	STATION	OFFSET	204.0100 REMOVING PAVMENT SY	204.0120 REMOVING ASPHALTIC SURFACE MILLING SY	204.0130 REMOVING CURB LF	204.0150 REMOVING CURB & GUTTER LF	204.0155 REMOVING CONCRETE SIDEWALK SY
PROJECT ID 1060-34-84									
W. CENTER ST	14+15CE		19+06CE	LT/RT	3,347	27	--	--	434
	21+00CE		24+60CE	LT/RT	3,250	106	--	15	357
HIGH SCHOOL DRIVEWAY	16+45CE		17+35CE	LT	--	--	161	--	--
RAZED PROPERTY	22+30CE		22+79CE	RT	46	--	--	--	--
N. 113TH ST	35+15TA		36+10TA	LT/RT	--	--	--	190	78
N. 112TH ST	33+00TB		36+11TB	LT/RT	--	--	--	622	--
IH 41/USH 45	461+59NS		462+62NS	LT/RT	313	--	--	--	--
TEMPORARY TC SHIFT 112TH	0+00		2+37	RT	347	--	--	--	--
MIDDLE SCHOOL PARKING LOT AND DRIVEWAY	10+34WMS		14+00WMS	LT/RT	--	--	691	--	121
N MAYFAIR RD	592+03M		596+79M	LT/RT	442	--	--	280	145
SUBTOTAL PROJECT ID 1060-34-84					7,745	133	852	1,107	1,135
PROJECT ID 1060-35-85									
W. CENTER ST	4+67CE		14+19CE	LT/RT	221	252	--	679	212
N. 116TH ST	32+09TW		35+29TW	LT/RT	143	54	--	144	--
N. 114TH ST	124+21TS		125+20TS	LT/RT	107	37	--	95	--
SUBTOTAL PROJECT ID 1060-35-85					471	343	0	918	212
CONTRACT TOTAL					8,216	476	852	2,025	1,347

REMOVING CONCRETE BASES

LOCATION	OFFSET	204.0195 REMOVING CONCRETE BASES EACH	COMMENTS
21+32CE	41' LT	1	APPROX. 36" DIA. X 10 FT
CONTRACT TOTAL:		1	

REMOVING FENCE

ROADWAY	STATION	TO	STATION	OFFSET	204.0170 REMOVING FENCE LF	616.0406 FENCE CHAIN LINK SALVAGED 6-FT LF
PROJECT ID 1060-34-84						
N. 113TH STREET	30+55TA		36+24TA	RT	584	--
N. 112TH STREET	29+43TB		36+19TB	LT	693	--
MIDDLE SCHOOL	10+33WMS		12+33WMS	LT	228	--
IH 41/USH 45	462+46NS		464+00NS	LT	156	--
N. MAYFAIR RD	595+60MA		596+80MA	LT	106	--
UNDISTRIBUTED					--	400
CONTRACT TOTAL					1,767	400

REMOVING CRASH CUSION

LOCATION	204.9105.S REMOVING CRASH CUSHION LS
N MAYFAIR RD	1
CONTRACT TOTAL:	1

CATEGORY 1000 UNLESS OTHERWISE NOTED

REMOVING GUARDRAIL

ROADWAY	STATION	TO	STATION	OFFSET	204.0165 REMOVING GUARDRAIL LF	COMMENTS
PROJECT ID 1060-34-84						
IH 41/USH 45	450+80NS		451+59NS	LT	85	SOUTH BOUND OUTSIDE SHOULDER
	459+29NS		460+11NS	RT	85	NORTH BOUND OUTSIDE SHOULDER
CONTRACT TOTAL					170	

ASPHALTIC ITEMS

ROADWAY	STATION	TO	STATION	455.0105 ASPHALTIC MATERIAL PG58-28 TON	455.0120 ASPHALTIC MATERIAL PG64-28 TON	455.0140 ASPHALTIC MATERIAL PG64-28P TON	455.0605 TACK COAT GAL	460.1101 HMA PAVEMENT PAVEMENT TYPE E-1 TON	460.1110 HMA PAVEMENT PAVEMENT TYPE E-10 TON	465.0105 ASPHALTIC SURFACE TON	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON
PROJECT ID 1060-34-84											
W. CENTER ST	14+20CE		17+15CE	39	--	--	141	718	--	--	--
	21+10CE		24+60CE	27	--	--	97	493	--	--	--
IH 41/USH 45 (SB SHOULDER)	450+75NS		461+60NS	--	--	--	--	--	--	89	--
	461+60NS		662+50NS	--	--	--	--	--	--	29	--
N. 113TH ST	35+15TA		36+32TA	4	--	--	14	70	--	--	--
N. 112TH ST	33+00TB		36+33TB	13	--	--	45	229	--	--	7
WAUWATOSA WEST HIGH SCHOOL DRIVEWAY	17+13CE		17+30CE	2	--	--	7	35	--	--	--
WHITMAN MIDDLE SCHOOL PARKING LOT	11+76WMS		14+00WMS	49	--	--	174	886	--	--	--
N. MAYFAIR RD	592+03M		596+79M	--	10	3	22	--	211	1	--
SUBTOTAL PROJECT ID 1060-34-84				134	10	3	500	2,431	211	119	7
PROJECT ID 1060-35-85											
W. CENTER ST	4+60CE		9+07CE	--	--	--	--	--	--	71	--
N. 116TH ST	35+03TW		34+79TW	--	--	--	--	--	--	7	3
N. 114TH ST	124+29TS		125+39TS	--	--	--	--	--	--	10	--
SUBTOTAL PROJECT ID 1060-35-85				0	0	0	0	0	0	88	3
CONTRACT TOTALS				134	10	3	500	2,431	211	207	10

CATEGORY 1000 UNLESS OTHERWISE NOTED

SAWING

ROADWAY	STATION	OFFSET	TO	STATION	OFFSET	690.0150 SAWING ASPHALT LF	690.0250 SAWING CONCRETE LF
PROJECT ID 1060-34-84							
W. CENTER ST	14+20CE	27' LT		14+20CE	27' RT	--	54
	14+20CE	38' LT		14+20CE	43' LT	--	5
	14+32CE	62' RT		14+42CE	62' RT	--	10
	14+58CE	54' LT		14+76CE	54' LT	--	18
	14+62CE	67' RT		14+65CE	67' RT	--	3
	14+98CE	64' RT		15+30CE	64' RT	--	32
	15+74CE	62' LT		15+84CE	62' LT	--	10
	16+20CE	80' RT		16+31CE	80' RT	--	10
	16+70CE	54' RT		16+80CE	54' RT	--	10
	16+93CE	119' LT		17+13CE	126' LT	21	--
	17+30CE	67' RT		17+40CE	67' RT	--	10
	23+21CE	72' RT		23+41CE	72' RT	--	20
	24+60CE	27' LT		24+75CE	32' RT	--	77
N. 113TH ST	35+15TA	37' LT		35+15TA	32' LT	--	5
	35+15TA	16 'LT		35+15TA	16'RT	32	--
IH 41/USH 45	461+58NS	8' RT		462+51NS	8' RT	--	248
N. 112TH ST	33+00TB	16' LT		33+00TB	16' RT	32	--
	33+45TB	29' RT		33+68TB	29' RT	23	--
	34+47TB	47' RT		34+62TB	48' RT	14	--
MIDDLE SCHOOL							
PARKING LOT	12+17WMS	10' RT		14+00WMS	45' RT	206	--
	14+00WMS	87' LT		14+00WMS	67' RT	155	--
	11+72WMS	98' RT		12+17WMS	88' RT	--	143
N MAYFAIR RD	592+03M	60' RT		596+79M	57' LT	715	109
SUBTOTAL PROJECT ID 1060-34-84						1,198	764
PROJECT ID 1060-35-85							
W. CENTER ST	4+61CE	27' RT		4+90CE	53' RT	--	60
	4+67CE	38' LT		4+67CE	43' LT	--	6
	4+72CE	27' LT		4+89CE	27' LT	--	22
	4+92CE	38' LT		4+92CE	43' LT	--	6
	5+18CE	53' RT		5+45CE	24' RT	--	57
	5+20CE	38' LT		5+20CE	43' LT	--	6
	5+25CE	27' LT		5+42CE	27' LT	--	22
	5+45CE	38' LT		5+45CE	43' LT	--	6
	5+96CE	27' LT		8+08CE	27' LT	--	214
	5+98CE	38' LT		5+98CE	43' LT	--	6
	6+17CE	27' RT		6+47CE	27' RT	--	30
	6+24CE	50' RT		6+39CE	50' RT	--	15
	6+93CE	52' RT		7+20CE	52' RT	--	26
W. CENTER ST	6+94CE	27' RT		7+28CE	27' RT	--	34
	8+06CE	38' LT		8+06CE	43' LT	--	6
	8+21CE	27' RT		8+46CE	53' RT	--	54
	8+79CE	53' RT		9+04CE	27' RT	--	54
	9+43CE	48' RT		9+45CE	48' RT	--	2
	9+43CE	27'RT		9+45CE	27' RT	--	2
	10+27CE	48' RT		10+29CE	48' RT	--	2
	10+28CE	27' RT		10+30CE	29' RT	--	2
	10+49CE	50' RT		10+78CE	50' RT	--	34
	10+58CE	27' RT		10+71CE	27' RT	--	13
	11+71CE	30' RT		11+80CE	53' RT	--	34
	12+08CE	53' RT		12+33CE	27' RT	--	51
	12+09CE	38' LT		12+09CE	43' RT	--	6
	12+13CE	27' LT		12+29CE	27' LT	--	22
	12+34CE	38' LT		12+34CE	43' LT	--	6
	12+93CE	27' RT		13+09CE	27' RT	--	16
	12+96CE	50' RT		13+05CE	50' RT	--	9
	13+41CE	27' RT		13+57CE	27' RT	--	16
	13+43CE	50' RT		13+53CE	50' RT	--	10
	13+88CE	27' RT		14+04CE	27' RT	--	16
	13+91CE	50' RT		14+00CE	50' RT	--	9
N. 114TH ST	124+26TS	16' LT		124+40TS	16' LT	--	14
	124+29TS	36' LT		124+37TS	36' LT	--	8
	124+27TS	16' RT		124+43TS	16'RT	--	16
	124+30TS	36' RT		124+40TS	36' RT	11	--
	124+88TS	16' RT		125+16TS	16' LT	--	28
	124+92TS	30' LT		125+13TS	30' LT	--	21
	124+92TS	15' RT		125+12TS	14' RT	--	27
	124+94TS	32' RT		125+04TS	32' RT	--	10
N. 116TH ST	32+15TW	30' RT		32+40TW	30' RT	--	26
	32+18TW	50' RT		32+36TW	50' RT	--	18
	33+41TW	31' RT		33+60TW	31' RT	--	20
	33+45TW	50' RT		33+56TW	50' RT	--	11
	33+96TW	6' LT		34+24TW	6' LT	--	28
	34+01TW	31' LT		34+20TW	31' LT	--	19
	34+64TW	31' RT		34+83TW	31' RT	--	19
	34+67TW	50' RT		34+79TW	50' RT	--	12
	35+03TW	50' RT		35+19TW	50' RT	16	--
	35+04TW	31' RT		35+23TW	31' RT	--	34
SUBTOTAL PROJECT ID 1060-35-85						27	1,185
CONTRACT TOTAL						1,225	1,949

CATEGORY 1000 UNLESS OTHERWISE NOTED

CONCRETE ITEMS

ROADWAY	STATION	TO	STATION	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	312.0110 SELECT CRUSHED MATERIAL TON	415.0070 CONCRETE PAVEMENT 7-INCH SY	415.0090 CONCRETE PAVEMENT 9-INCH SY	416.0270 CONCRETE DRIVEWAY HES 7-INCH SY	416.0610 DRILLED TIE BARS EACH	601.0205 CONCRETE GUTTER 24-INCH LF	601.0319 CONCRETE CURB & GUTTER 19-INCH LF	601.0331 CONCRETE CURB & GUTTER 31-INCH LF	601.0407 CONCRETE CURB & GUTTER 18-INCH TYPE D LF	601.0409 CONCRETE CURB & GUTTER 30-INCH TYPE A LF	601.0411 CONCRETE CURB & GUTTER 30-INCH TYPE D LF	602.0410 CONCRETE SIDEWALK 5-INCH SF	602.0505 CURB RAMP DETECTABLE WARNING FIELD YELLOW SF	602.2400 CONCRETE SAFETY ISLANDS SF	620.0300 CONCRETE MEDIAN SLOPED NOSE SF
PROJECT ID 1060-34-84																			
W. CENTER ST	14+20CE		19+06CE	1,821	2,772	--	--	--	--	--	--	1,021	--	--	--	7,782	176	346	--
	21+00CE		24+60CE	1,268	1,849	--	--	--	--	--	--	705	--	--	--	6,848	88	--	--
N. 113TH ST	35+15TA		36+32TA	576	--	--	--	--	--	--	--	190	--	--	--	611	--	--	--
N. 112TH ST	33+00TB		36+33TB	202	--	--	--	--	--	--	--	621	--	--	--	1,158	--	--	--
TEMPORARY 112TH TC SHIFT STAGE 1	0+00		2+37	121	--	363	--	--	--	--	--	--	--	--	--	--	--	--	--
IH 41/USH 45 (SB SHOULDER)	450+75NS		461+60NS	80	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
IH 41/USH 45 (NB/SB INSIDE SHOULDERS)	461+60NS		462+50NS	52	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
MIDDLE SCHOOL PARKING LOT	11+72WMS		14+02WMS	1,989	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	12+00WMS		(ISLAND) LT	--	--	--	--	--	--	--	87	--	--	--	--	--	--	--	--
	12+00WMS		(ISLAND) RT	--	--	--	--	--	--	--	87	--	--	--	--	--	--	--	--
	13+76WMS		(ISLAND) LT	--	--	--	--	--	--	--	87	--	--	--	--	--	--	--	--
	13+76WMS		(ISLAND) RT	--	--	--	--	--	--	--	87	--	--	--	--	--	--	--	--
MIDDLE SCHOOL IN/OUT DRIVEWAY	10+28WMS		11+75WMS	319	--	--	--	772	--	--	614	--	--	--	--	--	--	--	--
WEST (OUT ONLY) MIDDLE SCHOOL DRIVEWAY	10+28WMS		11+71WMS	164	--	--	--	44	--	--	372	--	--	--	--	--	--	--	--
HIGH SCHOOL DRIVEWAY	17+00CE		17+50CE	142	--	--	--	70	--	--	199	--	--	--	--	--	--	--	--
RESIDENTIAL APRONS & DRIVEWAYS				77	--	--	--	338	--	--	--	--	--	--	--	--	--	--	--
N MAYFAIR RD	592+03M		596+79M	731	--	--	5	32	5	--	--	--	133	16	131	1305	131	--	25
UNDISTRIBUTED				800	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SUBTOTAL PROJECT ID 1060-34-84				8,342	4,621	363	5	1,256	5	0	1,533	2,537	133	16	131	17,704	395	346	25
PROJECT ID 1060-35-85																			
W. CENTER ST	4+60CE		14+19CE	327	--	--	136	--	271	208	--	715	--	--	--	7,418	144	--	--
N. 116TH ST	32+42TW		35+24TW	78	--	--	--	--	--	--	--	143	--	--	--	2,657	--	--	--
N. 114TH ST	124+25TS		126+11TS	47	--	--	--	--	--	--	--	92	--	--	--	1,584	--	--	--
RESIDENTIAL APRONS & DRIVEWAYS				142	--	--	--	486	--	--	--	--	--	--	--	--	--	--	--
UNDISTRIBUTED				100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SUBTOTAL PROJECT ID 1060-35-85				694	0	0	136	486	271	208	0	950	0	0	0	11,659	144	0	0
CONTRACT TOTAL				9,036	4,621	363	141	1,742	276	208	1,533	3,487	133	16	131	29,363	539	346	25

CATEGORY 1000 UNLESS OTHERWISE NOTED

3

STREETSCAPING ITEMS

CATEGORY	PROJECT NUMBER	632.9101 LANDSCAPE PLANTING SURVEILLANCE AND CARE CYCLES EACH	SPV.0165.0001 MULCH SHREDDED BARK SF
6000	1060-34-84	20	150
		20	150

CATEGORY 6000			TOTALS
BID ITEMS	SYM.	COMMON NAME	EACH
DECIDUOUS TREES(SHADE)			
632.0101.0001	G	Ginkgo - male only	5
632.0101.0002	LP	London Plane	5
632.0101.0003	TF	Turkish Filbert	5

CATEGORY 1000 UNLESS OTHERWISE NOTED

3

EROSION CONTROL ITEMS

ROADWAY	STATION	TO	STATION	OFFSET	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.7005 INLET PROTECTION TYPE A EACH	628.7015 INLET PROTECTION TYPE C EACH	628.7020 INLET PROTECTION TYPE D EACH	628.7560 TRACKING PADS EACH
PROJECT ID 1060-34-84												
W. CENTER ST	14+20CE		24+60CE	LT/RT	--	--	225	225	2	8	11	--
HIGH SCHOOL DRIVEWAY	17+25CE			LT	--	--	--	--	--	--	3	--
RAZED PROPERTY	22+30CE		22+79CE	RT	--	--	64	64	1	--	1	--
IH 41/USH 45	457+50NS		466+15NS	LT/RT	--	--	--	--	7	--	18	--
N. 112TH ST	35+05TB		36+50TB	LT/RT	--	--	--	--	--	4	4	--
MIDDLE SCHOOL PARKING LOT AND DRIVEWAY	10+34WMS		14+00WMS	LT/RT	--	--	--	--	5	--	7	--
N. MAYFAIR RD.	592+03M		596+79M	LT/RT	--	--	--	--	1	--	14	--
UNDISTRIBUTED					7	4	72	72	4	3	15	7
SUBTOTAL PROJECT ID 1060-34-84					7	4	361	361	20	15	73	7
PROJECT ID 1060-35-85												
W. CENTER ST	4+50CE		14+20CE	LT/RT	--	--	--	--	--	5	6	--
N. 116TH ST	34+25TW		34+50TW	LT/RT	--	--	--	--	--	--	4	--
N. 117TH ST	4+90CE		5+20CE	RT	--	--	--	--	--	--	3	--
UNDISTRIBUTED					--	--	0	0	0	1	3	--
SUBTOTAL PROJECT ID 1060-35-85					0	0	0	0	0	6	16	0
CONTRACT TOTAL					7	4	361	361	20	21	89	7

CATEGORY 1000 UNLESS OTHERWISE NOTED

3

RESTORATION ITEMS

ROADWAY	STATION	TO	STATION	OFFSET	SPV.0180.0001 TOPSOIL SPECIAL SY	628.2004 EROSION MAT CLASS I TYPE B SY	628.2008 EROSION MAT URBAN CLASS I TYPE B SY	628.6505 SOIL STABILIZER TYPE A ACRE	629.0205 FERTILIZER TYPE A CWT	629.0210 FERTILIZER TYPE B CWT	630.0130 SEEDING MIXTURE NO. 30 LB	630.0140 SEEDING MIXTURE NO. 40 LB	630.0200 SEEDING TEMPORARY LB	631.0300 SOD WATER MGAL	631.1000 SOD LAWN SY
PROJECT ID 1060-34-84															
W. CENTER ST	14+20CE		24+60CE	LT/RT	6,326	--	--	--	--	2.0	--	114	171	115	6,326
RAZED PROPERTY	22+30CE		22+79CE	RT	1400	--	976	--	0.2	0.1	18	8	38	8	424
IH 41/USH 45	457+50NS		466+15NS	LT/RT	15,555	15,555	--	--	3.1	--	280	--	420	--	--
N. 112TH ST	33+00TB		35+15TB	RT	117	--	--	--	--	0.1	--	2	3	2	117
N. 114TH ST	124+20TS		126+10TS	LT/RT	274	--	--	--	--	0.1	--	5	7	5	274
N. MAYFAIR RD.	592+03M		596+79M	LT/RT	287	--	287	--	--	--	5	--	8	--	--
UNDISTRIBUTED					2,396	1,556	126	1.00	0.3	0.2	30	13	65	13	714
SUBTOTAL PROJECT ID 1060-34-84					26,355	17,111	1,389	1.00	3.7	2.6	333	142	712	143	7,855
PROJECT ID 1060-35-85															
W. CENTER ST	4+50CE		14+20CE	LT/RT	1503	--	--	--	--	0.4	--	25	37	25	1,503
N. 116TH ST	32+10TW		36+10TW	LT/RT	838	--	--	--	--	0.3	--	15	22	15	838
UNDISTRIBUTED					234	0	0	0.00	0.0	0.1	0	4	6	4	234
SUBTOTAL PROJECT ID 1060-35-85					2,575	0	0	0.00	0.0	0.7	0	44	65	44	2,575
CONTRACT TOTAL					28,930	17,111	1,389	1.00	3.7	3.3	333	186	777	187	10,430

CATEGORY 1000 UNLESS OTHERWISE NOTED

INCENTIVE DENSITY HMA PAVEMENT

STAGE	LOCATION	460.2000 INCENTIVE DENSITY HMA PAVEMENT DOL
PROJECT ID 1060-34-84		
ALL	PROJECT	1,700
CONTRACT TOTAL		1700

INCENTIVE STRENGTH CONCRETE STRUCTURES

STAGE	LOCATION	715.0502 INCENTIVE STRENGTH CONCRTE STRUCTURES DOL
PROJECT ID 1060-34-84		
ALL	PROJECT	1,416
CONTRACT TOTAL		1,416

INCENTIVE STRENGTH CONCRETE PAVEMENT

STAGE	LOCATION	715.0412 INCENTIVE STRENGTH CONCRETE PAVEMENT DOL
PROJECT ID 1060-34-84		
ALL	PROJECT	500
CONTRACT TOTAL		500

WATER

STAGE	LOCATION	624.0100 WATER MGAL
PROJECT ID 1060-34-84		
ALL	PROJECT - BASE AGGREGATE	83
ALL	PROJECT - EXCAVATION	98
PROJECT 1060-34-84 SUBTOTAL:		181
PROJECT ID 1060-35-85		
ALL	PROJECT-BASE AGGREGATE	7
ALL	PROJECT - EXCAVATION	4
PROJECT 1060-35-85 SUBTOTAL:		11
CONTRACT TOTAL		192

CATEGORY 1000 UNLESS OTHERWISE NOTED

3

CPM PROGRESS SCHEDULE

STAGE	LOCATION	108.4400 CPM PROGRESS SCHEDULE PROJECT 1060-34-84 EACH
ALL	PROJECT	1
CONTRACT TOTAL:		1

DUST CONTROL SURFACE TREATMENT

STAGE	LOCATION	623.0200 DUST CONTROL SURFACE TREATMENT SY
ALL	PROJECT 1060-34-84	12,840
CONTRACT TOTAL:		12,840

VIBRATION MONITORING

STAGE	LOCATION	SPV.0135.0001 VIBRATION MONITORING MON
PROJECT ID 1060-34-84		
ALL	PROJECT	6
CONTRACT TOTAL		6

FINISHING ROADWAY PROJECT ID 1060-34-84/1060-35-85

STAGE	LOCATION	213.0100.0001 FINISHING ROADWAY (1060-34-84) EACH	213.0100.0002 FINISHING ROADWAY (1060-35-85) EACH
ALL	PROJECT	1	1
CONTRACT TOTAL:		1	1

PIPE UNDERDRAIN

ROADWAY	STATION	TO STATION	OFFSET	SPV.0090.0007 PIPE UNDERDRAIN 6-INCH SPECIAL LF
PROJECT ID 1060-34-84				
W. CENTER ST	14+20CE	19+06CE	23' LT	486
	14+20CE	19+06CE	23' RT	486
	21+30CE	22+97CE	23' LT	167
	21+36CE	22+79CE	23' RT	146
CONTRACT TOTALS:				1,285

SURVEY PROJECT

STAGE	LOCATION	SPV.0105.0001 SURVEY PROJECT 1060-34-84 LS	SPV.0105.0002 SURVEY PROJECT 1060-35-85 LS
ALL	PROJECT	1	1
CONTRACT TOTAL:		1	1

MOBILIZATION

STAGE	LOCATION	619.1000 MOBILIZATION EACH
ALL	PROJECT	1
CONTRACT TOTAL:		1

CONTROL OF WATER

STAGE	LOCATION	SPV.0105.0005 CONTROL OF WATER 1060-34-84 LS
ALL	PROJECT	1
CONTRACT TOTAL:		1

PAVEMENT CLEANUP

STAGE	LOCATION	SPV.0105.0003 PAVEMENT CLEANUP PROJECT 1060-34-84 LS	SPV.0105.0004 PAVEMENT CLEANUP PROJECT 1060-35-85 LS
ALL	PROJECT	1	1
CONTRACT TOTAL:		1	1

ADJUSTING INLET COVERS

ROADWAY	STATION	OFFSET	* 611.8115 ADJUSTING INLET COVERS EACH
PROJECT ID 1060-35-85			
CENTER ST	4+69CE	24' RT	1
	9+01CE	24' LT	1
	11+81CE	49' RT	1
	12+09CE	50' RT	1
	12+30CE	25' RT	1
CONTRACT TOTAL			5

* ADDITIONAL QUANTITIES LISTED ELSEWHERE IN PLAN.

CRASH CUSHIONS PERMANENT

ROADWAY	STATION	OFFSET	614.0805 CRASH CUSHIONS PERMANENT LOW MAINTENANCE EACH
PROJECT ID 1060-34-84			
N. MAYFAIR RD.	595+67M	LT	1
SUBTOTAL PROJECT ID 1060-34-84			1

CATEGORY 1000 UNLESS OTHERWISE NOTED

3

PAVEMENT MARKING ITEMS

STAGE	LOCATION	STATION	STATION	12.5 FT LINE, 37.5 FT SKIP WHITE	* 646.0106 PAVEMENT MARKING EPOXY 4-INCH 3 FT LINE, 9 FT SKIP WHITE	WHITE	YELLOW	* 647.0566 PAVEMENT MARKING STOP LINE EPOXY 18-INCH WHITE	647.0606 PAVEMENT MARKING ISLAND NOSE EPOXY YELLOW	647.0656 PAVEMENT MARKING PARKING STALL EPOXY YELLOW
				LF	LF	LF	LF	LF	EACH	LF
PROJECT ID 1060-34-84										
1	IH 41/USH 45 NB	450+00NS	471+75NS	600	--	3,575	2,184	--	--	--
	IH 41/USH 45 SB	450+00NS	473+75NS	1,175	68	2,337	2,361	--	--	--
STAGE 1 SUBTOTAL:				1,775	68	5,912	4,545	0	0	0
2	IH 41/USH 45 NB	448+51NS	456+10NS	--	124	610	--	--	--	--
	W. CENTER ST	14+00CE	25+00CE	--	--	--	--	--	4	--
	WMS PARKING LOT	--	--	--	--	--	218	--	2	2,300
	N. MAYFAIR RD	591+32M	602+65M	--	--	--	--	--	1	--
STAGE 2 SUBTOTAL:				0	124	610	218	0	7	2,300
				1,775	192	6,522	4,763	0	7	2,300
SUBTOTAL PROJECT ID 1060-34-84					13,252			0	7	2,300
PROJECT ID 1060-35-85										
2	W. CENTER ST	8+00CE	14+00CE	--	--	--	--	65	--	--
STAGE 2 SUBTOTAL:				0	0	0	0	65	0	0
				0	0	0	0	65	0	0
SUBTOTAL PROJECT ID 1060-35-85					0			65	0	0
CONTRACT TOTAL					13,252			65	7	2,300

*ADDITIONAL QUANTITIES LISTED ELSEWHERE IN PLAN

CATEGORY 1000 UNLESS OTHERWISE NOTED

3

PAVEMENT MARKING ITEMS (CONTINUED)

STAGE	LOCATION	STATION	STATION	647.0166 * PAVEMENT MARKING ARROWS EPOXY TYPE 2 YELLOW EACH	647.0196 * PAVEMENT MARKING ARROWS EPOXY TYPE 5 WHITE EACH	647.0456 * PAVEMENT MARKING CURB EPOXY YELLOW LF	646.0881.S * PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 4-INCH WHITE LF	646.0883.S * PAVEMENT MARKING GROOVED WET REFLECTIVE TAPE 8-INCH WHITE LF
PROJECT ID 1060-34-84								
1	IH 41 NB	450+00NS	471+75NS	--	--	--	--	--
	IH 41 SB	450+00NS	473+75NS	--	--	--	--	--
STAGE 1 SUBTOTAL:				0	0	0	0	0
2	IH 41 NB	448+51NS	456+10NS	--	2	--	--	--
	W. CENTER ST	14+00CE	25+00CE					
	WMS PARKING LOT	--	--	1	--	--	--	--
	N. MAYFAIR RD	591+32M	602+65M	--	--	30	200	567
STAGE 2 SUBTOTAL:				1	2	30	200	567
CONTRACT TOTAL				1	2	30	200	567

*ADDITIONAL QUANTITIES LISTED ELSEWHERE IN PLAN

CATEGORY 1000 UNLESS OTHERWISE NOTED

3

PAVEMENT MARKING ITEMS (CONTINUED)

STAGE	LOCATION	STATION	STATION	647.0796 PAVEMENT MARKING CROSSWALK EPOXY 24-INCH WHITE LF	SPV.0090.0001 PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC STOP LINE 18-INCH WHITE LF	SPV.0090.0002 PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK 24-INCH WHITE LF	SPV.0090.0003 PAVEMENT MARKING GROOVED PREFORMED PLASTIC TAPE 4-INCH YELLOW LF
PROJECT ID 1060-34-84							
1	IH 41/USH 45 NB	450+00NS	471+75NS	--	--	--	--
	IH 41/USH 45 SB	450+00NS	473+75NS	--	--	--	--
STAGE 1 SUBTOTAL:				0	0	0	0
2	IH 41/USH 45 NB	448+51NS	456+10NS	--	--	--	--
	W. CENTER ST	14+00CE	25+00CE				
	WMS PARKING LOT	--	--	--	55	766	2,040
	N. MAYFAIR RD	591+32M	602+65M	--	--	--	--
STAGE 2 SUBTOTAL:				0	55	766	2,040
SUBTOTAL PROJECT ID 1060-34-84				0	55	766	2,040
PROJECT ID 1060-35-85							
2	W. CENTER ST	8CE+25	14CE+33	512	--	--	--
STAGE 2 SUBTOTAL:				512	0	0	0
SUBTOTAL PROJECT ID 1060-35-85				512	0	0	0
CONTRACT TOTAL				512	55	766	2,040

CATEGORY 1000 UNLESS OTHERWISE NOTED

3

TEMPORARY CONCRETE BARRIER ITEMS

STAGE	ROADWAY	STATION	TO	STATION	OFFSET	603.8000 CONCRETE BARRIER TEMPORARY PRECAST DELIVERED LF	603.8125 CONCRETE BARRIER TEMPORARY PRECAST INSTALLED LF	SPV.0060.0001 CRASH CUSHION TEMPORARY LEFT IN PLACE EACH	614.0905 CRASH CUSHIONS TEMPORARY EACH	SPV.0090.0004 CONCRETE BARRIER TEMPORARY PRECAST DELIVERED SPECIAL LF	SPV.0090.0005 MAINTAIN CONCRETE BARRIER TEMPORARY PRECAST LF	COMMENTS
PROJECT ID 1060-34-84												
1	IH 41/USH 45 SB	457+44NS		461+59NS	LT	413	413	--	--	--	--	
		459+92NS		468+05NS	LT	813	813	--	1	--	--	
	IH 41/USH 45 NB	444+72NS		456+50NS	RT	1175	1175	--	--	--	--	REMAINS IN PLACE FOR STAGE 2
		456+00NS		460+11NS	RT	413	413	--	--	--	--	REMAINS IN PLACE FOR STAGE 2
		458+15NS		465+45NS	RT	738	738	--	1	--	--	FROM PREVIOUS PROJECT 1060-33-83
		464+14NS		474+00NS	LT/RT	--	--	--	--	--	1813	
	113TH ST	30+50TA		18+61CE	LT/RT	638	638	--	1	--	--	REMAINS IN PLACE FOR STAGE 2
	112TH ST	29+50TB		21+74CE	LT/RT	738	738	--	1	--	--	REMAINS IN PLACE FOR STAGE 2
2	IH 41/USH 45 SB	461+00NS		463+00NS	LT	--	200	--	--	200	--	PIN BARRIER
		450+75NS		464+14NS	LT	1325	1325	--	--	--	--	
		450+80NS		461+91NS	LT	--	1113	--	--	1113	--	
	IH 41/USH 45 NB	460+00NS		463+25NS	LT/RT	--	325	--	--	325	--	PIN BARRIER
		453+86NS		460+11NS	RT	--	625	1	--	625	--	
	N. 112TH ST	29+50TB		21+74CE	LT/RT	--	238	--	--	--	--	PORTION ADJUSTED FOR ST 2
	N. MAYFAIR	593+05MA		597+20MA	LT	413	413	--	1	--	--	
	TOTALS:					6,666	9,167	1	5	2,263	1,813	

CATEGORY 1000 UNLESS OTHERWISE NOTED

SIDEWALK BRICK SALVAGED

ROADWAY	STATION	TO	STATION	SPV.0165.0002 SIDEWALK BRICK SALVAGED SF
PROJECT ID 1060-35-85				
CENTER ST	10+26CE		10+28CE	48
CONTRACT TOTALS:				48

COLD PATCH

LOCATION	SPV.0195.0001 COLD PATCH TON
PROJECT ID 1060-34-84	
PROJECT	10
CONTRACT TOTALS:	10

GALVANIZED PIPE RAILING

ROADWAY	STATION	TO	STATION	SPV.0090.0006 GALVANIZED PIPE RAILING LF
PROJECT ID 1060-34-84				
CENTER ST	10+26CE		10+28CE	36
CONTRACT TOTALS:				36

TRAFFIC CONTROL DETOUR ID 1060-34-84

STAGE	ROADWAY	643.2000 TRAFFIC CONTROL DETOUR (PROJECT) 1060-34-84 EACH
ALL	PROJECT	1
	TOTAL:	1

PORTABLE SPEED TRAILER

STAGE	ROADWAY	SPV.0045.0001 PORTABLE SPEED TRAILER DAY
PROJECT ID 1060-34-84		
1	IH 41/USH 45 NB	100
	IH 41/USH 45 SB	100
2	IH 41/USH 45 NB	100
	IH 41/USH 45 SB	100
	TOTAL:	400

TRAFFIC CONTROL ITEMS (DETOUR)

STAGE	ROADWAY	STAGE DURATION DAYS	* 643.3000 TRAFFIC CONTROL DETOUR SIGNS EACH	DAYS
PROJECT ID 1060-34-84				
1	124TH ST SB	130	14	1,820
	124TH ST NB	130	18	2,340
	CENTER ST EB	130	10	1,300
	BURLEIGH ST EB	130	12	1,560
	BURLEIGH ST WB	130	12	1,560
	MAYFAIR RD NB	130	16	2,080
	MAYFAIR RD SB	130	14	1,820
	CENTER ST WB	130	10	1,300
2	124TH ST SB	70	14	980
	124TH ST NB	70	18	1,260
	CENTER ST EB	70	10	700
	BURLEIGH ST EB	70	12	840
	BURLEIGH ST WB	70	12	840
	MAYFAIR RD NB	70	16	1,120
	MAYFAIR RD SB	70	14	980
	CENTER ST WB	70	10	700
TOTALS:				21,200

* ADDITIONAL QUANTITIES LISTED ELSEWHERE IN PLAN.

TRAFFIC CONTROL CLOSURES

STAGE	ROADWAY	SPV.0060.0002 TRAFFIC CONTROL FULL FREEWAY CLOSURE EACH	SPV.0060.0003 TRAFFIC CONTROL CLOSE-OPEN FREEWAY ENTRANCE RAMP EACH	SPV.0060.0004 TRAFFIC CONTROL INTERIM FREEWAY LANE CLOSURE EACH	SPV.0060.0005 TRAFFIC CONTROL INTERIM FREEWAY TWO LANE CLOSURE EACH	SPV.0060.0006 TRAFFIC CONTROL LOCAL ROAD LANE CLOSURES EACH
PROJECT ID 1060-34-84						
1	IH 41/USH 45 NB	3	40	10	30	--
	IH 41/USH 45 SB	3	40	10	30	--
2	IH 41/USH 45 NB	4	40	10	30	--
	IH 41/USH 45 SB	4	40	10	30	--
	MAYFAIR RD	--	--	--	--	21
	TOTAL:	14	160	40	120	21

CATEGORY 1000 UNLESS OTHERWISE NOTED

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TRAFFIC CONTROL ITEMS

STAGE	ROADWAY	STAGE DURATION DAYS	643.0200 TRAFFIC CONTROL SURVEILLANCE AND MAINTENANCE (PROJECT) 1060-34-84 DAYS	* 643.0300 TRAFFIC CONTROL DRUMS EACH	DAYS	* 643.0420 TRAFFIC CONTROL BARRICADES TYPE III EACH	DAYS	* 643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A EACH	DAYS	* 643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C EACH	DAYS	* 643.0800 TRAFFIC CONTROL ARROW BOARDS EACH	DAYS	* 643.0900 TRAFFIC CONTROL SIGNS EACH	DAYS	* 643.1050 TRAFFIC CONTROL SIGNS PCMS EACH	DAYS	643.1055.S TRUCK OR TRAILER-MOUNTED ATTENUATOR EACH	DAYS
PROJECT ID 1060-34-84																			
1	IH 41 SB	100	100	21	2,100	--	--	--	--	10	1,000	--	--	35	3,500	1	100	--	--
	IH 41 NB	100	--	25	2,500	--	--	--	--	13	1,300	--	--	42	4,200	1	100	--	--
	CENTER ST	130	--	--	--	20	2,600	40	5,200	--	--	--	--	23	2,990	--	--	--	--
	112TH ST	130	--	--	--	--	--	--	--	--	--	--	--	3	390	--	--	--	--
	113TH ST	130	--	--	--	6	780	12	1,560	--	--	--	--	5	650	--	--	--	--
	WMS	130	--	--	--	1	130	2	260	--	--	--	--	1	130	--	--	--	--
2	IH 41 SB	100	100	11	1,100	--	--	--	--	--	--	--	--	25	2,500	1	100	--	--
	IH 41 NB	100	--	--	--	--	--	--	--	--	--	--	--	40	4,000	1	100	--	--
	CENTER ST	70	--	--	--	21	1,470	42	2,940	--	--	--	--	25	1,750	--	--	--	--
	112TH ST	70	--	--	--	4	280	8	560	--	--	--	--	3	210	--	--	--	--
	113TH ST	70	--	--	--	6	420	12	840	--	--	--	--	5	350	--	--	--	--
	114TH ST	70	--	--	--	4	280	8	560	--	--	--	--	3	210	--	--	--	--
	WWHS	70	--	--	--	1	70	2	140	--	--	--	--	--	--	--	--	--	--
	MAYFAIR RD	21	--	38	798	7	147	14	294	11	231	1	21	19	399	--	--	--	--
	UNDISTRIBUTED	200	--	--	325	--	302	--	604	--	127	--	--	--	1,059	2	60	2	60
PROJECT 1060-34-84 SUBTOTAL:			200		6,823		6,479		12,958		2,658		21		22,338		460		60
PROJECT ID 1060-35-85																			
2	CENTER ST	70	--	67	4690	4	280	8	560	7	490	--	--	4	280	--	--	--	--
	114TH ST	70	--	18	1260	--	--	--	--	4	280	--	--	--	--	--	--	--	--
	115TH ST	70	--	8	560	2	140	4	280	4	280	--	--	2	140	--	--	--	--
	116TH ST	70	--	32	2240	2	140	4	280	4	280	--	--	2	140	--	--	--	--
	117TH ST	70	--	10	700	2	140	4	280	4	280	--	--	2	140	--	--	--	--
	UNDISTRIBUTED		--	--	473	--	35	--	70	--	81	--	--	--	35	--	--	--	--
PROJECT 1060-35-85 SUBTOTAL:			--		9923		735		1,470		1,691		--		735		--		--
GRAND TOTAL:			200		16,746		7,214		14,428		4,349		21		23,073		460		60

* ADDITIONAL QUANTITIES LISTED ELSEWHERE IN PLAN.

CATEGORY 1000 UNLESS OTHERWISE NOTED

TRAFFIC CONTROL ITEMS (DETOUR)

STAGE	ROADWAY	STAGE DURATION DAYS	* 643.0300 TRAFIC CONTROL DRUMS EACH	DAYS	* 643.0420 TRAFFIC CONTROL BARRICADES TYPE III EACH	DAYS	* 643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A EACH	DAYS	* 643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C EACH	DAYS	* 643.0800 TRAFFIC CONTROL ARROW BOARDS EACH	DAYS	* 643.0900 TRAFFIC CONTROL SIGNS EACH	DAYS	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II EACH	DAYS	* 643.1050 TRAFFIC CONTROL SIGNS PCMS EACH	DAYS	* 643.3000 TRAFFIC CONTROL DETOUR SIGNS EACH	DAYS
PROJECT ID 1060-34-84																				
1	BURLIEGH ON RAMP	3	17	51	3	9	6	18	3	9	--	--	13	39	18	54	--	--	5	15
	IH 41 SB	3	102	306	7	21	14	42	48	144	3	9	11	33	--	--	4	12	48	144
	W. BURLEIGH ST EB	3	--	--	--	--	--	--	--	--	--	--	16	48	--	--	--	--	25	75
	STH 100 SB	3	--	--	--	--	--	--	--	--	--	--	27	81	--	--	--	--	33	99
	W. CENTER ST EB	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	27	81
	W. NORTH AVE EB	3	--	--	--	--	--	--	--	--	--	--	23	69	--	--	--	--	25	75
	NORTH AVE. ON RAMP	3	22	66	3	9	6	18	3	9	--	--	13	39	18	54	--	--	5	15
	IH 41 NB	3	102	306	7	21	14	42	48	144	3	9	11	33	--	--	4	12	39	117
	STH 100 NB	3	--	--	--	--	--	--	--	--	--	--	24	72	--	--	--	--	30	90
	W. CENTER ST WB	3	--	--	--	--	--	--	--	--	--	--	24	72	--	--	--	--	27	81
	W. NORTH AVE WB	3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	26	78
	W. BURLEIGH ST WB	3	--	--	--	--	--	--	--	--	--	--	7	21	--	--	--	--	18	54
2	BURLIEGH ON RAMP	4	17	68	3	12	6	24	3	12	--	--	13	52	18	72	--	--	5	20
	IH 41 SB	4	102	408	7	28	14	56	48	192	3	12	11	44	--	--	4	16	48	192
	W. BURLEIGH ST EB	4	--	--	--	--	--	--	--	--	--	--	16	64	--	--	--	--	25	100
	STH 100 SB	4	--	--	--	--	--	--	--	--	--	--	27	108	--	--	--	--	33	132
	W. CENTER ST EB	4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	27	108
	W. NORTH AVE EB	4	--	--	--	--	--	--	--	--	--	--	23	92	--	--	--	--	25	100
	NORTH AVE. ON RAMP	4	22	88	3	12	6	24	3	12	--	--	13	52	18	72	--	--	5	20
	IH 41 NB	4	102	408	7	28	14	56	48	192	3	12	11	44	--	--	4	16	39	156
	STH 100 NB	4	--	--	--	--	--	--	--	--	--	--	24	96	--	--	--	--	30	120
	W. CENTER ST WB	4	--	--	--	--	--	--	--	--	--	--	24	96	--	--	--	--	27	108
	W. NORTH AVE WB	4	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	26	104
	W. BURLEIGH ST WB	4	--	--	--	--	--	--	--	--	--	--	7	28	--	--	--	--	18	72
	TOTALS:			1,701		140		280		714		42		1,183	72			56		2,156

* ADDITIONAL QUANTITIES LISTED ELSEWHERE IN PLAN.

CATEGORY 1000 UNLESS OTHERWISE NOTED

3

TEMPORARY PAVEMENT MARKING ITEMS

STAGE	ROADWAY	STATION	TO	STATION	646.0600 REMOVING PAVEMENT MARKINGS LF	* 646.0106 PAVEMENT MARKING EPOXY 4-INCH 12.5 FT LINE, 37.5 FT SKIP WHITE LF	646.0106 WHITE LF	646.0106 YELLOW LF	* 647.0196 PAVEMENT MARKING ARROWS EPOXY TYPE5 WHITE EACH	* 647.0566 PAVEMENT MARKING STOP LINE EPOXY 18-INCH WHITE LF	649.0400 TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH WHITE LF	649.0400 YELLOW LF	649.2100 TEMPORARY RAISED PAVEMENT MARKERS EACH
PROJECT ID 1060-34-84													
1	IH 41 NB	450+00NS		473+75NS	5,938	373	5,635	2,375	2	--	--	--	68
	IH 41 SB	450+00NS		473+75NS	5,938	413	5,475	2,375	2	--	--	--	76
	TEMP 112TH ST	34+00TB		36+31TB	--	--	--	464	--	21	--	--	--
	CENTER ST	22+16CE			--	--	--	--	--	24	--	--	--
2	IH 41 NB	452+62NS		473+75NS	6,928	--	--	--	--	--	--	--	--
	IH 41 SB	452+72NS		473+75NS	6,989	--	--	--	--	--	--	--	--
	IH 41 NB ENTRANCE RAMP	450+00NS		460+38NS	1,050	--	588	--	--	--	--	--	--
	MAYFAIR RD SB	591+32M		602+65M	1,182	--	--	--	--	--	1,462	731	--
	SUBTOTALS:				28,025	786	11,698	5,214	4	45	1,462	731	144
	TOTALS:				28,025	17,698			4	45	2,193		144

* ADDITIONAL QUANTITIES LISTED ELSEWHERE IN PLAN.

CATEGORY 1000 UNLESS OTHERWISE NOTED

CONCRETE STEPS

ROADWAY	STATION	TO	STATION	OFFSET	602.1500 CONCRETE STEPS SF
PROJECT ID 1060-34-84					
CENTER ST	15+74CE		15+84CE	LT	52
CONTRACT TOTAL					52

TRAFFIC CONTROL

STAGE	LOCATION	643.0100 TRAFFIC CONTROL (1060-35-85) EACH
ALL	PROJECT	1
CONTRACT TOTAL		1

TEMPORARY PEDESTRIAN ACCOMMODATION

STAGE	ROADWAY		644.1410.S TEMPORARY PEDESTRIAN SURFACE ASPHALT SF	644.1616.S TEMPORARY PEDESTRIAN SAFETY FENCE LF
PROJECT ID 1060-35-85				
2	CENTER ST	UNDISTRIBUTED	296	224
	TOTAL:		296	224

FENCE

ROADWAY	STATION	TO	STATION	OFFSET	616.0206 FENCE CHAIN LINK 6-FT LF	616.0329.0001 GATES CHAIN LINK 10-FT EACH	616.0700.S FENCE SAFETY LF	SPV.0090.0008 FENCE TEMPORARY 6-FT LF
PROJECT ID 1060-34-84								
N. 113TH STREET	32+07TA		36+15TA	RT	408	--	--	--
N. 112TH STREET	29+58TB		36+09TB	LT	651	--	--	--
W. CENTER STREET	18+71CE		21+45CE	RT	120	2	--	--
W. CENTER STREET	18+47CE		21+47CE	LT	110	2	--	--
IH 41/USH 45	462+38NS		464+20NS	RT	182	--	--	--
IH 41/USH 45	462+66NS		464+36NS	LT	170	--	--	--
UNDISTRIBUTED					--	--	300	1500
CONTRACT TOTAL					1,641	4	300	1500

CATEGORY 1000 UNLESS OTHERWISE NOTED

3

DIVISION	FROM/TO STATION	205.0100 COMMON EXCAVATION (CY)	SPV.0035.0001 EBS EXCAVATION (CY)	SPV.0035.0002 EBS BACKFILL (CY)	Unexpanded Fill (CY)	EXPANDED FILL FACTOR = 1.2 (CY)	Mass Ordinate +/- (14) (CY)
PROJECT 1060-34-84		(1)	(2)	(2)		(3)	(4)
IH41/USH 45 NB	454+75NS/463+50NS	8,475	0	0	103	123	8,351
IH 41/USH 45 SB	457+25NS/463+50NS	2,798	0	0	928	1,114	1,684
CENTER ST (WEST OF B-40-880)	14+20CE/19+10CE	2,241	140	140	710	853	1,570
CENTER ST (EAST OF B-40-880)	21+20CE/24+74.9CE	1,414	80	80	1,293	1,551	-34
112TH STREET	29+26TB/36+00TB	2,746	40	40	678	814	1,985
113TH STREET	31+78TA/36+00TA	622	20	20	113	135	513
WMS PARKING LOT	10+50WMS/14+00WMS	1,163	120	120	2,040	2,449	-1,130
STH100/MAYFAIR RD	595+70M/596+20M	127	0	0	0	0	127
PROJECT SUBTOTAL		19,585	400	400	5,866	7,039	13,066
PROJECT 1060-35-85							
CENTER STREET	4+70CE/14+31CE	576	0	0	17	20	556
114TH STREET	124+29TS/125+90TS	139	0	0	2	2	137
116TH STREET	32+99TW/36+11TW	125	0	0	13	15	110
PROJECT SUBTOTAL		840	0	0	32	38	802
GRAND TOTAL		20,425	400	400	5,897	7,077	13,868

NOTES:

1) SALVAGED AND UNUSABLE PAVEMENT MATERIAL IS INCLUDED IN COMMON EXCAVATION (CUT VOLUME)

2) EBS EXCAVATION SPV.0035.0001(CY) TO BE BACKFILLED WITH EBS BACKFILL SPV.0035.0002 (CY). EBS EXCAVATION VOLUME ASSUMED AS APPROXIMATELY 5% OF TOTAL ROADWAY AREA AT AN AVERAGE DEPTH OF 18-INCHES, IN ADDITION TO LOCATIONS SHOWN IN PLANS. ALL EBS EXCAVATION TO BE WASTED OFFSITE. EBS BACKFILL FACTOR = 1.00. ACTUAL EXTENTS AND DEPTHS OF EBS EXCAVATION WILL BE DETERMINED BY THE ENGINEER IN THE FIELD

3) EXPANDED FILL. FACTOR = 1.20

4) THE MASS ORDINATE + OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.

STORM SEWER PIPE REMOVALS

ROADWAY	STATION	OFFSET	TO	STATION	OFFSET	204.0245.0001 REMOVING STORM SEWER 12-INCH LF	204.0245.0002 REMOVING STORM SEWER 15-INCH LF	204.0245.0003 REMOVING STORM SEWER 18-INCH LF
IH 41	462NS+42	0' LT	--	462NS+60	1' LT	18	---	---
CENTER STREET	14CE+77	24' RT	--	15CE+01	50' RT	35	---	---
	17CE+37	9' LT	--	17CE+51	24' LT	---	21	---
	21CE+31	24' RT	--	21CE+65	8' RT	---	38	---
	21CE+65	26' LT	--	21CE+65	8' RT	33	---	---
113TH STREET	36TA+01	13' LT	--	36TA+00	13' RT	25	---	---
112TH STREET	35TB+14	13' RT	--	35TB+45	13' RT	---	30	---
	35TB+41	12' LT	--	35TB+45	13' RT	---	25	---
	35TB+41	13' LT	--	36TB+07	8' LT	---	---	66
	36TB+07	8' LT	--	36TB+49	9' LT	---	---	42
					TOTAL	111	114	108

STORM SEWER STRUCTURE REMOVALS

ROADWAY	STATION	OFFSET	204.0210 REMOVING MANHOLES EACH	204.0220 REMOVING INLETS EACH
IH 41	462NS+42	0' LT	---	1
CENTER STREET	14CE+77	24' RT	---	1
	17CE+50	24' RT	---	1
	17CE+51	24' LT	---	1
	21CE+31	24' RT	---	1
	21CE+65	8' RT	1	---
	21CE+65	26' LT	---	1
	21CE+98	232' LT	---	1
	22CE+79	29' LT	---	1
113TH STREET	36TA+00	13' RT	---	1
	36TA+01	13' LT	---	1
112TH STREET	35TB+14	13' RT	---	1
	35TB+41	13' LT	---	1
	35TB+45	12' RT	---	1
	36TB+07	8' LT	1	---
TOTALS			2	13

ALL ITEMS CATEGORY 1000

3

ADJUSTING DRAINAGE STRUCTURES

LOCATION	STATION	OFFSET FT	EXISTING RIM ELEVATION	TO	PROPOSED RIM ELEVATION	611.8110 ADJUSTING MANHOLE COVERS EACH	611.8115* ADJUSTING INLET COVERS EACH
CENTER STREET							
	14CE+99	50' RT	771.01	--	771.06	---	1
	15CE+05	46' RT	771.22	--	771.11	1	---
	15CE+29	49' RT	770.41	--	770.22	---	1
	21CE+98	339' LT	742.41	--	741.68	---	1
	23CE+08	26' RT	755.03	--	755.83	---	1
	23CE+08	7' RT	755.80	--	756.56	1	---
	23CE+08	49' RT	755.68	--	756.66	1	---
	24CE+09	7' RT	752.56	--	752.80	1	---
TOTALS						4	4

* ADDITONAL QUANTITIES LISTED ELSEWHERE IN PLAN.

SEALING PIPES

ROADWAY	STATION	OFFSET	PIPE END	PIPE ID	204.0280 SEALING PIPES EACH	NOTES:
IH 41						
	455NS+33	79' RT	DOWNSTREAM	P1205	1	INSTALL MARKER BOARD
	455NS+32	81' RT	DOWNSTREAM	P1153	1	INSTALL MARKER BOARD
	459NS+28	72' RT	UPSTREAM	P1194B	1	INSTALL MARKER BOARD
	461NS+55	68' RT	UPSTREAM	P1147	1	INSTALL MARKER BOARD
	461NS+58	9' LT	DOWNSTREAM	P1136F	1	---
	462NS+50	74' RT	UPSTREAM	P1098A	1	INSTALL MARKER BOARD
	463NS+23	78' RT	UPSTREAM	P1082A	1	INSTALL MARKER BOARD
	463NS+50	91' LT	UPSTREAM	P1118	1	INSTALL MARKER BOARD
	463NS+59	84' LT	UPSTREAM	P1116	1	INSTALL MARKER BOARD
CENTER STREET						
	17CE+39	11' LT	---	EXISTING STRUCTURE	1	SEAL EXISTING PIPE OPENING IN MANHOLE DUE TO REMOVING STORM SEWER
TOTAL					10	

RECONSTRUCTING DRAINAGE STRUCTURES

LOCATION	STATION	OFFSET FT	EXISTING RIM ELEVATION	TO	PROPOSED RIM ELEVATION	611.0420 RECONSTRUCTING MANHOLES EACH
CENTER STREET						
	17CE+37	9' LT	763.24	--	764.33	1
	18CE+30	8' RT	763.5	--	764.77	1
TOTALS						2

CONCRETE COLLARS FOR PIPE

ROADWAY	STATION	OFFSET	520.8000 CONCRETE COLLARS FOR PIPE EACH
IH 41			
	461NS+55	69' LT	1
	461NS+59	71' LT	1
	462NS+61	1' LT	1
CENTER STREET	15CE+00	48' RT	1
	17CE+49	5' RT	1
	17CE+50	22' RT	1
	17CE+52	11' RT	1
	17CE+56	7' RT	1
	18CE+30	56' RT	1
	21CE+68	7' RT	1
	21CE+98	234' LT	1
	22CE+81	27' LT	1
TOTAL			12

PIPE CONNECTION TO EXISTING STRUCTURE

ROADWAY	STATION	OFFSET	SPV.0060.8015 PIPE CONNECTION TO EXISTING STRUCTURE EACH
CENTER STREET			
	23CE+06	24' RT	1
TOTAL			1

COVER PLATES LEFT IN PLACE

ROADWAY	STRUCTURE ID	STATION	OFFSET	FUTURE CASTING & 0.33' THICKNESS FT	SPV.0060.8005 COVER PLATES LEFT IN PLACE EACH
IH 41					
	N1152	455NS+88	94' RT	0.00'	1
	N1204	457NS+28	79' RT	1.07'	1
	N1199A	457NS+37	84' RT	1.00'	1
	N1178	457NS+65	84' LT	1.17'	1
	N1198A	458NS+12	84' RT	1.17'	1
	N1196	459NS+28	79' RT	1.07'	1
	1151A	459NS+39	85' RT	1.00'	1
	N1185	459NS+29	85' LT	1.17'	1
	N1150A	460NS+42	86' RT	1.17'	1
	N1131	460NS+43	86' LT	1.17'	1
	N1194	461NS+55	81' RT	1.07'	1
	N1109A	461NS+65	86' RT	1.17'	1
	N1107A	461NS+75	90' RT	0.00'	1
	N1108A	461NS+75	86' RT	1.17'	1
	N1136E	462NS+00	6' LT	1.17'	1
	N1121	462NS+50	90' LT	0.00'	1
	N1123	462NS+50	86' LT	1.17'	1
	N1099	462NS+50	81' RT	1.07'	1
	N1102A	462NS+60	86' RT	1.17'	1
	N1101A	463NS+10	86' RT	1.17'	1
	N1105	463NS+30	96' RT	0.00'	1
	N1119	463NS+50	86' LT	1.17'	1
TOTAL					22

ALL ITEMS CATEGORY 1000

3

TEMPORARY SHORING

ROADWAY	STATION	TO	STATION	OFFSET	511.1300.8001 TEMPORARY SHORING 455NS+12 to 463NS+36 SF	511.1300.8002 TEMPORARY SHORING 461NS+45 TO 461NS+76 SF
IH 41						
	455NS+12		463NS+36	RT	23,311	---
	461NS+45		461NS+76	LT	---	272
TOTALS					23,311	272

ALL ITEMS CATEGORY 1000

STORM SEWER STRUCTURES										STORM SEWER PIPES										
ROADWAY	STRUCTURE NO.	STATION	OFFSET (FT)	LOCATION	RIM OR FLOW ELEV	STRUCTURE TYPE	INLET/MANHOLE COVERS TYPE	DEPTH[1] (FT)	STRUCTURE COMMENTS[2]	PIPE ID	FROM STR	TO STR	INLET ELEV	DISCH ELEV	SLOPE[A] %	PIPE LENGTH[B] (FT)	PLAN LENGTH[C] (FT)	PIPE CLASS	PIPE SIZE (INCH)	PIPE COMMENTS[2]
CENTER STREET	N500	14CE+74.04	26.0	RT	772.29	INLETS 4-FT DIAMETER	H	5.83	IN	P501	N500	NE502	766.46	765.23	3.48	33	37	III	12	OUT
CENTER STREET	NE502	14CE+98.99	49.7	RT	771.06	---	---	---	SEE ADJUSTING STRUCTURES TABLE	PE503	NE502	---	---	---	---	---	---	---	12	EXIST PIPE INTERPOL ELEV
CENTER STREET	N516	17CE+25.76	50.0	RT	762.50	INLETS MEDIAN 1 GRATE	MS	3.10	OUT	P517	N516	N518	759.40	759.23	1.00	17	19	III	15	OUT
CENTER STREET	N518	17CE+44.80	50.0	RT	762.50	INLETS MEDIAN 1 GRATE	MS	3.27	OUT	P519	N518	N524	759.23	759.00	1.00	23	27	III	15	OUT
CENTER STREET	N522	17CE+09.36	26.0	RT	763.81	INLETS 2x3-FT	H	5.05	IN	P523	N522	N524	758.76	758.39	1.00	37	41	III	12	IN
CENTER STREET	N524	17CE+50.04	26.0	RT	763.48	INLETS 4-FT DIAMETER	H	6.09	IN	PE525	N524	N532	757.39	757.34	---	---	---	---	24	EXIST PIPE INTERPOL ELEV
CENTER STREET	N526	18CE+15.50	26.0	LT	763.96	INLETS 2x3-FT	H	5.07	IN	P527	N526	N530	758.89	758.39	1.00	50	53	III	12	IN
CENTER STREET	N528	16CE+95.43	26.0	LT	764.14	INLETS 2x3-FT	H	5.11	IN	P529	N528	N530	759.03	758.39	1.00	64	67	III	12	IN
CENTER STREET	N530	17CE+62.50	26.0	LT	763.55	INLETS 2x3-FT	H	5.38	IN	P531	N530	N532	758.17	757.88	1.00	29	34	III	15	IN
---	---	---	---	---	---	---	---	--	---	PE515	---	N532	---	756.28	---	---	---	---	36	EXIST PIPE INTERPOL ELEV
CENTER STREET	N532	17CE+51.97	7.4	RT	764.22	MANHOLES 8-FT DIAMETER	J-SPECIAL	8.84	IN	PE533	N532	---	755.38	---	---	---	---	---	36	EXIST PIPE INTERPOL ELEV
113TH STREET	N538	35TA+95.00	15.0	RT	764.05	INLETS 2x3-FT	H	4.01	IN	P539	N538	N540	760.04	759.56	2.00	24	27	III	18	IN
113TH STREET	N540	35TA+97.48	15.0	LT	763.79	INLETS 4-FT DIAMETER	H	5.99	IN	PE541	N540	---	757.80	---	---	---	---	---	18	EXIST PIPE INTERPOL ELEV
112TH STREET	N554	35TB+13.69	15.0	RT	757.07	INLETS 4-FT DIAMETER	H	4.58	IN	P555	N554	N557	752.49	752.27	1.00	22	26	III	15	IN
112TH STREET	N557	35TB+13.73	15.0	LT	757.20	INLETS 4-FT DIAMETER	H	4.93	IN	P556	N557	N560	752.27	752.04	1.00	23	27	III	15	IN

[1]DEPTH = RIM OR FLOW ELEV - LOWEST PIPE INVERT ELEVATION

[2] IN = PIPE OR STORM STRUCTURE WILL BE WITHIN PROPOSED OR FUTURE TRAVELED WAY.
OUT = PIPE OR STORM STRUCTURE WILL BE OUTSIDE THE PROPOSED OR FUTURE TRAVELED WAY.
WALL = BACKFILL SLURRY PIPE OR STORM STRUCTURE UPTO PROPOSED SUBGRADE

[A] SLOPE CALCULATED BASED ON PIPE LENGTH. PIPE LENGTH REPRESENTS LENGTH OF PIPE MEASURED FROM INSIDE FACE OF STRUCTURE TO INSIDE FACE OF STRUCTURE

[B]PIPE LENGTH SHOWN FOR SLOPE CALCULATION ONLY. NOT INTENDED FOR PAY QUANTITY.

[C]PLAN LENGTH SHOWN FOR PAY QUANTITY.

STORM SEWER STRUCTURES										STORM SEWER PIPES										
ROADWAY	STRUCTURE NO.	STATION	OFFSET (FT)	LOCATION	RIM OR FLOW ELEV	STRUCTURE TYPE	INLET/MANHOLE COVERS TYPE	DEPTH[1] (FT)	STRUCTURE COMMENTS[2]	PIPE ID	FROM STR	TO STR	INLET ELEV	DISCH ELEV	SLOPE[A] %	PIPE LENGTH[B] (FT)	PLAN LENGTH[C] (FT)	PIPE CLASS	PIPE SIZE (INCH)	PIPE COMMENTS[2]
112TH STREET	N558	35TB+44.32	15.0	RT	757.94	INLETS 4-FT DIAMETER	H	5.68	IN	P559	N558	N560	752.26	752.04	1.00	22	26	III	15	IN
112TH STREET	N560	35TB+40.57	15.0	LT	757.92	INLETS 4-FT DIAMETER	H	6.13	IN	P561	N560	N570	751.79	750.75	1.00	104	109	III	18	IN
CENTER STREET	N564	21CE+36.70	26.0	LT	762.57	INLETS 4-FT DIAMETER	H	4.57	IN	P565	N564	N570	758.00	757.63	1.00	37	42	III	12	IN
CENTER STREET	N568	21CE+30.42	26.0	RT	762.80	INLETS 4-FT DIAMETER	H	4.84	IN	P569	N568	N570	757.96	757.63	1.00	33	38	III	12	IN
CENTER STREET	N570	21CE+64.84	7.4	RT	761.99	MANHOLES 6-FT DIAMETER	J-SPECIAL	12.24	IN	PE571	N570	---	749.75	---	---	---	---	---	30	EXIST PIPE INTERPOL ELEV
CENTER STREET	N572	22CE+79.47	28.4	LT	757.14	INLETS 2x3-FT	H	4.99	IN	PE573	N572	---	752.15	---	---	---	---	---	12	EXIST PIPE INTERPOL ELEV
CENTER STREET	N574	22CE+91.40	64.6	RT	753.90	INLETS MEDIAN 1 GRATE	MS	1.77	OUT	P575	N574	N576	752.13	751.94	0.50	37	41	III	15	OUT
CENTER STREET	N576	22CE+91.40	26.0	RT	756.49	INLETS 4-FT DIAMETER	H	4.55	IN	P577	N576	NE579	751.94	751.88	0.50	12	16	III	15	IN
---	---	---	---	---	---	---	---	--	---	PE578	---	NE579	---	750.16	---	---	---	---	15	EXIST PIPE INTERPOL ELEV
CENTER STREET	NE579	23CE+07.88	26.0	RT	755.83	---	---	---	SEE ADJUSTING STRUCTURES TABLE	PE580	NE579	---	750.16	---	---	---	---	---	15	EXIST PIPE INTERPOL ELEV
CENTER STREET	N590	22CE+59.29	174.4	LT	743.38	INLETS 3-FT DIAMETER	R-SPECIAL	3.51	IN	P591	N590	N592	739.87	739.72	1.00	15	18	III	12	IN
CENTER STREET	N592	22CE+57.26	195.5	LT	742.86	INLETS 3-FT DIAMETER	R-SPECIAL	3.14	IN	P593	N592	N594	739.72	739.13	1.00	59	62	III	12	IN
CENTER STREET	N594	22CE+30.00	250.0	LT	741.86	INLETS 4-FT DIAMETER	X	2.73	IN	P595	N594	N596	739.13	738.80	1.00	33	37	III	12	IN
CENTER STREET	N596	21CE+97.84	232.3	LT	743.35	MANHOLES 4-FT DIAMETER	J-SPECIAL	4.55	IN	PE597	N596	---	738.80	---	---	---	---	---	8	EXIST PIPE INTERPOL ELEV
IH 41	N990	462 NS+59.33	3.2	LT	742.51	INLETS 4-FT DIAMETER	V	3.63	IN	PE991	N990	---	738.88	---	---	---	---	---	12	EXIST PIPE INTERPOL ELEV

[1]DEPTH = RIM OR FLOW ELEV - LOWEST PIPE INVERT ELEVATION

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WALL = BACKFILL SLURRY PIPE OR STORM STRUCTURE UPTO PROPOSED SUBGRADE

[A] SLOPE CALCULATED BASED ON PIPE LENGTH. PIPE LENGTH REPRESENTS LENGTH OF PIPE MEASURED FROM INSIDE FACE OF STRUCTURE TO INSIDE FACE OF STRUCTURE

[B]PIPE LENGTH SHOWN FOR SLOPE CALCULATION ONLY. NOT INTENDED FOR PAY QUANTITY.

[C]PLAN LENGTH SHOWN FOR PAY QUANTITY.

STORM SEWER STRUCTURES										STORM SEWER PIPES									
ROADWAY	STRUCTURE NO.	STATION	OFFSET (FT)	LOCATION	RIM OR FLOW ELEV	STRUCTURE TYPE	INLET/MANHOLE COVERS TYPE	DEPTH[1] (FT)	STRUCTURE COMMENTS[2]	PIPE ID	FROM STR	TO STR	INLET ELEV	DISCH ELEV	SLOPE[A] %	PIPE LENGTH[B] (FT)	PLAN LENGTH[C] (FT)	PIPE CLASS	PIPE SIZE (INCH)	PIPE COMMENTS[2]
---	---	---	---	---	---	---	---	--	---	P1082A	BULKHEAD	N1099	730.49	730.27	0.30	72	77	HE-III	48x76	WALL
---	---	---	---	---	---	---	---	--	---	P1098A	BULKHEAD	N1099	732.30	732.28	0.50	3	7	III	24	WALL
IH 41	N1099	462 NS+49.83	80.5	RT	743.02	MANHOLES 9-FT SPECIAL	---	12.75	WALL & COVER PLATE LEFT IN PLACE	P1100	N1099	N1194	730.27	730.00	0.30	90	99	HE-III	48x76	WALL
IH 41	N1101A	463 NS+10.03	86.0	RT	743.27	MANHOLES 5-FT DIAMETER	---	6.46	WALL & COVER PLATE LEFT IN PLACE	P1101B	N1101A	N1102A	736.81	736.33	1.00	48	52	III	24	WALL
IH 41	N1102A	462 NS+60.49	86.0	RT	743.04	INLETS 4-FT DIAMETER	---	6.71	WALL & COVER PLATE LEFT IN PLACE	P1102B	N1102A	N1099	736.33	736.28	1.00	5	12	III	24	WALL
IH 41	N1105	463 NS+29.99	96.0	RT	741.30	INLETS MEDIAN 2 GRATE	---	4.30	WALL & COVER PLATE LEFT IN PLACE	P1106	N1105	N1101A	737.00	736.81	1.00	20	24	III	24	WALL
IH 41	N1107A	461 NS+75.00	90.0	RT	742.62	INLETS MEDIAN 1 GRATE	---	5.45	WALL & COVER PLATE LEFT IN PLACE	P1107B	N1107A	N1108A	737.17	737.16	0.50	3	6	III	18	WALL
IH 41	N1108A	461 NS+75.00	86.0	RT	742.74	INLETS 4-FT DIAMETER	---	6.08	WALL & COVER PLATE LEFT IN PLACE	P1108B	N1108A	N1109A	736.66	736.63	0.50	6	10	III	24	WALL
IH 41	N1109A	461 NS+65.23	86.0	RT	742.76	INLETS 4-FT DIAMETER	---	6.13	WALL & COVER PLATE LEFT IN PLACE	P1109B	N1109A	N1194	736.63	736.61	0.50	4	11	III	24	WALL
---	---	---	---	---	---	---	---	--	---	P1116	BULKHEAD	N1119	736.13	736.07	1.00	6	8	IV	24	IN
---	---	---	---	---	---	---	---	--	---	P1118	BULKHEAD	N1119	737.17	736.07	22.00	5	8	III	24	OUT
IH 41	N1119	463 NS+50.18	86.0	LT	740.97	MANHOLES 5-FT DIAMETER	---	4.90	CONNECT UNDERDRAIN FROM WALL R-40-577,WALL & COVER PLATE LEFT IN PLACE	P1120	N1119	N1123	736.07	735.80	0.30	90	95	IV	24	WALL
IH 41	N1121	462 NS+49.79	90.2	LT	739.98	INLETS MEDIAN 1 GRATE	---	3.67	WALL & COVER PLATE LEFT IN PLACE	P1122	N1121	N1123	736.31	736.30	0.30	3	7	III	18	WALL
IH 41	N1123	462 NS+49.83	86.0	LT	740.21	MANHOLES 5-FT DIAMETER	---	4.41	WALL & COVER PLATE LEFT IN PLACE	P1124	N1123	N1135	735.80	735.55	0.30	84	90	IV	24	WALL
IH 41	N1131	460 NS+42.56	85.7	LT	743.66	INLETS 4-FT DIAMETER	---	4.84	WALL & COVER PLATE LEFT IN PLACE	P1132	N1131	N1135	738.82	736.84	1.90	105	110	III	24	WALL

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[A] SLOPE CALCULATED BASED ON PIPE LENGTH. PIPE LENGTH REPRESENTS LENGTH OF PIPE MEASURED FROM INSIDE FACE OF STRUCTURE TO INSIDE FACE OF STRUCTURE

[B]PIPE LENGTH SHOWN FOR SLOPE CALCULATION ONLY. NOT INTENDED FOR PAY QUANTITY.

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STORM SEWER STRUCTURES										STORM SEWER PIPES									
ROADWAY	STRUCTURE NO.	STATION	OFFSET (FT)	LOCATION	RIM OR FLOW ELEV	STRUCTURE TYPE	INLET/MANHOLE COVERS TYPE	DEPTH[1] (FT)	STRUCTURE COMMENTS[2]	PIPE ID	FROM STR	TO STR	INLET ELEV	DISCH ELEV	SLOPE[A] %	PIPE LENGTH[B] (FT)	PLAN LENGTH[C] (FT)	PIPE CLASS	PIPE SIZE (INCH)	PIPE COMMENTS[2]
IH 41	N1135	461 NS+55.45	86.0	LT	741.02	MANHOLES 6-FT DIAMETER	V	5.97	WALL	P1136A	N1135	N1136B	735.05	735.01	0.50	8	11	III	30	WALL
---	---	---	---	---	---	---	---	--	----	PE1136B	---	N1136C	---	737.11	---	---	---	---	24	EXIST PIPE INTERPOL ELEV
IH 41	N1136C	461 NS+55.36	72.7	LT	742.44	MANHOLES 8-FT DIAMETER	X	5.83	WALL	PE1136D	N1136C	---	736.61	---	---	---	---	---	30	EXIST PIPE INTERPOL ELEV
IH 41	N1136E	462 NS+00.00	6.0	LT	744.52	INLETS 4-FT DIAMETER	---	6.25	COVER PLATE LEFT IN PLACE	P1136F	N1136E	N1137	738.27	737.87	1.00	40	44	III	24	IN
---	---	---	---	---	---	---	---	--	---	P1147	BULKHEAD	N1194	732.20	732.17	0.50	8	12	III	30	WALL
IH 41	N1150A	460 NS+42.15	85.7	RT	744.01	INLETS 4-FT DIAMETER	---	6.58	WALL & COVER PLATE LEFT IN PLACE	P1150B	N1150A	N1151A	737.43	736.43	1.00	100	104	III	24	WALL
IH 41	N1151A	459 NS+38.55	85.0	RT	746.11	INLETS 4-FT DIAMETER	---	9.68	WALL & COVER PLATE LEFT IN PLACE	P1151B	N1151A	N1196	736.43	736.39	1.00	4	11	III	24	WALL
IH 41	N1152	455 NS+88.03	94.0	RT	752.50	INLETS MEDIAN 2 GRATE	---	5.72	WALL & COVER PLATE LEFT IN PLACE	P1153	N1152	BULKHEAD	746.78	746.23	1.00	55	62	III	18	WALL
IH 41	N1176	457 NS+64.68	94.1	LT	748.00	INLETS MEDIAN 2 GRATE	MS	3.90	WALL	P1177	N1176	N1178	744.10	743.93	1.90	9	13	III	24	WALL
IH 41	N1178	457 NS+64.69	84.0	LT	750.11	MANHOLES 5-FT DIAMETER	---	6.18	WALL & COVER PLATE LEFT IN PLACE	P1183	N1178	N1185	743.93	740.90	1.90	159	164	III	24	WALL
IH 41	N1185	459 NS+28.60	84.9	LT	746.58	INLETS 4-FT DIAMETER	---	5.68	WALL & COVER PLATE LEFT IN PLACE	P1186	N1185	N1131	740.90	738.82	1.90	110	114	III	24	WALL
IH 41	N1194	461 NS+55.45	80.5	RT	742.84	MANHOLES 9-FT SPECIAL	---	12.84	WALL & COVER PLATE LEFT IN PLACE	P1195	N1194	N1196	730.00	729.34	0.30	221	230	HE-III	48x76	WALL
---	---	---	---	---	---	---	---	--	---	P1194B	BULKHEAD	N1196	736.65	736.60	2.00	3	7	III	30	WALL
IH 41	N1196	459 NS+28.43	79.4	RT	746.48	MANHOLES 9-FT SPECIAL	---	17.14	WALL & COVER PLATE LEFT IN PLACE	P1197	N1196	N1204	729.34	728.67	0.35	191	200	HE-IV	48x76	WALL
IH 41	N1198A	458 NS+11.88	84.1	RT	749.10	INLETS 4-FT DIAMETER	---	6.43	WALL & COVER PLATE LEFT IN PLACE	P1198B	N1198A	N1199A	742.67	742.32	0.50	71	75	III	24	WALL
IH 41	N1199A	457 NS+37.14	84.0	RT	750.87	INLETS 4-FT DIAMETER	---	8.55	WALL & COVER PLATE LEFT IN PLACE	P1199B	N1199A	N1204	742.32	742.30	0.50	3	10	III	24	WALL
IH 41	N1204	457 NS+28.25	78.5	RT	751.21	MANHOLES 9-FT SPECIAL	---	22.54	WALL & COVER PLATE LEFT IN PLACE	P1205	N1204	BULKHEAD	728.67	728.00	0.35	191	200	HE-IV	48x76	WALL

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[A] SLOPE CALCULATED BASED ON PIPE LENGTH. PIPE LENGTH REPRESENTS LENGTH OF PIPE MEASURED FROM INSIDE FACE OF STRUCTURE TO INSIDE FACE OF STRUCTURE

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3

STORM SEWER STRUCTURE SUMMARY

611.2004 MANHOLES 4-FT DIAMETER EACH	611.2005 MANHOLES 5-FT DIAMETER EACH	611.2006 MANHOLES 6-FT DIAMETER EACH	611.2008 MANHOLES 8-FT DIAMETER EACH	611.3003 INLETS 3-FT DIAMETER EACH	611.3004 INLETS 4-FT DIAMETER EACH	611.3230 INLETS 2x3-FT EACH	611.3901 INLETS MEDIAN 1 GRATE EACH	611.3902 INLETS MEDIAN 2 GRATE EACH	SPV.0060.8012 MANHOLES 9-FT SPECIAL EACH	611.0535 MANHOLE COVERS TYPE J SPECIAL EACH	611.0624 INLET COVERS TYPE H EACH	611.0642 INLET COVERS TYPE MS EACH	611.0654 INLET COVERS TYPE V EACH	611.0663 INLET COVERS TYPE X EACH	SPV.0060.8006 INLET COVERS TYPE R[1]-SPECIAL EACH
1	4	2	2	2	22	6	5	3	4	3	16	5	2	2	2

STORM SEWER PIPE SUMMARY

608.0312 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 12-INCH LF	608.0315 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 15-INCH LF	608.0318 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 18-INCH LF	608.0324 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 24-INCH LF	608.0330 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 30-INCH LF	608.0424 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 24-INCH LF	610.0148 STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III 48X76-INCH LF	SPV.0090.8010 STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-IV 48X76-INCH LF
395	216	211	769	30	193	406	400

[1]TOP SLAB OPENING FOR INLET COVERS TYPE R-SPECIAL SHALL BE 1'-7"X2'-6"

ALL ITEMS CATEGORY 1000

TYPE I&II PERMANENT SIGNING -

Category Code 1000 **1060-34-84 zoo interchange-center street bridge**

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W [IN.]	x	H [IN.]	**637.2210** SIGNS TYPE II REFLECTIVE H [SF]	**637.2230** SIGNS TYPE II RELFECTIVE F [SF]	**638.3000** REM SMALL SIGN SUP [EA]	**638.2102** MOVING SIGNS TYPE II [EA]	**638.2602** REM SIGNS TYPE II [EA]	**634.0618** WOOD POSTS 4"X 6"x18' [EA]	**634.0622** WOOD POSTS 4"X 6"x22' [EA]	**634.0816** POSTS TUBULAR STEEL 2" X 2" X 16' [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION	TYPE I SIGN SIZE W x H [FT.] x [FT.]	**638.2101** MOVING SIGNS TYPE I [EA]	**638.3100** REM STR STEEL SIGN SUP [EA]	STEEL POST TYPE	**636.0100** SIGN NO. SUPPORTS CONCRETE MASONRY [CY]	**636.0500** SIGN SUPPORTS STEEL REINF. [LBS]	**635.0200** SIGN SUPPORTS STRUCTURAL STEEL HS [EST.LBS]	INFO ONLY-POST LENGTHS TO BE VERIFIED BY CONTRACTOR: POST NO 1 LENGTH [FT]	POST NO 2 LENGTH [FT]	OFF SET DISTANCE [FT]	DIST BTWN POSTS "S" [FT]
1	R1-1 (2S)		30	X	30	5.180		1		1			1														
2	R4-7 (2S)		24	X	30	5.000				1					MOUNT UNDER SIGN # 1												
3	R4-7 (2S)		24	X	30	5.000				1					MOUNT UNDER SIGN # 1 ON OPPOSITE SIDE OF POST												
4	R1-1 (2S)		30	X	30	5.180		1		1			1														
5	R1-3P (2S)		18	X	6	0.750				1					MOUNT UNDER SIGN # 4												
6	NOT USED			X																							
7	R1-1 (2S)		30	X	30	5.180		1		1			1														
8	R1-3P (2S)		18	X	6	0.750				1					MOUNT UNDER SIGN # 7												
9	NOT USED																										
10	R3-4 (2S)		24	X	24	4.000				1			1														
11		NO PARKING 7:30AM - 4:30PM SCHOOL DAYS (RIGHT ARROW)		X				1	1				1														
12		2 HOUR PARKING 7:30AM - 4:30PM SCHOOL DAYS (DOUBLE ARROW)		X				1	1				1														
13	NOT USED																										
14	R1-1 (2S)		30	X	30	5.180		1		1			1														
15	R7-1D (2S)		18	X	24	3.000		1		1			1														
16		NO DOGS ALLOWED		X					1					15													
17	W12-2 (2S)	13 FEET 0 INCHES	36	X	36		9.000			1					MOUNT ON LIGHT POLE AT CORNER OF BRIDGE												
18		LOW CLEARANCE		X					1						MOUNT UNDER SIGN # 17												
19	W16-9P (2S)		24	X	12		2.000			1					MOUNT UNDER SIGN # 18												
20	R8-52 (2S)		24	X	30	5.000				1					MOUNT UNDER SIGN # 19												
21	R3-4 (2S)		24	X	24	4.000				1					MOUNT ON LIGHT POLE												
22		NO PARKING 7:30AM - 4:30 PM SCHOOL DAYS (DOUBLE ARROW)		X					1					21													
23	R1-1 (2S)		30	X	30	5.180		1		1				24	FACES EASTBOUND TRAFFIC AND PLACED ON NORTH SIDE OF STREET												
24	R1-1 (2S)		30	X	30	5.180				1				23	FACES WESTBOUND TRAFFIC AND PLACED ON SOUTH SIDE OF STREET ON LIGHT POLE												
25	R1-3P (2S)		18	X	6	0.750				1					MOUNT UNDER SIGN # 24 ON LIGHT POLE												
26	R1-1 (2S)		30	X	30	5.180		1		1			1		FACES WESTBOUND TRAFFIC AND PLACED ON NORTH SIDE OF STREET												
27	R1-3P (2S)		18	X	6	0.750				1					MOUNT UNDER SIGN # 26												
28		NO PARKING 7:30AM - 4:30 PM SCHOOL DAYS (DOUBLE ARROW)		X				1	1				1														
29	R1-1 (2S)		30	X	30	5.180		1		1			1														
30	NOT USED																										
31		NO PARKING 7:30AM - 4:30 PM SCHOOL DAYS (DOUBLE ARROW)		X				1	1				1														
32	R8-52 (2S)		24	X	30	5.000				1					MOUNT ON LIGHT POLE AT CORNER OF BRIDGE												
33	NOT USED																										
34	NOT USED																										
35	R2-1 (2S)	SPEED LIMIT 25	24	X	30	5.000				1					MOUNT ON LIGHT POLE AT CORNER OF BRIDGE												
36	R8-52 (2S)		24	X	30	5.000				1					MOUNT UNDER SIGN # 35												
37	NOT USED			X																							
38	R1-1 (2S)		30	X	30	5.180		1		1			1														
39		NO PARKING 7:30AM - 4:30 PM SCHOOL DAYS (DOUBLE ARROW)		X				1	1				1														
40	S1-1			X				1		1					EXISTING SIGN PLACEMENT DOES NOT CONFORM (REMOVE ONLY)												

SHEET: 1 OF 3

PROJECT NO: 1060-34-84	HWY: IH 41	COUNTY: MILWAUKEE	MISCELLANEOUS QUANTITIES—PERMANENT SIGNING	SHEET:	**E**

TYPE I&II PERMANENT SIGNING -

Category Code 1000 **1060-34-84 zoo interchange-center street bridge**

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W [IN.] x H [IN.]	**637.2210** SIGNS TYPE II REFLECTIVE H [SF]	**637.2230** SIGNS TYPE II RELFECTIVE F [SF]	**638.3000** REM SMALL SIGN SUP [EA]	**638.2102** MOVING SIGNS TYPE II [EA]	**638.2602** REM SIGNS TYPE II [EA]	**634.0618** WOOD POSTS 4"X 6"x18' [EA]	**634.0622** WOOD POSTS 4"X 6"x22' [EA]	**634.0816** POSTS TUBULAR STEEL 2" X 2" X 16' [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION	TYPE I SIGN SIZE W x H [FT.] x [FT.]	**638.2101** MOVING SIGNS TYPE I [EA]	**638.3100** REM STR STEEL SIGN SUP [EA]	STEEL POST TYPE	**636.0100** SIGN NO. SUPPORTS CONCRETE MASONRY [CY]	**636.0500** SIGN SUPPORTS STEEL REINF. [LBS]	**635.0200** SIGN SUPPORTS STRUCTURAL STEEL HS [EST.LBS]	INFO ONLY-POST LENGTHS TO BE VERIFIED BY CONTRACTOR			
																						POST NO 1 LENGTH [FT]	POST NO 2 LENGTH [FT]	OFF SET DISTANCE [FT]	DIST BTWN POSTS "S" [FT]
41	S4-51	SCHOOL SPEED LIMIT 15	X			1		1					EXISTING SIGN PLACEMENT DOES NOT CONFORM (REMOVE ONLY)												
42		NO PARKING 7:30AM - 4:30 PM SCHOOL DAYS (DOUBLE ARROW)	X			1	1				1														
43	R3-4 (2S)		24 X 24	4.000		1		1			1														
44		NO PARKING 7:30AM - 4:30 PM SCHOOL DAYS (DOUBLE ARROW)	X				1						MOUNT UNDER SIGN # 43												
45	W12-2 (2S)	13 FEET 0 INCHES	36 X 36		9.000			1					MOUNT ON LIGHT POLE												
46	R7-7L (2S)		18 X 24	3.000				1					MOUNT ON LIGHT POLE BELOW SIGN # 45												
47	NOT USED																								
48	R7-7R (2S)		18 X 24	3.000		1		1			1														
49		NO PARKING 7:30AM - 4:30 PM SCHOOL DAYS (LEFT ARROW)	X				1						MOUNT UNDER SIGN # 48												
50		NO PARKING 7:30AM - 4:30 PM SCHOOL DAYS (DOUBLE ARROW)	X				1						MOUNT ON POLE												
51	R3-4 (2S)		24 X 24	4.000				1					MOUNT UNDER SIGN # 50												
52		NO PARKING 7:30AM - 4:30 PM SCHOOL DAYS (DOUBLE ARROW)	X			1	1				1														
53	R8-52 (2S)		24 X 30	5.000				1					MOUNT ON LIGHT POLE AT CORNER OF BRIDGE												
54	R7-1D (2S)		18 X 24	3.000		1		1			1		SHEET 4 OF 5												
55	R7-1D (2S)		18 X 24	3.000		1		1			1		SHEET 4 OF 5												
56		THREE HOUR PARKING 9AM - 6PM EXCEPT SAT - SUN & HOL. (DOUBLE ARROW)	X				1						MOUNT ON POLE SHEET 4 OF 5												
57	R1-1 (2S)		30 X 30	5.180		1		1			1		SHEET 5 OF 5												
58	R3-53R (2S)		24 X 30	5.000				1					MOUNT UNDER SIGN # 57 SHEET 5 OF 5												
59	R1-1 (2S)		30 X 30	5.180		1		1			1		SHEEET 5 OF 5												
60		WE (HEART SHAPE) OUR CHILDREN PLEASE DRIVE CAREFULLY				1	1				1		SHEET 5 OF 5												
61		CAUTION SEMI DRIVERS DO NOT USE WEST DRIVE FOR EXIT				1	1				1		SHEET 5 OF 5												
62		NO STOPPING STANDING PARKING ANYTIME (DOUBLE ARROW)	X			1	1				1		SHEET 5 OF 5												
63	R4-7 (2S)		24 X 30	5.000		1		1			1		SHEET 5 OF 5												
64	W5-52L (2S)		12 X 36	3.000				1					MOUNT UNDER SIGN # 63 SHEET 5 OF 5												
65		WE (HEART SHAPE) OUR CHILDREN PLEASE DRIVE CAREFULLY				1	1				1		SHEET 5 OF 5												
66		CAUTION NO STOPPING ON RAMP					1					65	SHEET 5 OF 5												
67	R6-2L (2S)		24 X 30	5.000		1		1			1		SHEET 5 OF 5												
68	NOT USED																								
69	NOT USED																								

TYPE I&II PERMANENT SIGNING -

Category Code 1000 **1060-34-84 zoo interchange-center street bridge**

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W [IN.]	x	H [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2230 SIGNS TYPE II RELFECTIVE F [SF]	638.3000 REM SMALL SIGN SUP [EA]	638.2102 MOVING SIGNS TYPE II [EA]	638.2602 REM SIGNS TYPE II [EA]	634.0618 WOOD POSTS 4"X 6"x18' [EA]	634.0622 WOOD POSTS 4"X 6"x22' [EA]	634.0816 POSTS TUBULAR STEEL 2" X 2" X 16' [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION	TYPE I SIGN SIZE W x H [FT.] x [FT.]	638.2101 MOVING SIGNS TYPE I [EA]	638.3100 REM STR STEEL SIGN SUP [EA]	STEEL POST TYPE	636.0100 SIGN NO. SUPPORTS CONCRETE MASONRY [CY]	636.0500 SIGN SUPPORTS STEEL REINF. [LBS]	635.0200 SIGN SUPPORTS STRUCTURAL STEEL HS [EST.LBS]	INFO ONLY-POST LENGTHS TO BE VERIFIED BY CONTRACTOR: POST NO 1 LENGTH [FT]	POST NO 2 LENGTH [FT]	OFF SET DISTANCE [FT]	DIST BTWN POSTS "S" [FT]
70	R2-1 (2S)	SPEED LIMIT 25	24	X	30	5.000								52	SHEET 2 OF 5												
71	NOT USED																										
72	S1-1 (2S)		36	X	36		6.750						1		SHEET 2 OF 5												
73	S16-9P (2S)		30	X	18		3.750								MOUNT UNDER SIGN # 72 SHEET 2 OF 5												
74	R2-6P (2S)		24	X	18	3.000									MOUNT UNDER SIGN # 73 SHEET 2 OF 5												
75	S4-51 (2S)	SCHOOL SPEED LIMIT 15	24	X	48		8.000								SHEET 2 OF 5												
76	S1-1 (2S)		36	X	36		6.750	1		1			1		SHEET 2 OF 5												
77	S16-7L (2S)		30	X	18		3.750								MOUNT UNDER SIGN # 76 SHEET 2 OF 5												
78	S1-1 (2S)		36	X	36		6.750	1		1			1		SHEET 2 OF 5												
79	S16-7L (2S)		30	X	18		3.750								MOUNT UNDER SIGN # 78 SHEET 2 OF 5												
80	S4-51 (2S)	SCHOOL SPEED LIMIT 15	24	X	48		8.000						1		SHEET 3 OF 5												
81	S1-1 (2S)		36	X	36		6.750								MOUNT ON LIGHT POLE SHEET 3 OF 5												
82	S16-9P (2S)		30	X	18		3.750								MOUNT UNDER SIGN # 81 SHEET 3 OF 5												
83	R2-6P (2S)		24	X	18	3.000									MOUNT UNDER SIGN # 82 SHEET 3 OF 5												
84	R2-1 (2S)	SPEED LIMIT 25	24	X	30	5.000							1		SHEET 3 OF 5												
85	S5-2 (2S)		24	X	30	5.000									MOUNT UNDER SIGN # 84 SHEET 3 OF 5												
86		CAUTION SEMI DRIVERS DO NOT USE WEST DRIVE FOR EXIT						1	1				1		SHEET 5 OF 5												
87	M1-94 (MOD)	Center Street 2700 NORTH	84	X	36	21.000									MOUNT ON THE SIDE OF THE BRIDGE PER PLAN MOUNTING IS INCIDENTAL TO SIGN												
88	M1-94 (MOD)	Center Street 2700 NORTH	84	X	36	21.000									MOUNT ON THE SIDE OF THE BRIDGE PER PLAN MOUNTING IS INCIDENTAL TO SIGN												
89	R5-1 (2S)	DO NOT ENTER	30	X	30	6.250								57	BACK OF SIGN # 57 TRIM TO OCTAGON SHAPE												
90	E1-1A	BURLEIGH ST 1/2 MILE EXIT 43						4				4			INSTALL TEMPORARILY ON WOOD POSTS THEN MOVE TO STEEL POSTS AT END OF PROJECT		2		B	1.6	98	1000				
91	W4-2R							1	1		1																
92	W12-2	14'-0"						1		1																	
93		MOUNT MARY COLLEGE EXIT 43						4				4			INSTALL TEMPORARILY ON WOOD POSTS THEN MOVE TO STEEL POSTS AT END OF PROJECT		2		A	1.2	68	600				
94	E1-1A (MOD)	NORTH AVE WEST NEXT RIGHT EXIT 42B						4				4			INSTALL TEMPORARILY ON WOOD POSTS THEN MOVE TO STEEL POSTS AT END OF PROJECT		2		B	1.6	98	1000				
95	D12-2A	RIDESHARE						2	1		2																
96	W5-52L		18	x	54		6.750						1		4' HEIGHT												
UNDISTRIBUTED						--					3			--	--	x								--	--	--	--
TOTALS						213.230	84.750	48	22	43	6	12	35	--	--		6	0	--	4.4	264	2600				

SHEET: 3 OF 3

PROJECT NO: 1060-34-84	HWY: IH 41	COUNTY: MILWAUKEE	MISCELLANEOUS QUANTITIES—PERMANENT SIGNING	SHEET:	E

TYPE I&II PERMANENT SIGNING -

1060-35-85 CENTER STREET

3

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W [IN.]	x	H [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2230 SIGNS TYPE II RELFECTIVE F [SF]	638.2602 REM SIGNS TYPE II [EA]	638.3000 REM SMALL SIGN SUP [EA]	638.2102 MOVING SIGNS TYPE II [EA]	634.0618 WOOD POSTS 4"X 6"x18' [EA]	634.0816 POSTS TUBULAR STEEL 2" X 2" X 16' [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
1	R2-1 (2S)	SPEED LIMIT 25	24	X	30	5.000								MOUNT ON LIGHT POLE
2	S5-2 (2S)	END SCHOOL ZONE	24	X	30	5.000							1	
3	S1-1 (2S)	SCHOOL ADVANCE	36	X	36		6.750					1		
4	S16-9P (2S)	AHEAD PLAQUE	30	X	18		3.750						3	
4A	R2-6P (2S)	FINES HIGHER	24	X	30	5.000							3	
5	R1-1 (2S)	STOP	30	X	30	5.180		1	1			1		
6	S4-51 (2S)	SCHOOL SPEED LIMIT	24	X	48		8.000	1						MOUNT ON LIGHT POLE
7	R3-4 (2S)	NO U TURN SYMBOL	24	X	24	4.000		1	1			1		REMOVE S1-1 ALSO
8	S1-1 (2S)	SCHOOL ADVANCE	36	X	36		6.750					1		
9	S16-7L (2S)	LEFT DIAGONAL DOWNWARD ARROW	30	X	18		3.750						8	
10	R1-1 (2S)	STOP	30	X	30	5.180		1	1			1		REMOVE R1-3P ALSO
11	R1-3P (2S)	ALL WAY	18	X	6	0.750							10	
12	R1-1 (2S)	STOP	30	X	30	5.180		1	1			1		REMOVE R1-3P ALSO
13	R1-3P (2S)	ALL WAY	18	X	6	0.750							12	
14	R1-1 (2S)	STOP	30	X	30	5.180		1	1			1		REMOVE OTHER R1-1 AND 2 R1-3P'S ALSO
15	R1-3P (2S)	ALL WAY	18	X	6	0.750							14	
16	R5-1 (2S)	DO NOT ENTER	30	X	30	6.250		1	1			1		REMOVE R1-1 ALSO
17	R5-1 (2S)	DO NOT ENTER	30	X	30	6.250		1	1			1		REMOVE R1-1 ALSO
18	R1-1 (2S)	STOP	30	X	30	5.180						1		
19	R1-1 (2S)	STOP	30	X	30	5.180						1		
20	S1-1 (2S)	SCHOOL ADVANCE	36	X	36		6.750					1		
21	S16-7L (2S)	LEFT DIAGONAL DOWNWARD ARROW	30	X	18		3.750						20	
22	R7-1D (2S)	NO PARKING ANY TIME DOUBLE ARROW	18	X	24	3.000		1	1			1		
23	R7-1D (2S)	NO PARKING ANY TIME DOUBLE ARROW	18	X	24	3.000		1						MOUNT ON LIGHT POLE
24	R7-1R (2S)	NO PARKING ANY TIME RIGHT ARROW	18	X	24	3.000		1	1			1		REMOVE R3-4 ALSO
25	R3-4 (2S)	NO U TURN SYMBOL	24	X	24	4.000							24	

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SHEET: 1 OF 4

TYPE I&II PERMANENT SIGNING -

1060-35-85 CENTER STREET

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W [IN.]	x	SIGN SIZE H [IN.]	**637.2210** SIGNS TYPE II REFLECTIVE H [SF]	**637.2230** SIGNS TYPE II RELFECTIVE F [SF]	**638.2602** REM SIGNS TYPE II [EA]	**638.3000** REM SMALL SIGN SUP [EA]	**638.2102** MOVING SIGNS TYPE II [EA]	**634.0618** WOOD POSTS 4"X 6"x18' [EA]	**634.0816** POSTS TUBULAR STEEL 2" X 2" X 16' [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
26	R1-1 (2S)	STOP	30	X	30	5.180		1	1			1		
27	NOT USED			X										
28	NOT USED			X										
29	NOT USED			X										
30	NOT USED			X										
31	NOT USED			X										
32	NOT USED			X										
33	NOT USED			X										
34	NOT USED			X										
35	NOT USED													
36	NOT USED													
37	R7-1D (MOD)	NO PARKING 7:30AM - 4:30PM SCHOOL DAYS [A]	18	X	24	3.000		1	1			1		
38	R7-1D (MOD)	NO PARKING 7:30AM - 4:30PM SCHOOL DAYS [A]	18	X	24	3.000		1	1			1		
39	R1-1 (2S)	STOP	30	X	30	5.180		1	1			1		
40	S4-51 (2S)	SCHOOL SPEED LIMIT	24	X	48		8.000	1						MOUNT ON LIGHT POLE
41	S1-1 (2S)	SCHOOL ADVANCE		X		--		1	1					
42	S1-1 (2S)	SCHOOL ADVANCE	36	X	36		6.750					1		
43	S16-9P (2S)	AHEAD PLAQUE	30	X	18		3.750						42	

TYPE I&II PERMANENT SIGNING - **1060-35-85 CENTER STREET**

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W [IN.]	x	H [IN.]	637.2210 SIGNS TYPE II REFLECTIVE H [SF]	637.2230 SIGNS TYPE II RELFECTIVE F [SF]	638.2602 REM SIGNS TYPE II [EA]	638.3000 REM SMALL SIGN SUP [EA]	638.2102 MOVING SIGNS TYPE II [EA]	634.0618 WOOD POSTS 4"X 6"x18' [EA]	634.0816 POSTS TUBULAR STEEL 2" X 2" X 16' [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
44	S1-1 (2S)	SCHOOL ADVANCE		X		--		1	1					REMOVE S4-51 ALSO
45	S4-51 (2S)	SCHOOL SPEED LIMIT	24	X	48		8.000					1		
46	R1-1 (2S)	STOP	30	X	30	5.180		1	1			1		REMOVE R1-3P ALSO
47	R1-3P (2S)	ALL WAY	18	X	6	0.750							46	
48	R7-1D (MOD)	NO PARKING 7:30AM - 4:30PM SCHOOL DAYS [A]	18	X	24	3.000		1						MOUNT ON LIGHT POLE
49	R7-1D (MOD)	NO PARKING 7:30AM - 4:30PM SCHOOL DAYS [A]	18	X	24	3.000		1	1			1		
50	NOT USED													
51	R7-5D (MOD)	TWO HOUR PARKING [A] 7:30AM - 4:30PM SCHOOL DAYS	18	X	24	3.000		1						MOUNT ON LIGHT POLE REMOVE S4-51 AND R5-2 ALSO
52	S4-51 (2S)	SCHOOL SPEED LIMIT	24	X	48		8.000						51	
53	R5-2 (2S)	NO TRUCKS SYMBOL	24	X	24	4.000							51	
54	NOT USED			X										
55	NOT USED			X										

SHEET: 3 OF 4

PROJECT NO:1060-35-85	HWY: CENTER STREET	COUNTY: MILWAUKEE	MISCELLANEOUS QUANTITIES – PERMANENT SIGNING	SHEET:	E

TYPE I&II PERMANENT SIGNING -

1060-35-85 CENTER STREET

3

SIGN NO.	SIGN CODE & SIZE	SIGN MESSAGE	SIGN SIZE W [IN.]	x	H [IN.]	**637.2210** SIGNS TYPE II REFLECTIVE H [SF]	**637.2230** SIGNS TYPE II RELFECTIVE F [SF]	**638.2602** REM SIGNS TYPE II [EA]	**638.3000** REM SMALL SIGN SUP [EA]	**638.2102** MOVING SIGNS TYPE II [EA]	**634.0618** WOOD POSTS 4"X 6"x18' [EA]	**634.0816** POSTS TUBULAR STEEL 2" X 2" X 16' [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION
56	R7-5D (MOD)	TWO HOUR PARKING [A] 7:30AM - 4:30PM SCHOOL DAYS	18	X	24	3.000		1	1			1		
57	R1-1 (2S)	STOP	30	X	30	5.180							14	
58	R7-1D (MOD)	NO PARKING 7:30AM - 4:30PM SCHOOL DAYS [A]	18	X	24	3.000		1	1			1		
UNDISTRIBUTED						--							--	--
TOTALS						124.300	74.000	24	19	0	0	24	--	--

3

SHEET: 4 OF 4

PROJECT NO:1060-35-85	HWY: CENTER STREET	COUNTY: MILWAUKEE	MISCELLANEOUS QUANTITIES – PERMANENT SIGNING	SHEET:	**E**

CATEGORY 1100
LIGHTING REMOVAL ITEMS

204.0195	REMOVING CONCRETE BASES
653.0905	REMOVING PULL BOXES
SPV.0060.1001	REMOVING LIGHTING UNITS
SPV.0060.1002	REMOVING LUMINAIRES UNDERDECK
SPV.0060.1003	REMOVING UNDERDECK LIGHTING
SPV.0060.1004	LAMP DISPOSAL HIGH INTENSITY DISCHARGE

	SYSTEM	LABEL	LOCATION	OFFSET	ITEM	204.0195 REMOVING CONCRETE BASES	SPV.0060.1001 REMOVING LIGHTING UNITS	SPV.0060.1002 REMOVING LUMINAIRES UNDERDECK	SPV.0060.1003 REMOVING UNDERDECK LIGHTING	SPV.0060.1004 LAMP DISPOSAL HIGH INTENSITY DISCHARGE	COMMENTS
						EACH	EACH	EACH	EACH	EACH	
PROJECT ID 1060-34-84											
	H	H-6-15	12+64CE	29' RT	LIGHTING UNIT	--	1	--	--	1	--
	H	H-6-14	14+38CE	29' LT	LIGHTING UNIT	--	1	--	--	1	--
	H	H-6-13	125+87TS	17' LT	LIGHTING UNIT	--	1	--	--	1	N. 114TH STREET
	H	H-6-08	15+89CE	28' RT	LIGHTING UNIT	--	1	--	--	1	--
	H	H-6-07	17+63CE	29' LT	LIGHTING UNIT	--	1	--	--	1	--
	H	H-6-04	35+85TA	18' LT	LIGHTING UNIT	--	1	--	--	1	N. 113TH STREET
	H	H-6-05	19+15CE	32' RT	LIGHTING UNIT	--	1	--	--	1	STRUCTURE MOUNT
	H	H-6-16	19+15CE	33' LT	LIGHTING UNIT	--	1	--	--	1	"
	H	H-6-17	20+90CE	33' LT	LIGHTING UNIT	--	1	--	--	1	"
	H	H-6-06	20+90CE	33' RT	LIGHTING UNIT	--	1	--	--	1	STRUCTURE MOUNT
	H	H-1-11	33+40TB	17' RT	LIGHTING UNIT	--	1	--	--	1	N. 112TH STREET
	H	H-1-12	35+75TB	18' RT	LIGHTING UNIT	--	1	--	--	1	N. 112TH STREET
	H	H-1-13	22+55CE	29' LT	LIGHTING UNIT	--	1	--	--	1	--
	H	H-1-14	24+17CE	28' RT	LIGHTING UNIT	--	1	--	--	1	--
	H	H-1-15	26+00CE	30' LT	LIGHTING UNIT	--	1	--	--	1	--
	H	H-1-20	11+97WMS	92' LT	LIGHTING UNIT	1	1	--	--	1	WHITMAN MIDDLE SCHOOL PARKING LOT
	H	H-1-21	13+56WMS	92'LT	LIGHTING UNIT	1	1	--	--	1	WHITMAN MIDDLE SCHOOL PARKING LOT
	HL-40-NA	A/B/NA	462+05NS	C.I.M	UNDERDECK LIGHTING	--	--	--	1	2	IH 41 MAINLINE
SUBTOTAL PROJECT ID 1060-34-84						**2**	**17**	**0**	**1**	**19**	
PROJECT ID 1060-35-85											
	H	H-4-15	7+65CE	30' LT	LIGHTING UNIT	--	1	--	--	1	--
	H	H-4-13	8+41CE	73.2' RT	LIGHTING UNIT	--	1	--	--	1	--
	H	H-4-14	9+36CE	29' RT	LIGHTING UNIT	--	1	--	--	1	--
	H	H-5-16	11+20CE	29' LT	LIGHTING UNIT	--	1	--	--	1	--
	H	H-5-15	11+77CE	75' RT	LIGHTING UNIT	--	1	--	--	1	--
	H	H-1-16	27+61CE	16' RT	LIGHTING UNIT	--	1	--	--	1	--
	H	H-1-17	29+37CE	17' LT	LIGHTING UNIT	--	1	--	--	1	--
	H	H-1-18	30+35CE	22' LT	UNDERDECK LIGHTING	--	--	1	--	1	RAILROAD BRIDGE
	H	H-1-19	30+35CE	22' RT	UNDERDECK LIGHTING	--	--	1	--	1	RAILROAD BRIDGE
	XX	XX-2-51	31+13CE	16' LT	LIGHTING UNIT	--	1	--	--	1	--
	XX	XX-2-50	32+50CE	25' LT	LIGHTING UNIT	--	1	--	--	1	--
SUBTOTAL PROJECT ID 1060-35-85						**0**	**9**	**2**	**0**	**11**	
		CONTRACT TOTAL (1100)				**2**	**26**	**2**	**1**	**30**	

CATEGORY 1100
LIGHTING BRANCH CIRCUIT CONDUIT

652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH
652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH
652.0615 CONDUIT SPECIAL 3-INCH
SPV.0090.1001 POLYETHYLENE DUCT 1 1/4-INCH

SYSTEM	LOCATION TO LOCATION	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF	652.0615 CONDUIT SPECIAL 3-INCH LF	SPV.0090.1001 POLYETHYLENE DUCT 1 1/4-INCH LF	COMMENTS
PROJECT ID 1060-34-84						
H	EXISTING CABLE SOUTH TO POLE 11+78CE (H-5-15)	--	--	--	15	INTERCEPT / EXTEND EXISTING CABLE
H	POLE 11+78CE (H-5-15) TO POLE 11+20CE (H-5-16)	--	--	65	165	1 1/4-INCH DUCT IN 3-INCH CONDUIT
H	EXISTING CABLE SOUTH TO POLE 125+87TS (H-6-13)	--	--	--	15	INTERCEPT / EXTEND EXISTING CABLE
H	POLE 125+87TS (H-6-13) TO LPB-W-H-6-1	--	--	--	85	--
H	LPB-W-H-6-1 TO POLE 12+64CE (H-6-15)	--	--	--	180	--
H	LPB-W-H-6-1 TO POLE 14+38CE (H-6-14)	--	70	--	80	1 1/4-INCH DUCT IN 3-INCH CONDUIT
H	EXISTING CABLE SOUTH TO POLE 35+89TA (H-6-04)	--	--	--	15	INTERCEPT / EXTEND EXISTING CABLE
H	POLE 35+89TA (H-6-04) TO LPB-W-H-6-2	--	--	--	65	--
H	LPB-W-H-6-2 TO POLE 15+55CE (H-6-08)	--	--	--	230	--
H	LPB-W-H-6-2 TO POLE 17+93CE (H-6-07)	--	60	--	70	1 1/4-INCH DUCT IN 3-INCH CONDUIT
H	LPB-W-H-6-2 TO POLE 19+26CE (H-6-05)	--	60	--	160	1 1/4-INCH DUCT IN 3-INCH CONDUIT
H	POLE 17+93CE (H-6-07) TO POLE 19+22 (H-6-16)	--	--	--	140	--
H	POLE 19+22CE (H-6-16) TO POLE 21+02 (H-6-17)	--	--	--	180	STRUCTURE MOUNT
H	POLE 19+26CE (H-6-05) TO POLE 21+06CE (H-6-06)	--	--	--	180	"
H	EXISTING CABLE SOUTH TO POLE 33+33TB (H-1-11)	--	--	--	15	INTERCEPT / EXTEND EXISTING CABLE
H	POLE 33+33TB (H-1-11) TO POLE 35+79TB (H-1-12)	--	--	--	250	--
H	POLE 35+79TB (H-1-12) TO LPB-W-H-1-1	--	--	--	125	--
H	LPB-W-H-1-1 TO POLE 22+65CE (H-1-13)	--	60	--	70	1 1/4-INCH DUCT IN 3-INCH CONDUIT
H	LPB-W-H-1-1 TO POLE 24+15CE (H-1-14)	--	--	--	150	--
H	POLE 24+15CE (H-1-14) TO LPB-W-H-1-2	--	--	--	190	--
H	LPB-W-H-1-2 TO POLE 26+00CE (H-1-15)	--	--	50	60	1 1/4-INCH DUCT IN 3-INCH CONDUIT
H	LPB-W-H-1-2 TO POLE 27+61CE (H-1-16)	--	--	--	105	--
PB	EXISTING POLE 15+55WMS (H-1-22) TO POLE 13+58WMS (H-1-21)	197	--	--	--	WHITMAN MIDDLE SCHOOL PARKING LOT
PB	POLE 13+58WMS (H-1-21) TO POLE 11+89WMS (H-1-20)	169	--	--	--	"
PB	POLE 11+89WMS (H-1-20) TO STUBOUT SOUTH	15	--	--	--	WHITMAN MIDDLE SCHOOL PARKING LOT
SUBTOTAL PROJECT ID 1060-34-84		**381**	**250**	**115**	**2,545**	
PROJECT ID 1060-35-85						
H	EXISTING CABLE SOUTH TO POLE 8+39CE (H-4-13)	--	--	--	15	INTERCEPT / EXTEND EXISTING CABLE
H	POLE 8+39CE (H-4-13) TO LPB-W-H-4-1	--	--	--	40	--
H	LPB-W-H-4-1 TO POLE 8+10CE (H-4-15)	--	--	75	80	1 1/4-INCH DUCT IN 3-INCH CONDUIT
H	LPB-W-H-4-1 TO POLE 9+36CE (H-4-14)	--	80	--	115	"
H	POLE 27+61CE (H-1-16) TO LPB-W-H-1-3	--	--	--	170	--
H	LPB-W-H-1-3 TO POLE 29+37CE (H-1-17)	--	--	35	45	1 1/4-INCH DUCT IN 3-INCH CONDUIT
H	POLE 29+37CE (H-1-17) TO UDL 30+33CE (H-1-18)	--	--	--	120	--
H	LPB-W-H-1-3 TO UDL 30+32CE (H-1-19)	--	--	--	110	--
XX	POLE 31+13CE (XX-2-51) TO POLE 32+49CE (XX-2-50)	--	--	--	140	--
XX	POLE 32+49CE (XX-2-50) TO LPB-W-XX-2-22JB1	--	--	50	160	1 1/4-INCH DUCT IN 3-INCH CONDUIT
SUBTOTAL PROJECT ID 1060-35-85		**0**	**80**	**160**	**995**	
	CONTRACT TOTAL (1100)	**381**	**330**	**275**	**3,540**	

3

CATEGORY 1100
LIGHTING PULL BOXES QUANTITIES

653.0905 REMOVING PULL BOXES
SPV.0060.1005 LIGHTING PULL BOXES WAUWATOSA

	SYSTEM	LABEL	LOCATION	OFFSET	653.0905 REMOVING PULL BOXES EACH	SPV.0060.1005 LIGHTING PULL BOXES WAUWATOSA EACH	COMMENTS
PROJECT ID 1060-34-84							
	H	LPB-W-H-6-2	14+47CE	35.5' RIGHT	--	1	--
	H	LPB-W-H-6-2	17+88CE	30.0' RIGHT	--	1	--
	H	LPB-W-H-6-3			--	1	FIELD VERIFY IF NEEDED
	H	LPB-W-H-6-4			--	1	FIELD VERIFY IF NEEDED
	H	LPB-W-H-1-1	22+60CE	29.0' RIGHT	--	1	--
	H	H-1-14JB	25+97CE	22.7' RIGHT	1	--	EXISTING
	H	LPB-W-H-1-2	26+11CE	21.8' RIGHT	--	1	--
SUBTOTAL PROJECT ID 1060-34-84					**1**	**6**	
PROJECT ID 1060-35-85							
	H	LPB-W-H-4-1	8+25CE	35.6' RIGHT	--	1	--
	H	LPB-W-H-1-4	29+32CE	16.5' RIGHT	--	1	--
	XX	XX-2-22JB	32+40CE	25.0' LEFT	1	--	EXISTING
SUBTOTAL PROJECT ID 1060-35-85					**1**	**2**	
CONTRACT TOTAL (1100)					**2**	**8**	

CATEGORY 1100
LIGHTING WIRE QUANTITIES
120/240 VAC 3-WIRE ISOLATED NEUTRAL SYSTEM

655.0620 ELECTRICAL WIRE LIGHTING 8 AWG
655.0630 ELECTRICAL WIRE LIGHTING 4 AWG

SYSTEM	NETWORK	LOCATION TO LOCATION	DISTANCE	655.0620 ELECTRICAL WIRE LIGHTING 8 AWG LF	655.0630 ELECTRICAL WIRE LIGHTING 4 AWG LF	COMMENTS
PROJECT ID 1060-34-84						
H	B / N / GND	EXISTING CABLE SOUTH TO POLE 11+78CE (H-5-15)	15	15	30	INTERCEPT / EXTEND EXISTING CABLE
H	B / N / GND	POLE 11+78CE (H-5-15) TO POLE 11+20CE (H-5-16)	165	165	330	--
H	B / N / GND	EXISTING CABLE SOUTH TO POLE 125+87TS (H-6-13)	15	15	30	INTERCEPT / EXTEND EXISTING CABLE
H	B / N / GND	POLE 125+87TS (H-6-13) TO LPB-W-H-6-1	85	85	170	--
H	B / N / GND	LPB-W-H-6-1 TO POLE 12+64CE (H-6-15)	180	180	360	--
H	B / N / GND	LPB-W-H-6-1 TO POLE 14+38CE (H-6-14)	80	80	160	--
H	B / N / GND	EXISTING CABLE SOUTH TO POLE 35+89TA (H-6-04)	15	15	30	INTERCEPT / EXTEND EXISTING CABLE
H	B / N / GND	POLE 35+89TA (H-6-04) TO LPB-W-H-6-2	65	65	130	--
H	B / N / GND	LPB-W-H-6-2 TO POLE 15+55CE (H-6-08)	230	230	460	--
H	B / N / GND	LPB-W-H-6-2 TO POLE 17+93CE (H-6-07)	70	70	140	--
H	B / N / GND	LPB-W-H-6-2 TO POLE 19+26CE (H-6-05)	160	160	320	--
H	B / N / GND	POLE 17+93CE (H-6-07) TO POLE 19+22 (H-6-16)	140	140	280	--
H	B / N / GND	POLE 19+22CE (H-6-16) TO POLE 21+02 (H-6-17)	180	180	360	STRUCTURE MOUNT
H	B / N / GND	POLE 19+26CE (H-6-05) TO POLE 21+06CE (H-6-06)	180	180	360	"
H	B / N / GND	EXISTING CABLE SOUTH TO POLE 33+33TB (H-1-11)	15	15	30	INTERCEPT / EXTEND EXISTING CABLE
H	B / N / GND	POLE 33+33TB (H-1-11) TO POLE 35+79TB (H-1-12)	250	250	500	--
H	B / N / GND	POLE 35+79TB (H-1-12) TO LPB-W-H-1-1	125	125	250	--
H	B / N / GND	LPB-W-H-1-1 TO POLE 22+65CE (H-1-13)	70	70	140	--
H	B / N / GND	LPB-W-H-1-1 TO POLE 24+15CE (H-1-14)	150	150	300	--
H	B / N / GND	POLE 24+15CE (H-1-14) TO LPB-W-H-1-2	190	190	380	--
H	B / N / GND	LPB-W-H-1-2 TO POLE 26+00CE (H-1-15)	60	60	120	--
H	B / N / GND	LPB-W-H-1-2 TO POLE 27+61CE (H-1-16)	105	105	210	--
PB	B / N / GND	EXISTING POLE 15+55WMS (H-1-22) TO POLE 13+58WMS (H-1-21)	197	197	394	WHITMAN MIDDLE SCHOOL PARKING LOT
PB	B / N / GND	POLE 13+58WMS (H-1-21) TO POLE 11+89WMS (H-1-20)	169	169	338	"
SUBTOTAL PROJECT ID 1060-34-84				**2,911**	**5,822**	
PROJECT ID 1060-35-85						
H	B / N / GND	EXISTING CABLE SOUTH TO POLE 8+39CE (H-4-13)	15	15	30	INTERCEPT / EXTEND EXISTING CABLE
H	B / N / GND	POLE 8+39CE (H-4-13) TO LPB-W-H-4-1	40	40	80	--
H	B / N / GND	LPB-W-H-4-1 TO POLE 8+10CE (H-4-15)	80	80	160	--
H	B / N / GND	LPB-W-H-4-1 TO POLE 9+36CE (H-4-14)	115	115	230	--
H	B / N / GND	POLE 27+61CE (H-1-16) TO LPB-W-H-1-3	170	170	340	--
H	B / N / GND	LPB-W-H-1-3 TO POLE 29+37CE (H-1-17)	45	45	90	--
H	B / N / GND	POLE 29+37CE (H-1-17) TO UDL 30+33CE (H-1-18)	120	120	240	--
H	B / N / GND	LPB-W-H-1-3 TO UDL 30+32CE (H-1-19)	110	110	220	--
XX	B / N / GND	POLE 31+13CE (XX-2-51) TO POLE 32+49CE (XX-2-50)	140	140	280	--
XX	B / N / GND	POLE 32+49CE (XX-2-50) TO LPB-W-XX-2-22JB1	160	160	320	CONNECT TO THE EXISTING PB
SUBTOTAL PROJECT ID 1060-35-85				**995**	**1,990**	
		CONTRACT TOTAL (1100)		**3,906**	**7,812**	

CATEGORY 1100
LIGHT POLE QUANTITIES

654.0105	CONCRETE BASES TYPE 5
655.0610	ELECTRICAL WIRE LIGHTING 12 AWG
657.0322	POLES TYPE 5-ALUMINUM
657.0610	LUMINAIRE ARMS SINGLE MEMBER 4 1/2-INCH CLAMP 6-FT
659.1115	LUMINAIRES UTILITY LED A
659.1125	LUMINAIRES UTILITY LED C
659.1210	LUMINAIRES UNDERDECK LED B
SPV.0060.1006	CONCRETE BASES TYPE 5 SPECIAL
SPV.0060.1007	POLES TYPE 5-ALUMINUM 25-FT

SYSTEM	LABEL	STATION	OFFSET	654.0105 CONCRETE BASES TYPE 5 EACH	655.0610 ELECTRICAL WIRE LIGHTING 12 AWG L.F.	657.0322 POLES TYPE 5 ALUMINUM EACH	657.0610 LUMINAIRE ARMS SINGLE MEMBER 4 1/2-INCH CLAMP 6-FT EACH	659.1115 LUMINAIRES UTILITY LED A EACH	659.1125 LUMINAIRES UTILITY LED C EACH	659.1210 LUMINAIRES UNDERDECK LED B EACH	SPV.0060.1006 CONCRETE BASES TYPE 5 SPECIAL EACH	SPV.0060.1007 POLES TYPE 5 ALUMINUM 25-FT EACH	COMMENTS
PROJECT ID 1060-34-84													
H	H-5-15	11+78CE	74.7' RIGHT	1	102	--	1	1	--	--	--	1	N. 115TH STREET
H	H-5-16	11+20CE	29.0' LEFT	1	117	1	1	--	1	--	--	--	--
H	H-6-15	12+64CE	29.2' RIGHT	1	117	1	1	--	1	--	--	--	--
H	H-6-14	14+38CE	29.2' LEFTT	1	117	1	1	--	1	--	--	--	--
H	H-6-13	125+87TS	17.7' LEFTT	1	102	--	1	1	--	--	--	1	N. 114TH STREET
H	H-6-08	15+55CE	29.1' RIGHT	1	117	1	1	--	1	--	--	--	--
H	H-6-07	17+93CE	30.1' LEFT	1	117	1	1	--	1	--	--	--	--
H	H-6-04	35+89TA	17.8' LEFT	1	102	--	1	1	--	--	--	1	N. 113TH STREET
H	H-6-16	19+22CE	40.1' LEFT	--	120	--	1	--	1	--	--	1	STRUCTURE MOUNT
H	H-6-05	19+26CE	37.1' RIGHT	--	120	--	1	--	1	--	--	1	"
H	H-6-17	21+02CE	40.1' LEFT	--	120	--	1	--	1	--	--	1	"
H	H-6-06	21+06CE	37.1' RIGHT	--	120	--	1	--	1	--	--	1	"
H	H-1-11	33+33TB	17.3' RIGHT	1	102	--	1	1	--	--	--	1	N. 112TH STREET
H	H-1-12	35+79TB	18.2' RIGHT	1	102	--	1	1	--	--	--	1	N. 112TH STREET
H	H-1-13	22+65CE	30.0' LEFT	1	117	1	1	--	1	--	--	--	--
H	H-1-14	24+15CE	28.0' RIGHT	1	117	1	1	--	1	--	--	--	--
H	H-1-15	26+00CE	30.2' LEFT	1	117	1	1	--	1	--	--	--	--
PB	H-1-20	11+89WMS	96.7' LEFT	--	120	1	1	--	1	--	1	--	WHITMAN MIDDLE SCHOOL PARKING LOT
PB	H-1-21	13+58WMS	97.0' LEFT	--	120	1	1	--	1	--	1	--	WHITMAN MIDDLE SCHOOL PARKING LOT
SUBTOTAL PROJECT ID 1060-34-84				**13**	**2,166**	**10**	**19**	**5**	**14**	**0**	**2**	**9**	
PROJECT ID 1060-35-85													
H	H-4-13	8+39CE	69.0' RIGHT	1	102	--	1	1	--	--	--	--	N. 116TH STREET
H	H-4-15	8+10CE	34.0' LEFT	1	117	1	1	--	1	--	--	--	--
H	H-4-14	9+36CE	29.1' RIGHT	1	117	1	1	--	1	--	--	--	--
H	H-1-16	27+61CE	16.0' RIGHT	1	117	1	1	--	1	--	--	--	--
H	H-1-17	29+37CE	16.9' LEFT	1	117	1	1	--	1	--	--	--	--
H	H-1-18	30+33CE	20.3' LEFT	--	50	--	--	--	--	1	--	--	UNDERDECK LIGHTING
H	H-1-19	30+32CE	19.4' RIGHT	--	50	--	--	--	--	1	--	--	"
XX	XX-2-51	31+13CE	15.8' LEFT	1	117	1	1	1	1	--	--	--	--
XX	XX-2-50	32+49CE	26.4' LEFT	1	117	1	1	--	1	--	--	--	--
SUBTOTAL PROJECT ID 1060-35-85				**7**	**904**	**6**	**7**	**2**	**6**	**2**	**0**	**0**	
CONTRACT TOTAL (1100)				**20**	**3,070**	**16**	**26**	**7**	**20**	**2**	**2**	**9**	

PROJECT NO: 1060-34-84 / 1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	MISCELLANEOUS QUANTITIES	SHEET: E

FTMS BASES, POLES AND EQUIPMENT

CATEGORY	ROADWAY	ITEM ID.	672.0280 BASE CAMERA POLE 80-FT EACH	673.0225.S INSTALL POLE MOUNTED CABINET EACH	675.0300 INSTALL MOUNTED CONTROLLER MICROWAVE DETECTOR ASSEMBLY EACH	675.0400.S INSTALL ETHERNET SWITCH EACH	677.0100 INSTALL CAMERA POLE EACH	677.0200 INSTALL CAMERA ASSEMBLY EACH	SPV.0060.2012 INSTALL 5.8 GHZ ETHERNET BRIDGE EACH	SPV.0060.2013 GROUND ROD EACH
1300	IH 41									
		CCTV-40-0040	1	1	2	1	1	1	1	1
		TOTALS	1	1	2	1	1	1	1	1

FTMS CONDUIT AND WIRE

CATEGORY	ROADWAY	ITEM ID	LINEAR DISTANCE	652.0125 CONDUIT RIGID METALLIC 2-INCH LF	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	655.0510 ELECTRICAL WIRE TRAFFIC SIGNALS 12 AWG LF	655.0625 ELECTRICAL WIRE LIGHTING 6 AWG LF	671.0132 CONDUIT HDPE 3-DUCT 2-INCH LF
1300	IH 41							
		EXCV465 - CV463	200	--	--	218	--	200
		CV463 - PB464	25	--	50	34	--	--
		PB464 - CCTV-40-0040	10	10	20	19	30	--
		MB22CE - PB463	10	--	20	--	30	--
		PB463 - PB464	50	--	50	--	150	--
		CV463 - CV461	130	--	--	139	--	130
		TOTALS		10	140	410	210	330

FTMS PULL BOXES & COMMUNICATION VAULTS

CATEGORY	ROADWAY	ITEM ID	652.0700.S INSTALL CONDUIT INTO EXISTING ITEM EACH	653.0140 PULL BOXES STEEL 24 X 42 - INCH EACH	673.0105 COMMUNICATION VAULT TYPE 1 EACH
1300	IH 41				
		EXCV465	1	--	--
		CV463	--	--	1
		PB463	--	1	--
		PB464	--	1	--
		CV461	--	--	1
		TOTALS	1	2	2

FTMS ELECTRICAL SERVICE

CATEGORY	ROADWAY	ITEM ID	656.0200.2001 ELECTRICAL SERVICE METER BREAKER PEDESTAL (MB22CE) LS	656.0500.2001 ELECTRICAL SERVICE BREAKER DISCONNECT BOX (CB-CCTV-40-0040) LS
1300	IH 41			
		MB22CE	1	--
		CB-CCTV-40-0040	--	1
		TOTALS	1	1

MISCELLANEOUS ITEMS

CATEGORY	ROADWAY	670.0100.2001 FIELD SYSTEM INTEGRATOR (FTMS) LS	670.0200.2001 ITS DOCUMENTATION (FTMS) LS	678.0500.2001 COMMUNICATION SYSTEM TESTING (FTMS) LS
1300	IH 41			
	PROJECT	1	1	1
	TOTALS	1	1	1

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SANITARY SEWER ITEMS

CATEGORY	ROADWAY	STATION	OFFSET		STATION	OFFSET	SPV.0060.5010 SANITARY MANHOLE TYPE A EACH	SPV.0060.5020 SANITARY MANHOLE TYPE D EACH	SPV.0060.5030 REMOVING SANITARY MANHOLE WAUWATOSA EACH	SPV.0060.5080 ADJUSTING SANITARY MANHOLE EACH	SPV.0060.5090 RECONSTRUCT SANITARY MANHOLE EACH	SPV.0060.5110 ABANDON SANITARY SEWER SERVICE EACH	SPV.0090.5010 SANITARY SEWER 12-INCH PVC LF	SPV.0090.5020 ABANDONING SANITARY SEWER 12-INCH LF	SPV.0090.5030 REMOVING SANITARY SEWER PIPE LF
PROJECT ID 1060-34-84															
	MAYFAIR ROAD														
		-	-	-	592M+48.68	47.11' RT	--	--	--	--	--	1	--	--	--
		-	-	-	596M+69.80	44.79' LT	--	--	--	--	--	1	--	--	--
	112TH STREET														
		-	-	-	35TB+58.78	0.87' LT	--	--	--	--	--	1	--	--	--
	CATEGORY TOTAL						0	0	0	0	0	3	0	0	0
7020	MAYFAIR ROAD														
		593M+39.86	49.77' LT	-	593M+96.31	41.85' LT	--	--	--	--	--	--	57	--	--
		593M+96.31	41.85' LT	-	596M+14.80	45.13' LT	--	--	--	--	--	--	219	--	--
		-	-	-	593M+96.31	41.85' LT	1	--	--	--	--	--	--	--	--
		-	-	-	596M+14.80	45.13' LT	--	1	--	--	--	--	--	--	--
		-	-	-	594M+59.55	45.90, LT	--	--	1	--	--	--	--	--	--
		593M+67.97	48.63' LT	-	594M+59.55	45.90' LT	--	--	--	--	--	--	--	90	--
		594M+39.86	45.77' LT	-	593M+67.97	48.63'LT	--	--	--	--	--	--	--	--	28
		594M+59.55	45.90' LT	-	596M+14.80	45.13' LT	--	--	--	--	--	--	--	--	155
	CENTER STREET														
		-	-	-	18CE+43.81	0.85' LT	--	--	--	--	1	--	--	--	--
		-	-	-	21CE+72.45	0.26' LT	--	--	--	--	1	--	--	--	--
		-	-	-	24CE+03.48	0.40' RT	--	--	--	1	--	--	--	--	--
7020	CATEGORY TOTAL						1	1	1	1	2	0	276	90	183
	CONTRACT TOTAL						1	1	1	1	2	3	276	90	183

CATEGORY 1000 UNLESS OTHERWISE NOTED

WATER MAIN ITEMS

CATEGORY	ROADWAY	STATION	OFFSET	SPV.0060.5040 WATER MAIN VERTICAL OFFSET EACH	SPV.0060.5050 ADJUSTING WATER VALVES EACH	SPV.0060.5060 ADJUSTING WATER MANHOLE EACH	SPV.0060.5070 ABANDONING WATER MANHOLE EACH	SPV.0060.5100 ABANDON WATER SERVICE EACH
PROJECT ID 1060-34-84								
	MAYFAIR ROAD							
		592M+08.55	52.15' RT	--	--	--	--	1
		596M+73.47	54.00' LT	--	--	--	--	1
	112TH STREET							
		35TB+61.06	8.73' RT	--	--	--	--	1
		CATEGORY TOTAL		0	0	0	0	3
7030	MAYFAIR ROAD							
		595M+85	50' LT	1	--	--	--	--
	CENTER STREET							
		15CE+21.65	59.13' RT	--	--	1	--	--
		15CE+25.04	44.14' RT	--	1	--	--	--
		15CE+44.00	15.58' RT	--	--	1	--	--
		16CE+08.86	44.95' LT	--	1	--	--	--
		16CE+09.63	13.89' RT	--	1	--	--	--
		18CE+13.75	15.67' RT	--	1	--	--	--
		18CE+38.44	51.18' RT	--	1	--	--	--
		18CE+38.54	45.01' RT	--	1	--	--	--
		18CE+51.87	42.57' RT	--	--	--	1	--
		18CE+55.06	7.23' RT	--	1	--	--	--
		21CE+78.98	13.27' LT	--	1	--	--	--
		21CE+83.05	48.42' RT	--	1	--	--	--
		21CE+84.92	40.91'RT	--	1	--	--	--
		21CE+99.95	13.28' LT	--	1	--	--	--
		22CE+03.70	8.16' LT	--	--	--	1	--
		22CE+13.04	13.25' LT	--	1	--	--	--
		23CE+28.05	58.93' LT	--	1	--	--	--
		23CE+30.78	10.66' LT	--	1	--	--	--
		23CE+37.49	7.94' LT	--	--	1	--	--
7030		CATEGORY TOTAL		1	14	3	2	0
		CONTRACT TOTALS		1	14	3	2	3

WATER MAIN ITEMS

ROADWAY	STATION	OFFSET	SPV.0060.5120 HYDRANT ASSEMBLY RELOCATION EACH
PROJECT ID 1060-35-85			
CENTER STREET			
	5CE+25.34	48.10' RT	1
	8CE+84.04	44.85' RT	1
CONTRACT TOTAL			2

CATEGORY 1000 UNLESS OTHERWISE NOTED

R/W PROJECT NUMBER	SHEET NUMBER	TOTAL SHEETS
1060-33-26		
FEDERAL PROJECT NUMBER	4.1	
1060-33-26		

PLAT OF RIGHT-OF-WAY REQUIRED FOR

USH 45
SWAN BLVD. TO BURLEIGH STREET
MILWAUKEE COUNTY

CONSTRUCTION PROJECT NUMBER
1060-33-84 1060-34-84
1060-33-83 1060-33-86 1060-35-85

CONVENTIONAL ABBREVIATIONS

ACCESS RIGHTS	AR	REEL	R.
ACRES	AC.	REFERENCE LINE	RL
AND OTHERS	ET.AL.	RELEASE OF RIGHTS	ROR
CENTERLINE	CL	REMAINING	REM.
CERTIFIED SURVEY MAP	CSM	RIGHT-OF-WAY	R/W
CORNER	COR.	SECTION	SEC.
DOCUMENT	DOC.	STATION	STA.
EASEMENT	EASE.	TEMPORARY LIMITED EASEMENT	TLE
IMAGE	I.	VOLUME	V.
HIGHWAY EASEMENT	H.E.	**CURVE DATA**	
LAND CONTRACT	LC	LONG CHORD	LCH
MONUMENT	MON.	LONG CHORD BEARING	LCB
PAGE	P.	RADIUS	R
PERMANENT LIMITED EASEMENT	PLE	DEGREE OF CURVE	D
PROPERTY LINE	PL	CENTRAL ANGLE OR DELTA	DELTA
RECORDED AS	(100')	LENGTH OF CURVE	L
		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	SIGN	SLOPE INTERCEPTS	
SECTION CORNER MONUMENT	⊕	CORPORATE LIMITS	
SECTION CORNER SYMBOL	T N R E S W	ACCESS RESTRICTED (BY PREVIOUS ACQUISITION/CONTROL)	
FEE (HATCH VARIES)		ACCESS RESTRICTED (BY ACQUISITION)	
TEMPORARY LIMITED EASEMENT		NO ACCESS (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		⌀	⌀
UTILITY PEDESTAL		⌑	⌑
ELECTRIC TOWER		⊠	

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, MILWAUKEE COUNTY, NAD83 (2007) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

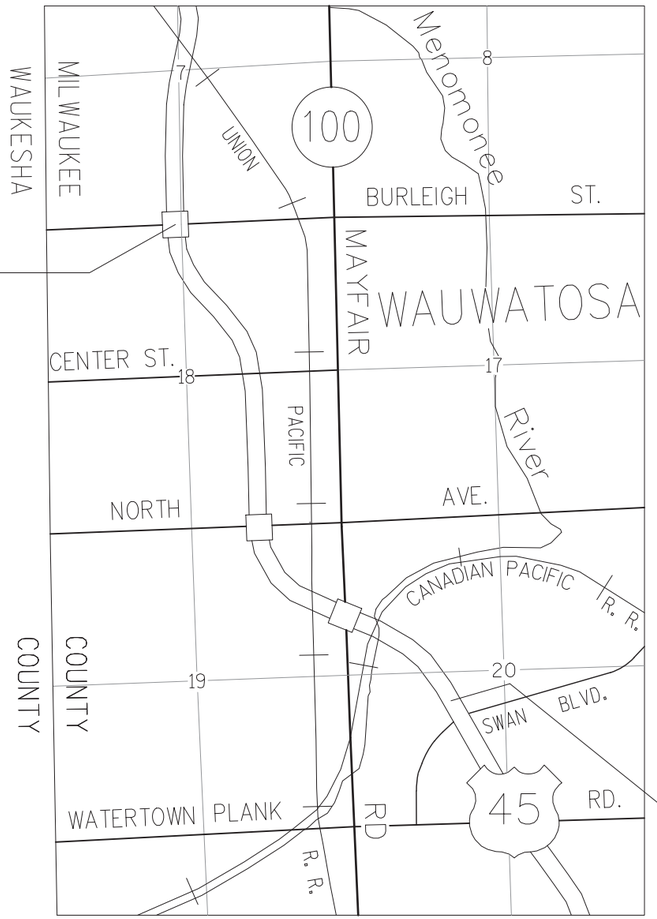
RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICAL ¾" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

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.

FOR THE LATEST ACCESS / DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA.

R-21-E



T-7-N

MILWAUKEE COUNTY

END RELOCATION ORDER
SECTION LINE

STA 492+06.77

1.59' SOUTH AND 91.13' WEST
OF THE SOUTH CORNER OF
SECTION 7, T-7-N, R-21-E
Y=312723.00
X=566254.57

BEGIN RELOCATION ORDER

STA 384+00.00

1931.52' EAST AND 830.17' SOUTH
OF THE WEST CORNER OF
SECTION 20, T-7-N, R-21-E
Y=303969.98
X=571013.46

N

SCALE 0 .5MI. 1MI.

LAYOUT

TOTAL NET LENGTH OF CENTERLINE = 2.05 MI.

REVISION DATE
07-15-2014
09-24-2014
04-02-2015
06-11-2015

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED FOR THE DEPARTMENT

DATE: 11-07-2013 Robert D Ruffolo (Signature)

E

FILE NAME : N:\PDS\C3D\ROW\10603326\RW\040401_RT.DWG PLOT DATE : 6/11/2015 6:21 AM PLOT BY : KRAUSE, PAUL H

USH 45 1060-33-26 4.01

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSED ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT.

SF = SQUARE FEET * DENOTES AREAS COMPUTED

AREAS SHOWN IN THE TOTAL ACRES COLUMN MAY BE APPROXIMATE AND ARE DERIVED FROM TAX ROLLS OR OTHER AVAILABLE SOURCES AND MAY NOT INCLUDE LANDS OF THE OWNER WHICH ARE NOT CONTIGUOUS TO THE AREA TO BE ACQUIRED.

PARCEL NUMBER	SHEET NUMBER	OWNER	INTEREST REQUIRED	TOTAL ACRES	NEW	EXISTING	TOTAL	REMAINING ACRES	TEMP. ACRES	PERM. ACRES	PARCEL NUMBER
1	4.11	FELTON & MARIA BRAZIL	FEE	0.276	0.276	0.000	0.276	0.000	0.000	0.000	1
2	4.17	BRIAN E. & IRENE WALKER	FEE	0.224	0.224	0.000	0.224	0.000	0.000	0.000	2
3(3)	4.17	KENNETH R. & JANET L. DALLMANN	TLE	0.448	0.000	0.000	0.000	0.448	0.022	0.000	3(3)
4(3)	4.17	ADAM E. KLEIN	TLE	0.448	0.000	0.000	0.000	0.448	0.056	0.000	4(3)
5(3)	4.17	GREGORY J. & NICOLE K. WERRY	TLE	0.224	0.000	0.000	0.000	0.224	0.086	0.000	5(3)
6(3)	4.18	COURTNEY G. THOMEY	TLE	0.128	0.000	0.000	0.000	0.128	0.033	0.000	6(3)
7(3)	4.18	JOHN LYNCH	PLE, TLE	0.193	0.000	0.000	0.000	0.193	0.036	0.016	7(3)
8(3)	4.18	JOHN C. & TERESE M. BEAUCHAMP	TLE	0.193	0.000	0.000	0.000	0.193	0.035	0.000	8(3)
9(3)	4.18	MARIANO B. & NORALYN B. DAVID	TLE	0.128	0.000	0.000	0.000	0.128	0.024	0.000	9(3)
10(4)	4.18	KEVIN & MELINDA KROEGER	TLE	0.133	0.000	0.000	0.000	0.133	0.030	0.000	10(4)
11(4)	4.18	ARLEEN JEAN LEMMON	TLE	0.124	0.000	0.000	0.000	0.124	0.047	0.000	11(4)
12(4)	4.18	GIBSON REVOCABLE LIVING TRUST	TLE	0.122	0.000	0.000	0.000	0.122	0.017	0.000	12(4)
13(2)	4.19	SCHOOL DISTRICT OF WAUWATOSA	TLE	21.372	0.000	0.000	0.000	21.372	3.793	0.000	13(2)
14(2)	4.20	SCHOOL DISTRICT OF WAUWATOSA	TLE	34.918	0.000	0.000	0.000	34.918	2.949	0.000	14(2)
15(3)	4.10	DYNAMIS PROPERTIES LLC	FEE	0.386	0.386	0.000	0.386	0.000	0.000	0.000	15(3)
16(5)	4.14	WISCONSIN TELEPHONE COMPANY	FEE TLE	0.094	0.007	0.000	0.007	0.087	0.009	0.000	16(5)
17(5)	4.14	F&F ASSOCIATES LLC	FEE TLE	0.229	0.007	0.000	0.007	0.222	0.014	0.000	17(5)
18(5)	4.14	JOHN AND MARY FOX	FEE TLE	0.179	8 SF	0.000	8 SF	0.179	0.015	0.000	18(5)
19(5)	4.14	AJS INVESTMENTS LLC	FEE TLE	0.179	0.001	0.000	0.001	0.178	0.025	0.000	19(5)
20(5)	4.14	PATCH MARITAL TRUST	FEE TLE	0.124	8 SF	0.000	8 SF	0.124	0.020	0.000	20(5)
21(5)	4.14	STK LLC	TLE	0.234	0.000	0.000	0.000	0.234	0.020	0.000	21(5)
22(5)	4.14	J&K NORTH LLC	TLE	0.110	0.000	0.000	0.000	0.110	0.009	0.000	22(5)
23(5)	4.16	JUVENCIO & DEBORAH J. ESPARZA	TLE	0.121	0.000	0.000	0.000	0.121	0.017	0.000	23(5)
24(5)	4.16	JUVENCIO & DEBIE ESPARZA	TLE	0.121	0.000	0.000	0.000	0.121	0.015	0.000	24(5)
25(5)	4.16	IKAROS 6 LLC	TLE	0.121	0.000	0.000	0.000	0.121	0.015	0.000	25(5)
26(5)	4.16	RUETA LLC	TLE	0.183	0.000	0.000	0.000	0.183	0.023	0.000	26(5)
27(5)	4.16	GIUSEPPE & JOSEPHINE L. MILITELLO	TLE	0.183	0.000	0.000	0.000	0.183	0.024	0.000	27(5)
28(5)	4.16	SOMCHINTANA & MANU RATARASARN	TLE	0.162	0.000	0.000	0.000	0.162	0.020	0.000	28(5)
29(5)	4.16	JACQUELYNE PATRICIA COAKLEY 1997 REV. TRUST	TLE	0.121	0.000	0.000	0.000	0.121	0.009	0.000	29(5)
30(5)	4.16	THOMAS P. & DEBORAH J. MOERTL ET. AL.	TLE	0.220	0.000	0.000	0.000	0.220	0.024	0.000	30(5)
31(5)	4.16	MULTIPLE LISTING SERVICE INC.	FEE TLE	0.220	0.001	0.000	0.001	0.219	0.033	0.000	31(5)
32(5)	4.16	SHEILA A. FLEISCHER	TLE	0.117	0.000	0.000	0.000	0.117	0.002	0.000	32(5)
33(5)	4.16	TAMARA C. JONES	TLE	0.122	0.000	0.000	0.000	0.122	0.001	0.000	33(5)
34(5)	4.16	DEBORAH A. NEAL	TLE	0.117	0.000	0.000	0.000	0.117	0.002	0.000	34(5)
35(5)	4.16	REGIS P. & ELIZABETH A. DI GIACOMO	TLE	0.149	0.000	0.000	0.000	0.149	0.006	0.000	35(5)
36(5)	4.16	KAY A. CASPER	TLE	0.149	0.000	0.000	0.000	0.149	0.006	0.000	36(5)
37(5)	4.16	KATHLEEN A. SZUKALSKI	TLE	0.149	0.000	0.000	0.000	0.149	0.006	0.000	37(5)
38(5)	4.16	RYAN CEPICAN	TLE	0.149	0.000	0.000	0.000	0.149	0.003	0.000	38(5)
39(5)	4.16	GERALD WILLIAMSON	TLE	0.373	0.000	0.000	0.000	0.373	0.006	0.000	39(5)
40(5)	4.16	HAKAM SINGH	TLE	0.149	0.000	0.000	0.000	0.149	0.003	0.000	40(5)

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PARCEL NUMBER	SHEET NUMBER	OWNER	INTEREST REQUIRED	TOTAL ACRES		NEW	EXISTING	TOTAL	REMAINING ACRES	TEMP. ACRES	PERM. ACRES	PARCEL NUMBER
41(5)	4.16	LORRAINE L. POZAYT	TLE	0.125		0.000	0.000	0.000	0.125	0.005	0.000	41(5)
42(5)	4.16	RICHARD & LAUREN GIVENS	TLE	0.251		0.000	0.000	0.000	0.251	0.005	0.000	42(5)
43(5)	4.16	DAVID W. & NORMA I. BROADEN	TLE	0.251		0.000	0.000	0.000	0.251	0.005	0.000	43(5)
44(5)	4.16	ROBERT R. & CAROLE A. HOERIG	TLE	0.251		0.000	0.000	0.000	0.251	0.002	0.000	44(5)
45(5)	4.16	WANDA L. MORRISON	TLE	0.125		0.000	0.000	0.000	0.125	0.003	0.000	45(5)
46(5)	4.16	GREGORY A. & JOAN M. BLANEY	TLE	0.125		0.000	0.000	0.000	0.125	0.004	0.000	46(5)
47(5)	4.16, 4.18	KENNETH G. & NORMA W. WAGNER	TLE	0.125		0.000	0.000	0.000	0.125	0.005	0.000	47(5)
48(5)	4.16	SG LLC	FEE TLE	0.331		0.001	0.000	0.001	0.330	0.042	0.000	48(5)
49(5)	4.16	DENNISL. & BARBARA L. WANLESS	TLE	0.386		0.000	0.000	0.000	0.386	0.009	0.000	49(5)
50(5)	4.18	MICHAEL A. & LINDA J. DOLHUN	TLE	0.125		0.000	0.000	0.000	0.125	0.005	0.000	50(5)
51(5)	4.18	JUDITH A. & PATRICIA J. ANDERSON	TLE	0.125		0.000	0.000	0.000	0.125	0.005	0.000	51(5)
52(5)	4.18	RONALD & CAROL H. SCHULLS	TLE	0.125		0.000	0.000	0.000	0.125	0.005	0.000	52(5)
53(5)	4.18	ROBERT E. & BEVERLY J. GRUDZINSKI	TLE	0.122		0.000	0.000	0.000	0.122	0.005	0.000	53(5)
54(5)	4.18	GERARD E. & ANN M. STEIN	TLE	0.179		0.000	0.000	0.000	0.179	0.007	0.000	54(5)
55(5)	4.18	JOSEPH E. & MICHELLE L. ROY	TLE	0.179		0.000	0.000	0.000	0.179	0.007	0.000	55(5)
56(5)	4.18	JILL JANKA	TLE	0.119		0.000	0.000	0.000	0.119	0.005	0.000	56(5)
57(5)	4.18	CARL & ELOISE SCHWARZ	TLE	0.119		0.000	0.000	0.000	0.119	0.003	0.000	57(5)
58(5)	4.21	RICKERT INDUSTRIES INC.	TLE	1.961		0.000	0.000	0.000	1.961	0..080	0.000	58(5)
59(5)	4.25, 4.26	CITY OF WAUWATOSA	TLE	19.265		0.000	0.000	0.000	19.265	7.500	0.000	59(5)
60(5)	4.11	RUSS DARROW WAUWATOSA REAL ESTATE LLC	FEE TLE	4.848		0.128	0.000	0.128	4.720	0.526	0.000	60(5)
61(5)	4.11	COLE MT WAUWATOSA WI LLC	TLE	5.238		0.000	0.000	0.000	5.238	0.122	0.000	61(5)
62(5)	4.11, 4.12	UNION PACIFIC RAILROAD	HE TLE	VAST		0.996	0.000	0.996	VAST	4.525	0.000	62(5)
63(5)	4.15	MAYFAIR MANOR APARTMENTS LLC	TLE	2.872		0.000	0.000	0.000	2.872	0.133	0.000	63(5)
64(5)	4.15	STEPHEN GREEN	TLE	0.151		0.000	0.000	0.000	0.151	0.011	0.000	64(5)
65(5)	4.15	JUDITH S. KLAPAT	TLE	0.151		0.000	0.000	0.000	0.151	0.011	0.000	65(5)
66(5)	4.15	DELBERT A. SR. & EVA KOLBERG LIFE ESTATE	TLE	0.151		0.000	0.000	0.000	0.151	0.025	0.000	66(5)
67(5)	4.15	THOMAS J. & TIFFANY J. SMITH	TLE	0.151		0.000	0.000	0.000	0.151	0.038	0.000	67(5)
68(5)	4.15	STEVEN C. & SANDRA L. KANTIN	TLE	0.151		0.000	0.000	0.000	0.151	0.009	0.000	68(5)
69(5)	4.15	WILLIAM F. JR. & MARIA LOUISE SCHWARTZ	TLE	0.199		0.000	0.000	0.000	0.199	0.005	0.000	69(5)
70(5)	4.11	UNITED FOOD & COMMERCIAL WORKERS UNION	TLE	0.848		0.000	0.000	0.000	0.848	0.074	0.000	70(5)
71(5)	4.12	MARCELENE M. PENTLER REV. LIVING TRUST	FEE TLE	0.994		0.020	0.000	0.020	0.974	0.143	0.000	71(5)
72(5)	4.12	MARCELENE M. PENTLER REV. LIVING TRUST	TLE	2.913		0.000	0.000	0.000	2.913	0.045	0.000	72(5)
73(5)	4.12, 4.13	BRE / ESA PROPERTIES LLC	FEE PLE TLE	3.922		0.344	0.000	0.344	3.578	0.785	0.622	73(5)
74(5)	4.12, 4.13	AUTOMOTIVE HOLDING CORP.	TLE	4.970		0.000	0.000	0.000	4.970	0.494	0.000	74(5)
75(5)	4.13	W2005 NEW CENTURY HOTEL PORTFOLIO LP	PLE TLE	2.144		0.000	0.000	0.000	2.144	0.016	0.131	75(5)
76(5)	4.13	DENNY'S REALTY INC.	FEE PLE TLE	1.054		0.055	0.000	0.055	0.999	0.145	0.044	76(5)
77(5)	4.13	HIGHLANDS OF MAYFAIR CONDOMINIUM	TLE	3.075	*	0.000	0.000	0.000	3.075	0.084	0.000	77(5)
78(5)	4.14	TIMOTHY C. & PAMELA M. LOSEY	TLE	0.138		0.000	0.000	0.000	0.138	0.006	0.000	78(5)
79(5)	4.14	MICHAEL T. GOLDSMITH	TLE	0.178		0.000	0.000	0.000	0.178	0.018	0.000	79(5)
80(5)	4.21	EGNER & VAN DER PUY REAL ESTATE LLC	TLE	0.773		0.000	0.000	0.000	0.773	0.024	0.000	80(5)

4

4

REVISION DATE 06-11-2015
07-15-2014
09-24-2014
04-02-2015

DATE 11-07-2013 | HWY: USH 45 | STATE R/W PROJECT NUMBER 1060-33-26 | PLAT SHEET 4.03

COUNTY: MILWAUKEE | CONSTRUCTION PROJECT NUMBER 1060-33-84, 1060-34-84, 1060-33-83, 1060-33-86, 1060-35-85

E

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSED ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT.

SF = SQUARE FEET * DENOTES AREAS COMPUTED

AREAS SHOWN IN THE TOTAL ACRES COLUMN MAY BE APPROXIMATE AND ARE DERIVED FROM TAX ROLLS OR OTHER AVAILABLE SOURCES AND MAY NOT INCLUDE LANDS OF THE OWNER WHICH ARE NOT CONTIGUOUS TO THE AREA TO BE ACQUIRED.

PARCEL NUMBER	SHEET NUMBER	OWNER	INTEREST REQUIRED	TOTAL ACRES	NEW	EXISTING	TOTAL	REMAINING ACRES	TEMP. ACRES	PERM. ACRES	PARCEL NUMBER
81(5)	4.21	BURLEIGH MOB JOINT VENTURE LLC	TLE	1.043	0.000	0.000	0.000	1.043	0.054	0.000	81(5)
82(5)	4.08, 4.09	WISCONSIN LUTHERAN COLLEGE CONFERENCE INC.	FEE TLE	26.129	0.074	0.000	0.074	26.055	0.418	0.000	82(5)
83(5)	4.08, 4.09, 4.10	MILWAUKEE COUNTY	HE TLE	52.607	0.200	0.000	0.200	52.407	0.445	0.000	83(5)
84(5)	4.09	MILWAUKEE COUNTY	HE TLE	4.242	0.011	0.000	0.011	4.231	0.003	0.000	84(5)
85(5)	4.09, 4.10	MILWAUKEE COUNTY	HE TLE	4.195	0.221	0.000	0.221	3.974	0.092	0.000	85(5)
86(5)	4.10	SOO LINE RAILROAD	HE TLE	VAST	0.816	0.000	0.816	VAST	0.137	0.000	86(5)
87(5)	4.10	MMSD	HE TLE	8.050	0.186	0.000	0.186	7.864	0.223	0.000	87(5)
88(5)	4.10	SANDMARK LLC	TLE	0.816	0.000	0.000	0.000	0.816	0.109	0.000	88(5)
89(5)	4.10	THE 2100 LLC	TLE	0.916	0.000	0.000	0.000	0.916	0.026	0.000	89(5)
90(4)	4.18	ALEX J. GILGENBACH & KAYLA C. LEMEROND	TLE	0.157	0.000	0.000	0.000	0.157	0.015	0.000	90(4)
91(4)	4.18	ROBERT FRESE	TLE	0.188	0.000	0.000	0.000	0.188	0.004	0.000	91(4)
92(4)	4.18	NANCY WILBURTH	TLE	0.125	0.000	0.000	0.000	0.125	0.004	0.000	92(4)
93(4)	4.18	KRISTINE K. SCHMIDT	TLE	0.156	0.000	0.000	0.000	0.156	0.011	0.000	93(4)
94(4)	4.18	MICHAEL A. OTTO & TAMMY R. JOOST	TLE	0.145	0.000	0.000	0.000	0.145	0.011	0.000	94(4)
95(4)	4.18	EVELYN A. RESCH	TLE	0.142	0.000	0.000	0.000	0.142	0.011	0.000	95(4)
96(4)	4.18	GEORGE J. MARTINEK	TLE	0.119	0.000	0.000	0.000	0.119	0.009	0.000	96(4)
97(4)	4.18	MICHAEL A. SCHROEDER	TLE	0.119	0.000	0.000	0.000	0.119	0.009	0.000	97(4)
98(4)	4.23	CHARLES MORREALE	TLE	0.254	0.000	0.000	0.000	0.254	0.020	0.000	98(4)
99(4)	4.23	IVAN & PAULINE WERNER	TLE	0.269	0.000	0.000	0.000	0.269	0.021	0.000	99(4)
100(4)	4.23	12850 LLC	TLE	0.254	0.000	0.000	0.000	0.254	0.020	0.000	100(4)
101(4)	4.23	JOHN C. & SUSAN M. CUSATIS	TLE	0.415	0.000	0.000	0.000	0.415	0.006	0.000	101(4)
102(4)	4.23	ANSLEY A. GOODING & LISA V. MAESTAS-GOODING	TLE	0.354	0.000	0.000	0.000	0.354	0.038	0.000	102(4)
103(4)	4.23	TROY L. & MARY L. MOSBY	TLE	0.352	0.000	0.000	0.000	0.352	0.031	0.000	103(4)
104(4)	4.23	DOMINIC S. & CAROL P. ALIOTO	TLE	0.340	0.000	0.000	0.000	0.340	0.005	0.000	104(4)
105(4)	4.23	JOWELL GARCIA & MICHELLE DE LEON CRUZ	TLE	0.252	0.000	0.000	0.000	0.252	0.005	0.000	105(4)
106(4)	4.23	SEIDER REVOCABLE LIVING TRUST	TLE	0.255	0.000	0.000	0.000	0.255	0.005	0.000	106(4)
114(5)	4.20 4.21	SCHOOL DISTRICT OF WAUWATOSA	TLE	34.918	0.000	0.000	0.000	34.918	1.292	0.000	114(5)
214(4)	4.20 4.23	SCHOOL DISTRICT OF WAUWATOSA	TLE	34.918	0.000	0.000	0.000	34.918	0.031	0.000	214(4)
500(5)	4.08 - 4.21 4.23 4.25 - 4.26	WE ENERGIES - ELECTRIC	RELEASE OF RIGHTS	--	--	--	--	--	--	--	500(5)
501(5)	4.09 4.10 4.13	WE ENERGIES - GAS	RELEASE OF RIGHTS	--	--	--	--	--	--	--	501(5)
503(5)	4.10 - 4.21 4.23 4.25 4.26	AT&T WISCONSIN	RELEASE OF RIGHTS	--	--	--	--	--	--	--	503(5)
506(5)	4.09 4.11 - 4.13	MILWAUKEE METROPOLITAN SEWERAGE DISTRICT	RELEASE OF RIGHTS	--	--	--	--	--	--	--	506(5)
507(5)	4.15	TIME WARNER CABLE	RELEASE OF RIGHTS	--	--	--	--	--	--	--	507(5)
508(5)	4.11 4.12	US SPRINT	RELEASE OF RIGHTS	--	--	--	--	--	--	--	508(5)
532(5)	4.10 4.13 4.18	WAUWATOSA WATER UTILITY	RELEASE OF RIGHTS	--	--	--	--	--	--	--	532(5)
533		ELIMINATED		--	--	--	--	--	--	--	533
534(5)	4.10 4.12 4.13 4.15 4.18 - 4.20	CITY OF WAUWATOSA	RELEASE OF RIGHTS	--	--	--	--	--	--	--	534(5)
UA 631(4)	4.10 - 4.21 4.23	CITY OF WAUWATOSA	RELEASE OF RIGHTS	--	--	--	--	--	--	--	UA 631(4)
UA 632(4)	4.10 - 4.21 4.23	WAUWATOSA WATER UTILITY	RELEASE OF RIGHTS	--	--	--	--	--	--	--	UA 632(4)

4

4

REVISION DATE
06-11-2015
07-15-2014
09-24-2014
04-02-2015

DATE 11-07-2013 | HWY: USH 45 | STATE R/W PROJECT NUMBER 1060-33-26 | PLAT SHEET 4.04

COUNTY: MILWAUKEE | CONSTRUCTION PROJECT NUMBER 1060-33-84, 1060-34-84, 1060-33-83, 1060-33-86, 1060-35-85 | E

SEE SHEET 4.11

SEE SHEET 4.11

STA.585+07.40 RL STH 100

STA.411+51.40 RL USH 45
STA.594+69.30 RL STH 100

STA. 611+66.54 RL STH 100

RL STH100 = SECTIONLINE
N00° 41' 49"W
1986.48'

7094
A Concrete Monument
w/ A Brass
Y 304805.55
X 569081.94

7081
A Concrete Monument
w/ A Brass
Y 307459.09
X 569049.59

7095
A Concrete Monument
w/ A Brass
Y 301205.24
X 571173.24

SEE DETAIL A

SEE SHEET 4.09

MATCHLINE STA. 403+82.57

MATCHLINE STA. 403+82.57

TLE FOR SLOPES AND STAGING

TLE FOR SLOPES AND STAGING

TIE TO SHEET 4.09

1/16 LINE

1/16 LINE

SW1/4 - NW1/4

SW1/4 - NW1/4

RL USH 45

CITY OF WAUWATOSA

COUNTRY CLUB BLOCK 12

COUNTRY CLUB BLOCK 8

DETAIL A

COUNTRY CLUB

CSM 3116
DOC. 5123772
R. 1034 I. 1181
PARCEL 2

CSM 3116
PARCEL 1

CSM 8153
DOC. 09745292
LOT 1

NORTH LINE OF PARCEL 1

HIGHWAY EASEMENT

ACCESS EASE. DOC. 10045461

WISDOT STORM SEWER EASE. DOC. 398848

RAILROAD

S00 LINE RAILROAD

SIGN

DYNAMIS

THE 2100

SANDMARK

MMSD

MILWAUKEE COUNTY

MILWAUKEE COUNTY

S00° 41' 49"E
N89° 17' 11"E
N87° 40' 15"E
N66° 03' 08"W
N66° 01' 40"W
N57° 38' 03"W
S63° 02' 39"E
N69° 55' 47"E
S35° 26' 21"W
N64° 55' 39"W
N04° 17' 15"W
N12° 42' 35"E
N11° 47' 27"W

C1
L 2.04'
R 600.10'
LCH 2.04'
LCB S27° 17' 13"W

C2
L 25.02'
R 600.10'
LCH 25.02'
LCB S25° 59' 43"W

C3
L 70.92'
R 600.10'
LCH 70.88'
LCB S21° 24' 54"W

C4
L 48.94'
R 2144.20'
LCH 48.94'
LCB S32° 45' 48"W

C5
L 27.32'
R 2325.00'
LCH 27.32'
LCB S32° 27' 18"W

C6
L 10.00'
R 2144.20'
LCH 10.00'
LCB S27° 19' 39"W

C7
L 21.82'
R 2200.20'
LCH 21.82'
LCB S26° 54' 32"W

C8
L 28.94'
R 2325.00'
LCH 28.94'
LCB S26° 57' 11"W

C9
L 232.71'
R 2144.20'
LCH 232.60'
LCB S30° 18' 14"W

C10
L 251.39'
R 2325.00'
LCH 251.26'
LCB S29° 41' 39"W

C11
L 25.02'
R 2200.20'
LCH 25.02'
LCB S26° 17' 56"W

C12
L 25.02'
R 2325.00'
LCH 25.02'
LCB S26° 17' 18"W

C13
L 12.00'
R 2829.90'
LCH 12.00'
LCB S29° 38' 32"W

C14
L 235.41'
R 2829.90'
LCH 235.34'
LCB S32° 05' 42"W

L 25.43'
R 2829.90'
LCH 25.43'
LCB S34° 32' 02"W

L 25.32'
R 2325.00'
LCH 25.32'
LCB S33° 06' 13"W

L 25.37'
R 2144.20'
LCH 25.37'
LCB S33° 45' 22"W

(500) WE ENERGIES - ELECTRIC
DOC. 5647066 R. 1561 I. 150
PCL. 15
DOC. 4049212 R. 15 I. 845
PCL. 85, 87, 88
NO RECORDED EASEMENT
PCL. 85, 86
DOC. 1701092
PCL. 15
DOC. 1536714
PCL. 15

(503) AT&T WISCONSIN
DOC. 5647066 R. 1561 I. 150
PCL. 15
DOC. 1701092
PCL. 15
DOC. 1536714
PCL. 15

(501) WE ENERGIES - GAS
DOC. 4097071 R. 186 I. 1696
PCL. 83

(532) WAUWATOSA WATER UTILITY
DOC. 1701092
PCL. 15

(534) CITY OF WAUWATOSA
DOC. 1701092
PCL. 15
DOC. 5599611 R. 1510 I. 155
PCL. 15
DOC. 4278109 R. 327 I. 563
PCL. 15

UA 631 - CITY OF WAUWATOSA
UA 632 - WAUWATOSA WATER UTILITY

HIGHWAY	BASIS OF EXISTING RIGHT-OF-WAY	WIDTH	YEAR
USH 45	1100-01-23	VARIES	1969
STH 100	2032-02-20	120'	2010
STH 100	U058 - 1(9)	120'	1957

PREVIOUS ACCESS CONTROL
1100-01-23

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, MILWAUKEE COUNTY, NAD83 (2007) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICAL3/4" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

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".

FOR THE LATEST ACCESS / DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA.

WAUWATOSA

REVISION DATE			
04-02-2015			
06-11-2015			

SCALE, FEET
0 50 100

DATE 09-24-2014 | HWY: USH 45 | STATE R/W PROJECT NUMBER 1060-33-26 | PLAT SHEET 4.10

COUNTY: MILWAUKEE | CONSTRUCTION PROJECT NUMBER 1060-33-84 | E

FILE NAME : N:\PDS\C3D\ROW\10603326\RW\040410_RP.DWG | PLOT DATE : 6/11/2015 6:16 AM | PLOT BY : KRAUSE, PAUL H | PLOT NAME : | PLOT SCALE : 1:100_XREF

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, MILWAUKEE COUNTY, NAD83 (2007) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

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FOR THE LATEST ACCESS / DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA.

(500) WE ENERGIES - ELECTRIC
DOC. 3883521 R. 4145 P. 421
PCL. 1
DOC. 9772564, 9766476
PCL. 60
DOC. 4062459 R. 161 I. 1119
PCL. 60
DOC. 4060779 R. 160 I. 846
PCL. 60
DOC. 3560906
PCL. 60
DOC. 9772565, 9766475
PCL. 61
DOC. 09766480
PCL. 61
DOC. 09771077
PCL. 61
DOC. 3271506 D. 3254 I. 177
PCL. 61

(500) WE ENERGIES - ELECTRIC
NO RECORDED EASEMENT
PCL. 70
DOC. 3883520 R. 4145 I. 419
PCL. 70
DOC. 3909566 R. 4182 I. 498
PCL. 70, EXISTING RIGHTS IN R/W

(508) US SPRINT
DOC. 6463414 R. 2545 P. 1708
PCL. 62

(503) AT&T WISCONSIN
DOC. 3883521 R. 4145 P. 421
PCL. 1
DOC. 4060779 R. 160 I. 846
PCL. 60
DOC. 4062459 R. 161 I. 1119
PCL. 60
DOC. 3560906
PCL. 60
DOC. 3271506 D. 3254 I. 177
PCL. 61
DOC. 09766480
PCL. 61
DOC. 09771077
PCL. 61
DOC. 3883520 R. 4145 I. 419
PCL. 70
DOC. 3909566 R. 4182 I. 498
PCL. 70, EXISTING RIGHTS IN R/W

(506) MILWAUKEE METROPOLITAN SEWERAGE DISTRICT
DOC. 3444956 D. 3507 P. 176
PCL. 60, EXISTING RIGHTS IN R/W
DOC. 3444957 D. 3507 P. 180
PCL. 60

UA 631 - CITY OF WAUWATOSA
UA 632 - WAUWATOSA WATER UTILITY

RL USH 45
PI STA = 427+95.81
Y = 306429.45
X = 567567.39
PC STA = 416+48.94
PT STA = 436+86.55
DELTA = 65°35'16"
D = 3°13'08"
T = 1146.86'
L = 2037.60'
R = 1780.00'
LCH = 1928.16'
LCB = N33°15'30"W

7093
A Concrete Monument
w/ A Brass Cap
Y 304766.97
X 566424.07

7094
A Concrete Monument
w/ A Brass Cap
Y 304800.15
X 559081.94

7081
A Concrete Monument
w/ A Brass Cap
Y 307459.09
X 569049.59

CITY OF WAUWATOSA

SEE SHEET 4.26

SEE SHEET 4.25

SEE SHEET 4.25

SEE SHEET 4.12

SEE SHEET 4.10

SEE SHEET 4.10

TLE FOR SLOPES & STAGING

HIGHWAY EASEMENT

1/16 LINE

1013.05'

DOC 6463414 BLANKET

RL UP RR

UNION PACIFIC RAILROAD

N00° 27' 35"E

503.86'

507.14'

491.23'

100.02'

N89° 17' 05"E

DOC 09766480 15' DOC 09771077 20'

DOC 3271506 BLANKET

DOC. 4062459

DOC. 4060779

DOC. 3560906 6'

DOC. 9772554 & 9766476 8'

DOC. 9772565 & 9766475 8'

MMSD DOC 3444957 15'

MMSD DOC 3444956 15'

61 COLE

60 RUSS DARROW

62

70 UNITED FOOD

1 BRAZIL

HIGHWAY	BASIS OF EXISTING RIGHT-OF-WAY	WIDTH	YEAR
USH 45	1100-01-23	VARIES	1969
STH 100	2032-02-20	120'	2010
STH 100	U058 - 1(9)	120'	1957

PREVIOUS ACCESS CONTROL
1100-01-23

PRW6034 48+63.63 50.00'
PRW6033 47+92.47 50.00'
PRW6032 47+92.47 50.00'
PRW6012 416+34.59 145.00'
PRW6011 416+00.00 110.00'
PRW6010 413+85.15 110.00'
PRW6001 414+97.30 101.67'
PRW6002 415+01.47 110.76'
PRW6003 413+08.81 199.23'

STA.49+96.62 RL UP RR
STA.417+53.52 RL USH 45
STA.51+09.73 RL UP RR

MMSD SEWER LINE DOC.3468063

PC: 416+48.94

TLE FOR SLOPES & ACCESS

TLE FOR SLOPES

TLE FOR SLOPES & ACCESS

TLE FOR PAVEMENT REMOVAL

RL USH 45

STA.411+51.40 RL USH 45
STA.594+69.30 RL STH 100

STA.585+07.40 RL STH 100

RL STH 100 = SECTION LINE
N00° 41' 49"W

961.90'

1078.51'
(1078.75')

1329.57'

1329.57'

S00° 41' 49"E
DOC 3883520 24' EASE.

35' ROAD EASE. DOC. 3769651

35' ROAD EASE. DOC. 3769651

REVISION DATE			
06-11-2015			
07-15-2014			
09-24-2014			
04-02-2015			

SCALE, FEET
0 50 100

DATE 11-07-2013	HWY: USH 45	STATE R/W PROJECT NUMBER 1060-33-26	PLAT SHEET 4.11
COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER 1060-33-84, 1060-33-86		E

FILE NAME : N:\PDS\C3D\ROW\10603326\RW\040411_RP.DWG PLOT DATE : 6/11/2015 6:19 AM PLOT BY : KRAUSE, PAUL H PLOT NAME : PLOT SCALE : 1:100_XREF

SEE SHEET 4.18

HIGHWAY	BASIS OF EXISTING RIGHT-OF-WAY	WIDTH	YEAR
USH 45	T03 - 1 (57)	290'	1965
112TH STREET	T03 - 1 (57)	50'	1965
CENTER STREET	FISHER'S WOODS DOC. 2132986	45'	1937
CLARKE STREET	FISHER'S WOODS DOC. 2132986	70'	1937

PREVIOUS ACCESS CONTROL
T03 - 1 (57)

SEE SHEET 4.18

GN

7067
Manhole Rim
w/ 4 Chiseled Vs
Y 310073.92
X 566370.68

T 7 N
R 21 E
18 18
18 18

RL USH 45
PI STA = 466+63.40
Y = 310553.03
X = 567533.95
PC STA = 460+92.50
PT STA = 471+91.27
DELTA = 38°23'14"
D = 3°29'37"
T = 570.90'
L = 1098.77'
R = 1640.00'
LCH = 1078.34'
LCB = N19°39'29"W

450 452 RL USH 45 454 456 N00° 27' 52"W 458 460 462

PC: 460+92.50

45' 20

N89° 02' 48"E (1353') 1353.10'

STA.462+03.75 RL USH 45
STA.20+14.00 RL CENTER ST.

1/16 LINE

NW1/4 - SE1/4

CITY OF WAUWATOSA

112TH STREET

50'

1/16 LINE

NE1/4 - SE1/4

PL

70'

CLARKE STREET

97.50' 97.50' 97.45' 97.45'

IP

NO0° 37' 56"W 45'

10' 20'

460+62.83 186.36' (FRW6006)

5'

WALKER

CSM 3429 PARCEL 1

97.63'

100' 100'

200'

KLEIN

460+63.60 286.36' (FRW6005)

N89° 05' 44"E 80'

CSM 3429 DOC. 5251717 PARCEL 2

461+50.92 287.29' (FRW6004)

30' 40' 40'

DALLMANN

TLE FOR SLOPES & DRIVES

DOC. 3765058

NO0° 37' 56"W

WERRY

45'

RL CENTER ST. = QUARTERLINE

CENTER STREET

25

35'

SEE SHEET 4.19

FISHER'S BLOCK 3

WOODS BLOCK 2

DOC. 2167324

NO0° 29' 26"E

MATCHLINE = CL 111TH STREET
SEE SHEET 4.24

7081
Y 307459.09
X 568043.39
w/ A Brass Cap
A Concrete Monument

T 7 N
R 21 E
19 20
18 17

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, MILWAUKEE COUNTY, NAD83 (2007) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICAL3/4" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

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".

FOR THE LATEST ACCESS / DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA.

500 WE ENERGIES ELECTRIC
DOC. 3765058 V. 3971 P. 17
PCL. 5
DOC. 2167324
PCL. 5

503 AT&T WISCONSIN
DOC. 2167324
PCL. 5

UA 631 - CITY OF WAUWATOSA
UA 632 - WAUWATOSA WATER UTILITY

STA.34+96.15 RL CENTER ST.
STA.638+25.53 RL STH 100

7068
A Concrete Monument
w/ A Brass Cap
Y 310117.93
X 569015.85

T 7 N
R 21 E
18 17
18 17

626 628 1329.53' 630 632 NO0° 43' 37"W 634 636 638

RL STH 100 = SECTIONLINE

REVISION DATE			
06-11-2015			
07-15-2014			
09-24-2014			
04-02-2015			

SCALE, FEET
0 50 100

DATE 11-07-2013	HWY: USH 45	STATE R/W PROJECT NUMBER 1060-33-26	PLAT SHEET 4.17
COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER 1060-33-84, 1060-34-84		E

HIGHWAY	BASIS OF EXISTING RIGHT-OF-WAY	WIDTH	YEAR
USH 45	T03 - 1 (57)	290'	1965
113TH STREET	T03 - 1 (57)	60'	1965
CENTER STREET	WASHINGTON GARDENS	45'	1927
	WASHINGTON GARDENS NO.2		1928
114TH STREET	WASHINGTON GARDENS	60'	1927
	WASHINGTON GARDENS NO.2		1928

PREVIOUS ACCESS CONTROL
T03 - 1 (57)

CITY OF WAUWATOSA

WASHINGTON GARDENS NO. 2

WASHINGTON GARDENS

SEE SHEET 4.23

SEE SHEET 4.20

SEE SHEET 4.16

SEE SHEET 4.17

SEE SHEET 4.17

115TH STREET

CL 115TH STREET

114TH STREET

113TH STREET

CENTER STREET

CLARKE STREET

RL CENTER ST. = QUARTER LINE

1/16 LINE

NW1/4 - SE1/4

N00° 31' 34"W

N89° 02' 49"E

N0°31'25"W

N00° 27' 52"W

RL USH 45

PC: 460+92.50

BLOCK 8

BLOCK 7

BLOCK 2

BLOCK 1

TLE FOR SLOPES & SIDEWALK

TLE FOR SLOPES DRIVES & SIDEWALK

TLE FOR SIDEWALK & DRIVES

DOC. 1665379 & DOC. 4888617 VACATED ALLEY

DOC. 1665379 & DOC. 3775016 VACATED ALLEY

DOC. 3915769

DOC. 3993724

DOC. 3993799 VACATED ALLEY

PLE6953 PLE6954

PLE6952 PLE6951

17+14.38 17+14.46 60.00' 45.00'

17+60.38 17+60.46 60.00' 45.00'

SEWER PLE FOR DRAINAGE

97 SCHROEDER

96 MARTINEK

95 RESCH

94 OTTO

92 WILBURTH

93 SCHMIDT

12 GIBSON

11 LEMMON

10 KROEGER

9 DAVID

91 FNMA

90 LEMEROND

8 BEAUCHAMP

7 LYNCH

6 THOMEY

47 WAGNER

50 DOLHUN

51 ANDERSON

52 SCHULLS

53 GRUDZINSKI

54 STEIN

55 ROY

56 JANKA

57 SCHWARZ

500 WE ENERGIES - ELECTRIC
DOC. 3943724 D. 4233 P. 70
PCL. 94
DOC. 3775016 D. 3985 P. 378
PCL. 94, 95
DOC. 4888617 R. 827 I. 125
PCL. 11, 93
DOC. 1665379
PCL. 11, 93, 94, 95
DOC. 1573449
PCL. 10, 90
DOC. 3994799 R. 54 I. 927
PCL. 10, 90

500 WE ENERGIES - ELECTRIC
DOC. 3915769 V. 4191 P. 403
PCL. 47
NO RECORDED EASEMENT
PCL. 95

503 AT&T WISCONSIN
DOC. 3775016 D. 3985 P. 378
PCL. 94, 95
DOC. 4888617 R. 827 I. 125
PCL. 11, 93
DOC. 1665379
PCL. 11, 93, 94, 95
DOC. 1573449
PCL. 10, 90
DOC. 3994799 R. 54 I. 927
PCL. 10, 90
NO RECORDED EASEMENT
PCL. 95

534 CITY OF WAUWATOSA
DOC. 3775016 D. 3985 P. 378
PCL. 94, 95
DOC. 4888617 R. 827 I. 125
PCL. 11, 93
DOC. 3994799 R. 54 I. 927
PCL. 10, 90

UA 631 - CITY OF WAUWATOSA
UA 632 - WAUWATOSA WATER UTILITY

532 WAUWATOSA WATER UTILITY
DOC. 3775016 D. 3985 P. 378
PCL. 94, 95
DOC. 4888617 R. 827 I. 125
PCL. 11, 93
DOC. 3994799 R. 54 I. 927
PCL. 10, 90

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, MILWAUKEE COUNTY, NAD83 (2007) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICAL3/4" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

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".

FOR THE LATEST ACCESS / DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WAUKESHA.

A Manhole Rim w/ 4 Chisled Vs
Y 310075.92
X 566370.68

A Concrete Monument w/ A Brass Cap
Y 310117.93
X 563015.85

STA.15+14.36 RL CENTER ST.
STA.126+54.99 114TH ST.

STA.462+03.75 RL USH 45
STA.20+14.00 RL CENTER ST.

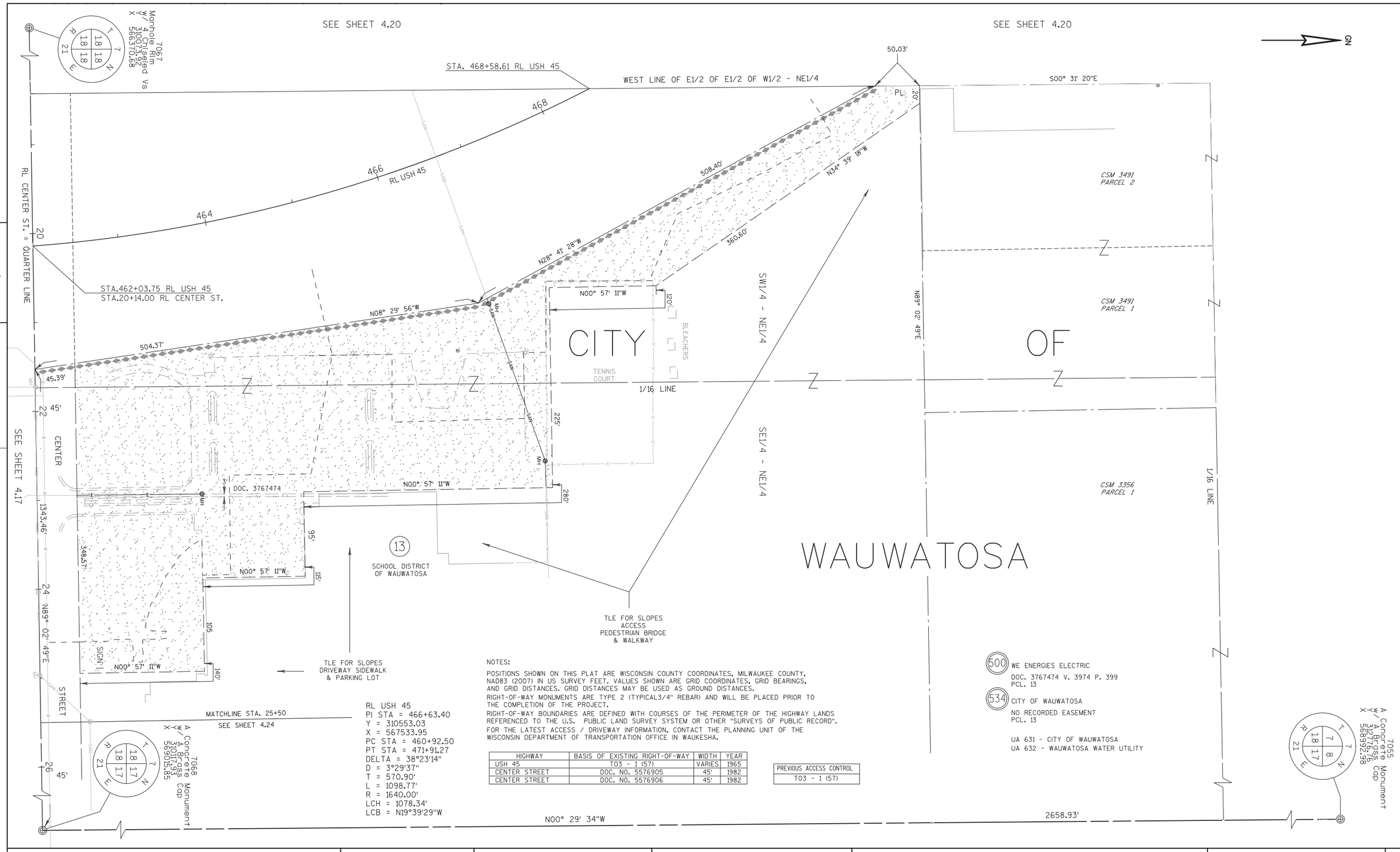
STA. 34+96.15 RL CENTER ST.

RL USH 45
PI STA = 466+63.40
Y = 310553.03
X = 567533.95
PC STA = 460+92.50
PT STA = 471+91.27
DELTA = 38°23'14"
D = 3°29'37"
T = 570.90'
L = 1098.77'
R = 1640.00'
LCH = 1078.34'
LCB = N19°39'29"W

WAUWATOSA

REVISION DATE	SCALE: FEET	DATE 09-24-2014	HWY: USH 45	STATE R/W PROJECT NUMBER 1060-33-26	PLAT SHEET 4.18	
04-02-2015	0 50 100	COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER 1060-33-84 1060-34-84 1060-35-85			E
06-11-2015						

FILE NAME : N:\PDS\C3D\ROW\10603326\RW\040418_RP.DWG PLOT DATE : 6/11/2015 7:08 AM PLOT BY : KRAUSE, PAUL H PLOT NAME : PLOT SCALE : 1:50_XREF



HIGHWAY	BASIS OF EXISTING RIGHT-OF-WAY	WIDTH	YEAR
USH 45	T03 - 1 (57)	VARIES	1965
CENTER STREET	DOC. NO. 5576905	45'	1982
CENTER STREET	DOC. NO. 5576906	45'	1982

PREVIOUS ACCESS CONTROL
T03 - 1 (57)

REVISION DATE			
09-24-2014			
04-02-2015			
06-11-2015			

SCALE. FEET 0 50 100

DATE 07-15-2014 | HWY: USH 45 | STATE R/W PROJECT NUMBER 1060-33-26 | PLAT SHEET 4.19

COUNTY: MILWAUKEE | CONSTRUCTION PROJECT NUMBER 1060-33-83 1060-34-84 1060-33-84 | E

FILE NAME : N:\PDS\C3D\ROW\10603326\RW\040419_RP.DWG PLOT DATE : 6/11/2015 7:20 AM PLOT BY : KRAUSE, PAUL H PLOT NAME : PLOT SCALE : 1:100_XREF

N00° 32' 24"W 1325.39'

1325.39'

330.69'

Manhole Rim w/ 4 Chiseled Vs
Y 310073.92
X 566370.68

7067

T 7 N
R 21 E
18 18 18 18

SEE SHEET 4.23

Z

WEST LINE OF E1/2 OF W1/2 OF W1/2 - NE1/4

N00° 32' 03"W

271.30'

62.78'

SEE SHEET 4.21

N88° 57' 32"E

7054
A Cast Iron Plug In Concrete Pavement
Y 312724.59
X 566345.70

STA. 477+18.35 RL USH 45

500 WE ENERGIES - ELECTRIC
DOC. 3924662 V. 4204 P. 436
PCL. 14, 214
DOC. 08992065
PCL. 14, 114

503 AT&T WISCONSIN
DOC. 3924662 V. 4204 P. 436
PCL. 14, 214
DOC. 08992065
PCL. 14, 114

UA 631 - CITY OF WAUWATOSA
UA 632 - WAUWATOSA WATER UTILITY

534 CITY OF WAUWATOSA
NO RECORDED EASEMENT
PCL. 14

GN

TLE FOR SIDEWALK

214 SCHOOL DISTRICT OF WAUWATOSA

TLE FOR SLOPES & BERM

114 SCHOOL DISTRICT OF WAUWATOSA

TLE FOR SLOPES PEDESTRIAN BRIDGE & WALKWAY

CITY OF WAUWATOSA

BLEACHERS

TENNIS COURT

TENNIS COURT

N00° 57' 11"W 85.00'

N41° 19' 27"E 247.18'

300.00'

S89° 02' 49"W

619.02'

N38° 15' 03"W 535.39'

50'

DOC. 08992065

540.53'

10'

476

N38° 51' 06"W

1/16 LINE

RL CENTER ST. = QUARTER LINE

12

45'

40'

5'

172.03'

DOC. 3924662

SIGN

561.42'

20'

165'

SEE SHEET 4.18

CENTER

16

N89° 02' 49"E

80'

30'

431'

14 SCHOOL DISTRICT OF WAUWATOSA

TLE FOR SLOPES DRIVEWAY SIDEWALK & ACCESS

SW1/4 - NE1/4

S00° 57' 11"E 540.00'

46.32'

42.19'

202.19'

160'

N33° 44' 36"W

PI: 471+91.27

474

RL USH 45

552.51'

197.08'

N27° 41' 41"W

202.00'

N20° 47' 53"W

472

470

N37° 18' 16"W

45'

18

199.51'

N14° 26' 38"W

80.00' N00° 31' 20"W

90.71' N08° 07' 27"W

950.00' TO QUARTERLINE

WEST LINE OF E1/2 OF E1/2 OF W1/2 - NE1/4

SEE SHEET 4.19

SEE SHEET 4.19

STA. 468+58.61 RL USH 45

7068
A Concrete Monument w/ Brass Cap
Y 310173.83
X 569015.85

T 7 N
R 21 E
18 17 18 17

HIGHWAY	BASIS OF EXISTING RIGHT-OF-WAY	WIDTH	YEAR
USH 45	T03 - 1 (57)	VARIES	1965
CENTER STREET	DOC. NO. 5576905	45'	1982
CENTER STREET	DOC. NO. 5576906	45'	1982

PREVIOUS ACCESS CONTROL
T03 - 1 (57)

WAUWATOSA

NOTES:

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RL USH 45
PI STA = 466+63.40
Y = 310553.03
X = 567533.95
PC STA = 460+92.50
PT STA = 471+91.27
DELTA = 38°23'14"
D = 3°29'37"
T = 570.90'
L = 1098.77'
R = 1640.00'
LCH = 1078.34'
LCB = N19°39'29"W

REVISION DATE
09-24-2014
04-02-2015
06-11-2015

SCALE, FEET 0 50 100

DATE 07-15-2014 | HWY: USH 45 | STATE R/W PROJECT NUMBER 1060-33-26 | PLAT SHEET 4.20

COUNTY: MILWAUKEE | CONSTRUCTION PROJECT NUMBER 1060-33-83 1060-34-84 1060-33-84 1060-35-85

E

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, MILWAUKEE COUNTY, NAD83 (2007) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

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HIGHWAY	BASIS OF EXISTING RIGHT-OF-WAY	WIDTH	YEAR
CENTER STREET	OAK RIDGE	33'	1925
CENTER STREET	WASHINGTON GARDENS NO.2	45'	1928
CENTER STREET	DOC. 270359	33'	1947
CENTER STREET	CITY OF WAUWATOSA	45'	1962
115TH STREET	WASHINGTON GARDENS NO.2	60'	1928
116TH STREET	WASHINGTON GARDENS NO.2	55'	1928
116TH STREET	OAK RIDGE	30'	1925
117TH STREET	OAK RIDGE	60'	1925
118TH STREET			

CITY OF WAUWATOSA

UA 631 - CITY OF WAUWATOSA
UA 632 - WAUWATOSA WATER UTILITY

500 WE ENERGIES - ELECTRIC
NO RECORDED EASEMENT
PCL. 102, 214

503 AT&T WISCONSIN
NO RECORDED EASEMENT
PCL. 105, 106, 214

SE1/4 - NW1/4 | SW1/4 - NE1/4

7066
A Concrete Monument
w/ An Aluminum Cap
Y 310035.89
X 563960.63

7067
Manhole Rim
w/ 4 Chiseled Vs
Y 310073.92
X 566370.68

7068
A Concrete Monument
w/ A Brass Cap
Y 310117.93
X 569015.85

214 SCHOOL DISTRICT OF WAUWATOSA

106 SEIDER | 105 CRUZ

67.69' | 67.00'

N00° 32' 24"W

TLE FOR SIDEWALK

8.47' | 225.00' | 35.90'

N89° 05' 45"E

CENTER STREET

RL CENTER ST. = QUARTER LINE

N89° 02' 49"E

WEST LINE OF E1/2 OF W1/2 OF W1/2 - NE1/4
N00° 32' 03"W

SEE SHEET 4.20

104 ALIOTO | 103 MOSBY | 102 GOODING | 101 CUSATIS

TLE FOR SLOPES & SIDEWALK | TLE FOR SLOPES DRIVE & SIDEWALK | TLE FOR DRIVE

270' | 135' | 135' | 142.50' | 142.50'

N00° 31' 23"W | N00° 31' 34"W

NE1/4 - SW1/4

STA.8+50.59 RL CENTER ST.
STA.36+53.62 116TH ST.

RL 116TH ST. = QUARTER LINE

100 12850 LLC | 99 WERNER | 98 MORREALE

NW1/4 - SE1/4

WASHINGTON GARDENS NO. 2

BLOCK 12

CL 115TH STREET
N00° 30' 11"W

SEE SHEET 4.18

WAUWATOSA

BLOCK 2

OAK RIDGE

118TH STREET

117TH STREET

BLOCK 1

SUBDIVISION

REVISION DATE 06-11-2015	SCALE. FEET 0 50 100	DATE 04-02-2015	HWY: USH 45
		COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER 1060-35-85

STATE R/W PROJECT NUMBER 1060-33-26 | PLAT SHEET 4.23

WAUWATOSA WEST HIGH SCHOOL

WHITMAN MIDDLE SCHOOL

IH 41 / USH 45 SB

IH 41 / USH 45 NB

464NS

EXISTING STRUCTURE B-40-284
NEW STRUCTURE B-40-880

RECONSTRUCT SCHOOL PARKING LOT

N

R/W

SI

TLE

R/L WMS

12WMS

11WMS

10WMS

BEGIN PROJECT 1060-34-84
STA. 14+20.00CE

END PROJECT 1060-34-84
STA. 24+60.00CE

14CE

16CE

18CE

20CE

22CE

24CE

26CE

R/L CE

W. CENTER STREET

126TS

126TS

N. 114TH STREET

361A

N. 113TH STREET

361B

N. 112TH STREET

N. 111TH STREET

R-40-577

PC: 460+82.50NS

R-40-578

PLE

R/L TS

R/L TA

R/L TB

5

5

BEGIN PROJECT 1060-34-84
STA. 14+20.00CE

EXISTING STRUCTURE B-40-284
NEW STRUCTURE B-40-880

STA 19+12CE
REMOVE STRUCTURE B-40-284
4-SPAN HOLLOW SLAB
52' CLEAR ROADWAY

STA 19+13.25CE
STRUCTURE B-40-880 REQUIRED
2-SPAN 36W PEDESTRESSED GIRDER
52' CLEAR ROADWAY
3°-23'-53 SKEW

-0.88%
-1.70%
-2.29%
-3.60%
-4.22%
1.00%
0.50%
3.60%
-3.74%

STA 14+20.00CE
EL 773.60
STA 14+31.94CE
EL 773.44
STA 14+62.13CE
EL 773.03
STA 14+82.26CE
EL 772.57
STA 15+14.32CE
EL 771.41
VPC STA 15+99.03CE
VPC EL 767.84
VPI STA 16+99.03CE
VPI EL 763.62
L=200.00'
K=38.30
LP STA 17+60.62CE
LP EL 764.43
VPT STA 17+99.03CE
VPC EL 764.62
STA 18+78.03
EL 765.42
VPC STA 19+75.49CE
VPC EL 765.90
HP STA 19+93.79CE
HP EL 765.95
VPI STA 20+50.49CE
VPI EL 766.28
L=150.00'
K=36.60
VPT STA 21+25.49CE
VPT EL 763.58
STA 21+50.00
EL 762.70
STA 24+60.00CE
EL 751.11

CRITICAL CLEARANCE 16' 1"
FUTURE CLEARANCE 16'6"
CRITICAL CLEARANCE 15' 6"
FUTURE CLEARANCE 16'8"

FINISHED PROFILE AT R/L CE

EXISTING PROFILE AT R/L CE

END PROJECT 1060-34-84
STA. 24+60.00CE

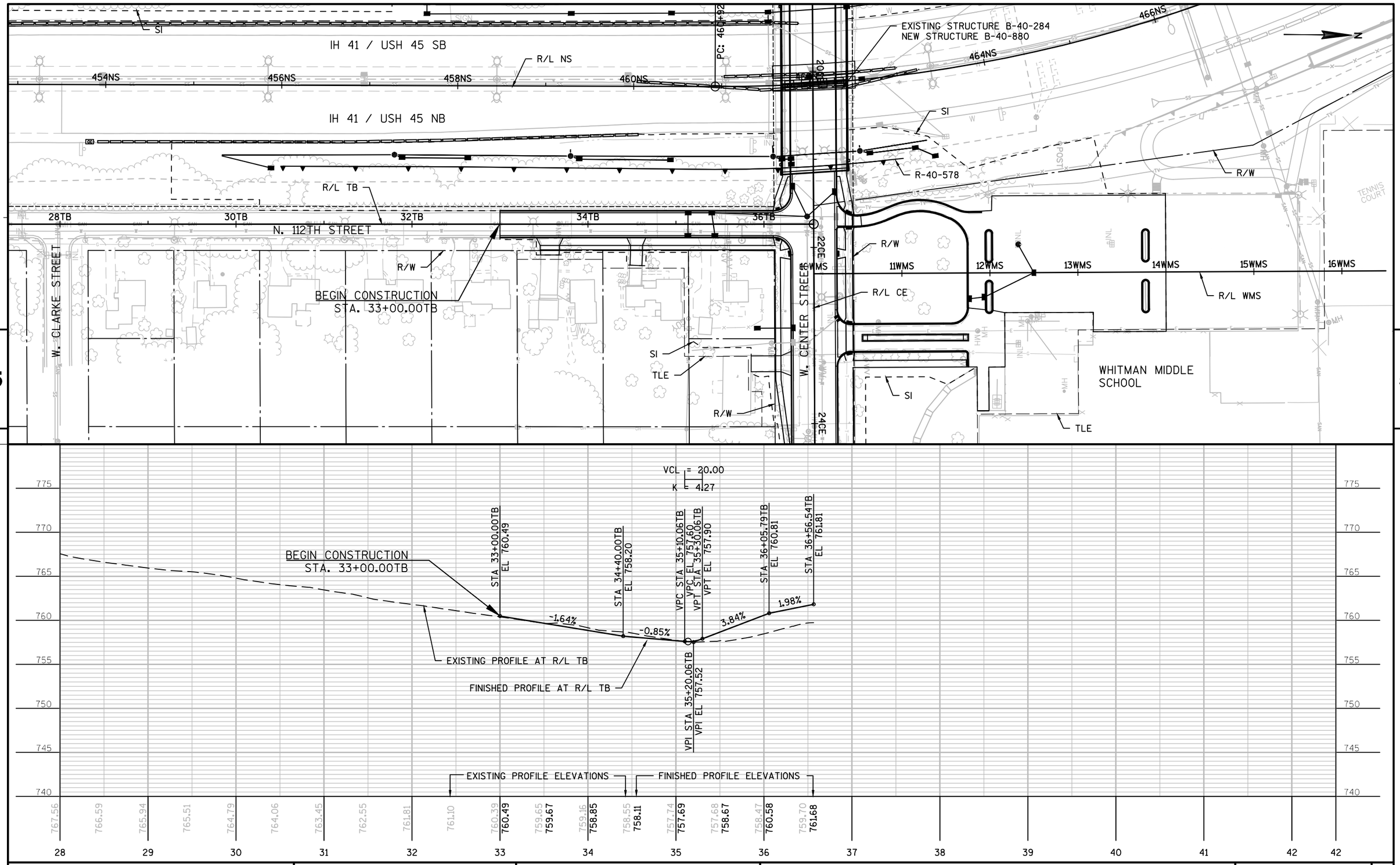
EXISTING PROFILE ELEVATIONS

FINISHED PROFILE ELEVATIONS

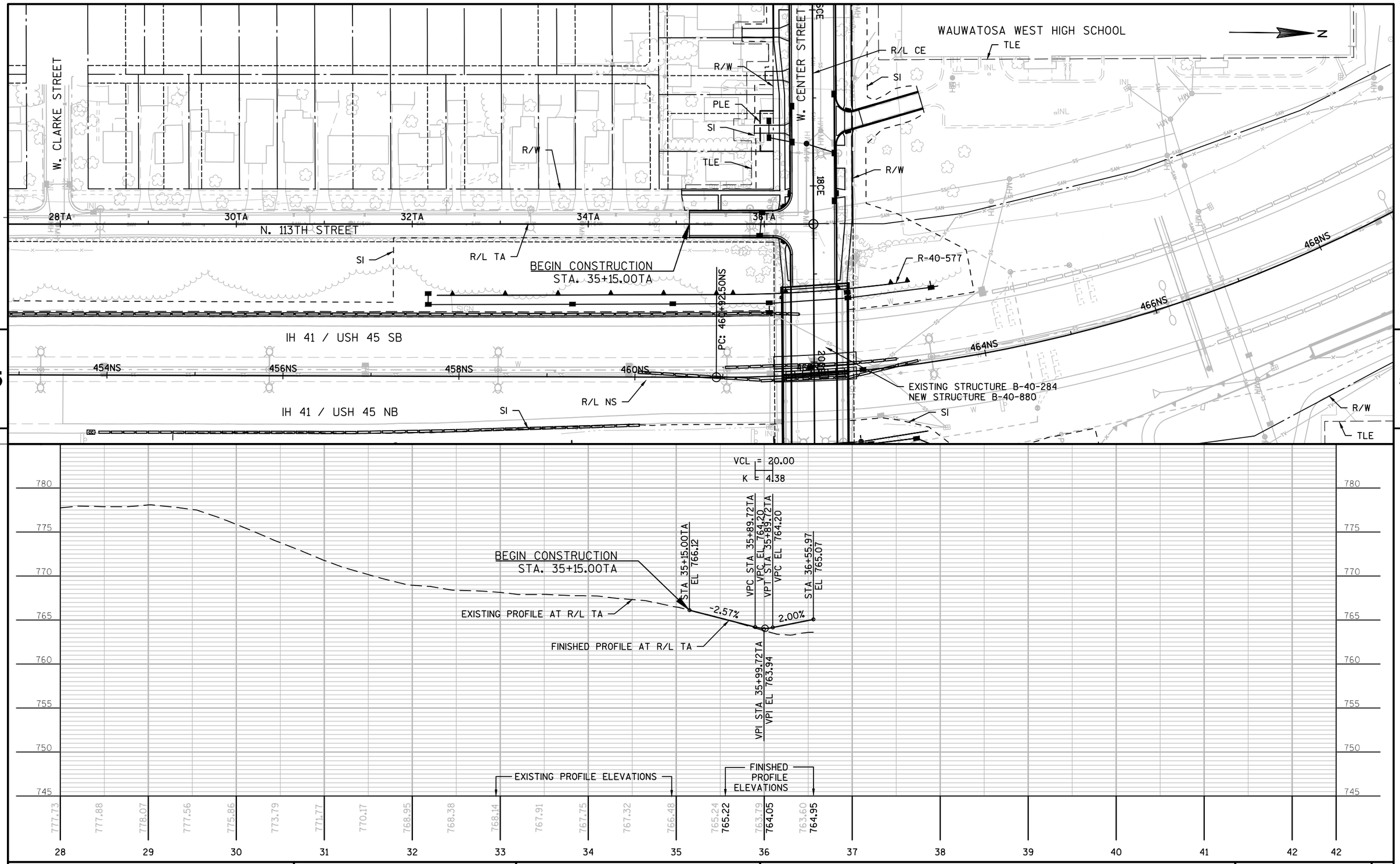
775 770 765 760 755 750 745 740

13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
773.04	773.72	773.77	773.23 / 773.23	771.93 / 771.93	769.96 / 769.91	767.95 / 767.80	765.74 / 766.03	764.04 / 764.91	763.24 / 764.44	763.41 / 764.63	763.62 / 765.13	763.52 / 765.52	742.96 / 765.77	744.97 / 765.94	744.52 / 765.52	761.54 / 764.41	760.53 / 762.70	758.97 / 760.83	757.50 / 758.96	756.29 / 757.09	754.79 / 755.22	753.18 / 753.35	751.41 / 751.48	749.78	748.01	746.07	743.97	741.73

PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	PLAN AND PROFILE: W. CENTER STREET	SHEET 229	E



PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	PLAN AND PROFILE: N. 112TH STREET	SHEET 230	E



PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	PLAN AND PROFILE: N. 113TH STREET	SHEET 231	E

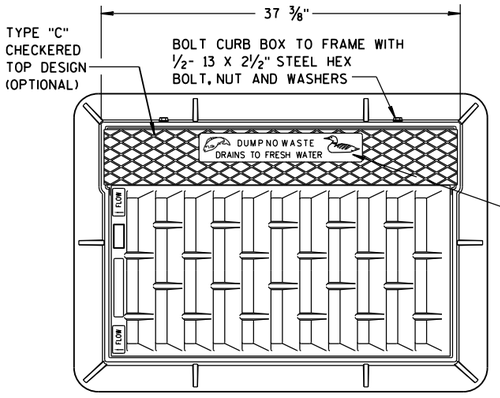
Standard Detail Drawing List

08A05-19A	INLET COVERS TYPE A, H, A-S, H-S & Z
08A05-19B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08A05-19C	INLET COVERS TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S
08A05-19D	INLET COVER TYPE BW, 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
08C06-01	INLETS 3-FT AND 4-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
08D17-06	MANHOLES, MANHOLE & INLET COVERS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E14-01	TRACKING PAD
08F05-01	CLASS "B" BEDDING FOR CULVERT PIPE OR STORM SEWER
09B02-09	CONDUIT
09B04-11	PULL BOX
09C02-07	CONCRETE BASES, TYPES 1, 2, 5, & 6
09E01-14D	POLE MOUNTINGS FOR LIGHTING UNITS, TYPE 5 (30 FEET)
09E01-14G	HARDWARE DETAILS FOR POLE MOUNTINGS
09E03-05	NON-FREEWAY LIGHTING UNIT POLE WIRING
10A01-03	ELECTRICAL HANDHOLE WIRING
10A02-03	IDENTIFICATION PLAQUES LIGHT POLES
10A05-02	ELECTRICAL DETAILS GROUND MOUNT LIGHT POLES ISOLATED NEUTRAL SYSTEMS
11B02-02	CONCRETE MEDIAN NOSE
12A03-10	NAME PLATE (STRUCTURES)
13C04-16	URBAN NON-DOWELED CONCRETE PAVEMENT
13C13-08	URBAN DOWELED CONCRETE PAVEMENT
13C18-02A	CONCRETE PAVEMENT JOINTING
13C18-03A	CONCRETE PAVEMENT JOINTING
13C18-03B	CONCRETE PAVEMENT STEEL REINFORCEMENT
13C18-03C	CONCRETE PAVEMENT JOINT TIES
13C18-03D	CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES
14A02-01	TREE PLANTING DETAIL
14B07-14A	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14B	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14C	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14D	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14E	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14F	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14G	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14H	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B08-02A	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02B	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02C	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02D	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02E	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
15B03-15A	FENCE CHAIN LINK
15B03-15B	FENCE CHAIN LINK
15C02-05A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-05B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C03-02	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C07-12C	PAVEMENT MARKING ARROWS
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C08-16B	PAVEMENT MARKING (INTERSECTIONS)
15C08-16F	PAVEMENT MARKING (ISLANDS)
15C31-01D	PAVEMENT MARKING FOR PARALLEL ON-RAMP AND PARALLEL OFF-RAMP
15C33-01	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D14-02	TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY, SHORT-TERM (LESS THAN 24 HOURS)
15D20-03	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D27-02	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH
15D28-02	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D30-02A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

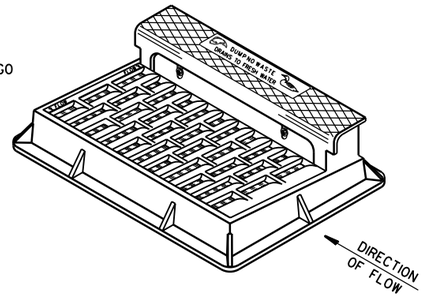
6

Standard Detail Drawing List

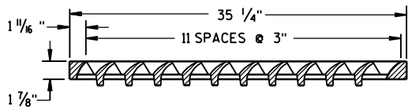
15D30-02B	TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION
15D30-02C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D38-01A	TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS
16A01-06	LANDMARK REFERENCE MONUMENTS AND COVERS

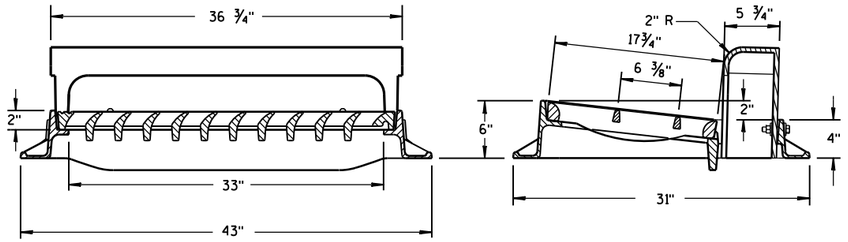


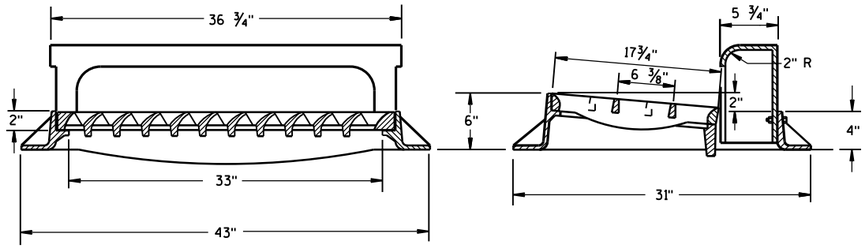
NOTE:
GRATE IS REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

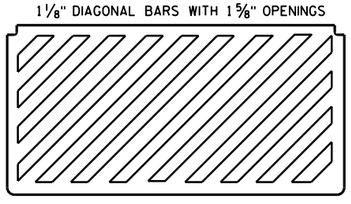






TYPE "H"

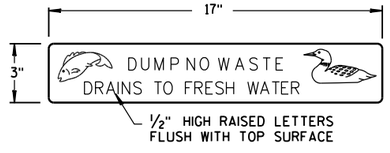
NOTE: EITHER CASTING IS ACCEPTABLE



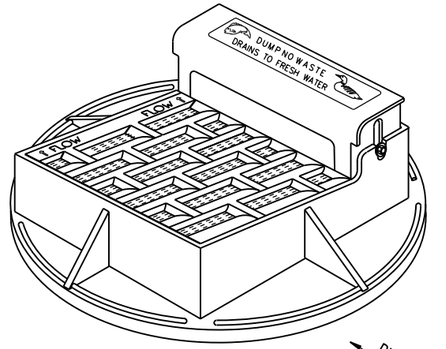
SPECIAL GRATE FOR TYPE "H" COVER

(MEASURES 35 1/4" X 17 3/4" X 2")

(NOTED AS TYPE H-S ON DRAINAGE TABLE)

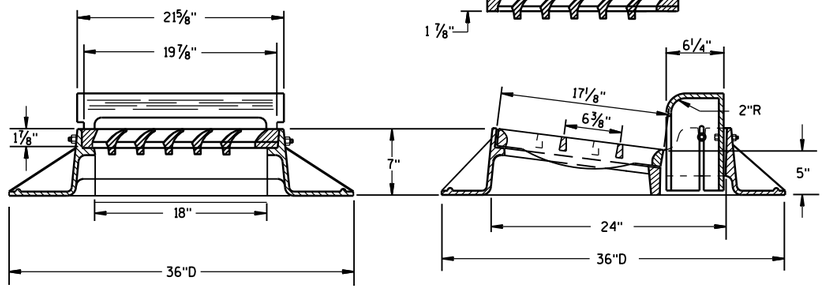


LOGO DETAIL



NOTE: CURB BOX ADJUSTABLE 4" TO 9"

NOTE:
GRATE IS REVERSIBLE.



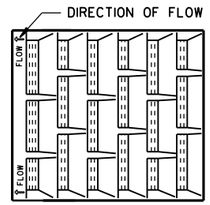
TYPE "A"

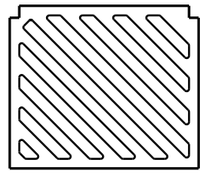
GENERAL NOTES

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.

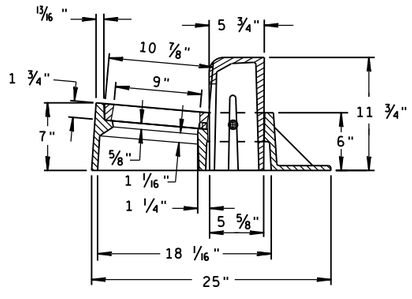


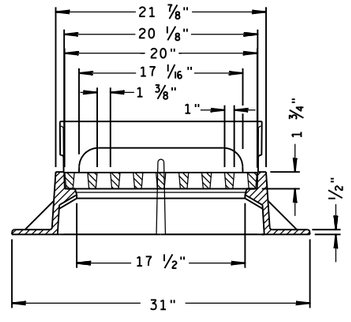


SPECIAL GRATE FOR TYPE "A" COVER

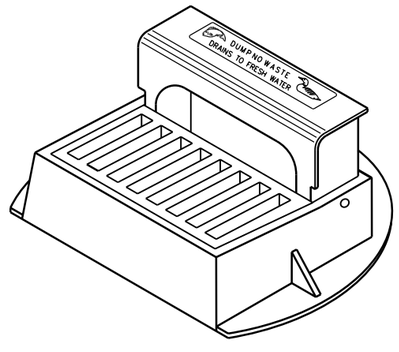
(MEASURES 19 3/4" X 17" X 1 7/8")

(NOTED AS TYPE A-S ON DRAINAGE TABLE)





TYPE "Z"

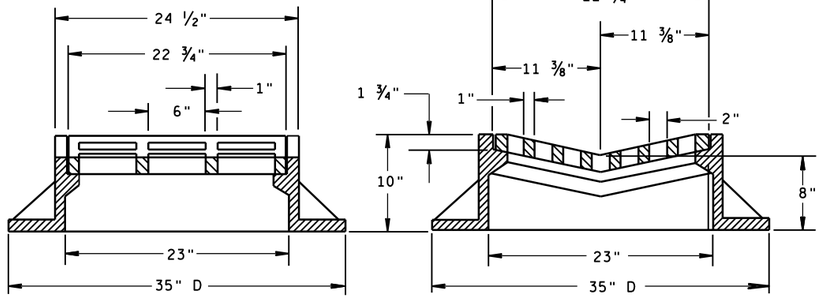


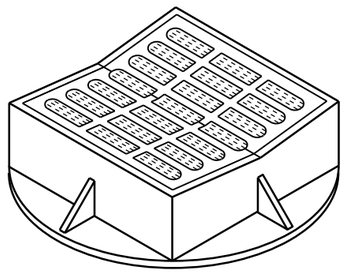
INLET COVERS TYPE A, H, A-S, H-S & Z

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

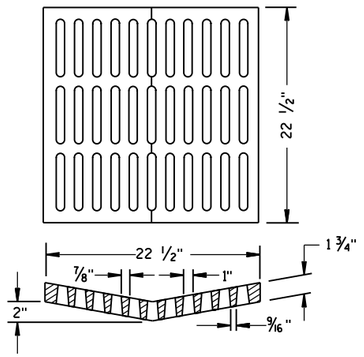
APPROVED
11-27-13 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

S.D.D. 8 A 5-19a



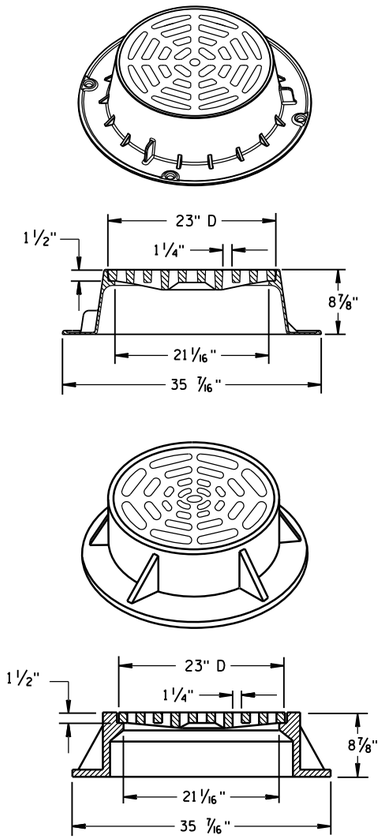


TYPE "B"



ALTERNATIVE GRATE FOR TYPE "B" COVER

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS POSSIBLE.
NOTED AS TYPE B-A ON THE DRAINAGE TABLE



TYPE "C"

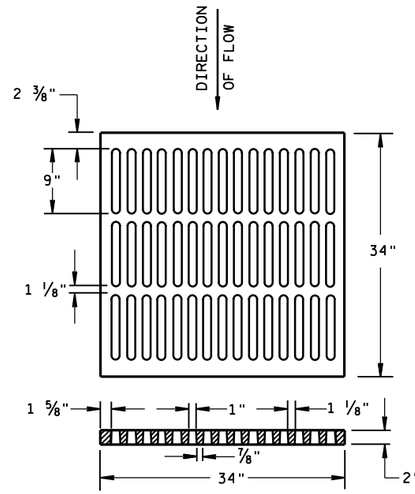
NOTE: EITHER CASTING IS ACCEPTABLE

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.

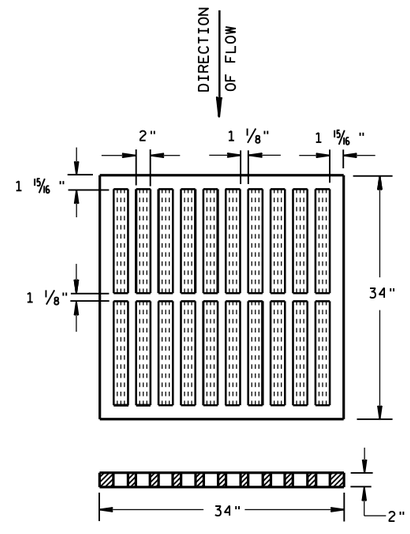
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.



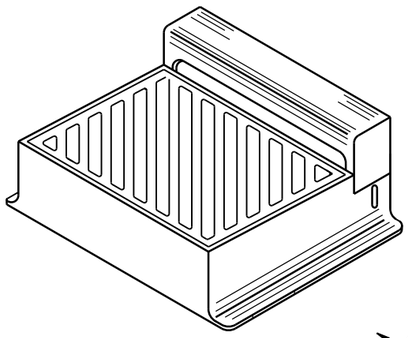
ALTERNATIVE TYPE "MS"

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS PERMITTED
NOTED AS TYPE MS-A ON THE DRAINAGE TABLE

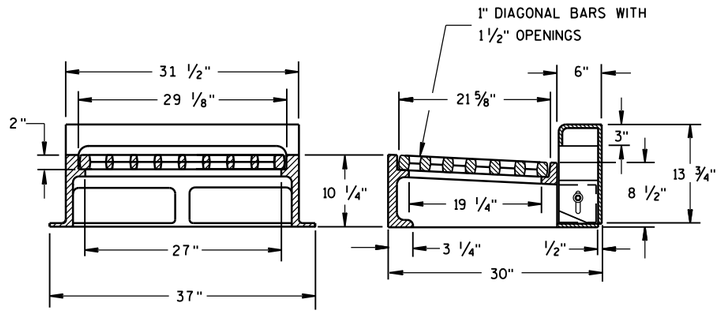


TYPE "MS"

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"

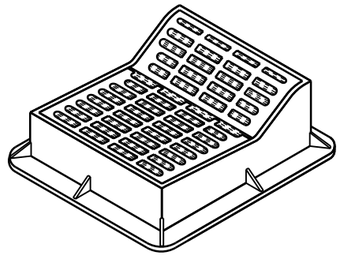
INLET COVERS
TYPE B, B-A, C, MS, MS-A, & WM

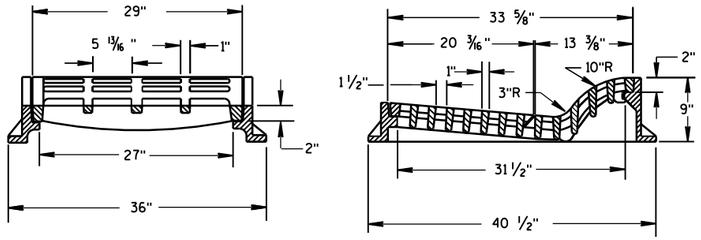
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/27/2013 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

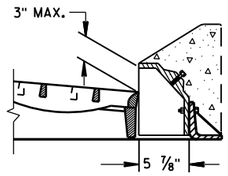
S.D.D. 8 A 5-19b





TYPE "F"

USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.



ALTERNATIVE CURB BOX FOR TYPE "HM" COVER

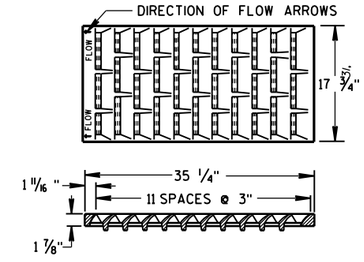
USE WITH TYPES G & J CONCRETE CURB & GUTTER, 30 INCH
NOTED AS TYPE HM-GJ ON DRAINAGE TABLE

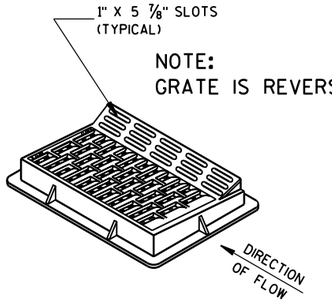
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM-GJ" COVER
NOTED AS TYPE HM-GJ-S ON DRAINAGE TABLE

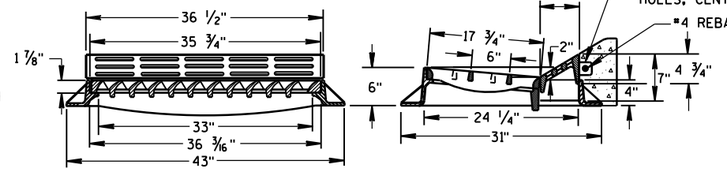
GENERAL NOTES

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.



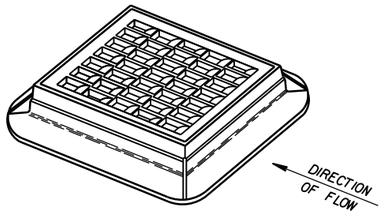


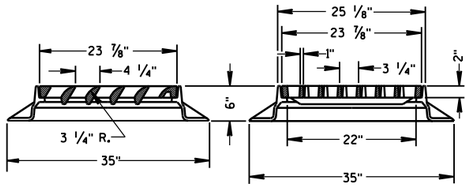


TYPE "HM"

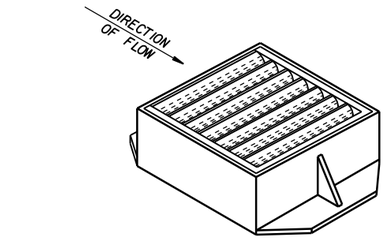
USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.

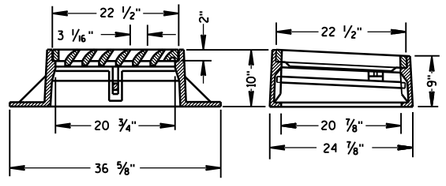
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM" COVER
NOTED AS TYPE HM-S ON DRAINAGE TABLE



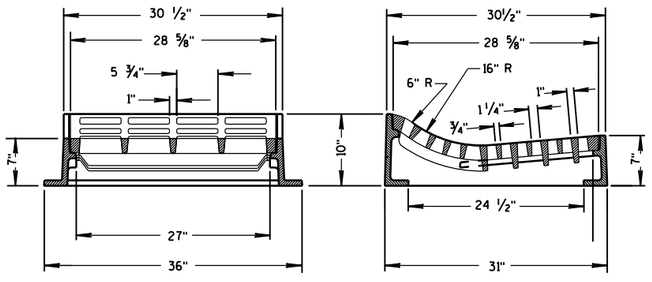


TYPE "S"



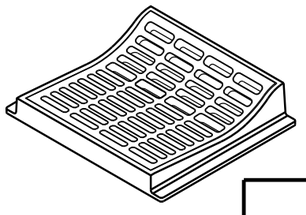


TYPE "V"



TYPE "T"

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

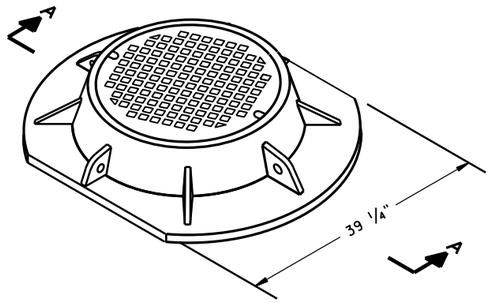
APPROVED
11/27/2013
DATE

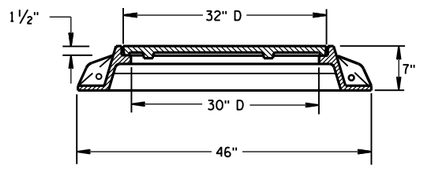
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

FHWA

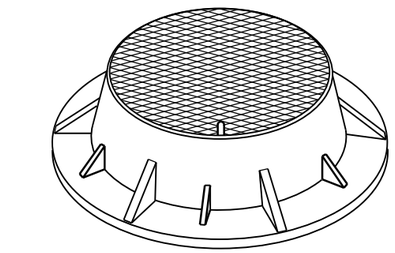
6

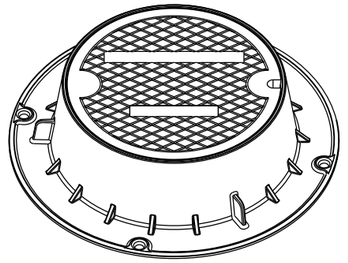
S.D.D. 8 A 5-19c

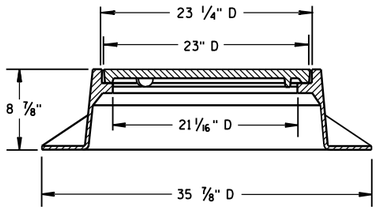


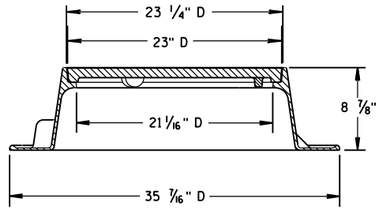


SECTION A-A
TYPE "K"









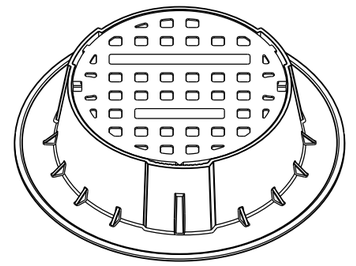
TYPE "J"
NOTE: EITHER CASTING IS ACCEPTABLE

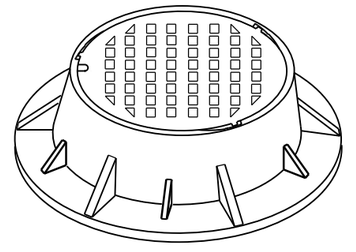
GENERAL NOTES

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.

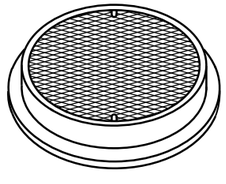
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

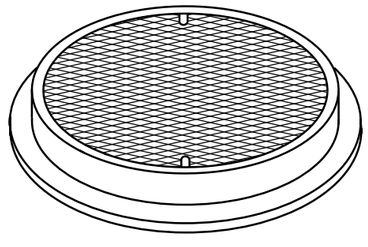
ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

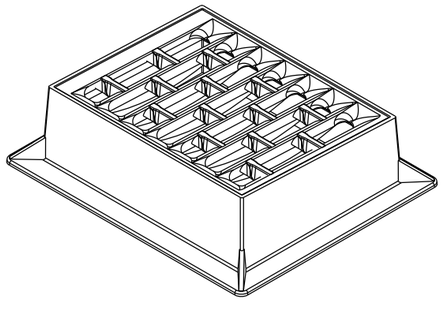


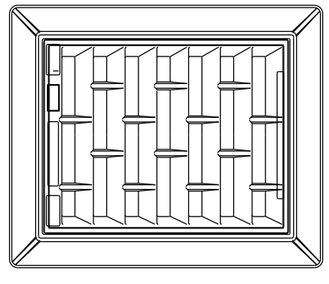


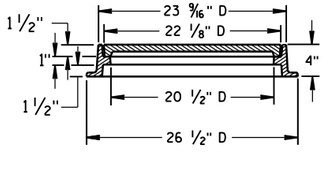
TYPE "J" SPECIAL
TYPE "B" NON-ROCKING SELF-SEAL LID
(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)
NOTE: EITHER CASTING IS ACCEPTABLE



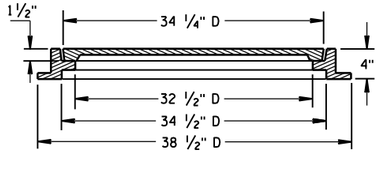








TYPE "L"



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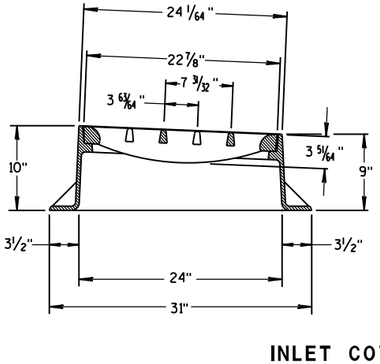
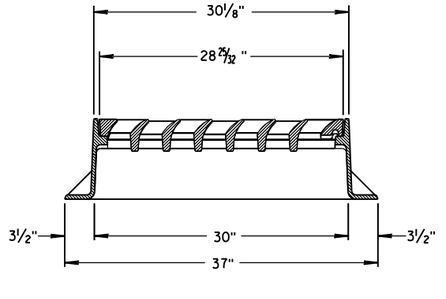




INLET COVER TYPE "BW"

INLET COVER TYPE BW
MANHOLE COVERS, TYPE K, J, J-S, L & M

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/27/2013
DATE
FHWA

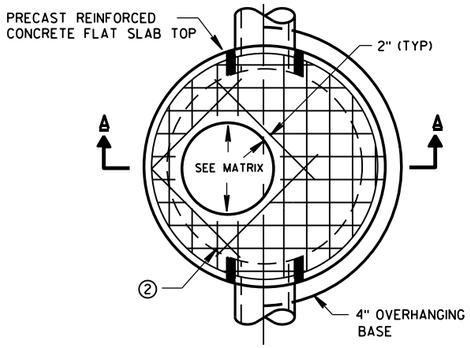
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

6

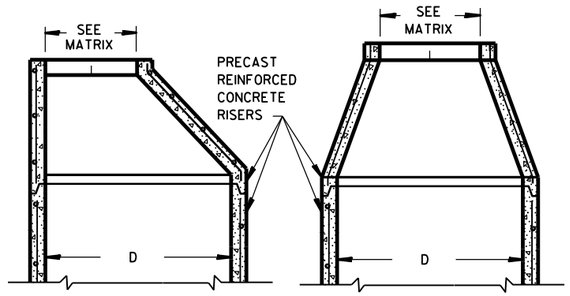
S.D.D. 8 A 5-19d

6

S.D.D. 8 A 5-19d

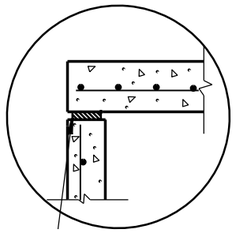


PLAN VIEW CIRCULAR OPENING

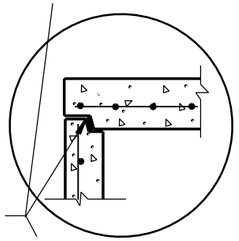


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

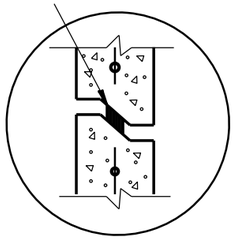


TOP WITH PLAIN END JOINT



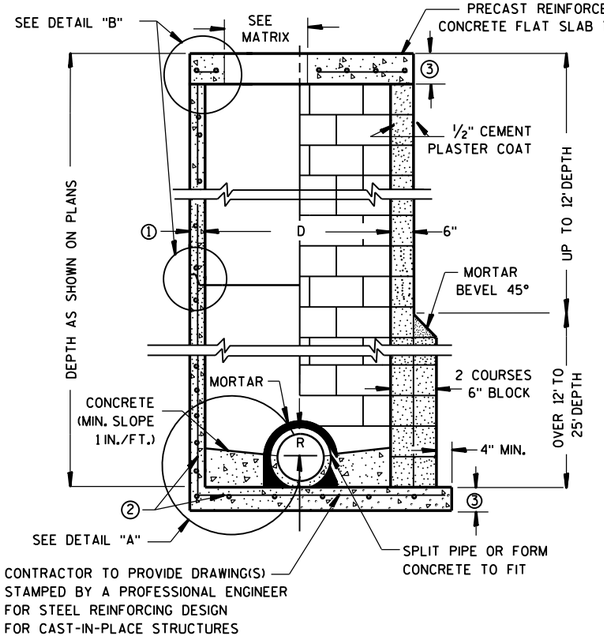
JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C990 (TYP)

TOP WITH TONGUE AND GROOVE JOINT



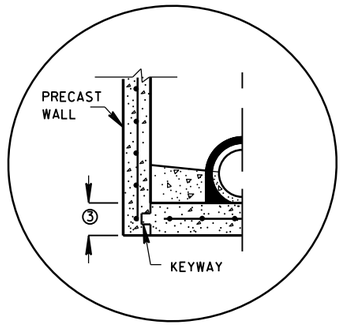
RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

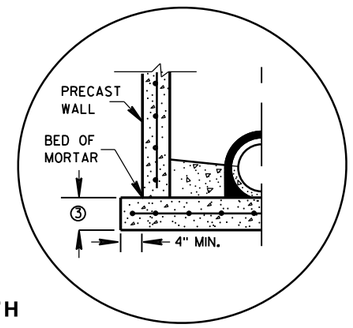


PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

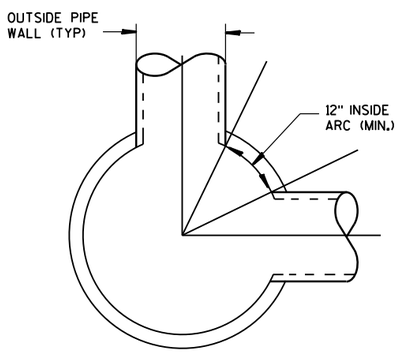


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



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 1/2" 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

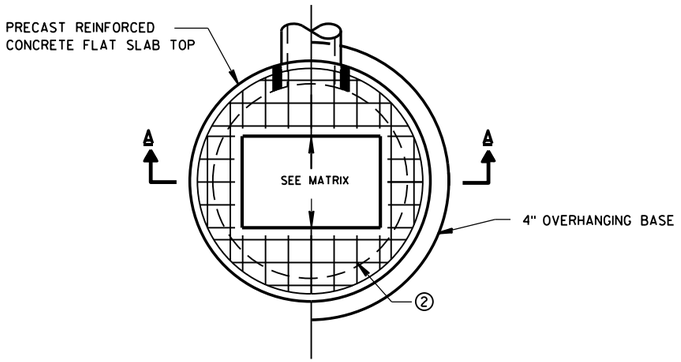
MANHOLE SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18
5-FT	36	24
6-FT	42	36
7-FT	48	36
8-FT	60	42

MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER

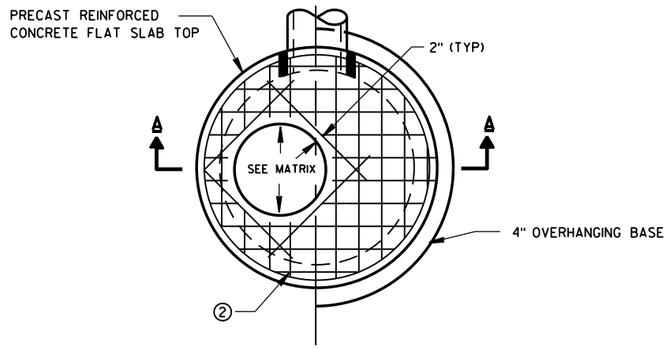
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

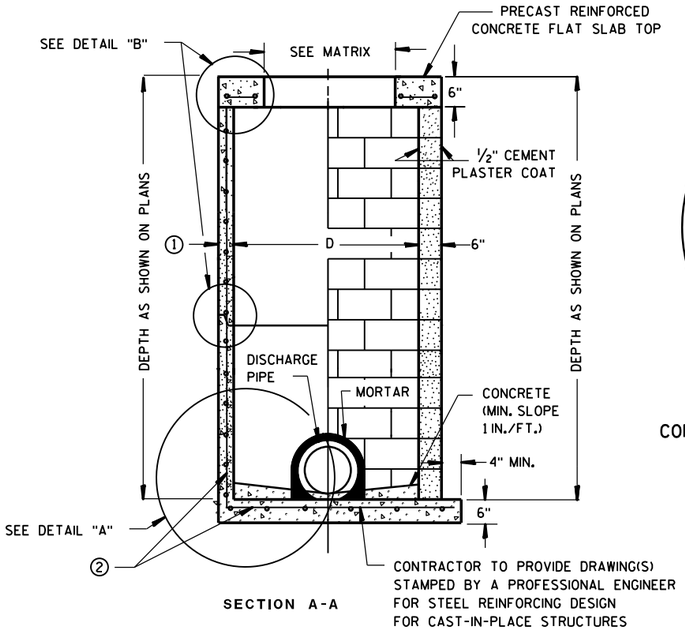
6
S.D.D. 8 B 9-1



PLAN VIEW RECTANGULAR OPENING



PLAN VIEW CIRCULAR OPENING

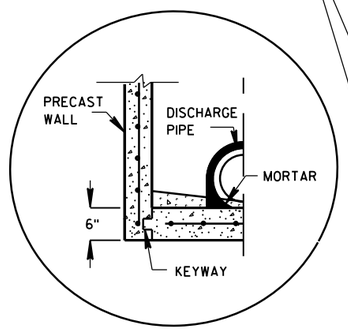


SECTION A-A

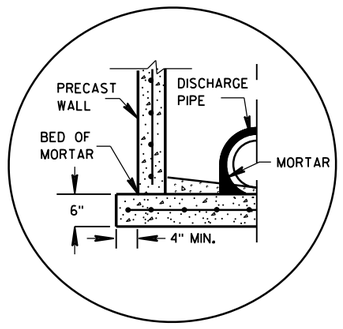
PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

CIRCULAR INLETS W/ FLAT TOP

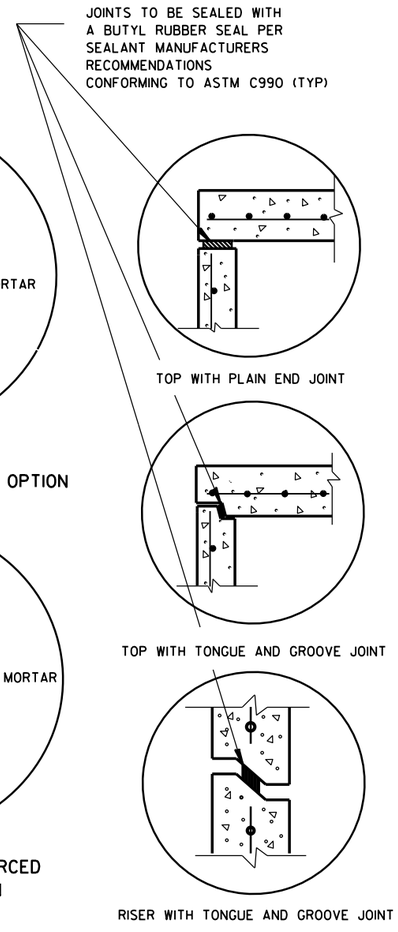


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "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.

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 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.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

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.

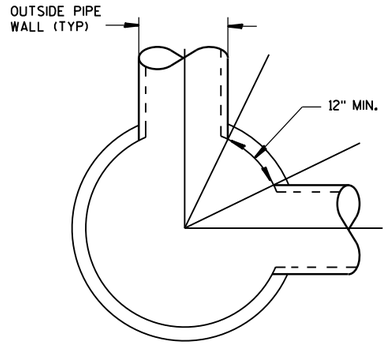
FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

① MINIMUM WALL THICKNESS SHALL BE 4-IN FOR 3-FT DIAMETER AND 5-IN FOR 4-FT DIAMETER PRECAST INLETS.

② FOR PRECAST CATCH BASINS PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

INLET COVER OPENING MATRIX

	INLET COVER TYPE	ALL A'S	ALL B'S	BW	C	F	ALL H'S	S	T	V	WM	Z
INLET SIZE	OPENING SIZE (FT)											
3-FT	2 DIA.				X							X
	2X2	X	X					X		X		
4-FT	2 DIA.				X							X
	2X2	X	X					X		X		
	2X2.5			X				X	X	X	X	
	2X3						X					
	2.5X3					X						



DETAIL "C"

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18

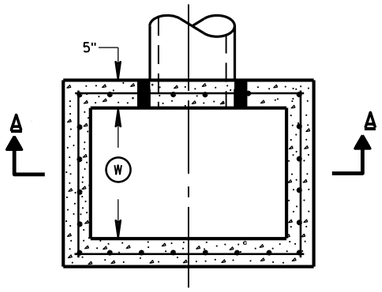
INLETS 3-FT AND 4-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

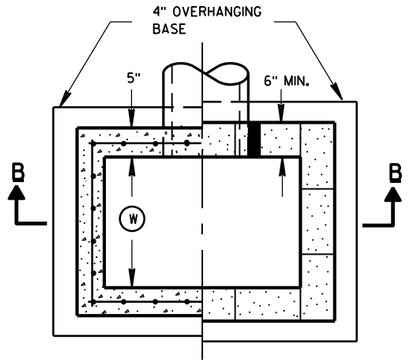
APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

INLETS 3-FT AND 4-FT DIAMETER

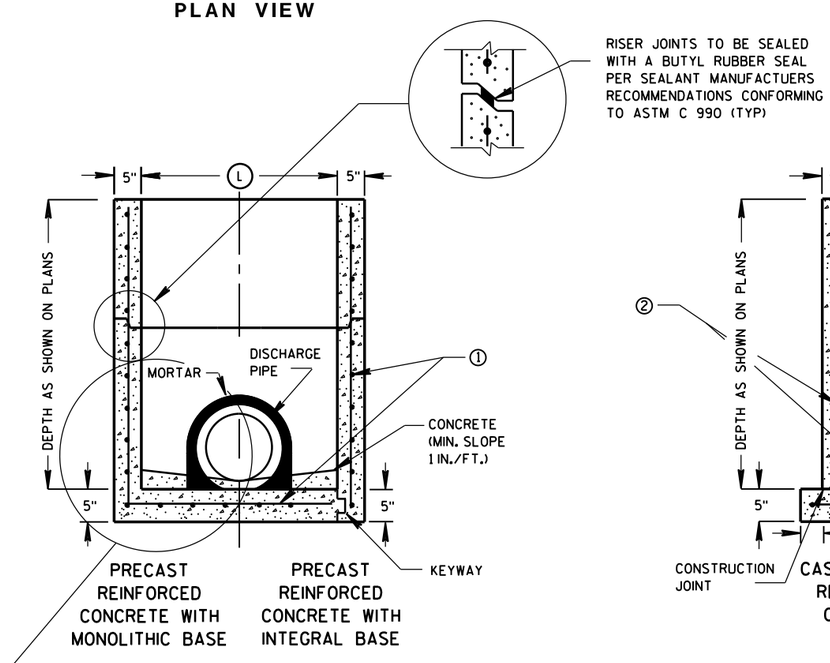
6
S.D.D. 8 C 6-1



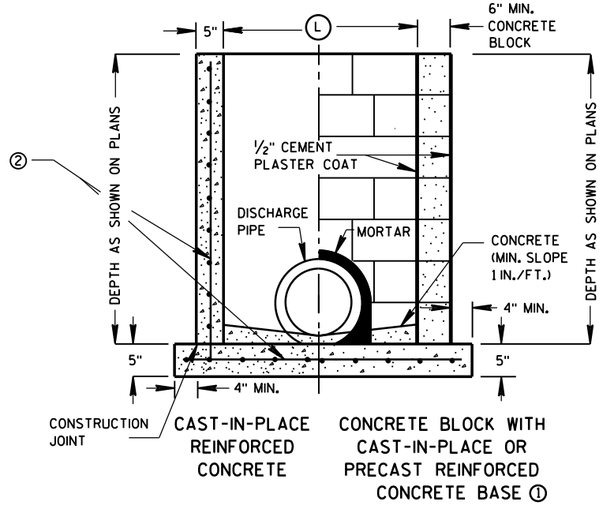
PLAN VIEW



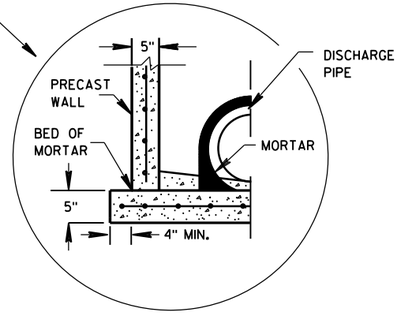
PLAN VIEW



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.

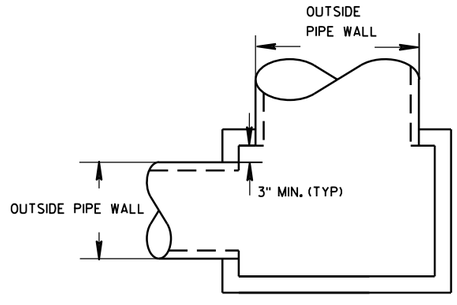
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

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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APPROVED
6/5/2012
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DE ENGINEER
FHWA

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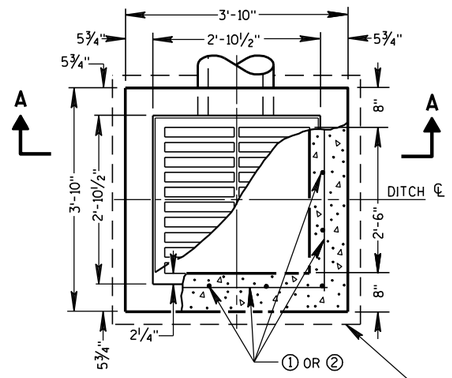
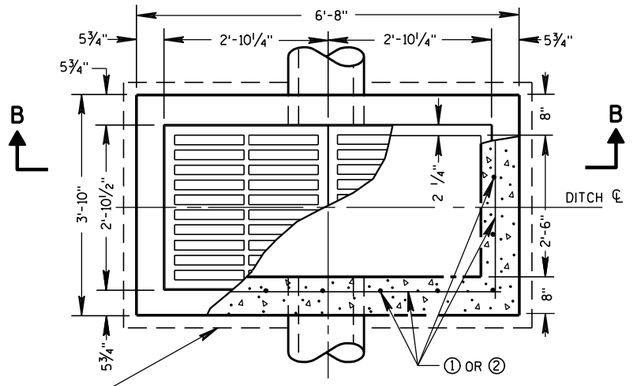
S.D.D. 8 C 7-1

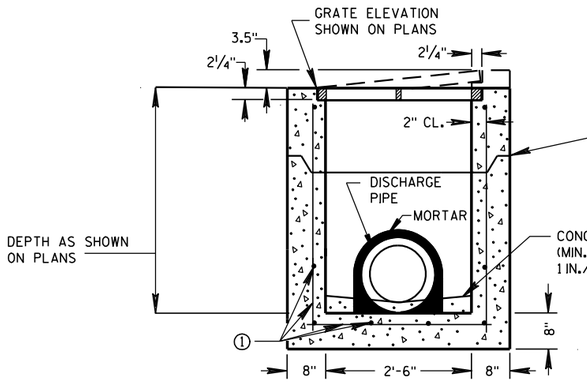


PLAN VIEW

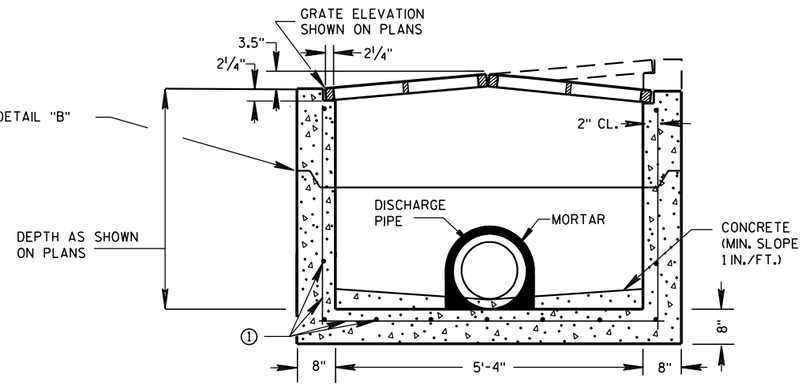


PLAN VIEW

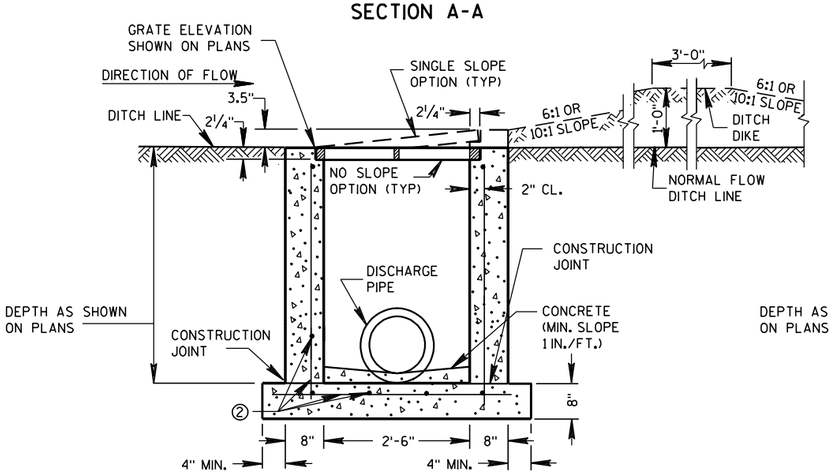
4" OVERHANGING BASE ON REINFORCED CAST-IN-PLACE CONCRETE INLETS



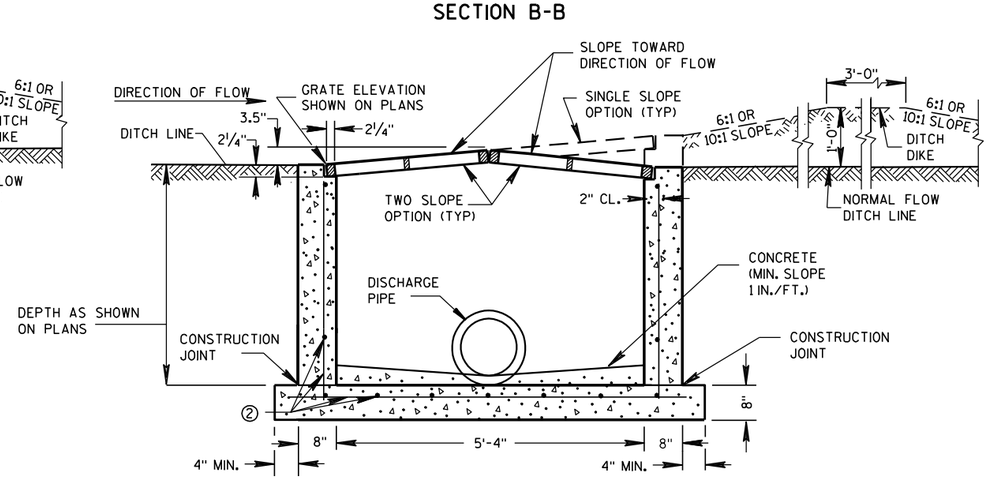
PRECAST REINFORCED CONCRETE SECTION A-A



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.

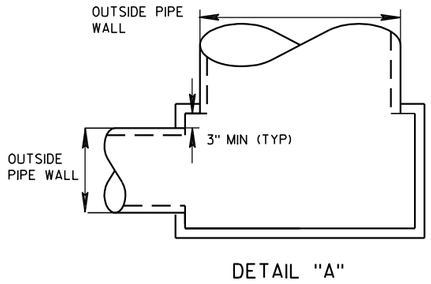
MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

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.

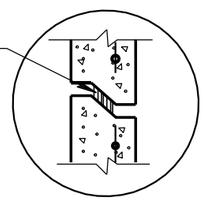
PIPE MATRIX

	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

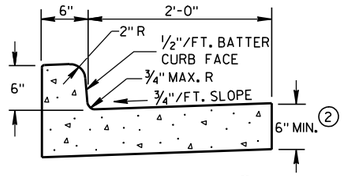
FHWA

6

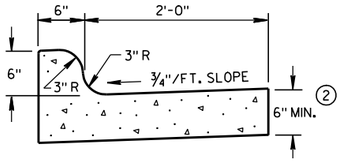
S.D.D. 8 C 8-1

6

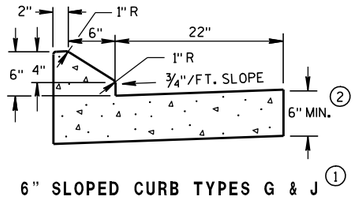
S.D.D. 8 C 8-1



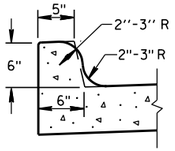
TYPES A & D (1)



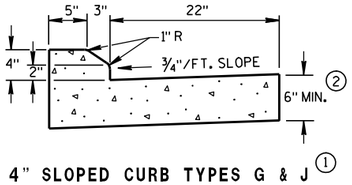
TYPES K & L (1)



6" SLOPED CURB TYPES G & J (1)

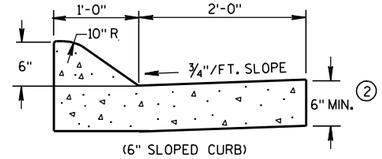


OPTIONAL CURB SHAPE FOR TYPES K & L (1)

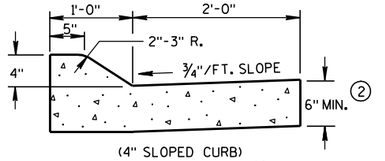


4" SLOPED CURB TYPES G & J (1)

CONCRETE CURB & GUTTER 30"

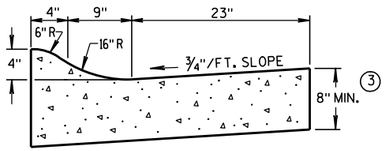


(6" SLOPED CURB)



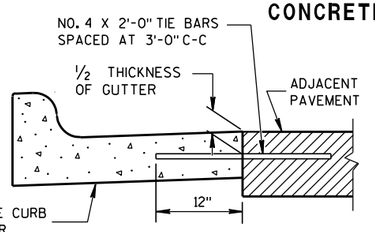
(4" SLOPED CURB)

TYPES A & D (1)

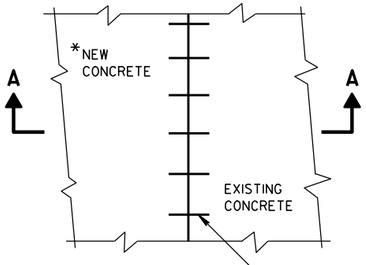


4" SLOPED CURB TYPES R & T (1) (4)

CONCRETE CURB & GUTTER 36"

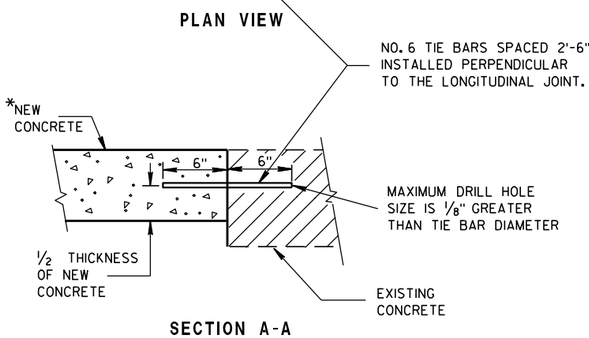


TYPICAL TIE BAR LOCATION (1)



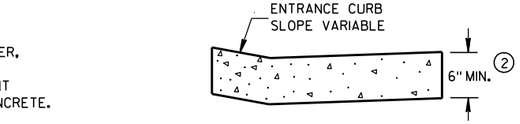
PLAN VIEW

*NEW CURB & GUTTER, SURFACE DRAINS, CONCRETE PAVEMENT OR OTHER NEW CONCRETE.



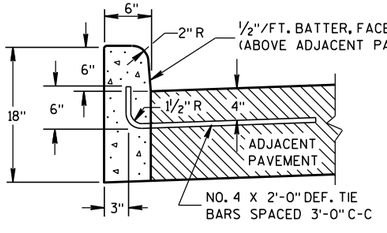
SECTION A-A

TIE BARS DRILLED INTO EXISTING PAVEMENT



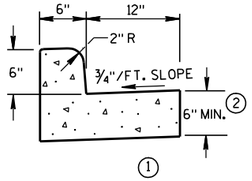
DRIVEWAY ENTRANCE CURB

(WHEN DIRECTED BY THE ENGINEER)



(1)

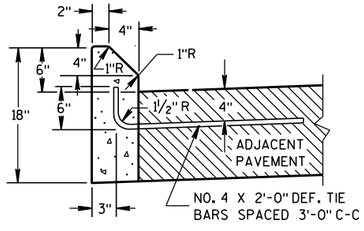
TYPES A & D



(1)

TYPES A & D

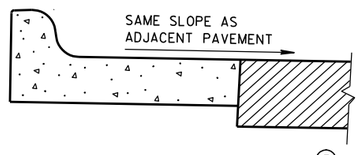
CONCRETE CURB & GUTTER 18"



(1)

TYPES G & J

CONCRETE CURB



(5)

REVERSE SLOPE GUTTER

(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.

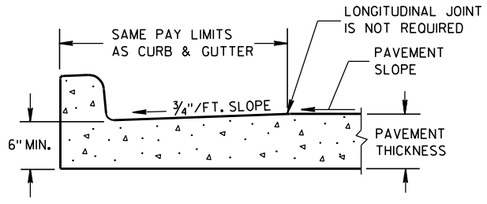
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K AND R.

(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.

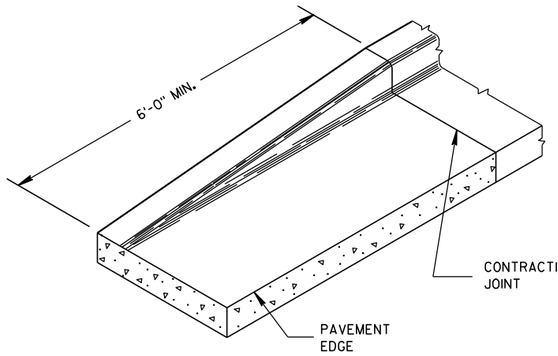
(3) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(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



END SECTION CURB & GUTTER

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

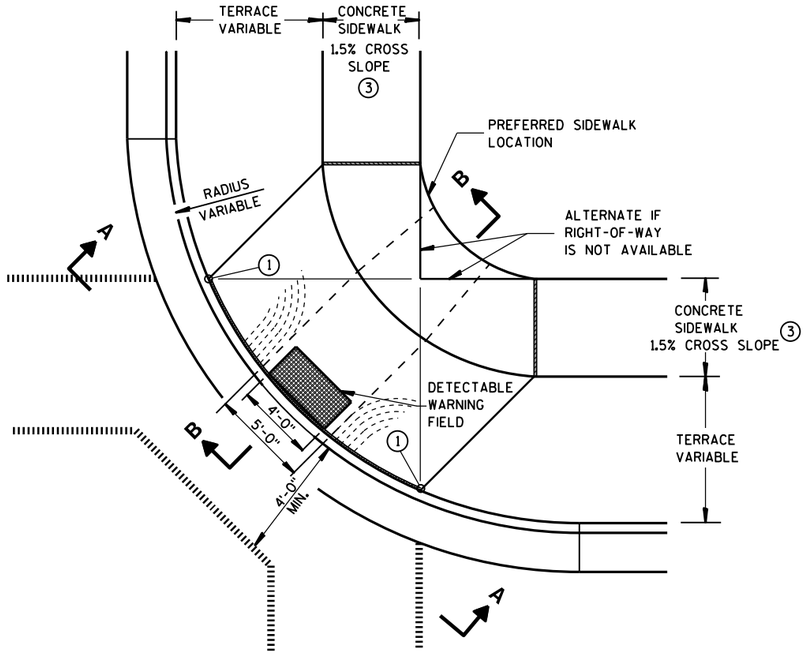
FHWA

6

S.D.D. 8 D 1-17

6

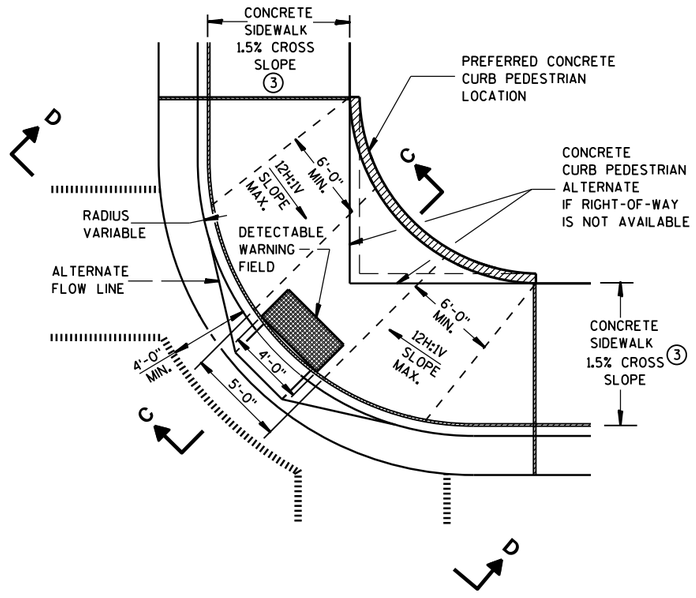
S.D.D. 8 D 1-17



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.

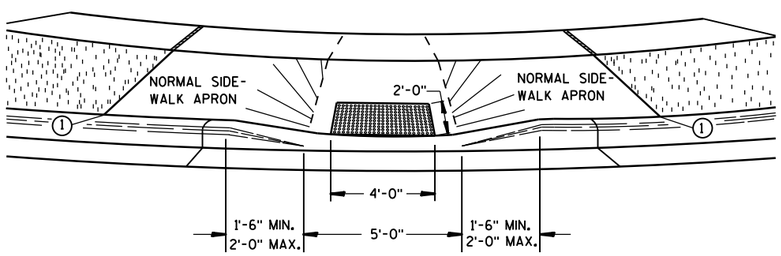
① THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB.

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.

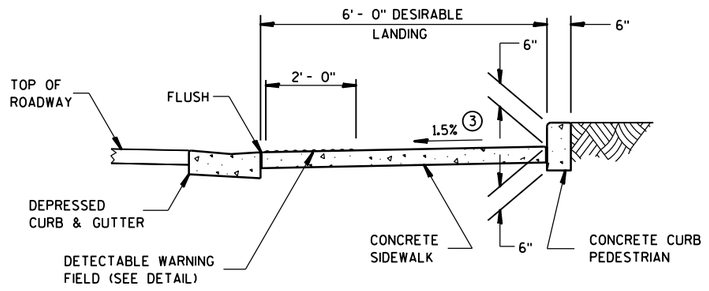
③ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

LEGEND

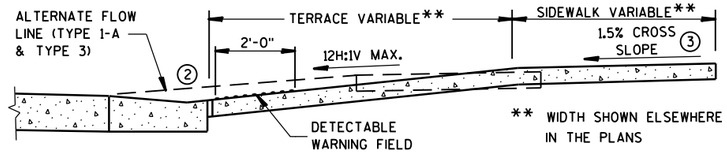
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



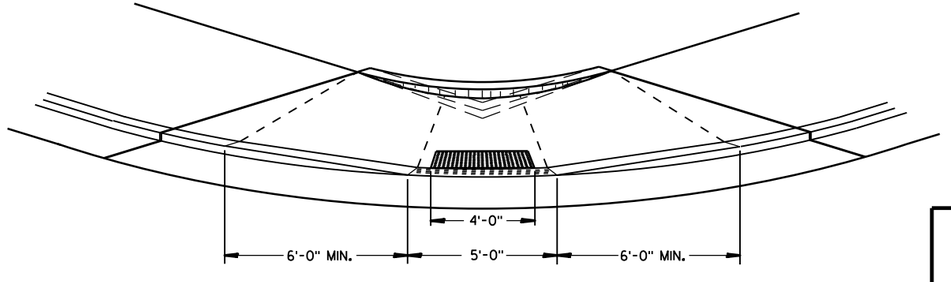
VIEW A-A



SECTION C-C



SECTION B-B



VIEW D-D

CURB RAMPS TYPES 1 AND 1-A

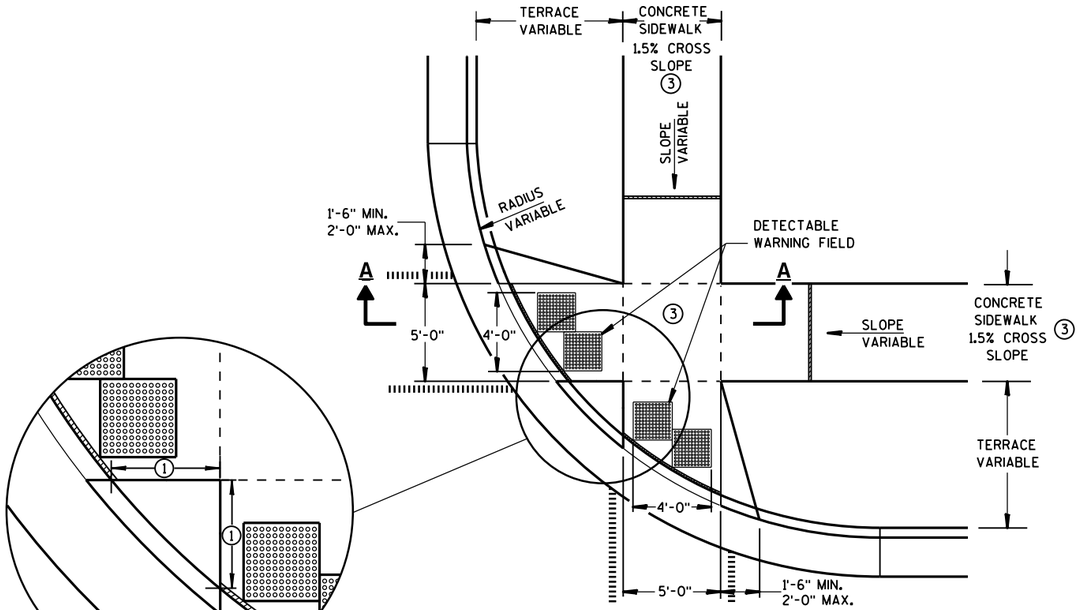
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 8 D 5-15a

6

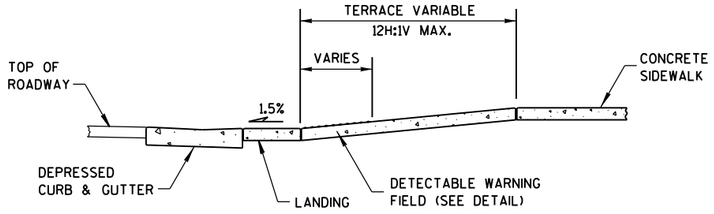
S.D.D. 8 D 5-15a



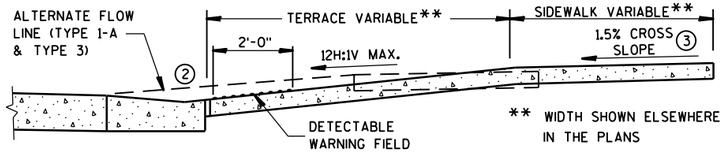
PLAN VIEW

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.

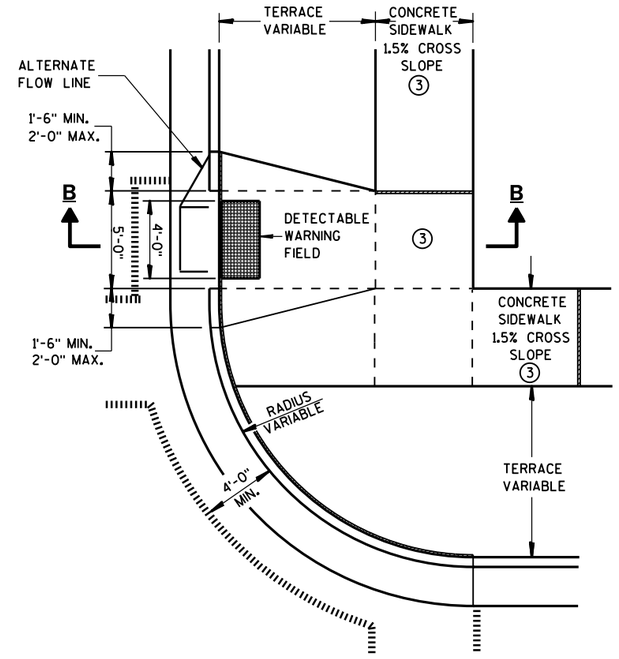
① WHEN THIS DISTANCE IS LESS THAN 6'-0" IT MAY BE DIFFICULT TO ACHIEVE A 12H:1V SLOPE, OR FLATTER, ON THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 12H:1V SLOPE, OR FLATTER, ON RAMP. 2" MINIMUM CURB HEIGHT.

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

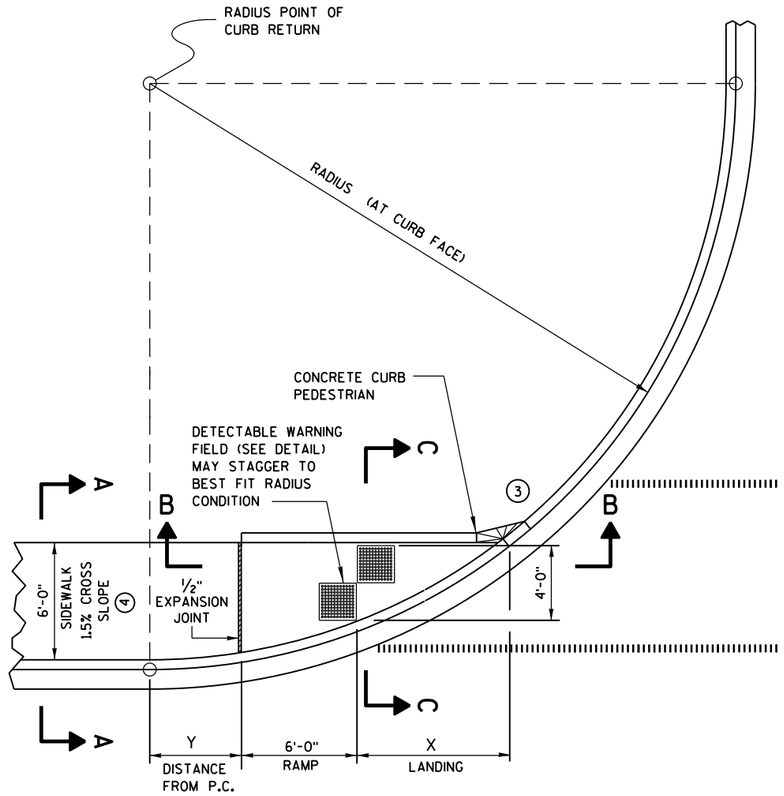
(OUTSIDE OF CROSSWALK AREA)

CURB RAMPS TYPES 2 AND 3

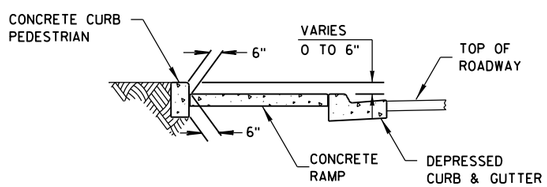
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

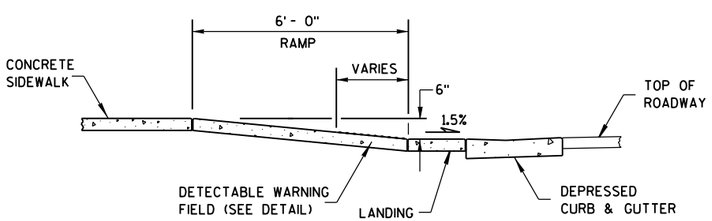
S.D.D. 8 D 5-15b



CURB RAMP TYPE 4A
PLAN VIEW



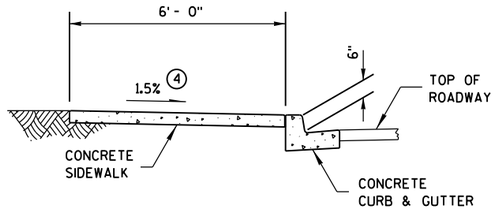
SECTION C-C FOR TYPE 4A



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

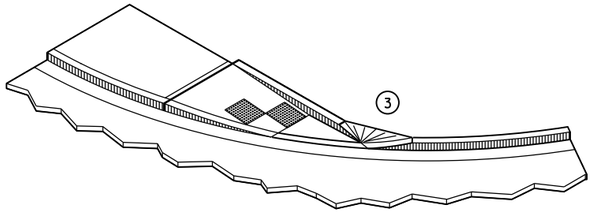
AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

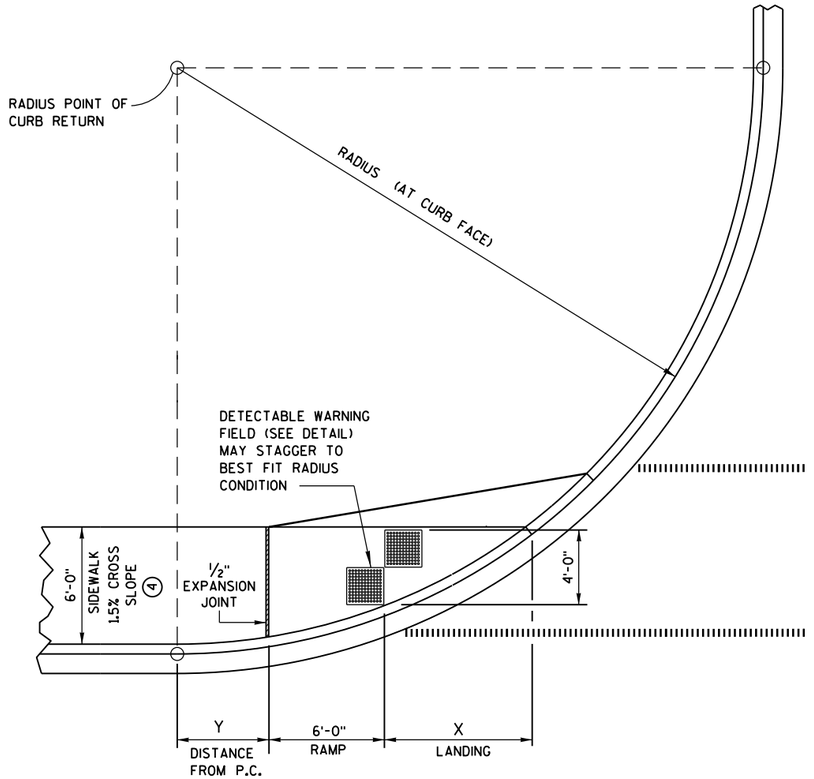
DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(3) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.) DO NOT MARK TRANSITION NOSE.

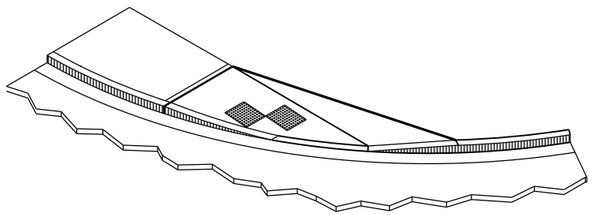
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.



ISOMETRIC VIEW FOR TYPE 4A



CURB RAMP TYPE 4A1
PLAN VIEW



ISOMETRIC VIEW FOR TYPE 4A1

LEGEND

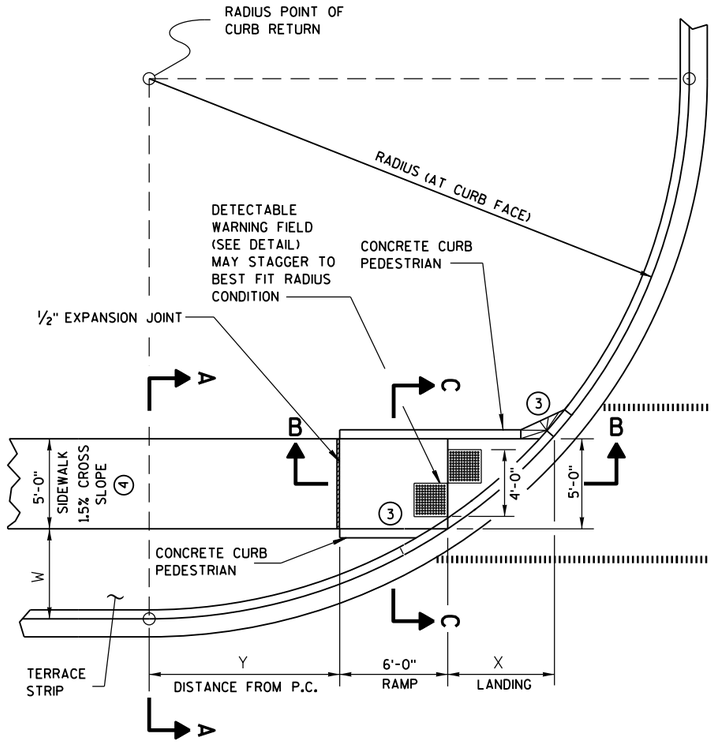
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPES 4A AND 4A1

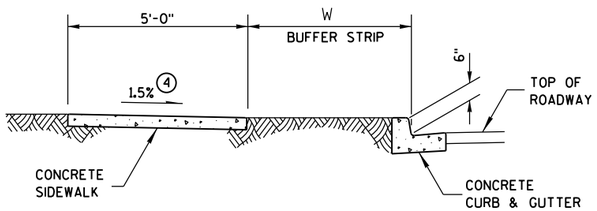
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

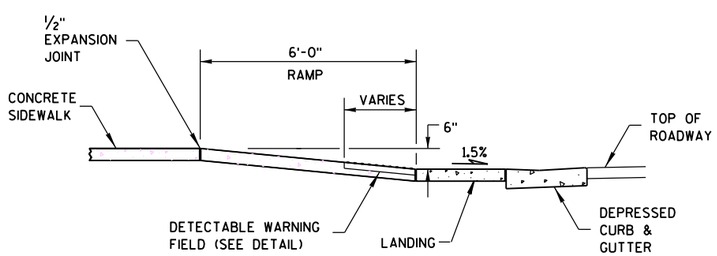
S.D.D. 8 D 5-15c



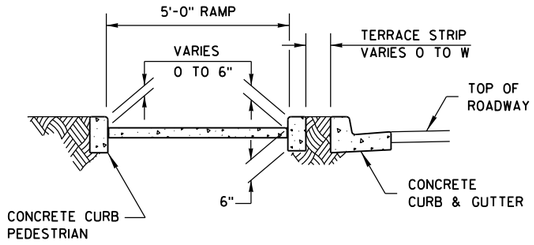
CURB RAMP TYPE 4B
PLAN VIEW



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

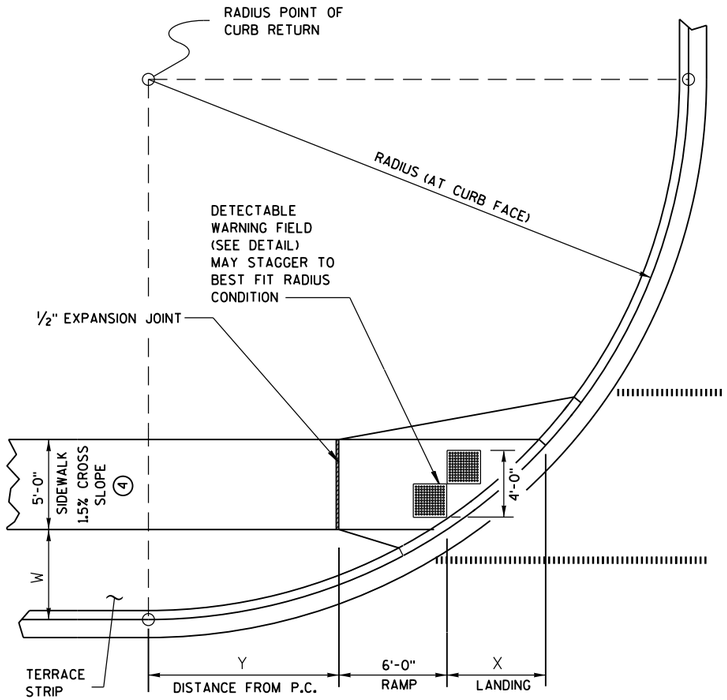
AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

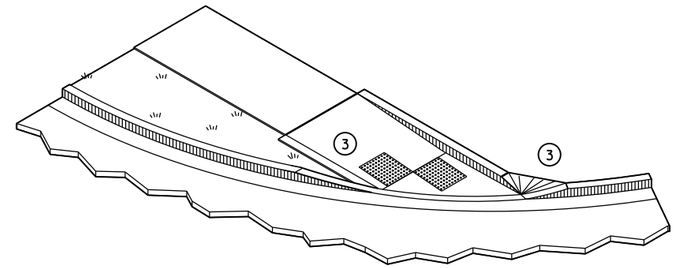
DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(3) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.) DO NOT MARK TRANSITION NOSE.

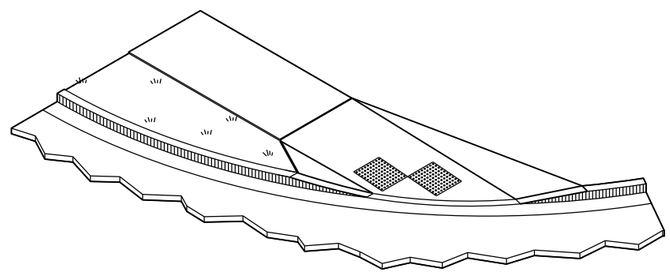
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.



CURB RAMP TYPE 4B1
PLAN VIEW



ISOMETRIC VIEW FOR TYPE 4B



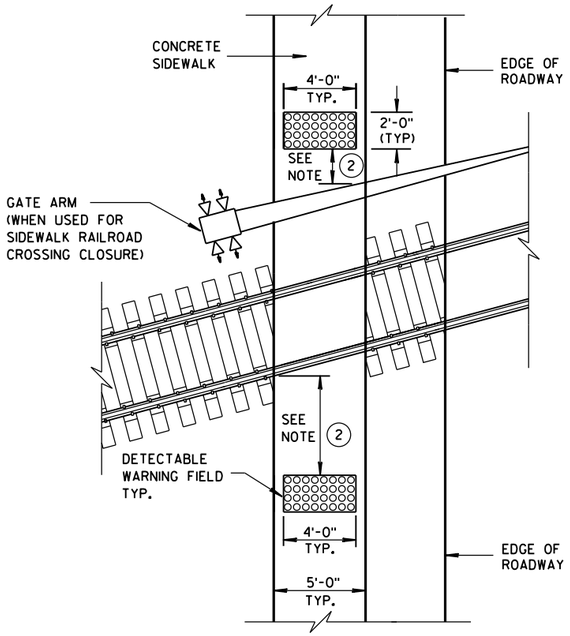
ISOMETRIC VIEW FOR TYPE 4B1

CURB RAMPS TYPE 4B AND 4B1

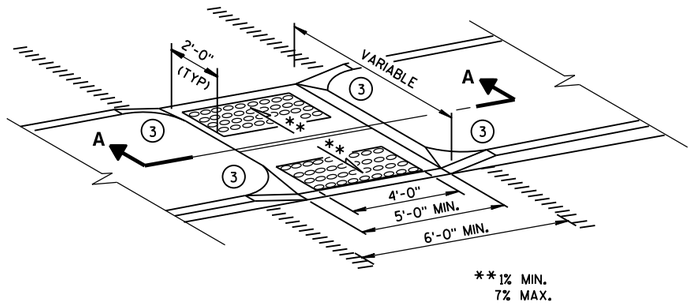
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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%.

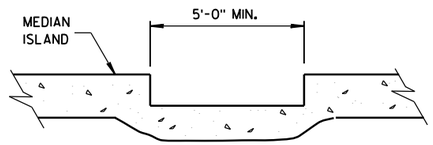
DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(1) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

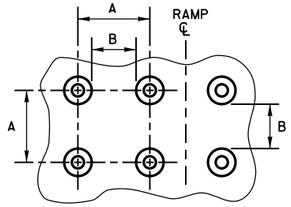
(2) THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET ± 0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD CROSSING SHALL BE 15 FEET 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.



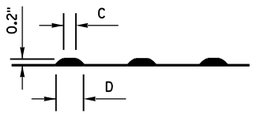
SECTION A-A



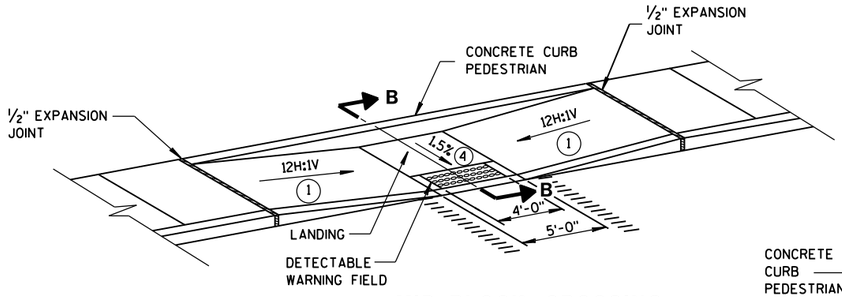
PLAN VIEW

	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	*	*
D	0.9"	1.4"

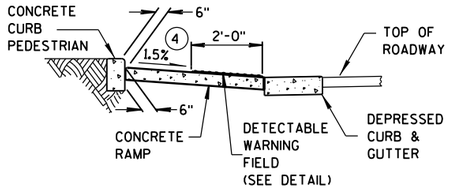
* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.



ELEVATION VIEW

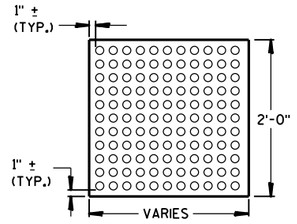


MID-BLOCK CROSSING
TYPE 7A



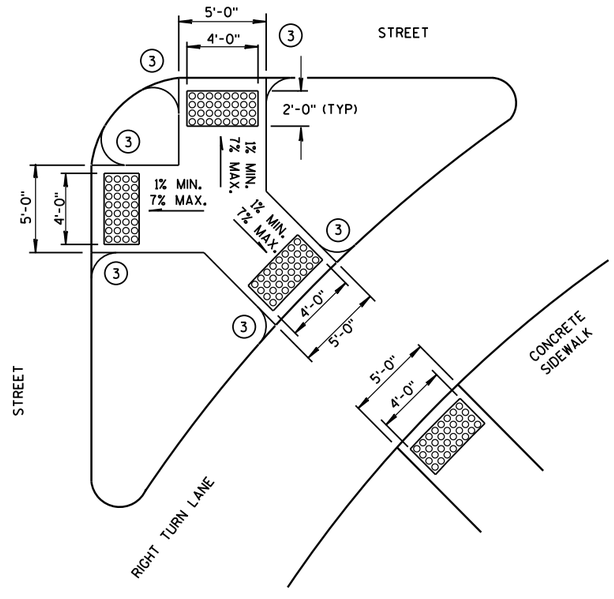
SECTION B-B

TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL

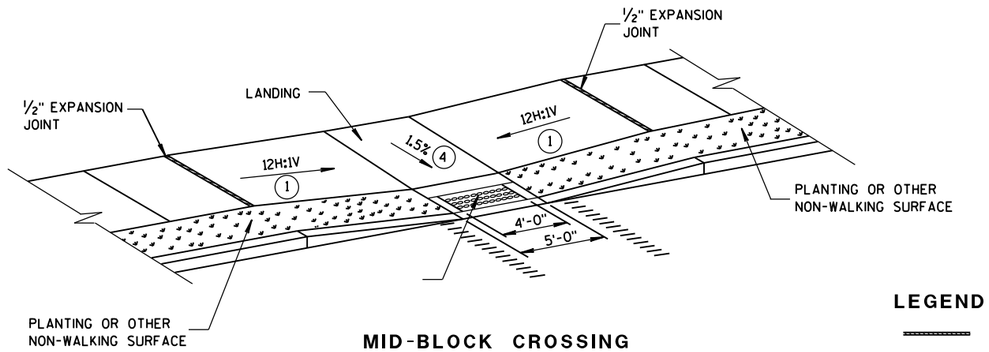


PLAN VIEW

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

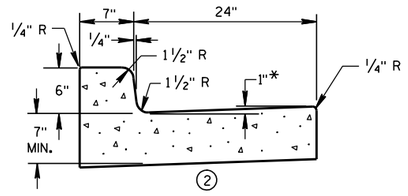
APPROVED
2-6-2013 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

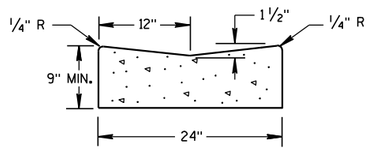
S.D.D. 8 D 5-15e

6

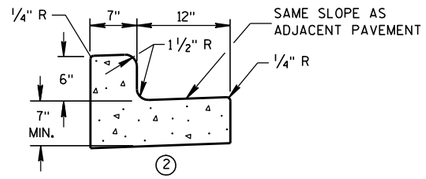
S.D.D. 8 D 5-15e



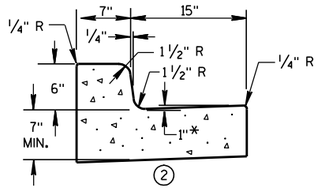
① CONCRETE CURB & GUTTER 31"



① CONCRETE GUTTER 24"

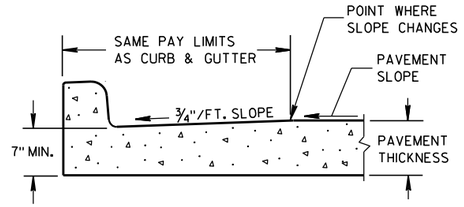


① CONCRETE CURB & GUTTER 19"



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.

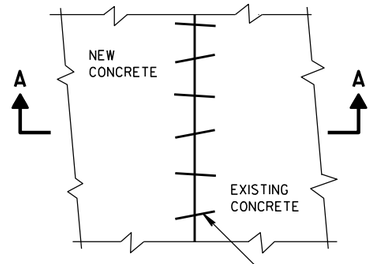
WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

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.

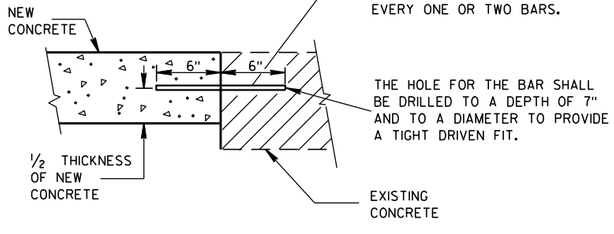
③ WHEN HIGH SIDE CURB SECTION IS REQUIRED, THE LOCATION(S) WILL BE NOTED ON THE PLAN.



PLAN VIEW

EXISTING AND NEW CONCRETE MAY BE CURB & GUTTER, SURFACE DRAIN, PAVEMENT OR OTHER CONCRETE STRUCTURE.

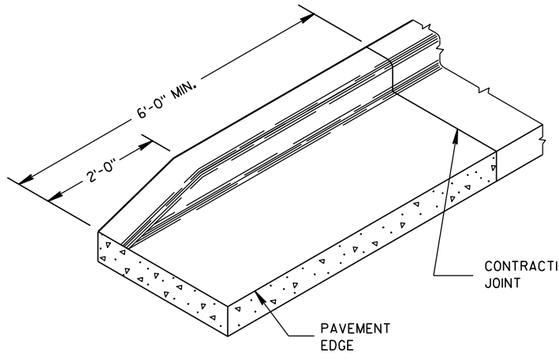
NO. 6 X 12" DEF. BARS SPACED 3'-0" C-C, INSTALLED ON 6:1 SKEW HORIZONTALLY. DIRECTION OF SKEW ALTERNATING AFTER EVERY ONE OR TWO BARS.



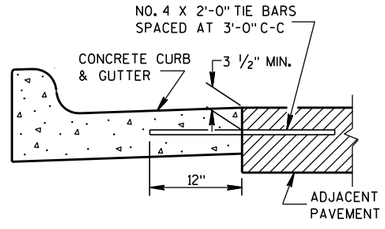
THE HOLE FOR THE BAR SHALL BE DRILLED TO A DEPTH OF 7" AND TO A DIAMETER TO PROVIDE A TIGHT DRIVEN FIT.

SECTION A-A

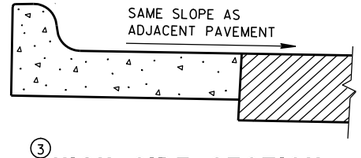
PAVEMENT TIES



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

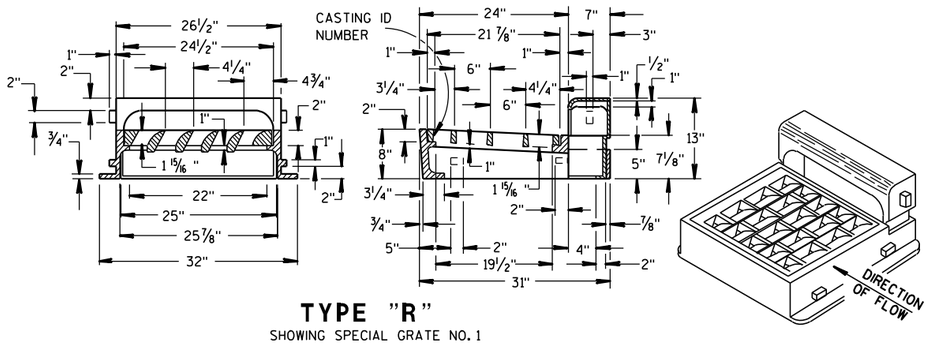
ENT

FHWA

6

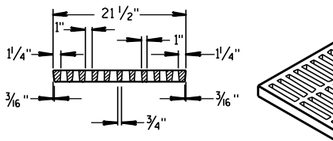
S.D.D. 8 D 16-10

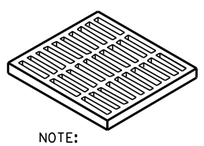
INLET COVERS



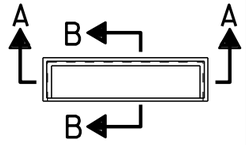
TYPE "R"

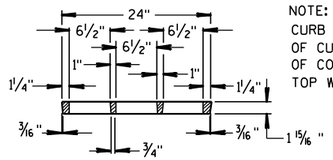
SHOWING SPECIAL GRATE NO. 1
(TO BE NOTED AS R-1 IN DRAINAGE TABLE)



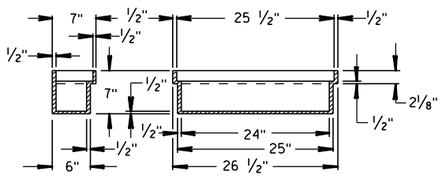


(APPROX. WEIGHT - 510 LBS.)
FRAME..... 245 LBS.
CURB..... 120 LBS.
GRATE..... 145 LBS.





NOTE:
CURB PLUG USED IN PLACE OF CURB BOX IN ABSENCE OF CONC. CURB. FILL TO TOP WITH CONCRETE.



SECTION B-B SECTION A-A

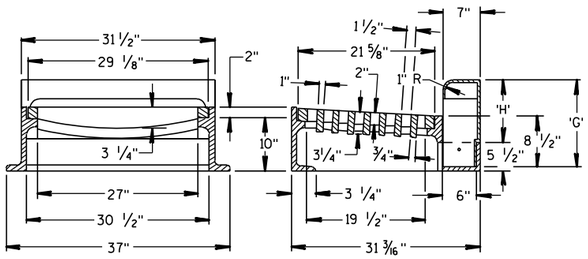
GRATE FOR TYPE "R" INLET COVER

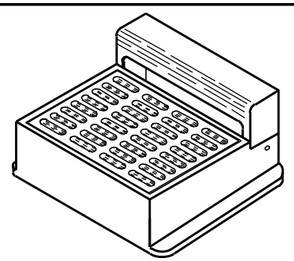
(GRATE..... 150 LBS.)
(TO BE USED UNLESS OTHERWISE NOTED IN DRAINAGE TABLE)

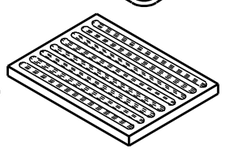
SPECIAL CURB PLUG "P"

(CURB PLUG..... 85 LBS.)
(TO BE NOTED AS R-P IN DRAINAGE TABLE)

'H' = 9" FOR 6" CURB
'H' = 11" FOR 8" CURB
'G' = 13 3/4" FOR 6" CURB
'G' = 15 3/4" FOR 8" CURB



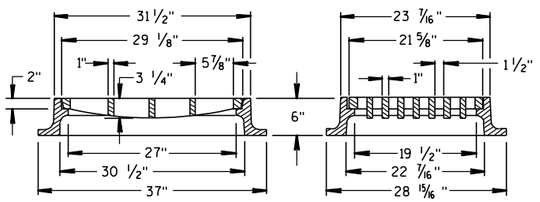


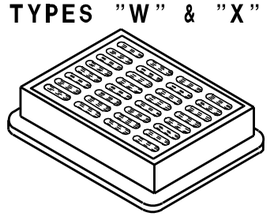


(APPROX. WEIGHT - 670 LBS.)
FRAME..... 350 LBS.
CURB BOX..... 135 LBS.
GRATE..... 185 LBS.

TYPE "W"

ALTERNATE GRATE
(FOR EXPRESSWAY RAMPS)
TYPES "W" & "X"

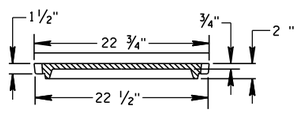




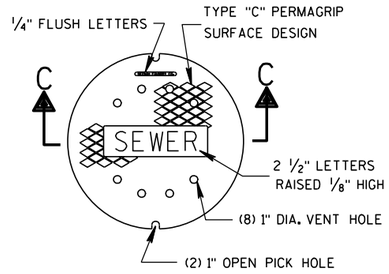
TYPE "X"

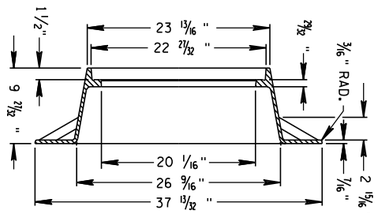
(APPROX. WEIGHT - 470 LBS.)

MANHOLE COVER



SECTION C-C

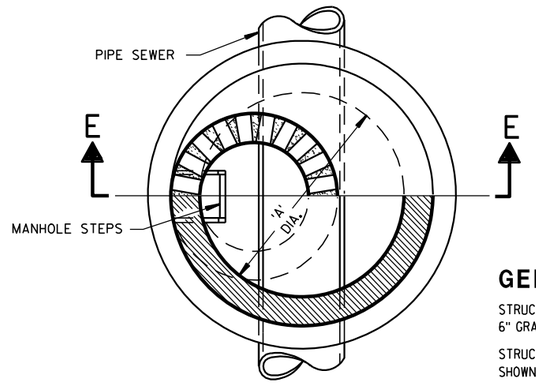




TYPE "Q"

(APPROX. WEIGHT - 290 LBS.)

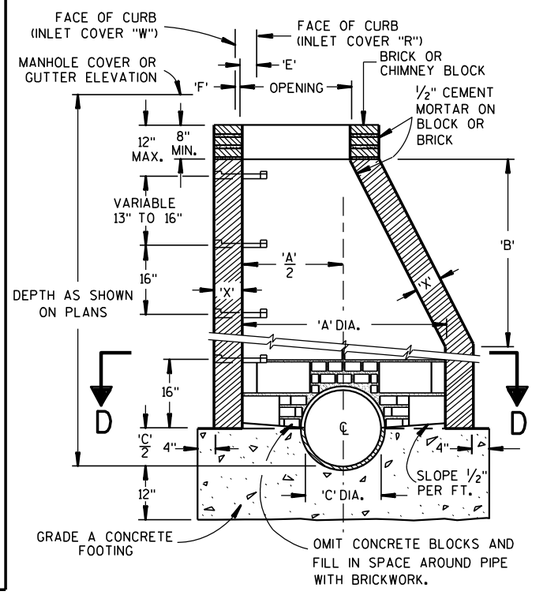
MANHOLE



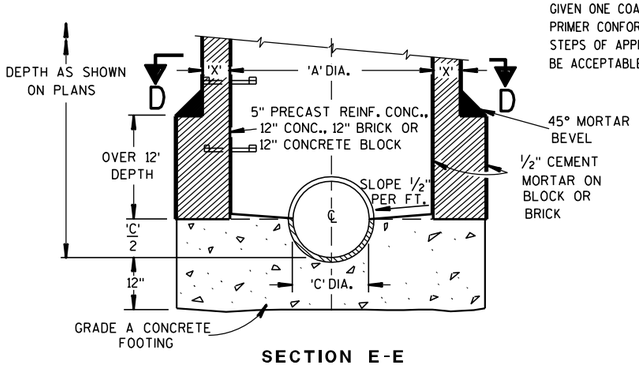
HALF SECTION D-D

TABLE OF OPENING DIMENSIONS

COVER TYPE	COVER DESCRIPTION	OPENING	'E'	'F'
"O"	ROUND	2'-2" DIA.	—	—
"W"	CURB BOX	1'-8" X 2'-6"	—	1"
"X"	INLET	1'-10" X 2'-6"	—	—
"R"	CURB BOX	2'-0" X 2'-1"	4"	—



SECTION E-E



SECTION E-E

TYPES 11, 12, 13 & 14

TABLE OF DIMENSIONS

TYPE	'A'	'B'	'C'
11	3'-6"	2'-8"	12" - 36"*
12	4'-0"	3'-8"	12" - 42"**
13	5'-0"	5'-8"	42" - 48"
14	6'-0"	7'-8"	54" - 60"

* 12" - 21" FOR PRECAST MANHOLES
** 12" - 24" FOR PRECAST MANHOLES

THE FIRST STEP SHALL BE PLACED 16" ABOVE THE BENCH.

GENERAL NOTES

STRUCTURE WALL THICKNESS 'X' TO BE 8" BRICK, 6" CONCRETE BLOCK, 6" GRADE A CONCRETE OR 5" PRECAST REINFORCED CONCRETE.

STRUCTURE FOOTINGS ARE TO BE GRADE A CONCRETE OF THE THICKNESS SHOWN IN THE DETAIL OR 5" PRECAST REINFORCED CONCRETE.

REINFORCEMENT FOR 5" PRECAST REINFORCED CONCRETE SHALL BE 6" X 6" W16 X W16 WELDED SREEL WIRE FABRIC AND SHALL BE EMBEDDED 2" CLEAR.

PRECAST INLET UNITS AND BASES SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M 199.

PRECAST CONCRETE FLAT SLAB TOPS MAY BE USED ON THE STRUCTURES. THE TOPS SHALL BE INSTALLED ON A BED OF MORTAR.

PRECAST REINFORCED BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6" IN DEPTH, WHICH MEETS THE REQUIREMENTS FOR GRANULAR BACK-FILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

SET FRAME ELEVATION 0.03 FT. LOWER THAN ELEVATION INDICATED ON THE PLANS.

THE CONTRACTOR MAY FORM AND POUR MONOLITHIC CONCRETE INVERT PROVIDED THE PIPE ENDS ARE EXTENDED INTO THE M.H. AND NOT TERMINATED WITHIN THE M.H. WALLS.

MANHOLE STEPS

STEPS MEETING THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH; 16 INCH C-C MAX. SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM WALL EMBEDMENT OF 3 INCHES IN PRECAST MANHOLE AND 6 INCHES IN 8 INCH BRICK OR 6 INCH BLOCK MANHOLE; TREAD OF STEP SHALL HAVE A NON-SKID SURFACE AND BE FLANKED BY CLEATS, WITH A MINIMUM OF 10 INCHES CLEAR BETWEEN CLEATS, TO PREVENT FOOT SLIPPING OFF THE EDGE CLEATS SHALL BE A MINIMUM OF 3/4 INCH HIGH BY 3/4 INCH WIDE HAVING A MINIMUM THICKNESS OF 3/8 INCH. STEPS SHALL BE CAPABLE OF SUPPORTING A CONCENTRATED LOAD OF 300 LBS. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

SOLID ALUMINUM STEPS SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 0.75 INCH. ALUMINUM SURFACES TO BE EMBEDDED IN CONCRETE SHALL BE GIVEN ONE COAT OF SUITABLE QUALITY PAINT, SUCH AS ZINC CHROMATE PRIMER CONFORMING TO FEDERAL SPECIFICATION TT-P-645 OR EQUIVALENT. STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCING BAR WILL BE ACCEPTABLE.

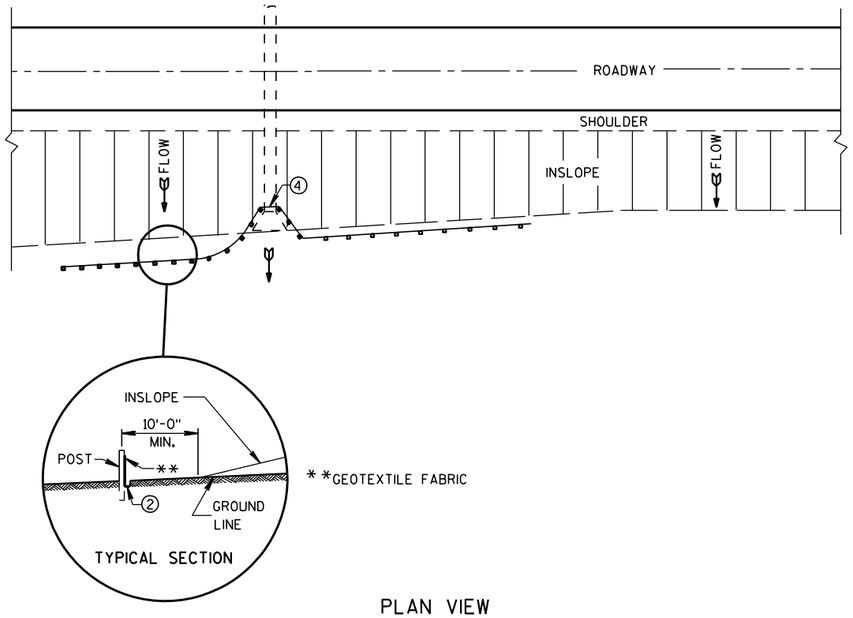
MANHOLES, MANHOLE & INLET COVERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4/12/2011 — DATE
/S/ Jerry H. Zogg — ROADSIDE STANDARDS ENGINEER
FHWA

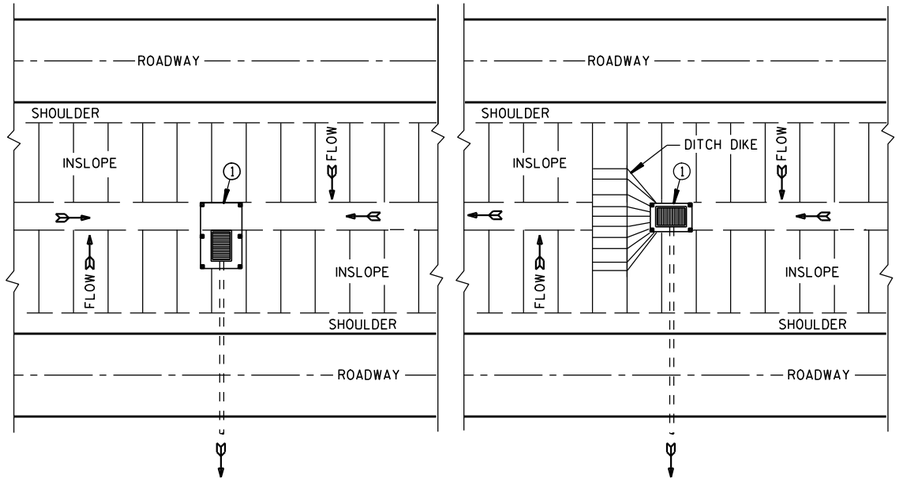
S.D.D. 8 D 17-6

S.D.D. 8 D 17-6



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



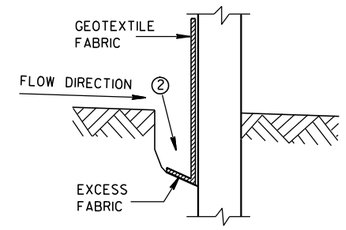
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

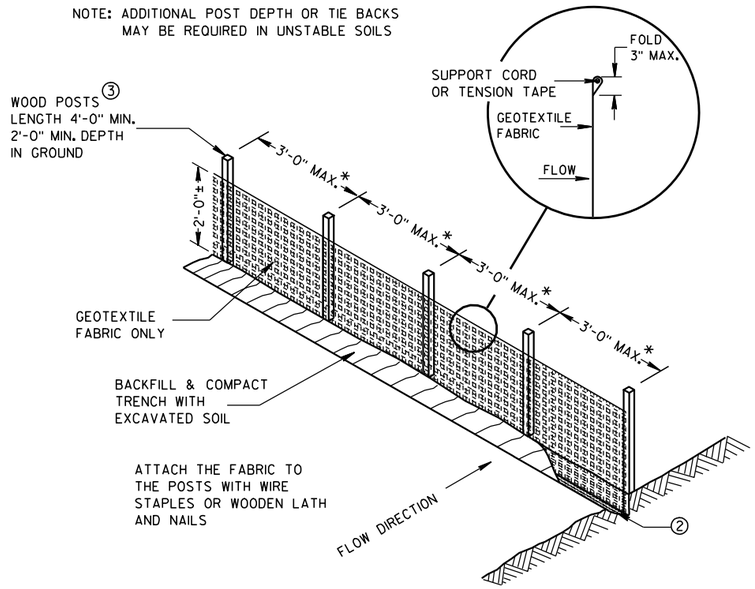
GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

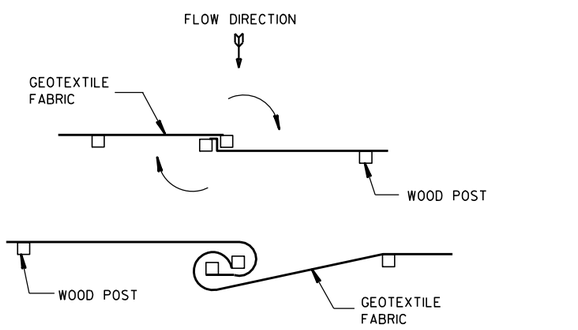
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL 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.



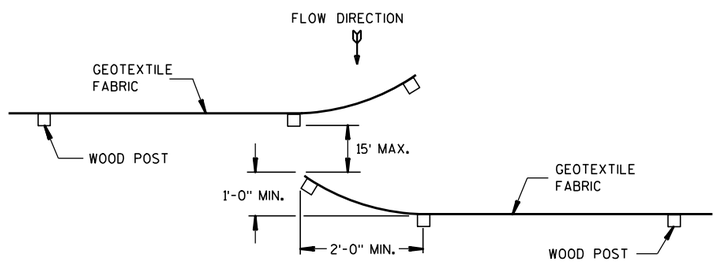
TRENCH DETAIL



SILT FENCE

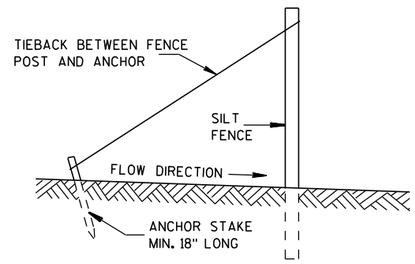


TWIST METHOD



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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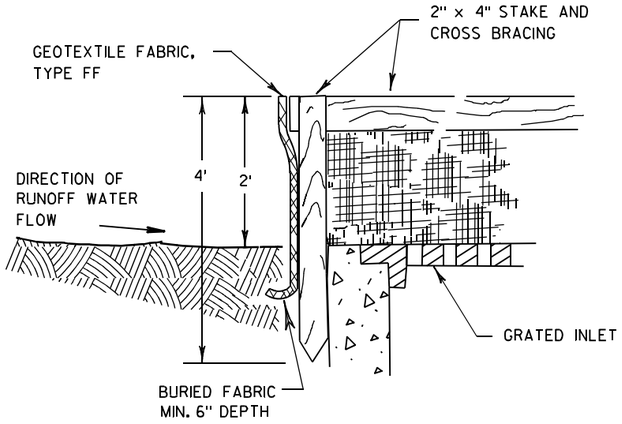
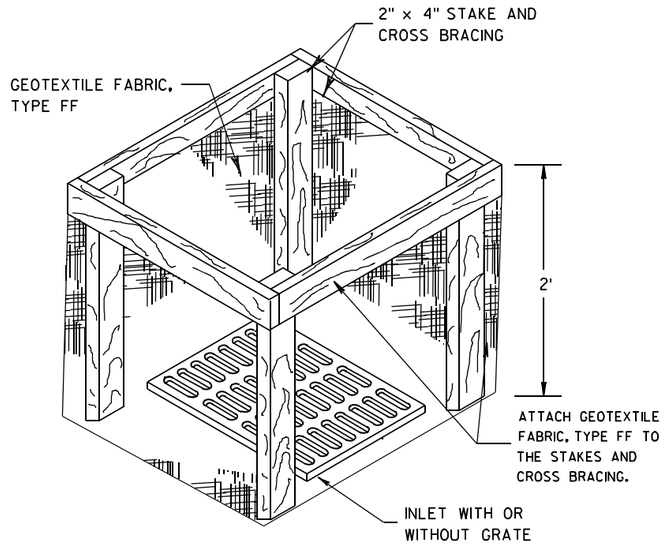
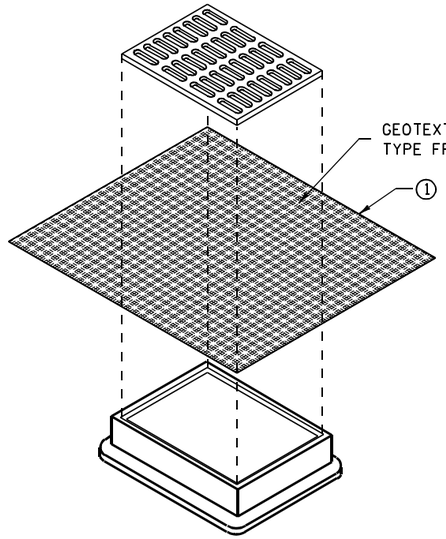
S.D.D. 8 E 9-6



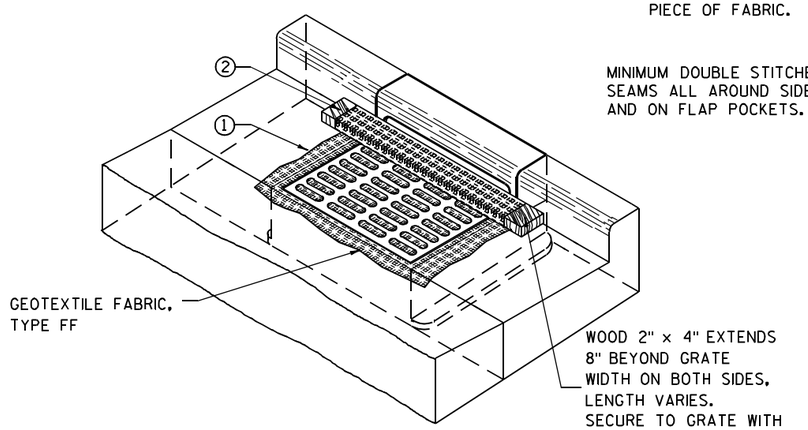


INLET PROTECTION, TYPE A

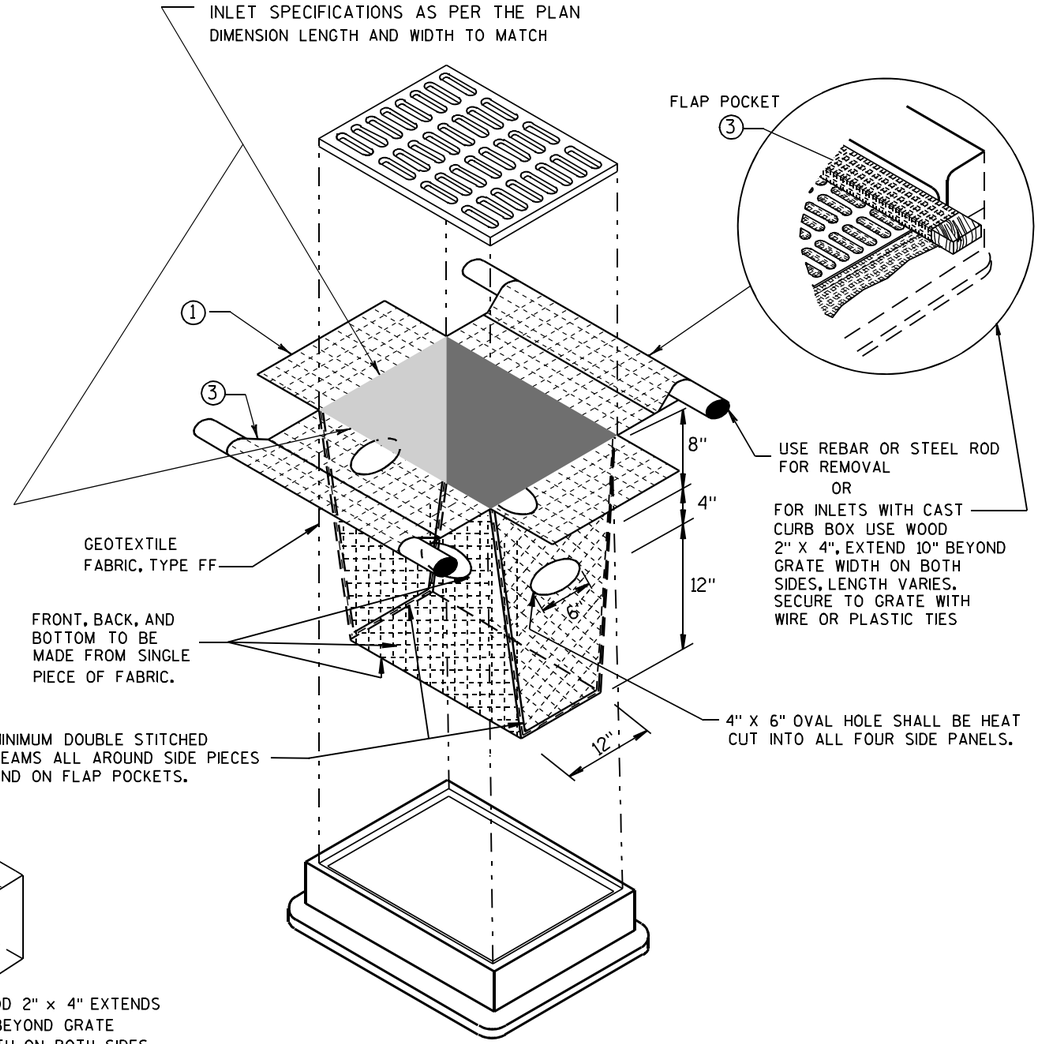


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

(CAN BE INSTALLED IN ANY INLET TYPE WITH
OR WITHOUT A CURB BOX AS PER NOTE ②)

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

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S.D.D. 8 E 10-2

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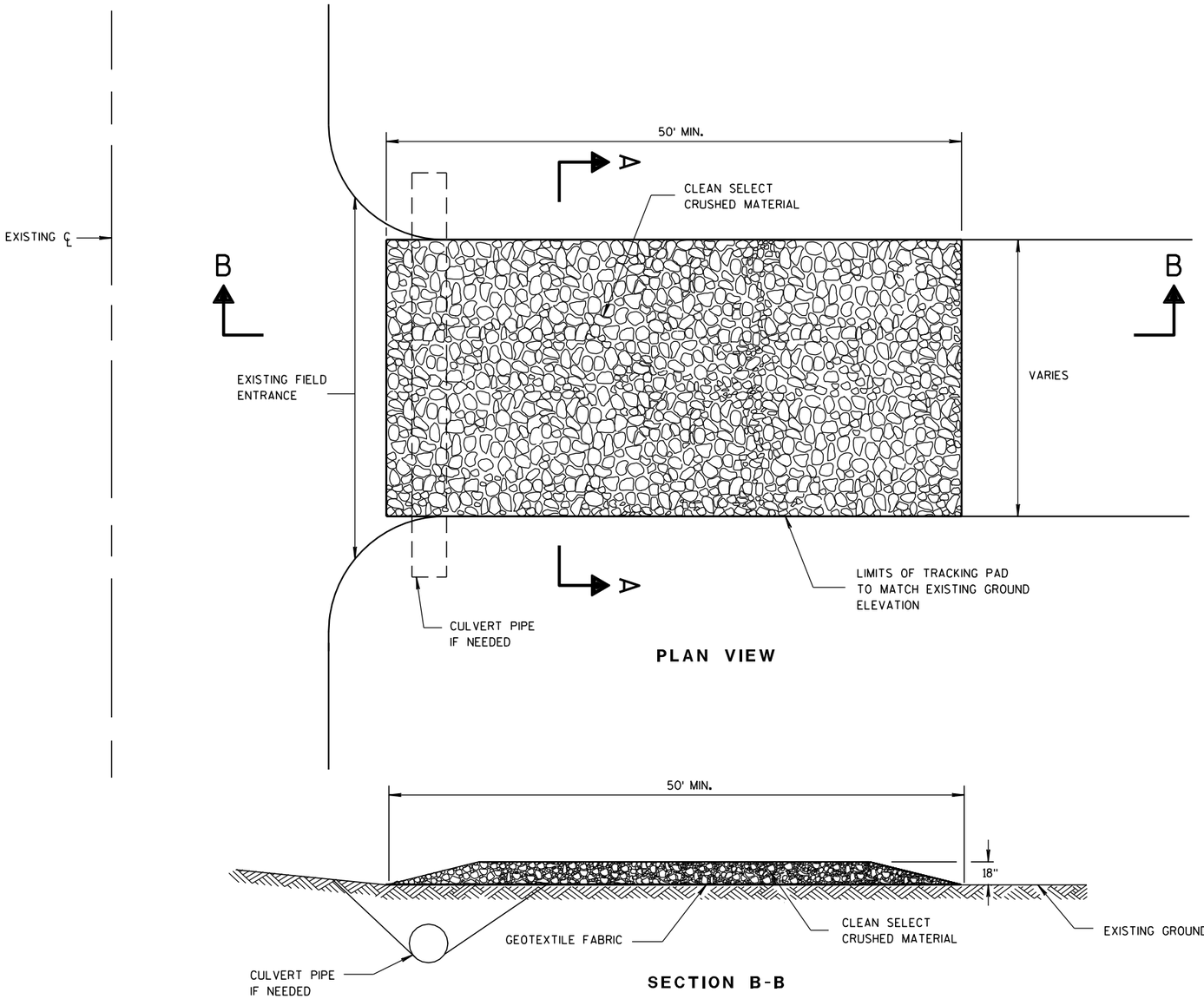
S.D.D. 8 E 10-2



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.

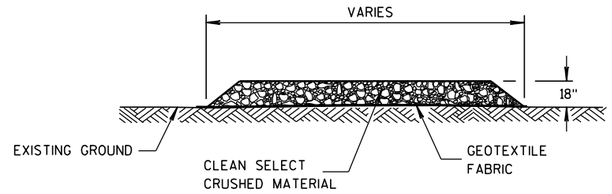
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

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

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S.D.D. 8 E 14-1

TRACKING PAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/24/2011	/S/ Jerry H. Zoda	
DATE	ROADWAY STANDARDS ENGINEER	ENT

FHWA

6

S.D.D. 8 E 14-1

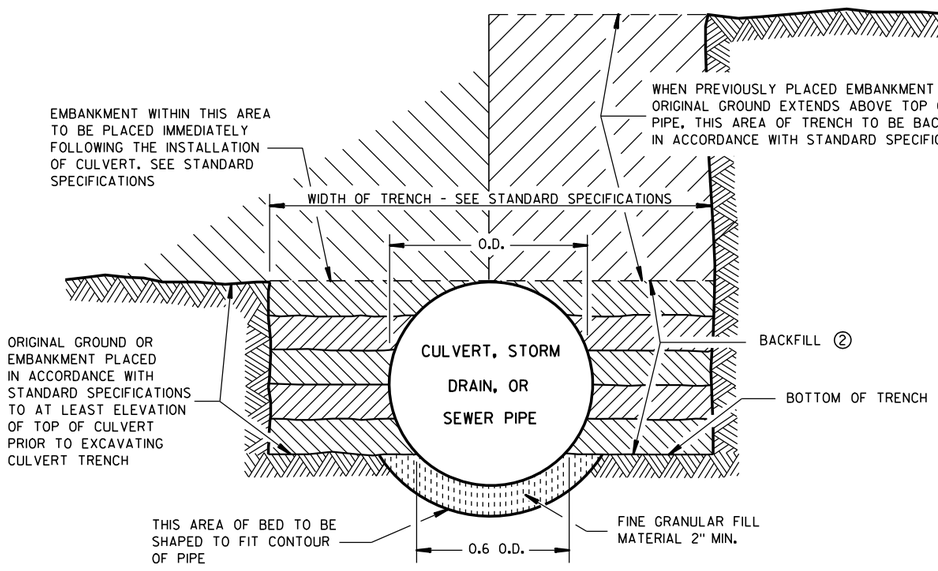
GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

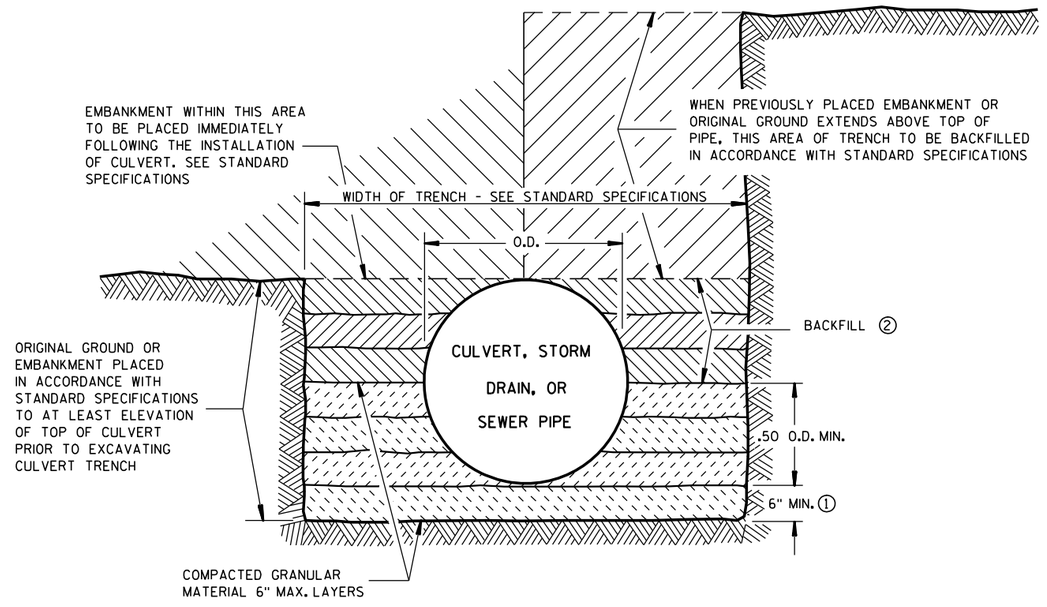
THE SHAPED SUBGRADE WITH GRANULAR FOUNDATION IS AN EQUAL ALTERNATE TO THE GRANULAR FOUNDATION EXCEPT WHERE ROCK IS ENCOUNTERED.

① WHERE ROCK, HARD PAN OR FRAGMENTED MATERIAL IS ENCOUNTERED, THE TRENCH SHALL BE EXCAVATED BELOW THE BOTTOM OF THE PIPE AN AMOUNT EQUAL TO ½ INCH PER FOOT OF PROPOSED EMBANKMENT ABOVE THE TOP OF THE PIPE, BUT NOT LESS THAN 6 INCHES.

② TRENCH SHALL BE BACKFILLED AS REQUIRED BY STANDARD SPECIFICATIONS; SECTION 520 FOR PIPE CULVERTS AND SECTION 607 FOR STORM SEWERS.



SHAPED SUBGRADE WITH GRANULAR FOUNDATION



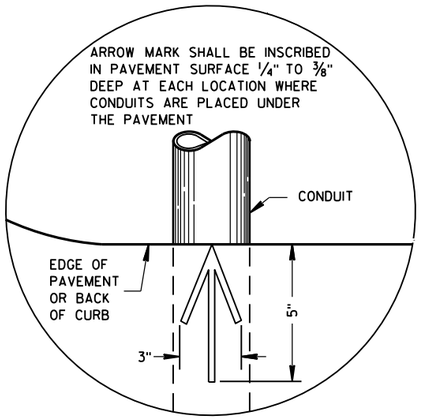
GRANULAR FOUNDATION

CLASS "B" BEDDING

CLASS "B" BEDDING FOR CULVERT PIPE OR STORM SEWER	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
4/7/83 DATE	/S/ D. L. Strand STATE DESIGN ENGINEER
FHWA	HWYS

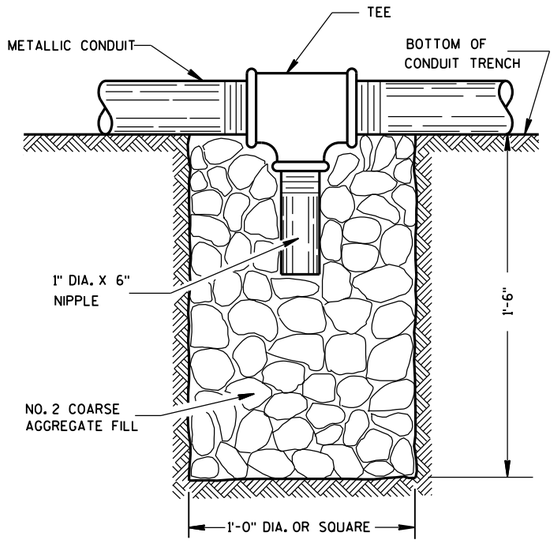
6

S.D.D. 8 F 5-1



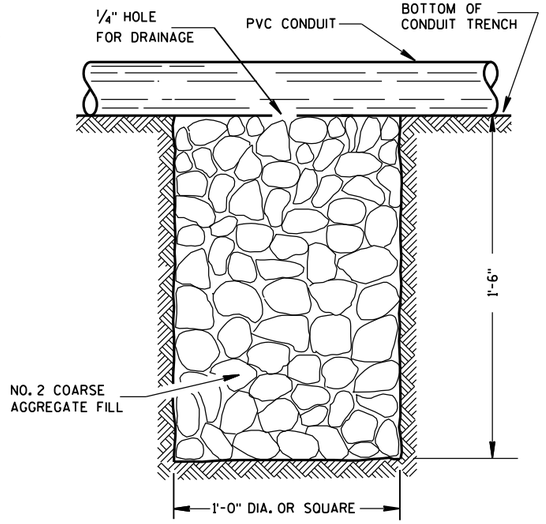
PLAN VIEW

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.

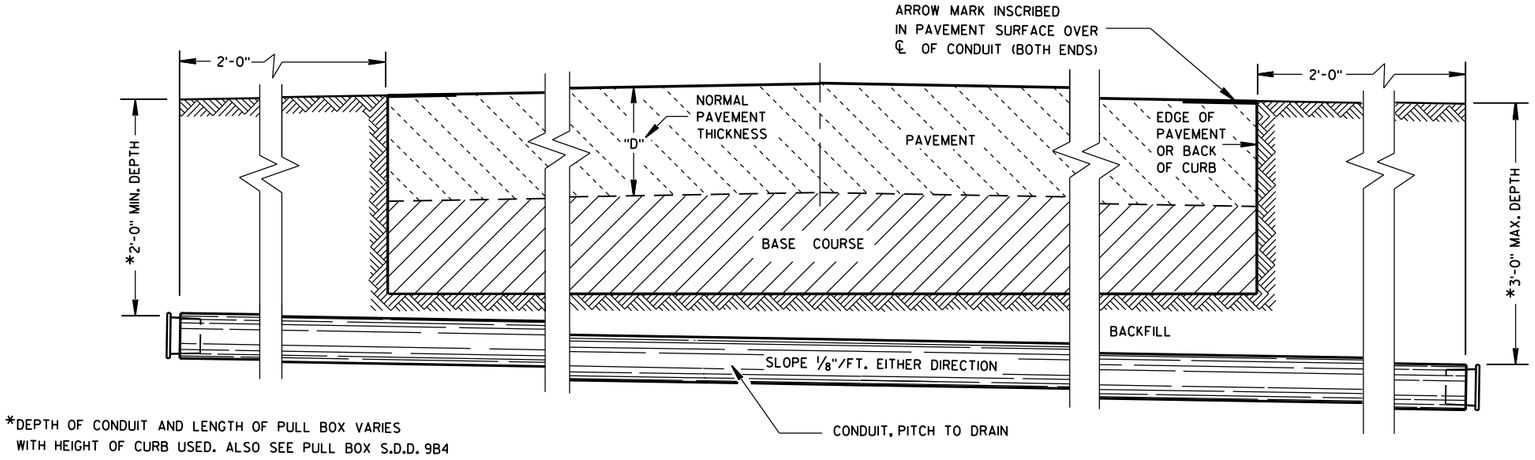
PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

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.).

TRACER 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
June, 2015 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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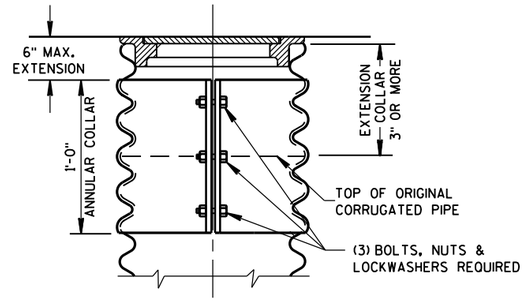
S.D.D. 9 B 2-9

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

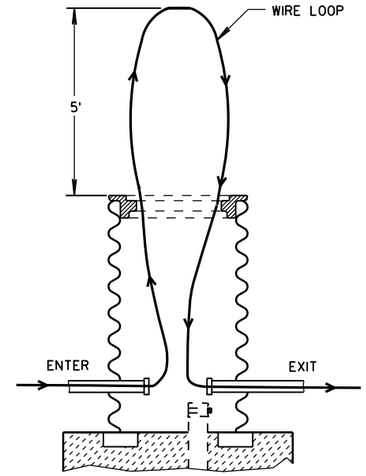
DIMENSION IN INCHES		CORRUGATED STEEL PIPE								
PIPE DIAMETER (INSIDE)	A	12	12	12	18	18	18	24	24	24
PIPE LENGTH **	B	24	30	36	24	30	36	36	42	48
WALL THICKNESS	C	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064
COVER	D	10 1/4	10 1/4	10 1/4	16 1/4	16 1/4	16 1/4	22 1/4	22 1/4	22 1/4
FRAME	E	14 1/2	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.

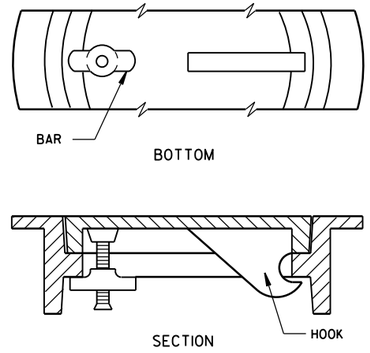
** NORMALLY USED LENGTHS. THE PROJECT ENGINEER SHALL DETERMINE IF PIPE LENGTHS, OTHER THAN THOSE SPECIFIED, SHALL BE USED, TO A MAXIMUM OF 48" (CONTINUOUS LENGTH, NON-SPLICED). THE ADDITIONAL LENGTH SHALL BE INCIDENTAL TO THE PULL BOX BID PRICE.



CORRUGATED PIPE EXTENDER

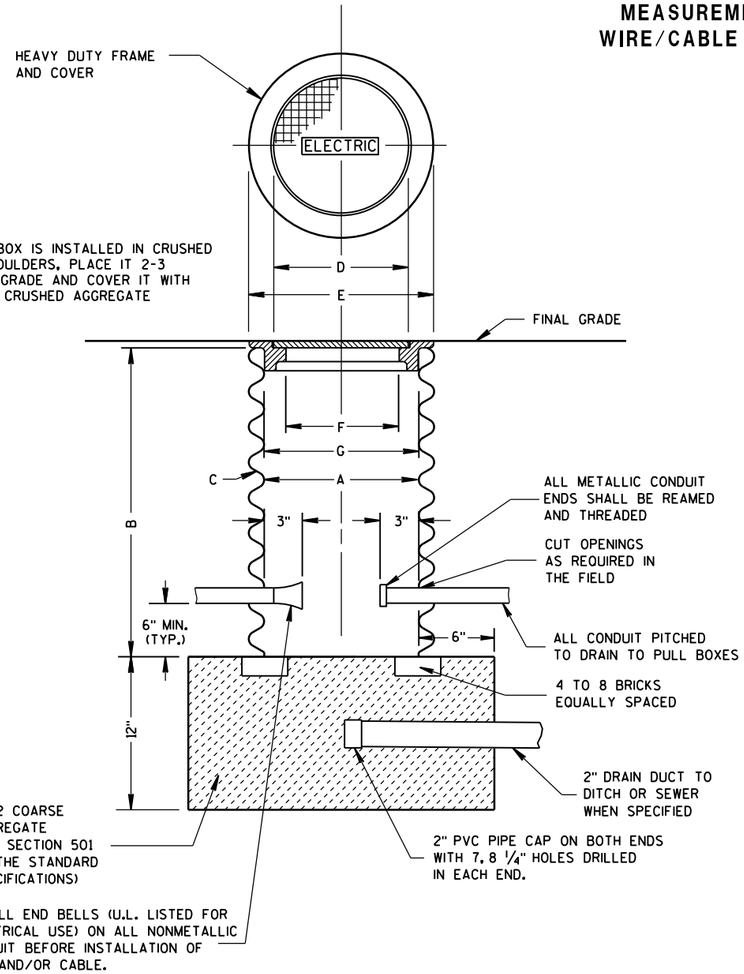


MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX



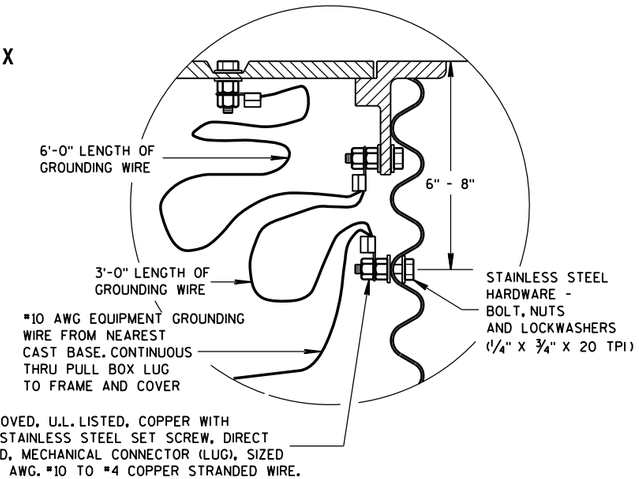
ALTERNATE COVER (LOCKING)

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.

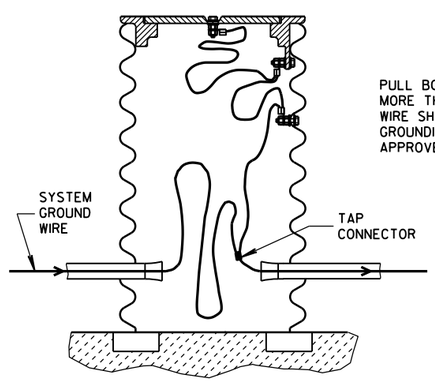
ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN 1/4".

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.

ALL METALLIC CONDUIT IN WHICH WIRE AND/OR CABLE IS TO BE INSTALLED, SHALL BE BUSHED BEFORE INSTALLATION OF THE WIRE AND/OR CABLE.

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

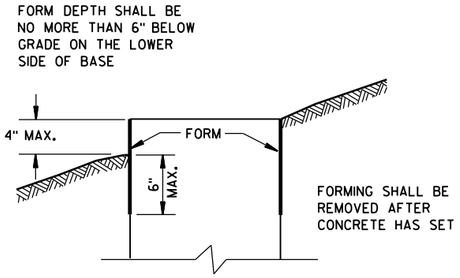
PULL BOX

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL 255
FHWA

6

S.D.D. 9 B 4-11



FORMING DETAIL

QUANTITY REQUIREMENTS	CONCRETE BASE TYPE		
	1	2	5 & 6
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 1, TYPE 2, TYPE 5, AND TYPE 6 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 OF THE STANDARD SPECIFICATIONS.

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.

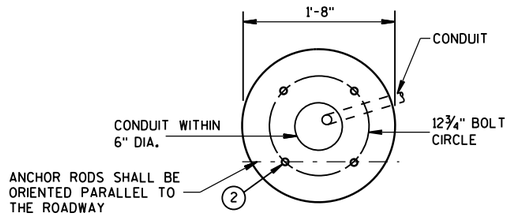
(4) (6) NO. 6 X 6'-8" BAR STEEL REINFORCEMENT.

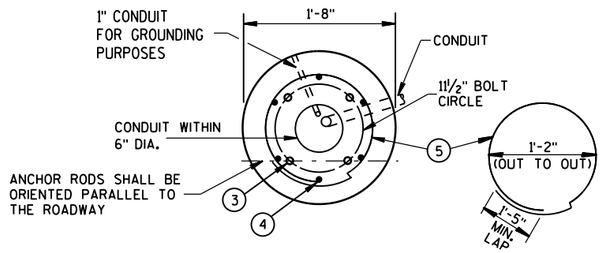
(5) (7) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

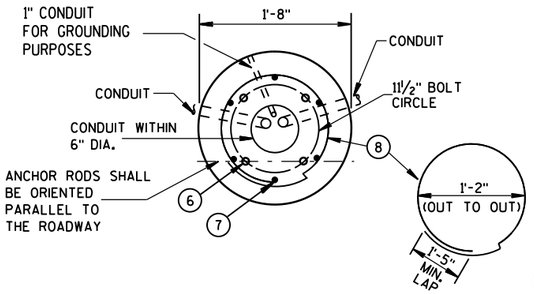
(6) (4) 1" DIA. X 3'-6" ANCHOR RODS.

(7) (6) NO.4 X 4'-8" BAR STEEL REINFORCEMENT.

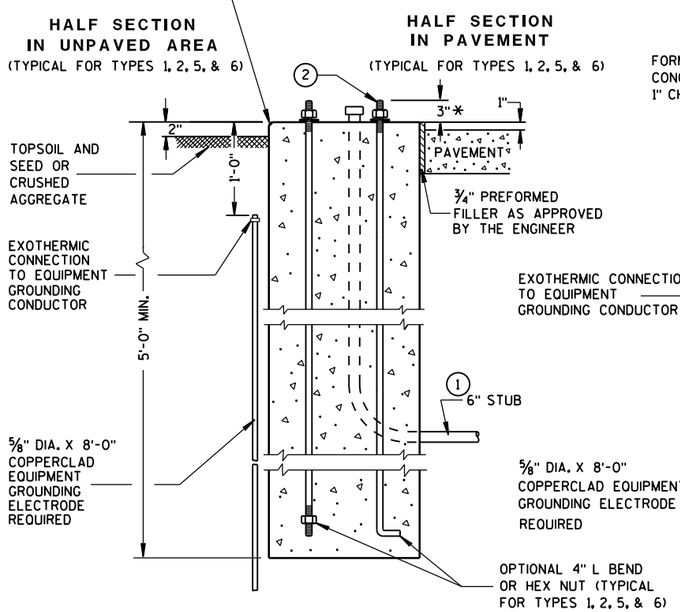
(8) (5) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.



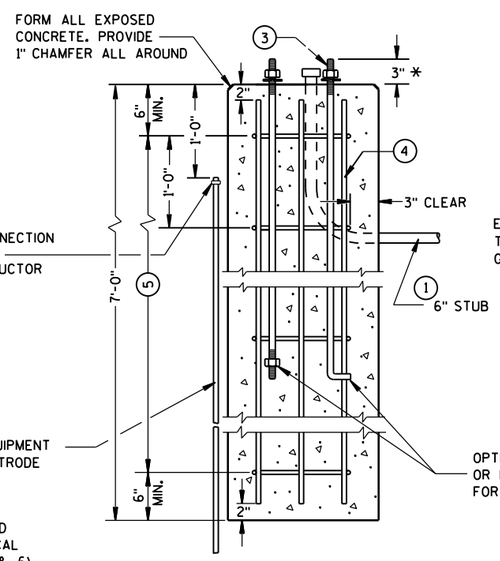




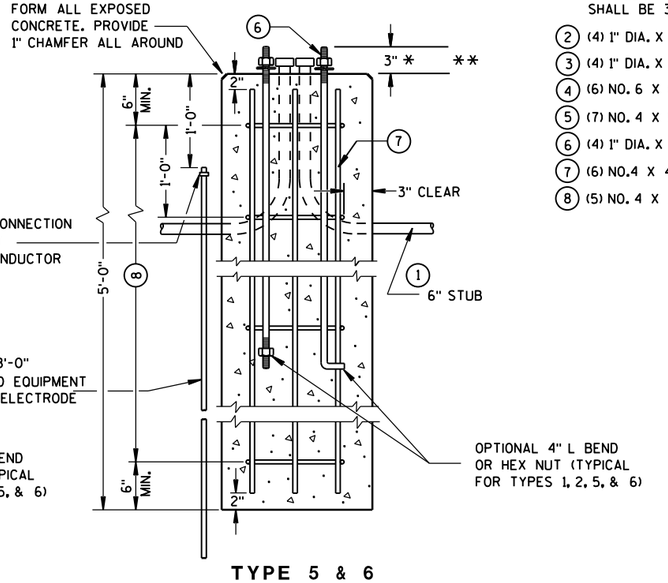
HALF SECTION IN UNPAVED AREA
(TYPICAL FOR TYPES 1, 2, 5, & 6)



HALF SECTION IN PAVEMENT
(TYPICAL FOR TYPES 1, 2, 5, & 6)



TYPE 2



TYPE 5 & 6

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, & 6

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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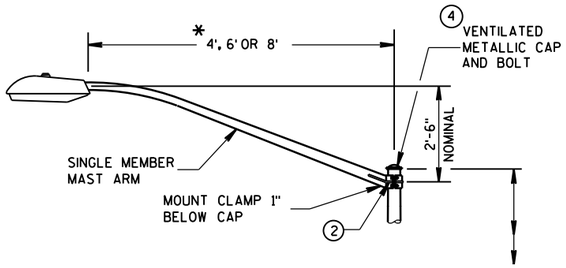
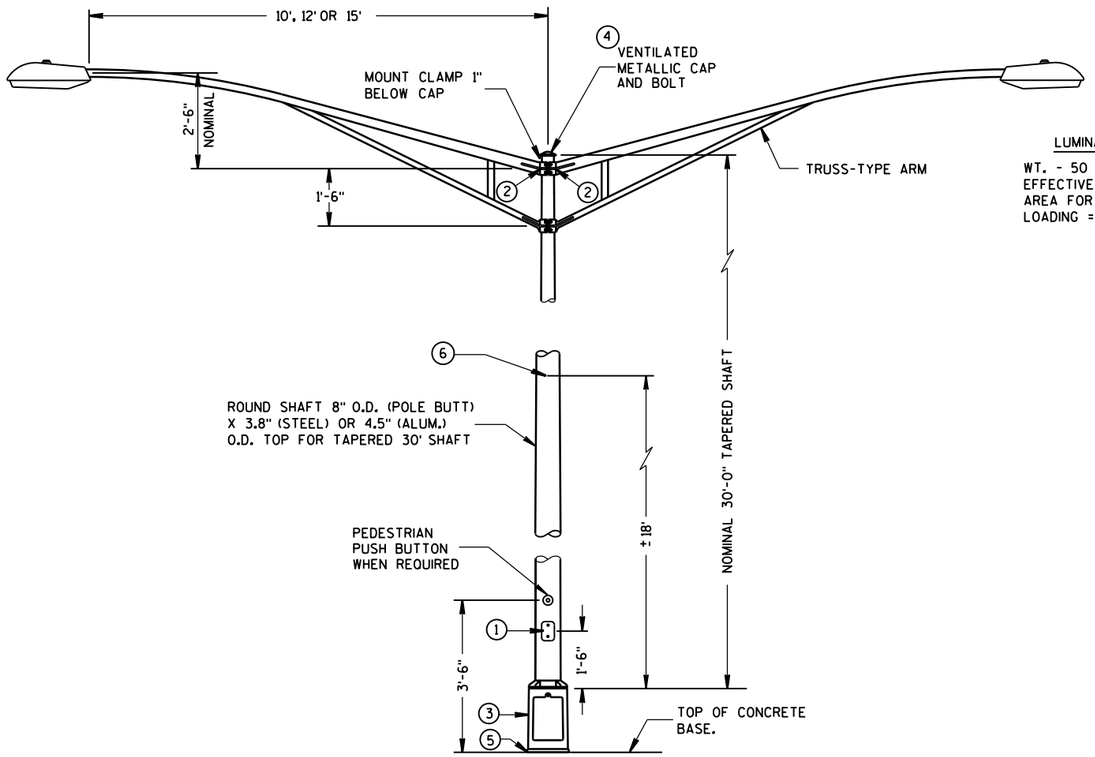
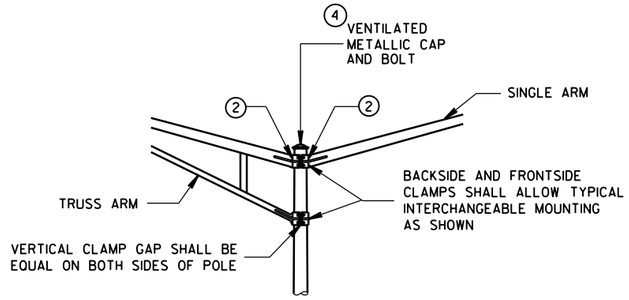
S.D.D. 9 C 2-7

*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.

6

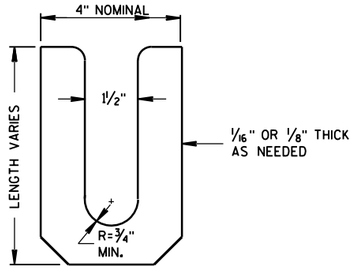
S.D.D. 9 E 1-14d

POLE MONTINGS FOR
LIGHTING UNITS, TYPE 5
(30 FEET)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

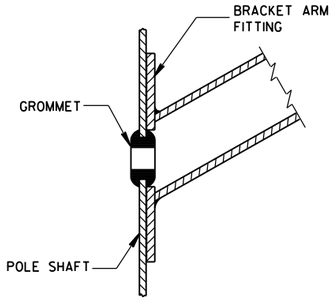
6

S.D.D. 9 E 1-14d

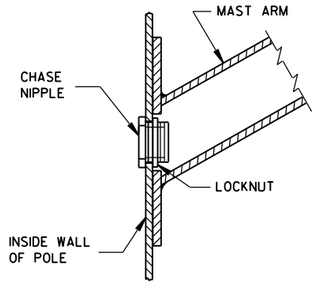


LEVELING SHIM (13)

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.

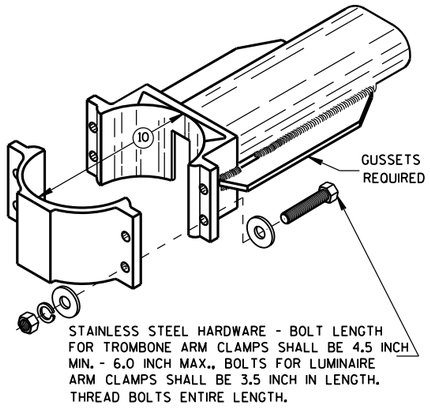
(10) 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP.
6.625" I.D. FOR TROMBONE MAST ARM CLAMP.

(11) INDIVIDUAL BASE PLATE ANCHOR ROD COVERS. (4 REQUIRED)

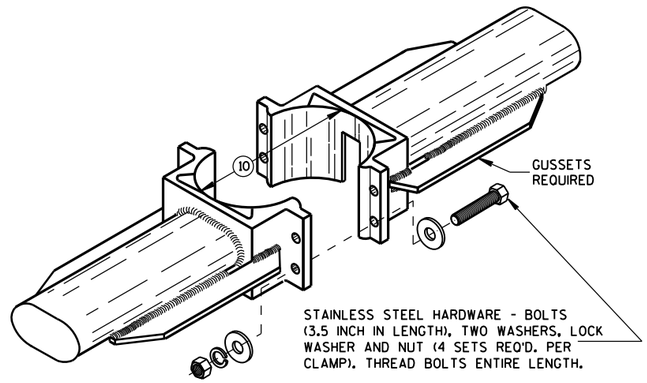
(12) BASE PLATE SLOTTED TO ACCEPT 11" THROUGH 12" BOLT CIRCLE USING 1" DIAMETER ANCHOR RODS.

(13) 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.

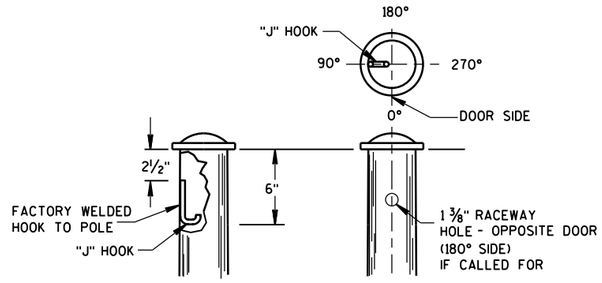
SHIMS SHALL BE LONG ENOUGH AND WIDE ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.



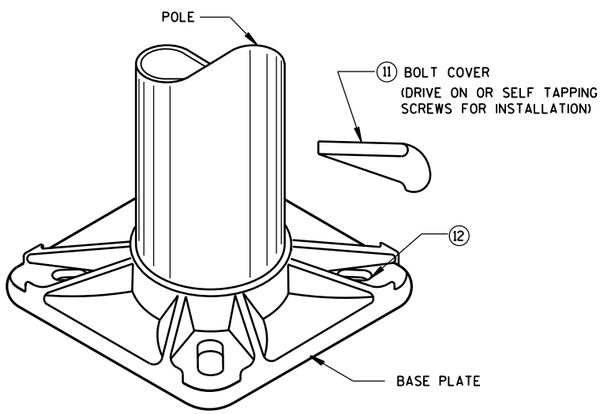
TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP



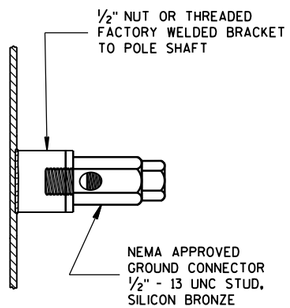
TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS

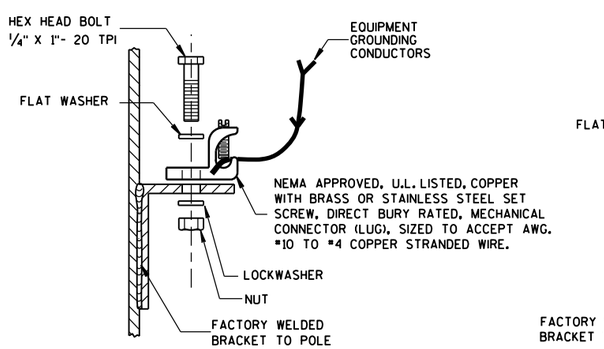


TYPICAL "J" HOOK LOCATION



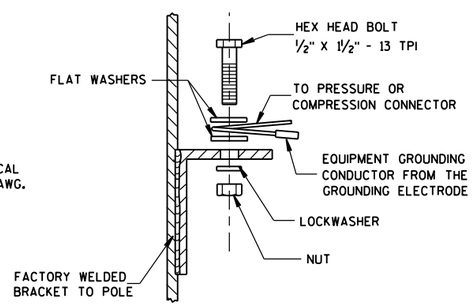
BASE PLATE





TYPICAL GROUNDING CONNECTIONS

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



HARDWARE DETAILS FOR POLE MOUNTINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Feb. 2015
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL 258

FHWA

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S.D.D. 9 E 1-14g

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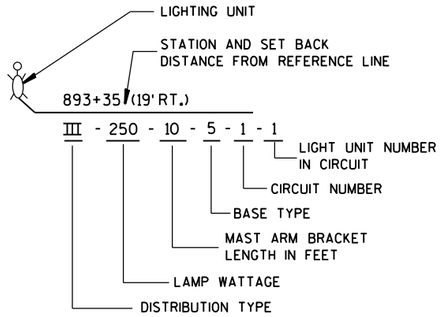
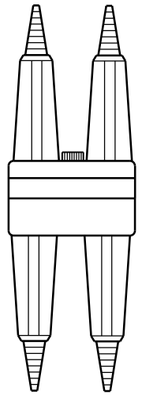
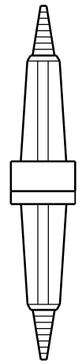
S.D.D. 9 E 1-14g



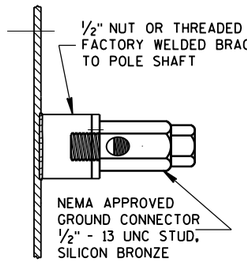
LIGHTING UNIT CODE
(TYPICAL)

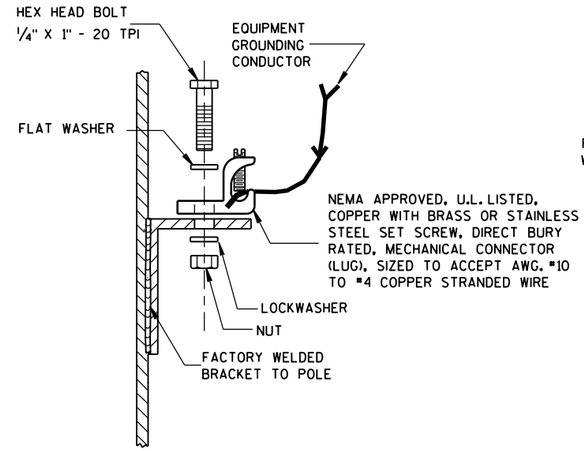


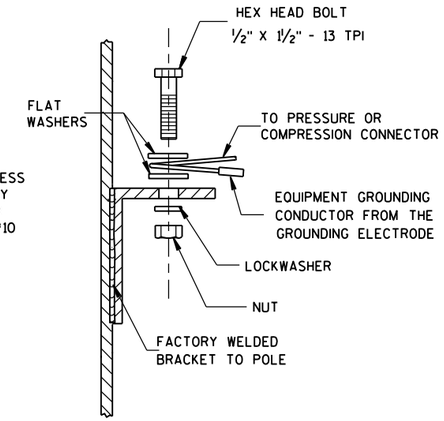
DETAIL "A"
BREAKAWY DOUBLE POLE WITH WATERPROOF INSULATING BOOT



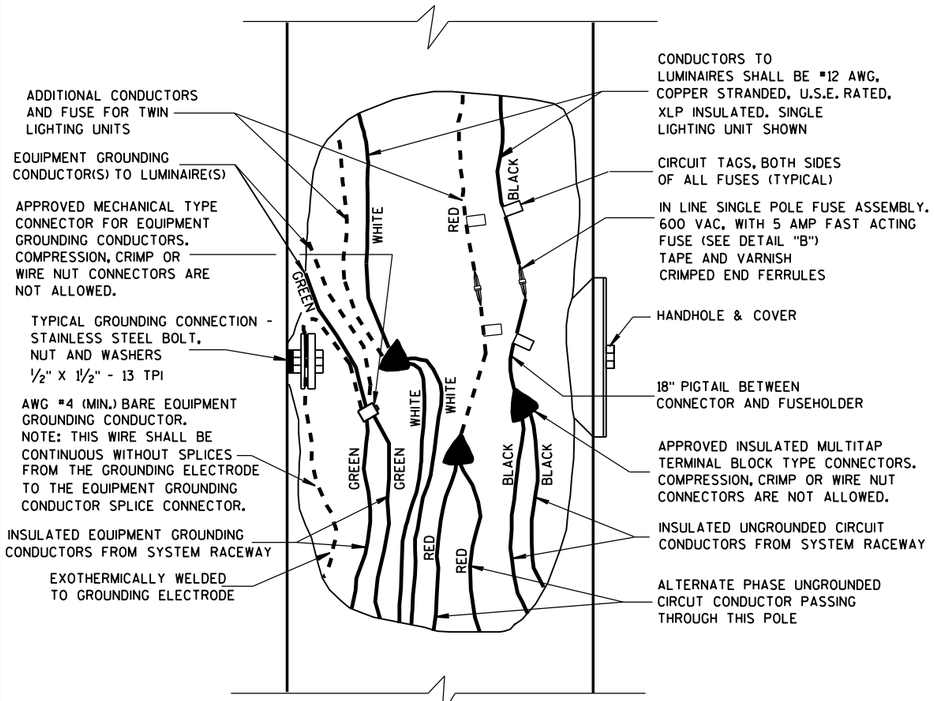
DETAIL "B"
BREAKAWY SINGLE POLE WITH WATERPROOF INSULATING BOOT



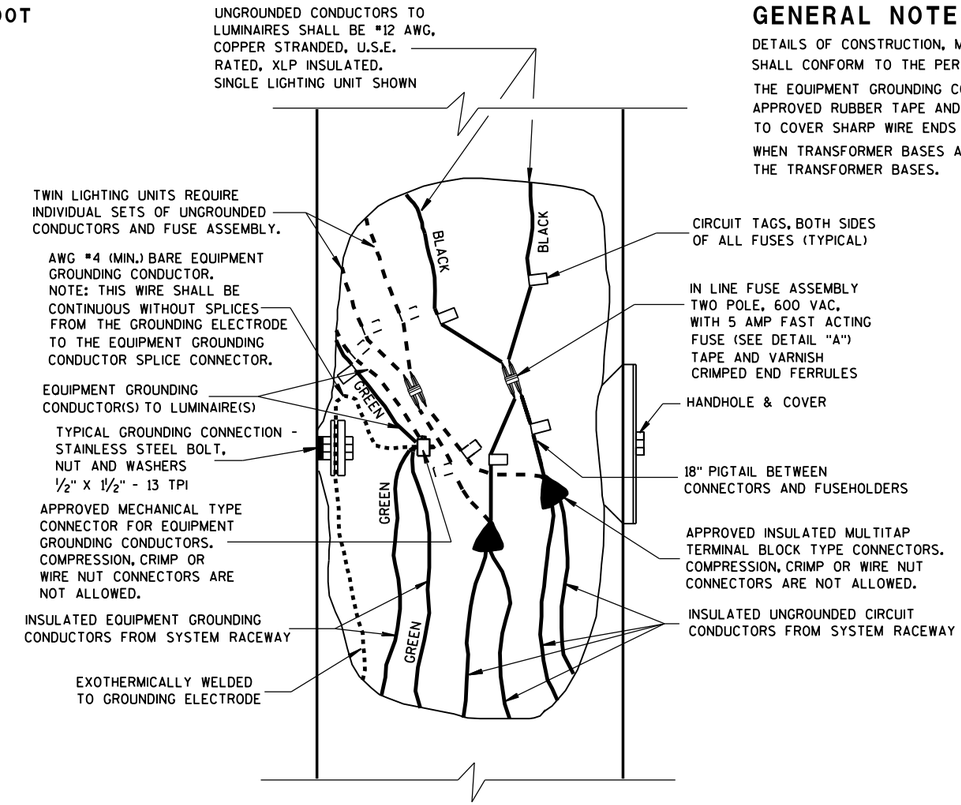




TYPICAL GROUNDING CONNECTIONS
NUT, BOLT, WASHERS AND LOCKWASHERS SHALL BE STAINLESS STEEL



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
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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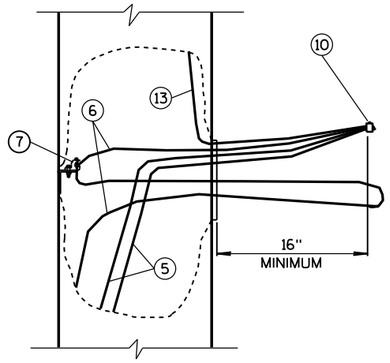
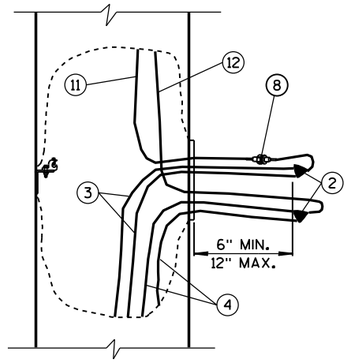
S.D.D. 9 E 3-5

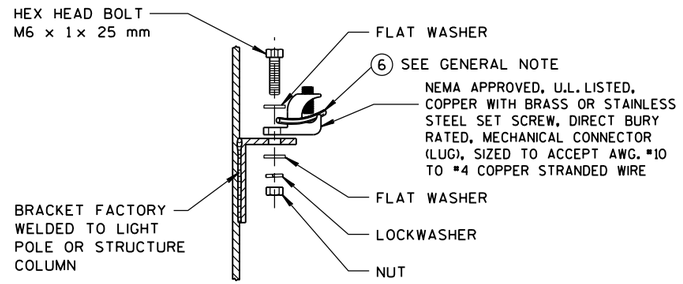


EQUIPMENT GROUNDING CONDUCTOR SLACK



UNGROUNDED CONDUCTOR SLACK (AND GROUNDED NEUTRAL SLACK IN GROUNDED NEUTRAL SYSTEM)

TYPICAL CONDUCTOR SLACK AT HANDHOLES



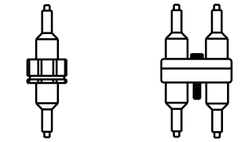
HANDHOLE GROUNDING LUG

(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.

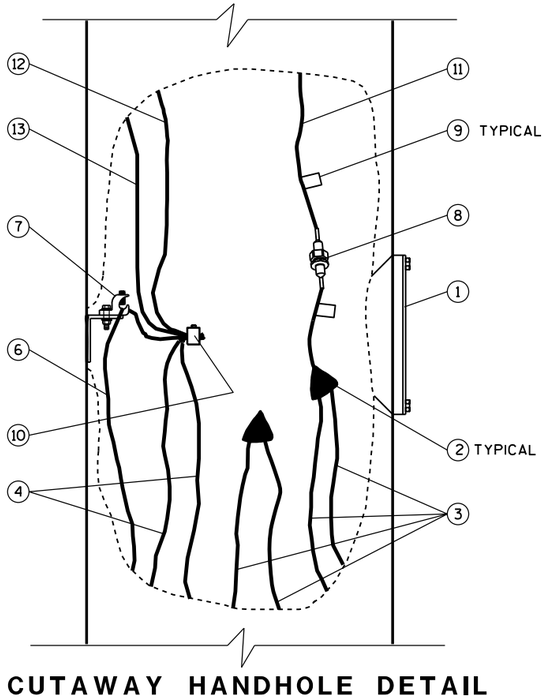
USE THIS DETAIL IN CONJUNCTION WITH THE ELECTRICAL DETAILS FOR THE APPLICATION, WHICH MAY BE A LIGHT POLE, SIGN BRIDGE, ETC.

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.

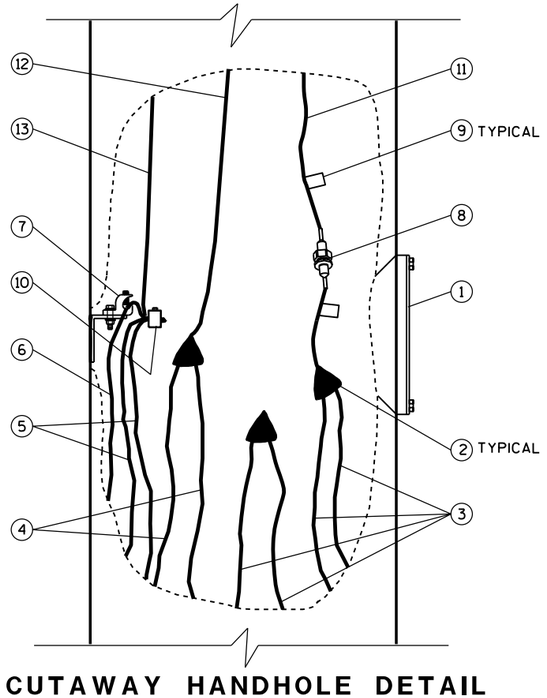
IN 3-PHASE SYSTEMS, THERE WILL BE ONE MORE UNGROUNDED LINE WIRE, WHICH IS OMITTED FROM THE DRAWING FOR CLARITY.

CIRCUIT TAGS SHALL BE INSTALLED ONLY WHERE REQUIRED IN THE SPECIAL PROVISIONS.



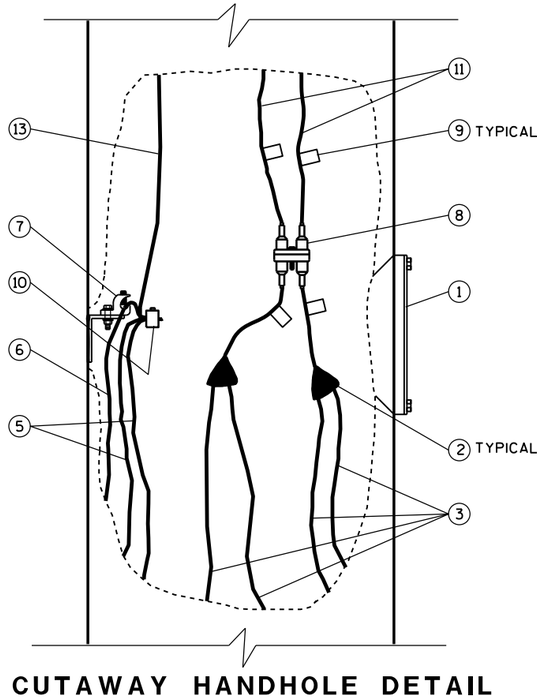
CUTAWAY HANDHOLE DETAIL

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
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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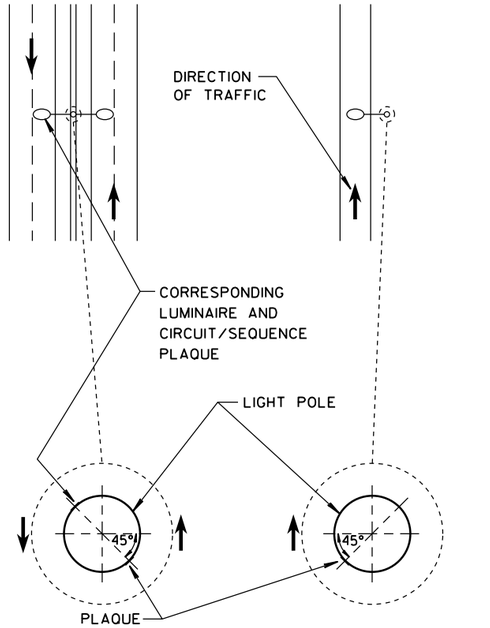
S.D.D. 10 A 1-3



MEDIAN POLE SINGLE ARM POLE

LOCATION OF LIGHT POLE CIRCUIT/SEQUENCE PLAQUE

GENERAL NOTES

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

PLAQUES SHALL BE INCIDENTAL TO ALL NEW INSTALLATIONS.

WHERE SHOWN IN THE PLANS, REPLACEMENT PLAQUES WILL BE MEASURED AND PAID SEPARATELY.

FASTEN TOP, CENTER AND BOTTOM OF PLAQUE TO POLE OR OTHER LOCATION AS FOLLOWS:

GALVANIZED STEEL SHAFT - STAINLESS STEEL POP RIVETS

A588 STEEL SHAFT - SHIM FOR DRAINAGE WITH STAINLESS WASHERS; FASTEN WITH STAINLESS SELF-TAPPING SCREWS

ALUMINUM SHAFTS - ALUMINUM POP RIVETS

MOUNTING HEIGHT SHALL BE APPROXIMATELY 5.0' ABOVE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL OBSTRUCT.

PLAQUE MATERIALS:

BASE - SHEET ALUMINUM, 0.060" THICK.

FACE - WHITE, SELF-ADHESIVE VINYL SHEETING, NON-RETRORFLECTIVE

LINES - BLACK, 1/2" WIDE, SELF-ADHESIVE

CHARACTERS - BLACK, SELF-ADHESIVE, SERIES "D", SIZE AS SHOWN

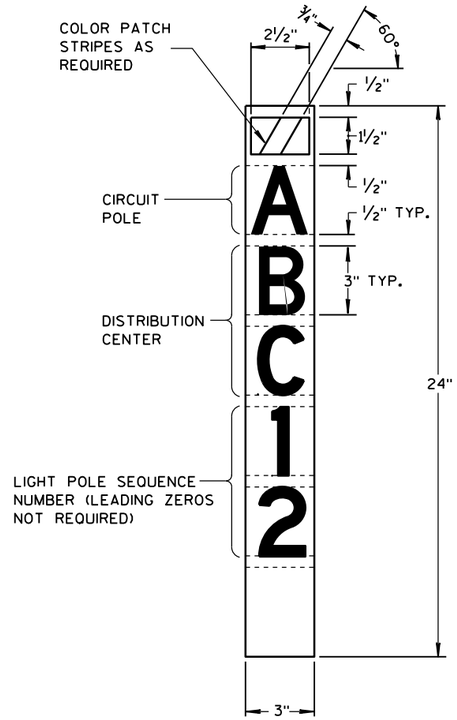
COLOR PATCHES - VARIOUS COLORS, SELF-ADHESIVE VINYL SHEETING

WITH THE APPROVAL OF THE ENGINEER, THE BASE MATERIAL MAY BE OMITTED AND THE FACE ADHERED DIRECTLY TO THE SURFACE, IN CASES SUCH AS SMOOTH, CLEAN ALUMINUM POLES.

ALTERNATIVE COMPUTER-GENERATED SIGN LETTERING MAY BE ACCEPTED IF THE ENGINEER FINDS IT TO BE EQUIVALENT.

COLOR PATCH CODE FOR HPS AND LED LUMINAIRES

HPS	LED	COLOR PATCH CODE
1000 WATT		NO PATCH
400 WATT	CATEGORY D	ORANGE
310 WATT		BLUE
250 WATT	CATEGORY C	ORANGE WITH WHITE STRIPE
200 WATT		RED
150 WATT	CATEGORY B	GREEN
100 WATT	CATEGORY A	BROWN
70 WATT	CATEGORY UDL	BROWN WITH WHITE STRIPE



LIGHT POLE CIRCUIT/SEQUENCE PLAQUE

IDENTIFICATION PLAQUES LIGHT POLES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
Feb. 2015 DATE	/S/ Ahmet Demirbilek STATE ELECTRICAL
FHWA	

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S.D.D. 10 A 2-3

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 DETAIL FOR ELECTRICAL HANDHOLE WIRING.

THE GROUNDING ELECTRODE CONDUCTOR SHALL BE CONTINUOUS WITHOUT SPLICES FROM THE GROUNDING ELECTRODE THROUGH THE HANDHOLE GROUNDING LUG TO THE CONNECTOR.

WIRING FOR SINGLE LUMINAIRE POLES IS SHOWN WITH SOLID LINES. WIRING FOR THE SECOND LUMINAIRE OF TWIN LUMINAIRE POLES IS SHOWN WITH DOTTED LINES.

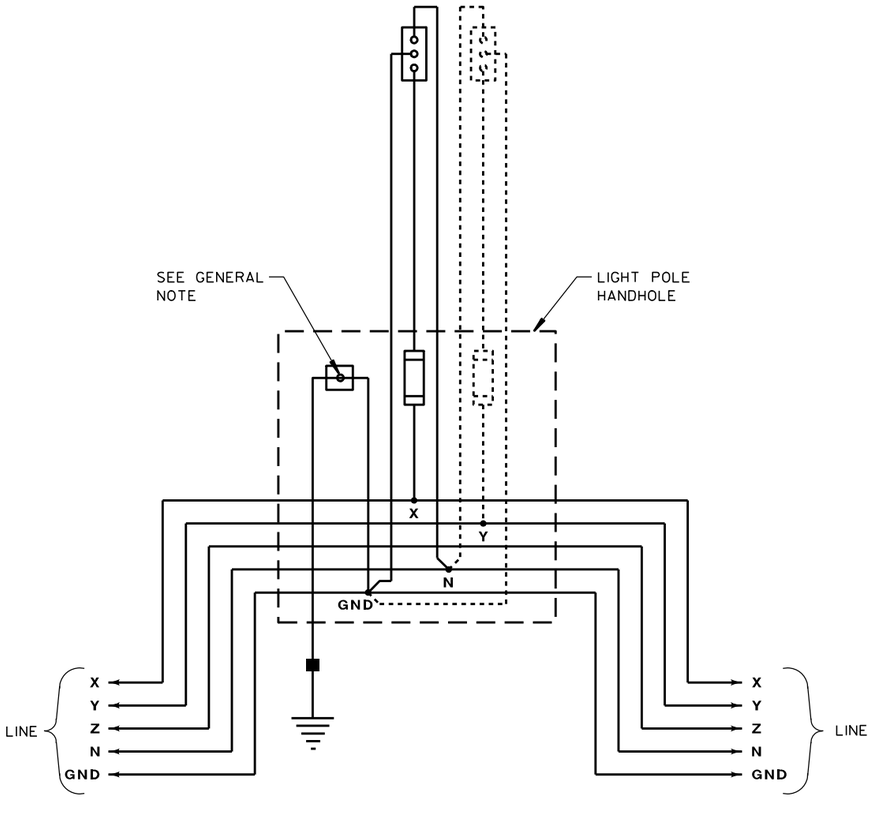
THE PLANS WILL SHOW WHICH CIRCUIT LEG(S) ARE CONNECTED TO EACH INSTALLATION.

HANDHOLE FUSE SCHEDULES

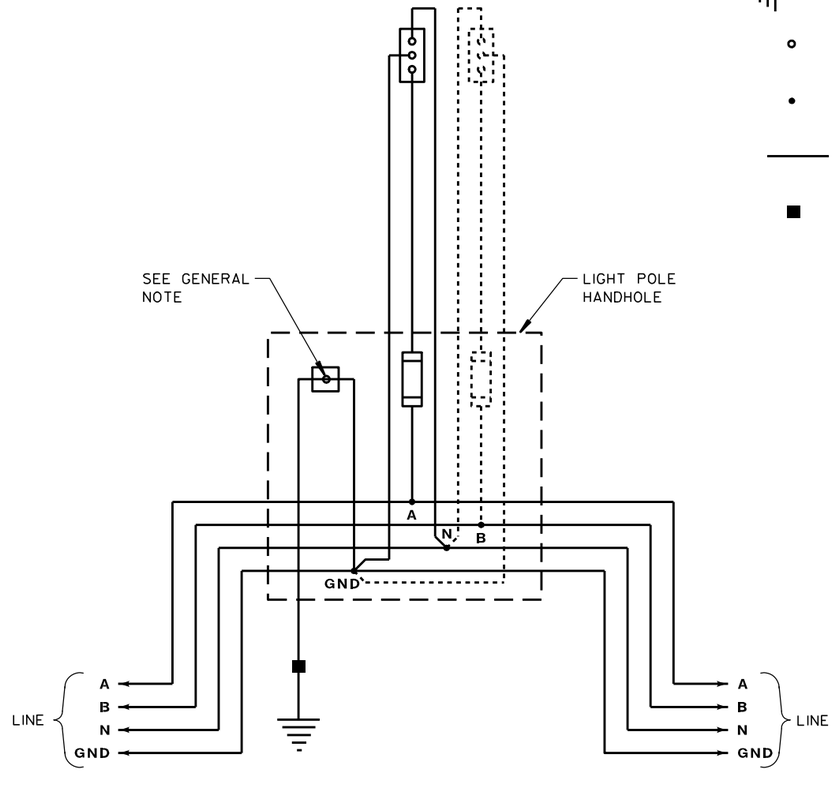
LINE VOLTAGE	BALLAST WATTAGE	
φ-GROUND	70-200 W	250-400 W
120 VAC	5 A	10 A
240 VAC	5 A	5 A
277 VAC	5 A	5 A
480 VAC	3 A	5 A

LEGEND

A,B,X,Y,Z	UNGROUNDED CIRCUIT CONDUCTORS
N	GROUNDED CIRCUIT CONDUCTORS
GND	EQUIPMENT GROUNDING CONDUCTOR
P	POLE (ELECTRICAL CIRCUIT)
φ	PHASE (ELECTRICAL CURRENT)
	HANDHOLE GROUND LUG
	SINGLE-POLE (1P) FUSE ASSEMBLY
	TWO-POLE (2P) FUSE ASSEMBLY
	UNFUSED LUMINAIRE
	EQUIPMENT GROUNDING ELECTRODE
	TERMINAL
	SPLICE
	CONDUCTOR
	EXOTHERMIC WELD



TYPICAL WIRING DIAGRAM
ISOLATED NEUTRAL SYSTEM
3-φ 208Y/120VAC OR 480Y/277VAC 4 WIRE



TYPICAL WIRING DIAGRAM
ISOLATED NEUTRAL SYSTEM
1-φ 120/240VAC OR 240/480VAC 3 WIRE

ELECTRICAL DETAILS
GROUND MOUNT LIGHT POLES
ISOLATED NEUTRAL SYSTEM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/25/2010 — DATE
/S/ John Corbin — STATE ELECTRICAL ENGI
FHWA — HWYS

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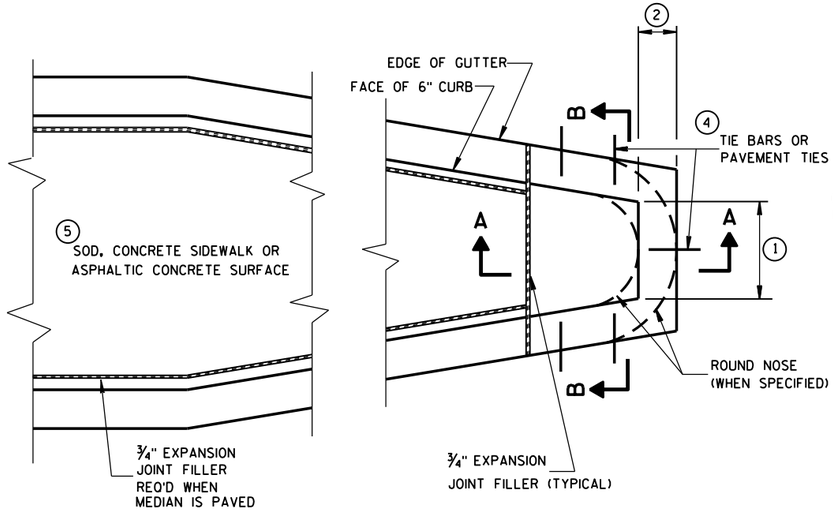
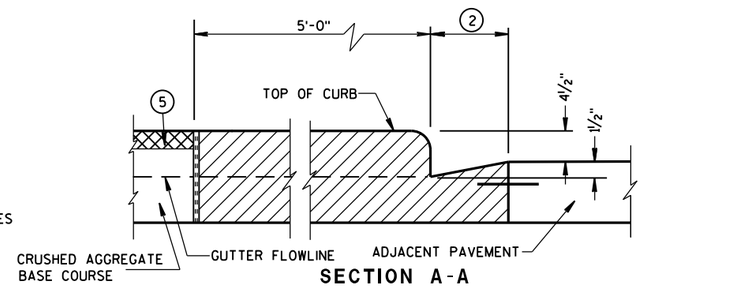
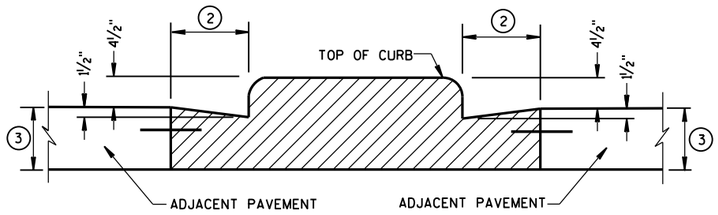
S.D.D. 10 A 5-2







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.

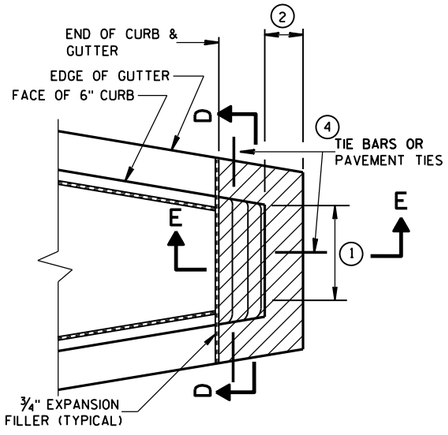
(2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.

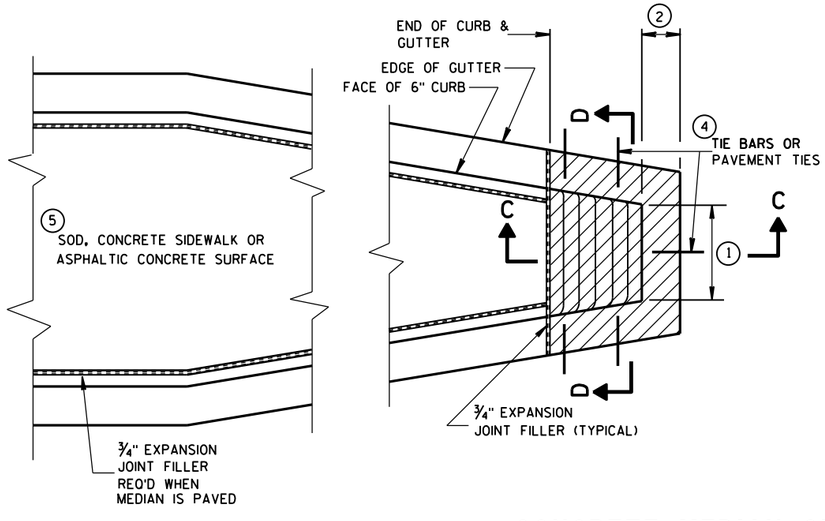
(3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

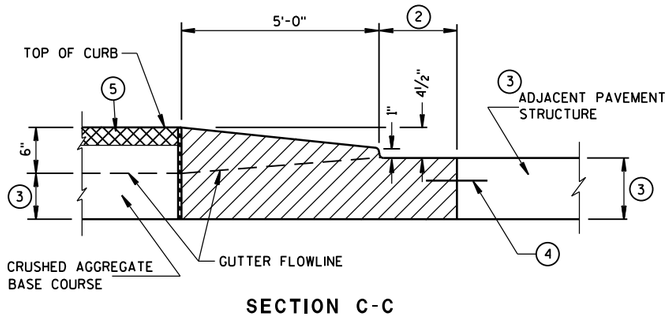
(4) TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C.

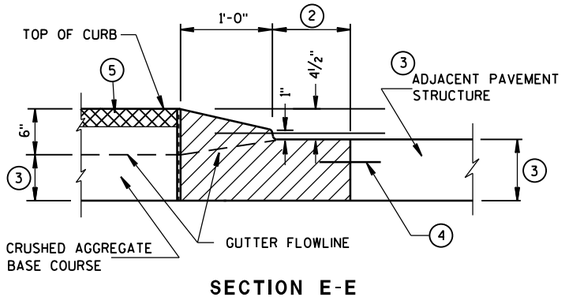
PAVEMENT TIES REQUIRED IN EXISTING CONCRETE BASE COURSE. PAVEMENT TIES SHALL BE NO. 6 X 1'-0" SPACED AT 3'-0" C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1. THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.

(5) SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.



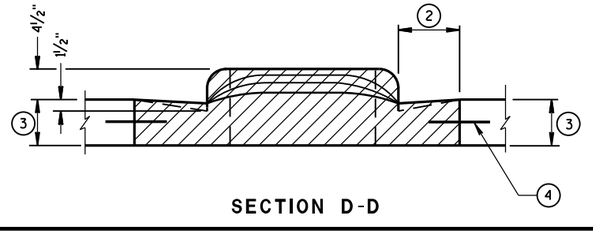






CONCRETE MEDIAN SLOPED NOSE TYPE 1

CONCRETE MEDIAN SLOPED NOSE TYPE 2



CONCRETE MEDIAN NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/8/2006
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

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S.D.D. 11 B 2-2

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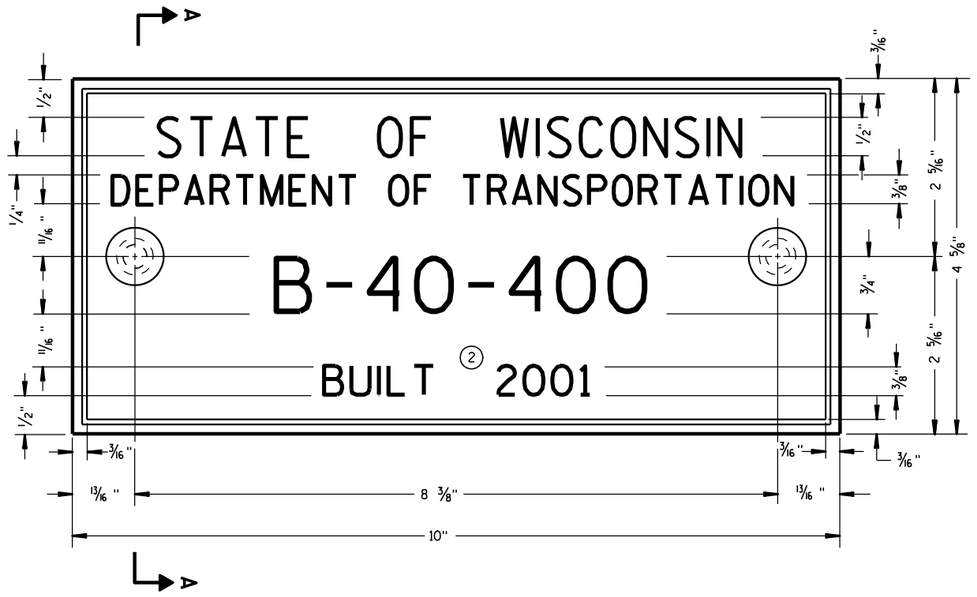
S.D.D. 11 B 2-2



TYPICAL NAME PLATE
(BRIDGES, CULVERTS, AND RETAINING WALLS)

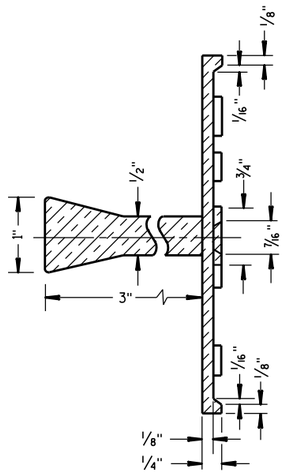
GENERAL NOTES

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.

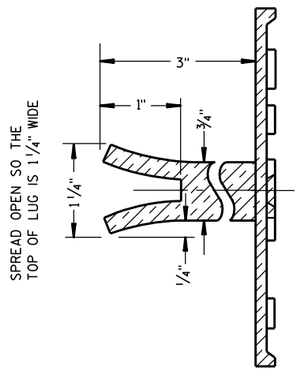
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

(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

FOR MULTI-UNIT STRUCTURES
LINE 3 ABOVE SHALL READ

B = BRIDGE
C = CULVERT
R = RETAINING WALL

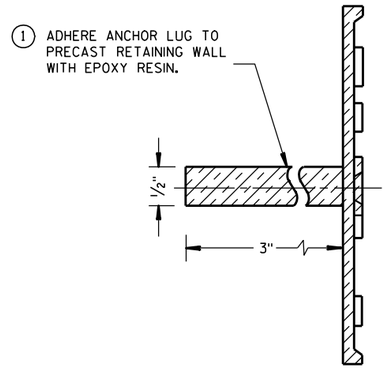
COUNTY NO.

BRIDGE NO.

UNIT NO. FOR MULTIPLE UNIT BRIDGE

B-40-400-1A

NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES



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 ENGINEER

FHWA

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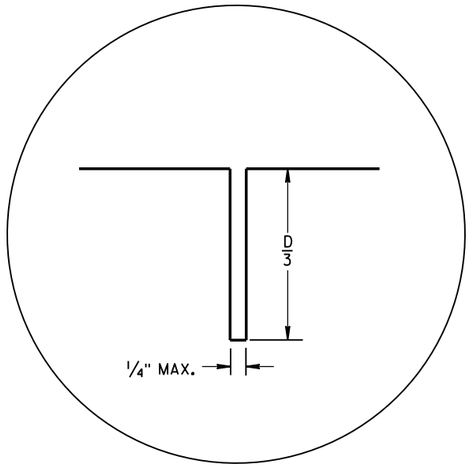
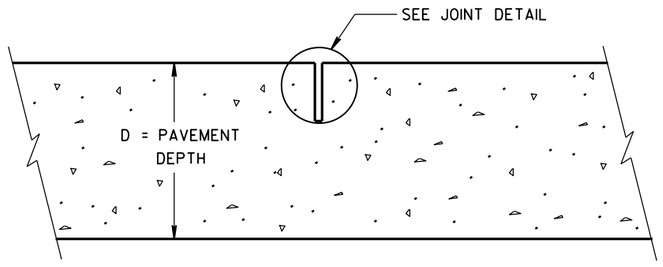
S.D.D. 12 A 3-10



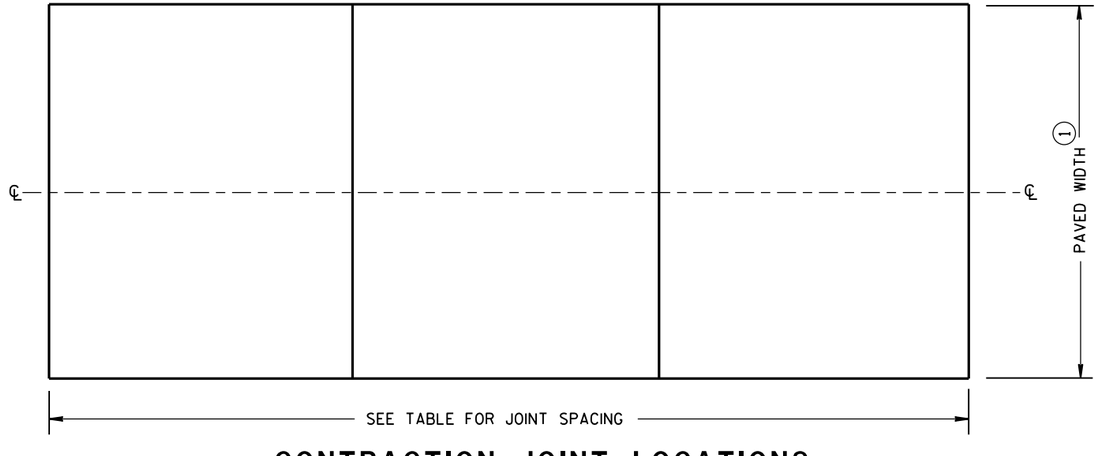
JOINT DETAIL



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

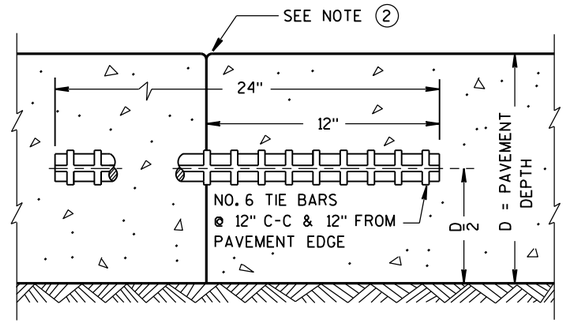
LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO THE CONTRACTION JOINTS.

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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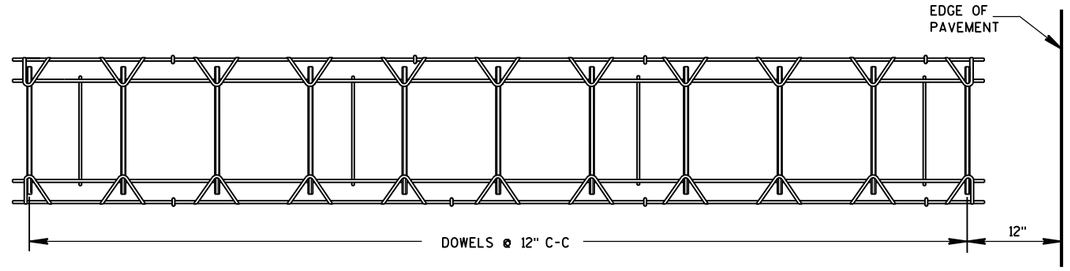
S.D.D. 13 C 4-16

S.D.D. 13 C 4-16

URBAN NON-DOWELED CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

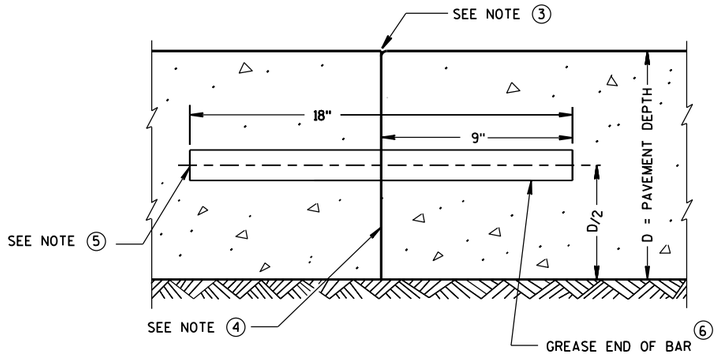
APPROVED
5-3-2013 — DATE
/S/ Deb Bischoff — PAVEMENT POLICY & DE
IEER
FHWA



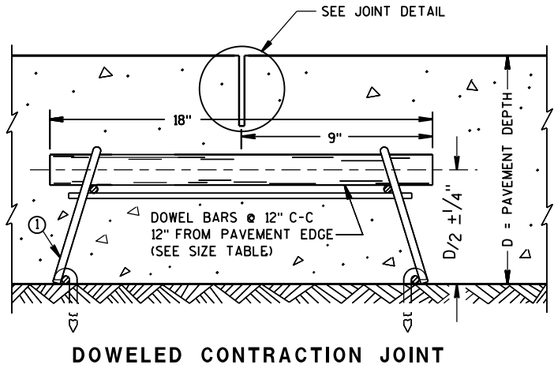
PLAN VIEW

SIDE VIEW

CONTRACTION JOINT DOWEL ASSEMBLY ①



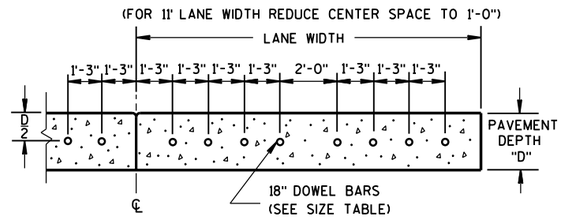
TRANSVERSE CONSTRUCTION JOINT



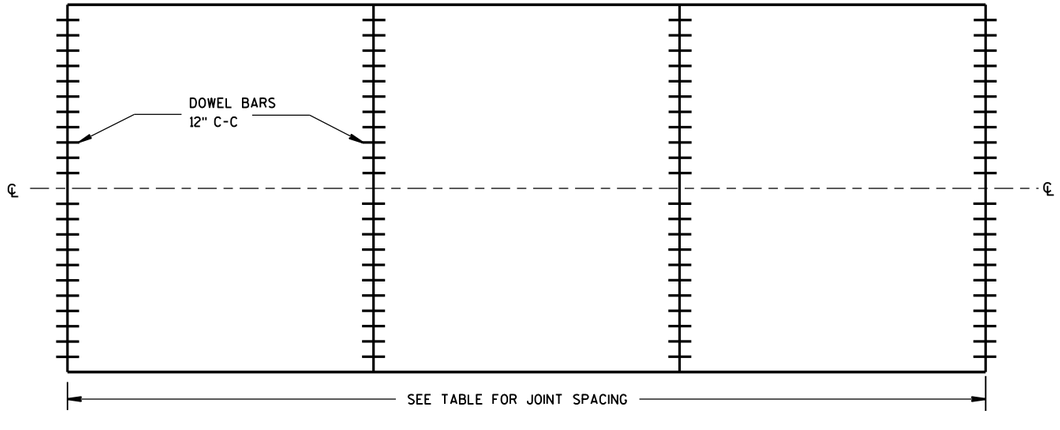
DOWELED CONTRACTION JOINT

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 ½", 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'



DRILLED DOWEL BAR CONSTRUCTION JOINT ⑦



CONTRACTION JOINT LOCATIONS

GENERAL NOTES

CONTRACTION JOINTS

CONSTRUCT TRANSVERSE CONTRACTION JOINTS NORMAL TO THE CENTERLINE. SHOW THE LOCATION OF CONTRACTION JOINTS THROUGH INTERSECTIONS ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

DO NOT SEAL OR FILL CONTRACTION JOINTS.

INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

FOR PAVEMENT SLABS OF VARYING WIDTHS, LOCATE THE OUTER MOST DOWEL BAR SO THAT THE CENTER OF THE BAR IS A MINIMUM OF 6 INCHES AND A MAXIMUM OF 18 INCHES FROM THE LONGITUDINAL JOINT AND THE FREE EDGE OF PAVEMENT.

CONSTRUCTION JOINTS

LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.

① **OBTAIN THE ENGINEER'S APPROVAL FOR THE USE OF ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY. USE MECHANICAL DOWEL BAR INSERTERS OR DOWEL ASSEMBLIES WHEN CONSTRUCTING CONTRACTION JOINTS.**

② SECURE BASKETS WITH ANCHORS TO HOLD DOWEL BARS IN THE CORRECT POSITION AND ALIGNMENT. TYPE, LOCATION, NUMBER AND LENGTH OF ANCHORS ARE DEPENDENT UPON FIELD CONDITIONS.

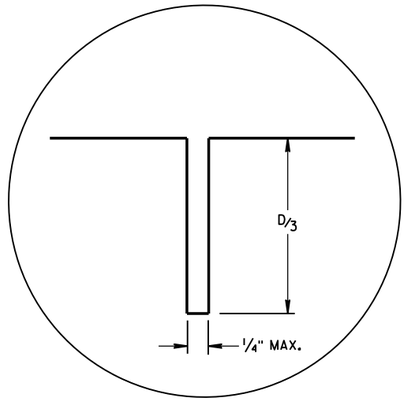
③ FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A ¼-INCH RADIUS AT FORMED JOINTS.

④ PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS.

⑤ INSTALL DOWEL BARS AT CONSTRUCTION JOINTS BY FORMING OR DRILLING. INSTALL FORMED DOWEL BARS 12 INCHES C-C AND 12 INCHES FROM PAVEMENT EDGE. REMOVE EXCESS CONCRETE FROM THE FREE END OF THE DOWEL BAR IF DOWEL BARS ARE FORMED THROUGH A HEADER BOARD. INSTALL DRILLED DOWEL BARS ACCORDING TO *DRILLED DOWEL BAR CONSTRUCTION JOINT* DETAIL.

⑥ APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.

⑦ ANCHOR DOWEL BARS INTO DRILLED HOLES WITH AN EPOXY. MAXIMUM DRILLED HOLE SIZE IS ⅛-INCH GREATER THAN DOWEL BAR DIAMETER, 9 INCHES IN LENGTH.



JOINT DETAIL

URBAN DOWELED CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/3/2013 DATE
/S/ Deb Bischoff
PAVEMENT POLICY & DE ENGINEER
FHWA

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S.D.D. 13 C 13-8

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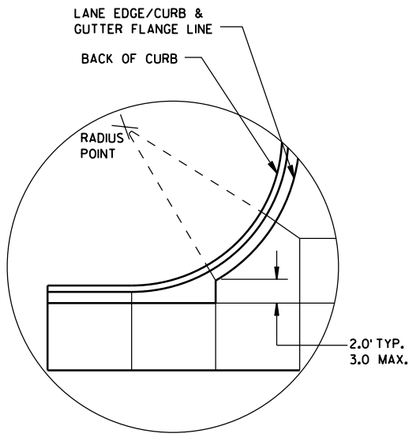
S.D.D. 13 C 13-8



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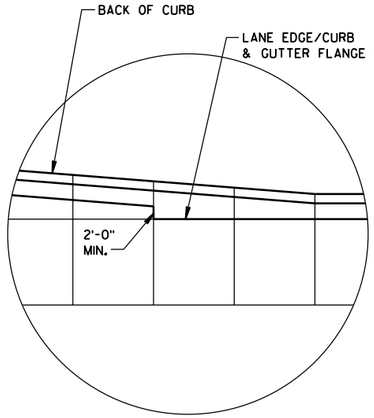

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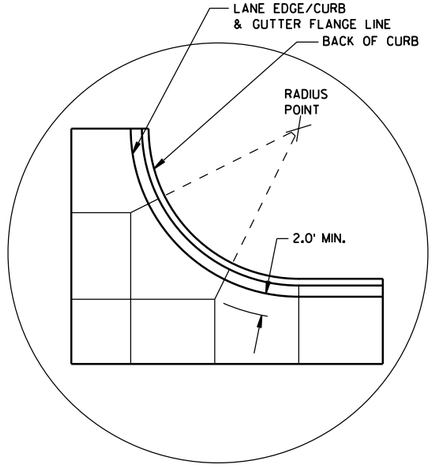

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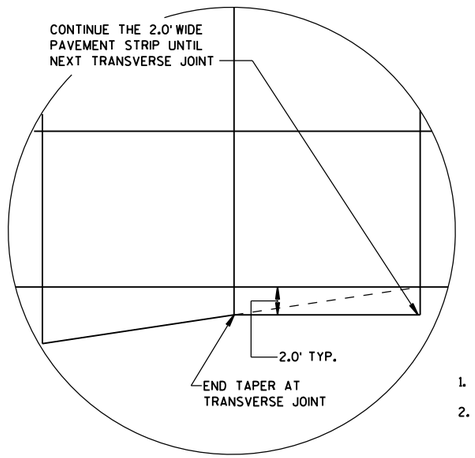


DETAIL "D"

GENERAL NOTES

THE PRIMARY ROADWAY CONTROLS THE TRANSVERSE JOINT PATTERN.

ALIGN NEW JOINTS WITH EXISTING JOINTS OR CRACKS.

CONSTRUCT TRANSVERSE JOINTS PERPENDICULAR TO THE ROADWAY.

ADJUST TRANSVERSE JOINTS TO ALIGN WITH UTILITY FIXTURES (E.G. MANHOLES AND INLETS) IN THE PAVEMENT STRUCTURE WHEN POSSIBLE. WATER VALVES DO NOT REQUIRE JOINT ADJUSTMENT.

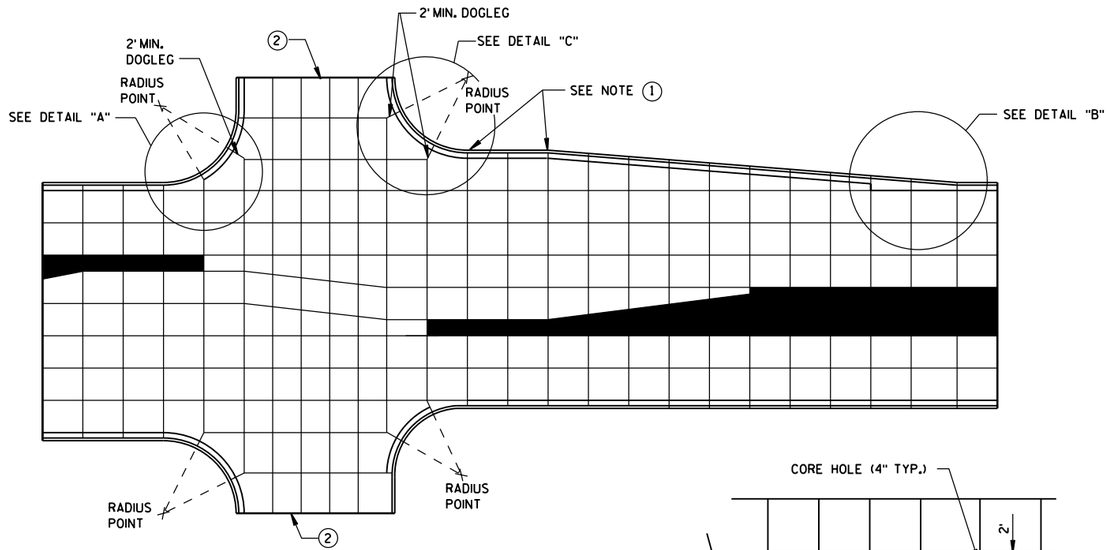
AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.

SEE TABLE FOR TRANSVERSE JOINT SPACING. JOINT SPACING SPECIFIED IS MAXIMUM AND ACTUAL SPACING CAN BE ADJUSTED TO ACCOMMODATE INTERSECTIONS.

AVOID ANGLES LESS THAN 60° BY DOGLEGGING JOINTS THROUGH CURVE RADIUS POINTS. USE 90° ANGLES WHEN POSSIBLE.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

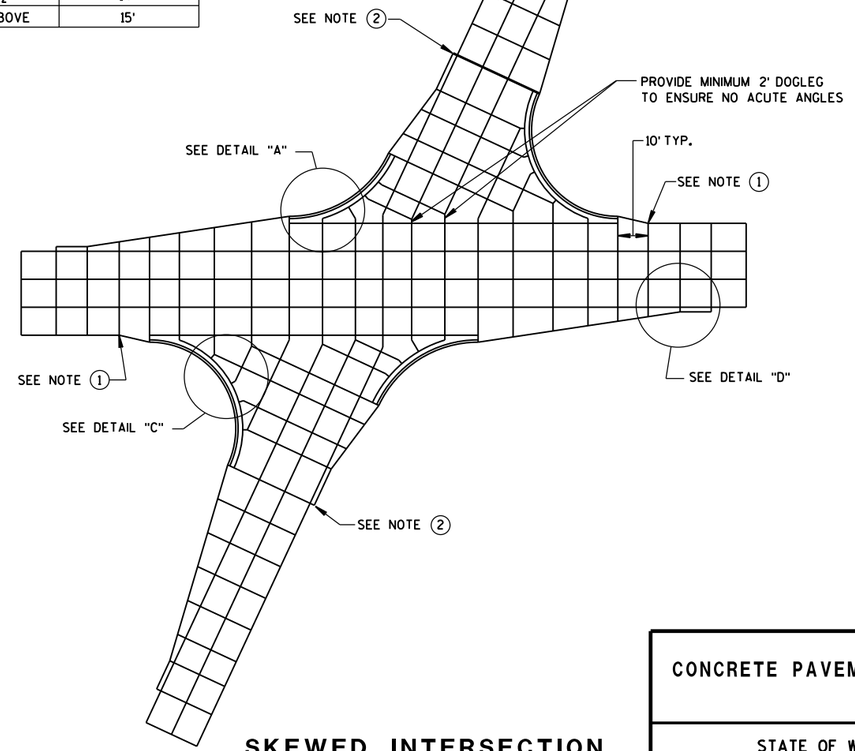
1. PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.
2. CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH EDGE OF RADIUS.
3. THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.



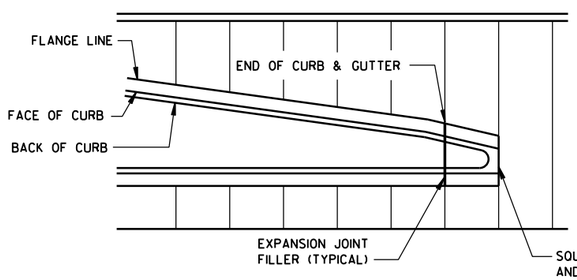
STANDARD INTERSECTION

PAVEMENT DEPTH AND JOINT SPACING TABLE

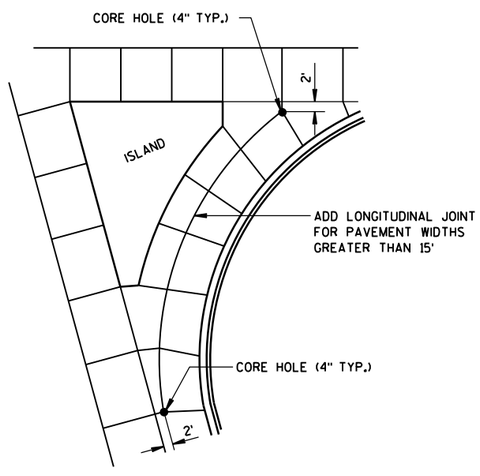
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6½"	12'
7", 7½"	14'
8" & ABOVE	15'



SKEWED INTERSECTION



APPROACH TO MEDIAN

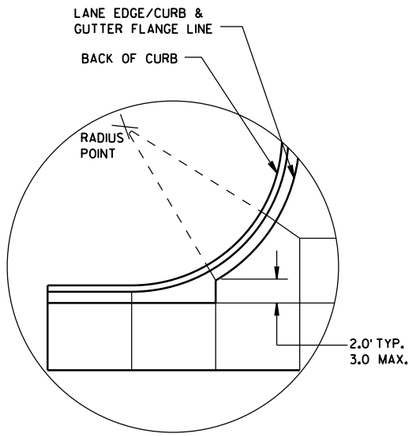


LARGE RIGHT TURN

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6
S.D.D. 13 C 18-2a



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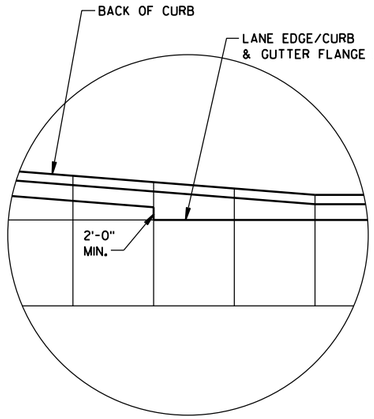

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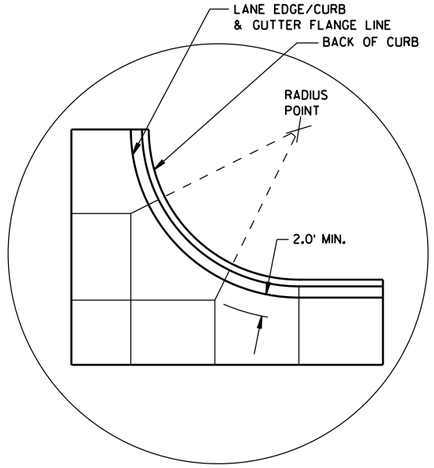

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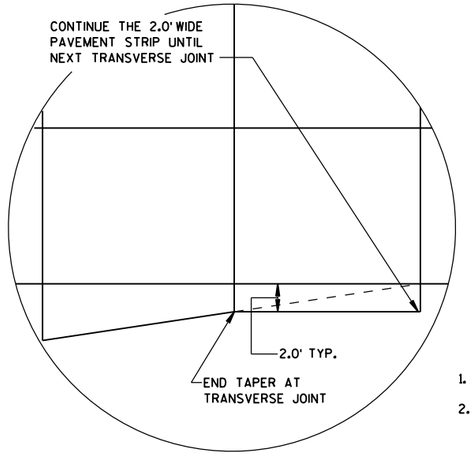


DETAIL "D"

GENERAL NOTES

THE PRIMARY ROADWAY CONTROLS THE TRANSVERSE JOINT PATTERN.

ALIGN NEW JOINTS WITH EXISTING JOINTS OR CRACKS.

CONSTRUCT TRANSVERSE JOINTS PERPENDICULAR TO THE ROADWAY.

ADJUST TRANSVERSE JOINTS TO ALIGN WITH UTILITY FIXTURES (E.G. MANHOLES AND INLETS) IN THE PAVEMENT STRUCTURE WHEN POSSIBLE. WATER VALVES DO NOT REQUIRE JOINT ADJUSTMENT.

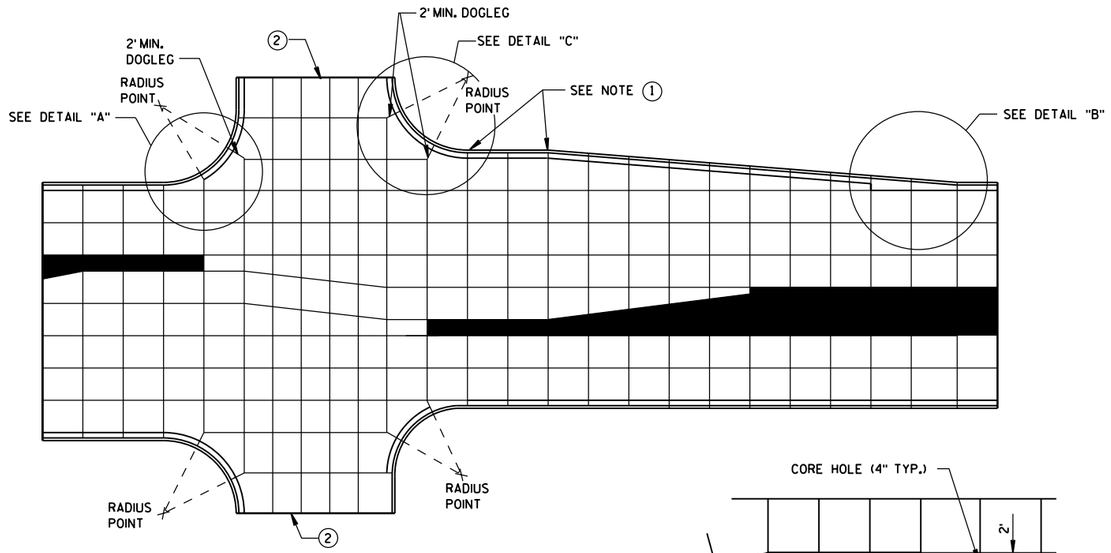
AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.

SEE TABLE FOR TRANSVERSE JOINT SPACING. JOINT SPACING SPECIFIED IS MAXIMUM AND ACTUAL SPACING CAN BE ADJUSTED TO ACCOMMODATE INTERSECTIONS.

AVOID ANGLES LESS THAN 60° BY DOGLEGGING JOINTS THROUGH CURVE RADIUS POINTS. USE 90° ANGLES WHEN POSSIBLE.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

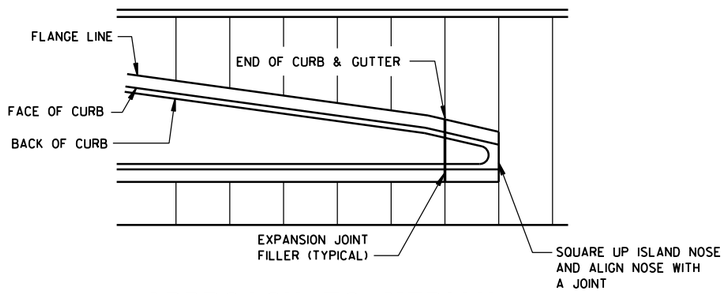
1. PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.
2. CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH EDGE OF RADIUS.
3. THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.



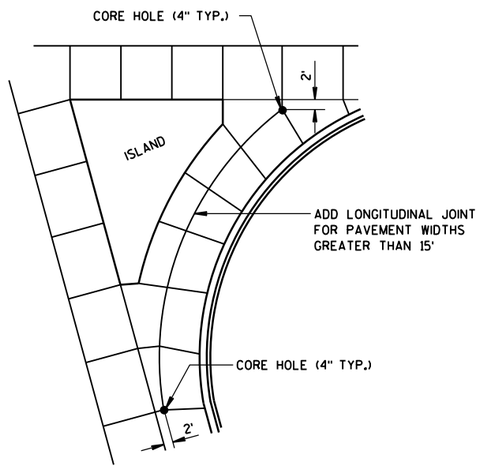
STANDARD INTERSECTION

PAVEMENT DEPTH AND JOINT SPACING TABLE

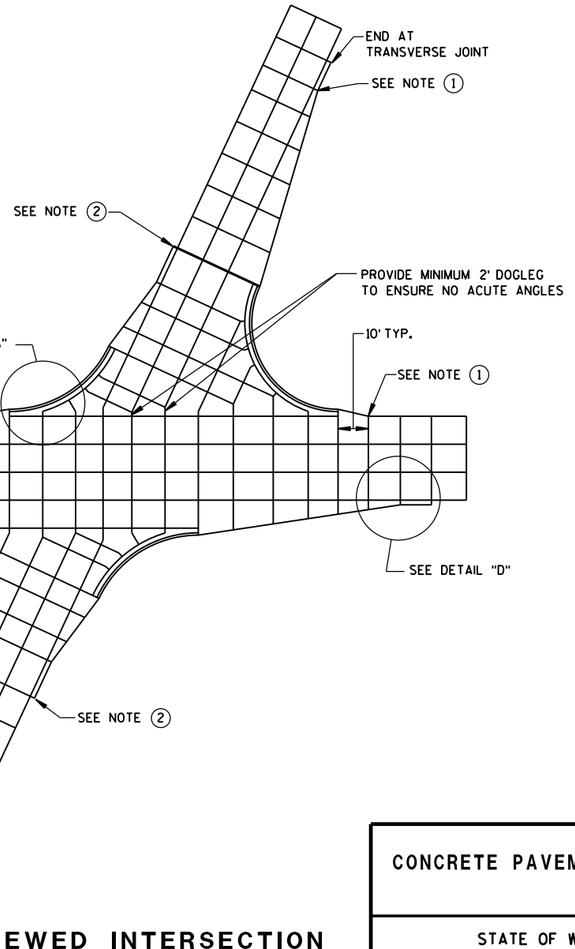
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6½"	12'
7", 7½"	14'
8" & ABOVE	15'



APPROACH TO MEDIAN



LARGE RIGHT TURN



SKEWED INTERSECTION

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR 268

6

S.D.D. 13 C 18-3a

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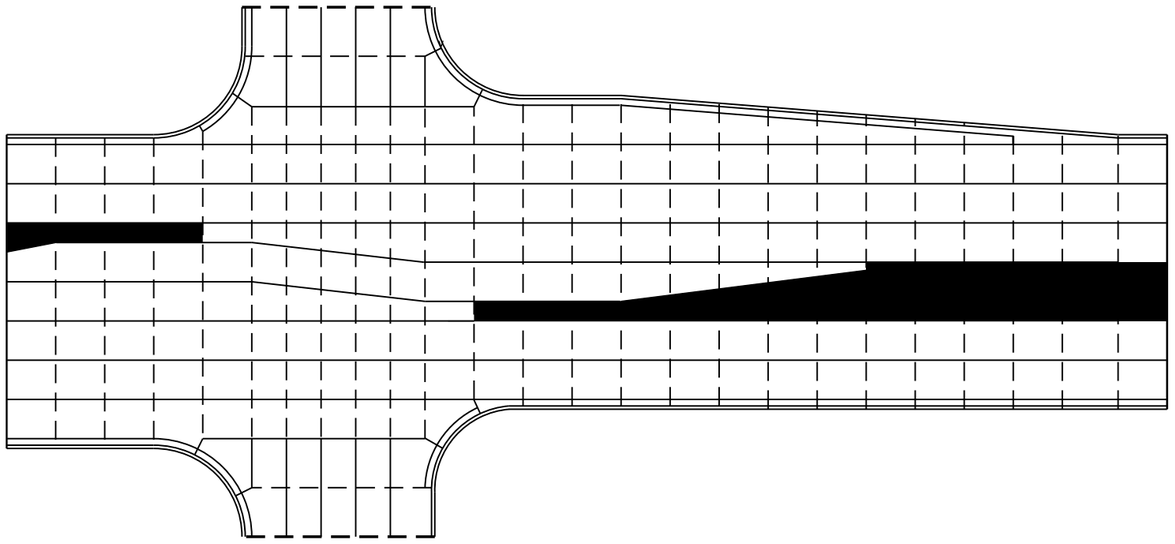
S.D.D. 13 C 18-3a

LEGEND

POTENTIAL DOWELED EXPANSION JOINT

DOWELED JOINT

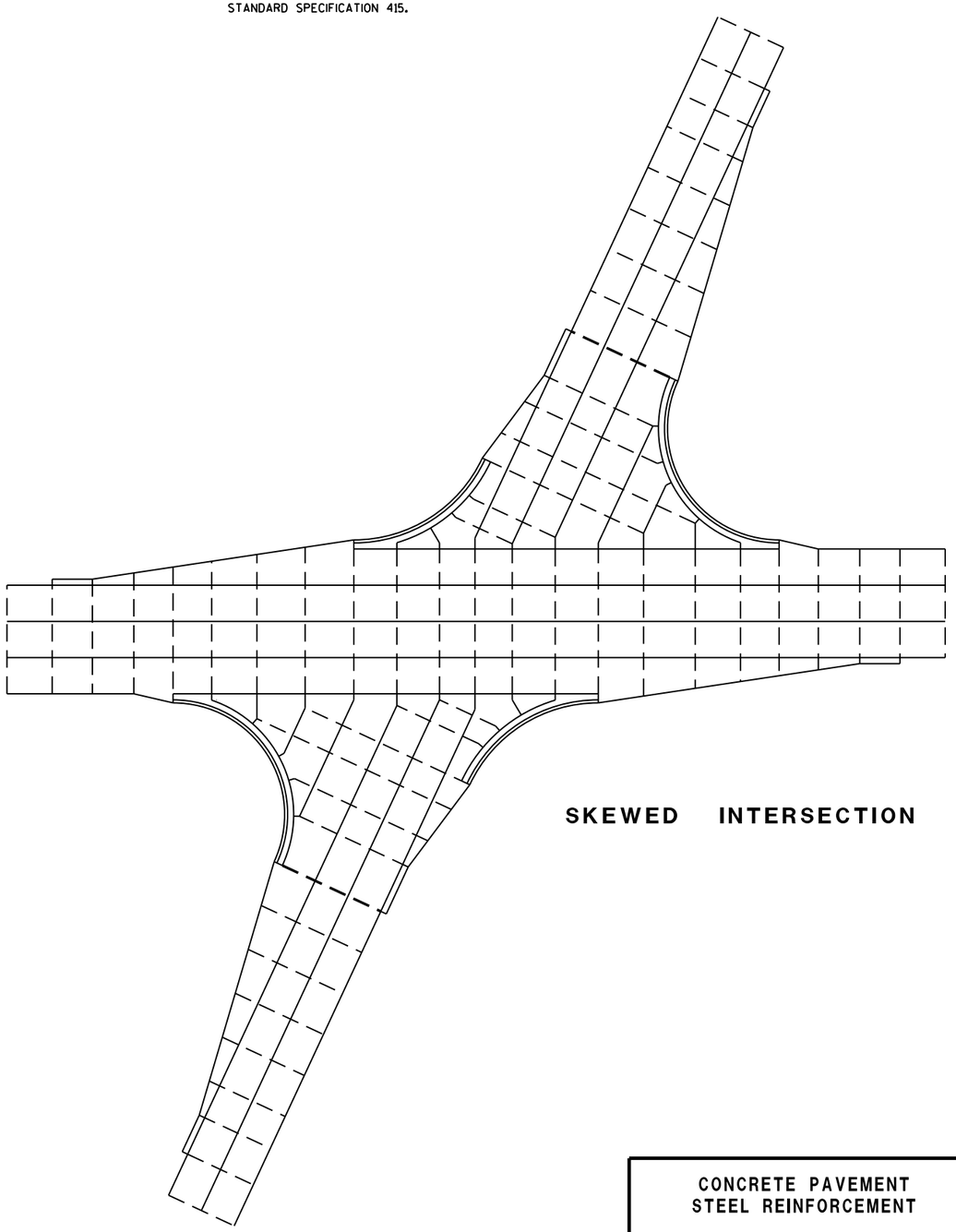
TIED JOINT



STANDARD INTERSECTION

GENERAL NOTES

USE AN EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.



SKEWED INTERSECTION

CONCRETE PAVEMENT
STEEL REINFORCEMENT

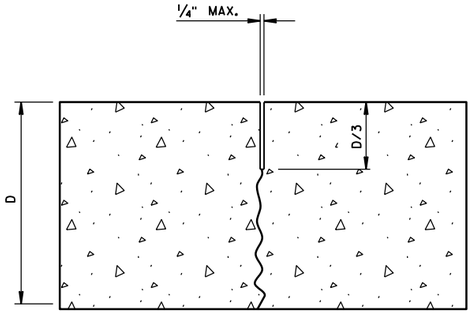
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

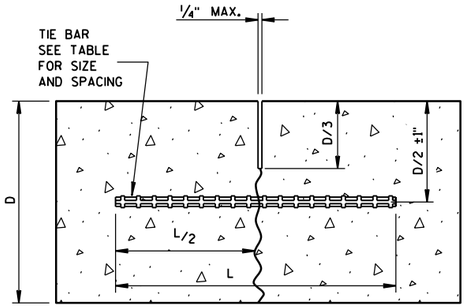
S.D.D. 13 C 18-3b

6

S.D.D. 13 C 18-3b



UNDOWELED-TRANSVERSE



TIED LONGITUDINAL

TIE BAR TABLE

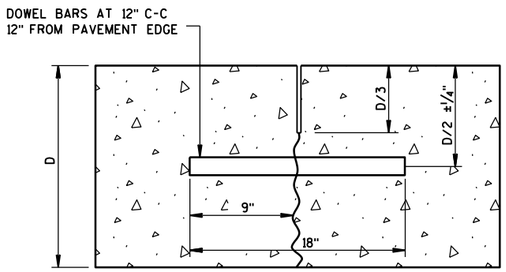
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4*	30"	24"**

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINUMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

GENERAL NOTES

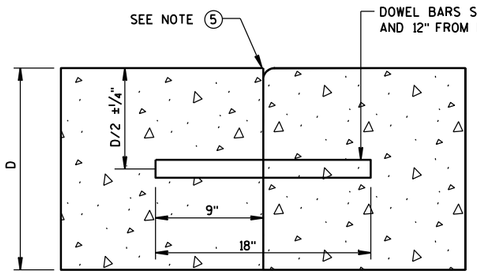
1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATE THE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.
4. CONSTRUCTION JOINTS CAN BE FORMED OR SAWED.
5. IF JOINT IS FORMED, PROVIDE A 1/4-INCH RADIUS.
6. ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



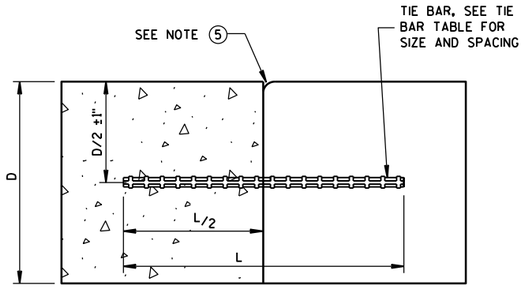
DOWELED-TRANSVERSE

CONTRACTION JOINTS

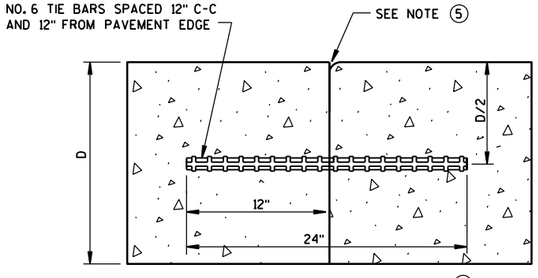
SEE NOTE (2)



DOWELED TRANSVERSE (3)

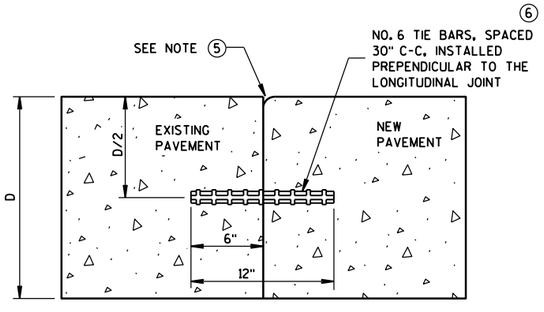


TIED LONGITUDINAL



TIED TRANSVERSE (3)

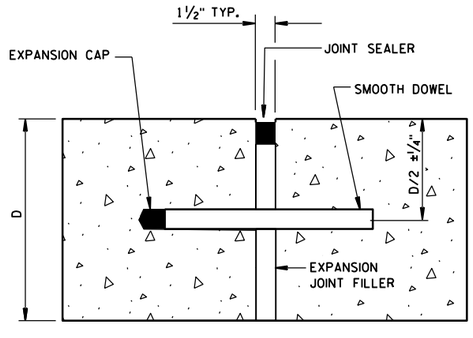
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)



TIED LONGITUDINAL TO EXISTING

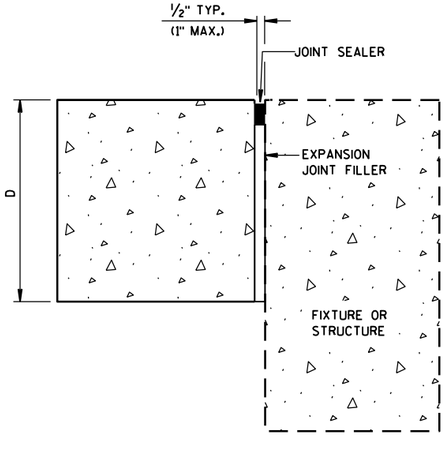
CONSTRUCTION JOINTS

SEE NOTE (4)



DOWELED-TRANSVERSE

SEE NOTE (1)



UNTIED-LONGITUDINAL

EXPANSION JOINTS

6

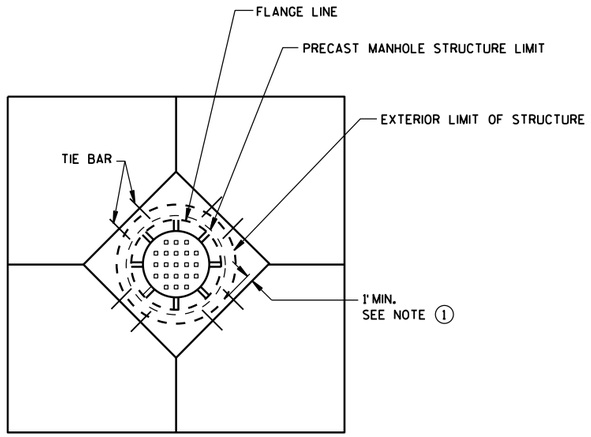
6

S.D.D. 13 C 18-3c

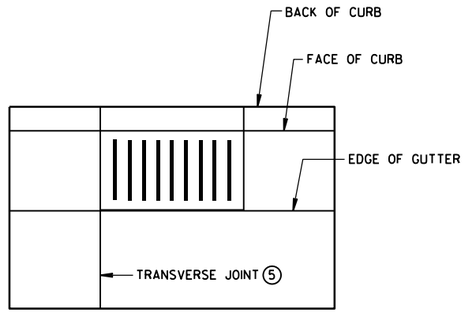
S.D.D. 13 C 18-3c

CONCRETE PAVEMENT
JOINT TYPES

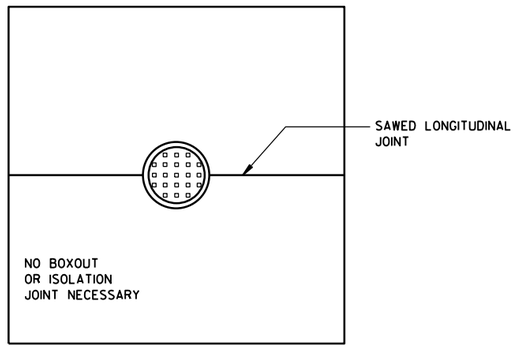
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI



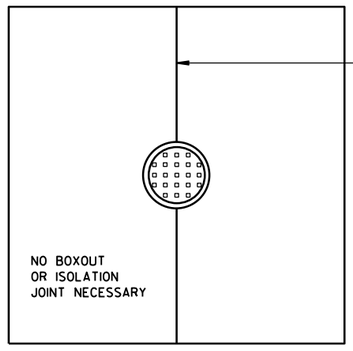
DIAGONAL MANHOLE BOXOUT FOR CONSTRUCTION JOINTS



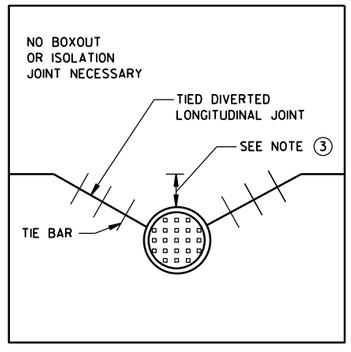
INLET WITH TRANSVERSE JOINT



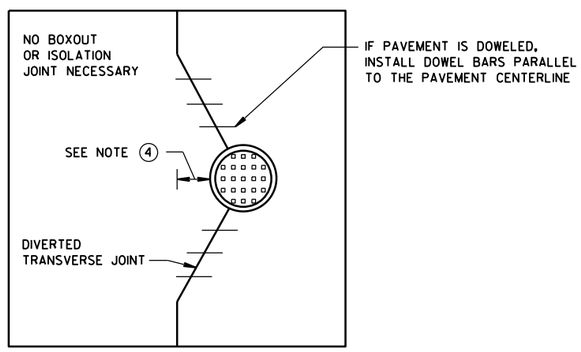
MANHOLE WITH LONGITUDINAL JOINT



MANHOLE WITH TRANSVERSE JOINT



MANHOLE WITH DIVERTED LONGITUDINAL CONTRACTION JOINT



MANHOLE WITH DIVERTED TRANSVERSE CONTRACTION JOINT

GENERAL NOTES

(1) USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1-FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.

(2) ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.

(3) IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE OF MANHOLE IS 2 FEET OR LESS, DIVERT THE LONGITUDIAL JOINT AT A 2:1 TAPER RATE TO THE CENTER OF THE MANHOLE. IF THE DISTANCE IS GREATER THAN 2 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REBAR REINFORCEMENT AROUND THE MANHOLE.

(4) IF DISTANCE FROM THE EDGE OF THE MANHOLE TO THE NEAREST TRANSVERSE JOINT IS 4 FEET OR LESS, REDIRECT JOINT TO INTERSECT THE CENTER OF THE MANHOLE. IF DISTANCE IS GREATER THAN 4 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REBAR REINFORCEMENT AROUND THE MANHOLE.

(5) ALIGN TRANSVERSE JOINT WITH ONE EDGE OF INLET WHEN PRACTICAL.

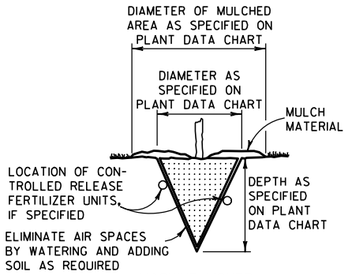
CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

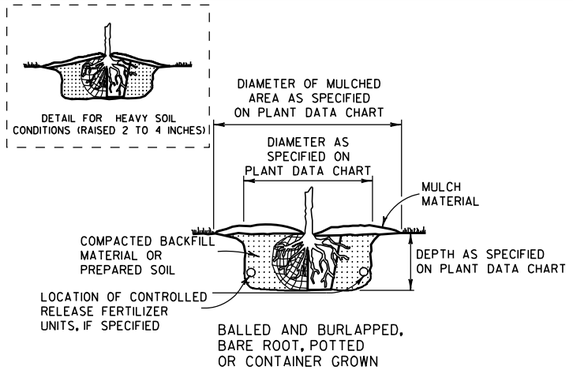
APPROVED
June, 2015
DATE
/S/ Peter Kemp, P.E.
PAVEMENT SUPER
FHWA

6

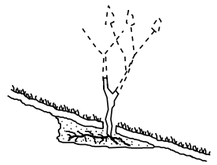
S.D.D. 13 C 18-3d



MACHINE MOVED

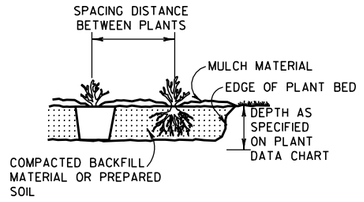


BALLED AND BURLAPPED, BARE ROOT, POTTED OR CONTAINER GROWN



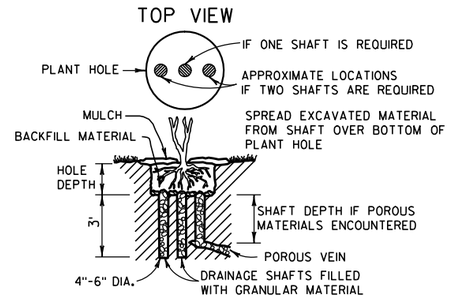
ACCOMMODATE ROOTS (SMOOTH AND STAGHORN SUMAC)

NOTE:
1) ENGINEER SHALL REQUIRE 3 SLITS IN POT TO SPEED DETERIORATION
2) METAL, PLASTIC OR OTHER NONDEGRADABLE POTS SHALL BE REMOVED PRIOR TO PLANTING



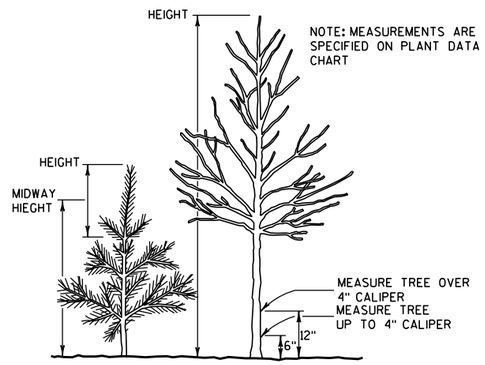
PREPARED BED (BARE ROOT AND POTTED)

PLANTING

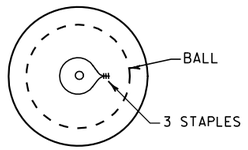


NOTE:
DRAINAGE SHAFT AS SPECIFIED ON PLANT DATA CHART

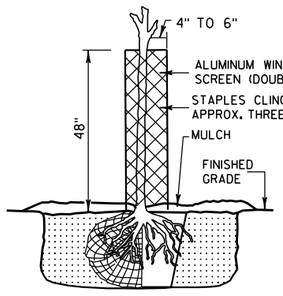
DRAINING



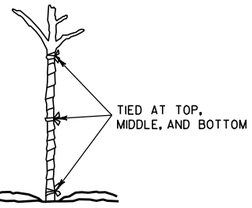
MEASURING



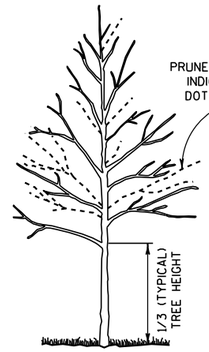
TOP VIEW



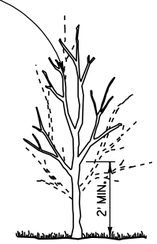
RODENT PROTECTION



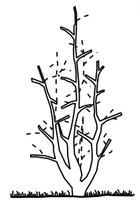
WRAPPING



TALL DECIDUOUS TREES (ASH, MAPLE, LINDEN, OAK)



SINGLE STEMMED LOW DECIDUOUS TREES (CRABS AND OTHER SINGLE STEM TYPE)

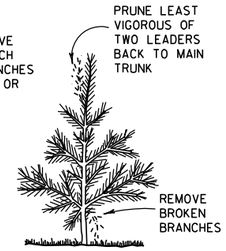


MULTI-STEMMED LOW DECIDUOUS TREES OR LARGE SHRUBS (HAWTHORN, SERVICEBERRY)

NOTE: WHEN PRUNING, PRESERVE CHARACTER AND SHAPE OF TREE. AVOID LEAVING STUBS - REMOVE BRANCH OR TWIG BACK TO THE NEAREST CROTCH
1) PRUNE TO REMOVE DEAD AND BROKEN BRANCHES
2) PRUNE TO REMOVE BRANCHES THAT TOUCH OR ARE TOO CLOSE TO OTHER BRANCHES

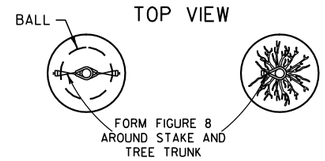
SHRUBS (GRAY DOGWOOD ARROWWOOD VIBURNUM)

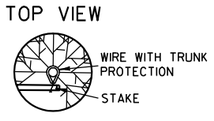
SUMAC

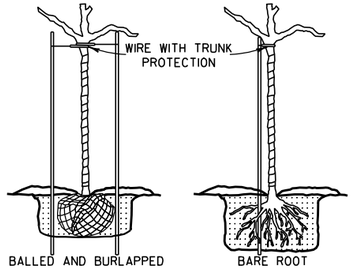


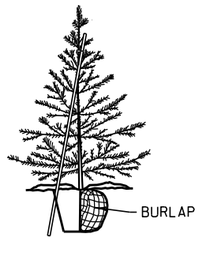
TREE TYPE EVERGREENS (PINE, SPRUCE, FIR) EVERGREENS USUALLY ARE NOT PRUNED

PRUNING



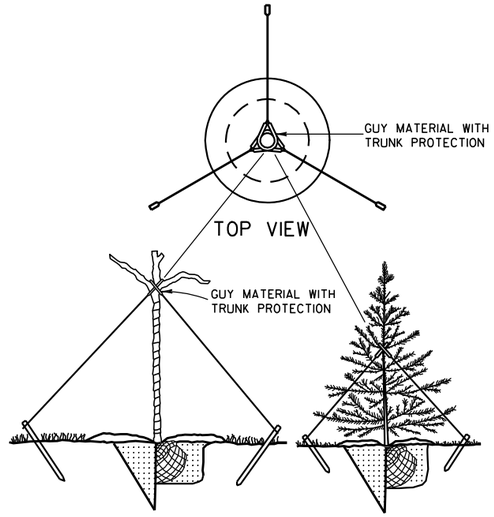






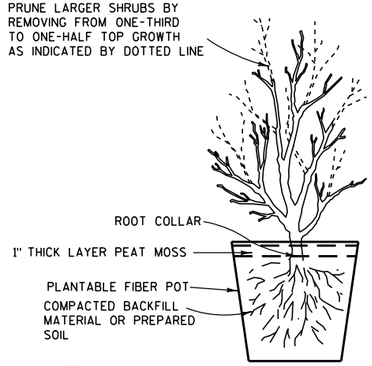
NOTE: BRACING STAKE
1) SHALL BE DRIVEN INTO THE GROUND AS CLOSE TO THE TREE AS POSSIBLE WITHOUT DAMAGING THE BRANCHES.
2) MAY BE DRIVEN AT SUCH AN ANGLE THAT IT DOES NOT PENETRATE THE BALL OR POT.
3) SHALL NOT PROTRUDE ABOVE THE TOP OF THE TREE; AND
4) SHALL HAVE A HOLE NEAR THE TOP TO HOLD THE WIRE IN PLACE.

BRACING



GUYING

PRUNE LARGER SHRUBS BY REMOVING FROM ONE-THIRD TO ONE-HALF TOP GROWTH AS INDICATED BY DOTTED LINE



POTTING

NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

BRACING, WRAPPING, GUYING, RODENT PROTECTION, FERTILIZER AND MULCH SHALL BE USED ONLY WHEN SPECIFIED ON THE PLANT DATA CHART (PART OF PLAN) OR SPECIAL PROVISIONS.

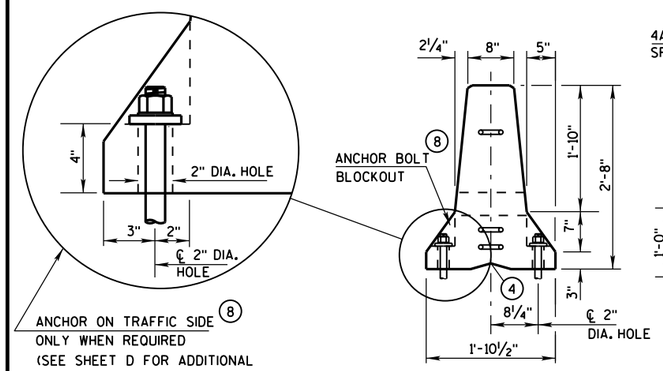
TREE PLANTING DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

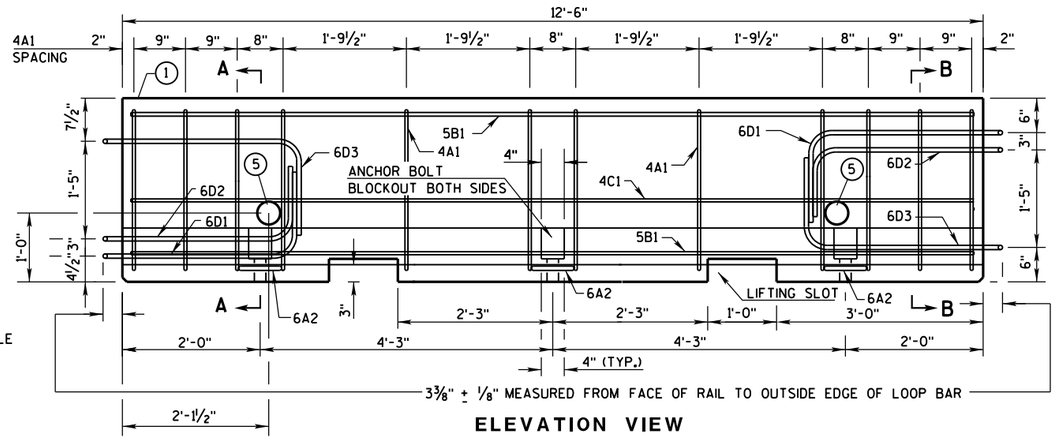
APPROVED
4/11/94 — DATE
/S/ Rory L. Rhinesmith — CHIEF METHODS DEVELOPMENT ENGINEER
FHWA

S.D.D. 14 A 2-1

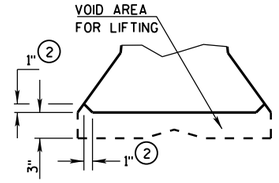
S.D.D. 14 A 2-1



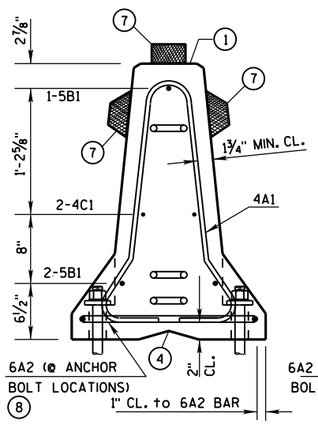
END VIEW



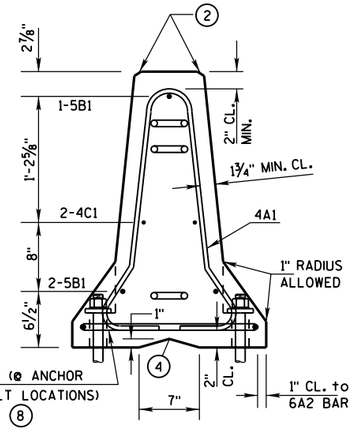
ELEVATION VIEW



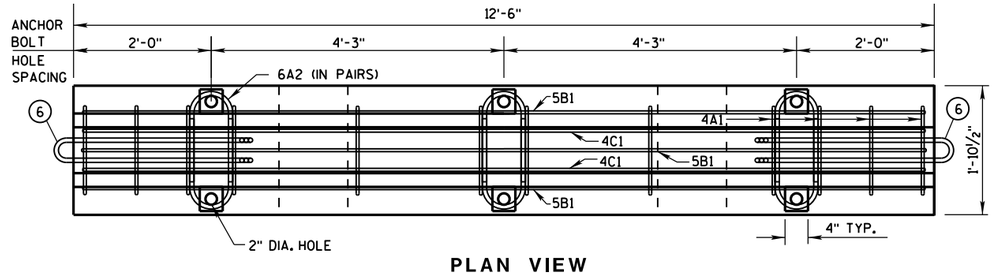
DETAIL "B"
LIFTING SLOT DETAIL



SECTION A-A
(STIRRUP PLACEMENT)

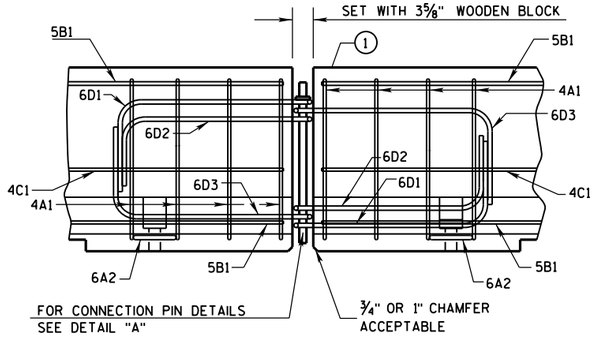


SECTION B-B
(STIRRUP PLACEMENT)

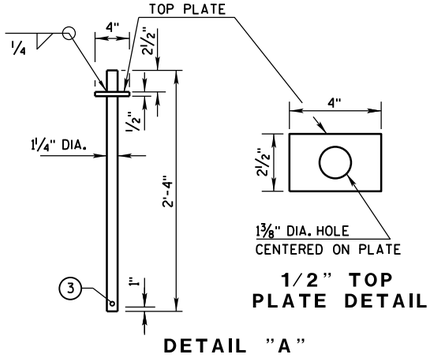


PLAN VIEW

DETAILS OF BARRIER SECTION

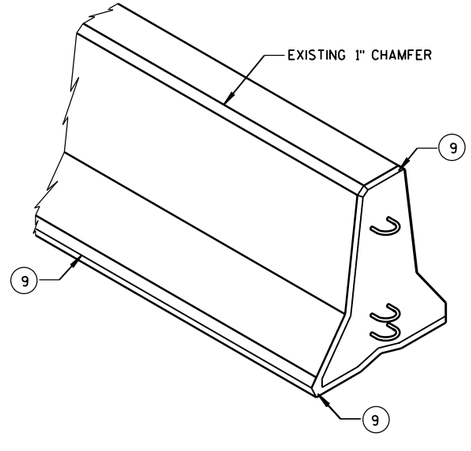


DETAILS OF BARRIER CONNECTION



1/2" TOP
PLATE DETAIL

DETAIL "A"
CONNECTION PIN
(A36 STEEL (10.9 LB EACH))



GENERAL NOTES

THESE GENERAL NOTES APPLY TO SHEETS 14B7-14(a) THRU 14B7-14(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 ADHESIVE 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: WI CBTP
- 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.

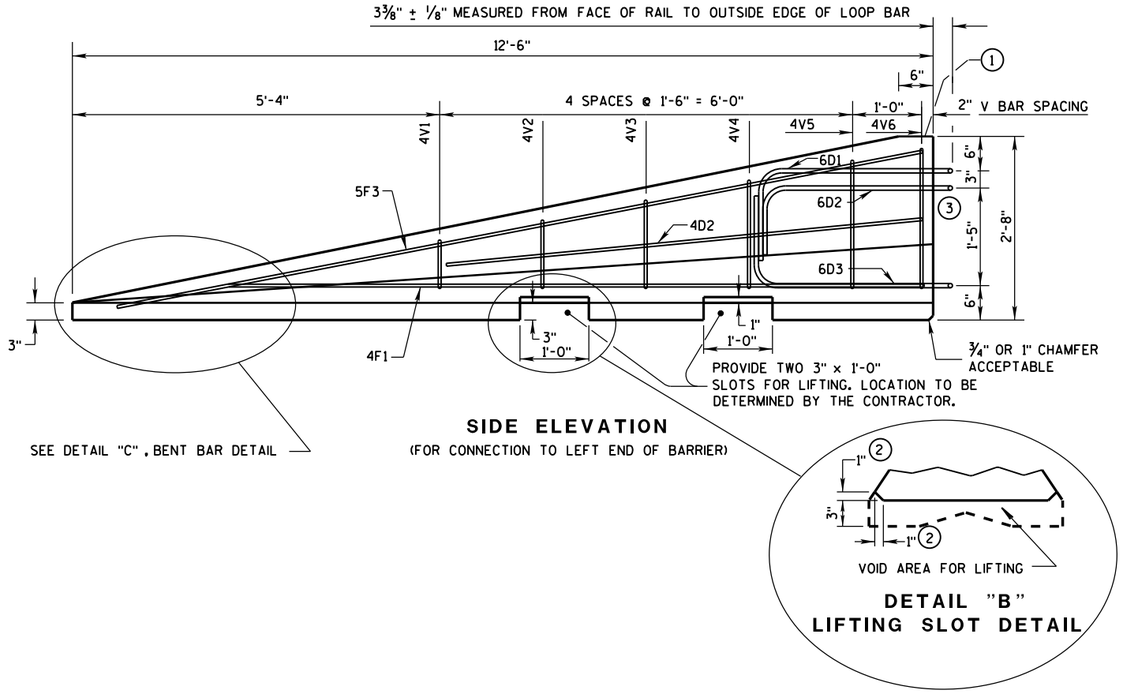
(9) 1" CHAMFER OPTIONAL.

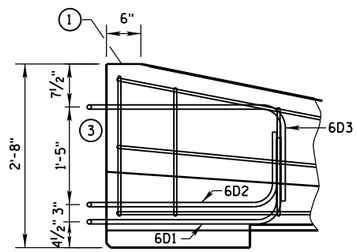
CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

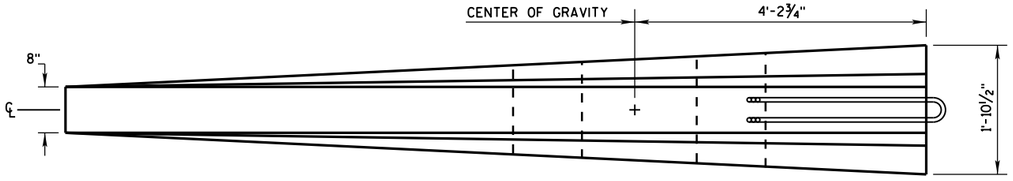
S.D.D. 14 B 7-14a

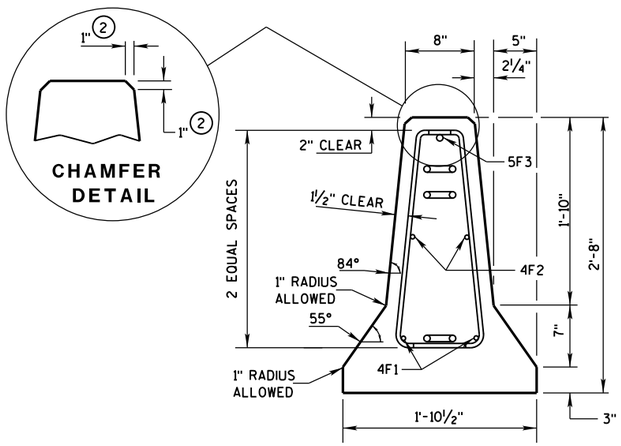


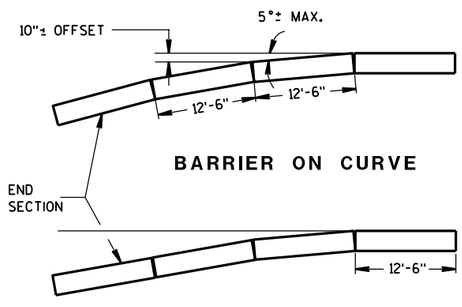


GENERAL NOTES

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.







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 TRANSPOI

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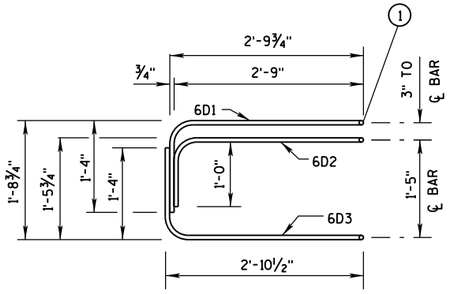
S.D.D. 14 B 7-14b

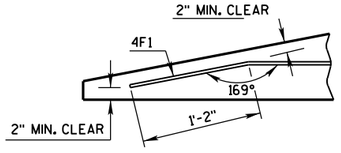
BARRIER TAPER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER TAPER SECTION)

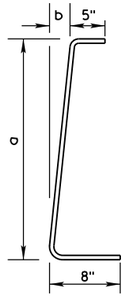
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4V1	4	2	1'-11"
4V2	4	2	2'-2"
4V3	4	2	2'-6"
4V4	4	2	2'-9"
4V5	4	2	3'-2"
4V6	4	2	3'-4"
4F1	4	2	12'-0"
4F2	4	2	7'-6"
5F3	5	1	11'-9"
LOOP ASSEMBLY			
6D1	6	1	8'-5"
6D2	6	1	7'-7"
6D3	6	1	8'-6"



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

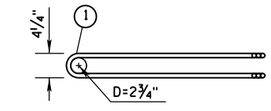
GENERAL NOTES

(1) NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

BARRIER SECTION BILL OF MATERIALS

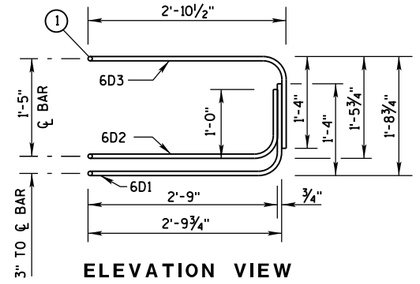
(PER 12'-6" BARRIER SECTION)

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"

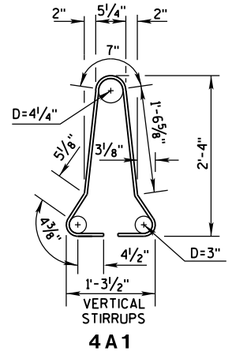


PLAN VIEW
LOOP BAR ASSEMBLY
(MARKED END SHOWN, INVERT FOR OTHER END)

6A2



ELEVATION VIEW



4A1

BARRIER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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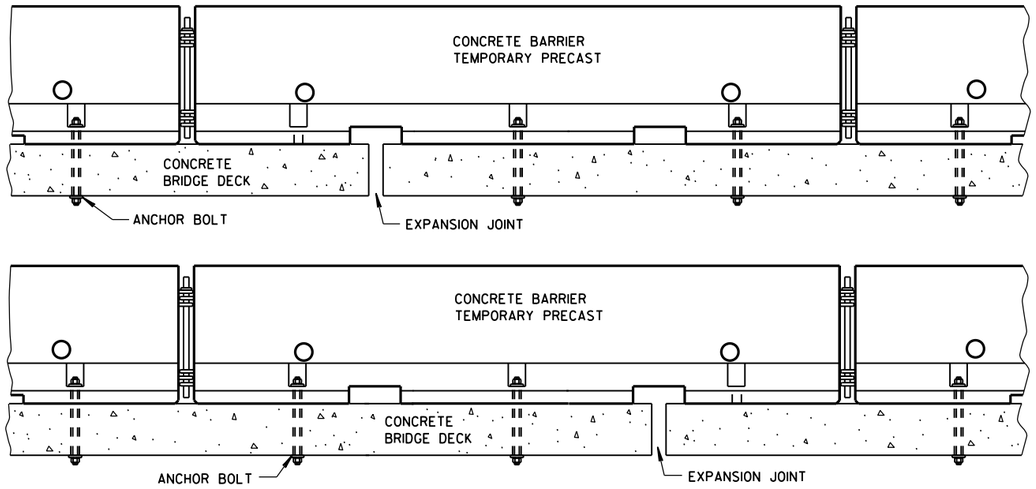
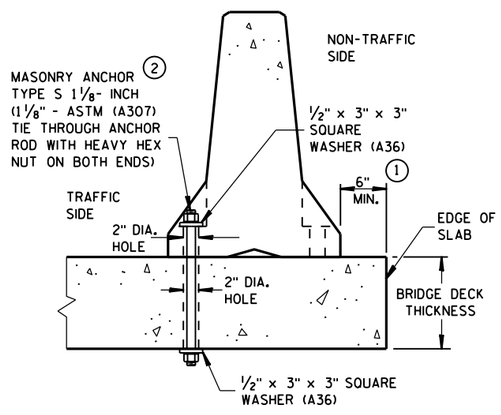
S.D.D. 14 B 7-14c



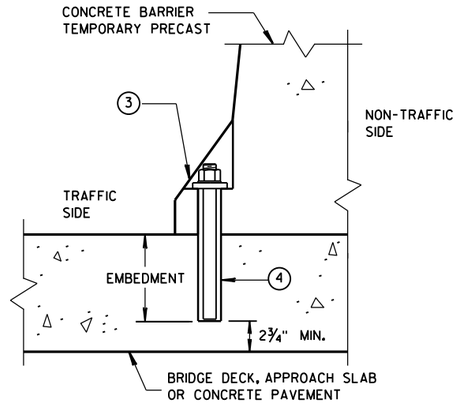
TREATMENT AT BRIDGE DECK EXPANSION JOINTS

(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 ② INSTALLATION ON CONCRETE BRIDGE DECK, CONCRETE APPROACH SLAB, OR CONCRETE PAVEMENT

(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.

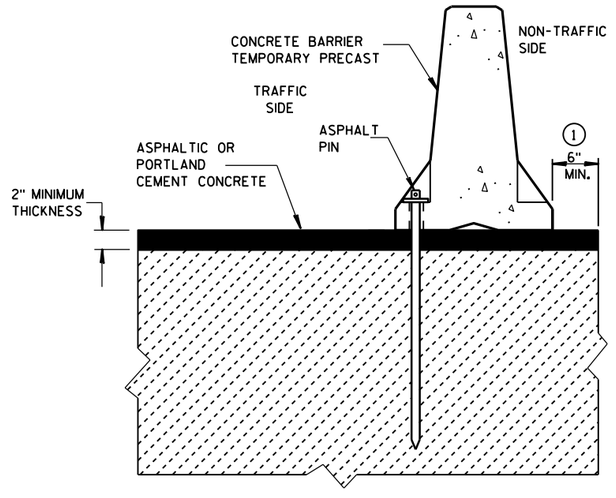
② ANCHORING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST.

WITH THE APPROVAL OF THE ENGINEER, REMOVABLE ADHESIVE BONDED 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 ALL ANCHOR 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 MATERIAL IDENTIFIED ON THE CURRENT WISDOT APPROVED PRODUCTS LIST.

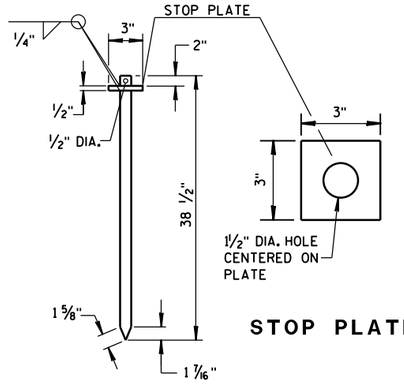
③ 1⅛" DIAMENTER A307 THREADED ROD, ½" X 3" X 3" SQUARE PLATE WASHER WITH ASTM A36 STEEL, ASTM A563A HEAVY HEX NUT.

④ ADHESIVE ANCHORS WITH A MINIMUM BOND STRENGTH OF 1,800 PSI AND 5¼" EMBEDMENT. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.



STAKE DOWN INSTALLATION FOR ASPHALTIC OR PORTLAND CEMENT CONCRETE SURFACE

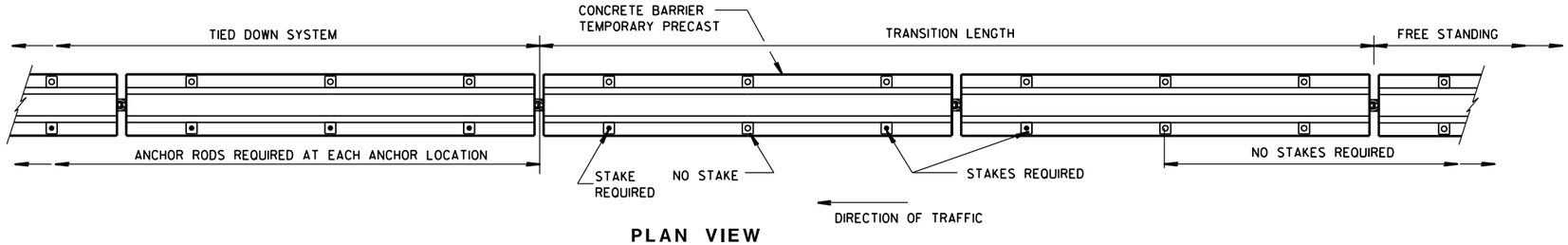
(STAKING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST)



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 TRANSPOI

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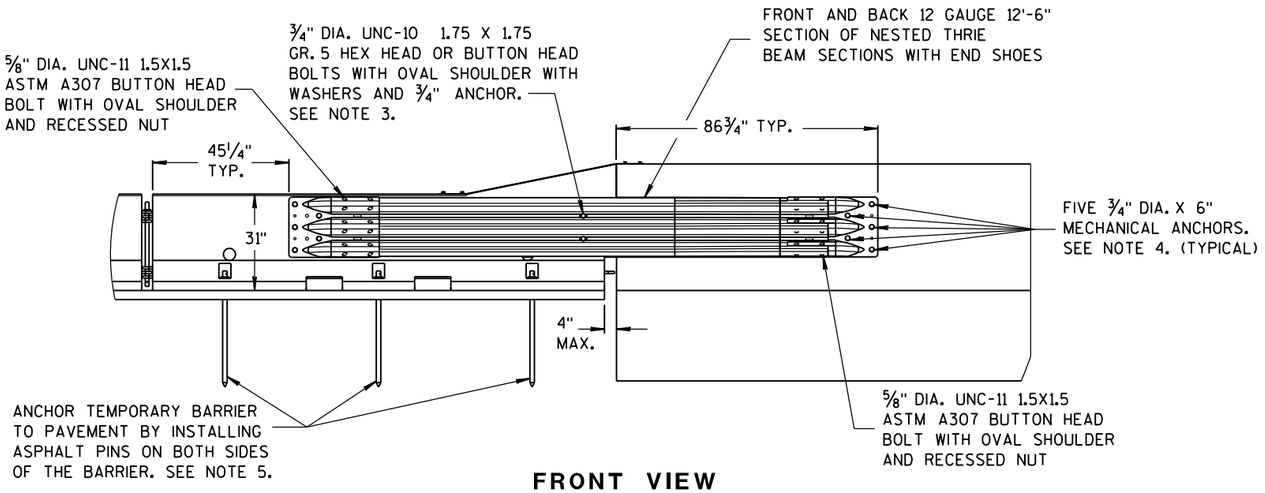
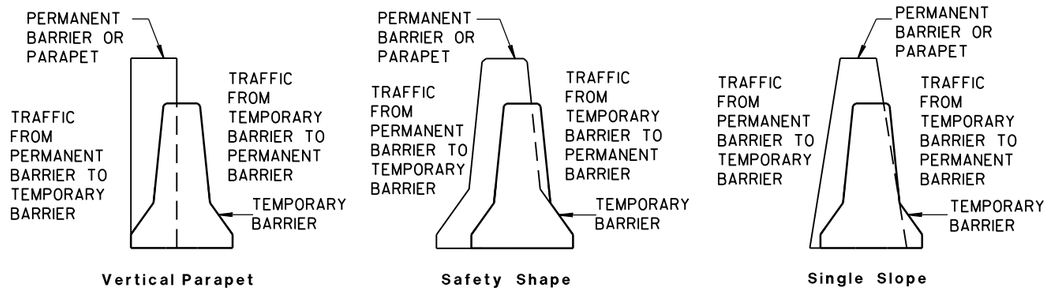
S.D.D. 14 B 7-14d



FRONT VIEW

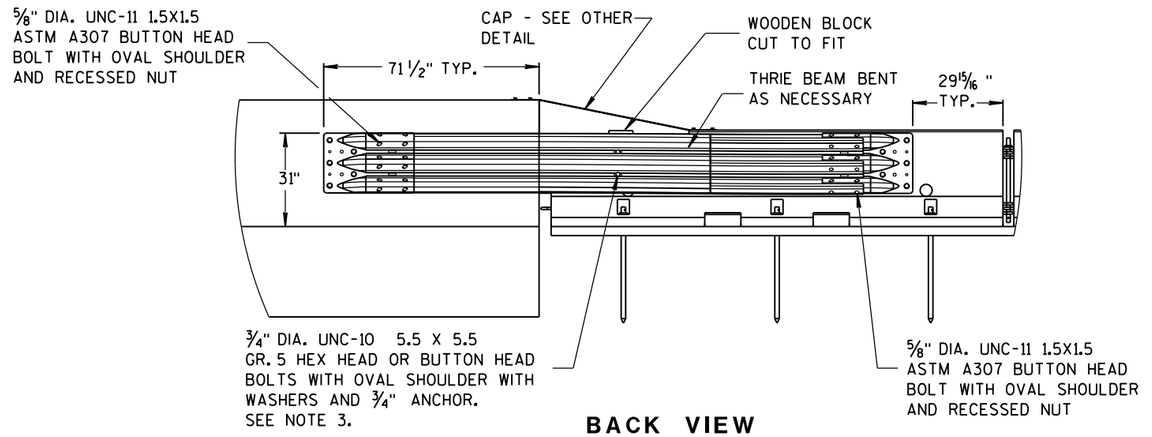


TEMPORARY BARRIER PLACEMENT FOR BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM

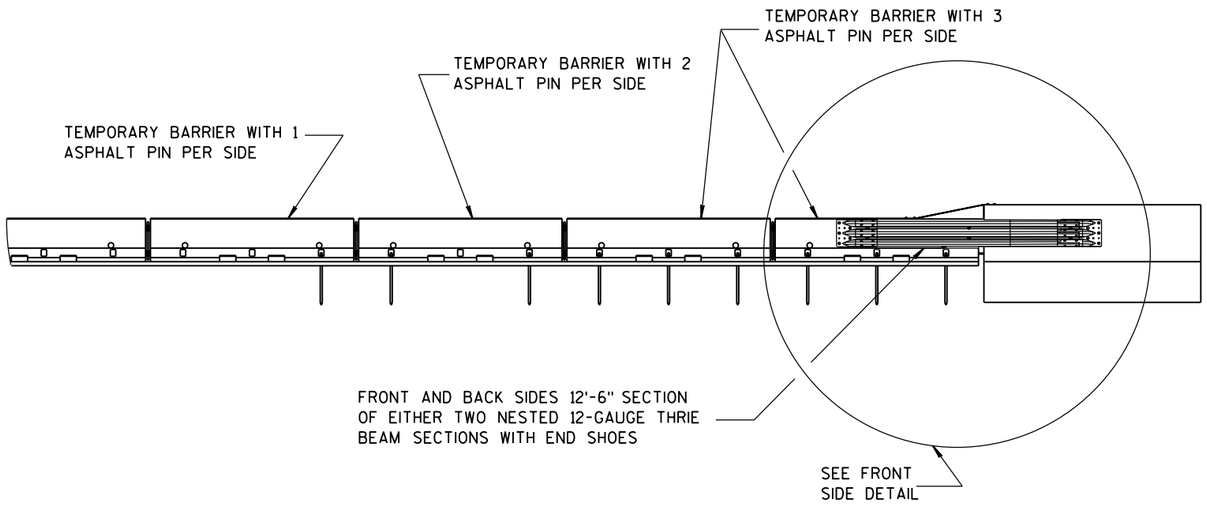
NOTES

NESTED THRIE BEAM IS REQUIRED ON BOTH SIDES OF THE TEMPORARY BARRIER FOR ALL INSTALLATIONS.

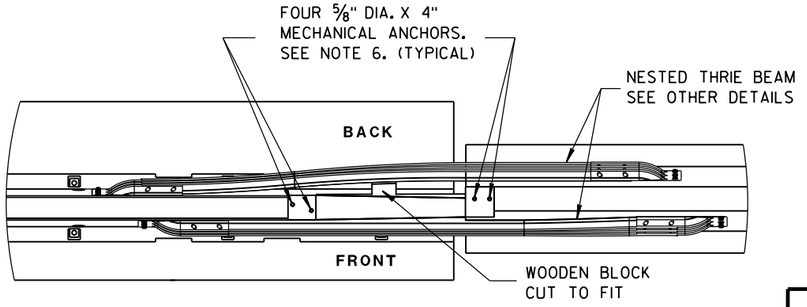
1. CAP END PLATE PLACED FLUSH WITH UPSTREAM END OF PERMANENT BARRIER OR PARAPET.
2. THRIE BEAM PIECES ARE OFFSET 15¼" TO PREVENT INTERFERENCE FROM THE ANCHORS ON OPPOSING SIDES.
3. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 9.48 KIPS AND ULTIMATE SHEAR LOAD 10.48 KIPS.
4. MINIMUM MECHANICAL OR ADHESIVE 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 ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 12.14 KIPS AND ULTIMATE SHEAR LOAD 17.5 KIPS.



BACK VIEW



FRONT VIEW



PLAN VIEW

BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

6
S.D.D. 14 B 7-14e

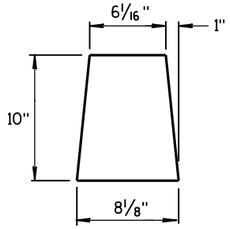
GUSSET 1

GUSSET 2

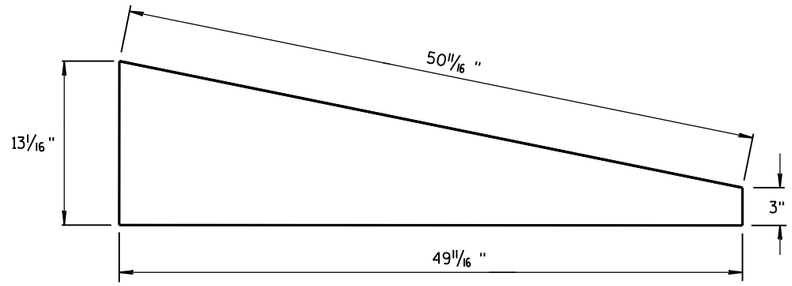
GUSSET 3

GUSSET 4

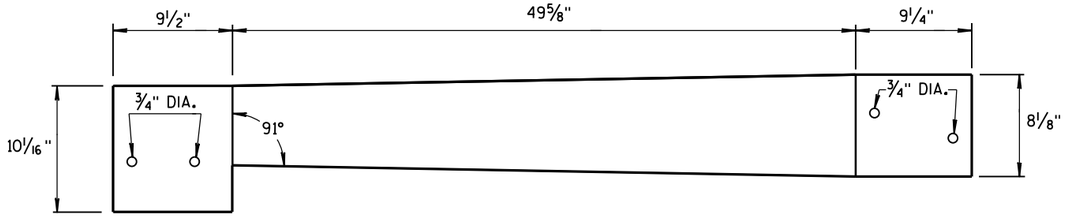
GUSSETS

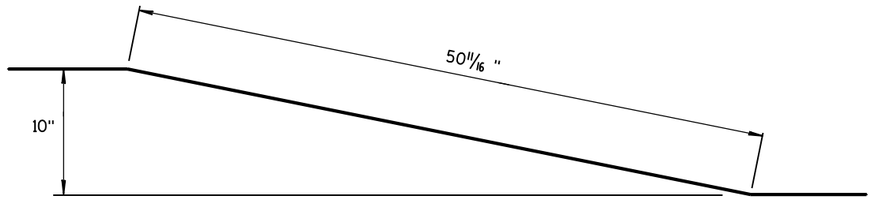


END PLATE

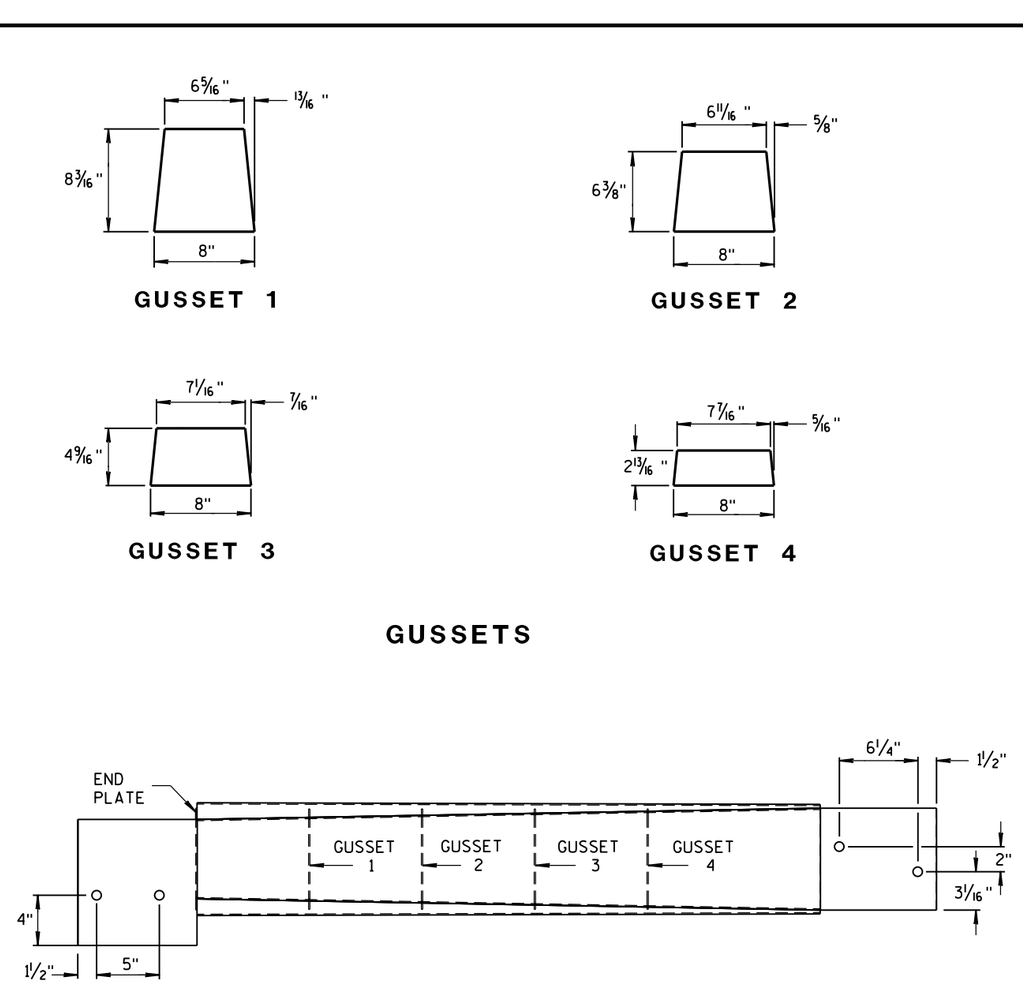


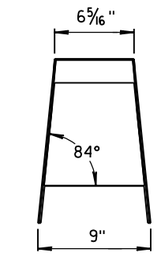
SIDE PLATE





TOP PLATE





SECTION C-C

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.

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

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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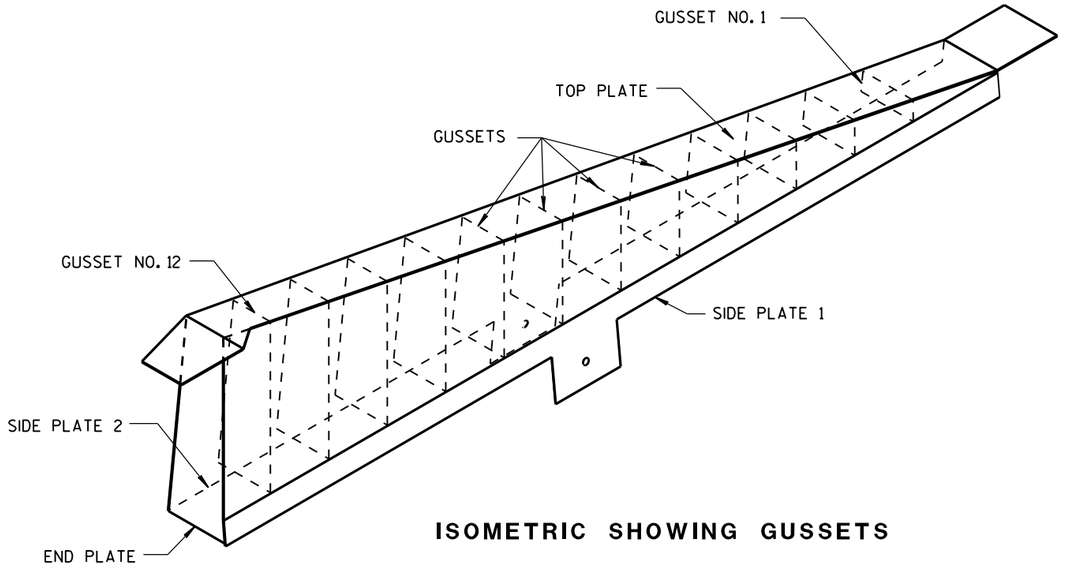
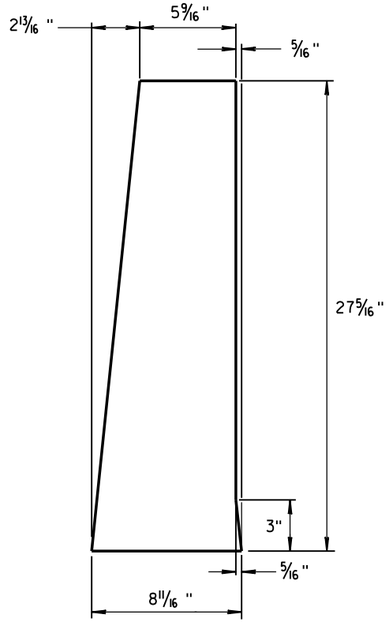
S.D.D. 14 B 7-14f

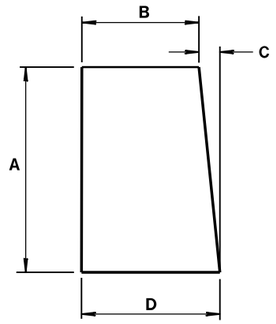


ISOMETRIC SHOWING GUSSETS



END PLATE

1/8" STEEL PLATE



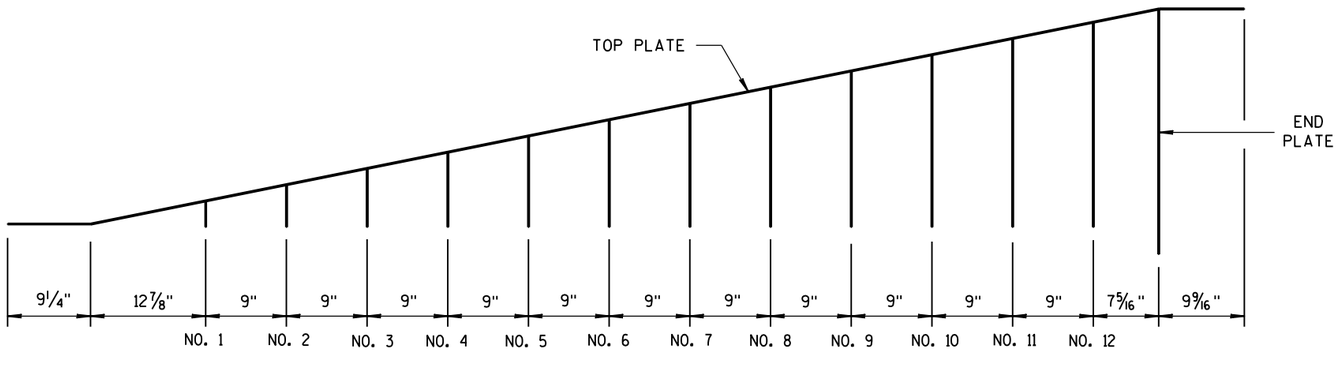
GUSSETS 1 - 12

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

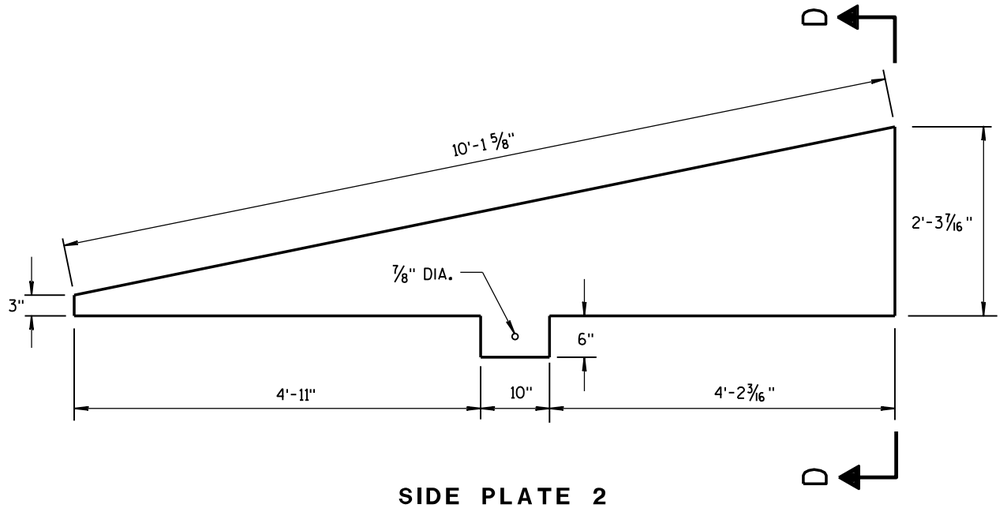
CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

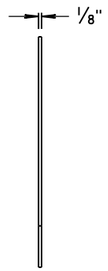
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

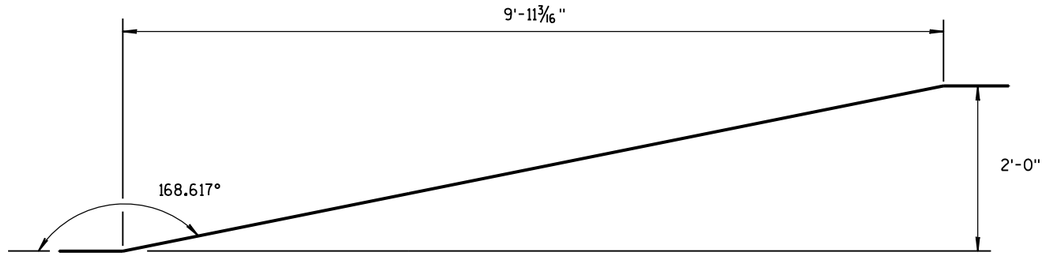
S.D.D. 14 B 7-14g



SIDE PLATE 2

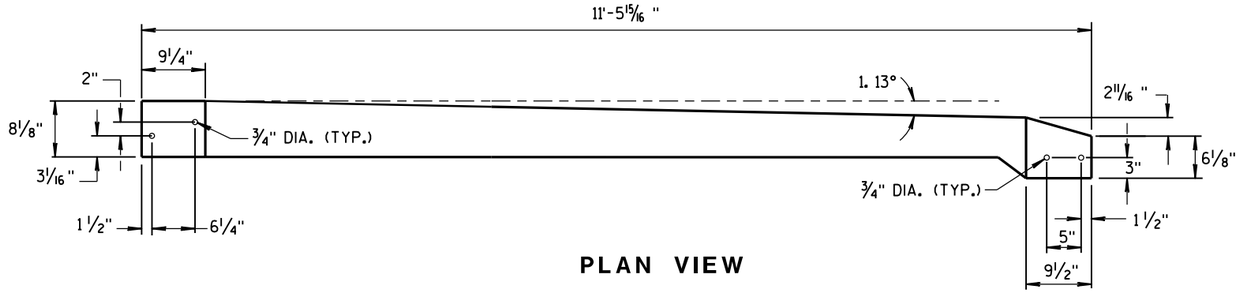


END VIEW



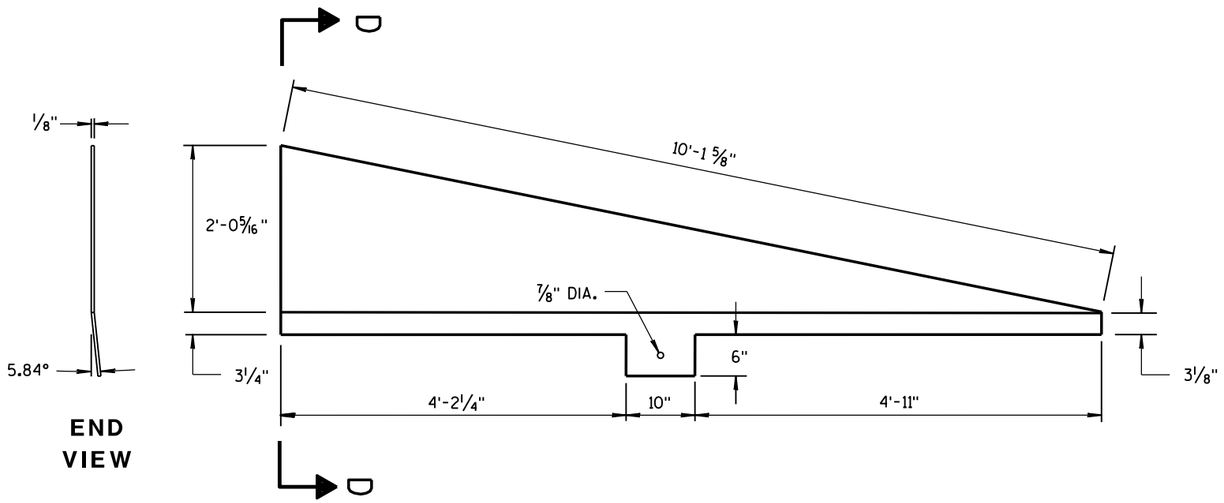
SIDE VIEW

TOP PLATE



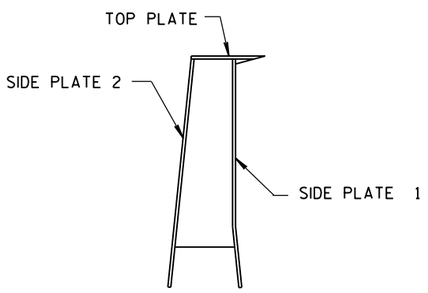
PLAN VIEW

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
June 2014 — DATE
/S/ Jerry H. Zoda — ROADWAY STANDARD DEVELOPMENT ENGINEER
FHWA

280

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S.D.D. 14 B 7-14h

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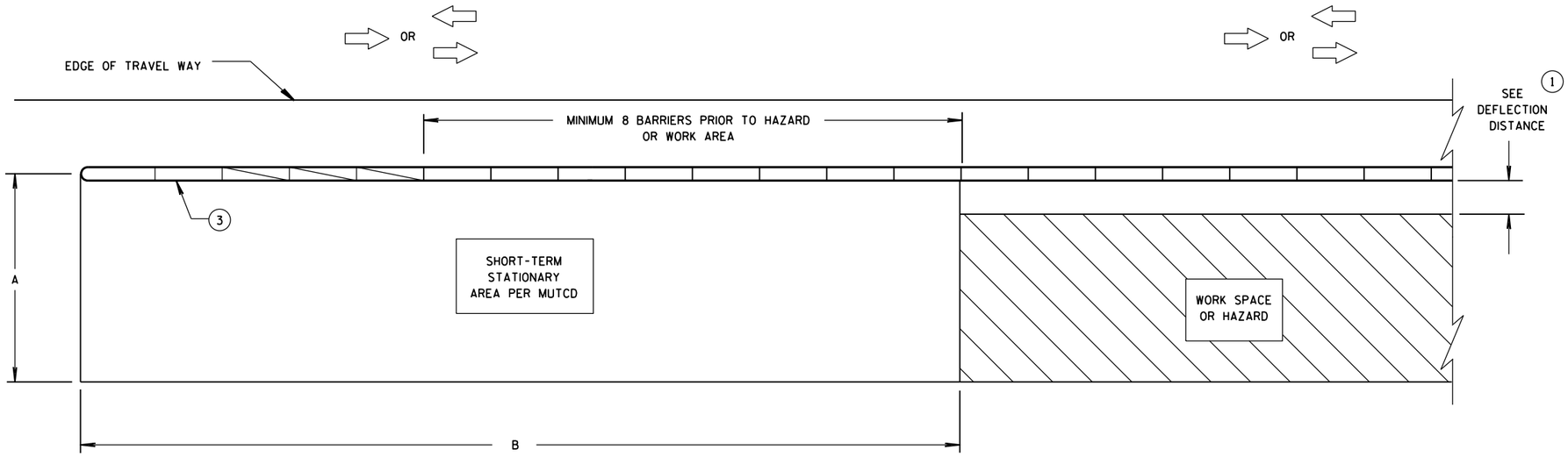
S.D.D. 14 B 7-14h



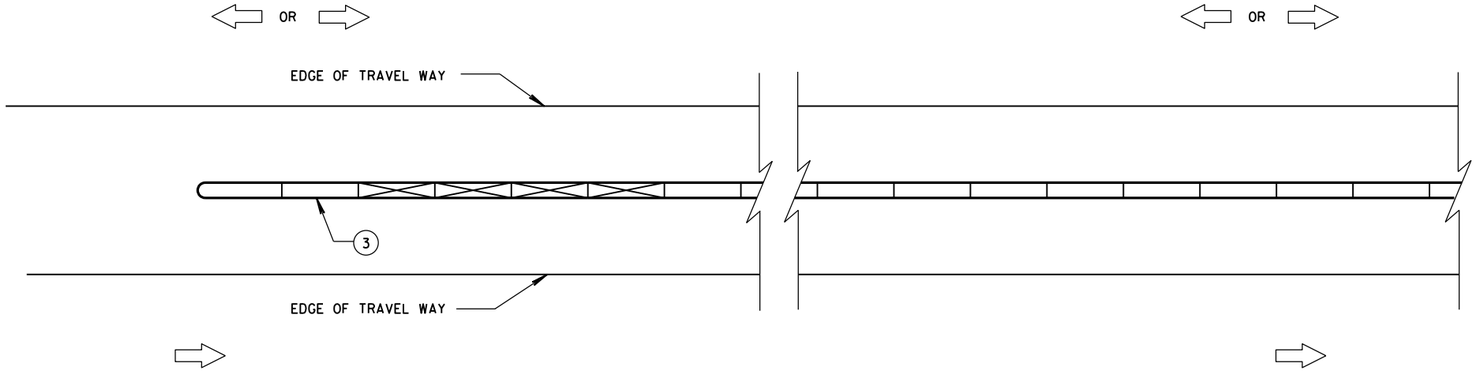
CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE OF BARRIER

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.

(3) ANCHOR TEMPORARY BARRIER ACCORDING TO CRASH CUSHION OR SAND BARREL MANUFACTURER'S RECOMMENDATIONS. IF MANUFACTURER'S RECOMMENDATIONS ARE NOT PROVIDED, ANCHOR 3 PINS ON TRAFFIC SIDE.

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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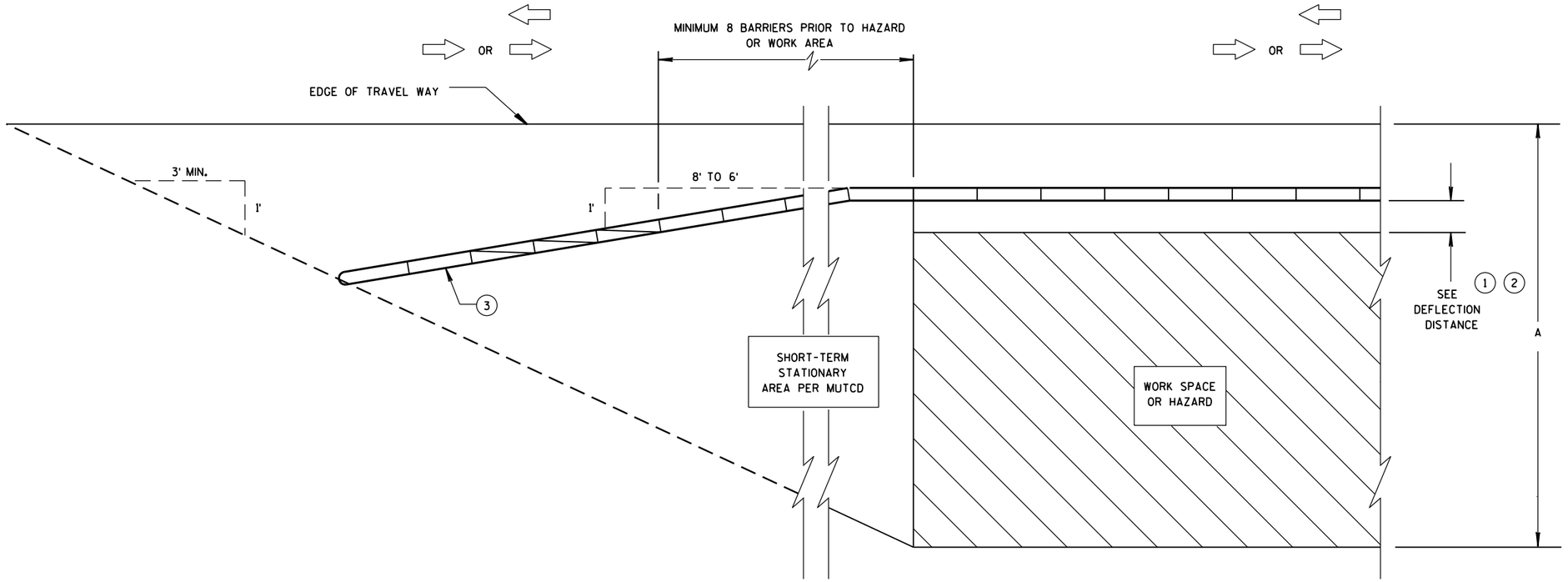
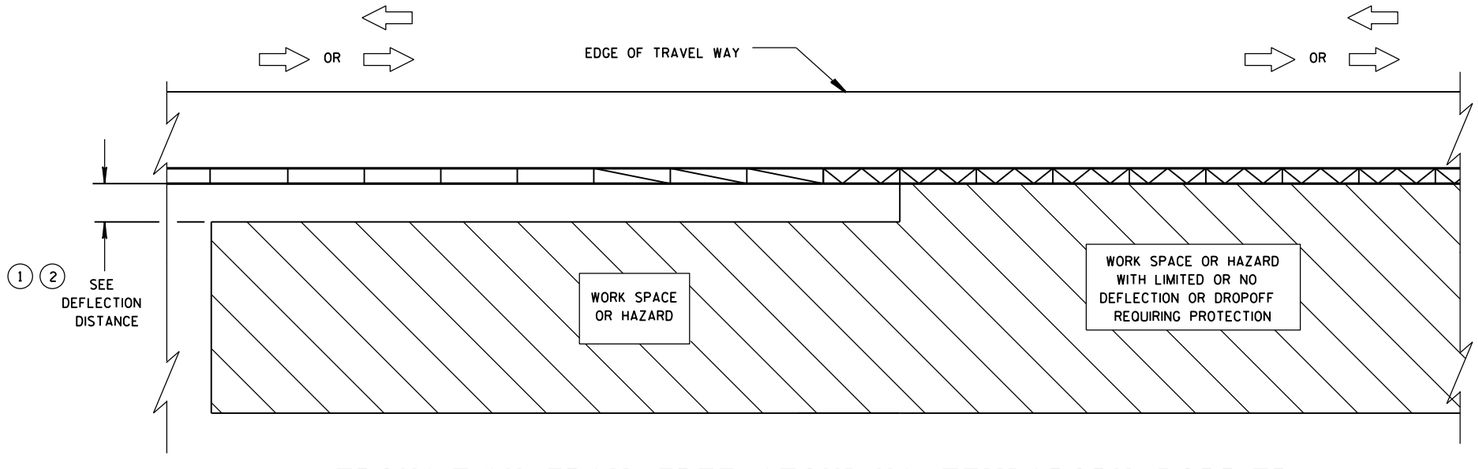
S.D.D. 14 B 8-2a



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 TRANSPOI

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S.D.D. 14 B 8-2b

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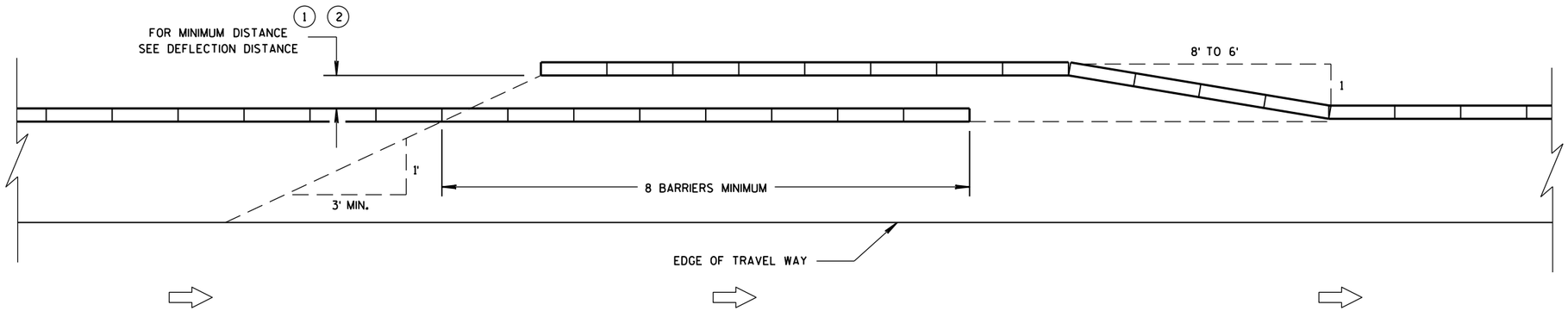
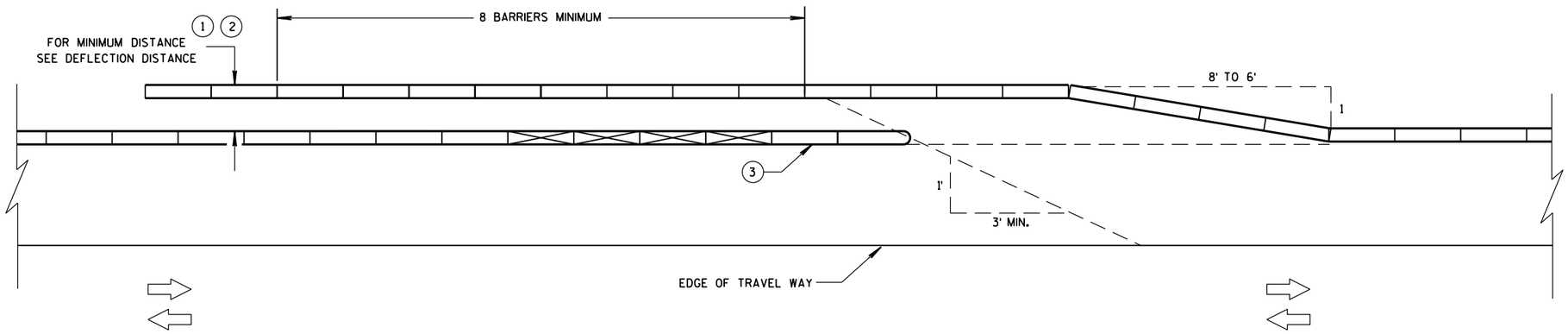
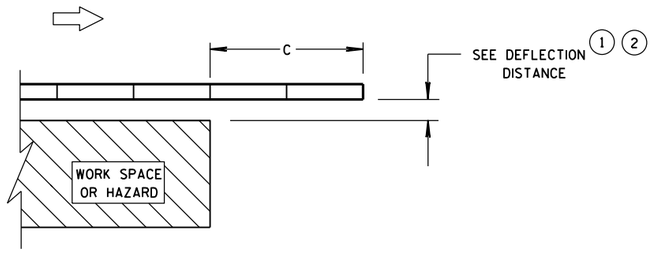
S.D.D. 14 B 8-2b



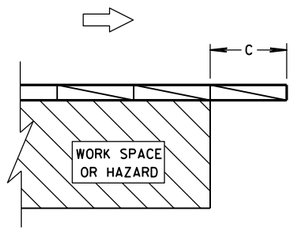
TEMPORARY BARRIER OVERLAP - ONE-WAY TRAFFIC



TEMPORARY BARRIER OVERLAP - TWO-WAY TRAFFIC



ENDING TEMPORARY BARRIER DOWNSTREAM - UNANCHORED



ENDING TEMPORARY BARRIER DOWNSTREAM - ANCHORED

LEGEND

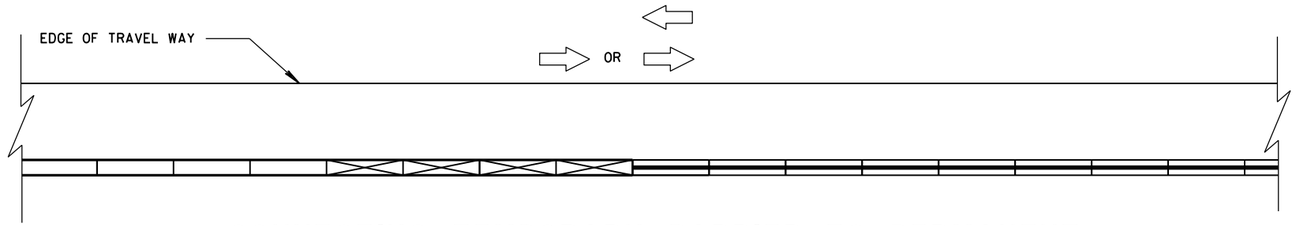
- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

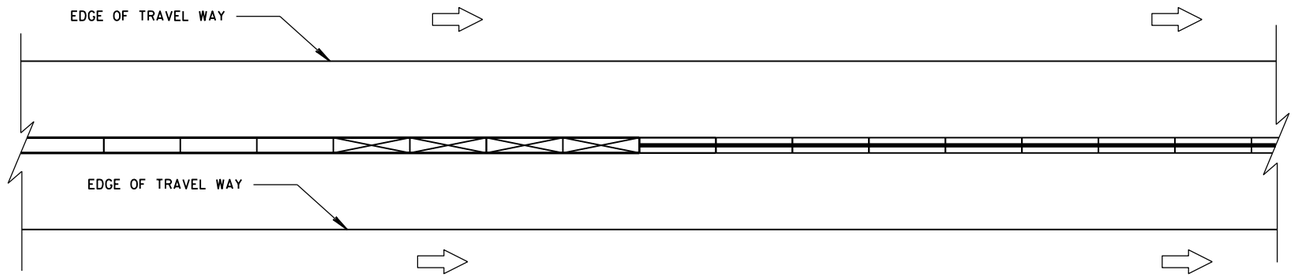
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

6

S.D.D. 14 B 8-2c



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

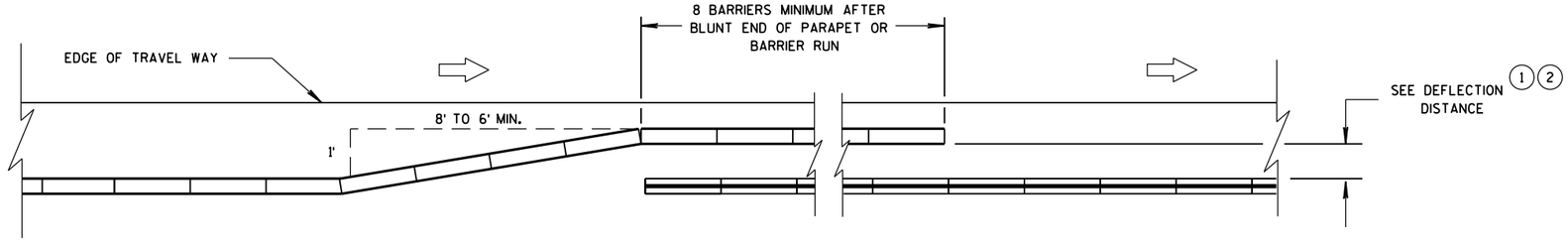
SEE FREE STANDING TRANSITION
TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION
TO TIED-DOWN SYSTEM DETAILS

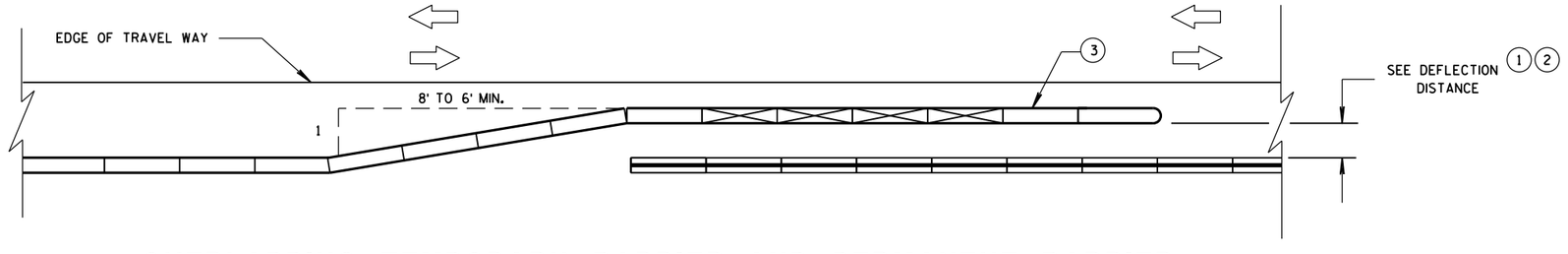
3 PINS PLACED ON
TRAFFIC SIDE OF BARRIER

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 TRANSPOI

6

S.D.D. 14 B 8-2d

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

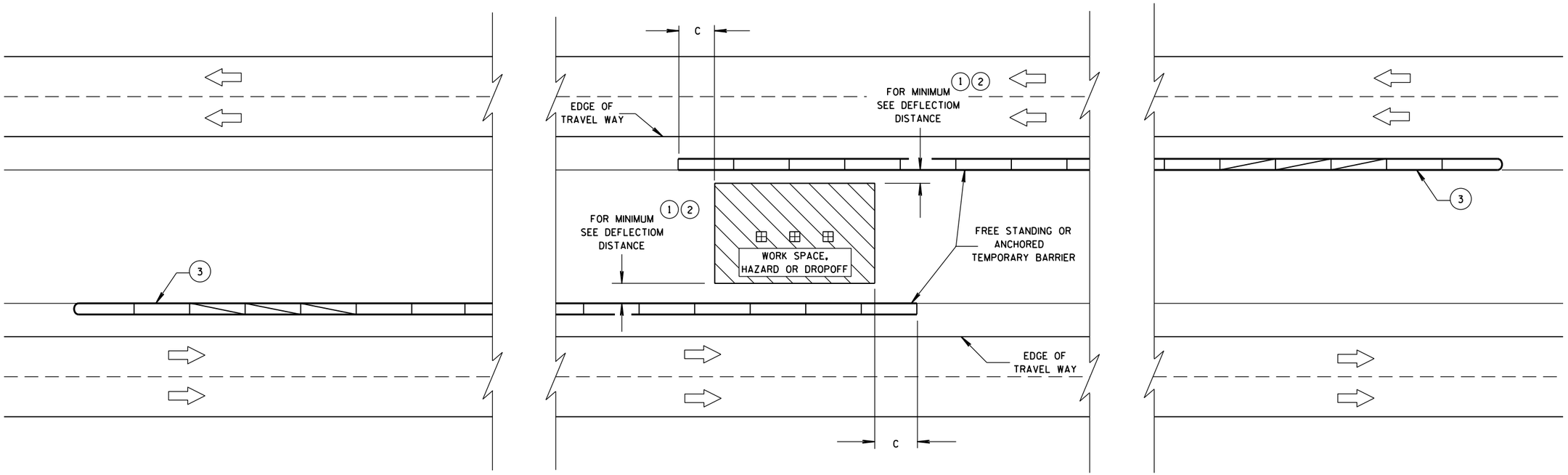
3 PINS PLACED ON TRAFFIC SIDE OF BARRIER

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
June, 2015
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINNER
285
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FHWA

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S.D.D. 14 B 8-2e

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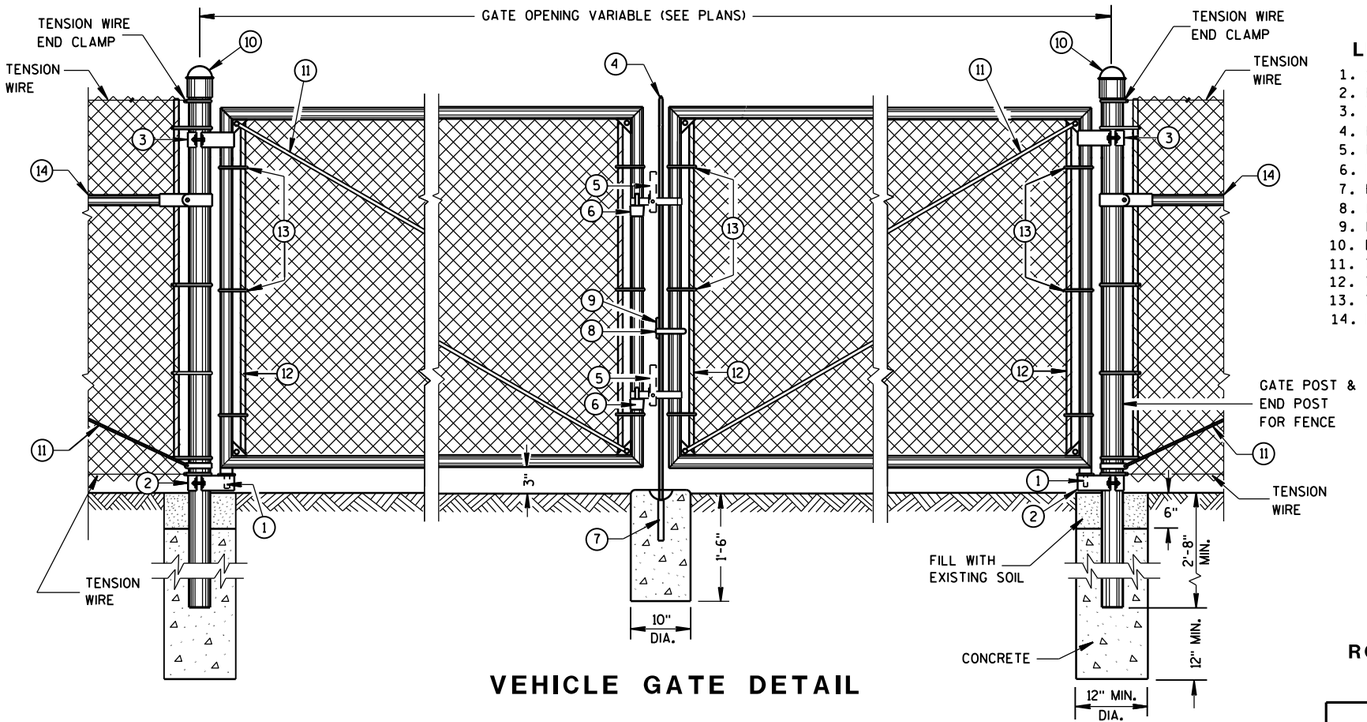
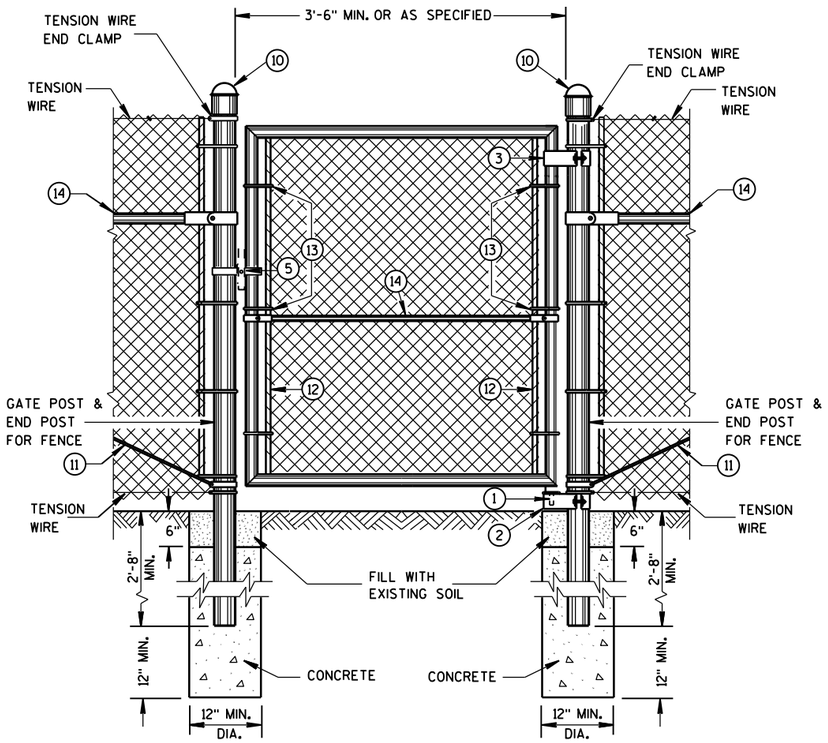
S.D.D. 14 B 8-2e



VEHICLE GATE DETAIL



PEDESTRIAN GATE DETAIL

LEGEND

1. STRAIGHT PLUG
2. BOTTOM HINGE
3. TOP HINGE
4. PLUNGER ROD
5. FULCRUM LATCH
6. FORK CATCH *
7. PLUNGER ROD CATCH
8. LOCK KEEPER GUIDE
9. LOCK KEEPER
10. DOME TOPS
11. TRUSS RODS
12. TENSION BAR
13. TENSION BANDS
14. BRACE RAIL

*NOT REQUIRED ON SINGLE SWING PEDESTRIAN GATE

GENERAL NOTES

FENCE POSTS INSTALLED ON CONCRETE WALLS SHALL BE ANCHORED INTO EMBEDDED METAL SLEEVES OR CORED HOLE BY FILLING THE ANNULAR SPACE WITH PEA GRAVEL FOLLOWED BY AN EPOXY RESIN ADHESIVE. THE EPOXY RESIN ADHESIVE SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M 235, CLASS A, B OR C.

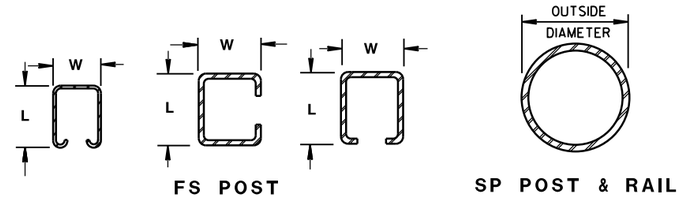
USE FENCE FABRIC KNUCKLED AT BOTH SELVAGES.

FOR LEAF GATES GREATER THAN 8 FEET WIDE, INSTALL INTERIOR VERTICAL BRACE RAIL AT 8 FOOT INTERVALS.

FOR FABRIC HEIGHTS GREATER THAN 8 FEET, INSTALL INTERIOR HORIZONTAL BRACE RAILS TO LEAF GATE.

MAXIMUM SAG FOR OUTER GATE MEMBER SHALL NOT EXCEED THE GREATER OF 1% OF THE LEAF GATE WIDTH OR 2 INCHES.

USE TYPE 2, CLASS 3, MARCELLED/CRIMPED, TENSION WIRE PER ASTM A 817.



FS POST

SP POST & RAIL

CROSS SECTIONS OF POSTS AND RAILS

REQUIRED FENCE POST SIZES

USE	FABRIC HEIGHTS FEET	POST TYPE
TERMINAL POSTS **	LESS THAN OR EQUAL TO 6 FT.	SP3
	GREATER THAN OR EQUAL TO 6 FT.	SP4
LINE POSTS	LESS THAN OR EQUAL TO 6 FT.	SP2
	LESS THAN OR EQUAL TO 8 FT.	SP3
	GREATER THAN OR EQUAL TO 8 FT.	SP4
	LESS THAN OR EQUAL TO 8 FT.	FS2 OR FS2†
	GREATER THAN OR EQUAL TO 8 FT.	FS3

BRACE RAIL TYPES

USE		TYPE
BRACE RAIL		SP1 OR FS1

** INCLUDES END, CORNER, ANGLE, INTERSECTION AND INTERMEDIATE BRACED POSTS

ROLLED-FORMED STEEL FENCE POST (2.0 OZ./SQ. FT. COATING)

POST TYPE	LENGTH (L) INCH	WIDTH (W) INCH	WEIGHT LBS/FT
FS1	1.625	1.25	1.35
FS2†	1.875	1.625	1.850
FS2	1.875	1.625	2.400
FS3	2.250	1.700	2.780

REQUIRED POST SIZE FOR GATES

USE	LEAF WIDTHS FEET	POST TYPE
GATES	LESS THAN OR EQUAL TO 6 FT.	SP4
	LESS THAN OR EQUAL TO 13 FT.	SP5
	LESS THAN OR EQUAL TO 18 FT.	SP6
	LESS THAN OR EQUAL TO 23 FT.	SP7

ROUND STEEL FENCE POST (1.8 OZ./SQ. FT. COATING)

POST TYPE	OUTSIDE DIMENSION INCH	WALL THICKNESS INCH	WEIGHT LBS/FT
SP1	1.660	0.140	2.270
SP2	1.900	0.145	2.720
SP3	2.375	0.154	3.650
SP4	2.875	0.203	5.800
SP5	4.000	0.226	9.120
SP6	6.625	0.280	18.990
SP7	8.625	0.322	28.580

FENCE CHAIN LINK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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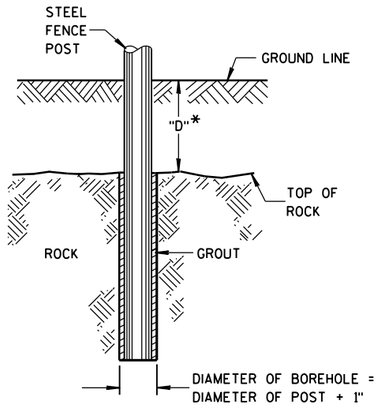
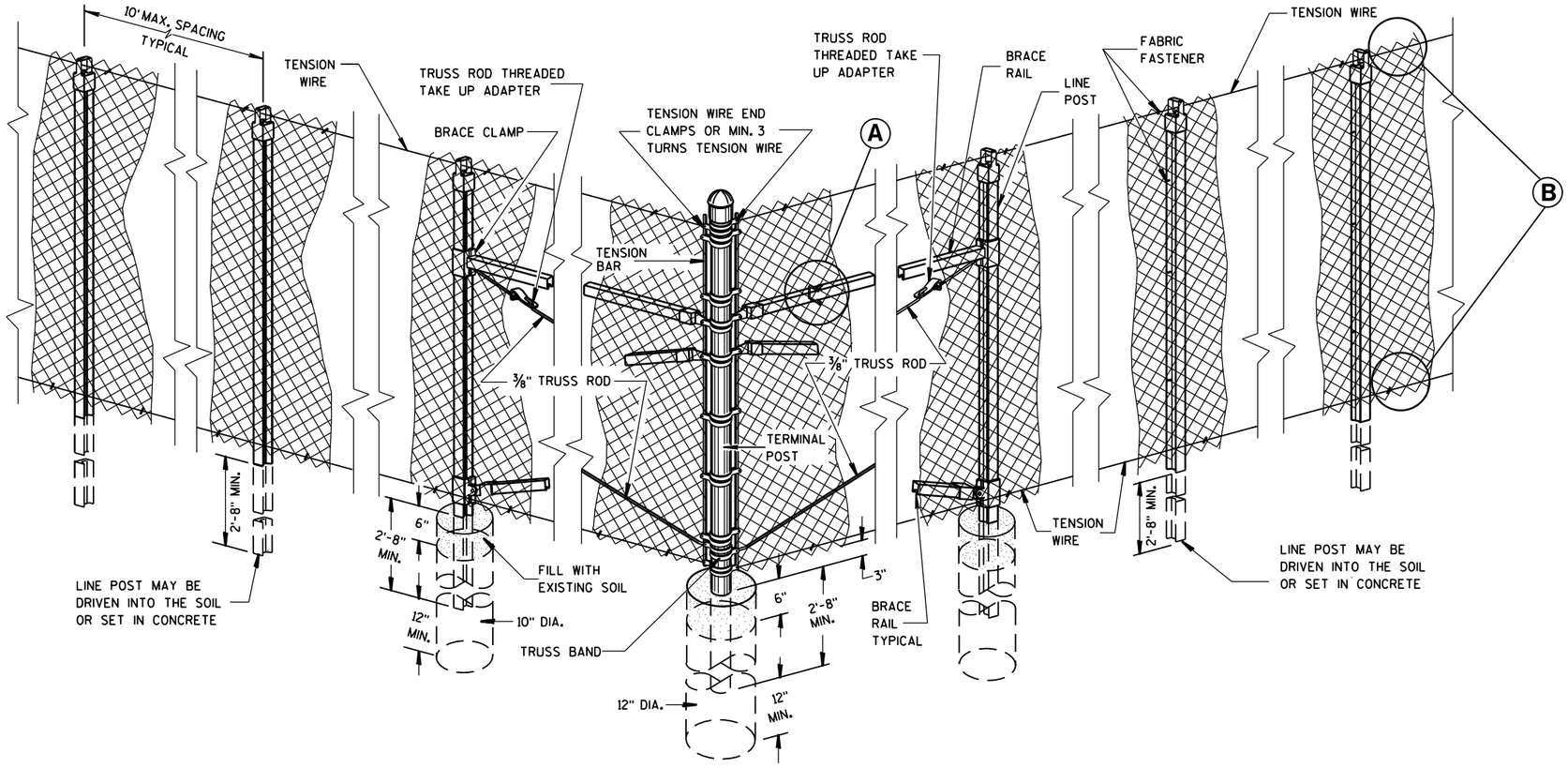
S.D.D. 15 B 3-15a

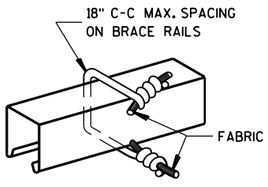


*IF "D" IS LESS THAN 2'-6", DRILL ROCK AND INSTALL GROUT

ROCK INSTALLATION OF LINE POST



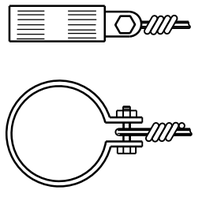
END, CORNER, ANGLE INTERSECTION & INTERMEDIATE BRACED POSTS



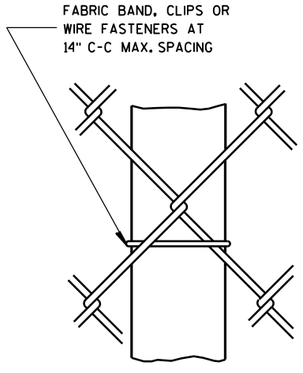
BRACE RAIL

FABRIC FASTENER

Ⓐ



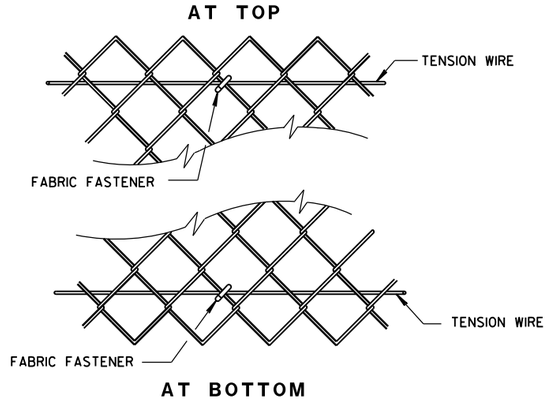
TENSION WIRE END CLAMP



LINE POST

FABRIC FASTENER

AT TOP



AT BOTTOM

SELVAGES

Ⓑ

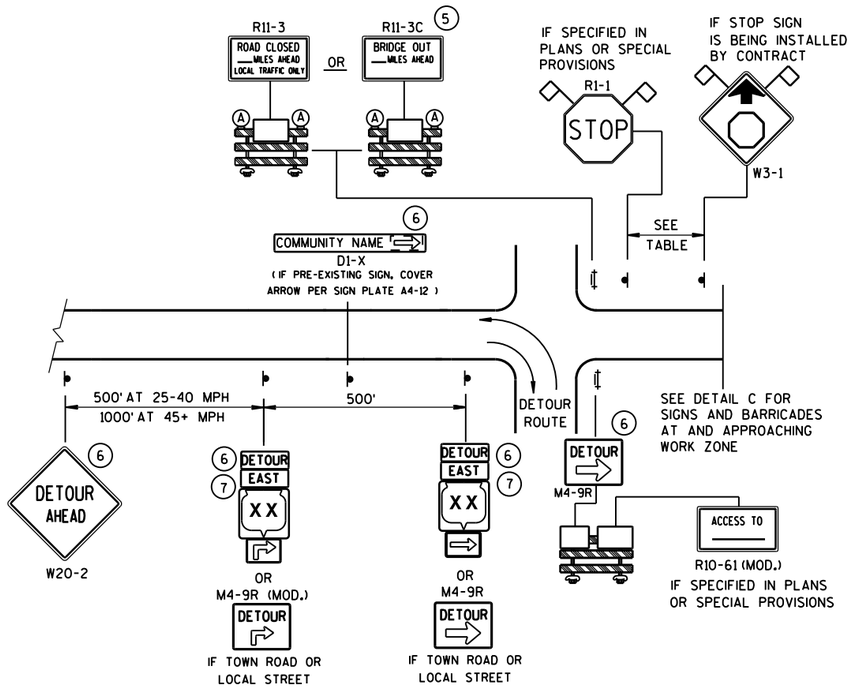
FENCE CHAIN LINK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
FEB. 2015 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

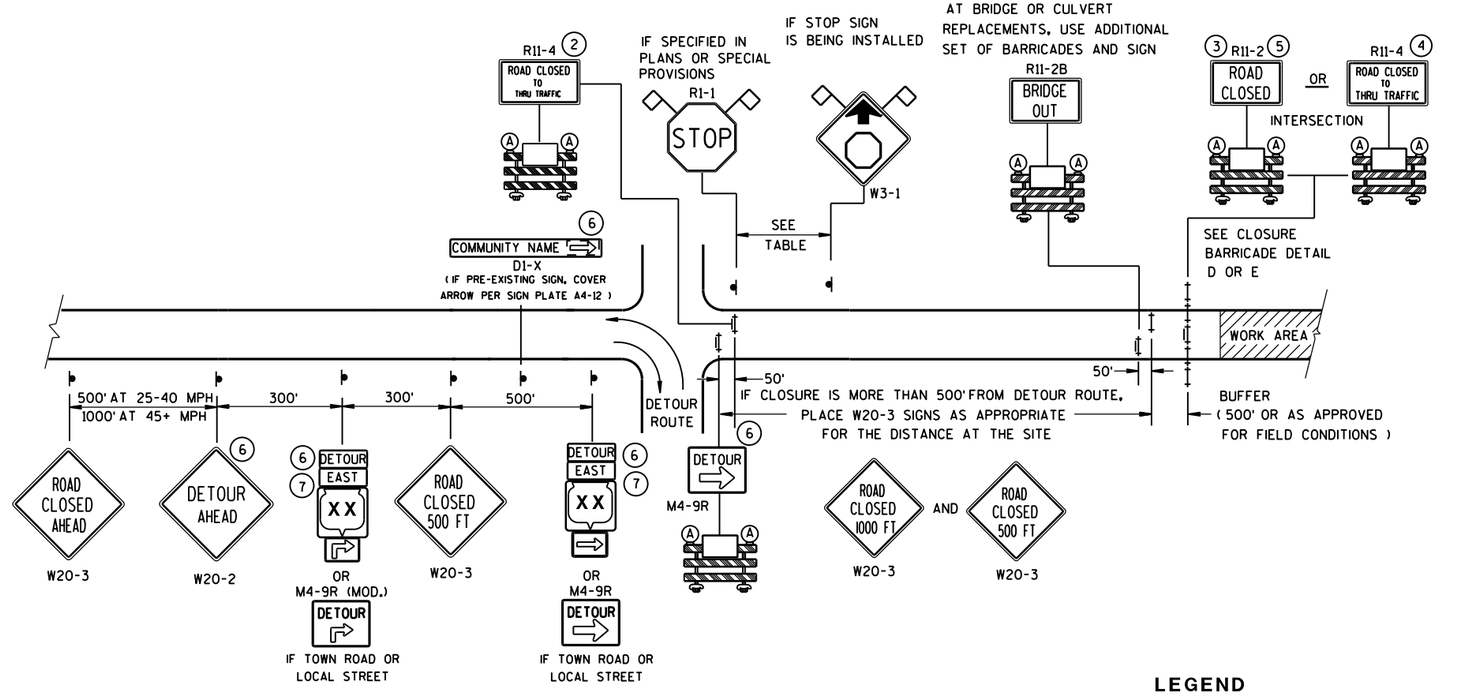
6

S.D.D. 15 B 3-15b



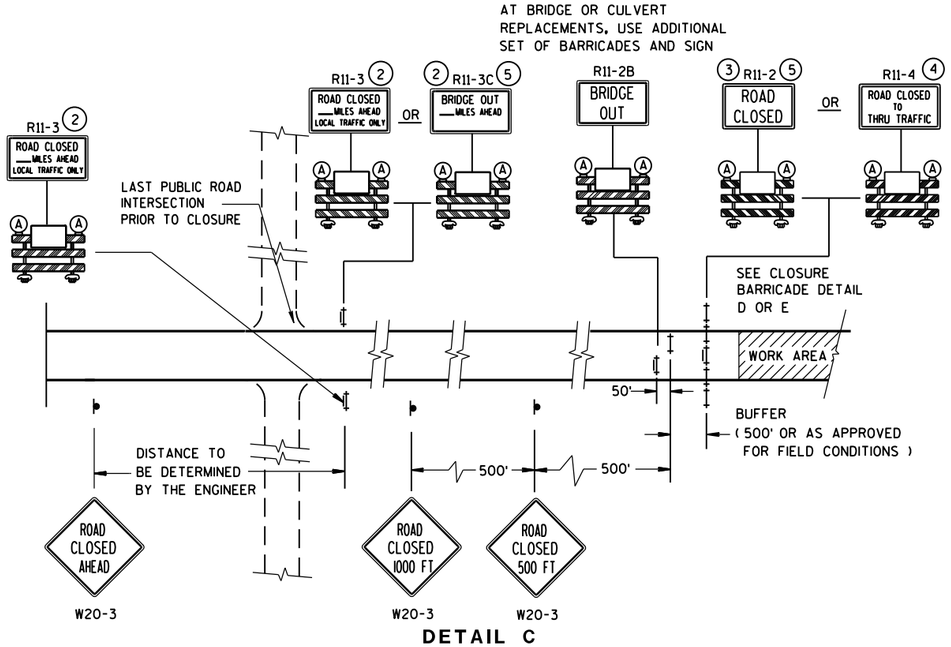
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

SEE SDD 15C2-SHEET "**b**" FOR GENERAL NOTES AND FOOTNOTES (1) THROUGH (7)

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- DETOUR / EAST — M4-8 / M3-X
- XX — M1-4; COUNTY XX — M1-5A; XX — M1-6
- M05-1 OR M06-1
- FLAGS, 16" X 16" MIN., (ORANGE)

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

8/2013 DATE

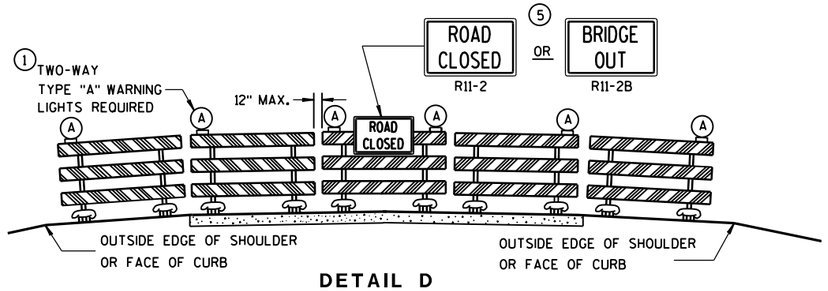
/S/ Travis Feltes
STATE TRAFFIC ENGINEER

288

FHWA

6

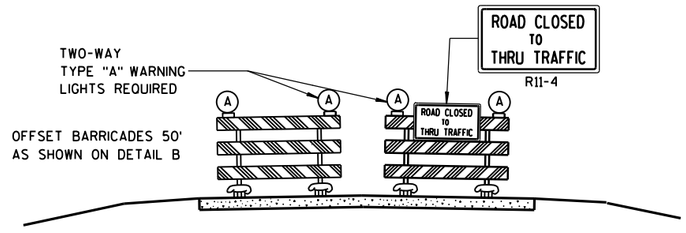
S.D.D. 15 C 2-5a



DETAIL D

ROAD CLOSURE BARRICADE DETAIL

APPROACH VIEW



DETAIL E

LANE CLOSURE BARRICADE DETAIL

APPROACH VIEW

SEE SDD 15C2-SHEET "**a**" FOR LEGEND

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.

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, M4-9, R11-4 AND R10-61 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.

"WO AND "MO" SIGNS ARE THE SAME AS "W" AND "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
- R11-2 SHALL BE 48" X 30".
- R11-3, R11-4 AND R10-61 SHALL BE 60" X 30".
- M4-9 SHALL BE 30" X 24".
- M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1-1 SHALL BE 36" X 36".

(1) TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8-FOOT LIGHT SPACING).

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL D.

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE LANE CLOSURE BARRICADE DETAIL E.

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11-2 AND R11-3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

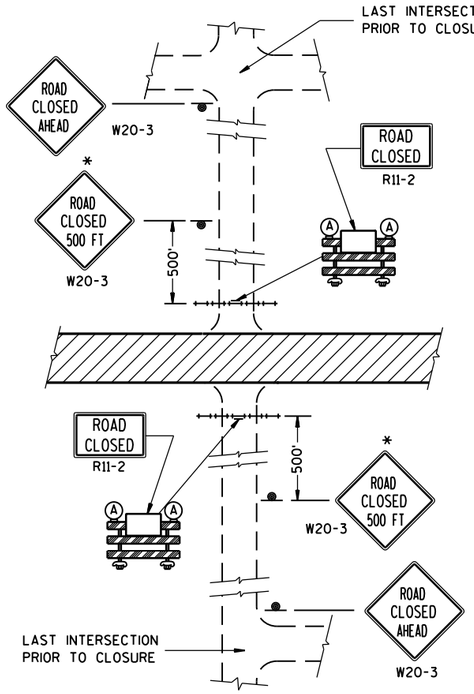
BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

8/2013 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

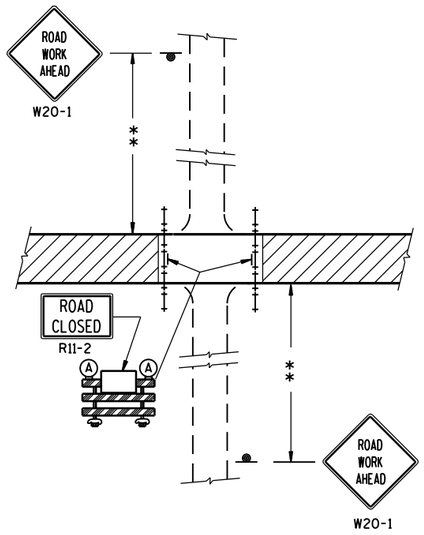
6

S.D.D. 15 C 2-5b



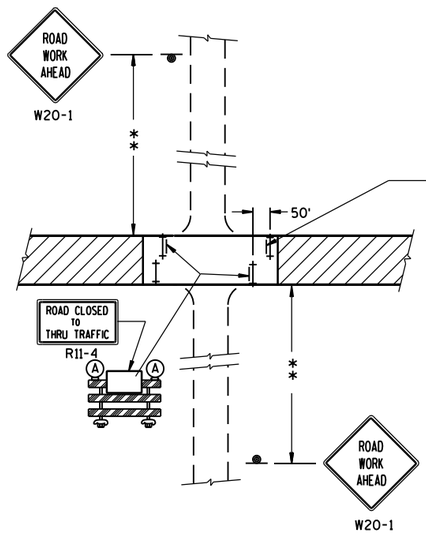
DETAIL 1

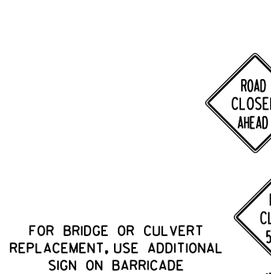
(NO ACCESS TO PROJECT)

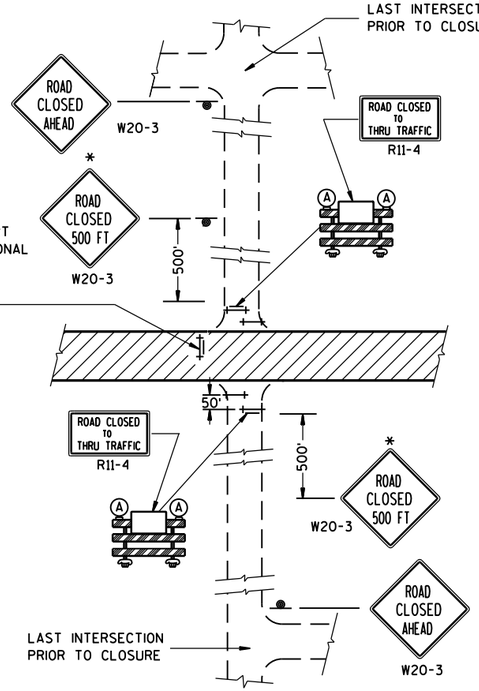


DETAIL 2

(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

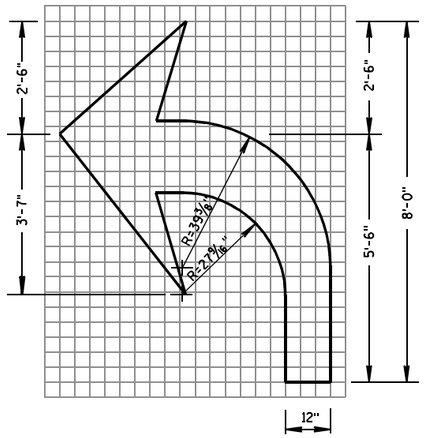
6

S.D.D. 15 C 3-2

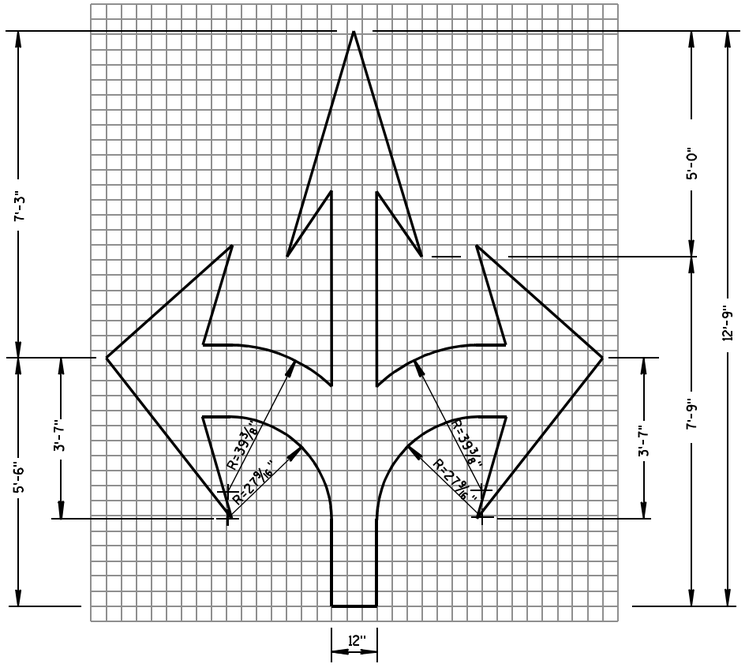
GENERAL NOTES

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.



TYPE 2



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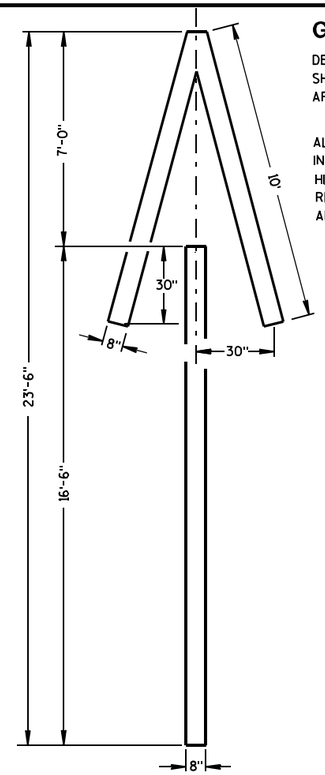

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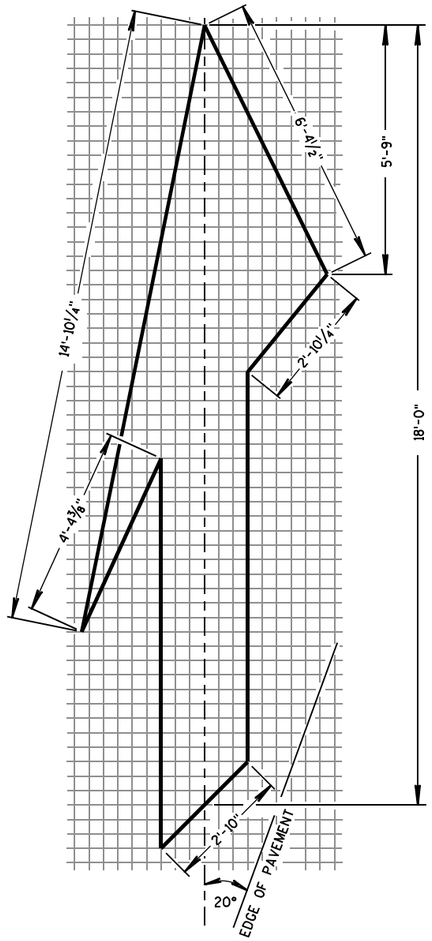
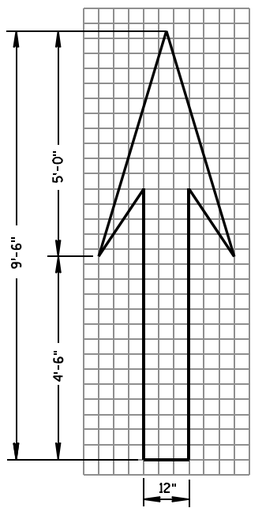
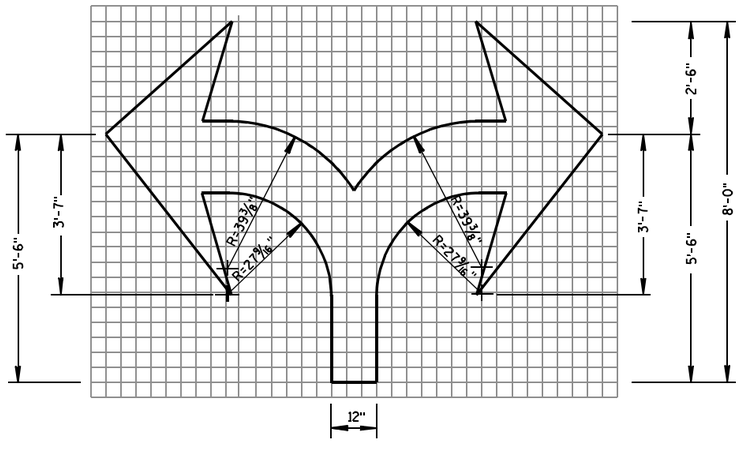


TYPE 5 LANE DROP ARROW



TYPE 1



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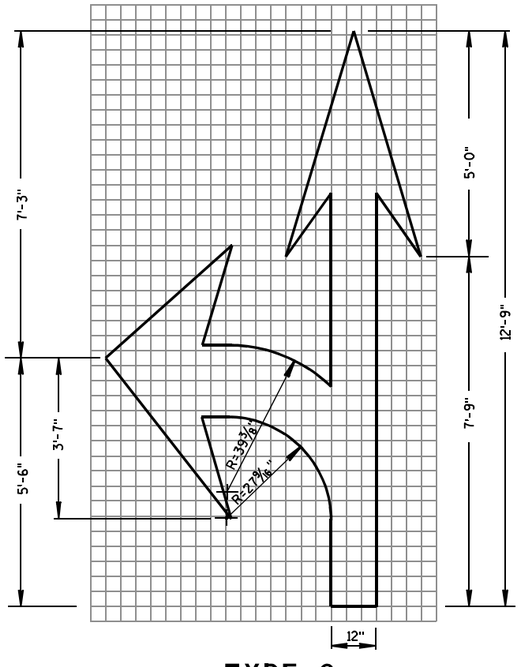


TYPE 3

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

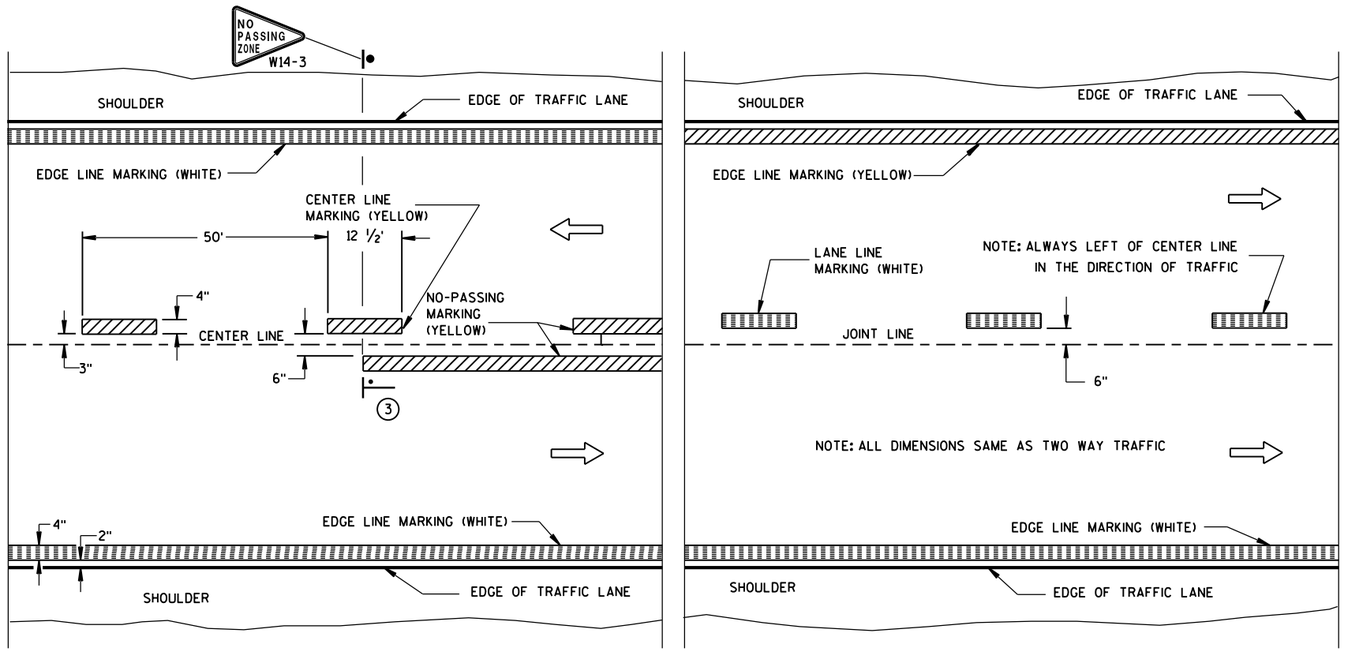
7/1/11 — DATE

/S/ Thomas N. Nothdurft — STATE TRAFFIC ENGINEER

FHWA

6

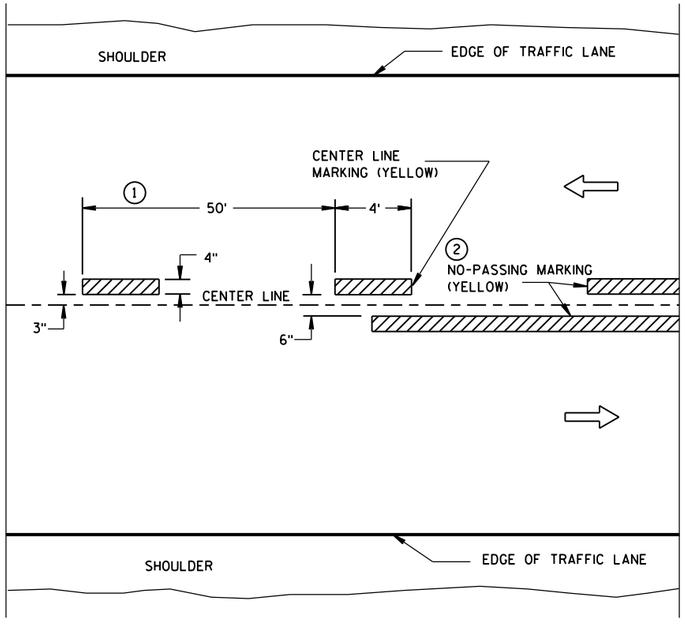
S.D.D. 15 C 7-12c



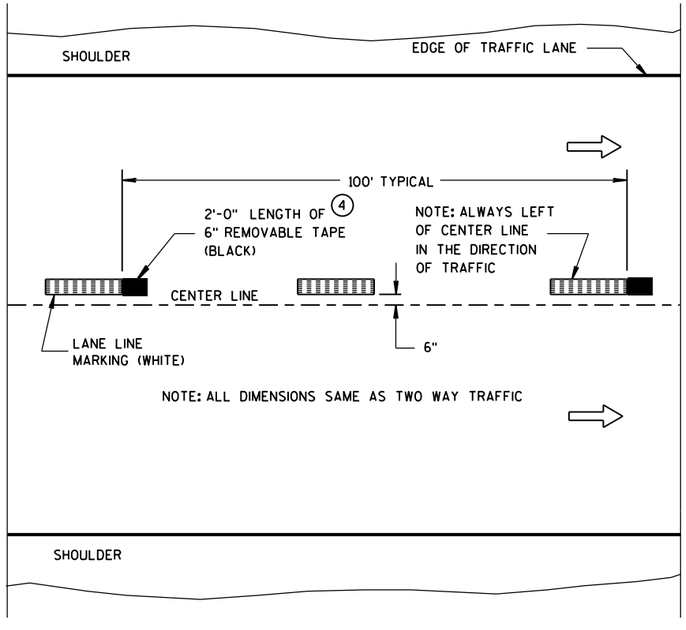
TWO WAY TRAFFIC

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)

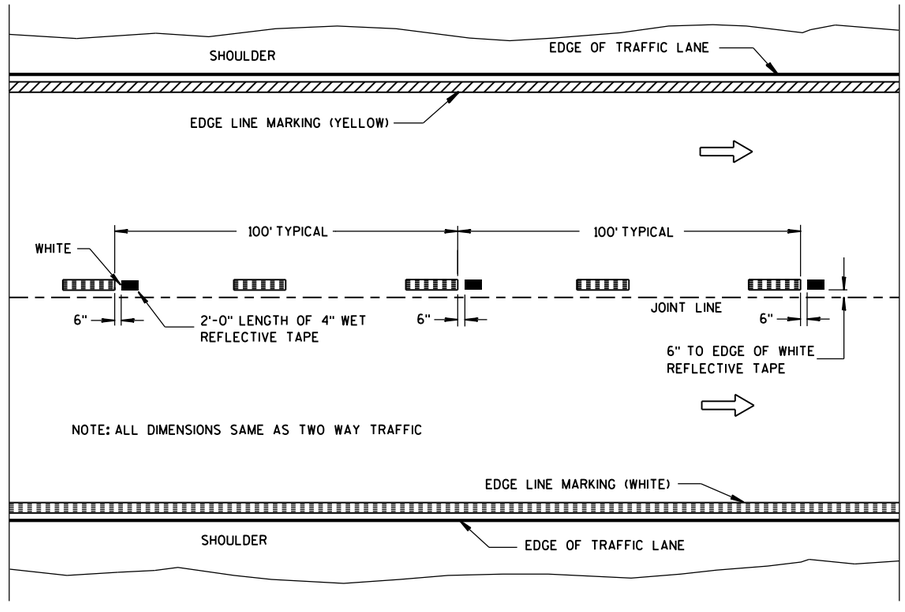
GENERAL NOTES

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

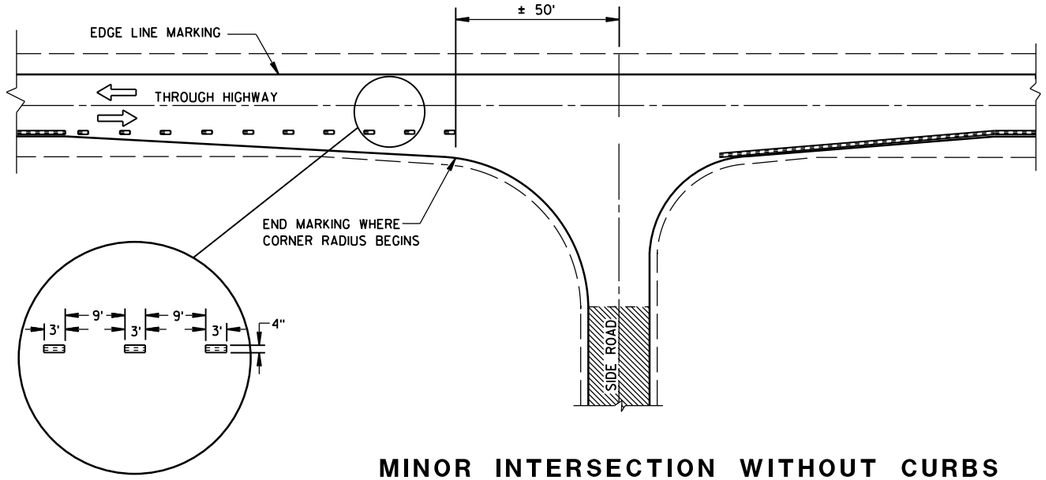
APPROVED
5-13-2013 DATE
/S/ Travis Feltes STATE TRAFFIC E
FHWA

6

S.D.D. 15 C 8-16a

6

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.

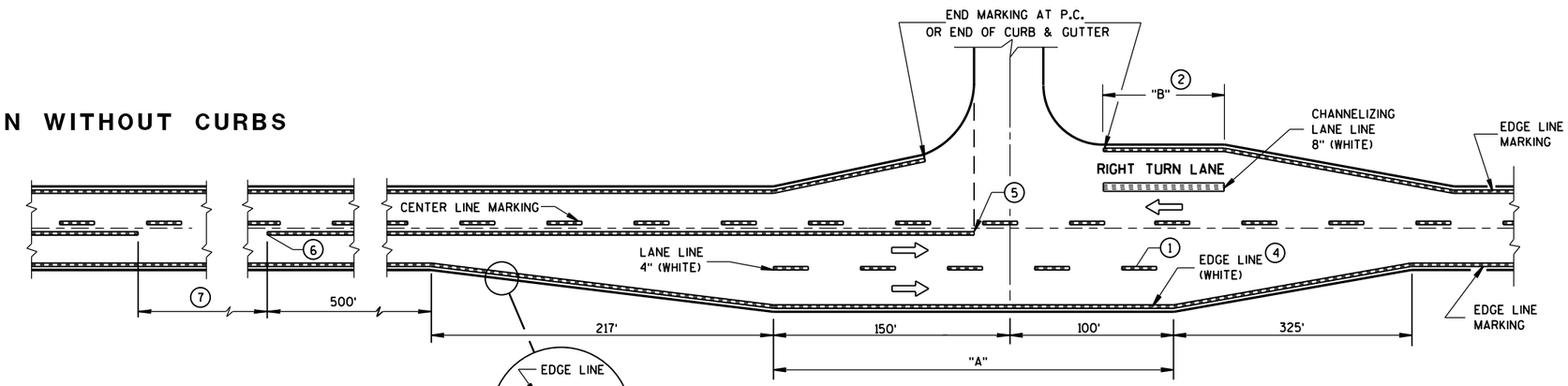
(7) IF THE DISTANCE BETWEEN 2 SUCCESSIVE NO-PASSING ZONES IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES, CONNECT THE 2 ZONES.

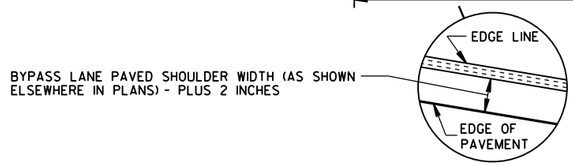
(8) 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

(7)

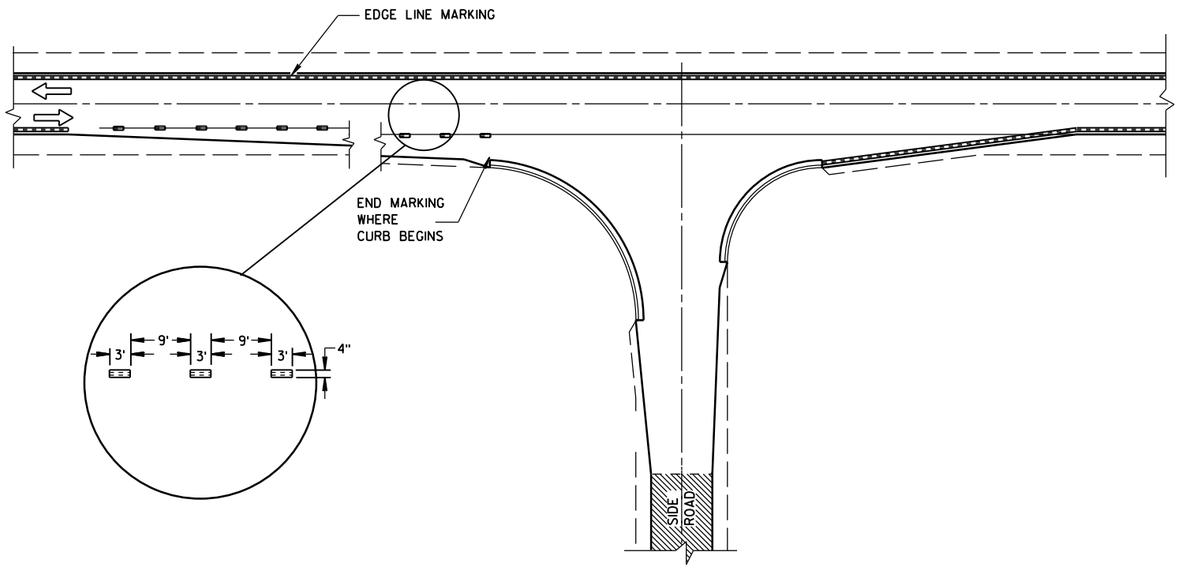
POSTED SPEED (MPH)	MINIMUM DISTANCE BETWEEN ZONES (FEET)
25 - 30	528
35 - 40	528
45 - 50	686
55	792





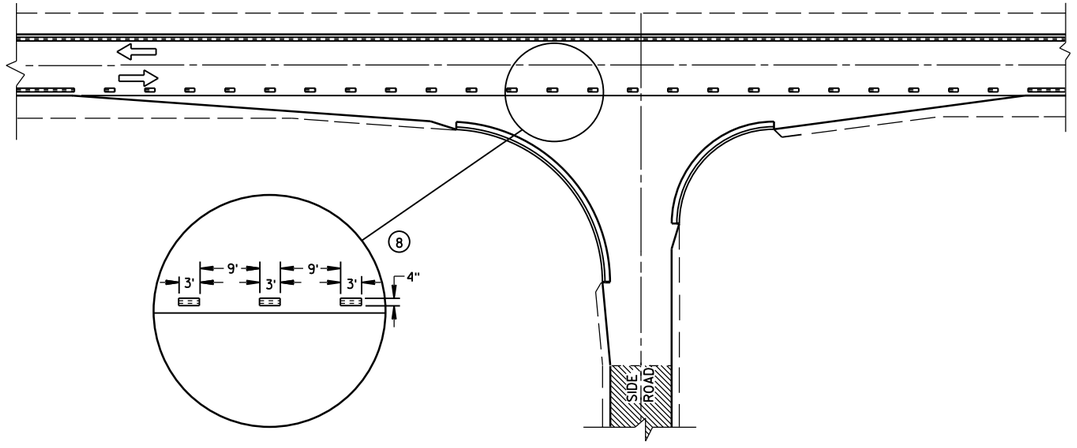
MAJOR INTERSECTIONS

(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

6

S.D.D. 15 C 8-16b

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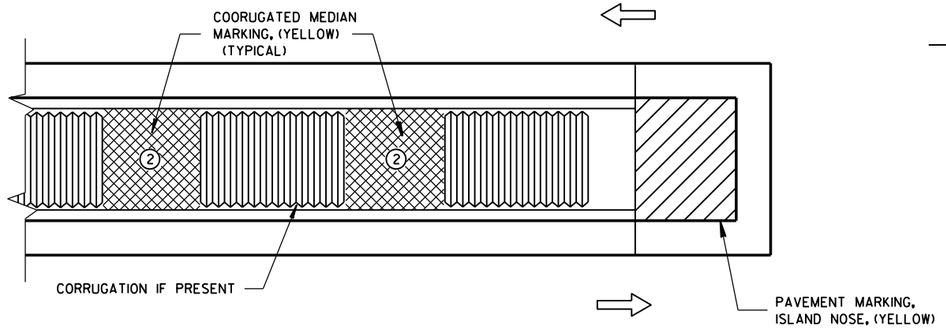
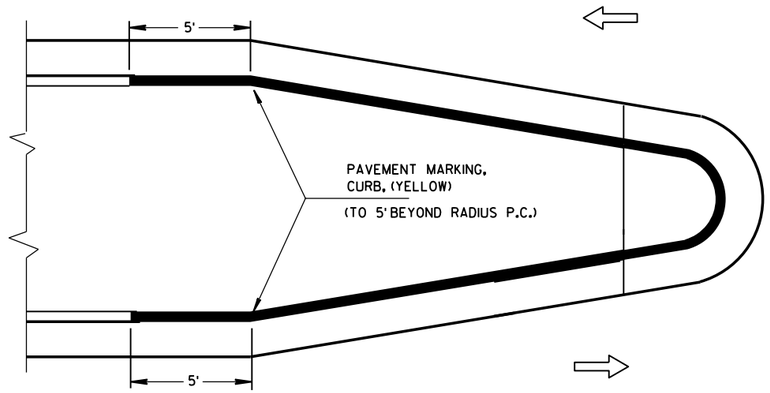
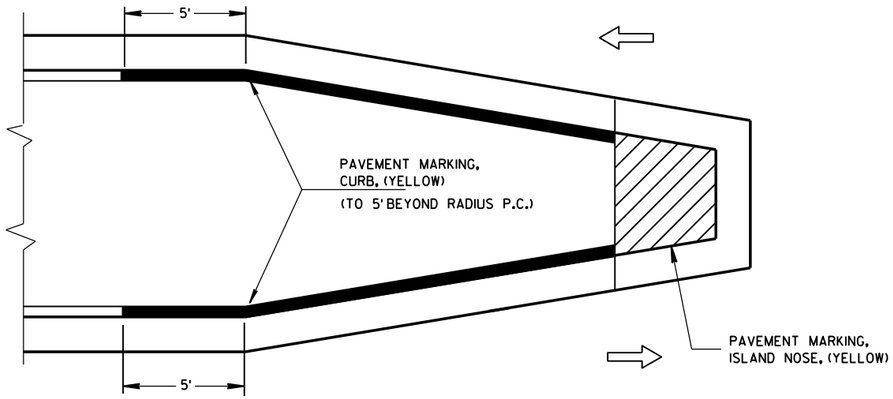
S.D.D. 15 C 8-16b



MEDIAN ISLAND WITH SQUARE BLUNT NOSE

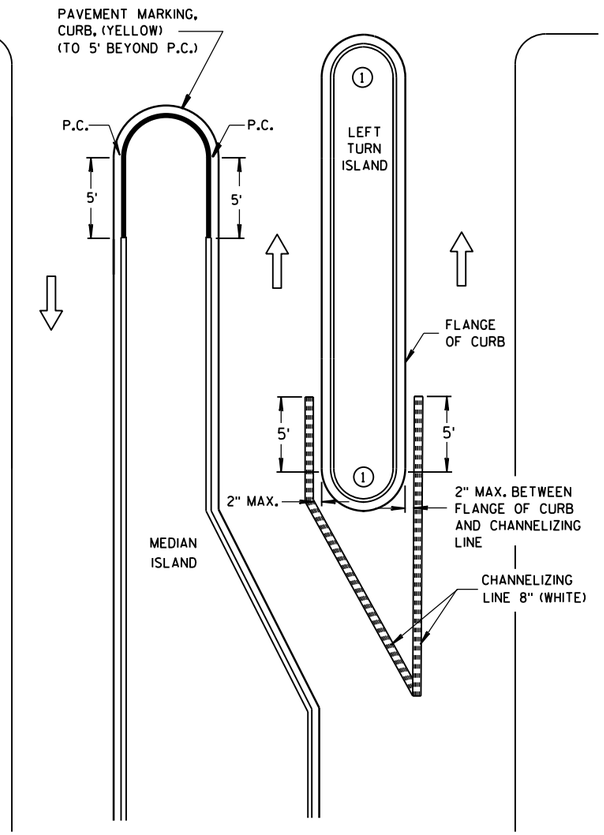


MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS

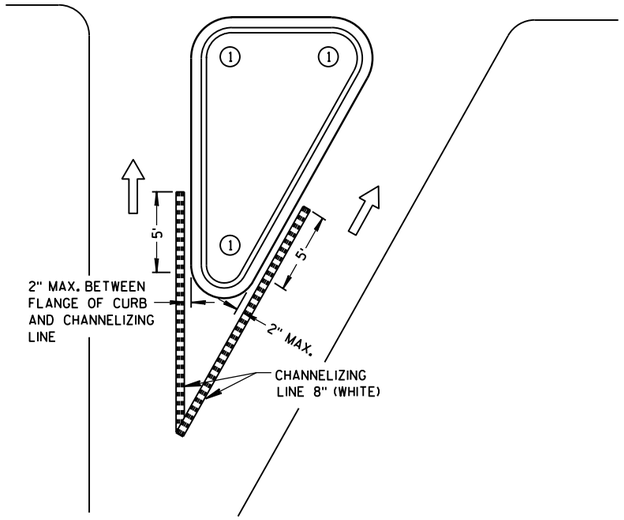


LEFT TURN & MEDIAN ISLAND

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

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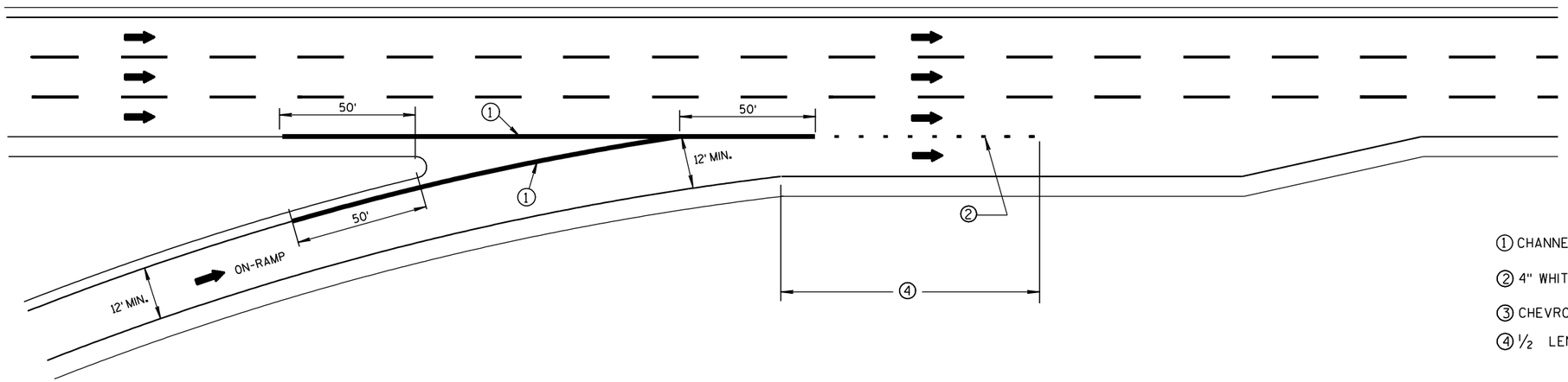
S.D.D. 15 C 8-16f

NOTES:

1. AHEAD ARROWS SHOWN ON THIS MARKING PLAN DESIGNATE TRAFFIC FLOW, AND SHALL NOT BE TAKEN AS PROPOSED PAVEMENT MARKINGS.
2. PLACE WHITE EDGE OF TAPE 6" LEFT FROM JOINT.
3. RETRACE EXISTING DIAGONAL MARKINGS.



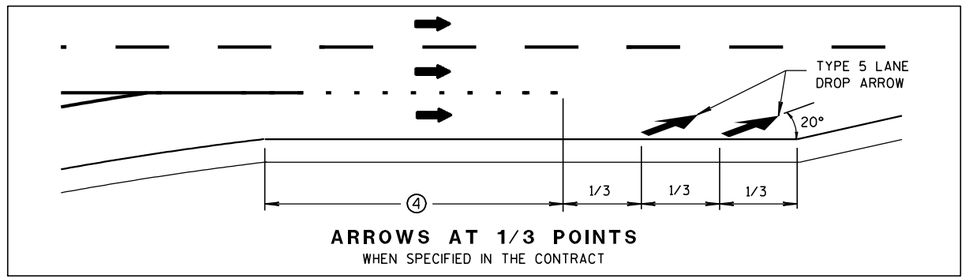
① CHANNELIZING - SOLID 8" WHITE WET REFLECTIVE TAPE IN GORE AREA.

② 4" WHITE (3' LINE, 9' GAP).

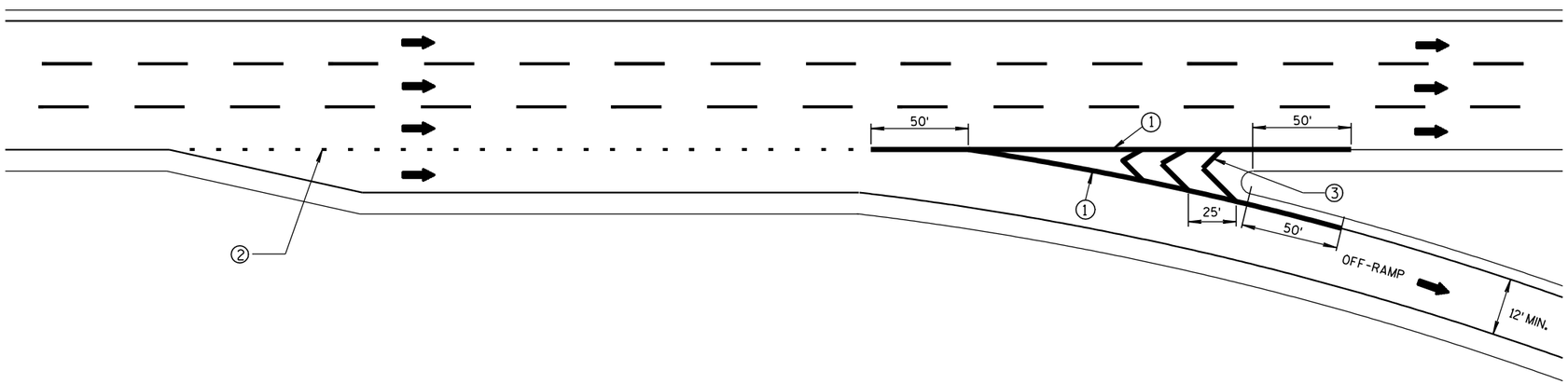
③ CHEVRON MARKING - 24" WHITE WHEN SPECIFIED IN THE CONTRACT.

④ ½ LENGTH OF FULL WIDTH ACCELERATION LANE.

SERVICE INTERCHANGE PAVEMENT MARKING FOR PARALLEL ENTRANCE-RAMP



ARROWS AT 1/3 POINTS
WHEN SPECIFIED IN THE CONTRACT



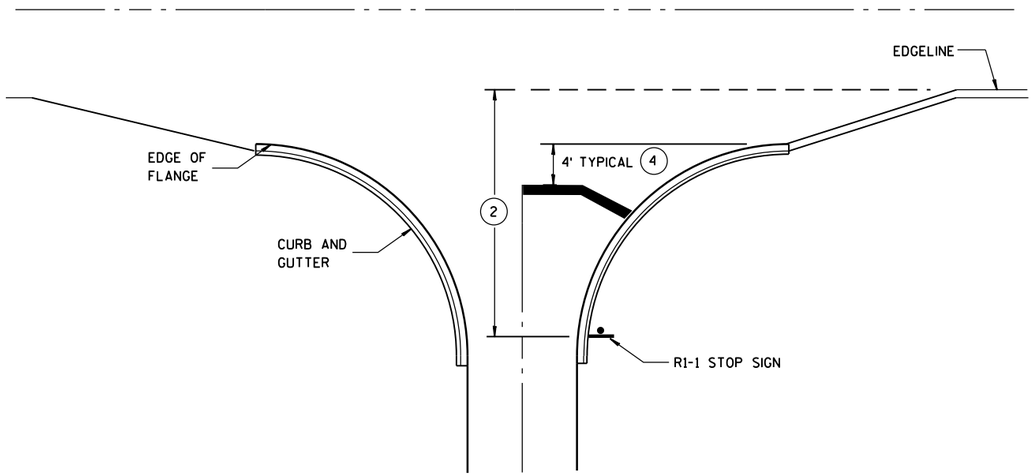
SERVICE INTERCHANGE PAVEMENT MARKING FOR PARALLEL EXIT-RAMP

PAVEMENT MARKING FOR PARALLEL ON-RAMP AND PARALLEL OFF-RAMP

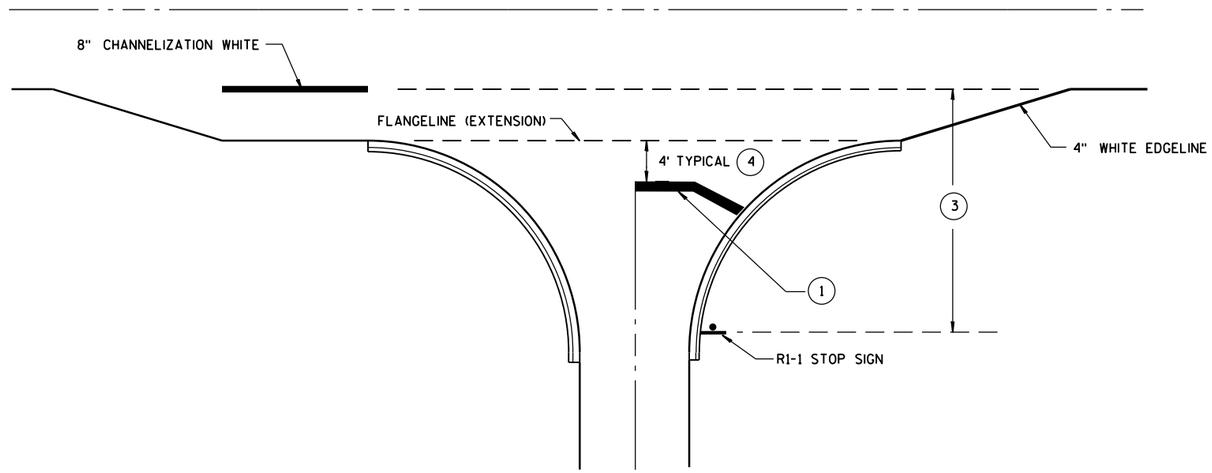
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/23/2011 DATE
/S/ Thomas N. Nothem
STATE TRAFFIC ENGINE 295 SIGN
FHWA

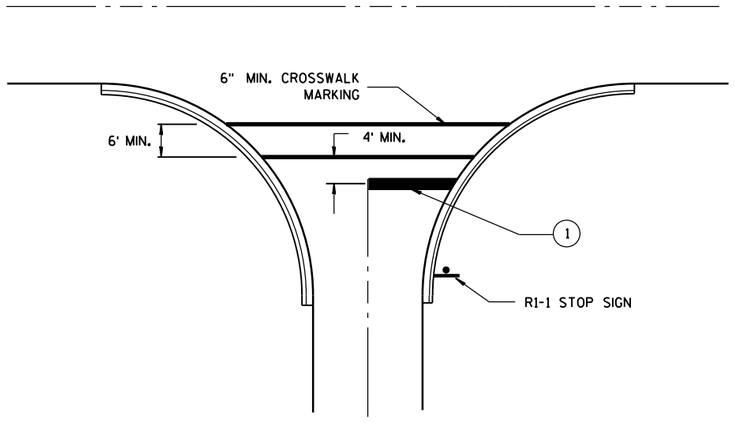
6
S.D.D. 15 C 31-1d



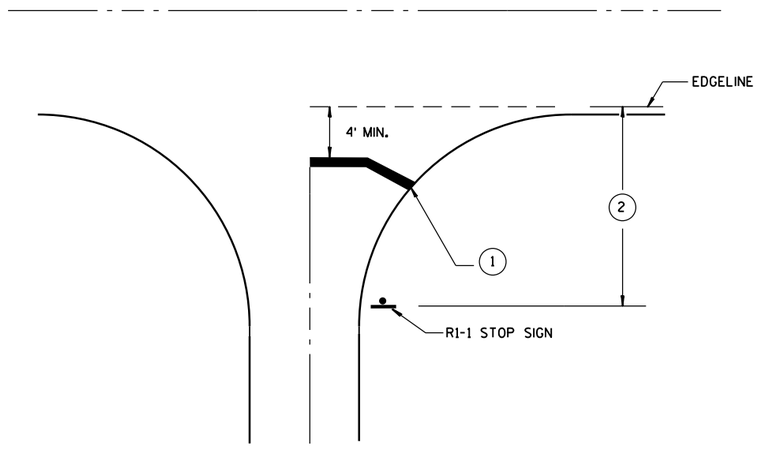
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



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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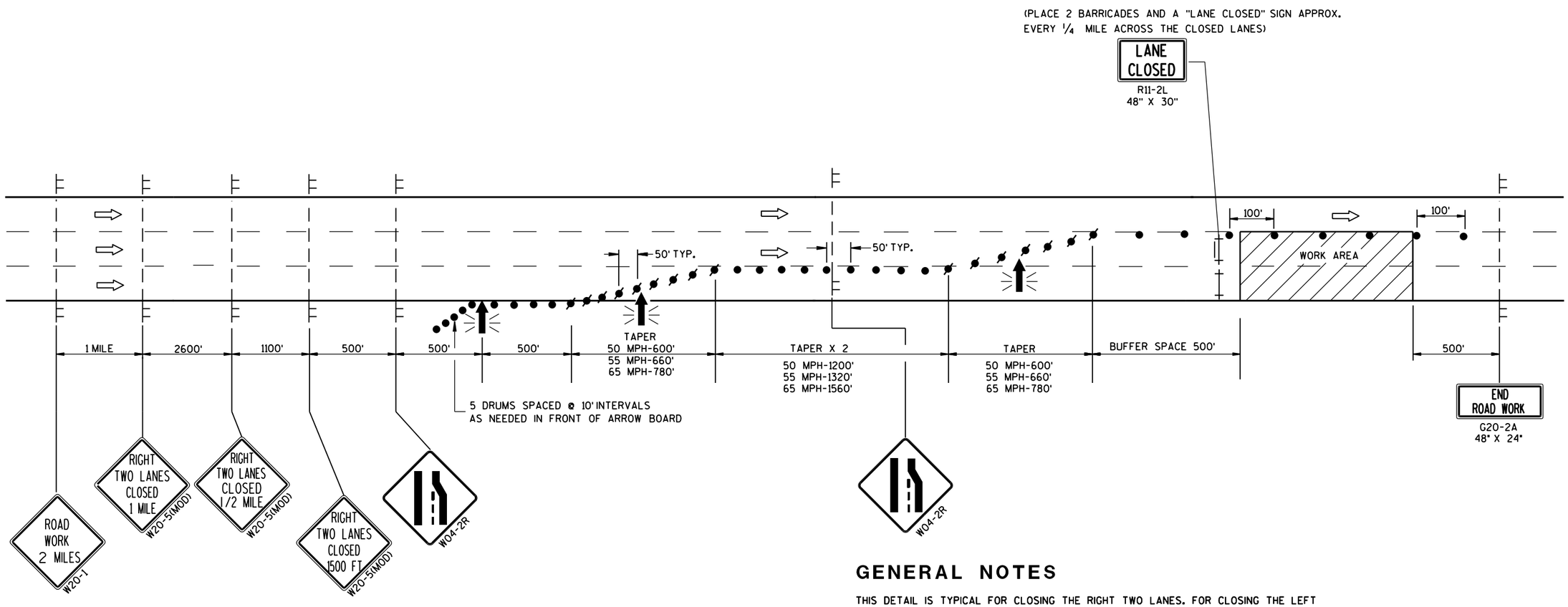
S.D.D. 15 C 33-1

(PLACE 2 BARRICADES AND A "LANE CLOSED" SIGN APPROX.
EVERY 1/4 MILE ACROSS THE CLOSED LANES)



LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- 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 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.

"WO" SIGNS ARE THE SAME AS "W" SIGNS 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.

W20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROWBOARDS AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

WHEN A RAMP OR SIDE ROAD INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

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.

CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

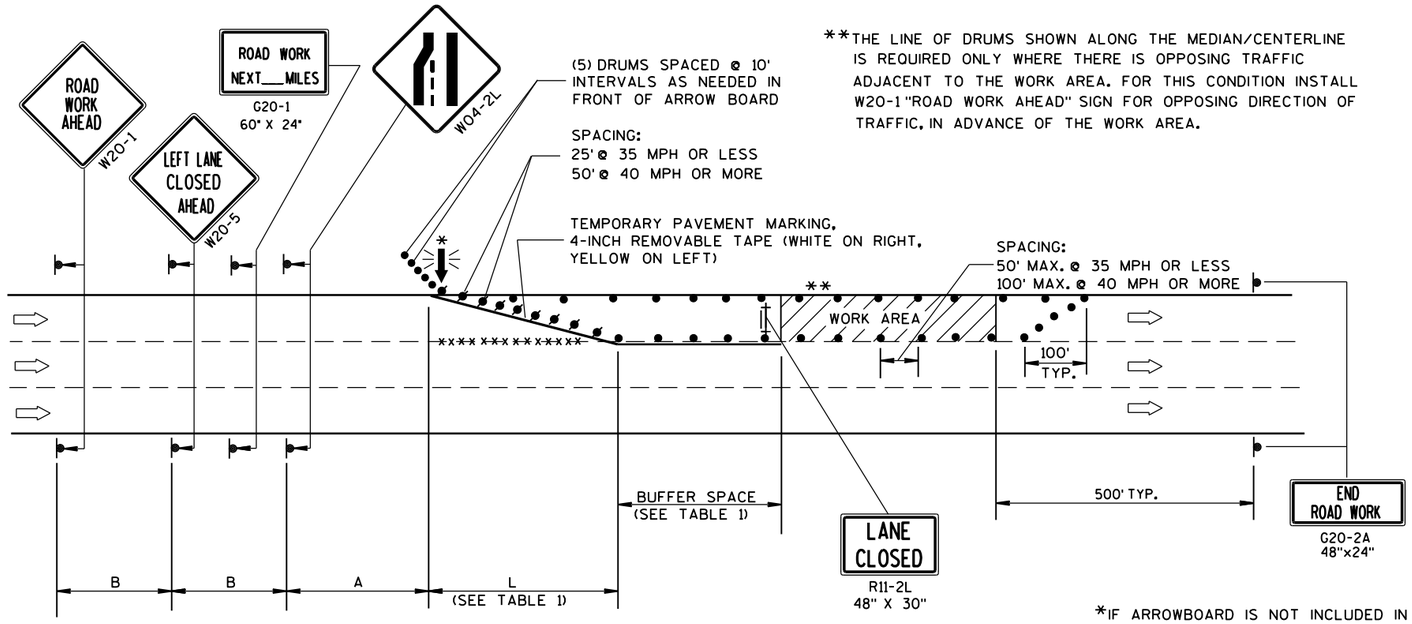
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY, SHORT TERM (LESS THAN 24 HOURS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/2013 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

S.D.D. 15 D 14-2



**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"

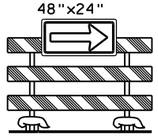


TABLE 1
TAPER AND BUFFER SPACE FOR 12' LANE WIDTH

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
Feb. 2015 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

6

S.D.D. 15 D 20-3

6

S.D.D. 15 D 20-3

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.

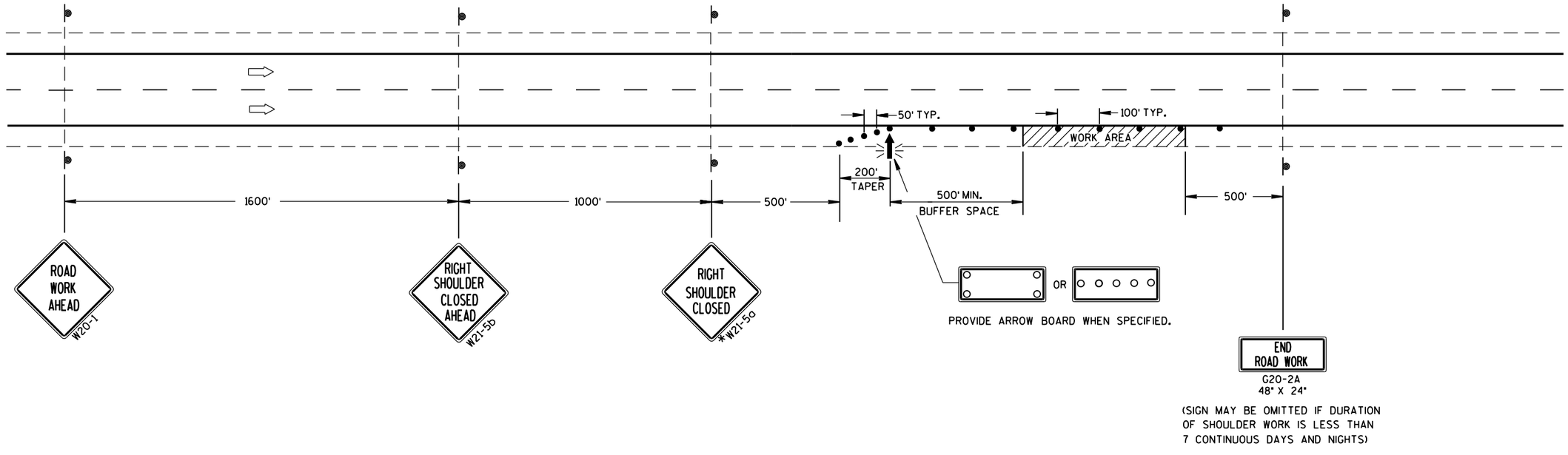
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

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.

ALL SIGNS ARE 48" X 48" 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 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.

W20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION OF WORK IS LESS THAN 7 CONTINUOUS DAYS AND NIGHTS.

CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

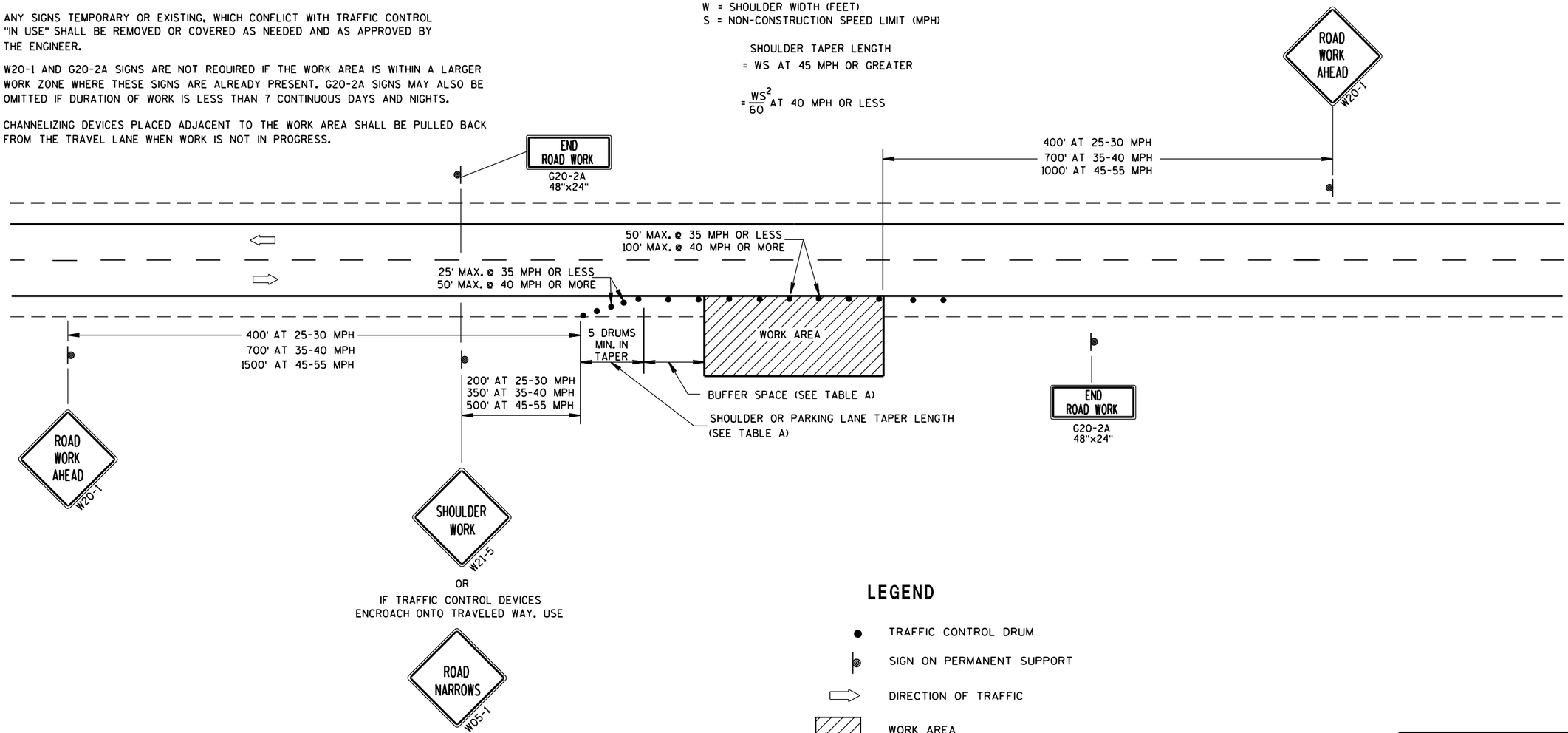
TABLE A

S \ W	SHOULDER TAPER LENGTH (FEET) 4	6	8	10	BUFFER SPACE (FEET)
30	20	30	40	50	85
35	30	45	55	70	120
40	40	55	75	90	170
45	60	90	120	150	220
50	70	100	135	170	280
55	75	110	150	185	335

W = SHOULDER WIDTH (FEET)
S = NON-CONSTRUCTION SPEED LIMIT (MPH)

SHOULDER TAPER LENGTH
= WS AT 45 MPH OR GREATER

$= \frac{WS^2}{60}$ AT 40 MPH OR LESS



LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA

TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/2013 — DATE

/S/ Travis Feltes — STATE TRAFFIC ENGINEER

FHWA

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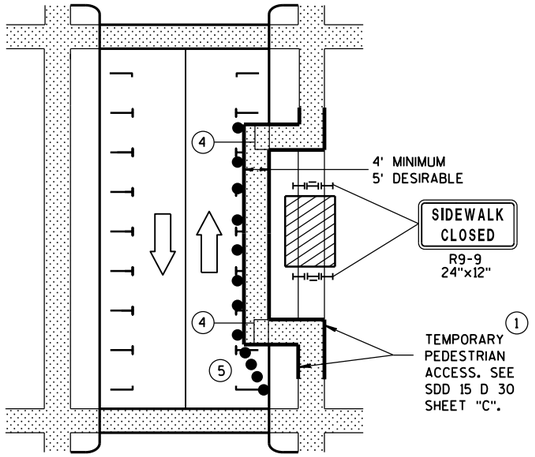
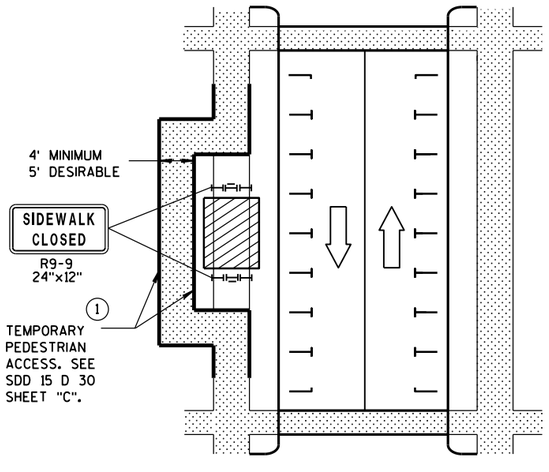
S.D.D. 15 D 28-2

NOTE: MAY BE USED ON ROADWAY WITH POSTED SPEED OF LESS THAN 40 MPH.

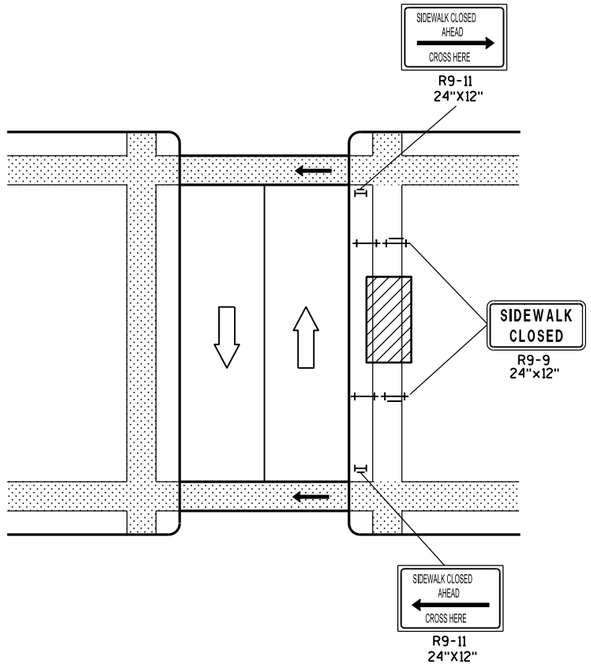


MID-BLOCK SIDEWALK CLOSURE IN PARKING LANE

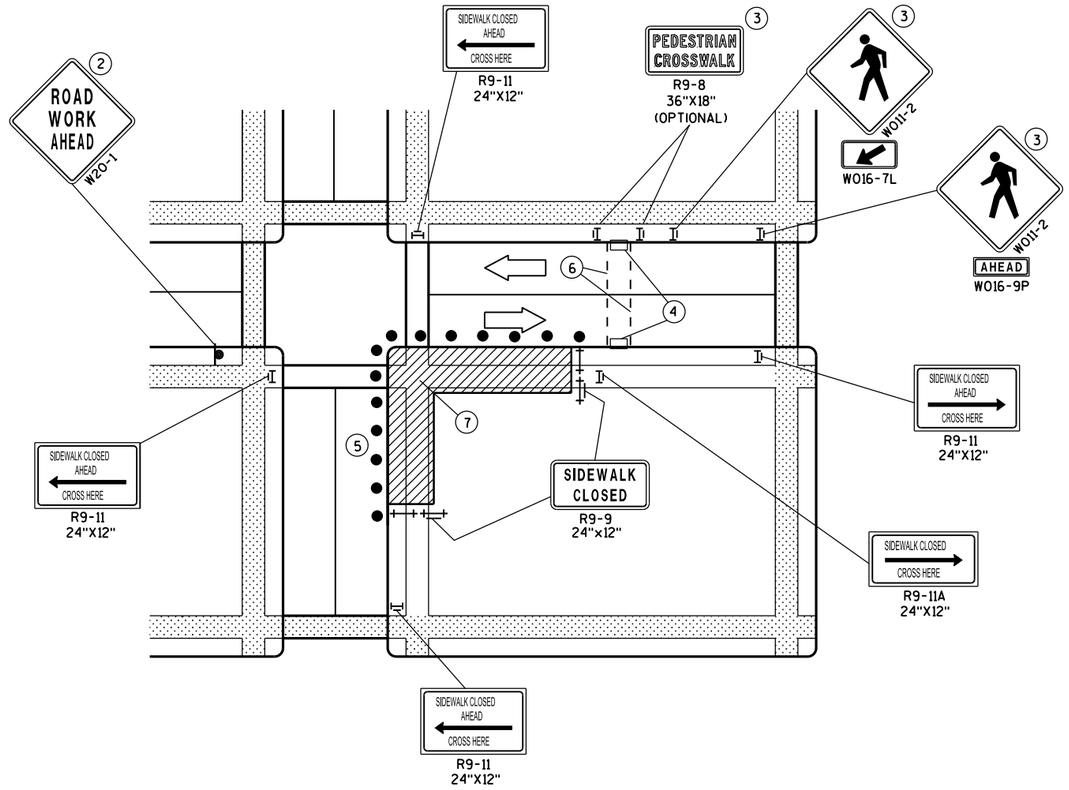
NOTE: LAYOUT SAME AS ABOVE.



SIDEWALK DIVERSION



MID-BLOCK SIDEWALK CLOSURE



CORNER SIDEWALK CLOSURE WITH TEMPORARY CROSSWALK

GENERAL NOTES

WHEN CLOSING OR RELOCATING CROSSWALKS OR SIDEWALKS, PROVIDE DETECABLE TEMPORARY FACILITIES AND INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH EXISTING PEDESTRIAN FACILITIES.

TEMPORARY TRAFFIC CONTROL DEVICES FOR PEDESTRIANS ARE SHOWN. OTHER DEVICES MAY BE NECESSARY TO CONTROL VEHICULAR TRAFFIC. STAGE WORK, AS NECESSARY, TO PROVIDE A TEMPORARY PEDESTRIAN ACCESS ROUTE AT ALL TIMES. FOR ROADWAYS WITH NO AVAILABLE DETOURS, MAINTAIN ONE OPEN SIDEWALK AT ALL TIMES.

"WO" SIGN IS THE SAME AS "W" SIGN EXCEPT THE BACKGROUND IS ORANGE.

FOR NIGHTTIME CLOSURE USE TYPE "A" FLASHING WARNING LIGHTS ON BARRICADES, SUPPORTING SIGNS AND CLOSING SIDEWALK. USE TYPE "C" STEADY BURN LIGHTS ON CHANNELIZING DEVICES SEPARATING THE WORK AREA FROM VEHICULAR TRAFFIC.

PEDESTRIAN TRAFFIC SIGNAL DISPLAY CONTROLLING CLOSED CROSSWALK SHALL BE COVERED OR DEACTIVATED.

POST MOUNTED SIGNS LOCATED ADJACENT TO A SIDEWALK SHALL HAVE A 7 FOOT MINIMUM CLEARANCE FROM THE BOTTOM OF THE SIGN TO THE SIDEWALK SURFACE.

ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

(1) IF SIDEWALK CLOSURE AFFECTS AN ACCESSIBLE AND DETECTABLE FACILITY, MAINTAIN ACCESSIBILITY AND DETECTABILITY ALONG THE ALTERNATE PEDESTRIAN ROUTE.

(2) "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.

(3) IF TEMPORARY PEDESTRIAN CROSSWALK IS NOT PROVIDED, OMIT R9-8 AND W011-2 SIGN ASSEMBLIES. IF PROVIDED INCLUDE ON BOTH SIDES OF THE CROSSWALK.

(4) TEMPORARY CURB RAMPS. SEE SDD 15 D 30 SHEET "B".

(5) DRUMS OR BARRICADES AT 25 FOOT SPACING. STREET PARKING SHALL BE PROHIBITED FOR AT LEAST 50 FEET IN ADVANCE OF THE MID-BLOCK CROSSWALK.

(6) TEMPORARY PAVEMENT MARKING FOR CROSSWALK LINES.

(7) LIMIT WORK TO ONE QUADRANT AT A TIME TO MINIMIZE PEDESTRIAN DISRUPTION.

LEGEND

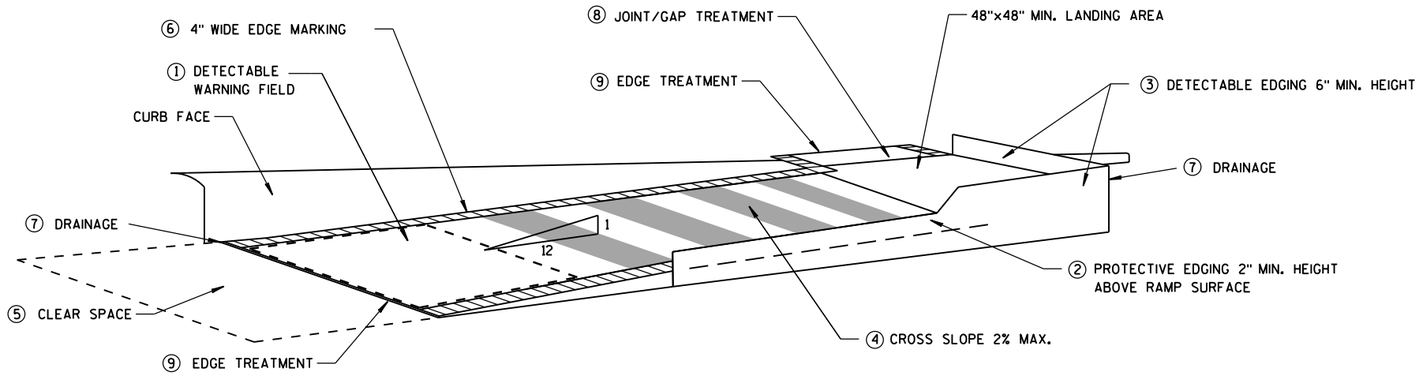
- SIGN ON PERMANENT SUPPORT
- UNDER PEDESTRIAN TRAFFIC
- WORK AREA
- PEDESTRIAN CHANNELIZATION DEVICE
- TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)
- TYPE III BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)
- DIRECTION OF TRAFFIC
- TRAFFIC CONTOL DRUM

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 15 D 30-2a



TEMPORARY CURB RAMP PARALLEL TO CURB

GENERAL NOTES

NOTIFY THE BUS COMPANY 7 DAYS IN ADVANCE OF THE BUS STOP RELOCATION.

ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

① CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE. INSTALL CONTRASTING DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS. REFER TO SDD 8D5 SHEET "E".

② PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.

③ DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).

④ CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.

⑤ CLEAR SPACE OF 48"X48" MIN. SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.

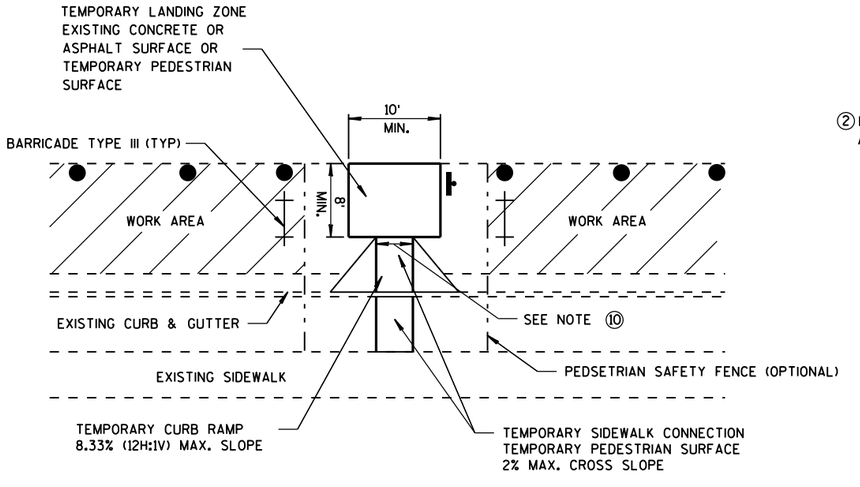
⑥ THE CURB RAMP WALKWAY EDGE SHALL BE MARKED WITH A YELLOW COLOR, 4" WIDE MARKING, UNLESS A CONTRASTING DETECTABLE WARNING FIELD IS PROVIDED.

⑦ DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.

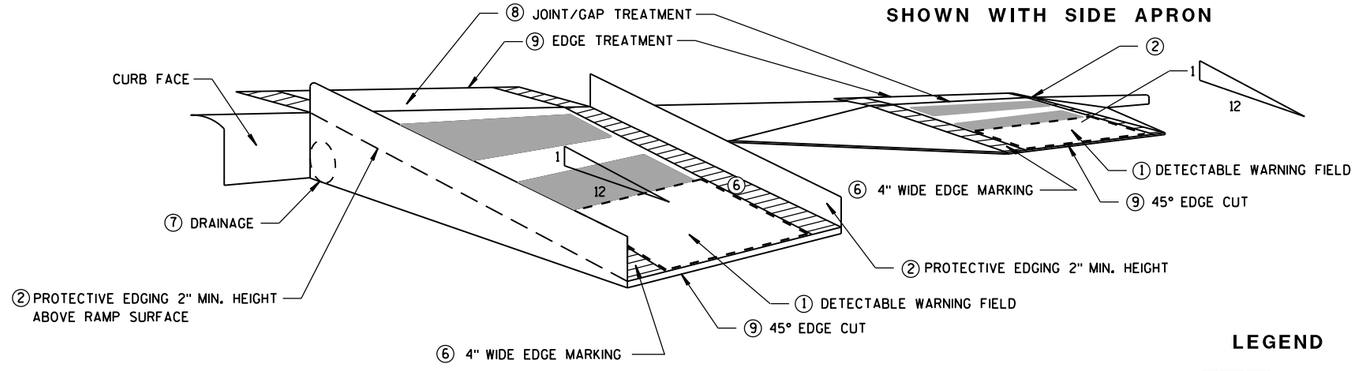
⑧ LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 1/2" WIDTH.

⑨ CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED 1/2". LATERAL EDGES SHALL BE VERTICAL UP TO 1/4" HIGH, AND BEVELED AT 1:2 BETWEEN 1/4" AND 1/2".

⑩ 5' WIDE MIN. WITH PEDSETRIAN SAFETY FENCE, 10' WIDE MIN. WITHOUT PEDESTRIAN SAFETY FENCE.



TEMPORARY BUS STOP PAD



SHOWN WITH PROTECTIVE EDGE

SHOWN WITH SIDE APRON

TEMPORARY CURB RAMP PERPENDICULAR TO CURB

LEGEND

WORK AREA

TYPE III BARRICADE

TRAFFIC CONTOL DRUM

TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

March 2015 — DATE

/S/ Travis Feltes — STATE TRAFFIC ENGINEER — SIGN

FHWA

6

S.D.D. 15 D 30-2b

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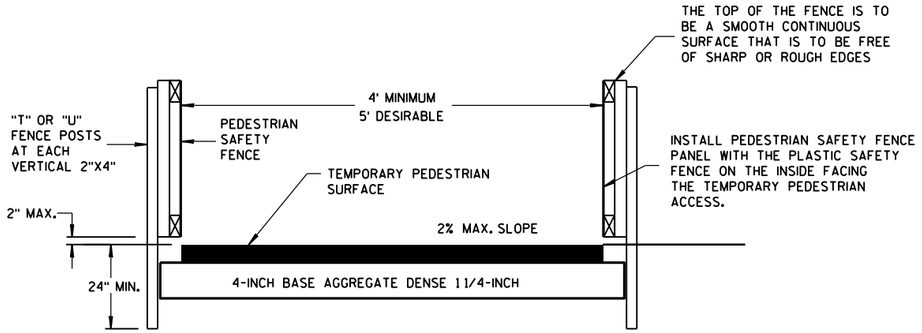
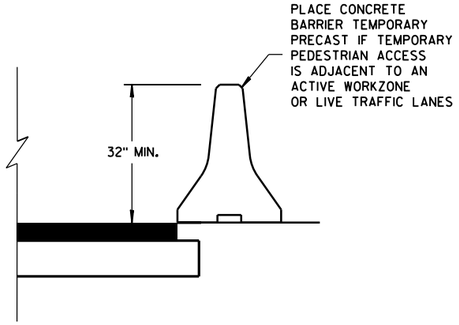
S.D.D. 15 D 30-2b

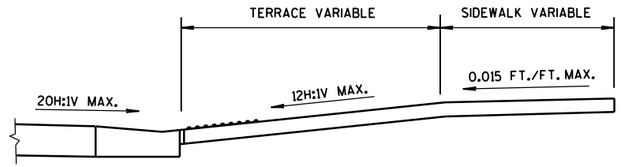




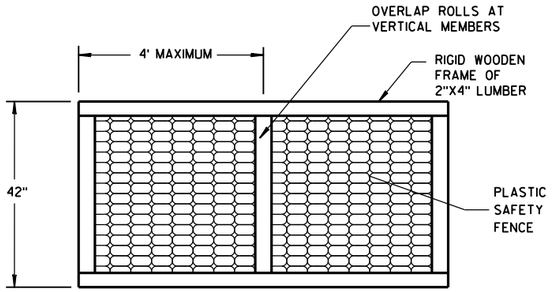
TEMPORARY PEDESTRIAN ACCESS

GENERAL NOTES

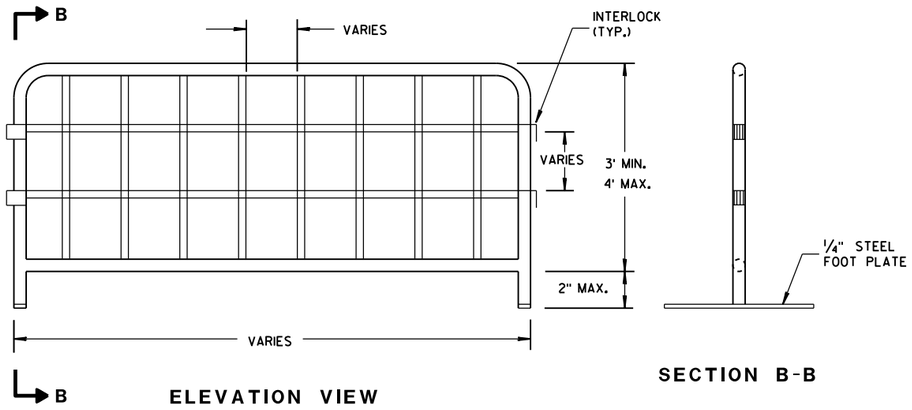
(1) INTERCHANGEABLE WITH THE PEDESTRIAN SAFETY FENCE.



SECTION A-A



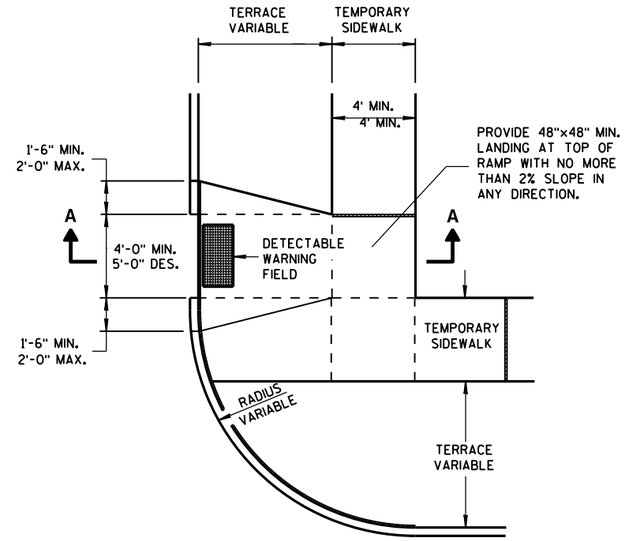
PEDESTRIAN SAFETY FENCE



ELEVATION VIEW

SECTION B-B

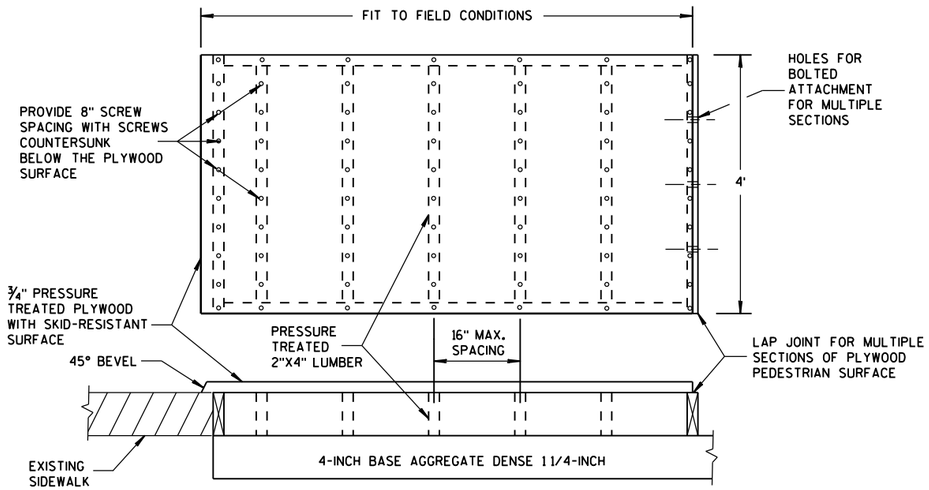
TEMPORARY PEDESTRIAN STEEL BARRICADE (1)



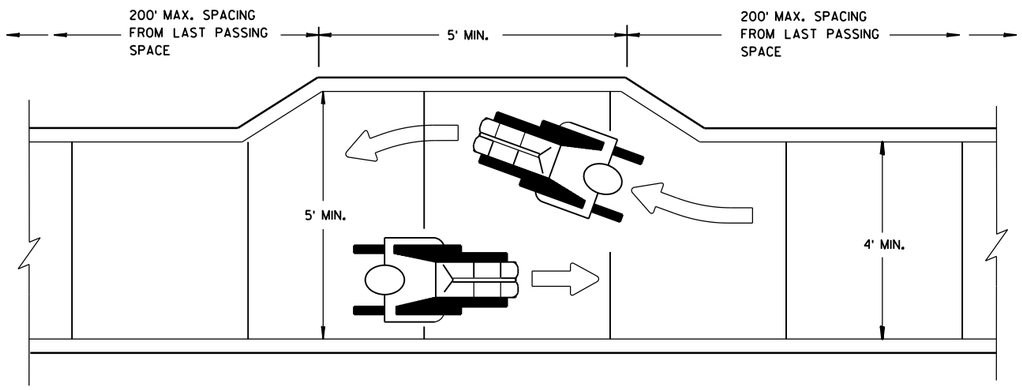
PLAN VIEW

TEMPORARY TYPE 3 RAMP

(OUTSIDE OF CROSSWALK AREA)



TEMPORARY PEDESTRIAN SURFACE PLYWOOD



NARROW SIDEWALK PASSING DETAIL

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

March 2015 — DATE

/S/ Travis Feltes — STATE TRAFFIC ENGINEER — SIGN

303

FHWA

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S.D.D. 15 D 30-2c

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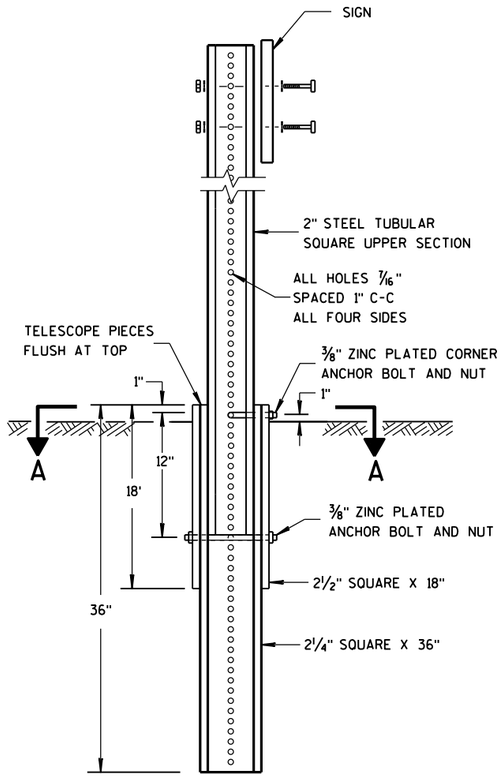
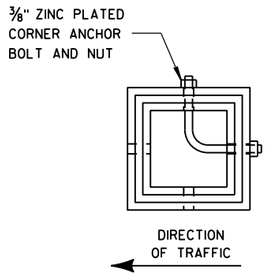
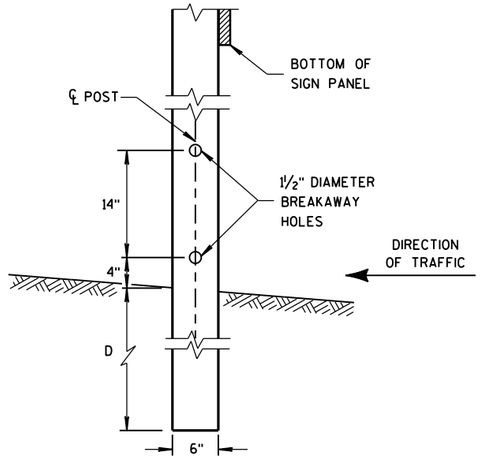
S.D.D. 15 D 30-2c



DETAIL OF TUBULAR STEEL SIGN POST



SECTION A-A



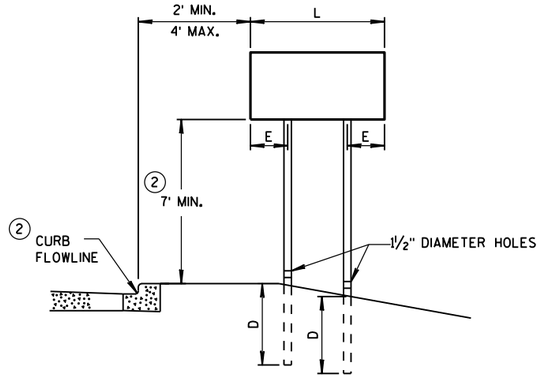
4"x6" WOOD POST MODIFICATION

GENERAL NOTES

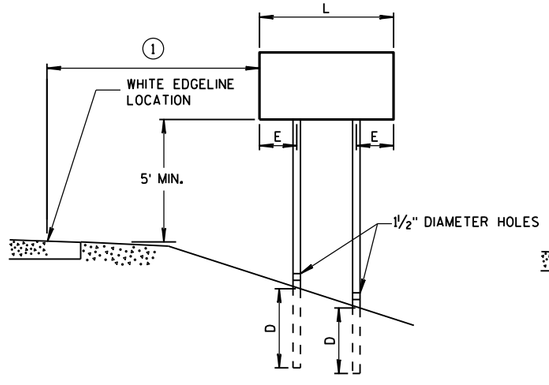
(1) 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.

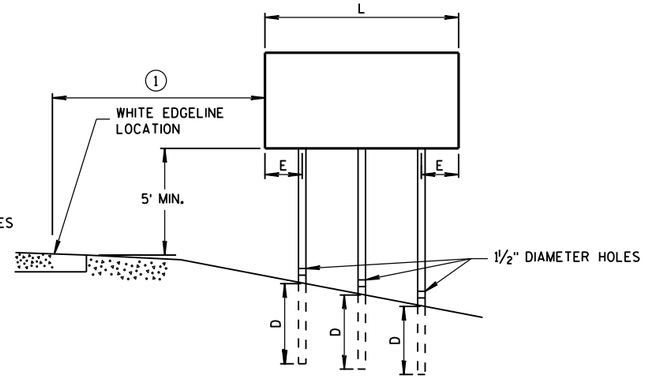
(2) THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.

(3) FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.



URBAN AREA





RURAL AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

TUBULAR STEEL POSTS

AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL POSTS
9 OR LESS	1
GREATER THAN 9 LESS THAN OR EQUAL TO 18	2
GREATER THAN 18 LESS THAN OR EQUAL TO 27	3

SIGNS WIDER THAN 3 FEET OR LARGER THAN 9 SQ. FT. SHALL BE MOUNTED ON MULTIPLE POSTS (SEE ABOVE TABLE).

SIGNS LARGER THAN 27 SQ. FT. SHALL NOT BE MOUNTED ON TUBULAR STEEL POSTS.

WOOD POST EMBEDMENT DEPTH

AREA OF SIGN INSTALLATION (SQ. FT.)	D (MIN)
20 OR LESS	4'
GREATER THAN 20	5'

4" X 6" WOOD POST

POST SPACING REQUIREMENTS		NUMBER OF WOOD POSTS REQUIRED
L	E	
48" OR LESS AND LESS THAN 20 SQ. FT.	-	1
LESS THAN 60"	12"	2
60" TO 120"	L/5	2
GREATER THAN 120" LESS THAN 168"	12"	3
168" AND GREATER	12"	4

SEE NOTE (3)

TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

STATE OF WISCONSIN DEPARTMENT OF TRANSPO

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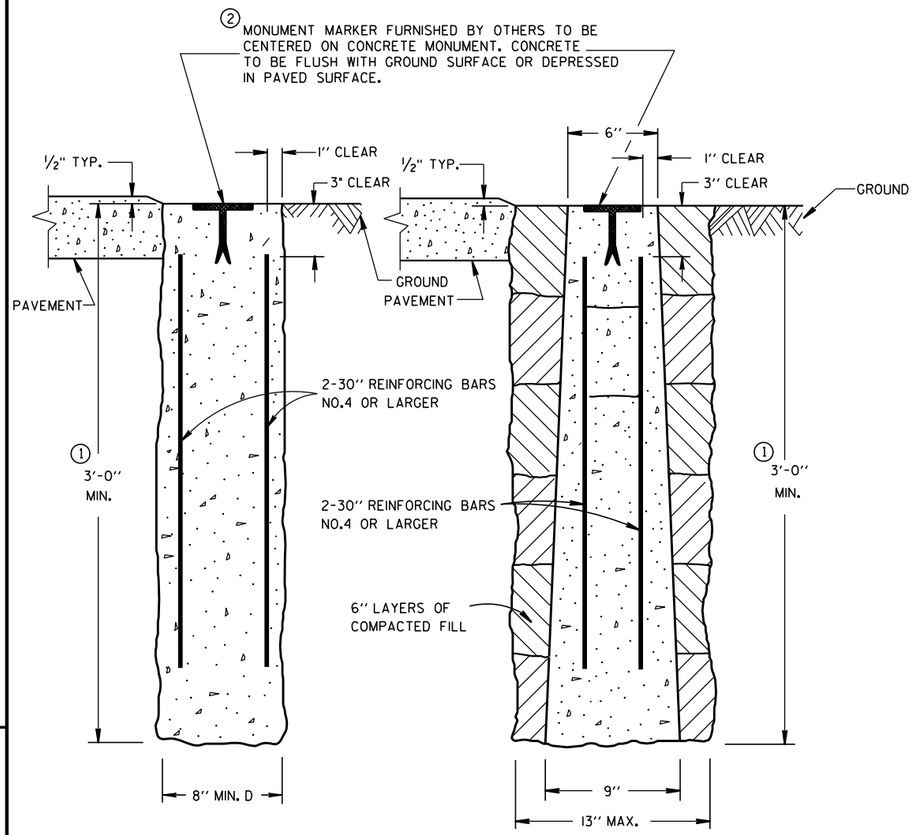
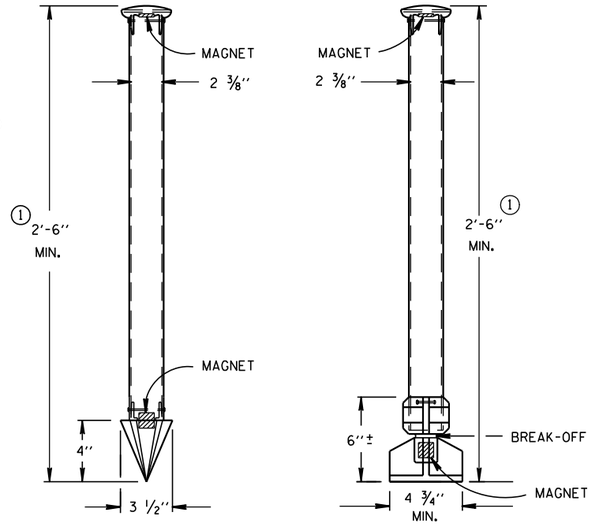
S.D.D. 15 D 38-1a



CAST-IN-PLACE PRECAST

CONCRETE MONUMENTS

TYPE A



TYPE C TYPE D

DRIVE-IN MONUMENT 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.

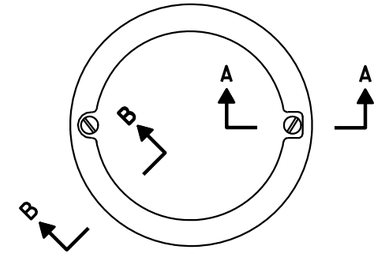
ALUMINUM MONUMENTS AND MONUMENT COVERS SHALL BE MADE FROM AN ALUMINUM AND MAGNESIUM ALLOY AS DETERMINED BY THE MANUFACTURER.

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.

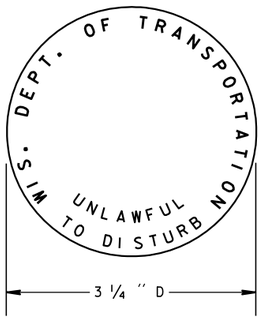
MONUMENT SHALL BE CAST-IN-PLACE CONCRETE UNLESS PRECAST CONCRETE OR ALUMINUM MONUMENTS ARE SPECIFIED IN THE CONTRACT OR PERMITTED BY THE ENGINEER.

① MINIMUM LENGTH SHALL BE 4'-0" FOR MONUMENTS INSTALLED IN PAVED AREAS.

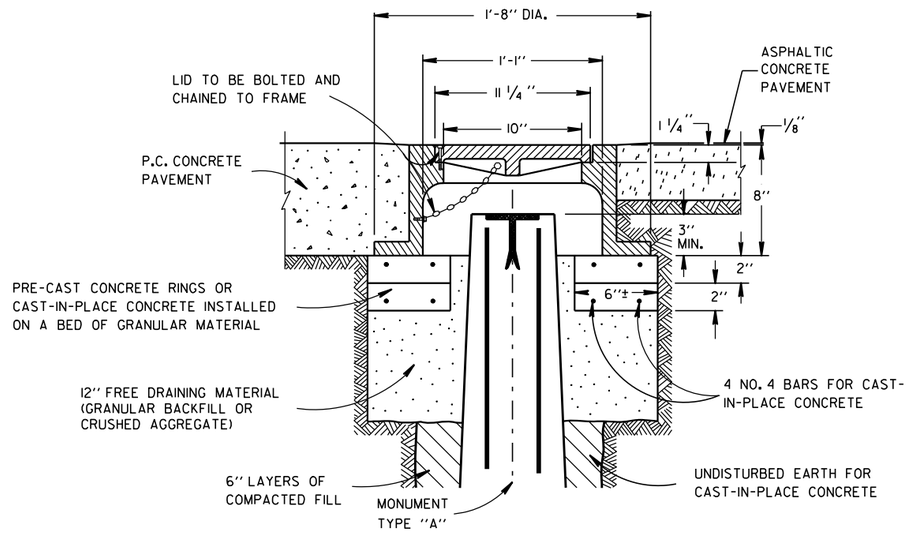
② AN OFFICIAL COUNTY MONUMENT MARKER SUPPLIED BY A COUNTY MAY BE REQUIRED FOR SOME SECTION CORNERS AND WITNESS MONUMENTS INSTEAD OF THIS WIS DOT MARKER.



TOP VIEW

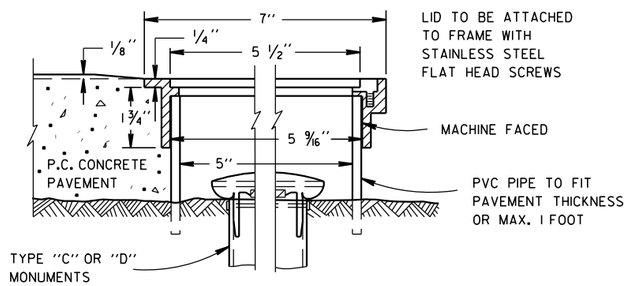


② WIS DOT MONUMENT MARKER LOGO FOR TYPES "A", "C" & "D"



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

6

S.D.D. 16 A 1-6

6

S.D.D. 16 A 1-6

FIXED MESSAGE SIGNS (DETAILS SHEETS)

GENERAL NOTES:

1. ALL SIGNS TO HAVE FLUORESCENT REFLECTIVE SHEETING – REFERENCE: "WISDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION," LATEST EDITION.

2. AFTER SIGNS HAVE BEEN LOCATED IN THE FIELD, BUT BEFORE INSTALLATION, THE PROJECT ENGINEER SHALL VERIFY EACH SIGN LOCATION.

3. ALL SIGNS TO BE MOUNTED ON WOODEN POST SUPPORTS (4"x6") (FREEWAY) OR TUBULAR. STEEL POSTS OR 4X6 WOOD POSTS (NON FREEWAY). THE NUMBER OF POSTS REQUIRED FOR EACH LAYOUT IS SHOWN.

4. SIGNS ON THIS SHEET TO BE PAID UNDER THE ITEM "FIXED MESSAGE SIGNS."

5. SIGNS SHALL BE BLACK NON–REFLECTIVE MESSAGE ON ORANGE FLUORESCENT REFLECTIVE BACKGROUND PER SPEC 643 & 637.
6. ALL SIGNS SHALL HAVE CAPITAL LETTERS AND NUMERALS:
   12" CAPS SHALL BE SERIES "D"
   6" CAPS SHALL BE SERIES "C" – UNLESS OTHERWISE SHOWN

7. ALL SIGNS SHALL HAVE BORDER & RADIUS OF BORDERS AS FOLLOWS:

SIGN AREA	WIDTH OF BORDER
GREATER THAN 150 SQ FT	3"
60–150 SQ FT	2"
LESS THAN 60 SQ FT	1"

RADIUS SMALLEST OUTSIDE DIMENSION	CORNER RADIUS
> 8 FT	12"
≥ 6 FT	9"
≥ 4 FT	6"
LESS THAN 4 FT	3"

8. BEGIN XXX XX SIGNS SHALL BE SEPARATE PANELS, BUT SHALL BE CONSIDERED AS PART OF THE SIGN AND SHOULD BE REMOVED OR COVERED AFTER THEIR EFFECTIVE DATE. THE MONTH AND DAY SHALL BE AS DIRECTED BY THE ENGINEER IN THE FIELD.

9. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO ENGINEER FOR REVIEW PRIOR TO MANUFACTURING.

10. SIGN BASE MATERIAL SHALL BE ACCORDING TO SECTION 643 & 637.

11. SIGNS TO BE IN PLACE 10 DAYS PRIOR TO CONSTRUCTION.

(X) = SIGN NUMBER

FOR PLAN SHEETS

LEGEND: FIXED MESSAGE SIGNS

- EXISTING GUIDE SIGN TO BE COVERED
- FIXED MESSAGE SIGN(S) ON WOOD POST SUPPORTS OR TUBULAR STEEL POSTS
- (XX) FIXED MESSAGE SIGN NUMBER
- (A1) CONTRACTOR SHALL COVER AS DIRECTED BY THE ENGINEER ALL ROUTE MARKINGS PERTAINING TO THE PROJECT. INCIDENTAL TO WORK ZONE TRAFFIC CONTROL SIGNING.
- CMS CHANGEABLE MESSAGE SIGN

NOTES: FIXED MESSAGE SIGNS

1. CONTRACTOR SHOULD LOCATE FIXED MESSAGE SIGNS A MINIMUM OF 400' FROM ANY EXISTING TYPE "I" SIGN.

2. ALL FIXED MESSAGE SIGNS SHALL BE BLACK NON–REFLECTIVE MESSAGE ON ORANGE FLORESCENT REFLECTIVE BACKGROUND PER SPEC 643 & 637.

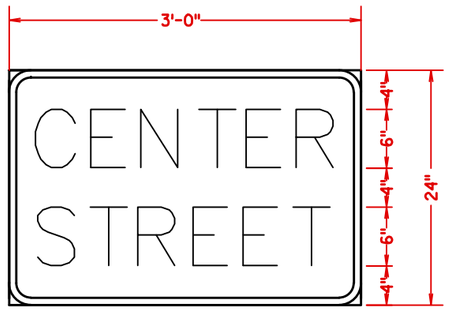
3. SEE FIXED MESSAGE SIGNS AND SPECIAL MESSAGE SIGNS LAYOUT SHEETS FOR MORE INFORMATION.

4. COVER DETOUR SIGNING WHEN NOT IN USE. INCIDENTAL TO WORK ZONE TRAFFIC CONTROL SIGNING.

5. SIGNS TO BE PLACED 10 DAYS PRIOR TO CONSTRUCTION.

7

7



FIXED MESSAGE SIGN

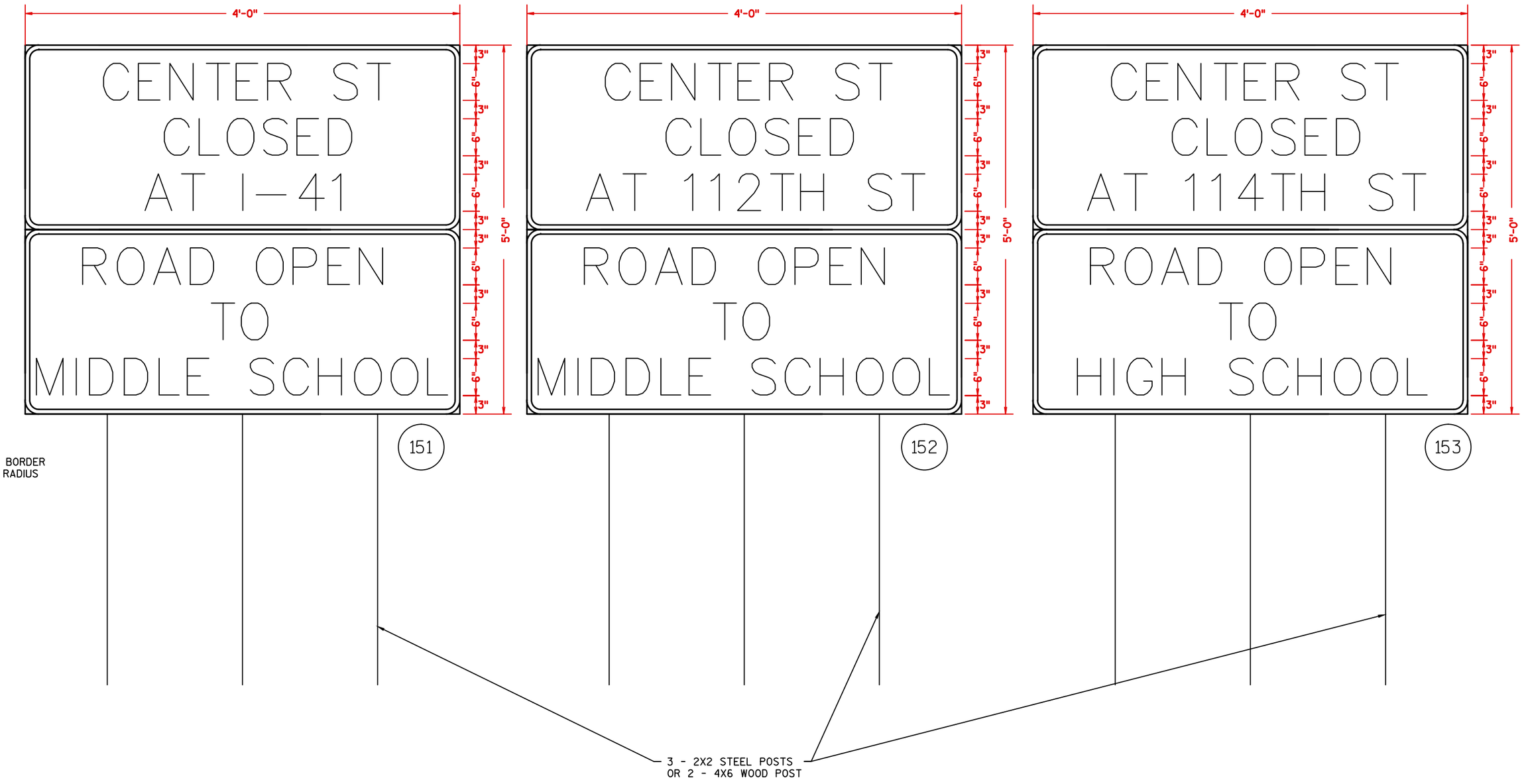
ORANGE WITH BLACK LETTERS
6" CAPS, SERIES B LETTERS

150

7

7

6" CAPS
SERIES B
LETTERS



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7

PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	FIXED MESSAGE SIGNS	SHEET 308	E

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"

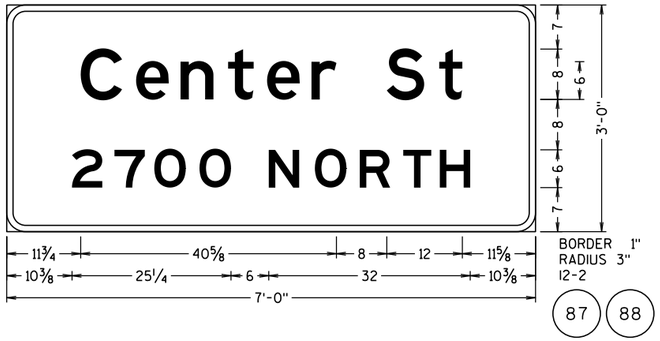
7. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET SHALL HAVE "TYPE A" OR "TYPE C" ARROWS AS SHOWN. SEE THE STANDARD SIGN PLATES FOR FURTHER DETAILS.

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.



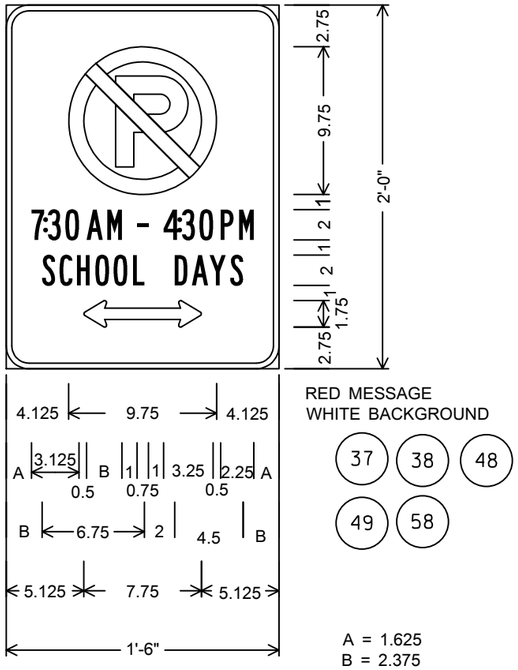
7

7

SHEET 1 OF 1

PROJECT NO: 1060-34-84	HWY: IH 41	COUNTY: MILWAUKEE	SIGNING DETAIL - TYPE II SIGNS	SCALE: 0 ½" 1"	SHEET 309	E

FILE NAME : W:\PDS\C3D\CAD\10603484\Sign\070101_ms.dgn PLOT DATE : 30-JUN-2015 12:53 PLOT BY : dotcmv PLOT NAME : PLOT SCALE : 48.125:1

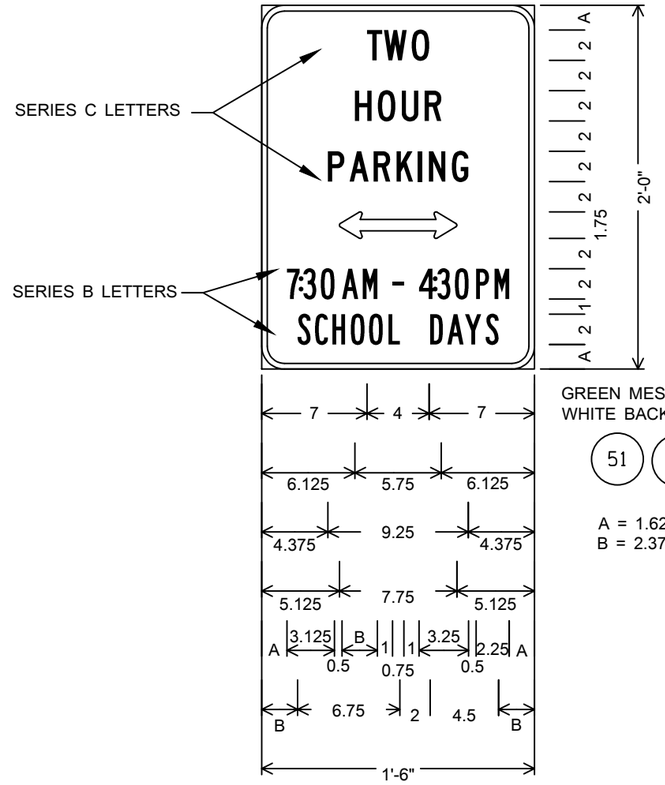


RED MESSAGE
WHITE BACKGROUND

37 38 48 49 58

A = 1.625
B = 2.375

SERIES B LETTERS



GREEN MESSAGE
WHITE BACKGROUND

51 56

A = 1.625
B = 2.375

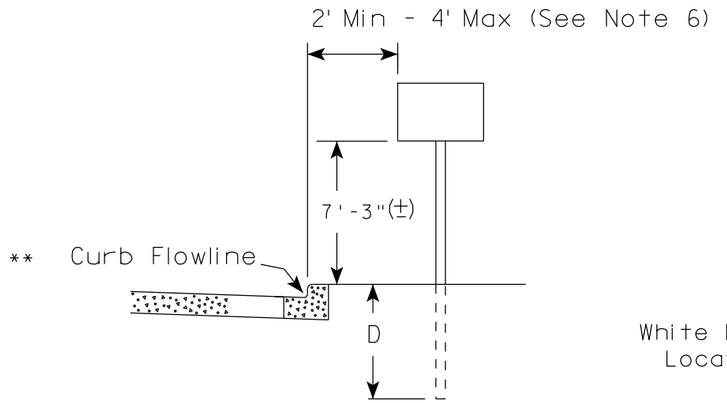
GENERAL NOTES:

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 UPPERCASE MESSAGE (EXCEPT ON SHIELDS OR WHERE OTHERWISE NOTED) SHALL BE "SERIES E". ALL LOWERCASE MESSAGE WITH AN INITIAL UPPERCASE LETTER SHALL BE "SERIES E".
6. TYPE I SIGNS ALL UPPERCASE MESSAGE (EXCEPT ON SHIELDS OR WHERE OTHERWISE NOTED) SHALL BE "SERIES E MODIFIED". ALL LOWER CASE MESSAGE WITH AN INITIAL UPPERCASE 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.

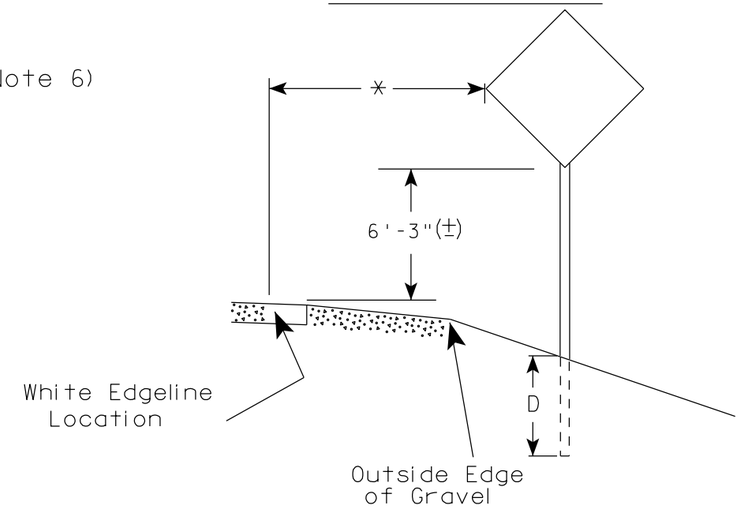
PROJECT NO: 1060-35-85	HWY: CENTER STREET	COUNTY: MILWAUKEE	SIGN DETAIL - TYPE II	SHEET 310	E

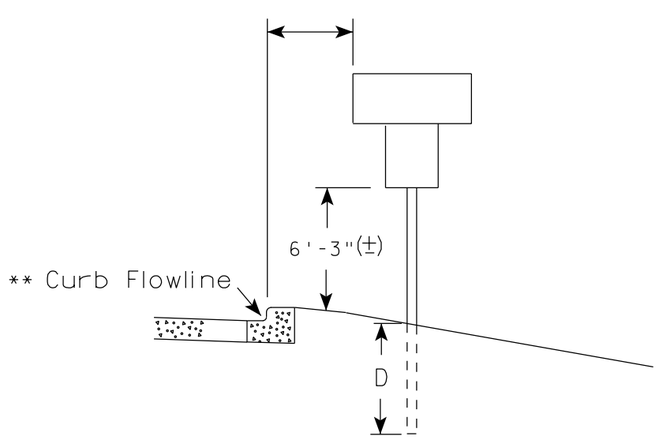
FILE NAME : W:\PDS\C3D\CAD\10603316\85\070101_MS.DWG
LAYOUT NAME - 070101_MS
PLOT DATE : 9/10/2015 7:58 AM
PLOT BY : DODGE, BRIAN M
PLOT NAME :
PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET

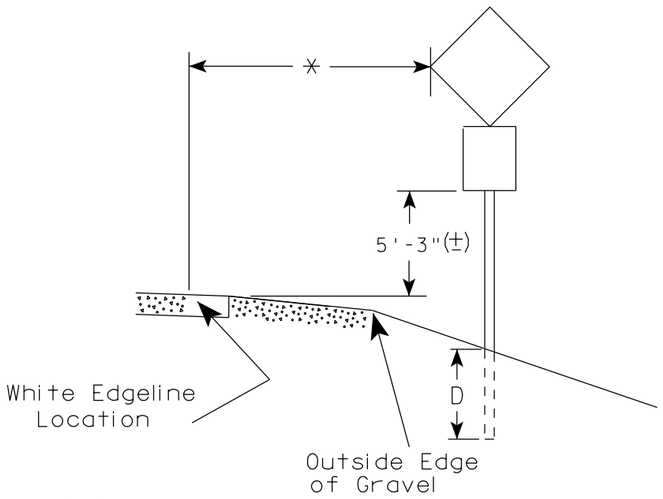
URBAN AREA



RURAL AREA (See Note 2)







GENERAL NOTES

1. Signs wider than 4 feet or 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 (A2-1S) 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 signs shall be mounted at a height of 5'-3" (±) or as directd 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), In Road Object Markers (W5-54) & End of Road Markers (W5-56) 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'

** 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.

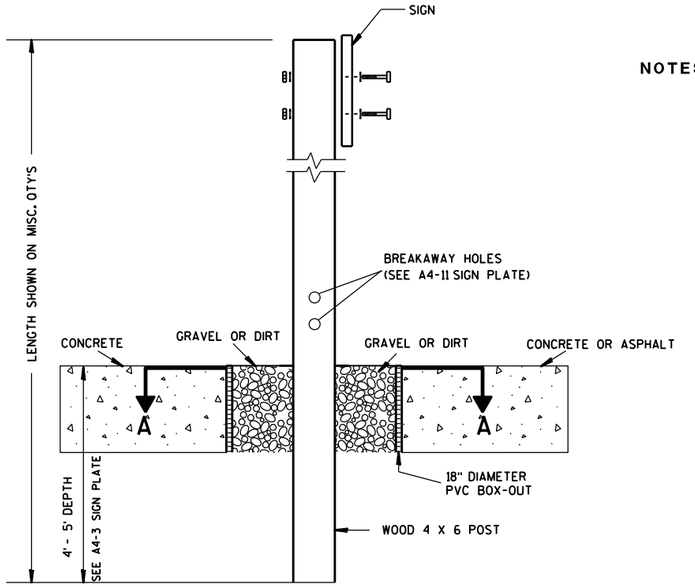
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/23/15 PLATE NO. A4-3.20

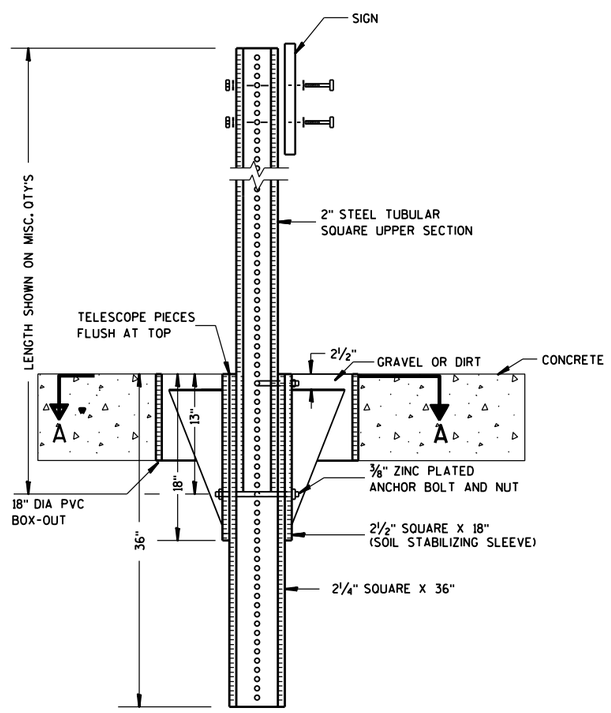
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



ELEVATION VIEW

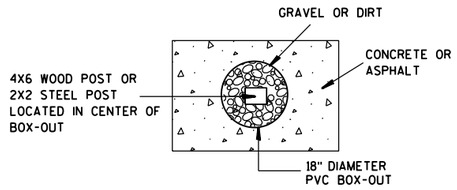
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

NOTES:
1. ALL MATERIAL TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION
2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.



ELEVATION VIEW

DETAIL OF STEEL 2 X 2 SIGN POST IN BOX-OUT



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

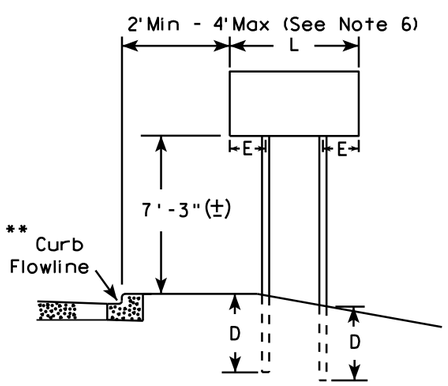
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/27/14 PLATE NO. A4-3B.1

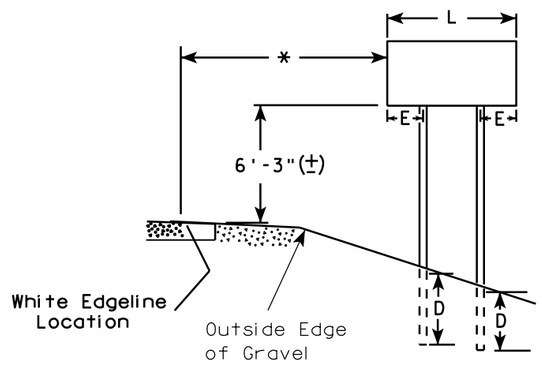
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

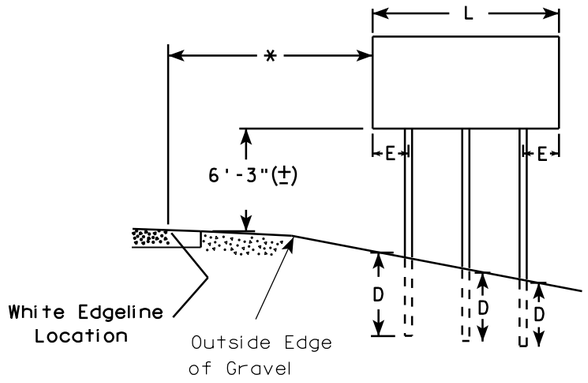
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

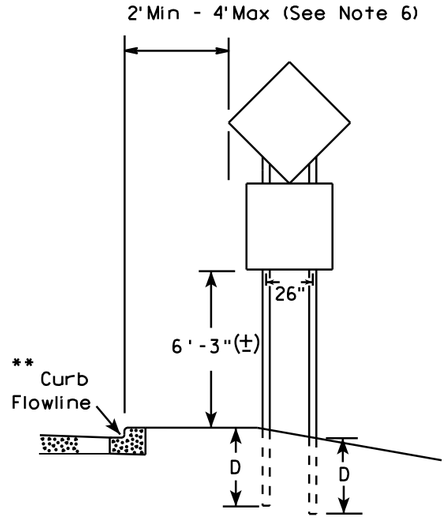
URBAN AREA



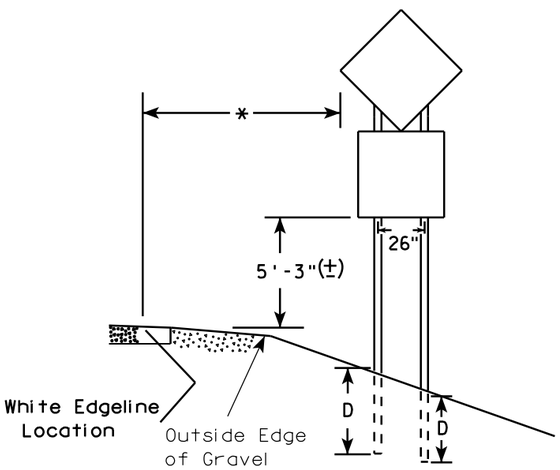
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



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 (A2-1S) 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 signs 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), In Road Object Markers (W5-54) & End of Road Markers (W5-56) 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 and less than 20 S.F. 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

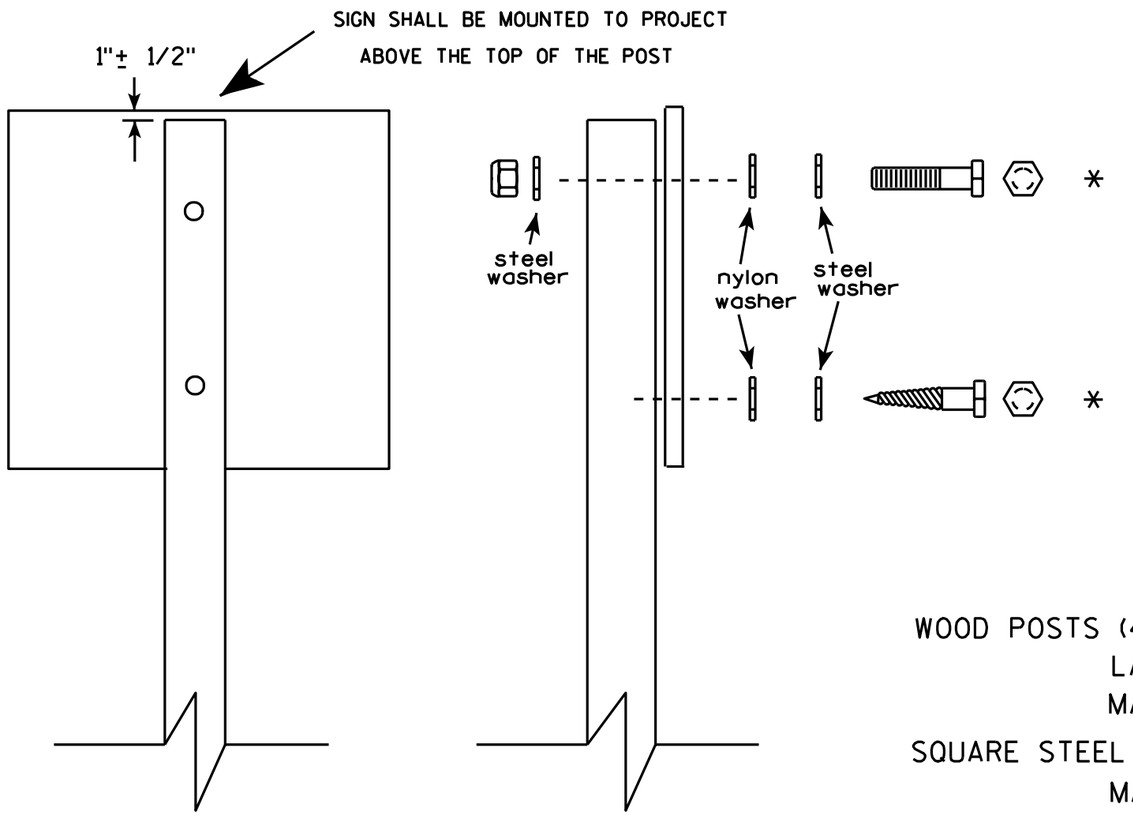
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/23/15 PLATE NO. A4-4 14

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A44.DGN PLOT DATE : 23-JUL-2015 15:23 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 107.021305:1.000000 WISDOT/CADDS SHEET 42



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

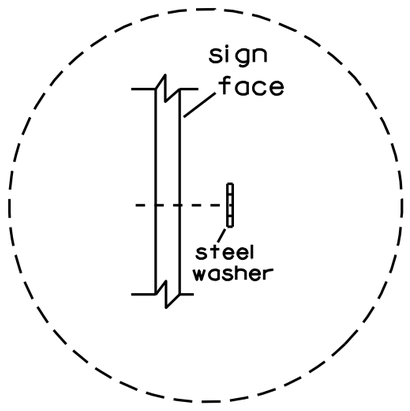
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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

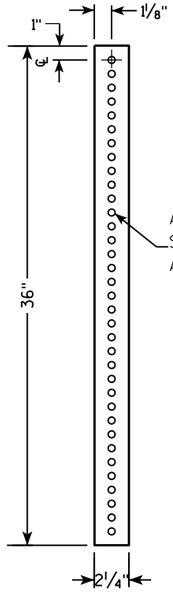
7

PROJECT NO:

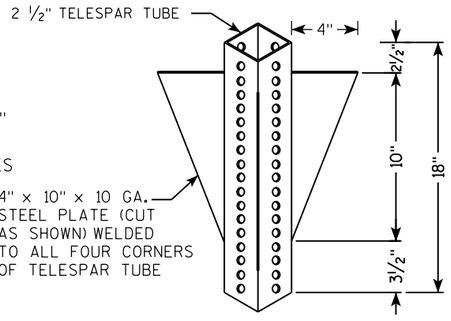
SHEET NO: 314 E

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

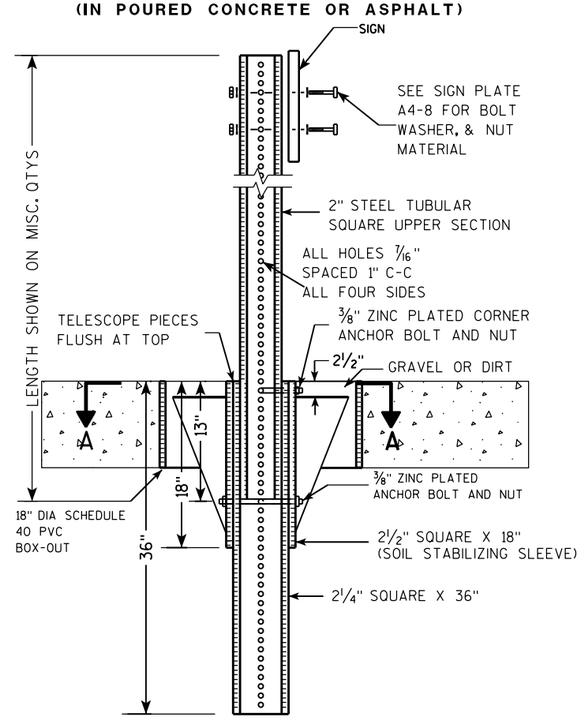
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



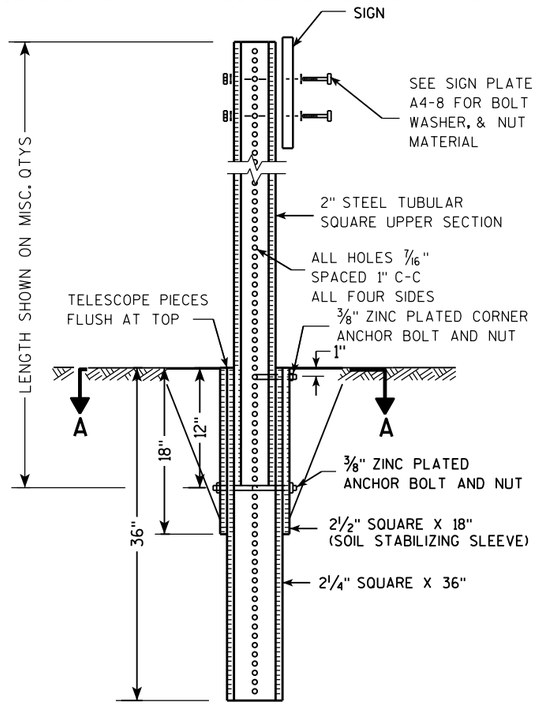
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

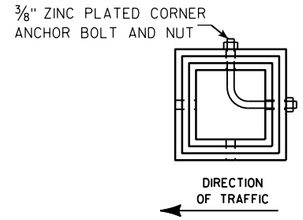


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



DETAIL OF TUBULAR STEEL SIGN POST
(IN LOCATIONS OTHER THAN POURED CONCRETE OR ASPHALT)





SECTION A-A

Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

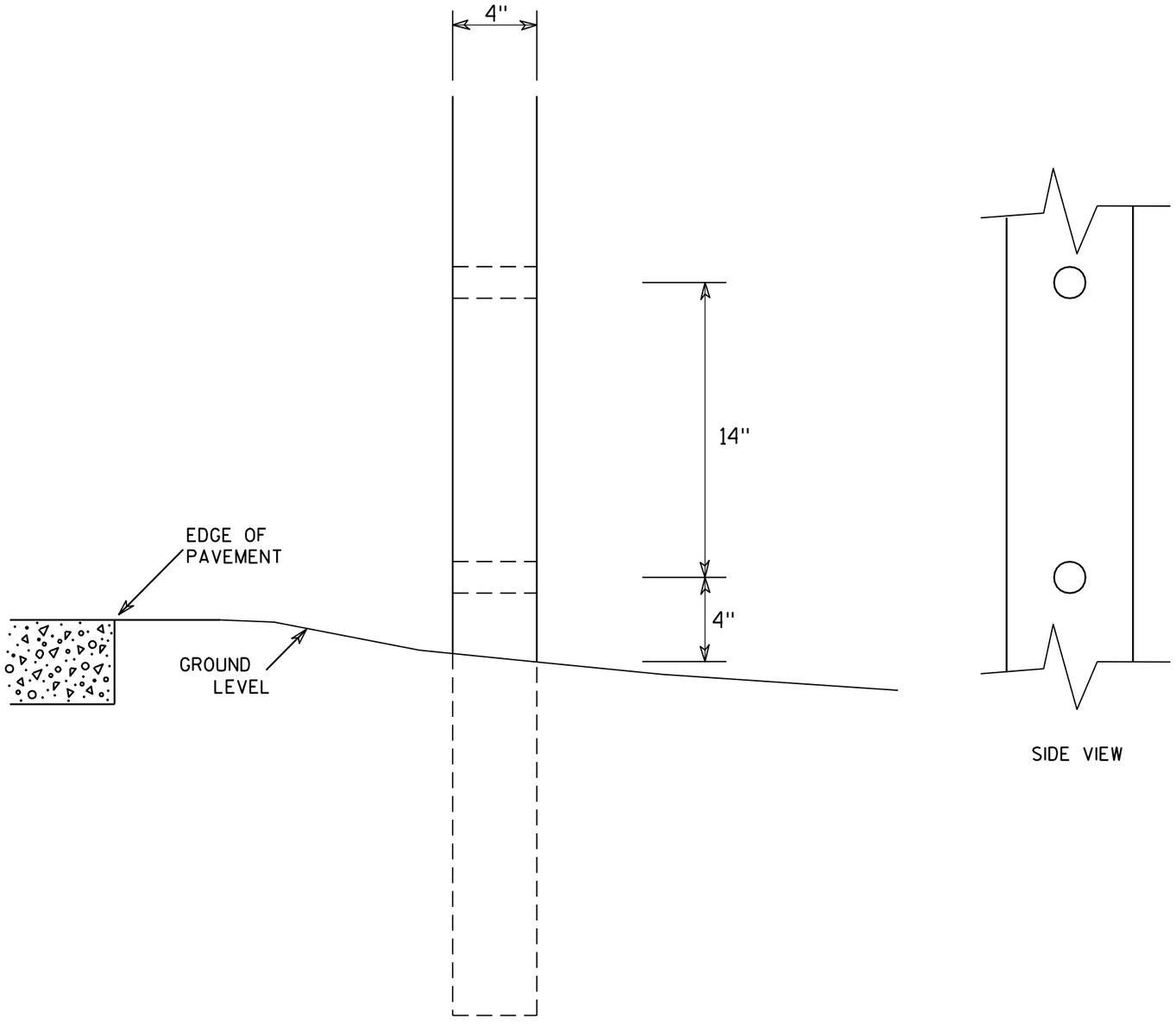
TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 315 A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	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.

7

7

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

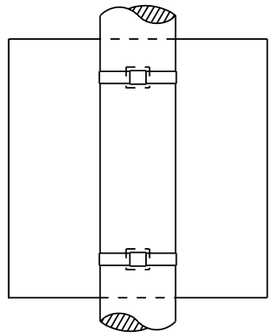
APPROVED Chester J Spang
for State Traffic Engineer

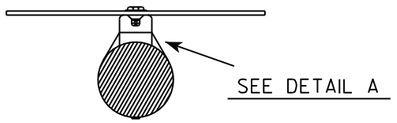
DATE 3/27/97 PLATE NO. A4-11.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 316	E

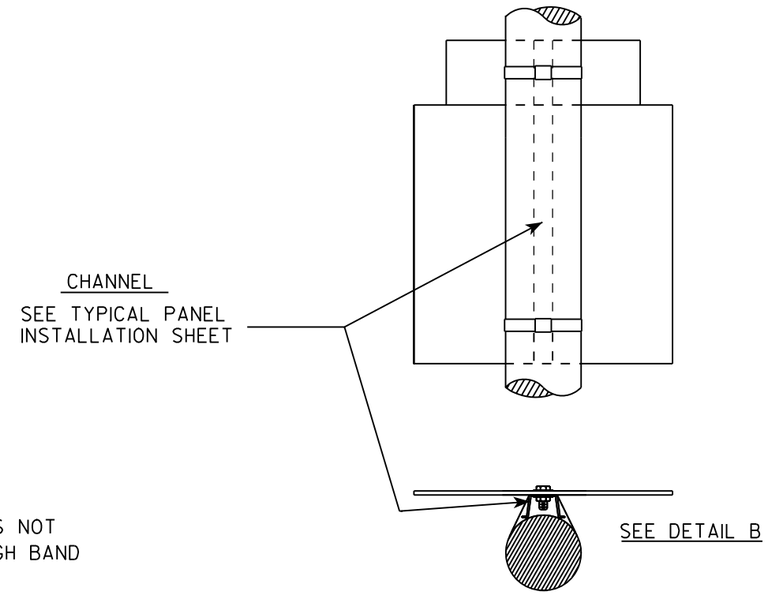
BANDING

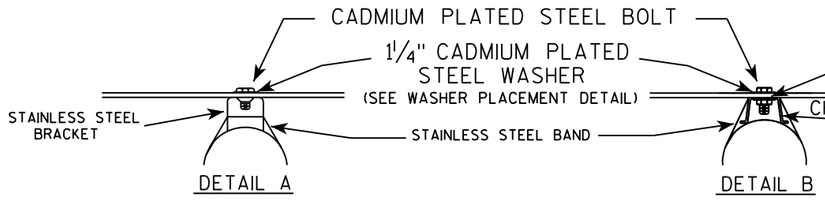
SINGLE SIGN



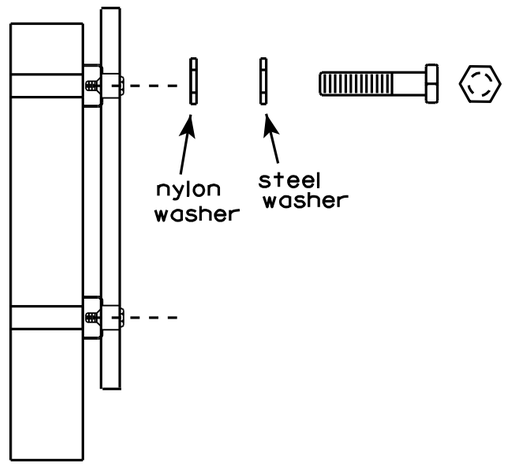


"J" ASSEMBLY





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.

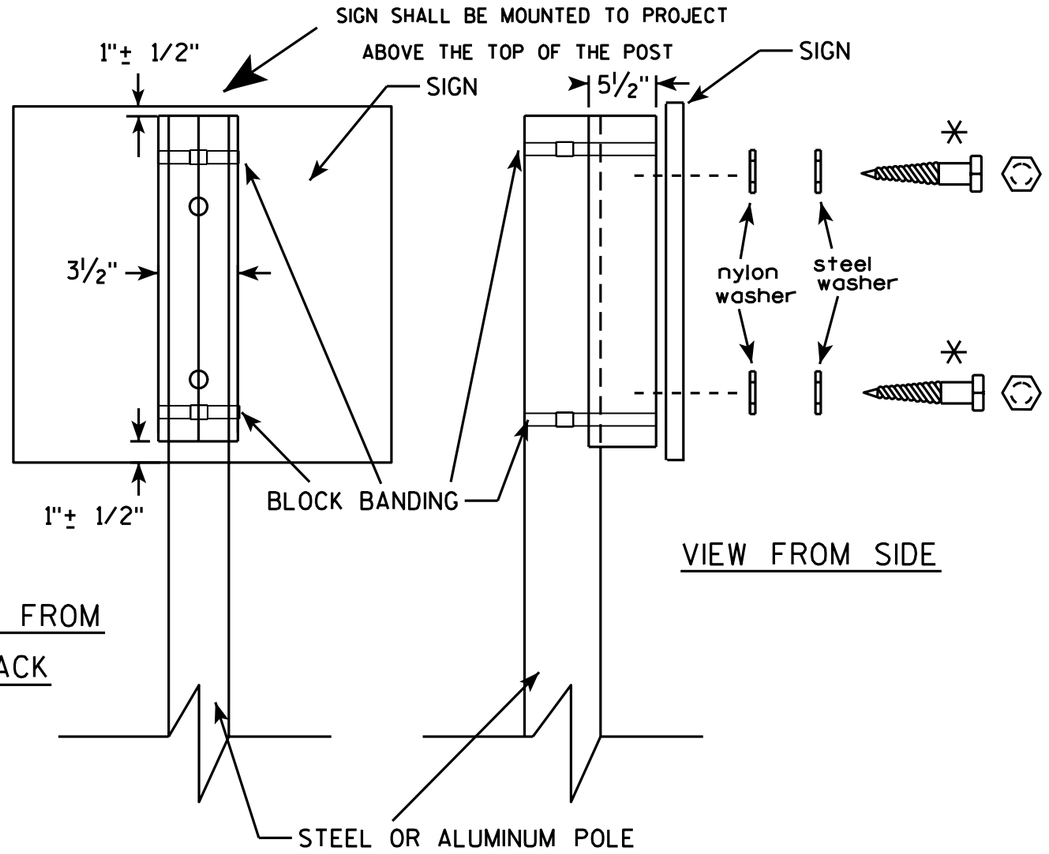
STANDARD SIGN
SIGN BANDING DETAILS

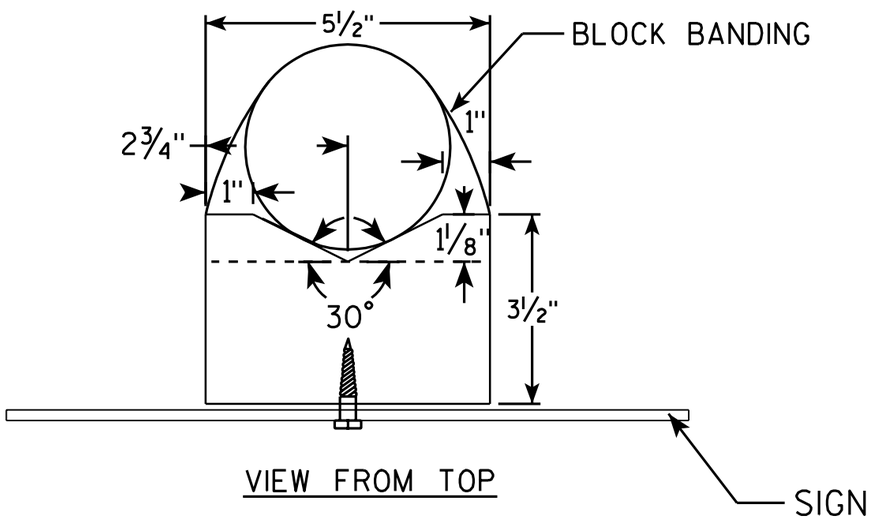
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/16/13 PLATE NO. A5-9.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 317	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)

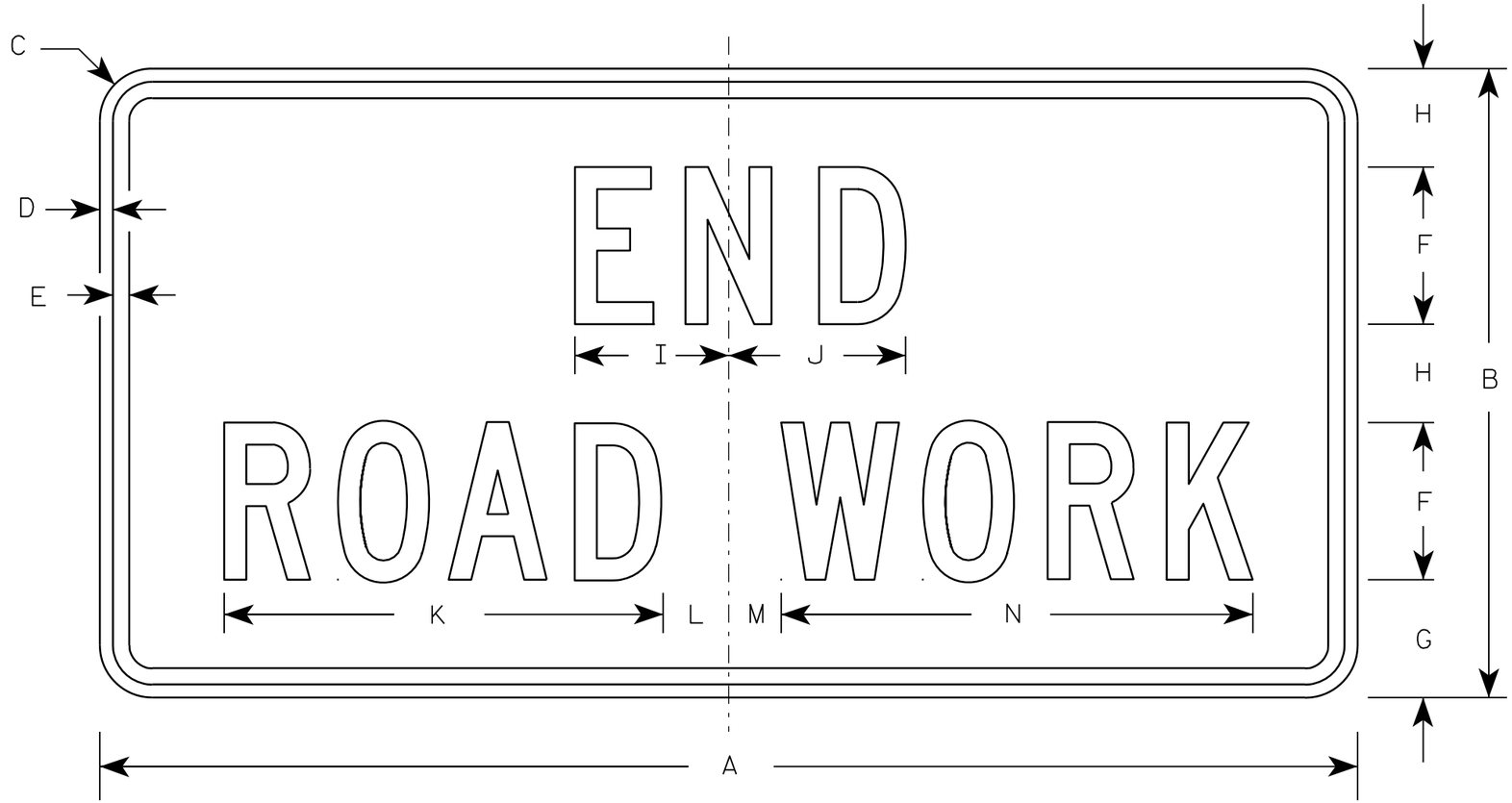
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/12/07 PLATE NO. A5-10.1

PROJECT NO:

SHEET NO: 318 E



G20-2A

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   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.

Metric equivalent for this sign is:

SIZE	
1	900 mm X 450 mm
2	1200 mm X 600 mm
3	1200 mm X 600 mm
4	1200 mm X 600 mm
5	1200 mm X 600 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	36	18	1 1/8	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5	0.41
2	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
3	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
4	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
5	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72

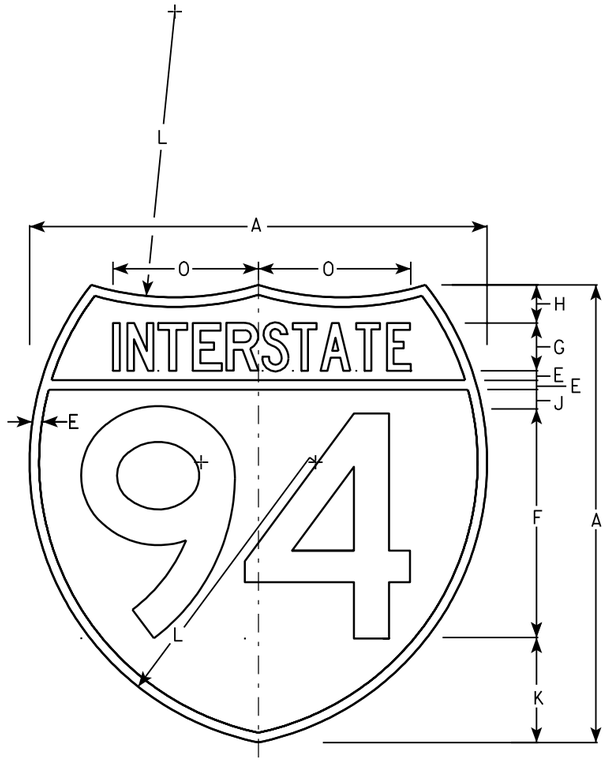
STANDARD SIGN
G20-2A

WISCONSIN DEPT OF TRANSPORTATION

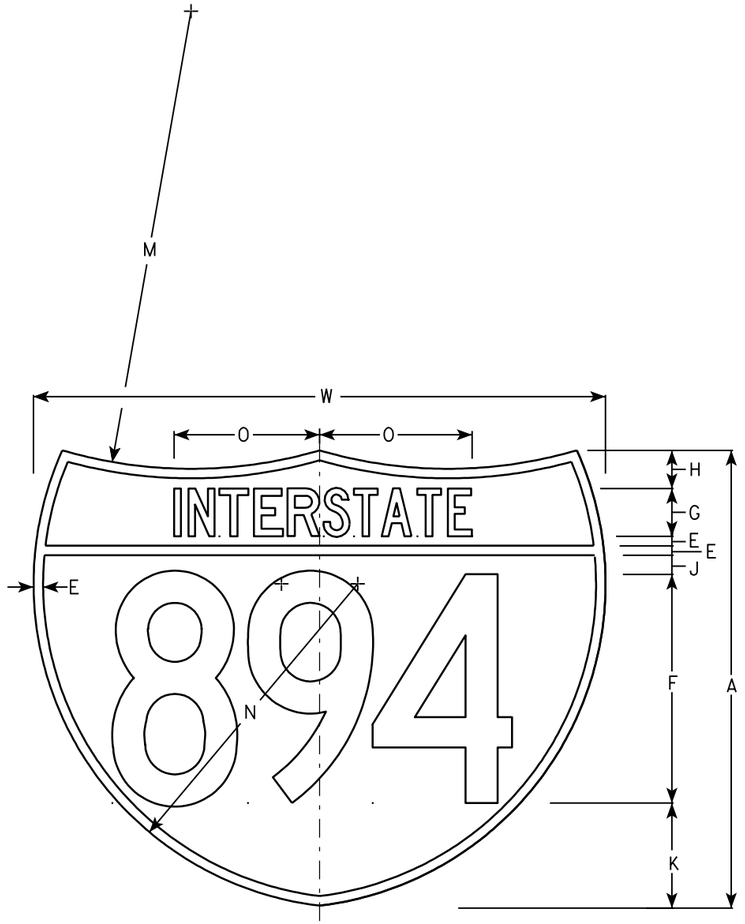
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/30/09 PLATE NO. G20-2A.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 319	E



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

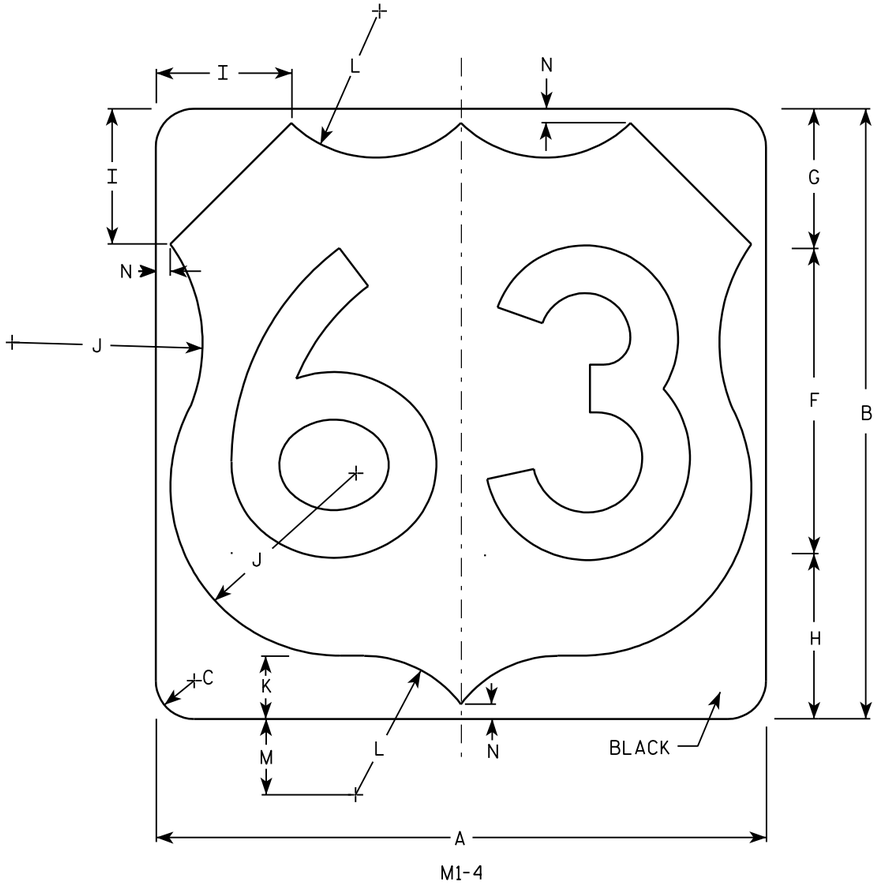
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 08/23/05 PLATE NO. M1-1.8

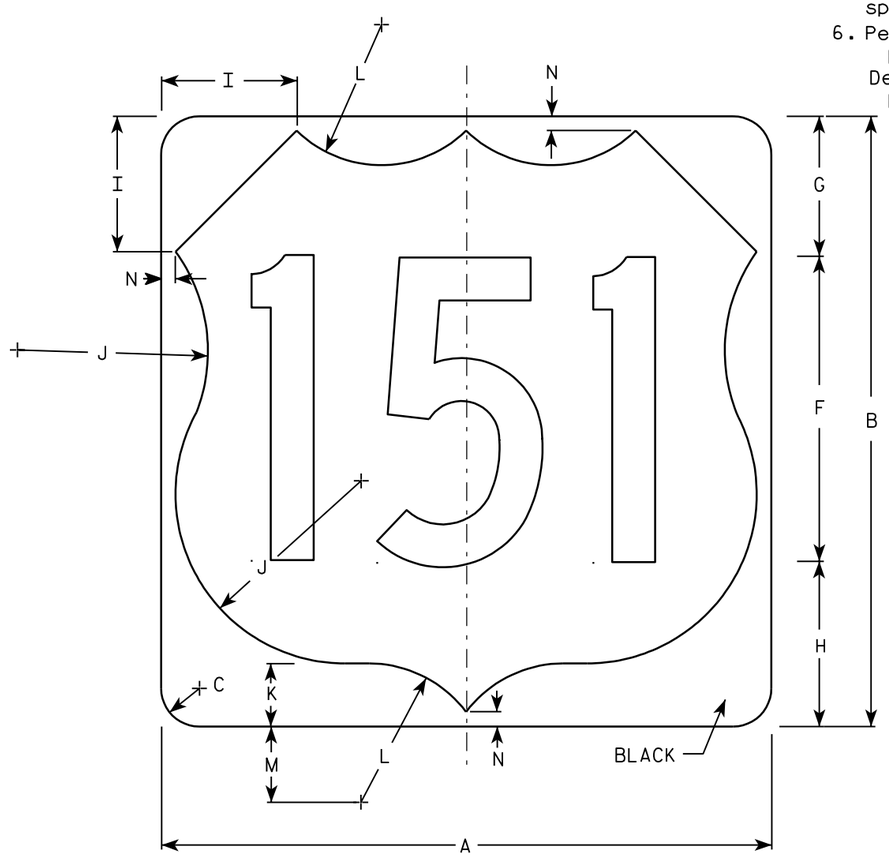
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 320	E

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 numerals and adjust spacing as per Plate A10-1.
6. Permanent Signs
   Background - Type H Reflective
   Detour or other temporary signs
   Background - Reflective



M1-4



M1-4

7

7

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	24	1 ½			12	5 ½	6 ½	5	7 ½	2 ½	5 ½	3	½													4.0	.36
3	36	36	2 ¼			18	8 ¼	9 ¼	7 ¼	11 ¼	3 ¾	8 ¼	4 ½	¾													9.0	.81
4	36	36	2 ¼			18	8 ¼	9 ¼	7 ¼	11 ¼	3 ¾	8 ¼	4 ½	¾													9.0	.81
5	36	36	2 ¼			18	8 ¼	9 ¼	7 ¼	11 ¼	3 ¾	8 ¼	4 ½	¾													9.0	.81

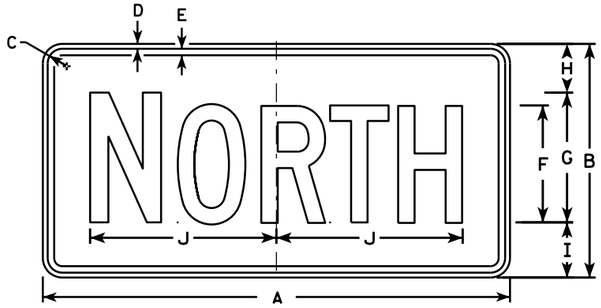
USH MARKER
M1-4 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

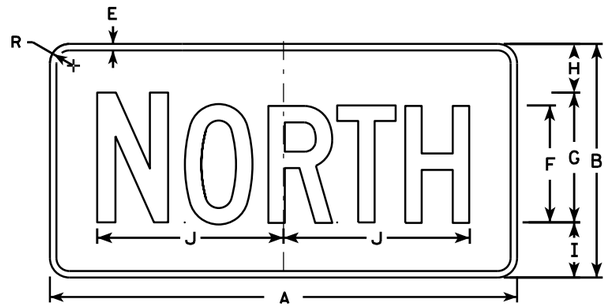
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 08/25/05 PLATE NO. M1-4.9

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 321 | E

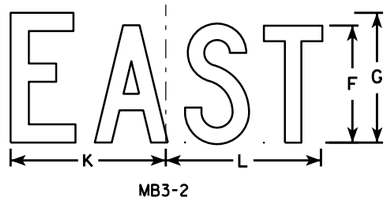


M3-1
MK3-1
MM3-1
MN3-1

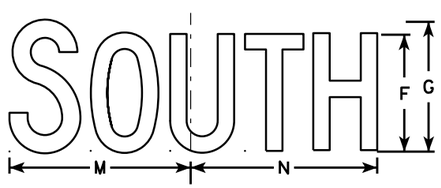


MB3-1

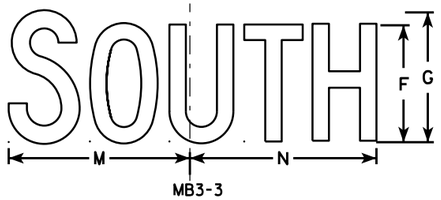
M3-2
MK3-2
MM3-2
MN3-2



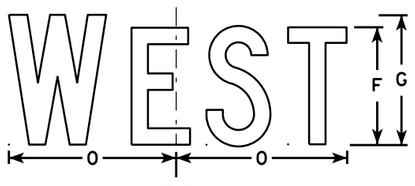
MB3-2



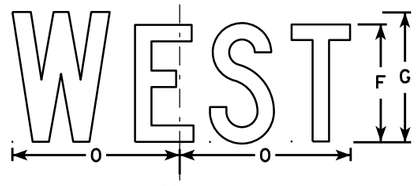
M3-3
MK3-3
MM3-3
MN3-3



MB3-3



M3-4
MK3-4
MM3-4
MN3-4



MB3-4

NOTES

1. All Signs Type II - Type H
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
   Message - Black
   MB3-1 thru MB3-4 Background - Blue
   Message - White
   MK3-1 thru MK3-4 Background - Green
   Message - White
   MM3-1 thru MM3-4 Background - White
   Message - Green
   MN3-1 thru MN3-4 Background - Brown
   Message - White
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

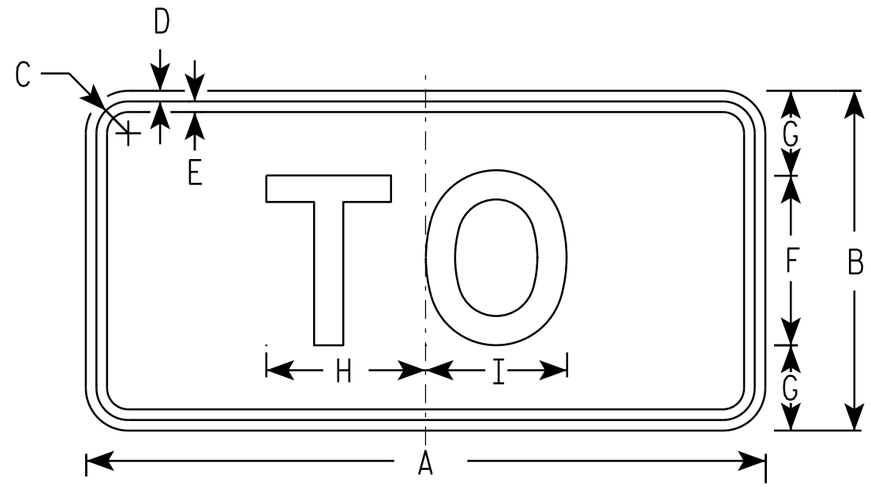
STANDARD SIGNS
M3-1 thur M3-4
SERIES

WISCONSIN DEPT OF TRANSPORTATION

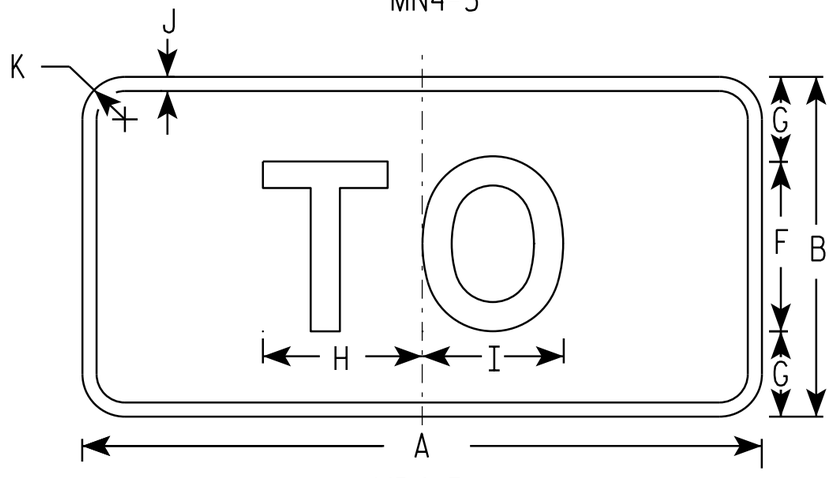
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 6/30/14 PLATE NO M3-1.13

PROJECT NO: | HWY: | COUNTY: | | SHEET NO: E



M4-5
MK4-5
MM4-5
MN4-5



MB4-5

NOTES

1. Sign is Type II - Type H
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
   Message - Black

   MB4-5 Background - Blue
   Message - White

   MK4-5 Background - Green
   Message - White

   MM4-5 Background - White
   Message - Green

   MN4-5 Background - Brown
   Message - White

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

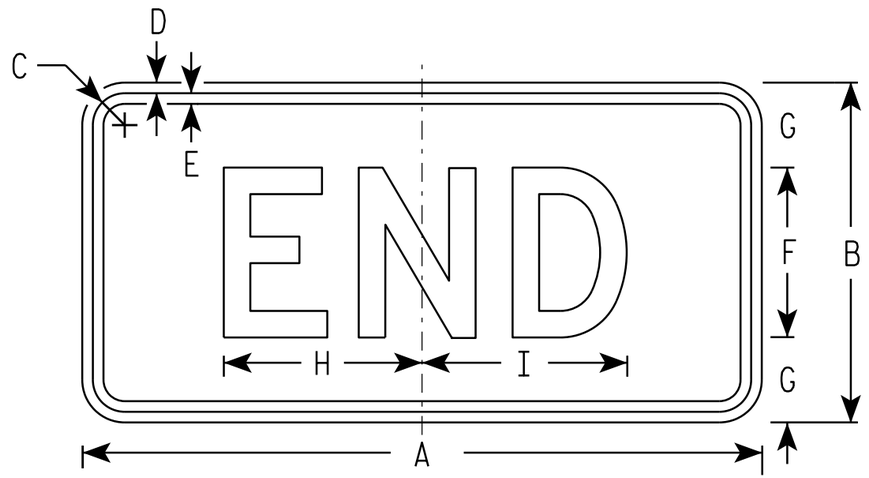
STANDARD SIGN
M4-5

WISCONSIN DEPT OF TRANSPORTATION

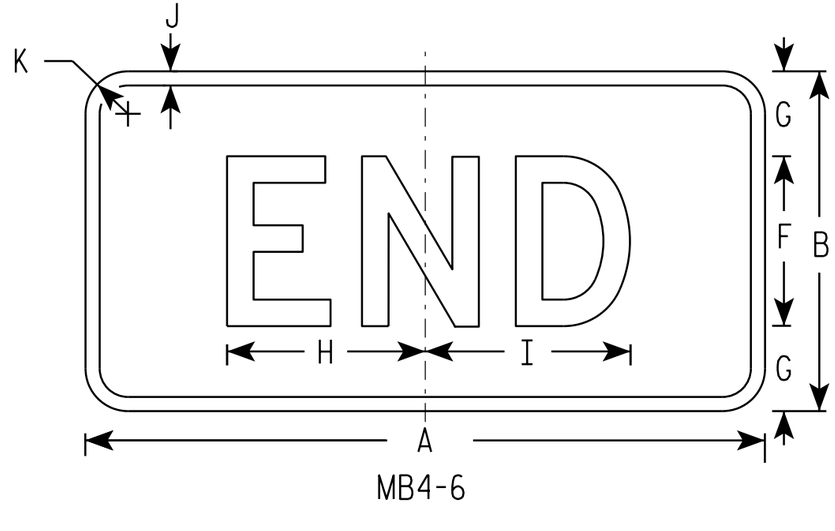
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/30/14 PLATE M4-5.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



M4-6
MK4-6
MM4-6
MN4-6
MR4-6



MB4-6

NOTES

1. Sign is Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
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. M4-6 Background - White
   Message - Black

   MB4-6 Background - Blue
   Message - White

   MK4-6 Background - Green
   Message - White

   MM4-6 Background - White
   Message - Green

   MN4-6 Background - Brown
   Message - White

   MR4-6 Background - Brown
   Message - Yellow

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	7	7 1/4	1/2	1 1/2																2.00
3	36	18	1 1/8	3/8	1/2	9	4 1/2	12	11 7/8	1/2	1 1/2																4.5
4	36	18	1 1/8	3/8	1/2	9	4 1/2	12	11 7/8	1/2	1 1/2																4.5
5	36	18	1 1/8	3/8	1/2	9	4 1/2	12	11 7/8	1/2	1 1/2																4.5

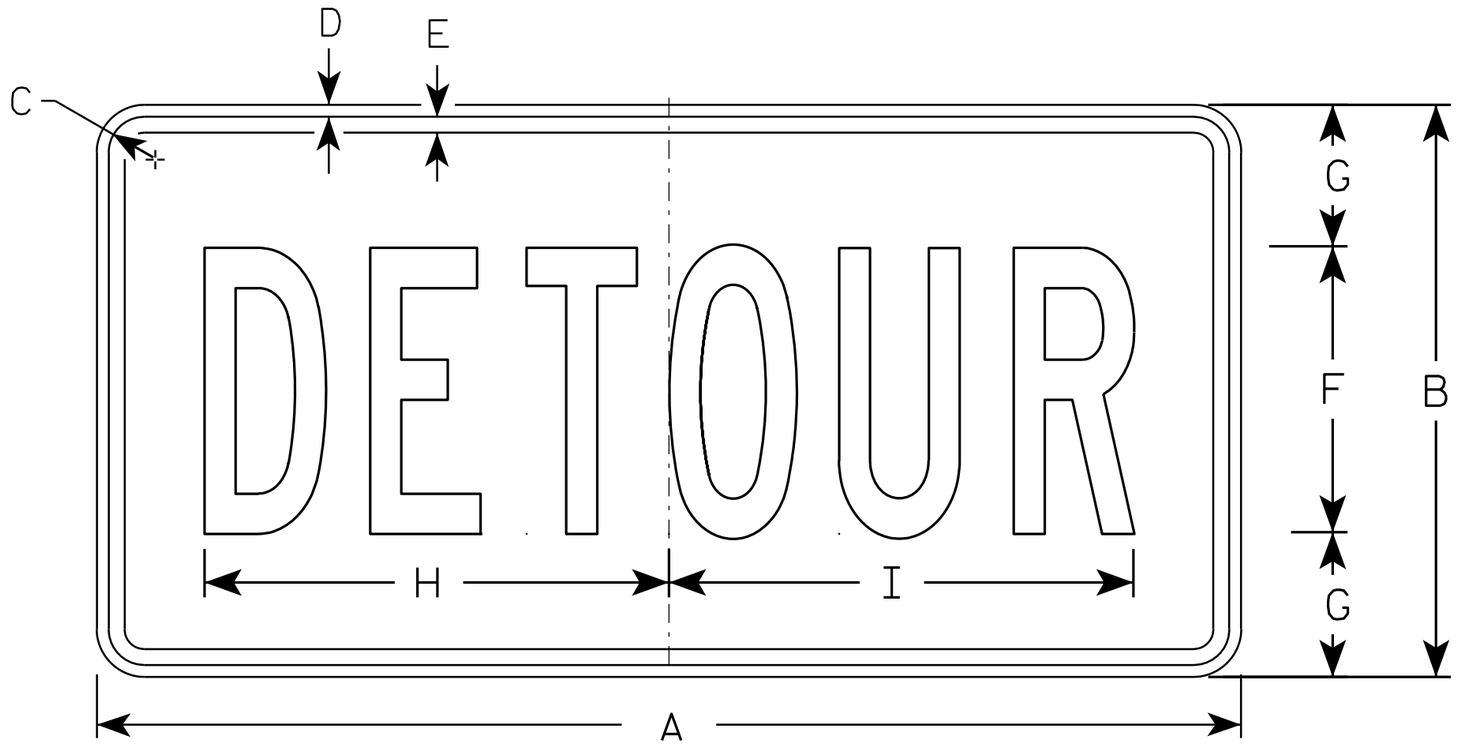
STANDARD SIGN
M4-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/30/14 PLATE 324 '14-7.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



M4-8

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - B
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																											
2	24	12	1 1/8	3/8	3/8	6	3	10	10 1/4																		2.0
3	36	18	1 1/8	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
4																											
5																											

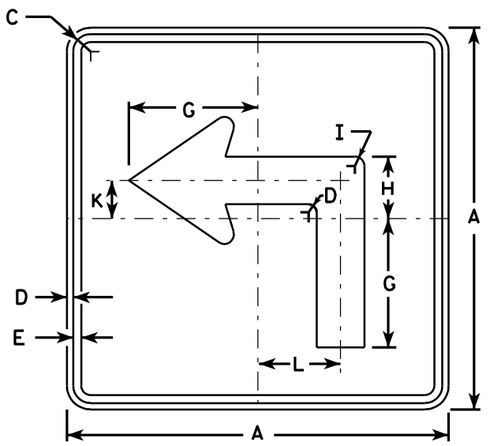
STANDARD SIGN
M4-8

WISCONSIN DEPT OF TRANSPORTATION

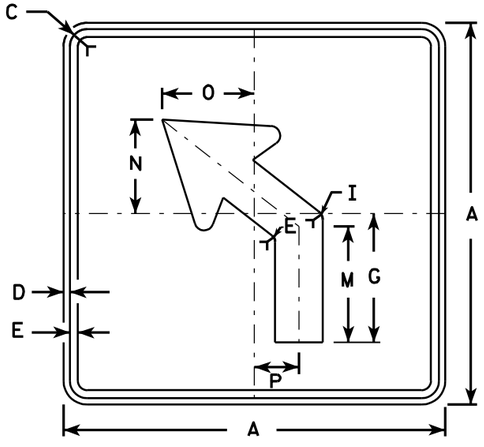
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/10/10 PLATE NO. M4-8.2

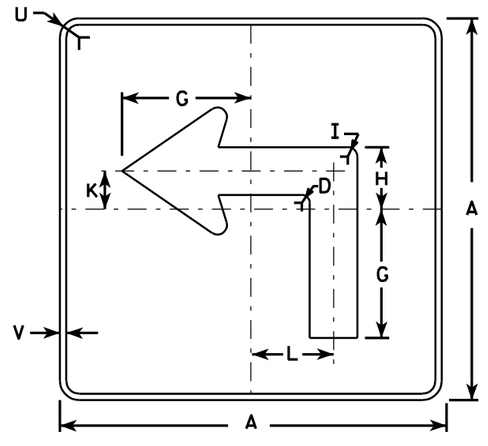
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 325	E



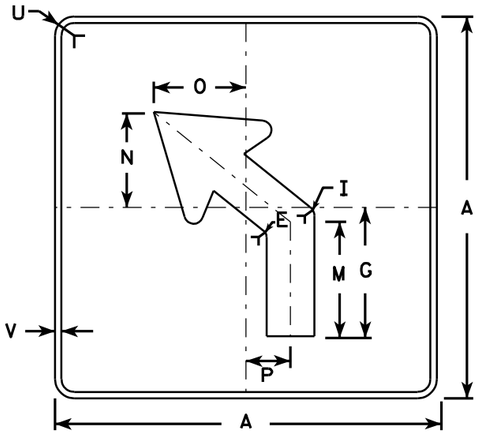
M5-1L
MK5-1L
MM5-1L
MO5-1L
MP5-1L
MR5-1L



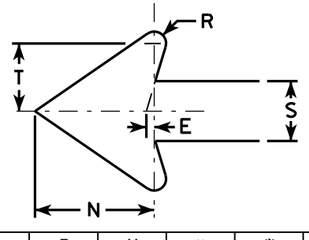
M5-2L
MK5-2L
MM5-2L
MO5-2L
MP5-2L
MR5-2L



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

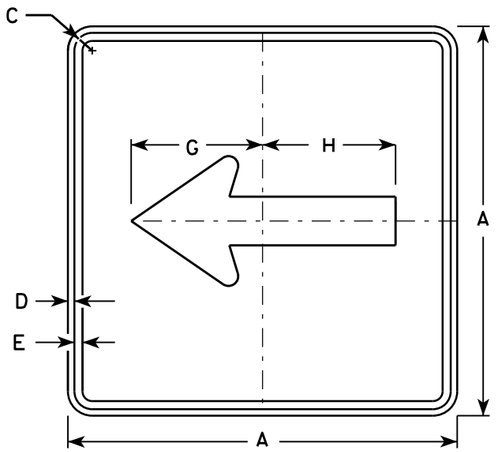
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/29/13 PLATE NO. M5-1.12

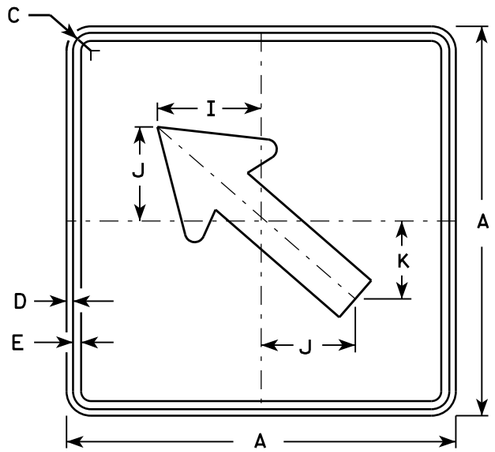
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 326 | E

7

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\M51.DGN PLOT DATE : 29-JUL-2013 13:34 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 11.908552:1.000000
WISDOT/CADDS SHEET 42



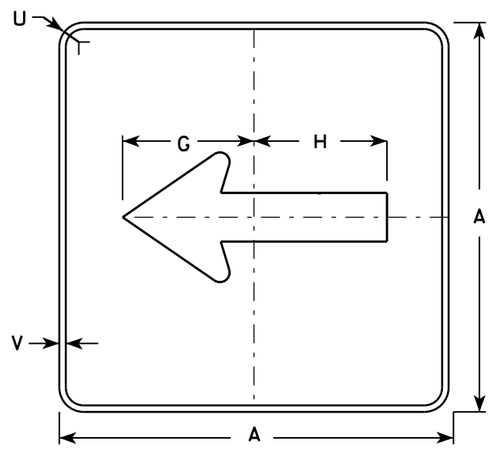
M6-1
MK6-1
MM6-1
MN6-1
MO6-1
MP6-1
MR6-1



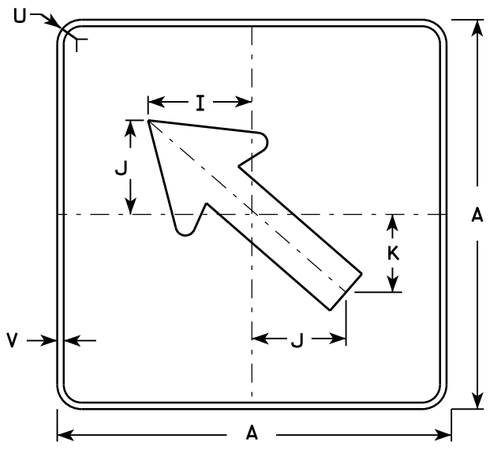
M6-2
MK6-2
MM6-2
MN6-2
MO6-2
MP6-2
MR6-2

NOTES

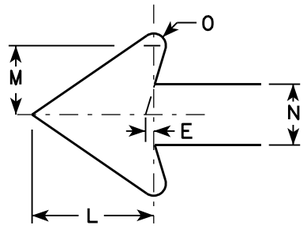
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White
   Message - Black
   MB6-1 and MB6-2 Background - Blue
   Message - White
   MG6-1 and MG6-2 Background - Green
   Message - White
   MK6-1 and MK6-2 Background - Green
   Message - White
   MM6-1 and MM6-2 Background - White
   Message - Green
   MN6-1 and MN6-2 Background - Brown
   Message - White
   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black
   MP6-1 and MP6-2 Background - White
   Message - Blue
   MR6-1 and MR6-2 Background - Brown
   Message - Yellow



MB6-1



MB6-2



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

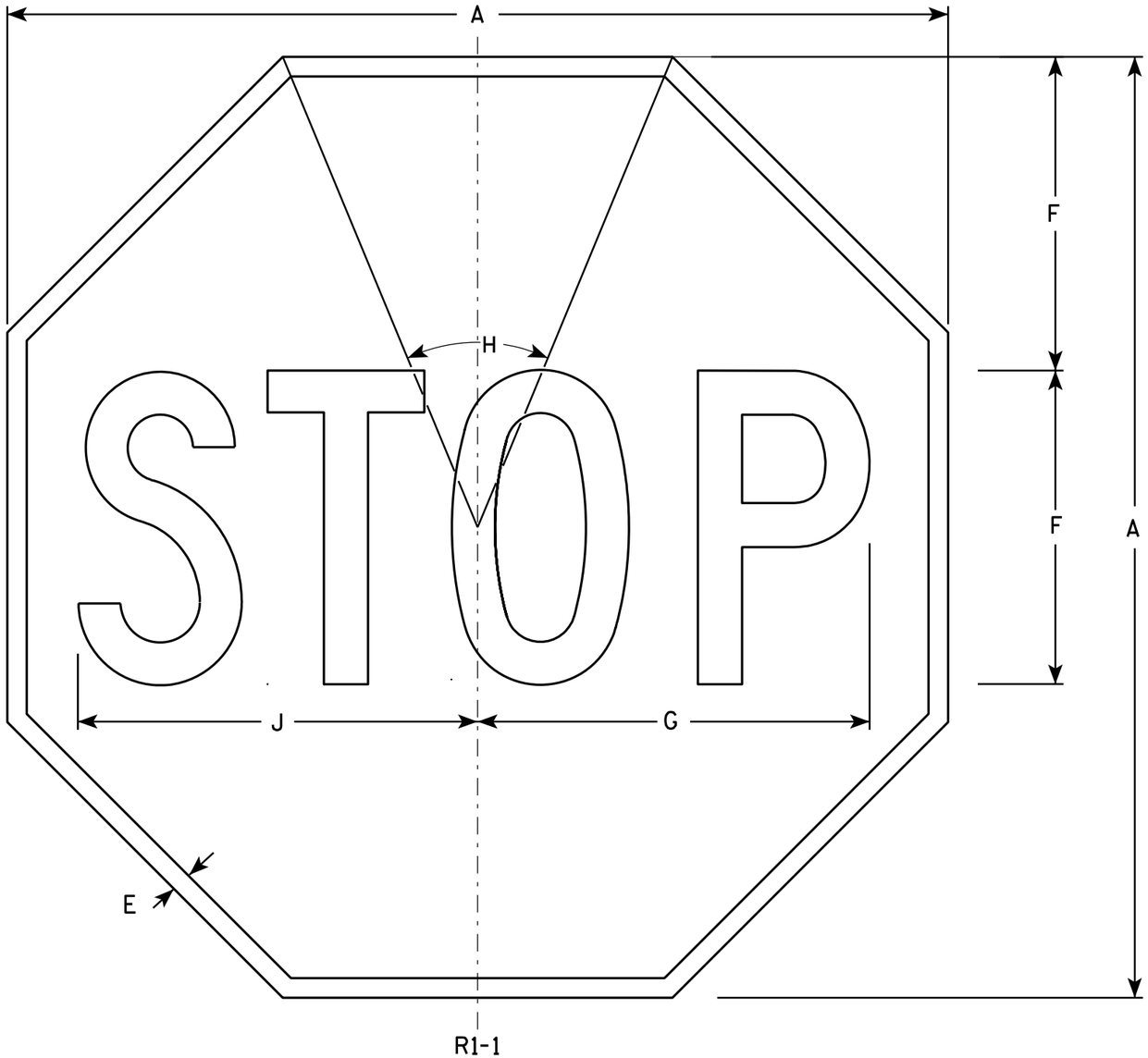
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 7/03/14 PLATE M6-1.14

PROJECT NO: | HWY: | COUNTY: | | SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\M61.DGN PLOT DATE : 03-JUL-2014 14:28 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 11.675051:1.000000

WISDOT/CADDS SHEET 42



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

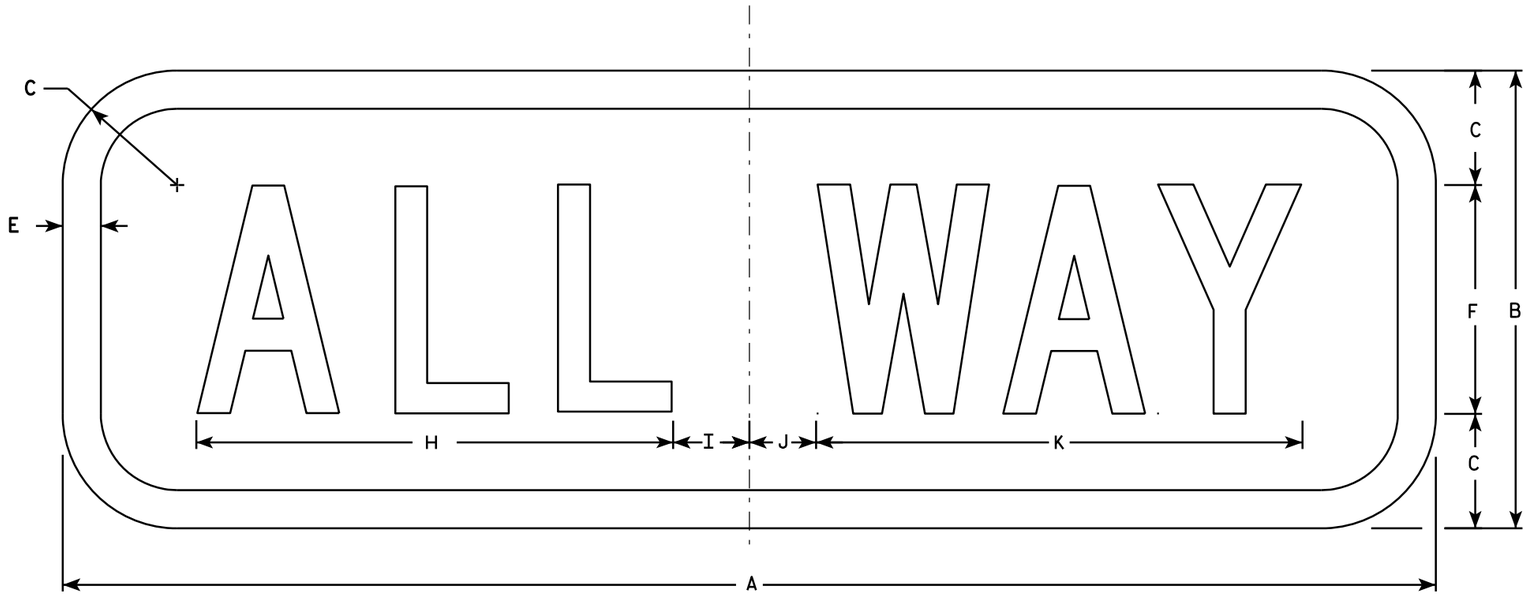
STANDARD SIGN
R1-1

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: 328	E



R1-3P

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. 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	18	6	1 1/2		1/2	3		6 1/4	1 1/4	7/8	6 3/8																0.75
2S	18	6	1 1/2		1/2	3		6 1/4	1 1/4	7/8	6 3/8																1.5
2M	24	9	1 1/2		1/2	5		9 1/4	1 1/4	3/4	9 3/4																1.5
3	30	12	2 1/4		5/8	6		11	2 1/4	1 1/2	11 3/4																2.5
4																											
5																											

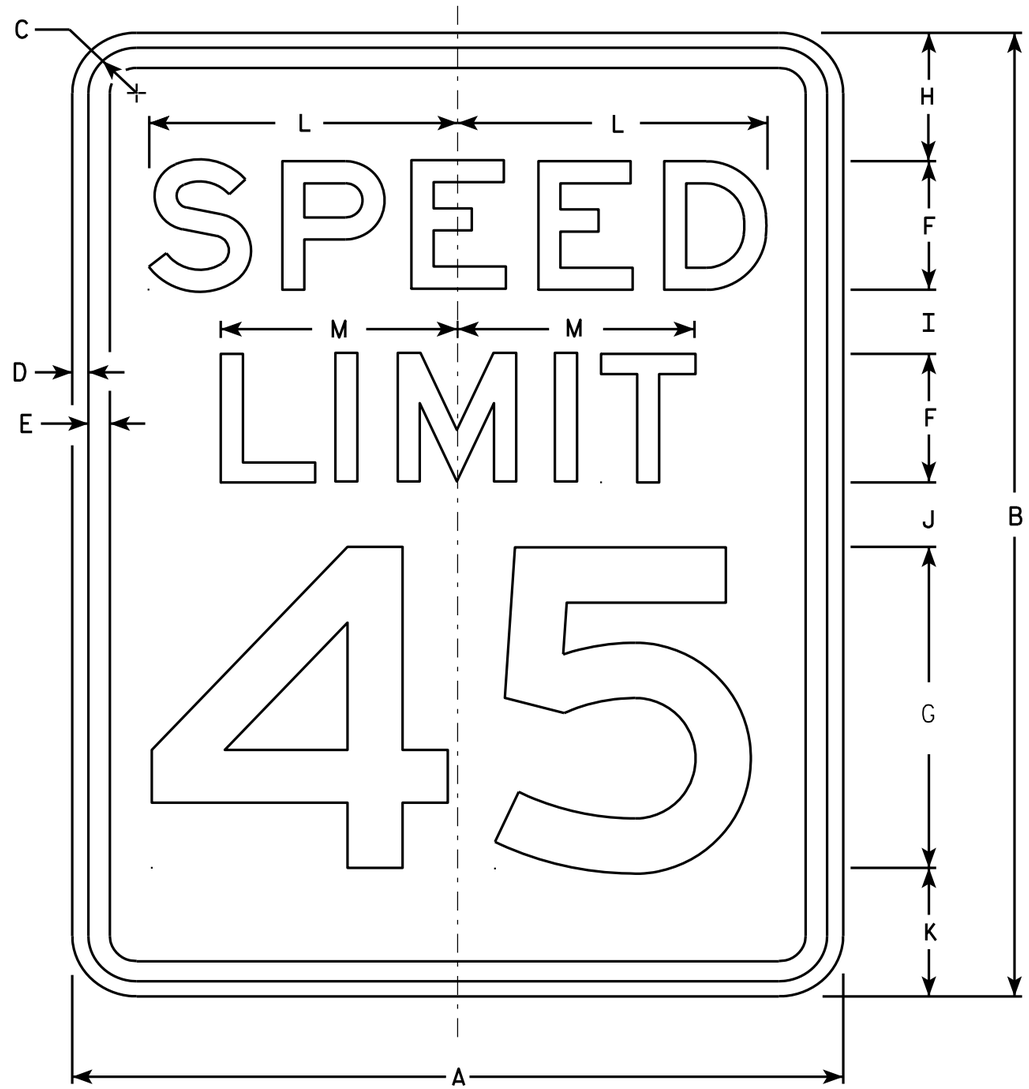
STANDARD SIGN
R1-3P

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/02/10 PLATE NO. R1-3P.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 329	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

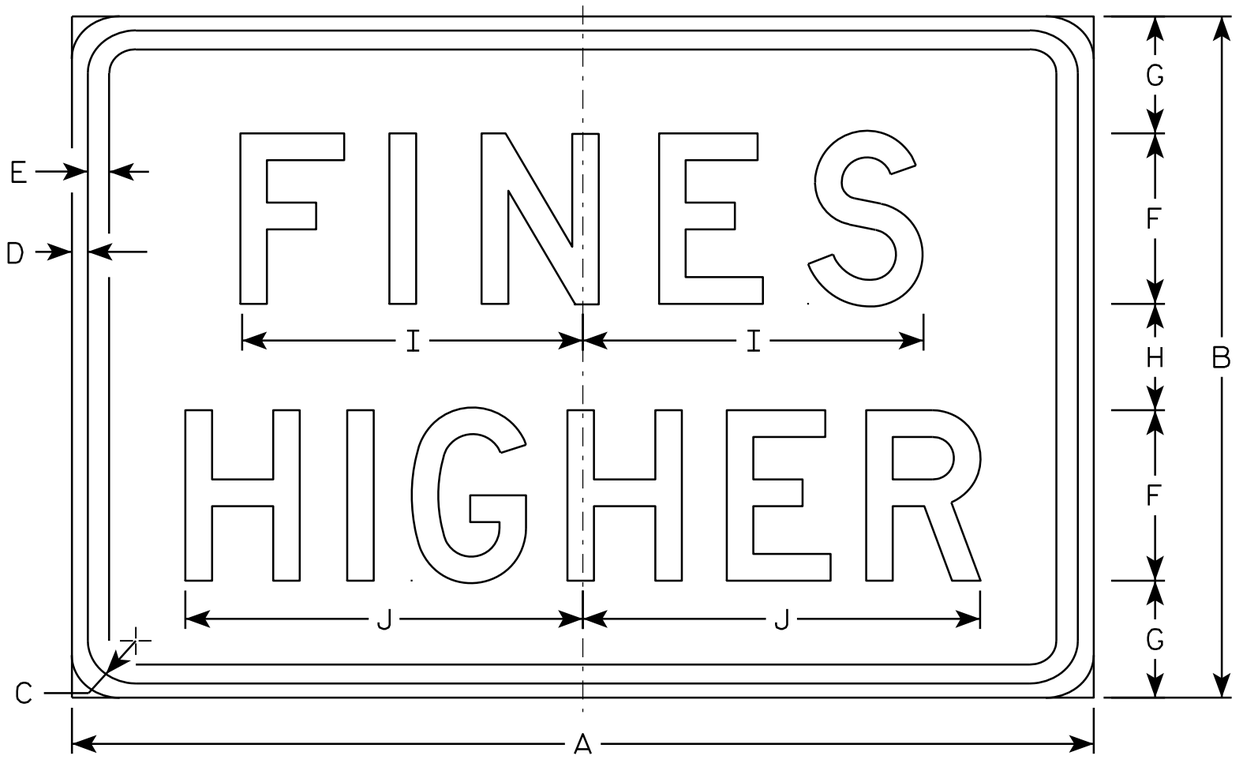
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/26/10 PLATE NO. R2-1.13

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 330 | E

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

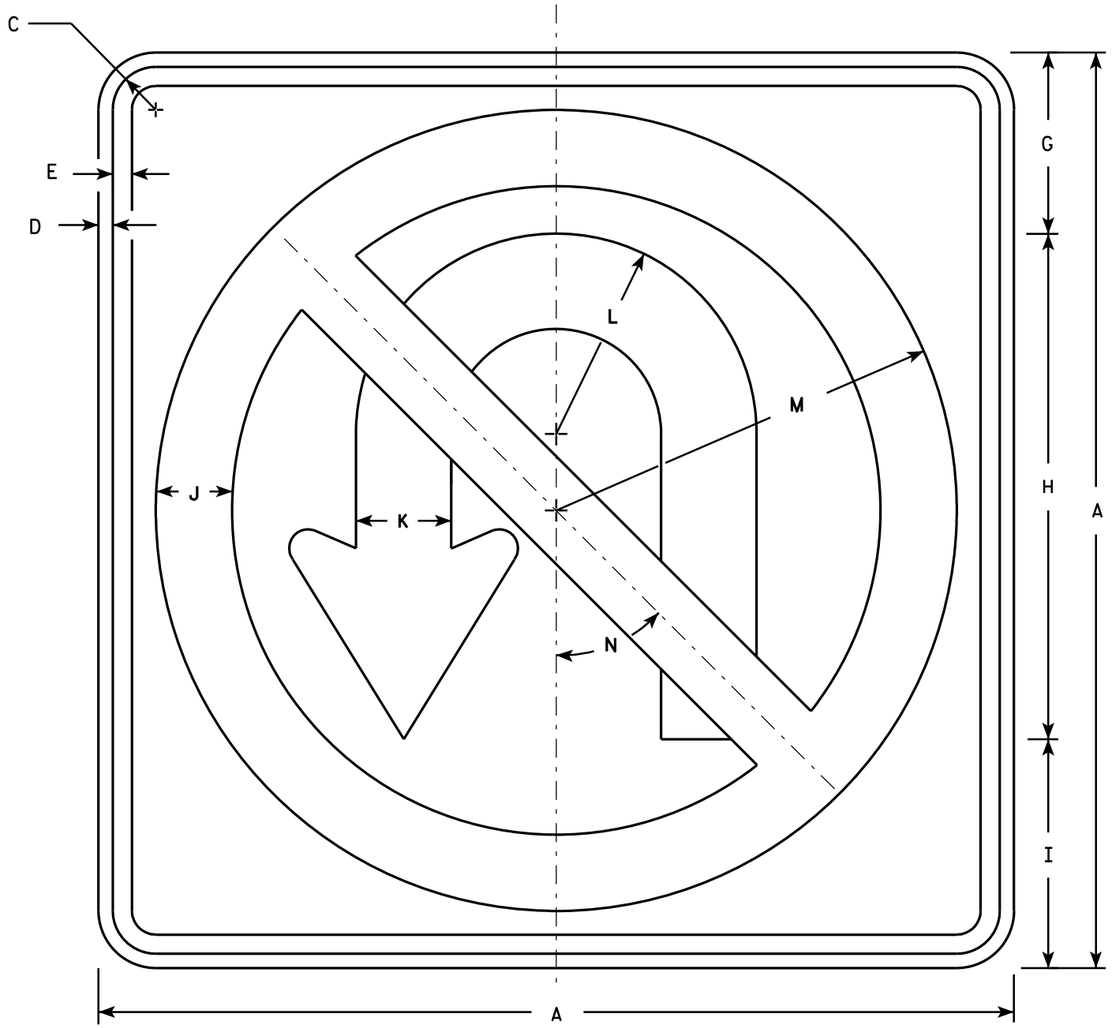
STANDARD SIGN
R2-6P

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/20/10 PLATE NO. R2-6P.2

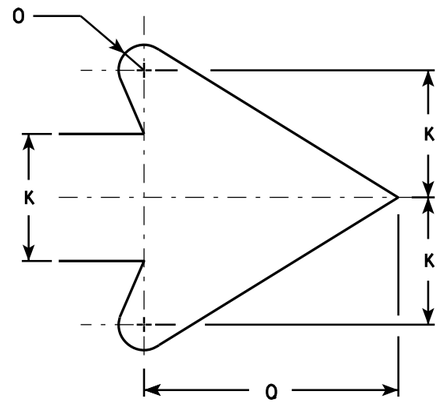
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 331 | E



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	O	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

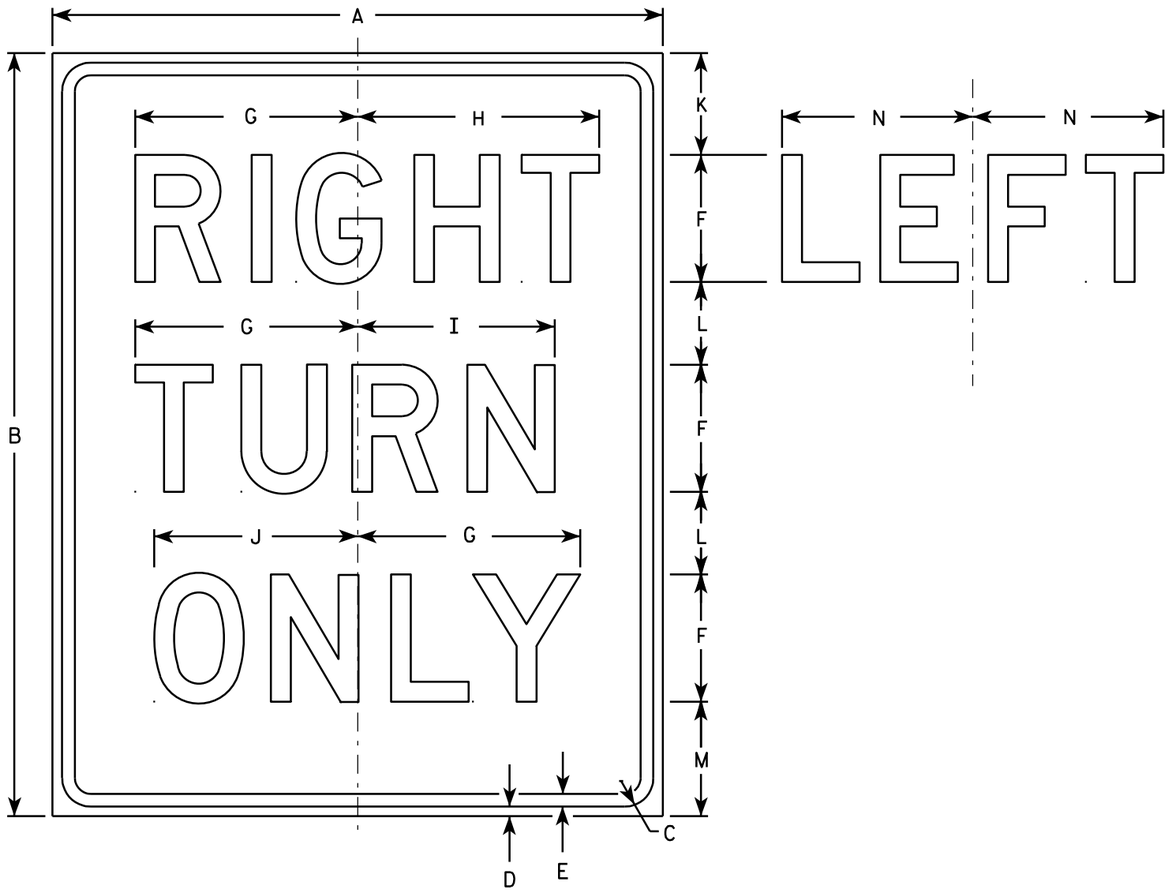
STANDARD SIGN
R3-4

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: 332	E



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																											

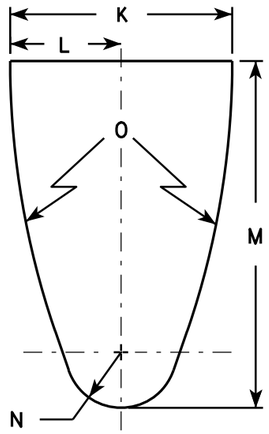
STANDARD SIGN
R3-53

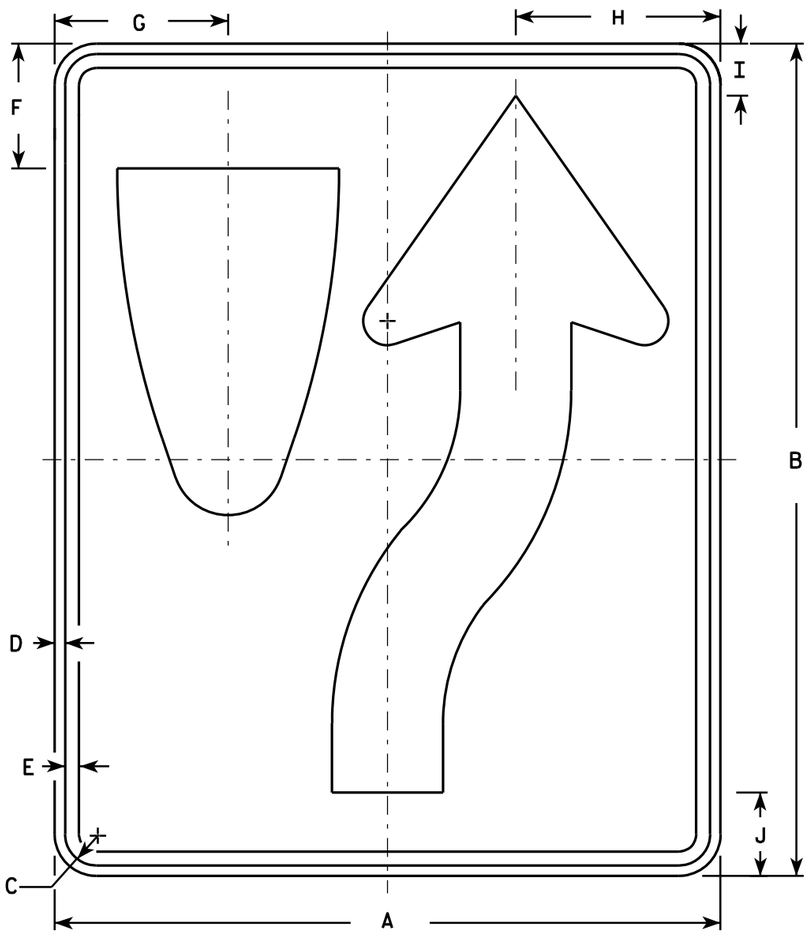
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/24/2011 PLATE NO. R3-53.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 333	E

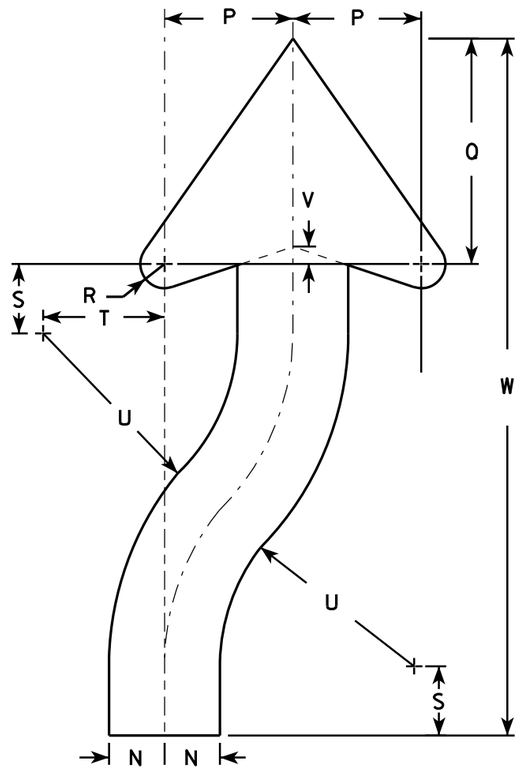




R4-7

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

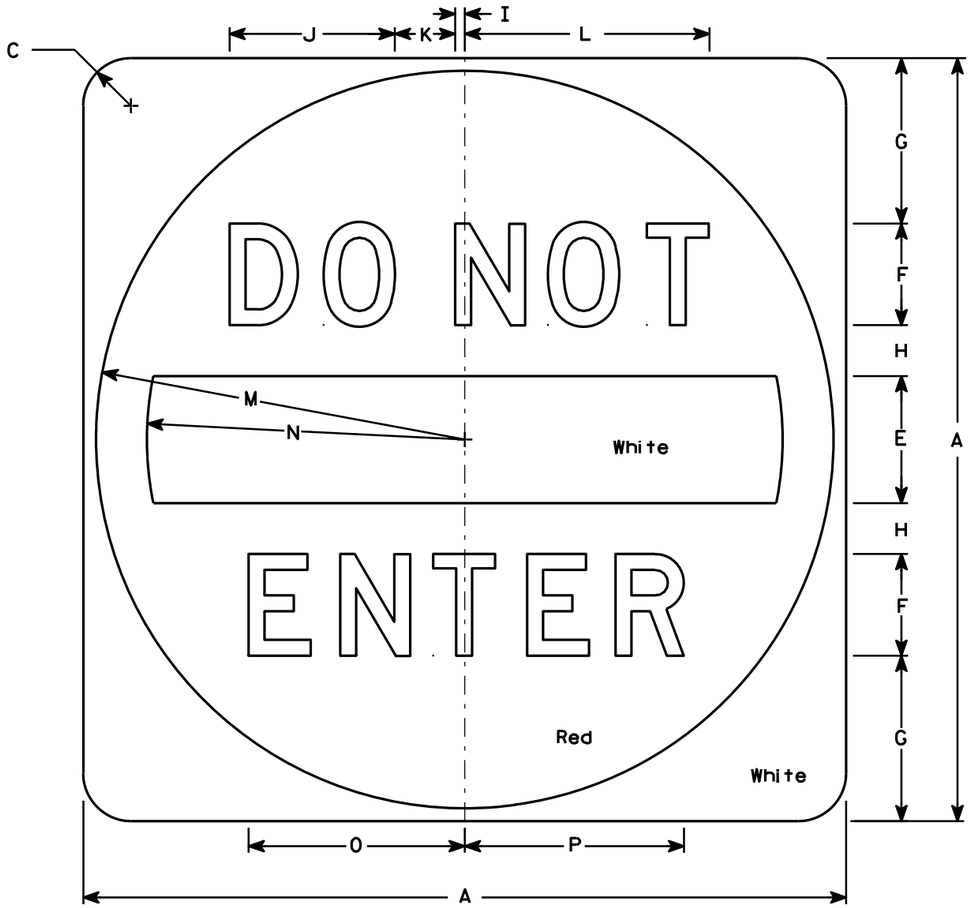
STANDARD SIGN
R4-7 & R4-8

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: 334	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

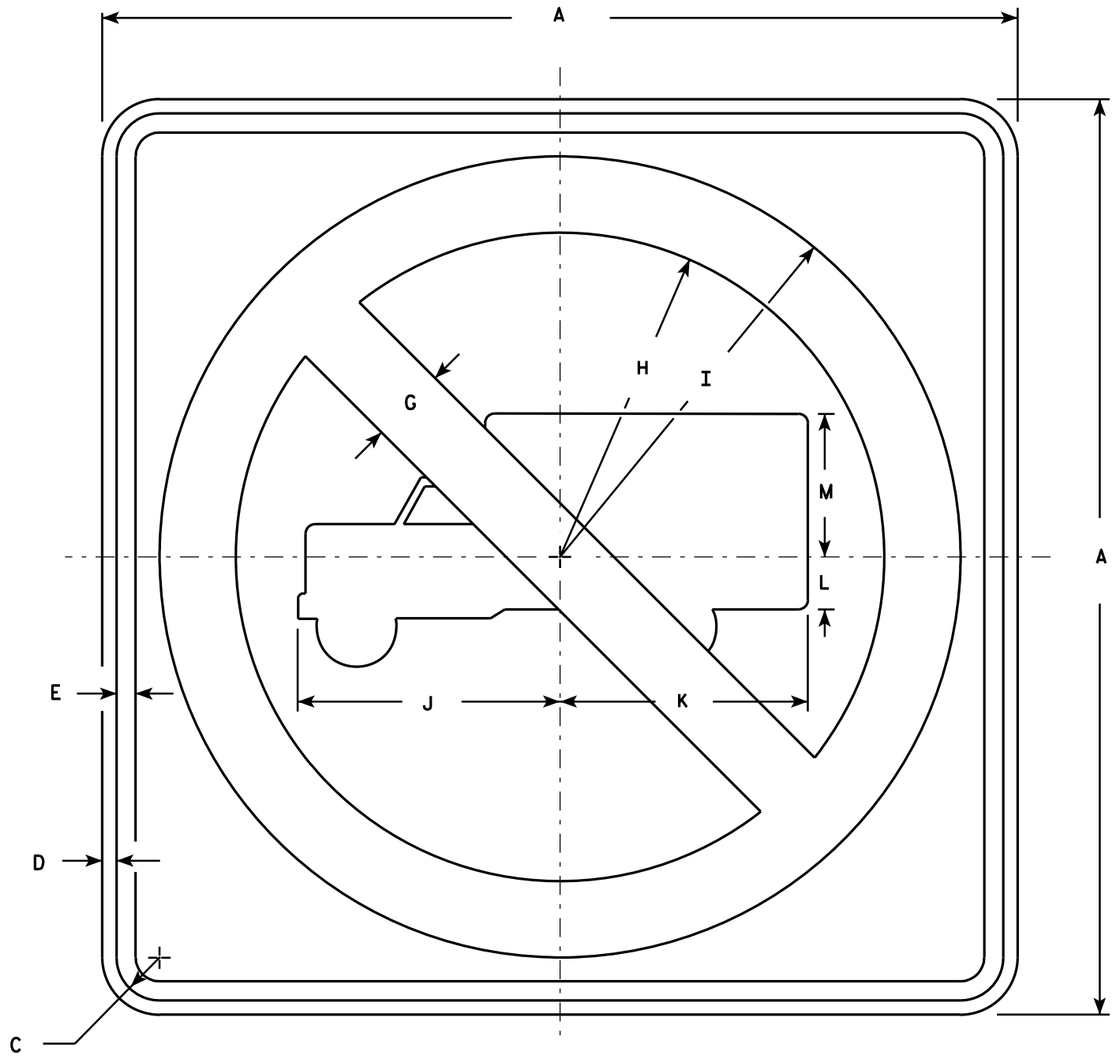
STANDARD SIGN
R5-1

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: 335 | E



R5-2

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. Circle & Diagonal - Reflective red.
   Truck Symbol & Border - Non-reflective black.

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		2	8 1/2	10 1/2	6 7/8	6 1/2	1 3/8	3 3/4														4.0
2M	24		1 1/8	3/8	1/2		2	8 1/2	10 1/2	6 7/8	6 1/2	1 3/8	3 3/4														4.0
3	30		1 3/8	1/2	5/8		2 1/2	10 5/8	13 1/8	8 1/2	8 1/8	1 5/8	4 3/4														6.25
4	36		1 5/8	5/8	3/4		3	12 3/4	15 3/4	10 1/4	9 3/4	2	5 3/4														9.0
5	48		2 1/4	3/4	1		4	17	21	13 5/8	13	2 5/8	7 5/8														16.0

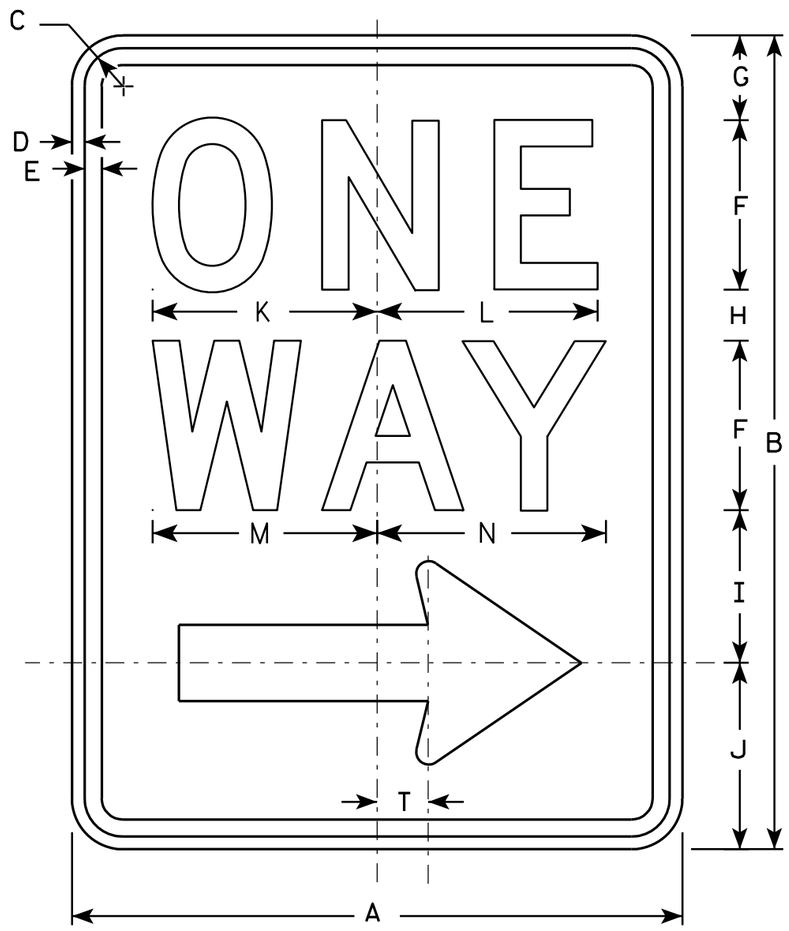
STANDARD SIGN
R5-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/29/2011 PLATE NO. R5-2.6

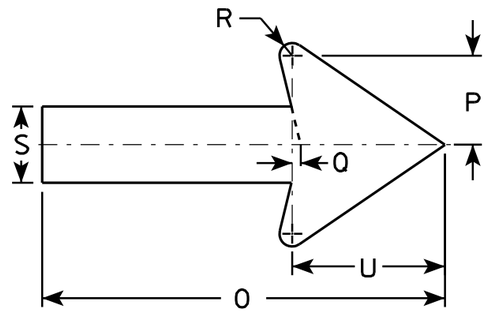
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 336	E



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																										

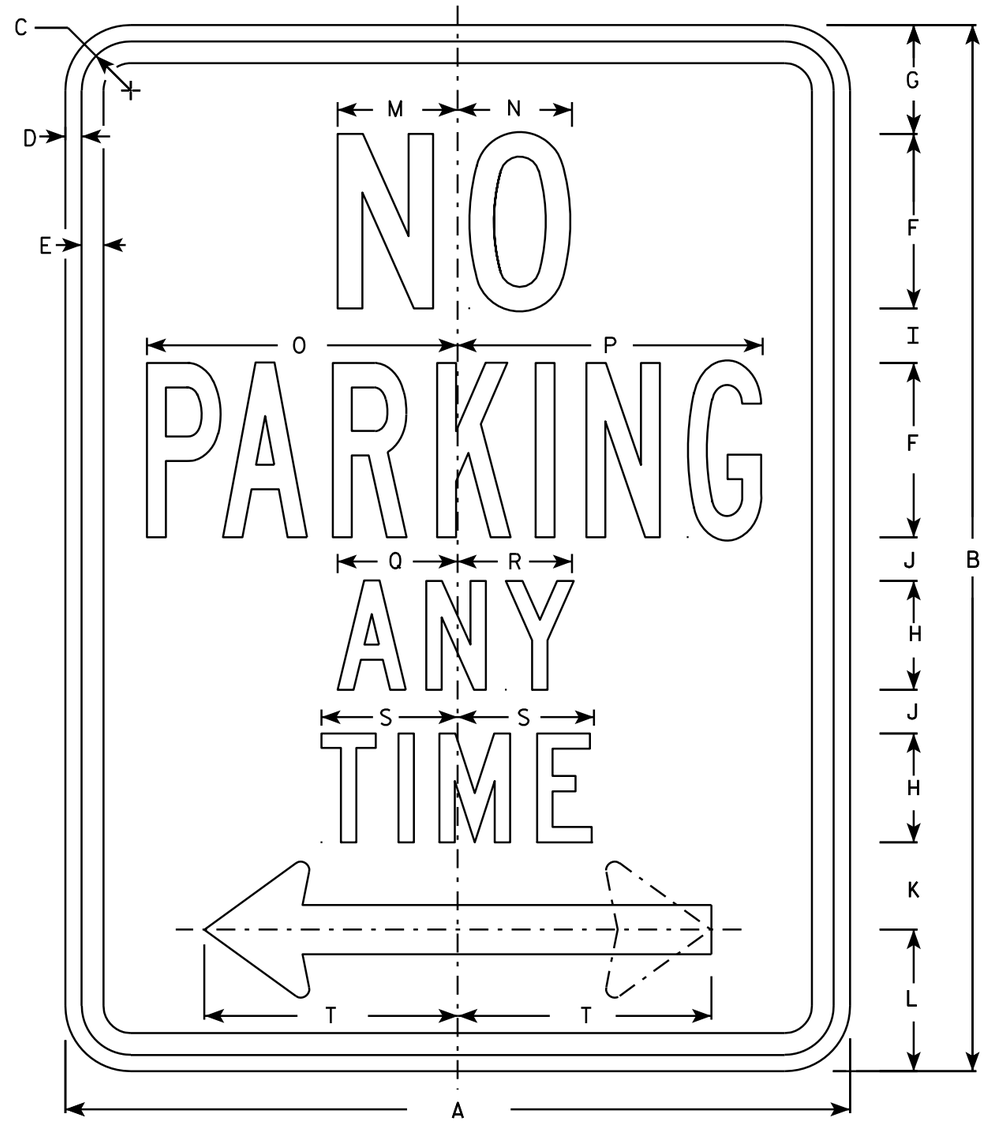
STANDARD SIGN
R6-2 R&L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/2/10 PLATE NO. R6-2.8

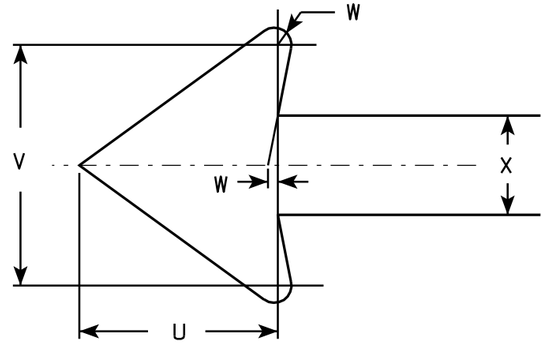
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 337	E



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: 338	E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R71.DGN PLOT DATE : 31-MAR-2011 09:20 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 3.476110:1.000000

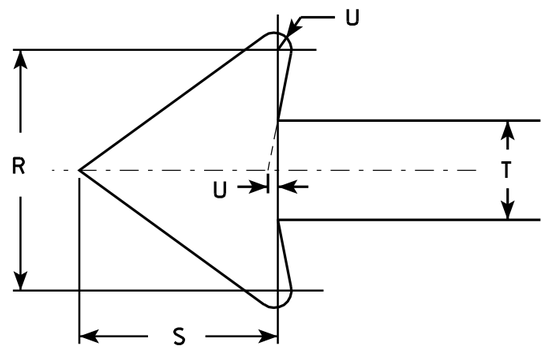
WISDOT/CADDS SHEET 42

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

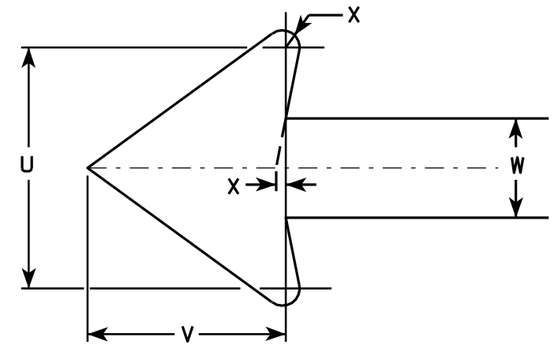
DATE 3/31/2011 PLATE NO. R7-2.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 339	E

R7-7

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Red
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. R7-7D (double arrow)
   R7-7R (right arrow)
   R7-7L (left arrow)
6. Lines 1, 3 and 4 are Series C.
   Line 2 is Series B.



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	12	18	1 1/8	3/8	3/8	3	2	1 7/8	7/8	5/8	1 1/2	2 1/2	2	2	4 7/8	4 7/8	2	2 3/4	2 5/8	3 7/8	1 3/4	1 1/2	3/4	1/8			1.50
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 1/2	3 3/8	3 3/8	5 7/8	2 5/8	2 1/4	1 1/8	1/4			3.00
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	4 1/8	4	7 3/4	3 1/2	3	1 1/2	1/4			5.00
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	4 1/8	4	7 3/4	3 1/2	3	1 1/2	1/4			5.00
4																											
5																											

STANDARD SIGN
R7-7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R7-7.8

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 340 | E

7

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R77.DGN PLOT DATE : 31-MAR-2011 10:59 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 3.476110:1.000000
WISDOT/CADDS SHEET 42

R8-52

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. Lines 1, 3, and 4 are Series D. Line 2 shall be 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	18	24	1 1/8	3/8	1/2	4	2 1/2	2 1/2	2	3 3/8	7	2 1/8	6 1/8														3.0
2S	24	30	1 1/8	3/8	1/2	5	3 5/8	3	2 1/4	4 1/8	8 3/4	2 5/8	7 5/8														5.0
2M	24	30	1 1/8	3/8	1/2	5	3 5/8	3	2 1/4	4 1/8	8 3/4	2 5/8	7 5/8														5.0
3																											
4	36	48	1 3/4	1/2	5/8	8	6 1/4	4	3 7/8	6 5/8	14	3 3/8	9 7/8														12.0
5																											

STANDARD SIGN
R8-52

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/1/2011 PLATE NO. R8-52.5

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 341 | E

R9-9

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.

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	18	1 3/4	1/2	1/2	4	3 1/2	3	10 3/4	8 1/8																	3.75
2M	30	18	1 3/4	1/2	1/2	4	3 1/2	3	10 3/4	8 1/8																	3.75
3																											
4																											
5																											

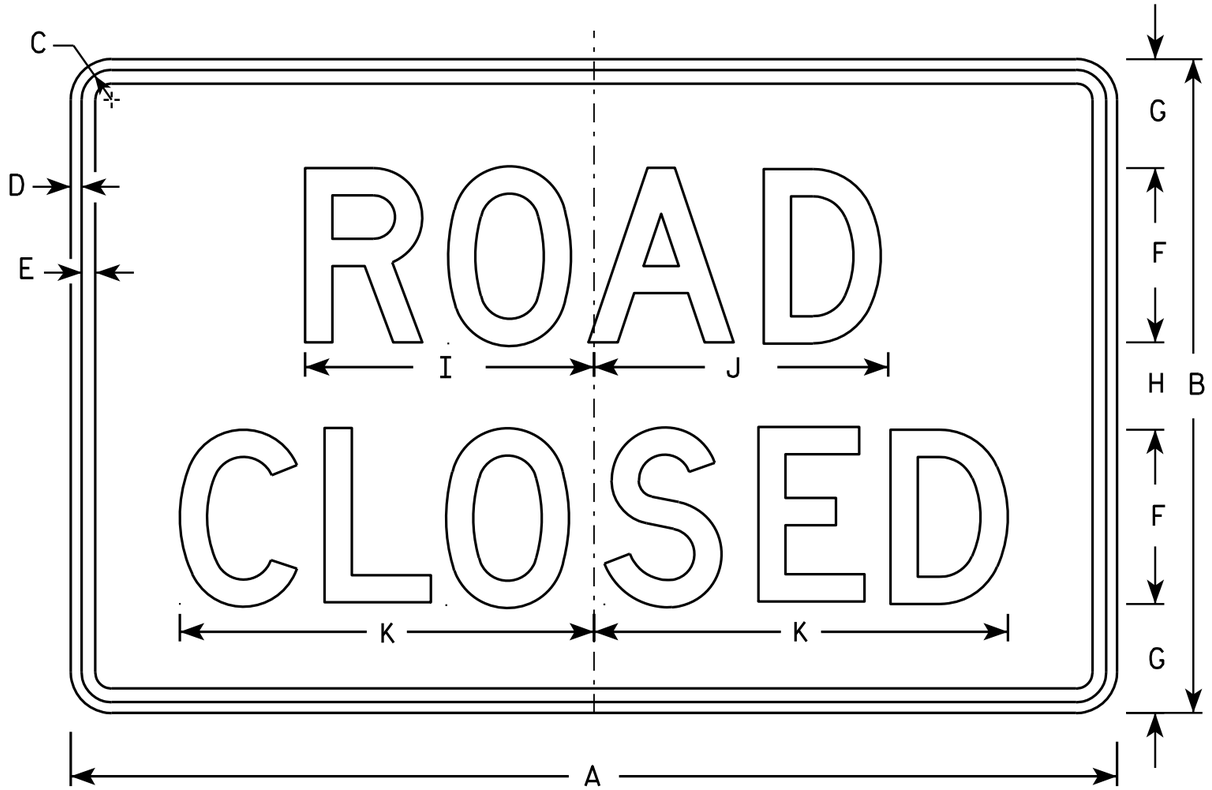
STANDARD SIGN
R9-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/1/2011 PLATE NO. R9-9.5

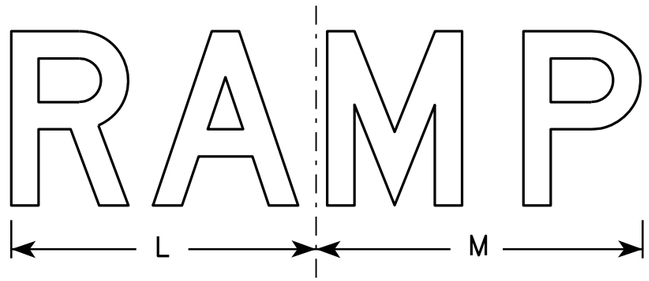
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 342	E



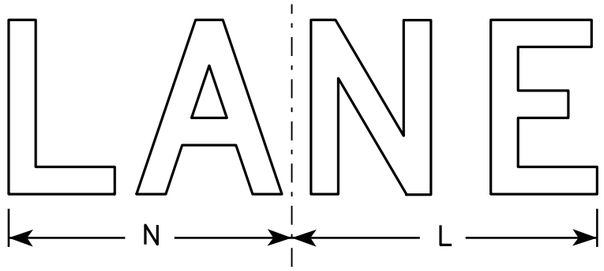
R11-2

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 - 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. Modify the message as required.



R11-2R



R11-2L

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	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
2M	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
3	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
4	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
5	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0

STANDARD SIGN
R11-2

WISCONSIN DEPT OF TRANSPORTATION

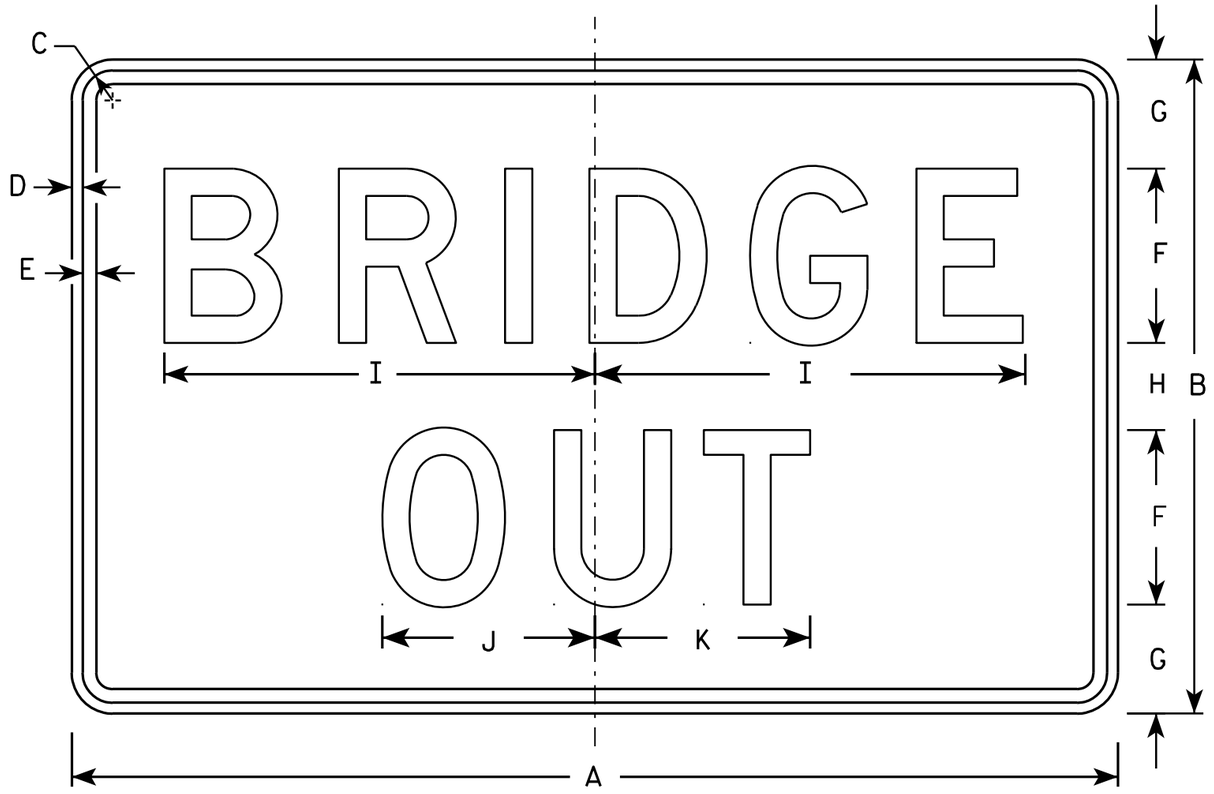
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-2.10

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 343	E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R112.DGN PLOT DATE : 01-APR-2011 14:25 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 6.952219:1.000000

WISDOT/CADDS SHEET 42



R11-2B

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	48	30	1 3/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
2M	48	30	1 3/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
3	48	30	1 3/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
4	48	30	1 3/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
5	48	30	1 3/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0

STANDARD SIGN
R11-2B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-2B.2

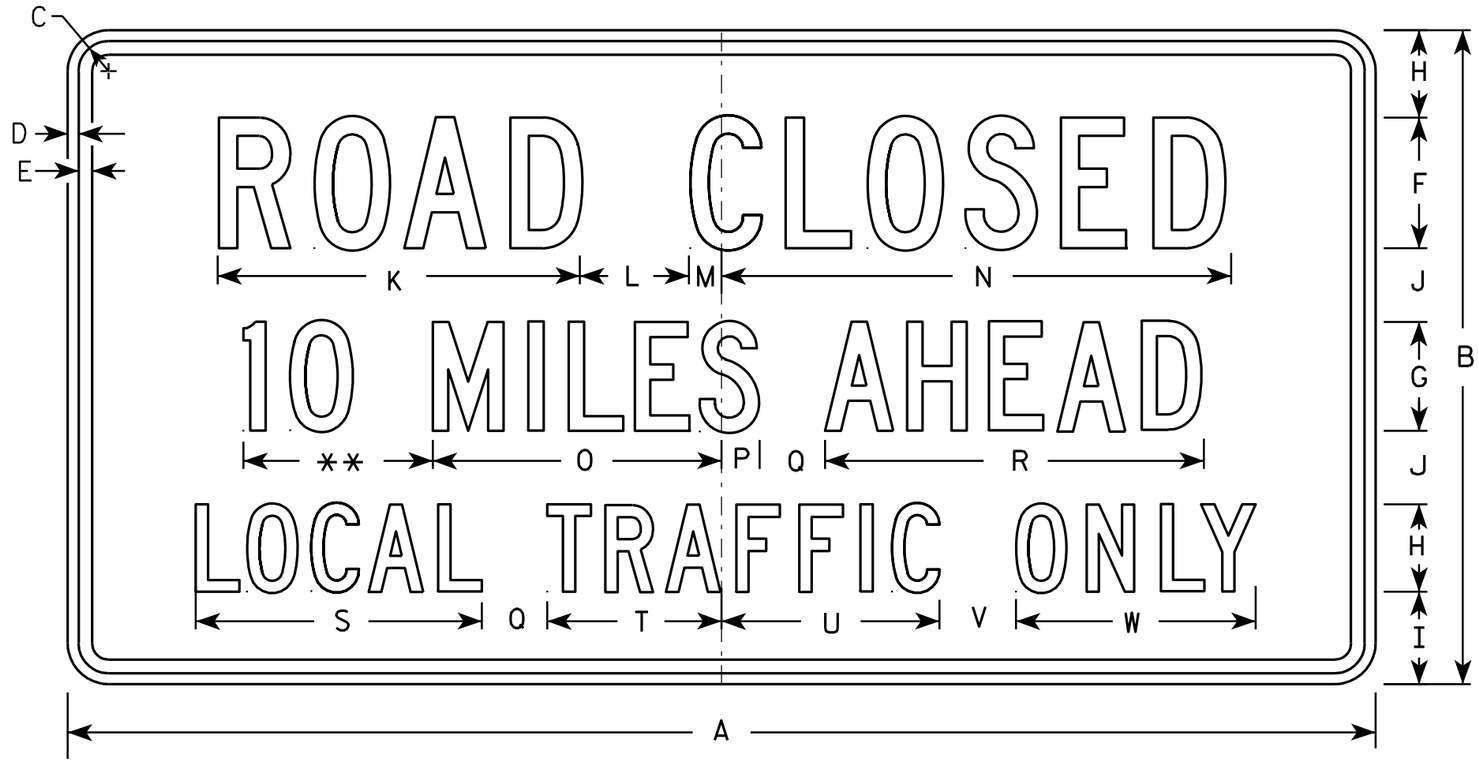
PROJECT NO:

SHEET NO: 344 E

7

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R112B.DGN PLOT DATE : 01-APR-2011 14:23 PLOT BY : mscj9h

WISDOT/CADDS SHEET 42



R11-3

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 - 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. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

** 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.
1	36	18	1 3/8	1/2	5/8	4	3	2 1/2	2	2	11 1/8	3	1 1/8	15 1/4	8	1 1/2	2	10 3/4	8 3/8	4 3/4	6 1/2	2	6 3/4				4.5
2S	60	30	1 3/8	1/2	5/8	6	5	4	4 1/4	3 3/8	16 5/8	5	1 1/2	23	13 1/4	1 3/4	3	17 3/8	13 1/8	8	10	3 1/2	11				12.5
2M	60	30	1 3/8	1/2	5/8	6	5	4	4 1/4	3 3/8	16 5/8	5	1 1/2	23	13 1/4	1 3/4	3	17 3/8	13 1/8	8	10	3 1/2	11				12.5
3																											
4																											
5																											

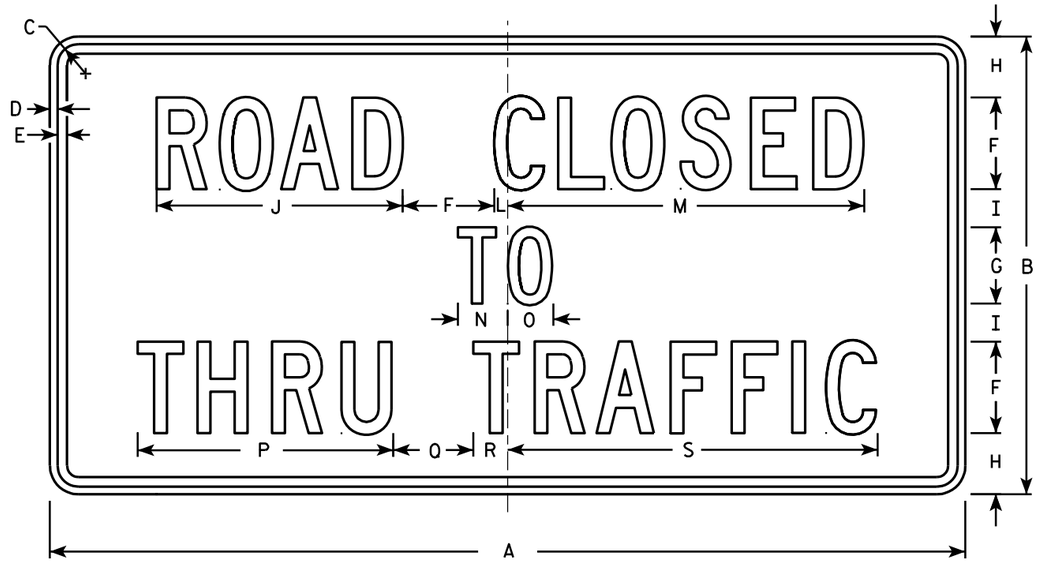
STANDARD SIGN
R11-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-3.6

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 345 | E



R11-4

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 - 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	60	30	1 3/8	1/2	5/8	6	5	4	2 1/2	16 1/8		7/8	23 3/8	3 1/4	3	16 3/4	5 1/4	2 1/4	24 1/4								12.5
2M	60	30	1 3/8	1/2	5/8	6	5	4	2 1/2	16 1/8		7/8	23 3/8	3 1/4	3	16 3/4	5 1/4	2 1/4	24 1/4								12.5
3																											
4																											
5																											

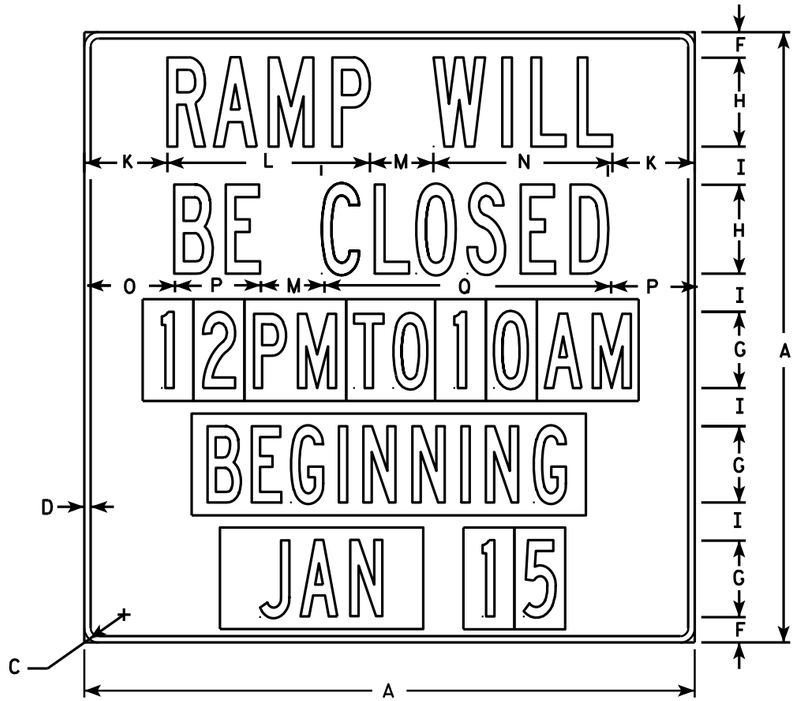
STANDARD SIGN
R11 - 4

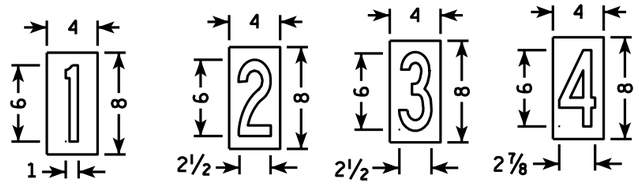
WISCONSIN DEPT OF TRANSPORTATION

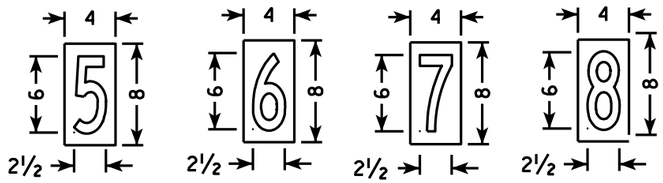
APPROVED Matthew R Rauch for State Traffic Engineer

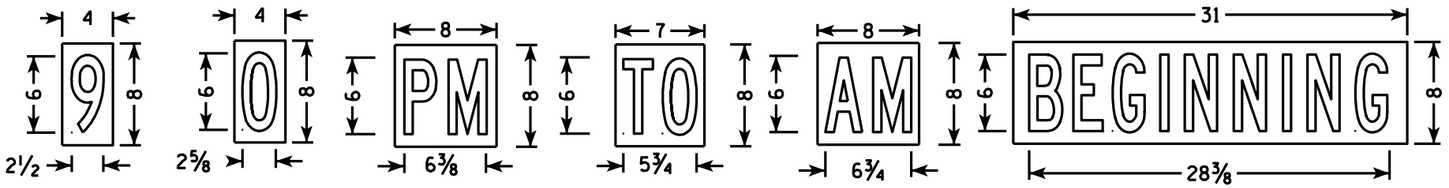
DATE 4/1/11 PLATE NO. R11-4.3

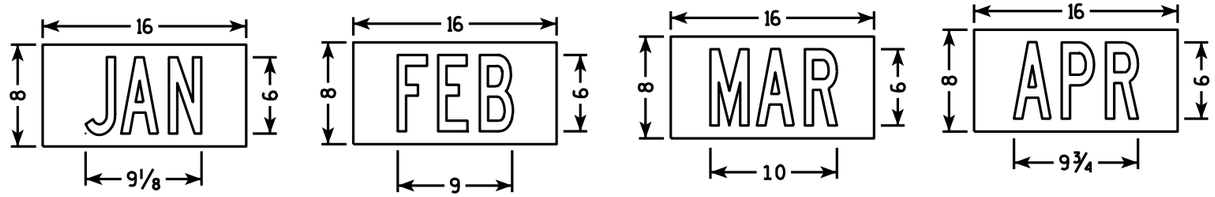
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 346	E

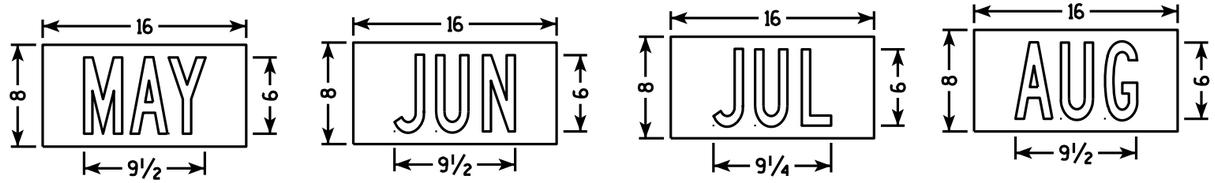


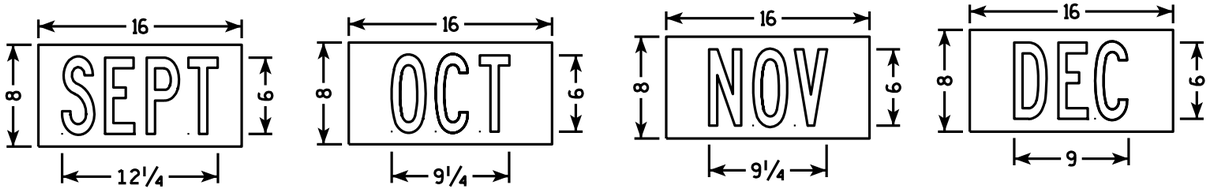












NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - B
4. Message plaques consist of Type H Reflective sheeting with the appropriate non-reflective black message applied to .040 aluminum and screwed to the base sign.

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		2 1/4	1/2		2	6	7	3		6 1/2	15 7/8	5	14 1/8	6 7/8	6 3/4	22 1/2										16.0
2M	48		2 1/4	1/2		2	6	7	3		6 1/2	15 7/8	5	14 1/8	6 7/8	6 3/4	22 1/2										16.0
3																											
4																											
5																											

STANDARD SIGN
R11-51

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-51.4

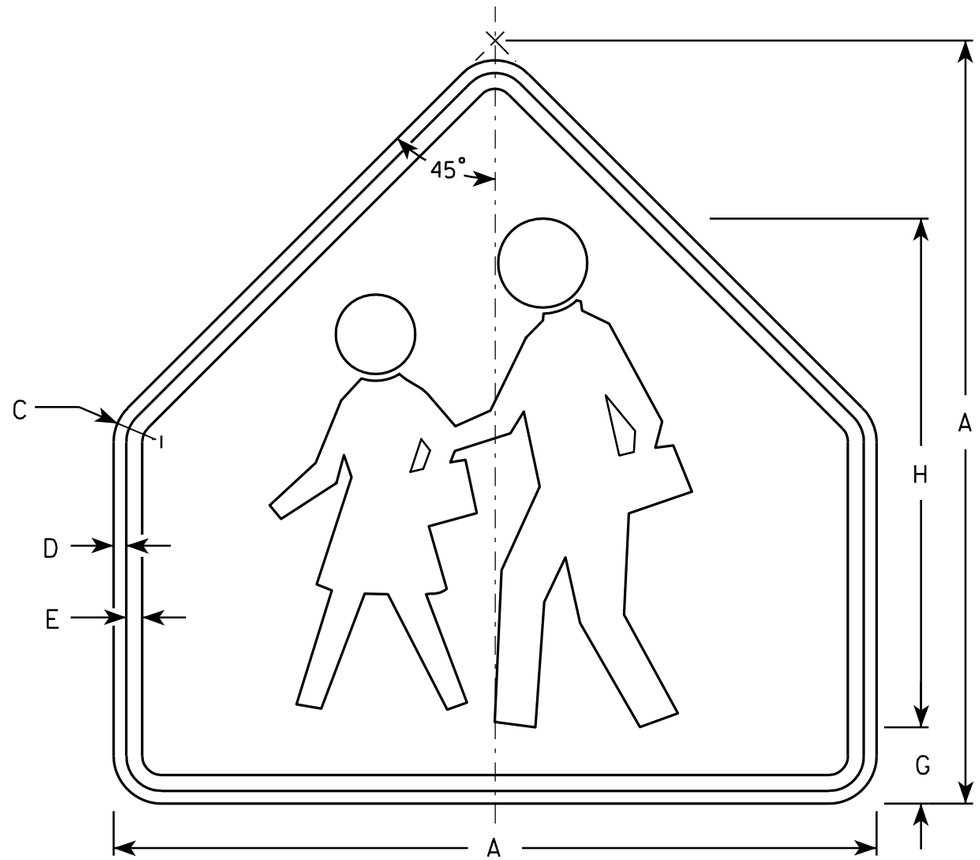
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 347	E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R1151.DGN PLOT DATE : 01-APR-2011 14:07 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 11.918087:1.000000

WISDOT/CADDS SHEET 42

7

7



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																											

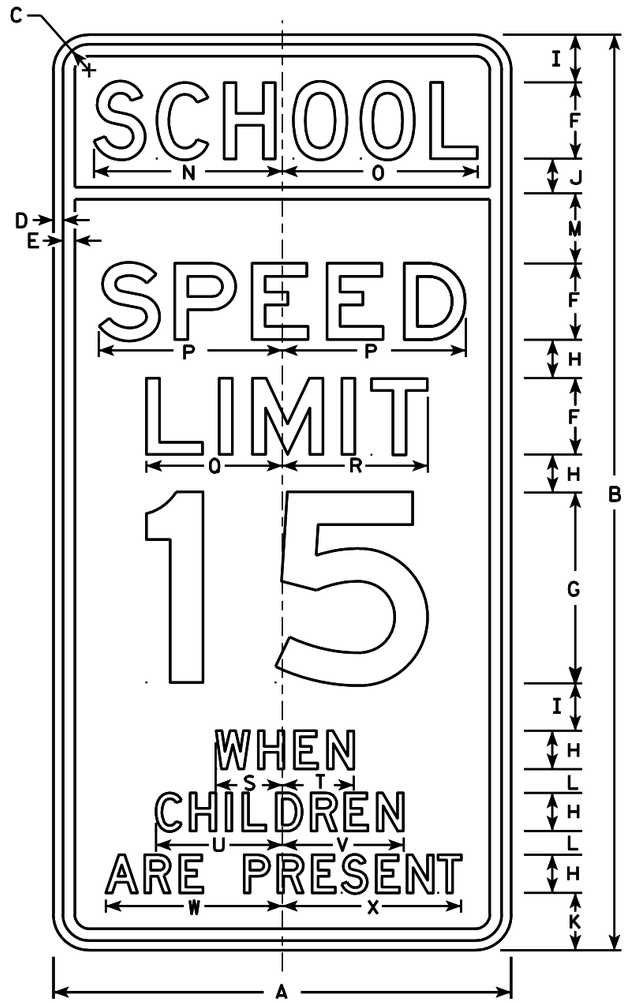
STANDARD SIGN
S1-1

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: 348	E



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																												

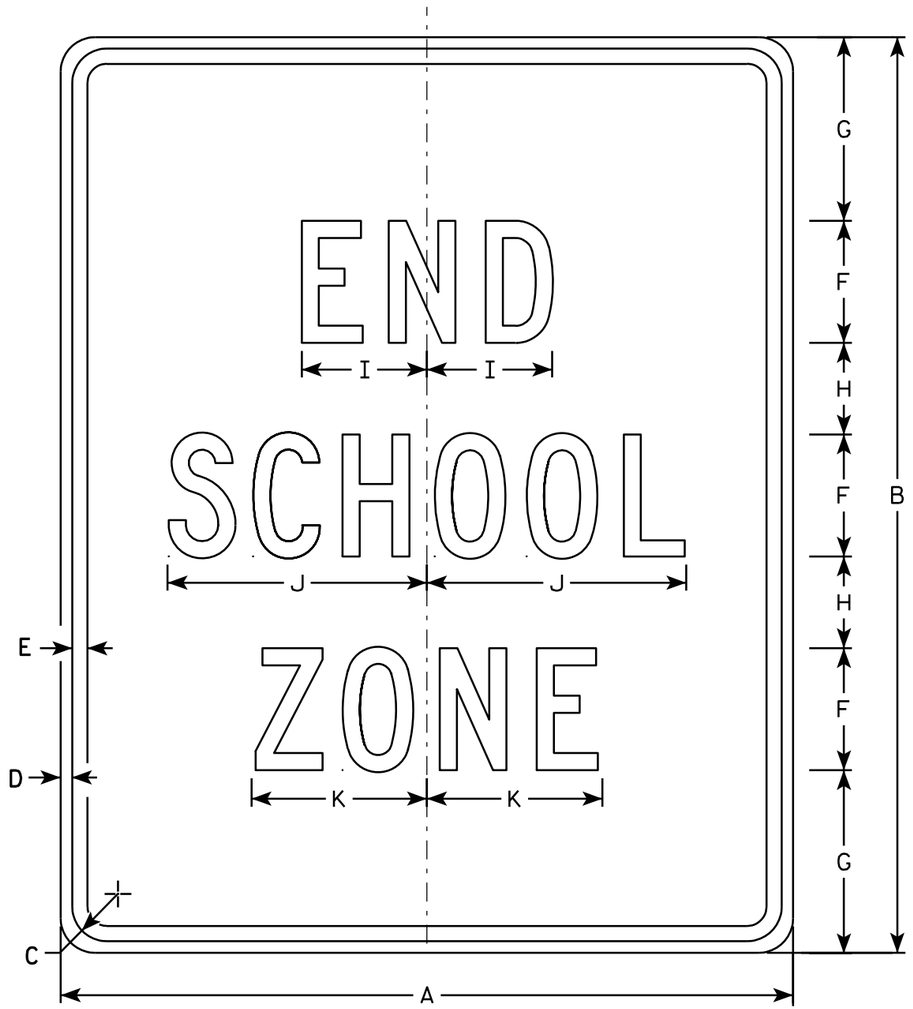
STANDARD SIGN
S4-51

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: 349	E



S5-2

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 - 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																											
2	24	30	1 1/8	3/8	1/2	4	6	3	4 1/8	8 1/2	5 3/4																5.0
3	36	42	1 5/8	5/8	3/4	6	7	5	6 1/8	12 5/8	8 5/8																10.5
4																											
5																											

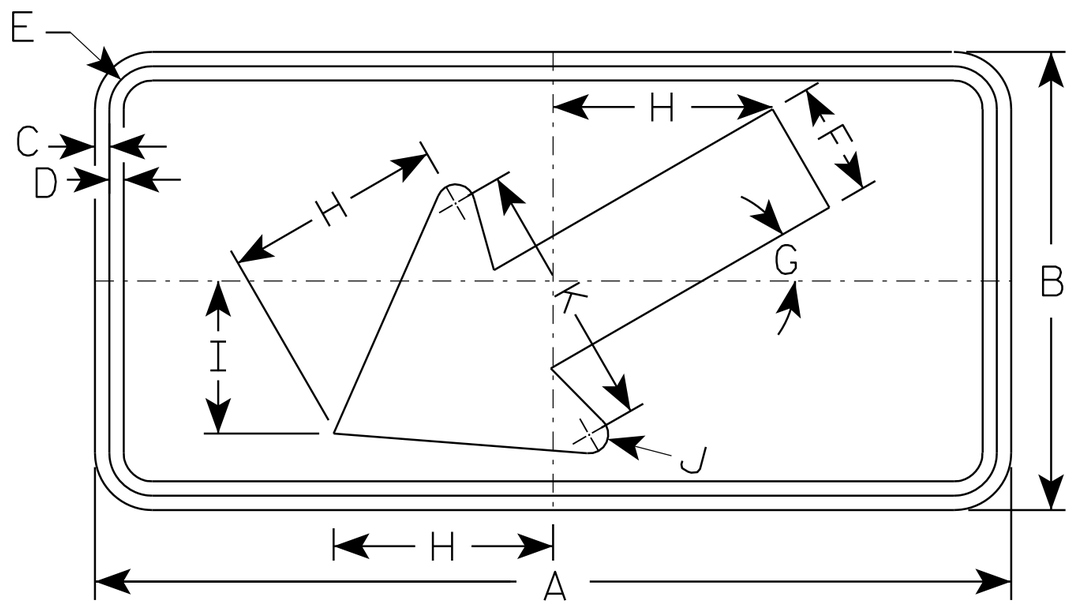
STANDARD SIGN
S5-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/8/11 PLATE NO. S5-2.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 350 | 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																											

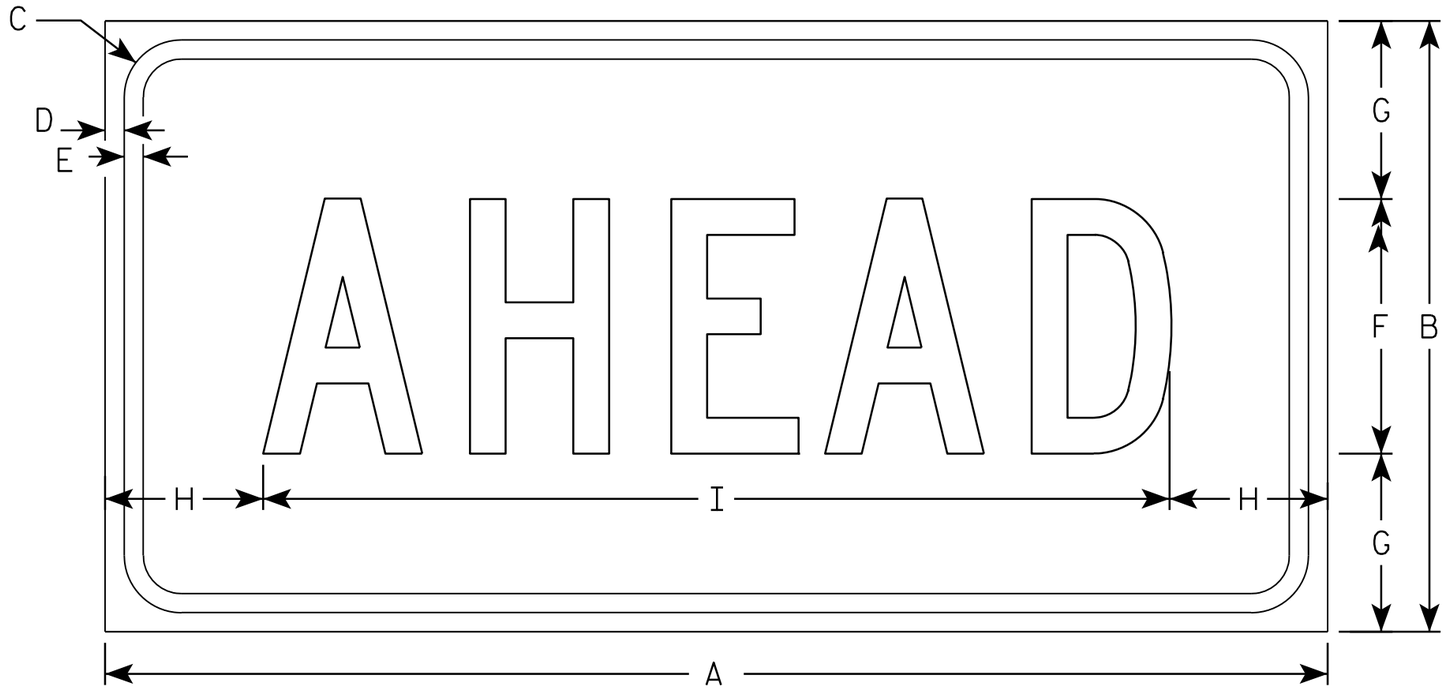
STANDARD SIGN
S16-7

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: 351 | 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																											

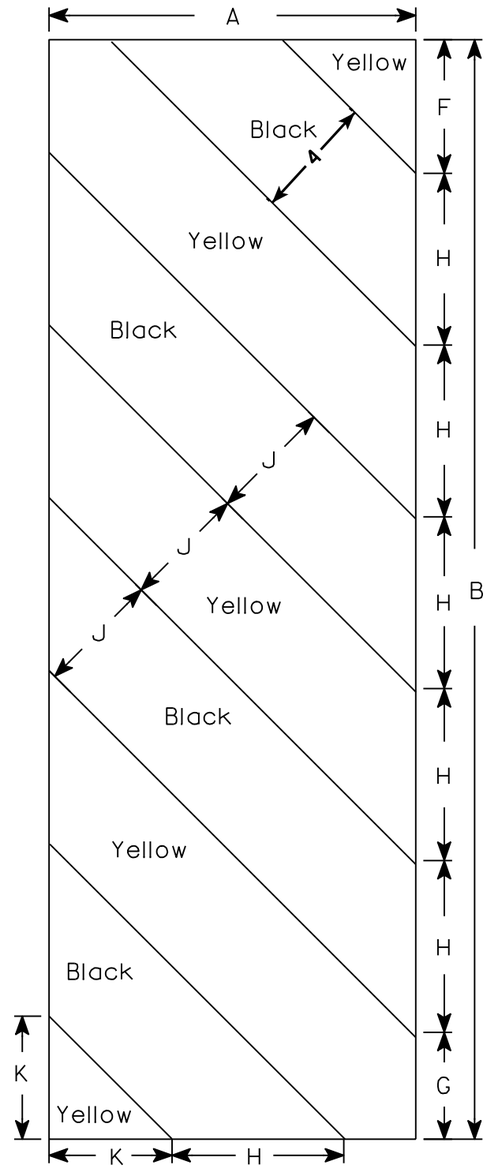
STANDARD SIGN
S16-9P

WISCONSIN DEPT OF TRANSPORTATION

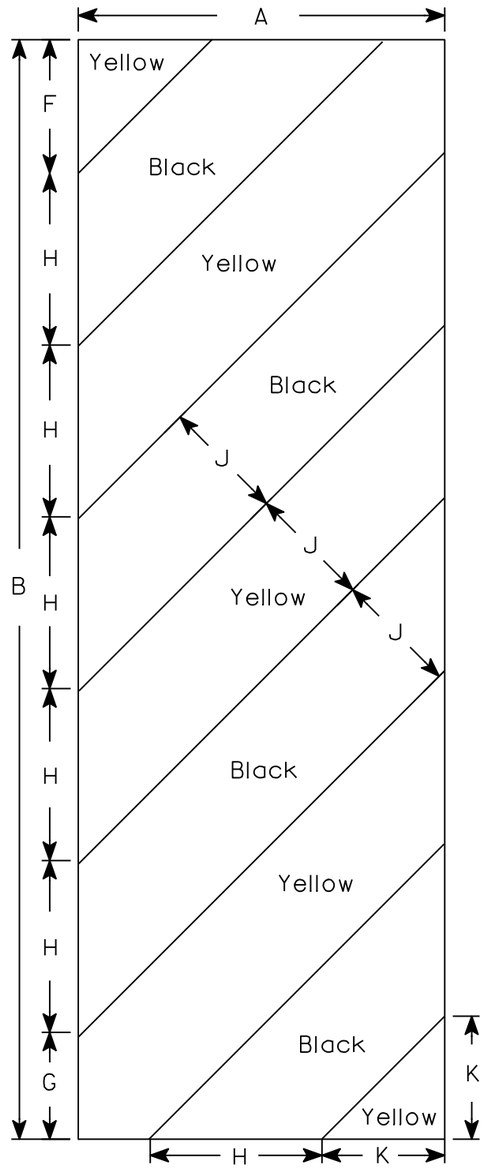
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/22/13 PLATE NO. S16-9P.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 352 | E



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

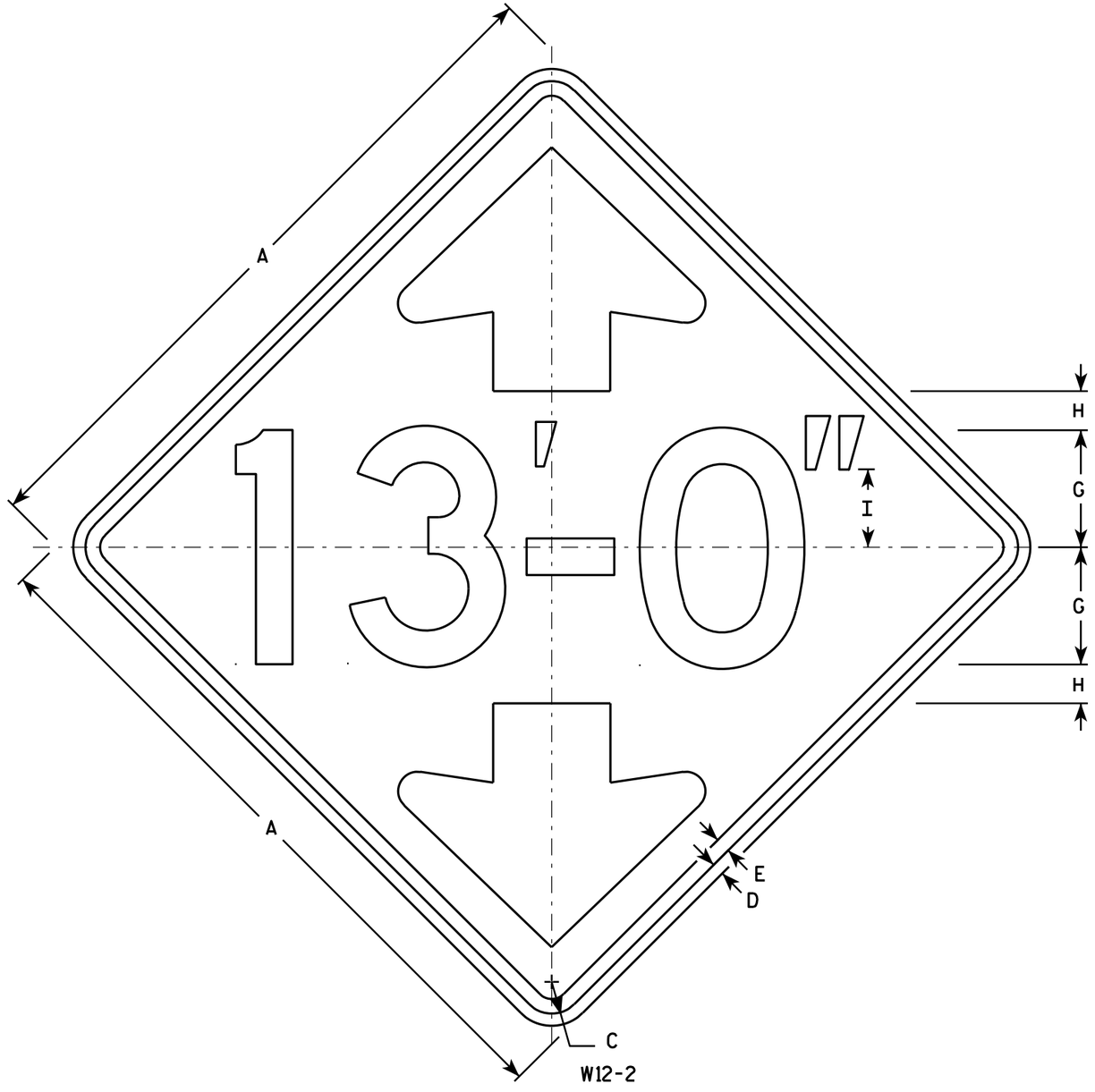
W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W5-52.9

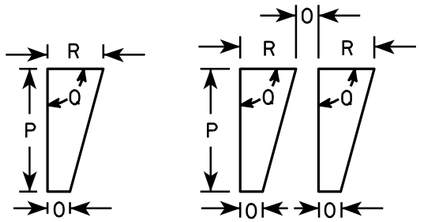
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 353	E



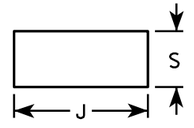
NOTES

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 - 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 optically adjust spacing of numerals, hyphen, foot & inch marks to achieve proper balance.

Arrow Detail



Foot Mark & Inch Mark Detail



Hyphen 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		5	1 5/8	3 3/8	3 3/4	6 5/8	5 3/4	3/4	2 1/2	1/2	2 1/4	90°	1	1 5/8								6.25
2S	36		1 5/8	5/8	3/4		6	2	4	4 1/2	8	6 7/8	1	3	1/2	2 3/4	90°	1 1/4	1 7/8								9.00
2M	36		1 5/8	5/8	3/4		6	2	4	4 1/2	8	6 7/8	1	3	1/2	2 3/4	90°	1 1/4	1 7/8								9.00
3	36		1 5/8	5/8	3/4		6	2	4	4 1/2	8	6 7/8	1	3	1/2	2 3/4	90°	1 1/4	1 7/8								9.00
4	36		1 5/8	5/8	3/4		6	2	4	4 1/2	8	6 7/8	1	3	1/2	2 3/4	90°	1 1/4	1 7/8								9.00
5	48		2 1/4	3/4	1		8	2 5/8	5 1/2	5 7/8	10 5/8	9 1/4	1 3/8	4	5/8	3 5/8	90°	1 5/8	2 1/2								16.00

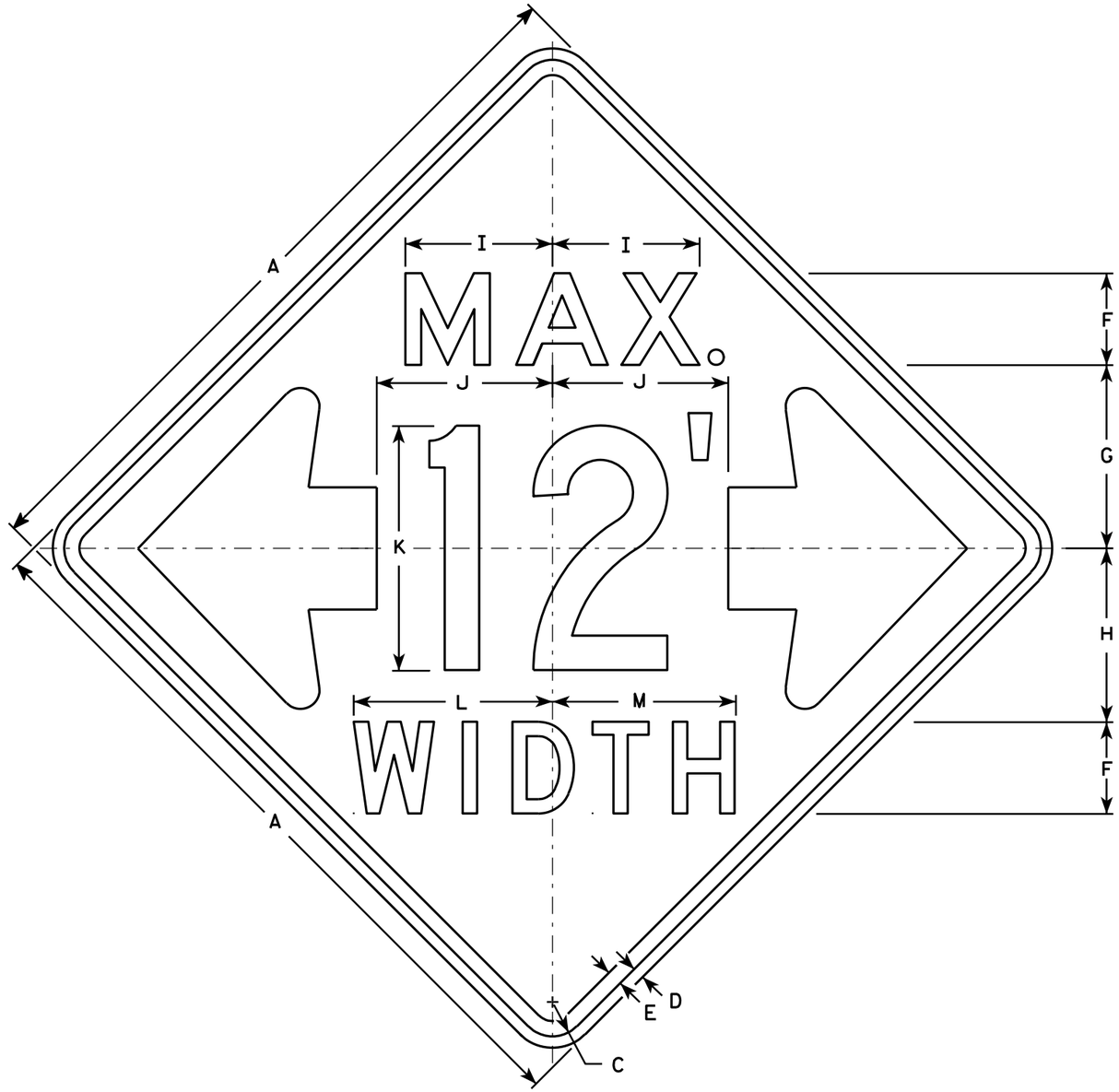
STANDARD SIGN
W12-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/13/13 PLATE NO. W12-2.9

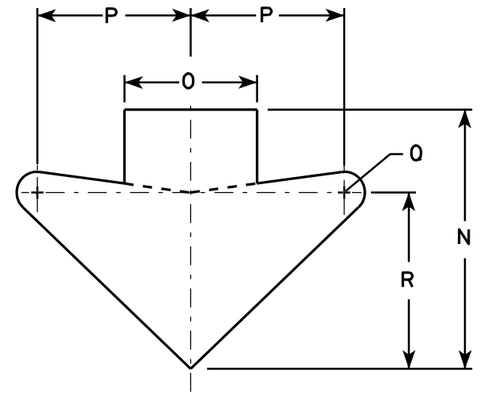
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 354	E



W12-52

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   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. The top line is series E, the numerals are series C, and the bottom line is series D.
6. Substitute appropriate numerals and adjust spacing as required.



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	48		2 1/4	3/4	1	6	12	11 3/8	9 5/8	11 1/2	16	13	12	15 5/8	8	9 1/4	1 1/4	10 5/8									16.0
2M	48		2 1/4	3/4	1	6	12	11 3/8	9 5/8	11 1/2	16	13	12	15 5/8	8	9 1/4	1 1/4	10 5/8									16.0
3																											
4																											
5																											

STANDARD SIGN
W12-52

WISCONSIN DEPT OF TRANSPORTATION

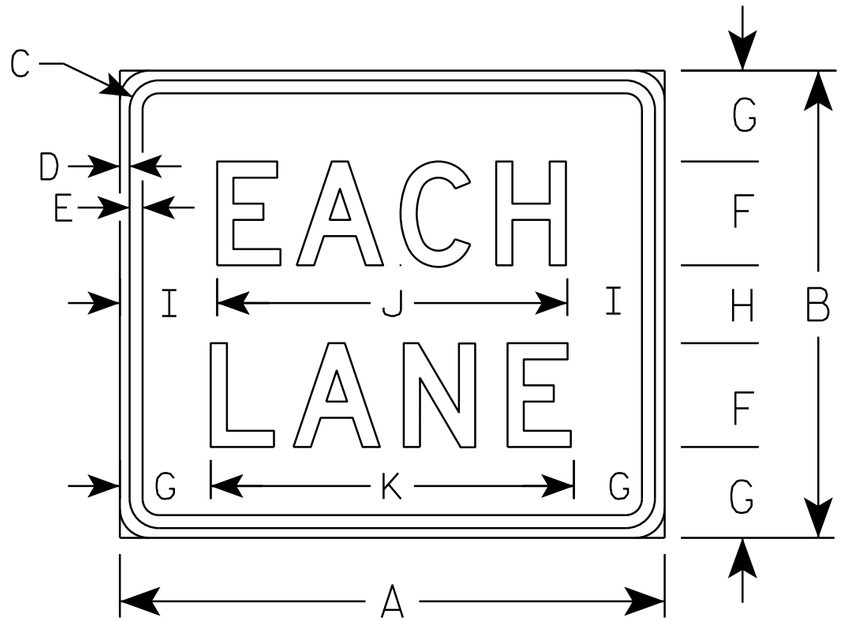
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/16/11 PLATE NO. W12-52.7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 355 | E

7

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W1252.DGN PLOT DATE : 16-MAR-2011 14:45 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 9.137199:1.000000



W12-52P

NOTES

1. Sign is Type II - Type F Reflective - reference
2. Color:
   Background - Orange
   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	42	36	2 1/4	3/4	1	8	7	6	7 1/2	27	28																10.5
2M	42	36	2 1/4	3/4	1	8	7	6	7 1/2	27	28																10.5
3																											
4																											
5																											

STANDARD SIGN
W12-52P

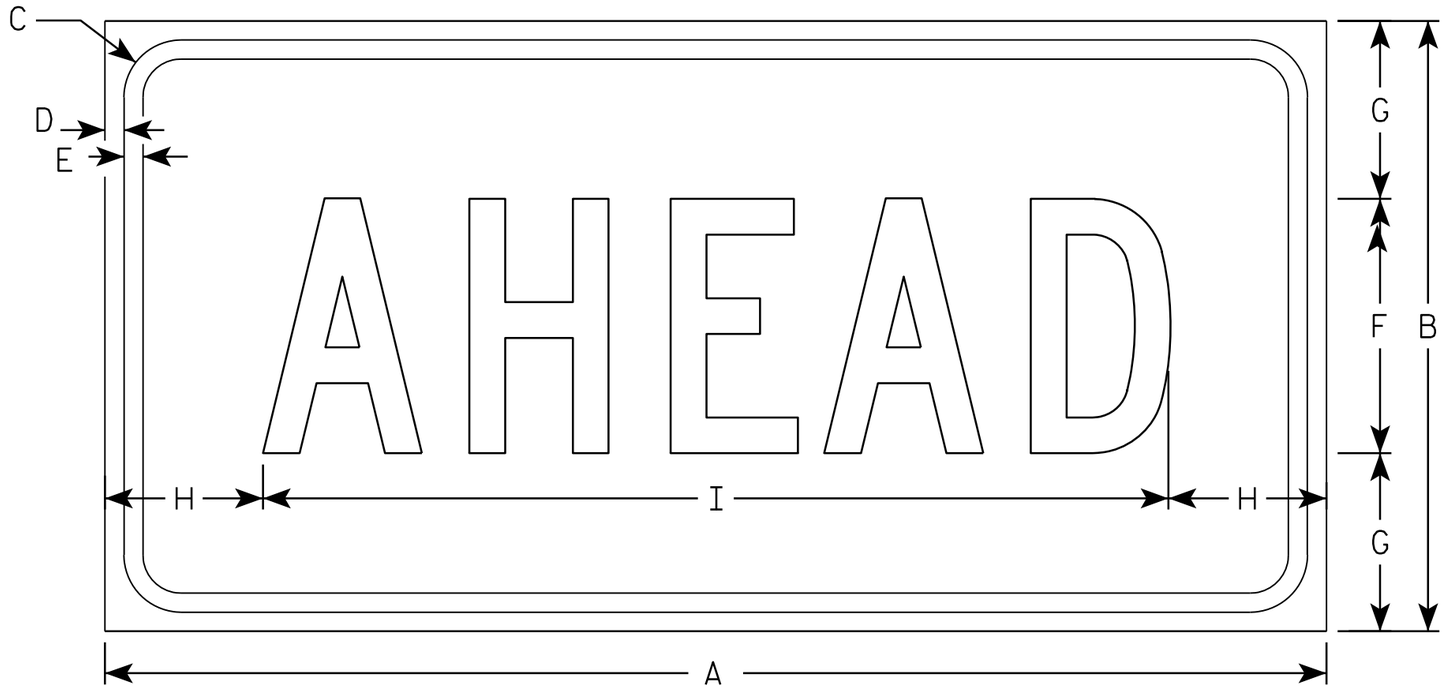
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/16/13 PLATE NO. W12-52P.1

PROJECT NO: | HWY: | COUNTY: | | SHEET NO: | E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W1252P.dgn PLOT DATE : 16-DEC-2013 11:01 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 11.675051:1.000000
WISDOT/CADDS SHEET 42



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																											

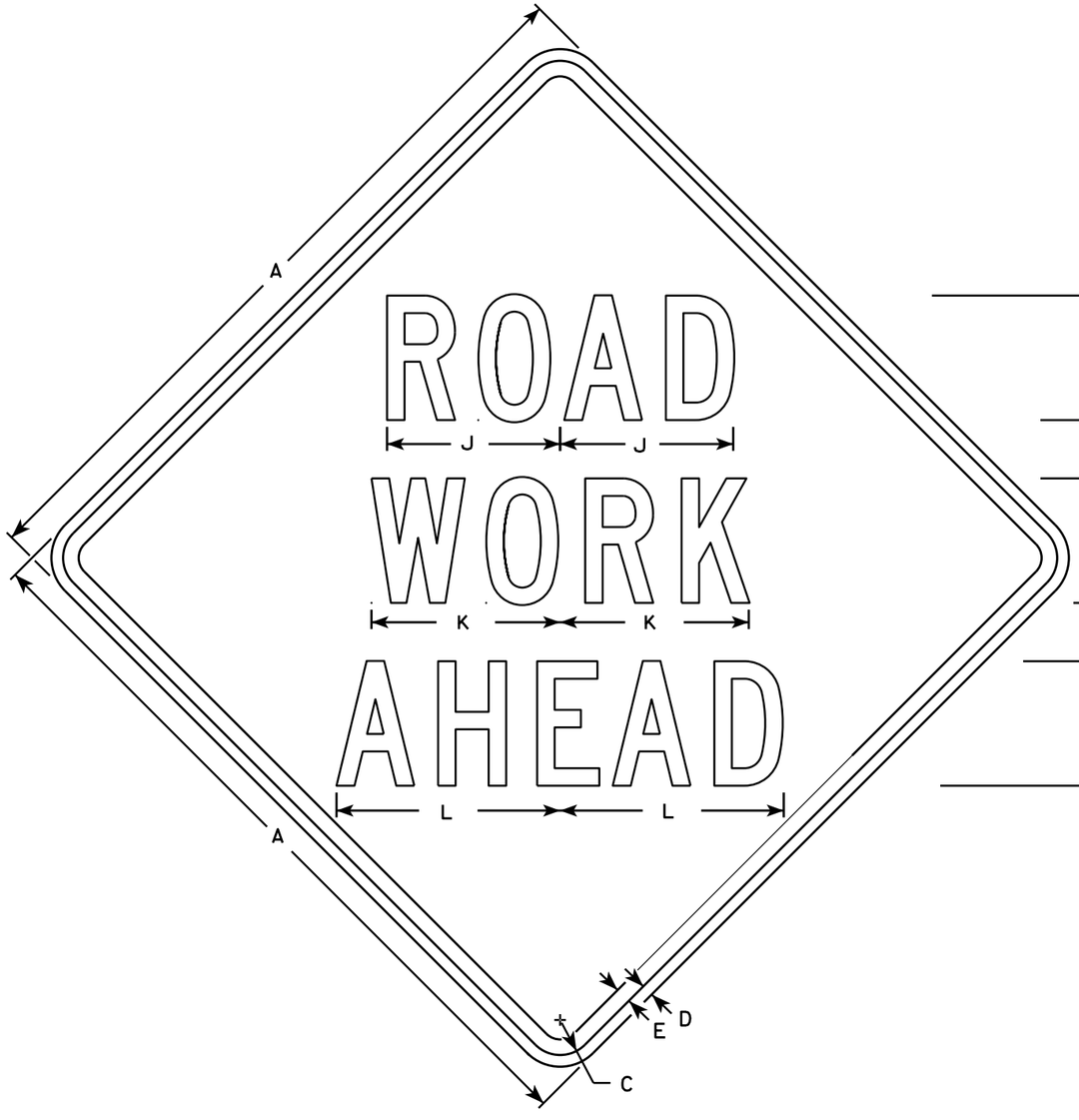
STANDARD SIGN
W16-9P

WISCONSIN DEPT OF TRANSPORTATION

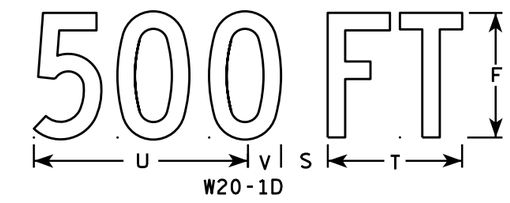
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/28/10 PLATE NO. W16-9P.6

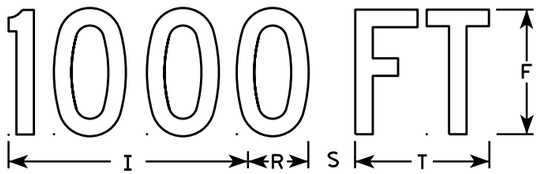
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 357 | E



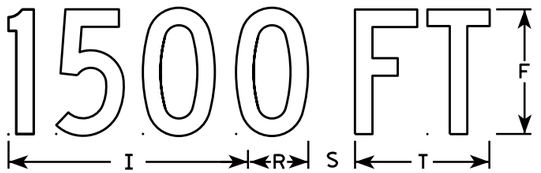
W20-1A



W20-1D



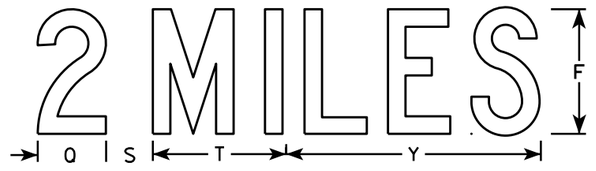
W20-1C



W20-1B

W20-1G

W20-1F



W20-1E

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   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	36		1 3/8	1/2	5/8	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9		2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
2M	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
3	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
4	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
5	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0

STANDARD SIGN
W20-1A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

State Traffic Engineer

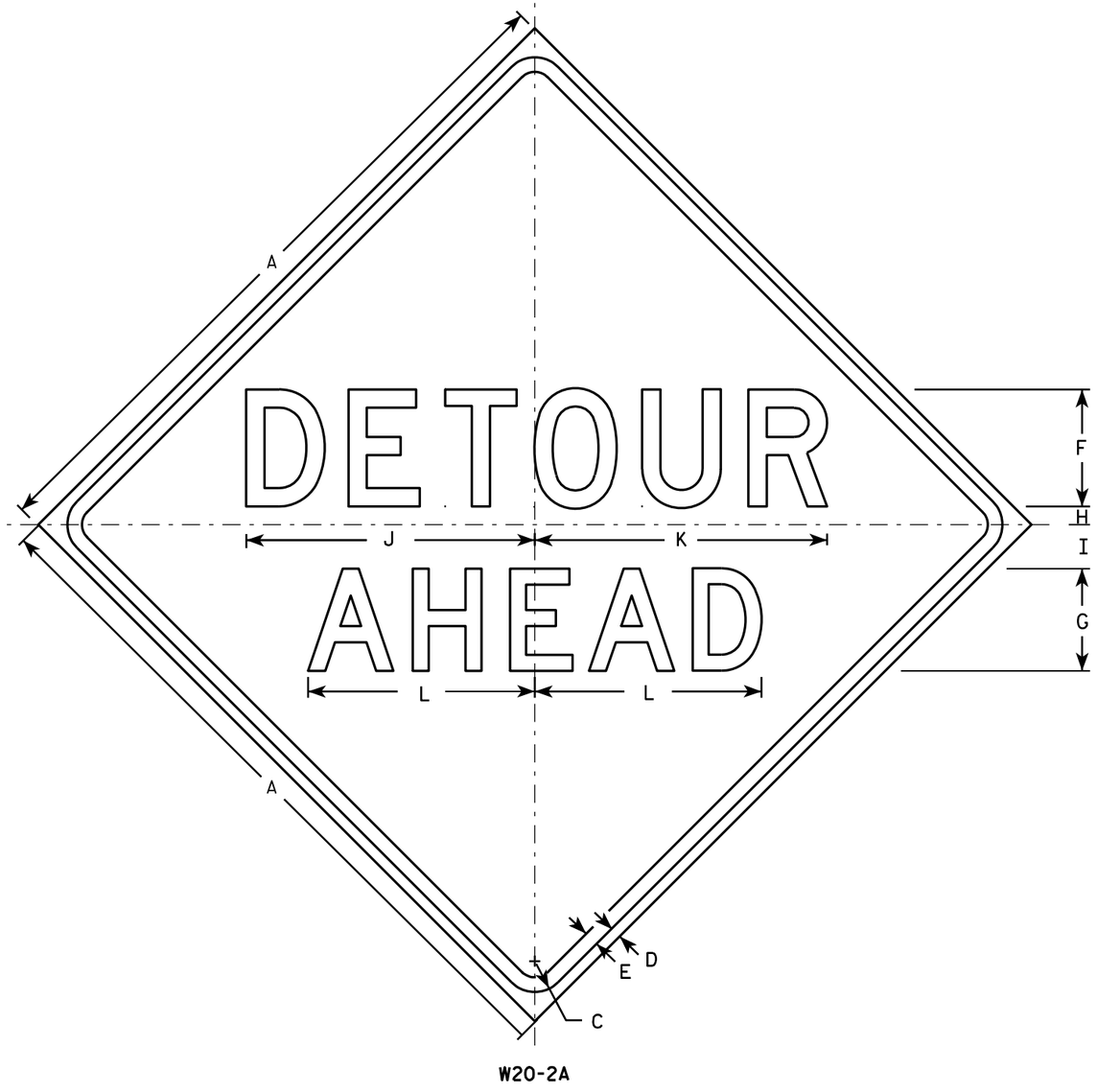
DATE 5/07/15 PLATE NO. W20-1.10

PROJECT NO:

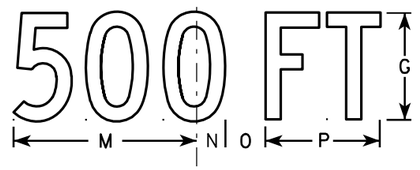
SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W201.dgn PLOT DATE : 27-MAY-2015 15:58 PLOT BY : mscsja

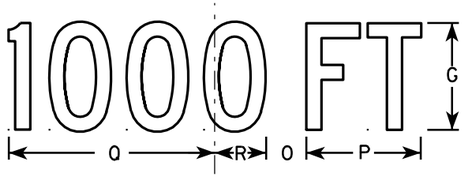
WISDOT/CADDS SHEET 42



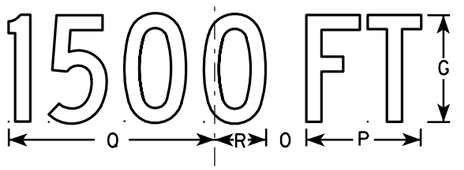
W20-2A



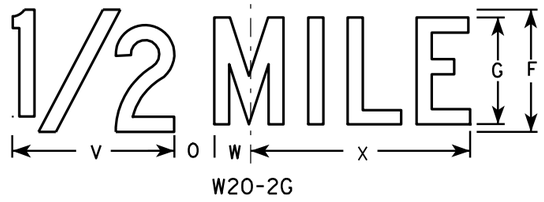
W20-2D



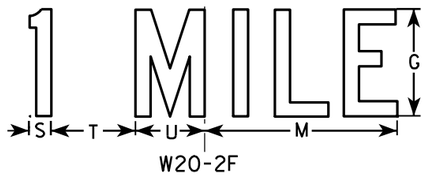
W20-2C



W20-2B



W20-2G



W20-2F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   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 D.
   Line 2 is Series D for AHEAD and Series C for all other distances.

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	36		1 5/8	5/8	3/4	6	5	1	2 1/4	14 3/4	15	11 5/8	9	1 3/8	1 7/8	5 5/8	10 1/8	2 1/2	1 1/8	4 1/2	3 1/2	8	1 3/4	10 3/4			9.0
2S	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
2M	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
3	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
4	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
5	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0

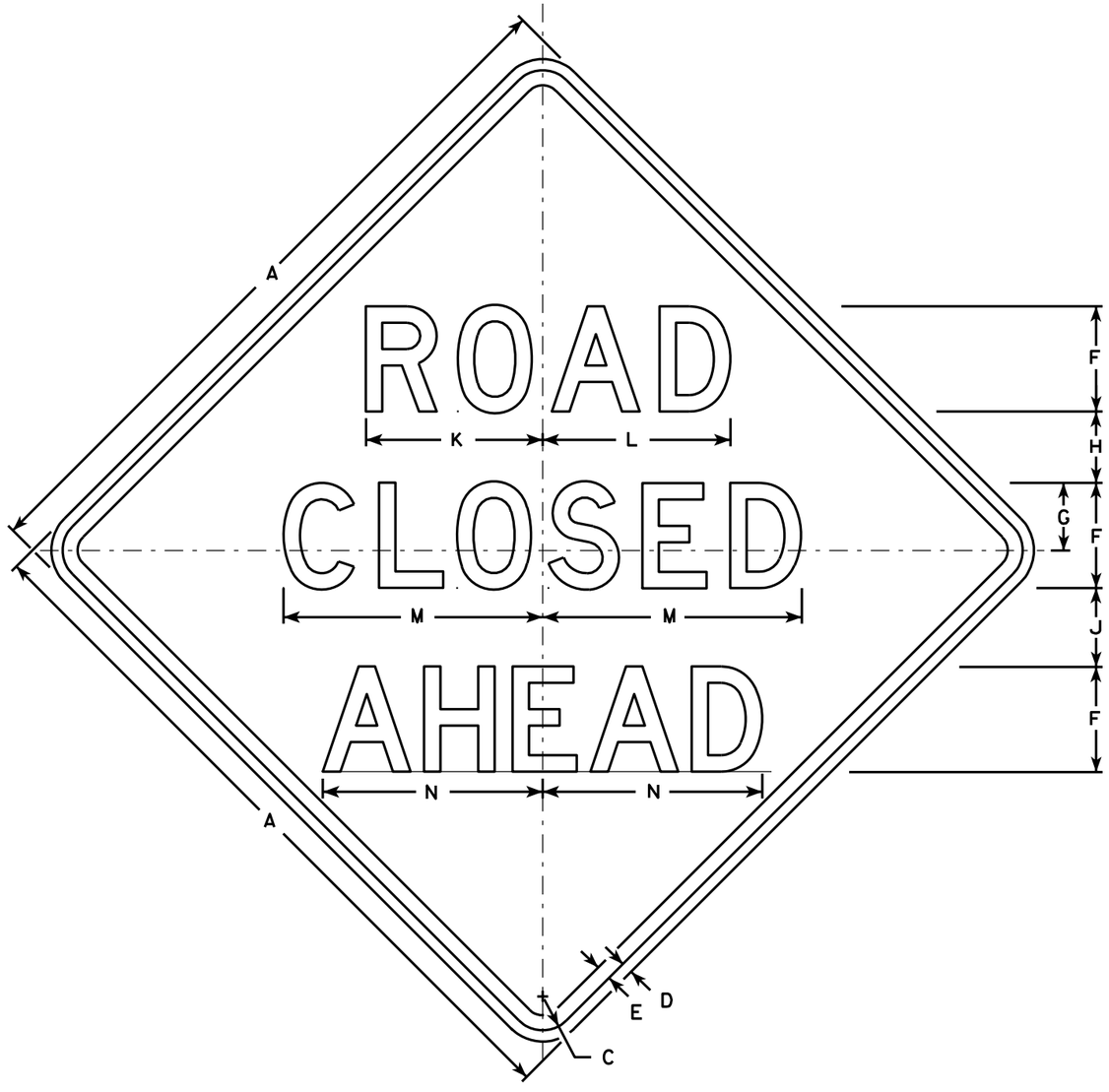
STANDARD SIGN
W20-2A,B,C,D,F & G

WISCONSIN DEPT OF TRANSPORTATION

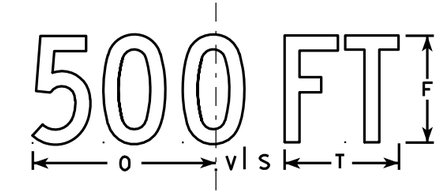
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-2.6

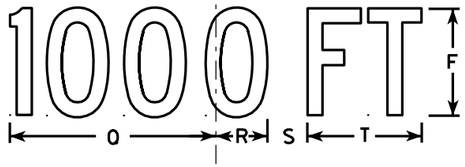
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 359	E



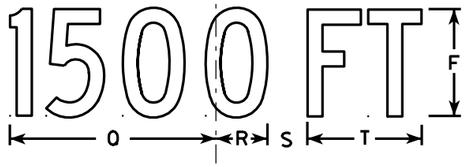
W20-3A



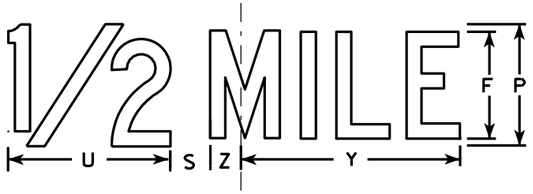
W20-3D



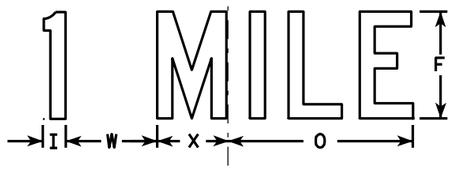
W20-3C



W20-3B



W20-3G



W20-3F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   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. Lines 1 and 2 are Series D.
   Line 3 is Series D for AHEAD and Series C for all other distances.

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	36		1 5/8	5/8	3/4	5	3 3/8	3 1/2	1 1/8	4	8 3/8	8 7/8	12 1/2	11	9	6	10 1/8	2 1/2	1 7/8	5 5/8	8	1 3/8	4 1/2	3 1/2	10 3/4	1 3/4	9.0
2S	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
2M	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
3	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
4	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
5	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0

STANDARD SIGN
W20-3A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-3.7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 360 | E

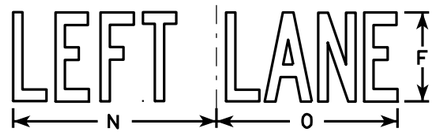
FILE NAME : C:\Users\PROJECTS\tr_stdplate\W203.DGN PLOT DATE : 18-MAR-2011 12:08 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 9.931739:1.000000

WISDOT/CADDS SHEET 42

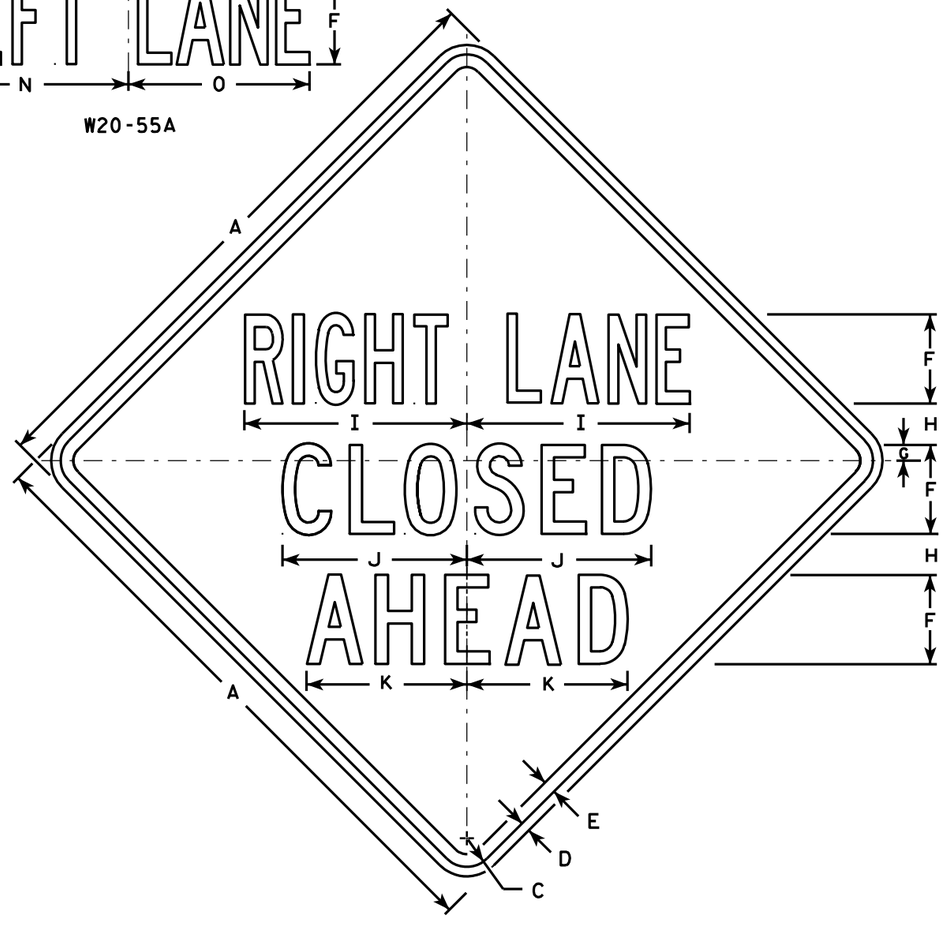
7

7

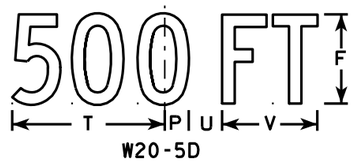
W20-56A



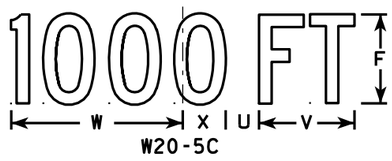
W20-55A



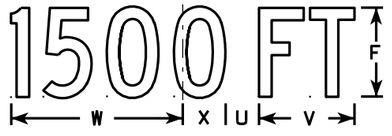
W20-5A



W20-5D



W20-5C



W20-5B

W20-5G

W20-5F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   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. " _____ LANE" is Series B.
   All other copy 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	36	6	1 5/8	5/8	3/4	5	1/8	2 1/2	13 1/8	10 3/4	9 1/2	14 1/4	13 5/8	12	12	1 3/8	1 1/8	4 1/2	3 1/2	9	1 1/8	5 5/8	10 1/8	2 1/2	1 3/4	8	9.0
2S	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
2M	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
3	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
4	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
5	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0

STANDARD SIGN
W20-5A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

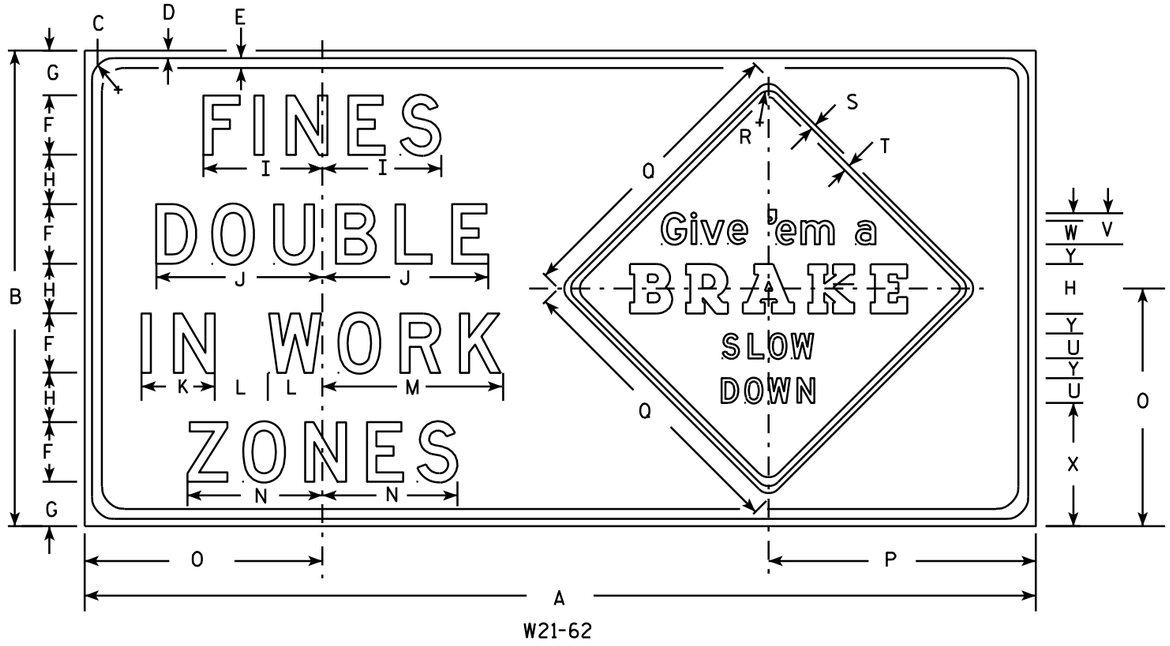
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-5.11

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 361	E

7

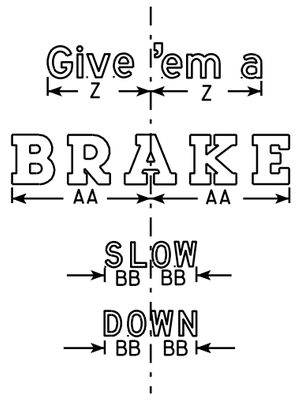
FILE NAME : C:\Users\PROJECTS\tr_stdplate\W205.DGN PLOT DATE : 18-MAR-2011 12:15 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 11.918087:1.000000
WISDOT/CADDS SHEET 42



W21-62

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 - (See Note 5)
   Message - Black
3. Message Series -
   Fines Double Message - All lines are Series D
   Give 'em a Brake -
   Line one is Series E, line two is a Special Graphic Series and lines three and four are Series D.
4. The base material shall be plywood. Corners may be square or rounded, but borders shall be rounded as shown. The base material for Give 'em a Brake sign can be a seperate sheet of aluminum with the corners and borders rounded as shown. This seperate panel shall then be attached to the plywood with aluminum or stainless steel sheet metal screws.
5. Background for the Give 'em a Brake sign shall be Type F reflective orange.



W21-62P

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	AA	BB	CC	DD	Area sq. ft.
1																															
2S																															
2M																															
3	96	48	2 1/4	3/4	1	6	4 1/2	5	12	16 3/4	7 3/8	5 1/2	18 1/4	13 5/8	24	27	30	1 3/8	1/2	5/8	2 1/2	3 1/8	2 3/8	12 1/2	2	10 3/4	14	4 5/8	34 1/2	4	32.0
4																															
5																															

STANDARD SIGN
W21-62

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/21/11 PLATE NO. W21-62.5

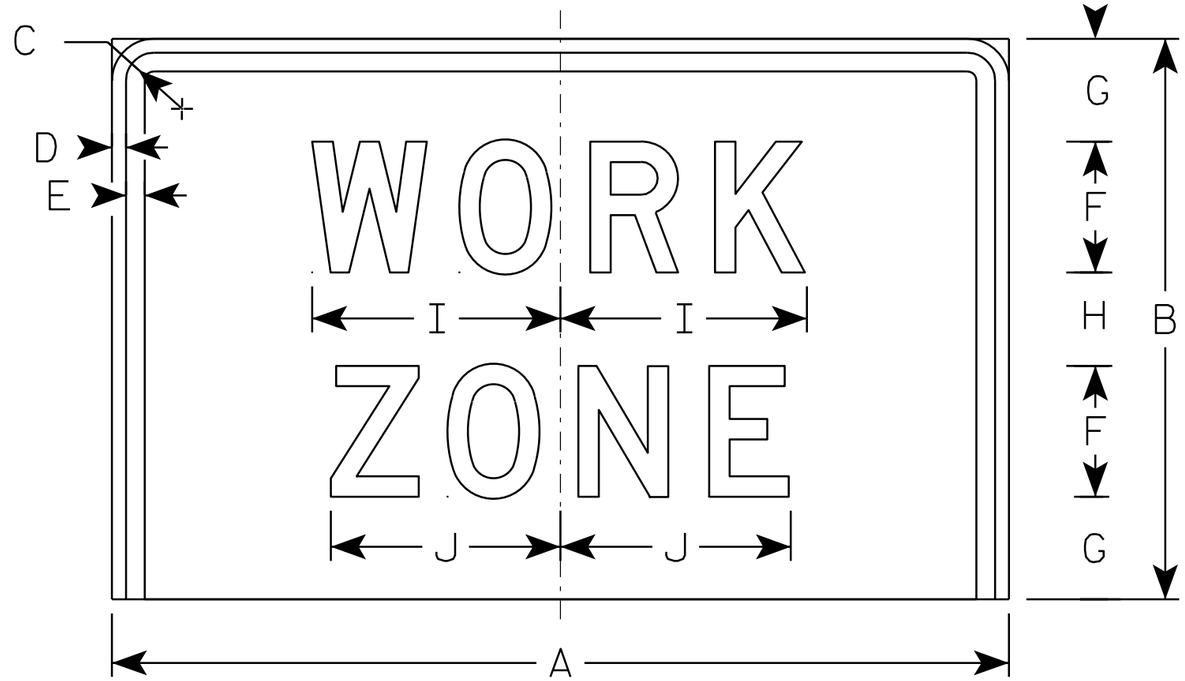
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 362	E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W2162.DGN PLOT DATE : 21-MAR-2011 10:25 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 15.294877:1.000000

WISDOT/CADDS SHEET 42

7

7



W21-62Q

NOTES

1. Sign is Type II - Type F - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D

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	48	30	2 1/4	3/4	1	7	5 1/2	5	13 1/4	12 1/4																	10.0
2M	48	30	2 1/4	3/4	1	7	5 1/2	5	13 1/4	12 1/4																	10.0
3																											
4																											
5																											

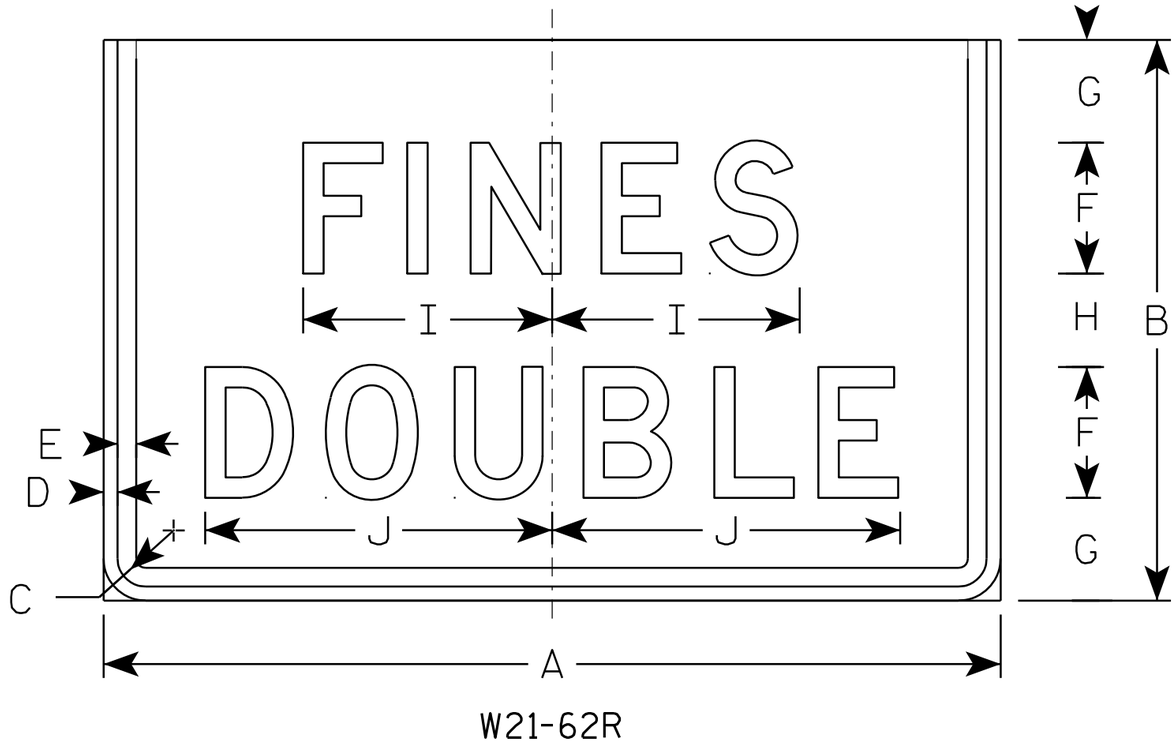
STANDARD SIGN
W21-62Q

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/21/11 PLATE NO. W21-620.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 363	E



W21-62R

NOTES

1. Sign is Type II - Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D

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	48	30	2 1/4	3/4	1	7	5 1/2	5	13 1/4	18 5/8																	10.0
2M	48	30	2 1/4	3/4	1	7	5 1/2	5	13 1/4	18 5/8																	10.0
3																											
4																											
5																											

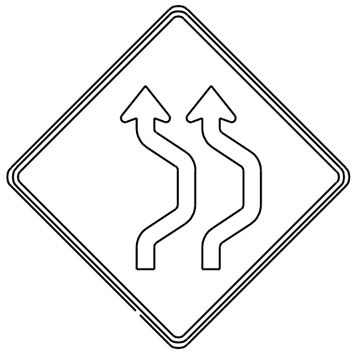
STANDARD SIGN
W21-62R

WISCONSIN DEPT OF TRANSPORTATION

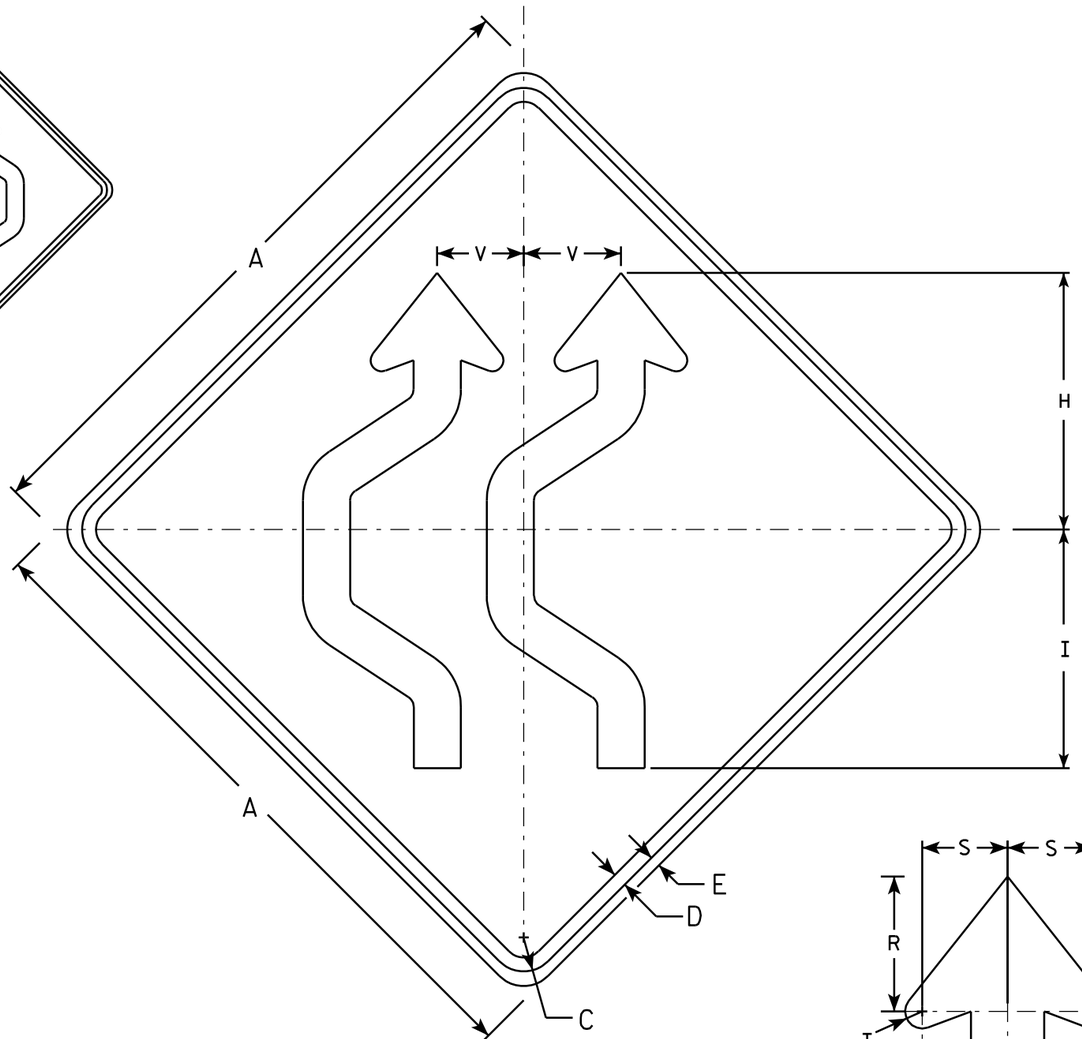
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/21/11 PLATE NO. W21-62R.2

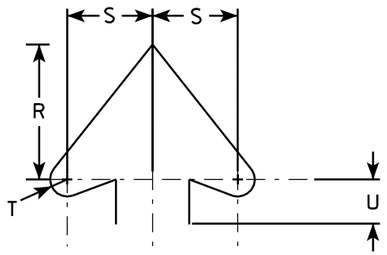
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 364 | E



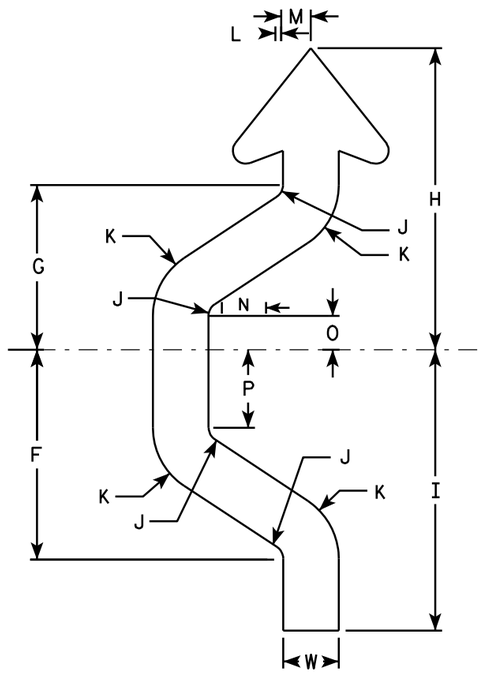
W24-1AR



W24-1AL



Arrowhead Detail



Arrow Detail

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   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. W24-1R is the same as W24-1L except 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	36		1 3/8	5/8	1/2	9 1/2	7 1/2	13 3/4	12 3/4	5/8	3 1/8	3/8	1 5/8	2 3/8	1 1/2	3 1/2		4 5/8	3	5/8	1 1/2	4 3/4	2 1/2				9
2S	48		2 1/4	1	3/4	12 7/8	10 1/8	18 1/2	17 1/4	7/8	4 1/4	3/8	2 1/8	3 1/4	2	4 3/4		6 1/4	4	3/4	2 1/8	6 1/4	3 3/8				16
2M	48		2 1/4	1	3/4	12 7/8	10 1/8	18 1/2	17 1/4	7/8	4 1/4	3/8	2 1/8	3 1/4	2	4 3/4		6 1/4	4	3/4	2 1/8	6 1/4	3 3/8				16
3	48		2 1/4	1	3/4	12 7/8	10 1/8	18 1/2	17 1/4	7/8	4 1/4	3/8	2 1/8	3 1/4	2	4 3/4		6 1/4	4	3/4	2 1/8	6 1/4	3 3/8				16
4	48		2 1/4	1	3/4	12 7/8	10 1/8	18 1/2	17 1/4	7/8	4 1/4	3/8	2 1/8	3 1/4	2	4 3/4		6 1/4	4	3/4	2 1/8	6 1/4	3 3/8				16
5	48		2 1/4	1	3/4	12 7/8	10 1/8	18 1/2	17 1/4	7/8	4 1/4	3/8	2 1/8	3 1/4	2	4 3/4		6 1/4	4	3/4	2 1/8	6 1/4	3 3/8				16

STANDARD SIGN
W24-1AL

WISCONSIN DEPT OF TRANSPORTATION

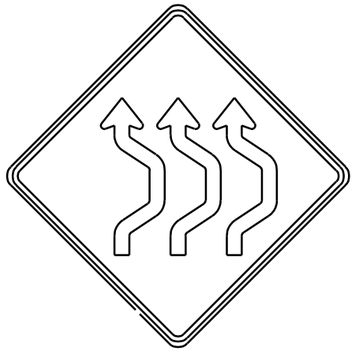
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/21/11 PLATE NO. W24-1AL.2

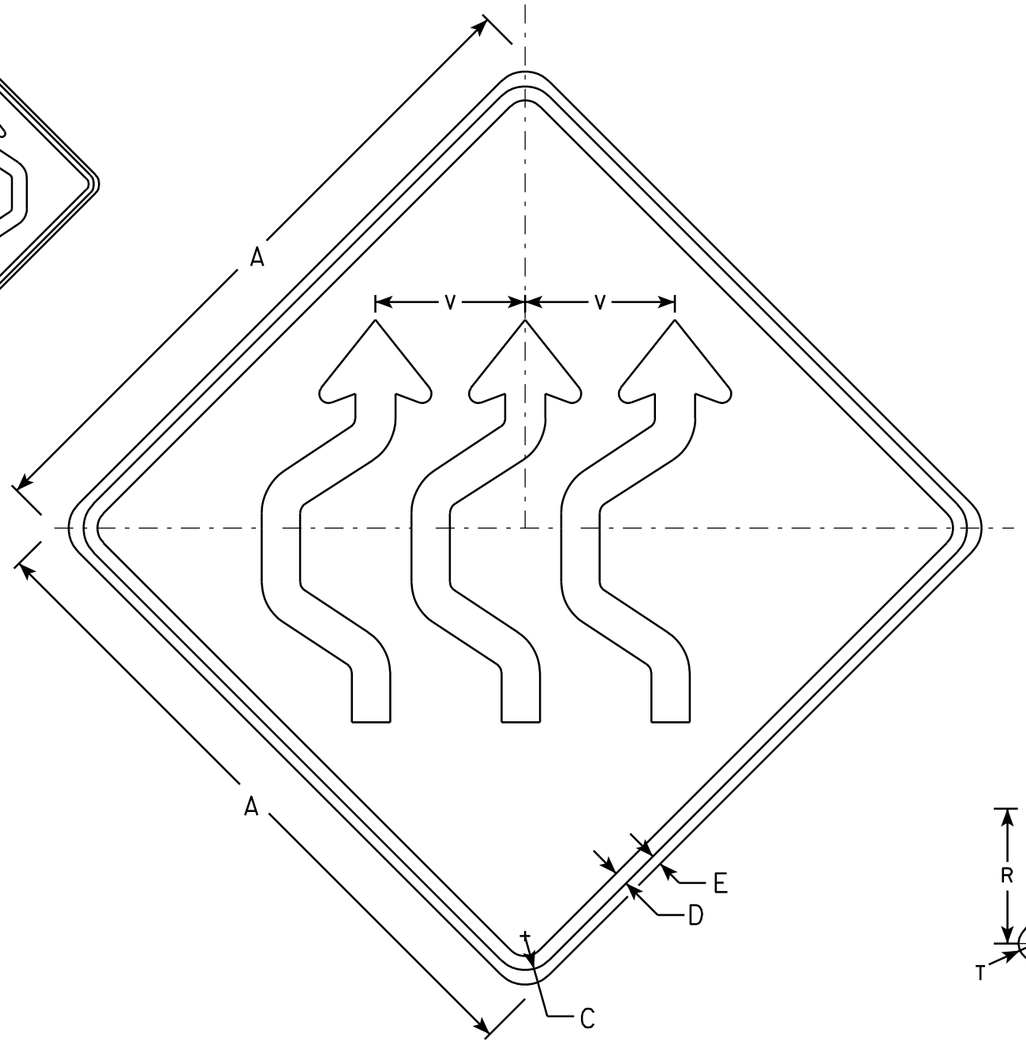
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 365 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W241AL.DGN PLOT DATE : 21-MAR-2011 13:22 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 10.924915:1.000000

WISDOT/CADDS SHEET 42



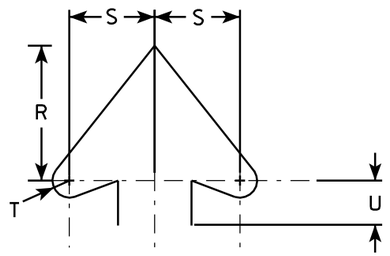
W24-1BR



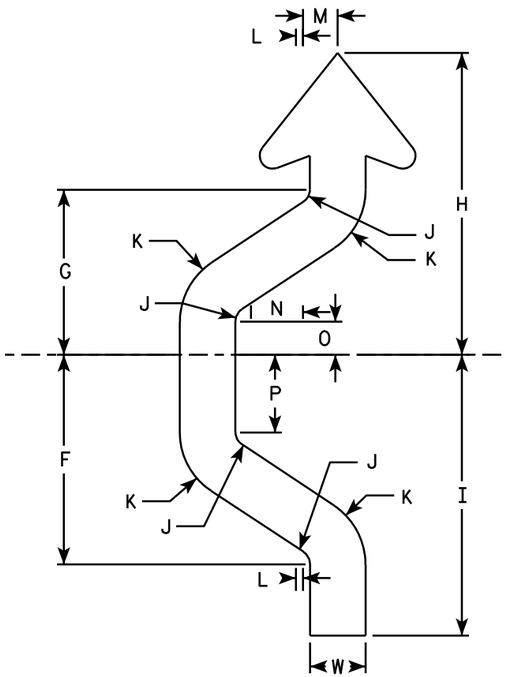
W24-1bL

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   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



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	36		1 3/8	5/8	1/2	7 7/8	6 1/4	11 3/8	10 5/8	1/2	2 5/8	1/4	1 1/4	2	1 1/4	3		4	2 1/2	1/2	1 1/4	8 1/8	2 1/8				9
2S	48		2 1/4	1	3/4	10 1/2	8 1/4	15	14	3/4	3 1/2	3/8	1 3/4	2 5/8	1 5/8	3 7/8		5 3/8	3 3/8	5/8	1 3/4	10 3/4	2 3/4				16
2M	48		2 1/4	1	3/4	10 1/2	8 1/4	15	14	3/4	3 1/2	3/8	1 3/4	2 5/8	1 5/8	3 7/8		5 3/8	3 3/8	5/8	1 3/4	10 3/4	2 3/4				16
3	48		2 1/4	1	3/4	10 1/2	8 1/4	15	14	3/4	3 1/2	3/8	1 3/4	2 5/8	1 5/8	3 7/8		5 3/8	3 3/8	5/8	1 3/4	10 3/4	2 3/4				16
4	48		2 1/4	1	3/4	10 1/2	8 1/4	15	14	3/4	3 1/2	3/8	1 3/4	2 5/8	1 5/8	3 7/8		5 3/8	3 3/8	5/8	1 3/4	10 3/4	2 3/4				16
5	48		2 1/4	1	3/4	10 1/2	8 1/4	15	14	3/4	3 1/2	3/8	1 3/4	2 5/8	1 5/8	3 7/8		5 3/8	3 3/8	5/8	1 3/4	10 3/4	2 3/4				16

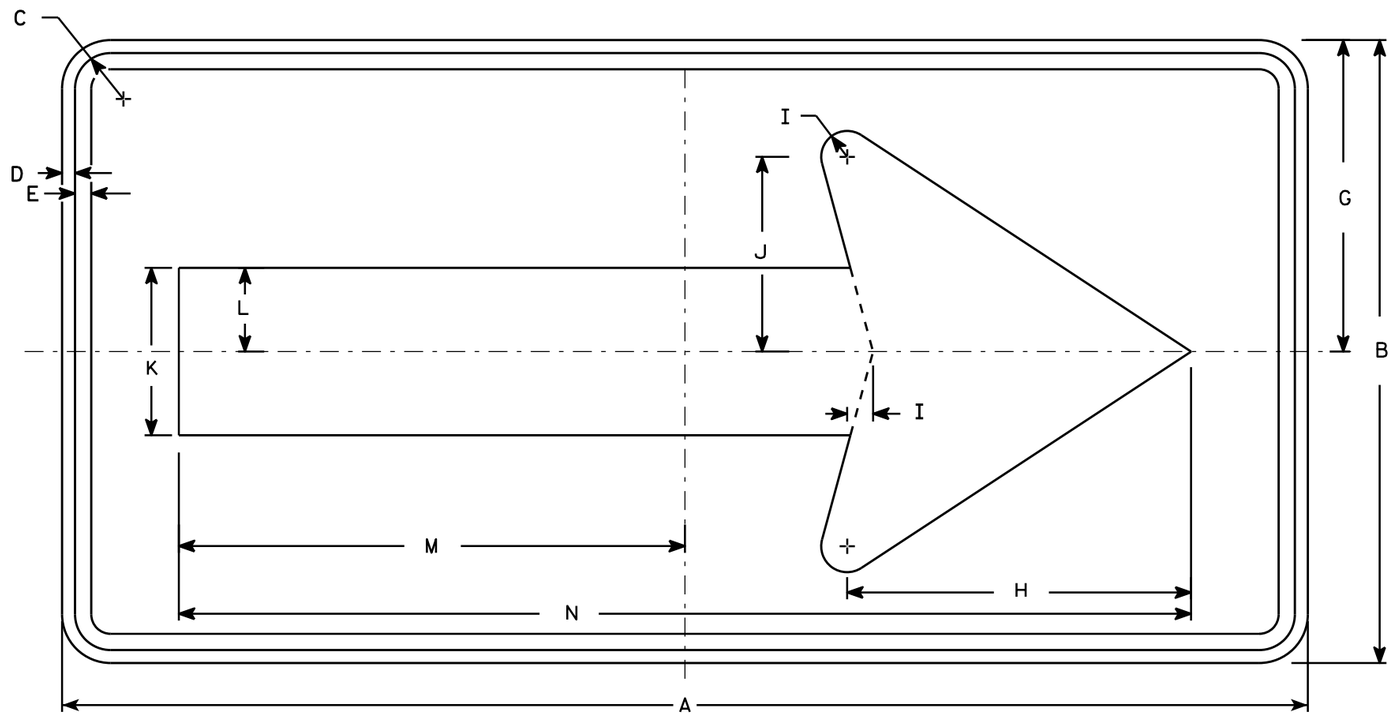
STANDARD SIGN
W24-1BL

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/21/11 PLATE NO. W24-1BL.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 366 | E



W01-6

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   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																											
2S	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
2M	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
3	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
4	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
5	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5

STANDARD SIGN
W01-6

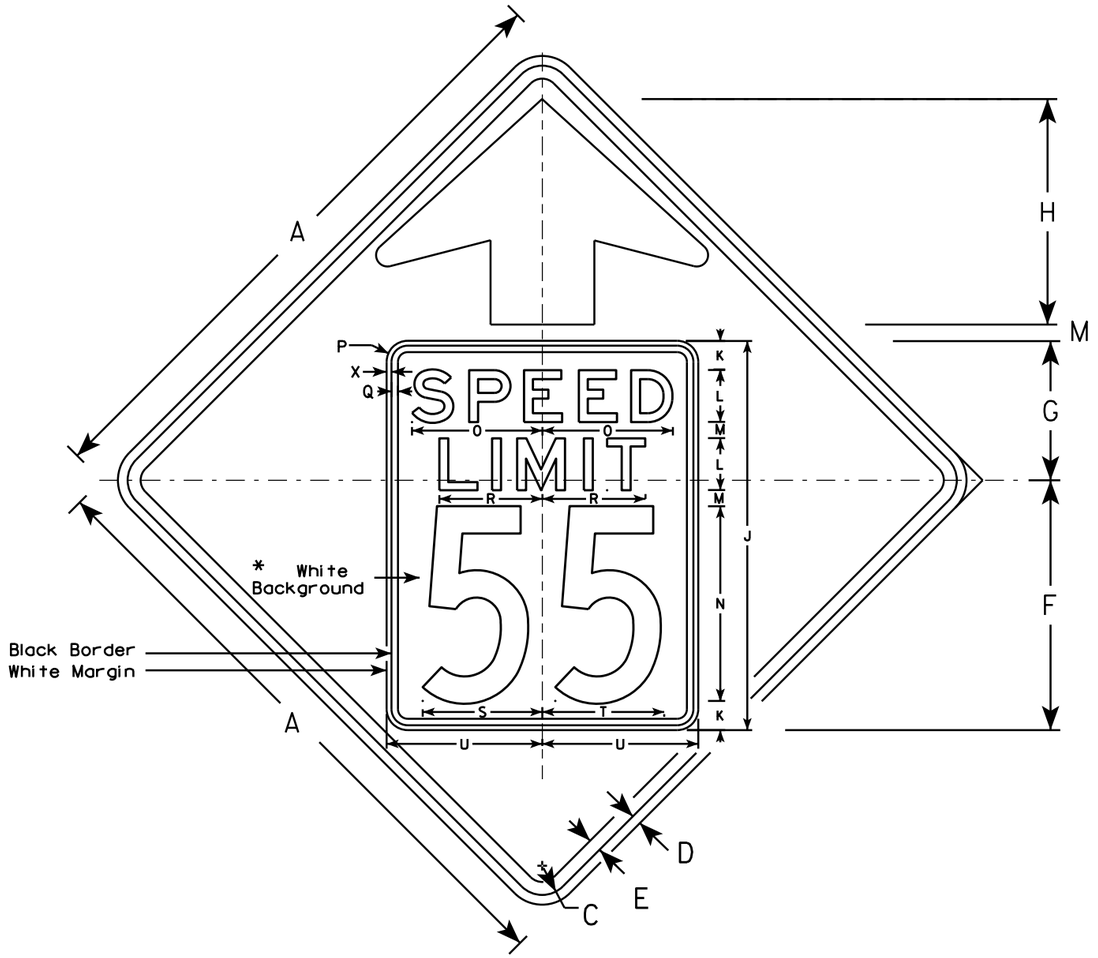
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO. W01-6.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W016.DGN PLOT DATE : 28-FEB-2014 11:37 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 5.837526:1.000000
WISDOT/CADDS SHEET 42

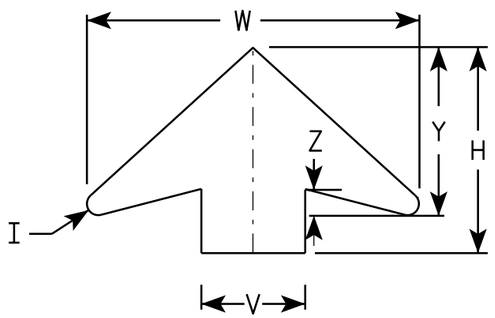


W03-5

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color: *
   Background - ORANGE*
   Message - BLACK
3. Message Series - C for numbers Series E for wording
4. Substitute appropriate numerals and optically adjust spacing to achieve proper balance

*Speed Limit Sign shall have a White Background



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	36		1 5/8	5/8	3/4	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7 1/4	7 1/8	9	6	19 1/4	3/8	9 3/4	1 5/8	9.0
2S	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
2M	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
3	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
4	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
5	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0

STANDARD SIGN
W03-5

WISCONSIN DEPT OF TRANSPORTATION

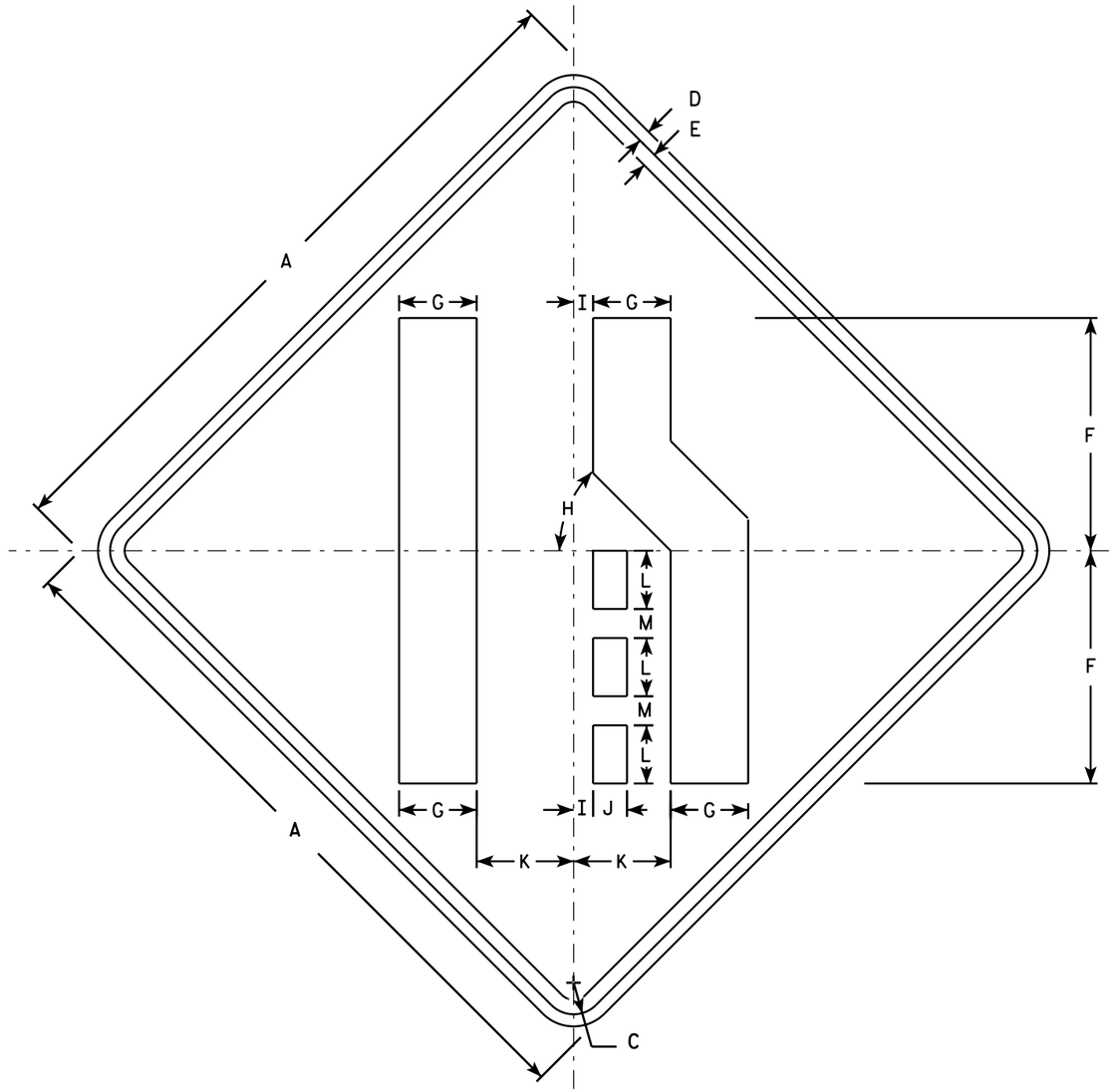
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE W03-5.1

PROJECT NO: SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W035.DGN PLOT DATE : 20-NOV-2013 11:32 PLOT BY : mscsja

WISDOT/CADDS SHEET 42



W04-2R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   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. W04-2L is the same as W04-2R 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	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2S	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
2M	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
3	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
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
W04-2

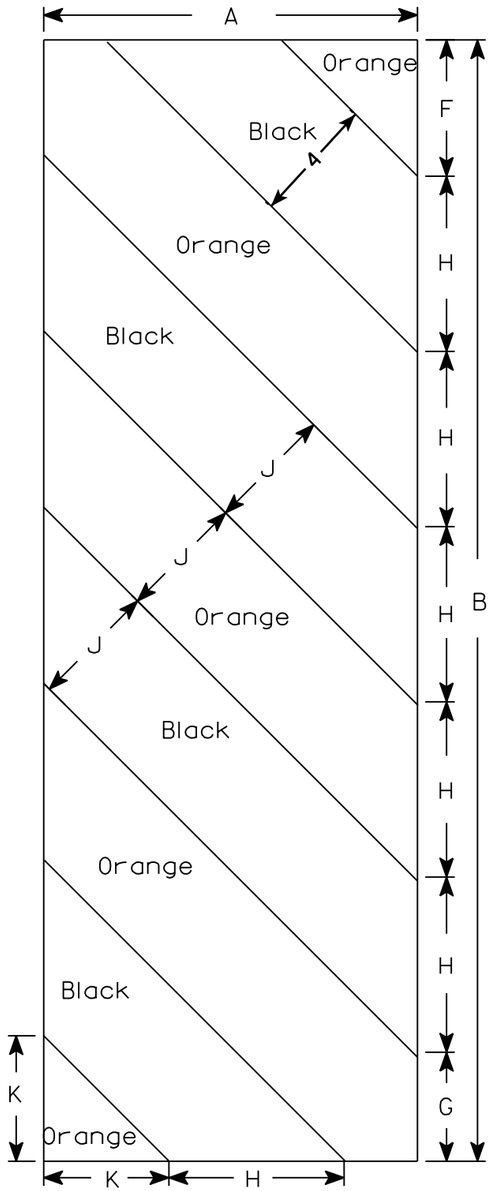
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

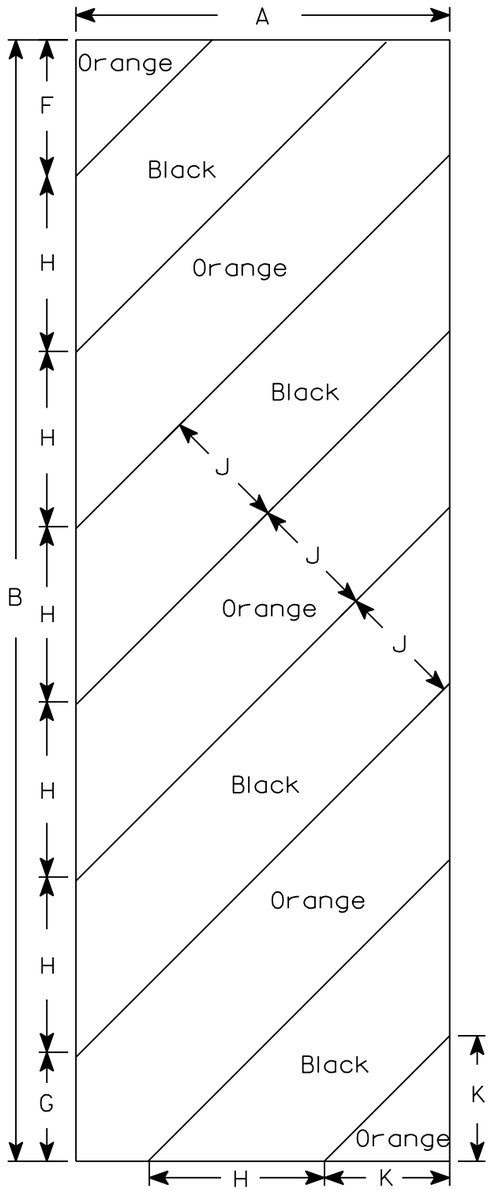
DATE 11/20/13 PLATE 369 W04-2.1

PROJECT NO: | SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W042.DGN PLOT DATE : 20-NOV-2013 11:43 PLOT BY : mscsja



W05-52L



W05-52R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   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

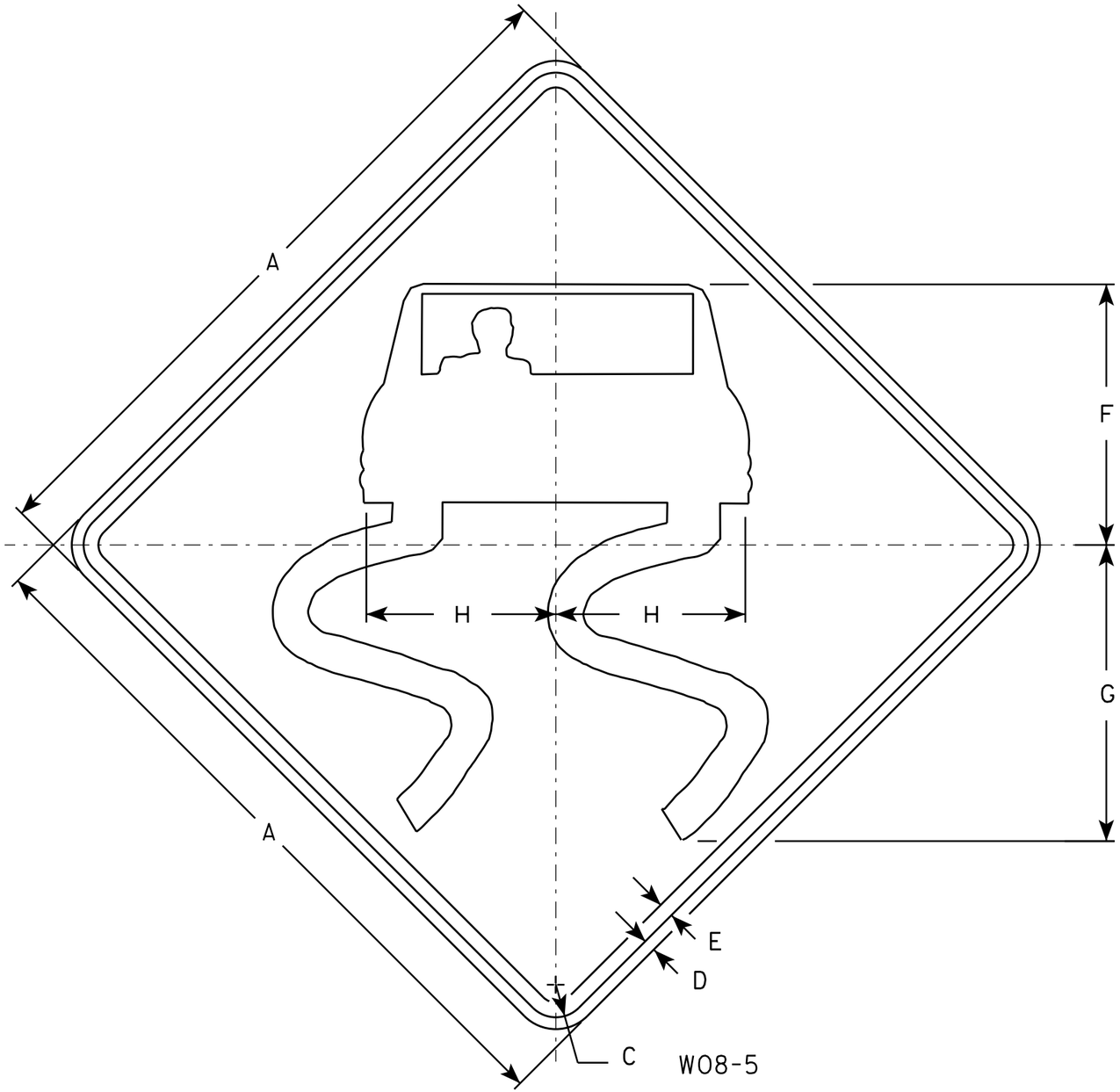
W05-52L & W05-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE W05-52.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	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 - Orange
   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	36		1 5/8	5/8	3/4	13	14 7/8	9 1/2																			9.0
2S	48		2 1/4	3/4	1	17 3/8	19 3/4	12 5/8																			16.0
2M	48		2 1/4	3/4	1	17 3/8	19 3/4	12 5/8																			16.0
3	48		2 1/4	3/4	1	17 3/8	19 3/4	12 5/8																			16.0
4	48		2 1/4	3/4	1	17 3/8	19 3/4	12 5/8																			16.0
5	48		2 1/4	3/4	1	17 3/8	19 3/4	12 5/8																			16.0

STANDARD SIGN
W08-5

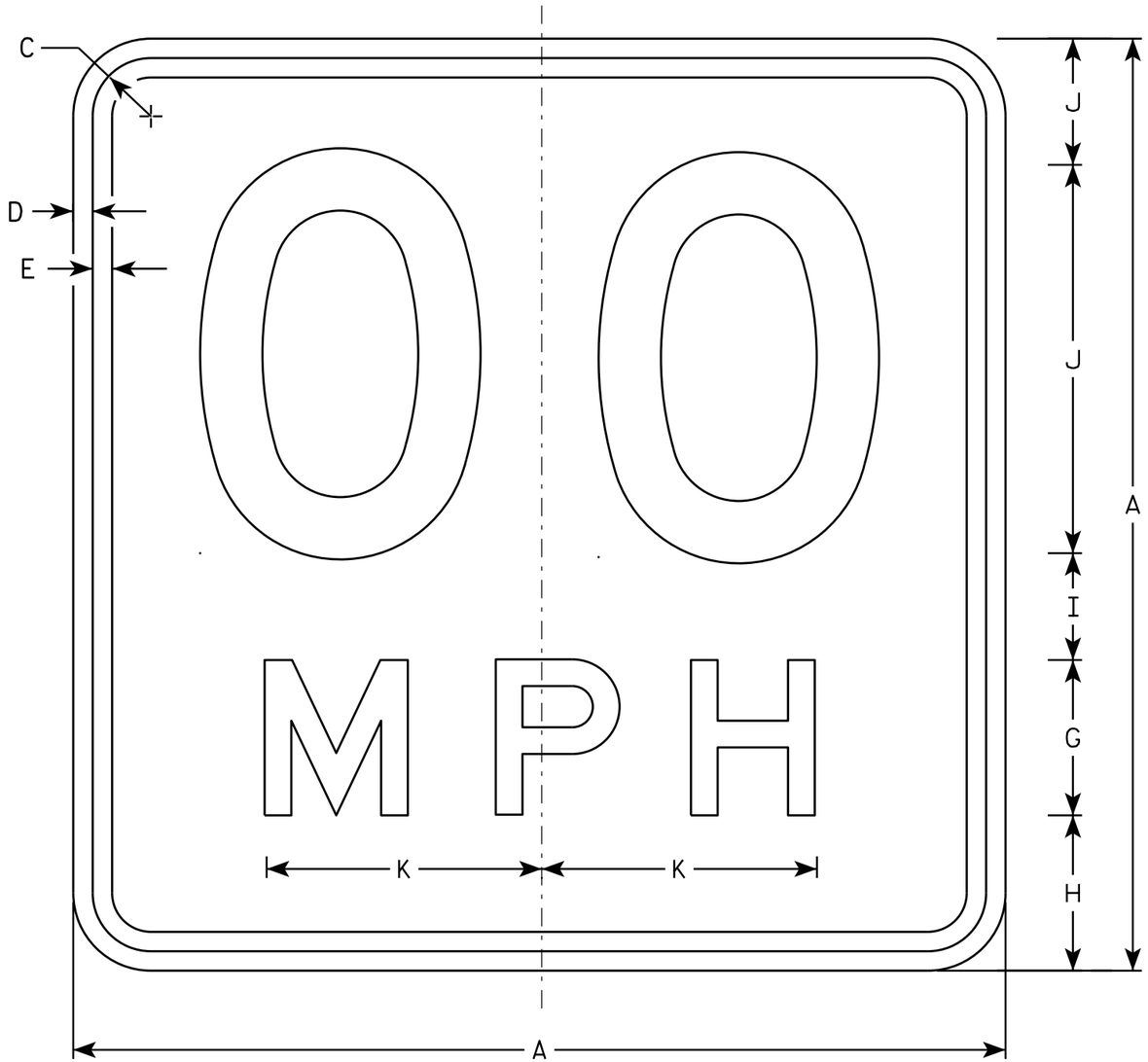
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE NO W05-5.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W085.DGN PLOT DATE : 20-NOV-2013 13:34 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 6.742482:1.000000
WISDOT/CADDS SHEET 42



W013-1

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   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. Substitute appropriate numerals and optically space about centerline to achieve proper balance.
6. Line 1 is Series D
   Line 2 is Series E

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	4	4	2 3/4	3 1/4	7 1/8																4.00
2S	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
2M	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
3	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
4	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
5	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00

STANDARD SIGN
W013-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/21/13 PLATE 372 W013-1.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W0131.DGN PLOT DATE : 02-DEC-2013 13:55 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 3.794391:1.000000
WISDOT/CADDS SHEET 42

STATE PROJECT NUMBER
1060-34-84

CURVE DATA

℄ IH 41

P.C. = STA. 460+92.50
P.T. = STA. 471+91.27
DELTA = 38°-23'-14.05"
R = 1640.00'
L = 1098.77'
T = 570.90'
S.E. = 5.9%

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: RF=1.10
OPERATING RATING FACTOR: RF=1.43
WISCONSIN STANDARD PERMIT VEHICLE (WIS.-SPV): 250 (KIPS)

STRUCTURE B-40-880 IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 POUNDS PER SQUARE FOOT.

STRUCTURE B-40-880 IS RATED FOR A POLYMER OVERLAY THAT WILL BE APPLIED TO THE BRIDGE DECK IN A LATER CONTRACT.

MATERIAL PROPERTIES:

CONCRETE MASONRY DECK F'C = 4,000 P.S.I. ALL OTHER F'C = 4,000 P.S.I.
BAR STEEL REINFORCEMENT, GRADE 60 ——— FY = 60,000 P.S.I.
36W" PRESTRESSED GIRDERS, CONCRETE MASONRY ——— F'C = 8,000 P.S.I.
STRANDS- 0.6" DIA. WITH ULTIMATE TENSILE STRENGTH OF 270,000 P.S.I.

FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON HP10X42 PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 180 TONS * PER PILE AS DETERMINED BY THE PILE DRIVING ANALYZER. PILE POINTS ARE REQUIRED.
ESTIMATED 60'-0" LONG AT WEST ABUTMENT.
ESTIMATED 65'-0" LONG AT EAST ABUTMENT.

PIER TO BE SUPPORTED ON HP12X53 PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 220 TONS * PER PILE AS DETERMINED BY THE PILE DRIVING ANALYZER. PILE POINTS ARE REQUIRED.
ESTIMATED 40'-0" LONG AT PIER.

* THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.65 USING THE PILE DRIVING ANALYZER TO DETERMINE PILE CAPACITY.

UTILITY INFORMATION

(SEE SPECIAL PROVISIONS FOR FURTHER INFORMATION)

1. EXISTING WAUWATOSA SCHOOL DISTRICT LIGHTING TO BE RELOCATED
2. EXISTING WAUWATOSA WATER UTILITY WATERMAIN TO BE RELOCATED
3. EXISTING CITY OF WAUWATOSA 15" STORM SEWER TO BE REPLACED
4. EXISTING WE ENERGIES GAS MAIN TO BE ABANDONED
5. EXISTING AT&T WISCONSIN OVERHEAD LINE TO BE REMOVED
6. EXISTING TIME WARNER CABLE UNDERGROUND LINE TO REMAIN IN PLACE
7. EXISTING CITY OF WAUWATOSA SANITARY SEWER TO REMAIN IN PLACE
8. EXISTING CITY OF WAUWATOSA LIGHTING TO BE RELOCATED
10. PROPOSED WAUWATOSA WATER UTILTY WATER MAIN
11. EXISTING WISDOT STORM SEWER TO REMAIN
12. EXISTING WISDOT FTMS TO BE ABANDONED
13. EXISTING WISDOT LIGHTING TO BE RELOCATED
14. PROPOSED WISDOT 18" DIA. STORM SEWER
15. PROPOSED WISDOT 24" DIA. STORM SEWER
16. PROPOSED WISDOT 30" DIA. STORM SEWER
17. PROPOSED WISDOT 48" X 76" HE STORM SEWER
18. EXISTING CITY OF WAUWATOSA STORM SEWER TO BE REMOVED
19. PROPOSED CITY OF WAUWATOSA 12" DIA. STORM SEWER
20. PROPOSED CITY OF WAUWATOSA 18" DIA. STORM SEWER

PLAN

(TWO SPAN - 36W" PRESTRESSED GIRDERS)

ELEVATION

(LOOKING NORTH)

PROPOSED TYPICAL SECTION THRU IH 41 LOOKING NORTH UNDER B-40-880

(NORMAL TO IH 41)

TRAFFIC VOLUME

CENTER STREET	IH 41
A.D.T. = 5770 (2037)	A.D.T. = 193,000 (2035)
R.D.S. = 30 M.P.H.	R.D.S. = 60 M.P.H.

LIST OF DRAWINGS

1. GENERAL PLAN
2. CROSS SECTION & QUANTITIES
3. SUBSURFACE EXPLORATION
4. WEST ABUTMENT
5. WEST ABUTMENT DETAILS 1
6. WEST ABUTMENT DETAILS 2
7. EAST ABUTMENT
8. EAST ABUTMENT DETAILS 1
9. EAST ABUTMENT DETAILS 2
10. PIER
11. PIER DETAILS 1
12. PIER DETAILS 2
13. 36W" PRESTRESSED GIRDER
14. 36W" PRESTRESSED GIRDER DETAILS
15. STEEL DIAPHRAGM
16. SUPERSTRUCTURE
17. SUPERSTRUCTURE DETAILS 1
18. SUPERSTRUCTURE DETAILS 2
19. VERTICAL FACE PARAPET
20. LIGHT SUPPORT
21. LIGHT SUPPORT DETAILS
22. FENCE DECORATIVE BRIDGE
23. FENCE DECORATIVE BRIDGE DETAILS 1
24. FENCE DECORATIVE BRIDGE DETAILS 2
25. AESTHETIC DETAILS

STRUCTURES DESIGN CONTACTS:
MATT COUPAR (608) 266-5083
AARON BONK (608) 261-0261

NO.	DATE	REVISION	BY

Plans Prepared By **WISDOT**
BUREAU OF STRUCTURES
ACCEPTED William C. Dreher 9/16/15
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-40-880

CENTER STREET OVER IH 41

COUNTY	CITY
MILWAUKEE	WAUWATOSA

DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
APC	MSC	APC	MSC

GENERAL PLAN

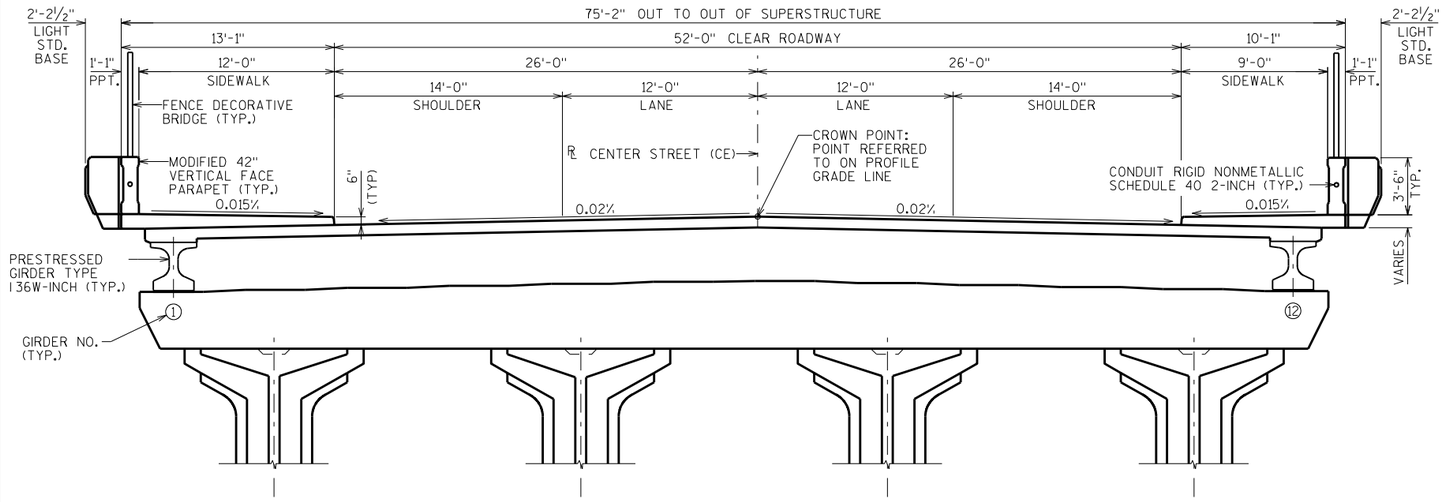
SHEET 1 OF 25

373

I.D. 1060-33-16A

DATE: SEPT. 2015

SCALE = 1B



BRIDGE CROSS SECTION B-40-880

(LOOKING EAST @ PIER)

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	SUPER.	WEST ABUT.	PIER	EAST ABUT.	TOTALS
203.0200	REMOVING OLD STRUCTURE STA. 20+14	LS	——	——	——	——	1
203.0210.S	ABATEMENT OF ASBESTOS CONTAINING MATERIAL B-40-284	LS	——	——	——	——	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-40-880	LS	——	——	——	——	1
210.0100	BACKFILL STRUCTURE	CY	——	269	——	264	533
502.0100	CONCRETE MASONRY BRIDGES	CY	——	53	130	53	236
502.3200	PROTECTIVE SURFACE TREATMENT	SY	1,657	——	——	——	1,657
502.3210	PIGMENTED SURFACE SEALER	SY	43	——	——	——	43
503.0137	PRESTRESSED GIRDER TYPE I 36W-INCH	LF	2,397	——	——	——	2,397
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	——	3,995	3,330	3,995	11,320
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	134,085	460	22,300	515	157,360
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	48	——	——	——	48
506.4000	STEEL DIAPHRAGMS B-40-880	EACH	44	——	——	——	44
511.1200	TEMPORARY SHORING B-40-880	SF	——	——	1,665	——	1,665
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	——	16	——	16	32
550.0500	PILE POINTS	EACH	——	10	24	10	44
550.1100	PILING STEEL HP 10-INCH X 42LB	LF	——	600	——	650	1,250
550.1120	PILING STEEL HP 12-INCH X 53LB	LF	——	——	960	——	960
604.0400	SLOPE PAVING CONCRETE	SY	——	27	——	30	57
652.0125	CONDUIT RIGID METALLIC 2-INCH	LF	——	7	——	7	14
652.0210	CONDUIT RIGID NONMETALLIC SCHEDULE 40 1-INCH	LF	——	——	60	——	60
652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	415	——	——	——	415
653.0222	JUNCTION BOXES 18X12X6-INCH	EACH	4	——	——	——	4
657.6005.S	ANCHOR ASSEMBLIES LIGHT POLES ON STRUCTURES	EACH	4	——	——	——	4
SPV.0035.4000	HPC MASONRY STRUCTURES	CY	669	——	——	——	669
SPV.0060.4001	PILE DYNAMIC ANALYZER (PDA) TESTING	EACH	——	2	2	2	6
SPV.0060.4002	PILE DYNAMIC ANALYZER (PDA) RESTRIKES	EACH	——	2	2	2	6
SPV.0060.4003	CASE PILE WAVE ANALYSIS PROGRAM (CAPWAP) EVALUATION	EACH	——	1	1	1	3
SPV.0090.4004	FENCE DECORATIVE BRIDGE B-40-880	LF	402	——	——	——	402
	NON-BID ITEMS						
	PLASTIC OR ZINC PLATE	SIZE	——	——	——	——	1/8"
	FILLER	SIZE	——	——	——	——	1/2" & 3/4"
	EXPANDED POLYSTYRENE	SIZE	——	——	——	——	1"
	NAME PLATE		——	——	——	——	1

ALL ITEMS ARE CATEGORY 2000

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

ALL REINFORCING BARS ARE ENGLISH. THE FIRST DIGIT OF A THREE DIGIT BAR MARK OR THE FIRST TWO DIGITS OF A FOUR DIGIT BAR MARK SIGNIFY THE BAR SIZE.

AT THE BACKFACE OF ABUTMENT ALL SPACES EXCAVATED AND NOT OCCUPIED BY THE NEW STRUCTURE OR MSE BACKFILL SHALL BE BACKFILLED WITH STRUCTURE BACKFILL.

ELASTOMERIC BEARINGS PADS NEED NOT BE INDIVIDUALLY MOLDED PROVIDED THE CUT EDGES ARE SMOOTH AND TRUE.

THE GRADATION OF THE STRUCTURE BACKFILL SHALL MEET THE REQUIREMENTS OF SECTION 209.2.2 OF THE STANDARD SPECIFICATIONS FOR GRADE 1 MATERIAL.

THE EXISTING GROUND LINE SHALL BE USED AS THE UPPER LIMITS OF EXCAVATION AT THE PIER.

PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE ENTIRE EXPOSED TOP OF THE DECK AND SIDEWALK SURFACES.

PIGMENTED SURFACE SEALER TO BE APPLIED TO THE TOP FACE OF PARAPETS.

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE SHOWN OR NOTED.

CONCRETE MASONRY HIGH PERFORMANCE CONCRETE WHICH INCLUDES THE DECK, HAUNCH OVER GIRDERS, CONCRETE DIAPHRAGMS, SIDEWALKS, AND PARAPETS INCLUDING LIGHT SUPPORTS, SHALL BE PAID UNDER BID ITEM "HPC MASONRY STRUCTURES".

THE COST OF FURNISHING AND PLACING THE SIZE 2 COURSE AGGREGATE SHALL BE CONSIDERED INCIDENTAL TO "SLOPE PAVING CONCRETE".

THE CONTRACTOR MUST COORDINATE THE CONSTRUCTION OF B-40-880 WITH RETAINING WALLS R-40-577 AND R-40-578.

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH SLOPE PAVING MATERIAL TO THE EXTENT SHOWN ON "GENERAL PLAN" SHEET AND ON THE "ABUTMENT DETAILS" SHEETS.

THE UTILITY INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE.

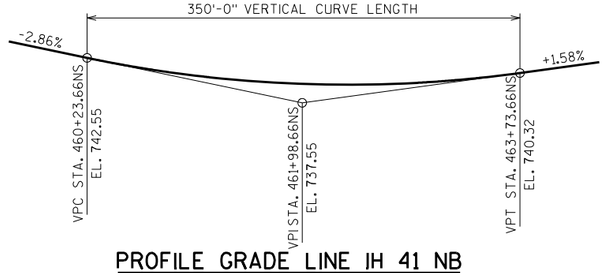
UTILITIES LABELED PROPOSED MAY BE INSTALLED PRIOR TO CONSTRUCTION.

SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF FILLER WITH NON-STAINING, NON-BITUMINOUS JOINT SEALER, (1" DEEP AND 1/8" BELOW SURFACE OF CONCRETE). COLOR TO MATCH STAIN SHOWN ON "AESTHETIC DETAILS" SHEET.

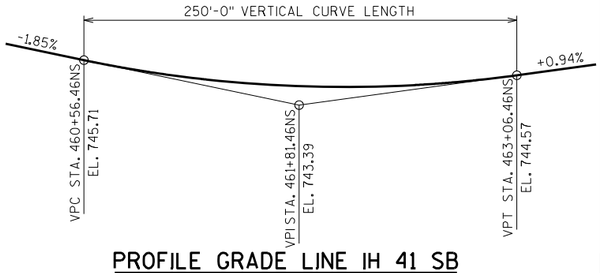
PROVIDE A SACK RUBBED FINISH IN ACCORDANCE TO STANDARD SPECIFICATION 502.3.7.5 AND AS MODIFIED HERE ON ALL EXPOSED CONCRETE SURFACES WHERE CONCRETE STAINING WILL BE APPLIED IN A FUTURE CONTRACT. THE MORTAR SHALL CONTAIN ONE OF THE FOLLOWING ACRYLIC BONDING ADMIXTURES MIXED AND APPLIED IN ACCORDANCE TO MANUFACTURER'S RECOMMENDATIONS; TK-225 BY TK PRODUCTS, ACHRO 60 BY THORO PRODUCTS, OR ACHRO SET BY MASTER BUILDERS. THIS WORK IS INCIDENTAL TO THE BID ITEMS "CONCRETE MASONRY BRIDGES" AND "HPC MASONRY STRUCTURES".

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), MILWAUKEE COUNTY ZONE, NAD 83 (2007). ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM NAVD 88 (2007).

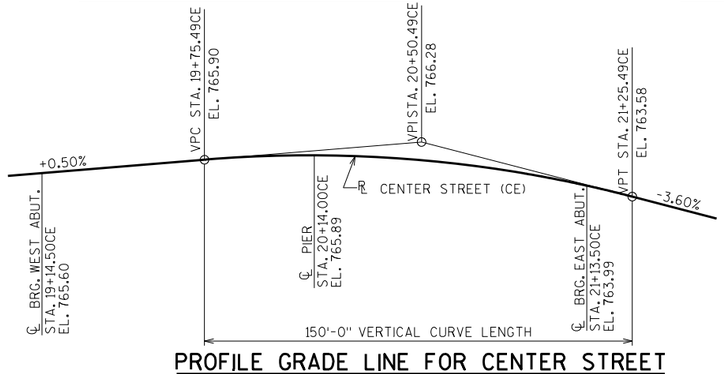
ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED.



PROFILE GRADE LINE IH 41 NB



PROFILE GRADE LINE IH 41 SB



PROFILE GRADE LINE FOR CENTER STREET

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-880

DRAWN BY APC | PLANS CK'D. MSC

CROSS SECTION & QUANTITIES

SHEET 2

374

STATE PROJECT NUMBER

1060-34-84

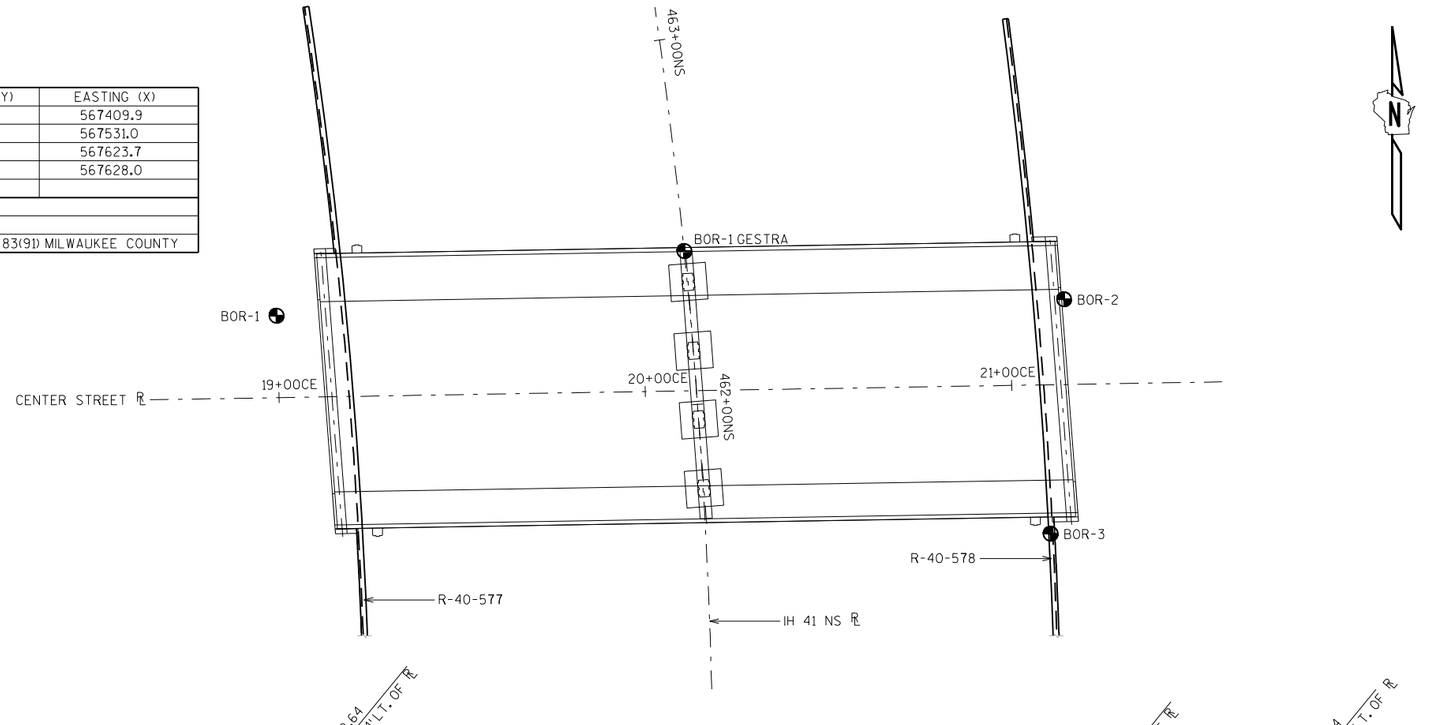
8

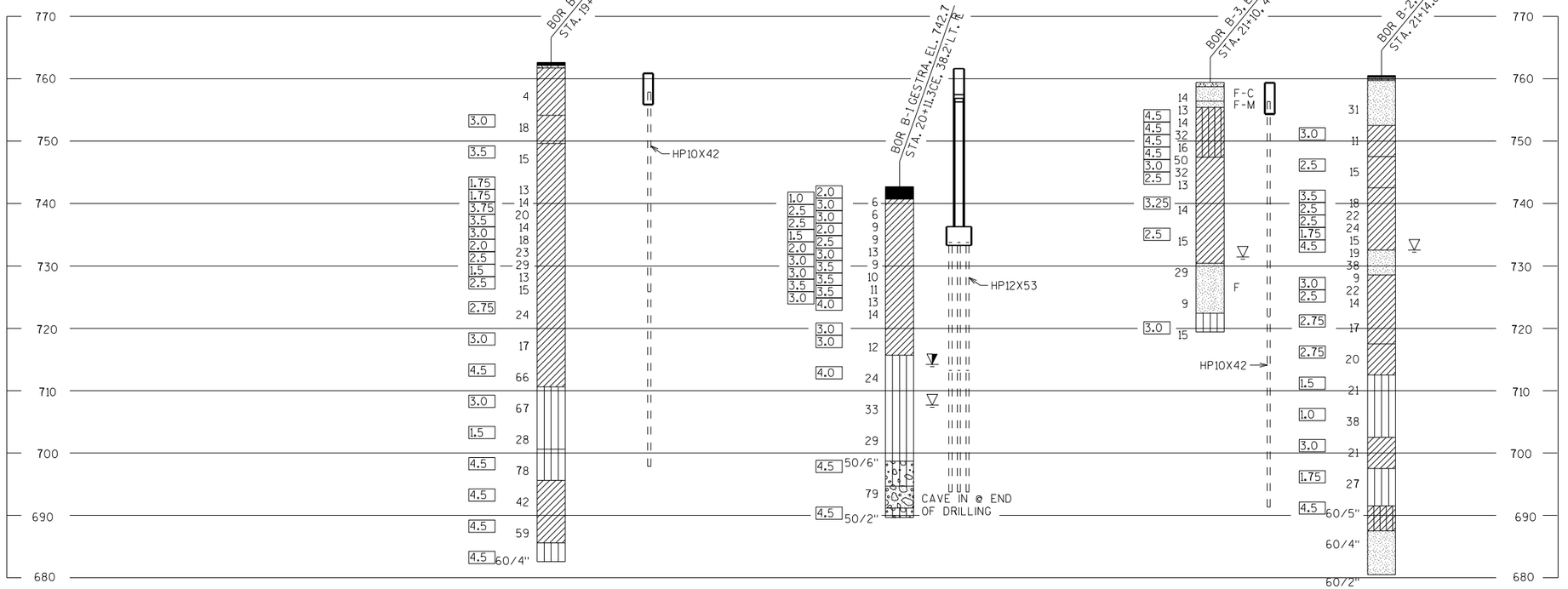
8

SCALE = 4.5

ZOO INTERCHANGE, NORTH LEG
CENTER STREET OVER IH 41

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	11/3/2014	310125.9	567409.9
GESTRA 1	10/16/2014	310131.3	567531.0
2	11/4/2014	310125.5	567623.7
3	11/5/2014	310040.4	567628.0
BORINGS COMPLETED BY: PSI/GESTRA			
REPORT COMPLETED BY: WISDOT			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) MILWAUKEE COUNTY			





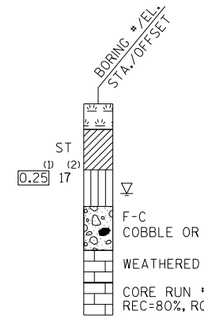
STATE PROJECT NUMBER

1060-34-84

MATERIAL SYMBOLS

ASPHALT · TOPSOIL · PEAT
CONCRETE · FILL · GRAVEL
SAND · CLAY · SILT
BOULDERS OR COBBLES · LIMESTONE · BEDROCK (UNKNOWN)
SHALE · SANDSTONE · IGNEOUS/META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

▽ AT TIME OF DRILLING
▼ END OF DRILLING
▽ AFTER DRILLING

ABBREVIATIONS

F-FINE · M-MEDIUM · C-COARSE · ST-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-880

DRAWN BY PR/APC · PLANS CK'D. MSC

SUBSURFACE EXPLORATION

SHEET 3

375

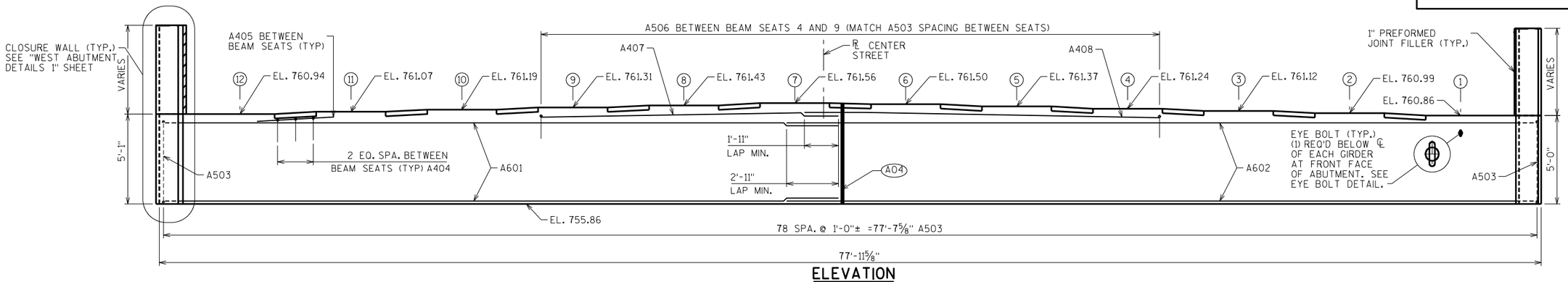
SCALE = 20

8

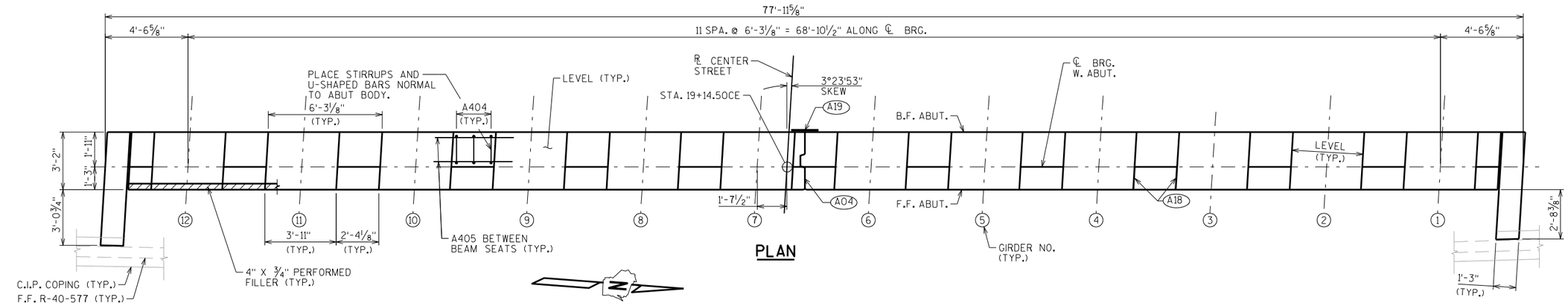
8

STATE PROJECT NUMBER

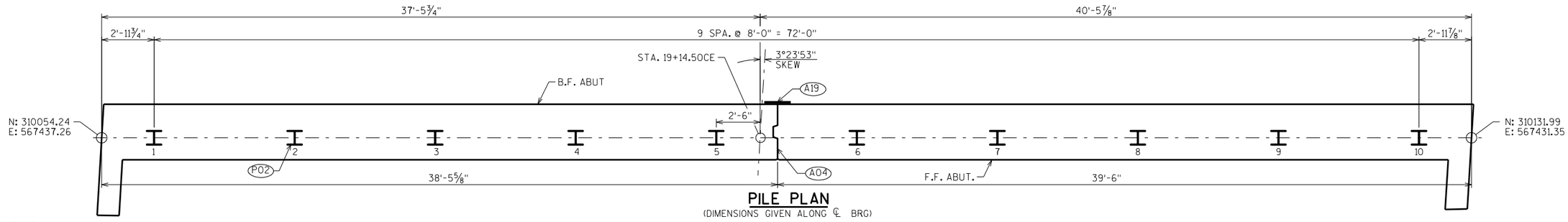
1060-34-84



ELEVATION
(LOOKING WEST)



PLAN



PILE PLAN
(DIMENSIONS GIVEN ALONG ℄ BRG)

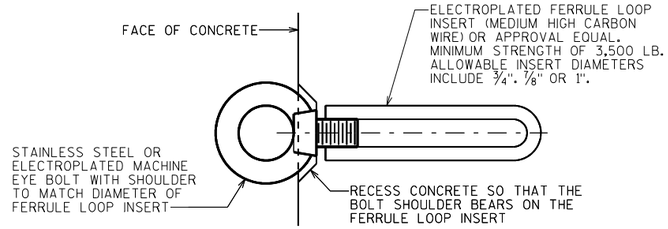
LEGEND

(A04) VERT. CONSTRUCTION JOINT: KEYWAY FORMED BY A BEVELED 2 x 8. 3/4" "V" GROOVE @ THE FRONT FACE AND 18" R.M.W. @ BACKFACE. FOR OPTIONAL DETAILS SEE "WEST ABUTMENT DETAILS 2" SHEET.

(A18) 3/4" CORK FILLER UP VERT. BEAM SEAT FACES THAT RUN PARALLEL WITH GIRDER.

(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

(P02) SUPPORT ABUTMENT ON HP 10 x 42 STEEL PILING, ESTIMATED 60'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 180 TONS PER PILE. PILE POINTS ARE REQUIRED.



EYE BOLT DETAIL
COST INCIDENTAL TO BID ITEM "CONCRETE MASONRY BRIDGES".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-880

DRAWN BY APC | PLANS CK'D. MSC

WEST ABUTMENT | SHEET 4 | 376

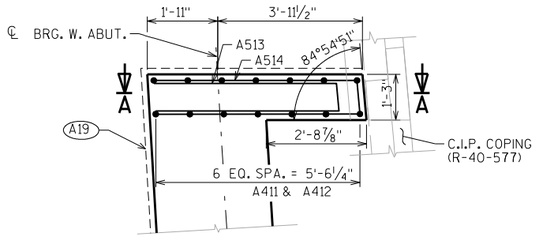
SCALE = 3

8

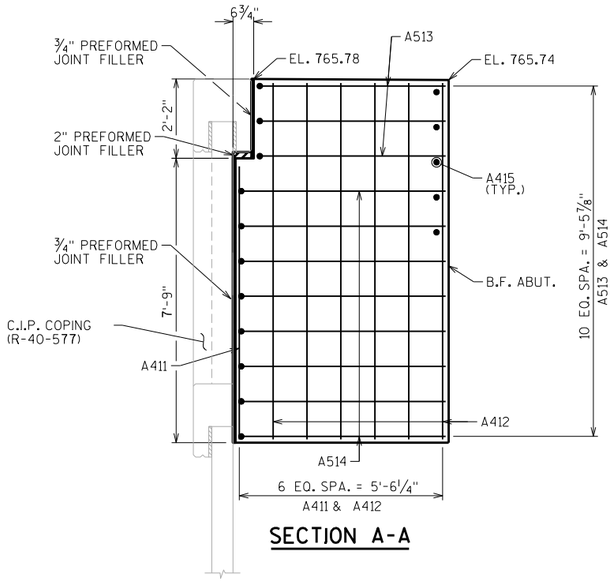
8

STATE PROJECT NUMBER

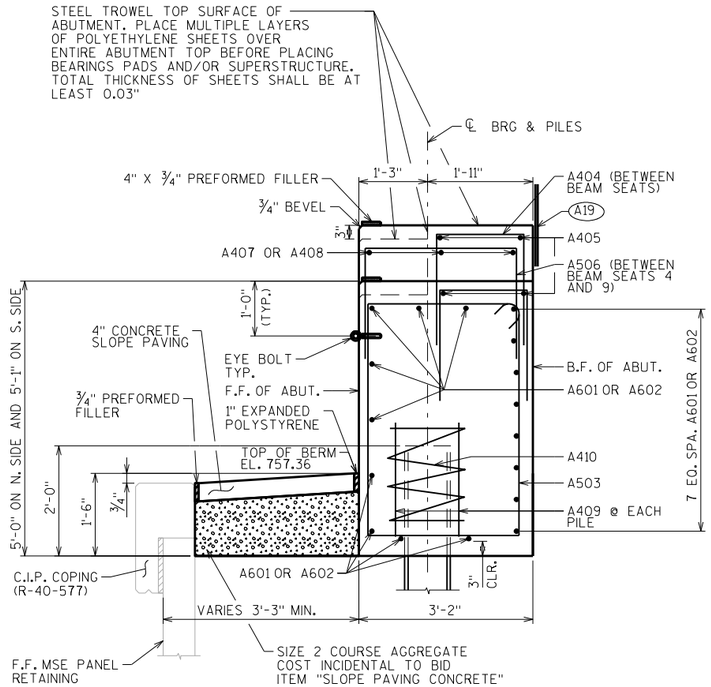
1060-34-84



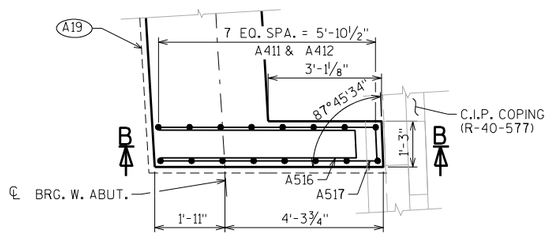
NORTHWEST CLOSURE WALL PLAN



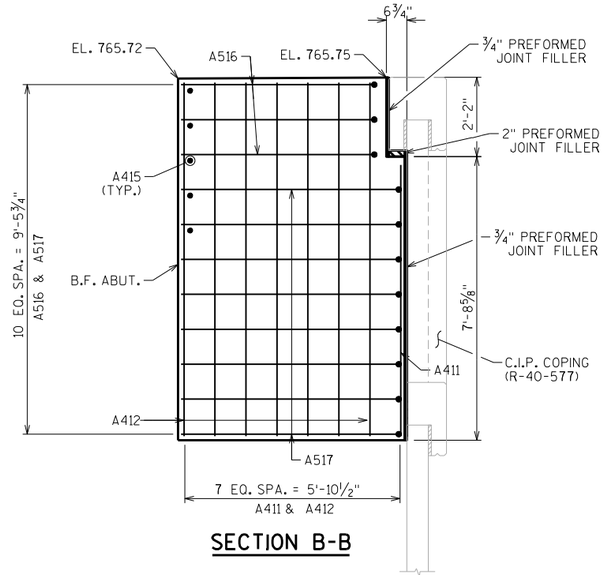
SECTION A-A



SECTION THRU BODY
(LOOKING SOUTH)



SOUTHWEST CLOSURE WALL PLAN



SECTION B-B

A19 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING
SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-880

DRAWN BY APC | PLANS CK'D. MSC

WEST ABUTMENT
DETAILS 1

SHEET 5

377

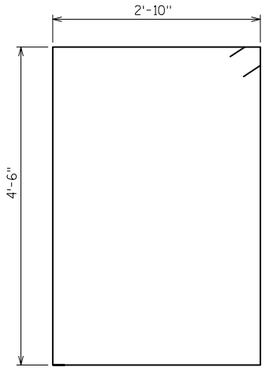
SCALE = 2.0

8

8

STATE PROJECT NUMBER

1060-34-84



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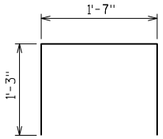

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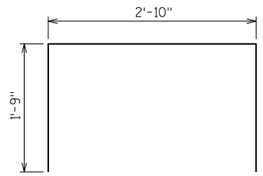

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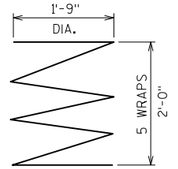

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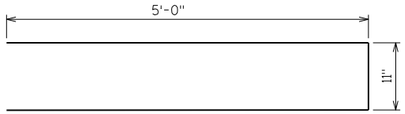

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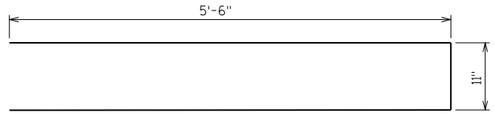

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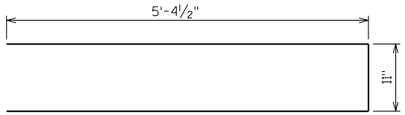

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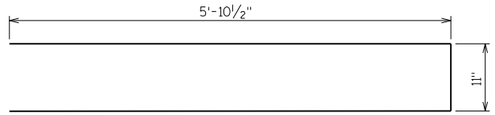
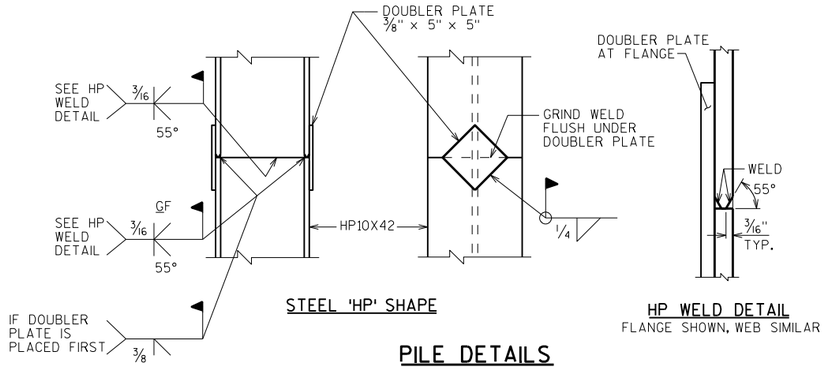


A517

BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

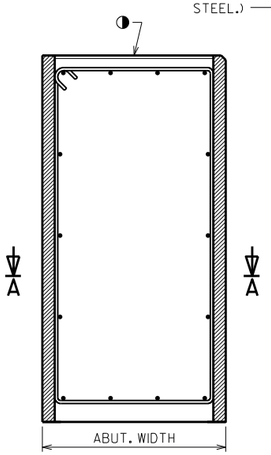
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A601		17	38'-3"			BODY-HORIZONTAL SOUTH END
A602		17	42'-5"			BODY-HORIZONTAL NORTH END
A503		79	15'-4"	X		BODY STIRRUP
A404		33	3'-11"	X		BODY VERT.- BETWEEN BEAM SEATS
A405		22	4'-4"			BODY-HORIZONTAL BETWEEN BEAM SEATS
A506		36	6'-1"	X		BODY VERT.-TOP
A407		3	15'-8"			BODY-TOP HORIZONTAL SOUTH END
A408		3	21'-3"			BODY-TOP HORIZONTAL NORTH END
A409		20	2'-3"			VERTICALS AT PILE
A410		10	28'-0"	X		PILE WRAP
A411	X	4	7'-4"			CLOSURE WALL-VERTICALS
A412	X	26	9'-6"			CLOSURE WALL VERTICALS
A513	X	3	10'-8"	X		NW CLOSURE WALL-HORIZ.
A514	X	8	11'-8"	X		NW CLOSURE WALL-HORIZ.
A415	X	10	0'-11"			CLOSURE WALL-HORIZ.
A516	X	3	11'-5"	X		SW CLOSURE WALL-HORIZ.
A517	X	8	12'-5"	X		SW CLOSURE WALL-HORIZ.



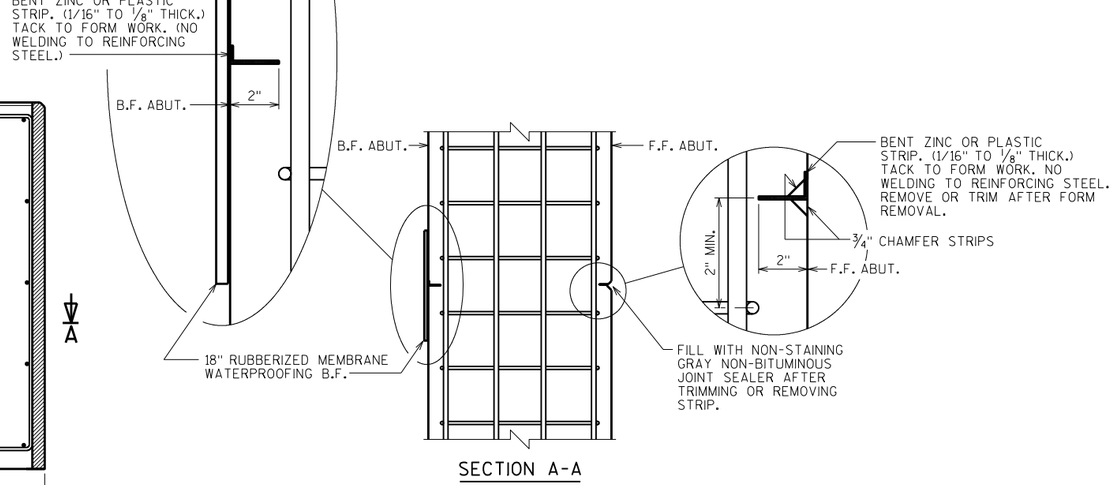
STEEL 'HP' SHAPE

HP WELD DETAIL
FLANGE SHOWN, WEB SIMILAR

PILE DETAILS



SECTION THRU ABUTMENT BODY



SECTION A-A

ALTERNATE CONSTRUCTION JOINT AT ABUTMENT

NOTES

PARTIAL ZINC OR PLASTIC BULKHEAD MAY BE USED AS ALTERNATE CONSTRUCTION JOINT, WITH THE PERMISSION OF THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.

VERTICAL CONSTRUCTION JOINT KEYWAY IS NOT REQUIRED WHEN USING ALTERNATE CONSTRUCTION JOINT.

CARE IS TO BE USED IN CASTING CONCRETE AROUND BULKHEAD TO PREVENT DISLOCATION OR MISALIGNMENT OF THE BULKHEAD.

◑ USE A JOINT TOOL TO CONSTRUCT A CONTRACTION JOINT APPROXIMATELY 1/2" DEEP.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-880

DRAWN BY APC | PLANS CK'D. MSC

WEST ABUTMENT DETAILS 2

SHEET 6

378

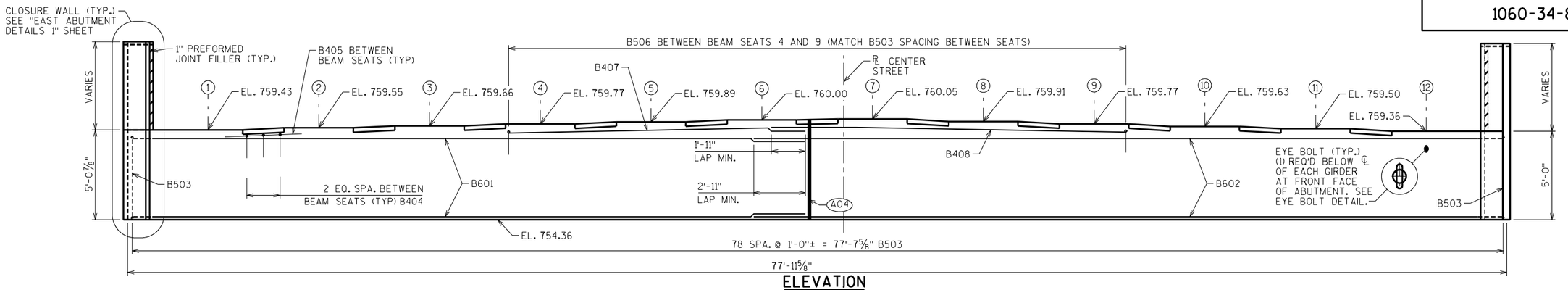
SCALE = 1.0

8

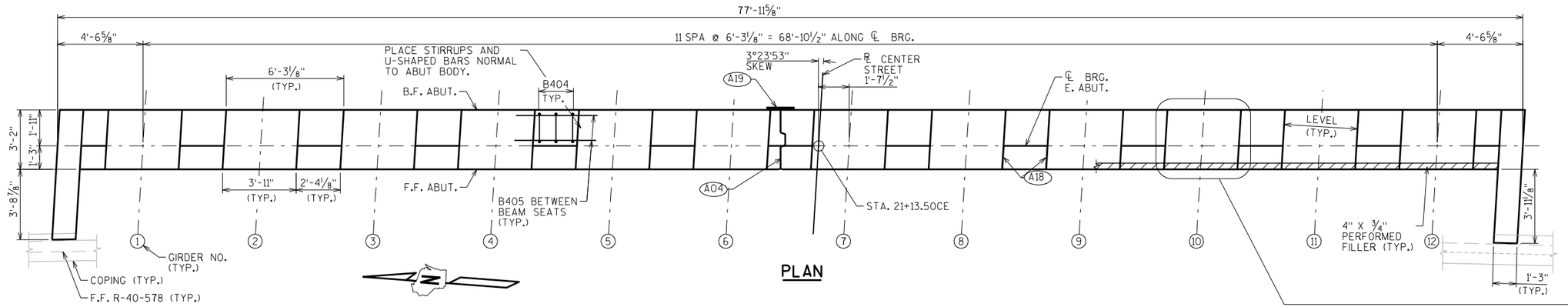
8

STATE PROJECT NUMBER

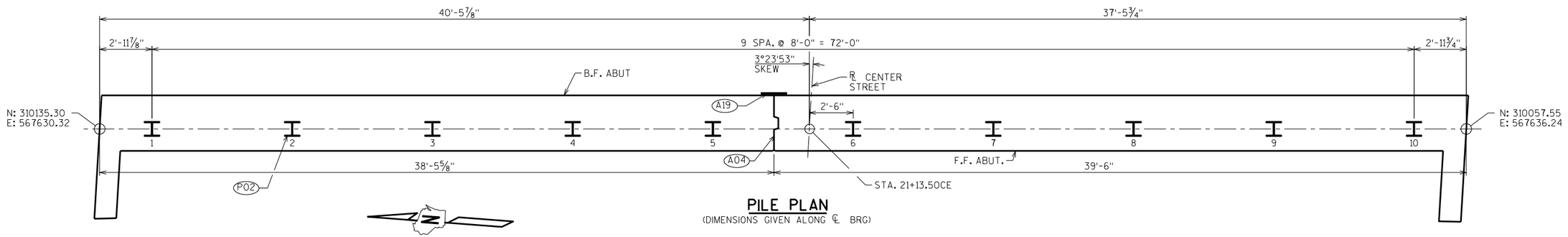
1060-34-84



ELEVATION
(LOOKING EAST)



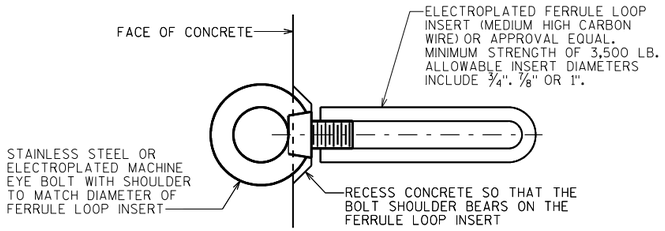
PLAN



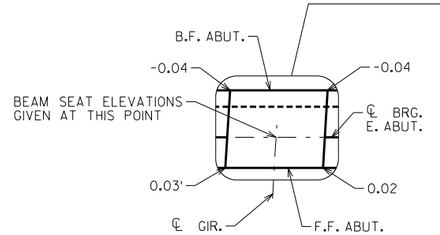
PILE PLAN
(DIMENSIONS GIVEN ALONG ℄ BRG)

LEGEND

- (A04) VERT. CONSTRUCTION JOINT: KEYWAY FORMED BY A BEVELED 2 x 8. 3/4" "V" GROOVE @ THE FRONT FACE AND 18" R.M.W. @ BACKFACE. FOR OPTIONAL DETAILS SEE "EAST ABUTMENT DETAILS 2" SHEET
- (A18) 3/4" CORK FILLER UP VERT. BEAM SEAT FACES THAT RUN PARALLEL WITH GIRDER.
- (A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.
- (P02) SUPPORT ABUTMENT ON HP 10 x 42 STEEL PILING. ESTIMATED 65'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 180 TONS PER PILE. PILE POINTS ARE REQUIRED.



EYE BOLT DETAIL
COST INCIDENTAL TO BID ITEM "CONCRETE MASONRY BRIDGES".



SLOPED BEAM SEAT DETAIL
(TYP. AT ALL E. ABUT. SEATS)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-880

DRAWN BY APC | PLANS CK'D. MSC

EAST ABUTMENT

SHEET 7

379

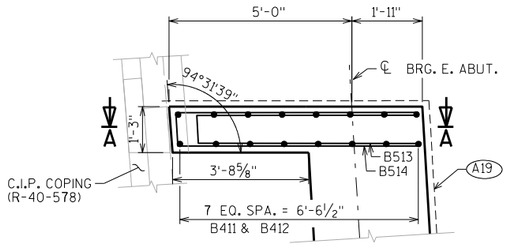
SCALE = 3

8

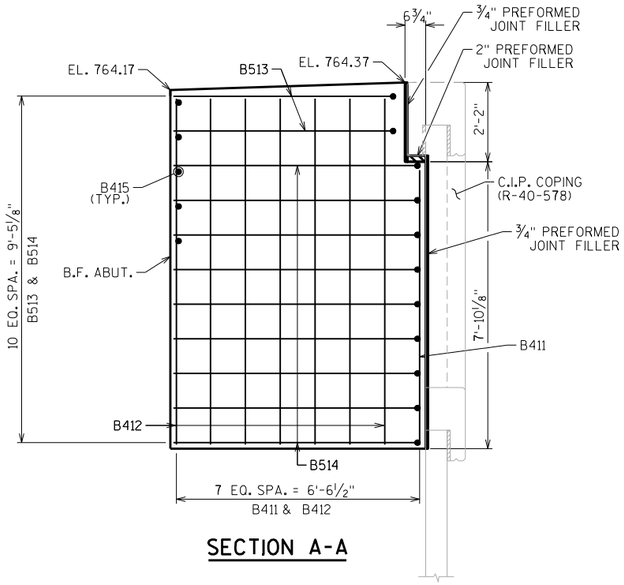
8

STATE PROJECT NUMBER

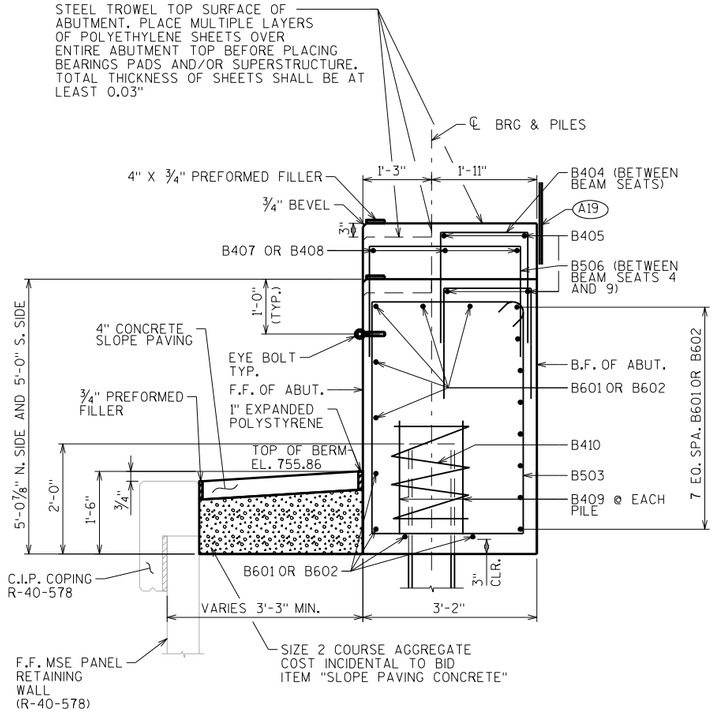
1060-34-84



NORTHEAST CLOSURE WALL PLAN

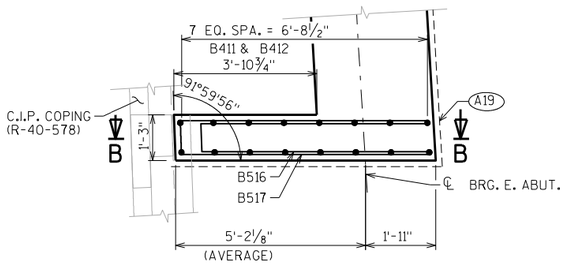


SECTION A-A

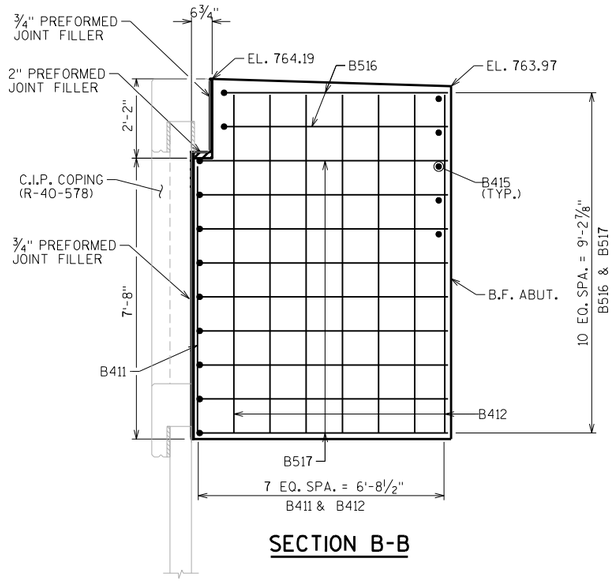


SECTION THRU BODY

(LOOKING NORTH)



SOUTHEAST CLOSURE WALL PLAN



SECTION B-B

A19 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING
SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-880

DRAWN BY APC | PLANS CK'D. MSC

EAST ABUTMENT
DETAILS 1

SHEET 8

380

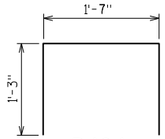
SCALE = 2.0

8

8

STATE PROJECT NUMBER

1060-34-84



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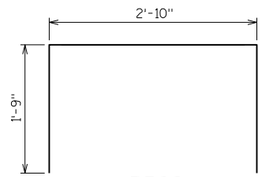

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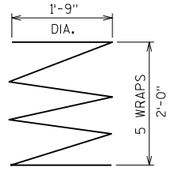

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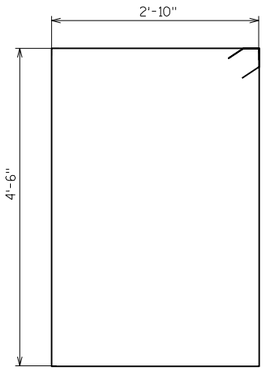

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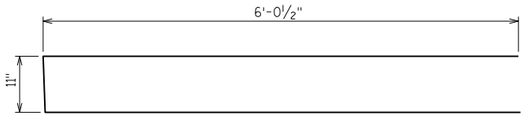

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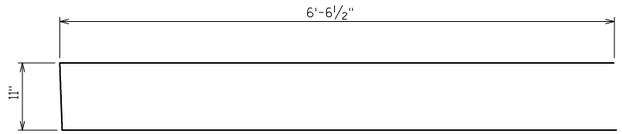

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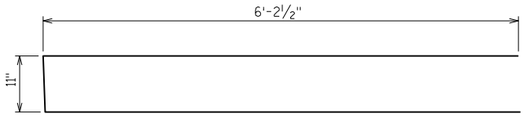

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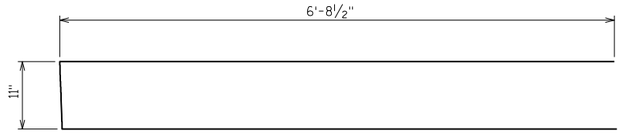
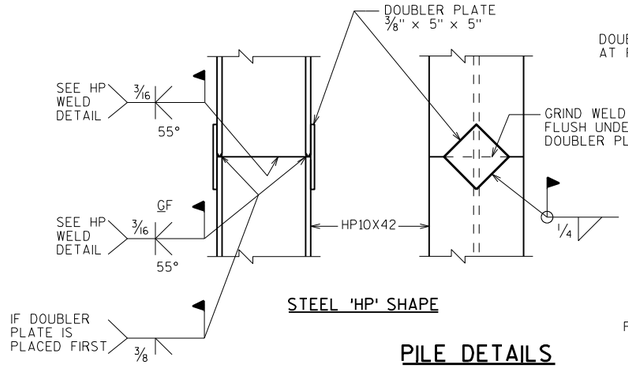


B517

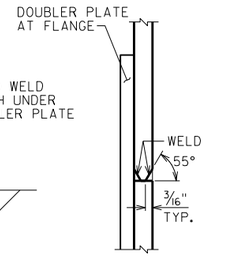
BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
B601		17	38'-3"			BODY-HORIZONTAL NORTH END
B602		17	42'-5"			BODY-HORIZONTAL SOUTH END
B503		79	15'-4"	X		BODY STIRRUP
B404		33	3'-11"	X		BODY VERT.-TOP BETWEEN BEAM SEATS
B405		22	4'-4"			BODY-HORIZONTAL BETWEEN BEAM SEATS
B506		36	6'-1"	X		BODY VERT.
B407		3	15'-8"			BODY-TOP HORIZONTAL NORTH END
B408		3	21'-3"			BODY-TOP HORIZONTAL SOUTH END
B409		20	2'-3"			VERTICALS AT PILE
B410		10	28'-0"	X		PILE WRAP
B411	X	4	7'-3"			CLOSURE WALL-VERTICALS
B412	X	28	9'-3"			CLOSURE WALL-VERTICALS
B513	X	2	12'-9"	X		NE CLOSURE WALL-HORIZ.
B514	X	9	13'-9"	X		NE-CLOSURE WALL-HORIZ.
B415	X	10	0'-11"			CLOSURE WALL-HORIZONTAL
B516	X	2	13'-1"	X		SE-CLOSURE WALL-HORIZ.
B517	X	9	14'-1"	X		SE-CLOSURE WALL-HORIZ.

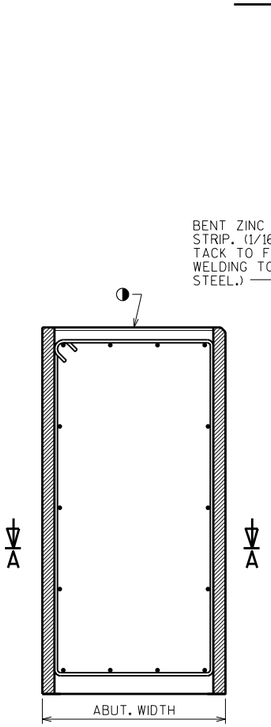


STEEL 'HP' SHAPE

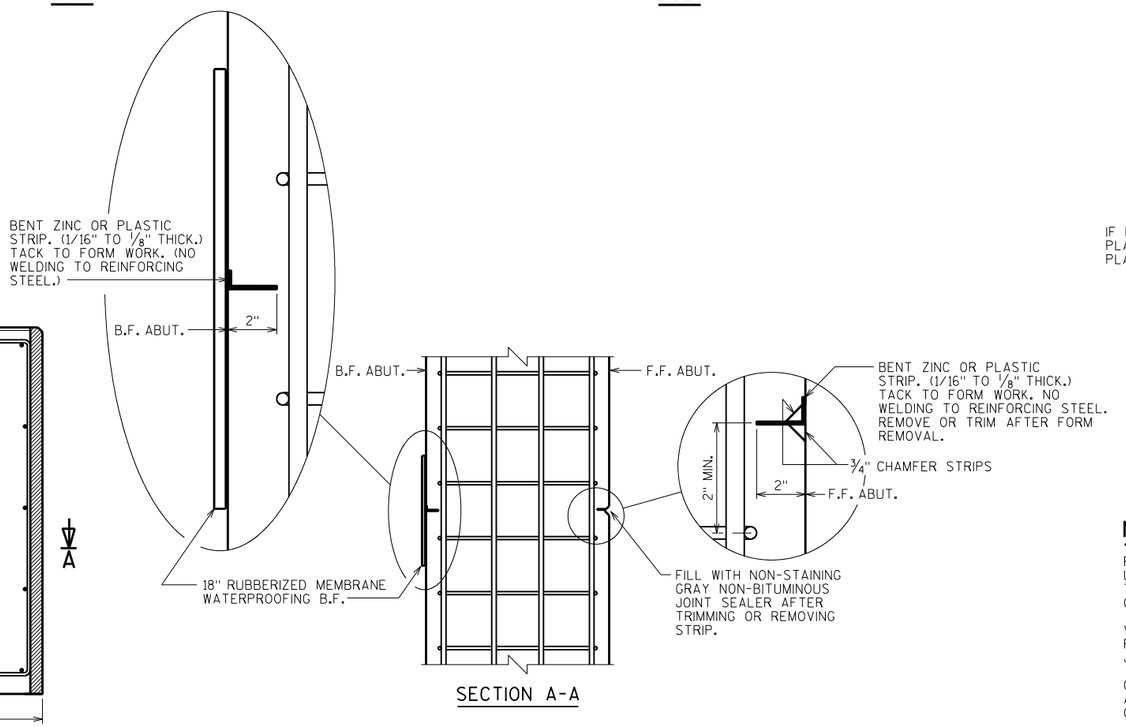


HP WELD DETAIL
FLANGE SHOWN, WEB SIMILAR

PILE DETAILS



SECTION THRU ABUTMENT BODY



SECTION A-A

ALTERNATE CONSTRUCTION JOINT AT ABUTMENT

NOTES

PARTIAL ZINC OR PLASTIC BULKHEAD MAY BE USED AS ALTERNATE CONSTRUCTION JOINT, WITH THE PERMISSION OF THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.

VERTICAL CONSTRUCTION JOINT KEYWAY IS NOT REQUIRED WHEN USING ALTERNATE CONSTRUCTION JOINT.

CARE IS TO BE USED IN CASTING CONCRETE AROUND BULKHEAD TO PREVENT DISLOCATION OR MISALIGNMENT OF THE BULKHEAD.

◑ USE A JOINT TOOL TO CONSTRUCT A CONTRACTION JOINT APPROXIMATELY ½" DEEP.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-880

DRAWN BY APC | PLANS CK'D. MSC

EAST ABUTMENT DETAILS 2

SHEET 9

381

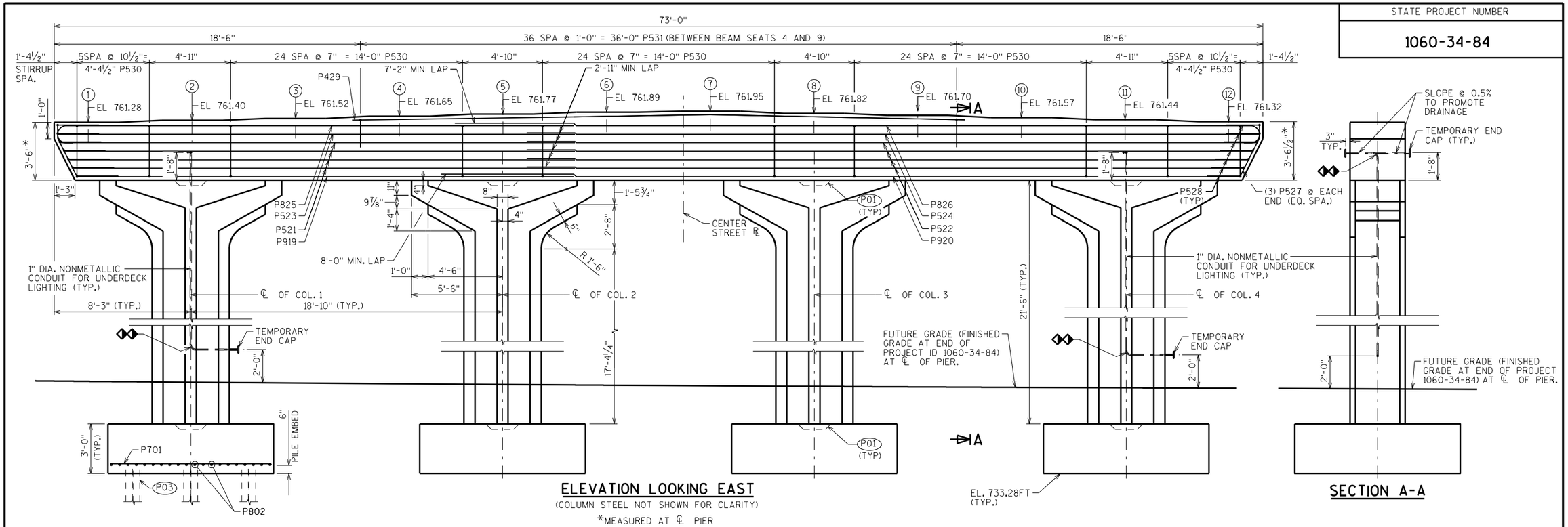
SCALE = 1.0

8

8

STATE PROJECT NUMBER

1060-34-84



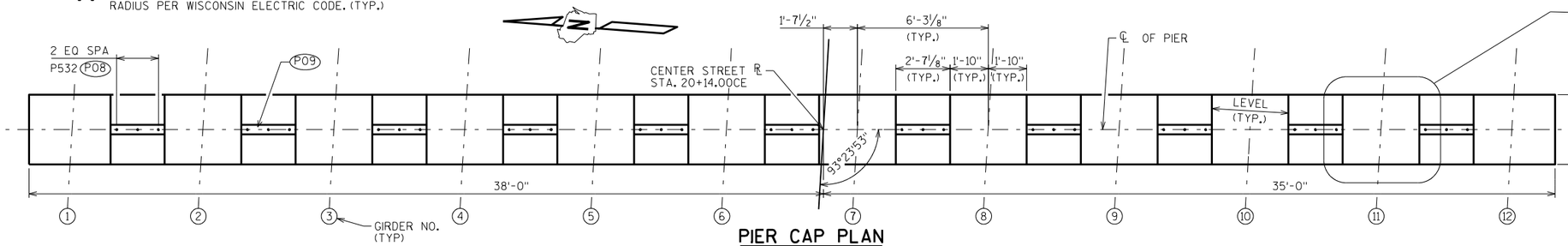
ELEVATION LOOKING EAST

(COLUMN STEEL NOT SHOWN FOR CLARITY)

*MEASURED AT ℄ PIER

SECTION A-A

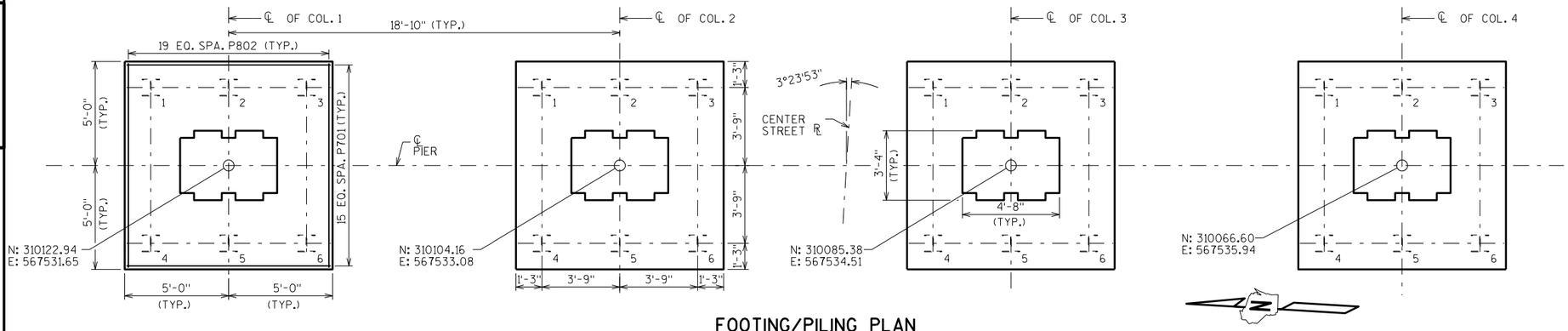
◆◆ FOR 45° BENDS IN CONDUITS, USE MINIMUM BENDING RADIUS PER WISCONSIN ELECTRIC CODE. (TYP.)



PIER CAP PLAN

SLOPED BEAM SEAT DETAIL

(TYP. AT ALL BEAM SEATS)



FOOTING/PILING PLAN

(P01) 1'-3" X 2'-0" X 4" CONSTRUCTION JOINT FORMED BY BEVELED KEYWAY.

(P03) SUPPORT PIER ON HP 12 x 53 STEEL PILING. ESTIMATED 40'-0" LONG WITH A REQUIRED DRIVING RESISTANCE OF 220 TONS PER PILE. PILE POINTS ARE REQUIRED.

(P08) BARS @ 1'-0" CTRS. BETWEEN BEAM SEATS. MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. (EMBED 1'-0" INTO CONC.)

(P09) KEYED CONSTRUCTION JOINT-FORMED BY BEVELED 2 x 6 BETWEEN BEAM SEATS.

NO.	DATE	REVISION	BY

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STRUCTURES DESIGN SECTION

STRUCTURE B-40-880

DRAWN BY APC | PLANS CK'D. MSC

PIER | SHEET 10

382

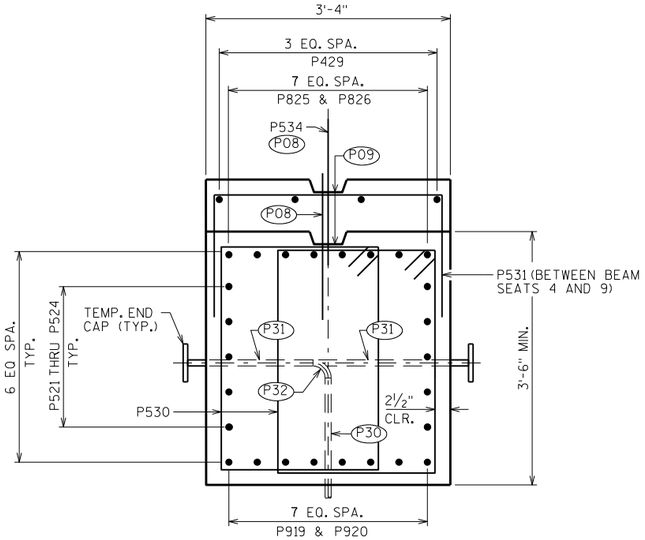
8

8

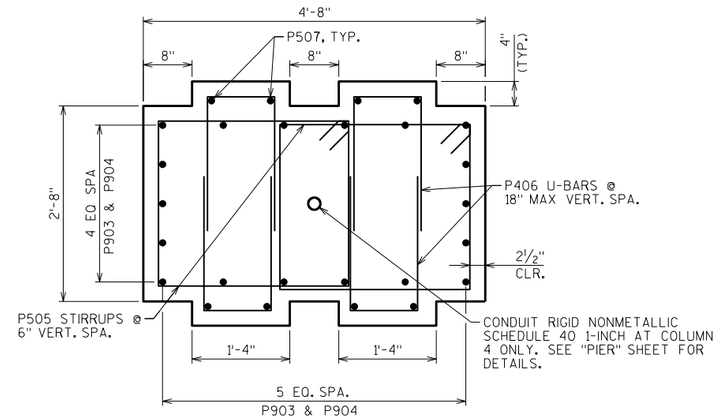
SCALE = 3.0

STATE PROJECT NUMBER

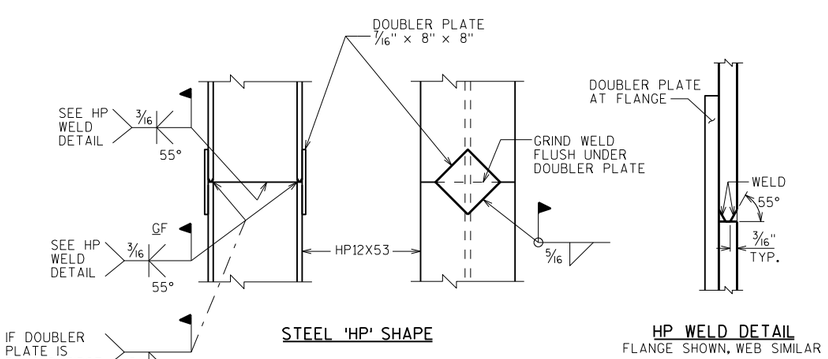
1060-34-84



TYPICAL SECTION THRU CAP



SECTION THRU COLUMN

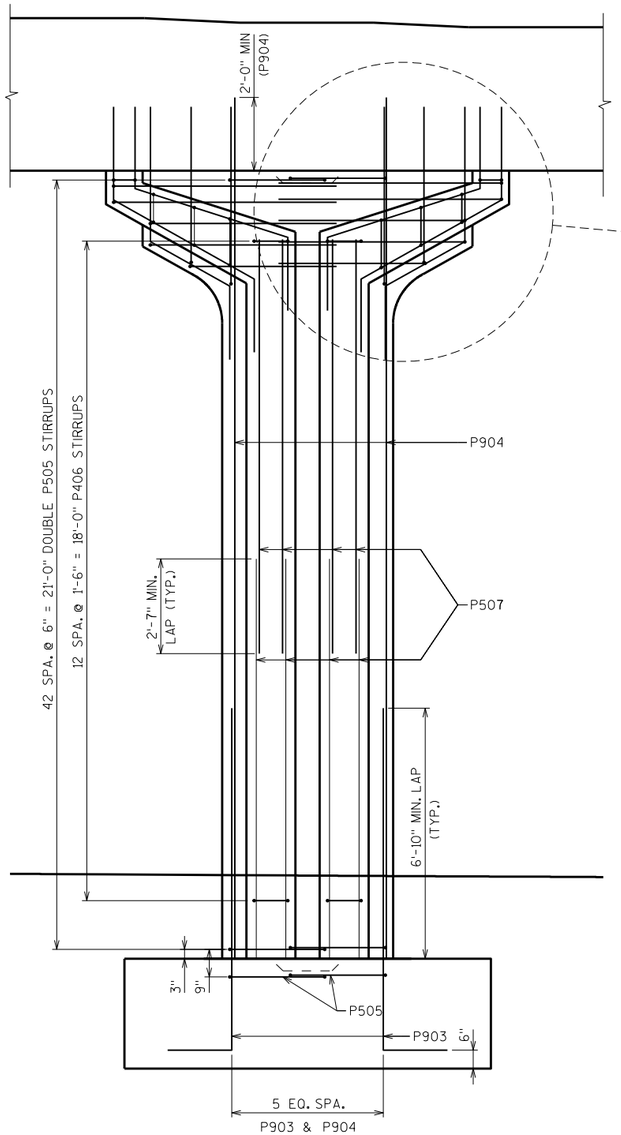


STEEL 'HP' SHAPE

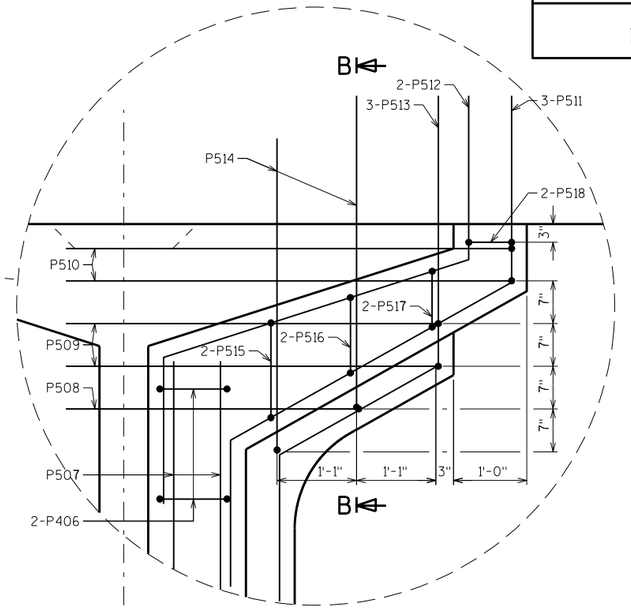
HP WELD DETAIL

FLANGE SHOWN, WEB SIMILAR

PILE DETAILS

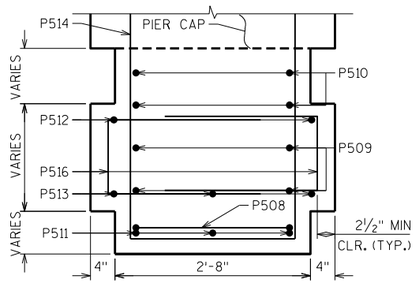


TYPICAL COLUMN ELEVATION



TOP OF COLUMN REINFORCEMENT DETAIL

(SHOWING SECONDARY REINFORCING ONLY)



SECTION B-B

(P08) BARS @ 1'-0" CTRS. BETWEEN BEAM SEATS. MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. (EMBED 1'-0" INTO CONC.)

(P09) KEYED CONSTRUCTION JOINT-FORMED BY BEVELED 2 x 6 BETWEEN BEAM SEATS.

(P30) 1" DIA. NONMETALLIC CONDUIT FOR UNDERDECK LIGHTING.

(P31) 1" DIA. NONMETALLIC CONDUIT FOR UNDERDECK LIGHTING. SLOPE @ 0.5% TO PROMOTE DRAINAGE.

(P32) FOR 45° BENDS IN CONDUITS, USE MINIMUM BENDING RADIUS PER WISCONSIN ELECTRIC CODE.

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-880

DRAWN BY APC | PLANS CK'D. MSC

PIER DETAILS 1

SHEET 11

383

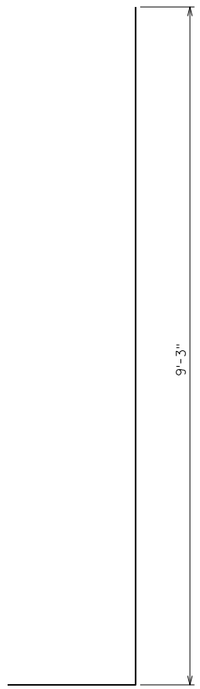
SCALE = 2.0

8

8

STATE PROJECT NUMBER

1060-34-84



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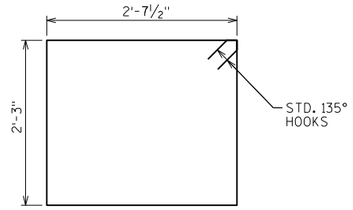
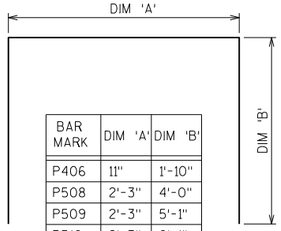
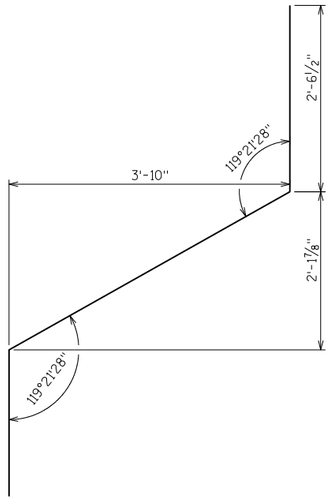


P505



BAR MARK	DIM 'A'	DIM 'B'
P406	11"	1'-10"
P508	2'-3"	4'-0"
P509	2'-3"	5'-1"
P510	2'-3"	6'-1"
P514	2'-1"	4'-3"
P515	1'-4"	2'-1"
P516	1'-1"	2'-1"
P517	9"	2'-1"
P518	7"	2'-1"
P528	2'-9"	1'-9"
P531	2'-11"	1'-9"



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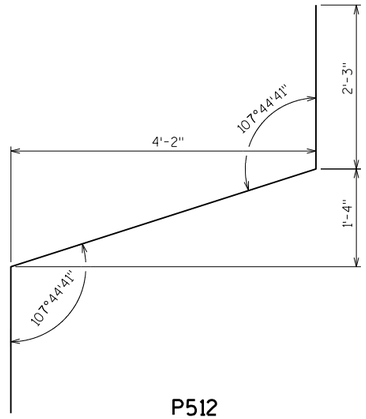

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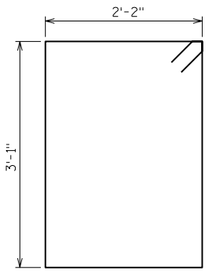

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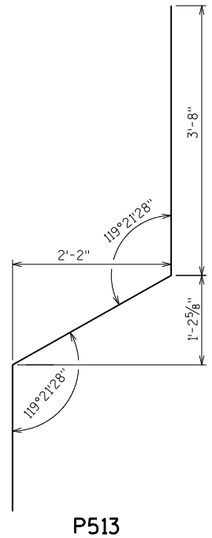

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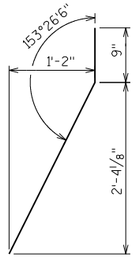

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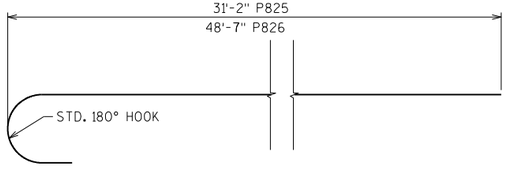


P825 & P826

BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
P701		64	9"-8"			FOOTING
P802		80	9'-8"			FOOTING
P903	X	72	10'-7"	X		FOOTING/COL. VERT.
P904	X	72	23'-6"			COL. VERT.
P505	X	352	10'-5"	X		COL. HORIZ. - STIRRUP
P406	X	208	4'-5"	X		COL. HORIZ. - U-BAR
P507	X	64	11'-0"			COL. VERT.
P508	X	8	10'-0"	X		HAMMERHEAD HORIZ. - U-BAR
P509	X	16	12'-2"	X		HAMMERHEAD HORIZ. - U-BAR
P510	X	16	14'-2"	X		HAMMERHEAD HORIZ. - U-BAR
P511	X	24	8'-11"	X		HAMMERHEAD VERT.
P512	X	16	8'-8"	X		HAMMERHEAD VERT.
P513	X	24	8'-2"	X		HAMMERHEAD VERT.
P514	X	16	10'-4"	X		HAMMERHEAD VERT.
P515	X	16	5'-3"	X		HAMMERHEAD VERT. - U-BAR
P516	X	16	5'-0"	X		HAMMERHEAD VERT. - U-BAR
P517	X	16	4'-8"	X		HAMMERHEAD VERT. - U-BAR
P518	X	16	4'-6"	X		HAMMERHEAD HORIZ. - U-BAR
P919	X	8	30'-0"			CAP BOT. HORIZ. - N. SIDE
P920	X	8	48'-3"			CAP BOT. HORIZ. - S. SIDE
⚠ P521	X	8	30'-8"		X	CAP MIDDLE HORIZ. - N. SIDE
⚠ P522	X	8	43'-8"		X	CAP MIDDLE HORIZ. - S. SIDE
P523	X	2	31'-3"			CAP MIDDLE HORIZ. - N. SIDE
P524	X	2	44'-3"			CAP MIDDLE HORIZ. - S. SIDE
P825	X	8	32'-1"	X		CAP TOP HORIZ. - N. SIDE
P826	X	8	49'-6"	X		CAP TOP HORIZ. - S. SIDE
P527	X	6	3'-4"	X		CAP END VERT.
P528	X	14	6'-0"	X		CAP END HORIZ. - U-BAR
P429	X	4	37'-0"			CAP TOP HORIZ. - BTWN BEAM SEATS 4 TO 9
P530	X	174	11'-2"	X		CAP DOUBLE STIRRUP
P531	X	37	6'-2"	X		CAP TOP VERT. - BTWN. BEAM SEATS 4 TO 9
P532	X	33	2'-0"			DOWEL BARS BTWN. BEAM SEATS

⚠ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

BAR SERIES TABLE

MARK	NO. REQD.	LENGTH
P521	2 SERIES OF 4	30'-4" TO 31'-1"
P522	2 SERIES OF 4	43'-4" TO 44'-1"

BUNDLE AND TAG EACH SERIES SEPARATELY.

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-880

DRAWN BY APC | PLANS CK'D. MSC

PIER DETAILS 2

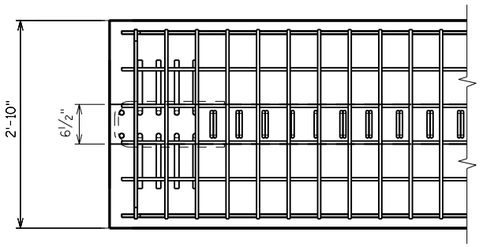
SHEET 12

384

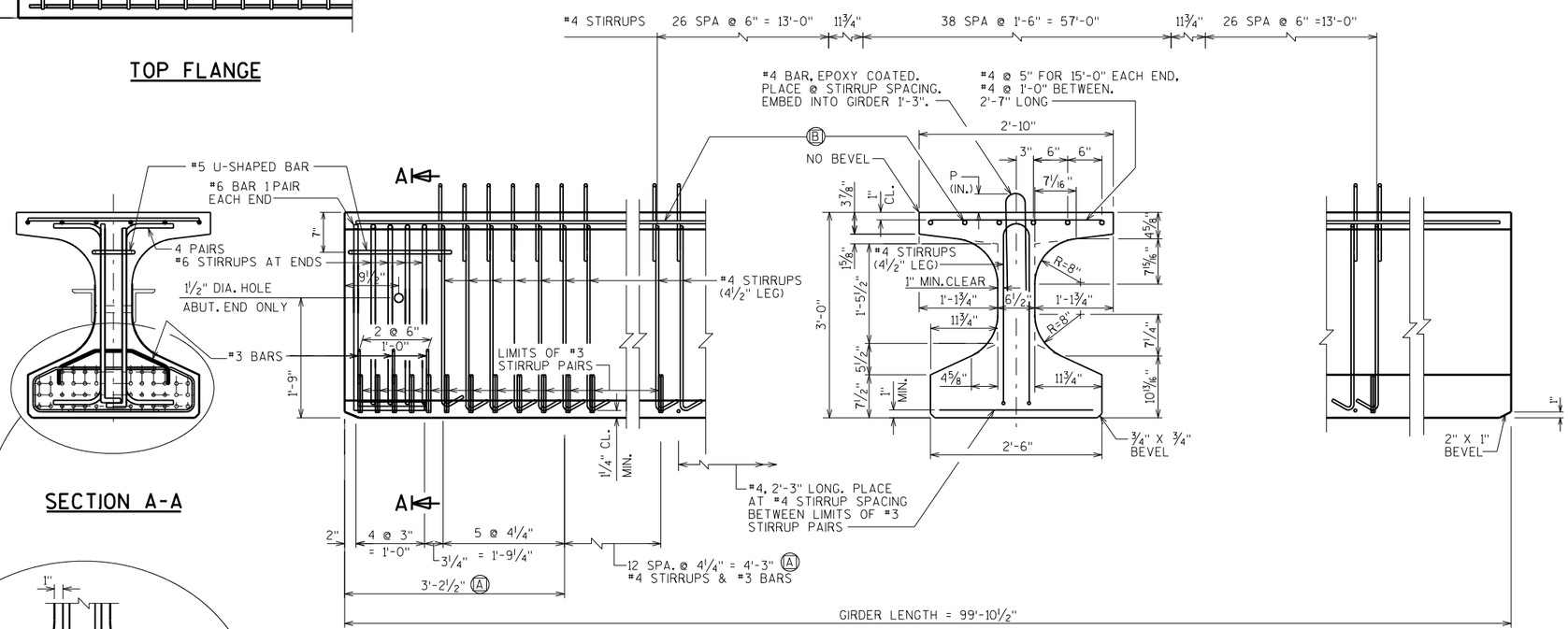
SCALE = 1.0

STATE PROJECT NUMBER

1060-34-84



TOP FLANGE

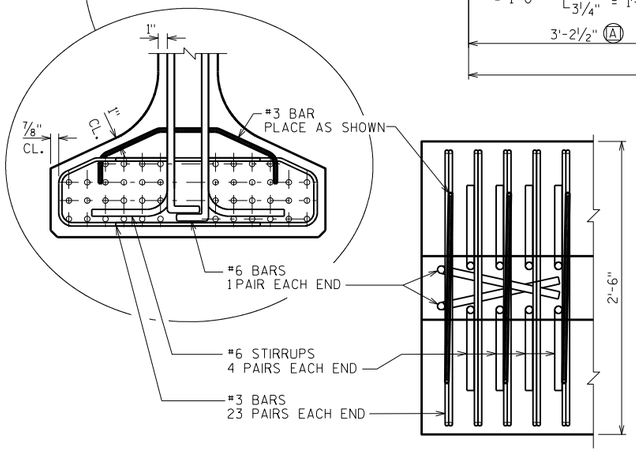


SECTION A-A

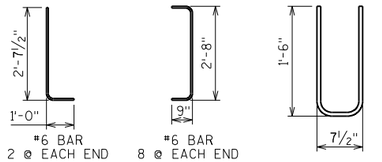
SIDE VIEW & TYPICAL SECTION IN SPAN

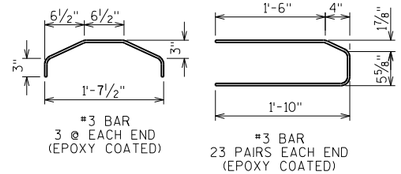
(A) DETAIL TYP. AT EACH END

(B) 6 #4 BARS, FULL LENGTH, MIN. LAP = 1'-11"



BOTTOM FLANGE





NOTES

TOP OF GIRDER TO BE ROUGH FLOATED AND BROOMED TRANSVERSELY, EXCEPT THE THE OUTSIDE 8" OF GIRDER, WHICH SHALL RECEIVE A SMOOTH FINISH. AN APPROVED CONCRETE SEALER SHALL BE APPLIED TO ALL SMOOTH SURFACES INCLUDING THE OUTSIDE 8" OF THE TOP FLANGE.

DO NOT APPLY CONCRETE SEALER TO SURFACES RECEIVING APPLICATION OF CONCRETE STAINING.

THE GIRDERS SHALL BE PROVIDED WITH A SUITABLE LIFTING DEVICE FOR HANDLING AND ERECTING THE GIRDERS.

STRANDS SHALL BE FLUSH WITH END OF GIRDER. FOR GIRDER ENDS EMBEDDED COMPLETELY IN CONCRETE, END OF STRANDS SHALL BE COATED WITH NON-BITUMINOUS JOINT SEALER. FOR GIRDER ENDS THAT ARE FINALLY EXPOSED, COAT THE GIRDER ENDS, EXPOSED STRAND ENDS AND ALL NON-BONDING SURFACES WITHIN 2 FEET OF THE GIRDER ENDS WITH A NON-PIGMENTED EPOXY CONFORMING TO AASHTO M-235 TYPE III, GRADE 2, CLASS B OR C. THE EPOXY SHALL BE APPLIED AT LEAST 3 DAYS AFTER MOIST CURING HAS CEASED AND PRIOR TO THE APPLICATION OF THE SEALER.

ALL GIRDERS SHALL BE CAST FULL LENGTH AS SHOWN.

SPACING SHOWN FOR #4 STIRRUPS IS FOR GRADE 60 REINFORCEMENT.

AN ALTERNATE EQUIVALENT OF WELDED WIRE FABRIC (WWF) ASTM A497 MAY BE SUBSTITUTED FOR THE STIRRUP REINFORCEMENT SHOWN, UPON APPROVAL OF THE STRUCTURES DEVELOPMENT SECTION.

PRESTRESSING STRANDS SHALL BE (0.6" DIA.)-7 WIRE LOW-RELAXATION STRANDS WITH AN ULTIMATE STRENGTH OF 270,000 PSI.

FOR DIAPHRAGM INSERT & CONNECTION DETAILS SEE "STEEL DIAPHRAGM" SHEET.

✳ MINIMUM CYLINDER STRENGTH OF CONCRETE @ TIME OF TRANSFER OF PRESTRESS FORCE.

GIRDER DATA

SPAN	GIRDER	GIRDER LENGTH "L"	DEAD LOAD DEFL. (IN.)									CONC. STRGTH. f'c (p.s.i.)	"P" 1ST ⅓ OF GIRDER	"P" MID ⅓ OF GIRDER	"P" END ⅓ OF GIRDER	DIA. OF STRAND (IN.)	DRAPED PATTERN					
			1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10						TOTAL NO. OF STRANDS	f'ci (P.S.I.) ✳	(IN.) "A"	"B" MIN.	"B" MAX.	"C"
1	1 & 12	99.875	0.7	1.4	1.9	2.2	2.3	2.2	1.9	1.3	0.7	8,000	7.5	7	7	0.6	36	6,500	31	11.5	14.5	5
1	2-11	99.875	0.9	1.7	2.3	2.6	2.8	2.6	2.2	1.6	0.8	8,000	7.5	7	7	0.6	36	6,500	31	11.5	14.5	5
2	1 & 12	99.875	0.7	1.3	1.9	2.2	2.3	2.2	1.9	1.4	0.7	8,000	8.5	8.5	8	0.6	36	6,500	31	11.5	14.5	5
2	2-11	99.875	0.8	1.6	2.2	2.6	2.8	2.6	2.3	1.7	0.9	8,000	8.5	8.5	8.5	0.6	36	6,500	31	11.5	14.5	5

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-880

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36W" PRESTESSED GIRDER

SHEET 13

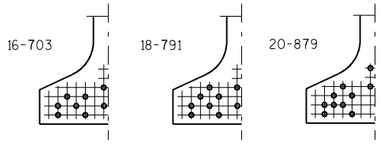
385

7-13
G36W

SCALE =

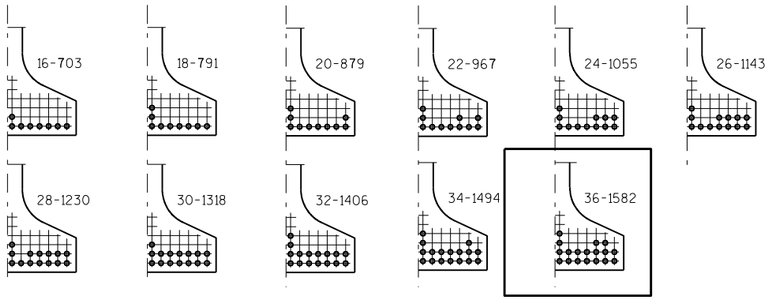
STATE PROJECT NUMBER

1060-34-84



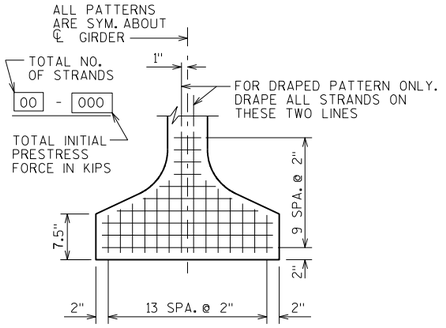
STANDARD ARRANGEMENTS TO RAISE CENTER OF GRAVITY TO AVOID DRAPING OF STRANDS

0.6"Φ STRANDS

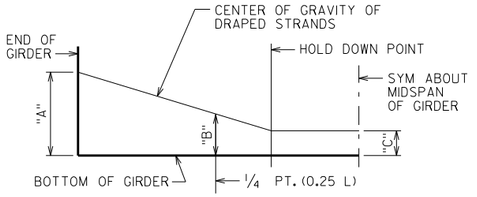


ARRANGEMENT AT ℄ SPAN - FOR GIRDERS WITH DRAPED STRANDS

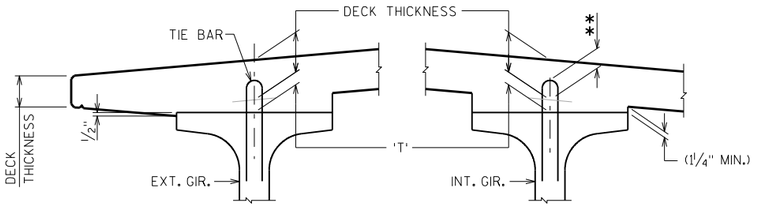
0.6"Φ STRANDS



TYP. STRAND PATTERN



DRAPED STRAND PROFILE



DECK HAUNCH DETAIL

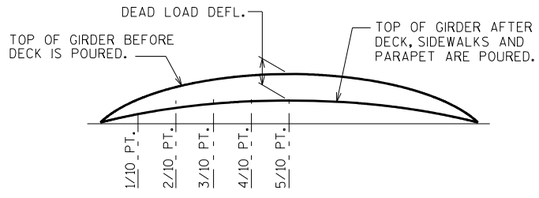
IF 1¼" MINIMUM HAUNCH HEIGHT AT EDGE OF GIRDER CANNOT BE MAINTAINED, THE GRADE LINE MAY BE REVISED BY THE ENGINEER AT THE OPTION OF THE CONTRACTOR. THE PLAN DECK THICKNESS SHALL BE HELD. NOTIFY THE STRUCTURES SECTION IF THE GRADE LINE IS RAISED FROM THE PLAN PROFILE BY MORE THAN ½" OR,

** IF 3" MINIMUM DECK EMBEDMENT OF TIE BAR CANNOT BE OBTAINED.

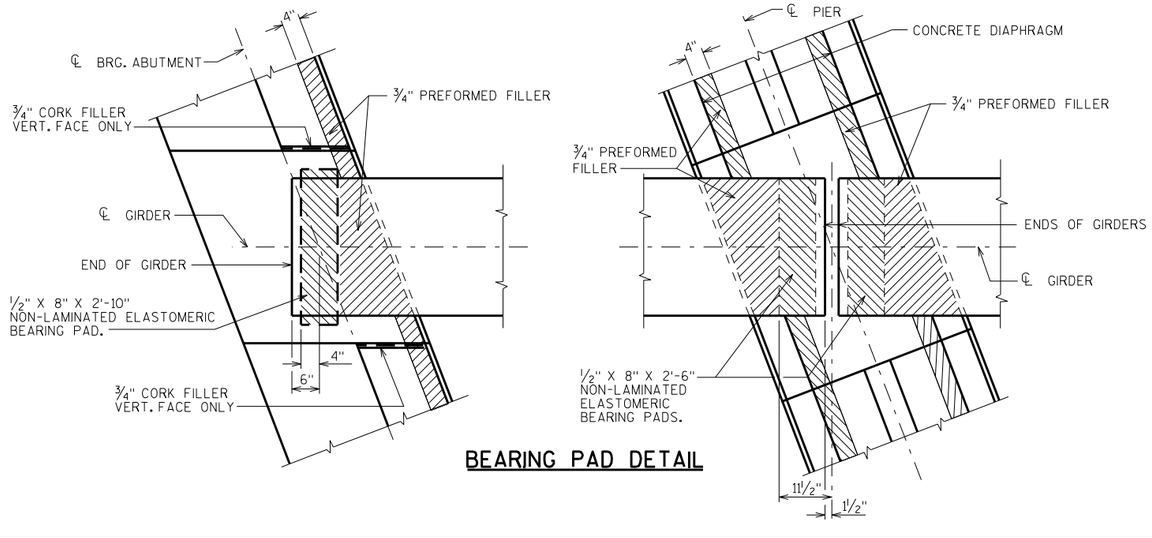
TO DETERMINE 'T', ELEV. OF TOP OF GIR'S. AT ℄ OF SUBSTRUCTURE UNITS & AT 1/10 POINTS OF EACH SPAN SHALL BE TAKEN. THEN FOLLOW THIS PROCESS:

TOP OF DECK ELEV. AT FINAL GRADE
\- TOP OF GIRDER ELEVATION
\+ DEAD LOAD DEFLECTION
\- DECK THICKNESS
= HAUNCH HEIGHT 'T'

NOTE: AN AVERAGE HAUNCH ('T') OF 3.3" WAS USED IN THE QUANTITY "CONCRETE MASONRY BRIDGES".



DEAD LOAD DEFLECTION DIAGRAM



BEARING PAD DETAIL

*THE THEORETICAL INITIAL CAMBER VALUE AT THE TIME OF STRAND RELEASE AT MIDSPAN MULTIPLIED BY A FACTOR OF 1.4 TO ACCOUNT FOR CAMBER GROWTH FROM THE TIME OF STRAND RELEASE TO JOBSITE PLACEMENT.

SPAN	CAMBER (IN.) *
1	4.6
2	4.6

THESE VALUES ARE NOT TO BE USED IN DETERMINING 'T', USE ACTUAL GIRDER SHOTS.

THESE VALUES ARE FOR INFORMATIONAL PURPOSES ONLY.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-880

DRAWN BY APC | PLANS CK'D. MSC

36W" PRESTRESSED GIRDER DETAILS

SHEET 14

386

G36W
1-14

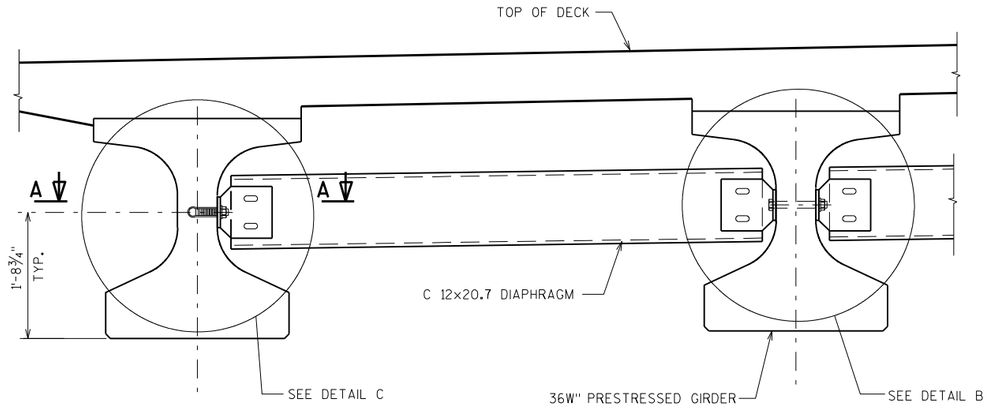
8

8

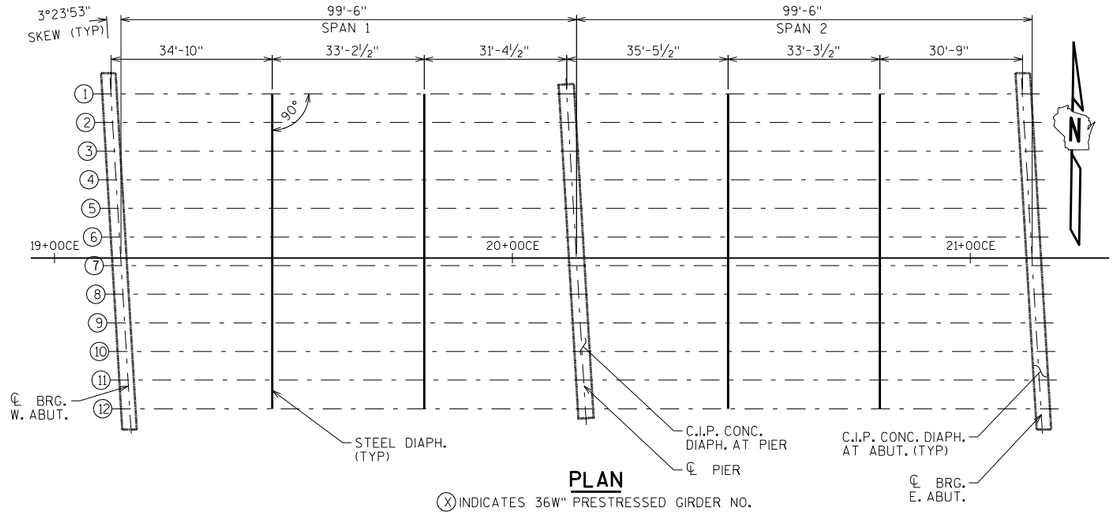
SCALE =

STATE PROJECT NUMBER

1060-34-84

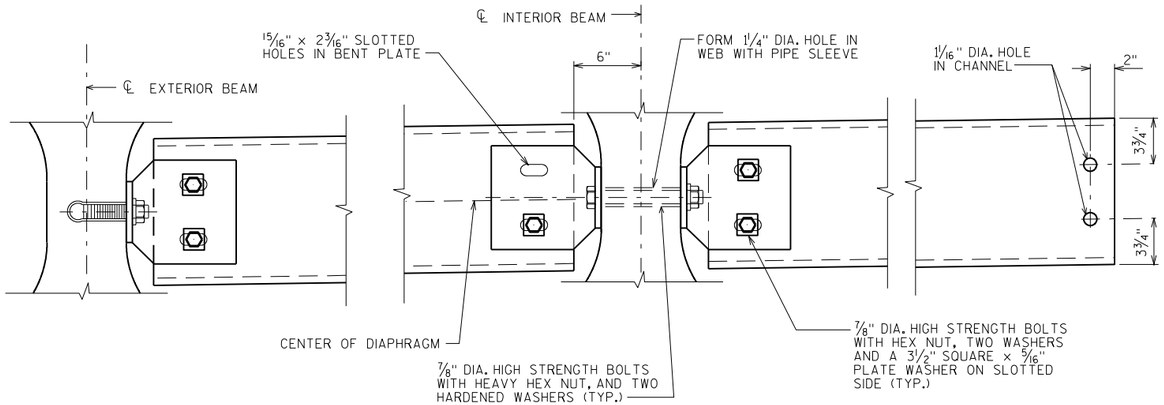


PART TRANSVERSE SECTION AT DIAPHRAGM

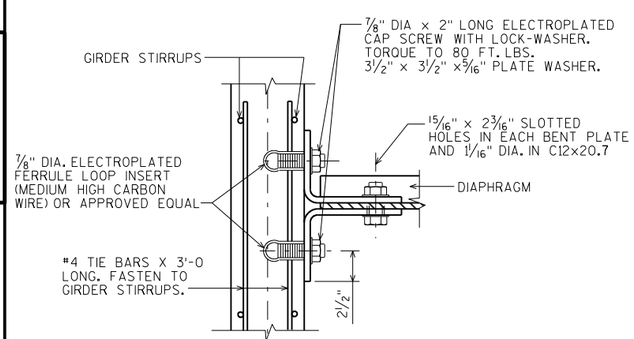


PLAN

(X) INDICATES 36W" PRESTRESSED GIRDER NO.



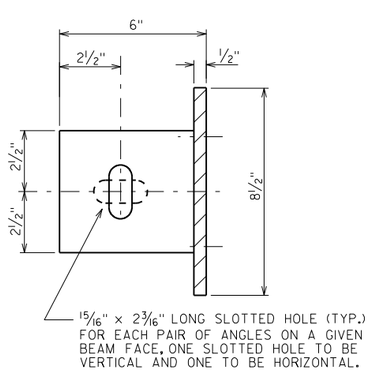
DETAIL C



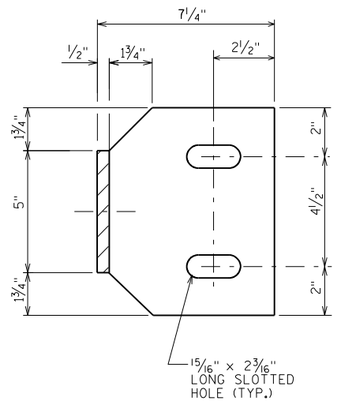
SECTION A-A

(FOR EXTERIOR ATTACHMENT)

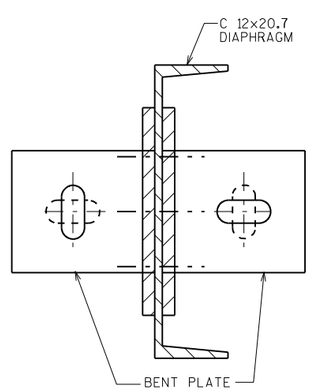
DETAIL B



BEAM FACE



DIAPHRAGM FACE



ATTACHMENT TO CHANNEL

NOTES

ALL DIAPHRAGM MATERIAL NOT EMBEDDED IN THE CONCRETE GIRDER SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "STEEL DIAPHRAGMS B-40-880", EACH.

EACH DIAPHRAGM BETWEEN GIRDERS SHALL CONSTITUTE ONE UNIT.

ALL DIAPHRAGM STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 36. ALL BOLTS, NUTS AND WASHERS SHALL BE ASTM A325 TYPE 1.

ALL DIAPHRAGM STRUCTURAL STEEL SHOWN SHALL BE HOT-DIPPED GALVANIZED. ALL BOLTS, NUTS AND WASHERS SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C. GALVANIZED NUTS SHALL BE TAPPED OVERSIZE IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM A563 AND SHALL MEET THE REQUIREMENTS OF SUPPLEMENTARY REQUIREMENT S1 OF ASTM A563, LUBRICANT AND TEST FOR COATED NUTS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-880

DRAWN BY APC | PLANS CK'D. MSC

STEEL DIAPHRAGM

SHEET 15

387

SCALE =

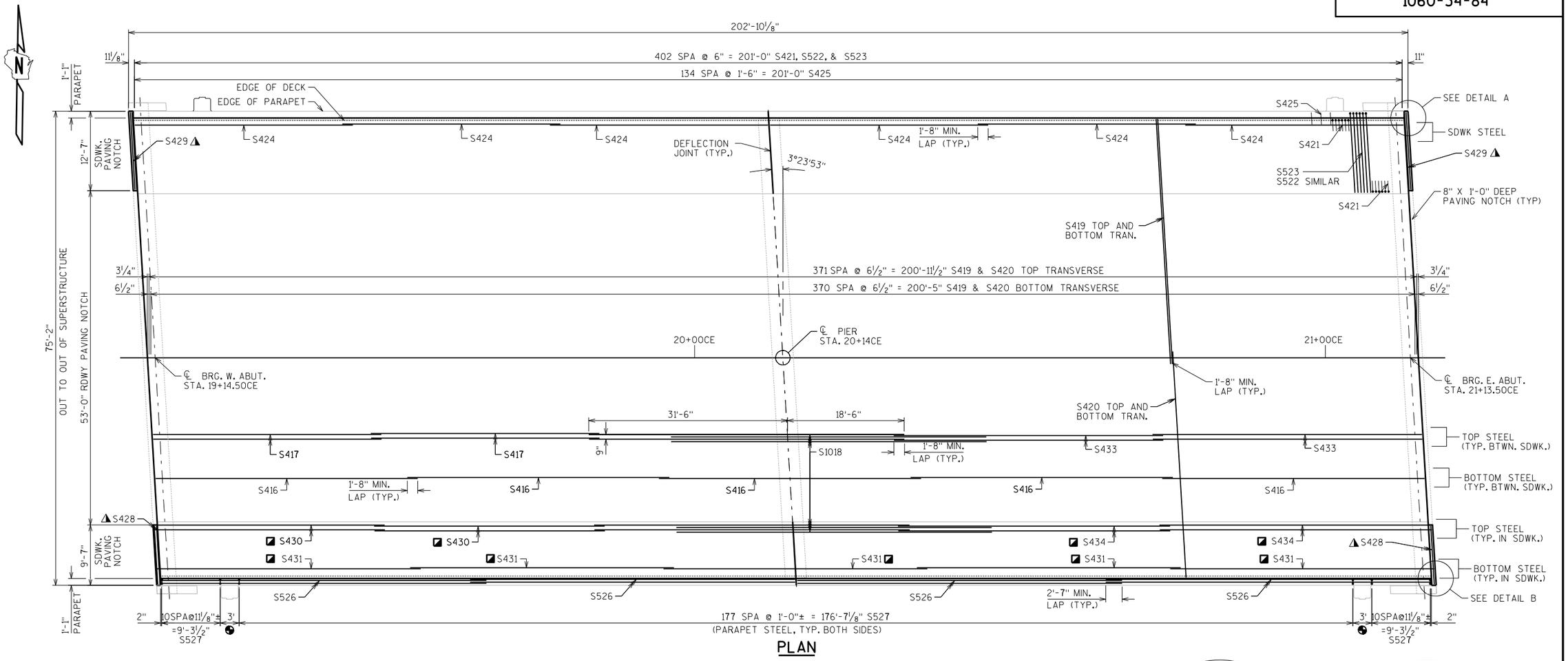
GSTDIA36W
1-13

8

8

STATE PROJECT NUMBER

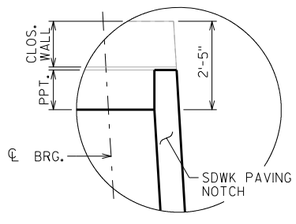
1060-34-84



PLAN

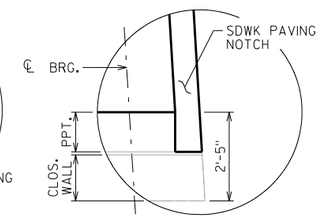
TOP OF DECK ELEVATIONS

	℄ BRG. W. ABUT.	1/10 PT.	2/10 PT.	3/10 PT.	4/10 PT.	1/2 PT.	6/10 PT.	7/10 PT.	8/10 PT.	9/10 PT.	℄ PIER 1	1/10 PT.	2/10 PT.	3/10 PT.	4/10 PT.	1/2 PT.	6/10 PT.	7/10 PT.	8/10 PT.	9/10 PT.	℄ BRG. E. ABUT.
N. EDGE OF DECK	764.84	764.89	764.94	764.99	765.04	765.09	765.13	765.18	765.20	765.19	765.15	765.09	765.00	764.89	764.74	764.57	764.37	764.15	763.90	763.62	763.31
GIRDER 1	764.87	764.92	764.97	765.02	765.07	765.12	765.17	765.21	765.23	765.22	765.19	765.13	765.04	764.92	764.78	764.60	764.41	764.18	763.93	763.65	763.34
GIRDER 2	765.00	765.05	765.10	765.15	765.20	765.25	765.30	765.34	765.36	765.35	765.31	765.25	765.16	765.04	764.89	764.72	764.52	764.30	764.04	763.76	763.46
GIRDER 3	765.13	765.18	765.23	765.27	765.32	765.37	765.42	765.47	765.48	765.47	765.43	765.37	765.28	765.16	765.01	764.84	764.64	764.41	764.16	763.88	763.57
GIRDER 4	765.25	765.30	765.35	765.40	765.45	765.50	765.55	765.59	765.61	765.60	765.56	765.49	765.40	765.28	765.13	764.96	764.76	764.53	764.27	763.99	763.68
GIRDER 5	765.38	765.43	765.48	765.53	765.58	765.63	765.68	765.72	765.73	765.72	765.68	765.61	765.52	765.40	765.25	765.08	764.87	764.65	764.39	764.11	763.80
GIRDER 6	765.51	765.56	765.61	765.66	765.71	765.75	765.80	765.84	765.86	765.84	765.80	765.74	765.64	765.52	765.37	765.19	764.99	764.76	764.50	764.22	763.91
GIRDER 7	765.57	765.62	765.67	765.72	765.77	765.82	765.87	765.91	765.92	765.90	765.86	765.79	765.70	765.57	765.42	765.25	765.04	764.81	764.55	764.27	763.96
GIRDER 8	765.44	765.49	765.54	765.59	765.64	765.69	765.74	765.78	765.79	765.78	765.73	765.67	765.57	765.44	765.29	765.12	764.91	764.68	764.42	764.13	763.82
GIRDER 9	765.32	765.37	765.42	765.47	765.52	765.57	765.62	765.66	765.67	765.65	765.61	765.54	765.44	765.31	765.16	764.98	764.78	764.54	764.28	764.00	763.68
GIRDER 10	765.20	765.25	765.30	765.35	765.40	765.45	765.50	765.53	765.54	765.53	765.48	765.41	765.31	765.18	765.03	764.85	764.64	764.41	764.15	763.86	763.54
GIRDER 11	765.08	765.13	765.17	765.22	765.27	765.32	765.37	765.41	765.42	765.40	765.35	765.28	765.18	765.05	764.90	764.72	764.51	764.28	764.01	763.72	763.41
GIRDER 12	764.95	765.00	765.05	765.10	765.15	765.20	765.25	765.29	765.29	765.27	765.23	765.15	765.05	764.92	764.77	764.59	764.38	764.14	763.88	763.59	763.27
S. EDGE OF DECK	764.92	764.97	765.02	765.07	765.12	765.17	765.22	765.25	765.26	765.24	765.19	765.12	765.02	764.89	764.73	764.55	764.34	764.10	763.84	763.55	763.23



DETAIL A

(NORTHEAST CORNER SHOWN, SOUTHWEST CORNER SIMILAR)



DETAIL B

(SOUTHEAST CORNER SHOWN, NORTHWEST CORNER SIMILAR)

⚠ TRAN. STEEL AT PAVING NOTCH BUMP OUT, TYP. TOP AND BOTTOM.

◪ LONGIT. STEEL OUTSIDE OF RDWY PAVING NOTCH.

◓ BREAK IN TYPICAL REINFORCEMENT. SEE "LIGHT SUPPORT DETAILS" SHEET FOR REINFORCEMENT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-880

DRAWN BY APC | PLANS CK'D. MSC

SUPERSTRUCTURE

SHEET 16

388

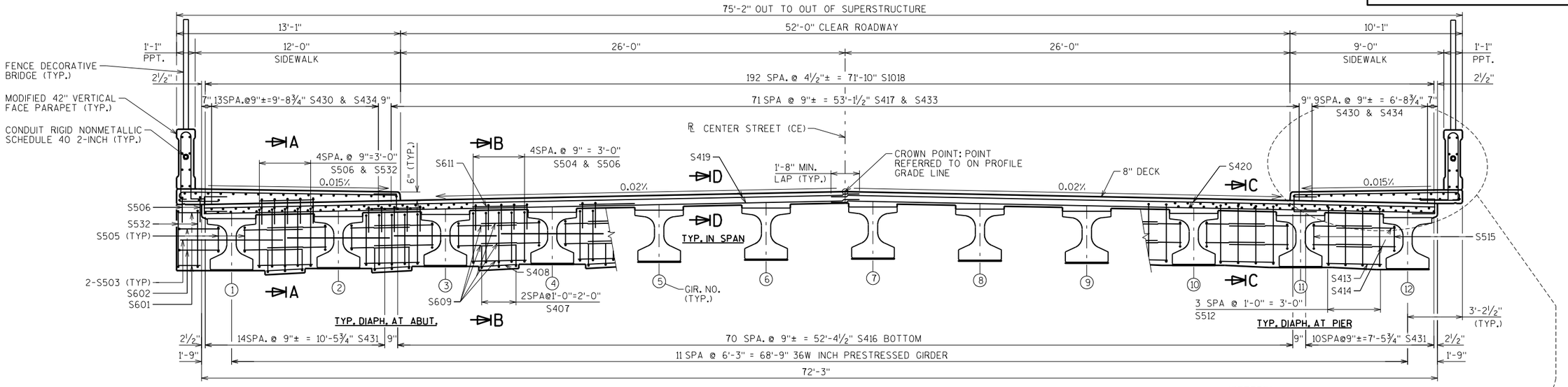
SCALE = 8.0

8

8

STATE PROJECT NUMBER

1060-34-84



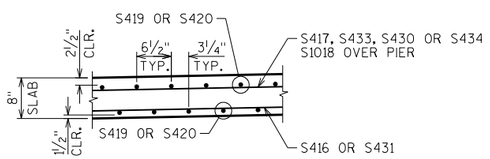
BRIDGE CROSS SECTION B-40-880

(LOOKING EAST)

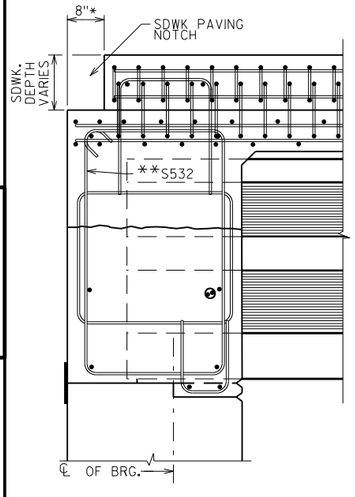
■ DIMENSIONS IS TAKEN PARALLEL TO ℄ OF GIRDER.

* DIMENSION IS TAKEN NORMAL TO ℄ SUBSTRUCTURE UNITS.

** BARS PLACED PARALLEL TO GIRDERS SPACING PERPENDICULAR TO ℄ GIRDERS

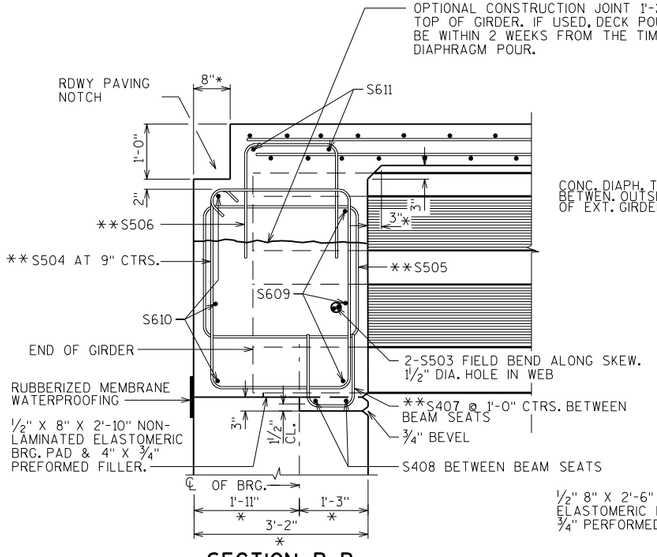


SECTION D-D

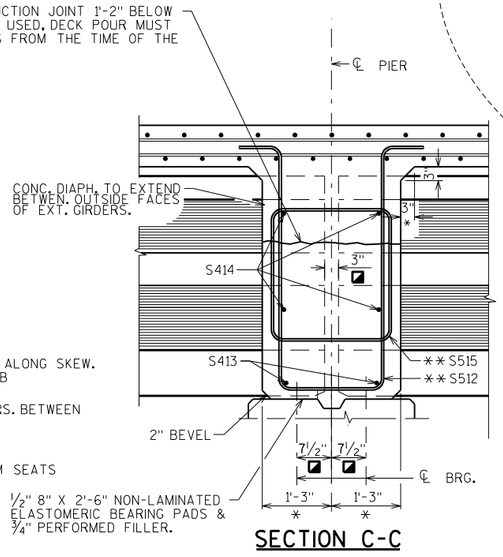


SECTION A-A

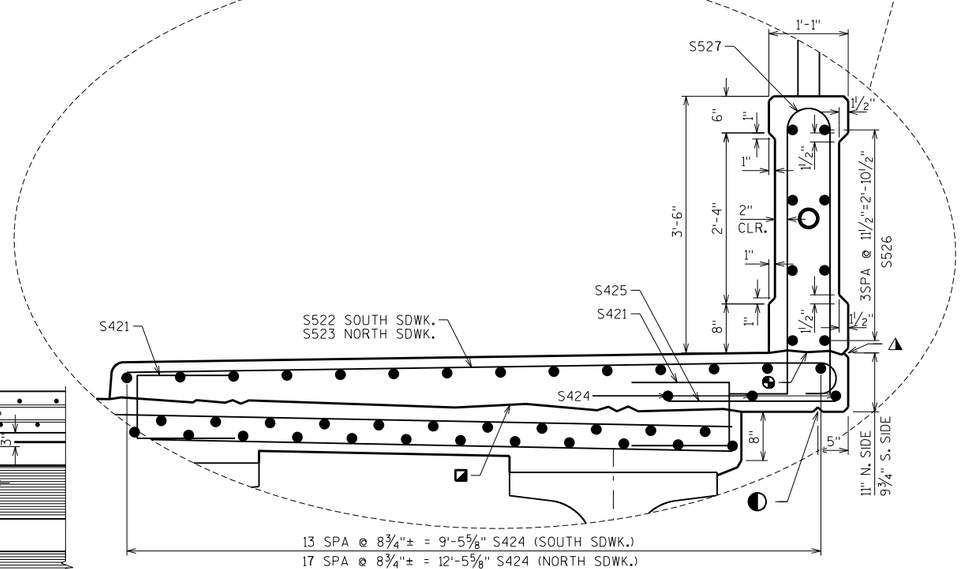
UNLABELED BARS IDENTICAL TO SECTION B-B



SECTION B-B



SECTION C-C



TYPICAL SECTION THRU SDWK.

(SOUTH SDWK. SHOWN NORTH SDWK. SIMILAR)

◔ CONSTRUCTION JOINT STRIKE OFF AND LEAVE ROUGH.

◐ ¾" V-GROOVE, EXTEND V-GROOVE TO 6" FROM FRONT FACE OF ABUTMENT DIAPHRAGM.

◭ ¾" V-GROOVE, TYP. ON OUTSIDE FACE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-880

DRAWN BY APC | PLANS CK'D. MSC

SUPERSTRUCTURE DETAILS 1

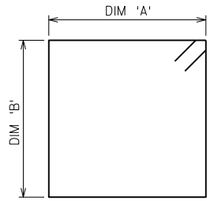
SHEET 17

389

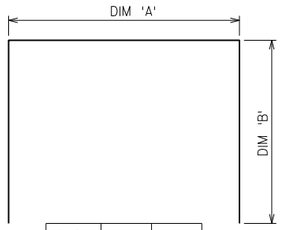
SCALE = 3.0

STATE PROJECT NUMBER

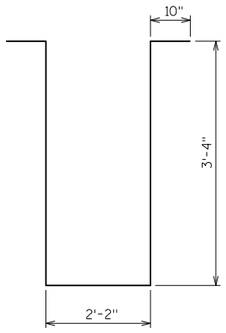
1060-34-84



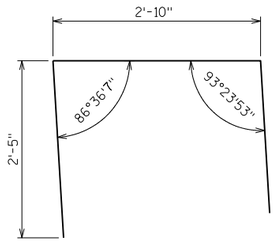
BAR MARK	DIM 'A'	DIM 'B'
S504	2'-10"	2'-8"
S505	2'-10"	1'-6"
S515	2'-2"	1'-6"
S532	2'-10"	3'-4"



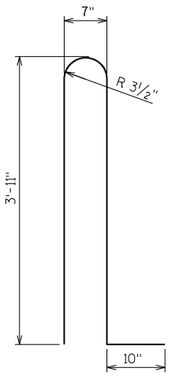
BAR MARK	DIM 'A'	DIM 'B'
S506	2'-2"	1'-10"
S407	11"	1'-5"
S421	7"	1'-0"



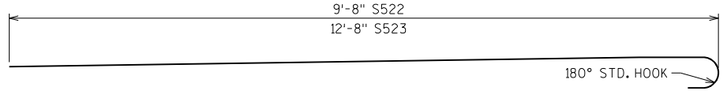
S512



S602



S527



S522 & S523

BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
S601	X	8	1'-6"			ABUT. DIAPH. - BOTTOM HORIZ.
S602	X	8	7'-4"	X		ABUT. DIAPH. - MIDDLE HORIZ. - U-BAR
S503	X	48	6'-0"			ABUT. DIAPH. - HORIZ. THRU GIRDER
S504	X	90	11'-8"	X		ABUT. DIAPH. - STIRRUP
S505	X	48	9'-4"	X		ABUT. DIAPH. - STIRRUP
S506	X	118	5'-7"	X		ABUT. DIAPH. - U-BAR
S407	X	66	3'-7"	X		ABUT. DIAPH. - VERT. - U-BAR
S408	X	44	2'-0"			ABUT. DIAPH. - BOTTOM HORIZ.
S609	X	110	3'-6"			ABUT. DIAPH. - MIDDLE HORIZ.
S610	X	12	38'-7"			ABUT. DIAPH. - MIDDLE HORIZ.
S611	X	44	3'-7"			ABUT. DIAPH. - TOP HORIZ.
S512	X	44	10'-0"	X		PIER DIAPH. - VERT.
S413	X	22	3'-3"			PIER DIAPH. - BOTTOM HORIZ.
S414	X	44	3'-6"			PIER DIAPH. - MIDDLE HORIZ.
S515	X	22	8'-0"	X		PIER DIAPH. - STIRRUP
S416	X	355	41'-8"			DECK - BOTTOM LONGIT.
S417	X	144	36'-3"			DECK - TOP LONGIT. SPAN 1
S1018	X	193	50'-0"			DECK - CONTINUITY STEEL
S419	X	743	38'-5"			DECK - TRAN. STEEL N. HALF OF DECK
S420	X	743	35'-5"			DECK - TRAN. STEEL S. HALF OF DECK
S421	X	1612	2'-5"	X		SDWK. - U-BAR FOR DECK TO SDWK.
S522	X	403	10'-3"	X		SDWK. - TRAN. S. SIDE
S523	X	403	13'-3"	X		SDWK. - TRAN. N. SIDE
S424	X	228	34'-8"			SDWK. - LONGIT.
S425	X	270	2'-4"			SDWK. - TRANS. BOTTOM
S526	X	64	51'-8"			PARAPET - LONGIT.
S527	X	400	8'-10"	X		PARAPET - VERT.
S428	X	4	9'-3"			DECK - TRAN. STEEL FOR PAVING NOTCH
S429	X	4	12'-3"			DECK - TRAN. STEEL FOR PAVING NOTCH
S430	X	48	36'-8"			DECK - TOP LONGIT. @ SDWK. IN SPAN 1
S431	X	130	41'-10"			DECK - BOTTOM LONGIT. @ SDWK.
S532	X	28	13'-0"	X		ABUT. DIAPH. @ SDWK.
S433	X	144	42'-9"			DECK - TOP LONGIT. SPAN 2
S434	X	48	43'-1"			DECK - TOP LONGIT. @ SDWK. IN SPAN 2

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-880

DRAWN BY APC | PLANS CK'D. MSC

SUPERSTRUCTURE DETAILS 2

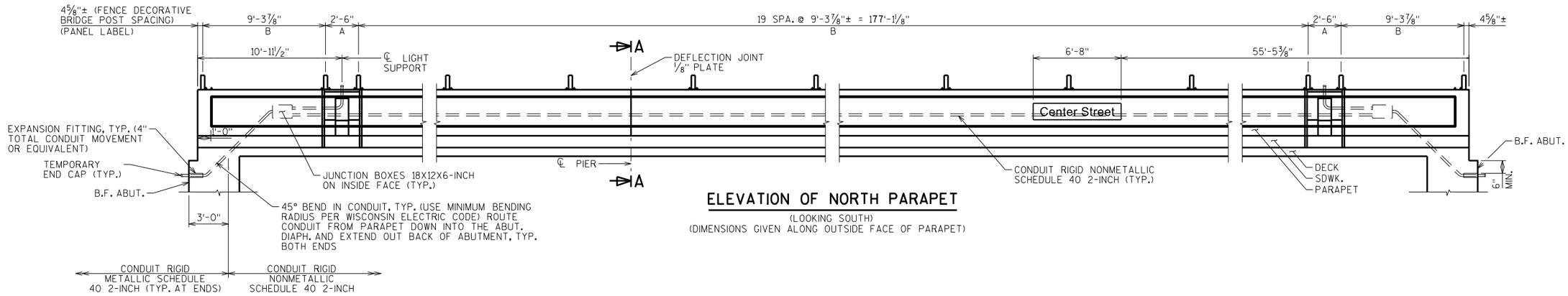
SHEET 18

390

SCALE = 1.0

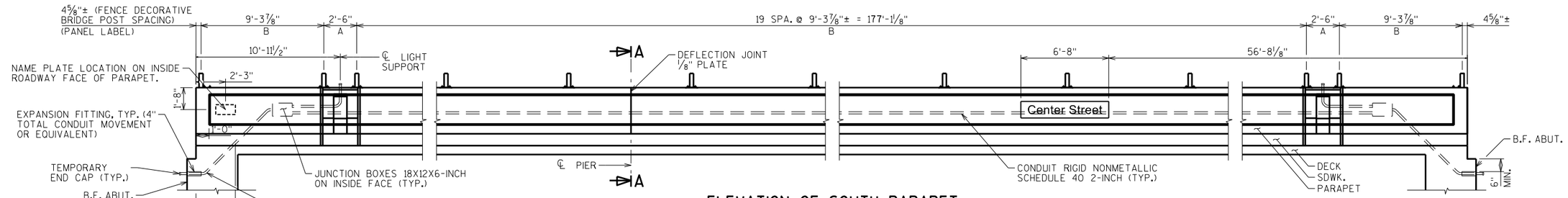
STATE PROJECT NUMBER

1060-34-84



ELEVATION OF NORTH PARAPET

(LOOKING SOUTH)
(DIMENSIONS GIVEN ALONG OUTSIDE FACE OF PARAPET)



ELEVATION OF SOUTH PARAPET

(LOOKING NORTH)
(DIMENSIONS GIVEN ALONG OUTSIDE FACE OF PARAPET)

NOTES

BID ITEMS SHALL BE:

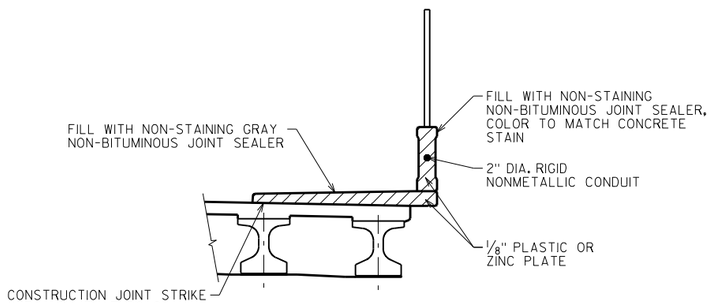
"JUNCTION BOXES 18X12X6-INCH", EACH.
"CONDUIT RIGID METALLIC 2-INCH", LF.
"CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH", LF.

APPROVED MANUFACTURERS - JUNCTION BOXES:
SEE APPROVED MATERIAL LIST.

APPROVED MANUFACTURER OR EQUIVALENT - EXPANSION FITTING:
X-Z/GEDNEY TYPE AX-200 AND BONDING JUMPER (4" TOTAL CONDUIT MOVEMENT).

EXPANSION FITTINGS, ANGLES AND ADAPTER FITTINGS TO BE INCIDENTAL TO "CONDUIT RIGID METALLIC 2-INCH".

WHEN CONNECTING NONMETALLIC CONDUIT, ONLY ADAPTER FITTINGS U.L. OR NRTL LISTED FOR ELECTRICAL USE SHALL BE USED.



SECTION A-A

(N. SDWK SHOWN, S. SDWK SIMILAR)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-880

DRAWN BY APC | PLANS CK'D. MSC

VERTICAL FACE PARAPET

SHEET 19

391

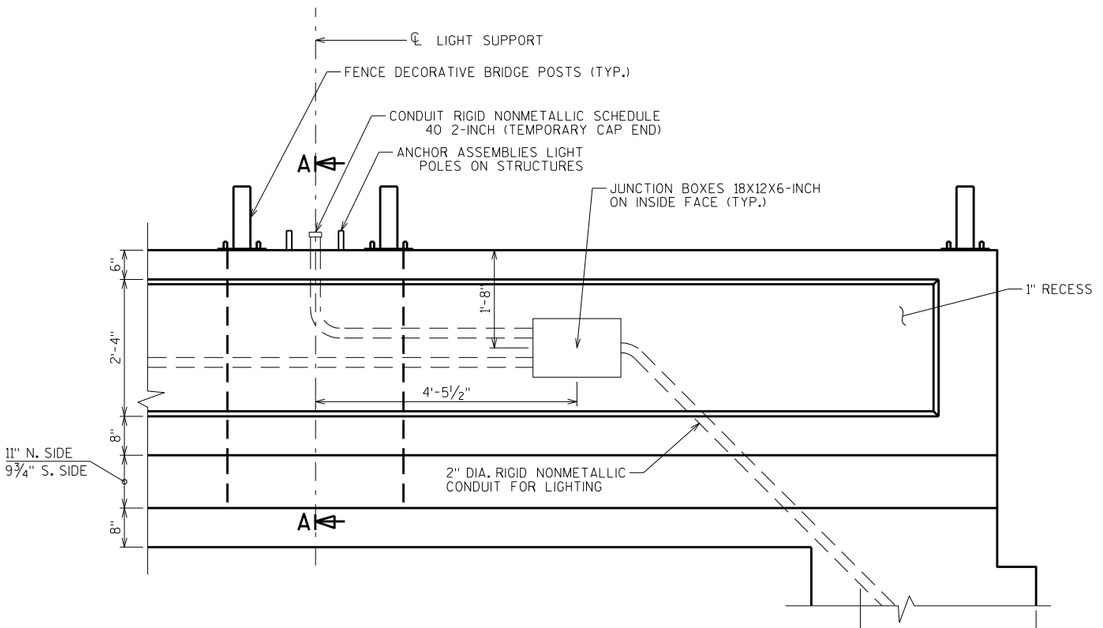
SCALE = 4.0

8

8

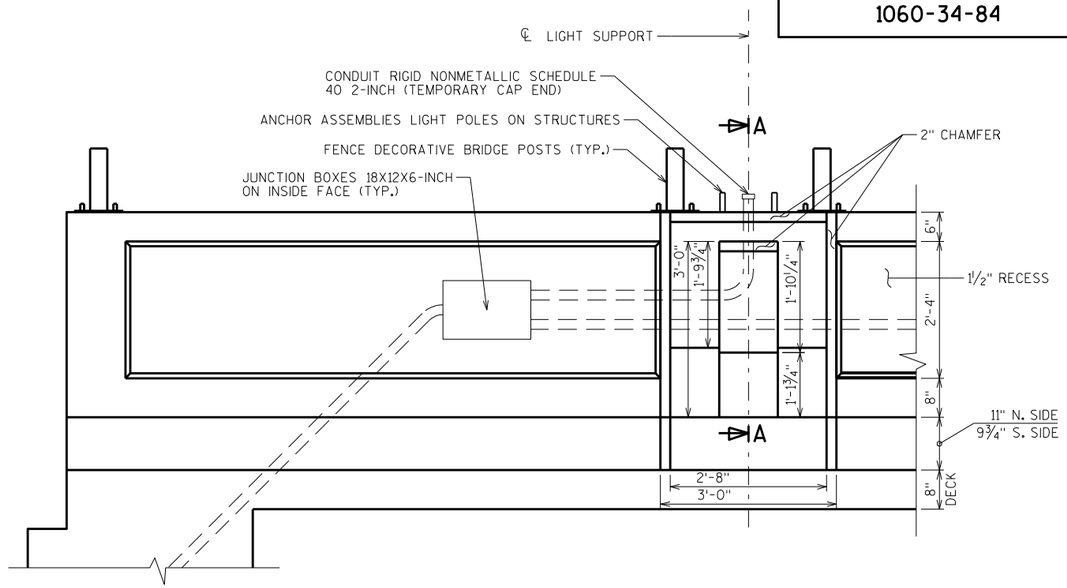
STATE PROJECT NUMBER

1060-34-84



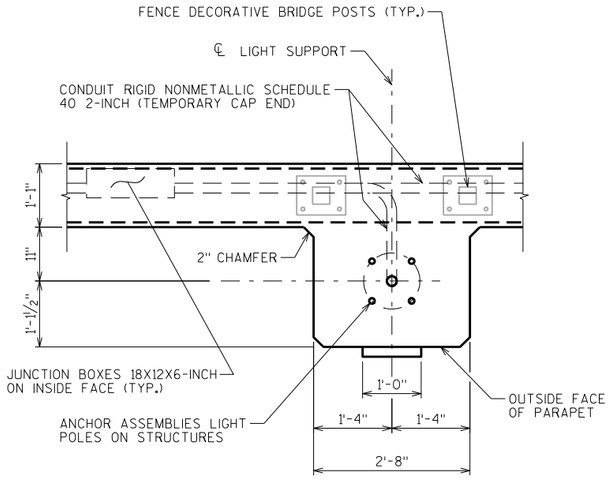
INSIDE ELEVATION AT LIGHT SUPPORT

(SOUTHWEST LIGHT SUPPORT LOOKING SOUTH SHOWN, OTHER SUPPORTS SIMILAR)



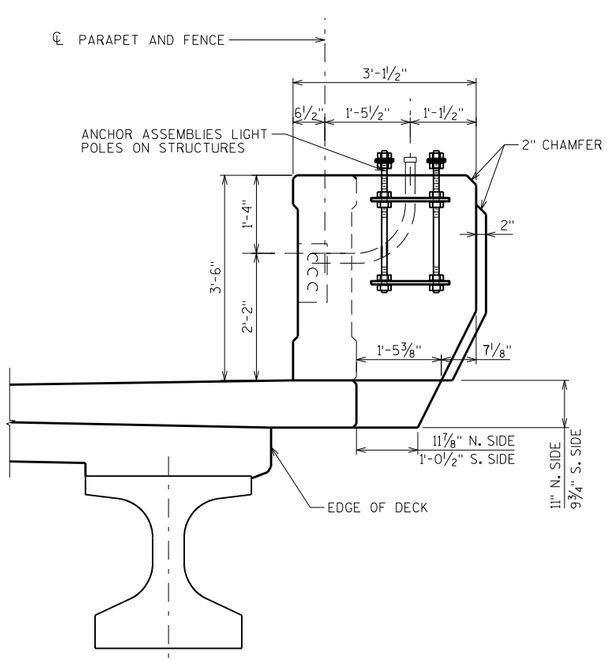
OUTSIDE ELEVATION AT LIGHT SUPPORT

(SOUTHWEST LIGHT SUPPORT LOOKING NORTH SHOWN, OTHER SUPPORTS SIMILAR)

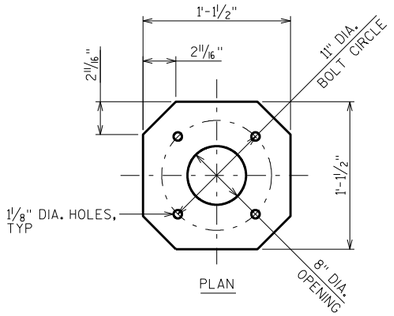


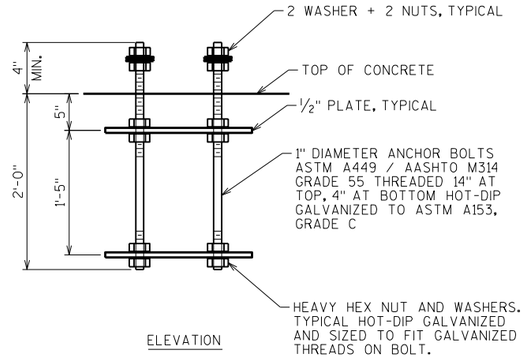
PLAN AT LIGHT SUPPORT

(SOUTHWEST LIGHT SUPPORT SHOWN, OTHER SUPPORTS SIMILAR)



SECTION A-A





ANCHOR ASSEMBLY LIGHT POLES ON STRUCTURES

NOTES

BID ITEMS SHALL BE:
"JUNCTION BOXES 18X12X6-INCH", EACH.
"ANCHOR ASSEMBLIES LIGHT POLES ON STRUCTURES", EACH.
"CONDUIT RIGID METALLIC 2-INCH", LF.
"CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH", LF.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-880

DRAWN BY APC | PLANS CK'D. MSC

LIGHT SUPPORT

SHEET 20

392

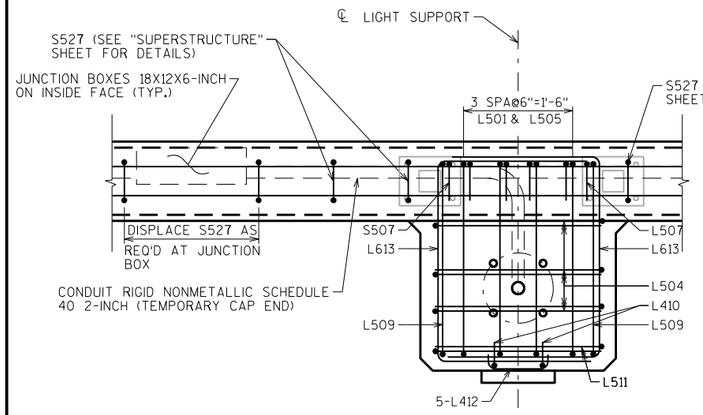
8

8

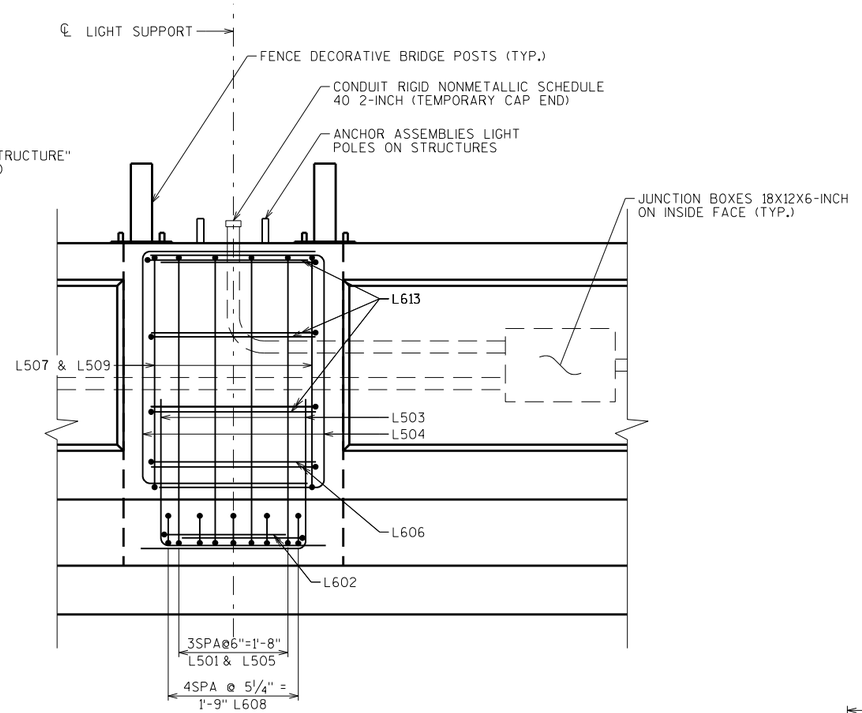
SCALE = 1.25

STATE PROJECT NUMBER

1060-34-84



REINFORCEMENT IN LIGHT SUPPORT

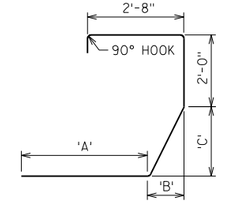


INSIDE ELEVATION AT LIGHT SUPPORT

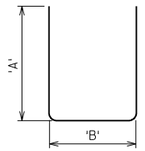
BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

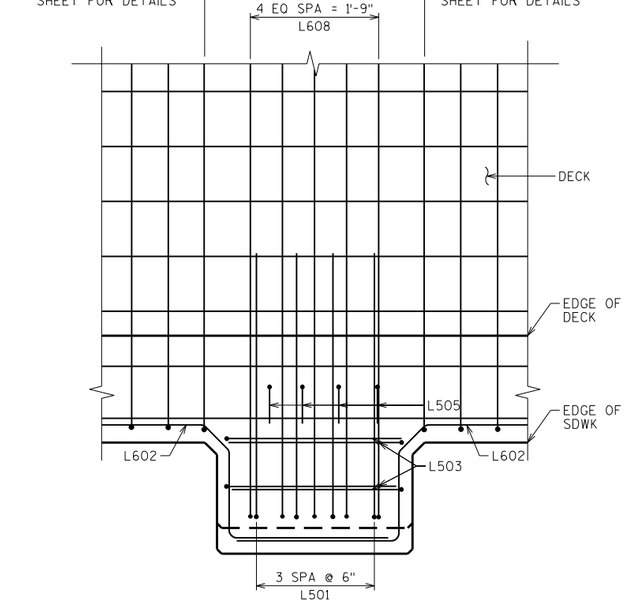
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
L501	X	16	10'-8"	X		VERTICAL - INSIDE
L602	X	8	5'-5"	X		HORIZONTAL - BOTTOM
L503	X	16	4'-1"	X		VERTICAL
L504	X	24	7'-5"	X		U-BAR
L505	X	16	4'-8"	X		VERTICAL - INSIDE
L606	X	8	6'-5"	X		HORIZONTAL - BOTTOM
L507	X	8	3'-10"	X		U-BAR
L608	X	20	7'-10"	X		SDWK TRAN. CONNECTION
L509	X	8	8'-4"	X		VERTICAL - OUTSIDE
L410	X	8	2'-8"	X		VERTICAL - OUTSIDE
L511	X	8	6'-6"	X		U-BAR - OUTSIDE
L412	X	20	1'-2"	X		HORIZONTAL - OUTSIDE
L613	X	24	6'-9"	X		HORIZONTAL



BAR MARK	DIM 'A'	DIM 'B'	DIM 'C'
L501	3'-6"	10½"	1'-8½"
L509	2'-0"	0'-6"	1'-0"

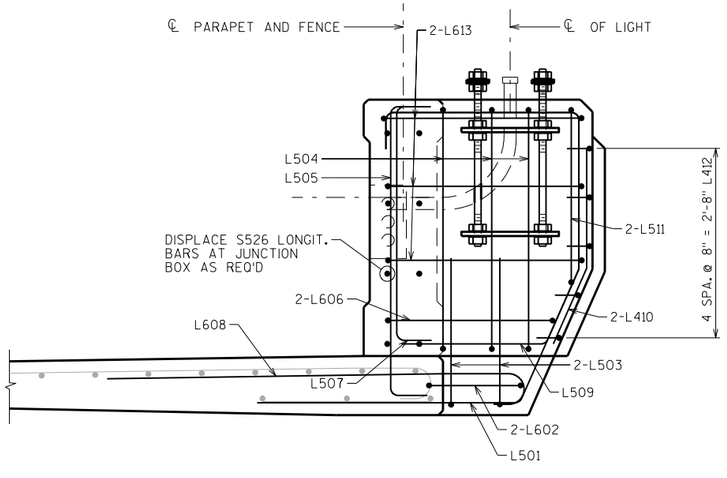


BAR MARK	DIM 'A'	DIM 'B'
L504	2'-3"	3'-2"
L505	0'-6"	3'-11"
L606	2'-3"	2'-3"
L507	0'-6"	3'-1"
L511	2'-3"	2'-3"
L412	0'-4"	0'-8"
L613	2'-3"	2'-7"

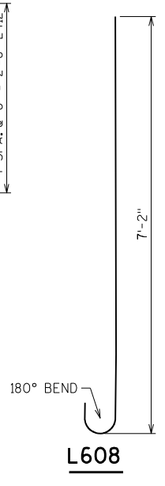


REINFORCEMENT IN DECK AT LIGHT SUPPORT

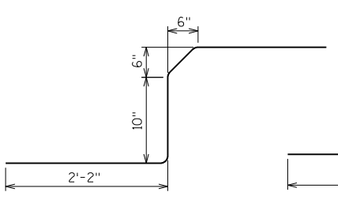
(ADDITIONAL OVERHANG REINFORCEMENT IN SIDEWALK AND DECK NOT SHOWN FOR CLARITY)



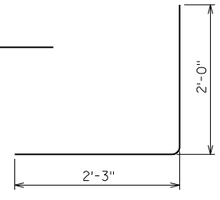
REINFORCEMENT IN SDWK. AND LIGHT SUPPORT



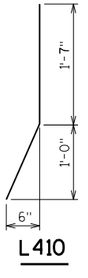
L608



L602



L503



L410

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-880

DRAWN BY APC | PLANS CK'D. MSC

LIGHT SUPPORT DETAILS

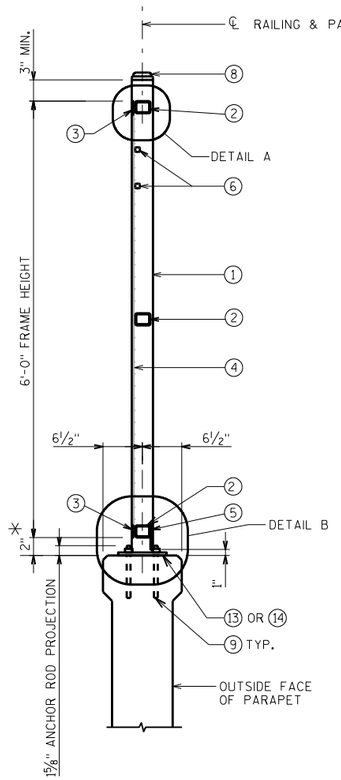
SHEET 21

393

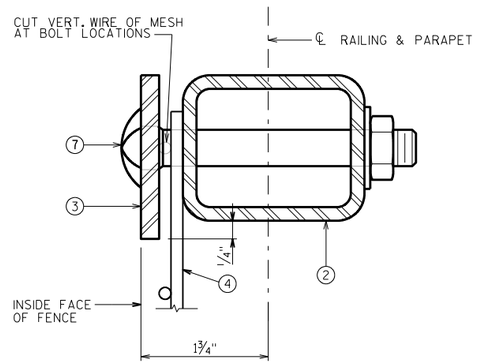
SCALE = 1.0

8

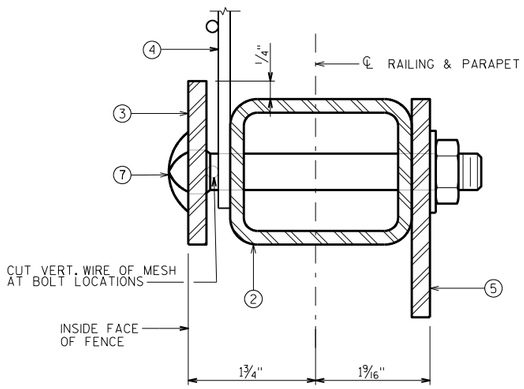
8



SECTION THRU PARAPET



DETAIL A



DETAIL B

FENCE DECORATIVE

LEGEND

1. HSS 3½ X 3½ X 3/16 POST WITH 1/8" DIA. VENT HOLES TOP & BOTTOM ON OUTSIDE FACE. RESIZE AS NECESSARY FOR GALVANIZING PROCESS. WELD TO NO. 8 & BASE PLATE, TYP.
2. HSS 2½ X 2½ X 3/16. WELD TO NO. 6.
3. PL 2¾" X ¼" WELDED FRAME. BOLT TO NO. 2 WITH NO. 7 AFTER PAINTING.
4. STEEL MESH 2" X 2" X 0.162 (8 GA.). PLACE VERTICAL WIRES ON INSIDE FACE OF PARAPET.
5. PL ¼" X WIDTH VARIES. PROVIDE SHORT SLOTTED VERT. HOLES FOR NO. 7.
6. ¾" x ¾" BAR. WELD TO NO. 2 & 6.
7. ½" DIA. CARRIAGE BOLT, WASHER & NUT. PROVIDE ⅝" X ⅝" SQUARE HOLE IN NO. 3 & NO. 2 WHERE CONNECTED TO DECORATIVE INSET PLATE FOR SQUARE PORTION OF THE BOLT HEAD.
8. 3½" X 3½" SQUARE END CAP. WELD TO NO. 1.
9. ⅝" DIA. CONCRETE MASONRY ANCHOR TYPE S EPOXY, 7" MINIMUM EMBEDMENT.
10. PL 5/16" X 4½" X 6" CONNECTION WITH 2" DIA. HOLE FOR NO. 7. USE NO. 11 TO COVER 2" DIA. ADJUSTMENT HOLES.
11. PL ⅜" X 2" X 4½".
12. PL WASHER ¼" X 3½" X 3½".
13. PL ½" X 8" X 10" BASE PLATE. WELD TO NO. 1.
14. PL ½" X 8" X 1'-0" BASE PLATE. WELD TO NO. 1.
15. ½" DIA. BOLT, WASHER & NUT. TACK WELD NUT TO NO. 2.

✳ THE DIMENSION BETWEEN THE BOTTOM OF THE WELDED FRAME AND THE TOP OF THE PARAPET VARIES DUE TO THE VERTICAL PROFILE OF THE STRUCTURE. SET THIS DIMENSION TO 2" ADJACENT TO THE POST WHERE NO. 5 HAS THE SMALLEST VERTICAL DIMENSION.

NOTES

THE BID ITEM SHALL BE "FENCE DECORATIVE BRIDGE" WHICH SHALL INCLUDE ALL ITEMS SHOWN.

FOR ELEVATIONS OF FENCE PANELS, SEE FENCE DECORATIVE BRIDGE DETAILS 1& 2 SHEETS.

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.

STRUCTURAL TUBING SHALL BE A.S.T.M. A500, GRADE B. ROLLED SHAPES, PLATES, BARS AND SHIMS SHALL BE A.S.T.M. A709, GRADE 36.

CAULK AROUND PERIMETER OF BASE PLATES AND FILL PORTION OF HOLES AROUND ANCHOR BOLTS WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

CUT BOTTOM OF POST TO MAKE POST VERTICAL.

ANCHOR BOLTS, NUTS AND WASHERS SHALL BE A.S.T.M. A307 AND SHALL BE GALVANIZED.

STANDARD WASHERS SHALL BE USED TO SHIM BASE PLATES IF REQUIRED. ALL WASHERS SHALL BE GALVANIZED.

VENT HOLES SHALL BE DRILLED IN MEMBERS AS REQUIRED TO FACILITATE GALVANIZING AND DRAINAGE.

AFTER FABRICATION AND PRIOR TO BOLTING AND ASSEMBLING THE FENCE COMPONENTS, STEEL SHALL BE BLAST CLEANED PER SSPC-SP 6 AND GALVANIZED ACCORDING TO ASTM A 123. REPAIR ZINC COATING DAMAGED DURING FENCE ASSEMBLAGE AS SPECIFIED IN 635.3.4.

PRIOR TO FINAL ASSEMBLY OF THE FENCE PANELS, PAINT THE GALVANIZED FENCE COMPONENTS WITH A TWO COAT SYSTEM SPECIFICALLY INTENDED FOR PAINTING OF GALVANIZED SURFACES PER THE SPECIAL PROVISIONS. THE FINISH COLOR SHALL BE FEDERAL COLOR NO. 27038 BLACK.

ALL WELDS SHALL BE PREQUALIFIED ACCORDING TO THE STRUCTURAL WELDING CODE STEEL (AWS D1.1). THE MINIMUM SIZE OF FILLET WELDS IS 3/16".

COVER THE 2" x 2" STEEL MESH WITH A COLORED POLYMER COATING. COAT ALL OTHER FENCING COMPONENTS WITH AN EPOXY PAINT SYSTEM. TOUCH UP DAMAGED PORTIONS OF PAINT AFTER PANEL ERECTION. SEE SPECIAL PROVISIONS FOR REQUIREMENTS.

STATE PROJECT NUMBER

1060-34-84

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-880

DRAWN BY APC | PLANS CK'D. MSC

FENCE DECORATIVE BRIDGE

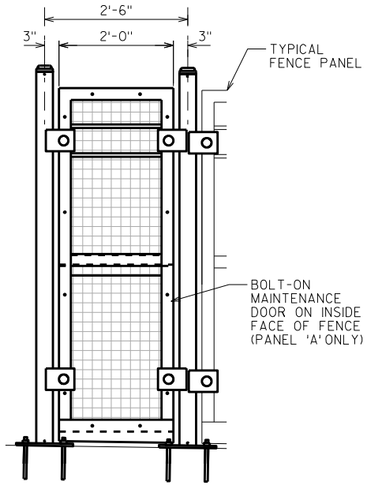
SHEET 22

394

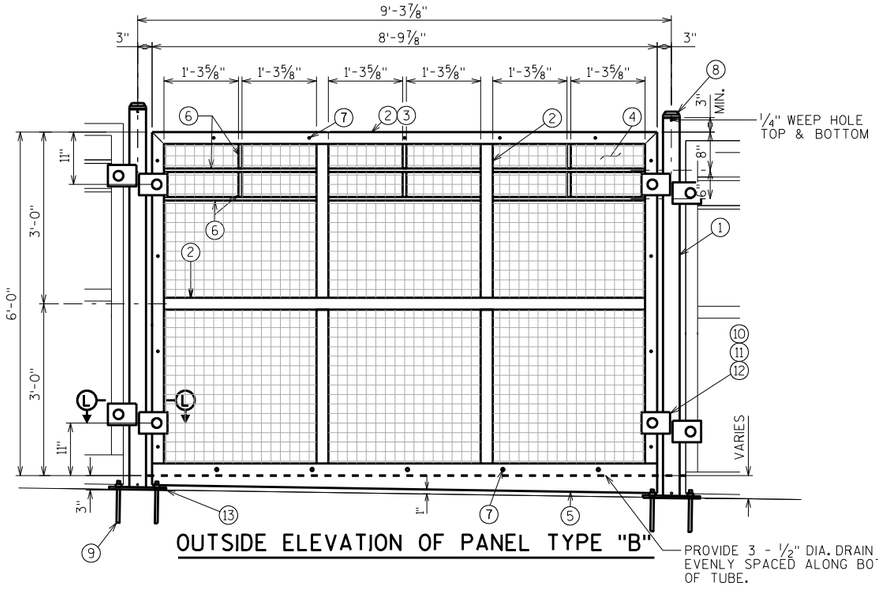
SCALE = ½

STATE PROJECT NUMBER

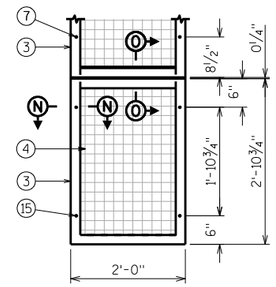
1060-34-84



OUTSIDE ELEVATION OF PANEL TYPE "A"

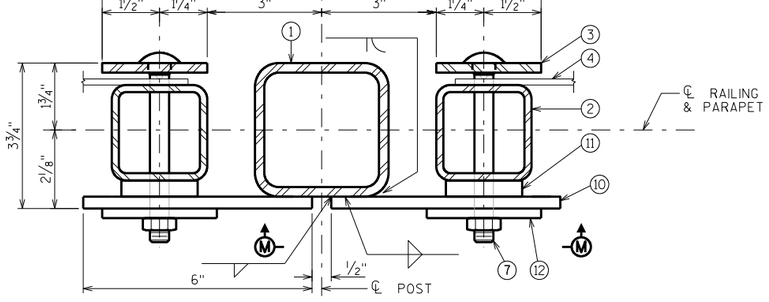


OUTSIDE ELEVATION OF PANEL TYPE "B"

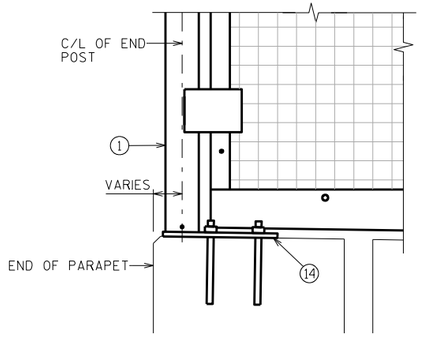


MAINTENANCE DOOR DETAIL

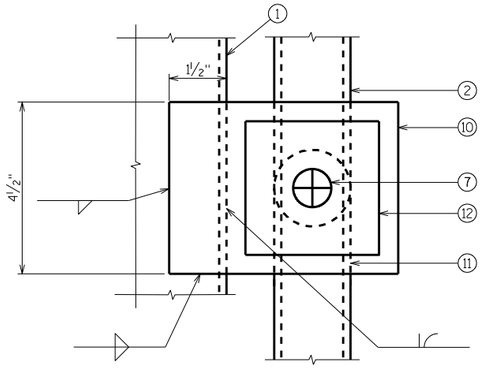
INSIDE ELEVATION
(AT PANELS 'A' ONLY)



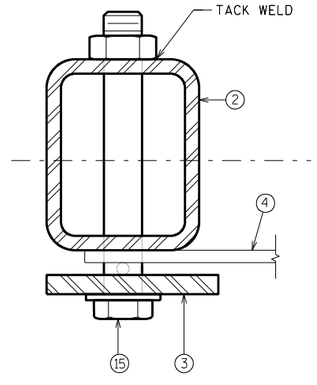
SECTION L-L



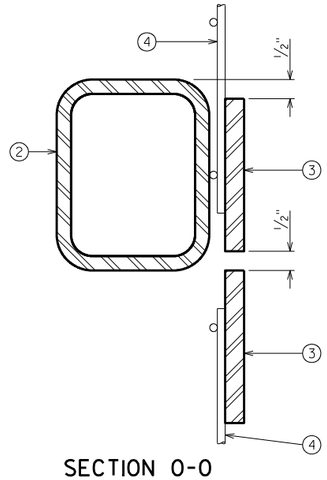
END POST DETAIL



ELEVATION M-M



SECTION N-N



SECTION O-O

NOTES

FOR NOTES AND LEGEND, SEE "FENCE DECORATIVE BRIDGE" SHEET.

TYPICAL MEMBER SIZES, WELDING AND BOLTING DETAILS, AND MATERIALS ARE SHOWN IN 'DECORATIVE FENCE BRIDGE PANEL' ON "FENCE DECORATIVE BRIDGE DETAILS 2" SHEET.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-880

DRAWN BY APC | PLANS CK'D. MSC

FENCE DECORATIVE BRIDGE DETAILS 1

SHEET 23

395

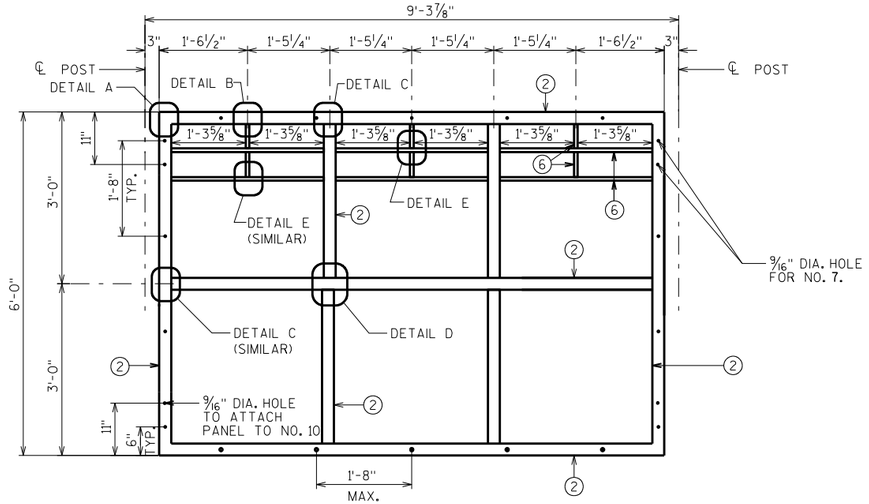
SCALE = 1.28

8

8

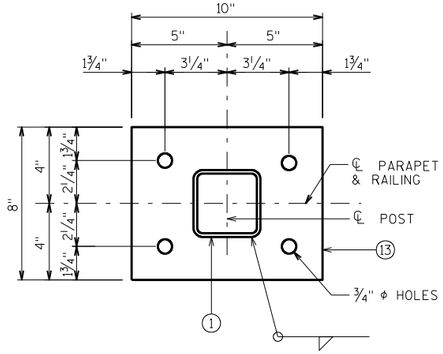
STATE PROJECT NUMBER

1060-34-84

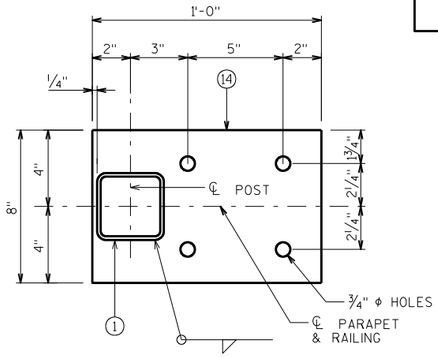


DECORATIVE FENCE BRIDGE PANEL

TYP. 9'-3⅞" PANEL SHOWN



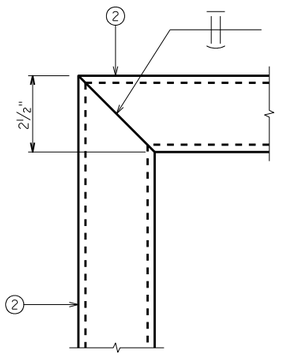
BASE PLATE



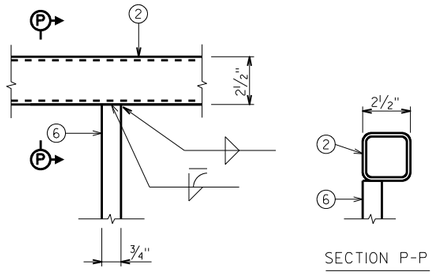
END BASE PLATE

(INSTALL AT END SECTIONS)

BASE PLATE DETAILS

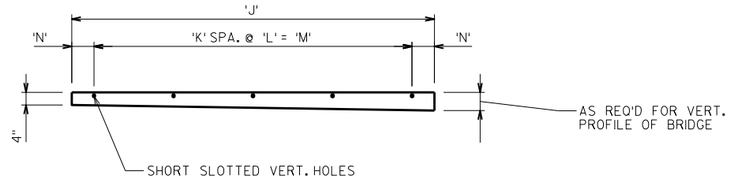


DETAIL A



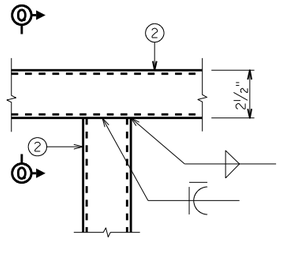
DETAIL B

SECTION P-P



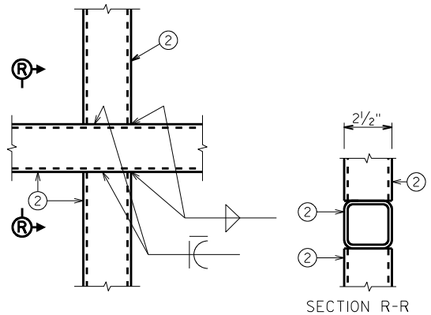
¼" PLATE (NO. 5)

PANEL TYPE	DIM 'J'	NO. 'K'	SPA 'L'	DIM 'M'	DIM 'N'
A	2'-0"	1	10"	10"	7"
B	8'-9⅞"	4	1'-8"	6'-8"	1'-0⅞"



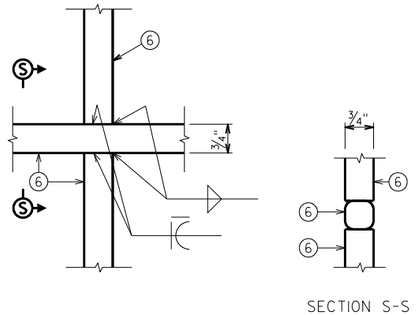
SECTION Q-Q

DETAIL C



SECTION R-R

DETAIL D



SECTION S-S

DETAIL E

NOTES

FOR NOTES AND LEGEND, SEE "FENCE DECORATIVE BRIDGE" SHEET.

DETAILS SHOWN ARE TYPICAL FOR ALL FENCE PANELS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-880

DRAWN BY APC | PLANS CK'D. MSC

FENCE DECORATIVE BRIDGE DETAILS 2

SHEET 24

396

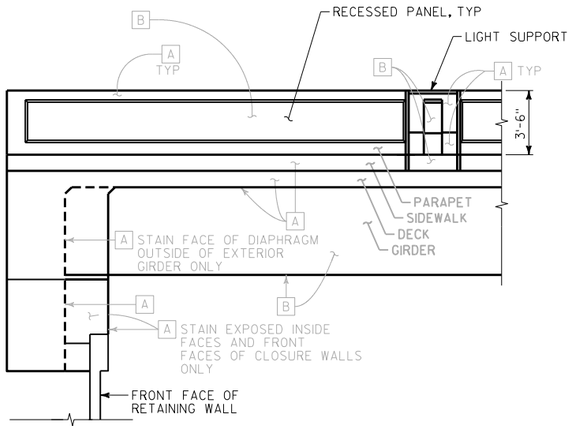
SCALE = 1/12.5

8

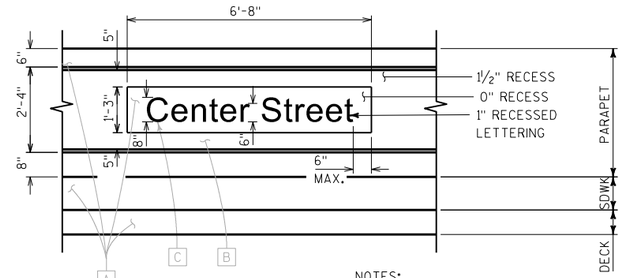
8

STATE PROJECT NUMBER

1060-34-84



OUTSIDE ELEVATION OF PARAPET



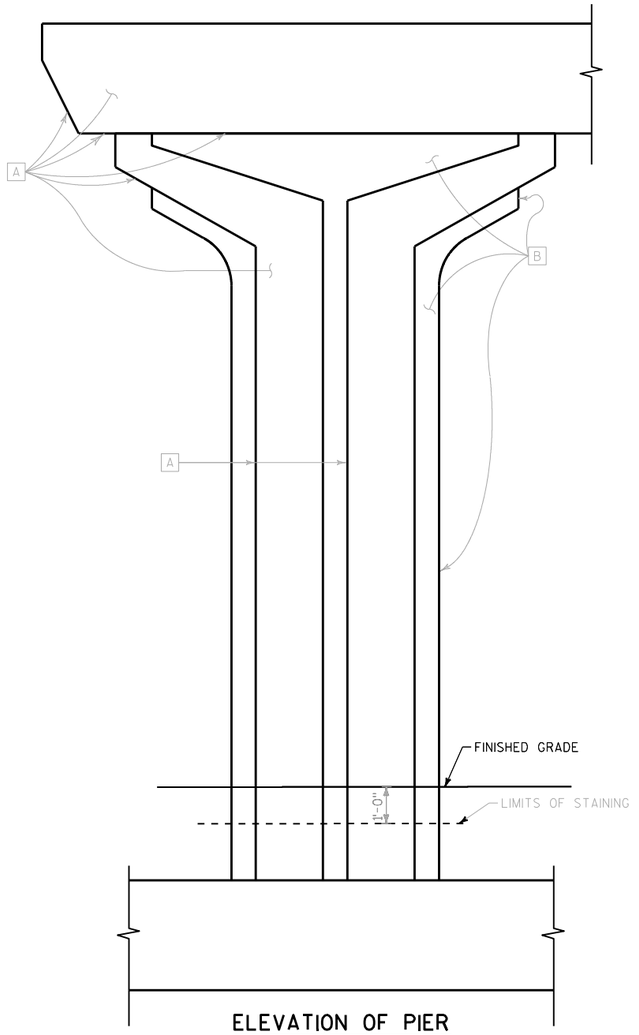
INDENTED TEXT

EXTERIOR FACE OF PARAPET ONLY

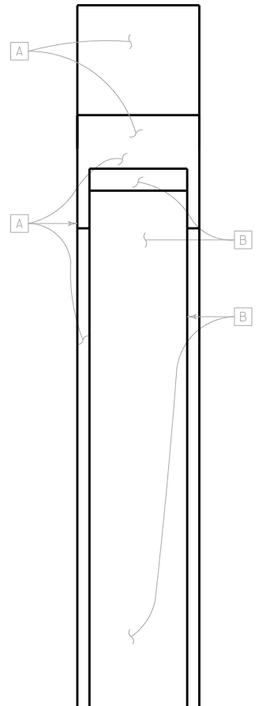
NOTES:
LETTERING SHALL BE HELVETICA, 8" UPPER CASE AND 6" LOWER CASE.

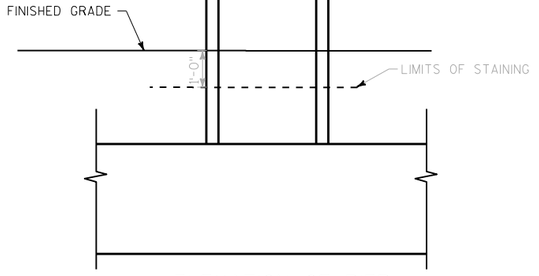
LETTERING IS ONLY ON OUTSIDE FACE OF PARAPET.

SEE "VERTICAL FACE PARAPET" SHEET FOR LOCATIONS.



ELEVATION OF PIER





ELEVATION OF PIER

LOOKING NORTH

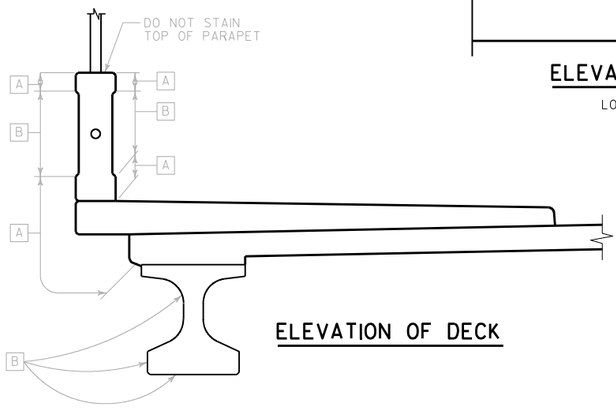
CONCRETE STAINING SCHEDULE

MARK	COLOR	LOCATION	NOTES
A	BASE COLOR	PARAPETS	BOTH SIDES, EXCEPT AS NOTED FOR ACCENT COLORS
		DECK	FASCIA & EXPOSED UNDERSIDE TO EXTERIOR GIRDER FLANGE
		ABUTMENT	FRONT FACE FROM TOP OF ABUTMENT TO 6" BELOW TOP OF RETAINING WALL COPING
		ABUT. CLOSURE WALLS	INSIDE FACES TO 6" BELOW TOP OF RETAINING WALL COPING
		PIERS	PIER COLUMNS TO 1'-0" BELOW FINISHED GRADE EXCEPT AS NOTED FOR ACCENT COLORS
B	ACCENT COLOR #1	PIERS, GIRDERS, PARAPETS	REVEALS ON COLUMNS, EXTERIOR FACE AND UNDERSIDE OF EXTERIOR GIRDERS REVEALS ON PARAPETS
C	ACCENT COLOR #2	PARAPETS	LETTERING AT ROADWAY NAME

THE FINAL COLOR OF THE CONCRETE FOLLOWING APPLICATION OF THE STAIN SYSTEM SHALL MATCH THE SHERWIN-WILLIAMS STANDARD COLOR SYSTEM LISTED.

BASE COLOR : WHOLE WHEAT - SW 6121, FN 122
ACCENT COLOR #1: BAGUETTE - SW 6123, FN 124
ACCENT COLOR #2: BLACK - FEDERAL COLOR 37038

CONCRETE STAINING DETAILS SHOWN ON THIS SHEET ARE FOR INFORMATION ONLY. CONCRETE STAINING IS NOT INCLUDED IN THIS CONTRACT. CONCRETE STAINING WILL BE DONE BY OTHERS UNDER A FUTURE CONTRACT.



ELEVATION OF DECK

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-40-880

DRAWN BY APC | PLANS CK'D. MSC

AESTHETIC DETAILS

SHEET 25

397

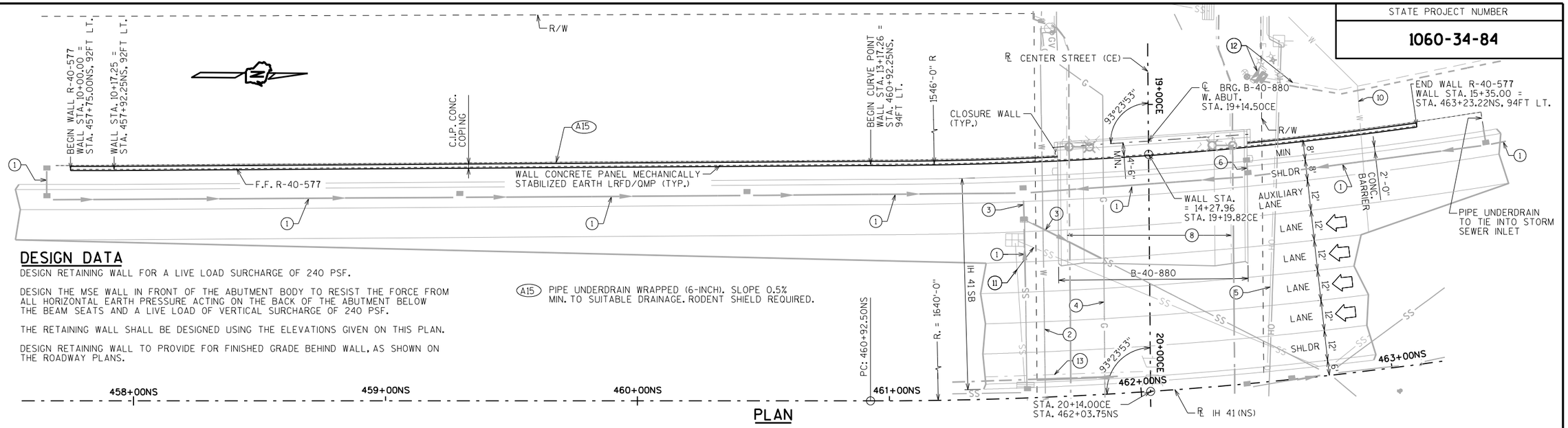
SCALE = ¼"

8

8

STATE PROJECT NUMBER

1060-34-84



DESIGN DATA

DESIGN RETAINING WALL FOR A LIVE LOAD SURCHARGE OF 240 PSF.

DESIGN THE MSE WALL IN FRONT OF THE ABUTMENT BODY TO RESIST THE FORCE FROM ALL HORIZONTAL EARTH PRESSURE ACTING ON THE BACK OF THE ABUTMENT BELOW THE BEAM SEATS AND A LIVE LOAD OF VERTICAL SURCHARGE OF 240 PSF.

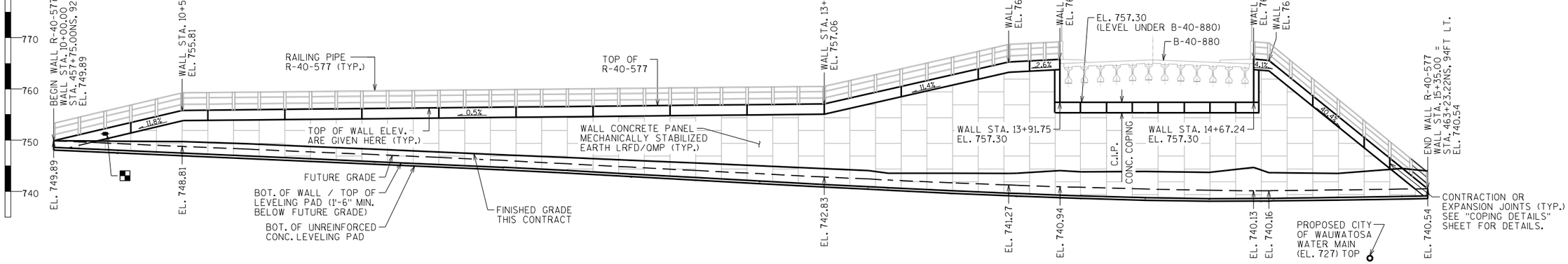
THE RETAINING WALL SHALL BE DESIGNED USING THE ELEVATIONS GIVEN ON THIS PLAN.

DESIGN RETAINING WALL TO PROVIDE FOR FINISHED GRADE BEHIND WALL, AS SHOWN ON THE ROADWAY PLANS.

(A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.

PLAN

NAME PLATE & BENCH MARK CAP (IF SUPPLIED): FOR LOCATION SEE "COPING DETAILS & GEOMETRY" SHEET.



ELEVATION (LOOKING AT F.F. WALL)

UTILITY INFORMATION

(SEE SPECIAL PROVISIONS FOR FURTHER INFORMATION)

1. PROPOSED WISDOT 24" DIA. STORM SEWER
2. EXISTING WAUWATOSA WATER UTILITY WATERMAIN TO BE RELOCATED
3. PROPOSED WISDOT 30" DIA. STORM SEWER
4. EXISTING WE ENERGIES GAS MAIN TO BE ABANDONED
5. EXISTING AT&T WISCONSIN OVERHEAD LINE TO BE REMOVED
6. PROPOSED WISDOT 18" DIA. STORM SEWER
8. EXISTING CITY OF WAUWATOSA LIGHTING TO BE RELOCATED
10. PROPOSED WAUWATOSA WATER UTILTY WATER MAIN
11. EXISTING WISDOT STORM SEWER TO REMAIN
12. EXISTING WISDOT FTMS TO BE ABANDONED
13. EXISTING WISDOT LIGHTING TO BE RELOCATED

CURVE DATA

℄ IH 41

P.C. = STA. 460+92.50NS
P.T. = STA. 471+91.27NS
DELTA = 38°-23'-14.05"
R = 1640.00'
L = 1098.77'
T = 570.90'
S.E. = 5.9%

MATERIAL PROPERTIES:

CONCRETE MASONRY, CAST-IN-PLACE COPING ——— f'c = 4,000 PSI
BAR STEEL REINFORCEMENT, GRADE 60 ——— fy = 60,000 P.S.I.
PRECAST CONCRETE WALL PANELS ——— fc' = 4,000 P.S.I.

ALLOWABLE WALL SYSTEMS

WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP

LIST OF DRAWINGS

1. GENERAL PLAN
2. QUANTITIES & SOIL INFORMATION
3. TYPICAL SECTIONS
4. COPING DETAILS & GEOMETRY
5. RAILING PIPE
6. AESTHETIC WALL TREATMENT
7. SUBSURFACE EXPLORATION

STRUCTURE DESIGN CONTACTS:
MATT COUPAR (608) 266-5083
AARON BONK (608) 261-0261

NO.	DATE	REVISION	BY

Plans Prepared By **WISDOT**
BUREAU OF STRUCTURES

ACCEPTED William C. Dreher — CHIEF STRUCTURES DESIGN ENGINEER — 9/16/15 DATE

STRUCTURE R-40-577

WALL BTWN. B-40-880 W. ABUT. & IH 41 SB LANES / UNDERNEATH CENTER STREET

COUNTY	~~TOWN~~/CITY/~~VILLAGE~~
MILWAUKEE	WAUWATOSA

DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
APC	MSC	APC	MSC

GENERAL PLAN

SHEET 1 OF 7

398

I.D. 1060-33-16B

DATE: SEPT. 2015

SCALE = 20

STATE PROJECT NUMBER

1060-34-84

SOIL PARAMETERS

SOIL DESCRIPTION	FRICTION ANGLE (DEGREES)	COHESION (PSF)	UNIT WEIGHT (PCF)
GRANULAR BACKFILL WITHIN THE WALL IN THE REINFORCING ZONE	30	0	120
FILL BEHIND AND BELOW THE REINFORCING ZONE	31	0	120
B-7, 11+00			
SILT, GRAY, TRACE SAND AND GRAVEL (ELEVATION 745.9FT - 741.4FT)	0	4,500	135
SAND, GRAY, FINE TO MEDIUM (ELEVATION 741.4FT - 737.4FT)	36	0	135
SILT, GRAY, TRACE SAND, TRACE CLAY (ELEVATION 737.4FT - 723.4FT)	0	2,500	125
SILT, GRAY, TRACE SAND, TRACE CLAY (ELEVATION 723.4FT-716.4FT)	0	4,500	135
B-6, 12+00			
SILT, GRAY, TRACE CLAY, TRACE SAND, TRACE GRAVEL (ELEVATION 743.4FT -738.4FT)	0	4,500	135
SAND, GRAY, FINE TO MEDIUM (ELEVATION 738.4FT - 732.4FT)	32	0	120
CLAY, GRAY, LITTLE SILT, TRACE SAND, TRACE GRAVEL (ELEVATION 732.4FT - 710.4FT)	0	3,000	128
CLAY, GRAY, LITTLE SILT, TRACE SAND, TRACE GRAVEL (ELEVATION 710.4FT - 709.4FT)	0	4,500	135
B-1, 14+60			
CLAY, GRAY, TRACE GRAVEL (ELEVATION 738.6FT - 733.6FT)	0	3,000	125
CLAY, GRAY, TRACE GRAVEL (ELEVATION 733.6FT - 729.6FT)	0	2,500	120
CLAY, GRAY, TRACE GRAVEL (ELEVATION 729.6FT - 717.6FT)	0	2,000	120
CLAY AND SILT, GRAY, TRACE SAND AND GRAVEL (ELEVATION 717.6FT - 705.6FT)	0	4,500	135
CLAY, GRAY, TRACE SAND (ELEVATION 705.6FT - 700.6FT)	0	2,000	120
SILT, GRAY, SOME SAND, TRACE GRAVEL (ELEVATION 700.6FT AND BELOW)	0	25,000	135

WALL EXTERNAL STABILITY EVALUATION

DIMENSIONS					
WALL HEIGHT (FEET)[1]	10.2	13.2	18.8	26.4	
EXPOSED WALL HEIGHT (FEET)	8.7	11.7	17.3	24.9	
LENGTH OF REINFORCEMENT (FEET)[3]	8.0	9.2	17.4	18.5	
LENGTH OF REINF. / WALL HEIGHT	N.A.	0.70	0.93	0.70	
WALL STATION	11+00.0	12+00.0	14+50.0	14+67.2	
BORING USED	B-7	B-6	B-1	B-1	
CAPACITY TO DEMAND RATIO (CDR)[4]					
SLIDING ($CDR_{REQ'D}$ > 1.0)	1.4	1.3	1.0	1.5	
ECCENTRICITY ($CDR_{REQ'D}$ > 1.0)	1.5	1.2	1.0	1.3	
GLOBAL STABILITY ($CDR_{REQ'D}$ > 1.0)	N.A.	N.A.	2.1	N.A.	
BEARING RESISTANCE ($CDR_{REQ'D}$ > 1.0)	2.4	1.8	1.1	1.1	
REQUIRED BEARING RESISTANCE (PSF)	6,000	6,000	7,000	7,000	

1. THE WALL HEIGHT INCLUDES AN EMBEDMENT OF 1.5 FEET.
2. THE WALL STABILITY EVALUATION INCLUDED A SURCHARGE LOAD THAT WAS EQUAL TO THE WEIGHT OF THE SOIL BEHIND THE ABUTMENT.
3. THE LENGTH OF REINFORCEMENT IS THE MINIMUM REQUIRED LENGTH AT THAT LOCATION.
4. CDR REQUIREMENTS AND LOAD AND RESISTANCE FACTORSE ARE PRESENTED IN CH. 14 OF THE BRIDGE MANUAL.
5. NA NOT APPLICABLE, GLOBAL SLOPE STABILITY WAS EVALUATED AT THE CRITICAL WALL LOCATION.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BEVEL ALL EXPOSED EDGES OF CONCRETE ¾" UNLESS NOTED OTHERWISE.

BAR STEEL REINFORCEMENT SHALL HAVE 2" CLEAR COVER UNLESS OTHERWISE SHOWN OR NOTED.

ALL BAR STEEL REINFORCEMENT IN CONCRETE COPING IS TO BE EPOXY COATED.

THE PLAN QUANTITY FOR THE ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP." IS BASED ON A WALL HEIGHT MEASURED FROM THE TOP OF THE WALL TO THE TOP OF THE LEVELING PAD. THE TOP OF LEVELING PAD IS ASSUMED TO BE 1'-6" BELOW FINISHED GRADE. ALL AREAS CONSTRUCTED OUTSIDE THESE LIMITS WILL NOT BE MEASURED FOR PAYMENT.

THE QUANTITY OF CONCRETE MASONRY & REINFORCING STEEL, FOR THE CAST-IN-PLACE COPING, IS PAID FOR UNDER THE ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP."

THE UPPER LIMITS OF EXCAVATION FOR "EXCAVATION FOR STRUCTURES RETAINING WALL R-40-577" SHALL BE THE EXISTING GROUND LINE.

THE CONTRACTOR MUST COORDINATE THE CONSTRUCTION OF WALL R-40-577 WITH THE CONSTRUCTION OF THE WEST ABUTMENT OF BRIDGE B-40-880.

OVER EXCAVATE BELOW THE LEVELING PAD AS DIRECTED BY THE FIELD ENGINEER TO REMOVE ANY UNSUITABLE MATERIAL. BACKFILL REMOVAL AREAS WITH GRANULAR BACKFILL. WORK SHALL BE INCIDENTAL TO THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP".

THE COST OF FURNISHING AND PLACING MSE BACKFILL WITHIN THE REINFORCED SOIL ZONE IS TO BE INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP".

EXPANSION/CONTRACTION JOINT CALLOUTS ARE FOR INFORMATIONAL USE ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE LOCATION OF EXPANSION/CONTRACTION JOINTS. SEE "COPING DETAILS" SHEET FOR DETAILS.

THE QUANTITIES AND REINFORCEMENT DETAILS ARE BASED ON AN ASSUMED CONCRETE WALL PANEL THICKNESS OF 7½". FOR PANEL THICKNESSES DIFFERENT THAN 7½ INCHES, THE CONTRACTOR SHALL VERIFY REINFORCEMENT BAR DETAILS AND QUANTITIES AND WILL BE RESPONSIBLE FOR ANY QUANTITY VARIATIONS.

THE COST OF FURNISHING AND PLACING THE UNREINFORCED CONCRETE LEVELING PAD UNDER THE MSE PRECAST WALL PANELS IS INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP".

ALL OF THE RETAINING WALL'S STATIONING AND OFFSETS ARE GIVEN AT THE FRONT FACE OF WALL PANELS.

THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN, PLANS, DETAILS, SPECIFICATIONS AND SHOP DRAWINGS FOR THE RETAINING WALLS IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE RETAINING WALL MANUFACTURER SHALL PROVIDE TECHNICAL ASSISTANCE TO THE CONTRACTOR DURING CONSTRUCTION. THE COST OF FURNISHING THESE ITEMS SHALL BE INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP."

PLANS, ELEVATIONS, AND DETAILS SHOWN ON THESE DRAWINGS ARE INTENDED TO INDICATE WALL LOCATIONS, LENGTHS, HEIGHTS, AND DETAILS COMMON TO THE WALL SYSTEM SELECTED. THE CONTRACTOR SHALL VERIFY THAT THE WALL SYSTEM SELECTED WILL CONFORM TO THE REQUIRED ALIGNMENTS AND DETAILS.

THE MAXIMUM VALUE OF THE ANGLE OF INTERNAL FRICTION OF THE WALL BACKFILL MATERIAL IN THE REINFORCED ZONE SHALL BE ASSUMED TO BE 30 DEGREES WITHOUT CERTIFIED TEST VALUES.

ALL STATIONS AND ELEVATIONS ARE IN FEET, ELEVATIONS ARE REFERENCED TO THE NAVD 88 DATUM.

EXISTING STRUCTURE B-40-284 IS NOT SHOWN IN THESE PLANS. THE REMOVAL OF THIS STRUCTURE IS INCLUDED IN A LUMP SUM PAY ITEM AS PART OF THE B-40-880 BRIDGE QUANTITIES.

THESE PLANS ARE FOR A PRECAST CONCRETE PANEL MECHANICALLY STABILIZED EARTH (MSE) RETAINING WALL.

THE VOLUME OF EARTHWORK REQUIRED TO INSTALL THE UNREINFORCED CONCRETE LEVELING PAD, MSE PRECAST WALL PANELS, MSE BACKFILL AND REINFORCING STRIPS IS INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP".

PROVIDE A SACK RUBBED FINISH IN ACCORDANCE TO STANDARD SPECIFICATION 502.3.7.5 AND AS MODIFIED HERE ON ALL EXPOSED CONCRETE SURFACES WHERE CONCRETE STAINING WILL BE APPLIED IN A FUTURE CONTRACT. THE MORTAR SHALL CONTAIN ONE OF THE FOLLOWING ACRYLIC BONDING ADMIXTURES MIXED AND APPLIED IN ACCORDANCE TO MANUFACTURER'S RECOMMENDATIONS; TK-225 BY TK PRODUCTS, ACHRO 60 BY THORO PRODUCTS, OR ACHRO SET BY MASTER BUILDERS. THIS WORK IS INCIDENTAL TO THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABALIZED EARTH LRFD/QMP".

THE UTILITY INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING THEIR OWN DETERMINATIONS AS TO TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE.

UTILITIES LABELED PROPOSED MAY BE INSTALLED PRIOR TO CONSTRUCTION.

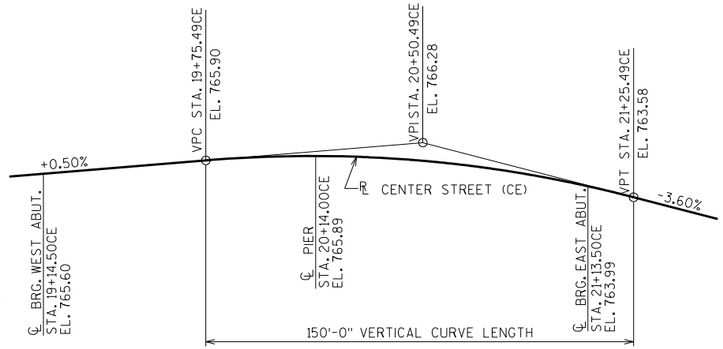
ONLY WALL CONCRETE PANEL MSE WALL SYSTEMS THAT USE STRIP TYPE SOIL REINFORCEMENT THAT ARE HINGED AT THE PANEL CONNECTION CAN BE USED FOR THE PROJECT.

ANY TEMPORARY SHORING FOR CONTRACTOR OPERATIONS IS CONSIDERED INCIDENTAL TO BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP"

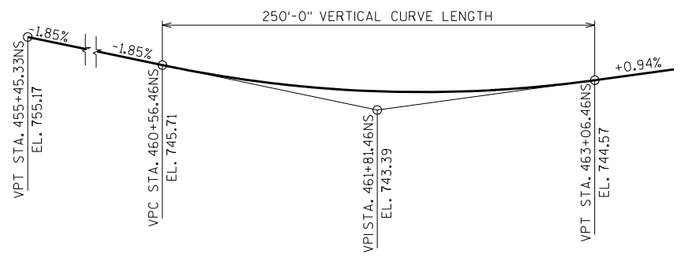
TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	QUANTITY	UNIT
206.3000	EXCAVATION FOR STRUCTURES RETAINING WALL R-40-577	1	LS
513.2001	RAILING PIPE R-40-577	465	LF
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	9	SY
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	575	LF
SPV.0165.4005	WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP	7,670	SF
	NON-BID ITEMS		
	EXPANDED POLYSTYRENE	1"	SIZE
	PREFORMED JOINT FILLER	¾"	SIZE
	NON-BITUMINOUS JOINT SEALER		
	NAME PLATE		

ALL ITEMS ARE CATEGORY 3000



PROFILE GRADE LINE FOR CENTER STREET



PROFILE GRADE LINE IH 41 SB

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-40-577

DRAWN BY APC | PLANS CK'D. MSC

QUANTITIES & SOIL INFORMATION

SHEET 2

399

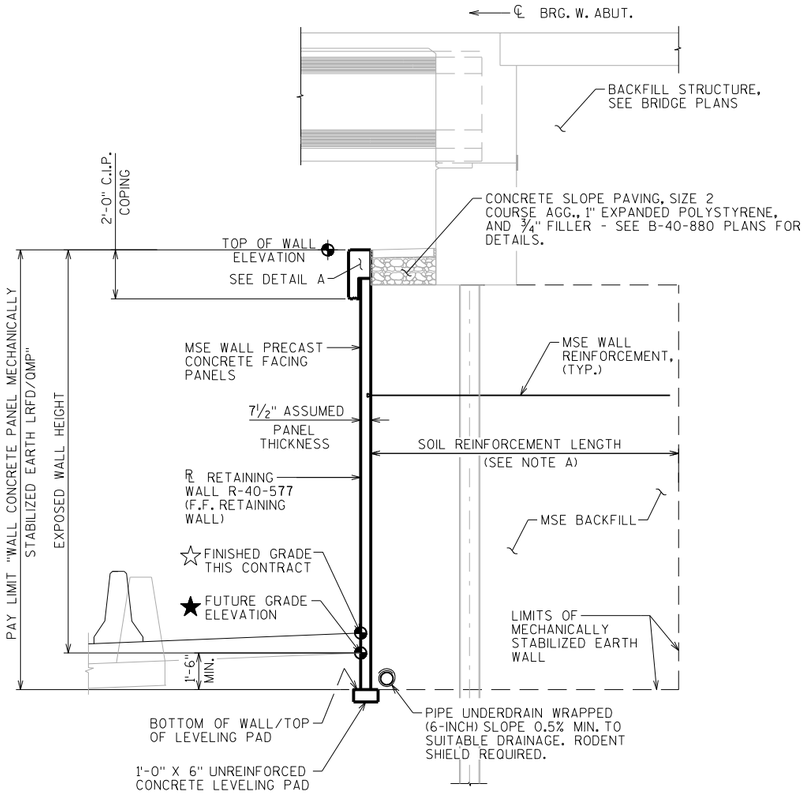
SCALE = 3

8

8

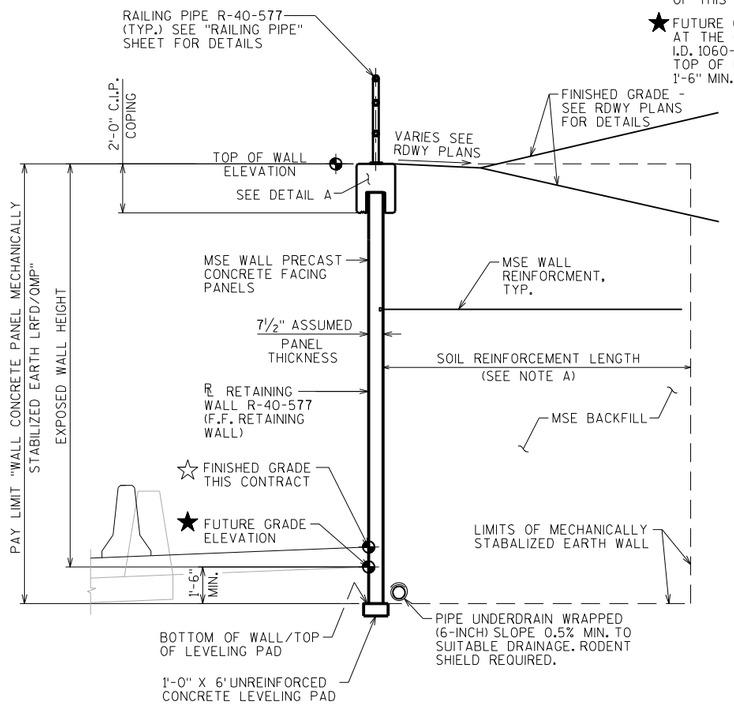
STATE PROJECT NUMBER

1060-34-84



TYPICAL SECTION UNDER B-40-880

(LOOKING SOUTH)

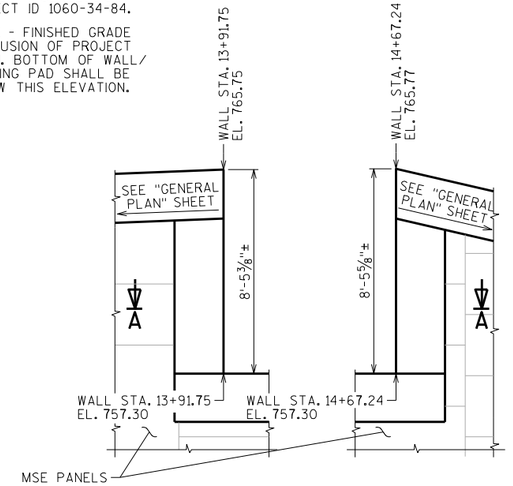


TYPICAL SECTION OUTSIDE OF B-40-880

(LOOKING SOUTH)

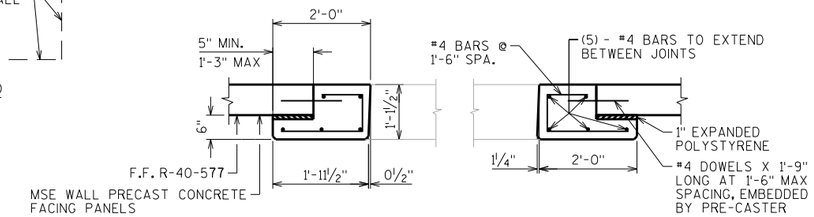
LEGEND

- ⊕ FOR ELEVATIONS SEE "COPING DETAILS & GEOMETRY" SHEET
- ☆ FINISHED GRADE AT CONCLUSION OF THIS PROJECT ID 1060-34-84.
- ★ FUTURE GRADE - FINISHED GRADE AT THE CONCLUSION OF PROJECT I.D. 1060-33-84. BOTTOM OF WALL/ TOP OF LEVELING PAD SHALL BE 1'-6" MIN. BELOW THIS ELEVATION.

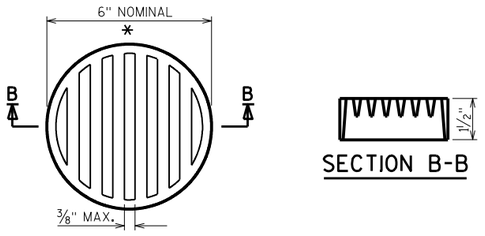


ELEVATION VIEW - VERTICAL COPING

(LOOKING WEST)

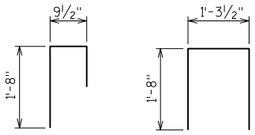


SECTION A-A



RODENT SHIELD DETAIL

SECTION B-B

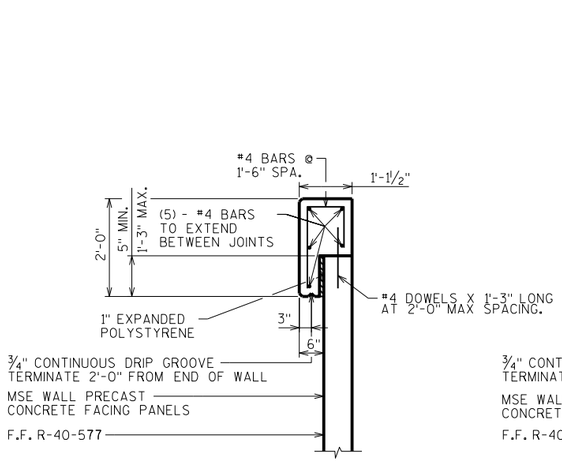


COPING BAR BENDS

✳ DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

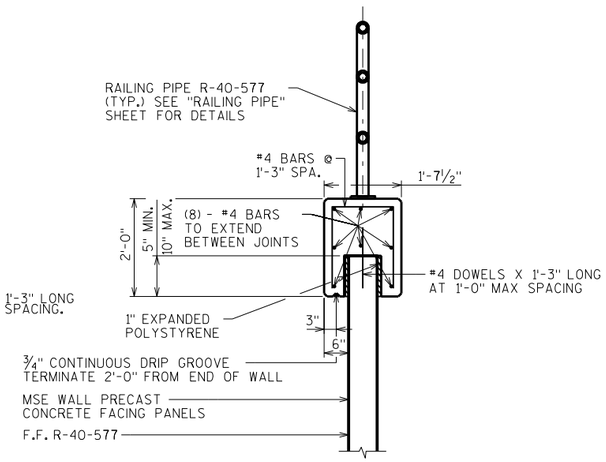
THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.



COPING IN FRONT OF ABUTMENT

✳CONTRACTION AND EXPANSION JOINTS REQUIRED. SEE "COPING DETAILS & GEOMETRY" SHEET FOR DETAILS.



COPING OUTSIDE OF B-40-880

✳EXPANSION JOINTS REQUIRED. SEE "COPING DETAILS & GEOMETRY" SHEET FOR DETAILS.

DETAIL A

(CAST-IN-PLACE COPING DETAILS)

NOTE A:

SEE "WALL EXTERNAL STABILITY EVALUATION" TABLE ON "QUANTITIES & SOILS INFORMATION" SHEET FOR MINIMUM LENGTH OF MSE WALL REINFORCING STRIPS, SOIL REINFORCEMENT MUST EXTEND A MINIMUM OF 3.0 FEET BEYOND THE FAILURE PLANE FOR INTERNAL STABILITY AS DEFINDED BY AASHTO SPECIFICATIONS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-40-577

DRAWN BY APC | PLANS CK'D. MSC

TYPICAL SECTIONS | SHEET 3 | 400

8

8

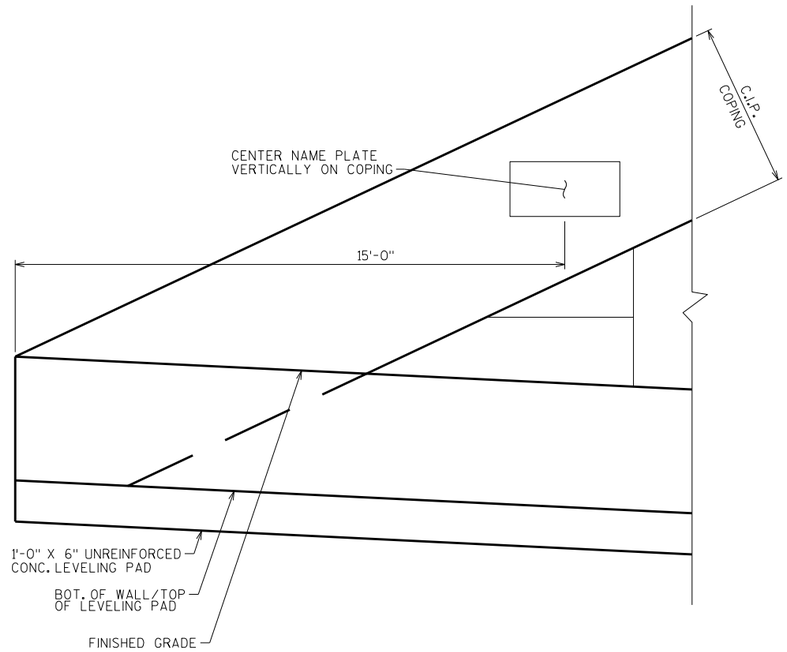
SCALE = 3.0

STATE PROJECT NUMBER

1060-34-84

GEOMETRY TABLE

WALL STATION	℞ IH 41 (NS)	OFFSET TO F.F. WALL	TOP OF WALL ELEV.	☆ FINISHED GRADE ELEV.	★ FUTURE GRADE ELEV.
10+00.00	457+75.00	92.00	749.89	749.89	749.89
10+17.25	457+92.25	92.00	751.93	749.83	749.52
10+25.00	458+00.00	92.05	752.85	749.81	749.35
10+50.00	458+25.00	92.22	755.81	749.74	748.81
10+75.00	458+50.00	92.39	755.93	749.30	748.27
11+00.00	458+75.00	92.55	756.06	748.76	747.74
11+25.00	459+00.00	92.72	756.18	748.23	747.20
11+50.00	459+25.00	92.89	756.31	747.69	746.66
11+75.00	459+50.00	93.05	756.43	747.15	746.07
12+00.00	459+75.00	93.22	756.56	746.61	745.42
12+25.00	460+00.00	93.39	756.68	746.07	744.77
12+50.00	460+24.99	93.55	756.81	745.54	744.12
12+75.00	460+49.99	93.72	756.93	745.00	743.47
13+00.00	460+74.99	93.89	757.06	744.46	742.83
13+17.26	460+92.25	94.00	759.02	744.09	742.44
13+25.00	461+00.45	94.00	759.90	743.54	742.26
13+50.00	461+26.97	94.00	762.75	743.56	741.70
13+71.83	461+50.13	94.00	765.24	743.53	741.27
13+75.00	461+53.49	94.00	765.32	743.54	741.22
13+91.75	461+71.26	94.00	765.75	743.78	740.94
13+91.75	461+71.26	94.00	757.30	743.78	740.94
14+00.00	461+80.01	94.00	757.30	743.83	740.82
14+25.00	462+06.53	94.00	757.30	743.90	740.49
14+50.00	462+33.05	94.00	757.30	743.76	740.25
14+67.24	462+50.34	94.00	757.30	743.69	740.13
14+67.24	462+50.34	94.00	765.77	743.69	740.13
14+73.16	462+57.62	94.00	765.53	743.66	740.16
14+75.00	462+59.57	94.00	764.79	743.65	740.17
15+00.00	462+86.09	94.00	754.69	743.52	740.32
15+25.00	463+12.61	94.00	744.58	744.48	740.50
15+35.00	463+23.22	94.00	740.54	744.00	740.54

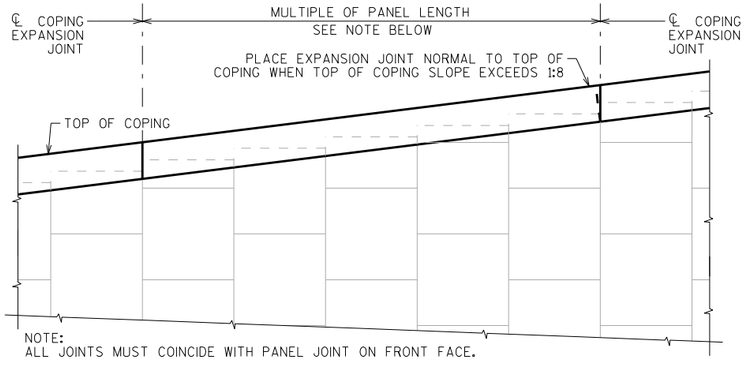


NAME PLATE LOCATION

LEGEND

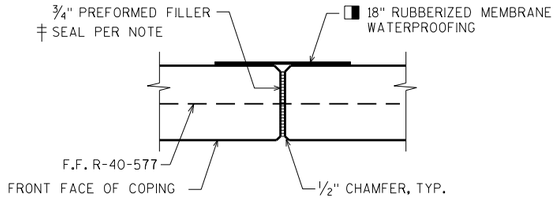
☆ FINISHED GRADE AT CONCLUSION OF THIS PROJECT ID 1060-34-84.

★ FUTURE GRADE - FINISHED GRADE AT THE CONCLUSION OF PROJECT I.D. 1060-33-84. BOTTOM OF WALL/TOP OF LEVELING PAD SHALL BE 1'-6" MIN. BELOW THIS ELEVATION.



C.I.P. COPING PARTIAL ELEVATION

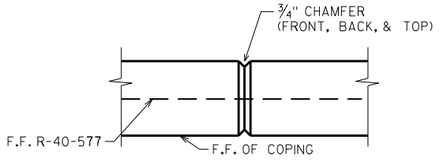
‡ SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONC.) COLOR TO MATCH STAIN.



COPING EXPANSION JOINT

DO NOT RUN BAR STEEL THRU JOINT.
MAX. SPACING OF JOINT = 30'
MIN. SPACING OF JOINT = 20'

◨ MEMBRANE WATERPROOFING TO EXTEND FROM TOP OF COPING TO 6" BELOW TOP OF PANELS.



COPING CONTRACTION JOINT

DO NOT RUN BAR STEEL THRU JOINT.
MAX. SPACING OF JOINT = 12'

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-40-577

DRAWN BY APC | PLANS CK'D. MSC

COPING DETAILS & GEOMETRY

SHEET 4

401

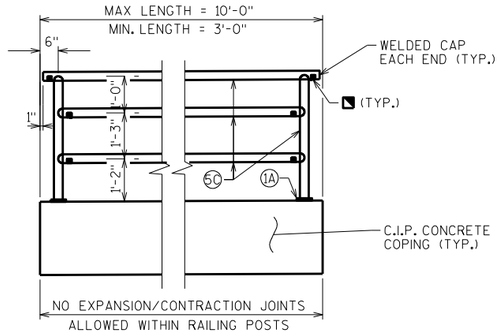
8

8

SCALE = 2.0

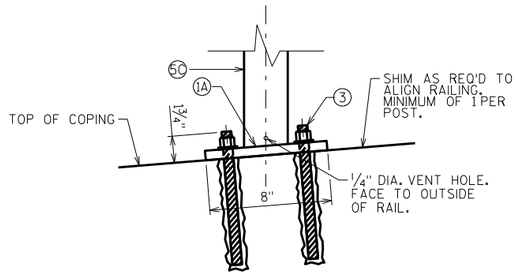
STATE PROJECT NUMBER

1060-34-84



WALL RAILING ELEVATION

(LOOKING AT FRONT FACE OF COPING)



ANCHOR BOLTS FOR RAIL POST

LEGEND

(1A) PLATE 5/8" X 6" X 8" WITH 3/4" X 1 1/2" SLOTTED HOLES.

(3) STAINLESS STEEL CONCRETE MASONRY ANCHORS, TYPE S (EPOXY), 5/8" DIA. EMBED A MIN OF 7".

(5C) 2 1/2" DIA. STANDARD PIPE RAIL (2.875" O.D.). PLACE POSTS VERTICAL. WELD TO 1A. PLACE RAILS PARALLEL TO TOP OF COPING. WELD TO POSTS.

◪ 1 1/2" DIA. VENT HOLE @ BOTTOM OF EACH RAIL END.

NOTES

BID ITEM SHALL BE "RAILING PIPE R-40-577", WHICH SHALL INCLUDE ALL STEEL ITEMS SHOWN, GALVANIZING AND PAINTING.

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 CUTS.

NO. 1A SHALL CONFORM TO A.S.T.M. A709 GRADE 36. STANDARD PIPE RAIL SHALL CONFORM TO A.S.T.M. A500 GRADE B (NO. 5C).

ANCHORAGES SHALL BE ACCURATELY PLACED TO PROVIDE CORRECT ALIGNMENT OF RAILING, SET NORMAL TO GRADE.

CUT BOTTOM OF POST TO MAKE POST VERTICAL IN BOTH TRANSVERSE AND LONGITUDINAL DIRECTION.

STEEL, SHIMS SHALL BE PROVIDED & USED UNDER BASE PLATES WHERE REQUIRED FOR ALIGNMENT.

FILL BOLT SLOT OPENINGS IN SHIMS AND PLATE NO.1A AND CAULK AROUND PERIMETER OF PLATE NO.1A WITH NON-STAINING BLACK NON-BITUMINOUS JOINT SEALER.

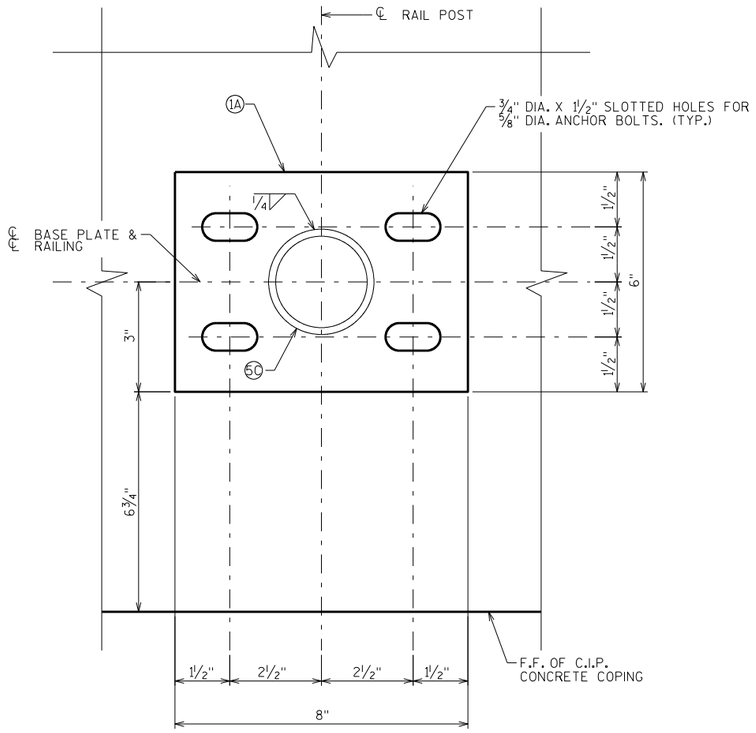
VENT HOLES SHALL BE DRILLED IN MEMBERS AS REQUIRED TO FACILITATE GALVANIZING AND DRAINAGE.

GALVANIZE AFTER FABRICATION AND THEN PAINT GALVANIZED RAILING ASSEMBLIES WITH A TWO COAT SYSTEM SPECIFICALLY INTENDED FOR PAINTING OF GALVANIZED SURFACES PER THE SPECIFICATIONS. SHIMS SHALL BE GALVANIZED PER ASTM A123. THE FINISH COLOR SHALL BE FEDERAL COLOR NO. 27038 BLACK.

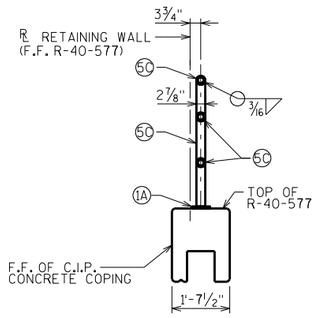
RAILING SHALL BE FABRICATED IN LENGTHS THAT INCLUDE 2 POSTS.

PAINT TOUCH-UP TO BE DONE AT COMPLETION OF STEEL RAILING INSTALLATION TO THE SATISFACTION OF THE ENGINEER AT NO EXTRA COST.

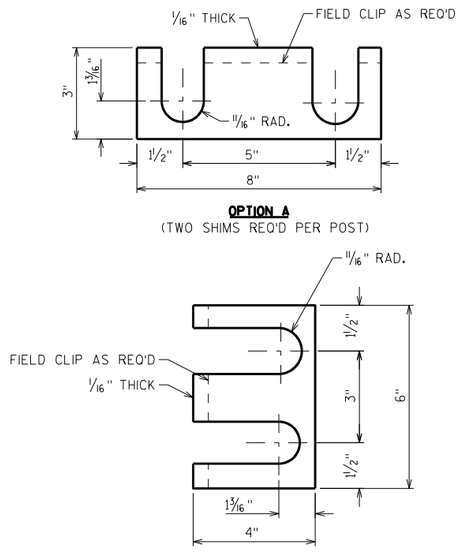
6" MIN. DISTANCE REQUIRED BETWEEN THE ℄ OF COPING JOINTS (BOTH EXPANSION AND CONTRACTION JOINTS) AND THE ℄ OF RAIL POSTS.



RAIL POST BASE PLATE



WALL RAILING SECTION



RAIL POST SHIM DETAIL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-40-577

DRAWN BY APC | PLANS CK'D. MSC

RAILING PIPE

SHEET 5

402

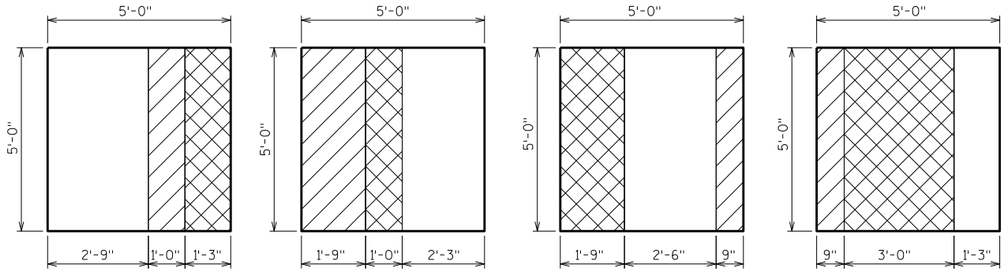
SCALE = 2.0

8

8

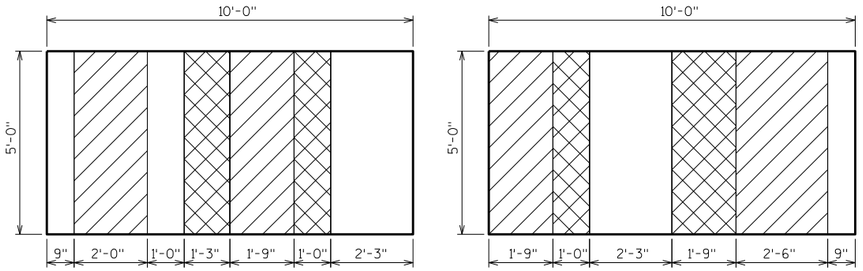
STATE PROJECT NUMBER

1060-34-84

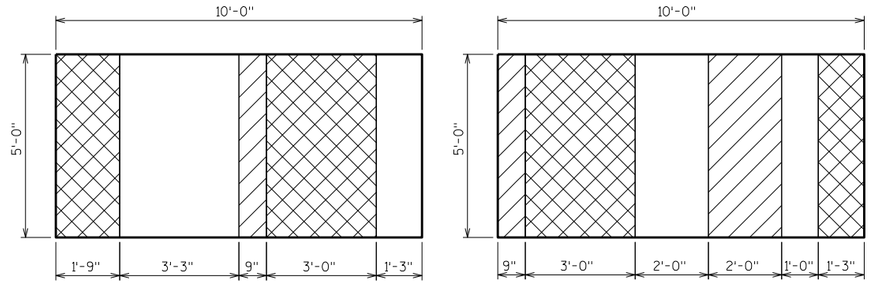


WALL PANEL "A" WALL PANEL "B" WALL PANEL "C" WALL PANEL "D"

5'-0" X 5'-0" MSE CONCRETE PANEL RAISED SURFACE DETAILS

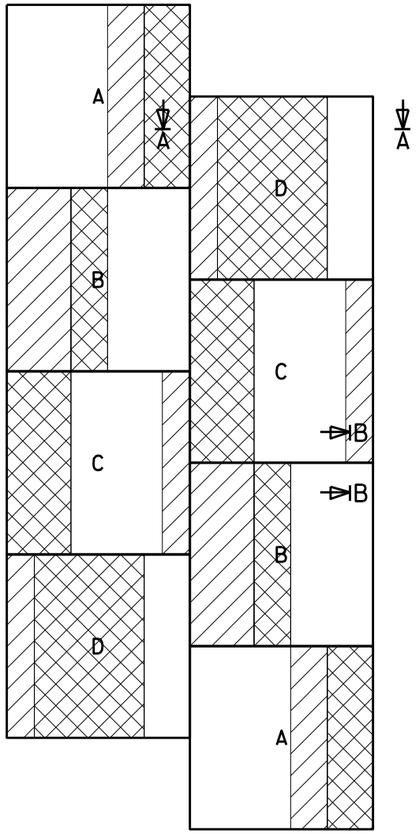


WALL PANEL "A" WALL PANEL "B"

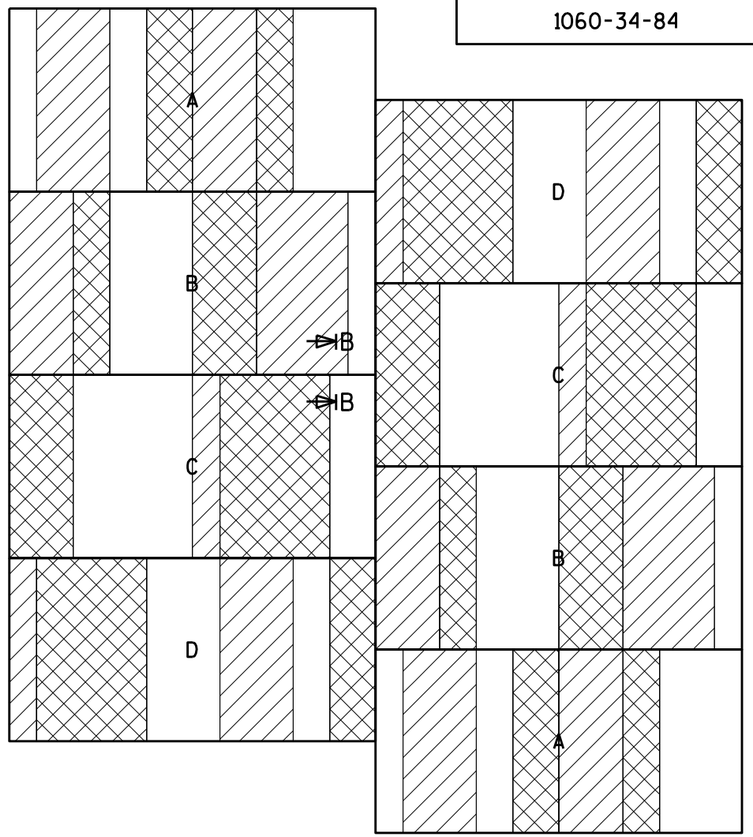


WALL PANEL "C" WALL PANEL "D"

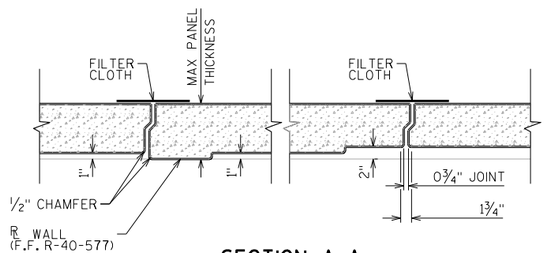
5'-0" X 10'-0" MSE CONCRETE PANEL RAISED SURFACE DETAILS



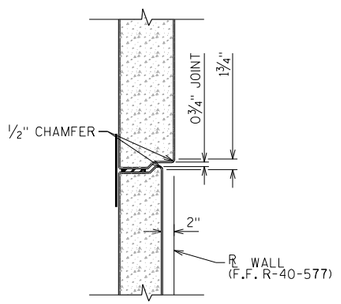
TYPICAL 5'-0" X 5'-0" MSE CONCRETE PANEL PATTERN



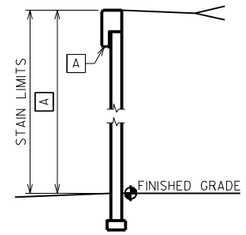
TYPICAL 5'-0" X 10'-0" MSE CONCRETE PANEL PATTERN



SECTION A-A



SECTION B-B



MSE WALL STAINING DIAGRAM

CONCRETE STAINING SCHEDULE

MARK	COLOR	LOCATION	NOTES
A	BASE COLOR	WALLS	EXPOSED FACES TO FINISHED GRADE
		COPING	FACE AND UNDERSIDE

STAIN COLORS

THE FINAL COLORING OF THE CONCRETE FOLLOWING APPLICATION OF THE STAIN SYSTEM SHALL MATCH THE FEDERAL STANDARD COLOR SYSTEM LISTED BELOW.
BASE COLOR - 33564

CONCRETE STAINING DETAILS SHOWN ON THIS SHEET ARE FOR INFORMATION ONLY. CONCRETE STAINING IS NOT INCLUDED IN THIS CONTRACT. CONCRETE STAINING WILL BE DONE BY OTHERS UNDER A FUTURE CONTRACT.

LEGEND

PANEL THICKNESS - 2"

PANEL THICKNESS - 1"

PANEL THICKNESS - 0"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-40-577

DRAWN BY APC | PLANS CK'D. MSC

AESTHETIC WALL TREATMENT

SHEET 6

403

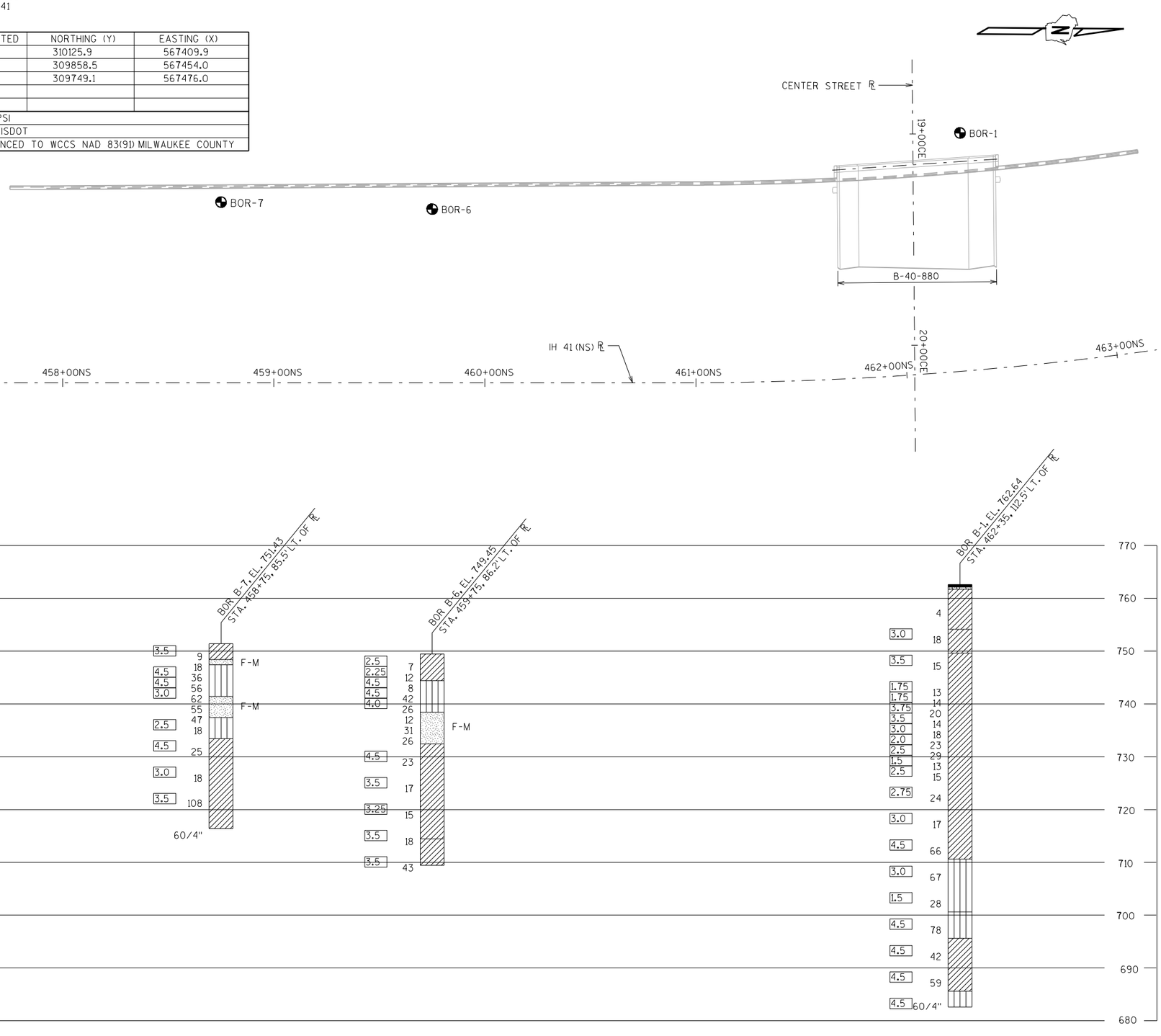
SCALE = 2.0

8

8

ZOO INTERCHANGE, NORTH LEG
CENTER STREET OVER IH 41

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	11/3/2014	310125.9	567409.9
6	11/7/2014	309858.5	567454.0
7	11/7/2014	309749.1	567476.0
BORINGS COMPLETED BY: PSI			
REPORT COMPLETED BY: WISDOT			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) MILWAUKEE COUNTY			



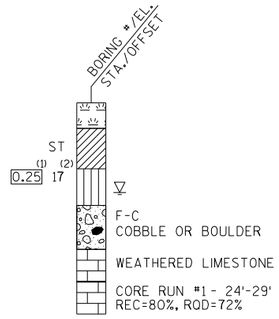
STATE PROJECT NUMBER

1060-34-84

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

- ▽ AT TIME OF DRILLING
- ▼ END OF DRILLING
- ▽ AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE ST-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-40-577

DRAWN BY PR/APC | PLANS CK'D. MSC

SUBSURFACE EXPLORATION

SHEET 7

404

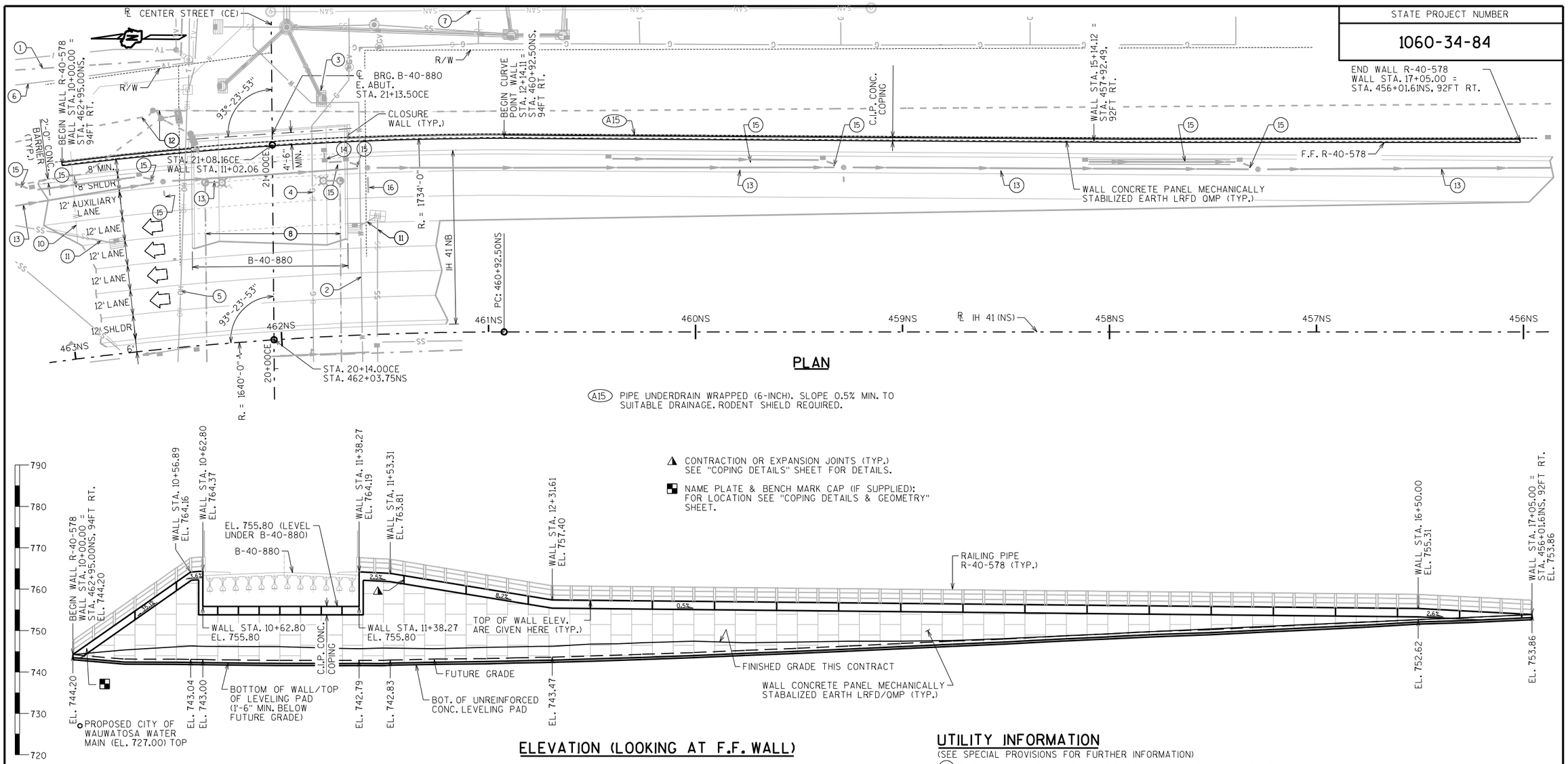
SCALE = 25

8

8

STATE PROJECT NUMBER

1060-34-84



PLAN

(A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SHIELD REQUIRED.

▲ CONTRACTION OR EXPANSION JOINTS (TYP.) SEE "COPING DETAILS" SHEET FOR DETAILS.

■ NAME PLATE & BENCH MARK CAP (IF SUPPLIED): FOR LOCATION SEE "COPING DETAILS & GEOMETRY" SHEET.

ELEVATION (LOOKING AT F.F. WALL)

LIST OF DRAWINGS

1. GENERAL PLAN
2. QUANTITIES & SOIL INFORMATION
3. TYPICAL SECTIONS
4. COPING DETAILS & GEOMETRY
5. RAILING PIPE
6. AESTHETIC WALL TREATMENT
7. SUBSURFACE EXPLORATION

CURVE DATA

℄ IH 41

P.C. = STA. 460+92.50NS
P.T. = STA. 471+91.27NS
DELTA = 38°-23'-14.05"
R = 1640.00'
L = 1098.77'
T = 570.90'
S.E. = 5.9%

DESIGN DATA

DESIGN RETAINING WALL FOR A LIVE LOAD SURCHARGE OF 240 PSF.

DESIGN THE MSE WALL IN FRONT OF THE ABUTMENT BODY TO RESIST THE FORCE FROM ALL HORIZONTAL EARTH PRESSURE ACTING ON THE BACK OF THE ABUTMENT BELOW THE BEAM SEATS AND A LIVE LOAD OF VERTICAL SURCHARGE OF 240 PSF.

THE RETAINING WALL SHALL BE DESIGNED USING THE ELEVATIONS GIVEN ON THIS PLAN.

DESIGN RETAINING WALL TO PROVIDE FOR FINISHED GRADE BEHIND WALL, AS SHOWN ON THE ROADWAY PLANS.

MATERIAL PROPERTIES

CONCRETE MASONRY, CAST-IN-PLACE COPING ——— f'c = 4,000 PSI
BAR STEEL REINFORCEMENT, GRADE 60 ——— fy = 60,000 P.S.I.
PRECAST CONCRETE WALL PANELS ——— f'c = 4,000 P.S.I.

ALLOWABLE WALL SYSTEMS

WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP

UTILITY INFORMATION

(SEE SPECIAL PROVISIONS FOR FURTHER INFORMATION)

(1) EXISTING WAUWATOSA SCHOOL DISTRICT LIGHTING TO BE RELOCATED
(2) EXISTING WAUWATOSA WATER UTILITY WATERMAIN TO BE RELOCATED
(3) EXISTING CITY OF WAUWATOSA 15" STORM SEWER TO BE REPLACED
(4) EXISTING WE ENERGIES GAS MAIN TO BE ABANDONED
(5) EXISTING AT&T WISCONSIN OVERHEAD LINE TO BE REMOVED
(6) EXISTING TIME WARNER CABLE UNDERGROUND LINE TO REMAIN IN PLACE
(7) EXISTING CITY OF WAUWATOSA SANITARY SEWER TO REMAIN IN PLACE
(8) EXISTING CITY OF WAUWATOSA LIGHTING TO BE RELOCATED
(10) PROPOSED WAUWATOSA WATER UTILTY WATER MAIN
(11) EXISTING WISDOT STORM SEWER TO REMAIN
(12) EXISTING WISDOT FTMS TO BE ABANDONED
(13) PROPOSED WISDOT 48" X 76" HE STORM SEWER
(14) PROPOSED WISDOT 18" DIA. STORM SEWER
(15) PROPOSED WISDOT 24" DIA. STORM SEWER
(16) PROPOSED WISDOT 30" DIA. STORM SEWER

STRUCTURE DESIGN CONTACTS:
MATT COUPAR (608) 266-5083
AARON BONK (608) 261-0261

NO.	DATE	REVISION	BY

Plans Prepared By WISDOT
BUREAU OF STRUCTURES

ACCEPTED William C. Dreher AMB — 9/16/15
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE R-40-578

WALL BTWEN. B-40-880 EAST ABUT. & IH 41 NORTHBOUND LANES / UNDERNEATH CENTER STREET

COUNTY	TOWN/CITY/~~VILLAGE~~
MILWAUKEE	WAUWATOSA

DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
APC	MSC	APC	MSC

GENERAL PLAN

SHEET 1 OF 7

405

SCALE = 24

I.D. 1060-33-16C

DATE: SEPT. 2015

STATE PROJECT NUMBER

1060-34-84

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BEVEL ALL EXPOSED EDGES OF CONCRETE ¾" UNLESS NOTED OTHERWISE.

BAR STEEL REINFORCEMENT SHALL HAVE 2" CLEAR COVER UNLESS OTHERWISE SHOWN OR NOTED.

ALL BAR STEEL REINFORCEMENT IN CONCRETE COPING IS TO BE EPOXY COATED.

THE PLAN QUANTITY FOR THE ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP," IS BASED ON A WALL HEIGHT MEASURED FROM THE TOP OF THE WALL TO THE TOP OF THE LEVELING PAD. THE TOP OF LEVELING PAD IS ASSUMED TO BE 1'-6" BELOW FINISHED GRADE. ALL AREAS CONSTRUCTED OUTSIDE THESE LIMITS WILL NOT BE MEASURED FOR PAYMENT.

THE QUANTITY OF CONCRETE MASONRY & REINFORCING STEEL, FOR THE CAST-IN-PLACE COPING, IS PAID FOR UNDER THE ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP."

THE UPPER LIMITS OF EXCAVATION FOR "EXCAVATION FOR STRUCTURES RETAINING WALL R-40-578" SHALL BE THE EXISTING GROUND LINE.

THE CONTRACTOR MUST COORDINATE THE CONSTRUCTION OF WALL R-40-578 WITH THE CONSTRUCTION OF THE WEST ABUTMENT OF BRIDGE B-40-880.

OVER EXCAVATE BELOW THE LEVELING PAD AS DIRECTED BY THE FIELD ENGINEER TO REMOVE ANY UNSUITABLE MATERIAL. BACKFILL REMOVAL AREAS WITH GRANULAR BACKFILL. WORK SHALL BE INCIDENTAL TO THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP".

THE COST OF FURNISHING AND PLACING MSE BACKFILL WITHIN THE REINFORCED SOIL ZONE IS TO BE INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP".

EXPANSION/CONTRACTION JOINT CALLOUTS ARE FOR INFORMATIONAL USE ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE LOCATION OF EXPANSION/CONTRACTION JOINTS. SEE "COPING DETAILS" SHEET FOR DETAILS.

THE QUANTITIES AND REINFORCEMENT DETAILS ARE BASED ON AN ASSUMED CONCRETE WALL PANEL THICKNESS OF 7½". FOR PANEL THICKNESSES DIFFERENT THAN 7½ INCHES, THE CONTRACTOR SHALL VERIFY REINFORCEMENT BAR DETAILS AND QUANTITIES AND WILL BE RESPONSIBLE FOR ANY QUANTITY VARIATIONS.

THE COST OF FURNISHING AND PLACING THE UNREINFORCED CONCRETE LEVELING PAD UNDER THE MSE PRECAST WALL PANELS IS INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP".

ALL OF THE RETAINING WALL'S STATIONING AND OFFSETS ARE GIVEN AT THE FRONT FACE OF WALL PANELS.

THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN, PLANS, DETAILS, SPECIFICATIONS AND SHOP DRAWINGS FOR THE RETAINING WALLS IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE RETAINING WALL MANUFACTURER SHALL PROVIDE TECHNICAL ASSISTANCE TO THE CONTRACTOR DURING CONSTRUCTION. THE COST OF FURNISHING THESE ITEMS SHALL BE INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP."

PLANS, ELEVATIONS, AND DETAILS SHOWN ON THESE DRAWINGS ARE INTENDED TO INDICATE WALL LOCATIONS, LENGTHS, HEIGHTS, AND DETAILS COMMON TO THE WALL SYSTEM SELECTED. THE CONTRACTOR SHALL VERIFY THAT THE WALL SYSTEM SELECTED WILL CONFORM TO THE REQUIRED ALIGNMENTS AND DETAILS.

THE MAXIMUM VALUE OF THE ANGLE OF INTERNAL FRICTION OF THE WALL BACKFILL MATERIAL IN THE REINFORCED ZONE SHALL BE ASSUMED TO BE 30 DEGREES WITHOUT CERTIFIED TEST VALUES.

ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCED TO THE NAVD 88 DATUM.

EXISTING STRUCTURE B-40-284 IS NOT SHOWN IN THESE PLANS. THE REMOVAL OF THIS STRUCTURE IS INCLUDED IN A LUMP SUM PAY ITEM AS PART OF THE B-40-880 BRIDGE QUANTITIES.

THESE PLANS ARE FOR A PRECAST CONCRETE PANEL MECHANICALLY STABILIZED EARTH (MSE) RETAINING WALL.

THE VOLUME OF EARTHWORK REQUIRED TO INSTALL THE UNREINFORCED CONCRETE LEVELING PAD, MSE PRECAST WALL PANELS, MSE BACKFILL AND REINFORCING STRIPS IS INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP".

PROVIDE A SACK RUBBED FINISH IN ACCORDANCE TO STANDARD SPECIFICATION 502.3.7.5 AND AS MODIFIED HERE ON ALL EXPOSED CONCRETE SURFACES WHERE CONCRETE STAINING WILL BE APPLIED IN A FUTURE CONTRACT. THE MORTAR SHALL CONTAIN ONE OF THE FOLLOWING ACRYLIC BONDING ADMIXTURES MIXED AND APPLIED IN ACCORDANCE TO MANUFACTURER'S RECOMMENDATIONS; TK-225 BY TK PRODUCTS, ACHRO 60 BY THORO PRODUCTS, OR ACHRO SET BY MASTER BUILDERS. THIS WORK IS INCIDENTAL TO THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABALIZED EARTH LRFD/QMP".

THE UTILITY INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING THEIR OWN DETERMINATIONS AS TO TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE.

UTILITIES LABELED PROPOSED MAY BE INSTALLED PRIOR TO CONSTRUCTION.

ONLY WALL CONCRETE PANEL MSE WALL SYSTEMS THAT USE STRIP TYPE SOIL REINFORCEMENT THAT ARE HINGED AT THE PANEL CONNECTION CAN BE USED FOR THE PROJECT.

ANY TEMPORARY SHORING FOR CONTRACTOR OPERATIONS IS CONSIDERED INCIDENTAL TO BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP"

WALL EXTERNAL STABILITY EVALUATION

DIMENSIONS						
WALL HEIGHT (FEET)[1]	23.5	15.2	23.4	18.8	11.5	5.8
EXPOSED WALL HEIGHT (FEET)	22.0	13.7	21.9	17.3	10.0	4.3
LENGTH OF REINFORCEMENT (FEET)[3]	16.4	16.0	16.4	13.2	8.0	8.0
LENGTH OF REINF. / WALL HEIGHT	0.70	1.05	0.70	0.70	0.70	NA
WALL STATION (WS)	10+62.8	11+00.0	11+38.2	12+31.6	14+00.0	16+00.0
BORING USED	B-2	B-2	B-3	B-3	B-4	B-5
CAPACITY TO DEMAND RATIO (CDR)[4]						
SLIDING ($CDR_{REQ'D}$ > 1.0)	1.4	1.0	1.4	1.4	1.3	1.9
ECCENTRICITY ($CDR_{REQ'D}$ > 1.0)	1.3	1.2	1.3	1.3	1.2	4.5
GLOBAL STABILITY ($CDR_{REQ'D}$ > 1.0)	NA	2.1	NA	NA	NA	NA
BEARING RESISTANCE ($CDR_{REQ'D}$ > 1.0)	1.1	1.1	1.1	1.3	2.0	4.3
REQUIRED BEARING RESISTANCE (PSF)	6,000	6,000	6,000	6,000	6,000	6,000

1. THE WALL HEIGHT INCLUDES AN EMBEDMENT OF 1.5 FEET.
2. THE WALL STABILITY EVALUATION INCLUDED A SURCHARGE LOAD THAT WAS EQUAL TO THE WEIGHT OF THE SOIL BEHIND THE ABUTMENT.
3. THE LENGTH OF REINFORCEMENT IS THE MINIMUM REQUIRED LENGTH AT THAT LOCATION.
4. CDR REQUIREMENTS AND LOAD AND RESISTANCE FACTORS ARE PRESENTED IN CH. 14 OF THE BRIDGE MANUAL.
5. NA NOT APPLICABLE, GLOBAL SLOPE STABILITY WAS EVALUATED AT THE CRITICAL WALL LOCATION.

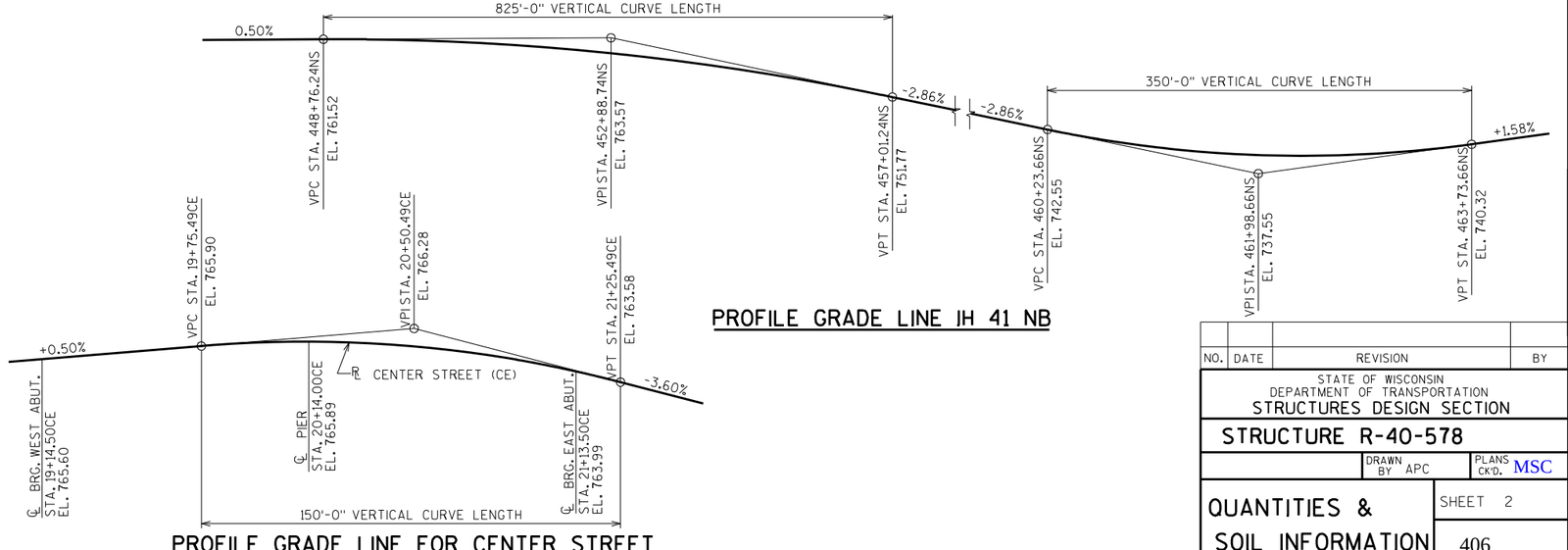
TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	QUANTITY	UNIT
206.3000	EXCAVATION FOR STRUCTURES RETAINING WALL R-40-578	1	LS
513.2001	RAILING PIPE R-40-578	634	LF
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	12	SY
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	735	LF
SPV.0165.4005	WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP	8,090	SF
	NON-BID ITEMS		
	EXPANDED POLYSTYRENE	1"	SIZE
	PREFORMED JOINT FILLER	¾"	SIZE
	NON-BITUMINOUS JOINT SEALER		
	NAME PLATE		

ALL ITEMS ARE CATEGORY 3100

SOIL PARAMETERS

SOIL DESCRIPTION	FRICTION ANGLE (DEGREES)	COHESION (PSF)	UNIT WEIGHT (PCF)
GANULAR BACKFILL WITHIN THE WALL IN THE REINFORCING ZONE	30	0	120
FILL BEHIND AND BELOW THE REINFORCING ZONE	31	0	120
B-2, 11+00			
CLAY, GRAY, TRACE GRAVEL (ELEVATION 740.8FT - 732.5FT)	0	2,500	125
SAND, GRAY, SOME SILT (ELEVATION 732.5FT - 730.5FT)	36	0	130
SAND, GRAY, SOME SILT (ELEVATION 730.5FT - 728.5FT)	30	0	115
CLAY, GRAY, TRACE SAND, TRACE GRAVEL (ELEVATION 728.5FT - 717.5FT)	0	2,500	125
CLAY, GRAY, TRACE SAND, TRACE GRAVEL (ELEVATION 717.5FT - 711.0FT)	0	2,000	120
SILT, GRAY, TRACE SAND (ELEVATION 711.0FT - 702.5FT)	33	0	125
CLAY, GRAY (ELEVATION 702.5FT - 692.5FT)	0	3,000	125
CLAY AND GRAVEL, GRAY, SOME SILT (ELEVATION 692.5FT AND BELOW)	0	25,000	135
B-3, 12+00			
CLAY, GRAY, TRACE GRAVEL (ELEVATION 740.7FT - 730.4FT)	0	2,500	125
SAND, GRAY, FINE, LITTLE SILT (ELEVATION 730.4FT - 726.4FT)	36	0	130
SAND, GRAY, FINE, LITTLE SILT (ELEVATION 726.4FT - 722.4FT)	30	0	115
SILT, GRAY, LITTLE SAND, TRACE CLAY (ELEVATION 722.4FT - 719.4FT)	0	2,500	125
B-4, 14+00			
SAND, BROWN, FINE TO MEDIUM (ELEVATION 745.0FT - 736.4FT)	32	0	120
CLAY, GRAY, LITTLE SILT, TRACE SAND (ELEVATION 736.4FT -730.4FT)	0	3,500	130
SILT, GRAY, SOME SAND (ELEVATION 730.4FT - 724.4FT)	33	0	125
SAND, GRAY, SOME SILT (ELEVATION 724.4FT - 717.4FT)	36	0	135
B-5, 16+00			
CLAY, BROWN, LITTLE SILT, TRACE SAND AND GRAVEL (ELEVATION 749.7FT - 747.2FT)	0	3,000	130
SILT, GRAY, SOME SAND (ELEVATION 747.2FT - 740.7FT)	34	0	130
SILT, GRAY, SOME SAND (ELEVATION 740.7FT - 735.7FT)	36	0	135



PROFILE GRADE LINE IH 41 NB

PROFILE GRADE LINE FOR CENTER STREET

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-40-578

DRAWN BY APC | PLANS CK'D. MSC

QUANTITIES & SOIL INFORMATION

SHEET 2

406

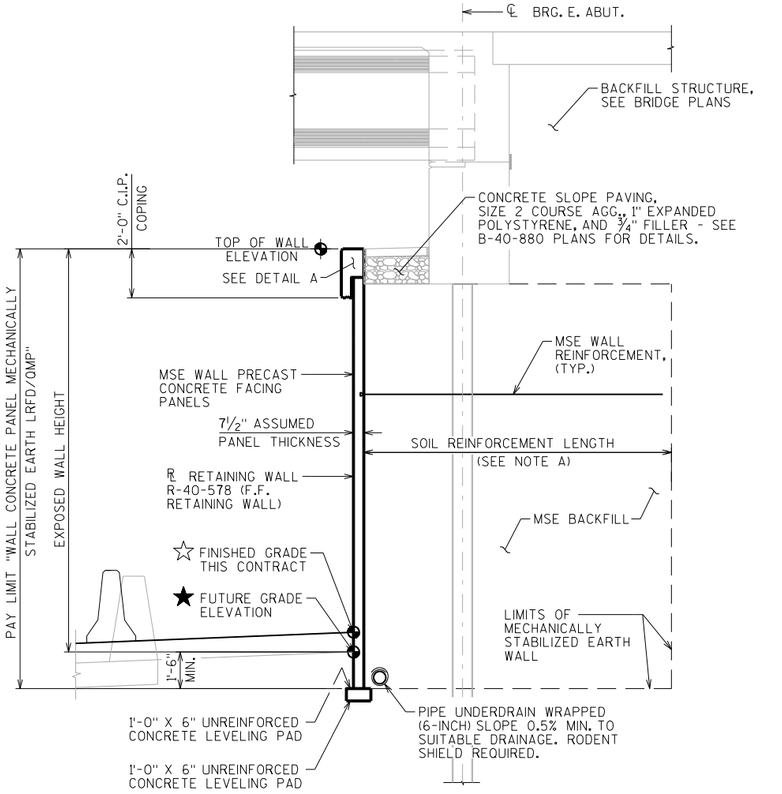
8

8

SCALE = 3

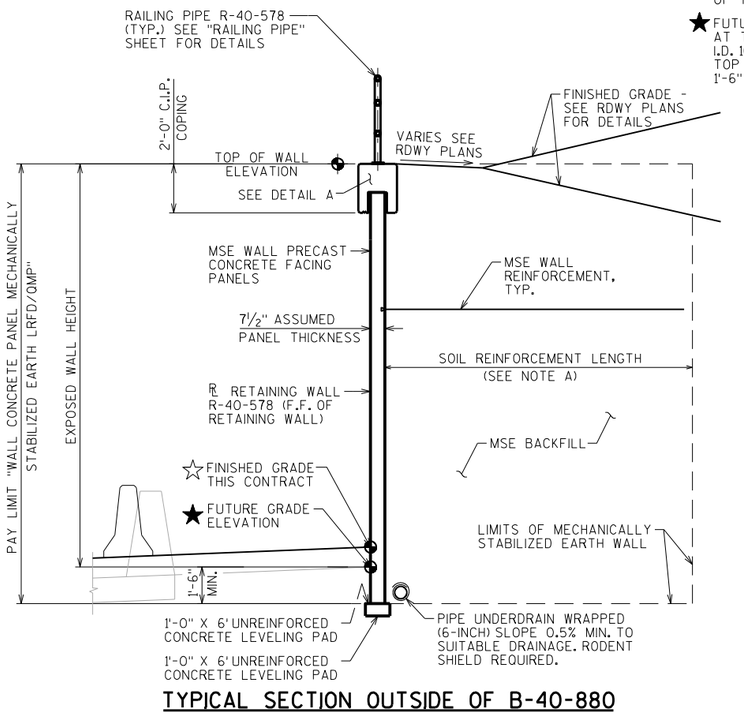
STATE PROJECT NUMBER

1060-34-84



TYPICAL SECTION UNDER B-40-880

(LOOKING NORTH)

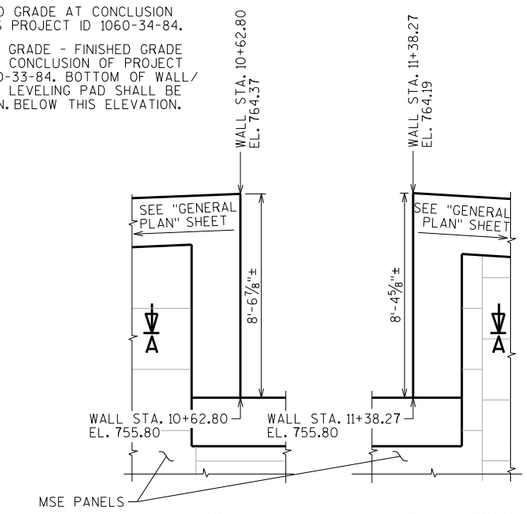


TYPICAL SECTION OUTSIDE OF B-40-880

(LOOKING NORTH)

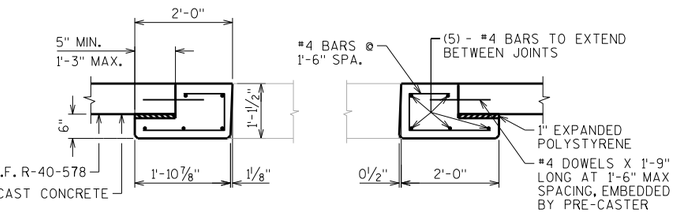
LEGEND

- ⊕ FOR ELEVATIONS SEE "COPING DETAILS & GEOMETRY" SHEET
- ☆ FINISHED GRADE AT CONCLUSION OF THIS PROJECT ID 1060-34-84.
- ★ FUTURE GRADE - FINISHED GRADE AT THE CONCLUSION OF PROJECT I.D. 1060-33-84. BOTTOM OF WALL/ TOP OF LEVELING PAD SHALL BE 1'-6" MIN. BELOW THIS ELEVATION.

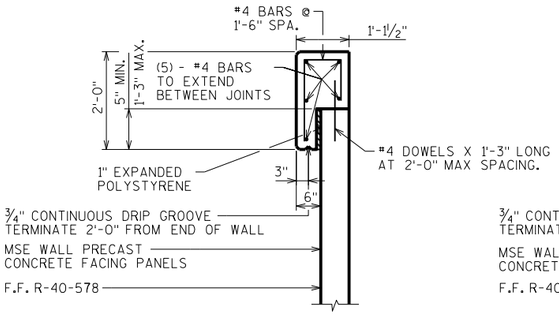


ELEVATION VIEW - VERTICAL COPING

(LOOKING EAST)

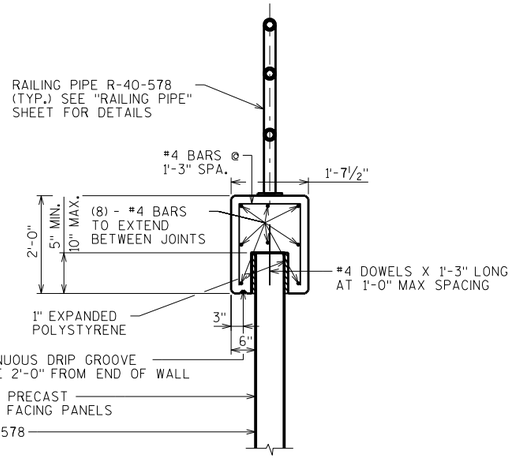


SECTION A-A



COPING IN FRONT OF ABUTMENT

*CONTRACTION AND EXPANSION JOINTS REQUIRED. SEE "COPING DETAILS & GEOMETRY" SHEET FOR DETAILS.

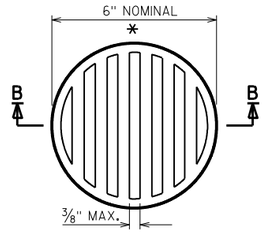


COPING OUTSIDE OF B-40-880

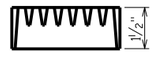
*EXPANSION JOINTS REQUIRED. SEE "COPING DETAILS & GEOMETRY" SHEET FOR DETAILS.

DETAIL A

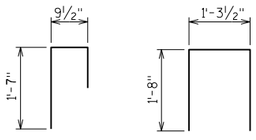
(CAST-IN-PLACE COPING DETAILS)



RODENT SHIELD DETAIL



SECTION B-B



COPING BAR BENDS

* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

NOTE A:

SEE "WALL EXTERNAL STABILITY EVALUATION" TABLE ON "QUANTITIES & SOILS INFORMATION" SHEET FOR MINIMUM LENGTH OF MSE WALL REINFORCING STRIPS, SOIL REINFORCEMENT MUST EXTEND A MINIMUM OF 3.0 FEET BEYOND THE FAILURE PLANE FOR INTERNAL STABILITY AS DEFINDED BY AASHTO SPECIFICATIONS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-40-578

DRAWN BY APC | PLANS CK'D. MSC

TYPICAL SECTIONS | SHEET 3

407

SCALE = 3.0

8

8

STATE PROJECT NUMBER

1060-34-84

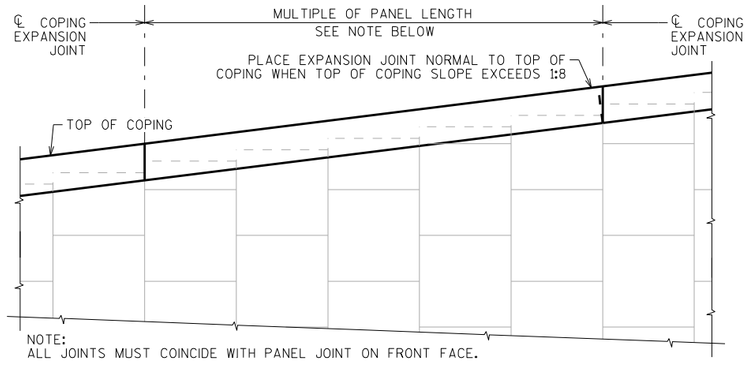
GEOMETRY TABLE

WALL STAION	℄ IH 41 (NS)	OFFSET TO F.F. WALL	TOP OF WALL ELEV.	☆ FINISHED GRADE ELEV.	★ FUTURE GRADE ELEV.
10+00.00	462+95.00	94.00	744.20	744.20	744.20
10+25.00	462+71.36	94.00	752.97	745.32	743.14
10+50.00	462+47.71	94.00	761.74	746.26	743.09
10+56.89	462+41.19	94.00	764.16	746.21	743.04
10+62.80	462+35.60	94.00	764.37	746.17	743.00
10+62.80	462+35.60	94.00	755.80	746.17	743.00
10+75.00	462+24.07	94.00	755.80	746.09	742.92
11+00.00	462+00.42	94.00	755.80	745.92	742.81
11+25.00	461+76.78	94.00	755.80	745.76	742.78
11+38.27	461+64.23	94.00	755.80	745.67	742.79
11+38.27	461+64.23	94.00	764.19	745.67	742.79
11+53.31	461+50.00	94.00	763.81	745.61	742.83
11+75.00	461+29.49	94.00	762.04	745.77	742.93
12+00.00	461+05.84	94.00	759.99	745.95	743.11
12+14.11	460+92.50	94.00	758.83	746.06	743.24
12+25.00	460+81.61	93.93	757.94	746.13	743.39
12+31.61	460+75.00	93.88	757.40	746.18	743.47
12+50.00	460+56.61	93.76	757.31	746.32	743.76
12+75.00	460+31.61	93.59	757.18	746.50	744.21
13+00.00	460+06.61	93.43	757.06	746.68	744.71
13+25.00	459+81.61	93.26	756.93	746.86	745.23
13+50.00	459+56.61	93.10	756.81	747.05	745.74
13+75.00	459+31.61	92.93	756.68	747.23	746.28
14+00.00	459+06.61	92.76	756.56	747.41	746.87
14+25.00	458+81.61	92.60	756.43	747.59	747.45
14+50.00	458+56.61	92.43	756.31	748.04	748.04
14+75.00	458+31.61	92.26	756.18	748.63	748.63
15+00.00	458+06.61	92.10	756.06	749.22	749.22
15+14.12	457+92.49	92.00	755.99	749.56	749.56
15+25.00	457+81.61	92.00	755.93	749.81	749.81
15+50.00	457+56.61	92.00	755.81	750.40	750.40
15+75.00	457+31.61	92.00	755.68	750.99	750.86
16+00.00	457+06.61	92.00	755.56	751.53	751.46
16+25.00	456+81.61	92.00	755.43	752.08	752.05
16+50.00	456+56.61	92.00	755.31	752.63	752.62
16+75.00	456+31.61	92.00	754.65	753.17	753.17
17+00.00	456+06.61	92.00	753.99	753.74	753.74
17+05.00	456+01.61	92.00	753.86	753.86	753.86

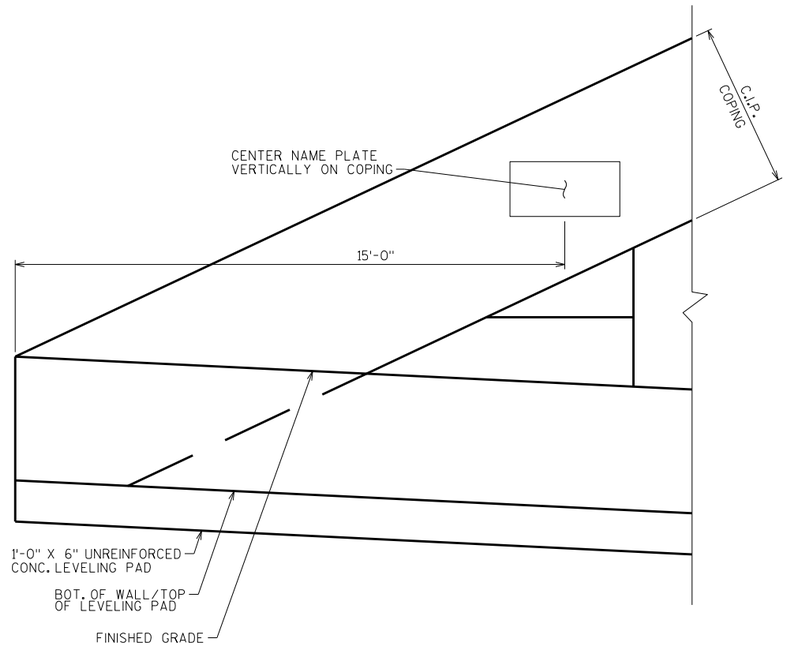
LEGEND

☆ FINISHED GRADE AT CONCLUSION OF THIS PROJECT ID 1060-34-84.

★ FUTURE GRADE - FINISHED GRADE AT THE CONCLUSION OF PROJECT I.D. 1060-33-84. BOTTOM OF WALL/TOP OF LEVELING PAD SHALL BE 1'-6" MIN. BELOW THIS ELEVATION.

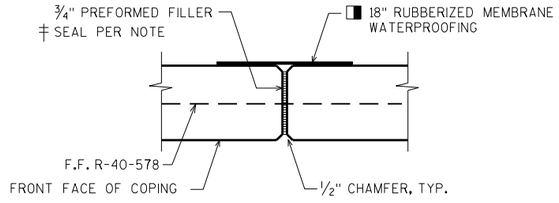


C.I.P. COPING PARTIAL ELEVATION



NAME PLATE LOCATION

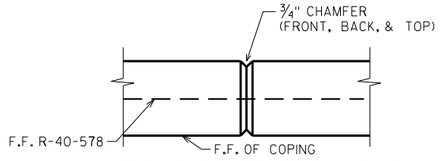
‡ SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONC.)



COPING EXPANSION JOINT

DO NOT RUN BAR STEEL THRU JOINT.
MAX. SPACING OF JOINT = 30'
MIN. SPACING OF JOINT = 20'

◨ MEMBRANE WATERPROOFING TO EXTEND FROM TOP OF COPING TO 6" BELOW TOP OF PANELS.



COPING CONTRACTION JOINT

DO NOT RUN BAR STEEL THRU JOINT.
MAX. SPACING OF JOINT = 12'

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-40-578

DRAWN BY APC | PLANS CK'D. MSC

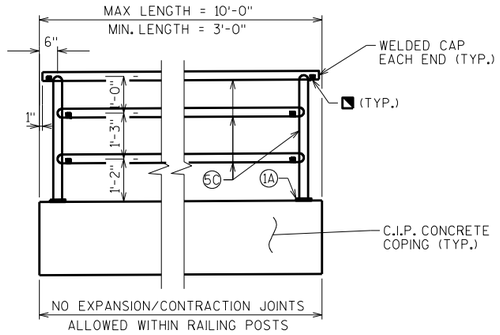
COPING DETAILS

SHEET 4

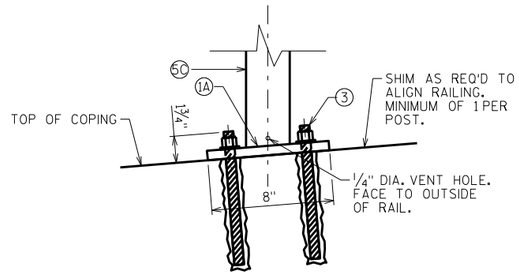
408

SCALE = 2.0

STATE PROJECT NUMBER
1060-34-84



WALL RAILING ELEVATION
(LOOKING AT FRONT FACE OF COPING)



ANCHOR BOLTS FOR RAIL POST

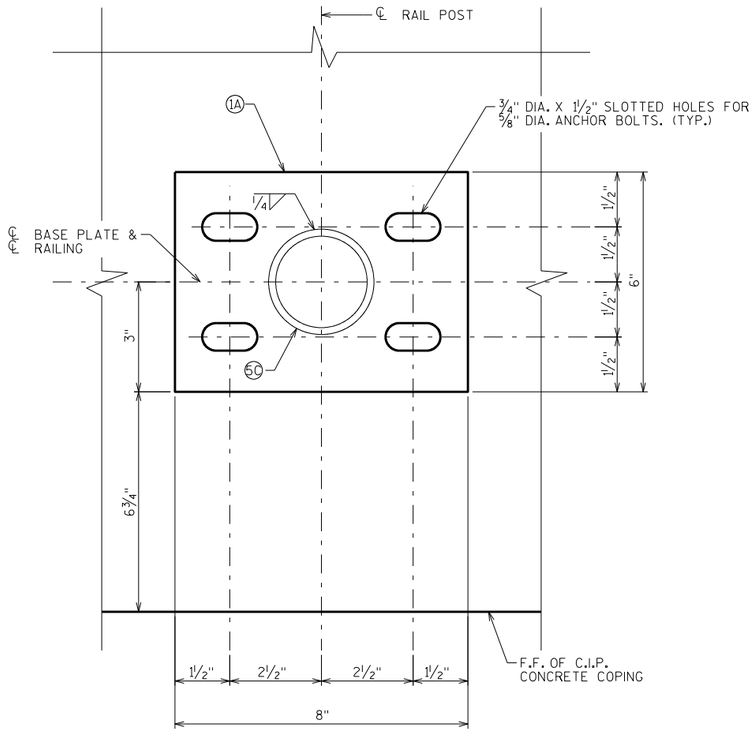
LEGEND

(1A) PLATE 5/8" X 6" X 8" WITH 3/4" X 1 1/2" SLOTTED HOLES.

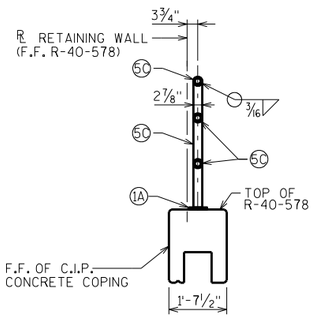
(3) STAINLESS STEEL CONCRETE MASONRY ANCHORS, TYPE S (EPOXY), 5/8" DIA. EMBED A MIN OF 7".

(5C) 2 1/2" DIA. STANDARD PIPE RAIL (2.875" O.D.). PLACE POSTS VERTICAL. WELD TO 1A. PLACE RAILS PARALLEL TO TOP OF COPING. WELD TO POSTS.

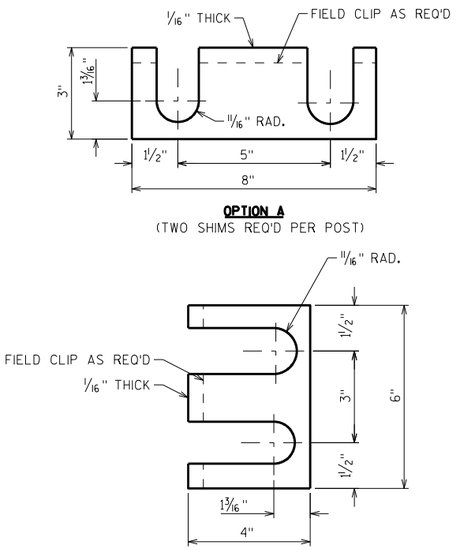
◥ 1 1/2" DIA. VENT HOLE @ BOTTOM OF EACH RAIL END.



RAIL POST BASE PLATE



WALL RAILING SECTION



RAIL POST SHIM DETAIL

NOTES

BID ITEM SHALL BE "RAILING PIPE R-40-578", WHICH SHALL INCLUDE ALL STEEL ITEMS SHOWN, GALVANIZING AND PAINTING.

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 CUTS.

NO. 1A SHALL CONFORM TO A.S.T.M. A709 GRADE 36. STANDARD PIPE RAIL SHALL CONFORM TO A.S.T.M. A500 GRADE B (NO. 5C).

ANCHORAGES SHALL BE ACCURATELY PLACED TO PROVIDE CORRECT ALIGNMENT OF RAILING, SET NORMAL TO GRADE.

CUT BOTTOM OF POST TO MAKE POST VERTICAL IN BOTH TRANSVERSE AND LONGITUDINAL DIRECTION.

STEEL, SHIMS SHALL BE PROVIDED & USED UNDER BASE PLATES WHERE REQUIRED FOR ALIGNMENT.

FILL BOLT SLOT OPENINGS IN SHIMS AND PLATE NO.1A AND CAULK AROUND PERIMETER OF PLATE NO.1A WITH NON-STAINING BLACK NON-BITUMINOUS JOINT SEALER.

VENT HOLES SHALL BE DRILLED IN MEMBERS AS REQUIRED TO FACILITATE GALVANIZING AND DRAINAGE.

GALVANIZE AFTER FABRICATION AND THEN PAINT GALVANIZED RAILING ASSEMBLIES WITH A TWO COAT SYSTEM SPECIFICALLY INTENDED FOR PAINTING OF GALVANIZED SURFACES PER THE SPECIFICATIONS. SHIMS SHALL BE GALVANIZED PER ASTM A123. THE FINISH COLOR SHALL BE FEDERAL COLOR NO. 27038 BLACK.

RAILING SHALL BE FABRICATED IN LENGTHS THAT INCLUDE 2 POSTS.

PAINT TOUCH-UP TO BE DONE AT COMPLETION OF STEEL RAILING INSTALLATION TO THE SATISFACTION OF THE ENGINEER AT NO EXTRA COST.

6" MIN. DISTANCE REQUIRED BETWEEN THE ℄ OF COPING JOINTS (BOTH EXPANSION AND CONTRACTION JOINTS) AND THE ℄ OF RAIL POSTS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-40-578

DRAWN BY APC | PLANS CK'D. MSC

RAILING PIPE

SHEET 5

409

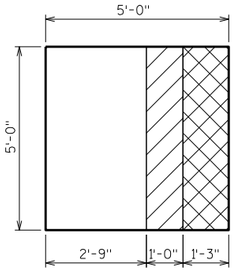
8

8

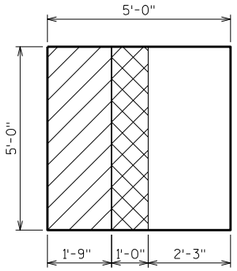
SCALE = 2.0

STATE PROJECT NUMBER

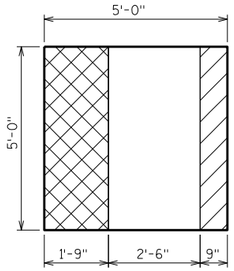
1060-34-84



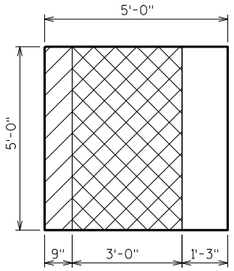
WALL PANEL "A"



WALL PANEL "B"

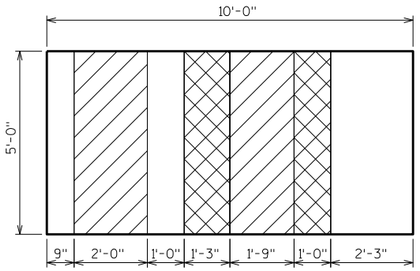


WALL PANEL "C"

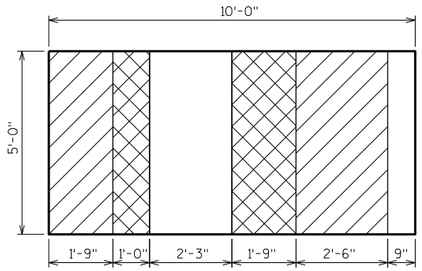


WALL PANEL "D"

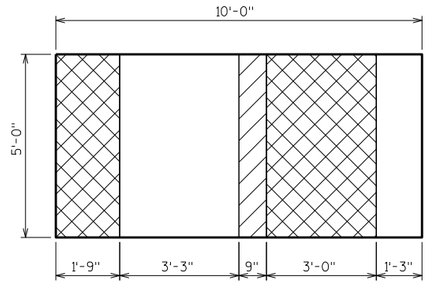
5'-0" X 5'-0" MSE CONCRETE PANEL RAISED SURFACE DETAILS



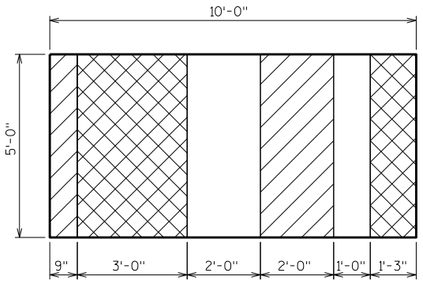
WALL PANEL "A"



WALL PANEL "B"

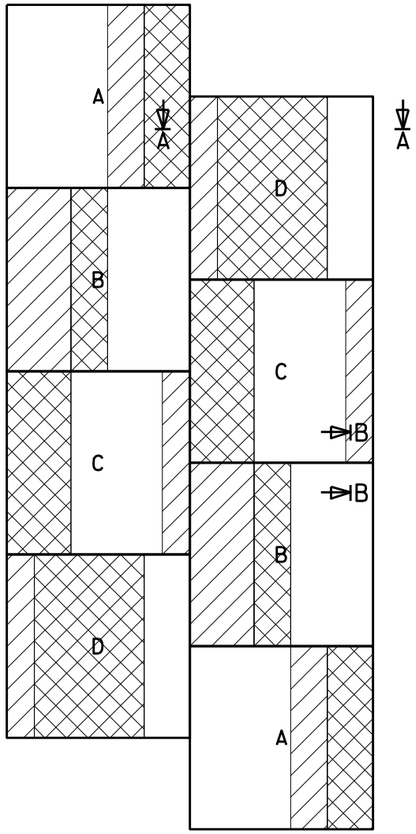


WALL PANEL "C"

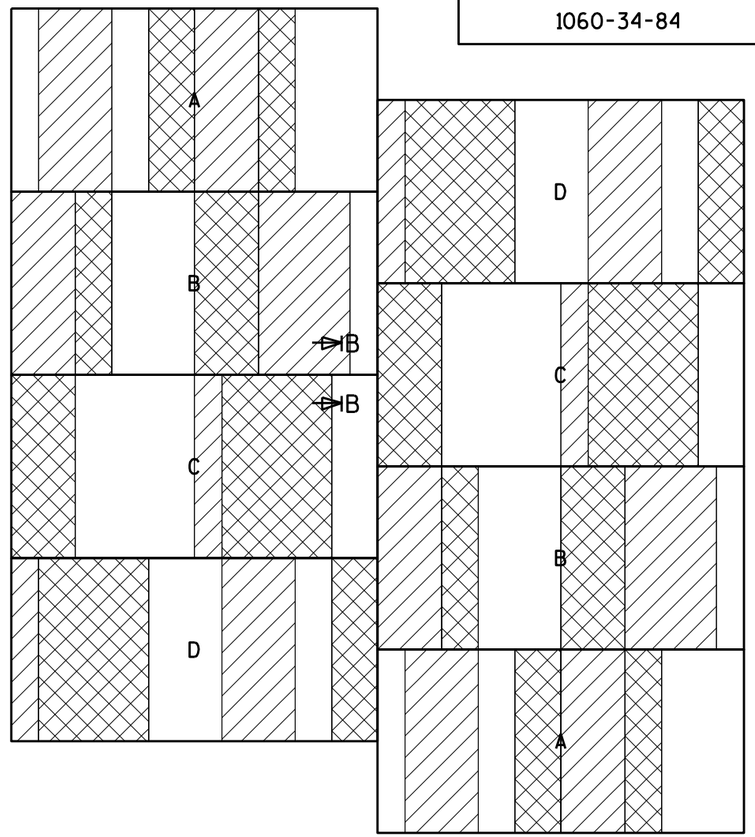


WALL PANEL "D"

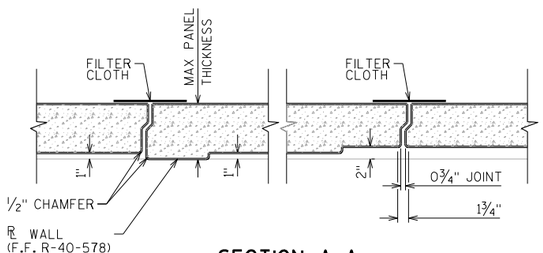
5'-0" X 10'-0" MSE CONCRETE PANEL RAISED SURFACE DETAILS



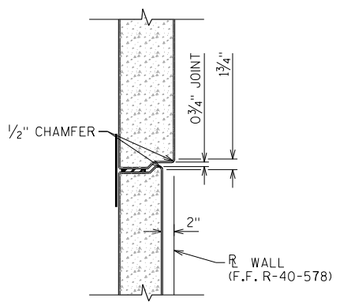
TYPICAL 5'-0" X 5'-0" MSE CONCRETE PANEL PATTERN



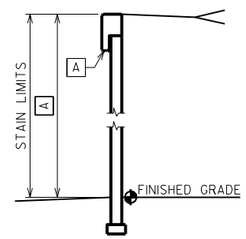
TYPICAL 5'-0" X 10'-0" MSE CONCRETE PANEL PATTERN



SECTION A-A



SECTION B-B



MSE WALL STAINING DIAGRAM

CONCRETE STAINING SCHEDULE

MARK	COLOR	LOCATION	NOTES
A	BASE COLOR	WALLS	EXPOSED FACES TO FINISHED GRADE
		COPING	FACE AND UNDERSIDE

STAIN COLORS

THE FINAL COLORING OF THE CONCRETE FOLLOWING APPLICATION OF THE STAIN SYSTEM SHALL MATCH THE FEDERAL STANDARD COLOR SYSTEM LISTED BELOW.
BASE COLOR - 33564

CONCRETE STAINING DETAILS SHOWN ON THIS SHEET ARE FOR INFORMATION ONLY. CONCRETE STAINING IS NOT INCLUDED IN THIS CONTRACT. CONCRETE STAINING WILL BE DONE BY OTHERS UNDER A FUTURE CONTRACT.

LEGEND

PANEL THICKNESS - 2"

PANEL THICKNESS - 1"

PANEL THICKNESS - 0"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-40-578

DRAWN BY APC | PLANS CK'D. MSC

AESTHETIC WALL TREATMENT

SHEET 6

410

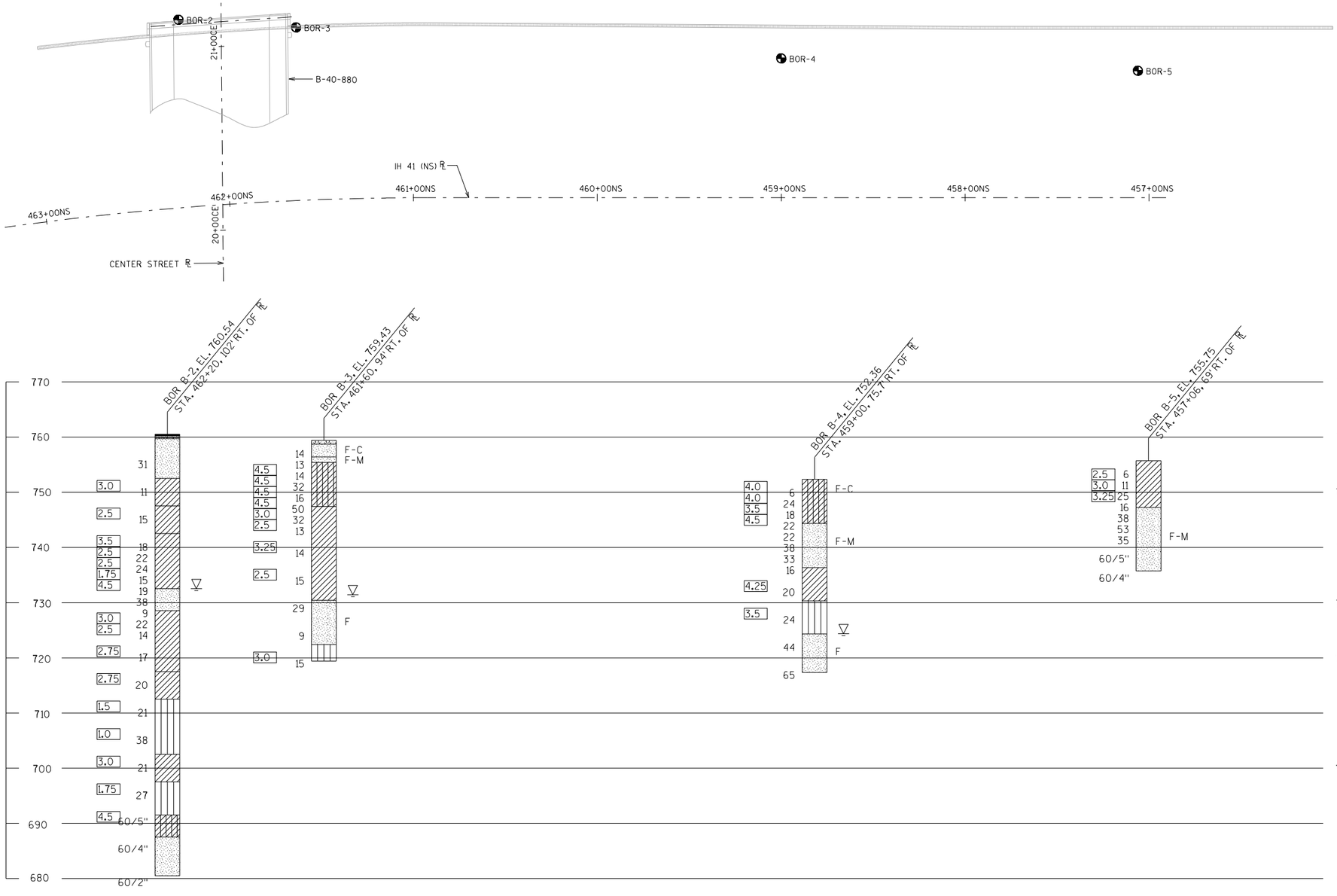
SCALE = 2.0

8

8

ZOO INTERCHANGE, NORTH LEG
CENTER STREET OVER IH 41

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
2	11/4/2014	310125.5	567623.7
3	11/5/2014	310040.4	567628.0
4	11/6/2014	309773.2	567605.2
5	11/6/2014	309590.9	567604.9
BORINGS COMPLETED BY: PSI			
REPORT COMPLETED BY: WISDOT			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) MILWAUKEE COUNTY			



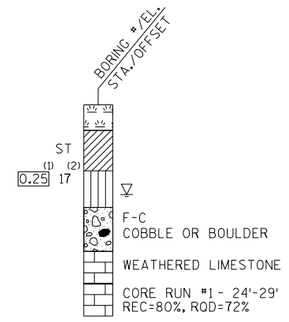
STATE PROJECT NUMBER

1060-34-84

MATERIAL SYMBOLS

ASPHALT · TOPSOIL · PEAT
CONCRETE · FILL · GRAVEL
SAND · CLAY · SILT
BOULDERS OR COBBLES · LIMESTONE · BEDROCK (UNKNOWN)
SHALE · SANDSTONE · IGNEOUS/META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNLESS OTHERWISE SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

▽ AT TIME OF DRILLING
▼ END OF DRILLING
▽ AFTER DRILLING

ABBREVIATIONS

F-FINE · M-MEDIUM · C-COARSE · ST-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE R-40-578

DRAWN BY PR/APC · PLANS CK'D. MSC

SUBSURFACE EXPLORATION

SHEET 7

411

SCALE = 30

8

8

1060-34-84 - NS NORTHBOUND

STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Fill Note 3	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Expanded Fill 1.20	Mass Ordinate Note 8
454+74.94	45474.94	0.00	0.00	0.00	0	0	0	0	0.00
455+00	45500.00	25.06	310.48	0.00	144	0	144	0	144.11
455+50	45550.00	50.00	325.96	0.00	589	0	733	0	733.40
456+00	45600.00	50.00	333.19	0.00	610	0	1,344	0	1,343.72
456+50	45650.00	50.00	294.86	0.00	582	0	1,925	0	1,925.26
457+00	45700.00	50.00	270.31	0.00	523	0	2,449	0	2,448.56
457+50	45750.00	50.00	275.37	0.00	505	0	2,954	0	2,953.82
458+00	45800.00	50.00	273.81	0.00	508	0	3,462	0	3,462.32
458+50	45850.00	50.00	242.72	0.00	478	0	3,941	0	3,940.58
459+00	45900.00	50.00	232.67	0.00	440	0	4,381	0	4,380.76
459+50	45950.00	50.00	233.30	0.00	431	0	4,812	0	4,812.22
460+00	46000.00	50.00	236.48	0.00	435	0	5,247	0	5,247.21
460+50	46050.00	50.00	277.03	0.00	475	0	5,723	0	5,722.69
461+00	46100.00	50.00	316.56	0.00	550	0	6,272	0	6,272.31
461+50	46150.00	50.00	320.06	28.87	589	27	6,862	32	6,829.69
462+00	46200.00	50.00	320.59	0.00	593	27	7,455	64	7,390.80
462+50	46250.00	50.00	214.40	26.43	495	24	7,950	94	7,856.79
463+00	46300.00	50.00	175.90	0.17	361	25	8,312	123	8,188.62
463+50	46350.00	50.00	0.15	0.00	163	0	8,475	123	8,351.44
				Column Totals:	8,475	103			

Notes:
1) Salvaged/Unusable Pavement Material is included in Cut.
3) Unexpanded Fill Volume
8) The Mass Ordinate + or – Qty calculated for the Division. Plus quantity indicated an excess of material between stations. Minus quantity indicates a shortage of material between stations

1060-34-84 - NS SOUTHBOUND

STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Fill Note 3	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Expanded Fill 1.20	Mass Ordinate Note 8
457+25.11	45725.11	0.00	9.52	0.07	0	0	0	0	0.00
457+50	45750.00	24.89	203.19	0.00	98	0	98	0	97.99
458+00	45800.00	50.00	242.78	0.00	413	0	511	0	510.93
458+50	45850.00	50.00	157.34	2.94	370	3	881	3	878.15
459+00	45900.00	50.00	88.72	7.58	228	10	1,109	15	1,094.30
459+50	45950.00	50.00	56.59	48.89	135	52	1,244	78	1,166.10
460+00	46000.00	50.00	60.73	69.17	109	109	1,352	209	1,143.56
460+50	46050.00	50.00	75.85	66.31	126	125	1,479	359	1,119.48
461+00	46100.00	50.00	93.52	87.83	157	143	1,636	531	1,105.04
461+50	46150.00	50.00	116.57	195.02	195	262	1,830	845	985.31
462+00	46200.00	50.00	100.34	19.57	201	199	2,031	1,083	947.73
462+50	46250.00	50.00	130.92	3.12	214	21	2,245	1,109	1,136.65
463+00	46300.00	50.00	95.96	0.00	210	3	2,455	1,112	1,343.25
463+50	46350.00	50.00	273.72	1.64	342	2	2,798	1,114	1,683.73
				Column Totals:	2,798	928			

Notes:
1) Salvaged/Unusable Pavement Material is included in Cut.
3) Unexpanded Fill Volume
8) The Mass Ordinate + or – Qty calculated for the Division. Plus quantity indicated an excess of material between stations. Minus quantity indicates a shortage of material between stations

1060-35-85 - CE

STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Fill Note 3	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Expanded Fill 1.20	Mass Ordinate Note 8
04+70.59	470.59	0.00	3.57	0.14	0	0	0	0	0.00
04+87.79	487.79	17.19	3.81	0.20	2	0	2	0	2.22
05+26.61	526.61	38.83	3.63	0.13	5	0	8	0	7.29
05+37.49	537.49	10.88	6.82	1.99	2	0	10	1	8.88
05+50	550.00	12.51	3.00	1.95	2	1	12	2	10.06
06+00	600.00	50.00	16.74	0.28	18	2	30	4	25.86
06+50	650.00	50.00	39.06	0.00	52	0	82	5	77.21
07+00	700.00	50.00	27.58	0.13	62	0	144	5	138.77
07+50	750.00	50.00	37.86	0.19	61	0	204	5	199.01
08+00	800.00	50.00	15.28	0.00	49	0	254	6	248.01
08+06.8	806.80	6.80	24.28	0.79	5	0	259	6	252.87
08+20	820.00	13.20	9.82	0.00	8	0	267	6	260.98
08+96.16	896.16	76.16	2.61	0.00	18	0	284	6	278.51
09+03.41	903.41	7.25	4.61	0.08	1	0	285	6	279.46
09+50	950.00	46.59	2.98	3.00	7	3	292	9	282.83
10+00	1000.00	50.00	3.86	0.98	6	4	298	13	284.74
10+50	1050.00	50.00	5.85	1.19	9	2	307	16	291.33
11+00	1100.00	50.00	4.82	0.89	10	2	317	18	298.91
11+50	1150.00	50.00	9.73	0.00	13	1	331	19	311.40
11+72.17	1172.17	22.17	7.54	0.00	7	0	338	19	318.49
12+16.33	1216.33	44.16	7.85	0.01	13	0	350	19	331.07
12+28.4	1228.40	12.08	16.24	1.31	5	0	356	20	336.11
12+50	1250.00	21.60	12.45	0.00	11	1	367	20	346.96
13+00	1300.00	50.00	41.85	0.00	50	0	417	20	397.23
13+50	1350.00	50.00	33.77	0.00	70	0	487	20	467.24
14+00	1400.00	50.00	34.77	0.00	63	0	551	20	530.70
14+31.37	1431.37	31.37	8.33	0.00	25	0	576	20	555.74
				Column Totals:	576	17			

Notes:
1) Salvaged/Unusable Pavement Material is included in Cut.
3) Unexpanded Fill Volume
8) The Mass Ordinate + or – Qty calculated for the Division. Plus quantity indicated an excess of material between stations. Minus quantity indicates a shortage of material between stations

1060-34-84 - CE (WEST OF B-40-880)

STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Fill Note 3	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Expanded Fill 1.20	Mass Ordinate Note 8
14+20	1420.00	0.00	144.95	0.46	0	0	0	0	0.00
14+50	1450.00	30.00	159.63	2.53	169	2	169	2	167.22
15+00	1500.00	50.00	210.84	0.00	343	2	512	5	507.43
15+50	1550.00	50.00	147.29	0.22	332	0	844	5	838.79
16+00	1600.00	50.00	163.51	3.07	288	3	1,132	9	1,122.91
16+50	1650.00	50.00	132.21	9.95	274	12	1,405	23	1,382.26
17+00	1700.00	50.00	88.15	16.02	204	24	1,609	52	1,557.44
17+50	1750.00	50.00	77.49	20.77	153	34	1,763	93	1,669.93
18+00	1800.00	50.00	72.22	26.84	139	44	1,901	146	1,755.65
18+50	1850.00	50.00	59.46	120.90	122	137	2,023	310	1,713.42
19+00	1900.00	50.00	146.26	192.38	190	290	2,214	658	1,555.81
19+10	1910.00	10.00	0.00	683.01	27	162	2,241	853	1,388.36
				Column Totals:	2,241	710			

1060-34-84 - CE (EAST OF B-40-880)

STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Fill Note 3	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Expanded Fill 1.20	Mass Ordinate Note 8
21+20	2120.00	0.00	341.14	83.40	0	0	0	0	0.00
21+50	2150.00	30.00	15.79	86.48	198	94	198	113	85.05
22+00	2200.00	50.00	33.76	117.31	46	189	244	340	-95.50
22+50	2250.00	50.00	66.07	369.63	92	451	337	881	-544.10
23+00	2300.00	50.00	99.33	114.70	153	448	490	1,419	-929.09
23+50	2350.00	50.00	142.30	1.39	224	107	713	1,548	-834.34
24+00	2400.00	50.00	161.29	0.14	281	1	995	1,550	-554.92
24+50	2450.00	50.00	168.41	1.35	305	1	1,300	1,551	-251.29
24+60	2460.00	10.00	168.95	0.00	62	0	1,362	1,551	-189.11
24+74.9	2474.90	14.90	16.82	0.03	51	0	1,414	1,551	-137.85
				Column Totals:	1,414	1,293			

Notes:
1) Salvaged/Unusable Pavement Material is included in Cut.
3) Unexpanded Fill Volume
8) The Mass Ordinate + or – Qty calculated for the Division. Plus quantity indicated an excess of material between stations. Minus quantity indicates a shortage of material between stations

1060-34-84 - TB

STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Fill Note 3	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Expanded Fill 1.20	Mass Ordinate Note 8
29+26.6	2926.60	0.00	0.00	0.00	0	0	0	0	0.00
29+50	2950.00	23.40	101.85	0.00	44	0	44	0	44.14
30+00	3000.00	50.00	108.34	0.00	195	0	239	0	238.76
30+50	3050.00	50.00	113.06	0.00	205	0	444	0	443.76
31+00	3100.00	50.00	118.55	0.00	214	0	658	0	658.21
31+50	3150.00	50.00	128.61	0.00	229	0	887	0	887.07
32+00	3200.00	50.00	113.50	0.00	224	0	1,111	0	1,111.25
32+50	3250.00	50.00	119.83	0.00	216	0	1,327	0	1,327.30
33+00	3300.00	50.00	91.24	0.03	195	0	1,523	0	1,522.71
33+50	3350.00	50.00	129.56	0.00	204	0	1,727	0	1,727.11
34+00	3400.00	50.00	138.26	0.00	248	0	1,975	0	1,975.09
34+50	3450.00	50.00	164.69	0.00	281	0	2,256	0	2,255.60
35+00	3500.00	50.00	127.92	0.93	271	1	2,527	1	2,525.50
35+50	3550.00	50.00	54.53	175.47	169	163	2,696	197	2,498.44
36+00	3600.00	50.00	0.00	379.30	50	514	2,746	814	1,932.53
				Column Totals:	2,746	678			

1060-34-84 - TA

STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Fill Note 3	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Expanded Fill 1.20	Mass Ordinate Note 8
31+78.7	3178.70	0.00	0.18	0.01	0	0	0	0	0.00
32+00	3200.00	21.30	94.53	0.00	37	0	37	0	37.35
32+50	3250.00	50.00	97.40	0.00	178	0	215	0	215.06
33+00	3300.00	50.00	78.59	0.00	163	0	378	0	378.01
33+50	3350.00	50.00	33.71	2.87	104	3	482	3	478.80
34+00	3400.00	50.00	2.47	6.25	33	8	515	13	502.17
34+50	3450.00	50.00	0.00	13.70	2	18	518	35	482.29
35+00	3500.00	50.00	0.12	17.33	0	29	518	70	447.93
35+50	3550.00	50.00	44.45	10.59	41	26	559	101	458.16
36+00	3600.00	50.00	23.67	20.29	63	29	622	135	486.92
				Column Totals:	622	113			

Notes:
1) Salvaged/Unusable Pavement Material is included in Cut.
3) Unexpanded Fill Volume
8) The Mass Ordinate + or – Qty calculated for the Division. Plus quantity indicated an excess of material between stations. Minus quantity indicates a shortage of material between stations

1060-35-85 - TS

STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Fill Note 3	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Expanded Fill 1.20	Mass Ordinate Note 8
124+29.72	12429.72	0.00	53.95	0.00	0	0	0	0	0.00
124+50	12450.00	20.28	10.67	0.46	24	0	24	0	24.06
125+00	12500.00	50.00	46.32	0.00	53	0	77	1	76.31
125+50	12550.00	50.00	9.42	0.44	52	0	129	1	127.43
125+90.87	12590.87	40.87	4.77	0.88	11	1	139	2	136.97
				Column Totals:	139	2			

1060-35-85 TW

STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Fill Note 3	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Expanded Fill 1.20	Mass Ordinate Note 8
32+99.08	3299.08	0.00	4.67	0.27	0	0	0	0	0.00
33+00	3300.00	0.92	4.42	0.62	0	0	0	0	0.14
33+50	3350.00	50.00	27.65	0.00	30	1	30	1	29.15
34+00	3400.00	50.00	4.24	0.44	30	0	59	1	58.18
34+50	3450.00	50.00	9.84	0.87	13	1	72	3	69.76
35+00	3500.00	50.00	7.73	2.20	16	3	89	6	82.61
35+50	3550.00	50.00	7.37	2.22	14	4	103	11	91.68
36+00	3600.00	50.00	11.49	1.06	17	3	120	15	105.50
36+10	3610.00	10.00	12.37	1.82	4	1	125	15	109.28
36+11.02	3611.02	1.02	9.12	0.00	0	0	125	15	109.64
				Column Totals:	125	13			

Notes:
1) Salvaged/Unusable Pavement Material is included in Cut.
3) Unexpanded Fill Volume
8) The Mass Ordinate + or – Qty calculated for the Division. Plus quantity indicated an excess of material between stations. Minus quantity indicates a shortage of material between stations

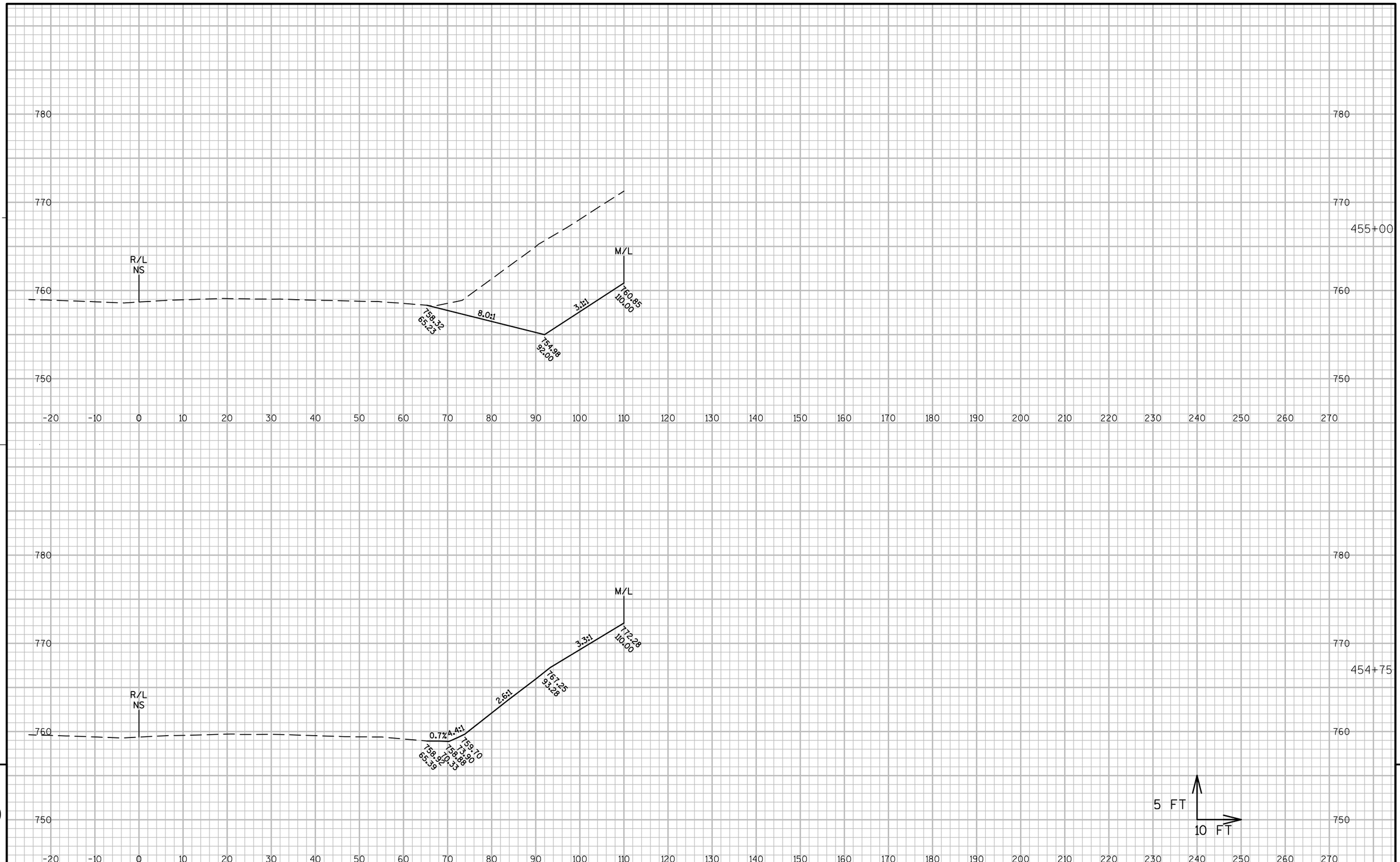
1060-34-84 WMS

STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Fill Note 3	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Expanded Fill 1.20	Mass Ordinate Note 8
10+50	1050.00	0.00	0.00	340.80	0	0	0	0	0.00
11+00	1100.00	50.00	0.08	393.08	0	680	0	815	-815.34
11+50	1150.00	50.00	3.46	346.73	3	685	3	1,637	-1,634.06
12+00	1200.00	50.00	81.32	153.44	79	463	82	2,193	-2,111.31
12+50	1250.00	50.00	115.32	37.37	182	177	264	2,405	-2,141.25
13+00	1300.00	50.00	164.52	0.84	259	35	523	2,448	-1,924.60
13+50	1350.00	50.00	178.11	0.00	317	1	840	2,449	-1,608.28
14+00	1400.00	50.00	170.03	0.00	322	0	1,163	2,449	-1,285.93
				Column Totals:	1,163	2,040			

1060-34-84 - M (Mayfair Rd/STH 100)

STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Fill Note 3	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Expanded Fill 1.20	Mass Ordinate Note 8
595+70	59570.00	0.00	60.52	0.00	0	0	0	0	0.00
596+00	59600.00	30.00	74.30	0.00	75	0	75	0	74.91
596+20	59620.00	20.00	65.04	0.00	52	0	127	0	126.51
				Column Totals:	127	0			

Notes:
1) Salvaged/Unusable Pavement Material is included in Cut.
3) Unexpanded Fill Volume
8) The Mass Ordinate + or – Qty calculated for the Division. Plus quantity indicated an excess of material between stations. Minus quantity indicates a shortage of material between stations



PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/USH 45 NB	SHEET 419	E

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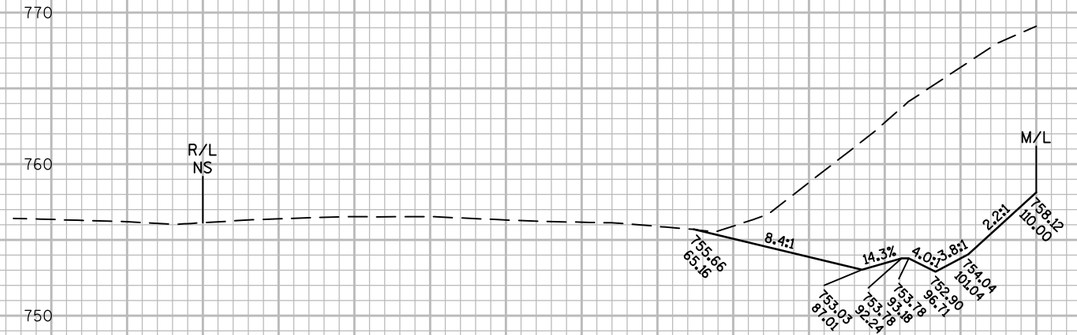
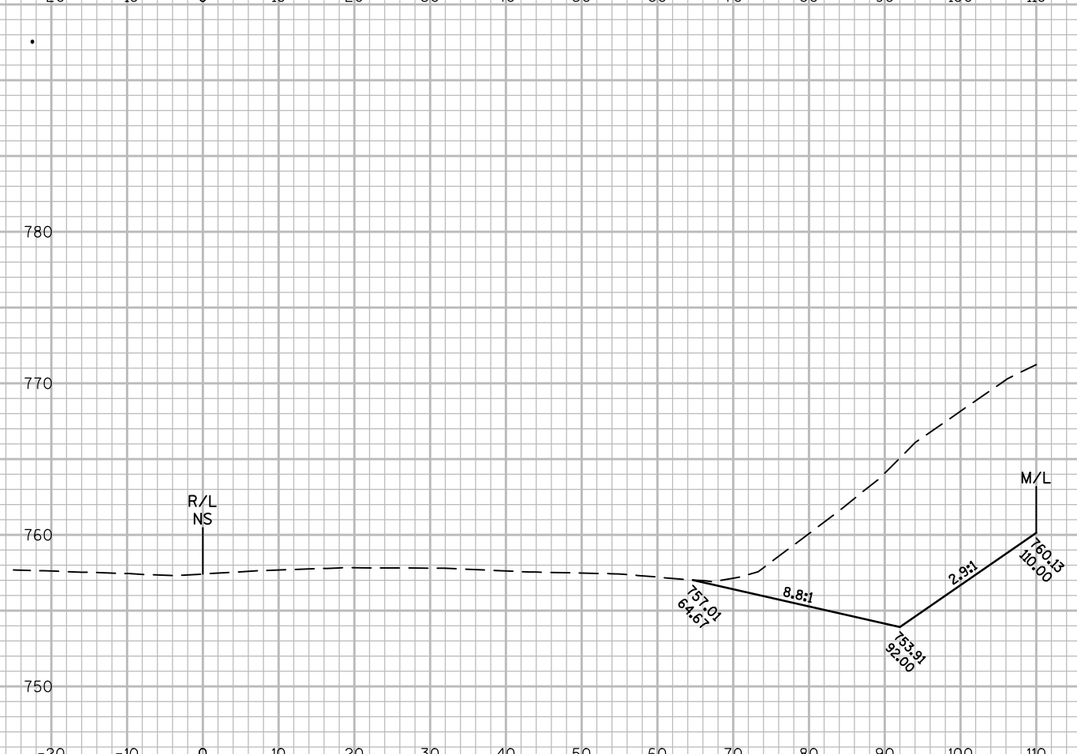
LAYOUT NAME - 01_XS (1)

PLOT DATE : 7/30/2015 8:54 AM PLOT BY : SCHWENN, BRANDON C PLOT NAME : PLOT SCALE : 1:20_XREF

WISDOT/CADDS SHEET 49



456+00



455+50

5 FT
10 FT

9

9

PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/USH 45 NB	SHEET 420	E

FILE NAME : W:\PDS\C3D\10603484\DSN\XS\090201_XS.DWG
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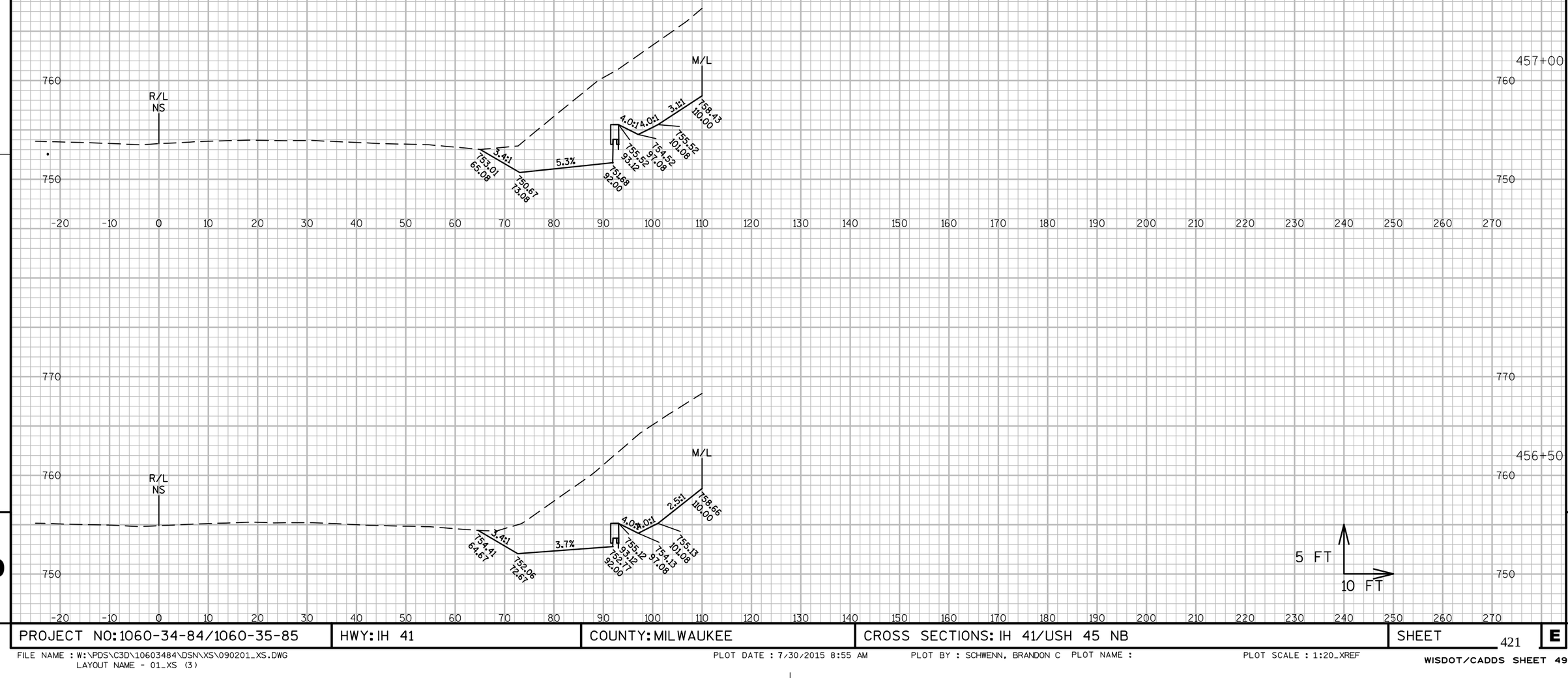

PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/USH 45 NB	SHEET 421	E

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LAYOUT NAME - 01_XS (3)

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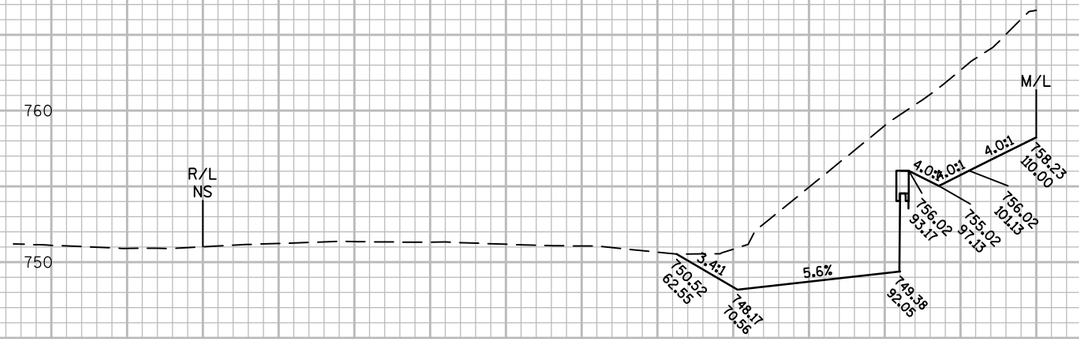
WISDOT/CADDS SHEET 49



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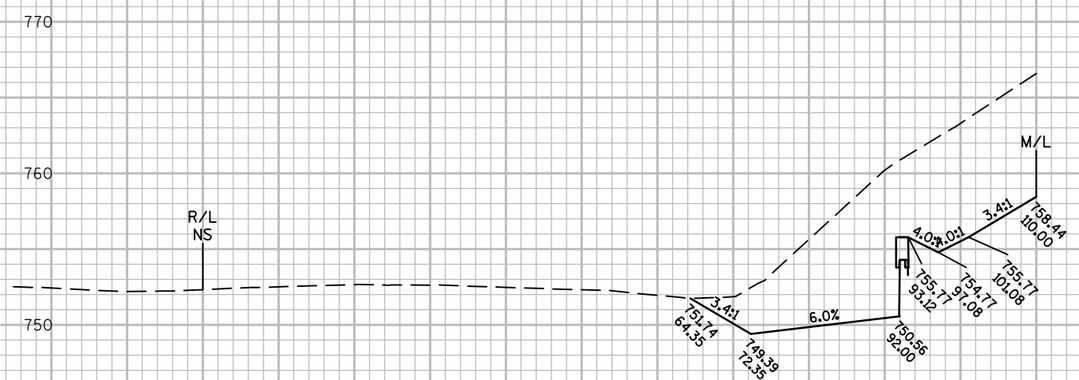

457+50

5 FT
10 FT

9

9

PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/USH 45 NB	SHEET 422	E

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LAYOUT NAME - 01_XS (4)

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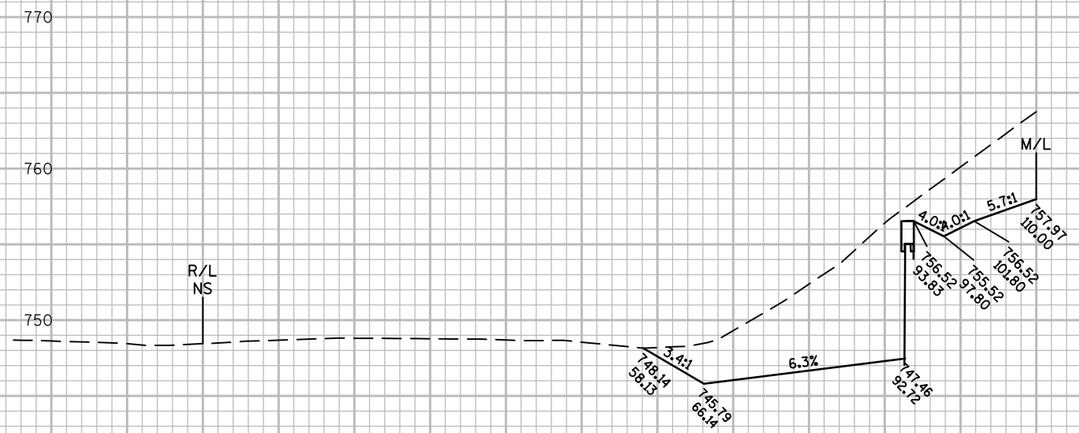
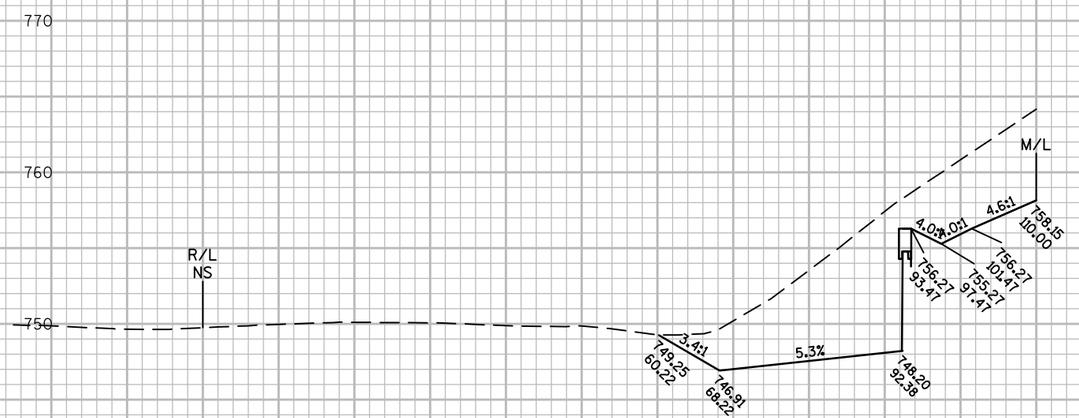
WISDOT/CADDS SHEET 49





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5 FT
10 FT

PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/USH 45 NB	SHEET 423	E

FILE NAME : W:\PDS\C3D\10603484\DSN\XS\090201_XS.DWG
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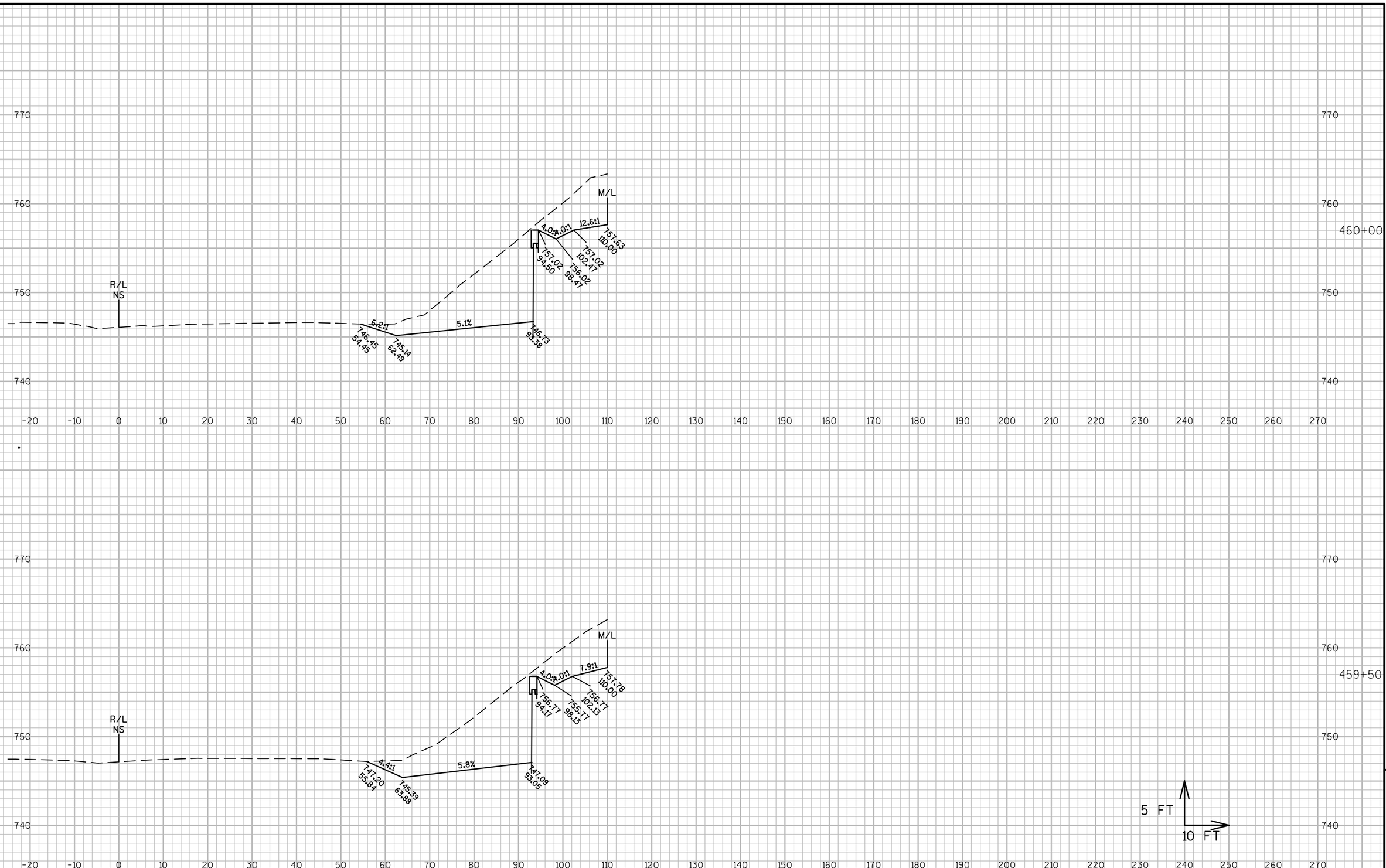

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LAYOUT NAME - 01_XS (6)

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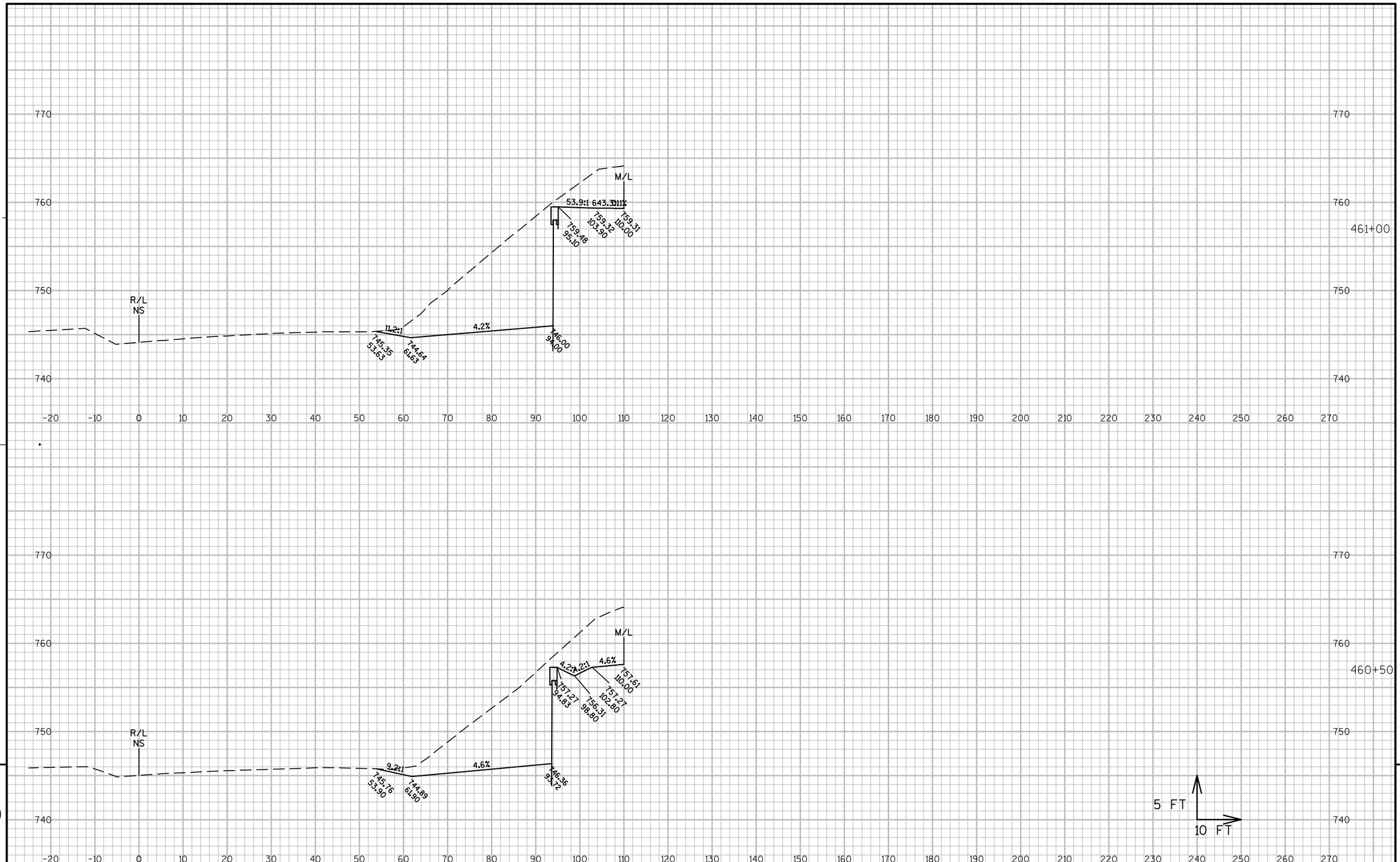
WISDOT/CADDS SHEET 49



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LAYOUT NAME - 01_XS (7)

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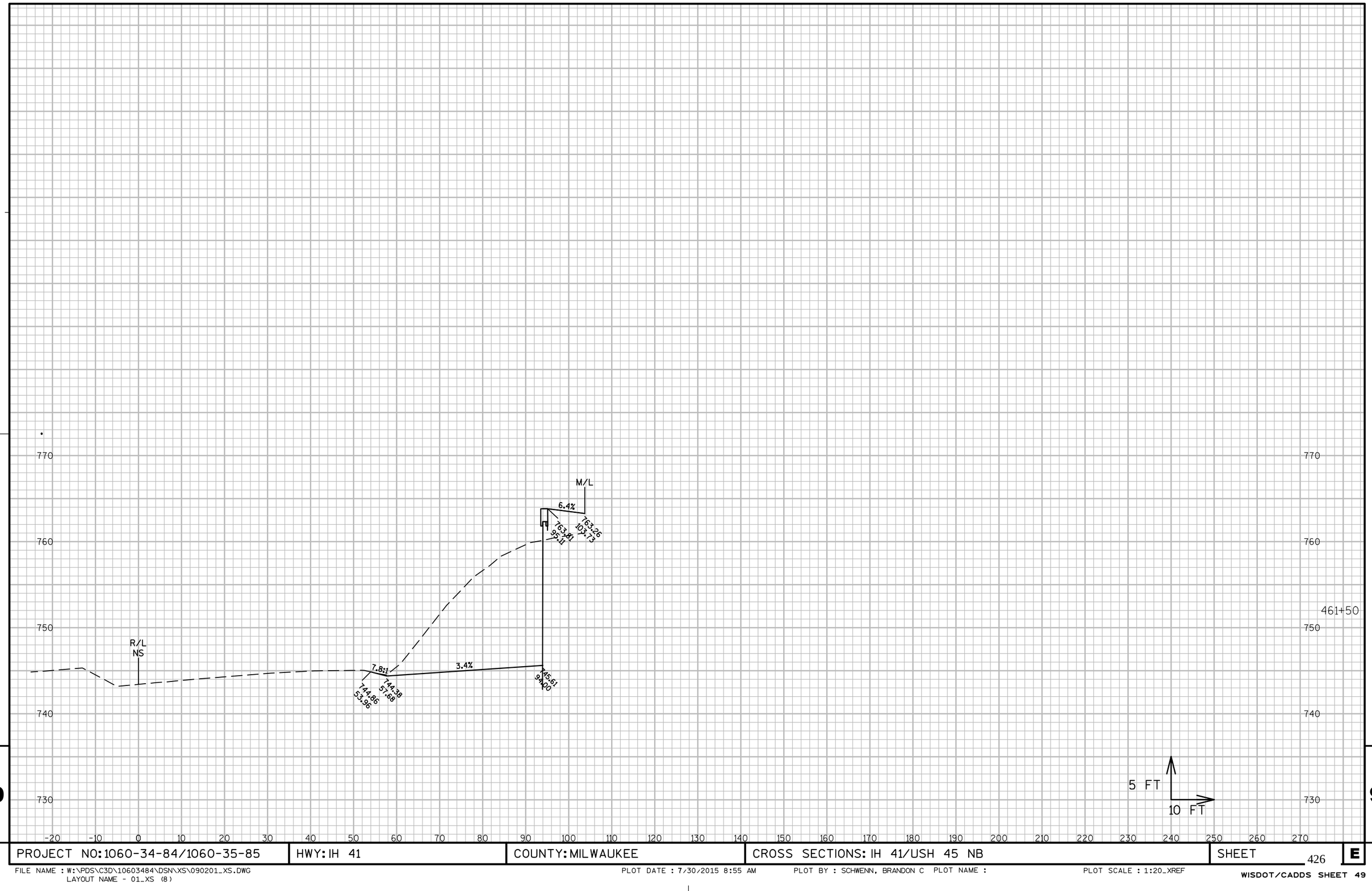
WISDOT/CADDS SHEET 49



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PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/USH 45 NB	SHEET 426	E

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LAYOUT NAME - 01_XS (8)
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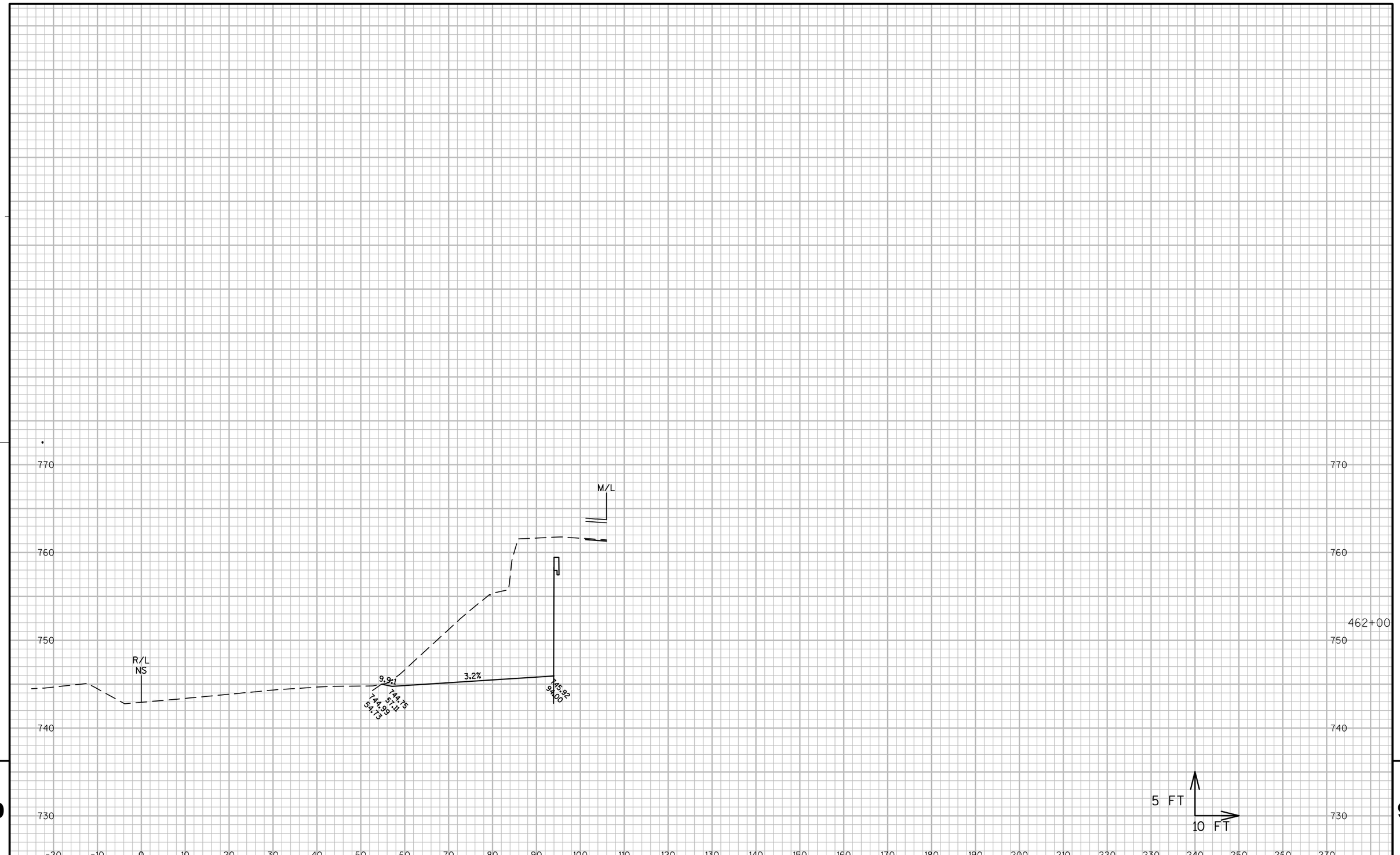

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PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/USH 45 NB	SHEET 427	E

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LAYOUT NAME - 01_XS (9)
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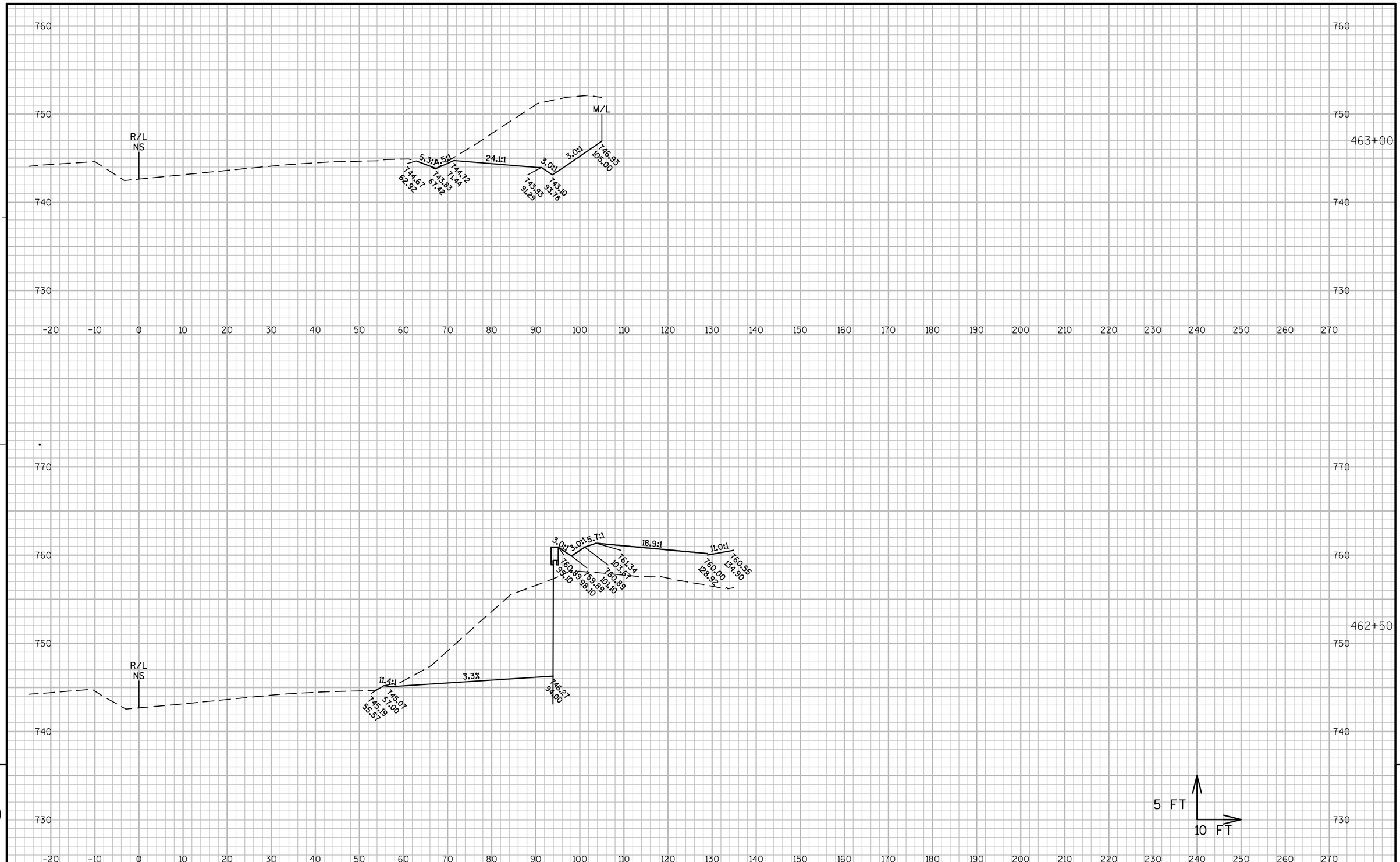
WISDOT/CADDS SHEET 49



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PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/USH 45 NB	SHEET 428 E

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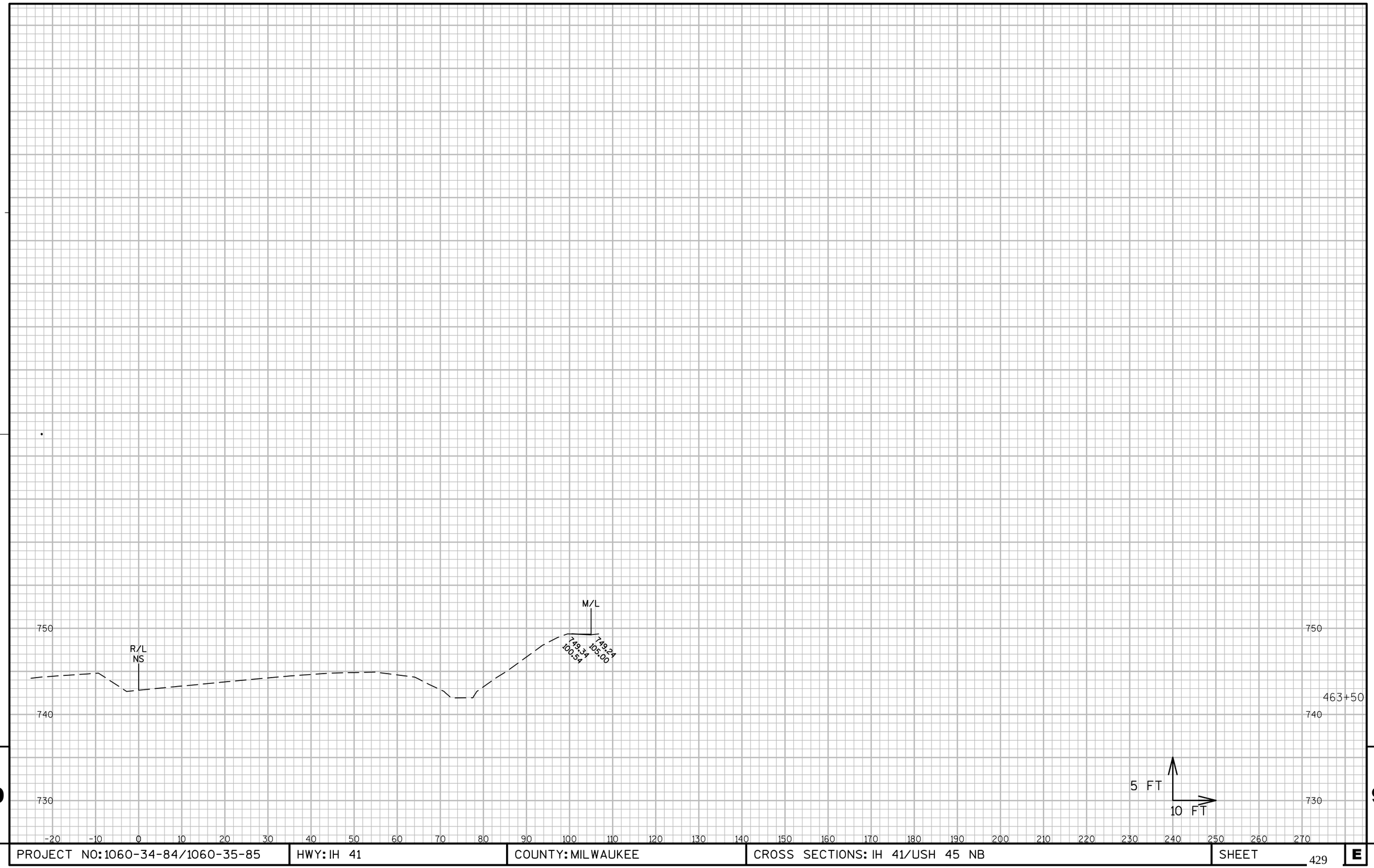

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PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/USH 45 NB	SHEET 429	E

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LAYOUT NAME - 01_XS (11)
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PLOT BY : SCHWENN, BRANDON C PLOT NAME :
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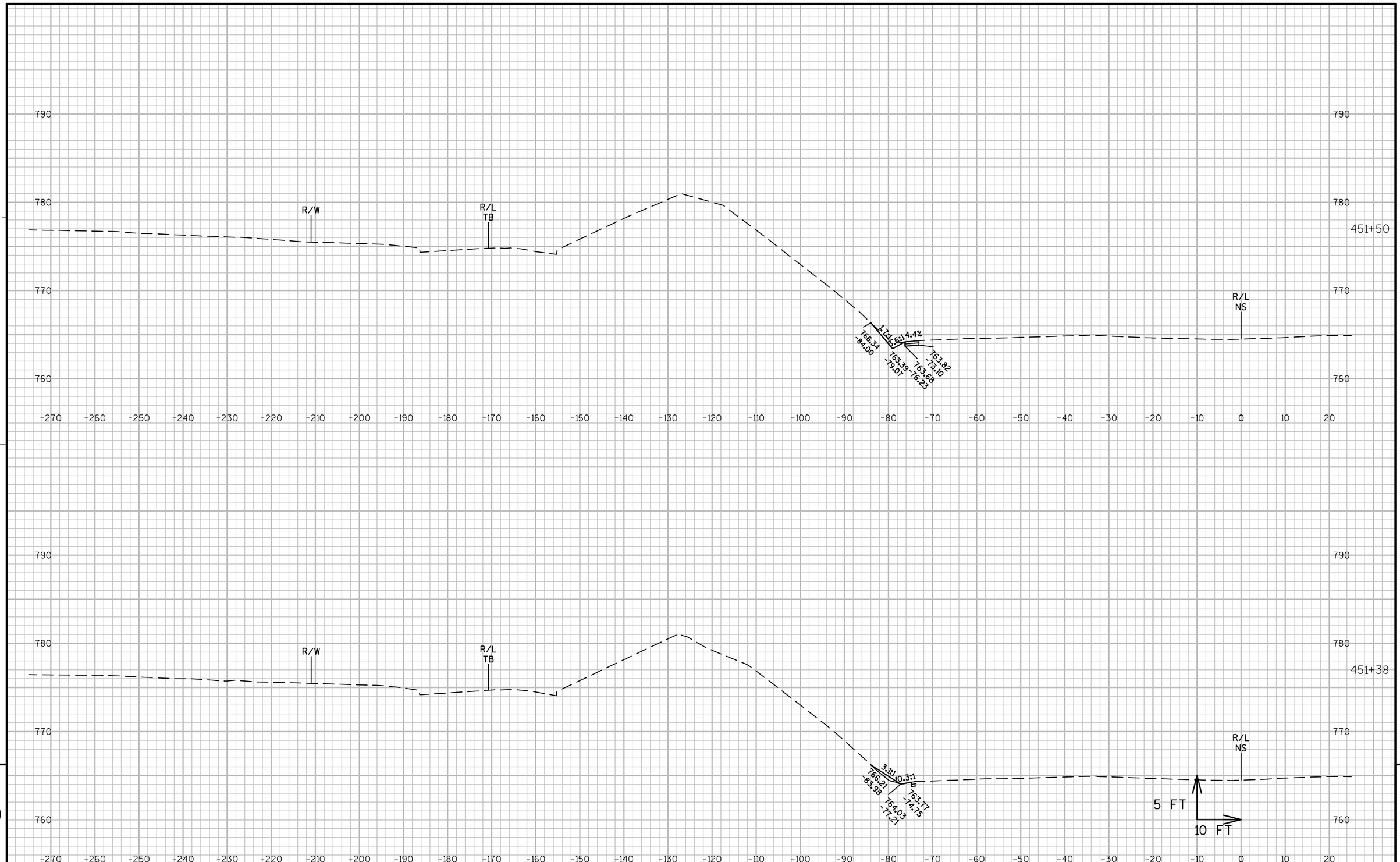
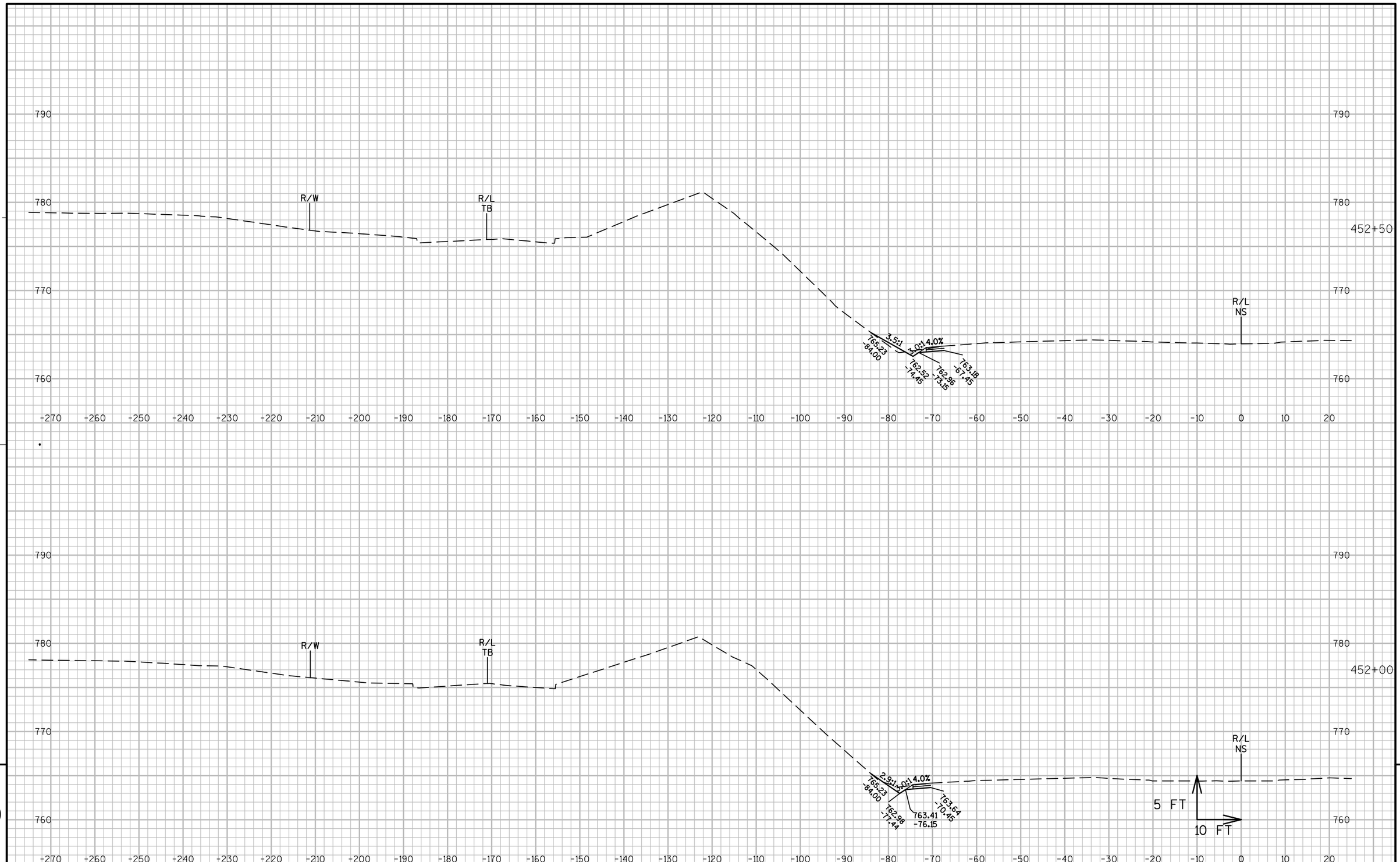
WISDOT/CADDS SHEET 49



PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/USH 45 SB	SHEET 430	E

FILE NAME : W:\PDS\C3D\10603484\DSN\XS\090201_XS.DWG
LAYOUT NAME - 02_XS (1)
PLOT DATE : 7/30/2015 8:37 AM
PLOT BY : SCHWENN, BRANDON C PLOT NAME :
PLOT SCALE : 1:20_XREF
WISDOT/CADDS SHEET 49



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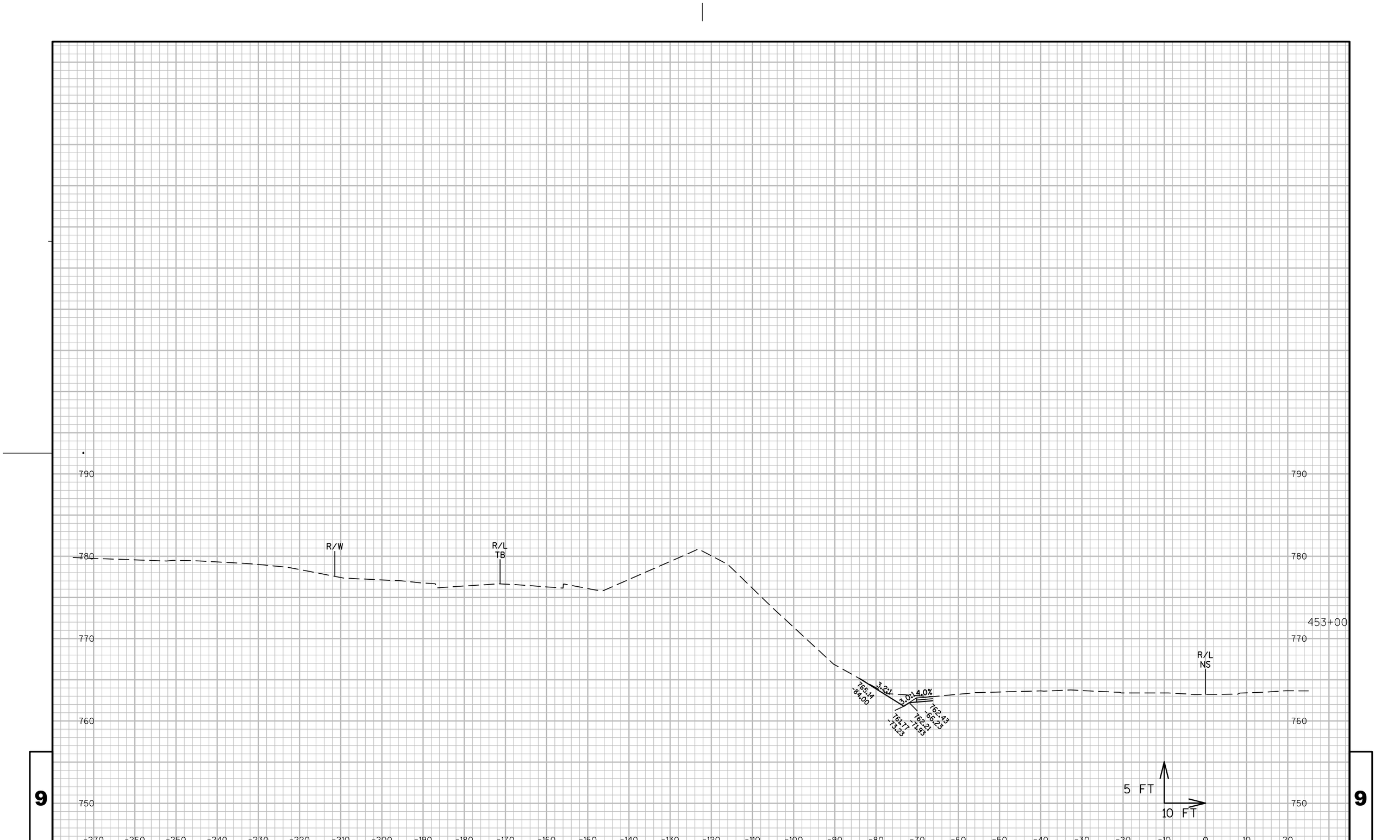
PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/USH 45 SB	SHEET 431	E

9

FILE NAME : W:\PDS\C3D\10603484\DSN\XS\090201_XS.DWG
LAYOUT NAME - 02_XS (2)

PLOT DATE : 7/30/2015 8:37 AM PLOT BY : SCHWENN, BRANDON C PLOT NAME : PLOT SCALE : 1:20_XREF



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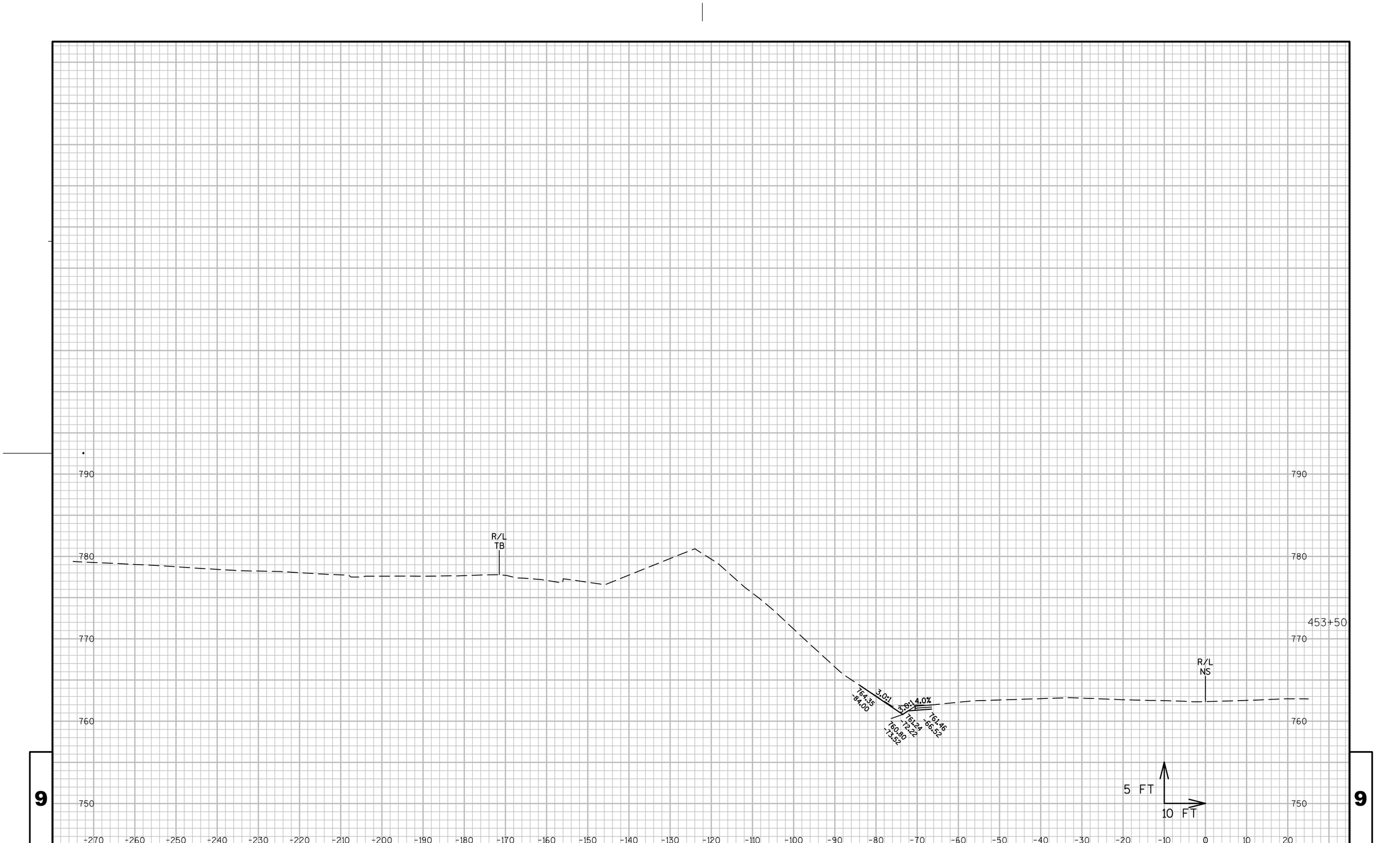
PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/USH 45 SB	SHEET 432	E

FILE NAME : W:\PDS\C3D\10603484\DSN\XS\090201_XS.DWG
LAYOUT NAME - 02_XS (3)

PLOT DATE : 7/30/2015 8:37 AM PLOT BY : SCHWENN, BRANDON C PLOT NAME : PLOT SCALE : 1:20_XREF



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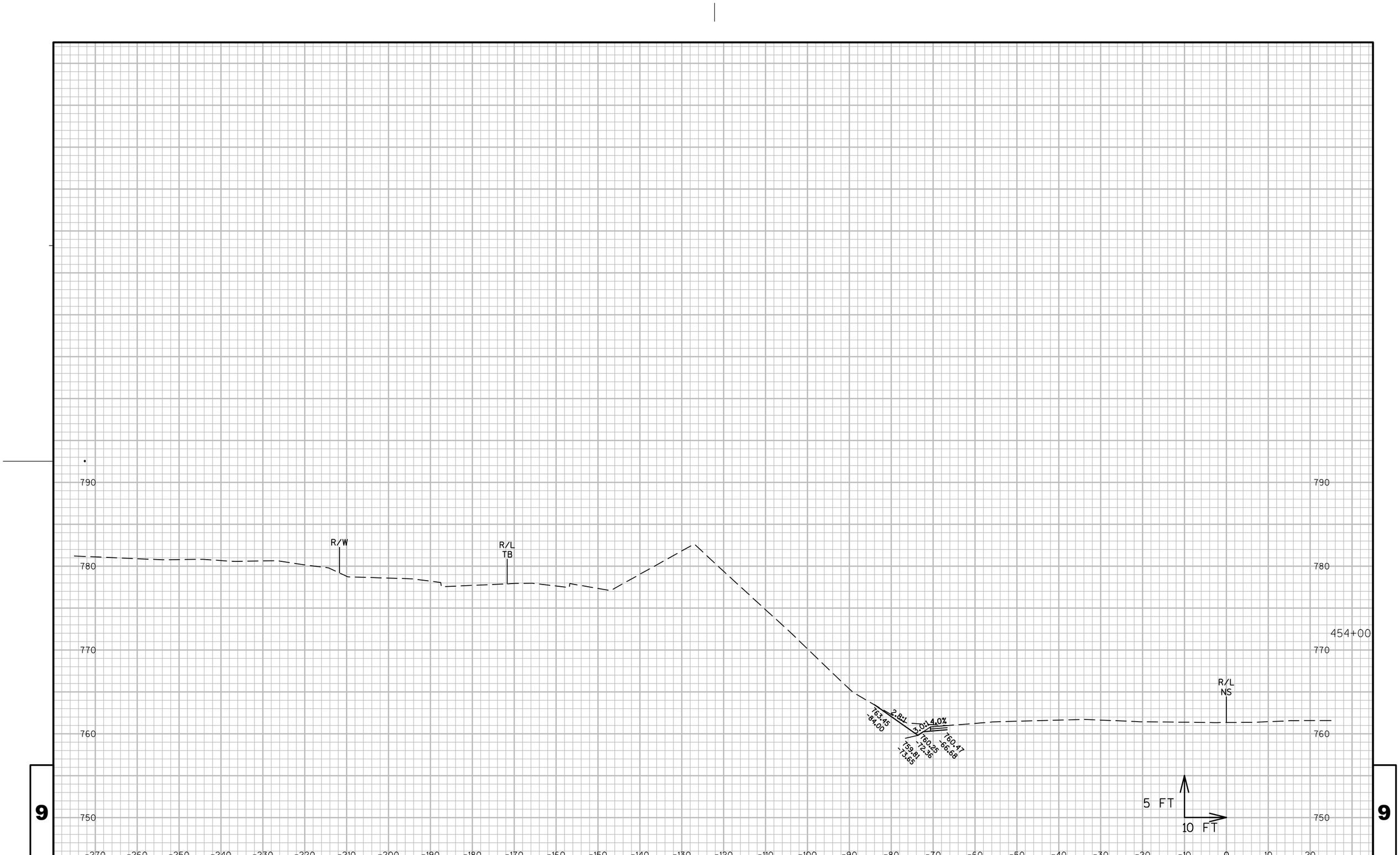
PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/USH 45 SB	SHEET 433	E

FILE NAME : W:\PDS\C3D\10603484\DSN\XS\090201_XS.DWG
LAYOUT NAME - 02_XS (4)

PLOT DATE : 7/30/2015 8:37 AM PLOT BY : SCHWENN, BRANDON C PLOT NAME : PLOT SCALE : 1:20_XREF



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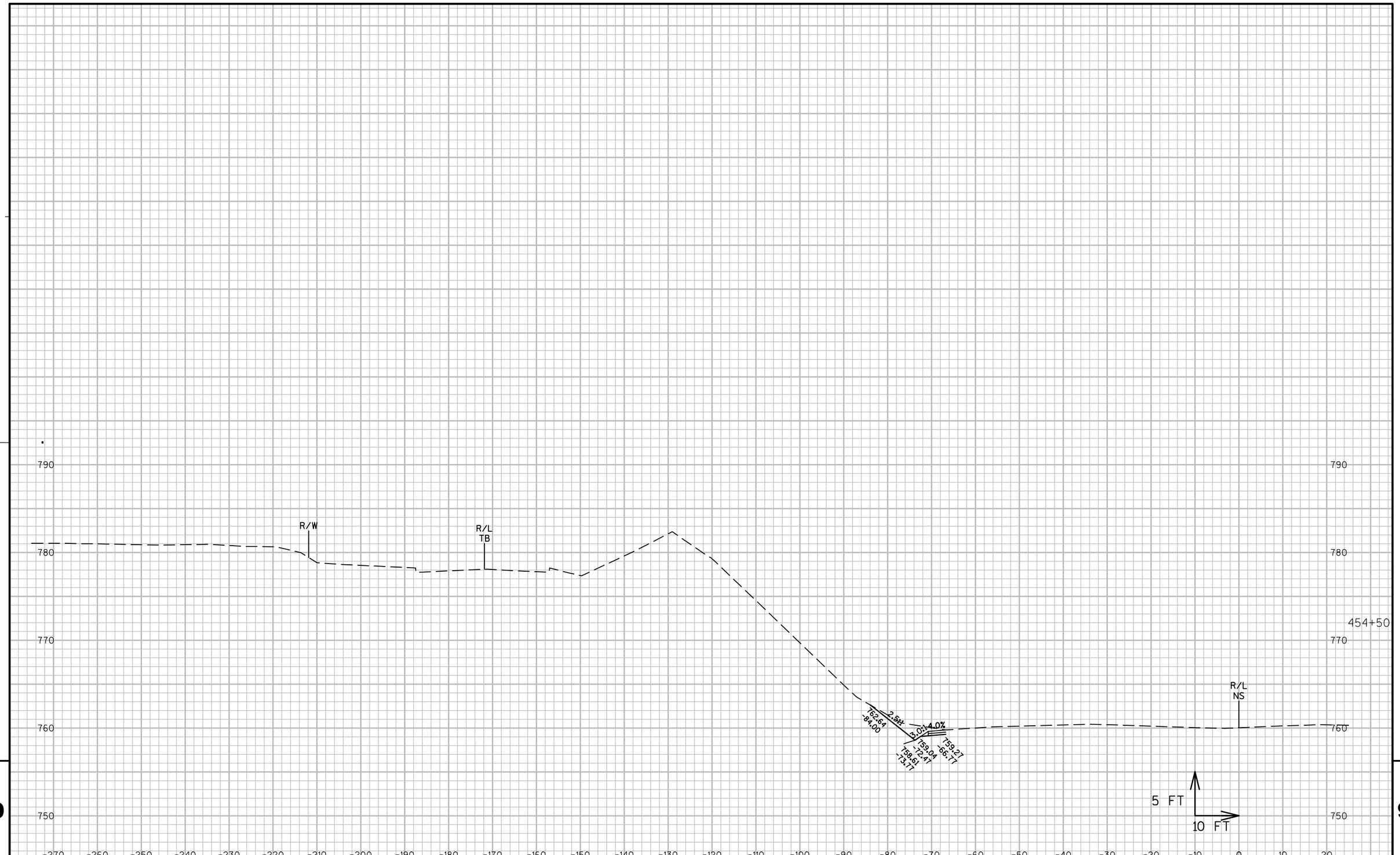
PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/USH 45 SB	SHEET 434	E

FILE NAME : W:\PDS\C3D\10603484\DSN\XS\090201_XS.DWG
LAYOUT NAME - 02_XS (5)

PLOT DATE : 7/30/2015 8:37 AM

PLOT BY : SCHWENN, BRANDON C PLOT NAME :

PLOT SCALE : 1:20_XREF



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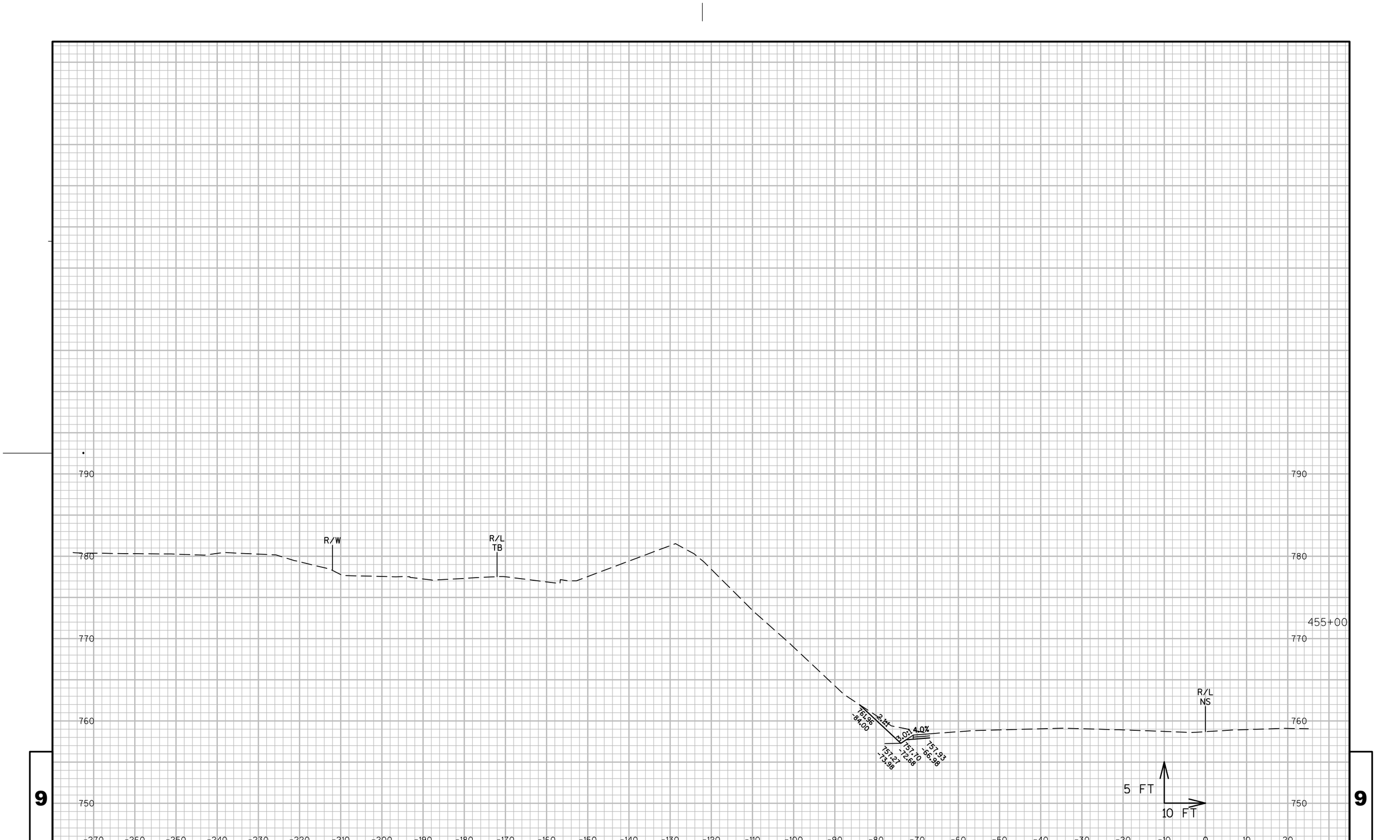
PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/USH 45 SB	SHEET 435	E

FILE NAME : W:\PDS\C3D\10603484\DSN\XS\090201_XS.DWG
LAYOUT NAME - 02_XS (6)
PLOT DATE : 7/30/2015 8:38 AM
PLOT BY : SCHWENN, BRANDON C PLOT NAME :
PLOT SCALE : 1:20_XREF
WISDOT/CADDS SHEET 49



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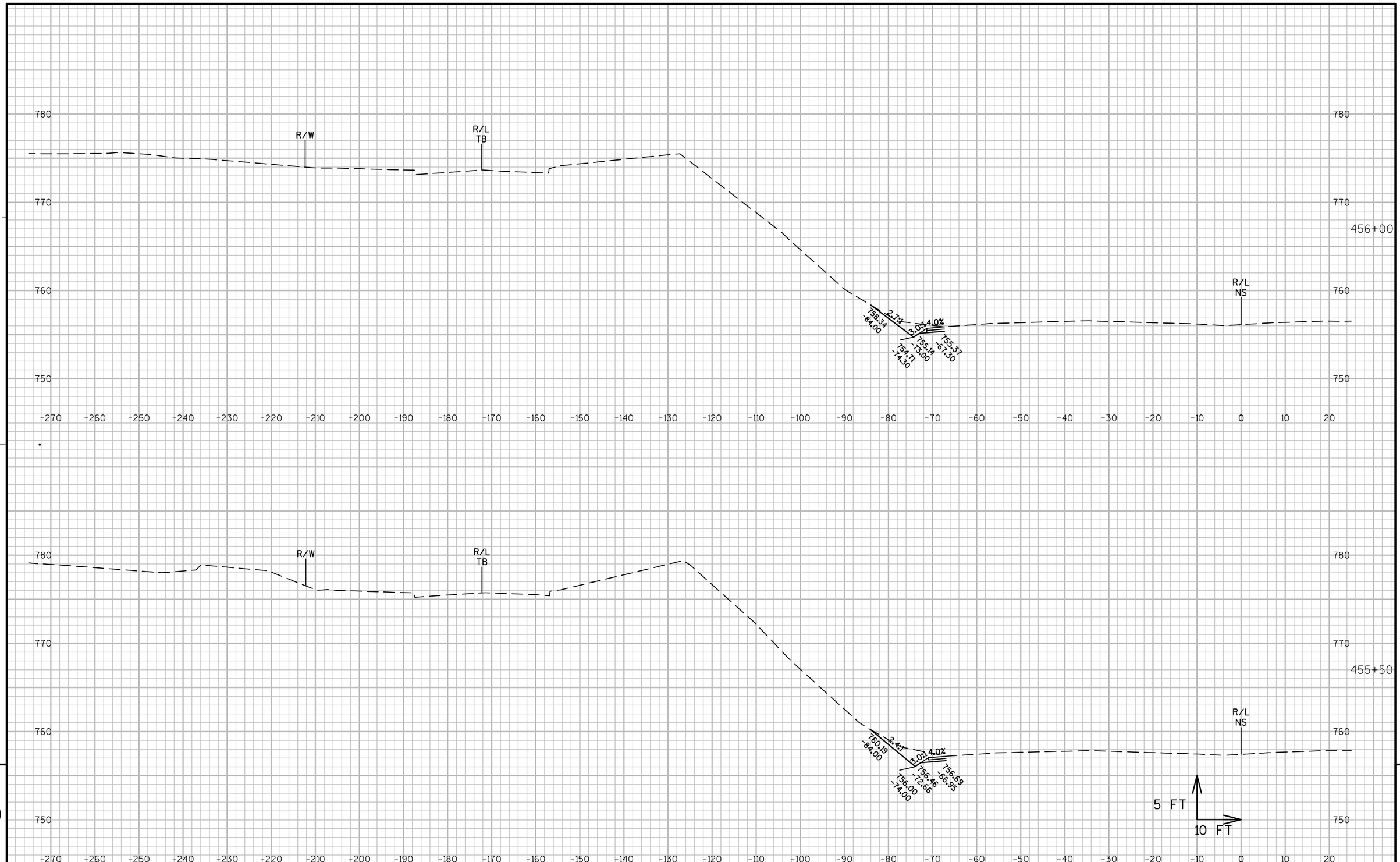
PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/USH 45 SB	SHEET 436	E

FILE NAME : W:\PDS\C3D\10603484\DSN\XS\090201_XS.DWG
LAYOUT NAME - 02_XS (7)
PLOT DATE : 7/30/2015 8:38 AM
PLOT BY : SCHWENN, BRANDON C PLOT NAME :
PLOT SCALE : 1:20_XREF
WISDOT/CADDS SHEET 49



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PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/USH 45 SB	SHEET 437	E

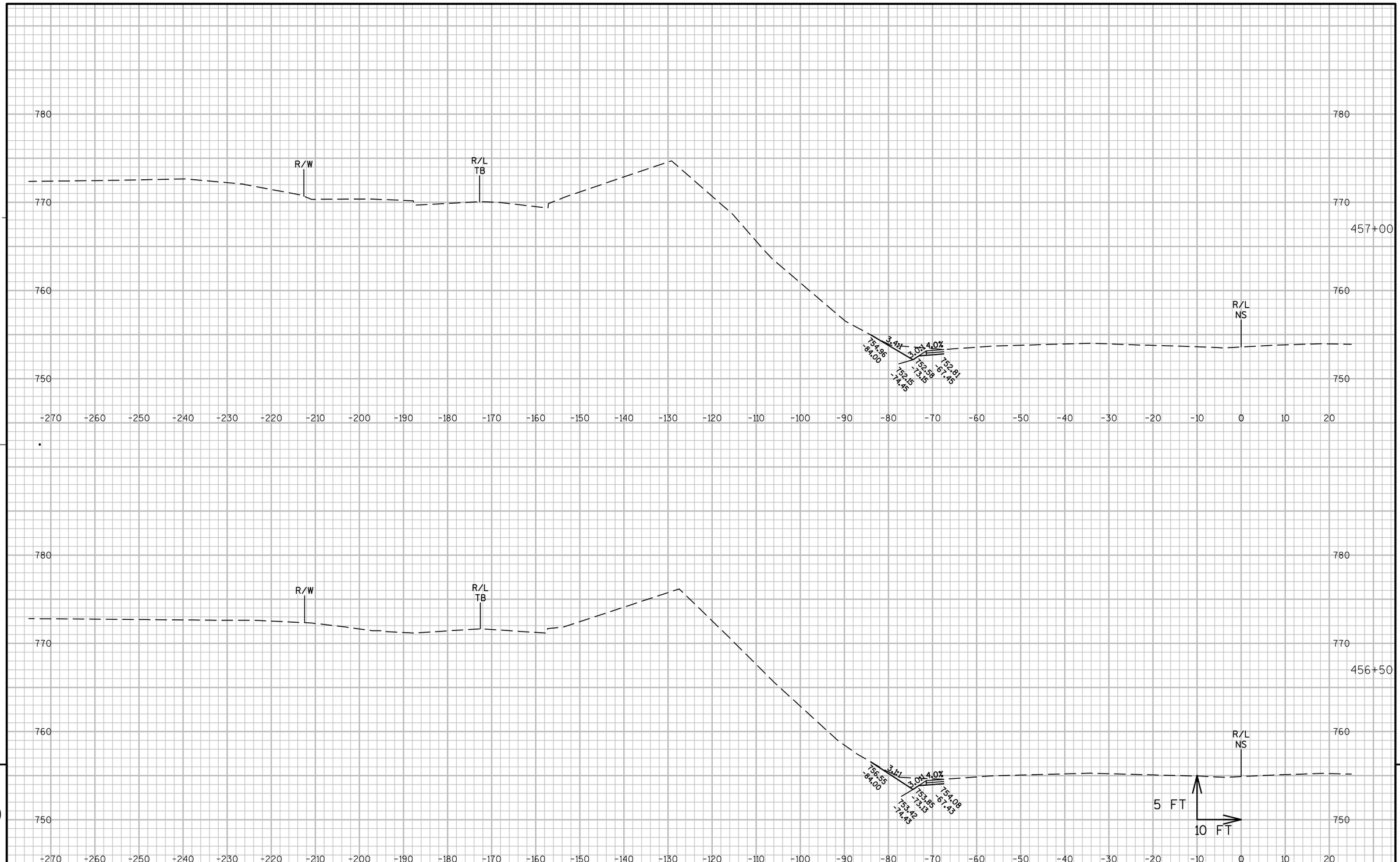
FILE NAME : W:\PDS\C3D\10603484\DSN\XS\090201_XS.DWG
LAYOUT NAME - 02_XS (8)

PLOT DATE : 7/30/2015 8:38 AM

PLOT BY : SCHWENN, BRANDON C PLOT NAME :

PLOT SCALE : 1:20_XREF

WISDOT/CADDS SHEET 49



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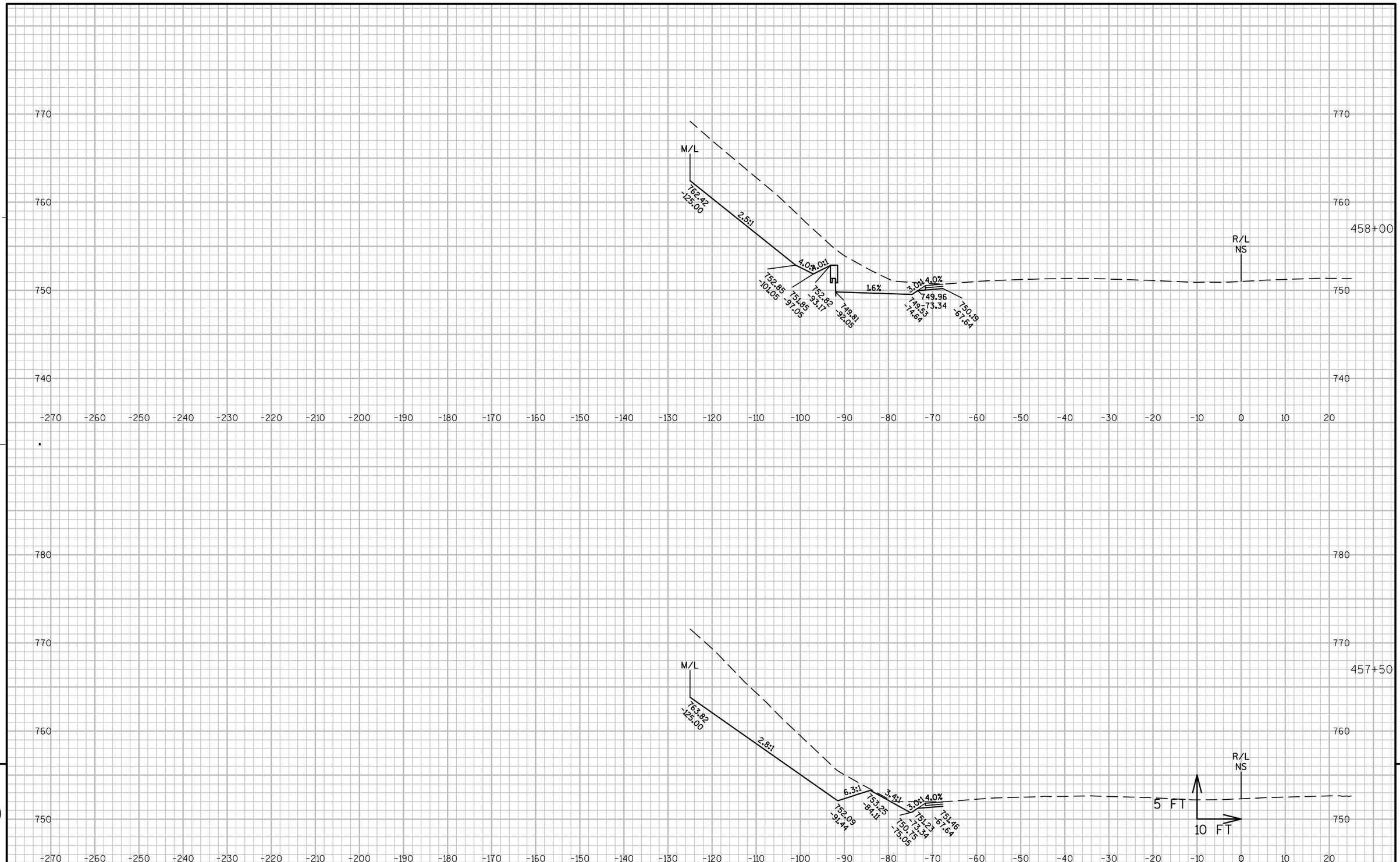
PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/USH 45 SB	SHEET 438 E

9

FILE NAME : W:\PDS\C3D\10603484\DSN\XS\090201_XS.DWG
LAYOUT NAME - 02_XS (9)

PLOT DATE : 7/30/2015 8:38 AM PLOT BY : SCHWENN, BRANDON C PLOT NAME : PLOT SCALE : 1:20_XREF



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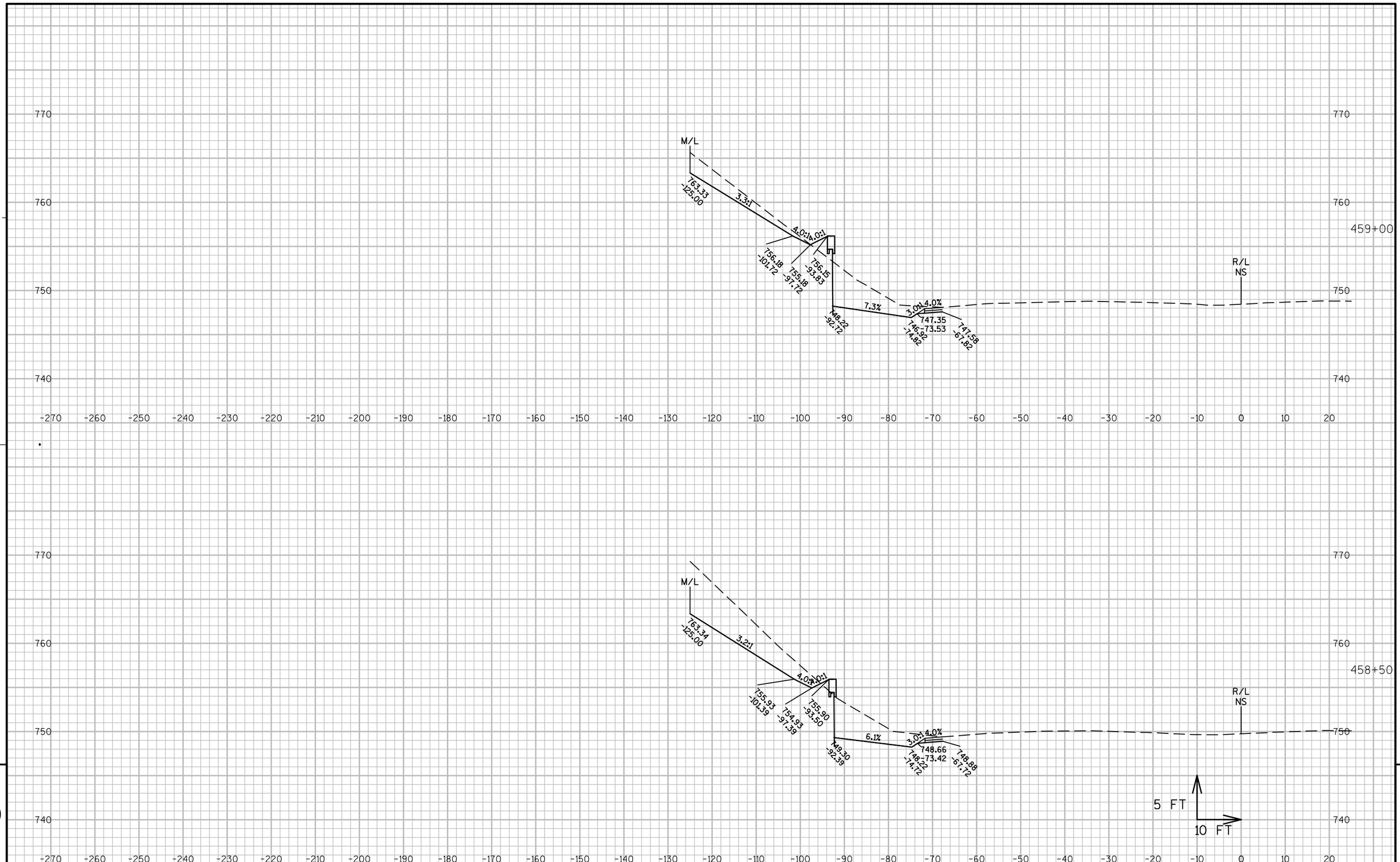
PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/USH 45 SB	SHEET 439	E

FILE NAME : W:\PDS\C3D\10603484\DSN\XS\090201_XS.DWG
LAYOUT NAME - 02_XS (10)

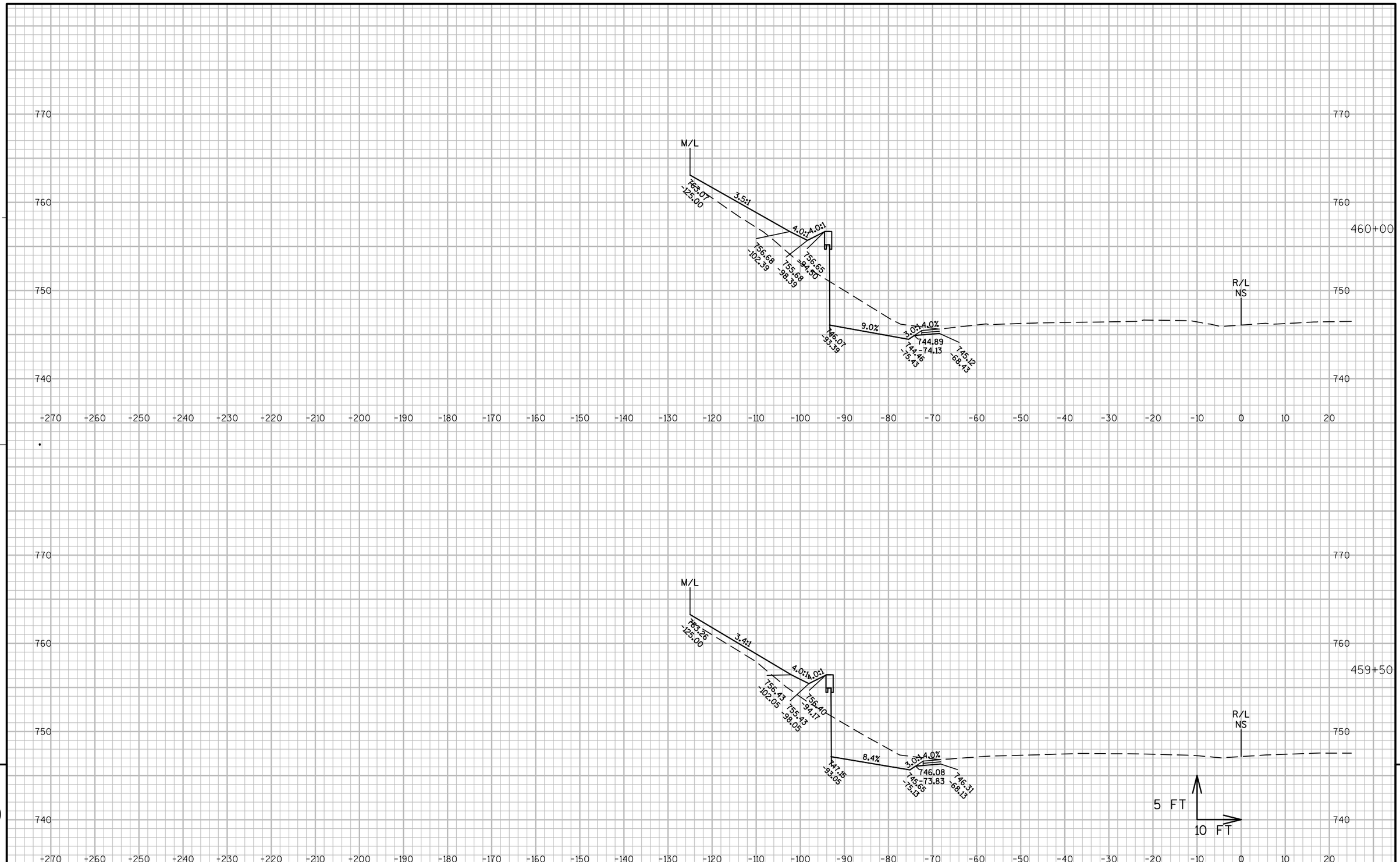
PLOT DATE : 7/30/2015 8:38 AM PLOT BY : SCHWENN, BRANDON C PLOT NAME : PLOT SCALE : 1:20_XREF



PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/USH 45 SB	SHEET 440	E

FILE NAME : W:\PDS\C3D\10603484\DSN\XS\090201_XS.DWG
LAYOUT NAME - 02_XS (11)

PLOT DATE : 7/30/2015 8:38 AM PLOT BY : SCHWENN, BRANDON C PLOT NAME : PLOT SCALE : 1:20_XREF



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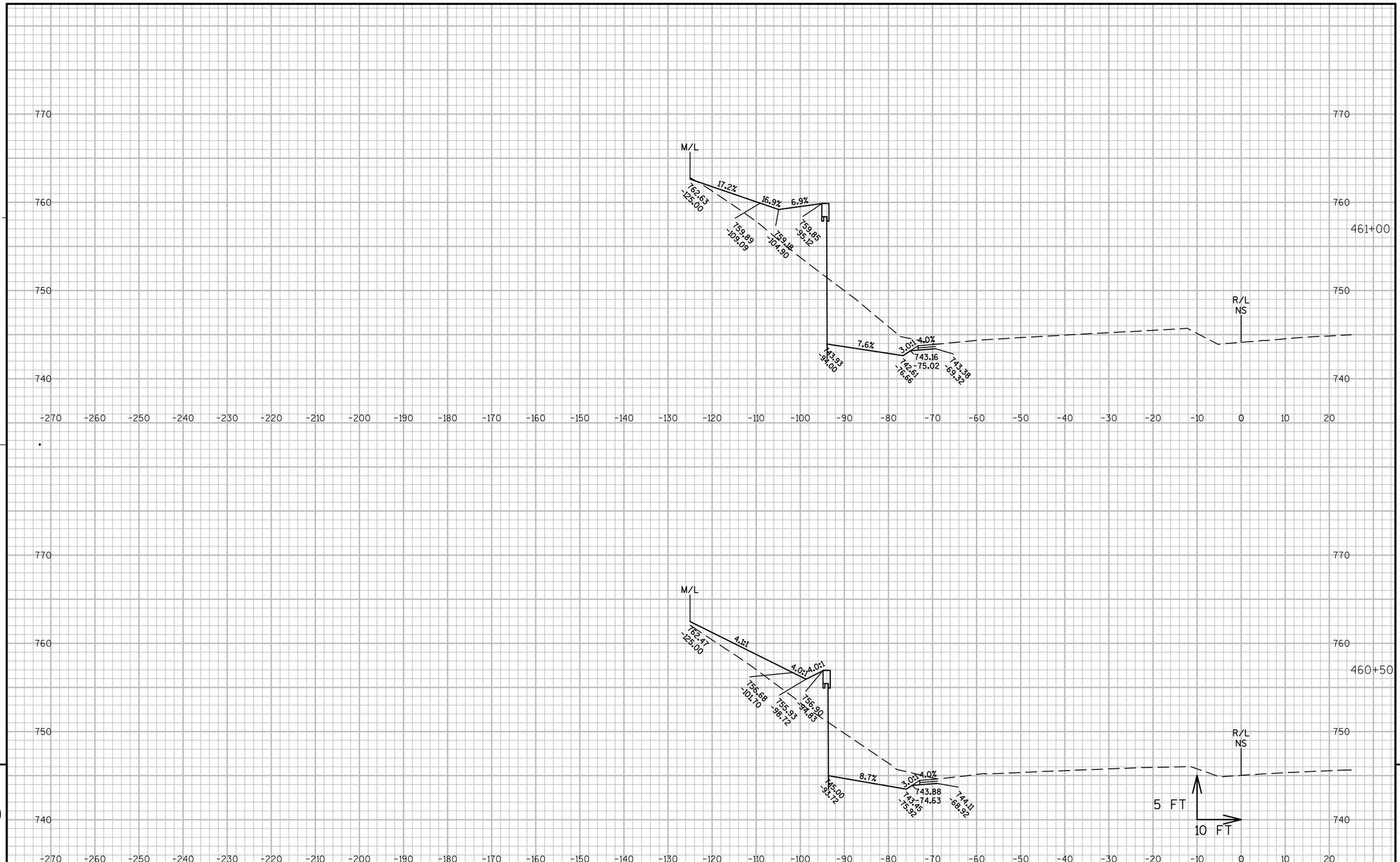
PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/USH 45 SB	SHEET 441	E

FILE NAME : W:\PDS\C3D\10603484\DSN\XS\090201_XS.DWG
LAYOUT NAME - 02_XS (12)

PLOT DATE : 7/30/2015 8:38 AM PLOT BY : SCHWENN, BRANDON C PLOT NAME : PLOT SCALE : 1:20_XREF

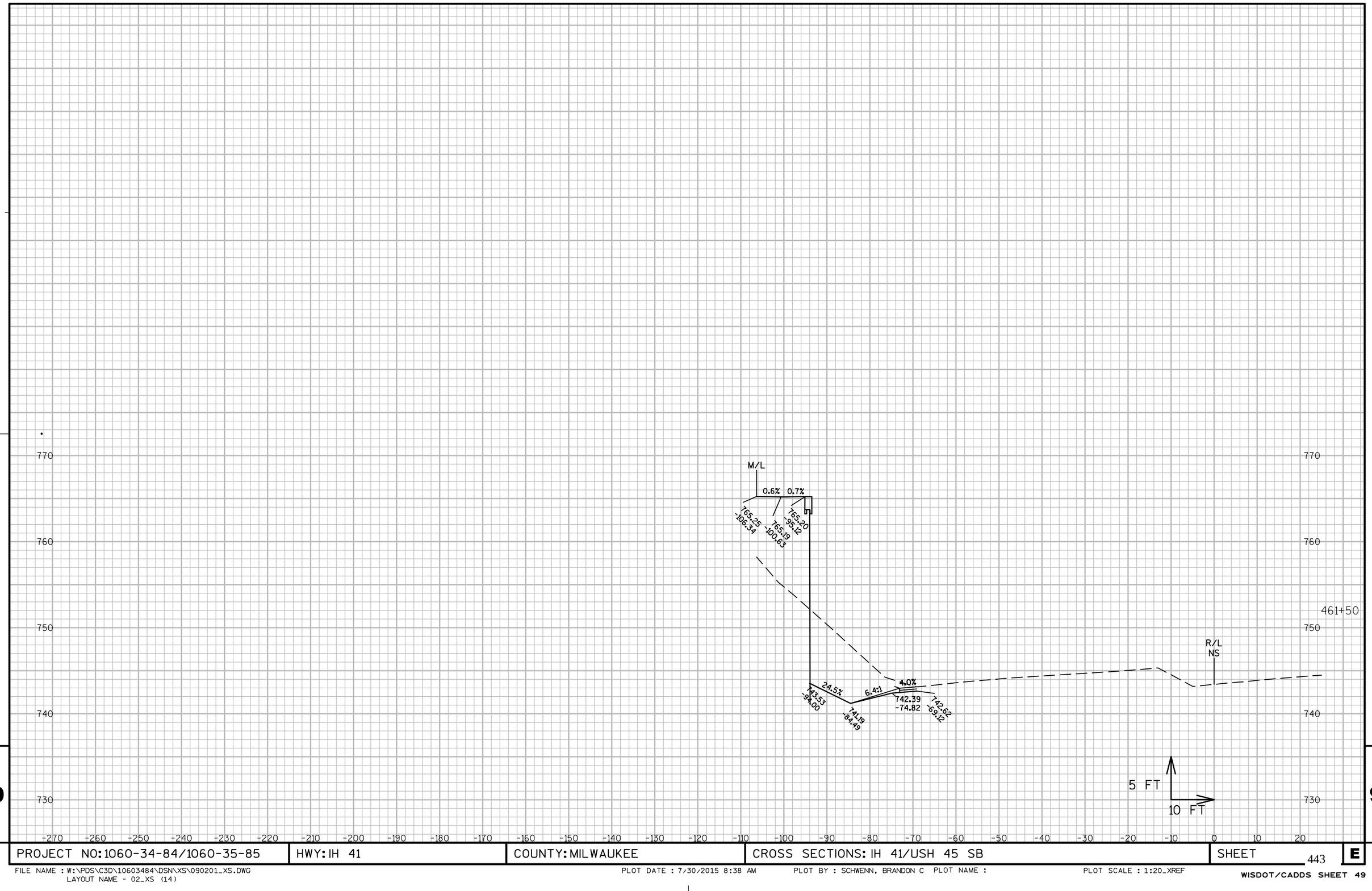


PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/USH 45 SB	SHEET 442	E

FILE NAME : W:\PDS\C3D\10603484\DSN\XS\090201_XS.DWG
LAYOUT NAME - 02_XS (13)

PLOT DATE : 7/30/2015 8:38 AM PLOT BY : SCHWENN, BRANDON C PLOT NAME : PLOT SCALE : 1:20_XREF

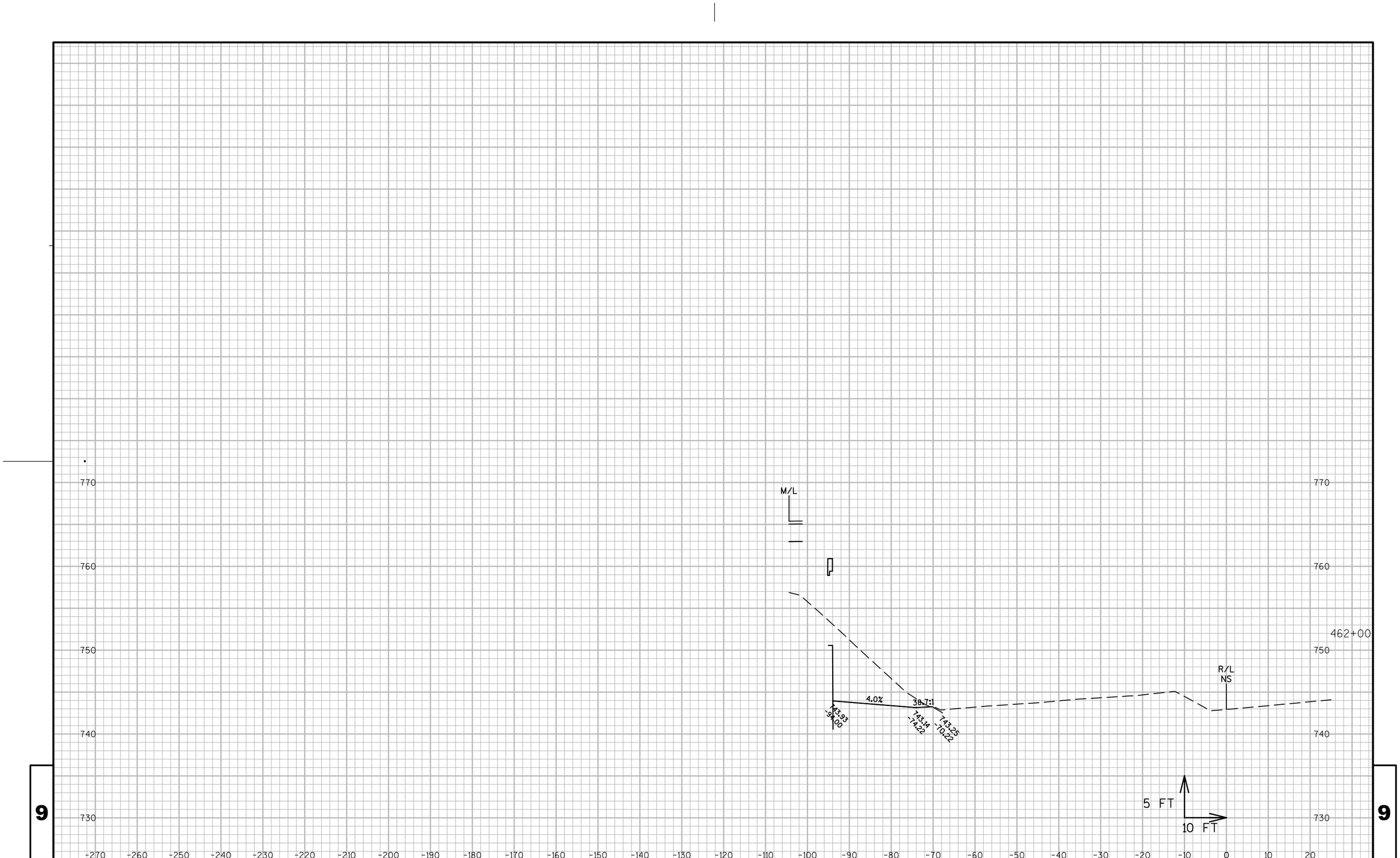
WISDOT/CADDS SHEET 49



PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/USH 45 SB	SHEET 443	E

FILE NAME : W:\PDS\C3D\10603484\DSN\XS\090201_XS.DWG
LAYOUT NAME - 02_XS (14)

PLOT DATE : 7/30/2015 8:38 AM PLOT BY : SCHWENN, BRANDON C PLOT NAME : PLOT SCALE : 1:20_XREF



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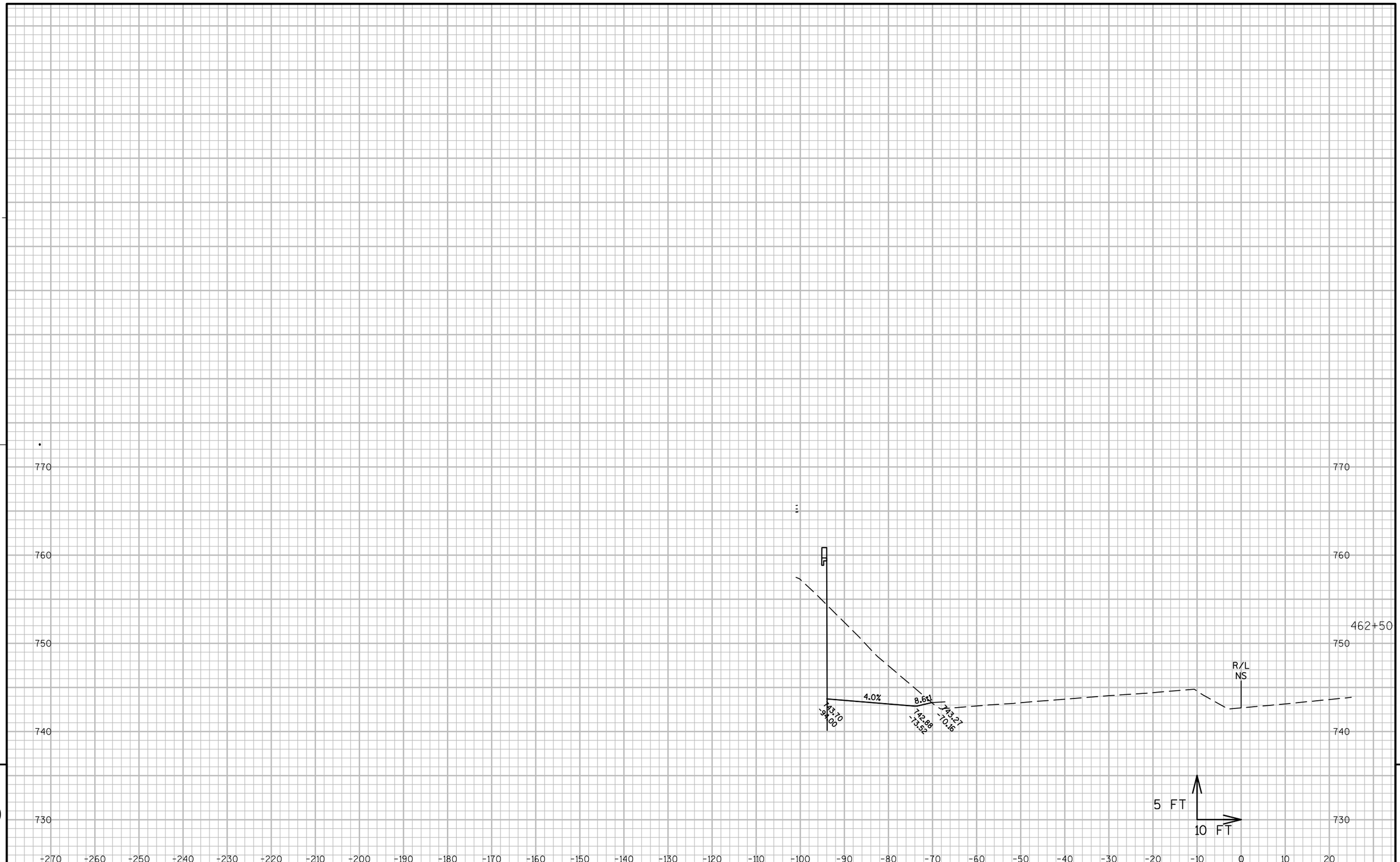
PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/USH 45 SB	SHEET 444	E

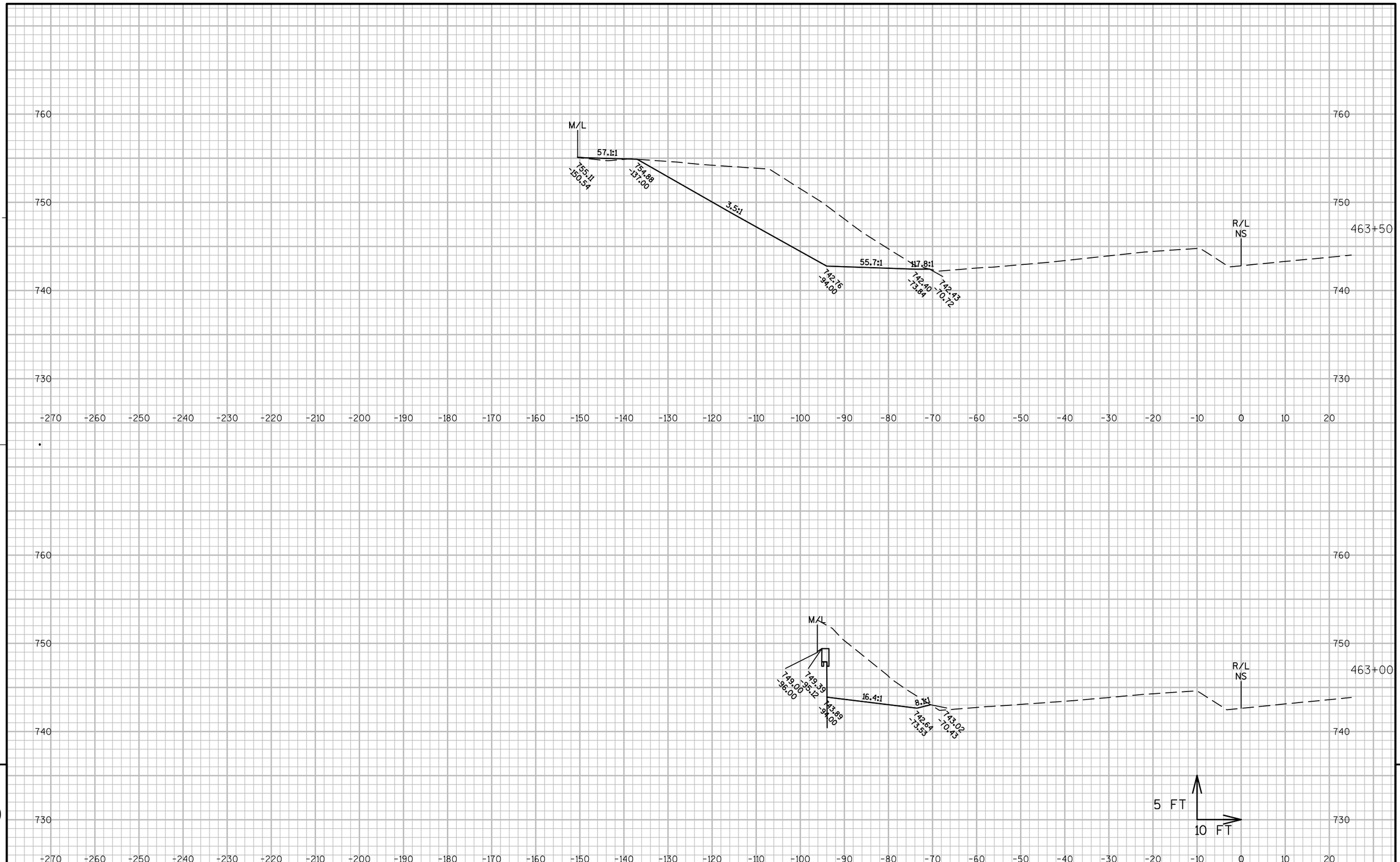
FILE NAME : W:\PDS\C3D\10603484\DSN\XS\090201_XS.DWG
LAYOUT NAME - 02_XS (15)
PLOT DATE : 7/30/2015 8:39 AM
PLOT BY : SCHWENN, BRANDON C PLOT NAME :
PLOT SCALE : 1:20_XREF
WISDOT/CADDS SHEET 49



PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/USH 45 SB	SHEET 445	E

FILE NAME : W:\PDS\C3D\10603484\DSN\XS\090201_XS.DWG
LAYOUT NAME - 02_XS (16)

PLOT DATE : 7/30/2015 8:39 AM PLOT BY : SCHWENN, BRANDON C PLOT NAME : PLOT SCALE : 1:20_XREF



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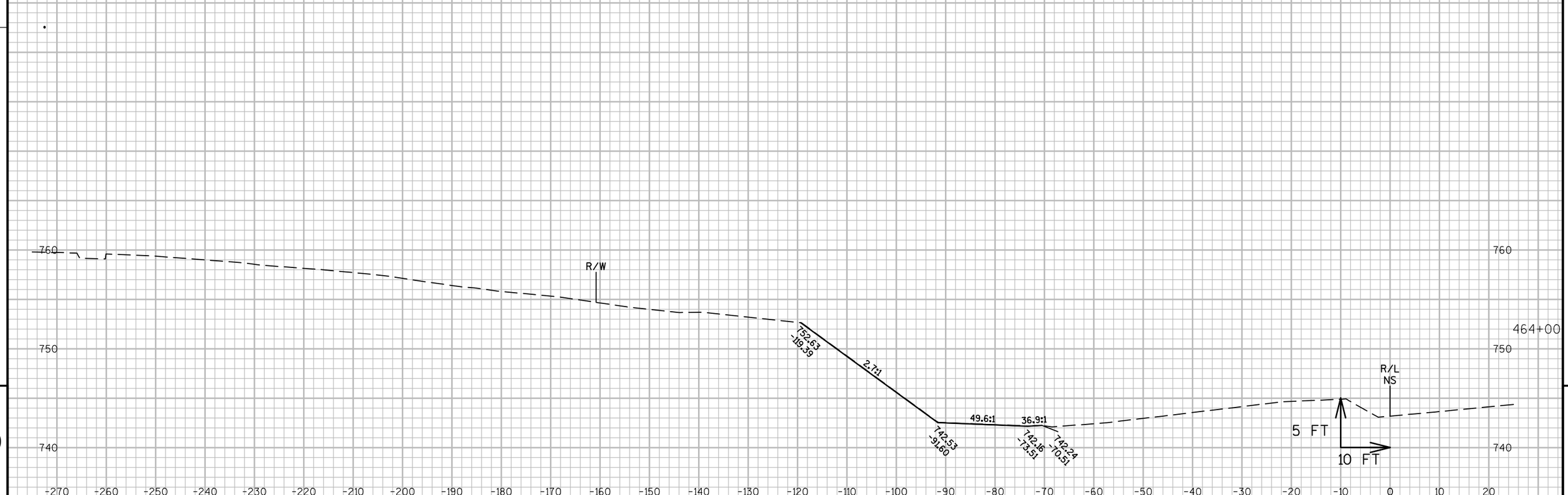
PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/USH 45 SB	SHEET 446	E

FILE NAME : W:\PDS\C3D\10603484\DSN\XS\090201_XS.DWG
LAYOUT NAME - 02_XS (17)

PLOT DATE : 7/30/2015 8:39 AM PLOT BY : SCHWENN, BRANDON C PLOT NAME : PLOT SCALE : 1:20_XREF



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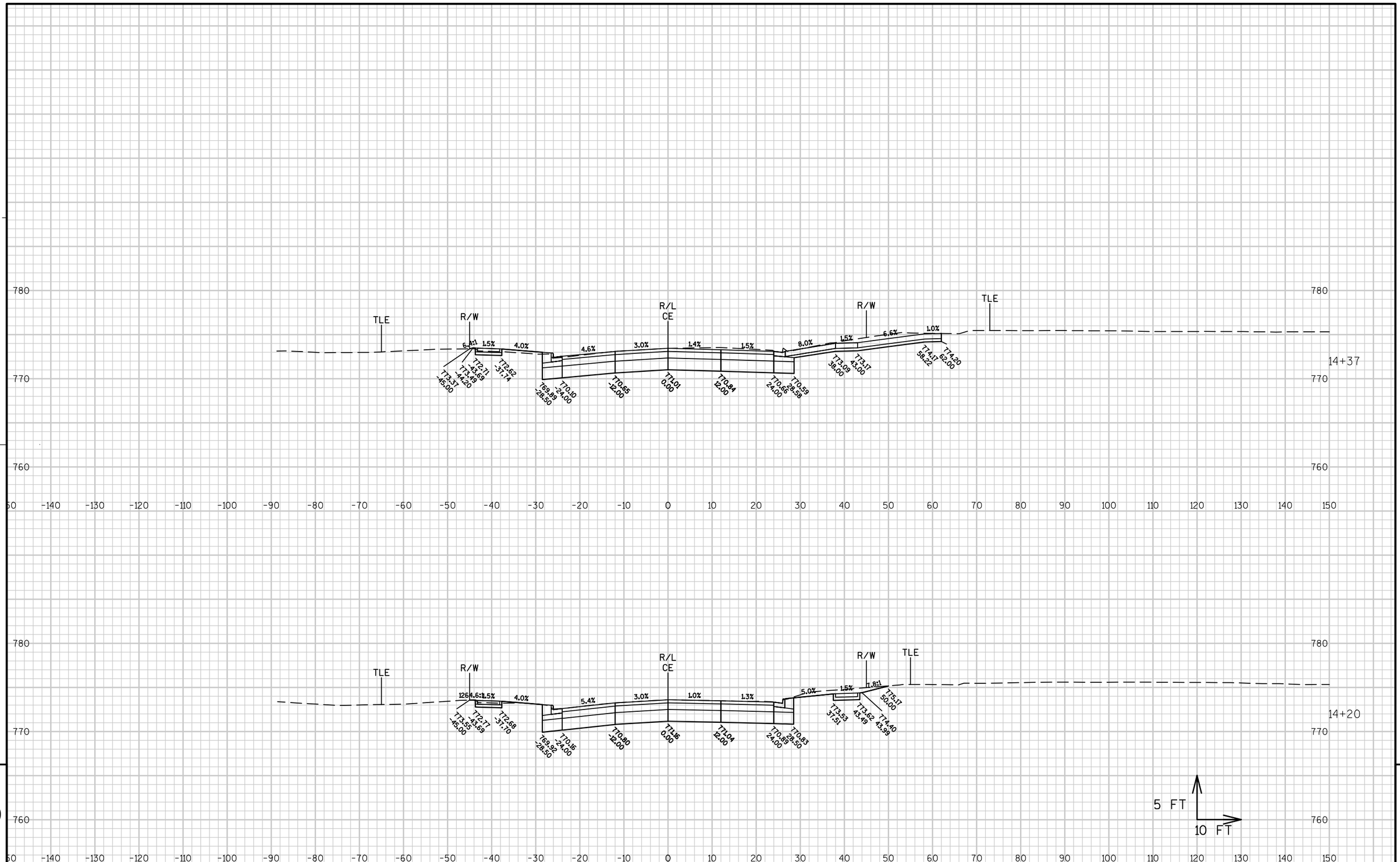
PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: IH 41/USH 45 SB	SHEET 447	E

FILE NAME : W:\PDS\C3D\10603484\DSN\XS\090201_XS.DWG
LAYOUT NAME - 02_XS (18)
PLOT DATE : 7/30/2015 8:39 AM
PLOT BY : SCHWENN, BRANDON C PLOT NAME :
PLOT SCALE : 1:20_XREF
WISDOT/CADDS SHEET 49



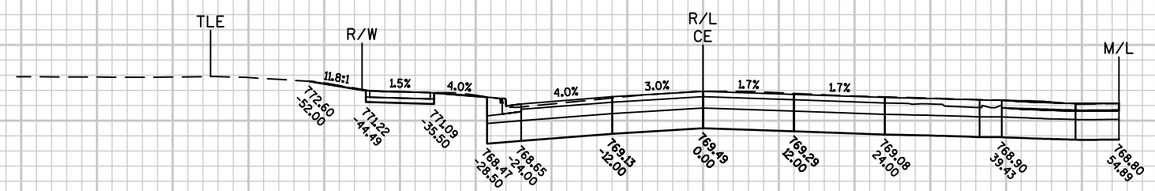
PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: CENTER STREET	SHEET 448 E

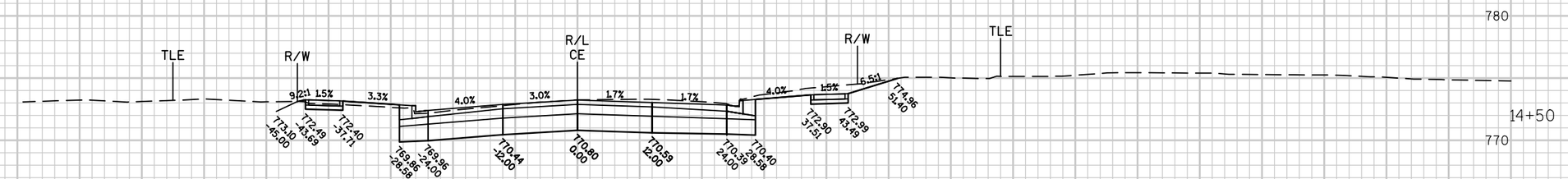
FILE NAME : W:\PDS\C3D\10603484\DSN\XS\090501_XS.DWG
LAYOUT NAME - 01_XS (1)

PLOT DATE : 7/30/2015 1:33 PM PLOT BY : SCHWENN, BRANDON C PLOT NAME :

PLOT SCALE : 1 IN:800 FT_XREF

WISDOT/CADDS SHEET 49





780
770
760
-150 -140 -130 -120 -110 -100 -90 -80 -70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150
15+00
14+50
5 FT
10 FT

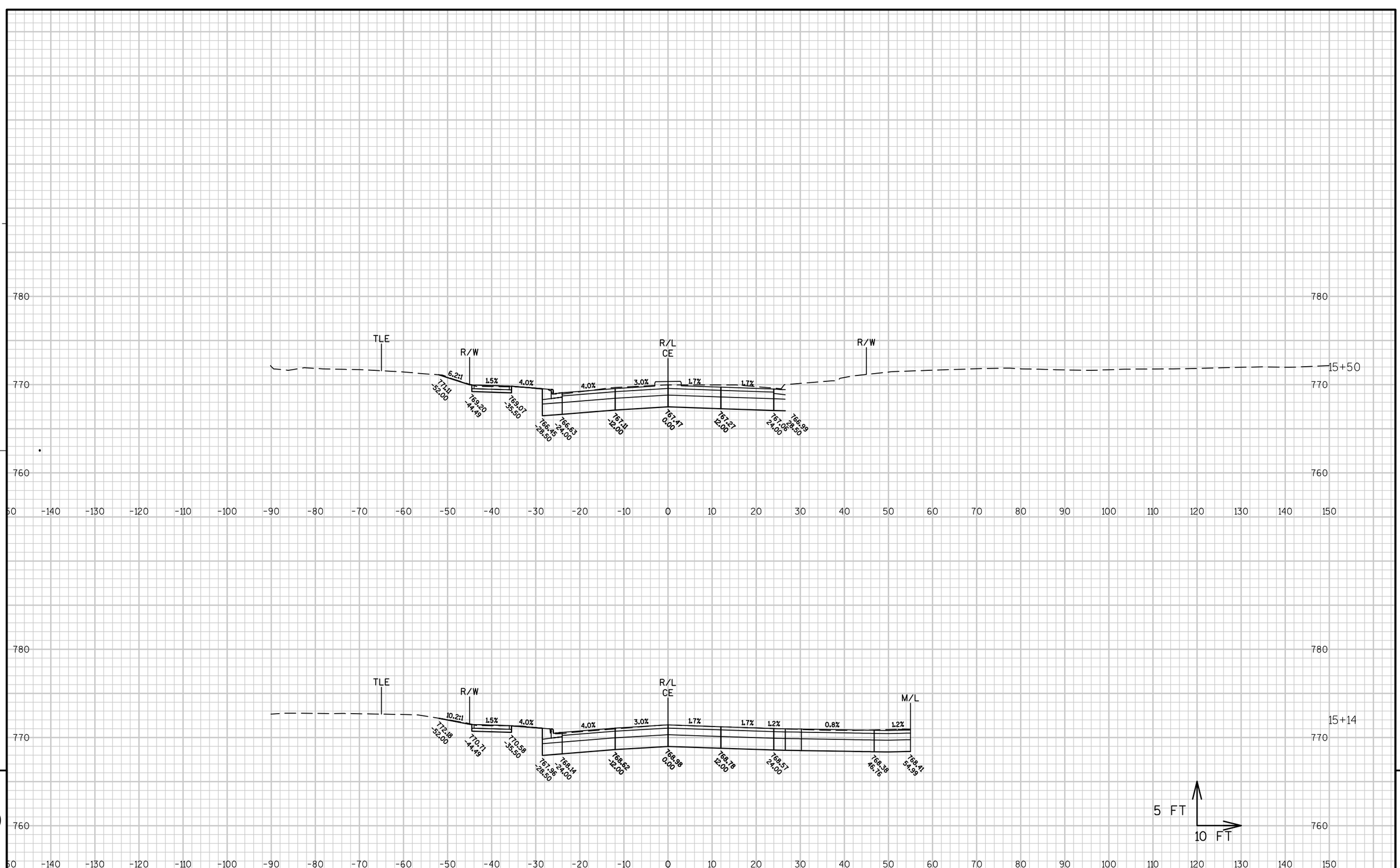
9

PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: CENTER STREET	SHEET 449	E

FILE NAME : W:\PDS\C3D\10603484\DSN\XS\090501_XS.DWG
LAYOUT NAME - 01_XS (2)

PLOT DATE : 7/30/2015 1:33 PM PLOT BY : SCHWENN, BRANDON C PLOT NAME :

PLOT SCALE : 1 IN:800 FT_XREF



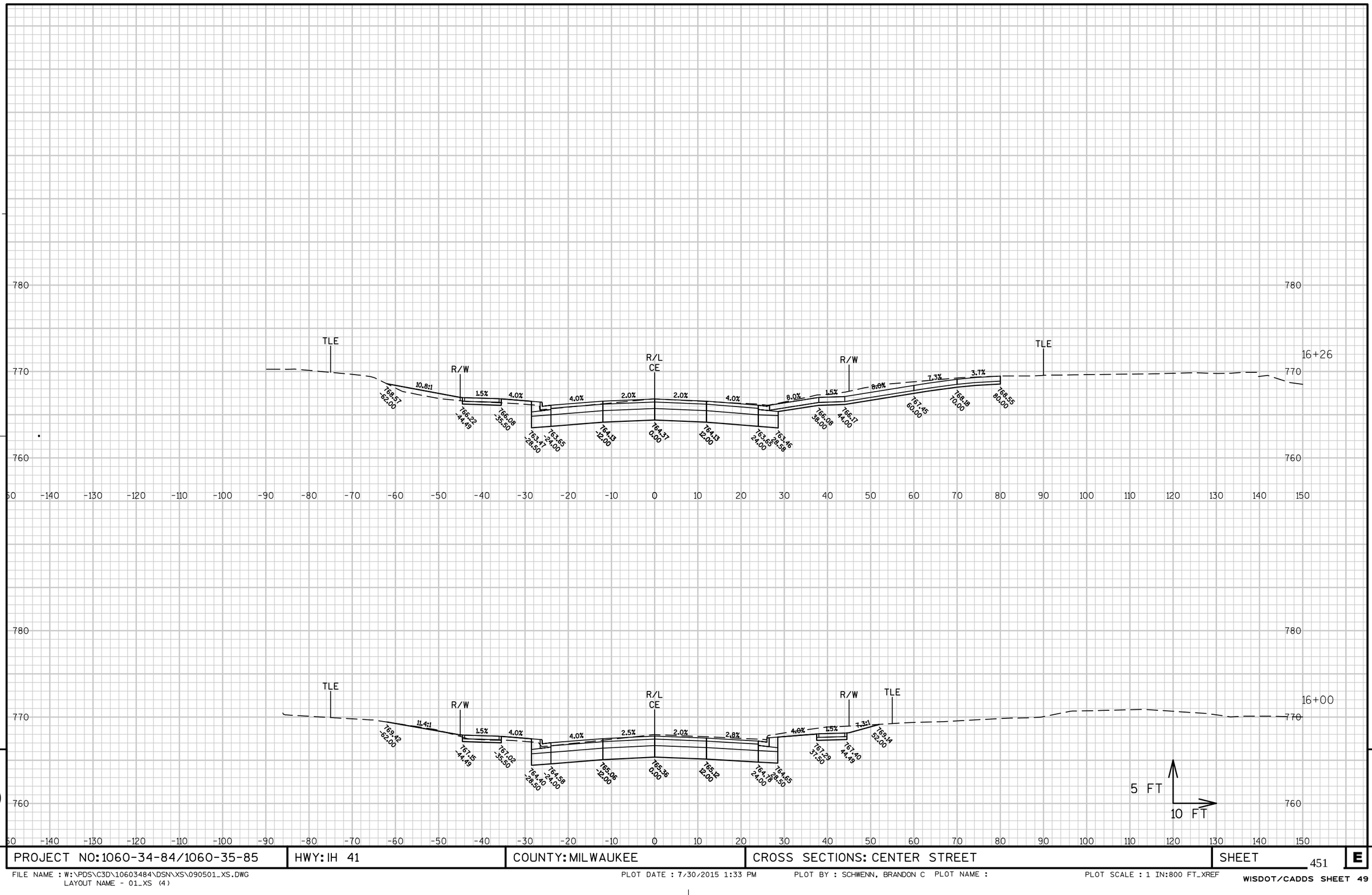
PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: CENTER STREET	SHEET 450 E

FILE NAME : W:\PDS\C3D\10603484\DSN\XS\090501_XS.DWG
LAYOUT NAME - 01_XS (3)

PLOT DATE : 7/30/2015 1:33 PM PLOT BY : SCHWENN, BRANDON C PLOT NAME :

PLOT SCALE : 1 IN:800 FT_XREF

WISDOT/CADDS SHEET 49



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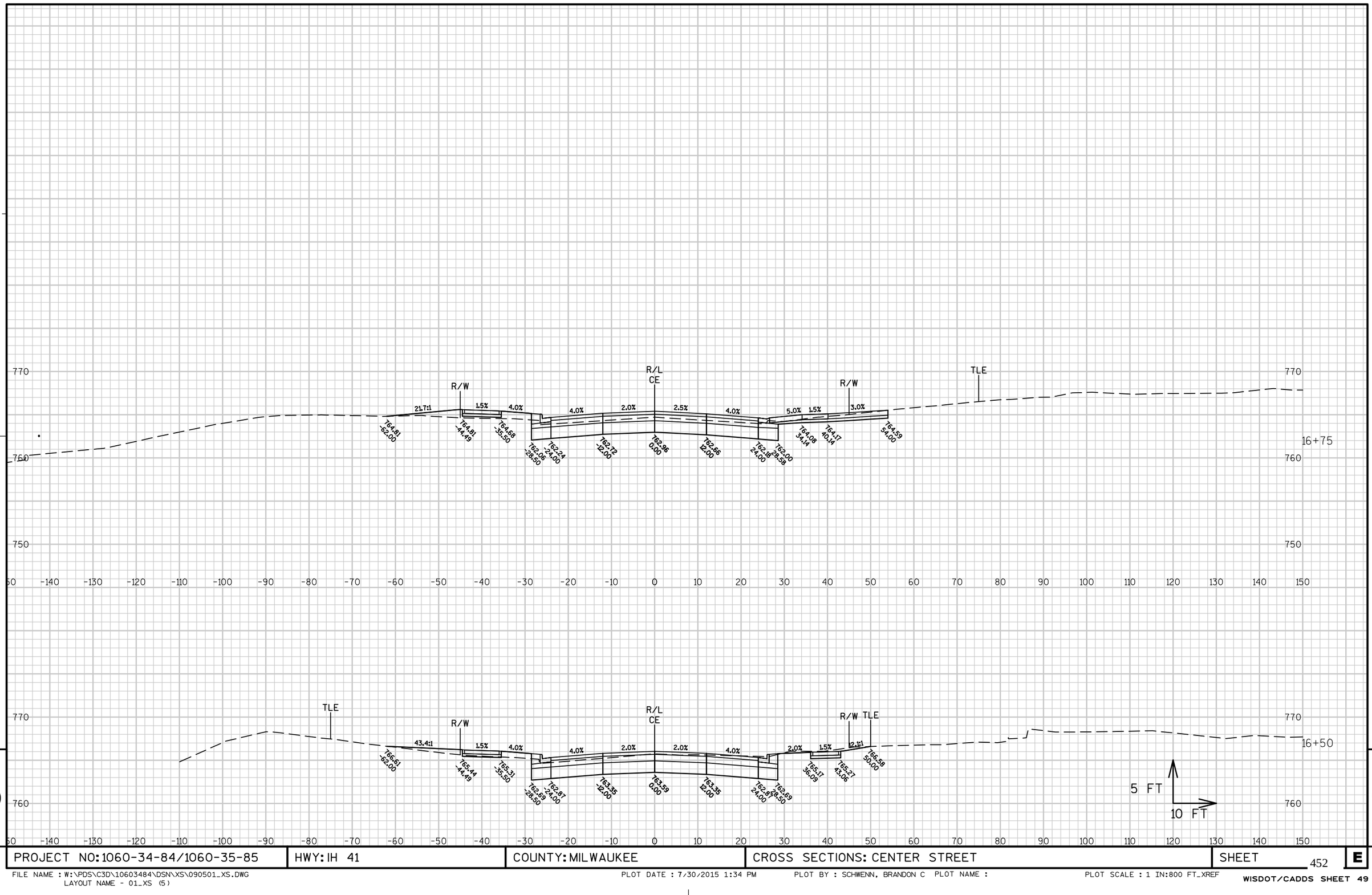
PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: CENTER STREET	SHEET 451	E

FILE NAME : W:\PDS\C3D\10603484\DSN\XS\090501_XS.DWG
LAYOUT NAME - 01_XS (4)

PLOT DATE : 7/30/2015 1:33 PM PLOT BY : SCHWENN, BRANDON C PLOT NAME :

PLOT SCALE : 1 IN:800 FT_XREF

WISDOT/CADDS SHEET 49



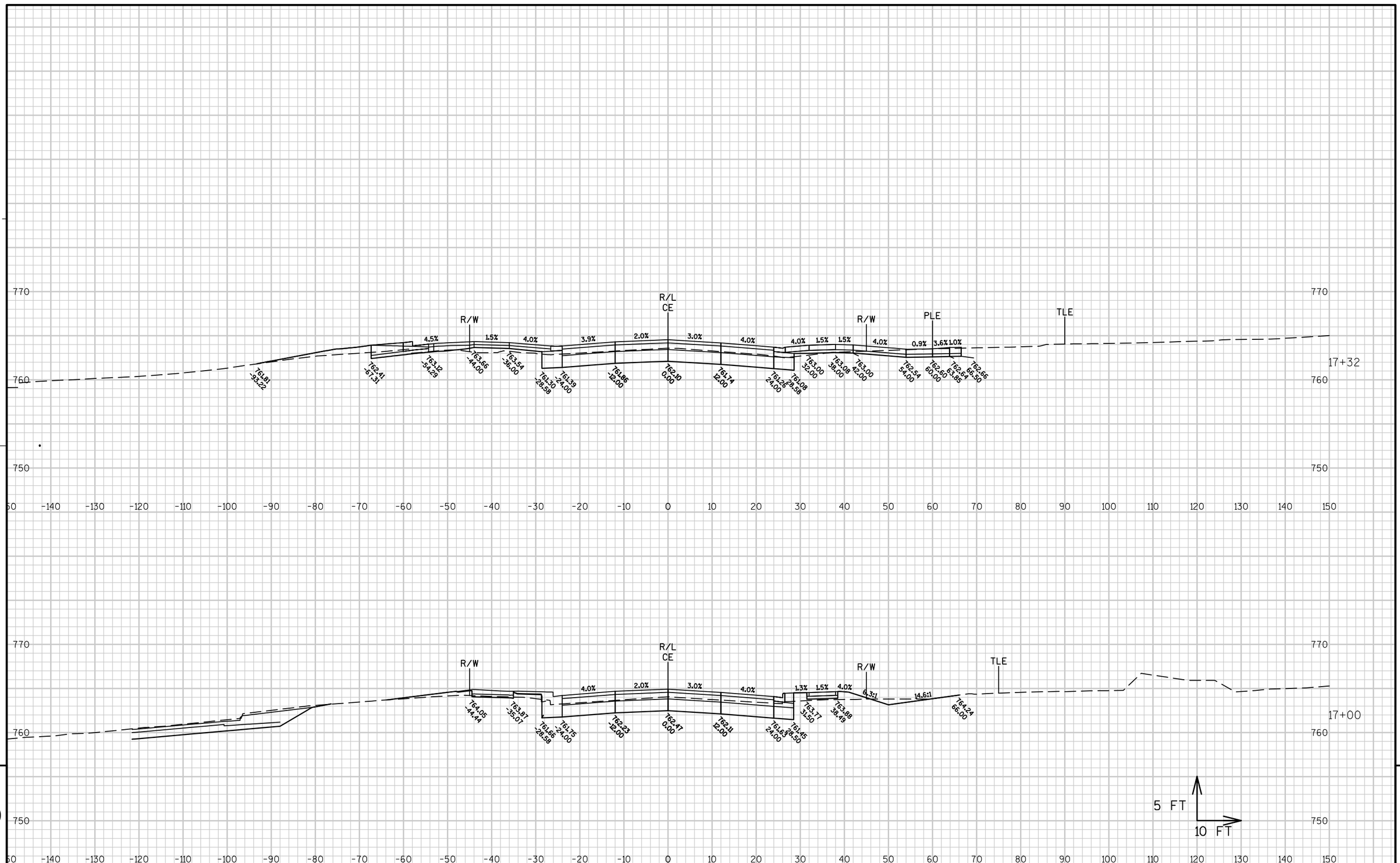
PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: CENTER STREET	SHEET 452	E

FILE NAME : W:\PDS\C3D\10603484\DSN\XS\090501_XS.DWG
LAYOUT NAME - 01_XS (5)

PLOT DATE : 7/30/2015 1:34 PM PLOT BY : SCHWENN, BRANDON C PLOT NAME :

PLOT SCALE : 1 IN:800 FT_XREF

WISDOT/CADDS SHEET 49



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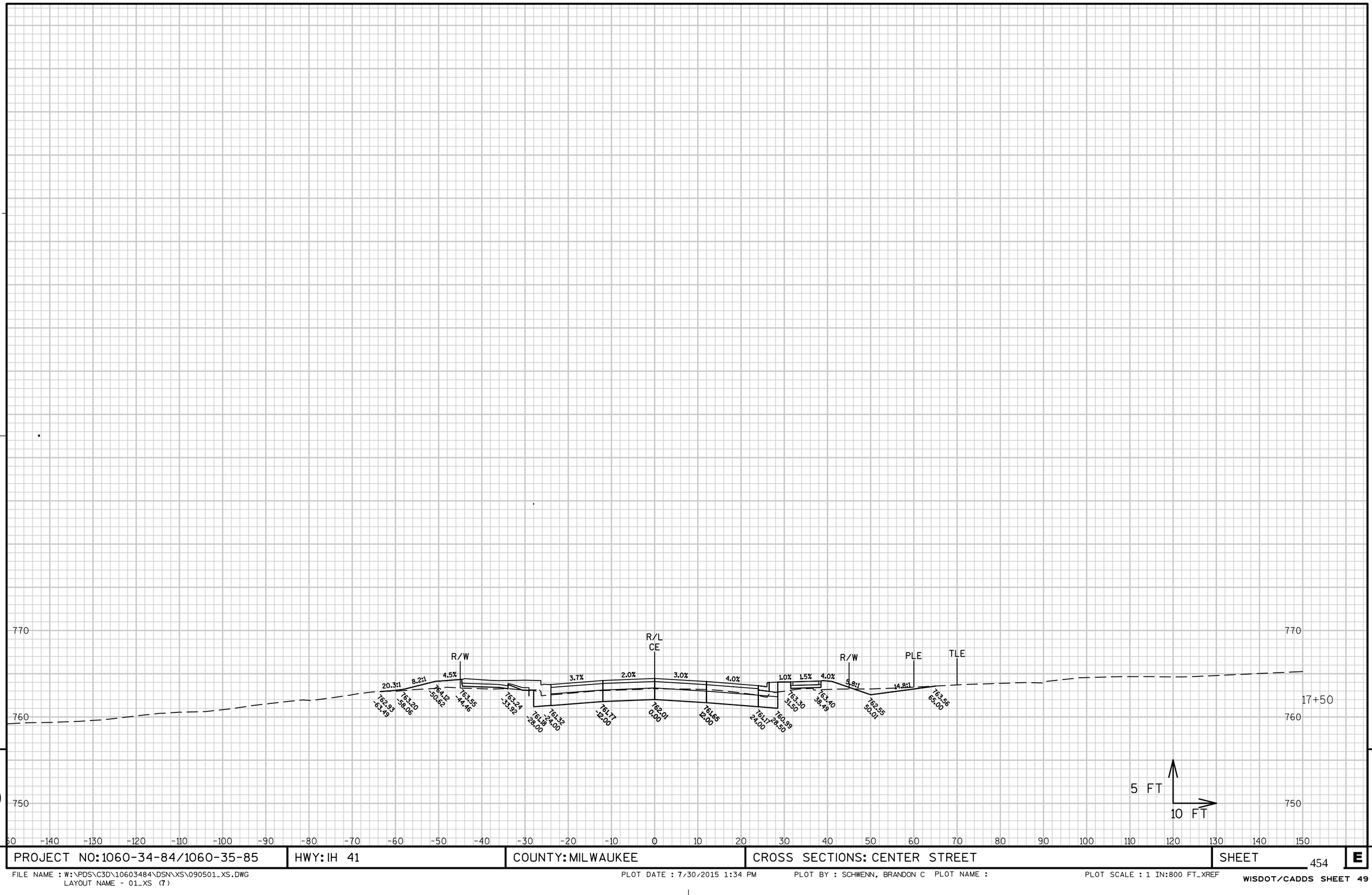

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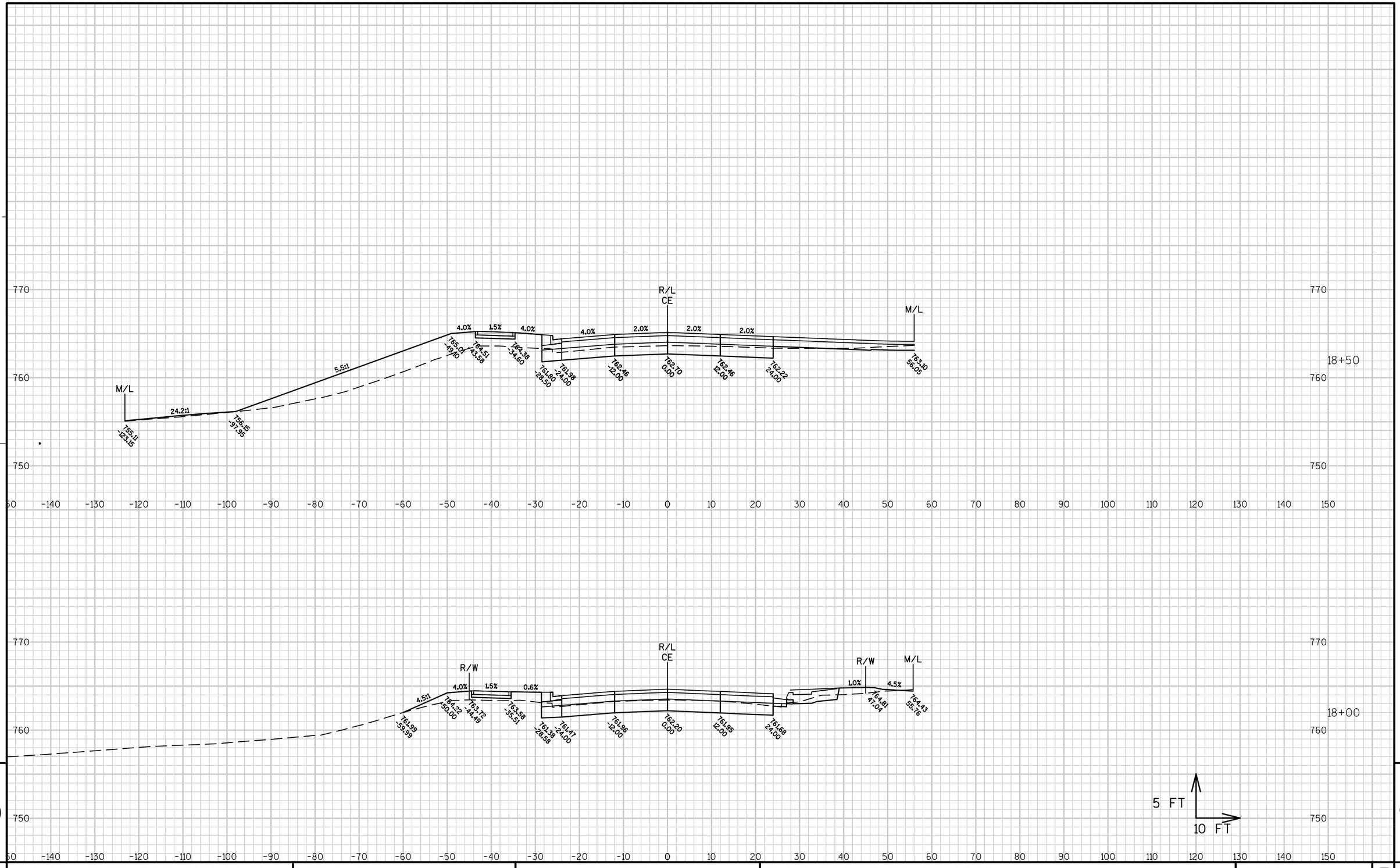
PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: CENTER STREET	SHEET 454	E

FILE NAME : W:\PDS\C3D\10603484\DSN\XS\090501_XS.DWG
LAYOUT NAME - 01_XS (7)

PLOT DATE : 7/30/2015 1:34 PM PLOT BY : SCHWENN, BRANDON C PLOT NAME :

PLOT SCALE : 1 IN:800 FT_XREF



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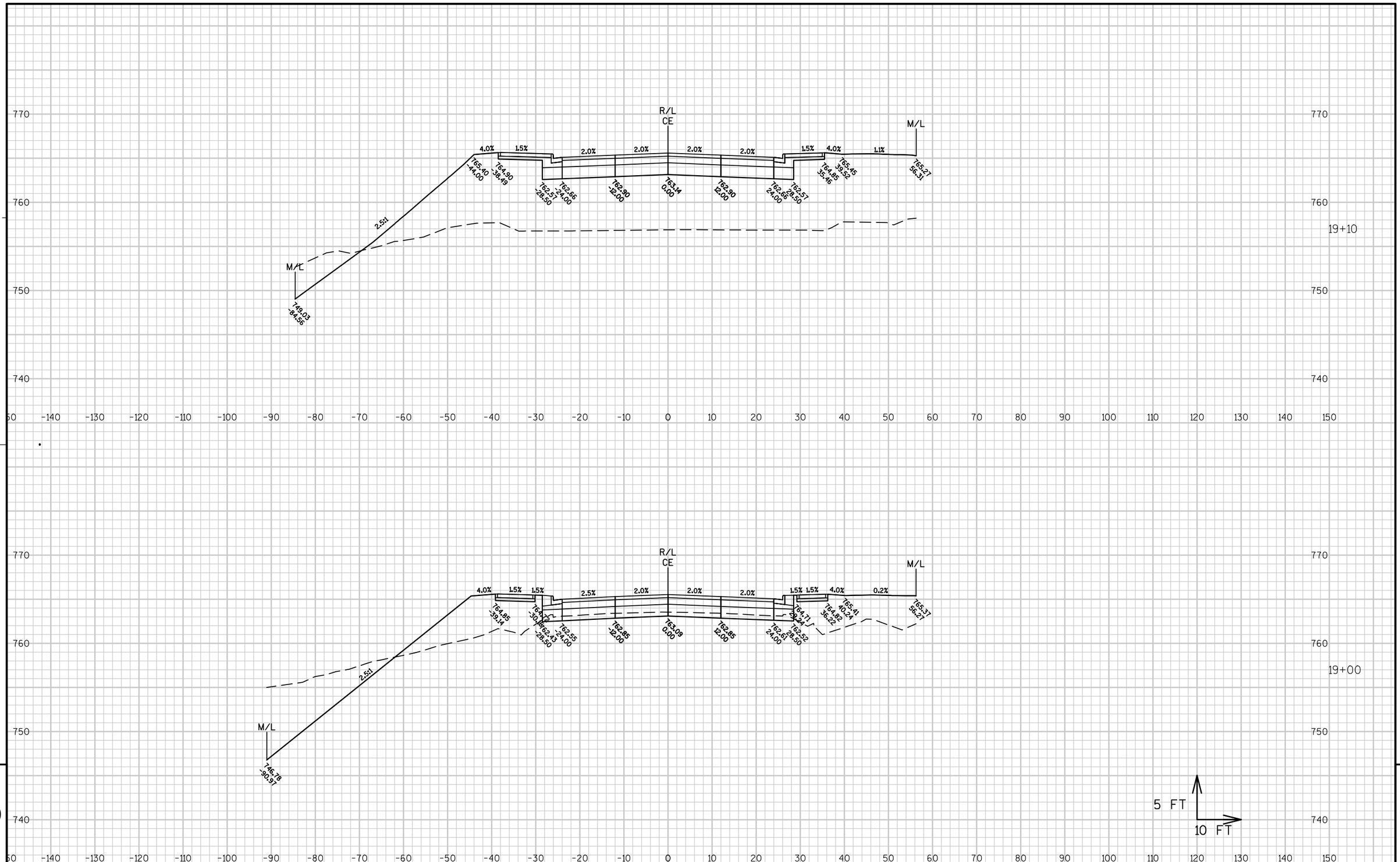
PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: CENTER STREET	SHEET 455	E

FILE NAME : W:\PDS\C3D\10603484\DSN\XS\090501_XS.DWG
LAYOUT NAME - 01_XS (8)

PLOT DATE : 7/30/2015 1:34 PM

PLOT BY : SCHWENN, BRANDON C PLOT NAME :

PLOT SCALE : 1 IN:800 FT_XREF



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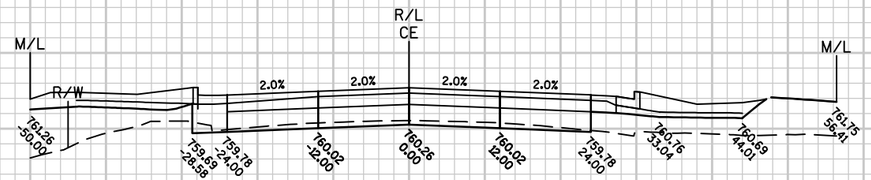
PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: CENTER STREET	SHEET 456	E

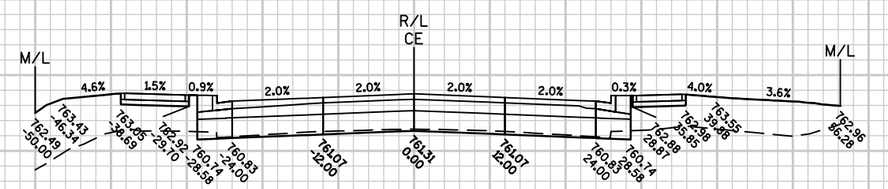
FILE NAME : W:\PDS\C3D\10603484\DSN\XS\090501_XS.DWG
LAYOUT NAME - 01_XS (9)

PLOT DATE : 7/30/2015 1:34 PM

PLOT BY : SCHWENN, BRANDON C PLOT NAME :

PLOT SCALE : 1 IN:800 FT_XREF





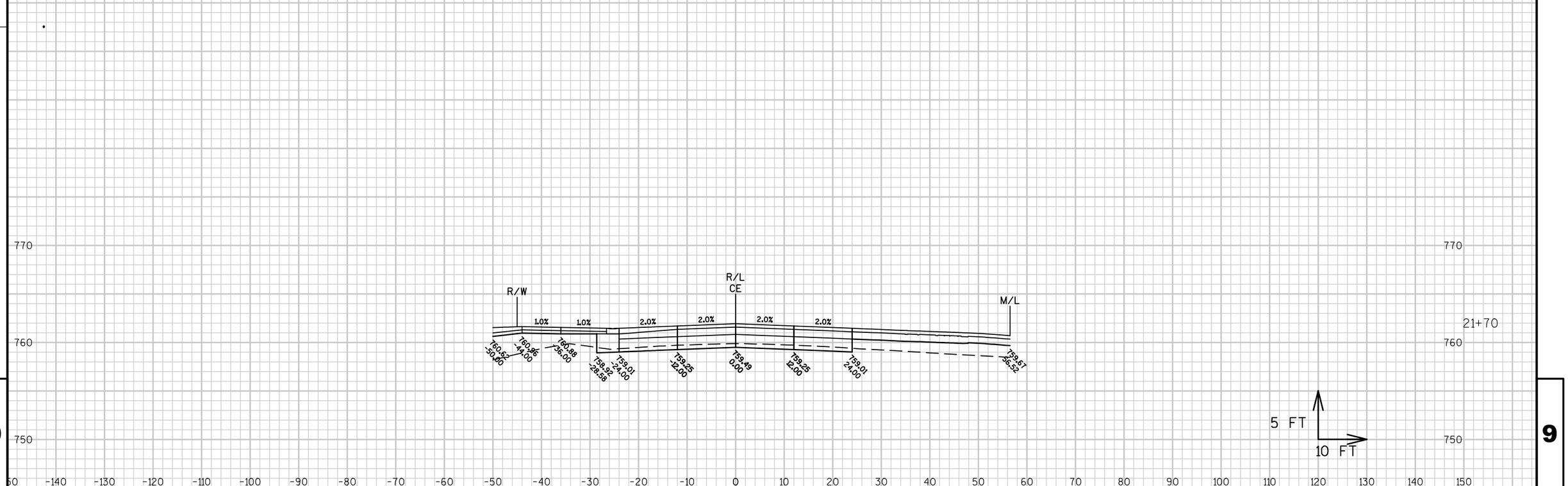
PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: CENTER STREET	SHEET 457	E

FILE NAME : W:\PDS\C3D\10603484\DSN\XS\090501_XS.DWG
LAYOUT NAME - 01_XS (10)

PLOT DATE : 7/30/2015 1:34 PM PLOT BY : SCHWENN, BRANDON C PLOT NAME :

PLOT SCALE : 1 IN:800 FT_XREF

WISDOT/CADDS SHEET 49



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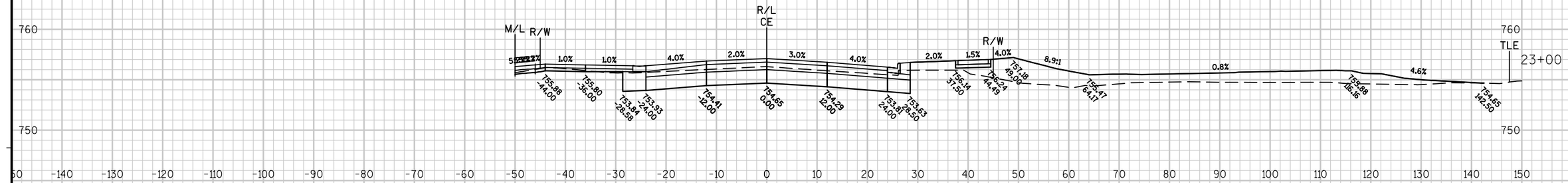
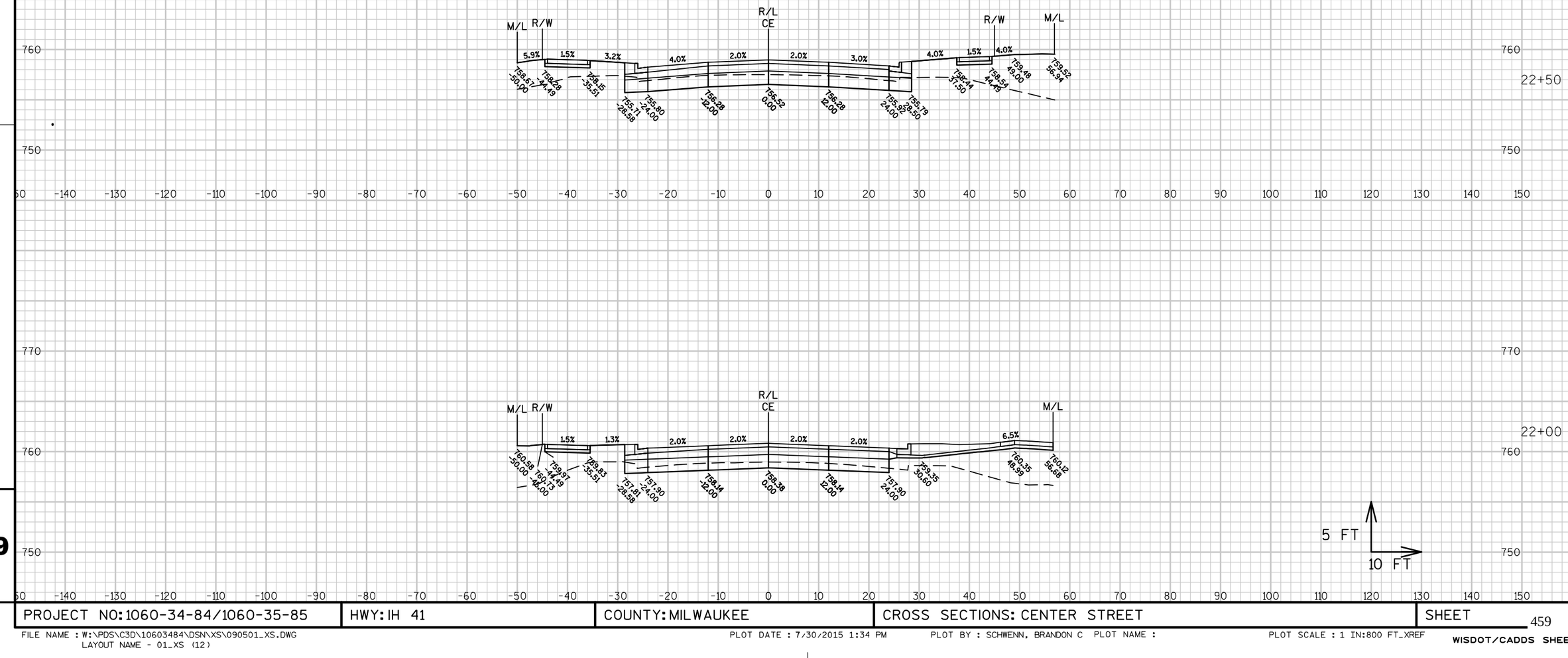
PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: CENTER STREET	SHEET 458	E

FILE NAME : W:\PDS\C3D\10603484\DSN\XS\090501_XS.DWG
LAYOUT NAME - 01_XS (11)

PLOT DATE : 7/30/2015 1:34 PM PLOT BY : SCHWENN, BRANDON C PLOT NAME :

PLOT SCALE : 1 IN:800 FT_XREF





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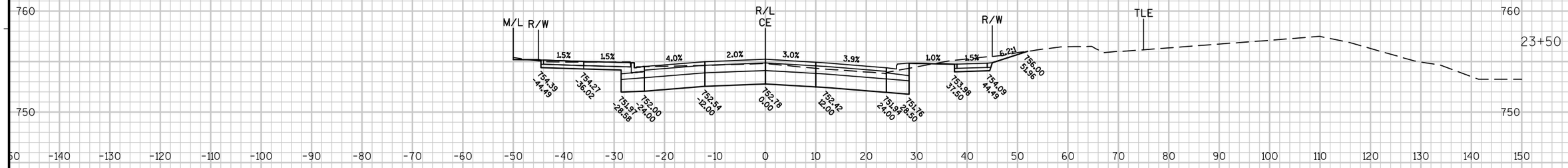
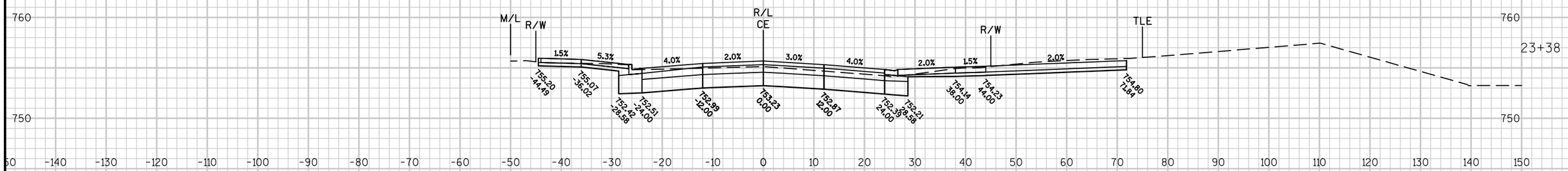
PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: CENTER STREET	SHEET 459	E

FILE NAME : W:\PDS\C3D\10603484\DSN\XS\090501_XS.DWG
LAYOUT NAME - 01_XS (12)
PLOT DATE : 7/30/2015 1:34 PM
PLOT BY : SCHWENN, BRANDON C PLOT NAME :
PLOT SCALE : 1 IN:800 FT_XREF
WISDOT/CADDS SHEET 49





5 FT
10 FT

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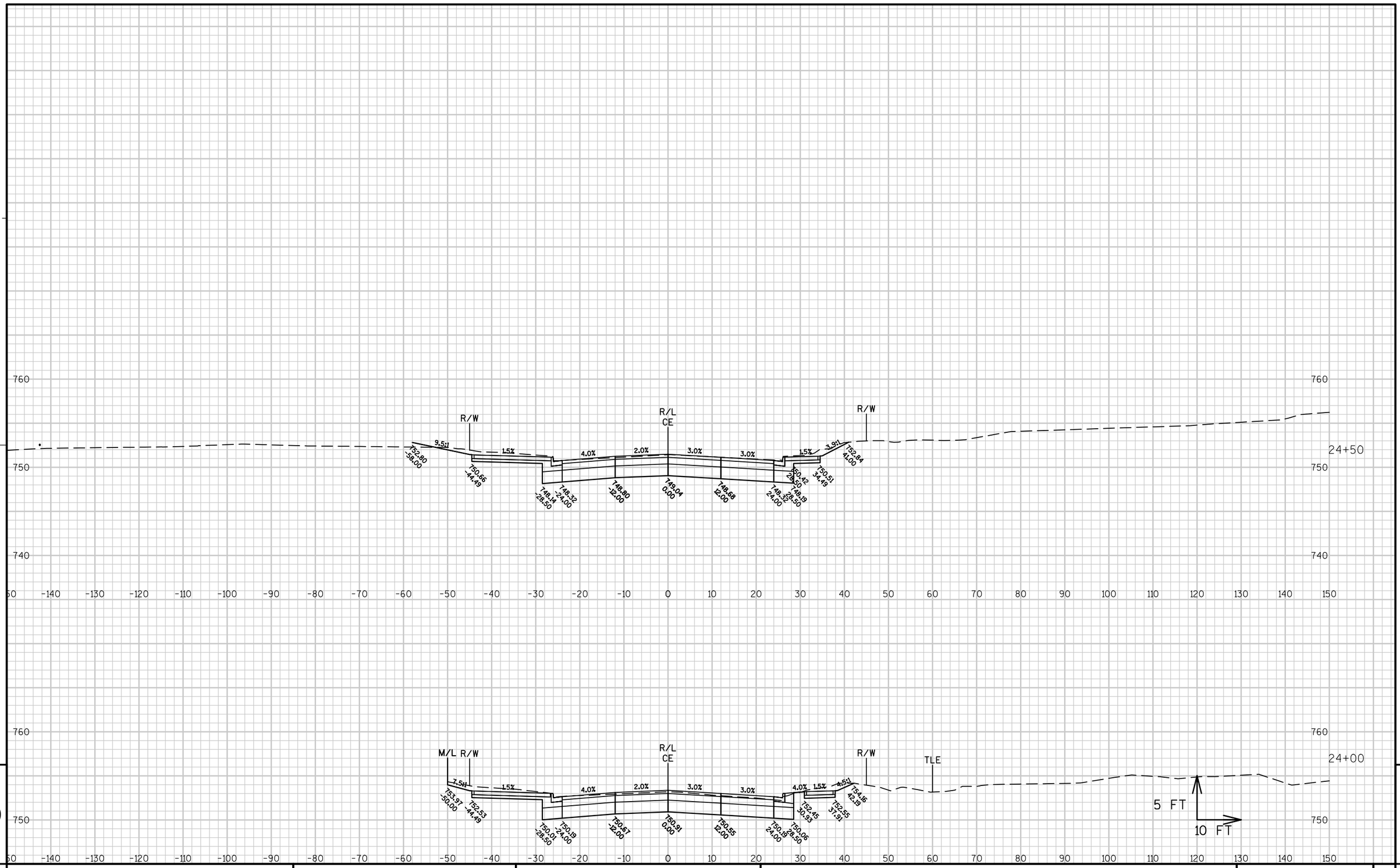
PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: CENTER STREET	SHEET 460	E



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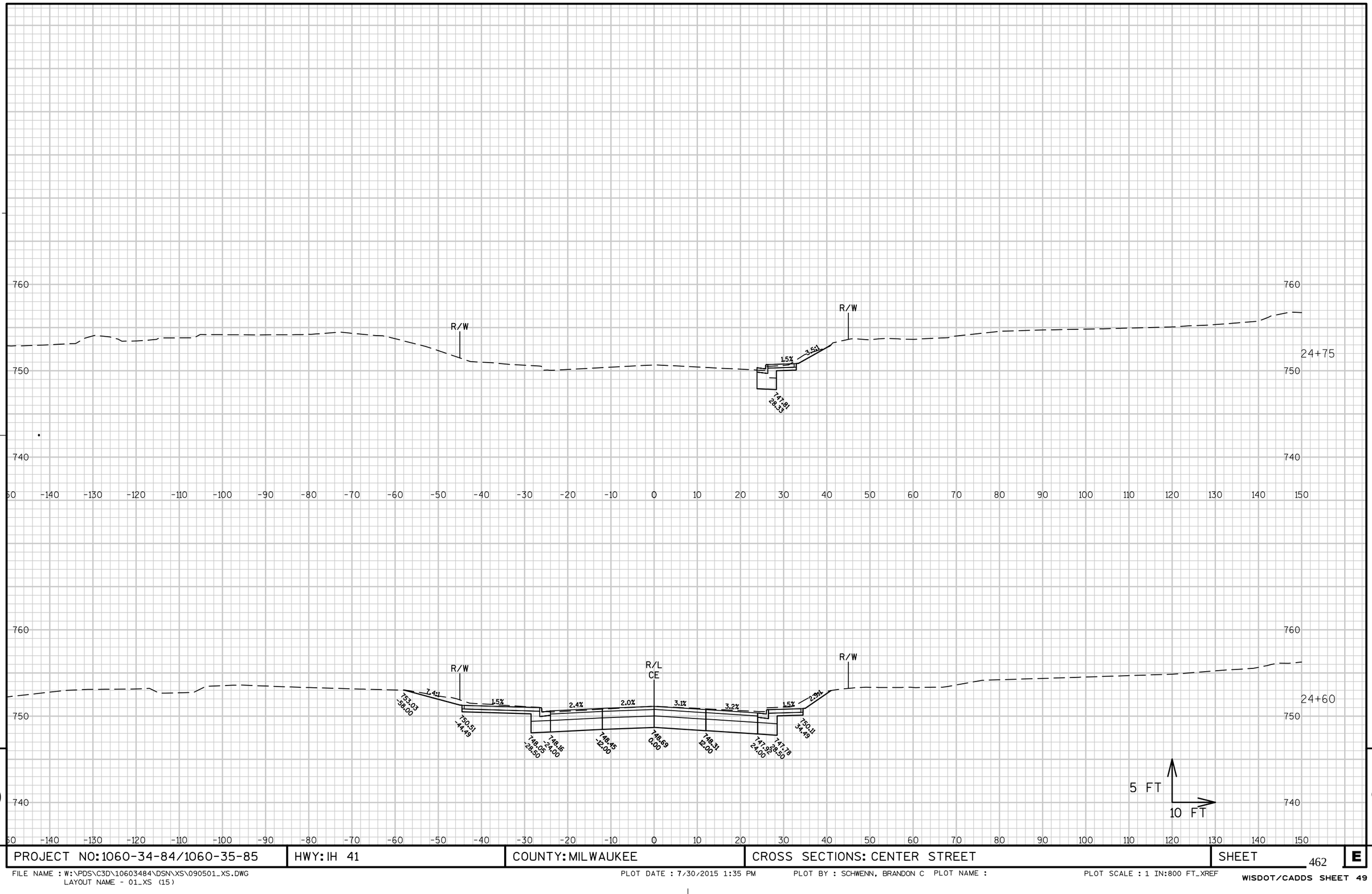
PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: CENTER STREET	SHEET 461	E

FILE NAME : W:\PDS\C3D\10603484\DSN\XS\090501_XS.DWG
LAYOUT NAME - 01_XS (14)

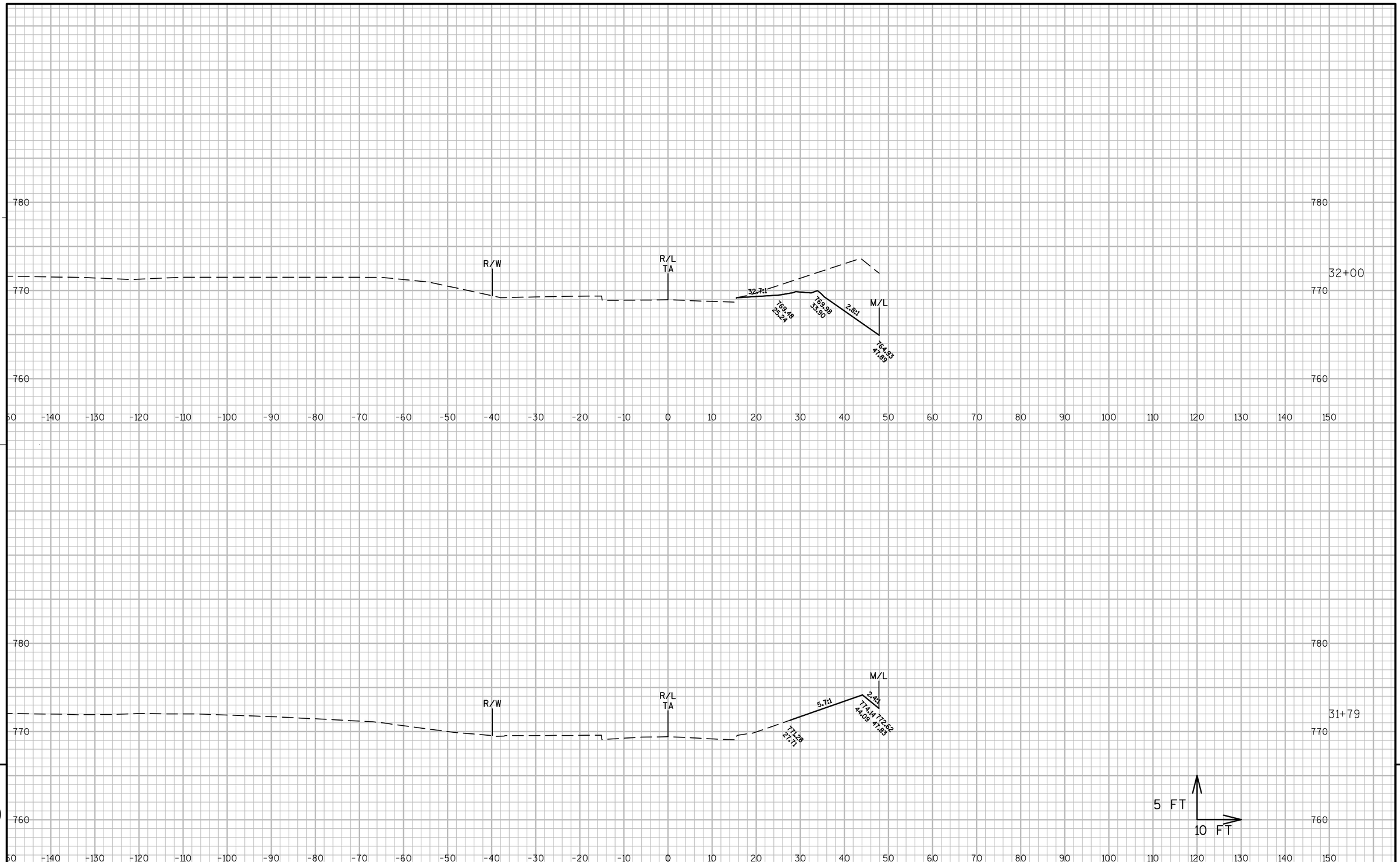
PLOT DATE : 7/30/2015 1:35 PM PLOT BY : SCHWENN, BRANDON C PLOT NAME : PLOT SCALE : 1 IN:800 FT_XREF



PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: CENTER STREET	SHEET 462 E

FILE NAME : W:\PDS\C3D\10603484\DSN\XS\090501_XS.DWG
LAYOUT NAME - 01_XS (15)

PLOT DATE : 7/30/2015 1:35 PM PLOT BY : SCHWENN, BRANDON C PLOT NAME : PLOT SCALE : 1 IN:800 FT_XREF



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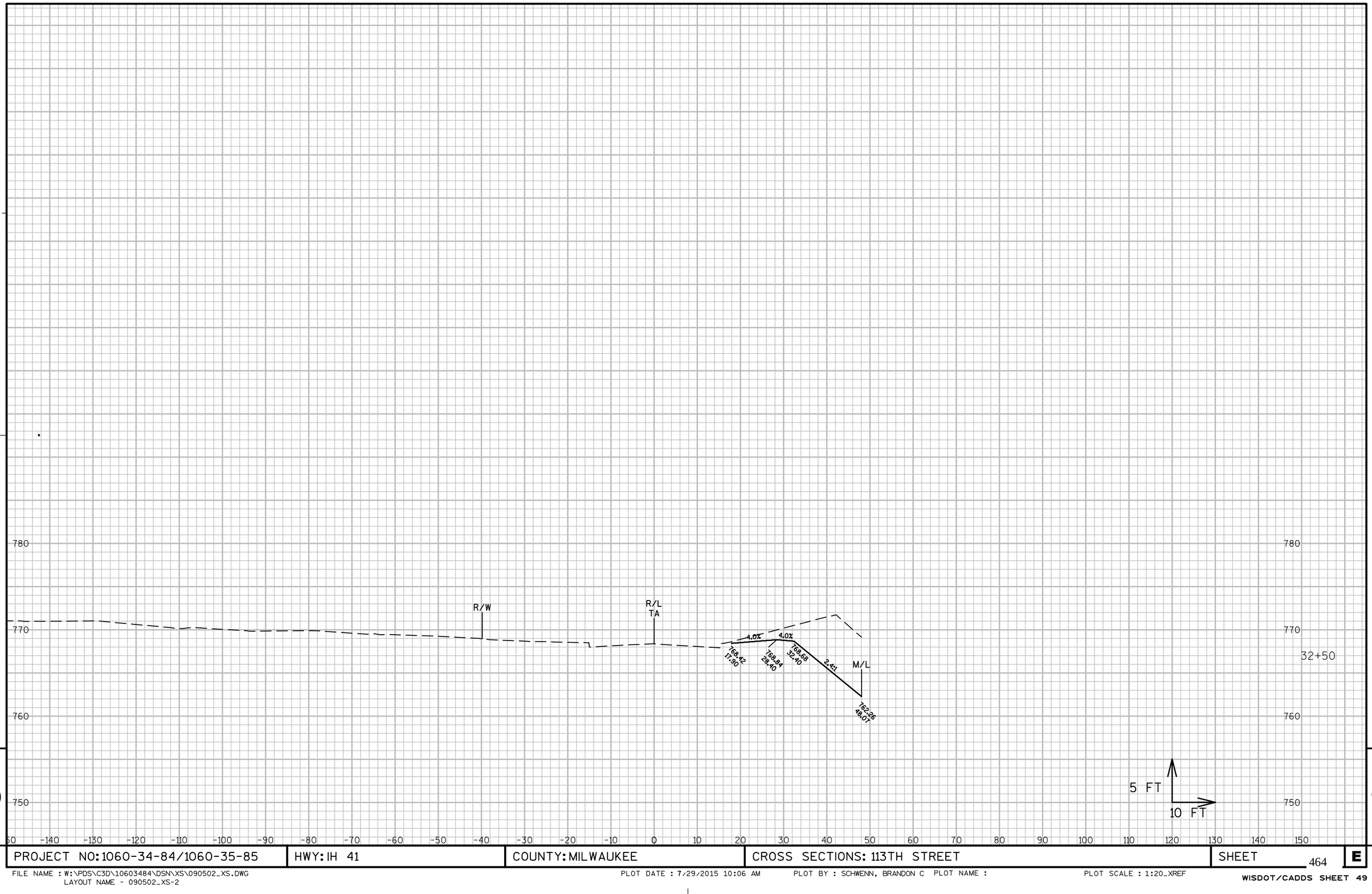
PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: 113TH STREET	SHEET 463 E

FILE NAME : W:\PDS\C3D\10603484\DSN\XS\090502_XS.DWG
LAYOUT NAME - 090502_XS-1

PLOT DATE : 7/29/2015 10:06 AM PLOT BY : SCHWENN, BRANDON C PLOT NAME : PLOT SCALE : 1:20_XREF



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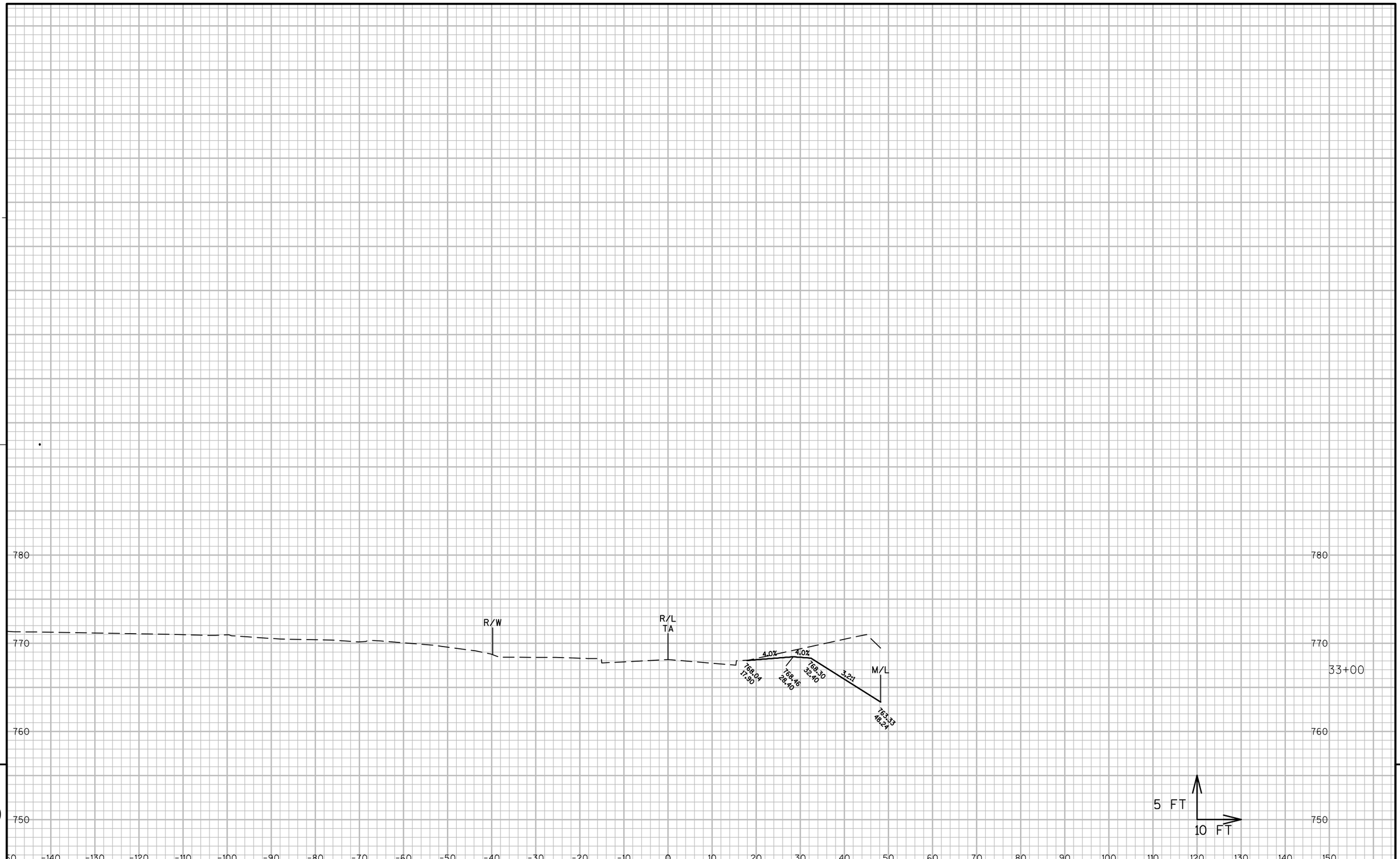
PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: 113TH STREET	SHEET 464	E

FILE NAME : W:\PDS\C3D\10603484\DSN\XS\090502_XS.DWG
LAYOUT NAME - 090502_XS-2

PLOT DATE : 7/29/2015 10:06 AM PLOT BY : SCHWENN, BRANDON C PLOT NAME : PLOT SCALE : 1:20_XREF

WISDOT/CADDS SHEET 49



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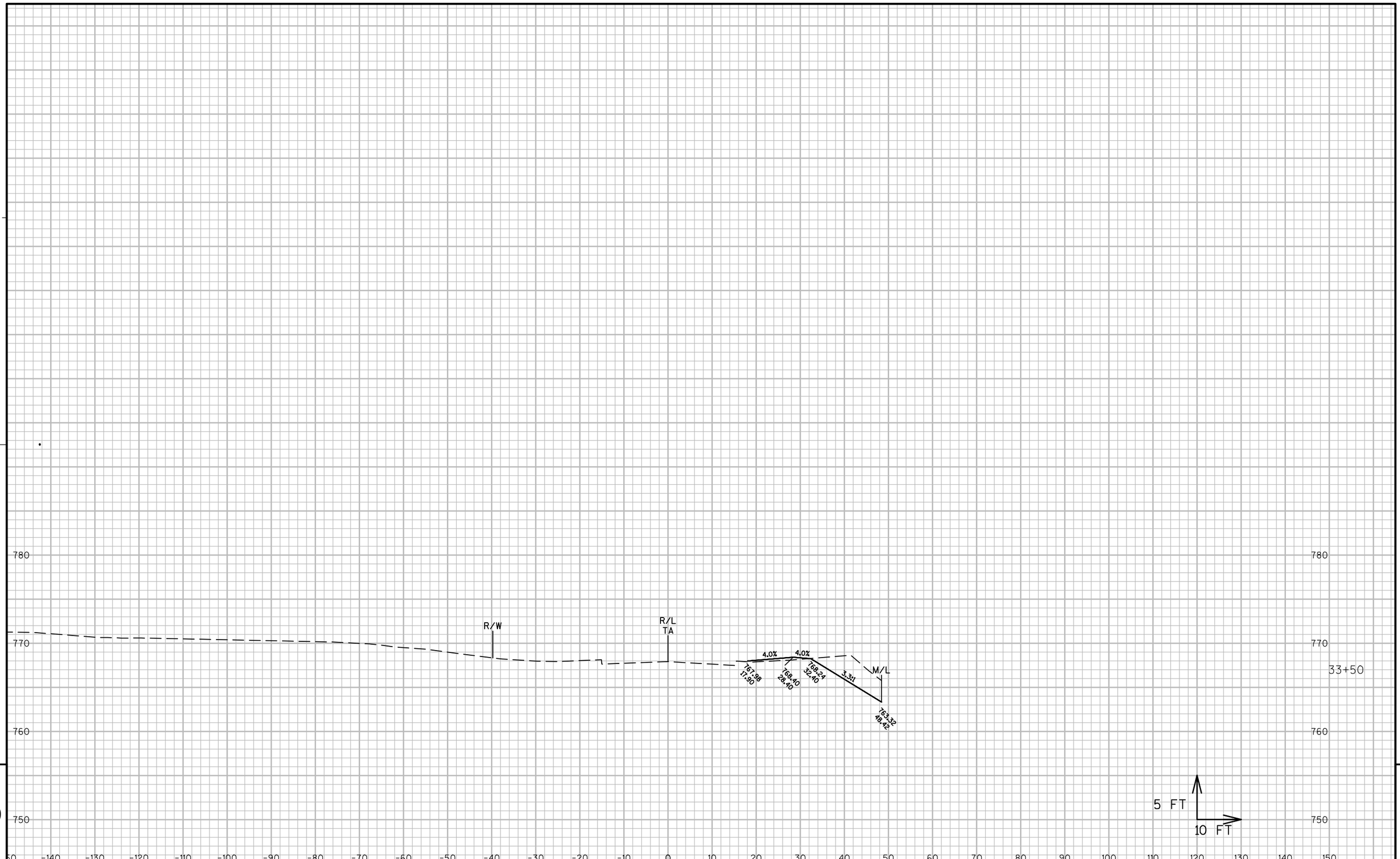
PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: 113TH STREET	SHEET 465	E

FILE NAME : W:\PDS\C3D\10603484\DSN\XS\090502_XS.DWG
LAYOUT NAME - 090502_XS-3

PLOT DATE : 7/29/2015 10:06 AM PLOT BY : SCHWENN, BRANDON C PLOT NAME : PLOT SCALE : 1:20_XREF



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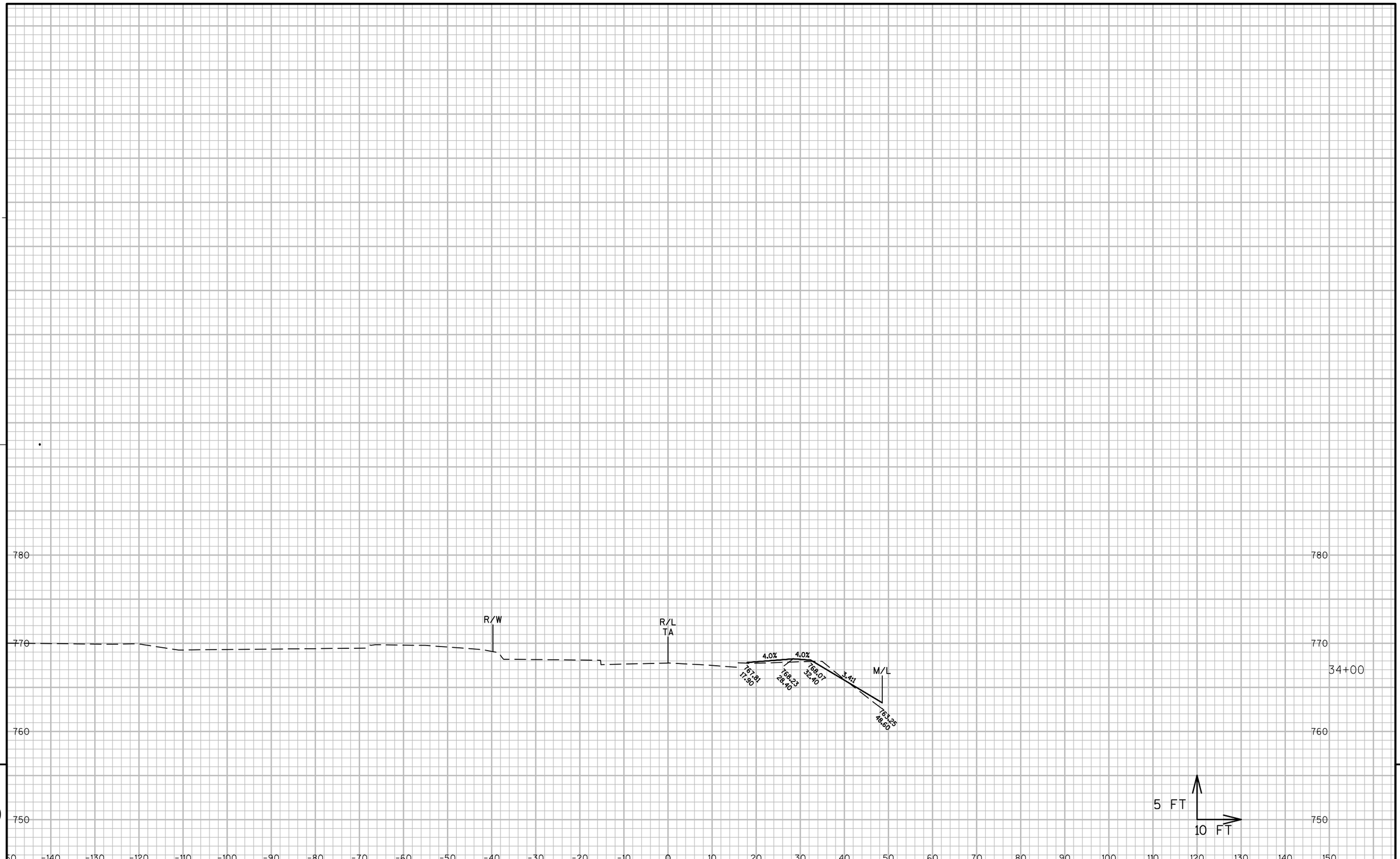
PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: 113TH STREET	SHEET 466	E

FILE NAME : W:\PDS\C3D\10603484\DSN\XS\090502_XS.DWG
LAYOUT NAME - 090502_XS-4

PLOT DATE : 7/29/2015 10:06 AM PLOT BY : SCHWENN, BRANDON C PLOT NAME : PLOT SCALE : 1:20_XREF



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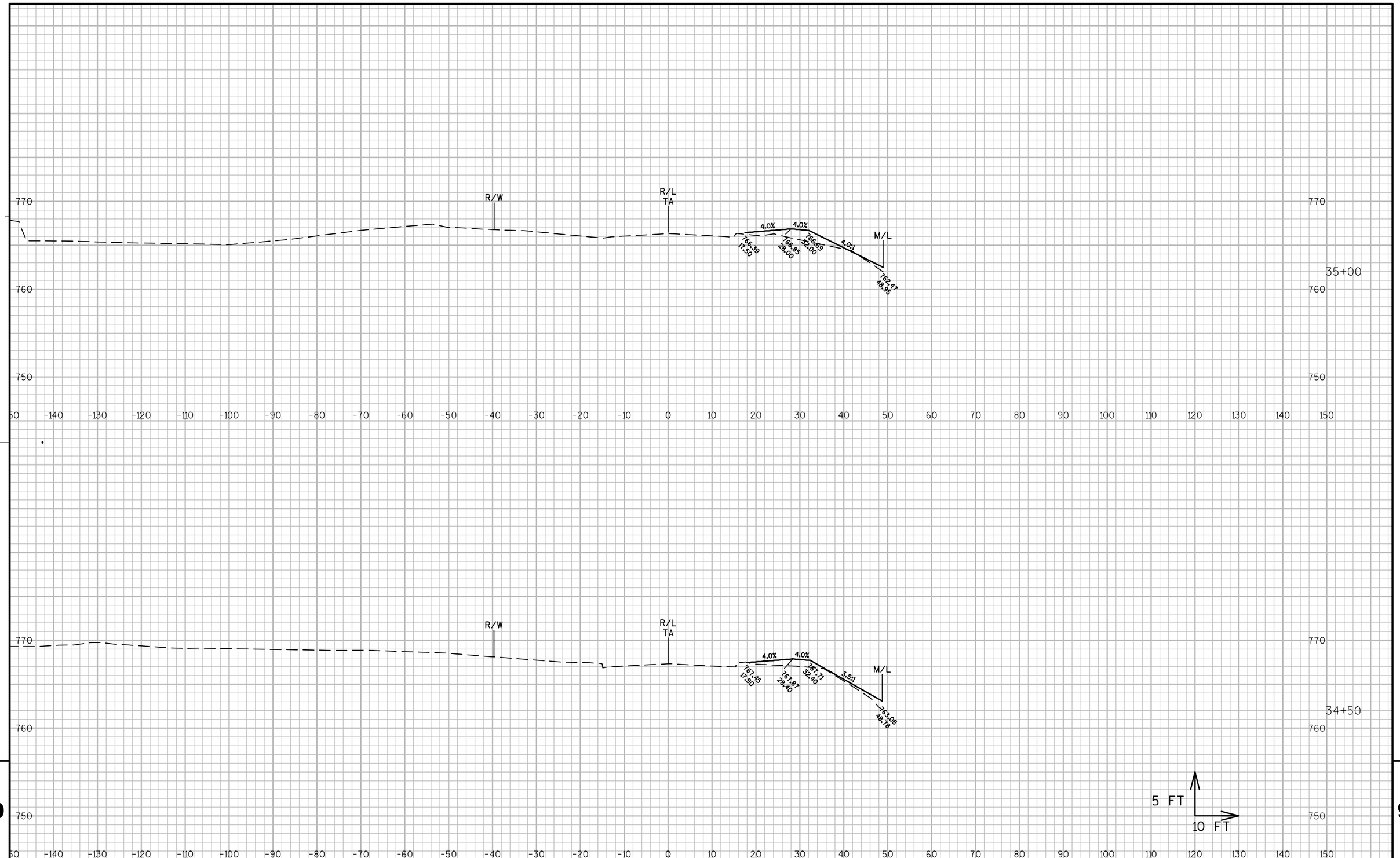
PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: 113TH STREET	SHEET 467	E

FILE NAME : W:\PDS\C3D\10603484\DSN\XS\090502_XS.DWG
LAYOUT NAME - 090502_XS-5

PLOT DATE : 7/29/2015 10:06 AM PLOT BY : SCHWENN, BRANDON C PLOT NAME : PLOT SCALE : 1:20_XREF



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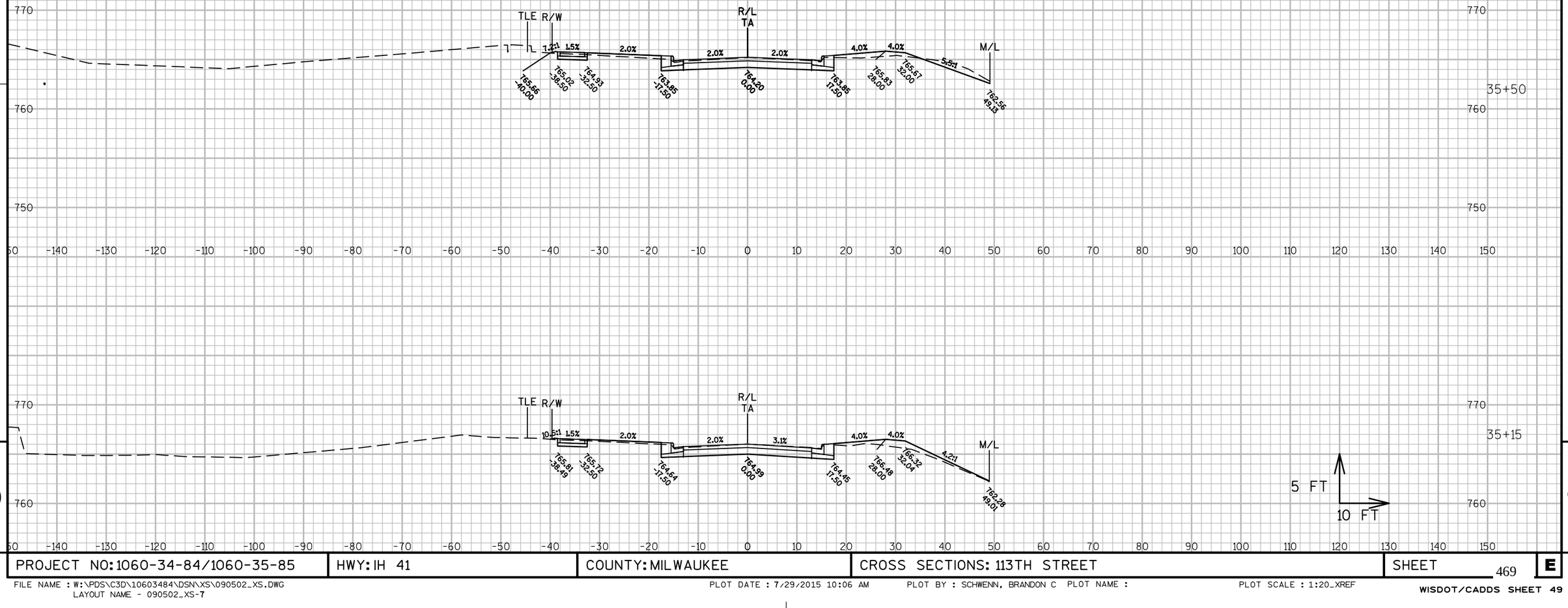
PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: 113TH STREET	SHEET 468	E

FILE NAME : W:\PDS\C3D\10603484\DSN\XS\090502_XS.DWG
LAYOUT NAME - 090502_XS-6

PLOT DATE : 7/29/2015 10:06 AM PLOT BY : SCHWENN, BRANDON C PLOT NAME : PLOT SCALE : 1:20_XREF

WISDOT/CADDS SHEET 49



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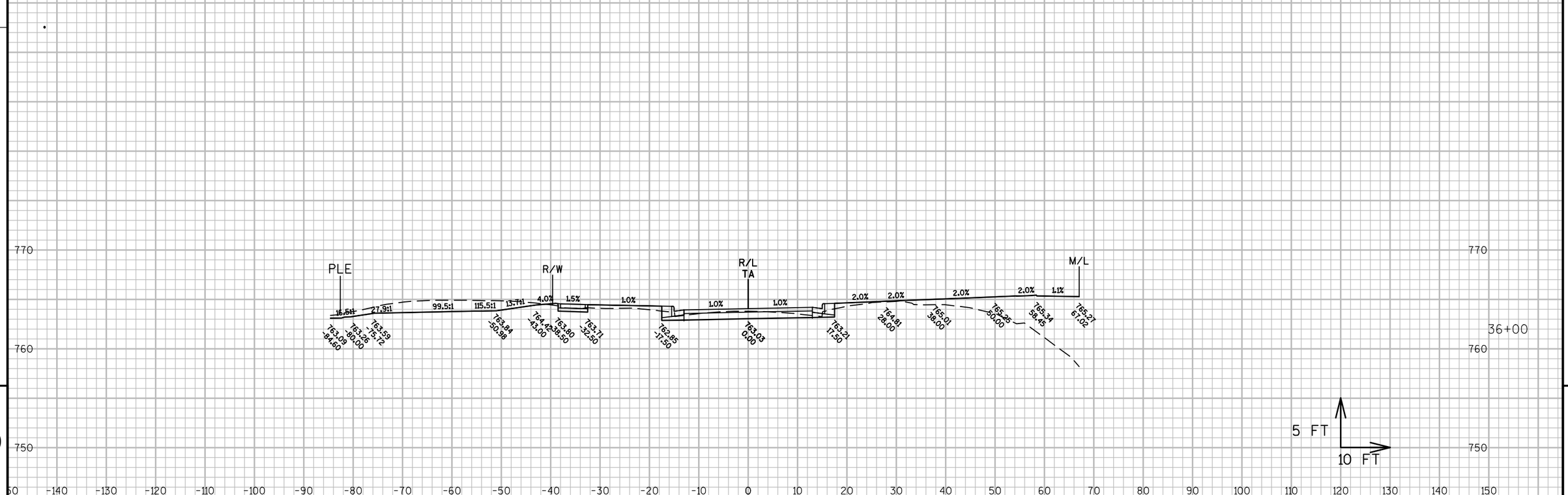
PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: 113TH STREET	SHEET 469	E

FILE NAME : W:\PDS\C3D\10603484\DSN\XS\090502_XS.DWG
LAYOUT NAME - 090502_XS-7

PLOT DATE : 7/29/2015 10:06 AM PLOT BY : SCHWENN, BRANDON C PLOT NAME : PLOT SCALE : 1:20_XREF

WISDOT/CADDS SHEET 49



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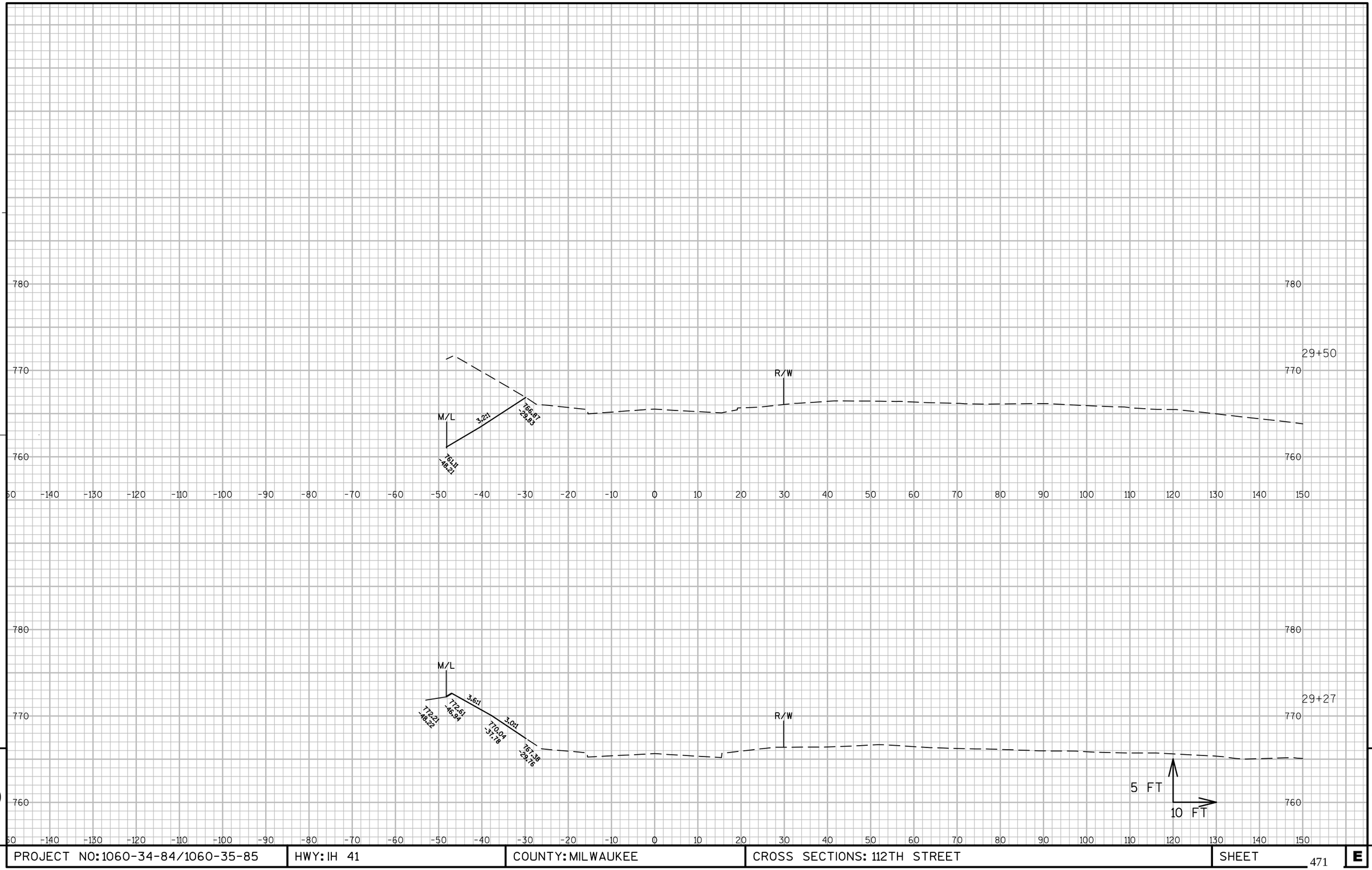
PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: 113TH STREET	SHEET 470	E

FILE NAME : W:\PDS\C3D\10603484\DSN\XS\090502_XS.DWG
LAYOUT NAME - 090502_XS-8
PLOT DATE : 7/29/2015 10:06 AM
PLOT BY : SCHWENN, BRANDON C PLOT NAME :
PLOT SCALE : 1:20_XREF
WISDOT/CADDS SHEET 49



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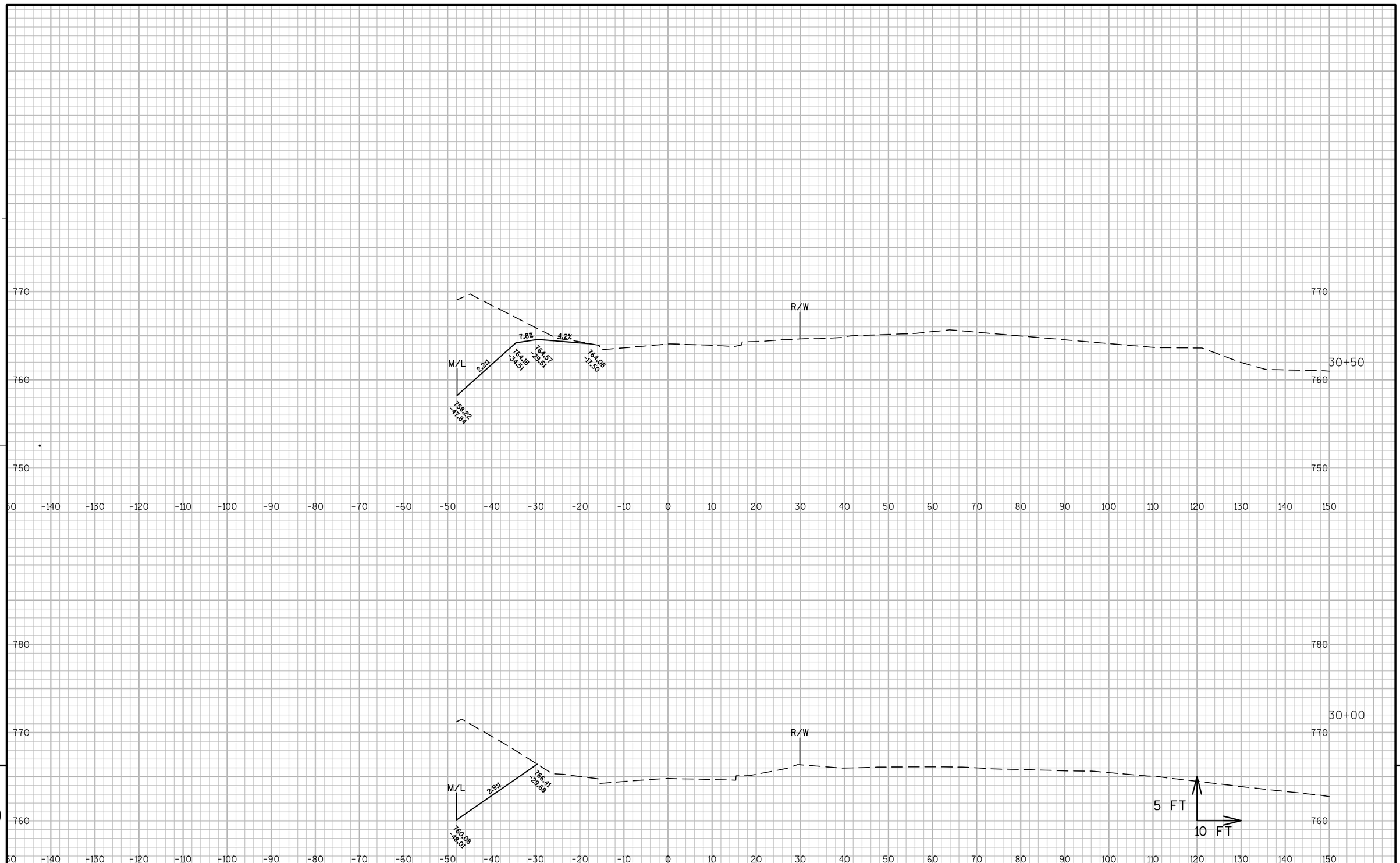
PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: 112TH STREET	SHEET 471	E

FILE NAME : W:\PDS\C3D\10603484\DSN\XS\090503_XS.DWG
LAYOUT NAME - 090503_XS-1

PLOT DATE : 7/29/2015 12:47 PM PLOT BY : SCHWENN, BRANDON C PLOT NAME : PLOT SCALE : 1:20_XREF

WISDOT/CADDS SHEET 49

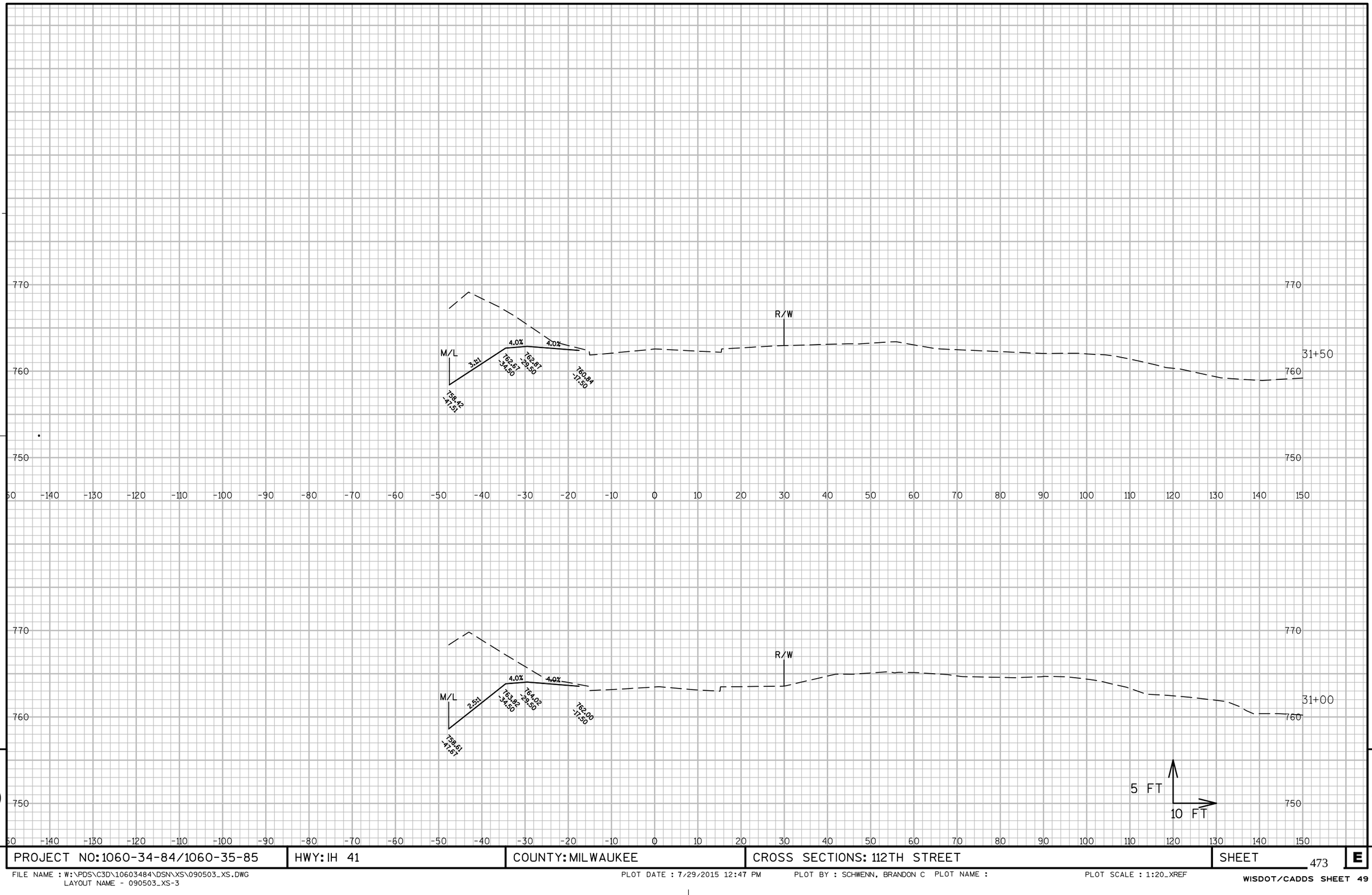


PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: 112TH STREET	SHEET 472 E

FILE NAME : W:\PDS\C3D\10603484\DSN\XS\090503_XS.DWG
LAYOUT NAME - 090503_XS-2

PLOT DATE : 7/29/2015 12:47 PM PLOT BY : SCHWENN, BRANDON C PLOT NAME : PLOT SCALE : 1:20_XREF

WISDOT/CADDS SHEET 49



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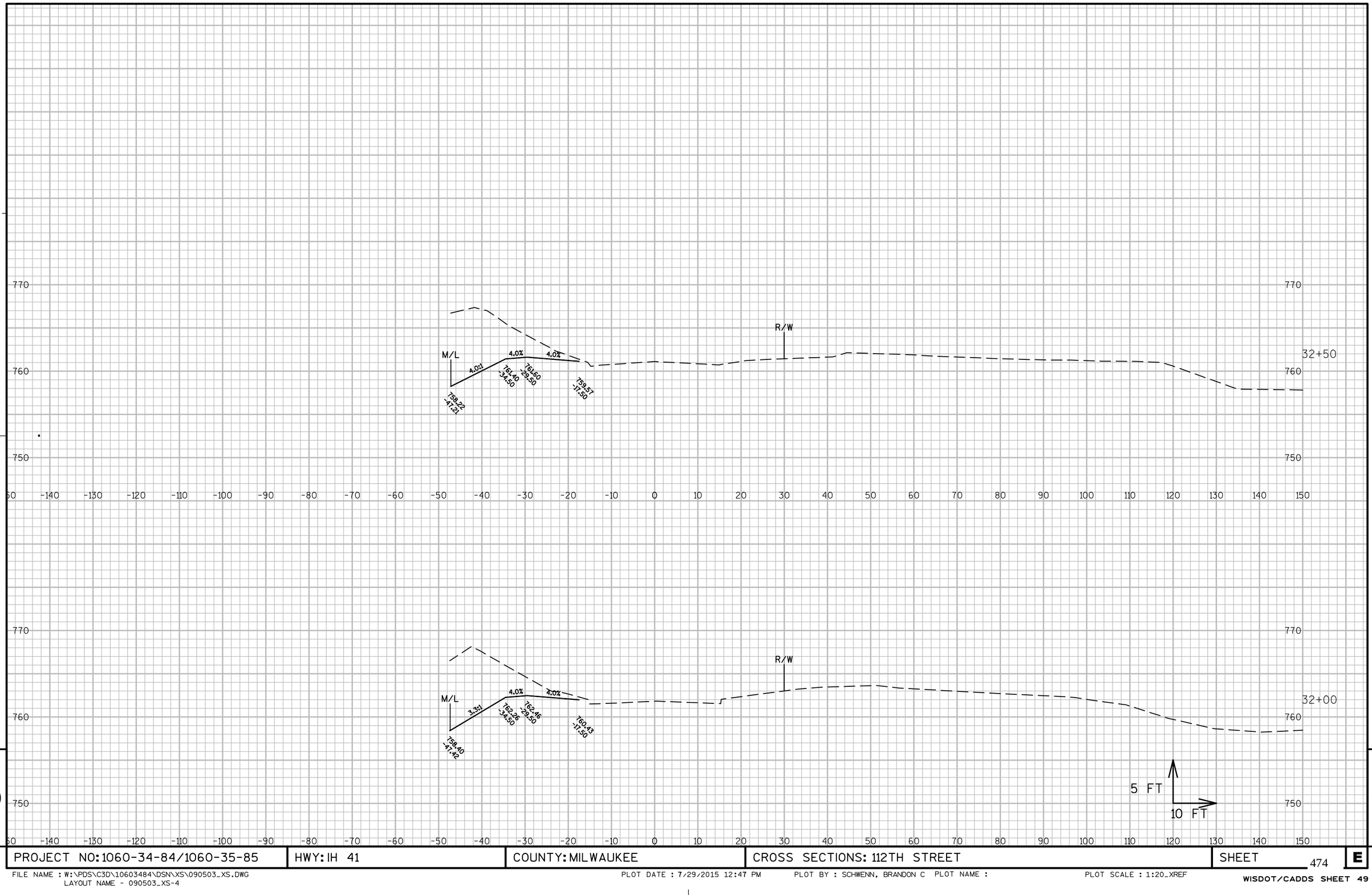
PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: 112TH STREET	SHEET 473	E

FILE NAME : W:\PDS\C3D\10603484\DSN\XS\090503_XS.DWG
LAYOUT NAME - 090503_XS-3

PLOT DATE : 7/29/2015 12:47 PM PLOT BY : SCHWENN, BRANDON C PLOT NAME : PLOT SCALE : 1:20_XREF



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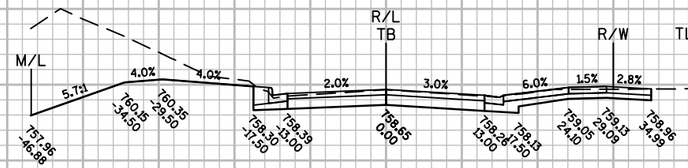
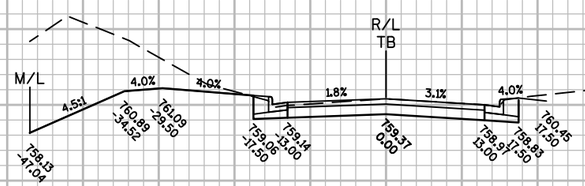
PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: 112TH STREET	SHEET 474	E

FILE NAME : W:\PDS\C3D\10603484\DSN\XS\090503_XS.DWG
LAYOUT NAME - 090503_XS-4

PLOT DATE : 7/29/2015 12:47 PM PLOT BY : SCHWENN, BRANDON C PLOT NAME : PLOT SCALE : 1:20_XREF



33+50



33+00

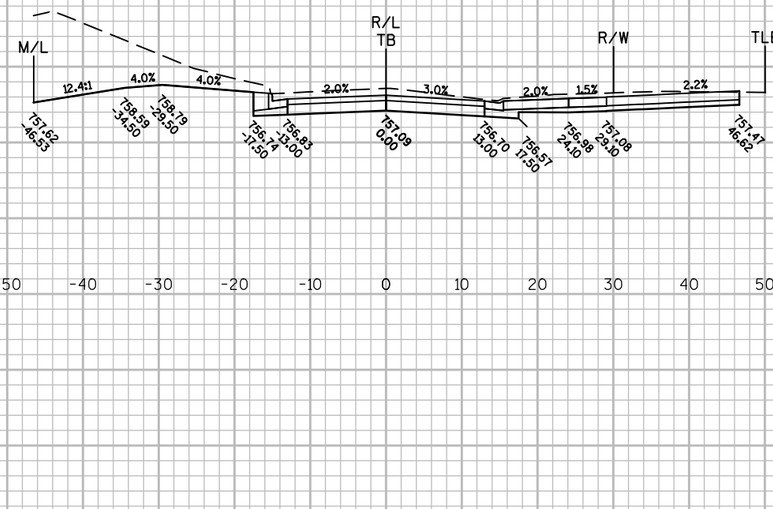
5 FT
10 FT

PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: 112TH STREET	SHEET 475 E

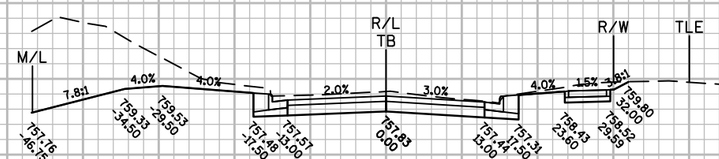
FILE NAME : W:\PDS\C3D\10603484\DSN\XS\090503_XS.DWG
LAYOUT NAME - 090503_XS-4

PLOT DATE : 7/29/2015 12:47 PM PLOT BY : SCHWENN, BRANDON C PLOT NAME : PLOT SCALE : 1:20_XREF

WISDOT/CADDS SHEET 49



34+50



34+00

5 FT

10 FT

770
760
750

-150 -140 -130 -120 -110 -100 -90 -80 -70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

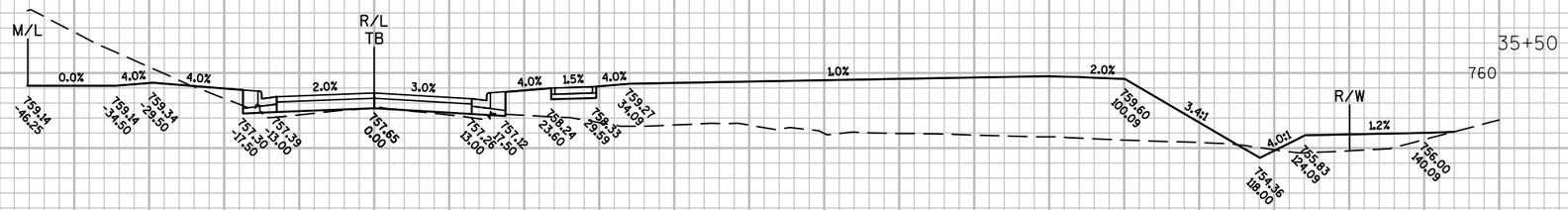
9

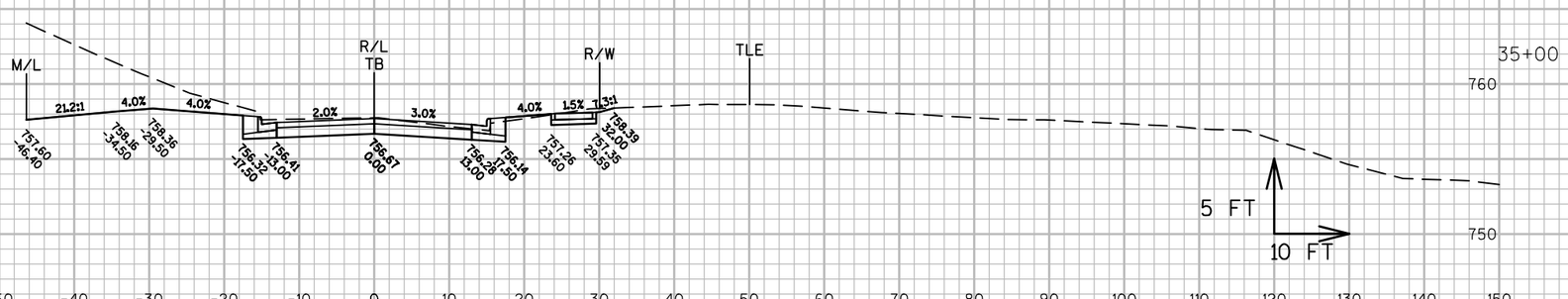
PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: 112TH STREET	SHEET 476	E

FILE NAME : W:\PDS\C3D\10603484\DSN\XS\090503_XS.DWG
LAYOUT NAME - 090503_XS-5

PLOT DATE : 7/29/2015 12:47 PM PLOT BY : SCHWENN, BRANDON C PLOT NAME : PLOT SCALE : 1:20_XREF

WISDOT/CADDS SHEET 49





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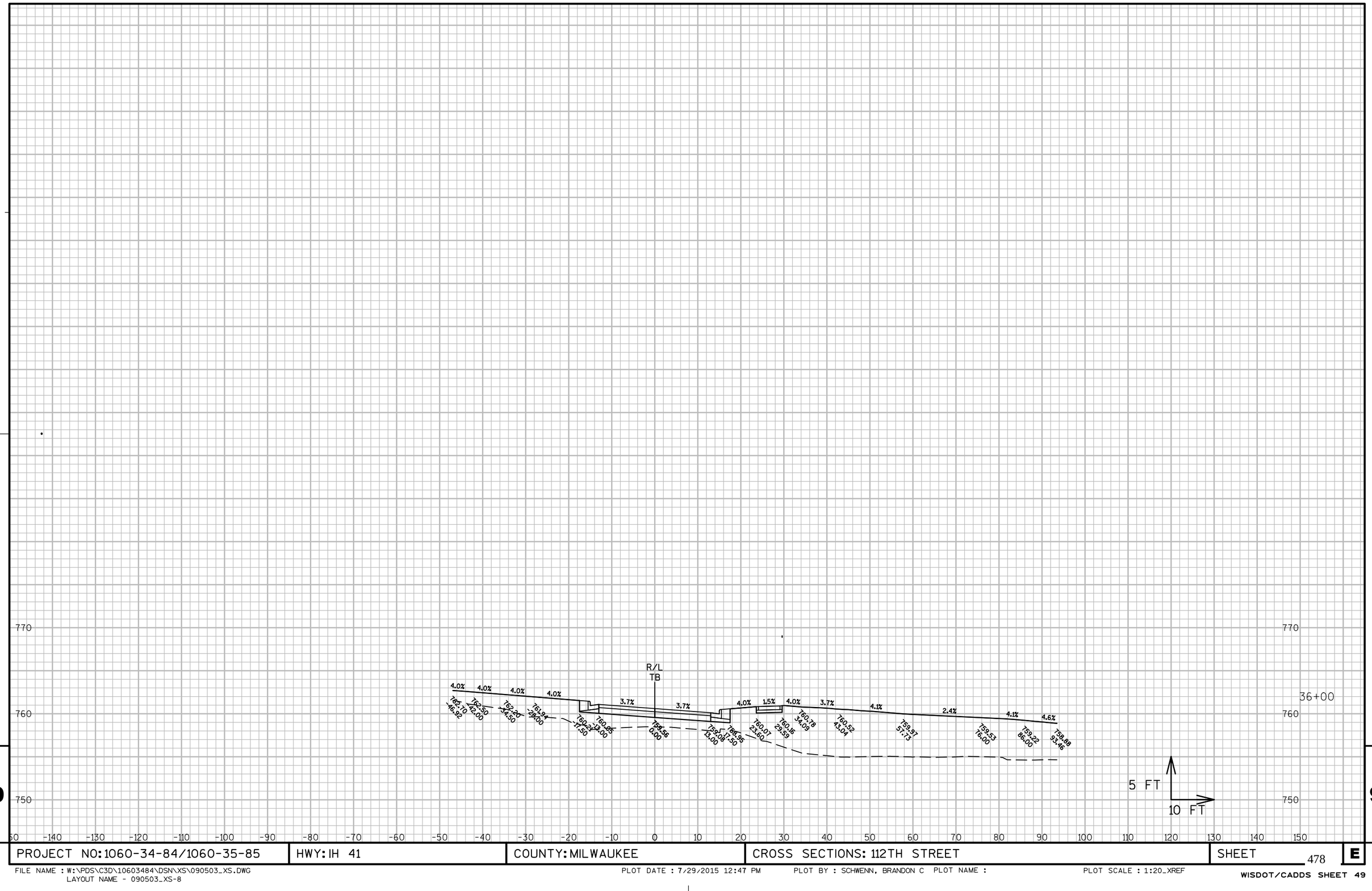
PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: 112TH STREET	SHEET 477	E

FILE NAME : W:\PDS\C3D\10603484\DSN\XS\090503_XS.DWG
LAYOUT NAME - 090503_XS-6

PLOT DATE : 7/29/2015 12:47 PM PLOT BY : SCHWENN, BRANDON C PLOT NAME : PLOT SCALE : 1:20_XREF

WISDOT/CADDS SHEET 49



9

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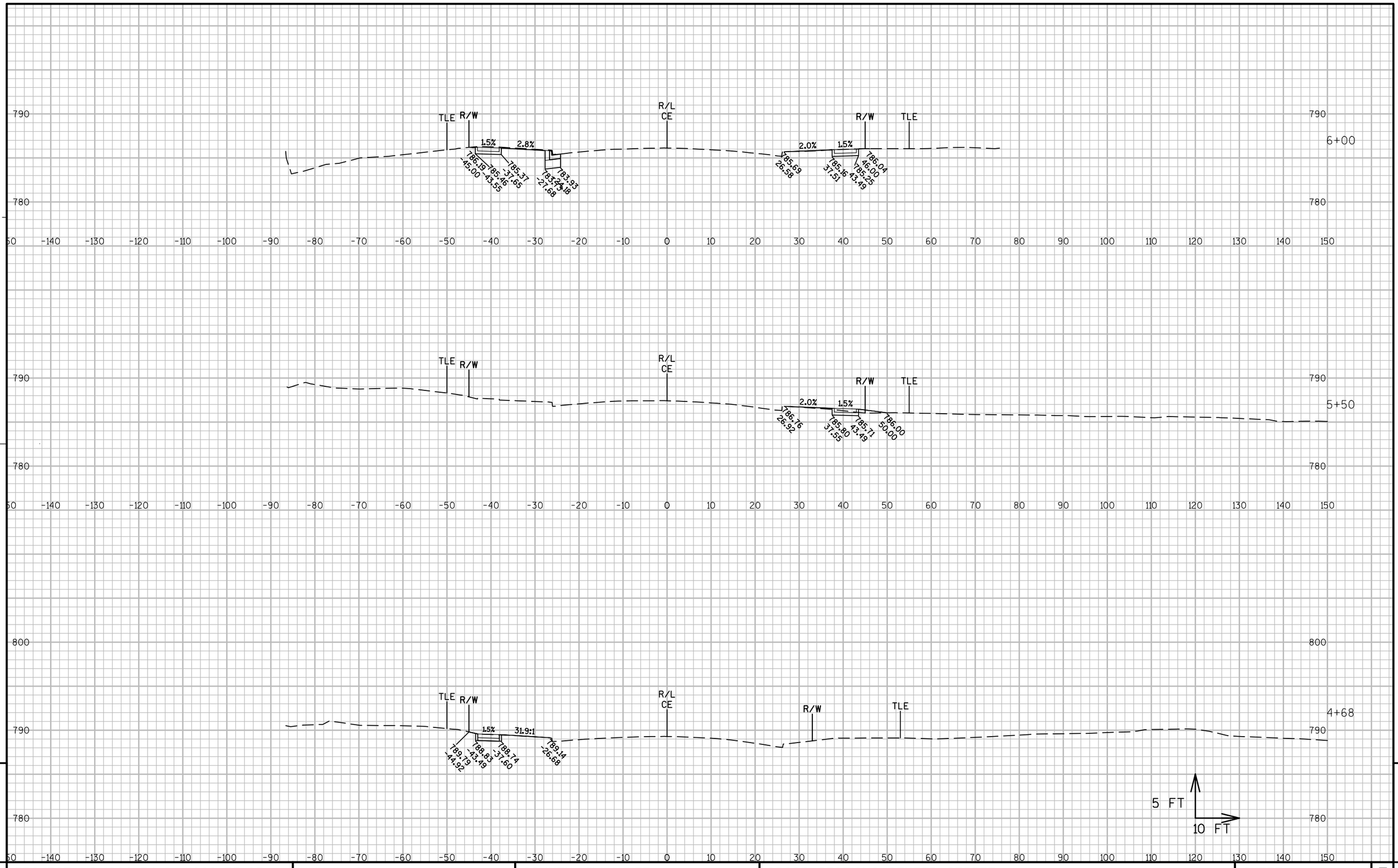
PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: 112TH STREET	SHEET 478	E

FILE NAME : W:\PDS\C3D\10603484\DSN\XS\090503_XS.DWG
LAYOUT NAME - 090503_XS-8

PLOT DATE : 7/29/2015 12:47 PM PLOT BY : SCHWENN, BRANDON C PLOT NAME : PLOT SCALE : 1:20_XREF

WISDOT/CADDS SHEET 49



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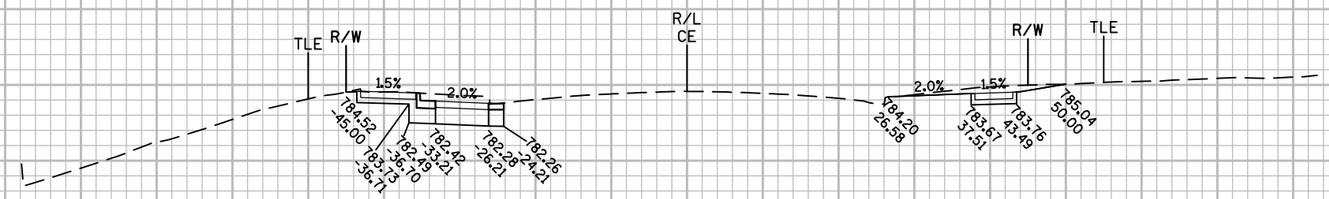
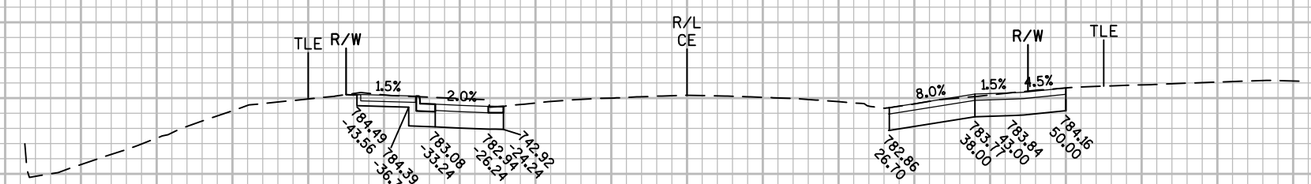
PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: CENTER STREET	SHEET 479	E

FILE NAME : W:\PDS\C3D\10603316\85\DSN\XS\09050X_XS.DWG
LAYOUT NAME - 090501_XS(85)-1

PLOT DATE : 7/30/2015 7:03 AM PLOT BY : AUSEN, CRAIG D PLOT NAME : PLOT SCALE : 1:20_XREF





790 780 770

-150 -140 -130 -120 -110 -100 -90 -80 -70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

6+50

6+32

5 FT

10 FT

9

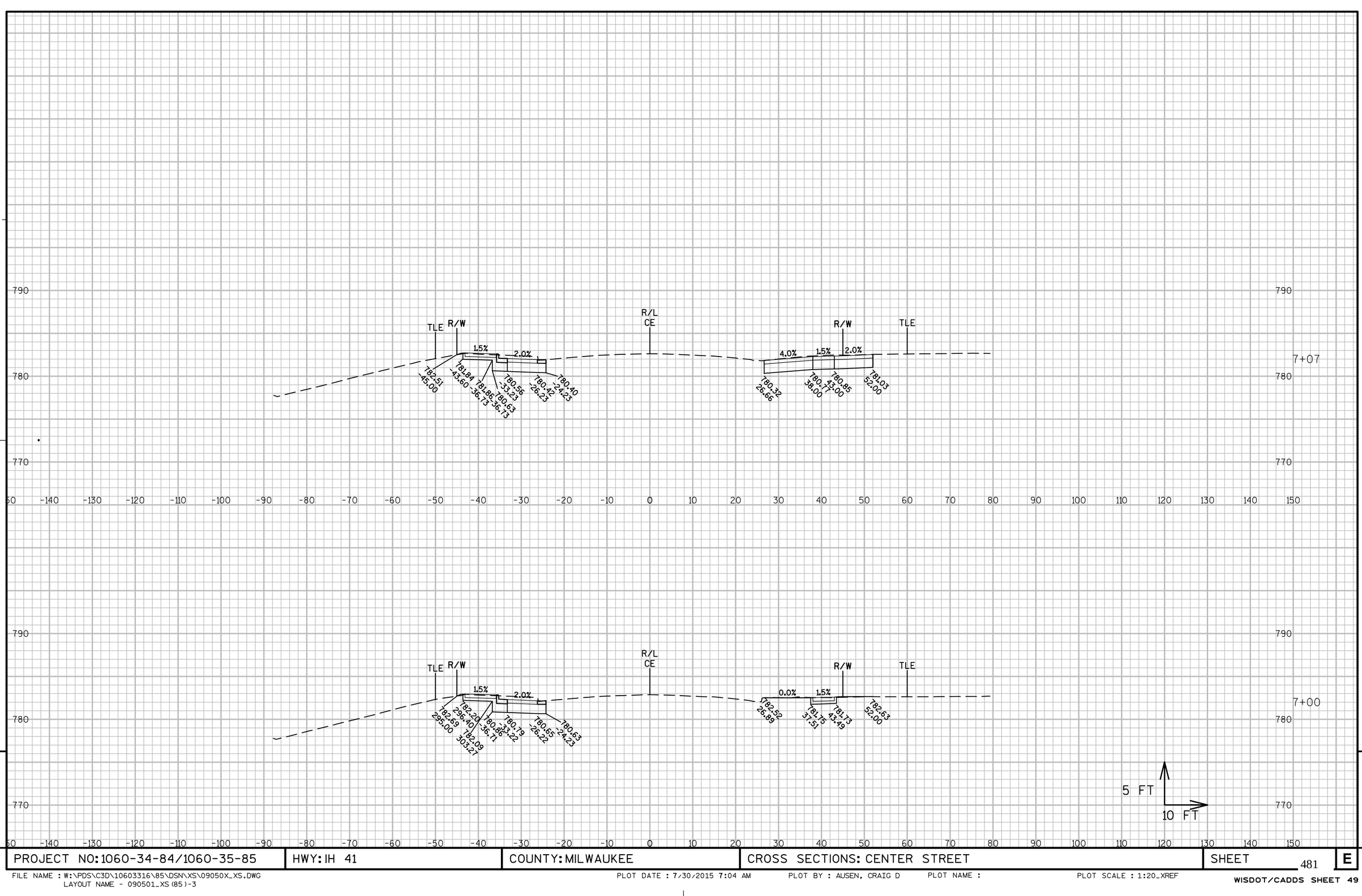
9

PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: CENTER STREET	SHEET 480 E

FILE NAME : W:\PDS\C3D\10603316\85\DSN\XS\09050X_XS.DWG
LAYOUT NAME - 090501_XS(85)-2

PLOT DATE : 7/30/2015 7:03 AM PLOT BY : AUSEN, CRAIG D PLOT NAME : PLOT SCALE : 1:20_XREF

WISDOT/CADDS SHEET 49



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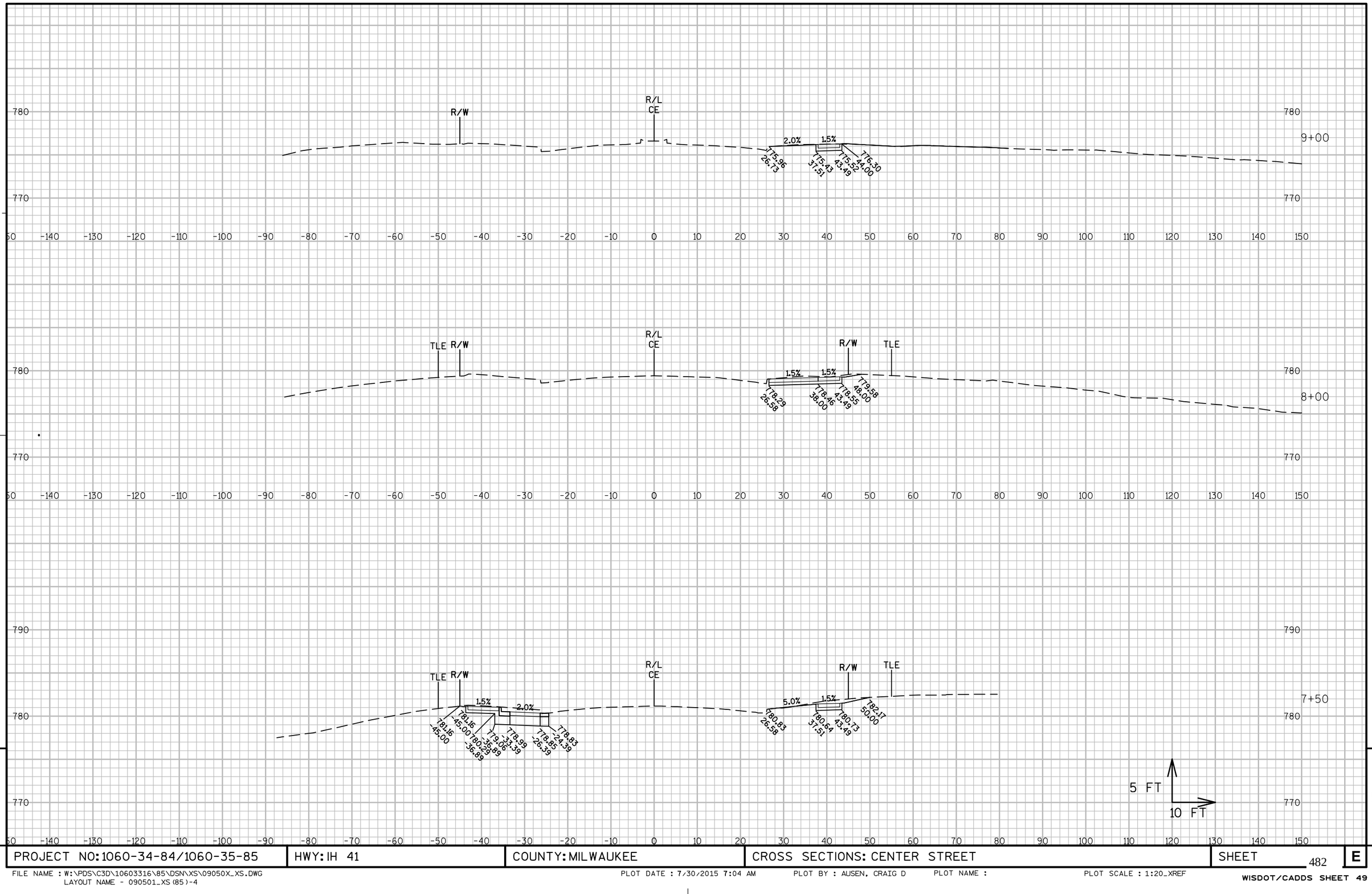
PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: CENTER STREET	SHEET 481	E

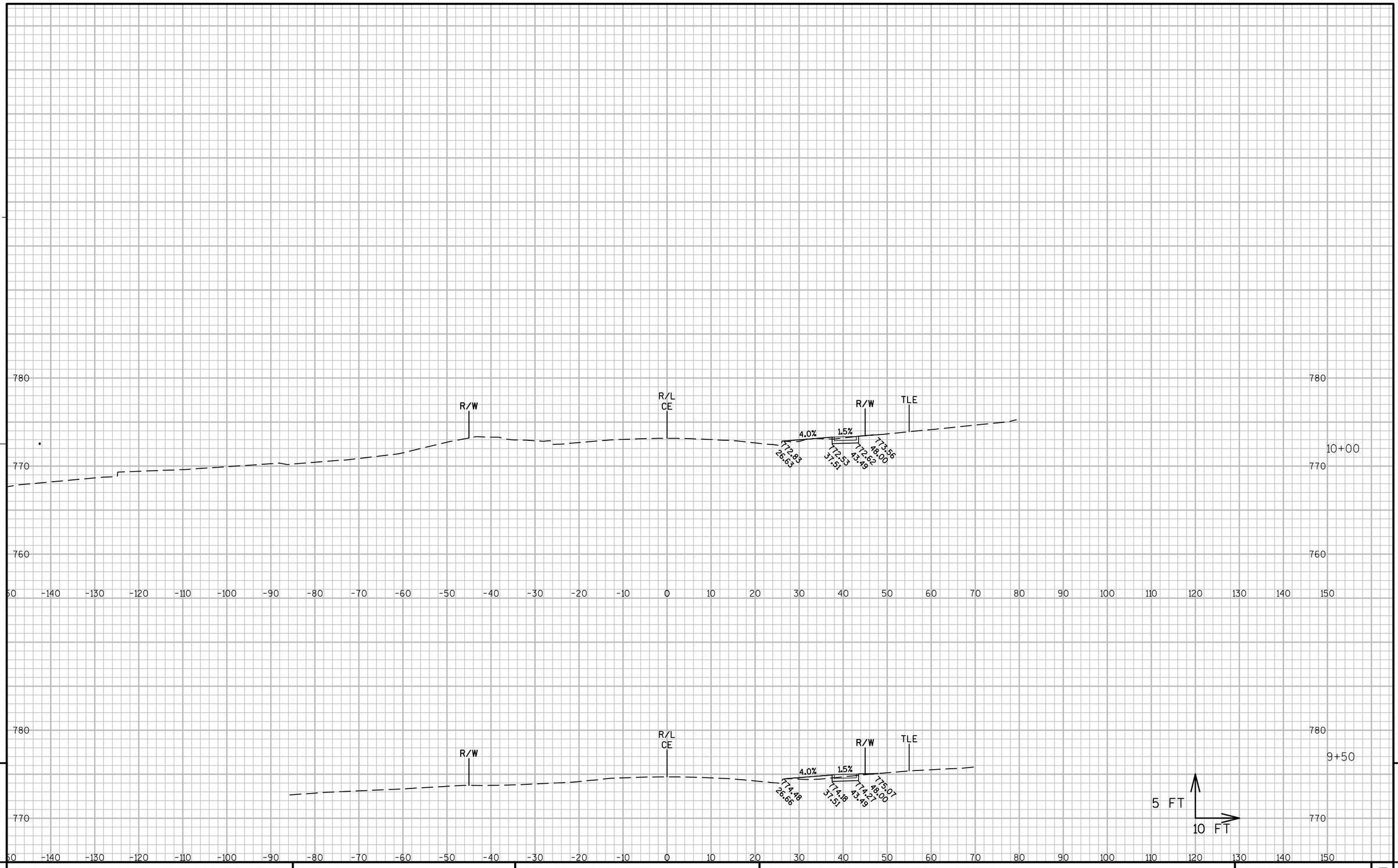
FILE NAME : W:\PDS\C3D\10603316\85\DSN\XS\09050X_XS.DWG
LAYOUT NAME - 090501_XS(85)-3

PLOT DATE : 7/30/2015 7:04 AM PLOT BY : AUSEN, CRAIG D PLOT NAME : PLOT SCALE : 1:20_XREF

WISDOT/CADDS SHEET 49



PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: CENTER STREET	SHEET 482 E



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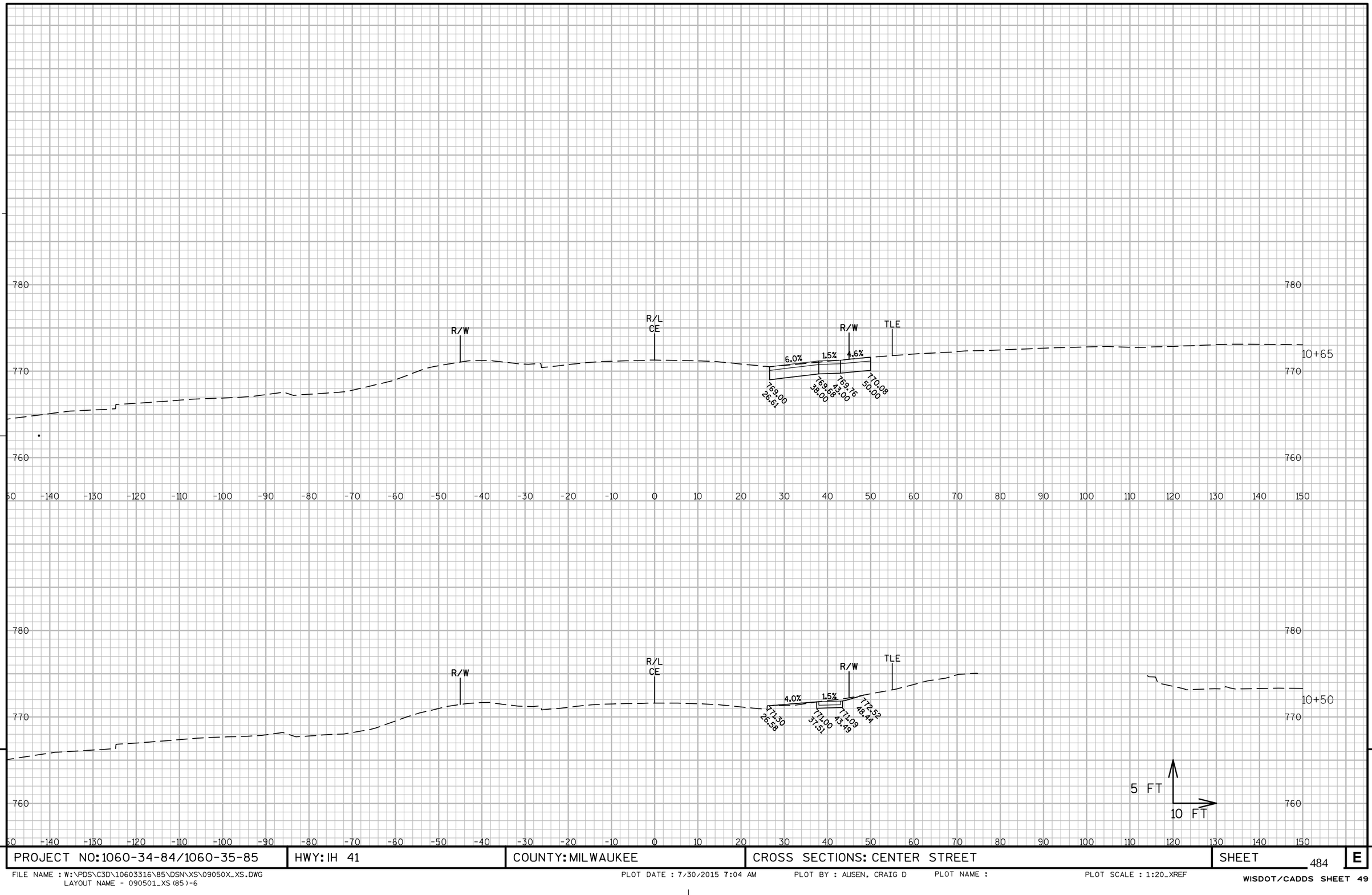
PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: CENTER STREET	SHEET 483	E

FILE NAME : W:\PDS\C3D\10603316\85\DSN\XS\09050X_XS.DWG
LAYOUT NAME - 090501_XS(85)-5

PLOT DATE : 7/30/2015 7:04 AM PLOT BY : AUSEN, CRAIG D PLOT NAME : PLOT SCALE : 1:20_XREF



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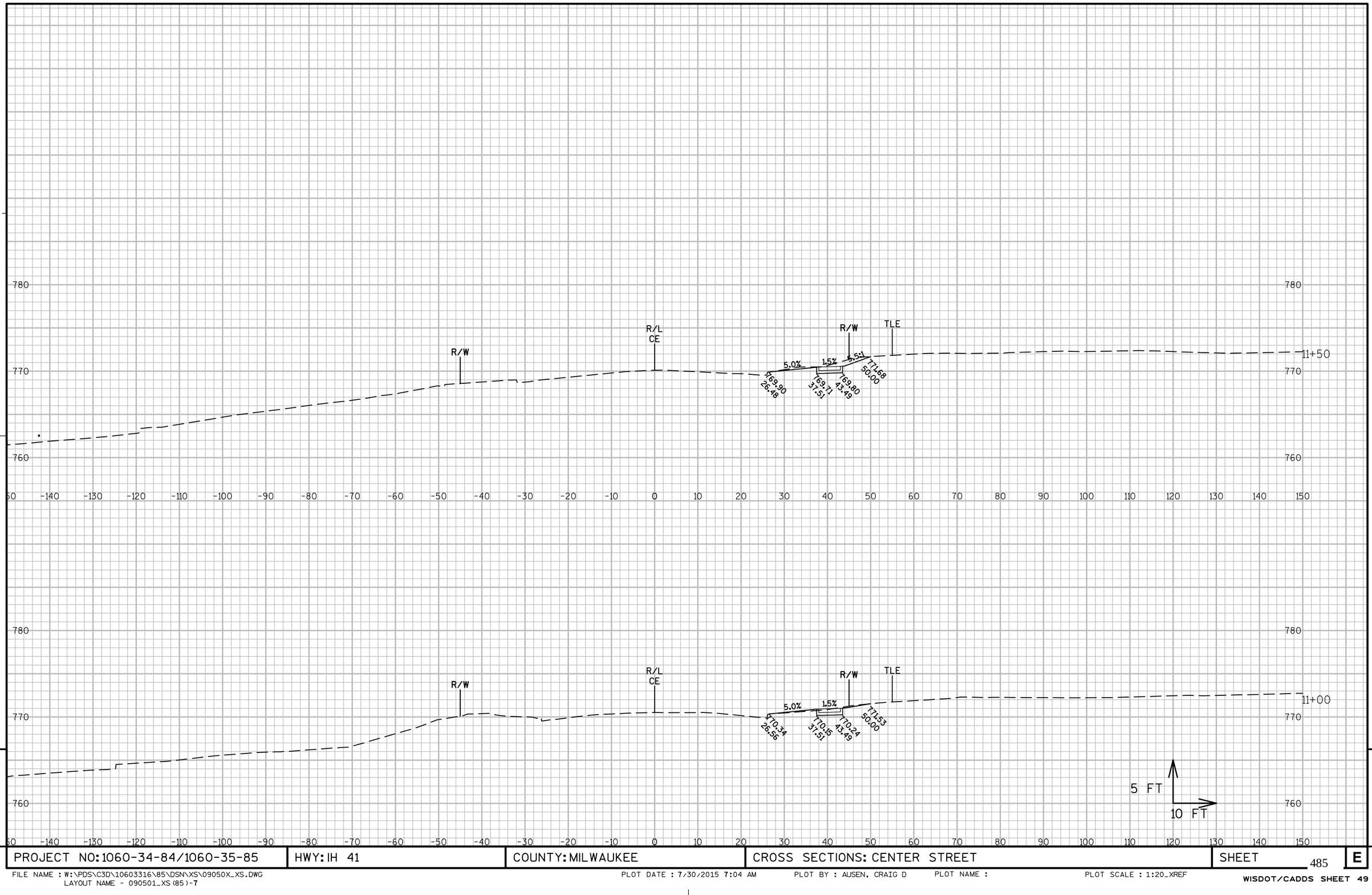
PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: CENTER STREET	SHEET 484 E

FILE NAME : W:\PDS\C3D\10603316\85\DSN\XS\09050X_XS.DWG
LAYOUT NAME - 090501_XS(85)-6

PLOT DATE : 7/30/2015 7:04 AM PLOT BY : AUSEN, CRAIG D PLOT NAME : PLOT SCALE : 1:20_XREF

WISDOT/CADDS SHEET 49

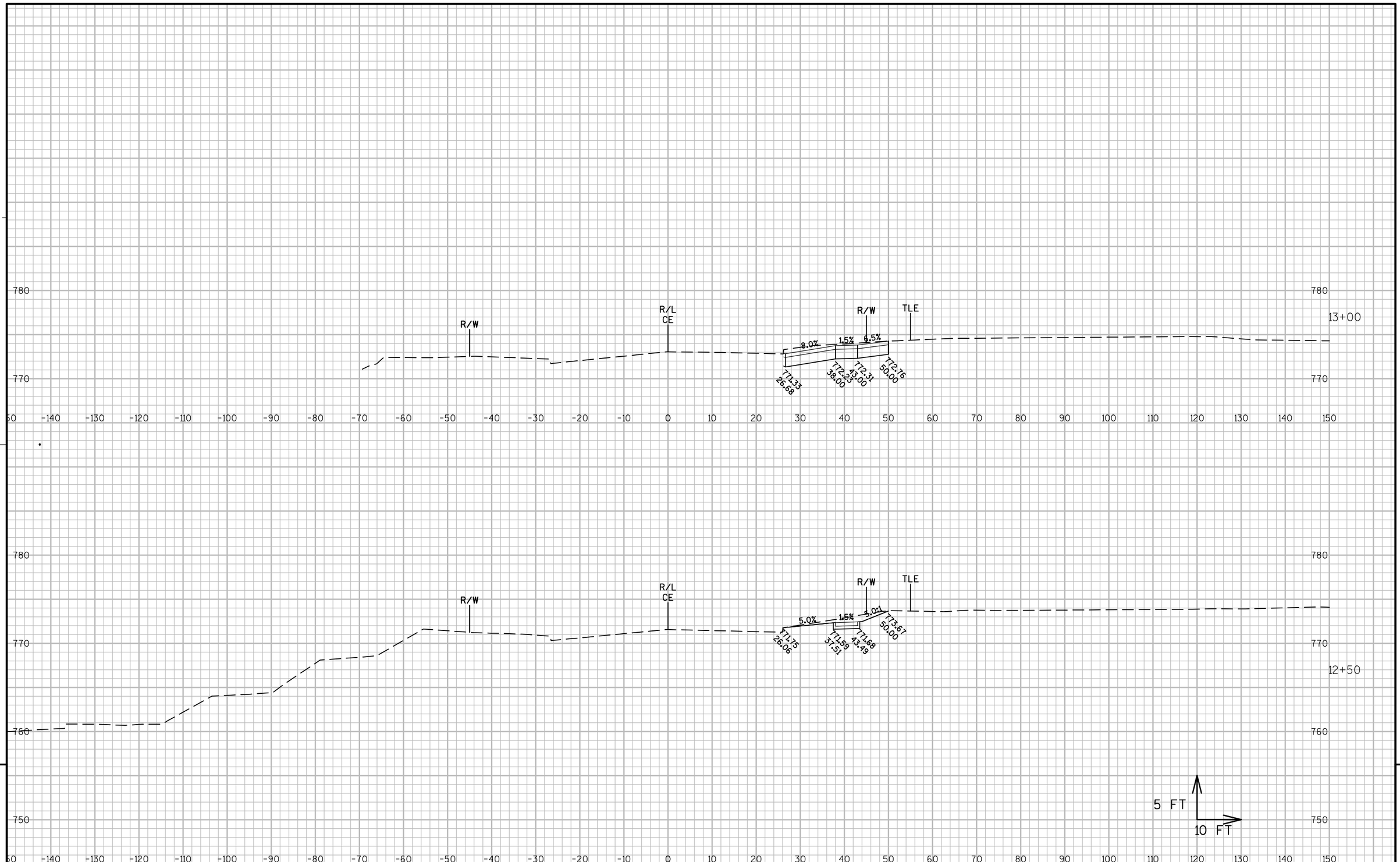


PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: CENTER STREET	SHEET 485 E

FILE NAME : W:\PDS\C3D\10603316\85\DSN\XS\09050X_XS.DWG
LAYOUT NAME - 090501_XS(85)-7

PLOT DATE : 7/30/2015 7:04 AM PLOT BY : AUSEN, CRAIG D PLOT NAME : PLOT SCALE : 1:20_XREF

WISDOT/CADDS SHEET 49



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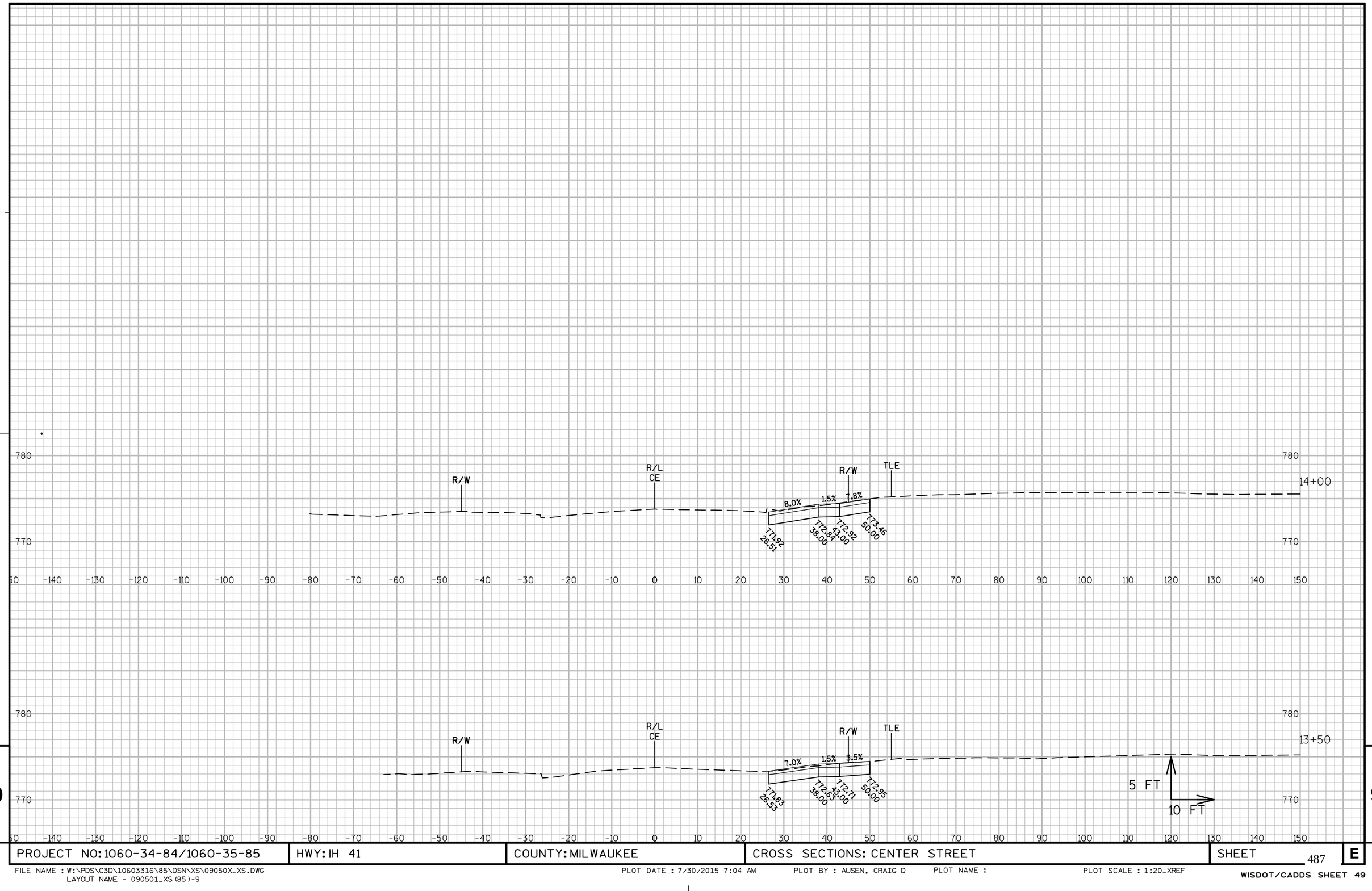
PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: CENTER STREET	SHEET 486	E

FILE NAME : W:\PDS\C3D\10603316\85\DSN\XS\09050X_XS.DWG
LAYOUT NAME - 090501_XS(85)-8

PLOT DATE : 7/30/2015 7:04 AM PLOT BY : AUSEN, CRAIG D PLOT NAME : PLOT SCALE : 1:20_XREF

WISDOT/CADDS SHEET 49



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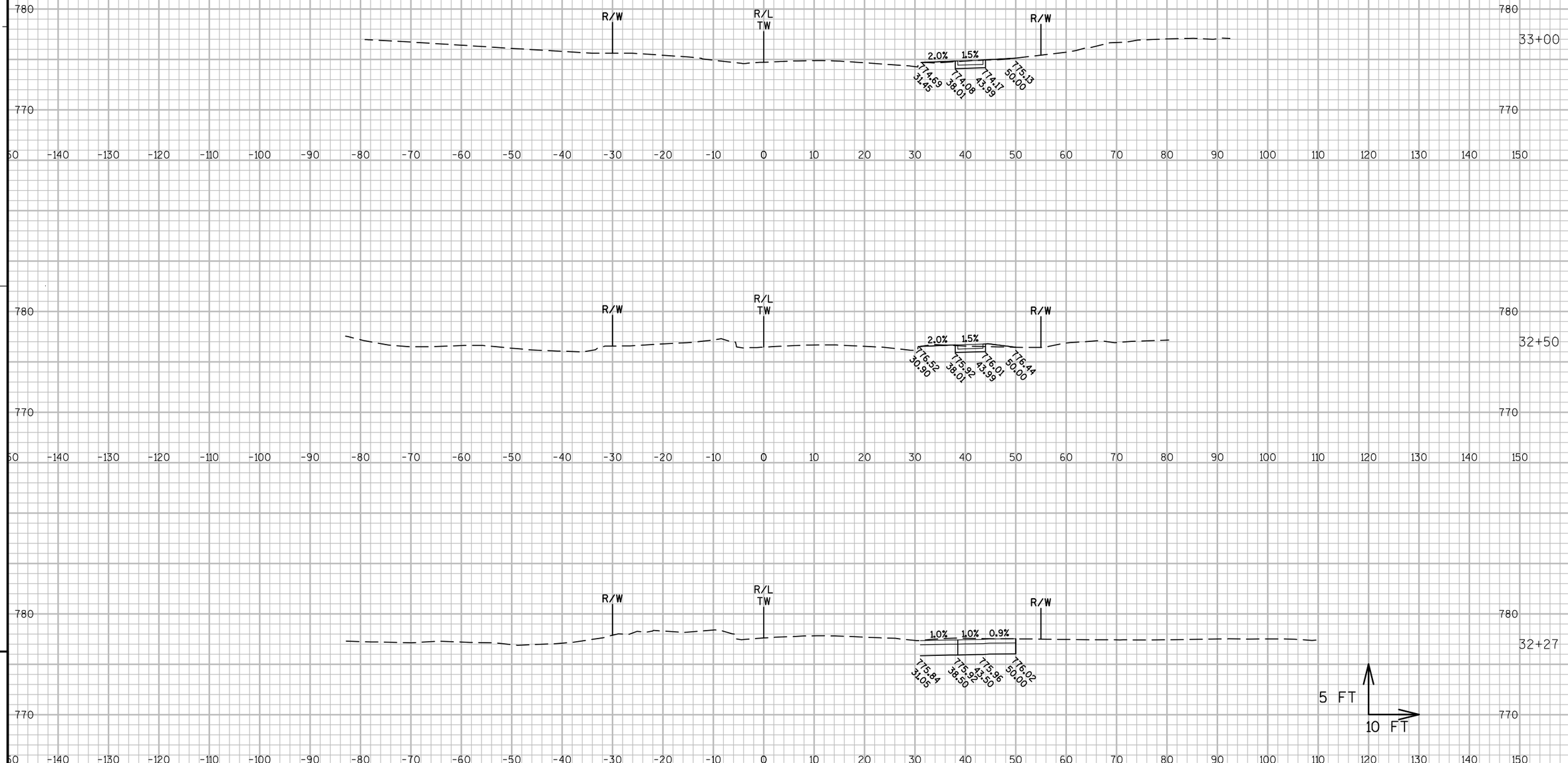
PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: CENTER STREET	SHEET 487	E

FILE NAME : W:\PDS\C3D\10603316\85\DSN\XS\09050X_XS.DWG
LAYOUT NAME - 090501_XS(85)-9

PLOT DATE : 7/30/2015 7:04 AM PLOT BY : AUSEN, CRAIG D PLOT NAME : PLOT SCALE : 1:20_XREF

WISDOT/CADDS SHEET 49



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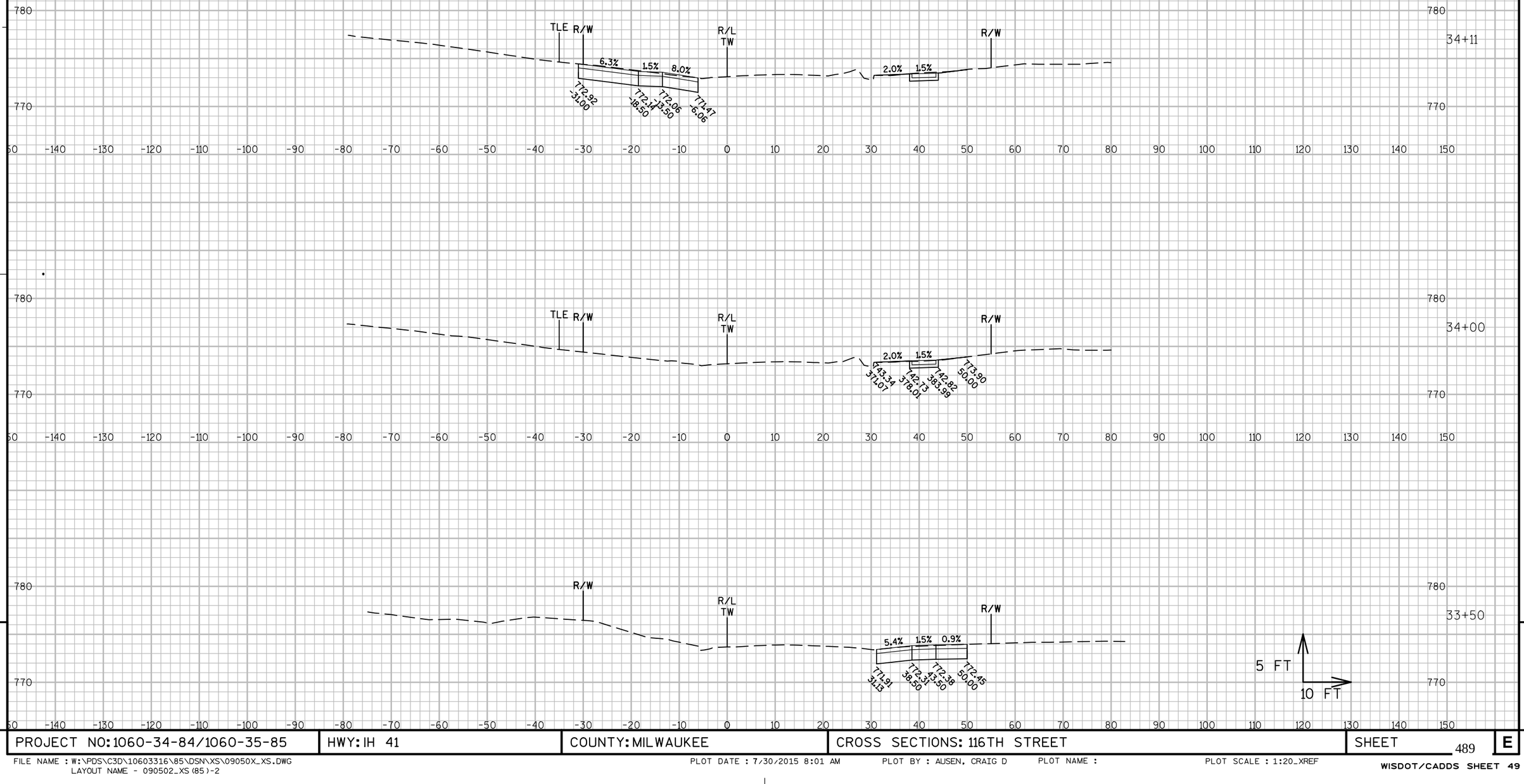
PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: 116TH STREET	SHEET 488	E

FILE NAME : W:\PDS\C3D\10603316\85\DSN\XS\09050X_XS.DWG
LAYOUT NAME - 090502_XS(85)-1

PLOT DATE : 7/30/2015 8:00 AM PLOT BY : AUSEN, CRAIG D PLOT NAME : PLOT SCALE : 1:20_XREF

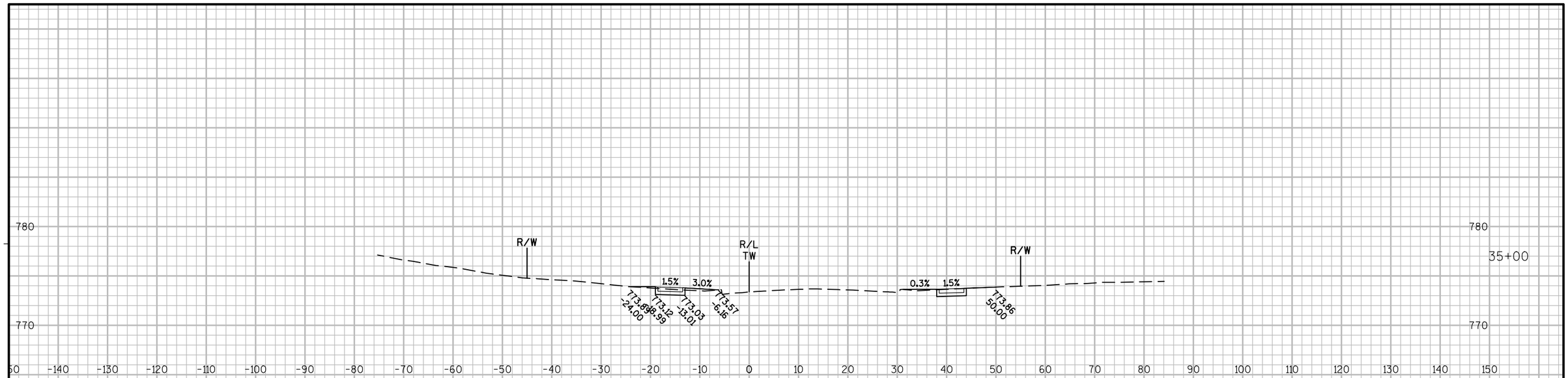


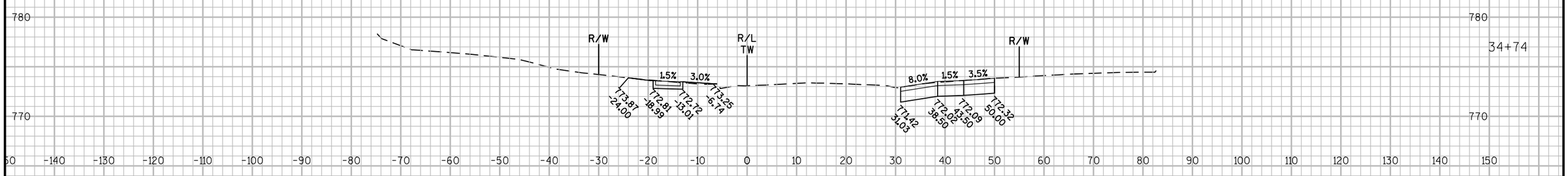
PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: 116TH STREET	SHEET 489 E

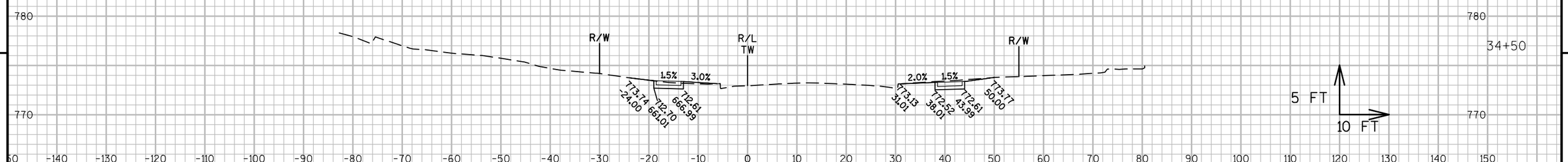
FILE NAME : W:\PDS\C3D\10603316\85\DSN\XS\09050X_XS.DWG
LAYOUT NAME - 090502_XS(85)-2

PLOT DATE : 7/30/2015 8:01 AM PLOT BY : AUSEN, CRAIG D PLOT NAME : PLOT SCALE : 1:20_XREF

WISDOT/CADDS SHEET 49







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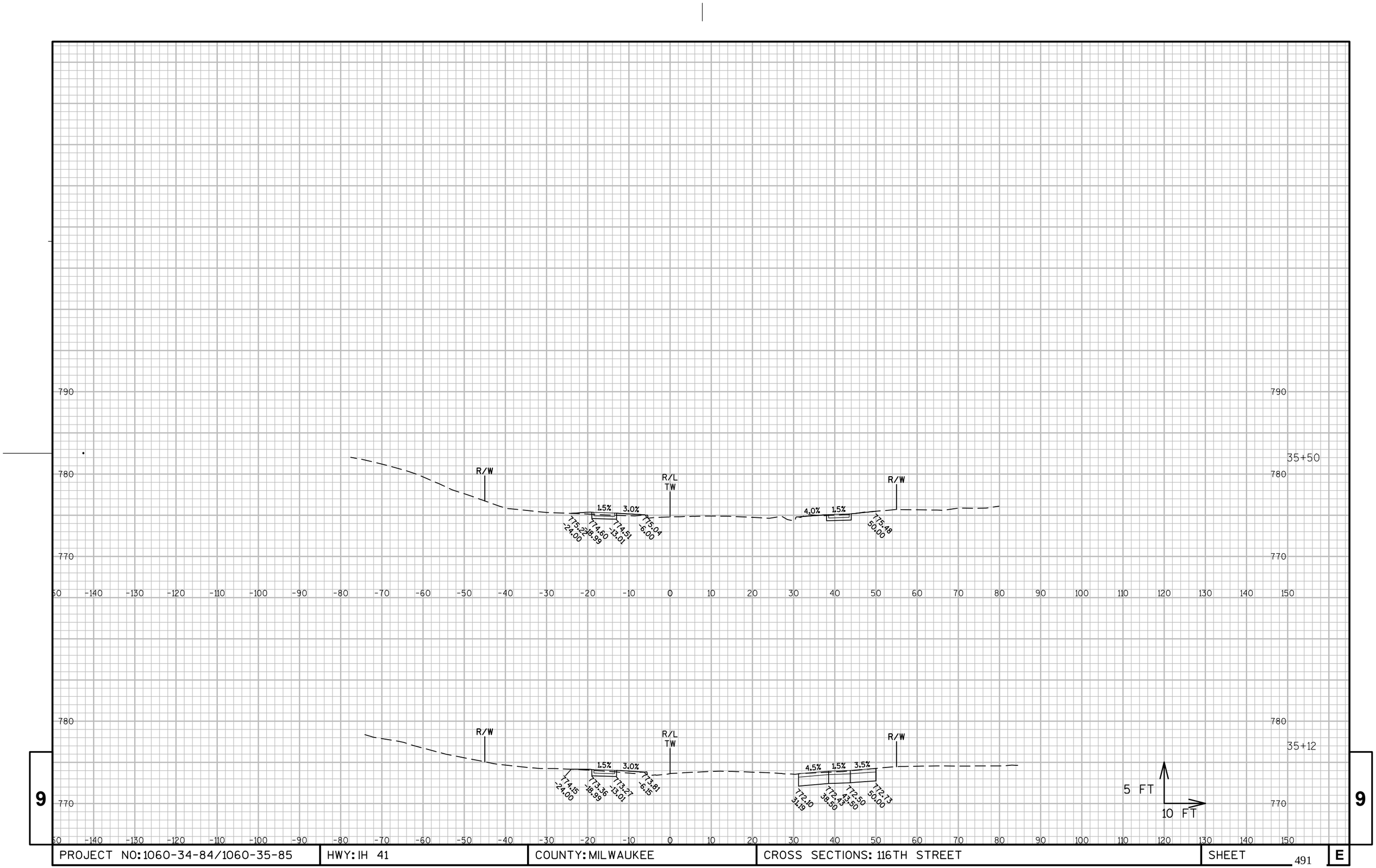
PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: 116TH STREET	SHEET 490	E

FILE NAME : W:\PDS\C3D\10603316\85\DSN\XS\09050X_XS.DWG
LAYOUT NAME - 090502_XS(85)-3

PLOT DATE : 7/30/2015 8:01 AM PLOT BY : AUSEN, CRAIG D PLOT NAME : PLOT SCALE : 1:20_XREF



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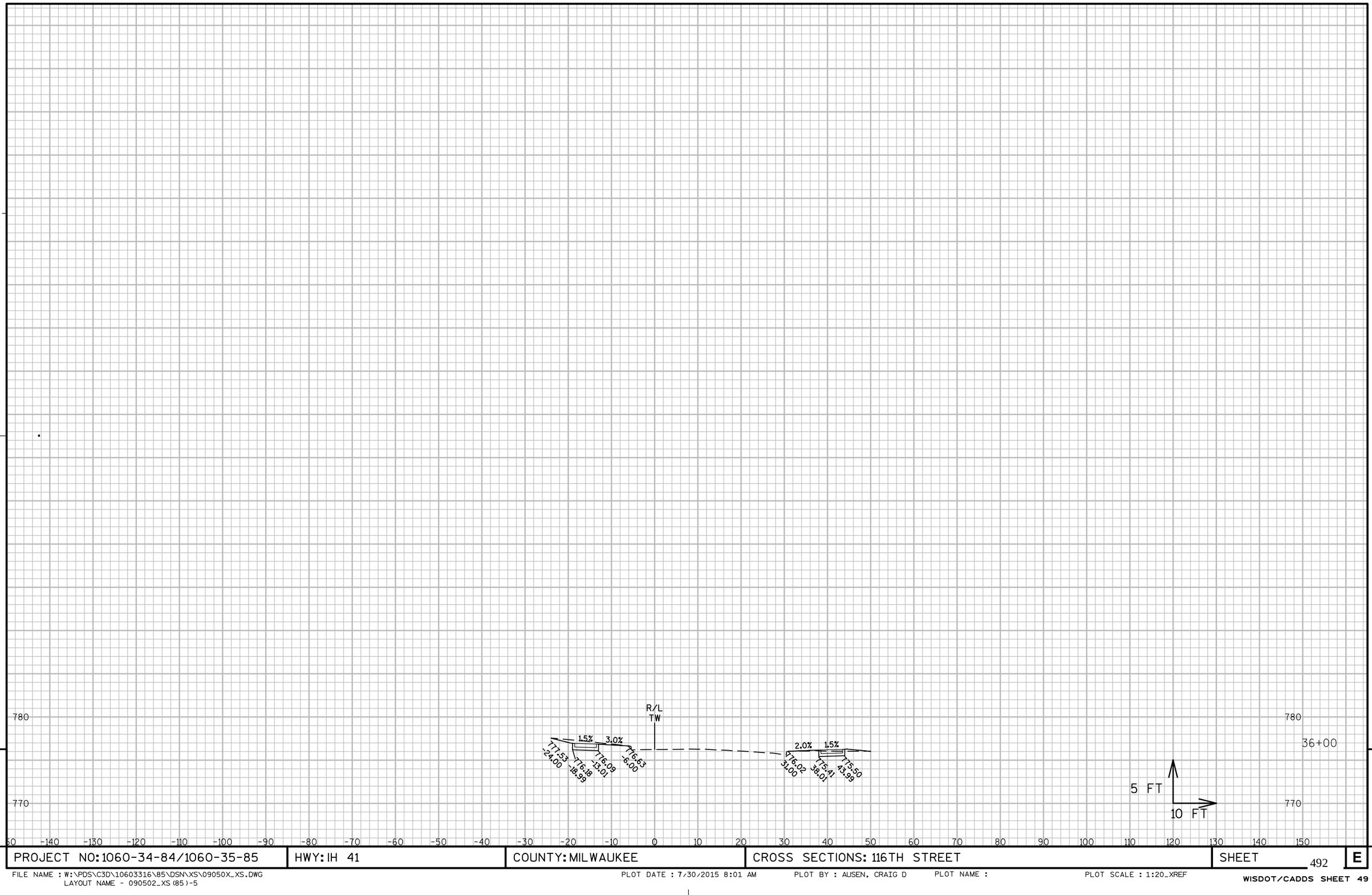
PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: 116TH STREET	SHEET 491 E

FILE NAME : W:\PDS\C3D\10603316\85\DSN\XS\09050X_XS.DWG
LAYOUT NAME - 090502_XS(85)-4

PLOT DATE : 7/30/2015 8:01 AM PLOT BY : AUSEN, CRAIG D PLOT NAME : PLOT SCALE : 1:20_XREF



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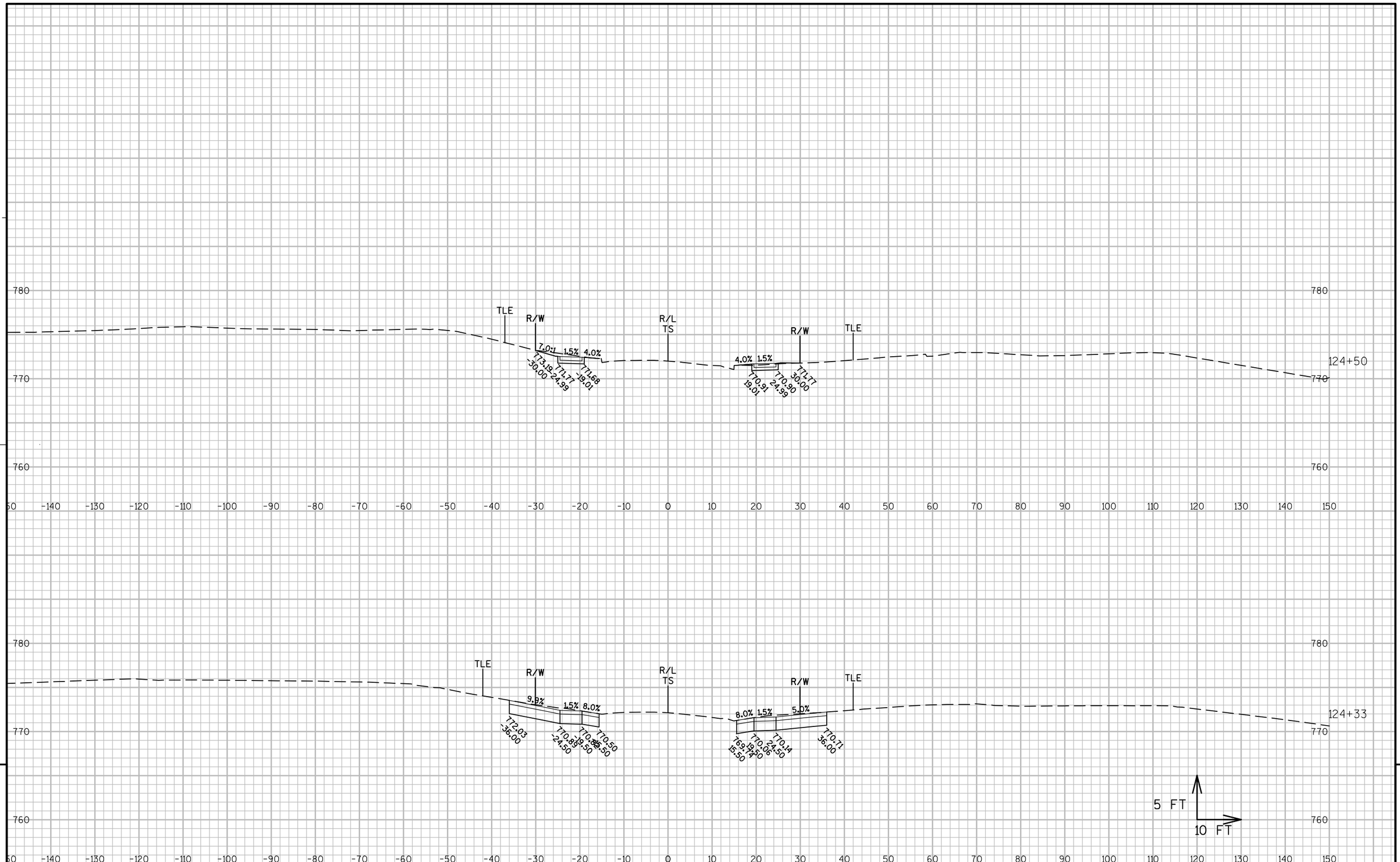
PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: 116TH STREET	SHEET 492	E



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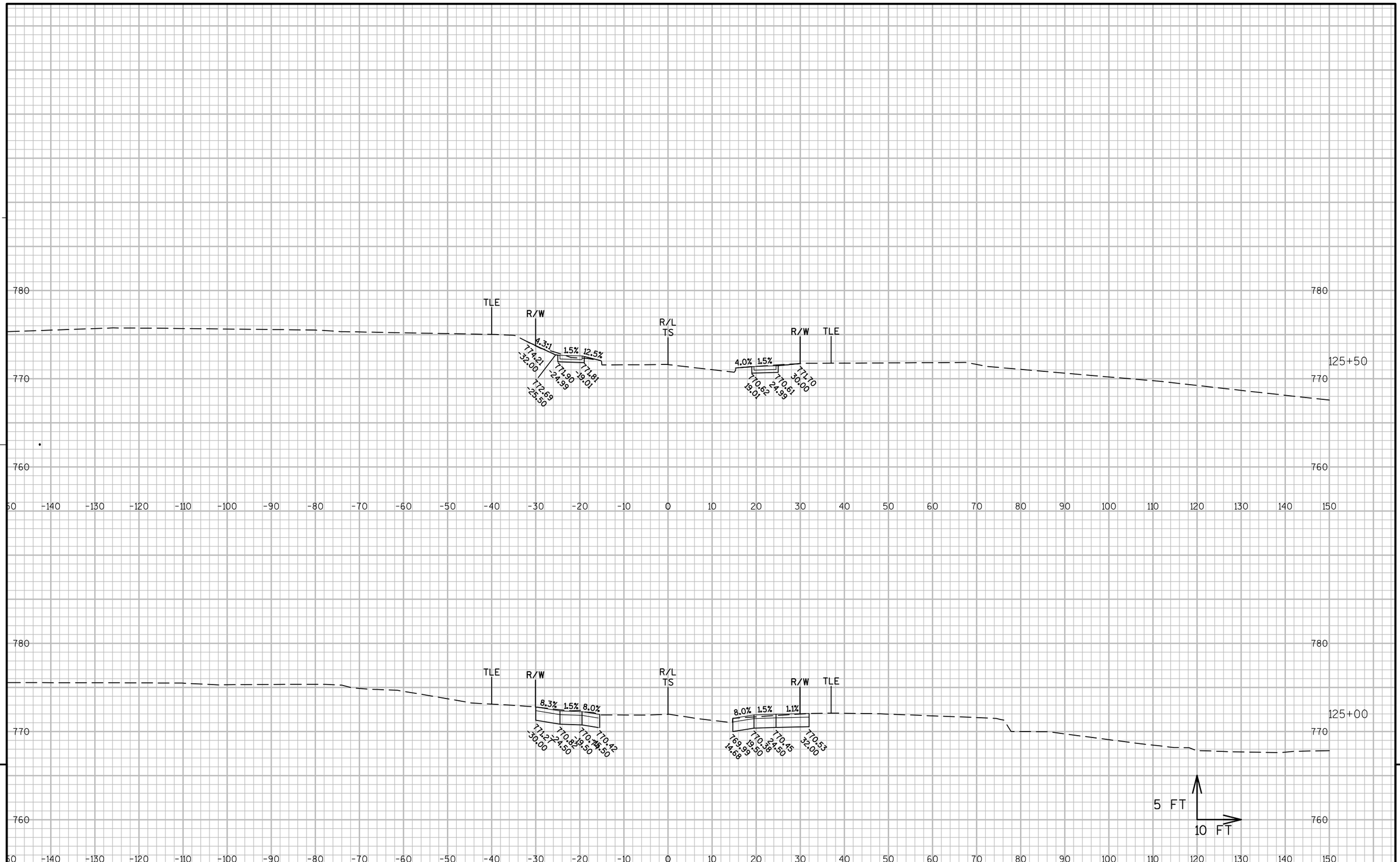
PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: 114TH STREET	SHEET 493	E

FILE NAME : W:\PDS\C3D\10603316\85\DSN\XS\09050X_XS.DWG
LAYOUT NAME - 090503_XS(85)-1

PLOT DATE : 7/30/2015 7:05 AM PLOT BY : AUSEN, CRAIG D PLOT NAME : PLOT SCALE : 1:20_XREF

WISDOT/CADDS SHEET 49



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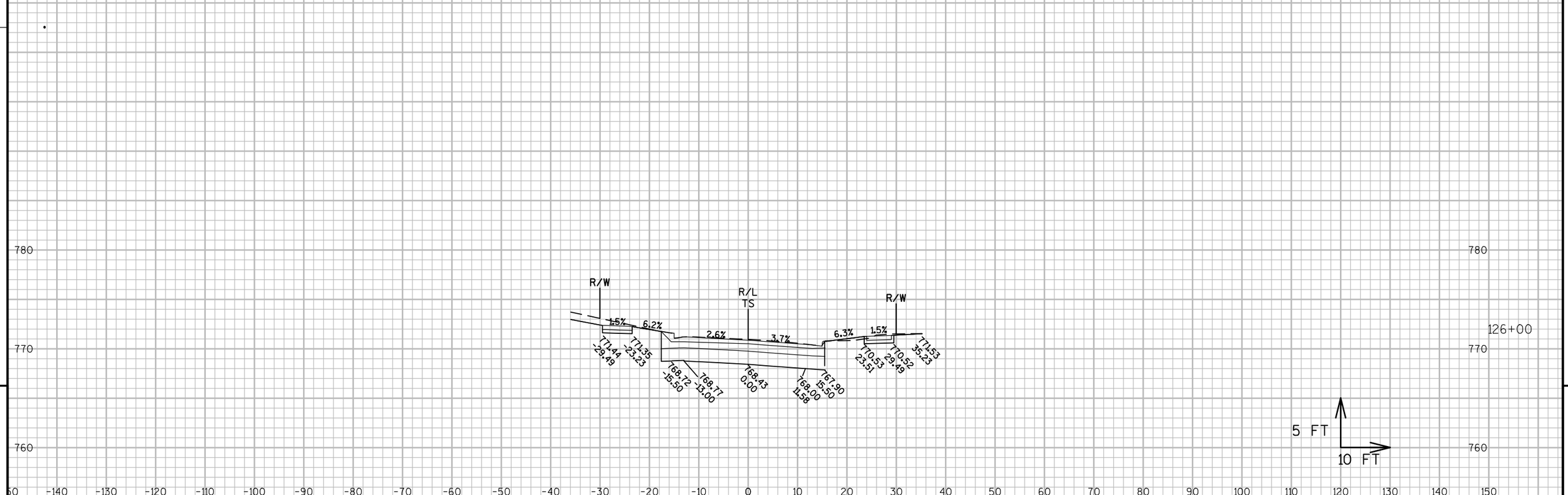
PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: 114TH STREET	SHEET 494	E

FILE NAME : W:\PDS\C3D\10603316\85\DSN\XS\09050X_XS.DWG
LAYOUT NAME - 090503_XS(85)-2

PLOT DATE : 7/30/2015 7:05 AM PLOT BY : AUSEN, CRAIG D PLOT NAME : PLOT SCALE : 1:20_XREF

WISDOT/CADDS SHEET 49



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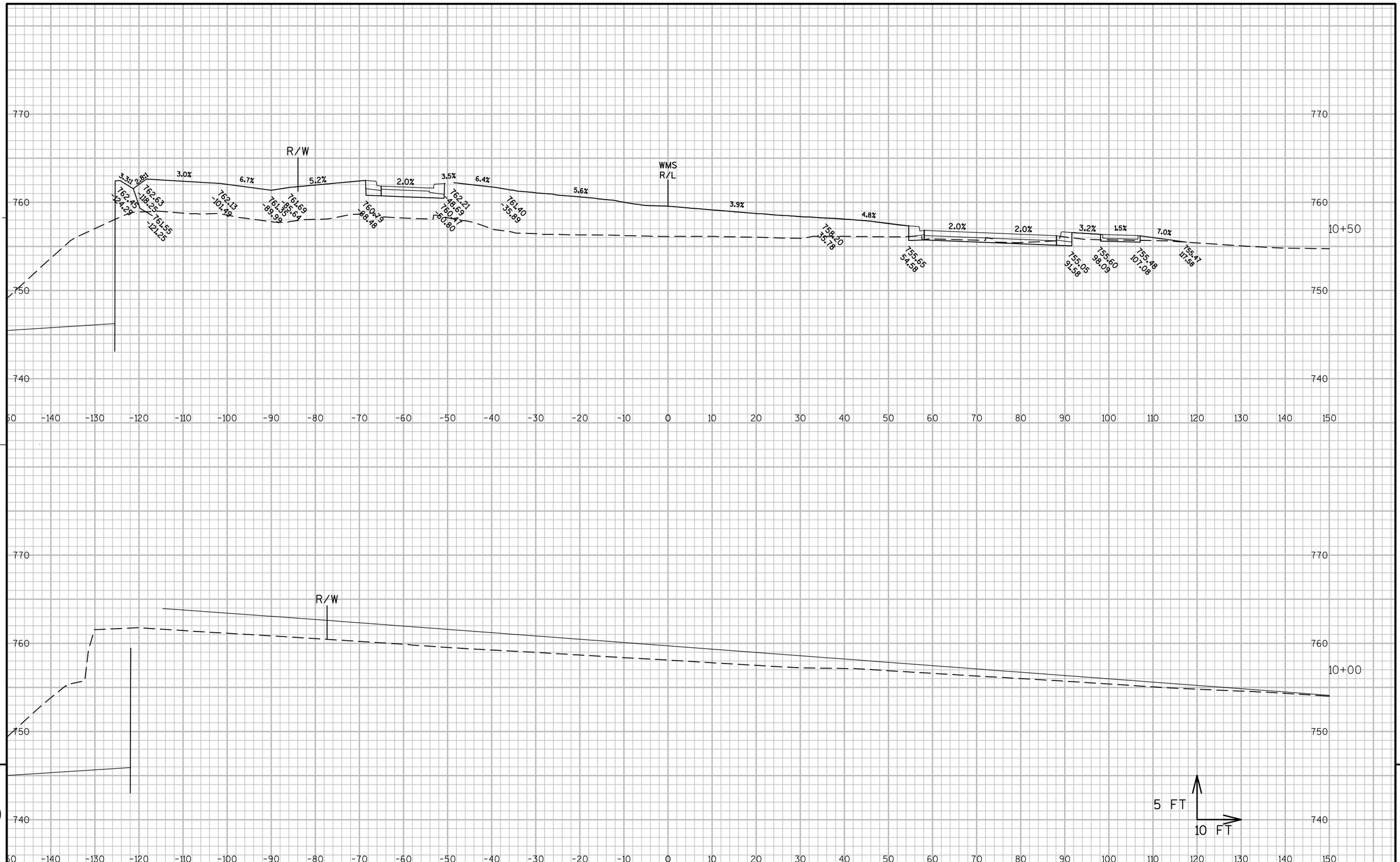
PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: 114TH STREET	SHEET 495	E

FILE NAME : W:\PDS\C3D\10603316\85\DSN\XS\09050X_XS.DWG
LAYOUT NAME - 090503_XS(85)-3

PLOT DATE : 7/30/2015 7:05 AM PLOT BY : AUSEN, CRAIG D PLOT NAME : PLOT SCALE : 1:20_XREF

WISDOT/CADDS SHEET 49

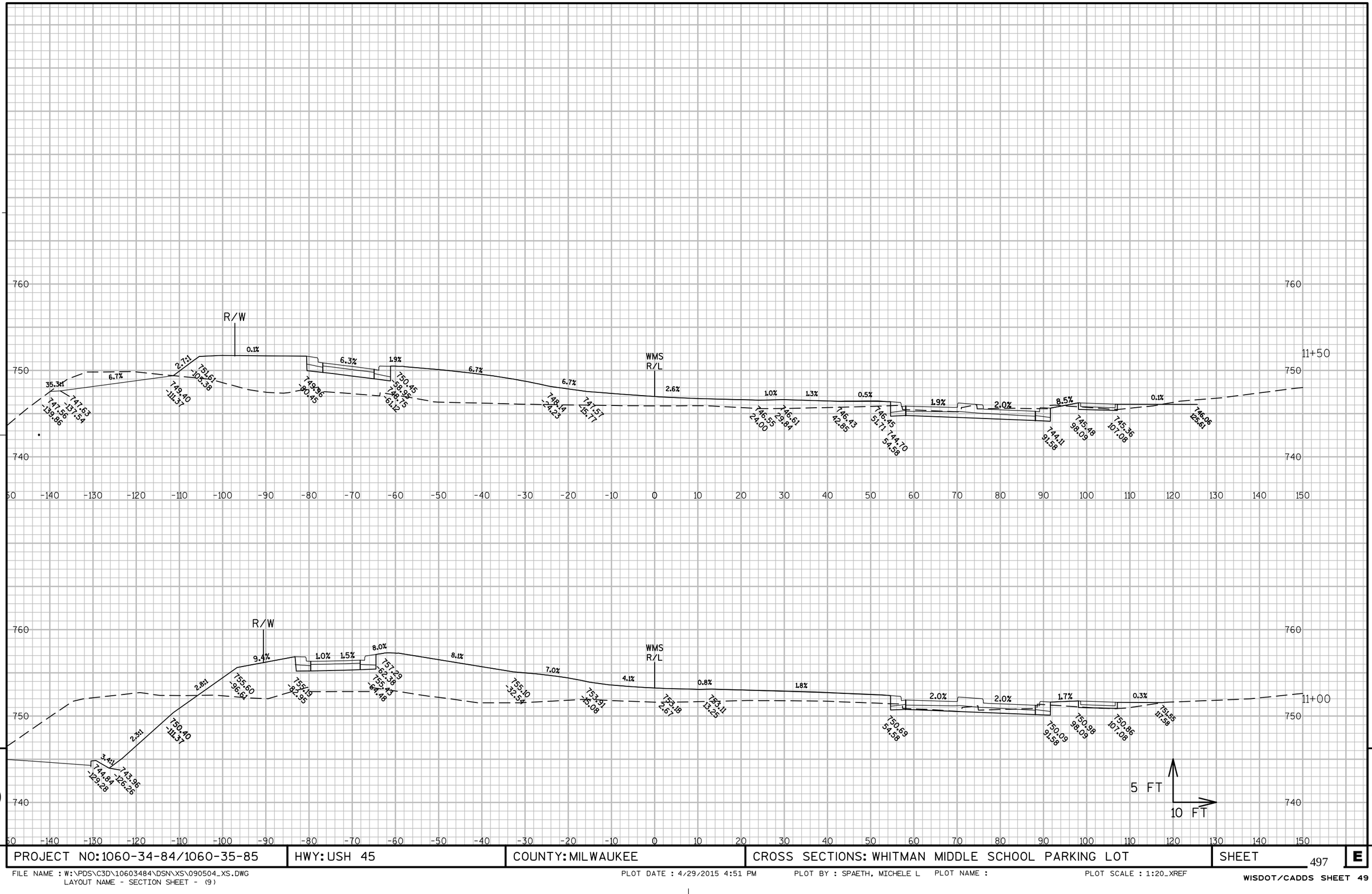


PROJECT NO: 1060-34-84/1060-35-85	HWY: USH 45	COUNTY: MILWAUKEE	CROSS SECTIONS: WHITMAN MIDDLE SCHOOL PARKING LOT	SHEET 496 E

FILE NAME : W:\PDS\C3D\10603484\DSN\XS\090504_XS.DWG
LAYOUT NAME - SECTION SHEET - (8)

PLOT DATE : 4/29/2015 4:51 PM PLOT BY : SPAETH, MICHELE L PLOT NAME : PLOT SCALE : 1:20_XREF

WISDOT/CADDS SHEET 49

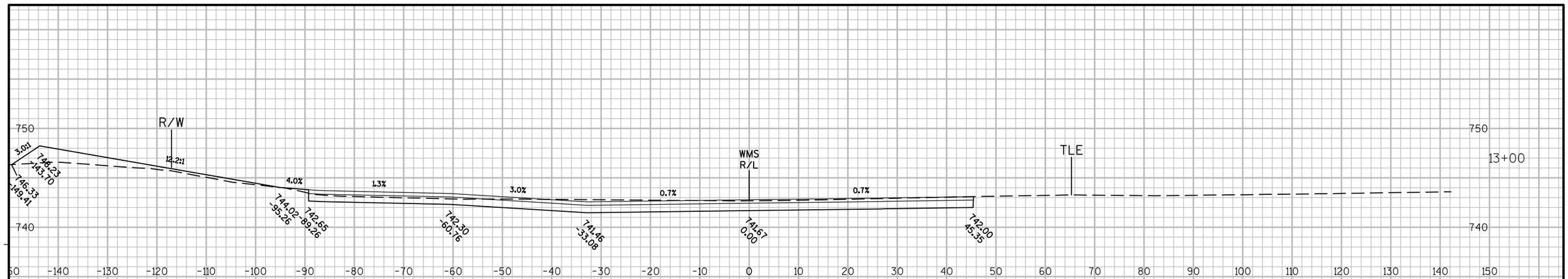


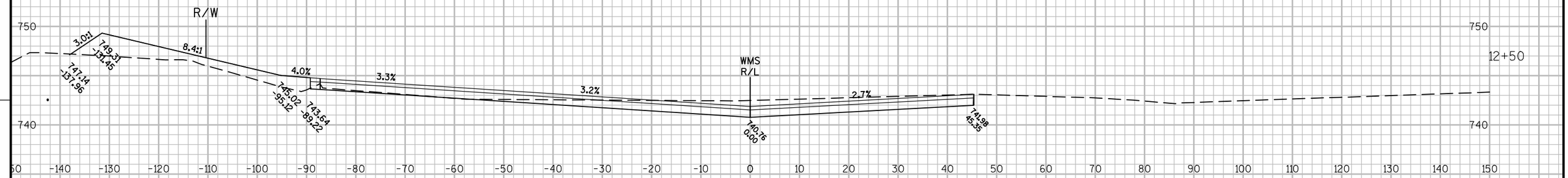
PROJECT NO: 1060-34-84/1060-35-85	HWY: USH 45	COUNTY: MILWAUKEE	CROSS SECTIONS: WHITMAN MIDDLE SCHOOL PARKING LOT	SHEET 497 E

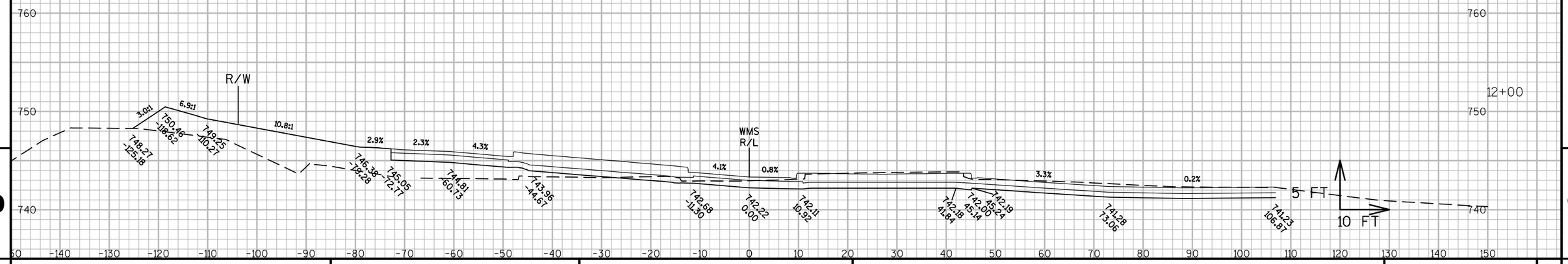
FILE NAME : W:\PDS\C3D\10603484\DSN\XS\090504_XS.DWG
LAYOUT NAME - SECTION SHEET - (9)

PLOT DATE : 4/29/2015 4:51 PM PLOT BY : SPAETH, MICHELE L PLOT NAME : PLOT SCALE : 1:20_XREF

WISDOT/CADDS SHEET 49







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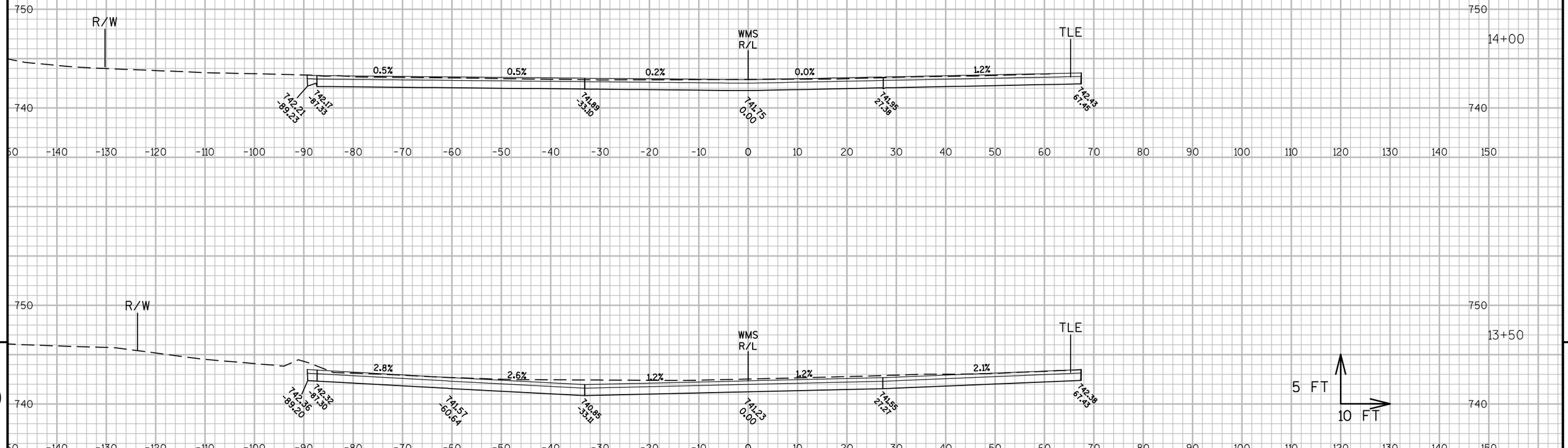
PROJECT NO: 1060-34-84/1060-35-85	HWY: USH 45	COUNTY: MILWAUKEE	CROSS SECTIONS: WHITMAN MIDDLE SCHOOL PARKING LOT	SHEET 498	E

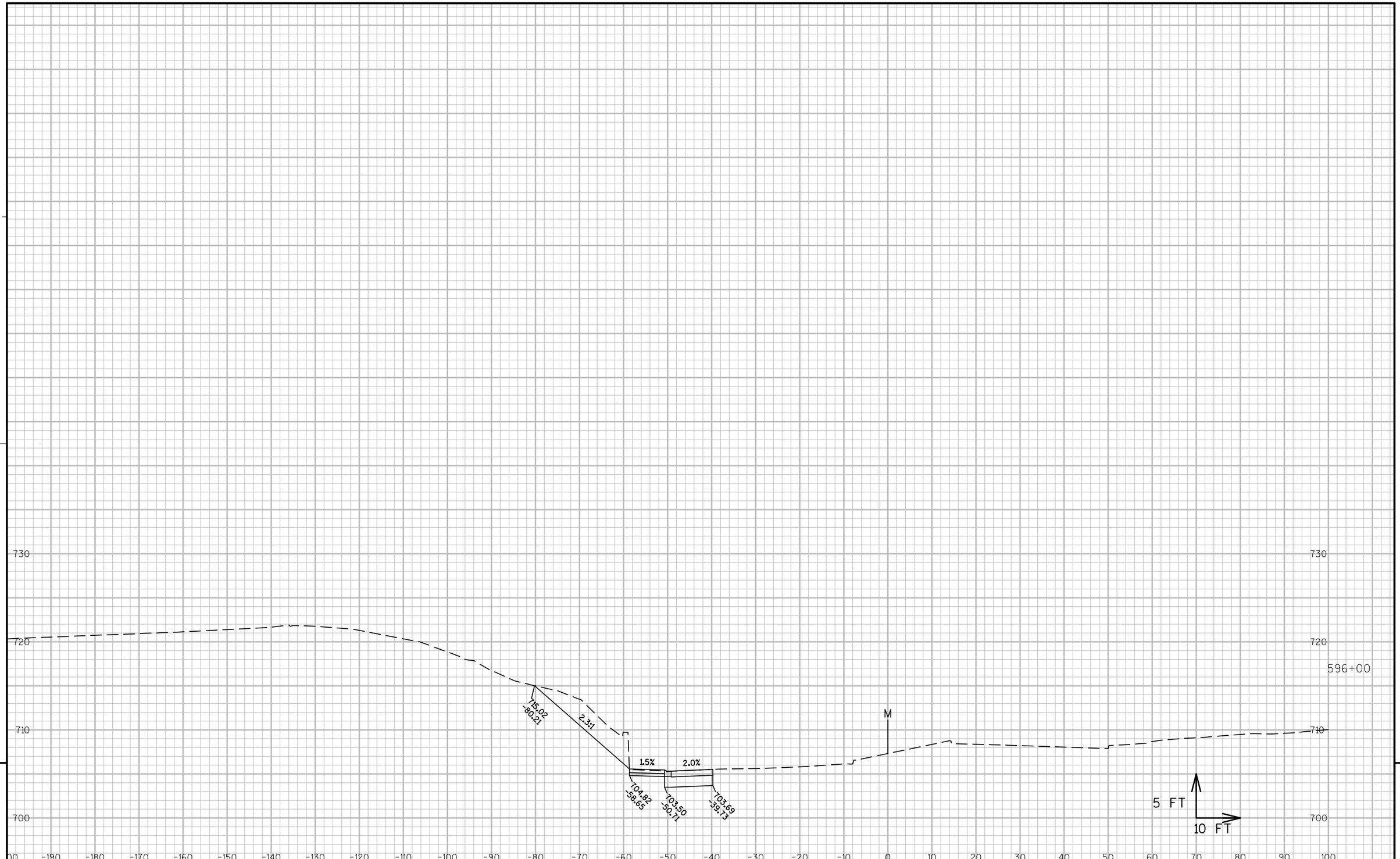
FILE NAME : W:\PDS\C3D\10603484\DSN\XS\090504_XS.DWG
LAYOUT NAME - SECTION SHEET - (10)

PLOT DATE : 4/29/2015 4:51 PM PLOT BY : SPAETH, MICHELE L PLOT NAME : PLOT SCALE : 1:20_XREF



PROJECT NO: 1060-34-84/1060-35-85	HWY: USH 45	COUNTY: MILWAUKEE	CROSS SECTIONS: WHITMAN MIDDLE SCHOOL PARKING LOT	SHEET 499 E

FILE NAME : W:\PDS\C3D\10603484\DSN\XS\090504_XS.DWG
LAYOUT NAME - SECTION SHEET - (11)
PLOT DATE : 4/29/2015 4:51 PM PLOT BY : SPAETH, MICHELE L PLOT NAME : PLOT SCALE : 1:20_XREF
WISDOT/CADDS SHEET 49



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PROJECT NO: 1060-34-84/1060-35-85	HWY: IH 41	COUNTY: MILWAUKEE	CROSS SECTIONS: N. MAYFAIR ROAD/STH 100	SHEET	E

FILE NAME : W:\PDS\C3D\10603484\DSN\XS\MAYFAIR_XS.DWG
LAYOUT NAME - SECTION SHEET - (1)

PLOT DATE : 7/28/2015 10:10 AM PLOT BY : MCGILLICUDDY, BENJAMIN PLOT NAME : PLOT SCALE : 1:20_XREF

WISDOT/CADDS SHEET 49

Notes

Wisconsin Department of Transportation

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through innovation and exceptional service.

http://www.dot.wisconsin.gov