WKE

FEB 2014

PROJECT ID: 2040-16-70

COUNTY: MILWAUKEE

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 = 632

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
2040-16-70	WISC 2014021	1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

RYAN ROAD (STH 100) CITY OAK CREEK

27TH STREET TO STH 38

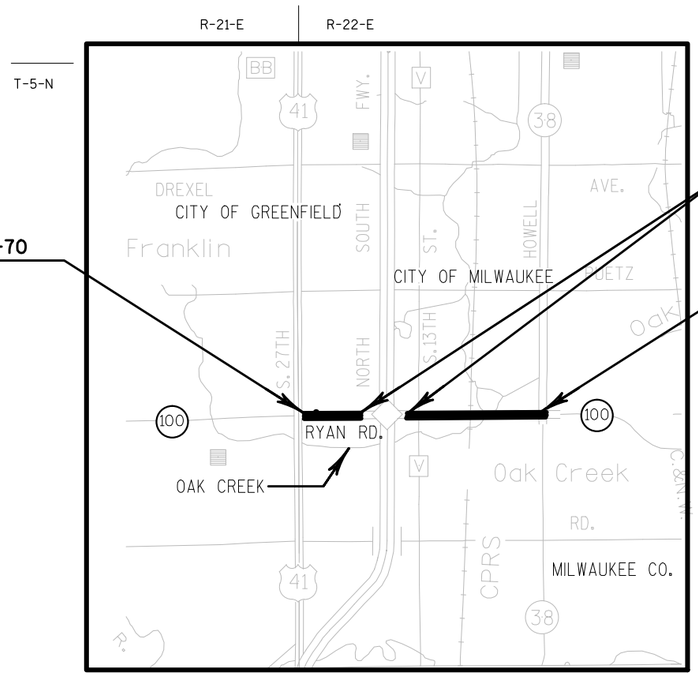
STH 100

MILWAUKEE COUNTY

STATE PROJECT NUMBER
2040-16-70

OVERHEAD SIGN SUPPORTS

S-40-982
S-40-983



EXCEPTION TO NET LENGTH
STA 39+47.64 - 60+41.84

BEGIN PROJECT 2040-16-70
STA 12+36.91
X=594766.50
Y=239071.82

END PROJECT 2040-16-70
STA 115+54.09

DESIGN DESIGNATION

A.A.D.T. (2031) W. of I-94	=	27,000
A.A.D.T. (2031) E. of I-94	=	32,000
D.H.V.	=	2,800
D.D.	=	58/42
T.	=	5.3
DESIGN SPEED	=	50 MPH
ESALS	=	2,788,600 - 3,087,900

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

LAYOUT
SCALE 0 1 MILE

TOTAL NET LENGTH OF CENTERLINE = 1.557 MILE

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, MILWAUKEE COUNTY, NAD83 (1997), 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 OF 1988 (NAVD88(91)).

TranSmart

ORIGINAL PLANS PREPARED BY:
TRANSMART TECHNOLOGIES, INC.
MADISON, WI. 53713-4521

WISCONSIN
SUSAN L. LEBRUN
E-29307
OREGON, WI
PROFESSIONAL ENGINEER

DATE: 9/30/2013 (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	TRANSMART & SE REGION
Designer	TRANSMART
Project Manager	CHRISTOPHER ZACHARIAS
Regional Examiner	CHRISTOPHER ZACHARIAS
Regional Supervisor	WILLIAM MOHR

APPROVED FOR THE DEPARTMENT
DATE: 10/8/13

E

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Time Warner Cable
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wis.engineering@twcable.com

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ORDER OF SECTION 2 SHEETS

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
REMOVAL PLANS
PLAN DETAILS
PAVING GRADES
EROSION CONTROL
STORM SEWER
EXISTING SIGNING
PERMANENT SIGNING
LIGHTING PLAN
TRAFFIC SIGNAL PLANS
PAVEMENT MARKING
STAGE CONSTRUCTION
ALIGNMENT LAYOUT

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

GENERAL NOTES

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

PRIOR TO THE INSTALLATION OF TRAFFIC CONTROL DEVICES THE CONTRACTOR SHALL PROVIDE THE ENGINEER AND ALL EMERGENCY PROVIDERS WITH THE TELEPHONE NUMBER OF A LOCAL PERSON RESPONSIBLE FOR THE EMERGENCY MAINTENANCE OF TRAFFIC CONTROL.

ALL EXISTING SIGNS SHALL REMAIN IN PLACE UNTIL CONTRUCTION OPERATIONS REQUIRE THEIR REMOVAL OR THE ENGINEER APPROVES THEIR REMOVAL.

THE CONTRACTORS PAVING OPERATIONS SHALL BE CONSISTENT WITH THE PLAN TYPICAL SECTIONS, AND CONSTRUCTED TO PREVENT HMA JOINTS FROM BEING LOCATED WITHIN A DRIVING, TURNING, PASSING, OR PARKING LANE.

PRIOR TO ORDERING DRAINAGE PIPES AND STRUCTURES, THE CONTRACTOR SHALL FIELD VERIFY RELATED DRAINAGE INFORMATION IN THE PLAN.

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

TEMPORARY STORAGE OF ANY EXCAVATED MATERIAL WILL NOT BE PERMITTED IN WETLANDS.

THE EROSION CONTROL ITEMS SHOWN ON THE PLANS ARE AT SUGGESTED LOCATIONS. THE ENGINEER MAY MODIFY LOCATIONS AS NEEDED. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL SUCH TIME AS THE ENGINEER DETERMINES THE MEASURE IS NO LONGER NECESSARY.

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

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

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

WHEN THE QUANTITY OF THE ITEM BASE COURSE OR HMA PAVEMENT IS MEASURED BY THE TON, THE DEPTH OR THICKNESS SHOWN ON THE PLAN IS APPROXIMATE, THE ACTUAL THICKNESS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.

PAVEMENT TYPE	TOTAL LAYER PAVEMENT THICKNESS	LAYERS	NOMINAL MAXIMUM SIZE GRADATION	ASPHALTIC MATERIAL
ASPHALTIC SURFACE DRIVEWAYS	4"	4" LAYER	19.0 MM	
ASPHALTIC SURFACE TEMPORARY	4"	4" LAYER	19.0 MM	
E-3	4"	1 3/4" UPPER LAYER 2 1/4" LOWER LAYER	12.5 MM 19.0 MM	PG 64-22 PG 64-22
E-3	7"	3 1/2" UPPER LAYER 3 3/4" LOWER LAYER	25.0 MM	PG 64-22

ALL HOLES OR OPENINGS BELOW SUBGRADE RESULTING FROM ABANDONMENT OR REMOVAL OF EXISTING STRUCTURES SHALL BE FILLED WITH SUITABLE MATERIAL AND COMPACTED.

APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE AND ADJOINING TWO SECTIONS OF CONCRETE PIPE SHALL BE TIED TOGETHER AS SHOWN ON THE STANDARD DETAIL DRAWINGS AND AS LOCATED IN THE MISCELLANEOUS QUANTITIES. JOINT TIES SHALL BE INCIDENTAL ITEMS INCLUDED IN THE COST OF THE CONCRETE PIPE.

CROSS SECTIONS SHOWN INCLUDE THE THICKNESS OF SALVAGED TOPSOIL WHERE REQUIRED. SALVAGED TOPSOIL SHALL BE PLACED WITH 4-INCH TYPICAL DEPTH.

A SAWED JOINT IS REQUIRED WHERE NEW HMA PAVMENT SURFACE MEETS EXISTING HMA PAVEMENT SURFACE.

CONCRETE MEDIAN SLOPED NOSE SHALL BE CONSTRUCTED FOR ALL MEDIAN OPENINGS AT INTERSECTIONS WITH CURB & GUTTER.

EXISTING PIPE CULVERT SIZES AND CONCRETE BOX CULVERT SIZES SHOWN ARE APPROXIMATE AND CONTRACTOR WILL BASE BID ON THE ACTUAL FIELD CONDITIONS.

CONTRACTOR MUST CONTACT THE PROJECT ENGINEER AND SEWRPC, AT LEAST TWO WEEKS PRIOR TO WORK NEAR ANY PUBLIC SURVEY MONUMENT.

CONTACT INFORMATION FOR SECTION CORNERS IMPACTED BY CONSTRUCTION:

DON SIMON AND JOHN WASHBURN
SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION
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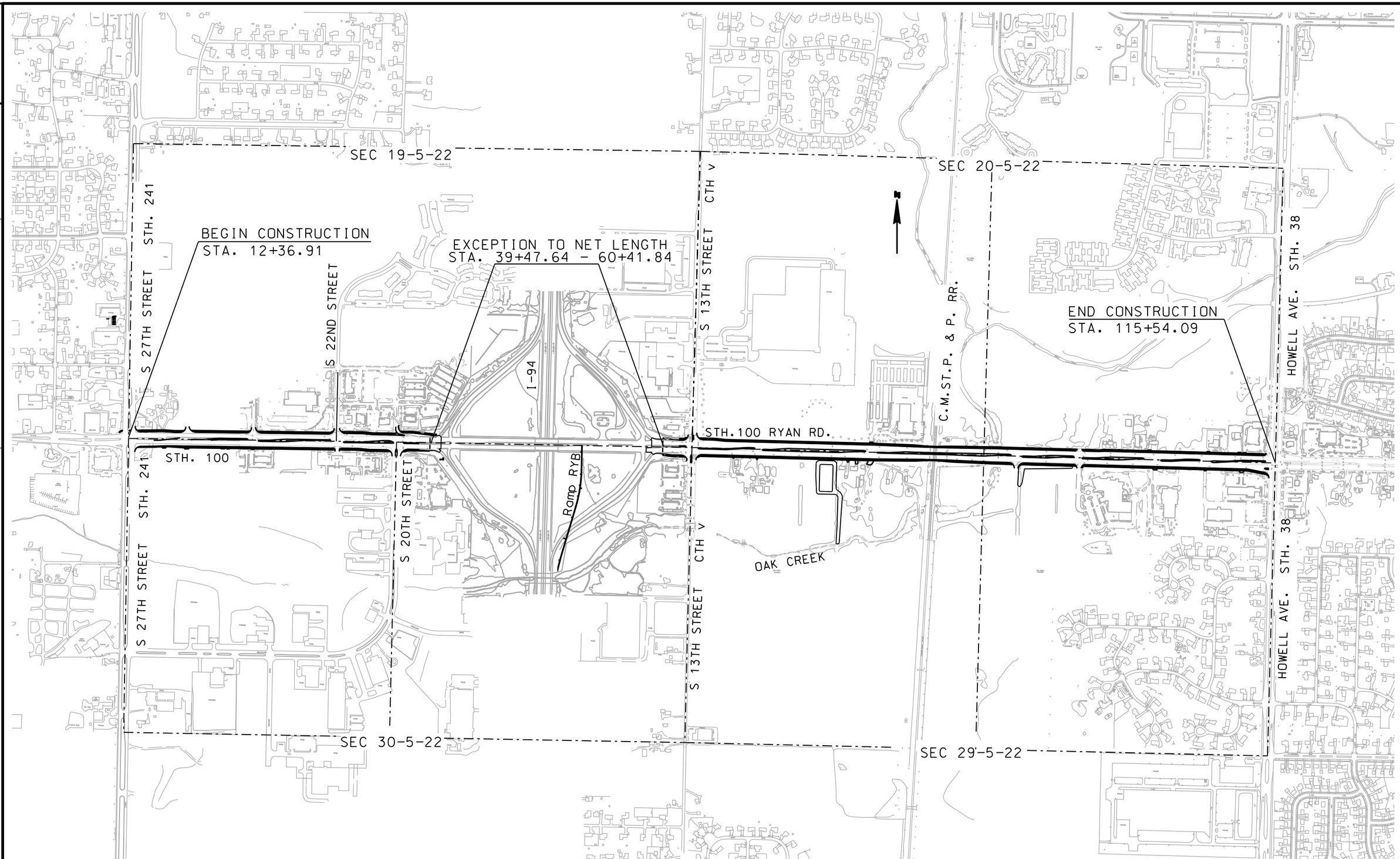
(262) 547-6721 FAX (262) 547-1103
E-MAIL:SEWRPC@SEWRPAC.ORG

STANDARD ABBREVATIONS

AEW	APRON END WALL
AGG	AGGREGATE
BAD	BASE AGGREGATE DENSE
BM	BENCH MARK
C&G	CURB AND GUTTER
CONC	CONCRETE
CP	CULVERT PIPE
CPRC	CULVERT PIPE REINFORCED CONCRETE
CSD	CONCRETE SURFACE DRAIN
CY	CUBIC YARD
D	DEGREE OF CURVE
DISCH	DISCHARGE
HMA	HOT MIX ASPHALT
INV	INVERT
L	LENGTH OF CURVE
LHF	LEFT HAND FORWARD
LT	LEFT
MAX	MAXIMUM
MIN	MINIMUM
M/L	MATCHLINE
NB	NORTHBOUND
NC	NORMAL CROWN
NORM	NORMAL
PAVT	PAVEMENT
PC	POINT OF CURVE
PCC	POINT OF COMPOUND CURVE
PI	POINT OF INTERSECTION
PT	POINT OF TANGENT
PVC	POINT OF VERTICAL CURVE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENT
R	RADIUS OF CURVE
R/L	REFERENCE LINE
R/W	RIGHT OF WAY
RC	REVERSE CROWN
RCAEW	APRON ENDWALL FOR CULVERT PIPE REINFORCED CONCRETE
REQD	REQUIRED
RHF	RIGHT HAND FORWARD
RO	RUN OFF LENGTH
RT	RIGHT
SALV	SALVAGED
SB	SOUTHBOUND
SDD	STANDARD DETAIL DRAWING
SE	SUPER ELEVATION
SF	SQUARE FOOT
STA	STATION
SY	SQUARE YARD
T	TANGENT LENGTH



PROJECT NO: 2040-16-70	HWY: STH.100 RYAN RD.	COUNTY: MILWAUKEE	PROJECT OVERVIEW	SHEET E

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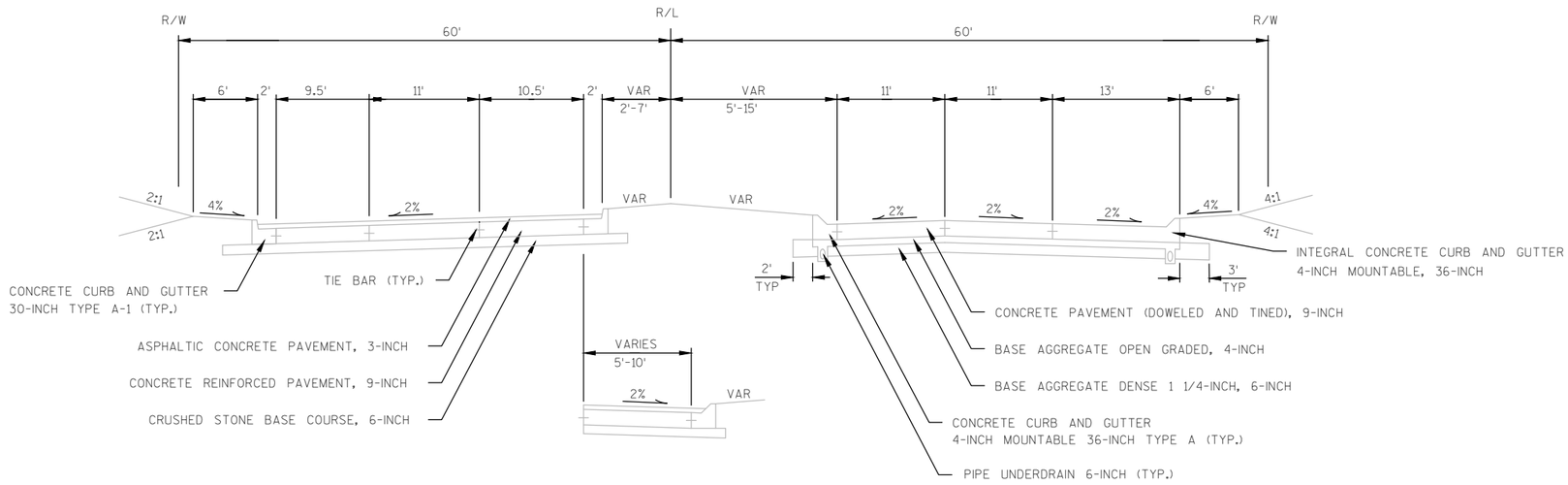
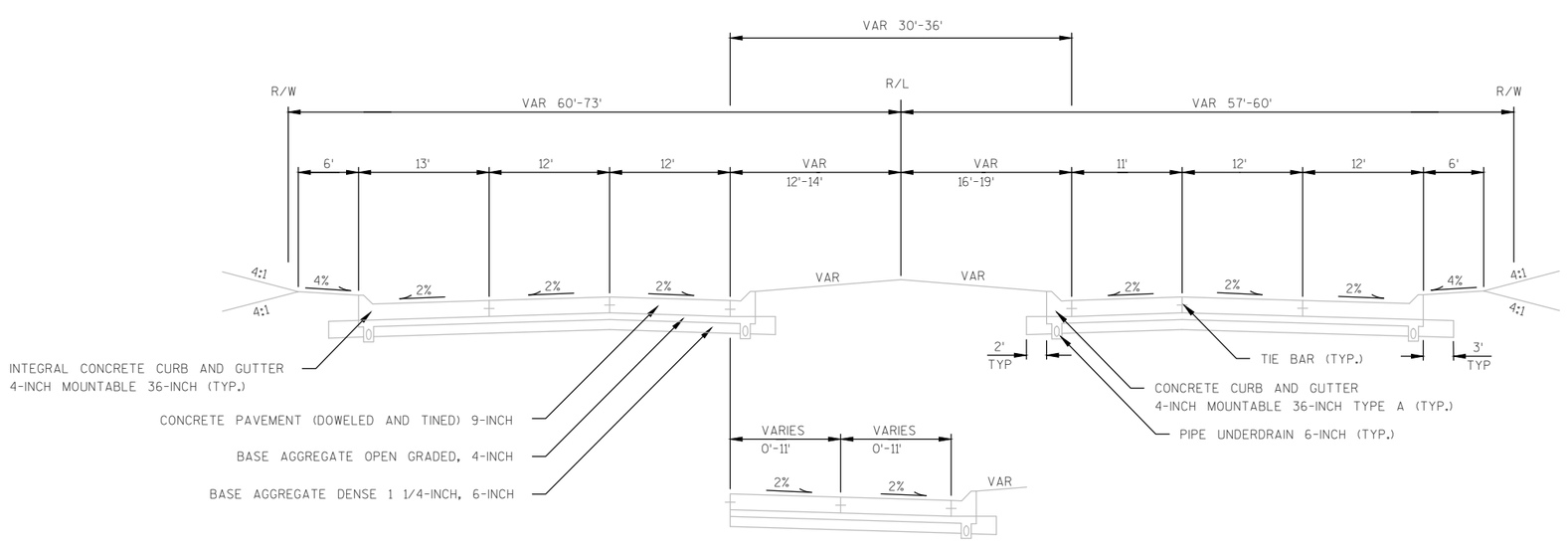
WISDOT/CADDS SHEET 42



TYPICAL EXISTING SECTION

STH 100 (RYAN ROAD)

STA 18+28.88 TO STA 19+73.00

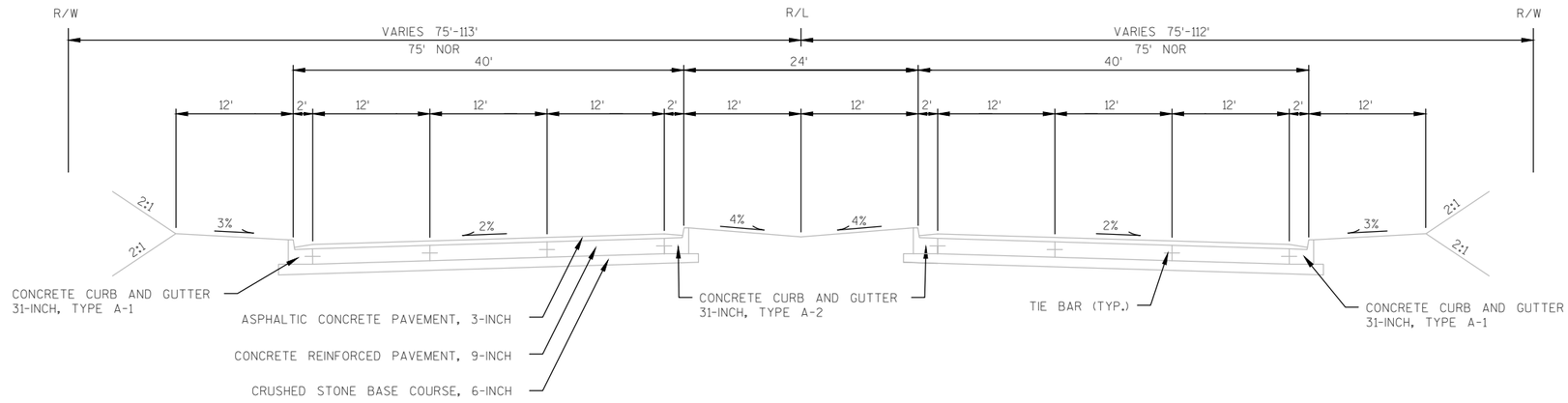


TYPICAL EXISTING SECTION

STH 100 (RYAN ROAD)

BEGIN PROJECT STA 12+87.96 TO STA 18+28.88

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	PLAN: EXISTING TYPICAL SECTIONS	SHEET 5	E

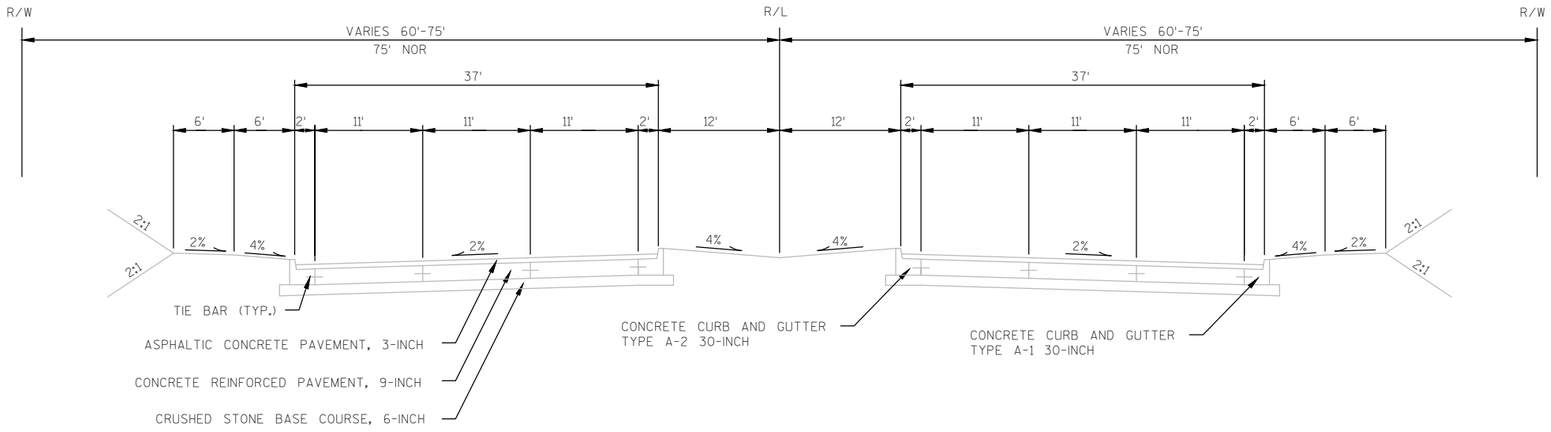


TYPICAL EXISTING SECTION

STH 100 (RYAN ROAD)

STA 31+13.71 TO STA 39+48.00

STA 60+42.00 TO STA 63+06.07



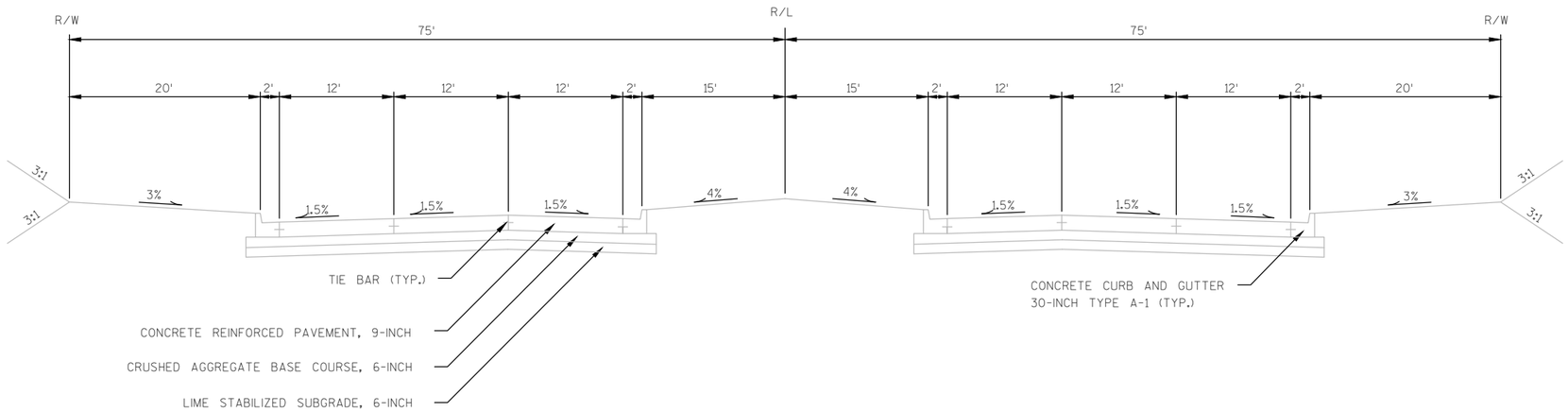
TYPICAL EXISTING SECTION

STH 100 (RYAN ROAD)

STA 19+73.00 TO STA 31+13.71

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	PLAN: EXISTING TYPICAL SECTIONS	SHEET 6	E

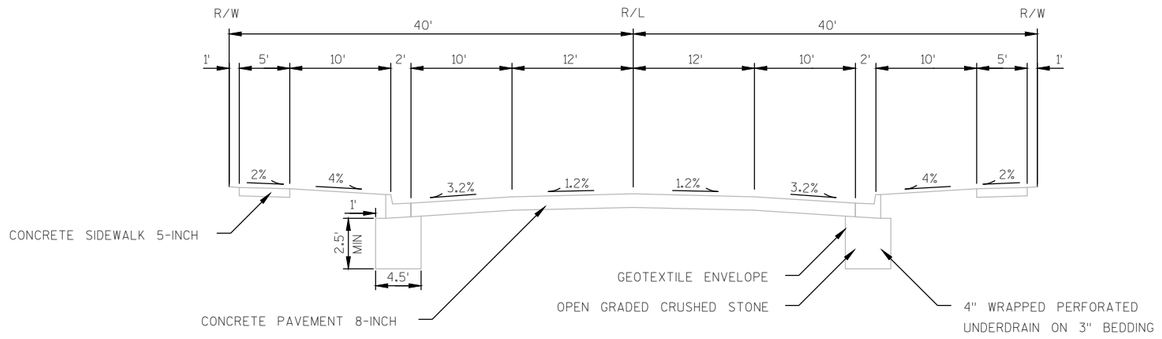
2



TYPICAL EXISTING SECTION

STH 100 (RYAN ROAD)

STA 63+06.07 TO END PROJECT STA 115+01.63

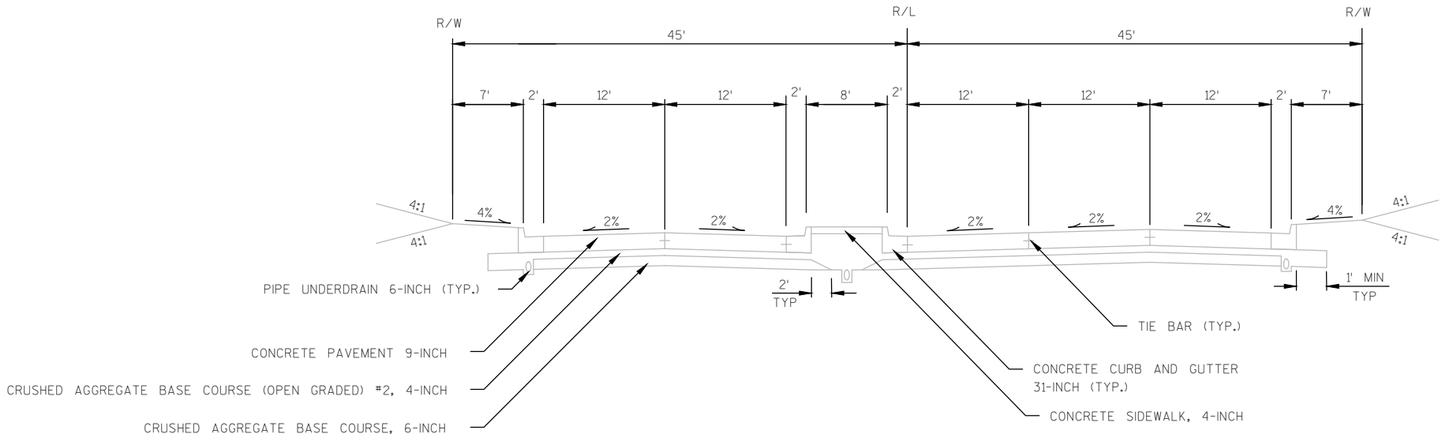


TYPICAL EXISTING SECTION

22ND STREET

STA 51+00.00 TO STA 56+00.00

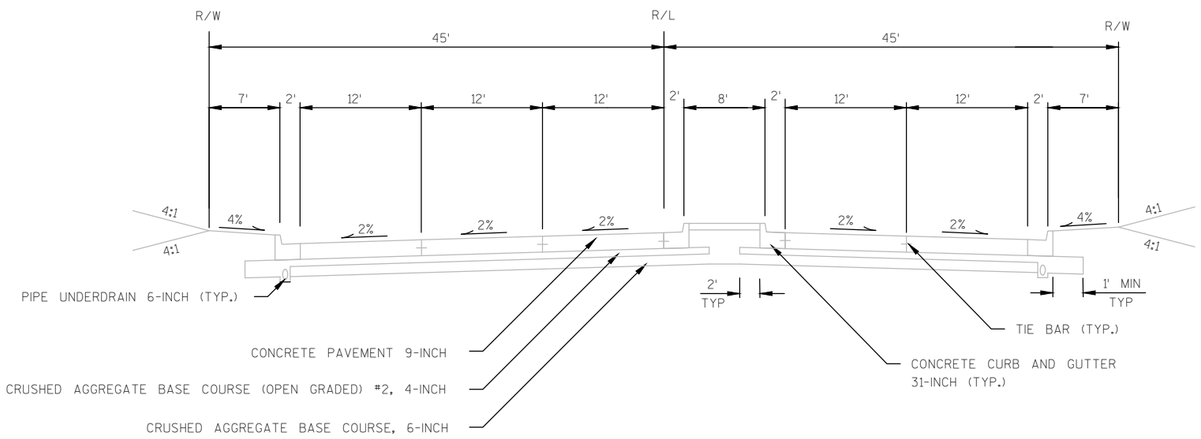
PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	PLAN: EXISTING TYPICAL SECTIONS	SHEET 7	E



TYPICAL EXISTING SECTION

SOUTH 13TH STREET

STA 36+00 TO 49+50



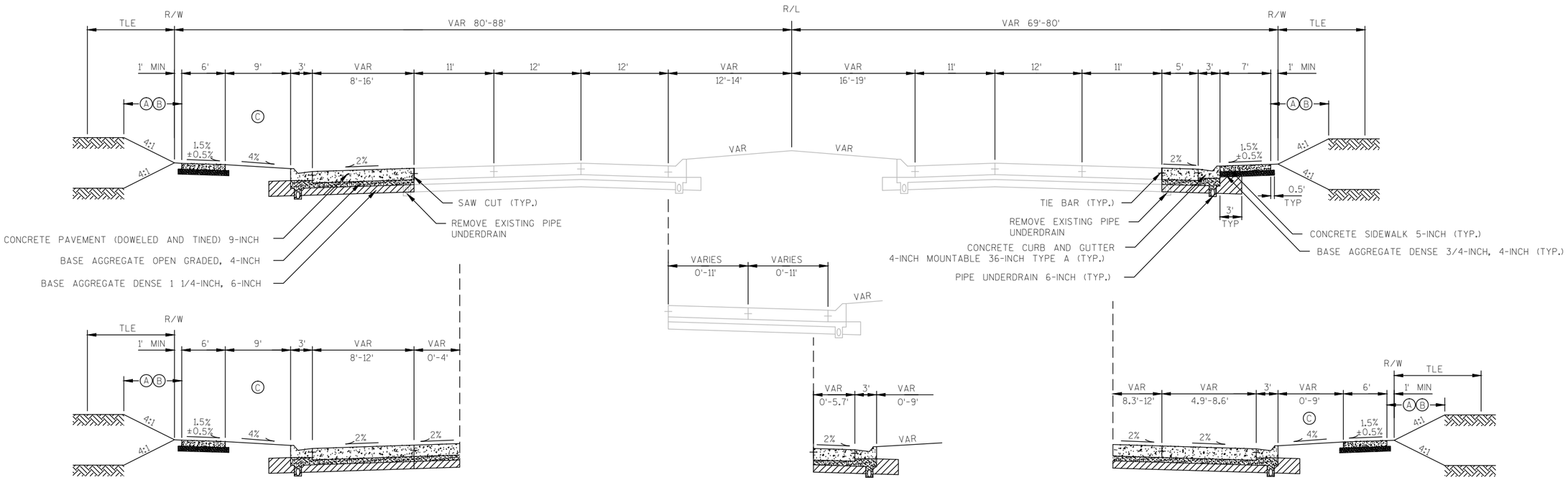
TYPICAL EXISTING SECTION

SOUTH 13TH STREET

STA 50+50 TO 51+65

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	PLAN: EXISTING TYPICAL SECTIONS	SHEET 8	E

2



FINISHED TYPICAL SECTION

STH 100 (RYAN ROAD)
STA 12+87.38 TO STA 17+98.80

LEGEND

- (A) SLOPES 3:1 AND FLATTER USE SEED MIXTURE NO. 20 AND FERTILIZER TYPE B
- (B) 4" SALVAGED TOPSOIL AND MULCHING
- (C) 6" SALVAGED TOPSOIL, SOD LAWN AND FERTILIZER TYPE B

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	PLAN: FINISHED TYPICAL SECTION	SHEET 9	E

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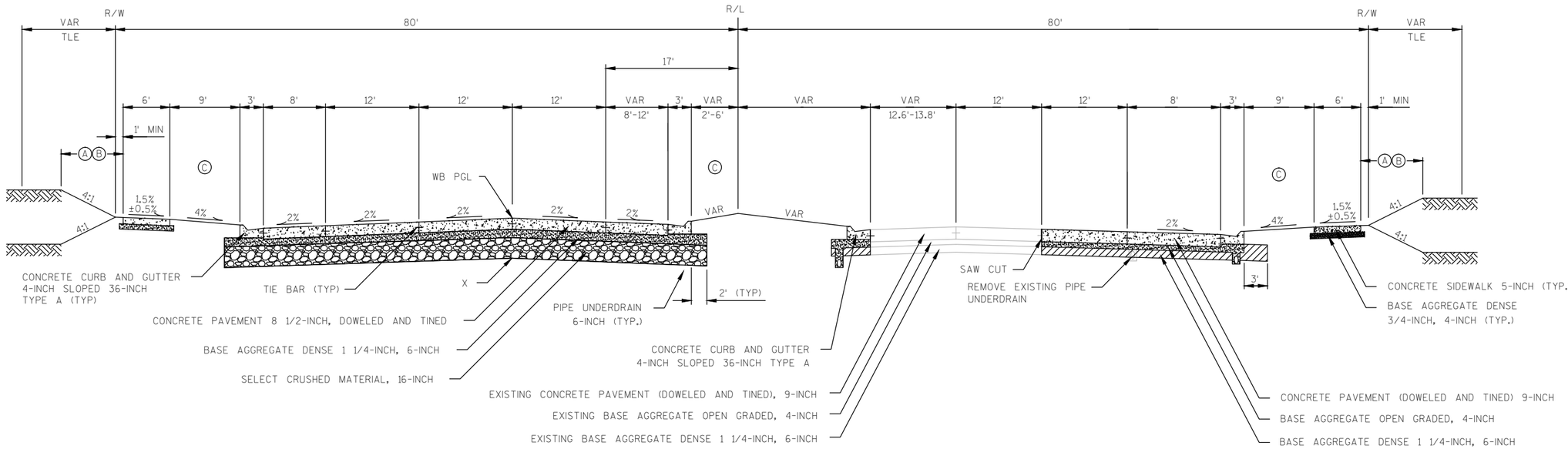


FINISHED TYPICAL SECTION

STH 100 (RYAN ROAD)
STA. 17+98.80 TO STA 18+68.56

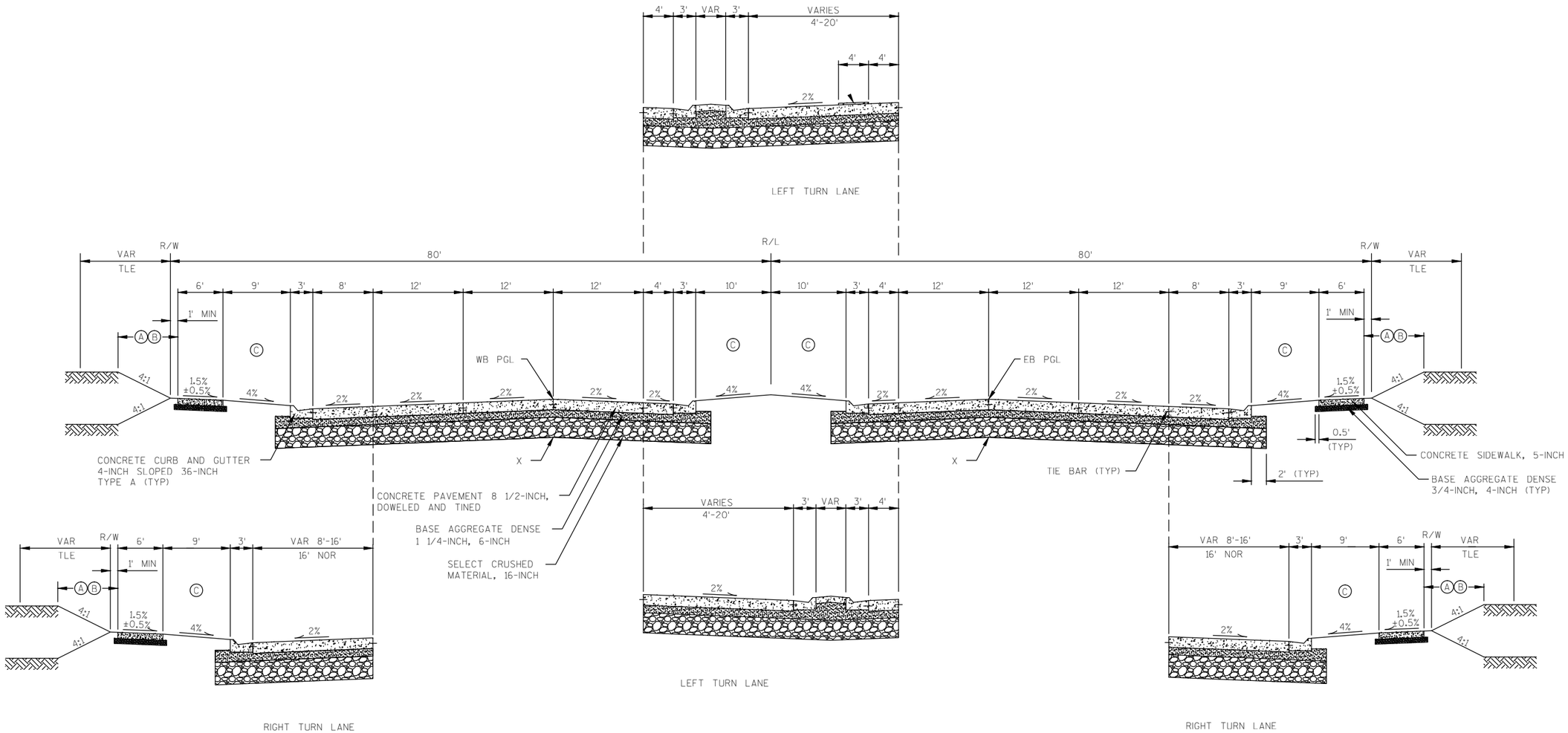
NOTES

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

LEGEND

(A) SLOPES 3:1 AND FLATTER USE SEED MIXTURE NO. 20 AND FERTILIZER TYPE B
(B) 4" SALVAGED TOPSOIL AND MULCHING
(C) 6" SALVAGED TOPSOIL, SOD LAWN AND FERTILIZER TYPE B

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	PLAN: FINISHED TYPICAL SECTION	SHEET 10	E



FINISHED TYPICAL SECTION

STH 100 (RYAN ROAD)
STA 18+68.56 TO STA 39+47.64

NOTES

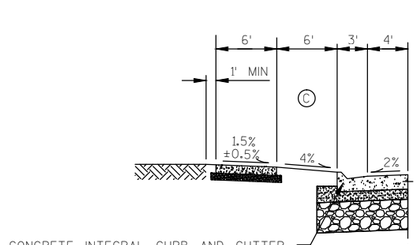
PGL = POINT REFERRED TO ON PROFILE AND PIVOT POINT FOR SUPERELEVATION
X = POINT REFFERED TO ON CROSS-SECTION

LEGEND

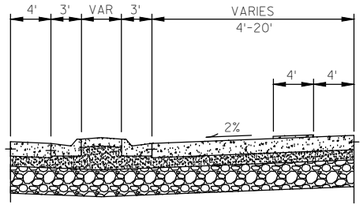
(A) SLOPES 3:1 AND FLATTER USE SEED MIXTURE NO. 20 AND FERTILIZER TYPE B
(B) 4" SALVAGED TOPSOIL AND MULCHING
(C) 6" SALVAGED TOPSOIL, SOD LAWN AND FERTILIZER TYPE B

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	PLAN: FINISHED TYPICAL SECTION	SHEET 11	E

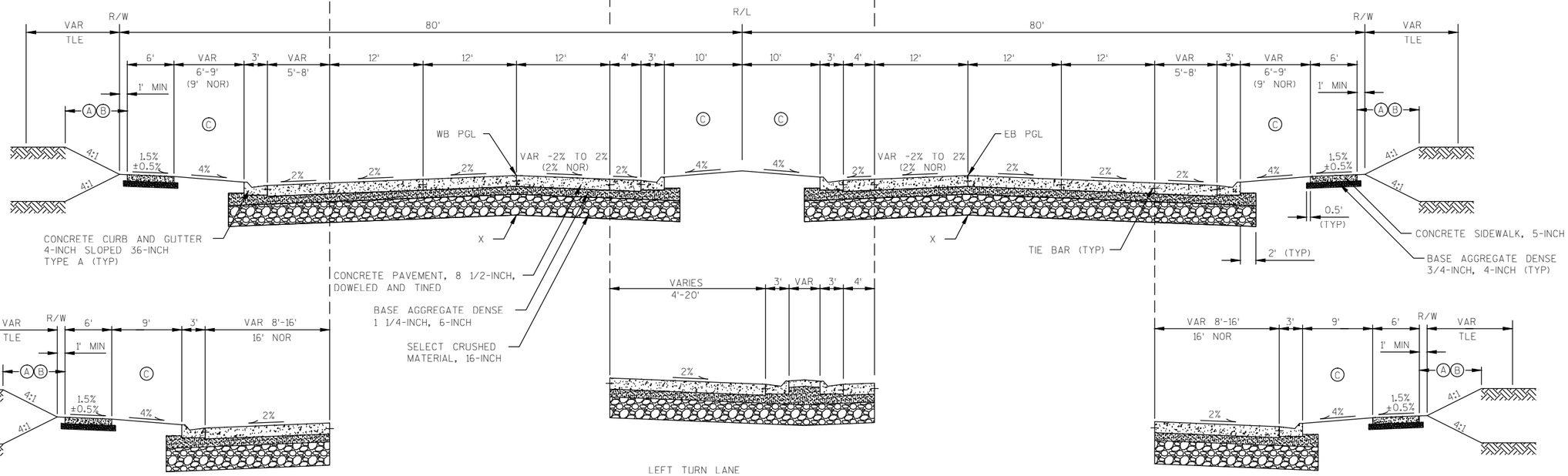
2

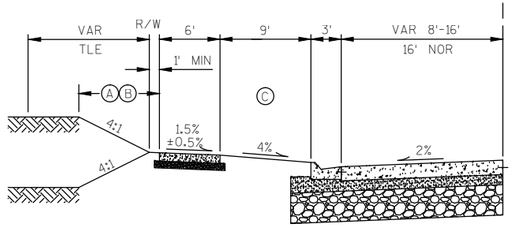


CONCRETE INTEGRAL CURB AND GUTTER
4-INCH SLOPED 36-INCH TYPE A
STA 85+33.66 TO STA 99+69.10



LEFT TURN LANE





RIGHT TURN LANE

LEFT TURN LANE

RIGHT TURN LANE

FINISHED TYPICAL SECTION

STH 100 (RYAN ROAD)

STA 60+41.84 TO STA 83+50.00

STA 86+00.00 TO END PROJECT STA 114+98.05

NOTES

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

X = POINT REFFERED TO ON CROSS-SECTION

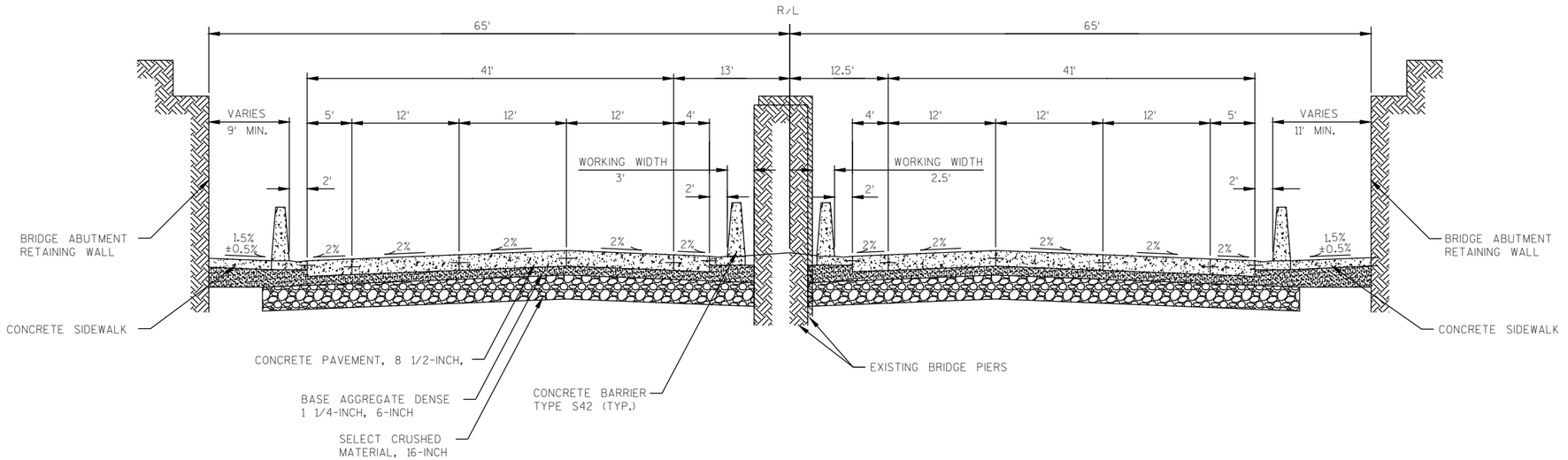
LEGEND

(A) SLOPES 3:1 AND FLATTER USE SEED MIXTURE NO. 20 AND FERTILIZER TYPE B

(B) 4" SALVAGED TOPSOIL AND MULCHING

(C) 6" SALVAGED TOPSOIL, SOD LAWN AND FERTILIZER TYPE B

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	PLAN: FINISHED TYPICAL SECTION	SHEET 12	E



FINISHED TYPICAL SECTION

STH 100 (RYAN ROAD)

STA 83+50.00 TO STA 86+00.00

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	PLAN: FINISHED TYPICAL SECTION	SHEET 13	E

2

WB RYAN ROAD

EB RYAN ROAD

INL

MH

78

77

76

75

74

73

696

694

692

690

688

686

685

684

680

N

MANHOLE
INV. EL.
= 684.7

50'

PROPOSED
R/W

PROPOSED
TLE

423

424

INV. EL.
= 684.0

WETLAND
ENCROACHMENT
AREA

50'

CREST EL.
= 688.4

60'

A

A'

PROPOSED
R/W

421

422

INV. EL.
= 686.33

INV. EL.
= 685.0

PROPOSED
R/W

APPROXIMATE
100-YEAR FLOOD
PLAIN LIMIT.
SOURCE: FEMA
FIRM MAP NO.
55079C0231E

WETLAND
DELINEATION

OAK CREEK

SLOPE
INTERCEPT

419

75+18.32 ℄
= 44P+44.53

90°0'0"

B

B'

44P

43P

42P

41P

40P

39P

38P

37P

36P

BOTTOM EL.
= 685.0

INV. EL.
= 686.33

420

418

415

413A

414

413

412

A

TOP OF 10'-WIDE BERM
EL. = 692.0

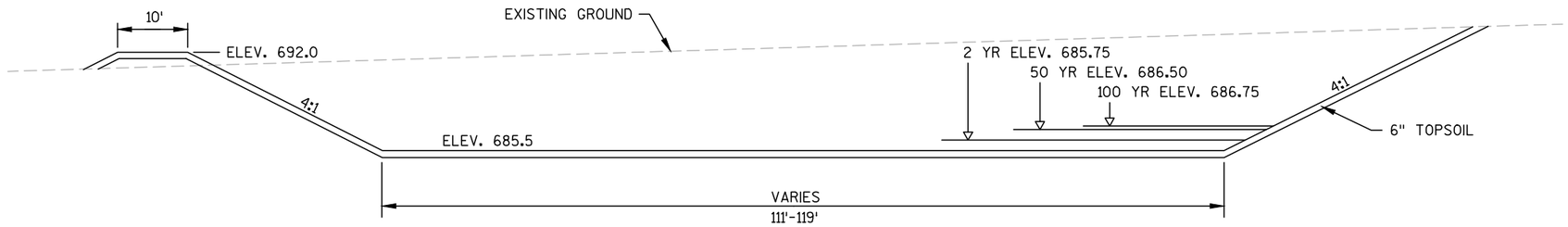
PROPOSED
R/W

PROPOSED
TLE

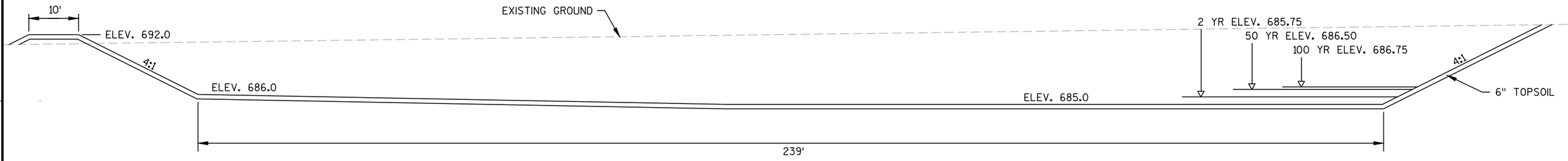
SCALE
1" = 60'

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	POND CONSTRUCTION DETAILS	SHEET 14	E

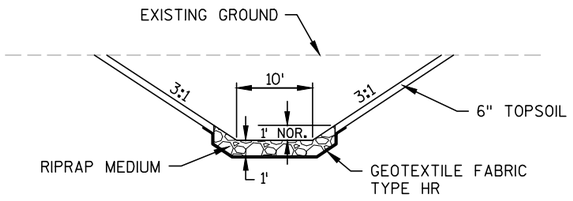
2



FINISHED TYPICAL SECTION A-A' - POND

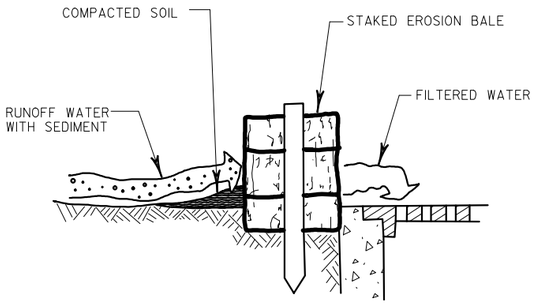


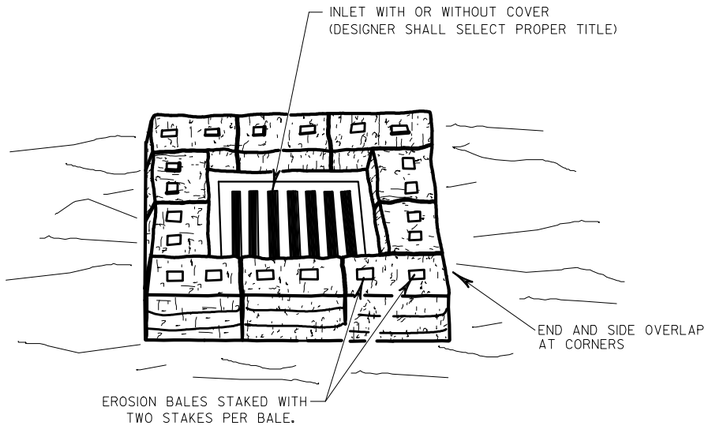
FINISHED TYPICAL SECTION B-B' - POND



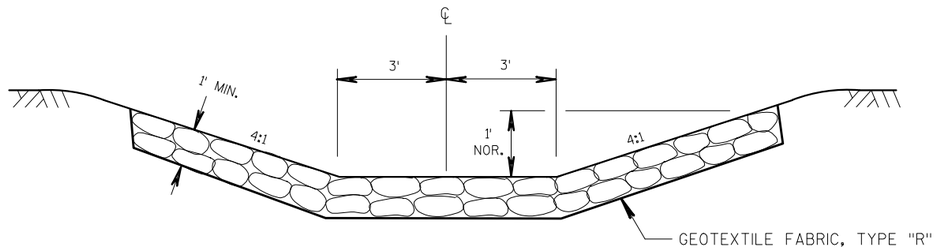
FINISHED TYPICAL SECTION - EMERGENCY SPILLWAY

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	POND CONSTRUCTION DETAILS	SHEET 15	E

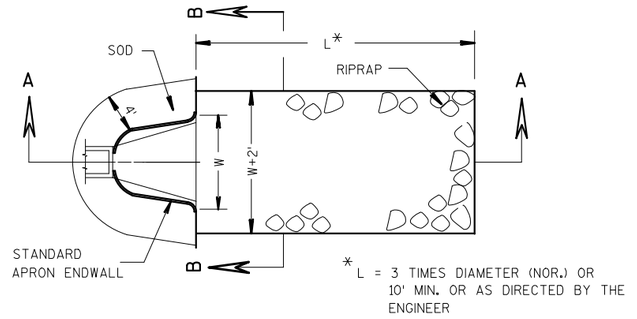


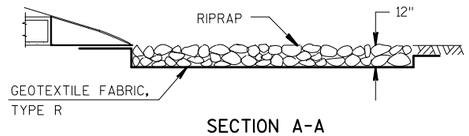


EROSION BALE INLET SEDIMENT BARRIER

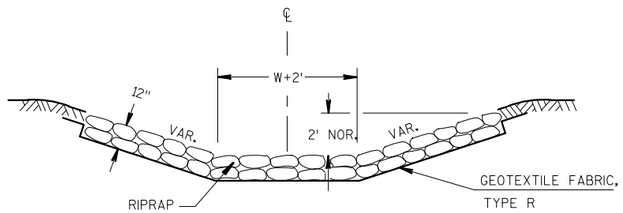


DETAIL FOR SPECIAL DITCH WITH RIPRAP AND GEOTEXTILE FABRIC



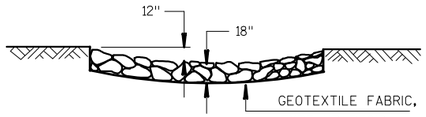


SECTION A-A

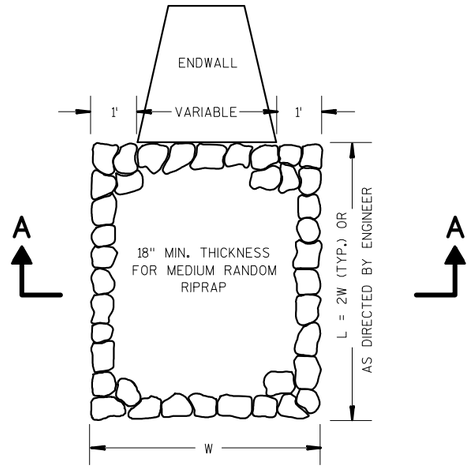


SECTION B-B

SOD, RIPRAP AND GEOTEXTILE FABRIC DETAIL
AT APRON ENDWALLS

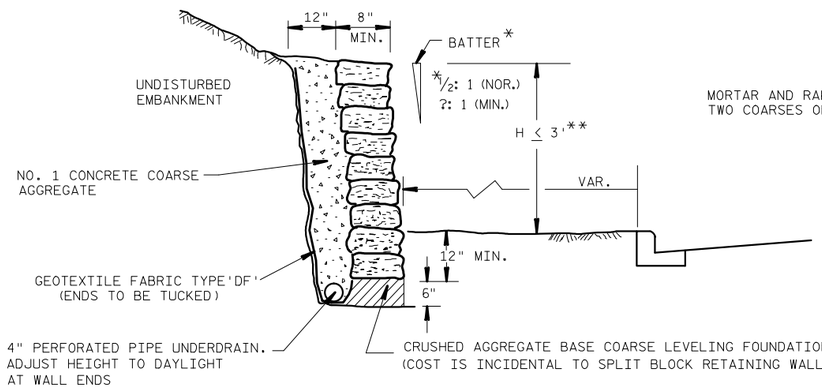


SECTION A-A

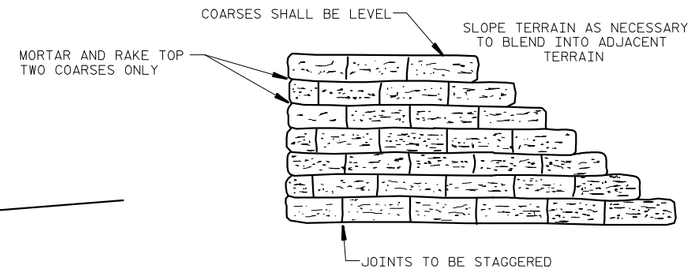


MEDIUM RANDOM RIPRAP TREATMENT AT CULVERTS

**SEE PLAN SHEETS AND/OR CROSS SECTIONS FOR ACTUAL DIMENSIONS. WALLS GREATER THAN 3 FT. MUST BE DESIGNED BY A GEOTECHNICAL ENGINEER.



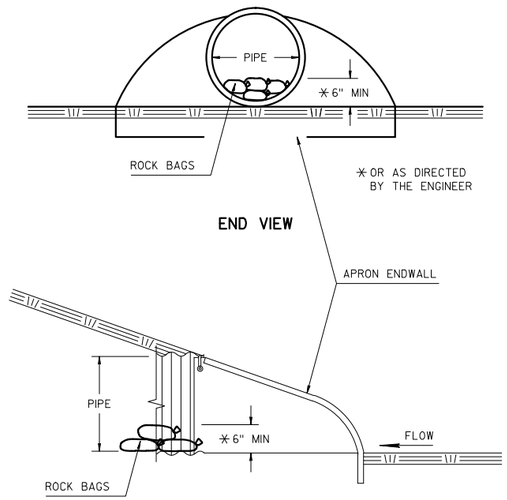
SIDE VIEW



FRONT VIEW

MEASURED AND PAID FOR AS "SPLIT CONCRETE BLOCK RETAINING WALL", PAY HEIGHT = H + 12"

DETAIL FOR SPLIT CONCRETE BLOCK RETAINING WALL



END VIEW

SIDE VIEW

CULVERT PIPE CHECKS

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET 17	E

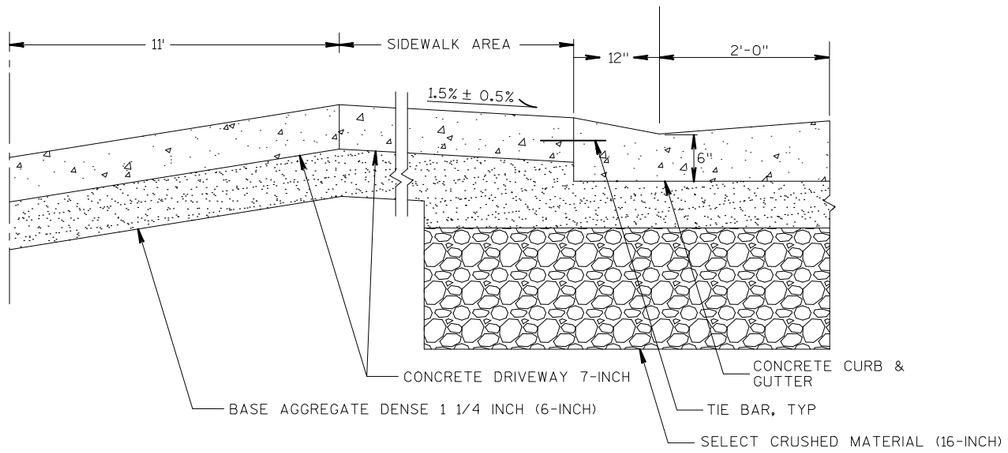
NOTES:

(1) DRIVEWAY SURFACE BEYOND APRON TO BE REPLACED IN-KIND WITH MINIMUM SECTION OF:

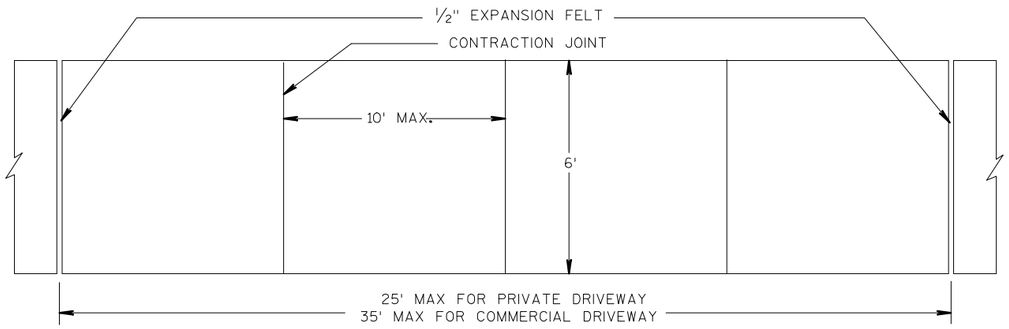
ASPHALTIC SURFACE (4-INCH) DRIVEWAYS AND FIELD ENTRANCES
OVER BASE AGGREGATE DENSE 1 ¼-INCH (6-INCH)
OR
CONCRETE DRIVEWAY 7-INCH OVER
BASE AGGREGATE DENSE 1 ¼-INCH (6-INCH)
OR
BASE AGGREGATE DENSE 1 ¼-INCH (6-INCH)

(2) ALL URBAN DRIVEWAYS TO BACK OF APRON TO BE PAID FOR AS CONCRETE DRIVEWAY 7-INCH

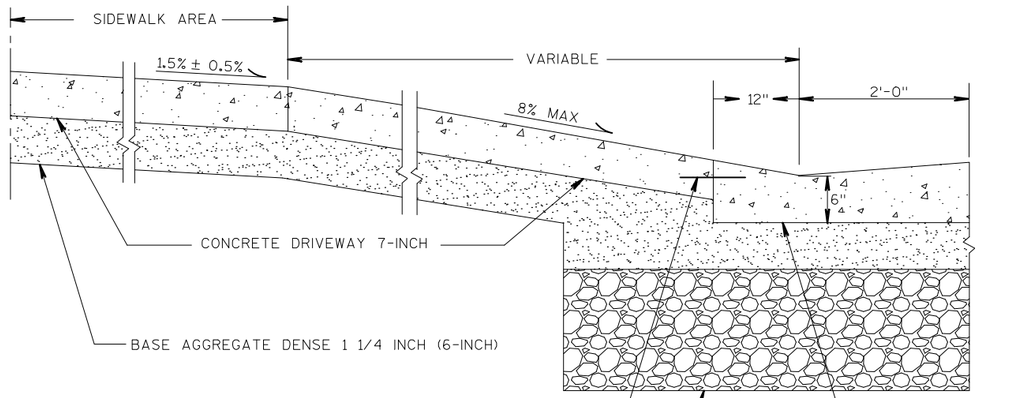
(3) TIE BARS NO. 6X12" (SPACED 2' C-C) ARE INCIDENTAL TO THE BID ITEM "CONCRETE DRIVEWAY 7-INCH"



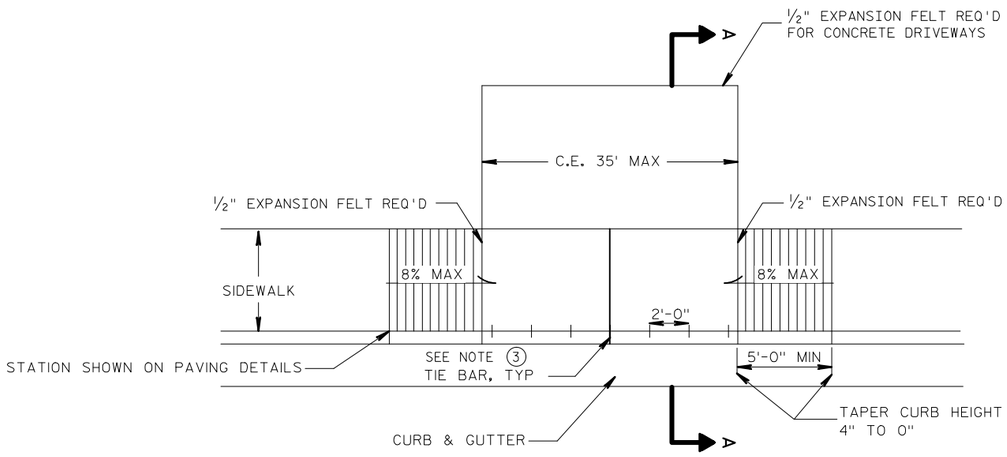
SECTION A-A



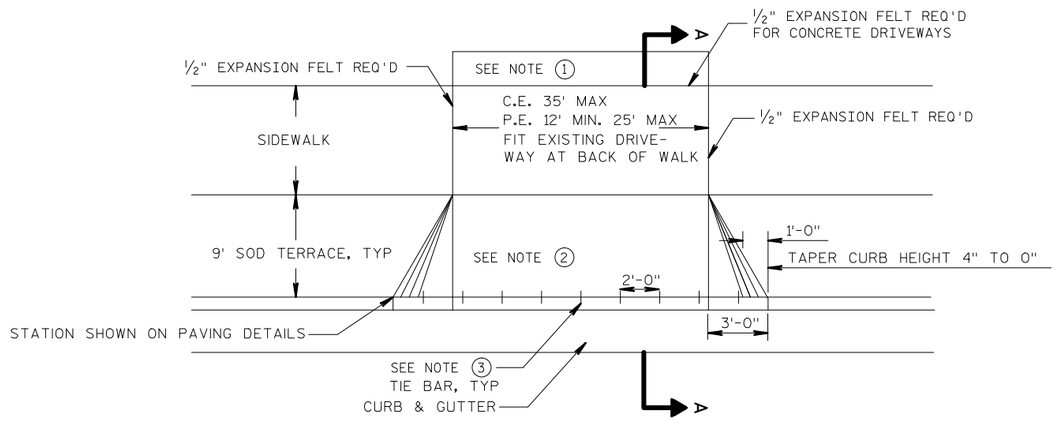
SIDEWALK DETAIL



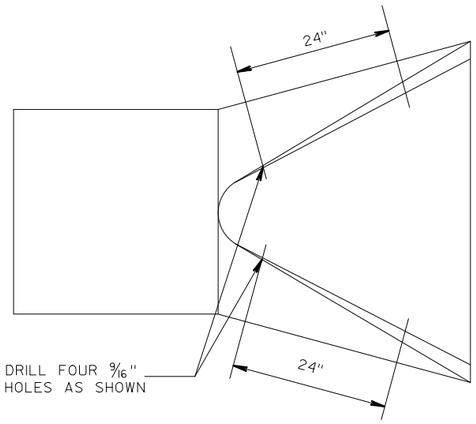
SECTION A-A

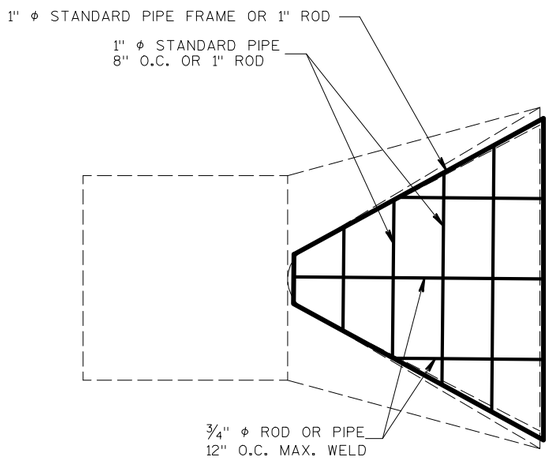


COMMERCIAL ENTRANCE WITHOUT TERRACE

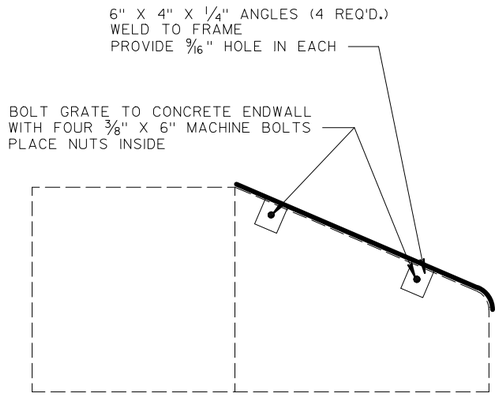


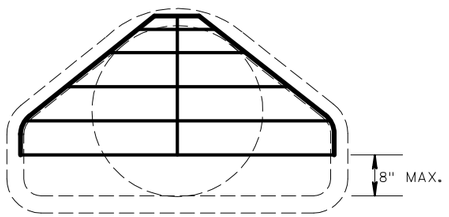
PRIVATE AND COMMERCIAL ENTRANCES WITH TERRACE



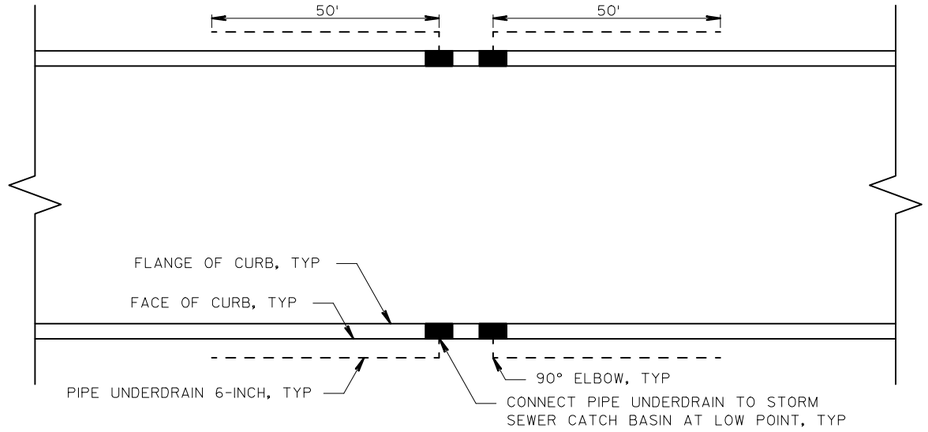


AT EACH PIPE

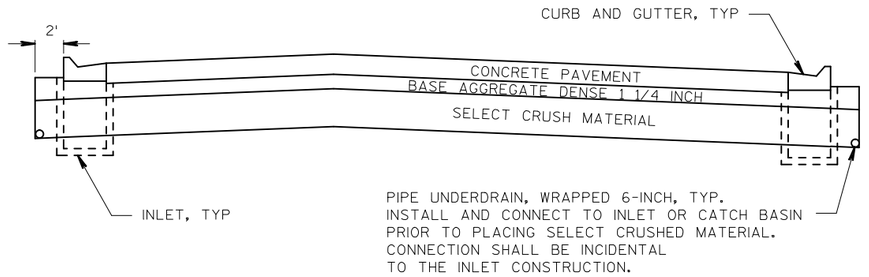




PIPE GRATE DETAIL



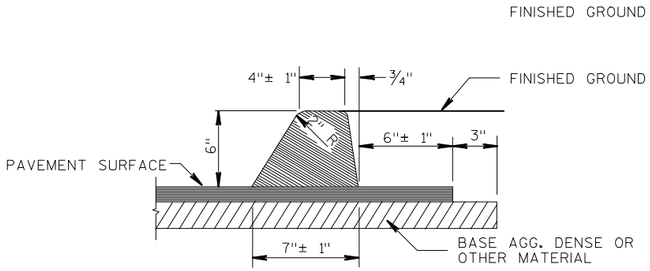
PLAN VIEW



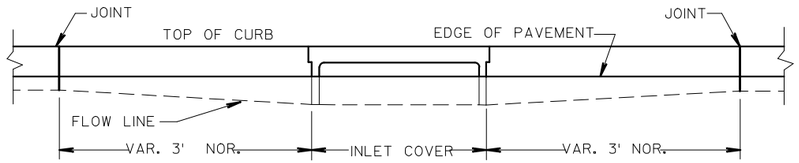
SECTION VIEW

UNDERDRAIN IN SELECT CRUSHED MATERIAL AT PROFILE LOW POINTS AND SELECT INLETS

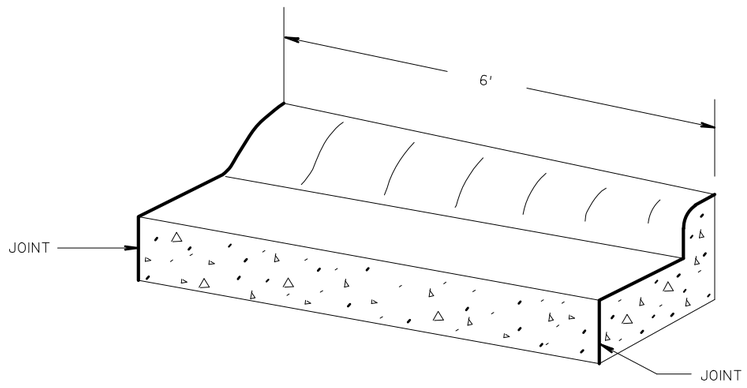
2



ASPHALTIC CURB DETAIL

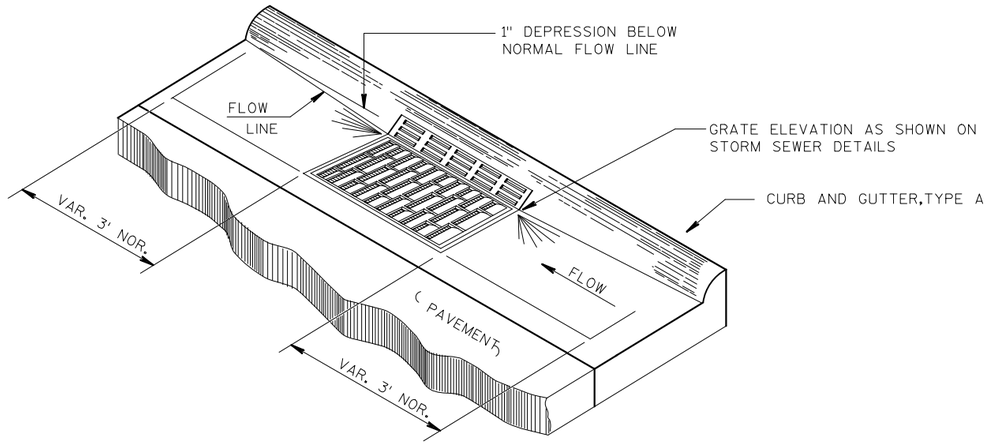


ELEVATION



TRANSITION DETAIL

36" TYPE "A" CURB & GUTTER TO 31" TYPE "A" CURB & GUTTER
(TO BE MEASURED & PAID FOR AS 36" CONC. C&G)



DETAIL OF CURB AND GUTTER AT INLETS

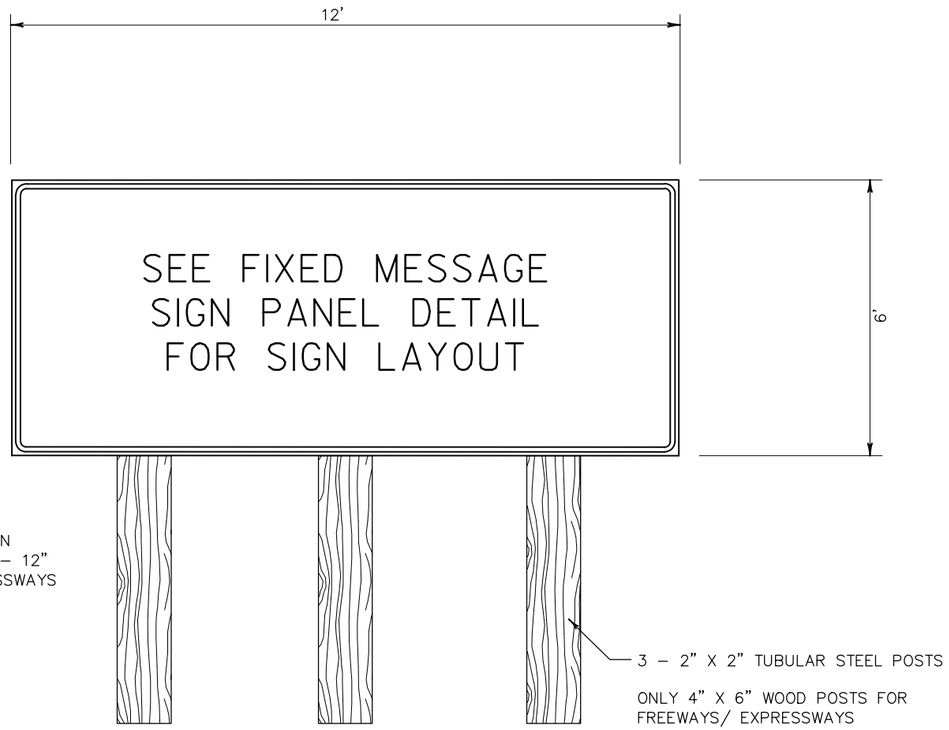
(TYPE HM INLET SHOWN)
(SEE S.D.D. 8A 5-18c)

2

FIXED MESSAGE SIGNS

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"). 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"
7. 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.
8. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO ENGINEER FOR REVIEW PRIOR TO MANUFACTURING.
9. SIGN BASE MATERIAL SHALL BE ACCORDING TO SECTION 643 & 637.
10. SIGNS TO BE IN PLACE 10 DAYS PRIOR TO CONSTRUCTION.

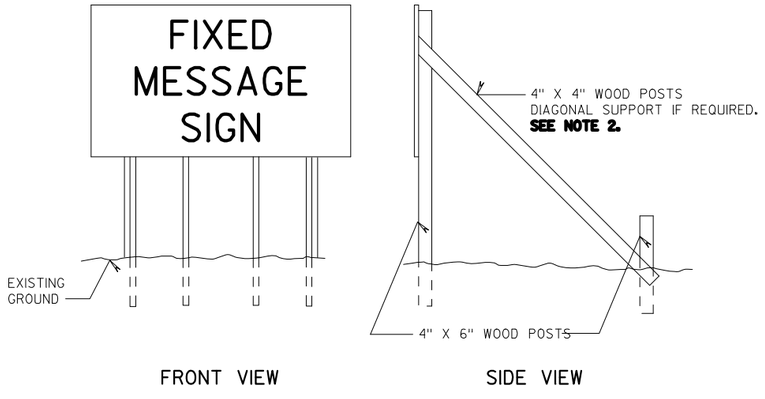


FIXED MESSAGE SIGN
SERIES D LETTERS – 12"
FREEWAYS/ EXPRESSWAYS

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 REFLECTIVE BACKGROUND.
3. SEE FIXED MESSAGE SIGNS AND SPECIAL MESSAGE SIGNS LAYOUT SHEETS FOR MORE INFORMATION.
4. SIGNS TO BE PLACED 10 DAYS PRIOR TO CONSTRUCTION.

FIXED MESSAGE SIGN DETAIL



FRONT VIEW

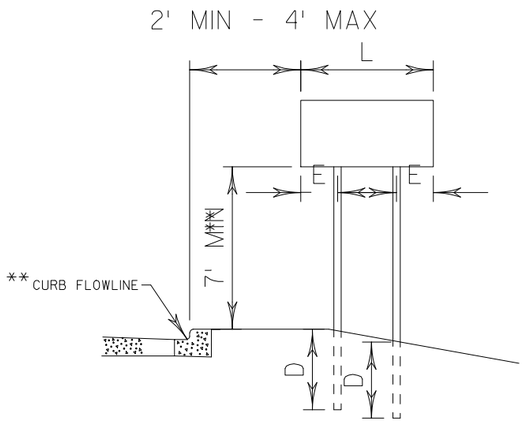
SIDE VIEW

NOTES

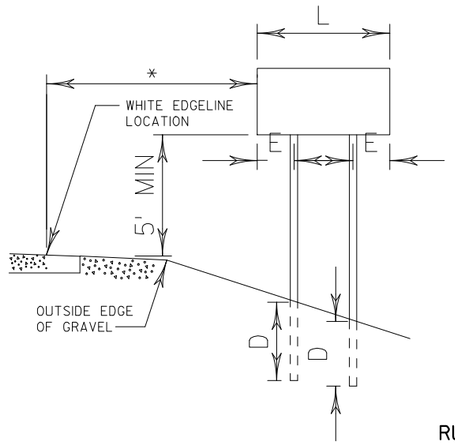
1. SEE TRAFFIC CONTROL SHEETS FOR SIGN LOCATIONS.
2. TWO DIAGONAL SUPPORTS TO BE INCLUDED FOR EACH SIGN OVER 12' LONG AND HIGHER THAN 8'. DIAGONAL SUPPORTS TO BE AFFIXED TO THE OUTSIDE SUPPORTS AND TO BE INCIDENTAL TO THE "TRAFFIC CONTROL FIXED MESSAGE SIGN" ITEM. IF DIAGONAL SUPPORTS ARE USED, SIGN TO BE SHIELDED BEHIND CONCRETE BARRIER OR PLACED OUTSIDE THE CLEAR ZONE.
3. SEE TABLES BELOW FOR REQUIRED NUMBER OF POSTS.

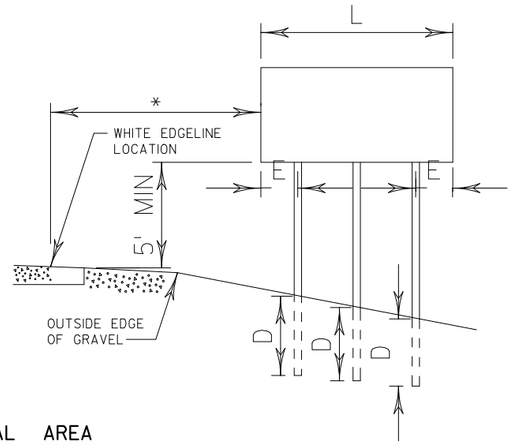
* 6' FROM EDGE OF A PAVED SHOULDER OR 12' FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) OR 2' FROM OUTSIDE EDGE OF GRAVEL, WHICHEVER IS GREATER UNLESS DIRECTED BY PROJECT ENGINEER. SEE NOTE 2 FOR OFFSET REQUIREMENTS WHERE DIAGONAL SUPPORTS ARE USED.

** THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5' MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.



URBAN AREA





RURAL AREA

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
GREATER THAN 48" LESS THAN 60"	12"
60" TO 120"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
GREATER THAN 120" LESS THAN 168"	12"

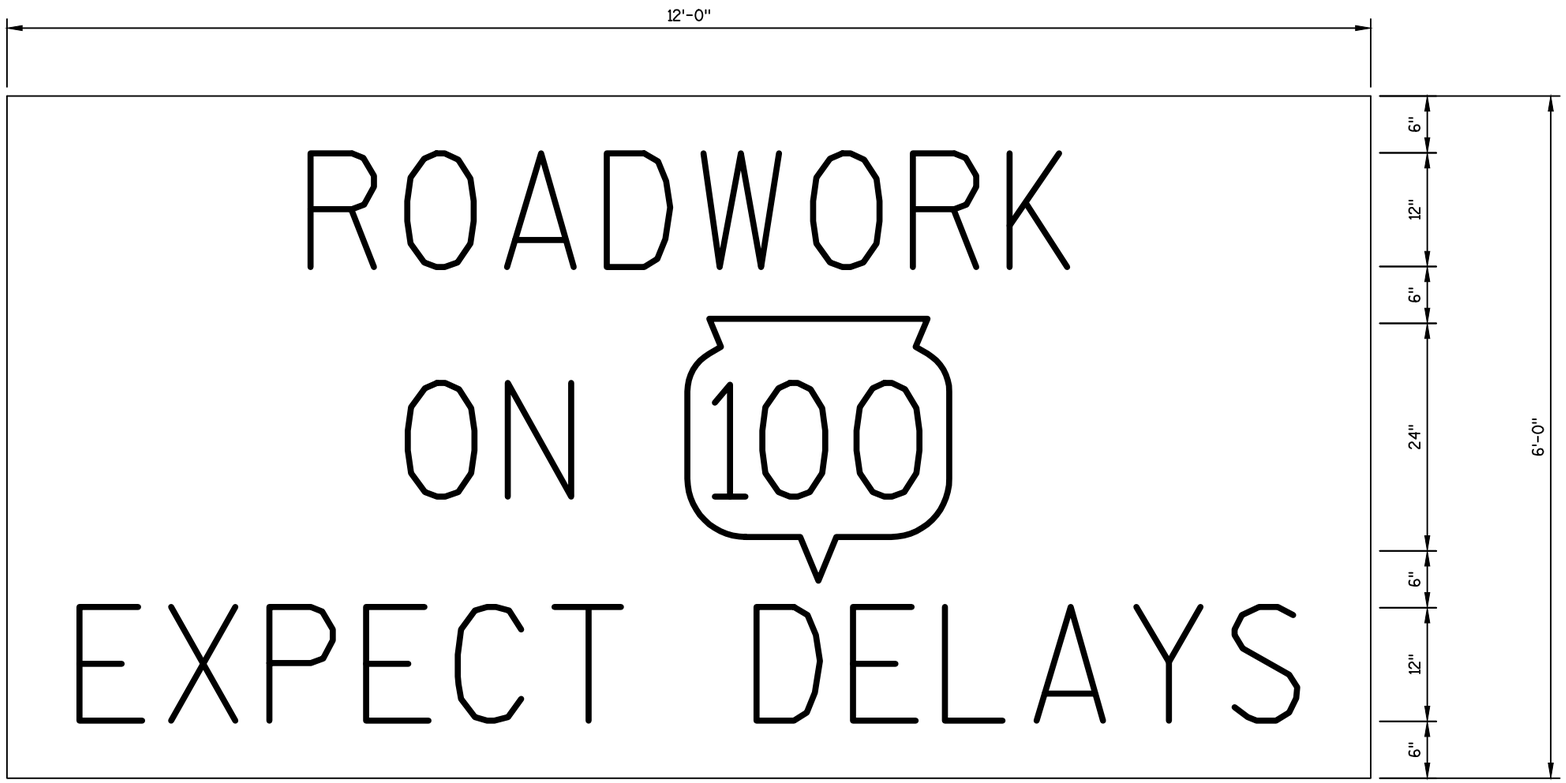
SIGN SHAPE OTHER THAN DIAMOND (FOUR POSTS REQUIRED)	
L	E
168" AND GREATER	12"

POST EMBEDMENT DEPTH

AREA OF SIGN INSTALLATION (SQ. FT.)	D (MIN)
20 OR LESS	4'
GREATER THAN 20	5'

POST MOUNTING DETAIL FOR TRAFFIC CONTROL FIXED MESSAGE SIGNS

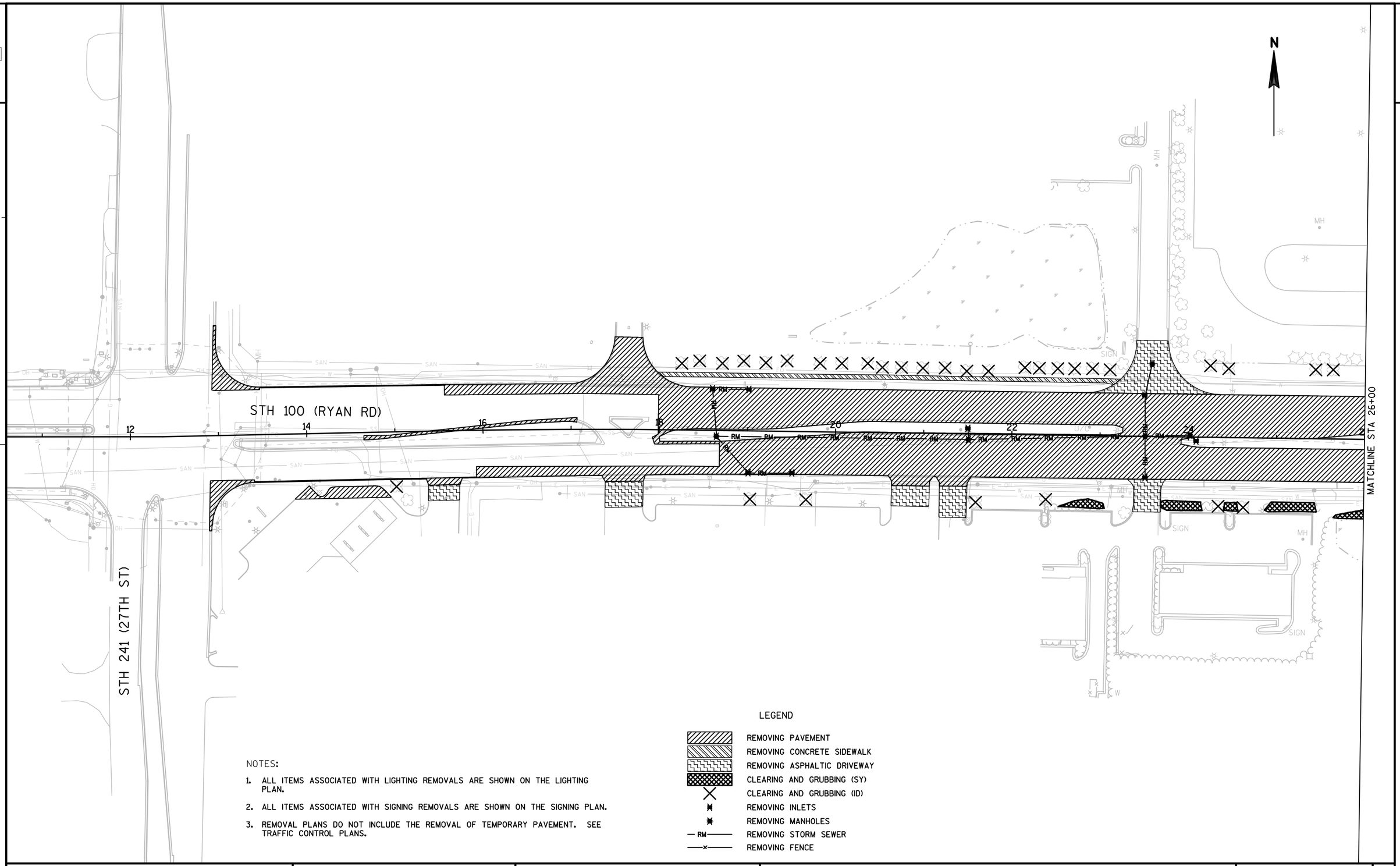
2



NOTES

1. USE SERIES D LETTERS

FIXED MESSAGE SIGN PANEL DETAIL



NOTES:

1. ALL ITEMS ASSOCIATED WITH LIGHTING REMOVALS ARE SHOWN ON THE LIGHTING PLAN.
2. ALL ITEMS ASSOCIATED WITH SIGNING REMOVALS ARE SHOWN ON THE SIGNING PLAN.
3. REMOVAL PLANS DO NOT INCLUDE THE REMOVAL OF TEMPORARY PAVEMENT. SEE TRAFFIC CONTROL PLANS.

LEGEND

- REMOVING PAVEMENT
- REMOVING CONCRETE SIDEWALK
- REMOVING ASPHALTIC DRIVEWAY
- CLEARING AND GRUBBING (SY)
- CLEARING AND GRUBBING (ID)
- REMOVING INLETS
- REMOVING MANHOLES
- RM — REMOVING STORM SEWER
- REMOVING FENCE

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	REMOVAL PLAN	SHEET 24	E

MATCHLINE STA 26+00

S 22ND ST

S 20TH ST

N

NOTES:

1. ALL ITEMS ASSOCIATED WITH LIGHTING REMOVALS ARE SHOWN ON THE LIGHTING PLAN.
2. ALL ITEMS ASSOCIATED WITH SIGNING REMOVALS ARE SHOWN ON THE SIGNING PLAN.
3. REMOVAL PLANS DO NOT INCLUDE THE REMOVAL OF TEMPORARY PAVEMENT. SEE TRAFFIC CONTROL PLANS.

LEGEND

- REMOVING PAVEMENT
- REMOVING CONCRETE SIDEWALK
- REMOVING ASPHALTIC DRIVEWAY
- CLEARING AND GRUBBING (SY)
- CLEARING AND GRUBBING (ID)
- REMOVING INLETS
- REMOVING MANHOLES
- REMOVING STORM SEWER
- REMOVING FENCE

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	REMOVAL PLAN	SHEET 25	E

FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\021101_RM.DWG PLOT DATE : 10/1/2013 3:16 PM PLOT BY : KKUECKER PLOT NAME : PLOT SCALE : 1:100_XREF

NOTES:

1. ALL ITEMS ASSOCIATED WITH LIGHTING REMOVALS ARE SHOWN ON THE LIGHTING PLAN.
2. ALL ITEMS ASSOCIATED WITH SIGNING REMOVALS ARE SHOWN ON THE SIGNING PLAN.
3. REMOVAL PLANS DO NOT INCLUDE THE REMOVAL OF TEMPORARY PAVEMENT. SEE TRAFFIC CONTROL PLANS.

N

REMOVE RETAINING WALL

S 13TH ST

MATCHLINE STA 71+00

LEGEND

- REMOVING PAVEMENT
- REMOVING CONCRETE SIDEWALK
- REMOVING ASPHALTIC DRIVEWAY
- CLEARING AND GRUBBING (SY)
- CLEARING AND GRUBBING (ID)
- REMOVING INLETS
- REMOVING MANHOLES
- RM — REMOVING STORM SEWER
- REMOVING FENCE

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	REMOVAL PLAN	SHEET 26	E

FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\021101_RM.DWG PLOT DATE : 10/1/2013 3:16 PM PLOT BY : KKUECKER PLOT NAME : PLOT SCALE : 1:100_XREF

MATCHLINE STA 71+00

MATCHLINE STA 86+00

STH 100 (RYAN RD)

OAK CREEK

N

LEGEND

- REMOVING PAVEMENT
- REMOVING CONCRETE SIDEWALK
- REMOVING ASPHALTIC DRIVEWAY
- CLEARING AND GROUBBING (SY)
- CLEARING AND GROUBBING (ID)
- REMOVING INLETS
- REMOVING MANHOLES
- RM — REMOVING STORM SEWER
- REMOVING FENCE

NOTES:

1. ALL ITEMS ASSOCIATED WITH LIGHTING REMOVALS ARE SHOWN ON THE LIGHTING PLAN.
2. ALL ITEMS ASSOCIATED WITH SIGNING REMOVALS ARE SHOWN ON THE SIGNING PLAN.
3. REMOVAL PLANS DO NOT INCLUDE THE REMOVAL OF TEMPORARY PAVEMENT. SEE TRAFFIC CONTROL PLANS.

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	REMOVAL PLAN	SHEET 27	E

FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\021101_RM.DWG PLOT DATE : 10/1/2013 3:16 PM PLOT BY : KKUECKER PLOT NAME : PLOT SCALE : 1:100_XREF

N

MATCHLINE STA 86+00

MATCHLINE STA 101+00

STH 100 (RYAN RD)

S. EAGLE'S SUMMIT DRIVE

OAK CREEK

LEGEND

- REMOVING PAVEMENT
- REMOVING CONCRETE SIDEWALK
- REMOVING ASPHALTIC DRIVEWAY
- CLEARING AND GRUBBING (SY)
- CLEARING AND GRUBBING (ID)
- REMOVING INLETS
- REMOVING MANHOLES
- REMOVING STORM SEWER
- REMOVING FENCE

NOTES:

1. ALL ITEMS ASSOCIATED WITH LIGHTING REMOVALS ARE SHOWN ON THE LIGHTING PLAN.
2. ALL ITEMS ASSOCIATED WITH SIGNING REMOVALS ARE SHOWN ON THE SIGNING PLAN.
3. REMOVAL PLANS DO NOT INCLUDE THE REMOVAL OF TEMPORARY PAVEMENT. SEE TRAFFIC CONTROL PLANS.

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	REMOVAL PLAN	SHEET 28	E

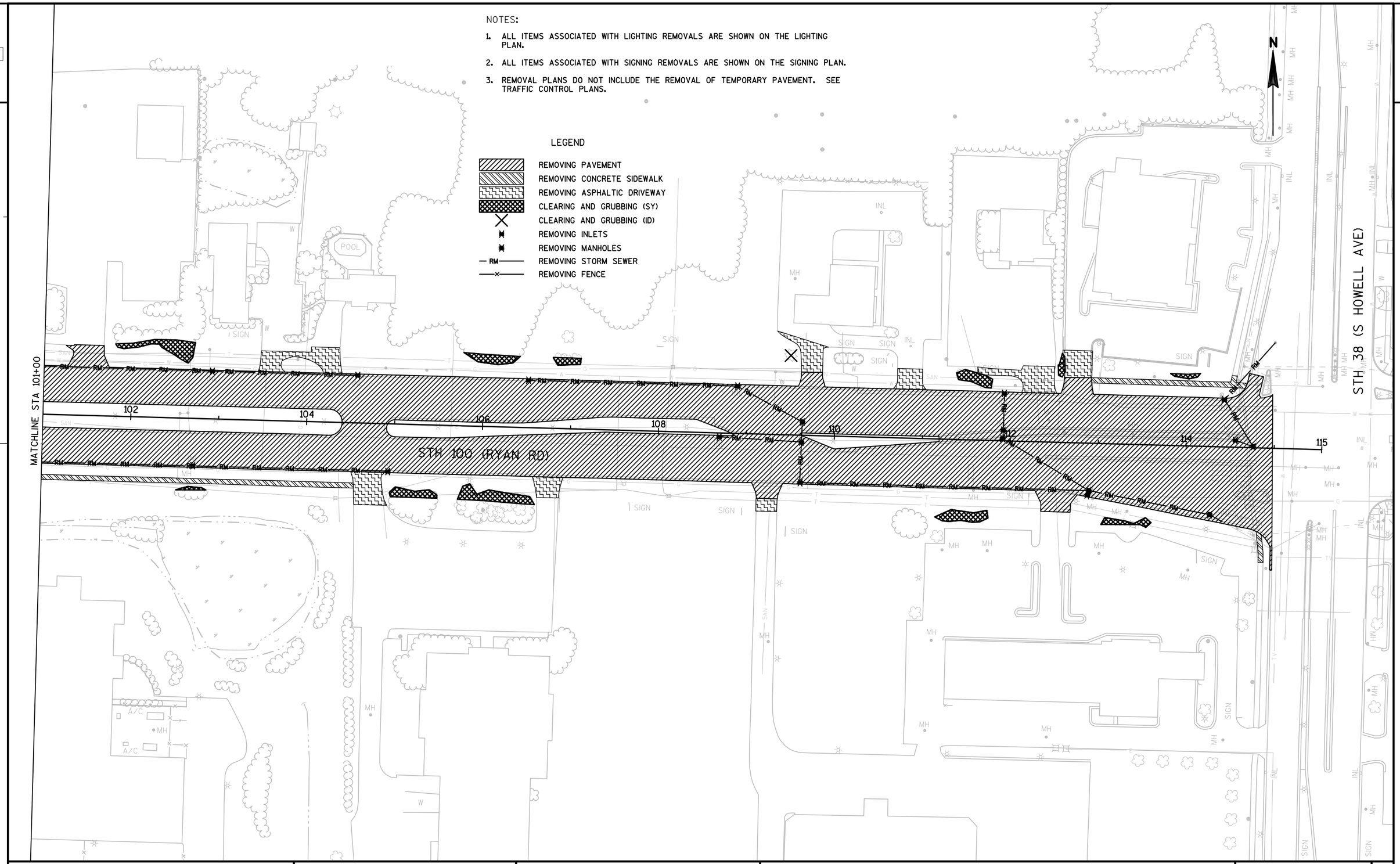
FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\021101_RM.DWG PLOT DATE : 10/1/2013 3:17 PM PLOT BY : KKUECKER PLOT NAME : PLOT SCALE : 1:100_XREF

NOTES:

1. ALL ITEMS ASSOCIATED WITH LIGHTING REMOVALS ARE SHOWN ON THE LIGHTING PLAN.
2. ALL ITEMS ASSOCIATED WITH SIGNING REMOVALS ARE SHOWN ON THE SIGNING PLAN.
3. REMOVAL PLANS DO NOT INCLUDE THE REMOVAL OF TEMPORARY PAVEMENT. SEE TRAFFIC CONTROL PLANS.

LEGEND

- REMOVING PAVEMENT
- REMOVING CONCRETE SIDEWALK
- REMOVING ASPHALTIC DRIVEWAY
- CLEARING AND GRUBBING (SY)
- CLEARING AND GRUBBING (ID)
- REMOVING INLETS
- REMOVING MANHOLES
- REMOVING STORM SEWER
- REMOVING FENCE



PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	REMOVAL PLAN	SHEET 29	E

FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\021101_RM.DWG PLOT DATE : 10/1/2013 3:17 PM PLOT BY : KKUECKER PLOT NAME : PLOT SCALE : 1:100_XREF

2

IH 94 SB

IH 94 NB

236 238 240 242 244 246 248 250

50RY 52RY 54RY 56RY 58RY

RYAN ROAD

236RYB NB OFF RAMP 238RYB 240RYB NB OFF RAMP 242RYB 244RYB 246RYB 248RYB

WETLAND BOUNDARY

OAK CREEK

NB OFF RAMP

SLOPE INTERCEPT

REMOVE EXISTING FENCE

RIPRAP

RM

XXXXX

SS OH INL W E SAN MH SIGN

GENERAL NOTES

1) CLEARING AND GRUBBING SHALL BE PAID EITHER BY THE STATION OR INCH DIAMETER (I.D.).

2) FOR ADDITIONAL UTILITY INFORMATION, SEE EXISTING UTILITY PLAN.

3) SAVE ALL TREES NOT CALLED OUT FOR REMOVAL.

4) ALL ITEMS ASSOCIATED WITH STORM SEWER REMOVAL ARE SHOWN ON STORM SEWER STAGING PLANS.

REMOVAL LEGEND

X CLEARING AND GRUBBING (I.D.)

CLEARING AND GRUBBING (STA.)

REMOVING PAVEMENT

—x— REMOVE FENCE

XXXX SAWING CONCRETE PAVEMENT

REMOVE INLET

—RM— REMOVE STORM SEWER

PROJECT NO: 2040-16-70	HWY: STH. 100 RYAN RD.	COUNTY: MILWAUKEE	REMOVAL PLAN	SHEET	E

FILE NAME : S:\FinalDesign\MIL\20401670_RYB\Roads\cds\021101_rm.dgn PLOT DATE : 06-SEP-2013 07:16 PLOT BY : MSCRYS PLOT NAME : 021101_rm PLOT SCALE : 100:1

2

N

STH 100 (RYAN RD WB)

R/L STH 100 (RYAN RD)

5RYN 6RYN 7RYN 8RYN 9RYN 10RYN 11R

MATCHLINE STA 11+00

SW01 7+83.57 15.05'

7+72.49 14.99'

CPRS

7+72.31 50.44'

7+83.39 50.40'

STH 100 (RYAN RD EB)

PAVEMENT DETAIL LEGEND

CPRS	CONCRETE PAVEMENT REPAIR SHES
CP08	CONCRETE PAVEMENT 8 1/2-INCH, DOWELED AND TINED
CG01	CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE A
CG02	CONCRETE CURB AND GUTTER 31-INCH TYPE A
CG03	CONCRETE CURB AND GUTTER INTEGRAL 4-INCH SLOPED 36-INCH TYPE A
CG09	CURB RAMP TYPE 1
CG10	CURB RAMP TYPE 1A
CG11	CURB RAMP TYPE 2
CG12	CURB RAMP TYPE 3
CG15	CURB RAMP TYPE 5
CG16	CURB RAMP TYPE 6
CC03	CONCRETE CURB PEDESTRIAN
CM01	CONCRETE MEDIAN SLOPED NOSE TYPE 1
CM02	CONCRETE MEDIAN BLUNT NOSE
CM05	CONCRETE SIDEWALK 5-INCH
CB06	CONCRETE BARRIER 42-INCH
BAD6	BASE AGGREGATE DENSE 6-INCH
BG05	CRASH CUSHION PERMANENT
DR01	ASPHALTIC DRIVEWAY 4-INCH
DR02	CONCRETE DRIVEWAY 7-INCH
LS01	SOD LAWN
AP07	HMA PAVEMENT TYPE E-3, 4-INCH
PV08	ASPHALTIC CURB
SW01	SAWCUT CONCRETE
SW02	SAWCUT ASPHALT

NOTES:

1) RADII CALLOUTS ARE TO THE BACK OF CURB.

2) TAPER CALLOUTS ARE TO THE FLANGE LINE OF CURB AND GUTTER.

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	PLAN: PLAN DETAIL	SHEET 31	E

MATCHLINE STA 51+75

RADIUS TABLE			
POINT	STATION	OFFSET	RADIUS
1	13+49.52	121.98' LT	50'
2	13+40.87	111.00' RT	50'

NOTES:

1) RADII CALLOUTS ARE TO THE BACK OF CURB.

2) TAPER CALLOUTS ARE TO THE FLANGE LINE OF CURB AND GUTTER.

N

51TSV

50TSV

R/L STH 100 (RYAN RD)

STH 100 (RYAN RD WB)

STH 100 (RYAN RD EB)

STH 241 (27TH ST)

MATCHLINE STA 11+00

MATCHLINE STA 17+00

MATCHLINE STA 48+00

12RYN

13RYN

14RYN

15RYN

16RYN

17R

12+96.55 -125.05'

12+99.52 -122.54'

13+13.58 -87.22'

12+58.08 -87.76'

13+49.19 -71.98'

13+47.66 -52.99'

12+93.51 -50.99'

13+47.56 -51.00'

13+38.14 -73.29'

15+01.13 -85.97'

16+00.98 -81.28'

16+57.12 -76.86'

16+56.46 -58.86'

15+49.16 -67.64'

12.5:1 TAPER

15+57.20 -51.57'

15+67.11 -41.00'

15+66.97 -16.64'

15+56.98 -16.70'

17+04.83 -41.00'

17+05.13 -16.92'

17+06.72 -13.36'

16+52.28 -10.51'

14+93.31 3.69'

14+64.82 3.49'

14+64.76 8.49'

15+41.19 9.02'

13+37.60 7.60'

13+37.54 16.08'

13+31.23 61.94'

12+89.61 51.13'

13+39.77 51.13'

13+39.77 53.12'

13+87.96 71.50'

13+43.39 68.00'

13+37.24 61.13'

13+37.16 73.18'

13+85.93 74.00'

13+06.56 94.66'

12+93.77 94.20'

12+90.96 107.98'

12+87.38 107.83'

14+92.45 71.50'

14+94.07 74.00'

15+37.33 68.00'

15+36.93 79.00'

15+32.33 60.00'

15+76.99 60.00'

15+91.86 41.00'

15+91.86 53.14'

15+91.90 58.00'

15+91.86 68.00'

15+71.45 79.00'

R=15'

R=50'

R=30'

R=38.5'

4.5'

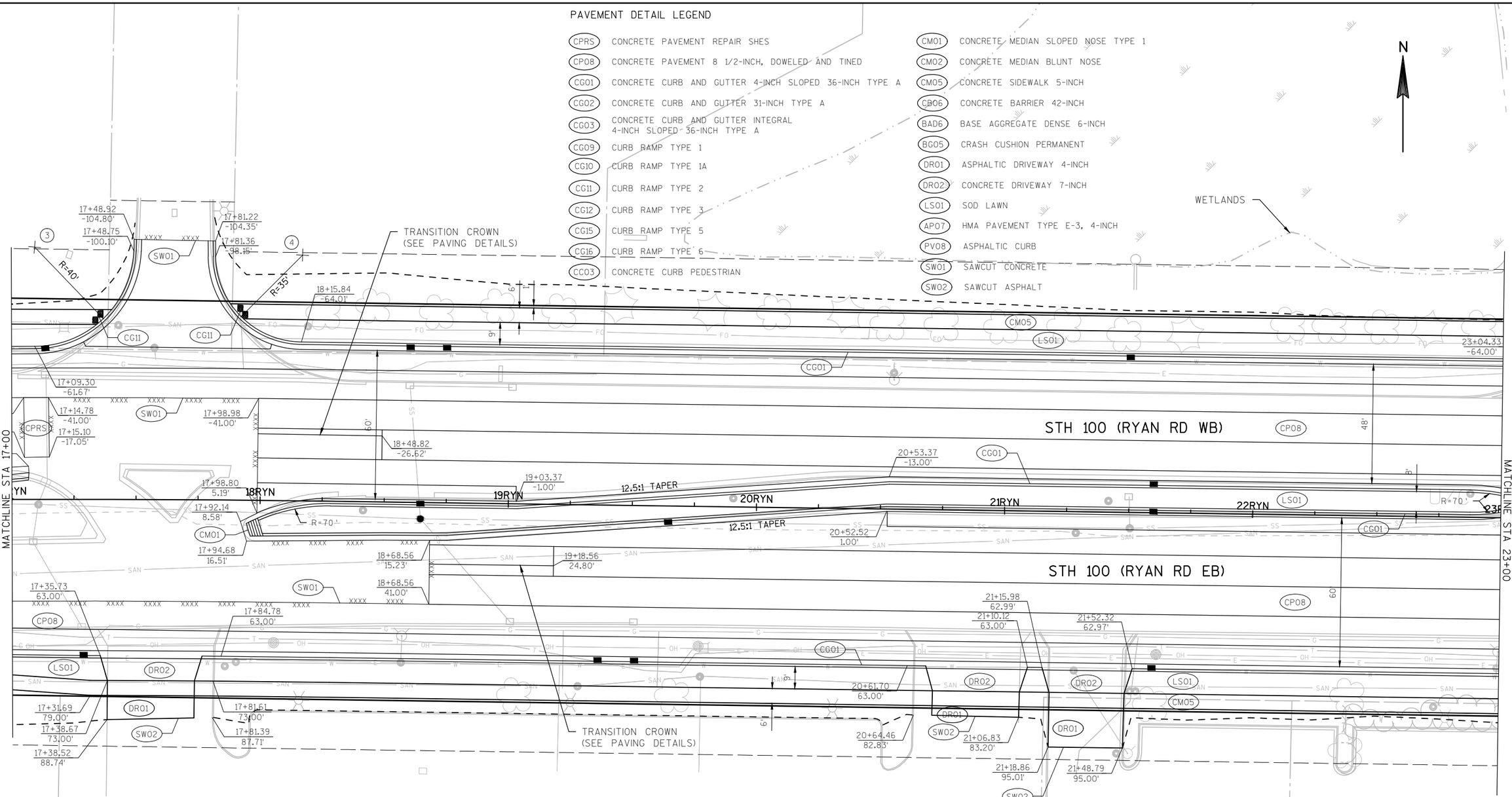
5.1'

PAVEMENT DETAIL LEGEND

CPRS	CONCRETE PAVEMENT REPAIR SHES
CPO8	CONCRETE PAVEMENT 8 1/2-INCH, DOWELED AND TINED
CGO1	CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE A
CGO2	CONCRETE CURB AND GUTTER 31-INCH TYPE A
CGO3	CONCRETE CURB AND GUTTER INTEGRAL 4-INCH SLOPED 36-INCH TYPE A
CG09	CURB RAMP TYPE 1
CG10	CURB RAMP TYPE 1A
CG11	CURB RAMP TYPE 2
CG12	CURB RAMP TYPE 3
CG15	CURB RAMP TYPE 5
CG16	CURB RAMP TYPE 6
CCO3	CONCRETE CURB PEDESTRIAN
CMO1	CONCRETE MEDIAN ~~SLOPED NOSE TYPE 1~~
CMO2	CONCRETE MEDIAN BLUNT NOSE
CMO5	CONCRETE SIDEWALK 5-INCH
CBO6	CONCRETE BARRIER 42-INCH
BAD6	BASE AGGREGATE DENSE 6-INCH
BG05	CRASH CUSHION PERMANENT
DRO1	ASPHALTIC DRIVEWAY 4-INCH
DRO2	CONCRETE DRIVEWAY 7-INCH
LS01	SOD LAWN
APO7	HMA PAVEMENT TYPE E-3, 4-INCH
PVO8	ASPHALTIC CURB
SW01	SAWCUT CONCRETE
SW02	SAWCUT ASPHALT

PAVEMENT DETAIL LEGEND

CPRS	CONCRETE PAVEMENT REPAIR SHES	CMO1	CONCRETE MEDIAN SLOPED NOSE TYPE 1
CPO8	CONCRETE PAVEMENT 8 1/2-INCH, DOWELED AND TINED	CMO2	CONCRETE MEDIAN BLUNT NOSE
CGO1	CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE A	CMO5	CONCRETE SIDEWALK 5-INCH
CGO2	CONCRETE CURB AND GUTTER 31-INCH TYPE A	CBO6	CONCRETE BARRIER 42-INCH
CGO3	CONCRETE CURB AND GUTTER INTEGRAL 4-INCH SLOPED 36-INCH TYPE A	BAD6	BASE AGGREGATE DENSE 6-INCH
CGO9	CURB RAMP TYPE 1	BGO5	CRASH CUSHION PERMANENT
CG10	CURB RAMP TYPE 1A	DRO1	ASPHALTIC DRIVEWAY 4-INCH
CG11	CURB RAMP TYPE 2	DRO2	CONCRETE DRIVEWAY 7-INCH
CG12	CURB RAMP TYPE 3	LSO1	SOD LAWN
CG15	CURB RAMP TYPE 5	APO7	HMA PAVEMENT TYPE E-3, 4-INCH
CG16	CURB RAMP TYPE 6	PVO8	ASPHALTIC CURB
CCO3	CONCRETE CURB PEDESTRIAN	SWO1	SAWCUT CONCRETE
		SWO2	SAWCUT ASPHALT



RADIUS TABLE			
POINT	STATION	OFFSET	RADIUS
3	17+09.31	101.67' LT	40'
4	18+15.91	99.01' LT	35'

NOTES:

1) RADII CALLOUTS ARE TO THE BACK OF CURB.

2) TAPER CALLOUTS ARE TO THE FLANGE LINE OF CURB AND GUTTER.

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	PLAN: PLAN DETAIL	SHEET 33	E

POINT	STATION	OFFSET	RADIUS
5	23+04.34	99.00' LT	35'
6	24+06.90	94.00' LT	30'

WETLANDS

23+39.41
-108.87'

23+39.33
-98.78'

23+76.92
-108.64'

23+76.90
-94.06'

24+06.90
-64.00'

R=35'

R=30'

MATCHLINE STA 23+00

MATCHLINE STA 29+00

STH 100 (RYAN RD WB)

STH 100 (RYAN RD EB)

R/L STH 100 (RYAN RD)

24RYN

25RYN

26RYN

27RYN

28RYN

29RYN

12.5:1 TAPER

12.5:1 TAPER

R=70'

24+99.33
-1.00'

26+49.33
-13.00'

26+37.74
13.00'

28+37.73
-3.00'

23+36.49
62.83'

23+72.21
63.00'

23+39.43
73.00'

23+69.25
73.00'

23+69.30
85.65'

23+37.69
85.65'

60'

48'

48'

64'

9'

9'

1'

8'

4'

SIGN

SIGN

WETLANDS

PAVEMENT DETAIL LEGEND

CPRS	CONCRETE PAVEMENT REPAIR SHES
CP08	CONCRETE PAVEMENT 8 1/2-INCH, DOWELED AND TINED
CG01	CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE A
CG02	CONCRETE CURB AND GUTTER 31-INCH TYPE A
CG03	CONCRETE CURB AND GUTTER INTEGRAL 4-INCH SLOPED 36-INCH TYPE A
CG09	CURB RAMP TYPE 1
CG10	CURB RAMP TYPE 1A
CG11	CURB RAMP TYPE 2
CG12	CURB RAMP TYPE 3
CG15	CURB RAMP TYPE 5
CG16	CURB RAMP TYPE 6
CC03	CONCRETE CURB PEDESTRIAN
CM01	CONCRETE MEDIAN SLOPED NOSE TYPE 1
CM02	CONCRETE MEDIAN BLUNT NOSE
CM05	CONCRETE SIDEWALK 5-INCH
CB06	CONCRETE BARRIER 42-INCH
BA06	BASE AGGREGATE DENSE 6-INCH
BG05	CRASH CUSHION PERMANENT
DR01	ASPHALTIC DRIVEWAY 4-INCH
DR02	CONCRETE DRIVEWAY 7-INCH
LS01	SOD LAWN
AP07	HMA PAVEMENT TYPE E-3, 4-INCH
PV08	ASPHALTIC CURB
SW01	SAWCUT CONCRETE
SW02	SAWCUT ASPHALT

NOTES:
1) RADII CALLOUTS ARE TO THE BACK OF CURB.
2) TAPER CALLOUTS ARE TO THE FLANGE LINE OF CURB AND GUTTER.

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	PLAN: PLAN DETAIL	SHEET 34	E

FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\021201_PD.DWG PLOT DATE : 11/21/2013 12:09 PM PLOT BY : JGRUBER PLOT NAME : ---- PLOT SCALE : 1" = 40'_XREF

NOTE: SIDEWALK MAY BE SHIFTED ≤ 9" TO THE NORTH TO GO AROUND AT&T CROSSBOX

PAVEMENT DETAIL LEGEND

CPRS	CONCRETE PAVEMENT REPAIR SHES
CPO8	CONCRETE PAVEMENT 8 1/2-INCH, DOWELED AND TINED
CG01	CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE A
CG02	CONCRETE CURB AND GUTTER 31-INCH TYPE A
CG03	CONCRETE CURB AND GUTTER INTEGRAL 4-INCH SLOPED 36-INCH TYPE A
CG09	CURB RAMP TYPE 1
CG10	CURB RAMP TYPE 1A
CG11	CURB RAMP TYPE 2
CG12	CURB RAMP TYPE 3
CG15	CURB RAMP TYPE 5
CG16	CURB RAMP TYPE 6
CC03	CONCRETE CURB PEDESTRIAN
CM01	CONCRETE MEDIAN SLOPED NOSE TYPE 1
CM02	CONCRETE MEDIAN BLUNT NOSE
CM05	CONCRETE SIDEWALK 5-INCH
CB06	CONCRETE BARRIER 42-INCH
BAD6	BASE AGGREGATE DENSE 6-INCH
BG05	CRASH CUSHION PERMANENT
DR01	ASPHALTIC DRIVEWAY 4-INCH
DR02	CONCRETE DRIVEWAY 7-INCH
LS01	SOD LAWN
AP07	HMA PAVEMENT TYPE E-3, 4-INCH
PV08	ASPHALTIC CURB
SW01	SAWCUT CONCRETE
SW02	SAWCUT ASPHALT

WETLANDS

S 22ND ST

R/L STH 100 (RYAN RD)

STH 100 (RYAN RD WB)

STH 100 (RYAN RD EB)

12.5:1 TAPER

MATCHLINE STA 29+00

MATCHLINE STA 35+00

NOTE: SIDEWALK MAY BE SHIFTED ≤ 9" TO THE SOUTH AND/OR NARROWED ≤ 1' TO AVOID TRAFFIC SIGNALS SB8 AND SB5 (SEE SIGNAL PLANS)

RADIUS TABLE			
POINT	STATION	OFFSET	RADIUS
7	30+32.64	113.99' LT	50'
8	31+82.36	122.00' LT	50'
9	30+73.95	84.00' RT	20'
10	30+78.24	81.43' RT	15'
11	31+49.59	81.11' RT	15'
12	31+53.67	84.00' RT	20'

NOTES:
1) RADII CALLOUTS ARE TO THE BACK OF CURB.
2) TAPER CALLOUTS ARE TO THE FLANGE LINE OF CURB AND GUTTER.

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	PLAN: PLAN DETAIL	SHEET 35	E

RADIUS TABLE			
POINT	STATION	OFFSET	RADIUS
13	35+56.65	122.00' RT	50'
14	37+55.13	134.00' RT	70'
15	36+85.38	118.04' LT	50'
16	37+13.49	134.87' LT	50'
17	36+72.17	140.19' LT	10'

STH 100 (RYAN RD WB)

STH 100 (RYAN RD EB)

R/L STH 100 (RYAN RD)

S 20TH ST

MATCHLINE STA 35+00

MATCHLINE STA 41+00

WETLANDS

NOTES:

1) RADII CALLOUTS ARE TO THE BACK OF CURB.

2) TAPER CALLOUTS ARE TO THE FLANGE LINE OF CURB AND GUTTER.

PAVEMENT DETAIL LEGEND

CPRS	CONCRETE PAVEMENT REPAIR SHES
CPO8	CONCRETE PAVEMENT 8 1/2-INCH, DOWELED AND TIED
CG01	CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE A
CG02	CONCRETE CURB AND GUTTER 31-INCH TYPE A
CG03	CONCRETE CURB AND GUTTER INTEGRAL 4-INCH SLOPED 36-INCH TYPE A
CG09	CURB RAMP TYPE 1
CG10	CURB RAMP TYPE 1A
CG11	CURB RAMP TYPE 2
CG12	CURB RAMP TYPE 3
CG15	CURB RAMP TYPE 5
CG16	CURB RAMP TYPE 6
CC03	CONCRETE CURB PEDESTRIAN
CM01	CONCRETE MEDIAN SLOPED NOSE TYPE 1
CM02	CONCRETE MEDIAN BLUNT NOSE
CM05	CONCRETE SIDEWALK 5-INCH
CB06	CONCRETE BARRIER 42-INCH
BAD6	BASE AGGREGATE DENSE 6-INCH
BC05	CRASH CUSHION PERMANENT
DR01	ASPHALTIC DRIVEWAY 4-INCH
DR02	CONCRETE DRIVEWAY 7-INCH
LS01	SOD LAWN
AP07	HMA PAVEMENT TYPE E-3, 4-INCH
PV08	ASPHALTIC CURB
SW01	SAWCUT CONCRETE
SW02	SAWCUT ASPHALT

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	PLAN: PLAN DETAIL	SHEET 36	E

2

N

MATCHLINE STA 41+00

YN

42+02.57
-13.85'

42+55.44
-14.48'

XXXX XXXX XXXX

CPRS

42RYN

XXXX XXXX XXXX

43RYN

44RYN

45RYN

46RYN

47RYN

42+02.72
-2.84'

42+55.25
-4.09'

E

SS

PAVEMENT DETAIL LEGEND

CPRS	CONCRETE PAVEMENT REPAIR SHES	CM01	CONCRETE MEDIAN SLOPED NOSE TYPE 1
CP08	CONCRETE PAVEMENT 8 1/2-INCH, DOWELED AND TINED	CM02	CONCRETE MEDIAN BLUNT NOSE
CG01	CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE A	CM05	CONCRETE SIDEWALK 5-INCH
CG02	CONCRETE CURB AND GUTTER 31-INCH TYPE A	CB06	CONCRETE BARRIER 42-INCH
CG03	CONCRETE CURB AND GUTTER INTEGRAL 4-INCH SLOPED 36-INCH TYPE A	BAD6	BASE AGGREGATE DENSE 6-INCH
CG09	CURB RAMP TYPE 1	BG05	CRASH CUSHION PERMANENT
CG10	CURB RAMP TYPE 1A	DR01	ASPHALTIC DRIVEWAY 4-INCH
CG11	CURB RAMP TYPE 2	DR02	CONCRETE DRIVEWAY 7-INCH
CG12	CURB RAMP TYPE 3	LS01	SOD LAWN
CG15	CURB RAMP TYPE 5	AP07	HMA PAVEMENT TYPE E-3, 4-INCH
CG16	CURB RAMP TYPE 6	PV08	ASPHALTIC CURB
CC03	CONCRETE CURB PEDESTRIAN	SW01	SAWCUT CONCRETE
		SW02	SAWCUT ASPHALT

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	PLAN: PLAN DETAIL	SHEET 37	E

RADIUS TABLE			
POINT	STATION	OFFSET	RADIUS
18	62+06.20	132.00' RT	60'
19	62+51.39	110.60' RT	10'
20	63+95.25	114.00' RT	50'
21	62+17.91	114.00' LT	50'

MATCHLINE STA 52+00

MATCHLINE STA 64+00

MATCHLINE STA 48+25

RESTORE EXISTING TIMBER RETAINING WALL

STH 100 (RYAN RD WB)

STH 100 (RYAN RD EB)

R/L STH 100 (RYAN RD)

S 13TH ST

58RYN 59RYN 60RYN 61RYN 62RYN 63RYN

59+44.41 -80.69'
59+33.61 -63.89'
59+41.85 -58.51'
59+41.85 -11.12'
58+84.17 2.14'
58+92.88 11.50'
58+93.09 50.26'
59+42.11 57.84'
59+59.24 70.70'
60+43.39 -82.36'
60+76.98 -79.00'
61+21.64 -81.77'
60+42.15 -69.92'
60+41.85 -66.94'
61+01.20 -61.00'
60+57.95 -3.00'
60+41.85 60.98'
61+22.01 69.00'
60+41.26 76.50'
61+46.23 87.00'
62+15.18 -81.76'
62+37.81 -87.00'
62+37.81 -79.00'
62+17.91 -64.00'
62+37.81 -68.13'
62+67.94 -117.72'
62+67.9 -113.12'
62+59.99 -87.00'
63+16.01 -117.46'
63+16.00 -132.29'
63+45.47 -132.19'
63+65.78 -87.00'
63+92.74 -73.37'
63+92.74 64.06'
63+92.74 79.00'
62+06.20 72.00'
62+46.89 87.00'
62+58.35 102.32'
62+59.35 116.66'
62+61.74 118.48'
62+61.60 138.06'
63+53.17 87.00'
63+73.86 87.00'
63+05.28 134.94'
63+45.25 114.06'
63+45.28 135.01'
63+05.25 138.36'

10:1 TAPER

R=50'
R=60'
R=70'
R=10'
R=30'

50CV 51CV 49CV

PAVEMENT DETAIL LEGEND

CPRS	CONCRETE PAVEMENT REPAIR SHES
CP08	CONCRETE PAVEMENT 8 1/2-INCH, DOWELED AND TINED
CG01	CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE A
CG02	CONCRETE CURB AND GUTTER 31-INCH TYPE A
CG03	CONCRETE CURB AND GUTTER INTEGRAL 4-INCH SLOPED 36-INCH TYPE A
CG09	CURB RAMP TYPE 1
CG10	CURB RAMP TYPE 1A
CG11	CURB RAMP TYPE 2
CG12	CURB RAMP TYPE 3
CG15	CURB RAMP TYPE 5
CG16	CURB RAMP TYPE 6
CC03	CONCRETE CURB PEDESTRIAN

CM01	CONCRETE MEDIAN SLOPED NOSE TYPE 1
CM02	CONCRETE MEDIAN BLUNT NOSE
CM05	CONCRETE SIDEWALK 5-INCH
CB06	CONCRETE BARRIER 42-INCH
BA06	BASE AGGREGATE DENSE 6-INCH
BG05	CRASH CUSHION PERMANENT
DR01	ASPHALTIC DRIVEWAY 4-INCH
DR02	CONCRETE DRIVEWAY 7-INCH
LS01	SOD LAWN
AP07	HMA PAVEMENT TYPE E-3, 4-INCH
PV08	ASPHALTIC CURB
SW01	SAWCUT CONCRETE
SW02	SAWCUT ASPHALT

NOTES:

1) RADII CALLOUTS ARE TO THE BACK OF CURB.

2) TAPER CALLOUTS ARE TO THE FLANGE LINE OF CURB AND GUTTER.

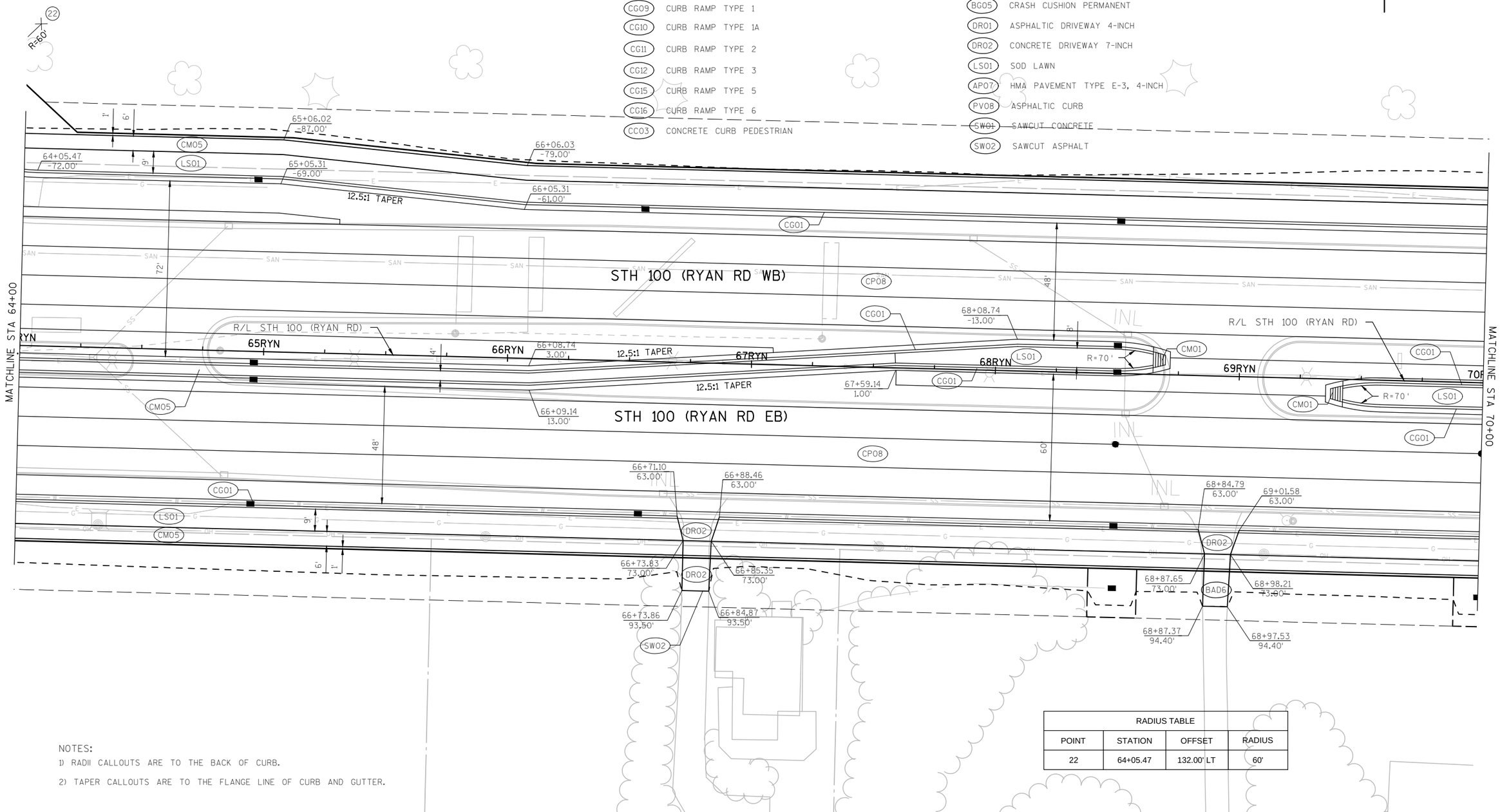
PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	PLAN: PLAN DETAIL	SHEET 38 E

FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\021201_PD.DWG PLOT DATE : 11/21/2013 12:09 PM PLOT BY : JGRUBER PLOT NAME : ---- PLOT SCALE : 1" = 40'_XREF

PAVEMENT DETAIL LEGEND

CPRS	CONCRETE PAVEMENT REPAIR SHES	CM01	CONCRETE MEDIAN SLOPED NOSE TYPE 1
CP08	CONCRETE PAVEMENT 8 1/2-INCH, DOWELED AND TINED	CM02	CONCRETE MEDIAN BLUNT NOSE
CG01	CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE A	CM05	CONCRETE SIDEWALK 5-INCH
CG02	CONCRETE CURB AND GUTTER 31-INCH TYPE A	CB06	CONCRETE BARRIER 42-INCH
CG03	CONCRETE CURB AND GUTTER INTEGRAL 4-INCH SLOPED 36-INCH TYPE A	BAD6	BASE AGGREGATE DENSE 6-INCH
CG09	CURB RAMP TYPE 1	BG05	CRASH CUSHION PERMANENT
CG10	CURB RAMP TYPE 1A	DR01	ASPHALTIC DRIVEWAY 4-INCH
CG11	CURB RAMP TYPE 2	DR02	CONCRETE DRIVEWAY 7-INCH
CG12	CURB RAMP TYPE 3	LS01	SOD LAWN
CG15	CURB RAMP TYPE 5	AP07	HMA PAVEMENT TYPE E-3, 4-INCH
CG16	CURB RAMP TYPE 6	PV08	ASPHALTIC CURB
CC03	CONCRETE CURB PEDESTRIAN	SW01	SAWCUT CONCRETE
		SW02	SAWCUT ASPHALT

N



RADIUS TABLE			
POINT	STATION	OFFSET	RADIUS
22	64+05.47	132.00' LT	60'

NOTES:

1) RADII CALLOUTS ARE TO THE BACK OF CURB.

2) TAPER CALLOUTS ARE TO THE FLANGE LINE OF CURB AND GUTTER.

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	PLAN: PLAN DETAIL	SHEET 39	E

PAVEMENT DETAIL LEGEND

CPRS	CONCRETE PAVEMENT REPAIR SHES
CP08	CONCRETE PAVEMENT 8 1/2-INCH, DOWELED AND TINED
CG01	CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE A
CG02	CONCRETE CURB AND GUTTER 31-INCH TYPE A
CG03	CONCRETE CURB AND GUTTER INTEGRAL 4-INCH SLOPED 36-INCH TYPE A
CG09	CURB RAMP TYPE 1
CG10	CURB RAMP TYPE 1A
CG11	CURB RAMP TYPE 2
CG12	CURB RAMP TYPE 3
CG15	CURB RAMP TYPE 5
CG16	CURB RAMP TYPE 6
CC03	CONCRETE CURB PEDESTRIAN
CM01	CONCRETE MEDIAN SLOPED NOSE TYPE 1
CM02	CONCRETE MEDIAN BLUNT NOSE
CM05	CONCRETE SIDEWALK 5-INCH
CB06	CONCRETE BARRIER 42-INCH
BAD6	BASE AGGREGATE DENSE 6-INCH
BG05	CRASH CUSHION PERMANENT
DR01	ASPHALTIC DRIVEWAY 4-INCH
DR02	CONCRETE DRIVEWAY 7-INCH
LS01	SOD LAWN
AP07	HMA PAVEMENT TYPE E-3, 4-INCH
PV08	ASPHALTIC CURB
SW01	SAWCUT CONCRETE
SW02	SAWCUT ASPHALT

N

WETLANDS

STH 100 (RYAN RD WB)

STH 100 (RYAN RD EB)

R/L STH 100 (RYAN RD)

MATCHLINE STA 70+00

MATCHLINE STA 76+00

70+19.85
-1.00'

71+69.84
-13.00'

12.5:1 TAPER

71RYN

72RYN

73RYN

74RYN

75RYN

48'

25'

9'

6"

NOTES:

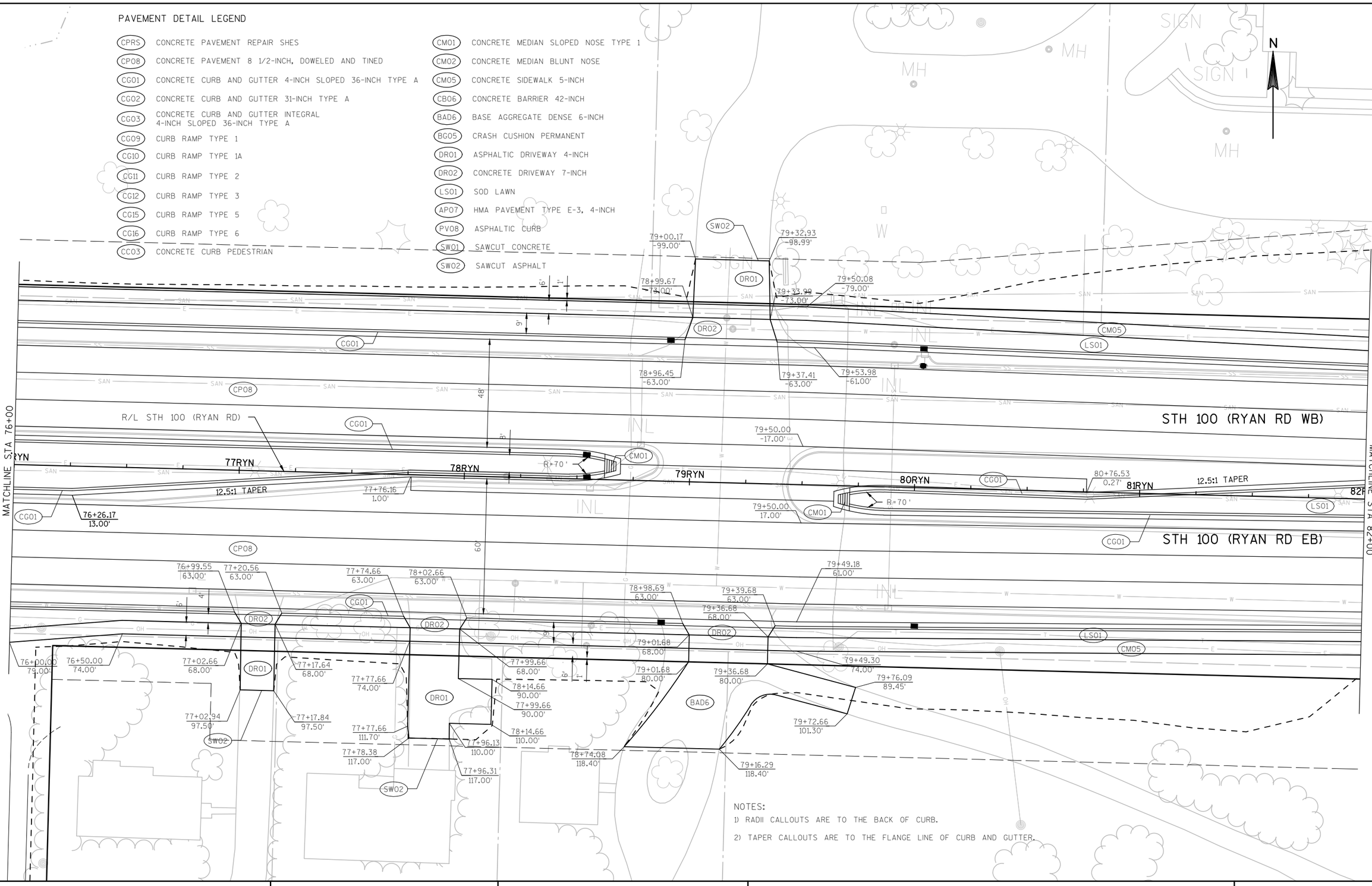
1) RADII CALLOUTS ARE TO THE BACK OF CURB.

2) TAPER CALLOUTS ARE TO THE FLANGE LINE OF CURB AND GUTTER.

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	PLAN: PLAN DETAIL	SHEET 40 E

PAVEMENT DETAIL LEGEND

CPRS	CONCRETE PAVEMENT REPAIR SHES
CP08	CONCRETE PAVEMENT 8 1/2-INCH, DOWELED AND TINED
CG01	CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE A
CG02	CONCRETE CURB AND GUTTER 31-INCH TYPE A
CG03	CONCRETE CURB AND GUTTER INTEGRAL 4-INCH SLOPED 36-INCH TYPE A
CG09	CURB RAMP TYPE 1
CG10	CURB RAMP TYPE 1A
CG11	CURB RAMP TYPE 2
CG12	CURB RAMP TYPE 3
CG15	CURB RAMP TYPE 5
CG16	CURB RAMP TYPE 6
CC03	CONCRETE CURB PEDESTRIAN
CM01	CONCRETE MEDIAN SLOPED NOSE TYPE 1
CM02	CONCRETE MEDIAN BLUNT NOSE
CM05	CONCRETE SIDEWALK 5-INCH
CB06	CONCRETE BARRIER 42-INCH
BAD6	BASE AGGREGATE DENSE 6-INCH
BG05	CRASH CUSHION PERMANENT
DR01	ASPHALTIC DRIVEWAY 4-INCH
DR02	CONCRETE DRIVEWAY 7-INCH
LS01	SOD LAWN
AP07	HMA PAVEMENT TYPE E-3, 4-INCH
PV08	ASPHALTIC CURB
SW01	SAWCUT CONCRETE
SW02	SAWCUT ASPHALT



PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	PLAN: PLAN DETAIL	SHEET 41	E

FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\021201_PD.DWG PLOT DATE : 11/21/2013 12:09 PM PLOT BY : JGRUBER PLOT NAME : ---- PLOT SCALE : 1" = 40'_XREF

NOTES:

1) RADII CALLOUTS ARE TO THE BACK OF CURB.

2) TAPER CALLOUTS ARE TO THE FLANGE LINE OF CURB AND GUTTER.

N

MATCHLINE STA 82+00

MATCHLINE STA 88+00

STH 100 (RYAN RD WB)

STH 100 (RYAN RD EB)

R/L STH 100 (RYAN RD)

TRANSITION TO INTEGRAL CURB

83RYN

84RYN

85RYN

86RYN

87RYN

83+50.22 -69.49'
84+47.52 -58.00'
83+50.18 -54.49'
85+08.38 -64.00'
85+95.43 -71.94'
85+94.77 -61.39'
86+00.63 -61.28'
87+65.05 -73.94'
87+64.91 -63.59'
87+76.93 -74.05'
87+76.79 -63.70'
85+33.66 -56.00'
85+33.66 -49.00'
87+61.96 -56.56'
87+79.63 -56.73'
82+26.65 -10.23'
83+50.00 -13.00'
84+35.00 -7.00'
85+89.93 -7.00'
86+00.06 -13.00'
83+50.00 12.50'
83+60.00 6.50'
85+14.98 6.50'
85+76.39 8.50'
86+00.00 12.50'
83+50.00 53.50'
84+17.98 55.50'
85+99.73 53.50'
87+88.99 57.70'
87+85.99 64.66'
83+50.00 66.50'
84+00.00 66.50'
84+42.98 57.50'
85+03.48 57.50'
85+53.31 60.81'
85+73.78 68.20'
87+52.99 57.28'
87+55.99 64.31'
87+55.99 80.31'
87+85.99 80.66'

R=7'

45'

6'

4'

PAVEMENT DETAIL LEGEND

CPRS	CONCRETE PAVEMENT REPAIR SHES
CP08	CONCRETE PAVEMENT 8 1/2-INCH, DOWELED AND TINED
CG01	CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE A
CG02	CONCRETE CURB AND GUTTER 31-INCH TYPE A
CG03	CONCRETE CURB AND GUTTER INTEGRAL 4-INCH SLOPED 36-INCH TYPE A
CG09	CURB RAMP TYPE 1
CG10	CURB RAMP TYPE 1A
CG11	CURB RAMP TYPE 2
CG12	CURB RAMP TYPE 3
CG15	CURB RAMP TYPE 5
CG16	CURB RAMP TYPE 6
CC03	CONCRETE CURB PEDESTRIAN
CM01	CONCRETE MEDIAN SLOPED NOSE TYPE 1
CM02	CONCRETE MEDIAN BLUNT NOSE
CM05	CONCRETE SIDEWALK 5-INCH
CB06	CONCRETE BARRIER 42-INCH
BAD6	BASE AGGREGATE DENSE 6-INCH
BG05	CRASH CUSHION PERMANENT
DR01	ASPHALTIC DRIVEWAY 4-INCH
DR02	CONCRETE DRIVEWAY 7-INCH
LS01	SOD LAWN
AP07	HMA PAVEMENT TYPE E-3, 4-INCH
PV08	ASPHALTIC CURB
SW01	SAWCUT CONCRETE
SW02	SAWCUT ASPHALT

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	PLAN: PLAN DETAIL	SHEET 42	E

RADIUS TABLE			
POINT	STATION	OFFSET	RADIUS
23	91+56.81	111.00' RT	50'
24	92+92.96	114.00' RT	50'

PAVEMENT DETAIL LEGEND

CPRS	CONCRETE PAVEMENT REPAIR SHES
CP08	CONCRETE PAVEMENT 8 1/2-INCH, DOWELED AND TINED
CG01	CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE A
CG02	CONCRETE CURB AND GUTTER 31-INCH TYPE A
CG03	CONCRETE CURB AND GUTTER INTEGRAL 4-INCH SLOPED 36-INCH TYPE A
CG09	CURB RAMP TYPE 1
CG10	CURB RAMP TYPE 1A
CG11	CURB RAMP TYPE 2
CG12	CURB RAMP TYPE 3
CG15	CURB RAMP TYPE 5
CG16	CURB RAMP TYPE 6
CC03	CONCRETE CURB PEDESTRIAN
CM01	CONCRETE MEDIAN SLOPED NOSE TYPE 1
CM02	CONCRETE MEDIAN BLUNT NOSE
CM05	CONCRETE SIDEWALK 5-INCH
CB06	CONCRETE BARRIER 42-INCH
BAD6	BASE AGGREGATE DENSE 6-INCH
BG05	CRASH CUSHION PERMANENT
DR01	ASPHALTIC DRIVEWAY 4-INCH
DR02	CONCRETE DRIVEWAY 7-INCH
LS01	SOD LAWN
AP07	HMA PAVEMENT TYPE E-3, 4-INCH
PV08	ASPHALTIC CURB
SW01	SAWCUT CONCRETE
SW02	SAWCUT ASPHALT

N

WETLANDS

MATCHLINE STA 88+00

89RYN

90RYN

91RYN

92RYN

93RYN

R=70'

12.5:1 TAPER

89+99.91
-72.00'

90+00.00
-57.00'

90+00.00
-29.00'

89+23.92
12.26'

90+00.02
29.00'

90+64.89
1.00'

93+84.89
-1.00'

89+99.91
58.00'

89+99.81
73.00'

90+95.21
73.00'

91+56.80
61.00'

91+95.22
79.00'

92+57.25
79.00'

92+92.95
64.00'

91+70.21
79.00'

R=50'

92+06.80
110.70'

92+06.82
113.67'

92+92.95
114.00'

R=50'

STH 100 (RYAN RD WB)

R/L STH 100 (RYAN RD)

STH 100 (RYAN RD EB)

MATCHLINE STA 94+00

44'

59'

48'

680

675

690

NOTES:

1) RADII CALLOUTS ARE TO THE BACK OF CURB.

2) TAPER CALLOUTS ARE TO THE FLANGE LINE OF CURB AND GUTTER.

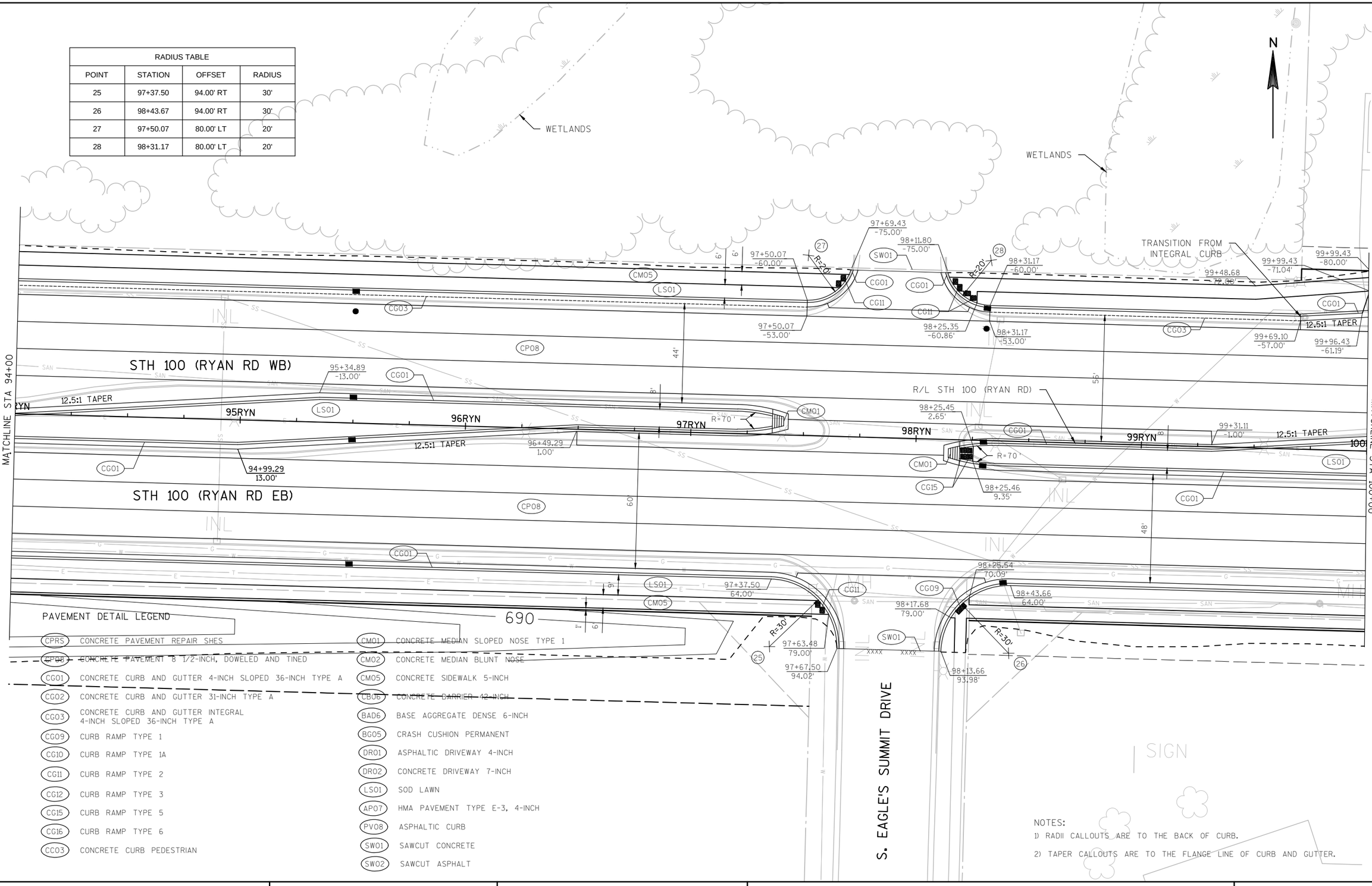
WETLANDS

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	PLAN: PLAN DETAIL	SHEET 43	E

FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\021201_PD.DWG PLOT DATE : 11/21/2013 12:09 PM PLOT BY : JGRUBER PLOT NAME : ---- PLOT SCALE : 1" = 40'_XREF

WISDOT/CADDS SHEET 42

RADIUS TABLE			
POINT	STATION	OFFSET	RADIUS
25	97+37.50	94.00' RT	30'
26	98+43.67	94.00' RT	30'
27	97+50.07	80.00' LT	20'
28	98+31.17	80.00' LT	20'

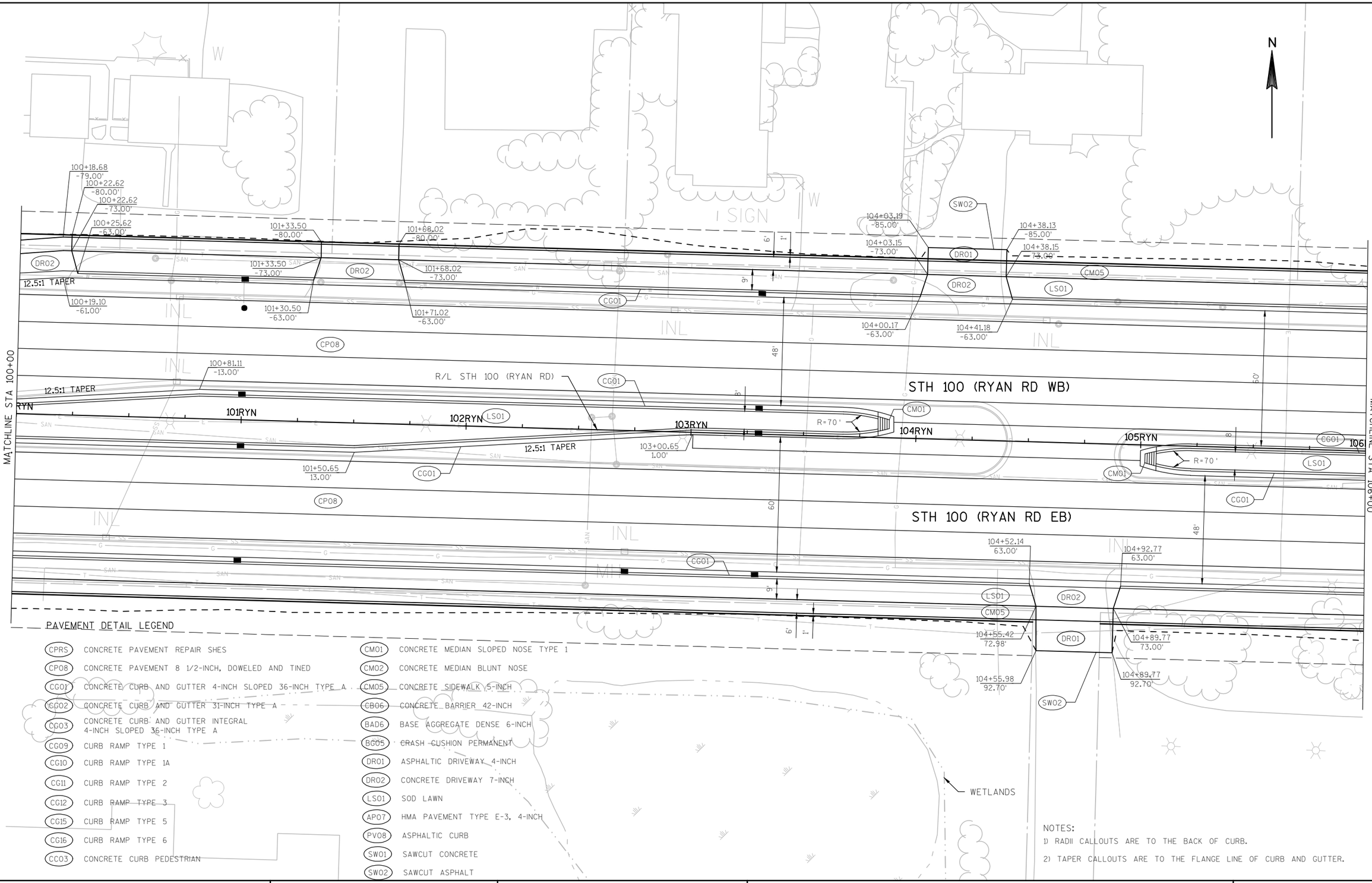


PAVEMENT DETAIL LEGEND

CPRS	CONCRETE PAVEMENT REPAIR SHES
~~CPO8~~	~~CONCRETE PAVEMENT 8 1/2-INCH, DOWELED AND TIED~~
CG01	CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE A
CG02	CONCRETE CURB AND GUTTER 31-INCH TYPE A
CG03	CONCRETE CURB AND GUTTER INTEGRAL 4-INCH SLOPED 36-INCH TYPE A
CG09	CURB RAMP TYPE 1
CG10	CURB RAMP TYPE 1A
CG11	CURB RAMP TYPE 2
CG12	CURB RAMP TYPE 3
CG15	CURB RAMP TYPE 5
CG16	CURB RAMP TYPE 6
CC03	CONCRETE CURB PEDESTRIAN
CM01	CONCRETE MEDIAN SLOPED NOSE TYPE 1
CM02	CONCRETE MEDIAN BLUNT NOSE
CM05	CONCRETE SIDEWALK 5-INCH
~~CB06~~	~~CONCRETE BARRIER 42-INCH~~
BA06	BASE AGGREGATE DENSE 6-INCH
BG05	CRASH CUSHION PERMANENT
DR01	ASPHALTIC DRIVEWAY 4-INCH
DR02	CONCRETE DRIVEWAY 7-INCH
LS01	SOD LAWN
AP07	HMA PAVEMENT TYPE E-3, 4-INCH
PV08	ASPHALTIC CURB
SW01	SAWCUT CONCRETE
SW02	SAWCUT ASPHALT

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	PLAN: PLAN DETAIL	SHEET 44	E

2



PAVEMENT DETAIL LEGEND

CPRS	CONCRETE PAVEMENT REPAIR SHES	CM01	CONCRETE MEDIAN SLOPED NOSE TYPE 1
CP08	CONCRETE PAVEMENT 8 1/2-INCH, DOWELED AND TINED	CM02	CONCRETE MEDIAN BLUNT NOSE
CG01	CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE A	CM05	CONCRETE SIDEWALK 5-INCH
CG02	CONCRETE CURB AND GUTTER 31-INCH TYPE A	CB06	CONCRETE BARRIER 42-INCH
CG03	CONCRETE CURB AND GUTTER INTEGRAL 4-INCH SLOPED 36-INCH TYPE A	BAD6	BASE AGGREGATE DENSE 6-INCH
CG09	CURB RAMP TYPE 1	BG05	CRASH CUSHION PERMANENT
CG10	CURB RAMP TYPE 1A	DR01	ASPHALTIC DRIVEWAY 4-INCH
CG11	CURB RAMP TYPE 2	DR02	CONCRETE DRIVEWAY 7-INCH
CG12	CURB RAMP TYPE 3	LS01	SOD LAWN
CG15	CURB RAMP TYPE 5	AP07	HMA PAVEMENT TYPE E-3, 4-INCH
CG16	CURB RAMP TYPE 6	PV08	ASPHALTIC CURB
CC03	CONCRETE CURB PEDESTRIAN	SW01	SAWCUT CONCRETE
		SW02	SAWCUT ASPHALT

NOTES:

1) RADII CALLOUTS ARE TO THE BACK OF CURB.

2) TAPER CALLOUTS ARE TO THE FLANGE LINE OF CURB AND GUTTER.

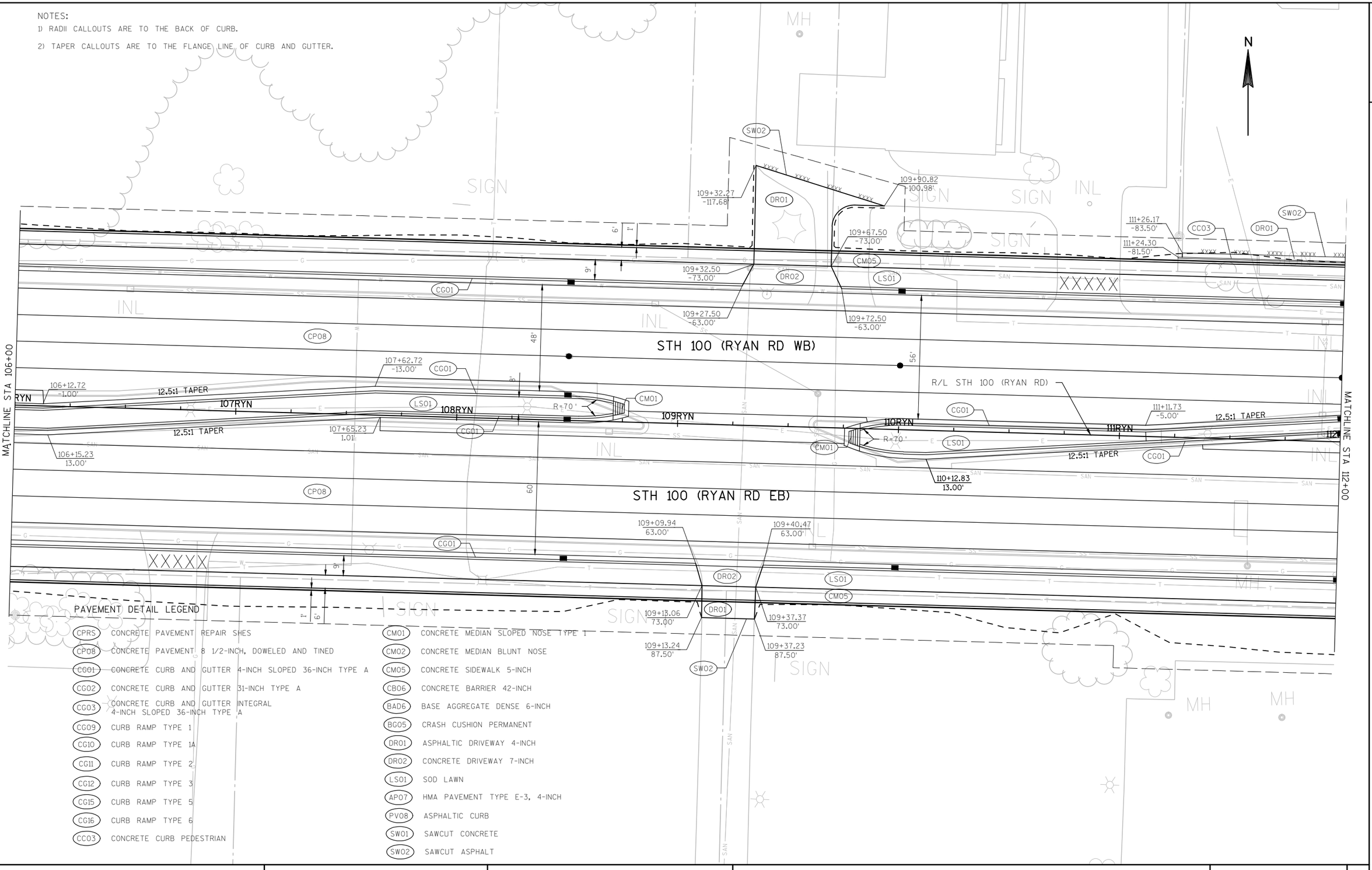
PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	PLAN: PLAN DETAIL	SHEET 45	E

FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\021201_PD.DWG PLOT DATE : 11/21/2013 12:09 PM PLOT BY : JGRUBER PLOT NAME : ---- PLOT SCALE : 1" = 40'_XREF
WISDOT/CADDS SHEET 42

NOTES:

1) RADII CALLOUTS ARE TO THE BACK OF CURB.

2) TAPER CALLOUTS ARE TO THE FLANGE LINE OF CURB AND GUTTER.



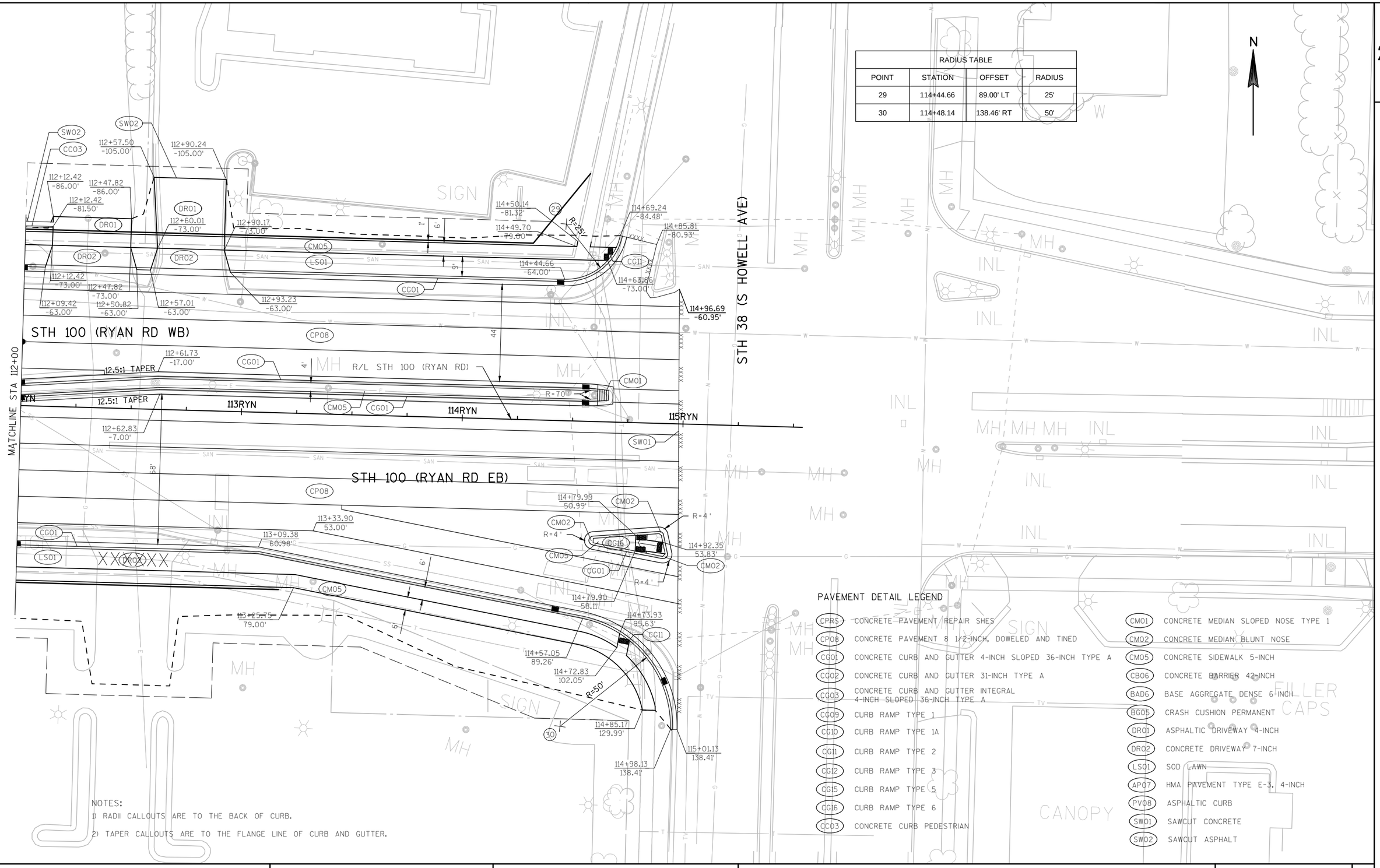
PAVEMENT DETAIL LEGEND

CPRS	CONCRETE PAVEMENT REPAIR SHES	CMO1	CONCRETE MEDIAN SLOPED NOSE TYPE 1
CPO8	CONCRETE PAVEMENT 8 1/2-INCH, DOWELED AND TINED	CMO2	CONCRETE MEDIAN BLUNT NOSE
CGO1	CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE A	CMO5	CONCRETE SIDEWALK 5-INCH
CGO2	CONCRETE CURB AND GUTTER 31-INCH TYPE A	CBO6	CONCRETE BARRIER 42-INCH
CGO3	CONCRETE CURB AND GUTTER INTEGRAL 4-INCH SLOPED 36-INCH TYPE A	BAD6	BASE AGGREGATE DENSE 6-INCH
CGO9	CURB RAMP TYPE 1	BGO5	CRASH CUSHION PERMANENT
CG10	CURB RAMP TYPE 1A	DRO1	ASPHALTIC DRIVEWAY 4-INCH
CG11	CURB RAMP TYPE 2	DRO2	CONCRETE DRIVEWAY 7-INCH
CG12	CURB RAMP TYPE 3	LSO1	SOD LAWN
CG15	CURB RAMP TYPE 5	APO7	HMA PAVEMENT TYPE E-3, 4-INCH
CG16	CURB RAMP TYPE 6	PVO8	ASPHALTIC CURB
CCO3	CONCRETE CURB PEDESTRIAN	SWO1	SAWCUT CONCRETE
		SWO2	SAWCUT ASPHALT

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	PLAN: PLAN DETAIL	SHEET 46	E

2

RADIUS TABLE			
POINT	STATION	OFFSET	RADIUS
29	114+44.66	89.00' LT	25'
30	114+48.14	138.46' RT	50'



NOTES:

1) RADII CALLOUTS ARE TO THE BACK OF CURB.

2) TAPER CALLOUTS ARE TO THE FLANGE LINE OF CURB AND GUTTER.

PAVEMENT DETAIL LEGEND

CPRS	CONCRETE PAVEMENT REPAIR SHES
CP08	CONCRETE PAVEMENT 8 1/2-INCH, DOWELED AND TINED
CG01	CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE A
CG02	CONCRETE CURB AND GUTTER 31-INCH TYPE A
CG03	CONCRETE CURB AND GUTTER INTEGRAL 4-INCH SLOPED 36-INCH TYPE A
CG09	CURB RAMP TYPE 1
CG10	CURB RAMP TYPE 1A
CG11	CURB RAMP TYPE 2
CG12	CURB RAMP TYPE 3
CG15	CURB RAMP TYPE 5
CG16	CURB RAMP TYPE 6
CCO3	CONCRETE CURB PEDESTRIAN
CMO1	CONCRETE MEDIAN SLOPED NOSE TYPE 1
CMO2	CONCRETE MEDIAN BLUNT NOSE
CMO5	CONCRETE SIDEWALK 5-INCH
CB06	CONCRETE BARRIER 42-INCH
BAD6	BASE AGGREGATE DENSE 6-INCH
BG05	CRASH CUSHION PERMANENT
DRO1	ASPHALTIC DRIVEWAY 4-INCH
DRO2	CONCRETE DRIVEWAY 7-INCH
LS01	SOD / LAWN
APO7	HMA PAVEMENT TYPE E-3, 4-INCH
PV08	ASPHALTIC CURB
SWO1	SAWCUT CONCRETE
SWO2	SAWCUT ASPHALT

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	PLAN: PLAN DETAIL	SHEET 47	E

PAVEMENT DETAIL LEGEND

APO6 HMA PAVEMENT TYPE E-3, 7-INCH

CGO7 CONCRETE CURB AND GUTTER 30-INCH TYPE D

TYPICAL FINISHED SECTION

RYAN ROAD

STA 52RY+90 TO STA 53RY+72

N

WB RYAN ROAD

EB RYAN ROAD

IH 94 NB

EXISTING SOUTHEAST DETENTION POND

+90.27 49.85'LT — APO6 — CGO7

+72.27 49.93'LT

+72.05 14.09'LT

+90.05 14.13'LT — CGO7

+89.95 1.15'RT

+26.56 1.48'LT

+71.97 1.92'LT

+89.65 49.90'RT — APO6

+71.65 50.00'RT — CGO7

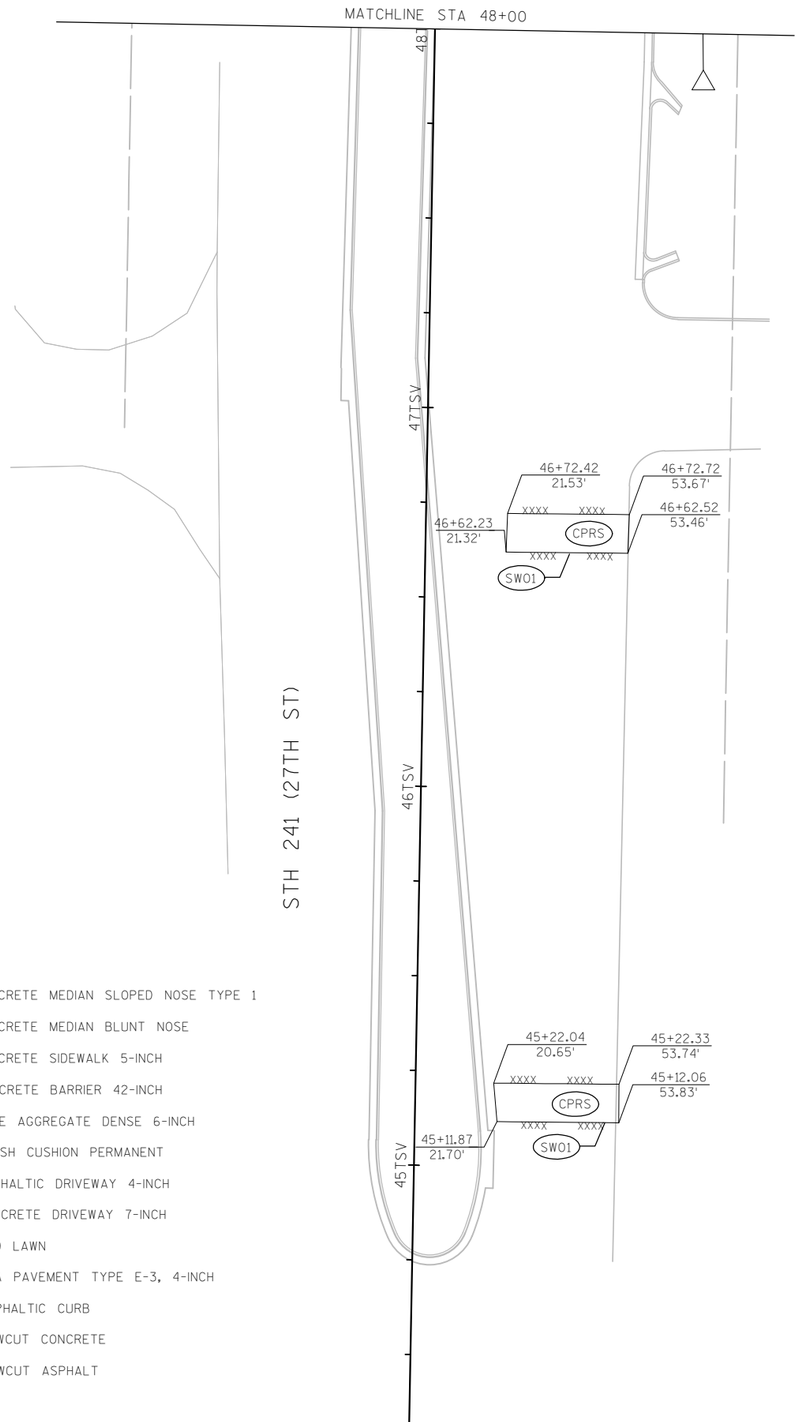
50RY 51RY 52RY 53RY 54RY 55RY 56RY

249 248 247

248RYB 247RYB

PROJECT NO: 2040-16-70	HWY: STH. 100 RYAN RD.	COUNTY: MILWAUKEE	PLAN DETAIL	SHEET E

FILE NAME : S:\FinalDesign\MIL\20401670_RYB\Roads\cds\021201_pd.dgn PLOT DATE : 17-SEP-2013 15:32 PLOT BY : MSCRYS PLOT NAME : 021201_pd PLOT SCALE : 40:1



PAVEMENT DETAIL LEGEND

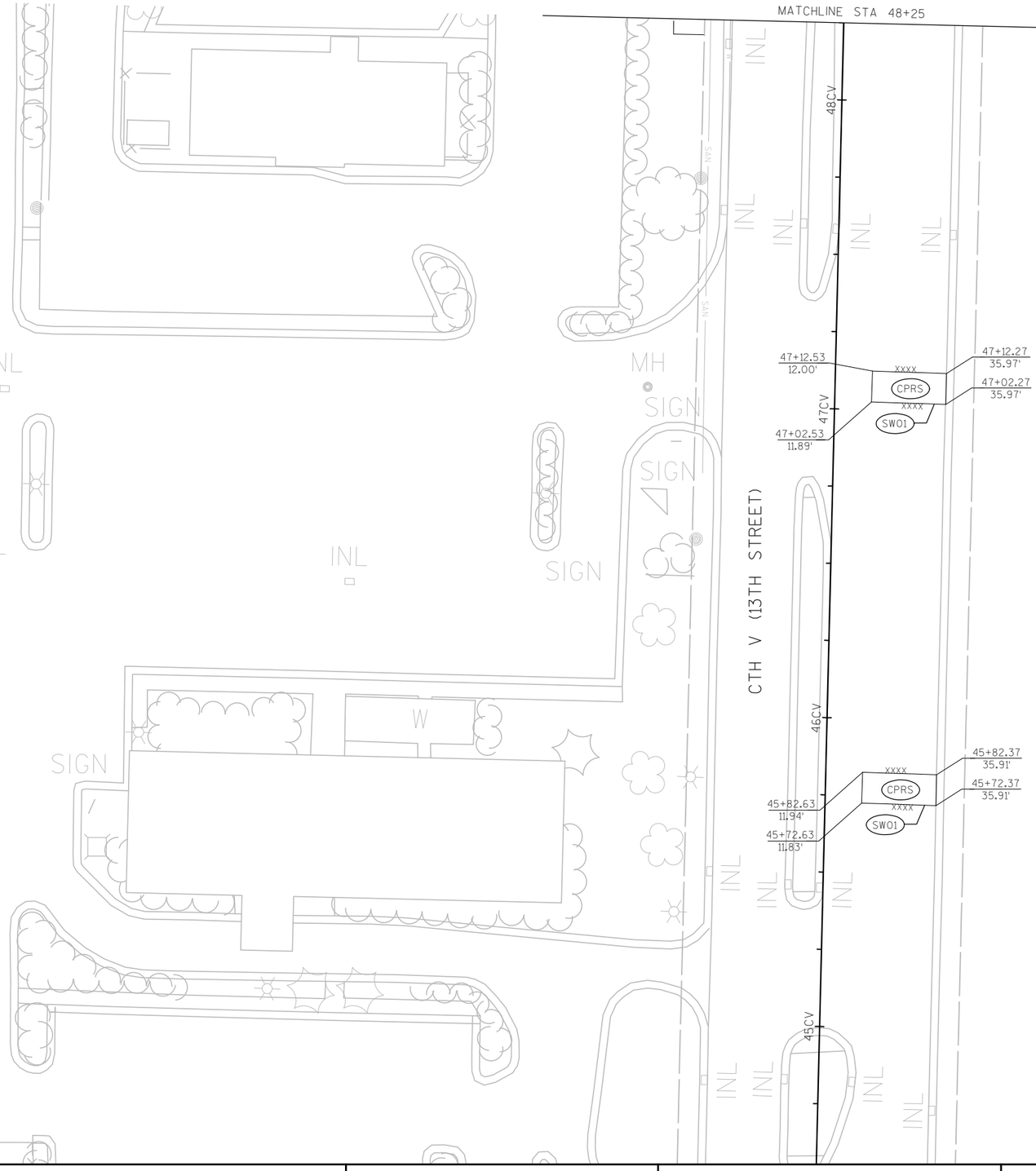
CPRS	CONCRETE PAVEMENT REPAIR SHES
CP08	CONCRETE PAVEMENT 8 1/2-INCH, DOWELED AND TINED
CG01	CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE A
CG02	CONCRETE CURB AND GUTTER 31-INCH TYPE A
CG03	CONCRETE CURB AND GUTTER INTEGRAL 4-INCH SLOPED 36-INCH TYPE A
CG09	CURB RAMP TYPE 1
CG10	CURB RAMP TYPE 1A
CG11	CURB RAMP TYPE 2
CG12	CURB RAMP TYPE 3
CG15	CURB RAMP TYPE 5
CG16	CURB RAMP TYPE 6
CC03	CONCRETE CURB PEDESTRIAN
CM01	CONCRETE MEDIAN SLOPED NOSE TYPE 1
CM02	CONCRETE MEDIAN BLUNT NOSE
CM05	CONCRETE SIDEWALK 5-INCH
CB06	CONCRETE BARRIER 42-INCH
BAD6	BASE AGGREGATE DENSE 6-INCH
BG05	CRASH CUSHION PERMANENT
DR01	ASPHALTIC DRIVEWAY 4-INCH
DR02	CONCRETE DRIVEWAY 7-INCH
LS01	SOD LAWN
AP07	HMA PAVEMENT TYPE E-3, 4-INCH
PV08	ASPHALTIC CURB
SW01	SAWCUT CONCRETE
SW02	SAWCUT ASPHALT

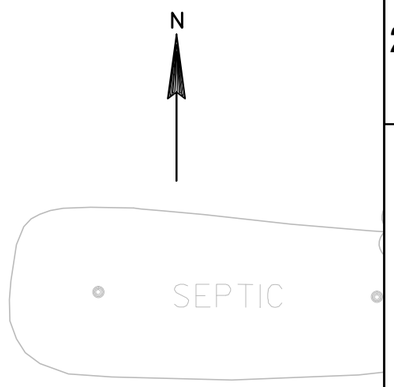
2

N

PAVEMENT DETAIL LEGEND

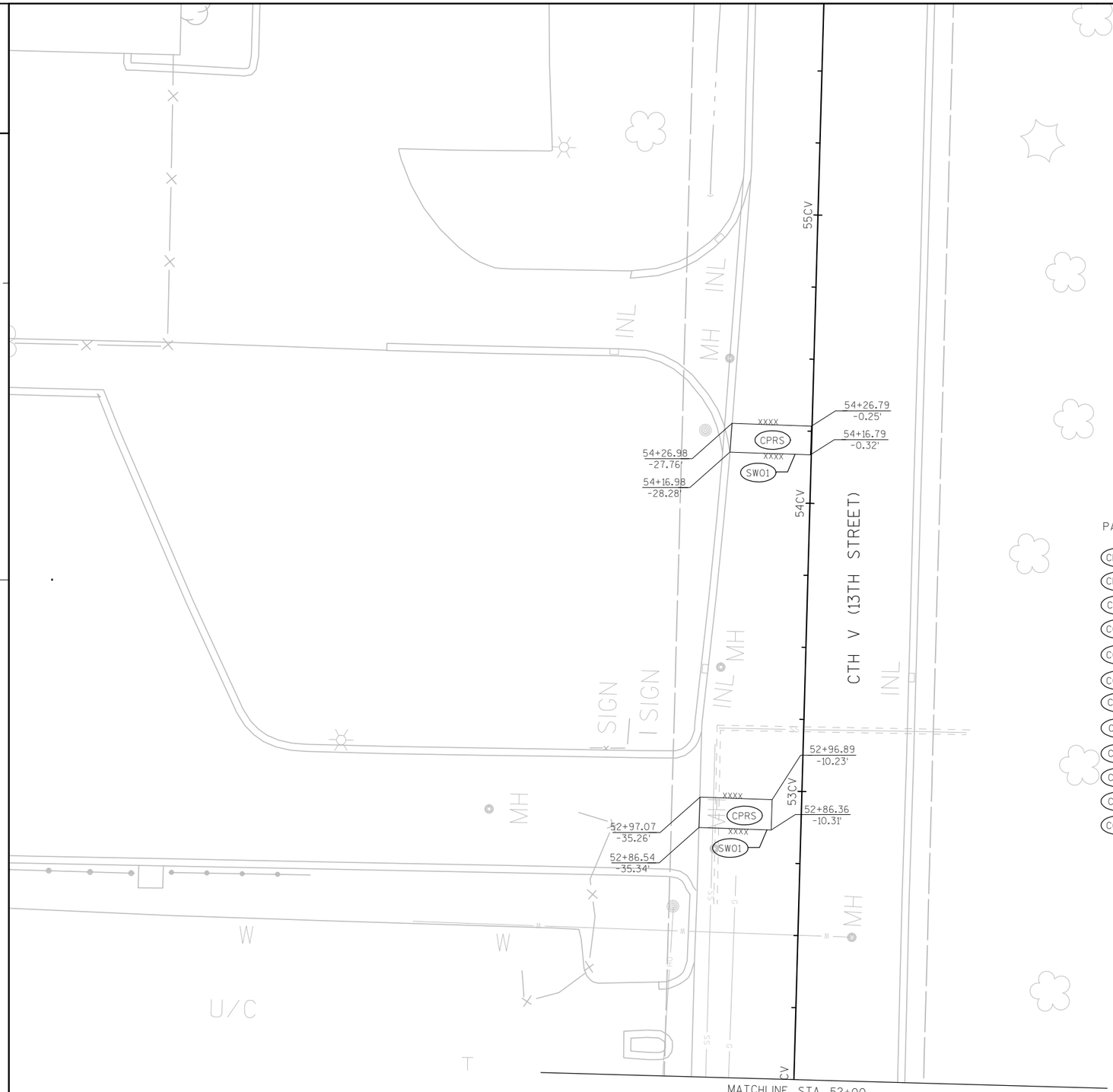
CPRS	CONCRETE PAVEMENT REPAIR SHES
CP08	CONCRETE PAVEMENT 8 1/2-INCH, DOWELED AND TINED
CG01	CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE A
CG02	CONCRETE CURB AND GUTTER 31-INCH TYPE A
CG03	CONCRETE CURB AND GUTTER INTEGRAL 4-INCH SLOPED 36-INCH TYPE A
CG09	CURB RAMP TYPE 1
CG10	CURB RAMP TYPE 1A
CG11	CURB RAMP TYPE 2
CG12	CURB RAMP TYPE 3
CG15	CURB RAMP TYPE 5
CG16	CURB RAMP TYPE 6
CC03	CONCRETE CURB PEDESTRIAN
CM01	CONCRETE MEDIAN SLOPED NOSE TYPE 1
CM02	CONCRETE MEDIAN BLUNT NOSE
CM05	CONCRETE SIDEWALK 5-INCH
CB06	CONCRETE BARRIER 42-INCH
BAD6	BASE AGGREGATE DENSE 6-INCH
BG05	CRASH CUSHION PERMANENT
DR01	ASPHALTIC DRIVEWAY 4-INCH
DR02	CONCRETE DRIVEWAY 7-INCH
LS01	SOD LAWN
AP07	HMA PAVEMENT TYPE E-3, 4-INCH
PV08	ASPHALTIC CURB
SW01	SAWCUT CONCRETE
SW02	SAWCUT ASPHALT





PAVEMENT DETAIL LEGEND

CPRS	CONCRETE PAVEMENT REPAIR SHES	CMO1	CONCRETE MEDIAN SLOPED NOSE TYPE 1
CPO8	CONCRETE PAVEMENT 8 1/2-INCH, DOWELED AND TINED	CMO2	CONCRETE MEDIAN BLUNT NOSE
CGO1	CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE A	CMO5	CONCRETE SIDEWALK 5-INCH
CGO2	CONCRETE CURB AND GUTTER 31-INCH TYPE A	CBO6	CONCRETE BARRIER 42-INCH
CGO3	CONCRETE CURB AND GUTTER INTEGRAL 4-INCH SLOPED 36-INCH TYPE A	BAD6	BASE AGGREGATE DENSE 6-INCH
CGO9	CURB RAMP TYPE 1	BGO5	CRASH CUSHION PERMANENT
CG10	CURB RAMP TYPE 1A	DRO1	ASPHALTIC DRIVEWAY 4-INCH
CG11	CURB RAMP TYPE 2	DRO2	CONCRETE DRIVEWAY 7-INCH
CG12	CURB RAMP TYPE 3	LSO1	SOD LAWN
CG15	CURB RAMP TYPE 5	APO7	HMA PAVEMENT TYPE E-3, 4-INCH
CG16	CURB RAMP TYPE 6	PVO8	ASPHALTIC CURB
CCO3	CONCRETE CURB PEDESTRIAN	SWO1	SAWCUT CONCRETE
		SWO2	SAWCUT ASPHALT



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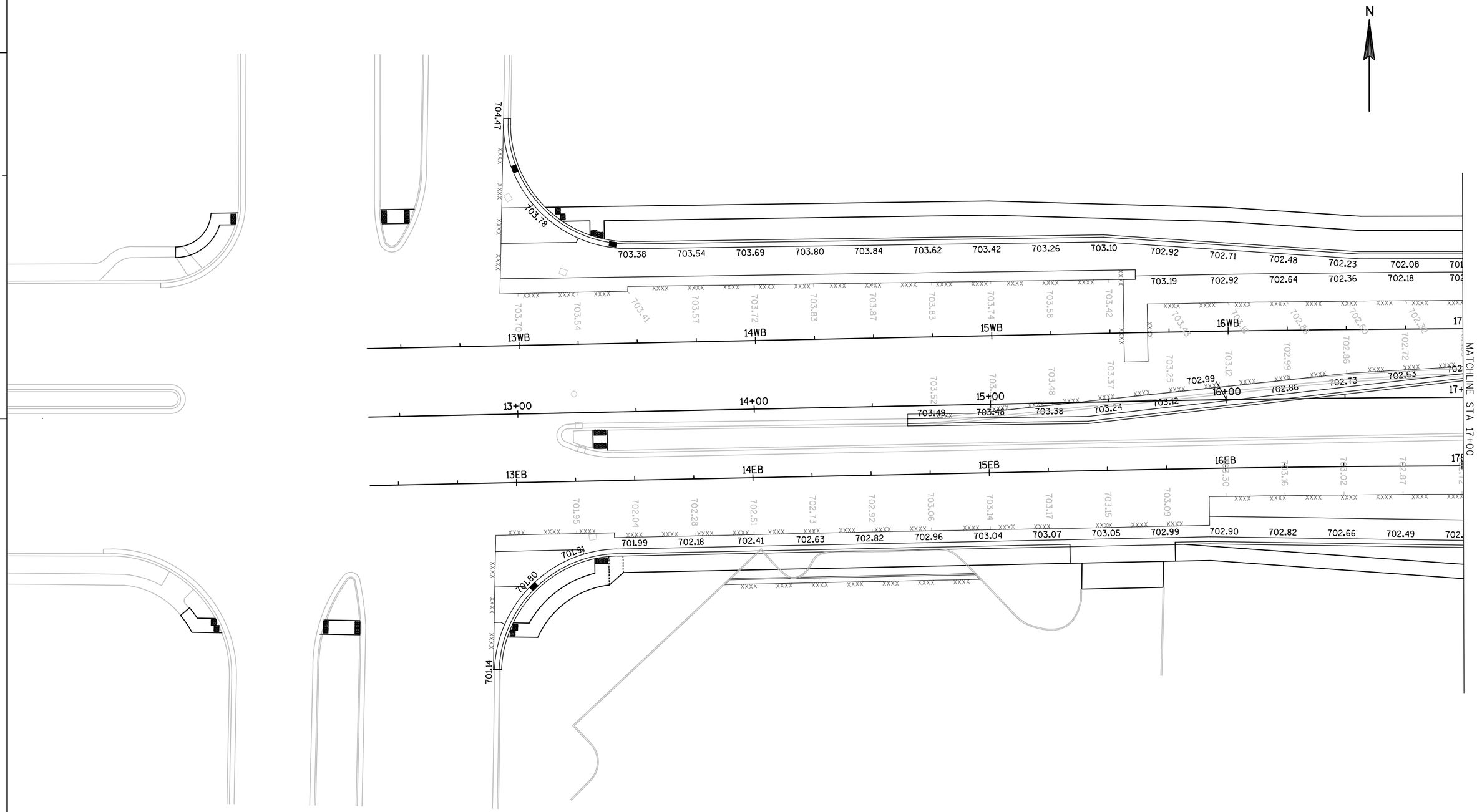
PAVEMENT DETAIL LEGEND

CPRS	CONCRETE PAVEMENT REPAIR SHES	CM01	CONCRETE MEDIAN SLOPED NOSE TYPE 1
CP08	CONCRETE PAVEMENT 8 1/2-INCH, DOWELED AND TINED	CM02	CONCRETE MEDIAN BLUNT NOSE
CG01	CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE A	CM05	CONCRETE SIDEWALK 5-INCH
CG02	CONCRETE CURB AND GUTTER 31-INCH TYPE A	CB06	CONCRETE BARRIER 42-INCH
CG03	CONCRETE CURB AND GUTTER INTEGRAL 4-INCH SLOPED 36-INCH TYPE A	BAD6	BASE AGGREGATE DENSE 6-INCH
CG09	CURB RAMP TYPE 1	BG05	CRASH CUSHION PERMANENT
CG10	CURB RAMP TYPE 1A	DR01	ASPHALTIC DRIVEWAY 4-INCH
CG11	CURB RAMP TYPE 2	DR02	CONCRETE DRIVEWAY 7-INCH
CG12	CURB RAMP TYPE 3	LS01	SOD LAWN
CG15	CURB RAMP TYPE 5	AP07	HMA PAVEMENT TYPE E-3, 4-INCH
CG16	CURB RAMP TYPE 6	PV08	ASPHALTIC CURB
CC03	CONCRETE CURB PEDESTRIAN	SW01	SAWCUT CONCRETE
		SW02	SAWCUT ASPHALT

2



PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	PLAN: PAVEMENT GRADES	SHEET	E

FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\DESIGN\CORRIDORS\021301_GR.DWG PLOT DATE : 9/30/2013 6:16 PM PLOT BY : KKUECKER PLOT NAME : ---- PLOT SCALE : 1:40_XREF
WISDOT/CADDS SHEET 42

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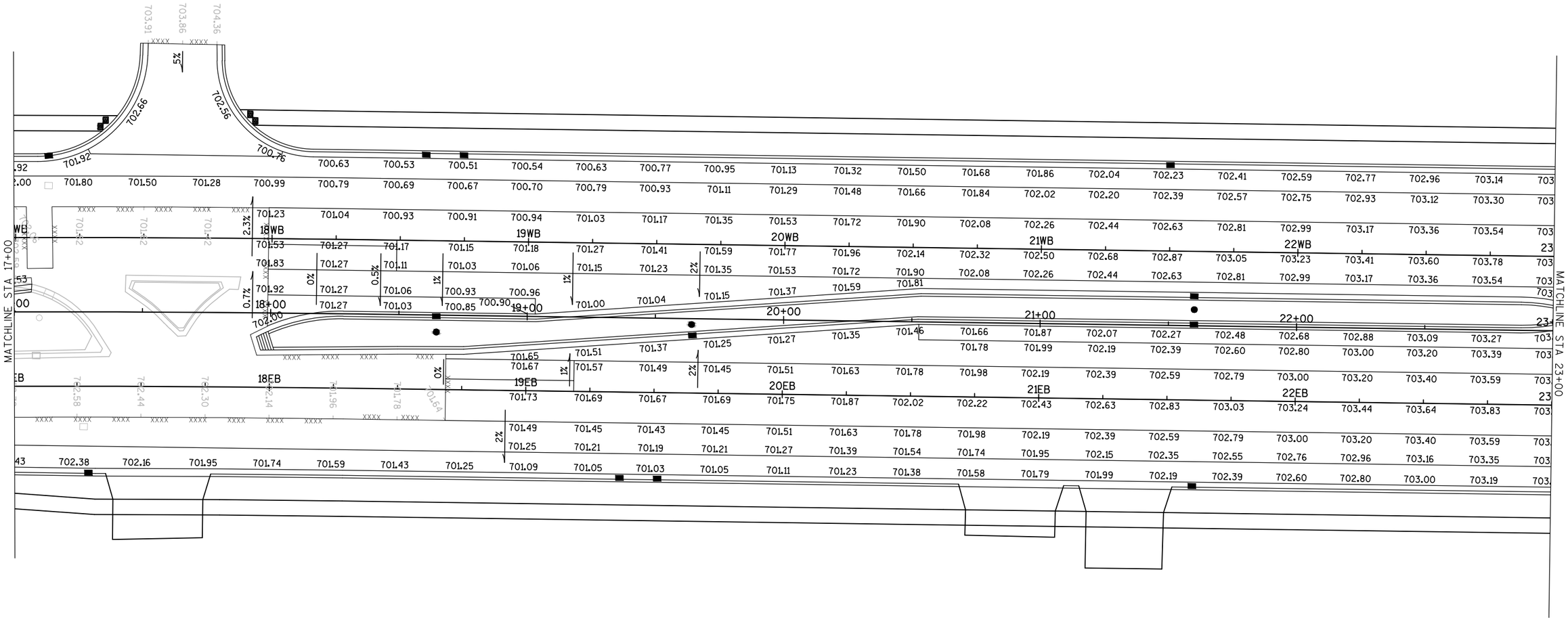

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	PLAN: PAVEMENT GRADES	SHEET 54	E

2

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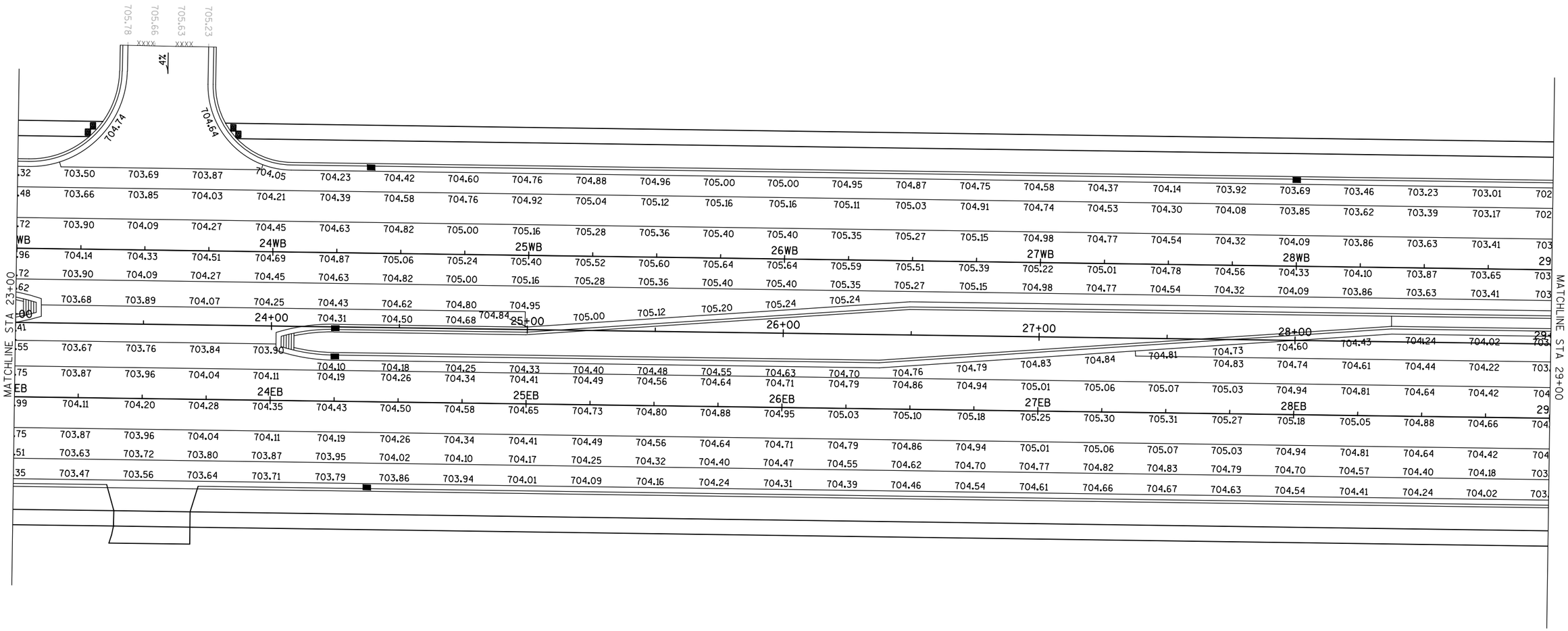

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	PLAN: PAVEMENT GRADES	SHEET 55	E

2

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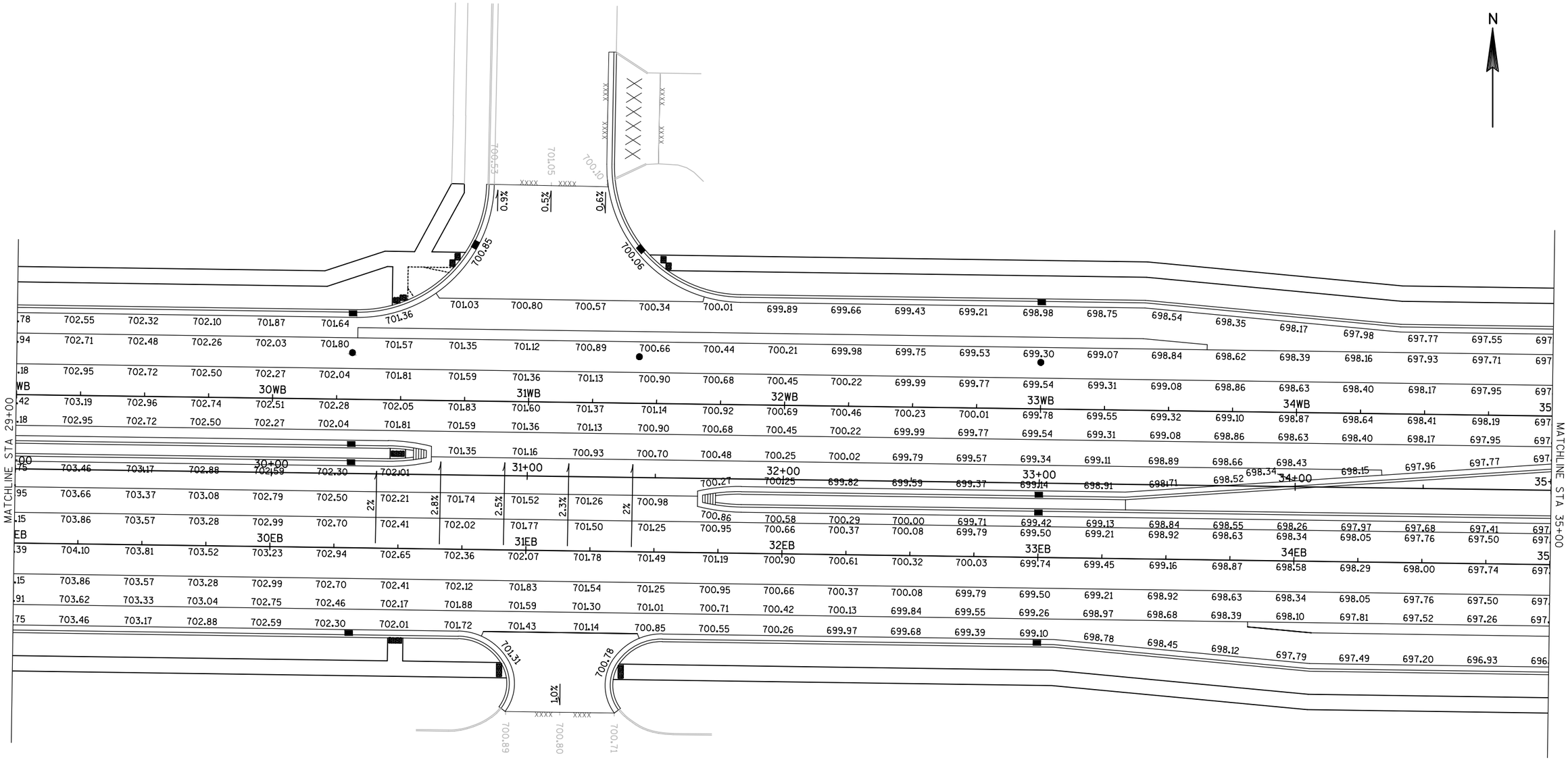


PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	PLAN: PAVEMENT GRADES	SHEET 56	E

2

N

MATCHLINE STA 35+00

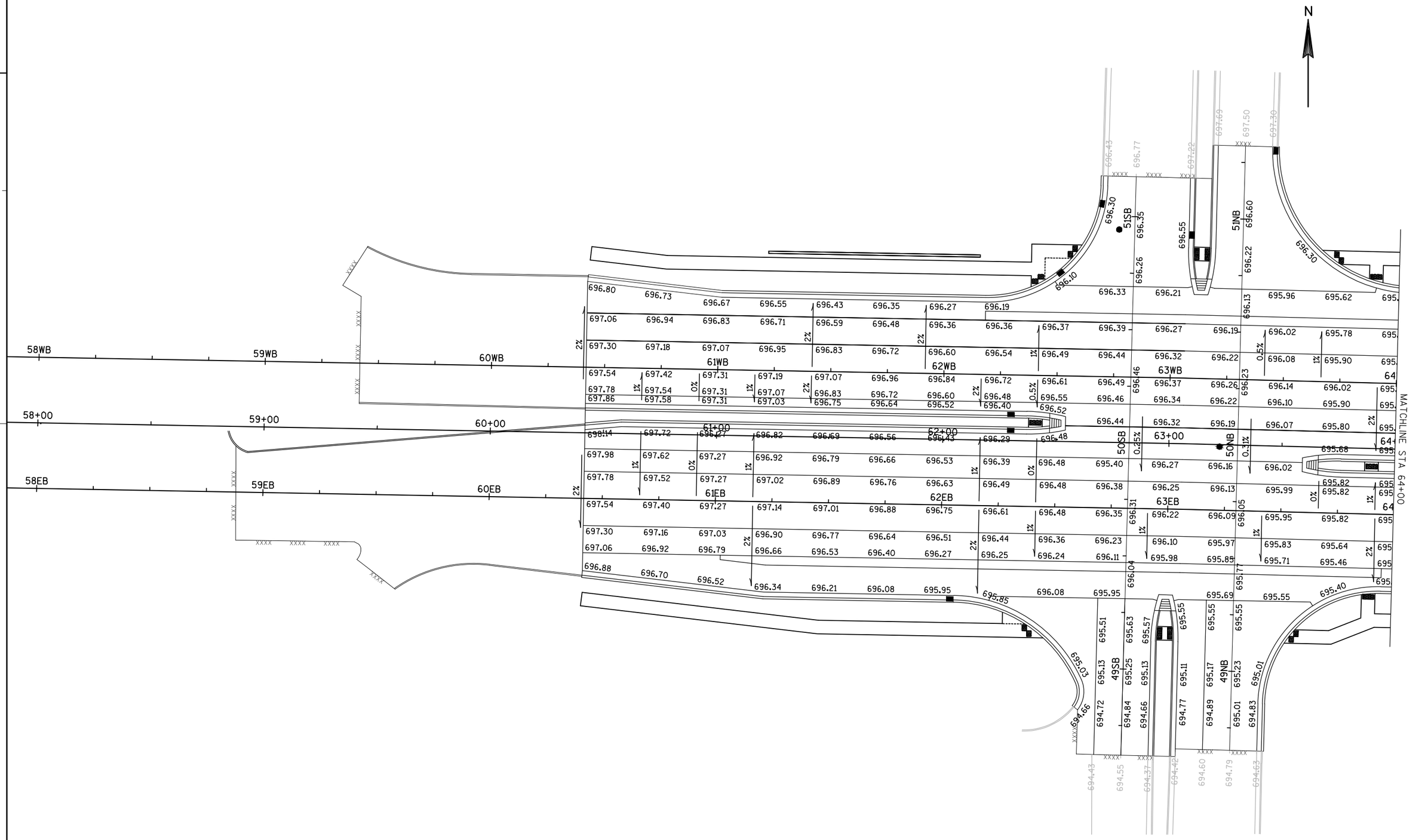
36+00 37+00 38+00 39+00 40+00 41+00

36WB 37WB 38WB 39WB 40WB 41WB

36EB 37EB 38EB 39EB 40EB 41EB

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	PLAN: PAVEMENT GRADES	SHEET 57	E

2



PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	PLAN: PAVEMENT GRADES	SHEET 58	E

2

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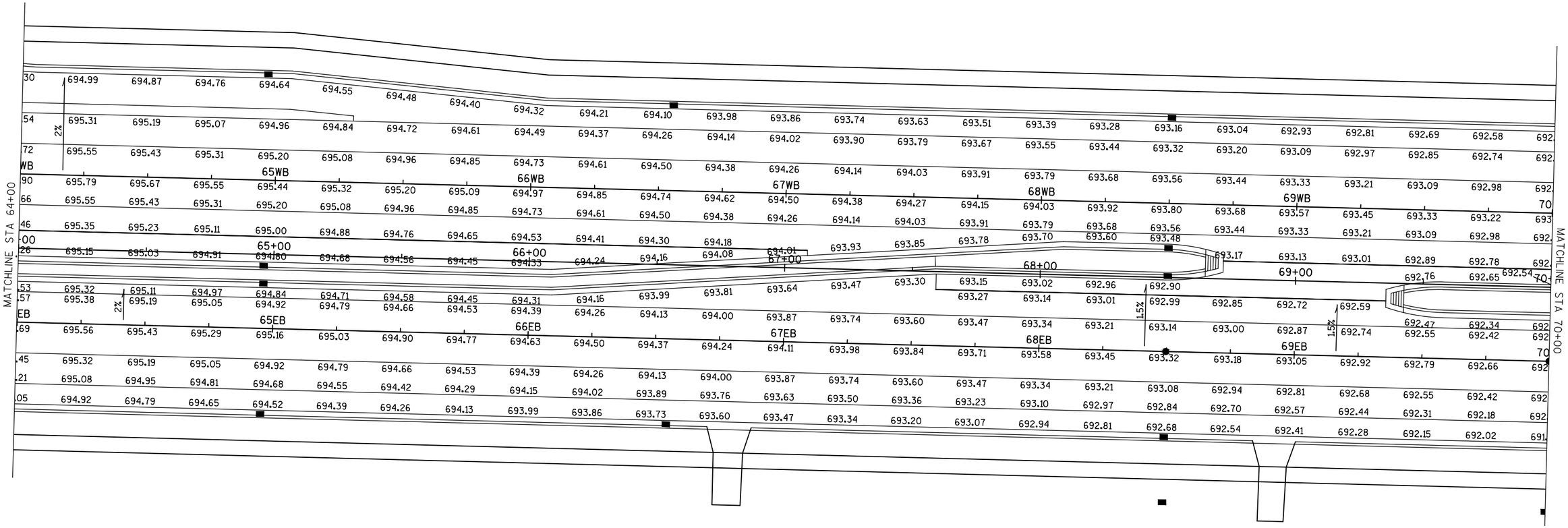

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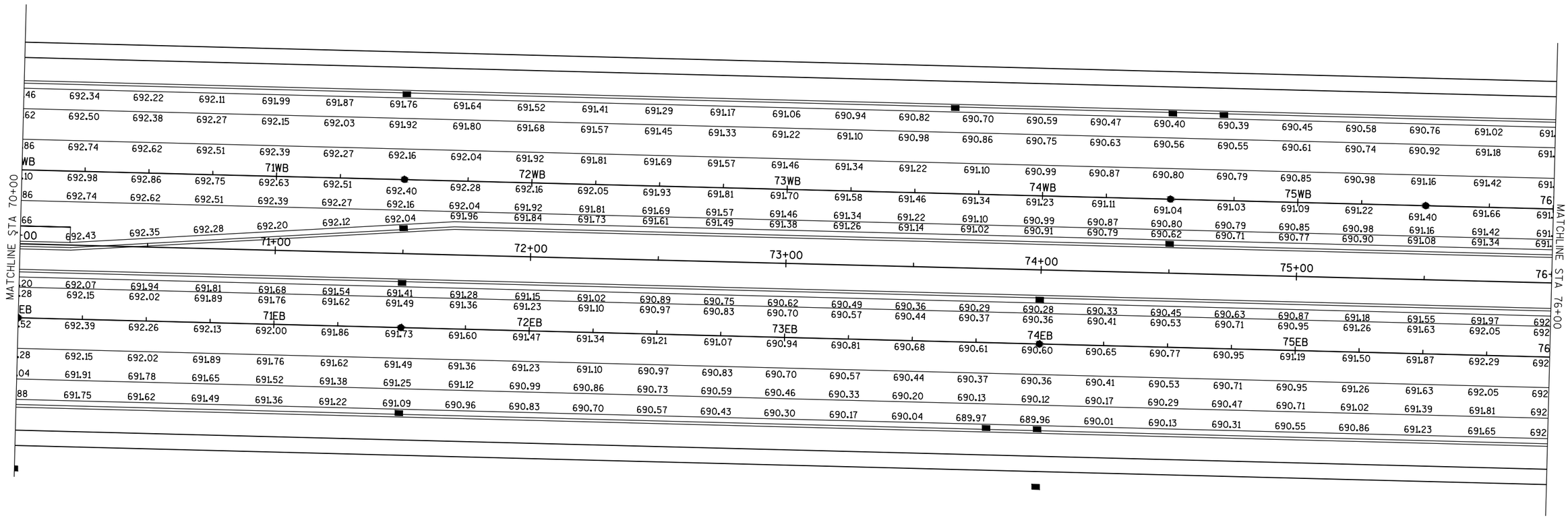
2

N



PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	PLAN: PAVEMENT GRADES	SHEET 60	E

2

N

MATCHLINE STA 76+00

MATCHLINE STA 82+00

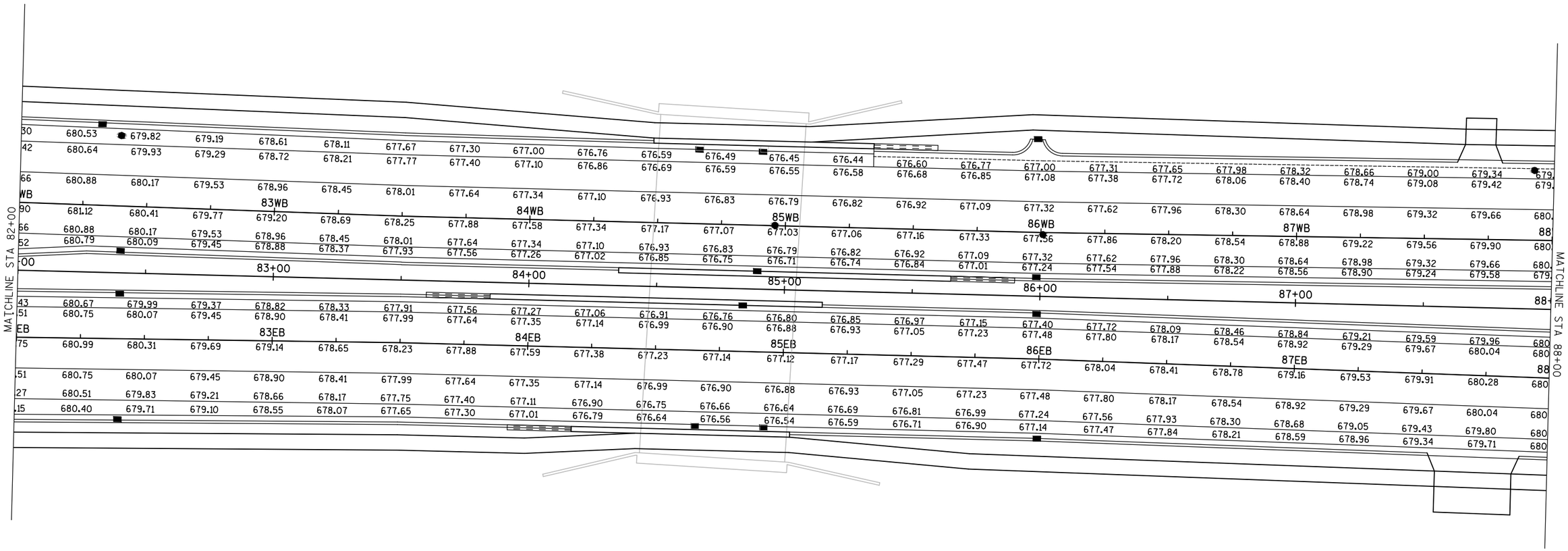
31	691.61	691.85	692.03	692.13	692.17	692.14	692.04	691.87	691.64	691.38	691.06	690.66	690.20	689.66	689.07	688.39	687.64	686.82	685.93	684.98	684.01	683.05	682.14	681.
47	691.77	692.01	692.19	692.29	692.33	692.30	692.20	692.03	691.80	691.54	691.22	690.82	690.36	689.82	689.21	688.53	687.78	686.95	686.06	685.10	684.13	683.17	682.26	681.
71	692.01	692.25	692.43	692.53	692.57	692.54	692.44	692.27	692.04	691.78	691.46	691.06	690.60	690.06	689.45	688.77	688.02	687.19	686.30	685.34	684.37	683.41	682.50	681.
WB				77WB				78WB				79WB				80WB				81WB				82
95	692.25	692.49	692.67	692.77	692.81	692.78	692.68	692.51	692.28	692.02	691.70	691.30	690.84	690.30	689.69	689.01	688.26	687.43	686.54	685.58	684.61	683.65	682.74	681.
71	692.01	692.25	692.43	692.53	692.57	692.54	692.44	692.27	692.04	691.84	691.58	691.18	690.72	690.12	689.45	688.77	688.02	687.19	686.30	685.34	684.37	683.41	682.50	681.
63	691.93	692.17	692.35	692.45	692.49	692.46	692.36	692.19	691.96	691.76	691.48	691.08	690.62	689.97	689.24	688.56	687.80	686.98	686.08	685.04	684.11	683.19	682.32	681.
00				77+00				78+00				79+00				80+00				81+00				82
36	692.67	692.87	693.00	693.05	693.03	692.95	692.81	692.63	692.38	692.05					689.10	688.43	687.68	686.85	685.96					
44	692.75	692.99	693.16	693.25	693.27	693.22	693.12	692.95	692.70	692.37	691.96	691.48	690.92	690.28	689.56	688.76	687.89	686.96	686.02	685.08	684.15	683.21	682.33	681.
EB				77EB				78EB				79EB				80EB				81EB				82
68	692.99	693.23	693.40	693.49	693.51	693.46	693.36	693.19	692.94	692.61	692.20	691.72	691.16	690.52	689.80	689.00	688.13	687.20	686.26	685.32	684.39	683.45	682.57	681.
44	692.75	692.99	693.16	693.25	693.27	693.22	693.12	692.95	692.70	692.37	691.96	691.48	690.92	690.28	689.56	688.76	687.89	686.96	686.02	685.08	684.15	683.21	682.33	681.
20	692.51	692.75	692.92	693.01	693.03	692.98	692.88	692.71	692.46	692.13	691.72	691.24	690.68	690.04	689.32	688.52	687.65	686.72	685.78	684.84	683.91	682.97	682.09	681.
04	692.35	692.59	692.76	692.85	692.87	692.82	692.72	692.55	692.30	691.97	691.56	691.08	690.52	689.88	689.16	688.37	687.50	686.57	685.64	684.71	683.78	682.85	681.96	681

2% 1% 1% 2%

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	PLAN: PAVEMENT GRADES	SHEET 61	E

2

N



PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	PLAN: PAVEMENT GRADES	SHEET 62	E

FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\DESIGN\CORRIDORS\021301_GR.DWG PLOT DATE : 9/30/2013 6:16 PM PLOT BY : KKUECKER PLOT NAME : ---- PLOT SCALE : 1:40_XREF

WISDOT/CADDS SHEET 42

2

N

MATCHLINE STA 88+00

MATCHLINE STA 94+00

89WB 90WB 91WB 92WB 93WB

89EB 90EB 91EB 92EB 93EB

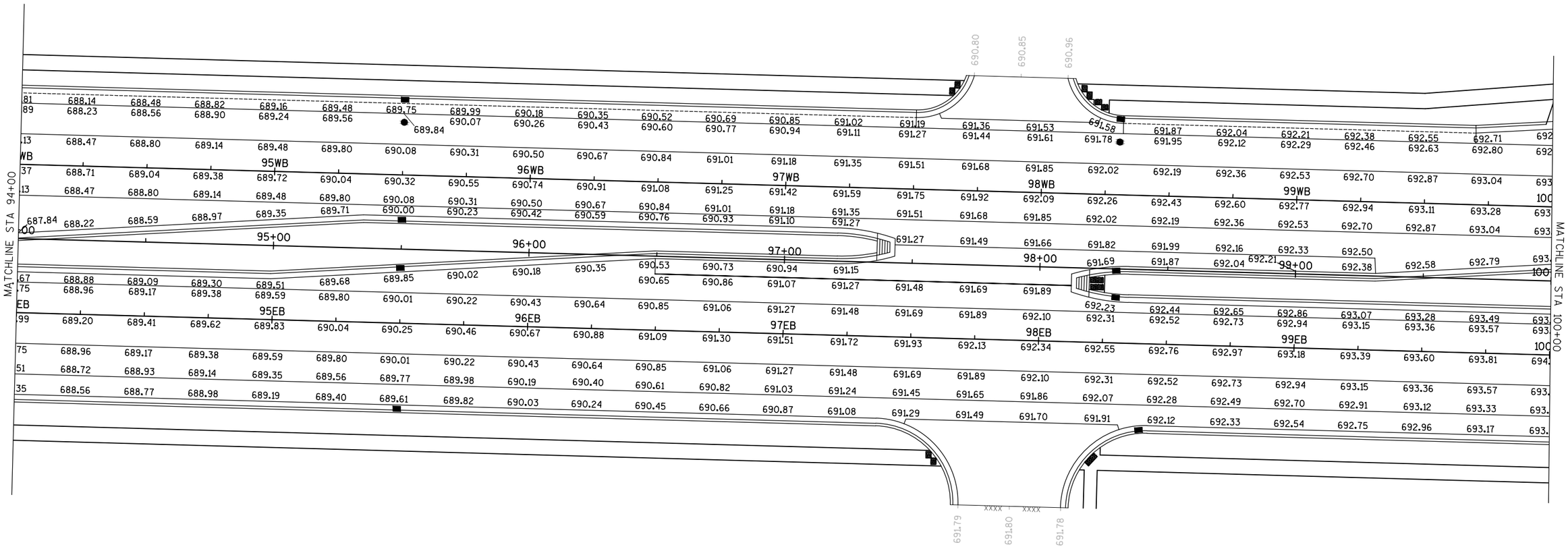
89+00 90+00 91+00 92+00 93+00

686.28 686.90 686.72 686.92 686.74

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	PLAN: PAVEMENT GRADES	SHEET 63	E

2

N



PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	PLAN: PAVEMENT GRADES	SHEET 64	E

2

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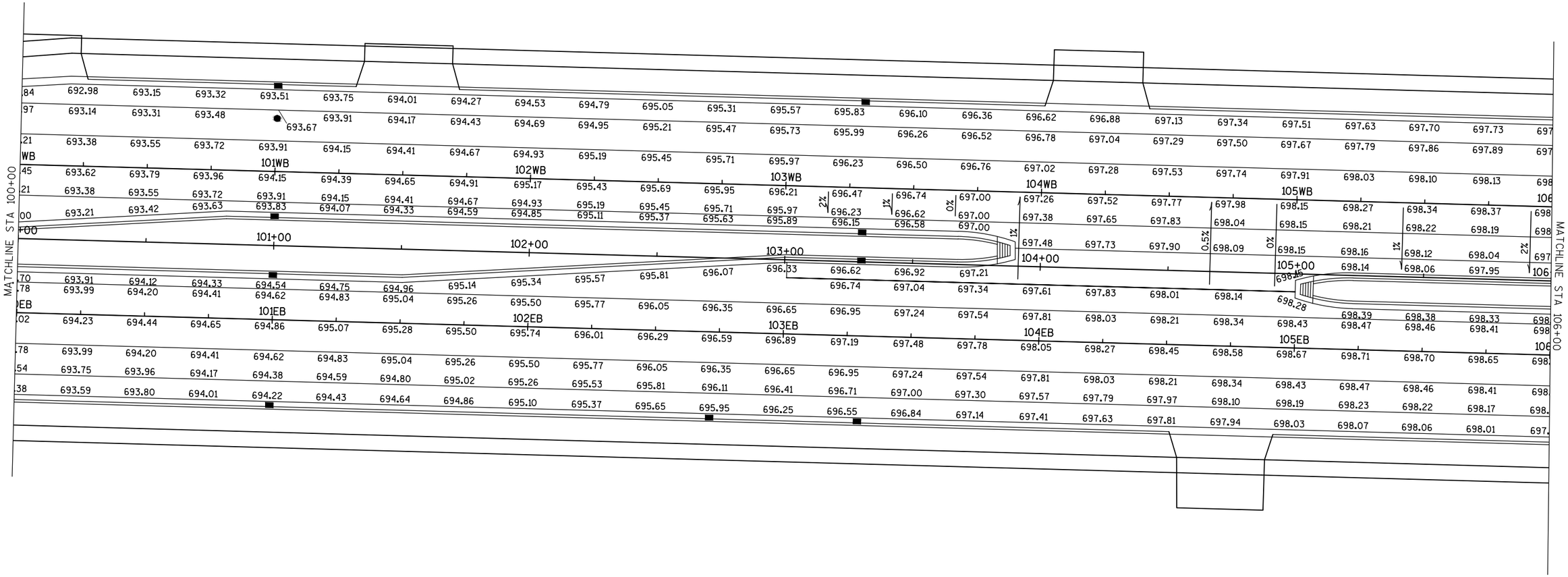


PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	PLAN: PAVEMENT GRADES	SHEET 65	E

2

N

MATCHLINE STA 106+00

MATCHLINE STA 112+00

107WB 108WB 109WB 110WB 111WB

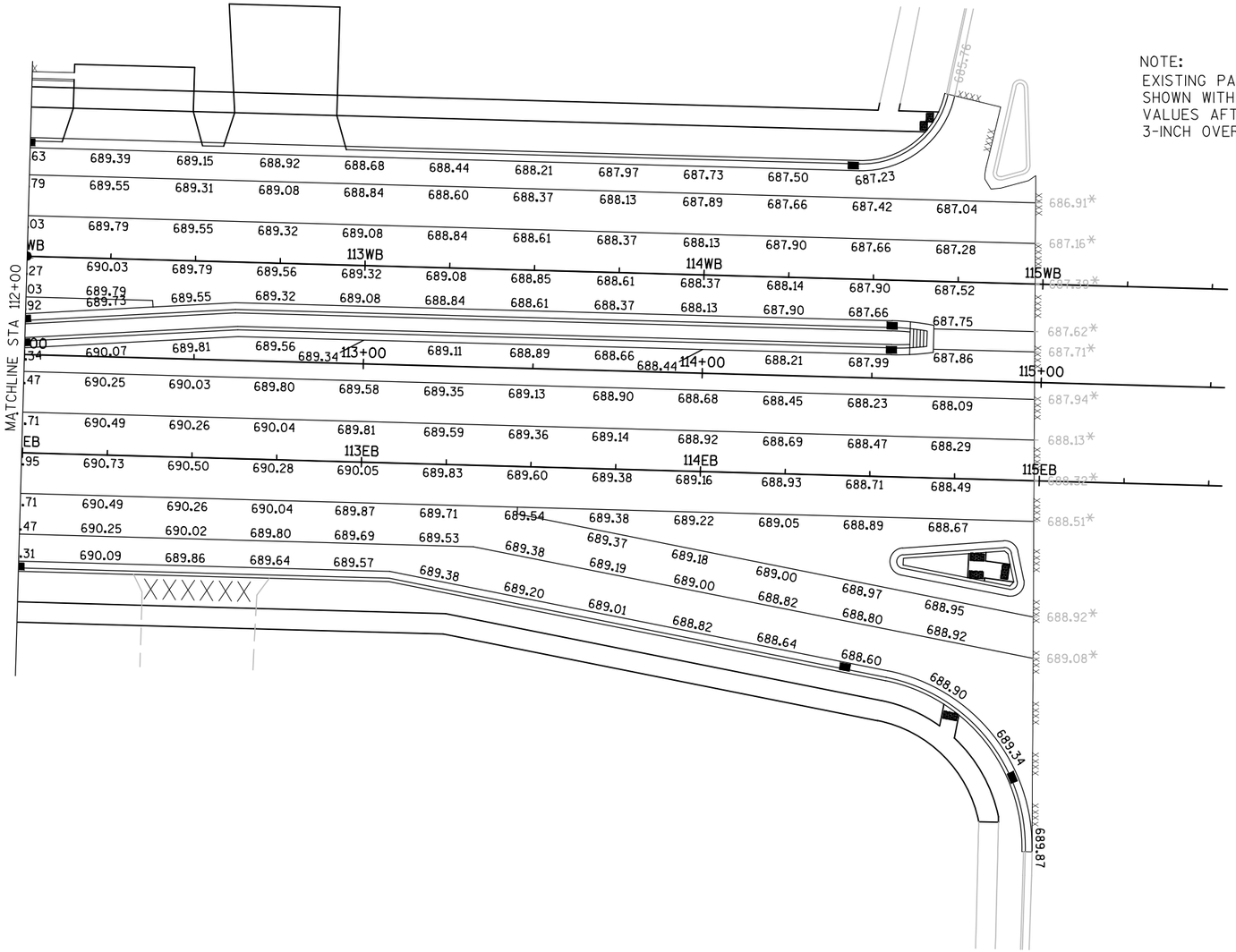
107EB 108EB 109EB 110EB 111EB

107+00 108+00 109+00 110+00 111+00

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	PLAN: PAVEMENT GRADES	SHEET 66	E

2

N



NOTE:
EXISTING PAVEMENT ELEVATIONS SHOWN WITH ASTERISK REFLECT VALUES AFTER PROPOSED 3-INCH OVERLAY.

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	PLAN: PAVEMENT GRADES	SHEET 67	E

2

240

245

250

IH 94 SB

IH 94 NB

50RY

RYAN ROAD

55RY

240RYB

245RYB

RAMP RYB

SE DETENTION POND
CONSTRUCTED UNDER WISDOT
PROJECT ID: 1030-26-73

RIPRAP

PROJECT NO: 2040-16-70	HWY: STH. 100 RYAN RD.	COUNTY: MILWAUKEE	CONTOUR MAP	SHEET	E

FILE NAME : S:\FinalDesign\MIL\20401670_RYB\Roads\cds\021601_cm.dgn PLOT DATE : 17-SEP-2013 15:34 PLOT BY : MSCRYS PLOT NAME : PLOT SCALE : 100:1

LEGEND

- EROSION MAT URBAN CLASS I, TYPE A
- EROSION MAT CLASS II, TYPE A
- EROSION MAT URBAN CLASS I, TYPE B
- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- (C) INLET PROTECTION TYPE C
- (D) INLET PROTECTION TYPE D
- EROSION BALES
- CULVERT PIPE DITCH CHECK
- TEMPORARY DITCH CHECK
- SILT FENCE
- SLOPE INTERCEPTS
- LIGHT RIP RAP
- MEDIUM RIP RAP
- SURFACE FLOW ARROW

STH 100 (RYAN RD)

STH 241 (27TH ST)

S 22ND ST

S 20TH ST

17+81.73 -114.37'
17+93.94 -92.65'
18+53.07 -93.61'
21+53.01 -82.50'
23+22.30 -81.04'
23+38.27 -108.09'
23+34.03 -90.11'
25+41.83 -83.24'
25+43.03 85.44'
25+71.45 91.48'
15+74.10 72.52'
16+61.57 90.78'
17+01.49 93.15'
17+37.03 92.10'

NOTES: (B)

1. MEDIAN WILL HAVE SOD PLACED, EXCEPT WHERE CONCRETE IS SPECIFIED.
2. TERRACE WILL HAVE SOD PLACED.
3. WHEN MULTIPLE INLET PROTECTIONS ARE INDICATED AT THE SAME LOCATION, USE TYPE A PRIOR TO THE PLACEMENT OF CURB AND GUTTER
4. PLACE 4 INCHES OF TOPSOIL AND USE SEED MIX NO. 20 IN AREAS WHERE EROSION MAT IS CALLED FOR.
5. AREAS WITHIN THE SLOPE INTERCEPTS NOT USING EROSION MAT NEED TOPSOIL, FERTILIZER AND MULCH PLACED.

26+28.06 -87.93'
28+74.61 -86.71'
28+97.85 -93.09'
29+50.59 -101.89'
30+68.05 -115.21'
30+47.05 -90.69'
31+99.10 -92.16'
33+15.74 -90.79'
28+76.97 85.03'
28+54.78 92.26'
30+82.80 85.62'
30+88.17 92.05'
31+52.35 83.55'
31+38.35 90.59'
33+13.76 85.72'
36+86.47 135.74'
37+07.80 100.11'
37+35.71 94.20'
38+36.27 104.00'
39+73.38 102.71'

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	EROSION CONTROL	SHEET E

FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\022001_EC.DWG PLOT DATE : 11/21/2013 12:45 PM PLOT BY : JGRUBER PLOT NAME : PLOT SCALE : 1" = 100'_XREF

WISDOT/CADDS SHEET 44

LEGEND

- EROSION MAT URBAN CLASS I, TYPE A
- EROSION MAT CLASS II, TYPE A
- EROSION MAT URBAN CLASS I, TYPE B
- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- (C) INLET PROTECTION TYPE C
- (D) INLET PROTECTION TYPE D
- EROSION BALES
- CULVERT PIPE DITCH CHECK
- TEMPORARY DITCH CHECK
- SILT FENCE
- SLOPE INTERCEPTS
- LIGHT RIP RAP
- MEDIUM RIP RAP
- SURFACE FLOW ARROW

N

STH 100 (RYAN RD)

S 13TH ST

60+41.13 97.38'
61+27.36 100.14'
62+02.20 94.17'
62+38.73 93.84'
62+56.30 108.31'
62+57.87 116.60'
63+46.16 135.11'
63+53.06 104.20'
63+63.72 91.29'
66+52.46 91.10'
66+70.72 94.43'
66+86.42 94.97'
66+95.63 85.87'
67+61.21 89.44'
67+91.51 89.61'
68+97.81 93.69'
69+04.18 90.08'
69+84.89 89.76'
70+14.89 90.49'
70+77.30 90.69'
70+99.87 94.47'
71+30.41 90.24'
72+06.82 94.07'
72+98.58 87.80'
73+48.89 94.34'
76+37.91 -82.67'
78+63.61 -87.94'
78+94.68 -85.36'
78+99.15 -98.75'

NOTES:

1. MEDIAN WILL HAVE SOD PLACED, EXCEPT WHERE CONCRETE IS SPECIFIED.
2. TERRACE WILL HAVE SOD PLACED.
3. WHEN MULTIPLE INLET PROTECTIONS ARE INDICATED AT THE SAME LOCATION, USE TYPE A PRIOR TO THE PLACEMENT OF CURB AND GUTTER
4. PLACE 4 INCHES OF TOPSOIL AND USE SEED MIX NO. 20 IN AREAS WHERE EROSION MAT IS CALLED FOR.
5. AREAS WITHIN THE SLOPE INTERCEPTS NOT USING EROSION MAT NEED TOPSOIL, FERTILIZER AND MULCH PLACED.

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	EROSION CONTROL	SHEET 70	E

2

87+95.78
-76.06'

91+40.88
-76.04'

93+07.43
-74.40'

93+83.63
-76.26'

94+97.81
-74.78'

96+81.52
-75.47'

97+67.59
-75.68'

98+12.42
-76.09'

90+02.17
-74.50'

99+57.49
-75.10'

99+77.70
-77.86'

STH 100 (RYAN RD)

S. EAGLE'S SUMMIT DRIVE

89+79.71
76.28'

91+34.93
82.32'

91+35.17
91.25'

91+09.40
76.85'

90+75.87
78.00'

SOD REINFORCED WITH WISDOT
CLASS II TYPE A EROSION MAT

NOTES:

1. MEDIAN WILL HAVE SOD PLACED, EXCEPT WHERE CONCRETE IS SPECIFIED.
2. TERRACE WILL HAVE SOD PLACED.
3. WHEN MULTIPLE INLET PROTECTIONS ARE INDICATED AT THE SAME LOCATION, USE TYPE A PRIOR TO THE PLACEMENT OF CURB AND GUTTER
4. PLACE 4 INCHES OF TOPSOIL AND USE SEED MIX NO. 20 IN AREAS WHERE EROSION MAT IS CALLED FOR.
5. AREAS WITHIN THE SLOPE INTERCEPTS NOT USING EROSION MAT NEED TOPSOIL, FERTILIZER AND MULCH PLACED.

105+85.58
-84.51'

107+34.77
-82.48'

109+90.83
-99.01'

109+96.48
-82.09'

110+68.78
-81.98'

110+98.67
-80.74'

111+25.53
-84.33'

112+56.74
-104.52'

112+52.71
-88.82'

112+49.22
-87.25'

112+91.04
-104.52'

112+95.36
-83.59'

113+24.68
-84.24'

113+99.65
-82.02'

114+24.48
-84.12'

114+50.13
-84.93'

STH 100 (RYAN RD)

STH 38 (S HOWELL AVE)

103+47.37
81.45'

104+55.05
93.06'

104+42.81
83.64'

107+70.20
88.92'

108+55.55
87.97'

109+76.08
81.31'

110+24.69
83.11'

110+50.30
89.33'

111+26.21
94.58'

111+00.19
82.29'

110+75.42
90.87'

LEGEND

- EROSION MAT URBAN CLASS I, TYPE A
- EROSION MAT CLASS II, TYPE A
- EROSION MAT URBAN CLASS I, TYPE B
- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- (C) INLET PROTECTION TYPE C
- (D) INLET PROTECTION TYPE D
- EROSION BALES
- CULVERT PIPE DITCH CHECK
- TEMPORARY DITCH CHECK
- SILT FENCE
- SLOPE INTERCEPTS
- LIGHT RIP RAP
- MEDIUM RIP RAP
- SURFACE FLOW ARROW

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	EROSION CONTROL	SHEET	E

FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\022001_EC.DWG PLOT DATE : 11/21/2013 12:46 PM PLOT BY : JGRUBER PLOT NAME : PLOT SCALE : 1" = 100'_XREF

2

STH 100 (RYAN RD)

67+91.51
89.61'

67+61.21
89.44'

68+97.81
93.69'

69+04.18
90.08'

69+84.89
89.76'

70+14.89
90.49'

70+77.30
90.69'

70+99.87
94.47'

71+30.41
90.24'

72+06.82
94.07'

72+98.58
87.80'

73+48.89
94.34'

TEMPORARY DITCH CHECKS
TO BE LEFT IN PLACE
UNTIL RIPRAP IS PLACED

N

LEGEND

- EROSION MAT URBAN CLASS I, TYPE A
- EROSION MAT CLASS II, TYPE A
- EROSION MAT URBAN CLASS I, TYPE B
- INLET PROTECTION TYPE A
- INLET PROTECTION TYPE B
- INLET PROTECTION TYPE C
- INLET PROTECTION TYPE D
- EROSION BALES
- CULVERT PIPE DITCH CHECK
- TEMPORARY DITCH CHECK
- SILT FENCE
- SLOPE INTERCEPTS
- LIGHT RIP RAP
- MEDIUM RIP RAP
- SURFACE FLOW ARROW

NOTES:

1. MEDIAN WILL HAVE SOD PLACED, EXCEPT WHERE CONCRETE IS SPECIFIED.
2. TERRACE WILL HAVE SOD PLACED.
3. WHEN MULTIPLE INLET PROTECTIONS ARE INDICATED AT THE SAME LOCATION, USE TYPE A PRIOR TO THE PLACEMENT OF CURB AND GUTTER
4. PLACE 4 INCHES OF TOPSOIL AND USE SEED MIX NO. 20 IN AREAS WHERE EROSION MAT IS CALLED FOR.
5. AREAS WITHIN THE SLOPE INTERCEPTS NOT USING EROSION MAT NEED TOPSOIL, FERTILIZER AND MULCH PLACED.

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	EROSION CONTROL	SHEET	E

FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\022001_EC.DWG
PLOT DATE : 11/21/2013 12:46 PM PLOT BY : JGRUBER PLOT NAME : PLOT SCALE : **********
WISDOT/CADDS SHEET 42

2

WETLAND BOUNDARY

+19.75
75.63'LT

+56.27
71.68'LT

+70.15
41.87'LT

240RYB

+13.38
85.40'LT

+35.85
85.79'LT

+11.17
89.89'LT

+76.93
95.63'LT

+02.24
98.56'LT

EXISTING CULVERT TO REMAIN

OAK CREEK

WETLAND BOUNDARY

+09.29
157.91'LT

+17.78
212.65'LT

55RY

60R

RIPRAP

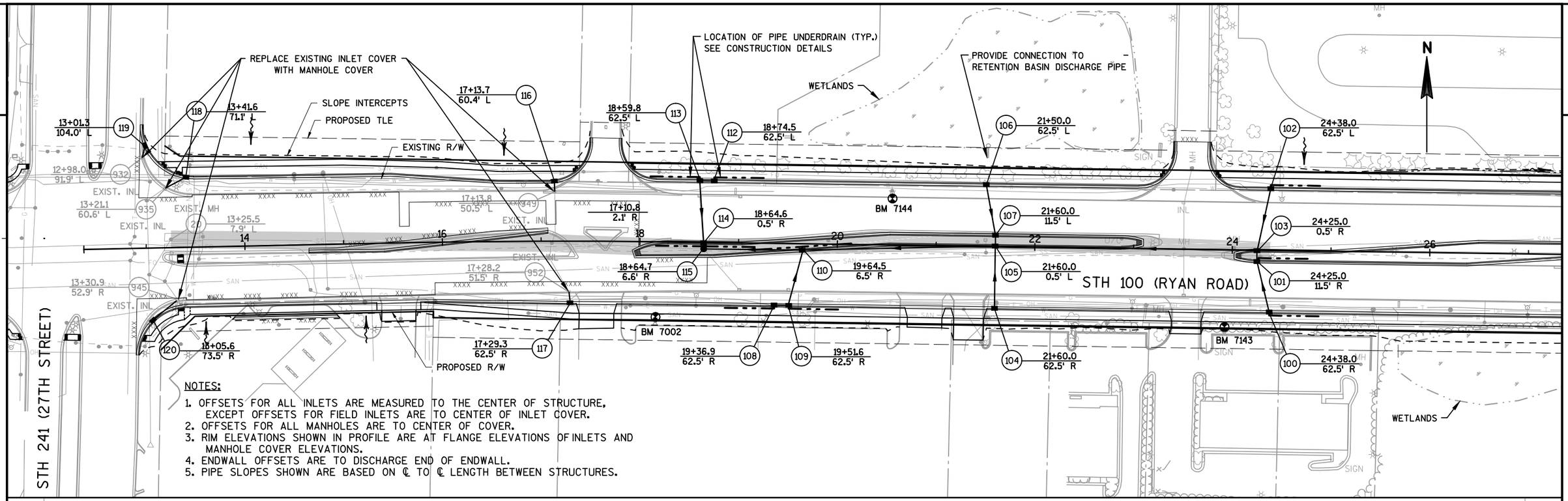
RIPRAP

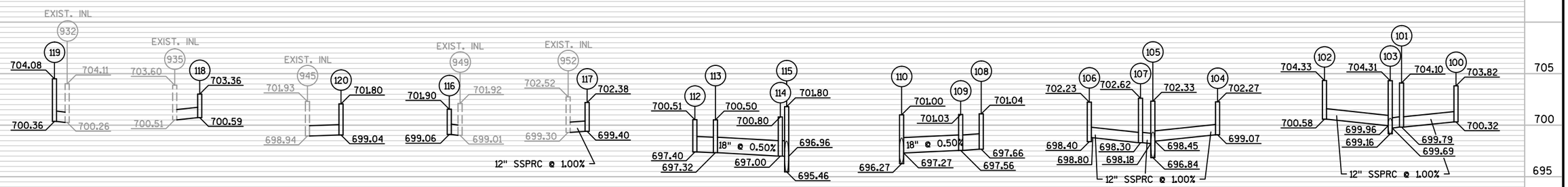
EROSION CONTROL LEGEND

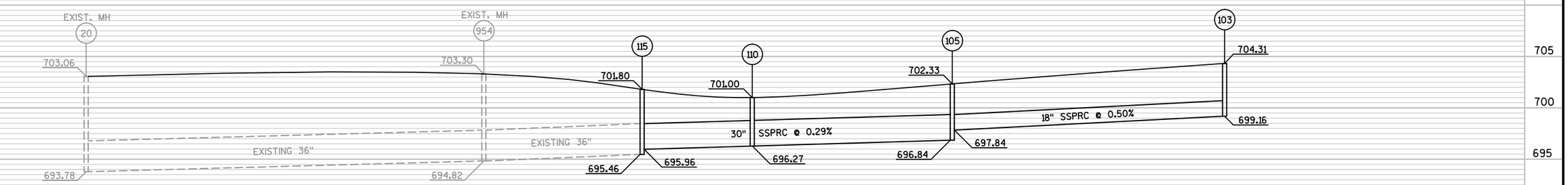
- EROSION MAT CLASS I, TYPE B
- SILT FENCE
- EROSION BALES
- SURFACE WATER FLOW
- SLOPE INTERCEPT
- (A) INLET PROTECTION TYPE A
- (B) INLET PROTECTION TYPE B
- (C) INLET PROTECTION TYPE C
- CULVERT PIPE CHECK
- OR MEDIUM RIP RAP

PROJECT NO: 2040-16-70	HWY: STH. 100 RYAN RD.	COUNTY: MILWAUKEE	EROSION CONTROL	SHEET	E

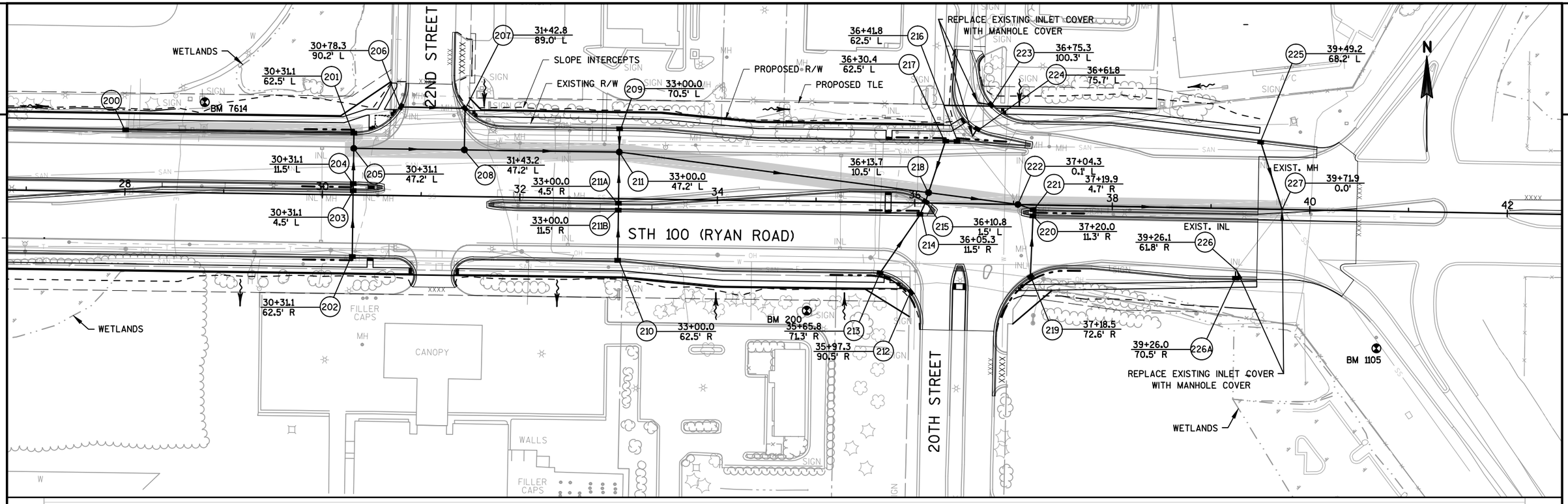
FILE NAME : S:\FinalDesign\MIL\20401670_RYB\Roads\cds\022001_ec.dgn PLOT DATE : 17-SEP-2013 15:36 PLOT BY : MSCRYS PLOT NAME : PLOT SCALE : 100:1



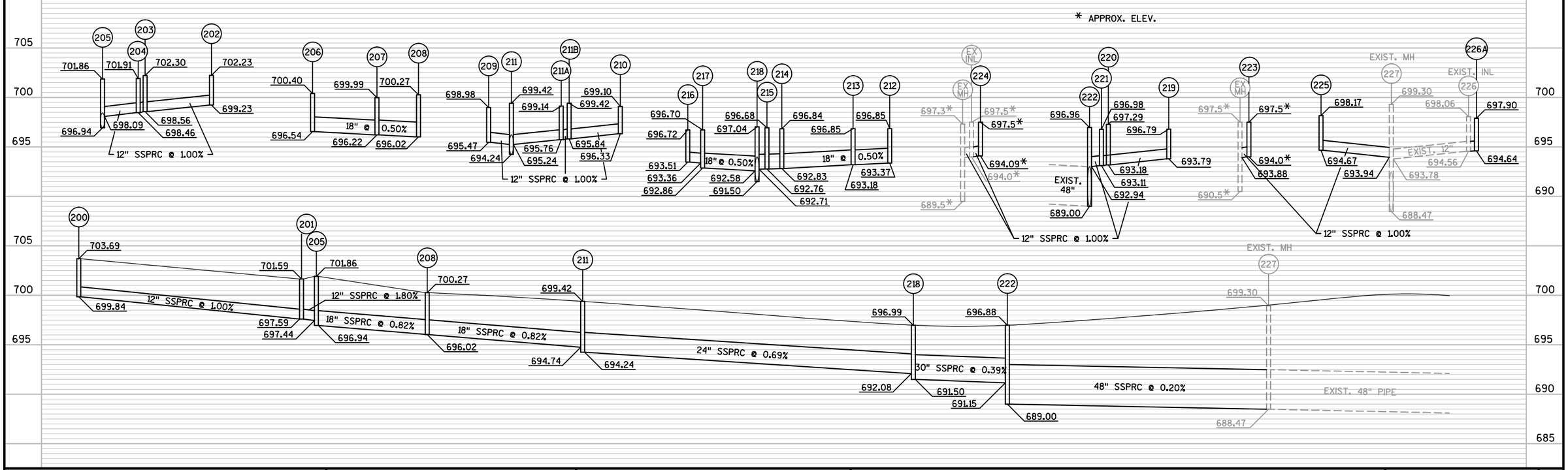




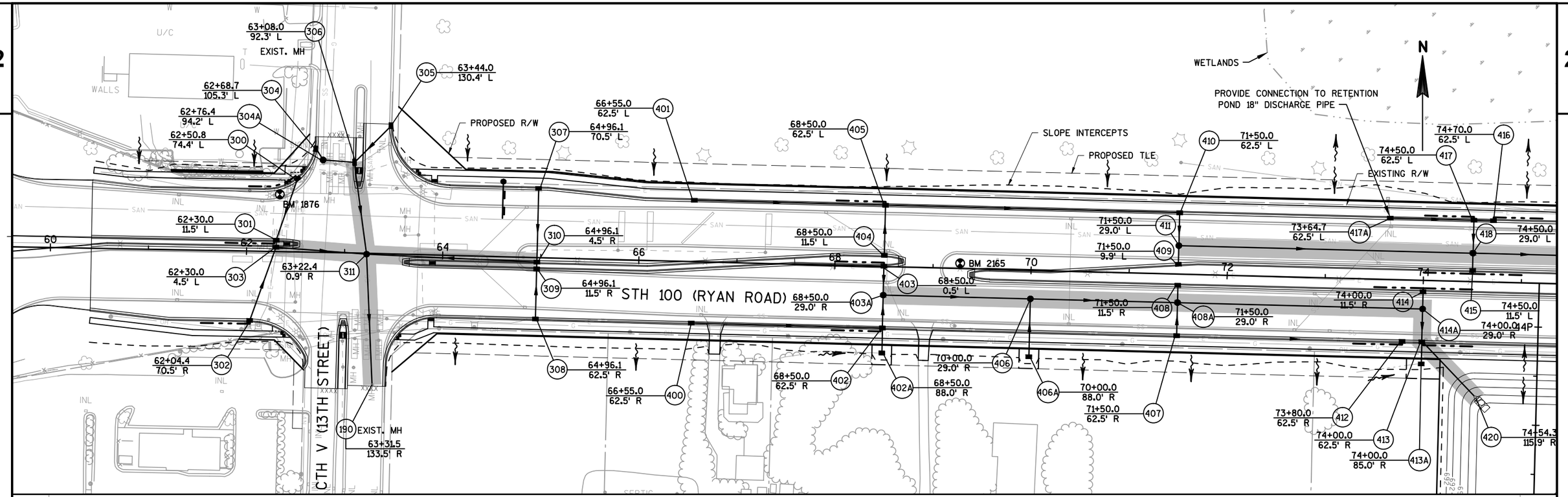
PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	STORM SEWER - SYSTEM 100	SHEET 74	E

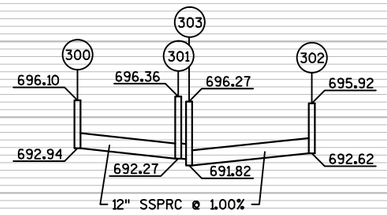


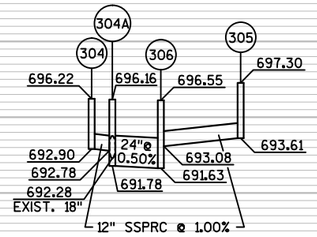
* APPROX. ELEV.

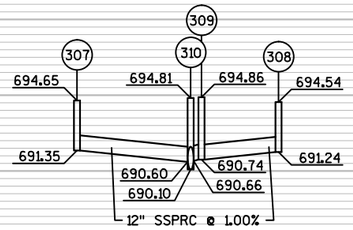


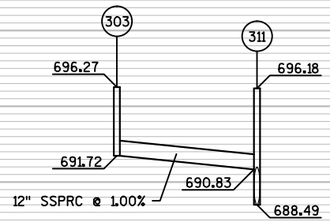
PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	STORM SEWER - SYSTEM 200	SHEET 75	E

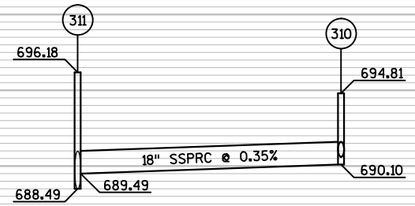


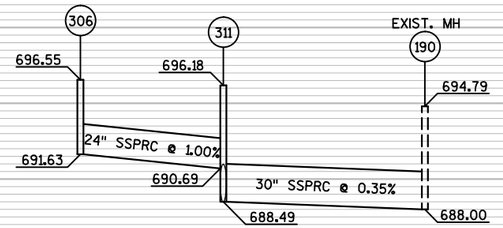








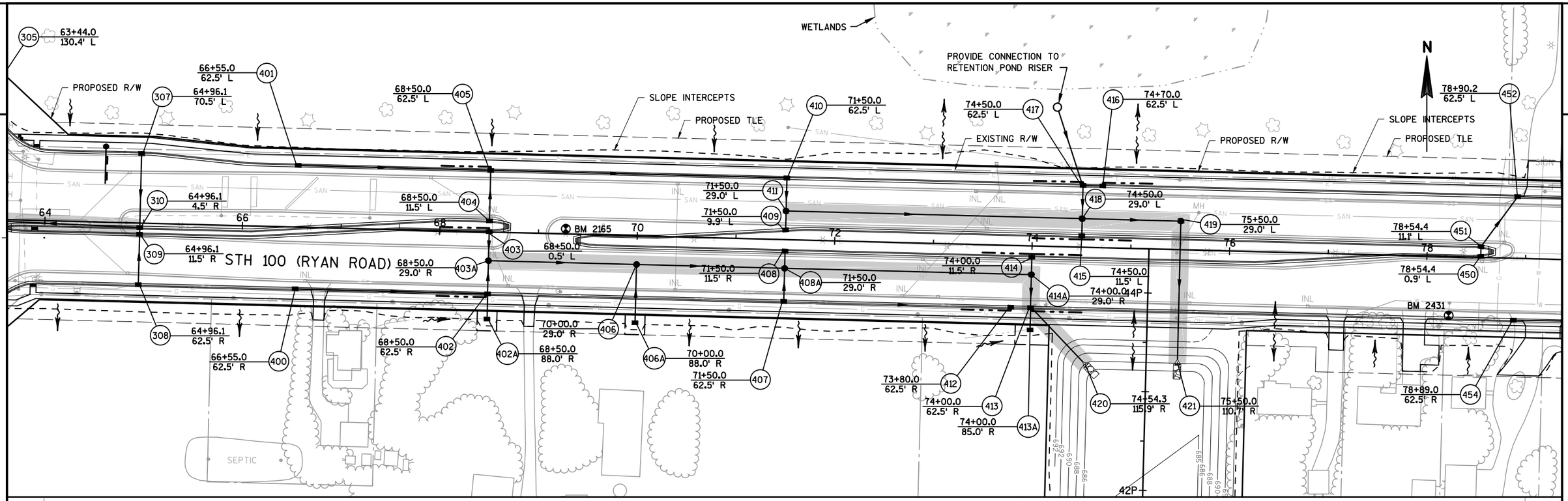


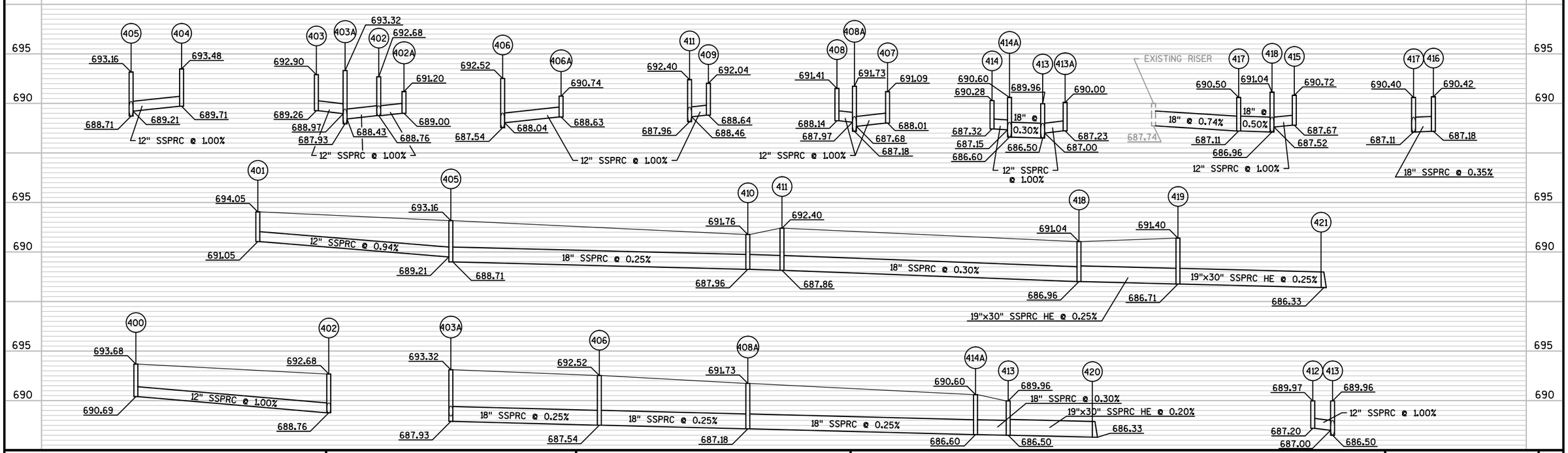


PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	STORM SEWER - SYSTEM 300	SHEET 76	E

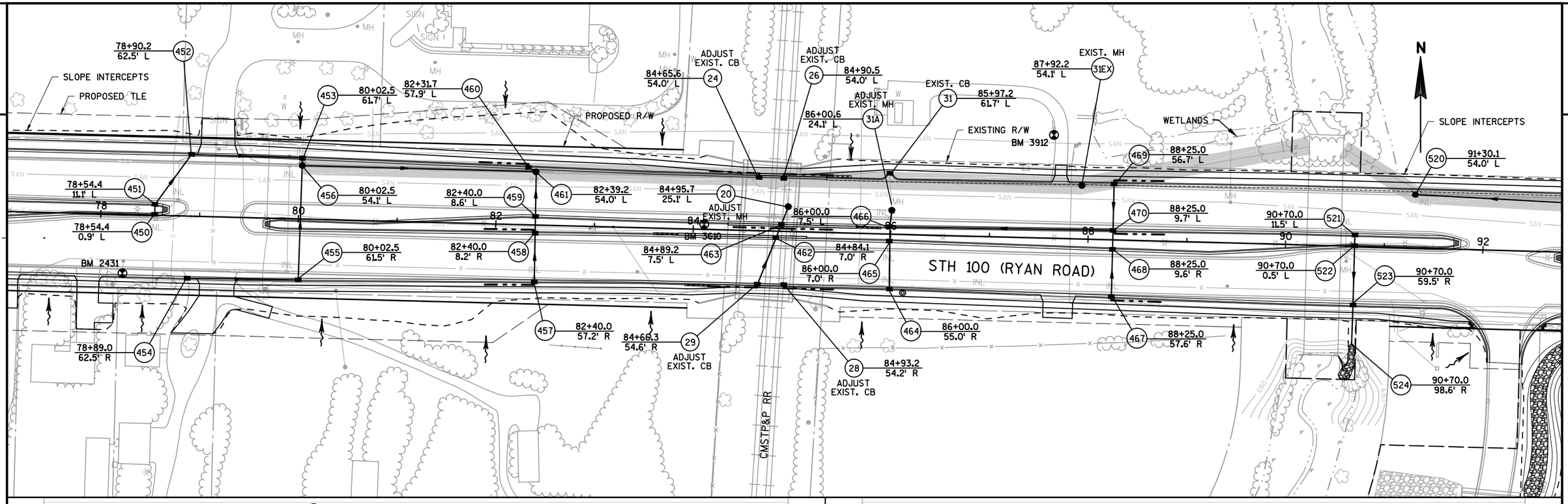
FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\022501_SS.DWG PLOT DATE : 10/1/2013 10:49 AM PLOT BY : JGRUBER PLOT NAME :

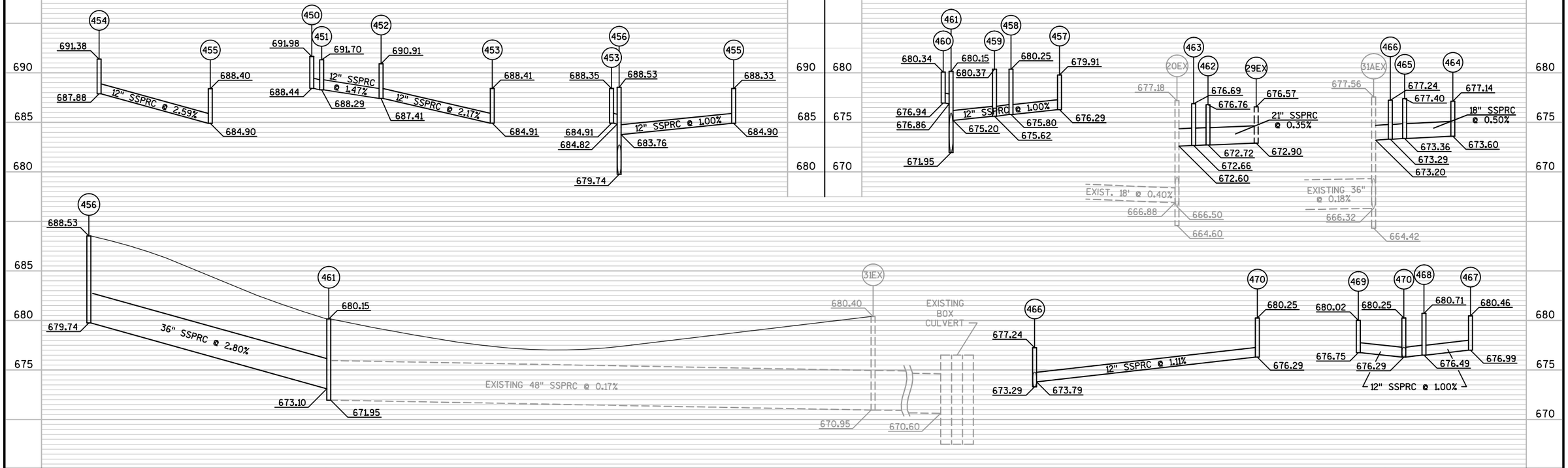
WISDOT/CADDS SHEET 41



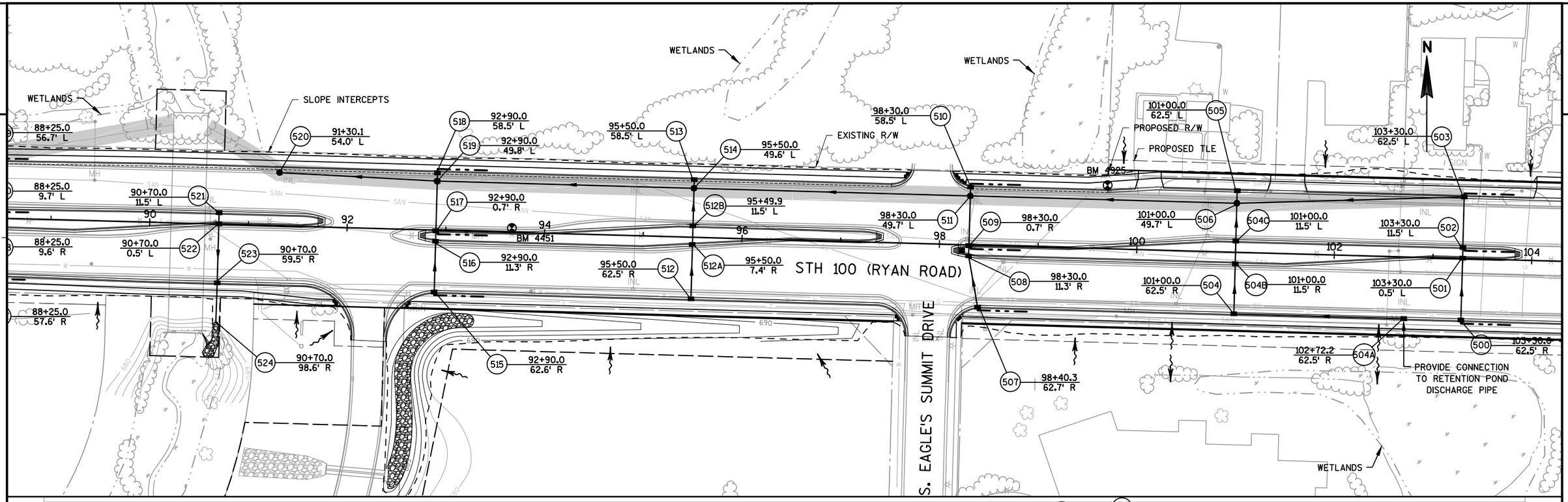


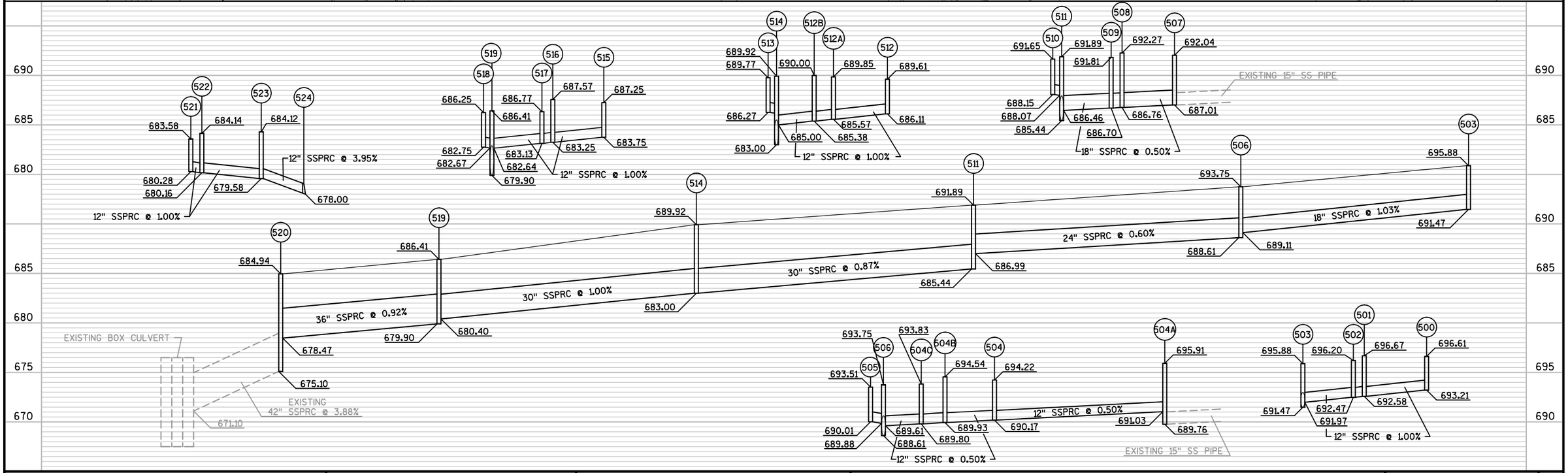
PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	STORM SEWER - SYSTEM 400	SHEET 77	E



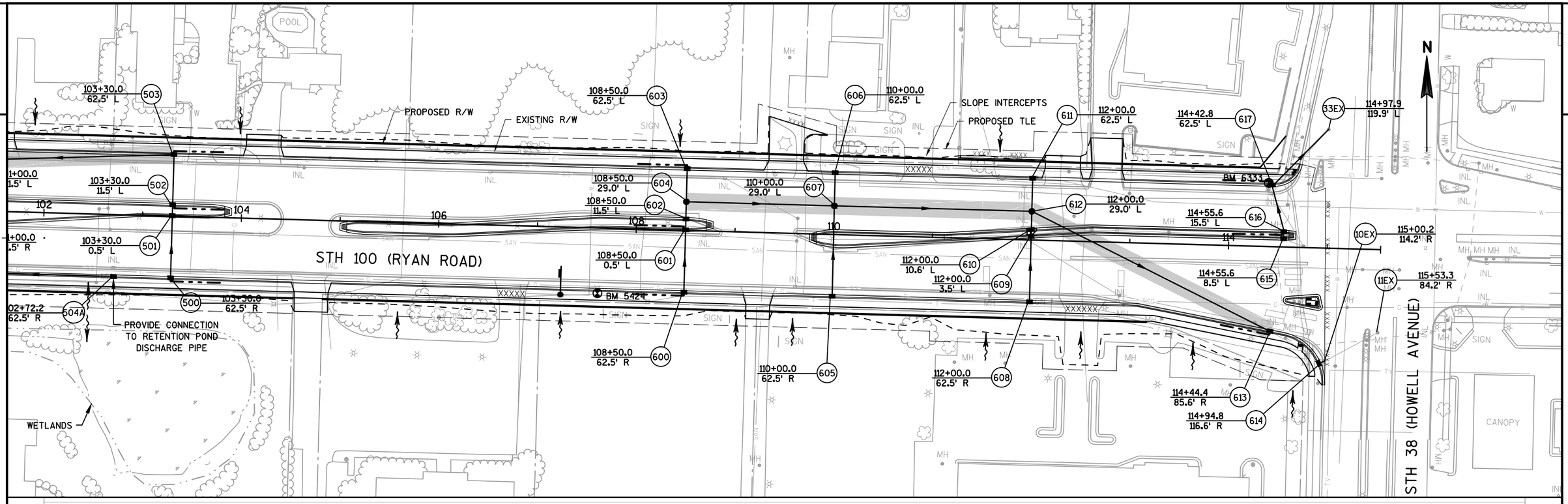


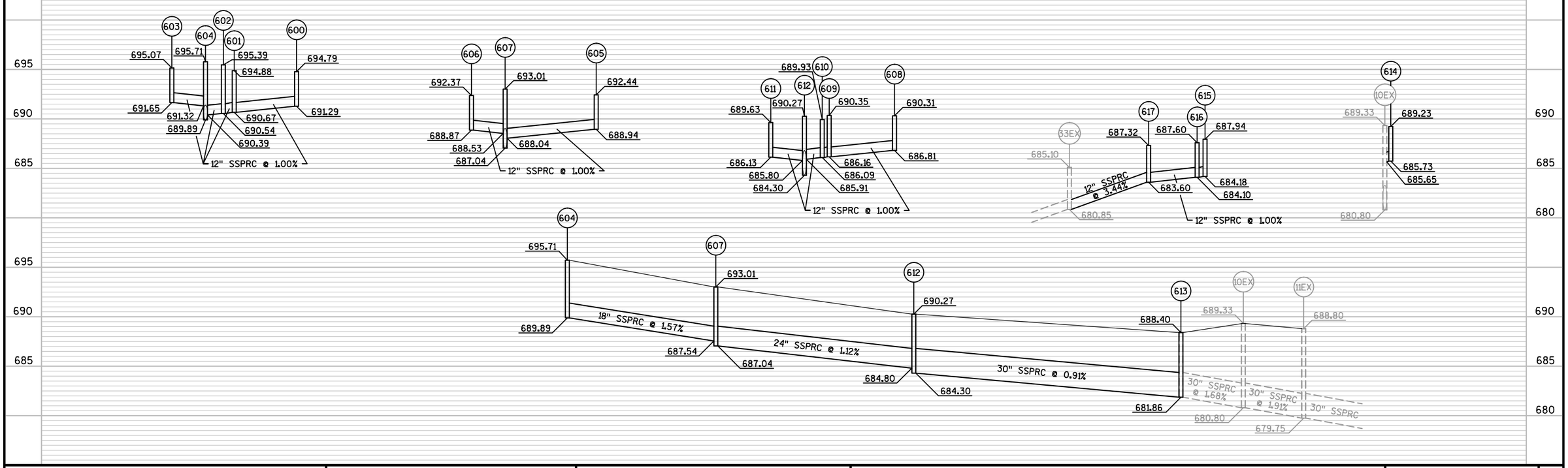
PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	STORM SEWER - SYSTEM 450	SHEET 78	E



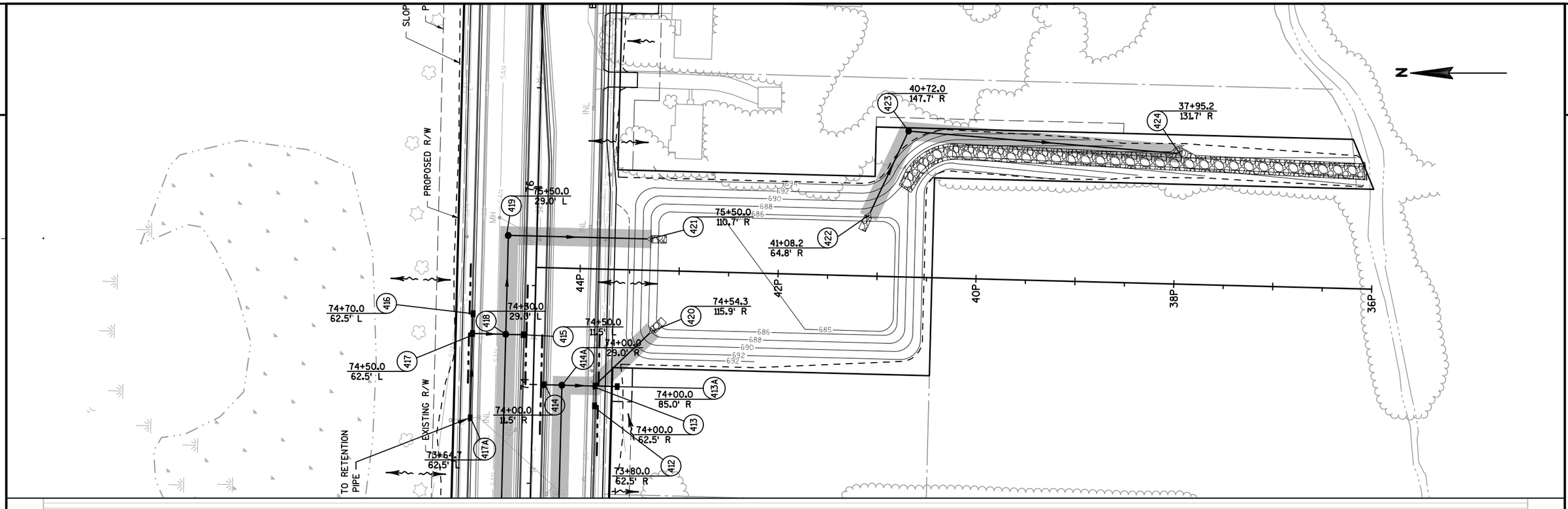


PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	STORM SEWER - SYSTEM 500	SHEET 79	E



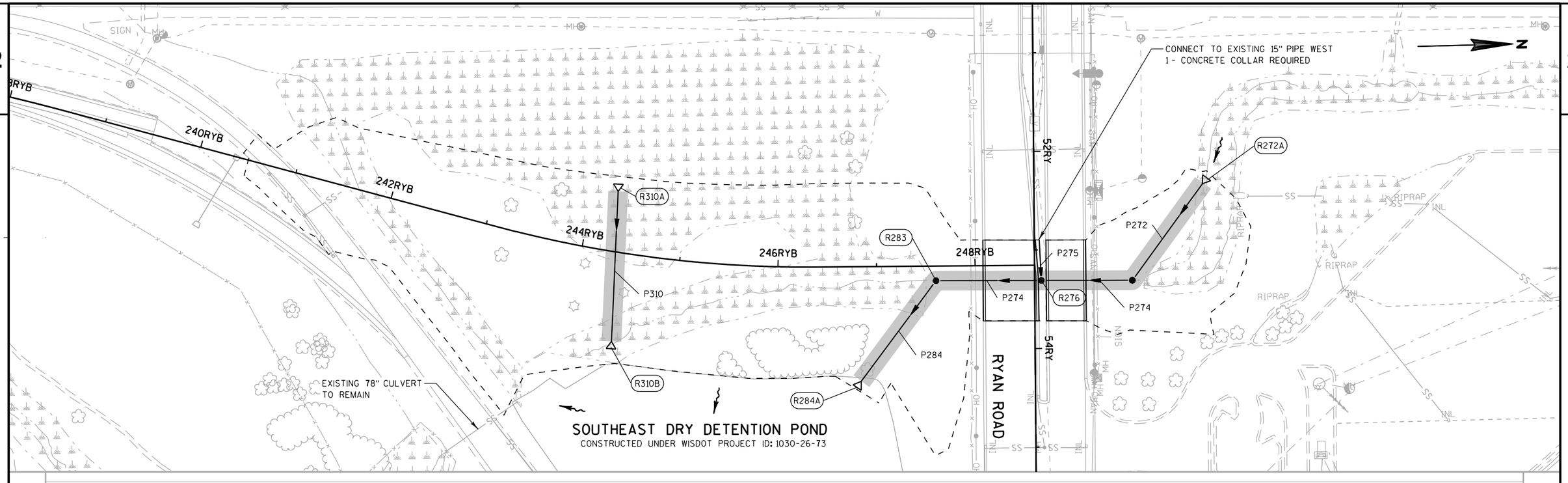


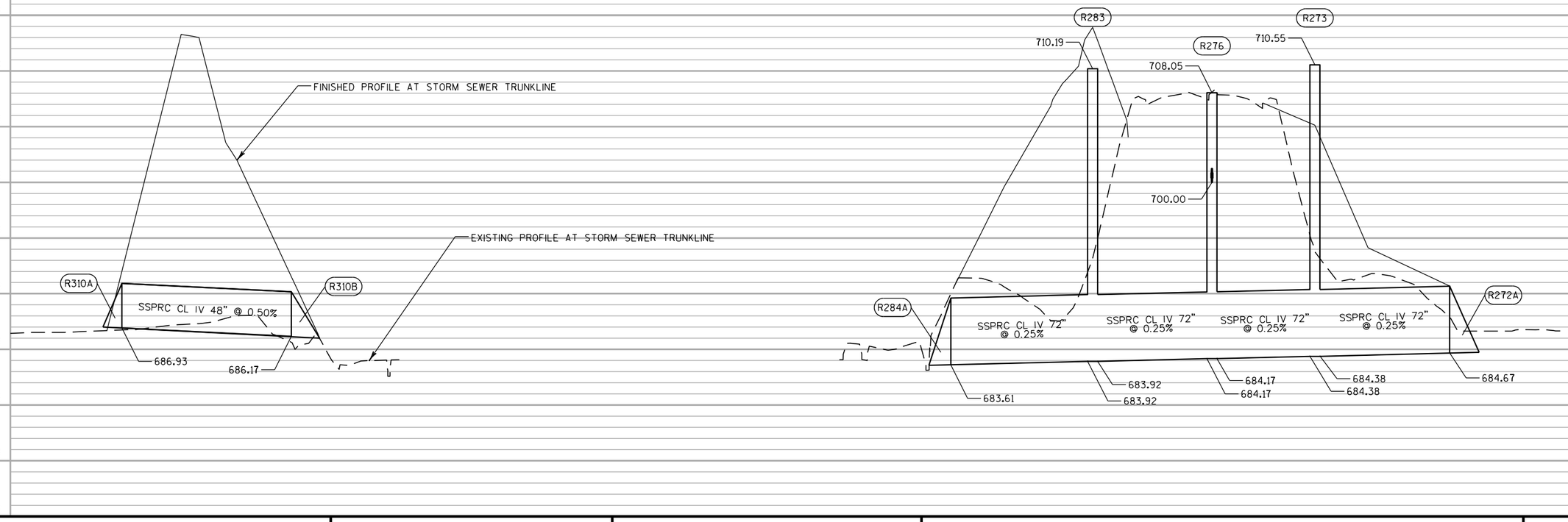
PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	STORM SEWER - SYSTEM 600	SHEET 80	E



PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	STORM SEWER - POND	SHEET 81	E

FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\022501_SS.DWG PLOT DATE : 10/1/2013 10:51 AM PLOT BY : JGRUBER PLOT NAME :





PROJECT NO: 2040-16-70	HWY: STH. 100 RYAN RD.	COUNTY: MILWAUKEE	STORM SEWER	SHEET E

2

N

STH 100 (RYAN RD)

SCALE IN FEET
0 20 40

R/L STH 100 (RYAN RD)

BRILLIANT RED CHOKEBERRY

WITHEROD VIBURNUM

10' PERENNIAL PLANTING BED
(SEE PLANTING DETAIL 1)

10' PERENNIAL PLANTING BED
(SEE PLANTING DETAIL 3)

WITHEROD VIBURNUM

72RYN

74RYN

76RYN

78RYN

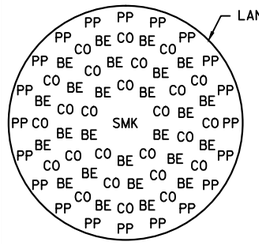
SREDDED BARK MULCH, TYPICAL

8'x25' PERENNIAL PLANTING BED
(SEE PLANTING DETAIL 2)

LEGEND

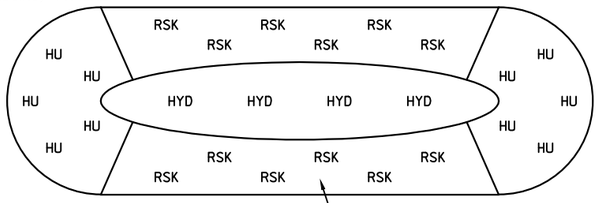
SMALL TREE OR SHRUB < 4" MATURE CALIPER

PLANTING DETAIL 1



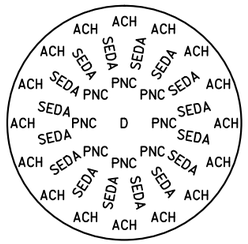
LANDSCAPE EDGING, TYPICAL

PLANTING DETAIL 2



SREDDED BARK MULCH, TYPICAL

PLANTING DETAIL 3



40

78RYN

80RYN

82RYN

84RYN

AUTUMN BRILLIANCE SERVICEBERRY

SREDDED BARK MULCH, TYPICAL

STH 100 (RYAN RD)

NOTES:

THE CONTRACTOR SHALL INSTALL A MINIMUM OF 12-INCHES OF PLANTING MIX IN PLANTING BED AREA

THE CONTACTOR SHALL INSTALL A MINIMUM OF 24-INCHES OF TOPSOIL FOR ALL TREE PLANTINGS FOR A MINIMUM 8-FEET DIAMETER, CENTERED ON THE PROPOSED TREE LOCATION.

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	LANDSCAPE PLAN	SHEET 83	E

LEGEND

SMALL TREE OR SHRUB < 4" MATURE CALIPER

N

SCALE IN FEET
0 20 40

R/L STH 100 (RYAN RD)

84RYN

86RYN

88RYN

90RYN

STH 100 (RYAN RD)

AUTUMN BRILLIANCE SERVICEBERRY

SREDDED BARK MULCH, TYPICAL

10' PERENNIAL PLANTING BED
(SEE PLANTING DETAIL 4)

90RYN

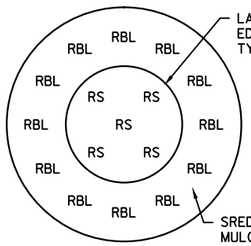
92RYN

94RYN

96RYN

STH 100 (RYAN RD)

PLANTING DETAIL 4



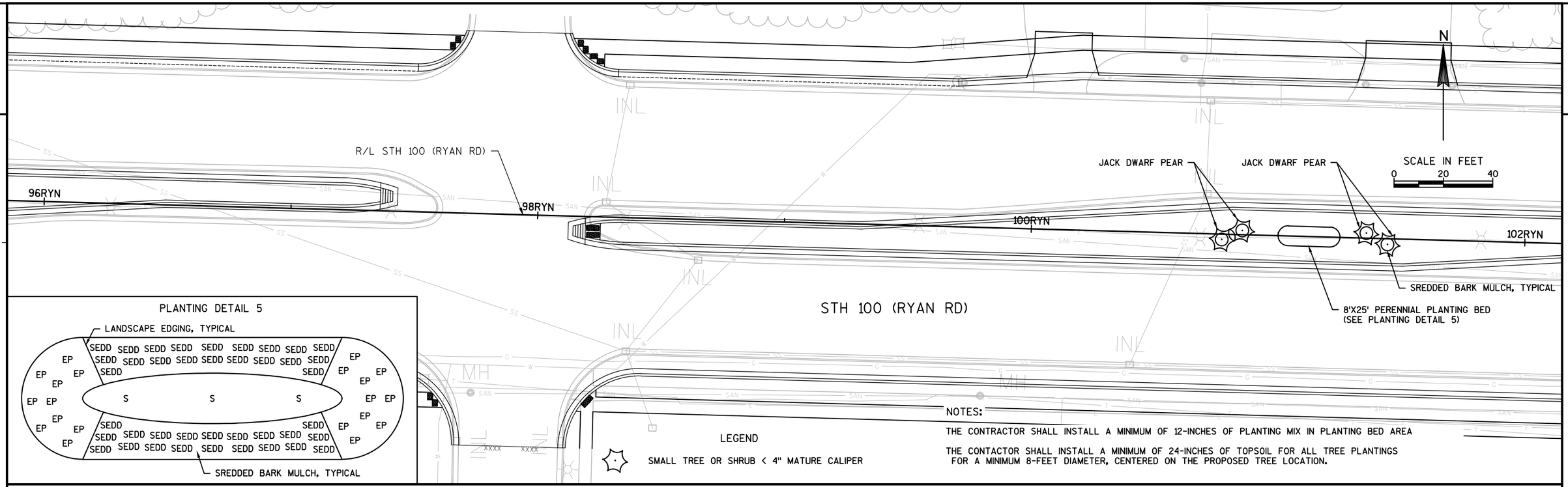
NOTES:

THE CONTRACTOR SHALL INSTALL A MINIMUM OF 12-INCHES OF PLANTING MIX IN PLANTING BED AREA

THE CONTACTOR SHALL INSTALL A MINIMUM OF 24-INCHES OF TOPSOIL FOR ALL TREE PLANTINGS FOR A MINIMUM 8-FEET DIAMETER, CENTERED ON THE PROPOSED TREE LOCATION.

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	LANDSCAPE PLAN	SHEET 84	E

FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\023101_PL.DWG PLOT DATE : 9/30/2013 6:46 PM PLOT BY : KKUECKER PLOT NAME : PLOT SCALE : 1:40_XREF



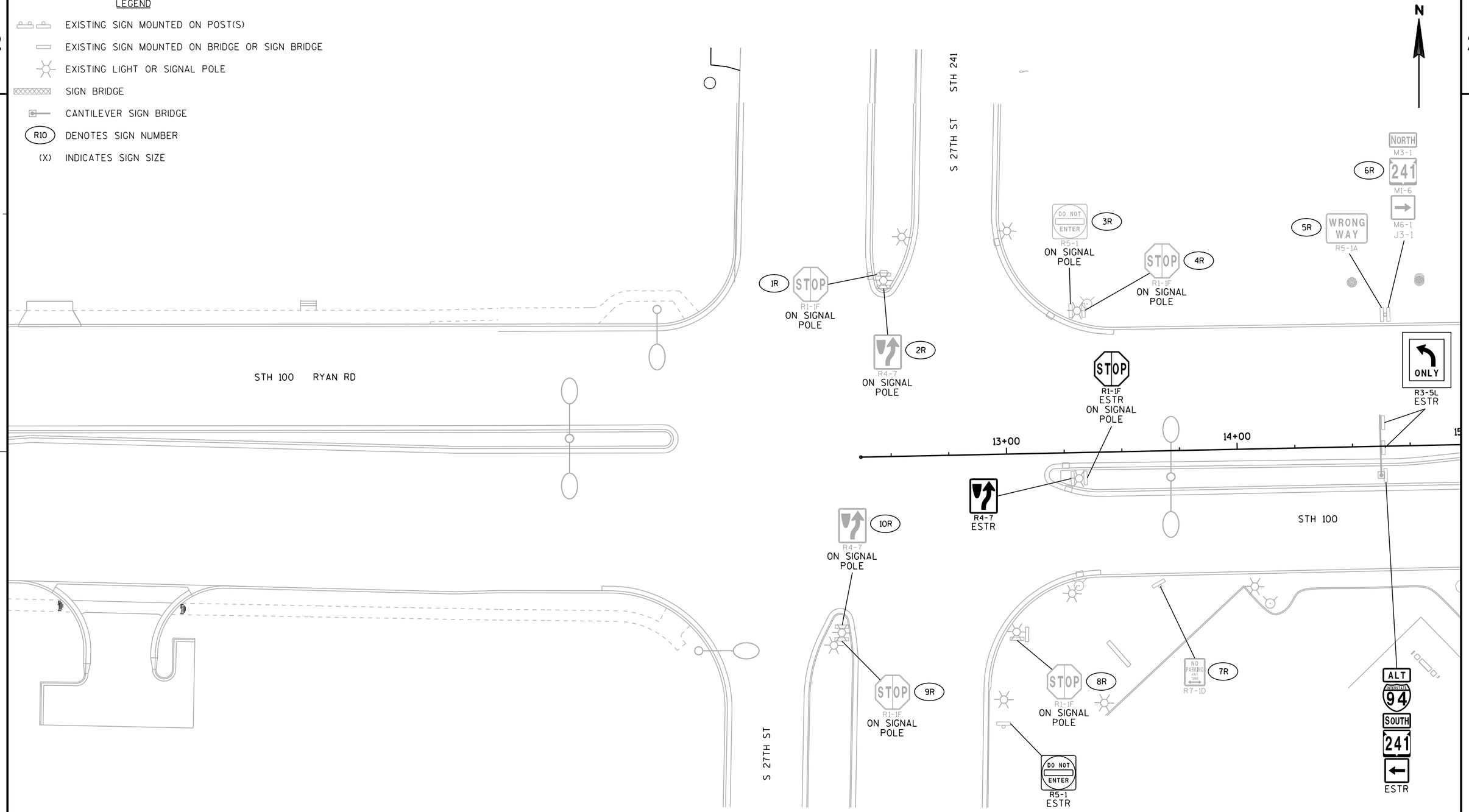
PLANT DATA CHART

BID ITEM	SYMBOL	COMMON NAME	SCIENTIFIC NAME	TYPE	AVE. MATURE	ROOT ZONE	SIZE WHEN	MINIMUM BALL OR POT SIZE		MINIMUM HOLE SIZE		BRACE	FERT. UNITS	RODENT PROTECTION	MULCH RING
					HEIGHT	MODE	PLANTED	DIAM	DEPTH	DIAM	DEPTH	OR GUY	REQ'D	REQ'D	DIAMETER
SMALL TREES/SHRUBS															
632.0101.01	JDP	Jack Dwarf Pear	Pyrus calleryana 'Jaczam'	2T	15'	B&B	1 1/4" CAL	20"	12"	44"	12"	BRACE	3	YES	56"
632.0101.02	SV	Autumn Brilliance Serviceberry	Amelanchier grandiflora	3T	20'	B&B	3'	12"	8"	36"	8"	N/A	N/A	NO	48"
632.0201.01	D	Dogwood "red twig variegated'	Cornus alba 'Argenteo-marginata'	2S	8'	BR	3'	14"	10"	38"	10"	N/A	N/A	NO	50"
632.0201.02	S	Sumac 'tigers eye'	Rhus typhina 'Tigereye Bailtiger'	3S	6'	BR	3'	14"	10"	38"	10"	N/A	N/A	NO	BED LIMITS
632.0201.03	WV	Witherod Viburnum	Viburnum 'Cayuga'	3S	15'	BR	3'	14"	10"	38"	10"	N/A	N/A	NO	50"
632.0201.04	CHK	Brilliant Red Chokeberry	Aronia arbutifolia 'Brilliantissima'	3S	6-10'	BR	3'	14"	10"	38"	10"	N/A	N/A	NO	50"
632.0201.05	RBL	Knockout Rose 'blushing'	Rosa 'Blushing Knock Out'	3S	3-4'	Container	3'	12"	8"	36"	8"	N/A	N/A	NO	BED LIMITS
632.0201.06	RSK	Knockout Rose 'sunny'	Rosa 'Sunny Knock Out'	3S	3-4'	Container	3'	12"	8"	36"	8"	N/A	N/A	NO	BED LIMITS
632.0201.07	HYD	Hydrangea "pinky winky'	Hydrangea paniculata 'Pinky Winky'	N/A	6-8'	Container	1 Gal	9"	6"	18"	6"	N/A	N/A	NO	BED LIMITS
632.0201.08	HU	Huechera 'palace purple'	Heuchera micrantha 'Palace Purple'	N/A	12-18"	Container	1 Gal	9"	6"	18"	6"	N/A	N/A	NO	BED LIMITS
632.0201.09	SMK	Royal Purple Smoke bush	Cotinus coggygria	N/A	8-10'	Container	1 Gal	9"	6"	18"	6"	N/A	N/A	NO	BED LIMITS
PERENNIALS/GRASSES															
SPV.0060.5001	PNC	Panicum 'heavy metal' (Grass)	Panicum virgatum	N/A	3-4'	Container	1 Gal	9"	6"	18"	6"	N/A	N/A	NO	BED LIMITS
SPV.0060.5002	RS	Russian Sage	Perovskia atriplicifolia	N/A	3-4'	Container	6" pot	9"	6"	18"	6"	N/A	N/A	NO	BED LIMITS
SPV.0060.5003	SEDA	Sedum 'autumn joy'	Hylotelephium telephium 'Autumn Joy'	N/A	18-24"	Container	6" pot	9"	6"	18"	6"	N/A	N/A	NO	BED LIMITS
SPV.0060.5004	SEDD	Sedum 'dragons blood'	Sedum spurium	N/A	4-6"	Container	6" pot	9"	6"	18"	6"	N/A	N/A	NO	BED LIMITS
SPV.0060.5005	ACH	Achillea 'moonshine'	Achillea X hybrida	N/A	2'	Container	6" pot	9"	6"	18"	6"	N/A	N/A	NO	BED LIMITS
SPV.0060.5006	EP	Evening primrose	Oenothera 'macrocarpa'	N/A	1'	Container	6" pot	9"	6"	18"	6"	N/A	N/A	NO	BED LIMITS
SPV.0060.5007	PP	Oenothera 'pink primrose'	Oenothera speciosa	N/A	1-2'	Container	6" pot	9"	6"	18"	6"	N/A	N/A	NO	BED LIMITS
SPV.0060.5008	BE	Black Eyed Susan	Rudbeckia fulgida 'Goldsturm'	N/A	2'	Container	6" pot	9"	6"	18"	6"	N/A	N/A	NO	BED LIMITS
SPV.0060.5009	CO	Purple cone flower 'magnus'	Echinacea purpurea	N/A	3'	Container	6" pot	9"	6"	18"	6"	N/A	N/A	NO	BED LIMITS

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- R10 DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE



SHEET 1 OF 16

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	SIGN REMOVAL PLAN	SHEET 86	E

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- R10 DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE

N

ALT M4-1A | SOUTH M3-3 | WEST M3-4 | NORTH M3-1
INTERSTATE 94 M1-1 | 241 M1-6 | 100 M1-6 | 241 M1-6
M5-1L | M5-1L | M6-1 | M5-1R
J2-4 ESTR

ALT M4-1A | SOUTH M3-3 | WEST M3-4 | NORTH M3-1
INTERSTATE 94 M1-1 | 241 M1-6 | 100 M1-6 | 241 M1-6
M5-1L | M5-1L | M6-1 | M5-1R
J2-4 MOVE SEE PERMANENT SIGNING PLAN

W3-3
14R
15R

DO NOT ENTER
R5-1 ESTR

ONE WAY
R6-2R ESTR

STH 100

15+00 16+00 17+00 18+00 19+00 20+00 21+

R4-7 ESTR

STH 100

141R ONE WAY R6-2R

11R STOP R1-1

SPEED LIMIT 45 R2-1
R3-2 ESTR

12R SPEED LIMIT 45 R2-1

H D9-2
MB6-1 ESTR

13R NO PARKING ANY TIME R7-1L

SHEET 2 OF 16

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	SIGN REMOVAL PLAN	SHEET 87	E

LEGEND

EXISTING SIGN MOUNTED ON POST(S)

EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE

EXISTING LIGHT OR SIGNAL POLE

SIGN BRIDGE

CANTILEVER SIGN BRIDGE

R10 DENOTES SIGN NUMBER

(X) INDICATES SIGN SIZE

2

2

N

STH 100

21+00 22+00 23+00 24+00 25+00 26+00 27+

(07)
To 20th St
NEXT SIGNAL
MOVE
SEE PERMANENT
SIGNING PLAN

J1-1
JCT
MB2-1
23R
241
24R
M1-6
27th Street
M1-94
25R
26R

16R
R4-7
ON LIGHT
POLE

STH 100

NO
ENGINE
BRAKING
EXCEPT IN
EMERGENCY
R10-64
WITHIN
CITY or VILLAGE
LIMITS
R10-64F
MOVE
SEE PERMANENT
SIGNING PLAN

17R
18R
W3-3

JCT
MB2-1
INTERSTATE
94
M1-1
41
M1-4
21R
22R

SHEET 3 OF 16

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	SIGN REMOVAL PLAN	SHEET 88	E

FILE NAME : J:\projects\D2_204016100\Sign\023103_ps.dgn PLOT DATE : 10-SEP-2013 07:04 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

2

N

SPEED LIMIT 45 R2-1 — 28R, 29R

30R STOP R1-1F ON SIGNAL POLE

S 22TH ST

STOP R1-1F 31R ON SIGNAL POLE

RIGHT LANE MUST TURN RIGHT R3-7R 32R

STH 100

27+00 28+00 29+00 30+00 31+00 32+00 33+00

STOP R1-1F 35R ON SIGNAL POLE

40R STOP R1-1F ON SIGNAL POLE

39R R4-7 ON SIGNAL POLE

36R R4-7 ON SIGNAL POLE

STH 100

LEFT TURN LANE R3-55L 27R

37R

38R STOP R1-1F ON SIGNAL POLE

34R WEST MB3-4 INTERSTATE 94 M1-1 NORTH M3-1 41 M1-4 M6-1 JV2-2

EAST MB3-2 INTERSTATE 94 M1-1 SOUTH M3-3 41 M1-4 M5-1R JV2-2 — 33R

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- R10 DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE

SHEET 4 OF 16

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	SIGN REMOVAL PLAN	SHEET 89	E

FILE NAME : J:\projects\D2_204016100\Sign\023104_ps.dgn PLOT DATE : 10-SEP-2013 07:04 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 40:1

2

N

LEFT TURN LANE
R3-55L
41R

ONLY
R3-5L
42R

WEST
M3-4
100
M1-6
J4-1
43R

H
D9-2

MB6-1
MOVE
SEE PERMANENT SIGNING PLAN

NO ENGINE BRAKING
EXCEPT IN EMERGENCY
R10-64

WITHIN CITY or VILLAGE LIMITS
R10-64F
MOVE
SEE PERMANENT SIGNING PLAN

STH 100

3+00
34+00
35+00
36+00
37+00
38+00
39+00

R4-7
ON LIGHT POLE
52R

20th St
M1-94
45R

R4-7
ON LIGHT POLE
51R

STH 100

STOP
R1-1
ON LIGHT POLE
48R

S 20TH ST

STOP
R1-1
49R
50R

46R
47R
Milwaukee
Chicago
D1-2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- R10 DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE

SHEET 5 OF 16

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	SIGN REMOVAL PLAN	SHEET 90	E

2

N

20th St
NEXT LEFT
D1-63(MOD)

53R

I-94 SB
OFF RAMP

STH 100

39+00

40+00

41+00

42+00

43+00

44+00

45+00

STH 100

I-94 SB ON RAMP

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- R10 DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE

SHEET 6 OF 16

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	SIGN REMOVAL PLAN	SHEET 91	E

2

N

EAST MB3-2 / 94 / M1-1 — 54R SOUTH M3-3 / 41 / M1-4 / M6-1 JV2-2

WEST MB3-4 / 94 / M1-1 — 56R NORTH M3-1 / 41 / M1-4 / M5-1R JV2-2

WEST M3-4 / 100 / M1-6 — 57R — M6-1 J3-1

EAST M3-2 / 100 / M1-6 — 58R — M6-1 J3-1

S 13TH ST

59R
60R
W6-2

RESTRICTED LEFT LANE / ON-RAMP
MOVE
SEE PERMANENT SIGNING PLAN

55R Chicago / Milwaukee → D1-2

I-94 NB ON RAMP

STH 100

61R STOP R1-1F ON SIGNAL POLE

13th Street 63R — M1-94H ON ARM

62R — R4-7 ON SIGNAL POLE

64R STOP R1-1F ON SIGNAL POLE

COUNTY V 65R — M1-5A — M6-4 J3-1

COUNTY V 66R — M1-5A — M6-4 J3-1

STOP 67R R1-1F

59+00 60+00 61+00 62+00 63+00 64+00 65+00

INL INL INL

81R LEFT TURN LANE R3-55L

76R — R4-7 ON SIGNAL POLE

73R — R4-7 ON SIGNAL POLE

74R — R4-7 ON SIGNAL POLE

69R SPEED LIMIT 45 R2-1 ON LIGHT POLE

70R 13th Street — M1-94H ON ARM

STH 100

I-94 NB OFF RAMP

NO ENGINEERING BRAKING EXCEPT IN EMERGENCY R10-64
WITHIN CITY or VILLAGE LIMITS R10-64F
MOVE
SEE PERMANENT SIGNING PLAN

79R COUNTY V M1-5A — M6-4 J3-1

78R COUNTY V M1-5A — M6-4 J3-1

80R STOP R1-1F

77R STOP R1-1F ON SIGNAL POLE

S 13TH ST

75R STOP R1-1F ON SIGNAL POLE

72R STOP R1-1F ON SIGNAL POLE

71R EAST M3-2 / 100 / M1-6

68R SPEED LIMIT 45 R2-1

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- R10 DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE

SHEET 7 OF 16

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	SIGN REMOVAL PLAN	SHEET 92	E

2

LEGEND

EXISTING SIGN MOUNTED ON POST(S)

EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE

EXISTING LIGHT OR SIGNAL POLE

SIGN BRIDGE

CANTILEVER SIGN BRIDGE

R10 DENOTES SIGN NUMBER

(X) INDICATES SIGN SIZE

N

2

JCT
MB2-1

INTERSTATE
94
M1-1

82R

41
143R
M1-4

COUNTY
V
M1-5A
JV1-3

STH 100

INL

INL

5+00

66+00

67+00

68+00

69+00

70+00

71+00

STH 100

142R

HIGH WATER
W8-58

HIGH WATER
W8-58
MOVE
SEE PERMANENT
SIGNING PLAN

SHEET 8 OF 16

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	SIGN REMOVAL PLAN	SHEET 93	E

FILE NAME : J:\projects\D2_204016100\Sign\023108_ps.dgn PLOT DATE : 10-SEP-2013 07:05 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

LEGEND

EXISTING SIGN MOUNTED ON POST(S)

EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE

EXISTING LIGHT OR SIGNAL POLE

SIGN BRIDGE

CANTILEVER SIGN BRIDGE

R10 DENOTES SIGN NUMBER

(X) INDICATES SIGN SIZE

N

83R W3-3

84R W3-3 ON LIGHT POLE

85R SPEED LIMIT 45 R2-1

86R SPEED LIMIT 45 R2-1 ON LIGHT POLE

89R WEST MB3-4 INTERSTATE 94 M1-1 NORTH M3-1 41 M1-4 USE RIGHT LANE M4-20R J2-2

90R WEST MB3-4 INTERSTATE 94 M1-1 NORTH M3-1 41 M1-4 USE RIGHT LANE M4-20R J2-2 ON LIGHT POLE

STH 100

72+00 73+00 74+00 75+00 76+00 77+00

87R

88R SPEED LIMIT 45 R2-1

STH 100

2

SHEET 9 OF 16

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	SIGN REMOVAL PLAN	SHEET 94	E

FILE NAME : J:\projects\D2_204016100\Sign\023109_ps.dgn PLOT DATE : 10-SEP-2013 07:05 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

LEGEND

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

N

2

91R
92R
SPEED LIMIT 45
R2-1

STH 100

78+00
79+00
80+00
81+00
82+00
83+00

STH 100

HIGH WATER
W8-58
MOVE
SEE PERMANENT SIGNING PLAN

SHEET 10 OF 16

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	SIGN REMOVAL PLAN	SHEET 95	E

FILE NAME : J:\projects\D2_204016100\Sign\023110_ps.dgn PLOT DATE : 10-SEP-2013 07:05 PLOT BY : WSCCXV PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

LEGEND

EXISTING SIGN MOUNTED ON POST(S)

EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE

EXISTING LIGHT OR SIGNAL POLE

SIGN BRIDGE

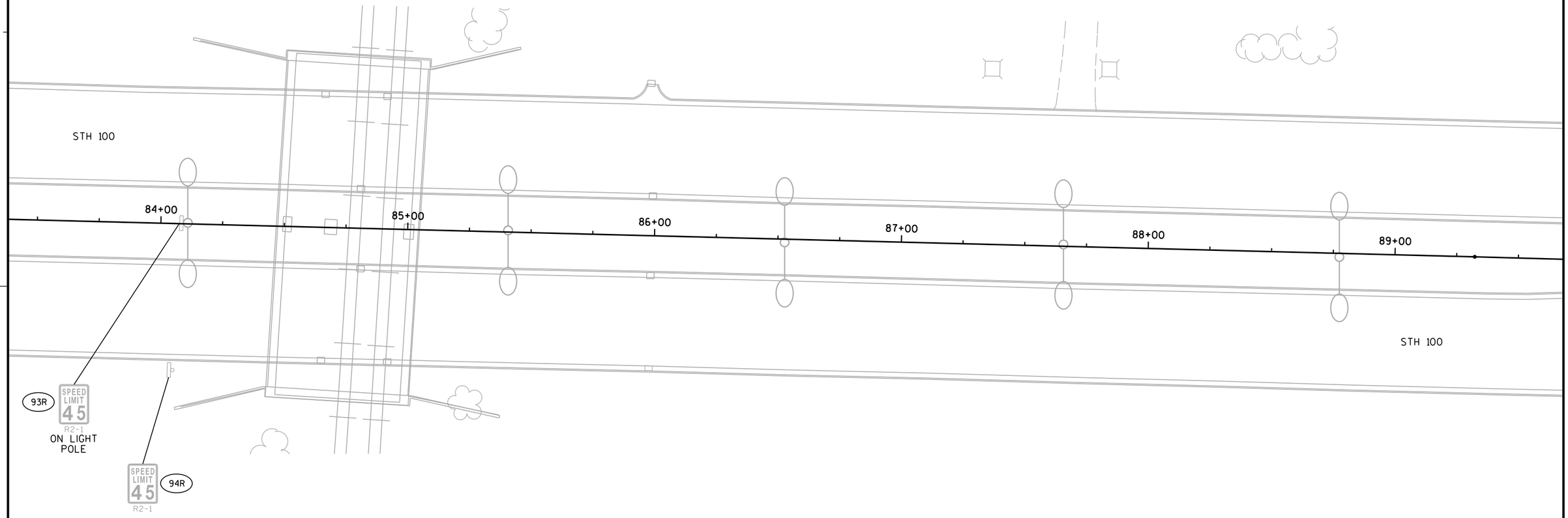
CANTILEVER SIGN BRIDGE

R10 DENOTES SIGN NUMBER

(X) INDICATES SIGN SIZE

N

2



SHEET 11 OF 16

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	SIGN REMOVAL PLAN	SHEET 96	E

FILE NAME : J:\projects\D2_204016100\Sign\023111_ps.dgn PLOT DATE : 10-SEP-2013 07:05 PLOT BY : WSCCXV PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

N

HIGH WATER
W8-58
MOVE
SEE PERMANENT
SIGNING PLAN

95R
SPEED LIMIT 45
R2-1

SPEED LIMIT 45
R2-1
96R
ON LIGHT POLE

STH 100

90+00
91+00
92+00
93+00
94+00
95+00

STH 100

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- R10 DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE

SHEET 12 OF 16

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	SIGN REMOVAL PLAN	SHEET 97	E

2

LEGEND

EXISTING SIGN MOUNTED ON POST(S)

EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE

EXISTING LIGHT OR SIGNAL POLE

SIGN BRIDGE

CANTILEVER SIGN BRIDGE

R10 DENOTES SIGN NUMBER

(X) INDICATES SIGN SIZE

N

2

STH 100

96+00

97+00

98+00

99+00

100+00

101+00

97R

R4-7

ON LIGHT POLE

98R

R4-7

ON LIGHT POLE

STH 100

SPEED LIMIT 45

R2-1

99R

101R

STOP

R1-1

100R

SHEET 13 OF 16

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	SIGN REMOVAL PLAN	SHEET 98	E

FILE NAME : J:\projects\D2_204016100\Sign\023113_ps.dgn PLOT DATE : 10-SEP-2013 07:05 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

LEGEND

EXISTING SIGN MOUNTED ON POST(S)

EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE

EXISTING LIGHT OR SIGNAL POLE

SIGN BRIDGE

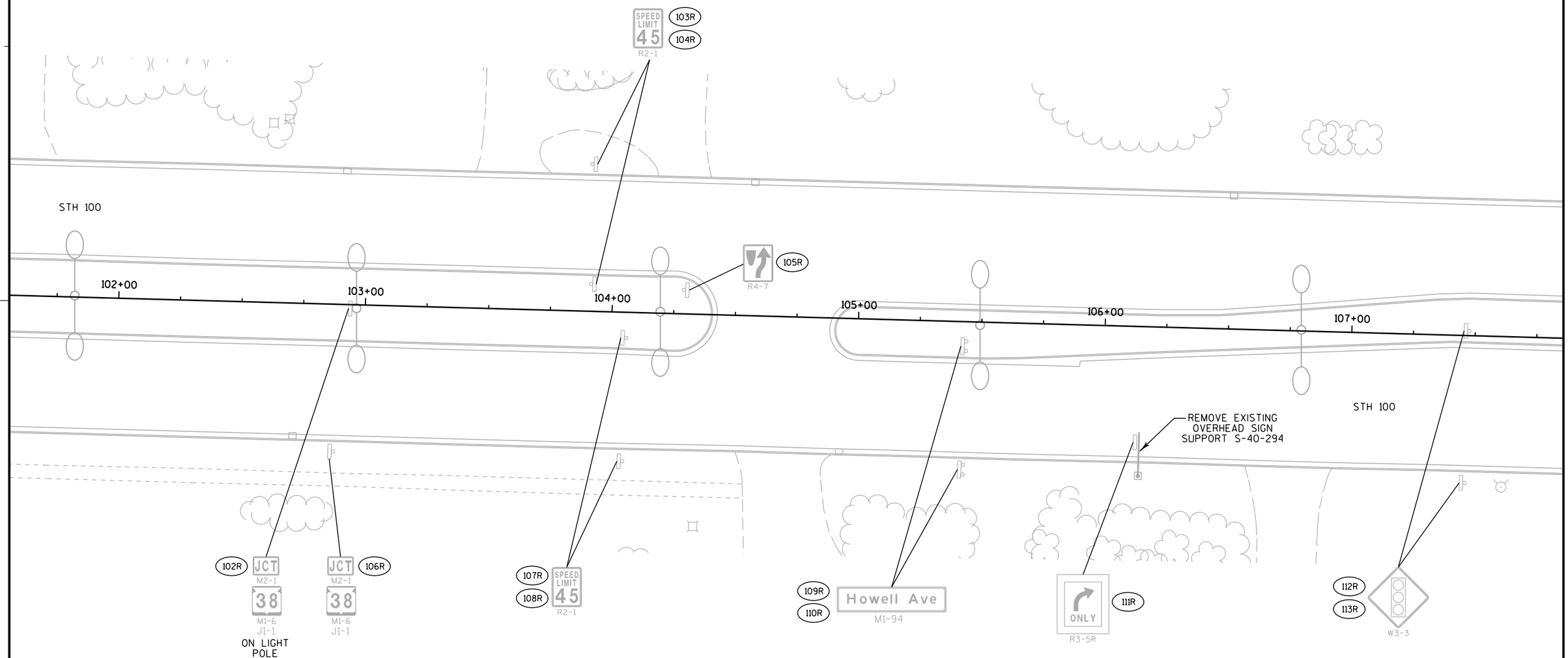
CANTILEVER SIGN BRIDGE

R10 DENOTES SIGN NUMBER

(X) INDICATES SIGN SIZE

N

2



SHEET 14 OF 16

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	SIGN REMOVAL PLAN	SHEET 99 E

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- R10 DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE

N

STH 100

108+00 109+00 110+00 111+00 112+00 113+00

114R NO PARKING ANY TIME R7-1D

115R R4-7

116R NORTH M3-1 / 38 M1-6 / M5-1L J2-2

117R WEST M3-4 / 100 M1-6 / J4-1

118R NO PARKING ANY TIME R7-1D

119R 120R ONLY R3-5L

121R NO PARKING ANY TIME R7-1L

122R EAST M3-2 / 100 M1-6 / M6-1 J3-2

123R RIGHT LANE MUST TURN RIGHT R3-7R

124R SOUTH M3-3 / 38 M1-6 / M5-1R J2-2

125R LEFT TURN LANE R3-55L

126R ONE WAY R6-2L

127R Racine D1-1

155-56 MOVE SEE PERMANENT SIGNING PLAN

SHEET 15 OF 16

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	SIGN REMOVAL PLAN	SHEET 100 E

FILE NAME : J:\projects\D2_204016100\Sign\023115_ps.dgn PLOT DATE : 10-SEP-2013 07:05 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- R10 DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE

N

129R TO MB4-5 / INTERSTATE 94 M1-1

128R SPEED LIMIT 45 R2-1

M6-1 J23-1

131R FIELD R1-2

STH 38

SOUTH M3-3 / 38 M1-6 / M6-1 J3-1 — 133R

ONE WAY R6-2L — 130R

132R STOP R1-1F ON SIGNAL POLE

134R R4-7 ON SIGNAL POLE

STH 100

114+00

115+00

NORTH M3-1 / 38 M1-6 / M6-1 J3-1 — 139R

SPEED LIMIT 45 R2-1 — 140R

138R W12-1D

135R DO NOT ENTER R5-1 ON SIGNAL POLE

136R / 137R STOP R1-1F ON SIGNAL POLE

STH 38

STH 100

SHEET 16 OF 16

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	SIGN REMOVAL PLAN	SHEET 101 E

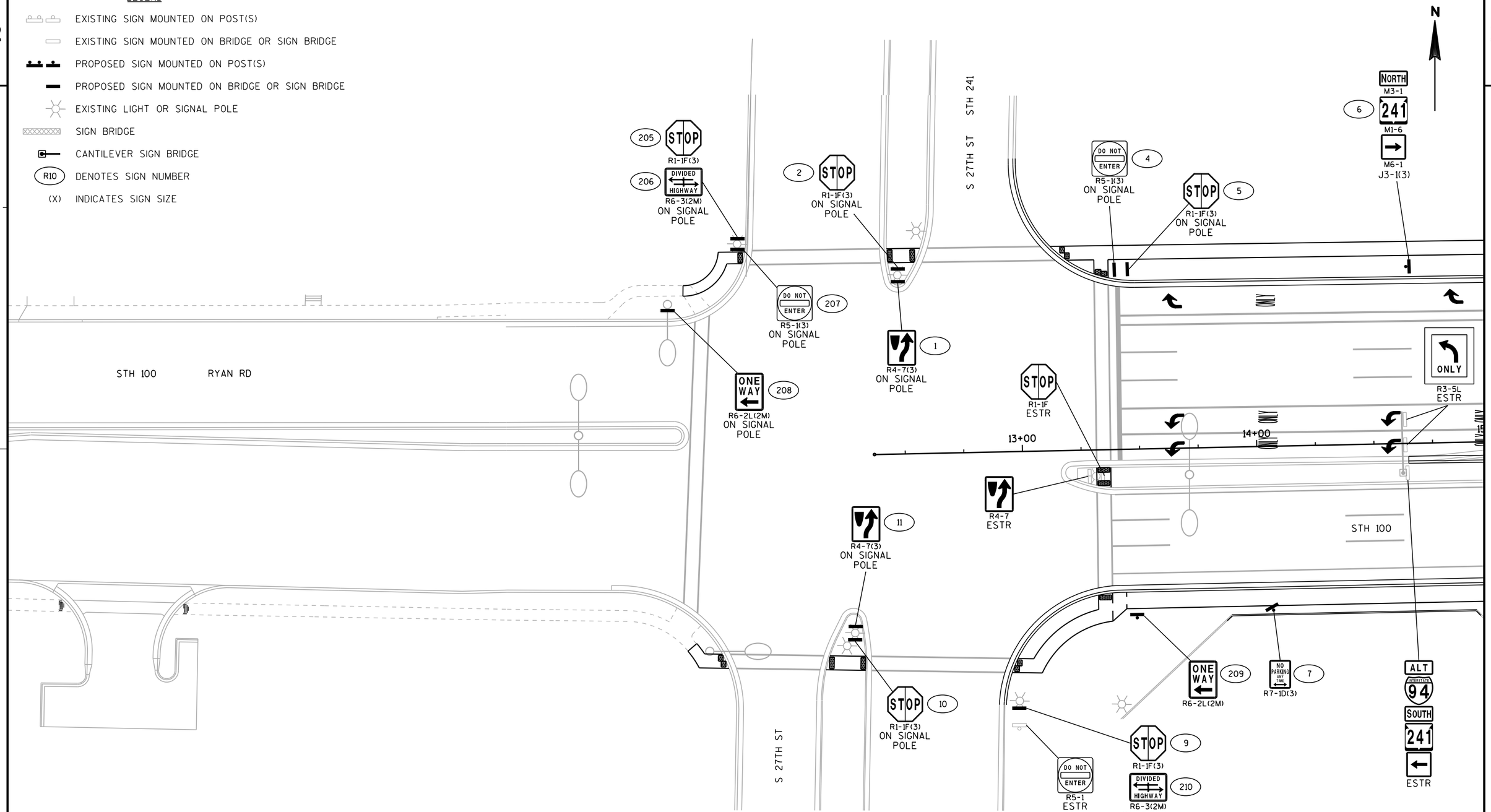
FILE NAME : J:\projects\D2_204016100\Sign\023116_ps.dgn PLOT DATE : 10-SEP-2013 07:05 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- R10 DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE



SHEET 1 OF 16

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 102	E

FILE NAME : J:\projects\D2_204016100\Sign\023201_ps.dgn PLOT DATE : 10-SEP-2013 07:08 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- R10 DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE

N

STH 100

15+00 16+00 17+00 18+00 19+00 20+00 21+

13 ALT SOUTH WEST NORTH / M4-1A M3-3 M3-4 M3-1 / 94 241 100 241 / M1-1 M1-6 M1-6 M1-6 / M5-1L M5-1L M6-1 M5-1R
J2-4 MOVE

ALT SOUTH WEST NORTH / M4-1A M3-3 M3-4 M3-1 / 94 241 100 241 / M1-1 M1-6 M1-6 M1-6 / M5-1L M5-1L M6-1 M5-1R
J2-4 ESTR

12 WRONG WAY R5-1A(3)

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

14 STOP R1-1(3)

211 DO NOT ENTER R5-1(3)

16 17 W3-3(3)

ONE WAY R6-2R ESTR

DO NOT ENTER R5-1 ESTR

212 W12-1D(2S) 2' HEIGHT

20 DO NOT ENTER R5-1(3)

213 ONE WAY R6-2R(2S)

STH 100

22 ONE WAY R6-2R(2S)

24 STOP R1-1(3)

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

SPEED LIMIT 45 R2-1 / R3-2 ESTR

21 SPEED LIMIT 45 R2-1(3)

H D9-2 / MB6-1 ESTR

R4-7 ESTR

18 R4-7(3)

214 R3-2(3) ON LIGHT POLE

19 NO PARKING ANY TIME R7-1L(3)

SHEET 2 OF 16

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 103 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
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- R10 DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE

N

STH 100

21+00 22+00 23+00 24+00 25+00 26+00 27+0

25 — 27th Street / NEXT SIGNAL — D1-65(3)

26 — STOP — R1-1(3)

215 — DO NOT ENTER — R5-1(3)

(07) 28 29 — To 20th St / NEXT SIGNAL — MOVE

30 — JCT M2-1 241 M1-6 J1-1(3)

31 — JCT M2-1 241 M1-6 J1-1(3) ON LIGHT POLE

27 — R4-7(3) ON LIGHT POLE

36 — ONE WAY — R6-2R(3)

35 — NO ENGINE BRAKING EXCEPT IN EMERGENCY — R10-64; WITHIN CITY or VILLAGE LIMITS — R10-64F MOVE

216 — DO NOT ENTER — R5-1(3)

34 — R4-7(3) ON LIGHT POLE

32 33 — W3-3(3)

STH 100

SHEET 3 OF 16

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 104	E

FILE NAME : J:\projects\D2_204016100\Sign\023203_ps.dgn PLOT DATE : 10-SEP-2013 07:08 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 40:1

2

N

41 STOP R1-1F(3)

42 DIVIDED HIGHWAY R6-3(2M) ON SIGNAL POLE

40 ONE WAY R6-2L(2M)

37 38 SPEED LIMIT 45 R2-1(3)

45 DO NOT ENTER R5-1(3) ON SIGNAL POLE

46 STOP R1-1F(3) ON SIGNAL POLE

S 22TH ST

35'

43 S 22nd St M1-94H ON ARM

44 100 W Ryan Rd M1-94S ON ARM

55'

STH 100

27+00 28+00 29+00 30+00 31+00 32+00 33+00

53 R4-7(2M) ON SIGNAL POLE

51 STOP R1-1F(3) ON SIGNAL POLE

52 R4-7(2M) ON SIGNAL POLE

54 100 W Ryan Rd M1-94S ON ARM

50 S 22nd St M1-94H ON ARM

50'

217 WRONG WAY R5-1A

59 WRONG WAY R5-1A(3)

39 58 STOP R1-1F(3) ON SIGNAL POLE

57 DO NOT ENTER R5-1(3) ON SIGNAL POLE

55 STOP R1-1F(3)

56 DIVIDED HIGHWAY R6-3(2M) ON SIGNAL POLE

49 ONE WAY R6-2L(2M)

232 SOUTH M3-3 41 M1-4 M5-1R J2-1(2)

231 NORTH M3-1 41 M1-4 M6-1 J3-1(2)

47 WEST MB3-4 INTERSTATE 94 M1-1 NORTH MB3-1 INTERSTATE 41 M1-1 USE LEFT LANE M4-20L JV2-2(2S)

48 EAST MB3-2 INTERSTATE 94 M1-1 SOUTH MB3-3 INTERSTATE 41 M1-1 MB5-1R JV2-2(2S)

COVER PLAQUE COVER WITH BLACK PANEL OF SAME MATERIAL

COVER PLAQUE COVER WITH BLACK PANEL OF SAME MATERIAL

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
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- R10 DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE

SHEET 4 OF 16

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 105 E

2

N

218 WRONG WAY R5-1A(3)

60 H D9-2 MB6-1

WEST M3-4 100 M1-6 J4-1(3) 61

ONE WAY R6-2L(2M) 63

65 W12-1D(2M) 2' MOUNT HEIGHT

66 NO ENGINE BRAKING EXCEPT IN EMERGENCY R10-64

WITHIN CITY OR VILLAGE LIMITS R10-64F MOVE

STH 100

64 R4-7(3) ON SIGNAL POLE

3+00 34+00 35+00 36+00 37+00 38+00 39+00

71 R4-7(2M)

72 R4-7(3)

74 DO NOT ENTER R5-1(3)

STH 100

73 STOP R1-1(3)

S 20TH ST

69 STOP R1-1(3)

219 DIVIDED HIGHWAY R6-3A(2M)

67 Milwaukee Chicago D1-2(MOD)

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
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- R10 DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE

SHEET 5 OF 16

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET	E

FILE NAME : J:\projects\D2_204016100\Sign\023205_ps.dgn PLOT DATE : 10-SEP-2013 07:08 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 40:1

N

20th Street
NEXT LEFT
77
M1-63(MOD)

20th Street
78
M1-94

I-94 SB
OFF RAMP

STH 100

39+00

40+00

41+00

42+00

43+00

44+00

45+00

I-94 SB ON RAMP

STH 100

NOTE:

1. BREAK BETWEEN RAMPS PART OF PROJECT ID 1030-20-85

N

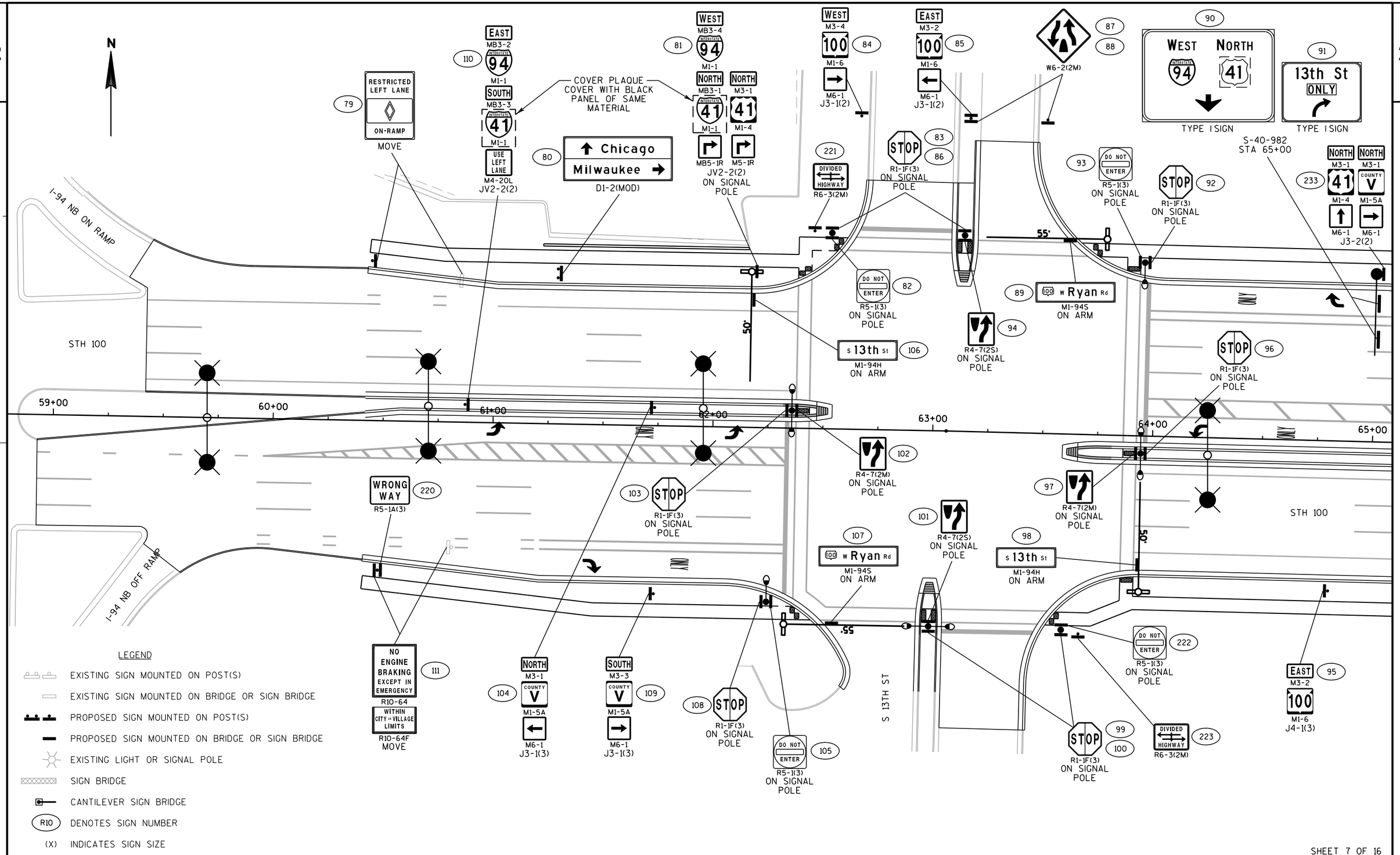
2

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
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- R10 DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE

SHEET 6 OF 16

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 107	E



SHEET 7 OF 16

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 108	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
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- R10 DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE

N

SOUTH M3-3 / COUNTY V M1-5A / M6-1 — 235 — J3-1(2)

WRONG WAY — R5-1A(3) — 224

SOUTH M3-3 / NORTH M3-1 / COUNTY V M1-5A / M5-1L M5-1R — 236 — J2-2(2)

SOUTH M3-3 / NORTH M3-1 / COUNTY V M1-5A / M5-1L M5-1R — 237 — J2-2(2) ON LIGHT POLE

117 — R4-7(3) ON LIGHT POLE

ONE WAY — R6-2L(2M) — 226

STH 100

65+00 | 66+00 | 67+00 | 68+00 | 69+00 | 70+00 | 71+00

STH 100

SPEED LIMIT 45 — R2-1(3) ON LIGHT POLE — 112

SPEED LIMIT 45 — R2-1(3) — 113

HIGH WATER — W8-58 MOVE 4' MOUNT HEIGHT — 114

U-TURN ONLY — M6-2 — 115 / 116

ONE WAY — R6-2R(2S) — 225

118 — R4-7(3)

SHEET 8 OF 16

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 109 E

2

N

JCT
MB2-1
INTERSTATE 94
M1-1
INTERSTATE 41
M1-1
COUNTY V
M1-5A
JV1-3(3)

COVER PLAQUE
COVER WITH BLACK
PANEL OF SAME
MATERIAL

119

120

121

W3-3(3)

W3-3(3)
ON LIGHT
POLE

122

JCT M2-1
JCT M2-1
41 M1-4
COUNTY V M1-5A
234

J1-2(2)
ON LIGHT
POLE

WEST
MB3-4
INTERSTATE 94
M1-1
NORTH
MB3-1
INTERSTATE 41
M1-1

COVER PLAQUE
COVER WITH BLACK
PANEL OF SAME
MATERIAL

125

126

USE RIGHT LANE
M4-20R
J2-2(2)

STH 100

72+00

73+00

74+00

75+00

76+00

77+00

STH 100

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
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- R10 DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE

SHEET 9 OF 16

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 110	E

2

2

N

ONE WAY
128
R6-2L(2M)

DO NOT ENTER
133
R5-1(3)

SPEED LIMIT 45
135
R2-1(3)

SPEED LIMIT 45
136
R2-1(3)
ON LIGHT POLE

STH 100

127
R4-7(3)
ON LIGHT POLE

78+00

79+00

80+00

81+00

82+00

83+00

129
R4-7(3)
ON LIGHT POLE

STH 100

DO NOT ENTER
227
R5-1(3)

130
ONE WAY
R6-2L(2M)

HIGH WATER
131
132
W8-58
MOVE

SHEET 10 OF 16

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 111	E

FILE NAME : J:\projects\D2_204016100\Sign\023210_ps.dgn PLOT DATE : 10-SEP-2013 07:08 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

LEGEND

EXISTING SIGN MOUNTED ON POST(S)

EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE

PROPOSED SIGN MOUNTED ON POST(S)

PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE

EXISTING LIGHT OR SIGNAL POLE

SIGN BRIDGE

CANTILEVER SIGN BRIDGE

R10 DENOTES SIGN NUMBER

(X) INDICATES SIGN SIZE

N

2

STH 100

84+00

85+00

86+00

87+00

88+00

89+00

STH 100

SPEED LIMIT 45
R2-1(3)

137

138

U-TURN ONLY
M6-2

139

140

SHEET 11 OF 16

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 112	E

FILE NAME : J:\projects\D2_204016100\Sign\023211_ps.dgn PLOT DATE : 10-SEP-2013 07:08 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

N

142 HIGH WATER
143
W8-58
MOVE
4' MOUNTING
HEIGHT

144 ONE WAY
R6-2L(2M)

151 SPEED LIMIT 45
R2-1(3)
ON LIGHT
POLE

150 SPEED LIMIT 45
R2-1(3)

STH 100

145
R4-7(3)
ON LIGHT
POLE

90+00
91+00
92+00
93+00
94+00
95+00

148
R4-7(3)
ON LIGHT
POLE

STH 100

146 DO NOT ENTER
R5-1(3)

147 STOP
R1-1(3)

149 DIVIDED HIGHWAY
R6-3A(2M)

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- R10 DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE

SHEET 12 OF 16

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 113	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
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- R10 DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE

N

2

ONE WAY 152
R6-2L(2M)

DO NOT ENTER 158
R5-1(3)

STH 100

96+00

97+00

153
R4-7(3)
ON LIGHT POLE

98+00

99+00

100+00

101+00

155
R4-7(3)
ON LIGHT POLE

STH 100

154
DO NOT ENTER
R5-1(3)

ONE WAY 157
R6-2L(2M)

SPEED LIMIT 45 159 160
R2-1(3)

STOP 156
R1-1(3)

DIVIDED HIGHWAY 161
R6-3(2M)

SHEET 13 OF 16

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 114	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

SIGN BRIDGE

CANTILEVER SIGN BRIDGE

R10 DENOTES SIGN NUMBER

(X) INDICATES SIGN SIZE

N

2

SPEED LIMIT 45
R2-1(3)
164
165

ONE WAY
R6-2L(2M)
169

STH 100

168
R4-7(3)
ON LIGHT POLE

102+00

103+00

104+00

105+00

106+00

107+00

170
R4-7(3)
ON LIGHT POLE

175
W3-3(3)

STH 100

166 JCT M2-1 38 M1-6 J1-1(3) ON LIGHT POLE

JCT M2-1 38 M1-6 J1-1(3) 167

171 ONE WAY R6-2L(2M)

173 Howell Ave NEXT SIGNAL D1-65(2)

172 Howell Ave NEXT SIGNAL D1-65(3)

174 38 SOUTH Howell Ave ONLY TYPE I SIGN

S-40-983

176
W3-3(3)
ON UPRIGHT

SHEET 14 OF 16

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 115 E

FILE NAME : J:\projects\D2_204016100\Sign\023214_ps.dgn PLOT DATE : 10-SEP-2013 07:09 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

2

LEGEND

- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE
- EXISTING LIGHT OR SIGNAL POLE
- SIGN BRIDGE
- CANTILEVER SIGN BRIDGE
- R10 DENOTES SIGN NUMBER
- (X) INDICATES SIGN SIZE

N

2

178 ONE WAY R6-2L(2M)

179 DO NOT ENTER R5-1(3)

181 ADOPT-A-HIGHWAY SPONSOR 155-56 MOVE

182 NO PARKING ANY TIME R7-1L

183 184 SPEED LIMIT 45 R2-1(3)

STH 100

177 R4-7(3) ON LIGHT POLE

108+00

109+00

110+00

111+00

112+00

113+00

S-40-295

189 R4-7(3) ON LIGHT POLE

229 230 ONLY R3-5L(2M)

STH 100

193 DO NOT ENTER R5-1(3)

192 ONE WAY R6-2L(2M)

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

191 Oak Creek Business District / Racine D1-3

187 188 NORTH M3-1 SOUTH M3-3 38 M1-6 38 M1-6 M5-1L M5-1R J2-2(3)

186 RIGHT LANE MUST TURN RIGHT R3-7R(3)

WRONG WAY R5-1A(3) 228

185 EAST M3-2 SOUTH M3-3 100 M1-6 38 M1-6 M6-1 M6-2R J3-2(3)

SHEET 15 OF 16

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 116 E

2

2

LEGEND

EXISTING SIGN MOUNTED ON POST(S)

EXISTING SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE

PROPOSED SIGN MOUNTED ON POST(S)

PROPOSED SIGN MOUNTED ON BRIDGE OR SIGN BRIDGE

EXISTING LIGHT OR SIGNAL POLE

SIGN BRIDGE

CANTILEVER SIGN BRIDGE

R10 DENOTES SIGN NUMBER

(X) INDICATES SIGN SIZE

N

195 TO MB4-5 WEST M3-4 INTERSTATE 94 M1-1 100 M1-6

MB6-1 J23-2(2)

196 ONE WAY R6-2L(2M)

197 YIELD R1-2(3)

STH 38

200 STOP R1-1F(3) ON SIGNAL POLE

STH 100

SOUTH M3-3 38 M1-6 198 M6-1 J3-1(2) ABOVE SIGNAL

114+00

115+00

199 R4-7(2M) ON SIGNAL POLE

DO NOT ENTER 201 R5-1(3) ON SIGNAL POLE

STOP 202 R1-1F(3) ON SIGNAL POLE

NORTH M3-1 204 38 M1-6 M6-1 J3-1(2)

203 W12-1D(2M) 2' MOUNTING HEIGHT

STH 38

STH 100

SHEET 16 OF 16

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 117	E

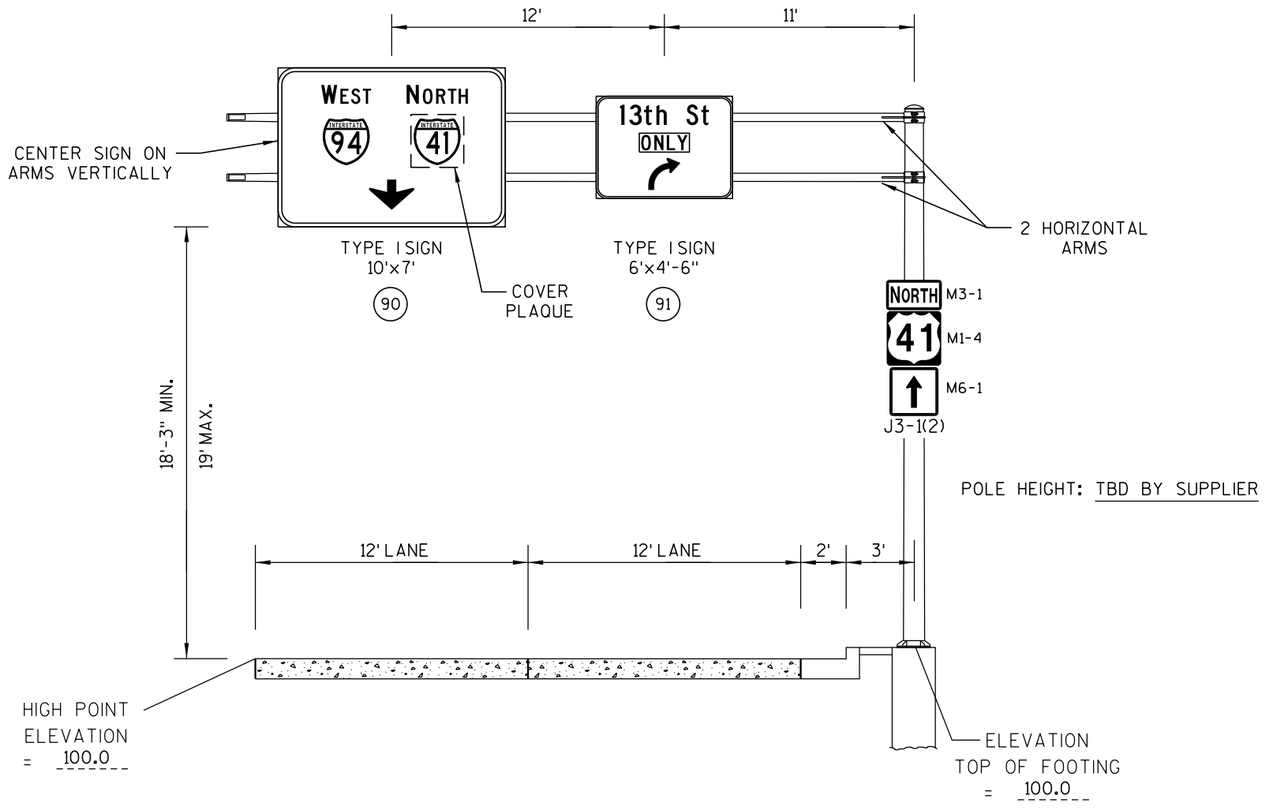
FILE NAME : J:\projects\D2_204016100\Sign\023216_ps.dgn PLOT DATE : 10-SEP-2013 07:09 PLOT BY : MSCCXV PLOT NAME : PLOT SCALE : 40:1

WISDOT/CADDS SHEET 42

LEGEND

(X) DENOTES SIGN NUMBER

(X) INDICATES SIGN SIZE



OVERHEAD SIGN SUPPORTS DETAIL
S-40-982
STH 100 WB AT 13TH ST
STATION 65+00

CONTRACTOR TO USE SDD, 36" DIAMETER CANTILEVER OVERHEAD SIGN SUPPORT BASE

I BEAMS - W5X3.7 I BEAMS FOR MOUNTING SIGNS ARE INCIDENTAL TO TYPE I SIGNS.

NOTE, CONTRACTOR SHALL:

1. SUBMIT SHOP DRAWINGS OF OVERHEAD SIGN SUPPORT. FOOTING IS INCIDENTAL TO OVERHEAD SIGN SUPPORT.
2. PROVIDE DESIGN CALCULATIONS.
3. SHOW SIGNS ON SHOP DRAWINGS.
4. I.D. PLAQUE INCIDENTAL TO OVERHEAD SIGN SUPPORT.
5. 6 ANCHOR RODS SHALL BE USED PER SDD 36" DIAMETER CANTILEVER OVERHEAD SIGN SUPPORT BASE

SHEET 1 OF 2

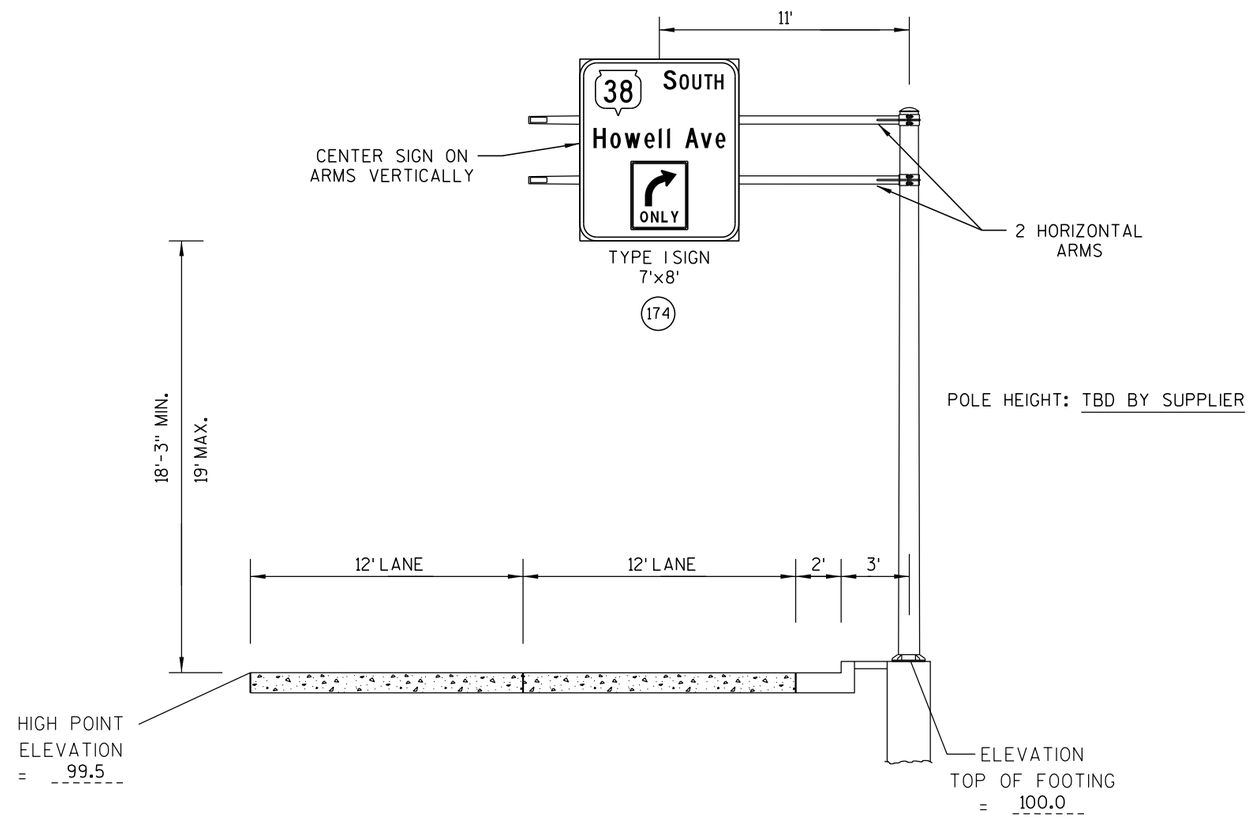
PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	OVERHEAD SIGN SUPPORT S-40-982	SHEET 118 E

2

LEGEND

(X) DENOTES SIGN NUMBER

(X) INDICATES SIGN SIZE



OVERHEAD SIGN SUPPORTS DETAIL
S-40-983
STH 100 EB AT HOWELL AVE
STATION 107RYN+25

NOTE, CONTRACTOR SHALL:

1. SUBMIT SHOP DRAWINGS OF OVERHEAD SIGN SUPPORT. FOOTING IS INCIDENTAL TO OVERHEAD SIGN SUPPORT.
2. PROVIDE DESIGN CALCULATIONS.
3. SHOW SIGNS ON SHOP DRAWINGS.
4. I.D. PLAQUE INCIDENTAL TO OVERHEAD SIGN SUPPORT.
5. 6 ANCHOR RODS SHALL BE USED PER SDD 15C 23-1.

NOTE:
REMOVE EXISTING OVERHEAD SIGN SUPPORT & FOOTING S-40-294

CONTRACTOR TO USE SDD, 30" DIAMETER CANTILEVER OVERHEAD SIGN SUPPORT BASE

I BEAMS - W5X3.7 I BEAMS FOR MOUNTING SIGNS ARE INCIDENTAL TO TYPE I SIGNS.

LIGHTING PLAN LEGEND

PROPOSED	EXISTING		PROPOSED	EXISTING	
		REMOTE METER PEDESTAL			HIGH MAST LIGHT TOWER (ARROWS INDICATE QUANTITY OF LUMINAIRES AND DIRECTION AIMED)
		PAD MOUNT TRANSFORMER (WEPCO)			
		DISTRIBUTION CENTER			CENTER OF CHANNEL NAVIGATION LUMINAIRE
		PHOTO CELL POLE			EDGE OF CHANNEL NAVIGATION LUMINAIRE
		PULL BOX (600 mm $^{2}24"^{3}$ UNLESS OTHERWISE NOTED)			AVIATION OBSTRUCTION LUMINAIRE
					CONDUIT STUBOUT
		LIGHTING SYSTEM MANHOLE			
		JUNCTION BOX			LOCAL MUNI. POLE
					LOCAL MUNI. UDL
==========	==========	CONDUIT (50 mm $^{2}2"^{3}$ UNLESS OTHERWISE NOTED)			EQUIP. GND. ELECTRODE (GND ROD)
		CID (CABLE IN DUCT)	*PROPOSED*	EXISTING	COMPONENT LABELS
OH	OH	OVER HEAD UTILITY	*A,B,C,...etc.*	A,B,C,...etc.	CIRCUIT POLE (ELECTRICAL) DESIGNATION
		LIGHT POLE, POLE TOP LUMINAIRE	\\\\	X	REMOVAL/ABANDON
		LIGHT POLE, ARM MOUNTED LUMINAIRE	N		NEUTRAL
		UDL (UNDER DECK LUMINAIRE)	GND		EQUIP.GROUNDING CONDUCTOR
		SIGN BRIDGE LUMINAIRE	MV		MERCURY VAPOR
		TUNNEL LUMINAIRE	HPS		HIGH PRESSURE SODIUM
			V, W / XYYZ		POLE LABEL V- STATION, W- OFFSET X- CIRCUIT, YY- DISTRIBUTION CENTER, Z- POLE NUMBER
			RGS		RIGID GALVANIZED STEEL

GENERAL NOTES

1. VERIFY ALL OF THE INFORMATION SHOWN ON THE CONTRACT DRAWINGS WHICH WOULD AFFECT THE WORK UNDER THIS CONTRACT.
2. ALL NEW CONDUITS, CABLE DUCTS, DIRECT BURIAL CABLES, AND ACCESSORIES ARE INDICATED DIAGRAMMATICALLY ON THE DRAWINGS. THE ACTUAL LOCATIONS IN THE FIELD SHALL MEET WITH APPROVAL OF THE ENGINEER.
3. PERFORM THE ELECTRICAL WORK IN ACCORDANCE WITH CITY OF OAK CREEK STANDARDS, THE SPECIAL PROVISIONS AND APPLICABLE SECTIONS OF THE WisDOT STANDARD SPECIFICATIONS (LATEST EDITION).
4. FURNISH AND INSTALL LUMINAIRES AND LAMPS IN ACCORDANCE WITH THE SUPPLIER'S RECOMMENDATIONS AND IN ACCORDANCE WITH THE SPECIFICATIONS. INCLUDE THE COST OF THIS WORK AND MATERIAL IN THE APPLICABLE LUMINAIRE PAY ITEM. SEPARATE PAYMENT WILL NOT BE MADE FOR THIS WORK.
5. INSTALL ALL LUMINAIRES ORIENTED WITH THE OPTICS PERPENDICULAR TO THE ROADWAY UNLESS OTHERWISE INDICATED OR DIRECTED BY THE ENGINEER. INCLUDE THIS WORK IN THE APPLICABLE LUMINAIRE PAY ITEMS.
6. INSTALL CONDUITS AND CABLE IN DUCTS AT A MINIMUM 24" DEPTH BELOW GRADE AND POSITIONED IN THE FIELD TO AVOID CONFLICT WITH ROADWAY UNDERDRAINS AND OTHER EXISTING AND PROPOSED UTILITIES. INCREASE DEPTH OF DUCT AND CONDUIT AS REQUIRED AT NO ADDITIONAL COST. COORDINATE RACEWAY DEPTH WITH THE ELECTRICAL DETAILS AND THE ENGINEER.
7. SPLICES WITHIN POLES SHALL BE SPLIT BOLT WITH SCOTCH 130-C RUBBER TAPE RATED FOR 600 VOLTS AND COVERED WITH SCOTCH 33+ PLASTIC. COMBINATION OF RUBBER TAPE AND PLASTIC SHALL BE EQUAL TO THE INSULATION OF THE CONDUCTORS.
8. FURNISH COPPER CONDUCTORS 600 V RATED, TYPE USE, XLP 7-STRANDED. SPLICING THE CABLE WILL ONLY BE ALLOWED AT EACH STREET LIGHTING STANDARD OR JUNCTION BOX. NO MID-SPAN SPLICES SHALL BE ALLOWED. THE CABLE IN DUCT (CID) SIZE SHALL BE 1 1/2" FOR 4 CONDUCTORS NO. 4 AWG WIRES AND GROUND.
9. ALL CONDUIT USED FOR BORED CABLE RUNS UNDER PAVEMENTS SHALL BE POLYVINYL CHLORIDE (PVC), SCHEDULE 40 IN CONFORMANCE WITH SECTION 652.2.3 OF THE WisDOT SPECIFICATIONS.
10. CAP CONDUIT ON BOTH ENDS UNTIL CABLING IS PLACED. FURNISH AND INSTALL 3" PVC CONDUIT (SCHED 80) UNDER PAVEMENT, SIDEWALKS, AND DRIVEWAYS AND EXTEND ONE (1) FOOT BEYOND THE BACK OF CURB EDGE.
11. SEE TRAFFIC SIGNAL PLANS IN THIS CONTRACT (BY OTHERS) FOR TEMPORARY AND PROPOSED INTERSECTION LIGHTING.
12. VERIFY LOCATION AND ROUTING OF EXISTING BRANCH CIRCUITS FEEDING LIGHTS ON ALL SIDE STREETS. REWIRE CIRCUITS ON CONTROLLERS AND LIGHT POLES, AS NECESSARY, TO MAINTAIN THE OPERATION OF ALL LIGHT POLES THAT WILL REMAIN OPERATIONAL DURING CONSTRUCTION. MAINTAIN EXISTING LIGHTING ON STH 38.

LIGHTING PLANS PREPARED BY

URS
342 N Water Street
7th Floor
Milwaukee, WI 53202
(414) 831-4100

WISCONSIN
MOHAMMED A ELSHOLI
E-37874-6
ORLAND HILLS
ILLINOIS
PROFESSIONAL ENGINEER

10/01/2013 (Date) (Signature)

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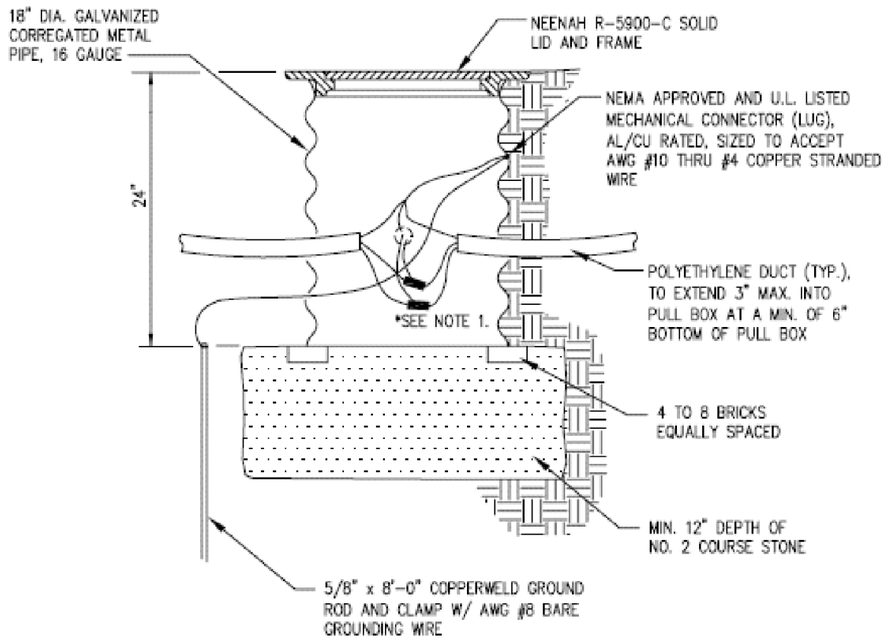
Hearing Impaired TDD (800) 542-2289
www.DiggersHotline.com

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	LIGHTING - LEGEND & GENERAL NOTES	SHEET 120	E

FILE NAME : P:\Transportation\STH 100\CADD\sheets\023501_lp.dgn PLOT DATE : 11/18/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 200.0000 sf / in.
WISDOT/CADDS SHEET 42



NOTES:

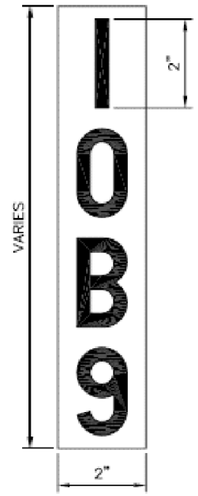
1. SPLICES FOR ALL HOT WIRES WITHIN THE PULL BOX SHALL BE WITH SCOTCH CAST KIT NO. 90-B1, OR APPROVED EQUAL.

2. PULL BOXES SHALL BE SET 2' TO 3' BEHIND CURB AND 2" ABOVE CURB GRADE.

3. IN LIEU OF THE PULL BOX DEPICTED HEREON, A STRONGWELL QUAZITE 13"(w)x24"(l)x18"(d) BOX AND COVER MAY BE INSTALLED. PART NUMBERS ARE AS FOLLOWS: BOX - PG1324BA18, COVER - PG1324HA0041A

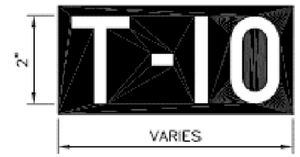
City of Oak Creek
Department of Public Works

Drawn By: M. SIMMONS	Scale: N.T.S
Appv. By: M. SIMMONS	Date: 12/19/03 (Revised)
STREET LIGHTING - PULL BOX	SL-4



LIGHTING STANDARDS

THE NUMBERING FOR LIGHTING STANDARDS SHALL CONSIST OF WEATHERPROOF SELF-ADHESIVE TYPE BACKING MATERIAL CONFORMING TO THE CONFIGURATION AND DIMENSIONS AS INDICATED ABOVE. THE NUMERALS SHALL BE BLACK MOUNTED ON THE WHITE BACKGROUND. NUMBERING SHALL FACE THE STREET AND BE MOUNTED APPROXIMATELY 6' ABOVE THE GROUND SURFACE.

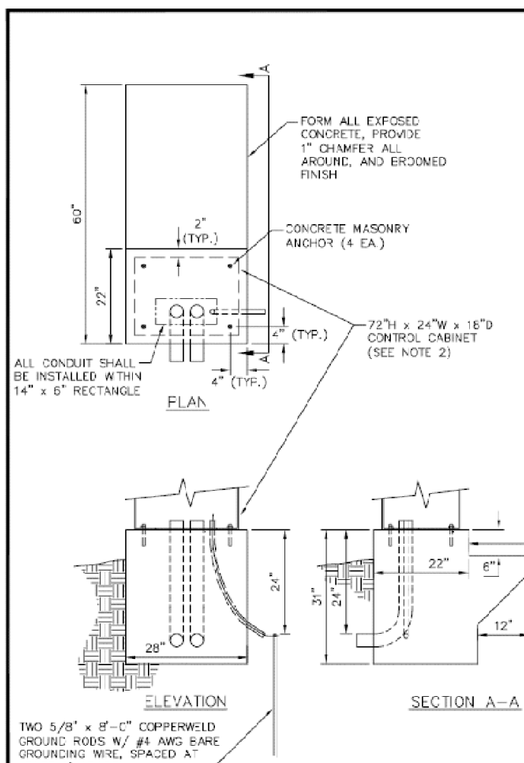


LIGHTING CONTROLLERS

THE NUMBERING FOR LIGHTING CONTROLLERS SHALL CONSIST OF WEATHERPROOF SELF-ADHESIVE TYPE BACKING MATERIAL CONFORMING TO THE CONFIGURATION AND DIMENSIONS AS INDICATED ABOVE. THE NUMERALS SHALL BE WHITE MOUNTED ON THE BLACK BACKGROUND. NUMBERING SHALL BE MOUNTED SUCH THAT IT IS VISIBLE FROM THE STREET SIDE OF THE CONTROLLER.

City of Oak Creek
Department of Public Works

Drawn By: M. Simmons	Scale: N.T.S
Appv. By: Wayne St. John	Date: 1/13/04 (Revised)
STREET LIGHTING STANDARD AND CONTROLLER IDENTIFICATION NUMBERING	SL-1



GENERAL NOTES:

1. THE CONTROLLER (SERVICE AND CONTROL CABINET) SHALL PROVIDE 480-VOLT POWER FOR UP TO FOUR LIGHTING CIRCUITS OF UP TO 30 LIGHTS EACH. PRIOR TO CONTROLLER BEING PUT INTO SERVICE, IT MUST PASS INSPECTION BY THE CITY ENGINEERING DEPARTMENT AT (414) 768-5855 AND THE CITY ELECTRICAL INSPECTOR AT (414) 768-8546.

2. THE CONTROLLER CABINET SHALL BE A 72"H X 24"W X 18"D NEMA 4 ENCLOSURE, SAGINAW CONTROL AND ENGINEERING MODEL NO. SCE-72EL2418FS, OR APPROVED EQUAL.

3. CONTROLL CABINET SHALL BE CONSTRUCTED UPON A CONCRETE BASE WITH MAINTENANCE PLAT AS DEPICTED ON THIS DETAIL DRAWING. ALL CONDUIT RUNS THROUGH THE CONCRETE BASE SHALL EXTEND ABOUT 2" OUT THE TOP OF THE BASE AND ABOLT 4" OUT THE SIDES OF THE BASE. CABINET TO BE SECURED TO THE CONCRETE BASE WITH FOUR CONCRETE MASONRY ANCHORS, MINIMUM 1/2" DIAMETER AND 5" IN LENGTH.

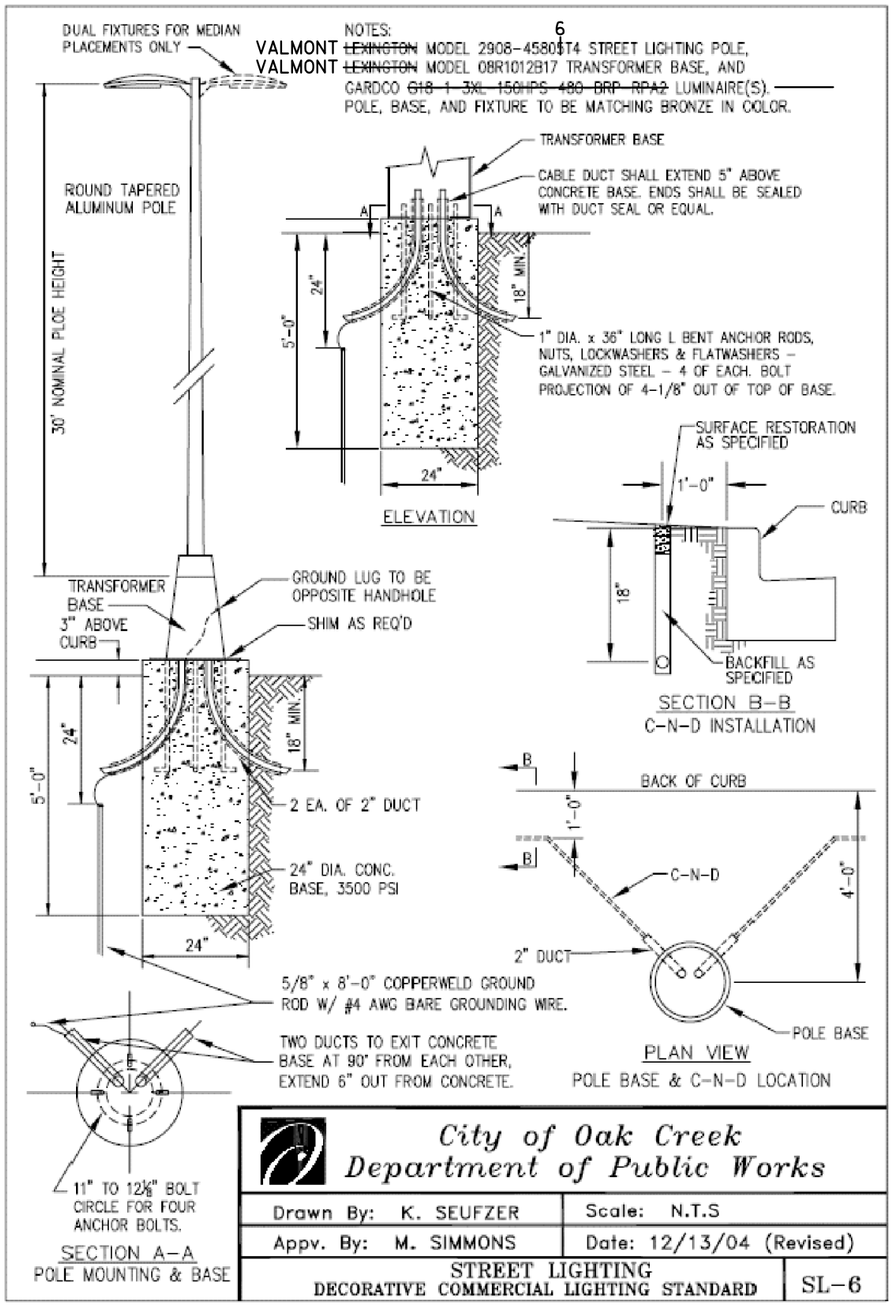
4. THE ENCLOSURE SHALL BE GRAY IN COLOR, WITH AN ADHESIVE IDENTIFICATION TAG (DETAIL DRAWING SL-1), AND SHALL HAVE AN ACCESS HANDLE WITH LOCKING MECHANISM (I.E. LOCK HASP) TO ALLOW THE CITY TO INSTALL ITS OWN PAD LOCK. IN ADDITION TO THE CONCRETE BASE AND ENCLOSURE, COMPONENTS AND RELATED WORK FOR THE CONTROLLER SHALL INCLUDE BUT MAY NOT BE LIMITED BY THE FOLLOWING:

A. 200 AMP*, 4-TERMINAL METER PEDESTAL (MILBANK MODEL NO. U3358-O-KK, OR APPROVED EQUAL)
B. 480-VOLT, 1-PHASE, 3-WIRE PANELBOARD INTERIOR
C. 100 AMP*, 2-POLE MAIN DISCONNECT (CIRCUIT BREAKER TYPE)
D. 60 AMP, 4-POLE ELECTRICALLY HELD CONTACTOR, 120V COIL
E. 480V TO 120V TRANSFORMER TO PROVIDE FOR THE CONTROL VOLTAGE, 1 KVA
F. SWIVEL MOUNTING PHOTO EYE
G. ON/OFF/AUTO SWITCH
H. PULL-CHAIN INTERIOR CABINET LIGHT WITH 60-WATT BULB AND STANDARD G.F.I. OUTLET
I. TWO 3-INCH PVC CABLE DUCTS AND ONE 1-INCH PVC GROUND WIRE DUCT
J. #4 AWG WIRING
K. TWO (2) GROUND RODS WITH NO. 4 WIRE, SPACED AT LEAST 6' APART
L. 40 AMP CIRCUIT BREAKERS

*FOR LARGER SYSTEMS AND DEPENDING ON CALCULATED PROPOSED LOAD THIS MAY NEED TO BE 200 AMP.

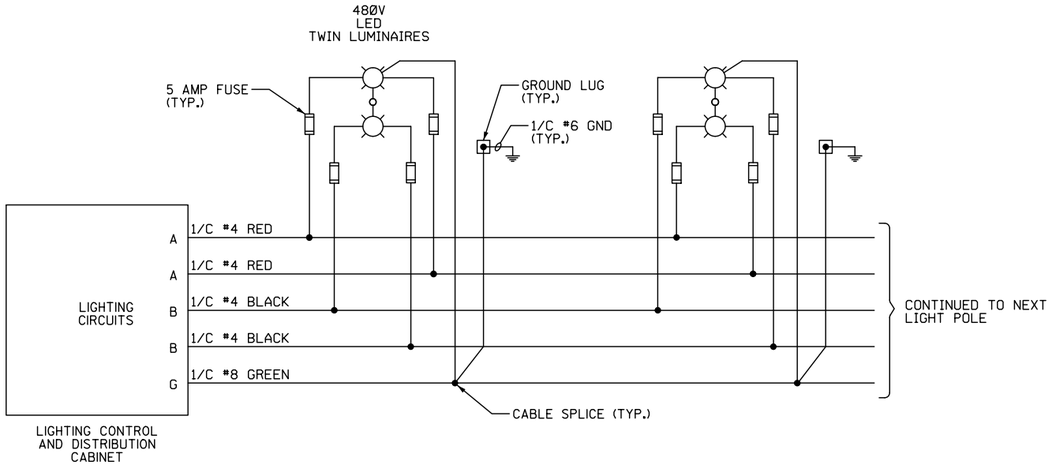
City of Oak Creek
Department of Public Works

Drawn By: M. SIMMONS	Scale: NONE
Appv. By: W. ST. JOHN	1/9/04
STREET LIGHTING - CONTROL CABINET & BASE	SL-2

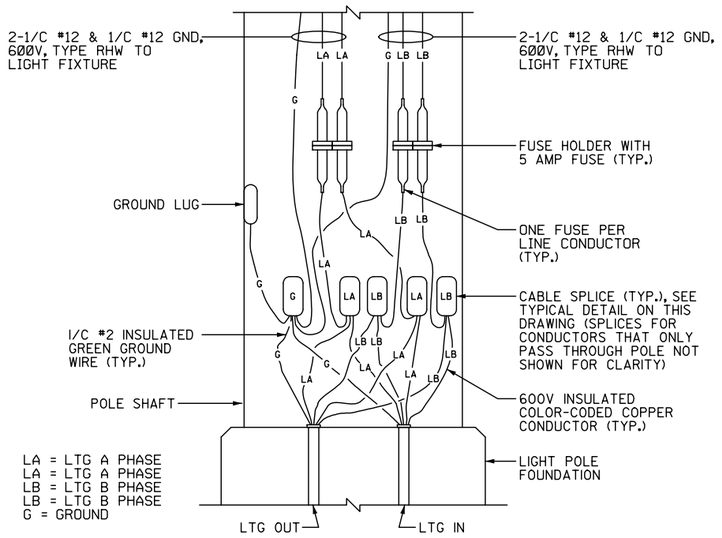


City of Oak Creek
Department of Public Works

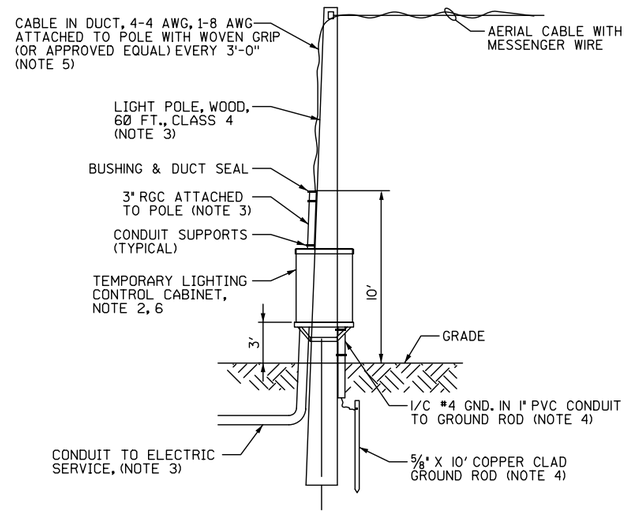
Drawn By: K. SEUFZER	Scale: N.T.S
Appv. By: M. SIMMONS	Date: 12/13/04 (Revised)
STREET LIGHTING DECORATIVE COMMERCIAL LIGHTING STANDARD	SL-6



TYPICAL LIGHTING UNIT WIRING DIAGRAM
USING TWO ALTERNATING CIRCUITS
N.T.S.



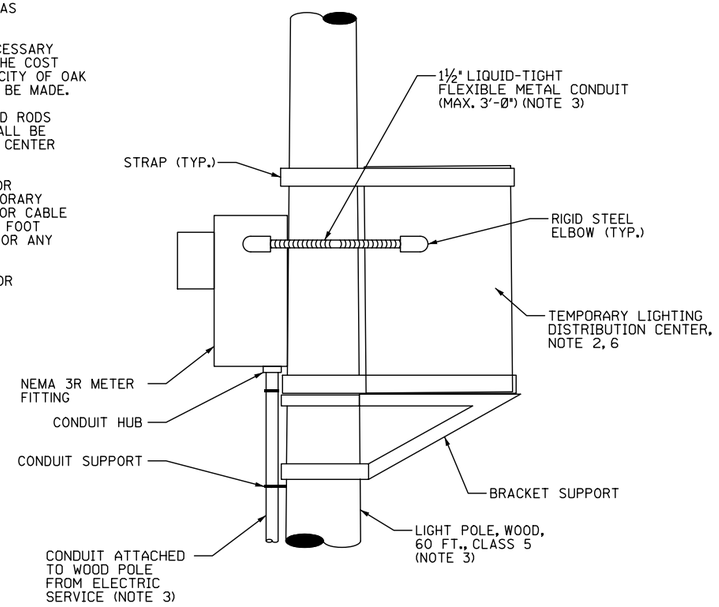
TYPICAL POLE BASE WIRING DETAIL
N.T.S.



TEMPORARY LIGHTING CONTROL AND DISTRIBUTION
WIRING AND SERVICE INSTALLATION DETAIL
N.T.S.

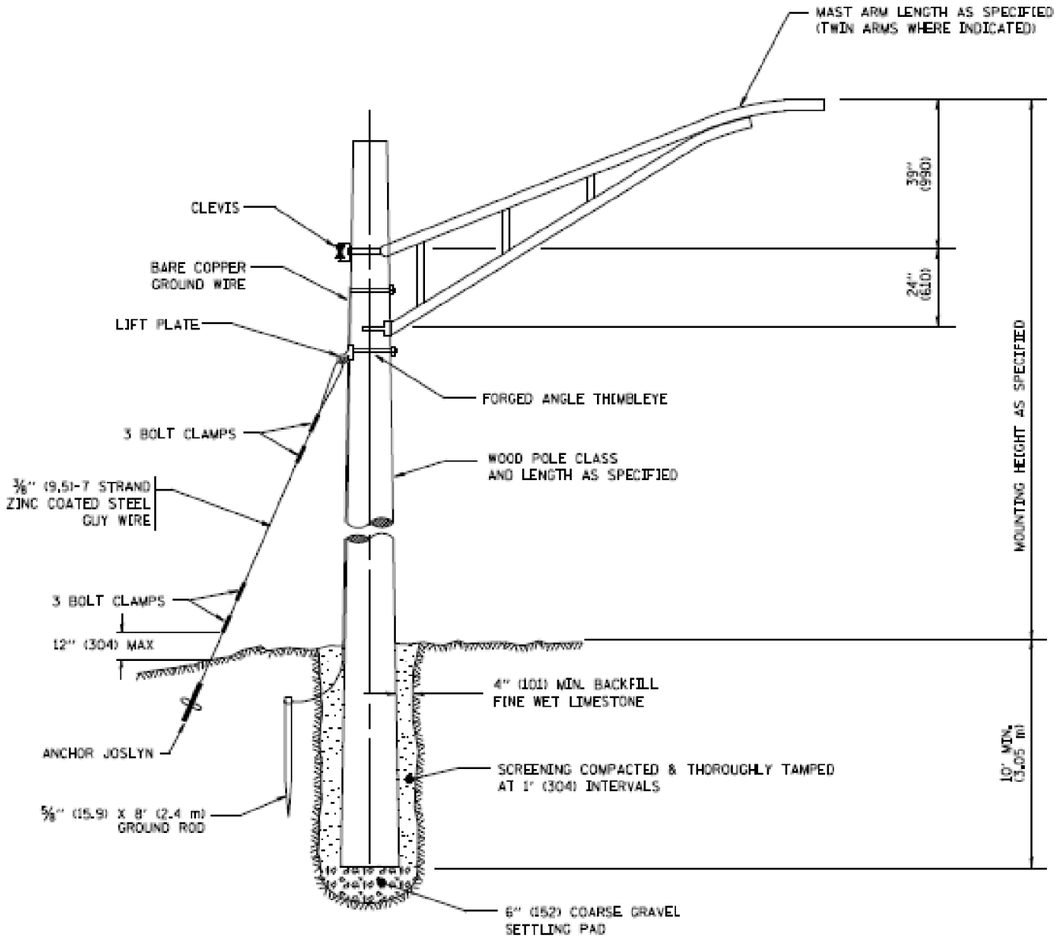
NOTES:

1. THE COST OF CONTROLLER MOUNTING HARDWARE AND RELATED INCIDENTALS SHALL BE INCLUDED IN "TEMPORARY LIGHTING DISTRIBUTION CENTER CITY OF OAK CREEK" PAY ITEM.
2. THE CONTROLLER SHALL BE SUITABLE FOR USE AS SERVICE EQUIPMENT PER NEC 230.66.
3. INCLUDE THE COST OF WOOD POLE AND ALL NECESSARY CABLES AND CONDUITS SHALL BE INCLUDED IN THE COST OF "TEMPORARY LIGHTING DISTRIBUTION CENTER CITY OF OAK CREEK" PAY ITEM. SEPARATE PAYMENT WILL NOT BE MADE.
4. THE COST OF ALL GROUNDING MATERIALS, GROUND RODS AND ASSOCIATED GROUND WIRE AND CONDUIT SHALL BE INCLUDED IN "TEMPORARY LIGHTING DISTRIBUTION CENTER CITY OF OAK CREEK" PAY ITEM.
5. INCLUDE COST OF ALL ELECTRIC CABLE USED FOR TEMPORARY WORK AS INCIDENTAL TO THE "TEMPORARY OVERHEAD CABLE 4-4 AWG" PAY ITEM EXCEPT FOR CABLE IN DUCT. CABLE IN DUCT IS PAID FOR ON A PER FOOT BASIS. SEPARATE PAYMENT WILL NOT BE MADE FOR ANY OTHER ITEM UNLESS SPECIFIED.
6. USE EXISTING LIGHTING DISTRIBUTION CENTERS FOR TEMPORARY LIGHTING WHEN POSSIBLE.



TEMPORARY LIGHTING DISTRIBUTION CABINET
INSTALLATION DETAIL
N.T.S.

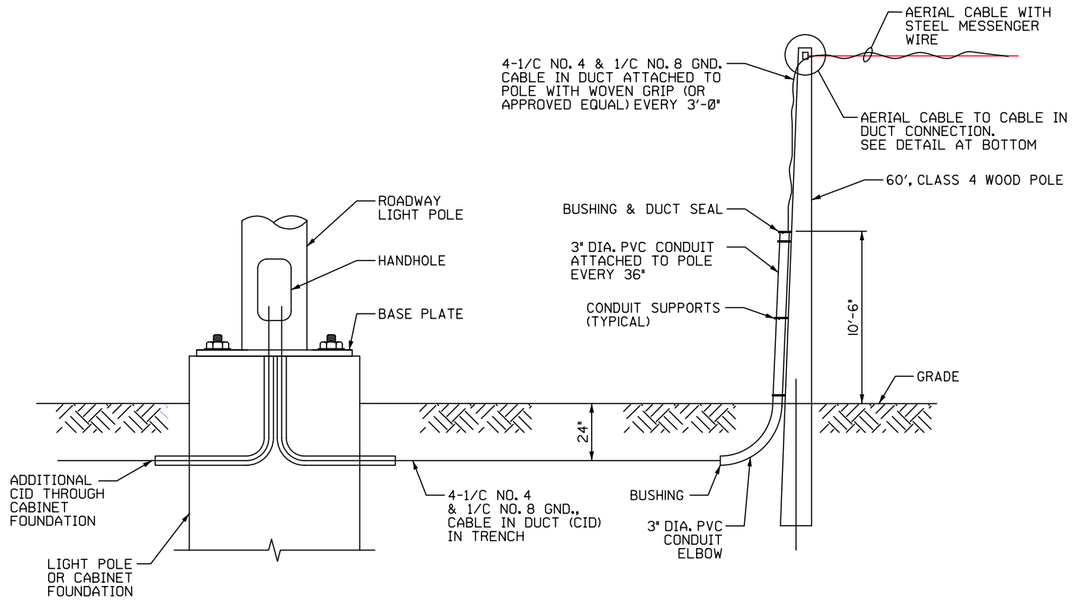
FILE NAME : P:\Transportation\STH 100\CADD\sheets\023504_lp-Det3.dgn PLOT DATE : 11/18/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 100.0000 sf / in.
WISDOT/CADDS SHEET 42



TEMPORARY LIGHT POLE DETAIL

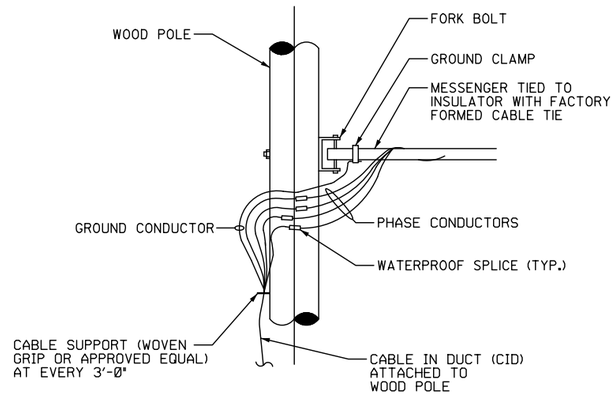
NOTES:

1. ALL DIMENSIONS IN INCHES (MILLIMETERS) UNLESS OTHERWISE INDICATED

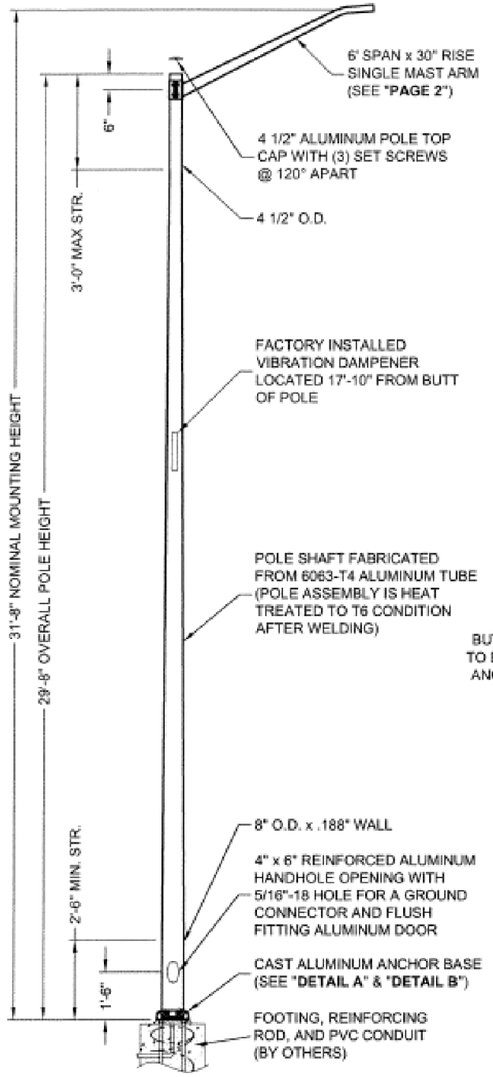


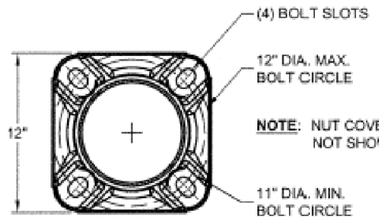
NOTE: DETAIL FOR WOOD POLE TO ROADWAY LIGHTING DISTRIBUTION AND CONTROL CABINET WIRING CONNECTION IS SIMILAR.

WOOD POLE TO ROADWAY LIGHTING UNIT OR DISTRIBUTION CABINET WIRING CONNECTION DETAIL
N.T.S.

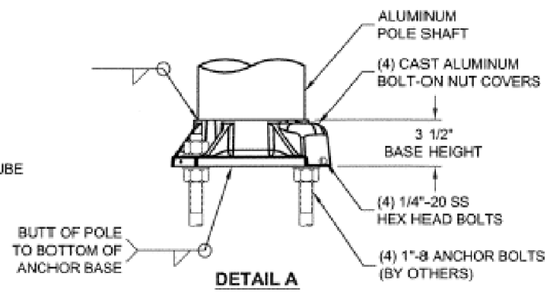


AERIAL CABLE TO ELECTRIC CABLE CONNECTION DETAIL
N.T.S.





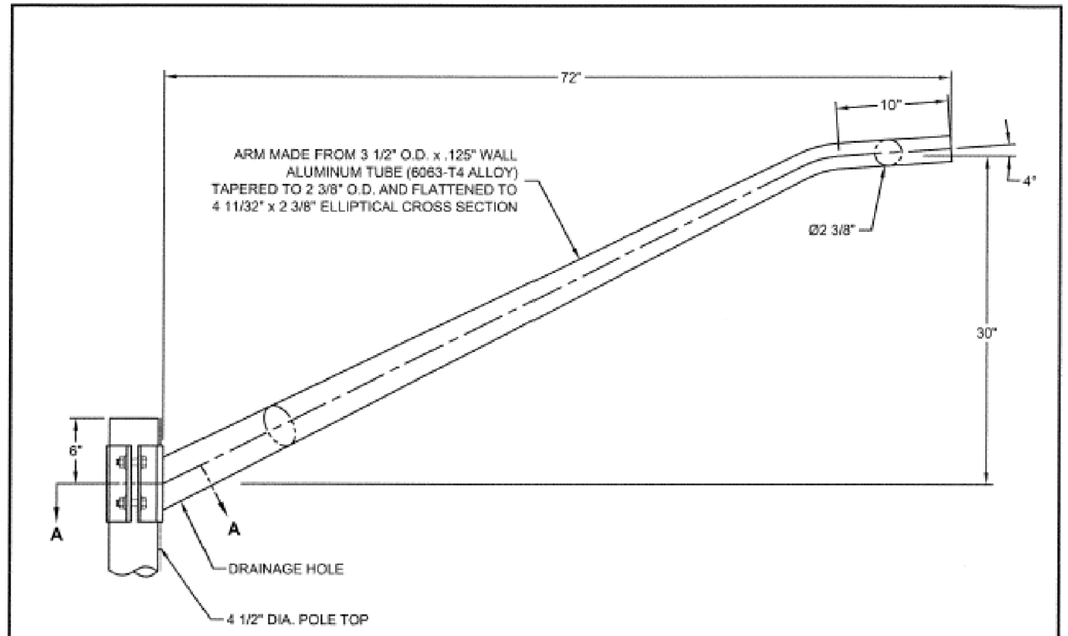
DETAIL B

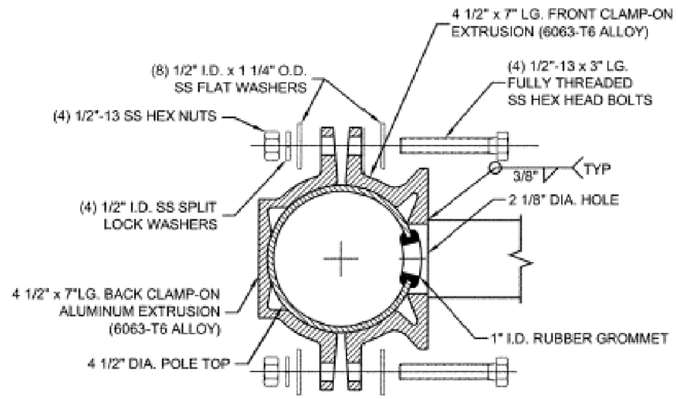


DETAIL A

DO NOT SCALE

valmont	TITLE: S ANCHOR BASE POLE	QTY: 1	MANUFACTURER PAINTED BRONZE
Valmont Industries, Inc. Structures Division 20805 Eaton Ave Farmington, Minnesota 55024-7932 Phone: (651) 463-8990 (800) 899-7577 Fax: (651) 463-3349	MODEL NO.: MATERIAL: ALUMINUM ALLOY FINISH: POWDER PAINT - DDB PROJECT: OAK CREEK SOLD TO: SHIP TO: P.O. NO: REP: SPECTRUM LTG	DWN BY: KPS CHK'D BY: APPR BY: JMS DATE: 04-25-13	
CONFIDENTIAL The information contained in this drawing is privileged and confidential, and may be protected from disclosure. Please be aware that any use or dissemination of this drawing may be subject to legal restriction or sanction.	REV DATE REVISION DESCRIPTION BY	DWG NO: DR8174 PAGE: 1 / 2	

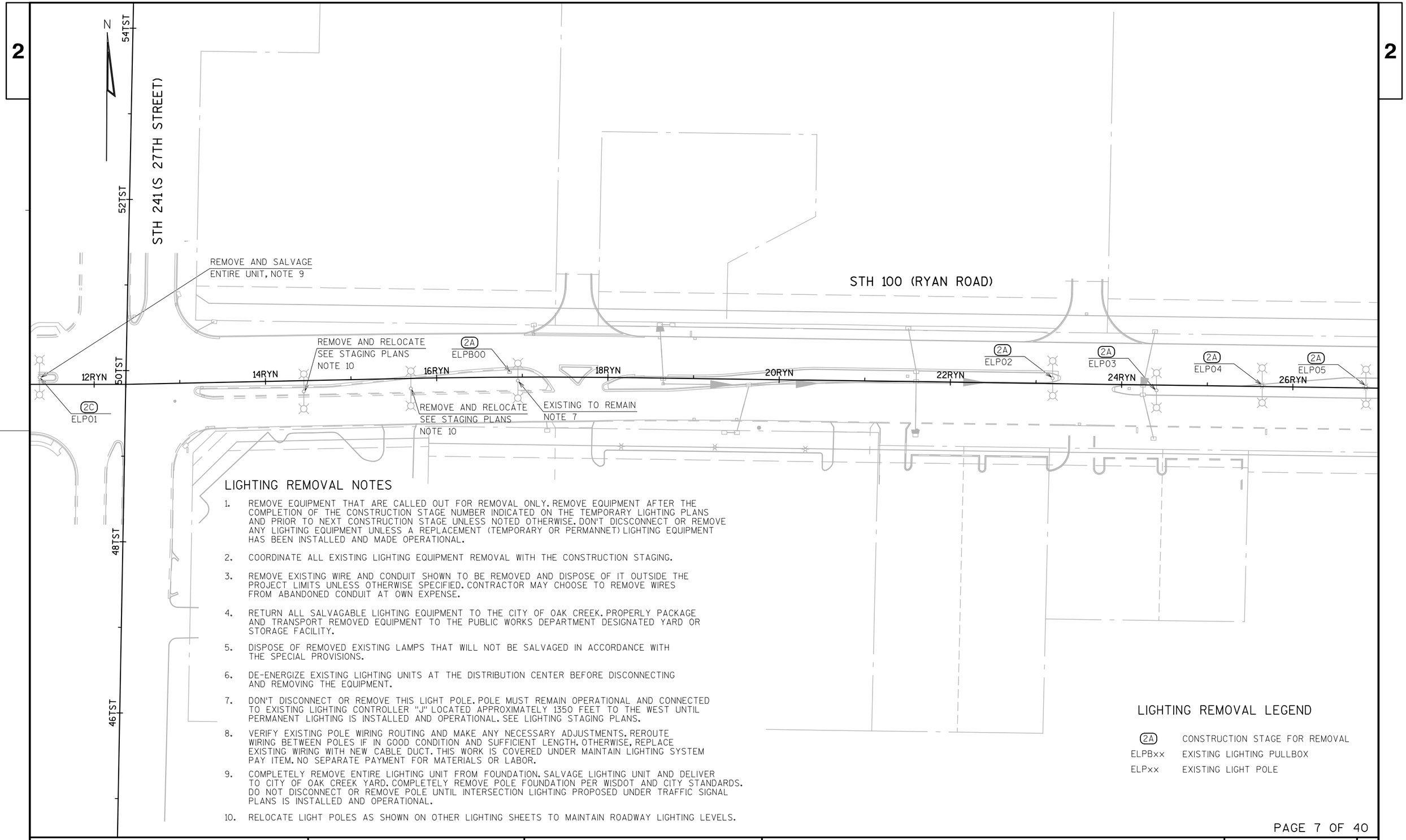




SECTION A-A

DO NOT SCALE

valmont	TITLE: S 6' x 30" x 3.5" SGL MAST ARM CLP 4.5	QTY: 1	MANUFACTURER PAINTED BRONZE
Valmont Industries, Inc. Structures Division 20805 Eaton Ave Farmington, Minnesota 55024-7932 Phone: (651) 463-8990 (800) 899-7577 Fax: (651) 463-3349	PART NO.: 1MA0630C45Z MATERIAL: ALUMINUM ALLOY FINISH: POWDER PAINT - DDB PROJECT: OAK CREEK SOLD TO: SHIP TO: P.O. NO: REP: SPECTRUM LTG	DWN BY: KPS CHK'D BY: APPR BY: JMS DATE: 04-25-13	
CONFIDENTIAL The information contained in this drawing is privileged and confidential, and may be protected from disclosure. Please be aware that any use or dissemination of this drawing may be subject to legal restriction or sanction.	REV DATE REVISION DESCRIPTION BY	DWG NO: DR8174 PAGE: 2 / 2	



LIGHTING REMOVAL NOTES

1. REMOVE EQUIPMENT THAT ARE CALLED OUT FOR REMOVAL ONLY. REMOVE EQUIPMENT AFTER THE COMPLETION OF THE CONSTRUCTION STAGE NUMBER INDICATED ON THE TEMPORARY LIGHTING PLANS AND PRIOR TO NEXT CONSTRUCTION STAGE UNLESS NOTED OTHERWISE. DON'T DICSCONNECT OR REMOVE ANY LIGHTING EQUIPMENT UNLESS A REPLACEMENT (TEMPORARY OR PERMANNET) LIGHTING EQUIPMENT HAS BEEN INSTALLED AND MADE OPERATIONAL.
2. COORDINATE ALL EXISTING LIGHTING EQUIPMENT REMOVAL WITH THE CONSTRUCTION STAGING.
3. REMOVE EXISTING WIRE AND CONDUIT SHOWN TO BE REMOVED AND DISPOSE OF IT OUTSIDE THE PROJECT LIMITS UNLESS OTHERWISE SPECIFIED. CONTRACTOR MAY CHOOSE TO REMOVE WIRES FROM ABANDONED CONDUIT AT OWN EXPENSE.
4. RETURN ALL SALVAGABLE LIGHTING EQUIPMENT TO THE CITY OF OAK CREEK. PROPERLY PACKAGE AND TRANSPORT REMOVED EQUIPMENT TO THE PUBLIC WORKS DEPARTMENT DESIGNATED YARD OR STORAGE FACILITY.
5. DISPOSE OF REMOVED EXISTING LAMPS THAT WILL NOT BE SALVAGED IN ACCORDANCE WITH THE SPECIAL PROVISIONS.
6. DE-ENERGIZE EXISTING LIGHTING UNITS AT THE DISTRIBUTION CENTER BEFORE DISCONNECTING AND REMOVING THE EQUIPMENT.
7. DON'T DISCONNECT OR REMOVE THIS LIGHT POLE. POLE MUST REMAIN OPERATIONAL AND CONNECTED TO EXISTING LIGHTING CONTROLLER "J" LOCATED APPROXIMATELY 1350 FEET TO THE WEST UNTIL PERMANENT LIGHTING IS INSTALLED AND OPERATIONAL. SEE LIGHTING STAGING PLANS.
8. VERIFY EXISTING POLE WIRING ROUTING AND MAKE ANY NECESSARY ADJUSTMENTS. REROUTE WIRING BETWEEN POLES IF IN GOOD CONDITION AND SUFFICIENT LENGTH. OTHERWISE, REPLACE EXISTING WIRING WITH NEW CABLE DUCT. THIS WORK IS COVERED UNDER MAINTAIN LIGHTING SYSTEM PAY ITEM. NO SEPARATE PAYMENT FOR MATERIALS OR LABOR.
9. COMPLETELY REMOVE ENTIRE LIGHTING UNIT FROM FOUNDATION. SALVAGE LIGHTING UNIT AND DELIVER TO CITY OF OAK CREEK YARD. COMPLETELY REMOVE POLE FOUNDATION PER WISDOT AND CITY STANDARDS. DO NOT DISCONNECT OR REMOVE POLE UNTIL INTERSECTION LIGHTING PROPOSED UNDER TRAFFIC SIGNAL PLANS IS INSTALLED AND OPERATIONAL.
10. RELOCATE LIGHT POLES AS SHOWN ON OTHER LIGHTING SHEETS TO MAINTAIN ROADWAY LIGHTING LEVELS.

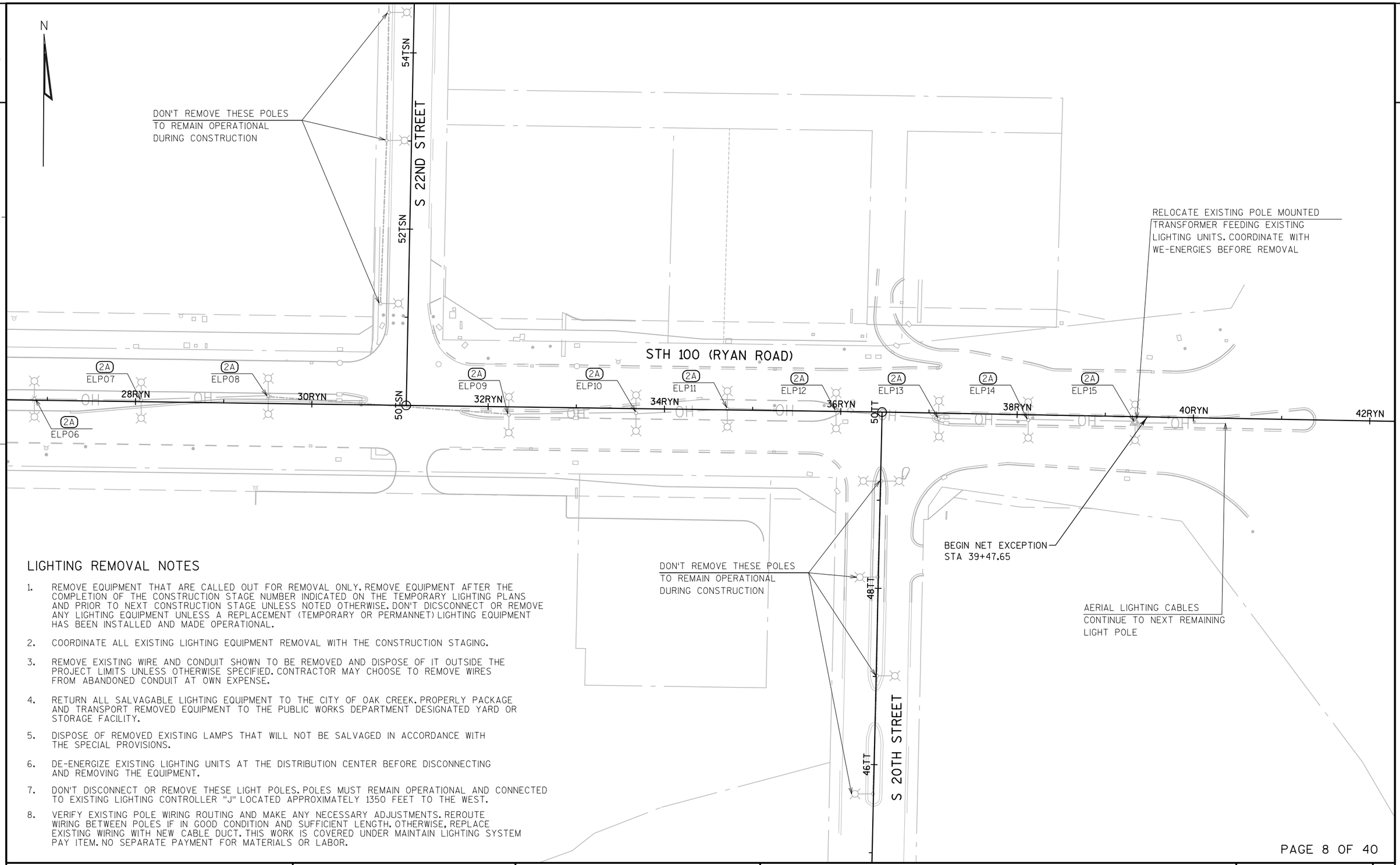
LIGHTING REMOVAL LEGEND

(2A)	CONSTRUCTION STAGE FOR REMOVAL
ELPBxx	EXISTING LIGHTING PULLBOX
ELPxx	EXISTING LIGHT POLE

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	LIGHTING PLAN - REMOVAL	SHEET 126 E

FILE NAME : P:\Transportation\STH 100\CADD\sheets\023507_lp-Removal.dgn PLOT DATE : 11/18/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 100.0000 sf / in.
WISDOT/CADDS SHEET 42

2



LIGHTING REMOVAL NOTES

1. REMOVE EQUIPMENT THAT ARE CALLED OUT FOR REMOVAL ONLY. REMOVE EQUIPMENT AFTER THE COMPLETION OF THE CONSTRUCTION STAGE NUMBER INDICATED ON THE TEMPORARY LIGHTING PLANS AND PRIOR TO NEXT CONSTRUCTION STAGE UNLESS NOTED OTHERWISE. DON'T DICSCONNECT OR REMOVE ANY LIGHTING EQUIPMENT UNLESS A REPLACEMENT (TEMPORARY OR PERMANNET) LIGHTING EQUIPMENT HAS BEEN INSTALLED AND MADE OPERATIONAL.
2. COORDINATE ALL EXISTING LIGHTING EQUIPMENT REMOVAL WITH THE CONSTRUCTION STAGING.
3. REMOVE EXISTING WIRE AND CONDUIT SHOWN TO BE REMOVED AND DISPOSE OF IT OUTSIDE THE PROJECT LIMITS UNLESS OTHERWISE SPECIFIED. CONTRACTOR MAY CHOOSE TO REMOVE WIRES FROM ABANDONED CONDUIT AT OWN EXPENSE.
4. RETURN ALL SALVAGABLE LIGHTING EQUIPMENT TO THE CITY OF OAK CREEK. PROPERLY PACKAGE AND TRANSPORT REMOVED EQUIPMENT TO THE PUBLIC WORKS DEPARTMENT DESIGNATED YARD OR STORAGE FACILITY.
5. DISPOSE OF REMOVED EXISTING LAMPS THAT WILL NOT BE SALVAGED IN ACCORDANCE WITH THE SPECIAL PROVISIONS.
6. DE-ENERGIZE EXISTING LIGHTING UNITS AT THE DISTRIBUTION CENTER BEFORE DISCONNECTING AND REMOVING THE EQUIPMENT.
7. DON'T DISCONNECT OR REMOVE THESE LIGHT POLES. POLES MUST REMAIN OPERATIONAL AND CONNECTED TO EXISTING LIGHTING CONTROLLER "J" LOCATED APPROXIMATELY 1350 FEET TO THE WEST.
8. VERIFY EXISTING POLE WIRING ROUTING AND MAKE ANY NECESSARY ADJUSTMENTS. REROUTE WIRING BETWEEN POLES IF IN GOOD CONDITION AND SUFFICIENT LENGTH. OTHERWISE, REPLACE EXISTING WIRING WITH NEW CABLE DUCT. THIS WORK IS COVERED UNDER MAINTAIN LIGHTING SYSTEM PAY ITEM. NO SEPARATE PAYMENT FOR MATERIALS OR LABOR.

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	LIGHTING PLAN - REMOVAL	SHEET 127	E

FILE NAME : P:\Transportation\STH 100\CADD\sheets\023508_lp-Removal.dgn PLOT DATE : 11/18/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 100.0000 sf / in.
WISDOT/CADDS SHEET 42

LIGHTING REMOVAL NOTES

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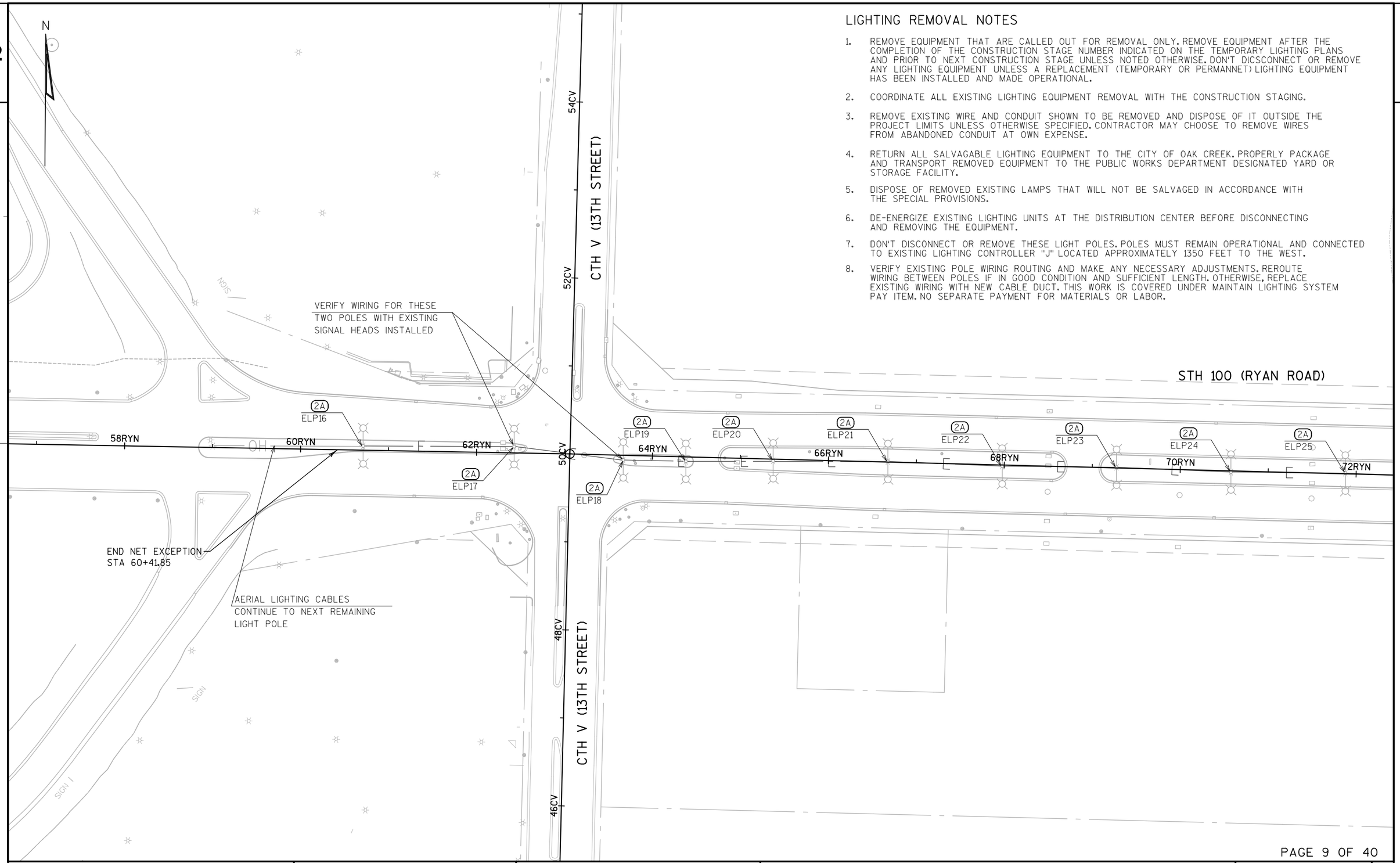

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	LIGHTING PLAN - REMOVAL	SHEET 128 E

FILE NAME : P:\Transportation\STH 100\CADD\sheets\023509_lp-Removal.dgn PLOT DATE : 11/18/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 100.0000 sf / in.
WISDOT/CADDS SHEET 42

N

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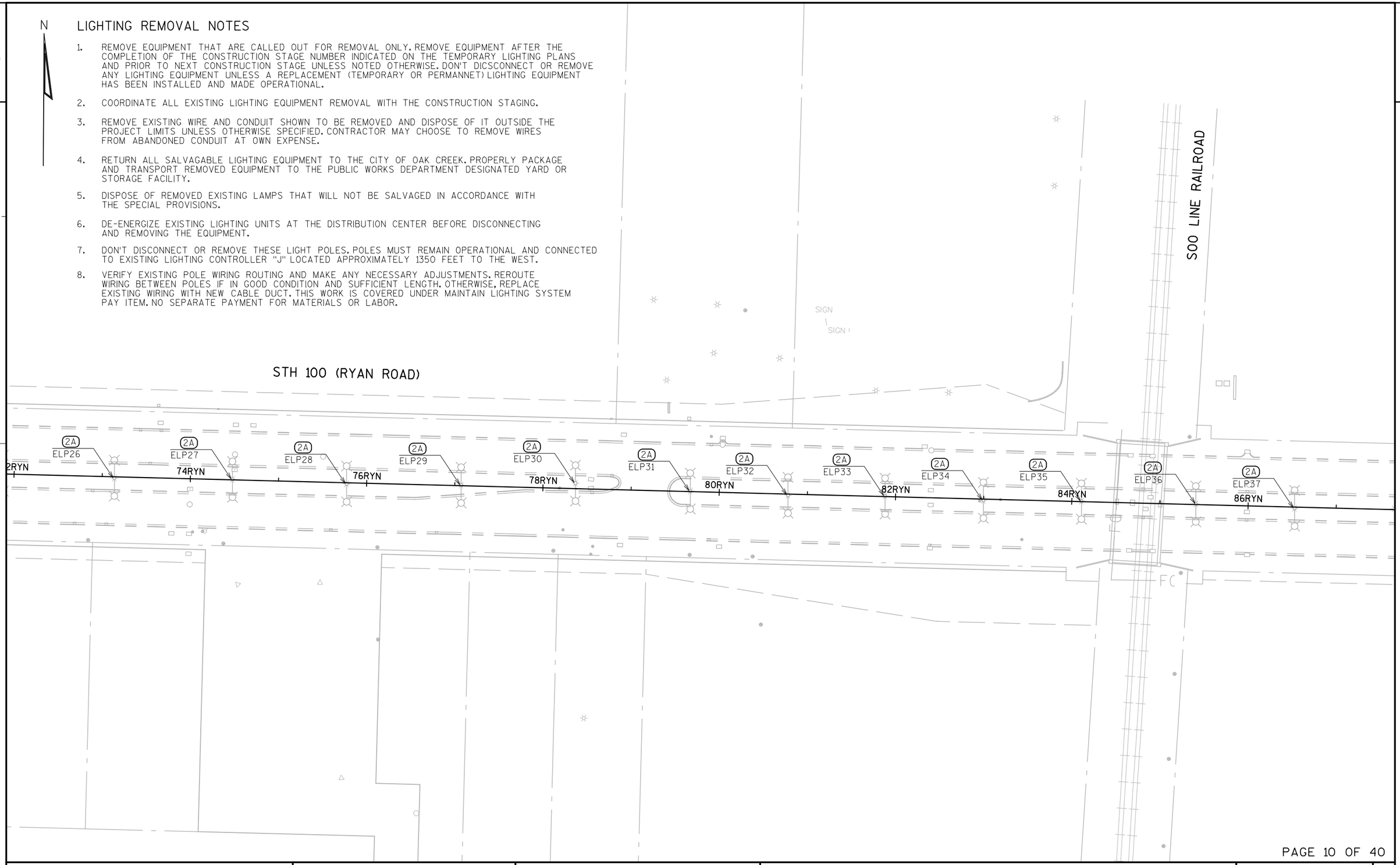

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	LIGHTING PLAN - REMOVAL	SHEET 129	E

FILE NAME : P:\Transportation\STH 100\CADD\sheets\0235010_lp-Removal.dgn PLOT DATE : 11/18/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 100.0000 sf / in.
WISDOT/CADDS SHEET 42

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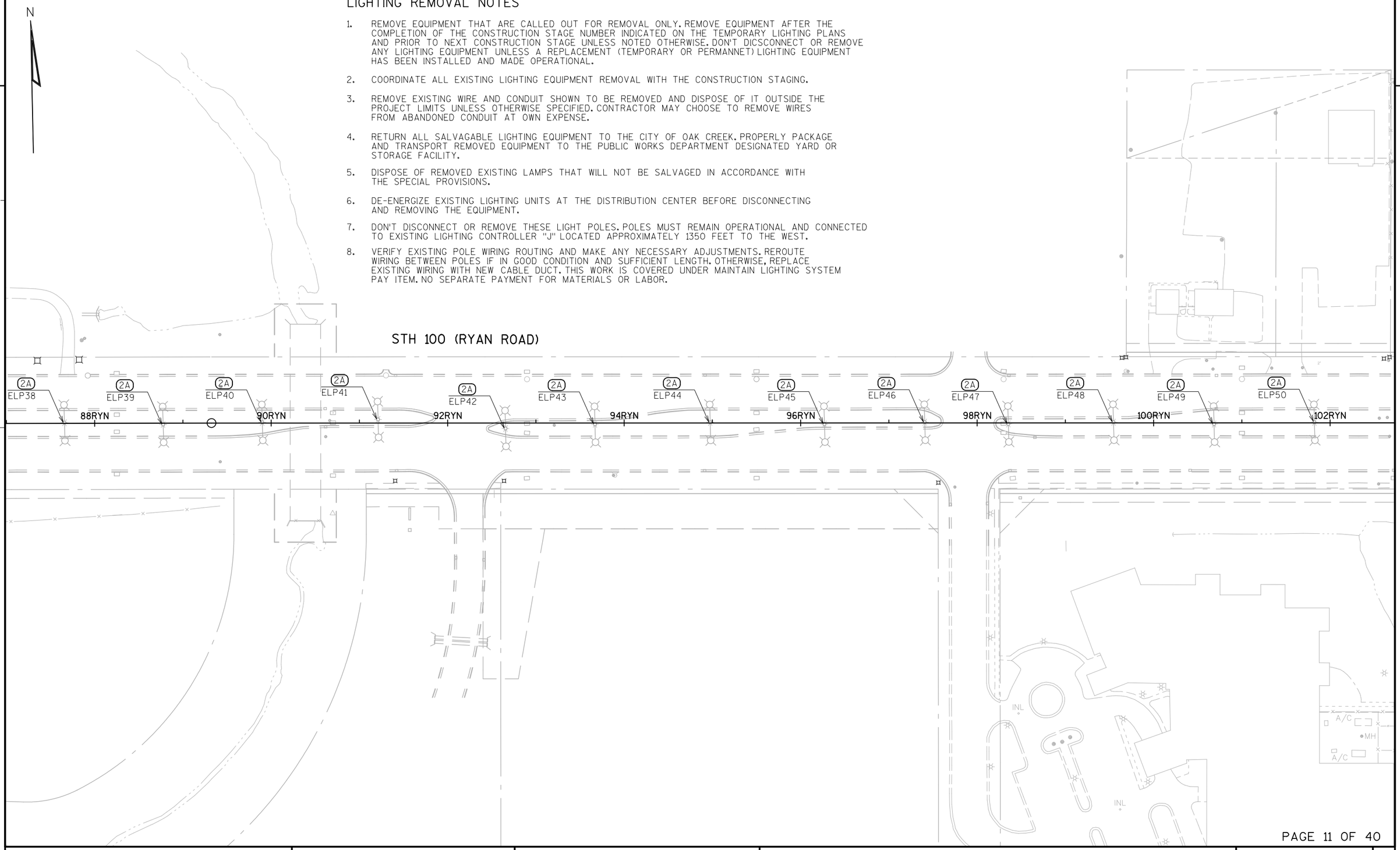
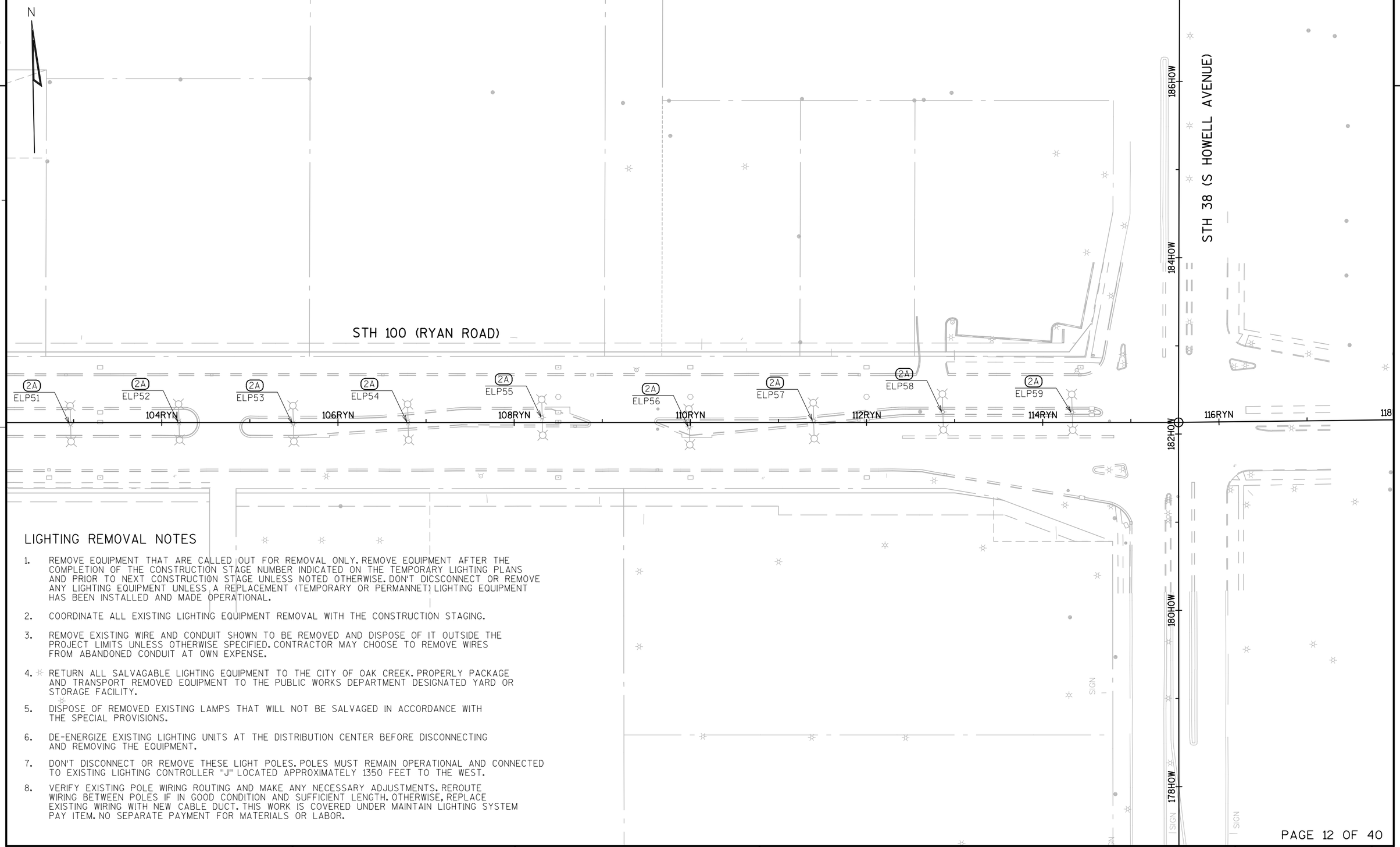


PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	LIGHTING PLAN - REMOVAL	SHEET 130	E

FILE NAME : P:\Transportation\STH 100\CADD\sheets\0235011_lp-Removal.dgn PLOT DATE : 11/18/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 100.0000 sf / in.
WISDOT/CADDS SHEET 42



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PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	LIGHTING PLAN - REMOVAL	SHEET 131	E

FILE NAME : P:\Transportation\STH 100\CADD\sheets\0235012_lp-Removal.dgn PLOT DATE : 11/18/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 100.0000 sf / in.
WISDOT/CADDS SHEET 42

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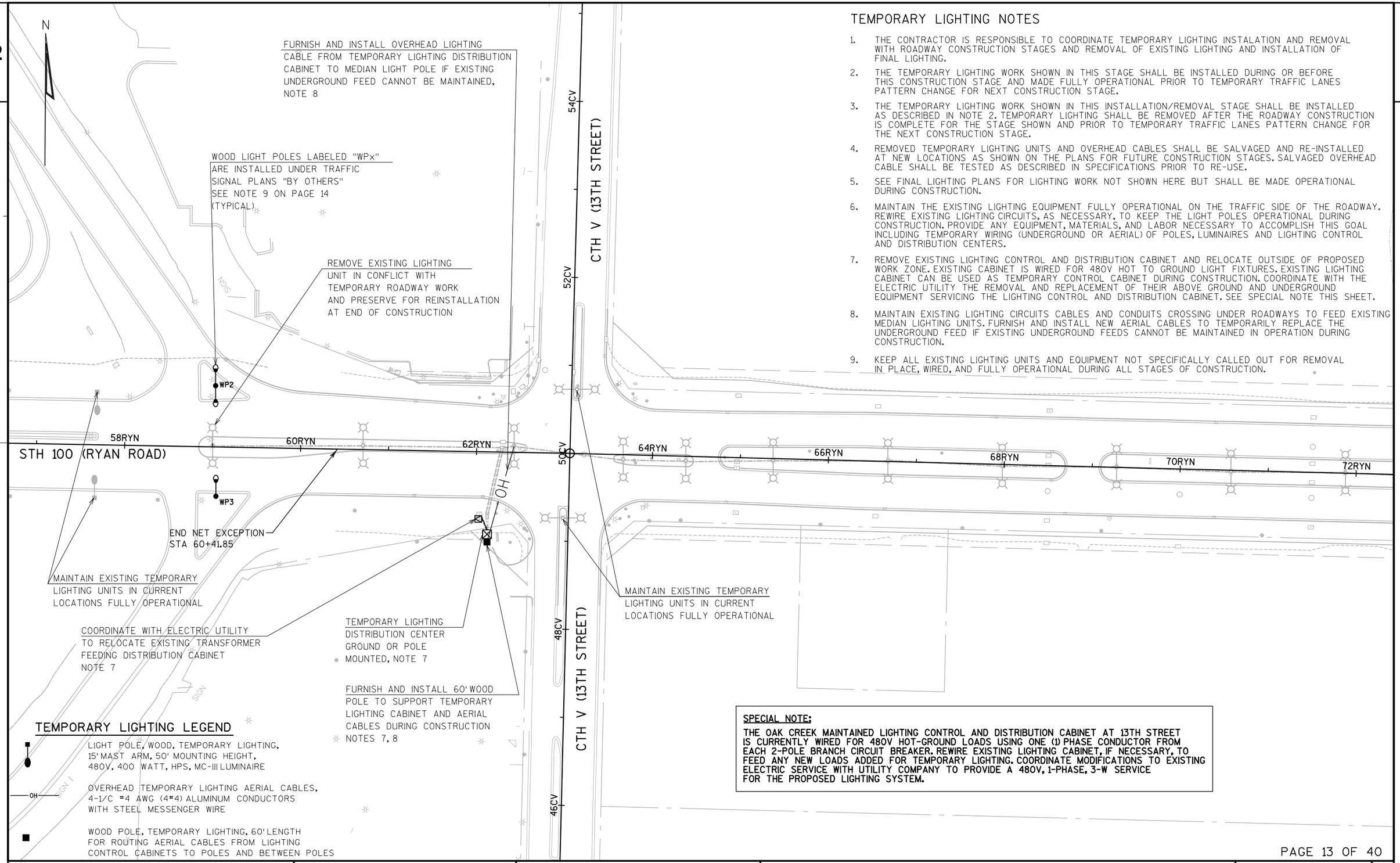

TEMPORARY LIGHTING LEGEND

LIGHT POLE, WOOD, TEMPORARY LIGHTING, 15' MAST ARM, 50' MOUNTING HEIGHT, 480V, 400 WATT, HPS, MC-III LUMINAIRE

OVERHEAD TEMPORARY LIGHTING AERIAL CABLES, 4-1/C #4 AWG (4#4) ALUMINUM CONDUCTORS WITH STEEL MESSENGER WIRE

WOOD POLE, TEMPORARY LIGHTING, 60' LENGTH FOR ROUTING AERIAL CABLES FROM LIGHTING CONTROL CABINETS TO POLES AND BETWEEN POLES

TEMPORARY LIGHTING NOTES

1. THE CONTRACTOR IS RESPONSIBLE TO COORDINATE TEMPORARY LIGHTING INSTALATION AND REMOVAL WITH ROADWAY CONSTRUCTION STAGES AND REMOVAL OF EXISTING LIGHTING AND INSTALLATION OF FINAL LIGHTING.
2. THE TEMPORARY LIGHTING WORK SHOWN IN THIS STAGE SHALL BE INSTALLED DURING OR BEFORE THIS CONSTRUCTION STAGE AND MADE FULLY OPERATIONAL PRIOR TO TEMPORARY TRAFFIC LANES PATTERN CHANGE FOR NEXT CONSTRUCTION STAGE.
3. THE TEMPORARY LIGHTING WORK SHOWN IN THIS INSTALLATION/REMOVAL STAGE SHALL BE INSTALLED AS DESCRIBED IN NOTE 2. TEMPORARY LIGHTING SHALL BE REMOVED AFTER THE ROADWAY CONSTRUCTION IS COMPLETE FOR THE STAGE SHOWN AND PRIOR TO TEMPORARY TRAFFIC LANES PATTERN CHANGE FOR THE NEXT CONSTRUCTION STAGE.
4. REMOVED TEMPORARY LIGHTING UNITS AND OVERHEAD CABLES SHALL BE SALVAGED AND RE-INSTALLED AT NEW LOCATIONS AS SHOWN ON THE PLANS FOR FUTURE CONSTRUCTION STAGES. SALVAGED OVERHEAD CABLE SHALL BE TESTED AS DESCRIBED IN SPECIFICATIONS PRIOR TO RE-USE.
5. SEE FINAL LIGHTING PLANS FOR LIGHTING WORK NOT SHOWN HERE BUT SHALL BE MADE OPERATIONAL DURING CONSTRUCTION.
6. MAINTAIN THE EXISTING LIGHTING EQUIPMENT FULLY OPERATIONAL ON THE TRAFFIC SIDE OF THE ROADWAY. REWIRE EXISTING LIGHTING CIRCUITS, AS NECESSARY, TO KEEP THE LIGHT POLES OPERATIONAL DURING CONSTRUCTION. PROVIDE ANY EQUIPMENT, MATERIALS, AND LABOR NECESSARY TO ACCOMPLISH THIS GOAL INCLUDING TEMPORARY WIRING (UNDERGROUND OR AERIAL) OF POLES, LUMINAIRES AND LIGHTING CONTROL AND DISTRIBUTION CENTERS.
7. REMOVE EXISTING LIGHTING CONTROL AND DISTRIBUTION CABINET AND RELOCATE OUTSIDE OF PROPOSED WORK ZONE. EXISTING CABINET IS WIRED FOR 480V HOT TO GROUND LIGHT FIXTURES. EXISTING LIGHTING CABINET CAN BE USED AS TEMPORARY CONTROL CABINET DURING CONSTRUCTION. COORDINATE WITH THE ELECTRIC UTILITY THE REMOVAL AND REPLACEMENT OF THEIR ABOVE GROUND AND UNDERGROUND EQUIPMENT SERVICING THE LIGHTING CONTROL AND DISTRIBUTION CABINET. SEE SPECIAL NOTE THIS SHEET.
8. MAINTAIN EXISTING LIGHTING CIRCUITS CABLES AND CONDUITS CROSSING UNDER ROADWAYS TO FEED EXISTING MEDIAN LIGHTING UNITS. FURNISH AND INSTALL NEW AERIAL CABLES TO TEMPORARILY REPLACE THE UNDERGROUND FEED IF EXISTING UNDERGROUND FEEDS CANNOT BE MAINTAINED IN OPERATION DURING CONSTRUCTION.
9. KEEP ALL EXISTING LIGHTING UNITS AND EQUIPMENT NOT SPECIFICALLY CALLED OUT FOR REMOVAL IN PLACE, WIRED, AND FULLY OPERATIONAL DURING ALL STAGES OF CONSTRUCTION.

SPECIAL NOTE:

THE OAK CREEK MAINTAINED LIGHTING CONTROL AND DISTRIBUTION CABINET AT 13TH STREET IS CURRENTLY WIRED FOR 480V HOT-GROUND LOADS USING ONE (1) PHASE CONDUCTOR FROM EACH 2-POLE BRANCH CIRCUIT BREAKER. REWIRE EXISTING LIGHTING CABINET, IF NECESSARY, TO FEED ANY NEW LOADS ADDED FOR TEMPORARY LIGHTING. COORDINATE MODIFICATIONS TO EXISTING ELECTRIC SERVICE WITH UTILITY COMPANY TO PROVIDE A 480V, 1-PHASE, 3-W SERVICE FOR THE PROPOSED LIGHTING SYSTEM.

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	LIGHTING PLAN - TEMPORARY - STAGE 1A	SHEET 132	E

FILE NAME : P:\Transportation\STH 100\CADD\sheets\0235013_lp-Temp Stg 1A-13th.dgn PLOT DATE : 11/18/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 100.0000 sf / in.
WISDOT/CADDS SHEET 42

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N

MAINTAIN FULL OPERATION OF EXISTING LIGHTING UNITS TO REMAIN. (TYP.)

COORDINATE WITH ELECTRIC UTILITY TO RELOCATE THEIR EXISTING UTILITY TRANSFORMER FEEDING DISTRIBUTION CABINET BEFORE STAGE 1B BEGINS

RELOCATE EXISTING DISTRIBUTION CENTER NOTE 8

4#4 AERIAL CABLE ALUMINUM WITH MESSENGER WIRE

4#4 AERIAL CABLE ALUMINUM WITH MESSENGER WIRE

FURNISH AND INSTALL TEMPORARY LIGHTING UNIT TO REPLACE MEDIAN MOUNTED LIGHT POLE IN THIS STAGE STA 32+22, 78'LT

4#4 AERIAL CABLE ALUMINUM WITH MESSENGER WIRE

FURNISH AND INSTALL TEMPORARY LIGHTING UNIT TO REPLACE MEDIAN MOUNTED LIGHT POLE IN THIS STAGE STA 39+32, 98'LT

4#4 AERIAL CABLE ALUMINUM WITH MESSENGER WIRE

FURNISH AND INSTALL NEW TEMPORARY LIGHTING CABLES TO RE-ROUTE EXISTING CIRCUITS AWAY FROM TEMPORARY TRAFFIC SIGNAL INSTALLATION

S 22ND STREET

54TSN

52TSN

50TSN

STH 100 (RYAN ROAD)

WP2

WP3

WP4

28RYN

30RYN

32RYN

34RYN

36RYN

38RYN

40RYN

42RYN

50LT

ELPB08 EXISTING

2-3" C, PVC PROPOSED

FURNISH AND INSTALL TEMPORARY LIGHTING UNIT TO REPLACE MEDIAN MOUNTED LIGHT POLE IN THIS STAGE STA 32+24, 84'RT

4#4 AERIAL CABLE WITH MESSENGER WIRE

MAINTAIN FULL OPERATION OF EXISTING LIGHTING UNITS TO REMAIN. (TYPICAL)

S 20TH STREET

48TT

46TT

BEGIN NET EXCEPTION STA 39+47.65

FURNISH AND INSTALL TEMPORARY LIGHTING UNIT TO REPLACE MEDIAN MOUNTED LIGHT POLE IN THIS STAGE STA 39+36, 96'RT

REMOVE THIS SEGMENT OF EXISTING LIGHTING AERIAL CABLES BEFORE TEMPORARY SIGNALS ARE INSTALLED

WOOD LIGHT POLES LABELED "WPx" ARE INSTALLED UNDER TRAFFIC SIGNAL PLANS "BY OTHERS" SEE NOTE 9

TEMPORARY LIGHTING NOTES

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2. THE TEMPORARY LIGHTING WORK SHOWN IN THIS STAGE SHALL BE INSTALLED DURING OR BEFORE THIS CONSTRUCTION STAGE AND MADE FULLY OPERATIONAL PRIOR TO TEMPORARY TRAFFIC LANES PATTERN CHANGE FOR NEXT CONSTRUCTION STAGE.
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5. SEE FINAL LIGHTING PLANS FOR LIGHTING WORK NOT SHOWN HERE BUT SHALL BE MADE OPERATIONAL DURING CONSTRUCTION.
6. KEEP ALL EXISTING LIGHTING UNITS AND EQUIPMENT NOT SPECIFICALLY CALLED OUT FOR REMOVAL IN PLACE, WIRED, AND FULLY OPERATIONAL DURING ALL STAGES OF CONSTRUCTION.
7. VERIFY THE NUMBER OF CONDUCTORS NEEDED FOR EACH AERIAL CABLE SEGMENT BASED ON EXISTING LIGHT POLE CIRCUITING, AND MAKE ANY NECESSARY ADJUSTMENTS FROM WHAT IS SPECIFIED ON THESE PLANS.
8. EXISTING LIGHTING DISTRIBUTION CABINET CAN REMAIN IN PLACE DURING THIS STAGE, BUT REMOVE AND RELOCATE ON A NEW BASE BEFORE STAGE 1B CONSTRUCTION.
9. SEE TRAFFIC SIGNAL PLANS FOR THESE TEMPORARY SIGNAL WOOD POLES WITH TEMPORARY LIGHTS. QUANTITIES AND WIRING FOR THESE POLES ARE INCLUDED UNDER THE SIGNAL PLANS.

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	LIGHTING PLAN - TEMPORARY - STAGE 1A	SHEET 133	E

FILE NAME : P:\Transportation\STH 100\CADD\sheets\0235014_lp-Temp Stg 1A-22nd.dgn PLOT DATE : 11/18/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 100.0000 sf / in.

WISDOT/CADDS SHEET 42

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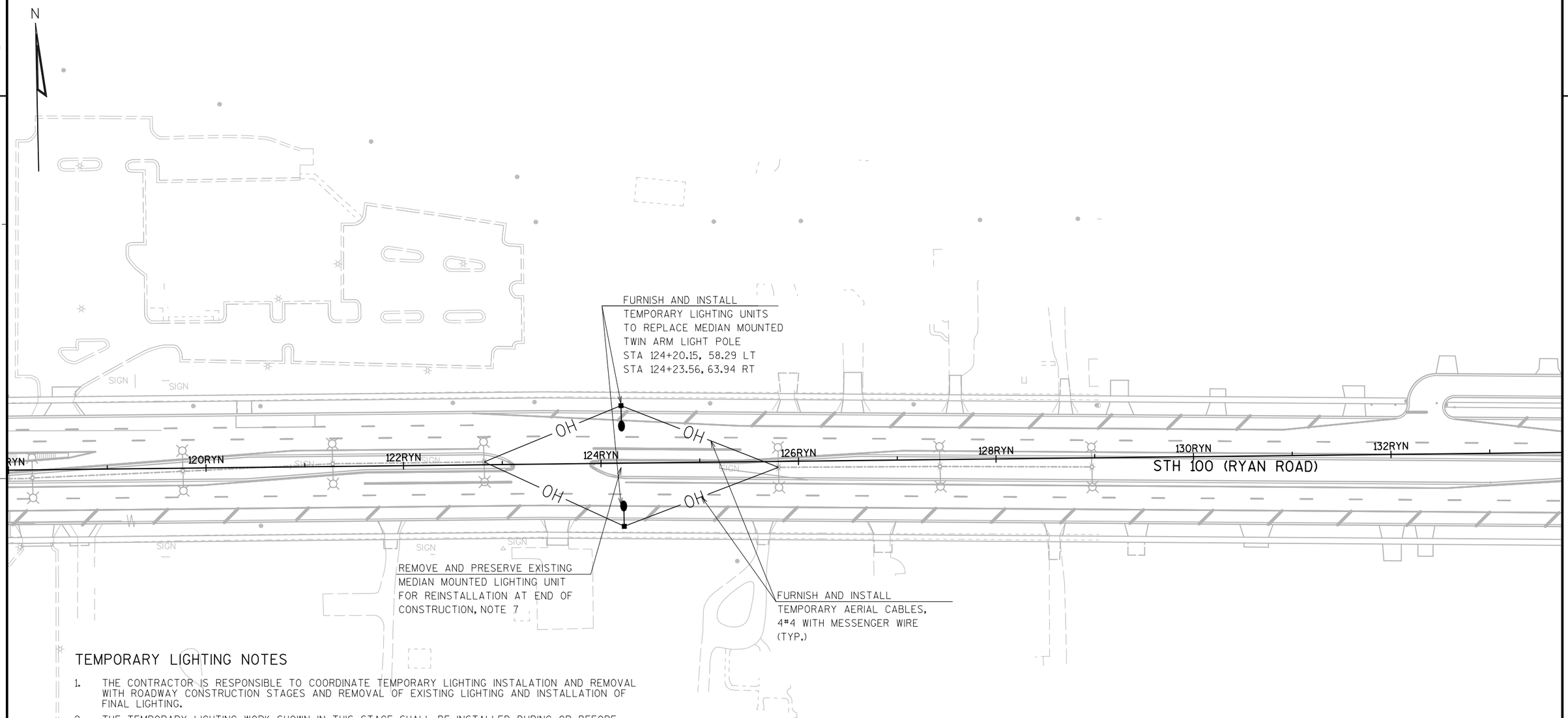

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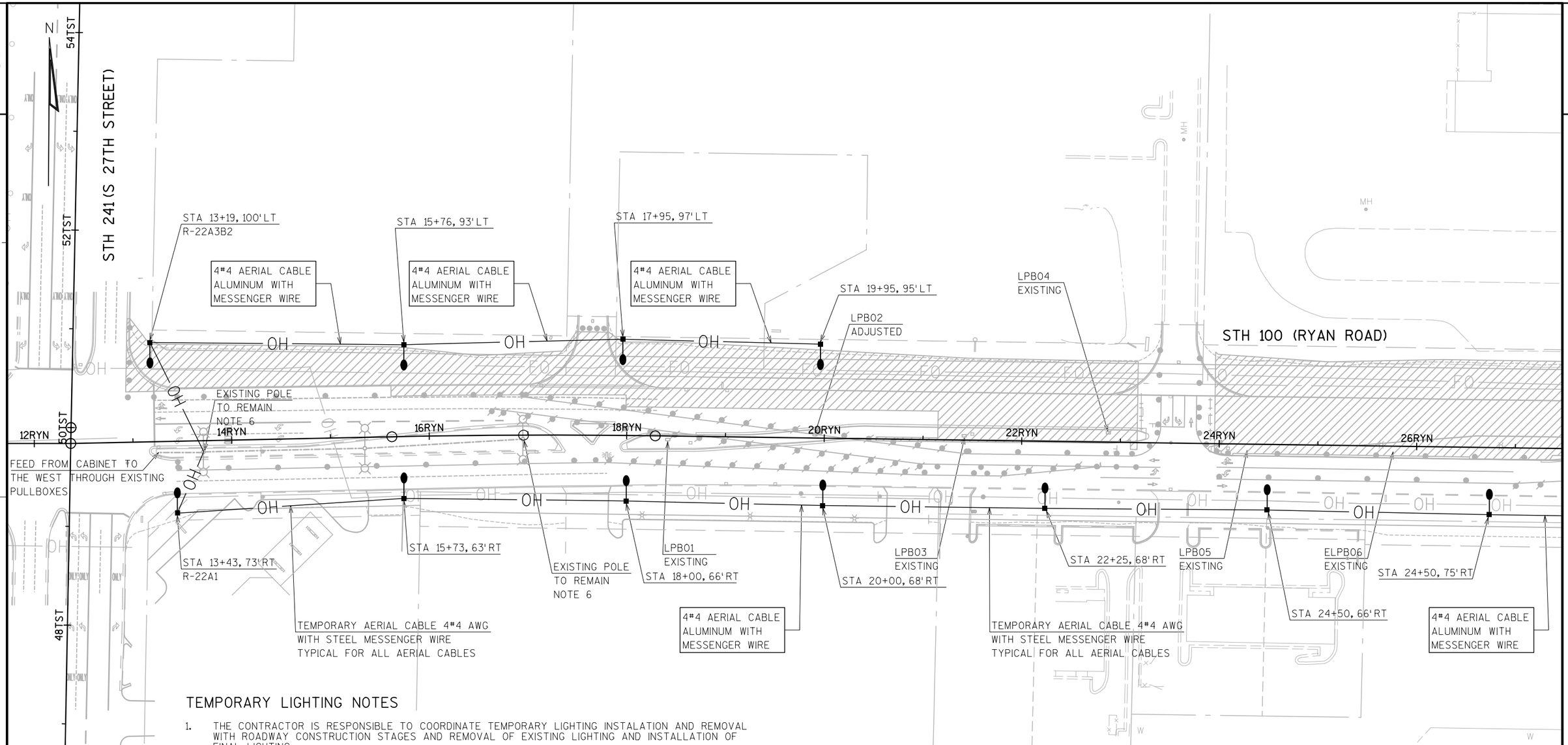
6. KEEP ALL EXISTING LIGHTING UNITS AND EQUIPMENT NOT SPECIFICALLY CALLED OUT FOR REMOVAL IN PLACE, WIRED, AND FULLY OPERATIONAL DURING ALL STAGES OF CONSTRUCTION.
7. REMOVE AND PRESERVE EXISTING POLE FOR REINSTALLATION AT END OF CONSTRUCTION. KEEP POLE IN EXISTING CONDITION FREE FROM DAMAGE. ALL ADDITIONAL LABOR AND EQUIPMENT FOR THIS WORK WILL BE PAID FOR UNDER "MAINTAIN LIGHTING SYSTEM CITY OF OAK CREEK".

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	LIGHTING PLAN - TEMPORARY - STAGE 1A	SHEET 134	E

FILE NAME : P:\Transportation\STH 100\CADD\sheets\0235015_lp-Temp Stg 1A-38.dgn PLOT DATE : 11/18/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 100.0000 sf / in.
WISDOT/CADDS SHEET 42



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5. SEE FINAL LIGHTING PLANS FOR LIGHTING WORK NOT SHOWN HERE BUT SHALL BE MADE OPERATIONAL DURING CONSTRUCTION.
6. MAINTAIN THE EXISTING LIGHTING EQUIPMENT FULLY OPERATIONAL ON THE TRAFFIC SIDE OF THE ROADWAY. REWIRE EXISTING LIGHTING CIRCUITS, AS NECESSARY, TO KEEP THE LIGHT POLES OPERATIONAL DURING CONSTRUCTION. PROVIDE ANY EQUIPMENT, MATERIALS, AND LABOR NECESSARY TO ACCOMPLISH THIS GOAL INCLUDING TEMPORARY WIRING (UNDERGROUND OR OVERHEAD) OF POLES, LUMINAIRES AND LIGHTING CONTROL DISTRIBUTION CENTERS. PAYEMNT FOR THIS WORK IS UNDER "MAINTAIN LIGHTING SYSTEMS CITY OF OAK CREEK".

TEMPORARY LIGHTING LEGEND

- LIGHT POLE, WOOD, NEW TEMPORARY LIGHTING, 15' MAST ARM, 50' MOUNTING HEIGHT, 480V, 400 WATT, HPS, MC-III LUMINAIRE
- —OH— OVERHEAD TEMPORARY LIGHTING AERIAL CABLES, 4-1/C #4 AWG (4#4) ALUMINUM CONDUCTORS WITH STEEL MESSENGER WIRE
- WOOD POLE FOR TEMPORARY LIGHTING, 60' LENGTH FOR ROUTING AERIAL CABLES FROM LIGHTING CONTROL CABINETS TO POLES AND BETWEEN POLES

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	LIGHTING PLAN - TEMPORARY - STAGE 1B	SHEET 135	E

FILE NAME : P:\Transportation\STH 100\CADD\sheets\0235016_lp-Temp Stg 1B.dgn PLOT DATE : 11/18/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 100.0000 sf / in.
WISDOT/CADDS SHEET 42

2

N

MAINTAIN EXISTING LIGHTING UNITS TO REMAIN, FULLY OPERATIONAL (TYPICAL)

UTILITY TRANSFORMER, 240/480V, 1-PH, 3-W

RELOCATE EXISTING DISTRIBUTION CENTER

TEMPORARY LIGHTING DISTRIBUTION CENTER 200A, 240/480V, 1-PH, 3-W

COORDINATE RELOCATION OF EXISTING UTILITY TRANSFORMER

NEW 60' TEMPORARY WOOD POLE

INSTALL AERIAL CABLES AND ROUTE USING TEMPORARY POLES TO MAINTAIN THE EXISTING LIGHTING, IF NECESSARY

TEMPORARY LIGHTING UNIT INSTALLED UNDER TRAFFIC SIGNALS IN A PREVIOUS STAGE (TYPICAL)

BEGIN NET EXCEPTION STA 39+47.65

S 22ND STREET

STH 100 (RYAN ROAD)

54TSN

52TSN

50TSN

50TT

48TT

46TT

28RYN

30RYN

32RYN

34RYN

36RYN

38RYN

40RYN

42RYN

WP2

WP3

WP4

STA. 26+75, 68'LT

2-3" C, PVC PROPOSED

STA. 29+00, 68'LT

4#4 AERIAL CABLE ALUMINUM WITH MESSENGER WIRE

4#4 AERIAL CABLE ALUMINUM WITH MESSENGER WIRE

FURNISH AND INSTALL TEMPORARY LIGHTING UNIT TO REPLACE MEDIAN MOUNTED LIGHT POLE STA 32+23, 62.36 RT

STA. 30+84, 73'LT

TEMPORARY AERIAL CABLE 4#4 AWG WITH STEEL MESSENGER WIRE TYPICAL FOR ALL AERIAL CABLES

STA. 33+10, 67'LT

4#4 AERIAL CABLE ALUMINUM WITH MESSENGER WIRE

STA. 35+67, 78'LT

STA. 37+02, 95'LT

STA. 37+50, 67'LT

4#4 AERIAL CABLE ALUMINUM WITH MESSENGER WIRE

STA. 39+35, 96'LT

RELOCATED POLE MOUNTED UTILITY TRANSFORMER

MAINTAIN OPERATION OF EXISTING LIGHTS TO REMAIN DURING CONSTRUCTION (TYPICAL)

S 20TH STREET

TEMPORARY LIGHTING NOTES

1. THE CONTRACTOR IS RESPONSIBLE TO COORDINATE TEMPORARY LIGHTING INSTALATION AND REMOVAL WITH ROADWAY CONSTRUCTION STAGES AND REMOVAL OF EXISTING LIGHTING AND INSTALLATION OF FINAL LIGHTING.
2. THE TEMPORARY LIGHTING WORK SHOWN WITH INSTALLATION STAGE NUMBER SHALL BE INSTALLED DURING OR BEFORE THAT CONSTRUCTION STAGE AND MADE FULLY OPERATIONAL PRIOR TO TEMPORARY TRAFFIC LANES PATTERN CHANGE FOR NEXT CONSTRUCTION STAGE.
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4. REMOVED TEMPORARY LIGHTING UNITS AND OVERHEAD CABLES CAN BE SALVAGED AND RE-INSTALLED AT NEW LOCATIONS AS SHOWN ON THE PLANS FOR FUTURE CONSTRUCTION STAGES. SALVAGED OVERHEAD CABLE SHALL BE TESTED AS DESCRIBED IN SPECIFICATIONS PRIOR TO RE-USE.
5. SEE FINAL LIGHTING PLANS FOR LIGHTING WORK NOT SHOWN HERE BUT SHALL BE MADE OPERATIONAL DURING CONSTRUCTION.

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	LIGHTING PLAN - TEMPORARY - STAGE 1B	SHEET 136	E

FILE NAME : P:\Transportation\STH 100\CADD\sheets\0235017_lp-Temp Stg 1B.dgn PLOT DATE : 11/18/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 100.0000 sf / in.

WISDOT/CADDS SHEET 42

TEMPORARY LIGHTING NOTES

1. THE CONTRACTOR IS RESPONSIBLE TO COORDINATE TEMPORARY LIGHTING INSTALATION AND REMOVAL WITH ROADWAY CONSTRUCTION STAGES AND REMOVAL OF EXISTING LIGHTING AND INSTALLATION OF FINAL LIGHTING.
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5. SEE FINAL LIGHTING PLANS FOR LIGHTING WORK NOT SHOWN HERE BUT SHALL BE MADE OPERATIONAL DURING CONSTRUCTION.
6. MAINTAIN THE EXISTING LIGHTING EQUIPMENT FULLY OPERATIONAL ON THE TRAFFIC SIDE OF THE ROADWAY. REWIRE EXISTING LIGHTING CIRCUITS, AS NECESSARY, TO KEEP THE LIGHT POLES OPERATIONAL DURING CONSTRUCTION. PROVIDE ANY EQUIPMENT, MATERIALS, AND LABOR NECESSARY TO ACCOMPLISH THIS GOAL INCLUDING TEMPORARY WIRING (UNDERGROUND OR OVERHEAD) OF POLES, LUMINAIRES AND LIGHTING CONTROL DISTRIBUTION CENTERS. THIS WORK WILL BE PAID FOR UNDER "MAINTAIN LIGHTING SYSTEMS CITY OF OAK CREEK".
7. FURNISH AND INSTALL A TEMPORARY CITY OF OAK CREEK LIGHTING CONTROL AND DISTRIBUTION CABINET AS DESCRIBED IN THE CONTRACT SPECIFICATIONS AND PLANS. COORDINATE WITH THE ELECTRIC UTILITY THE REMOVAL AND REPLACEMENT OF THEIR ABOVE GROUND AND UNDERGROUND EQUIPMENT SERVICING THE LIGHTING CONTROL AND DISTRIBUTION CABINET. THE UTILITY TRANSFORMER MUST PROVIDE 240/480V, 1-PHASE, 3-WIRE SERVICE TO THE LIGHTING DISTRIBUTION CABINET. SEE SPECIAL NOTE THIS SHEET.

N

STH 100 (RYAN ROAD)

CTH V (13TH STREET)

54CV

52CV

50CV

48CV

46CV

58RYN 60RYN 62RYN 64RYN 66RYN 68RYN 70RYN 72RYN

4#4 AERIAL CABLE ALUMINUM WITH MESSENGER WIRE

END NET EXCEPTION STA 60+41.85

STA. 60+36, 73' RT

COORDINATE WITH ELECTRIC UTILITY THE REMOVAL AND RELOCATION OF THEIR EQUIPMENT

TEMPORARY CITY OF OAK CREEK LIGHTING DISTRIBUTION CABINET "T-13" 200A, 240/480V, 1-PH, 3-W NOTE 7

STA. 62+14, 102' RT

STA. 63+94, 58' RT

4#4 AERIAL CABLE ALUMINUM WITH MESSENGER WIRE

STA. 66+18, 67' RT

4#4 AERIAL CABLE ALUMINUM WITH MESSENGER WIRE

STA. 68+44, 61' RT

STA. 70+70, 62' RT

TEMPORARY AERIAL CABLE 4#4 AWG WITH STEEL MESSENGER WIRE TYPICAL FOR ALL AERIAL CABLES

SPECIAL NOTE:

THE OAK CREEK MAINTAINED LIGHTING CONTROL AND DISTRIBUTION CABINET AT 13TH STREET IS CURRENTLY WIRED FOR 480V HOT-GROUND LOADS USING ONE (1) PHASE CONDUCTOR FROM EACH 2-POLE BRANCH CIRCUIT BREAKER. REWIRE EXISTING LIGHTING CABINET, IF NECESSARY, TO FEED EXISTING AND NEW LOADS ADDED FOR TEMPORARY LIGHTING. COORDINATE MODIFICATIONS TO EXISTING ELECTRIC SERVICE WITH UTILITY COMPANY TO PROVIDE A 240/480V, 1-PHASE, 3-WIRE SERVICE FOR THE PROPOSED LIGHTING SYSTEM.

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	LIGHTING PLAN - TEMPORARY - STAGE 1B	SHEET 137	E

FILE NAME : P:\Transportation\STH 100\CADD\sheets\0235018_lp-Temp Stg 1B.dgn PLOT DATE : 11/18/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 100.0000 sf / in.
WISDOT/CADDS SHEET 42

2

N

TEMPORARY LIGHTING NOTES

1. THE CONTRACTOR IS RESPONSIBLE TO COORDINATE TEMPORARY LIGHTING INSTALATION AND REMOVAL WITH ROADWAY CONSTRUCTION STAGES AND REMOVAL OF EXISTING LIGHTING AND INSTALLATION OF FINAL LIGHTING.
2. THE TEMPORARY LIGHTING WORK SHOWN WITH INSTALLATION STAGE NUMBER SHALL BE INSTALLED DURING OR BEFORE THAT CONSTRUCTION STAGE AND MADE FULLY OPERATIONAL PRIOR TO TEMPORARY TRAFFIC LANES PATTERN CHANGE FOR NEXT CONSTRUCTION STAGE.
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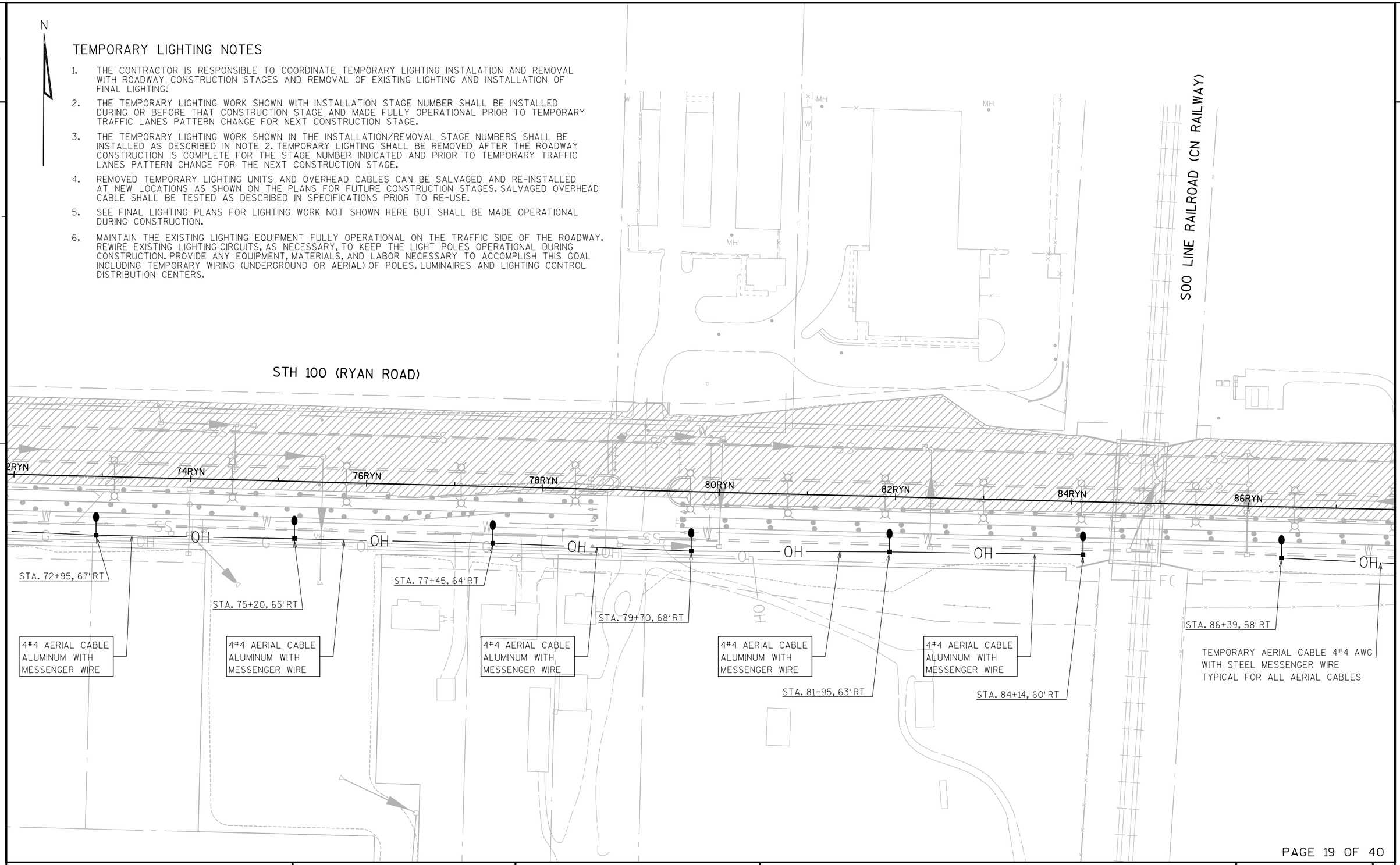

TEMPORARY LIGHTING NOTES

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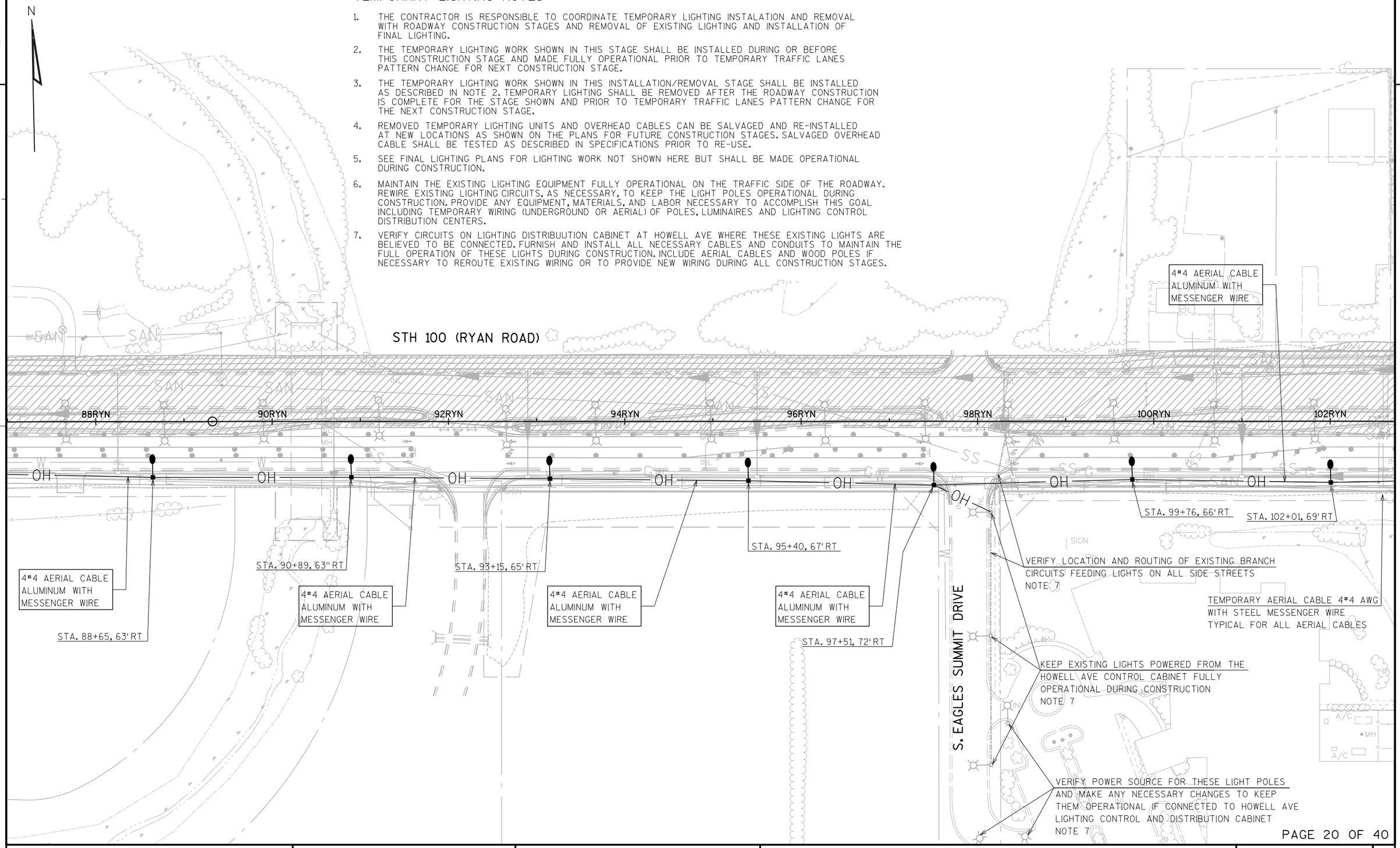
7. VERIFY CIRCUITS ON LIGHTING DISTRIBUUTION CABINET AT HOWELL AVE WHERE THESE EXISTING LIGHTS ARE BELIEVED TO BE CONNECTED. FURNISH AND INSTALL ALL NECESSARY CABLES AND CONDUITS TO MAINTAIN THE FULL OPERATION OF THESE LIGHTS DURING CONSTRUCTION. INCLUDE AERIAL CABLES AND WOOD POLES IF NECESSARY TO REROUTE EXISTING WIRING OR TO PROVIDE NEW WIRING DURING ALL CONSTRUCTION STAGES.



TEMPORARY LIGHTING NOTES

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7. FURNISH AND INSTALL A NEW CITY OF OAK CREEK LIGHTING CONTROL AND DISTRIBUTION CABINET AS DESCRIBED IN THE CONTRACT SPECIFICATIONS AND PLANS. EXISTING LIGHTING CONTROL AND DISTRIBUTION CABINET CANNOT BE REUSED UNLESS IT IS REWIRED FOR 480V PHASE-PHASE LIGHT FIXTURES. COORDINATE WITH THE ELECTRIC UTILITY THE REWIRING OR REPLACEMET OF THE EXISTING UTILITY TRANSFORMER TO PROVIDE 240/480V, 1-PHASE, 3-WIRE SERVICE TO THE LIGHTING DISTRIBUTION CABINET. SEE SPECIAL NOTE THIS SHEET.

N

STH 38 (S HOWELL AVENUE)

186HOW
184HOW
182HOW
180HOW
178HOW

104RYN 106RYN 108RYN 110RYN 112RYN 114RYN 116RYN 118

STH 100 (RYAN ROAD)

TEMPORARY AERIAL CABLE 4#4 AWG WITH STEEL MESSENGER WIRE TYPICAL FOR ALL AERIAL CABLES

USE EXISTING UNDERGROUND CONDUITS AND PULLBOXES, IF NECESSARY, TO MAINTAIN THE OPERATION OF ALL EXISTING LIGHTS TO REMAIN

STA. 104+26, 65' RT

4#4 AERIAL CABLE ALUMINUM WITH MESSENGER WIRE

STA. 106+51, 69' RT

4#4 AERIAL CABLE ALUMINUM WITH MESSENGER WIRE

STA. 108+76, 68' RT

4#4 AERIAL CABLE ALUMINUM WITH MESSENGER WIRE

STA. 109+01, 67' RT

COORDINATE WITH ELECTRIC UTILITY THE REPLACEMENT OF EXISTING POWER TRANSFORMER, NOTE 7

STA. 113+67, 77' RT

FURNISH AND INSTALL 60' WOOD POLE

CITY OF OAK CREEK TEMPORARY LIGHTING DISTRIBUTION CABINET 200A, 240/480V, 1-PH, 3-WIRE NOTE 7

MAINTAIN OPERATION OF EXISTING LIGHTS TO REMAIN DURING CONSTRUCTION (TYPICAL)

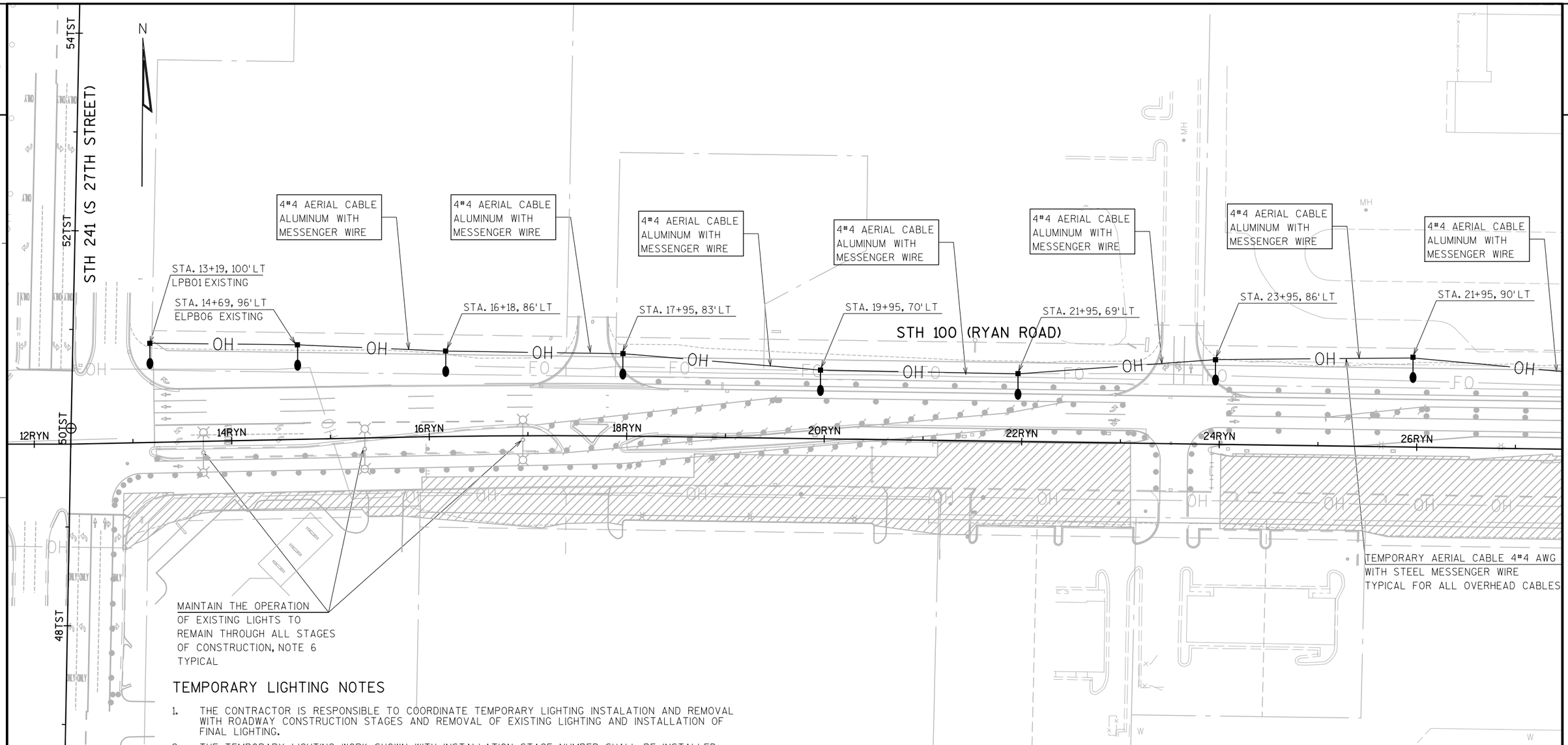
SPECIAL NOTE:

THE OAK CREEK MAINTAINED LIGHTING CONTROL AND DISTRIBUTION CABINET AT 13TH STREET IS CURRENTLY WIRED FOR 480V HOT-GROUND LOADS USING ONE (1) PHASE CONDUCTOR FROM EACH 2-POLE BRANCH CIRCUIT BREAKER. REWIRE EXISTING LIGHTING CABINET, IF NECESSARY, TO FEED EXISTING AND NEW LOADS ADDED FOR TEMPORARY LIGHTING. COORDINATE MODIFICATIONS TO EXISTING ELECTRIC SERVICE WITH UTILITY COMPANY TO PROVIDE A 240/480V, 1-PHASE, 3-WIRE SERVICE FOR THE PROPOSED LIGHTING SYSTEM.

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	LIGHTING PLAN - TEMPORARY - STAGE 1B	SHEET 140	E

FILE NAME : P:\Transportation\STH 100\CADD\sheets\0235021_lp-Temp Stg 1B.dgn PLOT DATE : 11/18/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 100.0000 sf / in.
WISDOT/CADDS SHEET 42

2



TEMPORARY LIGHTING NOTES

1. THE CONTRACTOR IS RESPONSIBLE TO COORDINATE TEMPORARY LIGHTING INSTALATION AND REMOVAL WITH ROADWAY CONSTRUCTION STAGES AND REMOVAL OF EXISTING LIGHTING AND INSTALLATION OF FINAL LIGHTING.
2. THE TEMPORARY LIGHTING WORK SHOWN WITH INSTALLATION STAGE NUMBER SHALL BE INSTALLED DURING OR BEFORE THAT CONSTRUCTION STAGE AND MADE FULLY OPERATIONAL PRIOR TO TEMPORARY TRAFFIC LANES PATTERN CHANGE FOR NEXT CONSTRUCTION STAGE.
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6. MAINTAIN THE EXISTING LIGHTING EQUIPMENT FULLY OPERATIONAL ON THE TRAFFIC SIDE OF THE ROADWAY. REWIRE EXISTING LIGHTING CIRCUITS, AS NECESSARY, TO KEEP THE EXISTING LIGHT POLES OPERATIONAL DURING CONSTRUCTION. PROVIDE ANY EQUIPMENT, MATERIALS, AND LABOR NECESSARY TO ACCOMPLISH THIS GOAL INCLUDING TEMPORARY WIRING (UNDERGROUND OR OVERHEAD) OF POLES, LUMINAIRES AND LIGHTING CONTROL AND DISTRIBUTION CENTERS. SEE LIGHTING STAGING PLANS FOR POLES THAT WILL BE REMOVED OR RELOCATED. THIS WORK WILL BE PAID FOR UNDER "MAINTAIN LIGHTING SYSTEMS CITY OF OAK CREEK".

TEMPORARY LIGHTING LEGEND

- LIGHT POLE, WOOD, TEMPORARY LIGHTING, 15' MAST ARM, 50' MOUNTING HEIGHT, 480V, 400 WATT, HPS, MC-III LUMINAIRE
- — OH — OVERHEAD TEMPORARY LIGHTING AERIAL CABLES, 4-1/C #4 AWG (4#4) ALUMINUM CONDUCTORS WITH STEEL MESSENGER WIRE
- ■ WOOD POLE FOR TEMPORARY LIGHTING, 60' LENGTH FOR ROUTING AERIAL CABLES FROM LIGHTING CONTROL CABINETS TO POLES AND BETWEEN POLES

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	LIGHTING PLAN - TEMPORARY - STAGE 2A	SHEET 141	E

FILE NAME : P:\Transportation\STH 100\CADD\sheets\0235022_lp-Temp Stg 2A.dgn PLOT DATE : 11/18/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 100.0000 sf / in.
WISDOT/CADDS SHEET 42

2

N

MAINTAIN EXISTING LIGHTING UNITS
TO REMAIN, FULLY OPERATIONAL
(TYPICAL)

TEMPORARY LIGHTING
DISTRIBUTION CENTER
INSTALLED IN A
PREVIOUS STAGE

RELOCATED UTILITY
TRANSFORMER FROM
STAGE 1B

RELOCATED
DISTRIBUTION
CENTER FROM
STAGE 1B

INSTALL AERIAL CABLES AND ROUTE
USING TEMPORARY POLES TO MAINTAIN
THE EXISTING LIGHTING, IF NECESSARY

FURNISH AND INSTALL
TEMPORARY LIGHTING UNIT
TO REPLACE MEDIAN MOUNTED
LIGHT POLE
STA 32+20, 85'LT

4#4 AERIAL CABLE
ALUMINUM WITH
MESSENGER WIRE

TEMPORARY AERIAL CABLE 4#4 AWG
WITH STEEL MESSENGER WIRE
TYPICAL FOR ALL AERIAL CABLES

STA. 27+95, 75'LT

STA. 29+95, 82'LT

STA. 34+45, 89'LT

STA. 35+55, 69'LT

STA. 36+54, 66'LT

STA. 37+27, 90'LT

STA. 39+27, 75'LT

54TSN

52TSN

50TSN

S 22ND STREET

STH 100 (RYAN ROAD)

28RYN

30RYN

32RYN

34RYN

36RYN

38RYN

40RYN

42RYN

55LT

ELPB08
EXISTING

2" C, RGS
INSTALLED
IN STAGE 1

BEGIN NET EXCEPTION
STA 39+47.65

48TT

MAINTAIN OPERATION OF
EXISTING LIGHTS TO REMAIN
DURING CONSTRUCTION
(TYPICAL)

46TT

S 20TH STREET

TEMPORARY LIGHTING NOTES

1. THE CONTRACTOR IS RESPONSIBLE TO COORDINATE TEMPORARY LIGHTING INSTALATION AND REMOVAL WITH ROADWAY CONSTRUCTION STAGES AND REMOVAL OF EXISTING LIGHTING AND INSTALLATION OF FINAL LIGHTING.
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5. SEE FINAL LIGHTING PLANS FOR LIGHTING WORK NOT SHOWN HERE BUT SHALL BE MADE OPERATIONAL DURING CONSTRUCTION.

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	LIGHTING PLAN - TEMPORARY - STAGE 2A	SHEET 142	E

FILE NAME : P:\Transportation\STH 100\CADD\sheets\0235023_lp-Temp Stg 2A.dgn PLOT DATE : 11/18/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 100.0000 sf / in.
WISDOT/CADDS SHEET 42

TEMPORARY LIGHTING NOTES

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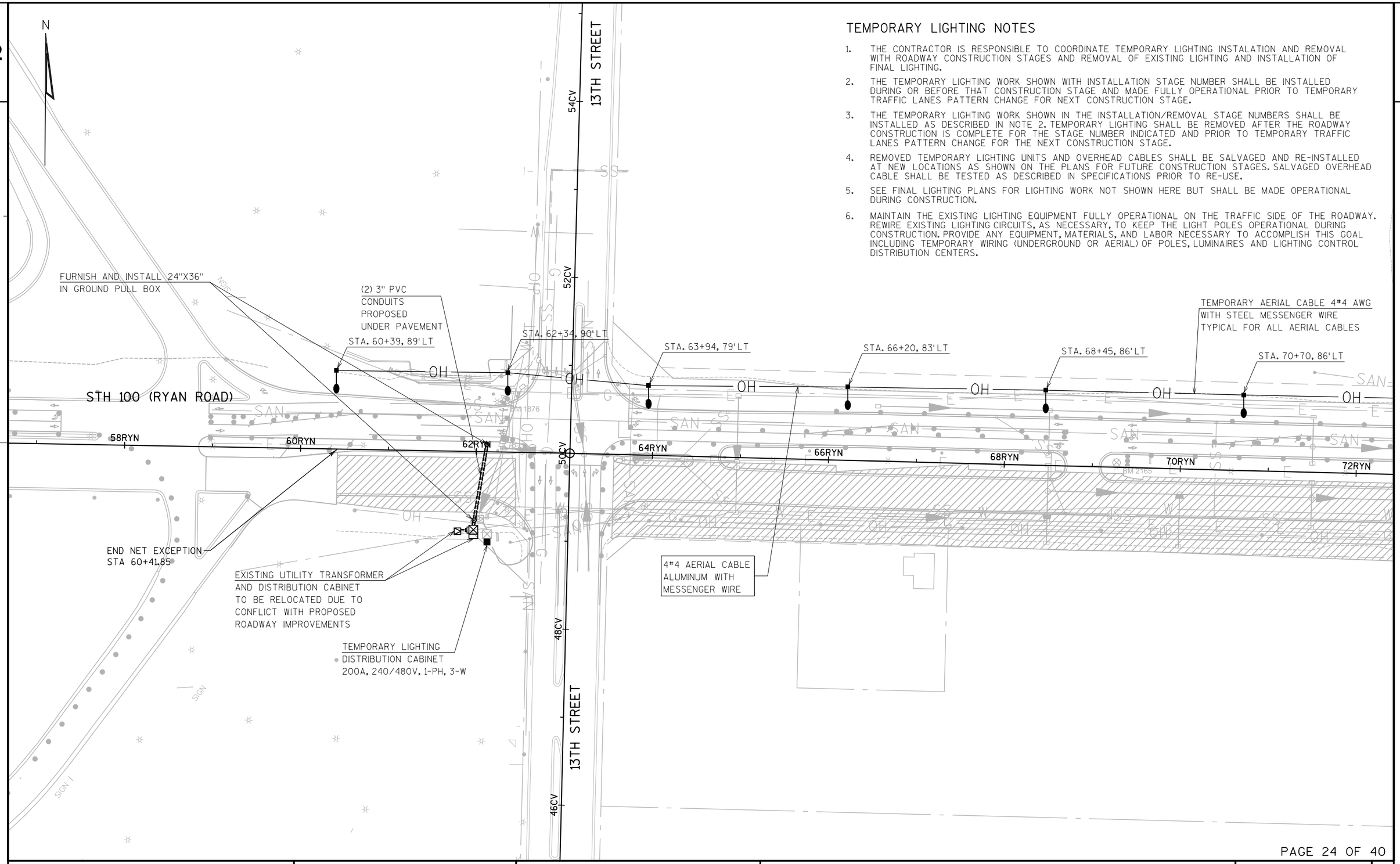
4. REMOVED TEMPORARY LIGHTING UNITS AND OVERHEAD CABLES SHALL BE SALVAGED AND RE-INSTALLED AT NEW LOCATIONS AS SHOWN ON THE PLANS FOR FUTURE CONSTRUCTION STAGES. SALVAGED OVERHEAD CABLE SHALL BE TESTED AS DESCRIBED IN SPECIFICATIONS PRIOR TO RE-USE.
5. SEE FINAL LIGHTING PLANS FOR LIGHTING WORK NOT SHOWN HERE BUT SHALL BE MADE OPERATIONAL DURING CONSTRUCTION.
6. MAINTAIN THE EXISTING LIGHTING EQUIPMENT FULLY OPERATIONAL ON THE TRAFFIC SIDE OF THE ROADWAY. REWIRE EXISTING LIGHTING CIRCUITS, AS NECESSARY, TO KEEP THE LIGHT POLES OPERATIONAL DURING CONSTRUCTION. PROVIDE ANY EQUIPMENT, MATERIALS, AND LABOR NECESSARY TO ACCOMPLISH THIS GOAL INCLUDING TEMPORARY WIRING (UNDERGROUND OR AERIAL) OF POLES, LUMINAIRES AND LIGHTING CONTROL DISTRIBUTION CENTERS.



PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	LIGHTING PLAN - TEMPORARY - STAGE 2A	SHEET 143	E

FILE NAME : P:\Transportation\STH 100\CADD\sheets\0235024_lp-Temp Stg 2A.dgn PLOT DATE : 11/18/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 100.0000 sf / in.
WISDOT/CADDS SHEET 42

2

N

TEMPORARY LIGHTING NOTES

1. THE CONTRACTOR IS RESPONSIBLE TO COORDINATE TEMPORARY LIGHTING INSTALATION AND REMOVAL WITH ROADWAY CONSTRUCTION STAGES AND REMOVAL OF EXISTING LIGHTING AND INSTALLATION OF FINAL LIGHTING.
2. THE TEMPORARY LIGHTING WORK SHOWN WITH INSTALLATION STAGE NUMBER SHALL BE INSTALLED DURING OR BEFORE THAT CONSTRUCTION STAGE AND MADE FULLY OPERATIONAL PRIOR TO TEMPORARY TRAFFIC LANES PATTERN CHANGE FOR NEXT CONSTRUCTION STAGE.
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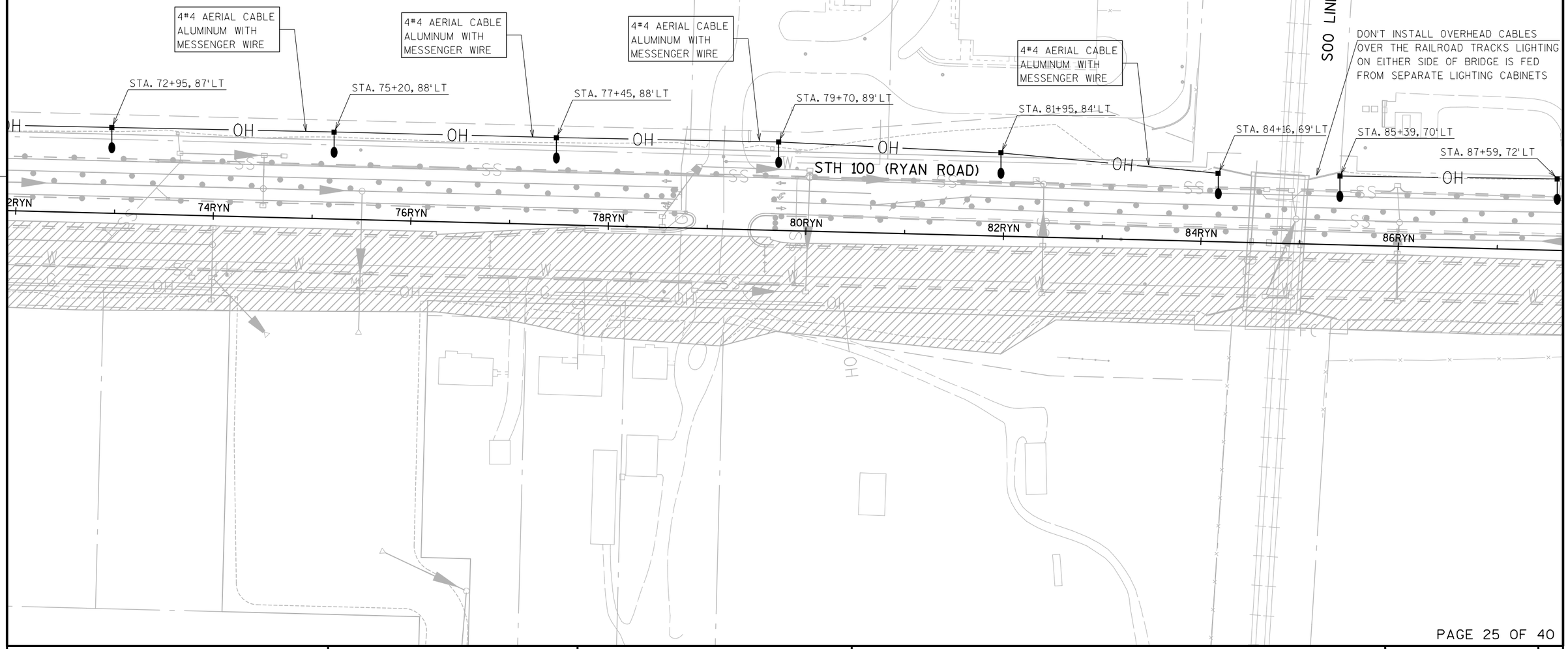

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	LIGHTING PLAN - TEMPORARY - STAGE 2A	SHEET 144	E

FILE NAME : P:\Transportation\STH 100\CADD\sheets\0235025_lp-Temp Stg 2A.dgn PLOT DATE : 11/18/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 100.0000 sf / in.
WISDOT/CADDS SHEET 42

2

TEMPORARY LIGHTING NOTES

N

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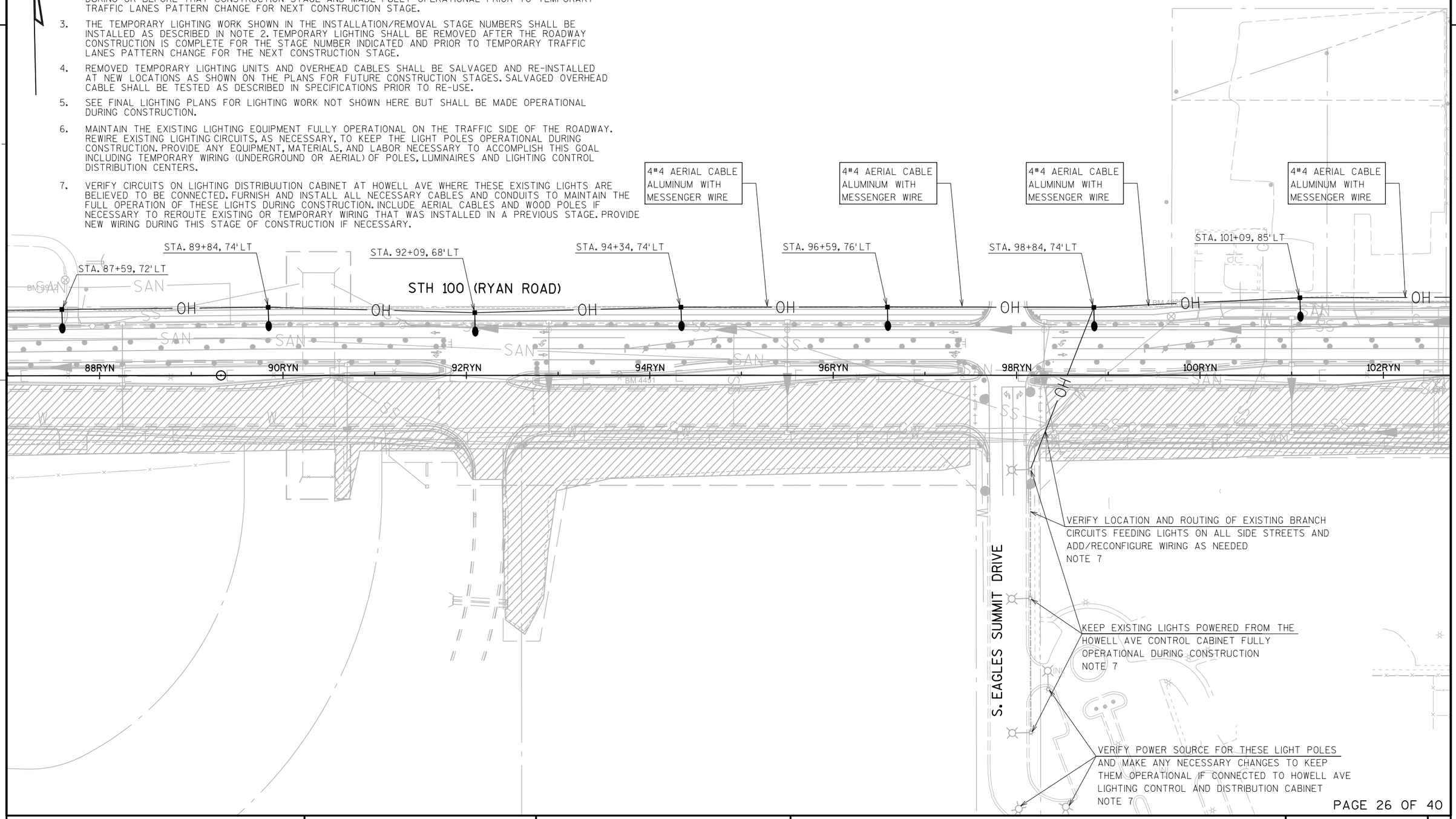
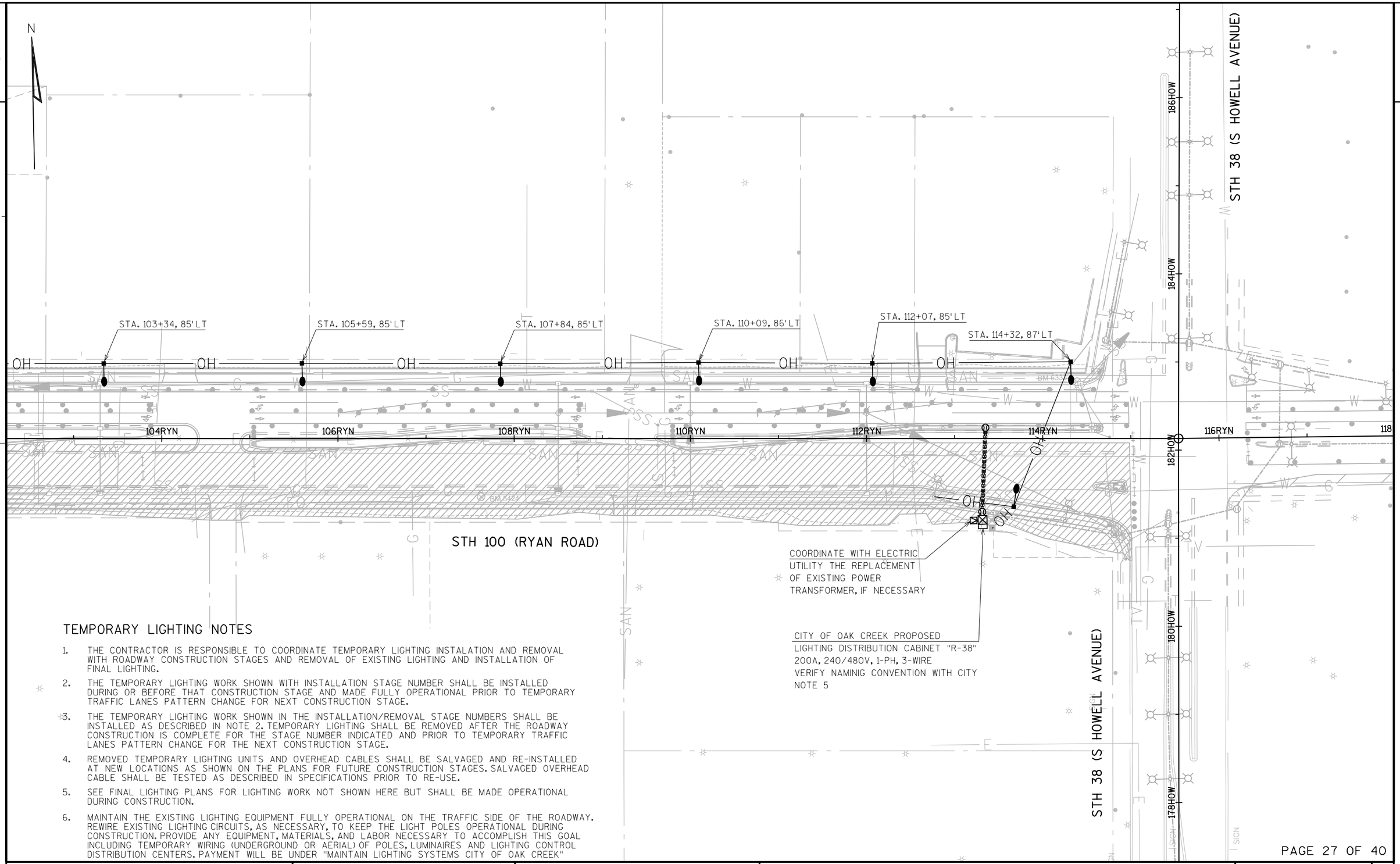
7. VERIFY CIRCUITS ON LIGHTING DISTRIBUUTION CABINET AT HOWELL AVE WHERE THESE EXISTING LIGHTS ARE BELIEVED TO BE CONNECTED. FURNISH AND INSTALL ALL NECESSARY CABLES AND CONDUITS TO MAINTAIN THE FULL OPERATION OF THESE LIGHTS DURING CONSTRUCTION. INCLUDE AERIAL CABLES AND WOOD POLES IF NECESSARY TO REROUTE EXISTING OR TEMPORARY WIRING THAT WAS INSTALLED IN A PREVIOUS STAGE. PROVIDE NEW WIRING DURING THIS STAGE OF CONSTRUCTION IF NECESSARY.





TEMPORARY LIGHTING NOTES

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5. SEE FINAL LIGHTING PLANS FOR LIGHTING WORK NOT SHOWN HERE BUT SHALL BE MADE OPERATIONAL DURING CONSTRUCTION.
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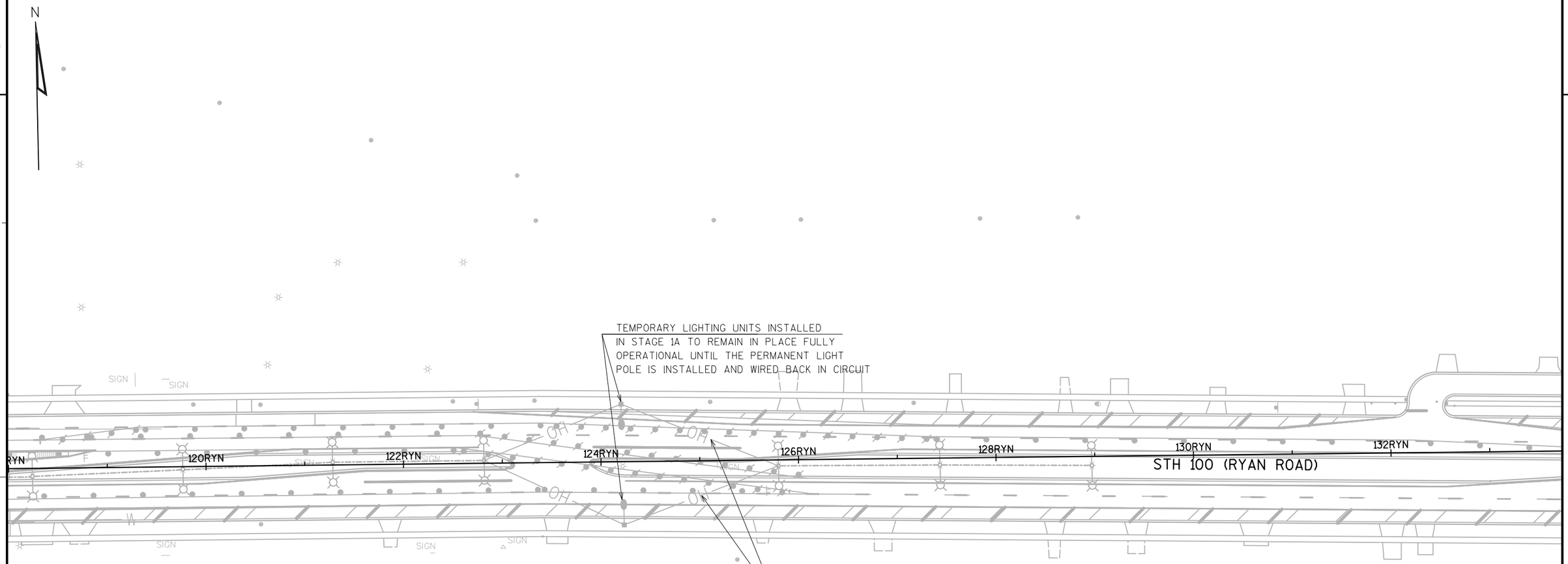
PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	LIGHTING PLAN - TEMPORARY - STAGE 2A	SHEET 146	E

FILE NAME : P:\Transportation\STH 100\CADD\sheets\0235027_lp-Temp Stg 2A.dgn PLOT DATE : 11/18/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 100.0000 sf / in.
WISDOT/CADDS SHEET 42

2



TEMPORARY LIGHTING NOTES

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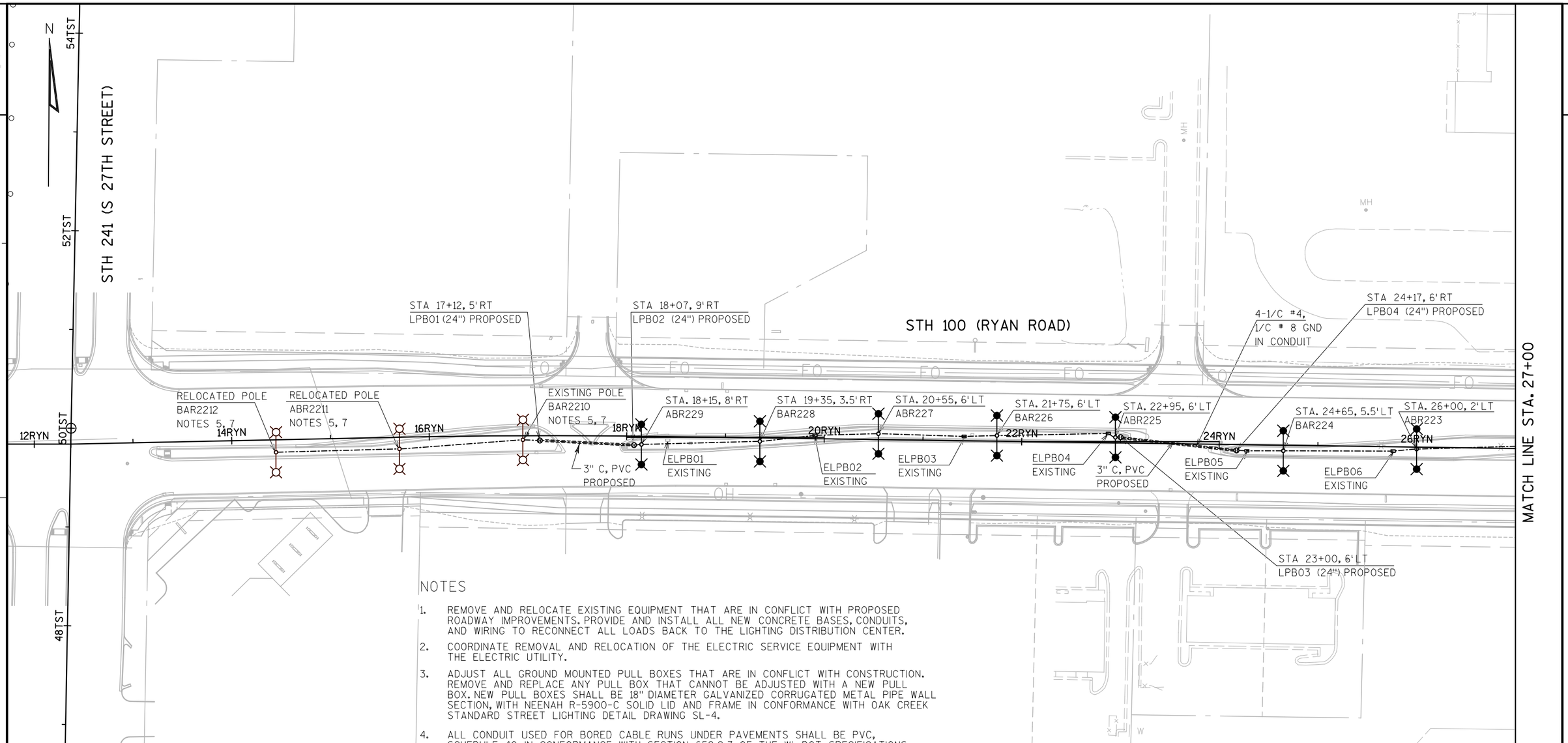
PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	LIGHTING PLAN - TEMPORARY - STAGE 2A	SHEET 147	E

FILE NAME : P:\Transportation\STH 100\CADD\sheets\0235028_lp-Temp Stg 2A.dgn PLOT DATE : 11/18/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 100.0000 sf / in.
WISDOT/CADDS SHEET 42



NOTES

1. REMOVE AND RELOCATE EXISTING EQUIPMENT THAT ARE IN CONFLICT WITH PROPOSED ROADWAY IMPROVEMENTS. PROVIDE AND INSTALL ALL NEW CONCRETE BASES, CONDUITS, AND WIRING TO RECONNECT ALL LOADS BACK TO THE LIGHTING DISTRIBUTION CENTER.
2. COORDINATE REMOVAL AND RELOCATION OF THE ELECTRIC SERVICE EQUIPMENT WITH THE ELECTRIC UTILITY.
3. ADJUST ALL GROUND MOUNTED PULL BOXES THAT ARE IN CONFLICT WITH CONSTRUCTION. REMOVE AND REPLACE ANY PULL BOX THAT CANNOT BE ADJUSTED WITH A NEW PULL BOX. NEW PULL BOXES SHALL BE 18" DIAMETER GALVANIZED CORRUGATED METAL PIPE WALL SECTION, WITH NEENAH R-5900-C SOLID LID AND FRAME IN CONFORMANCE WITH OAK CREEK STANDARD STREET LIGHTING DETAIL DRAWING SL-4.
4. ALL CONDUIT USED FOR BORED CABLE RUNS UNDER PAVEMENTS SHALL BE PVC, SCHEDULE 40 IN CONFORMANCE WITH SECTION 652.2.3 OF THE WisDOT SPECIFICATIONS. CONDUIT SHALL BE CAPPED ON BOTH ENDS UNTIL CABLING IS PLACED. FURNISH AND INSTALL 3" PVC CONDUITS UNDER PAVEMENTS, SIDEWALKS, AND DRIVEWAYS AND EXTEND ONE (1) FOOT BEYOND THE BACK OF CURB.
5. FURNISH AND INSTALL NEW LED LUMINAIRES AND MAST ARMS TO REPLACE EXISTING BRACKET MOUNTED HPS LUMINAIRES ON THESE CITY OF OAK CREEK POLES INSTALLED ON RYAN ROAD AT STH 241 (27TH STREET) INTERSECTION. PERFORM THIS WORK DURING DAYLIGHT HOURS WITHOUT DISRUPTION TO LIGHTING SYSTEM OPERATION. PROPERLY PACKAGE AND RETURN ALL REMOVED EQUIPMENT TO CITY OF OAK CREEK AS SPECIFIED IN THE CONTRACT SPECIFICATIONS.
6. SEE INTERSECTION LIGHTING INFORMATION DESIGNED BY OTHERS ON TRAFFIC SIGNAL PLANS IN THIS CONTRACT.
7. THESE THREE LIGHT POLES WERE CONNECTED TO EXISTING LIGHTING DISTRIBUTION CABINET LOCATED APPROXIMATELY 1350 FEET TO THE WEST ON THE NORTH SIDE OF RYAN ROAD. PROPOSED WIRING SHOWN ON THIS SHEET IS INTENDED TO CONNECT THESE THREE LIGHT POLES TO EXISTING CITY DISTRIBUTION CABINET LOCATED NEAR 22ND STREET.

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	LIGHTING PLAN - PROPOSED	SHEET 148	E

FILE NAME : P:\Transportation\STH 100\CADD\sheets\0235029_lp.dgn PLOT DATE : 11/18/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 100.0000 sf / in.
WISDOT/CADDS SHEET 42

2

N

MATCH LINE STA. 27+00

S 22ND STREET

54TSN

52TSN

50TSN

50TTT

48TT

46TT

STH 100 (RYAN ROAD)

STA 28+78, 67'LT
LPB06 (36") PROPOSED

PROPOSED OR RELOCATED
UTILITY TRANSFORMER
NOTE 2

RELOCATED OAK CREEK
LIGHTING DISTRIBUTION CENTER
AND METER PEDESTAL
NOTE 1

3" PVC
PROPOSED

FURNISH AND INSTALL NEW CABLE DUCT
IF NEEDED TO MAINTAIN THE OPERATION
OF THE EXISTING LIGHT POLES ON 22ND
STREET.

STA. 28+70, 8'LT
ABR221

2" C, PVC
EXISTING

STA. 30+05, 7'LT
CDR221

4-1/C #4
1/C #8 G.
IN CONDUIT

STA. 32+55, 8'RT
DCR222

STA. 33+80, 6'RT
CDR223

STA. 35+00, 0'LT
DCR224

3" C, PVC
PROPOSED

4-1/C #4
1/C #8 GND
IN CONDUIT

STA. 36+60, 69'LT
DR227

STA 36+04, 67'LT
LPB11 PROPOSED

STA. 35+90, 2'RT
CDR226

STA 37+32, 88'LT
LPB14 PROPOSED

STA. 37+40, 88'LT
CR228

STA. 37+40, 8'RT
DCR229

FURNISH & INSTALL
LPB15 (24") PULLBOX
STA. 39+50, 8'RT
FOR FUTURE USE

CONDUIT
STUBOUT

28RYN

30RYN

32RYN

34RYN

36RYN

38RYN

40RYN

42RYN

OH

STA. 27+35, 4'LT
BAR222

STA 28+78, 8'LT
LPB05 (36") PROPOSED

STA 30+54, 7'LT
LPB07 PROPOSED

3" C, PVC
PROPOSED

STA 31+79, 8'RT
LPB08 PROPOSED

STA 36+04, 2'RT
LPB10 PROPOSED

STA 37+32, 8'RT
LPB13 PROPOSED

STA. 38+40, 8'RT
CDR2210

STA. 39+40, 8'RT
DCR2211

STA. 35+69, 80'RT
CR225

STA 35+77, 80'RT
LPB09 PROPOSED

STA 36+46, 90'RT
LPB12 PROPOSED

BEGIN NET EXCEPTION
STA 39+47.65

MAINTAIN THE EXISTING POLE
MOUNTED UTILITY TRANSFORMER
FEEDING THE TEMPORARY
LIGHTING POLES BETWEEN
THE I-94 RAMPS

EXISTING WIRING
TO REMAIN

FURNISH & INSTALL NEW 4#4
OVERHEAD LIGHTING CABLE
TO REPLACE ONE THAT WAS
REMOVED DURING CONSTRUCTION

MAINTAIN OPERATION OF
EXISTING LIGHTS TO REMAIN
DURING CONSTRUCTION
(TYPICAL)

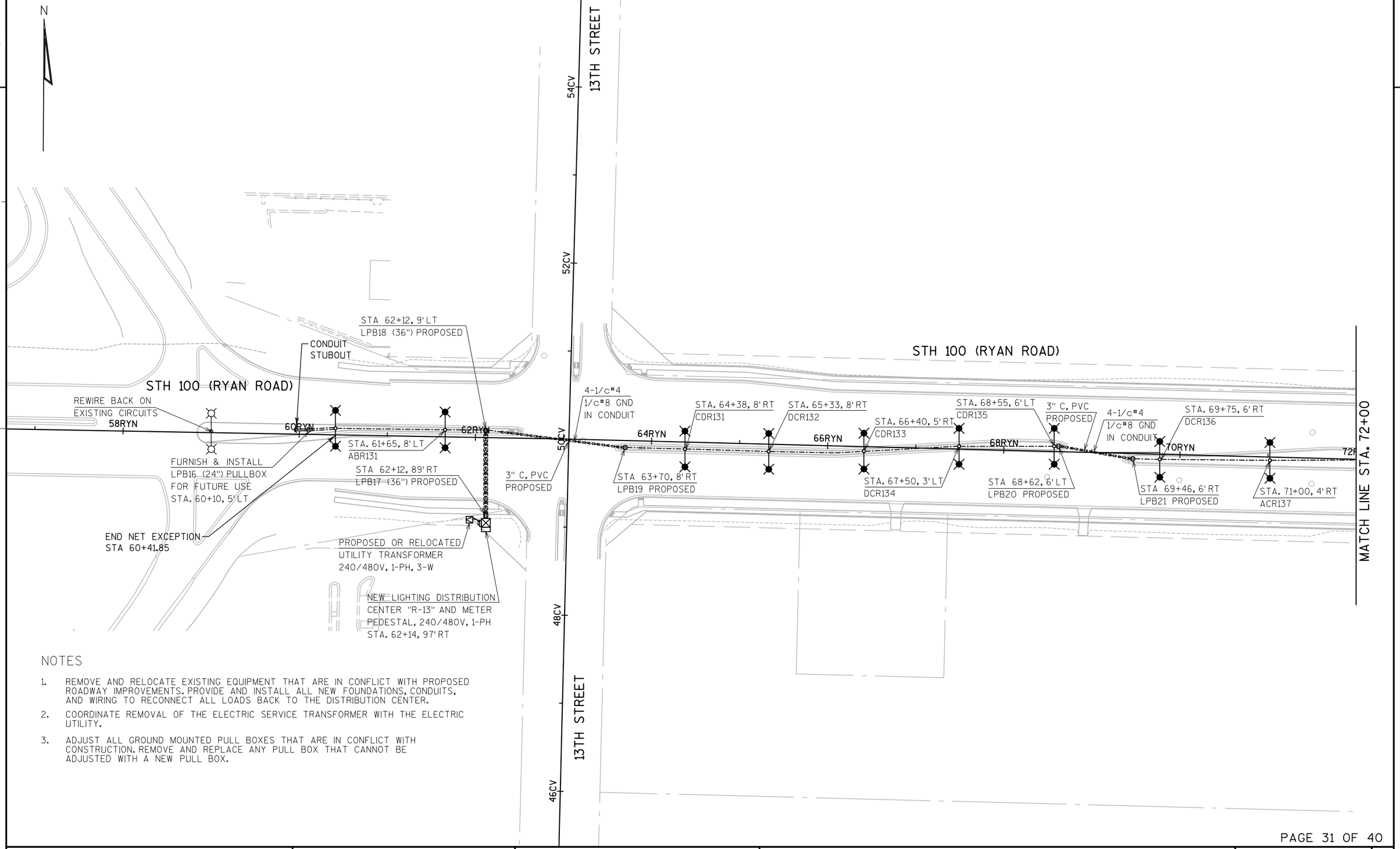
NOTES

1. REMOVE AND RELOCATE EXISTING EQUIPMENT THAT ARE IN CONFLICT WITH PROPOSED ROADWAY IMPROVEMENTS. PROVIDE AND INSTALL ALL NEW FOUNDATIONS, CONDUITS, AND WIRING TO RECONNECT ALL LOADS BACK TO THE DISTRIBUTION CENTER.
2. COORDINATE RELOCATION OF THE ELECTRIC SERVICE INSTALLATION AND TRANSFORMER WITH THE ELECTRIC UTILITY. FURNISH AND INSTALL ANY ADDITIONAL MATERIALS AND EQUIPMENT THAT ARE NOT INSTALLED BY THE UTILITY TO COMPLETE THE INSTALLATION.
3. ADJUST ALL GROUND MOUNTED PULL BOXES THAT ARE IN CONFLICT WITH CONSTRUCTION. REMOVE AND REPLACE ANY PULL BOX THAT CANNOT BE ADJUSTED WITH A NEW PULL BOX.

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	LIGHTING PLAN - PROPOSED	SHEET 149	E

FILE NAME : P:\Transportation\STH 100\CADD\sheets\0235030_lp.dgn PLOT DATE : 11/18/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 100.0000 sf / in.

WISDOT/CADDS SHEET 42



NOTES

1. REMOVE AND RELOCATE EXISTING EQUIPMENT THAT ARE IN CONFLICT WITH PROPOSED ROADWAY IMPROVEMENTS. PROVIDE AND INSTALL ALL NEW FOUNDATIONS, CONDUITS, AND WIRING TO RECONNECT ALL LOADS BACK TO THE DISTRIBUTION CENTER.
2. COORDINATE REMOVAL OF THE ELECTRIC SERVICE TRANSFORMER WITH THE ELECTRIC UTILITY.
3. ADJUST ALL GROUND MOUNTED PULL BOXES THAT ARE IN CONFLICT WITH CONSTRUCTION. REMOVE AND REPLACE ANY PULL BOX THAT CANNOT BE ADJUSTED WITH A NEW PULL BOX.

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	LIGHTING PLAN - PROPOSED	SHEET 150	E

FILE NAME : P:\Transportation\STH 100\CADD\sheets\0235031_lp.dgn PLOT DATE : 11/18/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 100.0000 sf / in.
WISDOT/CADDS SHEET 42

N

NOTES

1. REMOVE AND RELOCATE EXISTING EQUIPMENT THAT ARE IN CONFLICT WITH PROPOSED ROADWAY IMPROVEMENTS. PROVIDE AND INSTALL ALL NEW FOUNDATIONS, CONDUITS, AND WIRING TO RECONNECT ALL LOADS BACK TO THE DISTRIBUTION CENTER.
2. COORDINATE REMOVAL OF THE ELECTRIC SERVICE TRANSFORMER WITH THE ELECTRIC UTILITY.
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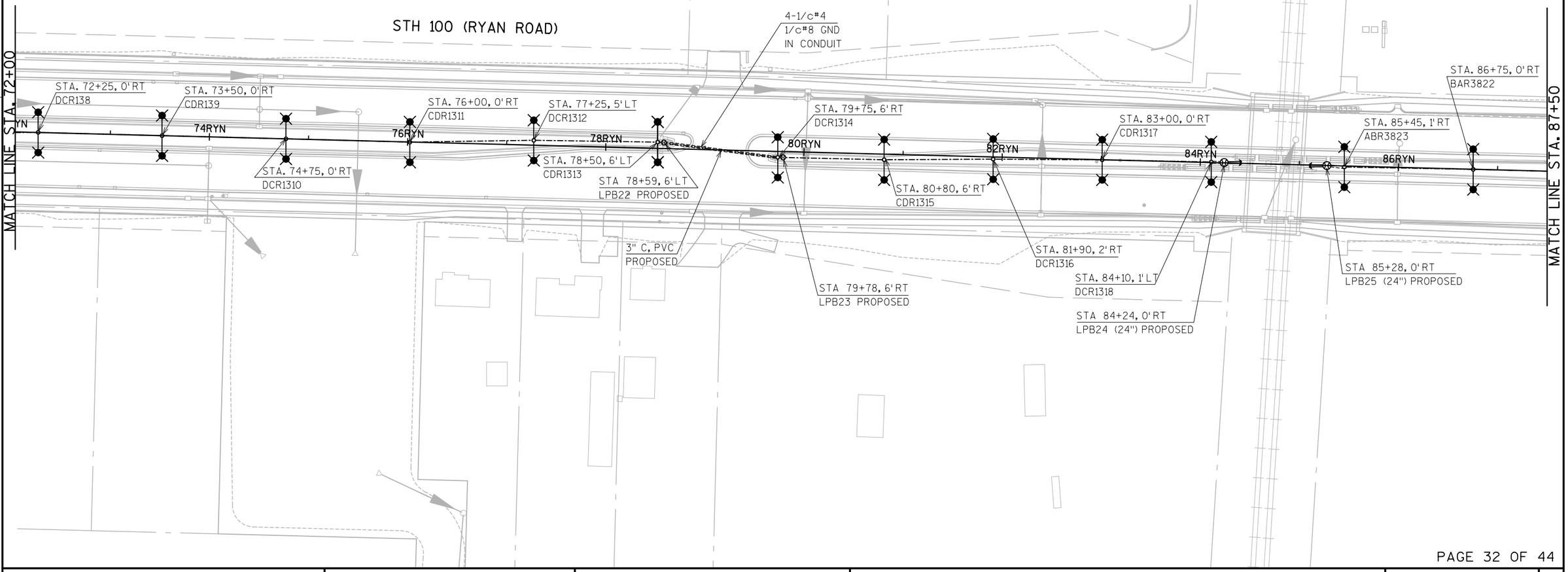

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	LIGHTING PLAN - PROPOSED	SHEET 151	E

FILE NAME : P:\Transportation\STH 100\CADD\sheets\0235032_lp.dgn PLOT DATE : 11/18/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 100.0000 sf / in.
WISDOT/CADDS SHEET 42

N

NOTES

1. REMOVE AND RELOCATE EXISTING EQUIPMENT THAT ARE IN CONFLICT WITH PROPOSED ROADWAY IMPROVEMENTS. PROVIDE AND INSTALL ALL NEW FOUNDATIONS, CONDUITS, AND WIRING TO RECONNECT ALL LOADS BACK TO THE DISTRIBUTION CENTER.
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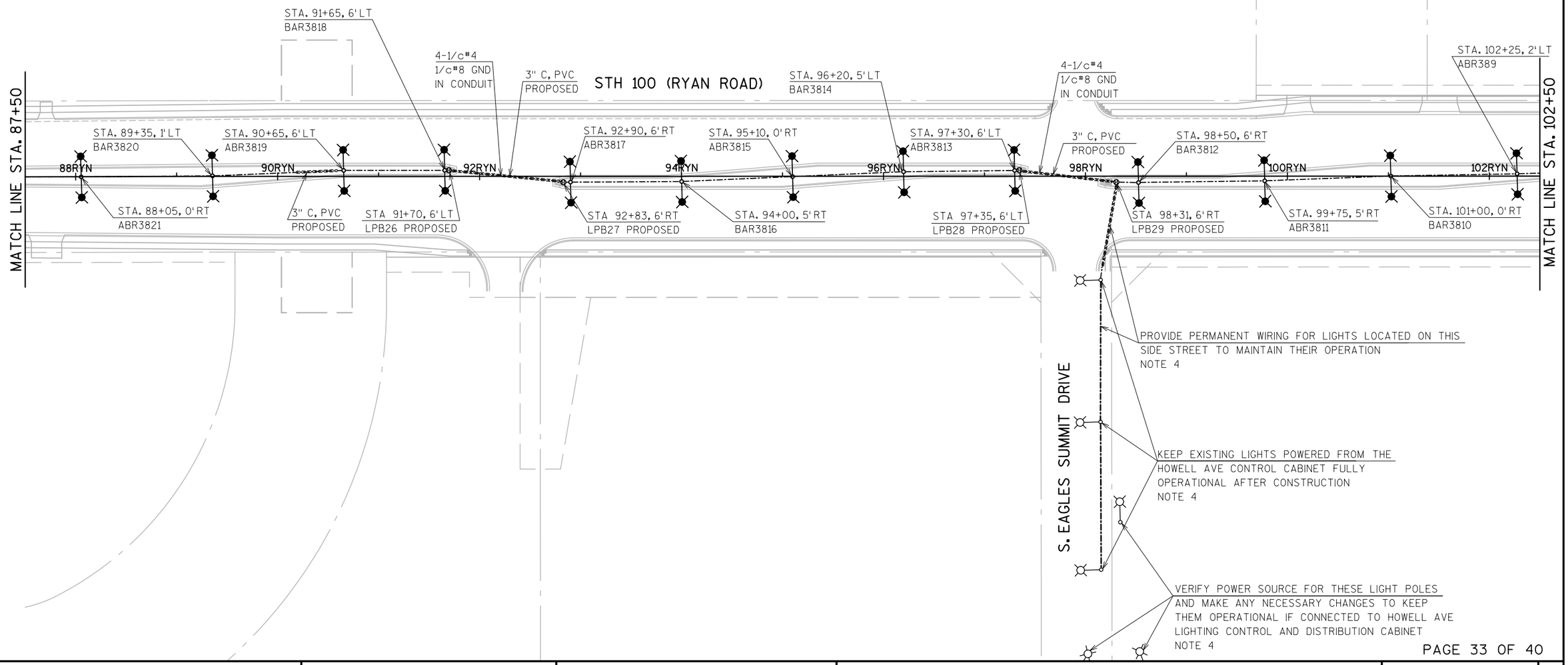
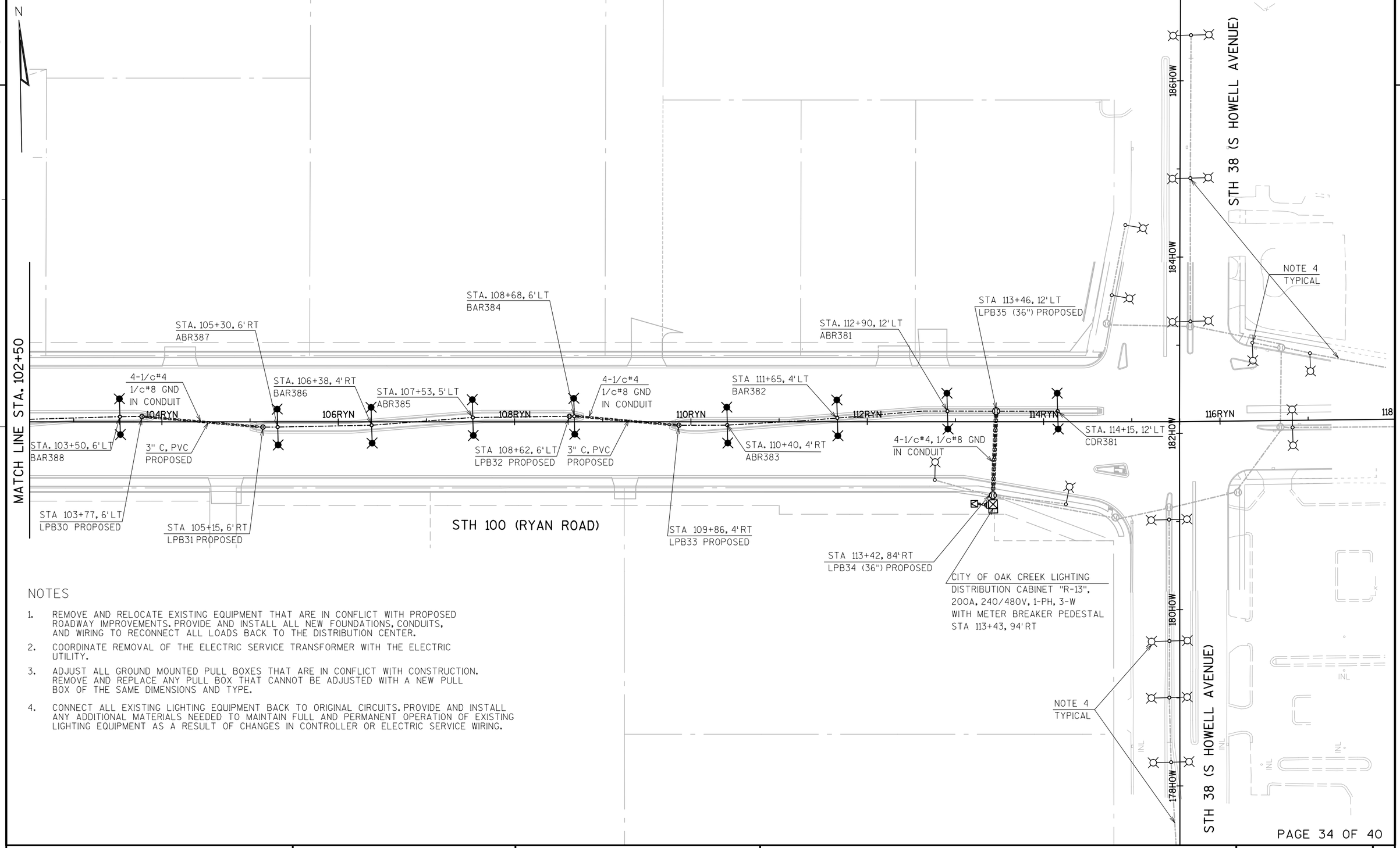
4. VERIFY CIRCUITS ON LIGHTING DISTRIBUUTION CABINET AT HOWELL AVE WHERE THESE EXISTING LIGHTS ARE BELIEVED TO BE CONNECTED. FURNISH AND INSTALL ALL NECESSARY CABLES AND CONDUITS TO MAINTAIN THE FULL OPERATION OF THESE LIGHTS. PROVIDE NEW PERMANENT WIRING TO LIGHTING DISTRIBUTION CABINET AS NECESSARY.



PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	LIGHTING PLAN - PROPOSED	SHEET 152	E

FILE NAME : P:\Transportation\STH 100\CADD\sheets\0235033_lp.dgn PLOT DATE : 11/18/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 100.0000 sf / in.
WISDOT/CADDS SHEET 42



NOTES

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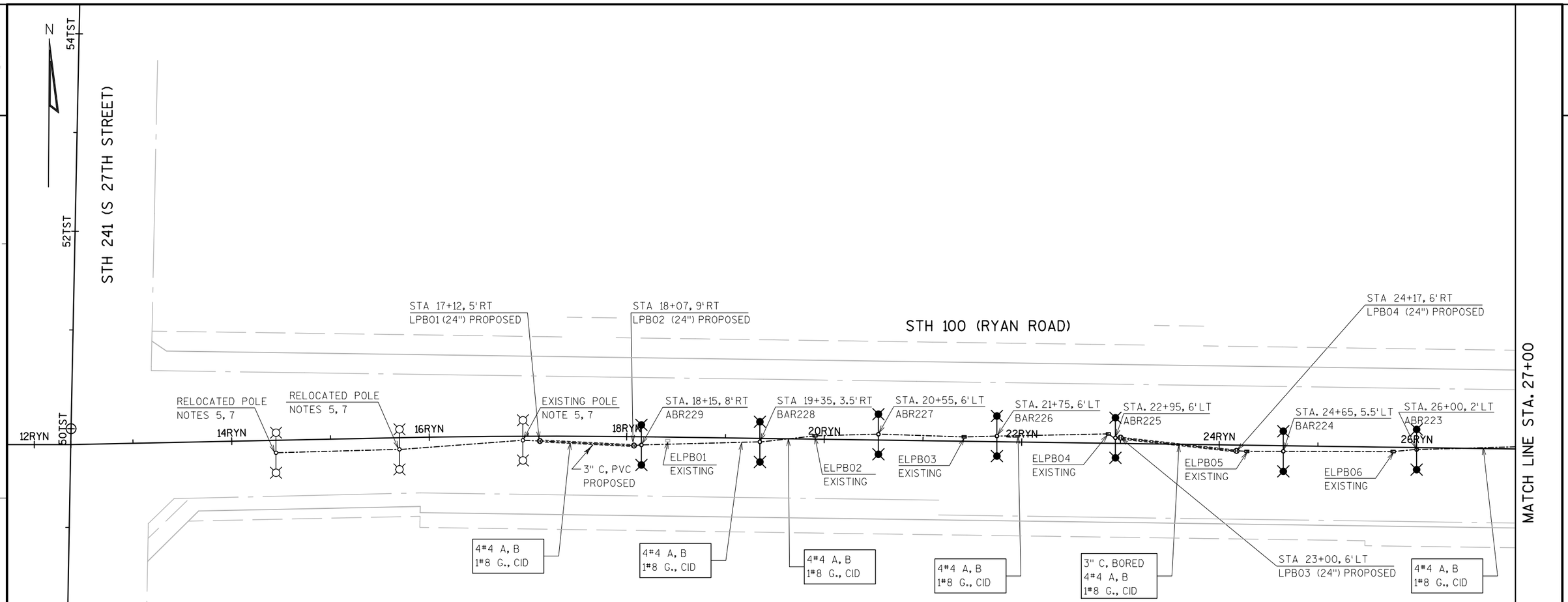
2. COORDINATE REMOVAL OF THE ELECTRIC SERVICE TRANSFORMER WITH THE ELECTRIC UTILITY.
3. ADJUST ALL GROUND MOUNTED PULL BOXES THAT ARE IN CONFLICT WITH CONSTRUCTION. REMOVE AND REPLACE ANY PULL BOX THAT CANNOT BE ADJUSTED WITH A NEW PULL BOX OF THE SAME DIMENSIONS AND TYPE.
4. CONNECT ALL EXISTING LIGHTING EQUIPMENT BACK TO ORIGINAL CIRCUITS. PROVIDE AND INSTALL ANY ADDITIONAL MATERIALS NEEDED TO MAINTAIN FULL AND PERMANENT OPERATION OF EXISTING LIGHTING EQUIPMENT AS A RESULT OF CHANGES IN CONTROLLER OR ELECTRIC SERVICE WIRING.

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	LIGHTING PLAN - PROPOSED	SHEET 153	E

FILE NAME : P:\Transportation\STH 100\CADD\sheets\0235034_lp.dgn PLOT DATE : 11/18/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 100.0000 sf / in.
WISDOT/CADDS SHEET 42



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1. REMOVE AND RELOCATE EXISTING EQUIPMENT THAT ARE IN CONFLICT WITH PROPOSED ROADWAY IMPROVEMENTS. PROVIDE AND INSTALL ALL NEW CONCRETE BASES, CONDUITS, AND WIRING TO RECONNECT ALL LOADS BACK TO THE LIGHTING DISTRIBUTION CENTER.
2. COORDINATE REMOVAL AND RELOCATION OF THE ELECTRIC SERVICE EQUIPMENT WITH THE ELECTRIC UTILITY.
3. ADJUST ALL GROUND MOUNTED PULL BOXES THAT ARE IN CONFLICT WITH CONSTRUCTION. REMOVE AND REPLACE ANY PULL BOX THAT CANNOT BE ADJUSTED WITH A NEW PULL BOX. NEW PULL BOXES SHALL BE 18" DIAMETER GALVANIZED CORRUGATED METAL PIPE WALL SECTION, WITH NEENAH R-5900-C SOLID LID AND FRAME IN CONFORMANCE WITH OAK CREEK STANDARD STREET LIGHTING DETAIL DRAWING SL-4.
4. ALL CONDUIT USED FOR BORED CABLE RUNS UNDER PAVEMENTS SHALL BE PVC, SCHEDULE 40 IN CONFORMANCE WITH SECTION 652.2.3 OF THE WisDOT SPECIFICATIONS. CONDUIT SHALL BE CAPPED ON BOTH ENDS UNTIL CABLING IS PLACED. FURNISH AND INSTALL 3" PVC CONDUITS UNDER PAVEMENTS, SIDEWALKS, AND DRIVEWAYS AND EXTEND ONE (1) FOOT BEYOND THE BACK OF CURB.
5. FURNISH AND INSTALL NEW LED LUMINAIRES AND MAST ARMS TO REPLACE EXISTING BRACKET MOUNTED HPS LUMINAIRES ON CITY OF OAK CREEK POLES INSTALLED AT STH 241(27TH STREET) INTERSECTION. FURNISH REPLACEMENT LUMINAIRES THAT HAVE THE SAME WATTAGE AND DISTRIBUTION AS NEW LUMINAIRES. PERFORM THIS WORK DURING DAYLIGHT HOURS WITHOUT DISRUPTION TO LIGHTING SYSTEM OPERATION. PROPERLY PACKAGE AND RETURN ALL REMOVED EQUIPMENT TO CITY OF OAK CREEK AS SPECIFIED IN THE CONTRACT SPECIFICATIONS.
6. SEE INTERSECTION LIGHTING INFORMATION DESIGNED BY OTHERS ON TRAFFIC SIGNAL PLANS IN THIS CONTRACT.
7. THESE THREE LIGHT POLES WERE CONNECTED TO EXISTING LIGHTING DISTRIBUTION CABINET LOCATED APPROXIMATELY 1350 FEET TO THE WEST ON THE NORTH SIDE OF RYAN ROAD. PROPOSED WIRING SHOWN ON THIS SHEET IS INTENDED TO CONNECT THESE THREE LIGHT POLES TO EXISTING CITY DISTRIBUTION CABINET "R-22" LOCATED NEAR 22ND STREET.

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	LIGHTING PLAN - PROPOSED SCHEMATIC	SHEET 154	E

FILE NAME : P:\Transportation\STH 100\CADD\sheets\0235035_lp-Schem-1.dgn PLOT DATE : 11/18/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 100.0000 sf / in.
WISDOT/CADDS SHEET 42

2

N

MATCH LINE STA. 27+00

S 22ND STREET

54TSN

52TSN

50TSN

50TTT

48TTT

46TTT

28RYN

30RYN

32RYN

34RYN

36RYN

38RYN

40RYN

42RYN

STH 100 (RYAN ROAD)

OH

OTH

RELOCATED OAK CREEK
LIGHTING DISTRIBUTION CENTER
AND METER PEDESTAL
200A, 240/480V, 1-PH, 3-WIRE
FOR 480V LOADS (PHASE-PHASE)
NOTE 1

3" RGS, TRENCH
3#2/0 SERVICE

RELOCATED UTILITY
TRANSFORMER, 240/480V
1-PH, 3-WIRE, NOTE 2

STA 28+78, 82'LT
LPB06 (36") PROPOSED

STA. 28+70, 8'LT
ABR221

(2) 3" C, BORED
8#4 A, B, C, D
2#8 G., CID

STA. 30+05, 7'LT
CDR221

STA. 27+35, 4'LT
BAR222

STA 28+78, 8'LT
LPB05 (36") PROPOSED

STA 30+54, 7'LT
LPB07 PROPOSED

4#4 A, B
1#8 G., CID

4#4 C, D
1#8 G., CID

FURNISH AND INSTALL NEW CABLE DUCT
IF NEEDED TO MAINTAIN THE OPERATION
OF THE EXISTING LIGHT POLES ON 22ND
STREET.

3" C, BORED
4#4 C, D
1#8 G., CID

STA. 32+55, 8'RT
DCR222

STA 31+79, 8'RT
LPB08 PROPOSED

STA. 33+80, 6'RT
CDR223

4#4 C, D
1#8 G., CID

STA. 35+00, 0'LT
DCR224

STA. 36+60, 69'LT
DR227

STA 36+04, 67'LT
LPB11 PROPOSED

STA. 35+90, 2'RT
CDR226

STA 36+04, 2'RT
LPB10 PROPOSED

STA. 35+69, 80'RT
CR225

STA 35+77, 80'RT
LPB09 PROPOSED

3" C, BORED
4#4 C, D
1#8 G., CID

STA 36+46, 90'RT
LPB12 PROPOSED

3" C, BORED
4#4 C, D
1#8 G., CID

STA 37+32, 88'LT
LPB14 PROPOSED

STA. 37+40, 88'LT
CR228

4#4 C, D
1#8 G., CID

STA. 37+40, 8'RT
DCR229

STA 37+32, 8'RT
LPB13 PROPOSED

STA. 38+40, 8'RT
CDR2210

STA. 39+40, 8'RT
DCR2211

4#4 C, D
1#8 G., CID

FURNISH & INSTALL
LPB15 (24") PULLBOX
STA. 39+50, 8'RT
FOR FUTURE USE

CONDUIT
STUBOUT

MAINTAIN THE EXISTING UTILITY
TRANSFORMER FEEDING THE
TEMPORARY LIGHTING POLES
BETWEEN THE I-94 RAMPS

FURNISH & INSTALL NEW 4#4
OVERHEAD LIGHTING CABLE
TO REPLACE ONE THAT WAS
REMOVED DURING CONSTRUCTION

EXISTING WIRING
TO REMAIN

MAINTAIN OPERATION OF
EXISTING LIGHTS TO REMAIN
DURING CONSTRUCTION
(TYPICAL)

NOTES

1. REMOVE AND RELOCATE EXISTING EQUIPMENT THAT ARE IN CONFLICT WITH PROPOSED ROADWAY IMPROVEMENTS. PROVIDE AND INSTALL ALL NEW FOUNDATIONS, CONDUITS, AND WIRING TO RECONNECT ALL LOADS BACK TO THE DISTRIBUTION CENTER.
2. COORDINATE RELOCATION OF THE ELECTRIC SERVICE INSTALLATION AND TRANSFORMER WITH THE ELECTRIC UTILITY. FURNISH AND INSTALL ANY ADDITIONAL MATERIALS AND EQUIPMENT THAT ARE NOT INSTALLED BY THE UTILITY TO COMPLETE THE INSTALLATION.
3. ADJUST ALL GROUND MOUNTED PULL BOXES THAT ARE IN CONFLICT WITH CONSTRUCTION. REMOVE AND REPLACE ANY PULL BOX THAT CANNOT BE ADJUSTED WITH A NEW PULL BOX.
4. FURNISH AND INSTALL RIGID GALVANIZED STEEL CONDUITS FOR ALL CONDUITS INSTALLED UNDER PAVEMENT.
5. VERIFY INFORMATION REGARDING I-94 CONTRACT FROM CONTRACT BID PLANS

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	LIGHTING PLAN - PROPOSED SCHEMATIC	SHEET 155	E

FILE NAME : P:\Transportation\STH 100\CADD\sheets\0235036_lp-Schem-2.dgn PLOT DATE : 11/18/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 100.0000 sf / in.

2

N

13TH STREET

54CV

52CV

50CV

48CV

46CV

STH 100 (RYAN ROAD)

58RYN

60RYN

62RYN

64RYN

66RYN

68RYN

70RYN

72RYN

MATCH LINE STA. 72+00

END NET EXCEPTION
STA 60+41.85

REWIRE BACK ON
EXISTING CIRCUITS

STA. 60+41, 7'LT
ABR132

FURNISH & INSTALL
LPB16 (24") PULLBOX
FOR FUTURE USE
STA. 60+10, 5'LT

STA. 61+65, 8'LT
ABR131

4#4 A, B
1#8 G., CID

STA 62+12, 89'RT
LPB17 (36") PROPOSED

3" RGS, TRENCH
3#2/0 SERVICE

RELOCATED UTILITY
TRANSFORMER, 240/480V
1-PH, 3-WIRE

NEW LIGHTING DISTRIBUTION
CENTER "R-13" AND METER PEDESTAL
200A, 240/480V, 1-PH, 3-WIRE
FOR 480V LOADS (PHASE-PHASE)
STA. 62+14, 97'RT

STA 62+12, 9'LT
LPB18 (36") PROPOSED

3" C, BORED
4#4 C, D
1#8 G., CID

(2) 3" C, BORED
8#4 A, B, C, D
2#8 G., CID

STA. 63+70, 8'RT
LPB19 PROPOSED

STA. 64+38, 5'RT
CDR131

4#4 C, D
1#8 G., CID

STA. 65+33, 8'RT
DCR132

4#4 C, D
1#8 G., CID

STA. 66+40, 5'RT
CDR133

STA. 67+50, 3'LT
DCR134

4#4 C, D
1#8 G., CID

STA. 68+55, 6'LT
CDR135

STA 68+62, 6'LT
LPB20 PROPOSED

3" C, BORED
4#4 C, D
1#8 G., CID

STA. 69+75, 6'RT
DCR136

STA 69+46, 6'RT
LPB21 PROPOSED

4#4 C, D
1#8 G., CID

STA. 71+00, 4'RT
ACR137

4#4 C, D
1#8 G., CID

NOTES

1. REMOVE AND RELOCATE EXISTING EQUIPMENT THAT ARE IN CONFLICT WITH PROPOSED ROADWAY IMPROVEMENTS. PROVIDE AND INSTALL ALL NEW FOUNDATIONS, CONDUITS, AND WIRING TO RECONNECT ALL LOADS BACK TO THE DISTRIBUTION CENTER.
2. COORDINATE REMOVAL OF THE ELECTRIC SERVICE TRANSFORMER WITH THE ELECTRIC UTILITY.
3. ADJUST ALL GROUND MOUNTED PULL BOXES THAT ARE IN CONFLICT WITH CONSTRUCTION. REMOVE AND REPLACE ANY PULL BOX THAT CANNOT BE ADJUSTED WITH A NEW PULL BOX.

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	LIGHTING PLAN - PROPOSED SCHEMATIC	SHEET 156	E

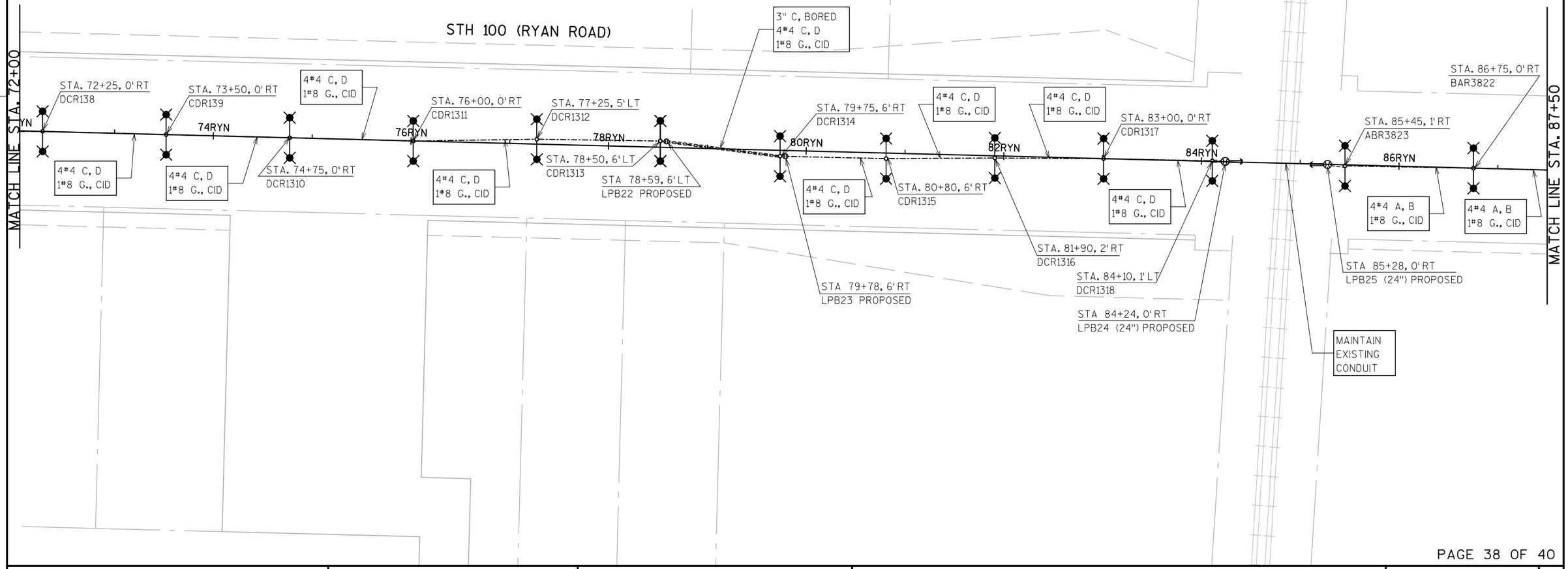
FILE NAME : P:\Transportation\STH 100\CADD\sheets\0235037_lp-Schem-3.dgn PLOT DATE : 11/18/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 100.0000 sf / in.

WISDOT/CADDS SHEET 42

N

NOTES

1. REMOVE AND RELOCATE EXISTING EQUIPMENT THAT ARE IN CONFLICT WITH PROPOSED ROADWAY IMPROVEMENTS. PROVIDE AND INSTALL ALL NEW FOUNDATIONS, CONDUITS, AND WIRING TO RECONNECT ALL LOADS BACK TO THE DISTRIBUTION CENTER.
2. COORDINATE REMOVAL OF THE ELECTRIC SERVICE TRANSFORMER WITH THE ELECTRIC UTILITY.
3. ADJUST ALL GROUND MOUNTED PULL BOXES THAT ARE IN CONFLICT WITH CONSTRUCTION. REMOVE AND REPLACE ANY PULL BOX THAT CANNOT BE ADJUSTED WITH A NEW PULL BOX.
4. FURNISH AND INSTALL RIGID GALVANIZED STEEL CONDUITS FOR ALL CONDUITS INSTALLED UNDER PAVEMENT.



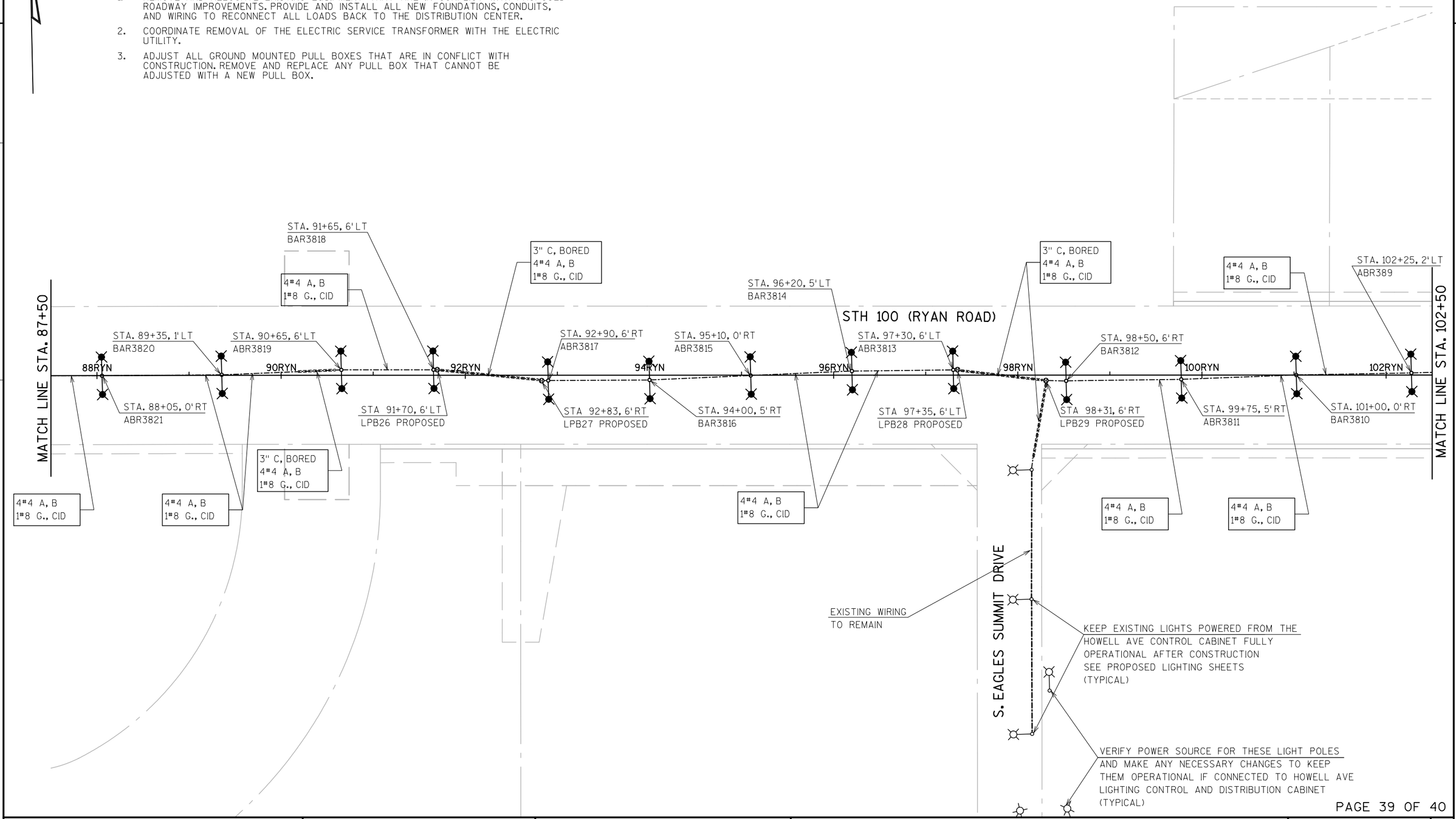
PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	LIGHTING PLAN - PROPOSED SCHEMATIC	SHEET 157	E

FILE NAME : P:\Transportation\STH 100\CADD\sheets\0235038_lp-Schem-4.dgn PLOT DATE : 11/18/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 100.0000 sf / in.
WISDOT/CADDS SHEET 42

N

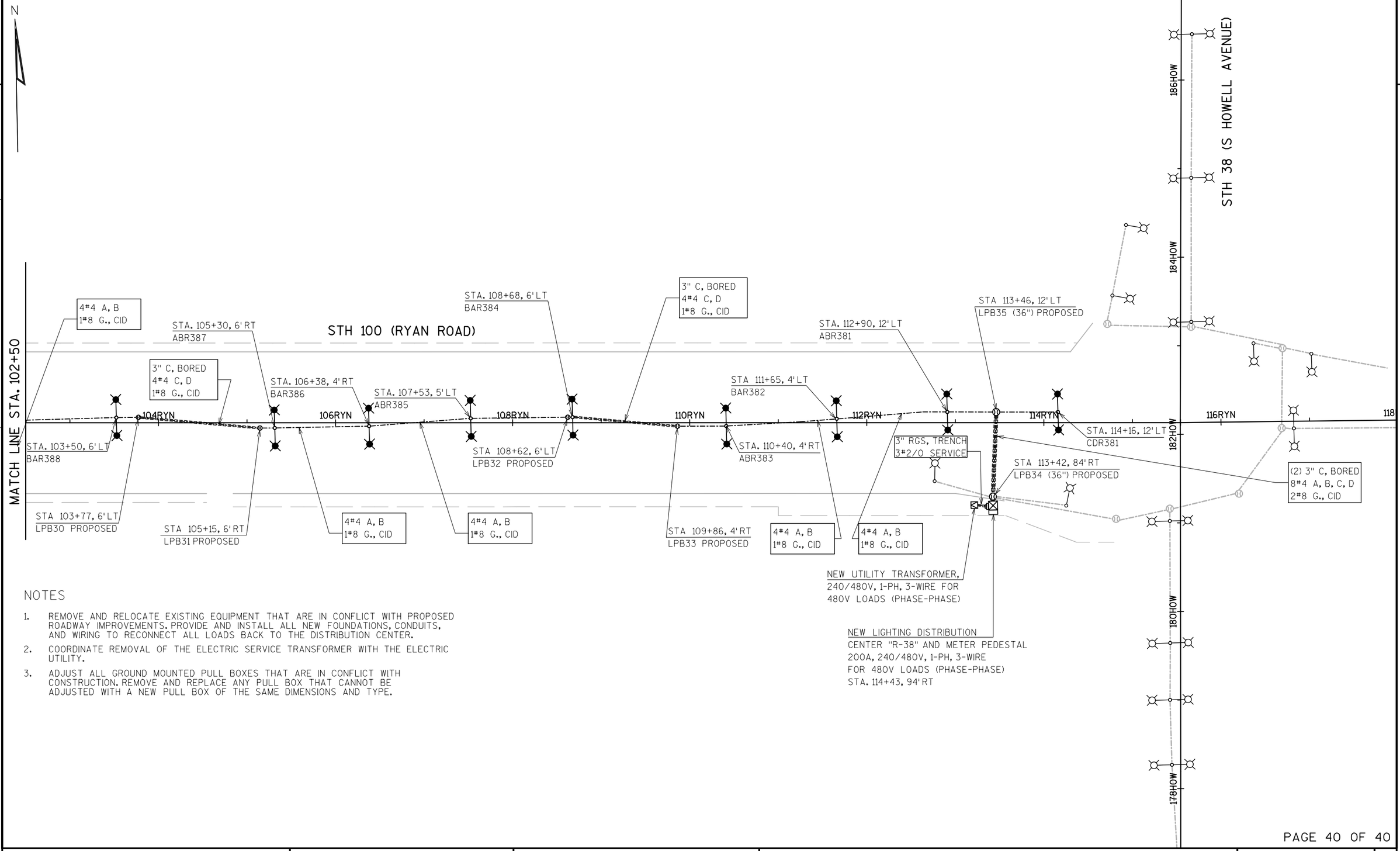
NOTES

1. REMOVE AND RELOCATE EXISTING EQUIPMENT THAT ARE IN CONFLICT WITH PROPOSED ROADWAY IMPROVEMENTS. PROVIDE AND INSTALL ALL NEW FOUNDATIONS, CONDUITS, AND WIRING TO RECONNECT ALL LOADS BACK TO THE DISTRIBUTION CENTER.
2. COORDINATE REMOVAL OF THE ELECTRIC SERVICE TRANSFORMER WITH THE ELECTRIC UTILITY.
3. ADJUST ALL GROUND MOUNTED PULL BOXES THAT ARE IN CONFLICT WITH CONSTRUCTION. REMOVE AND REPLACE ANY PULL BOX THAT CANNOT BE ADJUSTED WITH A NEW PULL BOX.



PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	LIGHTING PLAN - PROPOSED SCHEMATIC	SHEET 158	E

FILE NAME : P:\Transportation\STH 100\CADD\sheets\0235039_lp-Schem-5.dgn PLOT DATE : 11/18/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 100.0000 sf / in.
WISDOT/CADDS SHEET 42

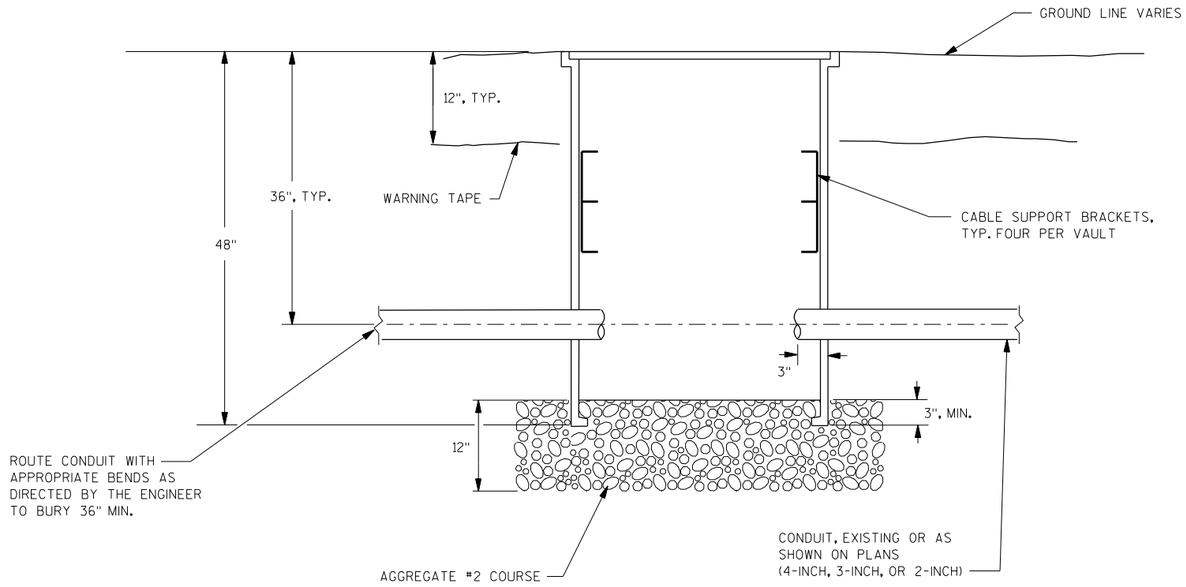


NOTES

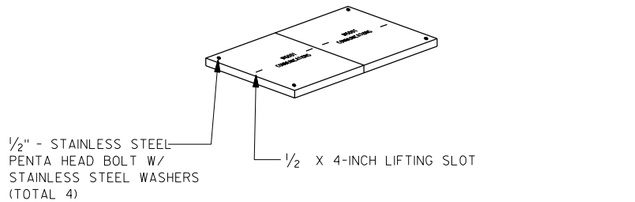
1. REMOVE AND RELOCATE EXISTING EQUIPMENT THAT ARE IN CONFLICT WITH PROPOSED ROADWAY IMPROVEMENTS. PROVIDE AND INSTALL ALL NEW FOUNDATIONS, CONDUITS, AND WIRING TO RECONNECT ALL LOADS BACK TO THE DISTRIBUTION CENTER.
2. COORDINATE REMOVAL OF THE ELECTRIC SERVICE TRANSFORMER WITH THE ELECTRIC UTILITY.
3. ADJUST ALL GROUND MOUNTED PULL BOXES THAT ARE IN CONFLICT WITH CONSTRUCTION. REMOVE AND REPLACE ANY PULL BOX THAT CANNOT BE ADJUSTED WITH A NEW PULL BOX OF THE SAME DIMENSIONS AND TYPE.

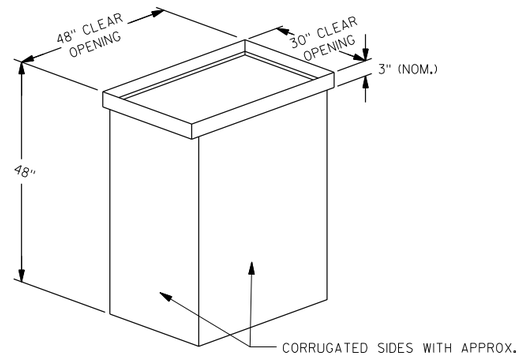
PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	LIGHTING PLAN - PROPOSED SCHEMATIC	SHEET 159	E

FILE NAME : P:\Transportation\STH 100\CADD\sheets\0235040_lp-Schem-6.dgn PLOT DATE : 11/18/2013 PLOT BY : jessica_meddaugh PLOT NAME : PLOT SCALE : 100.0000 sf / in.
WISDOT/CADDS SHEET 42

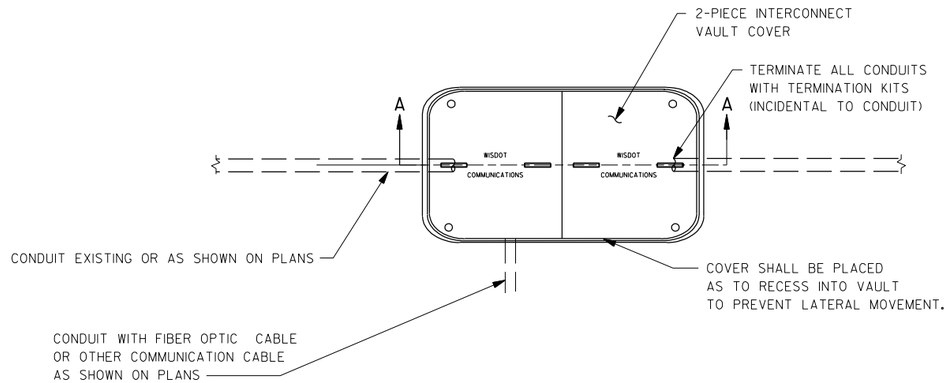


SECTION A-A





ISOMETRIC



TRAFFIC SIGNAL INTERCONNECT VAULT

NOTES

1) BOX SHALL HAVE AN OPEN BASE.

2) COVER SHALL HAVE A MINIMUM DESIGN LOAD OF 15,000 LBS AND SHALL LOCK.

3) ALL OPENINGS IN STRUCTURE MUST BE MACHINED AT TIME OF FABRICATION, OR PUNCH DRIVEN AT TIME OF PLACEMENT.

4) VAULTS SHALL BE OF ONE-PIECE CONSTRUCTION. TWO-PIECE/STACKABLE VAULTS WILL NOT BE PERMITTED.

5) FIELD PLACEMENT OF COMMUNICATIONS VAULTS SHALL BE AS DIRECTED BY THE ENGINEER.

TRAFFIC SIGNAL INTERCONNECT
STH 100 (RYAN ROAD)
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1079,S1226,S1166

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY:
REVISED BY:

PAGE 1 OF 1

PROJECT NUMBER: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	CONSTRUCTION DETAIL	SHEET 160	E

FILE NAME: l:\work\projects\60222213\000.cad\Traffic_Signal_Interconnect_Vault_Detail.dgn
BATCH PRINT SHEET 1 OF 7
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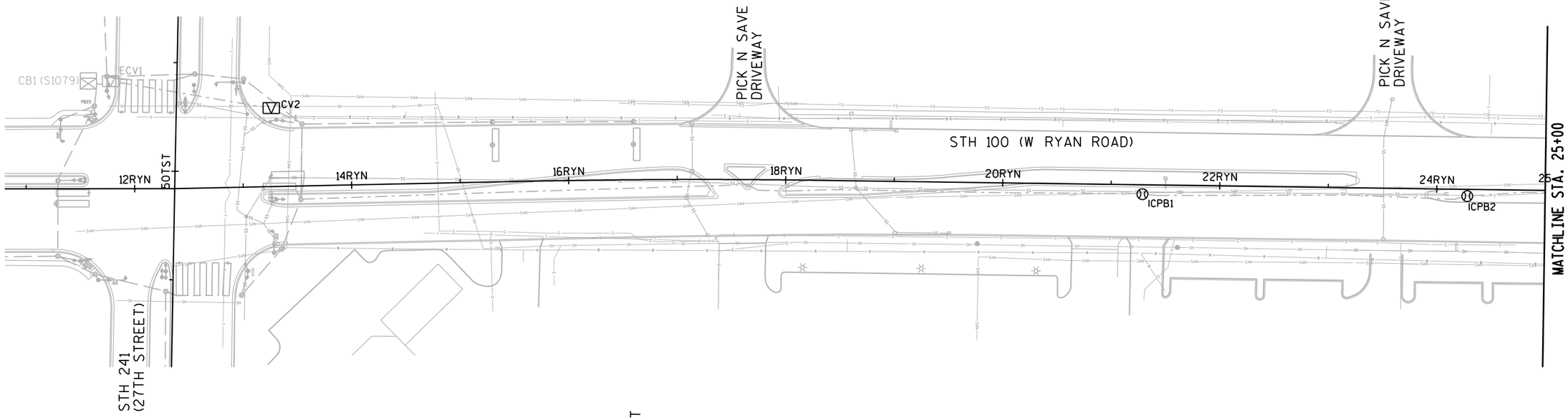
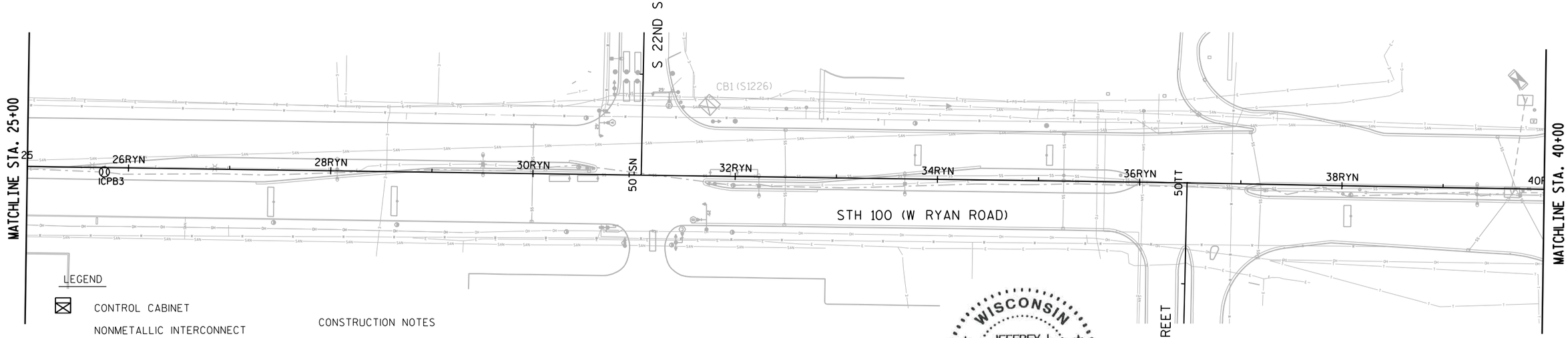
PLOT TIME: 2:16:16 PM
PLOT SCALE: 1:2
WISDOT/CADDS SHEET 42





LEGEND

- CONTROL CABINET
- NONMETALLIC INTERCONNECT CONDUIT 2", UNLESS OTHERWISE NOTED
- PULL BOX, 24" X 42"
- COMMUNICATION VAULT

NOTE: GRAYSHADE REPRESENTS EXISTING.
BOLD REPRESENTS ITEMS TO BE REMOVED.

CONSTRUCTION NOTES

1. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
2. EXISTING CONDUIT RUNS TO BE ABANDONED IN PLACE. CONTRACTOR TO REMOVE ANY CONDUCTORS REMAINING IN CONDUIT.

WISCONSIN
JEFFREY J. SANDBERG
E-39308
PRAIRIE DU SAC, WI
PROFESSIONAL ENGINEER
11/15/13

TRAFFIC SIGNAL INTERCONNECT
STH 100 (RYAN ROAD)
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1079, S1226, S1166

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: AECOM
REVISED BY:

PAGE 1 OF 2

PROJECT NUMBER: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT REMOVAL PLANS	SHEET 161	E

FILE NAME: I:\work\projects\60222213\000.cad\removal_ic _1.dgn
BATCH PRINT SHEET 2 OF 7
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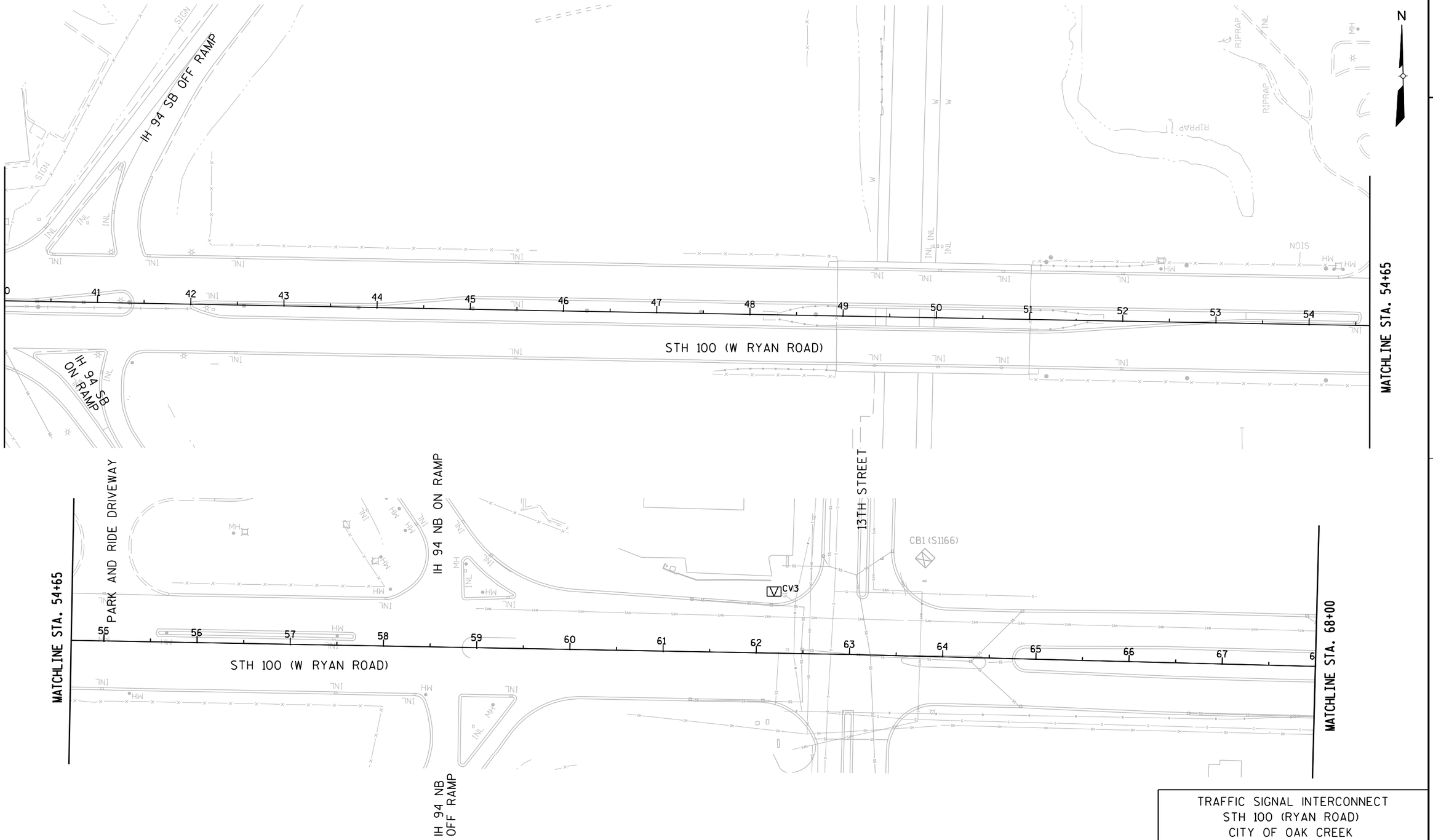
WISDOT/CADDS SHEET 42

2



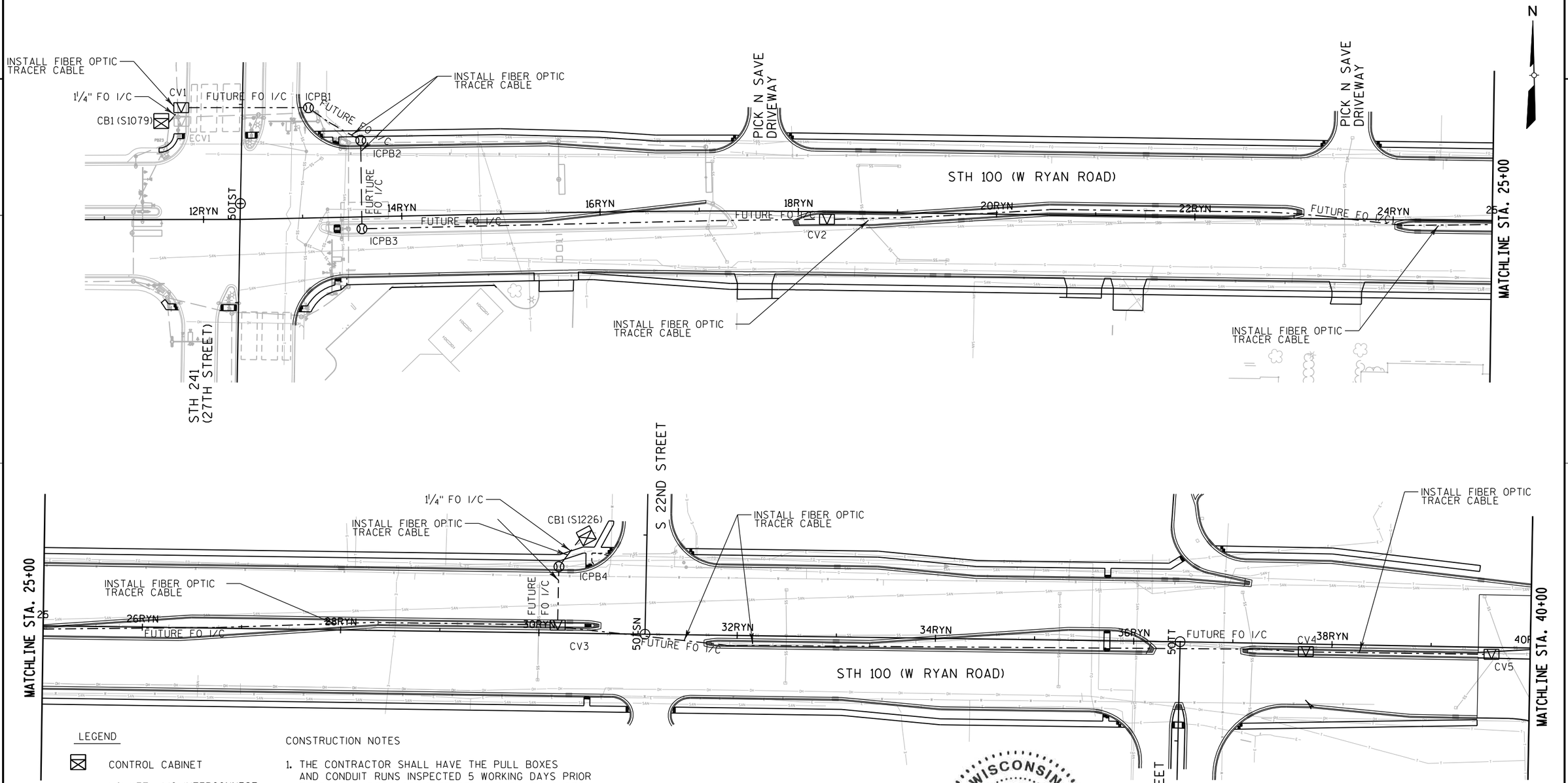
TRAFFIC SIGNAL INTERCONNECT
STH 100 (RYAN ROAD)
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1079, S1226, S1166

REGION CONTACT: ELIZABETH SCHNEIDER
DESIGNED BY: AECOM
REVISED BY:

PAGE 2 OF 2

PROJECT NUMBER: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT REMOVAL PLANS	SHEET 162	E



LEGEND

- CONTROL CABINET
- NONMETALLIC INTERCONNECT CONDUIT 2", UNLESS OTHERWISE NOTED
- PULL BOX, 24" X 42"
- COMMUNICATION VAULT

NOTE: GRAYSHADE REPRESENTS EXISTING

CONSTRUCTION NOTES

1. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING FIBER OPTIC TRACER CABLE INTO SYSTEM. CONTACT THE WISDOT ELECTRICAL UNIT TO MAKE ARRANGEMENTS. (414) 266-1170
2. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
3. INSTALL ONE 12 AWG TRACER WIRE IN INTERCONNECT CONDUIT.

WISCONSIN
JEFFREY J. SANDBERG
E-39308
PRAIRIE DU SAC, WI
PROFESSIONAL ENGINEER
11/15/13

TRAFFIC SIGNAL INTERCONNECT
STH 100 (RYAN ROAD)
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1079, S1226, S1166

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: AECOM
REVISED BY:

PAGE 1 OF 4

PROJECT NUMBER: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT PLANS	SHEET 163	E

FILE NAME: L:\work\projects\60222213\000_CAD\interconnect _1.dgn
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PLOT TIME: 2:16:41 PM
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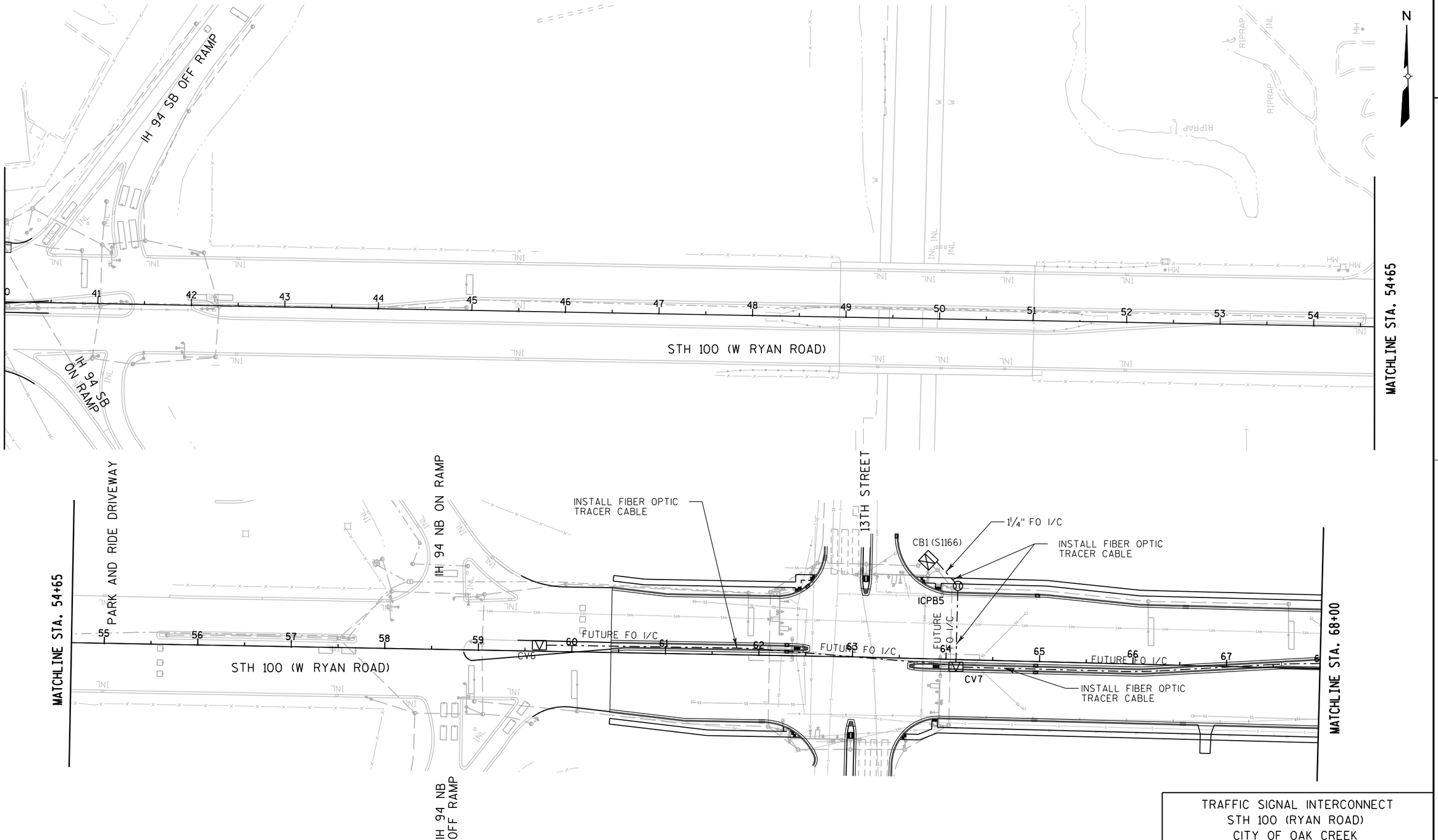
WISDOT/CADDS SHEET 42

2



TRAFFIC SIGNAL INTERCONNECT
STH 100 (RYAN ROAD)
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1079, S1226, S1166

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: AECOM
REVISED BY:

PROJECT NUMBER: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT PLANS	SHEET 164	E

FILE NAME: L:\work\projects\60222213\000_CAD\interconnect _2.dgn
BATCH PRINT SHEET 5 OF 7
PRINTER DRIVER: S:\TPN_CADstds\Workspace-Clients\WisDOT\Microstation\Resources\MS_Printing\Printer_Drivers\ET_PDF_11 x 17 Traffic Signals.plt
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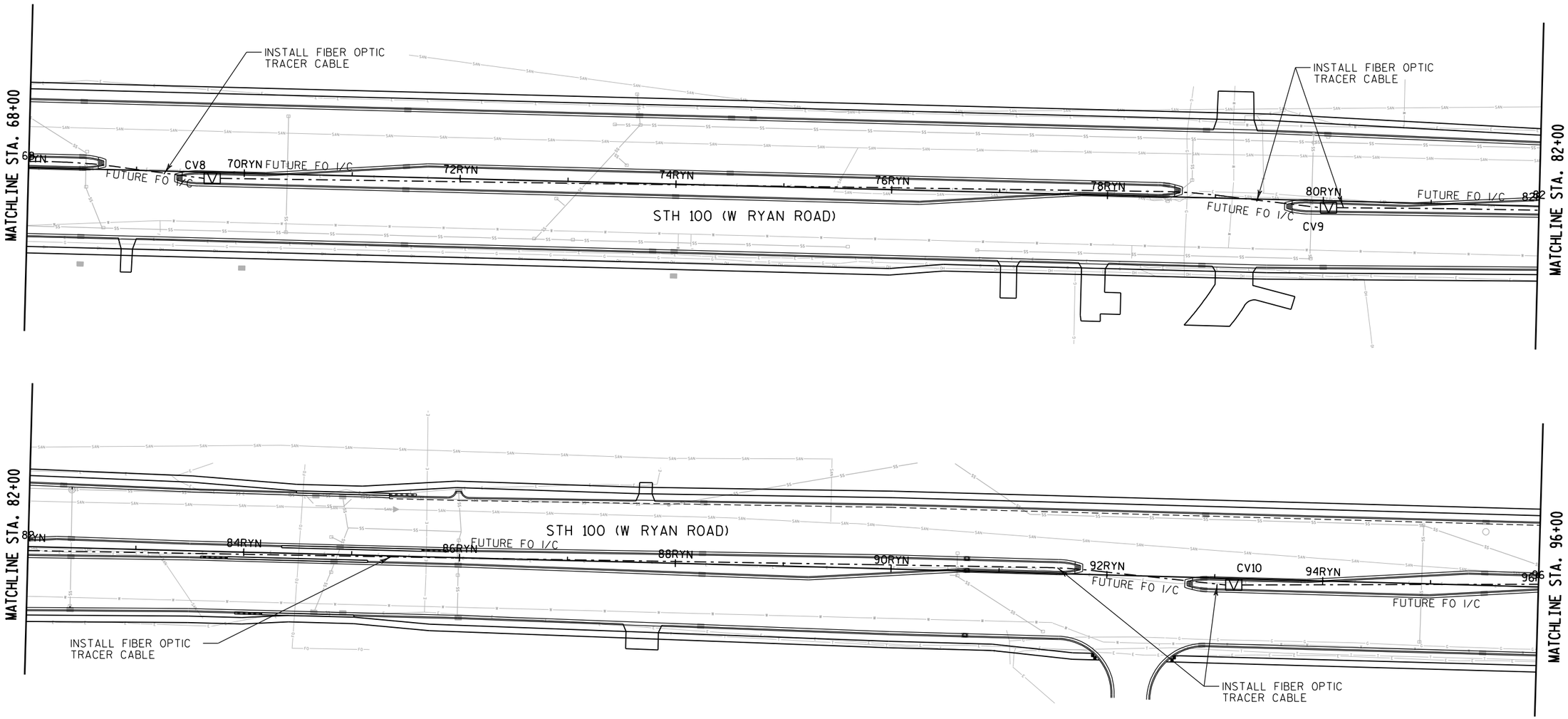
WISDOT/CADDS SHEET 42



2

TRAFFIC SIGNAL INTERCONNECT
STH 100 (RYAN ROAD)
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1079, S1226, S1166

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: AECOM
REVISED BY:

PROJECT NUMBER: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT PLANS	SHEET 165	E

FILE NAME: L:\work\projects\60222213\000_CAD\interconnect _3.dgn
BATCH PRINT SHEET 6 OF 7
PRINTER DRIVER: S:\TPN_CADstds\Workspace-Clients\WisDOT\Microstation\Resources\MS_Printing\Printer_Drivers\ET_PDF_11 x 17 Traffic Signals.plt
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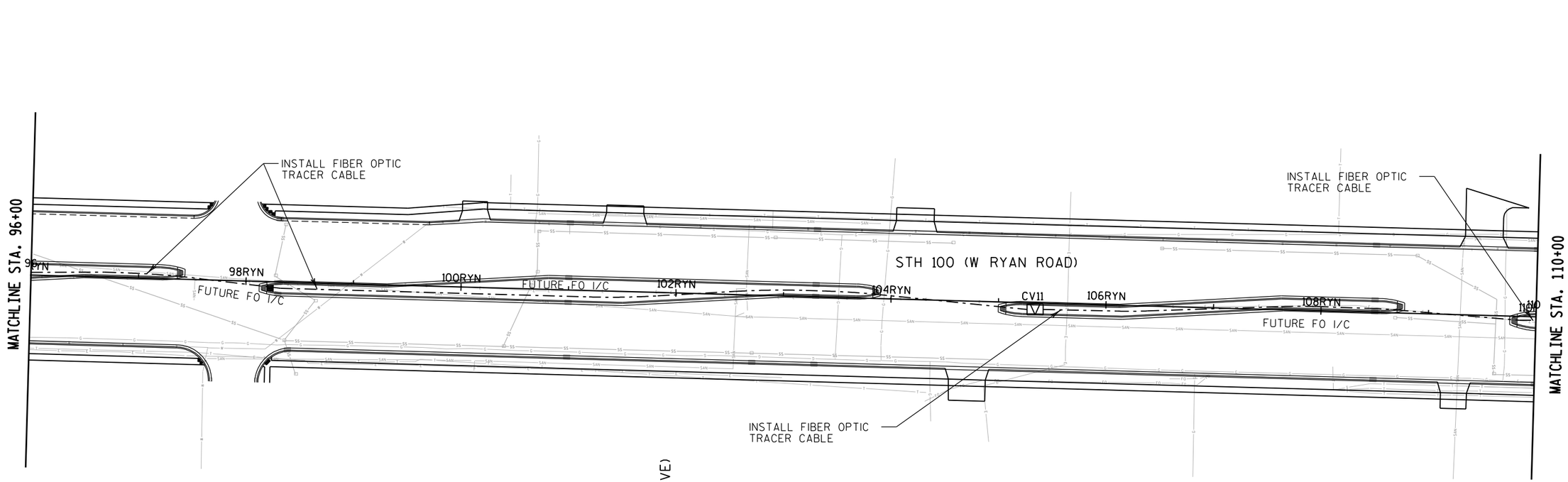
PLOT DATE: 11/14/2013
PLOT TIME: 2:16:55 PM
PLOT SCALE: 1:99.9998
WISDOT/CADDS SHEET 42

2



TRAFFIC SIGNAL INTERCONNECT
STH 100 (RYAN ROAD)
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1079, S1226, S1166

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: AECOM
REVISED BY:

PROJECT NUMBER: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT PLANS	SHEET 166	E

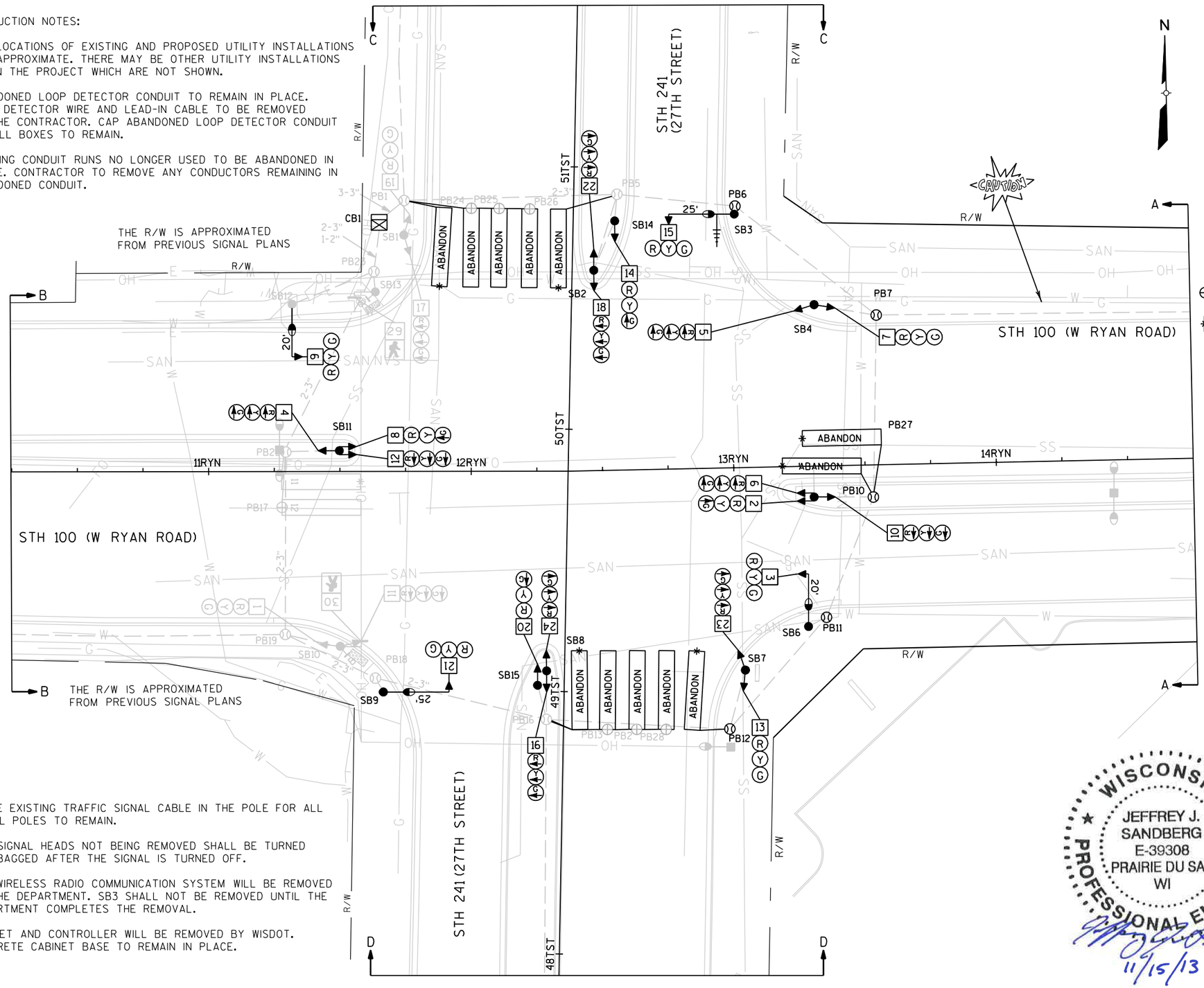
FILE NAME: L:\work\projects\60222213\000_CAD\interconnect _4.dgn
BATCH PRINT SHEET 7 OF 7
PRINTER DRIVER: S:\TPN_CADstds\Workspace-Clients\WisDOT\Microstation\Resources\MS_Printing\Printer_Drivers\ET_PDF_11 x 17 Traffic Signals.plt
PEN TABLE: L:\work\projects\60222213\000_CAD\MS_Printing\Pen_Tables\ET_WisDOT_Traffic.tbl
PLOT DATE: 11/14/2013
PLOT TIME: 2:16:59 PM
PLOT SCALE: 1:99.9998
WISDOT/CADDS SHEET 42

CONSTRUCTION NOTES:

1. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.

2. ABANDONED LOOP DETECTOR CONDUIT TO REMAIN IN PLACE. LOOP DETECTOR WIRE AND LEAD-IN CABLE TO BE REMOVED BY THE CONTRACTOR. CAP ABANDONED LOOP DETECTOR CONDUIT IN PULL BOXES TO REMAIN.

3. EXISTING CONDUIT RUNS NO LONGER USED TO BE ABANDONED IN PLACE. CONTRACTOR TO REMOVE ANY CONDUCTORS REMAINING IN ABANDONED CONDUIT.



LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- LUMINAIRE UNDER PERMIT TO LOCAL MUNICIPALITY
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT WITH 12" PULL BOX
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 36"
- PULL BOX, 12" X 24"
- PULL BOX, 24" X 42"
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- WALK / DON'T WALK INDICATOR 16" (COUNTDOWN TIMER)
- RADIO INTERCONNECT ANTENNA

NOTE: GRAYSHADE REPRESENTS EXISTING
BOLD REPRESENTS ITEMS TO BE REMOVED

4. REUSE EXISTING TRAFFIC SIGNAL CABLE IN THE POLE FOR ALL SIGNAL POLES TO REMAIN.

5. ANY SIGNAL HEADS NOT BEING REMOVED SHALL BE TURNED AND BAGGED AFTER THE SIGNAL IS TURNED OFF.

6. THE WIRELESS RADIO COMMUNICATION SYSTEM WILL BE REMOVED BY THE DEPARTMENT. SB3 SHALL NOT BE REMOVED UNTIL THE DEPARTMENT COMPLETES THE REMOVAL.

7. CABINET AND CONTROLLER WILL BE REMOVED BY WISDOT. CONCRETE CABINET BASE TO REMAIN IN PLACE.

WISCONSIN
JEFFREY J. SANDBERG
E-39308
PRAIRIE DU SAC, WI
PROFESSIONAL ENGINEER
11/15/13

TRAFFIC CONTROL SIGNAL
STH 100 & STH 241
CITY OF OAK CREEK/CITY OF FRANKLIN
MILWAUKEE COUNTY

SIGNAL NO. S1079

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: AECOM
REVISED BY:

PAGE 1 OF 3

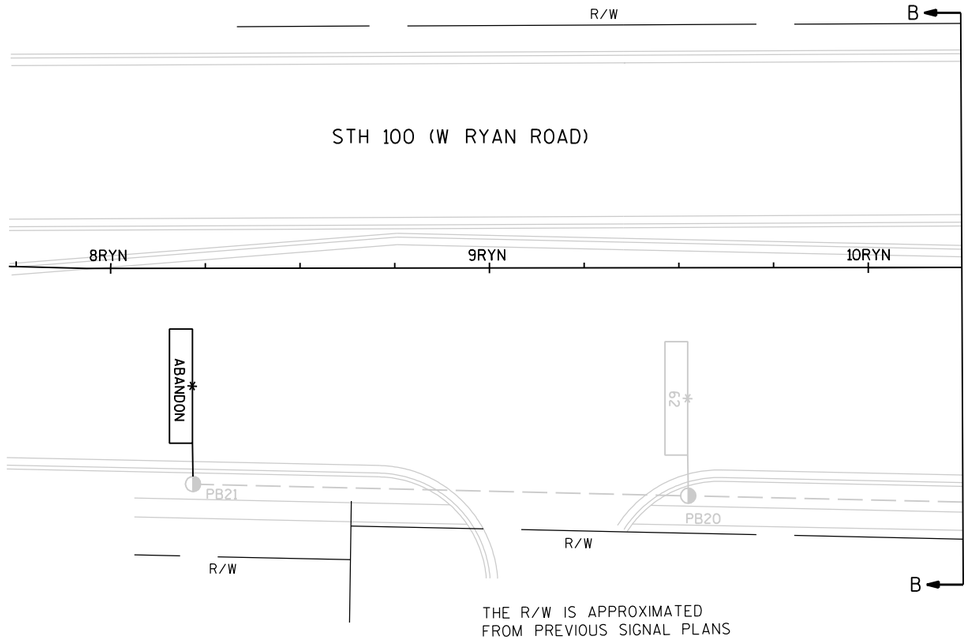
PROJECT NUMBER: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 167	E

FILE NAME: l:\work\projects\60222213\000_cad\removal_sh1_27th.dgn
BATCH PRINT SHEET 1 OF 73
PRINTER DRIVER: S:\TPN_CADstds\Workspace-Clients\WisDOT\Microstation\Resources\MS_Printing\Printer_Drivers\ET_PDF_11 x 17 Traffic Signals.plt
PEN TABLE: L:\work\projects\60222213\000_CAD\MS_Printing\Pen_Tables\ET_WisDOT_Traffic.tbl
PLOT DATE: 11/18/2013
PLOT TIME: 10:01:26 AM
PLOT SCALE: 1:39.9999
WISDOT/CADDS SHEET 42

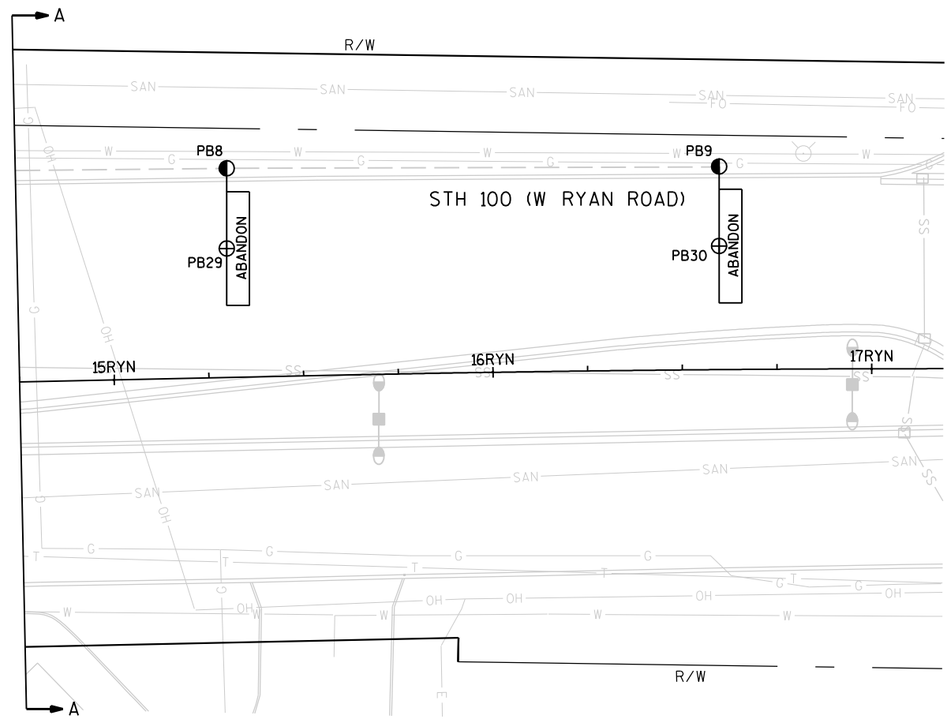
2

N

THE R/W IS APPROXIMATED
FROM PREVIOUS SIGNAL PLANS



THE R/W IS APPROXIMATED
FROM PREVIOUS SIGNAL PLANS



TRAFFIC CONTROL SIGNAL
STH 100 & STH 241
CITY OF OAK CREEK/CITY OF FRANKLIN
MILWAUKEE COUNTY

SIGNAL NO. S1079

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: AECOM
REVISED BY:

PAGE 2 OF 3

PROJECT NUMBER: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 168	E

FILE NAME: l:\work\projects\60222213\000_cad\removal_sh2_27th.dgn
BATCH PRINT SHEET 2 OF 73
PRINTER DRIVER: S:\TPN_CADstds\Workspace-Clients\WisDOT\Microstation\Resources\MS_Printing\Printer_Drivers\ET_PDF_11 x 17 Traffic Signals.plt
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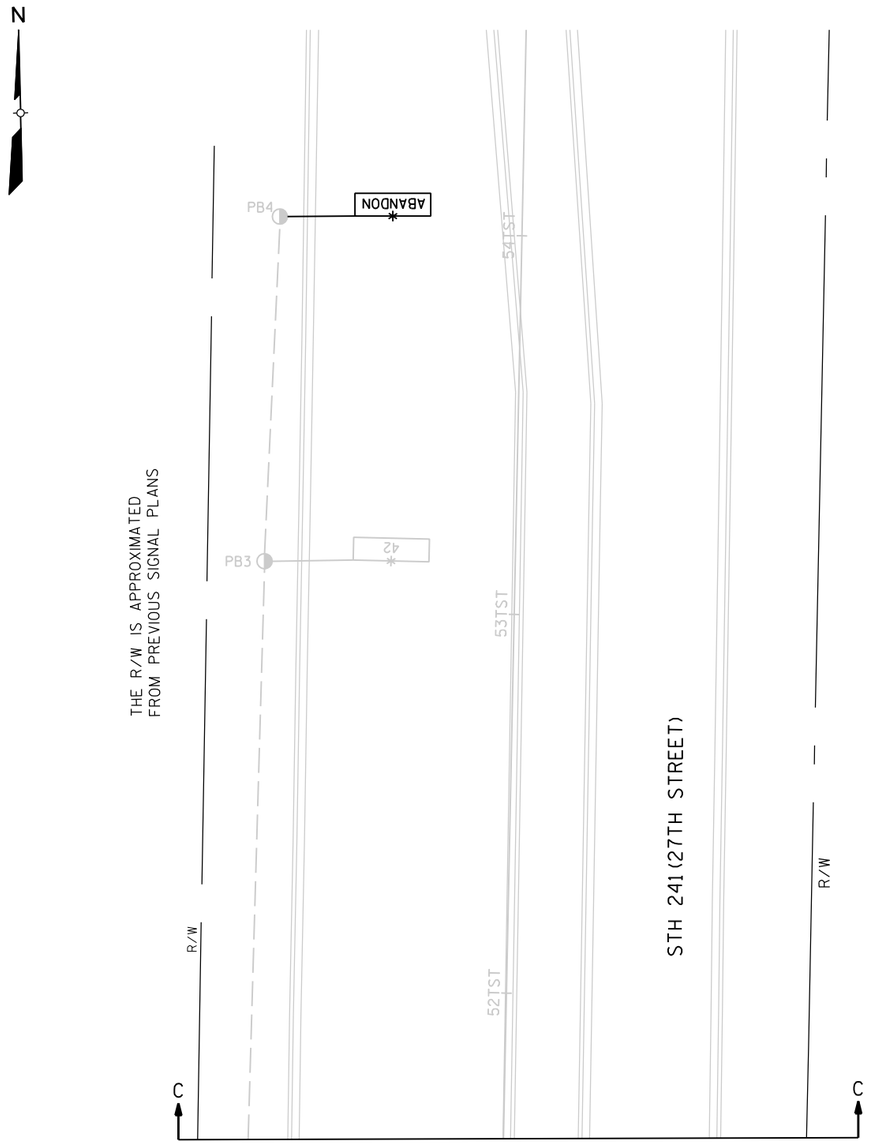
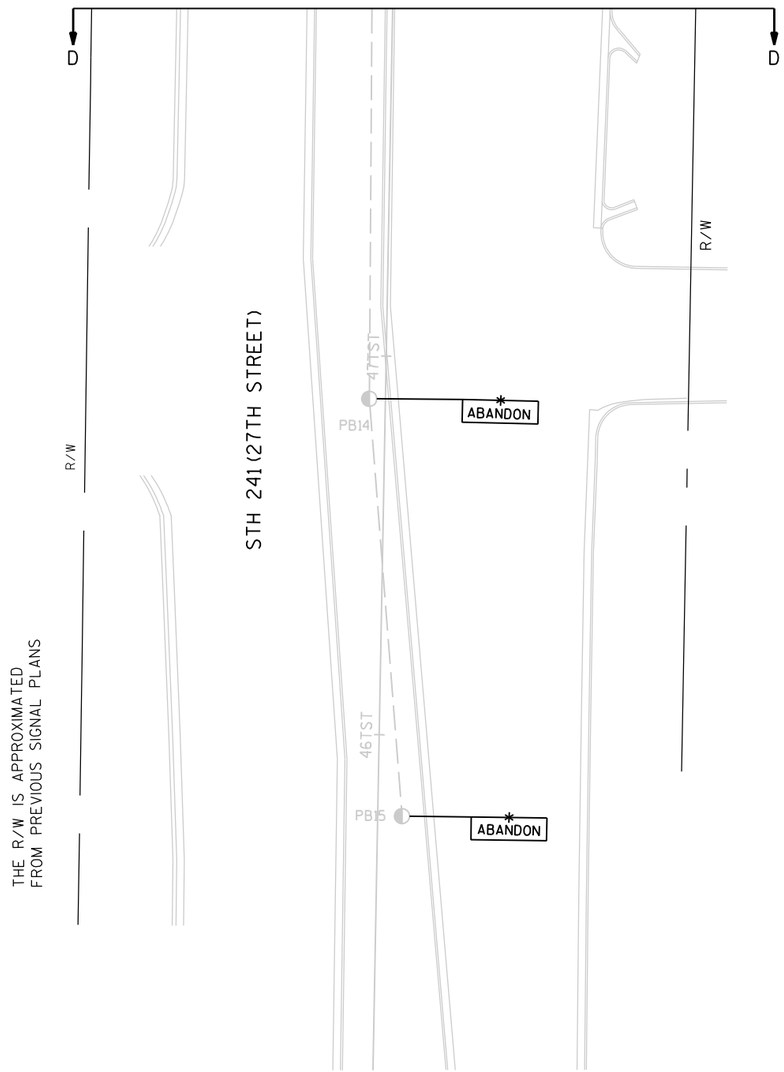
WISDOT/CADDS SHEET 42





TRAFFIC CONTROL SIGNAL
STH 100 & STH 241
CITY OF OAK CREEK/CITY OF FRANKLIN
MILWAUKEE COUNTY

SIGNAL NO. S1079

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: AECOM
REVISED BY:

PAGE 3 OF 3

PROJECT NUMBER: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 169	E

FILE NAME: I:\work\projects\60222213\000.cad\removal_sh3_27th.dgn
BATCH PRINT SHEET 3 OF 73
PRINTER DRIVER: S:\TPN_CADstds\Workspace-Clients\WisDOT\Microstation\Resources\MS_Printing\Printer_Drivers\ET_PDF_11 x 17 Traffic Signals.plt
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PLOT DATE: 11/18/2013
PLOT TIME: 10:01:36 AM
PLOT SCALE: 1:39.9999
WISDOT/CADDS SHEET 42

CONSTRUCTION NOTES:

1. ALL EXISTING SIGNAL HEADS SHALL BE REMOVED, COVERED, OR TURNED AWAY FROM TRAFFIC IMMEDIATELY AFTER TURNING ON TEMPORARY SIGNALS.
2. POLES AND POSTS INSTALLED BEHIND CURBS SHALL BE OFFSET A MINIMUM OF 2 FEET FROM THE FACE OF CURB TO THE SIDE OF THE POST OR POLE.
3. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER.
4. ADJUST TEMPORARY SIGNALS WITHIN EACH CONSTRUCTION STAGE AS DIRECTED BY THE ENGINEER TO MAINTAIN MUTCD SIGNAL REQUIREMENTS.
5. MOUNT NEAR RIGHT SIGNAL ABOVE TETHER WIRE WHEN OVER ROAD.
6. ALL LUMINAIRES ARE 250W HPS UNLESS OTHERWISE NOTED.

SUMMARY OF MATERIALS FOR INFORMATION ONLY	
8	WOOD POLES, CLASS 4
1400 (FEET)	SPAN WIRE
26	TRAFFIC SIGNAL FACES (VERTICAL)
7	LUMINAIRES, 250 W
1	NON-INTRUSIVE DETECTION SYSTEM

LEGEND

- SPAN WIRE
- LUMINAIRE (250 W)
- TYPE 4 WOOD POLE
- SIGNAL HEAD, OVERHEAD MOUNT
- SIGNAL HEAD NUMBER
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- SIGNAL HEAD TO BE BAGGED
- NON-INTRUSIVE DETECTION AREA
- WORK AREA
- BARRICADE
- TRAFFIC CONTROL DRUM
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH

STH 241 (27TH STREET)

STH 100 (W RYAN ROAD)

10RYN 11RYN 12RYN 13RYN 14RYN

50TST 49TST 48TST

WP1 WP2 WP3 WP4 WP5 WP6 WP7 WP8

POSTED SPEED LIMIT: 45 MPH

THE R/W IS APPROXIMATED FROM PREVIOUS SIGNAL PLANS

CAUTION

R/W

WISCONSIN
JEFFREY J. SANDBERG
E-39308
PRAIRIE DU SAC.
WI
PROFESSIONAL ENGINEER
11/15/13

TRAFFIC CONTROL SIGNAL
STH 100 & STH 241
CITY OF OAK CREEK/CITY OF FRANKLIN
MILWAUKEE COUNTY

SIGNAL NO. S1079

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: AECOM
REVISED BY:

PAGE 1 OF 7

PROJECT NUMBER: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 1A	SHEET 170	E

FILE NAME: l:\work\projects\60222213\000_cad\tempplan_27th_stage1A.dgn
BATCH PRINT SHEET 4 OF 73
PRINTER DRIVER: S:\TPN_CADstds\Workspace-Clients\WisDOT\Microstation\Resources\MS_Printing\Printer_Drivers\ET_PDF_11 x 17 Traffic Signals.plt
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PLOT DATE: 11/18/2013
PLOT TIME: 10:01:42 AM
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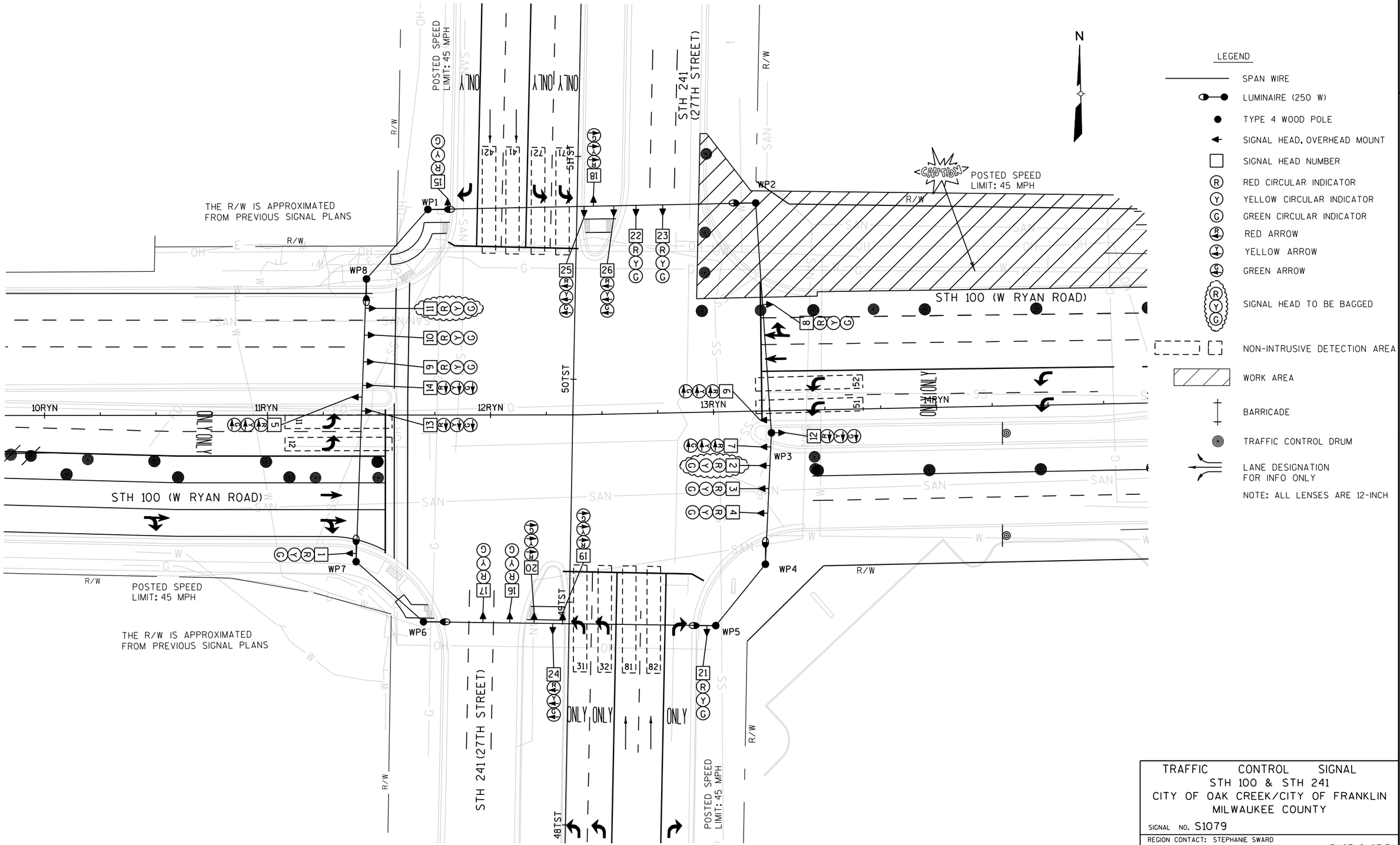
WISDOT/CADDS SHEET 42



TRAFFIC CONTROL SIGNAL
STH 100 & STH 241
CITY OF OAK CREEK/CITY OF FRANKLIN
MILWAUKEE COUNTY

SIGNAL NO. S1079

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: AECOM
REVISED BY:

PAGE 2 OF 7

PROJECT NUMBER: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 1B	SHEET 171 E

FILE NAME: l:\work\projects\60222213\000_cad\tempplan_27th_stage1B.dgn
BATCH PRINT SHEET 5 OF 73
PRINTER DRIVER: S:\TPN_CADstds\Workspace-Clients\WisDOT\Microstation\Resources\MS_Printing\Printer_Drivers\ET_PDF_11 x 17 Traffic Signals.plt
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PLOT DATE: 11/18/2013
PLOT TIME: 10:01:47 AM
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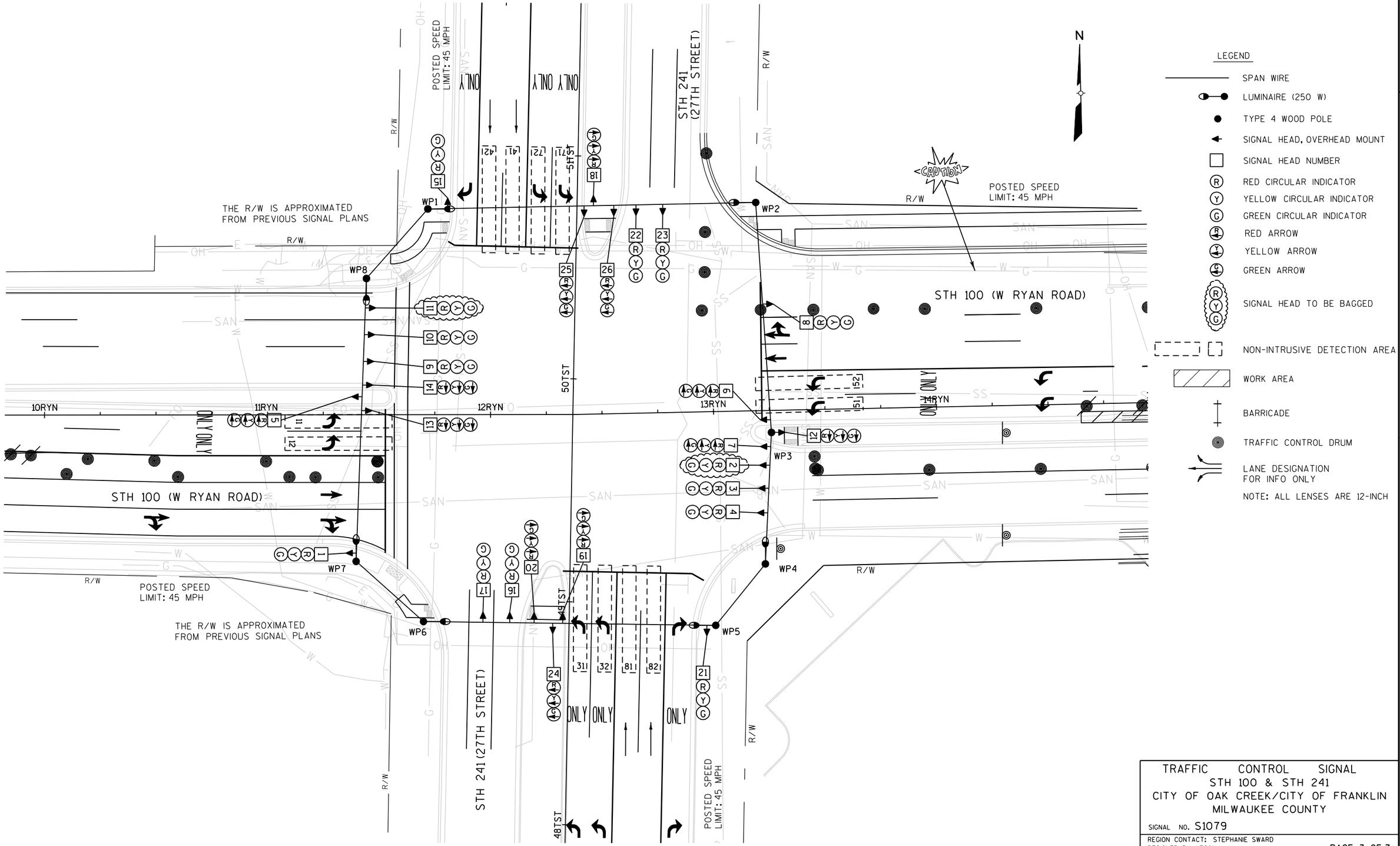
WISDOT/CADDS SHEET 42



TRAFFIC CONTROL SIGNAL
STH 100 & STH 241
CITY OF OAK CREEK/CITY OF FRANKLIN
MILWAUKEE COUNTY

SIGNAL NO. S1079

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: AECOM
REVISED BY:

PAGE 3 OF 7

PROJECT NUMBER: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 1C	SHEET 172 E

FILE NAME: l:\work\projects\60222213\000_cad\tempplan_27th_stage1C.dgn
BATCH PRINT SHEET 6 OF 73
PRINTER DRIVER: S:\TPN_CADstds\Workspace-Clients\WisDOT\Microstation\Resources\MS_Printing\Printer_Drivers\ET_PDF_11 x 17 Traffic Signals.plt
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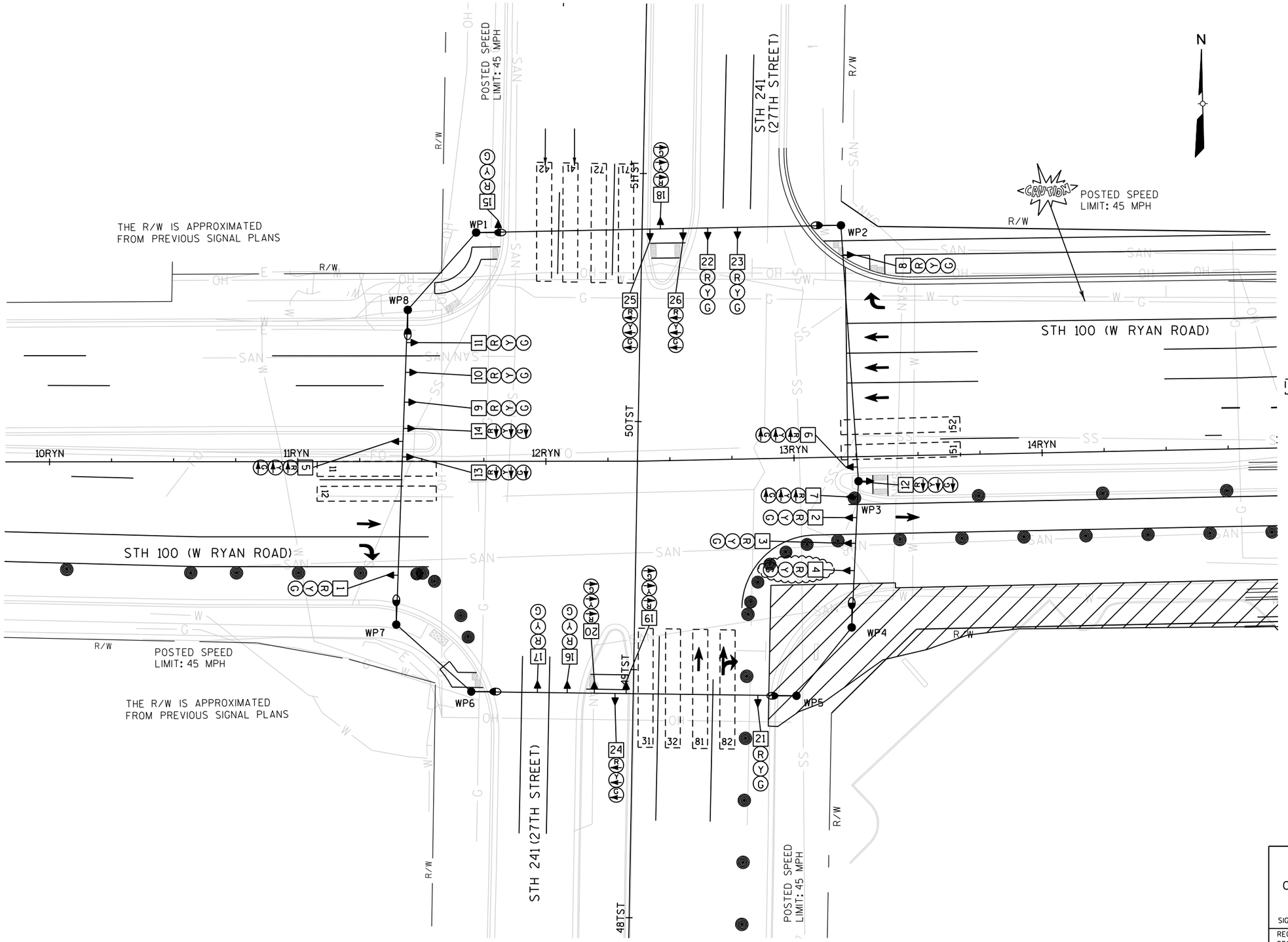
PLOT DATE: 11/18/2013
PLOT TIME: 10:01:53 AM
PLOT SCALE: 1:39.9999
WISDOT/CADDS SHEET 42

2



TRAFFIC CONTROL SIGNAL
STH 100 & STH 241
CITY OF OAK CREEK/CITY OF FRANKLIN
MILWAUKEE COUNTY

SIGNAL NO. S1079

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: AECOM
REVISED BY:

PAGE 4 OF 7

PROJECT NUMBER: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 2A	SHEET 173 E

FILE NAME: l:\work\projects\60222213\000.cad\tempplan_27th_stage2A.dgn
BATCH PRINT SHEET 7 OF 73
PRINTER DRIVER: S:\TPN_CADstds\Workspace-Clients\WisDOT\Microstation\Resources\MS_Printing\Printer_Drivers\ET_PDF_11 x 17 Traffic Signals.plt
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PLOT DATE: 11/18/2013
PLOT TIME: 10:01:59 AM
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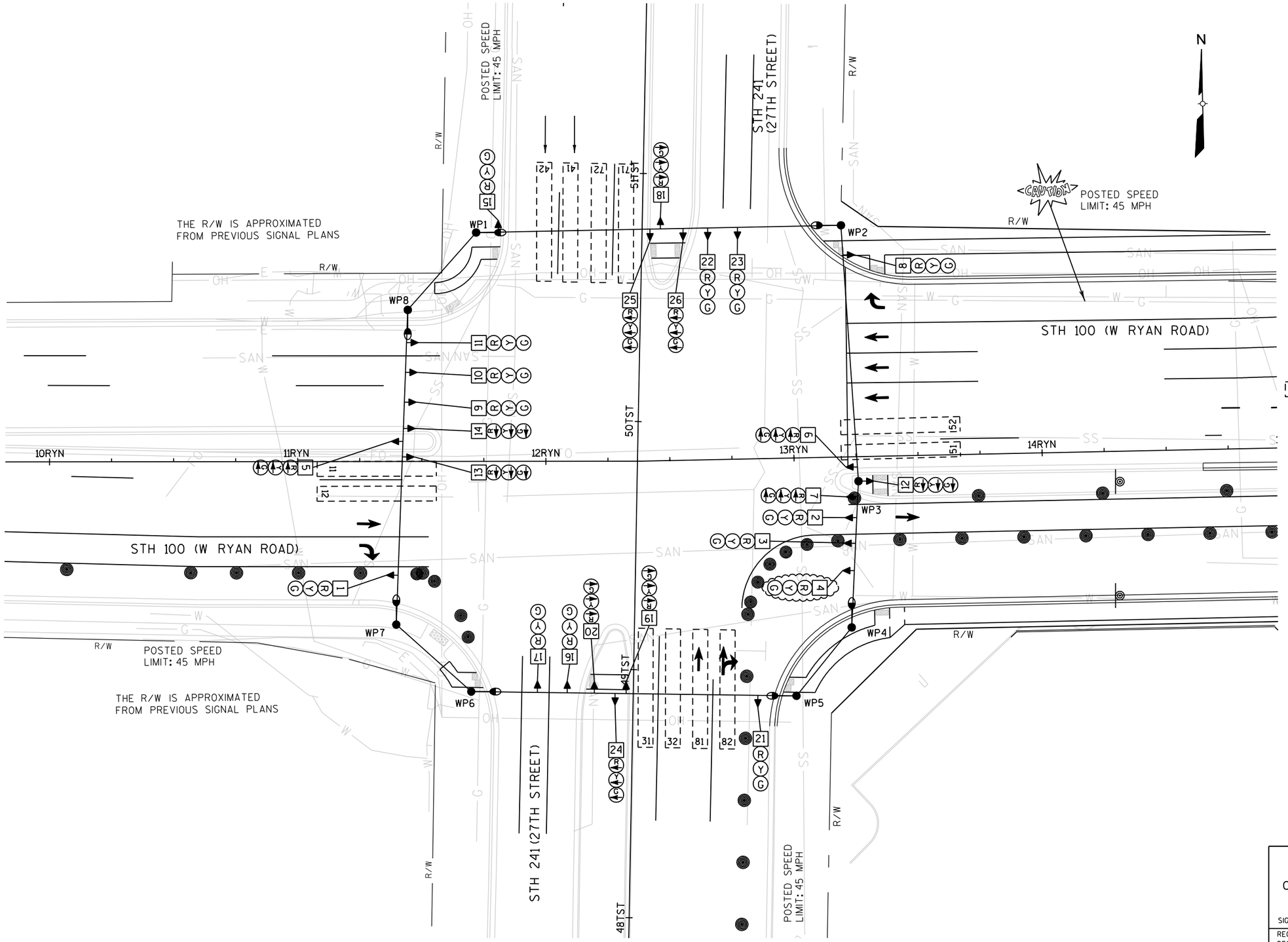
WISDOT/CADDS SHEET 42

2



LEGEND

- SPAN WIRE
- LUMINAIRE (250 W)
- TYPE 4 WOOD POLE
- SIGNAL HEAD, OVERHEAD MOUNT
- SIGNAL HEAD NUMBER
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- SIGNAL HEAD TO BE BAGGED
- NON-INTRUSIVE DETECTION AREA
- WORK AREA
- BARRICADE
- TRAFFIC CONTROL DRUM
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH

TRAFFIC CONTROL SIGNAL
STH 100 & STH 241
CITY OF OAK CREEK/CITY OF FRANKLIN
MILWAUKEE COUNTY

SIGNAL NO. S1079

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: AECOM
REVISED BY:

PAGE 5 OF 7

PROJECT NUMBER: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 2B	SHEET 174 E

FILE NAME: l:\work\projects\60222213\000.cad\tempplan_27th_stage2B.dgn
BATCH PRINT SHEET 8 OF 73
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PLOT TIME: 10:02:05 AM
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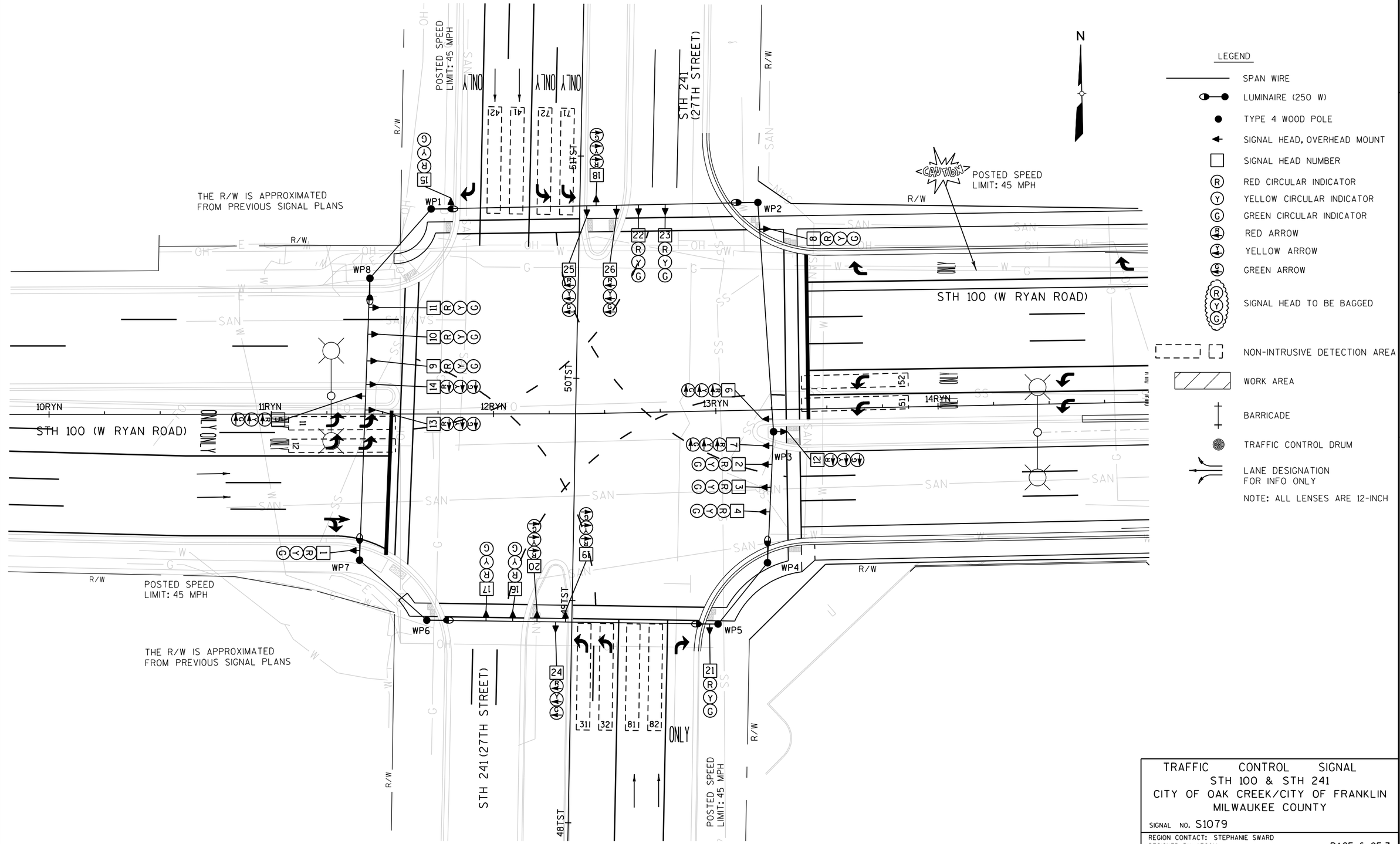
WISDOT/CADDS SHEET 42



TRAFFIC CONTROL SIGNAL
STH 100 & STH 241
CITY OF OAK CREEK/CITY OF FRANKLIN
MILWAUKEE COUNTY

SIGNAL NO. S1079

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: AECOM
REVISED BY:

PAGE 6 OF 7

PROJECT NUMBER: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 2C	SHEET 175 E

FILE NAME: I:\work\projects\60222213\000_cad\tempplan_27th_stage2C.dgn
BATCH PRINT SHEET 9 OF 73

PRINTER DRIVER: S:\TPN_CADstds\Workspace-Clients\WisDOT\Microstation\Resources\MS_Printing\Printer_Drivers\ET_PDF_11 x 17 Traffic Signals.plt
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PLOT DATE: 11/18/2013
PLOT TIME: 10:02:11 AM

PLOT SCALE: 1:39.9999

WISDOT/CADDS SHEET 42

2

N

SEQUENCE OF OPERATION

RING 1

	HEAD NUMBERS	Ø1 R/W	Ø1 CLEAR TO ✳✳	Ø2 R/W	Ø2 CLEAR TO ✳✳	Ø3 R/W	Ø3 CLEAR TO ✳✳	Ø4 R/W	Ø4 CLEAR TO ✳✳	FLASH
Ø1	5,6,7	G Y R		R R R		R R R		R R R		R
Ø2	8,9,10,11	R R R		G Y R		R R R		R R R		R
Ø3	24,25,26	R R R		R R R		G Y R		R R R		R
Ø4	15,16,17	R R R		R R R		R R R		G Y R		R
Ø5	12,13,14	R R R		R R R		R R R		R R R		R
Ø6	1,2,3,4	R R R		R R R		R R R		R R R		R
Ø7	18,19,20	R R R		R R R		R R R		R R R		R
Ø8	21,22,23	R R R		R R R		R R R		R R R		R
OLA										
OLB										
OLC										
OLD										

RING 2

	HEAD NUMBERS	Ø5 R/W	Ø5 CLEAR TO ✳✳	Ø6 R/W	Ø6 CLEAR TO ✳✳	Ø7 R/W	Ø7 CLEAR TO ✳✳	Ø8 R/W	Ø8 CLEAR TO ✳✳
Ø1	5,6,7	R R R		R R R		R R R		R R R	
Ø2	8,9,10,11	R R R		R R R		R R R		R R R	
Ø3	24,25,26	R R R		R R R		R R R		R R R	
Ø4	15,16,17	R R R		R R R		R R R		R R R	
Ø5	12,13,14	G Y R		R R R		R R R		R R R	
Ø6	1,2,3,4	R R R		G Y R		R R R		R R R	
Ø7	18,19,20	R R R		R R R		G Y R		R R R	
Ø8	21,22,23	R R R		R R R		R R R		G Y R	
OLA									
OLB									
OLC									
OLD									

BARRIER

** CLEARANCE TO A PHASE IN CONFLICT WITH THIS PHASE ON (SEE CHART 1)

DETECTOR LOGIC

DETECTOR NUMBER	DETECTOR INPUT	DETECTOR OPERATION: CALLS AND EXTENDS	DETECTOR OPERATION: CALLS ONLY	DETECTOR OPERATION: EXTENDS ONLY	PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	SIZE	NUMBER OF TURNS
11		X			1	1					
12		X			1	1					
31		X			3	3					
32		X			3	3					
41		X			4	4					
42		X			4	4					
51		X			5	5					
52		X			5	5					
71		X			7	7					
72		X			7	7					
81		X			8	8					
82		X			8	8					

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1		6		X
2		6	MAX.	X
3		8		X
4		8		X
5		2		X
6		2	MAX.	X
7		4		X
8		4		X

OVERLAPS

O.L. "A" =
O.L. "B" =
O.L. "C" =
O.L. "D" =

TYPE OF INTERCONNECT COMMUNICATION	
NONE	
TBC	x
CLOSED LOOP TWISTED PAIR*	
CLOSED LOOP FIBER OPTIC*	
RADIO	
FIBER OPTIC	
*LOCATION OF MASTER CONTROLLER NO:	S-
SIGNAL SYSTEM #:	SS- -

TYPE OF PRE-EMPT	
NONE	x
RAILROAD	
EMERGENCY VEHICLE	
3M	
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC SIGNAL CABINET	x
IN SEPARATE DOT LIGHTING CABINET	

GENERAL NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.
2. WHEN ONE PHASE IS ON ALONE, ANY NONCONFLICTING PHASE MAY START TIMING CONCURRENTLY WITHOUT A CLEARANCE INTERVAL. (SEE CHART 1 AT LEFT.)

CHART 1

PHASE ON	NONCONFLICTING PHASE ALLOWED TO TIME CONCURRENTLY	PHASES IN CONFLICT WITH PHASE ON
1	5 OR 6	2,3,4,7,8
2	5 OR 6	1,3,4,7,8
3	7 OR 8	1,2,4,5,6
4	7 OR 8	1,2,3,5,6
5	1 OR 2	3,4,6,7,8
6	1 OR 2	3,4,5,7,8
7	3 OR 4	1,2,5,6,8
8	3 OR 4	1,2,5,6,7

STH 100 & STH 241
CITY OF OAK CREEK/CITY OF FRANKLIN
MILWAUKEE COUNTY

SIGNAL NO. S1079

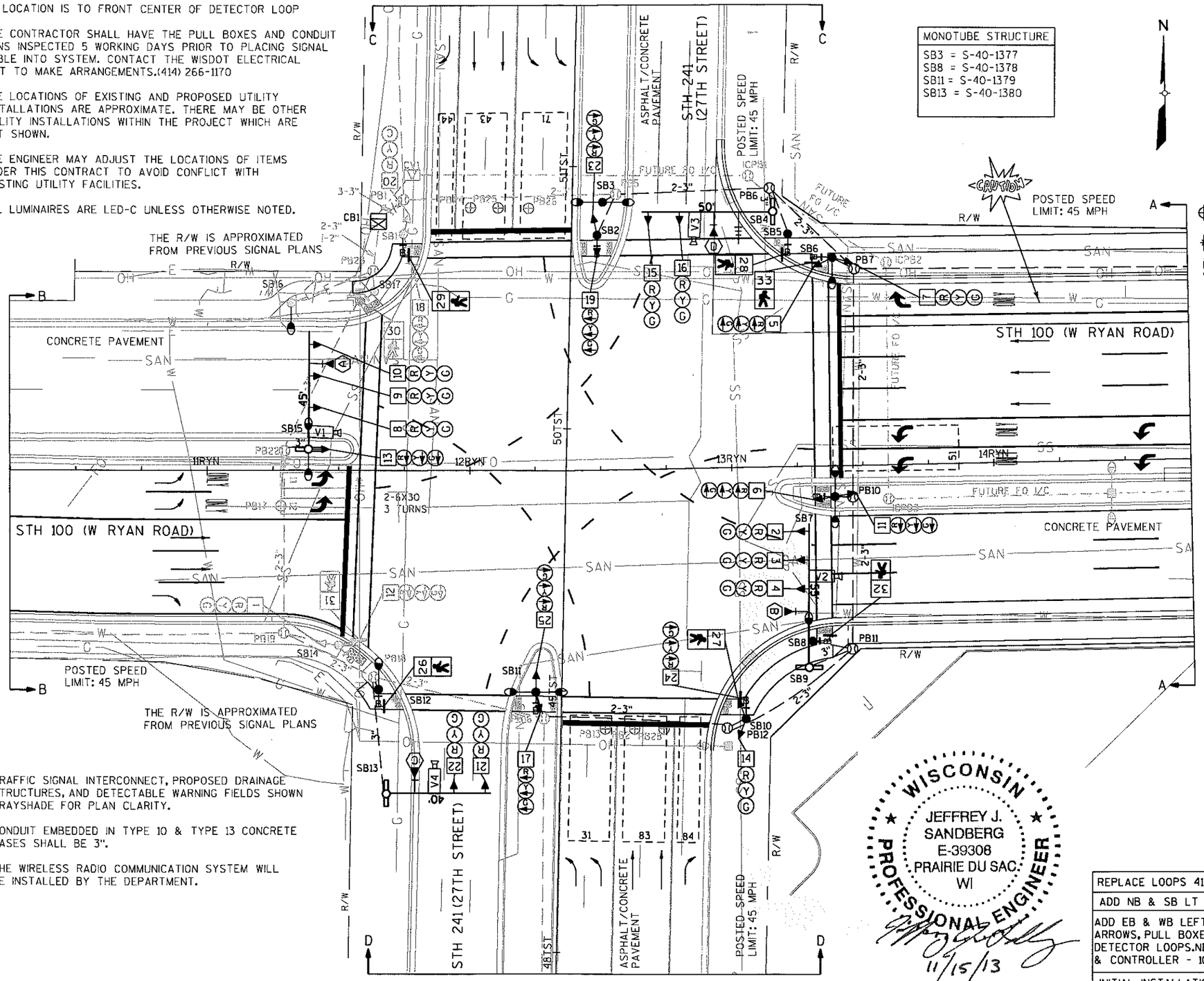
CONTROLLER TYPE: TEMP

DATE SEPTEMBER 2013 PAGE NO. 7 OF 7

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TEMPORARY SEQUENCE OF OPERATIONS	SHEET 176	E

CONSTRUCTION NOTES:

1. * LOCATION IS TO FRONT CENTER OF DETECTOR LOOP
2. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO SYSTEM. CONTACT THE WISDOT ELECTRICAL UNIT TO MAKE ARRANGEMENTS.(414) 266-1170
3. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
4. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
5. ALL LUMINAIRES ARE LED-C UNLESS OTHERWISE NOTED.



6. TRAFFIC SIGNAL INTERCONNECT, PROPOSED DRAINAGE STRUCTURES, AND DETECTABLE WARNING FIELDS SHOWN GRAYSHADE FOR PLAN CLARITY.
7. CONDUIT EMBEDDED IN TYPE 10 & TYPE 13 CONCRETE BASES SHALL BE 3".
8. THE WIRELESS RADIO COMMUNICATION SYSTEM WILL BE INSTALLED BY THE DEPARTMENT.

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- LUMINAIRE UNDER PERMIT TO LOCAL MUNICIPALITY
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT WITH 12" PULL BOX
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- VIDEO DETECTION AREA
- PULL BOX, 24" X 36"
- PULL BOX, 12" X 24"
- PULL BOX, 24" X 42"
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- VIDEO DETECTION CAMERA
- WALK / DON'T WALK INDICATOR 16" (COUNTDOWN TIMER)
- (X) EVP DESIGNATOR
- EVP DETECTOR HEAD
- RADIO INTERCONNECT ANTENNA
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH GRAYSHADE REPRESENTS EXISTING

WISCONSIN
JEFFREY J. SANDBERG
E-39308
PRAIRIE DU SAC, WI
PROFESSIONAL ENGINEER
11/15/13

REVISION				
Rev. No.	RECONSTRUCT EAST APPROACH OF INTERSECTION, ADD PEDESTRIAN CROSSINGS ON ALL APPROACHES, ADD MONOTUBES, & NEW CONTROLLER CABINET			
	APPROVAL RECOMMENDED		APPROVED	
4	REGION		CENTRAL OFFICE	
	Date	By	Date	By
	11/18/13	DAB	11/19/13	SJS

TRAFFIC CONTROL SIGNAL

STH 100 & STH 241
CITY OF OAK CREEK/CITY OF FRANKLIN
MILWAUKEE COUNTY

SIGNAL NO. S1079 CABINET TYPE: TS2 CONTROLLER TYPE: ECONOLITE

REPLACE LOOPS 41,42,81,82 01/09	WISCONSIN DEPARTMENT OF TRANSPORTATION
ADD NB & SB LT PHASES 11/00	APPROVAL RECOMMENDED
ADD EB & WB LEFT TURN ARROWS, PULL BOXES, DETECTOR LOOPS.NEW CABINET & CONTROLLER - 10/31/00	Date 6-25-79 ROBERT MOE, REGION TRAFFIC ENGINEER
INITIAL INSTALLATION 12/11/85	APPROVED Date 12-11-84 H.O. PRICE, STATE TRAFFIC ENGINEER

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: AECOM
REVISED BY:
PAGE 1 OF 4

SJS 11/18/13

PROJECT NUMBER: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 177	E

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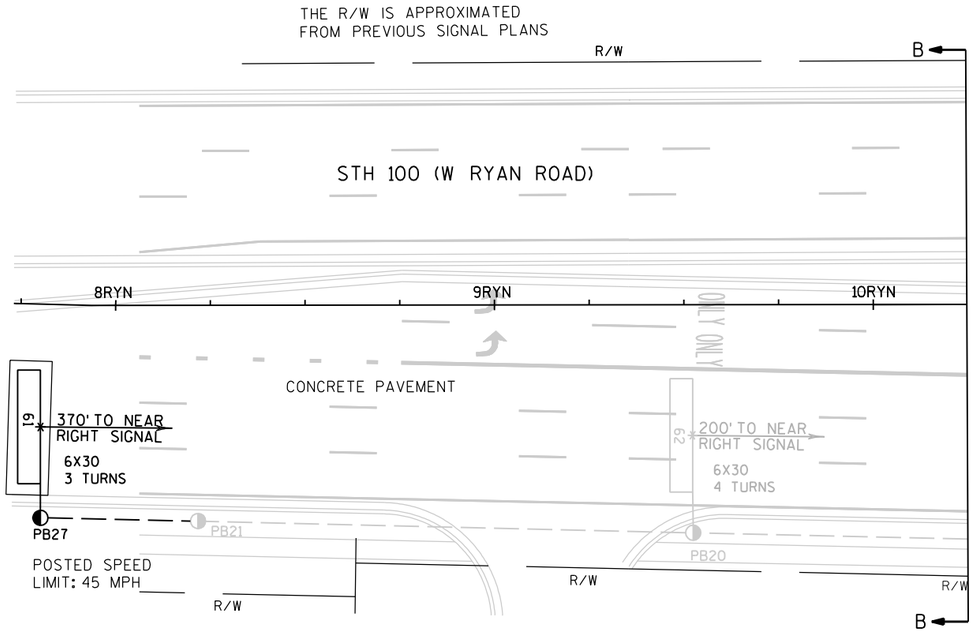
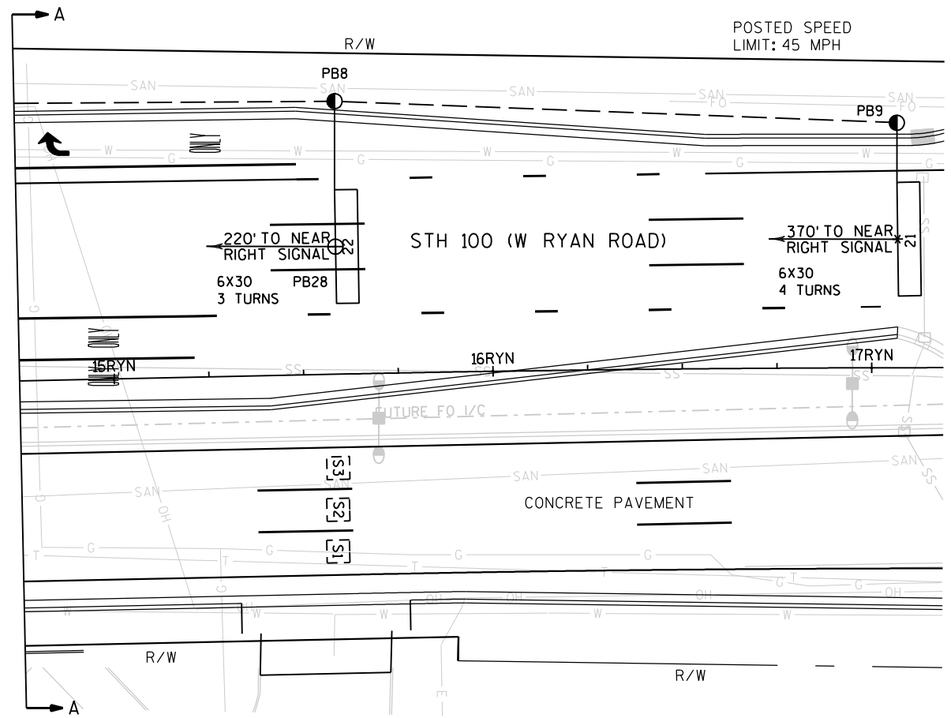
WISDOT/CADDS SHEET 42

2

N





TRAFFIC CONTROL SIGNAL
STH 100 & STH 241
CITY OF OAK CREEK/CITY OF FRANKLIN
MILWAUKEE COUNTY

SIGNAL NO. S1079

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: AECOM
REVISED BY:

PAGE 2 OF 4

PROJECT NUMBER: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 178	E

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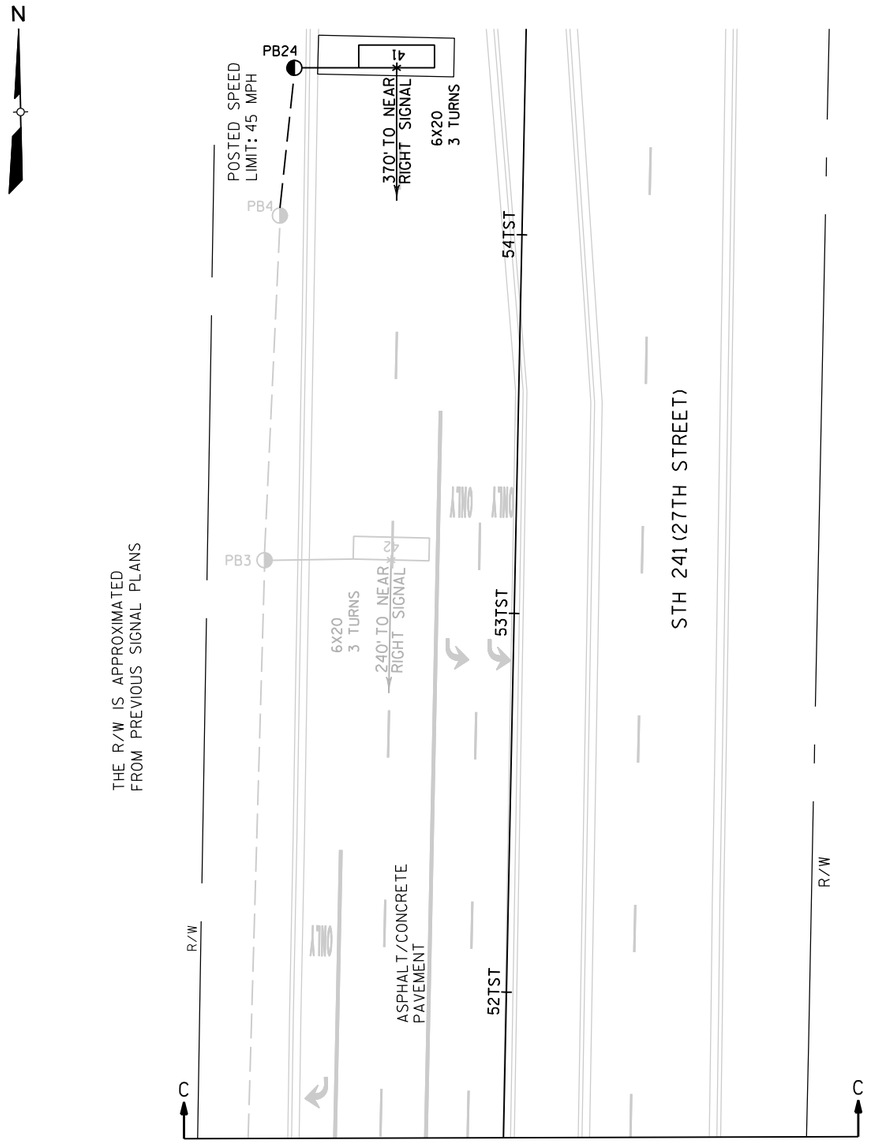
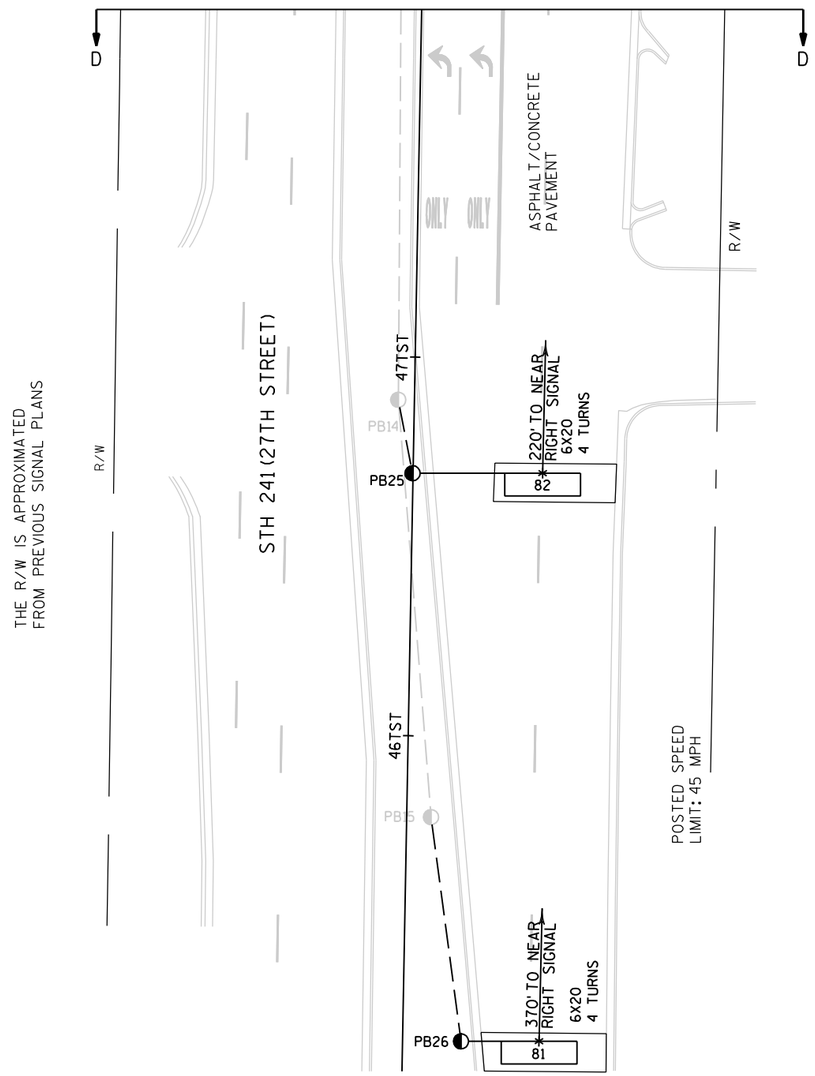
WISDOT/CADDS SHEET 42





TRAFFIC CONTROL SIGNAL
STH 100 & STH 241
CITY OF OAK CREEK/CITY OF FRANKLIN
MILWAUKEE COUNTY

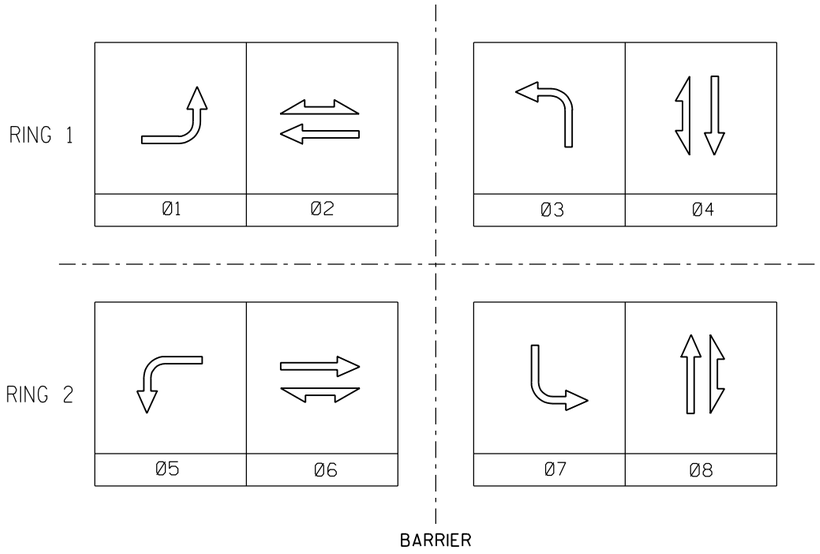
SIGNAL NO. S1079

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: AECOM
REVISED BY:

PAGE 3 OF 4

PROJECT NUMBER: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 179	E

	HEAD NUMBERS	FLASH
Ø1	5,6	R
Ø2	7,8,9,10	R
Ø3	17,18,19	R
Ø4	20,21,22	R
Ø5	11,12,13	R
Ø6	1,2,3,4	R
Ø7	23,24,25	R
Ø8	14,15,16	R
Ø2P	28,29	
Ø4P	30,31	
Ø6P	26,27	
Ø8P	32,33	



CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1		6		X
2	X	6	MIN	X
3		8		X
4		8		X
5		2		X
6	X	2	MIN	X
7		4		X
8		4		X

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE DETECTOR	A	B	C	D
MOVEMENT				
PHASE	2+5	1+6	4+7	3+8

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	X
CLOSED LOOP	
TWISTED PAIR*	
FIBER OPTIC*	
FIBER OPTIC (ETHERNET)	
RADIO	

TYPE OF COORDINATION	
NONE	
TBC	X
TRAFFIC RESPONSIVE	
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO:	S-
SIGNAL SYSTEM #:	SS- -

TYPE OF LIGHTING	
BY OTHER AGENCY	X
IN TRAFFIC SIGNAL CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
PLAN LOOP DETECTOR *(S)	11	21	61	41	81			
CALLED PHASE	1	2	6	4	8			
CALL OPTION	X	X	X					
DELAY TIME								
EXTEND OPTION	X	X	X	X	X			
EXTEND TIME		X	X	X	X			
USE ADDED INITIAL		X	X					
CROSS SWITCH PHASE								

19	17	23	21	27	25	31	29	DETECTOR INPUT
31	43	51	71	83	S1,S2			PLAN LOOP DETECTOR *(S)
3	4	5	7	8				CALLED PHASE
X	X	X	X	X				CALL OPTION
								DELAY TIME
X	X	X	X	X				EXTEND OPTION
								EXTEND TIME
								USE ADDED INITIAL
								CROSS SWITCH PHASE

DETECTOR INPUT	4	2	8	6	12	10	16	14
PLAN LOOP DETECTOR *(S)	12	22	62	42	82			
CALLED PHASE	1	2	6	4	8			
CALL OPTION	X	X	X					
DELAY TIME								
EXTEND OPTION	X	X	X	X	X			
EXTEND TIME		X	X	X	X			
USE ADDED INITIAL		X	X					
CROSS SWITCH PHASE								

20	18	24	22	28	26	32	30	DETECTOR INPUT
	44			84	S3			PLAN LOOP DETECTOR *(S)
	4			8				CALLED PHASE
	X			X				CALL OPTION
	X			X				DELAY TIME
	X			X				EXTEND OPTION
								EXTEND TIME
								USE ADDED INITIAL
								CROSS SWITCH PHASE

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	x
GTT	x
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

STH 100 & STH 241
CITY OF OAK CREEK/CITY OF FRANKLIN
MILWAUKEE COUNTY

SIGNAL NO. S1079 CABINET TYPE: TS2

CONTROLLER TYPE: ECONOLITE

DATE SEPTEMBER 2013 PAGE NO. 4 OF 4

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	SEQUENCE OF OPERATIONS	SHEET 180	E

PROJECT ID:	2040-16-70
INTERSECTION:	STH 100 & STH 241

SIGNAL WIRE	BLK-BLACK	RED-RED	GRN-GREEN
COLOR CODING	WHT-WHITE	BLU-BLUE	ORG-ORANGE

DATE: Sep-13

CB1 TO	AWG 14 # OF COND.	HEAD NO.	SIGNAL INDICATION WIRE COLOR							D/WALK	WALK	PED BUTTON	OTHER
			RED	YELLOW	GREEN	<RED>	<YELLOW>	<FLASH YEL>	<GREEN>				
SB1	12	20	RED/BLK	ORG/BLK	GRN/BLK								
		18				RED	ORG		GRN				
		29								BLK	BLU		
		PB										WHT/BLK	
SB2	12	19				RED	ORG		GRN				
		23				RED/BLK	ORG/BLK		GRN/BLK				
		PB										WHT/BLK	
SB4	12	15	RED	ORG	GRN								
		16	RED	ORG	GRN								
SB5	12	28								BLK	BLU		
		PB										WHT/BLK	
SB6	12	7	RED/BLK	ORG/BLK	GRN/BLK								
		5				RED	ORG		GRN				
		33								BLK	BLU		
		PB										WHT/BLK	
SB7	12	11				RED/BLK	ORG/BLK		GRN/BLK				
		6				RED	ORG		GRN				
		PB										WHT/BLK	
SB8	12	32								BLK	BLU		
		PB										WHT/BLK	
SB9	12	2	RED	ORG	GRN								
		3	RED	ORG	GRN								
		4	RED	ORG	GRN								
SB10	12	14	RED	ORG	GRN								
		24				RED/BLK	ORG/BLK		GRN/BLK				
		27								BLK	BLU		
		PB										WHT/BLK	
SB11	12	17				RED/BLK	ORG/BLK		GRN/BLK				
		25				RED	ORG		GRN				
		PB										WHT/BLK	
SB12	12	26								BLK	BLU		
		PB										WHT/BLK	
SB13	12	21	RED	ORG	GRN								
		22	RED	ORG	GRN								
SB14	15	1	RED	ORG	GRN								
		12				RED/BLK	ORG/BLK		GRN/BLK				
		31								BLK	BLU		
		PB										WHT/BLK	
SB15	12	8	RED	ORG	GRN								
		9	RED	ORG	GRN								
		10	RED	ORG	GRN								
		13				RED/BLK	ORG/BLK		GRN/BLK				
SB17	12	30								BLK	BLU		
.		PB										WHT/BLK	

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11/15/13

STH 100 (RYAN ROAD) & STH 241
CITY OF OAK CREEK/CITY OF FRANKLIN
MILWAUKEE COUNTY

SIGNAL NO. S1079

CONTROLLER TYPE: ECONOLITE

DATE SEPTEMBER 2013 PAGE NO. 1 OF 2

PROJECT NUMBER: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	CABLE ROUTING	SHEET 181	E

2

EQUIPMENT GROUNDING CONDUCTORS 10 AWG GRN XLP	
FROM	TO
CB1	SB1
SB1	SB2
SB2	SB3
SB3	SB4
SB4	SB5
SB5	SB6
SB6	SB7
SB7	SB8
SB8	SB9
SB9	SB10
SB10	SB11
SB11	SB12
SB12	SB13
SB13	SB14
SB14	SB15
SB15	SB16
SB16	SB17
SB17	CB1

PULL BOX BONDING JUMPER 10 AWG GRN XLP	
FROM	TO
PB1	SB1
PB5	SB3
PB6	SB4
PB7	SB6
PB10	SB7
PB11	SB8
PB12	SB10
PB16	SB11
PB18	SB12
PB19	SB14
PB22	SB15
PB23	SB17

LIGHTING UF 8 AWG W/ GROUND	
FROM	TO
CB1	SB3
SB3	SB6
SB6	SB7
CB1	SB9
SB9	SB11
CB1	SB16
SB16	SB15
SB15	SB12

EMERGENCY VEHICLE PREEMPTION		
HEAD	FROM	TO
A	CB1	SB15
B	CB1	SB9
C	CB1	SB13
D	CB1	SB4

NOTES:

1. USE WHITE CONDUCTOR IN THE SIGNAL CABLE AS THE GROUNDED CONDUCTOR FOR ALL TRAFFIC SIGNAL INDICATIONS.
2. ENSURE THE GROUNDED CONDUCTOR IN THE FEEDER CABLE AND THE POLE CABLES ARE BOTH 18" LONGER THAN THE UNGROUNDED CONDUCTORS.
3. AT THE SIGNAL BASES, CONNECT ONE TERMINAL FROM THE PEDESTRIAN PUSH BUTTONS TO THE COLOR INDICATED IN THE CHART. CONNECT THE OTHER TERMINAL TO THE GROUNDED CONDUCTOR.

STH 100 (RYAN ROAD) & STH 241
CITY OF OAK CREEK/CITY OF FRANKLIN
MILWAUKEE COUNTY

SIGNAL NO. S1079

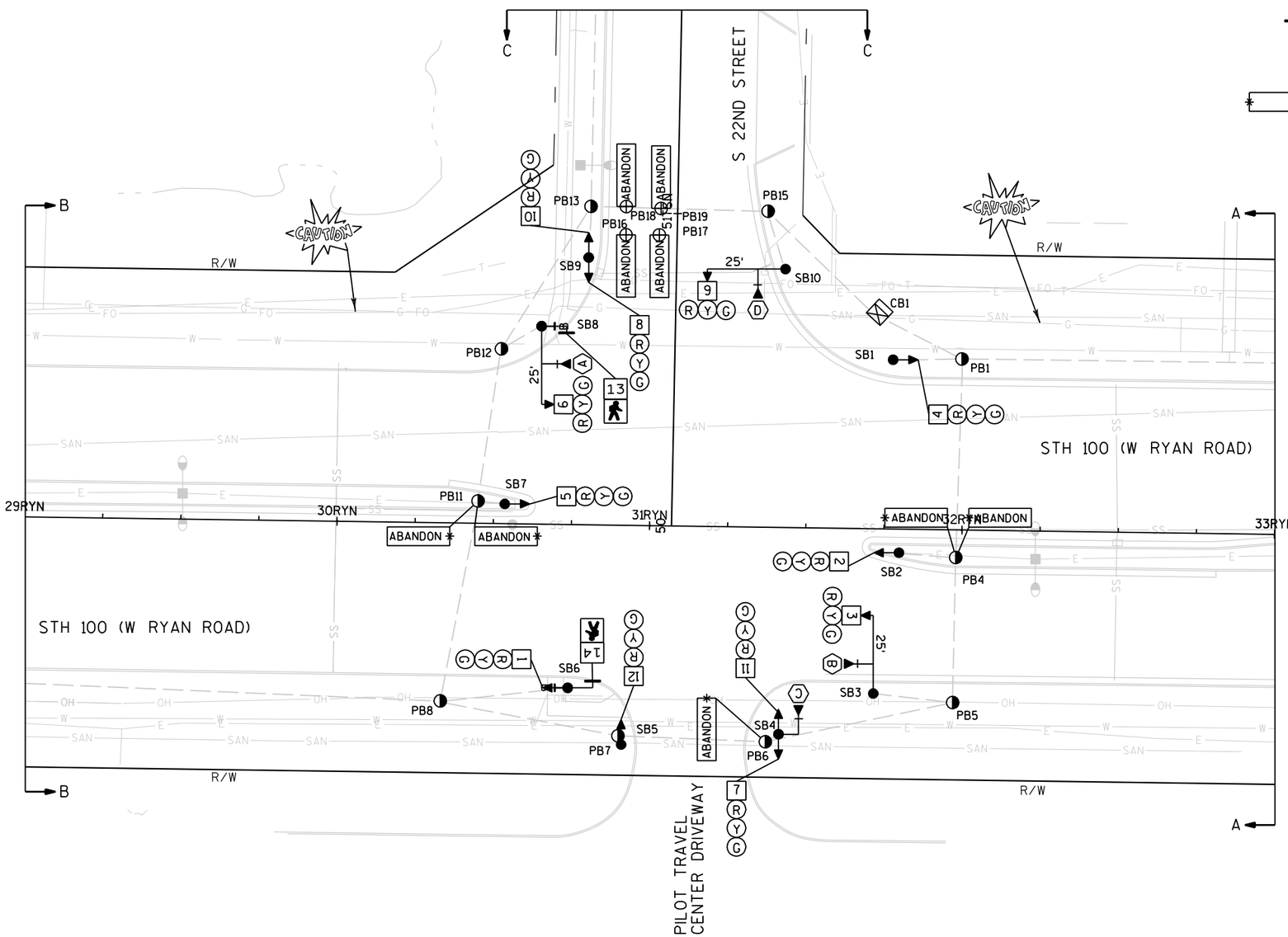
CONTROLLER TYPE: ECONOLITE

DATE SEPTEMBER 2013 PAGE NO. 2 OF 2

PROJECT NUMBER: 2040-16-70 | HWY: STH 100 | COUNTY: MILWAUKEE | CABLE ROUTING | SHEET 182 | E

CONSTRUCTION NOTES:

1. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
2. ABANDONED LOOP DETECTOR CONDUIT TO REMAIN IN PLACE. LOOP DETECTOR WIRE AND LEAD-IN CABLE TO BE REMOVED BY THE CONTRACTOR.
3. CABINET AND CONTROLLER WILL BE REMOVED BY WISDOT.



LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 36"
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- WALK / DON'T WALK INDICATOR 16" (COUNTDOWN TIMER)
- (X) EVP DESIGNATOR
- EVP DETECTOR HEAD

NOTE: GRAYSHADE REPRESENTS EXISTING
BOLD REPRESENTS ITEMS TO BE REMOVED

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WI
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11/15/13

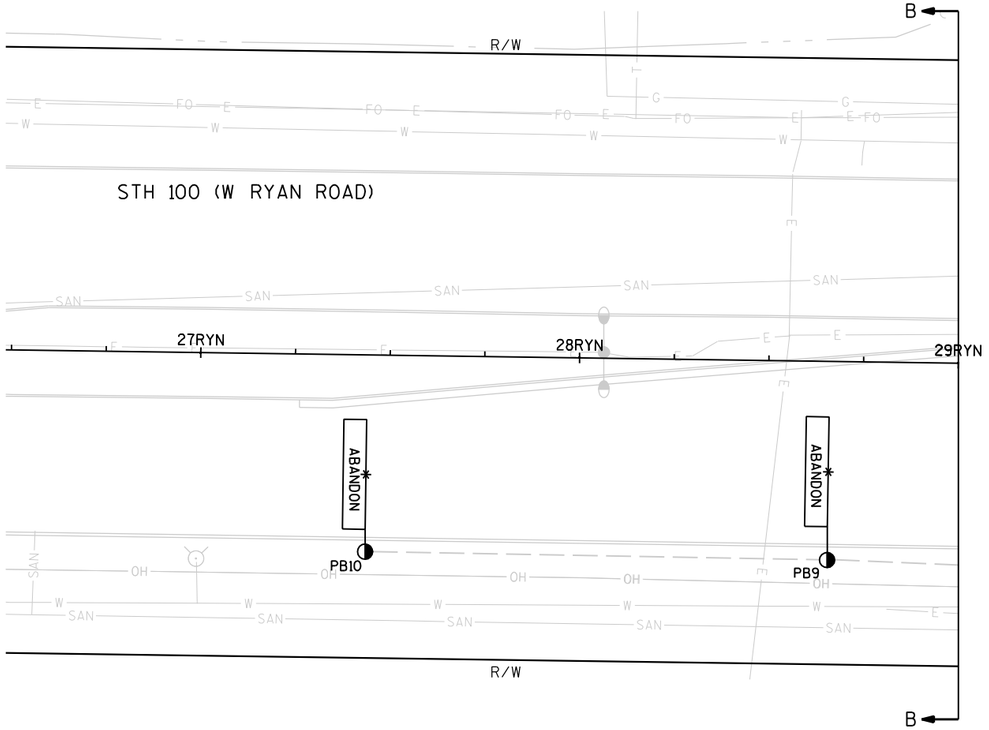
TRAFFIC CONTROL SIGNAL
STH 100 (RYAN RD) & 22ND STREET
CITY OF OAK CREEK
MILWAUKEE COUNTY

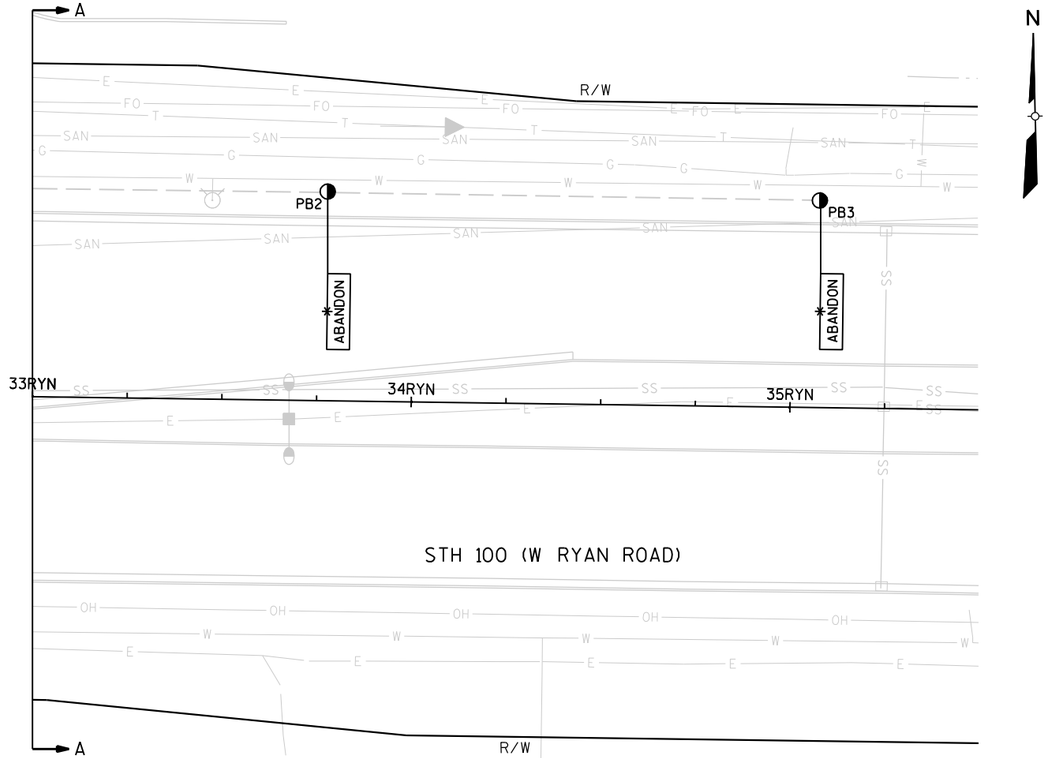
SIGNAL NO. S1226

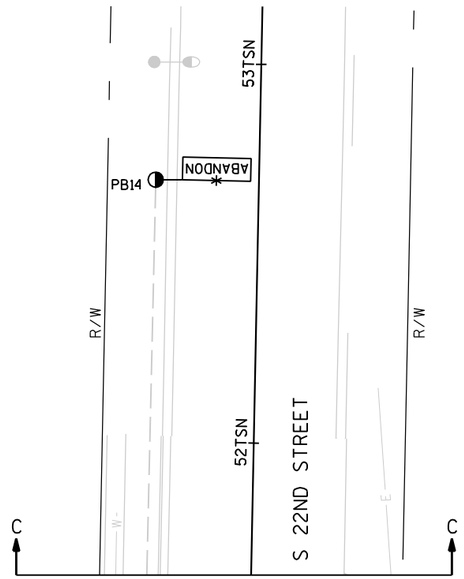
REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: AECOM
REVISED BY:

PAGE 1 OF 2

PROJECT NUMBER: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 183	E







TRAFFIC CONTROL SIGNAL
STH 100 (RYAN ROAD) & 22ND STREET
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1226

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: AECOM
REVISED BY:

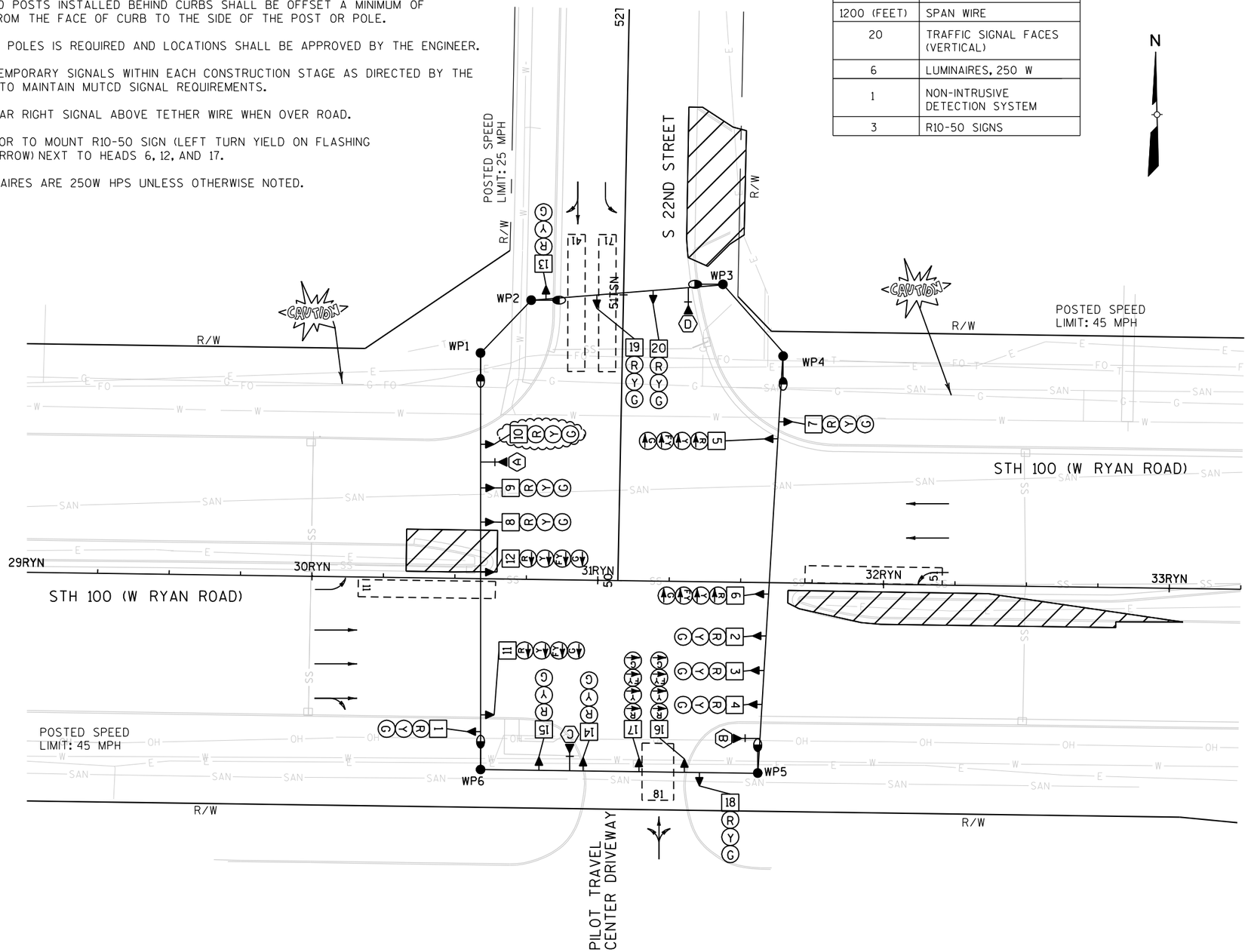
PAGE 2 OF 2

PROJECT NUMBER: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 184	E

CONSTRUCTION NOTES:

1. ALL EXISTING SIGNAL HEADS SHALL BE REMOVED, COVERED, OR TURNED AWAY FROM TRAFFIC IMMEDIATELY AFTER TURNING ON TEMPORARY SIGNALS.
2. POLES AND POSTS INSTALLED BEHIND CURBS SHALL BE OFFSET A MINIMUM OF 2 FEET FROM THE FACE OF CURB TO THE SIDE OF THE POST OR POLE.
3. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER.
4. ADJUST TEMPORARY SIGNALS WITHIN EACH CONSTRUCTION STAGE AS DIRECTED BY THE ENGINEER TO MAINTAIN MUTCD SIGNAL REQUIREMENTS.
5. MOUNT NEAR RIGHT SIGNAL ABOVE TETHER WIRE WHEN OVER ROAD.
6. CONTRACTOR TO MOUNT R10-50 SIGN (LEFT TURN YIELD ON FLASHING YELLOW ARROW) NEXT TO HEADS 6, 12, AND 17.
7. ALL LUMINAIRES ARE 250W HPS UNLESS OTHERWISE NOTED.

SUMMARY OF MATERIALS FOR INFORMATION ONLY	
6	WOOD POLES, CLASS 4
1200 (FEET)	SPAN WIRE
20	TRAFFIC SIGNAL FACES (VERTICAL)
6	LUMINAIRES, 250 W
1	NON-INTRUSIVE DETECTION SYSTEM
3	R10-50 SIGNS



LEGEND

- SPAN WIRE
- LUMINAIRE (250 W)
- TYPE 4 WOOD POLE
- SIGNAL HEAD, OVERHEAD MOUNT
- SIGNAL HEAD NUMBER
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- SIGNAL HEAD TO BE BAGGED
- NON-INTRUSIVE DETECTION AREA
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- WORK AREA
- BARRICADE
- TRAFFIC CONTROL DRUM
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH

WISCONSIN PROFESSIONAL ENGINEER
JEFFREY J. SANDBERG
E-39308
PRAIRIE DU SAC. WI
11/15/13

TRAFFIC CONTROL SIGNAL
STH 100 (RYAN RD) & 22ND STREET
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1226

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: AECOM
REVISED BY:

PAGE 1 OF 9

PROJECT NUMBER: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 1A	SHEET 185 E

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PLOT TIME: 10:02:58 AM
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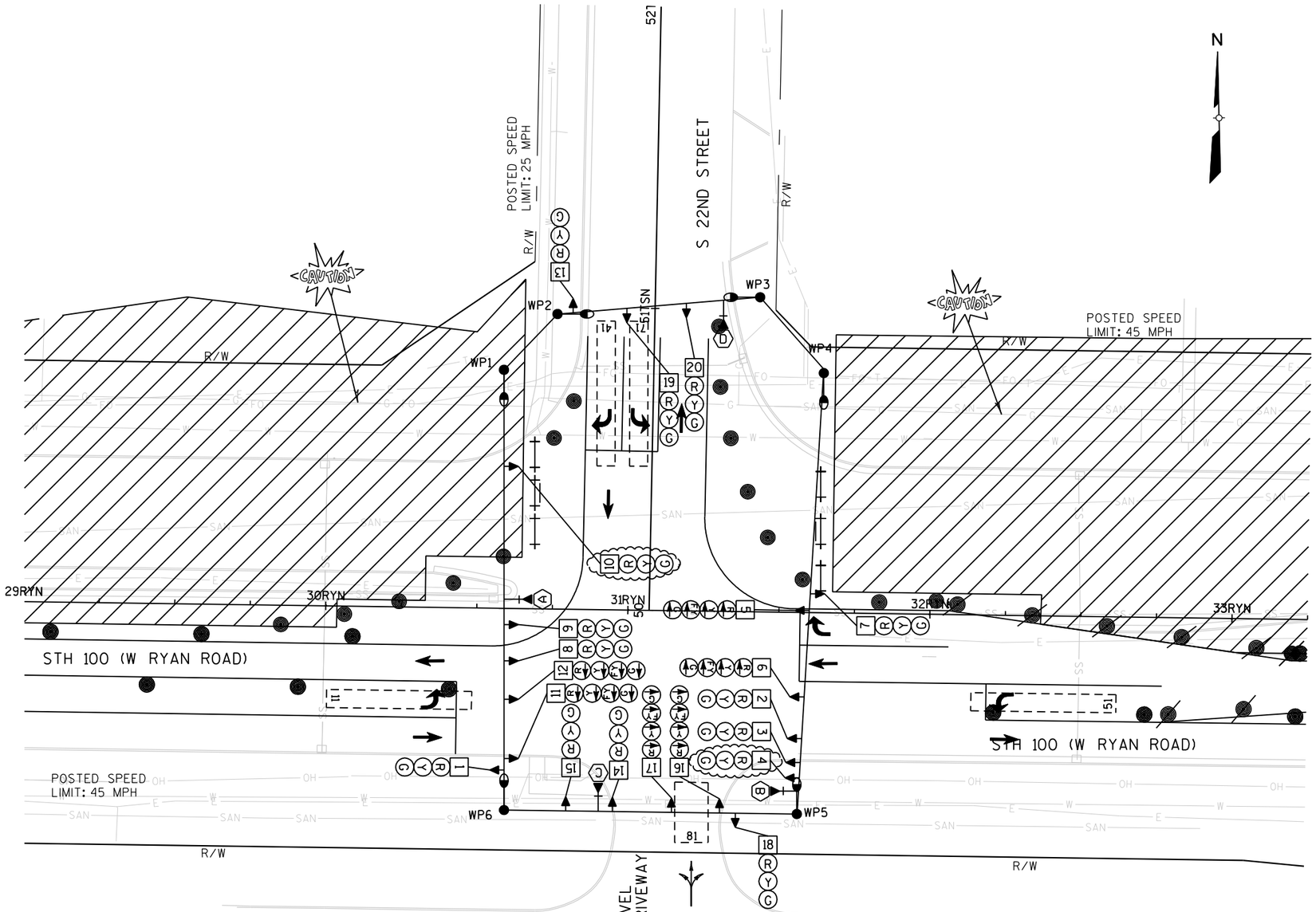
WISDOT/CADDS SHEET 42



LEGEND

- SPAN WIRE
- LUMINAIRE (250 W)
- TYPE 4 WOOD POLE
- SIGNAL HEAD, OVERHEAD MOUNT
- SIGNAL HEAD NUMBER
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- SIGNAL HEAD TO BE BAGGED
- NON-INTRUSIVE DETECTION AREA
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- WORK AREA
- BARRICADE
- TRAFFIC CONTROL DRUM
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH

TRAFFIC CONTROL SIGNAL
STH 100 (RYAN RD) & 22ND STREET
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1226

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: AECOM
REVISED BY:

PROJECT NUMBER: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 1B	SHEET 186	E

FILE NAME: l:\work\projects\60222213\000.cad\tempplan_22nd_stage1B.dgn
BATCH PRINT SHEET 20 OF 73
PRINTER DRIVER: S:\TPN_CADstds\Workspace-Clients\WisDOT\Microstation\Resources\MS_Printing\Printer_Drivers\ET_PDF_11 x 17 Traffic Signals.plt
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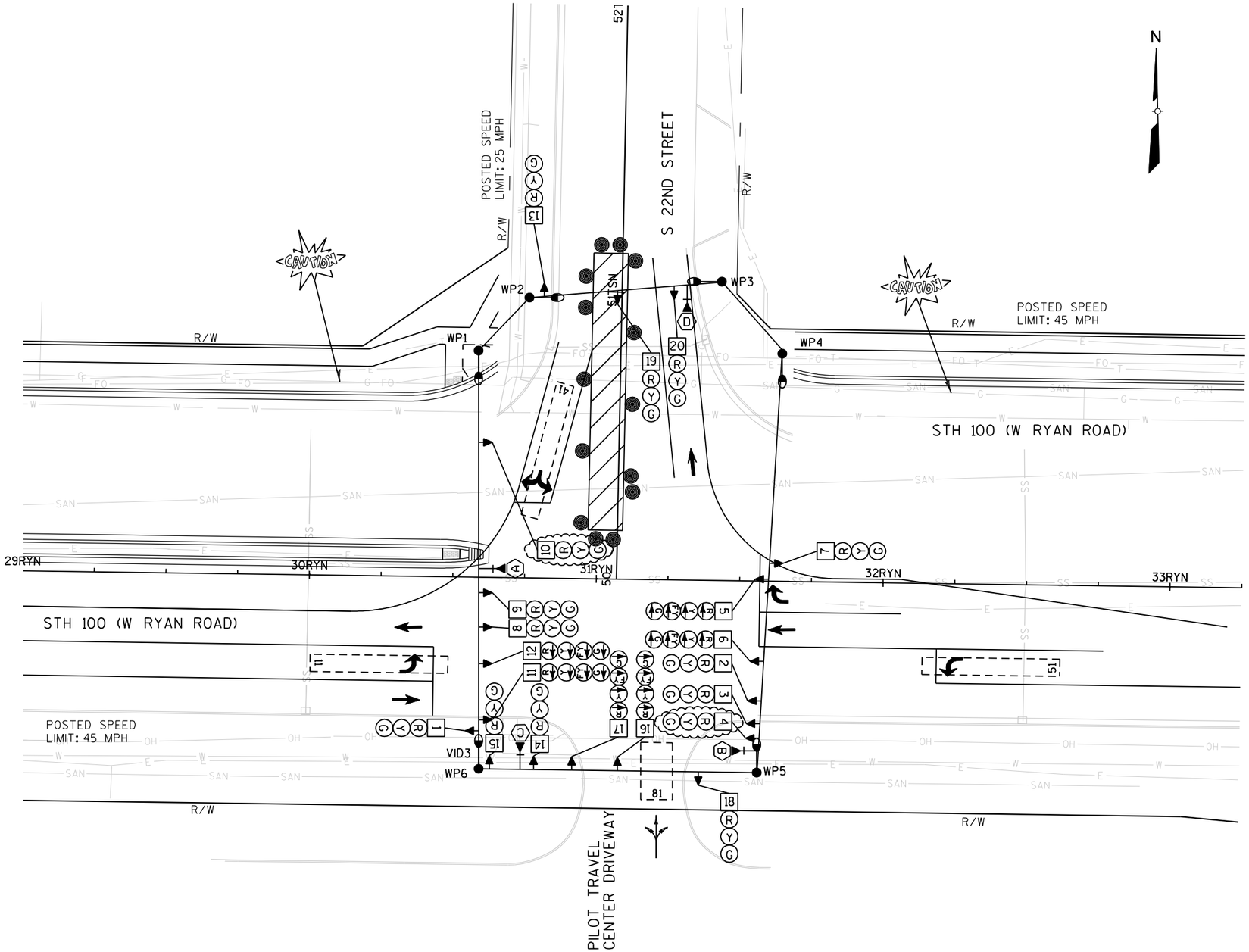
WISDOT/CADDS SHEET 42



LEGEND

- SPAN WIRE
- LUMINAIRE (250 W)
- TYPE 4 WOOD POLE
- SIGNAL HEAD, OVERHEAD MOUNT
- SIGNAL HEAD NUMBER
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- SIGNAL HEAD TO BE BAGGED
- NON-INTRUSIVE DETECTION AREA
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- WORK AREA
- BARRICADE
- TRAFFIC CONTROL DRUM
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH

TRAFFIC CONTROL SIGNAL
STH 100 (RYAN RD) & 22ND STREET
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1226

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: AECOM
REVISED BY:

PAGE 3 OF 9

PROJECT NUMBER: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 1C, PHASE 1	SHEET 187	E

FILE NAME: I:\work\projects\60222213\000.cad\tempplan_22nd_stage1C_Phase1.dgn
BATCH PRINT SHEET 21 OF 73
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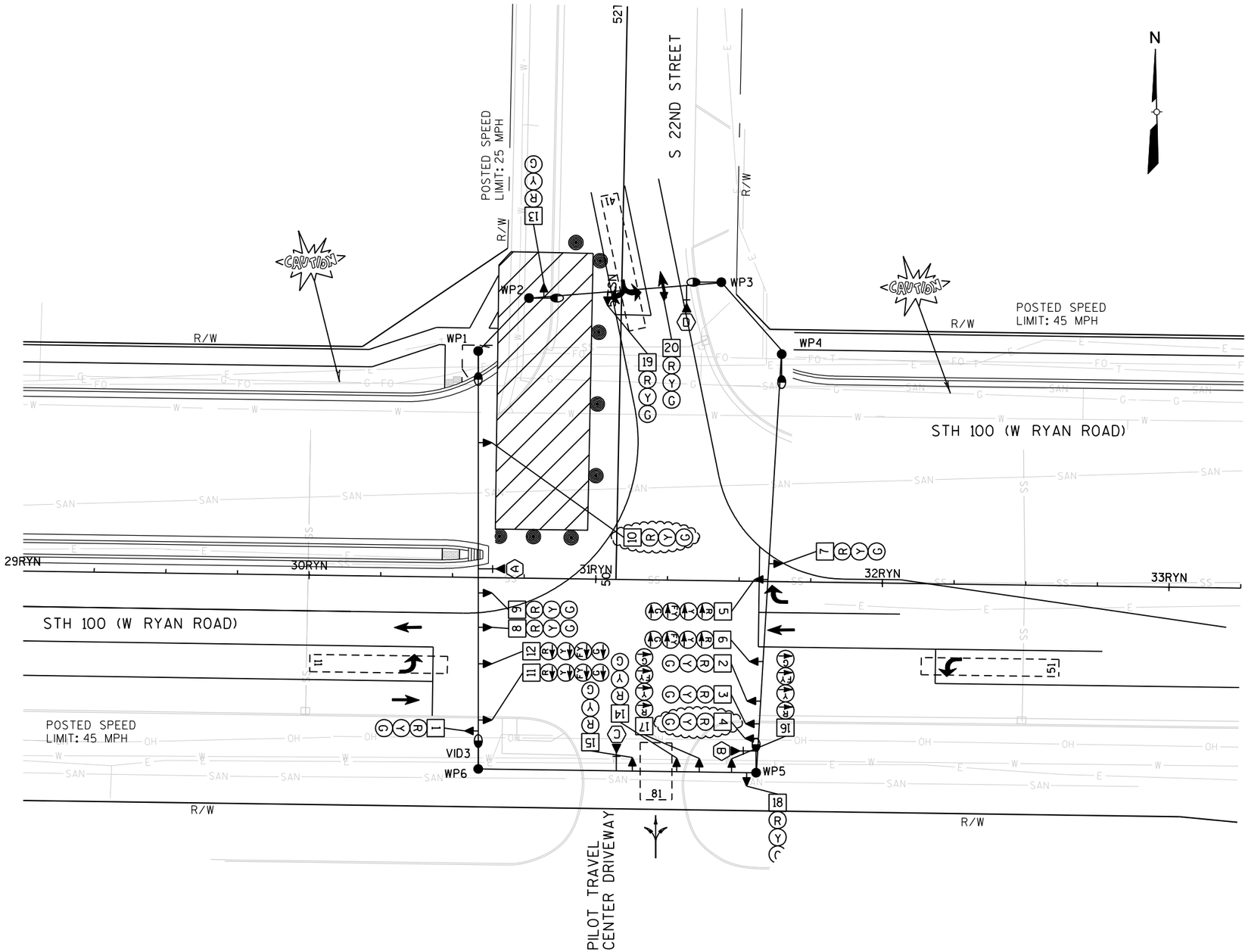


LEGEND

- SPAN WIRE
- LUMINAIRE (250 W)
- TYPE 4 WOOD POLE
- SIGNAL HEAD, OVERHEAD MOUNT
- SIGNAL HEAD NUMBER
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- SIGNAL HEAD TO BE BAGGED
- NON-INTRUSIVE DETECTION AREA
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- WORK AREA
- BARRICADE
- TRAFFIC CONTROL DRUM
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH

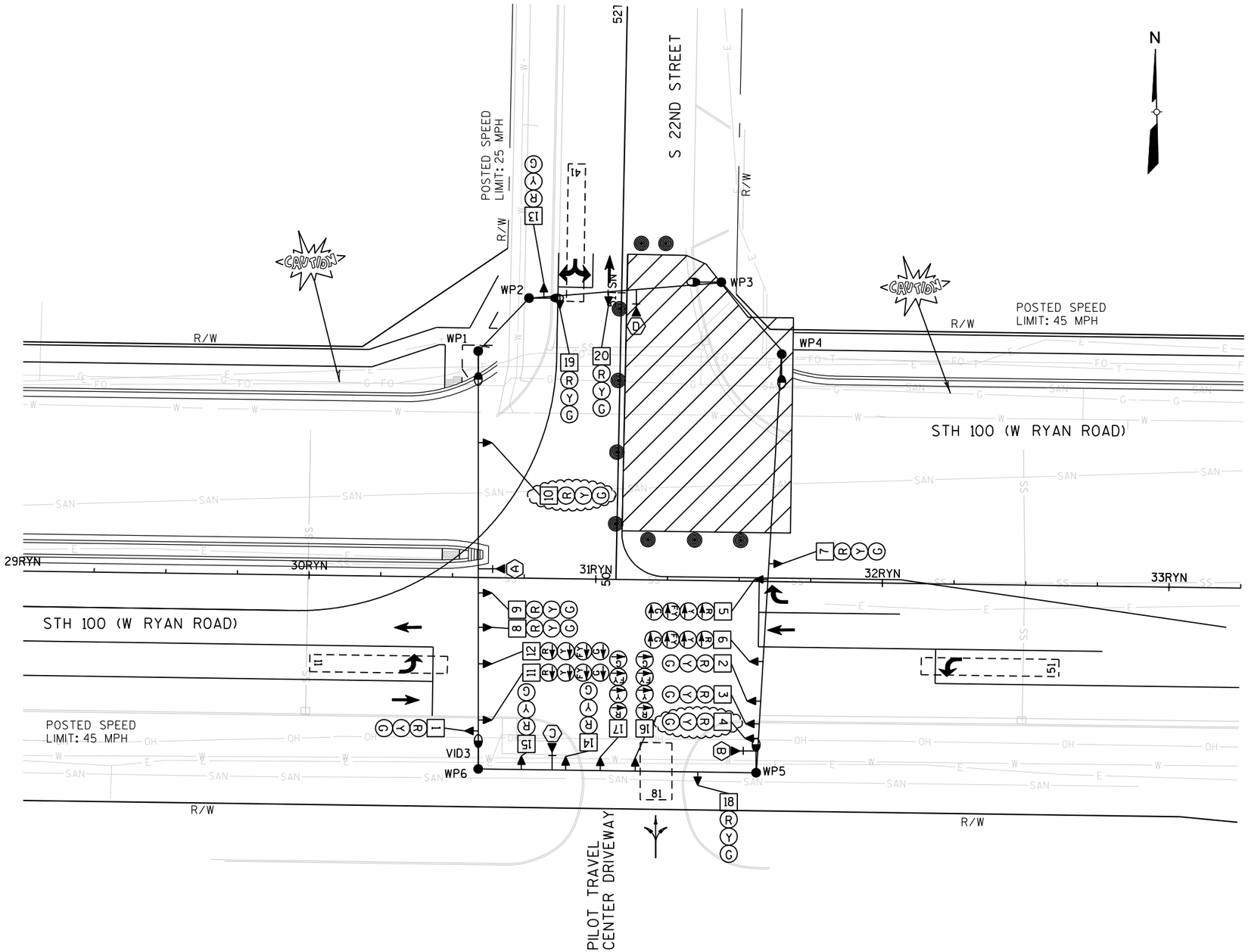
TRAFFIC CONTROL SIGNAL
STH 100 (RYAN RD) & 22ND STREET
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1226

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: AECOM
REVISED BY:

PAGE 4 OF 9

PROJECT NUMBER: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 1C, PHASE 2	SHEET 188	E



LEGEND

- SPAN WIRE
- LUMINAIRE (250 W)
- TYPE 4 WOOD POLE
- SIGNAL HEAD, OVERHEAD MOUNT
- SIGNAL HEAD NUMBER
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- SIGNAL HEAD TO BE BAGGED
- NON-INTRUSIVE DETECTION AREA
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- WORK AREA
- BARRICADE
- TRAFFIC CONTROL DRUM
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH

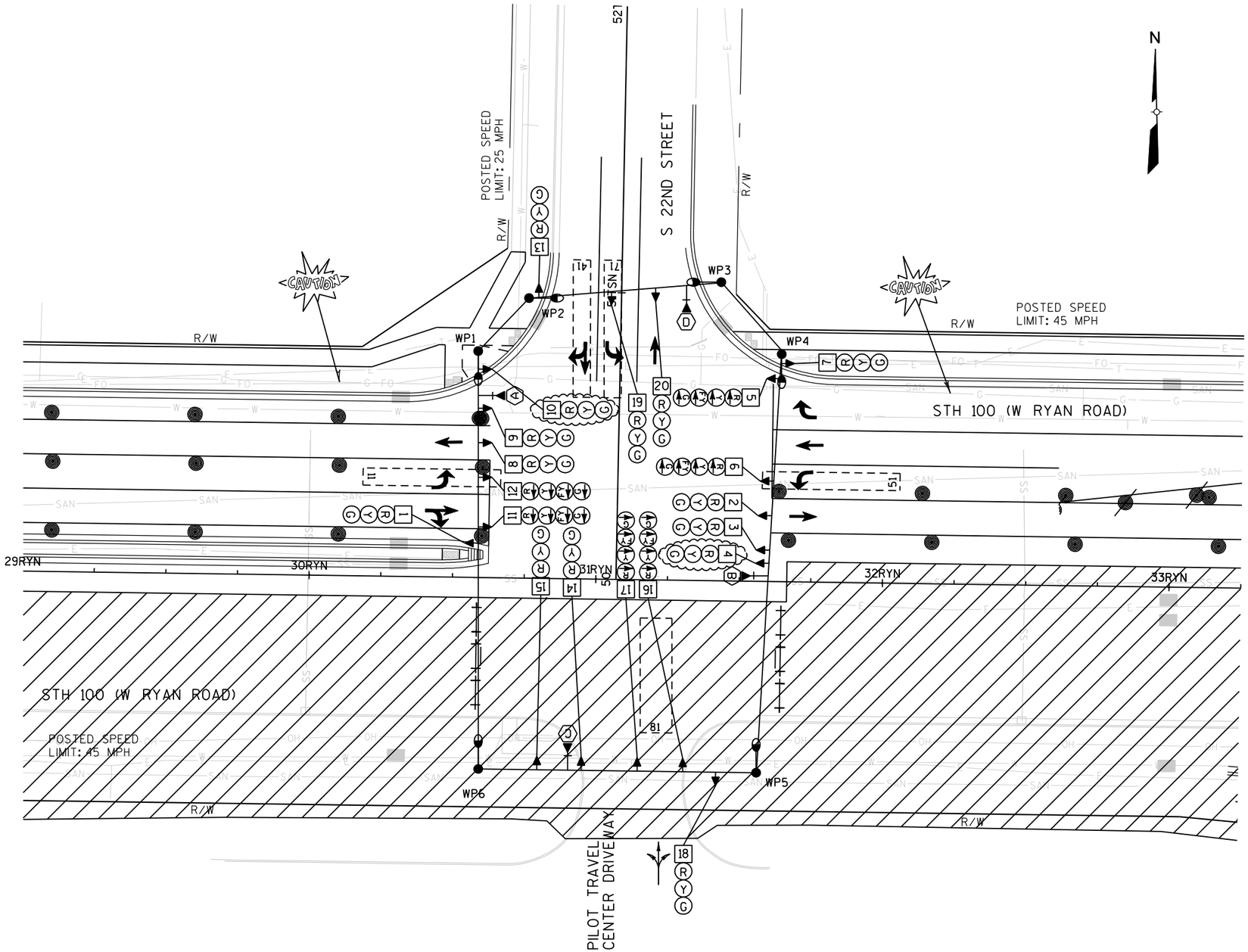
TRAFFIC CONTROL SIGNAL
STH 100 (RYAN RD) & 22ND STREET
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1226

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: AECOM
REVISED BY:

PAGE 5 OF 9

PROJECT NUMBER: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 1C, PHASE 3	SHEET 189 E



LEGEND

- SPAN WIRE
- LUMINAIRE (250 W)
- TYPE 4 WOOD POLE
- SIGNAL HEAD, OVERHEAD MOUNT
- SIGNAL HEAD NUMBER
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- SIGNAL HEAD TO BE BAGGED
- NON-INTRUSIVE DETECTION AREA
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- WORK AREA
- BARRICADE
- TRAFFIC CONTROL DRUM
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH

TRAFFIC CONTROL SIGNAL
STH 100 (RYAN RD) & 22ND STREET
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1226

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: AECOM
REVISED BY:

PAGE 6 OF 9

PROJECT NUMBER: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 2A	SHEET 190	E

FILE NAME: l:\work\projects\60222213\000.cad\tempplan_22nd_stage2A.dgn
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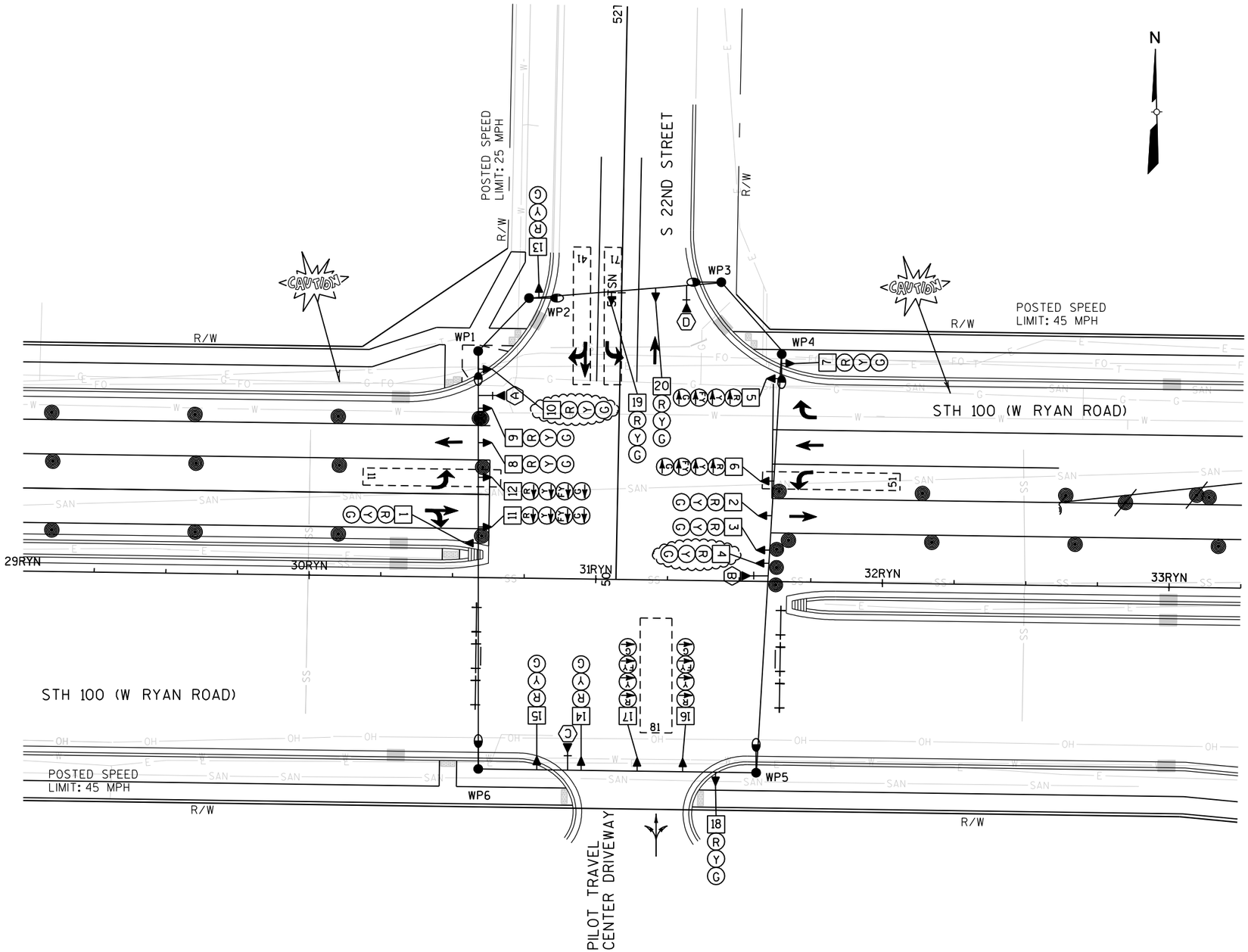
WISDOT/CADDS SHEET 42



LEGEND

- SPAN WIRE
- LUMINAIRE (250 W)
- TYPE 4 WOOD POLE
- SIGNAL HEAD, OVERHEAD MOUNT
- SIGNAL HEAD NUMBER
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- SIGNAL HEAD TO BE BAGGED
- NON-INTRUSIVE DETECTION AREA
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- WORK AREA
- BARRICADE
- TRAFFIC CONTROL DRUM
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH

TRAFFIC CONTROL SIGNAL
STH 100 (RYAN RD) & 22ND STREET
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1226

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: AECOM
REVISED BY:

PAGE 7 OF 9

PROJECT NUMBER: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 2B	SHEET 191	E

FILE NAME: l:\work\projects\60222213\000.cad\tempplan_22nd_stage2B.dgn
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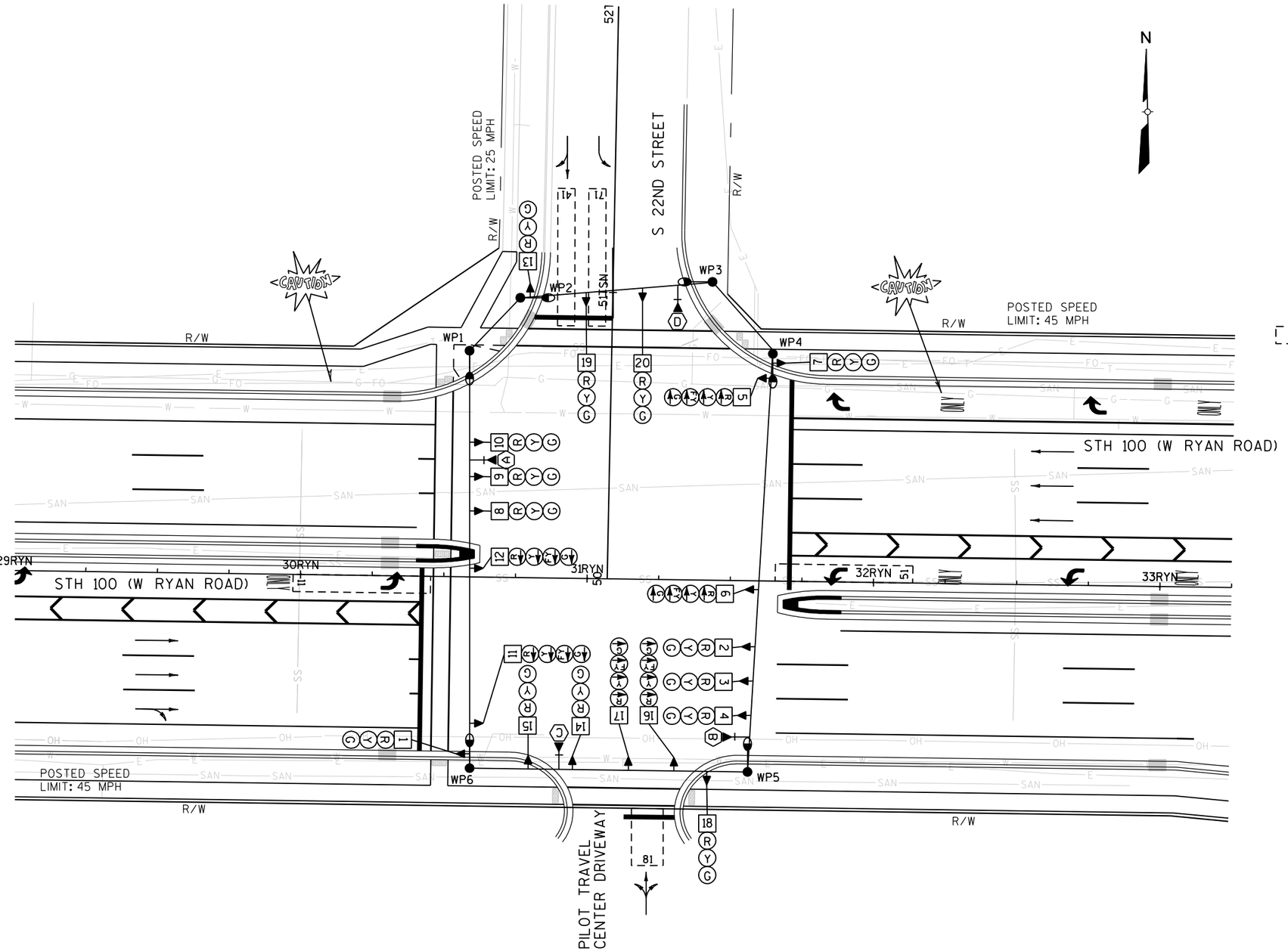

TRAFFIC CONTROL SIGNAL
STH 100 (RYAN RD) & 22ND STREET
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1226

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: AECOM
REVISED BY:

PAGE 8 OF 9

PROJECT NUMBER: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 2C	SHEET 192	E

FILE NAME: l:\work\projects\60222213\000.cad\tempplan_22nd_stage2C.dgn
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PLOT SCALE: 1:39.9999
WISDOT/CADDS SHEET 42

2

SEQUENCE OF OPERATION

N

RING 1

	HEAD NUMBERS	Ø1 R/W	Ø1 CLEAR TO **	Ø2 R/W	Ø2 CLEAR TO **	Ø3 R/W	Ø3 CLEAR TO **	Ø4 R/W	Ø4 CLEAR TO **	FLASH
Ø1	5,6	G	- -	-	- -			-	- -	-
Ø2	7,8,9,10	R	R R	G	Y R			R	R R	R
Ø3										
Ø4	13,14,15	R	R R	R	R R			G	Y R	R
Ø5	11,12	-	- -	-	- -			-	- -	-
Ø6	1,2,3,4	R	R R	R	R R			R	R R	R
Ø7	16,17	-	- -	-	- -			-	- -	-
Ø8	18,19,20	R	R R	R	R R			R	R R	R
OLA	5,6	-	Y R	FY	Y R			R	R R	R
OLB										
OLC	11,12	R	R R	R	R R			R	R R	R
OLD	16,17	R	R R	R	R R			R	R R	R

RING 2

	HEAD NUMBERS	Ø5 R/W	Ø5 CLEAR TO **	Ø6 R/W	Ø6 CLEAR TO **	Ø7 R/W	Ø7 CLEAR TO **	Ø8 R/W	Ø8 CLEAR TO **
Ø1	5,6	-	- -	-	- -	-	- -	-	- -
Ø2	7,8,9,10	R	R R	R	R R	R	R R	R	R R
Ø3									
Ø4	13,14,15	R	R R	R	R R	R	R R	R	R R
Ø5	11,12	G	- -	-	- -	-	- -	-	- -
Ø6	1,2,3,4	R	R R	G	Y R	R	R R	R	R R
Ø7	16,17	-	- -	-	- -	G	- -	-	- -
Ø8	18,19,20	R	R R	R	R R	R	R R	G	Y R
OLA	5,6	R	R R	R	R R	R	R R	R	R R
OLB									
OLC	11,12	-	Y R	FY	Y R	R	R R	R	R R
OLD	16,17	R	R R	R	R R	-	Y R	FY	Y R

BARRIER

** CLEARANCE TO A PHASE IN CONFLICT WITH THIS PHASE ON (SEE CHART 1)

FY = FLASHING YELLOW

OMIT PHASE 7 DURING CONSTRUCTION STAGE 1C

DETECTOR LOGIC

DETECTOR NUMBER	DETECTOR INPUT	DETECTOR OPERATION: CALLS AND EXTENDS	CALLS ONLY	EXTENDS ONLY	PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	SIZE	NUMBER OF TURNS
11		X			1	1					
41		X			4	4		X			
51		X			5	5					
71		X			7	7					
81		X			8	8		X			

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1		6		X
2		6	MAX.	X
3				
4		8		X
5		2		X
6		2	MAX.	X
7		4		X
8		4		X

SPECIAL OVERLAPS

	PROTECTED	PERMISSIVE
OL A	1	2
OL C	5	6
OL D	7	8

TYPE OF INTERCONNECT COMMUNICATION	
NONE	
TBC	x
CLOSED LOOP TWISTED PAIR*	
CLOSED LOOP FIBER OPTIC*	
RADIO	
FIBER OPTIC	
*LOCATION OF MASTER CONTROLLER NO: S-	
SIGNAL SYSTEM #: SS- -	

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	
3M	
TOMAR	
HARDWIRE	
GTT	x
LIFT BRIDGE	
QUEUE DETECTOR	

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC SIGNAL CABINET	x
IN SEPARATE DOT LIGHTING CABINET	

GENERAL NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.
2. WHEN ONE PHASE IS ON ALONE, ANY NONCONFLICTING PHASE MAY START TIMING CONCURRENTLY WITHOUT A CLEARANCE INTERVAL. (SEE CHART 1 AT LEFT.)

CHART 1

PHASE ON	NONCONFLICTING PHASE ALLOWED TO TIME CONCURRENTLY	PHASES IN CONFLICT WITH PHASE ON
1	5 OR 6	2,4,7,8
2	5 OR 6	1,4,7,8
3		
4	7 OR 8	1,2,5,6
5	1 OR 2	4,6,7,8
6	1 OR 2	4,5,7,8
7	4	1,2,5,6,8
8	4	1,2,5,6,7

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE DETECTOR	A	B	C	D
MOVEMENT				
PHASE	2+5	1+6	4+7	4+8

AFTER PREEMPTION SEQUENCE 2+5 OR 1+6
CONTROLLER SHALL RETURN TO PHASES 2+6
AFTER PREEMPTION SEQUENCE 4+7 OR 4+8
CONTROLLER SHALL RETURN TO PHASES 4+8

STH 100 (RYAN RD) & 22ND STREET
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1226

CONTROLLER TYPE: TEMP

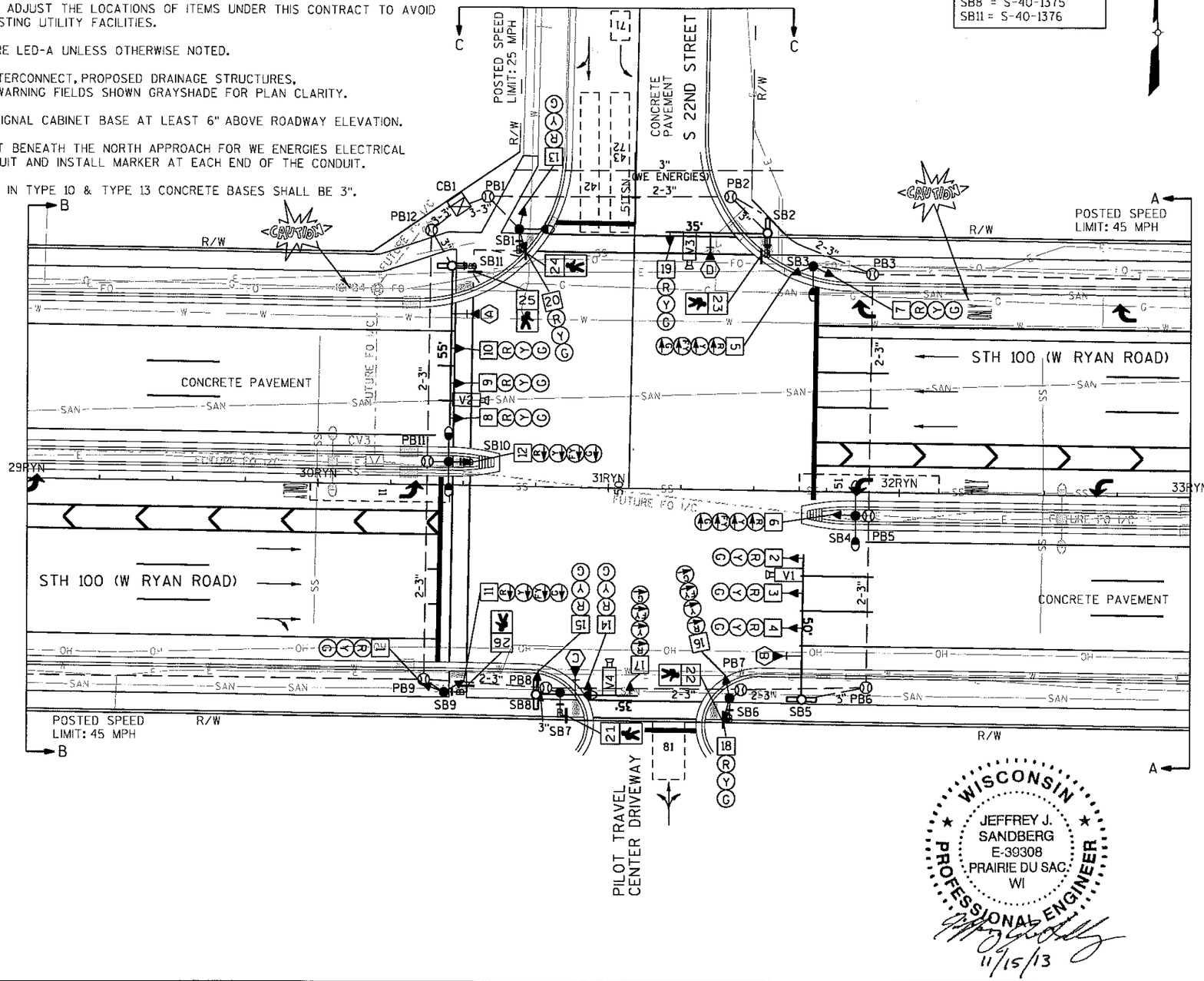
DATE SEPTEMBER 2013 PAGE NO. 9 OF 9

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TEMPORARY SEQUENCE OF OPERATIONS	SHEET 193	E

CONSTRUCTION NOTES:

1. * LOCATION IS TO FRONT CENTER OF DETECTOR LOOP
2. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO SYSTEM. CONTACT THE WISDOT ELECTRICAL UNIT TO MAKE ARRANGEMENTS. (414) 266-1170
3. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
4. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
5. ALL LUMINAIRES ARE LED-A UNLESS OTHERWISE NOTED.
6. TRAFFIC SIGNAL INTERCONNECT, PROPOSED DRAINAGE STRUCTURES, AND DETECTABLE WARNING FIELDS SHOWN GRAYSHADE FOR PLAN CLARITY.
7. INSTALL TRAFFIC SIGNAL CABINET BASE AT LEAST 6" ABOVE ROADWAY ELEVATION.
8. INSTALL 3" CONDUIT BENEATH THE NORTH APPROACH FOR WE ENERGIES ELECTRICAL SERVICE. CAP CONDUIT AND INSTALL MARKER AT EACH END OF THE CONDUIT.
9. CONDUIT EMBEDDED IN TYPE 10 & TYPE 13 CONCRETE BASES SHALL BE 3".

MONOTUBE STRUCTURE
SB2 = S-40-1373
SB5 = S-40-1374
SB8 = S-40-1375
SB11 = S-40-1376



N

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) MONOTUBE BASE, POLE, 35'-55' ARM
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- LUMINAIRE UNDER PERMIT TO LOCAL MUNICIPALITY
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- VIDEO DETECTION AREA
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- VIDEO DETECTION CAMERA
- WALK / DON'T WALK INDICATOR 16" (COUNTDOWN TIMER)
- (X) EVP DESIGNATOR
- EVP DETECTOR HEAD
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

WISCONSIN
JEFFREY J. SANDBERG
E-39308
PRAIRIE DU SAC, WI
PROFESSIONAL ENGINEER
11/15/13

TRAFFIC CONTROL SIGNAL
STH 100 (RYAN ROAD) & 22ND STREET
CITY OF OAK CREEK
MILWAUKEE COUNTY
SIGNAL NO. S1226
CABINET TYPE: TS2
CONTROLLER TYPE: ECONOLITE

WISCONSIN DEPARTMENT OF TRANSPORTATION
APPROVAL RECOMMENDED
Date 11/18/13 David A. Pabst, P.E. REGION TRAFFIC ENGINEER
APPROVED
Date 11/18/13 Joanna L. Bush STATE TRAFFIC ENGINEER

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: AECOM
REVISED BY:
PAGE 1 OF 3

SJS 11/18/13

PROJECT NUMBER: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 194	E

FILE NAME: I:\work\projects\60222213\000_cad\sigplan_sh1_22nd.dgn
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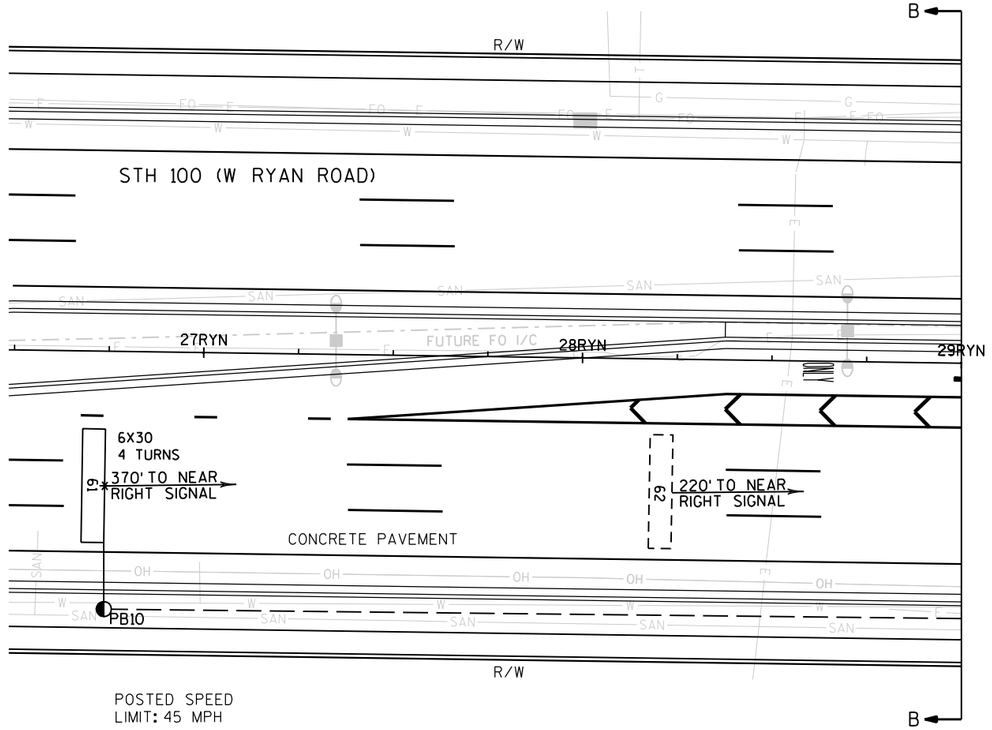
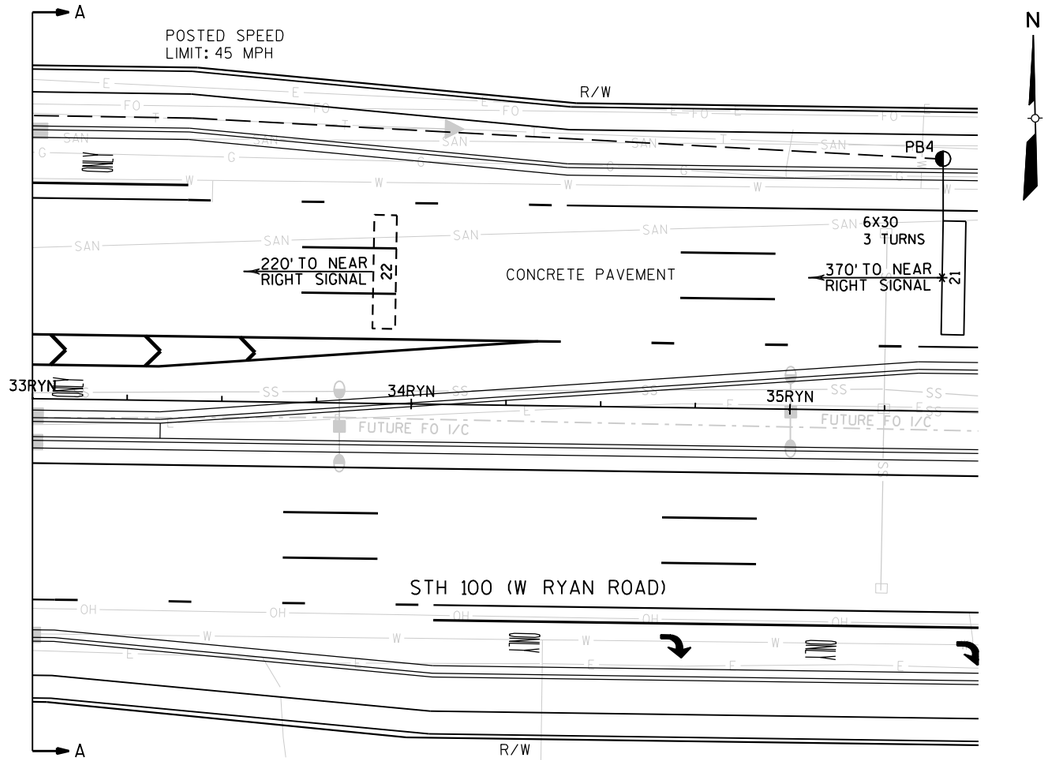
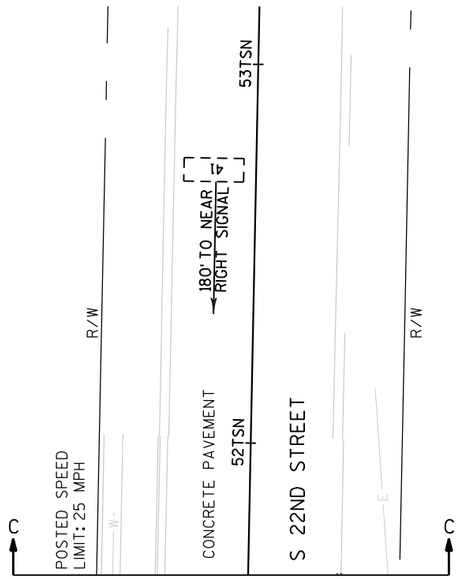
WISDOT/CADDS SHEET 42







TRAFFIC CONTROL SIGNAL
STH 100 (RYAN ROAD) & 22ND STREET
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1226

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: AECOM
REVISED BY:

PAGE 2 OF 3

PROJECT NUMBER: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 195	E

FILE NAME: l:\work\projects\60222213\000_cad\sigplan_sh2_22nd.dgn
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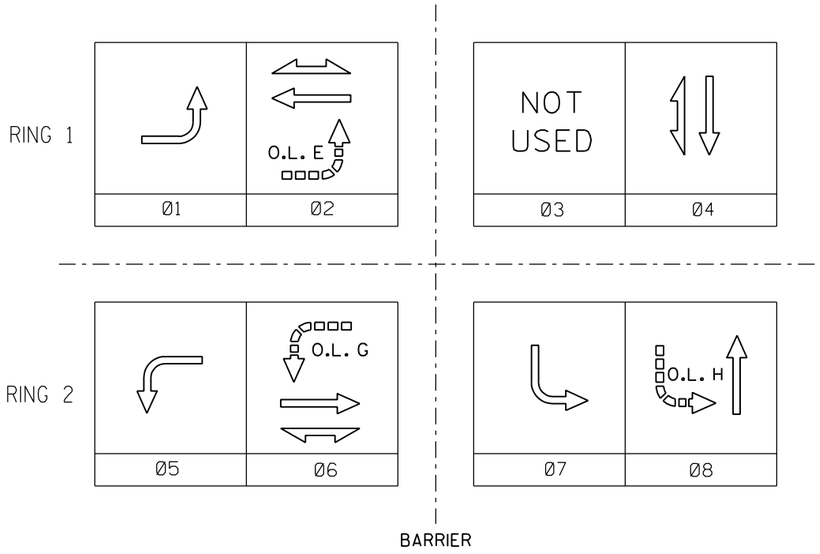
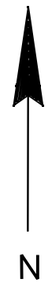
PLOT DATE: 11/18/2013
PLOT TIME: 10:03:42 AM
PLOT SCALE: 1:39.9999
WISDOT/CADDS SHEET 42

	HEAD NUMBERS	FLASH
Ø1	5,6	-
Ø2	7,8,9,10	R
Ø3		
Ø4	13,14,15	R
Ø5	11,12	-
Ø6	1,2,3,4	R
Ø7	16,17	-
Ø8	18,19,20	R
Ø2P	23,24	
Ø4P	25,26	
Ø6P	21,22	
Ø8P		
OLE	5,6	R
OLF		
OLG	11,12	R
OLH	16,17	R





CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1		6		X
2	X	6	MIN	X
3				
4		8		X
5		2		X
6	X	2	MIN	X
7		4		X
8		4		X

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE DETECTOR	A	B	C	D
MOVEMENT				
PHASE	2+5	1+6	4+7	4+8

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	X
CLOSED LOOP	
TWISTED PAIR*	
FIBER OPTIC*	
FIBER OPTIC (ETHERNET)	
RADIO	

TYPE OF COORDINATION	
NONE	
TBC	X
TRAFFIC RESPONSIVE	
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO:	S-
SIGNAL SYSTEM #:	SS- -

TYPE OF LIGHTING	
BY OTHER AGENCY	X
IN TRAFFIC SIGNAL CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
PLAN LOOP DETECTOR *(S)	21							
CALLED PHASE	2							
CALL OPTION	X							
DELAY TIME								
EXTEND OPTION	X							
EXTEND TIME	X							
USE ADDED INITIAL	X							
CROSS SWITCH PHASE								

19	17	23	21	27	25	31	29	DETECTOR INPUT
11	41	43	51	62	71	81		PLAN LOOP DETECTOR *(S)
1	4	4	5	6	7	8		CALLED PHASE
X		X	X	X	X	X		CALL OPTION
					X	X		DELAY TIME
X	X	X	X	X		X		EXTEND OPTION
	X			X				EXTEND TIME
				X				USE ADDED INITIAL
X			X					CROSS SWITCH PHASE

DETECTOR INPUT	4	2	8	6	12	10	16	14
PLAN LOOP DETECTOR *(S)	61							
CALLED PHASE	6							
CALL OPTION	X							
DELAY TIME								
EXTEND OPTION	X							
EXTEND TIME	X							
USE ADDED INITIAL	X							
CROSS SWITCH PHASE								

20	18	24	22	28	26	32	30	DETECTOR INPUT
22	42				72			PLAN LOOP DETECTOR *(S)
2	4				7			CALLED PHASE
X	X							CALL OPTION
	X							DELAY TIME
X	X				X			EXTEND OPTION
X								EXTEND TIME
X								USE ADDED INITIAL
								CROSS SWITCH PHASE

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	x
GTT	x
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

STH 100 (RYAN RD) & 22ND STREET
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1226 CABINET TYPE: TS2

CONTROLLER TYPE: ECONOLITE

DATE SEPTEMBER 2013 PAGE NO. 4 OF 4

2

PROJECT ID:	2040-16-70
INTERSECTION:	STH 100 & 22ND STREET

SIGNAL WIRE	BLK-BLACK	RED-RED	GRN-GREEN
COLOR CODING	WHT-WHITE	BLU-BLUE	ORG-ORANGE

DATE: Sep-13

CB1 TO	AWG 14 # OF COND.	HEAD NO.	RED	YELLOW	GREEN	<RED>	<YELLOW>	<FLASH YEL>	<GREEN>	D/WALK	WALK	PED BUTTON	OTHER
SB1	12	20	RED/BLK	ORG/BLK	GRN/BLK								
		13	RED	ORG	GRN								
		24								BLK	BLU		
		PB										WHT/BLK	
SB2	12	19	RED	ORG	GRN								
		23								BLK	BLU		
		PB										WHT/BLK	
SB3	12	7	RED/BLK	ORG/BLK	GRN/BLK								
		5				RED	ORG	BLK/WHT	GRN				
SB4	12	6				RED	ORG	BLK/WHT	GRN				
SB5	12	2	RED	ORG	GRN								
		3	RED	ORG	GRN								
		4	RED	ORG	GRN								
SB6	15	18	RED	ORG	GRN								
		16				RED/BLK	ORG/BLK	BLK/WHT	GRN/BLK				
		22								BLK	BLU		
		PB										WHT/BLK	
SB7	12	21								BLK	BLU		
		PB										WHT/BLK	
SB8	12	14	RED	ORG	GRN								
		15	RED	ORG	GRN								
		17				RED/BLK	ORG/BLK	BLK/WHT	GRN/BLK				
SB9	15	1	RED	ORG	GRN								
		11				RED/BLK	ORG/BLK	BLK/WHT	GRN/BLK				
		26								BLK	BLU		
		PB										WHT/BLK	
SB10	12	12				RED	ORG	BLK/WHT	GRN				
		PB										WHT/BLK	
SB11	12	8	RED	ORG	GRN								
		9	RED	ORG	GRN								
		10	RED	ORG	GRN								
		25								BLK	BLU		
		PB										WHT/BLK	

2

WISCONSIN
JEFFREY J. SANDBERG
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PRAIRIE DU SAC, WI
PROFESSIONAL ENGINEER

11/15/13

STH 100 (RYAN ROAD) & 22ND STREET
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1226

CONTROLLER TYPE: ECONOLITE

DATE SEPTEMBER 2013 PAGE NO. 1 OF 2

EQUIPMENT GROUNDING CONDUCTORS 10 AWG GRN XLP	
FROM	TO
CB1	SB1
SB1	SB2
SB2	SB3
SB3	SB4
SB4	SB5
SB5	SB6
SB6	SB7
SB7	SB8
SB8	SB9
SB9	SB10
SB10	SB11
SB11	CB1

PULL BOX BONDING JUMPER 10 AWG GRN XLP	
FROM	TO
PB1	CB1
PB2	SB2
PB3	SB3
PB5	SB4
PB6	SB5
PB7	SB6
PB8	SB7
PB9	SB9
PB11	SB10
PB12	CB1

LIGHTING UF 8 AWG W/ GROUND	
FROM	TO
CB1	SB1
SB1	SB3
SB3	SB4
CB1	SB10
SB10	SB8

EMERGENCY VEHICLE PREEMPTION		
HEAD	FROM	TO
A	CB1	SB11
B	CB1	SB5
C	CB1	SB8
D	CB1	SB2

NOTES:

1. USE WHITE CONDUCTOR IN THE SIGNAL CABLE AS THE GROUNDED CONDUCTOR FOR ALL TRAFFIC SIGNAL INDICATIONS.
2. ENSURE THE GROUNDED CONDUCTOR IN THE FEEDER CABLE AND THE POLE CABLES ARE BOTH 18" LONGER THAN THE UNGROUNDED CONDUCTORS.
3. AT THE SIGNAL BASES, CONNECT ONE TERMINAL FROM THE PEDESTRIAN PUSH BUTTONS TO THE COLOR INDICATED IN THE CHART. CONNECT THE OTHER TERMINAL TO THE GROUNDED CONDUCTOR.

2

STH 100 (RYAN ROAD) & 22ND STREET
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1226

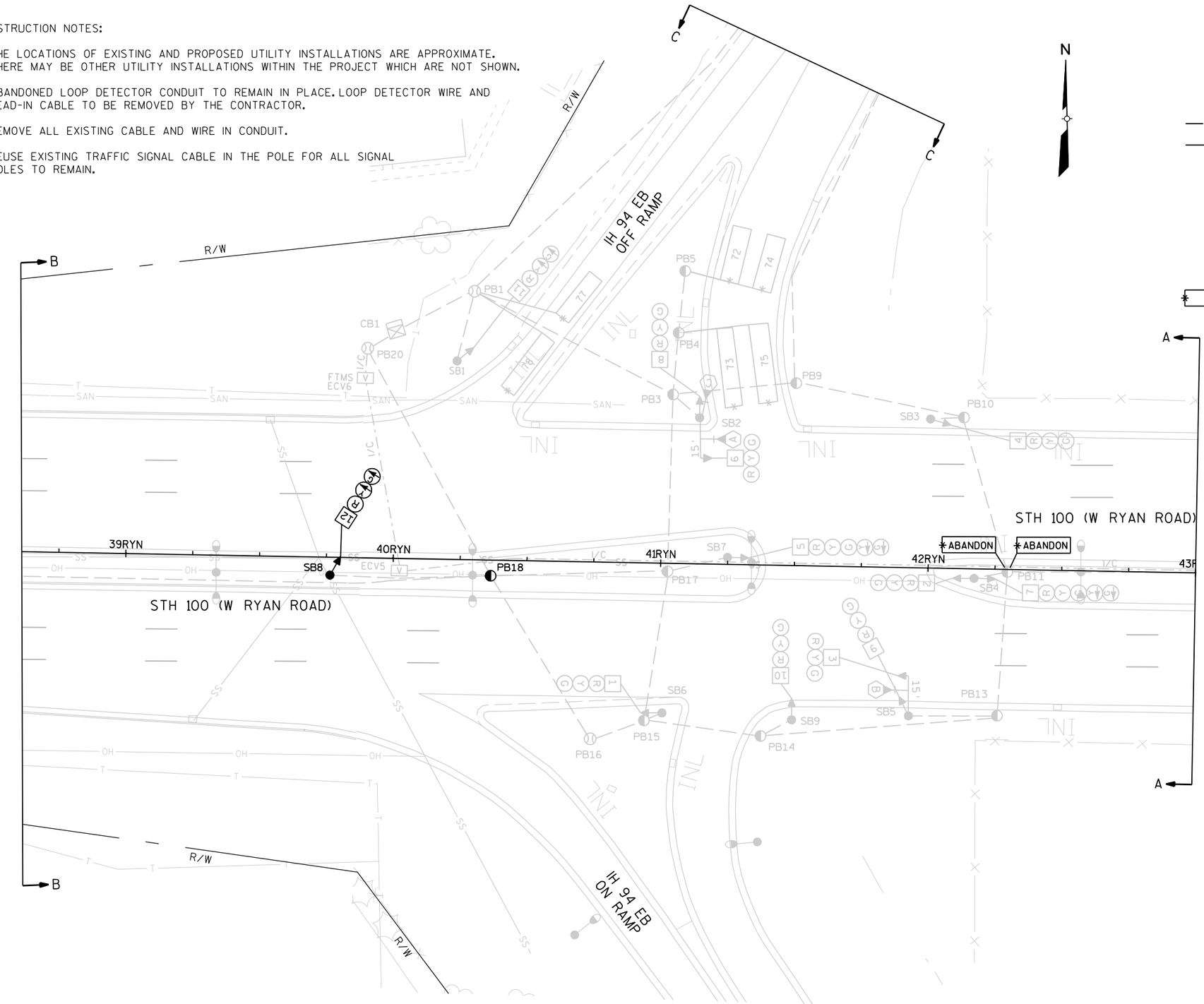
CONTROLLER TYPE: ECONOLITE

DATE SEPTEMBER 2013 PAGE NO. 2 OF 2

PROJECT NUMBER: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	CABLE ROUTING	SHEET 198	E

CONSTRUCTION NOTES:

1. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
2. ABANDONED LOOP DETECTOR CONDUIT TO REMAIN IN PLACE. LOOP DETECTOR WIRE AND LEAD-IN CABLE TO BE REMOVED BY THE CONTRACTOR.
3. REMOVE ALL EXISTING CABLE AND WIRE IN CONDUIT.
4. REUSE EXISTING TRAFFIC SIGNAL CABLE IN THE POLE FOR ALL SIGNAL POLES TO REMAIN.



LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 36"
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- YELLOW ARROW
- GREEN ARROW
- (X) EVP DESIGNATOR
- EVP DETECTOR HEAD

NOTE: GRAYSHADE REPRESENTS EXISTING
BOLD REPRESENTS ITEMS TO BE REMOVED

TRAFFIC CONTROL SIGNAL
IH 94 EB RAMP & STH 100 (RYAN RD)
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1182 (M169)

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: AECOM
REVISED BY:

PAGE 1 OF 2

PROJECT NUMBER: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 199	E

FILE NAME: I:\work\projects\60222213\000.cad\removal_sh1_EBRamp.dgn
BATCH PRINT SHEET 33 OF 73
PRINTER DRIVER: S:\TPN_CADstds\Workspace-Clients\WisDOT\Microstation\Resources\MS_Printing\Printer_Drivers\ET_PDF_11 x 17 Traffic Signals.plt
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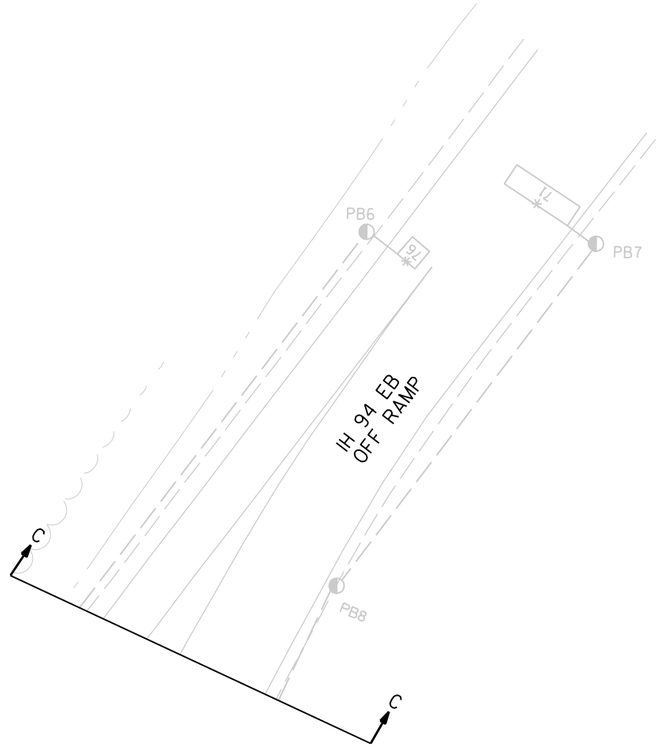
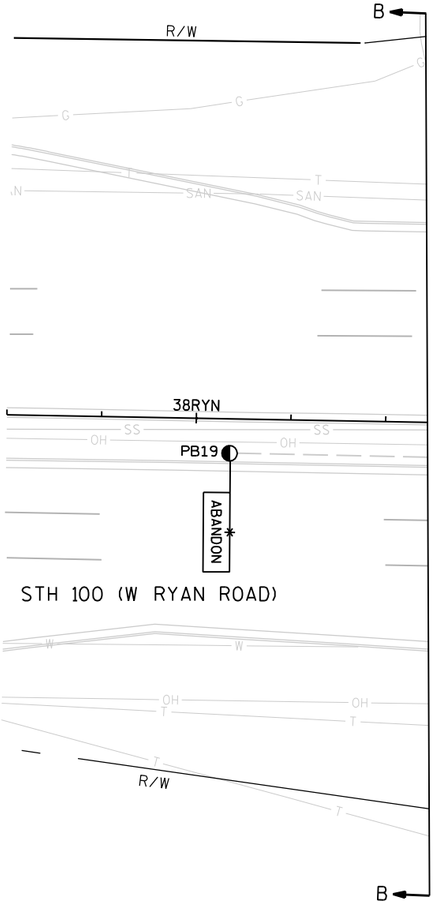
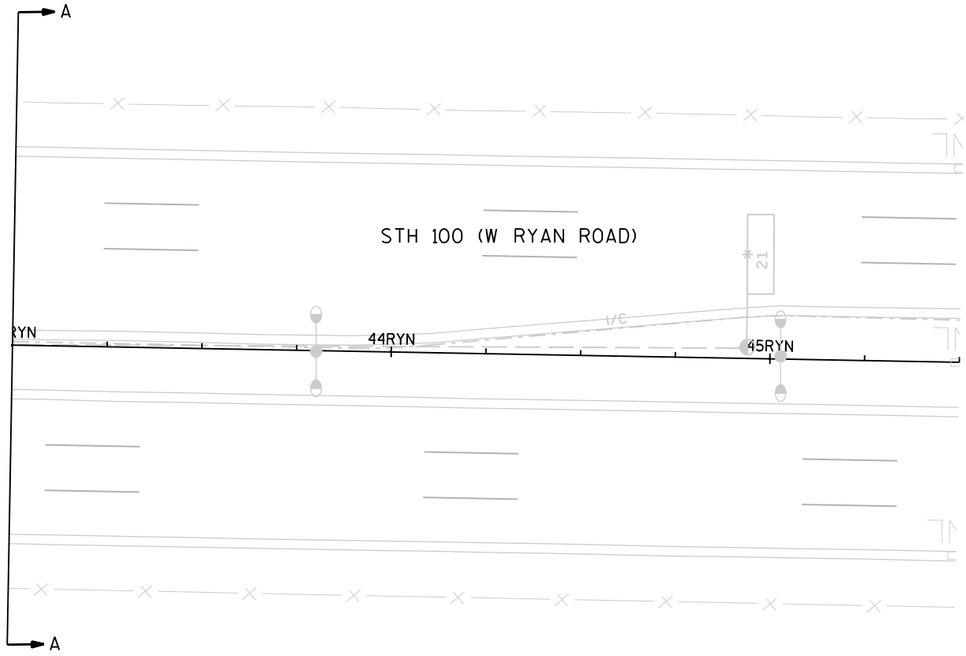
PLOT DATE: 11/18/2013
PLOT TIME: 10:04:00 AM
PLOT SCALE: 1:39.9999
WISDOT/CADDS SHEET 42

2







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TRAFFIC CONTROL SIGNAL
IH 94 EB RAMP & STH 100 (RYAN RD)
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1182 (M169)

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: AECOM
REVISED BY:

PAGE 2 OF 2

PROJECT NUMBER: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 200	E

FILE NAME: l:\work\projects\60222213\000.cad\removal_sh2_EBRamp.dgn
BATCH PRINT SHEET 34 OF 73
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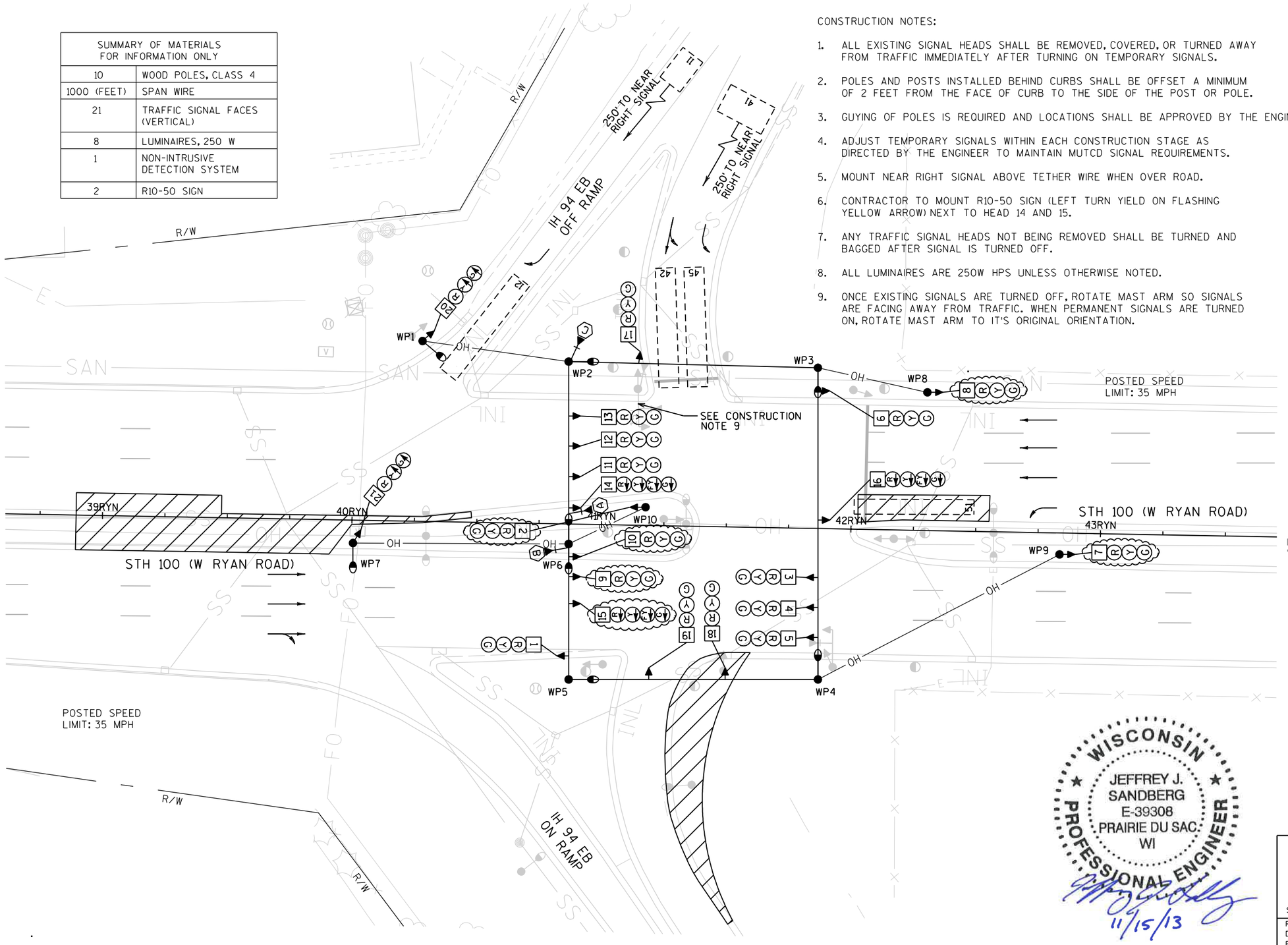
PLOT DATE: 11/18/2013
PLOT TIME: 10:04:06 AM
PLOT SCALE: 1:39.9999
WISDOT/CADDS SHEET 42

2

SUMMARY OF MATERIALS FOR INFORMATION ONLY	
10	WOOD POLES, CLASS 4
1000 (FEET)	SPAN WIRE
21	TRAFFIC SIGNAL FACES (VERTICAL)
8	LUMINAIRES, 250 W
1	NON-INTRUSIVE DETECTION SYSTEM
2	R10-50 SIGN



CONSTRUCTION NOTES:

1. ALL EXISTING SIGNAL HEADS SHALL BE REMOVED, COVERED, OR TURNED AWAY FROM TRAFFIC IMMEDIATELY AFTER TURNING ON TEMPORARY SIGNALS.
2. POLES AND POSTS INSTALLED BEHIND CURBS SHALL BE OFFSET A MINIMUM OF 2 FEET FROM THE FACE OF CURB TO THE SIDE OF THE POST OR POLE.
3. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER.
4. ADJUST TEMPORARY SIGNALS WITHIN EACH CONSTRUCTION STAGE AS DIRECTED BY THE ENGINEER TO MAINTAIN MUTCD SIGNAL REQUIREMENTS.
5. MOUNT NEAR RIGHT SIGNAL ABOVE TETHER WIRE WHEN OVER ROAD.
6. CONTRACTOR TO MOUNT R10-50 SIGN (LEFT TURN YIELD ON FLASHING YELLOW ARROW) NEXT TO HEAD 14 AND 15.
7. ANY TRAFFIC SIGNAL HEADS NOT BEING REMOVED SHALL BE TURNED AND BAGGED AFTER SIGNAL IS TURNED OFF.
8. ALL LUMINAIRES ARE 250W HPS UNLESS OTHERWISE NOTED.
9. ONCE EXISTING SIGNALS ARE TURNED OFF, ROTATE MAST ARM SO SIGNALS ARE FACING AWAY FROM TRAFFIC. WHEN PERMANENT SIGNALS ARE TURNED ON, ROTATE MAST ARM TO IT'S ORIGINAL ORIENTATION.

N

LEGEND

- SPAN WIRE
- OH — OVERHEAD AERIAL CABLE
- LUMINAIRE (250 W)
- TYPE 4 WOOD POLE
- SIGNAL HEAD, OVERHEAD MOUNT
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- (R) RED ARROW
- (FY) (Y) (Y) YELLOW ARROW
- (G) (G) GREEN ARROW
- (R) (Y) (G) SIGNAL HEAD TO BE BAGGED
- NON-INTRUSIVE DETECTION AREA
- (X) EVP DESIGNATOR
- EVP DETECTOR HEAD
- WORK AREA
- BARRICADE
- TRAFFIC CONTROL DRUM
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH

WISCONSIN
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E-39308
PRAIRIE DU SAC
WI
PROFESSIONAL ENGINEER
11/15/13

TRAFFIC CONTROL SIGNAL
IH 94 EB RAMP & STH 100 (RYAN RD)
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1182 (M169)

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: AECOM
REVISED BY:

PAGE 1 OF 5

PROJECT NUMBER: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 1A	SHEET 201	E

FILE NAME: l:\work\projects\60222213\000_cad\tempplan_EBRamp_stage1A.dgn
BATCH PRINT SHEET 35 OF 73
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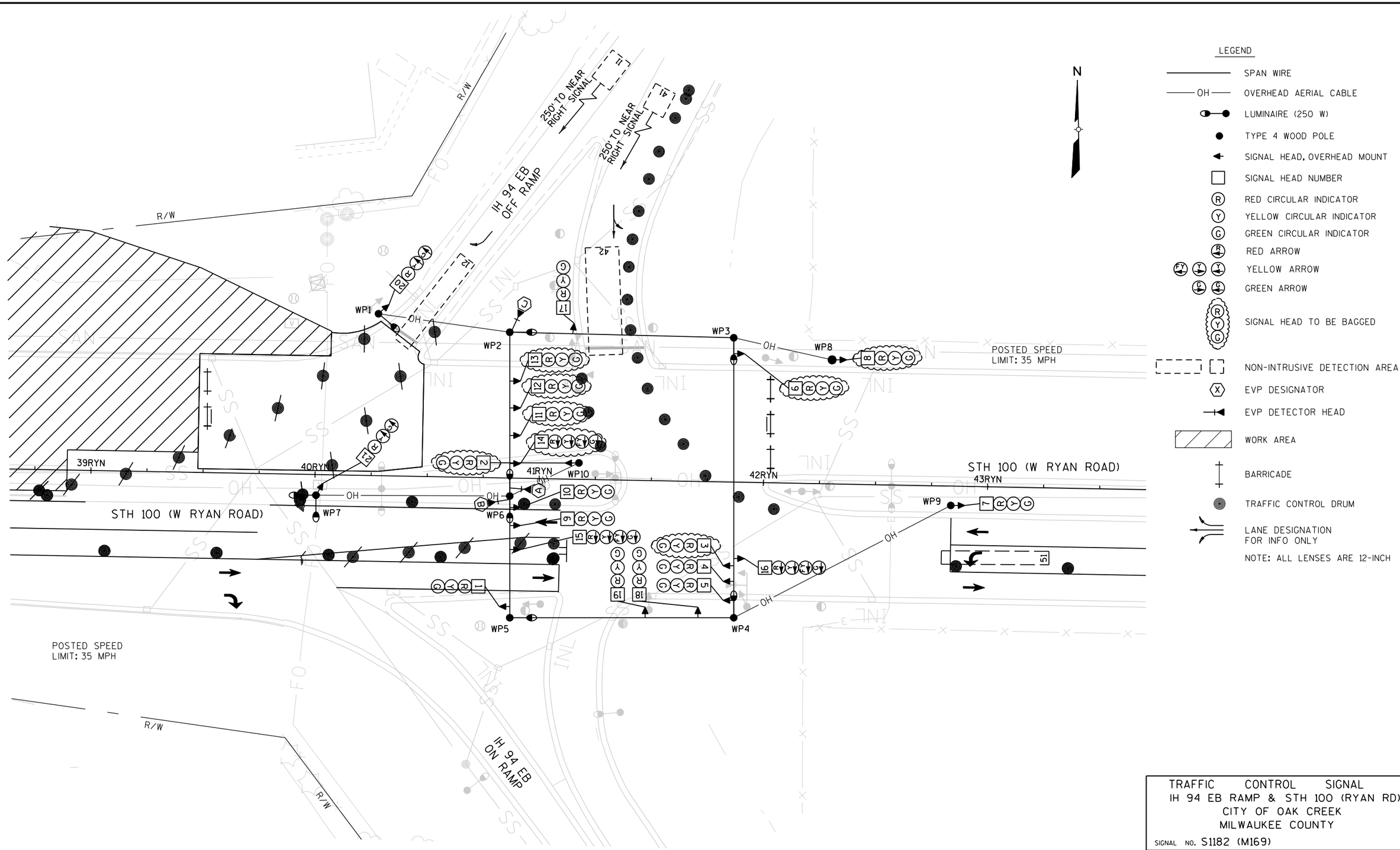
WISDOT/CADDS SHEET 42



LEGEND

- SPAN WIRE
- OH — OVERHEAD AERIAL CABLE
- LUMINAIRE (250 W)
- TYPE 4 WOOD POLE
- SIGNAL HEAD, OVERHEAD MOUNT
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- SIGNAL HEAD TO BE BAGGED
- NON-INTRUSIVE DETECTION AREA
- (X) EVP DESIGNATOR
- EVP DETECTOR HEAD
- WORK AREA
- BARRICADE
- TRAFFIC CONTROL DRUM
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH

TRAFFIC CONTROL SIGNAL
IH 94 EB RAMP & STH 100 (RYAN RD)
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1182 (M169)

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: AECOM
REVISED BY:

PROJECT NUMBER: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 1B & STAGE 1C	SHEET 202	E

FILE NAME: l:\work\projects\60222213\000.cad\tempplan_EBRamp_stage1B.dgn
BATCH PRINT SHEET 36 OF 73
PRINTER DRIVER: S:\TPN_CADstds\Workspace-Clients\WisDOT\Microstation\Resources\MS_Printing\Printer_Drivers\ET_PDF_11 x 17 Traffic Signals.plt
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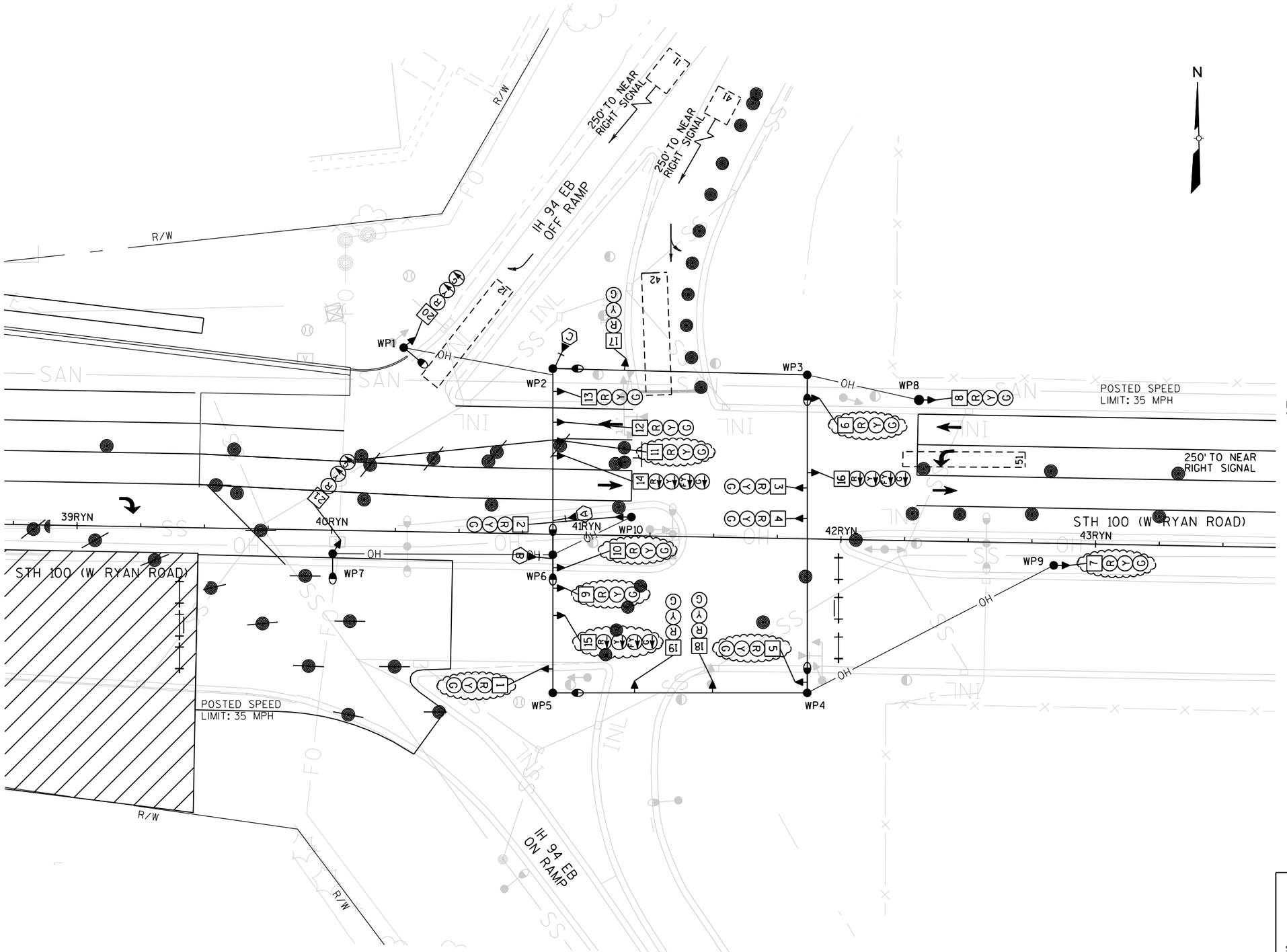
WISDOT/CADDS SHEET 42



LEGEND

- SPAN WIRE
- OH — OVERHEAD AERIAL CABLE
- LUMINAIRE (250 W)
- TYPE 4 WOOD POLE
- SIGNAL HEAD, OVERHEAD MOUNT
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- SIGNAL HEAD TO BE BAGGED
- NON-INTRUSIVE DETECTION AREA
- (X) EVP DESIGNATOR
- EVP DETECTOR HEAD
- WORK AREA
- BARRICADE
- TRAFFIC CONTROL DRUM
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH

TRAFFIC CONTROL SIGNAL
IH 94 EB RAMP & STH 100 (RYAN RD)
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1182 (M169)

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: AECOM
REVISED BY:

PAGE 3 OF 5

PROJECT NUMBER: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 2A & STAGE 2B	SHEET 203	E

FILE NAME: l:\work\projects\60222213\000.cad\tempplan_EBRamp_stage2A.dgn
BATCH PRINT SHEET 37 OF 73

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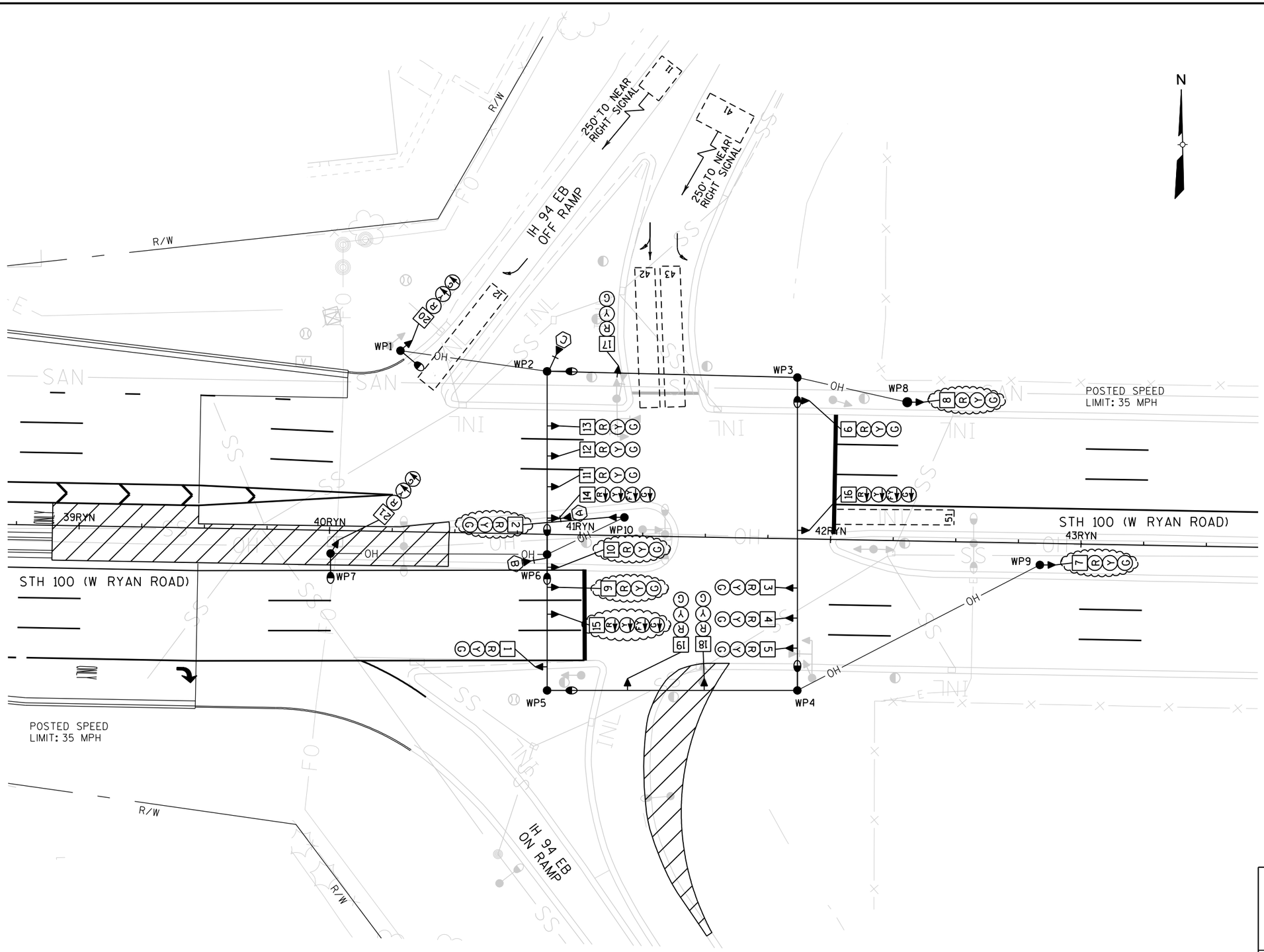
WISDOT/CADDS SHEET 42



TRAFFIC CONTROL SIGNAL
IH 94 EB RAMP & STH 100 (RYAN RD)
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1182 (M169)

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: AECOM
REVISED BY:

PAGE 4 OF 5

PROJECT NUMBER: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 2C	SHEET 204	E

FILE NAME: l:\work\projects\60222213\000_cad\tempplan_EBRamp_stage2C.dgn
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PLOT DATE: 11/18/2013
PLOT TIME: 10:04:26 AM
PLOT SCALE: 1:39.9999
WISDOT/CADDS SHEET 42

2

SEQUENCE OF OPERATION

N

OLE ⟵ | ⟵ | NOT USED | OLE ⇓

	HEAD NUMBERS	Ø1 R/W	Ø1 ✳✳	Ø1 Ø4	Ø2 R/W	Ø2 ✳✳	Ø3 R/W	Ø3 ✳✳	Ø4 R/W	Ø4 ✳✳ Ø1	FLASH
		CLEAR TO			CLEAR TO		CLEAR TO		CLEAR TO		
Ø1	20,21	G→	Y→	R	R	R R			R	R R	R
Ø2	6,7,8,9,10,11,12,13	R	R	R	G	Y R			R	R R	R
Ø3											
Ø4	17,18,19	R	R	R	R	R R			G	Y R	R
RING 1 Ø5	14,15,16	-	-	-	-	- -			-	- -	-
Ø6	1,2,3,4,5	R	R	R	R	R R			R	R R	R
Ø7											
Ø8											
OLA											
OLB											
OLC	14,15,16	R→	R→	R→	R→	R→ R→			R→	R→ R→	R→
OLE	20,21	G→	Y→	R G→	R	R R			G→	Y→ R G→	R

⟵ | OL C ⟶ | NOT USED | NOT USED

	HEAD NUMBERS	Ø5 R/W	Ø5 ✳✳	Ø6 R/W	Ø6 ✳✳	Ø7 R/W	Ø7 ✳✳	Ø8 R/W	Ø8 ✳✳
		CLEAR TO		CLEAR TO		CLEAR TO		CLEAR TO	
Ø1	20,21	R	R R	R	R R				
Ø2	6,7,8,9,10,11,12,13	R	R R	R	R R				
Ø3									
RING 2 Ø4	17,18,19	R	R R	R	R R				
Ø5	14,15,16	G→	- -	-	- -				
Ø6	1,2,3,4,5	R	R R	G	Y R				
Ø7									
Ø8									
OLA									
OLB									
OLC	14,15,16	-	Y→ R→	FY→	Y→ R→				
OLE	20,21	R	R R	R	R R				

BARRIER

** CLEARANCE TO A PHASE IN CONFLICT WITH THIS PHASE ON (SEE CHART 1)

FY = FLASHING YELLOW

DETECTOR LOGIC

DETECTOR NUMBER	DETECTOR INPUT	DETECTOR OPERATION: CALLS AND EXTENDS	CALLS ONLY	EXTENDS ONLY	PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	SIZE	NUMBER OF TURNS
11				X		1			X		
12		X			1	1		X			
41				X		4			X		
42		X			4	4					
43				X		4			X		
51		X			5	5					

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1		6		X
2		6	MAX	X
3				
4				X
5		2		X
6		2	MAX	X
7				
8				

OVERLAPS

O.L. "E" = 1,4

SPECIAL OVERLAPS

	PROTECTED	PERMISSIVE
OL A		
OL B		
OL C	5	6
OL D		

TYPE OF INTERCONNECT COMMUNICATION	
NONE	
TBC	x
CLOSED LOOP TWISTED PAIR*	
CLOSED LOOP FIBER OPTIC*	
RADIO	
FIBER OPTIC	
*LOCATION OF MASTER CONTROLLER NO: S-	
SIGNAL SYSTEM #: SS- -	

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	x
3M	
TOMAR	
HARDWIRE	
GTT	x
LIFT BRIDGE	
QUEUE DETECTOR	

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC SIGNAL CABINET	x
IN SEPARATE DOT LIGHTING CABINET	

GENERAL NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.
2. WHEN ONE PHASE IS ON ALONE, ANY NONCONFLICTING PHASE MAY START TIMING CONCURRENTLY WITHOUT A CLEARANCE INTERVAL. (SEE CHART 1 AT LEFT.)

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE DETECTOR	A	B	C
MOVEMENT	←	←	⇓
PHASE	2+5	2+6	4

AFTER PREEMPTION SEQUENCE 2+5 OR 2+6
CONTROLLER SHALL RETURN TO PHASES 2+6
AFTER PREEMPTION SEQUENCE 4
CONTROLLER SHALL RETURN TO PHASE 4

CHART 1

PHASE ON	NONCONFLICTING PHASE ALLOWED TO TIME CONCURRENTLY	PHASES IN CONFLICT WITH PHASE ON
1	5,6	2,4
2	5 OR 6	1,4
3		
4	NONE	1,2,5,6
5	1 OR 2	4,6
6	1 OR 2	4,5
7		
8		

IH 94 EB RAMP &
STH 100 (RYAN ROAD)
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1182

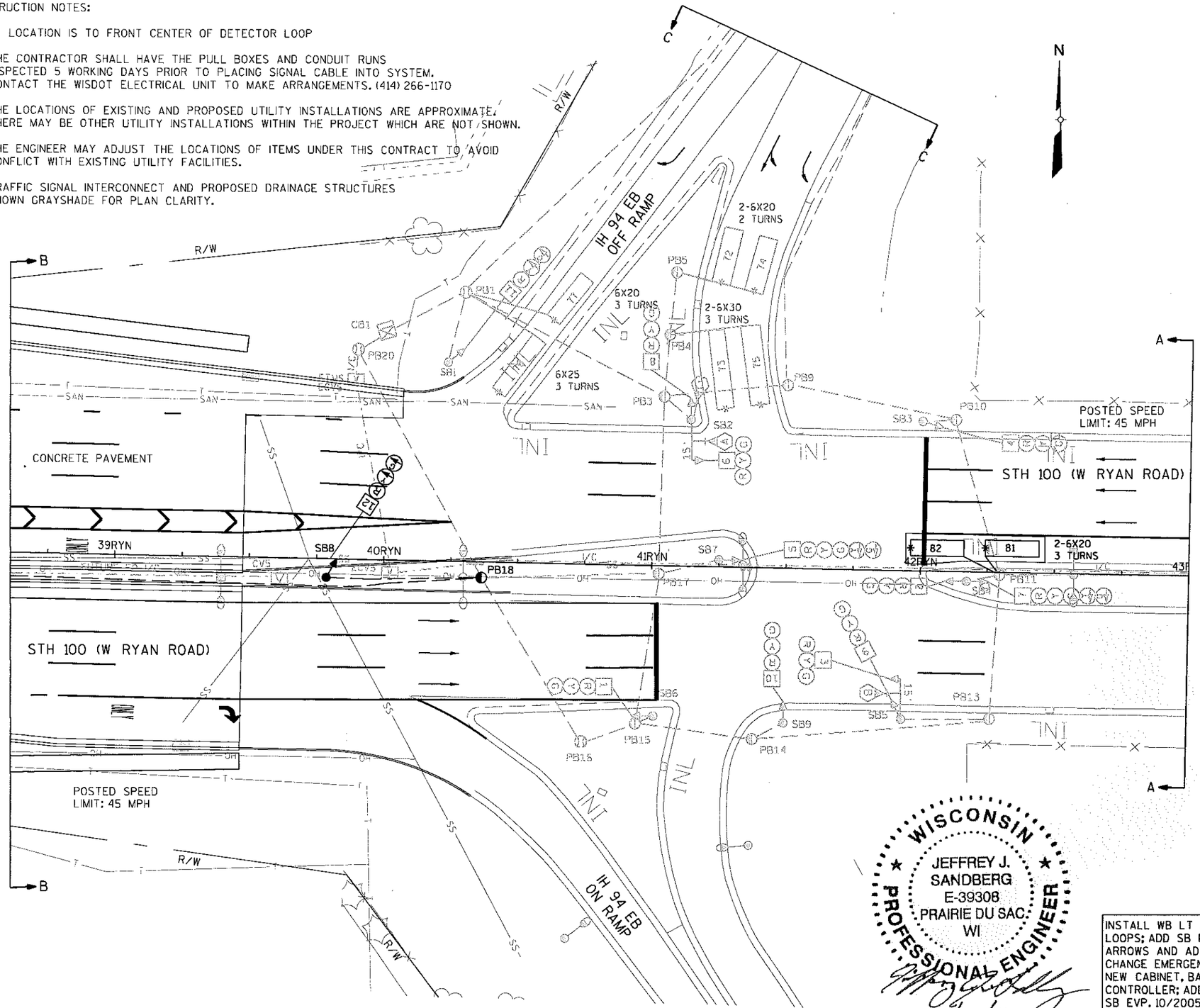
CONTROLLER TYPE: TEMP

DATE SEPTEMBER 2013 PAGE NO. 5 OF 5

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TEMPORARY SEQUENCE OF OPERATIONS	SHEET 205	E

CONSTRUCTION NOTES:

1. * LOCATION IS TO FRONT CENTER OF DETECTOR LOOP
2. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO SYSTEM. CONTACT THE WISDOT ELECTRICAL UNIT TO MAKE ARRANGEMENTS. (414) 266-1170
3. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
4. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
5. TRAFFIC SIGNAL INTERCONNECT AND PROPOSED DRAINAGE STRUCTURES SHOWN GRAYSHADE FOR PLAN CLARITY.



LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- LUMINAIRE UNDER PERMIT TO LOCAL MUNICIPALITY
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- * * LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- YELLOW ARROW
- GREEN ARROW
- (X) EVP DESIGNATOR
- EVP DETECTOR HEAD
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

REVISION				
Rev. No.	REPLACE SB8, PB 18 & 19, AND LOOP 61. RECABLE INTERSECTION.			
	APPROVAL RECOMMENDED		APPROVED	
3	REGION		CENTRAL OFFICE	
	Date	By	Date	By
	11/15/13	DAB	11/18/13	JJS

WISCONSIN
JEFFREY J. SANDBERG
E-39308
PRAIRIE DU SAC, WI
PROFESSIONAL ENGINEER
11/15/13

INSTALL WB LT ARROWS AND LOOPS; ADD SB RIGHT TURN ARROWS AND ADVANCED DETECTION; CHANGE EMERGENCY FLASH TO R-R; NEW CABINET, BASE AND MASTER CONTROLLER; ADD EB, WB, AND SB EVP. 10/2005

LOOP 77 INSTALLED UNDER PROJECT 1000-05-80

TRAFFIC CONTROL SIGNAL

IH 94 EB RAMP & STH 100 (RYAN RD)
CITY OF OAK CREEK/CITY OF FRANKLIN
MILWAUKEE COUNTY

SIGNAL NO. S1182 (M169) CONTROLLER TYPE: EPAC

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED
Date 6/15/87 — JOHN A. WHITE, REGION TRAFFIC ENGINEER

APPROVED
Date 2/24/88 — H.O. PRICE, STATE TRAFFIC ENGINEER

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: AECOM
REVISED BY:

PAGE 1 OF 3

SS 11/18/13

PROJECT NUMBER: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 206	E

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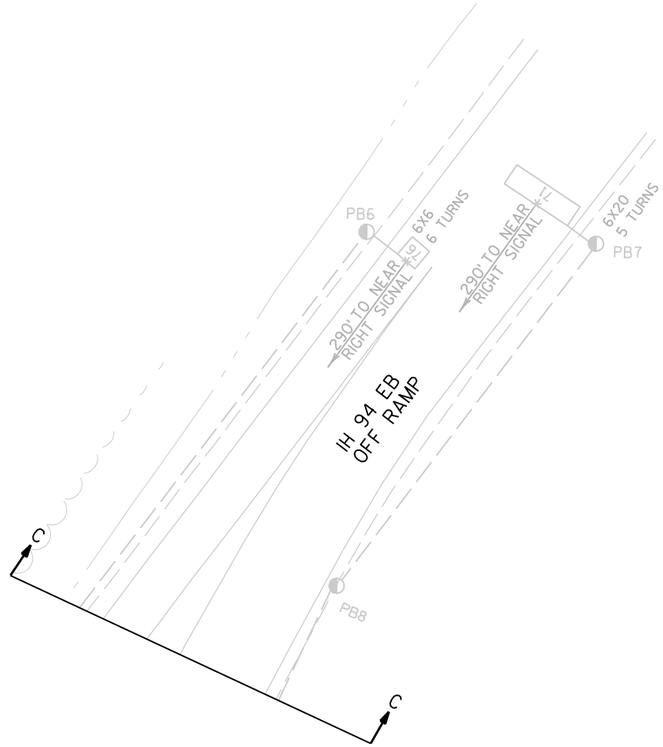
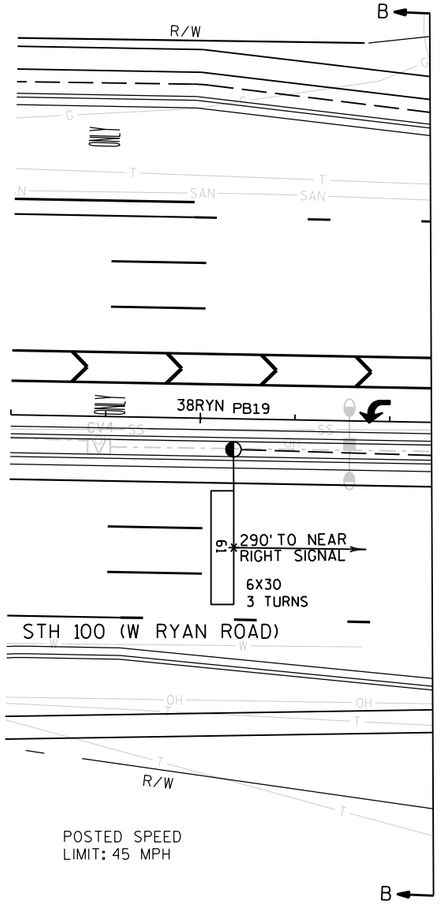
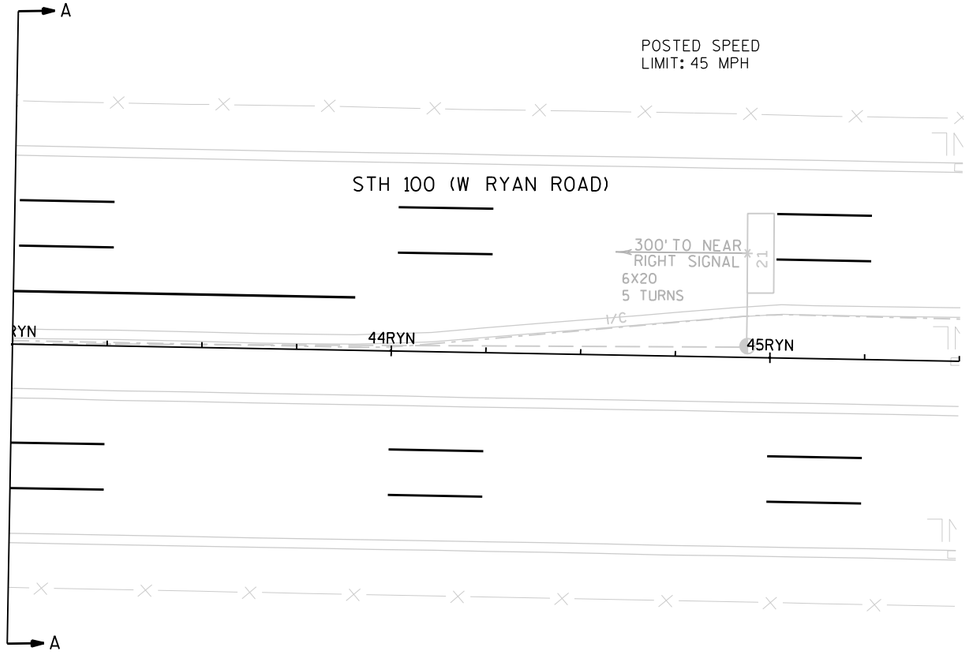
WISDOT/CADDS SHEET 42

2







TRAFFIC CONTROL SIGNAL
IH 94 EB RAMP & STH 100 (RYAN RD)
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1182 (M169)

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: AECOM
REVISED BY:

PAGE 2 OF 3

PROJECT NUMBER: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 207	E

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PLOT TIME: 10:04:42 AM
PLOT SCALE: 1:39.9999

SEQUENCE OF OPERATION

N

NOT USED | ⇐ | NOT USED | NOT USED | FLASH

	HEAD NUMBERS	Ø1 R/W	Ø1 **	Ø1 CLEAR TO	Ø2 R/W	Ø2 **	Ø2 CLEAR TO	Ø3 R/W	Ø3 **	Ø3 CLEAR TO	Ø4 R/W	Ø4 **	Ø4 CLEAR TO	FLASH
RING 1 Ø1														
Ø2	4,5,6,7				G Y R									R
Ø3														
Ø4														
Ø5														
Ø6	1,2,3				R R R									R
Ø7	8,9,10				R R R									R
Ø8														
OLA	11,12				R R R									R
OLB	5,6				- - -									-
OLC														
OLD														

OLB | ⇒ | OLA | OLA OLB

	HEAD NUMBERS	Ø5 R/W	Ø5 **	Ø5 CLEAR TO Ø8	Ø6 R/W	Ø6 **	Ø6 CLEAR TO	Ø7 R/W	Ø7 **	Ø7 CLEAR TO Ø8	Ø8 R/W	Ø8 **	Ø8 CLEAR TO Ø5 Ø7
RING 2 Ø1													
Ø2	4,5,6,7	R	R R		R	R R		R	R R		R	R R	
Ø3													
Ø4													
Ø5													
Ø6	1,2,3	R	R R		G	Y R		R	R R		R	R R	
Ø7	8,9,10	R	R R		R	R R		G	Y R		R	R R	
Ø8													
OLA	11,12	R	R R		R	R R		G	Y R G G		G	Y R	G G
OLB	5,6	G	Y - G G		-	- -		-	- -		G	Y - G G	
OLC													
OLD													

BARRIER

** CLEARANCE TO A PHASE IN CONFLICT WITH THIS PHASE ON (SEE CHART 1)

DETECTOR LOGIC

DETECTOR NUMBER	DETECTOR INPUT	DETECTOR OPERATION: CALLS AND EXTENDS	CALLS ONLY	EXTENDS ONLY	PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	SIZE	NUMBER OF TURNS
21	1	X			2	2				6X20	5
61	2	X			6	2				6X20	3
71	3			X		7			X	6X20	5
72	4	X			7	7				6X20	2
73	4	X			7	7				6X30	3
74	5	X			7	7				6X20	2
75	5	X			7	7				6X30	3
76	6			X		7			X	6X6	6
77	7	X			7	7		X		6X20	3
78	7	X			7	7		X		6X25	3
81	8	X			8	8				6X20	4
82	8	X			8	8				6X20	4

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1				
2	X	6	MIN.	X
3				
4				X
5		2		X
6	X	2	MIN.	X
7				X
8				X

OVERLAPS

O.L. "A" = 7+8
O.L. "B" = 5+8
O.L. "C" =
O.L. "D" =

CHART 1

PHASE ON	NONCONFLICTING PHASE ALLOWED TO TIME CONCURRENTLY	PHASES IN CONFLICT WITH PHASE ON
1		
2	5 OR 6	7,8
3		
4		
5		
6	2	5,7,8
7	NONE	2,5,6,8
8	NONE	2,5,6,7

TYPE OF INTERCONNECT COMMUNICATION	
NONE	
TBC	X
CLOSED LOOP TWISTED PAIR*	
CLOSED LOOP FIBER OPTIC*	
RADIO	
FIBER OPTIC	
*LOCATION OF MASTER CONTROLLER NO:	
SIGNAL SYSTEM *: SS-00-12	

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
3M	
TOMAR	
HARDWIRE	
GTT	
LIFT BRIDGE	
QUEUE DETECTOR	

TYPE OF LIGHTING	
NONE	
IN TRAFFIC SIGNAL CABINET	
IN SEPARATE DOT LIGHTING CABINET	X

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE DETECTOR	A	B	C
MOVEMENT	⇐ ↙	⇐ ⇒	↓ ↓
PHASE	2+5	2+6	7

AFTER PREEMPTION SEQUENCE 2+5 OR 2+6
CONTROLLER SHALL RETURN TO PHASES 2+6
AFTER PREEMPTION SEQUENCE 7
CONTROLLER SHALL RETURN TO PHASES 7

GENERAL NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.
2. WHEN ONE PHASE IS ON ALONE, ANY NONCONFLICTING PHASE MAY START TIMING CONCURRENTLY WITHOUT A CLEARANCE INTERVAL. (SEE CHART 1 AT LEFT.)
3. IF ANY OPPOSING THRU PHASES ARE TIMING CONCURRENTLY, THEY SHALL TERMINATE TOGETHER DUE TO PERMISSIVE LEFT TURN CONFLICT.
4. PHASE 5 ALLOWS THE WB LT TO COME UP WITH THE WB THRU FOR A WB EMERGENCY VEHICLE PREEMPTION.

IH 94 EB RAMP & STH 100 (RYAN ROAD)
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1182 (M169)
CONTROLLER TYPE: EPAC
DATE SEPTEMBER 2013 PAGE NO. 3 OF 3

2

PROJECT ID:	2040-16-70
INTERSECTION:	IH 94 EB RAMP & STH 100 (RYAN ROAD)

SIGNAL WIRE	BLK-BLACK	RED-RED	GRN-GREEN
COLOR CODING	WHT-WHITE	BLU-BLUE	ORG-ORANGE

DATE: Sep-13

CB1 TO	AWG 14 # OF COND.	HEAD NO.	SIGNAL INDICATION WIRE COLOR						D/WALK	WALK	PED BUTTON	OTHER
			RED	YELLOW	GREEN	<RED>	<YELLOW>	<GREEN>				
SB1	12	11	RED				ORG	GRN				
SB2	12	6	RED	ORG	GRN							
SB3	12	4	RED	ORG	GRN							
SB4	12	2	RED	ORG	GRN							
		7	RED/BLK	ORG/BLK	GRN/BLK		WHT/BLK	BLU/BLK				
SB5	12	3	RED/BLK	ORG/BLK	GRN/BLK							
		9	RED	ORG	GRN							
SB6	12	1	RED	ORG	GRN							
SB7	12	5	RED	ORG	GRN		ORG/BLK	GRN/BLK				
SB8	12	12	RED				ORG	GRN				
SB9	12	10	RED	ORG	GRN							

EQUIPMENT GROUNDING CONDUCTORS 10 AWG GRN XLP	
FROM	TO
CB1	SB1
SB1	SB2
SB2	SB3
SB3	SB4
SB4	SB5
SB5	SB9
SB9	SB6
SB6	SB7
SB7	SB8
SB8	CB1

PULL BOX BONDING JUMPER 10 AWG GRN XLP	
FROM	TO
PB1	SB1
PB3	SB2
PB9	SB2
PB10	SB3
PB11	SB4
PB13	SB5
PB14	SB9
PB15	SB6
PB16	SB6
PB17	SB7
PB18	SB8
PB20	CB1

EMERGENCY VEHICLE PREEMPTION		
HEAD	FROM	TO
A	CB1	SB2
B	CB1	SB5
C	CB1	SB2

NOTES:
1. USE WHITE CONDUCTOR IN THE SIGNAL CABLE AS THE GROUNDED CONDUCTOR FOR ALL TRAFFIC SIGNAL INDICATIONS.
2. ENSURE THE GROUNDED CONDUCTOR IN THE FEEDER CABLE AND THE POLE CABLES ARE BOTH 18" LONGER THAN THE UNGROUNDED CONDUCTORS.

IH 94 EB RAMP & STH 100 (RYAN RD)
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1182 (M169)

CONTROLLER TYPE: EPAC

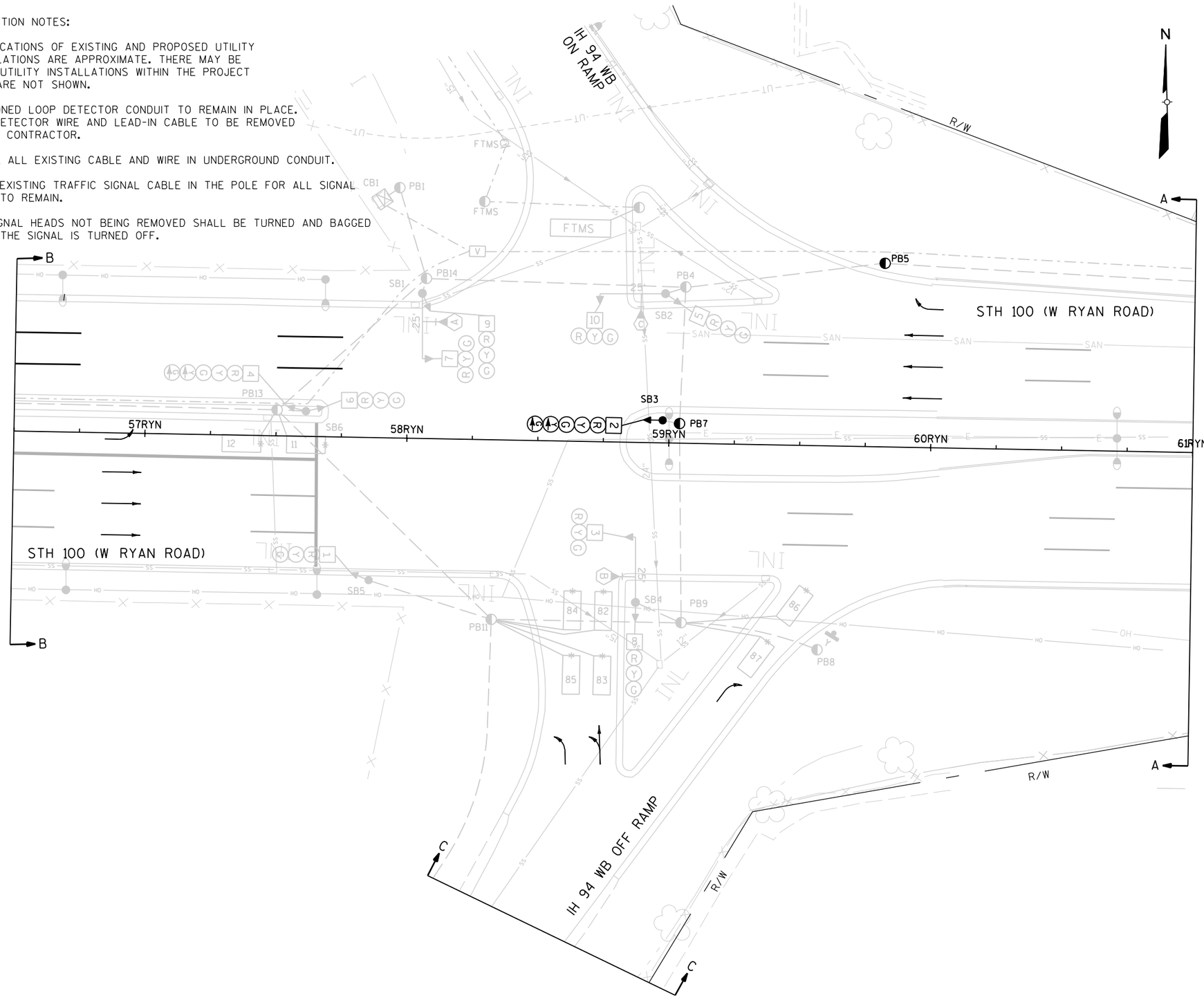
DATE SEPTEMBER 2013 PAGE NO. 1 OF 1

PROJECT NUMBER: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	CABLE ROUTING	SHEET 209	E

2

CONSTRUCTION NOTES:

1. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
2. ABANDONED LOOP DETECTOR CONDUIT TO REMAIN IN PLACE. LOOP DETECTOR WIRE AND LEAD-IN CABLE TO BE REMOVED BY THE CONTRACTOR.
3. REMOVE ALL EXISTING CABLE AND WIRE IN UNDERGROUND CONDUIT.
4. REUSE EXISTING TRAFFIC SIGNAL CABLE IN THE POLE FOR ALL SIGNAL POLES TO REMAIN.
5. ANY SIGNAL HEADS NOT BEING REMOVED SHALL BE TURNED AND BAGGED AFTER THE SIGNAL IS TURNED OFF.



LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 36"
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- YELLOW ARROW
- GREEN ARROW
- (X) EVP DESIGNATOR
- EVP DETECTOR HEAD

NOTE: GRAYSHADE REPRESENTS EXISTING
BOLD REPRESENTS ITEMS TO BE REMOVED

WISCONSIN
JEFFREY J. SANDBERG
E-39308
PRAIRIE DU SAC
WI
PROFESSIONAL ENGINEER
11/15/13

TRAFFIC CONTROL SIGNAL
IH 94 WB RAMP & STH 100 (RYAN RD)
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1221 (M197)

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: AECOM
REVISED BY:

PAGE 1 OF 2

PROJECT NUMBER: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 210	E

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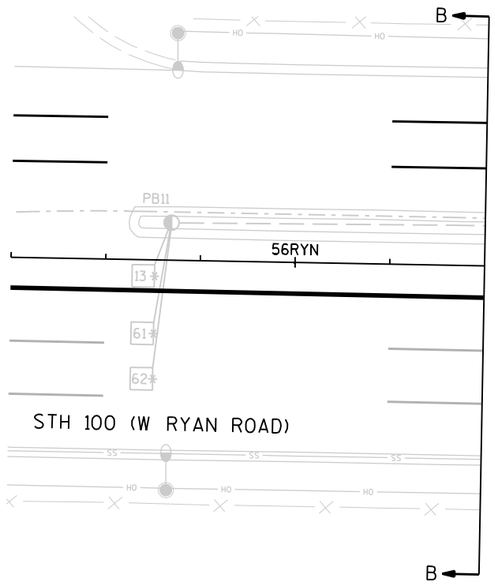

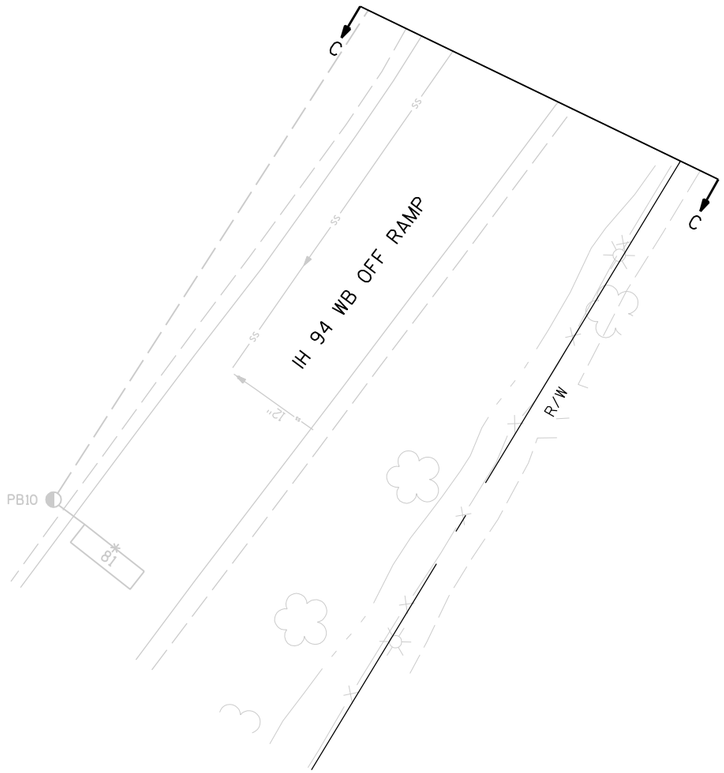

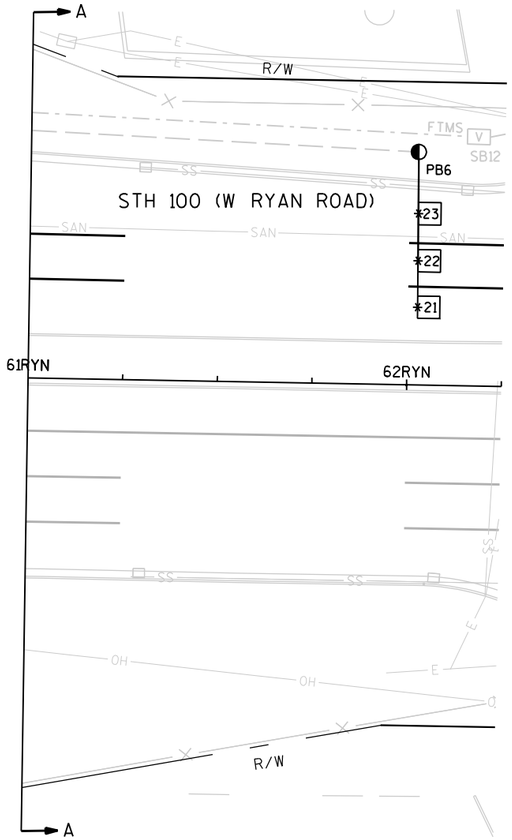

N

TRAFFIC CONTROL SIGNAL
IH 94 WB RAMP & STH 100 (RYAN RD)
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1221 (M197)

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: AECOM
REVISED BY:

PAGE 2 OF 2

PROJECT NUMBER: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 211	E

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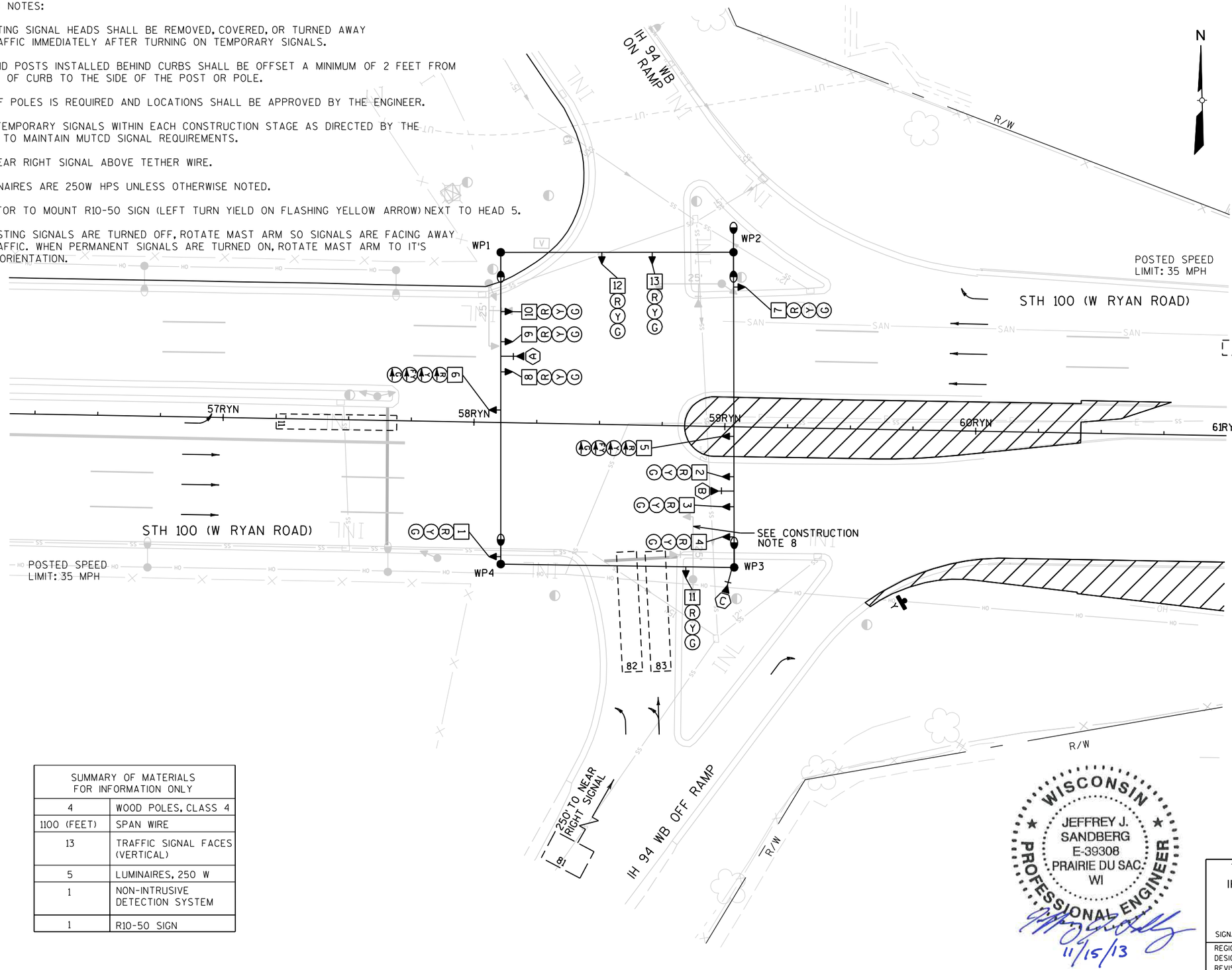
CONSTRUCTION NOTES:

1. ALL EXISTING SIGNAL HEADS SHALL BE REMOVED, COVERED, OR TURNED AWAY FROM TRAFFIC IMMEDIATELY AFTER TURNING ON TEMPORARY SIGNALS.
2. POLES AND POSTS INSTALLED BEHIND CURBS SHALL BE OFFSET A MINIMUM OF 2 FEET FROM THE FACE OF CURB TO THE SIDE OF THE POST OR POLE.
3. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER.
4. ADJUST TEMPORARY SIGNALS WITHIN EACH CONSTRUCTION STAGE AS DIRECTED BY THE ENGINEER TO MAINTAIN MUTCD SIGNAL REQUIREMENTS.
5. MOUNT NEAR RIGHT SIGNAL ABOVE TETHER WIRE.
6. ALL LUMINAIRES ARE 250W HPS UNLESS OTHERWISE NOTED.
7. CONTRACTOR TO MOUNT R10-50 SIGN (LEFT TURN YIELD ON FLASHING YELLOW ARROW) NEXT TO HEAD 5.
8. ONCE EXISTING SIGNALS ARE TURNED OFF, ROTATE MAST ARM SO SIGNALS ARE FACING AWAY FROM TRAFFIC. WHEN PERMANENT SIGNALS ARE TURNED ON, ROTATE MAST ARM TO IT'S ORIGINAL ORIENTATION.



LEGEND

- SPAN WIRE
- LUMINAIRE (250 W)
- TYPE 4 WOOD POLE
- SIGNAL HEAD, OVERHEAD MOUNT
- SIGNAL HEAD NUMBER
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- SIGNAL HEAD TO BE BAGGED
- NON-INTRUSIVE DETECTION AREA
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- WORK AREA
- BARRICADE
- TRAFFIC CONTROL DRUM
- YIELD SIGN
- STOP SIGN
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH

SUMMARY OF MATERIALS FOR INFORMATION ONLY	
4	WOOD POLES, CLASS 4
1100 (FEET)	SPAN WIRE
13	TRAFFIC SIGNAL FACES (VERTICAL)
5	LUMINAIRES, 250 W
1	NON-INTRUSIVE DETECTION SYSTEM
1	R10-50 SIGN

WISCONSIN
JEFFREY J. SANDBERG
E-39308
PRAIRIE DU SAC.
WI
PROFESSIONAL ENGINEER
11/15/13

TRAFFIC CONTROL SIGNAL
IH 94 WB RAMP & STH 100 (RYAN RD)
CITY OF OAK CREEK
MILWAUKEE COUNTY

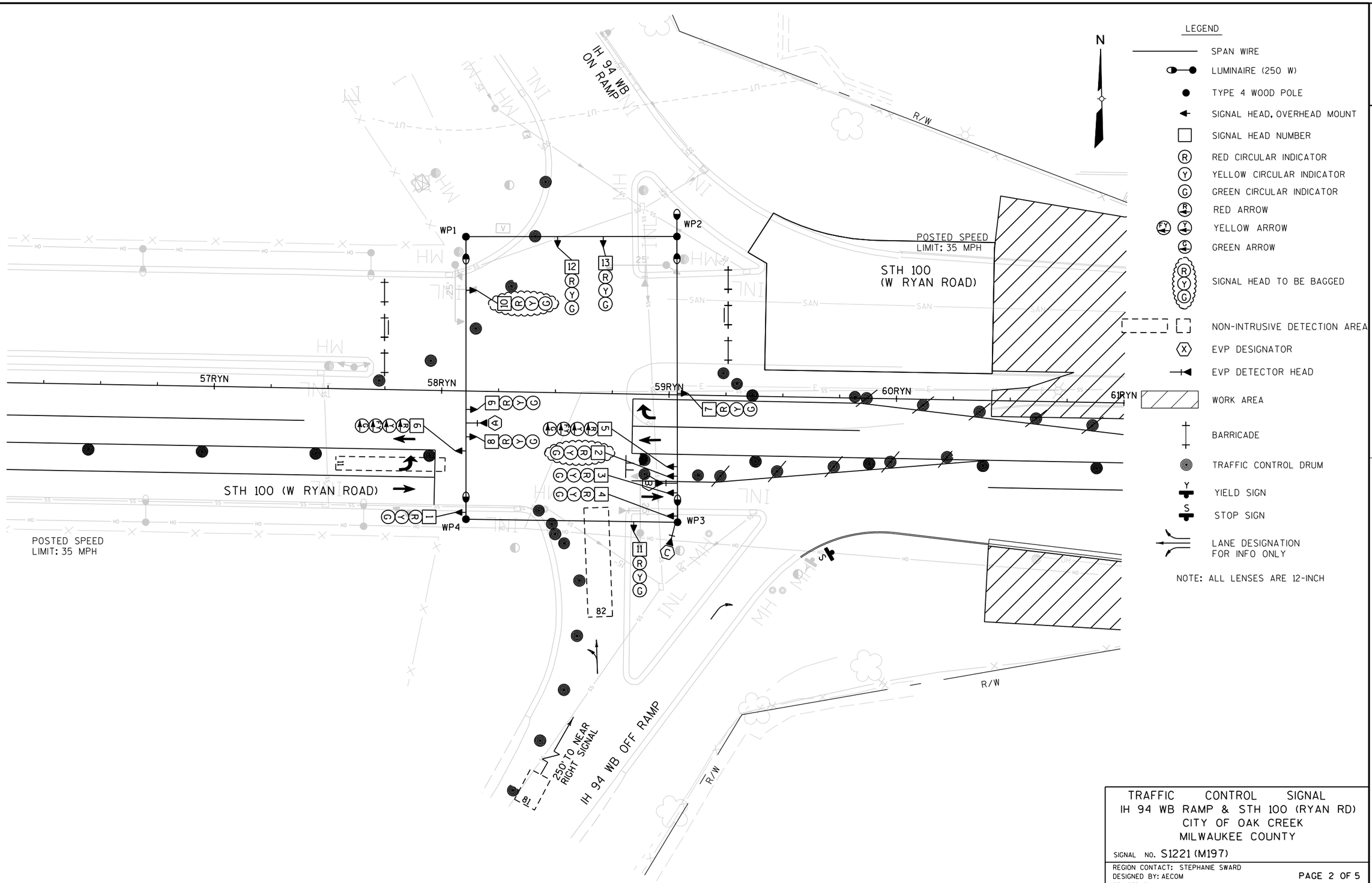
SIGNAL NO. S1221 (M197)

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: AECOM
REVISED BY:

PAGE 1 OF 5

PROJECT NUMBER: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 1A	SHEET 212 E

FILE NAME: l:\work\projects\60222213\000_cad\templplan_WBRamp_stage1A.dgn
BATCH PRINT SHEET 46 OF 73
PRINTER DRIVER: S:\TPN_CADstds\Workspace-Clients\WisDOT\Microstation\Resources\MS_Printing\Printer_Drivers\ET_PDF_11 x 17 Traffic Signals.plt
PEN TABLE: L:\work\projects\60222213\000_CAD\MS_Printing\Pen_Tables\ET_WisDOT_Traffic.tbl
PLOT DATE: 11/18/2013
PLOT TIME: 10:05:08 AM
PLOT SCALE: 1:39.9999
WISDOT/CADDS SHEET 42



TRAFFIC CONTROL SIGNAL
IH 94 WB RAMP & STH 100 (RYAN RD)
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1221 (M197)

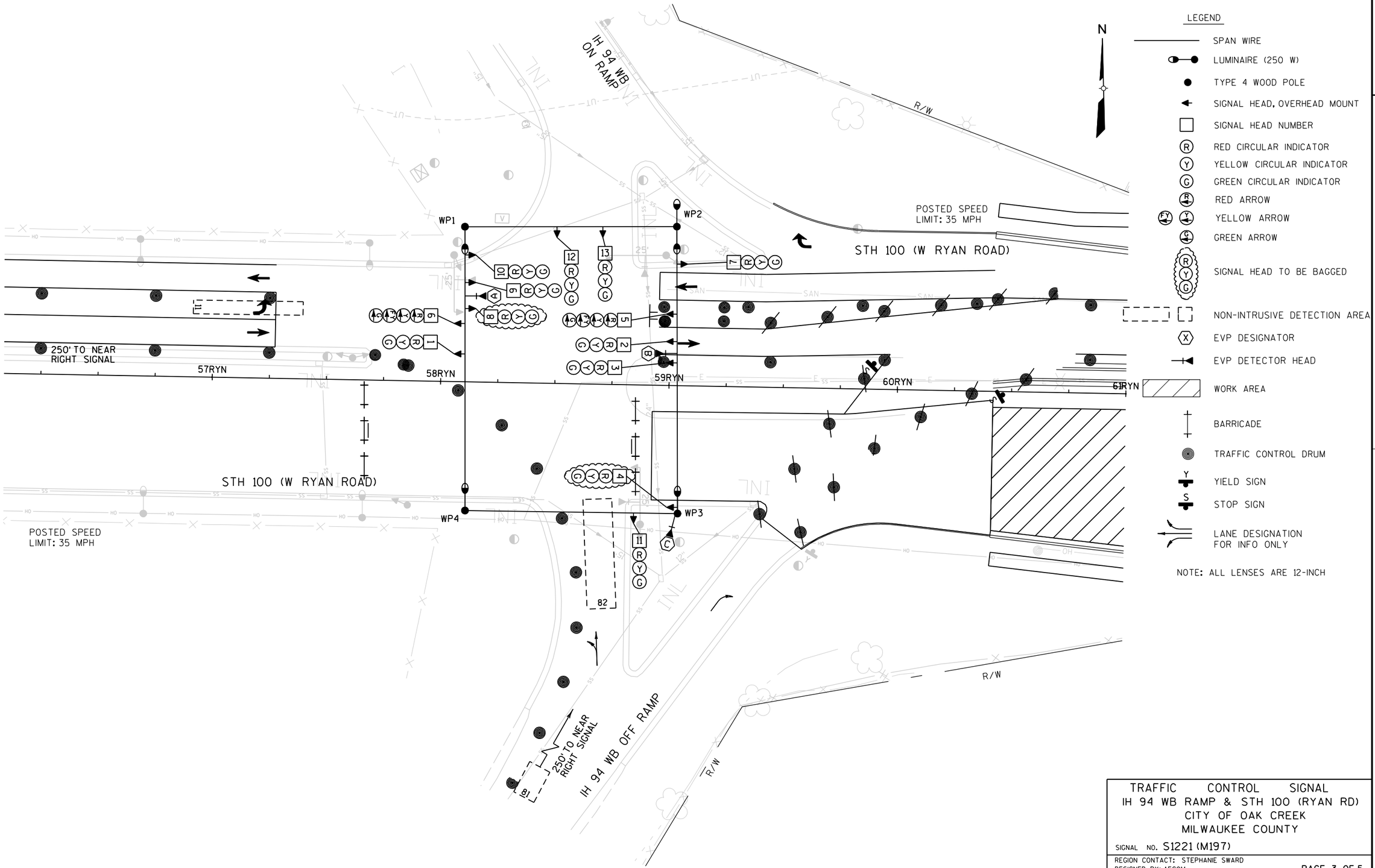
REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: AECOM
REVISED BY:

PAGE 2 OF 5

PROJECT NUMBER: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 1B & STAGE 1C	SHEET 213	E

FILE NAME: l:\work\projects\60222213\000_cad\tempplan_WBRamp_stage1B.dgn
BATCH PRINT SHEET 47 OF 73
PRINTER DRIVER: S:\TPN_CADstds\Workspace-Clients\WisDOT\Microstation\Resources\MS_Printing\Printer_Drivers\ET_PDF_11 x 17 Traffic Signals.plt
PEN TABLE: L:\work\projects\60222213\000_CAD\MS_Printing\Pen_Tables\ET_WisDOT_Traffic.tbl
PLOT DATE: 11/18/2013
PLOT TIME: 10:05:13 AM
PLOT SCALE: 1:39.9999

WISDOT/CADDS SHEET 42



TRAFFIC CONTROL SIGNAL
IH 94 WB RAMP & STH 100 (RYAN RD)
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1221 (M197)

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: AECOM
REVISED BY:

PAGE 3 OF 5

PROJECT NUMBER: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 2A & STAGE 2B	SHEET 214 E

FILE NAME: l:\work\projects\60222213\000_cad\tempplan_WBRamp_stage2A.dgn
BATCH PRINT SHEET 48 OF 73
PRINTER DRIVER: S:\TPN_CADstds\Workspace-Clients\WisDOT\Microstation\Resources\MS_Printing\Printer_Drivers\ET_PDF_11 x 17 Traffic Signals.plt
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PLOT TIME: 10:05:18 AM
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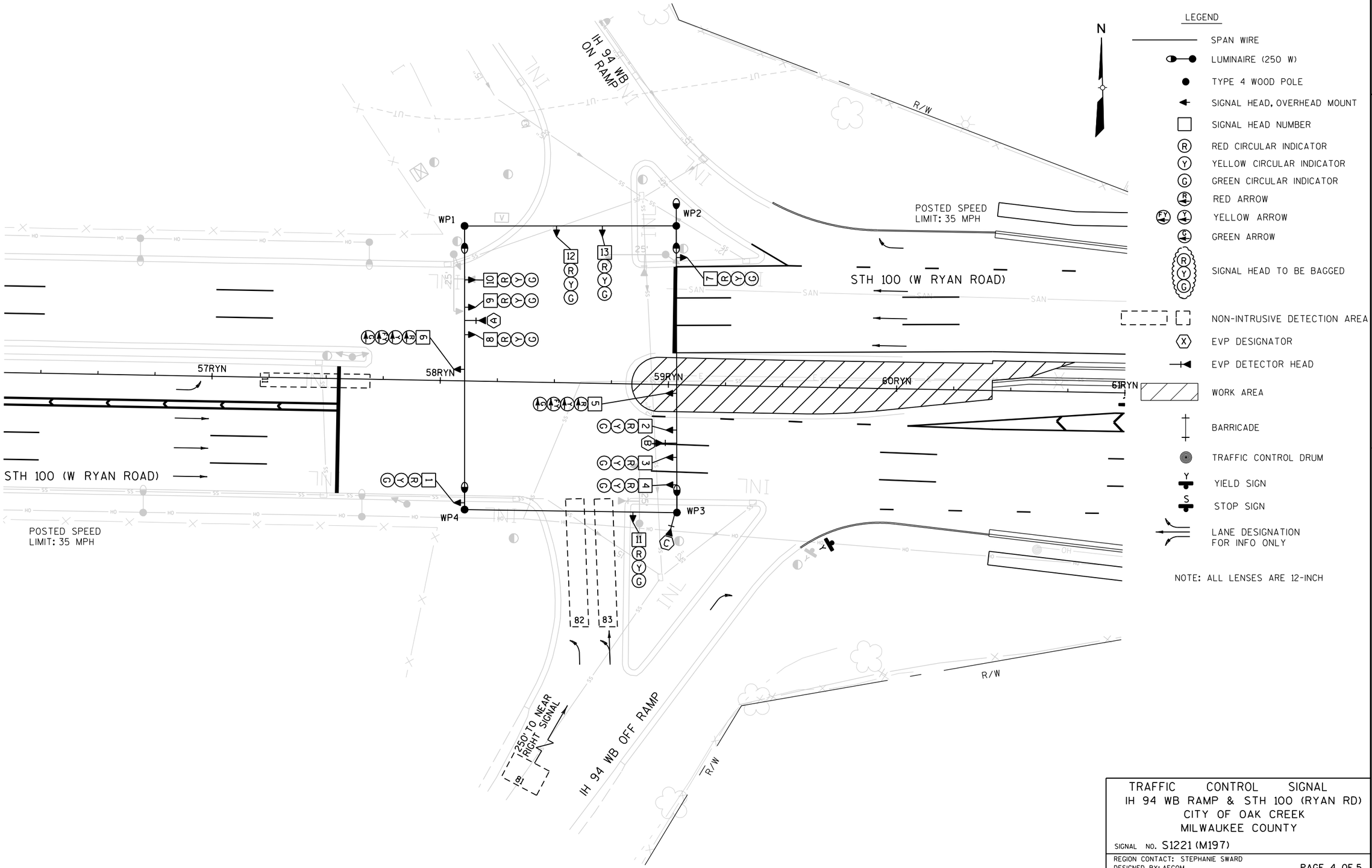
WISDOT/CADDS SHEET 42



TRAFFIC CONTROL SIGNAL
IH 94 WB RAMP & STH 100 (RYAN RD)
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1221 (M197)

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: AECOM
REVISED BY:

PAGE 4 OF 5

PROJECT NUMBER: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 2C	SHEET 215	E

FILE NAME: l:\work\projects\60222213\000_cad\tempplan_WBRamp_stage2C.dgn
BATCH PRINT SHEET 49 OF 73
PRINTER DRIVER: S:\TPN_CADstds\Workspace-Clients\WisDOT\Microstation\Resources\MS_Printing\Printer_Drivers\ET_PDF_11 x 17 Traffic Signals.plt
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PLOT DATE: 11/18/2013
PLOT TIME: 10:05:22 AM
PLOT SCALE: 1:39.9999
WISDOT/CADDS SHEET 42

SEQUENCE OF OPERATION

N

RING 1

	HEAD NUMBERS	Ø1 R/W	Ø1 CLEAR TO **	Ø1 CLEAR TO Ø4	Ø2 R/W	Ø2 CLEAR TO **	Ø2 CLEAR TO	Ø3 R/W	Ø3 CLEAR TO **	Ø3 CLEAR TO	Ø4 R/W	Ø4 CLEAR TO **	Ø4 CLEAR TO Ø1	FLASH
Ø1	5,6	G	-	-	-	-	-							-
Ø2	7,8,9,10	R	R	R	G	Y	R							R
Ø3														
Ø4														
Ø5														
Ø6	1,2,3,4	R	R	R	R	R	R							R
Ø7														
Ø8	11,12,13	R	R	R	R	R	R							R
OLA	5,6	-	Y	R	FY	Y	R							R
OLB														
OLC														
OLD														

RING 2

	HEAD NUMBERS	Ø5 R/W	Ø5 CLEAR TO **	Ø6 R/W	Ø6 CLEAR TO **	Ø6 CLEAR TO	Ø7 R/W	Ø7 CLEAR TO **	Ø8 R/W	Ø8 CLEAR TO **	Ø8 CLEAR TO
Ø1	5,6			-	-	-			-	-	-
Ø2	7,8,9,10			R	R	R			R	R	R
Ø3											
Ø4											
Ø5											
Ø6	1,2,3,4			G	Y	R			R	R	R
Ø7											
Ø8	11,12,13			R	R	R			G	Y	R
OLA	5,6			R	R	R			R	R	R
OLB											
OLC											
OLD											

NOT USED

NOT USED

NOT USED

NOT USED

BARRIER

** CLEARANCE TO A PHASE IN CONFLICT WITH THIS PHASE ON (SEE CHART 1)

FY = FLASHING YELLOW

DETECTOR LOGIC

DETECTOR NUMBER	DETECTOR INPUT	DETECTOR OPERATION: CALLS AND EXTENDS	DETECTOR OPERATION: CALLS ONLY	DETECTOR OPERATION: EXTENDS ONLY	PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	SIZE	NUMBER OF TURNS
11		X			1	1					
81				X		8			X		
82		X			8	8					
83		X			8	8					

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1		6		X
2		6	MAX	X
3				
4				
5				
6		2	MAX	X
7				
8				X

SPECIAL OVERLAPS

	PROTECTED	PERMISSIVE
OL A	1	2

TYPE OF INTERCONNECT COMMUNICATION	
NONE	
TBC	x
CLOSED LOOP TWISTED PAIR*	
CLOSED LOOP FIBER OPTIC*	
RADIO	
FIBER OPTIC	
*LOCATION OF MASTER CONTROLLER NO:	S-
SIGNAL SYSTEM #:	SS- -

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	x
3M	
TOMAR	
HARDWIRE	
GTT	x
LIFT BRIDGE	
QUEUE DETECTOR	

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC SIGNAL CABINET	x
IN SEPARATE DOT LIGHTING CABINET	

GENERAL NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.
2. WHEN ONE PHASE IS ON ALONE, ANY NONCONFLICTING PHASE MAY START TIMING CONCURRENTLY WITHOUT A CLEARANCE INTERVAL. (SEE CHART 1 AT LEFT.)

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE DETECTOR	A	B	C
MOVEMENT	← / →	→	↑
PHASE	2+6	1+6	8

AFTER PREEMPTION SEQUENCE 2+6 OR 1+6
CONTROLLER SHALL RETURN TO PHASES 2+6
AFTER PREEMPTION SEQUENCE 8
CONTROLLER SHALL RETURN TO PHASE 8

CHART 1

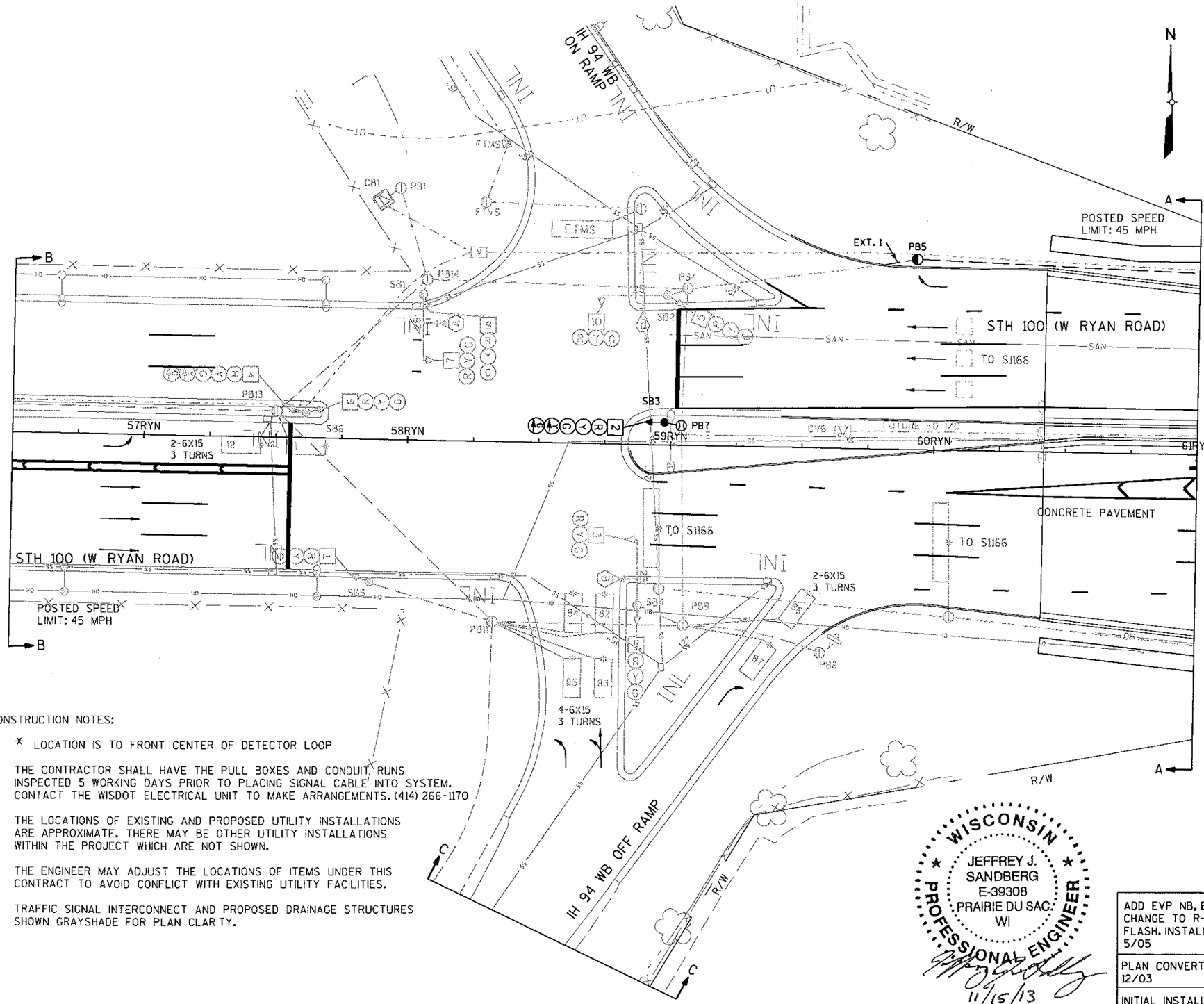
PHASE ON	NONCONFLICTING PHASE ALLOWED TO TIME CONCURRENTLY	PHASES IN CONFLICT WITH PHASE ON
1	6	2,8
2	6	1,8
3		
4		
5		
6	1 OR 2	8
7		
8	NONE	1,2,6

IH 94 WB RAMP &
STH 100 (RYAN ROAD)
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1221

CONTROLLER TYPE: TEMP

DATE SEPTEMBER 2013 PAGE NO. 5 OF 5



LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- LUMINAIRE UNDER PERMIT TO LOCAL MUNICIPALITY
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- * LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- YELLOW ARROW
- GREEN ARROW
- (X) EVP DESIGNATOR
- EVP DETECTOR HEAD
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

CONSTRUCTION NOTES:

1. * LOCATION IS TO FRONT CENTER OF DETECTOR LOOP
2. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO SYSTEM. CONTACT THE WISDOT ELECTRICAL UNIT TO MAKE ARRANGEMENTS. (414) 266-1170
3. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
4. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
5. TRAFFIC SIGNAL INTERCONNECT AND PROPOSED DRAINAGE STRUCTURES SHOWN GRAYSHADE FOR PLAN CLARITY.

WISCONSIN
JEFFREY J. SANDBERG
E-39308
PRAIRIE DU SAC, WI
PROFESSIONAL ENGINEER
11/15/13

REVISION				
Rev. No.	REPLACE SB3, PB7, AND LOOP 21. RECABLE INTERSECTION.			
	APPROVAL RECOMMENDED		APPROVED	
	REGION		CENTRAL OFFICE	
3	Date	By	Date	By
	11/18/13	DAB	11/18/13	GJB

ADD EVP NB, EB, AND WB. CHANGE TO R-R EMERGENCY FLASH. INSTALL LOOP 81. 5/05

PLAN CONVERTED TO ENGLISH 12/03

INITIAL INSTALLATION 3/99

TRAFFIC CONTROL SIGNAL

IH 94 WB RAMP & STH 100 (RYAN RD)
CITY OF OAK CREEK/CITY OF FRANKLIN
MILWAUKEE COUNTY

SIGNAL NO. S1221 (M197) CONTROLLER TYPE: EPAC

WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVAL RECOMMENDED
Date 3/5/99 — MITZI M. DOBERSEK, REGION TRAFFIC ENGINEER

APPROVED
Date 2/05/02 — WILLIAM C. GILDING, STATE TRAFFIC ENGINEER

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: AECOM
REVISED BY:

PAGE 1 OF 3

11/18/13 SJS

PROJECT NUMBER: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 217	E

FILE NAME: I:\work\projects\60222213\000_cad\sigplan_sh1_WBRamp.dgn
BATCH PRINT SHEET 51 OF 73
PRINTER DRIVER: S:\TPN_CADstds\Workspace-Clients\WisDOT\Microstation\Resources\MS_Printing\Printer_Drivers\ET_PDF_11 x 17 Traffic Signals.plt
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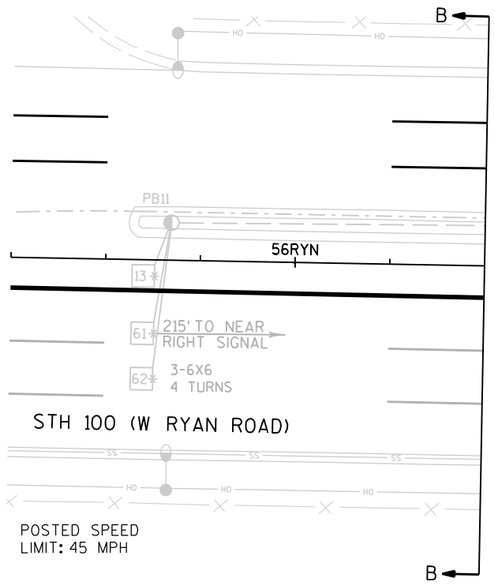
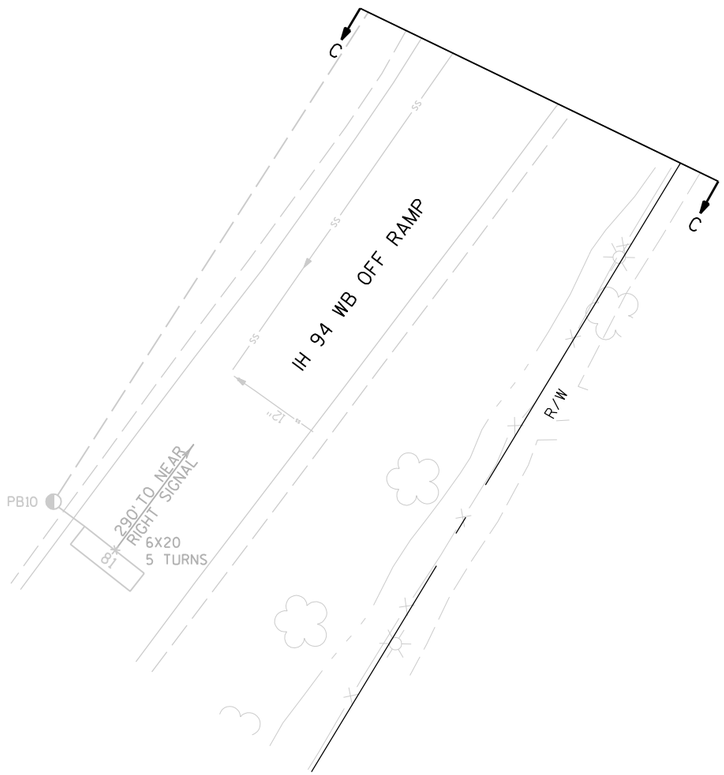
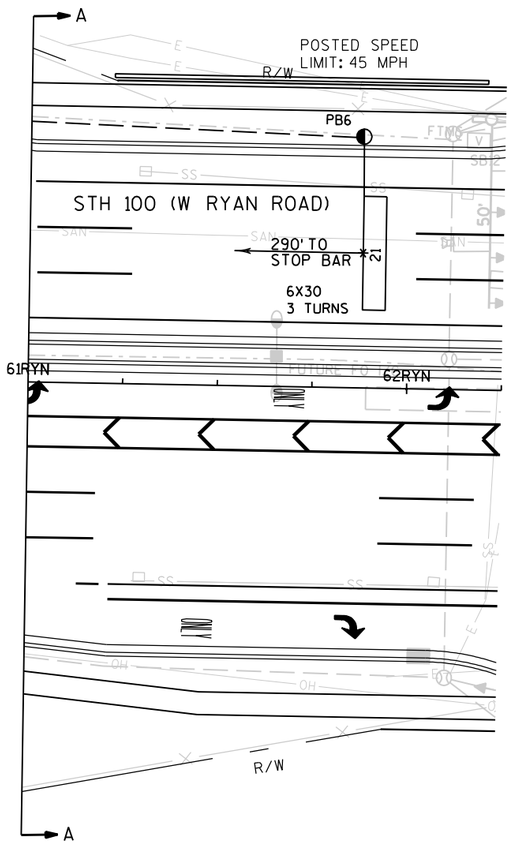
PLOT TIME: 8:51:29 AM
PLOT SCALE: 1:39.9999
WISDOT/CADDS SHEET 42







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TRAFFIC CONTROL SIGNAL
IH 94 WB RAMP & STH 100 (RYAN RD)
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1221 (M197)

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: AECOM
REVISED BY:

PAGE 2 OF 3

PROJECT NUMBER: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 218	E

FILE NAME: l:\work\projects\60222213\000_cad\sigplan_sh2_WBRamp.dgn
BATCH PRINT SHEET 52 OF 73
PRINTER DRIVER: S:\TPN_CADstds\Workspace-Clients\WisDOT\Microstation\Resources\MS_Printing\Printer_Drivers\ET_PDF_11 x 17 Traffic Signals.plt
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PLOT DATE: 11/18/2013
PLOT TIME: 10:05:40 AM
PLOT SCALE: 1:39.9999
WISDOT/CADDS SHEET 42

2

SEQUENCE OF OPERATION

N

RING 1

	HEAD NUMBERS	Ø1 R/W	Ø1 **	Ø1	Ø1	Ø2 R/W	Ø2 **	Ø2	Ø2	NOT USED Ø3 R/W	NOT USED Ø3 **	Ø3	Ø3	NOT USED Ø4 R/W	NOT USED Ø4 **	Ø4	Ø4	FLASH
		CLEAR TO				CLEAR TO				CLEAR TO				CLEAR TO				
Ø1	2,4	G	Y	-		-	-	-										-
Ø2	5,6,7	R	R	R		G	Y	R										R
Ø3																		
Ø4																		
Ø5																		
Ø6	1,2,3,4	R	R	R		R	R	R										R
Ø7																		
Ø8	8,9,10	R	R	R		R	R	R										R
OLA																		
OLB																		
OLC																		
OLD																		

RING 2

	HEAD NUMBERS	NOT USED Ø5 R/W	Ø5 **	Ø8	Ø5	Ø6 R/W	Ø6 **	Ø6	Ø6	NOT USED Ø7 R/W	Ø7 **	Ø8	Ø7	Ø8 R/W	Ø8 **	Ø5	Ø7
		CLEAR TO				CLEAR TO				CLEAR TO				CLEAR TO			
Ø1	2,4					-	-	-						-	-		
Ø2	5,6,7					R	R	R						R	R		
Ø3																	
Ø4																	
Ø5																	
Ø6	1,2,3,4					G	Y	R						R	R		
Ø7																	
Ø8	8,9,10					R	R	R						G	Y	R	
OLA																	
OLB																	
OLC																	
OLD																	

BARRIER

** CLEARANCE TO A PHASE IN CONFLICT WITH THIS PHASE ON (SEE CHART 1)

DETECTOR LOGIC

DETECTOR NUMBER	DETECTOR INPUT	DETECTOR OPERATION: CALLS AND EXTENDS	CALLS ONLY	EXTENDS ONLY	PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	SIZE	NUMBER OF TURNS
11	1	X			1	1				6X15	3
12	1	X			1	1				6X15	3
13	2			X		1			X	6X6	4
21	4	X			2	2				6X30	3
61	6	X			6	6				6X6	4
62	6	X			6	6				6X6	4
81				X		8			X	6X20	5
82	7	X			8	8				6X15	3
83	7	X			8	8				6X15	3
84	8	X			8	8				6X15	3
85	8	X			8	8				6X15	3
86	9	X			8	8		X		6X15	3
87	9	X			8	8		X		6X15	3

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1		6		X
2	X	6	MIN.	X
3				
4				X
5				
6	X	2	MIN.	X
7				
8				X

OVERLAPS

O.L. "A" =
O.L. "B" =
O.L. "C" =
O.L. "D" =

CHART 1

PHASE ON	NONCONFLICTING PHASE ALLOWED TO TIME CONCURRENTLY	PHASES IN CONFLICT WITH PHASE ON
1	6	2,8
2	6	1,8
3		
4		
5		
6	1 OR 2	8
7		
8	NONE	1,2,6

TYPE OF INTERCONNECT COMMUNICATION	
NONE	
TBC	X
CLOSED LOOP TWISTED PAIR*	
CLOSED LOOP FIBER OPTIC*	
RADIO	
FIBER OPTIC	
*LOCATION OF MASTER CONTROLLER NO:	
SIGNAL SYSTEM #: SS-00-12	

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	x
3M	x
TOMAR	
HARDWIRE	
GTT	
LIFT BRIDGE	
QUEUE DETECTOR	

TYPE OF LIGHTING	
NONE	
IN TRAFFIC SIGNAL CABINET	
IN SEPARATE DOT LIGHTING CABINET	x

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE DETECTOR	A	B	C
MOVEMENT	← →	↱ →	↑
PHASE	2+6	1+6	8

AFTER PREEMPTION SEQUENCE 2+6 OR 1+6
CONTROLLER SHALL RETURN TO PHASES 2+6
AFTER PREEMPTION SEQUENCE 8
CONTROLLER SHALL RETURN TO PHASE 8

GENERAL NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.
2. WHEN ONE PHASE IS ON ALONE, ANY NONCONFLICTING PHASE MAY START TIMING CONCURRENTLY WITHOUT A CLEARANCE INTERVAL. (SEE CHART 1 AT LEFT.)

IH 94 WB RAMP & STH 100 (RYAN ROAD)
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1221 (M197)

CONTROLLER TYPE: EPAC

DATE SEPTEMBER 2013 PAGE NO. 3 OF 3

2

PROJECT ID:	2040-16-70
INTERSECTION:	IH 94 WB RAMP & STH 100 (RYAN ROAD)

SIGNAL WIRE	BLK-BLACK	RED-RED	GRN-GREEN
COLOR CODING	WHT-WHITE	BLU-BLUE	ORG-ORANGE

DATE: Sep-13

CB1 TO	AWG 14 # OF COND.	HEAD NO.	SIGNAL INDICATION WIRE COLOR								PED BUTTON	OTHER
			RED	YELLOW	GREEN	<RED>	<YELLOW>	<GREEN>	D/WALK	WALK		
SB1	12	9	RED	ORG	GRN							
		7	RED/BLK	ORG/BLK	GRN/BLK							
SB2	12	10	RED	ORG	GRN							
		5	RED/BLK	ORG/BLK	GRN/BLK							
SB3	12	2	RED	ORG	GRN		ORG/BLK	GRN/BLK				
SB4	12	8	RED	ORG	GRN							
		3	RED/BLK	ORG/BLK	GRN/BLK							
SB5	12	1	RED	ORG	GRN							
SB6	12	6	RED/BLK	ORG/BLK	GRN/BLK							
		4	RED	ORG	GRN		WHT/BLK	BLU/BLK				

EQUIPMENT GROUNDING CONDUCTORS 10 AWG GRN XLP	
FROM	TO
CB1	SB1
SB1	SB2
SB2	SB3
SB3	SB4
SB4	SB5
SB5	SB6
SB6	CB1

PULL BOX BONDING JUMPER 10 AWG GRN XLP	
FROM	TO
PB1	CB1
PB4	SB2
PB7	SB3
PB9	SB4
PB11	SB5
PB13	SB6
PB14	CB1

EMERGENCY VEHICLE PREEMPTION		
HEAD	FROM	TO
A	CB1	SB1
B	CB1	SB4
C	CB1	SB2

WISCONSIN
JEFFREY J. SANDBERG
E-39308
PRAIRIE DU SAC
WI
PROFESSIONAL ENGINEER
11/15/13

NOTES:
1. USE WHITE CONDUCTOR IN THE SIGNAL CABLE AS THE GROUNDED CONDUCTOR FOR ALL TRAFFIC SIGNAL INDICATIONS.
2. ENSURE THE GROUNDED CONDUCTOR IN THE FEEDER CABLE AND THE POLE CABLES ARE BOTH 18" LONGER THAN THE UNGROUNDED CONDUCTORS.

IH 94 WB RAMP & STH 100 (RYAN RD)
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1221 (M197)

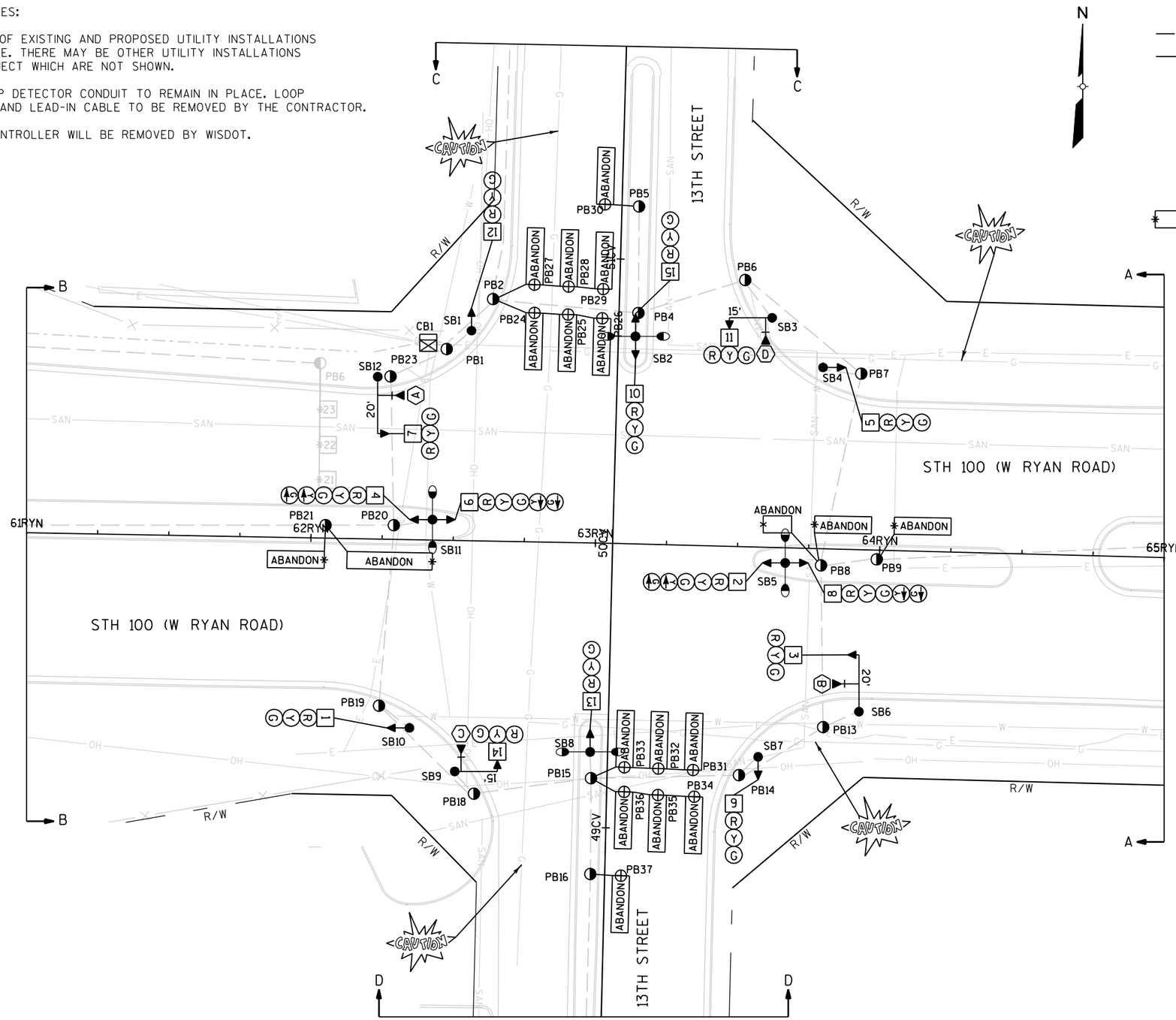
CONTROLLER TYPE: EPAC

DATE SEPTEMBER 2013 PAGE NO. 1 OF 1

PROJECT NUMBER: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	CABLE ROUTING	SHEET 220	E

CONSTRUCTION NOTES:

1. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
2. ABANDONED LOOP DETECTOR CONDUIT TO REMAIN IN PLACE. LOOP DETECTOR WIRE AND LEAD-IN CABLE TO BE REMOVED BY THE CONTRACTOR.
3. CABINET AND CONTROLLER WILL BE REMOVED BY WISDOT.



LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 36"
- PULL BOX, 12" X 24"
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- YELLOW ARROW
- GREEN ARROW
- (X) EVP DESIGNATOR
- EVP DETECTOR HEAD

NOTE: GRAYSHADE REPRESENTS EXISTING
BOLD REPRESENTS ITEMS TO BE REMOVED

WISCONSIN
JEFFREY J. SANDBERG
E-39308
PRAIRIE DU SAC, WI
PROFESSIONAL ENGINEER
11/15/13

TRAFFIC CONTROL SIGNAL
STH 100 (RYAN RD) & 13TH STREET
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1166

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: AECOM
REVISED BY:

PAGE 1 OF 3

PROJECT NUMBER: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 221	E

FILE NAME: l:\work\projects\60222213\000_cad\removal_shl_13th.dgn
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PLOT TIME: 10:05:52 AM
PLOT SCALE: 1:39.9999

WISDOT/CADDS SHEET 42

2

N

THE R/W IS OUTSIDE
OF SHEET LIMITS

B

STH 100 (W RYAN ROAD)

AN SAN SAN

E E E E

60RYN 61RYN

PB22

ABANDON

OH

8

THE R/W IS OUTSIDE
OF SHEET LIMITS

B

A

R/W

E E E E E E

SAN SAN SAN SAN S

ABANDON ABANDON

65RYN PB10 66RYN PB11 67RYN PB12

E E E E

STH 100 (W RYAN ROAD)

SS SS SS

W W W W W W

E E E E E E

G G G G G G

OH OH OH OH OH OH

R/W

A

TRAFFIC CONTROL SIGNAL
STH 100 (RYAN ROAD) & 13TH STREET
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1166

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: AECOM
REVISED BY:

PAGE 2 OF 3

PROJECT NUMBER: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 222	E

FILE NAME: I:\work\projects\60222213\000.cad\removal_sh2_13th.dgn
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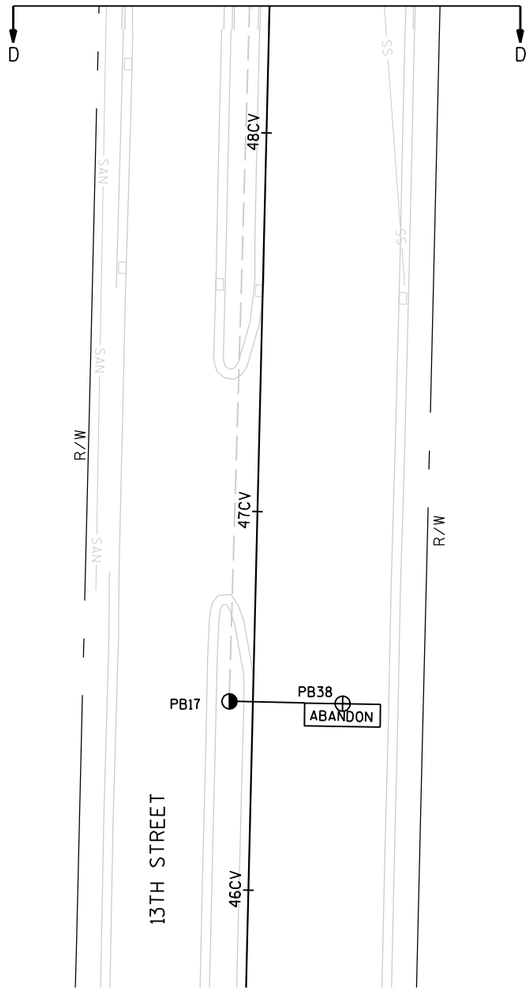
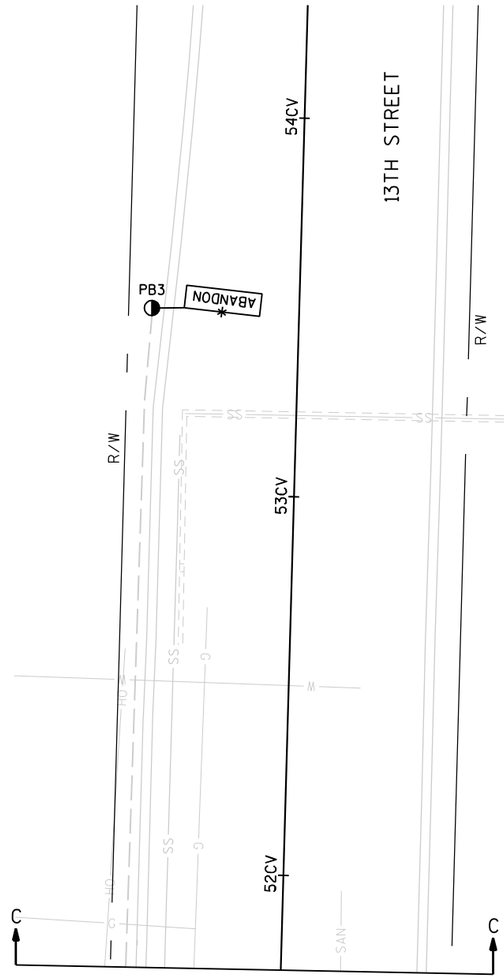
WISDOT/CADDS SHEET 42

2





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TRAFFIC CONTROL SIGNAL
STH 100 (RYAN ROAD) & 13TH STREET
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1166

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: AECOM
REVISED BY:

PAGE 3 OF 3

PROJECT NUMBER: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 223	E

FILE NAME: l:\work\projects\60222213\000.cad\removal_sh3_13th.dgn
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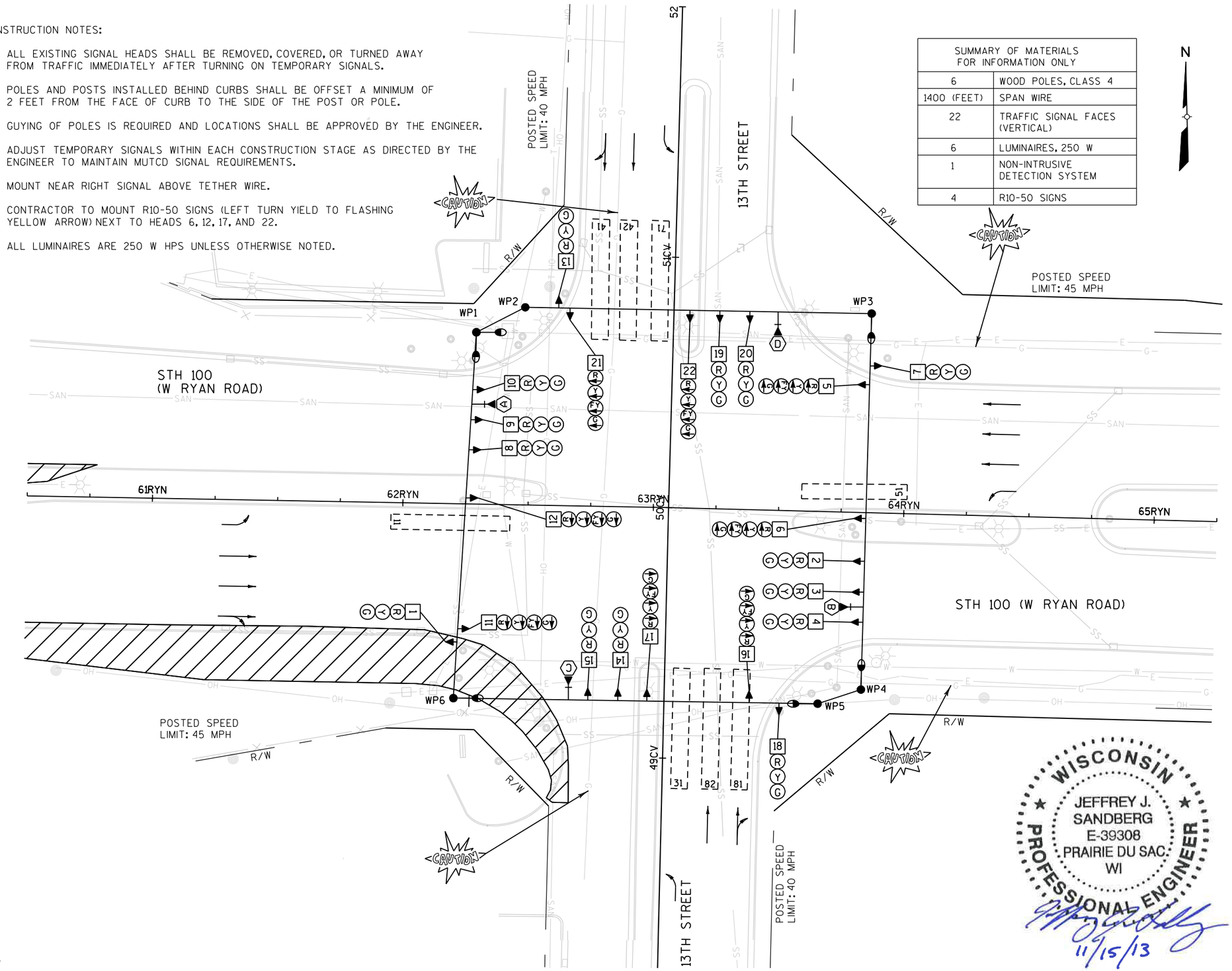
PLOT DATE: 11/18/2013
PLOT TIME: 10:06:01 AM
PLOT SCALE: 1:39.9999
WISDOT/CADDS SHEET 42

CONSTRUCTION NOTES:

1. ALL EXISTING SIGNAL HEADS SHALL BE REMOVED, COVERED, OR TURNED AWAY FROM TRAFFIC IMMEDIATELY AFTER TURNING ON TEMPORARY SIGNALS.
2. POLES AND POSTS INSTALLED BEHIND CURBS SHALL BE OFFSET A MINIMUM OF 2 FEET FROM THE FACE OF CURB TO THE SIDE OF THE POST OR POLE.
3. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER.
4. ADJUST TEMPORARY SIGNALS WITHIN EACH CONSTRUCTION STAGE AS DIRECTED BY THE ENGINEER TO MAINTAIN MUTCD SIGNAL REQUIREMENTS.
5. MOUNT NEAR RIGHT SIGNAL ABOVE TETHER WIRE.
6. CONTRACTOR TO MOUNT R10-50 SIGNS (LEFT TURN YIELD TO FLASHING YELLOW ARROW) NEXT TO HEADS 6, 12, 17, AND 22.
7. ALL LUMINAIRES ARE 250 W HPS UNLESS OTHERWISE NOTED.



SUMMARY OF MATERIALS FOR INFORMATION ONLY	
6	WOOD POLES, CLASS 4
1400 (FEET)	SPAN WIRE
22	TRAFFIC SIGNAL FACES (VERTICAL)
6	LUMINAIRES, 250 W
1	NON-INTRUSIVE DETECTION SYSTEM
4	R10-50 SIGNS

N

LEGEND

- SPAN WIRE
- LUMINAIRE (250 W)
- TYPE 4 WOOD POLE
- SIGNAL HEAD, OVERHEAD MOUNT
- SIGNAL HEAD NUMBER
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- SIGNAL HEAD TO BE BAGGED
- NON-INTRUSIVE DETECTION AREA
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- WORK AREA
- BARRICADE
- TRAFFIC CONTROL DRUM
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH

WISCONSIN
JEFFREY J. SANDBERG
E-39308
PRAIRIE DU SAC, WI
PROFESSIONAL ENGINEER
11/15/13

TRAFFIC CONTROL SIGNAL
STH 100 (RYAN RD) & 13TH STREET
CITY OF OAK CREEK
MILWAUKEE COUNTY

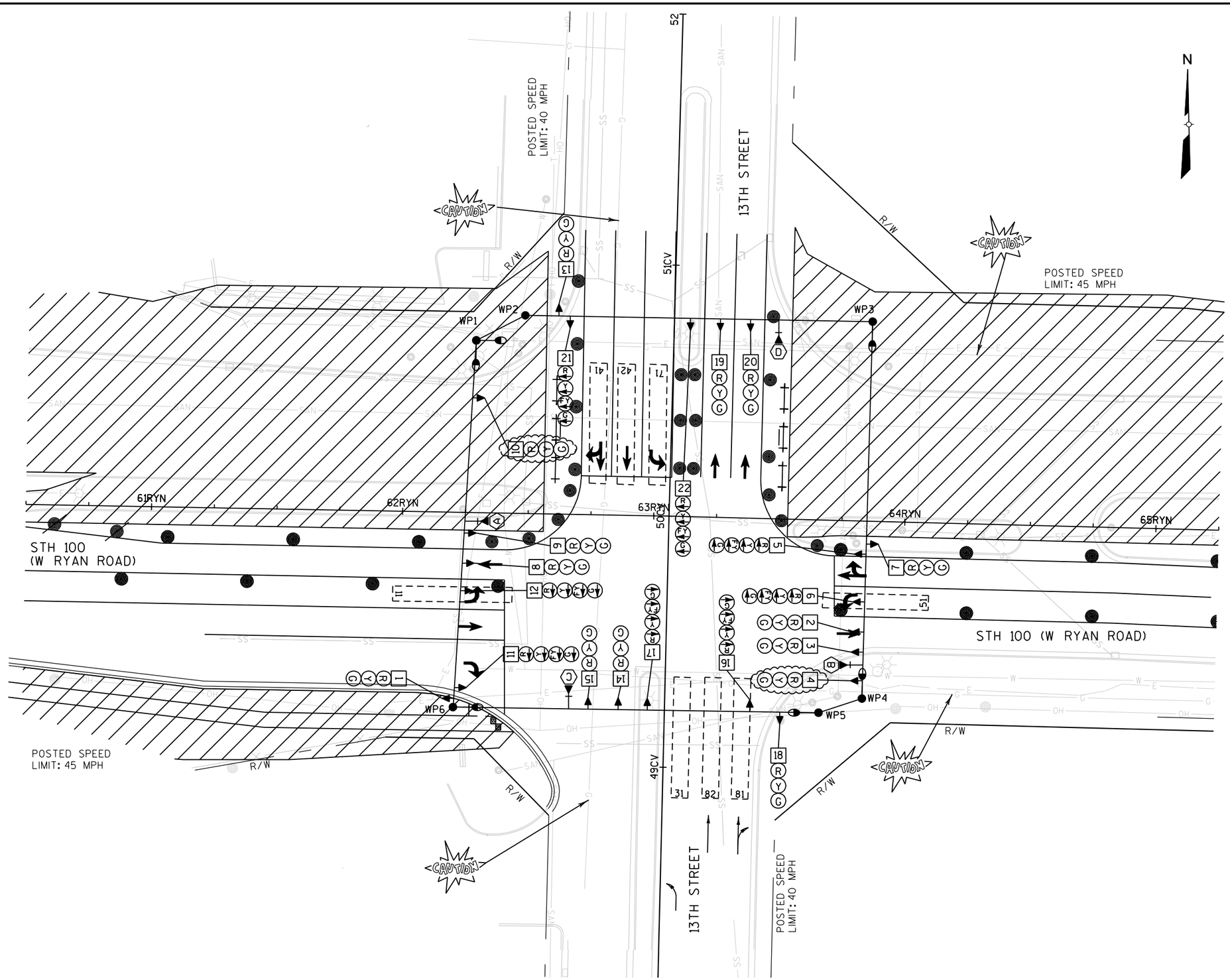
SIGNAL NO. S1166

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: AECOM
REVISED BY:

PAGE 1 OF 7

PROJECT NUMBER: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 1A	SHEET 224 E

2



LEGEND

- SPAN WIRE
- LUMINAIRE (250 W)
- TYPE 4 WOOD POLE
- SIGNAL HEAD, OVERHEAD MOUNT
- SIGNAL HEAD NUMBER
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- SIGNAL HEAD TO BE BAGGED
- NON-INTRUSIVE DETECTION AREA
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- WORK AREA
- BARRICADE
- TRAFFIC CONTROL DRUM
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH

TRAFFIC CONTROL SIGNAL
STH 100 (RYAN RD) & 13TH STREET
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1166

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: AECOM
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PROJECT NUMBER: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 1B	SHEET 225	E

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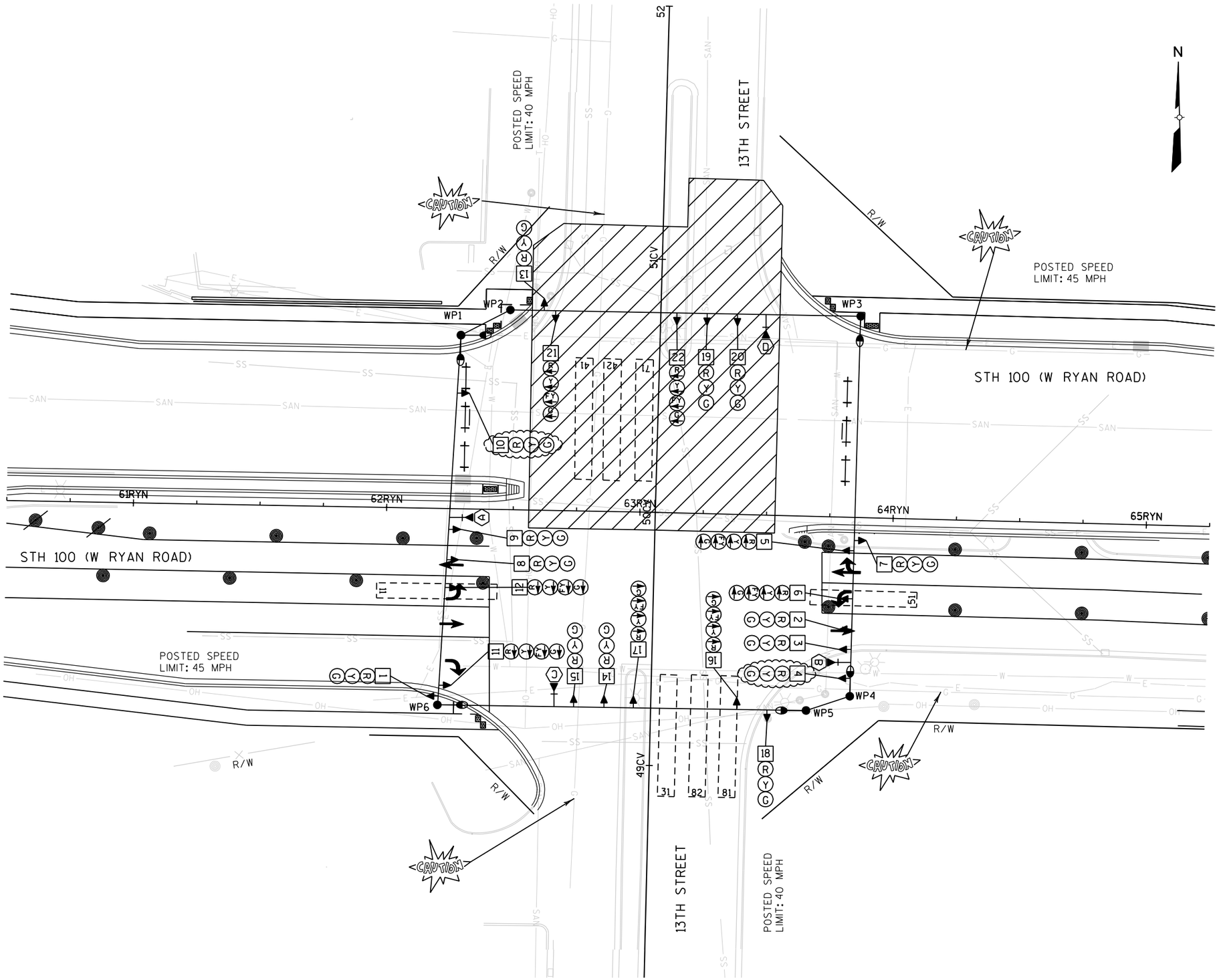
WISDOT/CADDS SHEET 42



LEGEND

- SPAN WIRE
- LUMINAIRE (250 W)
- TYPE 4 WOOD POLE
- SIGNAL HEAD, OVERHEAD MOUNT
- SIGNAL HEAD NUMBER
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- SIGNAL HEAD TO BE BAGGED
- NON-INTRUSIVE DETECTION AREA
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- WORK AREA
- BARRICADE
- TRAFFIC CONTROL DRUM
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH

TRAFFIC CONTROL SIGNAL
STH 100 (RYAN RD) & 13TH STREET
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1166

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: AECOM
REVISED BY:

PAGE 3 OF 7

PROJECT NUMBER: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 1C	SHEET 226	E

FILE NAME: l:\work\projects\60222213\000_cad\tempplan_13th_stage1C.dgn
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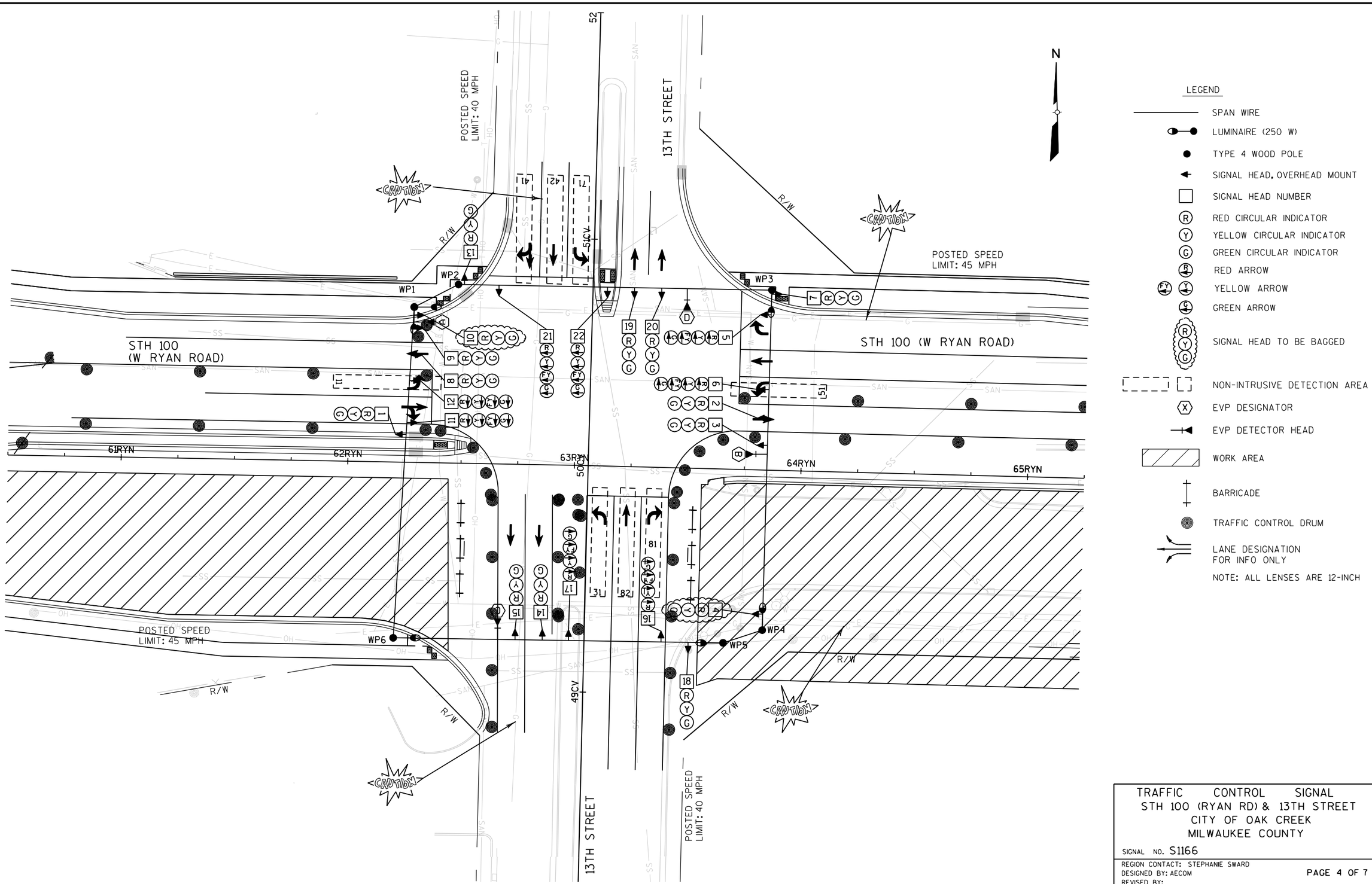
WISDOT/CADDS SHEET 42



TRAFFIC CONTROL SIGNAL
STH 100 (RYAN RD) & 13TH STREET
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1166

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: AECOM
REVISED BY:

PAGE 4 OF 7

PROJECT NUMBER: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 2A	SHEET 227	E

FILE NAME: l:\work\projects\60222213\000_cad\templan_13th_stage2A.dgn
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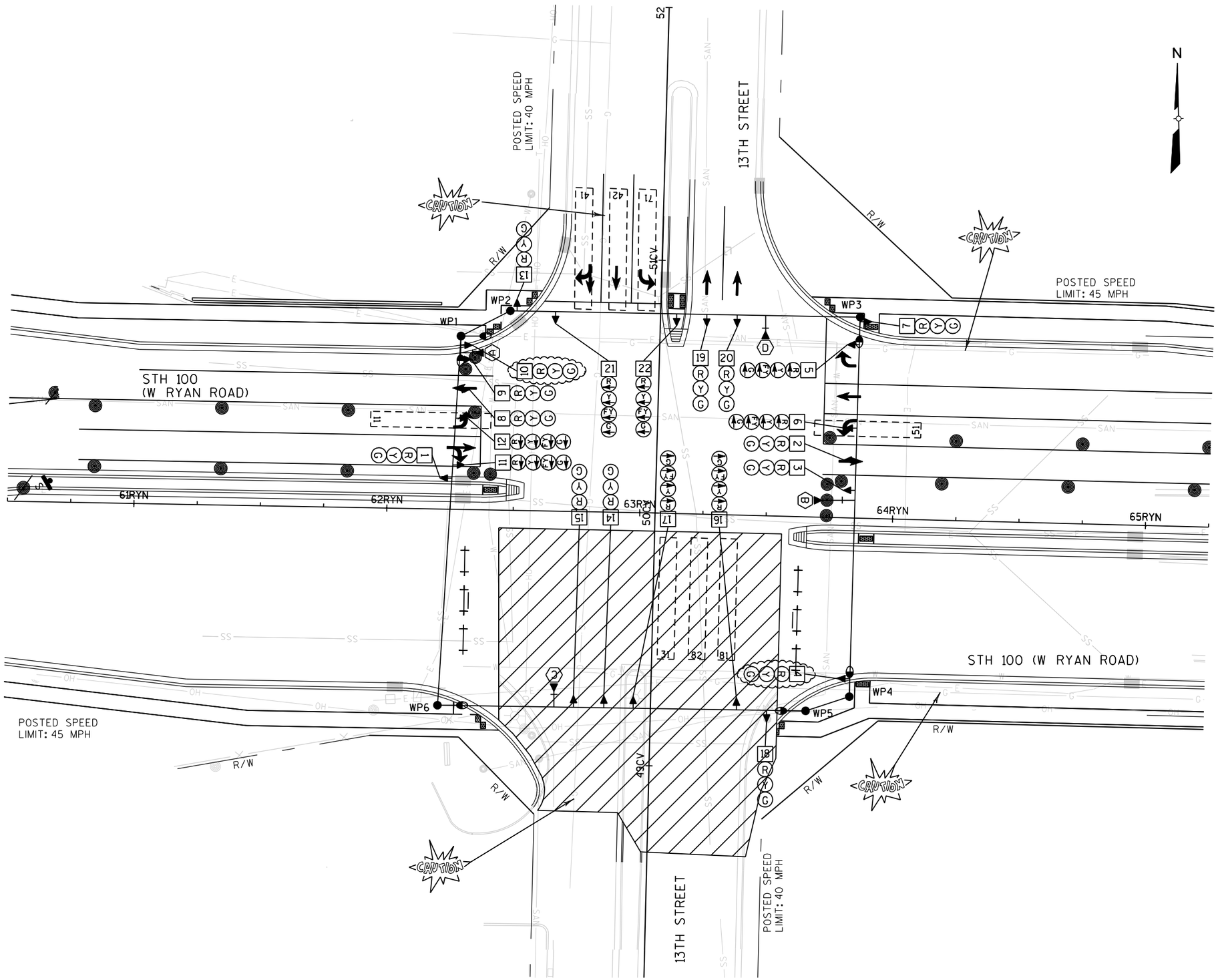
WISDOT/CADDS SHEET 42

2



LEGEND

- SPAN WIRE
- LUMINAIRE (250 W)
- TYPE 4 WOOD POLE
- SIGNAL HEAD, OVERHEAD MOUNT
- SIGNAL HEAD NUMBER
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- SIGNAL HEAD TO BE BAGGED
- NON-INTRUSIVE DETECTION AREA
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- WORK AREA
- BARRICADE
- TRAFFIC CONTROL DRUM
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH

TRAFFIC CONTROL SIGNAL
STH 100 (RYAN RD) & 13TH STREET
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1166

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: AECOM
REVISED BY:

PAGE 5 OF 7

PROJECT NUMBER: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 2B	SHEET 228	E

FILE NAME: l:\work\projects\60222213\000_cad\templan_13th_stage2B.dgn
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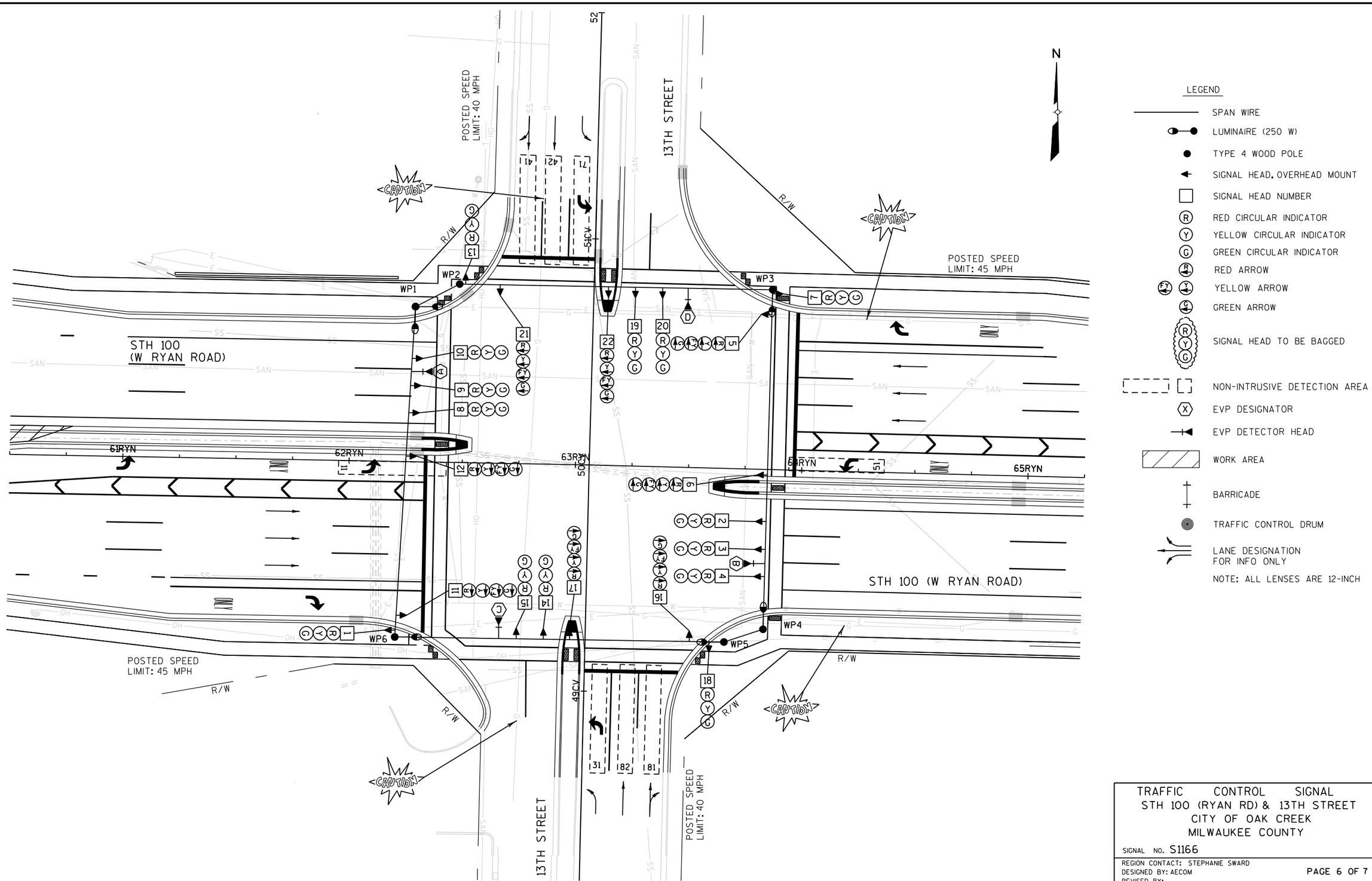
WISDOT/CADDS SHEET 42



TRAFFIC CONTROL SIGNAL
STH 100 (RYAN RD) & 13TH STREET
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1166

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: AECOM
REVISED BY:

PAGE 6 OF 7

PROJECT NUMBER: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 2C	SHEET 229	E

N

SEQUENCE OF OPERATION

RING 1

	HEAD NUMBERS	Ø1 R/W	Ø1 CLEAR TO **	Ø2 R/W	Ø2 CLEAR TO **	Ø3 R/W	Ø3 CLEAR TO **	Ø4 R/W	Ø4 CLEAR TO **	FLASH
Ø1	5,6	G	- -	-	- -	-	- -	-	- -	-
Ø2	7,8,9,10	R	R R	G	Y R	R	R R	R	R R	R
Ø3	21,22	-	- -	-	- -	G	- -	-	- -	-
Ø4	13,14,15	R	R R	R	R R	R	R R	G	Y R	R
Ø5	11,12	-	- -	-	- -	-	- -	-	- -	-
Ø6	1,2,3,4	R	R R	R	R R	R	R R	R	R R	R
Ø7	16, 17	-	- -	-	- -	-	- -	-	- -	-
Ø8	18,19,20	R	R R	R	R R	R	R R	R	R R	R
OLA	5,6	-	Y R	FY	Y R	R	R R	R	R R	R
OLB	21,22	R	R R	R	R R	-	Y R	FY	Y R	R
OLC	11,12	R	R R	R	R R	R	R R	R	R R	R
OLD	16,17	R	R R	R	R R	R	R R	R	R R	R

RING 2

	HEAD NUMBERS	Ø5 R/W	Ø5 CLEAR TO **	Ø6 R/W	Ø6 CLEAR TO **	Ø7 R/W	Ø7 CLEAR TO **	Ø8 R/W	Ø8 CLEAR TO **
Ø1	5,6	-	- -	-	- -	-	- -	-	- -
Ø2	7,8,9,10	R	R R	R	R R	R	R R	R	R R
Ø3	21,22	-	- -	-	- -	-	- -	-	- -
Ø4	13,14,15	R	R R	R	R R	R	R R	R	R R
Ø5	11,12	G	- -	-	- -	-	- -	-	- -
Ø6	1,2,3,4	R	R R	G	Y R	R	R R	R	R R
Ø7	16,17	-	- -	-	- -	G	- -	-	- -
Ø8	18,19,20	R	R R	R	R R	R	R R	G	Y R
OLA	5,6	R	R R	R	R R	R	R R	R	R R
OLB	21,22	R	R R	R	R R	R	R R	R	R R
OLC	11,12	-	Y R	FY	Y R	R	R R	R	R R
OLD	16,17	R	R R	R	R R	-	Y R	FY	Y R

BARRIER

** CLEARANCE TO A PHASE IN CONFLICT WITH THIS PHASE ON (SEE CHART 1)

CHART 1

PHASE ON	NONCONFLICTING PHASE ALLOWED TO TIME CONCURRENTLY	PHASES IN CONFLICT WITH PHASE ON
1	5 OR 6	2,3,4,7,8
2	5 OR 6	1,3,4,7,8
3	7 OR 8	1,2,4,5,6
4	7 OR 8	1,2,3,5,6
5	1 OR 2	3,4,6,7,8
6	1 OR 2	3,4,5,7,8
7	3 OR 4	1,2,5,6,8
8	3 OR 4	1,2,5,6,7

DETECTOR LOGIC

DETECTOR NUMBER	DETECTOR INPUT	DETECTOR OPERATION: CALLS AND EXTENDS	DETECTOR OPERATION: CALLS ONLY	DETECTOR OPERATION: EXTENDS ONLY	PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	SIZE	NUMBER OF TURNS
11		X			1	1					
31		X			3	3					
41		X			4	4		X			
42		X			4	4					
51		X			5	5					
71		X			7	7					
81		X			8	8		X			
82		X			8	8					

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1		6		X
2		6	MAX.	X
3		8		X
4		8		X
5		2		X
6		2	MAX.	X
7		4		X
8		4		X

SPECIAL OVERLAPS

	PROTECTED	PERMISSIVE
OL A	1	2
OL B	3	4
OL C	5	6
OL D	7	8

TYPE OF INTERCONNECT COMMUNICATION	
NONE	
TBC	X
CLOSED LOOP TWISTED PAIR*	
CLOSED LOOP FIBER OPTIC*	
RADIO	
FIBER OPTIC	
*LOCATION OF MASTER CONTROLLER NO:	S-
SIGNAL SYSTEM #:	SS- -

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
3M	
TOMAR	
HARDWIRE	
GTT	X
LIFT BRIDGE	
QUEUE DETECTOR	

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC SIGNAL CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE DETECTOR	A	B	C	D
MOVEMENT				
PHASE	2+5	1+6	4+7	3+8

AFTER PREEMPTION SEQUENCE 1+6 OR 2+5
CONTROLLER SHALL RETURN TO PHASES 2+6

AFTER PREEMPTION SEQUENCE 4+7 OR 3+8
CONTROLLER SHALL RETURN TO PHASES 4+8

GENERAL NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.
2. WHEN ONE PHASE IS ON ALONE, ANY NONCONFLICTING PHASE MAY START TIMING CONCURRENTLY WITHOUT A CLEARANCE INTERVAL. (SEE CHART 1 AT LEFT.)

STH 100 (RYAN RD) & 13TH STREET
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1166

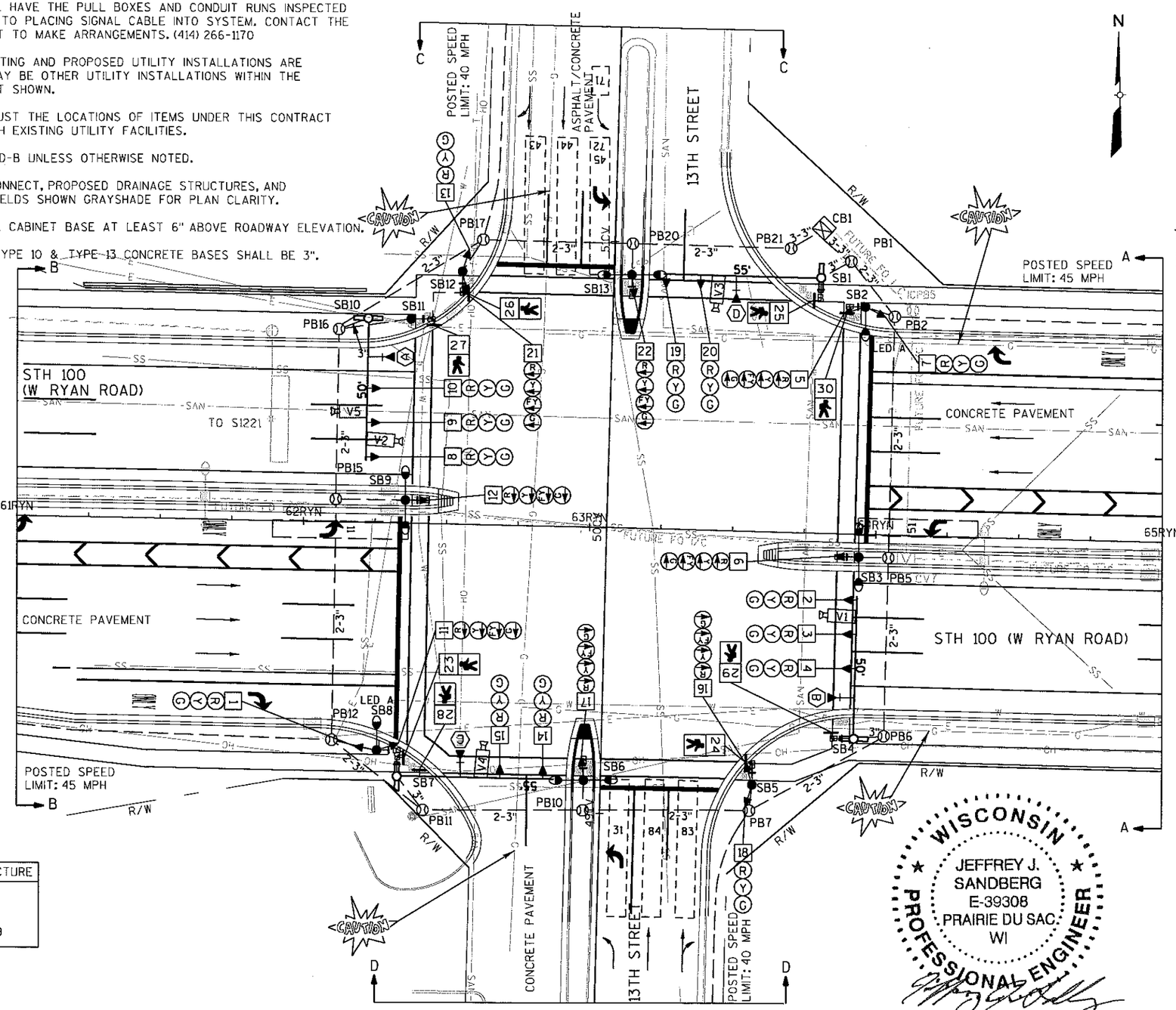
CONTROLLER TYPE: TEMP

DATE SEPTEMBER 2013 PAGE NO. 7 OF 7

PROJECT NO: 2040-16-70 | HWY: STH 100 | COUNTY: MILWAUKEE | TEMPORARY SEQUENCE OF OPERATIONS | SHEET 230 | E

CONSTRUCTION NOTES:

1. * LOCATION IS TO FRONT CENTER OF DETECTOR LOOP
2. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO SYSTEM. CONTACT THE WISDOT ELECTRICAL UNIT TO MAKE ARRANGEMENTS. (414) 266-1170
3. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
4. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.
5. ALL LUMINAIRES ARE LED-B UNLESS OTHERWISE NOTED.
6. TRAFFIC SIGNAL INTERCONNECT, PROPOSED DRAINAGE STRUCTURES, AND DETECTABLE WARNING FIELDS SHOWN GRAYSHADE FOR PLAN CLARITY.
7. INSTALL TRAFFIC SIGNAL CABINET BASE AT LEAST 6" ABOVE ROADWAY ELEVATION.
8. CONDUIT EMBEDDED IN TYPE 10 & TYPE 13 CONCRETE BASES SHALL BE 3".



LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) MONOTUBE BASE, POLE, 35'-55' ARM
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- LUMINAIRE UNDER PERMIT TO LOCAL MUNICIPALITY
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- VIDEO DETECTION AREA
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- (R) RED ARROW
- (Y) YELLOW ARROW
- (G) GREEN ARROW
- VIDEO DETECTION CAMERA
- WALK / DON'T WALK INDICATOR 16" (COUNTDOWN TIMER)
- (X) EVP DESIGNATOR
- EVP DETECTOR HEAD
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

MONOTUBE STRUCTURE
SB1 = S-40-1366
SB4 = S-40-1367
SB7 = S-40-1368
SB10 = S-40-1369

WISCONSIN
JEFFREY J. SANDBERG
E-39308
PRAIRIE DU SAC. WI
PROFESSIONAL ENGINEER
11/15/13

TRAFFIC CONTROL SIGNAL
STH 100 (RYAN ROAD) & 13TH STREET
CITY OF OAK CREEK
MILWAUKEE COUNTY
SIGNAL NO. S1166
CABINET TYPE: TS2
CONTROLLER TYPE: ECONOLITE

WISCONSIN DEPARTMENT OF TRANSPORTATION
APPROVAL RECOMMENDED Date 11/18/13 David A. Pomeroy, P.E. REGION TRAFFIC ENGINEER
APPROVED Date 11/18/13 Joanna L. Bush STATE TRAFFIC ENGINEER

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: AECOM
REVISED BY:
PAGE 1 OF 4

SSS 11/18/13

PROJECT NUMBER: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 231	E

FILE NAME: I:\work\projects\60222213\000_cad\sigplan_shl_13th.dgn
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PLOT SCALE: 1:39.9999

WISDOT/CADDS SHEET 42

2

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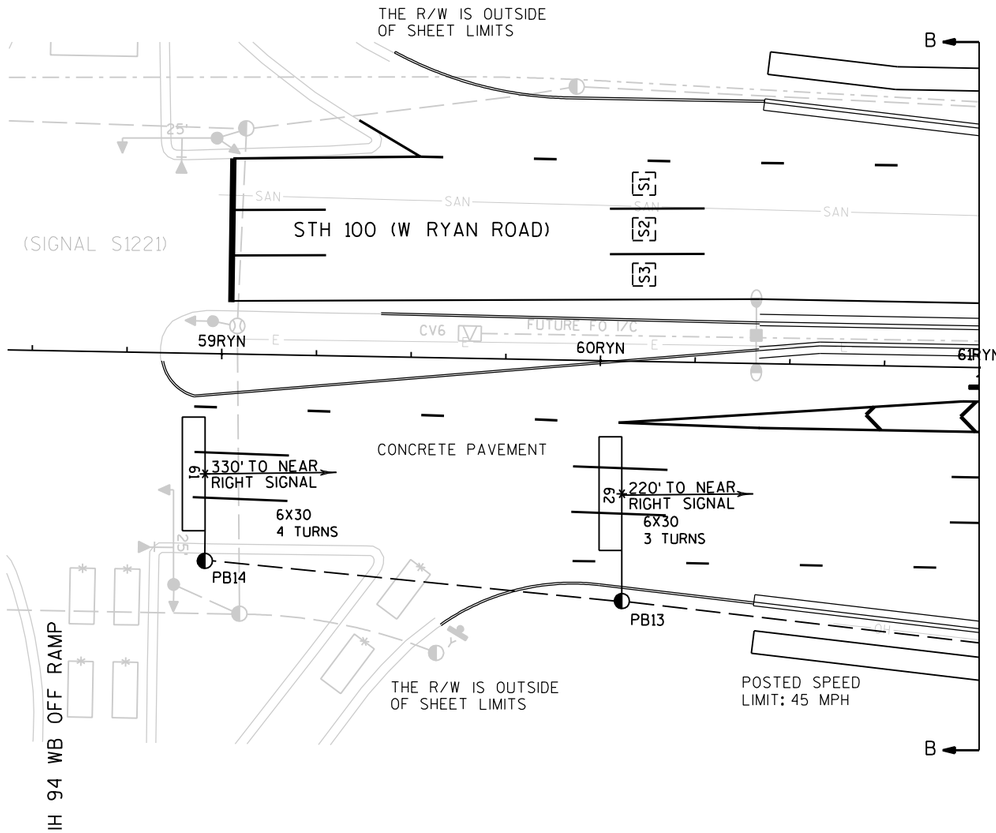

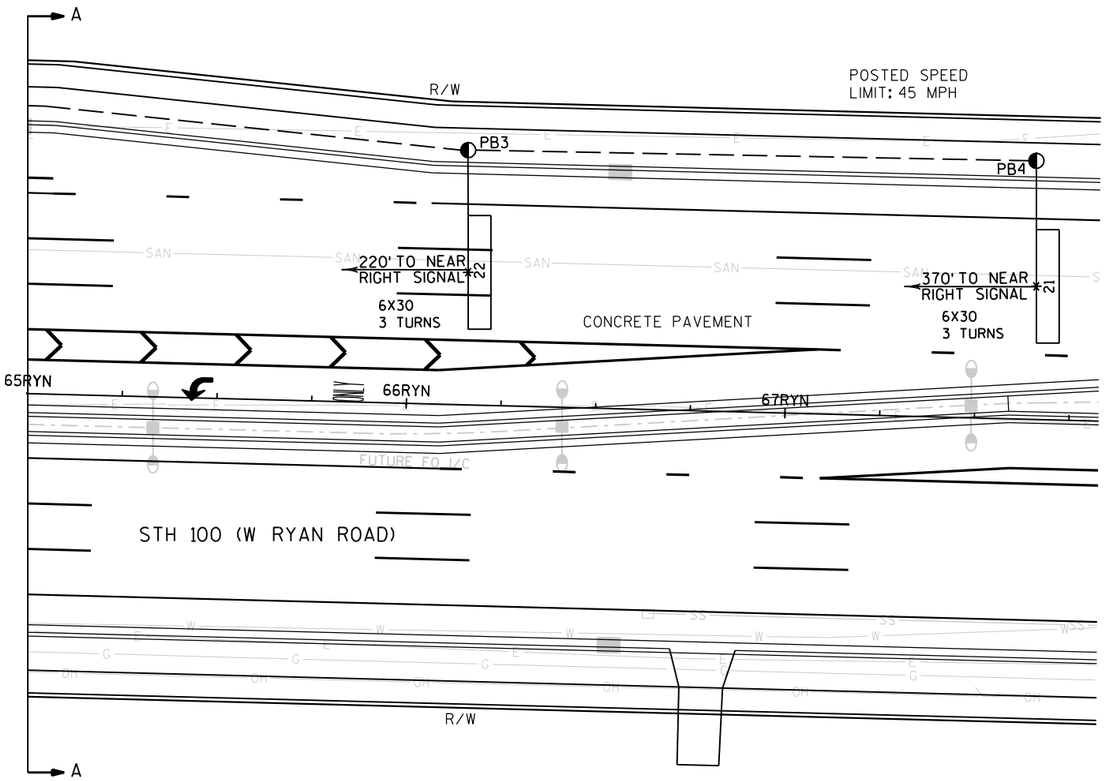

TRAFFIC CONTROL SIGNAL
STH 100 (RYAN ROAD) & 13TH STREET
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1166

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: AECOM
REVISED BY:

PAGE 2 OF 4

PROJECT NUMBER: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 232	E

FILE NAME: l:\work\projects\60222213\000_cad\sigplan_sh2_13th.dgn
BATCH PRINT SHEET 66 OF 73
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WISDOT/CADDS SHEET 42

2

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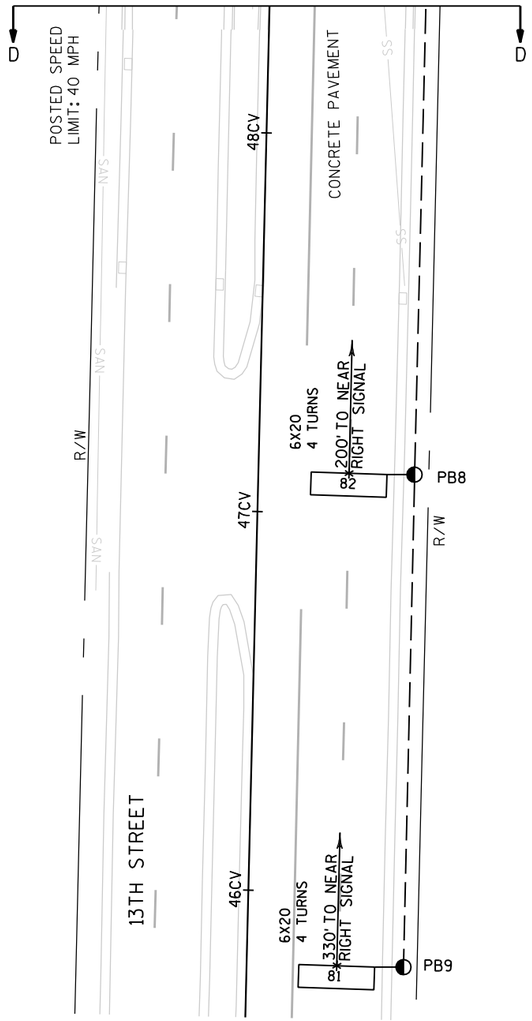

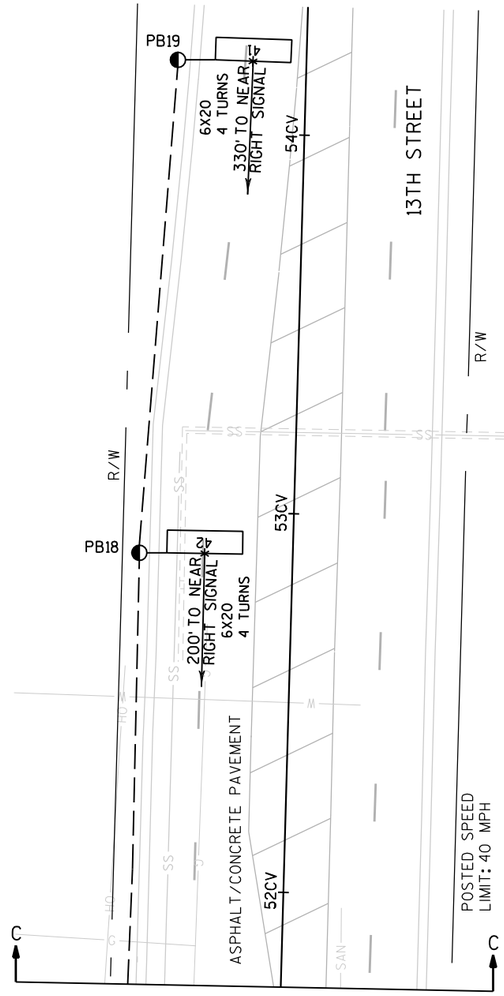

TRAFFIC CONTROL SIGNAL
STH 100 (RYAN ROAD) & 13TH STREET
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1166

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: AECOM
REVISED BY:

PAGE 3 OF 4

PROJECT NUMBER: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 233	E

FILE NAME: l:\work\projects\60222213\000_cad\sigplan_sh3_13th.dgn
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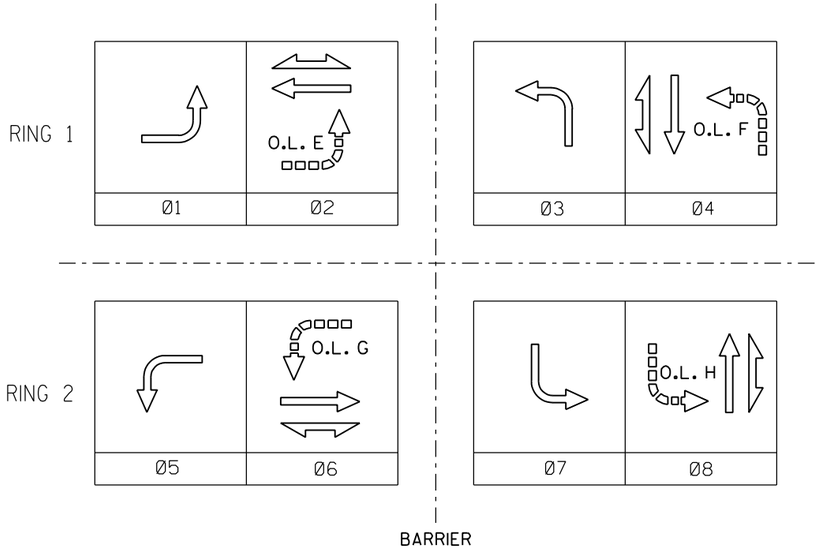
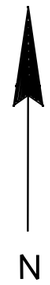
PLOT TIME: 10:06:51 AM
PLOT SCALE: 1:39.9999

	HEAD NUMBERS	FLASH
Ø1	5,6	-
Ø2	7,8,9,10	R
Ø3	21,22	-
Ø4	13,14,15	R
Ø5	11,12	-
Ø6	1,2,3,4	R
Ø7	16,17	-
Ø8	18,19,20	R
Ø2P	25,26	
Ø4P	27,28	
Ø6P	23,24	
Ø8P	29,30	
OLE	5,6	R
OLF	21,22	R
OLG	11,12	R
OLH	16,17	R





CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1		6		X
2	X	6	MIN	X
3				
4		8		X
5		2		X
6	X	2	MIN	X
7		4		X
8		4		X

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE DETECTOR	A	B	C	D
MOVEMENT				
PHASE	2+5	1+6	4+7	3+8

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	X
CLOSED LOOP	
TWISTED PAIR*	
FIBER OPTIC*	
FIBER OPTIC (ETHERNET)	
RADIO	

TYPE OF COORDINATION	
NONE	
TBC	X
TRAFFIC RESPONSIVE	
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO:	S-
SIGNAL SYSTEM #:	SS- -

TYPE OF LIGHTING	
BY OTHER AGENCY	X
IN TRAFFIC SIGNAL CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13
PLAN LOOP DETECTOR *(S)	21	41	61	81				
CALLED PHASE	2	4	6	8				
CALL OPTION	X		X					
DELAY TIME								
EXTEND OPTION	X	X	X	X				
EXTEND TIME		X		X				
USE ADDED INITIAL	X		X					
CROSS SWITCH PHASE								

19	17	23	21	27	25	31	29	DETECTOR INPUT
11	43	45	71	83	S1	S3		PLAN LOOP DETECTOR *(S)
1	4	4	7	8				CALLED PHASE
X	X	X	X	X				CALL OPTION
	X		X	X				DELAY TIME
X	X	X		X				EXTEND OPTION
								EXTEND TIME
								USE ADDED INITIAL
								CROSS SWITCH PHASE

DETECTOR INPUT	4	2	8	6	12	10	16	14
PLAN LOOP DETECTOR *(S)	22	42	62	82				
CALLED PHASE	2	4	6	8				
CALL OPTION	X		X					
DELAY TIME								
EXTEND OPTION	X	X	X	X				
EXTEND TIME		X		X				
USE ADDED INITIAL	X		X					
CROSS SWITCH PHASE								

20	18	24	22	28	26	32	30	DETECTOR INPUT
31	44	51	72	84	S2			PLAN LOOP DETECTOR *(S)
3	4	5	7	8				CALLED PHASE
X	X	X		X				CALL OPTION
								DELAY TIME
X	X	X	X	X				EXTEND OPTION
								EXTEND TIME
								USE ADDED INITIAL
								CROSS SWITCH PHASE

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	x
GTT	x
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

STH 100 (RYAN RD) & 13TH STREET
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1166 CABINET TYPE: TS2

CONTROLLER TYPE: ECONOLITE

DATE SEPTEMBER 2013 PAGE NO. 4 OF 4

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	SEQUENCE OF OPERATIONS	SHEET 234	E

2

PROJECT ID:	2040-16-70
INTERSECTION:	STH 100 & 13TH STREET

SIGNAL WIRE	BLK-BLACK	RED-RED	GRN-GREEN
COLOR CODING	WHT-WHITE	BLU-BLUE	ORG-ORANGE

DATE: Sep-13

CB1 TO	AWG 14 # OF COND.	HEAD NO.	SIGNAL INDICATION WIRE COLOR							D/WALK	WALK	PED BUTTON	OTHER
			RED	YELLOW	GREEN	<RED>	<YELLOW>	<FLASH YEL>	<GREEN>				
SB1	12	19	RED	ORG	GRN								
		20	RED	ORG	GRN								
		25								BLK	BLU		
		PB										WHT/BLK	
SB2	15	7	RED/BLK	ORG/BLK	GRN/BLK								
		5				RED	ORG	BLK/WHT	GRN				
		30								BLK	BLU		
		PB										WHT/BLK	
SB3	12	6				RED	ORG	BLK/WHT	GRN				
		PB										WHT/BLK	
SB4	12	2	RED	ORG	GRN								
		3	RED	ORG	GRN								
		4	RED	ORG	GRN								
		29								BLK	BLU		
		PB										WHT/BLK	
SB5	15	18	RED	ORG	GRN								
		16				RED/BLK	ORG/BLK	BLK/WHT	GRN/BLK				
		24								BLK	BLU		
		PB										WHT/BLK	
SB6	12	17				RED	ORG	BLK/WHT	GRN/BLK				
		PB										WHT/BLK	
SB7	12	14	RED	ORG	GRN								
		15	RED	ORG	GRN								
		28								BLK	BLU		
		23								RED/BLK	GRN/BLK		
		PB										WHT/BLK	
SB8	12	1	RED	ORG	GRN								
		11				RED/BLK	ORG/BLK	BLK/WHT	GRN/BLK				
		PB										WHT/BLK	
SB9	12	12				RED	ORG	BLK/WHT	GRN				
		PB										WHT/BLK	
SB10	12	8	RED	ORG	GRN								
		9	RED	ORG	GRN								
		10	RED	ORG	GRN								
SB11	12	27								BLK	BLU		
		PB										WHT/BLK	
SB12	15	13	RED/BLK	ORG/BLK	GRN/BLK								
		21				RED	ORG	BLK/WHT	GRN				
		26								BLK	BLU		
		PB										WHT/BLK	
SB13	12	22				RED	ORG	BLK/WHT	GRN				
		PB										WHT/BLK	

2

STH 100 (RYAN ROAD) & 13TH STREET
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1166

CONTROLLER TYPE: ECONOLITE

DATE SEPTEMBER 2013 PAGE NO. 1 OF 2

EQUIPMENT GROUNDING CONDUCTORS 10 AWG GRN XLP	
FROM	TO
CB1	SB1
SB1	SB2
SB2	SB3
SB3	SB4
SB4	SB5
SB5	SB6
SB6	SB7
SB7	SB8
SB8	SB9
SB9	SB10
SB10	SB11
SB11	SB12
SB12	SB13
SB13	CB1

PULL BOX BONDING JUMPER 10 AWG GRN XLP	
FROM	TO
PB1	CB1
PB2	SB2
PB4	SB3
PB5	SB4
PB6	SB5
PB8	SB6
PB9	SB7
PB10	SB8
PB12	SB9
PB13	SB10
PB14	SB12
PB16	SB13
PB17	CB1

LIGHTING UF 8 AWG W/ GROUND	
FROM	TO
CB1	SB2
SB2	SB3
SB3	SB6
CB1	SB13
SB13	SB9
SB9	SB8

EMERGENCY VEHICLE PREEMPTION		
HEAD	FROM	TO
A	CB1	SB10
B	CB1	SB4
C	CB1	SB7
D	CB1	SB1

NOTES:

1. USE WHITE CONDUCTOR IN THE SIGNAL CABLE AS THE GROUNDED CONDUCTOR FOR ALL TRAFFIC SIGNAL INDICATIONS.
2. ENSURE THE GROUNDED CONDUCTOR IN THE FEEDER CABLE AND THE POLE CABLES ARE BOTH 18" LONGER THAN THE UNGROUNDED CONDUCTORS.
3. AT THE SIGNAL BASES, CONNECT ONE TERMINAL FROM THE PEDESTRIAN PUSH BUTTONS TO THE COLOR INDICATED IN THE CHART. CONNECT THE OTHER TERMINAL TO THE GROUNDED CONDUCTOR.

STH 100 (RYAN ROAD) & 13TH STREET
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1166

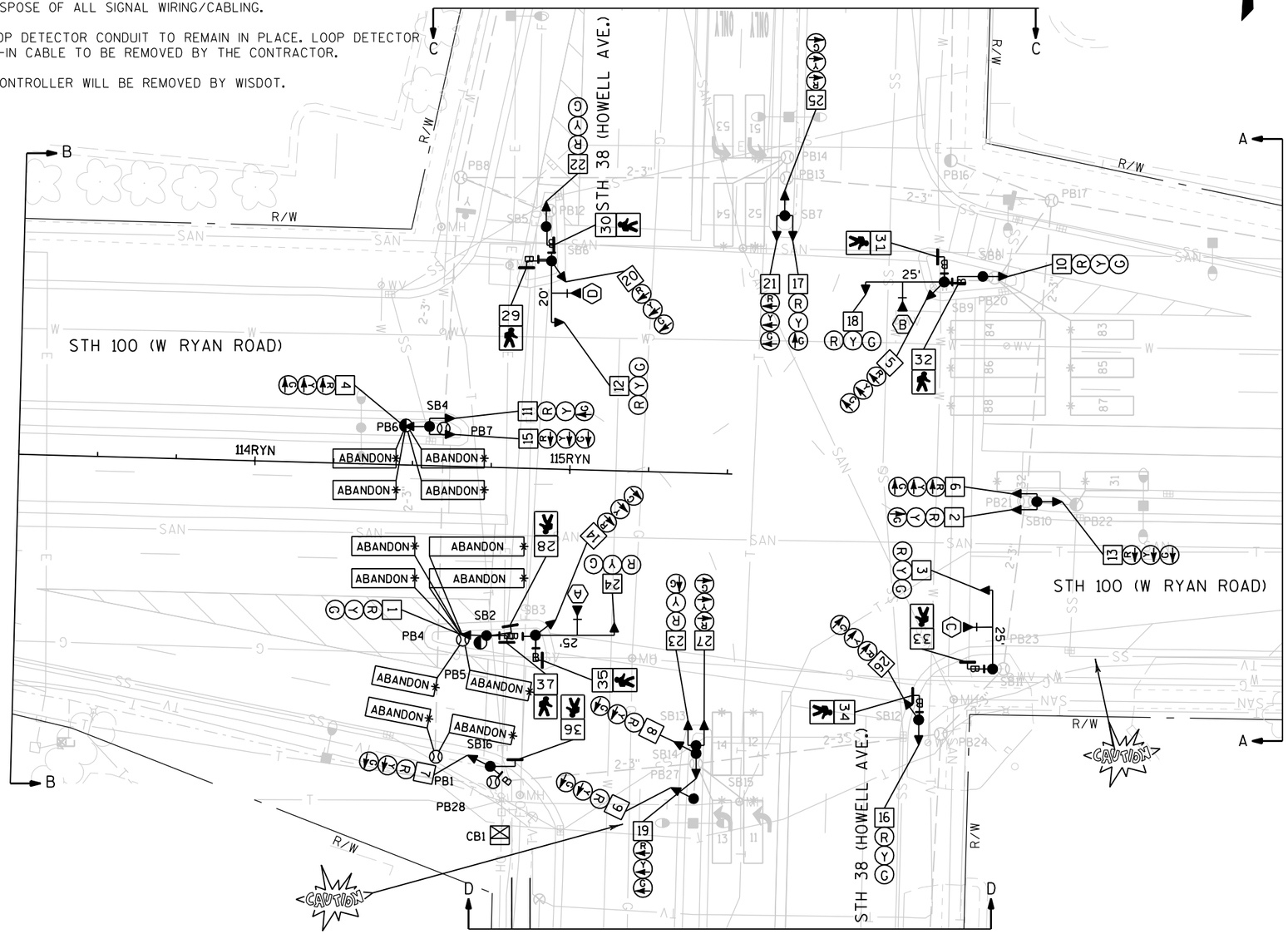
CONTROLLER TYPE: ECONOLITE

DATE SEPTEMBER 2013 PAGE NO. 2 OF 2

PROJECT NUMBER: 2040-16-70 | HWY: STH 100 | COUNTY: MILWAUKEE | CABLE ROUTING | SHEET 236 | E

CONSTRUCTION NOTES:

1. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
2. REMOVE EXISTING SIGNAL FACES, POLES, ARMS, AND PEDESTAL AND TRANSFORMER BASES. REMOVE CONCRETE BASES FOR SB2, SB3, SB4, SB16, AND CB1. ALL OTHER CONCRETE BASES AND PULL BOXES NOT IDENTIFIED IN PLAN WILL BE REMOVED AS PART OF PROJECT 2060-16-70.
3. REMOVE AND DISPOSE OF ALL SIGNAL WIRING/CABLING.
4. ABANDONED LOOP DETECTOR CONDUIT TO REMAIN IN PLACE. LOOP DETECTOR WIRE AND LEAD-IN CABLE TO BE REMOVED BY THE CONTRACTOR.
5. CABINET AND CONTROLLER WILL BE REMOVED BY WISDOT.



N

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR CONDUIT 1" NONMETALLIC
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- PEDESTRIAN HEAD WITH PUSH BUTTON
- PUSH BUTTON
- LUMINAIRE UNDER PERMIT TO LOCAL MUNICIPALITY
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- (R) RED ARROW
- (Y) YELLOW ARROW
- (G) GREEN ARROW
- WALK / DON'T WALK INDICATOR 16" (COUNTDOWN TIMER)
- (X) EVP DESIGNATOR
- EVP DETECTOR HEAD
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH GRAYSHADE REPRESENTS EXISTING

WISCONSIN
JEFFREY J. SANDBERG
E-39308
PRAIRIE DU SAC. WI
PROFESSIONAL ENGINEER
11/15/13

TRAFFIC CONTROL SIGNAL
STH 38 & STH 100
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1080

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: AECOM
REVISED BY:

PAGE 1 OF 3

PROJECT NUMBER: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 237	E

FILE NAME: l:\work\projects\60222213\000_cad\removal_shl_howell.dgn
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PLOT TIME: 10:07:05 AM
PLOT SCALE: 1:39.9999
WISDOT/CADDS SHEET 42

2

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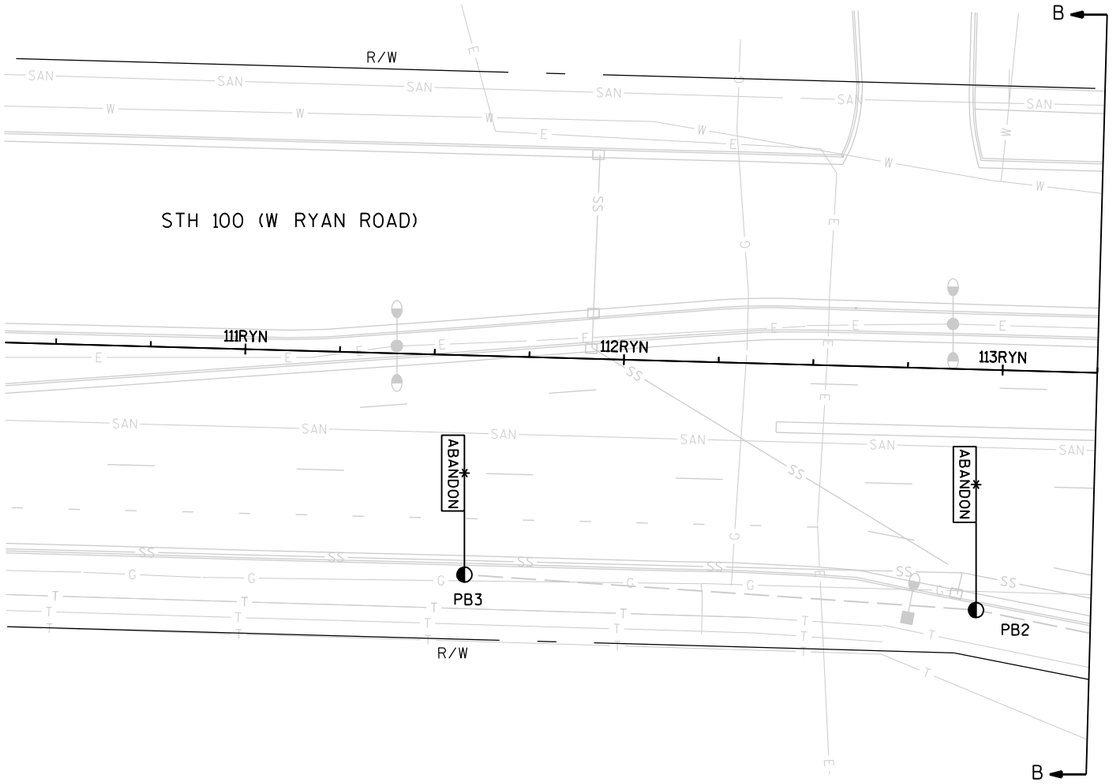

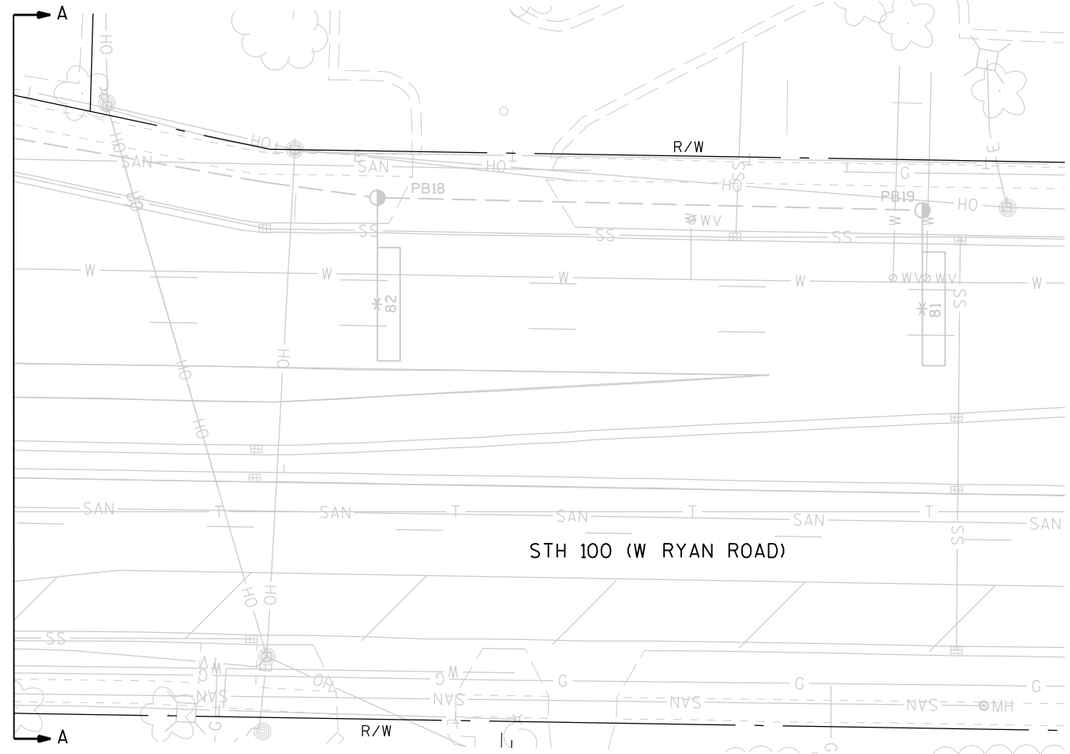

TRAFFIC CONTROL SIGNAL

STH 38 & STH 100
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1080

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: AECOM
REVISED BY:

PAGE 2 OF 3

PROJECT NUMBER: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 238	E

FILE NAME: l:\work\projects\60222213\000_cad\removal_sh2_howell.dgn
BATCH PRINT SHEET 72 OF 73

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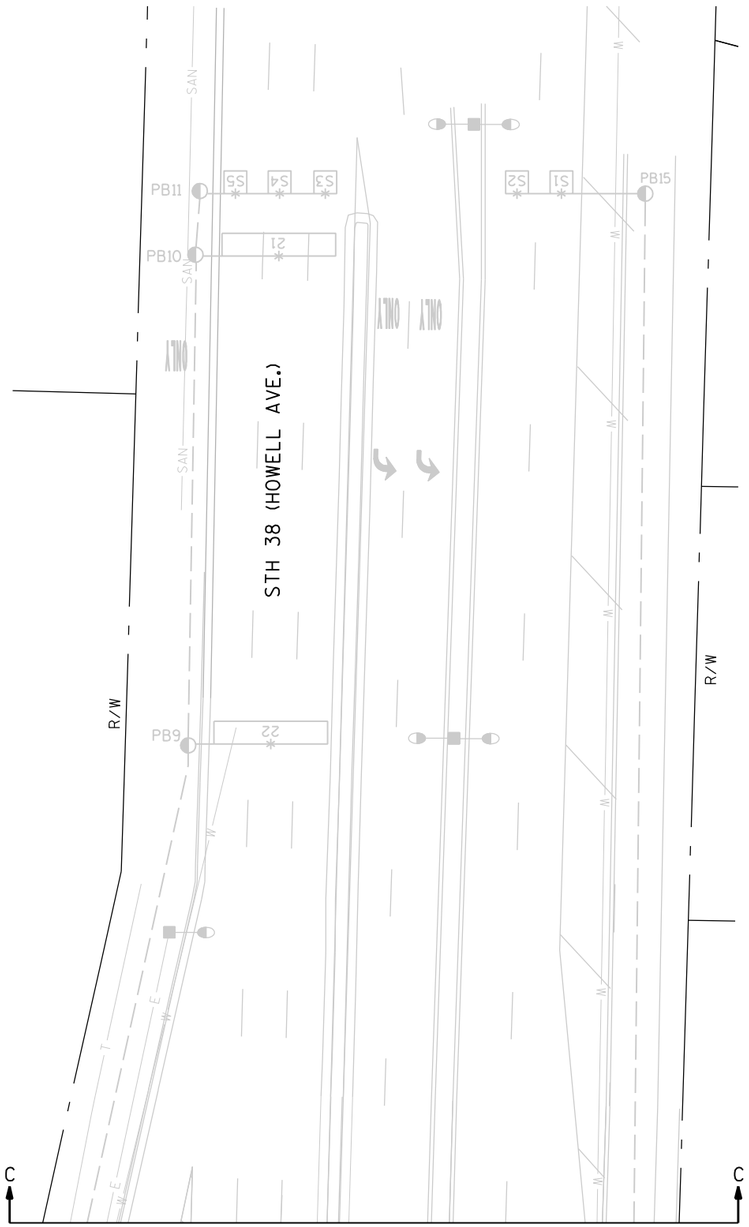
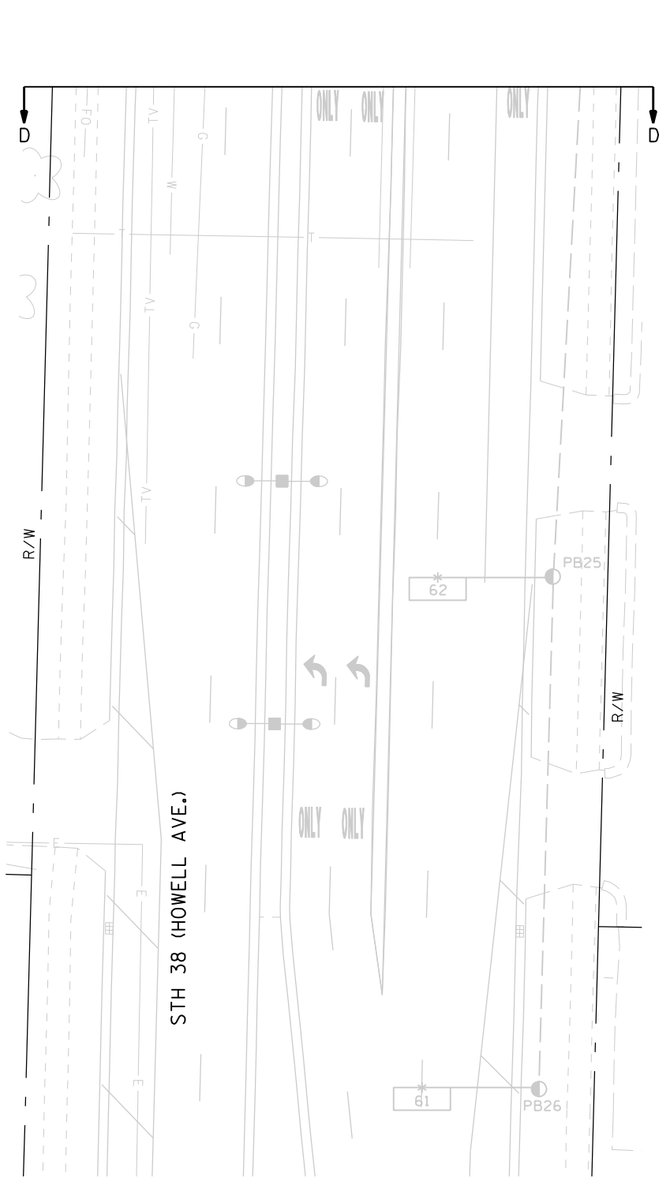
PLOT DATE: 11/18/2013
PLOT TIME: 10:07:11 AM

PLOT SCALE: 1:39.9999

WISDOT/CADDS SHEET 42





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TRAFFIC CONTROL SIGNAL
STH 38 & STH 100
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1080

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: AECOM
REVISED BY:

PAGE 3 OF 3

PROJECT NUMBER: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 239	E

FILE NAME: l:\work\projects\60222213\000.cad\removal_sh3_howell.dgn
BATCH PRINT SHEET 73 OF 73
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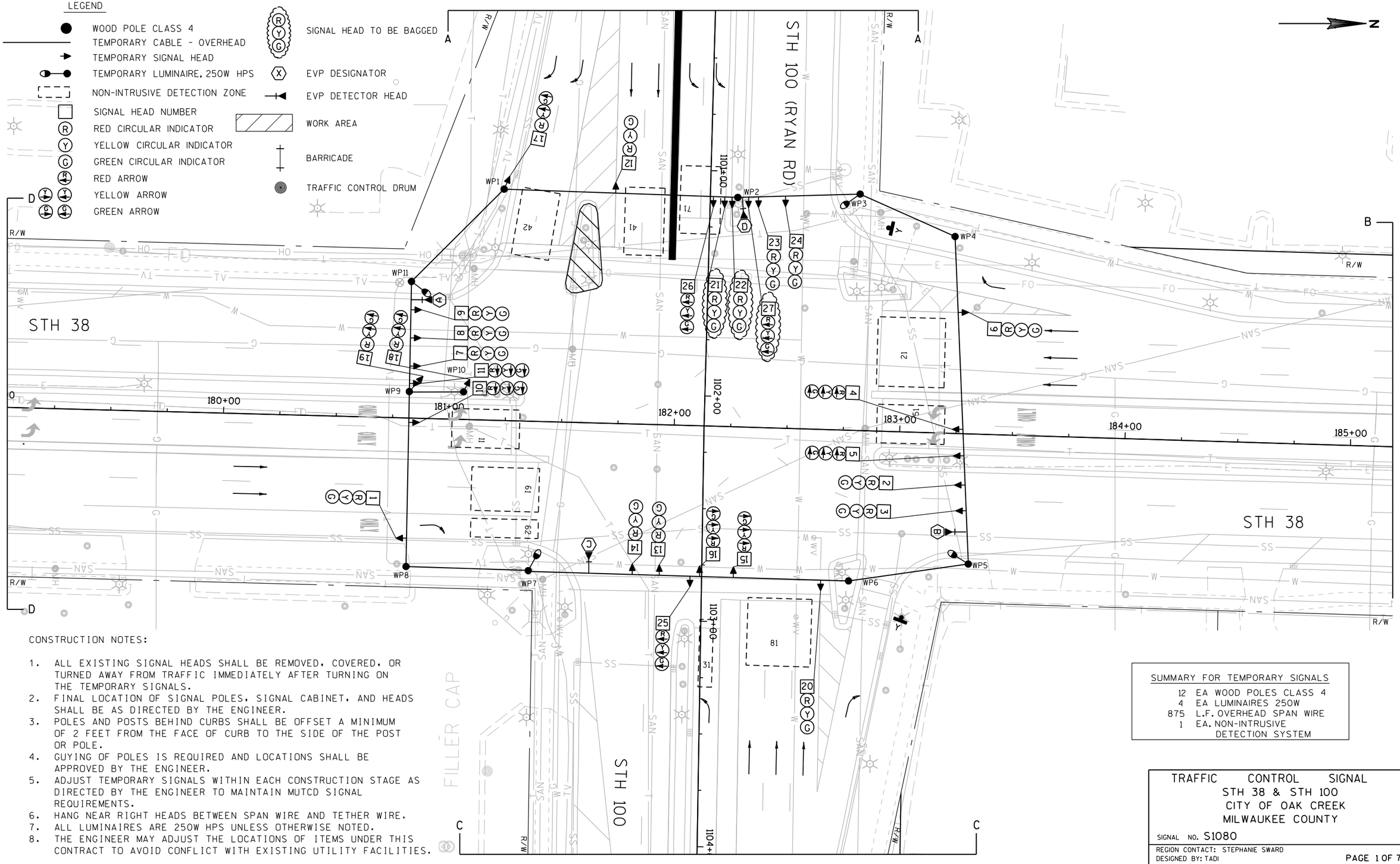
PLOT DATE: 11/18/2013
PLOT TIME: 10:07:15 AM
PLOT SCALE: 1:39.9999
WISDOT/CADDS SHEET 42

LEGEND

- WOOD POLE CLASS 4
- TEMPORARY CABLE - OVERHEAD
- TEMPORARY SIGNAL HEAD
- TEMPORARY LUMINAIRE, 250W HPS
- NON-INTRUSIVE DETECTION ZONE
- SIGNAL HEAD NUMBER
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- SIGNAL HEAD TO BE BAGGED
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- WORK AREA
- BARRICADE
- TRAFFIC CONTROL DRUM



CONSTRUCTION NOTES:

1. ALL EXISTING SIGNAL HEADS SHALL BE REMOVED, COVERED, OR TURNED AWAY FROM TRAFFIC IMMEDIATELY AFTER TURNING ON THE TEMPORARY SIGNALS.
2. FINAL LOCATION OF SIGNAL POLES, SIGNAL CABINET, AND HEADS SHALL BE AS DIRECTED BY THE ENGINEER.
3. POLES AND POSTS BEHIND CURBS SHALL BE OFFSET A MINIMUM OF 2 FEET FROM THE FACE OF CURB TO THE SIDE OF THE POST OR POLE.
4. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER.
5. ADJUST TEMPORARY SIGNALS WITHIN EACH CONSTRUCTION STAGE AS DIRECTED BY THE ENGINEER TO MAINTAIN MUTCD SIGNAL REQUIREMENTS.
6. HANG NEAR RIGHT HEADS BETWEEN SPAN WIRE AND TETHER WIRE.
7. ALL LUMINAIRES ARE 250W HPS UNLESS OTHERWISE NOTED.
8. THE ENGINEER MAY ADJUST THE LOCATIONS OF ITEMS UNDER THIS CONTRACT TO AVOID CONFLICT WITH EXISTING UTILITY FACILITIES.

SUMMARY FOR TEMPORARY SIGNALS

12	EA WOOD POLES CLASS 4
4	EA LUMINAIRES 250W
875	L.F. OVERHEAD SPAN WIRE
1	EA. NON-INTRUSIVE DETECTION SYSTEM

TRAFFIC CONTROL SIGNAL
STH 38 & STH 100
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1080

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: TADI
REVISED BY:

PAGE 1 OF 7

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 1A (PROJECT 2040-16-70)	SHEET 240	E

FILE NAME : L:\work\projects\60222213\000_CAD\STH 100 & STH 38\STH 38 at STH 100 Temp_Sig_Ryan_1A.dgn PLOT DATE : 9/27/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : 1:40

LEGEND

- WOOD POLE CLASS 4
- TEMPORARY CABLE - OVERHEAD
- TEMPORARY SIGNAL HEAD
- TEMPORARY LUMINAIRE, 250W HPS
- NON-INTRUSIVE DETECTION ZONE
- SIGNAL HEAD NUMBER
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- SIGNAL HEAD TO BE BAGGED
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- WORK AREA
- BARRICADE
- TRAFFIC CONTROL DRUM

STH 100 (RYAN RD)

STH 38

STH 100

FILLER CAP

WP1 WP2 WP3 WP4 WP5 WP6 WP7 WP8 WP9 WP10 WP11

180+00 181+00 182+00 183+00 184+00 185+00

1101+00 1102+00 1103+00 1104+00

R/W

TRAFFIC CONTROL SIGNAL
STH 38 & STH 100
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1080

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: TADI
REVISED BY:

PAGE 2 OF 7

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 1B&1C (PROJECT 2040-16-70)	SHEET 241	E

FILE NAME : l:\work\projects\60222213\000_cad\sth 100 & sth 38\STH 38 at STH 100 Temp_Sig_Ryan_1B&1C.dgn PLOT DATE : 9/27/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : 1:40

LEGEND

- WOOD POLE CLASS 4
- TEMPORARY CABLE - OVERHEAD
- TEMPORARY SIGNAL HEAD
- TEMPORARY LUMINAIRE, 250W HPS
- NON-INTRUSIVE DETECTION ZONE
- SIGNAL HEAD NUMBER
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- SIGNAL HEAD TO BE BAGGED
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- WORK AREA
- BARRICADE
- TRAFFIC CONTROL DRUM

STH 38

STH 100 (RYAN RD)

STH 100

FILLER CAP

WP1 WP2 WP3 WP4 WP5 WP6 WP7 WP8 WP9 WP10 WP11

180+00 181+00 182+00 183+00 184+00 185+00

1101+00 1102+00 1103+00 1104+00

R/W

TRAFFIC CONTROL SIGNAL
STH 38 & STH 100
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1080

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: TADI
REVISED BY:

PAGE 3 OF 7

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 2A&2B (PROJECT 2040-16-70)	SHEET 242	E

LEGEND

- WOOD POLE CLASS 4
- TEMPORARY CABLE - OVERHEAD
- TEMPORARY SIGNAL HEAD
- TEMPORARY LUMINAIRE, 250W HPS
- NON-INTRUSIVE DETECTION ZONE
- SIGNAL HEAD NUMBER
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- SIGNAL HEAD TO BE BAGGED
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- WORK AREA
- BARRICADE
- TRAFFIC CONTROL DRUM

STH 100 (RYAN RD)

STH 38

FILLER CAP

WP1 WP2 WP3 WP4 WP5 WP6 WP7 WP8 WP9 WP10 WP11

180+00 181+00 182+00 183+00 184+00 185+00

1101+00 1102+00 1103+00 1104+00

TRAFFIC CONTROL SIGNAL
STH 38 & STH 100
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1080

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: TADI
REVISED BY:

PAGE 4 OF 7

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 2C (PROJECT 2040-16-70)	SHEET 243	E

FILE NAME : l:\work\projects\60222213\000_cad\sth 100 & sth 38\STH 38 at STH 100 Temp_Sig_Ryan_2C.dgn PLOT DATE : 9/27/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : 1:40

WISDOT/CADDS SHEET 42

LEGEND

- WOOD POLE CLASS 4
- TEMPORARY CABLE - OVERHEAD
- TEMPORARY SIGNAL HEAD
- TEMPORARY LUMINAIRE, 250W HPS
- NON-INTRUSIVE DETECTION ZONE
- SIGNAL HEAD NUMBER
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- SIGNAL HEAD TO BE BAGGED
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- WORK AREA
- BARRICADE
- TRAFFIC CONTROL DRUM

STH 100 (RYAN RD)

STH 38

FILLER CAP

WP1 WP2 WP3 WP4 WP5 WP6 WP7 WP8 WP9 WP10 WP11

180+00 181+00 182+00 183+00 184+00 185+00

1102+00 1103+00 1104+00

TRAFFIC CONTROL SIGNAL
STH 38 & STH 100
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1080

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: TADI
REVISED BY:

PAGE 5 OF 7

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - PRE-STAGE (PROJECT 2060-15-71)	SHEET 244	E

FILE NAME : l:\work\projects\60222213\000_cad\sth 100 & sth 38\STH 38 at STH 100 Temporary Signals.dgn PLOT DATE : 9/27/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : 1:40

WISDOT/CADDS SHEET 42

LEGEND

- WOOD POLE CLASS 4
- TEMPORARY CABLE - OVERHEAD
- TEMPORARY SIGNAL HEAD
- TEMPORARY LUMINAIRE, 250W HPS
- NON-INTRUSIVE DETECTION ZONE
- SIGNAL HEAD NUMBER
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- SIGNAL HEAD TO BE BAGGED
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- WORK AREA
- BARRICADE
- TRAFFIC CONTROL DRUM

STH 100 (RYAN RD)

STH 38

FILLER CAP

WP1 WP2 WP3 WP4 WP5 WP6 WP7 WP8 WP9 WP10 WP11

180+00 181+00 182+00 183+00 184+00 185+00

1101+00 1102+00 1103+00 1104+00

TRAFFIC CONTROL SIGNAL
STH 38 & STH 100
CITY OF OAK CREEK
MILWAUKEE COUNTY

SIGNAL NO. S1080

REGION CONTACT: STEPHANIE SWARD
DESIGNED BY: TADI
REVISED BY:

PAGE 6 OF 7

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 1 (PROJECT 2060-15-71)	SHEET 245	E

FILE NAME : l:\work\projects\60222213\000_cad\sth 100 & sth 38\STH 38 at STH 100 Temporary Signals Stage 1.dgn PLOT DATE : 9/27/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : 1:40

WISDOT/CADDS SHEET 42

2

SEQUENCE OF OPERATION

→ Z

RING 1

	HEAD NUMBERS	Ø1 R/W	Ø1 **	Ø1 Ø4	Ø2 R/W	Ø2 **	Ø3 R/W	Ø3 **	Ø4 R/W	Ø4 ** Ø1	FLASH
Ø1	4,5	G	Y	R	R	R	R	R	R	R	R
Ø2	6,7,8,9	R	R	R	G	Y	R	R	R	R	R
Ø3	25,26,27	R	R	R	R	R	G	Y	R	R	R
Ø4	12,13,14	R	R	R	R	R	R	R	G	Y	R
Ø5	10,11	R	R	R	R	R	R	R	R	R	R
Ø6	1,2,3	R	R	R	R	R	R	R	R	R	R
Ø7	15,16	R	R	R	R	R	R	R	R	R	R
Ø8	20,21,22,23,24	R	R	R	R	R	R	R	R	R	R
Ø2P											
Ø4P											
Ø6P											
Ø8P											
OL'A'	17,18,19	G	Y	R G G	R	R R	R	R R	G	Y R G G	R
OL'B'											
OL'C'											
OL'D'											

RING 2

	HEAD NUMBERS	Ø5 R/W	Ø5 **	Ø6 R/W	Ø6 **	Ø7 R/W	Ø7 **	Ø8 R/W	Ø8 **
Ø1	4,5	R	R	R	R	R	R	R	R
Ø2	6,7,8,9	R	R	R	R	R	R	R	R
Ø3	25,26,27	R	R	R	R	R	R	R	R
Ø4	12,13,14	R	R	R	R	R	R	R	R
Ø5	10,11	G	Y	R	R	R	R	R	R
Ø6	1,2,3	R	R	G	Y	R	R	R	R
Ø7	15,16	R	R	R	R	G	Y	R	R
Ø8	20,21,22,23,24	R	R	R	R	R	R	G	Y
Ø2P									
Ø4P									
Ø6P									
Ø8P									
OL'A'	17,18,19	R	R	R	R	R	R	R	R
OL'B'									
OL'C'									
OL'D'									

** CLEARANCE TO A PHASE IN CONFLICT WITH THIS PHASE ON (SEE CHART 1)

CHART 1

PHASE ON	NONCONFLICTING PHASE ALLOWED TO TIME CONCURRENTLY	PHASES IN CONFLICT WITH PHASE ON
1	5 OR 6	2,3,4,7,8
2	5 OR 6	1,3,4,7,8
3	7 OR 8	1,2,4,5,6
4	7 OR 8	1,2,3,5,6
5	1 OR 2	3,4,6,7,8
6	1 OR 2	3,4,5,7,8
7	3 OR 4	1,2,5,6,8
8	3 OR 4	1,2,5,6,7

DETECTOR LOGIC

DETECTOR NUMBER	DETECTOR INPUT	DETECTOR OPERATION: CALLS AND EXTENDS	DETECTOR OPERATION: CALLS ONLY	DETECTOR OPERATION: EXTENDS ONLY	PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	SIZE	NUMBER OF TURNS
11		X			1	1					
21		X			2	2					
31		X			3	3					
41		X			4	4					
42		X			4	4					
51		X			5	5					
61		X			6	6					
62		X			6	6		X			
71		X			7	7					
81		X			8	8					

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1		6		X
2	X	6	MIN.	X
3		8		X
4		8		X
5		2		X
6	X	2	MIN.	X
7		4		X
8		4		X

OVERLAPS

O.L. "A" = 1,4
O.L. "B" = NONE
O.L. "C" = NONE
O.L. "D" = NONE

TYPE OF INTERCONNECT COMMUNICATION	
NONE	X
TBC	
CLOSED LOOP TWISTED PAIR*	
CLOSED LOOP FIBER OPTIC*	
RADIO	
*LOCATION OF MASTER CONTROLLER NO: S-	
SIGNAL SYSTEM #: SS- -	

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	X
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC SIGNAL CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE DETECTOR	A	B	C	D
MOVEMENT				
PHASE	2+5	1+6	4+7	3+8

AFTER PREEMPTION SEQUENCE 1+6 OR 2+5
CONTROLLER SHALL RETURN TO PHASES 2+6

AFTER PREEMPTION SEQUENCE 4+7 OR 3+8
CONTROLLER SHALL RETURN TO PHASES 4+8

GENERAL NOTES:

1. ANY ACTUATED PHASE FOR WHICH THERE IS NO CALL SHALL BE SKIPPED.
2. WHEN ONE PHASE IS ON ALONE, ANY NONCONFLICTING PHASE MAY START TIMING CONCURRENTLY WITHOUT A CLEARANCE INTERVAL. (SEE CHART 1 AT LEFT.)

STH 38 & STH 100
CITY OF OAK CREEK
MILWAUKEE COUNTY

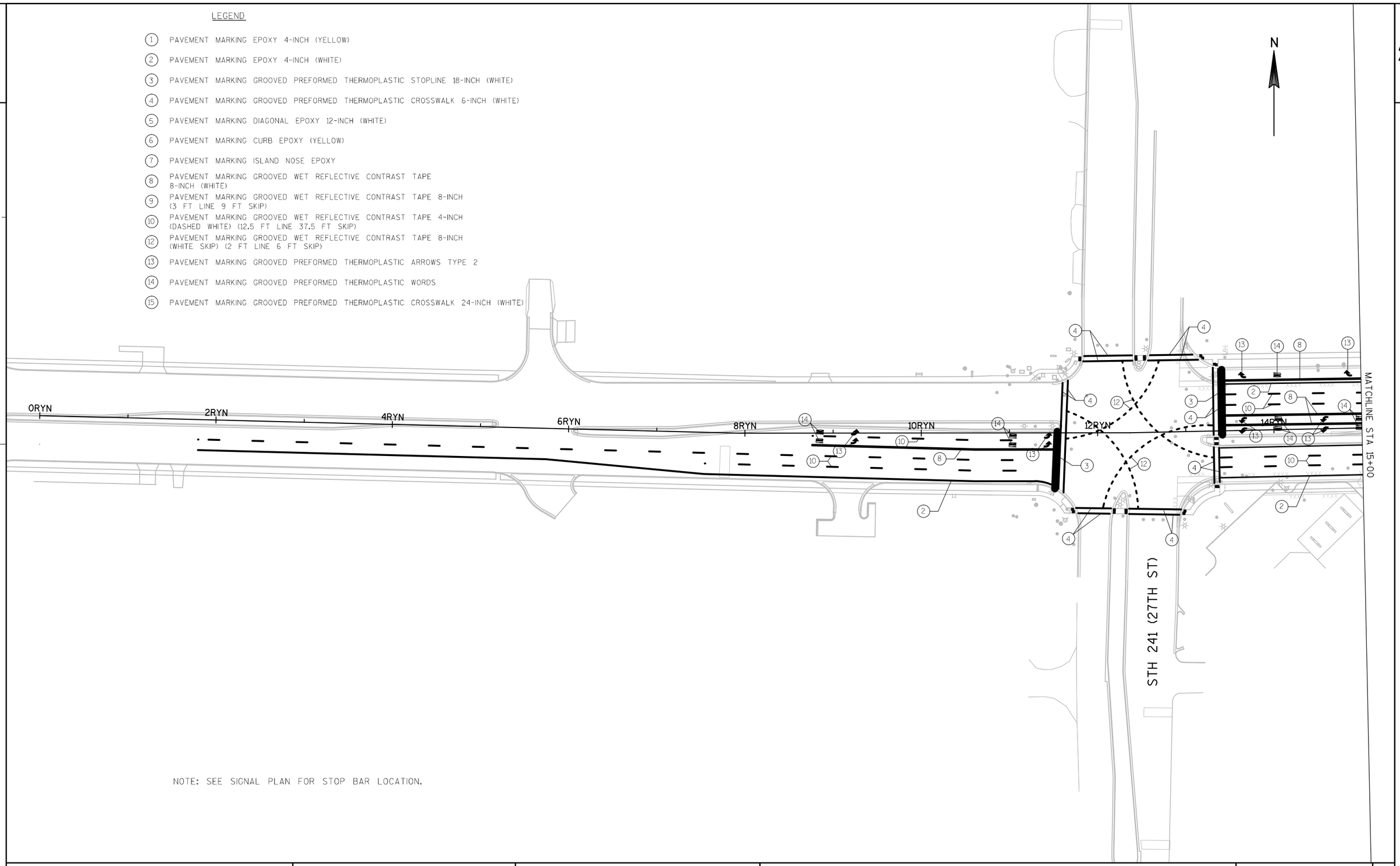
SIGNAL NO. S1080

CONTROLLER TYPE: TEMP

DATE SEPTEMBER 2013 PAGE NO. 7 OF 7

LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC STOPLINE 18-INCH (WHITE)
4. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK 6-INCH (WHITE)
5. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (WHITE)
6. PAVEMENT MARKING CURB EPOXY (YELLOW)
7. PAVEMENT MARKING ISLAND NOSE EPOXY
8. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH (WHITE)
9. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH (3 FT LINE 9 FT SKIP)
10. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
12. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH (WHITE SKIP) (2 FT LINE 6 FT SKIP)
13. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 2
14. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC WORDS
15. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK 24-INCH (WHITE)



NOTE: SEE SIGNAL PLAN FOR STOP BAR LOCATION.

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	PLAN: PAVEMENT MARKING	SHEET 247	E

LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC STOPLINE 18-INCH (WHITE)
4. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK 6-INCH (WHITE)
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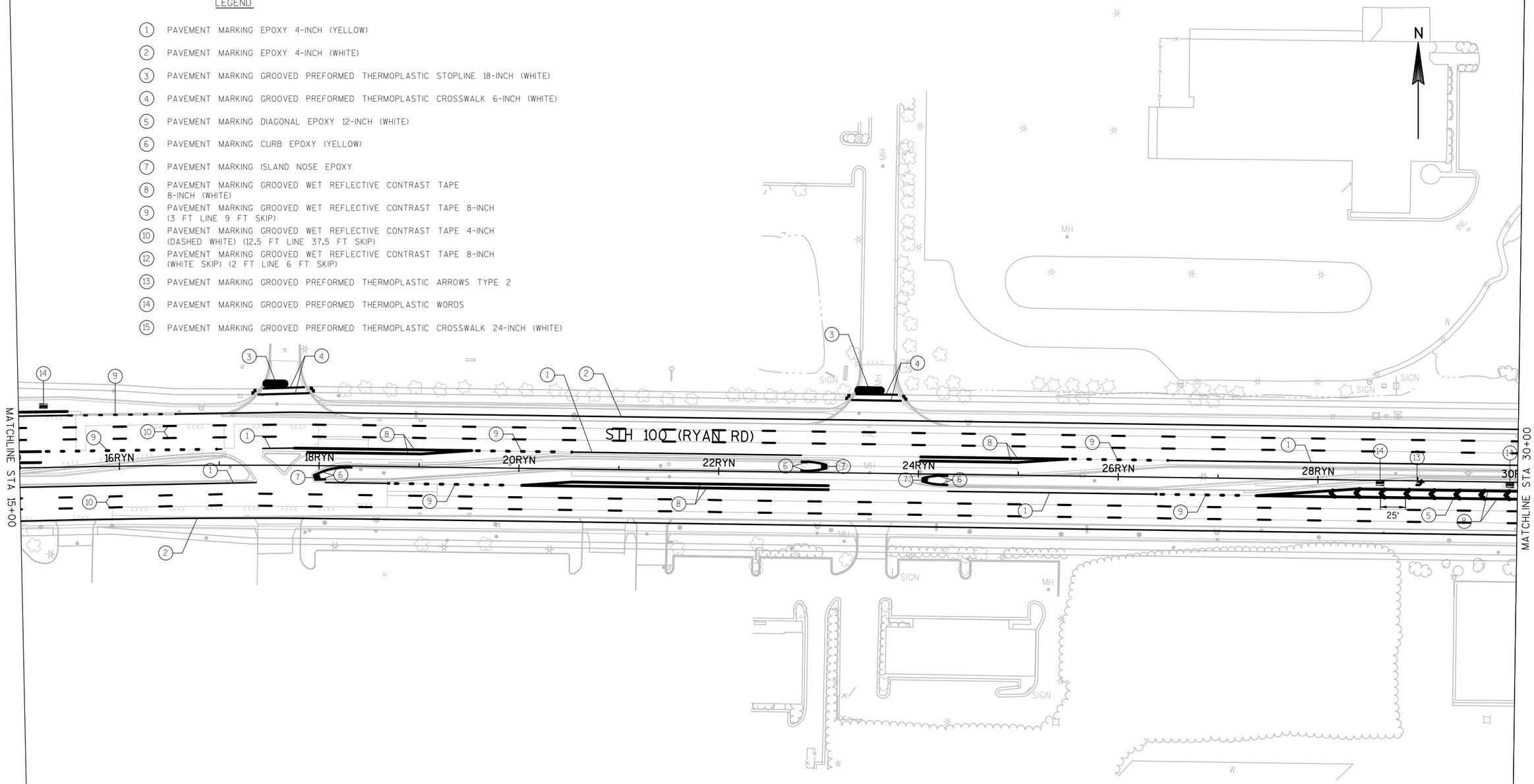
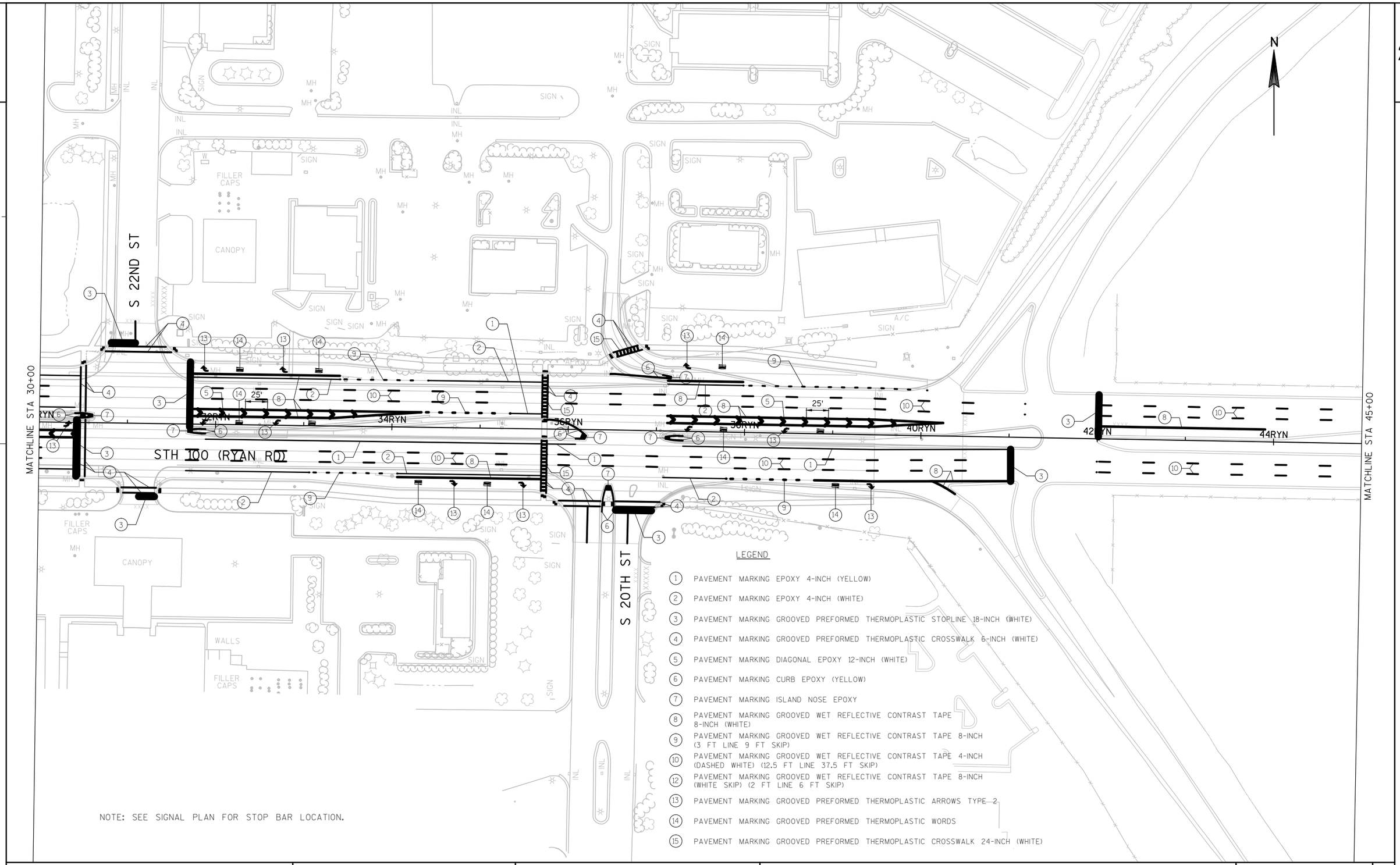


PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	PLAN: PAVEMENT MARKING	SHEET 248	E

FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\024501_PM.DWG PLOT DATE : 6/28/2013 9:31 AM PLOT BY : KKUECKER PLOT NAME : **** PLOT SCALE : 1:100_XREF

2



NOTE: SEE SIGNAL PLAN FOR STOP BAR LOCATION.

LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
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14. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC WORDS
15. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK 24-INCH (WHITE)

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	PLAN: PAVEMENT MARKING	SHEET 249	E

FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\024501_PM.DWG PLOT DATE : 6/28/2013 9:31 AM PLOT BY : KKUECKER PLOT NAME : **** PLOT SCALE : 1:100_XREF

WISDOT/CADDS SHEET 42

2

LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC STOPLINE 18-INCH (WHITE)
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14. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC WORDS
15. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK 24-INCH (WHITE)

N

MH

MATCHLINE STA 45+00

STH 100 (RYAN RD)

46RYN 48RYN 50RYN 52RYN 54RYN 56RYN 58RYN 60R

25' 25'

MATCHLINE STA 60+00

NOTE: SEE SIGNAL PLAN FOR STOP BAR LOCATION.

2

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	PLAN: PAVEMENT MARKING	SHEET 250	E

FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\024501_PM.DWG PLOT DATE : 6/28/2013 9:31 AM PLOT BY : KKUECKER PLOT NAME : **** PLOT SCALE : 1:100_XREF

WISDOT/CADDS SHEET 42

LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC STOPLINE 18-INCH (WHITE)
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15. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK 24-INCH (WHITE)

N

MATCHLINE STA 60+00

MATCHLINE STA 75+00

STH 100 (RYAN RD)

62RYN

64RYN

66RYN

68RYN

70RYN

72RYN

74RYN

25'

CTH V (S 13TH ST)

SEPTIC

NOTE: SEE SIGNAL PLAN FOR STOP BAR LOCATION.

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	PLAN: PAVEMENT MARKING	SHEET 251	E

FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\024501_PM.DWG PLOT DATE : 6/28/2013 9:31 AM PLOT BY : KKUECKER PLOT NAME : **** PLOT SCALE : 1:100_XREF

WISDOT/CADDS SHEET 42

2

N

MATCHLINE STA 75+00

MATCHLINE STA 90+00

76RYN

78RYN

80RYN

82RYN

84RYN

86RYN

88RYN

90R

S H 100 (RYAN RD)

LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
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15. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK 24-INCH (WHITE)

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	PLAN: PAVEMENT MARKING	SHEET 252	E

FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\024501_PM.DWG PLOT DATE : 6/28/2013 9:31 AM PLOT BY : KKUECKER PLOT NAME : **** PLOT SCALE : 1:100_XREF

2

LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
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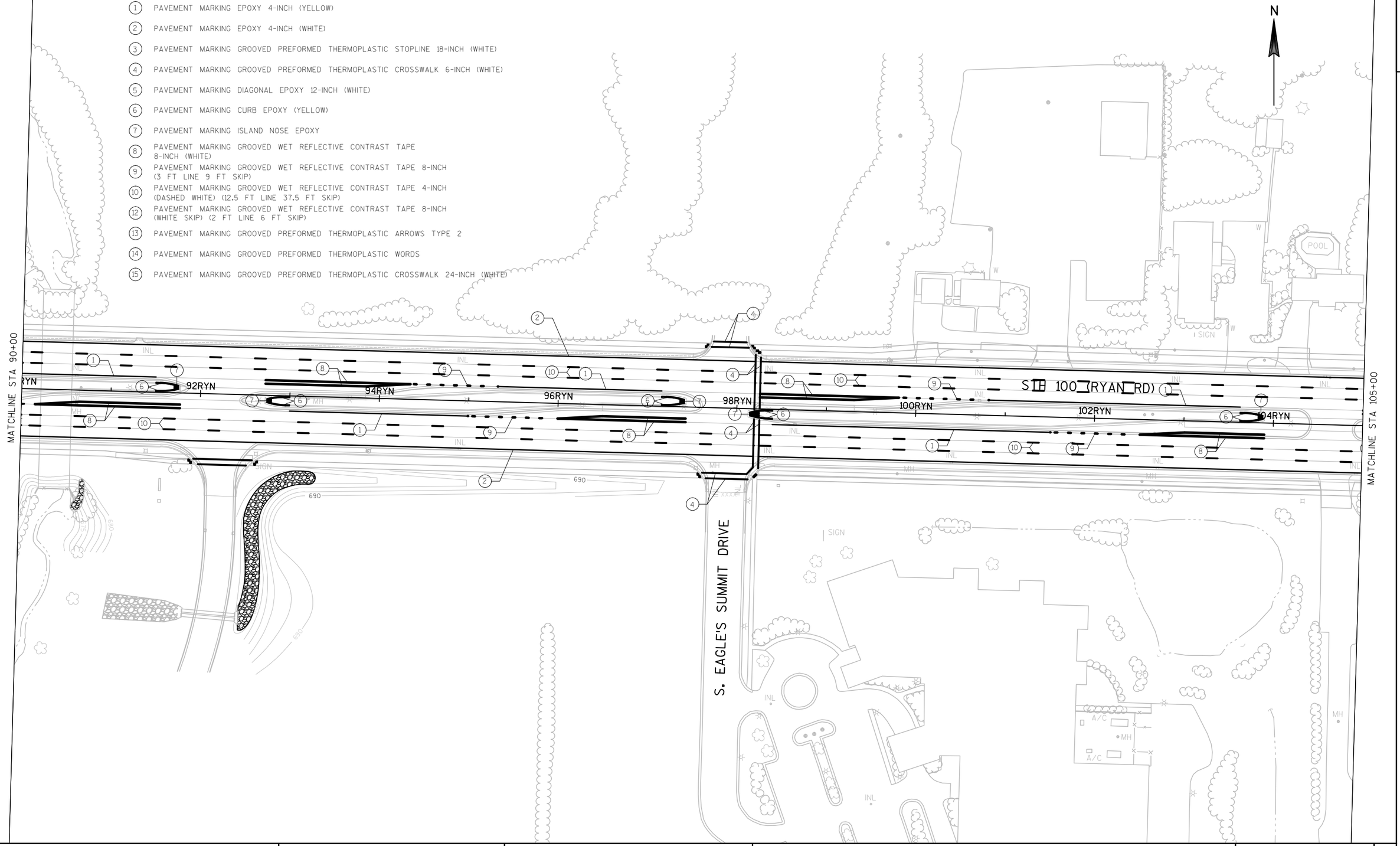
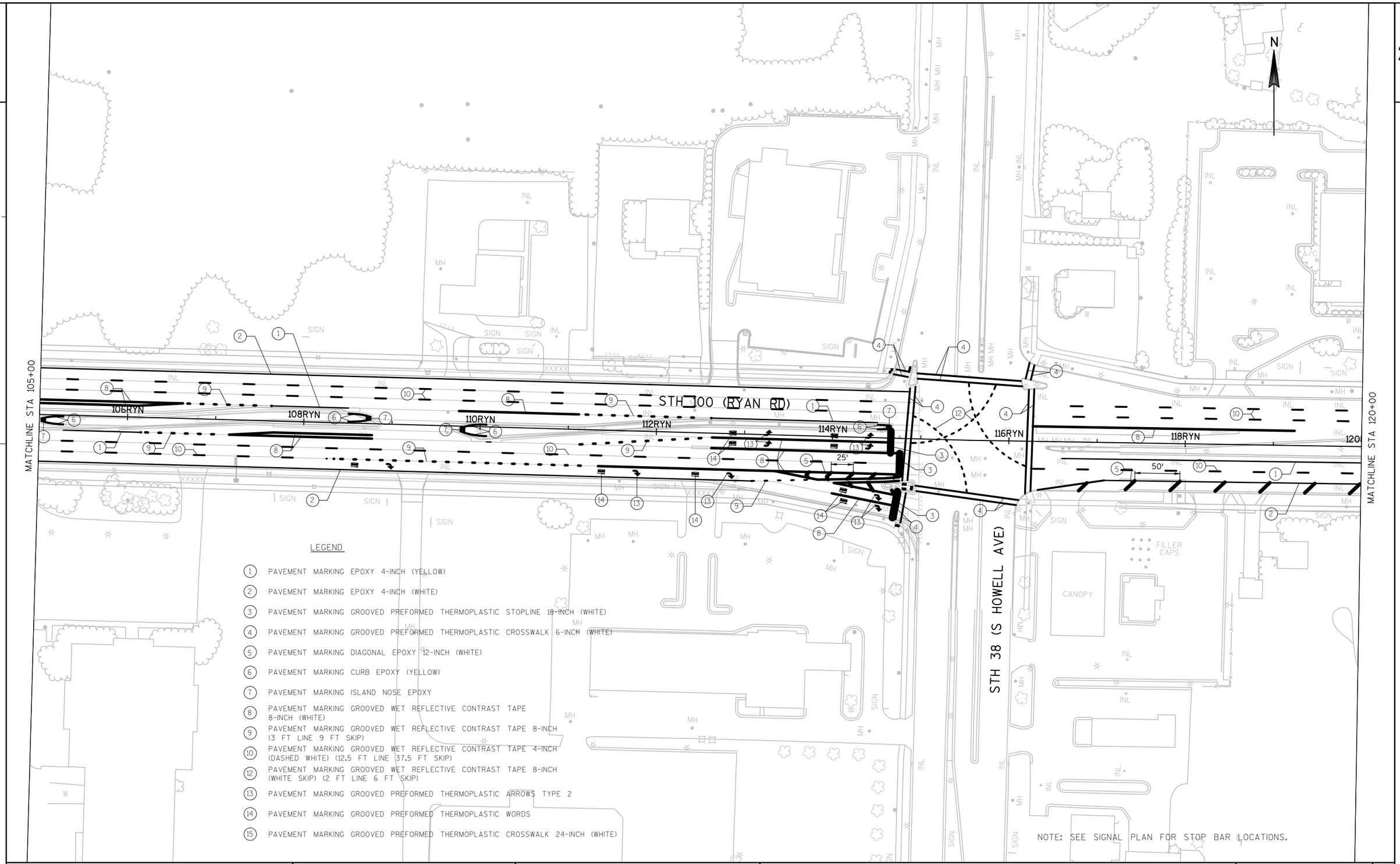


PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	PLAN: PAVEMENT MARKING	SHEET 253	E

FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\024501_PM.DWG PLOT DATE : 6/28/2013 9:31 AM PLOT BY : KKUECKER PLOT NAME : **** PLOT SCALE : 1:100_XREF

WISDOT/CADDS SHEET 42

2



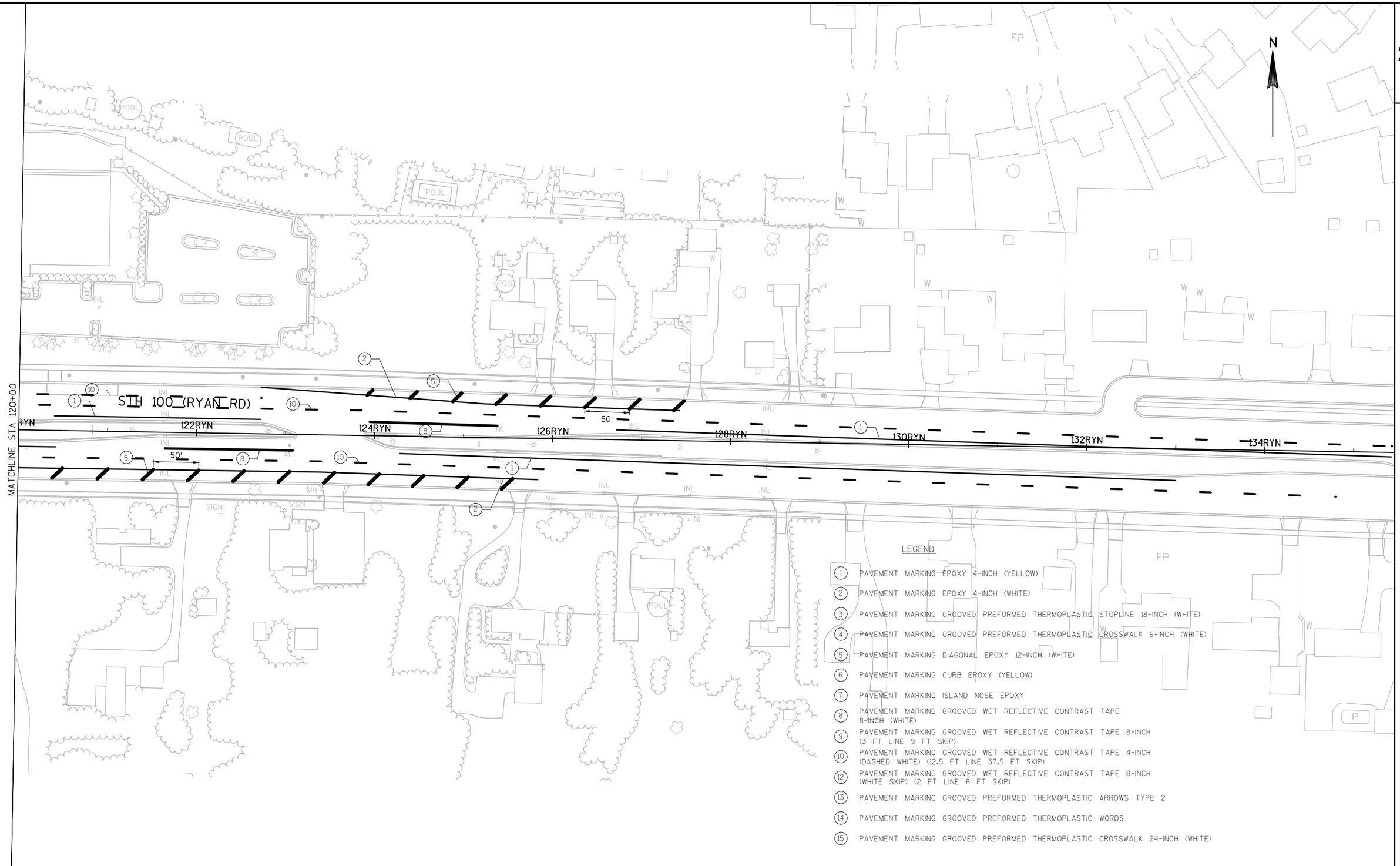
LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC STOPLINE 18-INCH (WHITE)
4. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK 6-INCH (WHITE)
5. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (WHITE)
6. PAVEMENT MARKING CURB EPOXY (YELLOW)
7. PAVEMENT MARKING ISLAND NOSE EPOXY
8. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH (WHITE)
9. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH (3 FT LINE 9 FT SKIP)
10. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
12. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH (WHITE SKIP) (2 FT LINE 6 FT SKIP)
13. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 2
14. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC WORDS
15. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK 24-INCH (WHITE)

NOTE: SEE SIGNAL PLAN FOR STOP BAR LOCATIONS.

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	PLAN: PAVEMENT MARKING	SHEET 254	E

2

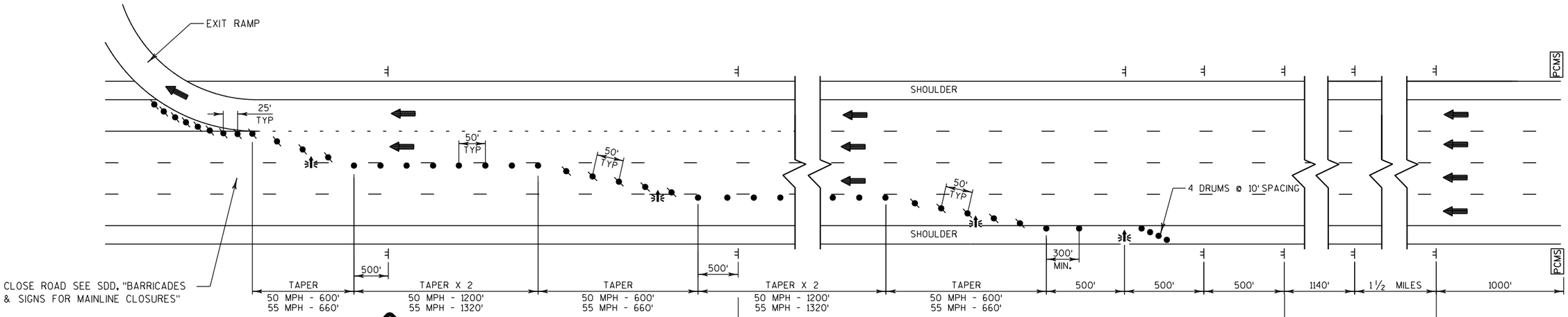


LEGEND

1. PAVEMENT MARKING EPOXY 4-INCH (YELLOW)
2. PAVEMENT MARKING EPOXY 4-INCH (WHITE)
3. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC STOPLINE 18-INCH (WHITE)
4. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK 6-INCH (WHITE)
5. PAVEMENT MARKING DIAGONAL EPOXY 12-INCH (WHITE)
6. PAVEMENT MARKING CURB EPOXY (YELLOW)
7. PAVEMENT MARKING ISLAND NOSE EPOXY
8. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH (WHITE)
9. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH (3 FT LINE 9 FT SKIP)
10. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
12. PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH (WHITE SKIP) (2 FT LINE 6 FT SKIP)
13. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 2
14. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC WORDS
15. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK 24-INCH (WHITE)

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	PLAN: PAVEMENT MARKING	SHEET 255	E

2



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.

TYPICAL RYAN ROAD CLOSURE

3 LANE CLOSURE - SPEEDS 45 MPH OR GREATER

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

PROJECT NO: 2040-16-70	HWY: STH. 100 RYAN RD.	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET	E

2

2

+06.20
68.03'LT

MATCHLINE 256+00

MATCHLINE 256+00

N

SB OFF RAMP

50'

ROAD CLOSED
R11-2
48" X 30"

WB RYAN ROAD

EB RYAN ROAD

+57.96
3.36'LT

38RY 40RY 42RY 44RY 46RY 48RY 50

NOTE: CLOSE THREE LANES OF EB RYAN ROAD PER THE "TYPICAL THREE LANE NIGHT TIME CLOSER" IN THE CONSTURCTION DETAILS

SB ON RAMP

ROAD CLOSED
R11-2
48" X 30"

MATCHLINE 50RY+00

PROJECT NO: 2040-16-70	HWY: STH. 100 RYAN RD.	COUNTY: MILWAUKEE	STAGE 1AO CONSTRUCTION	SHEET	E

FILE NAME : S:\FinalDesign\MIL\20401670_RYB\Roads\cds\026101_s1a0.dgn PLOT DATE : 05-SEP-2013 07:27 PLOT BY : MSCRYS PLOT NAME : PLOT SCALE : 100:1

2

N

WB RYAN ROAD

EB RYAN ROAD

MATCHLINE 50RY+00

52RY

54RY

56RY

58RY

60RY

62RY

+28.22
140.19' LT

25'

ROAD CLOSED
R11-2
48" X 30"

NOTE: CLOSE THREE LANES OF WB RYAN ROAD PER THE "TYPICAL THREE LANE NIGHT TIME CLOSER" IN THE CONSTURCTION DETAILS

+77.03
17.99' RT

ROAD CLOSED
R11-2
48" X 30"

50'

248RYB

246RYB

244RYB

242RYB

NB OFF RAMP

IH 94 NB

244

242

+70.01
143.85' RT

U/C

WALLS

SIGN

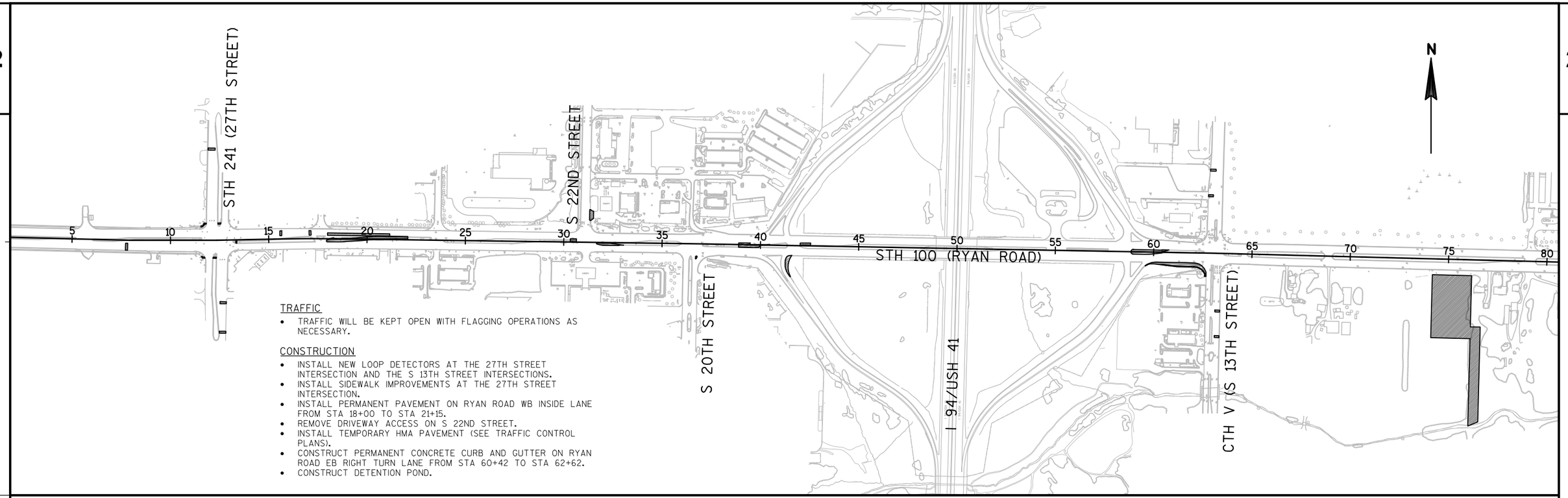
RIPRAP

PROJECT NO: 2040-16-70	HWY: STH. 100 RYAN RD.	COUNTY: MILWAUKEE	STAGE 1AO CONSTRUCTION	SHEET	E

FILE NAME : S:\FinalDesign\MIL\20401670_RYB\Roads\cds\026102_s1a0.dgn PLOT DATE : 05-SEP-2013 07:27 PLOT BY : MSCRYS PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

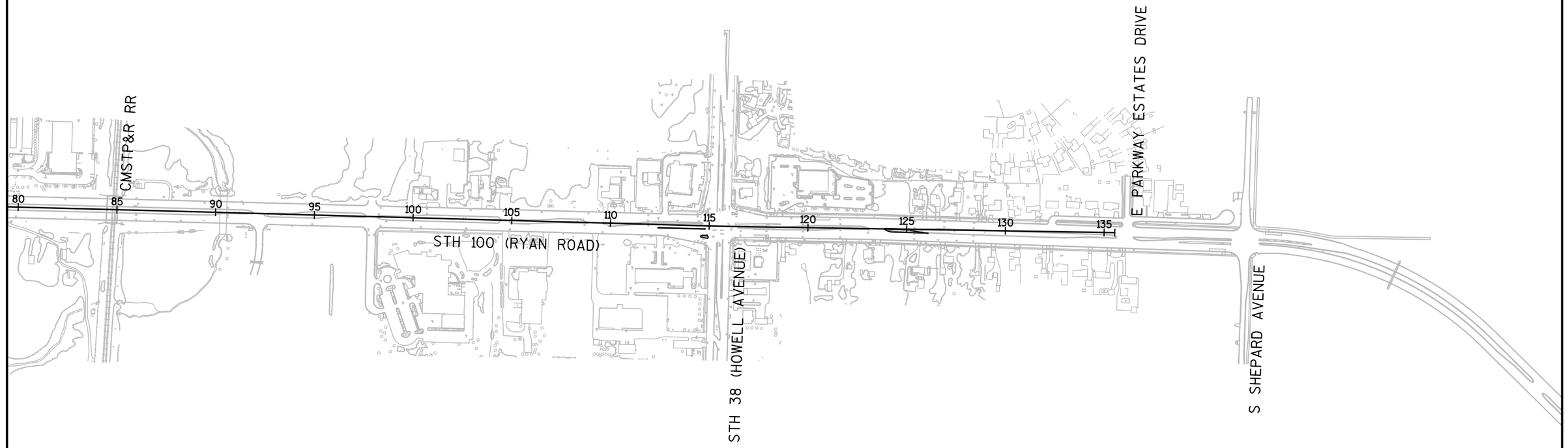


TRAFFIC

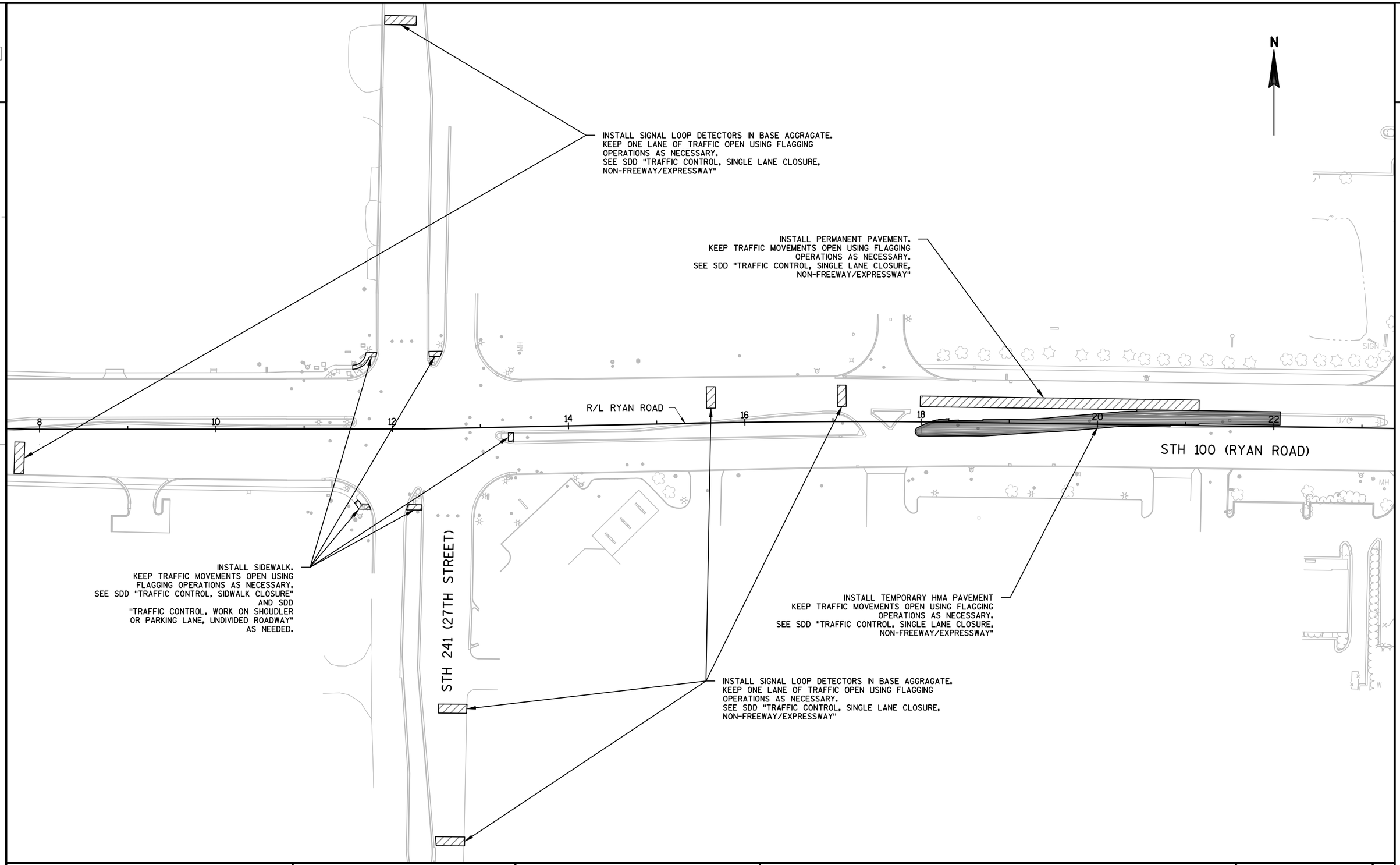
- TRAFFIC WILL BE KEPT OPEN WITH FLAGGING OPERATIONS AS NECESSARY.

CONSTRUCTION

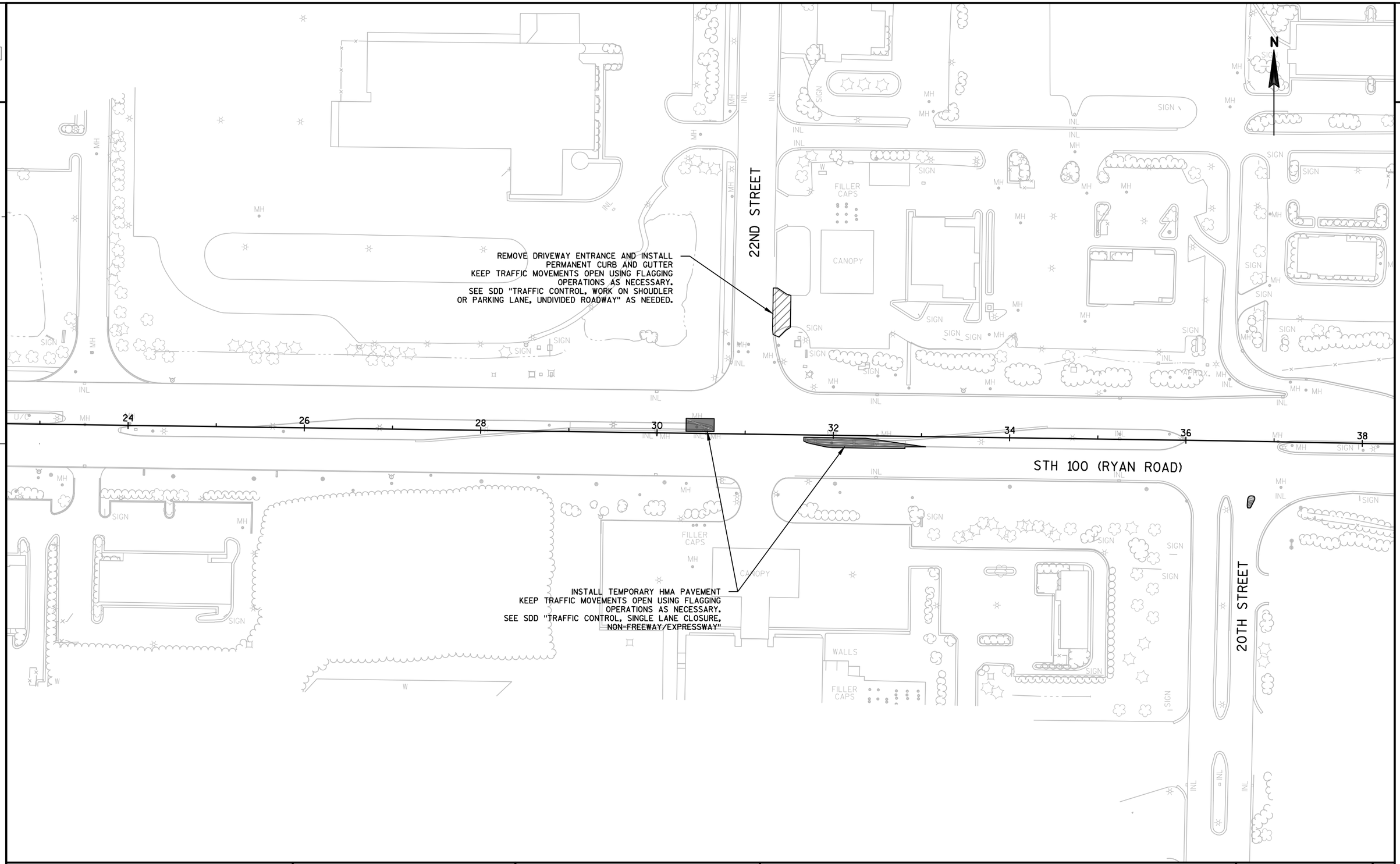
- INSTALL NEW LOOP DETECTORS AT THE 27TH STREET INTERSECTION AND THE S 13TH STREET INTERSECTIONS.
- INSTALL SIDEWALK IMPROVEMENTS AT THE 27TH STREET INTERSECTION.
- INSTALL PERMANENT PAVEMENT ON RYAN ROAD WB INSIDE LANE FROM STA 18+00 TO STA 21+15.
- REMOVE DRIVEWAY ACCESS ON S 22ND STREET.
- INSTALL TEMPORARY HMA PAVEMENT (SEE TRAFFIC CONTROL PLANS).
- CONSTRUCT PERMANENT CONCRETE CURB AND GUTTER ON RYAN ROAD EB RIGHT TURN LANE FROM STA 60+42 TO STA 62+62.
- CONSTRUCT DETENTION POND.



PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	TRAFFIC CONTROL: STAGE 1A OVERVIEW	SHEET 259	E



PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1A	SHEET 260	E



PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1A	SHEET 261	E

N

INSTALL SIGNAL LOOP DETECTORS IN BASE AGGRAGATE.
KEEP ONE LANE OF TRAFFIC OPEN USING FLAGGING
OPERATIONS AS NECESSARY.
SEE SDD "TRAFFIC CONTROL, SINGLE LANE CLOSURE,
NON-FREEWAY/EXPRESSWAY"

R/L RYAN ROAD

38 40 42 44 46 48 50 52

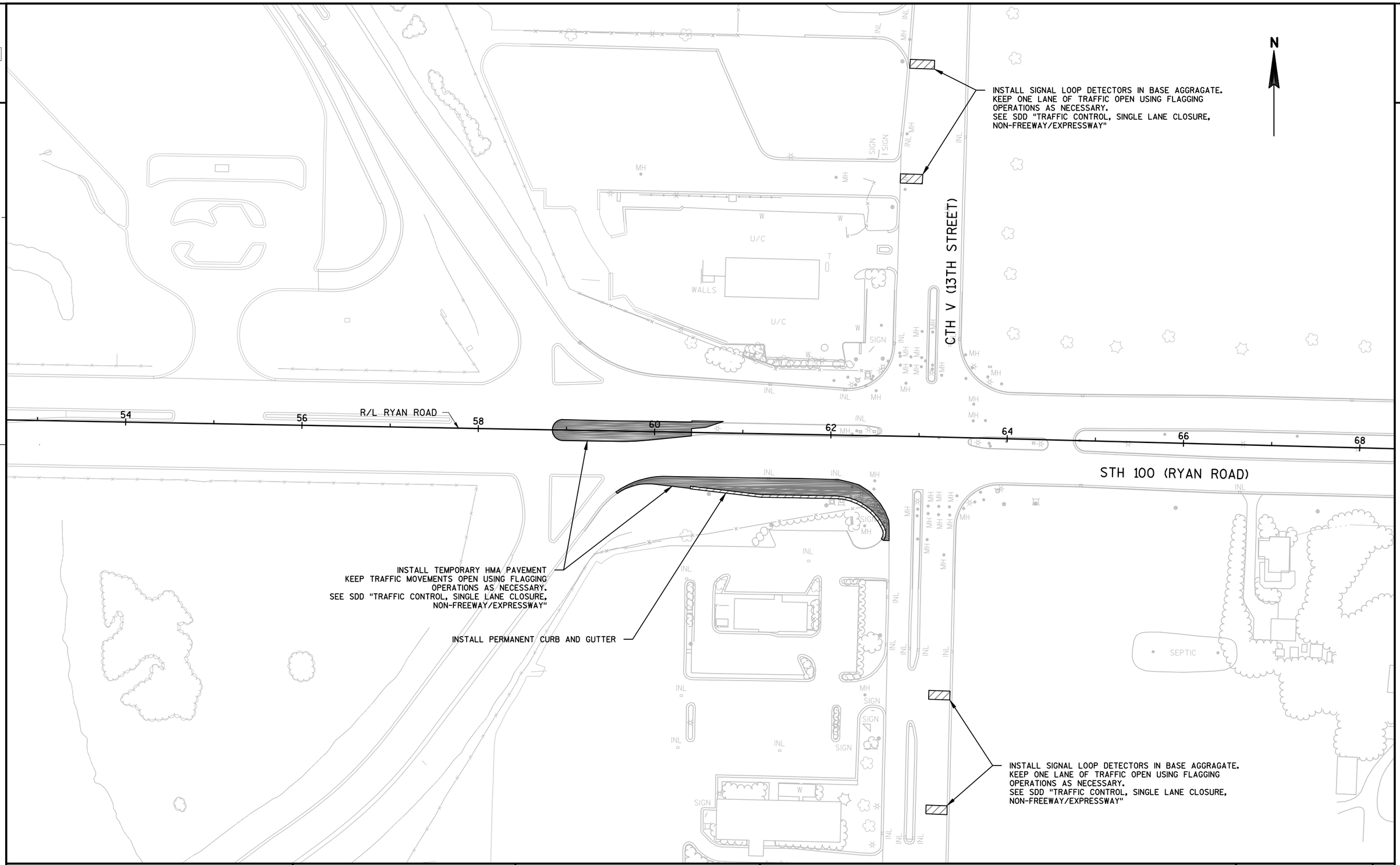
STH 100 (RYAN ROAD)

INSTALL TEMPORARY HMA PAVEMENT
KEEP TRAFFIC MOVEMENTS OPEN USING FLAGGING
OPERATIONS AS NECESSARY.
SEE SDD "TRAFFIC CONTROL, SINGLE LANE CLOSURE,
NON-FREEWAY/EXPRESSWAY"

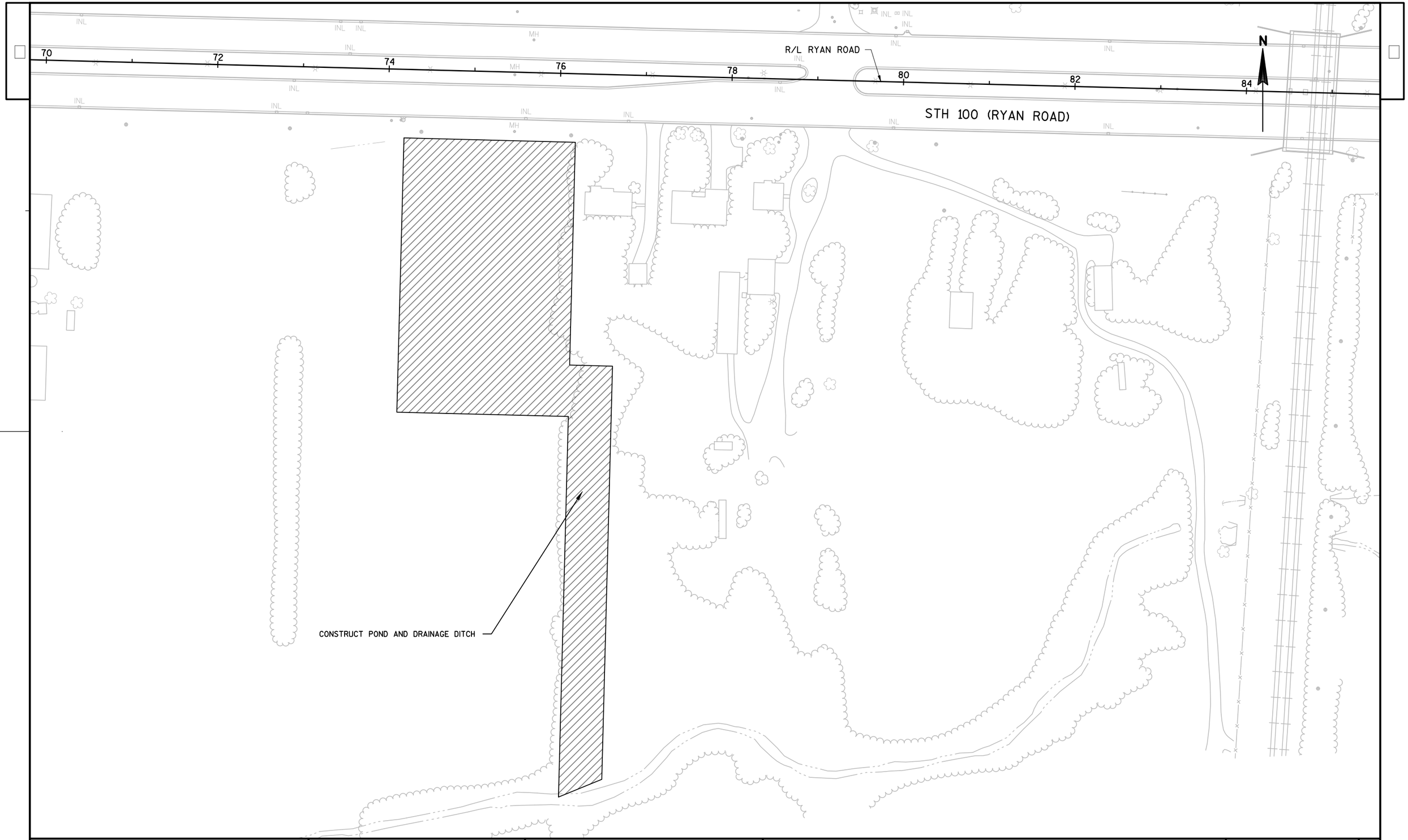
PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1A	SHEET 262	E

FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\026001B_S1A.DWG PLOT DATE : 10/1/2013 3:28 PM PLOT BY : KKUECKER PLOT NAME : PLOT SCALE : 1" = 100'_XREF

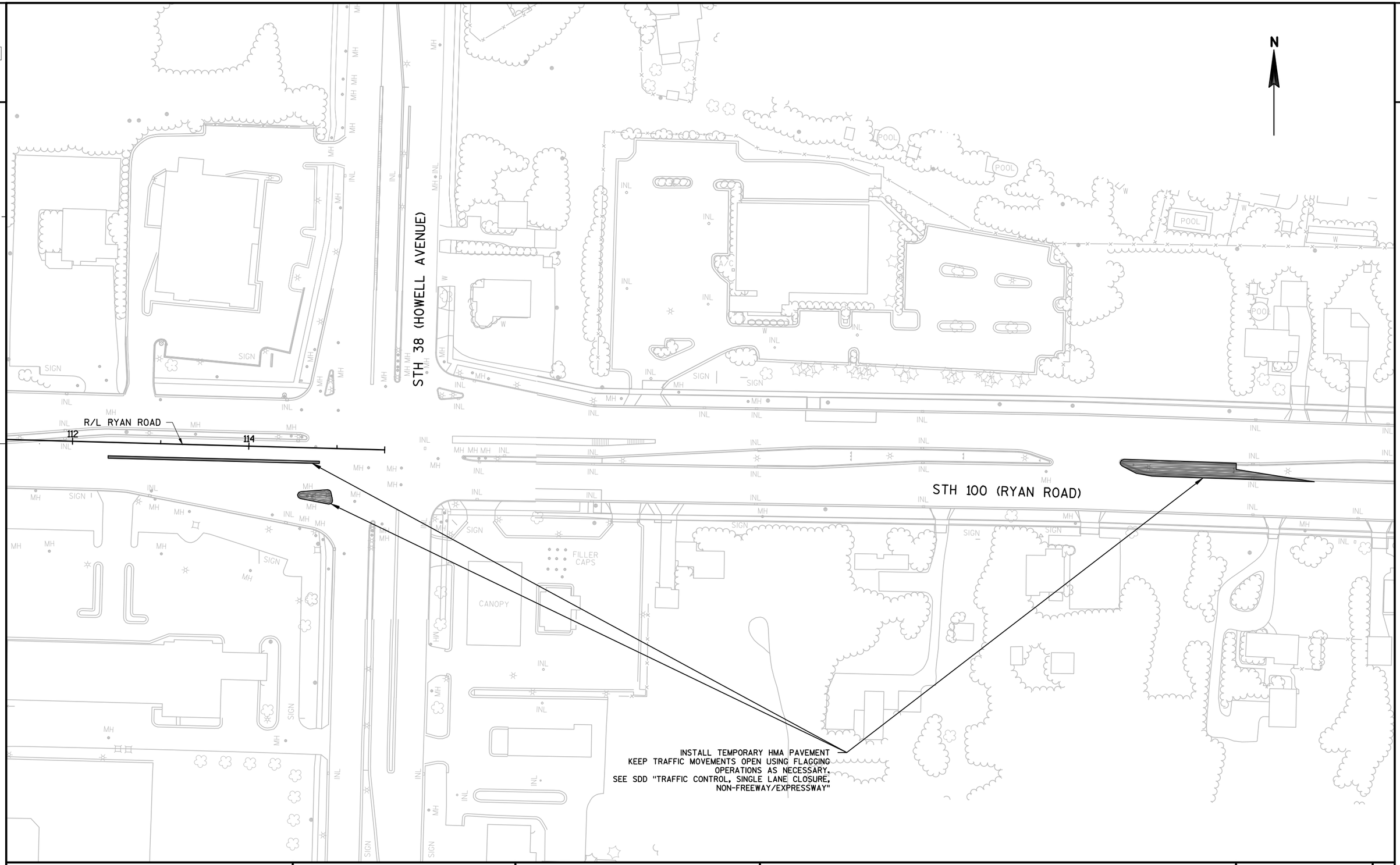
WISDOT/CADDS SHEET 42



PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1A	SHEET 263	E



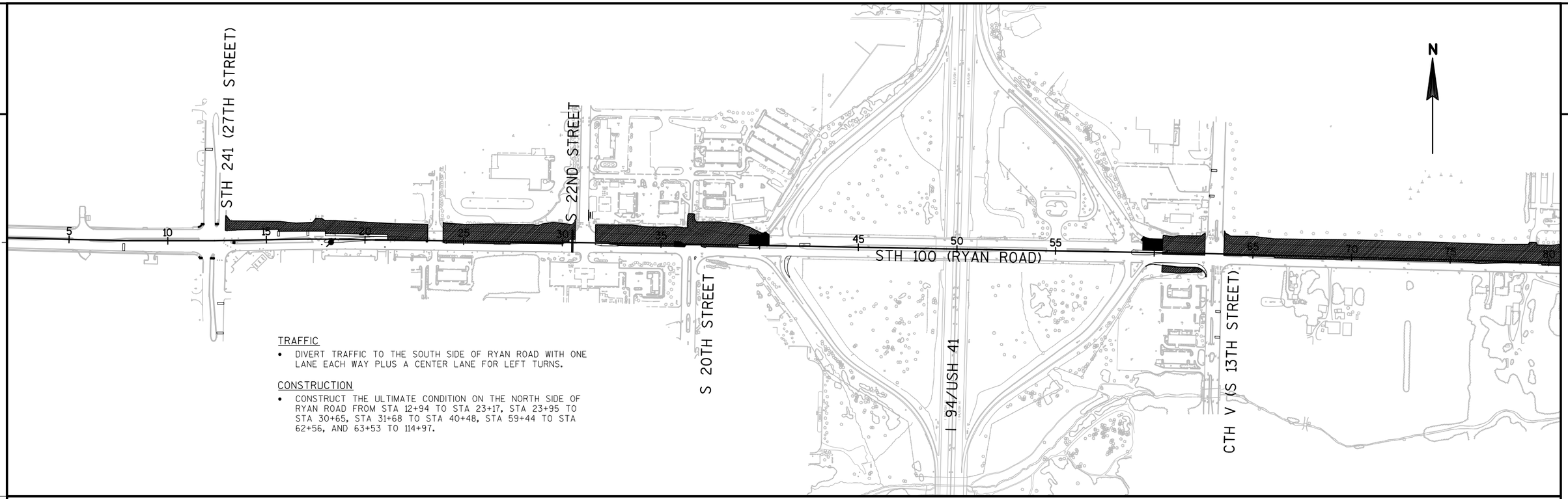
PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1A	SHEET 264	E

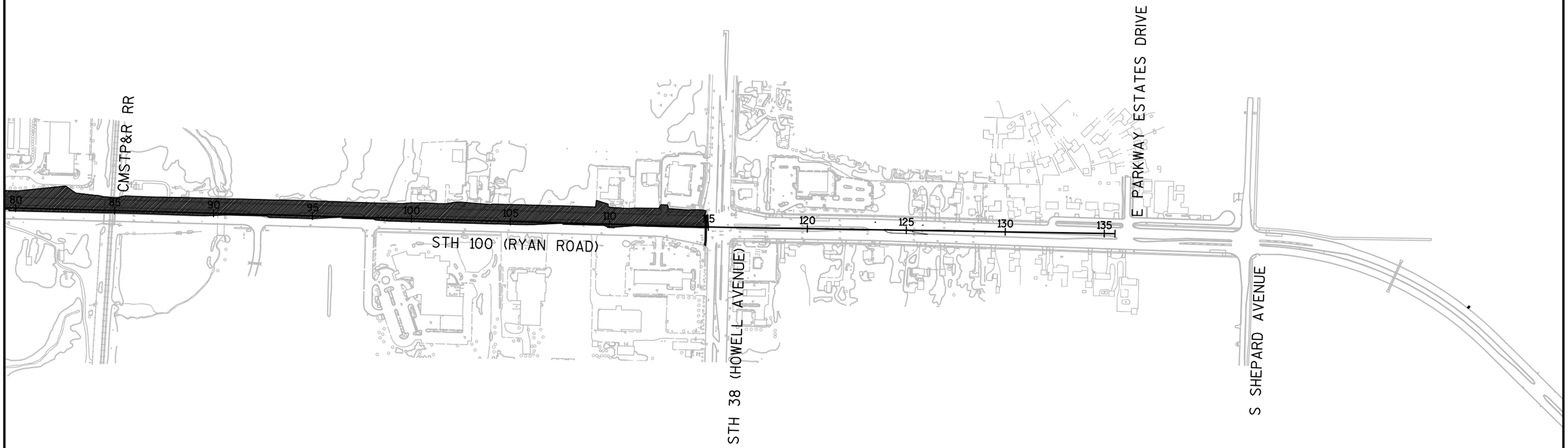


PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1A	SHEET	E

FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\026001B_S1A.DWG PLOT DATE : 10/1/2013 3:28 PM PLOT BY : KKUECKER PLOT NAME : PLOT SCALE : 1" = 100'_XREF

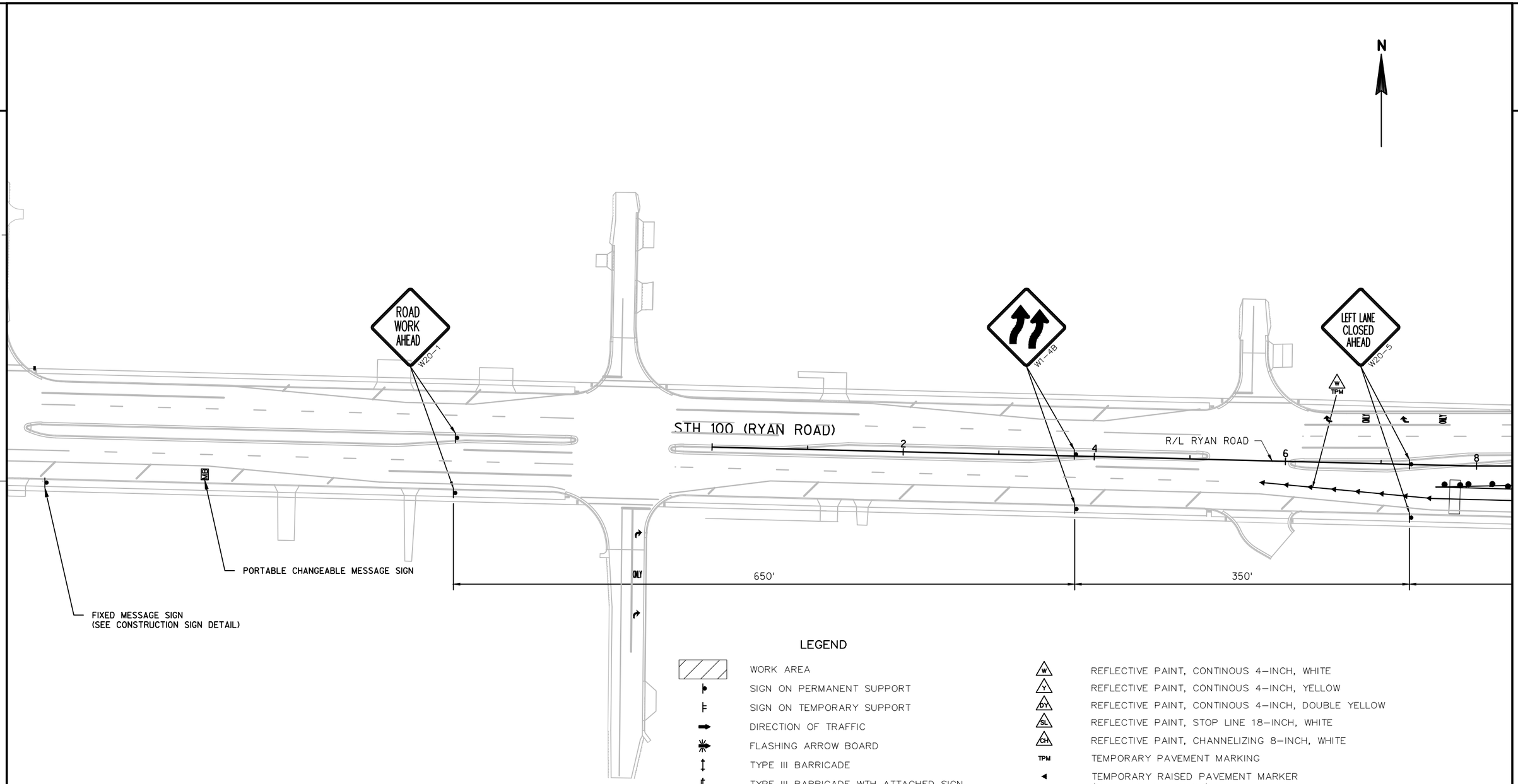
2





PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	TRAFFIC CONTROL: STAGE 1B OVERVIEW	SHEET 266	E

2



LEGEND

	WORK AREA
	SIGN ON PERMANENT SUPPORT
	SIGN ON TEMPORARY SUPPORT
	DIRECTION OF TRAFFIC
	FLASHING ARROW BOARD
	TYPE III BARRICADE
	TYPE III BARRICADE WTH ATTACHED SIGN
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH WARNING LIGHT TYPE C
A	TYPE A WARNING LIGHT (FLASHING)
B	TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
C	TYPE C WARNING LIGHT (STEADY BURN)
MB	PORTABLE CHANGEABLE MESSAGE BOARD

W	REFLECTIVE PAINT, CONTINOUS 4–INCH, WHITE
Y	REFLECTIVE PAINT, CONTINOUS 4–INCH, YELLOW
DY	REFLECTIVE PAINT, CONTINOUS 4–INCH, DOUBLE YELLOW
SL	REFLECTIVE PAINT, STOP LINE 18–INCH, WHITE
CH	REFLECTIVE PAINT, CHANNELIZING 8–INCH, WHITE
TPM	TEMPORARY PAVEMENT MARKING
◄	TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
P	PERMANENT PAVEMENT MARKING (SEE PAVEMENT MARKING PLANS)
WT	REMOVABLE TAPE, CONTINOUS 4–INCH, WHITE
YT	REMOVABLE TAPE, CONTINOUS 4–INCH, YELLOW
DYT	REMOAVABLE TAPE, CONTINOUS 4–INCH, DOUBLE YELLOW
SLT	REMOVABLE TAPE, STOP LINE 18–INCH, WHITE
CHT	REMOVABLE TAPE, CHANNELIZING 8–INCH, WHITE

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1B	SHEET 267	E

FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\026002B_S1B.DWG
PLOT DATE : 9/30/2013 6:59 PM
PLOT BY : KKUECKER
PLOT NAME :
PLOT SCALE : 1" = 100'_XREF
WISDOT/CADDS SHEET 42

2

N

END
ROAD WORK
G20-2A
48" X 24"

ROAD
CLOSED
R11-2
48" X 30"

W04-2L

W01-4R

450'

STH 100 (RYAN ROAD)

R/L RYAN ROAD

700'

350'

STH 241 (27TH STREET)

ONLY ONLY

ONLY

W06-3

35
M.P.H.
W013-1
36" X 36"

BEGIN
LEFT
TURN
LANE
R3-20L
24" X 36"

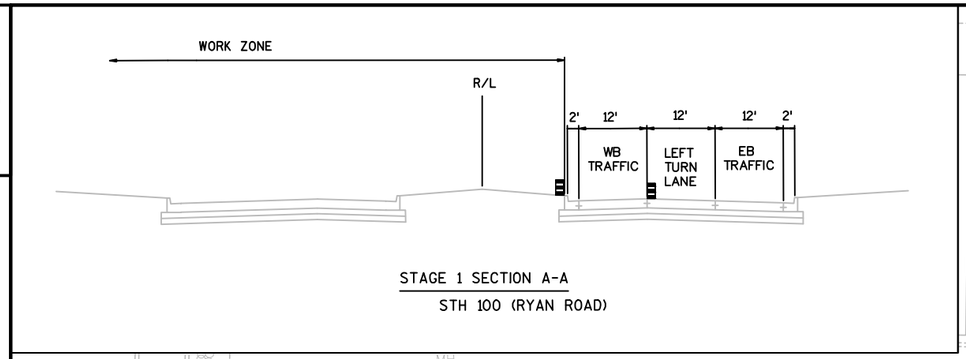
STOP
R1-1
36" X 36"

LEGEND

	WORK AREA
	SIGN ON PERMANENT SUPPORT
	SIGN ON TEMPORARY SUPPORT
	DIRECTION OF TRAFFIC
	FLASHING ARROW BOARD
	TYPE III BARRICADE
	TYPE III BARRICADE WTH ATTACHED SIGN
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH WARNING LIGHT TYPE C
A	TYPE A WARNING LIGHT (FLASHING)
B	TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
C	TYPE C WARNING LIGHT (STEADY BURN)
MB	PORTABLE CHANGEABLE MESSAGE BOARD

W	REFLECTIVE PAINT, CONTINOUS 4-INCH, WHITE
Y	REFLECTIVE PAINT, CONTINOUS 4-INCH, YELLOW
DY	REFLECTIVE PAINT, CONTINOUS 4-INCH, DOUBLE YELLOW
SL	REFLECTIVE PAINT, STOP LINE 18-INCH, WHITE
CH	REFLECTIVE PAINT, CHANNELIZING 8-INCH, WHITE
TPM	TEMPORARY PAVEMENT MARKING
◄	TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
P	PERMANENT PAVEMENT MARKING (SEE PAVEMENT MARKING PLANS)
WT	REMOVABLE TAPE, CONTINOUS 4-INCH, WHITE
YT	REMOVABLE TAPE, CONTINOUS 4-INCH, YELLOW
DYT	REMOAVABLE TAPE, CONTINOUS 4-INCH, DOUBLE YELLOW
SLT	REMOVABLE TAPE, STOP LINE 18-INCH, WHITE
CHT	REMOVABLE TAPE, CHANNELIZING 8-INCH, WHITE

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1B	SHEET 268	E



STAGE 1 SECTION A-A
STH 100 (RYAN ROAD)

2

22ND STREET

ROAD CLOSED
R11-2
48" X 30"

ROAD CLOSED
R11-2
48" X 30"

W01-4R

STOP
R1-1
36" X 36"

R/L RYAN ROAD

STH 100 (RYAN ROAD)

MAINTAIN CROSSWALK DURING CONSTRUCTION

W06-3

ROAD CLOSED
R11-2
48" X 30"

20TH STREET

LEGEND

	WORK AREA
	SIGN ON PERMANENT SUPPORT
	SIGN ON TEMPORARY SUPPORT
	DIRECTION OF TRAFFIC
	FLASHING ARROW BOARD
	TYPE III BARRICADE
	TYPE III BARRICADE WTH ATTACHED SIGN
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH WARNING LIGHT TYPE C
A	TYPE A WARNING LIGHT (FLASHING)
B	TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
C	TYPE C WARNING LIGHT (STEADY BURN)
MB	PORTABLE CHANGEABLE MESSAGE BOARD

W	REFLECTIVE PAINT, CONTINOUS 4-INCH, WHITE
Y	REFLECTIVE PAINT, CONTINOUS 4-INCH, YELLOW
DY	REFLECTIVE PAINT, CONTINOUS 4-INCH, DOUBLE YELLOW
SL	REFLECTIVE PAINT, STOP LINE 18-INCH, WHITE
CH	REFLECTIVE PAINT, CHANNELIZING 8-INCH, WHITE
TPM	TEMPORARY PAVEMENT MARKING
	TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
P	PERMANENT PAVEMENT MARKING (SEE PAVEMENT MARKING PLANS)
WT	REMOVABLE TAPE, CONTINOUS 4-INCH, WHITE
YT	REMOVABLE TAPE, CONTINOUS 4-INCH, YELLOW
DYT	REMOAVABLE TAPE, CONTINOUS 4-INCH, DOUBLE YELLOW
SLT	REMOVABLE TAPE, STOP LINE 18-INCH, WHITE
CHT	REMOVABLE TAPE, CHANNELIZING 8-INCH, WHITE

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1B	SHEET	E

FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\026002B_S1B.DWG
PLOT DATE : 9/30/2013 6:59 PM
PLOT BY : KKUECKER
PLOT NAME :
PLOT SCALE : 1" = 100'_XREF
WISDOT/CADDS SHEET 42

NOTE: PLACE PORTABLE CHANGEABLE MESSAGE SIGN AT BEGINNING OF EXIT RAMP.

LEGEND

- WORK AREA
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- FLASHING ARROW BOARD
- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH WARNING LIGHT TYPE C
- (A) TYPE A WARNING LIGHT (FLASHING)
- (B) TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
- (C) TYPE C WARNING LIGHT (STEADY BURN)
- MB PORTABLE CHANGEABLE MESSAGE BOARD

- W REFLECTIVE PAINT, CONTINOUS 4–INCH, WHITE
- Y REFLECTIVE PAINT, CONTINOUS 4–INCH, YELLOW
- DY REFLECTIVE PAINT, CONTINOUS 4–INCH, DOUBLE YELLOW
- SL REFLECTIVE PAINT, STOP LINE 18–INCH, WHITE
- CH REFLECTIVE PAINT, CHANNELIZING 8–INCH, WHITE
- TPM TEMPORARY PAVEMENT MARKING
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- P PERMANENT PAVEMENT MARKING (SEE PAVEMENT MARKING PLANS)
- WT REMOVABLE TAPE, CONTINOUS 4–INCH, WHITE
- YT REMOVABLE TAPE, CONTINOUS 4–INCH, YELLOW
- DYT REMOAVABLE TAPE, CONTINOUS 4–INCH, DOUBLE YELLOW
- SLT REMOVABLE TAPE, STOP LINE 18–INCH, WHITE
- CHT REMOVABLE TAPE, CHANNELIZING 8–INCH, WHITE

ROAD CLOSED
R11–2
48" X 30"

ROAD CLOSED
R11–2
48" X 30"

R/L RYAN ROAD

STH 100 (RYAN ROAD)

38 40 42 44 46 48 50 52

12' 12'

W06–3

BEGIN LEFT TURN LANE
R3–20L
24" X 36"

BEGIN LEFT TURN LANE
R3–20L
24" X 36"

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1B	SHEET 270 E

FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\026002B_S1B.DWG PLOT DATE : 9/30/2013 6:59 PM PLOT BY : KKUECKER PLOT NAME : PLOT SCALE : 1" = 100'_XREF

2

ROAD CLOSED
R11-2
48" X 30"

STH 100 (RYAN ROAD)

R/L RYAN ROAD

13TH STREET

ROAD CLOSED
R11-2
48" X 30"

54 56 58 60 62 64 66 68

W06-3

BEGIN LEFT TURN LANE
R3-20L
24" X 36"

BEGIN LEFT TURN LANE
R3-20L
24" X 36"

N

A

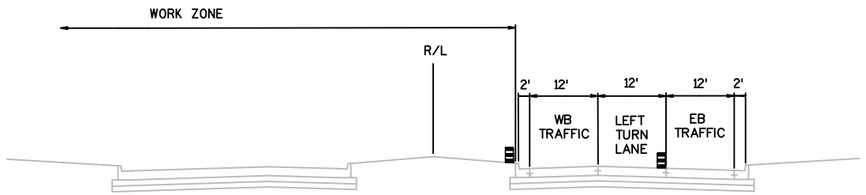
A

NOTE: PLACE PORTABLE CHANGEABLE MESSAGE SIGN AT BEGINNING OF EXIT RAMP.

LEGEND

	WORK AREA
	SIGN ON PERMANENT SUPPORT
	SIGN ON TEMPORARY SUPPORT
	DIRECTION OF TRAFFIC
	FLASHING ARROW BOARD
	TYPE III BARRICADE
	TYPE III BARRICADE WTH ATTACHED SIGN
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH WARNING LIGHT TYPE C
A	TYPE A WARNING LIGHT (FLASHING)
B	TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
C	TYPE C WARNING LIGHT (STEADY BURN)
MB	PORTABLE CHANGEABLE MESSAGE BOARD

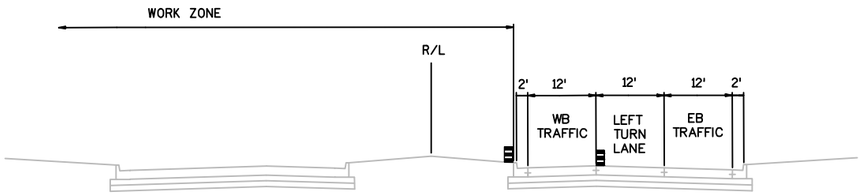
W	REFLECTIVE PAINT, CONTINOUS 4-INCH, WHITE
Y	REFLECTIVE PAINT, CONTINOUS 4-INCH, YELLOW
DY	REFLECTIVE PAINT, CONTINOUS 4-INCH, DOUBLE YELLOW
SL	REFLECTIVE PAINT, STOP LINE 18-INCH, WHITE
CH	REFLECTIVE PAINT, CHANNELIZING 8-INCH, WHITE
TPM	TEMPORARY PAVEMENT MARKING
	TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
P	PERMANENT PAVEMENT MARKING (SEE PAVEMENT MARKING PLANS)
WT	REMOVABLE TAPE, CONTINOUS 4-INCH, WHITE
YT	REMOVABLE TAPE, CONTINOUS 4-INCH, YELLOW
DYT	REMOAVABLE TAPE, CONTINOUS 4-INCH, DOUBLE YELLOW
SLT	REMOVABLE TAPE, STOP LINE 18-INCH, WHITE
CHT	REMOVABLE TAPE, CHANNELIZING 8-INCH, WHITE



STAGE 1 SECTION A-A
STH 100 (RYAN ROAD)

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1B	SHEET E

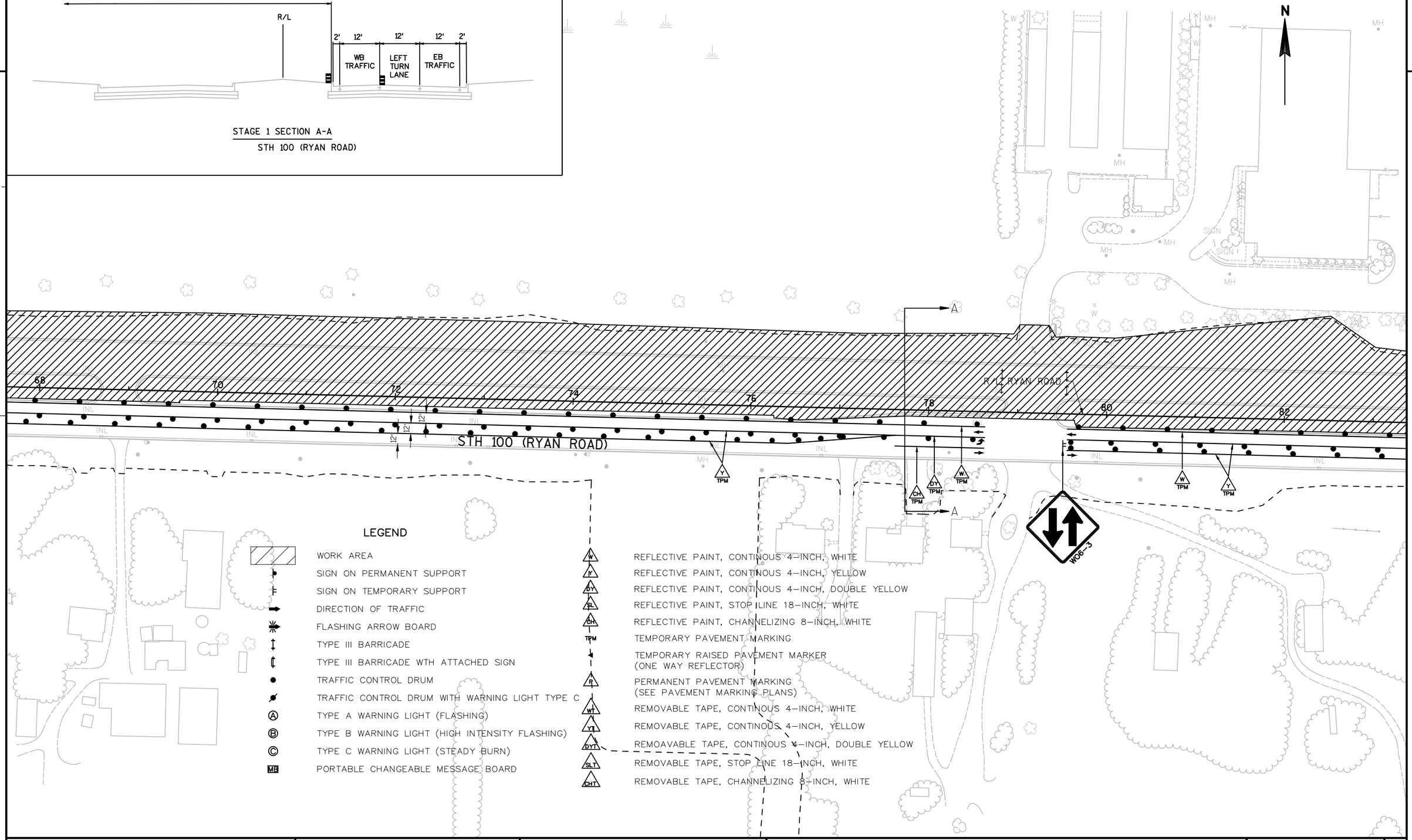
FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\026002B_S1B.DWG PLOT DATE : 9/30/2013 6:59 PM PLOT BY : KKUECKER PLOT NAME : PLOT SCALE : 1" = 100'_XREF



STAGE 1 SECTION A-A

STH 100 (RYAN ROAD)

2



PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1B	SHEET 272	E

2

LEGEND

- WORK AREA
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- FLASHING ARROW BOARD
- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH WARNING LIGHT TYPE C
- Ⓐ TYPE A WARNING LIGHT (FLASHING)
- Ⓑ TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
- Ⓒ TYPE C WARNING LIGHT (STEADY BURN)
- MB PORTABLE CHANGEABLE MESSAGE BOARD

- W REFLECTIVE PAINT, CONTINOUS 4–INCH, WHITE
- Y REFLECTIVE PAINT, CONTINOUS 4–INCH, YELLOW
- DY REFLECTIVE PAINT, CONTINOUS 4–INCH, DOUBLE YELLOW
- SL REFLECTIVE PAINT, STOP LINE 18–INCH, WHITE
- CH REFLECTIVE PAINT, CHANNELIZING 8–INCH, WHITE
- TPM TEMPORARY PAVEMENT MARKING
- ◄ TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- P PERMANENT PAVEMENT MARKING (SEE PAVEMENT MARKING PLANS)
- WT REMOVABLE TAPE, CONTINOUS 4–INCH, WHITE
- YT REMOVABLE TAPE, CONTINOUS 4–INCH, YELLOW
- DYT REMOAVABLE TAPE, CONTINOUS 4–INCH, DOUBLE YELLOW
- SLT REMOVABLE TAPE, STOP LINE 18–INCH, WHITE
- CHT REMOVABLE TAPE, CHANNELIZING 8–INCH, WHITE

N

2

STH 100 (RYAN ROAD)

R/L RYAN ROAD

84 86 88 90 92 94 96 98

12' 12' 12'

INL

MH

W

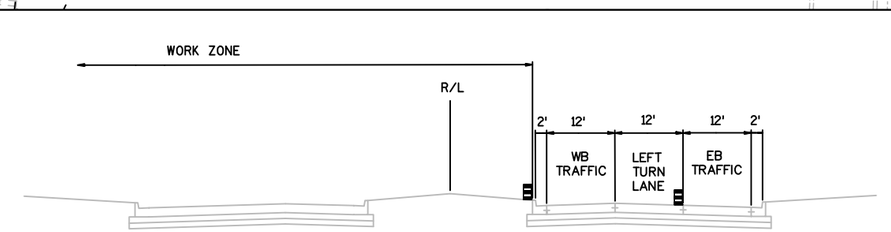
SIGN

ROAD CLOSED R11–2 48" X 30"

WO6–3

DRIVE

A



STAGE 1 SECTION A-A
STH 100 (RYAN ROAD)

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1B	SHEET 273	E

LEGEND

	WORK AREA
	SIGN ON PERMANENT SUPPORT
	SIGN ON TEMPORARY SUPPORT
	DIRECTION OF TRAFFIC
	FLASHING ARROW BOARD
	TYPE III BARRICADE
	TYPE III BARRICADE WTH ATTACHED SIGN
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH WARNING LIGHT TYPE C
Ⓐ	TYPE A WARNING LIGHT (FLASHING)
Ⓑ	TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
Ⓒ	TYPE C WARNING LIGHT (STEADY BURN)
MB	PORTABLE CHANGEABLE MESSAGE BOARD

W	REFLECTIVE PAINT, CONTINOUS 4–INCH, WHITE
Y	REFLECTIVE PAINT, CONTINOUS 4–INCH, YELLOW
DY	REFLECTIVE PAINT, CONTINOUS 4–INCH, DOUBLE YELLOW
SL	REFLECTIVE PAINT, STOP LINE 18–INCH, WHITE
CH	REFLECTIVE PAINT, CHANNELIZING 8–INCH, WHITE
TPM	TEMPORARY PAVEMENT MARKING
	TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
P	PERMANENT PAVEMENT MARKING (SEE PAVEMENT MARKING PLANS)
WT	REMOVABLE TAPE, CONTINOUS 4–INCH, WHITE
YT	REMOVABLE TAPE, CONTINOUS 4–INCH, YELLOW
DYT	REMOAVABLE TAPE, CONTINOUS 4–INCH, DOUBLE YELLOW
SLT	REMOVABLE TAPE, STOP LINE 18–INCH, WHITE
CHT	REMOVABLE TAPE, CHANNELIZING 8–INCH, WHITE

N

2

2

98 100 102 104 106 108 110 112

R/L RYAN ROAD

STH 100 (RYAN ROAD)

ROAD CLOSED
R11–2
48" X 30"

W6-3

S. EAGLE'S SUMMIT DRIVE

A

A

WORK ZONE

R/L

2' 12' 12' 12' 2'

WB TRAFFIC | LEFT TURN LANE | EB TRAFFIC

STAGE 1 SECTION A-A
STH 100 (RYAN ROAD)

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1B	SHEET 274	E

2

N

STH 38 (HOWELL AVENUE)

ROAD CLOSED
R11-2
48" X 30"

R3-1
24" X 24"

R/L RYAN ROAD

STH 100 (RYAN ROAD)

BEGIN RIGHT TURN LANE
R3-20RR
24" X 36"

WO12-1D
24" X 24"

TO NORTH 38
USE RIGHT LANE

END ROAD WORK
G20-2A
48" X 24"

500'

BEGIN LEFT TURN LANE
R3-20L
24" X 36"

MAINTAIN CROSSWALK DURING CONSTRUCTION

FILLER CAPS

CANOPY

POOL

LEGEND

	WORK AREA
	SIGN ON PERMANENT SUPPORT
	SIGN ON TEMPORARY SUPPORT
	DIRECTION OF TRAFFIC
	FLASHING ARROW BOARD
	TYPE III BARRICADE
	TYPE III BARRICADE WTH ATTACHED SIGN
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH WARNING LIGHT TYPE C
A	TYPE A WARNING LIGHT (FLASHING)
B	TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
C	TYPE C WARNING LIGHT (STEADY BURN)
MB	PORTABLE CHANGEABLE MESSAGE BOARD

W	REFLECTIVE PAINT, CONTINOUS 4-INCH, WHITE
Y	REFLECTIVE PAINT, CONTINOUS 4-INCH, YELLOW
DY	REFLECTIVE PAINT, CONTINOUS 4-INCH, DOUBLE YELLOW
SL	REFLECTIVE PAINT, STOP LINE 18-INCH, WHITE
CH	REFLECTIVE PAINT, CHANNELIZING 8-INCH, WHITE
TPM	TEMPORARY PAVEMENT MARKING
◂	TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
P	PERMANENT PAVEMENT MARKING (SEE PAVEMENT MARKING PLANS)
WT	REMOVABLE TAPE, CONTINOUS 4-INCH, WHITE
YT	REMOVABLE TAPE, CONTINOUS 4-INCH, YELLOW
DYT	REMOAVABLE TAPE, CONTINOUS 4-INCH, DOUBLE YELLOW
SLT	REMOVABLE TAPE, STOP LINE 18-INCH, WHITE
CHT	REMOVABLE TAPE, CHANNELIZING 8-INCH, WHITE

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1B	SHEET 275	E

2

N

TO NORTH 38 USE RIGHT LANE

W01-4L

35 M.P.H.
W013-1
36" X 36"

350'

700'

128 130 132 134

R/L RYAN ROAD

Y TPM

W TPM

STH 100 (RYAN ROAD)

W TPM

W04-2L

LEGEND

	WORK AREA
	SIGN ON PERMANENT SUPPORT
	SIGN ON TEMPORARY SUPPORT
	DIRECTION OF TRAFFIC
	FLASHING ARROW BOARD
	TYPE III BARRICADE
	TYPE III BARRICADE WTH ATTACHED SIGN
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH WARNING LIGHT TYPE C
A	TYPE A WARNING LIGHT (FLASHING)
B	TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
C	TYPE C WARNING LIGHT (STEADY BURN)
MB	PORTABLE CHANGEABLE MESSAGE BOARD

W	REFLECTIVE PAINT, CONTINOUS 4–INCH, WHITE
Y	REFLECTIVE PAINT, CONTINOUS 4–INCH, YELLOW
DY	REFLECTIVE PAINT, CONTINOUS 4–INCH, DOUBLE YELLOW
SL	REFLECTIVE PAINT, STOP LINE 18–INCH, WHITE
CH	REFLECTIVE PAINT, CHANNELIZING 8–INCH, WHITE
TPM	TEMPORARY PAVEMENT MARKING
	TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
P	PERMANENT PAVEMENT MARKING (SEE PAVEMENT MARKING PLANS)
WT	REMOVABLE TAPE, CONTINOUS 4–INCH, WHITE
YT	REMOVABLE TAPE, CONTINOUS 4–INCH, YELLOW
DYT	REMOAVABLE TAPE, CONTINOUS 4–INCH, DOUBLE YELLOW
SLT	REMOVABLE TAPE, STOP LINE 18–INCH, WHITE
CHT	REMOVABLE TAPE, CHANNELIZING 8–INCH, WHITE

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1B	SHEET 276	E

2

2

LEGEND

	WORK AREA
	SIGN ON PERMANENT SUPPORT
	SIGN ON TEMPORARY SUPPORT
	DIRECTION OF TRAFFIC
	FLASHING ARROW BOARD
	TYPE III BARRICADE
	TYPE III BARRICADE WTH ATTACHED SIGN
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH WARNING LIGHT TYPE C
Ⓐ	TYPE A WARNING LIGHT (FLASHING)
Ⓑ	TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
Ⓒ	TYPE C WARNING LIGHT (STEADY BURN)
MB	PORTABLE CHANGEABLE MESSAGE BOARD

W	REFLECTIVE PAINT, CONTINOUS 4–INCH, WHITE
Y	REFLECTIVE PAINT, CONTINOUS 4–INCH, YELLOW
DY	REFLECTIVE PAINT, CONTINOUS 4–INCH, DOUBLE YELLOW
SL	REFLECTIVE PAINT, STOP LINE 18–INCH, WHITE
CH	REFLECTIVE PAINT, CHANNELIZING 8–INCH, WHITE
TPM	TEMPORARY PAVEMENT MARKING
◄	TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
P	PERMANENT PAVEMENT MARKING (SEE PAVEMENT MARKING PLANS)
WT	REMOVABLE TAPE, CONTINOUS 4–INCH, WHITE
YT	REMOVABLE TAPE, CONTINOUS 4–INCH, YELLOW
DYT	REMOAVABLE TAPE, CONTINOUS 4–INCH, DOUBLE YELLOW
SLT	REMOVABLE TAPE, STOP LINE 18–INCH, WHITE
CHT	REMOVABLE TAPE, CHANNELIZING 8–INCH, WHITE

N

700'

STH 100 (RYAN ROAD)

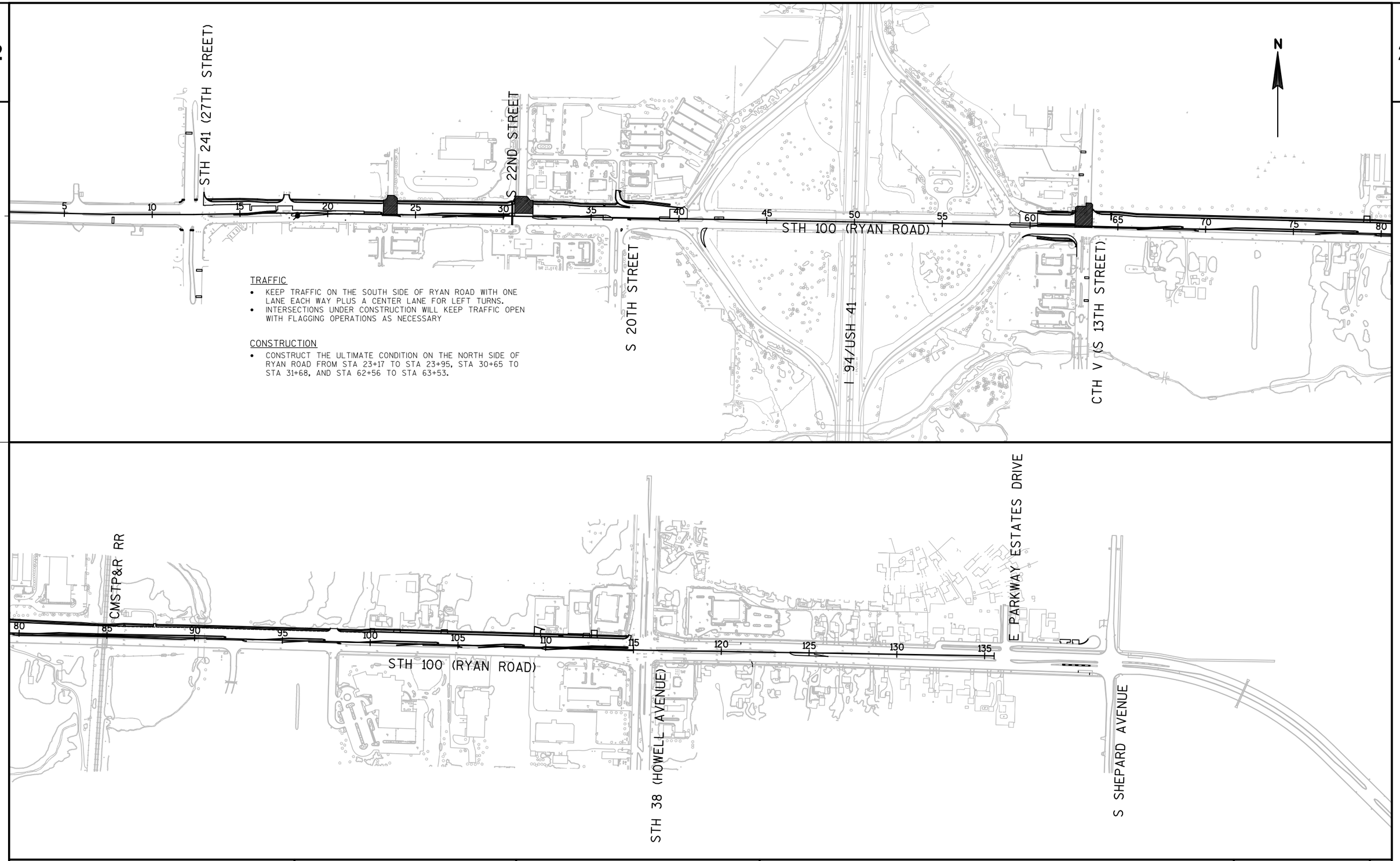
LEFT LANE CLOSED AHEAD
W20-5

ROAD WORK AHEAD
W20-1

PORTABLE CHANGEABLE MESSAGE SIGN
MB

FIXED MESSAGE SIGN
(SEE CONSTRUCTION SIGN DETAIL)

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1B	SHEET 277	E



PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	TRAFFIC CONTROL: STAGE 1C OVERVIEW	SHEET 278	E

LEGEND

- WORK AREA
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- FLASHING ARROW BOARD
- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH WARNING LIGHT TYPE C
- (A) TYPE A WARNING LIGHT (FLASHING)
- (B) TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
- (C) TYPE C WARNING LIGHT (STEADY BURN)
- MB PORTABLE CHANGEABLE MESSAGE BOARD

- W REFLECTIVE PAINT, CONTINOUS 4–INCH, WHITE
- Y REFLECTIVE PAINT, CONTINOUS 4–INCH, YELLOW
- DY REFLECTIVE PAINT, CONTINOUS 4–INCH, DOUBLE YELLOW
- SL REFLECTIVE PAINT, STOP LINE 18–INCH, WHITE
- CH REFLECTIVE PAINT, CHANNELIZING 8–INCH, WHITE
- TPM TEMPORARY PAVEMENT MARKING
- ◄ TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- P PERMANENT PAVEMENT MARKING (SEE PAVEMENT MARKING PLANS)
- WT REMOVABLE TAPE, CONTINOUS 4–INCH, WHITE
- YT REMOVABLE TAPE, CONTINOUS 4–INCH, YELLOW
- DYT REMOAVABLE TAPE, CONTINOUS 4–INCH, DOUBLE YELLOW
- SLT REMOVABLE TAPE, STOP LINE 18–INCH, WHITE
- CHT REMOVABLE TAPE, CHANNELIZING 8–INCH, WHITE

N

END ROAD WORK
G20–2A
48" X 24"

ROAD CLOSED
R11–2
48" X 30"

W04–2L

W01–4R

R/L RYAN ROAD

STH 100 (RYAN ROAD)

STH 241 (27TH STREET)

ONLY

INSTALL PERMANENT CONCRETE CURB AND GUTTER AND PAVEMENT.
KEEP TRAFFIC MOVEMENTS OPEN USING FLAGGING OPERATIONS AS NECESSARY.

W06–3

35 M.P.H.
W013–1
36" X 36"

BEGIN LEFT TURN LANE
R3–20L
24" X 36"

NOTE:
TRAFFIC CONTROL DEVICES FROM STAGE 1B ARE CONTINUED THROUGH STAGE 1C, UNLESS OTHERWISE NOTED.

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1C	SHEET 279	E

NOTE:
TRAFFIC CONTROL DEVICES FROM STAGE 1B ARE CONTINUED THROUGH STAGE 1C, UNLESS OTHERWISE NOTED.

ACCESS TO REMAIN OPEN DURING CONSTRUCTION. KEEP TRAFFIC MOVEMENTS OPEN USING FLAGGING OPERATIONS AS NECESSARY.

ROAD CLOSED
R11-2
48" X 30"

ROAD CLOSED
R11-2
48" X 30"

ACCESS TO REMAIN OPEN DURING CONSTRUCTION. KEEP TRAFFIC MOVEMENTS OPEN USING FLAGGING OPERATIONS AS NECESSARY.

22ND STREET

R/L RYAN ROAD

STH 100 (RYAN ROAD)

MAINTAIN CROSSWALK DURING CONSTRUCTION

W6-3

ROAD CLOSED
R11-2
48" X 30"

20TH STREET

N

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1C	SHEET 280	E

FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\026003B_S1C.DWG PLOT DATE : 9/30/2013 7:08 PM PLOT BY : KKUECKER PLOT NAME : PLOT SCALE : 1" = 100'_XREF

LEGEND

- WORK AREA
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- FLASHING ARROW BOARD
- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH WARNING LIGHT TYPE C
- (A) TYPE A WARNING LIGHT (FLASHING)
- (B) TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
- (C) TYPE C WARNING LIGHT (STEADY BURN)
- MB PORTABLE CHANGEABLE MESSAGE BOARD

- W REFLECTIVE PAINT, CONTINOUS 4–INCH, WHITE
- Y REFLECTIVE PAINT, CONTINOUS 4–INCH, YELLOW
- DY REFLECTIVE PAINT, CONTINOUS 4–INCH, DOUBLE YELLOW
- SL REFLECTIVE PAINT, STOP LINE 18–INCH, WHITE
- CH REFLECTIVE PAINT, CHANNELIZING 8–INCH, WHITE
- TPM TEMPORARY PAVEMENT MARKING
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- P PERMANENT PAVEMENT MARKING (SEE PAVEMENT MARKING PLANS)
- WT REMOVABLE TAPE, CONTINOUS 4–INCH, WHITE
- YT REMOVABLE TAPE, CONTINOUS 4–INCH, YELLOW
- DYT REMOAVABLE TAPE, CONTINOUS 4–INCH, DOUBLE YELLOW
- SLT REMOVABLE TAPE, STOP LINE 18–INCH, WHITE
- CHT REMOVABLE TAPE, CHANNELIZING 8–INCH, WHITE

N

CTH V (13TH STREET)

ACCESS TO REMAIN OPEN DURING CONSTRUCTION. KEEP TRAFFIC MOVEMENTS OPEN USING FLAGGING OPERATIONS AS NECESSARY.

ROAD CLOSED
R11–2
48" X 30"

ROAD CLOSED
R11–2
48" X 30"

R/L RYAN ROAD

STH 100 (RYAN ROAD)

54 56 58 60 62 64 66 68

WO6–3

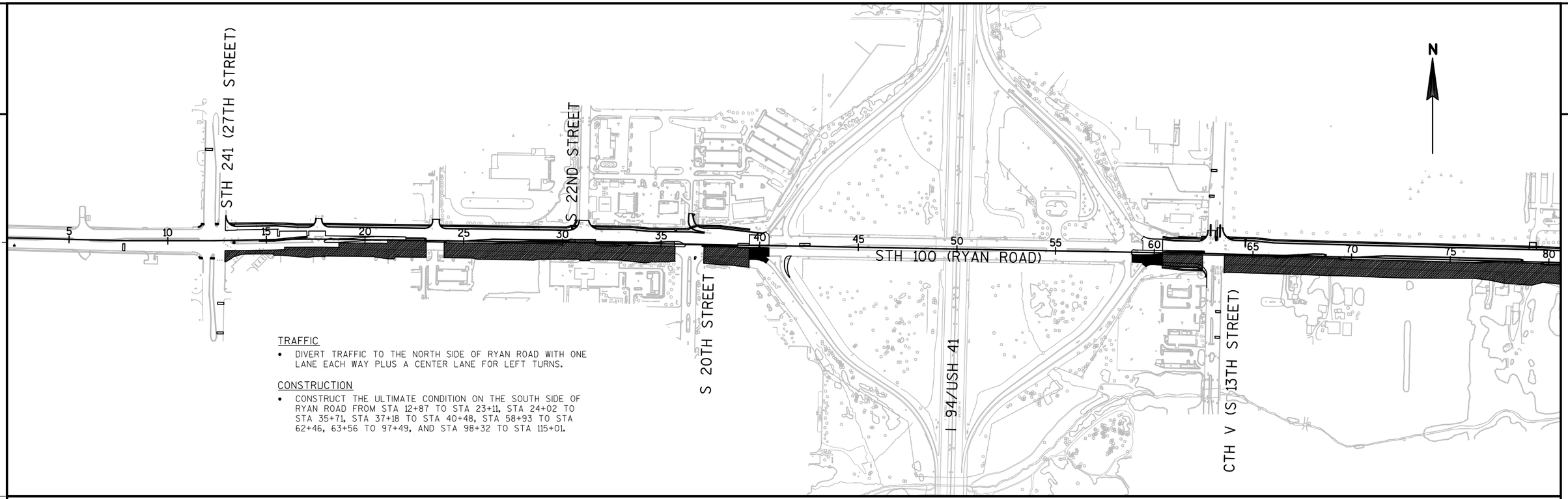
BEGIN LEFT TURN LANE
R3–20L
24" X 36"

BEGIN LEFT TURN LANE
R3–20L
24" X 36"

NOTE:
TRAFFIC CONTROL DEVICES FROM STAGE 1B ARE CONTINUED THROUGH STAGE 1C, UNLESS OTHERWISE NOTED.

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1C	SHEET 281	E

2

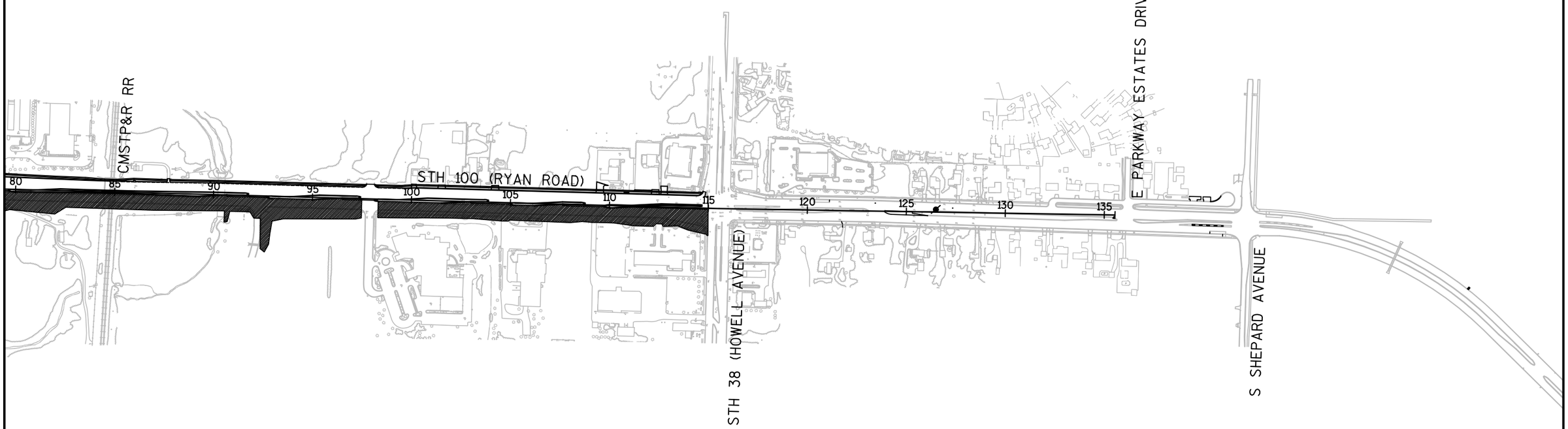


TRAFFIC

- DIVERT TRAFFIC TO THE NORTH SIDE OF RYAN ROAD WITH ONE LANE EACH WAY PLUS A CENTER LANE FOR LEFT TURNS.

CONSTRUCTION

- CONSTRUCT THE ULTIMATE CONDITION ON THE SOUTH SIDE OF RYAN ROAD FROM STA 12+87 TO STA 23+11, STA 24+02 TO STA 35+71, STA 37+18 TO STA 40+48, STA 58+93 TO STA 62+46, 63+56 TO 97+49, AND STA 98+32 TO STA 115+01.



PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	TRAFFIC CONTROL: STAGE 2A OVERVIEW	SHEET 282	E

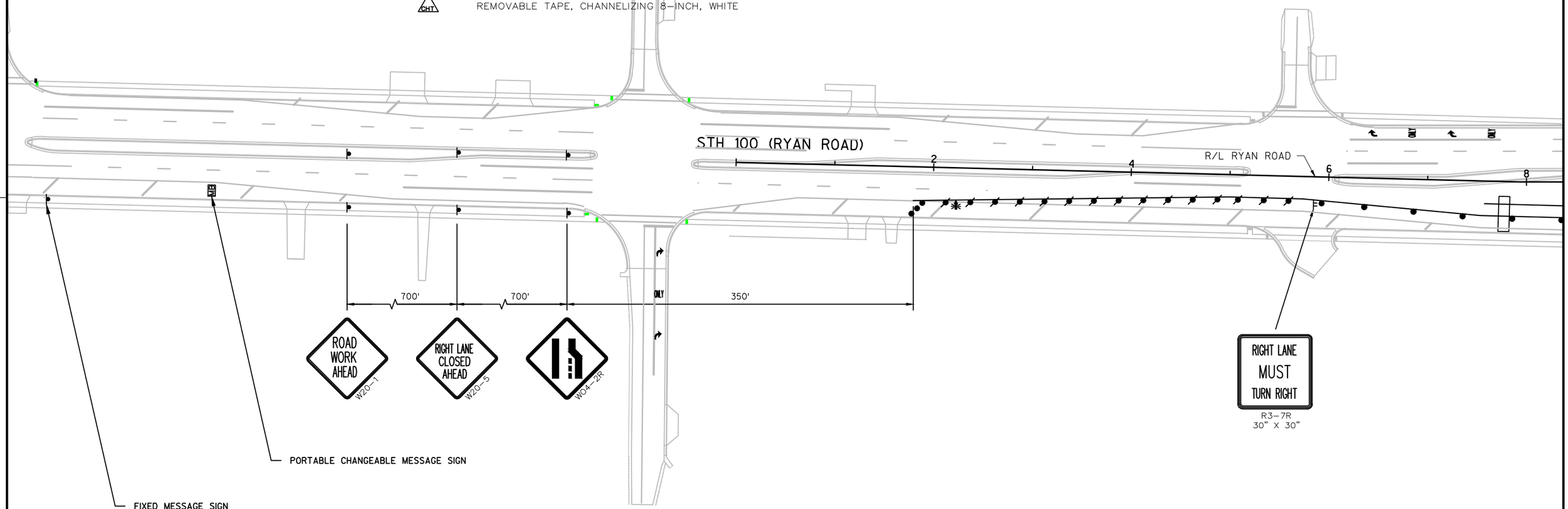
FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\026004A_S2A.DWG PLOT DATE : 9/30/2013 7:10 PM PLOT BY : KKUECKER PLOT NAME : PLOT SCALE : 1" = 500'_XREF

LEGEND

	WORK AREA
	SIGN ON PERMANENT SUPPORT
	SIGN ON TEMPORARY SUPPORT
	DIRECTION OF TRAFFIC
	FLASHING ARROW BOARD
	TYPE III BARRICADE
	TYPE III BARRICADE WTH ATTACHED SIGN
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH WARNING LIGHT TYPE C
A	TYPE A WARNING LIGHT (FLASHING)
B	TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
C	TYPE C WARNING LIGHT (STEADY BURN)
MB	PORTABLE CHANGEABLE MESSAGE BOARD

W	REFLECTIVE PAINT, CONTINOUS 4–INCH, WHITE
Y	REFLECTIVE PAINT, CONTINOUS 4–INCH, YELLOW
DY	REFLECTIVE PAINT, CONTINOUS 4–INCH, DOUBLE YELLOW
SL	REFLECTIVE PAINT, STOP LINE 18–INCH, WHITE
CH	REFLECTIVE PAINT, CHANNELIZING 8–INCH, WHITE
TPM	TEMPORARY PAVEMENT MARKING
◄	TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
P	PERMANENT PAVEMENT MARKING (SEE PAVEMENT MARKING PLANS)
WT	REMOVABLE TAPE, CONTINOUS 4–INCH, WHITE
YT	REMOVABLE TAPE, CONTINOUS 4–INCH, YELLOW
DYT	REMOAVABLE TAPE, CONTINOUS 4–INCH, DOUBLE YELLOW
SLT	REMOVABLE TAPE, STOP LINE 18–INCH, WHITE
CHT	REMOVABLE TAPE, CHANNELIZING 8–INCH, WHITE

N



PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	TRAFFIC CONTROL: STAGE 2A	SHEET 283 E

LEGEND

- WORK AREA
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- FLASHING ARROW BOARD
- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH WARNING LIGHT TYPE C
- (A) TYPE A WARNING LIGHT (FLASHING)
- (B) TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
- (C) TYPE C WARNING LIGHT (STEADY BURN)
- MB PORTABLE CHANGEABLE MESSAGE BOARD

- W REFLECTIVE PAINT, CONTINOUS 4–INCH, WHITE
- Y REFLECTIVE PAINT, CONTINOUS 4–INCH, YELLOW
- DY REFLECTIVE PAINT, CONTINOUS 4–INCH, DOUBLE YELLOW
- SL REFLECTIVE PAINT, STOP LINE 18–INCH, WHITE
- CH REFLECTIVE PAINT, CHANNELIZING 8–INCH, WHITE
- TPM TEMPORARY PAVEMENT MARKING
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- P PERMANENT PAVEMENT MARKING (SEE PAVEMENT MARKING PLANS)
- WT REMOVABLE TAPE, CONTINOUS 4–INCH, WHITE
- YT REMOVABLE TAPE, CONTINOUS 4–INCH, YELLOW
- DYT REMOAVABLE TAPE, CONTINOUS 4–INCH, DOUBLE YELLOW
- SLT REMOVABLE TAPE, STOP LINE 18–INCH, WHITE
- CHT REMOVABLE TAPE, CHANNELIZING 8–INCH, WHITE

N

ROAD CLOSED
R11–2
48" X 30"

BEGIN LEFT TURN LANE
R3–20L
24" X 36"

R/L RYAN ROAD

STH 100 (RYAN ROAD)

STH 241 (27TH STREET)

ONLY

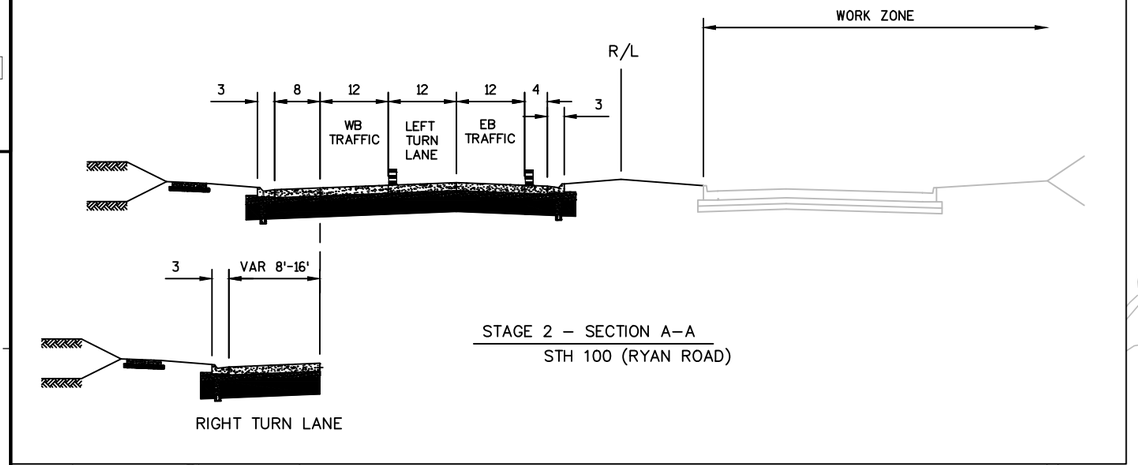
W01–4L
35 M.P.H.
W013–1
36" X 36"

ROAD CLOSED
R11–2
48" X 30"

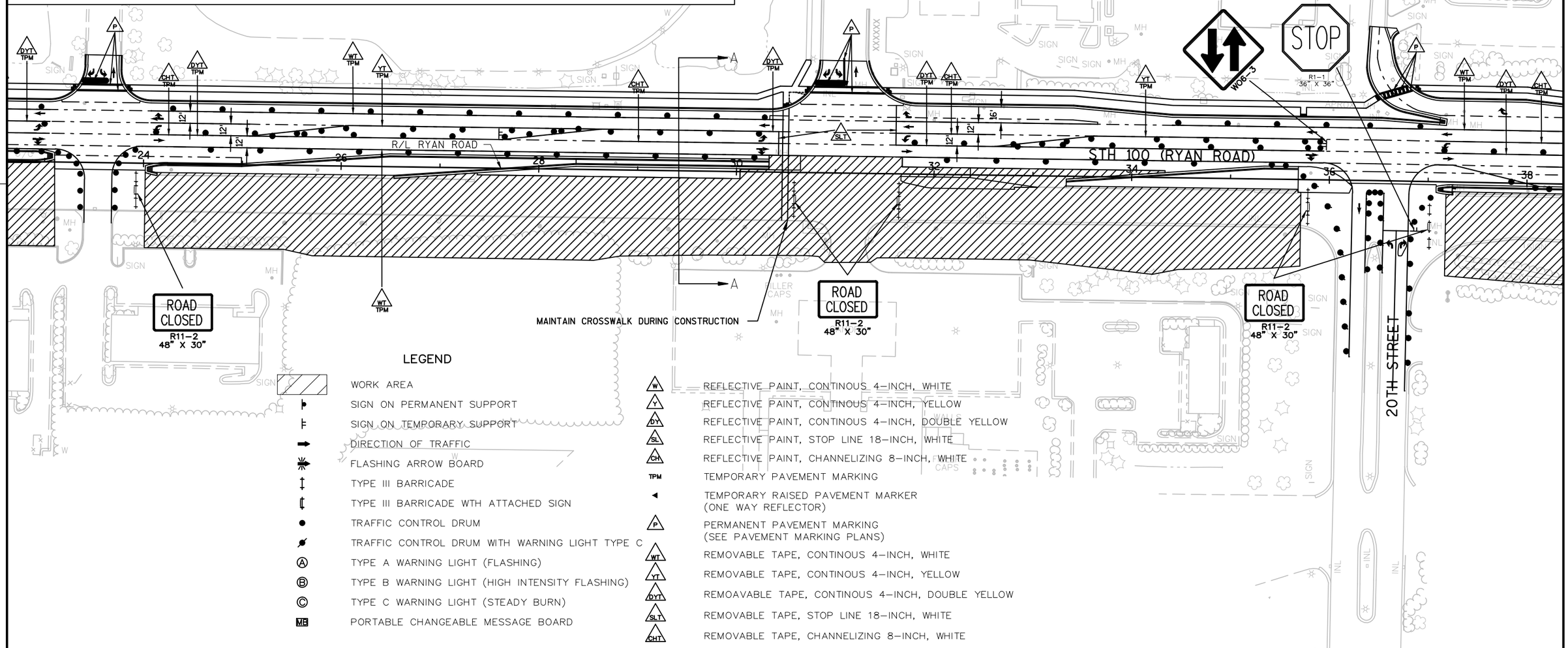
W06–3

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	TRAFFIC CONTROL: STAGE 2A	SHEET 284	E

FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\026004B_S2A.DWG PLOT DATE : 10/1/2013 3:34 PM PLOT BY : KKUECKER PLOT NAME : PLOT SCALE : 1:100_XREF



STAGE 2 – SECTION A–A
STH 100 (RYAN ROAD)



LEGEND

	WORK AREA
	SIGN ON PERMANENT SUPPORT
	SIGN ON TEMPORARY SUPPORT
	DIRECTION OF TRAFFIC
	FLASHING ARROW BOARD
	TYPE III BARRICADE
	TYPE III BARRICADE WTH ATTACHED SIGN
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH WARNING LIGHT TYPE C
Ⓐ	TYPE A WARNING LIGHT (FLASHING)
Ⓑ	TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
©	TYPE C WARNING LIGHT (STEADY BURN)
MB	PORTABLE CHANGEABLE MESSAGE BOARD

W	REFLECTIVE PAINT, CONTINOUS 4–INCH, WHITE
Y	REFLECTIVE PAINT, CONTINOUS 4–INCH, YELLOW
DY	REFLECTIVE PAINT, CONTINOUS 4–INCH, DOUBLE YELLOW
SL	REFLECTIVE PAINT, STOP LINE 18–INCH, WHITE
CH	REFLECTIVE PAINT, CHANNELIZING 8–INCH, WHITE
TPM	TEMPORARY PAVEMENT MARKING
	TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
P	PERMANENT PAVEMENT MARKING (SEE PAVEMENT MARKING PLANS)
WT	REMOVABLE TAPE, CONTINOUS 4–INCH, WHITE
YT	REMOVABLE TAPE, CONTINOUS 4–INCH, YELLOW
DYT	REMOAVABLE TAPE, CONTINOUS 4–INCH, DOUBLE YELLOW
SLT	REMOVABLE TAPE, STOP LINE 18–INCH, WHITE
CHT	REMOVABLE TAPE, CHANNELIZING 8–INCH, WHITE

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	TRAFFIC CONTROL: STAGE 2A	SHEET 285	E

NOTE: PLACE PORTABLE CHANGEABLE MESSAGE SIGN AT BEGINNING OF EXIT RAMP.

N

LEGEND

- WORK AREA
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- FLASHING ARROW BOARD
- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH WARNING LIGHT TYPE C
- (A) TYPE A WARNING LIGHT (FLASHING)
- (B) TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
- (C) TYPE C WARNING LIGHT (STEADY BURN)
- MB PORTABLE CHANGEABLE MESSAGE BOARD

- W REFLECTIVE PAINT, CONTINOUS 4–INCH, WHITE
- Y REFLECTIVE PAINT, CONTINOUS 4–INCH, YELLOW
- DY REFLECTIVE PAINT, CONTINOUS 4–INCH, DOUBLE YELLOW
- SL REFLECTIVE PAINT, STOP LINE 18–INCH, WHITE
- CH REFLECTIVE PAINT, CHANNELIZING 8–INCH, WHITE
- TPM TEMPORARY PAVEMENT MARKING
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- P PERMANENT PAVEMENT MARKING (SEE PAVEMENT MARKING PLANS)
- WT REMOVABLE TAPE, CONTINOUS 4–INCH, WHITE
- YT REMOVABLE TAPE, CONTINOUS 4–INCH, YELLOW
- DYT REMOAVABLE TAPE, CONTINOUS 4–INCH, DOUBLE YELLOW
- SLT REMOVABLE TAPE, STOP LINE 18–INCH, WHITE
- CHT REMOVABLE TAPE, CHANNELIZING 8–INCH, WHITE

W06-3

ROAD CLOSED
R11–2
48" X 30"

BEGIN LEFT TURN LANE
R3–20L
24" X 36"

BEGIN LEFT TURN LANE
R3–20L
24" X 36"

R/L RYAN ROAD

STH 100 (RYAN ROAD)

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	TRAFFIC CONTROL: STAGE 2A	SHEET 286 E

FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\026004B_S2A.DWG PLOT DATE : 10/1/2013 3:34 PM PLOT BY : KKUECKER PLOT NAME : PLOT SCALE : **********

BEGIN LEFT TURN LANE
R3-20L
24" X 36"

W06-3

R/L RYAN ROAD

STH 100 (RYAN ROAD)

C-TH V (13TH

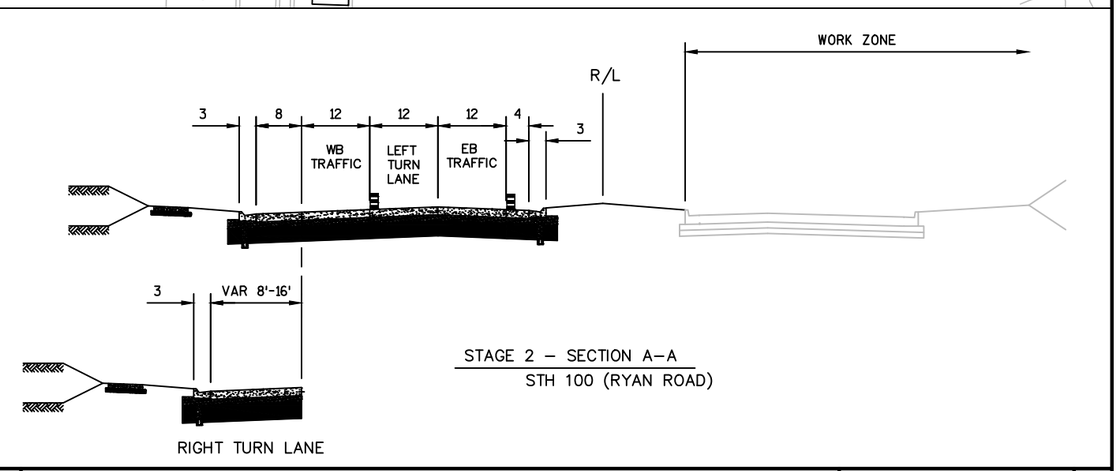
BEGIN LEFT TURN LANE
R3-20L
24" X 36"

ROAD CLOSED
R11-2
48" X 30"

ROAD CLOSED
R11-2
48" X 30"

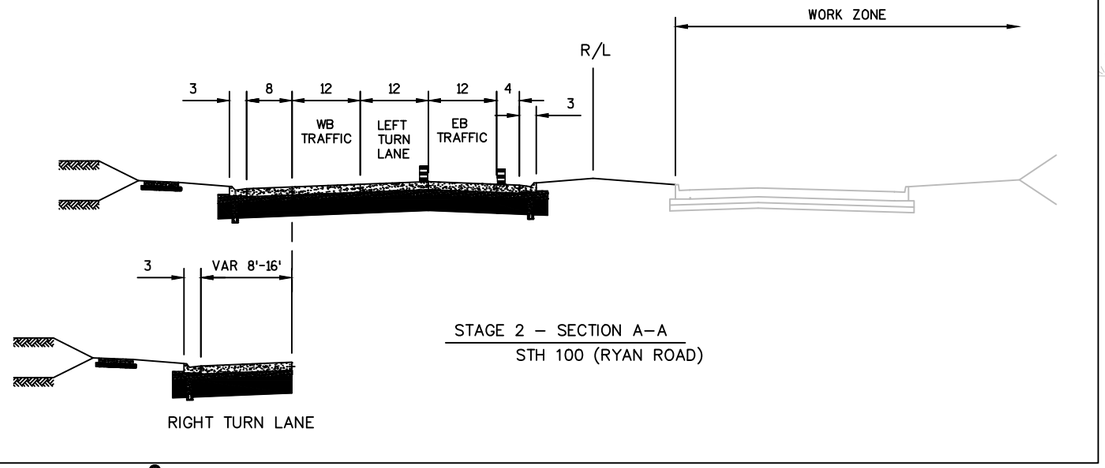
ROAD CLOSED
R11-2
48" X 30"

NOTE: PLACE PORTABLE CHANGEABLE MESSAGE SIGN AT BEGINNING OF EXIT RAMP.

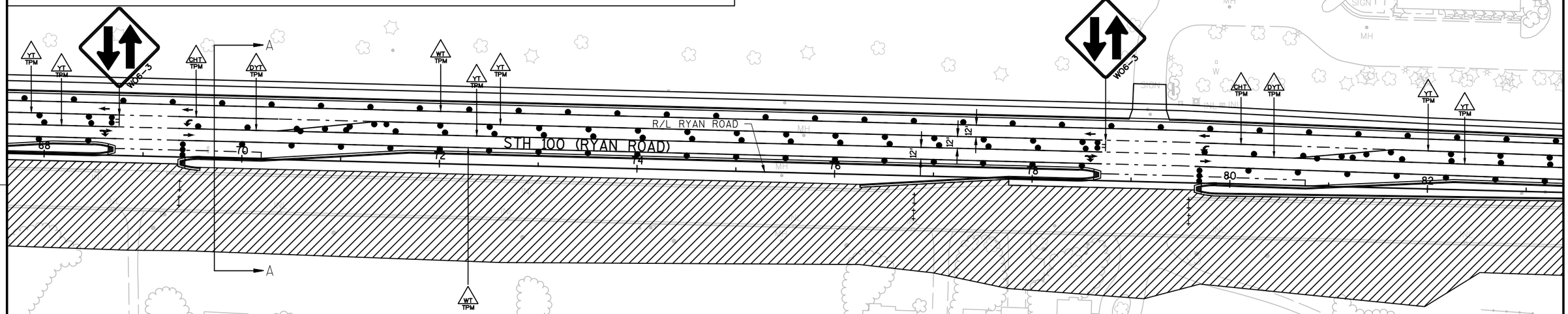


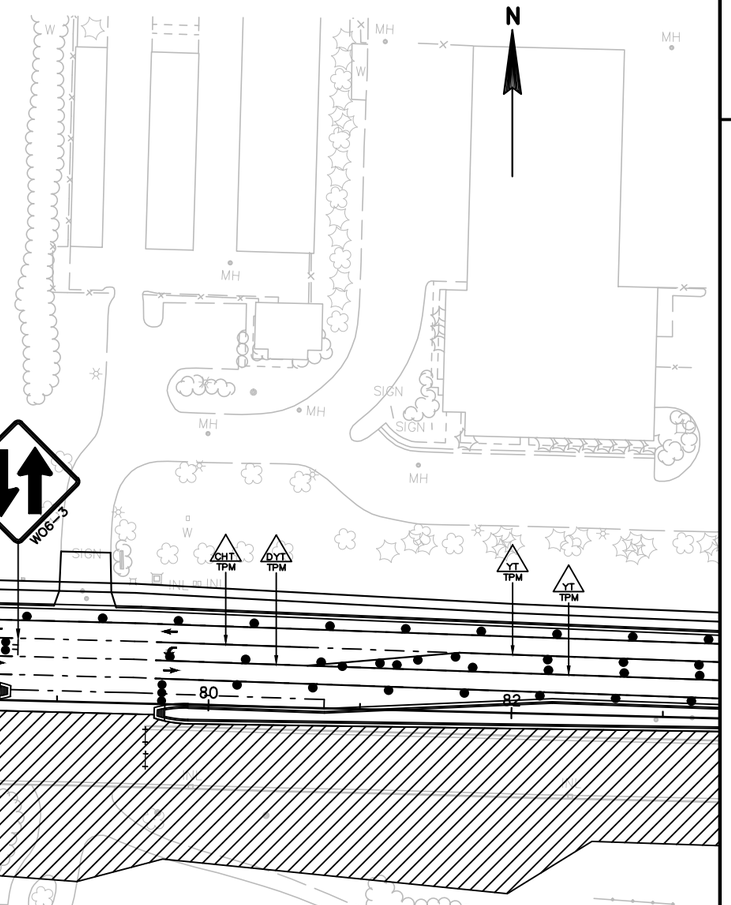
STAGE 2 – SECTION A–A
STH 100 (RYAN ROAD)

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	TRAFFIC CONTROL: STAGE 2A	SHEET 287	E



STAGE 2 – SECTION A–A
STH 100 (RYAN ROAD)





LEGEND

	WORK AREA	W	REFLECTIVE PAINT, CONTINOUS 4–INCH, WHITE
	SIGN ON PERMANENT SUPPORT	Y	REFLECTIVE PAINT, CONTINOUS 4–INCH, YELLOW
	SIGN ON TEMPORARY SUPPORT	DY	REFLECTIVE PAINT, CONTINOUS 4–INCH, DOUBLE YELLOW
	DIRECTION OF TRAFFIC	SL	REFLECTIVE PAINT, STOP LINE 18–INCH, WHITE
	FLASHING ARROW BOARD	CH	REFLECTIVE PAINT, CHANNELIZING 8–INCH, WHITE
	TYPE III BARRICADE	TPM	TEMPORARY PAVEMENT MARKING
	TYPE III BARRICADE WTH ATTACHED SIGN		TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
	TRAFFIC CONTROL DRUM	P	PERMANENT PAVEMENT MARKING (SEE PAVEMENT MARKING PLANS)
	TRAFFIC CONTROL DRUM WITH WARNING LIGHT TYPE C	WT	REMOVABLE TAPE, CONTINOUS 4–INCH, WHITE
A	TYPE A WARNING LIGHT (FLASHING)	YT	REMOVABLE TAPE, CONTINOUS 4–INCH, YELLOW
B	TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)	DYT	REMOAVABLE TAPE, CONTINOUS 4–INCH, DOUBLE YELLOW
C	TYPE C WARNING LIGHT (STEADY BURN)	SLT	REMOVABLE TAPE, STOP LINE 18–INCH, WHITE
MB	PORTABLE CHANGEABLE MESSAGE BOARD	CHT	REMOVABLE TAPE, CHANNELIZING 8–INCH, WHITE

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	TRAFFIC CONTROL: STAGE 2A	SHEET 288	E

LEGEND

WORK AREA	REFLECTIVE PAINT, CONTINOUS 4–INCH, WHITE
SIGN ON PERMANENT SUPPORT	REFLECTIVE PAINT, CONTINOUS 4–INCH, YELLOW
SIGN ON TEMPORARY SUPPORT	REFLECTIVE PAINT, CONTINOUS 4–INCH, DOUBLE YELLOW
DIRECTION OF TRAFFIC	REFLECTIVE PAINT, STOP LINE 18–INCH, WHITE
FLASHING ARROW BOARD	REFLECTIVE PAINT, CHANNELIZING 8–INCH, WHITE
TYPE III BARRICADE	TEMPORARY PAVEMENT MARKING
TYPE III BARRICADE WTH ATTACHED SIGN	TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
TRAFFIC CONTROL DRUM	PERMANENT PAVEMENT MARKING (SEE PAVEMENT MARKING PLANS)
TRAFFIC CONTROL DRUM WITH WARNING LIGHT TYPE C	REMOVABLE TAPE, CONTINOUS 4–INCH, WHITE
TYPE A WARNING LIGHT (FLASHING)	REMOVABLE TAPE, CONTINOUS 4–INCH, YELLOW
TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)	REMOAVABLE TAPE, CONTINOUS 4–INCH, DOUBLE YELLOW
TYPE C WARNING LIGHT (STEADY BURN)	REMOVABLE TAPE, STOP LINE 18–INCH, WHITE
PORTABLE CHANGEABLE MESSAGE BOARD	REMOVABLE TAPE, CHANNELIZING 8–INCH, WHITE

N

STH 100 (RYAN ROAD)

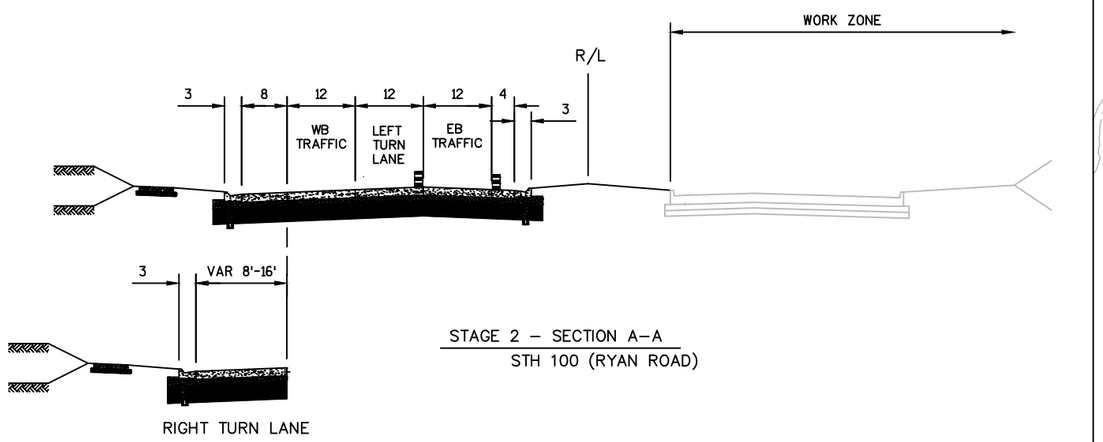
R/L RYAN ROAD

W06-3

STOP
R1-1
36" X 36"

ROAD CLOSED
R11-2
48" X 30"

S. EAGLES SUMMIT DRIVE



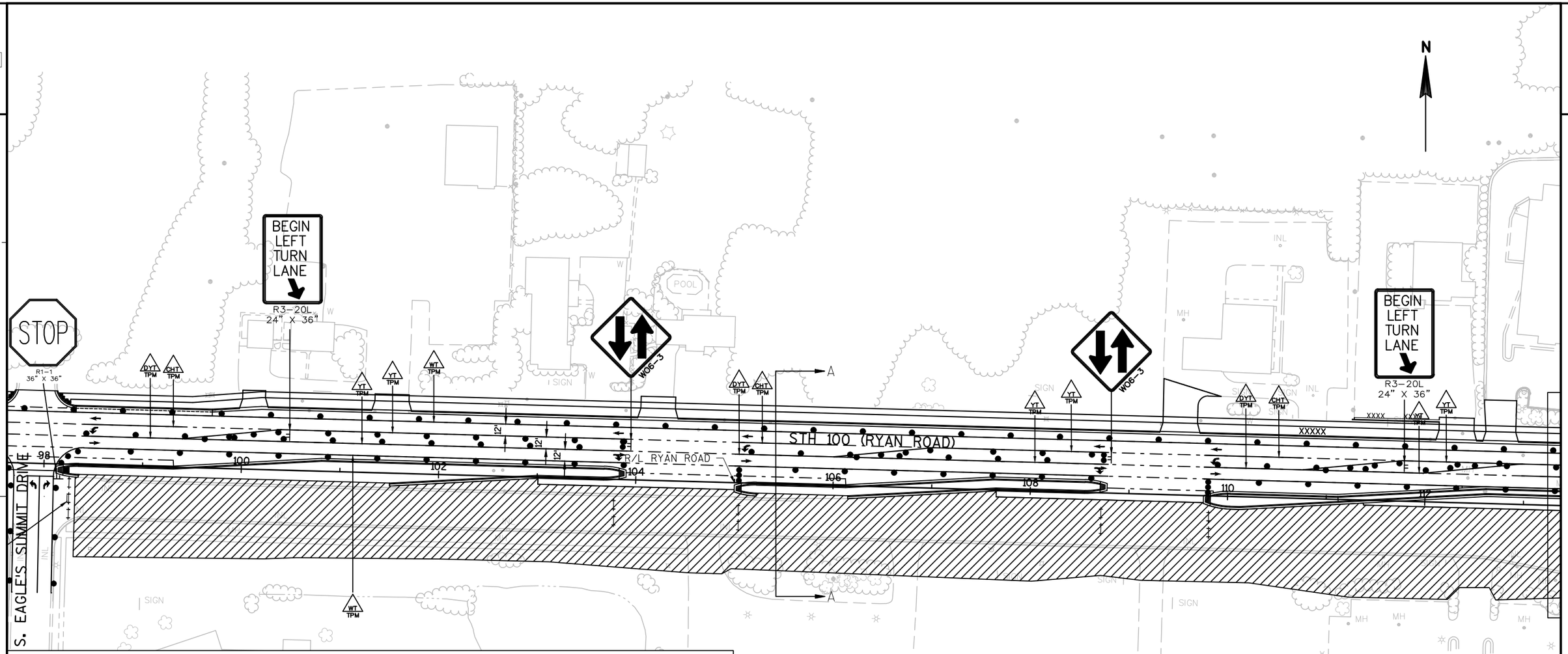
STAGE 2 – SECTION A–A
STH 100 (RYAN ROAD)

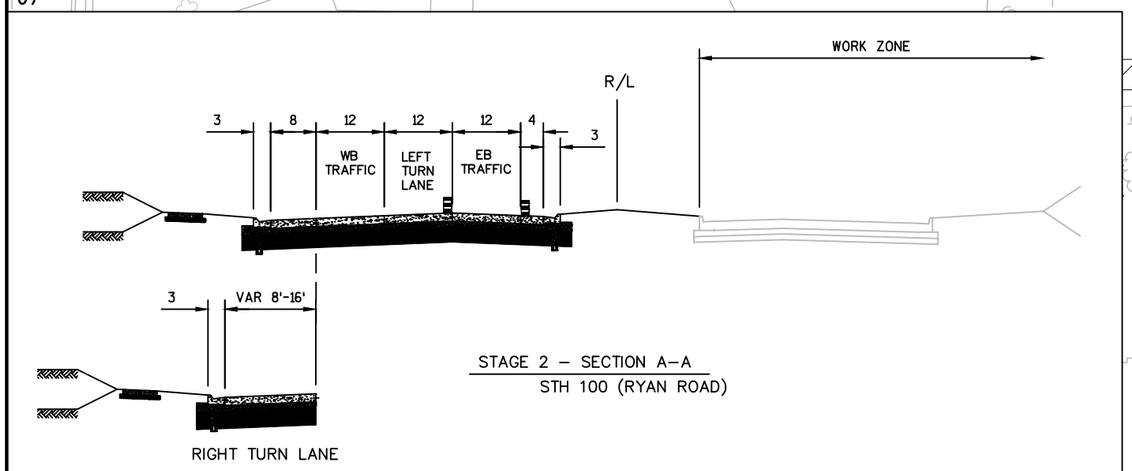
RIGHT TURN LANE

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	TRAFFIC CONTROL: STAGE 2A	SHEET E

FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\026004B_S2A.DWG PLOT DATE : 10/1/2013 3:34 PM PLOT BY : KKUECKER PLOT NAME : PLOT SCALE : 1:100_XREF

WISDOT/CADDS SHEET 42





STAGE 2 – SECTION A–A
STH 100 (RYAN ROAD)

LEGEND

	WORK AREA
	SIGN ON PERMANENT SUPPORT
	SIGN ON TEMPORARY SUPPORT
	DIRECTION OF TRAFFIC
	FLASHING ARROW BOARD
	TYPE III BARRICADE
	TYPE III BARRICADE WTH ATTACHED SIGN
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH WARNING LIGHT TYPE C
	TYPE A WARNING LIGHT (FLASHING)
	TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
W	TYPE C WARNING LIGHT (STEADY BURN)
	PORTABLE CHANGEABLE MESSAGE BOARD

W	REFLECTIVE PAINT, CONTINOUS 4–INCH, WHITE
Y	REFLECTIVE PAINT, CONTINOUS 4–INCH, YELLOW
DY	REFLECTIVE PAINT, CONTINOUS 4–INCH, DOUBLE YELLOW
SL	REFLECTIVE PAINT, STOP LINE 18–INCH, WHITE
CH	REFLECTIVE PAINT, CHANNELIZING 8–INCH, WHITE
TPM	TEMPORARY PAVEMENT MARKING
◄	TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
P	PERMANENT PAVEMENT MARKING (SEE PAVEMENT MARKING PLANS)
WT	REMOVABLE TAPE, CONTINOUS 4–INCH, WHITE
YT	REMOVABLE TAPE, CONTINOUS 4–INCH, YELLOW
DYT	REMOAVABLE TAPE, CONTINOUS 4–INCH, DOUBLE YELLOW
SLT	REMOVABLE TAPE, STOP LINE 18–INCH, WHITE
CHT	REMOVABLE TAPE, CHANNELIZING 8–INCH, WHITE

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	TRAFFIC CONTROL: STAGE 2A	SHEET 290	E

LEGEND

- WORK AREA
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- FLASHING ARROW BOARD
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH WARNING LIGHT TYPE C
- (A) TYPE A WARNING LIGHT (FLASHING)
- (B) TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
- (C) TYPE C WARNING LIGHT (STEADY BURN)
- MB PORTABLE CHANGEABLE MESSAGE BOARD

- W REFLECTIVE PAINT, CONTINOUS 4–INCH, WHITE
- Y REFLECTIVE PAINT, CONTINOUS 4–INCH, YELLOW
- DY REFLECTIVE PAINT, CONTINOUS 4–INCH, DOUBLE YELLOW
- SL REFLECTIVE PAINT, STOP LINE 18–INCH, WHITE
- CH REFLECTIVE PAINT, CHANNELIZING 8–INCH, WHITE
- TPM TEMPORARY PAVEMENT MARKING
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- P PERMANENT PAVEMENT MARKING (SEE PAVEMENT MARKING PLANS)
- WT REMOVABLE TAPE, CONTINOUS 4–INCH, WHITE
- YT REMOVABLE TAPE, CONTINOUS 4–INCH, YELLOW
- DYT REMOAVABLE TAPE, CONTINOUS 4–INCH, DOUBLE YELLOW
- SLT REMOVABLE TAPE, STOP LINE 18–INCH, WHITE
- CHT REMOVABLE TAPE, CHANNELIZING 8–INCH, WHITE

N

STH 38 (HOWELL AVENUE)

BEGIN RIGHT TURN LANE
R3–20RR
24" X 36"

BEGIN LEFT TURN LANE
R3–20L
24" X 36"

W06–3

R/L RYAN ROAD

STH 100 (RYAN ROAD)

W01–4R

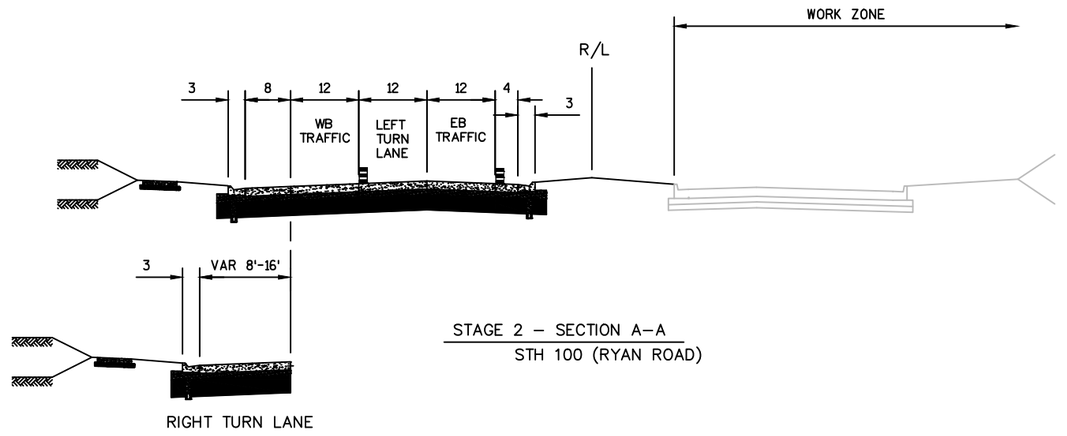
W04–3

ROAD CLOSED
R11–2
48" X 30"

ACCESS TO LOCAL BUSINESSES
R10–71R
72" X 36"

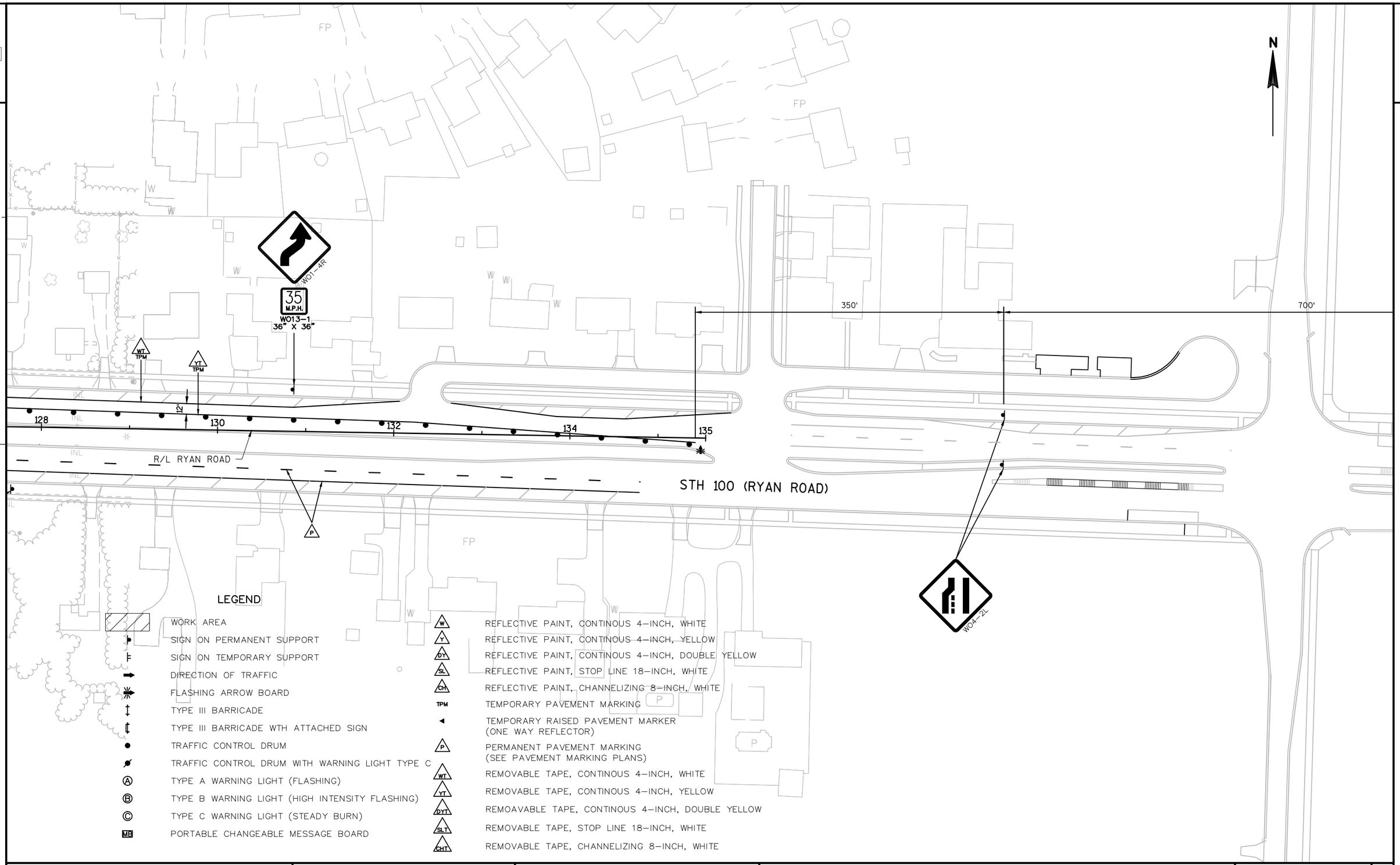
ROAD CLOSED
R11–2
48" X 30"

MAINTAIN CROSSWALK DURING CONSTRUCTION



STAGE 2 – SECTION A–A
STH 100 (RYAN ROAD)

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	TRAFFIC CONTROL: STAGE 2A	SHEET 291	E



LEGEND

	WORK AREA
	SIGN ON PERMANENT SUPPORT
	SIGN ON TEMPORARY SUPPORT
	DIRECTION OF TRAFFIC
	FLASHING ARROW BOARD
	TYPE III BARRICADE
	TYPE III BARRICADE WTH ATTACHED SIGN
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH WARNING LIGHT TYPE C
A	TYPE A WARNING LIGHT (FLASHING)
B	TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
C	TYPE C WARNING LIGHT (STEADY BURN)
MB	PORTABLE CHANGEABLE MESSAGE BOARD

W	REFLECTIVE PAINT, CONTINOUS 4–INCH, WHITE
Y	REFLECTIVE PAINT, CONTINOUS 4–INCH, YELLOW
DY	REFLECTIVE PAINT, CONTINOUS 4–INCH, DOUBLE YELLOW
SL	REFLECTIVE PAINT, STOP LINE 18–INCH, WHITE
CH	REFLECTIVE PAINT, CHANNELIZING 8–INCH, WHITE
TPM	TEMPORARY PAVEMENT MARKING
	TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
P	PERMANENT PAVEMENT MARKING (SEE PAVEMENT MARKING PLANS)
WT	REMOVABLE TAPE, CONTINOUS 4–INCH, WHITE
YT	REMOVABLE TAPE, CONTINOUS 4–INCH, YELLOW
DYT	REMOAVABLE TAPE, CONTINOUS 4–INCH, DOUBLE YELLOW
SLT	REMOVABLE TAPE, STOP LINE 18–INCH, WHITE
CHT	REMOVABLE TAPE, CHANNELIZING 8–INCH, WHITE

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	TRAFFIC CONTROL: STAGE 2A	SHEET 292	E

LEGEND

	WORK AREA
	SIGN ON PERMANENT SUPPORT
	SIGN ON TEMPORARY SUPPORT
	DIRECTION OF TRAFFIC
	FLASHING ARROW BOARD
	TYPE III BARRICADE
	TYPE III BARRICADE WTH ATTACHED SIGN
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH WARNING LIGHT TYPE C
A	TYPE A WARNING LIGHT (FLASHING)
B	TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
C	TYPE C WARNING LIGHT (STEADY BURN)
MB	PORTABLE CHANGEABLE MESSAGE BOARD

W	REFLECTIVE PAINT, CONTINOUS 4–INCH, WHITE
Y	REFLECTIVE PAINT, CONTINOUS 4–INCH, YELLOW
DY	REFLECTIVE PAINT, CONTINOUS 4–INCH, DOUBLE YELLOW
SL	REFLECTIVE PAINT, STOP LINE 18–INCH, WHITE
CH	REFLECTIVE PAINT, CHANNELIZING 8–INCH, WHITE
TPM	TEMPORARY PAVEMENT MARKING
	TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
P	PERMANENT PAVEMENT MARKING (SEE PAVEMENT MARKING PLANS)
WT	REMOVABLE TAPE, CONTINOUS 4–INCH, WHITE
YT	REMOVABLE TAPE, CONTINOUS 4–INCH, YELLOW
DYT	REMOAVABLE TAPE, CONTINOUS 4–INCH, DOUBLE YELLOW
SLT	REMOVABLE TAPE, STOP LINE 18–INCH, WHITE
CHT	REMOVABLE TAPE, CHANNELIZING 8–INCH, WHITE

N

700'

STH 100 (RYAN ROAD)

LEFT LANE CLOSED AHEAD
W20-5

ROAD WORK AHEAD
W20-1

PORTABLE CHANGEABLE MESSAGE SIGN

MB

FIXED MESSAGE SIGN
(SEE CONSTRUCTION SIGN DETAIL)

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	TRAFFIC CONTROL: STAGE 2A	SHEET 293	E

2

STH 241 (27TH STREET)

S 22ND STREET

S 20TH STREET

STH 100 (RYAN ROAD)

I 94/USH 41

CTH V (S 13TH STREET)

E PARKWAY ESTATES DRIVE

CMSTP&R RR

STH 38 (HOWELL AVENUE)

S SHEPARD AVENUE

N

TRAFFIC

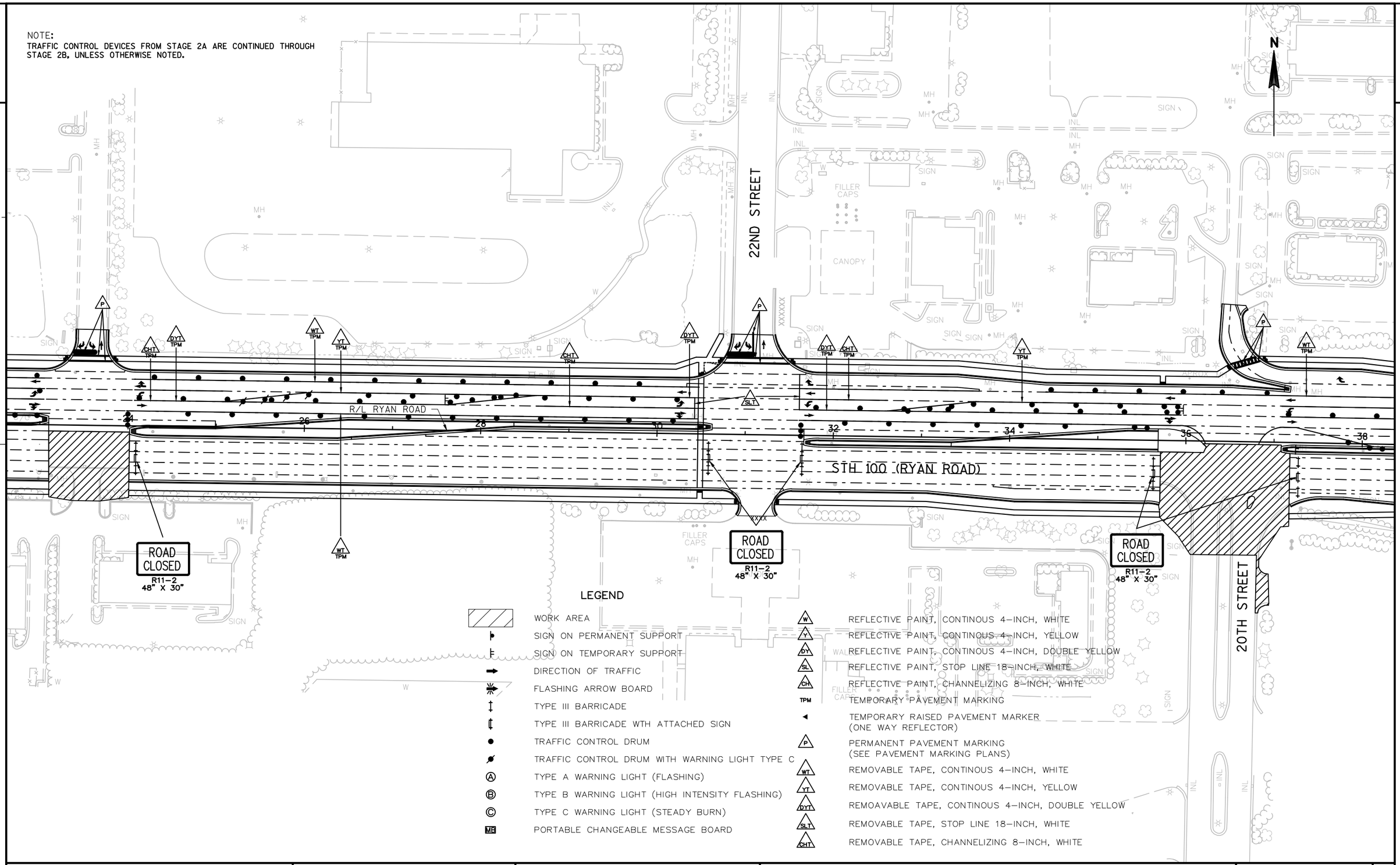
- KEEP TRAFFIC ON THE NORTH SIDE OF RYAN ROAD WITH ONE LANE EACH WAY PLUS A CENTER LANE FOR LEFT TURNS.
- INTERSECTIONS UNDER CONSTRUCTION WILL KEEP TRAFFIC OPEN WITH FLAGGING OPERATIONS AS NECESSARY

CONSTRUCTION

- CONSTRUCT THE ULTIMATE CONDITION ON THE SOUTH SIDE OF RYAN ROAD FROM STA 23+11 TO STA 24+02, STA 35+71 TO STA 37+18, STA 62+46 TO STA 63+56, AND STA 97+49 TO STA 98+32.

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	TRAFFIC CONTROL: STAGE 2B OVERVIEW	SHEET 294	E

NOTE:
TRAFFIC CONTROL DEVICES FROM STAGE 2A ARE CONTINUED THROUGH STAGE 2B, UNLESS OTHERWISE NOTED.



LEGEND

	WORK AREA
	SIGN ON PERMANENT SUPPORT
	SIGN ON TEMPORARY SUPPORT
	DIRECTION OF TRAFFIC
	FLASHING ARROW BOARD
	TYPE III BARRICADE
	TYPE III BARRICADE WTH ATTACHED SIGN
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH WARNING LIGHT TYPE C
A	TYPE A WARNING LIGHT (FLASHING)
B	TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
C	TYPE C WARNING LIGHT (STEADY BURN)
MB	PORTABLE CHANGEABLE MESSAGE BOARD

W	REFLECTIVE PAINT, CONTINOUS 4-INCH, WHITE
Y	REFLECTIVE PAINT, CONTINOUS 4-INCH, YELLOW
DY	REFLECTIVE PAINT, CONTINOUS 4-INCH, DOUBLE YELLOW
SL	REFLECTIVE PAINT, STOP LINE 18-INCH, WHITE
CH	REFLECTIVE PAINT, CHANNELIZING 8-INCH, WHITE
TPM	TEMPORARY PAVEMENT MARKING
	TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
P	PERMANENT PAVEMENT MARKING (SEE PAVEMENT MARKING PLANS)
WT	REMOVABLE TAPE, CONTINOUS 4-INCH, WHITE
YT	REMOVABLE TAPE, CONTINOUS 4-INCH, YELLOW
DYT	REMOAVABLE TAPE, CONTINOUS 4-INCH, DOUBLE YELLOW
SLT	REMOVABLE TAPE, STOP LINE 18-INCH, WHITE
CHT	REMOVABLE TAPE, CHANNELIZING 8-INCH, WHITE

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	TRAFFIC CONTROL: STAGE 2B	SHEET 295 E

TRAFFIC CONTROL DEVICES FROM STAGE 2A ARE CONTINUED THROUGH STAGE 2B, UNLESS OTHERWISE NOTED.

N

STH 100 (RYAN ROAD)

CTH V (13TH STREET)

RYE RYAN ROAD

BEGIN LEFT TURN LANE
R3-20L
24" X 36"

W06-3

ROAD CLOSED
R11-2
48" X 30"

ROAD CLOSED
R11-2
48" X 30"

ROAD CLOSED
R11-2
48" X 30"

LEGEND

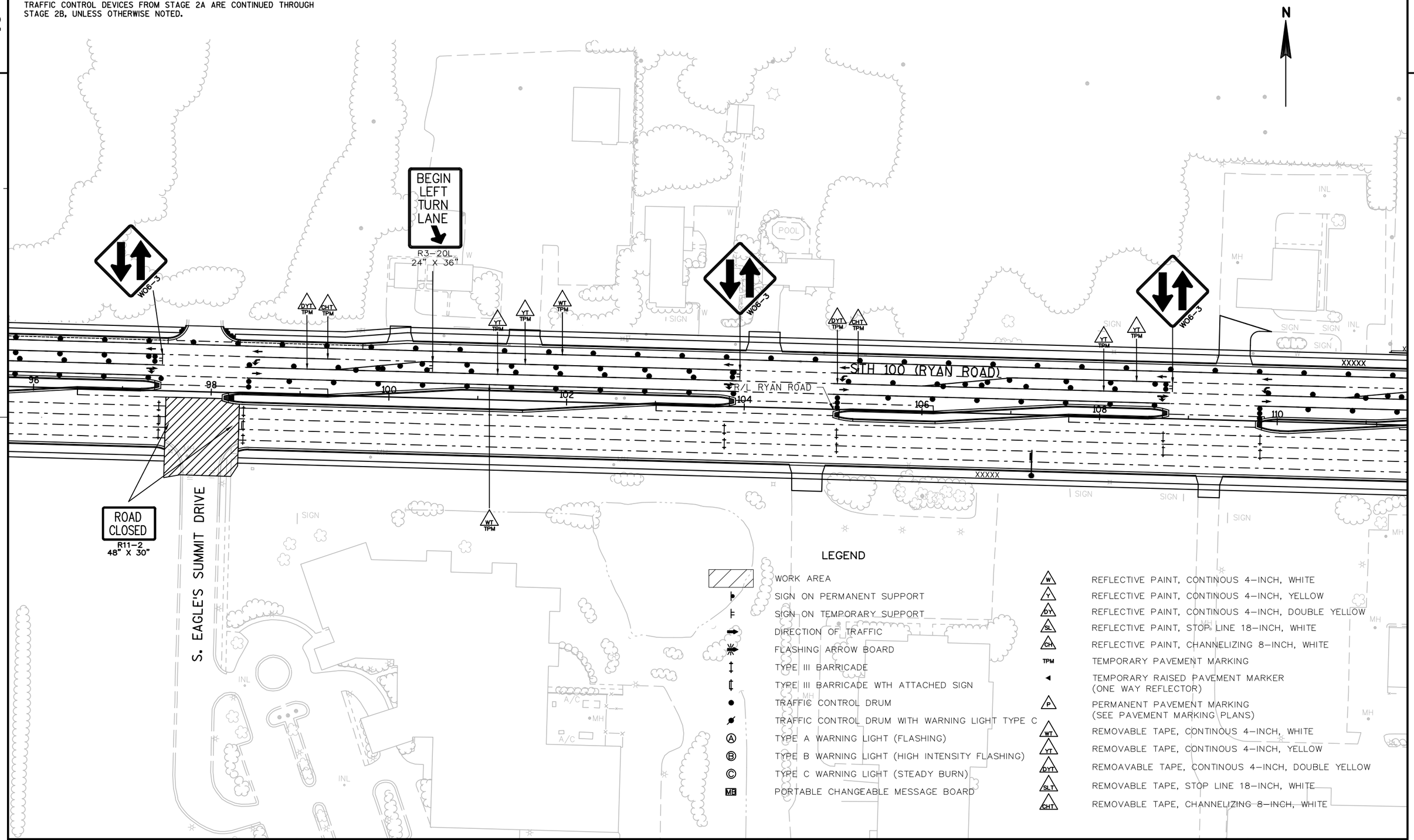
- WORK AREA
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- FLASHING ARROW BOARD
- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH WARNING LIGHT TYPE C
- (A) TYPE A WARNING LIGHT (FLASHING)
- (B) TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
- (C) TYPE C WARNING LIGHT (STEADY BURN)
- MB PORTABLE CHANGEABLE MESSAGE BOARD

NOTE:

- W REFLECTIVE PAINT, CONTINOUS 4-INCH, WHITE
- Y REFLECTIVE PAINT, CONTINOUS 4-INCH, YELLOW
- DY REFLECTIVE PAINT, CONTINOUS 4-INCH, DOUBLE YELLOW
- SL REFLECTIVE PAINT, STOP LINE 18-INCH, WHITE
- CH REFLECTIVE PAINT, CHANNELIZING 8-INCH, WHITE
- TPM TEMPORARY PAVEMENT MARKING
- ◀ TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- P PERMANENT PAVEMENT MARKING (SEE PAVEMENT MARKING PLANS)
- WT REMOVABLE TAPE, CONTINOUS 4-INCH, WHITE
- YT REMOVABLE TAPE, CONTINOUS 4-INCH, YELLOW
- DYT REMOAVABLE TAPE, CONTINOUS 4-INCH, DOUBLE YELLOW
- SLT REMOVABLE TAPE, STOP LINE 18-INCH, WHITE
- CHT REMOVABLE TAPE, CHANNELIZING 8-INCH, WHITE

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	TRAFFIC CONTROL: STAGE 2B	SHEET 296	E

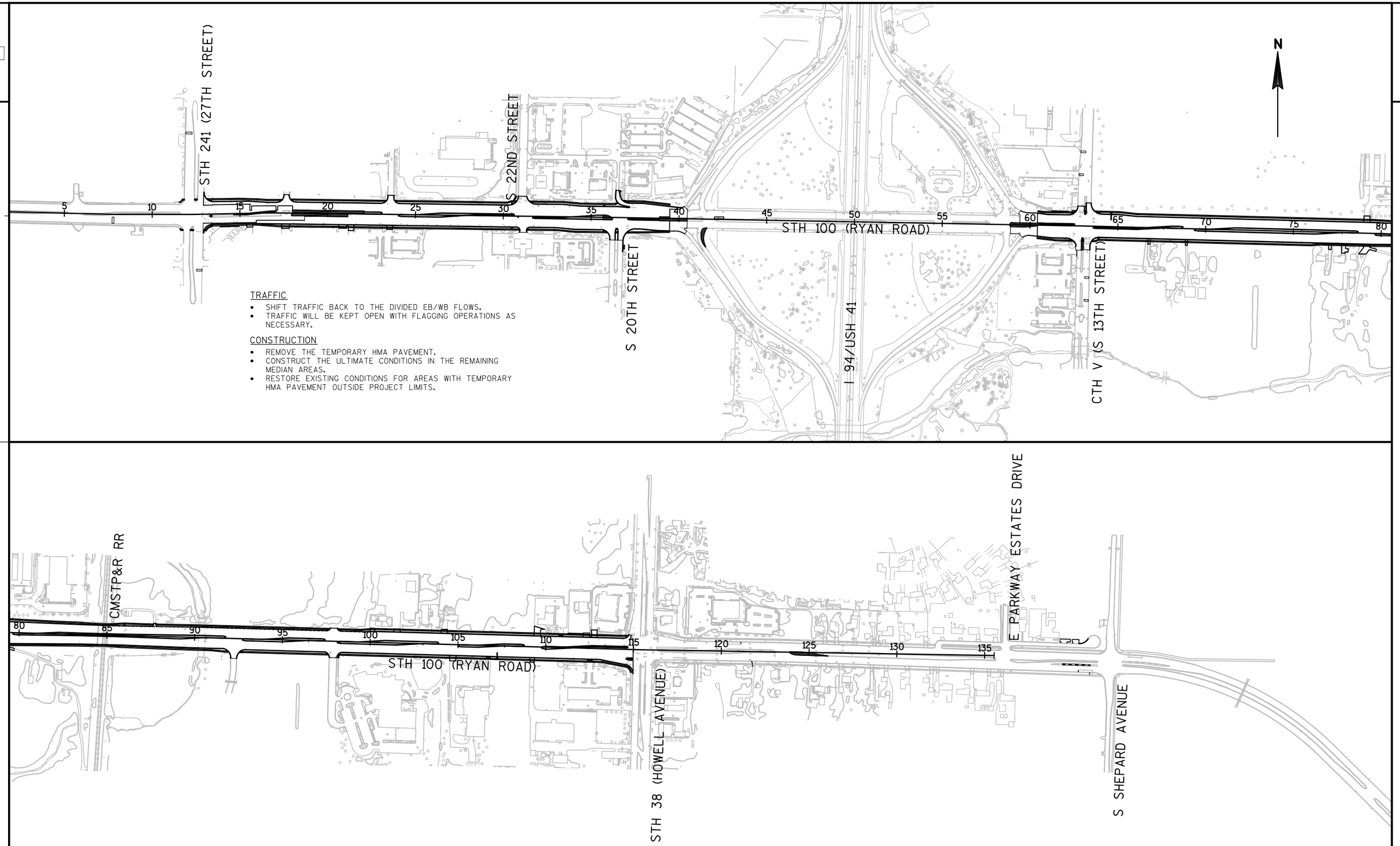
NOTE:
TRAFFIC CONTROL DEVICES FROM STAGE 2A ARE CONTINUED THROUGH STAGE 2B, UNLESS OTHERWISE NOTED.



LEGEND

WORK AREA	W — REFLECTIVE PAINT, CONTINOUS 4-INCH, WHITE
SIGN ON PERMANENT SUPPORT	Y — REFLECTIVE PAINT, CONTINOUS 4-INCH, YELLOW
SIGN ON TEMPORARY SUPPORT	DY — REFLECTIVE PAINT, CONTINOUS 4-INCH, DOUBLE YELLOW
DIRECTION OF TRAFFIC	SL — REFLECTIVE PAINT, STOP LINE 18-INCH, WHITE
FLASHING ARROW BOARD	CH — REFLECTIVE PAINT, CHANNELIZING 8-INCH, WHITE
TYPE III BARRICADE	TPM — TEMPORARY PAVEMENT MARKING
TYPE III BARRICADE WTH ATTACHED SIGN	TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
TRAFFIC CONTROL DRUM	P — PERMANENT PAVEMENT MARKING (SEE PAVEMENT MARKING PLANS)
TRAFFIC CONTROL DRUM WITH WARNING LIGHT TYPE C	WT — REMOVABLE TAPE, CONTINOUS 4-INCH, WHITE
TYPE A WARNING LIGHT (FLASHING)	YT — REMOVABLE TAPE, CONTINOUS 4-INCH, YELLOW
TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)	DYT — REMOAVABLE TAPE, CONTINOUS 4-INCH, DOUBLE YELLOW
TYPE C WARNING LIGHT (STEADY BURN)	SLT — REMOVABLE TAPE, STOP LINE 18-INCH, WHITE
MB — PORTABLE CHANGEABLE MESSAGE BOARD	CHT — REMOVABLE TAPE, CHANNELIZING 8-INCH, WHITE

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	TRAFFIC CONTROL: STAGE 2B	SHEET 297 E



TRAFFIC

- SHIFT TRAFFIC BACK TO THE DIVIDED EB/WB FLOWS.
- TRAFFIC WILL BE KEPT OPEN WITH FLAGGING OPERATIONS AS NECESSARY.

CONSTRUCTION

- REMOVE THE TEMPORARY HMA PAVEMENT.
- CONSTRUCT THE ULTIMATE CONDITIONS IN THE REMAINING MEDIAN AREAS.
- RESTORE EXISTING CONDITIONS FOR AREAS WITH TEMPORARY HMA PAVEMENT OUTSIDE PROJECT LIMITS.

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	TRAFFIC CONTROL: STAGE 2C OVERVIEW	SHEET 298	E

2

N

INSTALL PERMANENT PAVEMENT AND PERMANENT MEDIAN.
KEEP TRAFFIC MOVEMENTS OPEN USING FLAGGING
OPERATIONS AS NECESSARY.
SEE SDD "TRAFFIC CONTROL, SINGLE LANE CLOSURE,
NON-FREEWAY/EXPRESSWAY"

8 10 12 14 16 18 20 22

SIGN

W

NOTE: SEE PAVEMENT MARKING PLAN FOR FINAL MARKING TREATMENT

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2C	SHEET 299	E

2

INSTALL PERMANENT PAVEMENT AND PERMANENT MEDIAN.
KEEP TRAFFIC MOVEMENTS OPEN USING FLAGGING
OPERATIONS AS NECESSARY.
SEE SDD "TRAFFIC CONTROL, SINGLE LANE CLOSURE,
NON-FREEWAY/EXPRESSWAY"

NOTE: SEE PAVEMENT MARKING PLAN FOR FINAL MARKING TREATMENT

REMOVE TEMPORARY HMA. RESTORE CURB TO EXISTING LOCATION.
RESTORE SHOULDER GRADING AND FINISH WITH SOD.
KEEP TRAFFIC MOVEMENTS OPEN USING FLAGGING
OPERATIONS AS NECESSARY.
SEE SDD "TRAFFIC CONTROL, SINGLE LANE CLOSURE,
NON-FREEWAY/EXPRESSWAY"

N

RIPRAP

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2C	SHEET 300	E

FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\026006B_S2C.DWG PLOT DATE : 9/30/2013 7:19 PM PLOT BY : KKUECKER PLOT NAME : PLOT SCALE : 1:100_XREF

2

2

INSTALL PERMANENT MEDIAN.
KEEP TRAFFIC MOVEMENTS OPEN USING FLAGGING OPERATIONS AS NECESSARY.
SEE SDD "TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY"

NOTE: SEE PAVEMENT MARKING PLAN FOR FINAL MARKING TREATMENT

N

54 56 58 60 62 66 68

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2C	SHEET	E

FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\026006B_S2C.DWG PLOT DATE : 9/30/2013 7:19 PM PLOT BY : KKUECKER PLOT NAME : PLOT SCALE : 1:100_XREF

WISDOT/CADDS SHEET 42

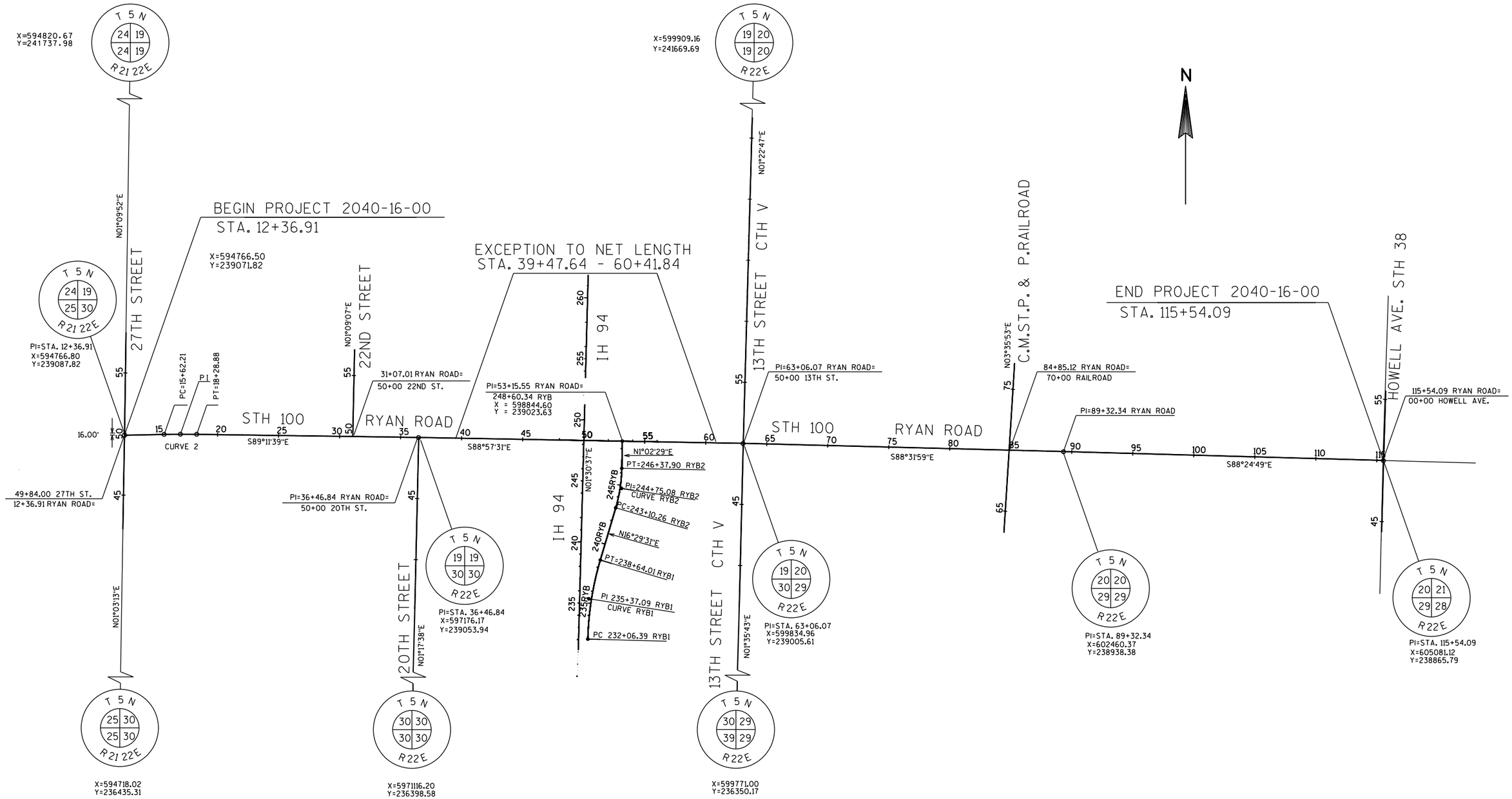
2

N

REMOVE HMA. RESTORE MEDIAN TO ORIGINAL CONDITION
KEEP TRAFFIC MOVEMENTS OPEN USING FLAGGING
OPERATIONS AS NECESSARY.
SEE SDD "TRAFFIC CONTROL, SINGLE LANE CLOSURE,
NON-FREEWAY/EXPRESSWAY"

NOTE: SEE PAVEMENT MARKING PLAN FOR FINAL MARKING TREATMENT

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2C	SHEET 302	E



CURVE DATA

CURVE NO.	PI	PI COORDS	Δ	D	T	L	E	R	PC	PT
CURVE 2	16+95.56	X=595225.05 Y=239081.38	2°00'00"	0°45'00"	133.35'	266.67'	1.16'	7639.44'	15+62.21	18+28.88
CURVE RYB1	235+37.09	X=598570.21 Y=237733.42	14°58'54"	2°16'41"	330.69'	657.62'	21.65'	2515.00'	232+06.39	238+64.01
CURVE RYB2	244+75.08	X=598837.56 Y=238636.44	15°27'02"	4°42'57"	164.82'	327.64	11.13	1215.00'	243+10.26	246+37.90

GENERAL NOTE:

CONTRACTOR MUST CONTACT THE PROJECT ENGINEER AND SEWRPC, AT LEAST TWO WEEKS PRIOR TO WORK NEAR ANY PUBLIC SURVEY MONUMENT.

CONTACT INFORMATION FOR SECTION CORNERS IMPACTED BY CONSTRUCTION:

DON SIMON AND JOHN WASHBURN
SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION
W239 N1812 ROCKWOOD DRIVE
P.O. BOX 1607
WAUKESHA, WI 53187-1607
(262)547-6721 FAX(262)547-1103
E-MAIL: SEWRPC@SEWRPC.ORG

PROJECT NO: 2040-16-00	HWY: STH 100 RYAN RD.	COUNTY: MILWAUKEE	ALIGNMENT LAYOUT	SHEET 303	E

DATE 10DEC13 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	2040-16-70 QUANTITY
0010	201.0105	CLEARING	STA	2.000	2.000
0020	201.0110	CLEARING	SY	4,736.000	4,736.000
0030	201.0120	CLEARING	ID	206.000	206.000
0040	201.0205	GRUBBING	STA	2.000	2.000
0050	201.0210	GRUBBING	SY	4,736.000	4,736.000
0060	201.0220	GRUBBING	ID	206.000	206.000
0070	204.0100	REMOVING PAVEMENT **P**	SY	87,730.000	87,730.000
0080	204.0110	REMOVING ASPHALTIC SURFACE **P**	SY	536.000	536.000
0090	204.0155	REMOVING CONCRETE SIDEWALK **P**	SY	967.000	967.000
0100	204.0170	REMOVING FENCE **P**	LF	1,288.000	1,288.000
0110	204.0195	REMOVING CONCRETE BASES	EACH	90.000	90.000
0120	204.0210	REMOVING MANHOLES	EACH	25.000	25.000
0130	204.0220	REMOVING INLETS	EACH	87.000	87.000
0140	204.0245	REMOVING STORM SEWER (SIZE) 0001. 12-INCH **P**	LF	4,087.000	4,087.000
0150	204.0245	REMOVING STORM SEWER (SIZE) 0002. 15-INCH **P**	LF	848.000	848.000
0160	204.0245	REMOVING STORM SEWER (SIZE) 0003. 18-INCH **P**	LF	832.000	832.000
0170	204.0245	REMOVING STORM SEWER (SIZE) 0004. 21-INCH **P**	LF	320.000	320.000
0180	204.0245	REMOVING STORM SEWER (SIZE) 0005. 24-INCH **P**	LF	658.000	658.000
0190	204.0245	REMOVING STORM SEWER (SIZE) 0006. 30-INCH **P**	LF	960.000	960.000
0200	204.0245	REMOVING STORM SEWER (SIZE) 0007. 36-INCH **P**	LF	1,820.000	1,820.000
0210	204.0245	REMOVING STORM SEWER (SIZE) 0008. 42-INCH **P**	LF	351.000	351.000
0220	204.0245	REMOVING STORM SEWER (SIZE) 0009. 48-INCH **P**	LF	268.000	268.000
0230	204.0245	REMOVING STORM SEWER (SIZE) 0010. 72-INCH **P**	LF	227.000	227.000
0240	204.9090.S	REMOVING (ITEM DESCRIPTION) 0001. PIPE UNDERDRAIN **P**	LF	1,419.000	1,419.000
0250	205.0100	EXCAVATION COMMON **P**	CY	117,374.000	117,374.000
0260	205.0501.S	EXCAVATION, HAULING, AND DISPOSAL OF PETROLEUM CONTAMINATED SOIL	TON	550.000	550.000
0270	208.0100	BORROW **P**	CY	8,163.000	8,163.000
0280	213.0100	FINISHING ROADWAY (PROJECT) 0001. 2040-16-70	EACH	1.000	1.000
0290	305.0110	BASE AGGREGATE DENSE 3/4-INCH	TON	2,809.000	2,809.000
0300	305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	43,976.000	43,976.000
0310	310.0110	BASE AGGREGATE OPEN GRADED	TON	705.000	705.000
0320	312.0115	SELECT CRUSHED MATERIAL	CY	53,155.000	53,155.000
0330	415.0085	CONCRETE PAVEMENT 8 1/2-INCH **P**	SY	87,458.000	87,458.000
0340	415.0090	CONCRETE PAVEMENT 9-INCH **P**	SY	2,100.000	2,100.000
0350	415.1085	CONCRETE PAVEMENT HES 8 1/2-INCH	SY	7,809.000	7,809.000
0360	416.0170	CONCRETE DRIVEWAY 7-INCH **P**	SY	1,594.000	1,594.000
0370	416.0610	DRILLED TIE BARS	EACH	575.000	575.000
0380	416.0620	DRILLED DOWEL BARS	EACH	465.000	465.000
0390	416.1715	CONCRETE PAVEMENT REPAIR SHES	SY	390.000	390.000
0400	440.4410.S	INCENTIVE IRI RIDE	DOL	17,800.000	17,800.000
0410	455.0115	ASPHALTIC MATERIAL PG64-22	TON	60.000	60.000
0420	455.0605	TACK COAT	GAL	105.000	105.000
0430	460.1103	HMA PAVEMENT TYPE E-3	TON	998.000	998.000

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DATE 10DEC13 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	2040-16-70 QUANTITY
0440	460.2000	INCENTIVE DENSITY HMA PAVEMENT	DOL	630.000	630.000
0450	465.0120	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES	TON	159.000	159.000
0460	465.0125	ASPHALTIC SURFACE TEMPORARY	TON	619.000	619.000
0470	465.0310	ASPHALTIC CURB	LF	745.000	745.000
0480	522.1012	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 12-INCH	EACH	2.000	2.000
0490	522.1048	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 48-INCH	EACH	2.000	2.000
0500	522.1072	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 72-INCH	EACH	2.000	2.000
0510	523.0519	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 19X30-INCH	EACH	2.000	2.000
0520	532.0200.S	WALL MODULAR BLOCK GRAVITY	SF	257.000	257.000
0530	601.0331	CONCRETE CURB & GUTTER 31-INCH **P**	LF	533.000	533.000
0540	601.0411	CONCRETE CURB & GUTTER 30-INCH TYPE D **P**	LF	328.000	328.000
0550	601.0501	CONCRETE CURB AND GUTTER INTEGRAL 4-INCH SLOPED 36-INCH **P**	LF	1,356.000	1,356.000
0560	601.0551	CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE A **P**	LF	28,133.000	28,133.000
0570	601.0600	CONCRETE CURB PEDESTRIAN **P**	LF	193.000	193.000
0580	602.0410	CONCRETE SIDEWALK 5-INCH **P**	SF	97,520.000	97,520.000
0590	602.0505	CURB RAMP DETECTABLE WARNING FIELD YELLOW **P**	SF	480.000	480.000
0600	603.1242	CONCRETE BARRIER TYPE S42A **P**	LF	260.000	260.000
0610	603.1442	CONCRETE BARRIER TYPE S42C **P**	LF	173.000	173.000
0620	606.0100	RIPRAP LIGHT	CY	125.000	125.000
0630	606.0200	RIPRAP MEDIUM	CY	306.000	306.000
0640	608.0315	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 15-INCH	LF	41.000	41.000
0650	608.0324	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 24-INCH	LF	905.000	905.000
0660	608.0330	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 30-INCH	LF	1,336.000	1,336.000
0670	608.0336	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 36-INCH	LF	393.000	393.000
0680	608.0348	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 48-INCH	LF	623.000	623.000
0690	608.0412	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 12-INCH	LF	4,920.000	4,920.000
0700	608.0418	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 18-INCH	LF	2,970.000	2,970.000
0710	608.0421	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 21-INCH	LF	85.000	85.000
0720	608.0448	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 48-INCH	LF	152.000	152.000
0730	608.0472	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 72-INCH	LF	447.000	447.000
0740	610.0119	STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III 19X30-INCH	LF	327.000	327.000
0750	611.0530	MANHOLE COVERS TYPE J	EACH	32.000	32.000
0760	611.0535	MANHOLE COVERS TYPE J-SPECIAL	EACH	3.000	3.000
0770	611.0550	MANHOLE COVERS TYPE M	EACH	5.000	5.000
0780	611.0624	INLET COVERS TYPE H	EACH	1.000	1.000

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DATE 10DEC13 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	2040-16-70 QUANTITY
0790	611.0627	INLET COVERS TYPE HM	EACH	118.000	118.000
0800	611.0642	INLET COVERS TYPE MS	EACH	3.000	3.000
0810	611.0654	INLET COVERS TYPE V	EACH	6.000	6.000
0820	611.2004	MANHOLES 4-FT DIAMETER	EACH	10.000	10.000
0830	611.2006	MANHOLES 6-FT DIAMETER	EACH	19.000	19.000
0840	611.2007	MANHOLES 7-FT DIAMETER	EACH	2.000	2.000
0850	611.3003	INLETS 3-FT DIAMETER	EACH	15.000	15.000
0860	611.3230	INLETS 2X3-FT	EACH	108.000	108.000
0870	611.3901	INLETS MEDIAN 1 GRATE	EACH	3.000	3.000
0880	611.8105	ADJUSTING CATCH BASIN COVERS	EACH	4.000	4.000
0890	611.8110	ADJUSTING MANHOLE COVERS	EACH	8.000	8.000
0900	611.8115	ADJUSTING INLET COVERS	EACH	8.000	8.000
0910	611.8120.S	COVER PLATES TEMPORARY	EACH	2.000	2.000
0920	611.9710	SALVAGED INLET COVERS	EACH	6.000	6.000
0930	611.9800.S	PIPE GRATES	EACH	8.000	8.000
0940	612.0104	PIPE UNDERDRAIN 4-INCH	LF	100.000	100.000
0950	612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	3,276.000	3,276.000
0960	614.0800	CRASH CUSHIONS PERMANENT	EACH	4.000	4.000
0970	616.0206	FENCE CHAIN LINK 6-FT	LF	827.000	827.000
0980	619.1000	MOBILIZATION	EACH	1.000	1.000
0990	620.0200	CONCRETE MEDIAN BLUNT NOSE **P**	SF	66.000	66.000
1000	620.0300	CONCRETE MEDIAN SLOPED NOSE **P**	SF	1,564.000	1,564.000
1010	623.0200	DUST CONTROL SURFACE TREATMENT	SY	166,849.000	166,849.000
1020	624.0100	WATER	MGAL	321.000	321.000
1030	625.0105	TOPSOIL	CY	92.000	92.000
1040	625.0500	SALVAGED TOPSOIL	SY	42,161.000	42,161.000
1050	627.0200	MULCHING	SY	17,283.000	17,283.000
1060	628.1104	EROSION BALES	EACH	1,835.000	1,835.000
1070	628.1504	SILT FENCE	LF	8,984.000	8,984.000
1080	628.1520	SILT FENCE MAINTENANCE	LF	8,984.000	8,984.000
1090	628.1905	MOBILIZATIONS EROSION CONTROL	EACH	10.000	10.000
1100	628.1910	MOBILIZATIONS EMERGENCY EROSION CONTROL	EACH	8.000	8.000
1110	628.2004	EROSION MAT CLASS I TYPE B	SY	2,754.000	2,754.000
1120	628.2006	EROSION MAT URBAN CLASS I TYPE A	SY	5,407.000	5,407.000
1130	628.2008	EROSION MAT URBAN CLASS I TYPE B	SY	2,591.000	2,591.000
1140	628.2021	EROSION MAT CLASS II TYPE A	SY	384.000	384.000
1150	628.7005	INLET PROTECTION TYPE A	EACH	128.000	128.000
1160	628.7010	INLET PROTECTION TYPE B	EACH	12.000	12.000
1170	628.7015	INLET PROTECTION TYPE C	EACH	208.000	208.000
1180	628.7020	INLET PROTECTION TYPE D	EACH	39.000	39.000
1190	628.7504	TEMPORARY DITCH CHECKS	LF	175.000	175.000
1200	628.7555	CULVERT PIPE CHECKS	EACH	3.000	3.000
1210	628.7560	TRACKING PADS	EACH	3.000	3.000
1220	628.7570	ROCK BAGS	EACH	50.000	50.000
1230	629.0210	FERTILIZER TYPE B	CWT	26.000	26.000
1240	630.0120	SEEDING MIXTURE NO. 20	LB	610.000	610.000
1250	630.0200	SEEDING TEMPORARY	LB	139.000	139.000
1260	631.0300	SOD WATER	MGAL	471.000	471.000
1270	631.1000	SOD LAWN	SY	19,548.000	19,548.000
1280	632.0101	TREES (SPECIES, ROOT, SIZE) 0001. JACK DWARF PEAR, B&B, 1-1/4" CAL	EACH	4.000	4.000
1290	632.0101	TREES (SPECIES, ROOT, SIZE) 0002. AUTUMN BRILLIANCE SERVICEBERRY B&B, 3 FT	EACH	5.000	5.000

3

DATE 10DEC13 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	2040-16-70 QUANTITY
1300	632.0201	SHRUBS (SPECIES, ROOT, SIZE) 0001. DOGWOOD 'RED TWIG VARIEGATED' BR, 3 FT	EACH	1.000	1.000
1310	632.0201	SHRUBS (SPECIES, ROOT, SIZE) 0002. SUMAC 'TIGERS EYE', BR, 3 FT	EACH	3.000	3.000
1320	632.0201	SHRUBS (SPECIES, ROOT, SIZE) 0003. WITHEROD VIBURNUM, BR, 3 FT	EACH	4.000	4.000
1330	632.0201	SHRUBS (SPECIES, ROOT, SIZE) 0004. BRILLIANT RED CHOKEBERRY, BR, 3FT	EACH	8.000	8.000
1340	632.0201	SHRUBS (SPECIES, ROOT, SIZE) 0005. KNOCKOUT ROSE 'BLUSHING' CG 3 FT	EACH	12.000	12.000
1350	632.0201	SHRUBS (SPECIES, ROOT, SIZE) 0006. KNOCKOUT ROSE 'SUNNY' CG 3 FT	EACH	12.000	12.000
1360	632.0201	SHRUBS (SPECIES, ROOT, SIZE) 0007. HYDRANGEA 'PINKY WINKY' CG 1 GAL	EACH	4.000	4.000
1370	632.0201	SHRUBS (SPECIES, ROOT, SIZE) 0008. HUECHERA 'PALACE PURPLE' CG 1 GAL	EACH	10.000	10.000
1380	632.0201	SHRUBS (SPECIES, ROOT, SIZE) 0009. ROYAL PURPLE SMOKE BUSH CG 1 GAL	EACH	1.000	1.000
1390	632.9101	LANDSCAPE PLANTING SURVEILLANCE AND CARE CYCLES	EACH	10.000	10.000
1400	633.5200	MARKERS CULVERT END	EACH	9.000	9.000
1410	634.0618	POSTS WOOD 4X6-INCH X 18-FT	EACH	145.000	145.000
1420	637.1220	SIGNS TYPE I REFLECTIVE SH	SF	153.000	153.000
1430	637.2210	SIGNS TYPE II REFLECTIVE H	SF	1,853.470	1,853.470
1440	637.2215	SIGNS TYPE II REFLECTIVE H FOLDING	SF	156.660	156.660
1450	637.2230	SIGNS TYPE II REFLECTIVE F	SF	102.000	102.000
1460	638.2102	MOVING SIGNS TYPE II	EACH	15.000	15.000
1470	638.2602	REMOVING SIGNS TYPE II	EACH	141.000	141.000
1480	638.3000	REMOVING SMALL SIGN SUPPORTS	EACH	111.000	111.000
1490	641.8100	OVERHEAD SIGN SUPPORT (STRUCTURE) 0001. S-40-982	LS	1.000	1.000
1500	641.8100	OVERHEAD SIGN SUPPORT (STRUCTURE) 0002. S-40-983	LS	1.000	1.000
1510	642.5201	FIELD OFFICE TYPE C	EACH	1.000	1.000
1520	643.0200	TRAFFIC CONTROL SURVEILLANCE AND MAINTENANCE (PROJECT) 0001. PROJECT 2040-16-70	DAY	205.000	205.000
1530	643.0300	TRAFFIC CONTROL DRUMS	DAY	190,801.000	190,801.000
1540	643.0420	TRAFFIC CONTROL BARRICADES TYPE III	DAY	15,211.000	15,211.000
1550	643.0705	TRAFFIC CONTROL WARNING LIGHTS TYPE A	DAY	30,281.000	30,281.000
1560	643.0715	TRAFFIC CONTROL WARNING LIGHTS TYPE C	DAY	8,440.000	8,440.000
1570	643.0800	TRAFFIC CONTROL ARROW BOARDS	DAY	477.000	477.000
1580	643.0900	TRAFFIC CONTROL SIGNS	DAY	12,076.000	12,076.000
1590	643.0920	TRAFFIC CONTROL COVERING SIGNS TYPE II	EACH	9.000	9.000
1600	643.1000	TRAFFIC CONTROL SIGNS FIXED MESSAGE	SF	144.000	144.000
1610	643.1050	TRAFFIC CONTROL SIGNS PCMS	DAY	820.000	820.000
1620	645.0112	GEOTEXTILE FABRIC TYPE DF SCHEDULE B	SY	45.000	45.000
1630	645.0120	GEOTEXTILE FABRIC TYPE HR **P**	SY	886.000	886.000
1640	645.0130	GEOTEXTILE FABRIC TYPE R **P**	SY	364.000	364.000
1650	646.0106	PAVEMENT MARKING EPOXY 4-INCH	LF	26,708.000	26,708.000
1660	646.0600	REMOVING PAVEMENT MARKINGS	LF	50,794.000	50,794.000
1670	646.0841.S	PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH 0001. 12.5 FT WHITE LINE	LF	11,024.000	11,024.000
1680	646.0843.S	PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH	LF	12,683.000	12,683.000

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LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	2040-16-70 QUANTITY
1690	647.0456	PAVEMENT MARKING CURB EPOXY	LF	1,029.000	1,029.000
1700	647.0606	PAVEMENT MARKING ISLAND NOSE EPOXY	EACH	29.000	29.000
1710	647.0726	PAVEMENT MARKING DIAGONAL EPOXY 12-INCH	LF	1,195.000	1,195.000
1720	649.0200	TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH	LF	28,464.000	28,464.000
1730	649.0400	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH	LF	40,751.000	40,751.000
1740	649.0801	TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH	LF	9,173.000	9,173.000
1750	649.1200	TEMPORARY PAVEMENT MARKING STOP LINE REMOVABLE TAPE 18-INCH	LF	729.000	729.000
1760	650.5500	CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER	LF	30,500.000	30,500.000
1770	652.0215	CONDUIT RIGID NONMETALLIC SCHEDULE 40 1 1/4-INCH	LF	110.000	110.000
1780	652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	11,650.000	11,650.000
1790	652.0235	CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH	LF	5,281.000	5,281.000
1800	652.0605	CONDUIT SPECIAL 2-INCH	LF	340.000	340.000
1810	652.0615	CONDUIT SPECIAL 3-INCH	LF	550.000	550.000
1820	652.0800	CONDUIT LOOP DETECTOR	LF	1,780.000	1,780.000
1830	653.0105	PULL BOXES STEEL 12X24-INCH	EACH	1.000	1.000
1840	653.0120	PULL BOXES STEEL 18X24-INCH	EACH	29.000	29.000
1850	653.0135	PULL BOXES STEEL 24X36-INCH	EACH	25.000	25.000
1860	653.0140	PULL BOXES STEEL 24X42-INCH	EACH	30.000	30.000
1870	653.0180	PULL BOXES STEEL COMMUNICATIONS (INCH) 0002. 24X42 INCH	EACH	6.000	6.000
1880	653.0900	ADJUSTING PULL BOXES	EACH	6.000	6.000
1890	653.0905	REMOVING PULL BOXES	EACH	83.000	83.000
1900	654.0101	CONCRETE BASES TYPE 1	EACH	12.000	12.000
1910	654.0102	CONCRETE BASES TYPE 2	EACH	14.000	14.000
1920	654.0105	CONCRETE BASES TYPE 5	EACH	1.000	1.000
1930	654.0113	CONCRETE BASES TYPE 13	EACH	12.000	12.000
1940	654.0217	CONCRETE CONTROL CABINET BASES TYPE 9 SPECIAL	EACH	2.000	2.000
1950	655.0230	CABLE TRAFFIC SIGNAL 5-14 AWG	LF	2,520.000	2,520.000
1960	655.0240	CABLE TRAFFIC SIGNAL 7-14 AWG	LF	315.000	315.000
1970	655.0260	CABLE TRAFFIC SIGNAL 12-14 AWG	LF	12,700.000	12,700.000
1980	655.0270	CABLE TRAFFIC SIGNAL 15-14 AWG	LF	1,460.000	1,460.000
1990	655.0515	ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG	LF	9,170.000	9,170.000
2000	655.0620	ELECTRICAL WIRE LIGHTING 8 AWG	LF	3,540.000	3,540.000
2010	655.0700	LOOP DETECTOR LEAD IN CABLE	LF	9,620.000	9,620.000
2020	655.0800	LOOP DETECTOR WIRE	LF	6,300.000	6,300.000
2030	655.0900	TRAFFIC SIGNAL EVP DETECTOR CABLE	LF	5,680.000	5,680.000
2040	656.0200	ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) 0001. STH 100 AT 22ND	LS	1.000	1.000
2050	656.0200	ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) 0002. STH 100 AT 13TH	LS	1.000	1.000
2060	656.0200	ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) 0003. STH 100 & 22ND ST	LS	1.000	1.000

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LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	2040-16-70 QUANTITY
2070	656.0200	ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) 0004. STH 100 AT STH 38	LS	1.000	1.000
2080	656.0200	ELECTRICAL SERVICE METER BREAKER PEDESTAL (LOCATION) 0005. STH 100 & 13TH ST	LS	1.000	1.000
2090	657.0100	PEDESTAL BASES	EACH	12.000	12.000
2100	657.0255	TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE	EACH	15.000	15.000
2110	657.0315	POLES TYPE 4	EACH	13.000	13.000
2120	657.0322	POLES TYPE 5-ALUMINUM	EACH	1.000	1.000
2130	657.0420	TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT	EACH	3.000	3.000
2140	657.0425	TRAFFIC SIGNAL STANDARDS ALUMINUM 15-FT	EACH	5.000	5.000
2150	657.0430	TRAFFIC SIGNAL STANDARDS ALUMINUM 10-FT	EACH	4.000	4.000
2160	657.0609	LUMINAIRE ARMS SINGLE MEMBER 4-INCH CLAMP 6-FT	EACH	25.000	25.000
2170	657.1355	INSTALL POLES TYPE 12	EACH	9.000	9.000
2180	657.1360	INSTALL POLES TYPE 13	EACH	3.000	3.000
2190	657.1535	INSTALL MONOTUBE ARMS 35-FT	EACH	2.000	2.000
2200	657.1540	INSTALL MONOTUBE ARMS 40-FT	EACH	1.000	1.000
2210	657.1545	INSTALL MONOTUBE ARMS 45-FT	EACH	1.000	1.000
2220	657.1550	INSTALL MONOTUBE ARMS 50-FT	EACH	4.000	4.000
2230	657.1555	INSTALL MONOTUBE ARMS 55-FT	EACH	4.000	4.000
2240	657.1806	INSTALL LUMINAIRE ARMS STEEL 6-FT	EACH	2.000	2.000
2250	657.1815	INSTALL LUMINAIRE ARMS STEEL 15-FT	EACH	2.000	2.000
2260	658.0110	TRAFFIC SIGNAL FACE 3-12 INCH VERTICAL	EACH	50.000	50.000
2270	658.0115	TRAFFIC SIGNAL FACE 4-12 INCH VERTICAL	EACH	14.000	14.000
2280	658.0120	TRAFFIC SIGNAL FACE 5-12 INCH VERTICAL	EACH	1.000	1.000
2290	658.0215	BACKPLATES SIGNAL FACE 3 SECTION 12-INCH	EACH	50.000	50.000
2300	658.0220	BACKPLATES SIGNAL FACE 4 SECTION 12-INCH	EACH	14.000	14.000
2310	658.0225	BACKPLATES SIGNAL FACE 5 SECTION 12-INCH	EACH	1.000	1.000
2320	658.0416	PEDESTRIAN SIGNAL FACE 16-INCH	EACH	20.000	20.000
2330	658.0500	PEDESTRIAN PUSH BUTTONS	EACH	28.000	28.000
2340	658.0600	LED MODULES 12-INCH RED BALL	EACH	42.000	42.000
2350	658.0605	LED MODULES 12-INCH YELLOW BALL	EACH	41.000	41.000
2360	658.0610	LED MODULES 12-INCH GREEN BALL	EACH	41.000	41.000
2370	658.0615	LED MODULES 12-INCH RED ARROW	EACH	23.000	23.000
2380	658.0620	LED MODULES 12-INCH YELLOW ARROW	EACH	39.000	39.000
2390	658.0625	LED MODULES 12-INCH GREEN ARROW	EACH	25.000	25.000
2400	658.0635	LED MODULES PEDESTRIAN COUNTDOWN TIMER 16-INCH	EACH	20.000	20.000
2410	658.5069	SIGNAL MOUNTING HARDWARE (LOCATION) 0001. IH 94 EB RAMPS & STH 100 (RYAN RD)	LS	1.000	1.000
2420	658.5069	SIGNAL MOUNTING HARDWARE (LOCATION) 0002. IH 94 WB RAMPS & STH 100 (RYAN RD)	LS	1.000	1.000
2430	658.5069	SIGNAL MOUNTING HARDWARE (LOCATION) 0003. STH 100 & STH 241	LS	1.000	1.000
2440	658.5069	SIGNAL MOUNTING HARDWARE (LOCATION) 0004. STH 100 & 22ND ST	LS	1.000	1.000
2450	658.5069	SIGNAL MOUNTING HARDWARE (LOCATION) 0006. STH 100 & 13TH ST	LS	1.000	1.000
2460	659.0802	PLAQUES SEQUENCE IDENTIFICATION	EACH	68.000	68.000
2470	659.1115	LUMINAIRES UTILITY LED A	EACH	9.000	9.000
2480	659.1120	LUMINAIRES UTILITY LED B	EACH	8.000	8.000
2490	659.1125	LUMINAIRES UTILITY LED C	EACH	12.000	12.000

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LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	2040-16-70 QUANTITY
2500	661.0200	TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS (LOCATION) 0001. IH-94 EB RAMPS & STH 100	LS	1.000	1.000
2510	661.0200	TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS (LOCATION) 0002. IH-94 WB RAMPS & STH 100	LS	1.000	1.000
2520	661.0200	TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS (LOCATION) 0003. STH 100 & STH 241	LS	1.000	1.000
2530	661.0200	TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS (LOCATION) 0004. STH 100 & 22ND ST	LS	1.000	1.000
2540	661.0200	TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS (LOCATION) 0005. STH 100 & 13TH ST	LS	1.000	1.000
2550	661.0200	TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS (LOCATION) 0006. TO REMAIN STH 100 (RYAN RD) & STH 38	LS	1.000	1.000
2560	690.0150	SAWING ASPHALT	LF	1,001.000	1,001.000
2570	690.0250	SAWING CONCRETE	LF	10,310.000	10,310.000
2580	715.0415	INCENTIVE STRENGTH CONCRETE PAVEMENT	DOL	6,900.000	6,900.000
2590	ASP.1T0A	ON-THE-JOB TRAINING APPRENTICE AT $5. 00/HR	HRS	5,000.000	5,000.000
2600	ASP.1T0G	ON-THE-JOB TRAINING GRADUATE AT $5.00/HR	HRS	3,200.000	3,200.000
2610	SPV.0035	SPECIAL 0001. PLANTING MIX	CY	23.000	23.000
2620	SPV.0045	SPECIAL 0010. TEMPORARY CROSSWALK	DAY	402.000	402.000
2630	SPV.0060	SPECIAL 0001. SURFACE SETTLEMENT PLATES	EACH	3.000	3.000
2640	SPV.0060	SPECIAL 0002. SECTION CORNER MONUMENT	EACH	3.000	3.000
2650	SPV.0060	SPECIAL 0003. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 2	EACH	39.000	39.000
2660	SPV.0060	SPECIAL 0016. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC WORDS	EACH	36.000	36.000
2670	SPV.0060	SPECIAL 1006. REMOVING LIGHTING UNITS	EACH	61.000	61.000
2680	SPV.0060	SPECIAL 1007. REMOVING WOOD POLE LIGHTING UNITS	EACH	13.000	13.000
2690	SPV.0060	SPECIAL 1008. POLES ALUMINUM CITY OF OAD CREEK NOMINAL HEIGHT 30 FT BRONZE	EACH	65.000	65.000
2700	SPV.0060	SPECIAL 1009. TEMPORARY WOOD POLE LIGHTING UNITS	EACH	118.000	118.000
2710	SPV.0060	SPECIAL 1013. LAMP DISPOSAL HIGH INTENSITY DISCHARGE	EACH	116.000	116.000
2720	SPV.0060	SPECIAL 1014. TRANSFORMER BASES BREAKAWAY 11.5" BOLT CIRCLE CITY/OAK CREEK BRONZE	EACH	65.000	65.000
2730	SPV.0060	SPECIAL 1015. LUMINAIRE ARMS SINGLE MEMBER 4 1/2 INCH CLAMP 6-FT CITY OF OAK CREEK	EACH	133.000	133.000
2740	SPV.0060	SPECIAL 2004. REMOVING CONTROLLER CABINET BASE	EACH	3.000	3.000
2750	SPV.0060	SPECIAL 2005. REMOVING ELECTRICAL SERVICE METER BREAKER PEDESTAL	EACH	3.000	3.000
2760	SPV.0060	SPECIAL 2014. REMOVING COMMUNICATIONS VAULT	EACH	2.000	2.000
2770	SPV.0060	SPECIAL 3002. TRAFFIC SIGNAL INTERCONNECT VAULT	EACH	12.000	12.000
2780	SPV.0060	SPECIAL 5001. PANICUM 'HEAVY METAL' (GRASS) CG 1 GAL	EACH	8.000	8.000

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LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	2040-16-70 QUANTITY
2790	SPV.0060	SPECIAL 5002. RUSSIAN SAGE 'ATRIPLICIFOLIA' CG 6" POT	EACH	5.000	5.000
2800	SPV.0060	SPECIAL 5003. SEDUM 'AUTUMN JOY' CG 6" POT	EACH	16.000	16.000
2810	SPV.0060	SPECIAL 5004. SEDUM 'DRAGONS BLOOD' CG 6" POT	EACH	40.000	40.000
2820	SPV.0060	SPECIAL 5005. ACHILLEA 'MOONSHINE' CG 6" POT	EACH	16.000	16.000
2830	SPV.0060	SPECIAL 5006. OENOTHERA 'MACROCARPA' CG 6" POT	EACH	20.000	20.000
2840	SPV.0060	SPECIAL 5007. OENOTHERA 'PINK PRIMROSE' CG 6" POT	EACH	20.000	20.000
2850	SPV.0060	SPECIAL 5008. RUDEBEKIA GOLDSTRUM 'BLACK EYED SUSAN' CG 6" POT	EACH	25.000	25.000
2860	SPV.0060	SPECIAL 5009. ECHINACEA PURPLE CONE FLOWER 'MAGNUS' CG 6" POT	EACH	25.000	25.000
2870	SPV.0060	SPECIAL 5010. ADJUSTING CITY OF OAK CREEK SANITARY MANHOLE	EACH	17.000	17.000
2880	SPV.0060	SPECIAL 5011. RECONSTRUCTING CITY OF OAK CREEK SANITARY MANHOLE	EACH	4.000	4.000
2890	SPV.0060	SPECIAL 8000. BACKFLOW PREVENTER-CHECK VALVE 12"	EACH	1.000	1.000
2900	SPV.0060	SPECIAL 8012. 9-FT SPECIAL MANHOLE	EACH	3.000	3.000
2910	SPV.0060	SPECIAL 9000. CONCRETE CONTROL CABINET BASES SPECIAL CITY OF OAK CREEK	EACH	2.000	2.000
2920	SPV.0060	SPECIAL 9001. LIGHTING DISTRIBUTION CENTERS 200A, 240/480V, CITY OF OAK CREEK	EACH	2.000	2.000
2930	SPV.0060	SPECIAL 9002. REMOVE AND RELOCATE LIGHTING DISTRIBUTION CENTER CITY OF OAK CREEK	EACH	1.000	1.000
2940	SPV.0060	SPECIAL 9003. LUMINAIRES CITY OF OAK CREEK GARDCO PUREFORM 21, 130LA LED BRONZE	EACH	133.000	133.000
2950	SPV.0060	SPECIAL 9004. TEMPORARY LIGHTING DISTRIBUTION CENTER CITY OF OAK CREEK	EACH	3.000	3.000
2960	SPV.0060	SPECIAL 9005. CONCRETE BASES TYPE 5 SPECIAL	EACH	65.000	65.000
2970	SPV.0060	SPECIAL 9006. REMOVING LIGHTING CONTROLLER CABINET	EACH	2.000	2.000
2980	SPV.0060	SPECIAL 9007. CONTRACTOR PROVIDED HIGH-STRENGTH BOLT ASSEMBLIES FOR MONOTUBE ARMS	EACH	12.000	12.000
2990	SPV.0090	SPECIAL 0001. REMOVING PAVEMENT MARKINGS WATER BLASTING	LF	4,850.000	4,850.000
3000	SPV.0090	SPECIAL 0002. PIEZOMETERS	LF	94.000	94.000
3010	SPV.0090	SPECIAL 0009. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK 6-INCH	LF	4,333.000	4,333.000
3020	SPV.0090	SPECIAL 0012. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK 24-INCH	LF	204.000	204.000
3030	SPV.0090	SPECIAL 0020. PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC STOP LINE 18-INCH	LF	889.000	889.000
3040	SPV.0090	SPECIAL 1004. REMOVING OVERHEAD LIGHTING CABLE	LF	1,491.000	1,491.000
3050	SPV.0090	SPECIAL 3001. FIBER OPTIC TRACER CABLE	LF	8,720.000	8,720.000
3060	SPV.0090	SPECIAL 3002. FIBER OPTIC WARNING TAPE	LF	8,720.000	8,720.000

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LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	2040-16-70 QUANTITY
3070	SPV.0090	SPECIAL 9000. CABLE IN DUCT, 4-4 AWG, 1-8 AWG	LF	8,310.000	8,310.000
3080	SPV.0090	SPECIAL 9001. TEMPORARY OVERHEAD CABLE 4-4 AWG	LF	14,503.000	14,503.000
3090	SPV.0090	SPECIAL 9002. CABLE TYPE UF 2-8 AWG GROUNDED	LF	3,390.000	3,390.000
3100	SPV.0105	SPECIAL 0001. SURVEY PROJECT ID 2040-16-70	LS	1.000	1.000
3110	SPV.0105	SPECIAL 0002. PAVEMENT CLEANUP PROJECT ID 2040-16-70	LS	1.000	1.000
3120	SPV.0105	SPECIAL 0003. CONCRETE PAVEMENT JOINT LAYOUT PROJECT ID 2040-16-70	LS	1.000	1.000
3130	SPV.0105	SPECIAL 1001. REMOVING OVERHEAD SIGN SUPPORT S-40-294	LS	1.000	1.000
3140	SPV.0105	SPECIAL 1005. MAINTAIN LIGHTING SYSTEMS CITY OF OAK CREEK	LS	1.000	1.000
3150	SPV.0105	SPECIAL 3009. TEMP NON-INTRUSIVE VEH. DET. SYS FOR INTERSECTION I-94 EB RAMPS & STH 100	LS	1.000	1.000
3160	SPV.0105	SPECIAL 3010. TEMP NON-INTRUSIVE VEH. DET. SYS FOR INTERSECTION I-94 WB RAMPS & STH 100	LS	1.000	1.000
3170	SPV.0105	SPECIAL 3011. TEMPORARY INFRARED EVP SYSTEM I-94 EB RAMPS & STH 100	LS	1.000	1.000
3180	SPV.0105	SPECIAL 3012. TEMPORARY INFRARED EVP SYSTEM I-94 WB RAMPS & STH 100	LS	1.000	1.000
3190	SPV.0105	SPECIAL 9000. REMOVE TRAFFIC SIGNALS STH 100 & STH 241	LS	1.000	1.000
3200	SPV.0105	SPECIAL 9001. REMOVE TRAFFIC SIGNALS STH 100 & 22ND STREET	LS	1.000	1.000
3210	SPV.0105	SPECIAL 9002. REMOVE TRAFFIC SIGNALS STH 100 & 13TH STREET	LS	1.000	1.000
3220	SPV.0105	SPECIAL 9003. INSTALL STATE SUPPLIED TRAFFIC SIGNAL CABINET STH 100 & 22ND STREET	LS	1.000	1.000
3230	SPV.0105	SPECIAL 9004. INSTALL STATE SUPPLIED TRAFFIC SIGNAL CABINET STH 100 & STH 241	LS	1.000	1.000
3240	SPV.0105	SPECIAL 9005. INSTALL STATE SUPPLIED TRAFFIC SIGNAL CABINET STH 100 & 13TH STREET	LS	1.000	1.000
3250	SPV.0105	SPECIAL 9006. REMOVE TRAFFIC SIGNALS IH 94 EB RAMPS & STH 100 (RYAN RD)	LS	1.000	1.000
3260	SPV.0105	SPECIAL 9007. REMOVE TRAFFIC SIGNALS IH 94 WB RAMPS & STH 100 (RYAN RD)	LS	1.000	1.000
3270	SPV.0105	SPECIAL 9008. REMOVE TRAFFIC SIGNALS STH 100 (RYAN RD) & STH 38	LS	1.000	1.000
3280	SPV.0105	SPECIAL 9009. EMERGENCY VEH. PREEMPTION DETECTOR HEAD INST STH 100 & 22ND ST	LS	1.000	1.000
3290	SPV.0105	SPECIAL 9010. EMERGENCY VEH. PREEMPTION DETECTOR HEAD INST STH 100 & STH 241	LS	1.000	1.000
3300	SPV.0105	SPECIAL 9011. EMERGENCY VEH. PREEMPTION DETECTOR HEAD INST STH 100 & 13TH ST	LS	1.000	1.000
3310	SPV.0105	SPECIAL 9012. TRANSPORTING TRAFFIC SIGNAL & INT. LIGHTING MATERIALS STH 100 & 22ND ST	LS	1.000	1.000
3320	SPV.0105	SPECIAL 9013. TRANSPORTING TRAFFIC SIGNAL & INT. LIGHTING MATERIALS STH 100 & STH 241	LS	1.000	1.000

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LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	2040-16-70 QUANTITY
3330	SPV.0105	SPECIAL 9014. TRANSPORTING TRAFFIC SIGNAL & INT. LIGHTING MATERIALS STH 100 & 13TH ST	LS	1.000	1.000
3340	SPV.0105	SPECIAL 9015. TEMP NON-INTRUSIVE VEH. DET. SYS FOR INTERSECTION STH 100 & STH 241	LS	1.000	1.000
3350	SPV.0105	SPECIAL 9016. TEMP NON-INTRUSIVE VEH. DET. SYS FOR INTERSECTION STH 100 & 22ND ST	LS	1.000	1.000
3360	SPV.0105	SPECIAL 9017. TEMP NON-INTRUSIVE VEH. DET. SYS FOR INTERSECTION STH 100 & 13TH ST	LS	1.000	1.000
3370	SPV.0105	SPECIAL 9018. TEMPORARY INFRARED EVP SYSTEM STH 100 & 22ND ST	LS	1.000	1.000
3380	SPV.0105	SPECIAL 9019. TEMPORARY INFRARED EVP SYSTEM STH 100 & 13TH ST	LS	1.000	1.000
3390	SPV.0105	SPECIAL 9020. TRANSPORT & INSTALL STATE FURN. AUTOSCOPE VIDEODETEC. STH 100 & STH 241	LS	1.000	1.000
3400	SPV.0105	SPECIAL 9021. TRANSPORT & INSTALL STATE FURN. AUTOSCOPE VIDEODETEC. STH 100 & 22ND ST	LS	1.000	1.000
3410	SPV.0105	SPECIAL 9022. TRANSPORT & INSTALL STATE FURN. AUTOSCOPE VIDEODETEC. STH 100 & 13TH ST	LS	1.000	1.000
3420	SPV.0105	SPECIAL 9025. TEMP NON-INTRUSIVE VEH. DET. SYS FOR INTERSECT. TO REMAIN STH100 & STH 38	LS	1.000	1.000
3430	SPV.0105	SPECIAL 9026. TEMPORARY INFRARED EVP SYSTEM TO REMAIN STH100 (RYAN RD) & STH 38	LS	1.000	1.000
3440	SPV.0105	SPECIAL 9027. REMOVE LOOP DETECTOR WIRE AND LEAD IN CABLE STH 100 (RYAN RD) & STH 241	LS	1.000	1.000
3450	SPV.0105	SPECIAL 9028. REMOVE LOOP DETECTOR WIRE AND LEAD IN CABLE STH 100 (RYAN RD) & 22ND STREET	LS	1.000	1.000
3460	SPV.0105	SPECIAL 9029. REMOVE LOOP DETECTOR WIRE AND LEAD IN CABLE IH 94 EB RAMPS & STH 100	LS	1.000	1.000
3470	SPV.0105	SPECIAL 9030. REMOVE LOOP DETECTOR WIRE AND LEAD IN CABLE IH WB RAMPS & STH 100	LS	1.000	1.000
3480	SPV.0105	SPECIAL 9031. REMOVE LOOP DETECTOR AND LEAD IN CABLE STH 100 (RYAN RD) & 13TH STREET	LS	1.000	1.000
3490	SPV.0105	SPECIAL 9032. REMOVE LOOP DETECTOR WIRE AND LEAD IN CABLE STH 100 (RYAN RD) & STH 38	LS	1.000	1.000
3500	SPV.0180	SPECIAL 0001. SHREDDED BARK MULCH	SY	102.000	102.000

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CLEARING AND GRUBBING ITEMS

STAGE	ROADWAY	STATION	OFFSET	TO	STATION	OFFSET	201.0105 CLEARING STA	201.0110 CLEARING SY	201.0120 CLEARING ID	201.0205 GRUBBING STA	201.0210 GRUBBING SY	201.0220 GRUBBING ID
1	RAMP RYB	243RYB+19	26.0' LT					-	10		-	10
	RAMP RYB	243RYB+23	26.0' RT					-	10		-	10
	RAMP RYB	243RYB+65	52.0' LT					-	4		-	4
1	RAMP RYB	244RYB+03	61.0' RT					-	17		-	17
	RAMP RYB	244RYB+06	17.0' RT					-	13		-	13
	RAMP RYB	244RYB+49	40.0' RT					-	14		-	14
	RAMP RYB	245RYB+00			247RYB+00	RT	2	-	-	2	-	-
	RAMP RYB	246RYB+78	45.0' LT					-	9		-	9
1	STH 100	18+25	75' LT		N/A	N/A		-	3		-	3
		18+45	78' LT		N/A	N/A		-	3		-	3
		18+71	76' LT		N/A	N/A		-	4		-	4
		18+95	79' LT		N/A	N/A		-	3		-	3
		19+20	77' LT		N/A	N/A		-	4		-	4
1	STH 100	19+44	79' LT		N/A	N/A		-	3		-	3
		19+81	78' LT		N/A	N/A		-	3		-	3
		20+06	78' LT		N/A	N/A		-	4		-	4
		20+35	78' LT		N/A	N/A		-	3		-	3
		20+52	74' LT		N/A	N/A		-	3		-	3
1	STH 100	20+74	74' LT		N/A	N/A		-	4		-	4
		20+98	74' LT		N/A	N/A		-	3		-	3
		21+23	74' LT		N/A	N/A		-	4		-	4
		21+48	71' LT		N/A	N/A		-	4		-	4
		21+72	71' LT		N/A	N/A		-	3		-	3
1	STH 100	22+14	76' LT		N/A	N/A		-	4		-	4
		22+30	76' LT		N/A	N/A		-	3		-	3
		22+51	75' LT		N/A	N/A		-	4		-	4
		22+70	76' LT		N/A	N/A		-	3		-	3
		22+91	76' LT		N/A	N/A		-	4		-	4
1	STH 100	23+10	75' LT		N/A	N/A		-	4		-	4
		24+24	81' LT		N/A	N/A		-	4		-	4
		24+45	78' LT		N/A	N/A		-	5		-	5
		25+44	78' LT		N/A	N/A		-	3		-	3
		25+63	78' LT		N/A	N/A		-	4		-	4
1	STH 100	26+76	78' LT		N/A	N/A		-	3		-	3
		26+94	78' LT		N/A	N/A		-	3		-	3
		31+95	91' LT		32+38	90' LT		37	-		37	-
		32+46	90' LT		32+77	87' LT		44	-		44	-
		32+93	89' LT		33+82	84' LT		113	-		113	-
1	STH 100	33+95	80' LT		34+33	78' LT		87	-		87	-
		34+57	74' LT		35+38	71' LT		161	-		161	-
		35+58	73' LT		36+18	71' LT		117	-		117	-
		37+26	110' LT		38+29	111' LT		51	-		51	-
		38+59	101' LT		39+01	106' LT		68	-		68	-
1	STH 100	60+56	97' LT		60+99	80' LT		44	-		44	-
		95+71	74' LT		96+58	74' LT		36	-		36	-
		101+81	82' LT		102+71	86' LT		101	-		101	-
		105+76	83' LT		106+40	81' LT		54	-		54	-
		106+78	80' LT		107+10	80' LT		25	-		25	-
1	STH 100	109+48	90' LT		N/A	N/A		-	6		-	6
		111+37	76' LT		111+78	70' LT		52	-		52	-
		112+52	88' LT		112+59	98' LT		16	-		16	-
		113+80	82' LT		114+14	83' LT		13	-		13	-
						STAGE 1 SUBTOTALS	2	1021	178	2	1021	178

CATEGORY 1000 UNLESS OTHERWISE NOTED

(CONTINUED ON NEXT SHEET)

CLEARING AND GRUBBING ITEMS

STAGE	ROADWAY	STATION	OFFSET	TO	STATION	OFFSET	201.0105 CLEARING STA	201.0110 CLEARING SY	201.0120 CLEARING ID	201.0205 GRUBBING STA	201.0210 GRUBBING SY	201.0220 GRUBBING ID
2	STH 100	15-01	62' RT		N/A	N/A		-	3		-	3
		19+04	77' RT		N/A	N/A		-	4		-	4
		19+67	77' RT		N/A	N/A		-	4		-	4
		21+60	77' RT		N/A	N/A		-	3		-	3
		22+39	73' RT		N/A	N/A		-	3		-	3
2	STH 100	22+54	81' RT		23+06	82' RT		38	-		38	-
		23+70	80' RT		24+17	83' RT		53	-		53	-
		24+35	80' RT		N/A	N/A		-	4		-	4
		24+41	82' RT		24+57	83' RT		15	-		15	-
		24+63	79' RT		N/A	N/A		-	4		-	4
2	STH 100	24+63	82' RT		25+46	83' RT		64	-		64	-
		25+66	89' RT		28+83	84' RT		651	-		651	-
		37+28	81' RT		38+40	101' RT		179	-		179	-
		66+58	88' RT		66+72	86' RT		8	-		8	-
		67+66	88' RT		68+31	89' RT		84	-		84	-
2	STH 100	75+94	300' RT		76+12	309' RT		145	-		145	-
		76+21	832' RT		76+68	410' RT		1906	-		1906	-
		77+26	86' RT		77+75	90' RT		129	-		129	-
		78+19	91' RT		78+75	93' RT		160	-		160	-
		79+66	76' RT		N/A	N/A		-	3		-	3
2	STH 100	90+61	123' RT		90+72	124' RT		22	-		22	-
		102+53	82' RT		102+87	81' RT		9	-		9	-
		104+97	83' RT		105+50	83' RT		49	-		49	-
		105+74	83' RT		106+61	87' RT		103	-		103	-
		111+17	89' RT		111+77	88' RT		67	-		67	-
		113+05	92' RT		113+62	88' RT		32	-		32	-
						STAGE 2 SUBTOTALS	0	3716	28	0	3716	28
						TOTAL	2	4736	206	2	4736	206

CATEGORY 1000 UNLESS OTHERWISE NOTED

REMOVING PAVEMENT

STAGE	ROADWAY	STATION	TO	STATION	OFFSET	204.0100 REMOVING PAVEMENT SY	204.0110 REMOVING ASPHALTIC SURFACE SY
1	STH 100	52RY+89		53RY+72	RT	373	
1	STH 100	52RY+90		53RY+72	LT	512	
1	RAMP RYB	240RYB+45		241RYB+72	RT	448	
1	STH 100	12+97		23+17	LT	2,234	
		14+65		17+07	RT/LT	94	
1	STH 100	17+92		22+07	RT/LT	241	
		17+99		21+15	LT	422	
		23+17		23+95	RT/LT	845	
		23+95		26+00	LT	1,112	
		26+00		30+65	RT/LT	2,365	
1	STH 100	30+65		31+68	RT/LT	1,110	
		31+30		31+50	LT	96	
		31+67		32+81	RT	120	
		31+68		39+48	RT/LT	4,803	
		60+42		62+56	RT/LT	1,258	
1	STH 100	62+56		63+53	RT/LT	1,300	
		63+53		71+50	RT/LT	3,964	
		71+50		86+25	RT/LT	7,150	
		86+25		101+00	RT/LT	7,760	126
		101+00		114+97	RT/LT	8,917	164
1	STH 100	123+89		126+09	RT/LT	81	
					STAGE 1 SUBTOTAL	45,206	290

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REMOVING PAVEMENT

STAGE	ROADWAY	STATION	TO	STATION	OFFSET	204.0100 REMOVING PAVEMENT SY	204.0110 REMOVING ASPHALTIC SURFACE SY
2	STH 100	12+35		23+11	RT	3,093	
		13+86		14+94	RT	123	
		17+92		22+07	RT/LT	1,334	
		23+11		24+02	RT	554	
		24+02		26+00	RT	822	
2	STH 100	26+00		35+71	RT	4,424	
		35+71		37+18	RT	1,547	
		37+18		39+48	RT	1,271	
		60+42		62+45	RT	1,057	
		62+45		63+56	RT	1,309	
2	STH 100	63+56		71+50	RT	3,769	58
		71+50		86+25	RT	7,000	188
		86+25		97+49	RT	5,871	
		97+49		98+32	RT	672	
		98+32		101+00	RT	1,234	
2	STH 100	101+00		115+01	RT	8,129	
		123+88		126+09	RT/LT	317	
					STAGE 2 SUBTOTAL	42,524	246
					TOTAL	**87,730**	**536**

CATEGORY 1000 UNLESS OTHERWISE NOTED

REMOVING SIDEWALK

STAGE	ROADWAY	STATION	TO	STATION	OFFSET	204.0155 REMOVING CONCRETE SIDEWALK SY
1	STH 100	17+97		23+22	LT	284
		30+65		30+76	LT	32
		32+83		32+87	LT	13
		112+91		114+68	LT	120
					SUBTOTALS	448
2	STH 100	30+68		30+94	RT	18
		91+07		91+97	RT	57
		92+48		92+60	RT	7
		98+15		101+00	RT	191
2	STH 100	101+00		104+55	RT	224
		114+85		114+91	RT	21
					SUBTOTALS	519
					TOTAL	967

REMOVING FENCE

STAGE	ROADWAY	STATION	OFFSET	TO	STATION	OFFSET	204.0170 REMOVING FENCE LF
1	STH 100	52RY+07			54RY+71	RT	264
		52RY+44			54RY+14	LT	170
1	STH 100	37+08	81' LT		39+47.64	110.17' LT	240
		60+41.32	106.12' LT		62+45	73' LT	204
						STAGE 1 SUBTOTAL	878
2	STH 100	37+36	86' RT		39+47.64	109.41' RT	212
		60+41.84	116.41' RT		62+40	80' RT	198
						STAGE 2 SUBTOTAL	410
			TOTAL			TOTAL	1288

CATEGORY 1000 UNLESS OTHERWISE NOTED

REMOVING MANHOLES AND INLETS

STAGE	ROADWAY	STATION	OFFSET	204.0210 REMOVING MANHOLES EACH	204.0220 REMOVING INLETS EACH
1	RAMP RYB	240RYB+70	6.0' RT	-	1
	RAMP RYB	241RYB+19	40.0' RT	-	1
	RAMP RYB	241RYB+58	71.0' RT	-	1
1	STH 100	18+60	47.0' LT	-	1
		18+65	6.7' RT	1	-
		19+01	46.9' LT	-	1
		21+50	6.3' LT	-	1
		23+50	46.6' LT	-	1
1	STH 100	23+51	0.3' LT	1	-
		23+58	82.0' LT	1	-
		24+02	2.1' LT	1	-
		24+09	4.5' RT	-	1
		29+99	2.9' LT	-	1
1	STH 100	29+99	46.9' LT	-	1
		30+00	0.7' RT	1	-
		30+55	3.1' LT	-	1
		30+56	0.2' RT	1	-
		30+83	80.4' LT	-	1
1	STH 100	31+37	83.8' LT	-	1
		31+48	68.0' LT	1	-
		32+49	46.7' LT	-	1
		32+50	67.8' LT	1	-
		35+25	0.5' RT	-	1
1	STH 100	35+25	5.6' LT	1	-
		35+25	46.9' LT	-	1
		37+04	0.1' LT	1	-
		37+09	50.9' LT	-	1
		39+53	51.0' LT	-	1
1	STH 100	61+30	56.2' LT	-	1
		62+15	51.6' LT	-	1
		62+33	4.5' LT	-	1
		62+49	4.7' LT	-	1
		62+50	51.0' LT	-	1
1	STH 100	62+70	105.1' LT	-	1
		62+76	94.2' LT	1	-
		63+06	85.6' LT	1	-
		63+32	104.3' LT	-	1
		63+43	111.8' LT	-	1
1	STH 100	64+30	4.1' RT	-	1
		64+84	51.1' LT	-	1
		67+90	53.8' LT	-	1
		68+54	16.0' LT	-	1
		70+39	53.8' LT	-	1

REMOVING MANHOLES AND INLETS

STAGE	ROADWAY	STATION	OFFSET	204.0210 REMOVING MANHOLES EACH	204.0220 REMOVING INLETS EACH
1	STH 100	73+42	53.8' LT	-	1
		73+54	16.5' LT	-	1
		73+62	82.4' LT	-	1
		73+66	54.1' LT	-	1
		78+56	4.0' RT	-	1
1	STH 100	78+78	15.9' LT	-	1
		79+90	53.7' LT	-	1
		80+03	59.1' LT	-	1
		82+39	53.7' LT	1	-
		84+81	16.1' LT	-	1
1	STH 100	85+99	16.0' LT	-	1
		90+61	16.3' LT	-	1
		91+41	53.5' LT	1	-
		94+92	54.1' LT	1	-
		98+28	6.1' LT	-	1
1	STH 100	98+36	53.7' LT	-	1
		100+71	16.3' LT	-	1
		100+71	53.8' LT	-	1
		102+91	54.1' LT	-	1
		104+57	53.9' LT	-	1
1	STH 100	106+51	53.9' LT	-	1
		108+69	4.5' RT	-	1
		108+88	53.8' LT	-	1
		109+63	15.2' LT	1	-
		111+91	2.6' LT	-	1
1	STH 100	111+92	12.0' LT	-	1
		111+92	53.8' LT	-	1
		114+42	53.6' LT	-	1
		114+56	7.6' LT	-	1
		114+76	1.3' LT	1	-
			STAGE 1 SUBTOTAL	17	56

REMOVING MANHOLES AND INLETS

STAGE	ROADWAY	STATION	OFFSET	204.0210 REMOVING MANHOLES EACH	204.0220 REMOVING INLETS EACH
2	STH 100	19+01	47.5' RT	-	1
		19+51	47.2' RT	-	1
		21+51	6.4' RT	1	-
		23+51	46.8' RT	-	1
		29+99	47.4' RT	-	1
2	STH 100	32+49	47.2' RT	-	1
		32+50	0.5' LT	1	-
		32+50	3.6' RT	-	1
		35+25	46.9' RT	-	1
		37+17	71.7' RT	-	1
2	STH 100	61+30	51.0' RT	-	1
		62+08	50.9' RT	-	1
		62+51	51.1' RT	-	1
		64+85	50.9' RT	-	1
		66+65	53.9' RT	-	1
2	STH 100	68+54	16.3' RT	-	1
		68+71	53.8' RT	-	1
		70+40	53.7' RT	-	1
		72+70	53.8' RT	1	-
		72+90	16.3' RT	-	1
2	STH 100	73+06	53.8' RT	-	1
		75+61	53.8' RT	-	1
		76+81	53.9' RT	-	1
		79+90	53.8' RT	-	1
		82+40	53.9' RT	-	1
2	STH 100	84+81	16.4' RT	-	1
		85+99	16.2' RT	-	1
		85+99	53.9' RT	-	1
		90+62	4.4' RT	-	1
		91+42	54.0' RT	-	1
2	STH 100	94+91	54.0' RT	-	1
		98+37	54.0' RT	1	-
		98+65	16.4' RT	-	1
		100+41	53.8' RT	1	-
		102+72	53.8' RT	-	1
2	STH 100	104+94	54.2' RT	-	1
		109+62	53.9' RT	-	1
		109+63	7.9' RT	1	-
		112+89	59.3' RT	-	1
		112+91	53.8' RT	1	-
2	STH 100	114+29	77.4' RT	1	-
			STAGE 2 SUBTOTAL	8	31
			TOTAL	25	87

CATEGORY 1000 UNLESS OTHERWISE NOTED

REMOVING STORM SEWER

STAGE	ROADWAY	STATION	TO	STATION	OFFSET	204.0245.0001 12-INCH LF	204.0245.0002 15-INCH LF	204.0245.0003 18-INCH LF	204.0245.0004 21-INCH LF	204.0245.0005 24-INCH LF	204.0245.0006 30-INCH LF	204.0245.0007 36-INCH LF	204.0245.0008 42-INCH LF	204.0245.0009 48-INCH LF	204.0245.0010 72-INCH LF
STAGE 1	STH 100	53RY+32		53RY+32	RT/LT	-	-	-	-	-	-	-	-	-	227
	RAMP RYB	240RYB+70		241RYB+19	RT	55	-	-	-	-	-	-	-	-	-
	RAMP RYB	241RYB+19		241RYB+50	RT	-	45	-	-	-	-	-	-	-	-
	RAMP RYB	241RYB+19		241RYB+58	RT	51	-	-	-	-	-	-	-	-	-
STAGE 1	STH 100	18+60		18+65	LT	-	-	55	-	-	-	-	-	-	-
		18+60		19+00	LT	-	41	-	-	-	-	-	-	-	-
		18+65		20+08	RT	-	-	-	-	-	-	-	-	-	-
		21+50		21+51	LT	-	-	-	-	8	-	-	-	-	-
		23+10		23+51	RT/LT	-	-	41	-	-	-	-	-	-	-
STAGE 1	STH 100	23+50		23+51	LT	46	-	-	-	-	-	-	-	-	-
		23+50		23+58	LT	34	-	-	-	-	-	-	-	-	-
		23+51		23+51	RT/LT	7	-	-	-	-	-	-	-	-	-
		23+51		23+95	LT	48	-	-	-	-	-	-	-	-	-
		23+95		24+02	LT	-	-	7	-	-	-	-	-	-	-
STAGE 1	STH 100	24+02		24+09	LT	10	-	-	-	-	-	-	-	-	-
		29+99		30+00	RT/LT	48	-	-	-	-	-	-	-	-	-
		30+00		30+00	RT	6	-	-	-	-	-	-	-	-	-
		30+00		30+56	RT	-	57	-	-	-	-	-	-	-	-
		30+55		30+56	RT/LT	3	-	-	-	-	-	-	-	-	-
STAGE 1	STH 100	30+56		31+67	RT/LT	-	111	-	-	-	-	-	-	-	-
		30+83		31+37	LT	55	-	-	-	-	-	-	-	-	-
		31+37		31+48	LT	19	-	-	-	-	-	-	-	-	-
		31+48		32+50	LT	102	-	-	-	-	-	-	-	-	-
		32+13		32+50	LT	-	37	-	-	-	-	-	-	-	-
STAGE 1	STH 100	32+50		32+50	LT	20	-	-	-	-	-	-	-	-	-
		32+50		32+50	LT	47	-	-	-	-	-	-	-	-	-
		32+50		32+50	RT	14	-	-	-	-	-	-	-	-	-
		32+50		35+25	LT	-	-	-	-	275	-	-	-	-	-
		35+25		35+25	LT	-	42	-	-	-	-	-	-	-	-
STAGE 1	STH 100	35+25		35+25	LT	-	5	-	-	-	-	-	-	-	-
		35+25		35+25	RT	-	12	-	-	-	-	-	-	-	-
		35+25		37+04	LT	-	-	-	-	-	180	-	-	-	-
		37+04		37+09	LT	52	-	-	-	-	-	-	-	-	-
		37+04		39+72	LT/CTR	-	-	-	-	-	-	-	-	268	-
STAGE 1	STH 100	39+53		39+72	LT	54	-	-	-	-	-	-	-	-	-
		61+30		62+15	LT	86	-	-	-	-	-	-	-	-	-
		62+15		62+50	LT	35	-	-	-	-	-	-	-	-	-
		62+33		62+49	LT	15	-	-	-	-	-	-	-	-	-
		62+49		62+50	LT	46	-	-	-	-	-	-	-	-	-
STAGE 1	STH 100	62+49		62+49	RT/LT	11	-	-	-	-	-	-	-	-	-
		62+49		63+22	LT	-	74	-	-	-	-	-	-	-	-
		62+70		62+76	LT	13	-	-	-	-	-	-	-	-	-
		62+76		63+06	LT	-	-	-	-	-	33	-	-	-	-
		63+06		63+22	RT/LT	-	-	-	-	-	88	-	-	-	-
STAGE 1	STH 100	63+06		63+32	LT	-	-	33	-	-	-	-	-	-	-
		63+22		63+31	RT	-	-	-	-	-	130	-	-	-	-
		63+22		64+30	RT	-	108	-	-	-	-	-	-	-	-
		63+32		63+43	LT	-	13	-	-	-	-	-	-	-	-
		64+30		64+84	RT/LT	77	-	-	-	-	-	-	-	-	-

CATEGORY 1000 UNLESS OTHERWISE NOTED

(CONTINUED ON NEXT SHEET)

REMOVING STORM SEWER

STAGE	ROADWAY	STATION	TO	STATION	OFFSET	204.0245.0001 12-INCH LF	204.0245.0002 15-INCH LF	204.0245.0003 18-INCH LF	204.0245.0004 21-INCH LF	204.0245.0005 24-INCH LF	204.0245.0006 30-INCH LF	204.0245.0007 36-INCH LF	204.0245.0008 42-INCH LF	204.0245.0009 48-INCH LF	204.0245.0010 72-INCH LF
STAGE 1	STH 100	67+90		68+54	LT	-	-	-	74	-	-	-	-	-	-
		68+54		68+54	RT/LT	-	-	-	28	-	-	-	-	-	-
		70+39		70+40	RT/LT	65	-	-	-	-	-	-	-	-	-
		73+09		73+66	RT/LT	-	-	-	-	-	-	85	-	-	-
		73+42		73+66	LT	24									
STAGE 1	STH 100	73+42		73+54	LT	17	-	-	-	-	-	-	-	-	-
		73+42		73+66	LT	-	-	29	-	-	-	-	-	-	-
		73+66		79+90	LT	-	-	-	-	-	-	629	-	-	-
		78+56		78+78	RT/LT	28	-	-	-	-	-	-	-	-	-
		78+78		78+78	LT	38	-	-	-	-	-	-	-	-	-
STAGE 1	STH 100	79+89		79+90	RT/LT	68	-	-	-	-	-	-	-	-	-
		79+90		79+92	LT	25	-	-	-	-	-	-	-	-	-
		79+90		82+40	LT	-	-	-	-	-	-	250	-		
		80+03		80+03	LT	4	-	-	-	-	-	-	-	-	-
		82+40		82+40	RT/LT	67	-	-	-	-	-	-	-	-	-
STAGE 1	STH 100	84+81		84+91	LT	12	-	-	-	-	-	-	-	-	-
		84+83		84+96	RT/LT	-	-	-	39	-	-	-	-	-	-
		85+99		85+99	RT/LT	-	-	8	-	-	-	-	-	-	-
		85+99		86+01	LT	-	-	28	-	-	-	-	-	-	-
		90+61		90+61	RT/LT	22	-	-	-	-	-	-	-	-	-
STAGE 1	STH 100	91+41		94+92	LT	-	-	-	-	-	-	-	351	-	-
		94+92		94+92	RT/LT	67	-	-	-	-	-	-	-	-	-
		94+92		96+87	RT/LT	-	-	-	-	-	-	205	-	-	-
		98+28		98+36	LT	49	-	-	-	-	-	-	-	-	-
		98+28		98+60	RT/LT	44	-	-	-	-	-	-	-	-	-
STAGE 1	STH 100	100+58		100+71	RT/LT	-	-	33	-	-	-	-	-	-	-
		100+71		100+71	LT	-	-	39	-	-	-	-	-	-	-
		100+71		102+91	LT	-	-	220	-	-	-	-	-	-	-
		102+91		104+57	LT	165	-	-	-	-	-	-	-	-	-
		106+51		108+88	LT	238	-	-	-	-	-	-	-	-	-
STAGE 1	STH 100	108+69		109+43	RT	73	-	-	-	-	-	-	-	-	-
		108+88		109+63	LT	85	-	-	-	-	-	-	-	-	-
		109+63		109+63	RT/LT	22	-	-	-	-	-	-	-	-	-
		111+91		112+05	RT/LT	16	-	-	-	-	-	-	-	-	-
		111+91		111+92	LT	9	-	-	-	-	-	-	-	-	-
STAGE 1	STH 100	111+92		111+92	LT	42	-	-	-	-	-	-	-	-	-
		114+42		114+76	LT	63	-	-	-	-	-	-	-	-	-
		114+42		114+98	LT	88	-	-	-	-	-	-	-	-	-
		114+56		114+76	LT	21	-	-	-	-	-	-	-	-	-
					STAGE 1 SUBTOTAL	2306	545	493	141	283	431	1169	351	268	227

CATEGORY 1000 UNLESS OTHERWISE NOTED

(CONTINUED ON NEXT SHEET)

REMOVING STORM SEWER

STAGE	ROADWAY	STATION	TO	STATION	OFFSET	204.0245.0001 12-INCH LF	204.0245.0002 15-INCH LF	204.0245.0003 18-INCH LF	204.0245.0004 21-INCH LF	204.0245.0005 24-INCH LF	204.0245.0006 30-INCH LF	204.0245.0007 36-INCH LF	204.0245.0008 42-INCH LF	204.0245.0009 48-INCH LF	204.0245.0010 72-INCH LF
STAGE 2	STH 100	20+08		21+51	RT	-	-	-	-	-	143	-	-	-	-
		18+72		19+01	RT	-	-	55	-	-	-	-	-	-	-
		19+01		19+51	RT	50	-	-	-	-	-	-	-	-	-
		21+51		21+51	RT	-	-	-	-	5	-	-	-	-	-
		21+51		23+10	RT	-	-	160	-	-	-	-	-	-	-
STAGE 2	STH 100	23+51		23+51	RT	44	-	-	-	-	-	-	-	-	-
		29+99		29+30	RT	41	-	-	-	-	-	-	-	-	-
		31+67		32+13	LT	-	46	-	-	-	-	-	-	-	-
		32+49		32+50	RT	33	-	-	-	-	-	-	-	-	-
		35+25		35+25	RT	-	36	-	-	-	-	-	-	-	-
STAGE 2	STH 100	37+04		37+17	RT	73	-	-	-	-	-	-	-	-	-
		61+30		62+08	RT	80	-	-	-	-	-	-	-	-	-
		62+08		62+51	RT	42	-	-	-	-	-	-	-	-	-
		62+49		62+51	RT	45	-	-	-	-	-	-	-	-	-
		64+32		64+85	RT	69	-	-	-	-	-	-	-	-	-
STAGE 2	STH 100	66+65		68+71	RT	205	-	-	-	-	-	-	-	-	-
		68+53		68+54	RT	-	-	-	4	-	-	-	-	-	-
		68+54		68+71	RT	-	-	-	-	42	-	-	-	-	-
		68+71		70+40	RT	-	-	-	170	-	-	-	-	-	-
		70+40		70+40	RT	44	-	-	-	-	-	-	-	-	-
STAGE 2	STH 100	70+40		72+70	RT	-	-	-	-	-	230	-	-	-	-
		72+70		73+09	RT	-	-	-	-	-	-	59	-	-	-
		72+70		73+06	RT	36	-	-	-	-	-	-	-	-	-
		72+90		72+98	RT	11	-	-	-	-	-	-	-	-	-
		73+06		75+61	RT	255	-	-	-	-	-	-	-	-	-
STAGE 2	STH 100	76+81		79+90	RT	309	-	-	-	-	-	-	-	-	-
		79+89		79+90	RT	40	-	-	-	-	-	-	-	-	-
		82+40		82+40	RT	42	-	-	-	-	-	-	-	-	-
		84+66		84+81	RT	-	-	41	-	-	-	-	-	-	-
		84+81		84+83	RT	-	-	-	5	-	-	-	-	-	-

CATEGORY 1000 UNLESS OTHERWISE NOTED

(CONTINUED ON NEXT SHEET)

REMOVING STORM SEWER

STAGE	ROADWAY	STATION	TO	STATION	OFFSET	204.0245.0001 12-INCH LF	204.0245.0002 15-INCH LF	204.0245.0003 18-INCH LF	204.0245.0004 21-INCH LF	204.0245.0005 24-INCH LF	204.0245.0006 30-INCH LF	204.0245.0007 36-INCH LF	204.0245.0008 42-INCH LF	204.0245.0009 48-INCH LF	204.0245.0010 72-INCH LF
STAGE 2	STH 100	85+99		85+99	RT	-	-	4	-	-	-	-	-	-	-
		85+99		85+99	RT	-	-	36	-	-	-	-	-	-	-
		90+64		91+42	RT	95	-	-	-	-	-	-	-	-	-
		94+91		94+92	RT	41	-	-	-	-	-	-	-	-	-
		96+87		98+37	RT	-	-	-	-	-	-	157	-	-	-
STAGE 2	STH 100	98+37		98+40	RT	9	-	-	-	-	-	-	-	-	-
		98+37		98+65	RT	46	-	-	-	-	-	-	-	-	-
		98+37		100+41	RT	-	-	-	-	-	-	204	-	-	-
		100+41		100+58	RT	-	-	43	-	-	-	-	-	-	-
		100+41		102+72	RT	-	-	-	-	-	-	231	-	-	-
STAGE 2	STH 100	102+72		104+94	RT	-	221	-	-	-	-	-	-	-	-
		109+43		109+63	RT	19	-	-	-	-	-	-	-	-	-
		109+62		109+63	RT	47	-	-	-	-	-	-	-	-	-
		109+62		112+91	RT	-	-	-	-	328	-	-	-	-	-
		112+05		112+91	RT	99	-	-	-	-	-	-	-	-	-
STAGE 2	STH 100	112+89		112+91	RT	6	-	-	-	-	-	-	-	-	-
		112+91		114+29	RT	-	-	-	-	-	140	-	-	-	-
		114+29		114+43	RT	-	-	-	-	-	16	-	-	-	-
					STAGE 2 SUBTOTAL	1781	303	339	179	375	529	651	0	0	0
					TOTAL	4087	848	832	320	658	960	1820	351	268	227

CATEGORY 1000 UNLESS OTHERWISE NOTED

3

EARTHWORK SUMMARY

ALL QUANTITIES IN CY

Stage	From/To Station	Location	(1) Excavation Common Item 205.0100		(2) Salvaged/Unusable Pavement Material	(5) Available Material	Reduced EBS in Fill	Expanded EBS Back fill	(6) Unexpanded Fill	Expanded Fill	(7) Mass Ordinate +/-	(8) Waste	Borrow Item 208.0100
			Cut	EBS Excavation									
1	36P+20 to 43P+50	POND	13,474	0	0	13,474			53	64	13,411	13,411	-13,411
1	240 RYB+50 to 247+93	RAMP RYB	7,731	0	0	7,731			67,027	80,433	-72,702	-72,702	72,702
1	240 RYB+50 to 247+93	SE DET POND	7	0	0	7			14,338	17,205	-17,198	-17,198	17,198
1	12+95.0 to 39+48	RYAN RD	17,444	0	3,374	14,070			179	214	13,856	13,856	-13,856
1	60+42 to 114+97	RYAN RD	35,466	0	7,660	27,806			272	326	27,480	27,480	-27,480
Stage 1 Total			74,123	0	11,034	63,089			81,868	98,242	-35,154	-35,154	35,154
2	12+95.0 to 39+48	RYAN RD	13,626	0	3,292	10,334			1,074	1,289	9,045	9,045	-9,045
2	60+42 to 114+97	RYAN RD	27,625	0	7,406	20,219			1,895	2,274	17,945	17,945	-17,945
Stage 2 Total			41,251	0	10,698	30,553			2,969	3,562	26,991	26,991	-26,991
		UNDISTRIBUTED		2,000									
Grand Total			**115,374**	**2,000**	**21,732**	**93,642**	**0**	**0**	**84,837**	**101,805**	**-8,163**	**-8,163**	**8,163**

EARTHWORK SUMMARY NOTES:

1) Common Excavation is the sum of the Cut and EBS Excavation columns. Item number 205.0100
2) Salvaged/Unusable Pavement Material is included in Cut.
3) EBS Excavation to be backfilled with Borrow or Cut.
4) Salvaged/Unusable Pavement Material - Not shown in Earthwork Detail Sheets.
5) Available Material = Cut - Salvaged/Unusable Pavement Material
6) Expanded Fill Factor = 1.20
7) The Mass Ordinate + or - Quantity calculated for the Stage. Plus quantity indicates and excess of material within the Stage. Minus indicates a shortage of material within the Stage. (Incl. Salvaged/Unusable Pavemente Quantities shown in this table). The Mass Ordinate number will vary between the summary and individual detail sheets due to the Salvaged/Unusable Pavement Material being shown in the summary sheet only.
8) The waste quantity from Ryan Road and Pond construction to be used as Ramp RYB preloading

REMOVING UNDERDRAIN

STAGE	ROADWAY	STATION	TO	STATION	OFFSET	204.9090.S REMOVING UNDERDRAIN LF
1	STH 100	12+87		17+92	LT	515
		14+65		17+07	MED	243
					SUBTOTALS	758
2	STH 100	12+90		18+70	RT	590
		17+99		18+70	MED	71
					SUBTOTALS	661
					TOTAL	1,419

EXCAVATING PETROLEUM CONTAMINATED SOILS

STAGE	ROADWAY	STATION	TO	STATION		205.0502.S EXCAVATION, HAULING AND DISPOSAL OF PETROLEUM CONTAMINATED SOILS TONS
1	STH 100	13+00		15+00	LT	550
				SUBTOTALS		550
				TOTAL		550

BASE AGGREGATE DENSE

STAGE	ROADWAY	STATION	TO	STATION	305.0120* BASE AGGREGATE DENSE 1&1/4-INCH TON	310.0110 BASE AGGREGATE OPEN GRADED TON	312.0115 SELECT CRUSHED MATERIAL CY
1	STH 100	17+99		21+15	141		187
1	STH 100	12+97		17+99	528	358	
		14+65		17+07	85	74	
		17+99		23+17	984		1214
		23+17		23+95	301		390
		23+95		30+65	1,844		2278
1	STH 100	30+65		31+68	437		565
		31+68		40+48	2,699		3417
		52+89		53+72	675		
		59+34		62+56	870		1094
		62+56		63+53	470		607
1	STH 100	63+53		71+50	2,350		2936
		71+50		86+25	3,745		4607
		86+25		101+00	3,639		4612
		101+00		114+97	3,885		4814
APRONS & DRIVEWAYS					140		
BASE FOR ASPHALT DRIVEWAYS					123		
				SUBTOTAL	22,917	432	26,721
2	STH 100	12+87		18+68	402	273	
		17+99		21+15	395		459
		18+68		23+11	934		1198
		23+11		24+02	207		266
		24+02		35+71	2,907		3672
2	STH 100	35+71		37+18	590		752
		37+18		40+48	776		996
		58+93		62+46	817		1068
		62+46		63+56	507		652
		63+56		71+50	1,794		2274
2	STH 100	71+50		86+25	3,163		4013
		86+25		97+49	2,528		3231
		97+49		98+32	248		322
		98+32		115+01	3,943		5031
APRONS & DRIVEWAYS					391		
BASE FOR ASPHALT DRIVEWAYS					118		
GRAVEL DRIVEWAYS					89		
				SUBTOTAL	19,809	273	23,934
				UNDISTRIBUTED			2,500
				TOTAL	42,726	705	53,155

CATEGORY 1000 UNLESS OTHERWISE NOTED

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3

CONCRETE PAVEMENT

STAGE	ROADWAY	STATION	TO	STATION	415.0085 CONCRETE PAVEMENT 8.5-INCH SY	415.0090 CONCRETE PAVEMENT 9-INCH SY	416.0170 CONCRETE DRIVEWAY 7-INCH SY	415.1085 CONCRETE PAVEMENT HES 8.5-INCH SY	416.0610 DRILLED TIE BARS* EACH	416.0620 DRILLED DOWEL BARS* EACH
1	STH 100	17+99		21+15	422					
1	STH 100	12+97		17+99		1311			170	
		17+99		23+17	2,209					32
		14+65		17+07	128					
		23+17		23+95				818		
		23+95		30+65	4,155					
1	STH 100	30+65		31+68				1,186		
		31+68		40+06	5,948					
		60+42		62+56	1,425					
		62+56		63+53				1,267		
		63+53		71+50	5,548					
1	STH 100	71+50		86+25	8,242					
		79+17	LT	APRON			60			
		86+25		101+00	8,378					
		87+71	LT	APRON			17			
		100+11	LT	APRON			41			
1	STH 100	101+00		114+97	8,854					
		101+51	LT	APRON,PE			64			
		104+21	LT	APRON			61			
		109+51	LT	APRON			63			
		112+30	LT	APRON			61			
1	STH 100	112+75	LT	APRON			53			
				SUBTOTAL	45,309	1,311	421	3,271	170	32

CATEGORY 1000 UNLESS OTHERWISE NOTED

(CONTINUED ON NEXT SHEET)

3

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CONCRETE PAVEMENT

STAGE	ROADWAY	STATION	TO	STATION	415.0085 CONCRETE PAVEMENT 8.5-INCH SY	415.0090 CONCRETE PAVEMENT 9-INCH SY	416.0170 CONCRETE DRIVEWAY 7-INCH SY	415.1085 CONCRETE PAVEMENT HES 8.5-INCH SY	416.0610 DRILLED TIE BARS* EACH	416.0620 DRILLED DOWEL BARS* EACH
2	STH 100	12+87		18+68		789			283	
		18+68		23+11	2,553					25
		17+60	RT	APRON			69			
		17+99		21+15	675					
		20+86	RT	APRON			68			
2	STH 100	21+34	RT	APRON			53			
		23+11		24+02			548			
		23+54	RT	APRON			52			
		24+02		35+71	6,911					
		31+68		34+34	254					
2	STH 100	35+71		37+18				1,510		
		37+18		39+48	1,342					
		60+42		62+46	1,383					
		62+46		63+56				1,343		
		63+56		71+50	4,480					
2	STH 100	66+80	RT	APRON, PE			40			
		68+93	RT	APRON			21			
		71+50		86+25	7,936					
		77+10	RT	APRON			18			
		77+89	RT	APRON, PE			161			
2	STH 100	79+19	RT	APRON			40			
		86+25		97+49	6,518					
		97+49		98+32				685		
		98+32		115+01	10,098					
		104+73	RT	APRON			60			
2	STH 100	109+25	RT	APRON			43			
				SUBTOTAL	42,150	789	1,173	3,538	283	25
				UNDISTRIBUTED				1,000		
				TOTAL	87,458	2,100	1,594	7,809	453	57

CATEGORY 1000 UNLESS OTHERWISE NOTED

CONCRETE PAVEMENT REPAIR

STAGE	ROADWAY	STATION	TO	STATION	416.1715 CONCRETE PAVEMENT REPAIR SHES SY	416.0610 DRILLED TIE BARS* EACH	416.0620 DRILLED DOWEL BARS* EACH
1	STH 100	7+72		7+82	44	10	48
1	STH 100	15+57		15+67	27	5	40
1	STH 100	17+05		17+15	27	5	32
1	STH 100	42+02		42+55	65	40	16
1	27TH ST	45+12		45+22	37	10	48
1	27TH ST	46+62		46+72	36	10	48
1	27TH ST	54+41		54+51	41	10	48
1	13TH ST	45+73		45+83	27	8	32
1	13TH ST	47+02		47+12	27	8	32
1	13TH ST	52+86		52+96	29	8	32
1	13TH ST	54+17		54+27	31	8	32
				TOTAL	390	122	408

INCENTIVE IRI RIDE

LOCATION	440.4410.S DOL
PROJECT 2040-16-70	$17,800
TOTAL	17,800

INCENTIVE DENSITY HMA PAVEMENT

LOCATION	460.2000 DOL
PROJECT 2040-16-70	$630
TOTAL	$630

TEMPORARY ASPHALT ITEMS

STAGE	ROADWAY	STATION	TO	STATION	305.0120* BASE AGGREGATE DENSE 1 1/4 INCH TON	465.0125 ASPHALTIC SURFACE TEMPORARY TON
1	STH 100	17+93	MED	22+07	337	167
		30+33	MED	30+65	23	11
		31+67	MED	33+05	55	27
		35+68	MED	36+23	56	28
		36+71	RT	36+79	4	2
1	STH 100	38+89	MED	40+48	110	54
		41+27	RT	41+61	74	36
		58+84	MED	60+78	177	88
		59+57	RT	62+68	226	112
		112+42	RT	114+81	32	16
1	STH 100	114+57	RT	114+96	23	11
		123+88	MED	126+09	133	66
				TOTAL	1250	619

ASPHALTIC ITEMS

STAGE	ROADWAY	STATION	TO	STATION	455.0115 ASPHALTIC MATERIAL PG64-22 TON	455.0605 TACK COAT GALLON	460.1103 HMA PAVEMENT TYPE E-3 TON	465.0310 ASPHALTIC CURB LF	465.0120 ASPHALTIC SURFACE DRIVEWAYS TON
1	STH 100	39+48		40+48	9	18	143	123	
		52+89		53+72	21	22	356		
		59+42		60+42	9	19	148	199	
		79+17	LT						16
		87+71	LT						1
1	STH 100	100+11	LT						1
		104+21	LT						5
		109+51	LT						32
		112+30	LT						6
		112+75	LT						20
				STAGE 1 SUBTOTAL	39	59	647	322	81
2	STH 100	39+48		40+48	9	21	153	189	
		58+93		60+42	12	25	197	234	
		15+55	RT						9
		17+60	RT						10
		20+86	RT						4
2	STH 100	21+34	RT						12
		23+54	RT						5
		31+14	RT						13
		77+10	RT						9
		104+73	RT						11
2	STH 100	109+25	RT						5
				STAGE 2 SUBTOTAL	21	46	351	423	78
				TOTAL	60	105	998	745	159

CATEGORY 1000 UNLESS OTHERWISE NOTED

CONCRETE CURB

STAGE	ROADWAY	STATION	TO	STATION	OFFSET	601.0600 CONCRETE CURB PEDESTRIAN LF	601.0331 CONCRETE CURB & GUTTER 31-INCH LF	601.0411 CONCRETE CURB & GUTTER 30-INCH TYPE D LF	601.0501 CONCRETE CURB & GUTTER INTEGRAL 4-INCH SLOPED 36-INCH LF	601.0551 CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE A LF
1	STH 100	13+99	-	17+50	LT	-	-	-	-	512
		14+65	-	17+07	MEDIAN	-	-	-	-	243
		17+80	-	23+40	LT	-	-	-	-	617
		22+07	-	23+03	MEDIAN	-	-	-	-	192
		23+76	-	26+00	LT	-	-	-	-	256
1	STH 100	24+09	-	26+00	MEDIAN	-	-	-	-	197
		26+00	-	30+55	MEDIAN	-	-	-	-	858
		26+00	-	30+84	LT	-	-	-	-	512
		31+31	-	37+11	LT	-	-	-	-	653
		33+34	-	36+17	MEDIAN	-	-	-	-	332
1	STH 100	36+38	-	37+11	LT	-	141	-	-	-
		36+54	-	36+60	LT	-	40	-	-	-
		36+67	-	40+06	LT	-	-	-	-	392
		37+15	-	39+48	MEDIAN	-	-	-	-	243
		52+90	-	53+72	LT	-	-	82	-	-
1	STH 100	52+90	-	53+72	MEDIAN	-	-	82	-	-
		52+89	-	53+72	RT	-	-	82	-	-
		52+89	-	53+72	MEDIAN	-	-	82	-	-
		60+42	-	62+69	LT	-	-	-	-	256
		60+42	-	62+47	MEDIAN	-	-	-	-	410
1	STH 100	63+09	-	63+20	LT	-	99	-	-	
		63+44	-	74+00	LT	-	-	-	-	1091
		63+66	-	68+65	MEDIAN	-	-	-	-	755
		69+42	-	74+00	MEDIAN	-	-	-	-	474
		74+00	-	84+48	LT	-	-	-	-	1048
1	STH 100	74+00	-	78+62	MEDIAN	-	-	-	-	699
		79+71	-	84+35	MEDIAN	-	-	-	-	878
		85+15	-	89+00	MEDIAN	-	-	-	-	720
		85+34	-	85+96	LT	-	-	-	65	-
		86+00	-	97+50	LT	-	-	-	1153	-
1	STH 100	89+00	-	91+70	MEDIAN	-	-	-	-	542
		92+79	-	96+36	MEDIAN	-	-	-	-	914
		97+50	-	97+70	LT	-	-	-	-	27
		98+11	-	98+31	LT	-	-	-	-	27
		98+19	-	103+83	MEDIAN	-	-	-	-	1128
1	STH 100	98+31	-	99+69	LT	-	-	-	138	-
		99+69	-	104+00	LT	-	-	-	-	431
		104+00	-	114+70	LT	-	-	-	-	1081
		105+07	-	108+71	MEDIAN	-	-	-	-	728
		109+83	-	114+61	MEDIAN	-	-	-	-	958
		111+24	-	112+12	LT	88	-	-	-	-
					SUBTOTALS	88	280	328	1356	17174

CATEGORY 1000 UNLESS OTHERWISE NOTED

(CONTINUED ON NEXT SHEET)

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CONCRETE CURB

STAGE	ROADWAY	STATION	TO	STATION	OFFSET	601.0600 CONCRETE CURB PEDESTRIAN LF	601.0331 CONCRETE CURB & GUTTER 31-INCH LF	601.0411 CONCRETE CURB & GUTTER 30-INCH TYPE D LF	601.0501 CONCRETE CURB & GUTTER INTEGRAL 4-INCH SLOPED 36-INCH LF	601.0551 CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE A LF
2	STH 100	12+90	-	26+00	RT	-	-	-	-	1334
		13+88	-	14+93	RT	105	-	-	-	-
		17+99	-	22+07	MEDIAN	-	-	-	-	816
		24+17	-	26+00	MEDIAN	-	-	-	-	186
		26+00	-	30+91	RT	-	-	-	-	514
2	STH 100	26+00	-	26+54	MEDIAN			-		54
		31+37	-	36+53	RT	-	-	-	-	524
		31+74	-	35+68	MEDIAN	-	-	-	-	555
		36+39	-	36+53	RT	-	120	-	-	-
		36+84	-	39+48	RT	-	-	-	-	364
2	STH 100	37+25	-	39+48	MEDIAN	-	-	-	-	222
		60+42	-	62+60	RT	-	-	-	-	246
		62+95	-	63+04	RT	-	133	-	-	-
		63+44	-	74+00	RT	-	-	-	-	1106
		63+66	-	66+09	MEDIAN	-	-	-	-	243
2	STH 100	69+58	-	74+00	MEDIAN	-	-	-	-	442
		74+00	-	76+26	MEDIAN	-	-	-	-	226
		74+00	-	84+18	RT	-	-	-	-	1018
		85+03	-	89+00	RT	-	-	-	-	397
		89+00	-	92+08	RT	-	-	-	-	336
2	STH 100	92+42	-	97+69	RT	-	-	-	-	574
		98+13	-	104+00	RT	-	-	-	-	605
		104+00	-	114+99	RT	-	-	-	-	1130
		114+61	-	114+94	RT	-	-	-	-	67
					SUBTOTALS	105	253	0	0	10959
					TOTAL	193	533	328	1356	28133

CATEGORY 1000 UNLESS OTHERWISE NOTED

CONCRETE SIDEWALK 5 INCH

STAGE	ROADWAY	STATION	TO	STATION	OFFSET	305.0110* BASE AGGREGATE DENSE 3/4 INCH TON	602.0410 CONCRETE SIDEWALK 5-INCH SF
1	STH 100	11+55	-	11+82	LT	4	152
		11+57	-	11+75	RT	3	96
		12+16	-	12+33	RT	3	93
		12+44	-	12+58	LT	2	77
		13+14	-	17+40	LT	74	2576
1	STH 100	13+32	-	13+38	RT	1	48
		17+87	-	23+33	LT	94	3247
		23+81	-	26+00	LT	38	1302
		26+00	-	30+75	LT	90	3111
		28+37	-	30+55	MED	25	867
1	STH 100	31+52	-	36+50	LT	88	3063
		35+70	-	35+86	MED	3	120
		37+15	-	39+48	MED	27	925
		37+81	-	39+48	LT	46	1586
		60+41	-	62+47	MED	24	829
1	STH 100	60+41	-	62+46	RT	36	1233
		60+43	-	62+60	LT	39	1358
		63+07	-	63+16	LT	1	41
		63+66	-	74+00	LT	179	6226
		66+09	-	67+59	MED	17	602
1	STH 100	74+00	-	89+00	LT	251	8727
		89+00	-	97+68	LT	150	5201
		98+13	-	104+00	LT	92	3193
		98+19	-	98+25	MED	1	34
		104+00	-	114+68	LT	161	5599
1	STH 100	111+12	-	114+61	MED	40	1405
					SUBTOTAL	1489	51711
2	STH 100	12+94	-	26+00	RT	213	7387
		26+00	-	30+93	RT	87	3007
		31+40	-	35+92	RT	79	2760
		31+74	-	33+34	MED	18	636
		36+40	-	36+53	RT	2	73
2	STH 100	38+03	-	39+48	RT	42	1451
		62+96	-	63+03	RT	1	40
		63+53	-	74+00	RT	178	6197
		63+66	-	66+09	MED	28	966
		74+00	-	89+00	RT	247	8571
2	STH 100	89+00	-	91+95	RT	51	1755
		92+57	-	97+63	RT	87	3005
		98+18	-	104+00	RT	103	3562
		104+00	-	114+91	RT	182	6320
		114+80	-	114+94	RT	2	79
					SUBTOTAL	1319	45809
					TOTAL	2809	97520

CONCRETE BARRIER

STAGE	ROADWAY	STATION	TO	STATION	OFFSET	603.1242 CONCRETE BARRIER TYPE S42A LF	603.1442 CONCRETE BARRIER TYPE S42C LF	614.0800 CRASH CUSHIONS PERMANENT EACH
1	STH 100	84+35		85+65	5' LT	130	-	-
		84+47		85+34	58' LT	-	87	-
		85+34		85+59	58' LT	-	-	1
		85+65		85+90	5' LT	-	-	1
					STAGE 1 SUBTOTAL	130	87	2
2	STH 100	83+85		85+15	5' RT	130	-	-
		84+18		85+04	55.5' RT	-	86	-
		83+60		83+85	5' RT	-	-	1
		83+93		84+18	55.5' RT	-	-	1
					STAGE 2 SUBTOTAL	130	86	2
					TOTAL	260	173	4

CATEGORY 1000 UNLESS OTHERWISE NOTED

CURB RAMP

STAGE	ROADWAY	STATION	OFFSET	602.0505 CURB RAMP DETECTABLE WARNING FIELD YELLOW SF
1	STH 100	11+71	RT	4
		11+72	RT	4
		11+80	LT	8
		12+19	RT	8
		12+32	RT	8
1	STH 100	12+45	LT	8
		12+55	LT	8
		13+19	LT	4
		13+21	LT	4
		13+34	LT	4
1	STH 100	13+35	RT	8
		13+35	RT	8
		13+36	LT	4
		17+34	LT	4
		17+36	LT	4
1	STH 100	17+91	LT	4
		17+93	LT	4
		23+27	LT	4
		23+29	LT	4
		23+84	LT	4
1	STH 100	23+86	LT	4
		30+48	LT	4
		30+49	LT	8
		30+51	LT	4
		30+70	LT	4
1	STH 100	30+72	LT	4
		31+52	LT	4
		31+54	LT	4
		35+73	RT	8
		35+73	LT	8

CURB RAMP

STAGE	ROADWAY	STATION	OFFSET	602.0505 CURB RAMP DETECTABLE WARNING FIELD YELLOW SF
1	STH 100	35+73	LT	8
		36+46	LT	8
		36+87	LT	4
		36+89	LT	4
		62+40	LT	4
1	STH 100	62+41	LT	8
		62+42	LT	4
		62+55	LT	4
		62+57	LT	4
		63+10	LT	8
1	STH 100	63+15	LT	8
		63+72	LT	4
		63+74	LT	4
		63+90	LT	8
		97+64	LT	4
1	STH 100	97+66	LT	4
		98+15	LT	4
		98+17	LT	4
		98+21	LT	4
		98+22	RT	8
1	STH 100	98+22	RT	8
		98+24	LT	4
		114+63	LT	4
		114+65	LT	4
			SUBTOTALS	288

CURB RAMP

STAGE	ROADWAY	STATION	OFFSET	602.0505 CURB RAMP DETECTABLE WARNING FIELD YELLOW SF
2	STH 100	12+96	RT	4
		12+97	RT	4
		13+34	RT	8
		30+49	RT	8
		30+90	RT	8
2	STH 100	31+38	RT	8
		35+72	RT	4
		35+74	RT	4
		35+85	RT	4
		35+87	RT	4
2	STH 100	36+41	RT	8
		36+52	RT	8
		37+08	RT	4
		37+10	RT	4
		62+38	RT	4
2	STH 100	62+40	RT	4
		62+97	RT	8
		63+02	RT	8
		63+56	RT	4
		63+58	RT	4
2	STH 100	63+90	RT	8
		63+90	RT	8
		91+89	RT	4
		91+91	RT	4
		92+63	RT	4
2	STH 100	92+65	RT	4
		97+58	RT	4
		97+60	RT	4
		98+21	RT	8
		114+76	RT	8
2	STH 100	114+83	RT	8
		114+83	RT	8
		114+91	RT	8
			SUBTOTALS	192
			TOTAL	480

CATEGORY 1000 UNLESS OTHERWISE NOTED

STORM SEWER PIPE REINFORCED CONCRETE

ROADWAY	STAGE	STRUCTURE FROM	STRUCTURE TO	INVERT ELEVATION INLET	INVERT ELEVATION DISCHARGE	SLOPE	608.0324 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 24-INCH* LF	608.0330 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 30-INCH* LF	608.0336 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 36-INCH* LF	608.0348 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 48-INCH* LF	608.0412 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 12-INCH* LF	608.0418 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 18-INCH* LF	610.0119 STORM SEWER PIPE REINFORCED CONCRETE HE-III 19X30-INCH* LF
STH 100	1	101	103	699.79	699.69	1.00%					10		
	1	102	103	700.58	699.96	1.00%					62		
	1	103	107	699.16	697.84	0.50%						265	
	1	107	105	698.30	698.18	1.00%					12		
	1	106	107	698.80	698.30	1.00%					50		
STH 100	1	105	110	696.84	696.27	0.29%		194					
	1	110	115	696.27	695.96	0.29%		106					
	1	112	113	697.40	697.32	0.50%						16	
	1	113	114	697.32	697.00	0.50%						64	
	1	114	115	697.00	696.96	0.50%						8	
STH 100	1	116	949 EX	699.06	699.01	0.56%					9		
	1	118	935 EX	700.59	700.51	0.36%					22		
	1	119	932 EX	700.36	700.26	1.00%					10		
				STAGE 1 SUBTOTAL			0	300	0	0	175	353	0
STH 100	2	100	101	700.32	699.82	1.00%					50		
	2	104	105	699.07	698.45	1.00%					62		
	2	108	109	697.66	697.56	0.50%						20	
	2	109	110	697.56	697.27	0.50%						58	
	2	117	952 EX	699.40	699.30	1.00%					10		
STH 100	2	120	945 EX	699.04	698.94	0.33%					30		
				STAGE 2 SUBTOTAL			0	0	0	0	152	78	0
				SYSTEM 100 TOTAL			0	300	0	0	327	431	0

CATEGORY 1000 UNLESS OTHERWISE NOTED

STORM SEWER PIPE REINFORCED CONCRETE

ROADWAY	STAGE	STRUCTURE FROM	STRUCTURE TO	INVERT ELEVATION INLET	INVERT ELEVATION DISCHARGE	SLOPE	608.0324 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 24-INCH* LF	608.0330 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 30-INCH* LF	608.0336 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 36-INCH* LF	608.0348 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 48-INCH* LF	608.0412 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 12-INCH* LF	608.0418 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 18-INCH* LF	NOTES
STH 100	1	200	201	699.84	697.59	1.00%					226		
	1	201	205	697.59	697.44	1.00%					15		
	1	203	204	698.56	698.46	1.43%					7		
	1	204	205	698.46	698.09	1.00%					37		
	1	205	208	696.94	696.02	0.82%						112	
STH 100	1	206	207	696.54	696.22	0.50%						64	
	1	207	208	696.22	696.02	0.50%						40	
	1	208	211	696.02	694.74	0.82%						156	
	1	209	211	695.47	695.24	1.00%					23		
	1	211A	211	695.76	695.24	1.00%					52		
STH 100	1	211	218	694.24	692.08	0.69%	312						
	1	214	215	692.83	692.76	0.50%						14	
	1	215	218	692.76	692.71	0.50%						9	
	1	216	217	693.51	693.36	1.00%					15		
	1	217	218	692.86	692.58	0.50%						56	
STH 100	1	218	222	691.50	691.15	0.39%		90					
	1	220	221	693.18	693.11	1.00%					7		
	1	221	222	693.11	692.94	1.00%					17		
	1	222	227	689.00	688.47	0.20%				265			
	1	223	EXIST MH	694.00	693.88	1.00%					12		
STH 100	1	224	EXIST MH	694.09	694.00	1.00%					9		
	1	225	227	694.67	693.94	1.00%					73		
				STAGE 1 SUBTOTAL			312	90	0	265	493	451	
STH 100	2	202	203	699.23	698.56	1.00%					67		
	2	210	211B	696.33	695.84	1.00%					49		
	2	211B	211A	695.84	695.76	1.00%					8		
	2	212	213	693.37	693.18	0.50%						38	
	2	213	214	693.18	692.83	0.50%						71	
STH 100	2	219	220	693.79	693.18	1.00%					61		
	2	226	227	694.56	693.78	1.00%					78		
	2	227	228	688.47	687.76	0.20%				358			
				STAGE 2 SUBTOTAL			0	0	0	358	263	109	
				SYSTEM 200 TOTAL			312	90	0	623	756	560	

CATEGORY 1000 UNLESS OTHERWISE NOTED

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STORM SEWER PIPE REINFORCED CONCRETE

ROADWAY	STAGE	PIPE ID	STRUCTURE FROM	STRUCTURE TO	INVERT ELEVATION INLET	INVERT ELEVATION DISCHARGE	SLOPE	608.0315 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 15-INCH LF	608.0448 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 48-INCH LF	608.0472 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 72-INCH LF	522.1048 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 48-INCH EACH	522.1072 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 72-INCH EACH	633.5200 MARKERS CULVERT END* EACH	611.9800.S PIPE GRATES* EACH	NOTES
RAMP RYB	1	P272	R272A	R273	684.67	684.38	0.25%			121		1	1	1	
		P274	R273	R276	684.38	684.17	0.25%			92					
		P275	PE275	R276	700.18	700.00	0.50%	41							
		P277	R276	R283	684.17	683.92	0.25%			107					
		P284	R283	R284A	683.92	683.61	0.25%			127		1	1	1	
		P310	R310A	R310B	686.93	686.17	0.50%		152		2		2	2	
					STAGE 1 SUBTOTAL			41	152	447	2	2	4	4	
					RAMP RYB TOTAL			41	152	447	2	2	4	4	

SLOPE CALCULATED BASED ON PIPE LENGTH. PIPE LENGTH REPRESENTS LENGTH OF PIPE MEASURED FROM OUTSIDE OF STRUCTURE TO OUTSIDE OF STRUCTURE

CATEGORY 1000 UNLESS OTHERWISE NOTED

STORM SEWER PIPE REINFORCED CONCRETE

ROADWAY	STAGE	STRUCTURE FROM	STRUCTURE TO	INVERT ELEVATION INLET	INVERT ELEVATION DISCHARGE	SLOPE	608.0324 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 24-INCH* LF	608.0330 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 30-INCH* LF	608.0336 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 36-INCH* LF	608.0348 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 48-INCH* LF	608.0412 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 12-INCH* LF	608.0418 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 18-INCH* LF	610.0119 STORM SEWER PIPE REINFORCED CONCRETE HE-III 19X30-INCH* LF
STH 100	1	300	301	692.94	692.27	1.00%					67		
	1	301	303	692.27	692.20	1.00%					7		
	1	303	311	691.72	690.83	1.00%					89		
	1	304	304A	692.90	692.78	1.00%					12		
	1	304A	306	691.78	691.63	0.50%	30						
STH 100	1	305	306	693.61	693.08	1.00%					53		
	1	306	311	691.63	690.69	1.00%	94						
	1	307	310	691.35	690.60	1.00%					75		
	1	310	311	690.10	689.49	0.35%						172	
	1	311	190	688.49	688.00	0.35%		139					
				STAGE 1 SUBTOTAL			124	139	0	0	303	172	0
STH 100	2	302	303	692.62	691.82	1.00%					80		
	2	308	309	691.24	690.74	1.00%					50		
	2	309	310	690.74	690.66	1.00%					8		
				STAGE 2 SUBTOTAL			0	0	0	0	138	0	0
				SYSTEM 300 TOTAL			124	139	0	0	441	172	0

CATEGORY 1000 UNLESS OTHERWISE NOTED

STORM SEWER PIPE REINFORCED CONCRETE

ROADWAY	STAGE	STRUCTURE FROM	STRUCTURE TO	INVERT ELEVATION INLET	INVERT ELEVATION DISCHARGE	SLOPE	608.0324 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 24-INCH* LF	608.0330 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 30-INCH* LF	608.0336 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 36-INCH* LF	608.0348 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 48-INCH* LF	608.0412 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 12-INCH* LF	608.0418 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 18-INCH* LF	610.0119 STORM SEWER PIPE REINFORCED CONCRETE HE-III 19X30-INCH* LF	522.1012 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 12-INCH EACH	523.0519 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 19X30-INCH EACH	633.5200 MARKERS CULVERT END EACH	611.9800.S PIPE GRATES EACH	SPV.0060.8000 BACKFLOW PREVENTER/ CHECK VALVE EACH	NOTES
STH 100	1	401	405	691.05	689.21	0.94%					196								
	1	404	405	689.71	689.21	1.00%					50								
	1	405	410	688.71	687.96	0.25%						300							
	1	409	411	688.64	688.46	1.00%					18								
	1	410	411	687.96	687.86	0.30%						33							
STH 100	1	411	418	687.86	686.96	0.30%						300							
	1	415	418	687.67	687.52	1.00%					15								
	1	416	417	687.18	687.11	0.35%						20							
	1	EXIST	417	687.74	687.11	0.74%						85							
	1	417	418	687.11	686.96	0.50%						30							
STH 100	1	418	419	686.96	686.71	0.25%							100						
	1	419	421	686.71	686.33	0.25%							150		1	1	1		
	1	422	423	685.00	684.70	0.26%					114			1		1	1		
	1	423	424	684.70	684.00	0.26%					272					1		1	
			STAGE 1 SUBTOTAL				0	0	0	0	665	768	250	1	1	3	2	1	
STH 100	2	400	402	690.69	688.76	1.00%					193								
	2	402A	402	689.00	688.76	1.00%					24								
	2	402	403A	688.76	688.43	1.00%					33								
	2	403	403A	689.26	688.97	1.00%					29								
	2	403A	406	687.93	687.54	0.26%						150							
STH 100	2	406A	406	688.63	688.04	1.00%					59								
	2	406	408A	687.54	687.18	0.25%						146							
	2	407	408A	688.01	687.68	1.00%					33								
	2	408	408A	688.14	687.97	1.00%					17								
	2	408A	414A	687.18	686.60	0.23%						250							
STH 100	2	414	414A	687.32	687.15	1.00%					17								
	2	412	413	687.20	687.00	1.00%					20								
	2	413A	413	687.23	687.00	1.00%					23								
	2	414A	413	686.60	686.50	0.30%						33							
	2	413	420	686.50	686.34	0.21%							77		1	1	1		
			STAGE 2 SUBTOTAL				0	0	0	0	448	579	77	0	1	1	1	0	
			SYSTEM 400 TOTAL				0	0	0	0	1113	1347	327	1	2	4	3	1	

CATEGORY 1000 UNLESS OTHERWISE NOTED

STORM SEWER PIPE REINFORCED CONCRETE

ROADWAY	STAGE	STRUCTURE FROM	STRUCTURE TO	INVERT ELEVATION INLET	INVERT ELEVATION DISCHARGE	SLOPE	608.0324 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 24-INCH* LF	608.0330 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 30-INCH* LF	608.0336 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 36-INCH* LF	608.0348 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 48-INCH* LF	608.0412 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 12-INCH* LF	608.0418 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 18-INCH* LF	608.0421 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 21-INCH LF	610.0119 STORM SEWER PIPE REINFORCED CONCRETE HE-III 19X30-INCH* LF
STH 100	1	450	451	688.44	688.29	1.50%					10			
	1	451	452	688.29	687.41	1.47%					60			
	1	452	453	687.41	684.91	2.17%					115			
	1	453	456	684.91	684.82	1.00%					9			
	1	456	461	679.74	673.10	2.80%			237					
STH 100	1	458	459	675.80	675.62	1.00%					18			
	1	459	461	675.62	675.20	1.00%					42			
	1	460	461	676.94	676.86	1.00%					8			
	1	462	463	672.72	672.66	0.35%							17	
	1	463	20	672.66	672.60	0.35%							17	
STH 100	1	465	466	673.36	673.29	0.50%						14		
	1	466	31A	673.29	673.20	0.50%						18		
	1	468	470	676.49	676.29	1.00%					20			
	1	469	470	676.75	676.29	1.00%					46			
	1	470	466	676.29	673.79	1.11%					225			
				STAGE 1 SUBTOTAL			0	0	237	0	553	32	34	0
STH 100	2	454	455	687.88	684.90	2.59%					115			
	2	455	456	684.90	683.76	1.00%					114			
	2	457	458	676.29	675.80	1.00%					49			
	2	29	462	672.90	672.72	0.35%							51	
	2	464	465	673.60	673.36	0.50%						48		
STH 100	2	467	468	676.99	676.49	1.00%					50			
				STAGE 2 SUBTOTAL			0	0	0	0	328	48	51	0
				SYSTEM 450 TOTAL			0	0	237	0	881	80	85	0

STORM SEWER PIPE REINFORCED CONCRETE

ROADWAY	STAGE	STRUCTURE FROM	STRUCTURE TO	INVERT ELEVATION INLET	INVERT ELEVATION DISCHARGE	SLOPE	608.0324 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 24-INCH* LF	608.0330 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 30-INCH* LF	608.0336 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 36-INCH* LF	608.0348 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 48-INCH* LF	608.0412 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 12-INCH* LF	608.0418 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 18-INCH* LF	610.0119 STORM SEWER PIPE REINFORCED CONCRETE HE-III 19X30-INCH* LF	522.1012 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 12-INCH EACH	633.5200 MARKERS CULVERT END EACH	611.9800.S PIPE GRATES EACH	NOTES
STH 100	1	501	502	692.58	692.47	1.00%					11						
	1	502	503	692.47	691.97	1.00%					50						
	1	503	506	691.47	689.11	1.03%						230					
	1	504B	504C	689.93	689.80	0.50%					25						
	1	504C	506	689.80	689.61	0.50%					37						
STH 100	1	505	506	690.01	689.88	1.00%					13						
	1	506	511	688.61	686.99	0.60%	269										
	1	508	509	686.76	686.70	0.50%					12						
	1	509	511	686.70	686.46	0.50%					48						
	1	510	511	688.15	688.07	1.00%					8						
STH 100	1	511	514	685.44	683.00	0.87%		279									
	1	512A	512B	685.57	685.38	1.00%					19						
	1	512B	514	685.38	685.00	1.00%					38						
	1	513	514	686.27	686.18	1.00%					9						
	1	514	519	683.00	680.40	1.00%		260									
STH 100	1	516	517	683.25	683.13	1.00%					12						
	1	517	519	683.13	682.64	1.00%					49						
	1	518	519	682.75	682.67	1.00%					8						
	1	519	520	679.90	678.47	0.92%			156								
	1	520	EX PIPE	675.10													
STH 100	1	521	522	680.28	680.16	1.00%					12						
	1	522	523	680.16	679.58	1.00%					58						
	1	523	524	679.58	678.00	3.95%					40			1	1	1	
				STAGE 1 SUBTOTAL			269	539	156	0	449	230	0	1	1	1	
STH 100	2	500	501	693.21	692.58	1.00%					63						
	2	504A	504	691.03	690.17	0.50%					172						
	2	504	504B	690.17	689.93	0.50%					49						
	2	EX INLET	507	---	688.54	---					EX PIPE						
	2	507	508	687.01	686.76	0.50%					50						
STH 100	2	512	512A	686.11	685.57	1.00%					54						
	2	515	516	683.75	683.25	1.00%					50						
				STAGE 2 SUBTOTAL			0	0	0	0	438	0	0	0	0	0	
				SYSTEM 500 TOTAL			269	539	156	0	887	230	0	1	1	1	

CATEGORY 1000 UNLESS OTHERWISE NOTED

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STORM SEWER PIPE REINFORCED CONCRETE

ROADWAY	STAGE	STRUCTURE FROM	STRUCTURE TO	INVERT ELEVATION INLET	INVERT ELEVATION DISCHARGE	SLOPE	608.0324 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 24-INCH* LF	608.0330 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 30-INCH* LF	608.0336 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 36-INCH* LF	608.0348 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 48-INCH* LF	608.0412 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 12-INCH* LF	608.0418 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 18-INCH* LF	610.0119 STORM SEWER PIPE REINFORCED CONCRETE HE-III 19X30-INCH* LF
STH 100	1	601	602	690.67	690.54	1.00%					13		
	1	602	604	690.54	690.39	1.00%					15		
	1	603	604	691.65	691.32	1.00%					33		
	1	604	607	689.89	687.54	1.57%						150	
	1	606	607	688.87	688.53	1.00%					34		
STH 100	1	607	610	687.04	684.80	1.12%	200						
	1	609	610	686.16	686.09	1.00%					7		
	1	610	612	686.09	685.91	1.00%					18		
	1	611	612	686.13	685.80	1.00%					33		
	1	612	613	684.30	681.86	0.91%		268					
STH 100	1	615	616	684.18	684.10	1.00%					8		
	1	616	617	684.10	683.60	1.00%					50		
	1	617	33 EX	683.60	680.85	3.44%					80		
				STAGE 1 SUBTOTAL			200	268	0	0	291	150	0
STH 100	2	600	601	691.29	690.67	1.00%					62		
	2	605	607	688.94	688.04	1.00%					90		
	2	608	609	686.81	686.16	1.00%					65		
	2	614	10 EX	685.73	685.65	1.14%					7		
				STAGE 2 SUBTOTAL			0	0	0	0	224	0	0
				SYSTEM 600 TOTAL			200	268	0	0	515	150	0

CATEGORY 1000 UNLESS OTHERWISE NOTED

STORM SEWER

ROADWAY	STRUCTURE NO.	STAGE	STATION	OFFSET	611.2004 MANHOLES 4-FT DIAMETER* EACH	611.2006 MANHOLES 6-FT DIAMETER* EACH	611.3003 INLETS 3-FT DIAMETER* EACH	611.3230 INLETS 2x3-FT* EACH	611.0530 MANHOLE COVERS TYPE J* EACH	611.0550 MANHOLE COVERS TYPE M* EACH	611.0627 INLET COVERS TYPE HM* EACH	611.8115 ADJUSTING INLET COVERS* EACH	611.8120.S COVER PLATES TEMPORARY* EACH	611.9710 SALVAGED INLET COVERS TYPE HM* EACH	RIM OR FLANGE ELEV	INVERT ELEV	RIM OR FLANGE - INVERT FEET	STRUCTURE DEPTH FEET	COMMENTS
STH 100	101	1	24+25.0	11.5' RT				1			1				704.10	699.79	4.31	3.31	
	102	1	24+38.0	62.5' LT				1			1				704.33	700.58	3.75	2.75	
	103	1	24+25.0	0.5' RT				1			1				704.31	699.16	5.15	4.15	
	105	1	21+60.0	0.5' LT		1					1				702.33	696.84	5.49	4.24	FLAT SLAB TOP WITH CENTERED 24" X 36" RECTANGULAR OPENING REQUIRED FOR MH
	106	1	21+50.0	62.5' LT				1			1				702.23	698.40	3.83	2.83	PROVIDE CONNECTION TO RETENTION POND DISCHARGE PIPE
STH 100	107	1	21+60.0	11.5' LT				1			1				702.62	698.30	4.32	3.32	
	110	1	19+64.5	6.5' RT		1					1				701.00	696.27	4.73	3.48	FLAT SLAB TOP WITH CENTERED 24" X 36" RECTANGULAR OPENING REQUIRED FOR MH
	112	1	18+74.5	62.5' LT			1				1				700.51	697.40	3.11	2.11	
	113	1	18+59.8	62.5' LT			1				1				700.50	697.32	3.18	2.18	
	114	1	18+64.6	0.5' RT				1			1				700.80	697.00	3.80	2.80	
STH 100	115	1	18+64.7	6.6' RT		1			1				1		701.80	695.46	6.34	5.09	
	116	1	17+13.7	60.4' LT				1						1	701.90	699.06	2.84	1.84	
	949		17+13.8	50.5' LT						1		1			701.92	699.01	2.91	EXISTING	
	118	1	13+41.6	71.1' LT				1						1	703.36	700.59	2.77	1.77	
	935		13+21.1	60.6' LT						1		1			703.60	700.51	3.09	EXISTING	
STH 100	119	1	13+01.3	104.0' LT				1						1	704.08	700.36	3.72	2.72	
	932		12+98.0	91.9' LT						1		1			704.11	700.26	3.85	EXISTING	
				STAGE 1 SUBTOTAL	0	3	2	9	1	3	10	3	1	3					
STH 100	100	2	24+38.0	62.5' RT				1			1				703.82	700.32	3.50	2.50	
	104	2	21+60.0	62.5' RT				1			1				702.27	699.07	3.20	2.20	
	108	2	19+36.9	62.5' RT			1				1				701.04	697.66	3.38	2.38	
	109	2	19+51.6	62.5' RT			1				1				701.03	697.56	3.47	2.47	
	117	2	17+29.3	62.5' RT				1						1	702.38	699.40	2.98	1.98	
STH 100	952		17+28.2	51.5' RT						1		1			702.52	699.30	3.22	EXISTING	
	120	2	13+05.6	73.5' RT				1						1	701.80	699.04	2.76	1.76	
	945		13+30.9	52.9' RT						1		1			701.93	698.94	2.99	EXISTING	
SUBTOTALS				STAGE 2 SUBTOTAL	0	0	2	4	0	2	4	2	0	2					
				SYSTEM 100 TOTAL	0	3	4	13	1	5	14	5	1	5					

NOTES
1. TOP OF COVER ELEVATION FOR INLETS IN CURBLINE IS FLANGE ELEVATION.
2. OFFSETS TO ALL STRUCTURES ARE GIVEN TO CENTER OF STRUCTURE.
3. STRUCTURE DEPTH = RIM OR FLANGE ELEVATION - LOWEST INVERT - CASTING HEIGHT - ADJUSTMENT
   CASTING HEIGHT = 0.75 FT FOR TYPE J COVERS, 0.5 FT FOR TYPE HM COVERS, 0 FT FOR TYPE MS COVERS
   ADJUSTMENT (RINGS) = 0.5 FT FOR ALL COVERS EXCEPT TYPE MS COVERS

CATEGORY 1000 UNLESS OTHERWISE NOTED

STORM SEWER

ROADWAY	STRUCTURE NO.	STAGE	STATION	OFFSET	611.2004 MANHOLES 4-FT DIAMETER* EACH	611.2006 MANHOLES 6-FT DIAMETER* EACH	611.2007 MANHOLES 7-FT DIAMETER* EACH	611.3003 INLETS 3-FT DIAMETER* EACH	611.3230 INLETS 2x3-FT* EACH	611.0530 MANHOLE COVERS TYPE J* EACH	611.0627 INLET COVERS TYPE HM* EACH	611.8110 ADJUSTING MANHOLE COVERS* EACH	611.8115 ADJUSTING INLET COVERS* EACH	611.9710 SALVAGED INLET COVERS TYPE HM* EACH	RIM OR FLANGE ELEV	INVERT ELEV	RIM OR FLANGE - INVERT FEET	STRUCTURE DEPTH FEET	COMMENTS
STH 100	200	1	28+00.0	62.5' LT					1		1				703.69	699.84	3.85	2.85	
	201	1	30+31.1	62.5' LT					1		1				701.59	697.59	4.00	3.00	
	203	1	30+31.1	4.5' LT					1		1				702.30	698.56	3.74	2.74	
	204	1	30+31.1	11.5' LT					1		1				701.91	698.46	3.45	2.45	
	205	1	30+31.1	47.2' LT	1					1					701.86	696.94	4.92	3.67	
STH 100	206	1	30+78.3	90.2' LT					1		1				700.40	696.54	3.86	2.86	
	207	1	31+42.8	89.0' LT				1			1				699.99	696.22	3.77	2.77	
	208	1	31+43.2	47.2' LT	1										700.27	696.02	4.25	3.00	
	209	1	33+00.0	70.5' LT					1		1				698.98	695.47	3.51	2.51	
	211	1	33+00.0	47.2' LT		1				1					699.42	694.24	5.18	3.93	
STH 100	211A	1	33+00.0	4.5' RT					1		1				699.14	695.76	3.38	2.38	
	214	1	36+05.3	11.5' RT					1		1				696.84	692.83	4.01	3.01	
	215	1	36+10.8	1.5' LT					1		1				696.68	692.76	3.92	2.92	
	216	1	36+41.8	62.5' LT					1		1				696.72	693.51	3.21	2.21	
	217	1	36+30.4	62.5' LT					1		1				696.70	692.86	3.84	2.84	
STH 100	218	1	36+13.7	10.5' LT		1				1					697.04	691.50	5.54	4.29	
	220	1	37+20.0	10.3' RT					1		1				697.29	693.18	4.11	3.11	
	221	1	37+20.0	5.7' RT					1		1				696.98	693.11	3.87	2.87	
	222	1	37+04.3	0.1' LT			1			1					696.96	689.00	7.96	6.71	CONNECT TO EXISTING 48" RCCP FROM NORTHWEST. CLEAN EXISTING PIPE.
	223	1	36+75.3	100.3' LT					1		1				697.50	694.00	3.50	2.50	
ADJ	EXIST MH	1								1		1			697.50	690.50		EXISTING	
STH 100	224	1	36+61.8	75.7' LT					1		1				697.50	694.09	3.41	2.41	
ADJ	EXIST INL	1								1			1		697.50	694.00		EXISTING	
ADJ	EXIST MH	1										1			697.30	689.50		EXISTING	
	225	1	39+49.2	68.2' LT					1		1				698.17	694.67	3.50	2.50	
	226	1	39+26.1	61.8' RT						1		1							
STH 100	227	1	39+71.9	0' RT						1			1						
				STAGE 1 SUBTOTAL	2	2	1	1	16	8	17	3	2	0					
STH 100	202	2	30+31.1	62.5' RT					1		1				702.23	699.23	3.00	2.00	
	210	2	33+00.0	62.5' RT					1		1				699.10	696.33	2.77	1.77	
	211B	2	33+00.0	11.5' RT					1		1				699.42	695.84	3.58	2.58	
	212	2	35+97.3	90.5' RT				1			1				696.85	693.37	3.48	2.48	
	213	2	35+65.8	71.3' RT				1			1				696.85	693.18	3.67	2.67	
STH 100	219	2	37+18.5	72.6' RT					1		1				696.79	693.79	3.00	2.00	
	226	2	39+26.1	61.8' RT						1			1		698.06	694.56		EXISTING	
	226A		39+26.0	70.5' RT					1					1	697.90	694.64	3.26	2.26	
ADJ	EXIST MH	2	39+71.9	0.0'								1			699.30	688.47		EXISTING	
				STAGE 2 SUBTOTAL	0	0	0	2	5	1	6	1	1	1					
				SYSTEM 200 TOTAL	2	2	1	3	21	9	23	4	3	1					

NOTES
1. TOP OF COVER ELEVATION FOR INLETS IN CURBLINE IS FLANGE ELEVATION.
2. OFFSETS TO ALL STRUCTURES ARE GIVEN TO CENTER OF STRUCTURE.
3. STRUCTURE DEPTH = RIM OR FLANGE ELEVATION - LOWEST INVERT - CASTING HEIGHT - ADJUSTMENT
   CASTING HEIGHT = 0.75 FT FOR TYPE J COVERS, 0.5 FT FOR TYPE HM COVERS, 0 FT FOR TYPE MS COVERS
   ADJUSTMENT (RINGS) = 0.5 FT FOR ALL COVERS EXCEPT TYPE MS COVERS

CATEGORY 1000 UNLESS OTHERWISE NOTED

STORM SEWER

ROADWAY	STRUCTURE NO.	STAGE	STATION	OFFSET	SPV.0060.8012 MANHOLES 9-FT SPECIAL EACH	611.0535 MANHOLE COVERS TYPE J SPECIAL EACH	ENDWALL ELEV	RIM OR FLANGE ELEV	STRUCTURE DEPTH FEET	COMMENTS
RAMP RYB	R273	1	53+31.58	99.3' LT	1	1		710.55	23.92	
	R276	1	53+31.00	6.9' LT	1	1		708.05	21.63	
	R283	1	53+30.33	100.1' RT	1	1		710.19	24.02	
	R310A	1	244RYB+26	69' LT			686.97			
	R310B	1	244RYB+45	98' RT			686.13			
	R272A	1	52+28	176' LT			684.71			
	R284A	1	246RYB+74	129' RT			683.59			
				STAGE 1 SUBTOTAL	3	3				
				SYSTEM RAMP RYB TOTAL	3	3				

NOTES

1. TOP OF COVER ELEVATION FOR INLETS IN CURBLINE IS FLANGE ELEVATION.
2. OFFSETS TO ALL STRUCTURES ARE GIVEN TO CENTER OF STRUCTURE.
3. STRUCTURE DEPTH = RIM OR FLANGE ELEVATION - LOWEST INVERT - CASTING HEIGHT - ADJUSTMENT
   CASTING HEIGHT = 0.75 FT FOR TYPE J COVERS, 0.5 FT FOR TYPE HM COVERS, 0 FT FOR TYPE MS COVERS
   ADJUSTMENT (RINGS) = 0.5 FT FOR ALL COVERS EXCEPT TYPE MS COVERS

STORM SEWER

ROADWAY	STRUCTURE NO.	STAGE	STATION	OFFSET	611.2004 MANHOLES 4-FT DIAMETER* EACH	611.2006 MANHOLES 6-FT DIAMETER* EACH	611.3230 INLETS 2x3-FT* EACH	611.0530 MANHOLE COVERS TYPE J* EACH	611.0624 INLET COVERS TYPE H* EACH	611.0627 INLET COVERS TYPE HM* EACH	611.8110 ADJUSTING MANHOLE COVERS* EACH	611.8120.S COVER PLATES TEMPORARY* EACH	RIM OR FLANGE ELEV	INVERT ELEV	RIM OR FLANGE - INVERT FEET	STRUCTURE DEPTH FEET	COMMENTS
STH 100	300	1	62+50.8	74.4' LT			1			1			696.10	692.94	3.16	2.16	
	301	1	62+30.0	11.5' LT			1			1			696.36	692.27	4.09	3.09	
	303	1	62+30.0	4.5' LT			1			1			696.27	691.72	4.55	3.55	
	304	1	62+68.7	105.3' LT			1			1			696.22	692.90	3.32	2.32	
	304A	1	62+76.4	94.2' LT	1			1					696.16	691.78	4.38	3.13	CONNECT TO EXISTING 18" RCCP FROM NORTH. CLEAN EXISTING PIPE.
STH 100	305	1	63+44.0	130.4' LT			1			1			697.30	693.61	3.69	2.69	
	306	1	63+07.5	92.3' LT		1			1				696.55	691.63	4.92	3.92	FLAT SLAB TOP WITH CENTERED 24" X 36" RECTANGULAR OPENING REQUIRED FOR MH
	307	1	64+96.1	70.5' LT			1			1			694.65	691.35	3.30	2.30	
	310	1	64+96.1	4.5' RT			1			1			694.81	690.10	4.71	3.71	
	311	1	63+22.4	0.9' RT		1		1				1	696.18	688.49	7.69	6.69	
STH 100	190	1	63+31.5	133.5' RT							1		694.79	688.00		EXISTING	CONNECT TO EXISTING STORM SEWER MH
				STAGE 1 SUBTOTAL	1	2	7	2	1	7	1	1					
STH 100	302	2	62+04.4	70.5' RT			1			1			695.92	692.62	3.30	2.30	
	308	2	64+96.1	62.5' RT			1			1			694.54	691.24	3.30	2.30	
	309	2	64+96.1	11.5' RT			1			1			694.86	690.74	4.12	3.12	
				STAGE 2 SUBTOTAL	0	0	3	0	0	3	0	0					
				SYSTEM 300 TOTAL	1	2	10	2	1	10	1	1					

NOTES

1. TOP OF COVER ELEVATION FOR INLETS IN CURBLINE IS FLANGE ELEVATION.
2. OFFSETS TO ALL STRUCTURES ARE GIVEN TO CENTER OF STRUCTURE.
3. STRUCTURE DEPTH = RIM OR FLANGE ELEVATION - LOWEST INVERT - CASTING HEIGHT - ADJUSTMENT
   CASTING HEIGHT = 0.75 FT FOR TYPE J COVERS, 0.5 FT FOR TYPE HM COVERS, 0 FT FOR TYPE MS COVERS
   ADJUSTMENT (RINGS) = 0.5 FT FOR ALL COVERS EXCEPT TYPE MS COVERS

CATEGORY 1000 UNLESS OTHERWISE NOTED

STORM SEWER

ROADWAY	STRUCTURE NO.	STAGE	STATION	OFFSET	611.2004 MANHOLES 4-FT DIAMETER* EACH	611.2006 MANHOLES 6-FT DIAMETER* EACH	611.3003 INLETS 3-FT DIAMETER* EACH	611.3230 INLETS 2x3-FT* EACH	611.3901 INLETS MEDIAN 1 GRATE EACH	611.0530 MANHOLE COVERS TYPE J* EACH	611.0627 INLET COVERS TYPE HM* EACH	611.0642 INLET COVERS TYPE MS EACH	RIM OR FLANGE ELEV	INVERT ELEV	RIM OR FLANGE - INVERT FEET	STRUCTURE DEPTH FEET	COMMENTS
STH 100	401	1	66+55.0	62.5' LT				1			1		694.05	691.05	3.00	2.00	
	404	1	68+50.0	11.5' LT				1			1		693.48	689.71	3.77	2.77	
	405	1	68+50.0	62.5' LT			1				1		693.16	688.71	4.45	3.45	
	409	1	71+50.0	9.9' LT				1			1		692.04	688.64	3.40	2.40	
	410	1	71+50.0	62.5' LT			1				1		691.76	687.96	3.80	2.80	
STH 100	411	1	71+50.0	29.0' LT	1					1			692.40	687.86	4.54	3.29	
	415	1	74+50.0	11.5' LT				1			1		690.72	687.67	3.05	2.05	
	416	1	74+70.0	62.5' LT			1				1		690.42	687.18	3.24	2.24	
	417	1	74+50.0	62.5' LT			1				1		690.40	687.11	3.29	2.29	
STH 100	418	1	74+50.0	29.0' LT		1				1			691.04	686.96	4.08	2.83	
	419	1	75+50.0	29.0' LT		1				1			691.40	686.71	4.69	3.44	
	421	1	75+50.0	110.7' RT										686.33			APRON ENDWALL
	422	1	41+08.2 POND	64.9' RT										685.00			APRON ENDWALL
	423	1	40+72.0 POND	147.7' RT	1					1			694.50	684.70	9.80	8.55	
STH 100	424	1	37+95.2 POND	131.7' RT										684.00			BACKFLOW PREVENTER
				STAGE 1 SUBTOTAL	2	2	4	4	0	4	8	0					
STH 100	400	2	66+55.0	62.5' RT				1			1		693.68	690.69	2.99	1.99	
	402	2	68+50.0	62.5' RT				1			1		692.68	688.76	3.92	2.92	
	402A	2	68+50.0	88.0' RT					1			1	691.20	689.00	2.20	2.20	
	403	2	68+50.0	0.5' LT				1			1		692.90	689.26	3.64	2.64	
	403A	2	68+50.0	29.0' RT	1					1			693.32	687.93	5.39	4.14	
STH 100	406	2	70+00.0	29.0' RT	1					1			692.52	687.54	4.98	3.73	
	406A	2	70+00.0	88.0' RT					1			1	690.74	688.63	2.11	2.11	
	407	2	71+50.0	62.5' RT				1			1		691.09	688.01	3.08	2.08	
	408	2	71+50.0	11.5' RT				1			1		691.41	688.14	3.27	2.27	
	408A	2	71+50.0	29.0' RT	1					1			691.73	687.18	4.55	3.30	
STH 100	412	2	73+80.0	62.5' RT				1			1		689.97	687.20	2.77	1.77	
	413	2	74+00.0	62.5' RT		1					1		689.96	686.50	3.46	2.21	FLAT SLAB TOP WITH CENTERED 24" X 36" RECTANGULAR OPENING
	413A	2	74+00.0	85.0' RT					1			1	690.00	687.23	2.77	2.77	
	414	2	74+00.0	11.5' RT				1			1		690.28	687.32	2.96	1.96	
	414A	2	74+00.0	29.0' RT		1				1			690.60	686.60	4.00	2.75	
STH 100	420	2	74+54.3	115.9' RT										686.33			APRON ENDWALL
				STAGE 2 SUBTOTAL	3	2	0	7	3	4	8	3					
				SYSTEM 400 TOTAL	5	4	4	11	3	8	16	3					

NOTES

1. TOP OF COVER ELEVATION FOR INLETS IN CURBLINE IS FLANGE ELEVATION.
2. OFFSETS TO ALL STRUCTURES ARE GIVEN TO CENTER OF STRUCTURE.
3. STRUCTURE DEPTH = RIM OR FLANGE ELEVATION - LOWEST INVERT - CASTING HEIGHT - ADJUSTMENT
   CASTING HEIGHT = 0.75 FT FOR TYPE J COVERS, 0.5 FT FOR TYPE HM COVERS, 0 FT FOR TYPE MS COVERS
   ADJUSTMENT (RINGS) = 0.5 FT FOR ALL COVERS EXCEPT TYPE MS COVERS

CATEGORY 1000 UNLESS OTHERWISE NOTED

STORM SEWER

ROADWAY	STRUCTURE NO.	STAGE	STATION	OFFSET	611.2004 MANHOLES 4-FT DIAMETER* EACH	611.2006 MANHOLES 6-FT DIAMETER* EACH	611.2007 MANHOLES 7-FT DIAMETER* EACH	611.3003 INLETS 3-FT DIAMETER* EACH	611.3230 INLETS 2x3-FT* EACH	611.0530 MANHOLE COVERS TYPE J* EACH	611.0627 INLET COVERS TYPE HM* EACH	611.0654 INLET COVERS TYPE V EACH	611.8105 ADJUSTING CATCH BASIN COVERS EACH	611.8110 ADJUSTING MANHOLE COVERS* EACH	RIM OR FLANGE ELEV	INVERT ELEV	RIM OR FLANGE - INVERT FEET	STRUCTURE DEPTH FEET	COMMENTS
STH 100	450	1	78+54.4	0.9' LT					1		1				691.98	688.44	3.54	2.54	
	451	1	78+54.4	11.1' LT					1		1				691.70	688.29	3.41	2.41	
	452	1	78+90.0	62.5' LT					1		1				690.91	687.41	3.50	2.50	
	453	1	80+02.5	61.7' LT					1		1				688.35	684.91	3.44	2.44	
	456	1	80+02.5	54.1' LT		1				1					688.53	679.74	8.79	7.54	
STH 100	458	1	82+40.0	8.2' RT					1			1			680.25	675.80	4.45	3.45	
	459	1	82+40.0	8.6' LT					1		1				680.37	675.62	4.75	3.75	
	460	1	82+31.7	57.9' LT				1			1				680.34	676.94	3.40	2.40	
	461	1	82+39.2	54.0' LT			1			1					680.15	671.95	8.20	6.95	CONNECT TO EXISTING STORM SEWER 48" PIPE TO EAST
	24	1	84+65.6	54.0' LT								1	1					EXISTING	
STH 100	26	1	84+90.5	54.0' LT								1	1					EXISTING	
	462	1	84+83.9	7.0' RT					1		1				676.76	672.72	4.04	3.04	
	463	1	84+89.2	7.5' LT					1		1				676.69	672.66	4.03	3.03	
	20	1	84+95.7	25.1' LT										1				EXISTING	
	465	1	86+00.0	7.0' RT					1		1				677.40	673.36	4.04	3.04	
STH 100	466	1	86+00.0	7.5' LT					1		1				677.24	673.29	3.95	2.95	
	31A	1	86+00.6	24.1' LT										1				EXISTING	
	31EX	1	87+92.2	54.1' LT										1				EXISTING	
	468	1	88+25.0	9.6' RT					1		1				680.71	676.49	4.22	3.22	
	469	1	88+25.0	56.7' LT					1		1				680.02	676.75	3.27	2.27	
STH 100	470	1	88+25.0	9.7' LT					1		1				680.25	676.29	3.96	2.96	
				STAGE 1 SUBTOTAL	0	1	1	1	13	2	13	3	2	3					
STH 100	454	2	78+89.0	62.5' RT					1		1				691.38	687.88	3.50	2.50	
	455	2	80+02.5	61.5' RT					1		1				688.33	684.90	3.43	2.43	
	457	2	82+40.0	57.2' RT					1			1			679.91	676.29	3.62	2.62	
	28	2	84+93.2	54.2' RT								1	1					EXISTING	
	29	2	84+66.3	54.6' RT								1	1					EXISTING	
STH 100	464	2	86+00.0	55.0' RT					1		1				677.14	673.60	3.54	2.54	
	467	2	88+25.0	57.6' RT					1		1				680.46	676.99	3.47	2.47	
				STAGE 2 SUBTOTAL	0	0	0	0	5	0	4	3	2	0					
				SYSTEM 450 TOTAL	0	1	1	1	18	2	17	6	4	3					

NOTES

1. TOP OF COVER ELEVATION FOR INLETS IN CURBLINE IS FLANGE ELEVATION.
2. OFFSETS TO ALL STRUCTURES ARE GIVEN TO CENTER OF STRUCTURE.
3. STRUCTURE DEPTH = RIM OR FLANGE ELEVATION - LOWEST INVERT - CASTING HEIGHT - ADJUSTMENT
   CASTING HEIGHT = 0.75 FT FOR TYPE J COVERS, 0.5 FT FOR TYPE HM COVERS, 0 FT FOR TYPE MS COVERS
   ADJUSTMENT (RINGS) = 0.5 FT FOR ALL COVERS EXCEPT TYPE MS COVERS

CATEGORY 1000 UNLESS OTHERWISE NOTED

STORM SEWER

ROADWAY	STRUCTURE NO.	STAGE	STATION	OFFSET	611.2004 MANHOLES 4-FT DIAMETER* EACH	611.2006 MANHOLES 6-FT DIAMETER* EACH	611.3003 INLETS 3-FT DIAMETER* EACH	611.3230 INLETS 2x3-FT* EACH	611.0530 MANHOLE COVERS TYPE J* EACH	611.0627 INLET COVERS TYPE HM* EACH	RIM OR FLANGE ELEV	INVERT ELEV	RIM OR FLANGE - INVERT FEET	STRUCTURE DEPTH FEET	COMMENTS
STH 100	501	1	103+30.0	0.5'				1		1	696.67	692.58	4.09	3.09	
	502	1	103+30.0	11.5' LT				1		1	696.20	692.47	3.73	2.73	
	503	1	103+30.0	62.5' LT			1			1	695.88	691.47	4.41	3.41	
	504B	1	101+00.0	11.5' RT				1		1	694.54	689.93	4.61	3.61	
	504C	1	101+00.0	11.5' LT				1		1	693.83	689.80	4.03	3.03	
STH 100	505	1	101+00.0	62.5' LT				1		1	693.51	690.01	3.50	2.50	
	506	1	101+00.0	49.7' LT	1				1		693.75	688.61	5.14	3.89	
	508	1	98+30.0	11.3' RT				1		1	692.27	686.76	5.51	4.51	
	509	1	98+30.0	0.7' RT				1		1	691.81	686.70	5.11	4.11	
	510	1	98+30.0	58.5' LT				1		1	691.65	688.15	3.50	2.50	
STH 100	511	1	98+30.0	49.7' LT		1			1		691.89	685.44	6.45	5.20	
	512A	1	95+50.0	7.4' RT				1		1	689.85	685.57	4.28	3.28	
	512B	1	95+50.0	11.5' LT				1		1	690.00	685.38	4.62	3.62	
	513	1	95+50.0	58.5' LT				1		1	689.77	686.27	3.50	2.50	
	514	1	95+50.0	49.7' LT		1			1		689.92	683.00	6.92	5.67	
STH 100	516	1	92+90.0	11.3' RT				1		1	687.57	683.25	4.32	3.32	
	517	1	92+90.0	0.7' RT				1		1	686.77	683.13	3.64	2.64	
	518	1	92+90.0	58.5' LT				1		1	686.25	682.75	3.50	2.50	
	519	1	92+90.0	49.7' LT		1			1		686.41	679.90	6.51	5.26	
	520	1	91+30.1	54.0' LT		1			1		684.94	675.10	9.84	8.59	CONNECT TO EXISTING 42" SS PIPE TO NORTHWEST
STH 100	521	1	90+70.0	11.5' LT				1		1	683.58	680.28	3.30	2.30	
	522	1	90+70.0	0.5' LT				1		1	684.14	680.16	3.98	2.98	
				STAGE 1 SUBTOTAL	1	4	1	16	5	17					
STH 100	500	2	103+30.0	62.5' RT				1		1	696.61	693.21	3.40	2.40	
	504	2	101+00.0	62.5' RT				1		1	694.22	690.17	4.05	3.05	
	504A	2	102+72.0	62.5' RT			1		1		695.91	689.76	6.15	5.15	PROVIDE CONNECTION TO RETENTION POND DISCHARGE PIPE
	507	2	98+40.3	62.7' RT			1			1	692.04	687.01	5.03	4.03	CONNECT TO EXISTING 12" DRAINPIPES FROM THE SOUTH
	512	2	95+50.0	62.5' RT				1		1	689.61	686.11	3.50	2.50	
STH 100	515	2	92+90.0	62.6' RT				1		1	687.25	683.75	3.50	2.50	
	523	2	90+70.0	59.5' RT				1		1	684.12	679.58	4.54	3.54	
	524	2	90+70.0	98.6' RT								678.00			APRON ENDWALL
				STAGE 2 SUBTOTAL	0	0	2	5	1	6					
				SYSTEM 500 TOTAL	1	4	3	21	6	23					

NOTES

1. TOP OF COVER ELEVATION FOR INLETS IN CURBLINE IS FLANGE ELEVATION.
2. OFFSETS TO ALL STRUCTURES ARE GIVEN TO CENTER OF STRUCTURE.
3. STRUCTURE DEPTH = RIM OR FLANGE ELEVATION - LOWEST INVERT - CASTING HEIGHT - ADJUSTMENT
   CASTING HEIGHT = 0.75 FT FOR TYPE J COVERS, 0.5 FT FOR TYPE HM COVERS, 0 FT FOR TYPE MS COVERS
   ADJUSTMENT (RINGS) = 0.5 FT FOR ALL COVERS EXCEPT TYPE MS COVERS

CATEGORY 1000 UNLESS OTHERWISE NOTED

STORM SEWER

ROADWAY	STRUCTURE NO.	STAGE	STATION	OFFSET	611.2004 MANHOLES 4-FT DIAMETER* EACH	611.2006 MANHOLES 6-FT DIAMETER* EACH	611.3230 INLETS 2x3-FT* EACH	611.0530 MANHOLE COVERS TYPE J* EACH	611.0627 INLET COVERS TYPE HM* EACH	611.8110 ADJUSTING MANHOLE COVERS* EACH	611.8120.S COVER PLATES TEMPORARY* EACH	RIM OR FLANGE ELEV	INVERT ELEV	RIM OR FLANGE - INVERT FEET	STRUCTURE DEPTH FEET	COMMENTS
STH 100	601	1	108+50.0	0.5' LT			1		1			694.88	690.67	4.21	3.21	
	602	1	108+50.0	11.5' LT			1		1			695.39	690.54	4.85	3.85	
	603	1	108+50.0	62.5' LT			1		1			695.07	691.65	3.42	2.42	
	604	1	108+50.0	29.0' LT	1			1				695.71	689.89	5.82	4.57	
	606	1	110+00.0	62.5' LT			1		1			692.37	688.87	3.50	2.50	
STH 100	607	1	110+00.0	29.0' LT		1		1				693.01	687.04	5.97	4.72	
	609	1	112+00.0	3.5' LT			1		1			690.35	686.16	4.19	3.19	
	610	1	112+00.0	10.6' LT			1		1			689.93	686.09	3.84	2.84	
	611	1	112+00.0	62.5' LT			1		1			689.63	686.13	3.50	2.50	
	612	1	112+00.0	29.0' LT		1		1				690.27	684.30	5.97	4.72	
STH 100	615	1	114+55.6	8.1' LT			1		1			687.94	684.18	3.76	2.76	
	616	1	114+55.6	15.5' LT			1		1			687.60	684.10	3.50	2.50	
	617	1	114+42.8	62.5' LT			1		1			687.32	683.60	3.72	2.72	
	33	1	114+97.9	119.9' LT								685.10				CONNECT TO EXISTING STORM SEWER MH
				STAGE 1 SUBTOTAL	1	2	10	3	10	0	0					
STH 100	600	2	108+50.0	62.5' RT			1		1			694.79	691.29	3.50	2.50	
	605	2	110+00.0	62.5' RT			1		1			692.44	688.94	3.50	2.50	
	608	2	112+00.0	62.5' RT			1		1			690.31	686.81	3.50	2.50	
	613	2	114+44.4	86.1' RT		1			1			688.40	681.86	6.54	5.54	CONNECT TO EXISTING 30" STORM SEWER PIPE
	614	2	114+94.8	116.6' RT			1		1			689.23	685.73	3.50	2.50	
STH 100	10	2	115+00.2	114.2' RT				1				689.33				
				STAGE 2 SUBTOTAL	0	1	4	1	5	0	0					
				SYSTEM 600 TOTAL	1	3	14	4	15	0	0					

NOTES
1. TOP OF COVER ELEVATION FOR INLETS IN CURBLINE IS FLANGE ELEVATION.
2. OFFSETS TO ALL STRUCTURES ARE GIVEN TO CENTER OF STRUCTURE.
3. STRUCTURE DEPTH = RIM OR FLANGE ELEVATION - LOWEST INVERT - CASTING HEIGHT - ADJUSTMENT
   CASTING HEIGHT = 0.75 FT FOR TYPE J COVERS, 0.5 FT FOR TYPE HM COVERS, 0 FT FOR TYPE MS COVERS
   ADJUSTMENT (RINGS) = 0.5 FT FOR ALL COVERS EXCEPT TYPE MS COVERS

CATEGORY 1000 UNLESS OTHERWISE NOTED

ADJUSTING AND RECONSTRUCTING SANITARY MANHOLES

CATEGORY	ROADWAY	STAGE	STATION	OFFSET	SPV.0060.5010 ADJUSTING CITY OF OAK CREEK SANITARY MANHOLE EACH	SPV.0060.5011 RECONSTRUCTING CITY OF OAK CREEK SANITARY MANHOLE EACH
3000	STH 100	1	13+45.98	83.1' LT	1	
		1	15+95.12	75.2' LT	1	
		1	18+18.84	70.3' LT		1
		1	35+80.98	71.0' LT		1
		1	36+02.93	70.6' LT		1
3000	STH 100	1	37+16.99	67.7' LT	1	
		1	37+34.83	59.1' LT	1	
		1	37+34.98	71.4' LT	1	
		1	63+23.70	69.9' LT	1	
		1	63+60.88	38.0' LT	1	
3000	STH 100	1	63+60.90	19.2' LT	1	
		1	63+74.70	19.9' LT	1	
		1	63+76.00	69.5' LT	1	
		1				
				STAGE 1 SUBTOTAL	10	3
3000	STH 100	2	13+38.68	57.6' RT	1	
		2	16+86.69	73.0 RT		1
		2	19+29.00	73.2' RT	1	
		2	19+78.25	68.6' RT	1	
		2	32+90.58	69.6' RT	1	
3000	STH 100	2	36+01.78	69.0' RT	1	
		2	63+74.89	70.0' RT	1	
		2	97+74.72	72.7' RT	1	
				STAGE 2 SUBTOTAL	7	1
				TOTAL	17	4

CONCRETE MEDIAN SLOPED NOSE

STAGE	ROADWAY	STATION	OFFSET	620.0300 CONCRETE MEDIAN SLOPED NOSE, TYPE 1 SF	620.0200 CONCRETE MEDIAN BLUNT NOSE, TYPE 2 SF
1	STH 100	23+07	LT	62	-
		24+05	RT	62	-
		30+59	LT	52	-
		36+20	RT	68	-
		37+12	RT	52	-
1	STH 100	37+14	LT	50	-
		62+51	LT	52	-
		63+12	LT	52	-
		68+68	LT	62	-
		69+39	RT	63	-
1	STH 100	78+66	LT	62	-
		79+68	RT	60	-
		91+74	LT	62	-
		92+76	RT	62	-
		97+40	LT	62	-
1	STH 100	98+16	RT	62	-
		103+87	LT	63	-
		105+03	RT	62	-
		108+74	LT	62	-
		109+79	RT/LT	72	-
1	STH 100	114+64	LT	62	-
			SUBTOTALS	1266	0
2	STH 100	17+95	RT	70	-
		31+70	RT	52	-
		36+46	RT	69	-
		63+00	RT	55	-
		63+63	RT	52	-
2	STH 100	114+61	RT	-	24
		114+91	RT	-	21
		114+93	RT	-	21
			SUBTOTALS	298	66
			TOTAL	1564	66

CATEGORY 1000 UNLESS OTHERWISE NOTED

PIPE UNDERDRAIN

STAGE	ROADWAY	STATION	TO	STATION	OFFSET	612.0406 PIPE UNDERDRAIN WRAPPED 6-INCH LF
1	STH 100	18+10		18+60	66' LT	52
		18+75		19+25	66' LT	52
		18+15		18+65	4' RT	52
		18+65		19+15	4' RT	52
		24+38		24+88	66' LT	52
1	STH 100	29+80		30+31	66' LT	52
		29+80		30+31	8' LT	52
		35+80		36+30	66' LT	52
		36+42		36+92	66' LT	52
		61+80		62+30	8' LT	52
1	STH 100	62+01		62+51	66' LT	52
		68+00		68+50	4' LT	52
		68+00		68+50	66' LT	52
		74+00		74+50	8' LT	52
		74+50		75+00	8' LT	52
1	STH 100	74+00		74+50	66' LT	52
		74+20		74+70	66' LT	52
		81+82		82+32	61' LT	52
		81+90		82+40	5' RT	52
		84+16		84+66	57' LT	52
1	STH 100	84+90		85+40	57' LT	52
		84+39		84+89	4' LT	52
		84+89		85+39	4' LT	52
		88+25		88+75	60' LT	52
		88+25		88+75	6' RT	52
1	STH 100	92+90		93+40	62' LT	52
		92+90		93+40	4' RT	52
		98+30		98+80	62' LT	52
		98+30		98+80	4' RT	52
		103+30		103+80	66' LT	52
1	STH 100	103+30		103+80	8' LT	52
		108+00		108+50	66' LT	52
		108+00		108+50	4' LT	52
		113+93		114+43	66' LT	52
		114+06		114+56	12' LT	52
					SUBTOTALS	1,820

PIPE UNDERDRAIN

STAGE	ROADWAY	STATION	TO	STATION	OFFSET	612.0406 PIPE UNDERDRAIN WRAPPED 6-INCH LF
2	STH 100	19+15		19+65	3' RT	52
		19+65		20+15	3'RT	52
		18+87		19+37	66' RT	52
		19+52		20+02	66' RT	52
		24+25		24+75	8' RT	52
2	STH 100	24+38		24+88	66' RT	52
		29+80		30+31	66' RT	52
		35+16		35+66	74' RT	52
		35+66		36+05	123' RT	52
		35+55		36+05	8' RT	52
2	STH 100	36+87		37+19	123' RT	52
		37+19		37+70	76' RT	52
		37+20		37+70	8' RT	52
		61+54		62+04	74' RT	52
		68+00		68+50	66' RT	52
2	STH 100	73+30		73+80	66' RT	52
		74+00		74+50	66' RT	52
		73+50		74+00	8' RT	52
		74+00		74+50	8' RT	52
		81+90		82+40	61' RT	52
2	STH 100	84+16		84+66	58' RT	52
		84+93		85+43	58' RT	52
		88+25		88+75	61' RT	52
		92+90		93+40	66' RT	52
		98+30		98+80	66' RT	52
2	STH 100	103+30		103+80	66' RT	52
		108+00		108+50	66' RT	52
		113+94		114+44	89' RT	52
					SUBTOTALS	1,456
					TOTAL	3,276

CATEGORY 1000 UNLESS OTHERWISE NOTED

3

FENCING

STAGE	ROADWAY	STATION	TO STATION	OFFSET		616.0206 FENCE CHAIN LINK 6 FT LF
1	STH 100	37+08	39+47.64	98' LT	110.17' LT	240
		60+41.32	62+25	106.12 ' LT	80' LT	184
				SUBTOTALS		424
2	STH 100	37+36	39+47.64	87' RT	109.41' RT	212
		60+41.84	62+33	116.41' RT	89' RT	191
				SUBTOTALS		403
				TOTAL		827

SECTION CORNER MONUMENTS

STAGE	ROADWAY		SPV.0060.0002 SECTION CORNER MONUMENTS EACH
1	STH 100	36+46.84	1
1	STH 100	63+06.07	1
1	STH 100	89+32.34	1
			3

3

MOBILIZATION

STAGE	ROADWAY	619.1000 EACH
ALL	PROJECT	1
		1

DUST CONTROL SURFACE TREATMENT

STAGE	ROADWAY	623.0200 SY
1	PROJECT	100,110
2	PROJECT	66,739
	TOTAL	166,849

WATER

STAGE	LOCATION	624.0100 MGAL
1	PROJECT - BASE AGGREGATE	57
	PROJECT - EXCAVATION	133
	SUBTOTAL STAGE 1	190
2	PROJECT - BASE AGGREGATE	48
	PROJECT - EXCAVATION	83
	SUBTOTAL STAGE 2	131
	TOTAL	321

CATEGORY 1000 UNLESS OTHERWISE NOTED

TRACKING PAD ITEMS

STAGE	ROADWAY	STATION	628.7560 TRACKING PADS EACH
1	RAMP RYB		2
1	POND	75+00 RT	1
		TOTAL	3

CONCRETE PAVEMENT JOINT LAYOUT

STAGE	ROADWAY	SPV.0105.0003 CONCRETE PAVEMENT JOINT LAYOUT PROJECT ID 2040-16-70 LS
ALL	PROJECT	1
		1

INCENTIVE STRENGTH CONCRETE PAVEMENT

LOCATION	715.0415 DOL
PROJECT 2040-16-70	$6,900
TOTAL	$6,900

SURVEY PROJECT

STAGE	ROADWAY	SPV.0105.0001 SURVEY PROJECT ID 2040-16-70 LS
ALL	PROJECT	1
		1

CONSTRUCTION STAKING CURB & GUTTER

STAGE	ROADWAY	650.5500 CONSTRUCTION STAKING CURB & GUTTER LF
ALL	PROJECT	30,500
		30,500

FINISHING ROADWAY

STAGE	ROADWAY	213.0100.S FINISHING ROADWAY PROJECT ID 2040-16-70 EACH
ALL	PROJECT	1
		1

PAVEMENT CLEANUP

STAGE	ROADWAY	SPV.0105.0002 PAVEMENT CLEANUP PROJECT ID 2040-16-70 LS
ALL	PROJECT	1
		1

GEOTECHNICAL INSTRUMENTATION

STAGE	LOCATION	SPV.0060.0001 SURFACE SETTLEMENT PLATES EACH	SPV.0090.0002 PIEZOMETERS LF
1	245RYB+00	1	29
	246RYB+00	1	31
	247RYB+00	1	34
	TOTAL	3	94

CATEGORY 1000 UNLESS OTHERWISE NOTED

SAW CUTTING ITEMS

STAGE	ROADWAY	FROM STATION	FROM OFFSET	TO STATION	TO OFFSET	690.0150 SAWING ASPHALT LF	690.0250 SAWING CONCRETE LF
1	STH 241	45+12	22' RT	45+22	21' RT	-	86
	STH 241	46+62	21' RT	46+72	21' RT	-	86
	STH 241	54+41	55' LT	54+52	55' LT	-	95
1	13TH ST	45+73	0' RT	45+83	24' RT	-	68
	13TH ST	47+02	0' RT	47+12	24' RT	-	68
	13TH ST	52+86	12' LT	52+96	36' LT	-	73
	13TH ST	54+17	12' LT	54+27	36' LT	-	76
1	STH 100	7+72	15' RT	7+83	15' RT	-	99
		12+97	125' LT	15+57	41' LT	-	353
		15+57	41' LT	15+67	41' LT	-	93
		15+67	41' LT	17+05	41' LT	-	138
		17+05	41' LT	17+15	41' LT	-	92
1	STH 100	17+15	41' LT	17+99	29' LT	-	97
		17+49	105' LT	17+81	105' LT	32	-
		17+99	29' LT	21+15	17' LT	-	726
		21+15	2' RT	23+17	60' LT	-	279
		23+17	7' RT	23+92	7' RT	-	75
1	STH 100	23+40	109' LT	23+76	109' LT	36	-
		23+95	65' LT	24+14	21' RT	-	93
		27+81	7' RT	30+65	57' LT	-	348
		30+65	7' RT	31+67	7' RT	-	102
		30+83	114' LT	31+33	114' LT	-	5
1	STH 100	31+30	113' LT	31+30	166' LT	-	53
		31+50	123' RT	31+50	158' LT	36	-
		31+67	7' RT	33+05	12' RT	-	285
		31+68	51' LT	34+01	7' LT	-	277
		35+68	11' LT	37+27	11' LT	-	182
1	STH 100	36+37	156' LT	36+55	155' LT	-	19
		36+55	155' LT	36+67	150' LT	15	-
		36+71	73' RT	36+79	65' RT	-	37
		38+89	14' RT	40+48	2' LT	-	356
		40+28	69' LT	40+48	4' LT	-	75
1	STH 100	41+53	159' RT	41+60	50' RT	-	143
		52+89	1' LT	52+89	58' RT	-	53
		53+72	5' LT	53+72	53' RT	-	57
		52+90	12' LT	52+90	53' LT	-	41
		53+72	12' LT	53+72	52' LT	-	41
1	STH 100	58+84	0'	60+78	13' LT	-	412
		59+42	12' LT	59+44	81' LT	-	77
		59+57	69' RT	62+68	118' RT	-	369
		60+42	4' RT	62+56	71' LT	-	295
		62+56	7' RT	63+53	7' RT	-	97
1	STH 100	62+68	118' LT	63+45	132' LT	-	93
		63+53	82' LT	63+59	7' RT	-	95
		64+46	6' RT	64+79	6' RT	-	33
		68+67	7' RT	69+12	7' RT	-	44
		77+76	3' RT	79+46	7' RT	-	175
1	STH 100	79+00	99' LT	79+33	99' LT	33	-
		90+65	3' RT	92+46	7' RT	-	186
		96+49	5' RT	98+32	13' RT	-	191
		97+63	74' LT	87+77	74' LT	14	-
		99+96	79' LT	100+71	82' LT	75	-

SAW CUTTING ITEMS

STAGE	ROADWAY	FROM STATION	FROM OFFSET	TO STATION	TO OFFSET	690.0150 SAWING ASPHALT LF	690.0250 SAWING CONCRETE LF
1	STH 100	101+23	80' LT	101+68	80' LT	-	45
		103+46	85' LT	104+36	85' LT	90	-
		104+39	7' RT	104+91	7' RT	-	83
		107+65	3' RT	109+76	5' RT	-	216
		109+32	118' LT	109+91	101' LT	61	-
1	STH 100	110+70	82' LT	110+98	82' LT	28	-
		111+26	85' LT	112+48	86' LT	122	-
		111+37	1' RT	114+70	84' LT	-	486
		112+41	18' RT	114+81	18' RT	-	485
		112+57	105' LT	112+91	105' LT	33	-
1	STH 100	114+57	54' RT	114+96	61' RT	-	96
		123+88	0'	126+09	19' RT	-	392
1	RAMP RYB	240RYB+43	5' LT	240RYB+53	28' LT	-	24
1	RAMP RYB	241RYB+97	66' RT	241RYB+53	72' RT	-	40
				STAGE 1 SUBTOTALS		575	8605
2	STH 100	12+87	108' RT	18+69	17' RT	-	675
		15+36	80' RT	15+72	80' RT	35	-
		17+39	98' RT	17+82	88' RT	43	-
		20+64	83' RT	21+07	83' RT	43	-
		21+18	95' RT	21+49	95' RT	31	-
2	STH 100	23+10	7'RT	23+10	49' RT	-	42
		23+37	86' RT	23+70	86' RT	33	-
		24+02	9' RT	24+02	49' RT	-	39
		30+89	91' RT	31+37	91' RT	48	-
		35+71	13' RT	35+71	49' RT	-	36
2	STH 100	36+07	128' RT	36+39	128' RT	-	32
		36+53	128' RT	36+85	194' RT	-	98
		37+18	13' RT	37+18	73' RT	-	59
		40+34	87' RT	40+48	11' RT	-	100
		58+93	11' RT	59+59	71' RT	-	118
2	STH 100	62+44	7' RT	62+44	68' RT	-	61
		62+62	118' RT	63+45	135' RT	-	105
		63+56	7'RT	63+56	70' RT	-	63
		66+74	93' RT	66+85	93' RT	-	11
		77+03	97' RT	77+18	97' RT	15	-
2	STH 100	77+78	117' RT	77+96	117' RT	18	-
		92+07	114' RT	92+42	114' RT	-	35
		97+49	7' RT	97+49	58' RT	-	51
		97+68	94' RT	98+13	94' RT	45	-
		98+32	13' RT	98+32	57' RT	-	44
2	STH 100	104+56	93' RT	104+90	93' RT	34	-
		106+64	90' RT	106+88	90' RT	24	-
		109+13	87' RT	109+37	87' RT	24	-
		112+37	86' RT	112+70	85' RT	33	-
		114+98	5' RT	114+99	138' RT	-	136
				STAGE 2 SUBTOTALS		426	1705
					TOTAL	1001	10310

CATEGORY 1000 UNLESS OTHERWISE NOTED

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EROSION CONTROL ITEMS

STAGE	ROADWAY	STATION	TO	STATION	OFFSET	628.1104 EROSION BALES EACH	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH	628.2004 EROSION MAT CLASS I TYPE B SY	628.2006 EROSION MAT URBAN CLASS I TYPE A SY	628.2008 EROSION MAT URAN CLASS I TYPE B SY	628.2021 EROSION MAT CLASS II TYPE A SY	628.7504 TEMPORARY DITCH CHECKS LF	628.7555 CULVERT PIPE CHECKS EACH	628.7570 ROCK BAGS EA
1	POND	36P+90	-	39P+70	RT	-	-	-	-	-	-	3822	-	-	60	1	-
1	STH 100	12+37	-	26+00	LT	186	587	587	-	-	-	-	-	-	-	-	-
		26+00	-	39+48	LT	83	323	323	-	-	-	-	-	-	40	-	-
		50+88	-	60+42	LT	40	165	165	-	-	448	-	-	-		-	-
		60+42	-	73+00	LT	-	-	-	-	-	-	-	-	-	-	-	-
		73+00	-	88+00	LT	-	271	271	-	-	-	-	1013	-	-	-	-
1	STH 100	88+00	-	103+00	LT	200	953	953	-	-	-	-	-	-	-	-	-
		103+00	-	114+98	LT	-	462	462	-	-	-	-	-	-	-	-	-
1	RAMP RYB	240RYB+50	-	248RYB+25	LT	619	775	775	-	-	2306	-	-	-	-	1	-
		240RYB+50	-	248RYB+25	RT	-	802	802	-	-	-	-	-	-	-	1	-
					STAGE 1 SUBTOTALS	1128	4338	4338	5	4	2754	3822	1013	0	100	3	0
2	STH 100	12+37	-	26+00	RT	20	222	222	-	-	-	-	-	-	-	-	-
2	STH 100	12+37	-	26+00	RT	20	222	222	-	-	-	-	-	-	-	-	-
		26+00	-	39+48	RT	172	976	976	-	-	-	-	-	-	-	-	-
		60+42	-	73+00	RT	48	1088	1088	-	-	-	-	-	-	-	-	-
		73+00	-	88+00	RT	24	48	48	-	-	-	314	684	-	-	-	-
		88+00	-	103+00	RT	76	165	165	-	-	-	-	-	307	40	-	-
2	STH 100	103+00	-	114+98	RT	-	350	350	-	-	-	189	377	-	-	-	-
					STAGE 2 SUBTOTALS	340	2849	2849	4	3	0	504	1061	307	40	0	0
					UNDISTRIBUTED AMOUNT 25%	367	1797	1797	1	1	0	1081	518	77	35	0	50
					TOTAL	1835	8984	8984	10	8	2754	5407	2591	384	175	3	50

CATEGORY 1000 UNLESS OTHERWISE NOTED

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RIPRAP ITEMS

STAGE	ROADWAY	STATION	-	STATION	OFFSET	606.0100 RIPRAP LIGHT CY	606.0200 RIPRAP MEDIUM CY	645.0120 GEOTEXTILE FABRIC TYPE HR SY	645.0130 GEOTEXTILE FABRIC TYPE R SY
1	STH 100	74+64			121' RT	-	7	14	-
		75+50			121' RT	-	7	14	-
1	POND	41P+08			64' RT	-	7	14	-
1	POND	36P+10	-	40P+70	120' RT	-	279	836	-
1	RAMP RYB	244RYB+47			121' RT	-	6	8	-
	SUBTOTALS					0	306	886	0
2	STH 100	90+70			99' RT	11	-	-	22
		92+49	-	93+27	88' RT	114	-	-	342
	SUBTOTALS					125	0	0	364
	TOTAL					125	306	886	364

INLET PROTECTION

STAGE	ROADWAY	628.7005 TYPE A EACH	628.7010 TYPE B EACH	628.7015 TYPE C EACH	628.7020 TYPE D EACH
1	STH 100	82	12	109	22
	SUBTOTALS	82	12	109	22
2	STH 100	46	0	99	17
	SUBTOTALS	46	0	99	17
	TOTALS	128	12	208	39

SALVAGED TOPSOIL

STAGE	ROADWAY	STATION	TO	STATION	625.0500 SALVAGED TOPSOIL SY
1	POND	74+00	-	89+00	7,667
1	RAMP RYB	240RYB+50		248RYB+25	2,754
1	STH 100	12+37	-	26+00	2,131
		26+00	-	39+48	2,845
		60+42	-	74+00	3,096
		74+00	-	89+00	4,558
		89+00	-	104+00	3,190
1	STH 100	104+00	-	114+98	1,554
				STAGE 1 SUBTOTAL	27,794
2	STH 100	12+37	-	26+00	1,887
		26+00	-	39+48	2,324
		60+42	-	74+00	2,152
		74+00	-	89+00	1,979
		89+00	-	104+00	4,043
2	STH 100	104+00	-	114+98	1,982
				STAGE 2 SUBTOTAL	14,367
				TOTAL	42,161

CATEGORY 1000 UNLESS OTHERWISE NOTED

RESTORATION ITEMS

STAGE	ROADWAY	STATION	TO	STATION	627.0200 MULCHING SY	629.0210 FERTILIZER TYPE B CWT	630.0120 SEEDING MIXTURE NO. 20 LB	630.0200 SEEDING TEMPORARY LB	631.1000 SOD LAWN SY	631.0300 SOD WATER MGAL
1	POND	74+00	-	89+00	7667	5	207	-		
1	STH 100	12+37	-	26+00	724	1	20	-	1407	
		26+00	-	39+48	1241	2	34	-	1604	
		50+88		60+42	-		12	-	-	
		60+42	-	74+00	847	2	23	-	2249	
		74+00	-	89+00	403	3	38	-	3142	
1	STH 100	89+00	-	104+00	368	2	10	-	2822	
		104+00	-	114+98	315	1	9	-	1239	
1	RAMP RYB	240RYB+50		248RYB+25	-	1	62	-	-	
				STAGE 1 SUBTOTAL	11565	17	414	0	12463	300
2	STH 100	12+37	-	26+00	691	1	19	-	1196	
2	STH 100	26+00	-	39+48	1036	1	28	-	1288	
2	STH 100	60+42	-	74+00	1143	1	31	-	1009	
		74+00	-	89+00	316	1	35	-	665	
		89+00	-	104+00	2103	3	57	-	1940	
		104+00	-	114+98	429	1	27	-	987	
				STAGE 2 SUBTOTAL	5718	9	197	0	7085	171
				UNDISTRIBUTED	-	-	-	139	-	-
				TOTAL	17283	26	610	139	19548	471

CATEGORY 1000 UNLESS OTHERWISE NOTED

PLANTINGS

CATEGORY	BID ITEM	SYMBOL	COMMON NAME	ROADWAY	STATION	PLANTING LAYOUT EACH	625.0105 TOPSOIL CY	SPV.0035.0001 PLANTING MIX CY	SPV.0180.0001 SHREDDED BARK MULCH SY
2000		SMALL TREES/SHRUBS							
2000	632.0101.0001		Jack Dwarf Pear	RYAN RD MEDIAN	100+75-101+45	4	16		8
2000	632.0101.0002		Autumn Brilliance Serviceberry	RYAN RD MEDIAN	82+00-90+00	5	20		7
2000	632.0201.0001		Dogwood “red twig variegated’	RYAN RD MEDIAN PLANTING BED	75+25	1	2		
2000	632.0201.0002		Sumac ‘tigers eye’	RYAN RD MEDIAN PLANTING BED	101+12.5	3	6		
2000	632.0201.0003		Witherod Viburnum	RYAN RD MEDIAN	72+00-76+00	4	16		6
2000	632.0201.0004		Brilliant Red Chokeberry	RYAN RD MEDIAN	73+00-75+00	8	32		12
2000	632.0201.0005		Knockout Rose ‘blushing’	RYAN RD MEDIAN PLANTING BED	95+25	12			
2000	632.0201.0006		Knockout Rose ‘sunny’	RYAN RD MEDIAN PLANTING BED	74+00	12			
2000	632.0201.0007		Hydrangea “pinky winky’	RYAN RD MEDIAN PLANTING BED	74+00	4			
2000	632.0201.0008		Huechera ‘palace purple’	RYAN RD MEDIAN PLANTING BED	74+00	10			
2000	632.0201.0009		Royal Purple Smoke bush	RYAN RD MEDIAN PLANTING BED	72+75	1			
2000		PERENNIALS/GRASSES							
2000	SPV.0060.5001		Panicum ‘heavy metal’ (Grass)	RYAN RD MEDIAN PLANTING BED	75+25	8			
2000	SPV.0060.5002		Russian Sage ‘atriplicifolia’	RYAN RD MEDIAN PLANTING BED	95+25	5			
2000	SPV.0060.5003		Sedum ‘autumn joy’	RYAN RD MEDIAN PLANTING BED	75+25	16			
2000	SPV.0060.5004		Sedum ‘dragons blood’	RYAN RD MEDIAN PLANTING BED	101+12.5	40			
2000	SPV.0060.5005		Achillea ‘moonshine’	RYAN RD MEDIAN PLANTING BED	75+25	16			
2000	SPV.0060.5006		Oenothera ‘macrocarpa’	RYAN RD MEDIAN PLANTING BED	101+12.5	20			
2000	SPV.0060.5007		Oenothera ‘pink primrose’	RYAN RD MEDIAN PLANTING BED	72+75	20			
2000	SPV.0060.5008		Rudebekia Goldstrum ‘black eyed susan’	RYAN RD MEDIAN PLANTING BED	72+75	25			
2000	SPV.0060.5009		Echinacea purple cone flower ‘magnus’	RYAN RD MEDIAN PLANTING BED	72+75	25			
2000				RYAN RD MEDIAN PLANTING BED	72+75			3	9
2000				RYAN RD MEDIAN PLANTING BED	74+00			7	21
2000				RYAN RD MEDIAN PLANTING BED	75+25			3	9
2000				RYAN RD MEDIAN PLANTING BED	95+25			3	9
2000				RYAN RD MEDIAN PLANTING BED	101+12.5			7	21
					TOTAL	92	23		102

CATEGORY 1000 UNLESS OTHERWISE NOTED

LANDSCAPE PLANTING SURVEILLANCE AND CARE CYCLES

CATEGORY	ROADWAY	STATION	TO	STATION	OFFSET	632.9101 LANDSCAPE PLANTING SURVEILLANCE AND CARE CYCLES EACH
2000	STH 100	72+00		102+00	MEDIAN	10
					SUBTOTALS	10

WALL MODULAR BLOCK GRAVITY

STAGE	ROADWAY	STATION	TO	STATION	OFFSET	532.0200.S WALL MODULAR BLOCK GRAVITY SF	612.0104 PIPE UNDERDRAIN 4-INCH LF	645.0112 GEOTEXTILE FABRIC TYPE DF SCHEDULE B SY
1	STH 100	61+21.64	-	62+15.18	81.76' LT	257	100	45
					SUBTOTALS	257	100	45

PAVEMENT MARKING EPOXY

LOCATION	STATION	TO	STATION	646.0106 PAVEMENT MARKING EPOXY 4-INCH WHITE LF	646.0106 PAVEMENT MARKING EPOXY 4-INCH YELLOW LF	646.0841.S PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH 12.5 FT LINE WHITE LF	646.0843.S PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH WHITE LF	646.0843.S PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH 3FT LINE WHITE LF	646.0843.S PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH 2FT LINE WHITE LF
RYAN ROAD									
EB	2+00	-	11+57	974	-	412	277	-	-
WB	2+00	-	11+57	-	-	-	-	-	-
EB	11+57	-	26+00	1262	632	632	614	34	78
WB	11+57	-	26+00	1153	262	631	1202	96	80
EB	26+00	-	41+00	812	819	703	773	50	-
WB	26+00	-	41+00	827	450	693	1407	102	-
EB	41+00	-	60+41	-	-	948	837	32	-
WB	41+00	-	60+41	-	336	969	189	40	-
EB	60+41	-	68+00	521	216	204	701	25	-
WB	60+41	-	68+00	442	-	202	633	50	-
EB	68+00	-	82+00	1400	872	700	426	25	-
WB	68+00	-	82+00	1400	707	700	616	50	-
EB	82+00	-	96+00	1400	922	700	324	48	-
WB	82+00	-	96+00	1400	992	700	324	25	-
EB	96+00	-	110+00	1400	400	697	887	73	-
WB	96+00	-	110+00	1400	484	680	634	50	-
EB	110+00	-	116+20	307	-	119	1030	116	32
WB	110+00	-	116+20	485	189	242	136	38	46
EB	116+20	-	135+00	953	1254	456	143	-	-
WB	116+20	-	135+00	935	1102	636	440	-	-
			TOTALS	17,071	9,637	11,024	11,593	854	236
			BID ITEM TOTALS	26,708		11,024		12,683	

CATEGORY 1000 UNLESS OTHERWISE NOTED

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OTHER PAVEMENT MARKING

LOCATION	STATION	TO	STATION	647.0456 PAVEMENT MARKING CURB EPOXY YELLOW LF	647.0606 PAVEMENT MARKING ISLAND NOSE EPOXY YELLOW EACH	647.0726 PAVEMENT MARKING DIAGONAL EPOXY 12-INCH WHITE LF	SPV 0060.0003 PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC ARROWS TYPE 2 WHITE EACH	SPV 0060.0016 PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC WORDS WHITE EACH	SPV 0090.0009 PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK 6-INCH WHITE LF	SPV 0090.0012 PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC CROSSWALK 24-INCH WHITE LF	SPV 0090.0020 PAVEMENT MARKING GROOVED PREFORMED THERMOPLASTIC STOP LINE 18-INCH WHITE LF
RYAN ROAD											
EB	2+00	-	11+57	-	-	-	2	2	-	-	-
WB	2+00	-	11+57	-	-	-	-	-	-	-	-
EB	11+57	-	26+00	80	2	-	2	2	430	-	63
WB	11+57	-	26+00	41	1	-	6	6	672	-	114
EB	26+00	-	41+00	110	3	118	5	5	503	-	123
WB	26+00	-	41+00	152	3	225	7	7	395	204	100
EB	41+00	-	60+41	-	-	60	-	-	-	-	93
WB	41+00	-	60+41	-	-	-	-	-	-	-	84
EB	60+41	-	68+00	60	2	202	4	2	406	-	119
WB	60+41	-	68+00	67	2	119	4	3	439	-	114
EB	68+00	-	82+00	71	2	-	-	-	-	-	-
WB	68+00	-	82+00	71	2	-	-	-	-	-	-
EB	82+00	-	96+00	41	1	-	-	-	118	-	-
WB	82+00	-	96+00	41	1	-	-	-	-	-	-
EB	96+00	-	110+00	123	3	-	1	1	205	-	-
WB	96+00	-	110+00	123	3	-	-	-	120	-	-
EB	110+00	-	120+00	28	3	164	8	8	521	-	79
WB	110+00	-	120+00	21	1	-	-	-	525	-	-
EB	120+00	-	135+00	-	-	200	-	-	-	-	-
WB	120+00	-	135+00	-	-	107	-	-	-	-	-
			TOTAL	1,029	29	1,195	39	36	4,333	204	889

CATEGORY 1000 UNLESS OTHERWISE NOTED

TRAFFIC CONTROL

STAGE	LOCATION	STAGE DURATION DAYS	643.0200.0001 TRAFFIC CONTROL SURVEILLANCE AND MAINTENANCE 2040-16-70 DAYS	643.0300 TRAFFIC CONTROL DRUMS EACH	643.0300 TRAFFIC CONTROL DRUMS DAYS	643.0420 TRAFFIC CONTROL BARRICADES TYPE III EACH	643.0420 TRAFFIC CONTROL BARRICADES TYPE III DAYS	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A EACH	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A DAYS	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C EACH	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C DAYS	643.0800 TRAFFIC CONTROL ARROW BOARDS EACH	643.0800 TRAFFIC CONTROL ARROW BOARDS DAYS	643.0900 TRAFFIC CONTROL SIGNS EACH	643.0900 TRAFFIC CONTROL SIGNS DAYS	643.1000 TRAFFIC CONTROL SIGNS FIXED MESSAGE EACH	643.1000 TRAFFIC CONTROL SIGNS FIXED MESSAGE SF	643.1050.S TRAFFIC CONTROL SIGNS PORTABLE CHANGEABLE MESSAGE EACH	643.1050.S TRAFFIC CONTROL SIGNS PORTABLE CHANGEABLE MESSAGE DAYS
1A0	RYAN RD WB @ RAMPS	4		100	400	5	20	-	-	42	168	4	16	14	56	-	-	2	8
	RYAN RD EB @ RAMPS	4		100	400	5	20	-	-	42	168	4	16	14	56	-	-	2	8
	NB OFF RAMP	4		18	72	4	16	-	-	-	-	-	-	2	8	-	-	-	-
	SB OFF RAMP	4		30	120	2	8	-	-	-	-	-	-	1	4	-	-	-	-
1	STH 100	101		715	72,215	64	6,464	128	12,928	37	3,737	2	202	54	5,454	2	144	4	404
	USH 94 SB EXIT RAMP	101		25	2,525	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	USH 94 NB EXIT RAMP	101		23	2,323	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	STAGE 1 SUBTOTALS		105	1,011	78,055	80	6,528	128	12,928	121	4,073	10	234	85	5,578	2	144	8	420
2	STH 100	100		913	91,300	73	7,300	146	14,600	36	3,600	2	200	54	5,400	-	-	4	400
	USH 94 SB EXIT RAMP	100		19	1,900	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	USH 94 NB EXIT RAMP	100		22	2,200	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	STAGE 2 SUBTOTALS		100	954	95,400	73	7,300	146	14,600	36	3,600	2	200	54	5,400	0	0	4	400
	UNDISTRIBUTED			197	17,346	15	1,383	27	2,753	16	767	1	43	14	1,098				
	TOTAL		205	2,162	190,801	168	15,211	301	30,281	173	8,440	13	477	153	12,076	2	144	12	820

CATEGORY 1000 UNLESS OTHERWISE NOTED

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TEMPORARY PAVEMENT MARKINGS AND REMOVALS

STAGE	LOCATION	STATION	TO	STATION	646.0600 REMOVING PAVEMENT MARKINGS	649.0200 TEMPORARY PAVEMENT MARKING REFLECTIVE PAINT 4-INCH		649.0400 TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH		649.0801 TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH	649.1200 TEMPORARY PAVEMENT MARKING STOP LINE REMOVABLE TAPE 18-INCH	SPV.0045.0021 TEMPORARY CROSSWALK	SPV.0090.0022 REMOVING PAVEMENT MARKINGS WATER BLASTING
						WHITE	YELLOW	WHITE	YELLOW	WHITE	WHITE		
					LF	LF	LF	LF	LF	LF	LF	DAY	LF
1	STH 100	5+00	-	8+00	72	227	-	-	-	86	-	-	-
		8+00	-	23+00	657	962	1,570	-	-	726	-	-	523
		23+00	-	38+00	750	1,753	1,605	-	-	796	108	101	232
		38+00	-	53+00	724	505	2,213	-	-	541	36	-	166
		53+00	-	68+00	630	1,074	1,802	-	-	1,251	162	-	583
1	STH 100	68+00	-	83+00	750	1,406	2,713	-	-	100	-	-	100
		83+00	-	98+00	750	1,500	2,474	-	-	200	-	-	295
		98+00	-	113+00	704	1,346	1,544	-	-	759	-	-	325
		113+00	-	128+00	520	2,912	2,115	-	-	758	79	101	2,626
		128+00	-	136+00	186	-	743	-	-	-	-	-	-
				STAGE 1 SUBTOTALS	5,743	11,685	16,779	0	0	5,217	385	202	4,850
2	STH 100	2+00	-	8+00	664	-	-	664	-	-	-	-	-
		8+00	-	23+00	3,967	-	-	2,390	1,521	56	-	-	-
		23+00	-	38+00	6,101	-	-	3,085	2,037	895	84	100	-
		38+00	-	53+00	5,465	-	-	2,269	2,403	757	36	-	-
		53+00	-	68+00	4,911	-	-	2,101	1,677	987	146	-	-
2	STH 100	68+00	-	83+00	5,524	-	-	2,841	2,483	200	-	-	-
		83+00	-	98+00	5,959	-	-	3,010	2,707	218	24	-	-
		98+00	-	113+00	5,424	-	-	2,917	2,207	300	-	-	-
		113+00	-	128+00	7,036	-	-	3,311	3,128	543	54	100	-
		128+00	-	136+00	0	-	-	-	-	-	-	-	-
				STAGE 2 SUBTOTALS	45,051	0	0	22,588	18,163	3,956	344	200	0
				BID ITEM TOTALS	50,794	28,464		40,751		9,173	729	402	4,850

CATEGORY 1000 UNLESS OTHERWISE NOTED

REMOVE OVERHEAD SIGN SUPPORTS - MISC QUANTITIES **2040-16-70 STH 100**

LOCATION	REMOVING OVERHEAD SIGN SUPPORT S-40-294 SPV.0105.1001 L.S.
STH 100 EASTBOUND AT STH 38 STATION 107+00	1
TOTAL	1

OVERHEAD SIGN SUPPORTS - MISC QUANTITIES 2040-16-70 STH 100

LOCATION	OVERHEAD SIGN SUPPORT STRUCTURE S-40-982 L.S. 641.8100.0001	OVERHEAD SIGN SUPPORT STRUCTURE S-40-983 L.S. 641.8100.0002
STH 100 WESTBOUND AT 13TH STREET	1	
STH 100 EASTBOUND AT STH 38		1
TOTAL	1	1

CATEGORY 1000

SHEET 1 OF 1

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	OVERHEAD SIGN SUPPORT QUANTITIES	SHEET:	E

TYPE II SIGN REMOVAL CATEGORY 1000 **STH 100 2040-16-70**

SIGN NO.	SIGN CODE	SIGN MESSAGE	638.2602 REM SIGNS TYPE II [EA]	638.3000 REM SMALL SIGN SUP [EA]	REMARKS / NEW SIGN LOCATION
1R	R1-1F		1	--	--
2R	R4-7		1	--	--
3R	R5-1		1	--	--
4R	R1-1F		1	--	--
5R	R5-1A		1	1	--
6R	J3-1	EXISTING ASSEMBLY	1	--	--
7R	R7-1D		1	1	--
8R	R1-1F		1	--	--
9R	R1-1F		1	--	--
10R	R4-7		1	--	--
11R	R1-1		1	1	--
12R	R2-1		1	1	--
13R	R7-1L		1	1	--
14R	W3-3		1	1	--
15R	W3-3		1	1	--
16R	R4-7		1	--	--
17R	W3-3		1	1	--
18R	W3-3		1	1	--
19R	NOT USED		--	--	NOT USED
20R	NOT USED		--	--	NOT USED
21R	J1-2	EXISTING ASSEMBLY	1	1	--
22R	J1-2	EXISTING ASSEMBLY	1	1	--
23R	J1-1	EXISTING ASSEMBLY	1	1	--
24R	J1-1	EXISTING ASSEMBLY	1	1	--
25R	M1-94	27TH STREET	1	--	--
26R	M1-94	27TH STREET	1	--	--
27R	R3-55L		1	1	--
28R	R2-1		1	1	--
29R	R2-1		1	1	--
30R	R1-1F		1	--	--
31R	R1-1F		1	--	--
32R	R3-7R		1	1	--
33R	JV2-2	EXISTING ASSEMBLY	1	1	--
34R	JV2-2	EXISTING ASSEMBLY	1	1	--
35R	R1-1F		1	--	--
36R	R4-7		1	--	--
37R	R1-1F		1	--	--
38R	R1-1F		1	--	--
39R	R4-7		1	--	--
40R	R1-1F		1	--	--
41R	R3-55L		1	1	--
42R	R3-5L		1	--	--
43R	J4-1	EXISTING ASSEMBLY	1	1	--
44R	NOT USED		1	--	NOT USED
45R	M1-94	20TH ST	1	2	--

CATEGORY 1000

SHEET 1 OF 4

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	SIGN REMOVAL QUANTITIES	SHEET:	E

TYPE II SIGN REMOVAL CATEGORY 1000 **STH 100 2040-16-70**

SIGN NO.	SIGN CODE	SIGN MESSAGE	638.2602 REM SIGNS TYPE II [EA]	638.3000 REM SMALL SIGN SUP [EA]	REMARKS / NEW SIGN LOCATION
46R	D1-2	MILWAUKEE - CHICAGO	1	2	--
47R	D1-2	MILWAUKEE - CHICAGO	1	2	--
48R	R1-1		1	--	--
49R	R1-1		1	1	--
50R	R1-1		1	1	--
51R	R4-7		1	--	--
52R	R4-7		1	--	--
53R	D1-63	20TH ST - NEXT LEFT	1	2	--
54R	JV2-2	EXISTING ASSEMBLY	1	--	--
55R	D1-2	CHICAGO - MILWAUKEE	1	--	--
56R	JV2-2	EXISTING ASSEMBLY	1	--	--
57R	J3-1	EXISTING ASSEMBLY	1	1	--
58R	J3-1	EXISTING ASSEMBLY	1	1	--
59R	W6-2		1	--	--
60R	W6-2		1	1	--
61R	R1-1F		1	--	--
62R	R4-7		1	--	--
63R	M1-94H	13TH STREET	1	--	--
64R	R1-1F		1	--	--
65R	J3-1	EXISTING ASSEMBLY	1	1	--
66R	J3-1	EXISTING ASSEMBLY	1	--	--
67R	R1-1F		1	--	--
68R	R2-1		1	1	--
69R	R2-1		1	--	--
70R	M1-94H	13TH STREET	1	--	--
71R	J4-1	EXISTING ASSEMBLY	1	--	--
72R	R1-1F		1	--	--
73R	R4-7		1	--	--
74R	R4-7		1	--	--
75R	R1-1F		1	--	--
76R	R4-7		1	--	--
77R	R1-1F		1	--	--
78R	J3-1	EXISTING ASSEMBLY	1	--	--
79R	J3-1	EXISTING ASSEMBLY	1	--	--
80R	R1-1F		1	--	--
81R	R3-55L		1	1	--
82R	JV1-3	EXISTING ASSEMBLY	1	1	--
83R	W3-3		1	1	--
84R	W3-3		1	--	--
85R	R2-1		1	1	--
86R	R2-1		1	--	--
87R	R2-1		1	1	--
88R	R2-1		1	1	--
89R	J2-2	EXISTING ASSEMBLY	1	1	--
90R	J2-2	EXISTING ASSEMBLY	1	--	--

CATEGORY 1000

SHEET 2 OF 4

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	SIGN REMOVAL QUANTITIES	SHEET:	E

TYPE II SIGN REMOVAL CATEGORY 1000 **STH 100 2040-16-70**

SIGN NO.	SIGN CODE	SIGN MESSAGE	638.2602 REM SIGNS TYPE II [EA]	638.3000 REM SMALL SIGN SUP [EA]	REMARKS / NEW SIGN LOCATION
91R	R2-1		1	1	--
92R	R2-1		1	1	--
93R	R2-1		1	--	--
94R	R2-1		1	1	--
95R	R2-1		1	1	--
96R	R2-1		1	--	--
97R	R4-7		1	--	--
98R	R4-7		1	--	--
99R	R2-1		1	1	--
100R	R1-1		1	1	--
101R	R2-1		1	1	--
102R	J1-1	EXISTING ASSEMBLY	1	--	--
103R	R2-1		1	1	--
104R	R2-1		1	1	--
105R	R4-7		1	1	--
106R	J1-1	EXISTING ASSEMBLY	1	1	--
107R	R2-1		1	1	--
108R	R2-1		1	1	--
109R	M1-94	HOWELL AVE	1	2	--
110R	M1-94	HOWELL AVE	1	2	--
111R	R3-5R		1	--	--
112R	W3-3		1	1	--
113R	W3-3		1	1	--
114R	R7-1D		1	1	--
115R	R4-7		1	1	--
116R	J2-2	EXISTING ASSEMBLY	1	2	--
117R	J4-1	EXISTING ASSEMBLY	1	1	--
118R	R7-1D		1	1	--
119R	R3-5L		1	--	--
120R	R3-5L		1	--	--
121R	R7-1L		1	1	--
122R	J3-2	EXISTING ASSEMBLY	1	2	--
123R	R3-7R		1	1	--
124R	J2-2	EXISTING ASSEMBLY	1	2	--
125R	R3-55L		1	1	--
126R	R6-2L		1	1	--
127R	D1-1	RACINE [A]	1	2	--
128R	R2-1		1	1	--
129R	J23-1	EXISTING ASSEMBLY	1	1	--
130R	R6-2L		1	1	--
131R	R1-2		1	1	--
132R	R1-1F		1	--	--
133R	J3-1	EXISTING ASSEMBLY	1	--	--
134R	R4-7		1	--	--
135R	R5-1		1	--	--

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CATEGORY 1000

SHEET 3 OF 4

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	SIGN REMOVAL QUANTITIES	SHEET:	E

TYPE II SIGN REMOVAL CATEGORY 1000 **STH 100 2040-16-70**

SIGN NO.	SIGN CODE	SIGN MESSAGE	**638.2602** REM SIGNS TYPE II [EA]	**638.3000** REM SMALL SIGN SUP [EA]	REMARKS / NEW SIGN LOCATION
136R	R1-1F		1	--	--
137R	R1-1F		1	--	--
138R	W12-1D		1	1	--
139R	J2-1	EXISTING ASSEMBLY	1	1	--
140R	R2-1		1	--	--
141R	R6-2R		1	1	SHEET 2 OF 16
142R	W8-58F		1	2	SHEET 8 OF 16
143R	JV1-3	EXISTING ASSEMBLY	1	1	SHEET 8 OF 16
TOTALS			141	88	

3

CATEGORY 1000

SHEET 4OF 4

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	SIGN REMOVAL QUANTITIES	SHEET:	E

SIGN NO.	SIGN CODE & SIZE	SIGN TYPE	SIGN MESSAGE	SIGN SIZE W [IN.]	x	H [IN.]	637.2210 SIGNS TYPE II REFLC H [SF]	637.2215 SIGNS TYPE II REFLC H FOLDING [SF]	637.2230 SIGNS TYPE II REFLC F [SF]	638.3000 REM SMALL SIGN SUP [EA]	638.2102 MOVE SIGNS TYPE II [EA]	634.0618 WOOD POSTS 4"X 6"x18' [EA]	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION	TYPE I SIGN SIZE W [FT.]	x	H [FT.]	637.1220 SIGNS TYPE I REFLC SH [SF]
1	R4-7(3)	II	--	36	x	48	12.000	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	--	x	--	--
2	R1-1F(3)	II	--	36	x	36	--	7.460	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	--	x	--	--
3	**NOT USED**		--	--	x	--	--	--	--	--	--	--	--	--	**NOT USED**	--	x	--	--
4	R5-1(3)	II	--	36	x	36	9.000	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	--	x	--	--
5	R1-1F(3)	II	--	36	x	36	--	7.460	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	--	x	--	--
6	J3-1(3)	II	--	36	x	84	21.000	--	--	--	--	1	--	--	--	--	x	--	--
	M3-1		--	36	x	18													
	M1-6		STH 241	36	x	36													
	M6-1		--	30	x	30													
7	R7-1D(3)	II	--	24	x	30	5.000	--	--	--	--	1	--	--	--	--	x	--	--
8	**NOT USED**	II	--	--	x	--	--	--	--	--	--	--	--	--	**NOT USED**	--	x	--	--
9	R1-1F(3)	II	--	36	x	36	--	7.460	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	--	x	--	--
10	R1-1F(3)	II	--	36	x	36	--	7.460	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	--	x	--	--
11	R4-7(3)	II	--	36	x	48	12.000	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	--	x	--	--
12	R5-1A(3)	II	--	42	x	30	8.750	--	--	--	--	1	--	--	--	--	x	--	--
13	J2-4(3)	II	--	--	x	--	--	--	--	3	1	3	--	--	--	--	x	--	--
14	R1-1(3)	II	--	36	x	36	7.460	--	--	--	--	1	--	--	--	--	x	--	--
15	R3-20L(3)	II	--	36	x	54	13.500	--	--	--	--	1	--	--	--	--	x	--	--
16	W3-3(3)	II	--	36	x	36	--	--	9.000	--	--	1	--	--	--	--	x	--	--
17	W3-3(3)	II	--	36	x	36	--	--	9.000	--	--	1	--	--	--	--	x	--	--
18	R4-7(3)	II	--	36	x	48	12.000	--	--	--	--	--	--	--	MOUNT ON LIGHT POLE	--	x	--	--
19	R7-1L(3)	II	--	24	x	30	5.000	--	--	--	--	1	--	--	--	--	x	--	--
20	R5-1(3)	II	--	36	x	36	9.000	--	--	--	--	--	--	--	MOUNT ON BACK OF EXISTING SIGN	--	x	--	--
21	R2-1(3)	II	45 MPH	36	x	48	12.000	--	--	--	--	1	--	--	--	--	x	--	--
22	R6-2R(2S)	II	--	24	x	30	5.000	--	--	--	--	1	--	--	--	--	x	--	--
23	R3-53R(2S)	II	--	24	x	30	5.000	--	--	--	--	1	--	--	--	--	x	--	--
24	R1-1(3)	II	--	36	x	36	7.460	--	--	--	--	1	--	--	--	--	x	--	--
25	D1-65(3)	II	27TH STREET NEXT SIGNAL	90	x	30	18.750	--	--	--	--	2	--	--	--	--	x	--	--
26	R1-1(3)	II	--	36	x	36	7.460	--	--	--	--	1	--	--	--	--	x	--	--
27	R4-7(3)	II	--	36	x	48	12.000	--	--	--	--	--	--	--	MOUNT ON LIGHT POLE	--	x	--	--
28	D1-63(MOD)	II	TO 20TH ST [A] NEXT SIGNAL	--	x	--	--	--	--	2	1	2	--	--	--	--	x	--	--
29	D1-63(MOD)	II	TO 20TH ST [A] NEXT SIGNAL	--	x	--	--	--	--	2	1	2	--	--	--	--	x	--	--
30	J1-1(3)	II	--	36	x	57	14.250	--	--	--	--	1	--	--	--	--	x	--	--
	M2-1		--	30	x	21													
	M1-6		STH 241	36	x	36													
31	J1-1(3)	II	--	36	x	57	14.250	--	--	--	--	--	--	--	MOUNT ON LIGHT POLE	--	x	--	--
	M2-1		--	30	x	21													
	M1-6		STH 241	36	x	36													
32	W3-3(3)	II	--	36	x	36	--	--	9.000	--	--	1	--	--	--	--	x	--	--
33	W3-3(3)	II	--	36	x	36	--	--	9.000	--	--	1	--	--	--	--	x	--	--
34	R4-7(3)	II	--	36	x	48	12.000	--	--	--	--	1	--	--	--	--	x	--	--
35	R10-64F	II	--	--	x	--	--	--	--	1	1	1	--	--	--	--	x	--	--
36	R6-2R(2S)	II	--	24	x	30	5.000	--	--	--	--	1	--	--	--	--	x	--	--
37	R2-1(3)	II	45 MPH	36	x	48	12.000	--	--	--	--	1	--	--	--	--	x	--	--
38	R2-1(3)	II	45 MPH	36	x	48	12.000	--	--	--	--	1	--	--	--	--	x	--	--
39	R1-1F(3)	II	--	36	x	36	--	7.460	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	--	x	--	--
40	R6-2L(2M)	II	--	30	x	36	7.500	--	--	--	--	1	--	--	--	--	x	--	--
41	R1-1F(3)	II	--	36	x	36	--	7.460	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	--	x	--	--

SIGN NO.	SIGN CODE & SIZE	SIGN TYPE	SIGN MESSAGE	SIGN SIZE W [IN.]	x	H [IN.]	637.2210 SIGNS TYPE II REFLC H [SF]	637.2215 SIGNS TYPE II REFLC H FOLDING [SF]	637.2230 SIGNS TYPE II REFLC F [SF]	638.3000 REM SMALL SIGN SUP [EA]	638.2102 MOVE SIGNS TYPE II [EA]	634.0618 WOOD POSTS 4"X 6"x18' [EA]	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION	TYPE I SIGN SIZE W [FT.]	x	H [FT.]	637.1220 SIGNS TYPE I REFLC SH [SF]
42	R6-3(2M)	II	--	30	x	24	5.000	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	--	x	--	--
43	M1-94H	II	S 22ND ST	54	x	18	6.750	--	--	--	--	--	--	--	MOUNT ON MAST ARM	--	x	--	--
44	M1-94S	II	[100] W RYAN RD	72	x	18	9.000	--	--	--	--	--	--	--	MOUNT ON MAST ARM	--	x	--	--
45	R5-1(3)	II	--	36	x	36	9.000	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	--	x	--	--
46	R1-1F(3)	II	--	36	x	36	--	7.460	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	--	x	--	--
47	JV2-2(2S)	II	--	24	x	96	16.000	--	--	--	--	1	1	--	--	--	x	--	--
	MB3-4		--	24	x	12													
	M1-1		IH 94	24	x	24													
	MB3-1		--	24	x	12													
	M1-1		IH 41	24	x	24													
	M4-20L		--	24	x	24													
48	JV2-2(2S)	II	--	24	x	93	15.500	--	--	--	--	1	1	--	--	--	x	--	--
	MB3-2		--	24	x	12													
	M1-1		IH 94	24	x	24													
	MB3-3		--	24	x	12													
	M1-1		IH 41	24	x	24													
	MB5-1R		--	21	x	21													
49	R6-2L(2M)	II	--	30	x	36	7.500	--	--	--	--	1	--	--	--	--	x	--	--
50	M1-94H	II	S 22ND ST	54	x	18	6.750	--	--	--	--	--	--	--	MOUNT ON MAST ARM	--	x	--	--
51	R1-1F(3)	II	--	36	x	36	--	7.460	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	--	x	--	--
52	R4-7(2M)	II	--	24	x	30	5.000	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	--	x	--	--
53	R4-7(2M)	II	--	24	x	30	5.000	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	--	x	--	--
54	M1-94S	II	[100] W RYAN RD	72	x	18	9.000	--	--	--	--	--	--	--	MOUNT ON MAST ARM	--	x	--	--
55	R1-1F(3)	II	--	36	x	36	--	7.460	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	--	x	--	--
56	R6-3(2M)	II	--	30	x	24	5.000	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	--	x	--	--
57	R5-1(3)	II	--	36	x	36	9.000	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	--	x	--	--
58	R1-1F(3)	II	--	36	x	36	--	7.460	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	--	x	--	--
59	R5-1A(3)	II	--	42	x	30	8.750	--	--	--	--	1	--	--	--	--	x	--	--
60	J3-1	II	--	--	x	--	--	--	--	1	2	1	--	--	--	--	x	--	--
	D9-2																		
	MB6-1																		
61	J4-1(3)	II	--	36	x	54	13.500	--	--	--	--	1	--	--	--	--	x	--	--
	M3-4		--	36	x	18													
	M1-6		STH 100	36	x	36													
62	**NOT USED**	--	--	--	x	--	--	--	--	--	--	--	--	--	**NOT USED**	--	x	--	--
63	R6-2L(2M)	II	--	30	x	36	7.500	--	--	--	--	1	--	--	--	--	x	--	--
64	R4-7(3)	II	--	36	x	48	12.000	--	--	--	--	1	--	--	--	--	x	--	--
65	W12-1D(2M)	II	--	24	x	24	--	--	4.000	--	--	1	--	--	2' MOUNT HEIGHT	--	x	--	--
66	R10-64F	II	--	--	x	--	--	--	--	--	--	1	1	--	--	--	x	--	--
67	D1-2(MOD)	II	[A] MILWAUKEE	78	x	30	16.250	--	--	--	--	2	--	--	--	--	x	--	--
	CHICAGO [A]																		
68	**NOT USED**	--	--	--	x	--	--	--	--	--	--	--	--	--	**NOT USED**	--	x	--	--
69	R1-1(3)	II	--	36	x	36	7.460	--	--	--	--	1	--	--	--	--	x	--	--
70	**NOT USED**	--	--	--	x	--	--	--	--	--	--	--	--	--	**NOT USED**	--	x	--	--
71	R4-7(2M)	II	--	24	x	30	5.000	--	--	--	--	1	--	--	--	--	x	--	--
72	R4-7(3)	II	--	36	x	48	12.000	--	--	--	--	1	--	--	--	--	x	--	--
73	R1-1(3)	II	--	36	x	36	7.460	--	--	--	--	1	--	--	--	--	x	--	--
74	R5-1(3)	II	--	36	x	36	9.000	--	--	--	--	1	--	--	--	--	x	--	--
75	**NOT USED**	--	--	--	x	--	--	--	--	--	--	--	--	--	**NOT USED**	--	x	--	--
76	**NOT USED**	--	--	--	x	--	--	--	--	--	--	--	--	--	**NOT USED**	--	x	--	--
77	M1-63(MOD)	II	20TH ST	66	x	21	9.625	--	--	--	--	2	--	--	--	--	x	--	--
			NEXT LEFT																

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78	M1-94(4)	II	20TH STREET	90	x	21	13.125	--	--	--	--	2	--	--	--	--	x	--	--
79	R3-51(MOD)	II	--	--	x	--	--	--	--	1	1	1	--	--	--	--	x	--	--
80	D1-2(MOD)	II	[A] CHICAGO MILWAUKEE [A]	78	x	30	16.250	--	--	--	--	2	--	--	--	--	x	--	--
81	JV2-2(2S)	II	--	48	x	93	31.000	--	--	--	--	--	1	--	MOUNT ON UPRIGHT	--	x	--	--
	MB3-4		--	24	x	12													
	M1-1		IH 94	24	x	24													
	MB3-1		--	24	x	12													
	M1-1		IH 41	24	x	24													
	MB5-1R		--	21	x	21													
	M3-1		--	24	x	12													
	M1-4		US 41	24	x	24													
	M5-1R		--	21	x	21													
82	R5-1(3)	II	--	36	x	36	9.000	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	--	x	--	--
83	R1-1F(3)	II	--	36	x	36	--	7.460	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	--	x	--	--
84	J3-1(2)	II	--	24	x	57	9.500	--	--	--	--	1	--	--	--	--	x	--	--
	M3-4		--	24	x	12													
	M1-6		STH 100	24	x	24													
	M6-1		--	21	x	21													
85	J3-1(2)	II	--	24	x	57	9.500	--	--	--	--	1	--	--	--	--	x	--	--
	M3-2		--	24	x	12													
	M1-6		STH 100	24	x	24													
	M6-1		--	21	x	21													
86	R1-1F(3)	II	--	36	x	36	--	7.460	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	--	x	--	--
87	W6-2(2M)	II	--	36	x	36	--	--	9.000	--	--	--	--	#85	BACK OF SIGN #85	--	x	--	--
88	W6-2(2M)	II	--	36	x	36	--	--	9.000	--	--	1	--	--	--	--	x	--	--
89	M1-94S	II	[100] W RYAN RD	72	x	18	9.000	--	--	--	--	--	--	--	MOUNT ON MAST ARM	--	x	--	--
90	--	I	WEST NORTH [94] [41] [A]	--	x	--	--	--	--	--	--	--	--	--	INSTALL ON S-40-982	10.0	x	7.0	70
91	--	I	13TH ST ONLY [A]	--	x	--	--	--	--	--	--	--	--	--	INSTALL ON S-40-982	6.0	x	4.5	27
92	R1-1F(3)	II	--	36	x	36	--	7.460	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	--	x	--	--
93	R5-1(3)	II	--	36	x	36	9.000	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	--	x	--	--
94	R4-7(3)	II	--	36	x	48	12.000	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	--	x	--	--
95	J4-1(3)	II	--	36	x	54	13.500	--	--	--	--	1	--	--	--	--	x	--	--
	M3-2		--	36	x	18													
	M1-6		STH 100	36	x	36													
96	R1-1F(3)	II	--	36	x	36	--	7.460	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	--	x	--	--
97	R4-7(2M)	II	--	24	x	30	5.000	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	--	x	--	--
98	M1-94H	II	S 13TH ST	54	x	18	6.750	--	--	--	--	--	--	--	MOUNT ON MAST ARM	--	x	--	--
99	R1-1F(3)	II	--	36	x	36	--	7.460	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	--	x	--	--
100	R1-1F(3)	II	--	36	x	36	--	7.460	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	--	x	--	--
101	R4-7(3)	II	--	36	x	48	12.000	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	--	x	--	--
102	R4-7(2M)	II	--	24	x	30	5.000	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	--	x	--	--
103	R1-1F(3)	II	--	36	x	36	--	7.460	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	--	x	--	--
104	J3-1(3)	II	--	36	x	84	21.000	--	--	--	--	1	--	--	--	--	x	--	--
	M3-1		--	36	x	18													
	M1-5A		CTH V	36	x	36													
	M6-1		--	30	x	30													

SIGN NO.	SIGN CODE & SIZE	SIGN TYPE	SIGN MESSAGE	SIGN SIZE W [IN.]	x	H [IN.]	637.2210 SIGNS TYPE II REFLC H [SF]	637.2215 SIGNS TYPE II REFLC H FOLDING [SF]	637.2230 SIGNS TYPE II REFLC F [SF]	638.3000 REM SMALL SIGN SUP [EA]	638.2102 MOVE SIGNS TYPE II [EA]	634.0618 WOOD POSTS 4"X 6"x18' [EA]	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION	TYPE I SIGN SIZE W [FT.]	x	H [FT.]	637.1220 SIGNS TYPE I REFLC SH [SF]
105	R5-1(3)	II	--	36	x	36	9.000	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	--	x	--	--
106	M1-94H	II	S 13TH ST	54	x	18	6.750	--	--	--	--	--	--	--	MOUNT ON MAST ARM	--	x	--	--
107	M1-94S	II	[100] W RYAN RD	72	x	18	9.000	--	--	--	--	--	--	--	MOUNT ON MAST ARM	--	x	--	--
108	R1-1F(3)	II	--	36	x	36	--	7.460	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	--	x	--	--
109	J3-1(3)	II	--	36	x	84	21.000	--	--	--	--	1	--	--	--	--	x	--	--
	M3-3		--	36	x	18													
	M1-5A		CTH V	36	x	36													
	M6-1		--	30	x	30													
110	JV2-2(2S)	II	--	24	x	96	16.000	--	--	--	--	1	1	--	--	--	x	--	--
	MB3-2		--	24	x	12													
	M1-1		IH 94	24	x	24													
	MB3-3		--	24	x	12													
	M1-1		IH 41	24	x	24													
	M4-20L		--	24	x	24													
111	R10-64F	II	--	--	x	--	--	--	--	1	1	1	--	--	--	--	x	--	--
112	R2-1(3)	II	45 MPH	36	x	48	12.000	--	--	--	--	--	--	--	MOUNT ON LIGHT POLE	--	x	--	--
113	R2-1(3)	II	45 MPH	36	x	48	12.000	--	--	--	--	1	--	--	--	--	x	--	--
114	W8-58	II	--	--	x	--	--	--	--	2	1	2	--	--	4' MOUNT HEIGHT	--	x	--	--
115	--	II	U-TURN ONLY	30	x	24	5.000	--	--	--	--	1	--	--	--	--	x	--	--
116	M6-2(2)	II	--	21	x	21	3.063	--	--	--	--	--	--	#115	--	--	x	--	--
117	R4-7(3)	II	--	36	x	48	12.000	--	--	--	--	--	--	--	MOUNT ON LIGHT POLE	--	x	--	--
118	R4-7(3)	II	--	36	x	48	12.000	--	--	--	--	1	--	--	--	--	x	--	--
119	JV1-3(2)	II	--	24	x	87	14.500	--	--	--	--	1	1	--	--	--	x	--	--
	MB2-1		--	21	x	15													
	M1-1		IH 94	24	x	24													
	M1-1		IH 41	24	x	24													
	M1-5A		CTH V	24	x	24													
120	JV1-3(2)	II	--	24	x	87	14.500	--	--	--	--	1	1	--	--	--	x	--	--
	MB2-1		--	21	x	15													
	M1-1		IH 94	24	x	24													
	M1-1		IH 41	24	x	24													
	M1-5A		CTH V	24	x	24													
121	W3-3(3)	II	--	36	x	36	--	--	9.000	--	--	1	--	--	--	--	x	--	--
122	W3-3(3)	II	--	36	x	36	--	--	9.000	--	--	--	--	--	MOUNT ON LIGHT POLE	--	x	--	--
123	**NOT USED**	--	--	--	x	--	--	--	--	--	--	--	--	--	**NOT USED**	--	x	--	--
124	**NOT USED**	--	--	--	x	--	--	--	--	--	--	--	--	--	**NOT USED**	--	x	--	--
125	JV2-2(2)	II	--	24	x	96	16.000	--	--	--	--	1	1	--	--	--	x	--	--
	MB3-4		--	24	x	12													
	M1-1		IH 94	24	x	24													
	MB3-1		--	24	x	12													
	M1-1		IH 41	24	x	24													
	M4-20R		--	24	x	24													
126	JV2-2(2)	II	--	24	x	96	16.000	--	--	--	--	1	1	--	--	--	x	--	--
	MB3-4		--	24	x	12													
	M1-1		IH 94	24	x	24													
	MB3-1		--	24	x	12													
	M1-1		IH 41	24	x	24													
	M4-20R		--	24	x	24													
127	R4-7(3)	II	--	36	x	48	12.000	--	--	--	--	--	--	--	MOUNT ON LIGHT POLE	--	x	--	--
128	R6-2L(2M)	II	--	30	x	36	7.500	--	--	--	--	1	--	--	--	--	x	--	--
129	R4-7(3)	II	--	36	x	48	12.000	--	--	--	--	--	--	--	MOUNT ON LIGHT POLE	--	x	--	--
130	R6-2L(2M)	II	--	30	x	36	7.500	--	--	--	--	1	--	--	--	--	x	--	--
131	W8-58	II	--	--	x	--	--	--	--	2	1	2	--	--	4' MOUNT HEIGHT	--	x	--	--

FILE NAME : J:\projects\D2_204016100\Sign\030502_mq.pptx PLOT DATE : 14-AUG-2013 PLOT BY : MSCCXV PLOT NAME : 030502_mq.pdf PLOT SCALE : 1:1

SIGN NO.	SIGN CODE & SIZE	SIGN TYPE	SIGN MESSAGE	SIGN SIZE W [IN.]	x	H [IN.]	637.2210 SIGNS TYPE II REFLC H [SF]	637.2215 SIGNS TYPE II REFLC H FOLDING [SF]	637.2230 SIGNS TYPE II REFLC F [SF]	638.3000 REM SMALL SIGN SUP [EA]	638.2102 MOVE SIGNS TYPE II [EA]	634.0618 WOOD POSTS 4"X 6"x18' [EA]	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION	TYPE I SIGN SIZE W [FT.]	x	H [FT.]	637.1220 SIGNS TYPE I REFLC SH [SF]
132	W8-58	II	--	--	x	--	--	--	--	2	1	2	--	--	--	--	x	--	--
133	R5-1(3)	II	--	36	x	36	9.000	--	--	--	--	1	--	--	--	--	x	--	--
134	**NOT USED**	--	--	--	x	--	--	--	--	--	--	--	--	--	**NOT USED**	--	x	--	--
135	R2-1(3)	II	45 MPH	36	x	48	12.000	--	--	--	--	1	--	--	--	--	x	--	--
136	R2-1(3)	II	45 MPH	36	x	48	12.000	--	--	--	--	--	--	--	MOUNT ON LIGHT POLE	--	x	--	--
137	R2-1(3)	II	45 MPH	36	x	48	12.000	--	--	--	--	1	--	--	--	--	x	--	--
138	R2-1(3)	II	45 MPH	36	x	48	12.000	--	--	--	--	1	--	--	--	--	x	--	--
139	--	II	U-TURN ONLY	30	x	24	5.000	--	--	--	--	1	--	--	--	--	x	--	--
140	M6-2(2)	II	--	21	x	21	3.063	--	--	--	--	--	--	#139	--	--	x	--	--
141	**NOT USED**	--	--	--	x	--	--	--	--	--	--	--	--	--	**NOT USED**	--	x	--	--
142	W8-58	II	--	--	x	--	--	--	--	2	1	2	--	--	4' MOUNT HEIGHT	--	x	--	--
143	W8-58	II	--	--	x	--	--	--	--	2	1	2	--	--	4' MOUNT HEIGHT	--	x	--	--
144	R6-2L(2M)	II	--	30	x	36	7.500	--	--	--	--	1	--	--	--	--	x	--	--
145	R4-7(3)	II	--	36	x	48	12.000	--	--	--	--	--	--	--	MOUNT ON LIGHT POLE	--	x	--	--
146	R5-1(3)	II	--	36	x	36	9.000	--	--	--	--	1	--	--	--	--	x	--	--
147	R1-1(3)	II	--	36	x	36	7.460	--	--	--	--	1	--	--	--	--	x	--	--
148	R4-7(3)	II	--	36	x	48	12.000	--	--	--	--	--	--	--	MOUNT ON LIGHT POLE	--	x	--	--
149	R6-3A(2M)	II	--	30	x	24	5.000	--	--	--	--	--	--	#147	--	--	x	--	--
150	R2-1(3)	II	45 MPH	36	x	48	12.000	--	--	--	--	1	--	--	--	--	x	--	--
151	R2-1(3)	II	45 MPH	36	x	48	12.000	--	--	--	--	--	--	--	MOUNT ON LIGHT POLE	--	x	--	--
152	R6-2L(2M)	II	--	30	x	36	7.500	--	--	--	--	1	--	--	--	--	x	--	--
153	R4-7(3)	II	--	36	x	48	12.000	--	--	--	--	--	--	--	MOUNT ON LIGHT POLE	--	x	--	--
154	R5-1(3)	II	--	36	x	36	9.000	--	--	--	--	1	--	--	--	--	x	--	--
155	R4-7(3)	II	--	36	x	48	12.000	--	--	--	--	--	--	--	MOUNT ON LIGHT POLE	--	x	--	--
156	R1-1(3)	II	--	36	x	36	7.460	--	--	--	--	1	--	--	--	--	x	--	--
157	R6-2L(2M)	II	--	30	x	36	7.500	--	--	--	--	1	--	--	--	--	x	--	--
158	R5-1(3)	II	--	36	x	36	9.000	--	--	--	--	1	--	--	--	--	x	--	--
159	R2-1(3)	II	45 MPH	36	x	48	12.000	--	--	--	--	1	--	--	--	--	x	--	--
160	R2-1(3)	II	45 MPH	36	x	48	12.000	--	--	--	--	1	--	--	--	--	x	--	--
161	R6-3(2M)	II	--	30	x	24	5.000	--	--	--	--	--	--	#156	--	--	x	--	--
162	**NOT USED**	--	--	--	x	--	--	--	--	--	--	--	--	--	**NOT USED**	--	x	--	--
163	**NOT USED**	--	--	--	x	--	--	--	--	--	--	--	--	--	**NOT USED**	--	x	--	--
164	R2-1(3)	II	45 MPH	36	x	48	12.000	--	--	--	--	1	--	--	--	--	x	--	--
165	R2-1(3)	II	45 MPH	36	x	48	12.000	--	--	--	--	1	--	--	--	--	x	--	--
166	J1-1(3) M2-1 M1-6	II	-- -- STH 38	36 30 36	x x x	57 21 36	14.250	--	--	--	--	--	--	--	MOUNT ON LIGHT POLE	--	x	--	--
167	J1-1(3) M2-1 M1-6	II	-- -- STH 38	36 30 36	x x x	57 21 36	14.250	--	--	--	--	1	--	--	--	--	x	--	--
168	R4-7(3)	II	--	36	x	48	12.000	--	--	--	--	--	--	--	MOUNT ON LIGHT POLE	--	x	--	--
169	R6-2L(2M)	II	--	30	x	36	7.500	--	--	--	--	1	--	--	--	--	x	--	--
170	R4-7(3)	II	--	36	x	48	12.000	--	--	--	--	--	--	--	MOUNT ON LIGHT POLE	--	x	--	--
171	R6-2L(2M)	II	--	30	x	36	7.500	--	--	--	--	1	--	--	--	--	x	--	--
172	D1-65(3)	II	HOWELL AVE NEXT SIGNAL	90	x	30	18.750	--	--	--	--	2	--	--	--	--	x	--	--
173	D1-65(2)	II	HOWELL AVE NEXT SIGNAL	66	x	21	9.625	--	--	--	--	2	--	--	--	--	x	--	--
174	--	I	[38] SOUTH HOWELL AVE R3-50R	--	x	--	--	--	--	--	--	--	--	--	INSTALL ON S-40-983	7.0	x	8.0	56

SIGN NO.	SIGN CODE & SIZE	SIGN TYPE	SIGN MESSAGE	SIGN SIZE W [IN.]	x	H [IN.]	637.2210 SIGNS TYPE II REFLC H [SF]	637.2215 SIGNS TYPE II REFLC H FOLDING [SF]	637.2230 SIGNS TYPE II REFLC F [SF]	638.3000 REM SMALL SIGN SUP [EA]	638.2102 MOVE SIGNS TYPE II [EA]	634.0618 WOOD POSTS 4"X 6"x18' [EA]	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION	TYPE I SIGN SIZE W [FT.]	x	H [FT.]	637.1220 SIGNS TYPE I REFLC SH [SF]
175	W3-3(3)	II	--	36	x	36	--	--	9.000	--	--	1	--	--	--	--	x	--	--
176	W3-3(3)	II	--	36	x	36	--	--	9.000	--	--	--	--	--	MOUNT ON UPRIGHT	--	x	--	--
177	R4-7(3)	II	--	36	x	48	12.000	--	--	--	--	--	--	--	MOUNT ON LIGHT POLE	--	x	--	--
178	R6-2L(2M)	II	--	30	x	36	7.500	--	--	--	--	1	--	--	--	--	x	--	--
179	R5-1(3)	II	--	36	x	36	9.000	--	--	--	--	1	--	--	--	--	x	--	--
180	**NOT USED**	--	--	--	x	--	--	--	--	--	--	--	--	--	**NOT USED**	--	x	--	--
181	I55-56	II	--	--	x	--	--	--	--	1	1	1	--	--	--	--	x	--	--
182	R7-1L(3)	II	--	24	x	30	5.000	--	--	--	--	1	--	--	--	--	x	--	--
183	R2-1(3)	II	45 MPH	36	x	48	12.000	--	--	--	--	1	--	--	--	--	x	--	--
184	R2-1(3)	II	45 MPH	36	x	48	12.000	--	--	--	--	1	--	--	--	--	x	--	--
185	J3-2(3)	II	--	72	x	84	42.000	--	--	--	--	2	--	--	--	--	x	--	--
	M3-2		--	36	x	18													
	M1-6		STH 100	36	x	36													
	M6-1		--	30	x	30													
	M3-3		--	36	x	18													
	M1-6		STH 38	36	x	36													
	M6-2R		--	30	x	30													
186	R3-7R(3)	II	--	36	x	36	9.000	--	--	--	--	1	--	--	--	--	x	--	--
187	J2-2(3)	II	--	72	x	84	42.000	--	--	--	--	2	--	--	--	--	x	--	--
	M3-1		--	36	x	18													
	M1-6		STH 38	36	x	36													
	M5-1L		--	30	x	30													
	M3-3		--	36	x	36													
	M1-6		STH 38	36	x	36													
	M5-1R		--	30	x	30													
188	J2-2(3)	II	--	72	x	84	42.000	--	--	--	--	2	--	--	--	--	x	--	--
	M3-1		--	36	x	18													
	M1-6		STH 38	36	x	36													
	M5-1L		--	30	x	30													
	M3-3		--	36	x	36													
	M1-6		STH 38	36	x	36													
	M5-1R		--	30	x	30													
189	R4-7(3)	II	--	36	x	48	12.000	--	--	--	--	1	--	--	--	--	x	--	--
190	R3-20L(3)	II	--	36	x	54	13.500	--	--	--	--	1	--	--	--	--	x	--	--
191	D1-3	II	[A] OAK CREEK BUSINESS DISTRICT	108	x	42	31.500	--	--	--	--	2	--	--	--	--	x	--	--
			RACINE [A]																
192	R6-2L(2M)	II	--	30	x	36	7.500	--	--	--	--	1	--	--	--	--	x	--	--
193	R5-1(3)	II	--	36	x	36	9.000	--	--	--	--	1	--	--	--	--	x	--	--
194	**NOT USED**	--	--	--	x	--	--	--	--	--	--	--	--	--	**NOT USED**	--	x	--	--
195	J23-1(2)	II	--	48	x	57	19.000	--	--	--	--	1	--	--	--	--	x	--	--
	MB4-5		--	24	x	12													
	M1-1		IH 94	24	x	24													
	MB6-1		--	21	x	21													
	M3-4		--	24	x	12													
	M1-6		STH 100	24	x	24													
196	R6-2L(2M)	II	--	30	x	36	7.500	--	--	--	--	1	--	--	--	--	x	--	--
197	R1-2(3)	II	--	48	x	42	7.000	--	--	--	--	1	--	--	--	--	x	--	--
198	J3-1(2)	II	--	24	x	57	9.500	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	--	x	--	--
	M3-3		--	24	x	12													
	M1-6		STH 38	24	x	24													
	M6-1		--	21	x	21													

SIGN NO.	SIGN CODE & SIZE	SIGN TYPE	SIGN MESSAGE	SIGN SIZE W [IN.]	x	H [IN.]	637.2210 SIGNS TYPE II REFLC H [SF]	637.2215 SIGNS TYPE II REFLC H FOLDING [SF]	637.2230 SIGNS TYPE II REFLC F [SF]	638.3000 REM SMALL SIGN SUP [EA]	638.2102 MOVE SIGNS TYPE II [EA]	634.0618 WOOD POSTS 4"X 6"x18' [EA]	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION	TYPE I SIGN SIZE W [FT.]	x	H [FT.]	637.1220 SIGNS TYPE I REFLC SH [SF]
199	R4-7(2M)	II	--	24	x	30	5.000	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	--	x	--	--
200	R1-1F(3)	II	--	36	x	36	--	7.460	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	--	x	--	--
201	R5-1(3)	II	--	36	x	36	9.000	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	--	x	--	--
202	R1-1F(3)	II	--	36	x	36	--	7.460	--	--	--	--	--	--	MOUNT ON SIGNAL POLE	--	x	--	--
203	W12-1D(2M)	II	--	24	x	24	-	--	4.000	--	--	1	--	--	2' MOUNT HEIGHT	--	x	--	--
204	J3-1(2)	II	--	24	x	57	9.500	--	--	--	--	1	--	--	--	--	x	--	--
	M3-1		--	24	x	12													
	M1-6		STH 38	24	x	24													
	M6-1		--	21	x	21													
205	R1-1F(3)	II	--	36	x	36	--	7.460	--	--	--	--	--	--	MOUNT ON SIGNAL POLE - SHEET 1	--	x	--	--
206	R6-3(2M)	II	--	30	x	24	5.000	--	--	--	--	--	--	#205	MOUNT ON SIGNAL POLE - SHEET 1	--	x	--	--
207	R5-1(3)	II	--	36	x	36	9.000	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE - SHEET 1	--	x	--	--
208	R6-2L(2M)	II	--	30	x	36	7.500	--	--	--	--	--	--	--	MOUNT ON SIGNAL POLE - SHEET 1	--	x	--	--
209	R6-2L(2M)	II	--	30	x	36	7.500	--	--	--	--	1	--	--	SHEET 1	--	x	--	--
210	R6-3(2M)	II	--	30	x	24	5.000	--	--	--	--	--	--	#9	MOUNT ON SIGNAL POLE - SHEET 1	--	x	--	--
211	R5-1(3)	II	--	36	x	36	9.000	--	--	--	--	1	--	--	SHEET 2	--	x	--	--
212	W12-1D(2S)	II	--	24	x	24	--	--	4.000	--	--	1	--	--	2' MOUNT HEIGHT - SHEET 2	--	x	--	--
213	R6-2R(2S)	II	--	24	x	30	5.000	--	--	--	--	--	--	#20	BELOW SIGN #20 - SHEET 2	--	x	--	--
214	R3-2(3)	II	--	36	x	36	9.000	--	--	--	--	--	--	#18	BELOW SIGN #18 - SHEET 2	--	x	--	--
215	R5-1(3)	II	--	36	x	36	9.000	--	--	--	--	1	--	--	SHEET 3	--	x	--	--
216	R5-1(3)	II	--	36	x	36	9.000	--	--	--	--	1	--	--	SHEET 3	--	x	--	--
217	R5-1A(3)	II	--	42	x	30	8.750	--	--	--	--	--	--	#48	BACK OF SIGN #48 - SHEET 4	--	x	--	--
218	R5-1A(3)	II	--	42	x	30	8.750	--	--	--	--	--	--	#60	BACK OF SIGN #60 - SHEET 5	--	x	--	--
219	R6-3A(2M)	II	--	30	x	24	5.000	--	--	--	--	--	--	#69	SHEET 5	--	x	--	--
220	R5-1A(3)	II	--	42	x	30	8.750	--	--	--	--	--	--	#111	BACK OF SIGN #111 - SHEET 7	--	x	--	--
221	R6-3(2M)	II	--	30	x	24	5.000	--	--	--	--	--	1	--	SHEET 7	--	x	--	--
222	R5-1(3)	II	--	36	x	36	9.000	--	--	--	--	--	--	#100	SHEET 7	--	x	--	--
223	R6-3(2M)	II	--	30	x	24	5.000	--	--	--	--	1	--	--	SHEET 7	--	x	--	--
224	R5-1A(3)	II	--	42	x	30	8.750	--	--	--	--	1	--	--	SHEET 8	--	x	--	--
225	R6-2R(2S)	II	--	24	x	30	5.000	--	--	--	--	1	--	--	SHEET 8	--	x	--	--
226	R6-2L(2M)	II	--	30	x	36	7.500	--	--	--	--	1	--	--	SHEET 8	--	x	--	--
227	R5-1(3)	II	--	36	x	36	9.000	--	--	--	--	1	--	--	SHEET 10	--	x	--	--
228	R5-1A(3)	II	--	42	x	30	8.750	--	--	--	--	--	--	#186	BACK OF SIGN #186 - SHEET 15	--	x	--	--
229	R3-5L(2M)	II	--	42	x	48	14.000	--	--	--	--	--	--	--	INSTALL ON S-40-295	--	x	--	--
230	R3-5L(2M)	II	--	42	x	48	14.000	--	--	--	--	--	--	--	INSTALL ON S-40-295	--	x	--	--
231	J3-1(2)	II	--	24	x	57	9.500	--	--	--	--	--	--	--	MOUNT ON LIGHT POLE - SHEET 4	--	x	--	--
	M3-1		--	24	x	12													
	M1-4		USH 41	24	x	24													
	M6-1		--	21	x	21													
232	J2-1(2)	II	--	24	x	57	9.500	--	--	--	--	1	--	--	SHEET 4	--	x	--	--
	M3-3		--	24	x	12													
	M1-4		USH 41	24	x	24													
	M5-1R		--	21	x	21													
233	J3-2(2)	II	--	48	x	57	19.000	--	--	--	--	--	--	--	MOUNT ON UPRIGHT - SHEET 7	--	x	--	--
	M3-1		--	24	x	12													
	M1-4		USH 41	24	x	24													
	M6-1		--	21	x	21													
	M3-1		--	24	x	12													
	M1-5A		CTH V	24	x	24													
	M6-1		--	21	x	21													

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	PERMANENT SIGNING QUANTITIES	SHEET:	E

SIGN NO.	SIGN CODE & SIZE	SIGN TYPE	SIGN MESSAGE	SIGN SIZE W [IN.]	x	H [IN.]	**637.2210** SIGNS TYPE II REFLC H [SF]	**637.2215** SIGNS TYPE II REFLC H FOLDING [SF]	**637.2230** SIGNS TYPE II REFLC F [SF]	**638.3000** REM SMALL SIGN SUP [EA]	**638.2102** MOVE SIGNS TYPE II [EA]	**634.0618** WOOD POSTS 4"X 6"x18' [EA]	**643.0920** TRAFFIC CONTROL COVERING SIGNS TYPE II [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / NEW SIGN LOCATION	TYPE I SIGN SIZE W [FT.]	x	H [FT.]	**637.1220** SIGNS TYPE I REFLC SH [SF]
234	J1-2(2)	II	--	48	x	36	12.000	--	--	--	--	--	--	--	MOUNT ON LIGHT POLE - SHEET 9	--	x	--	--
	M2-1		--	24	x	12													
	M1-4		USH 41	24	x	24													
	M2-1		--	24	x	12													
	M1-5A		CTH V	24	x	24													
235	J3-1(2)	II	--	24	x	57	9.500	--	--	--	--	--	--	--	MOUNT ON LIGHT POLE - SHEET 8	--	x	--	--
	M3-3		--	24	x	12													
	M1-5A		CTH V	24	x	24													
	M6-1		--	21	x	21													
236	J2-2(2)	II	--	48	x	57	19.000	--	--	--	--	1	--	--	SHEET 8	--	x	--	--
	M3-3		--	24	x	12													
	M1-5A		CTH V	24	x	24													
	M5-1L		--	21	x	21													
	M3-1		--	24	x	12													
	M1-5A		CTH V	24	x	24													
	M5-1R		--	21	x	21													
237	J2-2(2)	II	--	48	x	57	19.000	--	--	--	--	--	--	--	MOUNT ON LIGHT POLE - SHEET 8	--	x	--	--
	M3-3		--	24	x	12													
	M1-5A		CTH V	24	x	24													
	M5-1L		--	21	x	21													
	M3-1		--	24	x	12													
	M1-5A		CTH V	24	x	24													
	M5-1R		--	21	x	21													
--	--	--	--	--	x	--	--	--	--	--	--	--	--	--	--	--	x	--	--
	TOTALS						1853.470	156.660	102.000	23	15	145	9	--					153.0

STH 100 (Ryan Road) East and west of I-94 - City of Oak Creek Lighting - POLES

SYSTEM	POLE I.D.	T. BASE AS BREAKAWAY OR SPLICE BOX OR SIGN STRUCTURE FOR INFO ONLY	CATEGORY	1100 SPV.0060.9005 Concrete Bases Type 5 Special	1100 SPV.0060.1014 Transformer Bases Breakaway 11-1/2 Inch Bolt Circle City of Oak Creek Bronze	1100 SPV.0060.1008 Poles Aluminum City of Oak Creek Nominal Height 30 FT Bronze	1100 659.0802 Plaques Sequence Identification
				EACH	EACH	EACH	EACH
Controller R-22 S. 22nd Street	STA 18+15	BREAKAWAY		1	1	1	1
	STA 19+35	BREAKAWAY		1	1	1	1
	STA 20+55	BREAKAWAY		1	1	1	1
	STA 21+75	BREAKAWAY		1	1	1	1
	STA 22+95	BREAKAWAY		1	1	1	1
	STA 24+65	BREAKAWAY		1	1	1	1
	STA 26+00	BREAKAWAY		1	1	1	1
	STA 27+35	BREAKAWAY		1	1	1	1
	STA 28+70	BREAKAWAY		1	1	1	1
	STA 30+05	BREAKAWAY		1	1	1	1
	STA 32+55	BREAKAWAY		1	1	1	1
	STA 33+80	BREAKAWAY		1	1	1	1
	STA 35+00	BREAKAWAY		1	1	1	1
	STA 35+69	BREAKAWAY		1	1	1	1
	STA 35+92	BREAKAWAY		1	1	1	1
	STA 36+60	BREAKAWAY		1	1	1	1
	STA 37+40	BREAKAWAY		1	1	1	1
	STA 37+40	BREAKAWAY		1	1	1	1
	STA 38+40	BREAKAWAY		1	1	1	1
	STA 39+40	BREAKAWAY		1	1	1	1
		BREAKAWAY		1	1	1	1
Cabinet							1
	STA 60+41	BREAKAWAY		1	1	1	1
Controller R-13 S. 13th Street	STA 61+65	BREAKAWAY		1	1	1	1
	STA 64+38	BREAKAWAY		1	1	1	1
	STA 65+33	BREAKAWAY		1	1	1	1
	STA 66+40	BREAKAWAY		1	1	1	1
	STA 67+50	BREAKAWAY		1	1	1	1
	STA 68+55	BREAKAWAY		1	1	1	1
	STA 69+75	BREAKAWAY		1	1	1	1
	STA 71+00	BREAKAWAY		1	1	1	1
	STA 72+25	BREAKAWAY		1	1	1	1
	STA 73+50	BREAKAWAY		1	1	1	1
	STA 74+75	BREAKAWAY		1	1	1	1
	STA 76+00	BREAKAWAY		1	1	1	1
	STA 77+25	BREAKAWAY		1	1	1	1
	STA 78+50	BREAKAWAY		1	1	1	1
	STA 79+75	BREAKAWAY		1	1	1	1
	STA 80+80	BREAKAWAY		1	1	1	1
	STA 81+90	BREAKAWAY		1	1	1	1
	STA 83+00	BREAKAWAY		1	1	1	1
	STA 84+10	BREAKAWAY		1	1	1	1
Cabinet							1
	STA 85+45	BREAKAWAY		1	1	1	1
Controller R-38 S. Howell Ave.	STA 86+75	BREAKAWAY		1	1	1	1
	STA 88+05	BREAKAWAY		1	1	1	1
	STA 89+35	BREAKAWAY		1	1	1	1
	STA 90+65	BREAKAWAY		1	1	1	1
	STA 91+65	BREAKAWAY		1	1	1	1
	STA 92+90	BREAKAWAY		1	1	1	1
	STA 94+00	BREAKAWAY		1	1	1	1
	STA 95+10	BREAKAWAY		1	1	1	1
	STA 96+20	BREAKAWAY		1	1	1	1
	STA 97+30	BREAKAWAY		1	1	1	1
	STA 98+50	BREAKAWAY		1	1	1	1
	STA 99+75	BREAKAWAY		1	1	1	1
	STA 101+00	BREAKAWAY		1	1	1	1
	STA 102+25	BREAKAWAY		1	1	1	1
	STA 103+50	BREAKAWAY		1	1	1	1
	STA 105+30	BREAKAWAY		1	1	1	1
	STA 106+35	BREAKAWAY		1	1	1	1
	STA 107+50	BREAKAWAY		1	1	1	1
	STA 108+65	BREAKAWAY		1	1	1	1
	STA 110+40	BREAKAWAY		1	1	1	1
	STA 111+65	BREAKAWAY		1	1	1	1
	STA 112+90	BREAKAWAY		1	1	1	1
	STA 114+15	BREAKAWAY		1	1	1	1
Cabinet							1
			TOTAL	**65**	**65**	**65**	**68**

STH 100 (Ryan Road) East and west of I-94 - City of Oak Creek Lighting - ARMS AND LUMINAIRES

CATEGORY	1200	1100
POLE I.D.	SPV.0060.9003 Luminaires City of Oak Creek Gardco PureForm 21, 130LA LED Bronze	SPV.0060.1015 Luminaire Arms Single Member 4 1/2-Inch Clamp 6-FT City of Oak Creek Bronze
	EACH	EACH
STA 14+45 MEDIAN	2	2
STA 15+70 MEDIAN	2	2
STA 16+95 MEDIAN	2	2
STA 18+15 MEDIAN	2	2
STA 19+35 MEDIAN	2	2
STA 20+55 MEDIAN	2	2
STA 21+75 MEDIAN	2	2
STA 22+95 MEDIAN	2	2
STA 24+65 MEDIAN	2	2
STA 26+00 MEDIAN	2	2
STA 27+35 MEDIAN	2	2
STA 28+70 MEDIAN	2	2
STA 30+05 MEDIAN	2	2
STA 32+55 MEDIAN	2	2
STA 33+80 MEDIAN	2	2
STA 35+00 MEDIAN	2	2
STA 35+69	1	1
STA 35+92 MEDIAN	2	2
STA 36+60	1	1
STA 36+45 MEDIAN	2	2
STA 37+40 MEDIAN	2	2
STA 37+40	1	1
STA 38+40 MEDIAN	2	2
STA 39+40 MEDIAN	2	2
STA 60+70 MEDIAN	2	2
STA 61+95 MEDIAN	2	2
STA 64+25 MEDIAN	2	2
STA 65+35 MEDIAN	2	2
STA 66+40 MEDIAN	2	2
STA 67+50 MEDIAN	2	2
STA 68+55 MEDIAN	2	2
STA 69+75 MEDIAN	2	2
STA 71+00 MEDIAN	2	2
STA 72+25 MEDIAN	2	2
STA 73+50 MEDIAN	2	2
STA 74+75 MEDIAN	2	2
STA 76+00 MEDIAN	2	2
STA 77+25 MEDIAN	2	2
STA 78+50 MEDIAN	2	2
STA 79+75 MEDIAN	2	2
STA 80+80 MEDIAN	2	2
STA 81+90 MEDIAN	2	2
STA 83+00 MEDIAN	2	2
STA 84+10 MEDIAN	2	2
STA 85+45 MEDIAN	2	2
STA 86+75 MEDIAN	2	2
STA 88+05 MEDIAN	2	2
STA 89+35 MEDIAN	2	2
STA 90+65 MEDIAN	2	2
STA 91+65 MEDIAN	2	2
STA 92+90 MEDIAN	2	2
STA 94+00 MEDIAN	2	2
STA 95+10 MEDIAN	2	2
STA 96+20 MEDIAN	2	2
STA 97+30 MEDIAN	2	2
STA 98+50 MEDIAN	2	2
STA 99+75 MEDIAN	2	2
STA 101+00 MEDIAN	2	2
STA 102+25 MEDIAN	2	2
STA 103+50 MEDIAN	2	2
STA 105+30 MEDIAN	2	2
STA 106+35 MEDIAN	2	2
STA 107+50 MEDIAN	2	2
STA 108+65 MEDIAN	2	2
STA 110+40 MEDIAN	2	2
STA 111+65 MEDIAN	2	2
STA 112+90 MEDIAN	2	2
STA 114+15 MEDIAN	2	2
TOTAL	**133**	**133**

STH 100 (Ryan Road) East and west of I-94 - City of Oak Creek Lighting - REMOVAL

		CATEGO	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100
SYSTEM	FROM	TO	204.0195 Removing Concrete Bases	653.0905 Removing Pull Boxes	SPV.0060.1006 Removing Lighting Units	SPV.0060.1007 Removing Wood Pole Lighting Units	SPV.0060.1013 Lamp Disposal High Intensity Discharge	SPV.0060.9002 Remove and relocate Lighting Distribution Center City of Oak Creek	SPV.0090.1004 Removing Overhead Lighting Cable	SPV.0060.2004 Removing Controller Cabinet Base	SPV.0060.2005 Removing Electrical Service Meter Breaker Pedestal	SPV.0060.9006 Removing Lighting Controller Cabinet	SPV.0105.1005 Maintain Lighting Systems City of Oak Creek
			EACH	EACH	EACH	EACH	EACH	EACH	LF	EACH	EACH	EACH	LS
LPB00	STA 16+85			1									1
R-22	STA 28+78							1		1	1		
R-13	STA 62+12									1	1	1	
R-38	STA 112+97									1	1	1	
	STA 11+27		1		1								
	STA 14+45		1		1								
	STA 15+70		1		1								
	STA 23+20				1	1	2		121				
	STA 24+41				1	1	2		123				
	STA 25+64				1	1	2		121				
	STA 26+85				1	1	2		122				
	STA 28+07				1	1	2		144				
	STA 29+51		1		1		2						
	STA 30+54				1	1	2						
	STA 31+85				1	1	2						
	STA 32+24		1		1		2						
	STA 33+68				1	1	2		104				
	STA 34+72				1	1	2		123				
	STA 35+95				1	1	2		116				
	STA 37+11				1	1	2		102				
	STA 38+13				1	1	2		121				
	STA 39+34				1	1	2		171				
	STA 41+34												
	STA 42+57								123				
	STA 59+00		1		1		2						
	STA 60+71		1		1		2						
	STA 64+38		1		1		2						
	STA 65+37		1		1		2						
	STA 66+68		1		1		2						
	STA 67+98		1		1		2						
	STA 69+28		1		1		2						
	STA 70+58		1		1		2						
	STA 71+88		1		1		2						
	STA 73+14		1		1		2						
	STA 74+48		1		1		2						
	STA 75+77		1		1		2						
	STA 77+07		1		1		2						
	STA 78+36		1		1		2						
	STA 79+67		1		1		2						
	STA 80+78		1		1		2						
	STA 81+88		1		1		2						
	STA 83+00		1		1		2						
	STA 84+11		1		1		2						
	STA 85+41		1		1		2						
	STA 86+52		1		1		2						
	STA 87+66		1		1		2						
	STA 88+78		1		1		2						
	STA 89+90		1		1		2						
	STA 91+20		1		1		2						
	STA 92+65		1		1		2						
	STA 93+67		1		1		2						
	STA 94+98		1		1		2						
	STA 96+27		1		1		2						
	STA 97+41		1		1		2						
	STA 98+35		1		1		2						
	STA 99+55		1		1		2						
	STA 100+68		1		1		2						
	STA 101+82		1		1		2						
	STA 102+96		1		1		2						
	STA 104+20		1		1		2						
	STA 105+49		1		1		2						
	STA 106+80		1		1		2						
	STA 108+32		1		1		2						
	STA 109+99		1		1		2						
	STA 111+40		1		1		2						
	STA 112+87		1		1		2						
	STA 114+34		1		1		2						
	TOTAL		**48**	**1**	**61**	**13**	**116**	**1**	**1491**	**3**	**3**	**2**	**1**

STH 100 (Ryan Road) East and west of I-94 - City of Oak Creek Lighting - Temporary

SYSTEM	FROM		TO	CATEGORY 1100 SPV.0060.1009 Temporary Wood Pole Lighting Units EACH	1100 SPV.0060.9004 Temporary Lighting Distribution Center City of Oak Creek EACH	1100 SPV.0090.9001 Temporary Overhead Cable 4-4 AWG LF
Distribution Center/22nd St.	STA 28+78				1	
Distribution Center/13th St.	STA 62+12				1	
Distribution Center/Howell	STA 113+42				1	
Stage 1B	STA 32+23	RT		1		152.58
Stage 1A	STA 124+22	RT		1		323
Stage 1A	STA 124+22	LT		1		321
Stage 2A	STA 32+23	LT		1		172.54
Stage 2A	STA 23+19	LT		1		
Stage 2A	STA 24+41	LT		1		121.8
Stage 2A	STA 25+64	LT		1		123.2
Stage 2A	STA 26+85	LT		1		121
Stage 2A	STA 28+06	LT		1		121
Stage 2A	STA 29+51	LT		1		145
Stage 2A	STA 30+54	LT		1		103
Stage 2A	STA 31+80	LT		1		126
Stage 2A	STA 33+68	LT		1		188
Stage 2A	STA 34+71	LT		1		103
Stage 2A	STA 35+95	LT		1		124
Stage 2A	STA 37+11	LT		1		116
Stage 2A	STA 38+12	LT		1		101
Stage 2A	STA 39+34	LT		1		122
Stage 2A	STA 60+71	LT		1		
Stage 2A	STA 62+36	LT		1		165
Stage 2A	STA 63+73	LT		1		137
Stage 2A	STA 64+38	LT		1		65
Stage 2A	STA 65+36	LT		1		98
Stage 2A	STA 66+66	LT		1		130
Stage 2A	STA 67+97	LT		1		131
Stage 2A	STA 69+27	LT		1		130
Stage 2A	STA 70+56	LT		1		129
Stage 2A	STA 71+86	LT		1		130
Stage 2A	STA 73+15	LT		1		129
Stage 2A	STA 74+47	LT		1		132
Stage 2A	STA 75+77	LT		1		130
Stage 2A	STA 77+05	LT		1		128
Stage 2A	STA 78+36	LT		1		131
Stage 2A	STA 79+66	LT		1		130
Stage 2A	STA 80+77	LT		1		111
Stage 2A	STA 81+89	LT		1		112
Stage 2A	STA 82+99	LT		1		110
Stage 2A	STA 84+10	LT		1		111
Stage 2A	STA 85+40	LT		1		
Stage 2A	STA 86+52	LT		1		112
Stage 2A	STA 87+58	LT		1		106
Stage 2A	STA 88+78	LT		1		120
Stage 2A	STA 89+89	LT		1		111
Stage 2A	STA 91+20	LT		1		131
Stage 2A	STA 92+64	LT		1		144
Stage 2A	STA 93+67	LT		1		103
Stage 2A	STA 94+97	LT		1		130
Stage 2A	STA 96+27	LT		1		130
Stage 2A	STA 97+41	LT		1		114
Stage 2A	STA 98+33	LT		1		92
Stage 2A	STA 99+53	LT		1		120
Stage 2A	STA 100+66	LT		1		113
Stage 2A	STA 101+82	LT		1		116
Stage 2A	STA 102+98	LT		1		116
Stage 2A	STA 104+49	LT		1		151
Stage 2A	STA 105+50	LT		1		101
Stage 2A	STA 106+78	LT		1		128
Stage 2A	STA 108+32	LT		1		154
SUBTOTAL				58	3	7215

STH 100 (Ryan Road) East and west of I-94 - City of Oak Creek Lighting - Temporary (Continued)

SYSTEM	FROM		TO	CATEGORY 1100 SPV.0060.1009 Temporary Wood Pole Lighting Units EACH	1100 SPV.0060.9004 Temporary Lighting Distribution Center City of Oak Creek EACH	1100 SPV.0090.9001 Temporary Overhead Cable 4-4 AWG LF
Stage 2A	STA 109+96	LT		1		164
Stage 2A	STA 111+40	LT		1		144
Stage 2A	STA 112+96	LT		1		156
Stage 2A	STA 114+33	LT		1		137
Stage 1B	STA 23+22	RT		1		
Stage 1B	STA 24+43	RT		1		121
Stage 1B	STA 25+67	RT		1		124
Stage 1B	STA 26+88	RT		1		121
Stage 1B	STA 28+09	RT		1		121
Stage 1B	STA 29+53	RT		1		144
Stage 1B	STA 30+56	RT		1		103
Stage 1B	STA 31+80	RT		1		124
Stage 1B	STA 33+68	RT		1		188
Stage 1B	STA 34+71	RT		1		103
Stage 1B	STA 35+92	RT		1		121
Stage 1B	STA 37+11	RT		1		119
Stage 1B	STA 38+13	RT		1		102
Stage 1B	STA 39+34	RT		1		121
Stage 1B	STA 60+71	RT		1		
Stage 1B	STA 62+26	RT		1		155
Stage 1B	STA 63+67	RT		1		141
Stage 1B	STA 64+38	RT		1		71
Stage 1B	STA 65+38	RT		1		100
Stage 1B	STA 66+68	RT		1		130
Stage 1B	STA 67+98	RT		1		130
Stage 1B	STA 69+28	RT		1		130
Stage 1B	STA 70+58	RT		1		130
Stage 1B	STA 71+88	RT		1		130
Stage 1B	STA 73+19	RT		1		131
Stage 1B	STA 74+49	RT		1		130
Stage 1B	STA 75+79	RT		1		130
Stage 1B	STA 76+96	RT		1		117
Stage 1B	STA 78+35	RT		1		139
Stage 1B	STA 79+66	RT		1		131
Stage 1B	STA 80+80	RT		1		114
Stage 1B	STA 81+90	RT		1		110
Stage 1B	STA 83+00	RT		1		110
Stage 1B	STA 84+11	RT		1		111
Stage 1B	STA 85+40	RT		1		
Stage 1B	STA 86+53	RT		1		113
Stage 1B	STA 87+68	RT		1		115
Stage 1B	STA 88+79	RT		1		111
Stage 1B	STA 89+92	RT		1		113
Stage 1B	STA 91+25	RT		1		133
Stage 1B	STA 92+67	RT		1		142
Stage 1B	STA 93+67	RT		1		100
Stage 1B	STA 95+98	RT		1		231
Stage 1B	STA 96+27	RT		1		29
Stage 1B	STA 97+41	RT		1		114
Stage 1B	STA 98+35	RT		1		94
Stage 1B	STA 99+55	RT		1		120
Stage 1B	STA 100+69	RT		1		114
Stage 1B	STA 101+84	RT		1		115
Stage 1B	STA 102+98	RT		1		114
Stage 1B	STA 104+20	RT		1		122
Stage 1B	STA 105+51	RT		1		131
Stage 1B	STA 106+74	RT		1		123
Stage 1B	STA 108+35	RT		1		161
Stage 1B	STA 109+99	RT		1		164
Stage 1B	STA 111+41	RT		1		142
Stage 1B	STA 112+75	RT				134
SUBTOTAL				60	0	7288
				118	**3**	**14503**

STH 100 (Ryan Road) East and west of I-94 - City of Oak Creek Lighting - WIRE AND CONDUIT

FROM (POLE LOCATION)	TO (POLE LOCATION)	CATEGORY 1100 652.0235 Conduit Rigid Nonmetallic Schedule 40 3-Inch	1100 SPV.0090.9000 Cable in Duct, 4-4 AWG, 1-8 AWG
STA 14+45 MEDIAN	STA 15+70 MEDIAN		
STA 15+70 MEDIAN	STA 16+95 MEDIAN		
STA 16+95 MEDIAN	STA 18+15 MEDIAN	88	
STA 18+15 MEDIAN	STA 19+35 MEDIAN		120
STA 19+35 MEDIAN	STA 20+55 MEDIAN		120
STA 20+55 MEDIAN	STA 21+75 MEDIAN		120
STA 21+75 MEDIAN	STA 22+95 MEDIAN		120
STA 22+95 MEDIAN	STA 24+65 MEDIAN	108	170
STA 24+65 MEDIAN	STA 26+00 MEDIAN		135
STA 26+00 MEDIAN	STA 27+35 MEDIAN		135
STA 27+35 MEDIAN	STA 28+70 MEDIAN		135
STA 28+70 MEDIAN	Controller R-22	62	75
Controller R-22	STA 30+05 MEDIAN	62	194
STA 30+05 MEDIAN	STA 32+55 MEDIAN	120	250
STA 32+55 MEDIAN	STA 33+80 MEDIAN		125
STA 33+80 MEDIAN	STA 35+00 MEDIAN		120
STA 35+00 MEDIAN	STA 35+90 MEDIAN		90
STA 35+90 MEDIAN	35+69 (South)	73	105
STA 35+90 MEDIAN	37+40 (North)	130	225
STA 35+90 MEDIAN	STA 37+40 MEDIAN	110	150
35+77 (LPB09)	36+46 (LPB12)	62	85
STA 37+40 MEDIAN	STA 38+40 MEDIAN		100
STA 38+40 MEDIAN	STA 39+40 MEDIAN		100
STA 60+41 MEDIAN	STA 60+65 MEDIAN		24
STA 60+65 MEDIAN	Controller R-13	100	155
Controller R-13	STA 64+38 MEDIAN	240	335
STA 64+38 MEDIAN	STA 65+33 MEDIAN		95
STA 65+33 MEDIAN	STA 66+40 MEDIAN		107
STA 66+40 MEDIAN	STA 67+50 MEDIAN		110
STA 67+50 MEDIAN	STA 68+55 MEDIAN		105
STA 68+55 MEDIAN	STA 69+75 MEDIAN	80	120
STA 69+75 MEDIAN	STA 71+00 MEDIAN		125
STA 71+00 MEDIAN	STA 72+25 MEDIAN		125
STA 72+25 MEDIAN	STA 73+50 MEDIAN		125
STA 73+50 MEDIAN	STA 74+75 MEDIAN		125
STA 74+75 MEDIAN	STA 76+00 MEDIAN		125
STA 76+00 MEDIAN	STA 77+25 MEDIAN		125
STA 77+25 MEDIAN	STA 78+50 MEDIAN		125
STA 78+50 MEDIAN	STA 79+75 MEDIAN	110	125
STA 79+75 MEDIAN	STA 80+80 MEDIAN		105
STA 80+80 MEDIAN	STA 81+90 MEDIAN		110
STA 81+90 MEDIAN	STA 83+00 MEDIAN		110
STA 83+00 MEDIAN	STA 84+10 MEDIAN		110
STA 85+45 MEDIAN	STA 86+75 MEDIAN		130
STA 86+75 MEDIAN	STA 88+05 MEDIAN		130
STA 88+05 MEDIAN	STA 89+35 MEDIAN		130
STA 89+35 MEDIAN	STA 90+65 MEDIAN	40	130
STA 90+65 MEDIAN	STA 91+65 MEDIAN		100
STA 91+65 MEDIAN	STA 92+90 MEDIAN	110	125
STA 92+90 MEDIAN	STA 94+00 MEDIAN		110
STA 94+00 MEDIAN	STA 95+10 MEDIAN		110
STA 95+10 MEDIAN	STA 96+20 MEDIAN		110
STA 96+20 MEDIAN	STA 97+30 MEDIAN		110
STA 97+30 MEDIAN	STA 98+50 MEDIAN	84	120
STA 98+50 MEDIAN	Existing Pole South	75	100
STA 98+50 MEDIAN	STA 99+75 MEDIAN		125
STA 99+75 MEDIAN	STA 101+00 MEDIAN		125
STA 101+00 MEDIAN	STA 102+25 MEDIAN		125
STA 102+25 MEDIAN	STA 103+50 MEDIAN		125
STA 103+50 MEDIAN	STA 105+30 MEDIAN	133	180
STA 105+30 MEDIAN	STA 106+38 MEDIAN		108
STA 106+38 MEDIAN	STA 107+53 MEDIAN		115
STA 107+53 MEDIAN	STA 108+68 MEDIAN		115
STA 108+68 MEDIAN	STA 110+40 MEDIAN	114	172
STA 110+40 MEDIAN	STA 111+65 MEDIAN		125
STA 111+65 MEDIAN	STA 112+90 MEDIAN		125
STA 112+90 MEDIAN	STA 114+15 MEDIAN		125
STA 114+15 MEDIAN	Controller R38	200	180
	TOTAL	**2101**	**8310**

STH 100 (Ryan Road) East and west of I-94 - City of Oak Creek Lighting - MISCELLANEOUS

SYSTEM	DESCRIPTION	STATION OFFSET	CATEGORY 1100 653.0120 Pull Boxes Steel 18x24 - Inch EACH	1100 653.0135 Pull Boxes Steel 24x36 - Inch EACH	1100 653.0900 Adjusting Pull Boxes EACH	1100 656.0200.0001 Electrical Service Meter Breaker Pedestal (STH 100 at 22nd) LS	1100 656.0200.0002 Electrical Service Meter Breaker Pedestal (STH 100 at 13th) LS	1100 656.0200.0004 Electrical Service Meter Breaker Pedestal (STH 100 at STH 38) LS	1100 SPV.0060.9000 Concrete Control Cabinet Bases Special City of Oak Creek EACH	1100 SPV.0060.9001 Lighting Distribution Centers 200A, 240/480V, City of Oak Creek EACH
	ELPB00	EXISTING STA 16+85								
	ELPB01	EXISTING STA 18+41			1					
	ELPB02	EXISTING STA 19+90			1					
	ELPB03	EXISTING STA 21+42			1					
	ELPB04	EXISTING STA 22+88			1					
	ELPB05	EXISTING STA 24+28			1					
	ELPB06	EXISTING STA 25+77			1					
	LPB01	PROPOSED STA 17+24.83 RT	1							
	LPB02	PROPOSED STA 18+09.00 RT	1							
	LPB03	PROPOSED STA 23+06.00 LT	1							
	LPB04	PROPOSED STA 24+15.80 RT	1							
	LPB05	PROPOSED STA 28+77.73 LT		1						
Controller R-22	LPB06	PROPOSED STA 28+66.63 LT		1		1			1	
	LPB07	PROPOSED STA 30+57.76 LT	1							
22nd Stre	LPB08	PROPOSED STA 31+77.92 RT	1							
	LPB09	PROPOSED STA 35+80.00 RT	1							
	LPB10	PROPOSED STA 36+02.73 RT	1							
	LPB11	PROPOSED STA 36+67.00 LT	1							
	LPB12	PROPOSED STA 36+90.00 RT	1							
	LPB13	PROPOSED STA 37+37.90 RT	1							
	LPB14	PROPOSED STA 37+88.00 LT	1							
	LPB15	PROPOSED STA 39+57.65 RT	1							
	LPB16	PROPOSED STA 60+15.25 LT	1							
Controller R-13	LPB17	PROPOSED STA 62+88.50 RT		1						
	LPB18	PROPOSED STA 62+18.50 LT		1			1		1	1
13th Stree	LPB19	PROPOSED STA 63+17.90 RT	1							
	LPB20	PROPOSED STA 68+66.09 LT	1							
	LPB21	PROPOSED STA 69+45.93 RT	1							
	LPB22	PROPOSED STA 78+56.00 LT	1							
	LPB23	PROPOSED STA 79+75.93 RT	1							
	LPB24	PROPOSED STA 84+20.00 RT	1							
	LPB25	PROPOSED STA 85+20.00 RT	1							
	LPB26	PROPOSED STA 91+76.00 LT	1							
	LPB27	PROPOSED STA 92+86.00 RT	1							
	LPB28	PROPOSED STA 97+36.00 LT	1							
	LPB29	PROPOSED STA 98+36.00 RT	1							
	LPB30	PROPOSED STA 103+76.00 LT	1							
	LPB31	PROPOSED STA 105+16.00 RT	1							
Controller R-38	LPB32	PROPOSED STA 108+66.00 LT	1							
	LPB33	PROPOSED STA 109+84.00 RT	1							
S. Howell Ave.	LPB34	PROPOSED STA 113+84.00 RT		1				1		1
	LPB35	PROPOSED STA 113+42.00 LT		1						
		TOTAL	**29**	**6**	**6**	**1**	**1**	**1**	**2**	**2**

* REMOVING CONCRETE BASES

SIGNAL BASE NO.	LOCATION	204.0195 REMOVING CONCRETE BASES EACH
SB2	12RYN+48, 76 LT.	1
SB3	13RYN+02, 97' LT.	1
SB4	13RYN+32, 62' LT.	1
SB5	13RYN+30, 12' RT	1
SB6	13RYN+27, 61' RT.	1
SB7	13RYN+03, 77' RT.	1
SB8	12RYN+27, 76' RT.	1
SB9	11RYN+66, 84' RT.	1
SB11	11RYN+50, 8' LT.	1
SB14	12RYN+57, 95' LT.	1
SB15	12RYN+24, 81' RT.	1
	TOTAL	11

PULL BOXES

PULL BOX NO.	** LOCATION	653.0105 PULL BOXES STEEL 12"x24" EACH	* 653.0135 PULL BOXES STEEL 24"x36" EACH	* 653.0140 PULL BOXES STEEL 24"x42" EACH
PB6	13RYN+04, 109' LT.			1
PB7	13RYN+48, 75' LT.			1
PB8	15RYN+60, 72' LT.		1	
PB9	17RYN+07, 65' LT.		1	
PB10	13RYN+48, 12' RT.			1
PB11	13RYN+45, 70' RT.			1
PB12	12RYN+96, 99' RT.			1
PB24	54TST+43, 61' LT.		1	
PB25	46TST+69, 0' LT.		1	
PB26	45TST+20, 15' RT.		1	
PB27	7RYN+82, 56' RT.		1	
PB28	15RYN+59, 34' LT	1		
	TOTAL	1	6	5

CONDUIT

LOC.	TO	LOC.	* 652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH L.F.	* 652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH L.F.	652.0615 CONDUIT SPECIAL 3-INCH L.F.
PB4		PB24	41		
PB5		SB2	18		
PB5		SB3	6		
PB5		PB6			118
PB6		SB4		9	
PB6		SB5	19		
PB6		PB7		92	
PB7		SB6	9		
PB7		PB8	218		
PB8		PB9	155		
PB7		PB10			175
PB10		SB7	7		
PB10		PB11			116
PB11		SB8	16		
PB11		SB9		18	
PB11		PB12		117	
PB12		SB10	8		
PB12		PB16			141
PB16		SB11	11		
PB14		PB25	20		
PB15		PB26	64		
PB18		SB12	5		
PB18		SB13		45	
PB21		PB27	43		
PB22		SB15		9	
		TOTAL	640	290	550

* REMOVING PULL BOXES

PULL BOX NO.	LOCATION	653.0905 REMOVING PULL BOXES EACH
PB6	13RYN+02, 100' LT.	1
PB7	13RYN+55, 57' LT.	1
PB8	15RYN+31, 55' LT.	1
PB9	16RYN+60, 54' LT.	1
PB10	13RYN+53, 12' RT.	1
PB11	13RYN+34, 58' RT.	1
PB12	12RYN+96, 99' RT.	1
PB29	15RYN+30, 34' LT.	1
PB30	16RYN+60, 33' LT.	1
	TOTAL	9

CONCRETE BASES

SIGNAL BASE NO.	** LOCATION	* 654.0101 CONCRETE BASES TYPE 1 EACH	* 654.0102 CONCRETE BASE TYPE 2 EACH	654.0105 CONCRETE BASE TYPE 5 EACH	* 654.0113 CONCRETE BASES TYPE 13 EACH
SB2	12RYN+50, 90' LT.	1			
SB3	12RYN+53, 102' LT.			1	
SB4	13RYN+17, 97' LT.				1
SB5	13RYN+23, 89' LT.	1			
SB6	13RYN+40, 80' LT.		1		
SB7	13RYN+39, 12' RT.		1		
SB8	13RYN+30, 67' RT.	1			
SB9	13RYN+30, 77' RT.				1
SB10	13RYN+02, 96' RT.	1			
SB11	12RYN+25, 84' RT.		1		
SB12	11RYN+65, 84' RT.		1		
SB13	11RYN+68, 123' RT.				1
SB15	11RYN+38, 8' LT.				1
	TOTAL	4	4	1	4

FOR INFORMATION ONLY

STATE FURNISHED TRAFFIC SIGNAL EQUIPMENT

SIG. BASE NO.	POLES TYPE 12 EACH	POLES TYPE 13 EACH	MONOTUBE ARMS 40-FT EACH	MONOTUBE ARMS 45-FT EACH	MONOTUBE ARMS 50-FT EACH	MONOTUBE ARMS 55-FT EACH	LUMINAIRE ARMS STEEL 6-FT EACH	LUMINAIRE ARMS STEEL 15-FT EACH	VIDEO CAMERA EACH
SB4	1				1				1
SB9		1				1		1	1
SB13	1		1						1
SB15		1		1			2		1
TOTAL	2	2	1	1	1	1	2	1	4

WISCONSIN
JEFFREY J. SANDBERG
E-39308
PRAIRIE DU SAC, WI
PROFESSIONAL ENGINEER
11/15/13

LEGEND

* ADDITIONAL ITEMS FOR QUANTITIES LISTED ELSEWHERE

** FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

ALL ITEMS ON THIS SHEET ARE CATEGORY 1500

SIGNAL NO. S1079
STH 100 (RYAN ROAD) & STH 241
PAGE 1 OF 5

* TRAFFIC SIGNAL CABLE AND ELECTRICAL WIRE

LOC.	TO	LOC.	655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG L.F.	655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG L.F.	655.0270 CABLE TRAFFIC SIGNAL 15-14 AWG L.F.	655.0515 ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG L.F.	655.0620 ELECTRICAL WIRE LIGHTING 8 AWG L.F.	655.0900 TRAFFIC SIGNAL EVP DETECTOR CABLE L.F.	SPV.0090.9002 CABLE TYPE UF 2-8 AWG GROUNDED L.F.
CB1		SB1		54		54			
CB1		SB2		157					
CB1		SB3							144
CB1		SB4		219				292	
CB1		SB5		232					
CB1		SB6		281					
CB1		SB7		392					
CB1		SB8		462					
CB1		SB9		461				539	461
CB1		SB10		451					
CB1		SB11		368					
CB1		SB12		281					
CB1		SB13		319				382	
CB1		SB14			245				
CB1		SB15		149				217	
CB1		SB16				79			79
CB1		SB17		54		54			
SB3		SB6							173
SB9		SB11							213
SB16		SB15							161
SB15		SB12							177
PB1		SB1				29			
PB5		SB3				22			
PB6		SB4				25			
PB7		SB6				25			
PB10		SB7				31			
PB11		SB8				31			
PB12		SB10				24			
PB16		SB11				27			
PB18		SB12				21			
PB19		SB14				37			
PB22		SB15				31			
PB23		SB17				24			
SB1		SB2				151			
SB2		SB3				48			
SB3		SB4				114			
SB4		SB5				53			
SB5		SB6				113			
SB6		SB7				152			152
SB7		SB8				128			
SB8		SB9				59			
SB9		SB10				123			
SB10		SB11				129			
SB11		SB12				123			
SB12		SB13				75			
SB13		SB14				144			
SB14		SB15				143			
SB15		SB16				161			
SB16		SB17				60			
SB1		HEAD 29	15						
SB2		HEAD 19	19						

* TRAFFIC SIGNAL CABLE AND ELECTRICAL WIRE (CONTINUED)

LOC.	TO	LOC.	655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG L.F.	655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG L.F.	655.0270 CABLE TRAFFIC SIGNAL 15-14 AWG L.F.	655.0515 ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG L.F.	655.0620 ELECTRICAL WIRE LIGHTING 8 AWG L.F.	655.0900 TRAFFIC SIGNAL EVP DETECTOR CABLE L.F.	SPV.0090.9002 CABLE TYPE UF 2-8 AWG GROUNDED L.F.
SB2		HEAD 23	19						
SB3		LUMINAIRE					240		
SB4		HEAD 15	71						
SB4		HEAD 16	59						
SB5		HEAD 28	15						
SB6		HEAD 5	19						
SB6		HEAD 7	19						
SB6		HEAD 33	15						
SB6		LUMINAIRE					120		
SB7		HEAD 6	19						
SB7		HEAD 11	19						
SB7		LUMINAIRE					240		
SB8		HEAD 32	15						
SB9		HEAD 2	77						
SB9		HEAD 3	66						
SB9		HEAD 4	55						
SB9		LUMINAIRE					150		
SB10		HEAD 14	19						
SB10		HEAD 24	19						
SB10		HEAD 27	15						
SB11		HEAD 17	19						
SB11		HEAD 25	19						
SB10		LUMINAIRE					240		
SB12		HEAD 26	15						
SB12		LUMINAIRE					120		
SB13		HEAD 21	63						
SB13		HEAD 22	51						
SB15		HEAD 8	41						
SB15		HEAD 9	53						
SB15		HEAD 10	65						
SB15		HEAD 13	19						
SB15		LUMINAIRE					240		
SB16		LUMINAIRE					120		
TOTAL			900	3880	245	2290	1470	1430	1560

NOTE: GROUNDING CONDUCTOR (10 AWG) TOTAL INCLUDES RING AND COVER BONDING QUANTITIES

LEGEND

*	ADDITIONAL ITEMS FOR QUANTITIES LISTED ELSEWHERE
**	FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

ALL ITEMS ON THIS SHEET ARE CATEGORY 1500

SIGNAL NO. S1079
STH 100 (RYAN ROAD) & STH 241
PAGE 2 OF 5

* TRAFFIC DETECTOR LOOPS

LOOP NO.	HOME RUN PB	LOCATION	SIZE (FT) X (FT)	NO. OF TURNS	PAVEMENT TYPE	SDD INSTALLATION REFERENCE	652.0800 CONDUIT LOOP DETECTOR L.F.	655.0700 LOOP DETECTOR LEAD IN CABLE L.F.	655.0800 LOOP DETECTOR WIRE L.F.
21	PB9	17RYN+07, 34' LT	6 X 30	4	CONCRETE	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	105	566	426
22	PB8	15RYN+59, 34' LT	6 X 30	3	CONCRETE	LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW CONCRETE PAVEMENT)	95	416	274
41	PB24	54TST+43, 34' LT	6 X 20	3	CONCRETE	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	86	379	270
61	PB27	7RYN+81, 32' RT	6 X 30	3	CONCRETE	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	90	521	282
62		EXISTING				EXISTING			
81	PB26	45TST+20, 36' RT	6 X 20	4	CONCRETE	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	74	650	308
82	PB25	46TST+70, 34' RT	6 X 20	4	CONCRETE	LOOP DETECTOR INSTALLED IN BASE COURSEWITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	100	498	410
						TOTAL	550	3030	1970

SIGNAL MOUNTING HARDWARE

** LOCATION	658.5069.0003 SIGNAL MOUNTING HARDWARE L.S.
STH 100 (RYAN ROAD) & STH 241	1
TOTAL	1

EMERGENCY VEHICLE PREEMPTION

** LOCATION	SPV.0105.9010 EMERGENCY VEHICLE PREEMPTION DETECTOR HEAD INSTALLATION (STATE FURNISHED) L.S.
STH 100 (RYAN ROAD) & STH 241	1
TOTAL	1

INSTALL STATE-SUPPLIED TRAFFIC SIGNAL CABINET

CONTROL CABINET NO.	** LOCATION	SPV.0105.9004 INSTALL STATE-SUPPLIED TRAFFIC SIGNAL CABINET L.S.
CB1	STH 100 (RYAN ROAD) & STH 241	1
	TOTAL	1

LEGEND

* ADDITIONAL ITEMS FOR QUANTITIES LISTED ELSEWHERE

** FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD; LOCATION IS TO FRONT CENTER OF LOOP

REMOVE TRAFFIC SIGNALS

** LOCATION	SPV.0105.9000 REMOVE TRAFFIC SIGNALS L.S.
STH 100 (RYAN ROAD) & STH 241	1
TOTAL	1

ALL ITEMS ON THIS SHEET ARE CATEGORY 1500

SIGNAL NO. S1079
STH 100 (RYAN ROAD) & STH 241
PAGE 3 OF 5

TRAFFIC SIGNAL EQUIPMENT

SIG. BASE NO.	* 657.0100 PEDESTAL BASES EACH	* 657.0255 TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE EACH	* 657.0315 POLES TYPE 4 EACH	657.0322 POLES TYPE 5-ALUMINUM EACH	* 657.0420 TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT EACH	* 657.0430 TRAFFIC SIGNAL STANDARDS ALUMINUM 10-FT EACH	* 657.0609 LUMINAIRE ARMS SINGLE MEMBER 4 -INCH CLAMP 6-FT EACH	* 657.1355 INSTALL POLES TYPE 12 EACH	* 657.1360 INSTALL POLES TYPE 13 EACH	657.1540 INSTALL MONOTUBE ARMS 40-FT EACH	657.1545 INSTALL MONOTUBE ARMS 45-FT EACH	* 657.1550 INSTALL MONOTUBE ARMS 50-FT EACH	* 657.1555 INSTALL MONOTUBE ARMS 55-FT EACH	657.1806 INSTALL LUMINAIRE ARMS STEEL 6-FT EACH	* 657.1815 INSTALL LUMINAIRE ARMS STEEL 15-FT EACH
SB1															
SB2	1				1										
SB3		1		1			2								
SB4								1				1			
SB5	1					1									
SB6		1	1				1								
SB7		1	1				2								
SB8	1					1									
SB9									1				1		1
SB10	1				1										
SB11		1	1				2								
SB12		1	1				1								
SB13								1		1					
SB15									1		1			2	
SB16							1								
TOTAL	4	5	4	1	2	2	9	2	2	1	1	1	1	2	1

TRAFFIC SIGNAL EQUIPMENT (CONTINUED)

SIG. BASE NO.	* 658.0500 PEDESTRIAN PUSH BUTTONS EACH	659.1125 LUMINAIRES UTILITY LED-C EACH	* SPV.0060.9007 CONTRACTOR PROVIDED HIGH-STRENGTH BOLT ASSEMBLIES FOR MONOTUBE ARMS EACH
SB1	1		
SB2	1		
SB3		2	
SB4			1
SB5	1		
SB6	1	1	
SB7	1	2	
SB8	1		
SB9		1	1
SB10	1		
SB11	1	2	
SB12	1	1	
SB13			1
SB15		2	1
SB16		1	
TOTAL	9	12	4

TEMPORARY TRAFFIC SIGNALS

** LOCATION	661.0200.0003 TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS L.S.	SPV.0105.9015 TEMPORARY NON-INTRUSIVE VEHICLE DETECTION SYSTEM FOR INTERSECTIONS L.S.
STH 100 (RYAN ROAD) & STH 241	1	1
TOTAL	1	1

VIDEO DETECTION SYSTEM

** LOCATION	SPV.0105.9020 TRANSPORTING AND INSTALLING STATE FURNISHED AUTOSCOPE VIDEO DETECTION SYSTEM L.S.
STH 100 (RYAN ROAD) & STH 241	1
TOTAL	1

LEGEND

* ADDITIONAL ITEMS FOR QUANTITIES LISTED ELSEWHERE

** FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

ALL ITEMS ON THIS SHEET ARE CATEGORY 1500

SIGNAL NO. S1079
STH 100 (RYAN ROAD) & STH 241
PAGE 4 OF 5

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PLOT TIME: 2:14:08 PM
PLOT SCALE: 1:40
WISDOT/CADDS SHEET 42

* TRAFFIC SIGNAL FACES

SIG. HEAD NO.	SIG. BASE NO.	658.0110 TRAFFIC SIGNAL FACE 3-12" VERTICAL EACH	658.0215 BACKPLATES SIGNAL FACE 3 SECTION 12-INCH EACH	658.0416 PEDESTRIAN SIGNAL FACE 16-INCH EACH	658.0600 LED MODULES 12-INCH RED BALL EACH	658.0605 LED MODULES 12-INCH YELLOW BALL EACH	658.0610 LED MODULES 12-INCH GREEN BALL EACH	658.0615 LED MODULES 12-INCH RED ARROW EACH	658.0620 LED MODULES 12-INCH YELLOW ARROW EACH	658.0625 LED MODULES 12-INCH GREEN ARROW EACH	658.0635 LED MODULES PEDESTRIAN COUNTDOWN TIMER 16-INCH EACH
2	SB9	1	1		1	1	1				
3	SB9	1	1		1	1	1				
4	SB9	1	1		1	1	1				
5	SB6	1	1					1	1	1	
6	SB7	1	1					1	1	1	
7	SB6	1	1		1	1	1				
8	SB15	1	1		1	1	1				
9	SB15	1	1		1	1	1				
10	SB15	1	1		1	1	1				
11	SB7	1	1					1	1	1	
13	SB15	1	1					1	1	1	
14	SB10	1	1		1	1	1				
15	SB4	1	1		1	1	1				
16	SB4	1	1		1	1	1				
17	SB11	1	1					1	1	1	
19	SB2	1	1					1	1	1	
21	SB13	1	1		1	1	1				
22	SB13	1	1		1	1	1				
23	SB2	1	1					1	1	1	
24	SB10	1	1					1	1	1	
25	SB11	1	1					1	1	1	
26	SB12			1							1
27	SB10			1							1
28	SB5			1							1
29	SB1			1							1
32	SB8			1							1
33	SB6			1							1
TOTAL		21	21	6	12	12	12	9	9	9	6

TRANSPORTING MATERIALS

** LOCATION	SPV.0105.9013 TRANSPORTING TRAFFIC SIGNAL AND INTERSECTION LIGHTING MATERIALS L.S.
STH 100 (RYAN ROAD) & STH 241	1
TOTAL	1

REMOVE LOOP DETECTOR WIRE AND LEAD-IN CABLE

** LOCATION	SPV.0105.9027 REMOVE LOOP DETECTOR WIRE AND LEAD-IN CABLE L.S.
STH 100 (RYAN ROAD) & STH 241	1
TOTAL	1

LEGEND

* ADDITIONAL ITEMS FOR QUANTITIES LISTED ELSEWHERE

** FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

ALL ITEMS ON THIS SHEET ARE CATEGORY 1500

SIGNAL NO. S1079
STH 100 (RYAN ROAD) & STH 241
PAGE 5 OF 5

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PLOT TIME: 2:14:12 PM
PLOT SCALE: 1:40
WISDOT/CADDS SHEET 42

* REMOVING CONCRETE BASES

SIGNAL BASE NO.	LOCATION	204.0195 REMOVING CONCRETE BASES EACH
CB1	31RYN+72, 69 LT.	1
SB1	31RYN+77, 54' LT.	1
SB2	31RYN+80, 8' RT.	1
SB3	31RYN+72, 53' RT.	1
SB4	31RYN+42, 66' RT.	1
SB5	30RYN+92, 70' RT.	1
SB6	30RYN+75, 52' RT.	1
SB7	30RYN+54, 6' LT.	1
SB8	30RYN+65, 63' LT.	1
SB9	30RYN+79, 86' LT.	1
SB10	31RYN+42, 83' LT.	1
TOTAL		11

* REMOVING PULL BOXES

PULL BOX NO.	LOCATION	653.0905 REMOVING PULL BOXES EACH
PB1	31RYN+99, 55' LT.	1
PB2	33RYN+77, 55' LT.	1
PB3	35RYN+07, 55' LT.	1
PB4	31RYN+98, 9' RT.	1
PB5	31RYN+98, 55' RT.	1
PB6	31RYN+38, 69' RT.	1
PB7	30RYN+91, 67' RT.	1
PB8	30RYN+34, 57' RT.	1
PB9	28RYN+66, 52' RT.	1
PB10	27RYN+44, 52' RT.	1
PB11	30RYN+45, 7' LT.	1
PB12	30RYN+52, 56' LT.	1
PB13	30RYN+80, 102' LT.	1
PB14	52RYN+69, 27' LT.	1
PB15	31RYN+37, 101' LT	1
PB16	30RYN+91, 93' LT.	1
PB17	31RYN+02, 93' LT.	1
PB18	30RYN+91, 102' LT	1
PB19	31RYN+02, 102' LT.	1
TOTAL		19

FOR INFORMATION ONLY

STATE FURNISHED TRAFFIC SIGNAL EQUIPMENT

SIG. BASE NO.	POLES TYPE 12 EACH	POLES TYPE 13 EACH	MONOTUBE ARMS 35-FT EACH	MONOTUBE ARMS 50-FT EACH	MONOTUBE ARMS 55-FT EACH	LUMINAIRE ARMS STEEL 15-FT EACH	VIDEO CAMERA EACH
SB2	1		1				1
SB5	1			1			1
SB8		1	1			1	1
SB11	1				1		1
TOTAL	3	1	2	1	1	1	4

* CONCRETE BASES

SIGNAL BASE NO.	** LOCATION	654.0101 CONCRETE BASES TYPE 1 EACH	654.0102 CONCRETE BASE TYPE 2 EACH	654.0113 CONCRETE BASES TYPE 13 EACH	654.0217 CONCRETE CONTROL CABINET BASES TYPE 9 SPECIAL EACH
CB1	30RYN+48, 96' LT.				1
SB1	30RYN+68, 88' LT.		1		
SB2	31RYN+53, 89' LT.			1	
SB3	31RYN+69, 77' LT.		1		
SB4	31RYN+85, 8' RT.		1		
SB5	31RYN+68, 72' RT.			1	
SB6	31RYN+43, 72' RT.	1			
SB7	30RYN+85, 72' RT.	1			
SB8	30RYN+76, 72' RT.			1	
SB9	30RYN+45, 71' RT.	1			
SB10	30RYN+45, 8' LT.		1		
SB11	30RYN+45, 75' LT.			1	
TOTAL		3	4	4	1

REMOVE TRAFFIC SIGNALS

** LOCATION	SPV.0105.9001 REMOVE TRAFFIC SIGNALS L.S.
STH 100 (RYAN ROAD) & 22ND STREET	1
TOTAL	1

WISCONSIN
JEFFREY J. SANDBERG
E-39308
PRAIRIE DU SAC, WI
PROFESSIONAL ENGINEER
11/15/13

* CONDUIT

LOC.	TO LOC.	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH L.F.	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH L.F.
CB1	PB1		30
PB1	SB1	17	
PB1	PB2		170
PB2	SB2		18
PB2	PB3		112
PB3	SB3	23	
PB3	PB4	360	
PB3	PB5		166
PB5	SB4	5	
PB5	PB6		118
PB6	SB5		22
PB6	PB7		86
PB7	SB6	5	
PB7	PB8		134
PB8	SB7	5	
PB8	SB8		4
PB8	PB9		84
PB9	SB9	8	
PB9	PB10	370	
PB9	PB11		150
PB11	SB10	7	
PB11	PB12		160
PB12	SB11		14
PB12	CB1		39
N. APPROACH ELECTRICAL CROSSING			93
TOTAL		800	1400

LEGEND

* ADDITIONAL ITEMS FOR QUANTITIES LISTED ELSEWHERE

** FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

ALL ITEMS ON THIS SHEET ARE CATEGORY 1500

SIGNAL NO. S1226
STH 100 (RYAN ROAD) & 22ND STREET
PAGE 1 OF 5

* TRAFFIC SIGNAL CABLE AND ELECTRICAL WIRE (CONTINUED ON NEXT SHEET)

LOC.	TO	LOC.	655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG L.F.	655.0240 CABLE TRAFFIC SIGNAL 7-14 AWG L.F.	655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG L.F.	655.0270 CABLE TRAFFIC SIGNAL 15-14 AWG L.F.	655.0515 ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG L.F.	655.0620 ELECTRICAL WIRE LIGHTING 8 AWG L.F.	655.0900 TRAFFIC SIGNAL EVP DETECTOR CABLE L.F.	SPV.0090.9002 CABLE TYPE UF 2-8 AWG GROUNDED L.F.
CB1		SB1			54		54			54
CB1		SB2			154				213	
CB1		SB3			231					
CB1		SB4			313					
CB1		SB5			402				477	
CB1		SB6				370				
CB1		SB7			291					
CB1		SB8			287				346	
CB1		SB9				230				
CB1		SB10			143					143
CB1		SB11			55		55		134	
PB1		CB1					29			
PB2		SB2					34			
PB3		SB3					37			
PB5		SB4					21			
PB6		SB5					38			
PB7		SB6					21			
PB8		SB7					21			
PB9		SB9					24			
PB11		SB10					23			
PB12		CB1					32			
SB1		SB2					153			
SB2		SB3					135			
SB3		SB4					148			148
SB4		SB5					126			
SB5		SB6					110			
SB6		SB7					117			
SB7		SB8					35			
SB8		SB9					95			
SB9		SB10					131			
SB10		SB11					141			
SB1		SB3								231
SB10		SB8								184
SB1		HEAD 13	19							
SB1		HEAD 20	19							
SB1		HEAD 24	15							
SB1		LUMINAIRE						120		
SB2		HEAD 19	58							
SB2		HEAD 23	15							
SB3		HEAD 5		22						
SB3		HEAD 7	19							
SB3		LUMINAIRE						120		
SB4		HEAD 6		22						
SB4		LUMINAIRE						240		
SB5		HEAD 2	74							
SB5		HEAD 3	62							
SB5		HEAD 4	50							
SB6		HEAD 16		22						
SB6		HEAD 18	19							
SB6		HEAD 22	15							
SB7		HEAD 21	15							

ELECTRICAL SERVICE METER BREAKER PEDESTAL

CONTROL CABINET NO.	** LOCATION	656.0200.0003 ELECTRICAL SERVICE METER BREAKER PEDESTAL L.S.
CB1	30RYN+48, 96' LT.	1
	TOTAL	1

SIGNAL MOUNTING HARDWARE

** LOCATION	658.5069.0004 SIGNAL MOUNTING HARDWARE L.S.
STH 100 (RYAN ROAD) & 22ND STREET	1
TOTAL	1

LEGEND

*	ADDITIONAL ITEMS FOR QUANTITIES LISTED ELSEWHERE
**	FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

ALL ITEMS ON THIS SHEET ARE CATEGORY 1500

SIGNAL NO. S1226
STH 100 (RYAN ROAD) & 22ND STREET
PAGE 2 OF 5

* TRAFFIC SIGNAL CABLE AND ELECTRICAL WIRE (CONTINUED)

LOC.	TO	LOC.	655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG L.F.	655.0240 CABLE TRAFFIC SIGNAL 7-14 AWG L.F.	655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG L.F.	655.0270 CABLE TRAFFIC SIGNAL 15-14 AWG L.F.	655.0515 ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG L.F.	655.0620 ELECTRICAL WIRE LIGHTING 8 AWG L.F.	655.0900 TRAFFIC SIGNAL EVP DETECTOR CABLE L.F.	SPV.0090.9002 CABLE TYPE UF 2-8 AWG GROUNDED L.F.
SB8		HEAD 14	49							
SB8		HEAD 15	19							
SB8		HEAD 17	58							
SB8		LUMINAIRE						150		
SB9		HEAD 1	19							
SB9		HEAD 11		22						
SB9		HEAD 26	15							
SB10		HEAD 12		22						
SB10		LUMINAIRE						240		
SB11		HEAD 8	77							
SB11		HEAD 9	65							
SB11		HEAD 10	53							
SB11		HEAD 25	15							
		TOTAL	750	110	1930	600	1580	870	1170	760

NOTE: GROUNDING CONDUCTOR (10 AWG) TOTAL INCLUDES RING AND COVER BONDING QUANTITIES

INSTALL STATE-SUPPLIED TRAFFIC SIGNAL CABINET

CONTROL CABINET NO.	** LOCATION	SPV.0105.9003 INSTALL STATE-SUPPLIED TRAFFIC SIGNAL CABINET L.S.
CB1	30RYN+48, 96' LT.	1
	TOTAL	1

TRANSPORTING MATERIALS

** LOCATION	SPV.0105.9012 TRANSPORTING TRAFFIC SIGNAL AND INTERSECTION LIGHTING MATERIALS L.S.
STH 100 (RYAN ROAD) & 22ND STREET	1
TOTAL	1

* PULL BOXES

PULL BOX NO.	** LOCATION	653.0135 PULL BOXES STEEL 24"x36" EACH	653.0140 PULL BOXES STEEL 24"x42" EACH
PB1	30RYN+57, 99' LT.		1
PB2	31RYN+40, 101' LT.		1
PB3	31RYN+90, 75' LT.		1
PB4	35RYN+40, 67' LT.	1	
PB5	31RYN+90, 8' RT.		1
PB6	31RYN+90, 67' RT.		1
PB7	31RYN+47, 69' RT.		1
PB8	30RYN+80, 69' RT.		1
PB9	30RYN+38, 67' RT.		1
PB10	26RYN+75, 68' RT.	1	
PB11	30RYN+38, 8' LT.		1
PB12	30RYN+38, 88' LT.		1
	TOTAL	2	10

REMOVE LOOP DETECTOR WIRE AND LEAD-IN CABLE

** LOCATION	SPV.0105.9028 REMOVE LOOP DETECTOR WIRE AND LEAD-IN CABLE L.S.
STH 100 (RYAN ROAD) & 22ND STREET	1
TOTAL	1

LEGEND

*	ADDITIONAL ITEMS FOR QUANTITIES LISTED ELSEWHERE
**	FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD; LOCATION IS TO FRONT CENTER OF LOOP

ALL ITEMS ON THIS SHEET ARE CATEGORY 1500

SIGNAL NO. S1226
STH 100 (RYAN ROAD) & 22ND STREET
PAGE 3 OF 5

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WISDOT/CADDS SHEET 42

* TRAFFIC DETECTOR LOOPS

LOOP NO.	HOME RUN PB	LOCATION	SIZE (FT) X (FT)	NO. OF TURNS	PAVEMENT TYPE	SDD INSTALLATION REFERENCE	652.0800 CONDUIT LOOP DETECTOR L.F.	655.0700 LOOP DETECTOR LEAD IN CABLE L.F.	655.0800 LOOP DETECTOR WIRE L.F.
21	PB4	35RYN+40, 35' LT.	6 X 30	3	CONCRETE	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	104	510	324
61	PB10	26RYN+74, 36' RT.	6 X 30	4	CONCRETE	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	106	540	446
						TOTAL	210	1050	770

TRAFFIC SIGNAL EQUIPMENT

SIG. BASE NO.	* 657.0100 PEDESTAL BASES EACH	* 657.0255 TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE EACH	* 657.0315 POLES TYPE 4 EACH	* 657.0425 TRAFFIC SIGNAL STANDARDS ALUMINUM 15-FT EACH	* 657.0430 TRAFFIC SIGNAL STANDARDS ALUMINUM 10-FT EACH	* 657.0609 LUMINAIRE ARMS SINGLE MEMBER 4 -INCH CLAMP 6-FT EACH	* 657.1355 INSTALL POLES TYPE 12 EACH	* 657.1360 INSTALL POLES TYPE 13 EACH	657.1535 INSTALL MONOTUBE ARMS 35-FT EACH	* 657.1550 INSTALL MONOTUBE ARMS 50-FT EACH	* 657.1555 INSTALL MONOTUBE ARMS 55-FT EACH	* 657.1815 INSTALL LUMINAIRE ARMS STEEL 15-FT EACH	* 658.0500 PEDESTRIAN PUSH BUTTONS EACH	* 659.1115 LUMINAIRES UTILITY LED-A EACH	* SPV.0060.9007 CONTRACTOR PROVIDED HIGH-STRENGTH BOLT ASSEMBLIES FOR MONOTUBE ARMS EACH
SB1		1	1			1							1	1	
SB2							1		1				1		1
SB3		1	1			1								1	
SB4		1	1			2								2	
SB5							1			1					1
SB6	1			1									1		
SB7	1				1								1		
SB8								1	1			1		1	1
SB9	1			1									1		
SB10		1	1			2							1	2	
SB11							1				1		1		1
TOTAL	3	4	4	2	1	6	3	1	2	1	1	1	7	7	4

EMERGENCY VEHICLE PREEMPTION

** LOCATION	SPV.0105.9009 EMERGENCY VEHICLE PREEMPTION DETECTOR HEAD INSTALLATION (STATE FURNISHED) L.S.
STH 100 (RYAN ROAD) & 22ND STREET	1
TOTAL	1

VIDEO DETECTION SYSTEM

** LOCATION	SPV.0105.9021 TRANSPORTING AND INSTALLING STATE FURNISHED AUTOSCOPE VIDEO DETECTION SYSTEM L.S.
STH 100 (RYAN ROAD) & 22ND STREET	1
TOTAL	1

LEGEND

* ADDITIONAL ITEMS FOR QUANTITIES LISTED ELSEWHERE

** FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

ALL ITEMS ON THIS SHEET ARE CATEGORY 1500

SIGNAL NO. S1226
STH 100 (RYAN ROAD) & 22ND STREET
PAGE 4 OF 5

*TRAFFIC SIGNAL FACES

SIG. HEAD NO.	SIG. BASE NO.	658.0110 TRAFFIC SIGNAL FACE 3-12" VERTICAL EACH	658.0115 TRAFFIC SIGNAL FACE 4-12" VERTICAL EACH	658.0215 BACKPLATES SIGNAL FACE 3 SECTION 12-INCH EACH	658.0220 BACKPLATES SIGNAL FACE 4 SECTION 12-INCH EACH	658.0416 PEDESTRIAN SIGNAL FACE 16-INCH EACH	658.0600 LED MODULES 12-INCH RED BALL EACH	658.0605 LED MODULES 12-INCH YELLOW BALL EACH	658.0610 LED MODULES 12-INCH GREEN BALL EACH	658.0615 LED MODULES 12-INCH RED ARROW EACH	658.0620 LED MODULES 12-INCH YELLOW ARROW EACH	658.0625 LED MODULES 12-INCH GREEN ARROW EACH	658.0635 LED MODULES PEDESTRIAN COUNTDOWN TIMER 16-INCH EACH
1	SB9	1		1			1	1	1				
2	SB5	1		1			1	1	1				
3	SB5	1		1			1	1	1				
4	SB5	1		1			1	1	1				
5	SB3		1		1					1	2	1	
6	SB4		1		1					1	2	1	
7	SB3	1		1			1	1	1				
8	SB11	1		1			1	1	1				
9	SB11	1		1			1	1	1				
10	SB11	1		1			1	1	1				
11	SB9		1		1					1	2	1	
12	SB10		1		1					1	2	1	
13	SB1	1		1			1	1	1				
14	SB8	1		1			1	1	1				
15	SB8	1		1			1	1	1				
16	SB6		1		1					1	2	1	
17	SB8		1		1					1	2	1	
18	SB6	1		1			1	1	1				
19	SB2	1		1			1	1	1				
20	SB1	1		1			1	1	1				
21	SB7					1							1
22	SB6					1							1
23	SB2					1							1
24	SB1					1							1
25	SB11					1							1
26	SB9					1							1
TOTAL		14	6	14	6	6	14	14	14	6	12	6	6

TEMPORARY TRAFFIC SIGNALS

LOCATION	661.0200.0004 TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS L.S.	SPV.0105.9016 TEMPORARY NON-INTRUSIVE VEHICLE DETECTION SYSTEM FOR INTERSECTIONS L.S.	SPV.0105.9018 TEMPORARY INFRARED EVP SYSTEM L.S.
STH 100 (RYAN ROAD) & 22ND STREET	1	1	1
TOTAL	1	1	1

LEGEND

* ADDITIONAL ITEMS FOR QUANTITIES LISTED ELSEWHERE

** FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

ALL ITEMS ON THIS SHEET ARE CATEGORY 1500

SIGNAL NO. S1226
STH 100 (RYAN ROAD) & 22ND STREET
PAGE 5 OF 5

* REMOVING CONCRETE BASES

SIGNAL BASE NO.	LOCATION	204.0195 REMOVING CONCRETE BASES EACH
SB8	39RYN+76, 7 RT.	1
	TOTAL	1

* CONDUIT

LOC.	TO	LOC.	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH L.F.
PB18		SB8	51
PB18		PB19	219
	TOTAL		270

* PULL BOXES

PULL BOX NO.	LOCATION	653.0135 PULL BOXES STEEL 24"x36" EACH	653.0140 PULL BOXES STEEL 24"x42" EACH
PB18	40RYN+37, 6' RT.		1
PB19	38RYN+09, 8' RT.	1	
	TOTAL	1	1

* REMOVING PULL BOXES

PULL BOX NO.	LOCATION	653.0905 REMOVING PULL BOXES EACH
PB18	40RYN+37, 6' RT.	1
PB19	38RYN+09, 9' RT.	1
	TOTAL	2

* TRAFFIC SIGNAL CABLE AND ELECTRICAL WIRE

LOC.	TO	LOC.	655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG L.F.	655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG L.F.	655.0515 ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG L.F.	655.0900 TRAFFIC SIGNAL EVP DETECTOR CABLE L.F.
CB1		SB1		89	89	
CB1		SB2		174		
CB1		SB3		311		372
CB1		SB4		388		
CB1		SB5		470		508
CB1		SB6		283		
CB1		SB7		256		
CB1		SB8		212	212	
CB1		SB9		347		
PB1		SB1			43	
PB3		SB2			29	
PB9		SB2			77	
PB10		SB3			28	
PB11		SB4			29	
PB13		SB5			49	
PB14		SB9			29	
PB15		SB6			23	
PB16		SB6			47	
PB17		SB7			39	
PB18		SB8			76	
PB20		CB1			28	
SB1		SB2			163	
SB2		SB3			190	
SB3		SB4			125	
SB4		SB5			140	
SB5		SB9			174	
SB9		SB6			104	
SB6		SB7			127	
SB7		SB8			189	
SB8		HEAD 12	20			
	TOTAL		20	2530	2010	880

* CONCRETE BASES

SIGNAL BASE NO.	** LOCATION	654.0101 CONCRETE BASES TYPE 1 EACH
SB8	39RYN+79, 7' RT.	
	TOTAL	1

* TRAFFIC SIGNAL EQUIPMENT

SIG. BASE NO.	657.0100 PEDESTAL BASES EACH	657.0420 TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT EACH
SB8	1	1
TOTAL	1	1

SIGNAL MOUNTING HARDWARE

** LOCATION	658.5069.0001 SIGNAL MOUNTING HARDWARE L.S.
IH 94 EB RAMP & STH 100 (RYAN RD)	1
TOTAL	1

REMOVE TRAFFIC SIGNALS

** LOCATION	SPV.0105.9006 REMOVE TRAFFIC SIGNALS L.S.
IH 94 EB RAMP & STH 100 (RYAN RD)	1
TOTAL	1

LEGEND

* ADDITIONAL ITEMS FOR QUANTITIES LISTED ELSEWHERE

** FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

ALL ITEMS ON THIS SHEET ARE CATEGORY 1500

SIGNAL NO. S1182
IH 94 EB RAMPS & STH 100 (RYAN ROAD)
PAGE 1 OF 2

* TRAFFIC DETECTOR LOOPS

LOOP NO.	HOME RUN PB	LOCATION	SIZE (FT) X (FT)	NO. OF TURNS	PAVEMENT TYPE	SDD INSTALLATION REFERENCE	652.0800 CONDUIT LOOP DETECTOR L.F.	655.0700 LOOP DETECTOR LEAD IN CABLE L.F.	655.0800 LOOP DETECTOR WIRE L.F.
61	PB19	38RYN+09, 29' RT.	6 X 30	3	CONCRETE	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	94	330	294
81	PB11	42RYN+24, 9' LT.	6 X 20	3	CONCRETE	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	72	295	220
82	PB11	41RYN+96, 9' LT.	6 X 20	3	CONCRETE	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	84	295	256
						TOTAL	250	920	770

* TRAFFIC SIGNAL FACES

SIG. HEAD NO.	SIG. BASE NO.	658.0110 TRAFFIC SIGNAL FACE 3-12" VERTICAL3 SECTION EACH	658.0215 BACKPLATES SIGNAL FACE 12-INCH EACH	658.0600 LED MODULES 12-INCH RED BALL EACH	658.0620 LED MODULES 12-INCH YELLOW ARROW EACH	658.0625 LED MODULES 12-INCH GREEN ARROW EACH
12	SB8	1	1	1	1	1
TOTAL		1	1	1	1	1

REMOVE LOOP DETECTOR WIRE AND LEAD-IN CABLE

** LOCATION	SPV.0105.9029 REMOVE LOOP DETECTOR WIRE AND LEAD-IN CABLE L.S.
IH 94 EB RAMPS & STH 100 (RYAN ROAD)	1
TOTAL	1

TEMPORARY TRAFFIC SIGNALS

LOCATION	661.0200.0001 TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS L.S.	SPV.0105.3009 TEMPORARY NON-INTRUSIVE VEHICLE DETECTION SYSTEM FOR INTERSECTIONS L.S.	SPV.0105.3011 TEMPORARY INFRARED EVP SYSTEM L.S.
IH 94 EB RAMPS & STH 100 (RYAN ROAD)	1	1	1
TOTAL	1	1	1

LEGEND

* ADDITIONAL ITEMS FOR QUANTITIES LISTED ELSEWHERE

** FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

ALL ITEMS ON THIS SHEET ARE CATEGORY 1500

SIGNAL NO. S1182
IH 94 EB RAMPS & STH 100 (RYAN ROAD)
PAGE 2 OF 2

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WISDOT/CADDS SHEET 42

* REMOVING CONCRETE BASES

SIGNAL BASE NO.	LOCATION	204.0195 REMOVING CONCRETE BASES EACH
SB3	58RYN+98, 9 LT.	1
	TOTAL	1

* CONDUIT

LOC.	TO	LOC.	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH L.F.
EXT. 1		PB5	15
PB5		PB6	197
PB7		SB3	8
		TOTAL	220

* PULL BOXES

PULL BOX NO.	LOCATION	653.0135 PULL BOXES STEEL 24"x36" EACH	653.0140 PULL BOXES STEEL 24"x42" EACH
PB5	59RYN+92, 72' RT.	1	
PB6	61RYN+88, 66' LT.	1	
PB7	59RYN+04, 7' LT.		1
	TOTAL	2	1

* REMOVING PULL BOXES

PULL BOX NO.	LOCATION	653.0905 REMOVING PULL BOXES EACH
PB5	59RYN+81, 70' LT.	1
PB6	62RYN+02, 61' LT.	1
PB7	59RYN+04, 7' LT.	1
	TOTAL	3

* TRAFFIC SIGNAL CABLE AND ELECTRICAL WIRE

LOC.	TO	LOC.	655.0240 CABLE TRAFFIC SIGNAL 7-14 AWG L.F.	655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG L.F.	655.0515 ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG L.F.	655.0900 TRAFFIC SIGNAL EVP DETECTOR CABLE L.F.
CB1		SB1		92	92	140
CB1		SB2		208		256
CB1		SB3		273		
CB1		SB4		376		424
CB1		SB5		353		
CB1		SB6		188	188	
PB1		CB1			26	
PB4		SB2			24	
PB7		SB3			23	
PB9		SB4			35	
PB11		SB5			65	
PB13		SB6			27	
PB14		SB1			22	
SB1		SB2			153	
SB2		SB3			106	
SB3		SB4			141	
SB4		SB5			182	
SB5		SB6			216	
SB3		HEAD 2	25			
		TOTAL	25	1490	1300	820

REMOVE TRAFFIC SIGNALS

** LOCATION	SPV.0105.9007 REMOVE TRAFFIC SIGNALS L.S.
IH 94 WB RAMP & STH 100 (RYAN RD)	1
TOTAL	1

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* CONCRETE BASES

SIGNAL BASE NO.	** LOCATION	654.0101 CONCRETE BASES TYPE 1 EACH
SB3	58RYN+98, 9 LT.	1
	TOTAL	1

* TRAFFIC SIGNAL EQUIPMENT

SIG. BASE NO.	657.0100 PEDESTAL BASES EACH	657.0425 TRAFFIC SIGNAL STANDARDS ALUMINUM 15-FT EACH
SB3	1	1
TOTAL	1	1

LEGEND

*	ADDITIONAL ITEMS FOR QUANTITIES LISTED ELSEWHERE
**	FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

ALL ITEMS ON THIS SHEET ARE CATEGORY 1500

SIGNAL NO. S1221 (M197)
IH 94 WB RAMPS & STH 100 (RYAN ROAD)
PAGE 1 OF 2

* TRAFFIC DETECTOR LOOPS

LOOP NO.	HOME RUN PB	LOCATION	SIZE (FT) X (FT)	NO. OF TURNS	PAVEMENT TYPE	SDD INSTALLATION REFERENCE	652.0800 CONDUIT LOOP DETECTOR L.F.	655.0700 LOOP DETECTOR LEAD IN CABLE L.F.	655.0800 LOOP DETECTOR WIRE L.F.
21	PB6	61RYN+88, 36' LT.	6 X 30	3	CONCRETE	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	100	430	320
86		EXISTING				EXISTING		280	
87		EXISTING				EXISTING		280	
						TOTAL	100	990	320

TRAFFIC SIGNAL FACES

SIG. HEAD NO.	SIG. BASE NO.	658.0120 TRAFFIC SIGNAL FACE 5-12" VERTICAL EACH	658.0225 BACKPLATES SIGNAL FACE 5 SECTION 12-INCH EACH	* 658.0600 LED MODULES 12-INCH RED BALL EACH	* 658.0605 LED MODULES 12-INCH YELLOW BALL EACH	* 658.0610 LED MODULES 12-INCH GREEN BALL EACH	* 658.0620 LED MODULES 12-INCH YELLOW ARROW EACH	* 658.0625 LED MODULES 12-INCH GREEN ARROW EACH
2	SB3	1	1	1	1	1	1	1
TOTAL		1	1	1	1	1	1	1

REMOVE LOOP DETECTOR WIRE AND LEAD-IN CABLE

** LOCATION	SPV.0105.9030 REMOVE LOOP DETECTOR WIRE AND LEAD-IN CABLE L.S.
IH 94 WB RAMPS & STH 100 (RYAN ROAD)	1
TOTAL	1

TEMPORARY TRAFFIC SIGNALS

LOCATION	661.0200.0002 TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS L.S.	SPV.0105.3010 TEMPORARY NON-INTRUSIVE VEHICLE DETECTION SYSTEM FOR INTERSECTIONS L.S.	SPV.0105.3012 TEMPORARY INFRARED EVP SYSTEM L.S.
IH 94 WB RAMPS & STH 100 (RYAN ROAD)	1	1	1
TOTAL	1	1	1

SIGNAL MOUNTING HARDWARE

** LOCATION	658.5069.0002 SIGNAL MOUNTING HARDWARE L.S.
IH 94 WB RAMP & STH 100 (RYAN RD)	1
TOTAL	1

LEGEND

* ADDITIONAL ITEMS FOR QUANTITIES LISTED ELSEWHERE

** FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

ALL ITEMS ON THIS SHEET ARE CATEGORY 1500

SIGNAL NO. S1221 (M197)
IH 94 WB RAMPS & STH 100 (RYAN ROAD)
PAGE 2 OF 2

* CONCRETE BASES

SIGNAL BASE NO.	** LOCATION	654.0101 CONCRETE BASES TYPE 1 EACH	654.0102 CONCRETE BASE TYPE 2 EACH	654.0113 CONCRETE BASES TYPE 13 EACH	654.0217 CONCRETE CONTROL CABINET BASES TYPE 9 SPECIAL EACH
CB1	63RYN+78, 106' LT.				1
SB1	63RYN+78, 89' LT.			1	
SB2	63RYN+94, 80' LT.		1		
SB3	63RYN+94, 08' RT.		1		
SB4	63RYN+94, 72' RT.			1	
SB5	63RYN+59, 89' RT.	1			
SB6	63RYN+00, 89' RT.		1		
SB7	62RYN+34, 89' RT.			1	
SB8	62RYN+27, 80' RT.		1		
SB9	62RYN+36, 08' LT.		1		
SB10	62RYN+21, 72' LT.			1	
SB11	62RYN+36, 72' LT.	1			
SB12	62RYN+54, 89' LT.	1			
SB13	63RYN+12, 89' LT.		1		
	TOTAL	3	6	4	1

REMOVE TRAFFIC SIGNALS

** LOCATION	SPV.0105.9002 REMOVE TRAFFIC SIGNALS L.S.
STH 100 (RYAN ROAD) & 13TH STREET	1
TOTAL	1

FOR INFORMATION ONLY
STATE FURNISHED TRAFFIC SIGNAL EQUIPMENT

SIG. BASE NO.	POLES TYPE 12 EACH	MONOTUBE ARMS 50-FT EACH	MONOTUBE ARMS 55-FT EACH	VIDEO CAMERA EACH
SB1	1		1	1
SB4	1	1		1
SB7	1		1	1
SB10	1	1		2
TOTAL	4	2	2	5

* REMOVING CONCRETE BASES

SIGNAL BASE NO.	LOCATION	204.0195 REMOVING CONCRETE BASES EACH
CB1	62RYN+40, 68' LT.	1
SB1	62RYN+55, 74' LT.	1
SB2	63RYN+12, 73' LT.	1
SB3	63RYN+60, 81' LT.	1
SB4	63RYN+78, 64' LT.	1
SB5	63RYN+67, 5' RT.	1
SB6	63RYN+94, 57' RT.	1
SB7	63RYN+59, 74' RT.	1
SB8	63RYN+00, 73' RT.	1
SB9	62RYN+52, 81' RT.	1
SB10	62RYN+36, 66' RT.	1
SB11	62RYN+43, 07' LT.	1
SB12	62RYN+22, 57' LT.	1
TOTAL		13

* REMOVING PULL BOXES

PULL BOX NO.	LOCATION	653.0905 REMOVING PULL BOXES EACH
PB1	62RYN+47, 67' LT.	1
PB2	62RYN+63, 85' LT.	1
PB3	53CV+49, 39' LT.	1
PB4	63RYN+13, 81' LT.	1
PB5	51CV+19, 6' RT.	1
PB6	63RYN+50, 94' LT.	1
PB7	63RYN+92, 62' LT.	1
PB8	63RYN+79, 6' RT.	1
PB9	64RYN+00, 3' RT.	1
PB10	65RYN+78, 10' LT.	1
PB11	66RYN+07, 10' LT	1
PB12	67RYN+29, 11' LT.	1
PB13	63RYN+82, 63' RT.	1
PB14	63RYN+53, 80' RT.	1
PB15	63RYN+00, 83' RT.	1
PB16	48CV+84, 5' LT.	1
PB17	46CV+50, 6' LT.	1
PB18	62RYN+59, 89' RT.	1
PB19	62RYN+25, 58' RT.	1
PB20	62RYN+29, 5' LT.	1
PB21	62RYN+05, 5' LT.	1
PB22	60RYN+00, 4' RT.	1
PB23	62RYN+27, 57' LT.	1
PB24	62RYN+77, 81' LT.	1
PB25	62RYN+89, 80' LT.	1
PB26	63RYN+00, 79' LT.	1
PB27	62RYN+77, 90' LT.	1
PB28	62RYN+89, 90' LT.	1
PB29	63RYN+01, 89' LT.	1
PB30	51CV+19, 6' LT.	1
PB31	63RYN+36, 79' RT.	1
PB32	63RYN+24, 79' RT.	1
PB33	63RYN+12, 79' RT.	1
PB34	63RYN+37, 88' RT.	1
PB35	63RYN+24, 88' RT.	1
PB36	63RYN+12, 87' RT.	1
PB37	48CV+83, 6' RT.	1
PB38	46CV+50, 24' RT.	1
TOTAL		38

* CONDUIT

LOC.	TO LOC.	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH L.F.	652.0235 CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH L.F.
CB1	PB1		45
PB1	SB1		12
PB1	PB2		50
PB2	SB2	11	
PB2	PB3	205	
PB3	PB4	151	
PB2	PB5		168
PB5	SB3	10	
PB5	PB6		124
PB6	SB4		11
PB6	PB7		108
PB7	SB5	9	
PB7	PB8	192	
PB8	PB9	130	
PB7	PB10		116
PB10	SB6	11	
PB10	PB11		112
PB11	SB7	15	
PB11	PB12		80
PB12	SB8	16	
PB12	PB13	200	
PB13	PB14	105	
PB12	PB15		168
PB15	SB9	24	
PB15	PB16		120
PB16	SB10		11
PB16	SB11	26	
PB16	PB17		118
PB17	SB12	13	
PB17	PB18	190	
PB18	PB19	131	
PB17	PB20		104
PB20	SB13	11	
PB20	PB21		110
PB21	CB1		33
TOTAL		1450	1490

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LEGEND

* ADDITIONAL ITEMS FOR QUANTITIES LISTED ELSEWHERE

** FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

ALL ITEMS ON THIS SHEET ARE CATEGORY 1500

SIGNAL NO. S1166
STH 100 (RYAN ROAD) & 13TH STREET
PAGE 1 OF 5

* TRAFFIC SIGNAL CABLE AND ELECTRICAL WIRE (CONTINUED ON NEXT SHEET)

LOC.	TO	LOC.	655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG L.F.	655.0240 CABLE TRAFFIC SIGNAL 7-14 AWG L.F.	655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG L.F.	655.0270 CABLE TRAFFIC SIGNAL 15-14 AWG L.F.	655.0515 ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG L.F.	655.0620 ELECTRICAL WIRE LIGHTING 8 AWG L.F.	655.0900 TRAFFIC SIGNAL EVP DETECTOR CABLE L.F.	SPV.0090.9002 CABLE TYPE UF 2-8 AWG GROUNDED L.F.
CB1		SB1			55		55		133	
CB1		SB2				91				91
CB1		SB3			191					
CB1		SB4			270				343	
CB1		SB5				335				
CB1		SB6			411					
CB1		SB7			488				566	
CB1		SB8			441					
CB1		SB9			350					
CB1		SB10			265				338	
CB1		SB11			277					
CB1		SB12				189				
CB1		SB13			122		122			122
PB1		SB1					28			
PB2		SB2					27			
PB5		SB3					26			
PB6		SB4					27			
PB7		SB5					25			
PB10		SB6					27			
PB11		SB7					31			
PB12		SB8					32			
PB15		SB9					40			
PB16		SB10					27			
PB17		SB12					29			
PB20		SB13					27			
PB21		CB1					28			
SB1		SB2					87			
SB2		SB3					148			148
SB3		SB4					124			
SB4		SB5					113			
SB5		SB6					118			
SB6		SB7					121			
SB7		SB8					111			
SB8		SB9					165			165
SB9		SB10					135			
SB10		SB11					62			
SB11		SB12					138			
SB12		SB13					117			
SB3		SB6								265
SB13		SB9								279
SB1		HEAD 19	79							
SB1		HEAD 20	67							
SB1		HEAD 25	15							
SB2		HEAD 7	19							
SB2		HEAD 5		24						
SB2		HEAD 30	15							
SB2		LUMINAIRE						120		
SB3		HEAD 6		24						
SB3		LUMINAIRE						240		
SB4		HEAD 2	74							
SB4		HEAD 3	62							

EMERGENCY VEHICLE PREEMPTION

LOCATION	SPV.0105.9011 EMERGENCY VEHICLE PREEMPTION DETECTOR HEAD INSTALLATION (STATE FURNISHED) L.S.
STH 100 (RYAN ROAD) & 13TH STREET	1
TOTAL	1

ELECTRICAL SERVICE METER BREAKER PEDESTAL

CONTROL CABINET NO.	** LOCATION	656.0200.0005 ELECTRICAL SERVICE METER BREAKER PEDESTAL L.S.
CB1	63RYN+78, 106' LT.	1
TOTAL		1

SIGNAL MOUNTING HARDWARE

** LOCATION	658.5069.0006 SIGNAL MOUNTING HARDWARE L.S.
STH 100 (RYAN ROAD) & 13TH STREET	1
TOTAL	1

LEGEND

*	ADDITIONAL ITEMS FOR QUANTITIES LISTED ELSEWHERE
**	FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

ALL ITEMS ON THIS SHEET ARE CATEGORY 1500

SIGNAL NO. S1166
STH 100 (RYAN ROAD) & 13TH STREET
PAGE 2 OF 5

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WISDOT/CADDS SHEET 42

* TRAFFIC SIGNAL CABLE AND ELECTRICAL WIRE (CONTINUED)

LOC.	TO LOC.	655.0230 CABLE TRAFFIC SIGNAL 5-14 AWG L.F.	655.0240 CABLE TRAFFIC SIGNAL 7-14 AWG L.F.	655.0260 CABLE TRAFFIC SIGNAL 12-14 AWG L.F.	655.0270 CABLE TRAFFIC SIGNAL 15-14 AWG L.F.	655.0515 ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG L.F.	655.0620 ELECTRICAL WIRE LIGHTING 8 AWG L.F.	655.0900 TRAFFIC SIGNAL EVP DETECTOR CABLE L.F.	SPV.0090.9002 CABLE TYPE UF 2-8 AWG GROUNDED L.F.
SB4	HEAD 4	50							
SB4	HEAD 29	15							
SB5	HEAD 16		22						
SB5	HEAD 18	21							
SB5	HEAD 17		22						
SB6	HEAD 24	15							
SB6	LUMINAIRE						240		
SB7	HEAD 14	76							
SB7	HEAD 15	61							
SB7	HEAD 23	15							
SB7	HEAD 28	15							
SB8	HEAD 1	19							
SB8	HEAD 11		22						
SB8	LUMINAIRE						120		
SB9	HEAD 12		22						
SB9	LUMINAIRE						240		
SB10	HEAD 8	73							
SB10	HEAD 9	61							
SB10	HEAD 10	49							
SB11	HEAD 27	15							
SB12	HEAD 13	19							
SB12	HEAD 21		22						
SB12	HEAD 26	15							
SB13	HEAD 22		22						
SB13	LUMINAIRE						240		
TOTAL		850	180	2870	615	1990	1200	1380	1070

NOTE: GROUNDING CONDUCTOR (10 AWG) TOTAL INCLUDES RING AND COVER BONDING QUANTITIES

* PULL BOXES

PULL BOX NO.	** LOCATION	653.0135 PULL BOXES STEEL 24"x36" EACH	653.0140 PULL BOXES STEEL 24"x42" EACH
PB1	63RYN+89, 95' LT.		1
PB2	64RYN+05, 76' LT.		1
PB3	66RYN+15, 67' LT	1	
PB4	67RYN+65, 68' LT.	1	
PB5	64RYN+05, 8' RT.		1
PB6	64RYN+05, 70' RT.		1
PB7	63RYN+58,98' RT.		1
PB8	47CV+11, 41' RT.	1	
PB9	45CV+81, 41' RT.	1	
PB10	63RYN+00, 99' RT.		1
PB11	62RYN+44, 100' RT.		1
PB12	62RYN+11, 76' RT.		1
PB13	60RYN+07, 67' RT.	1	
PB14	58RYN+97, 68' RT.	1	
PB15	62RYN+11, 8' LT.		1
PB16	62RYN+11, 68' LT.		1
PB17	62RYN+61, 100' LT.		1
PB18	52CV+89, 40' LT.	1	
PB19	54CV+19, 34' LT	1	
PB20	63RYN+13, 99' LT.		1
PB21	63RYN+68, 99' LT.		1
TOTAL		8	13

TRANSPORTING MATERIALS

** LOCATION	SPV.0105.9014 TRANSPORTING TRAFFIC SIGNAL AND INTERSECTION LIGHTING MATERIALS L.S.
STH 100 (RYAN ROAD) & 13TH STREET	1
TOTAL	1

VIDEO DETECTION SYSTEM

** LOCATION	SPV.0105.9022 TRANSPORTING AND INSTALLING STATE FURNISHED AUTOSCOPE VIDEO DETECTION SYSTEM L.S.
STH 100 (RYAN ROAD) & 13TH STREET	1
TOTAL	1

INSTALL STATE-SUPPLIED TRAFFIC SIGNAL CABINET

CONTROL CABINET NO.	** LOCATION	SPV.0105.9005 INSTALL STATE-SUPPLIED TRAFFIC SIGNAL CABINET L.S.
CB1	63RYN+78, 106' LT.	1
TOTAL		1

LEGEND

*	ADDITIONAL ITEMS FOR QUANTITIES LISTED ELSEWHERE
**	FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD; LOCATION IS TO FRONT CENTER OF LOOP

ALL ITEMS ON THIS SHEET ARE CATEGORY 1500

SIGNAL NO. S1166
STH 100 (RYAN ROAD) & 13TH STREET
PAGE 3 OF 5

* TRAFFIC DETECTOR LOOPS

LOOP NO.	HOME RUN PB	LOCATION	SIZE (FT) X (FT)	NO. OF TURNS	PAVEMENT TYPE	SDD INSTALLATION REFERENCE	652.0800 CONDUIT LOOP DETECTOR L.F.	655.0700 LOOP DETECTOR LEAD IN CABLE L.F.	655.0800 LOOP DETECTOR WIRE L.F.
21	PB4	67RYN+66, 35' LT	6 X 30	3	CONCRETE	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	108	408	336
22	PB3	66RYN+15, 36' LT	6 X 30	3	CONCRETE	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	106	258	330
41	PB19	54CV+19, 14' LT	6 X 20	4	CONCRETE	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	72	448	300
42	PB18	52CV+89, 23' LT	6 X 20	4	CONCRETE	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	66	318	276
61	PB14	58RYN+96, 32' RT	6 X 30	4	CONCRETE	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	88	646	362
62	PB13	60RYN+06, 35' RT	6 X 30	3	CONCRETE	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	96	538	306
81	PB9	45CV+81, 24' RT	6 X 20	4	CONCRETE	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	68	572	284
82	PB8	47CV+11, 24' RT	6 X 20	4	CONCRETE	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)	66	442	276
						TOTAL	670	3630	2470

TRAFFIC SIGNAL EQUIPMENT

SIG. BASE NO.	* 657.0100 PEDESTAL BASES EACH	* 657.0255 TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE EACH	* 657.0315 POLES TYPE 4 EACH	* 657.0425 TRAFFIC SIGNAL STANDARDS ALUMINUM 15-FT EACH	* 657.0430 TRAFFIC SIGNAL STANDARDS ALUMINUM 10-FT EACH	* 657.0609 LUMINAIRE ARMS SINGLE MEMBER 4 -INCH CLAMP 6-FT EACH	* 657.1355 INSTALL POLES TYPE 12 EACH	* 657.1550 INSTALL MONOTUBE ARMS 50-FT EACH	* 657.1555 INSTALL MONOTUBE ARMS 55-FT EACH	* 658.0500 PEDESTRIAN PUSH BUTTONS EACH	* 659.1115 LUMINAIRES UTILITY LED-A EACH	659.1120 LUMINAIRES UTILITY LED-B EACH	SPV.0060.9007 CONTRACTOR PROVIDED HIGH-STRENGTH BOLT ASSEMBLIES FOR MONOTUBE ARMS EACH
SB1							1		1	1			1
SB2		1	1			1				1	1		
SB3		1	1			2				1		2	
SB4							1	1		1			1
SB5	1			1						1			
SB6		1				2				1		2	
SB7							1		1	1			1
SB8		1	1			1				1	1		
SB9		1	1			2				1		2	
SB10							1	1					1
SB11	1				1					1			
SB12	1			1						1			
SB13		1	1			2				1		2	
TOTAL	3	6	5	2	1	10	4	2	2	12	2	8	4

REMOVE LOOP DETECTOR WIRE AND LEAD-IN CABLE

** LOCATION	SPV.0105.9031 REMOVE LOOP DETECTOR WIRE AND LEAD-IN CABLE L.S.
STH 100 (RYAN ROAD) & 13TH STREET	1
TOTAL	1

LEGEND

* ADDITIONAL ITEMS FOR QUANTITIES LISTED ELSEWHERE

** FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

ALL ITEMS ON THIS SHEET ARE CATEGORY 1500

SIGNAL NO. S1166
STH 100 (RYAN ROAD) & 13TH STREET
PAGE 4 OF 5

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WISDOT/CADDS SHEET 42

* TRAFFIC SIGNAL FACES

SIG. HEAD NO.	SIG. BASE NO.	658.0110 TRAFFIC SIGNAL FACE 3-12" VERTICAL EACH	658.0115 TRAFFIC SIGNAL FACE 4-12" VERTICAL EACH	658.0215 BACKPLATES SIGNAL FACE 3 SECTION 12-INCH EACH	658.0220 BACKPLATES SIGNAL FACE 4 SECTION 12-INCH EACH	658.0416 PEDESTRIAN SIGNAL FACE 16-INCH EACH	658.0600 LED MODULES 12-INCH RED BALL EACH	658.0605 LED MODULES 12-INCH YELLOW BALL EACH	658.0610 LED MODULES 12-INCH GREEN BALL EACH	658.0615 LED MODULES 12-INCH RED ARROW EACH	658.0620 LED MODULES 12-INCH YELLOW ARROW EACH	658.0625 LED MODULES 12-INCH GREEN ARROW EACH	658.0635 LED MODULES PEDESTRIAN COUNTDOWN TIMER 16-INCH EACH
1	SB8	1		1			1	1	1				
2	SB4	1		1			1	1	1				
3	SB4	1		1			1	1	1				
4	SB4	1		1			1	1	1				
5	SB2		1		1					1	2	1	
6	SB3		1		1					1	2	1	
7	SB2	1		1			1	1	1				
8	SB10	1		1			1	1	1				
9	SB10	1		1			1	1	1				
10	SB10	1		1			1	1	1				
11	SB8		1		1					1	2	1	
12	SB9		1		1					1	2	1	
13	SB12	1		1			1	1	1				
14	SB7	1		1			1	1	1				
15	SB7	1		1			1	1	1				
16	SB5		1		1					1	2	1	
17	SB6		1		1					1	2	1	
18	SB5	1		1			1	1	1				
19	SB1	1		1			1	1	1				
20	SB1	1		1			1	1	1				
21	SB12		1		1					1	2	1	
22	SB13		1		1					1	2	1	
23	SB7					1							1
24	SB5					1							1
25	SB1					1							1
26	SB12					1							1
27	SB11					1							1
28	SB7					1							1
29	SB4					1							1
30	SB2					1							1
TOTAL		14	8	14	8	8	14	14	14	8	16	8	8

TEMPORARY TRAFFIC SIGNALS

LOCATION	661.0200.0005 TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS L.S.	SPV.0105.9017 TEMPORARY NON-INTRUSIVE VEHICLE DETECTION SYSTEM FOR INTERSECTIONS L.S.	SPV.0105.9019 TEMPORARY INFRARED EVP SYSTEM L.S.
STH 100 (RYAN ROAD) & 13TH STREET	1	1	1
TOTAL	1	1	1

LEGEND

*	ADDITIONAL ITEMS FOR QUANTITIES LISTED ELSEWHERE
**	FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

ALL ITEMS ON THIS SHEET ARE CATEGORY 1500

SIGNAL NO. S1166
STH 100 (RYAN ROAD) & 13TH STREET
PAGE 5 OF 5

* REMOVING CONCRETE BASES

SIGNAL BASE NO.	LOCATION	204.0195 REMOVING CONCRETE BASES EACH
CB1	114+81, 116' RT.	1
SB2	114+75, 53' RT.	1
SB3	114+91, 53' RT.	1
SB4	114+55, 12' LT.	1
SB16	114+77, 95' RT.	1
	TOTAL	5

REMOVE TRAFFIC SIGNALS

LOCATION	SPV.0105.9008 REMOVE TRAFFIC SIGNALS L.S.
STH 100 (RYAN ROAD) & STH 38	1
TOTAL	1

* REMOVING PULL BOXES

PULL BOX NO.	LOCATION	653.0905 REMOVING PULL BOXES EACH
PB1	114+60, 92' RT.	1
PB2	112RYN+95, 64' RT.	1
PB3	111RYN+59, 58' RT.	1
PB4	111+68, 55' RT.	1
PB5	114+73, 56' RT.	1
PB6	114+48, 13' LT.	1
PB7	114+60, 12' LT.	1
PB28	114+78, 100 RT.	1
	TOTAL	8

REMOVE LOOP DETECTOR WIRE AND LEAD-IN CABLE

** LOCATION	SPV.0105.9032 REMOVE LOOP DETECTOR WIRE AND LEAD-IN CABLE L.S.
STH 100 (RYAN ROAD) & STH 38	1
TOTAL	1

TEMPORARY TRAFFIC SIGNALS

LOCATION	661.0200.0006 TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS TO REMAIN L.S.	SPV.0105.9025 TEMPORARY NON-INTRUSIVE VEHICLE DETECTION SYSTEM FOR INTERSECTIONS TO REMAIN L.S.	SPV.0105.9026 TEMPORARY INFRARED EVP SYSTEM TO REMAIN L.S.
STH 100 (RYAN ROAD) & STH 38	1	1	1
TOTAL	1	1	1

WISCONSIN
JEFFREY J. SANDBERG
E-39308
PRAIRIE DU SAC. WI
PROFESSIONAL ENGINEER
11/15/13

LEGEND

*	ADDITIONAL ITEMS FOR QUANTITIES LISTED ELSEWHERE
**	FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

ALL ITEMS ON THIS SHEET ARE CATEGORY 1500

SIGNAL NO. S1080
STH 100 (RYAN ROAD) & STH 38
PAGE 1 OF 1

CONDUIT

LOC	TO LOC	652.0215 CONDUIT NONMETALLIC SCHEDULE 40 1 1/4-INCH L.F.	* 652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH L.F.	652.0605 CONDUIT SPECIAL 2-INCH L.F.	SPV.0090.3001 FIBER OPTIC TRACER CABLE L.F.	SPV.0090.3002 FIBER OPTIC WARNING TAPE L.F.
CB1 (S1079)	CV1	23			23	23
CV1	ICPB1			130	129	129
ICPB1	ICPB2		62		62	62
ICPB2	ICPB3			90	90	90
ICPB3	CV2		348	120	468	468
CV2	CV3		1194		1194	1194
CV3	ICPB4		59		59	59
ICPB4	CB1 (S1226)	43			42	42
CV3	CV4		755		756	756
CV4	CV5		200		200	200
CV6	CV7		446		446	446
CV7	ICPB5		87		87	87
ICPB5	CB1 (S1166)	44			43	43
CV7	CV8		560		560	560
CV8	CV9		1035		1035	1035
CV9	CV10		1311		1312	1312
CV10	CV11		1217		1218	1218
CV11	CV12		895		895	895
CV12	ICPB6		101		101	101
TOTAL		110	8270	340	8720	8720

PULL BOXES

PULL BOX NO	LOCATION	653.0180.0002 PULL BOXES STEEL COMMUNICATIONS (24x42-INCH) EACH
ICPB1	13RYN+08, 111' LT	1
ICPB2	13RYN+60, 77' LT	1
ICPB3	13RYN+60, 13' RT	1
ICPB4	30RYN+19, 67' LT	1
ICPB5	64RYN+11, 79' LT	1
ICPB6	114RYN+29, 11' LT	1
TOTAL		6

VAULTS

COMM. VAULT NO.	** LOCATION	SPV.0060.3002 TRAFFIC SIGNAL INTERCONNECT VAULT EACH
CV1	11RYN+78, 113' LT	1
CV2	18RYN+18, 8' RT	1
CV3	30RYN+19, 8' LT	1
CV4	37RYN+73, 8' RT	1
CV5	39RYN+61, 7' RT	1
CV6	56RYN+65, 7' LT	1
CV7	64RYN+11, 8' RT	1
CV8	69RYN+70, 6' RT	1
CV9	80RYN+05, 6' RT	1
CV10	93RYN+18, 5' RT	1
CV11	105+34, 6' RT	1
CV12	114+29, 12' LT	1
TOTAL		12

REMOVING PULL BOXES & VAULTS

PULL BOX NO.	LOCATION	* 653.0905 REMOVING PULL BOXES EACH	SPV.0060.2014 REMOVING COMMUNICATION VAULT EACH
CV2	13RYN+27, 72' LT.		1
ICPB1	21RYN+29, 9' RT.	1	
ICPB2	24RYN+28, 6' RT.	1	
ICPB3	25RYN+76, 4' RT	1	
CV3	62RYN+18, 66' LT		1
TOTAL		3	2

WISCONSIN
JEFFREY J. SANDBERG
E-39308
PRAIRIE DU SAC, WI
PROFESSIONAL ENGINEER
11/15/13

LEGEND

* ADDITIONAL ITEMS FOR QUANTITIES LISTED ELSEWHERE

** FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

ALL ITEMS ON THIS SHEET ARE CATEGORY 1500

STH 100 (RYAN ROAD)
PAGE 1 OF 1

R/W PROJECT NUMBER	SHEET NUMBER	TOTAL SHEETS
2040-16-20		
FEDERAL PROJECT NUMBER	4.1	

PLAT OF RIGHT-OF-WAY REQUIRED FOR

STH 100
27th STREET TO HOWELL AVE.
MILWAUKEE COUNTY

CONSTRUCTION PROJECT NUMBER
2040-16-70

CONVENTIONAL ABBREVIATIONS

ACCESS RIGHTS	AR	REEL	R.
ACRES	AC.	REFERENCE LINE	℞
AND OTHERS	ET.AL.	RELEASE OF RIGHTS	ROR
CENTERLINE	℄	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.		
LAND CONTRACT	LC		
MONUMENT	MON.		
PAGE	P.		
PERMANENT LIMITED EASEMENT	PLE		
PROPERTY LINE	PL		
RECORDED AS	(100')		

CURVE DATA

LONG CHORD	LCH
LONG CHORD BEARING	LCB
RADIUS	R
DEGREE OF CURVE	D
CENTRAL ANGLE OR DELTA	DELTA
LENGTH OF CURVE	L
TANGENT	TAN

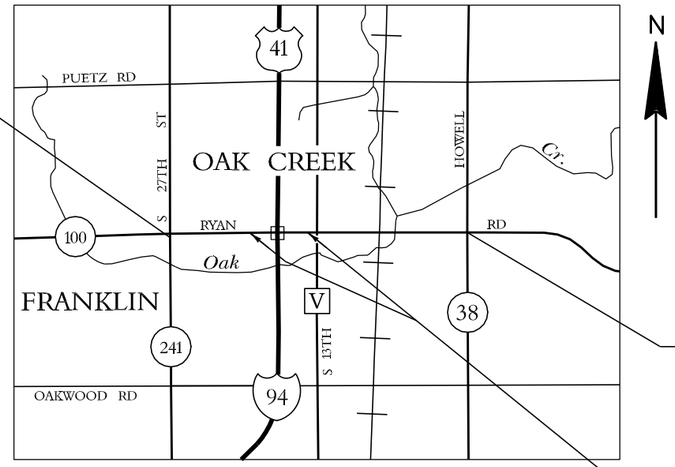
CONVENTIONAL SYMBOLS

FOUND IRON PIPE/PIN	LD (1" UNLESS NOTED)	PROPOSED R/W LINE	
		EXISTING H.E. LINE	
R/W MONUMENT	●(SET)	PROPERTY LINE	
R/W STANDARD	▲(SET)	LOT & TIE LINES	
SIGN	SIGN	SLOPE INTERCEPTS	
SECTION CORNER MONUMENT		CORPORATE LIMITS	
SECTION CORNER SYMBOL		ACCESS RESTRICTED (BY PREVIOUS ACQUISITION/CONTROL)	
FEE - HE (HATCH VARIES)		ACCESS RESTRICTED (BY ACQUISTION)	
TEMPORARY LIMITED EASEMENT		NO ACCESS (BY STATUTORY AUTHORITY)	
PERMANENT LIMITED EASEMENT		SECTION LINE	
R/W BOUNDARY POINT	RWB20	QUARTER LINE	
PARCEL NUMBER	02	SIXTEENTH LINE	
SIGN NUMBER (OFF PREMISE)	21	EXISTING CENTERLINE	
BUILDING		PROPOSED REFERENCE LINE	
		PARALLEL OFFSET	

CONVENTIONAL UTILITY SYMBOLS

WATER	W	
GAS	G	
TELEPHONE	T	
OVERHEAD TRANSMISSION LINES	OH	
ELECTRIC	E	
CABLE TELEVISION	TV	
FIBER OPTIC	FO	
SANITARY SEWER	SAN	
STORM SEWER	SS	
	NON COMPENSABLE	COMPENSABLE
POWER POLE		
TELEPHONE POLE		
UTILITY PEDESTAL		
ELECTRIC TOWER		

BEGIN RELOCATION ORDER
STA 12+36.91
16.00' SOUTH AND 0.30' WEST
OF SOUTHWEST CORNER OF
SECTION 19 T-5-N, R-22E
Y=239087.82
X=594766.80



END RELOCATION ORDER
STA 115+54.10
SOUTHEAST CORNER OF
SECTION 20 T-5-N, R-22E
Y=238865.79
X=605081.12

EXCEPTION TO PROJECT
STA 39+07.29 TO 60+94.59

NOTES:

COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, MILWAUKEE COUNTY ZONE, NAD83 (97) ADJUSTMENT. ALL DISTANCES ARE GROUND LENGTH.

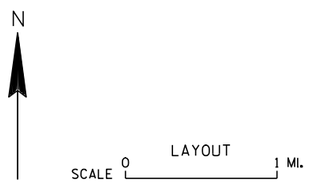
RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICAL 3/4" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT, BY SE REGION DOT SURVEY.

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.

THE HIGH ACCURACY REFERENCE NETWORK (HARN) POINT USED ON THIS PROJECT IS:
1) FRANKLIN SOUTH GPS



TOTAL NET LENGTH OF CENTERLINE = 1.557 MI.

REVISION DATE	STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION
8-26-2013	APPROVED FOR THE DEPARTMENT DATE: 11-06-2012 Robert J. Duffeck (Signature)

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.

* 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	R/W REQUIRED (ACRES) NEW	EXISTING	TOTAL	TOTAL REMAIN ACRES	T.L.E. ACRES	P.L.E. ACRES	PARCEL NUMBER
1(2)	4.04	WILLKOMM DEVELOPMENT LLP	FEE, TLE	2.161	0.090	0.000	0.090	2.071	0.086	0.000	1
2	4.04	TRI CITY NATIONAL BANK	TLE	2.570	0.000	0.000	0.000	2.570	0.182	0.000	2
3(2)	4.04	2345 WEST RYAN HOLDINGS LLC	FEE, TLE	1.532	0.023	0.000	0.023	1.509	0.092	0.000	3
4	4.04	SPECSHEP LLC	FEE, TLE	1.067	0.027	0.000	0.027	1.040	0.107	0.000	4
5	4.04	PILOT TRAVEL CENTERS LLC	FEE, TLE	24.768	0.123	0.000	0.123	24.645	0.358	0.000	5
6	4.04	STARBUCKS CORP.	FEE, TLE	1.181	0.058	0.000	0.058	1.123	0.068	0.000	6
7(2)	4.04	AM COMMUNITY CREDIT UNION	FEE, TLE	3.678	0.195	0.000	0.195	3.483	0.191	0.000	7
8	4.04	TCF NATIONAL BANK	FEE, TLE	1.069	0.069	0.000	0.069	1.000	0.069	0.000	8
9	4.04	ATOUT REAL ESTATE LLC	FEE, TLE	11.189	0.227	0.000	0.227	10.962	0.273	0.000	9
10	4.04	McCOY REALTY LIMITED PARTNERSHIP	FEE, AR, TLE	12.000	0.335	0.000	0.335	11.665	0.307	0.000	10
11	4.04	RYAN ROAD LLC	FEE, AR, TLE	1.436	0.075	0.000	0.075	1.361	0.078	0.000	11
12	4.04	MARK A. MAGUIRE	FEE, TLE	1.260	0.027	0.000	0.027	1.233	0.102	0.000	12
13	4.04 & 4.05	RAL/O'MALLEY RYAN RD. OWNERS' ASSC. INC.	FEE, TLE	0.864	0.022	0.000	0.022	0.842	0.055	0.000	13
14	4.05	CARISCH BROTHERS A MINN. GENERAL PARTNERSHIP	FEE, TLE	0.927	0.043	0.000	0.043	0.884	0.080	0.000	14
15	4.05	KRIMPELBEIN PROPERTIES LLC	TLE	1.550	0.000	0.000	0.000	1.550	0.015	0.000	15
16	4.05	LOVE'S TRAVEL STOPS & COUNTRY STORES INC.	FEE, AR, TLE	16.729	0.013	0.000	0.013	16.716	0.026	0.000	16
17	4.05	JB PROPERTIES LIMITED PARTNERSHIP	FEE, TLE	1.376	0.014	0.000	0.014	1.362	0.030	0.000	17
18	4.05	MCDONALD'S REAL ESTATE COMPANY	FEE, TLE	1.249	0.025	0.000	0.025	1.224	0.028	0.000	18
19	4.06	ALDI INC.	FEE, AR, TLE	42.248	0.258	0.000	0.258	41.990	0.647	0.000	19
20	4.06	RYAN ROAD STORAGE LLC	FEE, TLE	11.379	0.023	0.000	0.023	11.356	0.099	0.000	20
21	4.06	COBALT INVESTMENTS LLC	FEE, TLE	3.845	0.035	0.000	0.035	3.810	0.183	0.000	21
22	4.06	JESSICA TISCHENDORF TRUST	FEE, PLE, AR, TLE	6.511	0.100	0.000	0.100	6.411	0.321	0.018	22
23	4.06	DENNIS R. TISCHENDORF	FEE, TLE	0.737	0.019	0.000	0.019	0.718	0.077	0.000	23
24	4.06	EVERSHINE CORPORATION	FEE, PLE, TLE	2.463	1.507	0.000	1.507	0.956	0.043	0.016	24
25	4.06	EUGENE & ROSE MARIE BARTEL	FEE, TLE	1.850	0.577	0.000	0.577	1.273	0.108	0.000	25
26	4.06	DORIS KOEHLER, LIFE ESTATE	FEE, TLE	1.760	0.011	0.000	0.011	1.749	0.092	0.000	26
27	4.06	BARTEL REVOCABLE TRUST	FEE, TLE	1.760	0.011	0.000	0.011	1.749	0.092	0.000	27
28	4.06	DORIS KOEHLER ET. AL.	FEE, TLE	40.205	0.055	0.000	0.055	40.150	0.283	0.000	28
29	4.06 & 4.07	PARKSIDE LAND GROUP LLC	TLE	3.088	0.000	0.000	0.000	3.088	0.093	0.000	29
30(2)	4.07	EDGERTON CONTRACTORS INC.	FEE, PLE, TLE	28.693	0.017	0.000	0.017	28.676	0.074	0.403	30
31(2)	4.07	PARKSIDE LAND GROUP LLC	FEE, PLE	10.841	0.057	0.000	0.057	10.784	0.000	0.591	31
32	4.07	CITY OF OAK CREEK	FEE, TLE	11.541	0.072	0.000	0.072	11.469	0.216	0.000	32
33	4.07	LARSEN FAMILY LTD. PARTNERSHIP	FEE, TLE	4.618	0.051	0.000	0.051	4.567	0.152	0.000	33
34(2)	4.07	GIUFFRE XXV LLC	FEE, AR, TLE	3.416	0.044	0.000	0.044	3.372	0.285	0.000	34
35	4.07	D & A HOLDINGS LLC	FEE, TLE	1.261	0.019	0.000	0.019	1.242	0.039	0.000	35
36	4.07	A & D HOLDINGS LLC	FEE, TLE	0.970	0.015	0.000	0.015	0.955	0.030	0.000	36
37	4.07	OSGOOD FAMILY LTD. PARTNERSHIP	FEE, TLE	2.164	0.034	0.000	0.034	2.130	0.069	0.000	37
38	4.07	DANIEL YOUN	FEE, TLE	4.057	0.038	0.000	0.038	4.019	0.077	0.000	38
39(2)	4.07	EDUCATORS CREDIT UNION	FEE, TLE	2.027	0.025	0.000	0.025	2.002	0.106	0.000	39
40	4.07	ERVIN A. JR & BARBARA A. KAZIK	FEE, TLE	0.865	0.015	0.000	0.015	0.850	0.055	0.000	40
41	4.07	CALHOUN ROAD PROPERTIES LP	FEE, TLE	1.439	0.029	0.000	0.029	1.410	0.062	0.000	41
42(2)	4.04	AUTOZONE DEVELOPMENT CORP.	TLE	1.384	0.000	0.000	0.000	1.384	0.059	0.000	42

4

4

REVISION DATE
8-26-2013

DATE 11-06-2012

HWY: STH 100 | STATE R/W PROJECT NUMBER 2040-16-20 | PLAT SHEET 4.02

COUNTY: MILWAUKEE | CONSTRUCTION PROJECT NUMBER 2040-16-70 | PS&E SHEET 400 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.

* DENOTES AREAS COMPUTED

UTILITY NUMBER	SHEET NUMBER	OWNER	INTEREST REQUIRED	TOTAL ACRES	R/W REQUIRED (ACRES) NEW	EXISTING	TOTAL	TOTAL REMAIN ACRES	T.L.E. ACRES	P.L.E. ACRES	PARCEL NUMBER
100	4.04, 4.05, 4.06, 4.07	WE ENERGIES ELECTRIC	RELEASE OF RIGHTS	- -	- -	- -	- -	- -	- -	- -	100
101	4.04, 4.07	WE ENERGIES GAS	RELEASE OF RIGHTS	- -	- -	- -	- -	- -	- -	- -	101
102	4.04, 4.07	TIME WARNER CABLE	RELEASE OF RIGHTS	- -	- -	- -	- -	- -	- -	- -	102
103	4.04, 4.05, 4.06, 4.07	AT&T WISCONSIN	RELEASE OF RIGHTS	- -	- -	- -	- -	- -	- -	- -	103
104	4.06	U. S. CELLULAR	RELEASE OF RIGHTS	- -	- -	- -	- -	- -	- -	- -	104
105	4.06	MILWAUKEE METROPOLITAN SEWERAGE DIST.	RELEASE OF RIGHTS	- -	- -	- -	- -	- -	- -	- -	105
106	4.04, 4.05, 4.06, 4.07	CITY OF OAK CREEK	RELEASE OF RIGHTS	- -	- -	- -	- -	- -	- -	- -	106

4

4

REVISION DATE	DATE		HWY: STH 100	STATE R/W PROJECT NUMBER 2040-16-20	PLAT SHEET 4.03	
8-26-2013	11-06-2012		COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER 2040-16-70	PS&E SHEET	E

FILE NAME : J:\projects\d2_r_204016100\20\040403_rs.dgn PLOT DATE : 26-AUG-2013 14:25 PLOT BY : dotphk PLOT NAME : PLOT SCALE : 200:1

CONST. 2040-16-70 STH 100 R/W 2040-16-20 4.03

HIGHWAY	BASIS OF EXISTING RIGHT-OF-WAY	WIDTH	YEAR
RYAN ROAD	DOC. 184994	60'	1931
RYAN ROAD	I-94-5(3)314	75'	1958
RYAN ROAD	T 059-1(11)	60'	1964
RYAN ROAD	2040-01-20	VARIES	2001
RYAN ROAD	CSM 2966	75'	1976
RYAN ROAD	CSM 6955	75'	2001
RYAN ROAD	CSM 7260	75'	2003
RYAN ROAD	CSM 8451	80'	2012
27th STREET	DJ 2990	80'	1930
22nd STREET	CSM 5978	40'	1994
22nd STREET	DOC. 7546299	40'	1986
20th STREET	SOUTHBRANCH IND. PARK	50'	1972

A Concrete Monument w/ A Brass Cap Y 241737.98 X 594820.67

A Concrete Monument w/ A Brass Cap Y 239087.82 X 594766.80

A Concrete Monument w/ A Brass Cap Y 236435.31 X 594718.02

A Concrete Monument w/ A Brass Cap Y 241706.16 X 597250.24

A Concrete Monument w/ A Brass Cap Y 239053.94 X 597176.17

A Concrete Monument w/ A Brass Cap Y 236398.58 X 597116.20

STA 12+36.91 STH 100 ℄ =STA 49+84.00 27TH ST. BEGIN PROJECT

RL STH 100
PISTA 16+95.56
Y 239081.38
X 595225.06
PC STA 15+62.22
PT STA 18+28.89
DELTA 02°00'00"
D 00°45'00"
L 266.67'
R 7639.44'
LCH 266.66'
LCB N 89°48'21" E

PREVIOUS ACCESS CONTROL
2040-01-20
CSM 4780
CSM 6955
CSM 7260
CSM 7758
CSM 8451

SW1/4-SW1/4 | SE1/4-SW1/4 | NW1/4-NW1/4 | NE1/4-NW1/4

CITY OF OAK CREEK

S. 27TH STREET | S. 27TH STREET | 27TH STREET | 20TH STREET

℄ STH 241 = SECTION LINE | ℄ STH 100 = SECTION LINE | ℄ STH 100 = QUARTER LINE

RYAN ROAD | 22ND STREET | PRIVATE ROAD

CSM 3916 DOC. 5426904 R. 1325, I. 10 PARCEL 1

CSM 7866 DOC. 9362677 R. 6509 LOT 1

CSM 7866 LOT 2

CSM 5978 DOC. 6949495 R. 3288, I. 719 PARCEL 1

CSM 5882 PARCEL 1

CSM 5882 DOC. 6831144 R. 3125 I. 1327 PARCEL 2

CSM 5882 PARCEL 3

CSM 4780 DOC. 5936436 R. 1916, I. 99 PARCEL 3

CSM 4780 PARCEL 2

CSM 4780 PARCEL 4

CSM 8451 DOC. 10135875 R. 7909 LOT 1

CSM 8451 DOC. 10135875 LOT 2

CSM 2966 DOC. 5059991 R. 979, I. 436 PARCEL 1

CSM 7155 DOC. 9232930 LOT 1

CSM 8070 DOC. 9633392 R. 6912 PARCEL 1

CSM 8070 PARCEL 2

CSM 7260 DOC. 8567455 R. 5618, I. 3739 PARCEL 1

2345 WEST RYAN ROAD HOLDINGS LLC

AM COMMUNITY CREDIT UNION (7)

TCF NATIONAL BANK (8)

ATOUT REAL ESTATE LLC (9)

McCOY REALTY LIMITED PARTNERSHIP (10)

RYAN ROAD LLC (11)

MARK MAGUIRE (12)

RAL/O'MALLEY RYAN RD. OWNERS' ASSOC. (13)

WILLKOMM DEVELOPMENT LLP (1)

TRICITY NATIONAL BANK (2)

SPECSHEP LLC (3)

WEST RYAN ROAD HOLDINGS LLC (4)

PILOT TRAVEL CENTERS LLC (5)

(6)

AUTOZONE DEVELOPMENT CORP. (42)

PRM501 PRM502 PRM503 PRM504 PRM505 PRM506 PRM507 PRM508 PRM509 PRM510 PRM511 PRM512 PRM513 PRM514 PRM515 PRM516 PRM517 PRM518 PRM522 RM400

TLE FOR SLOPES & DRIVES | TLE FOR SLOPES | TLE FOR SLOPES AND ROADWAY REPLACEMENT | TLE FOR SLOPES & DRIVE

ACCESS EASEMENT DOC. 9244341

PUBLIC UTILITY EASEMENT | DRAINAGE EASEMENT | WE ENERGIES EASEMENT | WE ENERGIES & AT&T EASEMENT | WE ENERGIES TIME WARNER & AT&T EASEMENT | 25' WIDE ACCESS EASEMENT DOC. 09104737 | 20' WIDE PRIVATE STORMWATER | Q 10' WIDE GAS EASEMENT | AT&T EASEMENT | INGRESS, EGRESS, EASEMENT DOC. 7768818

5'BY 50' TLE FOR DW REMOVAL | 5'FEE

DETAIL NOT TO SCALE

NOTE: EXISTING UTILITY LAND RIGHTS PREDATE LAND DEDICATIONS THAT OCCURRED ON CSM 8451, RECORDED AS DOC. 10135875 R. 7909

SEE SHEET 4.05 | SEE SHEET 4.04

STA 50+00 | STA 50+00= STA 31+07.00 | STA 36+46.84 STH 100 ℄ =STA 50+00.00 20TH ST.

591.65' | 1817.96' | 2650.71' | 2653.25' | 2652.96' | 2656.04'

NOTES:

COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, MILWAUKEE COUNTY ZONE, NAD83 (97) ADJUSTMENT. ALL DISTANCES ARE GROUND LENGTH.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICAL 3/4" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT, BY SE REGION DOT SURVEY.

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.

THE HIGH ACCURACY REFERENCE NETWORK (HARN) POINT USED ON THIS PROJECT IS: 1) FRANKLIN SOUTH GPS

(100) WE ENERGIES ELECTRIC
DOC 6980635 R.3336 I. 75 PCL. 2
DOC 9131828 PCL. 3
DOC 8150623 R.5179 I. 1927 PCL. 4
DOC 6991949 R.3355 I. 1047 PCL. 5
DOC 8684206 R.5714 I. 131 PCL. 6
DOC 6980636 R.3336 I. 78 PCL. 10
DOC 6138270 R.2177 I. 148 PCL. 11
DOC 5951628 R.1940 I. 200 PCL. 12
NO RECORDED EASEMENT PCL. 1, 7, 9, 11, 12, 13, 42

(101) WE ENERGIES GAS
DOC 6180498 R.2222 I. 446 PCL. 13
NO RECORDED EASEMENT PCL. 10

(103) AT&T WISCONSIN
DOC 5705044 R.1625 I. 1305 PCL. 1
DOC 9131828 PCL. 3
DOC 8150623 R.5179 I. 1927 PCL. 4
DOC 6991949 R.3355 I. 1047 PCL. 5
DOC 8684206 R.5714 I. 131 PCL. 6
DOC 6138270 R.2177 I. 148 PCL. 11
NO RECORDED EASEMENT PCL. 7, 8, 9, 10, 11, 12

(102) TIME WARNER CABLE
DOC 8150623 R.5179 I. 1927 PCL. 4

(106) CITY OF OAK CREEK
DOC 4881787 R.820 I. 1844 PCL. 7
DOC 6751680 R.3011 I. 264 PCL. 7
DOC 4808248 R.758 I. 269 PCL. 8, 9, 10
DOC 4514315 R.521 I. 1300 PCL. 12
NO RECORDED EASEMENT PCL. 1, 2, 42

REVISION DATE	DATE	SCALE. FEET	HWY: STH 100	STATE R/W PROJECT NUMBER 2040-16-20	PLAT SHEET 4.04	
8-26-2013	11-06-2012	0 100 200	COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER 2040-16-70	PS&E SHEET 402	E
	GRID FACTOR					

FILE NAME : J:\projects\d2_r_204016100\20\040404_rp.dgn | PLOT DATE : 26-AUG-2013 14:25 | PLOT BY : dotphk | PLOT NAME : | PLOT SCALE : 200:1

CONST. 2040-16-70 | STH 100 R/W 2040-16-20 4.04

A Concrete Monument
w/ A Brass Cap
Y 241706.16
X 597250.24

A Concrete Monument
w/ A Brass Cap
Y 241669.69
X 599909.16

A Concrete Monument
w/ A Brass Cap
Y 239053.94
X 597176.17

A Concrete Monument
w/ A Brass Cap
Y 239005.61
X 599834.96

A Concrete Monument
w/ A Brass Cap
Y 236398.58
X 597116.20

A Concrete Monument
w/ A Brass Cap
Y 236350.17
X 599771.00

CITY

OF

OAK CREEK

HIGHWAY	BASIS OF EXISTING RIGHT-OF-WAY	WIDTH	YEAR
RYAN ROAD	I-94-5(3)314	VARIES	1958
I-94	I-94-5(3)314	VARIES	1958
20th STREET	SOUTHBRANCH IND. PARK	50'	1972
20th STREET	CSM 773	50'	1967
20th STREET	DOCUMENT 6098715	VARIES	1987
13th STREET	2040-00-75	VARIES	1992
13th STREET	CSM 4471	45'	1984
13th STREET	CSM 3818	45'	1980

(100) WE ENERGIES ELECTRIC
DOC 6164270 R.2203 I. 786 PCL. 14
DOC 6170045 R.2210 I. 1134 PCL. 15
DOC 4371462 R.402 I. 914 PCL. 16
DOC 7065089 R.3507 I. 528 PCL. 16
DOC 5447501 R.1345 I. 1300 PCL. 18

(106) CITY OF OAK CREEK
DOC 4341304 R.377 I. 1662 PCL. 13, 14
DOC 5994579 R.2003 I. 775 PCL. 13, 14
DOC 4637772 R.622 I. 1478 PCL. 17
DOC 4801376 R.752 I. 322 PCL. 17
DOC 4341490 R.377 I. 1977 PCL. 18

(103) AT&T WISCONSIN
DOC 6164270 R.2203 I. 786 PCL. 14
DOC 6170045 R.2210 I. 1134 PCL. 15
DOC 4371462 R.402 I. 914 PCL. 16
DOC 7065089 R.3507 I. 528 PCL. 16
DOC 5447501 R.1345 I. 1300 PCL. 18

SW1/4-SE1/4

SE1/4-SE1/4

NW1/4-NE1/4

NE1/4-NE1/4

SEE PROJECT
1030-20-22/23
STA 39+07.29 TO 60+94.59

NOTES:

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THE HIGH ACCURACY REFERENCE NETWORK (HARN) POINT USED ON THIS PROJECT IS:
1) FRANKLIN SOUTH GPS

PREVIOUS ACCESS CONTROL
I-94-5(3)314

REVISION DATE 8-26-2013	DATE 11-06-2012	SCALE, FEET 0 100 200	HWY: STH 100	STATE R/W PROJECT NUMBER 2040-16-20	PLAT SHEET 4.05
	GRID FACTOR		COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER 2040-16-70	PS&E SHEET 403 E

FILE NAME : J:\projects\d2_r_204016100\20\040405_rp.dgn PLOT DATE : 26-AUG-2013 14:26 PLOT BY : dotphk PLOT NAME : PLOT SCALE : 200:1

CONST. 2040-16-70 STH 100 R/W 2040-16-20 4.05

A Concrete Monument
w/ A Brass Cap
Y 241669.69
X 599909.16

NOTES:

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1) FRANKLIN SOUTH GPS

(100) WE ENERGIES ELECTRIC
DOC 8692372 R.5722 I. 1634
PCL. 20, 21
DOC 8720252 R.5756 I. 1514
PCL. 20

(103) AT&T WISCONSIN
DOC 8720252 R.5756 I. 1514
PCL. 20

(104) U. S. CELLULAR
DOC 9656520
PCL. 20

(105) MILWAUKEE METROPOLITAN SEWERAGE DIST.
DOC 5617604 R.1529 I. 540
PCL. 21
DOC 8707925 R.5739 I. 2796
PCL. 28

(106) CITY OF OAK CREEK
NO RECORDED EASEMENT
PCL. 19, 20, 21

A Concrete Monument
w/ A Brass Cap
Y 241593.43
X 602534.76

A Concrete Monument
w/ A Brass Cap
Y 239005.61
X 599834.96

A Concrete Monument
w/ A Brass Cap
Y 238938.38
X 602460.37

A Concrete Monument
w/ A Brass Cap
Y 236350.17
X 599771.00

A Concrete Monument
w/ A Brass Cap
Y 236290.29
X 602387.06

CITY OF OAK CREEK

SEE SHEET 4.05

SEE SHEET 4.07

R 13TH STREET = SECTION LINE

STA 63+06.07 STH 100 R
=STA 50+00.00 13TH ST.

STA 89+32.34 STH 100 R

SW1/4-SW1/4

SE1/4-SW1/4

NW1/4-NW1/4

NE1/4-NW1/4

MILWAUKEE COUNTY

RYAN ROAD
STH 100 R

ALDI INC. (19)

RYAN ROAD STORAGE LLC (20)

COBALT INVESTMENTS LLC (21)

DENNIS R. TISCHENDORF (23)

JESSICA TISCHENDORF TRUST (22)

EVERSHINE CORPORATION (24)

EUGENE & ROSE MARIE BARTEL (25)

DORIS KOEHLER LIFE ESTATE (26)

DORIS KOEHLER ET. AL. (28)

PARKSIDE LAND GROUP LLC (29)

CSM 7250
DOC. 8553457
R. 5603, I. 6017
PARCEL 2

CSM 7250
PARCEL 1

SOO LINE RAILWAY CO.

BARTEL REVOCABLE TRUST

DORIS KOEHLER, LIFE ESTATE

MMSD SEWER EASEMENT

US CELLULAR EASEMENT

MMSD SANITARY SEWER EASEMENT

WE ENERGIES & AT&T EASEMENT

SANITARY SEWER EASEMENT

WE ENERGIES EASEMENT

SHARED ACCESS EASEMENT DOC.8577244

EXISTING DRAINAGE PLE DOC 4636549 R.6211 I. 1401

TLE FOR SLOPES

TLE FOR SLOPES & DRIVE

TLE FOR SLOPES & DRIVES

250'BY 10' TLE FOR SLOPES

20'X20' PLE FOR DRAINAGE

PLE FOR DRAINAGE

5'FEE

DETAIL NOT TO SCALE

HIGHWAY	BASIS OF EXISTING RIGHT-OF-WAY	WIDTH	YEAR
RYAN ROAD	I-94-S(3)314	VARIES	1958
RYAN ROAD	2040-02-21 - T 059-1(19)	75'	1968
13th STREET	2040-00-75	VARIES	1992

PREVIOUS ACCESS CONTROL
CSM 7250

REVISION DATE 8-26-2013	DATE 11-06-2012	SCALE. FEET 0 100 200	HWY: STH 100
	GRID FACTOR		COUNTY: MILWAUKEE

STATE R/W PROJECT NUMBER	2040-16-20
CONSTRUCTION PROJECT NUMBER	2040-16-70

PLAT SHEET	4.06
PS&E SHEET	404

E

FILE NAME : J:\projects\d2_r_204016100\20\040406_rp.dgn
PLOT DATE : 26-AUG-2013 15:10
PLOT BY : dotphk
PLOT NAME :
PLOT SCALE : 200:1
CONST. 2040-16-70
STH 100 R/W 2040-16-20 4.06

A Concrete Monument
w/ A Brass Cap
Y 241593.43
X 602534.76

T 5 N 20 20 20 20 R 22 E

NOTES:

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THE HIGH ACCURACY REFERENCE NETWORK (HARN) POINT USED ON THIS PROJECT IS:
1) FRANKLIN SOUTH GPS

(100) WE ENERGIES ELECTRIC
DOC 09798281
PCL. 30
DOC 8445666 R.5511 I. 1971
PCL. 32
DOC 4516205 R.523 I. 479
PCL. 33
DOC 4363053 R.395 I. 1296
PCL. 40
DOC 7908597
PCL. 41

(101) WE ENERGIES GAS
DOC 09798281
PCL. 30

(102) TIME WARNER CABLE
DOC 09798281
PCL. 30
DOC 7908597
PCL. 41

(103) AT&T WISCONSIN
DOC 09798281
PCL. 30
DOC 4516205 R.523 I. 479
PCL. 33
DOC 8056580 R.5062 I. 1545
PCL. 33
DOC 4363053 R.395 I. 1296
PCL. 40
DOC 7908597
PCL. 41
NO RECORDED EASEMENT
PCL. 32, 34, 38

(106) CITY OF OAK CREEK
DOC 4392029 R.418 I. 2010
PCL. 34

PREVIOUS ACCESS CONTROL
T 0834(7)
CSM 7015

HIGHWAY	BASIS OF EXISTING RIGHT-OF-WAY	WIDTH	YEAR
RYAN ROAD	2040-02-21 - T 059-1(19)	75'	1968
RYAN ROAD	T 0834(7)	VARIES	1966
RYAN ROAD	CSM 556	75'	1966
RYAN ROAD	DOCUMENT NO. 7079854	VARIES	1995
STH 38	T 0834(7)	VARIES	1966
EAGLE SUMMIT DR.	CSM 7015	70'	2001

A Concrete Monument
w/ A Brass Cap
Y 241515.02
X 605161.31

T 5 N 20 21 20 21 R 22 E

A Concrete Monument
w/ A Brass Cap
Y 239938.38
X 602460.37

T 5 N 20 20 29 29 R 22 E

A Concrete Monument
w/ A Brass Cap
Y 238865.79
X 605081.12

T 5 N 20 21 29 28 R 22 E

A Concrete Monument
w/ A Brass Cap
Y 236290.29
X 602387.06

T 5 N 29 29 29 29 R 22 E

A Concrete Monument
w/ A Brass Cap
Y 236228.99
X 605010.88

T 5 N 29 28 29 28 R 22 E

CITY OF OAK CREEK

SEE SHEET 4.06

SEE SHEET 4.06

4

4

CN

SW1/4-SE1/4

SE1/4-SE1/4

NW1/4-NE1/4

NE1/4-NE1/4

MILWAUKEE COUNTY

2656.09'
N01°36'18"E

2650.44'
N01°44'02"E

2649.11'
N01°35'09"E

2637.74'
N01°31'33"E

1/16 LINE

1/16 LINE

RYAN ROAD

STH 100 R

STH 38

EAGLE SUMMIT DR.

2621.76'
S88°24'49"E

STA 89+32.34
STH 100 R

STA 115+54.10
STH 100 R
END PROJECT

EXISTING PLE

PART OF PARCEL 2

65'

WEST LINE OF PARCEL 1

DETAIL NOT TO SCALE

TLE FOR SLOPES & DRIVES

TLE FOR SLOPES

TLE FOR SLOPES & DRIVE

TLE FOR SLOPES

TLE FOR SLOPES & DRIVES

PLE FOR DRAINAGE

DRAINAGE EASEMENT DOC. 9701492

WE ENERGIES TIME WARNER & AT&T EASEMENT

WE ENERGIES EASEMENT

WE ENERGIES & AT&T EASEMENT

WE ENERGIES TIME WARNER & AT&T EASEMENT

AT&T EASEMENT

SANITARY SEWER EASEMENT

SHARED ACCESS EASEMENT DOC. 7881498

ACCESS ALLOWED

VISION CORNER CSM 7015

30' WIDE ROAD DEDICATION - CSM 585

(29) PARKSIDE LAND GROUP LLC
85' 89+32.16
85' 89+51.74
CSM 7361 PARCEL 2

(30) EDGERTON CONTRACTORS INC.
CSM 7361
DOC. 8717697
R. 5752, L. 1663
PARCEL 1

(31) PARKSIDE LAND GROUP LLC
CSM 7361
PARCEL 2

(32) CITY OF OAK CREEK
CSM 7015
DOC. 8150813
R. 5179, L. 2672
PARCEL 2

(33) LARSEN FAMILY LTD PARTNERSHIP
CSM 585
LOT 2

(34) GIUFFRE XXV LLC
CSM 585
LOT 3
& DOC. 7079854
EXCLUDING DOC. 4392363

CSM 585
DOC. 4265559
R. 317, L. 1013
LOT 1

CSM 585
LOT 2

CSM 585
LOT 4

(35) D&A HOLDINGS LLC

(36) A&D HOLDINGS LLC

(37) OSGOOD FAMILY LIMITED PARTNERSHIP

(38) DANIEL YOUN
CSM 4456
DOC. 5709957
R. 16311, L. 842
PARCEL 2

(39) EDUCATORS CREDIT UNION

(40) KAZIK

(41) CALHOUN ROAD PROPERTIES LP

CSM 4456
PARCEL 1

CSM 556
DOC. 4254255
R. 308, L. 30
LOT 1

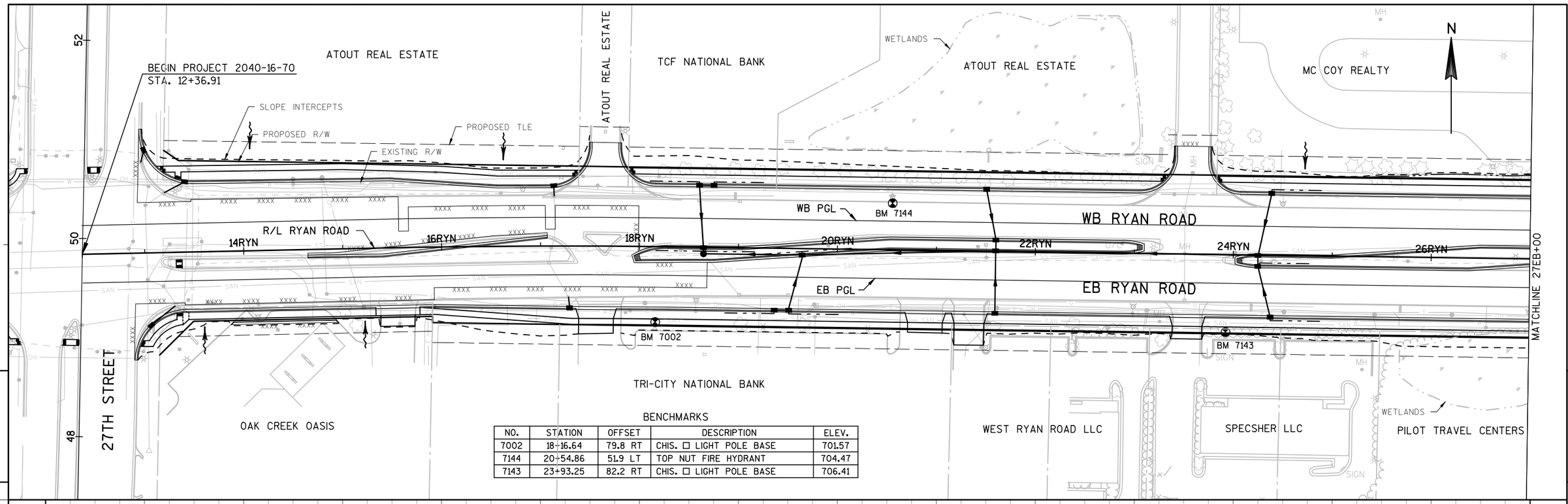
PRW536
PRW537
PRW538
PRW539
PRW540
PRW541
PRW542
PRW544
PRW545
PRW546
PLE901
PLE902
PLE903
PLE915
PLE916
PLE917
PLE918
PLE919
RW392
RW398

C1
L 93.13'
R 475.00'
LCH 92.98'
LCB N 16°08'14" E

REVISION DATE	DATE 11-06-2012	SCALE. FEET 0 100 200	HWY: STH 100	STATE R/W PROJECT NUMBER 2040-16-20	PLAT SHEET 4.07	
8-26-2013	GRID FACTOR		COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER 2040-16-70	PS&E SHEET 405	E

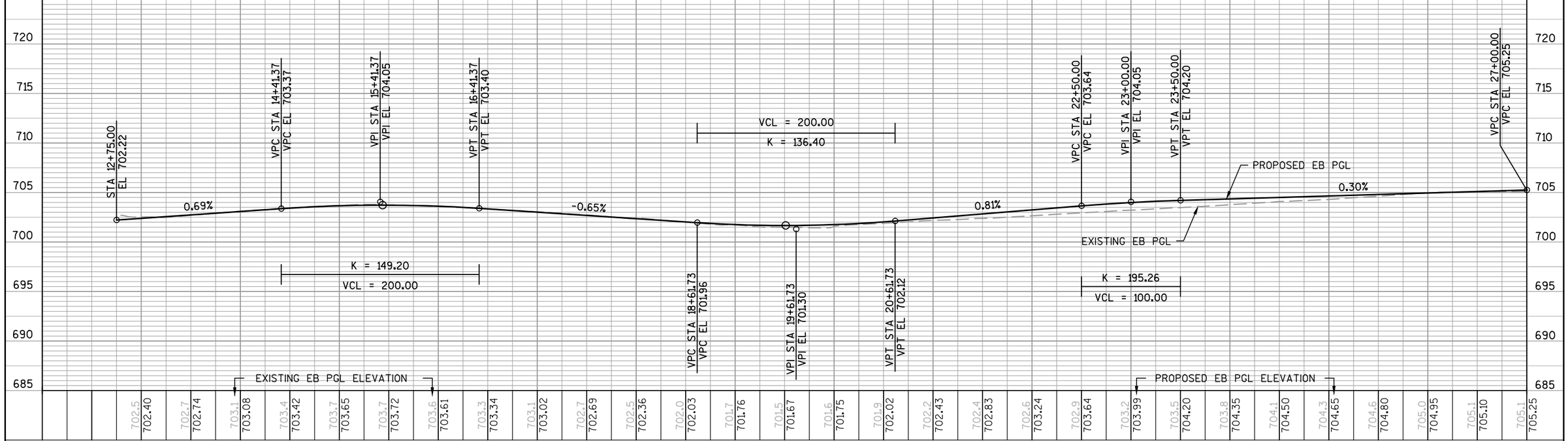
FILE NAME : J:\projects\d2_r_204016100\20\040407_rp.dgn PLOT DATE : 26-AUG-2013 14:27 PLOT BY : dotphk PLOT NAME : PLOT SCALE : 200:1

CONST. 2040-16-70 STH 100 R/W 2040-16-20 4.07

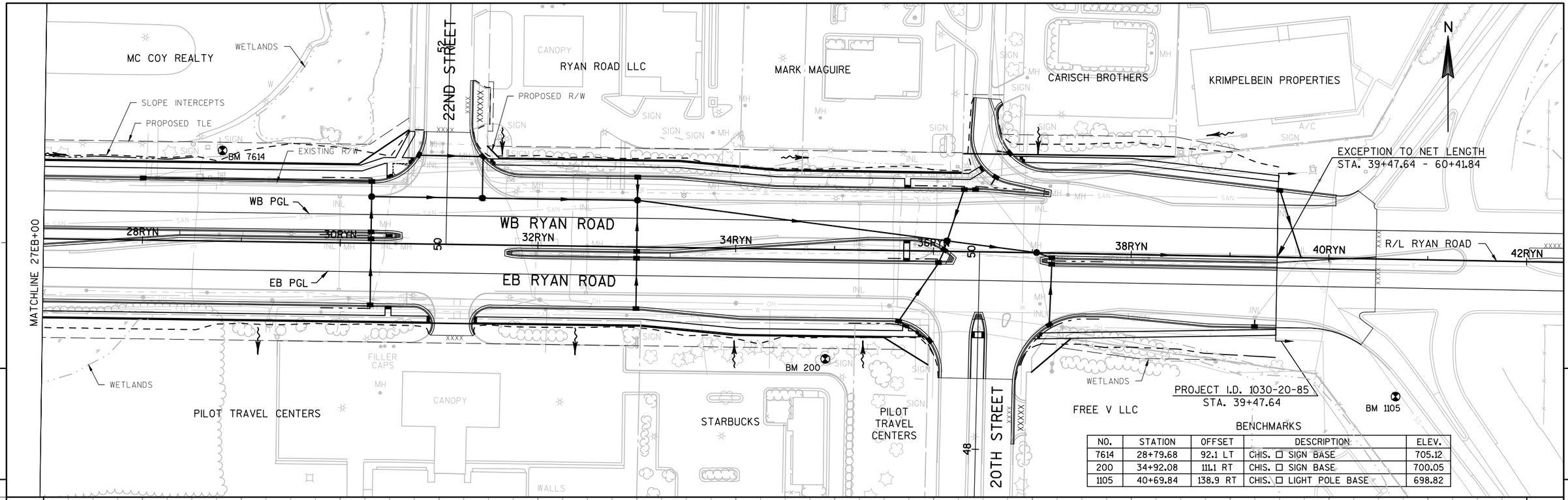


BENCHMARKS

NO.	STATION	OFFSET	DESCRIPTION	ELEV.
7002	18+16.64	79.8 RT	CHIS. □ LIGHT POLE BASE	701.57
7144	20+54.86	51.9 LT	TOP NUT FIRE HYDRANT	704.47
7143	23+93.25	82.2 RT	CHIS. □ LIGHT POLE BASE	706.41



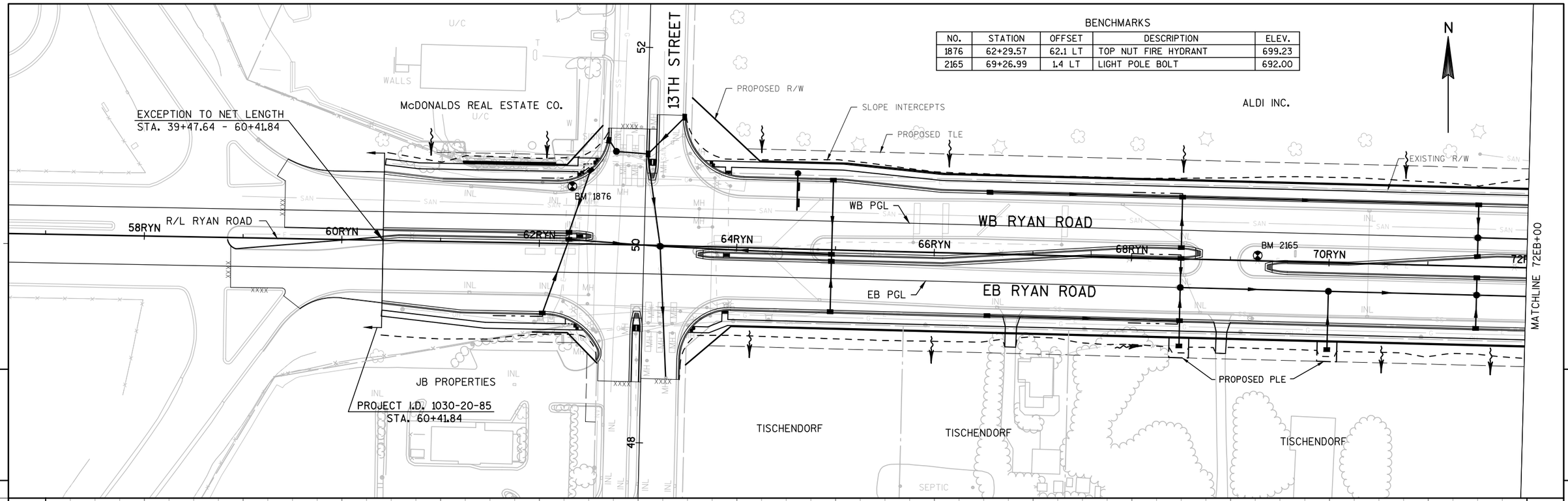
PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	PLAN AND PROFILE: RYAN ROAD EB	SHEET 406	E

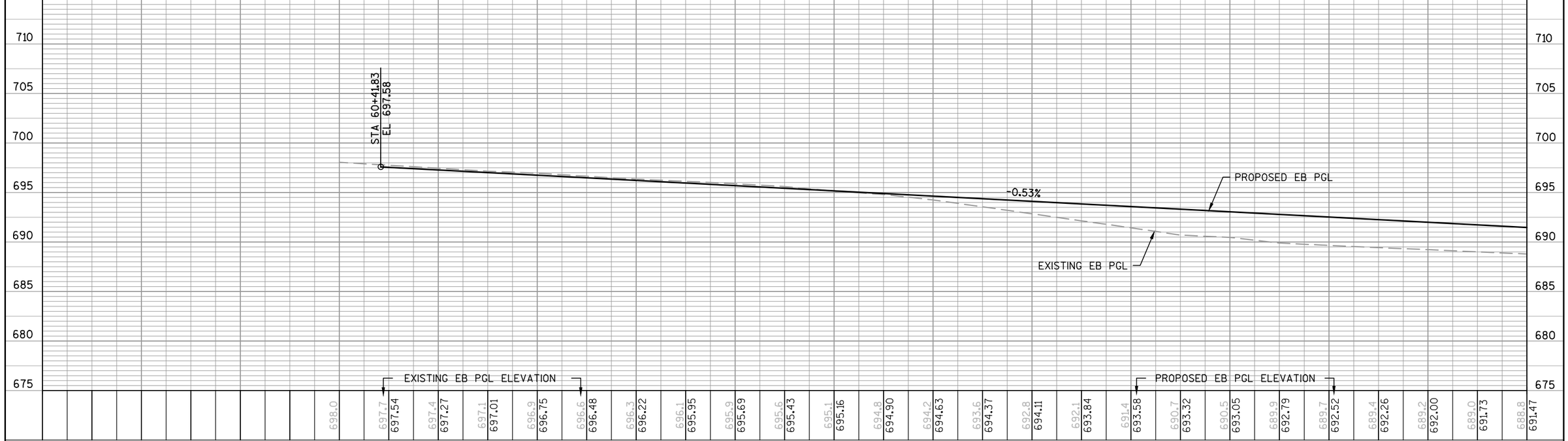


PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	PLAN AND PROFILE: RYAN ROAD EB	SHEET 407	E

BENCHMARKS

NO.	STATION	OFFSET	DESCRIPTION	ELEV.
1876	62+29.57	62.1 LT	TOP NUT FIRE HYDRANT	699.23
2165	69+26.99	1.4 LT	LIGHT POLE BOLT	692.00





PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	PLAN AND PROFILE: RYAN ROAD EB	SHEET 408	E

WETLANDS

ALDI INC.

RYAN ROAD STORAGE

COBALT INVESTMENTS

CMSTP&P RR

N

MILWAUKEE COUNTY

SLOPE INTERCEPTS

PROPOSED R/W

PROPOSED TLE

EXISTING R/W

WB PGL

R/L RYAN ROAD

WB RYAN ROAD

EB PGL

EB RYAN ROAD

BM 2431

BM 3610

MATCHLINE 72EB+00

MATCHLINE 87EB+00

74RYN

76RYN

78RYN

80RYN

82RYN

84RYN

86RYN

PROPOSED PLE

EVERSHINE CORP.

EVERSHINE CORP.

E. BARTEL

KOEHLER

N. BARTEL

BARTEL - KOEHLER

PARKSIDE LAND GROUP

5

5

BENCHMARKS

NO.	STATION	OFFSET	DESCRIPTION	ELEV.
2431	78+23.35	59.6 RT	TOP NUT FIRE HYDRANT	695.80
3610	84+10.81	1.4 LT	CHIS. □ LIGHT POLE BASE	678.43

VCL = 220.00
K = 98.13
VPC STA 73+40.00
VPC EL 690.73
VPT STA 75+60.00
VPT EL 692.04
VPI STA 74+50.00
VPI EL 690.15
VPC STA 75+72.50
VPC EL 692.25
VPI STA 76+60.00
VPI EL 693.75
VPC STA 77+57.50
VPC EL 693.44
VPT STA 77+47.50
VPT EL 693.47
VPI STA 78+95.00
VPI EL 693.00
1.71%
-0.32%
K = 86.06
VCL = 175.00
K = 80.28
VCL = 275.00
PROPOSED EB PGL
EXISTING EB PGL
-3.74%
VPT STA 80+32.50
VPT EL 687.85
VPC STA 81+44.05
VPC EL 683.67
VCL = 490.00
K = 93.46
VPT STA 86+34.05
VPT EL 678.17
VPI STA 83+89.05
VPI EL 674.50
EXISTING EB PGL ELEVATION
PROPOSED EB PGL ELEVATION

705 700 695 690 685 680 675 670

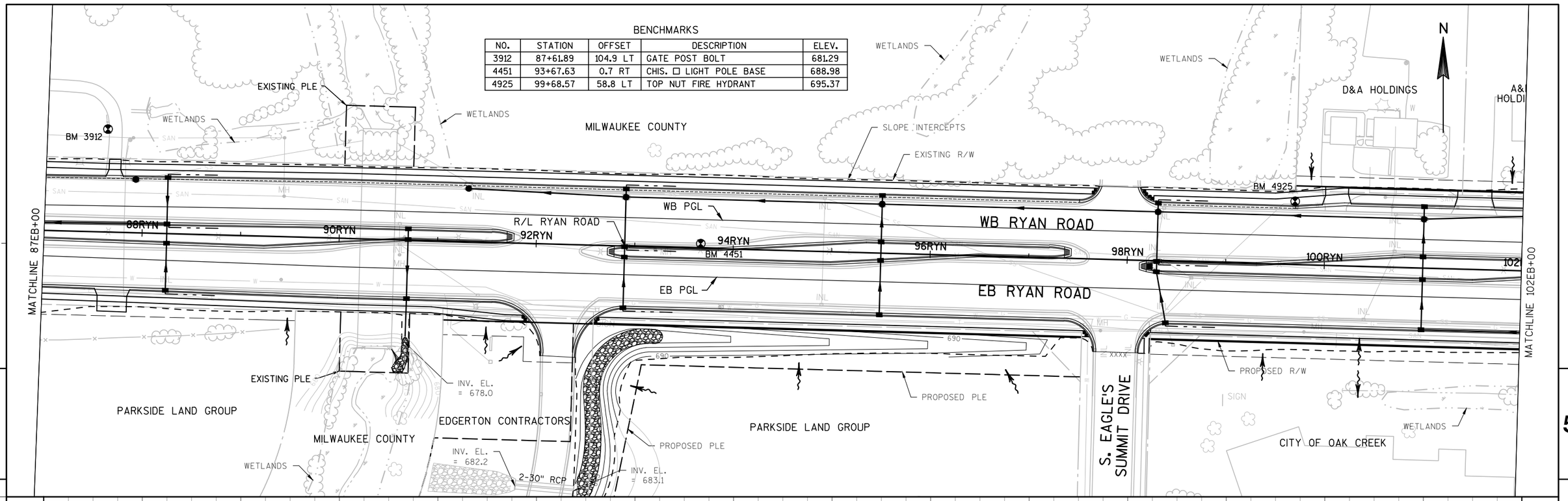
72+00	73+00	74+00	75+00	76+00	77+00	78+00	79+00	80+00	81+00	82+00	83+00	84+00	85+00	86+00	87+00
688.8	688.6	688.4	688.8	689.2	689.9	690.7	691.4	692.2	692.7	693.0	692.9	692.7	692.1	691.6	690.5	689.2	687.7	685.8	683.9	682.1	680.5	679.1	678.1	677.4	677.0	677.4	677.9	678.8	679.5
691.47	691.21	690.94	690.68	690.60	690.77	691.19	691.87	692.68	693.23	693.49	693.46	693.19	692.61	691.72	690.52	689.00	687.20	685.32	683.45	681.75	680.31	679.14	678.23	677.59	677.23	677.12	677.29	677.72	678.41	679.16

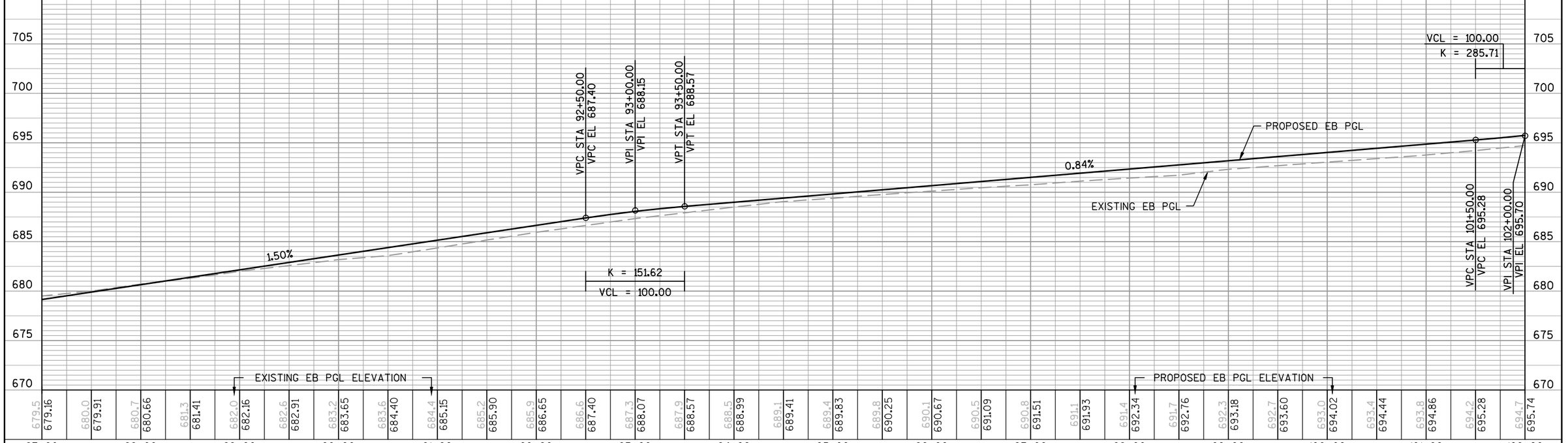
PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	PLAN AND PROFILE: RYAN ROAD EB	SHEET 409 E

FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\ACAD-050101_PP.DWG PLOT DATE : 10/01/2013 PLOT BY : JGRUBER PLOT NAME : ---------- PLOT SCALE : 1:100

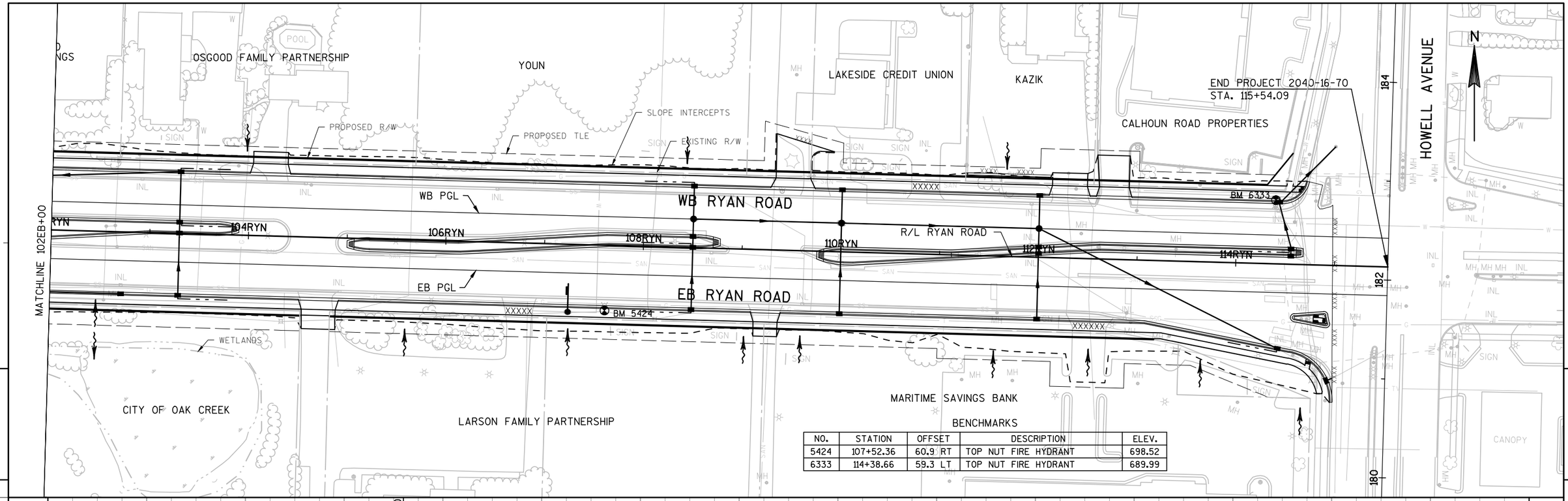
BENCHMARKS

NO.	STATION	OFFSET	DESCRIPTION	ELEV.
3912	87+61.89	104.9 LT	GATE POST BOLT	681.29
4451	93+67.63	0.7 RT	CHIS. □ LIGHT POLE BASE	688.98
4925	99+68.57	58.8 LT	TOP NUT FIRE HYDRANT	695.37





PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	PLAN AND PROFILE: RYAN ROAD EB	SHEET 410	E



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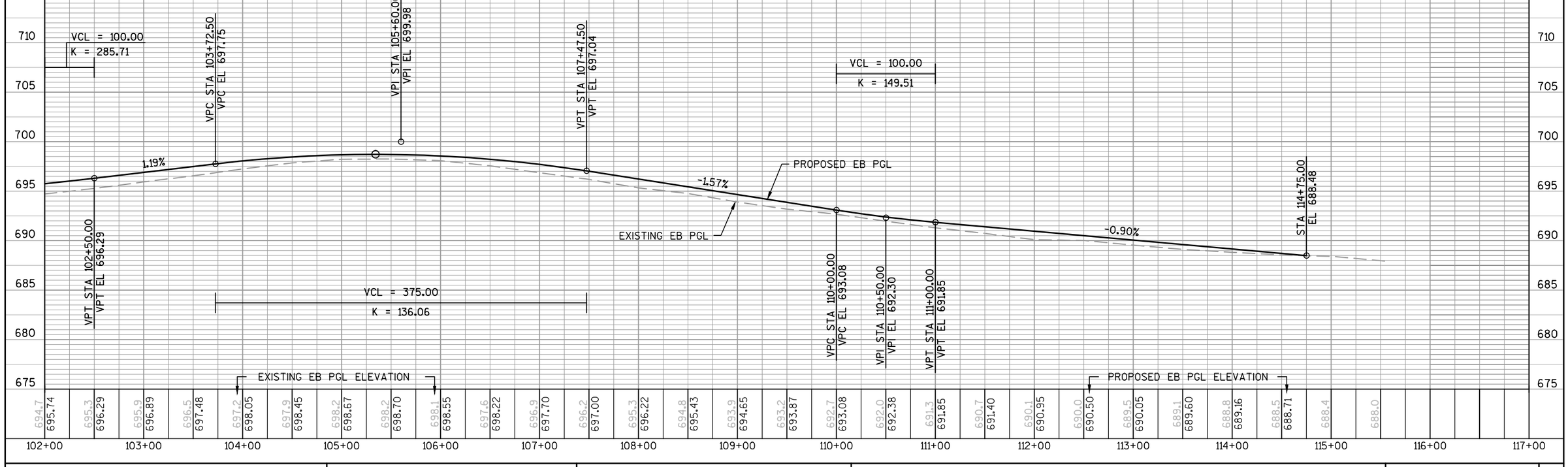
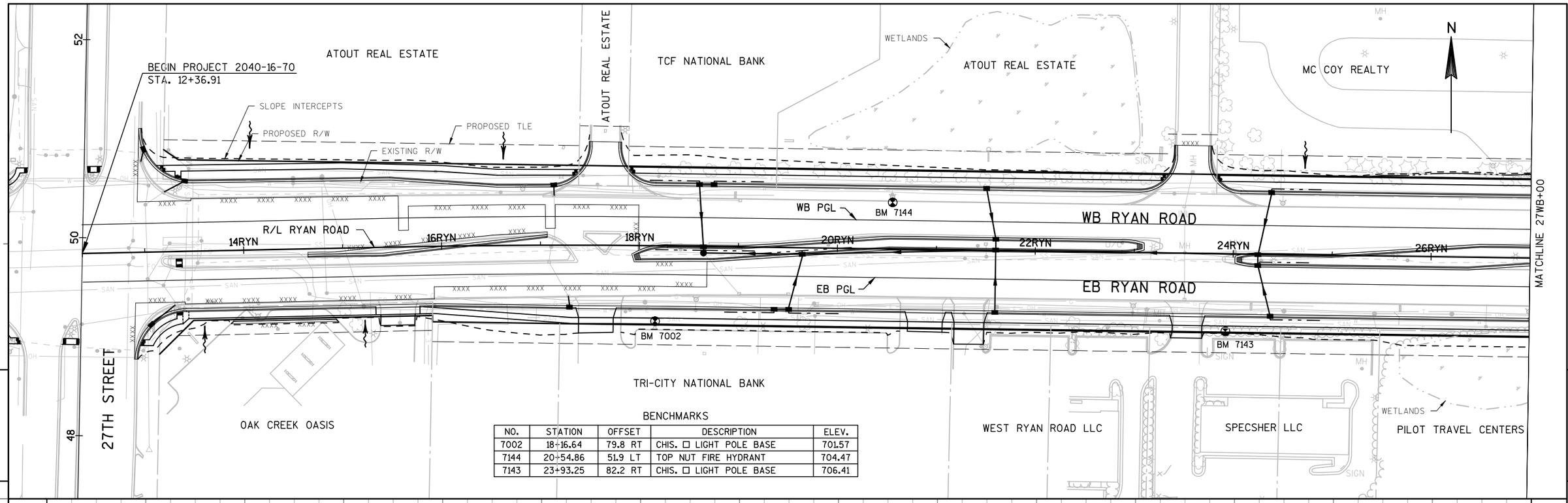
BENCHMARKS

NO.	STATION	OFFSET	DESCRIPTION	ELEV.
5424	107+52.36	60.9 RT	TOP NUT FIRE HYDRANT	698.52
6333	114+38.66	59.3 LT	TOP NUT FIRE HYDRANT	689.99

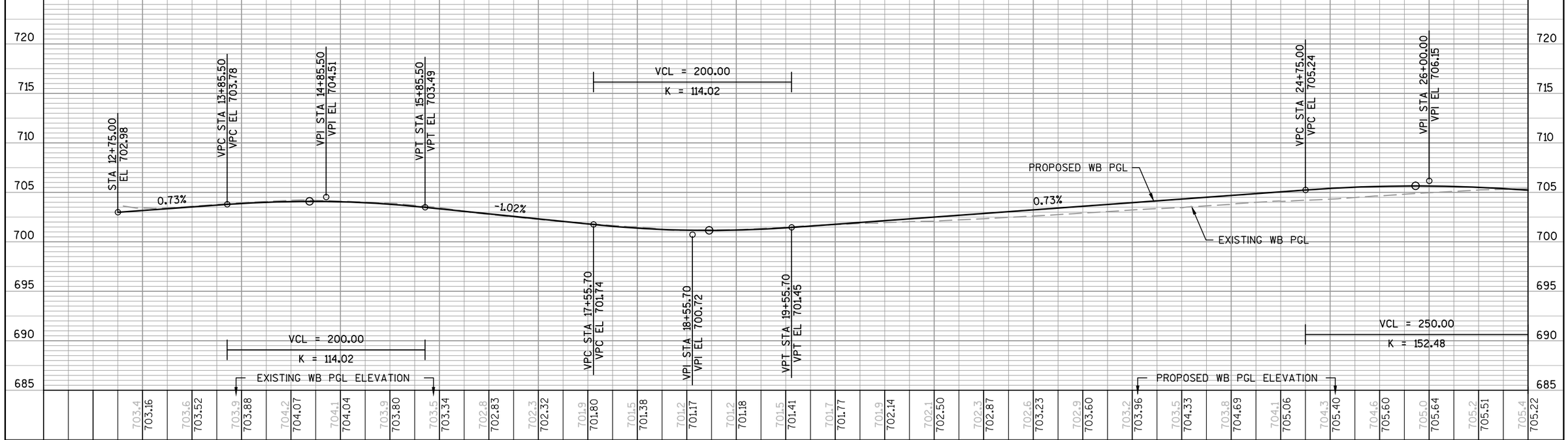


PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	PLAN AND PROFILE: RYAN ROAD EB	SHEET 411	E

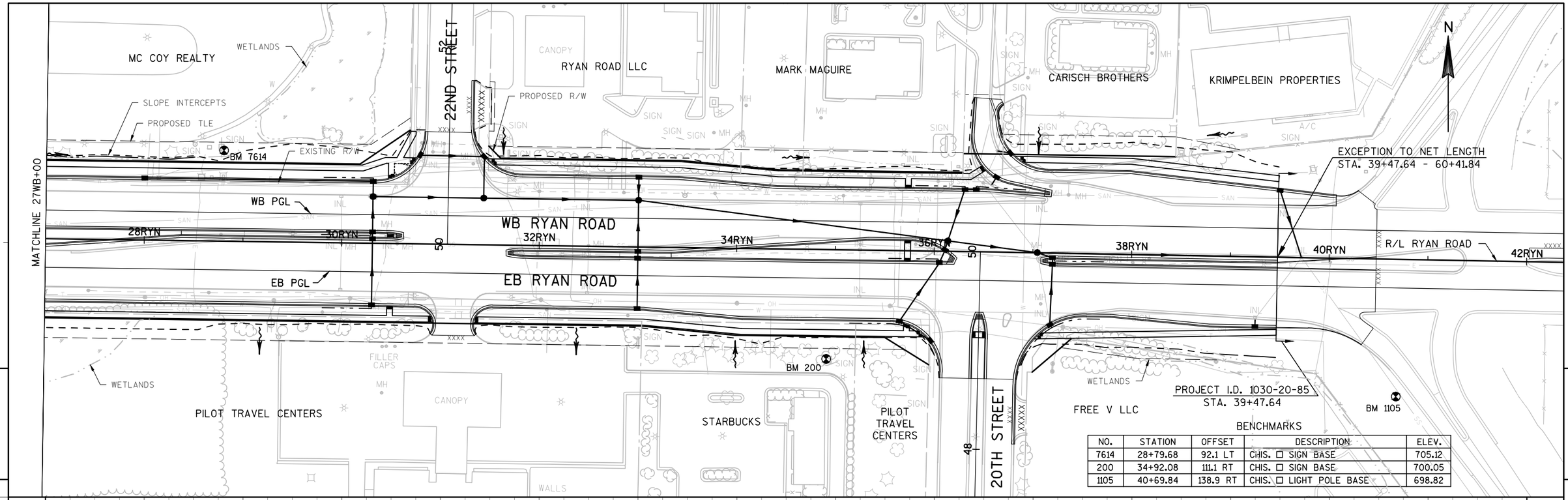


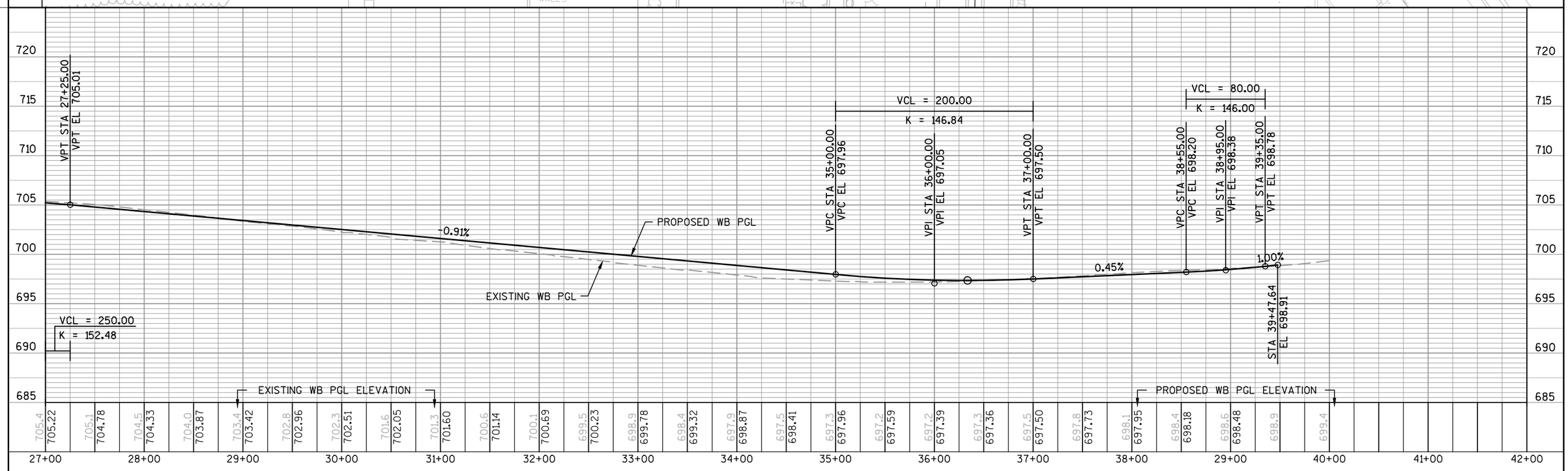
BENCHMARKS

NO.	STATION	OFFSET	DESCRIPTION	ELEV.
7002	18+16.64	79.8 RT	CHIS. □ LIGHT POLE BASE	701.57
7144	20+54.86	51.9 LT	TOP NUT FIRE HYDRANT	704.47
7143	23+93.25	82.2 RT	CHIS. □ LIGHT POLE BASE	706.41



PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	PLAN AND PROFILE: RYAN ROAD WB	SHEET 412	E

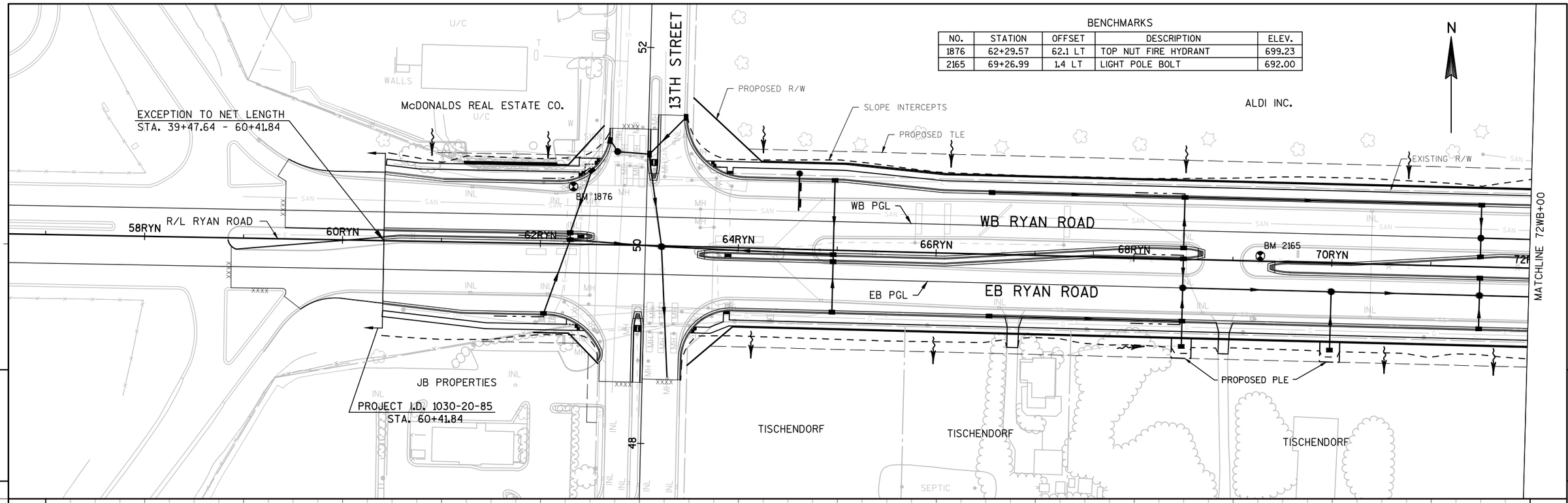


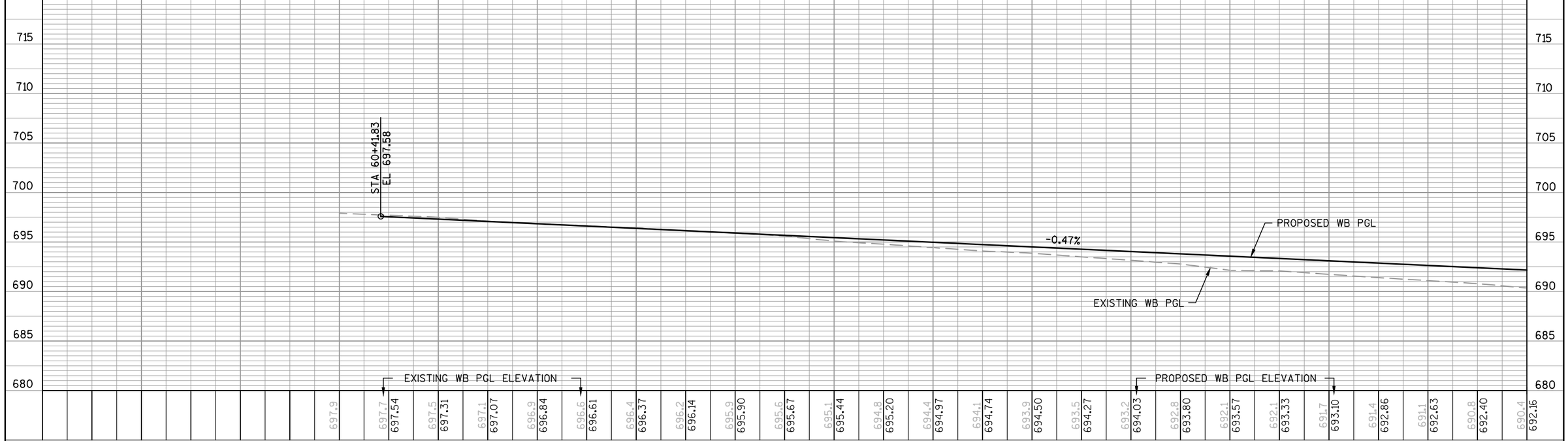


PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	PLAN AND PROFILE: RYAN ROAD WB	SHEET 413	E

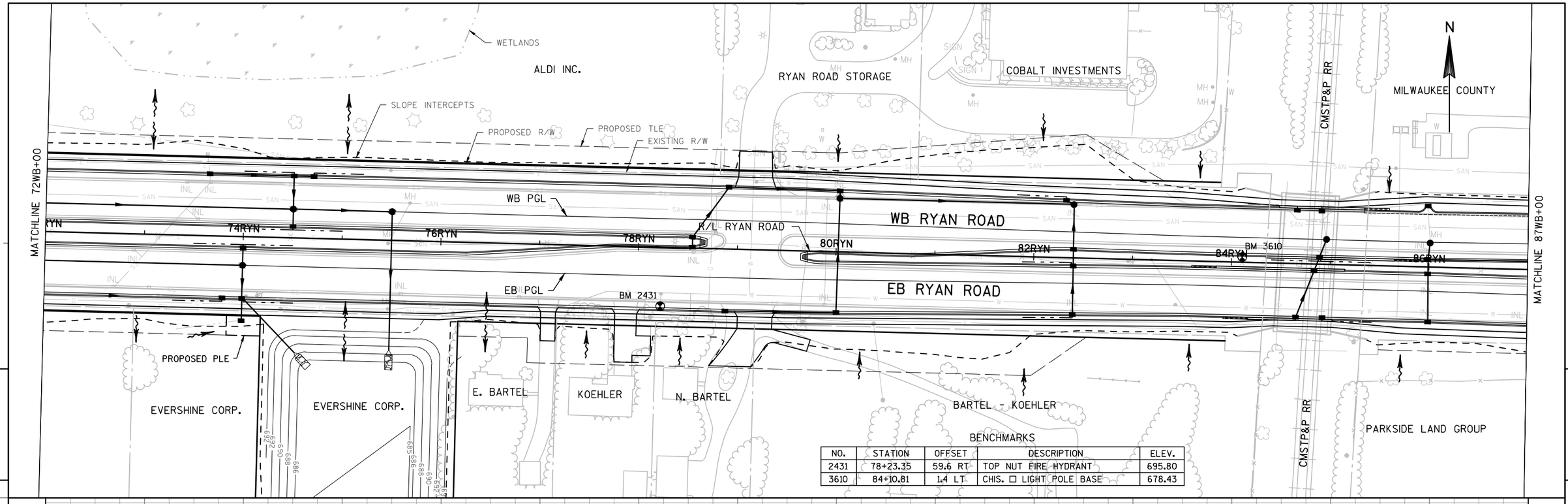
BENCHMARKS

NO.	STATION	OFFSET	DESCRIPTION	ELEV.
1876	62+29.57	62.1 LT	TOP NUT FIRE HYDRANT	699.23
2165	69+26.99	1.4 LT	LIGHT POLE BOLT	692.00





PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	PLAN AND PROFILE: RYAN ROAD WB	SHEET 414 E

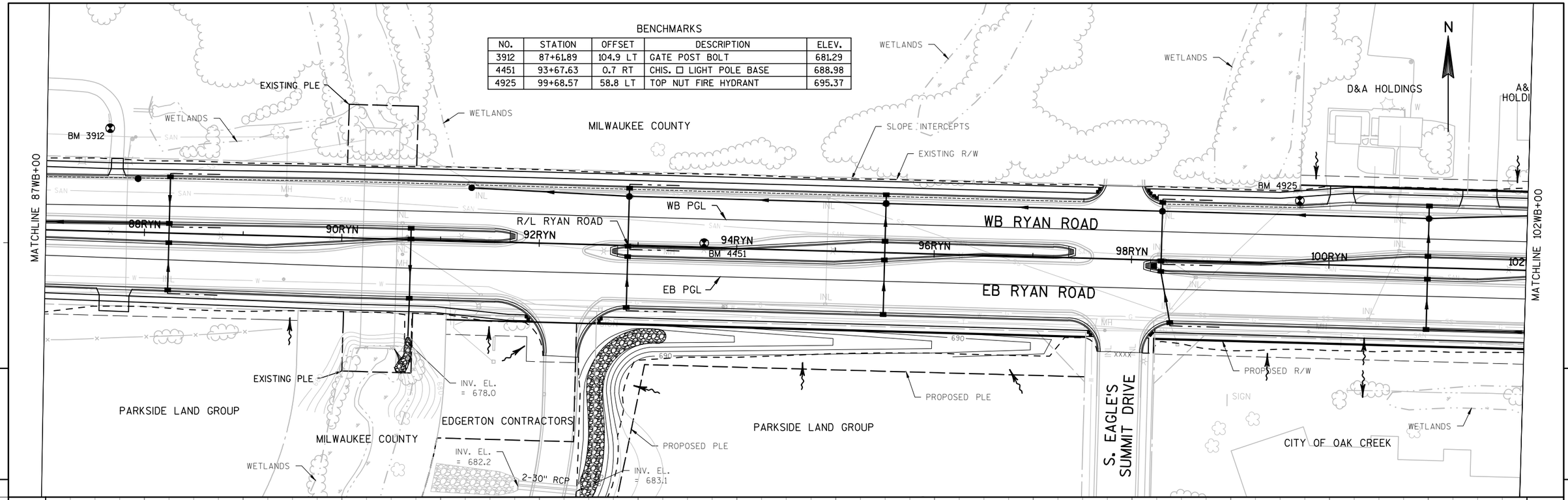


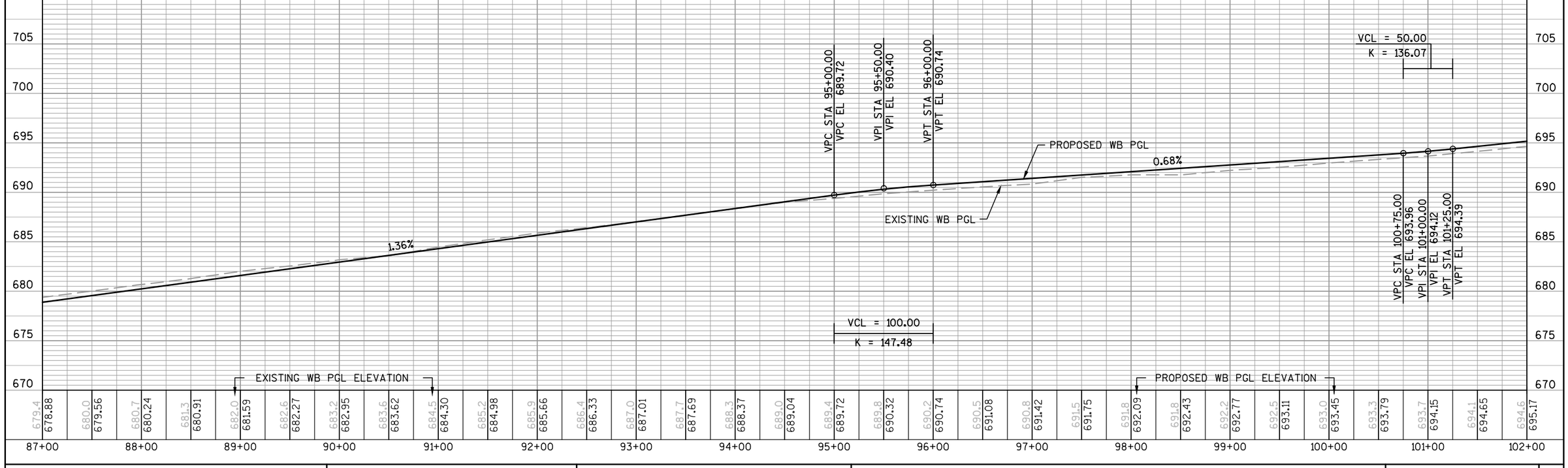
PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	PLAN AND PROFILE: RYAN ROAD WB	SHEET 415 E

FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\ACAD-050101_PP.DWG PLOT DATE : 10/01/2013 PLOT BY : JGRUBER PLOT NAME : ---------- PLOT SCALE : 1:100

BENCHMARKS

NO.	STATION	OFFSET	DESCRIPTION	ELEV.
3912	87+61.89	104.9 LT	GATE POST BOLT	681.29
4451	93+67.63	0.7 RT	CHIS. □ LIGHT POLE BASE	688.98
4925	99+68.57	58.8 LT	TOP NUT FIRE HYDRANT	695.37





PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	PLAN AND PROFILE: RYAN ROAD WB	SHEET 416	E

OSGOOD FAMILY PARTNERSHIP

YOUN

LAKESIDE CREDIT UNION

KAZIK

CALHOUN ROAD PROPERTIES

HOWELL AVENUE

MATCHLINE 102WB+00

PROPOSED R/W

PROPOSED TLE

SLOPE INTERCEPTS

EXISTING R/W

WB PGL

WB RYAN ROAD

R/L RYAN ROAD

EB PGL

EB RYAN ROAD

104RYN

106RYN

108RYN

110RYN

112RYN

114RYN

BM 5424

BM 5333

END PROJECT 2040-16-70
STA. 115+54.09

WETLANDS

CITY OF OAK CREEK

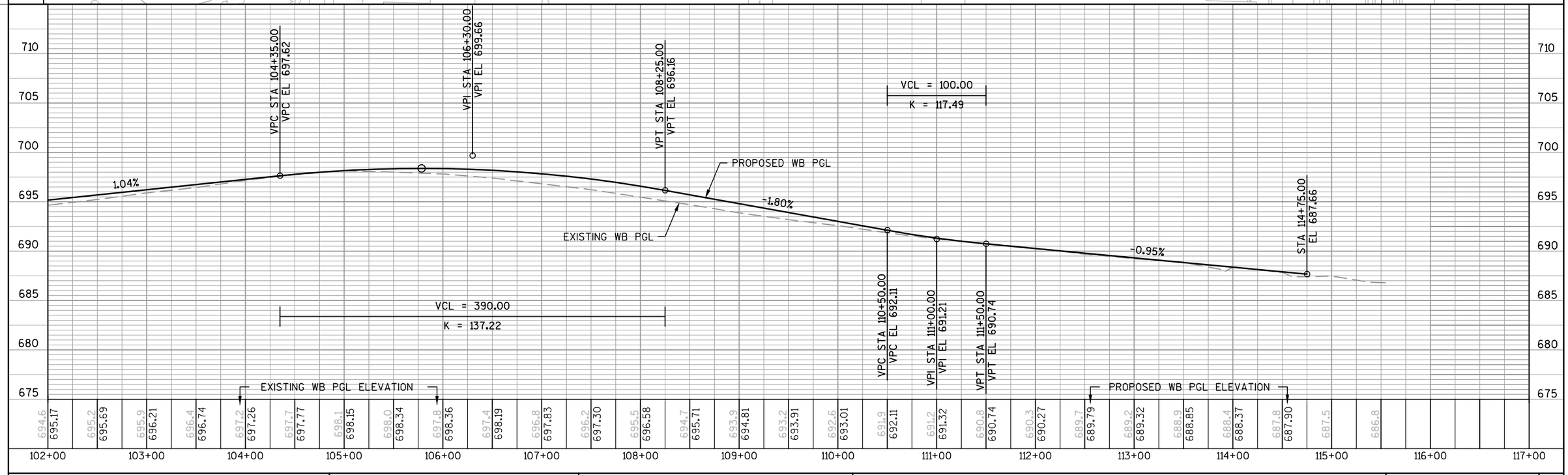
LARSON FAMILY PARTNERSHIP

MARITIME SAVINGS BANK

CANOPY

BENCHMARKS

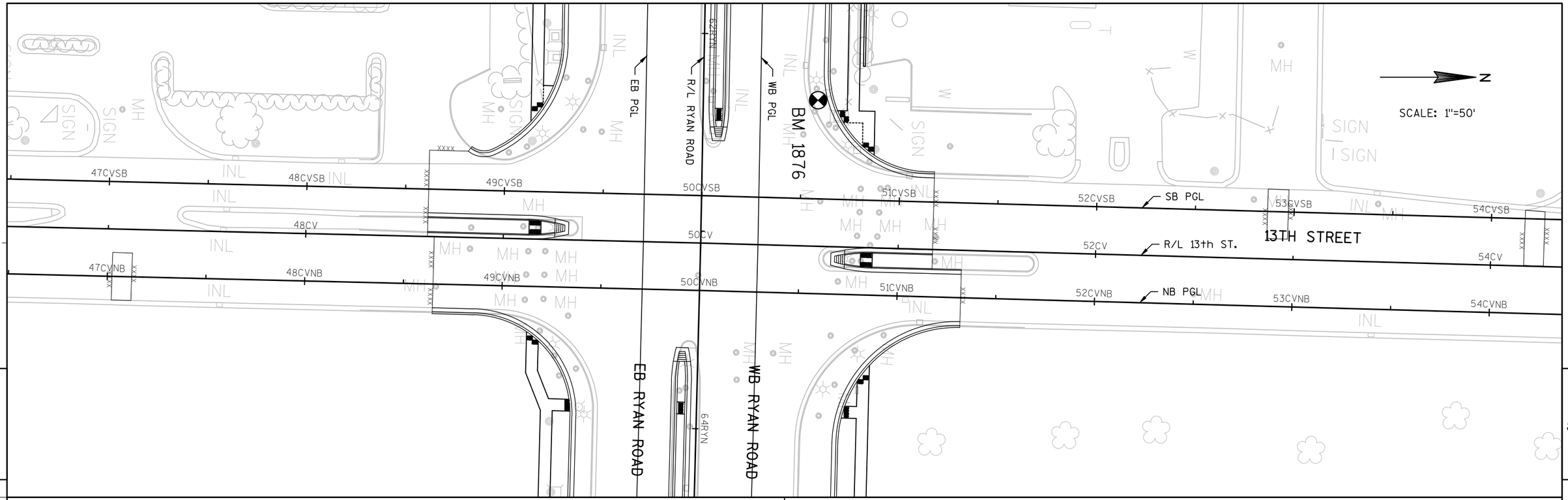
NO.	STATION	OFFSET	DESCRIPTION	ELEV.
5424	107+52.36	60.9 RT	TOP NUT FIRE HYDRANT	698.52
6333	114+38.66	59.3 LT	TOP NUT FIRE HYDRANT	689.99

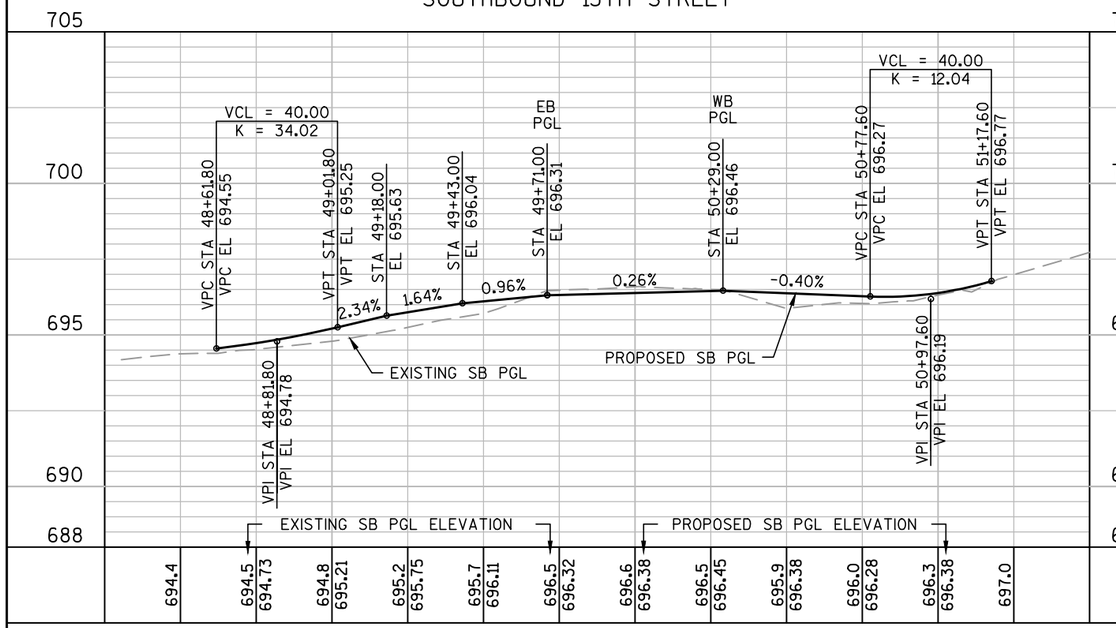


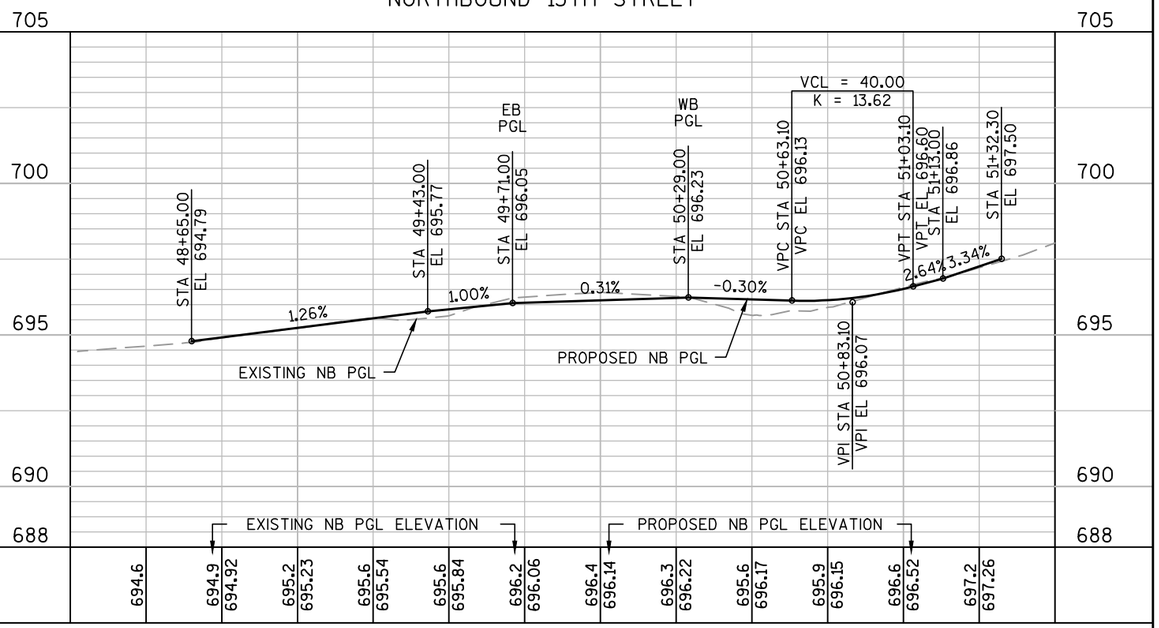
PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN ROAD	COUNTY: MILWAUKEE	PLAN AND PROFILE: RYAN ROAD WB	SHEET 417 E

FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\ACAD-050101_PP.DWG PLOT DATE : 10/01/2013 PLOT BY : JGRUBER PLOT NAME : ---------- PLOT SCALE : 1:100

WISDOT/CADDS SHEET 44







PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD.	COUNTY: MILWAUKEE	PLAN AND PROFILE: 13th STREET	SHEET 418	E

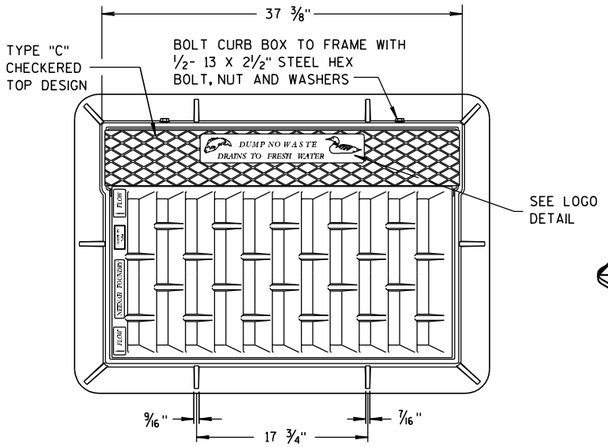
Standard Detail Drawing List

08A05-18A	INLET COVERS TYPE A, H, A-S, & H-S
08A05-18B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08A05-18C	INLET COVERS TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S
08A05-18D	INLET COVER, TYPE BW, Z MANHOLE COVERS, TYPE K, J, J-S, L & M
08B09-01	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
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
08D15-04A	EDGEDRAIN OUTLET AND OUTFALL MARKERS
08D15-04B	EDGEDRAIN AND BASE AGGREGATE OPEN GRADED
08D16-10	CONCRETE GUTTER, CURB AND GUTTER AND PAVEMENT TIES
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E14-01	TRACKING PAD
08F02-01	APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
08F05-01	CLASS "B" BEDDING FOR CULVERT PIPE OR STORM SEWER
09B02-07	CONDUIT
09B04-10	PULL BOX
09C02-06	CONCRETE BASES, TYPES 1, 2 & 5
09C03-03	TRANSFORMER/PEDESTAL BASES
09C06-05	CONCRETE CONTROL CABINET BASE, TYPE 9, SPECIAL
09C12-03A	CONCRETE BASE TYPE 13
09C12-03B	CONCRETE BASE TYPE 13
09D01-04	CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)
09E01-12C	POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS, TYPE 4
09E01-12D	POLE MOUNTINGS FOR LIGHTING UNITS, TYPE 5 (30 FEET)
09E01-12G	HARDWARE DETAILS FOR POLE MOUNTINGS
09E03-04	NON-FREEWAY LIGHTING UNIT POLE WIRING
09E06-05	TRAFFIC SIGNAL STANDARD POLY BRACKET MOUNTINGS (TYPICAL) 13 FT. OR 15 FT.
09E07-05	TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER TYPICAL MOUNTING DETAILS
09E08-04C	TYPE 12 POLE 35'-55' MONOTUBE ARM
09E08-04D	TYPE 13 POLE 35'-55' MONOTBE ARM
09E08-04E	GENERAL NOTES AND HARDWARE DETAILS FOR TYPE 9, 10, 12 & 13 POLES WITH MONOTUBE ARMS
09F09-03	LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW CONCRETE PAVEMENT)
09F15-03A	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)
09F15-03B	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
09G01-03A	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-03B	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-03C	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-03D	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-03E	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-03F	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-03G	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
11B02-02	CONCRETE MEDIAN NOSE
12A03-10	NAME PLATE (STRUCTURES)
12A04-03	STRUCTURE IDENTIFICATION PLAQUES, RAMP GATES, SIGN BRIDGES & OVERHEAD SIGN SUPPORTS & TRAFFIC SIGNALS
13C01-16	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C09-10A	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C09-10B	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C09-10C	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C18-02A	CONCRETE PAVEMENT JOINTING
13C18-02B	CONCRETE PAVEMENT STEEL REINFORCEMENT
13C18-02C	CONCRETE PAVEMENT JOINT TIES
13C18-02D	CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES
14A02-01	TREE PLANTING DETAIL
14B08-01A	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-01B	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-01C	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-01D	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-01E	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

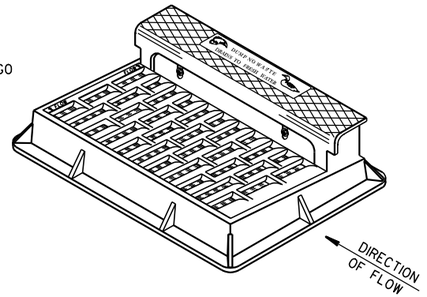
6

Standard Detail Drawing List

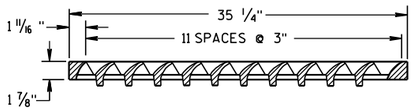
14B32-01A	CONCRETE BARRIER SINGLE SLOPE (CBSS)
14B32-01B	CONCRETE BARRIER SINGLE SLOPE (CBSS)
14B32-01C	CONCRETE BARRIER SINGLE SLOPE (CBSS)
14B32-01D	CONCRETE BARRIER SINGLE SLOPE (CBSS)
14B34-01A	32", 36" & 42" CONCRETE BARRIER SINGLE SLOPE CLASS B
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15B03-12A	FENCE CHAIN LINK
15B03-12B	FENCE CHAIN LINK
15C05-01	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C07-12A	PAVEMENT MARKING SYMBOLS
15C07-12B	PAVEMENT MARKING WORDS
15C07-12C	PAVEMENT MARKING ARROWS
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C08-16B	PAVEMENT MARKING (INTERSECTIONS)
15C08-16E	PAVEMENT MARKING (LEFT TURN LANE)
15C12-03	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
15C18-03	MEDIAN ISLAND MARKING
15C23-02	30" DIAMETER CANTILEVER OVERHEAD SIGN SUPPORT BASE
15C24-02	36" DIAMETER CANTILEVER OVERHEAD SIGN SUPPORT BASE
15C27-01	DOUBLE ARROW WARNING SIGN PLACEMENT
15C33-01	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D06-02	TRAFFIC CONTROL, TWO LANE TWO WAY OPERATION
15D20-01	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D21-01	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D28-01	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D30-01	TRAFFIC CONTROL, SIDEWALK CLOSURE
16A01-06	LANDMARK REFERENCE MONUMENTS AND COVERS

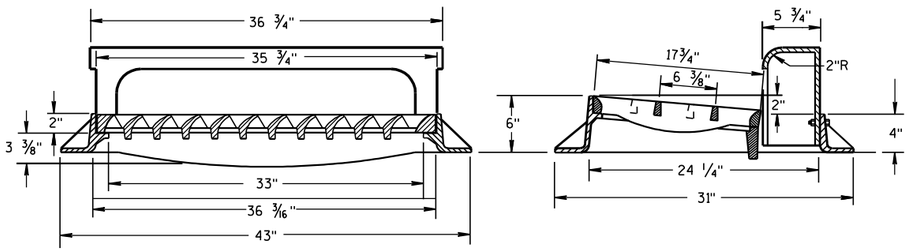


NOTE:
GRATE IS REVERSIBLE.



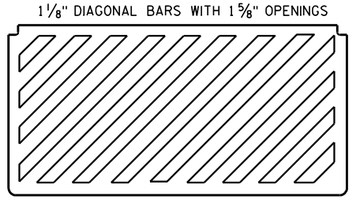
NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"





TYPE "H"

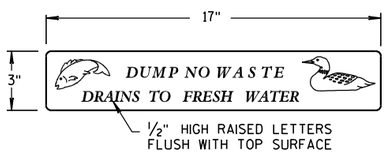
(APPROXIMATE WEIGHT 441 LBS.)
FRAME..... 181 LBS.
GRATE..... 146 LBS.
CURB BOX..... 114 LBS.



SPECIAL GRATE FOR TYPE "H" COVER

(MEASURES 35 1/4" X 17 3/4" X 2")
(APPROXIMATE WEIGHT 159 LBS.)
GRATE..... 159 LBS.

(NOTED AS TYPE H-S ON DRAINAGE TABLE)



LOGO DETAIL

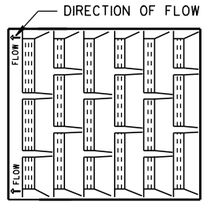
GENERAL NOTES

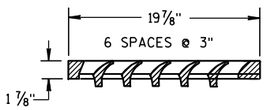
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

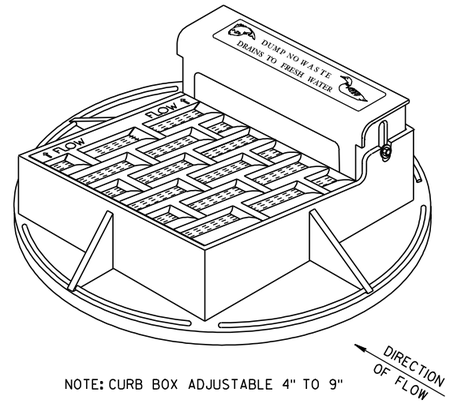
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

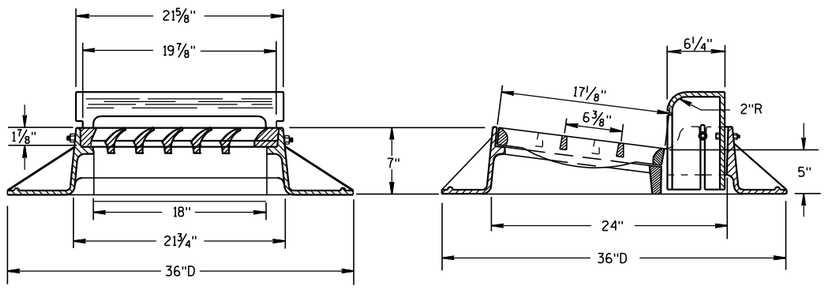
THE ACTUAL WEIGHT OF COVERS MAY VARY WITHIN 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.





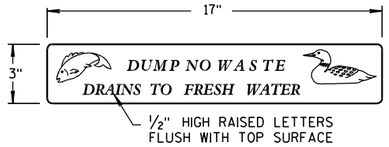


NOTE: CURB BOX ADJUSTABLE 4" TO 9"



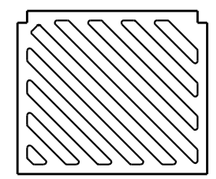
TYPE "A"

(APPROXIMATE WEIGHT 340 LBS.)
FRAME..... 185 LBS.
GRATE..... 71 LBS.
CURB BOX..... 84 LBS.



LOGO DETAIL

NOTE:
GRATE IS REVERSIBLE.



SPECIAL GRATE FOR TYPE "A" COVER

(MEASURES 19 3/4" X 17" X 1 7/8"
GRATE..... 84 LBS.

(NOTED AS TYPE A-S ON DRAINAGE TABLE)

INLET COVERS
TYPE A, H, A-S, & H-S

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

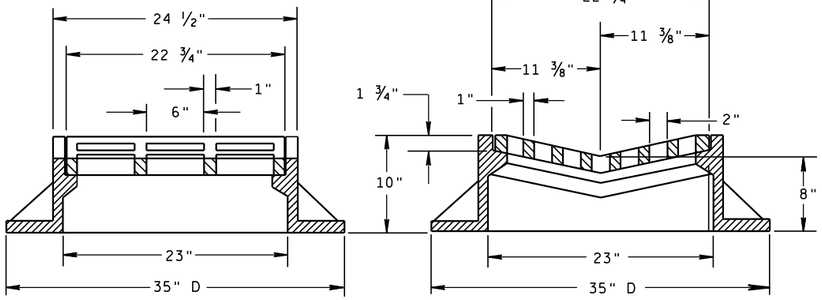
APPROVED
6/5/2012 DATE
/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER
421
FHWA

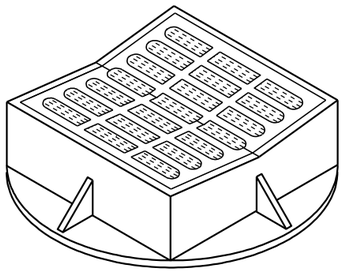
6

S.D.D. 8 A 5-18a

6

S.D.D. 8 A 5-18a

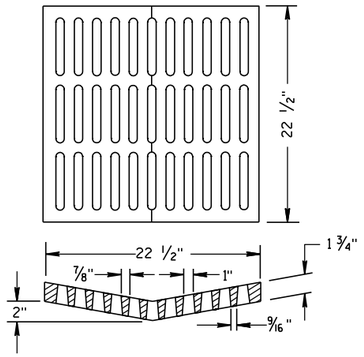




TYPE "B"

(APPROXIMATE WEIGHT 405 LBS.)

FRAME..... 294 LBS.
GRATE..... 111 LBS.

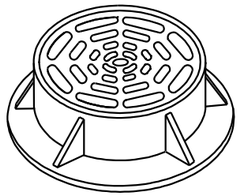


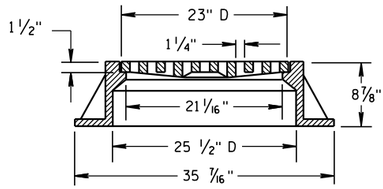
ALTERNATIVE GRATE FOR TYPE "B" COVER

(APPROXIMATE GRATE WEIGHT 134 LBS.)

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS POSSIBLE.

NOTED AS TYPE B-A ON THE DRAINAGE TABLE





TYPE "C"

(APPROXIMATE WEIGHT 259 LBS.)

FRAME..... 152 LBS.
GRATE..... 107 LBS.

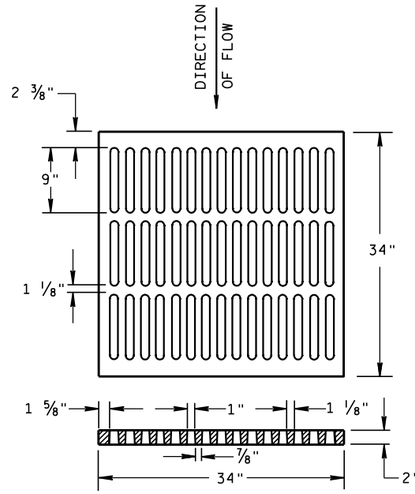
GENERAL NOTES

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

DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

THE ACTUAL WEIGHT OF COVERS MAY VARY WITHIN 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.

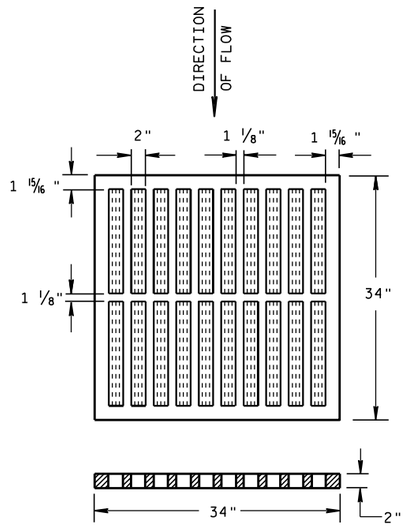


ALTERNATIVE TYPE "MS"

(APPROXIMATE GRATE WEIGHT 329 LBS.)

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS PERMITTED

NOTED AS TYPE MS-A ON THE DRAINAGE TABLE

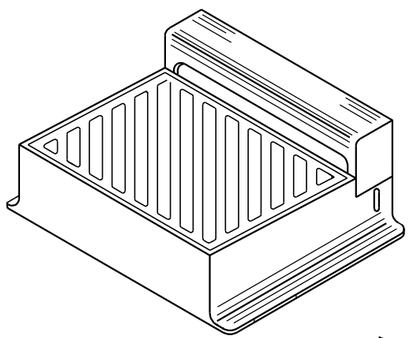


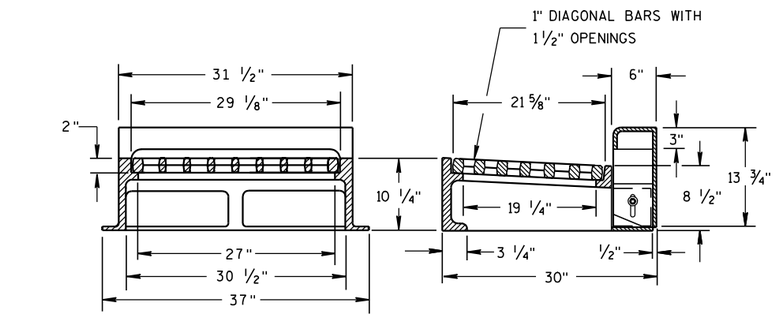
TYPE "MS"

(APPROXIMATE GRATE WEIGHT 268 LBS.)

USE ON FREEWAYS AND EXPRESSWAYS

NOTED AS TYPE MS ON DRAINAGE TABLE





NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

DIRECTION OF FLOW

DIAGONAL SLOTS, SHALL BE ORIENTED TO THE DIRECTION OF FLOW AS ILLUSTRATED. GRATES ARE MANUFACTURED TO BE REVERSIBLE.

TYPE "WM"

(APPROXIMATE WEIGHT 648 LBS.)

FRAME..... 355 LBS.
GRATE..... 156 LBS.
CURB BOX..... 137 LBS.

INLET COVERS
TYPE B, B-A, C, MS, MS-A, & WM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/5/2012
DATE

/S/ Jerry H. Zaas
ROADWAY STANDARDS ENGINEER

422

ENT

FHWA

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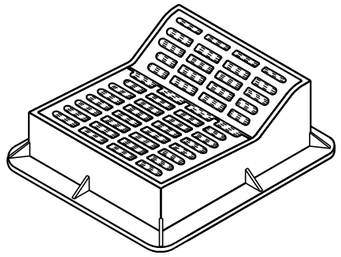
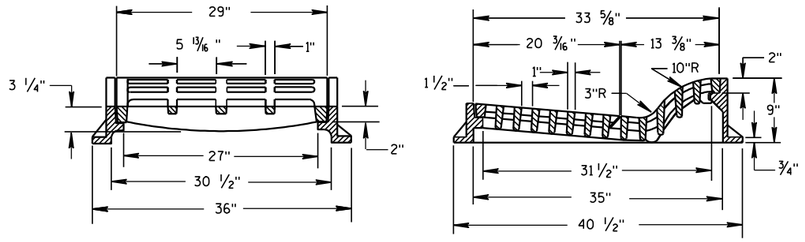
S.D.D. 8 A 5-18b

6

S.D.D. 8 A 5-18b



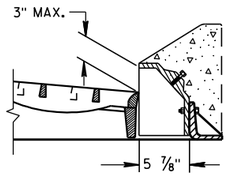


TYPE "F"

(APPROXIMATE WEIGHT 644 LBS.)

FRAME.....302 LBS.
GRATE.....160 LBS.
GRATE.....182 LBS.

USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.



ALTERNATIVE CURB BOX FOR TYPE "HM" COVER

(APPROXIMATE WEIGHT CURB BOX 68 LBS.)

USE WITH TYPES G & J CONCRETE CURB & GUTTER, 30 INCH
NOTED AS TYPE HM-GJ ON DRAINAGE TABLE

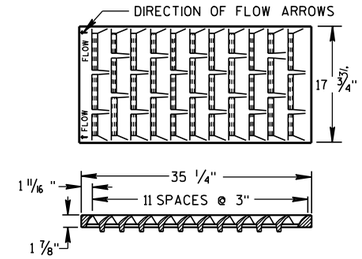
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM-GJ" COVER
NOTED AS TYPE HM-GJ-S ON DRAINAGE TABLE

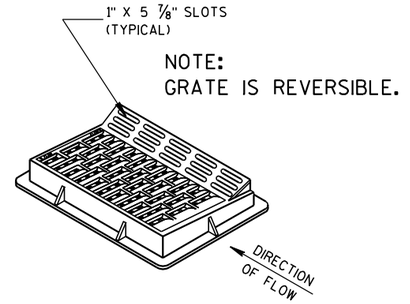
GENERAL NOTES

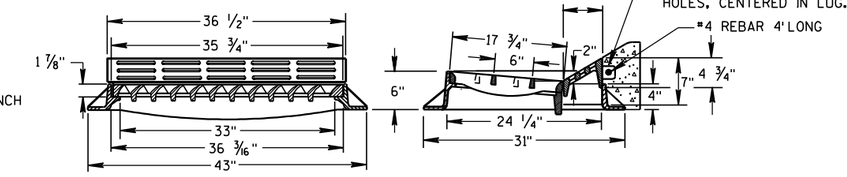
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

THE ACTUAL WEIGHT OF COVERS MAY VARY WITHIN 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.







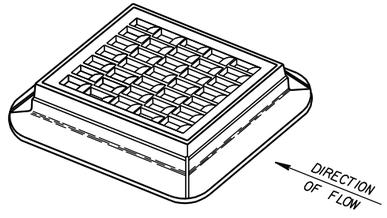
TYPE "HM"

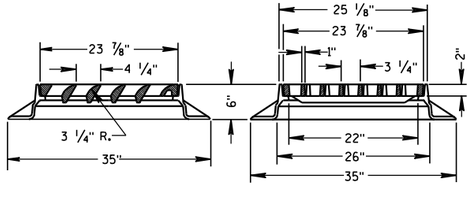
(APPROXIMATE WEIGHT 414 LBS.)

FRAME..... 181 LBS.
GRATE..... 159 LBS.
CURB BOX..... 74 LBS.

USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.

NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM" COVER
NOTED AS TYPE HM-S ON DRAINAGE TABLE

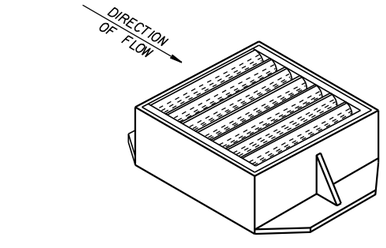


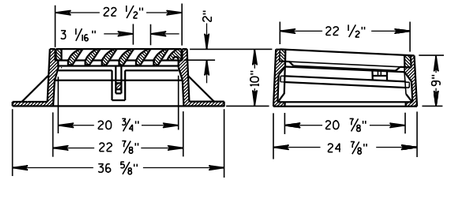


TYPE "S"

(APPROXIMATE WEIGHT 333 LBS.)

FRAME.....164 LBS.
GRATE..... 169 LBS.

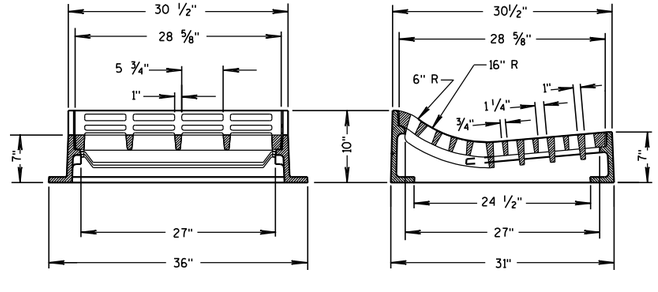


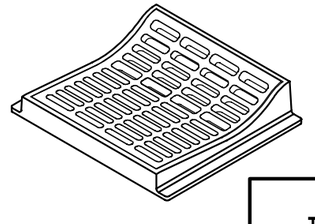


TYPE "V"

(APPROXIMATE WEIGHT 410 LBS.)

FRAME..... 269 LBS.
GRATE..... 136 LBS.
SAFETY BAR..... 5 LBS.





TYPE "T"

(APPROXIMATE WEIGHT 530 LBS.)

FRAME.....270 LBS.
GRATE.....260 LBS.

USE WITH TYPES R & T CONCRETE CURB & GUTTER, 36 INCH.

INLET COVERS TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/5/2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

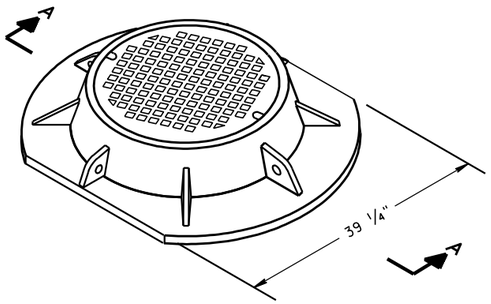
FHWA

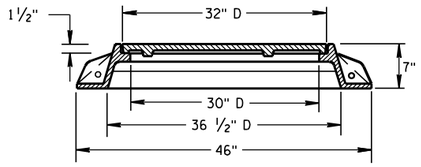
6

S.D.D. 8 A 5-18c

6

S.D.D. 8 A 5-18c



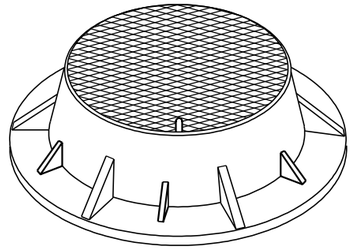


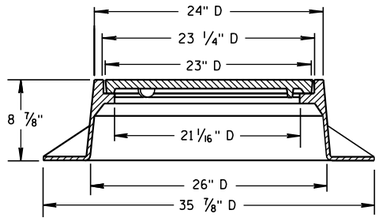
SECTION A-A

TYPE "K"

(APPROXIMATE WEIGHT 439 LBS.)

FRAME.....216 LBS.
LID.....223 LBS.

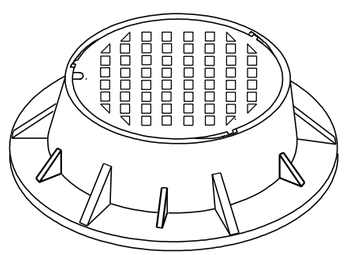


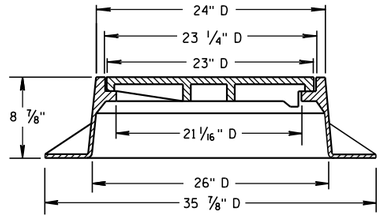


TYPE "J"

(APPROXIMATE WEIGHT 267 LBS.)

FRAME.....152 LBS.
LID.....115 LBS.





TYPE "J" SPECIAL

TYPE "B" NON-ROCKING SELF-SEAL LID

(APPROXIMATE WEIGHT 267 LBS.)

FRAME.....158 LBS.
LID.....109 LBS.

(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)

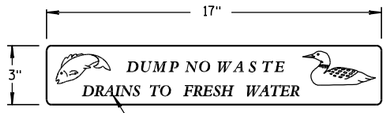
GENERAL NOTES

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

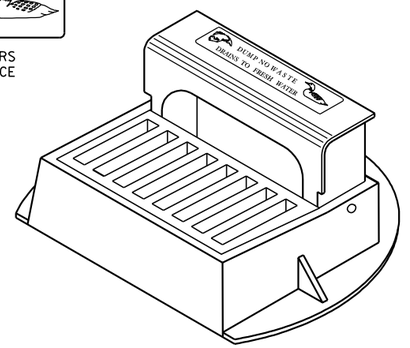
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

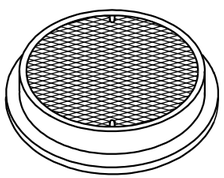
ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

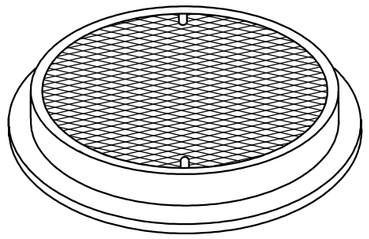
THE ACTUAL WEIGHT OF COVERS MAY VARY WITH 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.

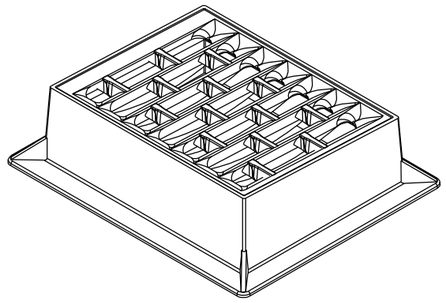


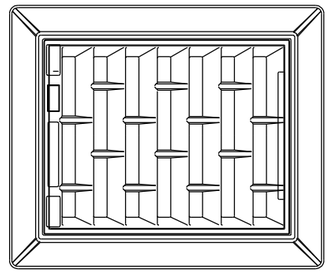
LOGO DETAIL

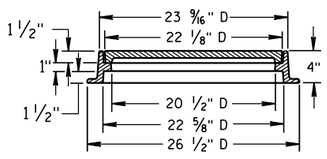








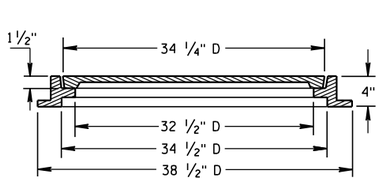




TYPE "L"

(APPROXIMATE WEIGHT 158 LBS.)

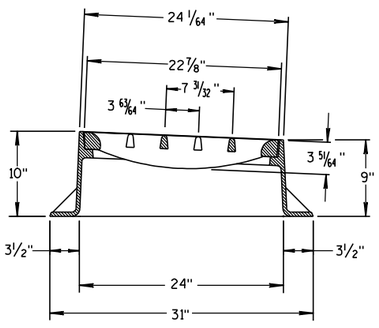
FRAME.....81 LBS.
LID.....77 LBS.

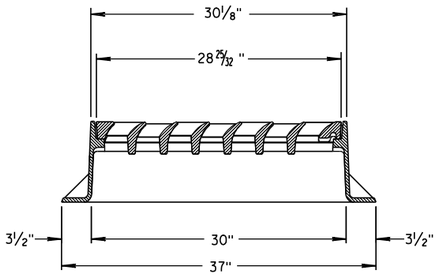


TYPE "M"

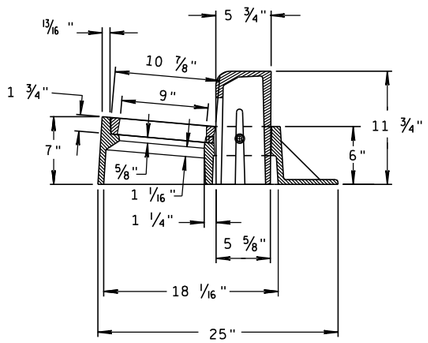
(APPROXIMATE WEIGHT 377 LBS.)

FRAME..... 125 LBS.
LID..... 252 LBS.





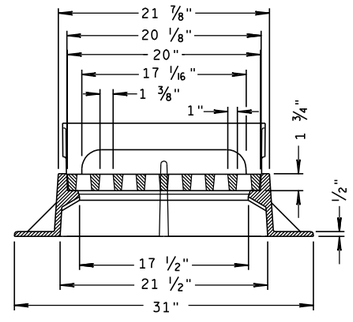
INLET COVER TYPE "BW"



INLET COVER TYPE "Z"

(APPROXIMATE WEIGHT 344 LBS.)

FRAME.....206 LBS.
GRATE..... 46 LBS.
CURB BOX..... 92 LBS.



INLET COVERS, TYPE BW, Z
MANHOLE COVERS, TYPE K, J, J-S, L & M

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

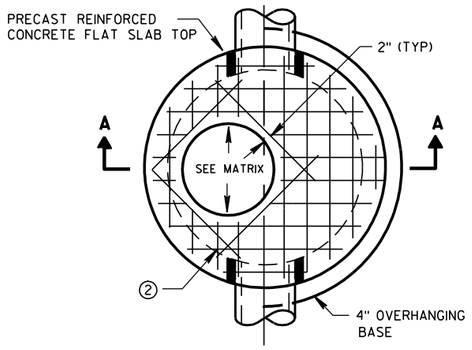
APPROVED
6/5/2012 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
FHWA

6

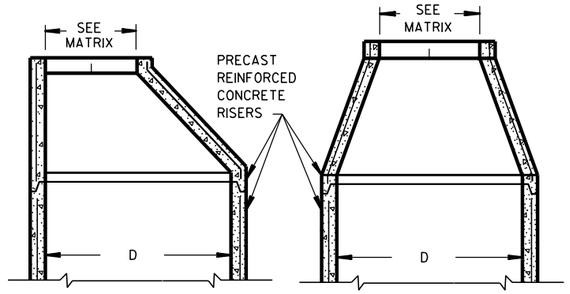
S.D.D. 8 A 5-18d

6

S.D.D. 8 A 5-18d

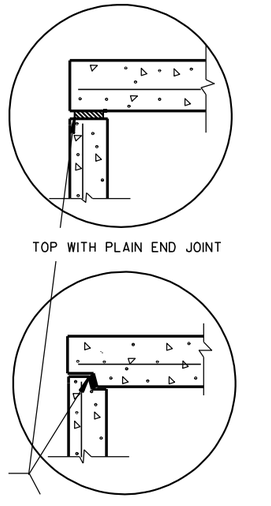


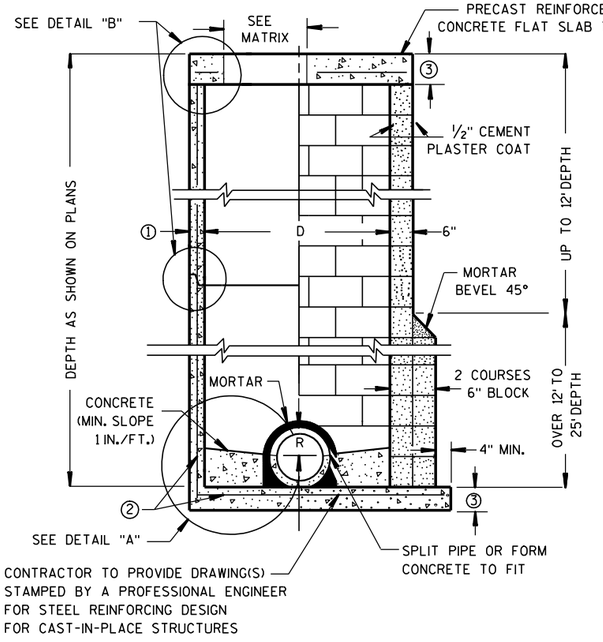
PLAN VIEW CIRCULAR OPENING



OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

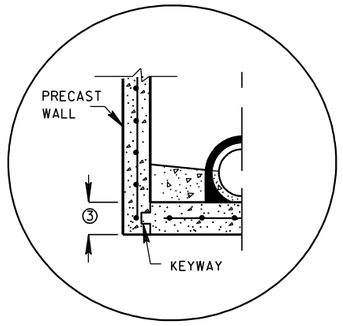
OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP



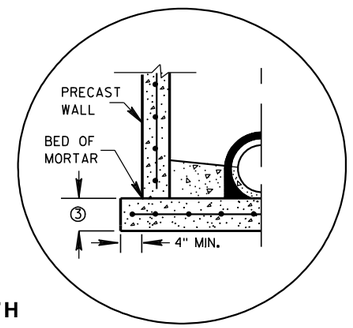


PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

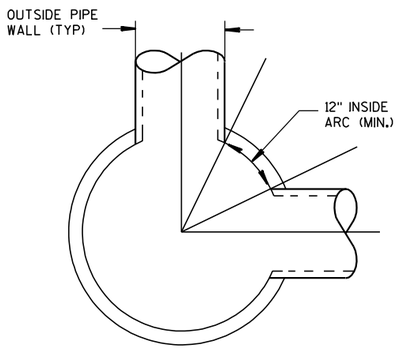


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

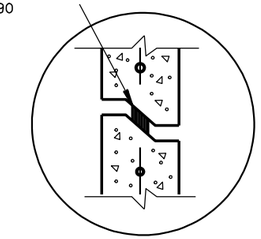


SEPERATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "C"



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 MANHOLE UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF GRANULAR BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

PRECAST REINFORCED CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES. THE CONE TOPS SHALL BE INSTALLED ON A BED OF MORTAR.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES, AND CONCENTRIC CONE TOPS SHALL BE USED ONLY ON STRUCTURES 5 FEET OR LESS IN DEPTH, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF ½" AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

CONCRETE BLOCK WILL NOT BE PERMITED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

ALL PRECAST MANHOLE UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M 199.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPERATE 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

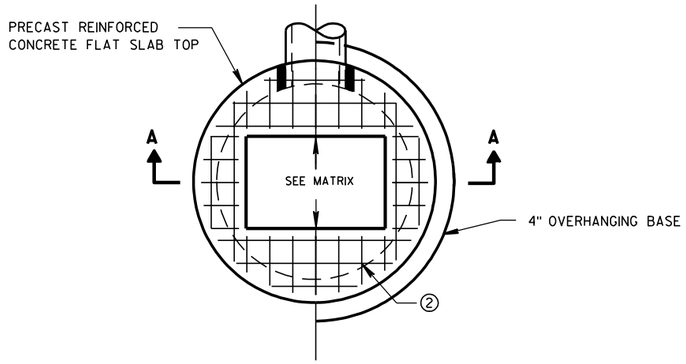
6/5/2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

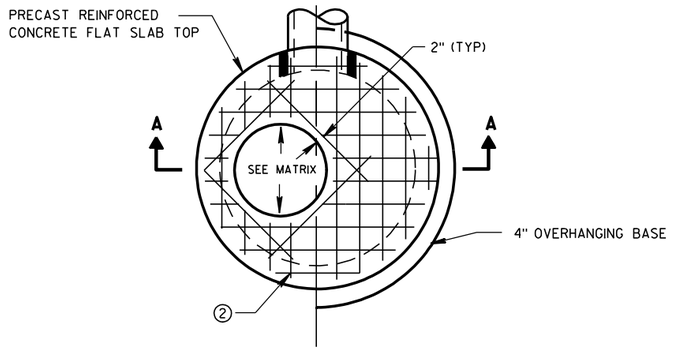
FHWA

425

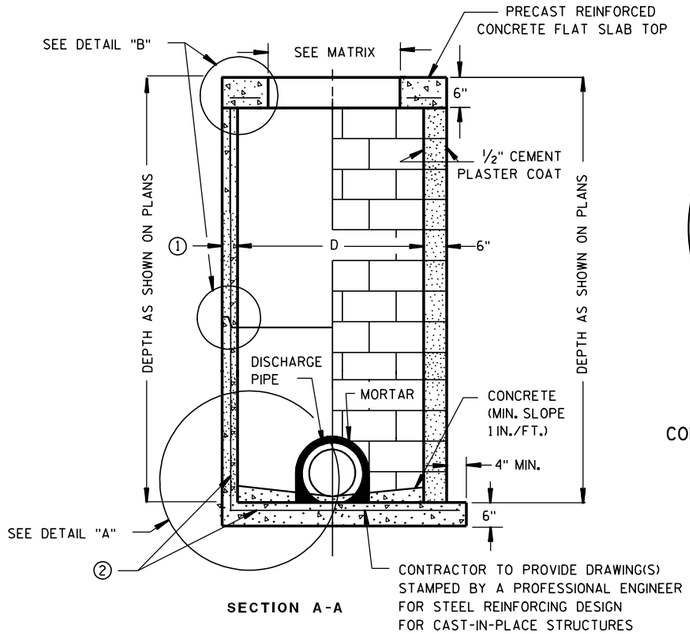
6
S.D.D. 8 B 9-1



PLAN VIEW RECTANGULAR OPENING



PLAN VIEW CIRCULAR OPENING

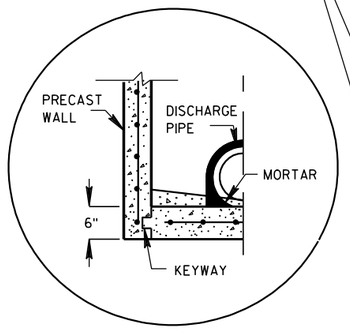


SECTION A-A

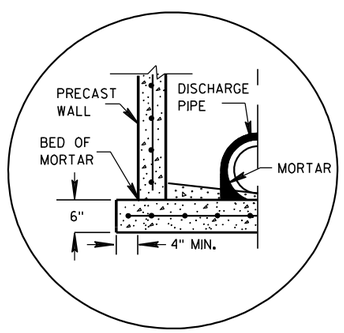
PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

CIRCULAR INLETS W/ FLAT TOP

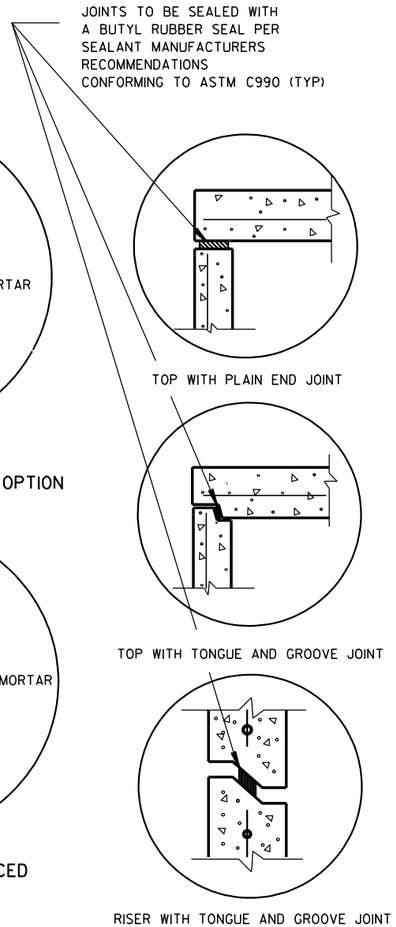


PRECAST REINFORCED
CONCRETE WITH INTEGRAL BASE OPTION



SEPERATE 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.

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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 SEPERATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

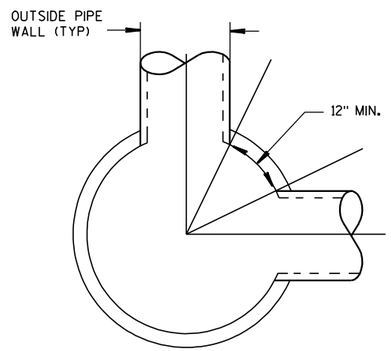
FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

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

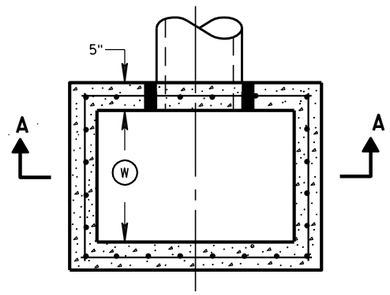
INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18

INLETS 3-FT AND 4-FT DIAMETER

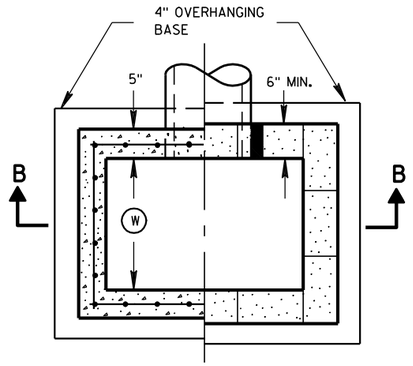
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

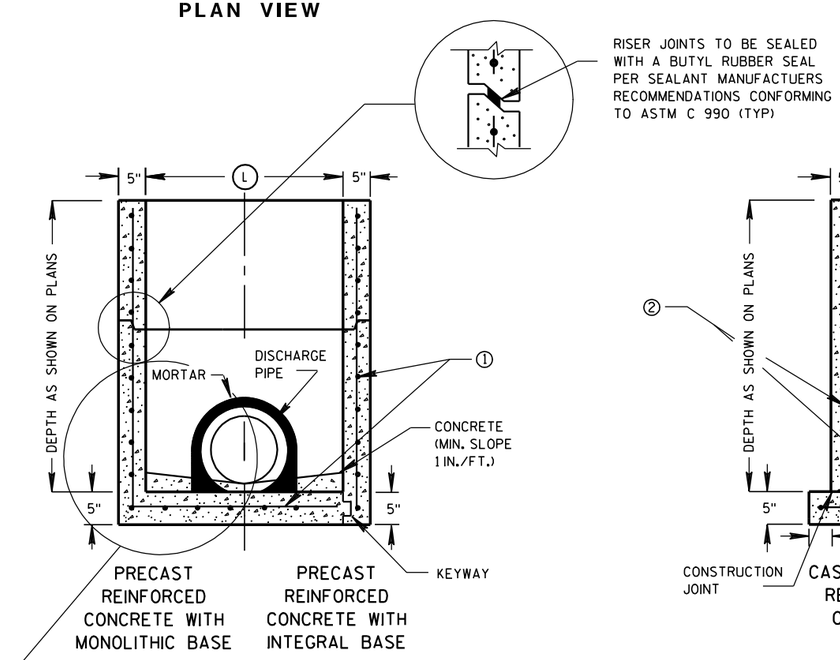
6
S.D.D. 8 C 6-1



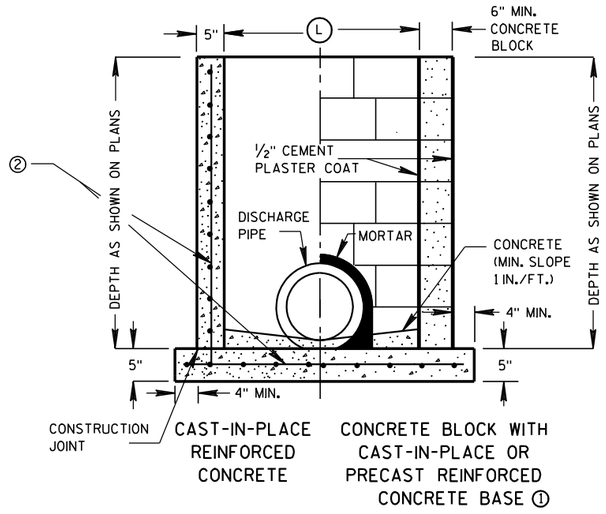
PLAN VIEW



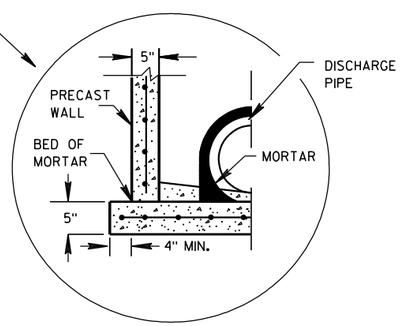
PLAN VIEW



SECTION A-A



SECTION B-B



SEPERATE 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 SEPERATE 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.

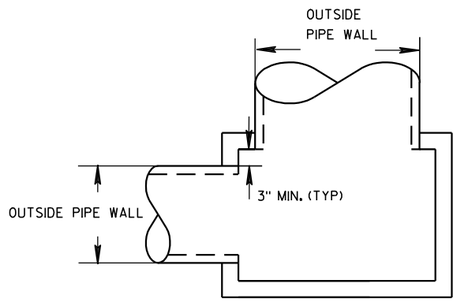
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

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

INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

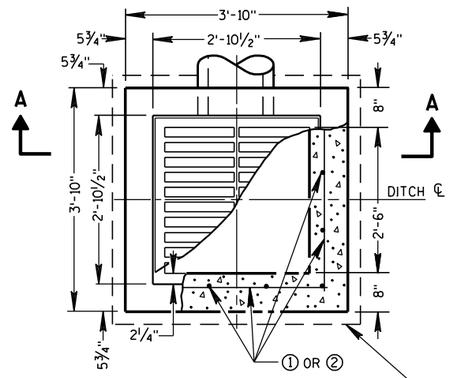
APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zoda — ROADWAY STANDARDS D 427 — ENGINEER
FHWA

6

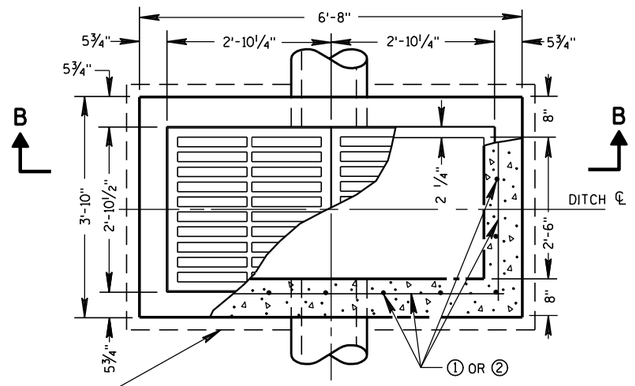
S.D.D. 8 C 7-1

6

S.D.D. 8 C 7-1

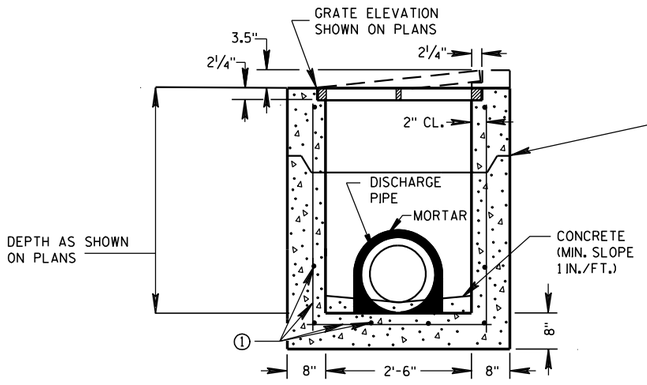


PLAN VIEW

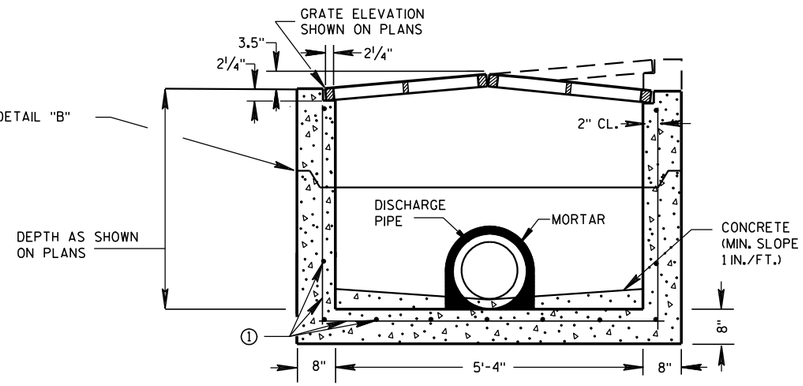


PLAN VIEW

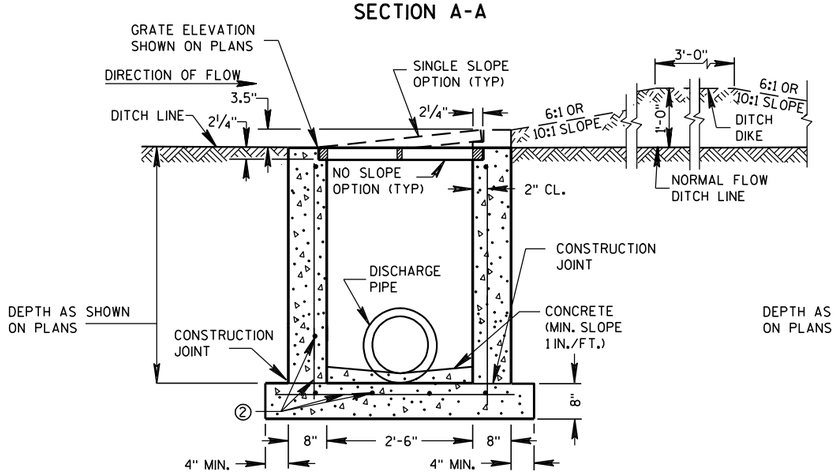
4" OVERHANGING BASE ON REINFORCED CAST-IN-PLACE CONCRETE INLETS



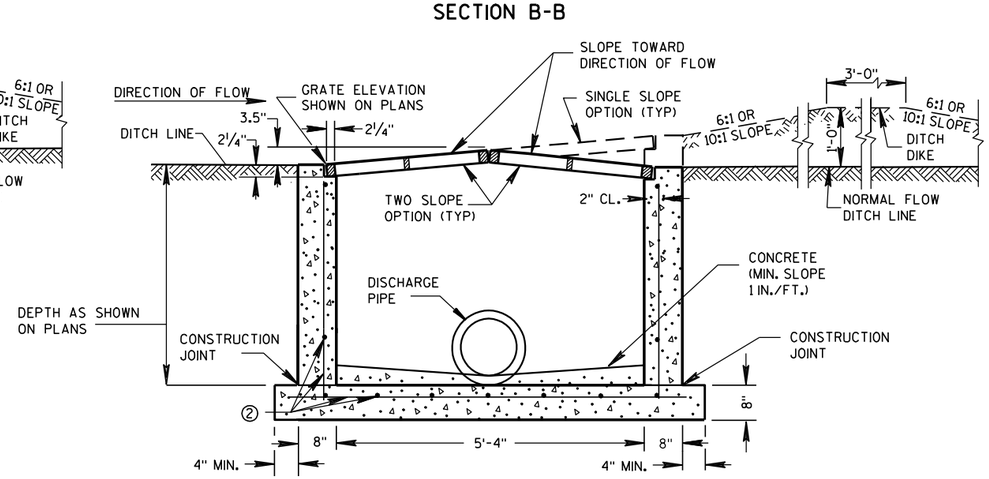
PRECAST REINFORCED CONCRETE SECTION A-A



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.

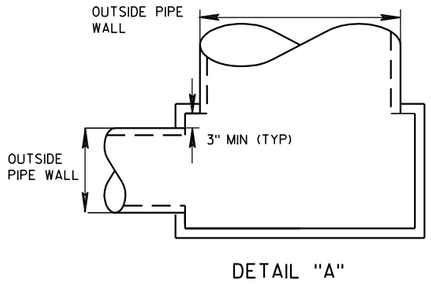
MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

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.

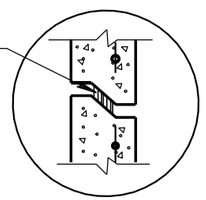
PIPE MATRIX

	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

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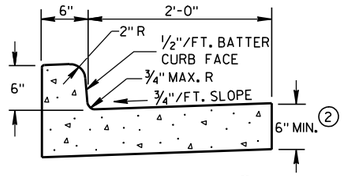
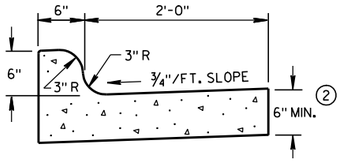
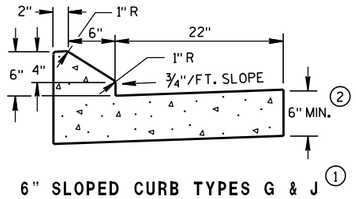


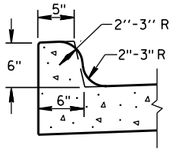
TYPES A & D (1)



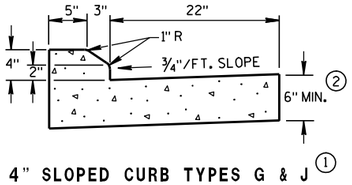
TYPES K & L (1)



6" SLOPED CURB TYPES G & J (1)

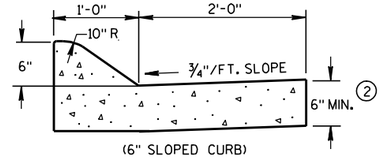


OPTIONAL CURB SHAPE FOR TYPES K & L (1)

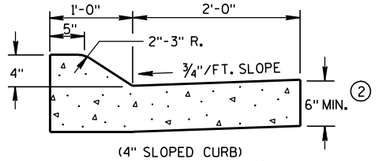


4" SLOPED CURB TYPES G & J (1)

CONCRETE CURB & GUTTER 30"

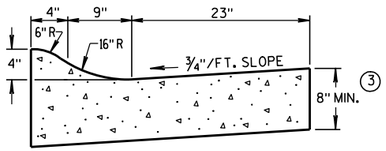


(6" SLOPED CURB)



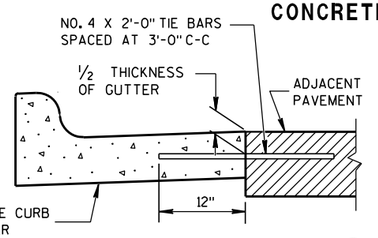
(4" SLOPED CURB)

TYPES A & D (1)

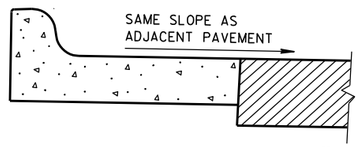


4" SLOPED CURB TYPES R & T (1) (4)

CONCRETE CURB & GUTTER 36"



TYPICAL TIE BAR LOCATION (1)



REVERSE SLOPE GUTTER (5)
(TYPICAL FOR ALL CURB & GUTTER TYPES)

GENERAL NOTES

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

PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

INTEGRAL CURB & GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB & GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE. A LONGITUDINAL CONSTRUCTION JOINT IS NOT REQUIRED WITH INTEGRAL CURB AND GUTTER.

WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2'-0" BEHIND THE BACK OF CURBS.

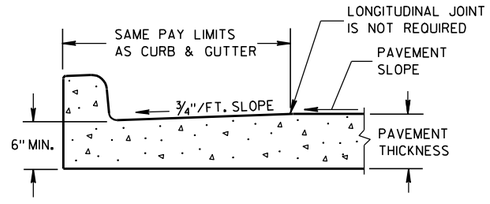
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K AND R.

(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

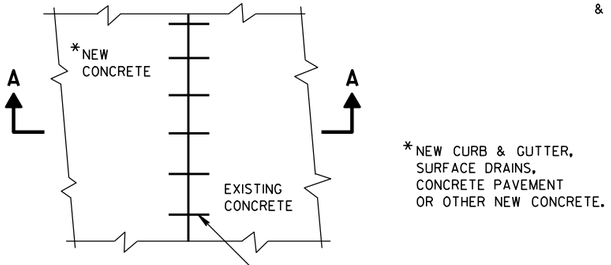
(3) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(4) THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

(5) WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.

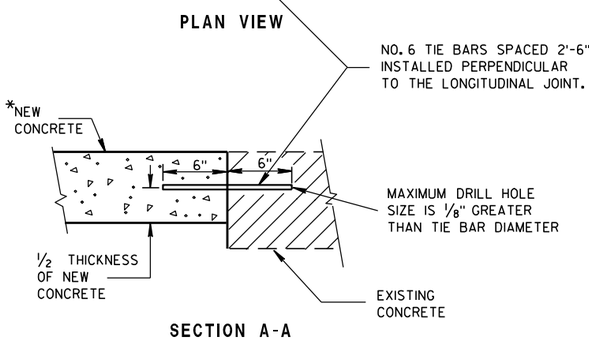


PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB & GUTTER



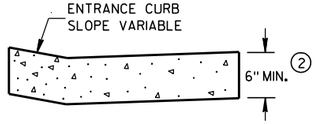
PLAN VIEW

*NEW CURB & GUTTER, SURFACE DRAINS, CONCRETE PAVEMENT OR OTHER NEW CONCRETE.

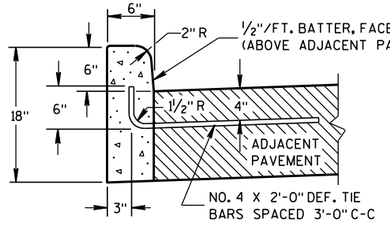


SECTION A-A

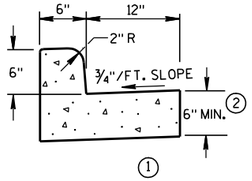
TIE BARS DRILLED INTO EXISTING PAVEMENT



DRIVEWAY ENTRANCE CURB
(WHEN DIRECTED BY THE ENGINEER)

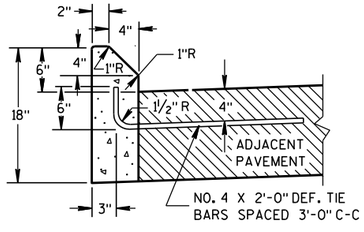


(1) TYPES A & D

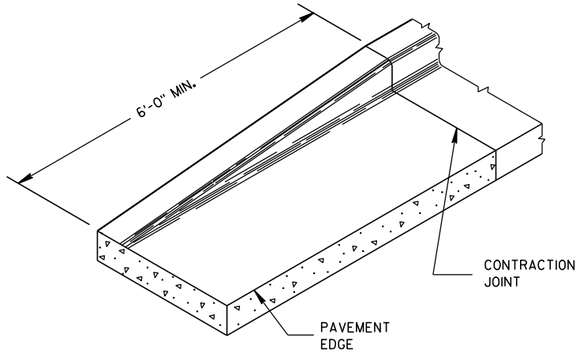


(1) TYPES A & D

CONCRETE CURB & GUTTER 18"



(1) TYPES G & J



END SECTION CURB & GUTTER

CONCRETE CURB

CONCRETE CURB, CONCRETE CURB & GUTTER AND TIES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
9/4/08 DATE	/S/ Jerry H. [illegible] ROADWAY STANDARDS ENGINEER
FHWA	429 ENT

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S.D.D. 8 D 1-17

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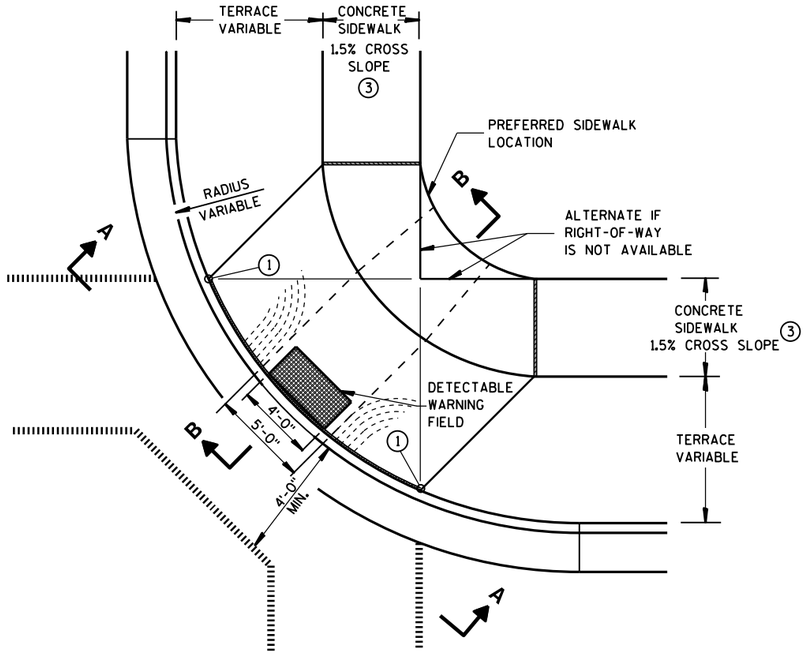
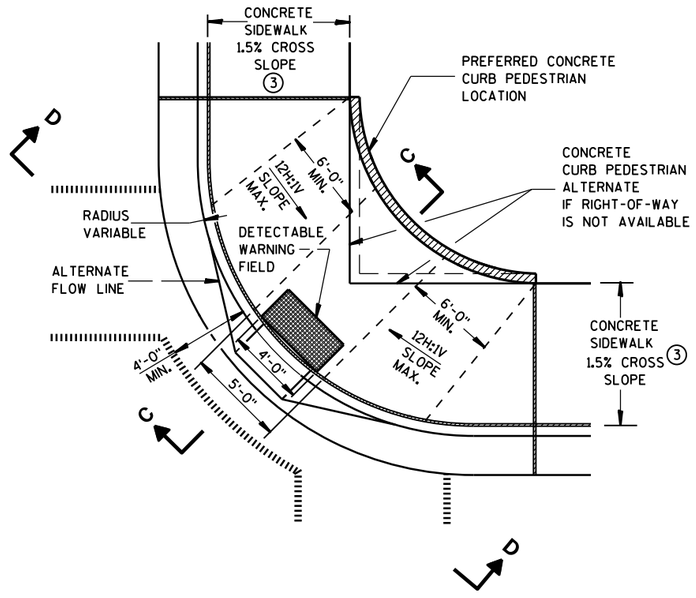
S.D.D. 8 D 1-17



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.

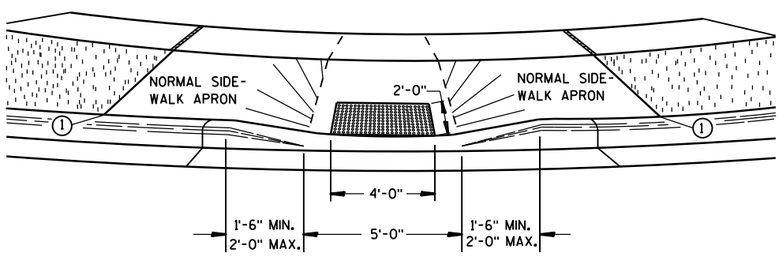
① THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB.

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.

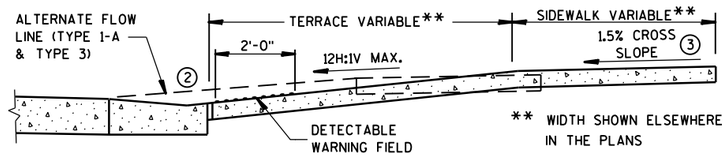
③ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

LEGEND

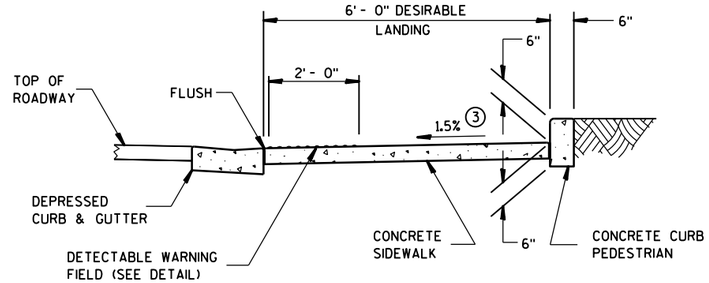
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



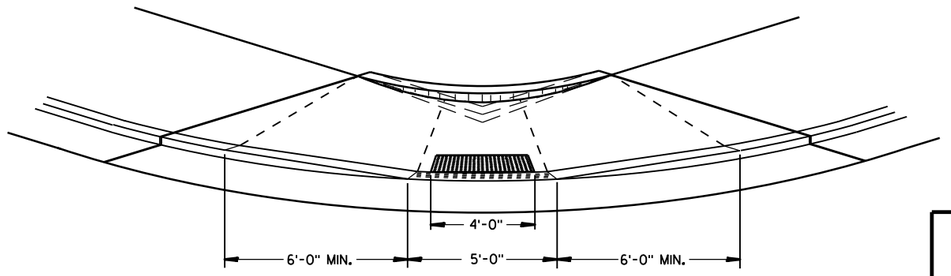
VIEW A-A



SECTION B-B



SECTION C-C



VIEW D-D

CURB RAMPS TYPES 1 AND 1-A

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR 430

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S.D.D. 8 D 5-15a

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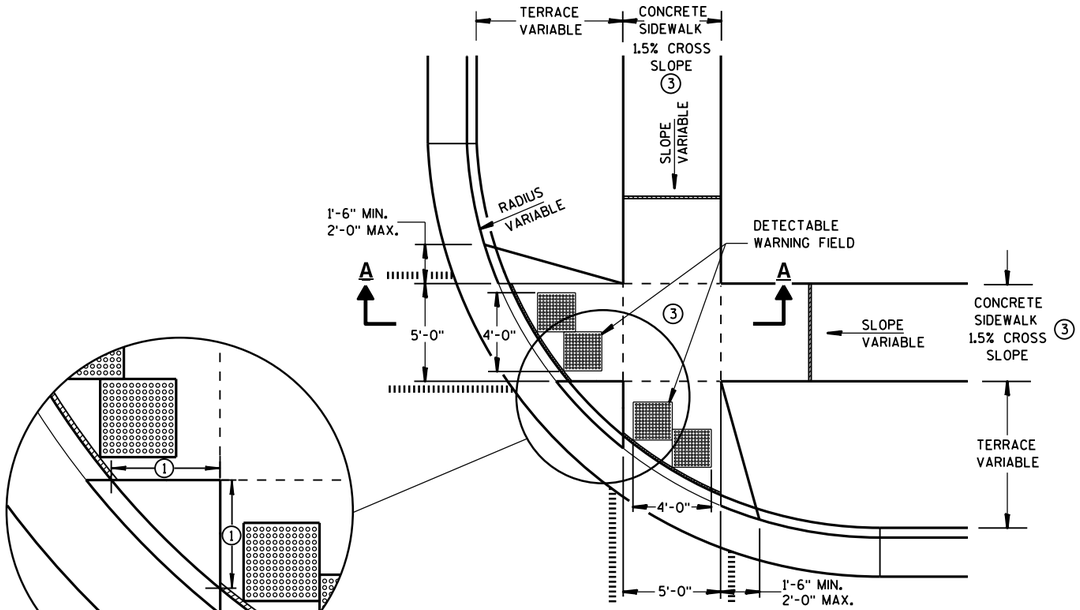
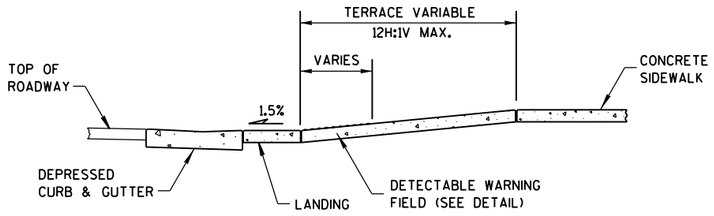
S.D.D. 8 D 5-15a



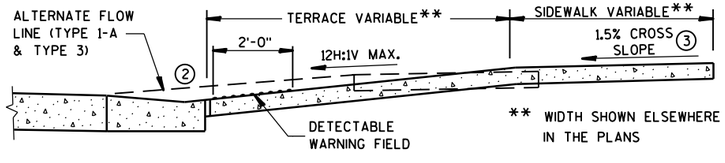
PLAN VIEW

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.

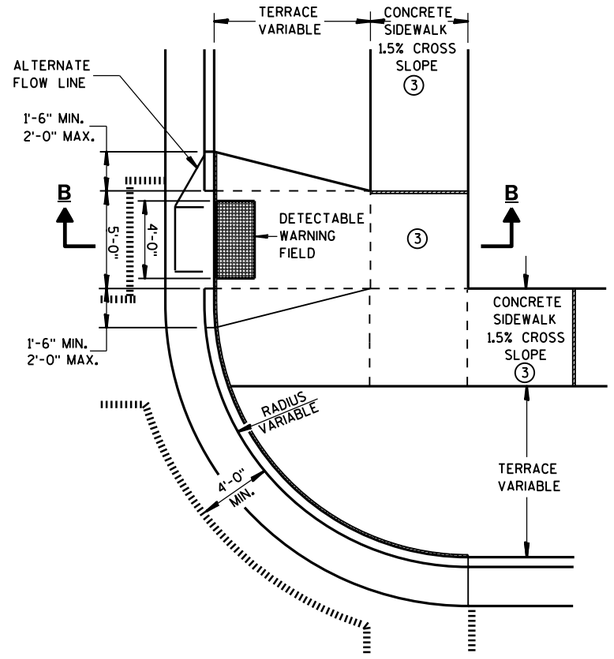
① WHEN THIS DISTANCE IS LESS THAN 6'-0" IT MAY BE DIFFICULT TO ACHIEVE A 12H:1V SLOPE, OR FLATTER, ON THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 12H:1V SLOPE, OR FLATTER, ON RAMP. 2" MINIMUM CURB HEIGHT.

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

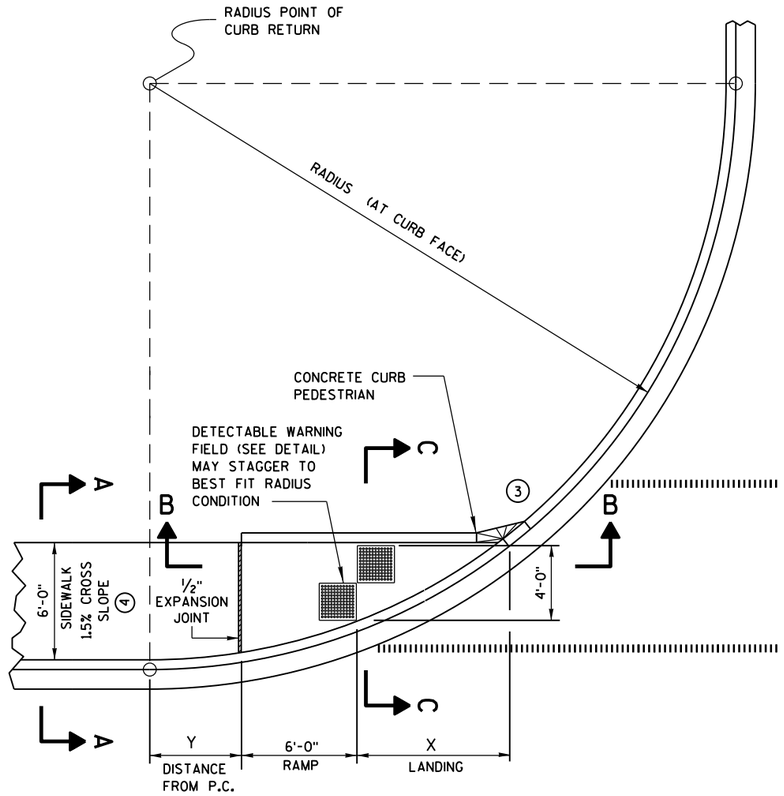
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

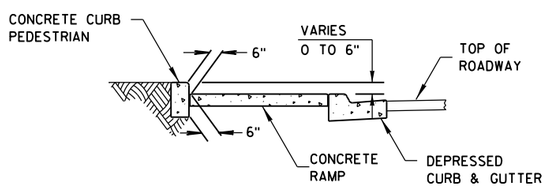
S.D.D. 8 D 5-15b

6

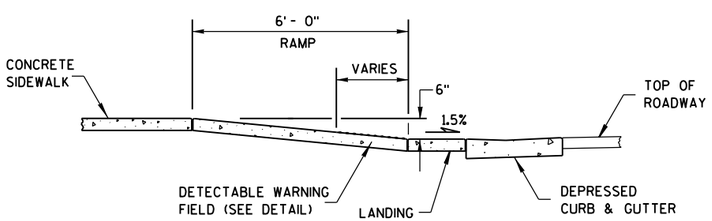
S.D.D. 8 D 5-15b



CURB RAMP TYPE 4A
PLAN VIEW



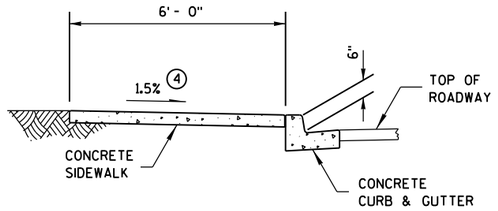
SECTION C-C FOR TYPE 4A



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

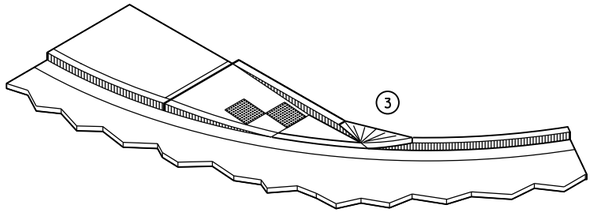
AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

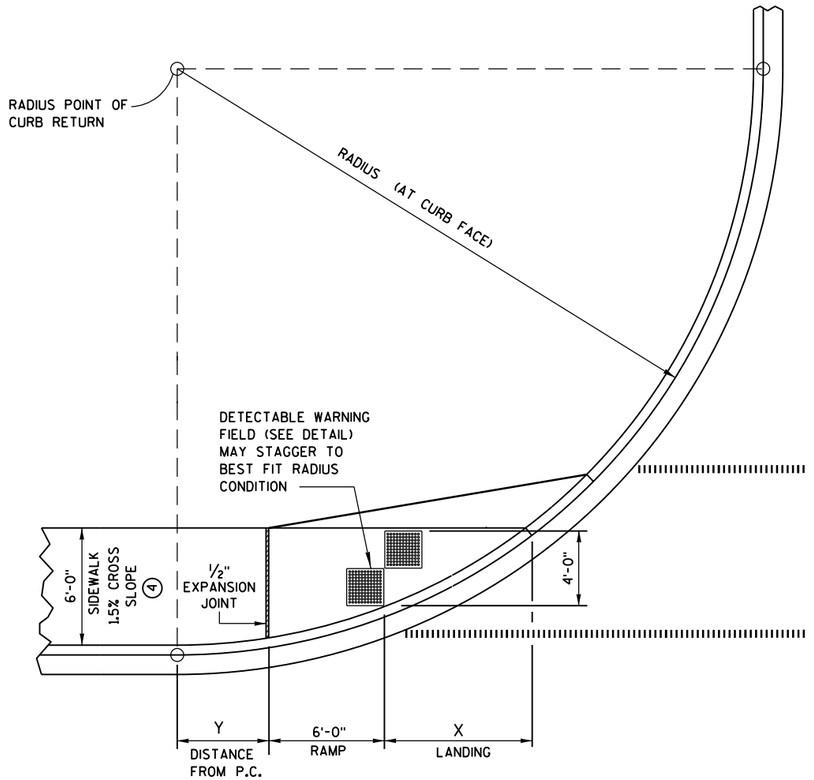
DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(3) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.) DO NOT MARK TRANSITION NOSE.

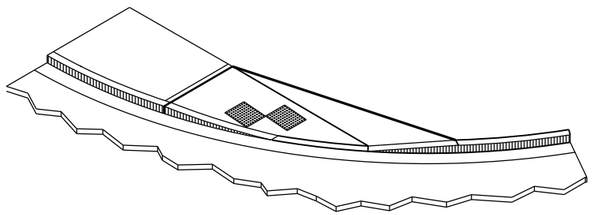
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.



ISOMETRIC VIEW FOR TYPE 4A



CURB RAMP TYPE 4A1
PLAN VIEW



ISOMETRIC VIEW FOR TYPE 4A1

LEGEND

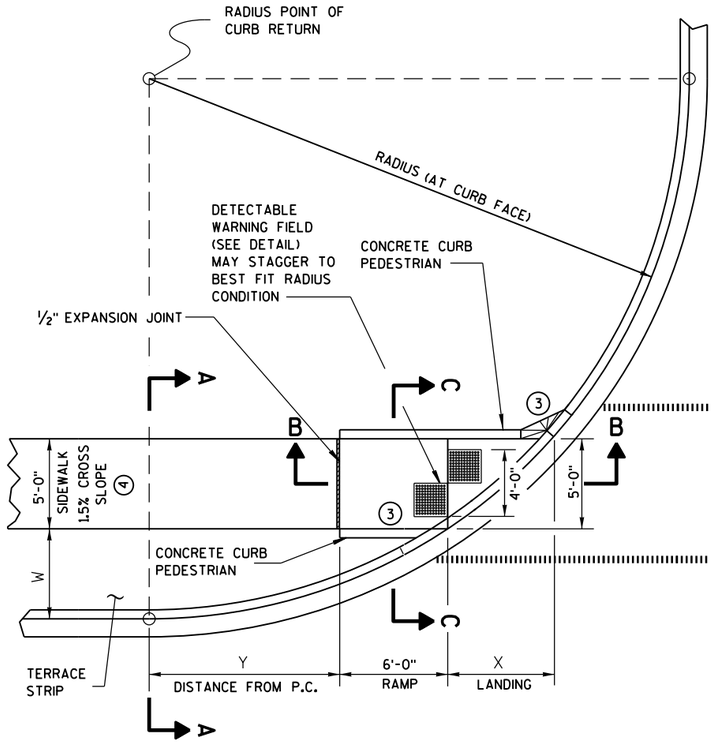
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPES 4A AND 4A1

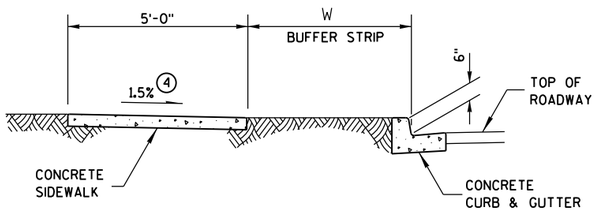
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

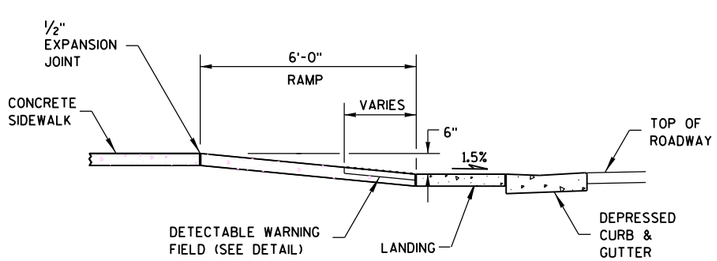
S.D.D. 8 D 5-15c



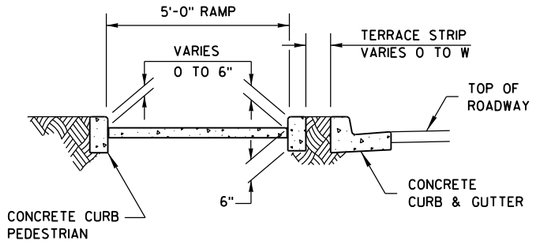
CURB RAMP TYPE 4B
PLAN VIEW



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

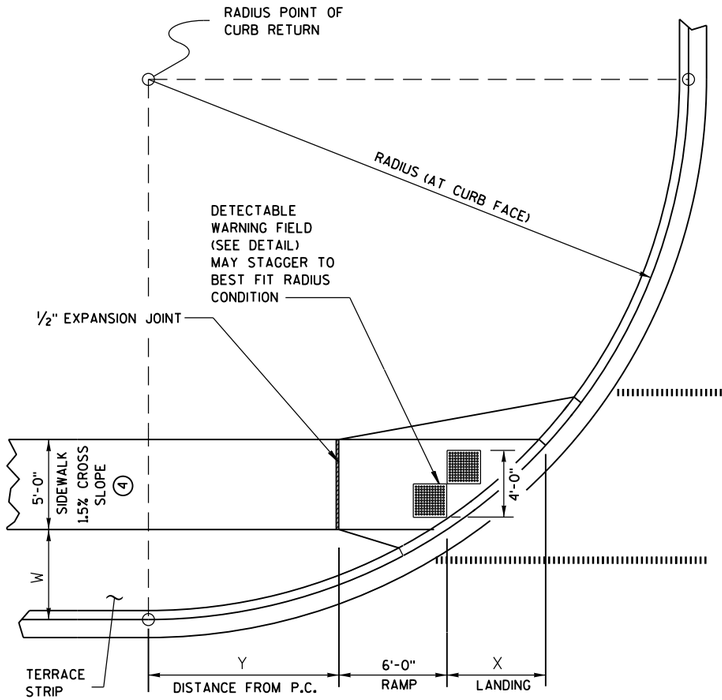
AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

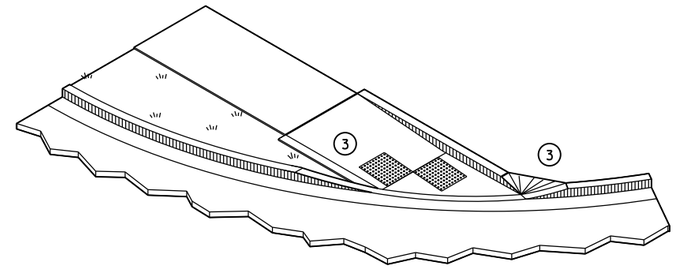
DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(3) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.) DO NOT MARK TRANSITION NOSE.

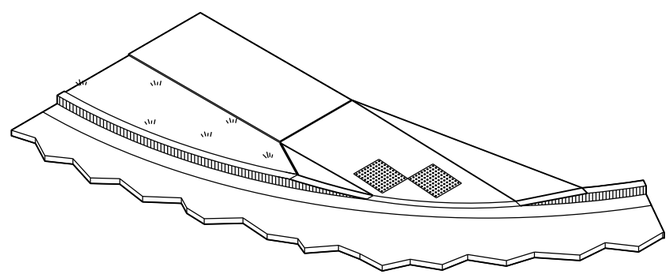
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.



CURB RAMP TYPE 4B1
PLAN VIEW



ISOMETRIC VIEW FOR TYPE 4B



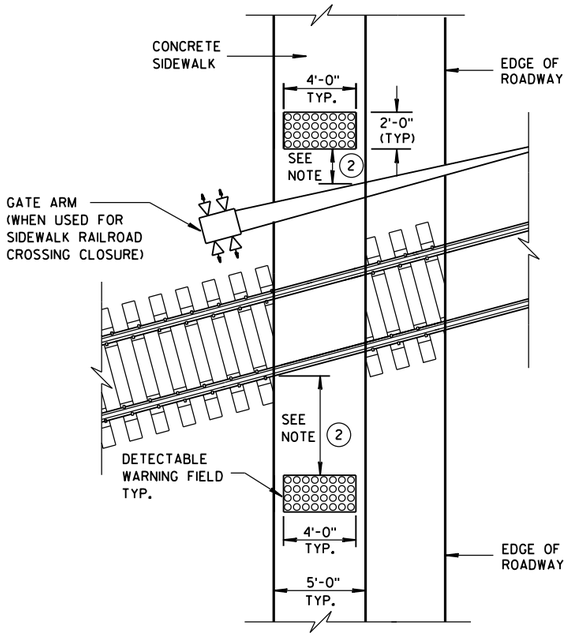
ISOMETRIC VIEW FOR TYPE 4B1

CURB RAMPS TYPE 4B AND 4B1

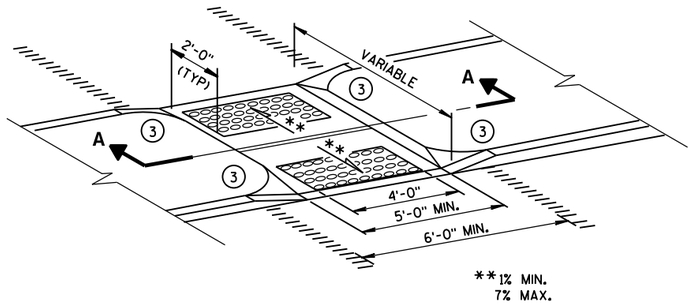
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 8 D 5-15d
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%.

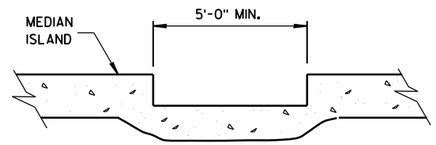
DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(1) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

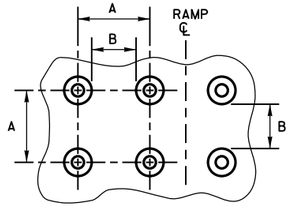
(2) THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET ± 0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD CROSSING SHALL BE 15 FEET 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.



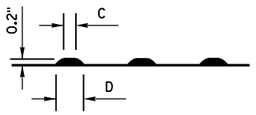
SECTION A-A



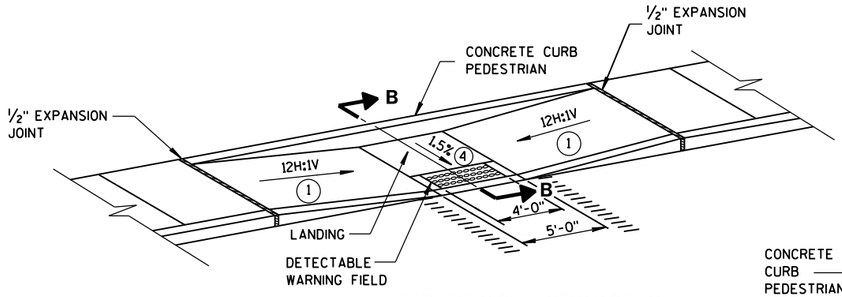
PLAN VIEW

	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	*	*
D	0.9"	1.4"

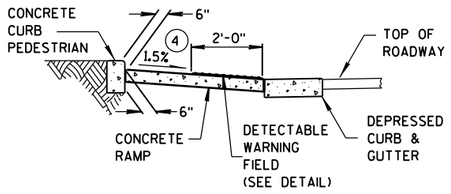
* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.



ELEVATION VIEW

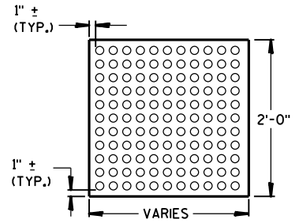


MID-BLOCK CROSSING
TYPE 7A



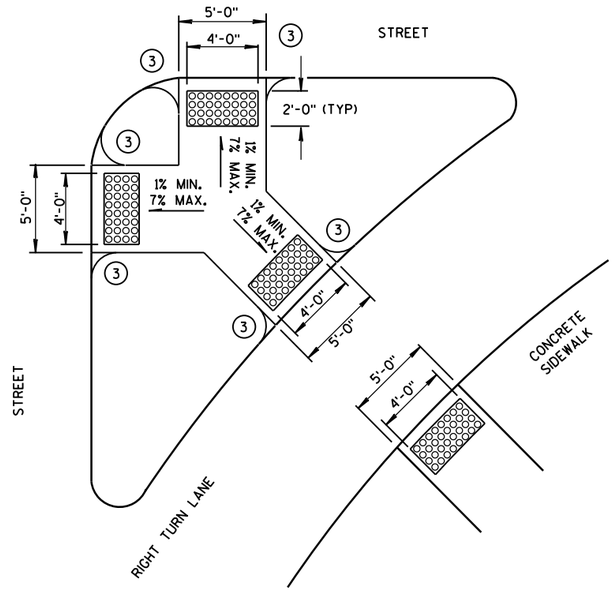
SECTION B-B

TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL

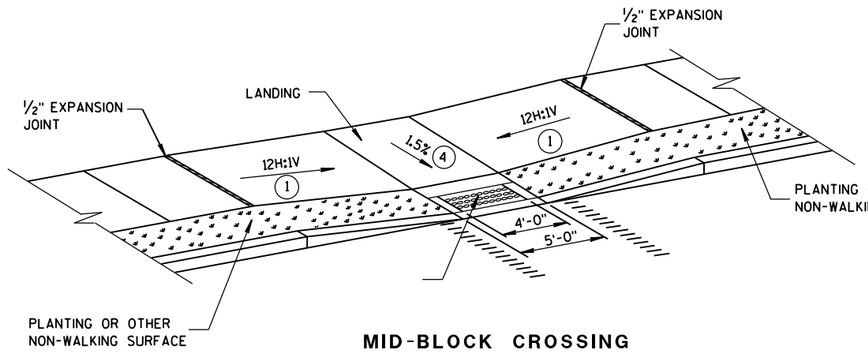


PLAN VIEW

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 [illegible] ENGINEER
FHWA

6

S.D.D. 8 D 5-15e

6

S.D.D. 8 D 5-15e

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) UNPERFORATED PIPE UNDERDRAIN AND FITTINGS FURNISHED FOR OUTFALL PIPE SHALL MEET THE REQUIREMENTS OF ONE OF THE FOLLOWING SPECIFICATIONS:

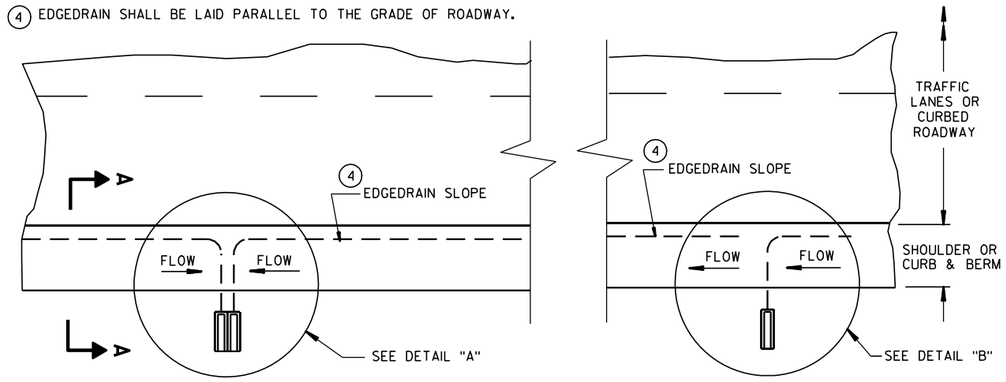
POLYVINYL CHLORIDE (PVC) PLASTIC DRAIN, WASTE, AND VENT PIPE AND FITTINGS, ASTM D 2665, SCHEDULE 40 PVC.

TYPE PSM POLYVINYL CHLORIDE (PVC) SEWER PIPE AND FITTINGS, ASTM D 3034, SDR 23.5 PVC SEWER PIPE.

(2) MAXIMUM SPACING OF EDGEDRAIN OUTLETS SHALL BE 250 FEET UNLESS OTHERWISE SPECIFIED IN THE CONTRACT OR DIRECTED BY THE ENGINEER.

(3) EDGEDRAIN SHALL BE CONNECTED TO INLETS REGARDLESS OF FLOW DIRECTION FOR DRAINAGE AND MAINTENANCE ACCESS.

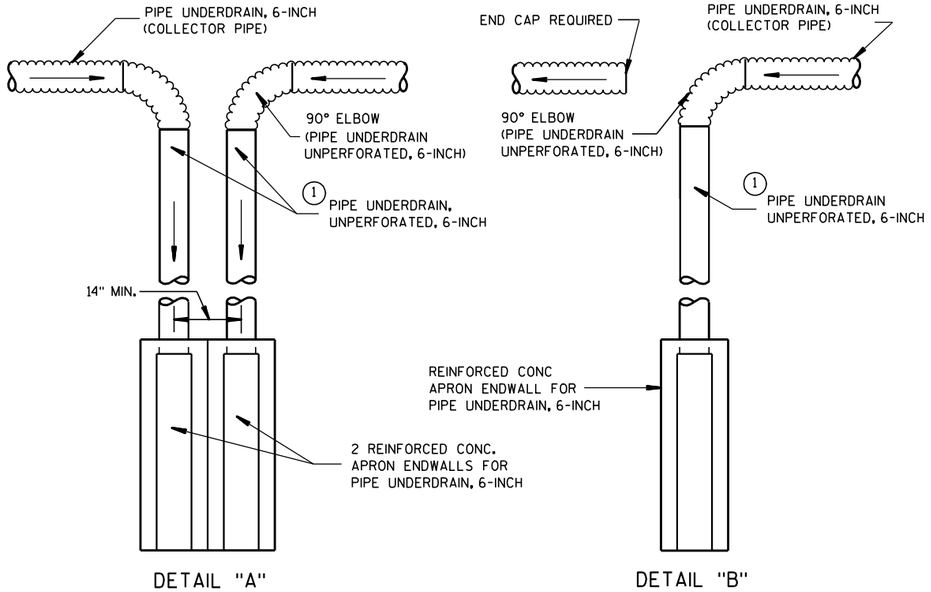
(4) EDGEDRAIN SHALL BE LAID PARALLEL TO THE GRADE OF ROADWAY.



PLAN VIEW

ROADWAY WITH SHOULDERS OR CURBS

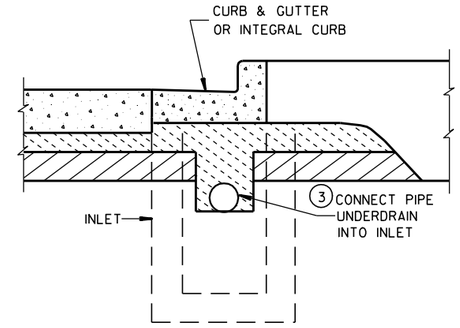
(EDGEDRAIN OUTLETS TO ROADSIDE) (2)



DETAIL "A"
TO BE USED AT LOW POINT LOCATIONS

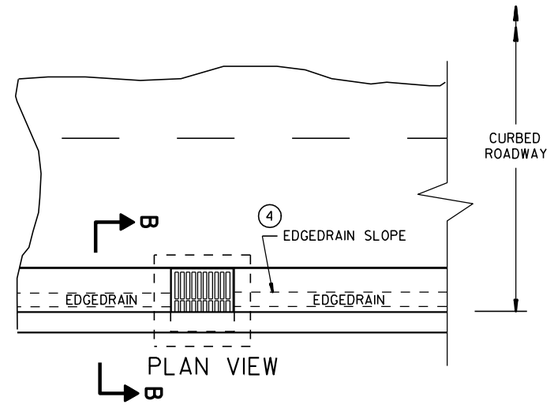
DETAIL "B"
TO BE USED AT INTERMEDIATE LOCATIONS

TYPICAL DRAIN OUT DETAILS



SECTION B-B

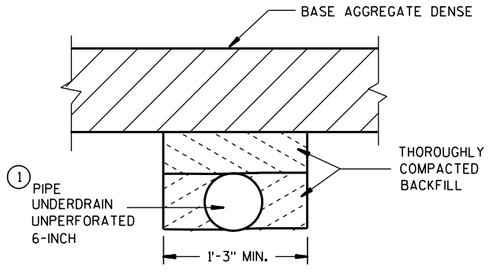
URBAN CROSS SECTION



PLAN VIEW

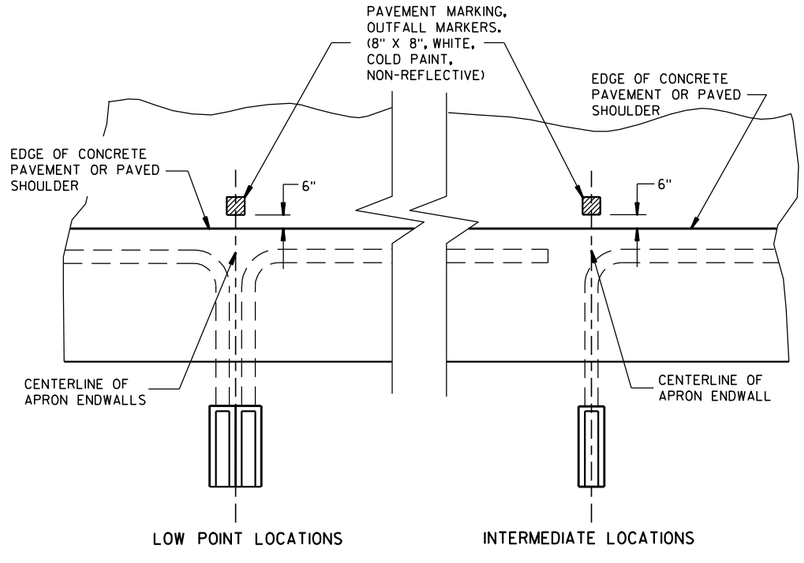
ROADWAY WITH CURBS

(EDGEDRAIN CONNECTS INTO INLET STRUCTURE)



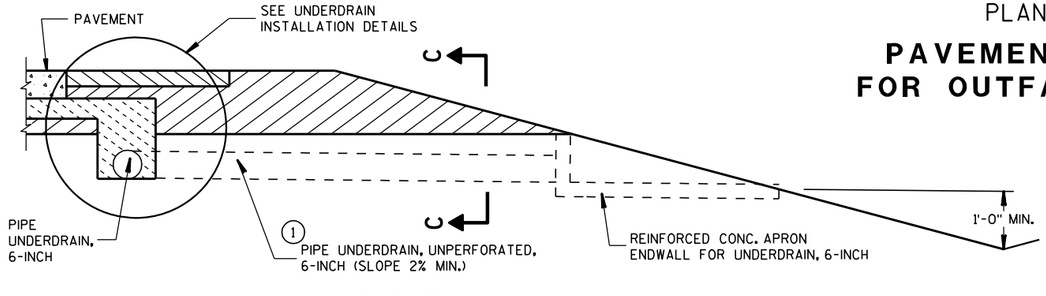
SECTION C-C

(TRENCH FOR OUTFALL PIPE)



PLAN VIEW

PAVEMENT MARKING FOR OUTFALL MARKERS



SECTION A-A

RURAL CROSS SECTION

EDGEDRAIN OUTLET AND OUTFALL MARKERS

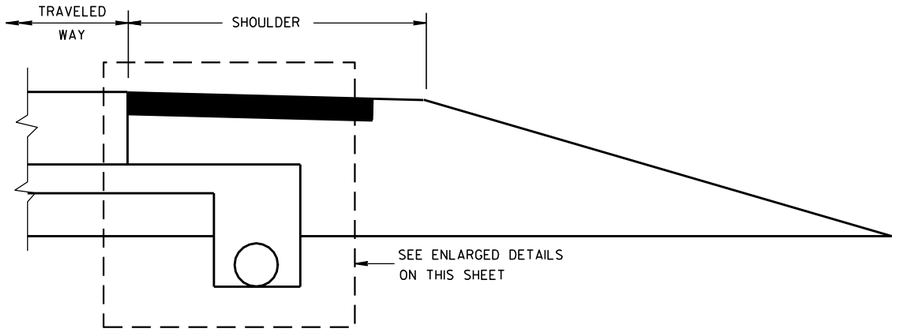
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 8 D 15-4a

6

S.D.D. 8 D 15-4a



RURAL CROSS SECTION

GENERAL NOTES

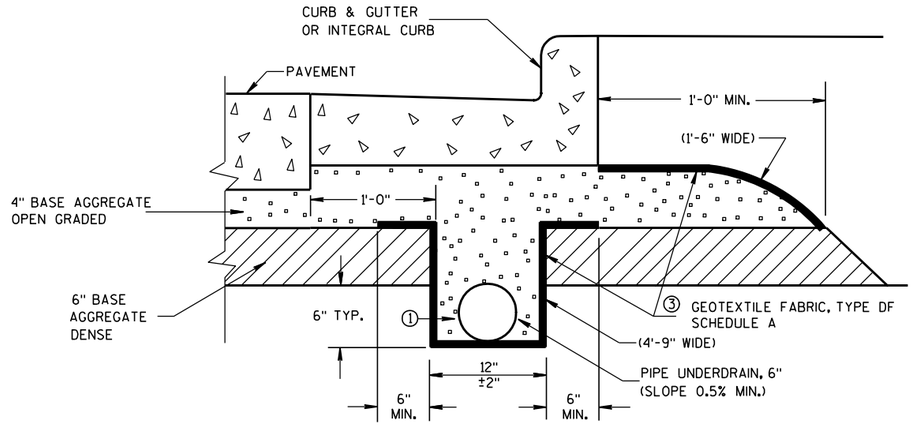
THE DIMENSIONS SHOWN ON THE TYPICAL CROSS SECTIONS WILL GOVERN IN THE EVENT THERE IS A CONFLICT WITH THE DETAILS SHOWN ON THIS DRAWING.

PIPE UNDERDRAIN SHALL BE LAID PARALLEL TO THE GRADE OF THE ROADWAY.

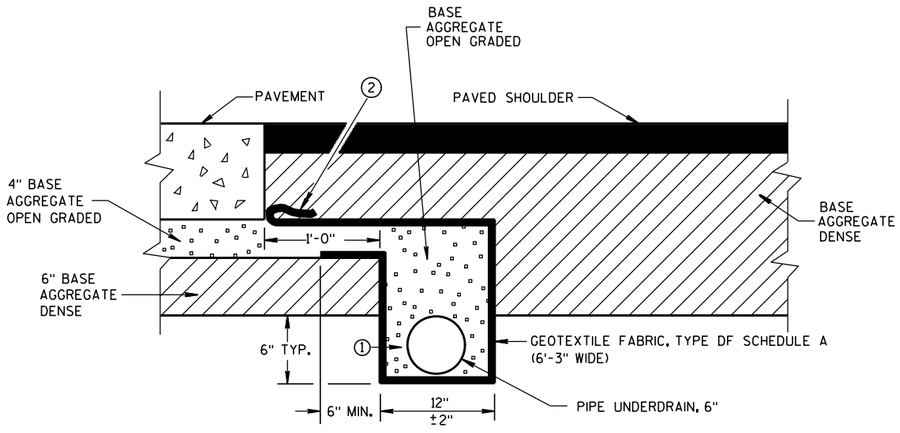
① TRENCH BACKFILL WILL BE PAID FOR AS BASE AGGREGATE OPEN GRADED.

② FOLD OVER EXCESS GEOTEXTILE FABRIC AT THIS LOCATION.

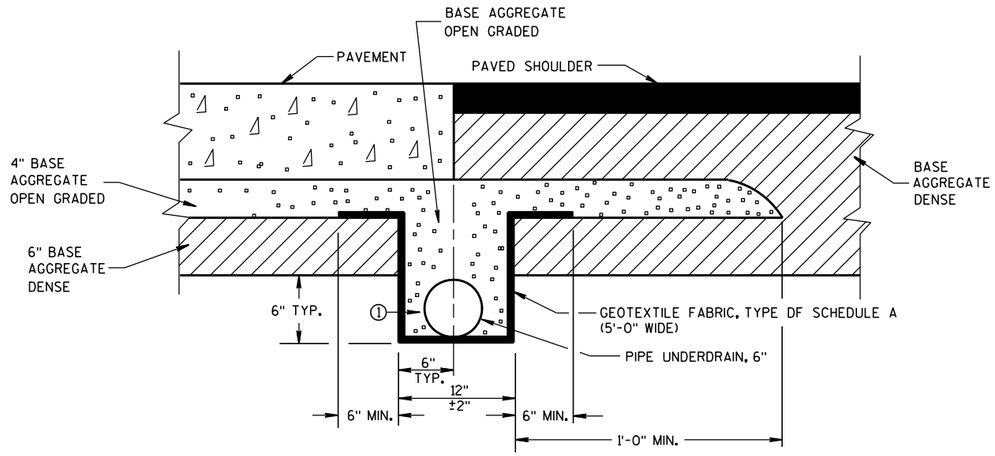
③ TOTAL FABRIC WIDTH IS 6'-3" FOR PAYMENT.



EDGEDRAIN IN URBAN ROADWAY



POST PAVING INSTALLATION
(QUANTITIES ARE BASED ON THIS DETAIL)



PRE-PAVING INSTALLATION ALTERNATE

EDGEDRAIN IN RURAL ROADWAY

EDGEDRAIN AND BASE AGGREGATE OPEN GRADED

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/21/07 DATE — /S/ Steven W. [illegible] CHIEF MATERIALS MANAGER

FHWA

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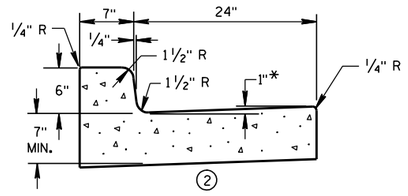
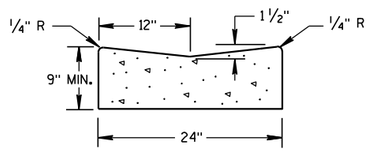
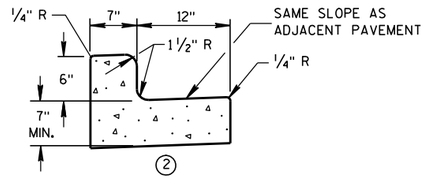
S.D.D. 8 D 15-4b



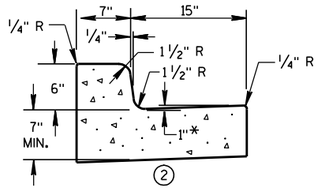
① CONCRETE CURB & GUTTER 31"



① CONCRETE GUTTER 24"

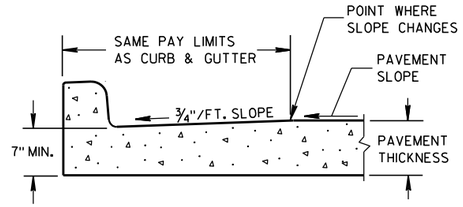


① CONCRETE CURB & GUTTER 19"



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.

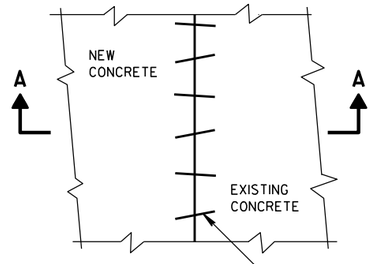
WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

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.

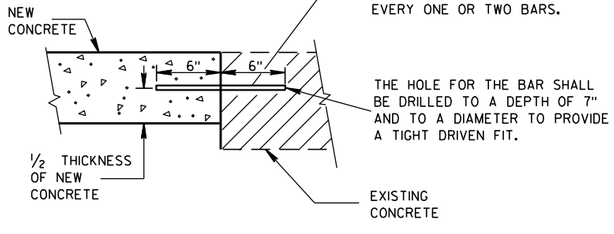
③ WHEN HIGH SIDE CURB SECTION IS REQUIRED, THE LOCATION(S) WILL BE NOTED ON THE PLAN.



PLAN VIEW

EXISTING AND NEW CONCRETE MAY BE CURB & GUTTER, SURFACE DRAIN, PAVEMENT OR OTHER CONCRETE STRUCTURE.

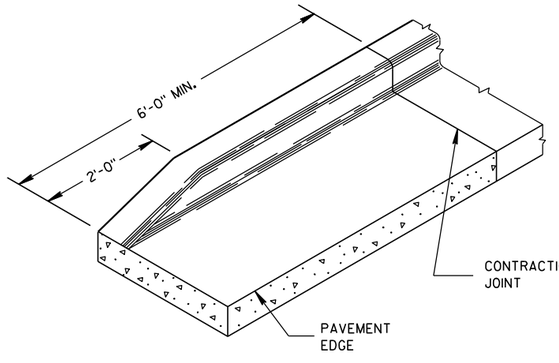
NO. 6 X 12" DEF. BARS SPACED 3'-0" C-C, INSTALLED ON 6:1 SKEW HORIZONTALLY. DIRECTION OF SKEW ALTERNATING AFTER EVERY ONE OR TWO BARS.



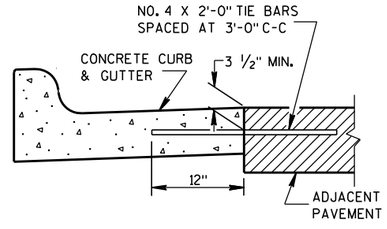
THE HOLE FOR THE BAR SHALL BE DRILLED TO A DEPTH OF 7" AND TO A DIAMETER TO PROVIDE A TIGHT DRIVEN FIT.

SECTION A-A

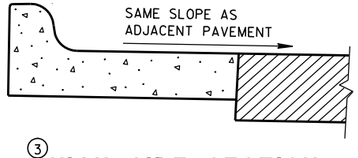
PAVEMENT TIES



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

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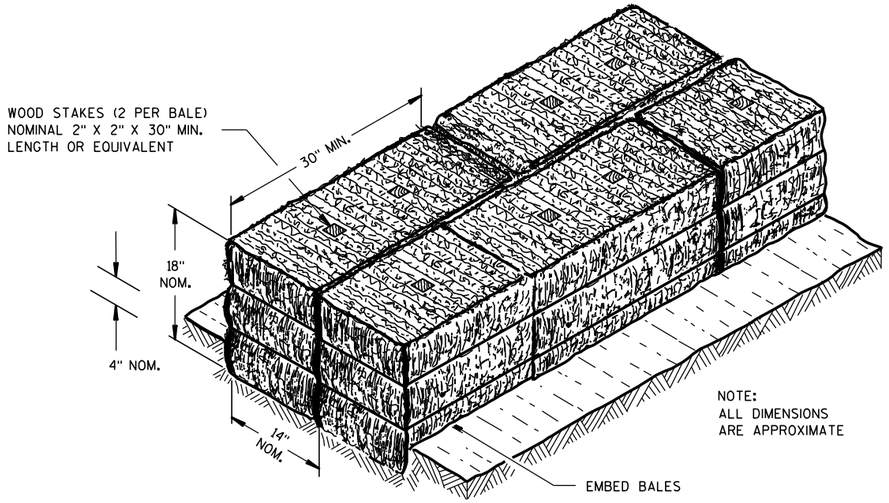
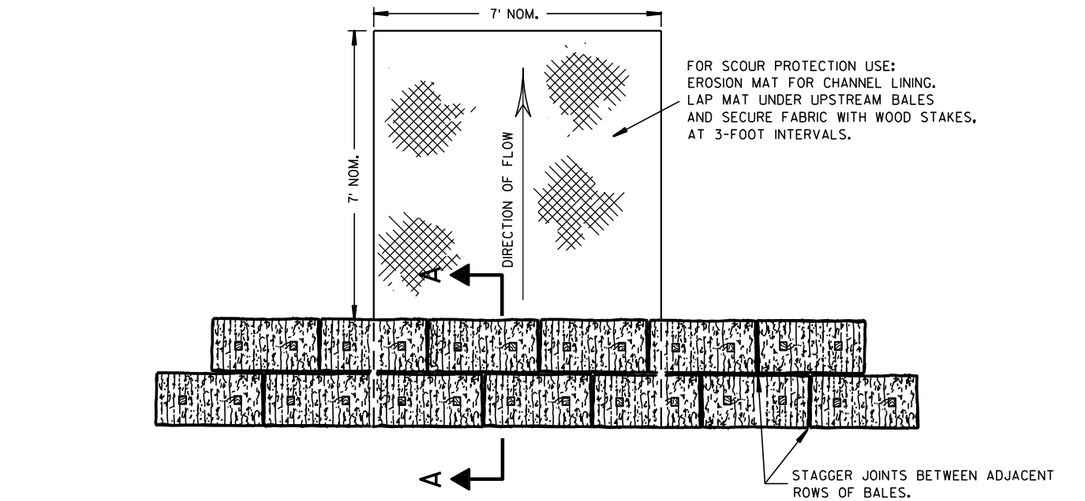
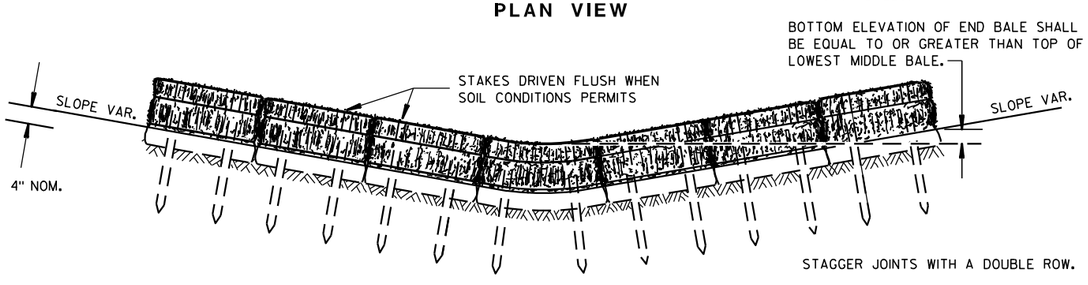


SECTION A-A



PLAN VIEW



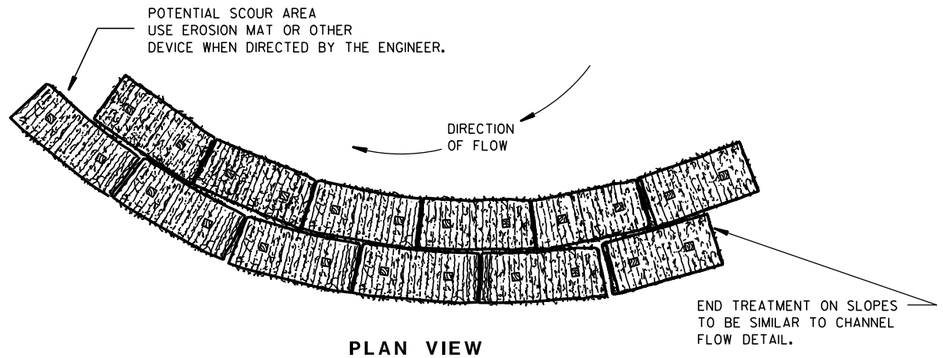
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

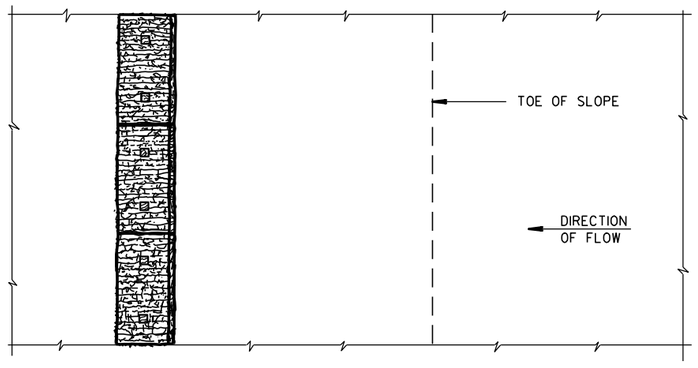
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

(1) TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.

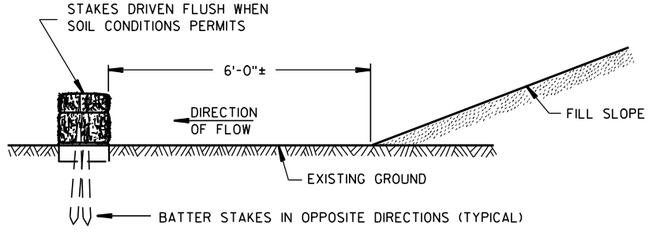


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/04/02 DATE

/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

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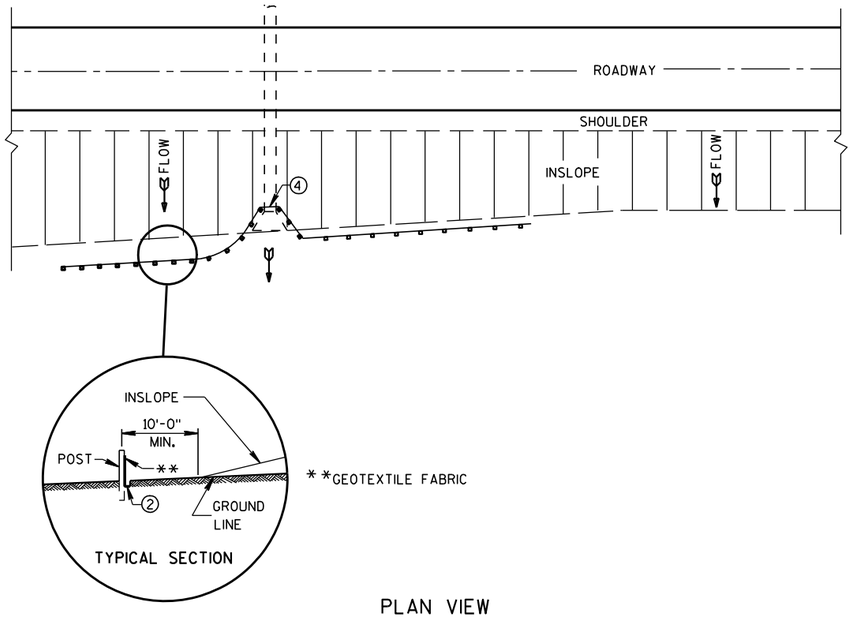
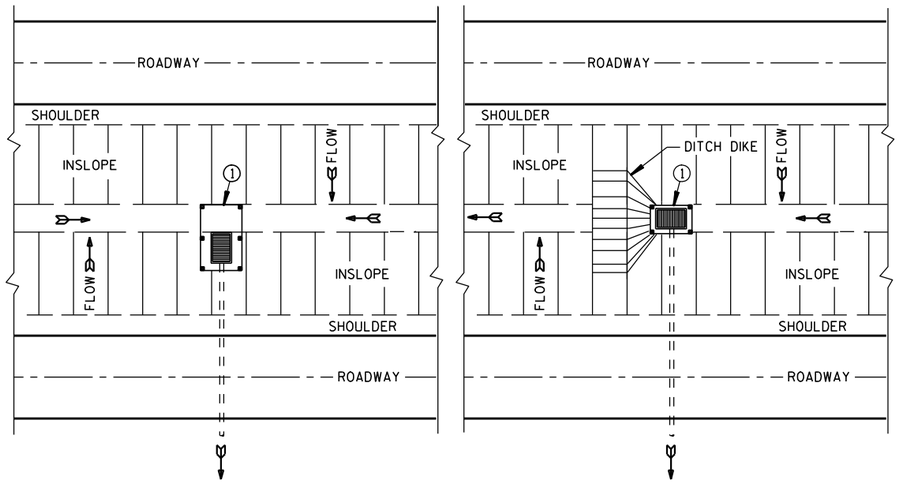


PLAN VIEW

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.

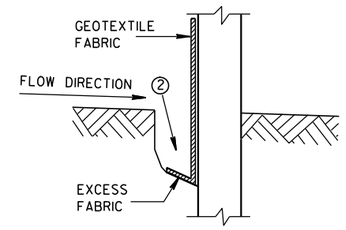
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

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.

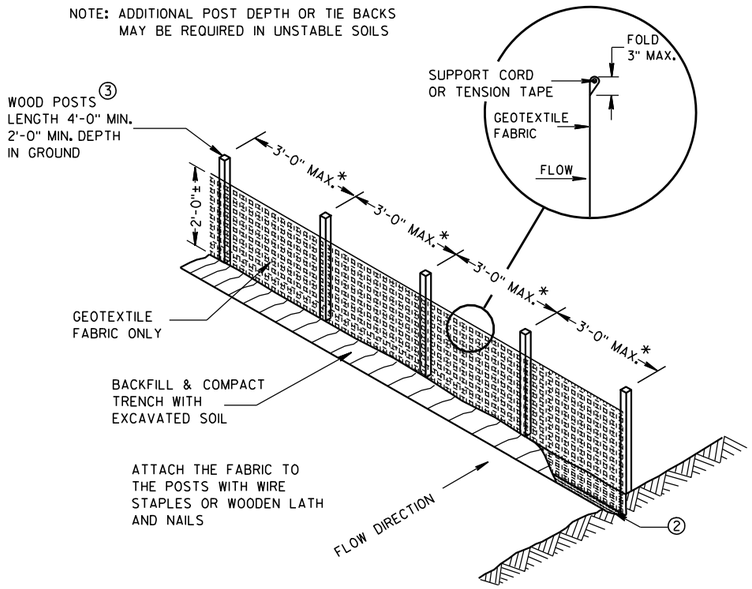
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.

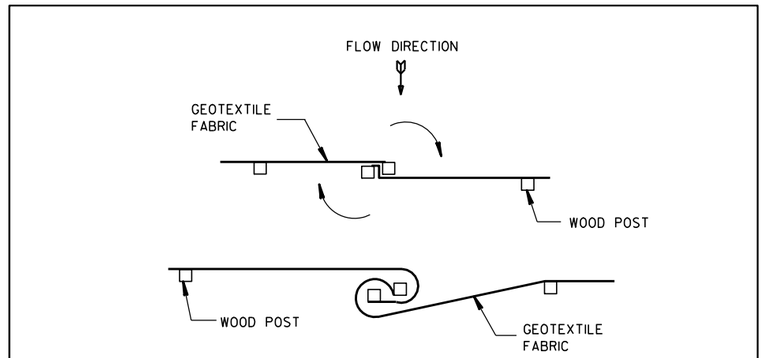
⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



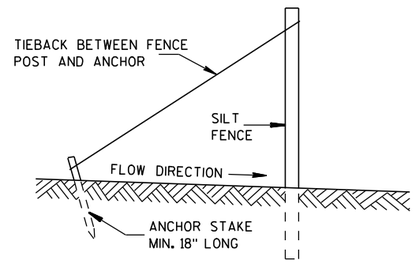
TRENCH DETAIL



SILT FENCE



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

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S.D.D. 8 E 9-6

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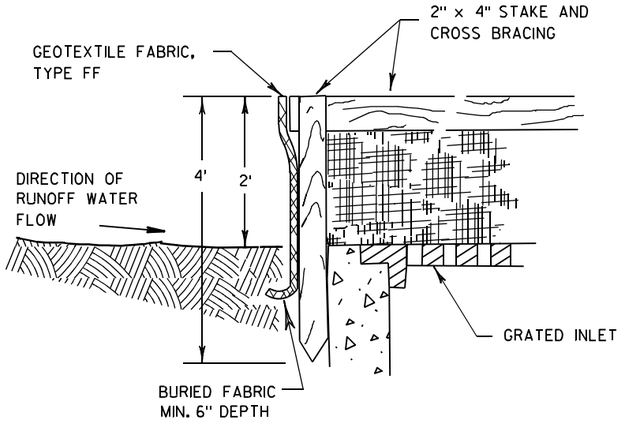
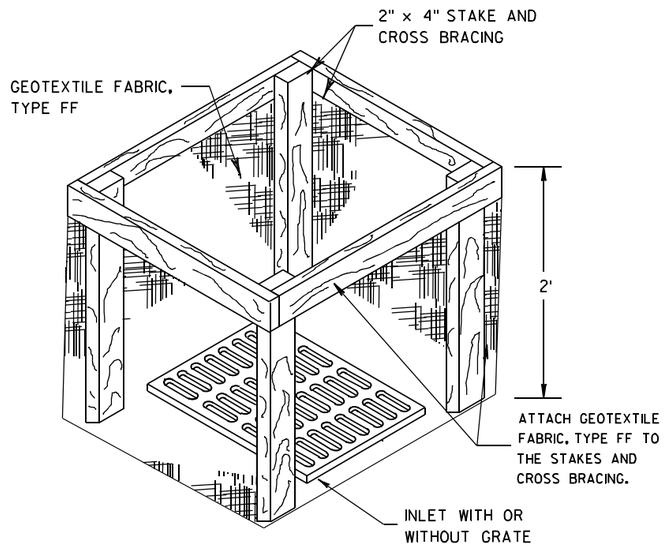
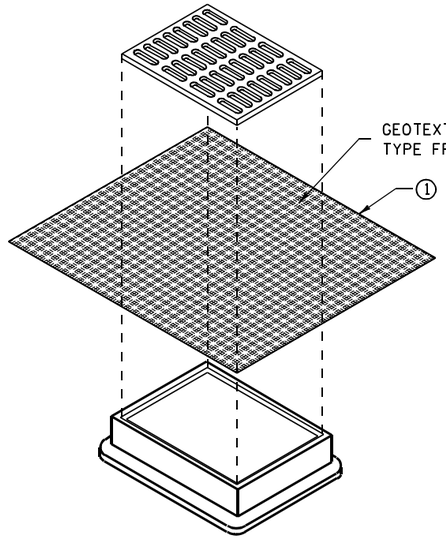


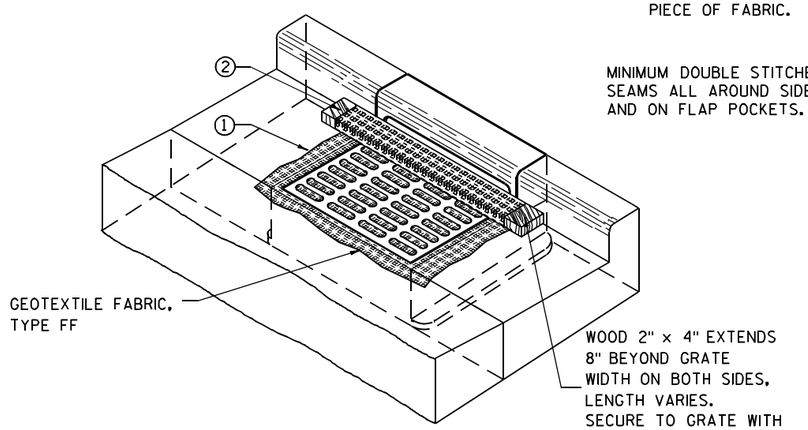


INLET PROTECTION, TYPE A

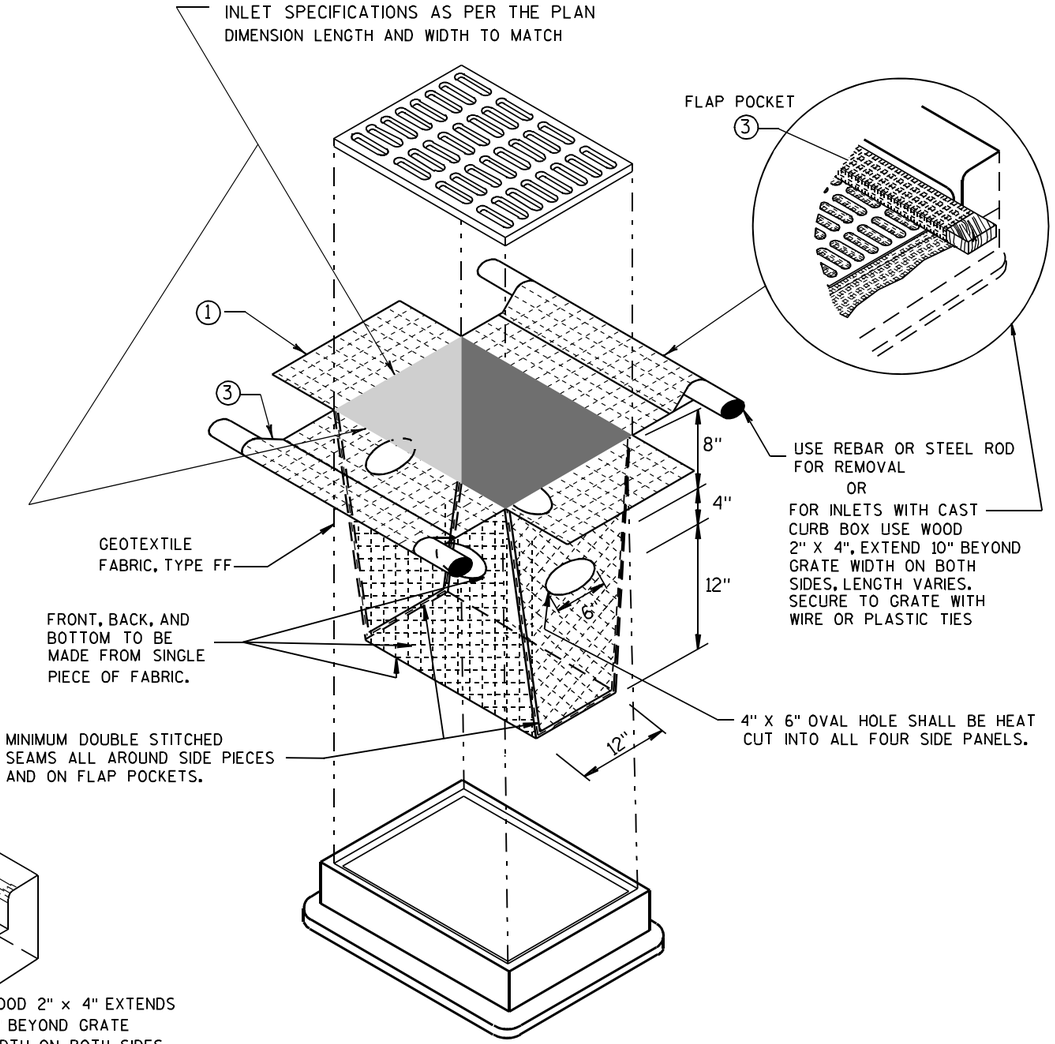


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(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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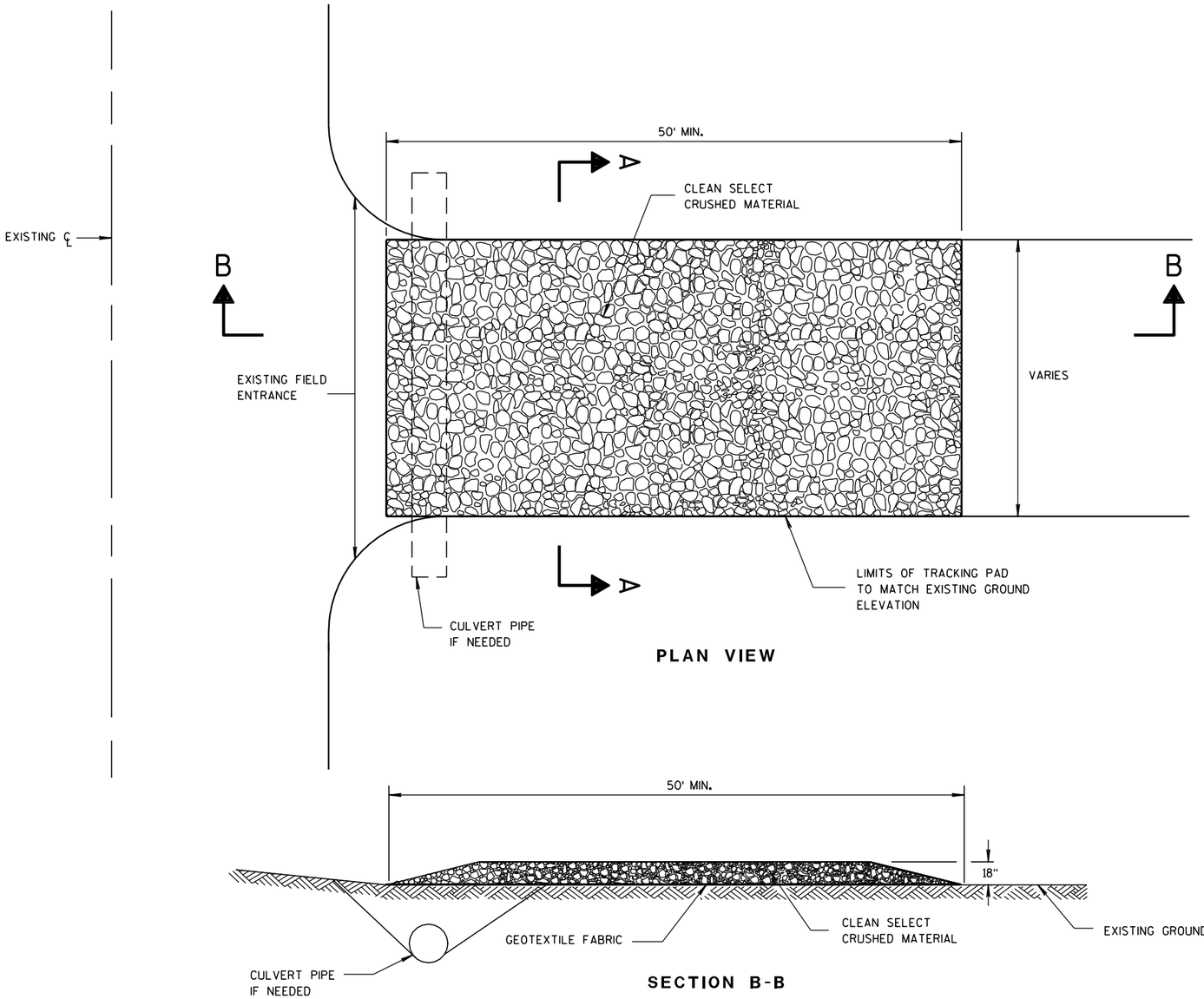


PLAN VIEW

SECTION B-B

GENERAL NOTES

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

TRACKING PAD SHALL BE INSPECTED DAILY. DEFICIENT AREAS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

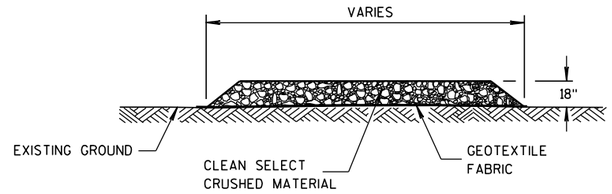
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT.

SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. FLOWS SHALL BE DIVERTED AWAY, AROUND OR CONVEYED UNDER THE TRACKING PAD.

CULVERT PIPE OR OTHER BMP USED TO DIVERT WATER AWAY, AROUND OR UNDER THE TRACKING PAD SHALL BE DESIGNED TO CONVEY THE 2 YEAR - 24 HOUR EVENT.

THE COST OF ADDITIONAL BMP TO DIVERT WATER ARE INCIDENTAL TO THE TRACKING PAD BID ITEM.



SECTION A-A

TRACKING PAD

TRACKING PAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/24/2011 — DATE
/S/ Jerry H. Zoda — ROADWAY STANDARDS ENGINEER
FHWA

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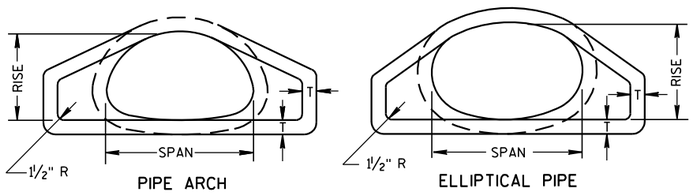
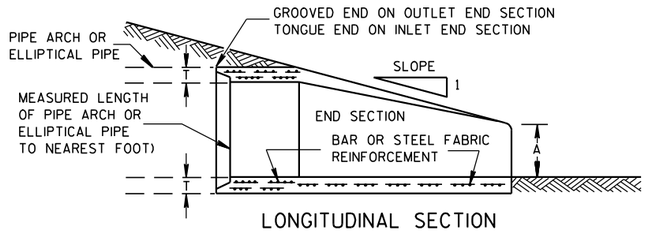
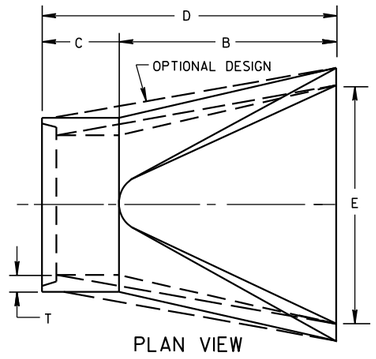


END VIEW

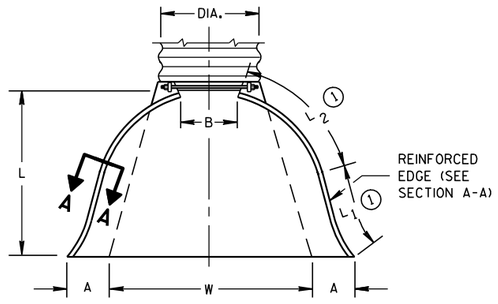


LONGITUDINAL SECTION

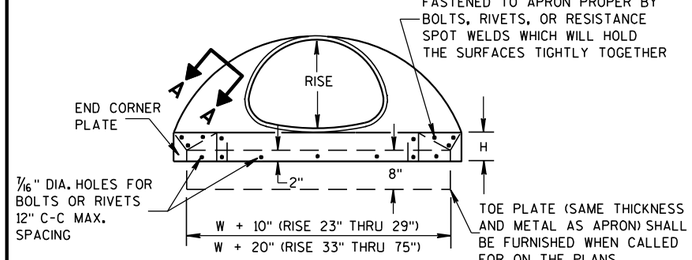


PLAN VIEW

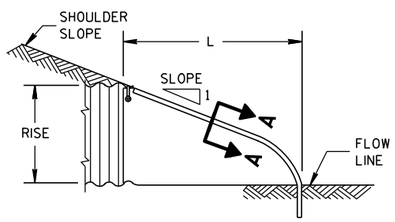
CONCRETE ENDWALLS



PLAN VIEW

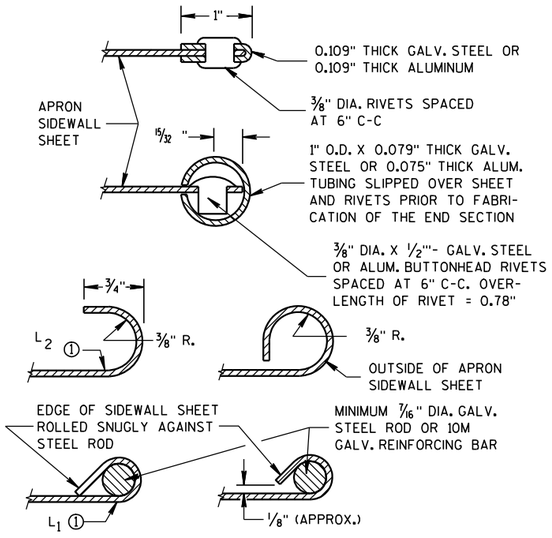


END VIEW



SIDE ELEVATION

METAL ENDWALLS



SECTION A-A

2- 2/3" X 1/2" CORRUGATIONS

EQUIV. DIA. (Inches)	(Inches) SPAN	(Inches) RISE	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
15	17	13	.064	.060	7	9	6	19	14	16	30	2½ to 1	1 Pc.
18	21	15	.064	.060	7	10	6	23	14	19⅜	36	2½ to 1	1 Pc.
21	24	18	.064	.060	8	12	6	28	18	21¾	42	2½ to 1	1 Pc.
24	28	20	.064	.060	9	14	6	32	18	27½	48	2½ to 1	1 Pc.
30	35	24	.079	.075	10	16	6	39	18	37⅝	60	2½ to 1	1 Pc.
36	42	29	.079	.075	12	18	8	46	24	45⅜	75	2½ to 1	1 Pc.
42	49	33	.109	.105	13	21	9	53	24	54¾	85	2½ to 1	2 Pc.
48	57	38	.109	.105	18	26	12	63	24	68	90	2½ to 1	3 Pc.
54	64	43	.109	.105	18	30	12	70	24	72¾	102	2¼ to 1	3 Pc.
60	71	47	.109*	.105*	18	33	12	77	30	82¼	114	2¼ to 1	3 Pc.
66	77	52	.109*	.105*	18	36	12	77	—	—	126	2 to 1	3 Pc.
72	83	57	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.

3" X 1" CORRUGATIONS

EQUIV. DIA. (Inches)	(Inches) SPAN	(Inches) RISE	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
48	53	41	.109	.105	18	26	12	63	24	72¾	90	2½ to 1	2 Pc.
54	60	46	.109	.105	18	30	12	70	30	82¼	102	2 to 1	2 Pc.
60	66	51	.109*	.105*	18	33	12	77	—	—	114	1½ to 1	3 Pc.
66	73	55	.109*	.105*	18	36	12	77	—	—	126	1½ to 1	3 Pc.
72	81	59	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.
78	87	63	.109*	.105*	22	38	12	77	—	—	148	1½ to 1	3 Pc.
84	95	67	.109*	.105*	22	34	12	77	—	—	162	1½ to 1	3 Pc.
90	103	71	.109*	.105*	22	38	12	77	—	—	174	1½ to 1	3 Pc.
96	112	75	.109*	.105*	24	40	12	77	—	—	174	1½ to 1	3 Pc.

NOTE: ALL SPLICES TO BE LAP RIVETED OR BOLTED.

* EXCEPT CENTER PANEL SEE GENERAL NOTES

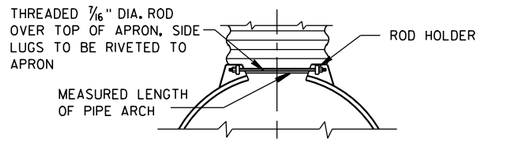
REINFORCED CONCRETE PIPE ARCH

EQUIV. DIA. (Inches)	DIMENSIONS (Inches) ** SPAN	** RISE	T	A	B	C	D	E	APPROX. SLOPE
24	29	18	3	8½	39	33	72	48	3 to 1
30	36	22	3½	9½	50	46	96	60	3 to 1
36	44	27	4	11⅛	60	36	96	72	3 to 1
42	51	31	4½	15 13/16	60	36	96	78	3 to 1
48	58	36	5	21	60	36	96	84	3 to 1
54	65	40	5½	25½	60	36	96	90	3 to 1
60	73	45	6	31	60	36	96	96	3 to 1
72	88	54	7	31	60	39	99	120	2 to 1
84	102	62	8	28½	83	19	102	144	2 to 1

REINFORCED CONCRETE ELLIPTICAL PIPE

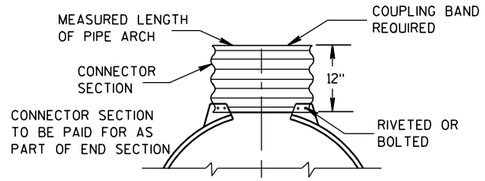
EQUIV. DIA. (Inches)	DIMENSIONS (Inches) ** SPAN	** RISE	T	A	B	C	D	E	APPROX. SLOPE
24	30	19	3¼	8½	39	33	72	48	3 to 1
30	38	24	3¾	9½	54	18	72	60	3 to 1
36	45	29	4½	11⅛	60	24	84	72	2½ to 1
42	53	34	5	15¾	60	36	96	78	2½ to 1
48	60	38	5½	21	60	36	96	84	2½ to 1
54	68	43	6	25½	60	36	96	90	2½ to 1
60	76	48	6½	30	60	36	96	96	2½ to 1

**NOMINAL SIZE



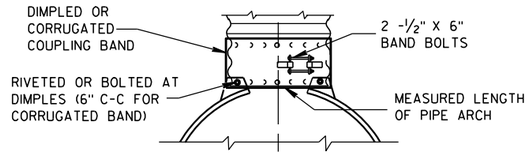
TYPE 2

FOR 17" X 13" THRU 112" X 75" PIPE ARCH



TYPE 3

FOR 64" X 43" THRU 112" X 75" PIPE ARCH



TYPE 5

ALTERNATE FOR:

ALL SIZES CORRUGATED PIPE ARCHES

NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL.

CONNECTION DETAILS

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.

CONCRETE APRON ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM APRON ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

ALL THREE PIECE STEEL APRON ENDWALLS FOR 66" X 51" PIPE ARCH AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 66" X 51" PIPE ARCH AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE ARCH PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 77" X 52" THROUGH 112" X 75" APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

① FOR PIPE ARCH SIZES UP TO 73" X 55" A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

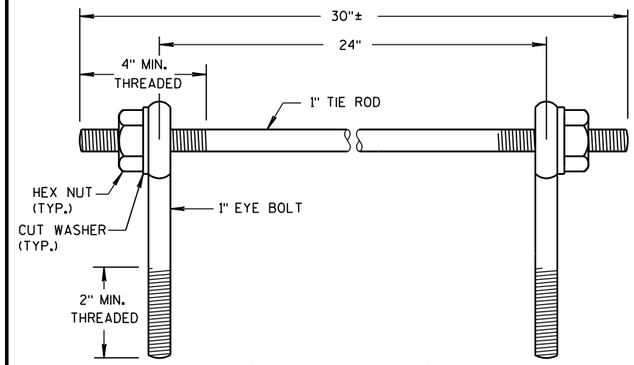
11/30/94 — DATE

/S/ Rory L. Rhinesmith — CHIEF ROADWAY DEVELOPMENT ENGINEER

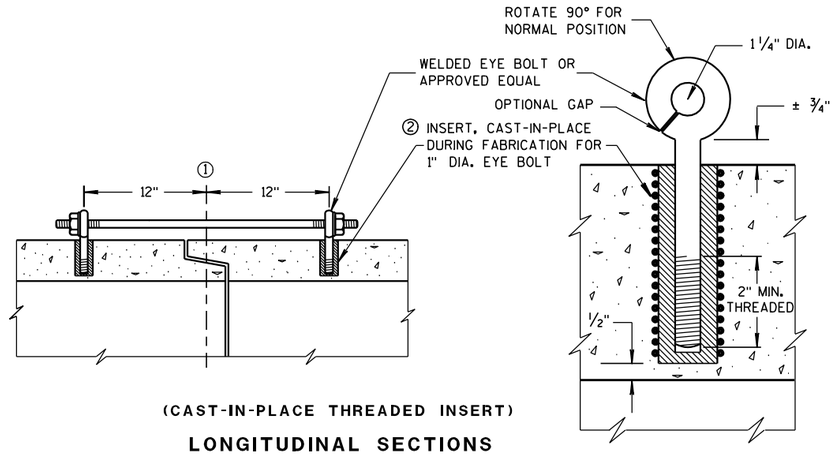
FHWA

6

S.D.D. 8 F 2-1



EYE BOLTS AND TIE ROD



(CAST-IN-PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 1)

GENERAL NOTES

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

CONCRETE CULVERT AND STORM SEWER PIPE SHALL BE TIED TOGETHER IN THE MANNER ILLUSTRATED BY THIS DETAIL AT LOCATIONS DESIGNATED IN THE STANDARD SPECIFICATIONS AND THE PLAN. THE CONTRACTOR MAY USE EITHER ALTERNATE 1, 2 OR 3 FOR DRAINAGE STRUCTURES. ONLY ALTERNATE 1 AND 3 MAY BE USED FOR CATTLE PASSES, UNLESS OTHERWISE STATED IN THE CONTRACT. THE MATERIALS, FABRICATION AND WORK NECESSARY TO TIE THE PIPE BY THIS DETAIL WILL BE CONSIDERED INCIDENTAL TO THE PIPE AND APRON ENDWALLS IF REQUIRED.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

① ℄ OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.

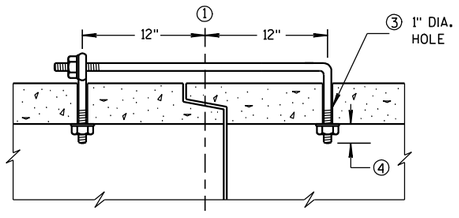
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12 INCHES FROM ℄ OF TONGUE AND GROOVE.

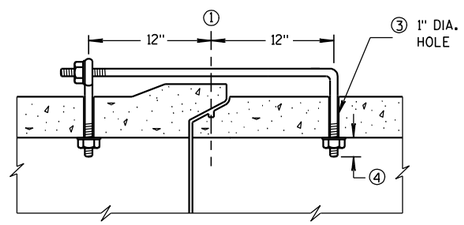
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.

⑥ LENGTH ADEQUATE TO EXTEND TO WITHIN 1/2 INCH OF THE INNER SURFACE OF THE PIPE.



(TONGUE & GROOVE PIPE)

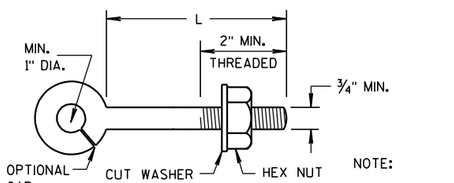


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

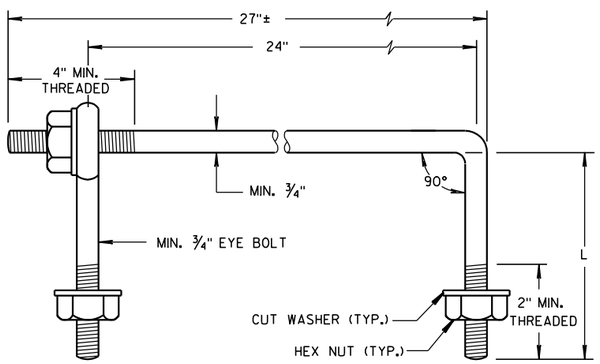
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



NOTE:

EYE BOLT

NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD

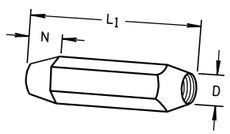
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)

ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12-60	5/8	5/8	5	1/2
66-84	3/4	3/4	5	1/2
90-108	1	1	7	1 1/16

DIMENSIONS SHOWN ARE IN INCHES



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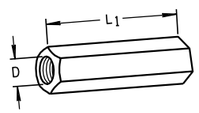
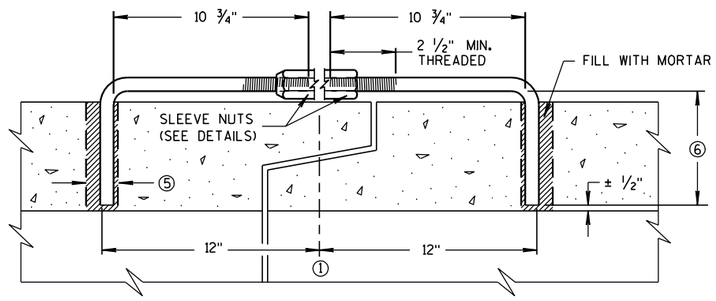


PLAIN

RIGHT AND LEFT THREADS

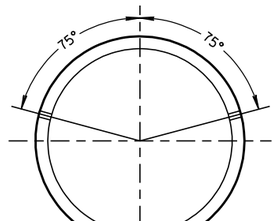
SLEEVE NUTS



LONGITUDINAL SECTION

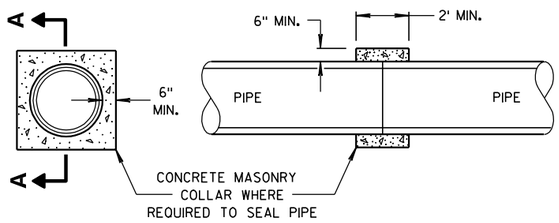
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



PLACEMENT OF (2) CAST-IN-PLACE INSERTS OR HOLES DURING FABRICATION FOR PIPE SECTIONS REQUIRING TIE RODS

TRANSVERSE SECTION



SECTION A-A

CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
443
FHWA

6

S.D.D. 8 F 4-7

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S.D.D. 8 F 4-7

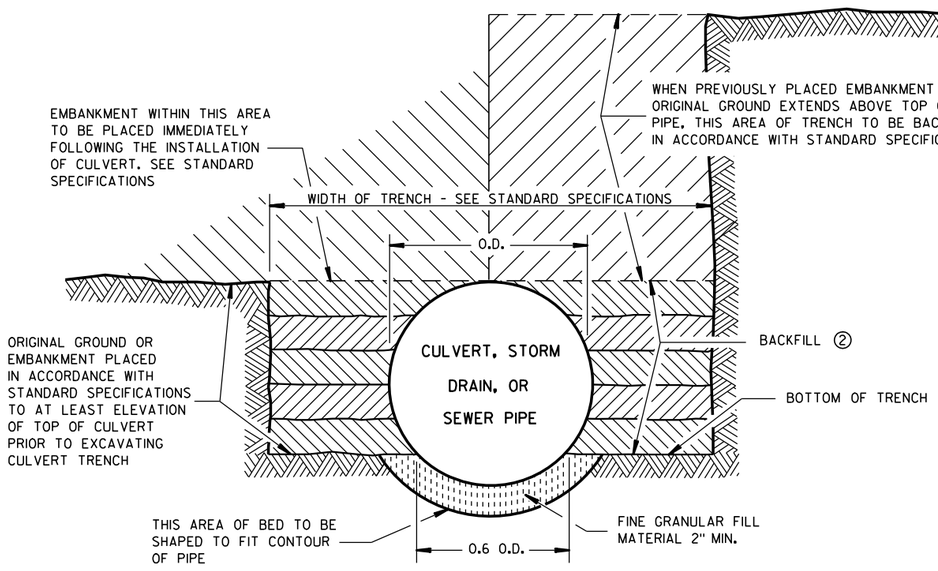
GENERAL NOTES

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

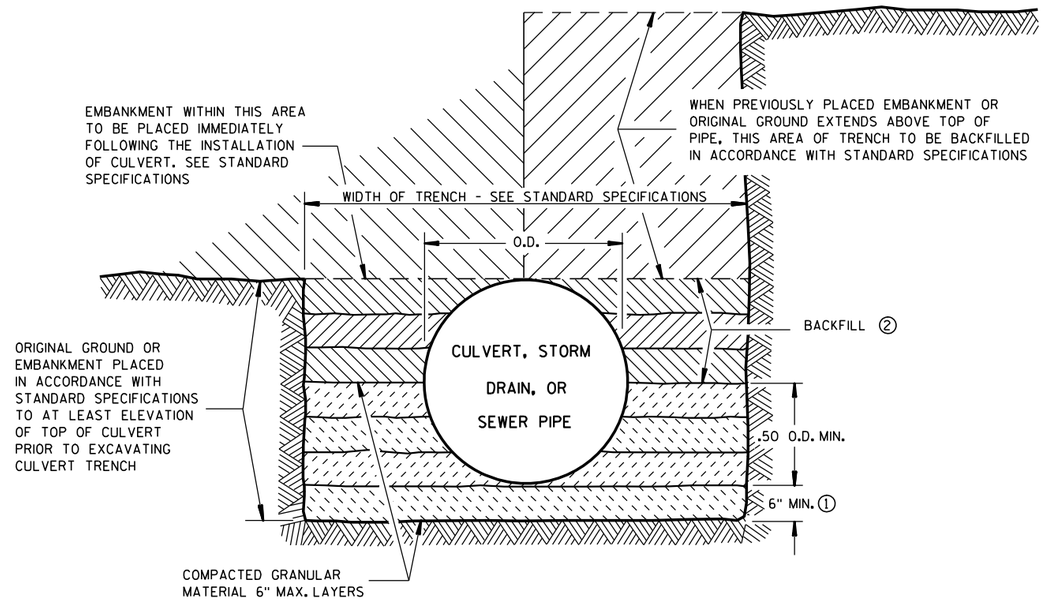
THE SHAPED SUBGRADE WITH GRANULAR FOUNDATION IS AN EQUAL ALTERNATE TO THE GRANULAR FOUNDATION EXCEPT WHERE ROCK IS ENCOUNTERED.

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	444 HWYS

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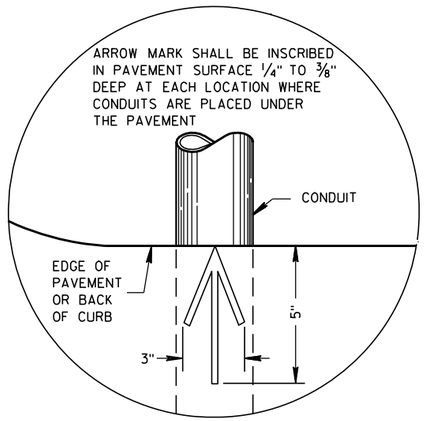
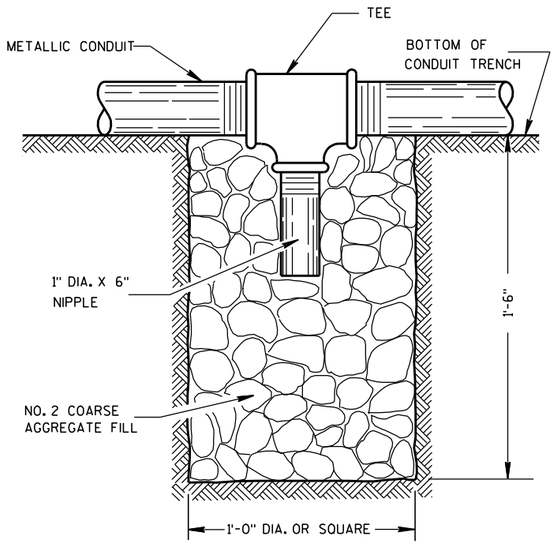
S.D.D. 8 F 5-1



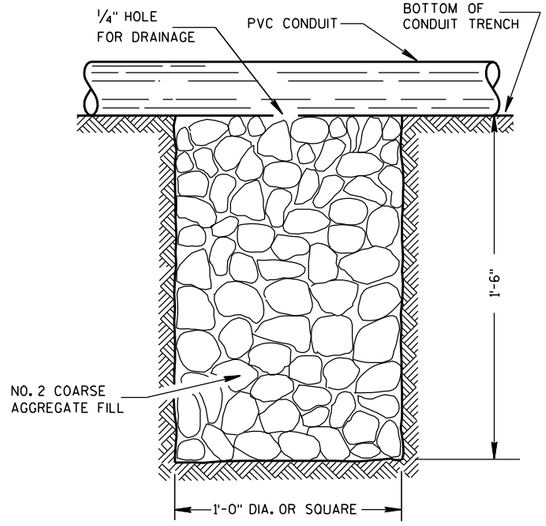
PLAN VIEW

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.

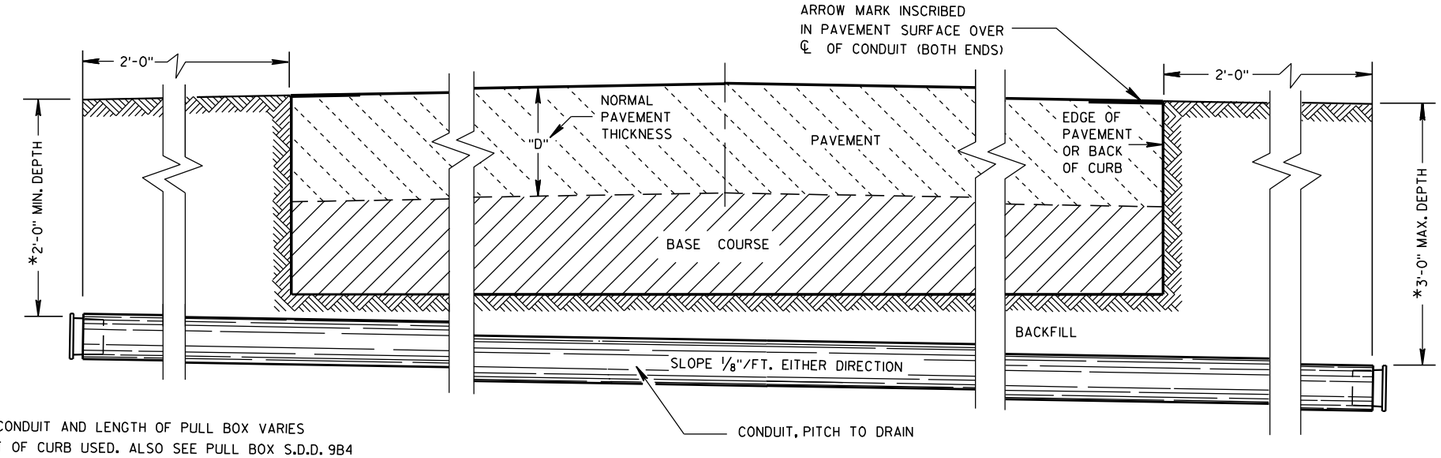
PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

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.).

POLY ROPE OR A PULL WIRE SHALL BE INSTALLED AS STATED IN THE STANDARD SPECIFICATION, ITEM 652.3.1.1.

ALL CONDUIT RUNS SHALL BE STRAIGHT (WITHOUT BENDS) FROM PULL BOX TO PULL BOX, PULL BOX TO BASE AND BASE TO BASE AS SHOWN ON THE PLANS.



*DEPTH OF CONDUIT AND LENGTH OF PULL BOX VARIES WITH HEIGHT OF CURB USED. ALSO SEE PULL BOX S.D.D. 9B4

SIDE ELEVATION

DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/23/03 DATE

/S/ Balu Ananthanarayanan
STATE ELECTRICAL ENGI 445 HWYS

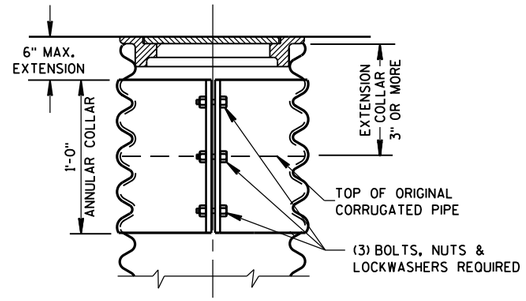
FHWA

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

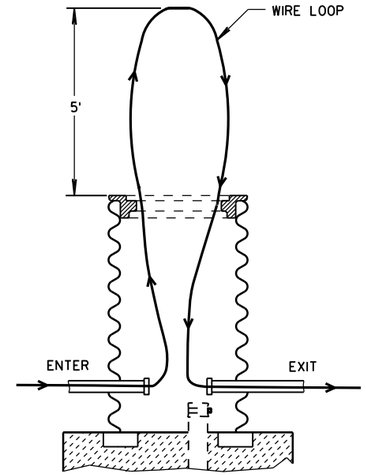
DIMENSION IN INCHES		CORRUGATED STEEL PIPE								
PIPE DIAMETER (INSIDE)	A	12	12	12	18	18	18	24	24	24
PIPE LENGTH **	B	24	30	36	24	30	36	36	42	48
WALL THICKNESS	C	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064
COVER	D	10 1/4	10 1/4	10 1/4	16 1/4	16 1/4	16 1/4	22 1/4	22 1/4	22 1/4
FRAME	E	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2	26 1/2	26 1/2	26 1/2
FRAME	F	8 1/2	8 1/2	8 1/2	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2
FRAME	G	11 1/2	11 1/2	11 1/2	17 1/2	17 1/2	17 1/2	23 1/2	23 1/2	23 1/2
WEIGHT IN POUNDS *										
FRAME AND COVER		60	60	60	110	110	110	155	155	155

* THE ACTUAL WEIGHT OF THE MANHOLE FRAME AND COVER MAY VARY WITHIN 5 PERCENT PLUS OR MINUS OF THE WEIGHTS SHOWN.

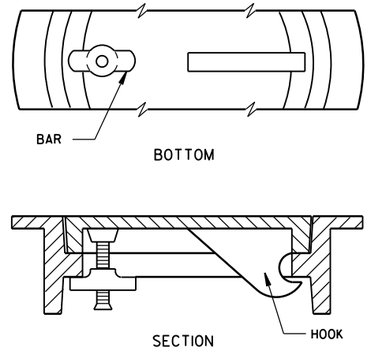
** NORMALLY USED LENGTHS. THE PROJECT ENGINEER SHALL DETERMINE IF PIPE LENGTHS, OTHER THAN THOSE SPECIFIED, SHALL BE USED, TO A MAXIMUM OF 48" (CONTINUOUS LENGTH, NON-SPLICED). THE ADDITIONAL LENGTH SHALL BE INCIDENTAL TO THE PULL BOX BID PRICE.



CORRUGATED PIPE EXTENDER

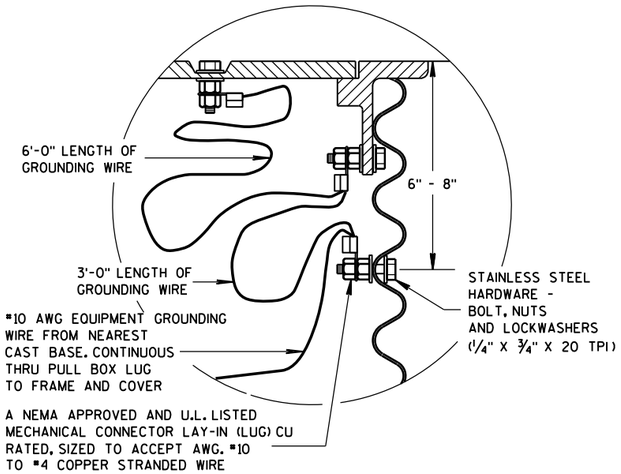


MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX

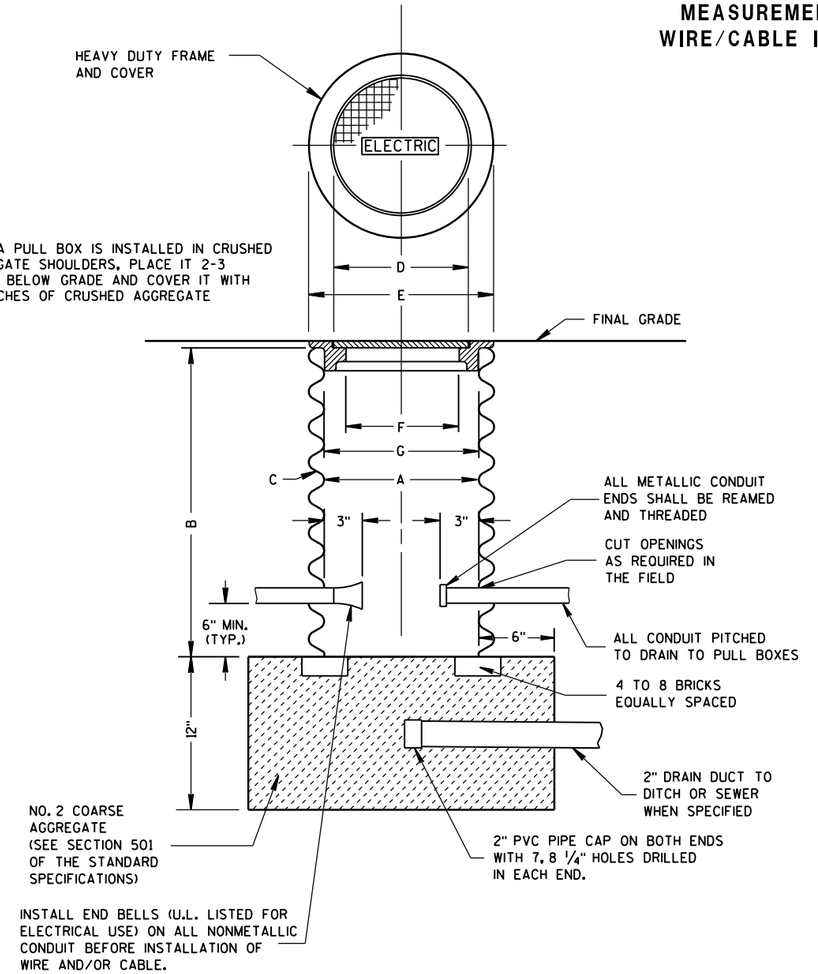


ALTERNATE COVER (LOCKING)

TIGHTENING BAR TYPE



EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES



PULL BOX

GENERAL NOTES

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

ALL FRAMES AND COVERS SHALL BE HEAVY DUTY TYPE, SUITABLE FOR VEHICULAR TRAFFIC LOADS.

PULL BOXES LOCATED IN THE ROADWAYS SHALL HAVE LOCKING COVERS.

ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN 1/4".

THE CONTRACTOR SHALL NOT INSTALL WIRE IN ANY PULL BOX UNTIL ITS INSTALLATION HAS BEEN INSPECTED AND ACCEPTED BY THE ENGINEER.

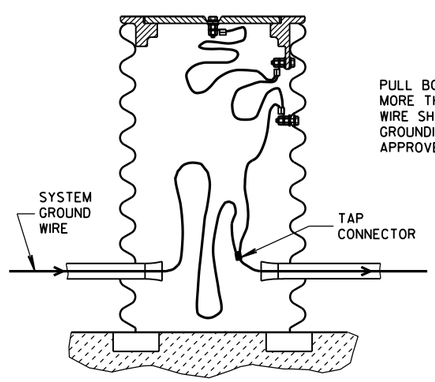
GROUNDING LUGS (MECHANICAL CONNECTORS) SHALL BE U.L. LISTED AND APPROVED FOR USE WITH COPPER WIRE.

GROUNDING LUGS ARE NOT REQUIRED IN PULL BOXES WHEN VOLTAGES OF LESS THAN 50 VOLTS AC ARE THE ONLY VOLTAGES ENCOUNTERED IN THE BOXES.

ALL METALLIC CONDUIT IN WHICH WIRE AND/OR CABLE IS TO BE INSTALLED, SHALL BE BUSHED BEFORE INSTALLATION OF THE WIRE AND/OR CABLE.

S.D.D. 9B2, "CONDUIT", APPLIES TO THIS DRAWING.

WHEN PULL BOXES ARE INSTALLED FOR FUTURE USE, DO NOT INSTALL THE EQUIPMENT GROUNDING LUG. THE EQUIPMENT GROUNDING LUG, THE EQUIPMENT GROUNDING ELECTRODE AND THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE REQUIRED AND INSTALLED UNDER A FUTURE WIRING CONTRACT.



EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES

PULL BOX

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

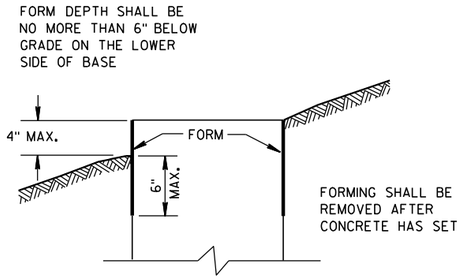
2-7-2013
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL

FHWA

6

S.D.D. 9 B 4-10



FORMING DETAIL

QUANTITY REQUIREMENTS	CONCRETE BASE TYPE		
	1	2	5
APPROX. CUBIC YARDS OF CONCRETE	0.40	0.57	0.40
LBS. OF HOOP BAR STEEL	NONE	23	16
LBS. OF VERTICAL BAR STEEL	NONE	60	18

GENERAL NOTES

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

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

TOP SURFACES OF CONCRETE BASES SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN AT THE ENTRANCE OF THE BASE.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 1 INCH. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

GENERAL NOTES (CONTINUED)

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

ENDS OF CONDUIT INSTALLED BELOW GRADE FOR FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD) FOR TYPE 2 AND TYPE 5 BASES.

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE OF THE TYPE 2 AND TYPE 5 BASES THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD. ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 AND 641.2.2 OF THE STANDARD SPECIFICATIONS, ASTM A-449, OR ASTM A-687 (GRADE 105).

WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4" "L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND END SHALL NOT BE THREADED.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TIE WIRES SHALL BE USED.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).

(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN APPROVAL BY THE ENGINEER.

(2) (4) 1" DIA. X 3'-6" ANCHOR RODS.

(3) (4) 1" DIA. X 5'-0" ANCHOR RODS.

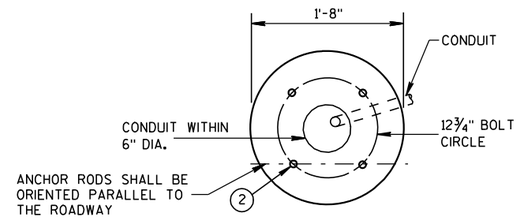
(4) (6) NO. 6 X 6'-8" BAR STEEL REINFORCEMENT.

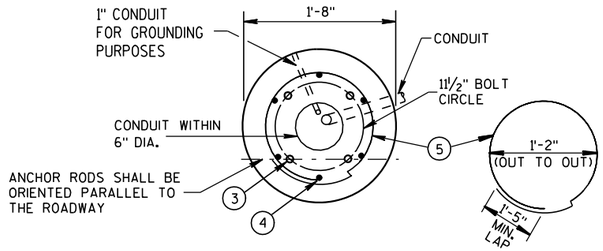
(5) (7) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

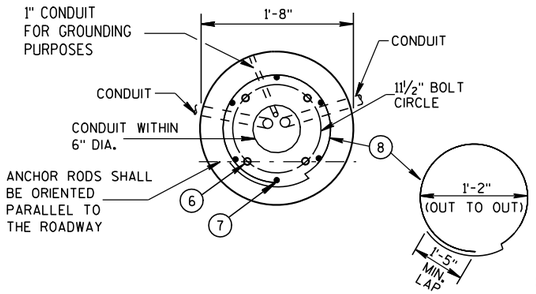
(6) (4) 1" DIA. X 3'-6" ANCHOR RODS.

(7) (6) NO.4 X 4'-8" BAR STEEL REINFORCEMENT.

(8) (5) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

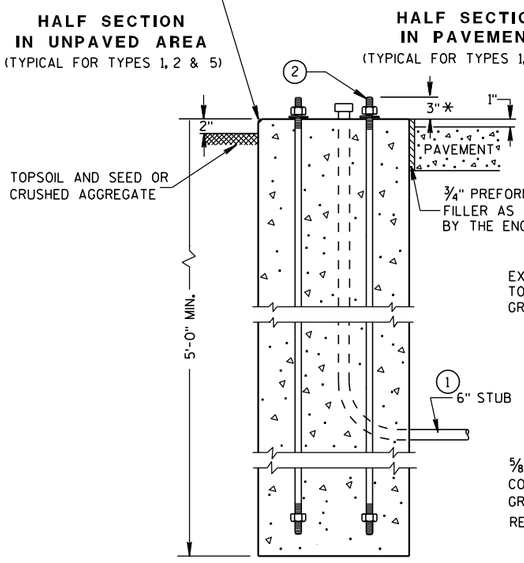






FORM ALL EXPOSED CONCRETE. PROVIDE 1" CHAMFER ALL AROUND

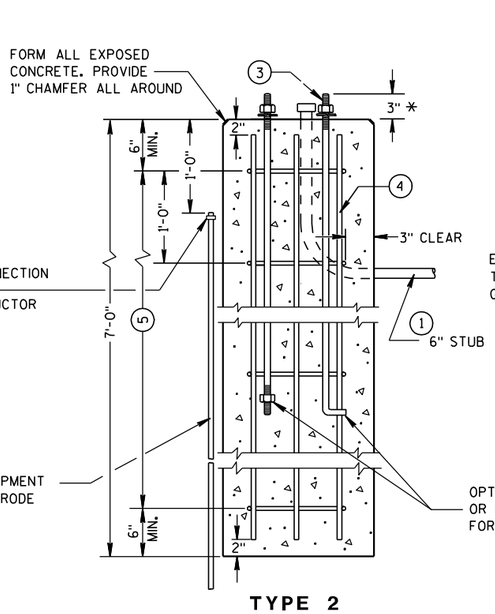
HALF SECTION IN UNPAVED AREA
(TYPICAL FOR TYPES 1, 2 & 5)



HALF SECTION IN PAVEMENT
(TYPICAL FOR TYPES 1, 2 & 5)

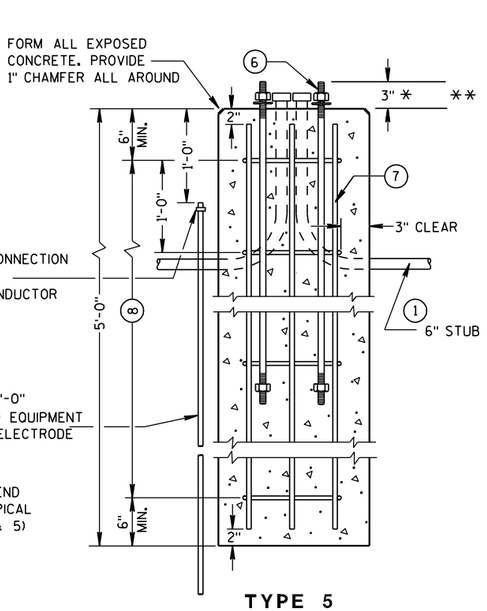
TYPE 1

FORM ALL EXPOSED CONCRETE. PROVIDE 1" CHAMFER ALL AROUND



TYPE 2

FORM ALL EXPOSED CONCRETE. PROVIDE 1" CHAMFER ALL AROUND



TYPE 5

CONCRETE BASES

* ANY ANCHOR ROD PROJECTION SHORTER THAN 2¾" OR LONGER THAN 3¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

** FOR NONBREAKAWAY INSTALLATIONS, 4½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

CONCRETE BASES, TYPES 1, 2 & 5

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/3/10 — DATE
/S/ Joanna L. Rush — STATE ELECTRICAL ENGI 447 — HWYS
FHWA

6
S.D.D. 9 C 2-6

GENERAL NOTES

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

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

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

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

DOUBLE NUTTING IS NOT ACCEPTABLE FOR LEVELING OR MOUNTING PURPOSES.

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

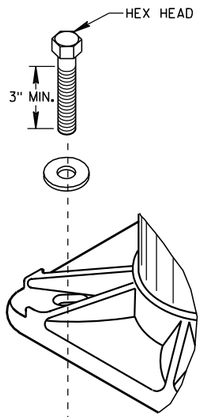
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

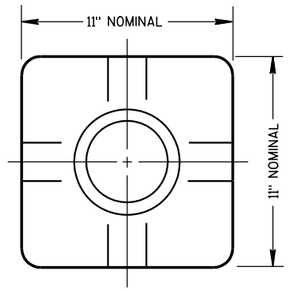
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

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

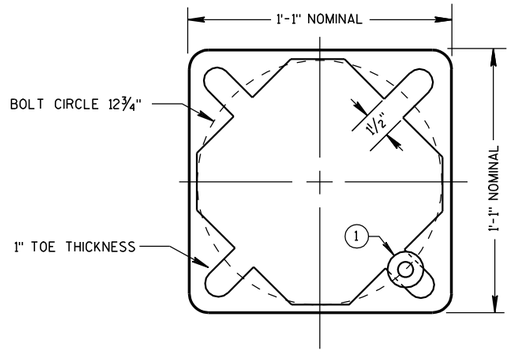
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1½", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

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

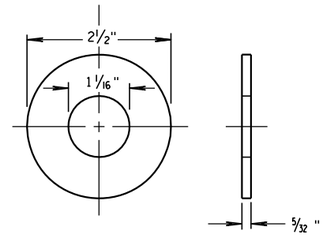




TOP VIEW
(PEDESTAL BASE)

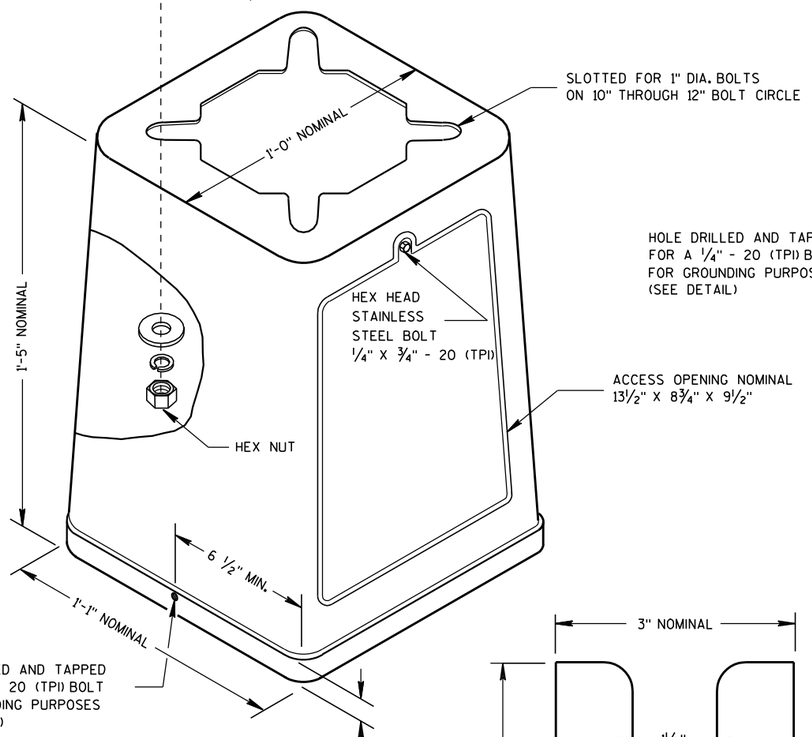


BOTTOM VIEW
(PEDESTAL BASE)

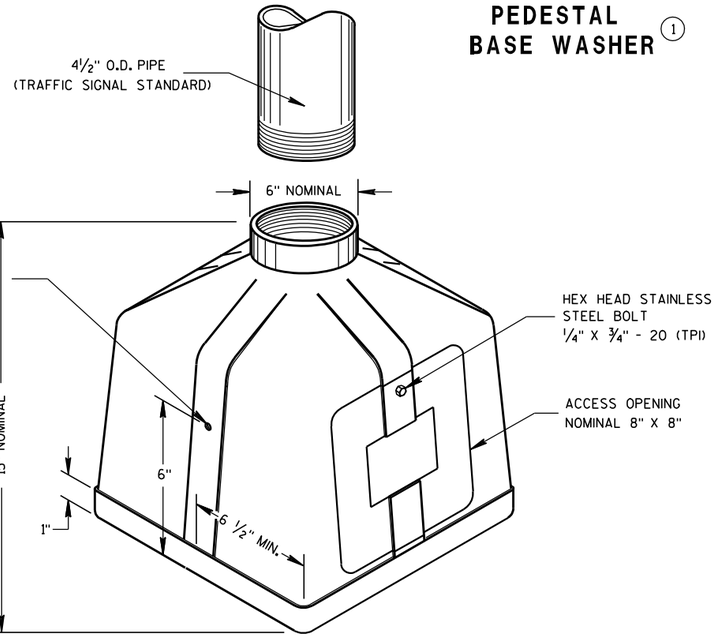


ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

PEDESTAL BASE WASHER (1)

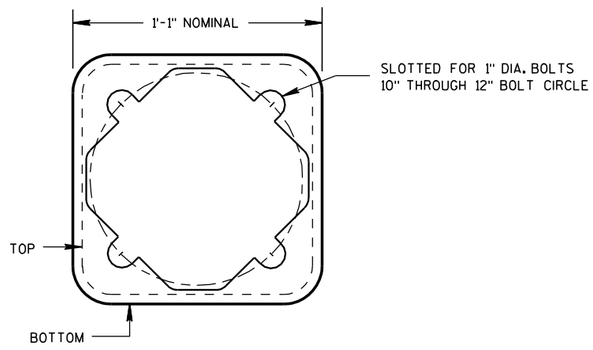


ISOMETRIC VIEW

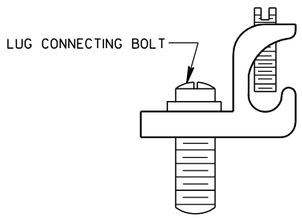


ISOMETRIC VIEW

PEDESTAL BASE



BOTTOM VIEW
(TRANSFORMER BASE)

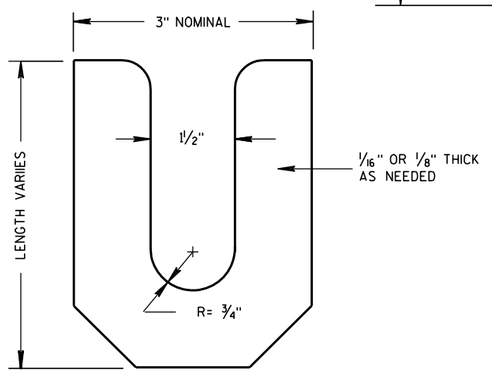


TYPICAL MECHANICAL CONNECTOR LUG

TO BE FURNISHED WITH EACH BASE

TRANSFORMER BASE

INTENDED FOR USE WITH TYPE 2, 3, 4, 5 & 6 POLES



LEVELING SHIM

TRANSFORMER/PEDESTAL BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/27/09 — DATE
/S/ Joanna L. Rich — STATE ELECTRICAL ENGI
448 — HWYS
FHWA

6

S.D.D. 9 C 3-3

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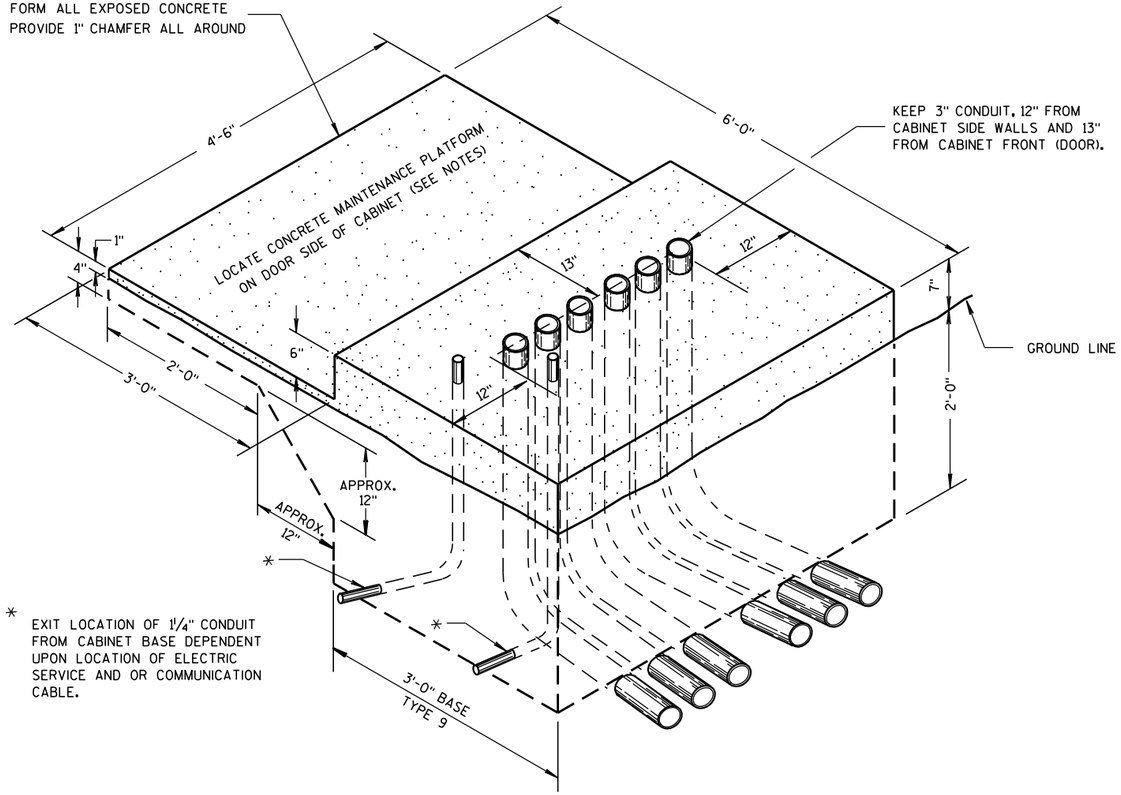
S.D.D. 9 C 3-3

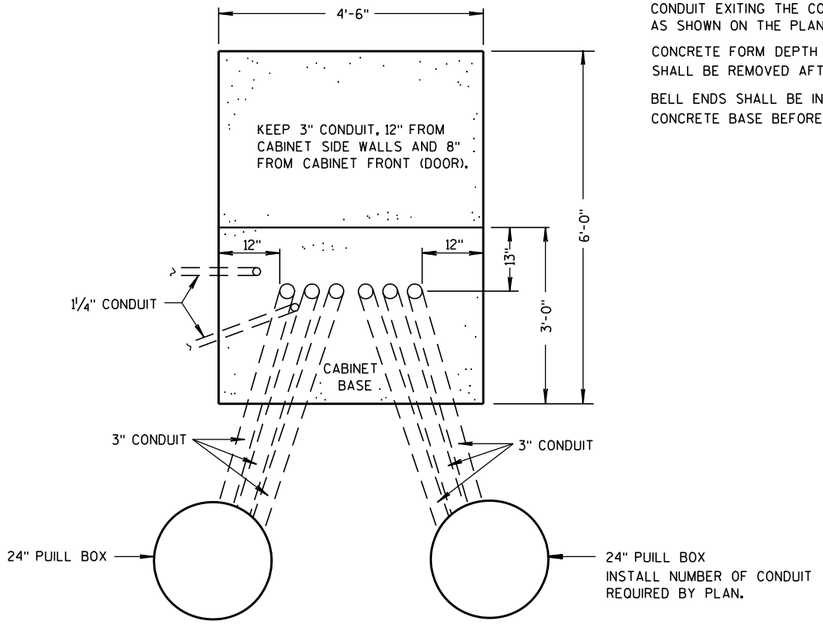


* EXIT LOCATION OF 1¼" CONDUIT FROM CABINET BASE DEPENDENT UPON LOCATION OF ELECTRIC SERVICE AND OR COMMUNICATION CABLE.

ISOMETRIC VIEW

TYPE 9, SPECIAL

(C.Y. CONCRETE = APPROX. 1.56)



PLAN VIEW

CONCRETE CONTROL CABINET BASE, TYPE 9, SPECIAL

GENERAL NOTES

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

INSTALL FOUR ½ INCH MINIMUM DIAMETER X 4 INCH MINIMUM LENGTH STAINLESS STEEL APPROVED CONCRETE MASONRY ANCHORS TO ANCHOR THE CABINET TO TYPE 6, 7, 8, AND 9 BASES. THE ANCHOR STUDS SHALL BE LOCATED AS DIRECTED BY THE ENGINEER TO PROPERLY ANCHOR THE CONTROL CABINET TO THE BASE.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

CONDUIT HEIGHT ABOVE THE CONCRETE BASE SHALL BE 1 INCH.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

CONTROL CABINET BASE TOP SURFACE SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

MAINTENANCE PLATFORM SHALL BE FLOAT OR BROOM FINISHED AND BE LEVEL.

MAINTENANCE PLATFORMS ARE NOT REQUIRED WHEN THE SURROUNDING AREA IS PAVED.

MINIMUM BENDING RADIUS OF CONDUIT = 6 X THE DIAMETER.

ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

CAP ALL BELOW GRADE METALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

PLUG ALL BELOW GRADE NONMETALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

CONDUIT EXITING THE CONCRETE BASE (SIX THREE INCH) SHALL TERMINATE IN PULL BOXES AS SHOWN ON THE PLANS.

CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6" MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF THE CONCRETE BASE BEFORE INSTALLATION OF CABLE OR WIRE.

CONCRETE CONTROL CABINET BASE, TYPE 9, SPECIAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

2/27/07 — DATE

/S/ Balu Ananthapadmanabhan — STATE ELECTRICAL ENGI

449

HWYS

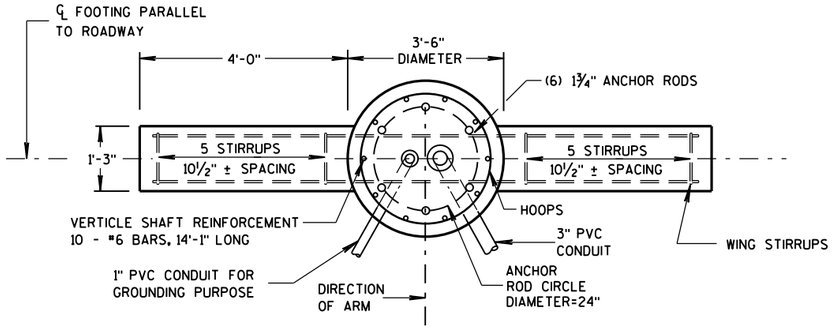
FHWA

6

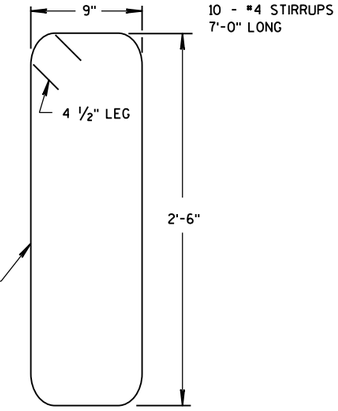
S.D.D. 9 C 6-5

6

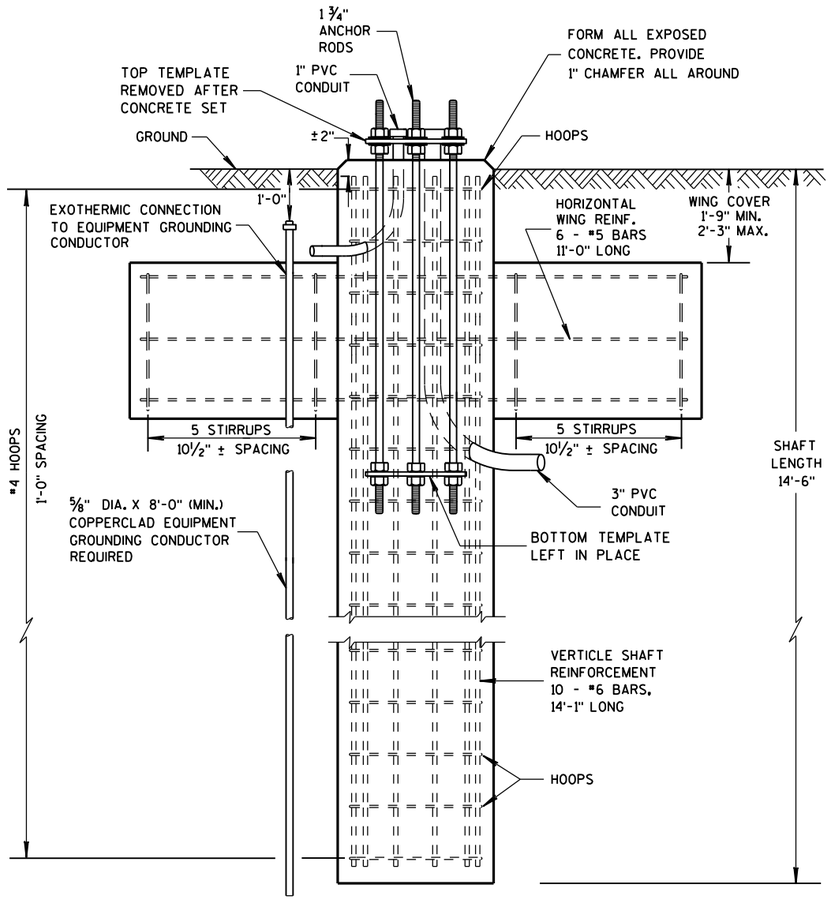
S.D.D. 9 C 6-5



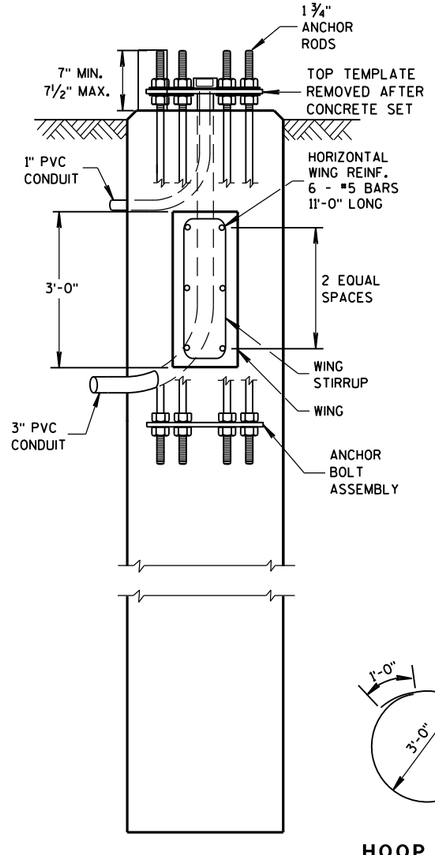
PLAN VIEW



WING STIRRUP

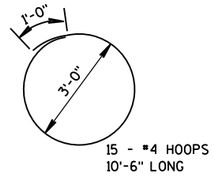


ELEVATION VIEW



SIDE VIEW

DOES NOT SHOW HOOPS OR VERTICAL SHAFT REINFORCEMENT



HOOP DETAIL

GENERAL NOTES

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

ORIENT ANCHOR RODS IN FOOTING AND PROVIDE ANCHOR ROD PROJECTION ABOVE TOP OF CONCRETE FOOTING BASE PER THIS SHEET.

BENDING DIMENSIONS FOR REINFORCING BARS ARE OUT TO OUT.

USE 3" CLEAR FOR ALL REINFORCEMENT UNLESS NOTED OTHERWISE.

THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO THE TYPE AND LOCATION OF THE UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO.

WELDING OF ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TEMPLATES SHALL BE USED.

BASES (SHAFT), BELOW THE WING, SHALL BE EXCAVATED BY THE USE OF A CIRCULAR AUGER. IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE SOIL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUNG THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

TOP SURFACE OF THE CONCRETE BASE SHALL BE TROWEL FINISHED AND LEVEL.

CONDUIT SIZE AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASE SHALL BE 4½" INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NONMETALLIC CONDUIT SHALL HAVE BELL ENDS INSTALLED. ALL CONDUIT SHALL SLOPE TO PULL BOX.

ALL CONDUIT ENDS AT THE TOP OF THE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTOR FITTINGS, UL LISTED FOR ELECTRICAL USE, SHALL BE USED.

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

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE THROUGH A 1-INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4-FOOT COIL OF WIRE ABOVE THE CONCRETE BASE, THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS.

THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVEL WAY SHALL BE 24-INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18-INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36-INCHES, (GREATER THAN 36-INCHES IF INSTALLED IN BREAKER-RUN), EXCEPT WITH THE WRITTEN APPROVAL OF THE ENGINEER.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

CONCRETE MASONRY	fc=3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy=60,000 p.s.i.
ANCHOR RODS, AASHTO M314 GRADE 55	fy=55,000 p.s.i.
TEMPLATES, ASTM A709 GRADE 36	fy=36,000 p.s.i.

(FOR TYPE 12 & 13 POLES)

CONCRETE = 6.3 C.Y.
H.S. REINFORCEMENT = 433 LBS.

TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION.
SEE S.D.D. 9C13-1 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.

CONCRETE BASE TYPE 13

S.D.D. 9 C 12-3a

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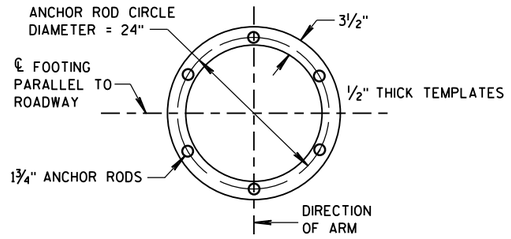
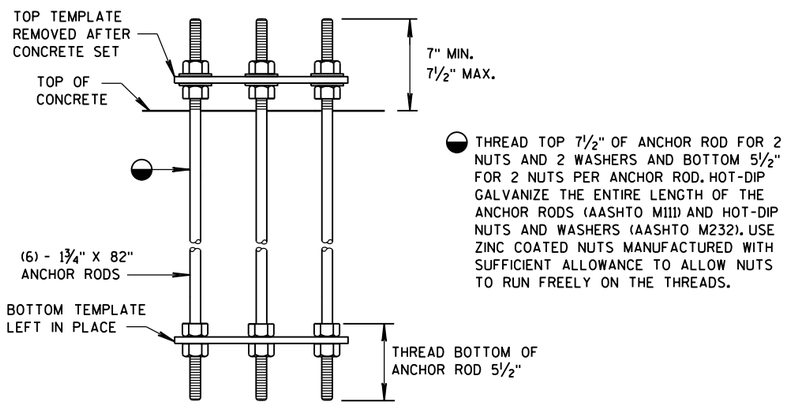
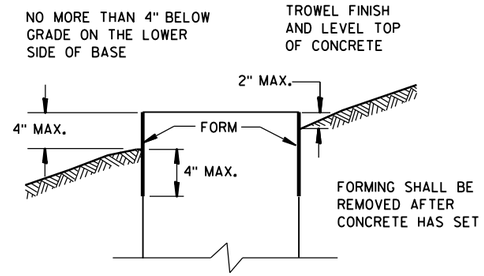


TOP AND BOTTOM TEMPLATES



ANCHOR BOLT ASSEMBLY DETAIL

CONCRETE BASE TYPE 13 ANCHOR ASSEMBLY



FORMING DETAIL

CONCRETE BASE TYPE 13	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
1-16-2013 DATE	/S/ Ahmet Demirbilek STATE ELECTRICAL
FHWA	

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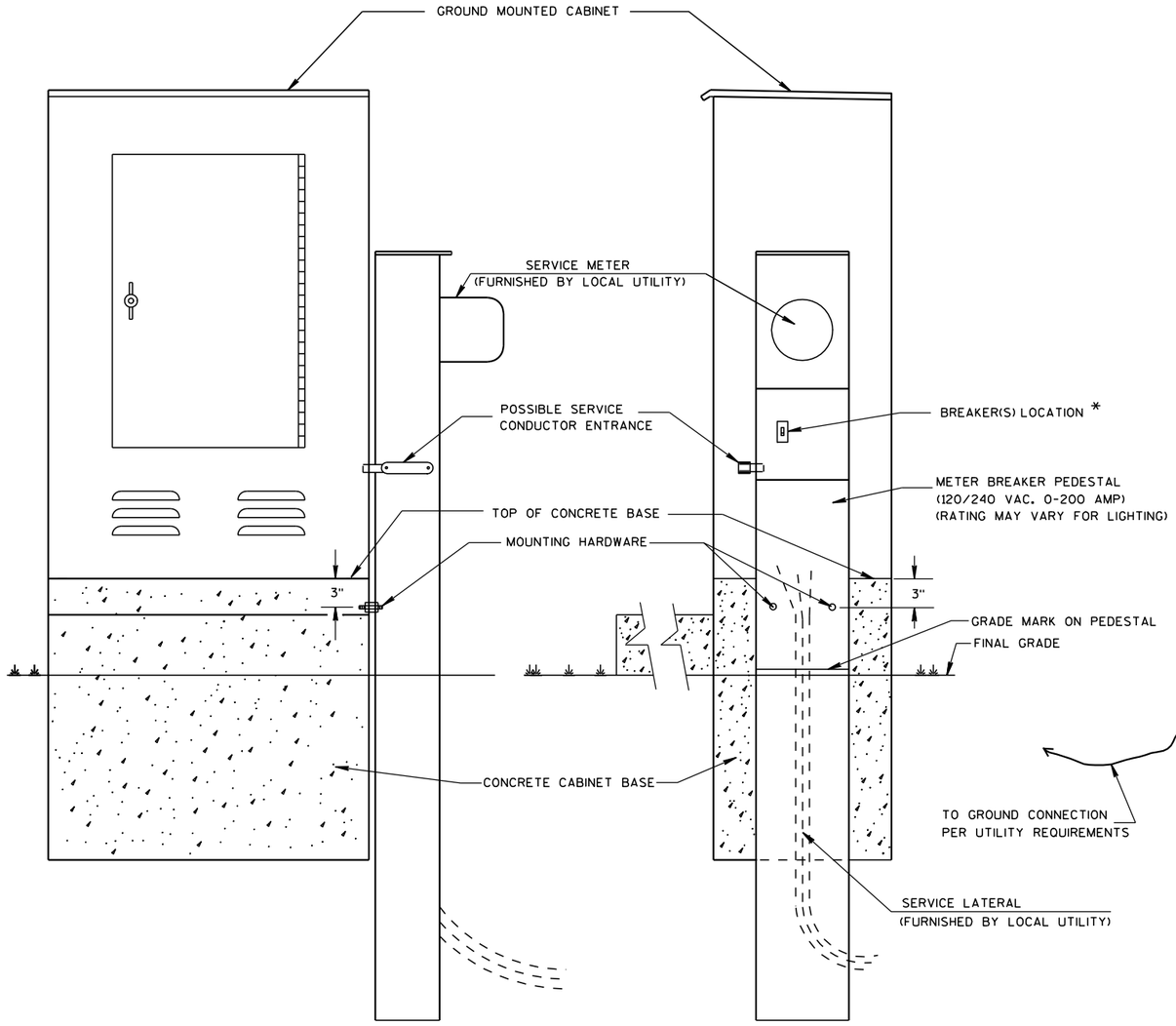
S.D.D. 9 C 12-3b



TYPICAL CABINET SERVICE INSTALLATION

GENERAL NOTES

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

THE EXACT LOCATION OF THE METER BREAKER PEDESTAL SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

THE TYPE OF CONCRETE CABINET BASE TO BE INSTALLED SHALL BE AS CALLED FOR IN THE PLANS.

TO FACILITATE FLUSH MOUNTING OF THE METER BREAKER PEDESTAL AGAINST THE SIDE OF THE CABINET BASE (IF FLUSH MOUNTING POSSIBLE. CONFER WITH THE LOCAL UTILITY TO DETERMINE WHICH SIDE OF THE CONCRETE BASE THE ELECTRICAL SERVICE LATERAL WILL APPROACH. THEN FORM THAT INDICATED SIDE FOR FULL SIDE DEPTH.

WHILE FLUSH MOUNTING IS THE MOST DESIRABLE MOUNTING CONFIGURATION UTILITY REQUIREMENTS MAY PRECLUDE THIS OPTION. CONTRACTOR MUST PROVIDE UTILITY APPROVED PEDESTAL AND INSTALL PER UTILITY AND MANUFACTURERS REQUIREMENTS.

SERVICE CONDUCTOR ENTRANCES SHALL BE RIGID METALLIC CONDUIT, NIPPLES AND/OR CONDULETS AS REQUIRED.

SERVICE CONDUCTOR ENTRANCES SHALL BE SIZED AND LOCATED AS REQUIRED BY THE LOCAL UTILITY AND IN ACCORDANCE WITH APPROPRIATE ARTICLES OF THE LATEST ACCEPTED NATIONAL ELECTRICAL CODE.

IF MORE THAN ONE GROUNDING ELECTRODE IS REQUIRED, THE DISTANCE APART SHALL BE 6 FEET OR PER LOCAL UTILITY REGULATIONS.

* SOME PEDESTAL LIGHTING PLANS SHOW MAIN LUGS ONLY.

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S.D.D. 9 D 1-4

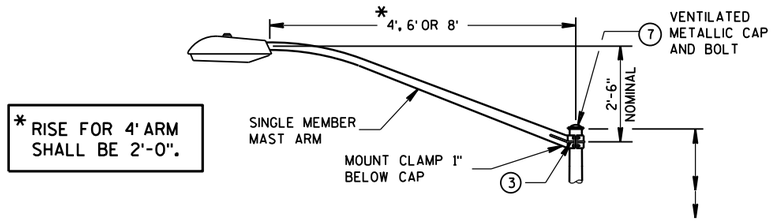
6

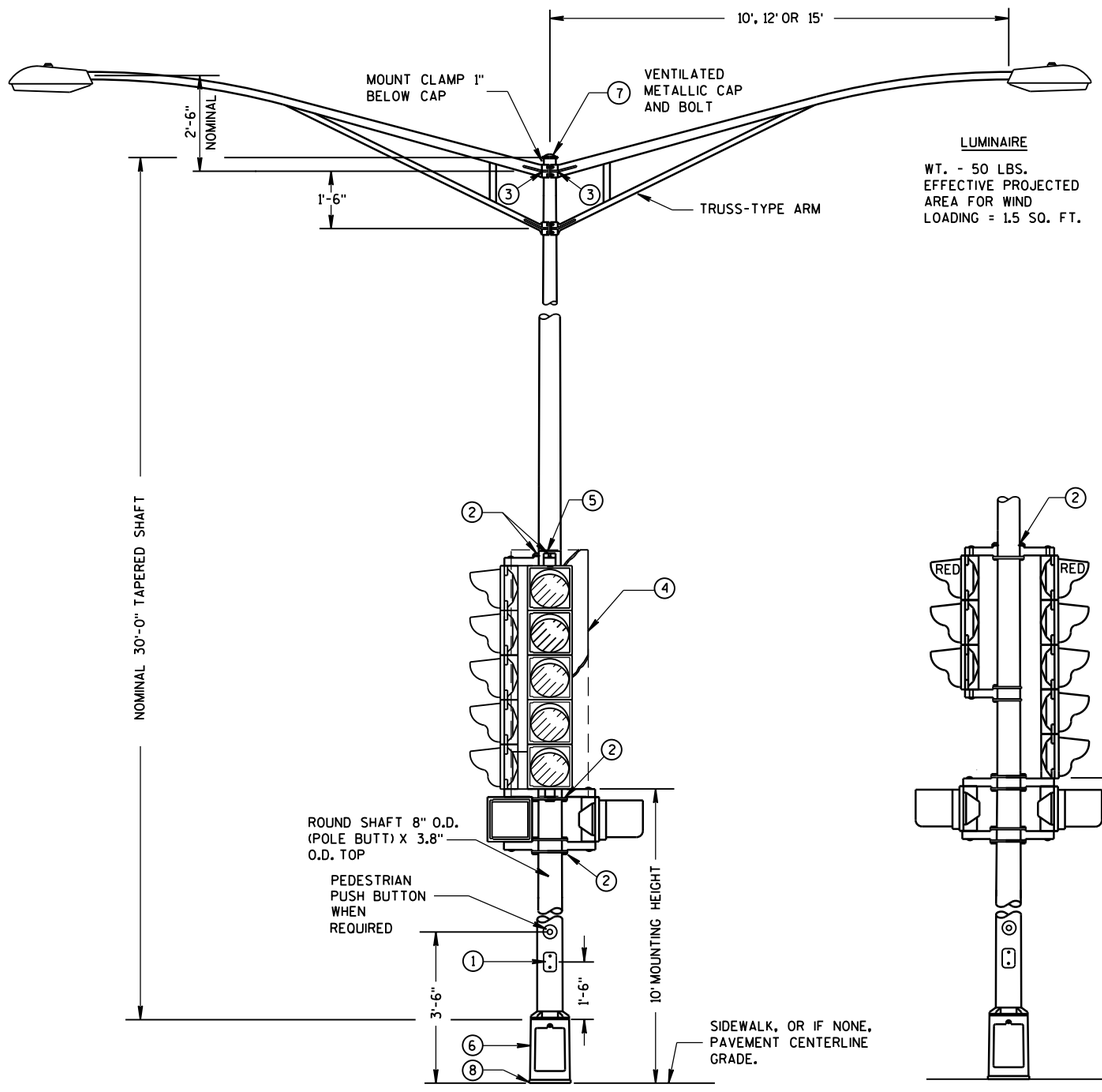
S.D.D. 9 D 1-4

CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/27/09 DATE
/S/ Joanna L. Bush STATE ELECTRICAL ENGI
452
HWYS
FHWA

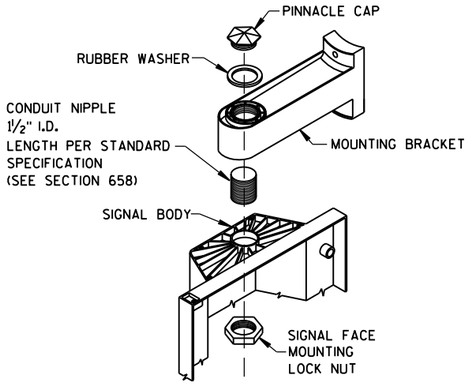




LUMINAIRE

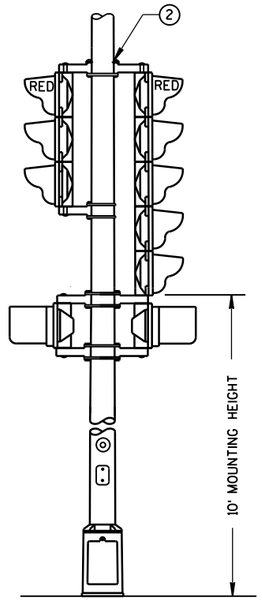
WT. - 50 LBS.
EFFECTIVE PROJECTED AREA FOR WIND LOADING = 1.5 SQ. FT.

(MAXIMUM LOAD)

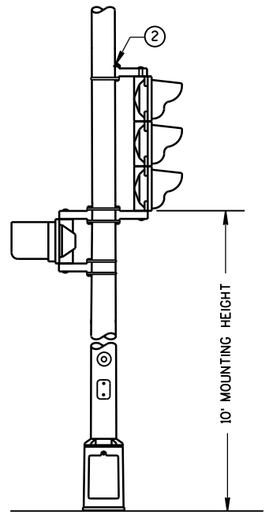


SIGNAL FACE MOUNTING DETAIL

(BANDED)



TYPICAL MOUNTING OF BACK TO BACK 3 AND 5 SECTION SIGNAL FACES



TYPICAL MOUNTING OF 3 SECTION SIGNAL FACE

TYPE 4 POLE MOUNTING CONFIGURATION

GENERAL NOTES

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

ALL TYPE 4 POLE MOUNTINGS SHALL BE DESIGNED TO INCLUDE TWIN 15' ARMS WITH LUMINAIRES.

POLES SHALL BE GALVANIZED STEEL WITH A MINIMUM WALL THICKNESS OF U.S. STANDARD 11 GAGE (.1196").

SECTION 657, POLES, OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2⅜ INCHES IN OUTSIDE DIAMETER. THE STRAIGHT PORTION OF THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 12 INCHES IN LENGTH.

WHEN TRANSFORMER BASES ARE USED, CONNECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

(1) 4" X 6" REINFORCED HANDHOLE & COVER ASSEMBLY WITH 2 (TWO) ¼" X ¾" - 20 TPI HEX HEAD STAINLESS STEEL BOLTS.

(2) SIGNAL FACE MOUNTING BRACKETS, MOUNT WITH CAP SCREWS AND BANDING. (SEE STANDARD SPECIFICATIONS - SEC. 658).

(3) GROMMETS, 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1⅜" HOLE IN POLE SHAFT FOR WIRING.

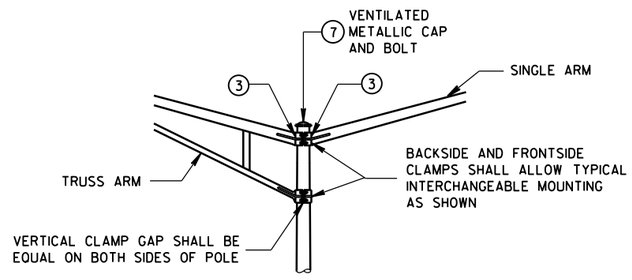
(4) SECURELY MOUNT DULL BLACK POLYCARBONATE BACKPLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURER'S RECOMMENDATIONS.

(5) POLE MOUNTED SIGNAL FACES SHALL REQUIRE 1 OR MORE MOUNTING SPACERS UNDER THE TOP MOUNTING BRACKET(S) AS REQUIRED, TO PLUMB THE SIGNAL FACE.

(6) CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.

(7) FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

(8) SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND THE TRANSFORMER BASE.



INTERCHANGEABLE MOUNTING DETAIL

POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS, TYPE 4

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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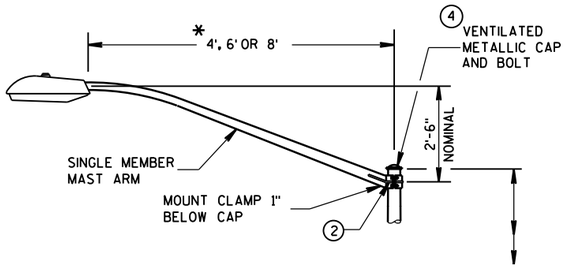
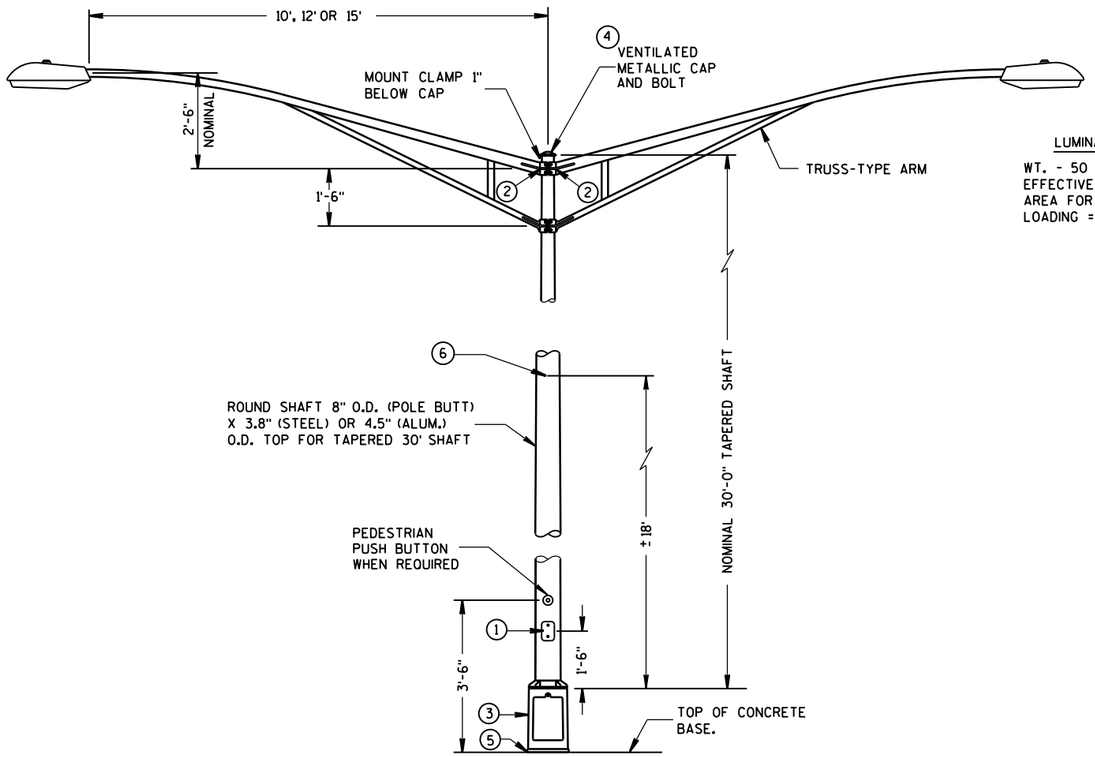
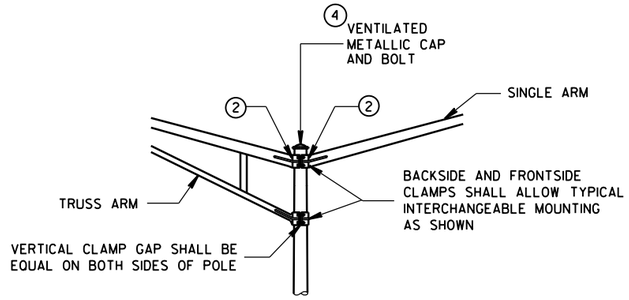
S.D.D. 9 E 1-12c

*RISE FOR 4' ARM SHALL BE 2'-0".





TYPE 5 POLE MOUNTING CONFIGURATION
(MAXIMUM LOAD)
LIGHTING ONLY



INTERCHANGEABLE MOUNTING DETAIL

LUMINAIRE

WT. - 50 LBS.
EFFECTIVE PROJECTED
AREA FOR WIND
LOADING = 1.5 SQ. FT.

GENERAL NOTES

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

ALL TYPE 5 POLE MOUNTINGS SHALL BE DESIGNED TO INCLUDE TWIN 15' ARMS WITH LUMINAIRES.

POLES SHALL BE GALVANIZED STEEL OR ALUMINUM, AS CALLED FOR IN THE CONTRACT.

TYPE 5 ALUMINUM POLES SHALL BE CONSTRUCTED OF 6063-T6 ALUMINUM ALLOY. SLEEVING INSIDE THE POLE IS NOT ACCEPTABLE.

THE TYPE 5 ALUMINUM POLES SHALL HAVE A MINIMUM WALL THICKNESS OF 0.188".

TYPE 5 STEEL POLES SHALL HAVE A MINIMUM WALL THICKNESS OF U.S. STANDARD 11 GAGE (.1196").

THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2⅜ INCHES IN OUTSIDE DIAMETER. THE STRAIGHT PORTION OF THE SLIPFITTER END OF THE LUMINAIRE ARM SHALL BE A NOMINAL 12 INCHES IN LENGTH.

WHEN TRANSFORMER BASES ARE USED, WIRE CONEECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

(1) 4" x 6" REINFORCED HANDHOLE & COVER ASSEMBLY WITH 2 (TWO) ¼" X ¾" - 20 TPI HEX HEAD STAINLESS STEEL BOLTS.

(2) GROMMETS, 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1⅜" HOLE IN POLE SHAFT FOR WIRING.

(3) CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.

(4) FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

(5) SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND THE TRANSFORMER BASE.

(6) INTERNAL DUMBBELL-TYPE VIBRATION DAMPER.

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S.D.D. 9 E 1-12d

POLE MONTINGS FOR
LIGHTING UNITS, TYPE 5
(30 FEET)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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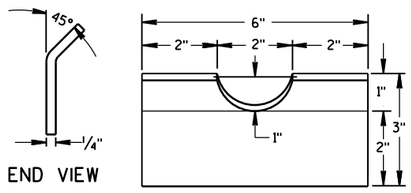
S.D.D. 9 E 1-12d

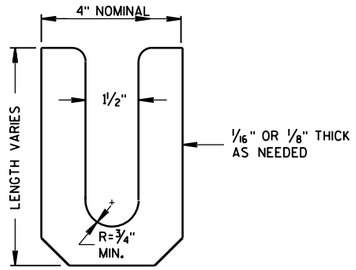


END VIEW

FRONT VIEW

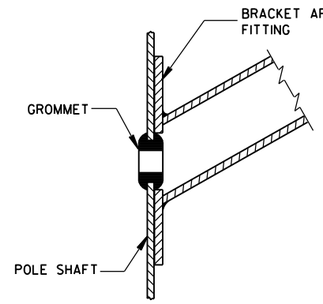
RECTANGULAR CLAMP SHIM

(4 TO A SET)

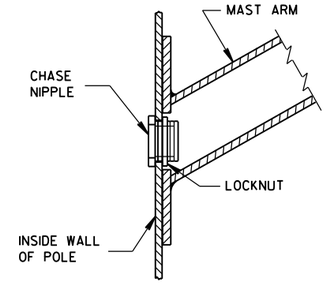


LEVELING SHIM (15)

SHALL BE ALUMINUM



TYPICAL APPLICATION OF GROMMET IN POLE SHAFT



TYPICAL APPLICATION OF CHASE NIPPLE IN POLE SHAFT

GENERAL NOTES

CLAMP BOLT-NUT TIGHTENING TORQUE SHALL BE INDICATED BY INDENT STAMPING (1/2 INCH NUMERALS AND LETTERS) OR WEATHERPROOF PRINTING ON THE INSIDE OF THE CLAMP THAT IS WELDED TO THE ARM MEMBER.

(10) 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP.
6.625" I.D. FOR TROMBONE MAST ARM CLAMP.

(11) INDIVIDUAL BASE PLATE ANCHOR ROD COVERS. (4 REQUIRED)

(12) BASE PLATE SLOTTED TO ACCEPT 11" THROUGH 12" BOLT CIRCLE USING 1" DIAMETER ANCHOR RODS.

(13) OUTSIDE SHIM DIAMETER - (4.5" O.D. FOR LUMINAIRE MAST ARM)
(6.625" O.D. FOR TROMBONE MAST ARM)

(14) VARIABLE SHIM THICKNESS - (0.10", 0.25", 0.35", 0.53" OR 0.70")

SHIM THICKNESS FOR TROMBONE MAST ARMS MAY BE TYPICALLY 0.25", 0.35", 0.53" OR 0.70".

SHIM THICKNESS FOR LUMINAIRE MAST ARMS MAY BE TYPICALLY 0.10", 0.25" OR 0.35".

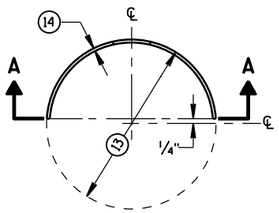
SHIM MATERIAL SHALL BE ALUMINUM ALLOY.

SHIM THICKNESS SHALL BE IMPRESSED INTO EACH SHIM. NUMERALS SHALL BE 1/4" HIGH AND LEGIBLE.

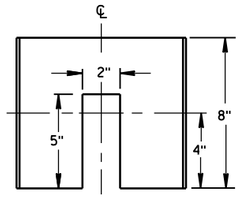
THE CONTRACTOR SHALL SUBMIT TWO COPIES OF ALL SHIM SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL.

(15) LEVELING SHIMS, DESIGNED FOR THE PURPOSE, SHALL BE USED WHEN PLUMBING POLES. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE. LEVELING SHIMS SHALL BE USED ONLY BETWEEN THE TOP OF THE CONCRETE BASE AND A METALLIC BASE PLATE.

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



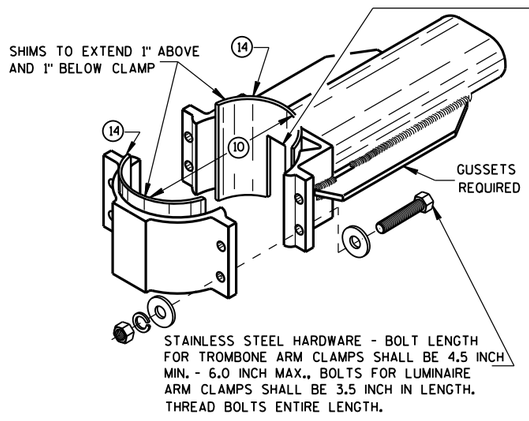
PLAN VIEW



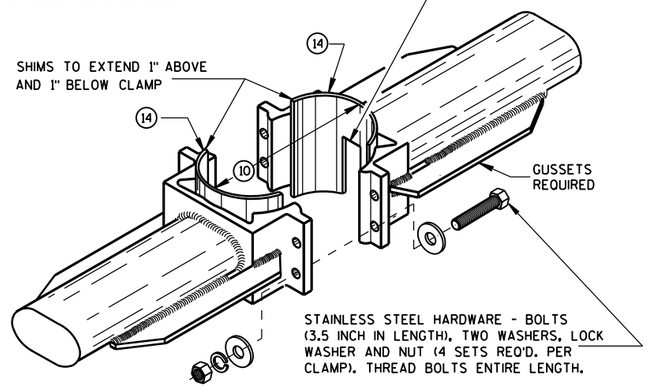
SECTION A-A

CIRCULAR CLAMP SHIM

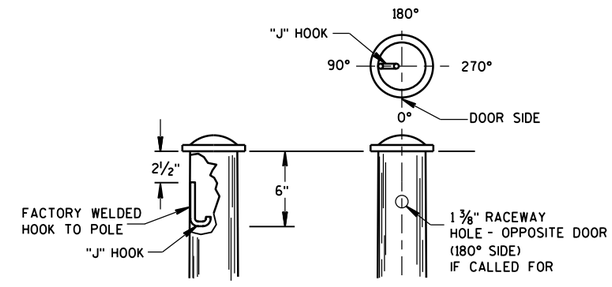
(2 TO A SET)



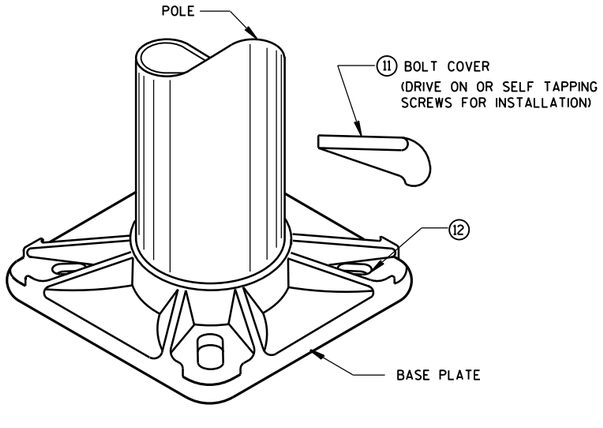
TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP



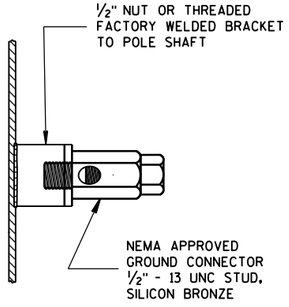
TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS

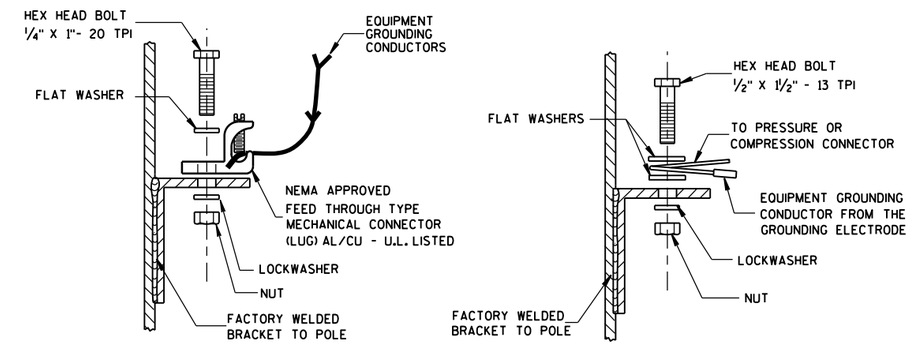


TYPICAL "J" HOOK LOCATION



BASE PLATE





TYPICAL GROUNDING CONNECTIONS

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

HARDWARE DETAILS FOR POLE MOUNTINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
2/7/2013 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL 455
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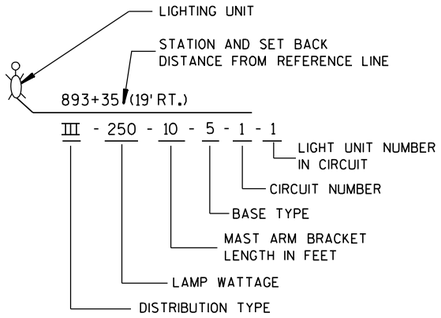
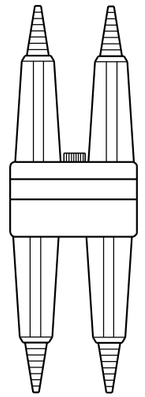
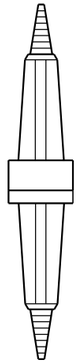


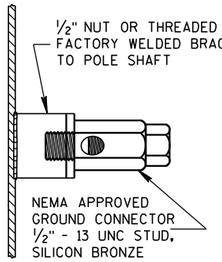
LIGHTING UNIT CODE
(TYPICAL)

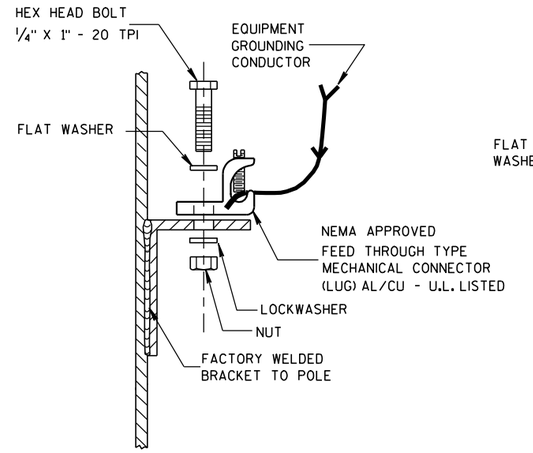


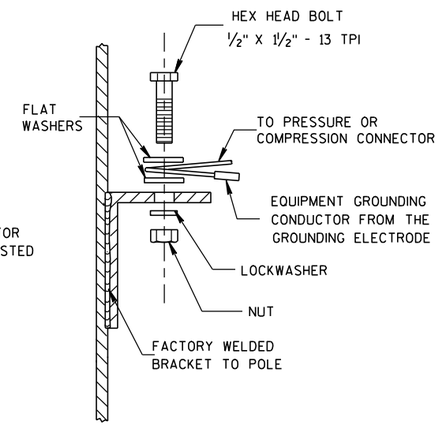
DETAIL "A"
BREAKAWY
DOUBLE POLE WITH
WATERPROOF
INSULATING BOOT



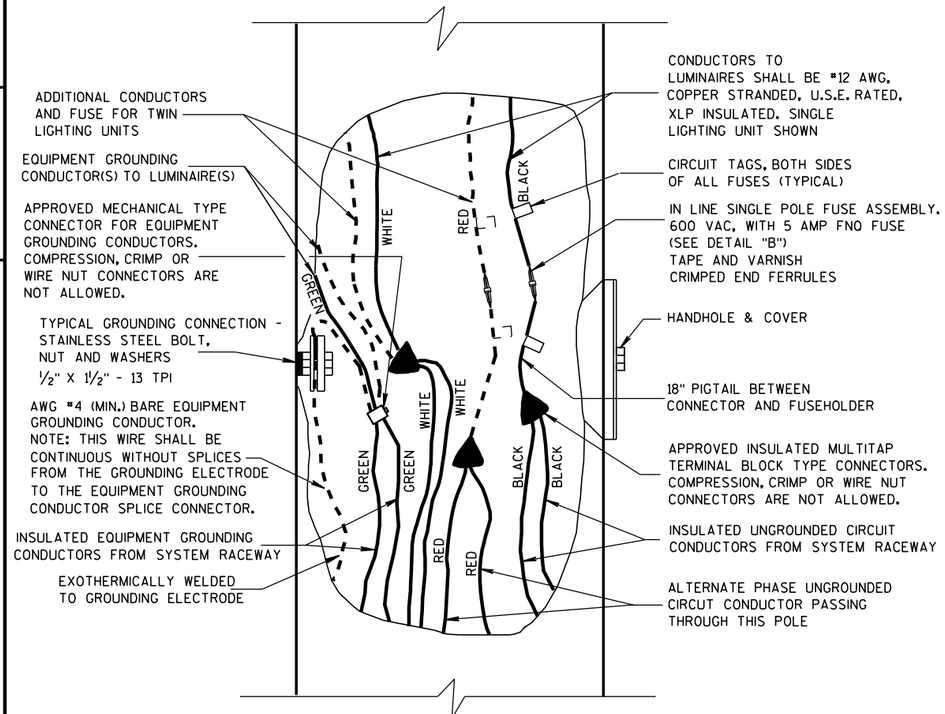
DETAIL "B"
BREAKAWY
SINGLE POLE WITH
WATERPROOF
INSULATING BOOT



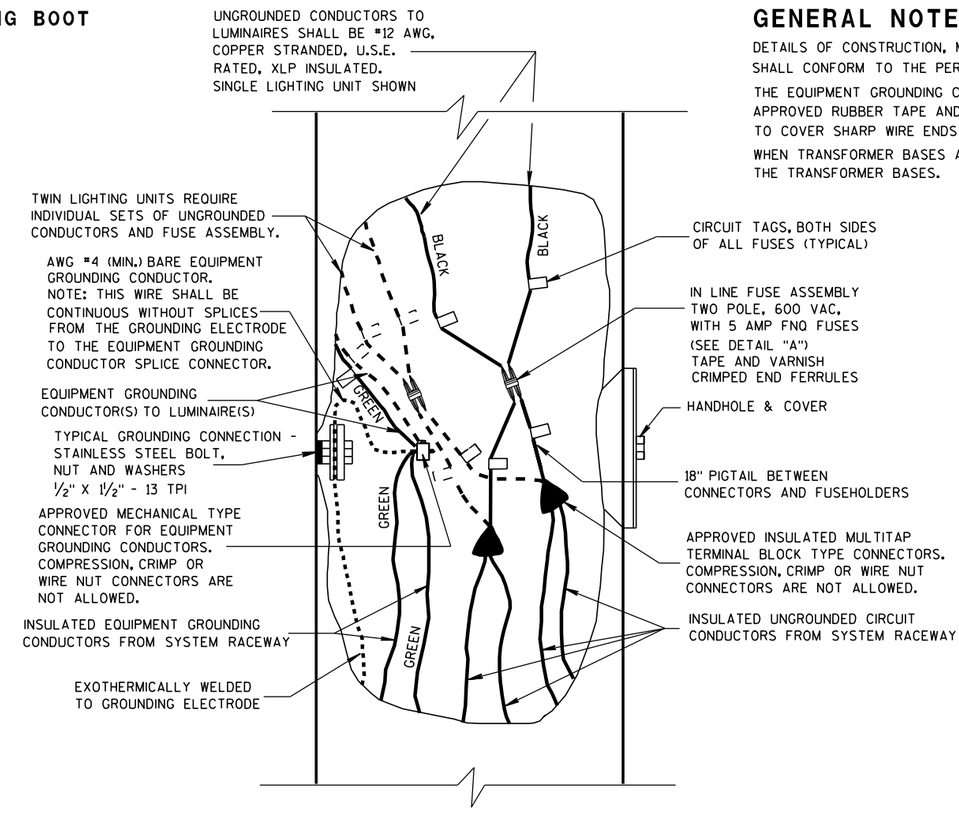




TYPICAL GROUNDING CONNECTIONS
NUT, BOLT, WASHERS AND LOCKWASHERS SHALL BE STAINLESS STEEL



3 WIRE - 120, 240 OR 480 VAC (UNGROUNDED CONDUCTOR) WITH GROUNDED CONDUCTOR AND WITH EQUIPMENT GROUNDING CONDUCTOR



2 WIRE - 240 OR 480 VAC (UNGROUNDED CONDUCTORS) WITH EQUIPMENT GROUNDING CONDUCTOR

GENERAL NOTES

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

THE EQUIPMENT GROUNDING CONNECTOR SHALL BE TAPED WITH 3 WRAPS (MINIMUM) OF APPROVED RUBBER TAPE AND THEN 3 WRAPS (MINIMUM) OF APPROVED VINYL TAPE TO COVER SHARP WIRE ENDS AFTER THE CONNECTION IS COMPLETED.

WHEN TRANSFORMER BASES ARE USED, ALL WIRING CONNECTIONS SHALL OCCUR WITHIN THE TRANSFORMER BASES.

NON-FREEWAY LIGHTING UNIT POLE WIRING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/2/2011
DATE

/S/ Thomas J. Gosnine
STATE ELECTRICAL ENGI

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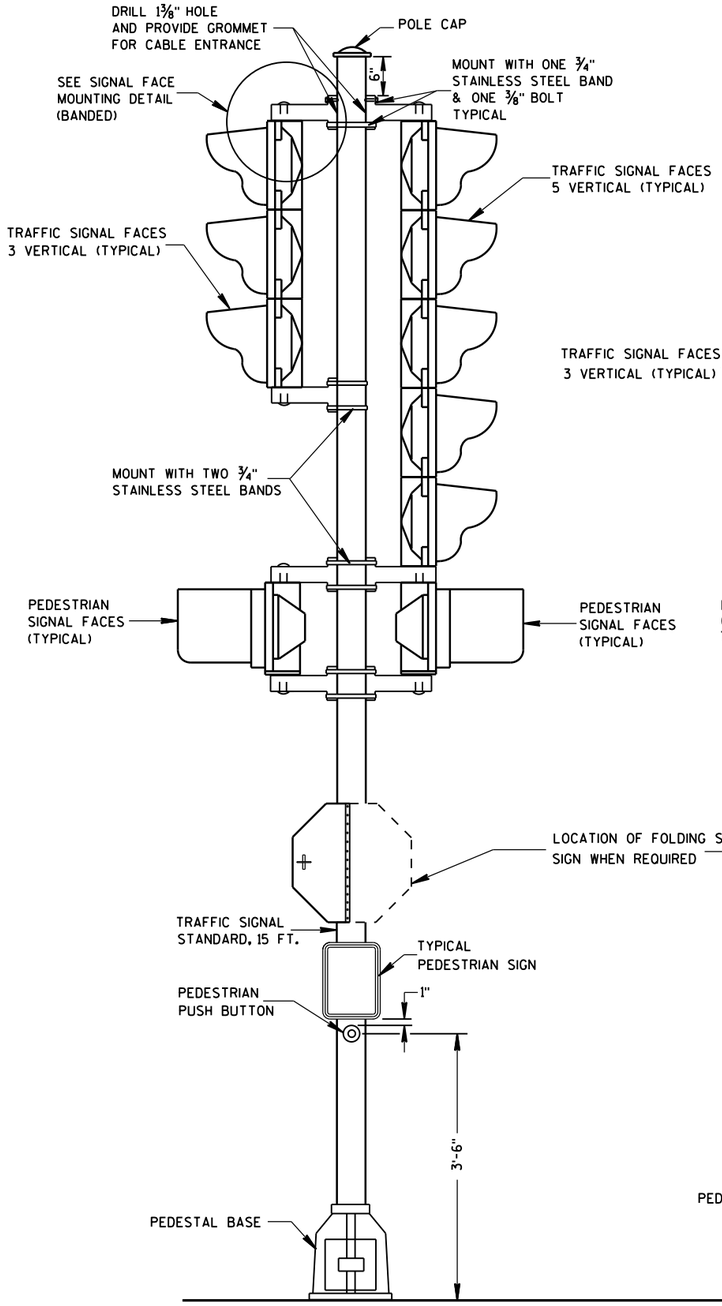
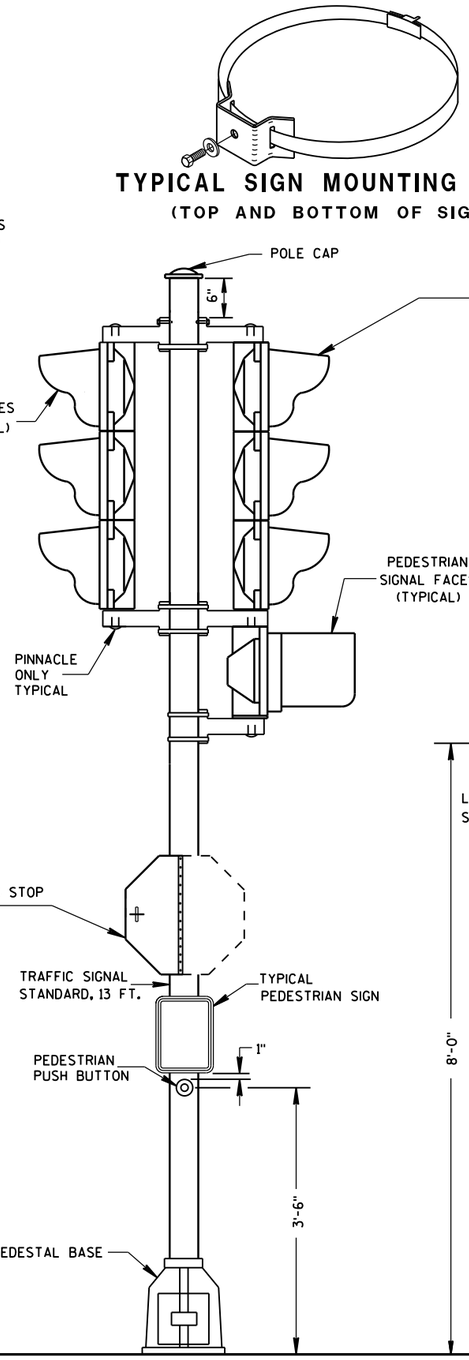
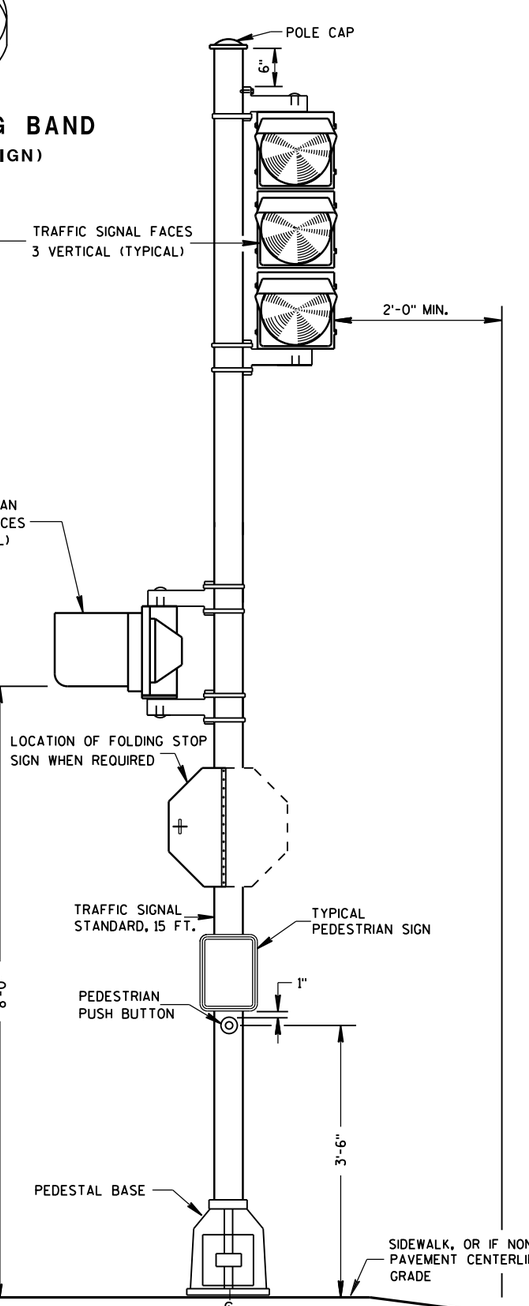


TRAFFIC SIGNAL STANDARD-15 FT.



TRAFFIC SIGNAL STANDARD-13 FT.

TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)



TRAFFIC SIGNAL STANDARD-15 FT.
3M MOUNTING (TYPICAL)

GENERAL NOTES

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

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIAL PROVISIONS.

POLYCARBONATE MOUNTING BRACKETS SHALL BE USED.

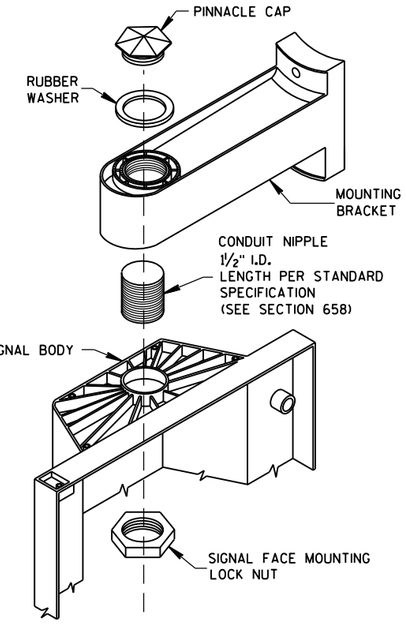
LENGTH AND LOCATION OF TRAFFIC SIGNAL STANDARDS SHALL BE AS SHOWN ON THE PLANS.

OPTICALLY PROGRAMMED SIGNAL FACES SHALL BE MASKED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS, AND UNDER THE DIRECTIONS OF THE REGION TRAFFIC ENGINEER.

FOLDING STOP SIGNS SHALL BE IN ACCORDANCE WITH THE MUTCD AND/OR THE LATEST WISCONSIN SUPPLEMENT. THE SIGNS SHALL BE SIZED AND LOCATED AS CALLED FOR IN IN THE PLANS.

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.



SIGNAL FACE MOUNTING DETAIL
(BANDED)

TRAFFIC SIGNAL STANDARD POLY BRACKET MOUNTINGS (TYPICAL) 13 FT. OR 15 FT.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
2/28/2013 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
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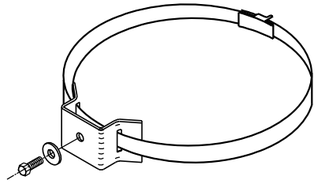
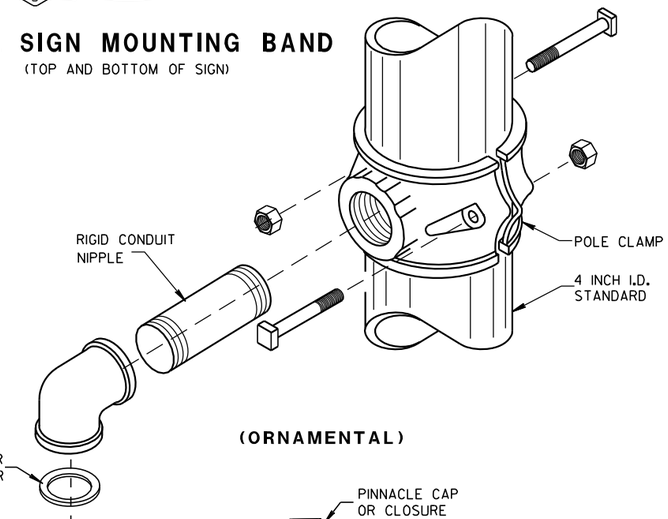


TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)



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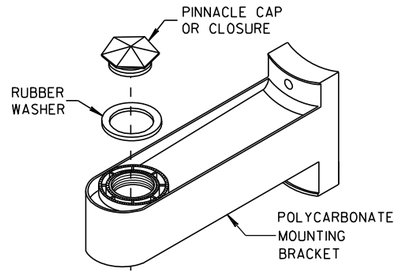
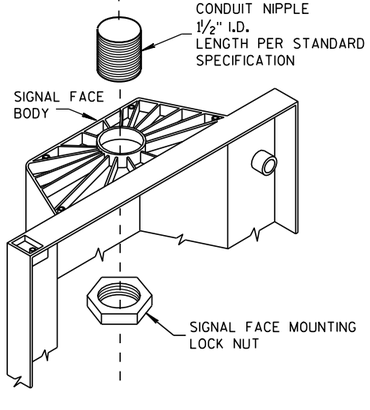
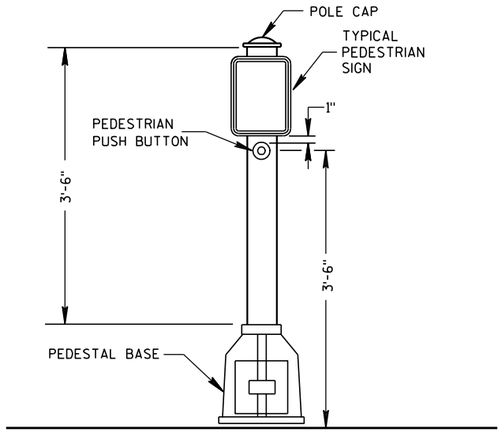


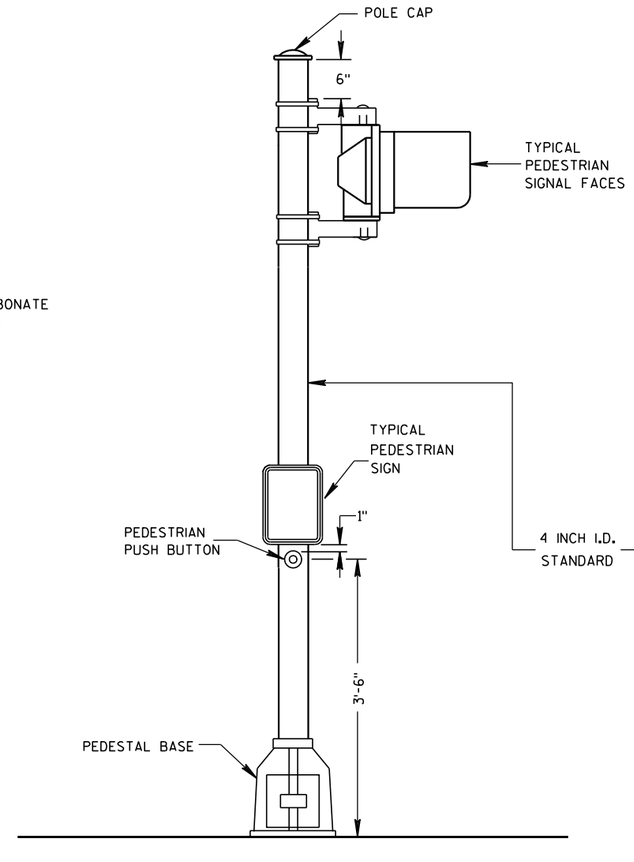
(BANDED)



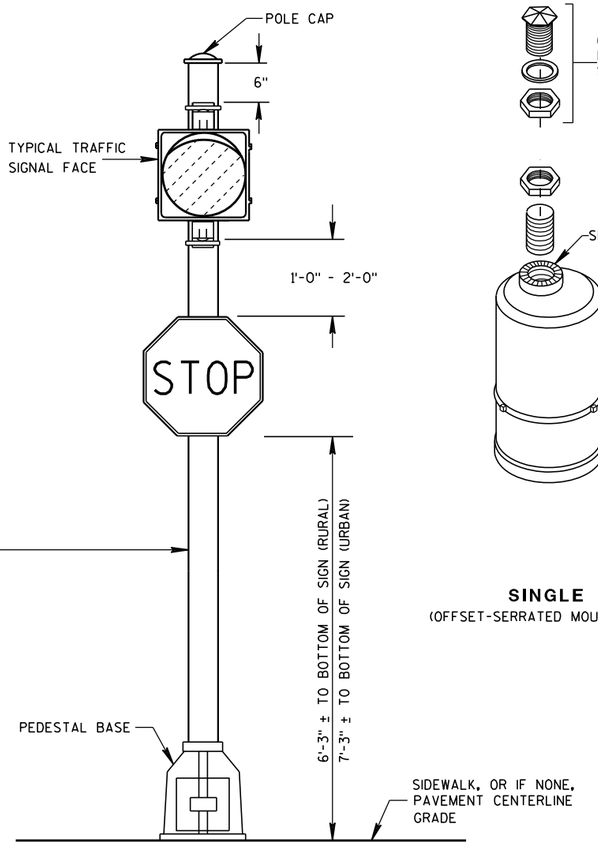
SIGNAL FACE MOUNTING DETAILS



PEDESTRIAN PUSH BUTTON TYPICAL MOUNTING



PEDESTRIAN FACE STANDARD-10 FT.
(WALK-DON'T WALK)



STANDARD FLASHER.
10 FOOT, 13 FOOT OR 15 FOOT AS REQUIRED

GENERAL NOTES

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

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIFICATIONS.

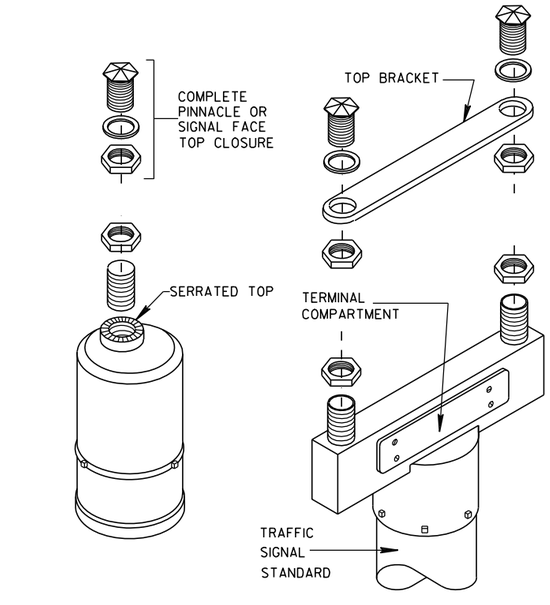
POLYCARBONATE SIGNAL FACE MOUNTING BRACKETS SHALL BE USED UNLESS ORNAMENTAL POLE CLAMPS ARE SPECIFIED.

LENGTH OF TRAFFIC STANDARDS SHALL BE AS SHOWN ON THE PLANS.

MOUNTINGS AND BRACKETS SHALL BE AS SHOWN ON THE PLANS OR DESCRIBED IN THE SPECIAL PROVISIONS (BY THE DISTRICT TRAFFIC ENGINEER).

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.



SINGLE
(OFFSET-SERRATED MOUNTING)

DOUBLE
(SERRATED MOUNTING)

SLIPFITTERS

TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER TYPICAL MOUNTING DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5/11/10
DATE

/S/ John Corbin
STATE ELECTRICAL ENGI

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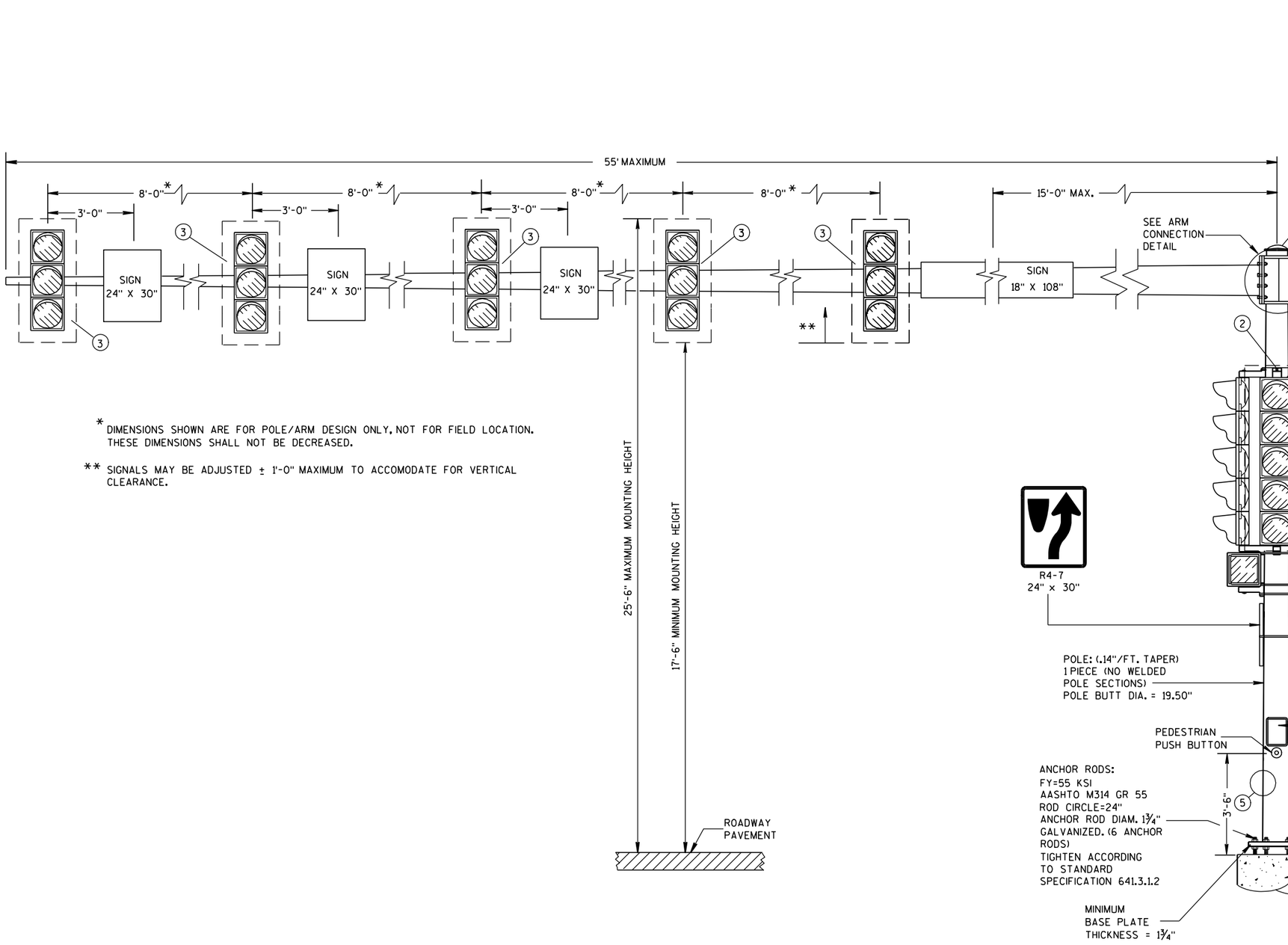
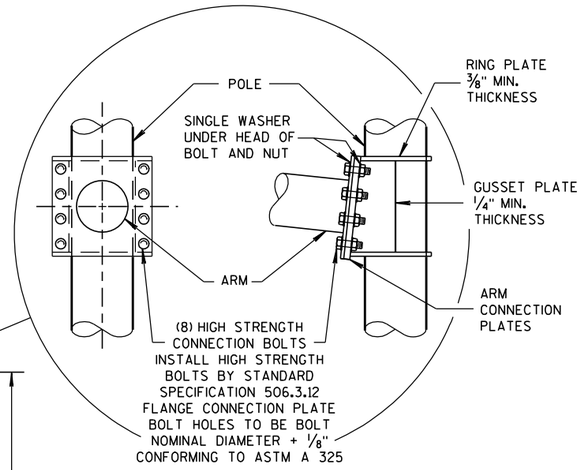
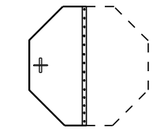


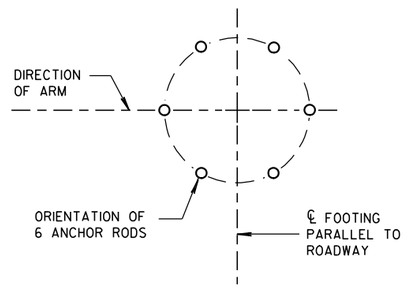
* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.



8 BOLT ARM CONNECTION DETAIL





ANCHOR ROD LOCATION

(MAXIMUM LOAD)

TYPE 12 POLE 35'- 55' MONOTUBE ARM

TYPE 12 POLE
35' - 55' MONOTUBE ARM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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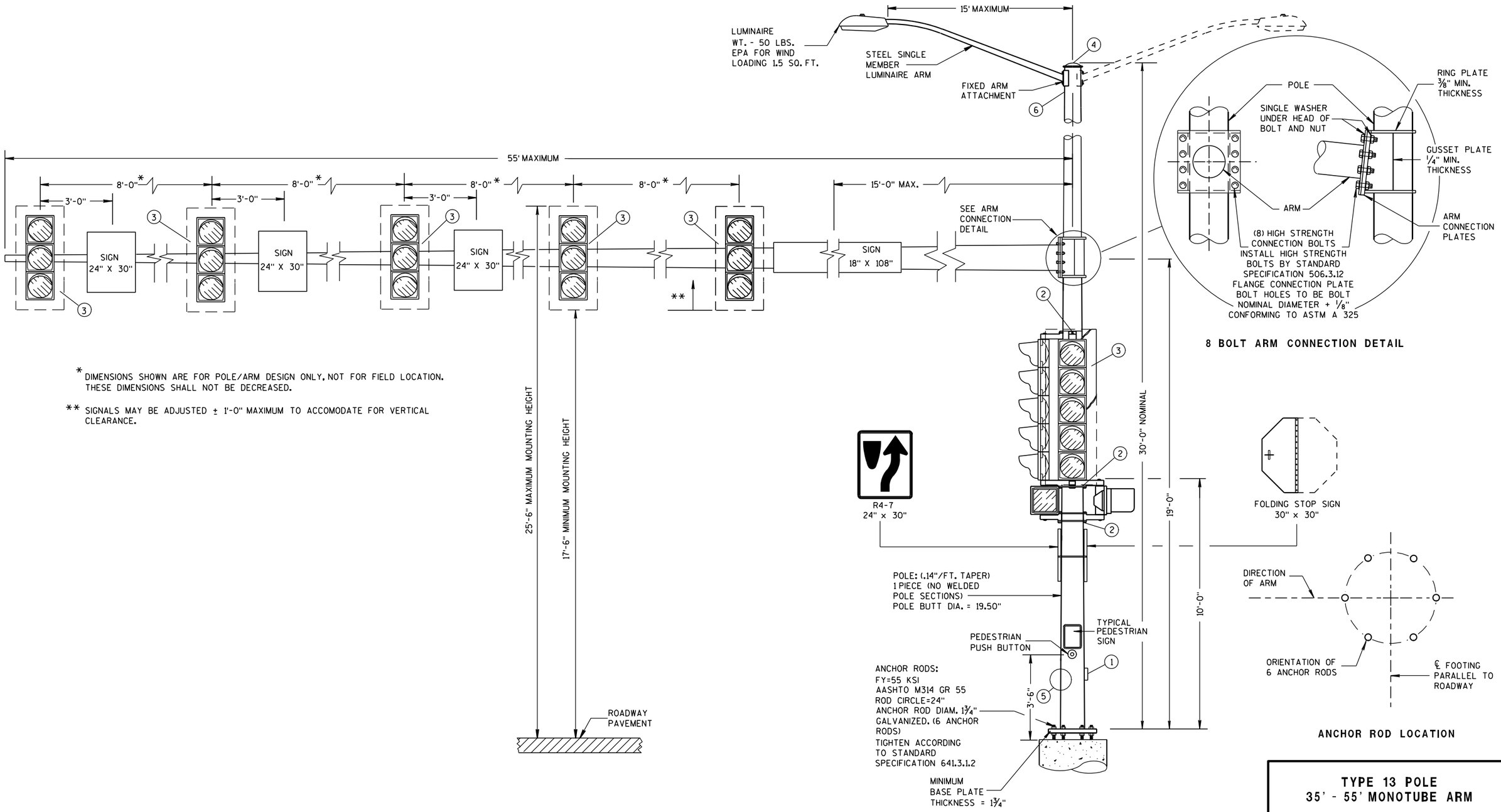

* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

** SIGNALS MAY BE ADJUSTED ± 1'-0" MAXIMUM TO ACCOMODATE FOR VERTICAL CLEARANCE.

8 BOLT ARM CONNECTION DETAIL

ANCHOR ROD LOCATION

(MAXIMUM LOAD)

TYPE 13 POLE 35'- 55' MONOTUBE ARM

TYPE 13 POLE 35' - 55' MONOTUBE ARM	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 3/2/2011 DATE	/S/ Thomas J. Corrigan STATE ELECTRICAL ENGI
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GENERAL NOTES

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

POLE TYPES 9 AND 10 ARE FOR ARM LENGTHS 15-FOOT TO 30-FOOT.

POLE TYPES 12 AND 13 ARE FOR ARM LENGTHS 35-FOOT TO 55-FOOT.

MONOTUBE POLE AND ARM SHALL BE GALVANIZED STEEL.

RING-STIFFENED BUILT-UP BOX TYPE OF ATTACHMENT FOR TRAFFIC SIGNAL ARM.

ONE (1) PIECE POLE CONSTRUCTION (NO WELDED POLE SECTIONS).

STANDARD STRAIGHT ARM DESIGN (3 % ± RISE).

SECTION 657, POLES OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

PROVIDE WIREWAY THRU POLE WALL AND ARM CONNECTION PLATES. PROVIDE ROUND, SMOOTH INSIDE SURFACE.

MANUFACTURER'S SUBMITTED POLE DESIGNS AND DRAWINGS SHALL BE SIGNED AND STAMPED BY A REGISTERED PROFESSIONAL ENGINEER AND CERTIFIED AS BEING IN COMPLIANCE WITH THE LATEST AASHTO AND ALL PERTINENT WISDOT SPECIFICATIONS AND DRAWINGS FOR TRAFFIC AND LIGHTING STRUCTURES AND AS FOLLOWS:

- CATEGORY III FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 9 AND TYPE 10 STRUCTURES.
- CATEGORY II FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 12 AND TYPE 13 STRUCTURES.
- 90 MPH (3-SECOND GUST) WIND SPEED AND A 50 YEAR DESIGN LIFE.

SECURE THE OPENING BELOW THE BASE PLATE WITH STAINLESS STEEL OR GALVANIZED STEEL MESH AND SECURE THE MESH WITH ¾" S.S. BANDING AROUND THE LEVELING NUTS.

INDENT PRINT (NOMINAL ½" HIGH) THE POLE LENGTH AND FIRST TWO LETTERS OF THE MANUFACTURERS NAME ON TWO SIDES OF THE BASE PLATE 180 DEGREES APART, BEFORE GALVANIZING. THE ARM SHALL BE IDENTIFIED WITH THE SAME INFORMATION BY INDENT PRINT.

SIGNAL FACE SHALL BE MOUNTED 6 INCHES (NOMINAL) FROM THE END OF THE MONOTUBE ARM OR AS SHOWN ON THE PLAN CONSTRUCTION DETAIL OR AS DIRECTED BY THE PROJECT ENGINEER/ELECTRICAL OPERATIONS PERSONNEL. MOUNT ALL LIKE HEADS AT SAME ELEVATION.

SIGN MOUNTING BRACKETS SHALL BE FURNISHED IN ACCORDANCE WITH SECTION 637 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.

(1) DESIGN FOR MAXIMUM ALLOWABLE HANDHOLE WITH COVER ASSEMBLY WITH TWO ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLTS.

(2) SIGNAL MOUNTING BRACKETS FOR POLE MOUNTING, MOUNT WITH CAP SCREW AND BANDING, (SEE SPECIFICATIONS SEC. 658).

(3) SECURELY MOUNT BACKPLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURERS RECOMMENDATIONS.

(4) THE TOP OF THE POLE SHAFT AND THE END OF THE MONOTUBE ARM SHALL BE EQUIPPED WITH A REMOVABLE, VENTILATED CAP HELD SECURELY IN PLACE WITH SET SCREWS.

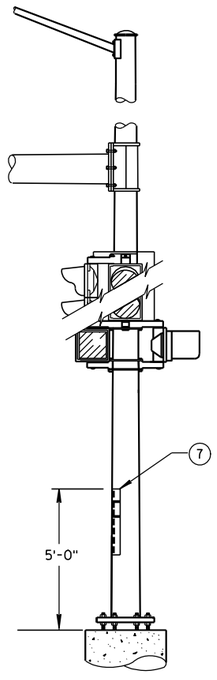
(5) FACTORY-WELDED BRACKET FOR GROUNDING LUG, OPPOSITE HANDHOLE, (LUG AND HARDWARE PAID UNDER SEPARATE ITEM). PROVIDE HOLE IN BRACKET FOR ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLT.

(6) FACTORY-WELDED "J" HOOK FOR STRAIN RELIEF FOR POLE LUMINAIRE WIRE.

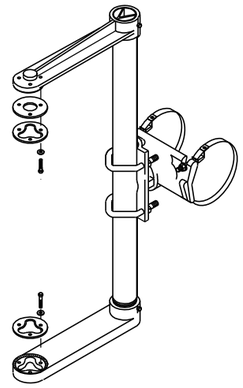
(7) INSTALL DEPARTMENT PROVIDED STRUCTURAL IDENTIFICATION PLAQUES.

STRUCTURAL IDENTIFICATION PLAQUES SHALL BE PLACED ON THE POLES IN THE SAME DIRECTION AS THE ARM.

MOUNTING HEIGHT SHALL BE 5'-0" ABOVE THE CURB OR SHOULDER . ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL BE OBSTRUCTED.

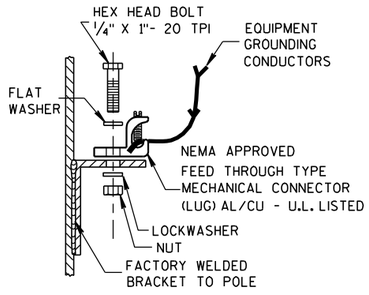


STRUCTURAL IDENTIFICATION PLAQUE PLACEMENT



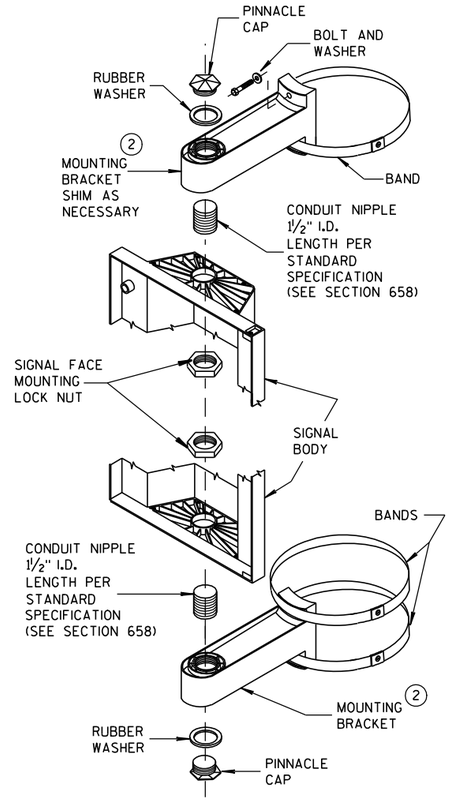
SIGNAL FACE MOUNTING BRACKET DETAIL FOR MONOTUBE ARM

(MOUNT PER MANUFACTURER'S RECOMMENDATION)

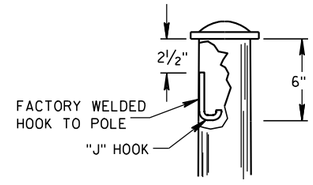


TYPICAL GROUNDING CONNECTIONS (5)

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



SIGNAL FACE VERTICAL MOUNTING DETAIL



"J" HOOK WIRE SUPPORT (6)

GENERAL NOTES AND HARDWARE DETAILS FOR TYPE 9, 10, 12 & 13 POLES WITH MONOTUBE ARMS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/2/2011 DATE

/S/ Thomas J. Corrigan
STATE ELECTRICAL ENGI

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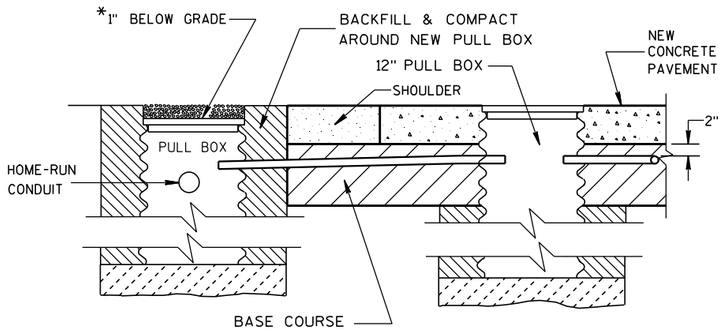


SECTION A-A

NO CURB & GUTTER

LOOP DETECTOR INSTALLATION DETAILS

*RECESS PULL BOX SO THAT THE COVER IS 3" BELOW GRADE IN SHOULDER AREAS OF CRUSHED AGGREGATE. BACKFILL OVER COVER WITH THE CRUSHED AGGREGATE TO BRING THE AREA TO GRADE LEVEL.

GENERAL NOTES

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

LOOP SIZE, LOCATION, NUMBER OF TURNS OF WIRE AND ASSOCIATED SIGNAL PHASE SHALL BE AS SHOWN ON THE PLANS.

PITCH LEAD OUT CONDUIT TO DRAIN TO ROADSIDE PULL BOX.

SPLICES SHALL BE INSTALLED BY USING CAST IN PLACE SPLICE KITS SUCH AS 3M TYPE 82A1 OR APPROVED EQUAL. NON-INSULATED BUTT SPLICES TO FIT #12 AWG STRANDED WIRE SHALL BE USED. SPLICES SHALL BE SOLDERED AND INSULATED FROM EACH OTHER AS PER INSTRUCTIONS INCLUDED IN THE SPLICE KIT.

MEASURE GROUND RESISTANCE USING A MEGGER. REPLACE LOOP WIRE NOT ATTAINING A READING OF INFINITY TO GROUND.

AFTER SPLICING THE LOOP WIRE TO THE LOOP LEAD-IN CABLE, THE CONTRACTOR SHALL MEASURE INDUCTANCE, GROUND RESISTANCE AND WIRE RESISTANCE AT THE CABINET END OF THE LEAD-IN CABLE AND FURNISH A COPY OF THE READINGS TO THE PROJECT ENGINEER FOR EVALUATION.

ANTI-SIEZE LUBRICATING MATERIAL SHALL BE USED ON ALL THREADS OF THREADED ASSEMBLIES BEFORE INSTALLATION.

LOOP DETECTOR LEADS SHALL BE IDENTIFIED WITH THEIR ASSOCIATED LOOP BY USE OF WATERPROOF TAGS AT BOTH ENDS OF THE CABLE. A LISTING OF THE CABLE IDENTIFICATION PER INDIVIDUAL LOOP LEAD-IN SHALL BE PLACED IN THE CABINET.

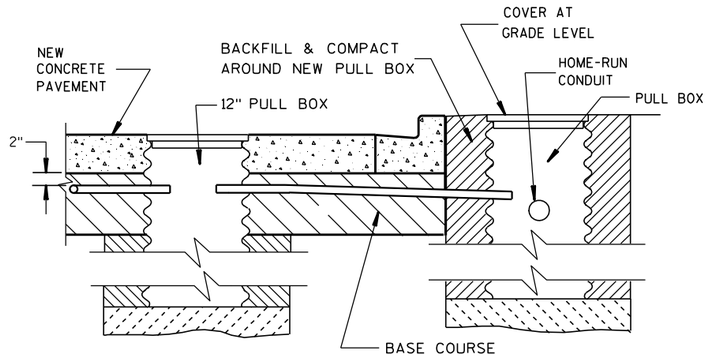
THE #12 AWG LOOP WIRE FROM THE LOOP TO THE ROADSIDE PULL BOX, SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE INSTALLATION.

SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL BOXES AT THE SIDE OF THE ROAD.

THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL BOX, THROUGH THE LOOP DUCT, BACK TO THE ROADSIDE PULL BOX, AND BE INSTALLED IN ONE, NON-SPLICED, CONTINUOUS LENGTH.

PROTECTION OF THE CONDUIT, CONDULET AND PULL BOX SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE THE NEW CONCRETE PAVEMENT IS PLACED.

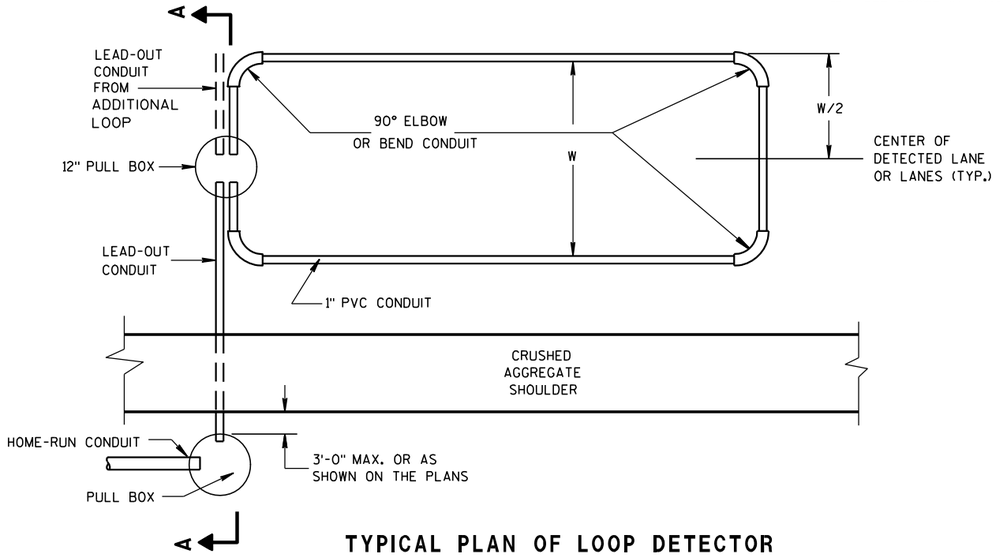
12" PULL BOXES IN PAVEMENT SHALL BE CORRUGATED STEEL ONLY.



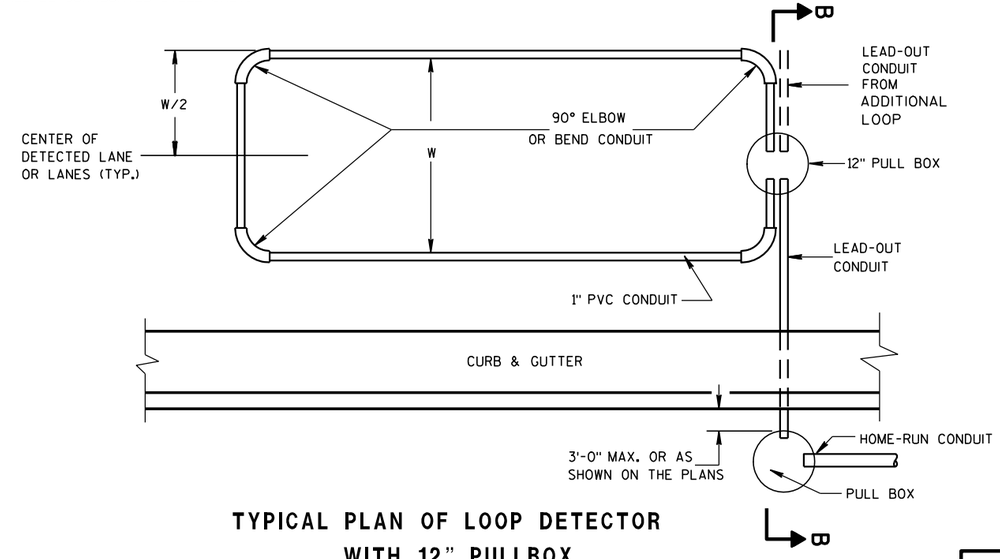
SECTION B-B

CURB & GUTTER

LOOP DETECTOR INSTALLATION DETAILS



TYPICAL PLAN OF LOOP DETECTOR WITH 12" PULLBOX



TYPICAL PLAN OF LOOP DETECTOR WITH 12" PULLBOX

LOOP DETECTOR PLACED IN CRUSHED AGGREGATE BASE (NEW CONCRETE PAVEMNET)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6-7-06 DATE

/S/ Balu Ananthanarayanan
STATE ELECTRICAL ENGI

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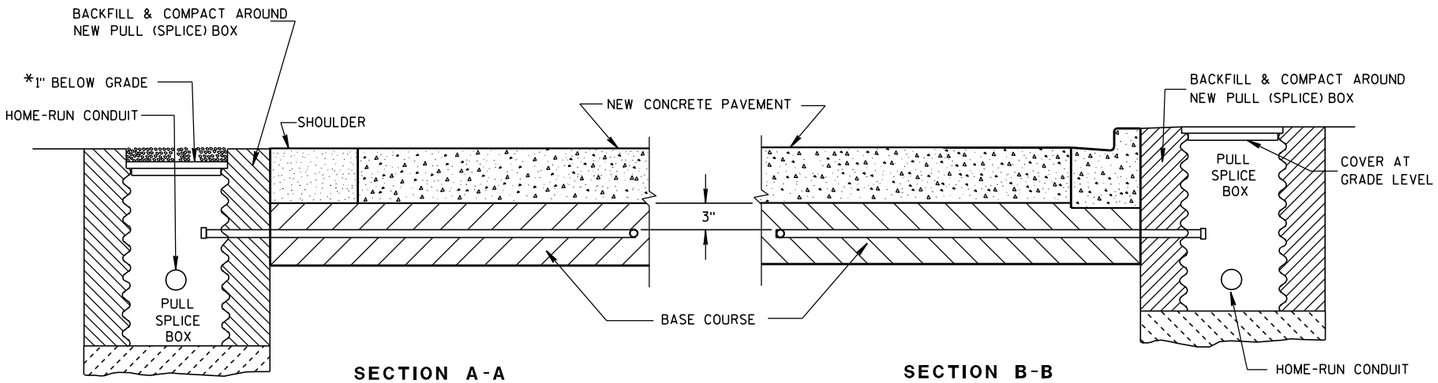


SECTION A-A
NO CURB & GUTTER

SECTION B-B
CURB & GUTTER

*RECESS PULL (SPLICE) BOX SO THAT THE COVER IS 3" BELOW GRADE IN SHOULDER AREAS OF CRUSHED AGGREGATE. BACKFILL OVER COVER WITH THE CRUSHED AGGREGATE TO BRING THE AREA TO GRADE LEVEL.

LOOP DETECTOR INSTALLATION DETAIL

GENERAL NOTES

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

LOOP SIZE, CONFIGURATION LOCATION, NUMBER OF TURNS OF WIRE AND ASSOCIATED SIGNAL PHASE SHALL BE AS SHOWN ON THE PLANS.

PITCH LEAD OUT CONDUIT TO DRAIN TO ROADSIDE PULL (SPLICE) BOX.

SPLICES SHALL BE INSTALLED BY USING CAST IN PLACE SPLICE KITS SUCH AS 3M TYPE 82A1 OR APPROVED EQUAL. NON-INSULATED BUTT SPLICES TO FIT #12 AWG STRANDED WIRE SHALL BE USED. SPLICES SHALL BE SOLDERED AND INSULATED FROM EACH OTHER AS PER INSTRUCTIONS INCLUDED IN THE SPLICE KIT.

MEASURE GROUND RESISTANCE USING A MEGGER. REPLACE LOOP WIRE NOT ATTAINING A READING OF INFINITY TO GROUND.

AFTER SPLICING THE LOOP WIRE TO THE LOOP LEAD-IN CABLE, THE CONTRACTOR SHALL MEASURE INDUCTANCE, GROUND RESISTANCE AND WIRE RESISTANCE AT THE CABINET END OF THE LEAD-IN CABLE AND FURNISH A COPY OF THE READINGS TO THE PROJECT ENGINEER FOR EVALUATION.

LOOP DETECTOR LEADS SHALL BE IDENTIFIED WITH THEIR ASSOCIATED LOOP BY USE OF WATERPROOF TAGS AT BOTH ENDS OF THE CABLE. A LISTING OF THE CABLE IDENTIFICATION PER INDIVIDUAL LOOP LEAD-IN SHALL BE PLACED IN THE CABINET.

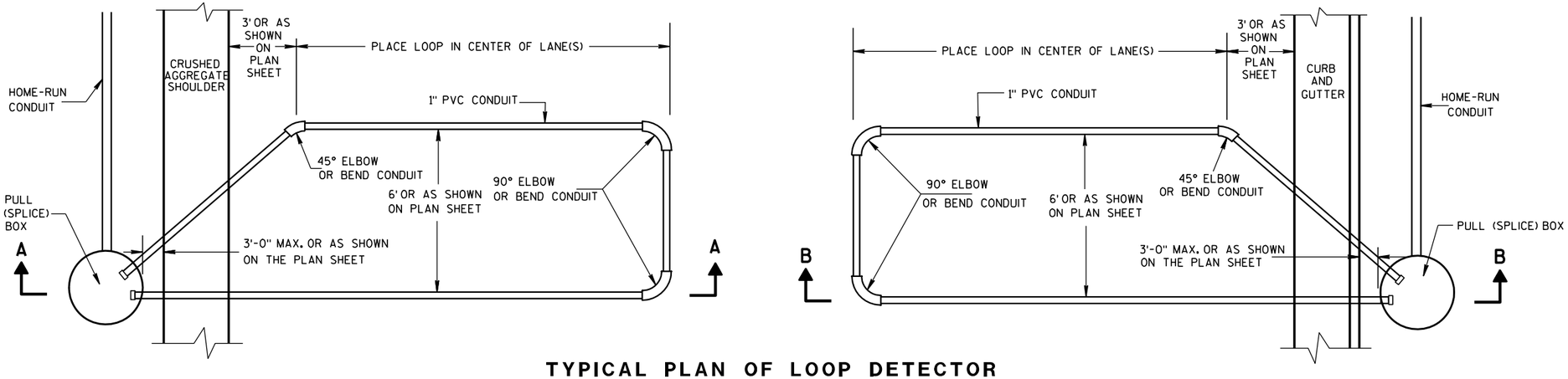
THE #12 AWG. LOOP WIRE IN THE PULL (SPLICE) BOX SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE BEING SPLICED TO THE LOOP LEAD-IN CABLE.

SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL (SPLICE) BOXES AT THE SIDE OF THE ROAD.

THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL (SPLICE) BOX THROUGH THE LOOP CONDUIT, BACK TO THE ROADSIDE PULL (SPLICE) BOX, AND BE INSTALLED IN ONE, NON-SPLICE CONTINUOUS LENGTH.

PROTECTION OF THE CONDUIT IN THE BASE COURSE, SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE NEW PAVEMENT IS INSTALLED.

SHOULD INSTALLATION REPAIR BE REQUIRED, IT SHALL BE DONE UNDER THE DIRECTION OF THE PROJECT ENGINEER.



TYPICAL PLAN OF LOOP DETECTOR WITH 18" OR 24" PULL (SPLICE) BOX

LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 1)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/7/06 — DATE
/S/ Balu Aganthangarayanan — STATE ELECTRICAL ENGI
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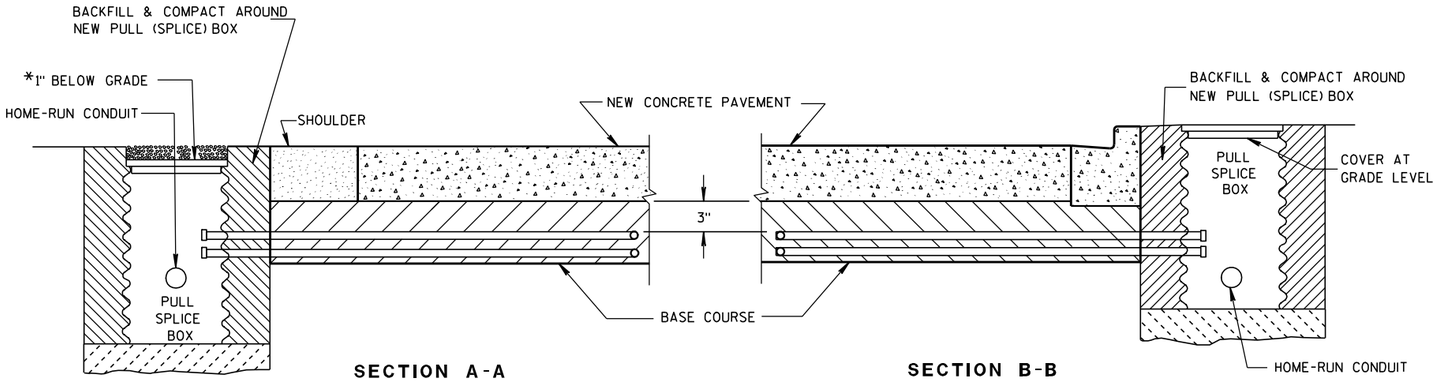

SECTION A-A
NO CURB & GUTTER

SECTION B-B
CURB & GUTTER

*RECESS PULL (SPLICE) BOX SO THAT THE COVER IS 3" BELOW GRADE IN SHOULDER AREAS OF CRUSHED AGGREGATE. BACKFILL OVER COVER WITH THE CRUSHED AGGREGATE TO BRING THE AREA TO GRADE LEVEL.

LOOP DETECTOR INSTALLATION DETAIL

GENERAL NOTES

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

LOOP SIZE, CONFIGURATION LOCATION, NUMBER OF TURNS OF WIRE AND ASSOCIATED SIGNAL PHASE SHALL BE AS SHOWN ON THE PLANS.

PITCH LEAD OUT CONDUIT TO DRAIN TO ROADSIDE PULL (SPLICE) BOX.

SPLICES SHALL BE INSTALLED BY USING CAST IN PLACE SPLICE KITS SUCH AS 3M TYPE 82A1 OR APPROVED EQUAL. NON-INSULATED BUTT SPLICES TO FIT #12 AWG STRANDED WIRE SHALL BE USED. SPLICES SHALL BE SOLDERED AND INSULATED FROM EACH OTHER AS PER INSTRUCTIONS INCLUDED IN THE SPLICE KIT.

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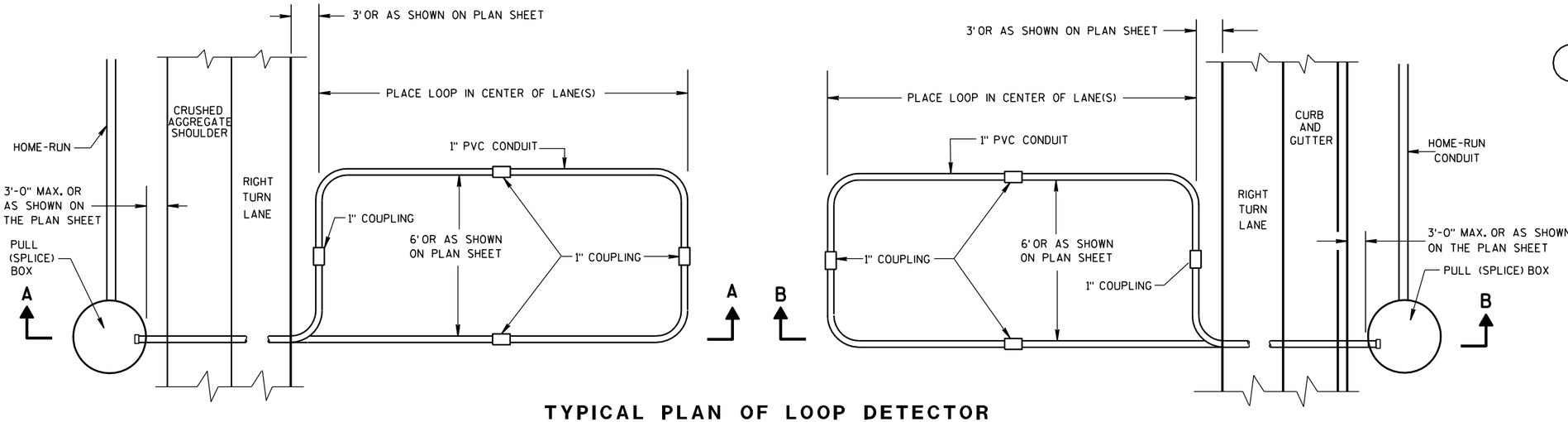
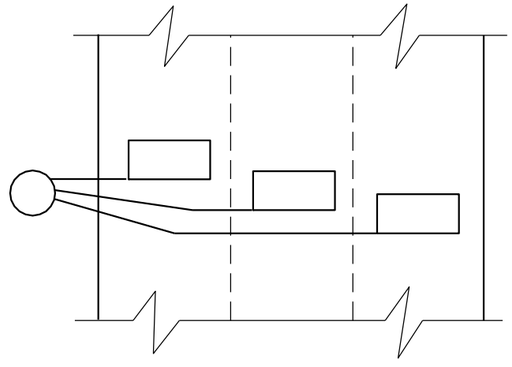
PROTECTION OF THE CONDUITS IN THE BASE COURSE SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE NEW PAVEMENT IS INSTALLED.

SHOULD INSTALLATION REPAIR BE REQUIRED, IT SHALL BE DONE UNDER THE DIRECTION OF THE PROJECT ENGINEER.



TYPICAL PLAN OF LOOP DETECTOR WITH 24" PULL (SPLICE) BOX



MULTI-LANE INSTALLATION

LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/7/06 DATE
/S/ Balu Anantharaman
STATE ELECTRICAL ENGI 464 HWYS
FHWA

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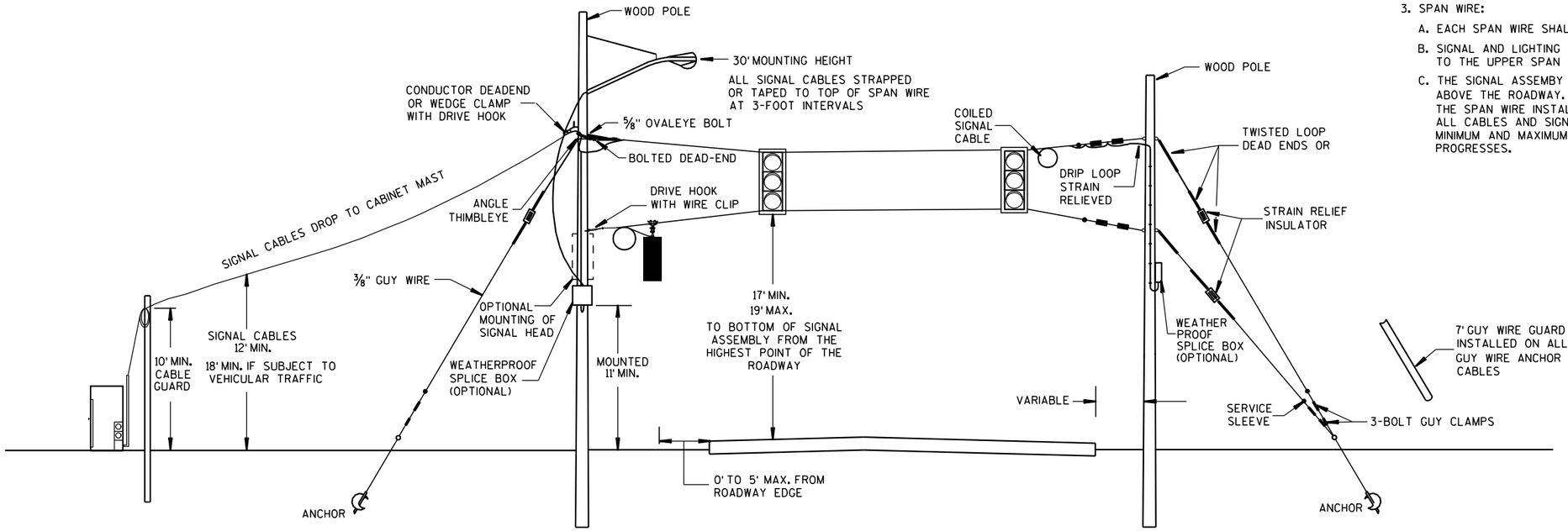
GENERAL NOTES

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

1. WOOD POLES SHALL BE CLASS 4. LENGTH DETERMINED BY SIGNAL PLAN.

2. SIGNAL FACES:
   A. ALL SECTIONS SHALL BE 12" AND POLYCARBONATE.
   B. EACH SHALL CONTAIN A 5" WIDE DULL BLACK POLYCARBONATE BACKPLATE.
   C. EACH SHALL BE WIRED FROM THE TOP SIGNAL MOUNTING BRACKET.
   D. NEAR RIGHT SIGNAL FACE SUSPENDED ON THE TETHER (NO BACKPLATE) SHALL NOT BE OVER THE TRAVELED WAY. IF THE POLE IS WITHIN 5 FEET OF THE TRAVELED WAY MOUNT THE SIGNAL FACE ON THE WOOD POLE WITH BACKPLATE.

3. SPAN WIRE:
   A. EACH SPAN WIRE SHALL BE INDIVIDUALLY DOWN GUYED.
   B. SIGNAL AND LIGHTING CABLES SHALL ONLY BE ATTACHED TO THE UPPER SPAN WIRE.
   C. THE SIGNAL ASSEMBY SHALL HAVE A 17' MIN. HEIGHT ABOVE THE ROADWAY. THIS SHALL BE MEASURED AFTER THE SPAN WIRE INSTALLATION IS COMPLETED WITH ALL CABLES AND SIGNAL FACES IN PLACE. MAINTAIN MINIMUM AND MAXIMUM HEIGHTS AS ROADWAY WORK PROGRESSES.



SPAN WIRE
TEMPORARY SIGNALS

MINIMUM POLE LENGTHS	POLE BURIEL DEPTHS
25'	5'
30'	6'
35'	7'
40'	8'
45'	9'

SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7-14-08 DATE
/S/ Balu Ananthar [illegible]n
STATE ELECTRICAL ENGI 465 HWYS
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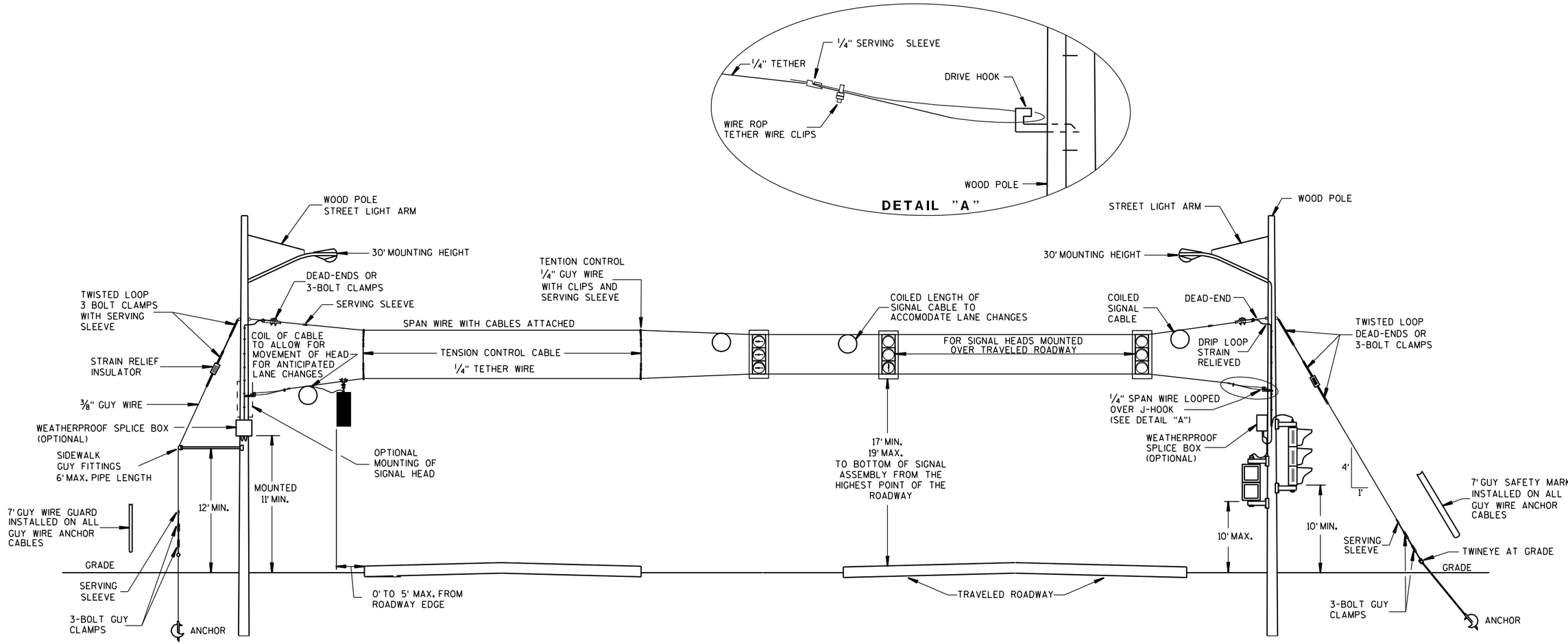

GENERAL NOTES

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1. WOOD POLES SHALL BE CLASS 4. LENGTH DETERMINED BY SIGNAL PLAN.
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   D. NEAR RIGHT SIGNAL FACE SUSPENDED ON THE TETHER (NO BACKPLATE) SHALL NOT BE OVER THE TRAVELED WAY. IF THE POLE IS WITHIN 5 FEET OF THE TRAVELED WAY MOUNT THE SIGNAL FACE ON THE WOOD POLE WITH BACKPLATE.
   E. FAR INDICATION SHALL BE MAINTAINED OVER CENTER OF TRAFFIC LANE.
3. SPAN WIRE:
   A. EACH SPAN WIRE SHALL BE INDIVIDUALLY DOWN GUYED.
   B. SIGNAL AND LIGHTING CABLES SHALL ONLY BE ATTACHED TO THE UPPER SPAN WIRE.
   C. THE SIGNAL ASSEMBY SHALL HAVE A 17' MIN. HEIGHT ABOVE THE ROADWAY. THIS SHALL BE MEASURED AFTER THE SPAN WIRE INSTALLATION IS COMPLETED WITH ALL CABLES AND SIGNAL FACES IN PLACE. MAINTAIN MINIMUM AND MAXIMUM HEIGHTS AS ROADWAY WORK PROGRESSES.

SPAN WIRE
TEMPORARY SIGNALS
4 LANE ROADWAYS

MINIMUM POLE LENGTHS	CLASS	MIN. BURIAL DEPTHS
25'	V	5'
30'	V	6'
35'	IV	7'
40'	IV	8'
45'	IV	9'

SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7-14-08 DATE

/S/ Balu Ananthanarayanan
STATE ELECTRICAL ENGI

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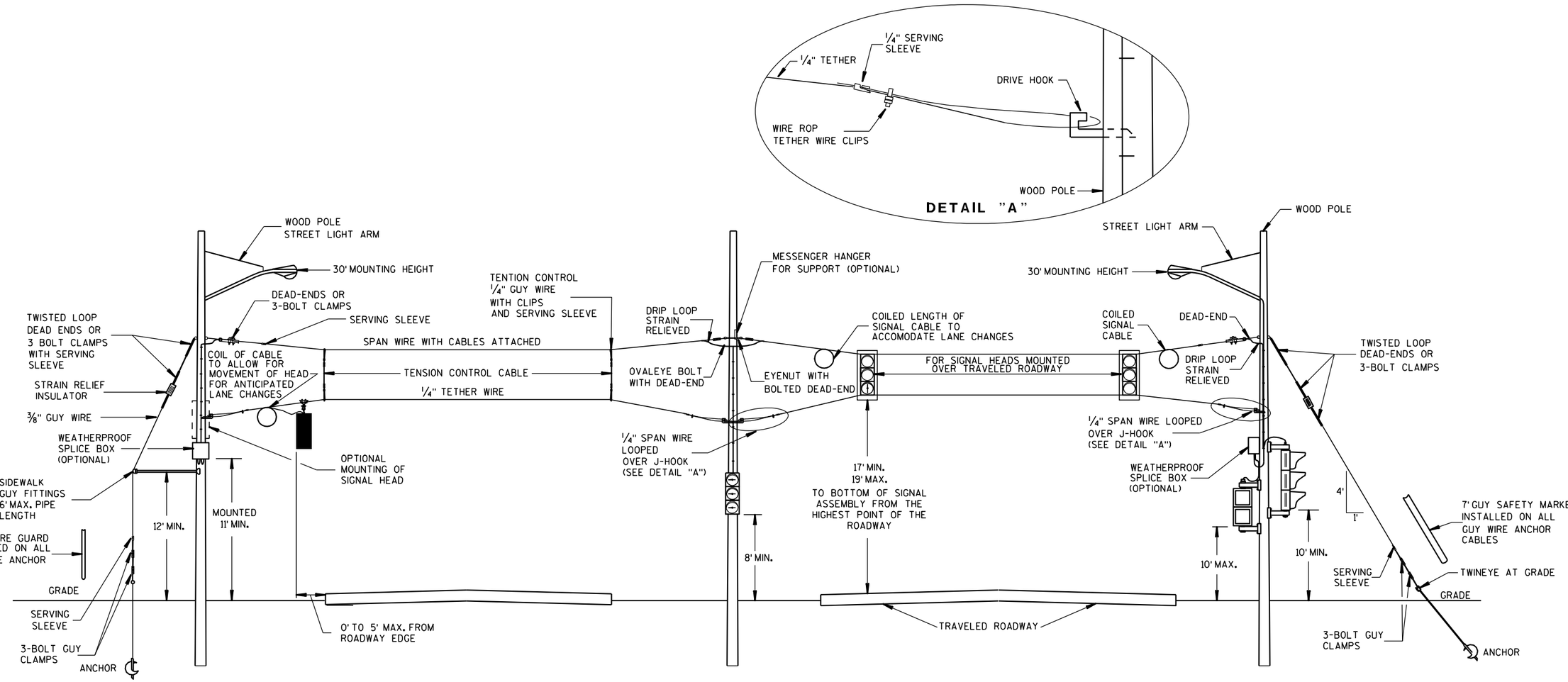

SPAN WIRE
TEMPORARY SIGNALS
4 LANE ROADWAYS

GENERAL NOTES

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

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   E. FAR INDICATION SHALL BE MAINTAINED OVER CENTER OF TRAFFIC LANE.

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   A. EACH SPAN WIRE SHALL BE INDIVIDUALLY DOWN GUYED.
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   C. THE SIGNAL ASSEMBY SHALL HAVE A 17' MIN. HEIGHT ABOVE THE ROADWAY. THIS SHALL BE MEASURED AFTER THE SPAN WIRE INSTALLATION IS COMPLETED WITH ALL CABLES AND SIGNAL FACES IN PLACE. MAINTAIN MINIMUM AND MAXIMUM HEIGHTS AS ROADWAY WORK PROGRESSES.

MINIMUM POLE LENGTHS	CLASS	MIN. BURIAL DEPTHS
25'	V	5'
30'	V	6'
35'	IV	7'
40'	IV	8'
45'	IV	9'

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7-14-08 DATE

/S/ Balu Ananthanarayanan
STATE ELECTRICAL ENGI

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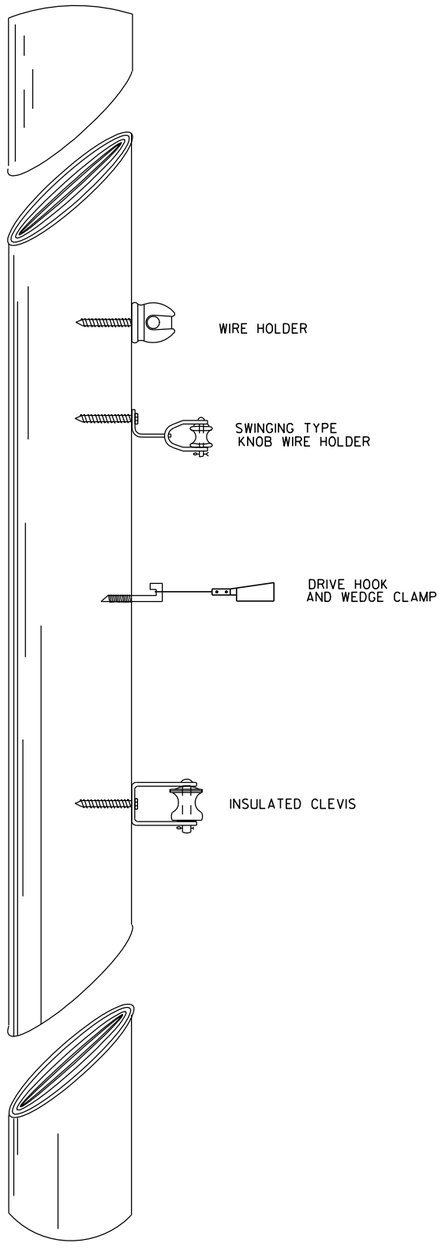
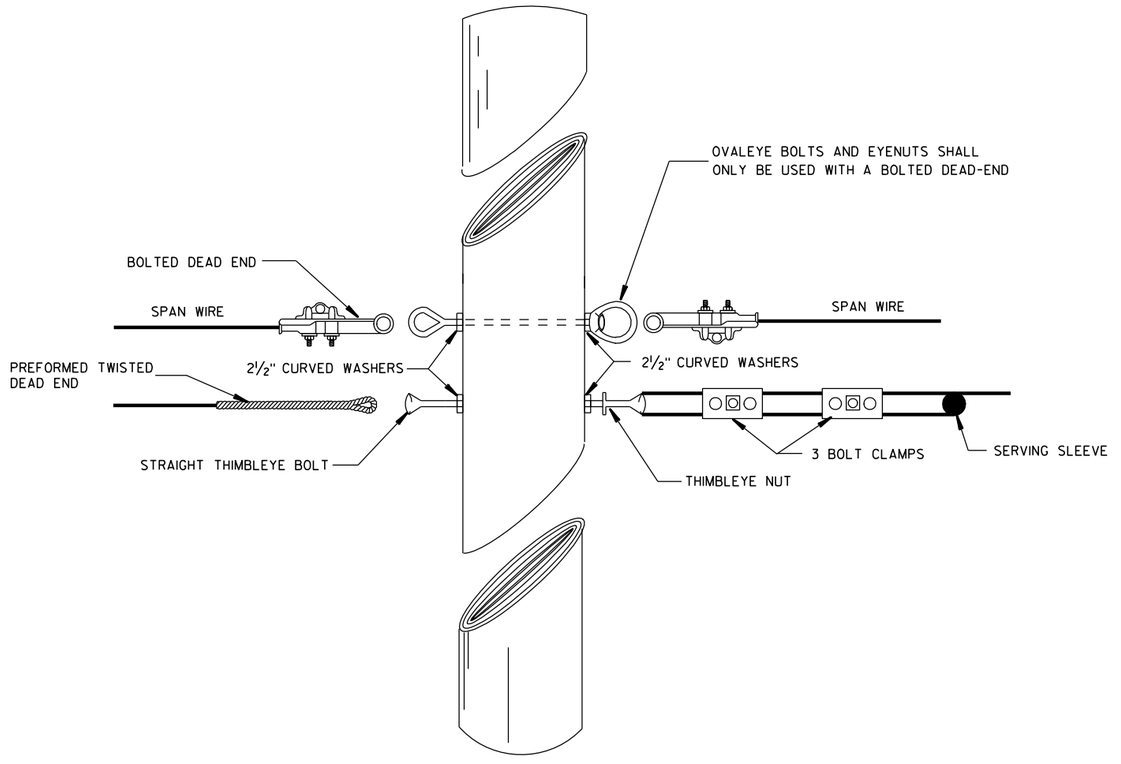


TYPICAL CABLE HANGERS



TYPICAL DEAD-ENDING

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S.D.D. 9 G 1-3d

SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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7-14-08
DATE

/S/ Balu Ananthanarayanan
STATE ELECTRICAL ENGI 468 HWYS

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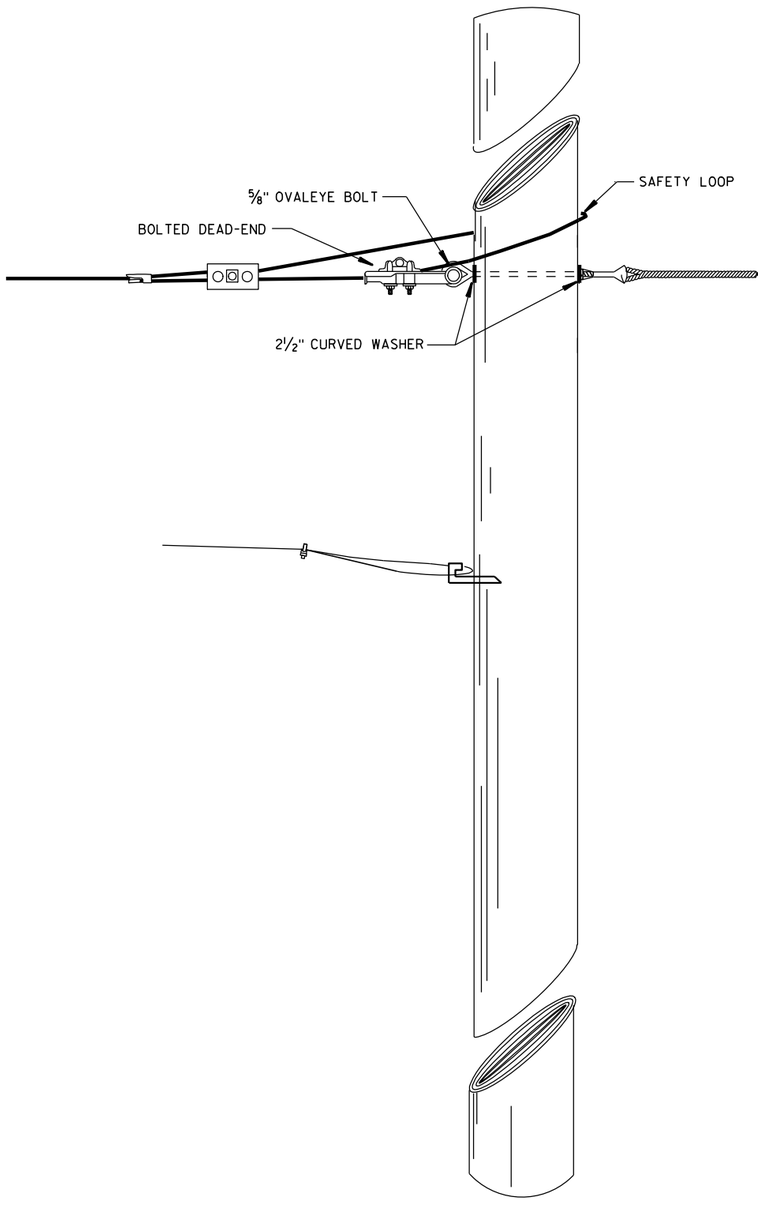
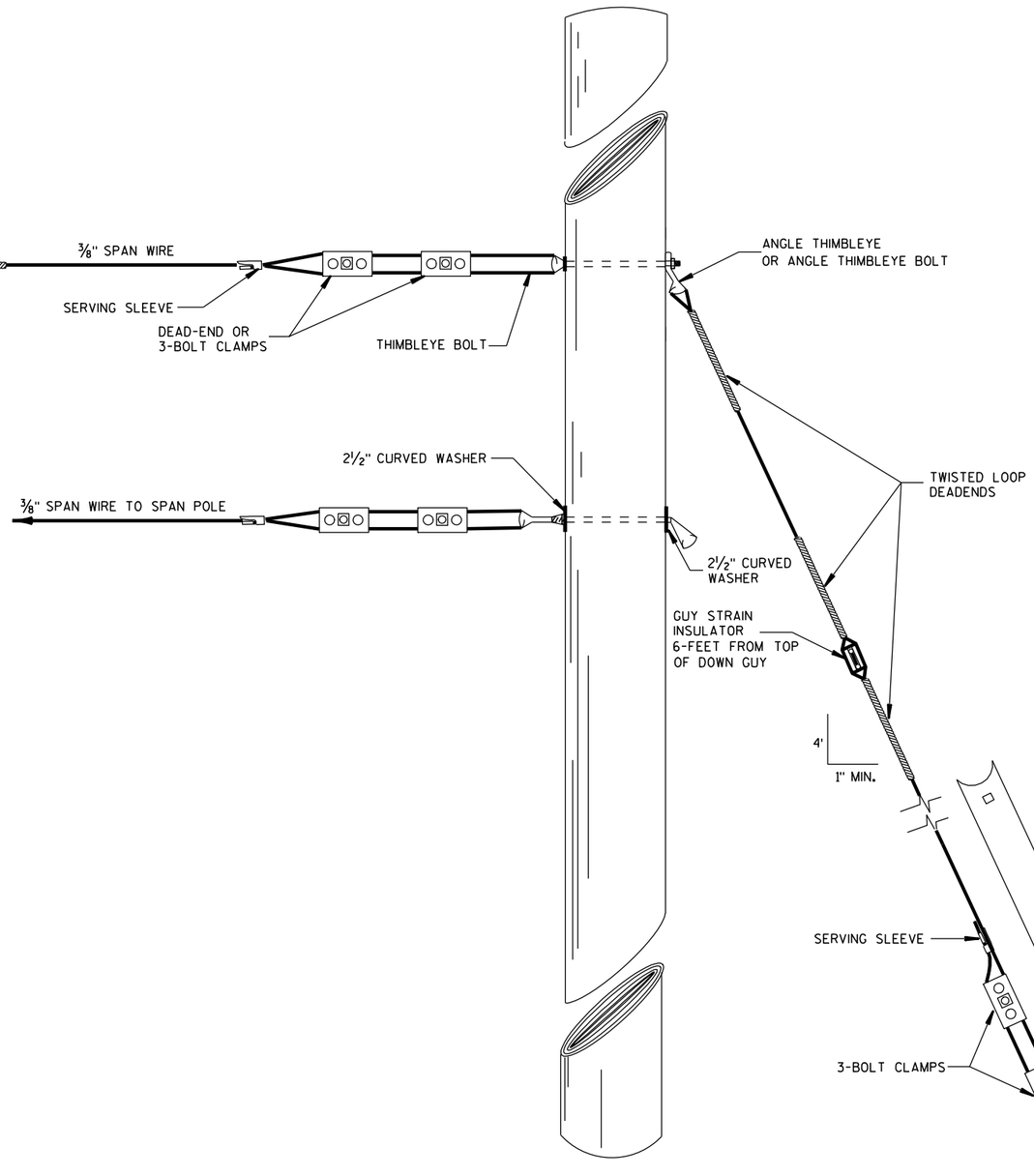
GENERAL NOTES

1. USE ¾" DRILL IN WOOD POLE TO PROVIDE HOLE FOR ⅝" BOLTS.
2. SAFTY LOOP REQUIRED ON EACH END OF ALL SPAN WIRES.



SPAN WIRE POLE



GUY POLE

TYPICAL DEAD-ENDINGS OR GUYING

SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7-14-08 DATE
/S/ Balu Aganthanarayanan
STATE ELECTRICAL ENGI 469 HWYS
FHWA

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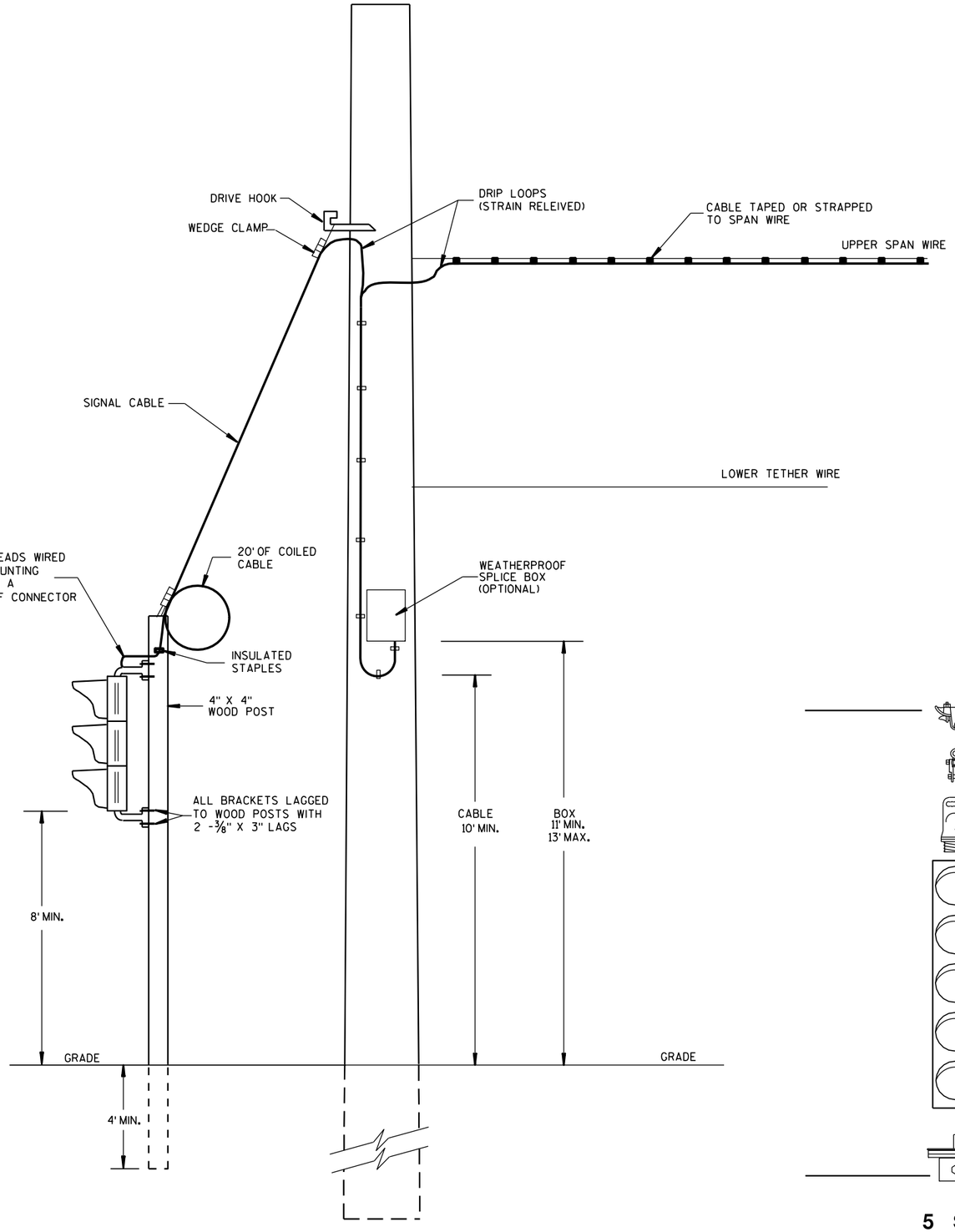
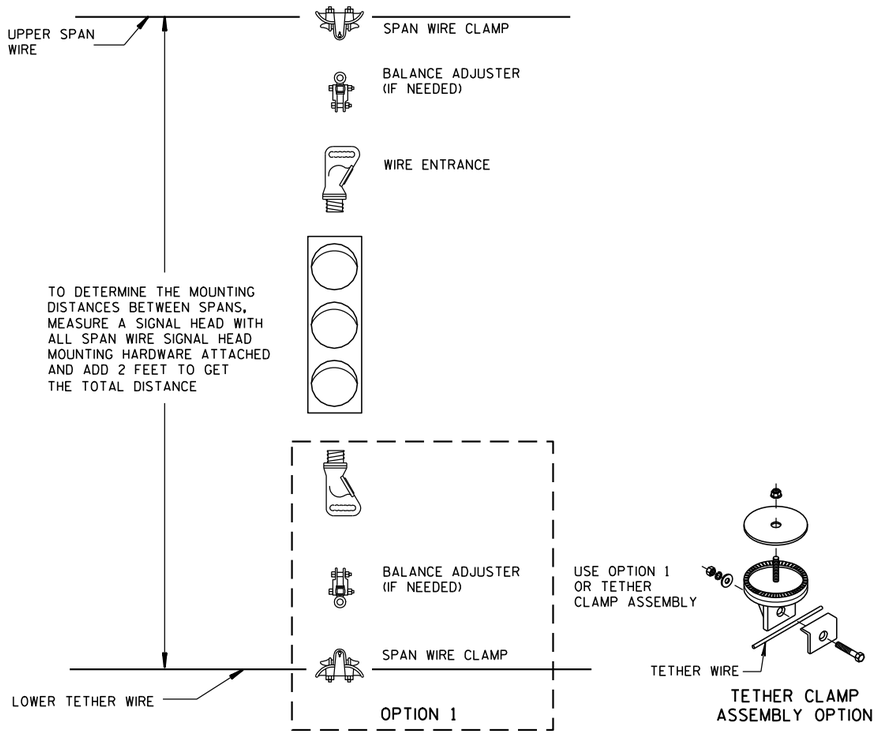
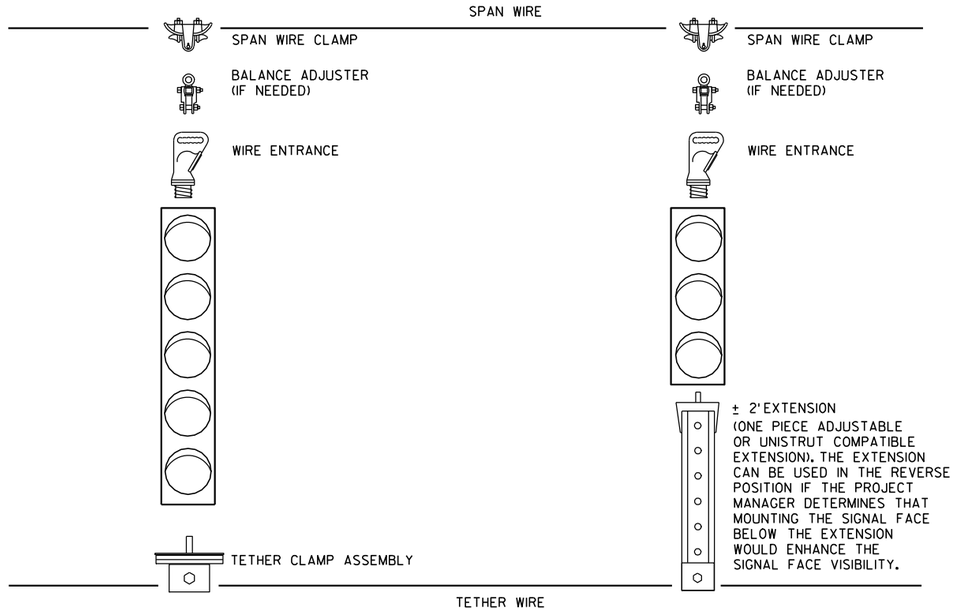


TYPICAL DROP TO TEMPORARY MOVEABLE SIGNAL



TYPICAL SPAN WIRE MOUNTING HARDWARE



5 SECTION VERTICAL WITH 3 SECTION VERTICAL ON ONE SPAN WIRE

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7-14-08	/S/ Balu Ananthanarayanan	
DATE	STATE ELECTRICAL ENGI 470	HWYS

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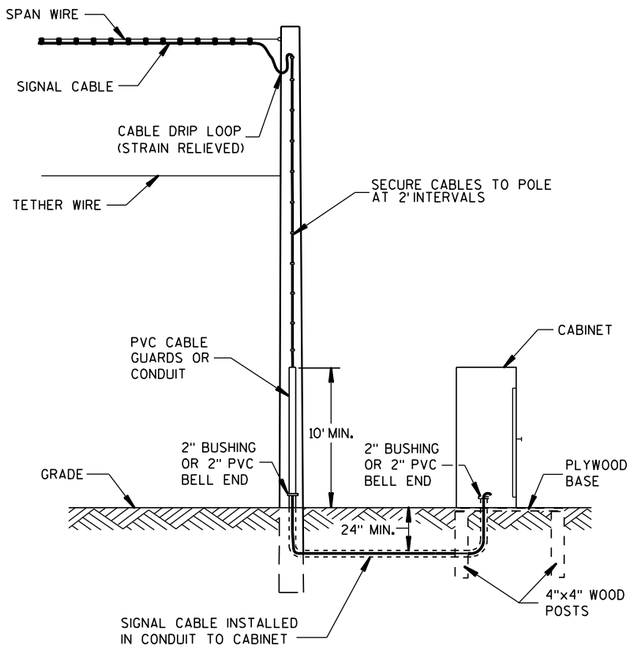
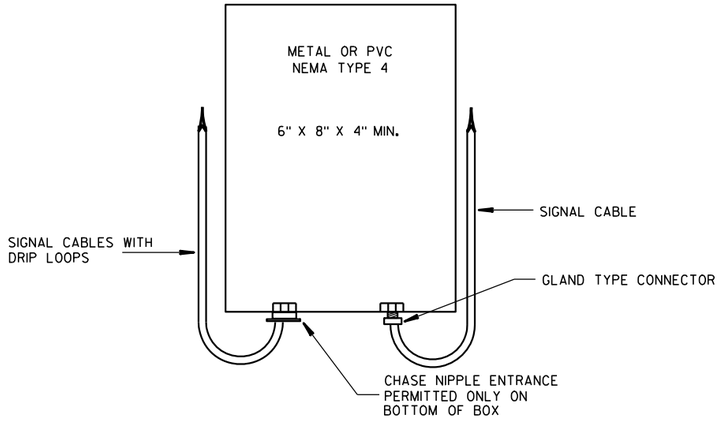
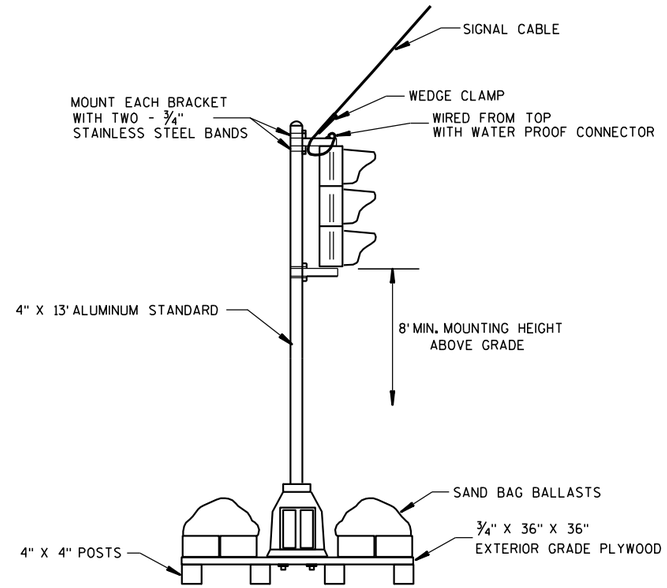
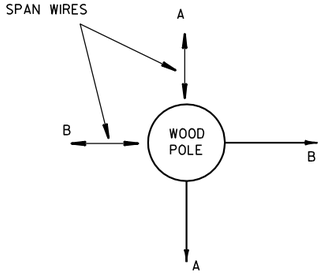




SPLICE BOX

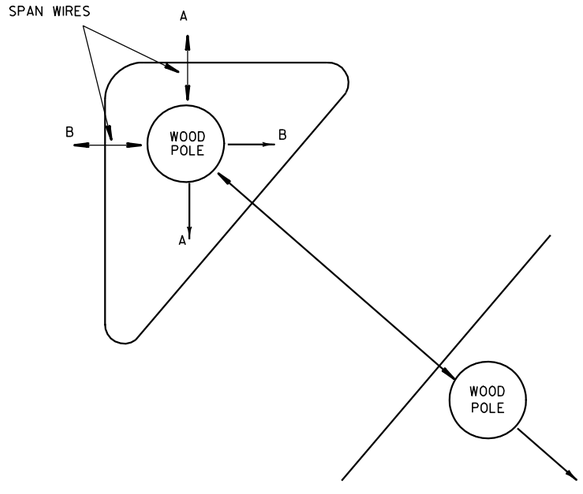


TYPICAL SKID TYPE TEMPORARY

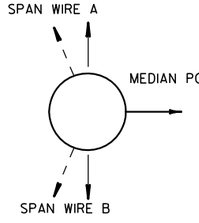


ALL DOWN OR SIDEWALK GUYS
SHALL BE INSTALLED IN THE
OPPOSITE DIRECTION OF THE
STRAIN OF THE SPAN WIRE

CORNER POLES



ISLAND POLES



GUY AWAY FROM
INTERSECTION OR IN
OPPOSITE DIRECTION OF THE
SPAN LOADING

MEDIAN POLES

SPAN WIRE
TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7-14-08
DATE

/S/ Balu Aganthangayanan
STATE ELECTRICAL ENGI

HWYS

FHWA

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S.D.D. 9 G 1-3g

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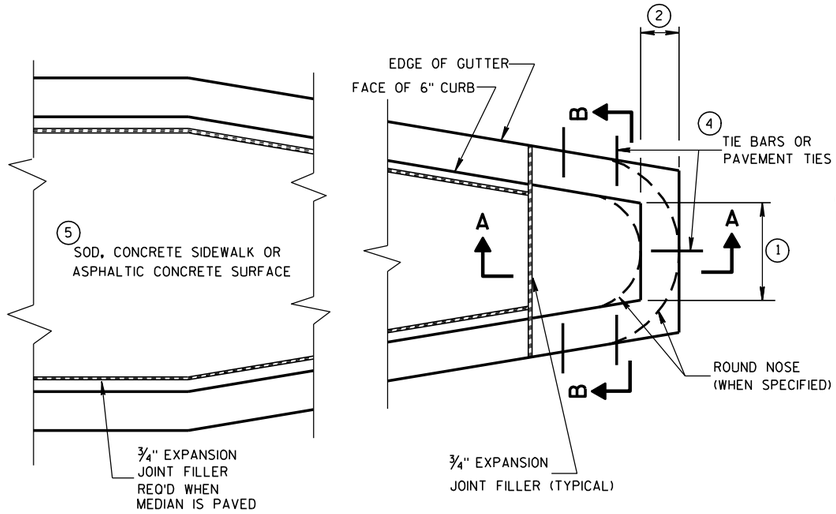
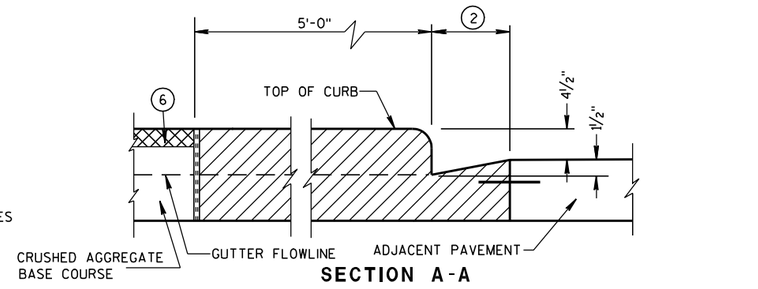
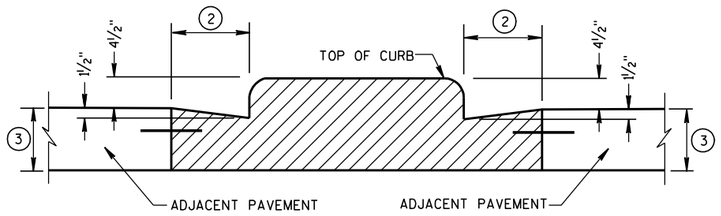






CONCRETE MEDIAN BLUNT NOSE DETAIL

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.

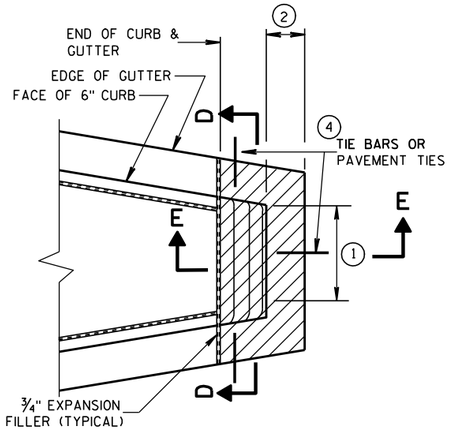
(2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.

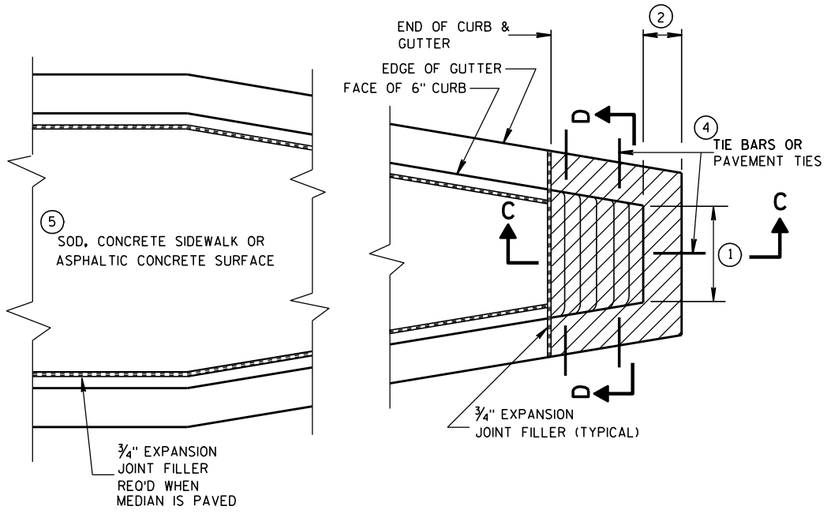
(3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

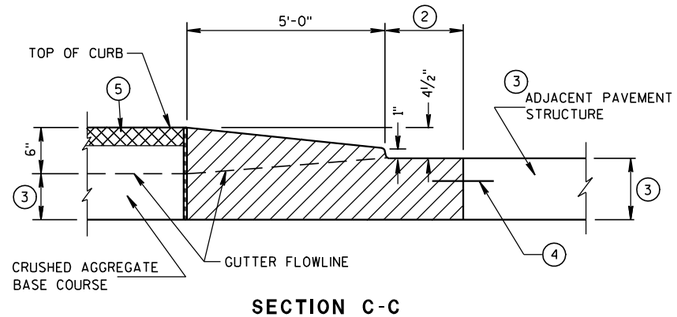
(4) TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C.

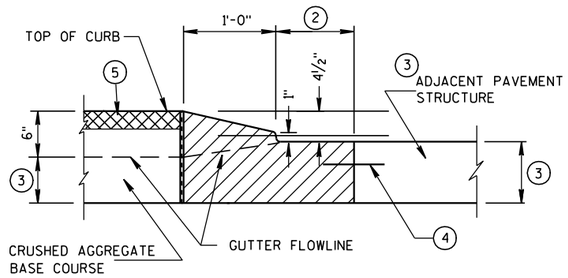
PAVEMENT TIES REQUIRED IN EXISTING CONCRETE BASE COURSE. PAVEMENT TIES SHALL BE NO. 6 X 1'-0" SPACED AT 3'-0" C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1. THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.

(5) SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.



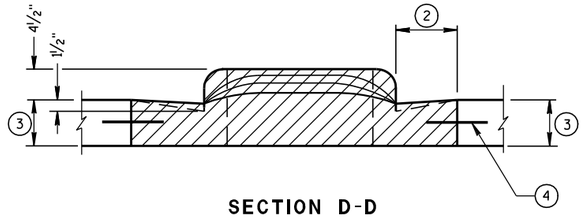






CONCRETE MEDIAN SLOPED NOSE TYPE 1

CONCRETE MEDIAN SLOPED NOSE TYPE 2



CONCRETE MEDIAN NOSE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 6/8/2006 DATE FHWA	/S/ Jerry H. [illegible] ROADWAY STANDARDS ENGINEER 1472 NT

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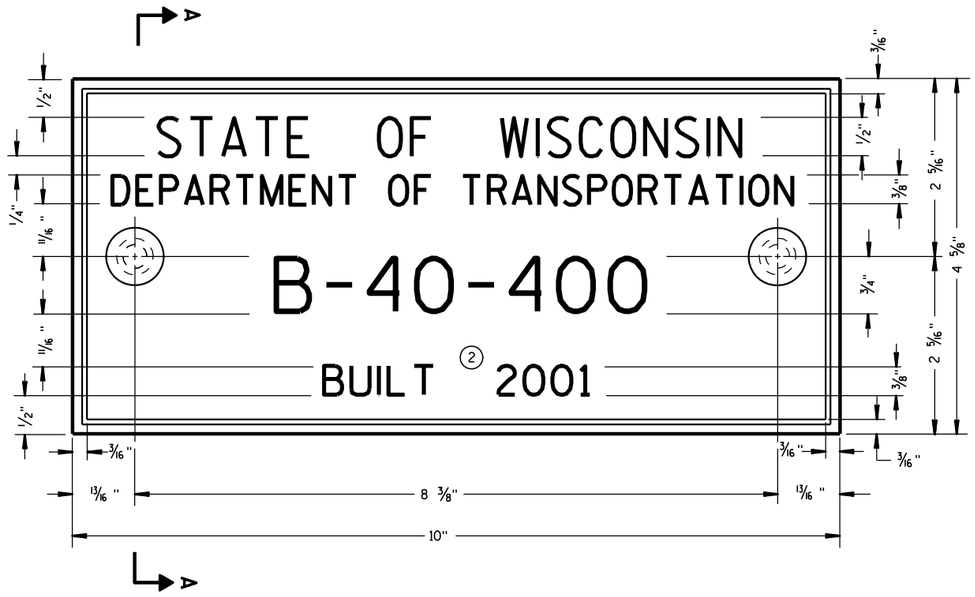
S.D.D. 11 B 2-2



TYPICAL NAME PLATE

(BRIDGES, CULVERTS, AND RETAINING WALLS)

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

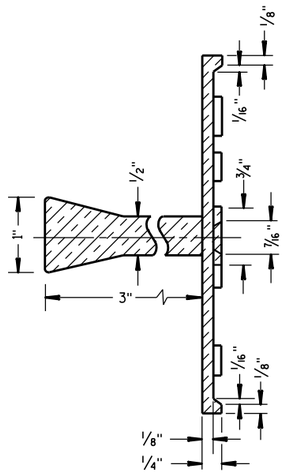
GENERAL NOTES

NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

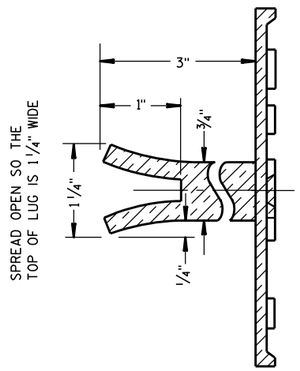
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

(1) EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

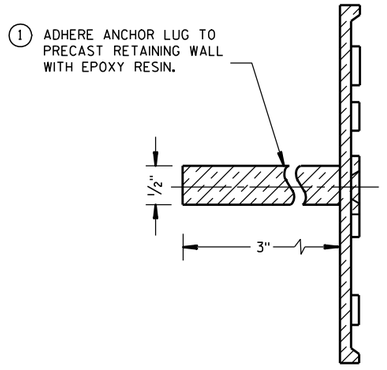
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG



ALTERNATE LUG

(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/26/10 DATE

/S/ Scot Beck -- CHIEF STRUCTURAL DEVELOP 473 ENGINEER

FHWA

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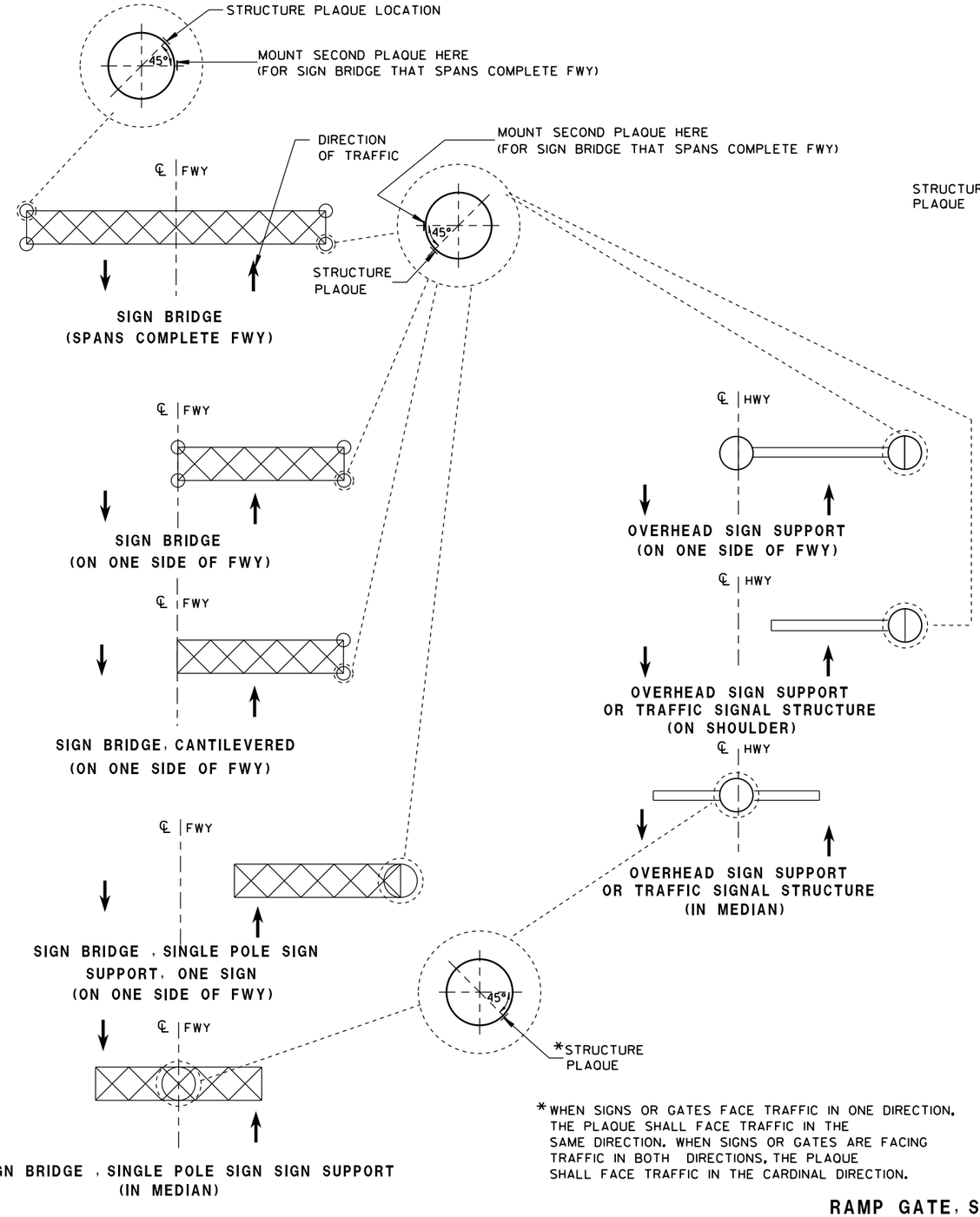
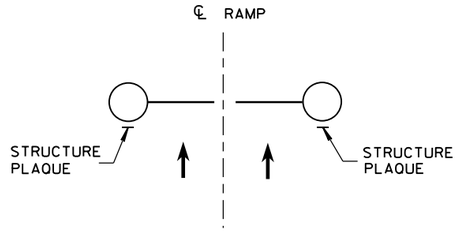
S.D.D. 12 A 3-10

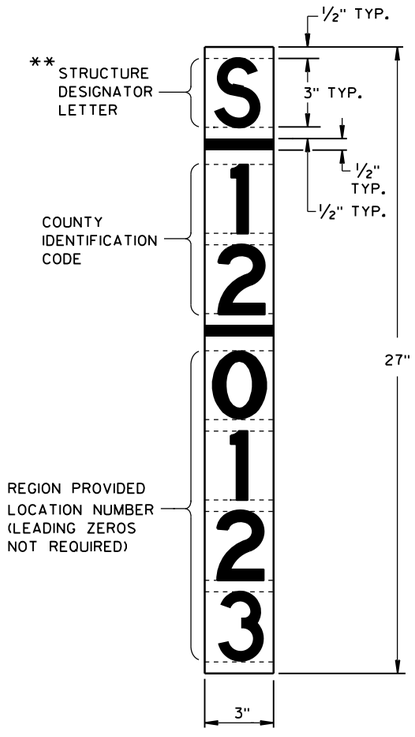


*WHEN SIGNS OR GATES FACE TRAFFIC IN ONE DIRECTION, THE PLAQUE SHALL FACE TRAFFIC IN THE SAME DIRECTION. WHEN SIGNS OR GATES ARE FACING TRAFFIC IN BOTH DIRECTIONS, THE PLAQUE SHALL FACE TRAFFIC IN THE CARDINAL DIRECTION.

LOCATION OF RAMP GATE, SIGN BRIDGE, OVERHEAD SIGN SUPPORT & TRAFFIC SIGNAL STRUCTURE PLAQUES



RAMP GATE
(ACROSS FWY ON-RAMP)



** LETTER "G" UTILIZED FOR RAMP GATES. LETTER "S" UTILIZED FOR SIGN BRIDGES, OVERHEAD SIGN SUPPORTS, AND TRAFFIC SIGNALS.

RAMP GATE, SIGN BRIDGE, OVERHEAD SIGN SUPPORT AND TRAFFIC SIGNAL STRUCTURE PLAQUE FOR SIGN BRIDGES AND OVERHEAD SIGN SUPPORT WHICH ARE NOT STRUCTURE MOUNTED

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.

IF THE PROPOSED SIGN BRIDGE OR OVERHEAD SIGN SUPPORT IS REPLACING AN EXISTING SIGN BRIDGE OR OVERHEAD SIGN SUPPORT, A NEW IDENTIFICATION PLAQUE WILL BE REQUIRED.

FASTEN TOP, CENTER AND BOTTOM OF PLAQUE TO POLE OR OTHER LOCATION AS FOLLOWS:

GALVANIZED STEEL SHAFT - 3 STAINLESS STEEL POP RIVETS

A588 STEEL SHAFT - SHIM FOR DRAINAGE WITH STAINLESS WASHERS; FASTEN WITH STAINLESS SELF-TAPPING SCREWS

ALUMINUM SHAFTS - 3 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.

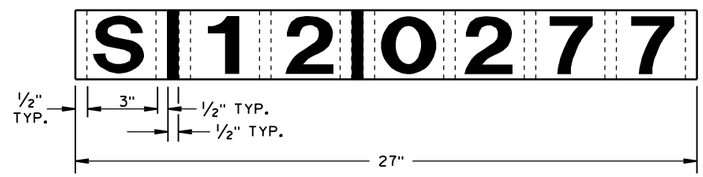
FACE - WHITE, SELF-ADHESIVE VINYL SHEETING, NON-RETROREFLECTIVE

LINES - BLACK, ½" WIDE, SELF-ADHESIVE

CHARACTERS:- BLACK, SELF ADHESIVE, SERIES "D", SIZE AS SHOWN.

FOR SIGN BRIDGES, STRUCTURE MOUNTED, THE STRUCTURE PLAQUE SHALL BE MOUNTED HORIZONTALLY AS SHOWN ON THE DRAWING. THE STRUCTURE PLAQUE SHALL BE MOUNTED HORIZONTALLY TO THE BACK OF THE SIGN, BETWEEN THE ALUMINUM EXTRUSIONS, NEAR THE TOP LEFT HAND CORNER OF THE SIGN. THE BASE MATERIAL SHALL BE OMITTED AND THE FACE ADHERED DIRECTLY TO THE ALUMINUM SURFACE. PRIOR TO ADHERING THE MATERIAL, THE ALUMINUM SURFACE SHALL BE SMOOTH, CLEAN AND DRY.

WHERE SIGN BRIDGE ILLUMINATION IS PROVIDED, THE STRUCTURE MUST ALSO HAVE A SIGN BRIDGE CIRCUIT PLAQUE AS SHOWN IN THE ELECTRICAL DETAILS.



IDENTIFICATION PLAQUE FOR SIGN BRIDGE, STRUCTURE MOUNTED

STRUCTURE IDENTIFICATION PLAQUES, RAMP GATES, SIGN BRIDGES, OVERHEAD SIGN SUPPORTS, & TRAFFIC SIGNALS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
12/4/2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER

FHWA

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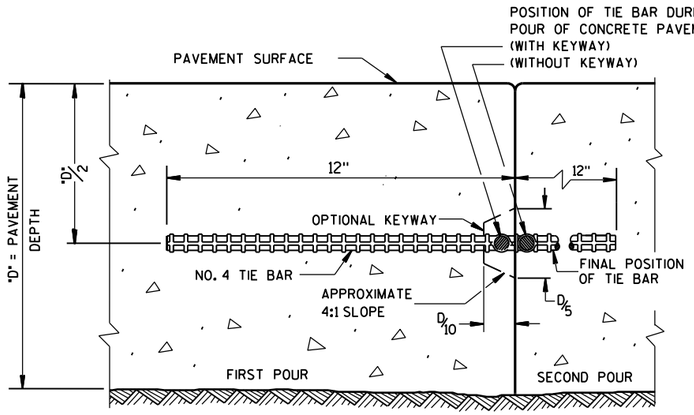
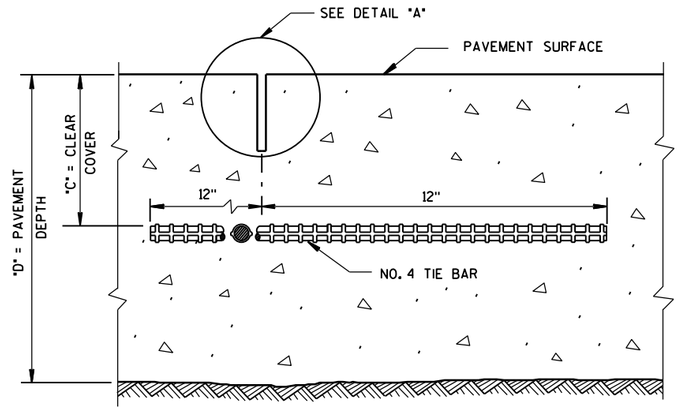


CONSTRUCTION JOINT



SAWED JOINT

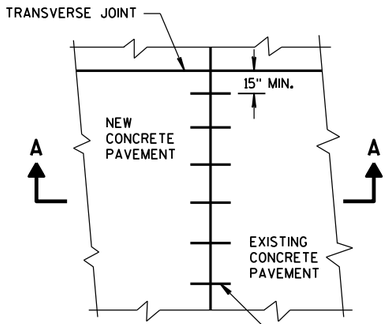
GENERAL NOTES

DO NOT SEAL OR FILL LONGITUDINAL JOINTS.

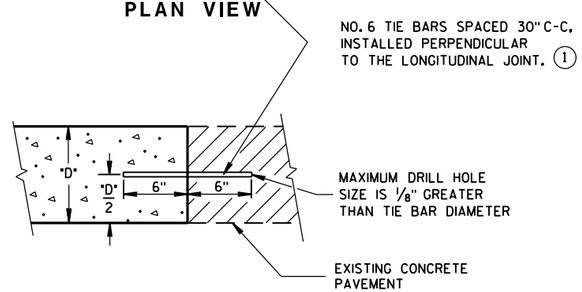
CREATE A LONGITUDINAL JOINT FOR PAVEMENT WIDTHS GREATER THAN 15 FEET.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

(1) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

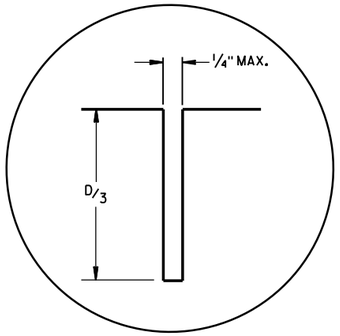


PLAN VIEW



SECTION A-A

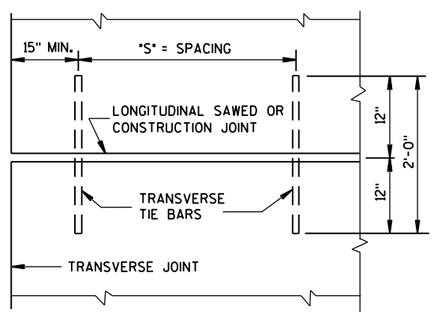
LONGITUDINAL CONSTRUCTION JOINT TIE BARS ANCHORED INTO EXISTING PAVEMENT



DETAIL "A"

TIE BAR TABLE

PAVEMENT DEPTH "D"	CLEAR COVER "C"	MAXIMUM TIE BAR SPACING "S"	
		PAVEMENT WIDTH	
		24' OR 26'	≥ 30'
6, 6 1/2"	3"±1/2"	48"	42"
7, 7 1/2"	3 1/4"±1"	45"	36"
8, 8 1/2"	3 3/4"±1"	39"	30"
9, 9 1/2"	4 1/4"±1"	33"	27"
10, 10 1/2"	4 3/4"±1"	30"	24"
11, 11 1/2"	5 1/4"±1"	27"	21"
12"	5 3/4"±1"	24"	21"



PLAN VIEW
SHOWING LOCATION OF TIE BARS

CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5-3-2013 DATE
/S/ Deb Bischoff PAVEMENT POLICY & DE ...NEER
FHWA

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S.D.D. 13 C 1-16

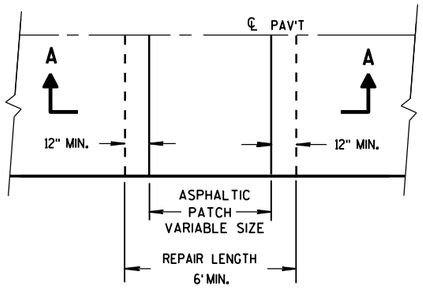
GENERAL NOTES

SAW CUT, DRILL, AND LIFT OUT EXISTING CONCRETE PAVEMENT WITHIN THE BOUNDARIES OF CONCRETE REPAIR AREAS. THE CONTRACTOR MAY MAKE ADDITIONAL SAW CUTS INSIDE THE REPAIR LIMITS TO REDUCE WEIGHT AND SIZE OF CONCRETE PIECES. ADDITIONAL SAW CUTS ARE NOT PAID FOR BY THE DEPARTMENT.

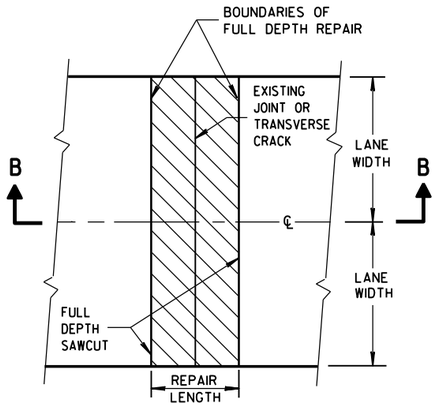
PROVIDE A 6-FOOT MINIMUM DISTANCE FROM BOUNDARIES OF CONCRETE REPAIR AREAS TO ADJACENT TRANSVERSE JOINT OR CRACK IN THE SAME LANE.

THE LENGTH OF THE REPAIRS MAY VARY FROM THE DIMENSIONS SHOWN IF THE EXISTING CONCRETE PAVEMENT IS NONDOWELED AND THE PAVEMENT IS TO BE OVERLAID AFTER REPAIRING.

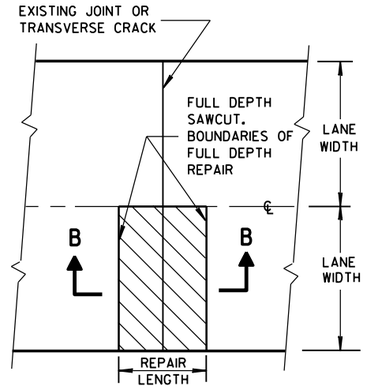
(1) DOWEL BARS MIGHT NOT EXIST.



PLAN VIEW



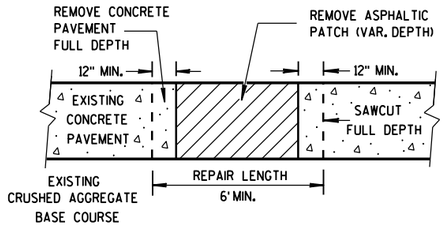
PLAN VIEW
(DOUBLE LANE REPAIR)



PLAN VIEW
(SINGLE LANE REPAIR)

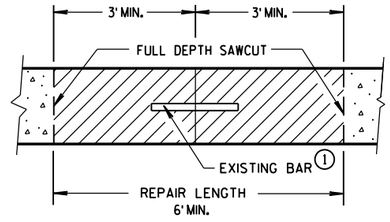
FULL DEPTH CONCRETE PAVEMENT REMOVAL

(SEE NOTE)



SECTION A-A

HMA PATCH REMOVAL



SECTION B-B

CONCRETE REMOVAL

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

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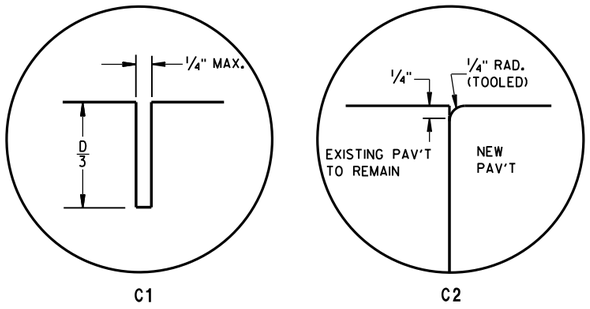

C1 C2

TRANSVERSE JOINTS

TIE BAR TABLE

PAVEMENT DEPTH "D"	CLEAR COVER "C"	MAXIMUM TIE BAR SPACING "S"	
		PAVEMENT WIDTH	
		24' OR 26'	≥ 30'
6, 6 1/2"	3"±1/2"	48"	42"
7, 7 1/2"	3 1/4"±1"	45"	36"
8, 8 1/2"	3 3/4"±1"	39"	30"
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10, 10 1/2"	4 3/4"±1"	30"	24"
11, 11 1/2"	5 1/4"±1"	27"	21"
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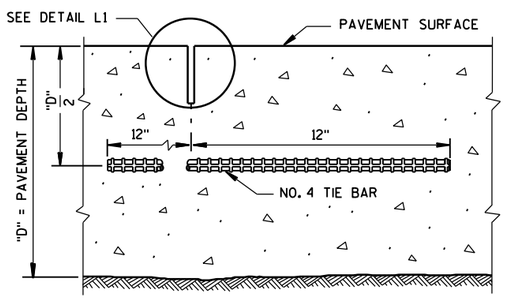


SECTION C-C

SAWED LONGITUDINAL JOINT

GENERAL NOTES

INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

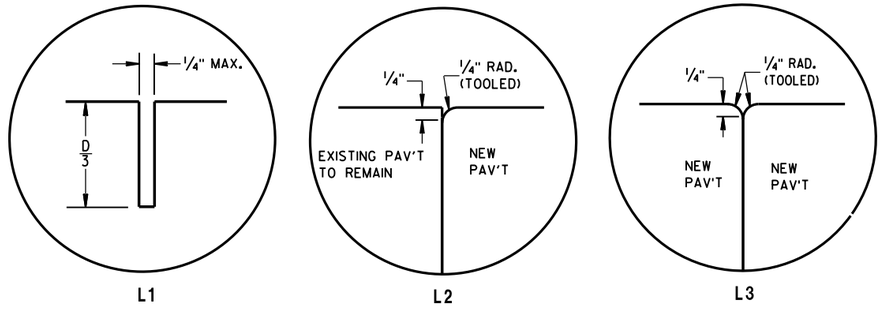
CONCRETE PAVEMENT REPAIRS OF EXISTING NONDOWELED CONCRETE PAVEMENTS DO NOT NEED TO BE DOWELED.

DO NOT SEAL OR FILL JOINTS.

ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

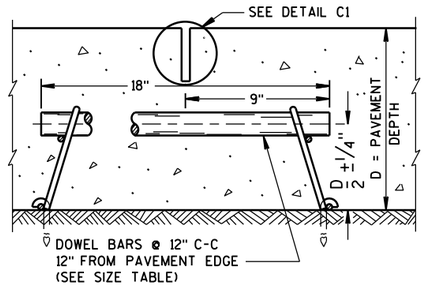
FOR MULTI-LANE CONCRETE PAVEMENT REPLACEMENTS, PROVIDE A MINIMUM DISTANCE OF 15 INCHES FROM ALL TRANSVERSE JOINTS OR EDGES OF REPLACEMENT TO THE CENTER OF THE TIE BAR NEAREST THAT JOINT OR EDGE.

(1) APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.



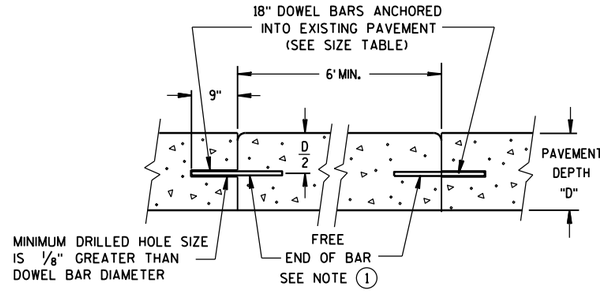
L1 L2 L3

LONGITUDINAL JOINTS

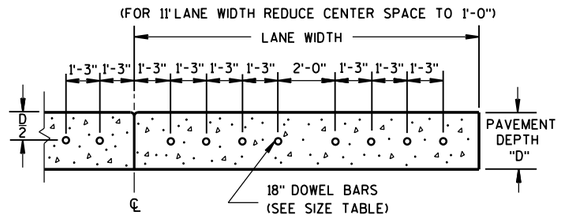


SECTION F-F

CONTRACTION JOINT



SECTION D-D

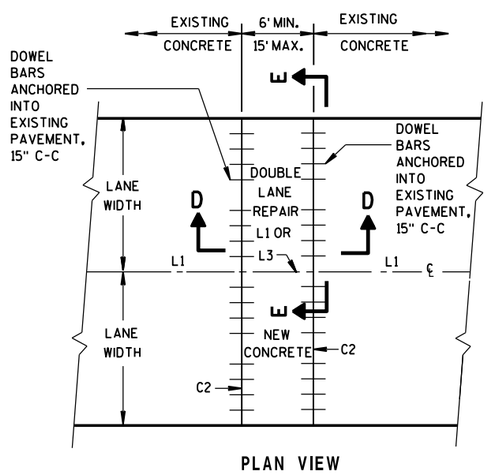


SECTION E-E

DRILLED DOWEL BAR CONSTRUCTION JOINT

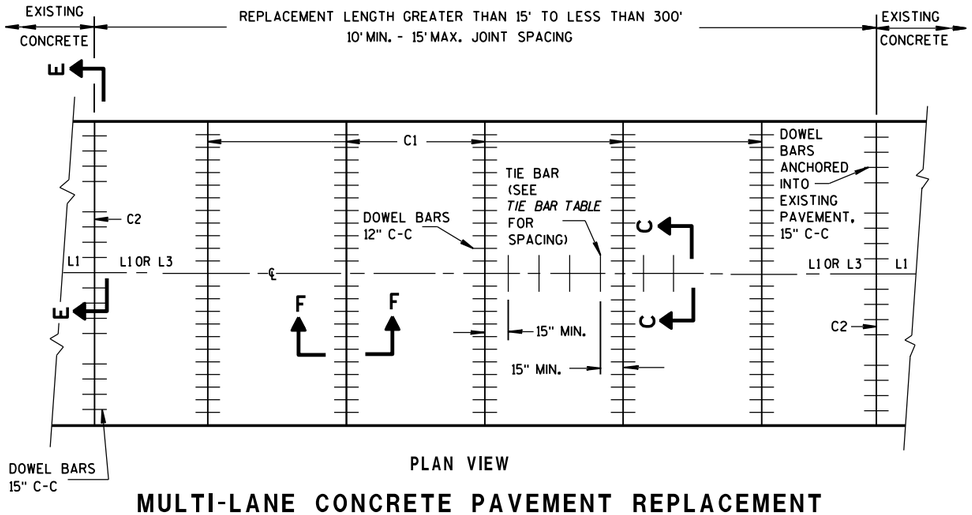
PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 1/2", 6",6 1/2"	NONE	12'
7",7 1/2"	1"	14'
8",8 1/2"	1 1/4"	15'
9",9 1/2"	1 1/4"	15'
10" & ABOVE	1 1/2"	15'



PLAN VIEW

MULTI-LANE CONCRETE PAVEMENT REPAIR



PLAN VIEW

MULTI-LANE CONCRETE PAVEMENT REPLACEMENT

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI 477

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S.D.D. 13 C 9-10b

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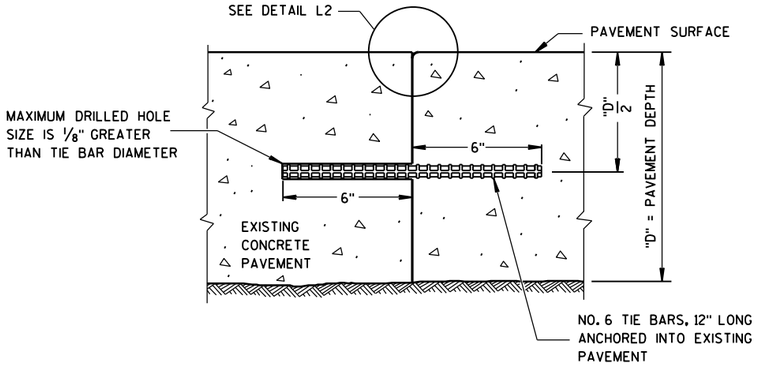
S.D.D. 13 C 9-10b



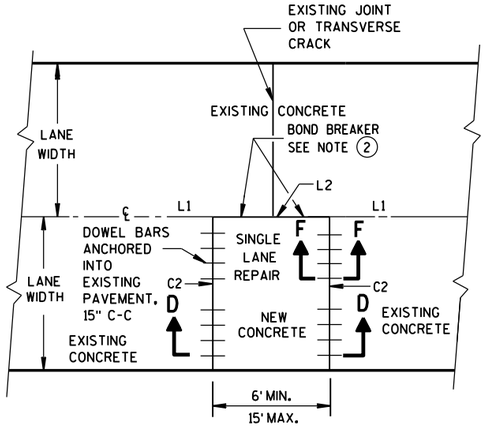
SECTION G-G

TIE BARS ANCHORED INTO EXISTING PAVEMENT

GENERAL NOTES

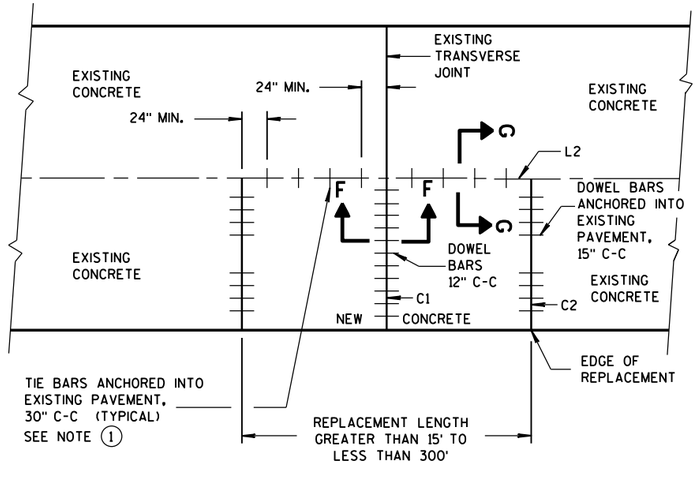
(1) WITH THE APPROVAL OF THE ENGINEER, FOR SINGLE LANE PAVEMENT REPLACEMENTS LESS THAN 30 FEET IN LENGTH, THE CONTRACTOR MAY INSTALL DRILLED TIE BARS ON 6:1 SKEW HORIZONTALLY, DIRECTION OF SKEW ALTERNATING WITH EACH SUCCESSIVE BAR. DRIVE SKEWED TIE BARS TO A DEPTH OF 6 INCHES AND TO SUCH A DIAMETER AS TO PROVIDE A TIGHT DRIVEN FIT.

(2) USE AN ENGINEER-APPROVED BOND BREAKER (E.G. RELEASE AGENT, CURING COMPOUND) FOR SINGLE LANE REPAIRS UP TO 15 FEET IN LENGTH.



PLAN VIEW

SINGLE LANE CONCRETE PAVEMENT REPAIR



PLAN VIEW

SINGLE LANE CONCRETE PAVEMENT REPLACEMENT

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5-3-2013 DATE
/S/ Deb Bischoff PAVEMENT POLICY & DE
FHWA

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S.D.D. 13 C 9-10c

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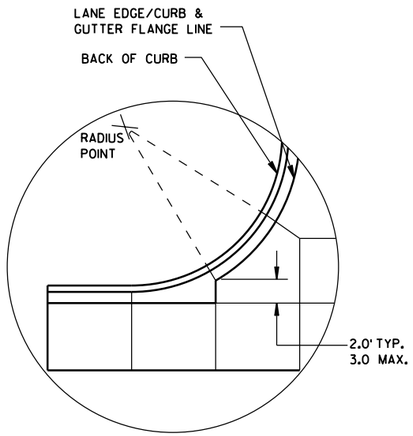
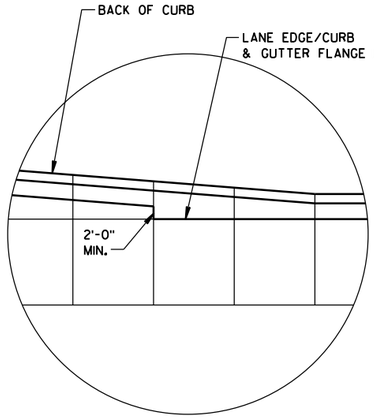
S.D.D. 13 C 9-10c



DETAIL "A"



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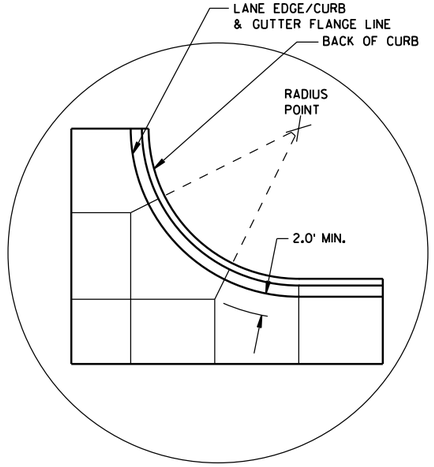

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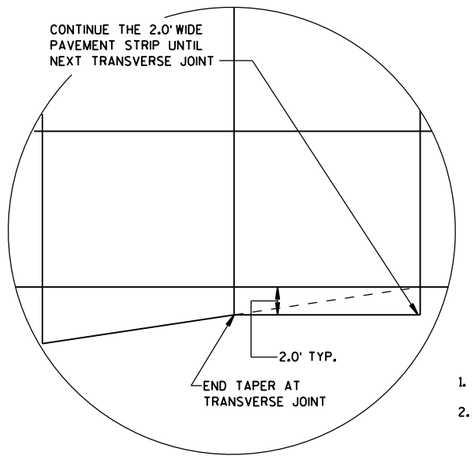


DETAIL "D"

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.

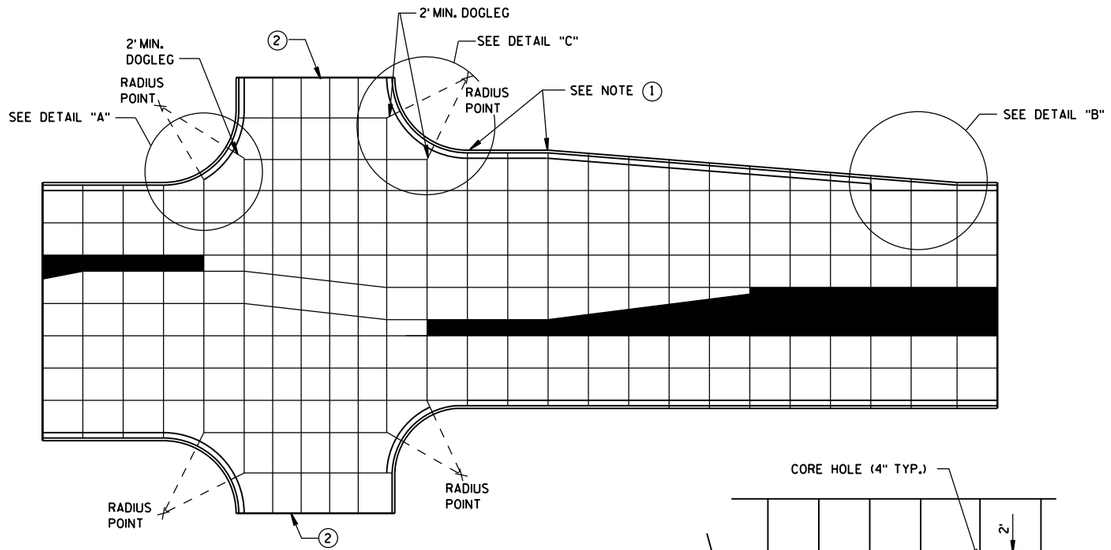
AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.

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.

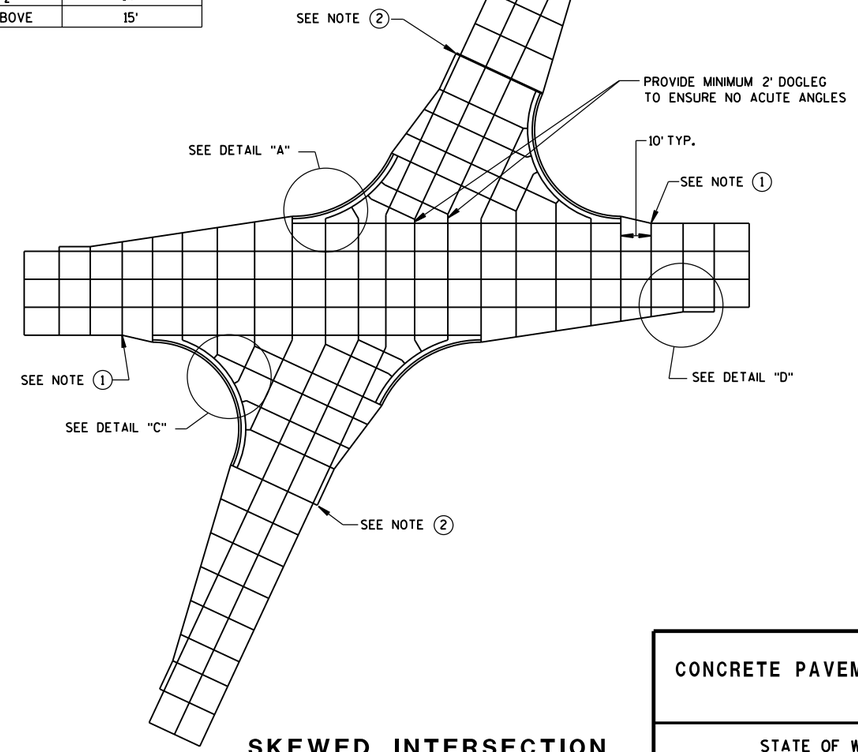
1. PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.
2. CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH EDGE OF RADIUS.
3. THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.



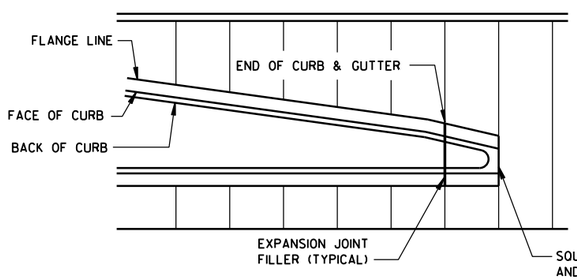
STANDARD INTERSECTION

PAVEMENT DEPTH AND JOINT SPACING TABLE

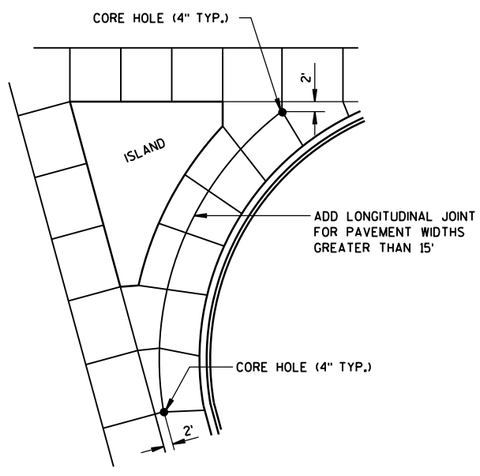
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6½"	12'
7", 7½"	14'
8" & ABOVE	15'



SKEWED INTERSECTION



APPROACH TO MEDIAN



LARGE RIGHT TURN

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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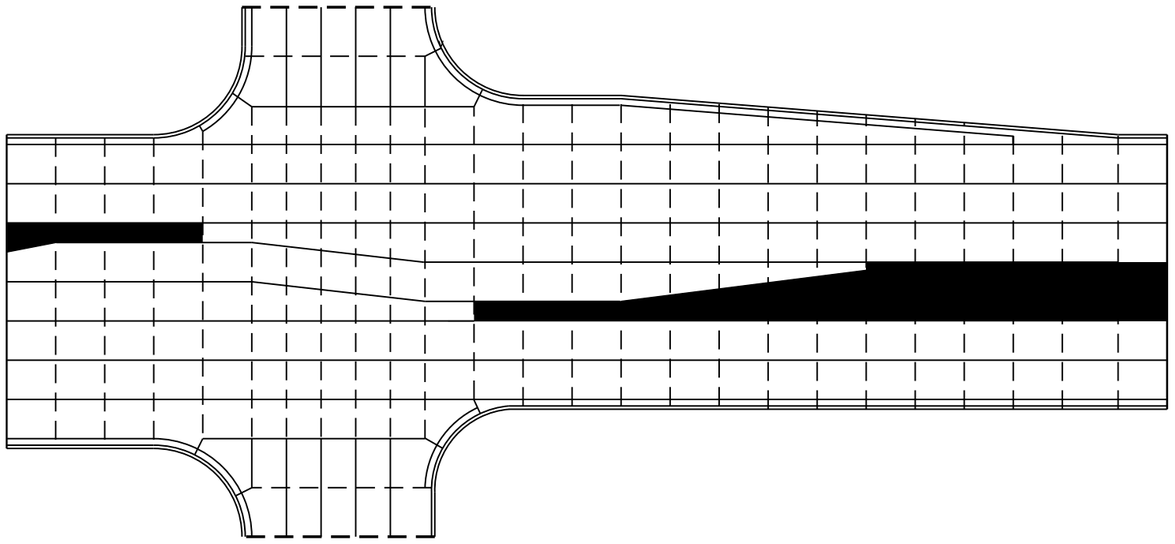
S.D.D. 13 C 18-2a

LEGEND

POTENTIAL DOWELED EXPANSION JOINT

DOWELED JOINT

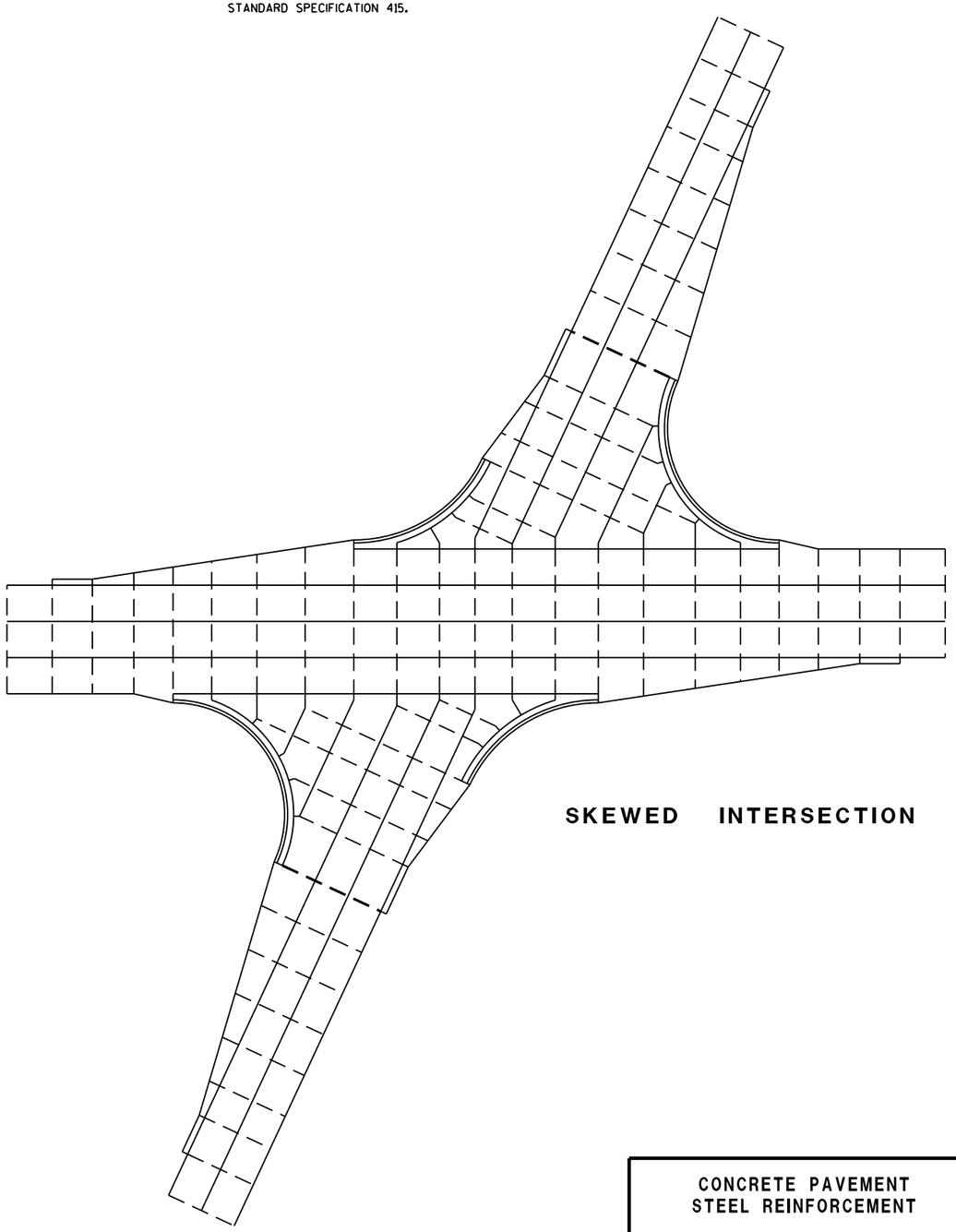
TIED JOINT



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

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S.D.D. 13 C 18-2b

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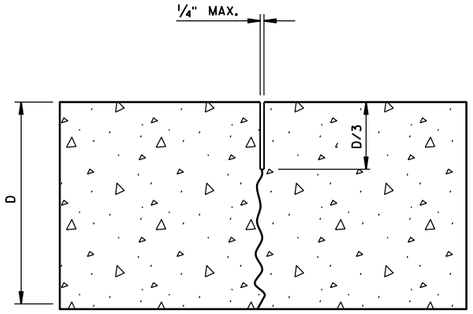
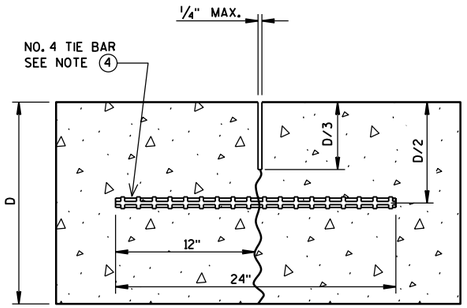
S.D.D. 13 C 18-2b



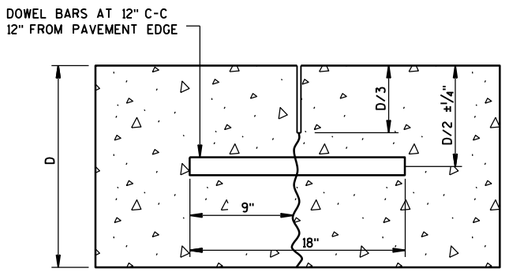
UNDOWELED-TRANSVERSE



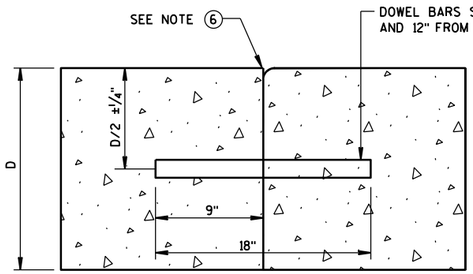
TIED LONGITUDINAL

GENERAL NOTES

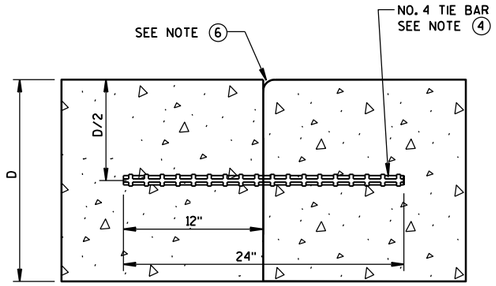
1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATE THE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.
4. SPACE TIE BARS AT LONGITUDINAL CONSTRUCTION OR CONTRACTION JOINTS IN ACCORDANCE WITH SDD 13C1.
5. CONSTRUCTION JOINTS CAN BE FORMED OR SAWED.
6. IF JOINT IS FORMED, PROVIDE A 1/4-INCH RADIUS.



DOWELED-TRANSVERSE



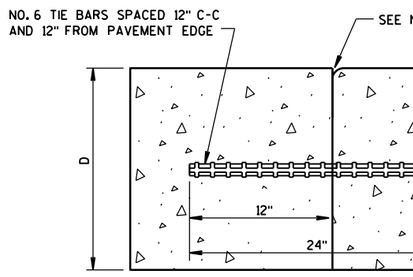
DOWELED TRANSVERSE



TIED LONGITUDINAL

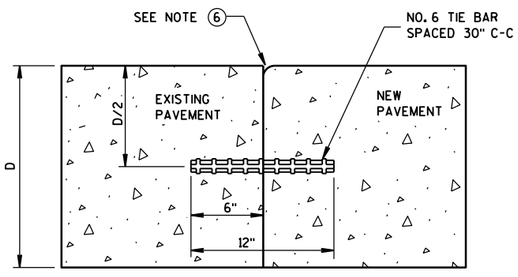
CONTRACTION JOINTS

SEE NOTE (2)



TIED TRANSVERSE

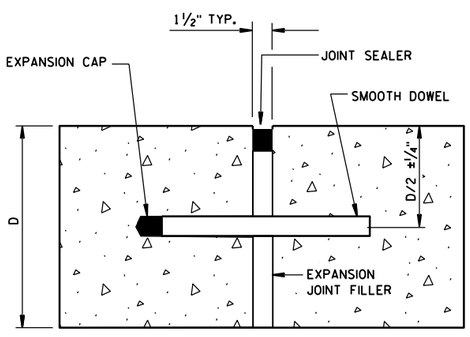
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)



TIED LONGITUDINAL TO EXISTING

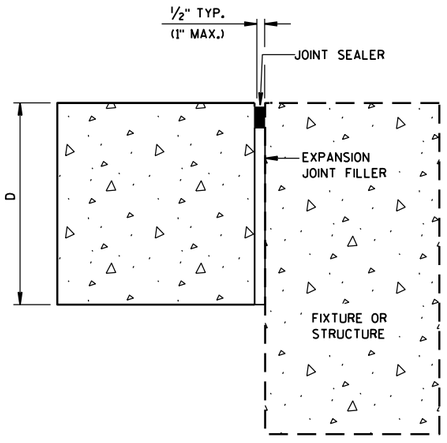
CONSTRUCTION JOINTS

SEE NOTE (5)



DOWELED-TRANSVERSE

SEE NOTE (1)



UNTIED-LONGITUDINAL

EXPANSION JOINTS

CONCRETE PAVEMENT
JOINT TYPES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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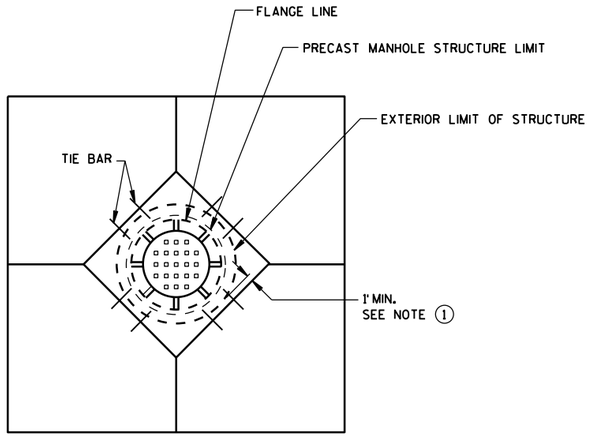
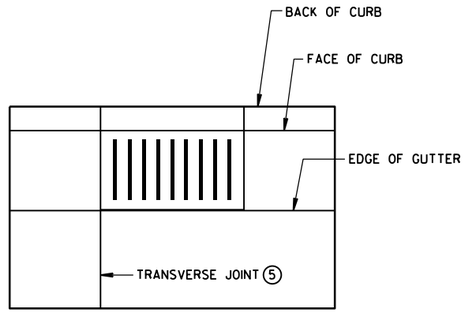
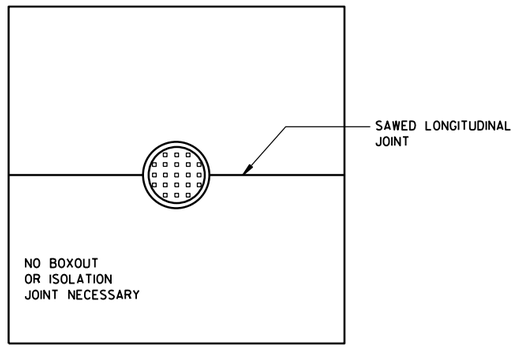


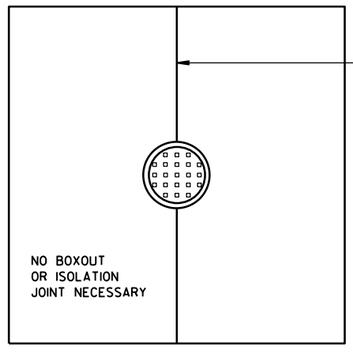
DIAGONAL MANHOLE BOXOUT FOR CONSTRUCTION JOINTS



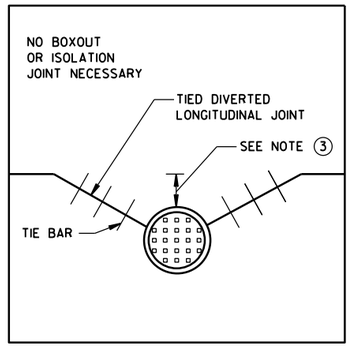
INLET WITH TRANSVERSE JOINT



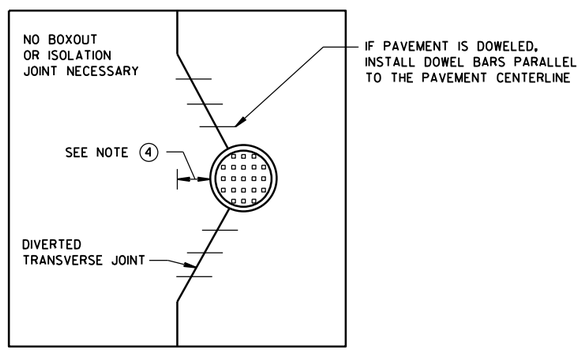
MANHOLE WITH LONGITUDINAL JOINT



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

5-3-2013
DATE

/S/ Deb Bischoff
PAVEMENT POLICY & DE

NEER

FHWA

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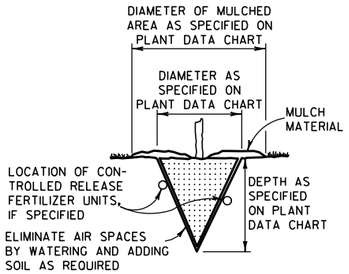
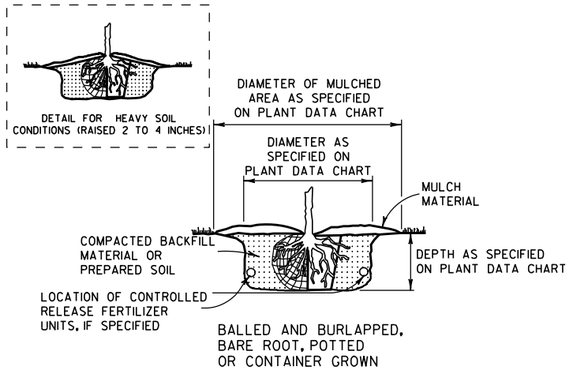
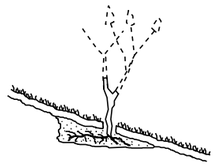


MACHINE MOVED

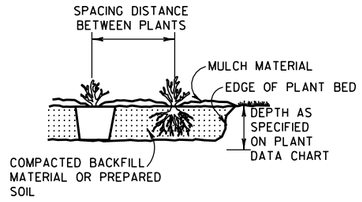


BALLED AND BURLAPPED, BARE ROOT, POTTED OR CONTAINER GROWN



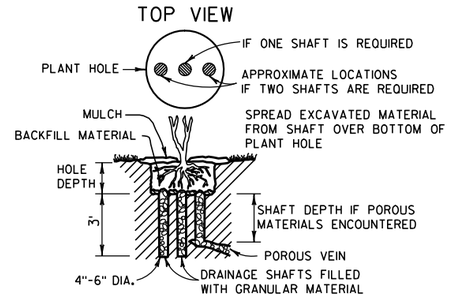
ACCOMMODATE ROOTS (SMOOTH AND STAGHORN SUMAC)

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



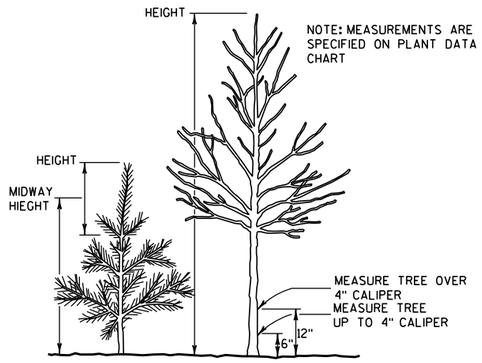
PREPARED BED (BARE ROOT AND POTTED)

PLANTING

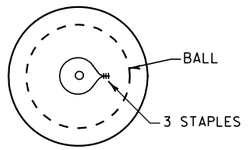


NOTE:
DRAINAGE SHAFT AS SPECIFIED ON PLANT DATA CHART

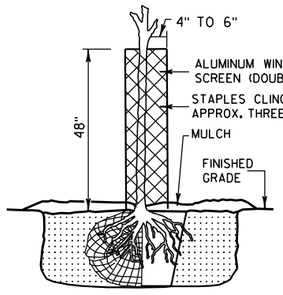
DRAINING



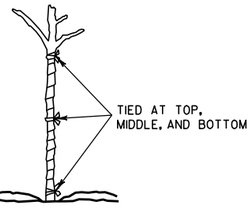
MEASURING



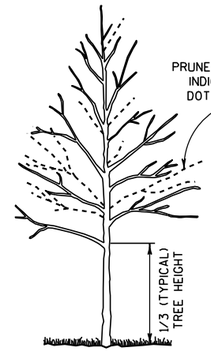
TOP VIEW



RODENT PROTECTION



WRAPPING

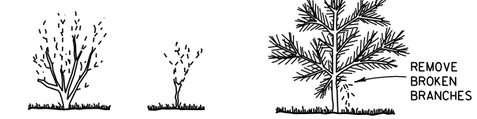


TALL DECIDUOUS TREES (ASH, MAPLE, LINDEN, OAK)

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

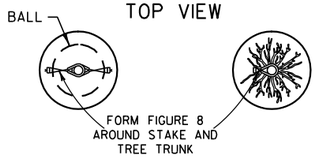


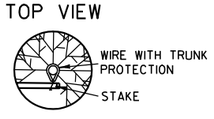
SHRUBS (GRAY DOGWOOD ARROWWOOD VIBURNUM)

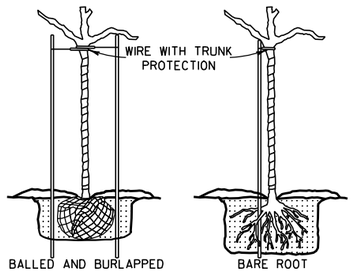
SUMAC

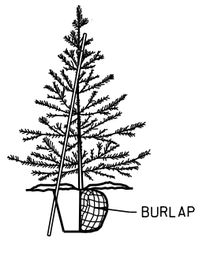
TREE TYPE EVERGREENS (PINE, SPRUCE, FIR) EVERGREENS USUALLY ARE NOT PRUNED

PRUNING



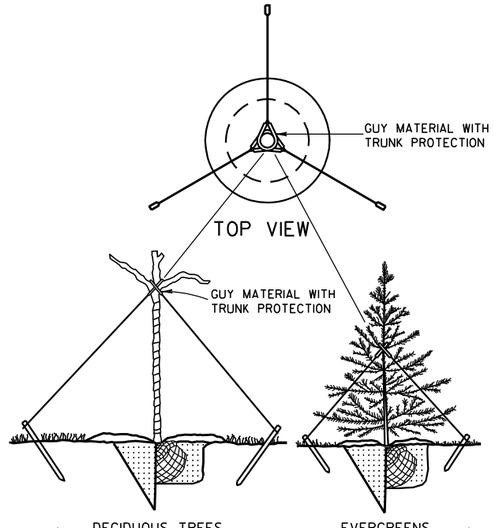






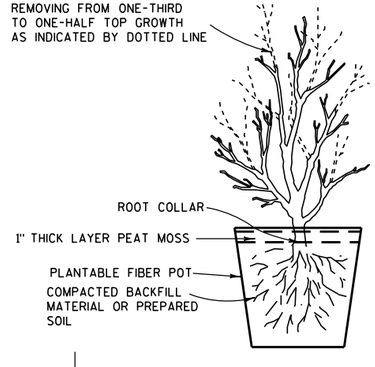
NOTE: BRACING STAKE
1) SHALL BE DRIVEN INTO THE GROUND AS CLOSE TO THE TREE AS POSSIBLE WITHOUT DAMAGING THE BRANCHES.
2) MAY BE DRIVEN AT SUCH AN ANGLE THAT IT DOES NOT PENETRATE THE BALL OR POT.
3) SHALL NOT PROTRUDE ABOVE THE TOP OF THE TREE; AND
4) SHALL HAVE A HOLE NEAR THE TOP TO HOLD THE WIRE 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.

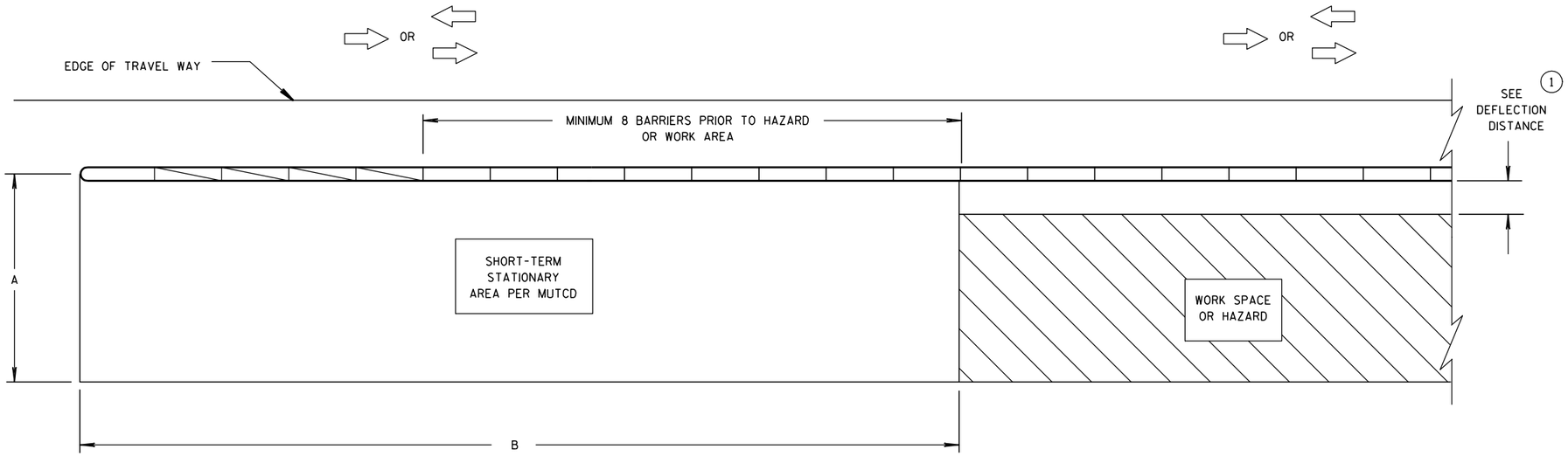
TREE PLANTING DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4/11/94
DATE
/S/ Rory L. Rhinesmith
CHIEF METHODS DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 14 A 2-1



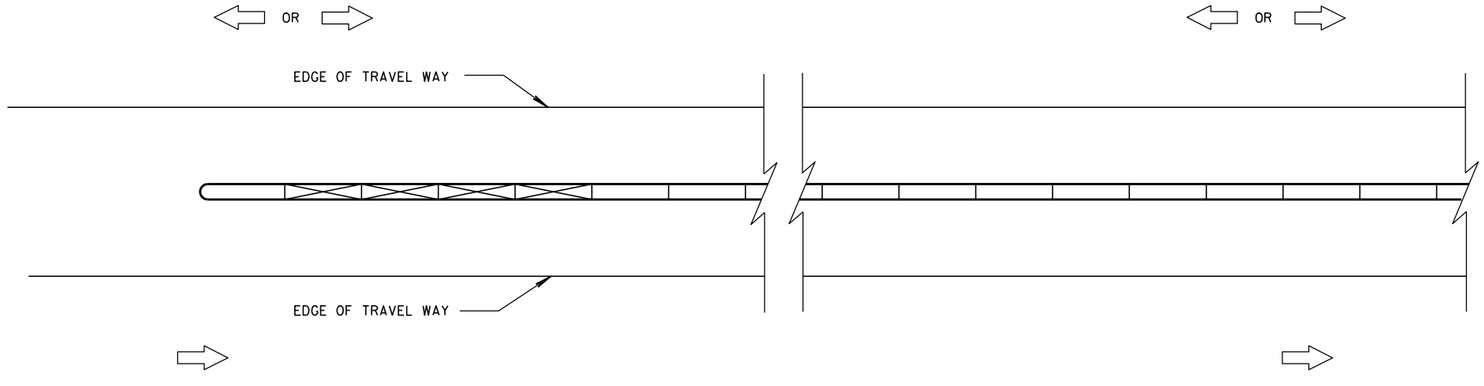
CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE OF BARRIER

DIMENSION A TABLE (2)

FACILITY	POSTED SPEED MPH	DIMENSION A	
		MIN. FT	MAX. FT
FREEWAY/EXPRESSWAY	ALL	15	20
NON-FREEWAY/EXPRESSWAY	GREATER THAN OR EQUAL TO 45	10	15
NON-FREEWAY/EXPRESSWAY	LESS THAN 45	8	10
AADT LESS THAN 1,500	ALL	8	10

DIMENSION B TABLE (2)

POSTED SPEEDS MPH	DIMENSION B FT
20	115
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645



CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON BOTH SIDES OF BARRIER

LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR SAND BARREL ARRAY

SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS

3 PINS PLACED ON TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET

FREE STANDING TEMPORARY BARRIER

GENERAL NOTES

SEE STANDARD DETAIL DRAWING 14B7 FOR MORE INFORMATION.

DETAILS PROVIDE A GENERAL LAYOUT OF TEMPORARY CONCRETE BARRIER, CRASH CUSHIONS, SAND BARREL ARRAYS AND TIE DOWN TRANSITIONS. DETAILS PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

ADDITIONAL TEMPORARY BARRIER MAY BE REQUIRED TO PROTECT TRAVELING PUBLIC FROM HAZARDS, CONTRACTOR'S OPERATIONS OR TO CONTROL TRAFFIC.

TEMPORARY BARRIER MAY BE REQUIRED TO BE ANCHORED TO PAVEMENT OR BRIDGE DECK.

FOR DETAILS ON CRASH CUSHION OR SAND BARREL ARRAYS SEE OTHER SECTIONS OF THE PLAN AND MANUFACTURE'S DETAILS.

SLOPES LEADING TO TEMPORARY BARRIER, CRASH CUSHION OR SAND BARREL ARRAY ARE 10:1 OR LESS.

(1) FOR DEFLECTION INFORMATION SEE STANDARD DETAIL DRAWING 14B7.

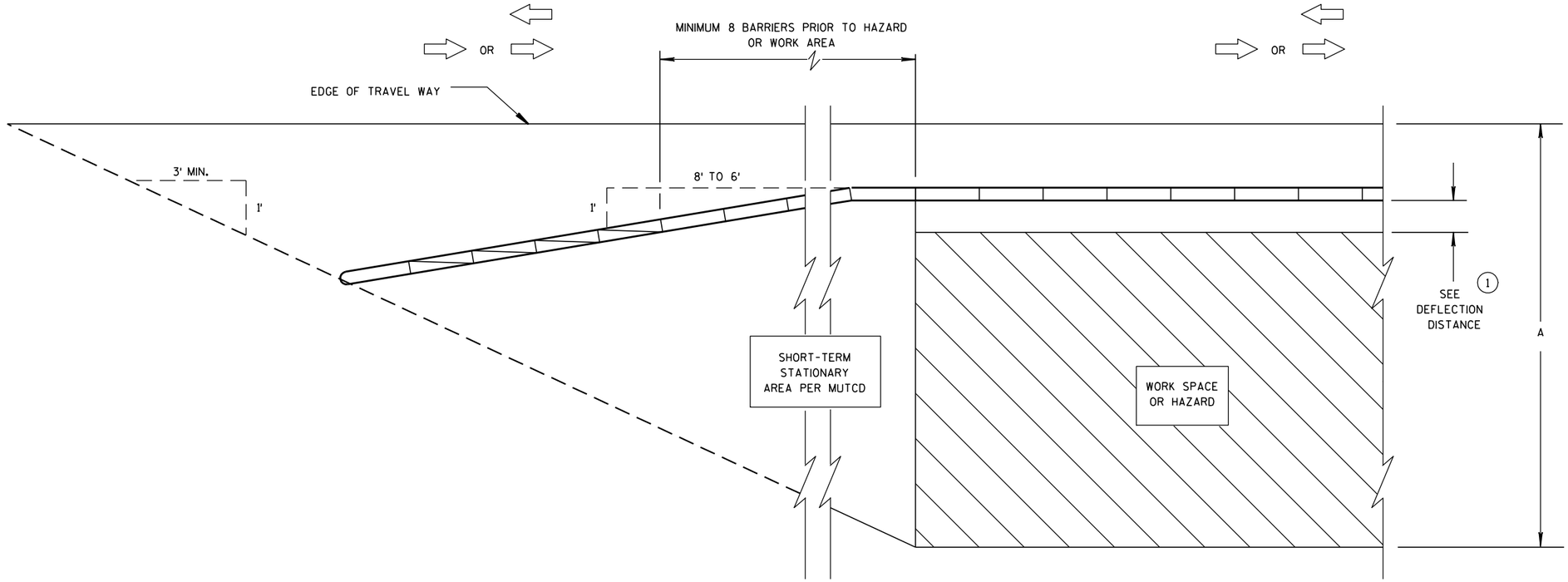
(2) VALUES PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

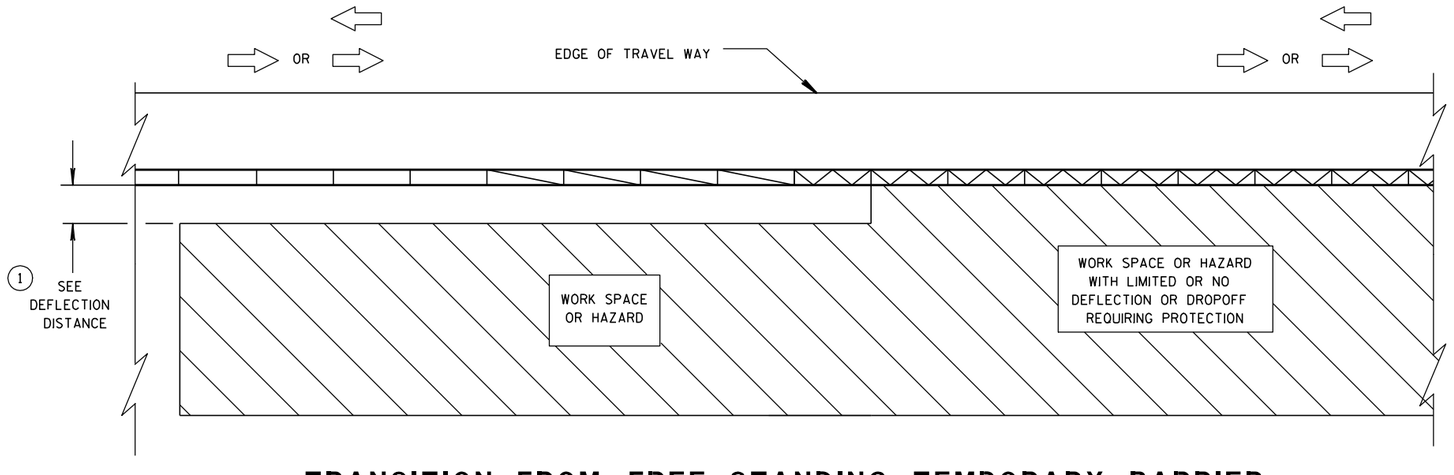
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 14 B 8-1a



CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE - FLARED INSTALLATION



TRANSITION FROM FREE STANDING TEMPORARY BARRIER TO ANCHORED BARRIER

LEGEND

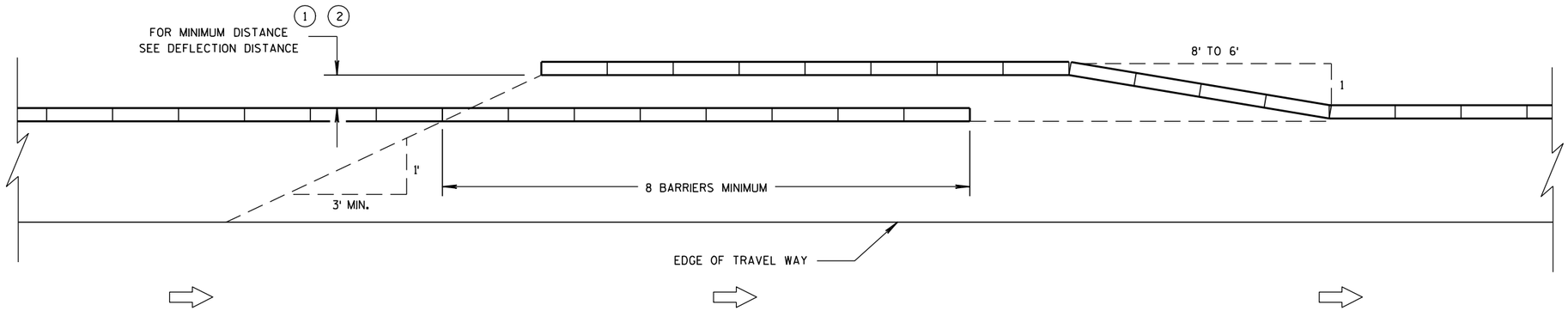
- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

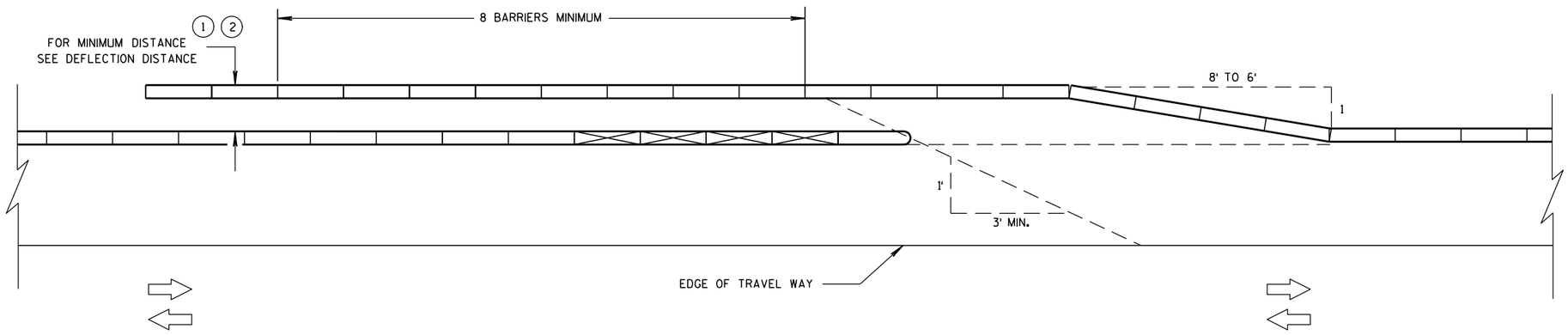
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

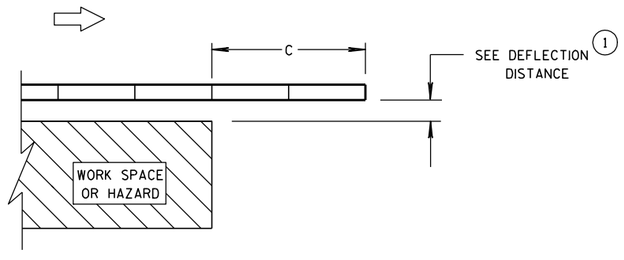
S.D.D. 14 B 8-1b



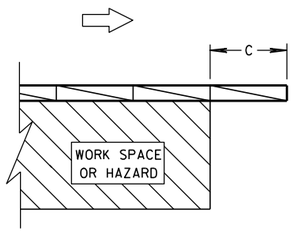
TEMPORARY BARRIER OVERLAP - ONE-WAY TRAFFIC



TEMPORARY BARRIER OVERLAP - TWO-WAY TRAFFIC



ENDING TEMPORARY BARRIER DOWNSTREAM - UNANCHORED



ENDING TEMPORARY BARRIER DOWNSTREAM - ANCHORED

LEGEND

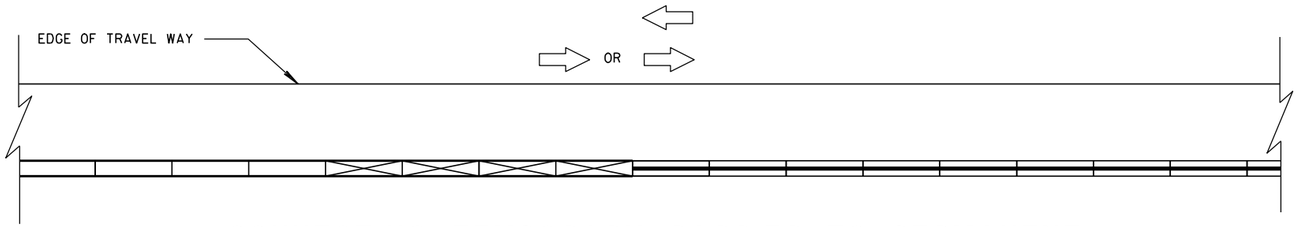
- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

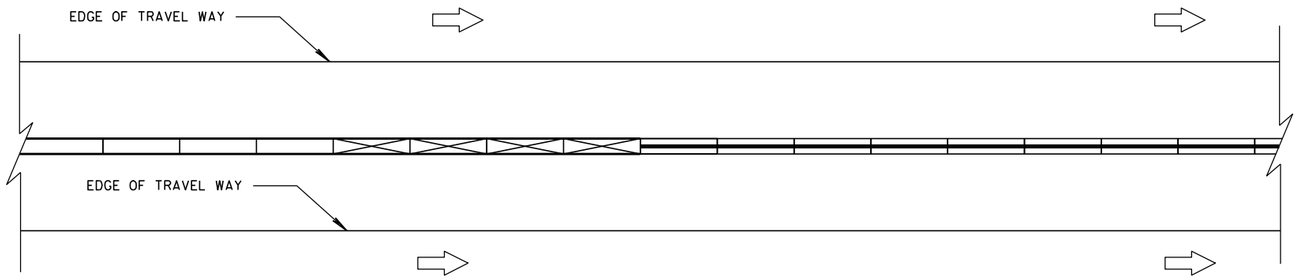
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 14 B 8-1c



CONNECTING TEMPORARY BARRIER TO PERMANENT
CONCRETE BARRIER-TRAFFIC ON ONE SIDE



CONNECTING TEMPORARY BARRIER TO PERMANENT
CONCRETE BARRIER-TRAFFIC ON BOTH SIDES

LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR
SAND BARREL ARRAY

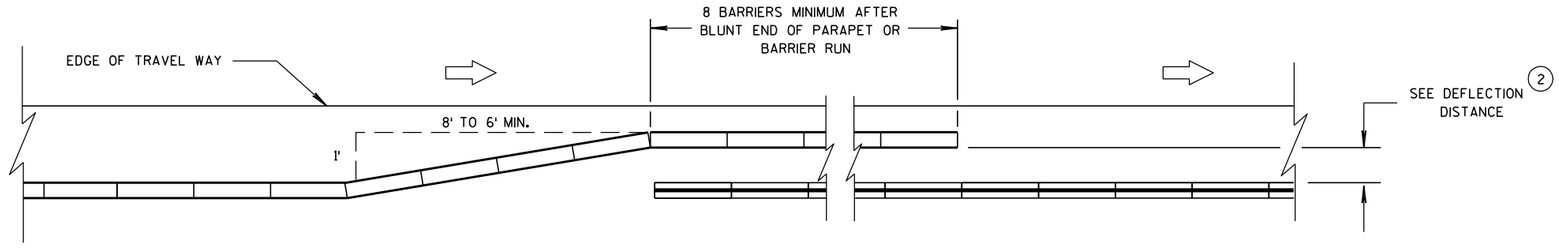
SEE FREE STANDING TRANSITION
TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION
TO TIED-DOWN SYSTEM DETAILS

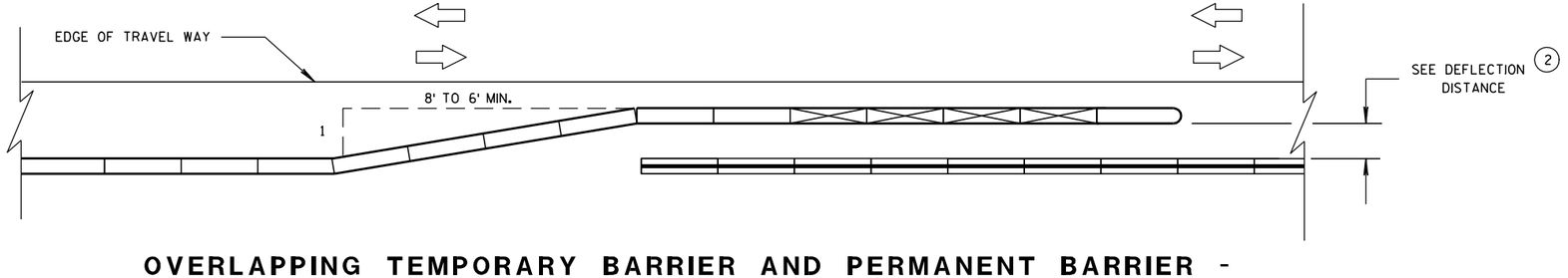
3 PINS PLACED ON
TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER
OR CONCRETE PARAPET

FREE STANDING TEMPORARY
BARRIER



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
ONE WAY TRAFFIC



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
TWO WAY TRAFFIC

CRASH CUSHION/SAND BARREL
ARRAY AND OTHER TEMPORARY
BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO...

6
S.D.D. 14 B 8-1d

LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR SAND BARREL ARRAY

SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS

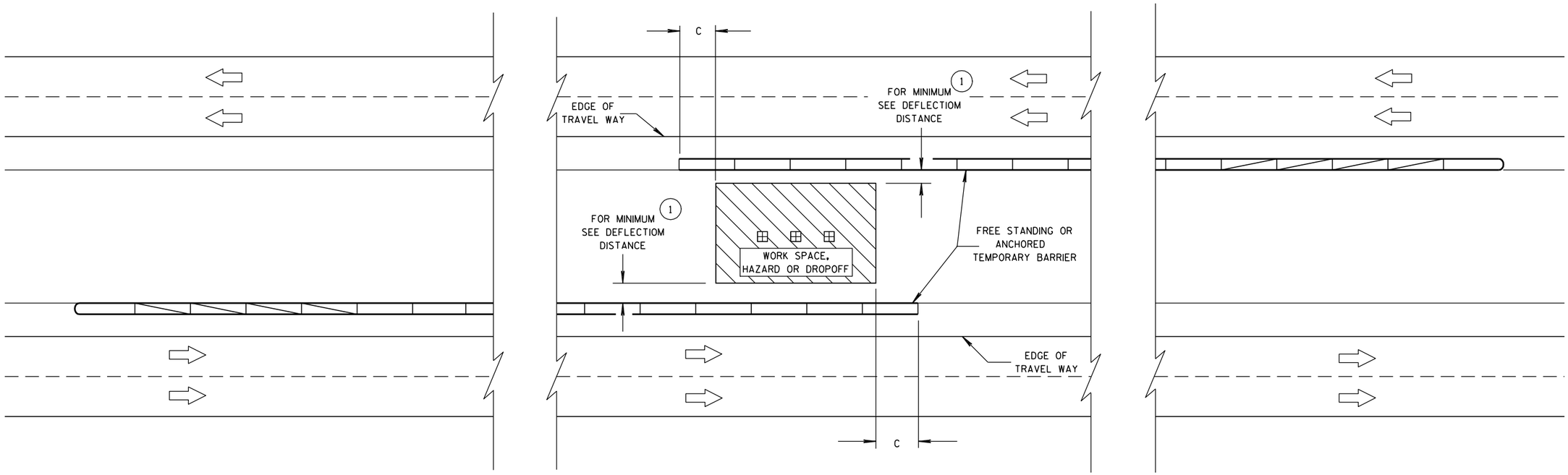
3 PINS PLACED ON TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET

FREE STANDING TEMPORARY BARRIER

DIMENSION C TABLE (2)

AVAILABLE DEFLECTION DISTANCE	MINIMUM LENGTH OF BARRIER BEYOND HAZARD FT
GREATER THAN 8'	12.5
LESS THAN OR EQUAL TO 8' BUT GREATER THAN 4'	50
LESS THAN OR EQUAL TO 4'	100



CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINNER

488

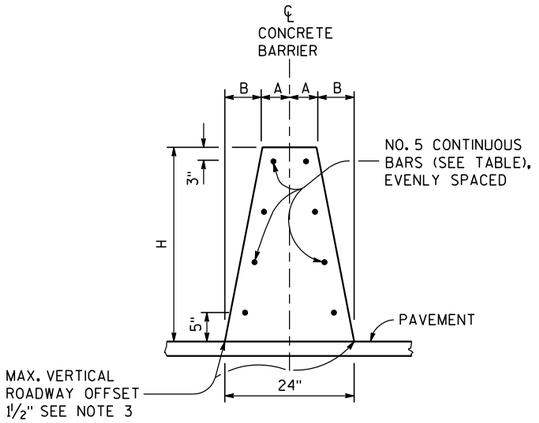
FHWA

6

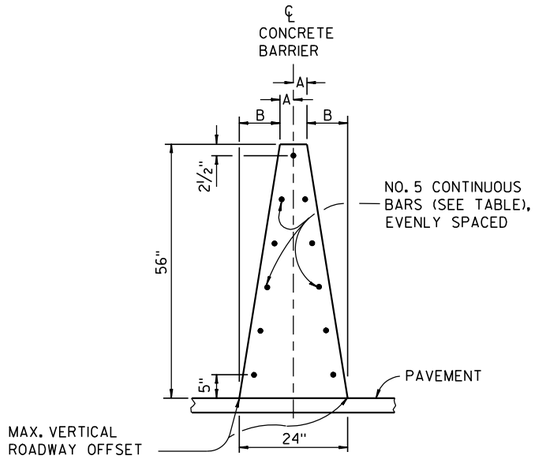
S.D.D. 14 B 8-1e

6

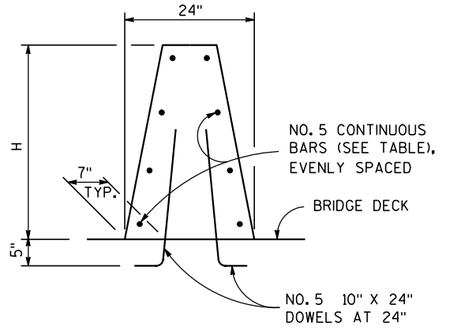
S.D.D. 14 B 8-1e



32-INCH, 36-INCH OR 42-INCH SINGLE SLOPE CONCRETE BARRIER (TYPE S32, TYPE S36, AND TYPE S42)



56-INCH SINGLE SLOPE CONCRETE BARRIER (TYPE S56)



SINGLE SLOPE CONCRETE BARRIER ON BRIDGE

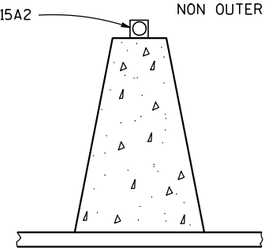
NON OUTER PARAPET APPLICATION

GENERAL NOTES

1. WHERE THE CONCRETE BARRIER IS ADDED TO THE FACE OF EXISTING CONCRETE STRUCTURE, MATCH EXISTING WEEP HOLES.
2. EXPANSION JOINTS IN CONCRETE BARRIER SHALL BE LOCATED AT ALL DECK, PAVEMENT AND PRINCIPAL WALL JOINTS. EXPANSION JOINT FILLER MATERIAL SHALL BE THE SAME SIZE AS JOINT OR ½" MINIMUM.
3. WHERE VERTICAL ROADWAY OFFSET IS GREATER THAN 1½", USE TYPE A
4. PLACE BARRIER PERPENDICULAR TO SHOULDER GRADE, UNLESS INDICATED IN PLAN.
5. EXCEPT IN ANCHORS, VERTICAL REINFORCING STIRRUP NOT REQUIRED FOR ROADWAY OFFSETS LESS THAN 1'-0".
6. FOR TYPE S32, TYPE S36, TYPE S42, AND S56 MONOLITHIC FOOTING OR DOWELED FOOTING WITH 2-#8 x 8" @ 2'-0".
7. STAGGER LAPPING OF LONGITUDINAL STEEL. MINIMUM OVERLAP OF STEEL 2 FEET. BARS AT LAPS TO BE FIRMLY TIED OR CONNECTED.
8. 4000 PSI CONCRETE AIR ENTRAINMENT PER STANDARD SPECIFICATION 501.
9. WHEN SWITCHING BETWEEN SLIP FORM AND CAST-IN-PLACE OPERATIONS, EXTEND LONGITUDINAL STEEL 3 FEET BEYOND SLIP-FORMING CUT OFF POINT. EXPOSED STEEL INTO NEXT POURS REINFORCEMENT. LAPS TO BE FIRMLY TIED.
10. USE ¾" BEVEL OR 1" RADIUS ON ALL EXPOSED SHARP EDGES UNLESS OTHERWISE NOTED.
11. 2" CLEAR COVER TYPICAL.
12. COLD-JOINTS MAY BE USED BETWEEN ANCHOR INSTALLATIONS. WHEN A COLD JOINT IS NEEDED, 3 FEET OF LAP OF LONGITUDINAL STEEL IS REQUIRED. LAPS TO BE FIRMLY TIED
13. IN TYPE S32, TYPE S36, TYPE S42 AND TYPE S56 NO ADDITIONAL VERTICAL STEEL NEEDED. IN TYPE S32A, TYPE S36A, TYPE S42A AND TYPE S56A REQUIRES VERTICAL STEEL. SEE OTHER DETAIL
14. IN TYPE S32, TYPE S36, TYPE S42 AND TYPE S56 DEPTH OF FOOTING 10". IN TYPE S32A, TYPE S36A, TYPE S42A AND TYPE S56A MATCH TOTAL HEIGHT OF SINGLE SLOPE BARRIER RETAINING WALL.
15. FOR ALL BARRIER TYPES SHOWN, ANCHOR IS REQUIRED AT CONCRETE BARRIER ENDS AND AT INTERRUPTIONS IN CONCRETE BARRIER. ANCHOR MAY BE AS SHOWN ON DRAWING OR DETAILS SHOWN ON S.D.D. 14B33. ANCHORS INCIDENTAL TO CBSS.

BARRIER HEIGHT H INCHES	A INCHES	B INCHES	NUMBER OF NO. 5 BARS EACH
32	7	5	8
36	6¼	5¾	8
42	5¼	6¾	10
56	3	9	11

SEE STANDARD DETAIL DRAWING 15A2 FOR DELINEATOR DETAILS



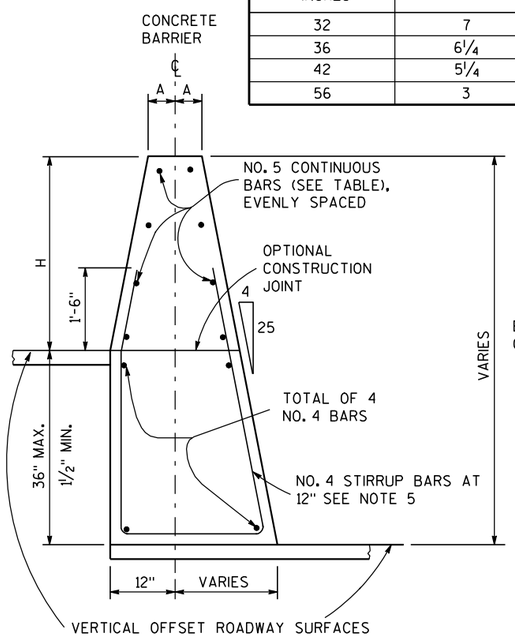
DELINEATION

DELINEATOR SPACING ON HORIZONTAL CURVES

RADIUS OF CURVE	APPROXIMATE SPACING ON CURVE
50 FEET	20 FEET
115 FEET	25 FEET
180 FEET	35 FEET
250 FEET	40 FEET
300 FEET	50 FEET
400 FEET	55 FEET
500 FEET	65 FEET
600 FEET	70 FEET
700 FEET	75 FEET
800 FEET	80 FEET
900 FEET	85 FEET
1000 FEET	90 FEET

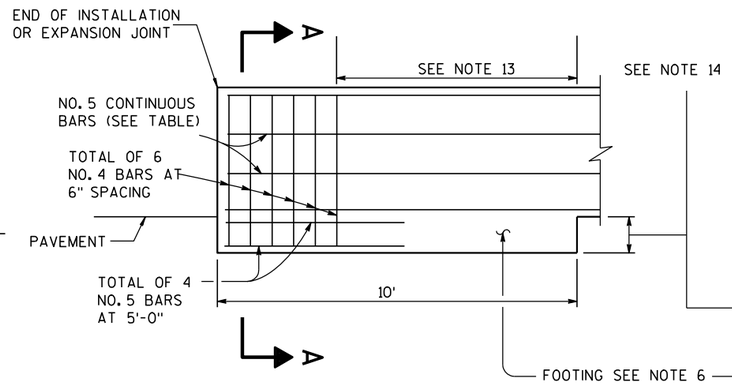
DELINEATOR SPACING ON RADIUS GREATER THAN 1000 FEET OR TANGENT SECTIONS

	LENGTH OF BARRIER	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200'	50' C-C	1	3
	> 200'	100' C-C	1	
TWO WAY TRAFFIC	< 200'	25' C-C	1	6
	> 200'	50' C-C	1	
TWO WAY TRAFFIC	< 200'	50' C-C	2	3
	> 200'	100' C-C	2	



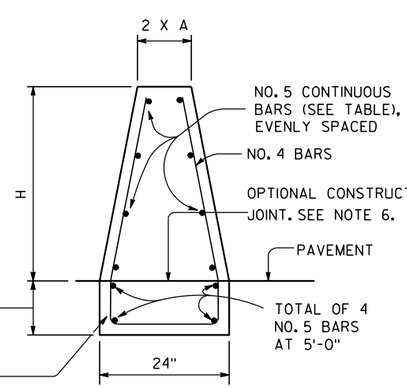
SINGLE SLOPE CONCRETE BARRIER AND RETAINING WALL (TYPE S32A, TYPE S36A, TYPE S42A, TYPE S56A)

(BETWEEN ADJACENT ROADWAYS)



END ANCHOR SINGLE SLOPE CONCRETE BARRIER

AT CONSTRUCTION JOINT

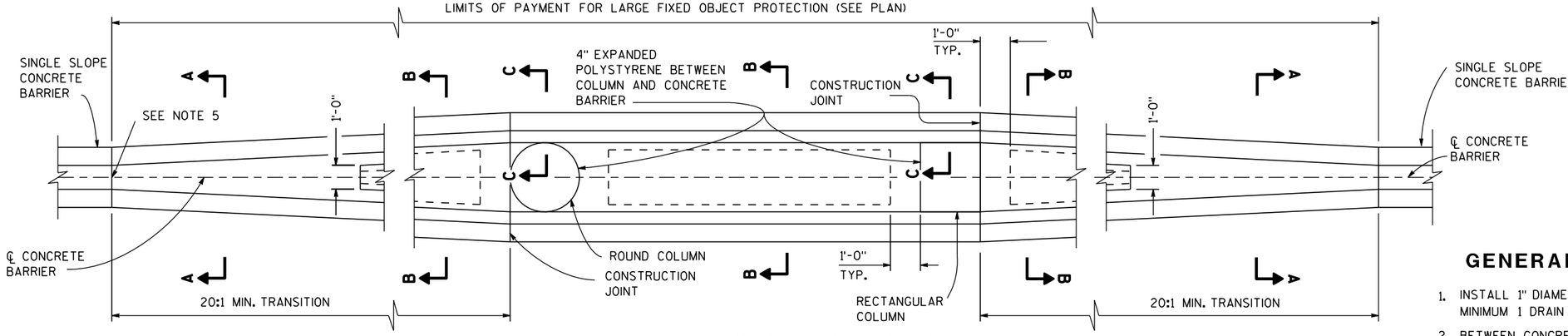


SECTION A-A

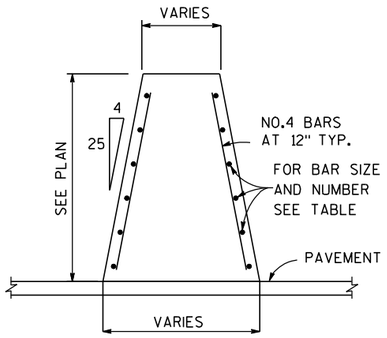
CONCRETE BARRIER SINGLE SLOPE (CBSS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

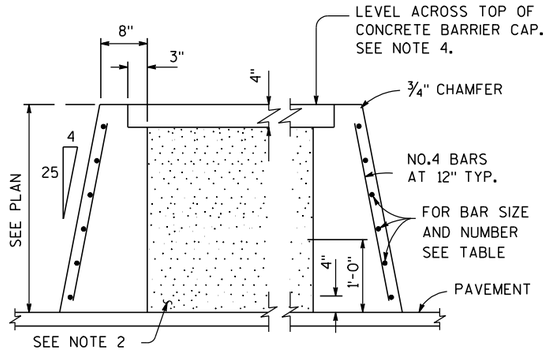
6
S.D.D. 14 B 32-1a



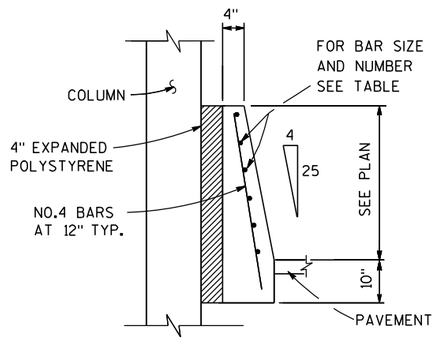
LARGE FIXED OBJECTS PROTECTION
TYPE S32, TYPE S36, TYPE S42, TYPE S56



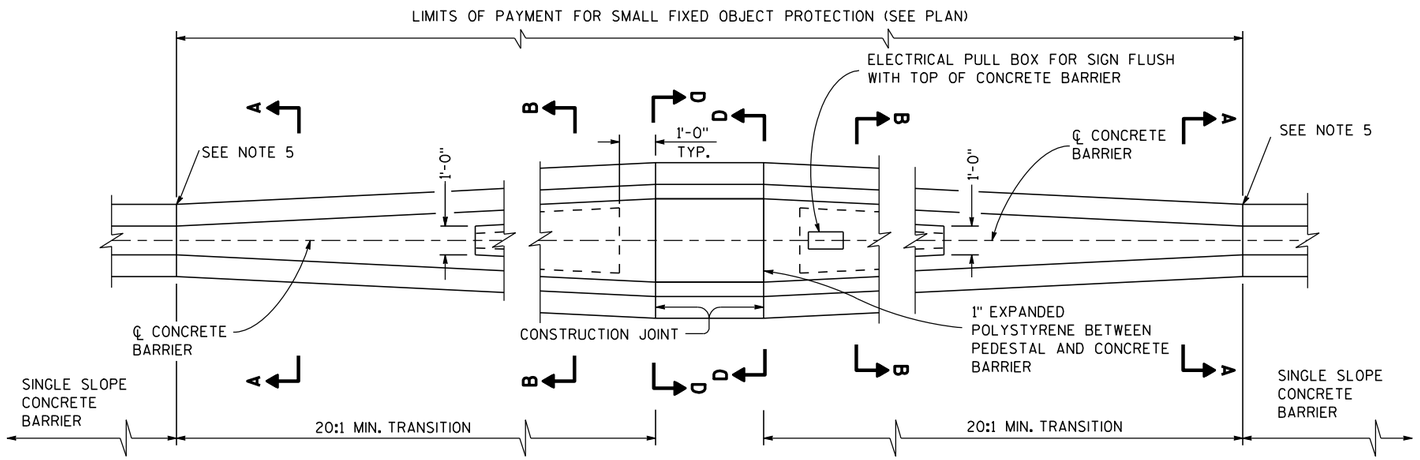
SECTION A-A



SECTION B-B



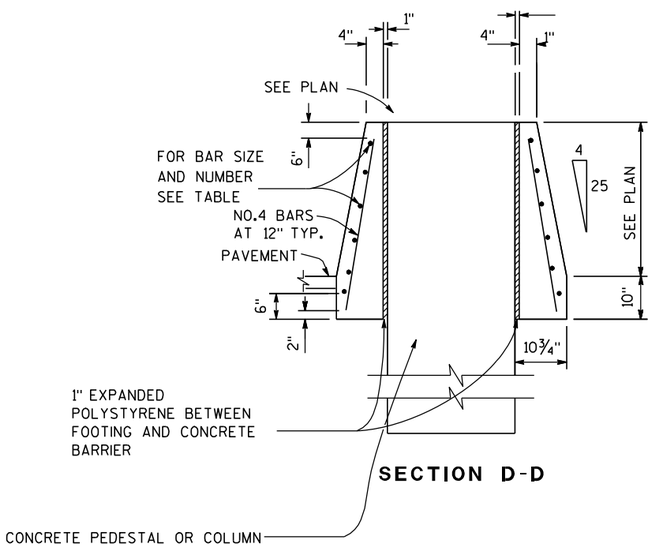
SECTION C-C



SMALL FIXED OBJECTS PROTECTION
TYPE S32, TYPE S36, TYPE S42, TYPE S56

GENERAL NOTES

1. INSTALL 1" DIAMETER DRAIN PIPE EVERY 20' OF CROSS SECTION B-B. MINIMUM 1 DRAIN PER CAVITY.
2. BETWEEN CONCRETE BARRIER WALLS FILL WITH GRANULAR BACKFILL GRADE 2
3. REINFORCING STEEL SHALL EXTEND CONTINUOUS THROUGH CONSTRUCTION JOINTS.
4. ADJUST HEIGHT OF CONCRETE BARRIER WALL ON LOW SIDE OF OFFSET OR SUPERELEVATED ROADWAYS TO PROVIDE LEVEL GRADE ACROSS TOP OF CONCRETE CAP.
5. IF FIXED OBJECT PROTECTION IS INSTALLED FIRST, USE COLD JOINTS. IF CBSS PLACED FIRST, USE EXPANSION JOINT.



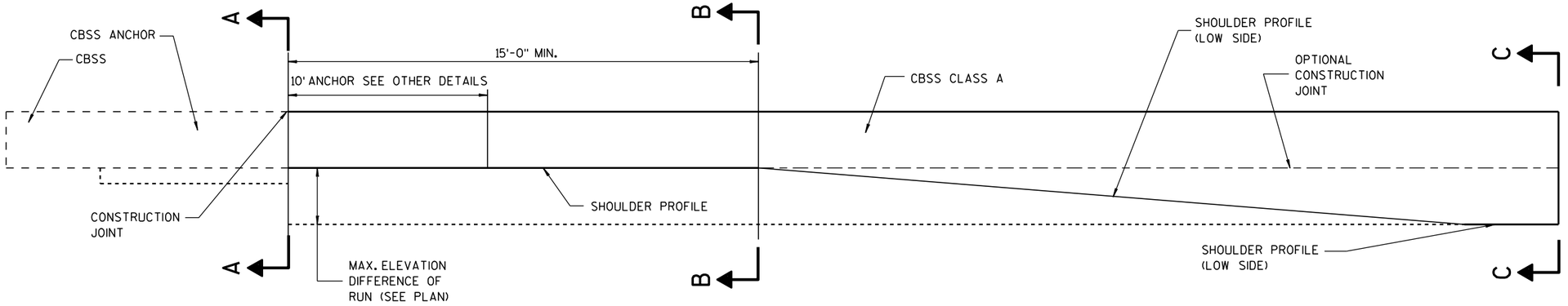
SECTION D-D

BARRIER HEIGHT H INCHES	BAR SIZE	NUMBER OF BARS EACH
32	4	6
36	4	6
42	5	6
56	5	9

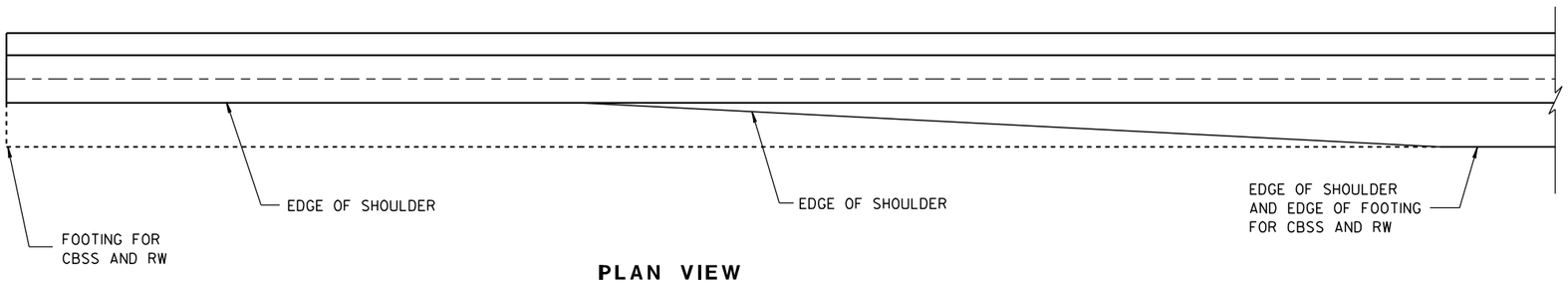
CONCRETE BARRIER SINGLE SLOPE (CBSS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

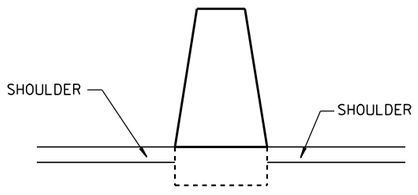
6
S.D.D. 14 B 32-1b



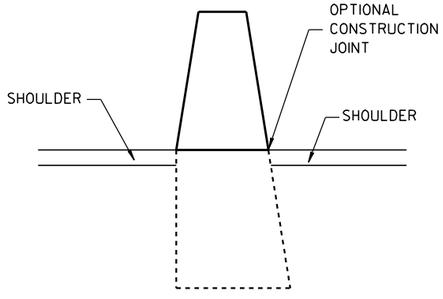
ELEVATION VIEW
TRANSITION TO CBSS CLASS A
(TYPE S32A, TYPE S36A, TYPE S42A, TYPE S56A)



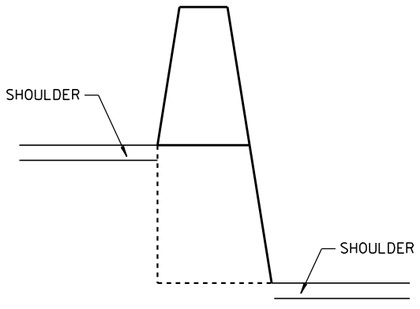
PLAN VIEW
TRANSITION TO CBSS CLASS A
(TYPE S32A, TYPE S36A, TYPE S42A, TYPE S56A)



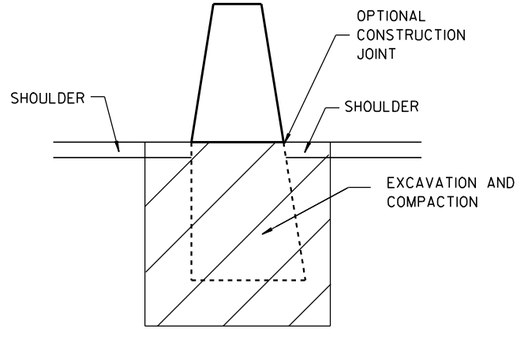
SECTION A-A



SECTION B-B



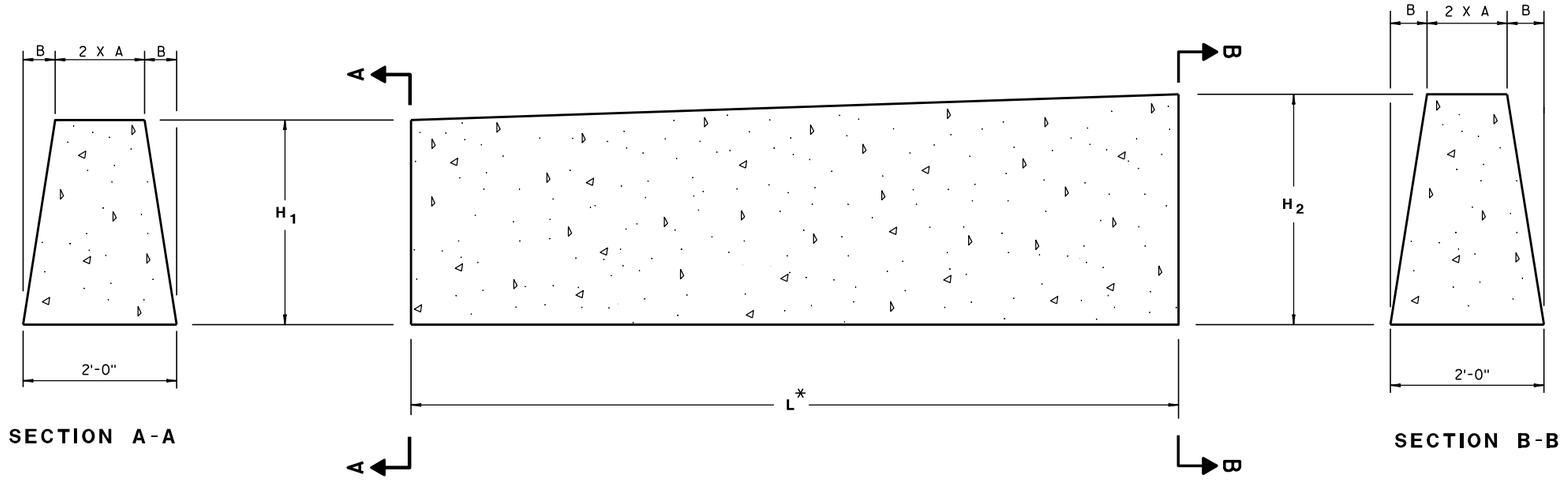
SECTION C-C



CONCRETE BARRIER SINGLE SLOPE (CBSS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 14 B 32-1c



SECTION A-A

SECTION B-B

DOUBLE COLD JOINT HEIGHT TRANSITION

BARRIER DIMENSIONS

BARRIER HEIGHT INCHES	A INCHES	B INCHES
32	7	5
36	6 1/4	5 3/4
42	5 1/4	6 3/4
56	3	9

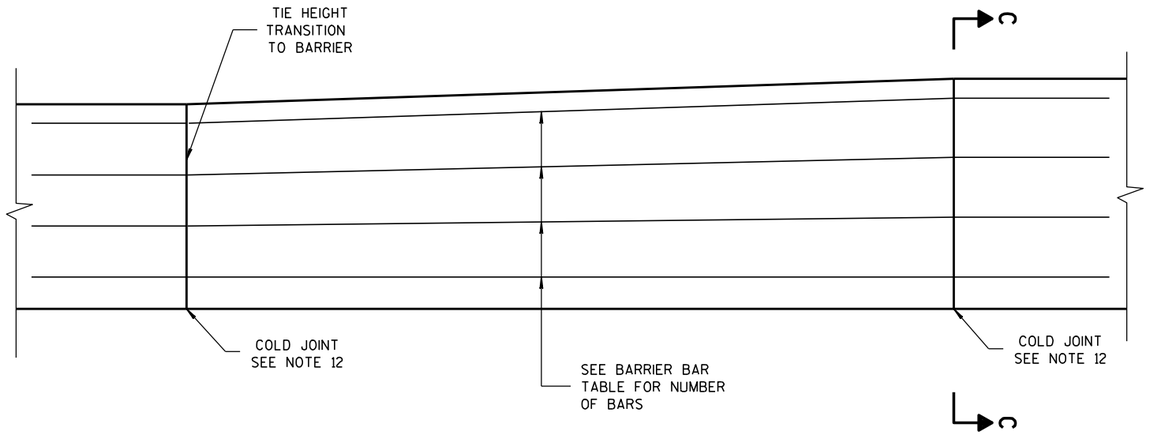
MULTIPLE HEIGHT TRANSITIONS MAY BE USED IN SEQUENCE TO GET TO APPROPRIATE HEIGHT.

USE COLD JOINT TO CONNECT MULTIPLE HEIGHT TRANSITIONS.

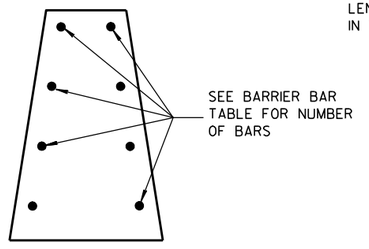
BARRIER BARS

H_1	H_2	L*	NUMBER OF NO. 5 BARS
32"	36"	10'-0"	8
36"	42"	10'-6"	10
42"	56"	24'-6"	11

* LENGTH OF DOUBLE COLD JOINT INCLUDED IN THE TOTAL LENGTH OF CBSS.



STEEL REINFORCEMENT DETAIL



SECTION C-C

CONCRETE BARRIER SINGLE SLOPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6-3-2010 DATE

/S/ Jerry H. Zogg ROADWAY STANDARDS ENGINEER

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FHWA

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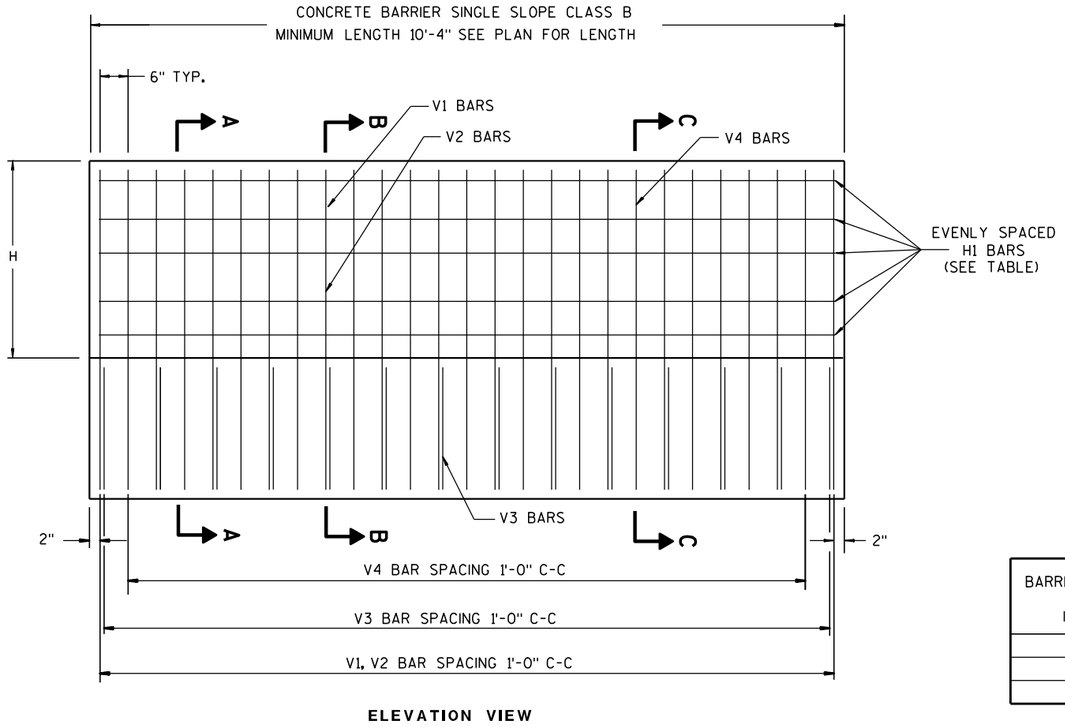
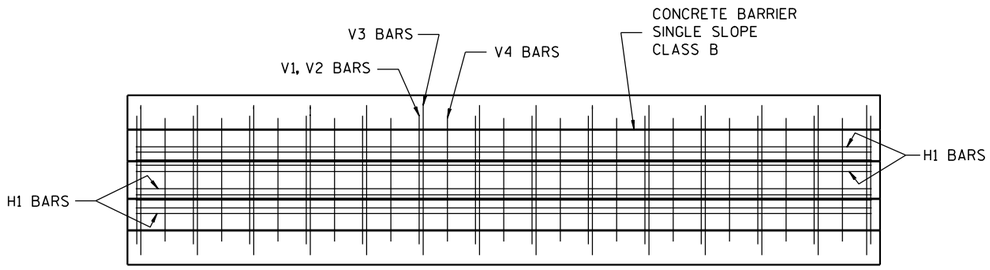
S.D.D. 14 B 32-1d

6

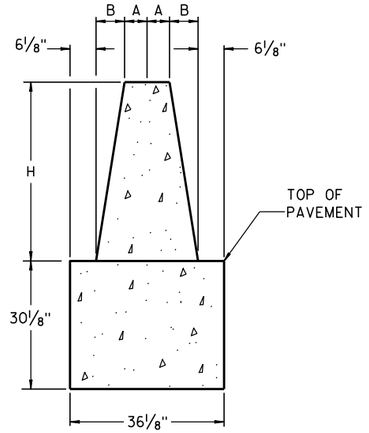
S.D.D. 14 B 32-1d



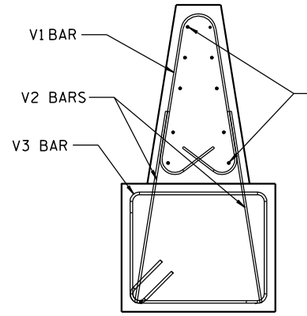
ELEVATION VIEW



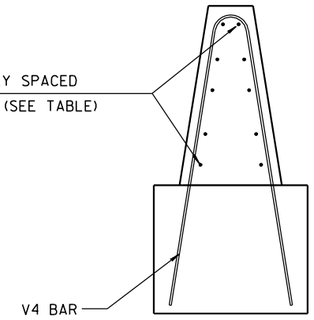
PLAN VIEW



SECTION A-A



SECTION B-B



SECTION C-C

BARRIER HEIGHT H INCHES	A INCHES	B INCHES	NUMBER OF H1 BARS EACH
32	7	5	8
36	6¼	5¾	8
42	5¼	6¾	10

BARRIER HEIGHT H INCHES	V1 BAR		V4 BAR	
	C RAD. INCHES	D INCHES	E RAD. INCHES	F INCHES
32	5⅝	18¾	5½	53¾
36	4¾	23¾	4⅞	58⅜
42	3⅝	30½	3⅝	65⅜

GENERAL NOTES

CONSTRUCT PER STANDARD SPECIFICATION 603.

SPLICES OF LONGITUDINAL BARS TO BE 2'LONG AND FIRMLY TIED AND FASTENED TOGETHER UNLESS NOTED OTHERWISE.

4000 PSI CONCRETE AIR ENTRAINMENT PER STANDARD SPECIFICATIONS 501.

USE ¾" BEVEL OR 1" RADIUS ON ALL EXPOSED SHARP EDGES UNLESS NOTED OTHERWISE.

THE NUMBER IN BAR DESIGNATION REPRESENTS THE BARS LOCATION.

2" CLEAR COVER TYPICAL.

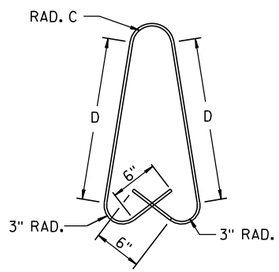
WHERE THE CONCRETE BARRIER IS ADDED TO THE FACE OF EXISTING CONCRETE STRUCTURE, MATCH EXISTING WEEP HOLES.

PAVEMENT AND PRINCIPAL WALL JOINTS. EXPANSION JOINT FILLER MATERIAL

PLACE BARRIER PERPENDICULAR TO SHOULDER GRADE, UNLESS INDICATED IN PLAN.

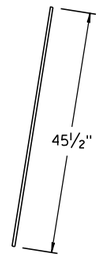
WHEN SWITCHING BETWEEN SLIP FORM AND CAST-IN-PLACE OPERATIONS, EXTEND LONGITUDINAL STEEL 3 FEET BEYOND SLIP-FORMING CUT OFF POINT. EXPOSED STEEL INTO NEXT POURS REINFORCEMENT. LAPS TO BE FIRMLY TIED.

IF REQUIRED USE THRIE BEAM ANCHOR. NO OTHER ANCHOR REQUIRED.



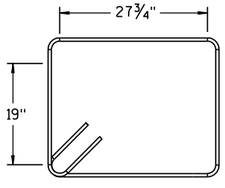
V1 BAR BENDING DETAIL

V1 BARS ARE NO. 4 BARS



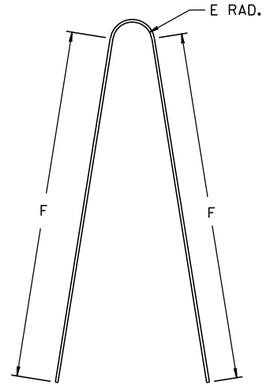
V2 BAR BENDING DETAIL

V2 BARS ARE NO. 5 BARS



V3 BAR BENDING DETAIL

V3 BARS ARE NO. 6 BARS



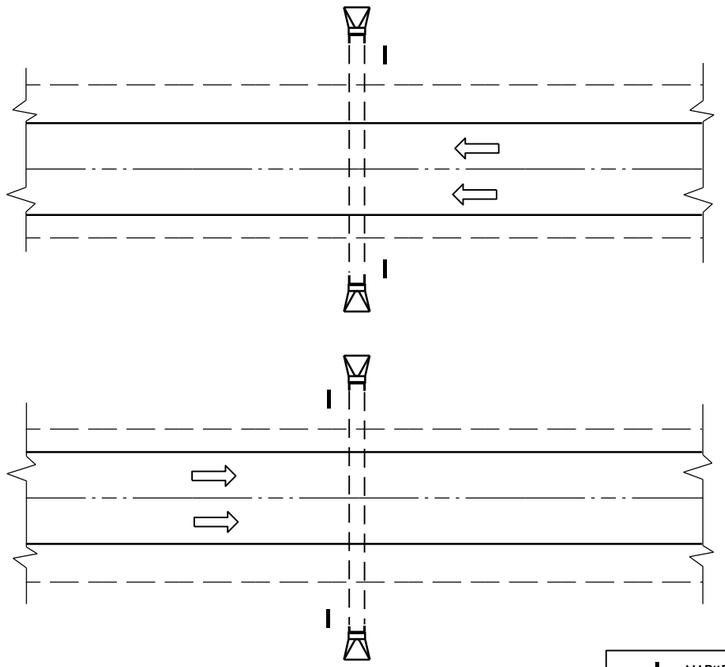
V4 BAR BENDING DETAIL

V4 BARS ARE NO. 6 BARS

32", 36" & 42"
CONCRETE BARRIER
SINGLE SLOPE CLASS B

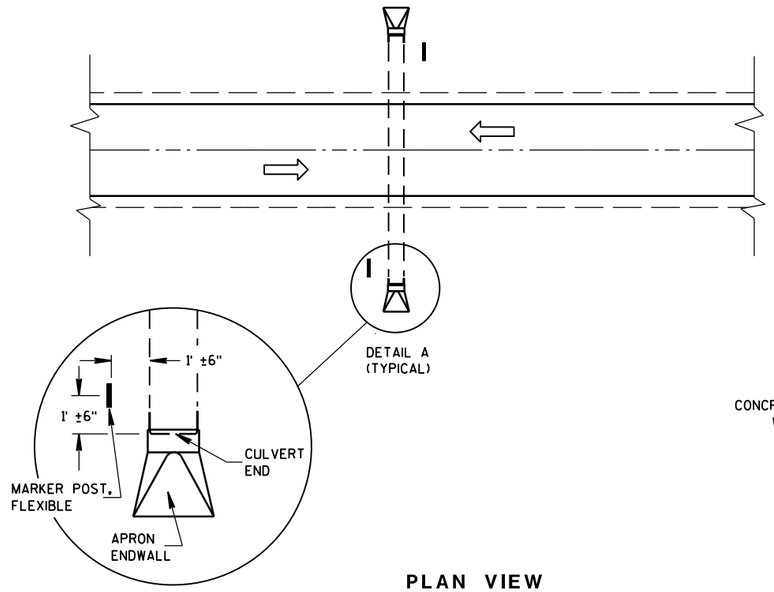
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 14 B 34-1a



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

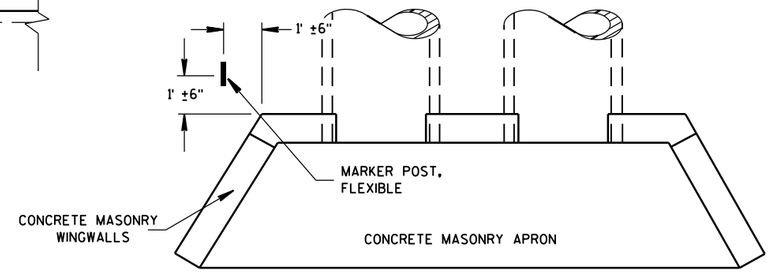
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

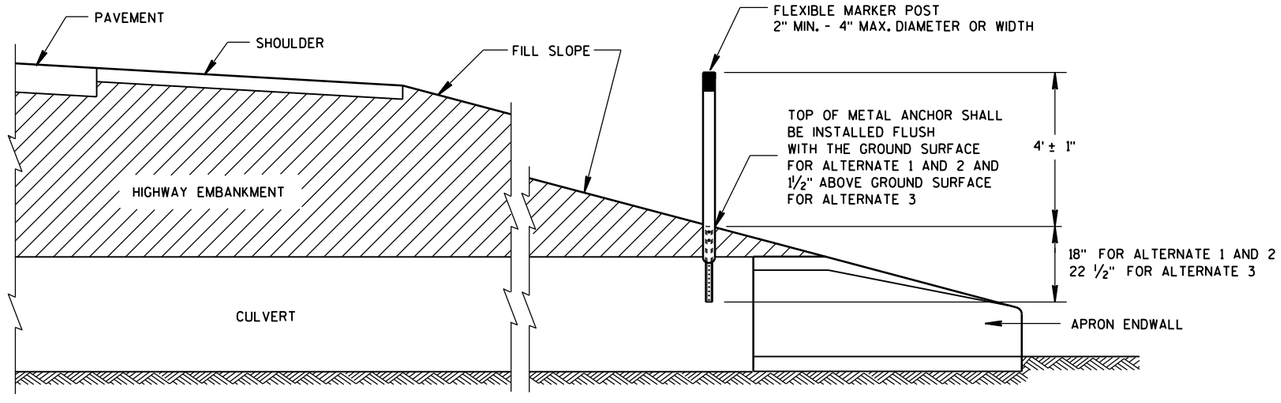
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



CROSS SECTION

FLEXIBLE MARKER POST

FLEXIBLE MARKER POST FOR CULVERT END

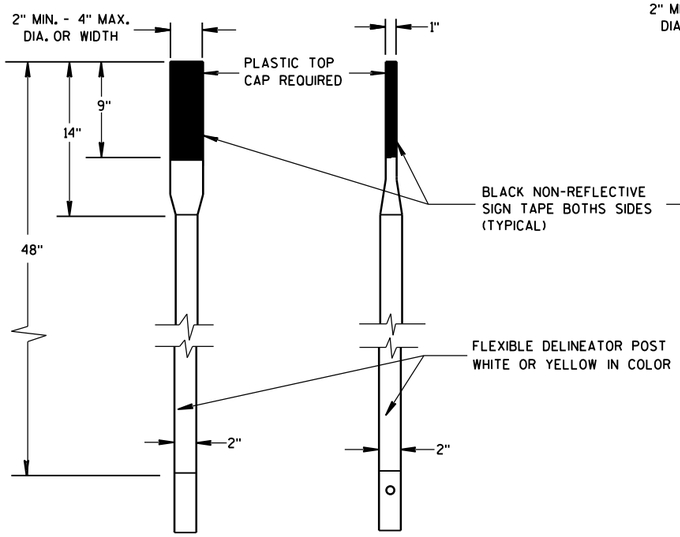
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

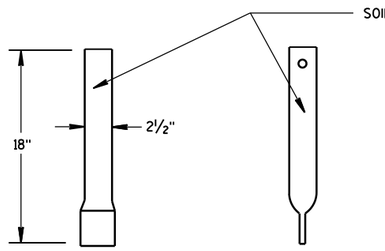
6

S.D.D. 15 A 3-2a

6

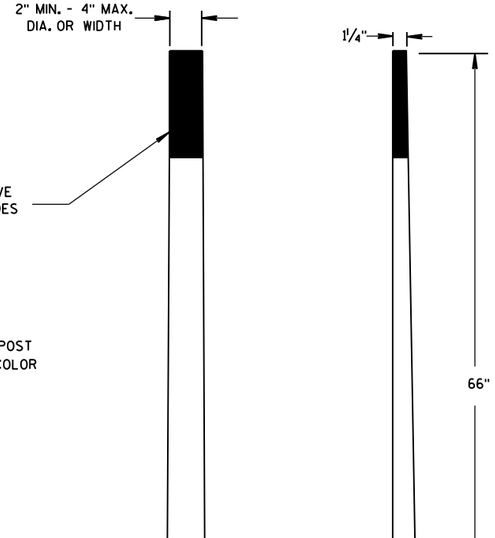
S.D.D. 15 A 3-2a





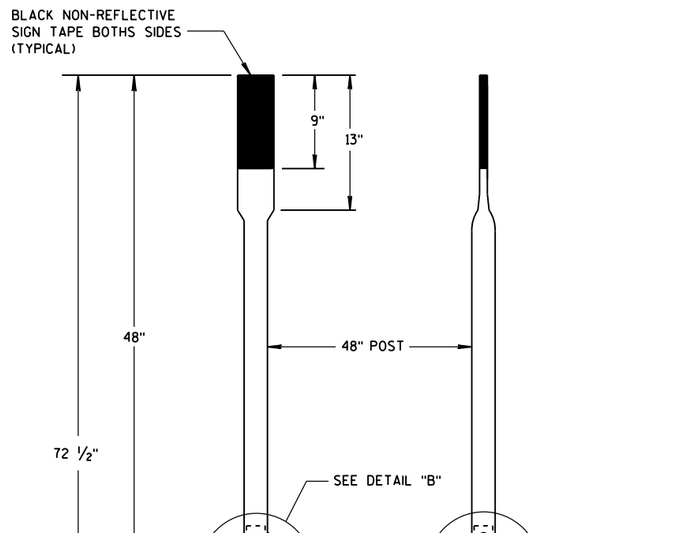
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

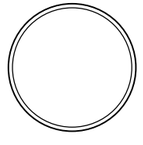
ALTERNATE 2



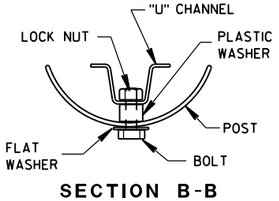
FRONT VIEW SIDE VIEW

ALTERNATE 3

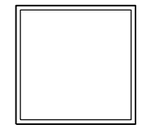
FLEXIBLE MARKER POSTS



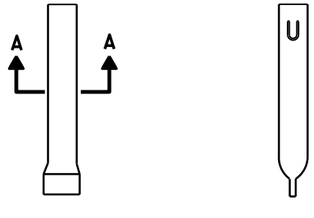
SECTION A-A



SECTION B-B

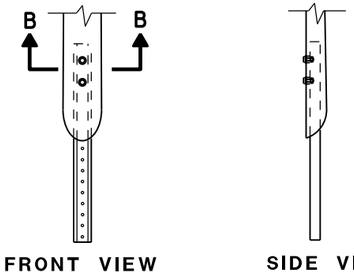


SECTION C-C



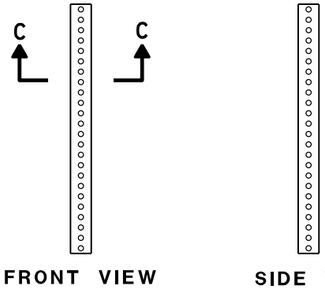
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

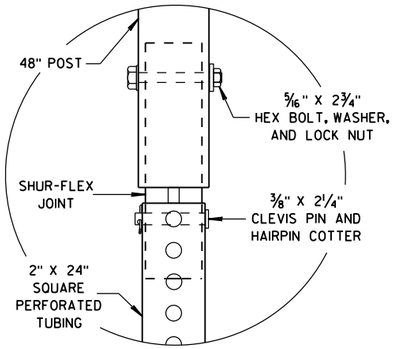
ALTERNATE 2



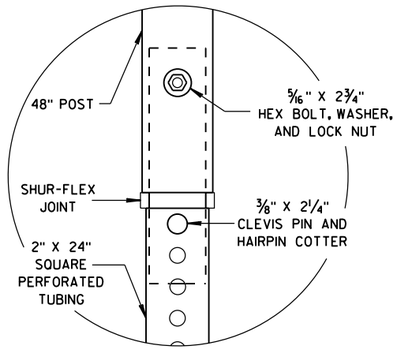
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS



DETAIL B



DETAIL C

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

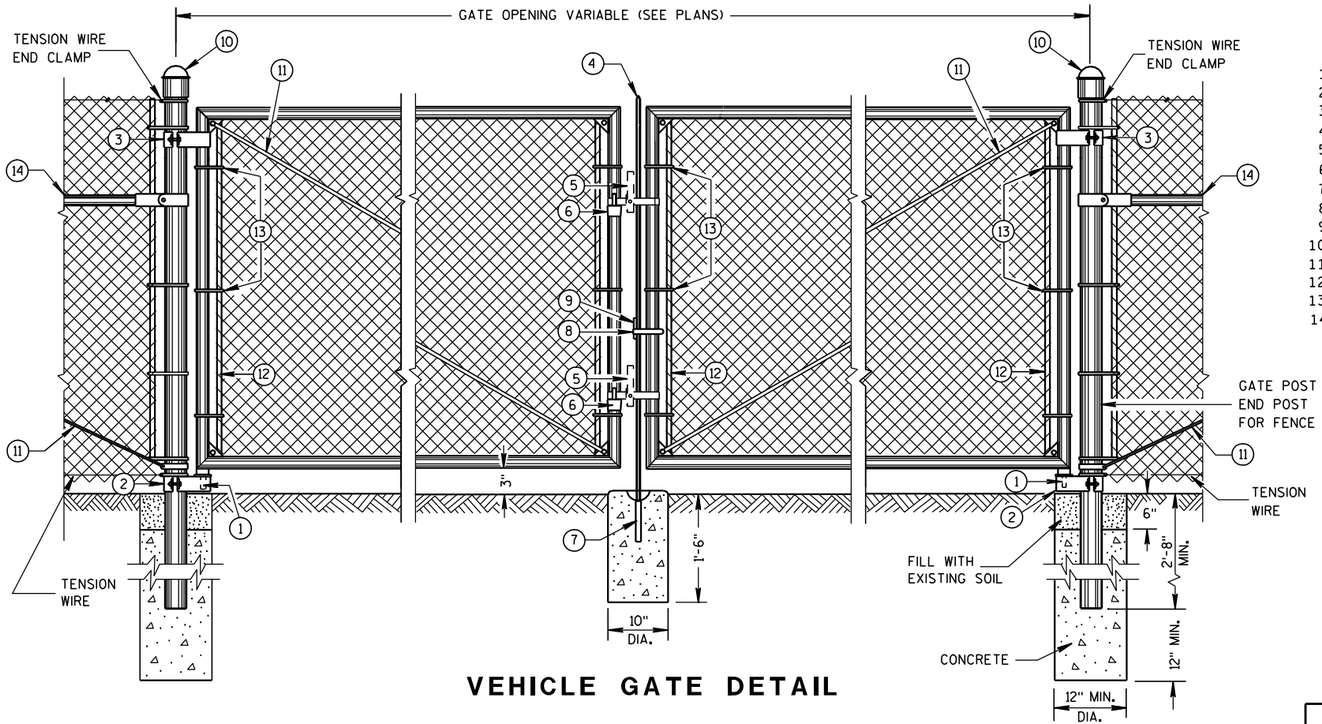
APPROVED
10/1/2012
DATE
/S/ Travis Feltes
STATE TRAFFIC ENGINEER
FHWA

6

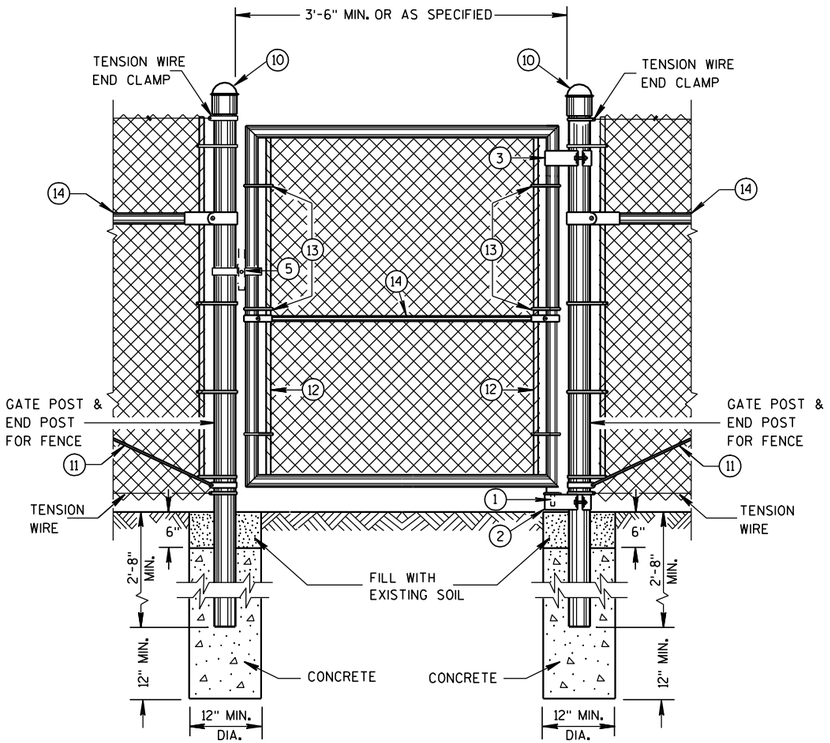
S.D.D. 15 A 3-2b

6

S.D.D. 15 A 3-2b



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

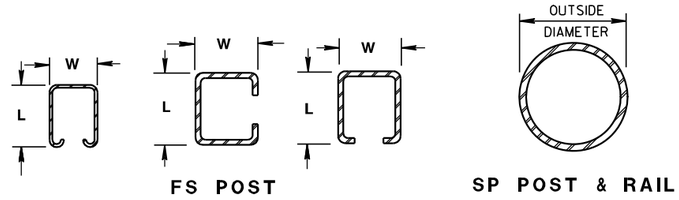
FENCE POSTS INSTALLED ON CONCRETE WALLS SHALL BE ANCHORED INTO EMBEDDED METAL SLEEVES OR CORED HOLE BY FILLING THE ANNULAR SPACE WITH PEA GRAVEL FOLLOWED BY AN EPOXY RESIN ADHESIVE. THE EPOXY RESIN ADHESIVE SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M 235, CLASS A, B OR C.

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.



FS POST

SP POST & RAIL

CROSS SECTIONS OF POSTS AND RAILS

SHAPE, SIZE AND WEIGHT REQUIREMENTS FOR FORMED STEEL FENCE POST

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

SHAPE, SIZE AND WEIGHT REQUIREMENTS FOR ROUND STEEL FENCE POST

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

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

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

BRACE RAIL TYPES

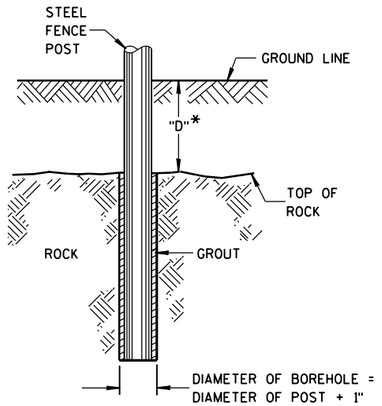
USE		TYPE
BRACE RAIL		SP1 OR FS1

** INCLUDES END, CORNER, ANGLE, INTERSECTION AND INTERMEDIATE BRACED POSTS

FENCE CHAIN LINK

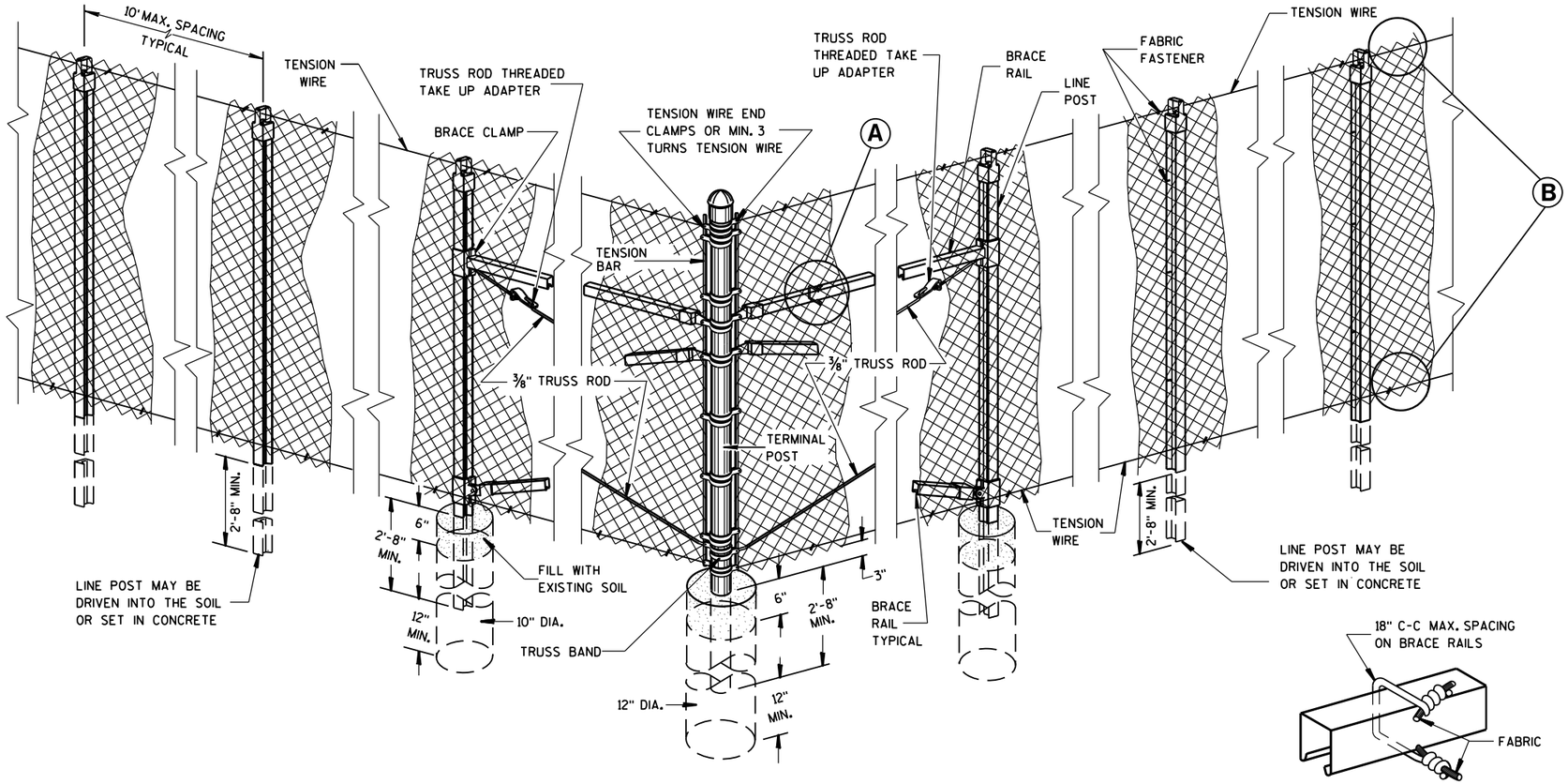
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
S.D.D. 15 B 3-12a

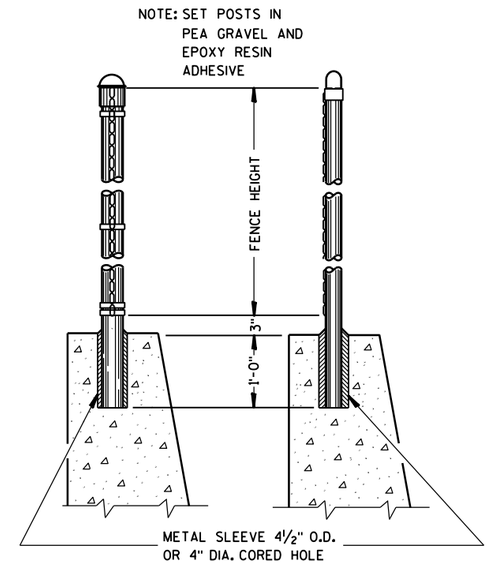


*IF "D" IS LESS THAN 2'-6", DRILL ROCK AND INSTALL GROUT

ROCK INSTALLATION OF LINE POST



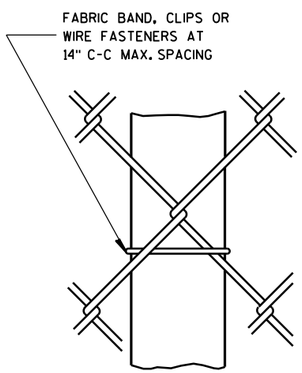
END, CORNER, ANGLE INTERSECTION & INTERMEDIATE BRACED POSTS



END POST & CORNER POST

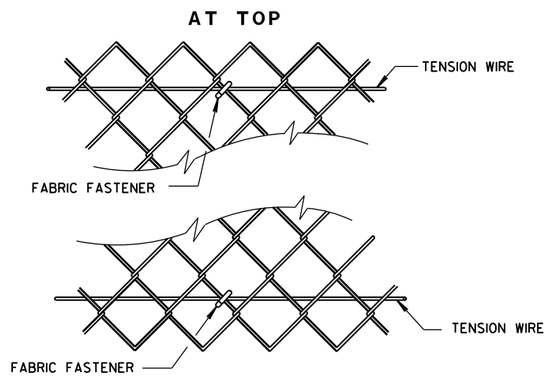
LINE POST

DETAILS OF FENCE ON WALL



LINE POST

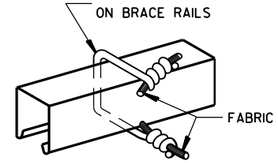
FABRIC FASTENER



AT BOTTOM

SELVAGES

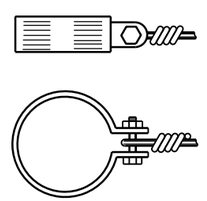
Ⓑ



BRACE RAIL

FABRIC FASTENER

Ⓐ



TENSION WIRE END CLAMP

FENCE CHAIN LINK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/19/2010
DATE
FHWA

/S/ Jerry H. Zoda
ROADWAY STANDARDS DEVELOPMENT ENGINEER

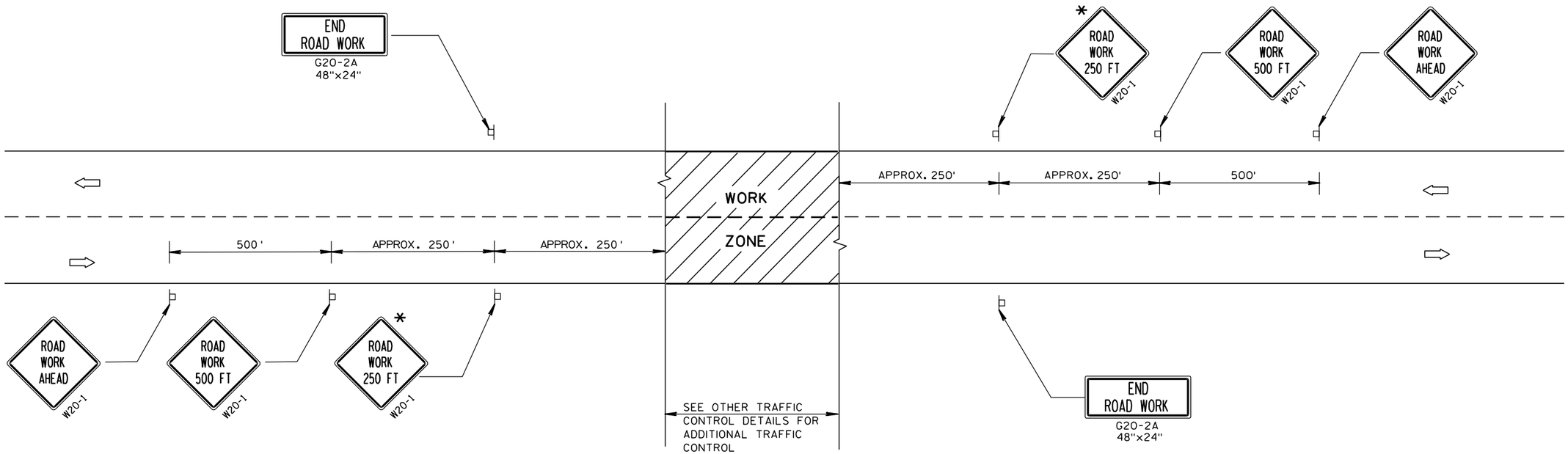
497

6

S.D.D. 15 B 3-12b

6

S.D.D. 15 B 3-12b



GENERAL NOTES

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

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

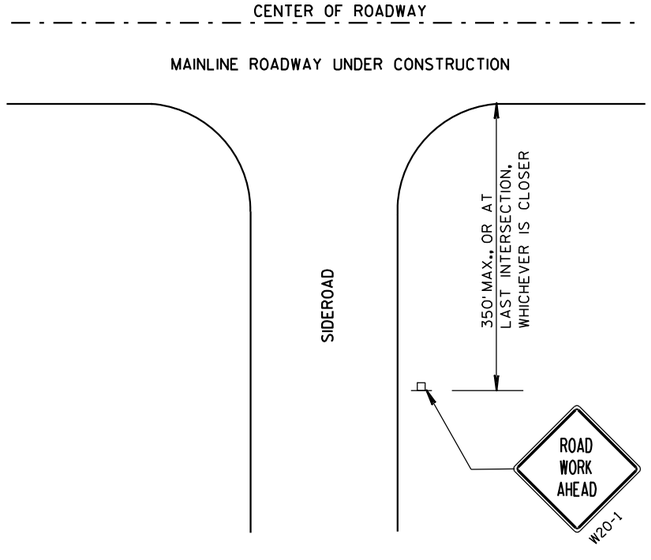
ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"x36" SIGNS MAY BE USED INSTEAD OF 48"x48" SIGNS, IF APPROVED BY DISTRICT TRAFFIC UNIT.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS RE-ESTABLISHED.

* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FT" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.

TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL



LEGEND

POST MOUNTED SIGN

DIRECTION OF TRAFFIC FLOW

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5/23/00
DATE

/S/ Chester J. [illegible]
CHIEF SIGNS AND MARKING ENGINEER

FHWA

6

S.D.D. 15 C 5-1

6

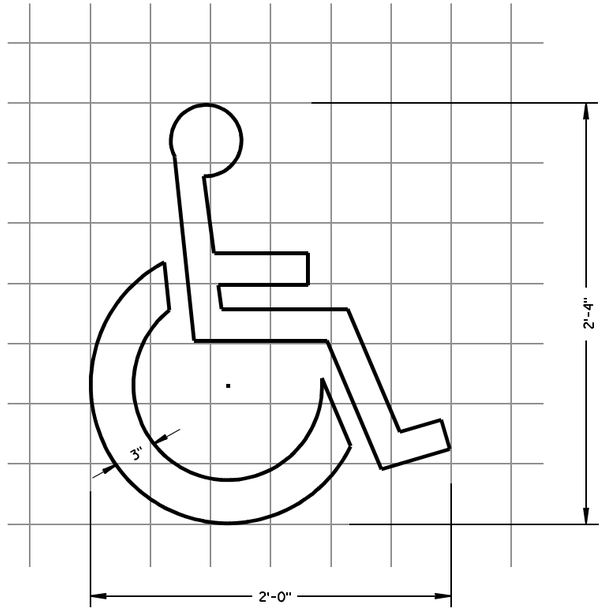
S.D.D. 15 C 5-1

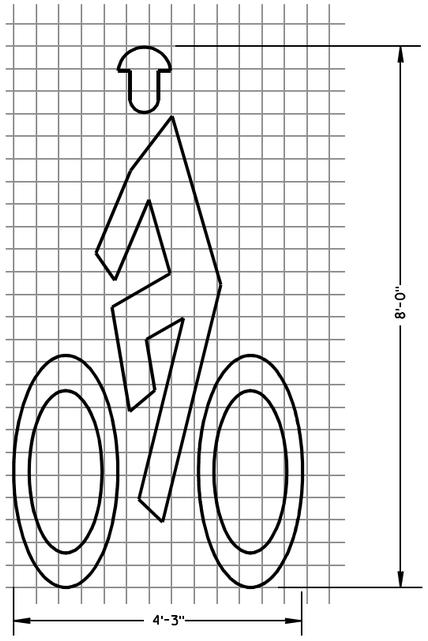
GENERAL NOTES

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.

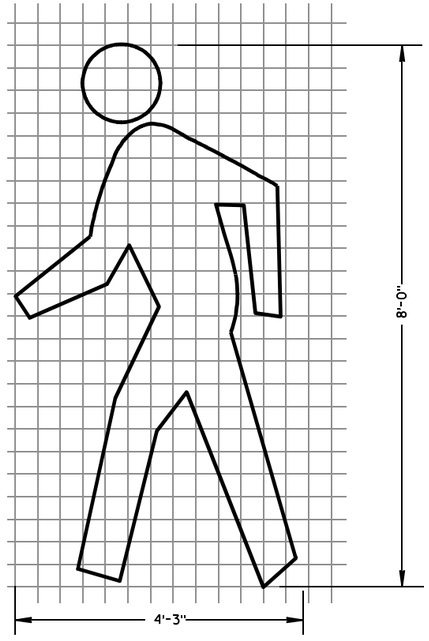
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES OF THAT BOOK ARE ACCEPTABLE.

A DETAILED DRAWING OF THE HANDICAPPED PARKING SYMBOL IS ILLUSTRATED IN THE "STANDARD HIGHWAY SIGNS MANUAL" BY THE FEDERAL HIGHWAY ADMINISTRATION.

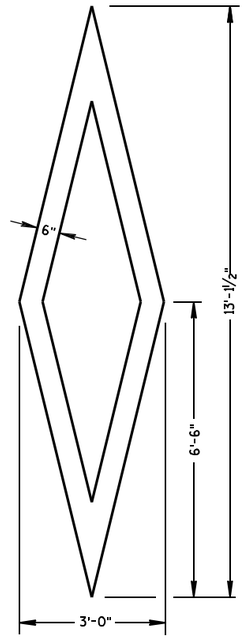




BIKE CROSSING SYMBOL



PEDESTRIAN SYMBOL



PREFERENTIAL LANE SYMBOL

PAVEMENT MARKING SYMBOLS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/1/11 — DATE

/S/ Thomas N Nathan — STATE TRAFFIC ENGINEER

FHWA

6

S.D.D. 15 C 7-12a

6

S.D.D. 15 C 7-12a

GENERAL NOTES

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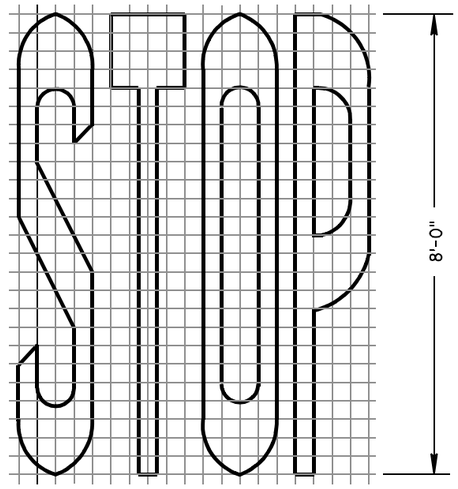
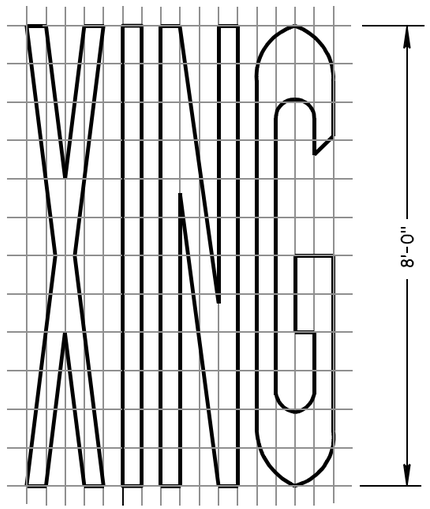
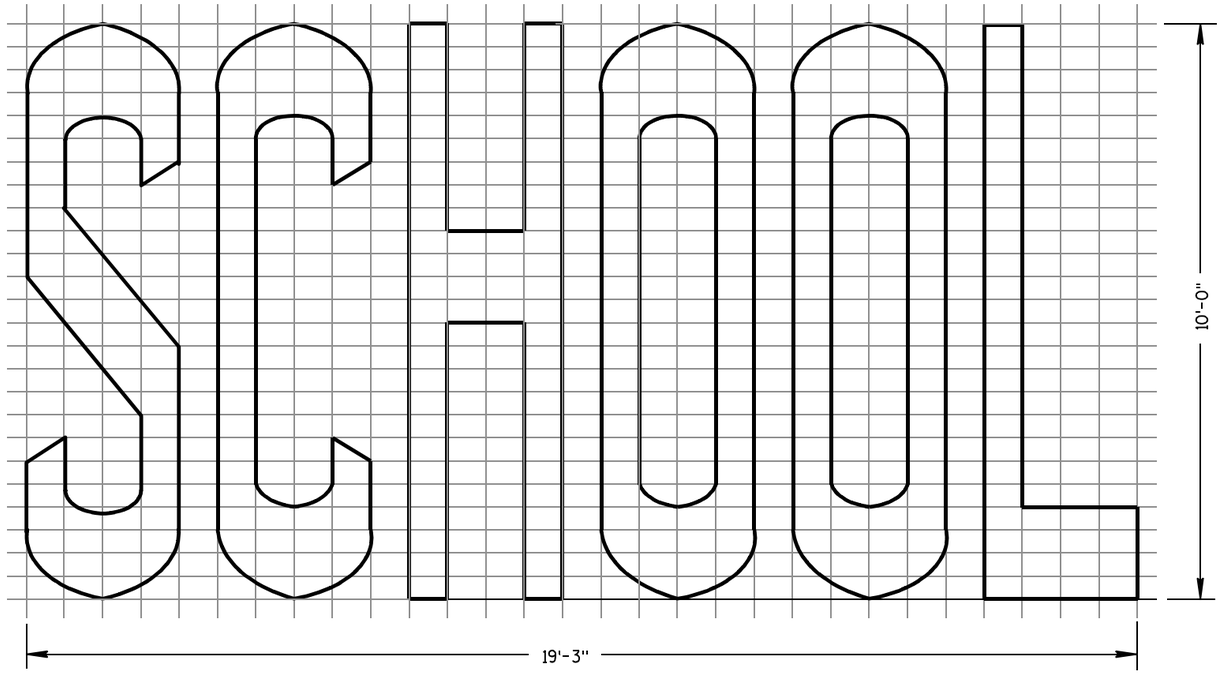
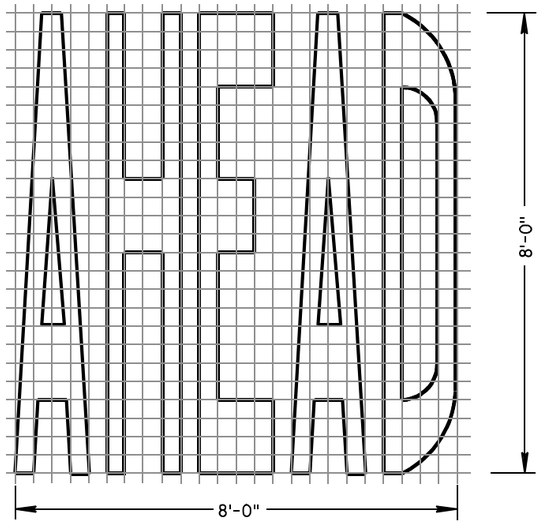
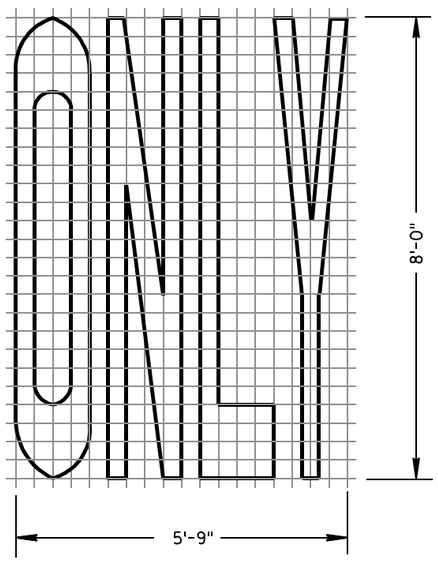


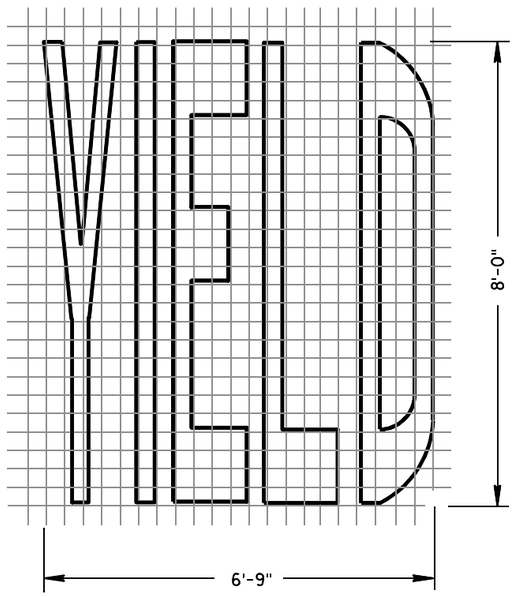


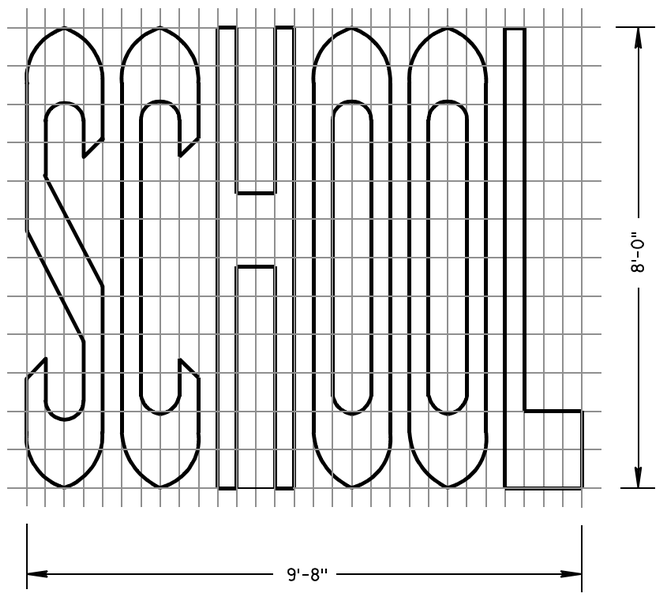


TWO-LANE









SINGLE-LANE

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7-1-11 DATE

/S/ Thomas N. Nothohm
STATE TRAFFIC ENGINEER

500 IGN

FHWA

6

S.D.D. 15 C 7-12b

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S.D.D. 15 C 7-12b

GENERAL NOTES

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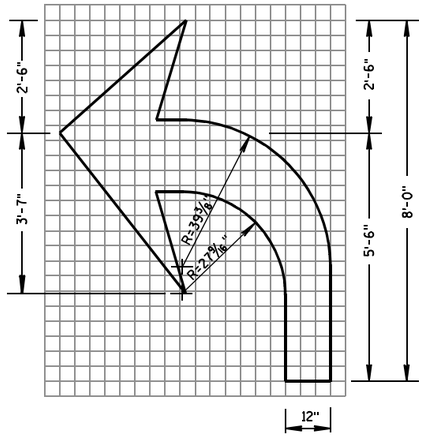
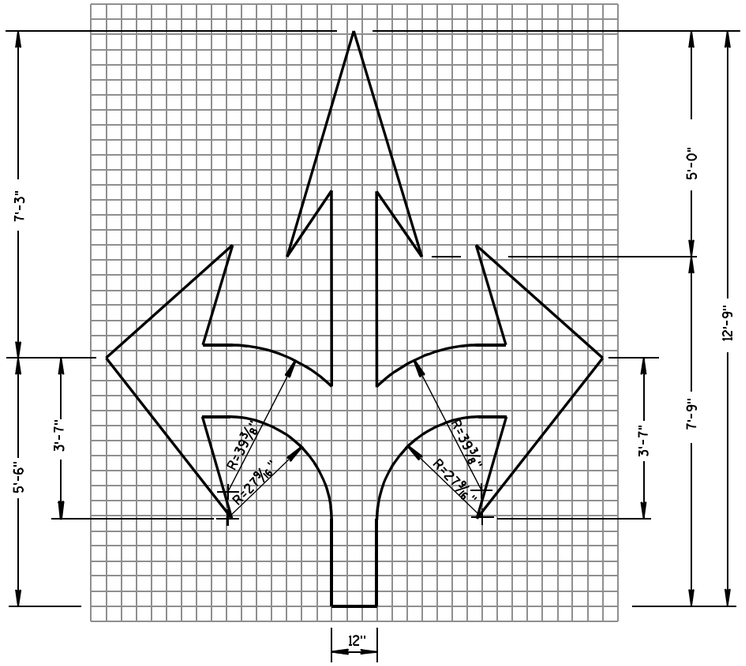
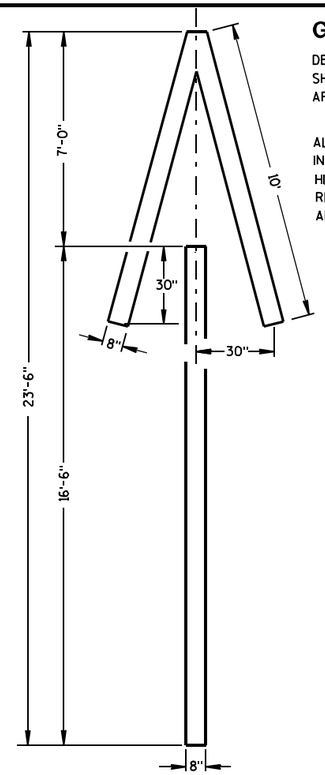


TYPE 2



TYPE 6



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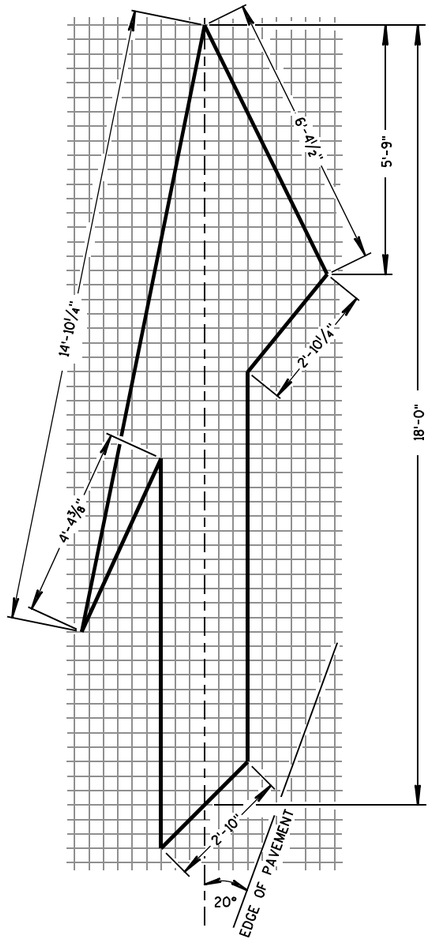
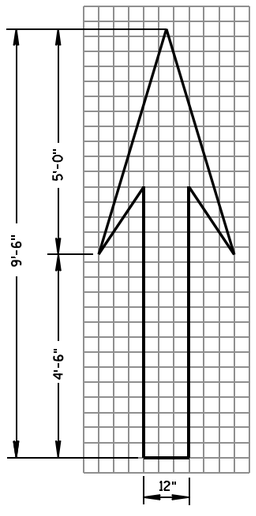
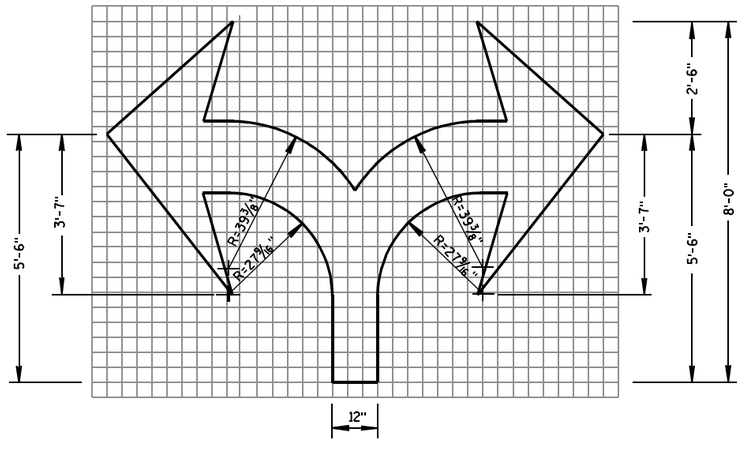


TYPE 5 LANE DROP ARROW



TYPE 1



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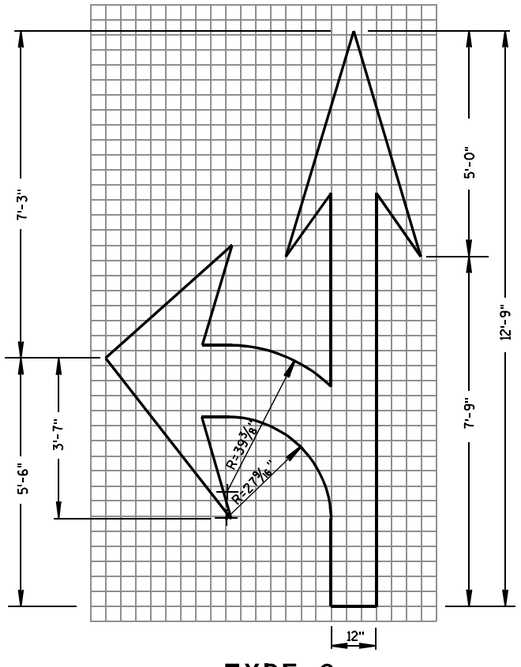


TYPE 3

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

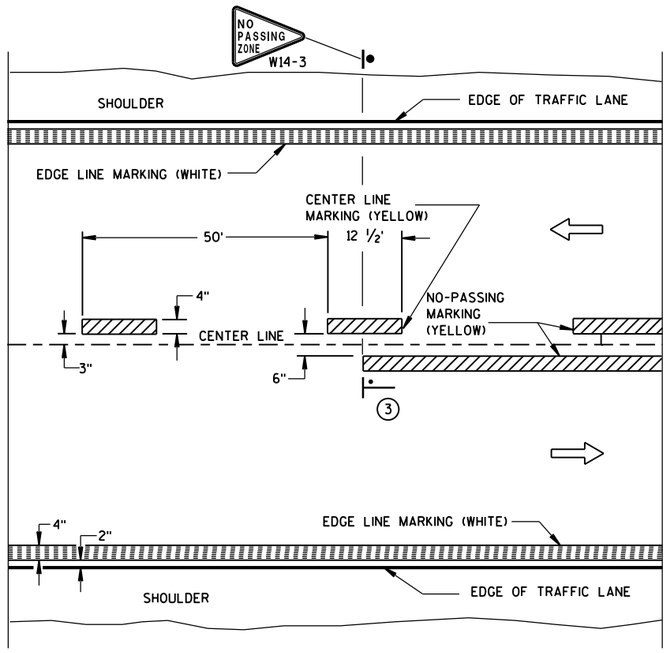
7/1/11 — DATE

/S/ Thomas N. Nothdurft — STATE TRAFFIC ENGINEER

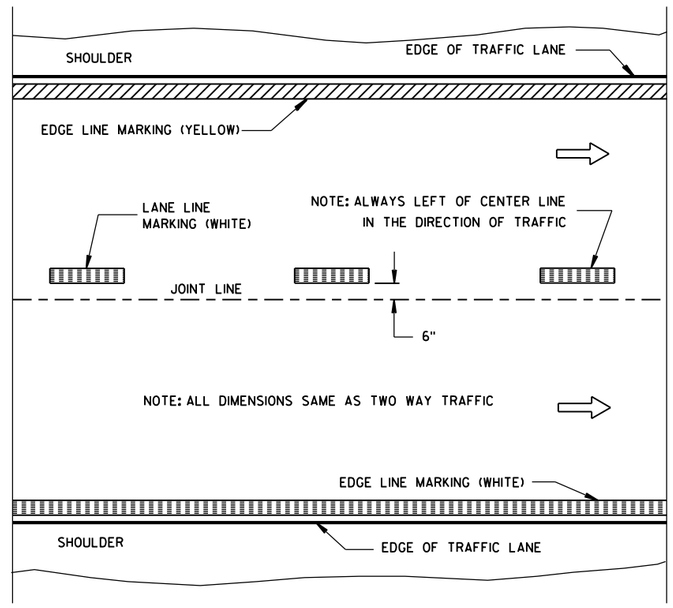
FHWA

6

S.D.D. 15 C 7-12c

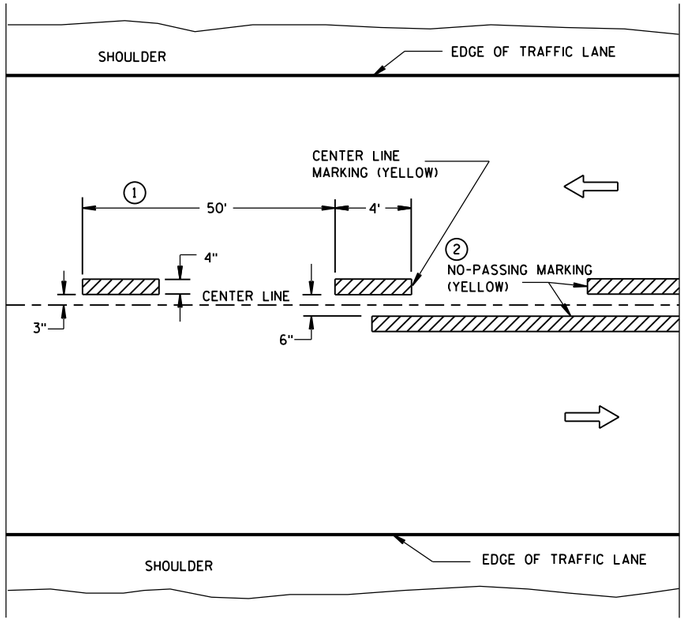


TWO WAY TRAFFIC

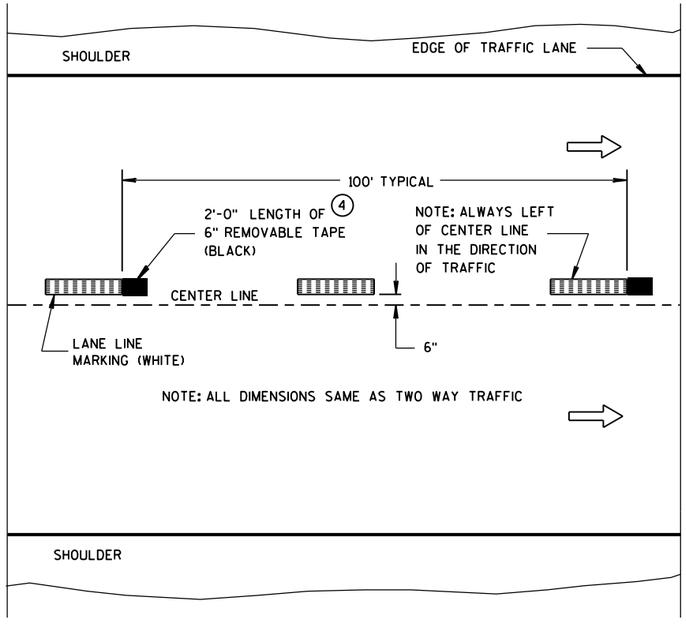


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

(SHOWS CYCLE FOR TEMPORARY CENTER LINE OR TEMPORARY LANE LINE MARKING)

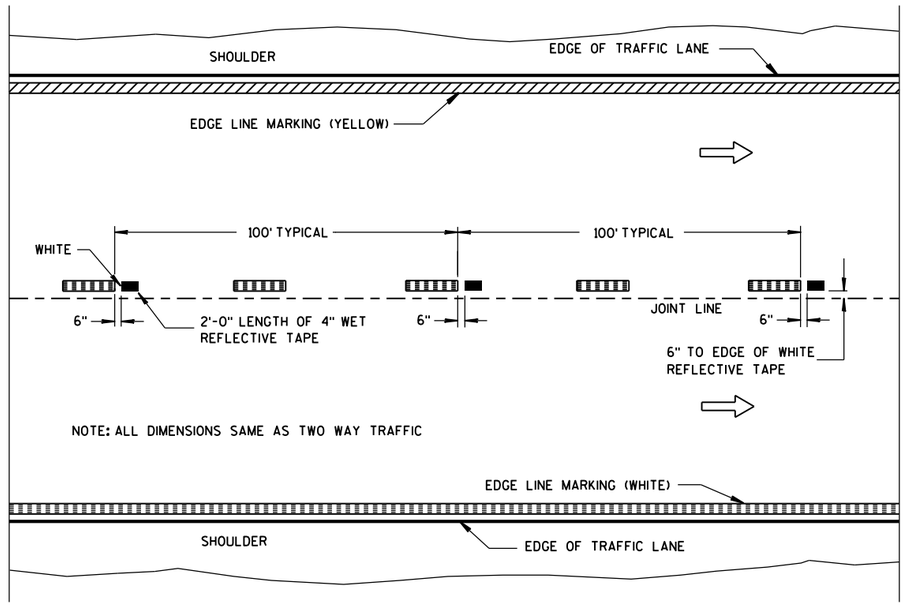
GENERAL NOTES

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

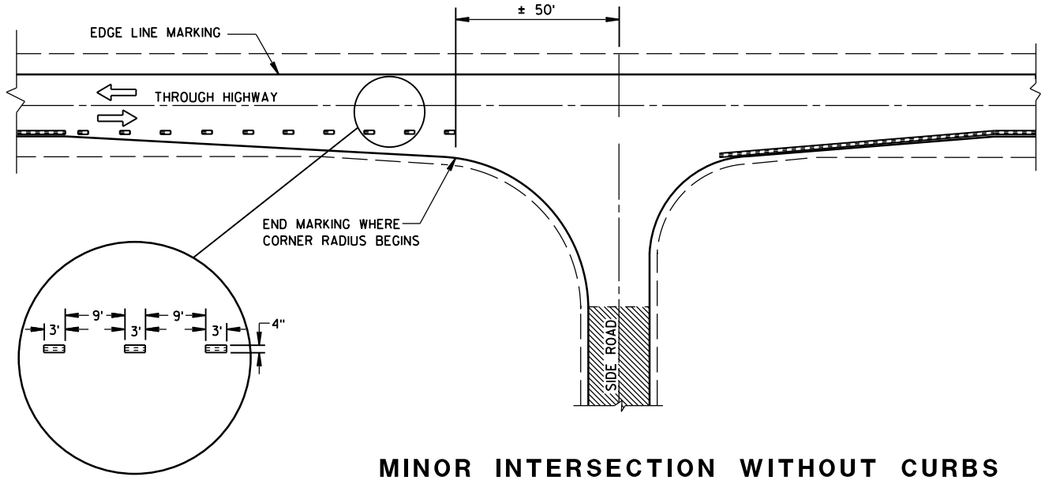
FHWA

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.

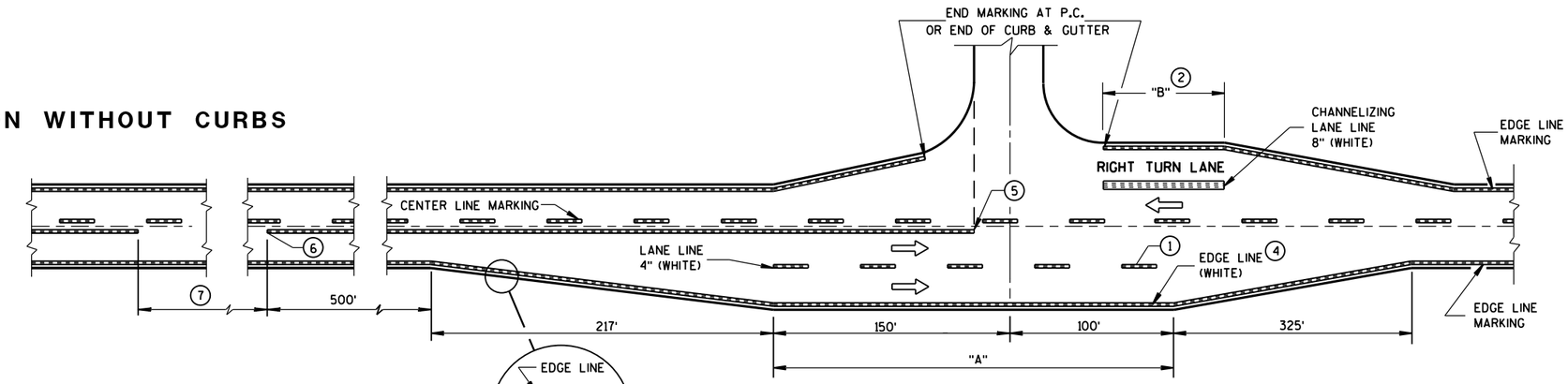
(7) IF THE DISTANCE BETWEEN 2 SUCCESSIVE NO-PASSING ZONES IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES, CONNECT THE 2 ZONES.

(8) 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

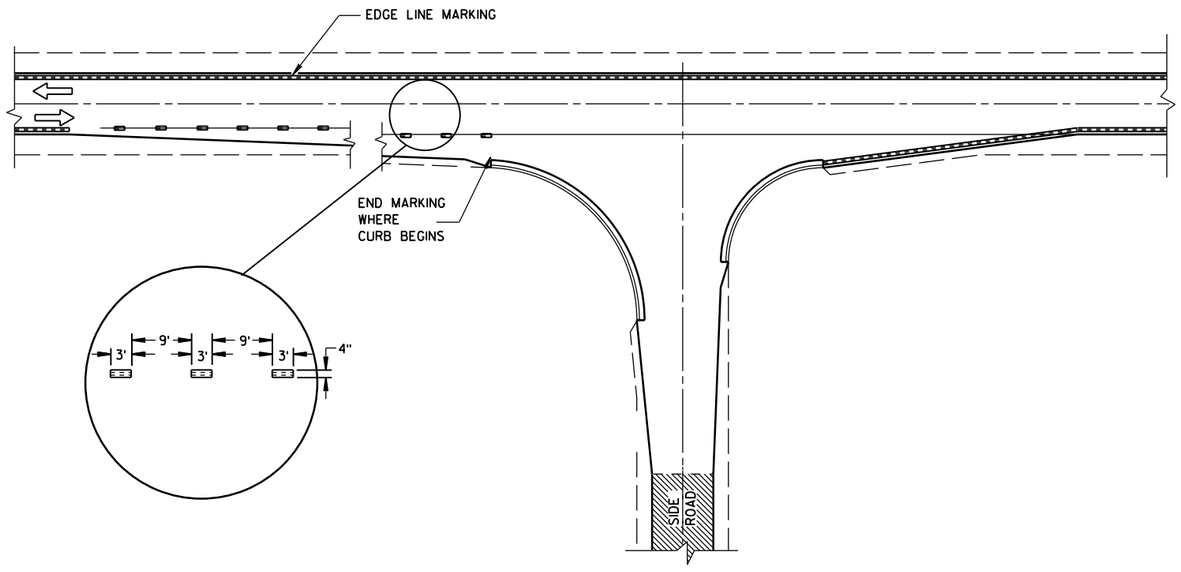
(7)

POSTED SPEED (MPH)	MINIMUM DISTANCE BETWEEN ZONES (FEET)
25 - 30	528
35 - 40	528
45 - 50	686
55	792



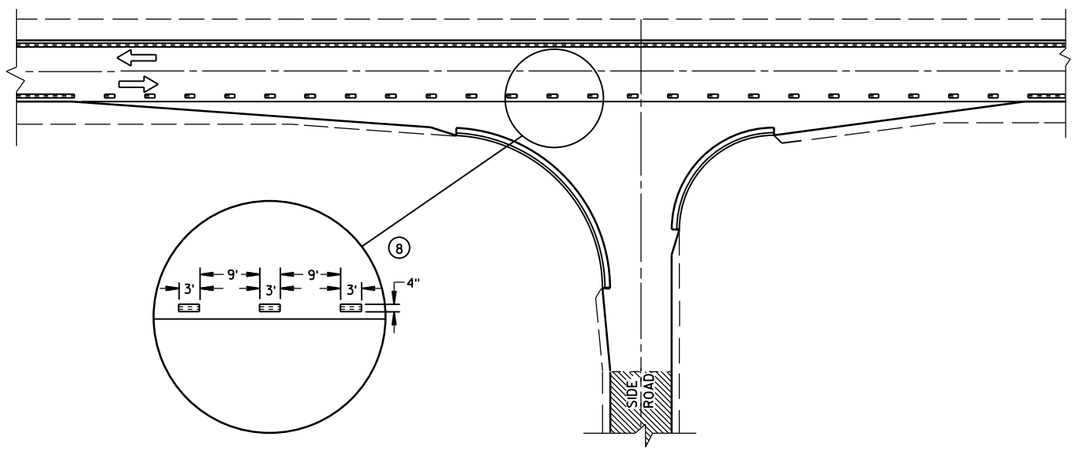
MAJOR INTERSECTIONS

(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)

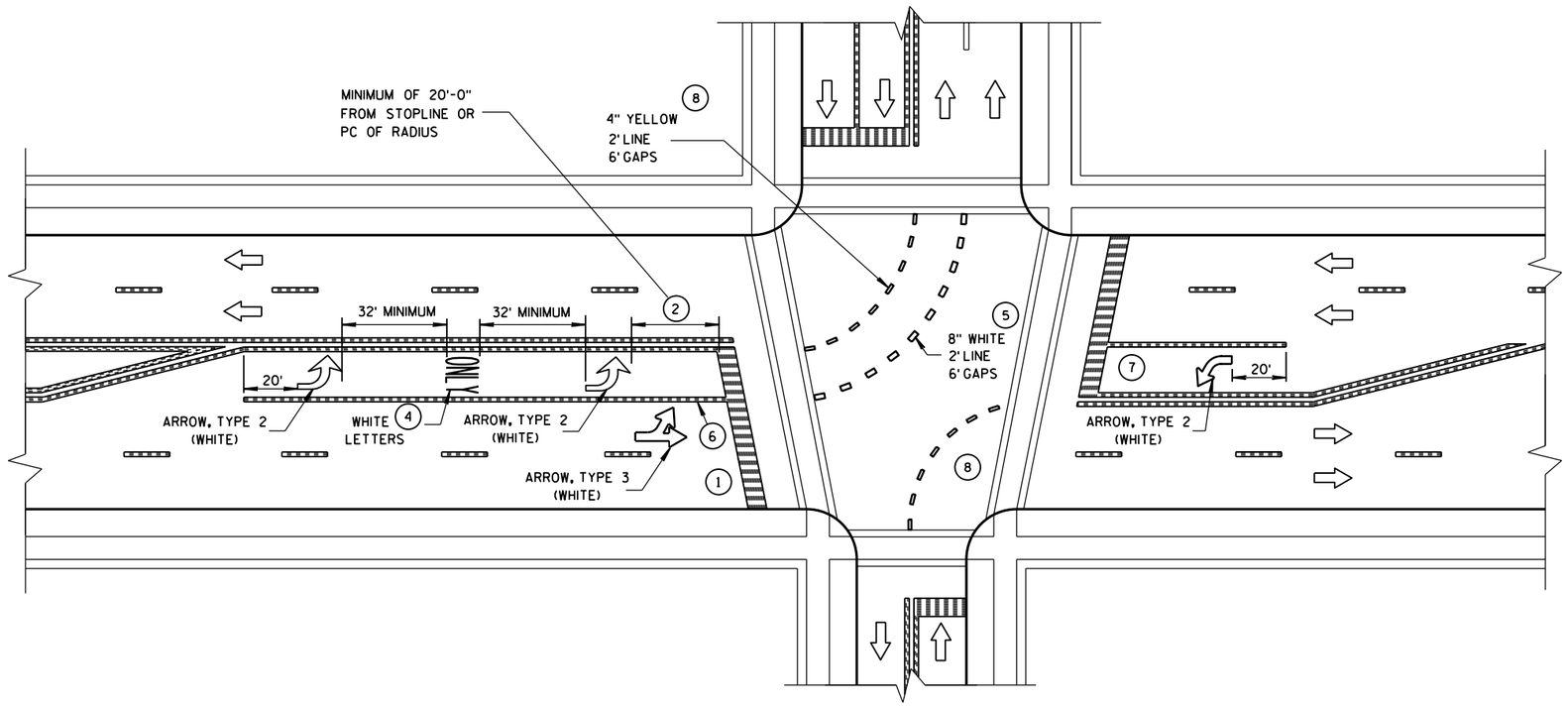
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR 503

6

S.D.D. 15 C 8-16b

6

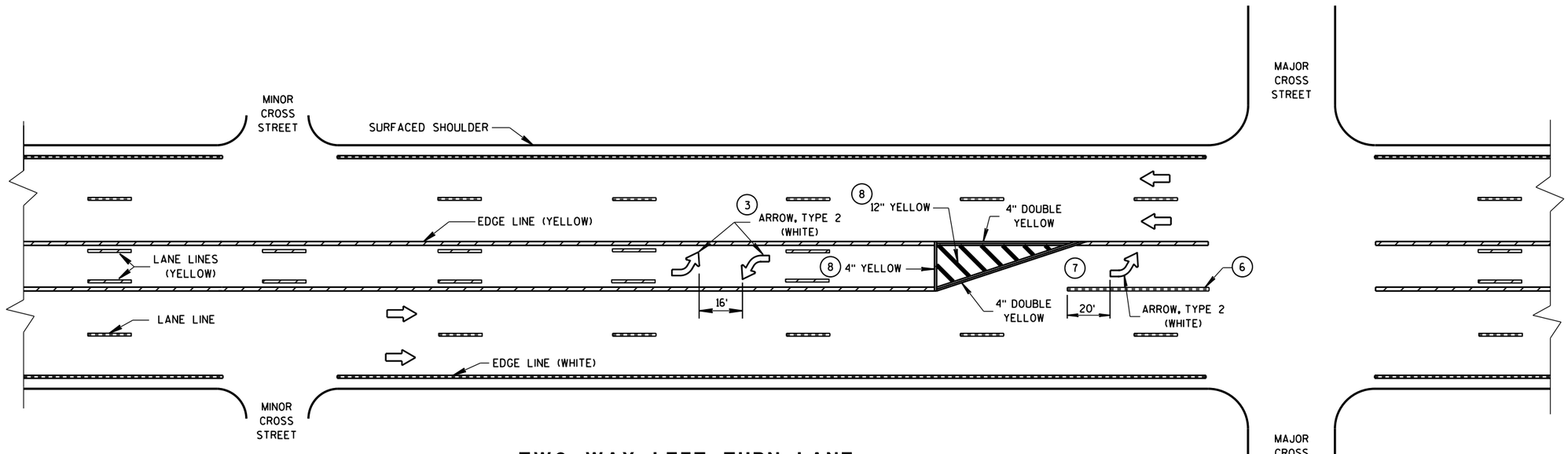
S.D.D. 15 C 8-16b



GENERAL NOTES

1. STOP BAR IS REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.
2. DISTANCE MAY BE ADJUSTED TO ACCOMODATE SHORT LEFT TURN LANES. AS APPROVED BY THE ENGINEER.
3. A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
4. ADD EXTRA SETS OF ONE ARROW AND ONE ONLY PER 160 FEET OR WHEN ON A CURVE.
5. 8" WHITE WITH 2' LINE 6' GAPS FOR DUAL TURN LANE.
6. 8" WHITE
7. ADD SECOND ARROW WHEN TURN BAY IS GREATER THAN OR EQUAL TO 108 FEET.
8. REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.

NOTE:
ARROW SYMBOL (⇨)
SHOWS DIRECTION OF TRAVEL



TWO WAY LEFT TURN LANE

PAVEMENT MARKING (LEFT TURN LANE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 15 C 8-16e

TWO-LANE ROADWAY

SYMBOLS

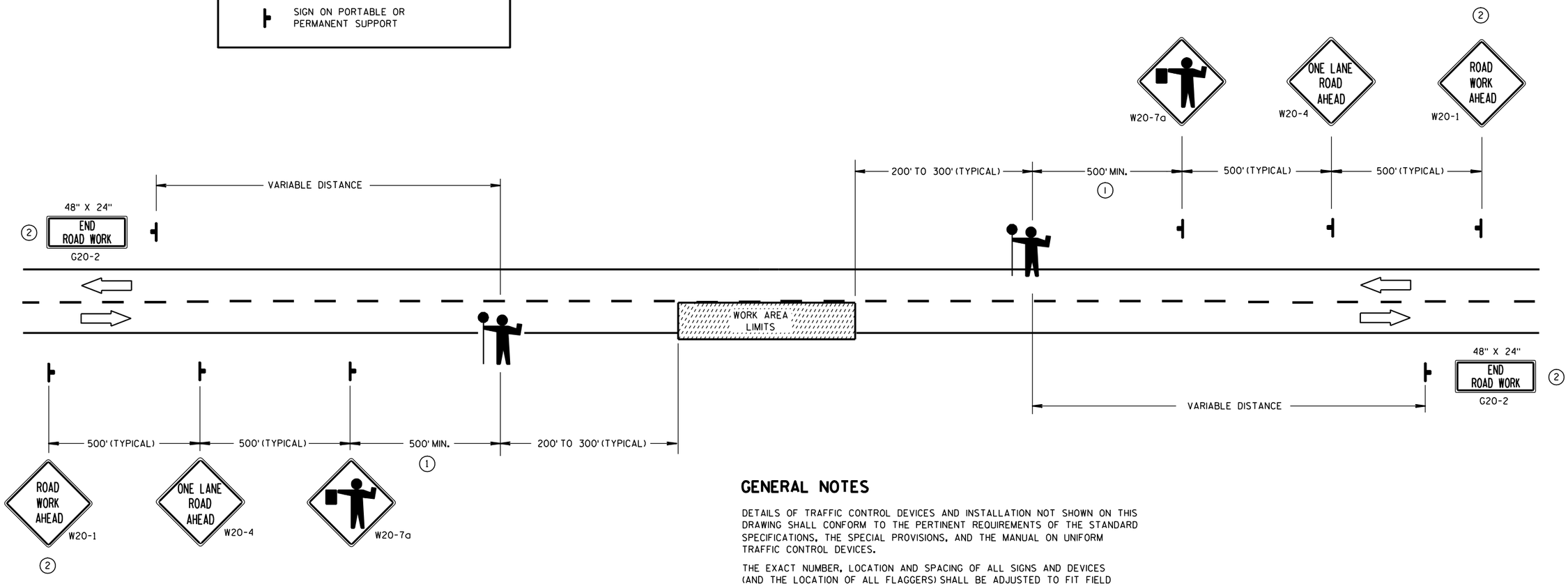
WORK AREA

FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

SIGN ON PORTABLE OR PERMANENT SUPPORT

W3-4

USE OF THE "BE PREPARED TO STOP" SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7a AND W20-4 SIGNS. A 500' TYPICAL SPACING SHALL BE PROVIDED BETWEEN THE SIGNS.



(1) FOR A MOVING WORK OPERATION,
SIGNING FOR BOTH DIRECTIONS SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3500 FOOT INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.

(2) SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

GENERAL NOTES

DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

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

THE FIRST ADVANCE WARNING SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR QUEUE.

WHEN A SIDE ROAD OR RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT, THE "FLAGGER AHEAD", THE "ROAD WORK AHEAD" AND THE ONE LANE ROAD AHEAD" SIGNS SHALL BE COVERED OR REMOVED AND THE HIGHWAY RESTORED TO NORMAL OPERATION.

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

TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

9/5/06 — DATE

/S/ Thomas N. Nothohm — STATE TRAFFIC ENGINEER

505

FHWA

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S.D.D. 15 C 12-3

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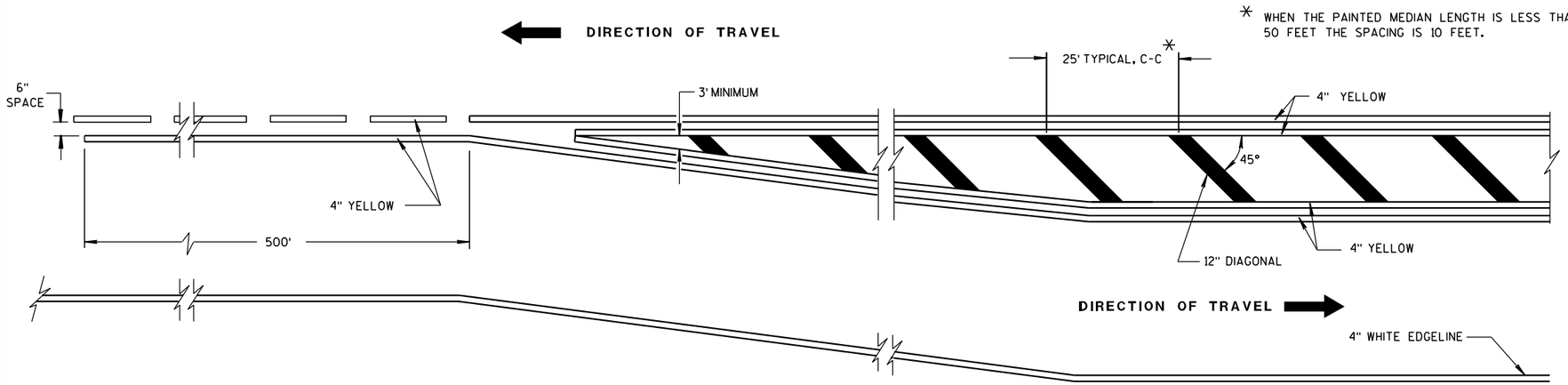
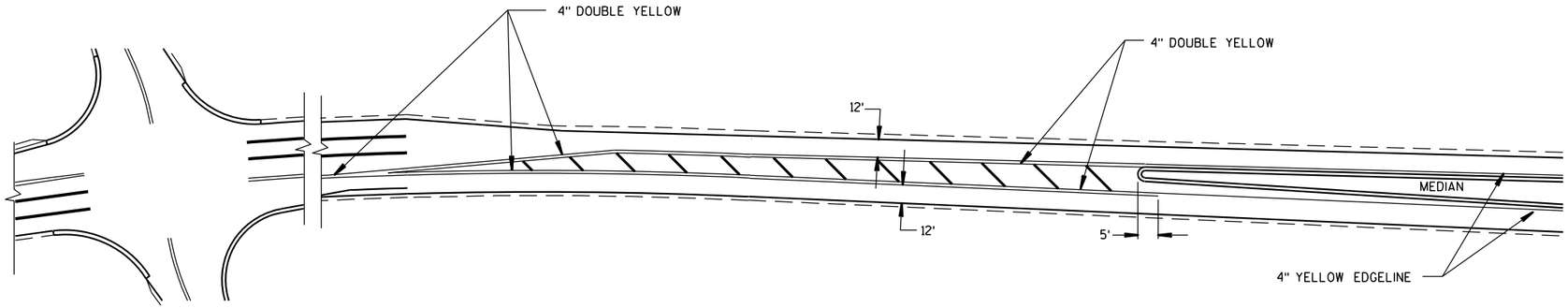
S.D.D. 15 C 12-3



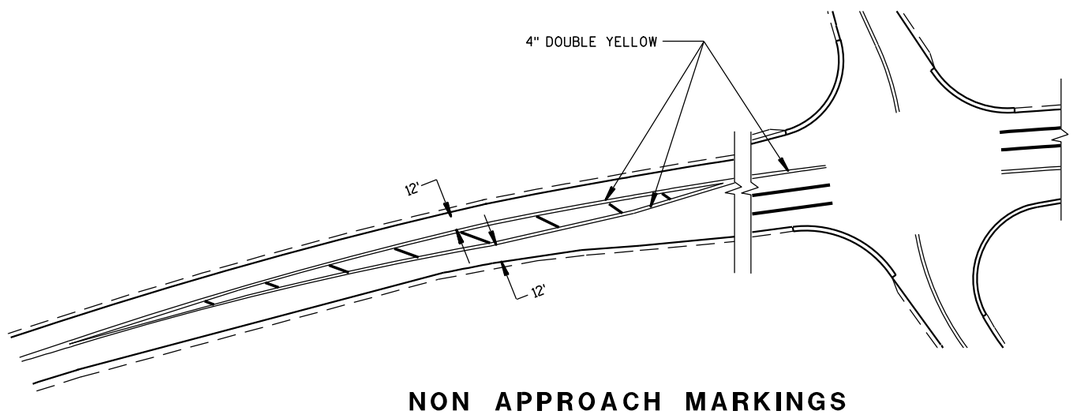
MEDIAN ISLAND DETAIL

GENERAL NOTE

DIAGONALS ARE OPTIONAL WHEN PAINTED ISLAND IS LESS THAN 6 FEET AT WIDEST POINT.



APPROACH MARKINGS FOR OTHER MEDIAN TYPES



NON APPROACH MARKINGS

MEDIAN ISLAND MARKING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 2-5-09 DATE	/S/ Thomas N. Nothohm STATE TRAFFIC ENGINEER
FHWA	506 IGN

6

S.D.D. 15 C 18-3

6

S.D.D. 15 C 18-3

GENERAL NOTES

ORIENT ANCHOR BOLTS IN FOOTING AND PROVIDE ANCHOR BOLT STICK OUT ABOVE TOP OF CONCRETE FOOTING BASE PER FABRICATION DRAWING.

BENDING DIMENSIONS FOR REINFORCING BARS ARE OUT TO OUT.

USE 3" CLEAR FOR ALL REINFORCEMENT UNLESS NOTED OTHERWISE.

SIGN SUPPORTS SHALL BE LOCATED NORMAL TO ROADWAY.

THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO THE TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO.

WELDING OF ANCHOR BOLTS TO THE CAGE IS UNACCEPTABLE. TEMPLATES SHALL BE USED.

BAR CAGE TO BE ASSEMBLED USING TIE WIRES ONLY, NO WELDING.

BASES (SHAFT) SHALL BE EXCAVATED BY THE USE OF A CIRCULAR AUGER. IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE SOIL, THE FORM SHALL BE REMOVED BEFORE BACK FILLING AROUND THE BASE. ANY REQUIRED BACKFILL SHALL BE WELL COMPACTED IN LAYERS OF 1 FOOT OR LESS. COMPACTION SHALL BE BY MECHANICAL MEANS. CARE SHALL BE TAKEN SO NO DAMAGE OCCURS TO THE CONCRETE BASE DURING COMPACTION.

EXCAVATION OF MATERIALS NOT OCCUPIED BY CONCRETE SHALL BE MINIMIZED TO REDUCE DISTURBANCE OF THE SURROUNDING SOILS.

THE BOTTOM OF THE DRILLED HOLE SHALL BE FIRM AND THOROUGHLY CLEANED SO NO LOOSE OR COMPRESSIBLE MATERIALS ARE PRESENT AT THE TIME OF THE CONCRETE PLACEMENT.

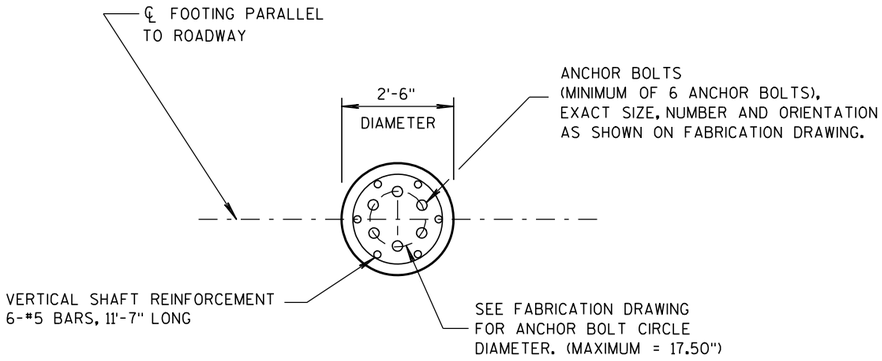
IF THE DRILLED HOLE CONTAINS STANDING WATER, THE CONCRETE SHALL BE PLACED USING A TREMIE TO DISPLACE THE WATER.

THE REINFORCEMENT AND ANCHOR BOLTS SHALL BE ADEQUATELY SUPPORTED IN THE PROPER POSITIONS SO NO MOVEMENT OCCURS DURING CONCRETE PLACEMENT.

ANY DAMAGE TO THE CONCRETE BASE DURING CONSTRUCTION OPERATIONS SHALL BE REPAIRED AT THE ENGINEER'S DIRECTION, AT THE EXPENSE OF THE CONTRACTOR.

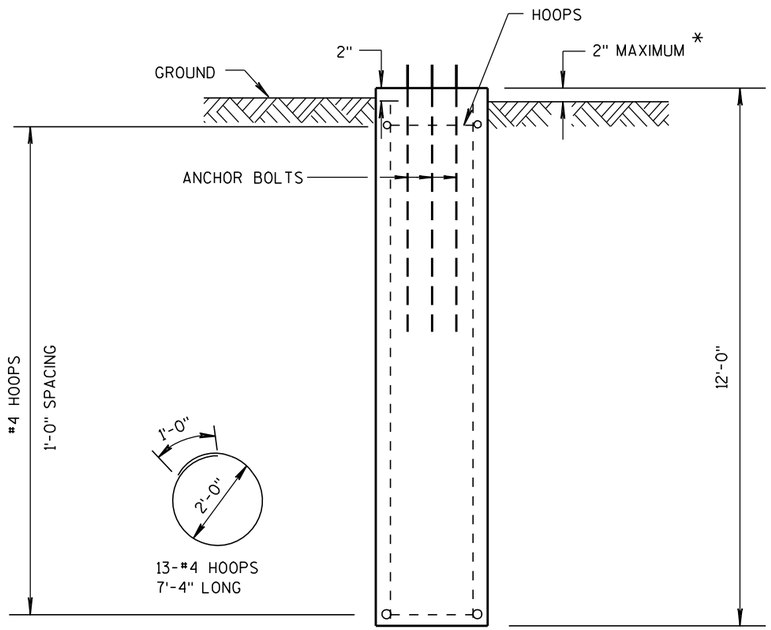
CONCRETE MASONRY	fc=3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy=60,000 p.s.i.
ANCHOR BOLTS	AASHTO M314 GRADE 55

THIS FOOTING HAS BEEN DESIGNED FOR SITES WHERE SOILS EXHIBIT A PHI-ANGLE GREATER THAN OR EQUAL TO 20 DEGREES (GRANULAR SOILS), OR A COHESION VALUE GREATER THAN OR EQUAL TO 350 PSF (COHESIVE SOILS).



PLAN VIEW

* FOR OVERHEAD SIGN SUPPORTS THAT ARE INSTALLED ADJACENT TO SIDEWALKS, THE TOP OF THE BASE SHALL BE POURED FLUSH WITH THE GROUND.



ELEVATION VIEW

CONCRETE - 2.2 C.Y. PER FOOTING
H.S. REINFORCEMENT - 136 LBS. PER FOOTING

30" DIAMETER CANTILEVER OVERHEAD SIGN SUPPORT BASE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4/17/2009 DATE
/S/ Thomas N. N[illegible] STATE TRAFFIC ENGINEER
FHWA

6

S.D.D. 15 C 23-2

GENERAL NOTES

ORIENT ANCHOR BOLTS IN FOOTING AND PROVIDE ANCHOR BOLT STICK OUT ABOVE TOP OF CONCRETE FOOTING BASE PER FABRICATION DRAWING.

BENDING DIMENSIONS FOR REINFORCING BARS ARE OUT TO OUT.

USE 3" CLEAR FOR ALL REINFORCEMENT UNLESS NOTED OTHERWISE.

SIGN SUPPORTS SHALL BE LOCATED NORMAL TO ROADWAY.

THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO THE TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO.

WELDING OF ANCHOR BOLTS TO THE CAGE IS UNACCEPTABLE. TEMPLATES SHALL BE USED.

BAR CAGE TO BE ASSEMBLED USING TIE WIRES ONLY, NO WELDING.

BASES (SHAFT) SHALL BE EXCAVATED BY THE USE OF A CIRCULAR AUGER. IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE SOIL, THE FORM SHALL BE REMOVED BEFORE BACK FILLING AROUND THE BASE. ANY REQUIRED BACKFILL SHALL BE WELL COMPACTED IN LAYERS OF 1 FOOT OR LESS. COMPACTION SHALL BE BY MECHANICAL MEANS. CARE SHALL BE TAKEN SO NO DAMAGE OCCURS TO THE CONCRETE BASE DURING COMPACTION.

EXCAVATION OF MATERIALS NOT OCCUPIED BY CONCRETE SHALL BE MINIMIZED TO REDUCE DISTURBANCE OF THE SURROUNDING SOILS.

THE BOTTOM OF THE DRILLED HOLE SHALL BE FIRM AND THOROUGHLY CLEANED SO NO LOOSE OR COMPRESSIBLE MATERIALS ARE PRESENT AT THE TIME OF THE CONCRETE PLACEMENT.

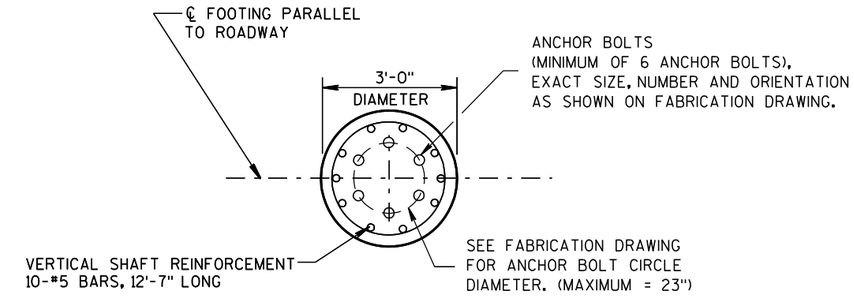
IF THE DRILLED HOLE CONTAINS STANDING WATER, THE CONCRETE SHALL BE PLACED USING A TREMIE TO DISPLACE THE WATER.

THE REINFORCEMENT AND ANCHOR BOLTS SHALL BE ADEQUATELY SUPPORTED IN THE PROPER POSITIONS SO NO MOVEMENT OCCURS DURING CONCRETE PLACEMENT.

ANY DAMAGE TO THE CONCRETE BASE DURING CONSTRUCTION OPERATIONS SHALL BE REPAIRED AT THE ENGINEER'S DIRECTION, AT THE EXPENSE OF THE CONTRACTOR.

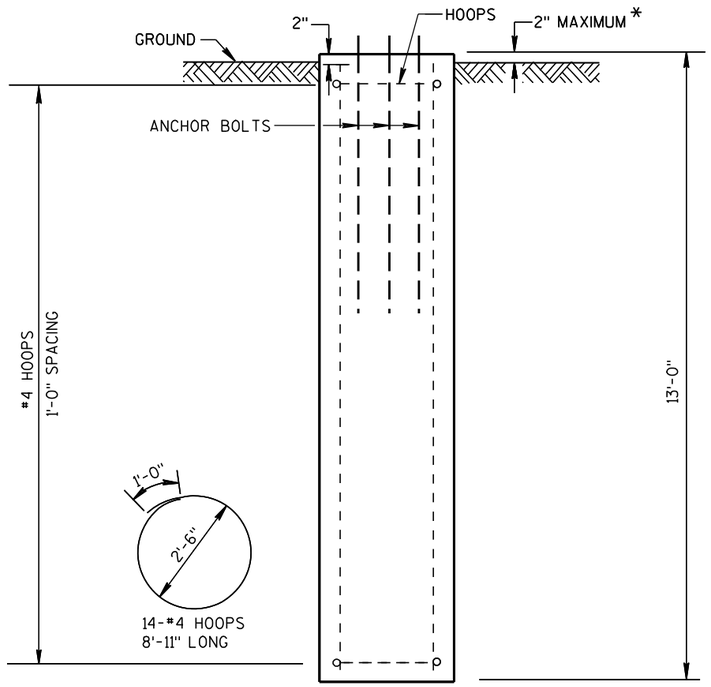
CONCRETE MASONRY	fc=3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy=60,000 p.s.i.
ANCHOR BOLTS	AASHTO M314 GRADE 55

THIS FOOTING HAS BEEN DESIGNED FOR SITES WHERE SOILS EXHIBIT A PHI-ANGLE GREATER THAN OR EQUAL TO 20 DEGREES (GRANULAR SOILS), OR A COHESION VALUE GREATER THAN OR EQUAL TO 350 PSF (COHESIVE SOILS).



PLAN VIEW

* FOR OVERHEAD SIGN SUPPORTS THAT ARE INSTALLED ADJACENT TO SIDEWALKS, THE TOP OF THE BASE SHALL BE POURED FLUSH WITH THE GROUND.



ELEVATION VIEW

CONCRETE - 3.4 C.Y. PER FOOTING
H.S. REINFORCEMENT - 215 LBS. PER FOOTING

36" DIAMETER CANTILEVER OVERHEAD SIGN SUPPORT BASE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4/17/2009 DATE
/S/ Thomas N. [illegible] STATE TRAFFIC ENGINEER
508 IGN
FHWA

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S.D.D. 15 C 24-2

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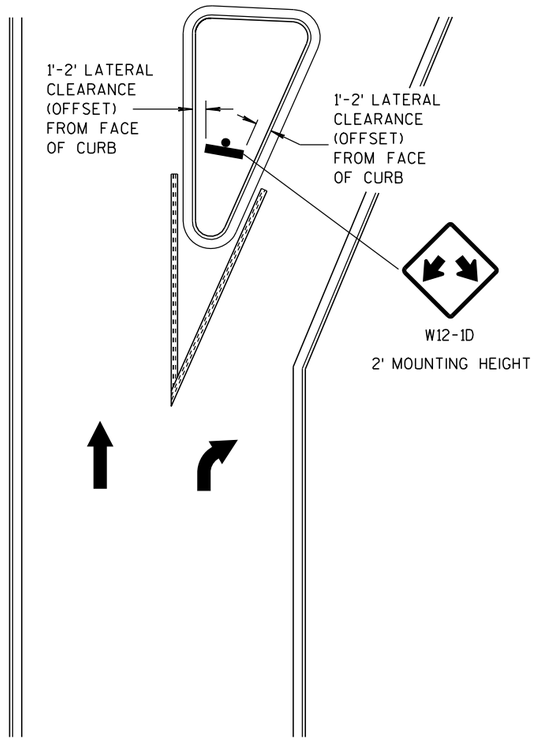
S.D.D. 15 C 24-2

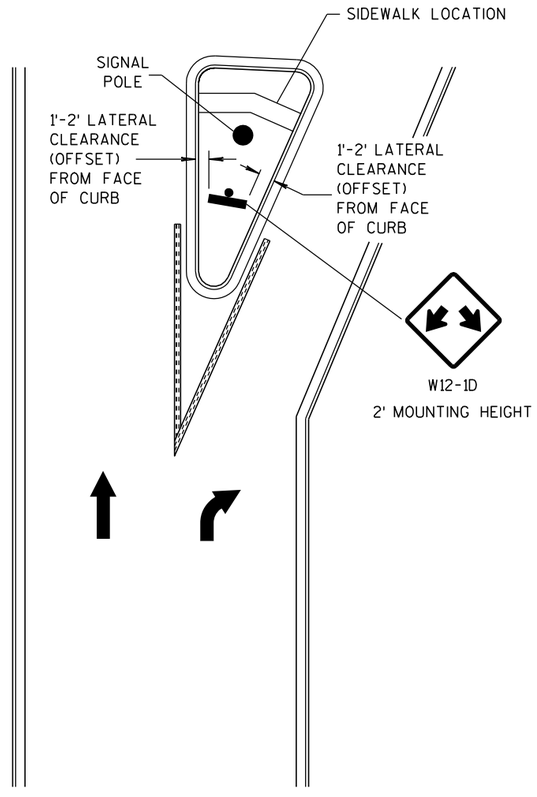
GENERAL NOTE

APPLIES TO ISLANDS AT LEFT TURNS AT ONE WAY ROADWAYS AS WELL.

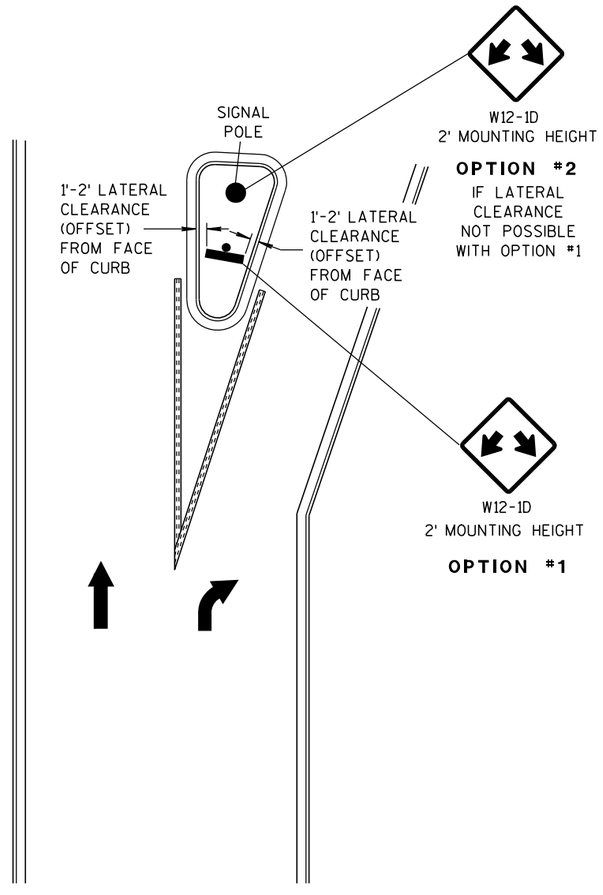
SEE MISCELLANEOUS QUANTITIES FOR SIGN SIZE.



LARGE RIGHT TURN ISLAND



LARGE RIGHT TURN ISLAND
WITH SIGNAL POLE



SMALL RIGHT TURN ISLAND

DOUBLE ARROW WARNING SIGN PLACEMENT

DOUBLE ARROW WARNING SIGN PLACEMENT	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
10-22-08 DATE	/S/ Thomas N. Nothem STATE TRAFFIC ENGINEER 509 IGN
FHWA	

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S.D.D. 15 C 27-1

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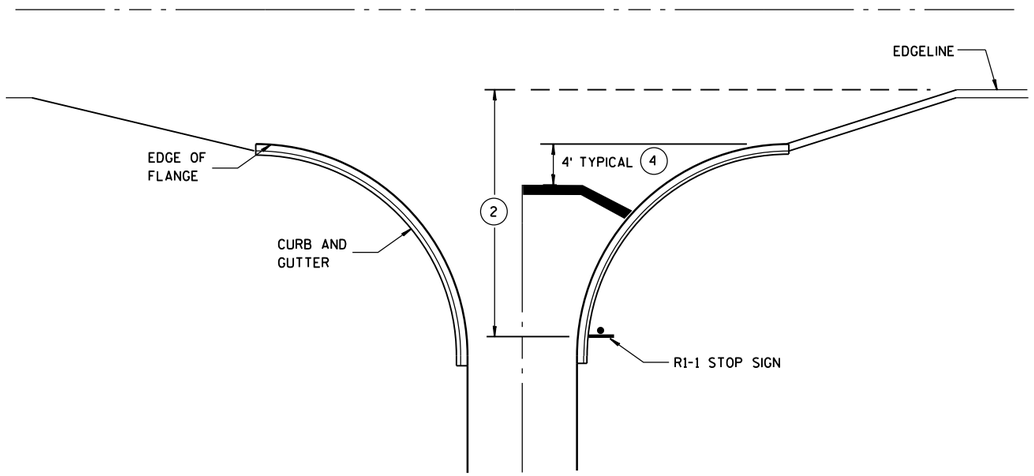
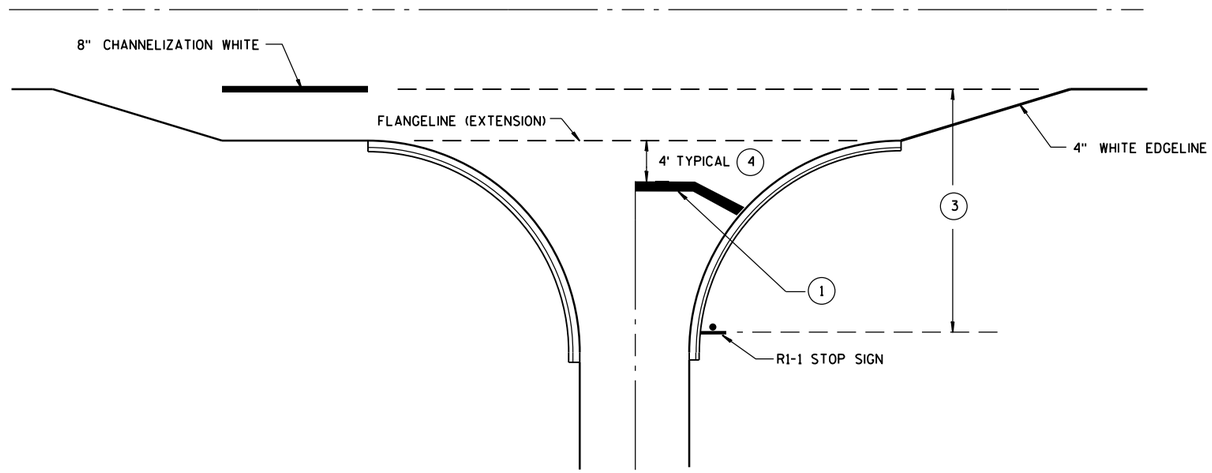
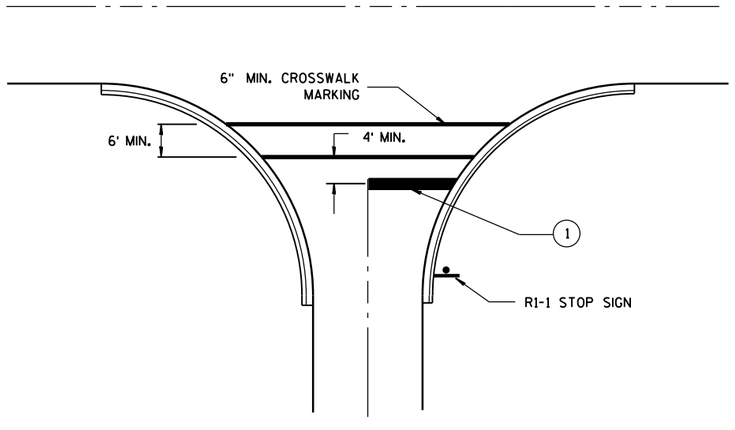
S.D.D. 15 C 27-1



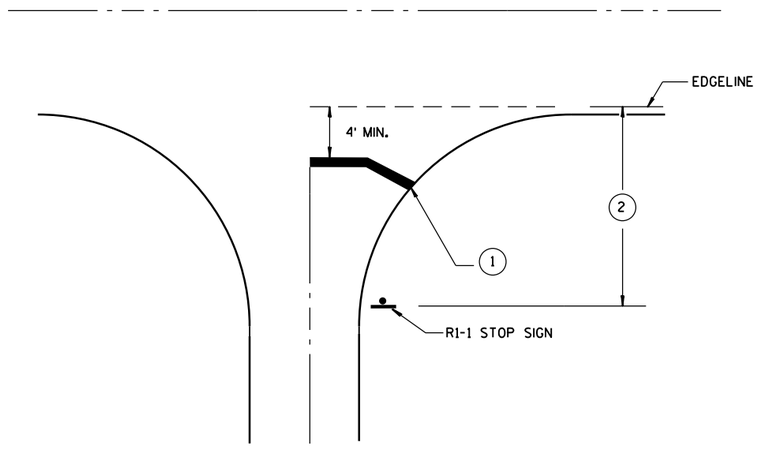
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



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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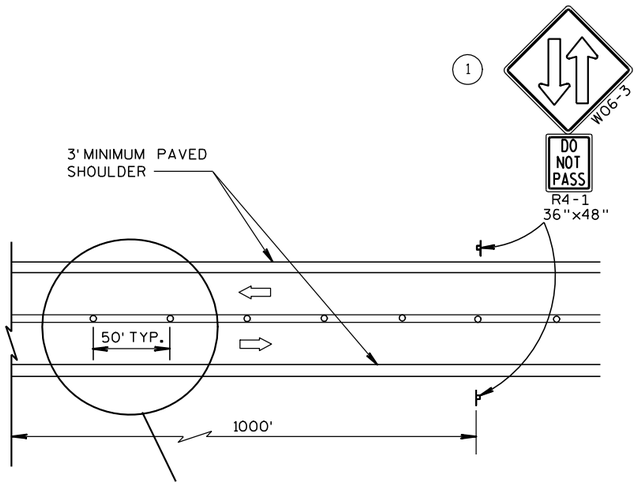
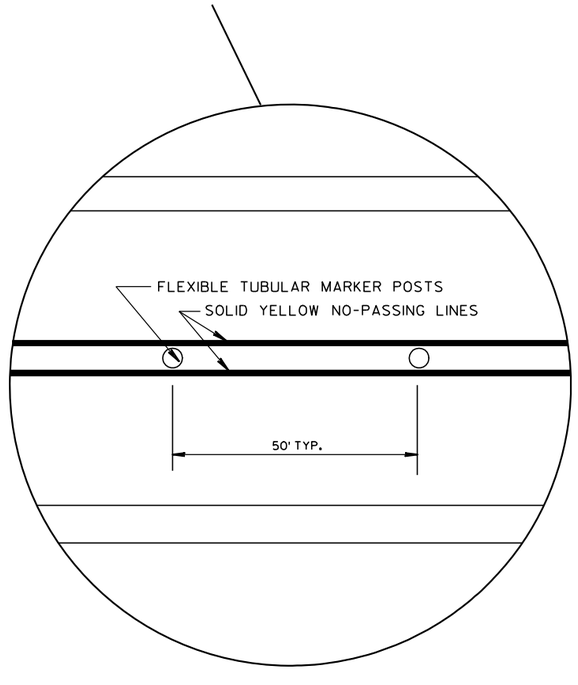
S.D.D. 15 C 33-1



TWO LANE, TWO WAY OPERATION



LEGEND

- POST WITH ATTACHED SIGN
- FLEXIBLE TUBULAR MARKER AND BASE
- DIRECTION OF TRAFFIC

GENERAL NOTES :

ALL SIGNS ARE 48"x48" UNLESS OTHERS NOTED.

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

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

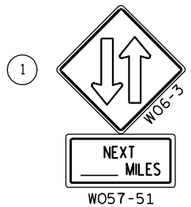
THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIRABLE) DISTANCE TO EXISTING SIGNS.

A SINGLE ROW OF FLEXIBLE TUBULAR MARKERS ON CENTERLINE EXTEND FOR THE ENTIRE LENGTH OF TWO-WAY TRAFFIC @ 50' SPACING.

COVER EXISTING CENTERLINE STRIPE WITH TEMPORARY PAVEMENT MARKING, 4-INCH DOUBLE YELLOW.

R2-1
48"x60"
(BLACK AND WHITE)

IF THE REGULATORY SPEED HAS BEEN REDUCED, A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. THERE SHOULD **BE A SPEED LIMIT SIGN INCORPORATED A MINIMUM OF EVERY** 2 OR 3 MILES.



W057-51
48"x24"

R4-1
36"x48"

THE W06-3 WITH THE W057-51 SHALL BE LOCATED 200' BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP AND/OR 500' BEYOND ANY SIDEROAD. THE W06-3 WITH THE R4-1 SHALL BE LOCATED 1000' BEYOND THE W06-3 AND THE W057-51 AND THE SIGNS SHALL BE ALTERNATED WITH ONE MILE INTERVALS BETWEEN W06-3 SIGNS.

TRAFFIC CONTROL, TWO LANE TWO WAY OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
12-4-95
DATE
/S/ Chester J. [illegible]
DIRECTOR, OFFICE OF 511
FHWA

6

S.D.D. 15 D 6-2

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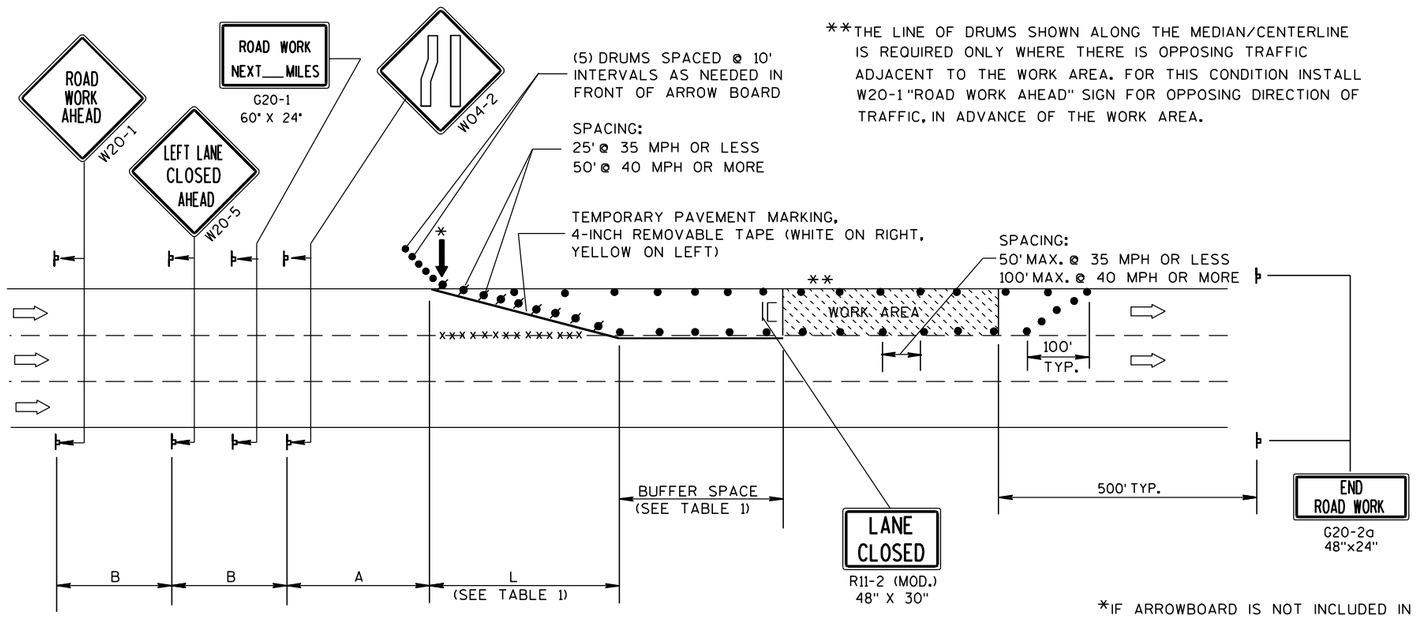
S.D.D. 15 D 6-2



**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"

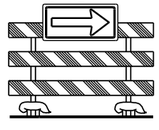


TABLE 1
TAPER AND BUFFER SPACE FOR 12' LANE WIDTH

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

- DRUM WITH/WITHOUT WARNING LIGHT, TYPE C (STEADY-BURN)
- POST MOUNTED SIGN
- ARROW BOARD
- TYPE III BARRICADE (8' EQUIVALENT) AND WARNING LIGHTS, TYPE A (FLASHING) WITH/WITHOUT SIGN
- DIRECTION OF TRAFFIC FLOW
- xxxx REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)

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 7 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

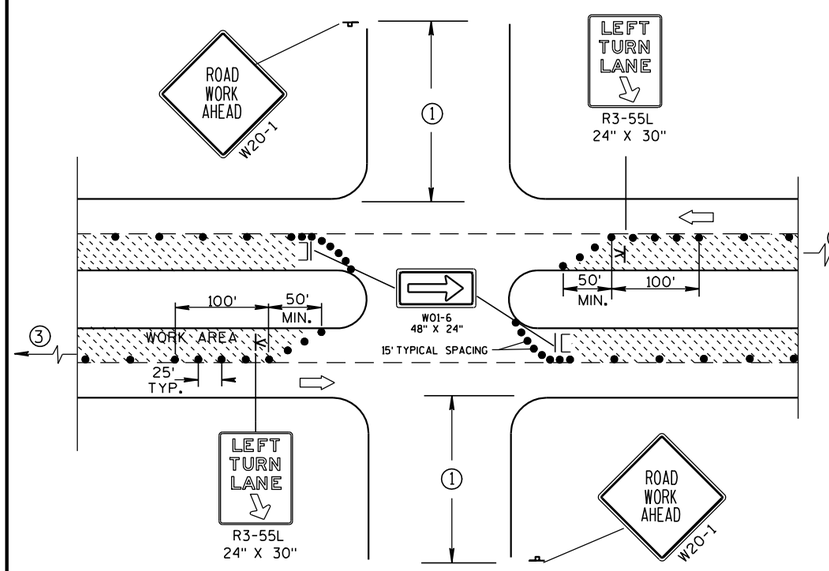
5/23/00
DATE

/S/ Chester J. [illegible]
CHIEF SIGNS AND MARKINGS ENGINEER

FHWA

6

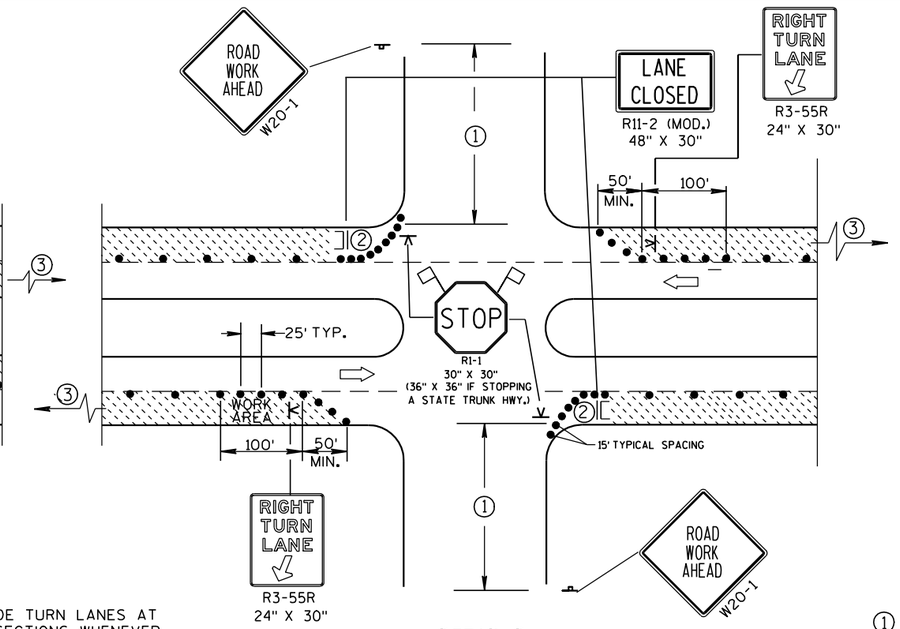
S.D.D. 15 D 20-1



DETAIL A

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING

PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.



DETAIL B

FOR RIGHT LANE CLOSURE AT INTERSECTION

GENERAL NOTES

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

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"×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.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

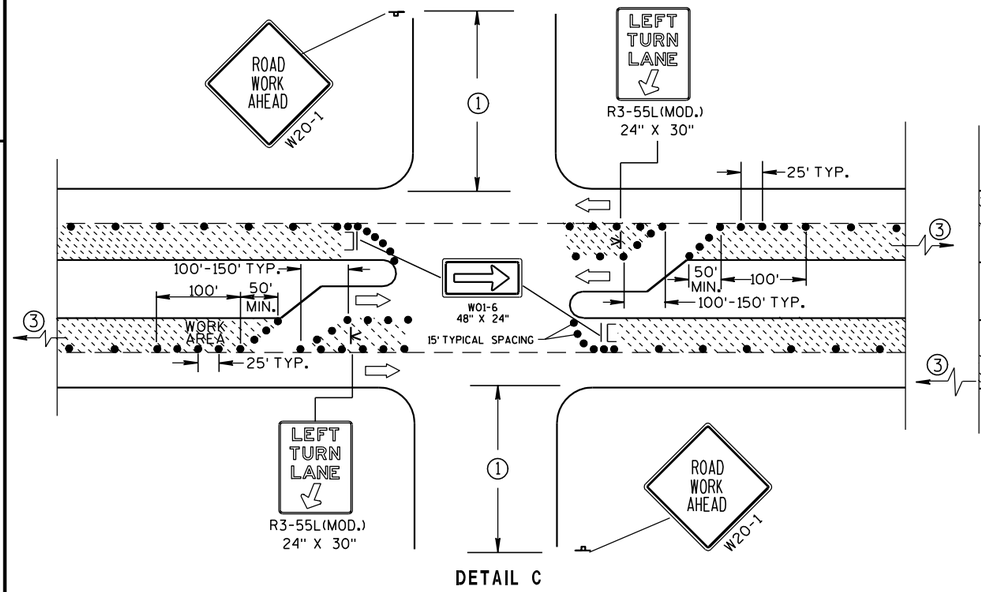
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

① 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35-40 MPH.
200' IF 25-30 MPH.

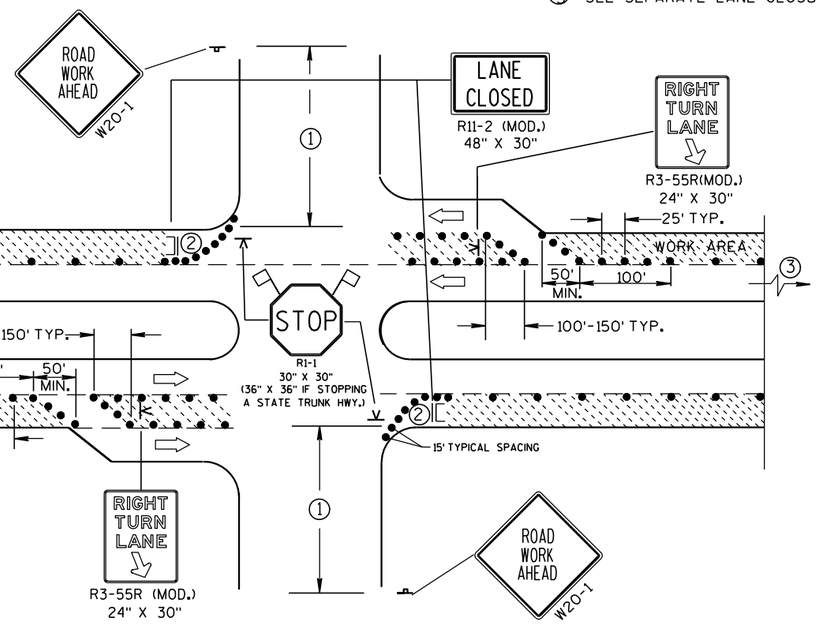
② ALSO USE BARRICADE AND 15' TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS.

③ SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.



DETAIL C

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING (WITH LEFT TURN BAY OPEN)



DETAIL D

FOR RIGHT LANE CLOSURE AT INTERSECTION (WITH RIGHT TURN BAY OPEN)

LEGEND

- DRUM
- POST MOUNTED SIGN
- SIGN ON PORTABLE SUPPORT (5' MIN. MOUNTING HEIGHT)
- TYPE III BARRICADE (8' EQUIVALENT) AND WARNING LIGHT, TYPE A (FLASHING) WITH SIGN
- DIRECTION OF TRAFFIC FLOW
- FLAGS, 16" X 16" MIN., ORANGE

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5/23/00 — DATE

/S/ Chester J. Spang — CHIEF SIGNS AND MARKINGS ENGINEER

FHWA

6

S.D.D. 15 D 21-1
S.D.D. 15 D 21-1

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.

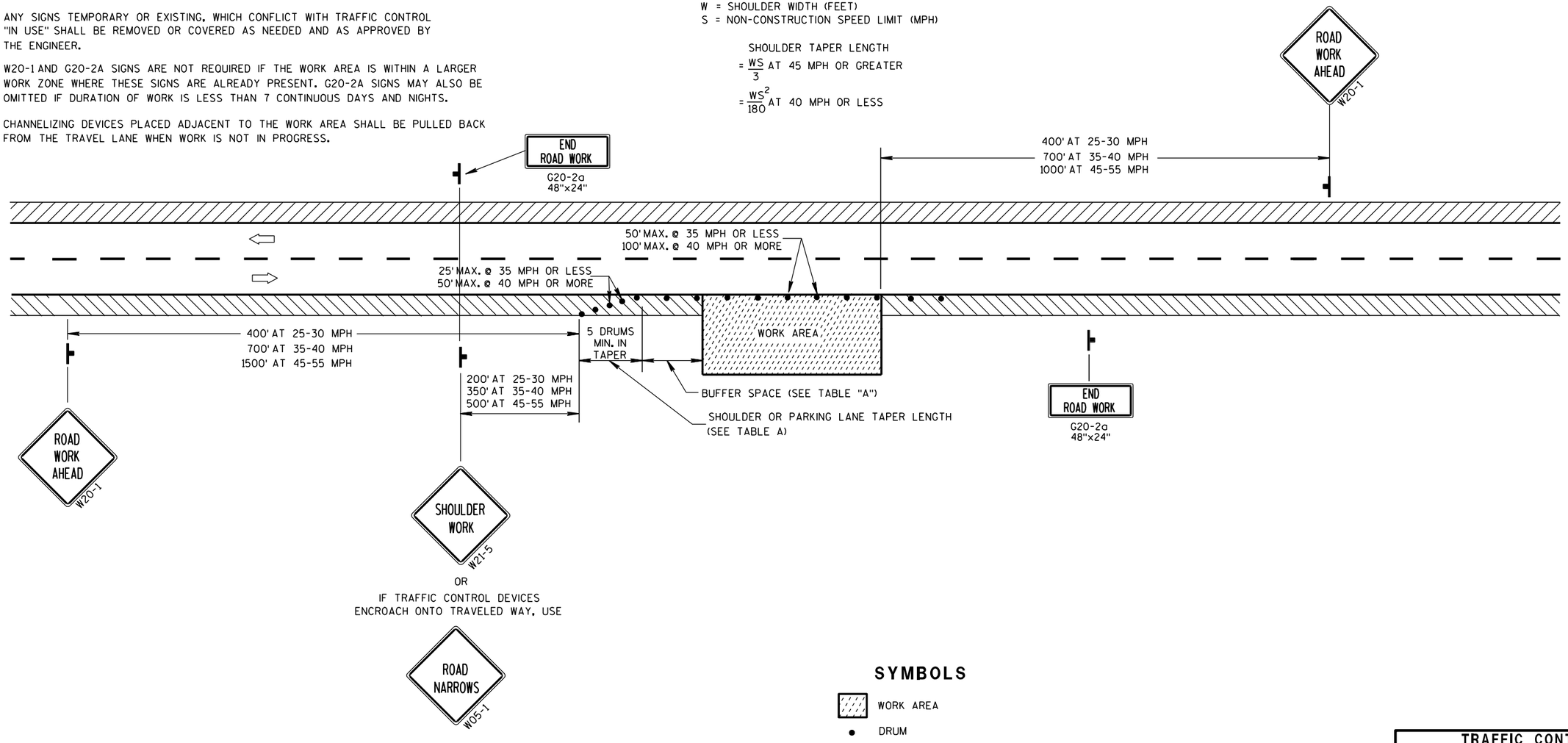
CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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
$= \frac{WS}{3}$ AT 45 MPH OR GREATER
$= \frac{WS^2}{180}$ AT 40 MPH OR LESS



SYMBOLS

- WORK AREA
- DRUM
- POST MOUNTED SIGN
- DIRECTION OF TRAFFIC FLOW

TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

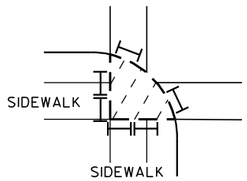
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

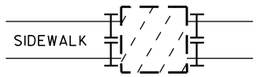
APPROVED
5/23/00 DATE
/S/ Chester J. [illegible]
CHIEF SIGNS AND MARK[illegible] ENGINEER
FHWA

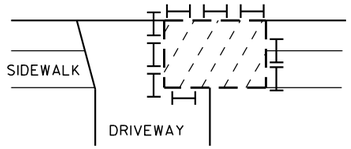
6

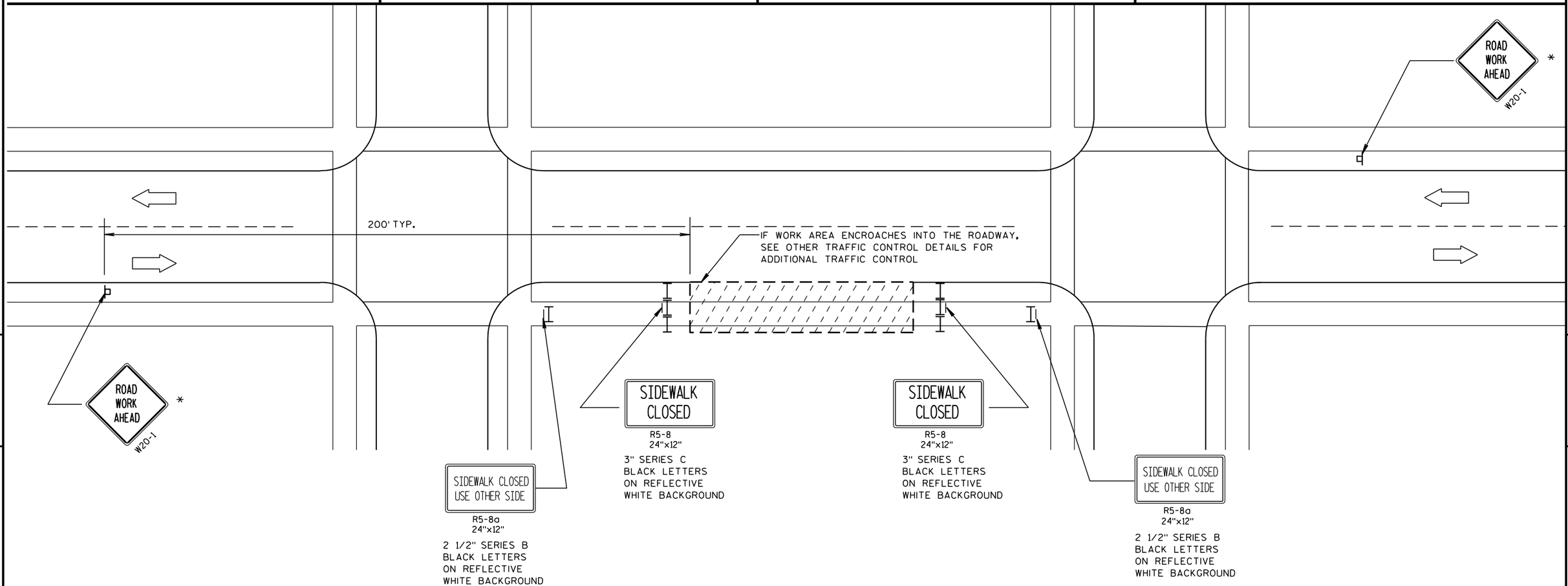
S.D.D. 15 D 28-1

WARNING OF LOCALIZED SIDEWALK WORK AREAS









LEGEND

- POST MOUNTED SIGN
- TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW-INTENSITY FLASHING)
- WORK AREA
- DIRECTION OF TRAFFIC FLOW

GENERAL NOTES :

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"x36" SIGNS MAY BE USED INSTEAD OF 48"x48" SIGNS, IF APPROVED BY DISTRICT TRAFFIC UNIT.

THE EXACT LOCATION AND PLACEMENT OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS.

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

* "ROAD WORK AHEAD" SIGNS ARE NOT REQUIRED IF THE SIDEWALK CLOSURE OCCURS WITHIN A LARGER WORK ZONE WHERE ADVANCE WARNING SIGNS ARE ALREADY PRESENT, OR IF THE WORK AREA AND EQUIPMENT ARE MORE THAN 2 FEET BEHIND THE CURB.

WARNING SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

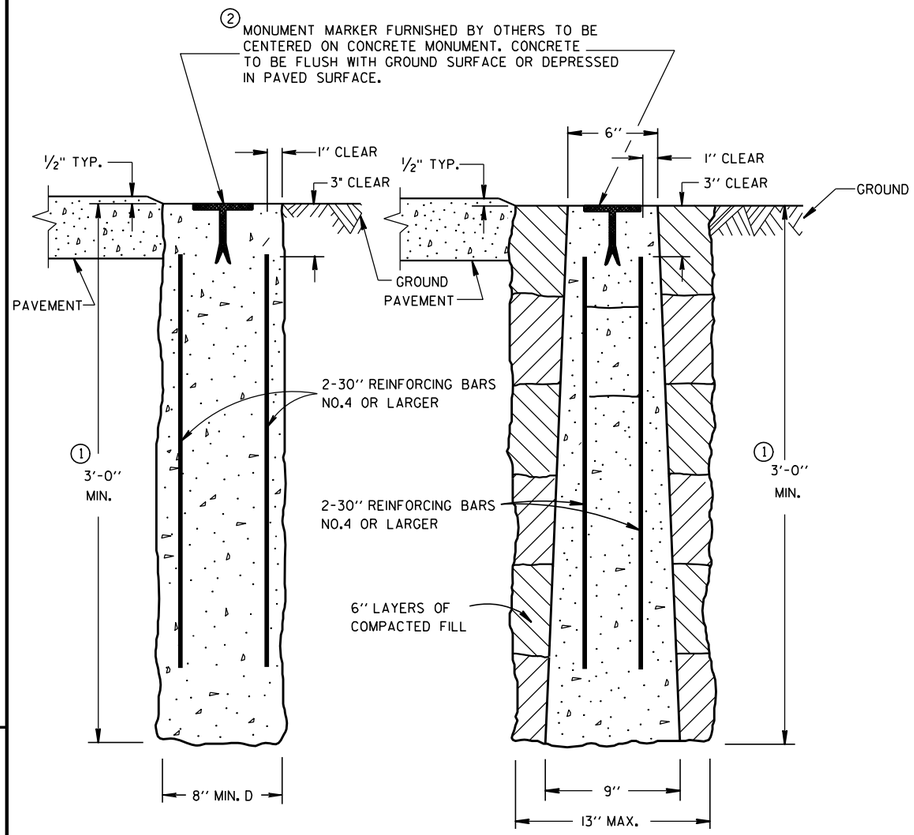
TRAFFIC CONTROL, SIDEWALK CLOSURE

TRAFFIC CONTROL, SIDEWALK CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/23/2000 DATE
/S/ Chester J. [illegible]
CHIEF SIGNS AND MARK[illegible] ENGINEER
FHWA

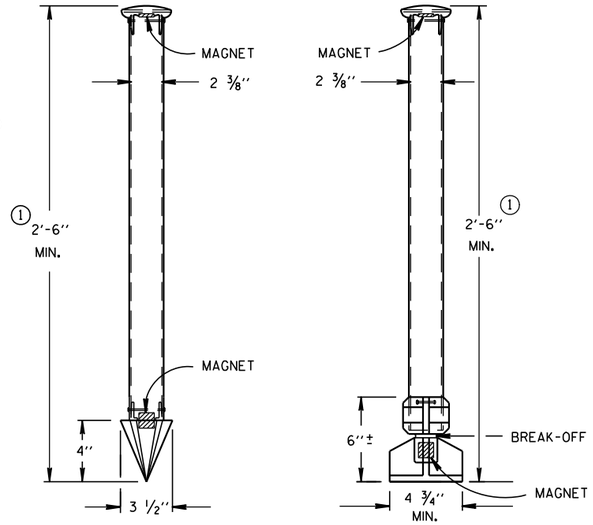
6
S.D.D. 15 D 30-1



CAST-IN-PLACE PRECAST

CONCRETE MONUMENTS

TYPE A

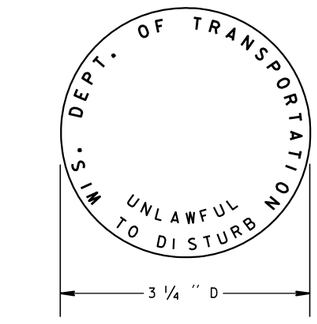


TYPE C DRIVE-IN MONUMENT

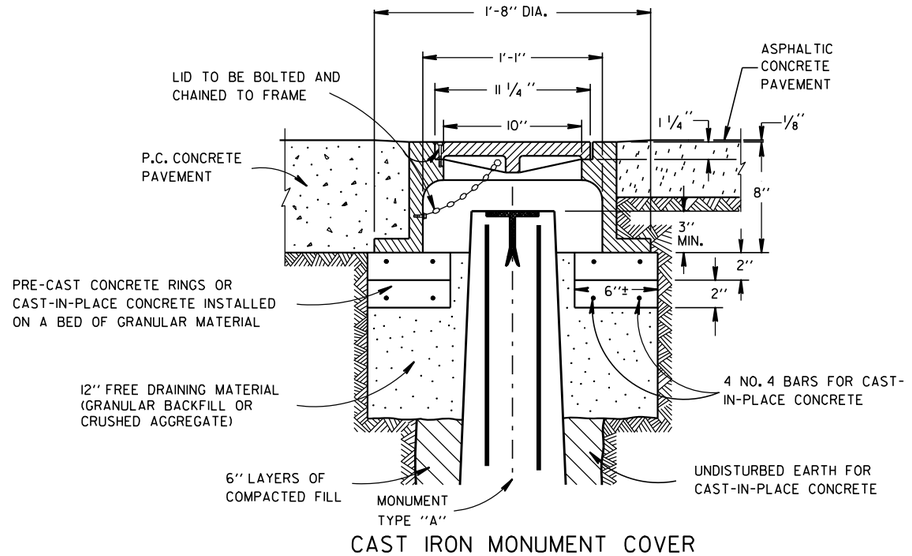
TYPE D BREAK-OFF MONUMENT

ALUMINUM MONUMENTS

(INCLUDES MARKER)



② WIS DOT MONUMENT MARKER LOGO FOR TYPES "A", "C" & "D"



CAST IRON MONUMENT COVER

(APPROXIMATE WEIGHT - 95 LBS.)

GENERAL NOTES

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

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.

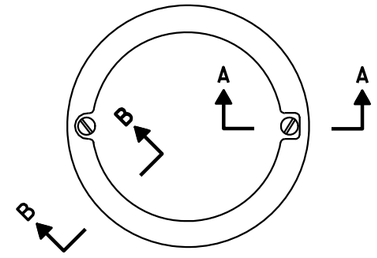
ALUMINUM MONUMENTS AND MONUMENT COVERS SHALL BE MADE FROM AN ALUMINUM AND MAGNESIUM ALLOY AS DETERMINED BY THE MANUFACTURER.

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.

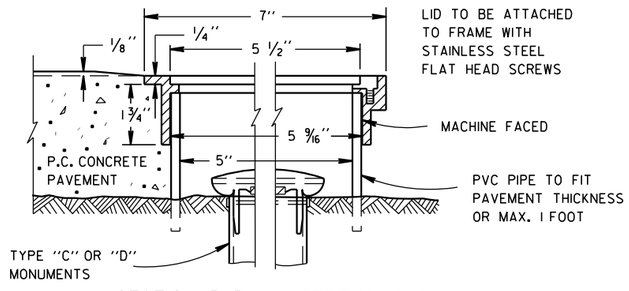
MONUMENT SHALL BE CAST-IN-PLACE CONCRETE UNLESS PRECAST CONCRETE OR ALUMINUM MONUMENTS ARE SPECIFIED IN THE CONTRACT OR PERMITTED BY THE ENGINEER.

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



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

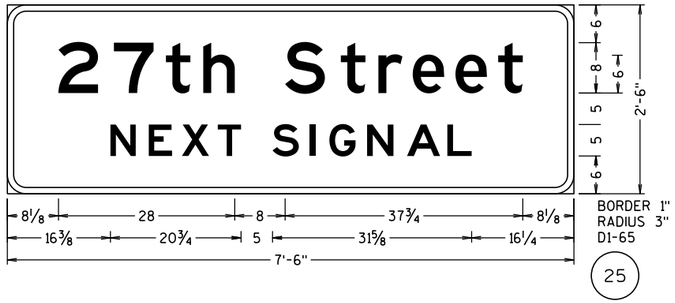
9/22/1999 DATE

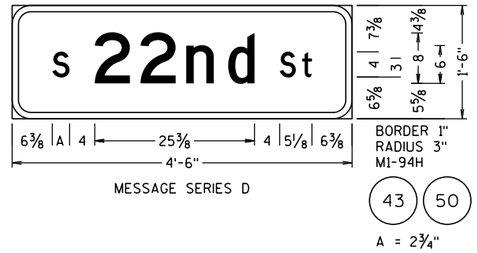
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER

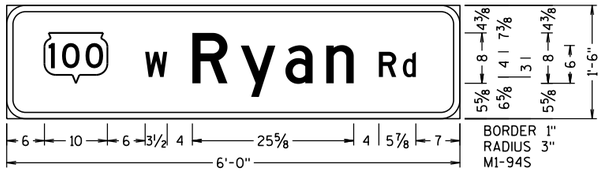
FHWA

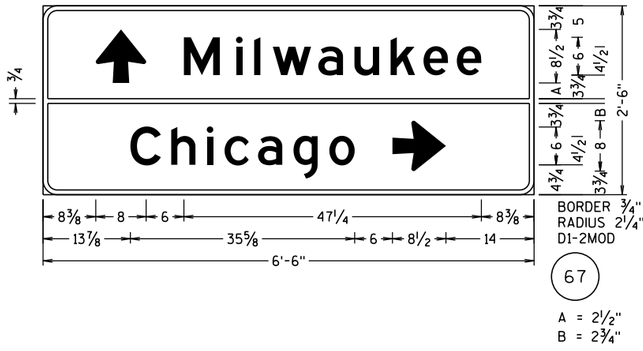
6

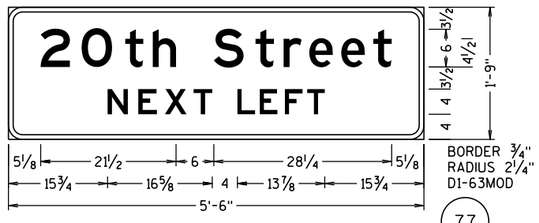
S.D.D. 16 A 1-6

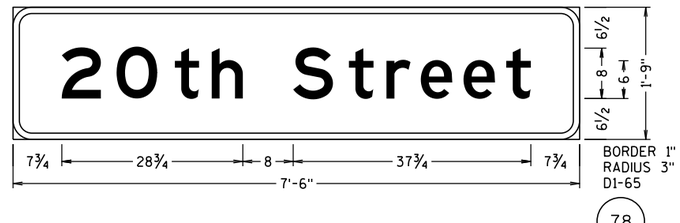












GENERAL NOTES:

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"

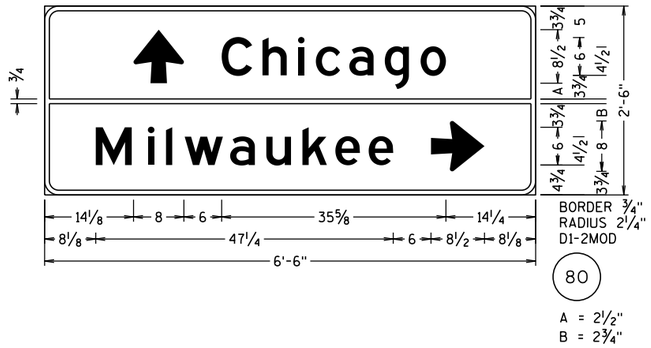
7. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET SHALL HAVE "TYPE A" OR "TYPE C" ARROWS AS SHOWN. SEE THE STANDARD SIGN PLATES FOR FURTHER DETAILS.

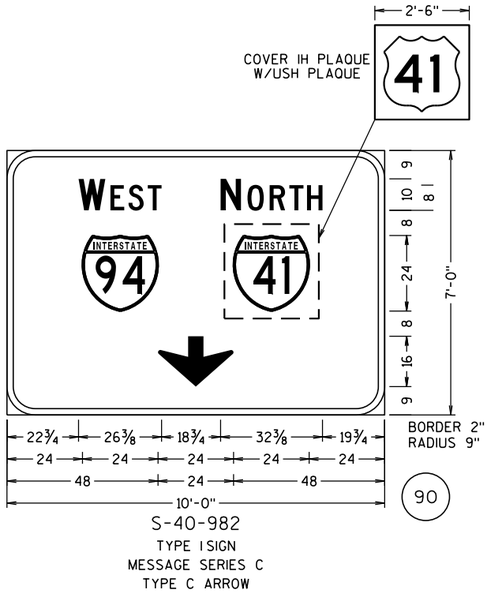
8. SEE THE STANDARD SIGN PLATES FOR FURTHER DETAILS ON ROUTE MARKER SHIELDS.

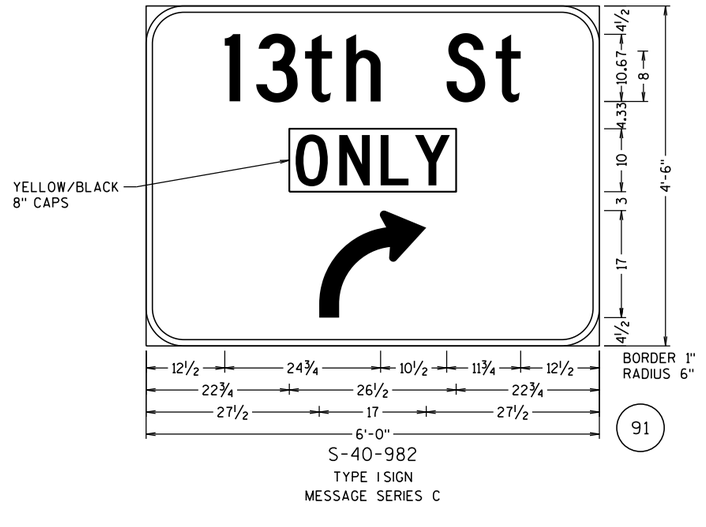
9. THE SIGN NUMBER IS DENOTED IN THE CIRCLE NEAR EACH DETAIL.

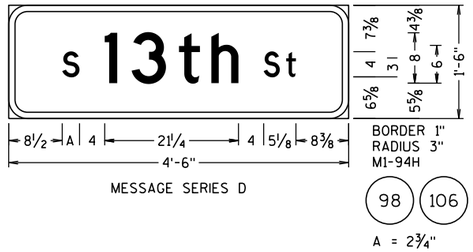
10. NUMBER FRACTIONS FOR INTERCHANGE SEQUENCE SIGNS SHALL BE SERIES "E" PER PLATES A11-7 AND A11-10

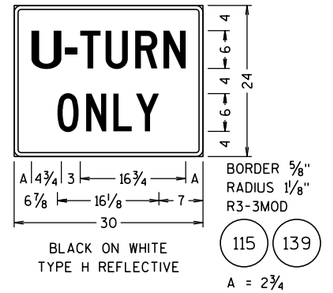
11. DO NOT SCALE.

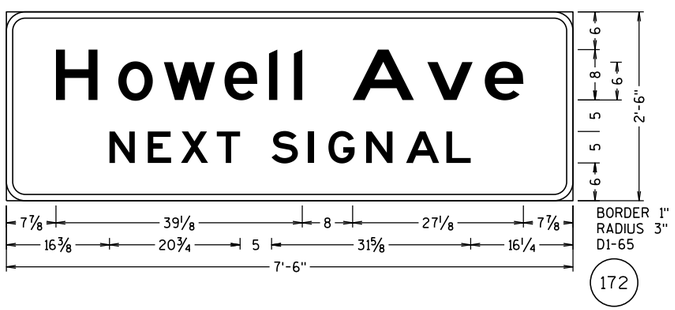


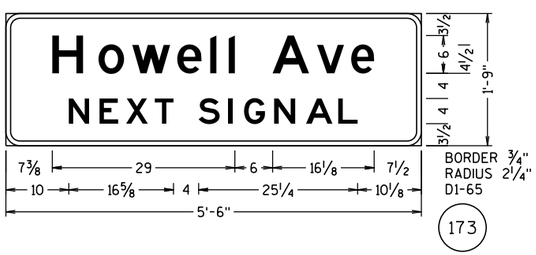












GENERAL NOTES:

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.

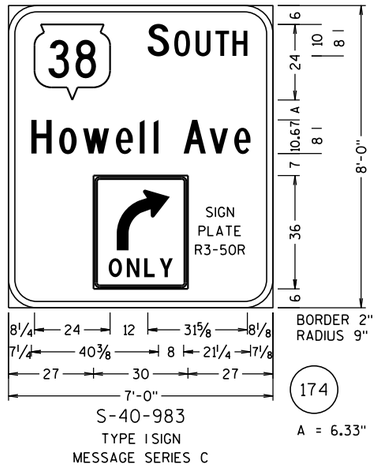
8. SEE THE STANDARD SIGN PLATES FOR FURTHER DETAILS ON ROUTE MARKER SHIELDS.

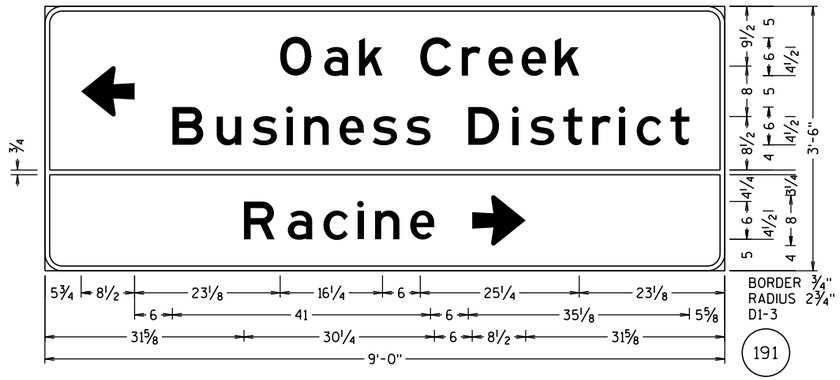
9. THE SIGN NUMBER IS DENOTED IN THE CIRCLE NEAR EACH DETAIL.

10. NUMBER FRACTIONS FOR INTERCHANGE SEQUENCE SIGNS SHALL BE SERIES "E" PER PLATES A11-7 AND A11-10

11. DO NOT SCALE.

PROJECT NO: 2040-16-70	HWY: STH 100	COUNTY: MILWAUKEE	SIGNING DETAIL - TYPE I & II SIGNS	SCALE: 0 1/2" 1"	SHEET 518	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".
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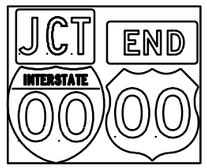
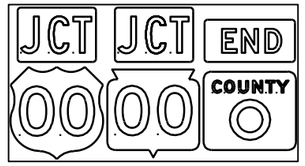
7. UNLESS OTHERWISE NOTED, ALL SIGNS SHOWN ON THIS SHEET SHALL HAVE "TYPE A" OR "TYPE C" ARROWS AS SHOWN. SEE THE STANDARD SIGN PLATES FOR FURTHER DETAILS.
8. SEE THE STANDARD SIGN PLATES FOR FURTHER DETAILS ON ROUTE MARKER SHIELDS.
9. THE SIGN NUMBER IS DENOTED IN THE CIRCLE NEAR EACH DETAIL.
10. NUMBER FRACTIONS FOR INTERCHANGE SEQUENCE SIGNS SHALL BE SERIES "E" PER PLATES A11-7 AND A11-10
11. DO NOT SCALE.

TYPICAL ASSEMBLIES

J1-1

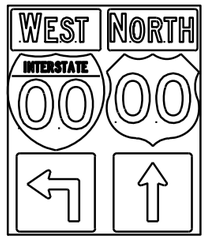


J1-2

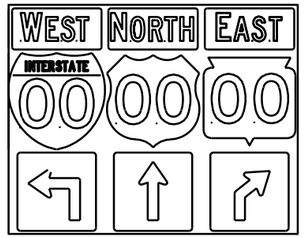


J1-3

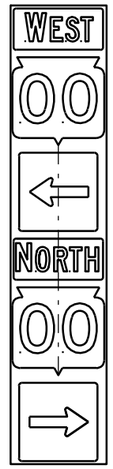
J2-1



J2-2

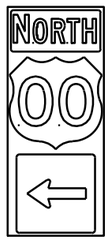


J2-3

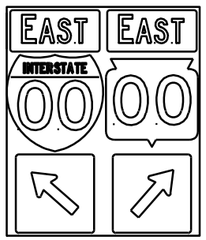


JV

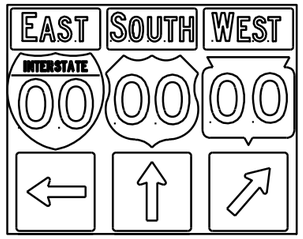
(Typical Vertical J-Assembly
See Note 10 and 11)



J3-1

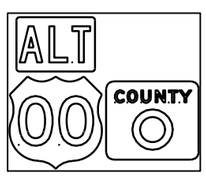


J3-2

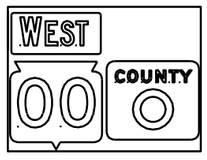


J3-3

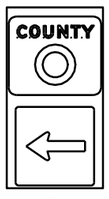
J4-1



J4-2



J4-2



J13-1

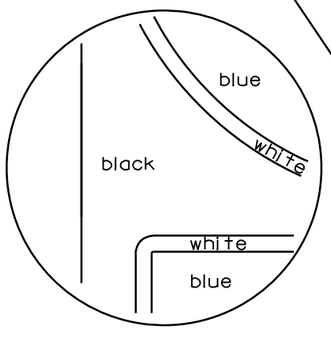
J12-1

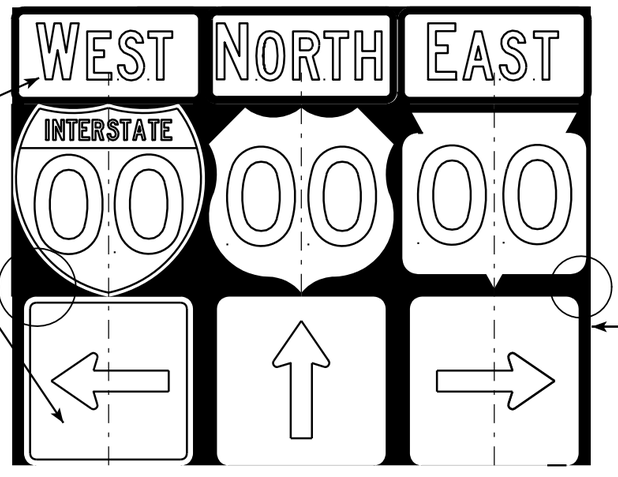
J32-1

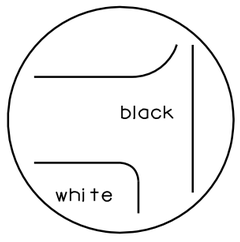
J33-1

J23-1

J22-1







[black background]

NOTES

1. Signs are Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Black Non-reflective
   Message - see Note 5
3. Message Series - See Note 5
4. Corners shall be square or rounded if base material is plywood. If base material is metal the corners shall be rounded.
5. The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
6. Certain marker heads require the component pieces to be the same color. As an example, all the components used with an M1-1 interstate marker shall be blue.
7. Single panel j-assemblies shall only be used with route marker shields that are same size. If the route marker shields are different size use multiple piece component.
8. Route assemblies that have 24 inch route shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have one horizontal splice between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 inches or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
9. Route assemblies that have 36 inch shields and have dimensions greater than 48 inchs (both vertical and horizontal) shall have two horizontal splices. One horizontal splice shall be between the cardinal direction and route shields and the other horizontal splice shall be between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
10. All Vertical J Assemblies are given a Sign Code of JV
11. For JV Assemblies that have a mixture of interstate and non interstate shields, arrows and cardinals shall be white on blue.

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

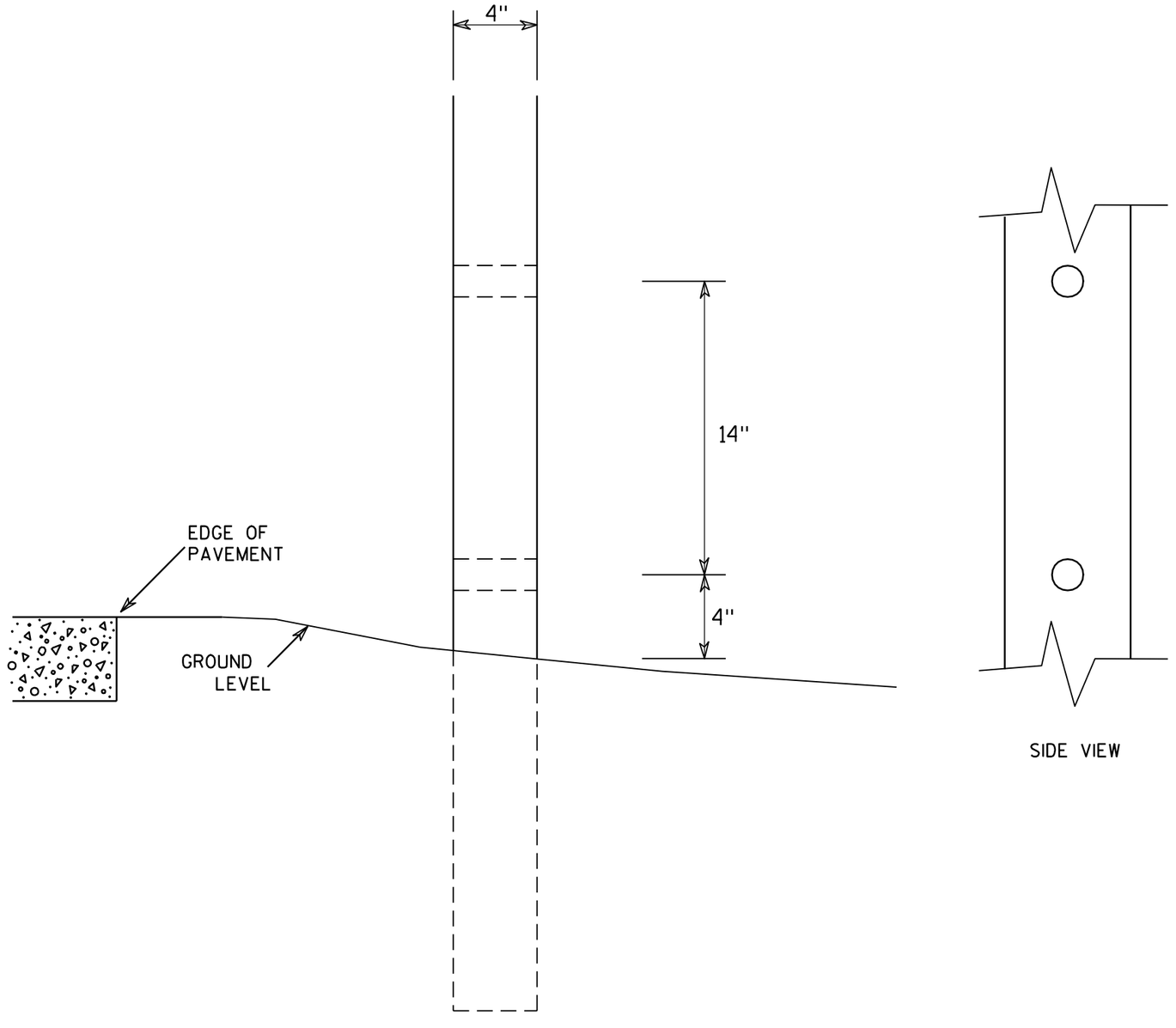
DATE 3/25/13 PLATE NO. A2-1S.7

7

7

PROJECT NO:

SHEET NO: 520 E



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

4 X 6 WOOD POST MODIFICATIONS

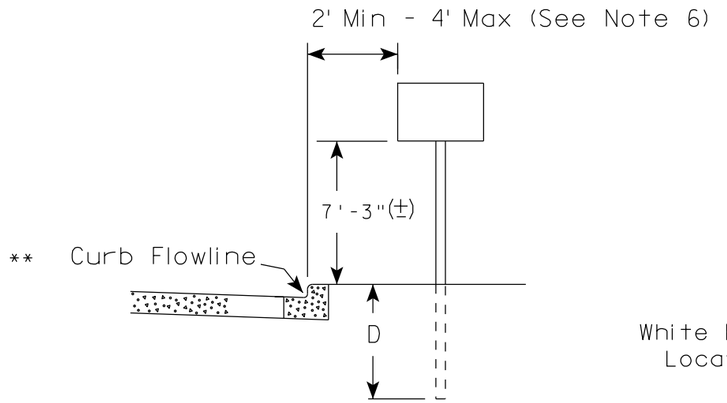
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

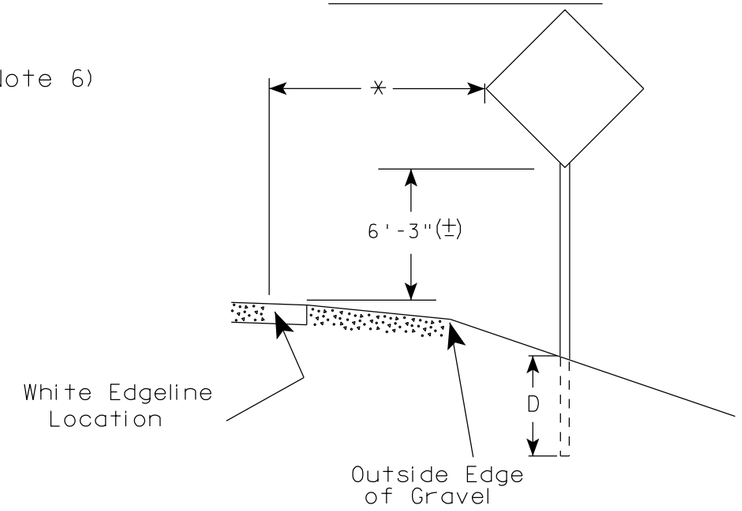
DATE 3/27/97 PLATE NO. A4-11.2

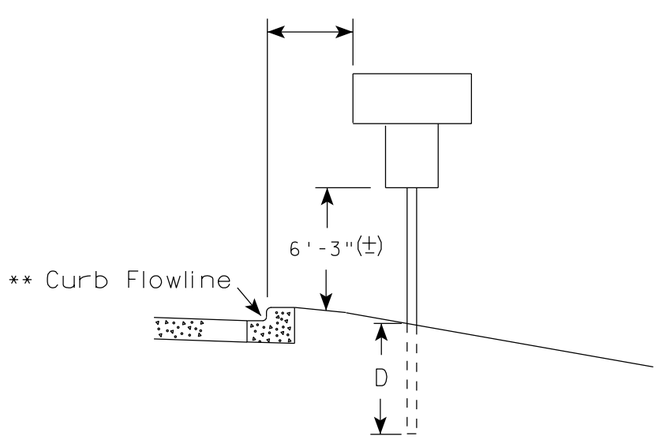
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 521	E

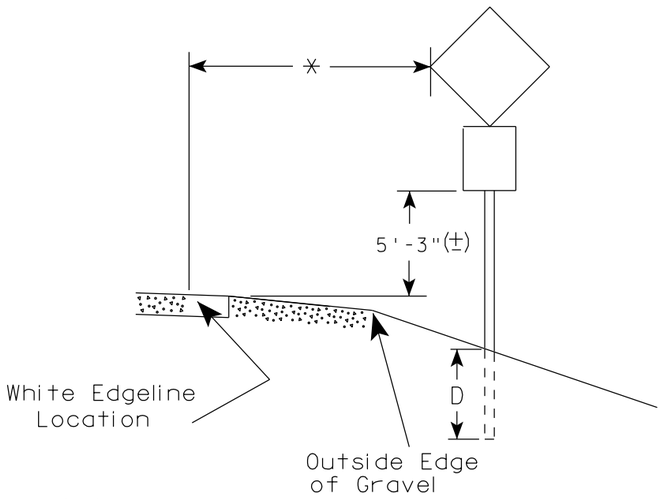
URBAN AREA



RURAL AREA (See Note 2)







** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

GENERAL NOTES

1. Signs wider than 4 feet, 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for J assemblies (A4-5) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding stop signs (R1-1F) shall be mounted at a height of 5'-3" (±) or as directed by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series) & End of Rod Markers (W5-56 & W5-56A) shall be mounted at a height of 4'-3" (+).

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

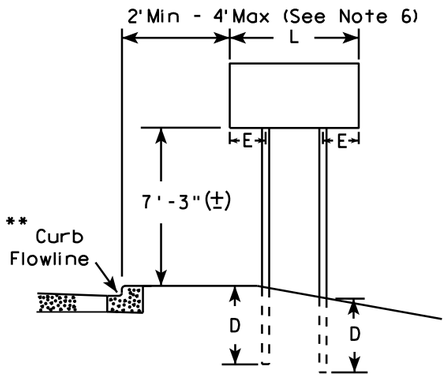
APPROVED Matthew R Rauch
for State Traffic Engineer

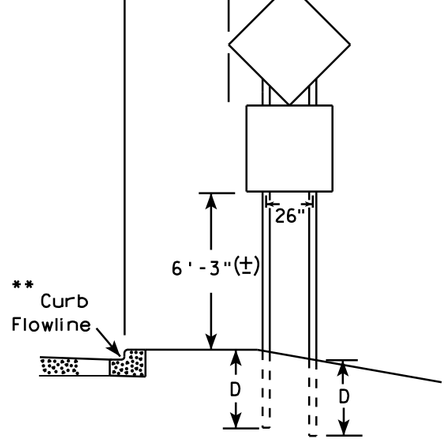
DATE 9/30/13 PLATE NO. A4-3.18

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A43.DGN PLOT DATE : 30-SEP-2013 13:25 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 99.237937:1.000000 WISDOT/CADDS SHEET 42

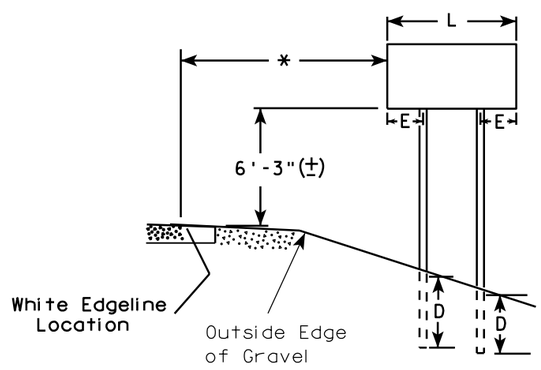
URBAN AREA

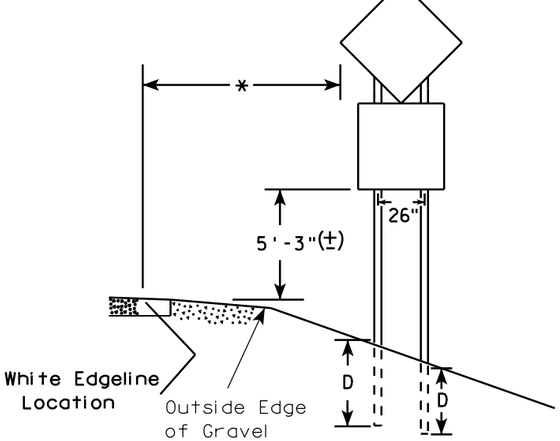




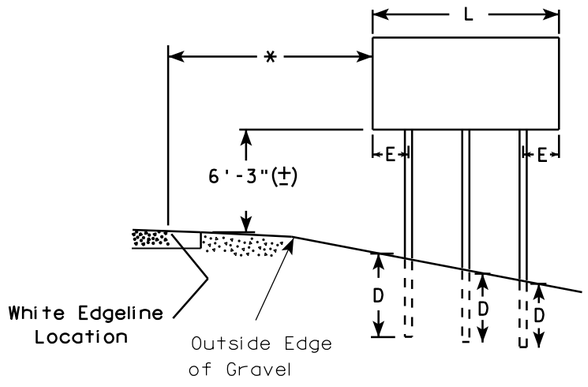
48" DIAMOND WARNING SIGN

RURAL AREA (See Note 3)





48" DIAMOND WARNING SIGN



GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. Minimum mounting height for J assemblies (A4-5) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding stop signs (R1-1F) shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series) & End of Road Markers (W5-56 & W5-56A) shall be mounted at a height of 4"-3" (±).

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

*** See A4-3 sign plate for signs 4' or less in width or 20 S.F. or less in area.

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
*** Greater than 48" Less than 60"	12"
60" to 120"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 120" less than 168"	12"

SIGN SHAPE OTHER THAN DIAMOND (FOUR POSTS REQUIRED)	
L	E
168" and greater	12"

POST EMBEDMENT DEPTH

Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

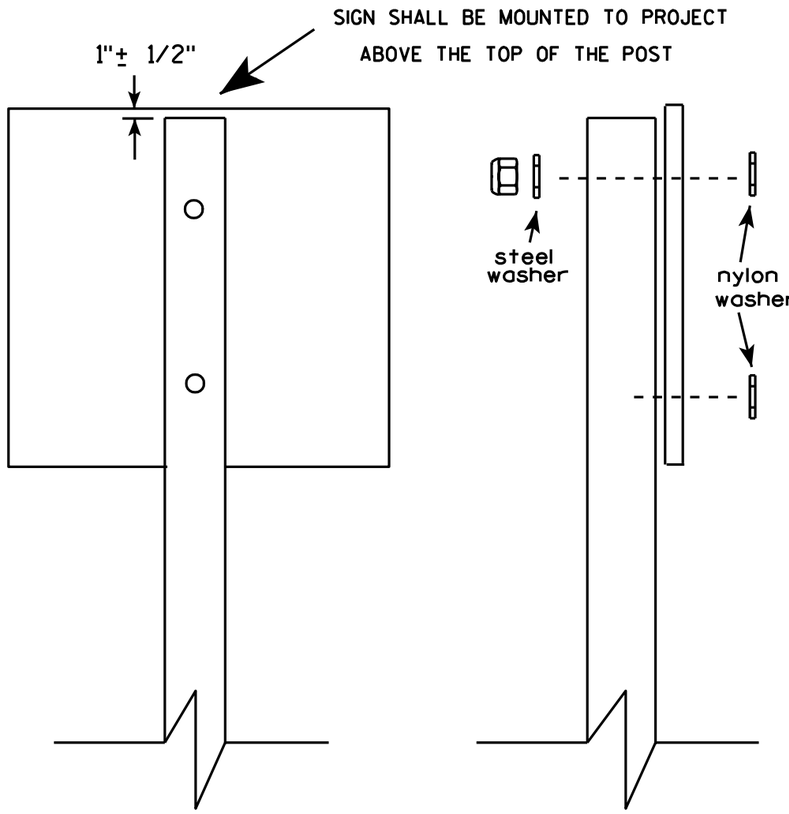
WISCONSIN DEPT OF TRANSPORTATION

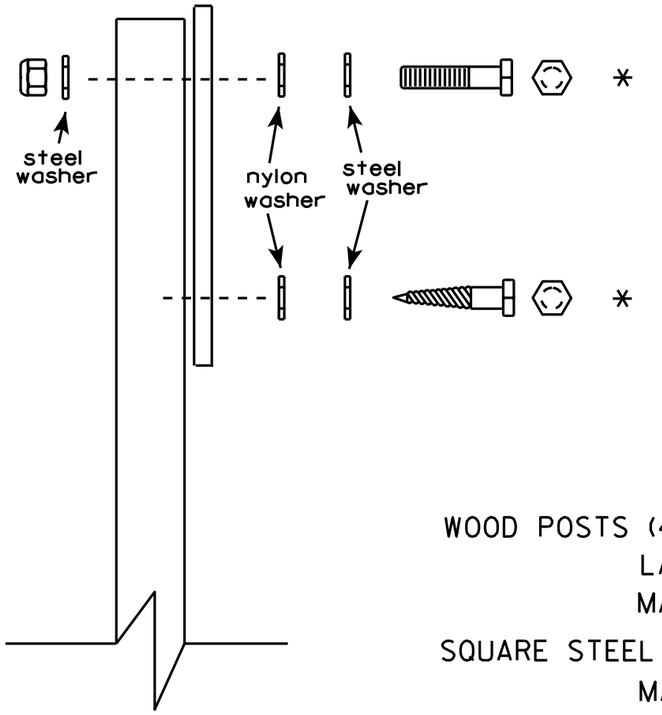
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/30/13 PLATE NO. A4-4 12 523

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A44.DGN PLOT DATE : 30-SEP-2013 13:27 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 107.021305:1.000000





Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

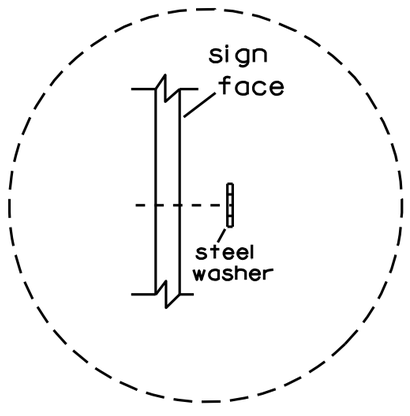
a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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

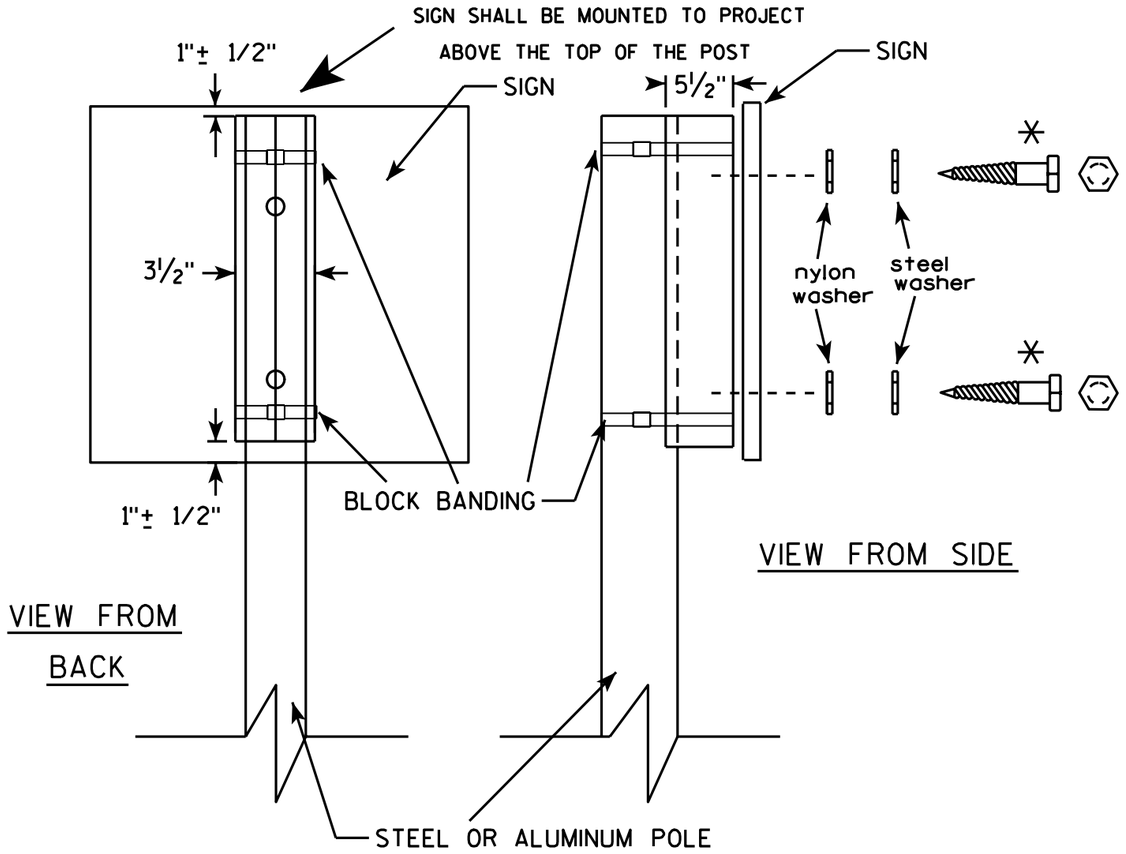
DATE 3/23/10 PLATE NO. A4-8.7

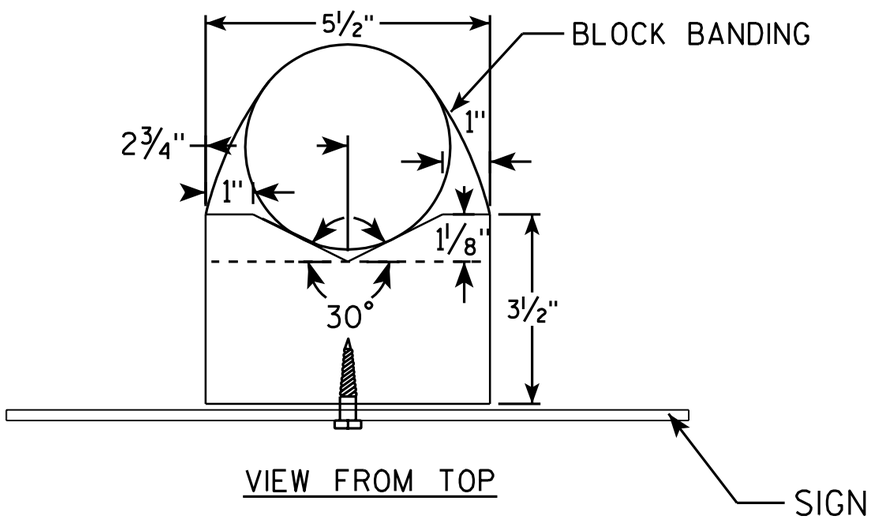
7

7

PROJECT NO:

SHEET NO: 524 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

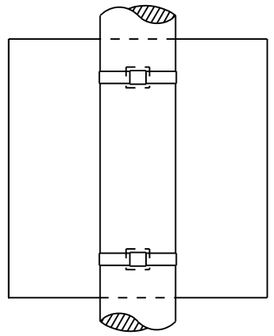
PROJECT NO: | SHEET NO: 525 | E

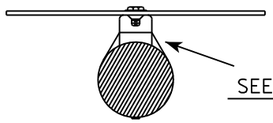
FILE NAME : C:\Users\Projects\tr_stdplate\A510.dgn PLOT DATE : 06-AUG-2007 13:37 PLOT BY : ditjph

WISDOT/CADDS SHEET 42

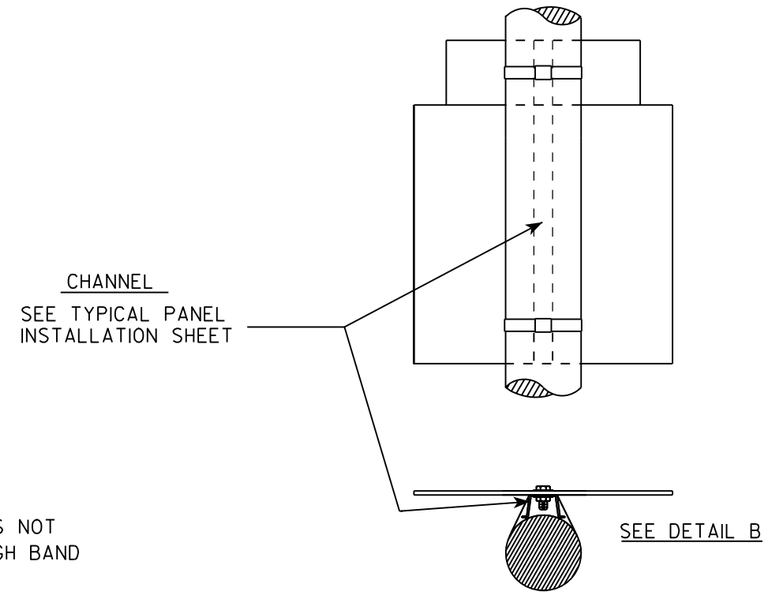
BANDING

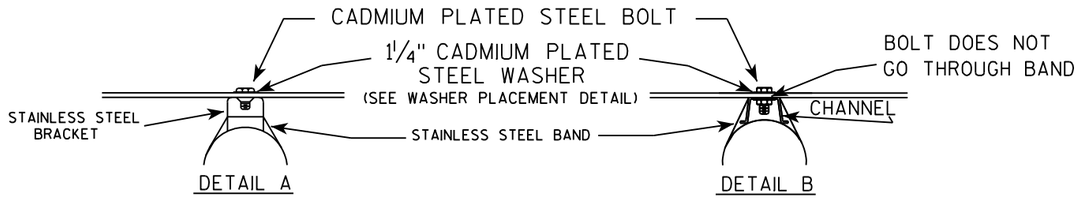
SINGLE SIGN



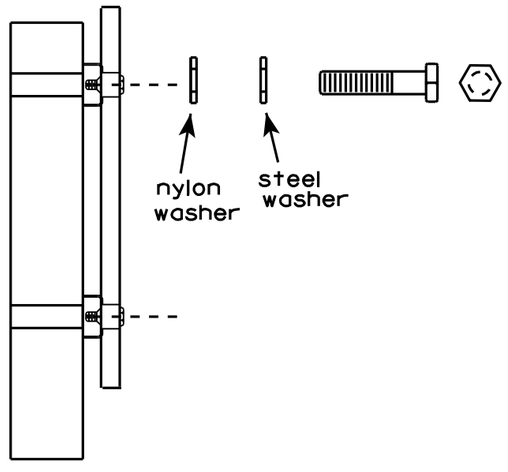


"J" ASSEMBLY





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.

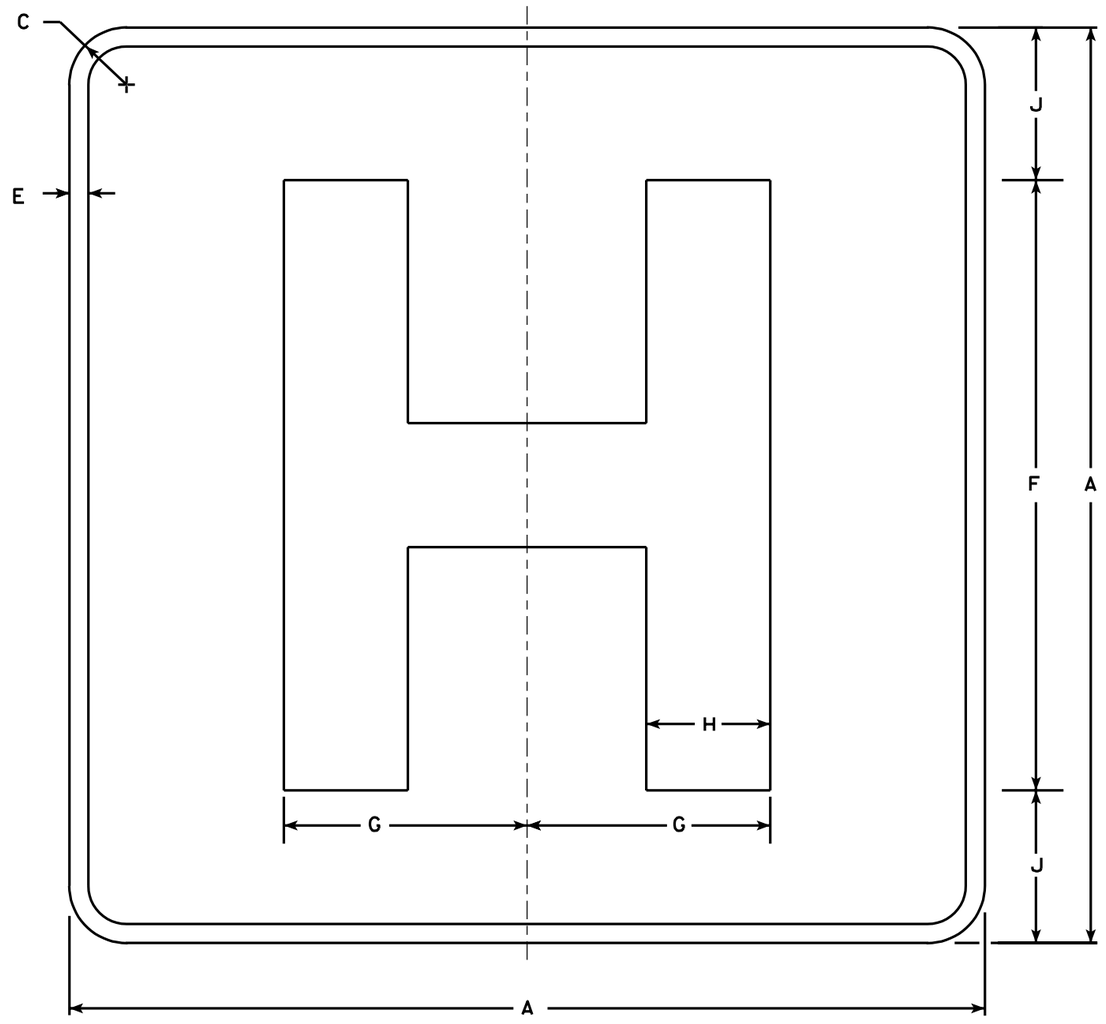
STANDARD SIGN
SIGN BANDING DETAILS

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: 526	E



D9-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Blue
   Message - White - Type H Reflective
3. Message Series - E Modified
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

Metric equivalent for this sign is:

SIZE	
1	450 mmX 450 mm
2	600 mmX 600 mm
3	900 mmX 900 mm
4	X
5	X

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18		1 1/8		1/2	12	4 3/4	2 3/8		3																	4.0
2	24		1 1/2		1/2	16	6 3/8	3 1/4		4																	4.0
3	36		2 1/4		3/4	24	9 1/2	4 7/8		6																	9.0
4																											
5																											

STANDARD SIGN
D9-2

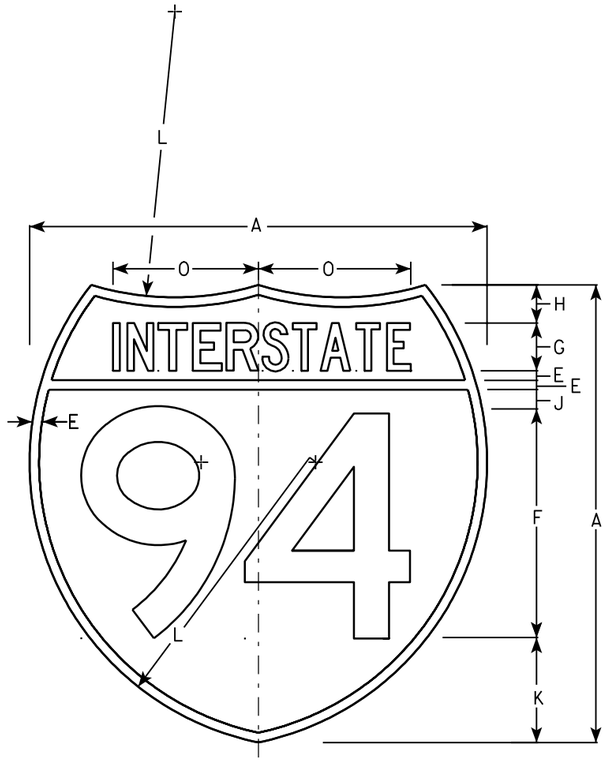
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spong
for State Traffic Engineer

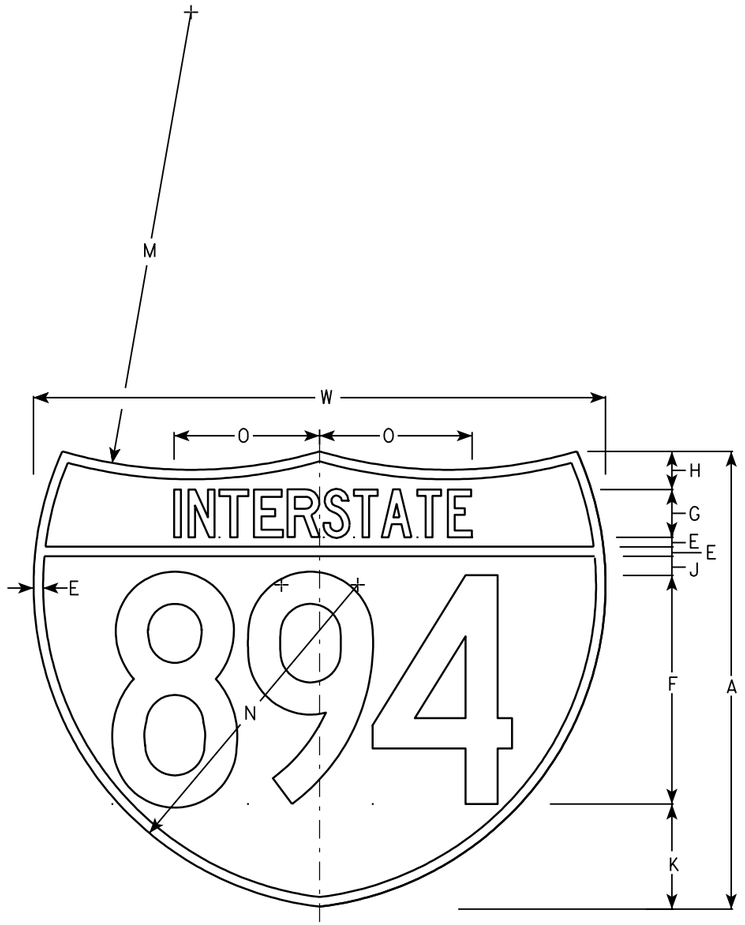
DATE 1/15/02 PLATE NO. D9-2.4

PROJECT NO:

SHEET NO: 527 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

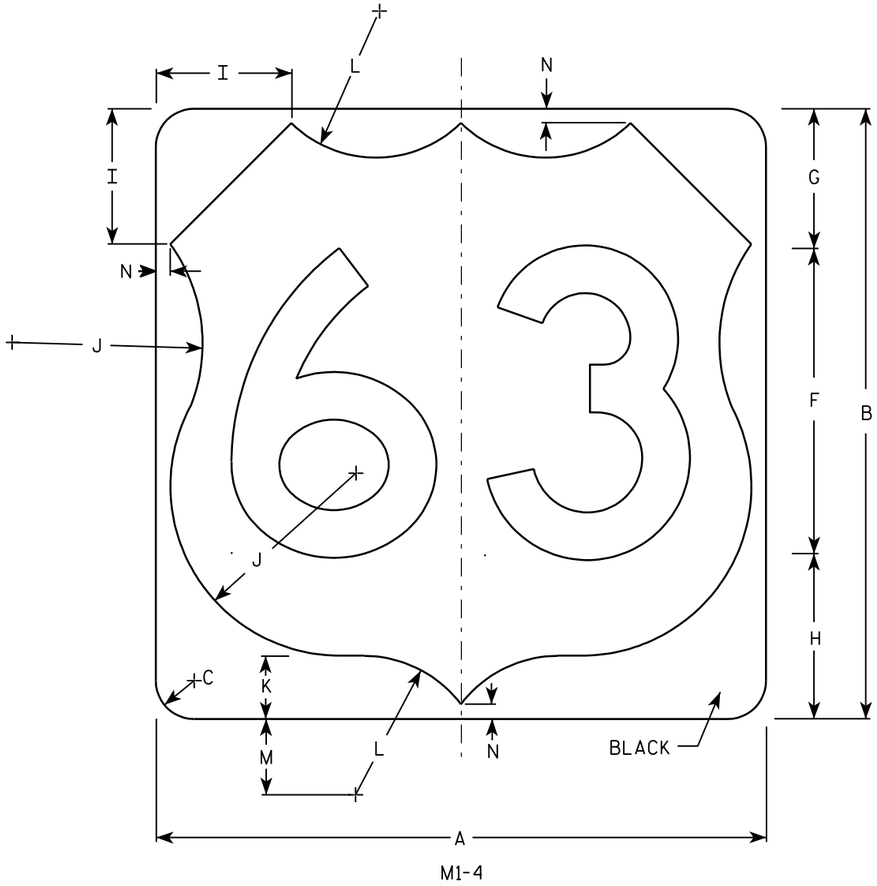
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 08/23/05 PLATE NO. M1-1.8

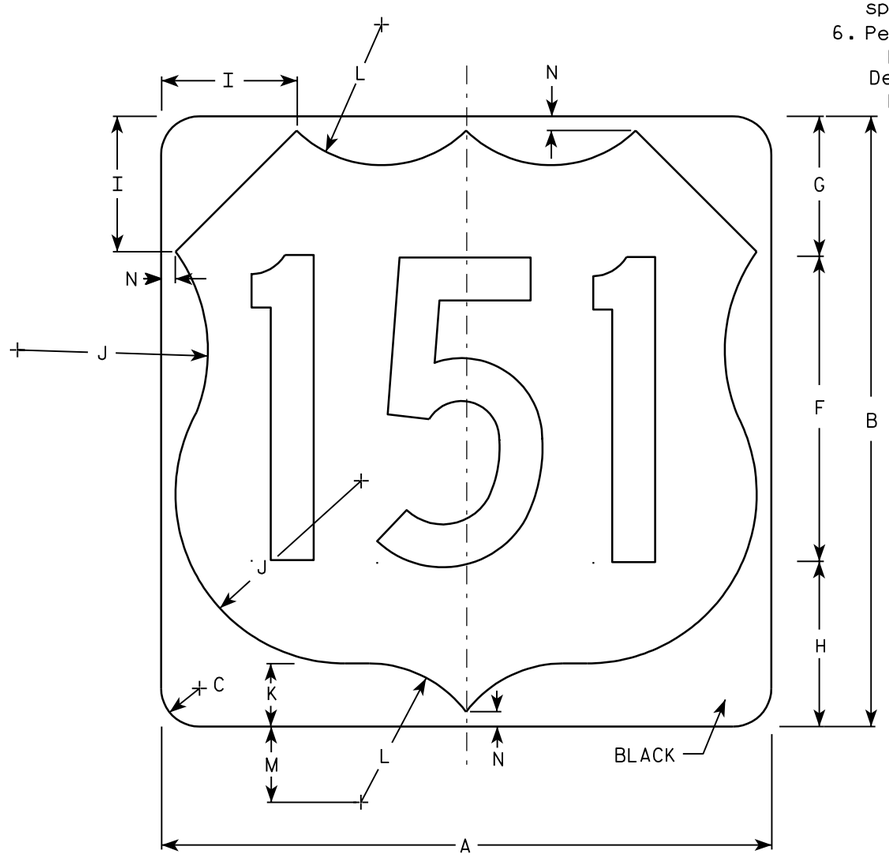
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 528	E

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

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 1/2			12	5 1/2	6 1/2	5	7 1/2	2 1/2	5 1/2	3	1/2													4.0	.36
3	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81
4	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81
5	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81

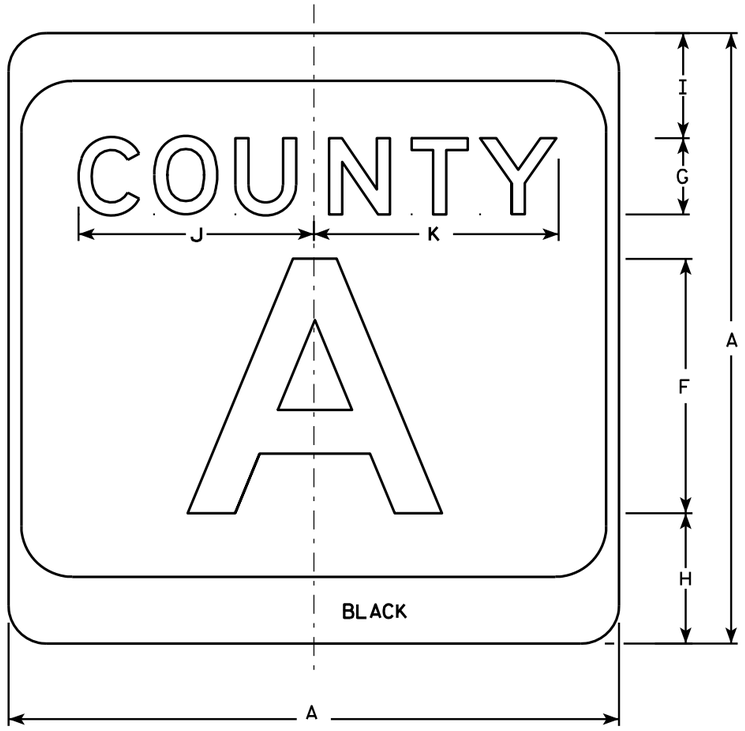
USH MARKER
M1-4 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

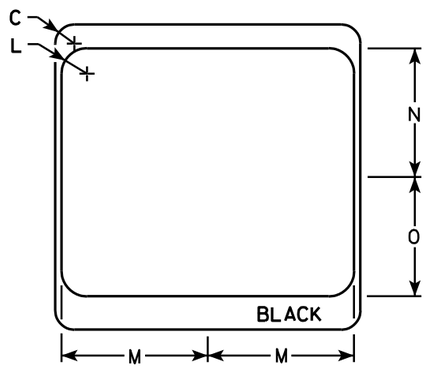
APPROVED Matthew R Rauch
for State Traffic Engineer

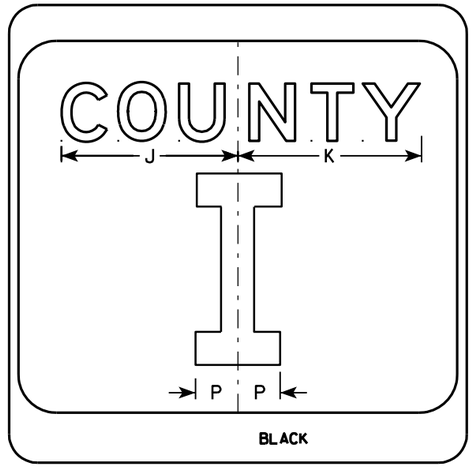
DATE 08/25/05 PLATE NO. M1-4.9

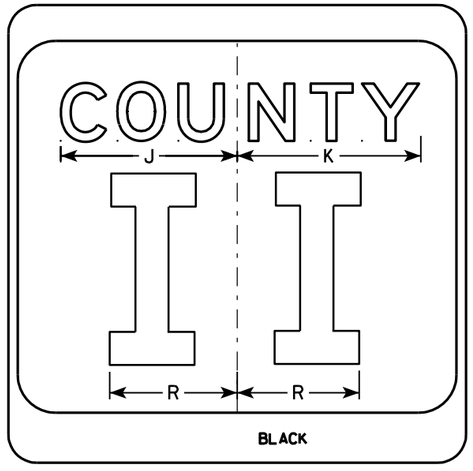
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 529 | E



M1-5A







NOTES

1. Sign is Type II - see Note 7 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White & Black - See Note 7
   Message - Black
3. Message Series - see Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Message Series E for 1 letter.
   Message Series D for 2 letters unless message is too big then Series C.
   Message Series C for 3 letters unless message is too big then Series B.
6. Substitute appropriate letters & optically center to achieve proper balance.
7. Permanent Signs
   Background - Type H Reflective
   Detour or temporary Signs
   Background - Reflective

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24		1 1/2			10	3	5 1/8	4 1/8	9 1/4	9 5/8	2	11 1/2	10 1/8	9 3/8	2 1/4		6 5/8									4.0
3	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
4	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
5	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0

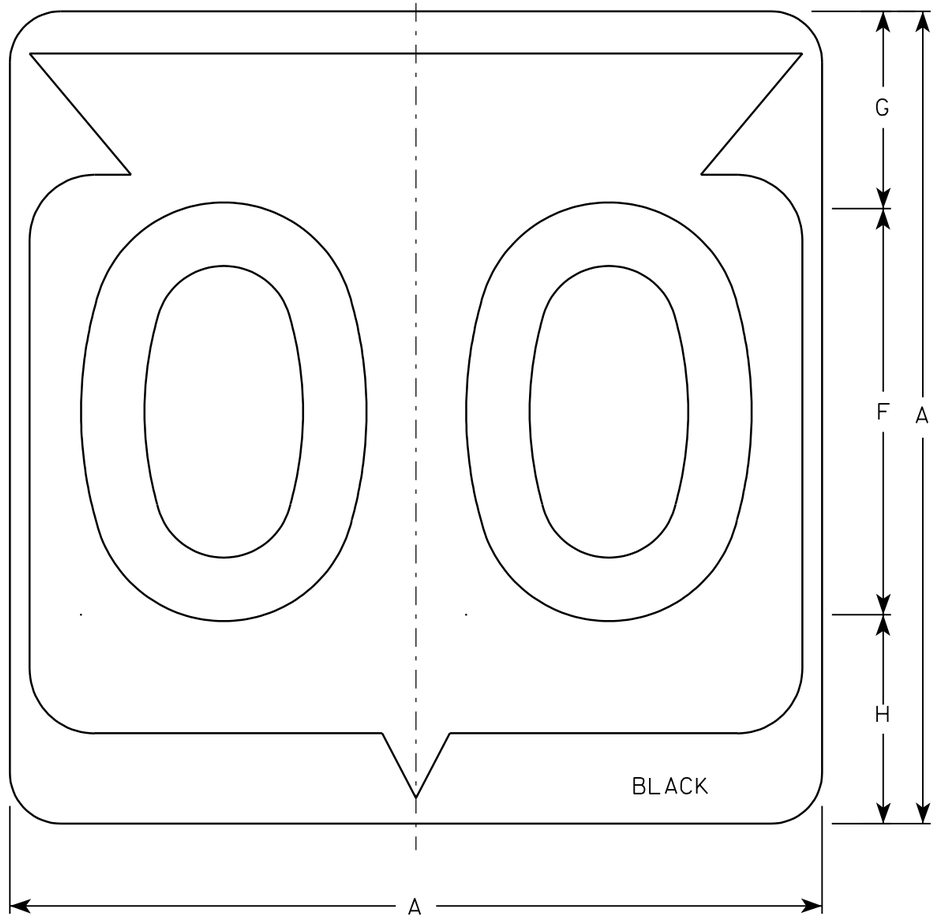
CTH MARKER
M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/27/11 PLATE NO. M1-5A.8

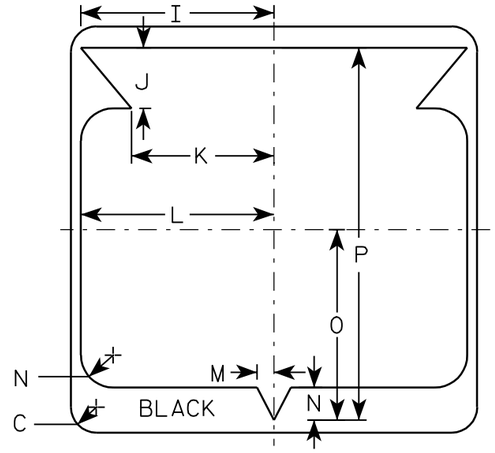
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 530	E



M1-6

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White & Black - See Note 6
   Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate Series numerals and adjust spacing as per plate A10-1.
6. Permanent Signs
   Background - Type H Reflective
   Detour or temporary Signs
   Background - Reflective



Metric equivalent for this sign is:

SIZE	
1	
2	600 mm X 600 mm
3	900 mm X 900 mm
4	900 mm X 900 mm
5	900 mm X 900 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0	.36
3	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
4	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81
5	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0	.81

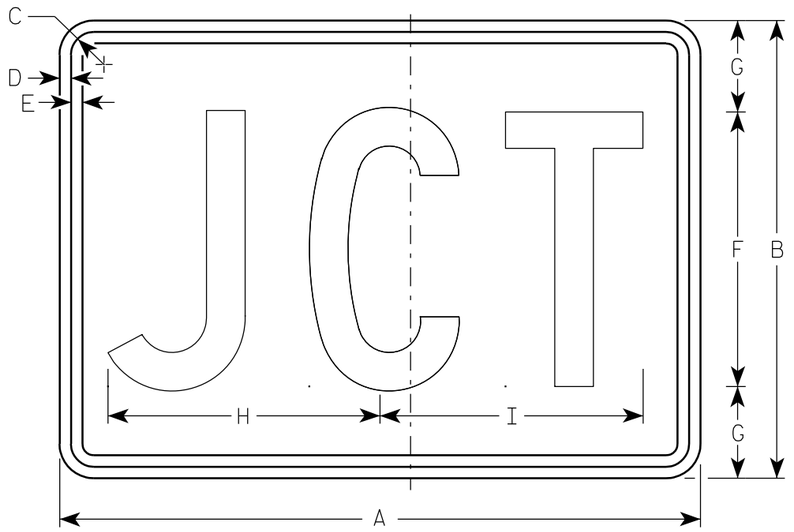
STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

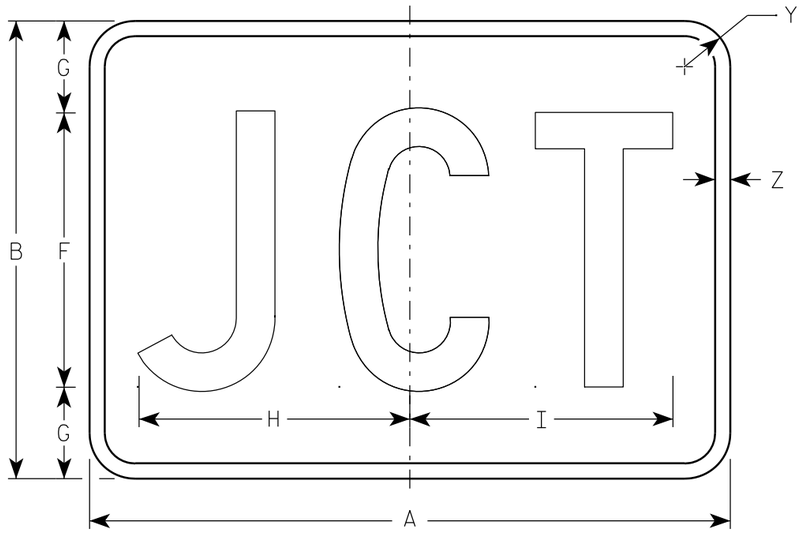
APPROVED Chester J Spang for State Traffic Engineer

DATE 3/20/02 PLATE NO. M1-6.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 531	E



M2-1
MK2-1
MM2-1
MR2-1



MB2-1
MG2-1
MN2-1

NOTES

1. Sign is Type II - See Note 5 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M2-1 Background - White - Type H Reflective
   (Detour or temporary Signs - Reflective)
   Message - Black
   MB2-1 Background - Blue
   Message - White - Type H Reflective
   (Detour or temporary Signs - Reflective)
   MG2-1 Background - Green
   Message - White - Type H Reflective
   MK2-1 Background - Green
   Message - White - Type H Reflective
   MM2-1 Background - White - Type H Reflective
   Message - Green
   MN2-1 Background - Brown
   Message - White - Type H Reflective
   MR2-1 Background - Brown
   Message - Yellow - Type H Reflective

Metric equivalent for this sign is:

SIZE	
1	
2	525 mm X 375 mm
3	750 mm X 525 mm
4	750 mm X 525 mm
5	750 mm X 525 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	21	15	1 1/8	3/8	3/8	9	3	8 7/8	8 5/8																1 1/2	1/2	2.20	0.20
3	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40	0.20
4	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40	0.20
5	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40	0.20

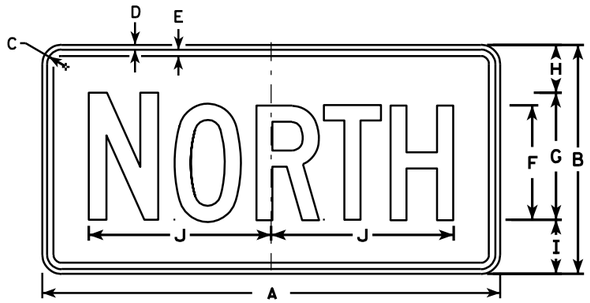
STANDARD SIGN
M2-1

WISCONSIN DEPT OF TRANSPORTATION

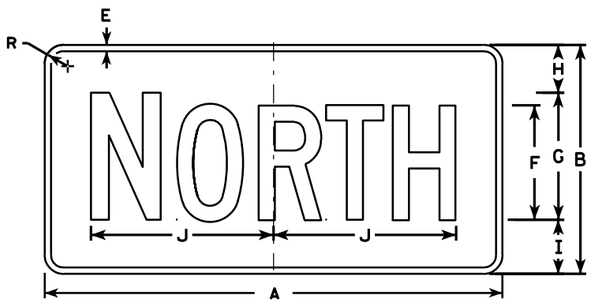
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/16/10 PLATE NO. M2-1.10

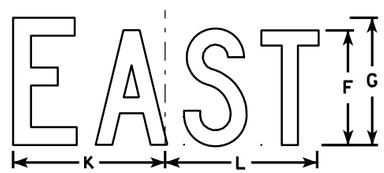
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 532	E



M3-1
MK3-1
MO3-1

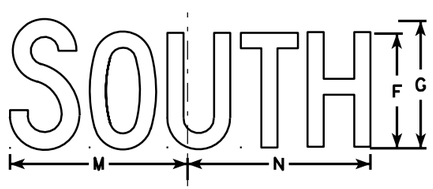


MB3-1
MG3-1
MM3-1
MN3-1

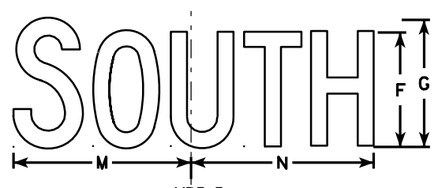


M3-2
MK3-2
MO3-2

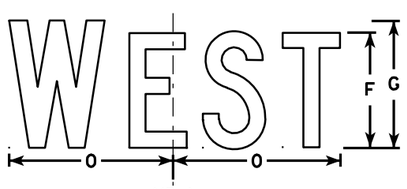
MB3-2
MG3-2
MM3-2
MN3-2



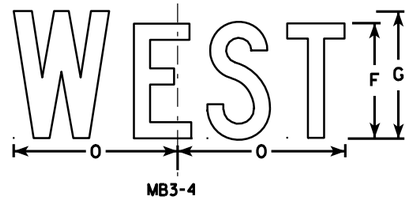
M3-3
MK3-3
MO3-3



MB3-3
MG3-3
MM3-3
MN3-3



M3-4
MK3-4
MO3-4



MB3-4
MG3-4
MM3-4
MN3-4

NOTES

1. All Signs Type II - See Note 5 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White - Type H Reflective
   (Detour or temporary signs - Reflective)
   Message - Black
   MB3-1 thru MB3-4 Background - Blue
   Message - White - Type H Reflective
   (Detour or temporary signs - Reflective)
   MG3-1 thru MG3-4 Background - Green
   Message - White - Type H Reflective
   MK3-1 thru MK3-4 Background - Green
   Message - White - Type H Reflective
   MM3-1 thru MM3-4 Background - White - Type H Reflective
   Message - Green
   MN3-1 thru MN3-4 Background - Brown
   Message - White - Type H Reflective
   M03-1 thru M03-4 Background - Orange - Reflective
   Message - Black
6. Note the first letter of each direction is larger than the remainder of the message.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
5	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5

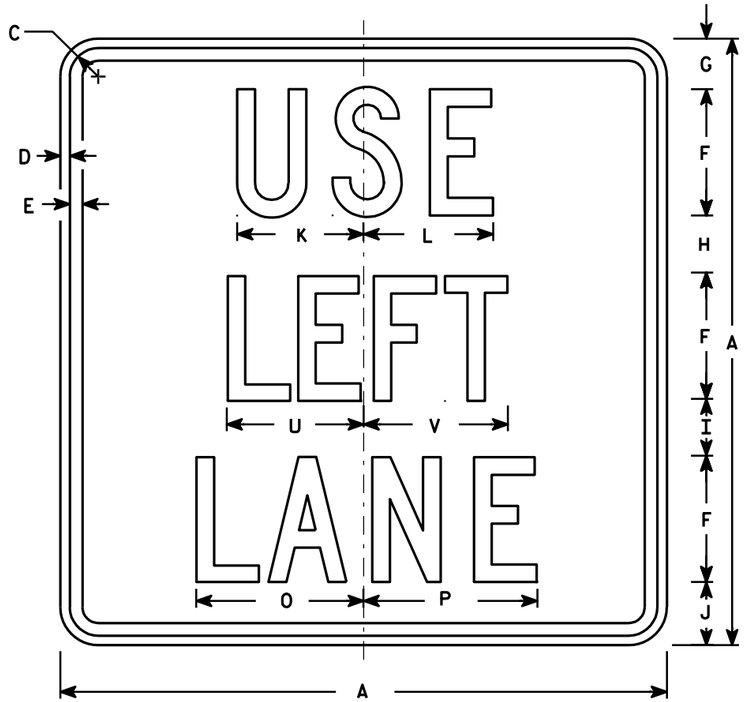
STANDARD SIGNS
M3-1 thur M3-4
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 11/10/10 PLATE NO. M3-1.12

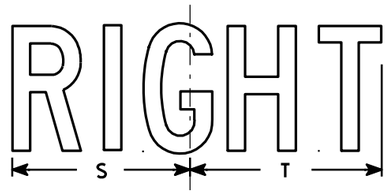
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 533	E



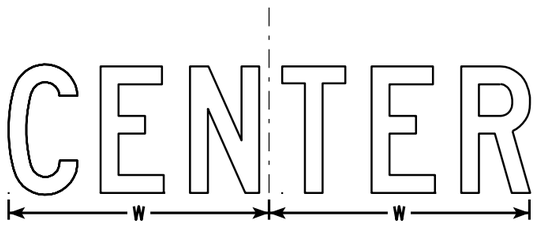
M4-20L

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Blue
   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.



M4-20R



M4-20C

7

7

Metric equivalent for this sign is:

SIZE	
1	
2	600 mm X 600 mm
3	900 mm X 900 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		1 1/8	3/8	1/2	5	2	2 1/4	2 1/4	2 1/2	5	5 1/8			6 5/8	6 7/8			7	7 5/8	5 3/8	5 3/4	10 1/4				4.0	0.36
3	36		1 5/8	5/8	3/4	7	4	3	3 1/2	4 1/2	7 1/2	7 3/4			9 7/8	10 1/4			10 3/8	11 3/8	8	8 5/8	14 3/8				9.0	0.81
4																												
5																												

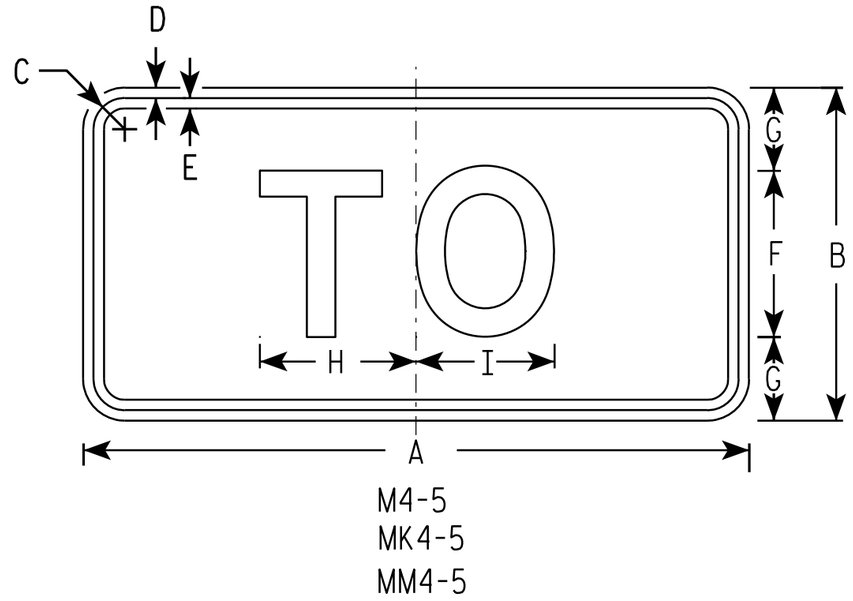
STANDARD SIGN
M4-20

WISCONSIN DEPT OF TRANSPORTATION

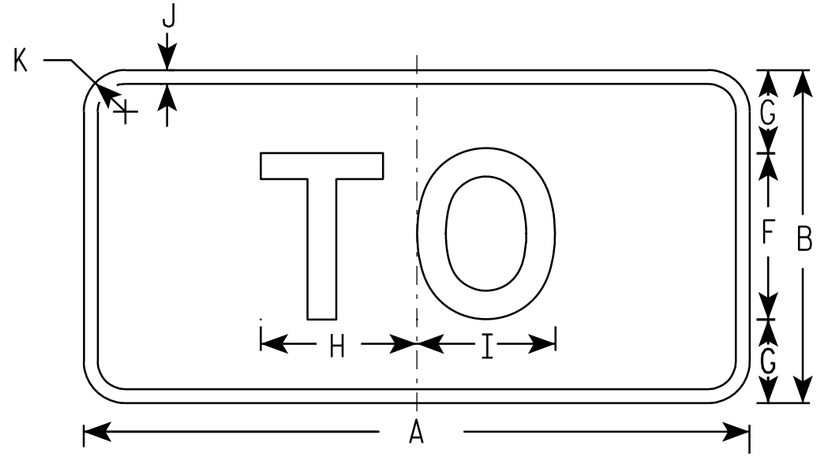
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/1/09 PLATE NO. M4-20.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 534	E



M4-5
MK4-5
MM4-5



MB4-5
MG4-5
MN4-5

NOTES

1. Sign is Type II - See Note 5 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-5 Background - White - Type H Reflective (Detour or temporary Signs - Reflective)
   Message - Black
   MB4-5 Background - Blue
   Message - White - Type H Reflective (Detour or temporary Signs - Reflective)
   MG4-5 Background - Green
   Message - White - Type H Reflective
   MK4-5 Background - Green
   Message - White - Type H Reflective
   MM4-5 Background - White - Type H Reflective
   Message - Green
   MN4-5 Background - Brown
   Message - White - Type H Reflective

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	3	5 3/8	5 1/4	1/2	1 1/2																2.00
3	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5
4	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5
5	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5

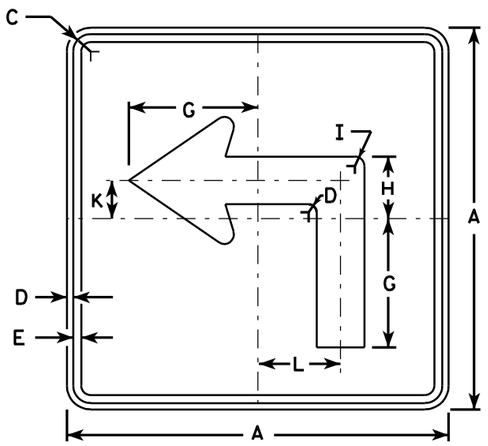
STANDARD SIGN
M4-5

WISCONSIN DEPT OF TRANSPORTATION

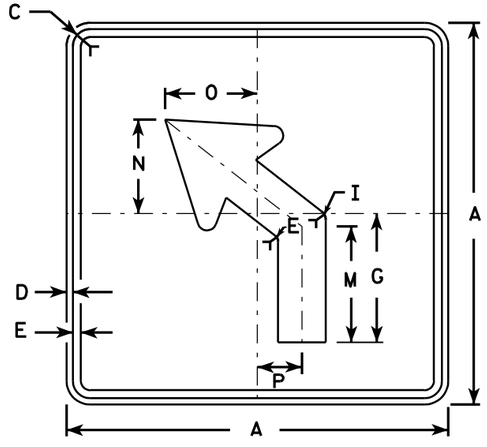
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/10/10 PLATE NO. M4-5.6

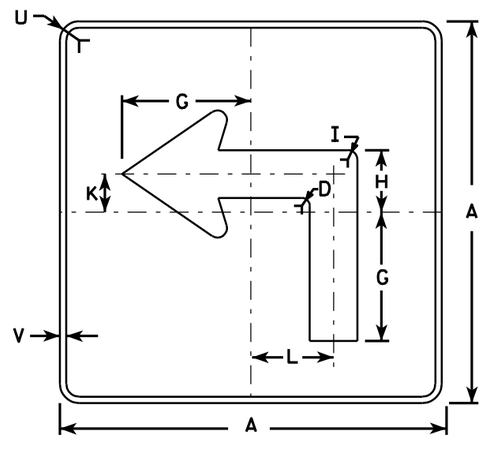
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 535 | E



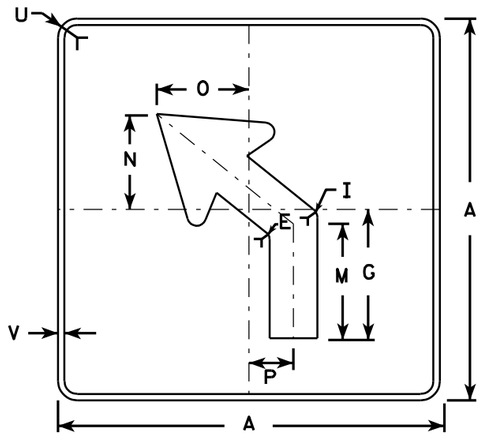
M5-1L
MK5-1L
MM5-1L
MO5-1L
MP5-1L
MR5-1L



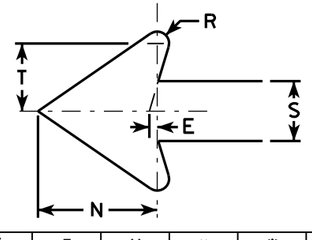
M5-2L
MK5-2L
MM5-2L
MO5-2L
MP5-2L
MR5-2L



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

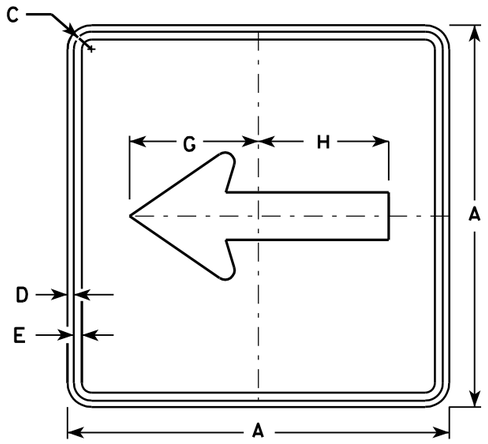
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/29/13 PLATE NO. M5-1.12

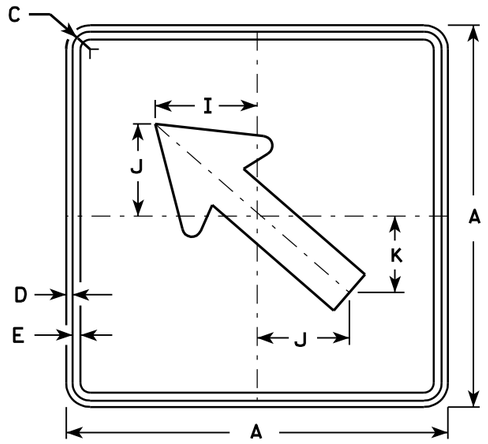
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 536	E

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

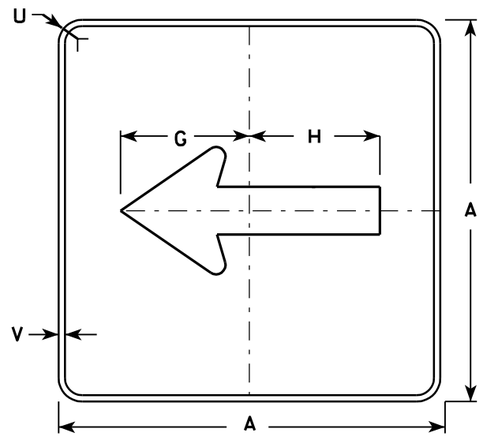
WISDOT/CADDS SHEET 42



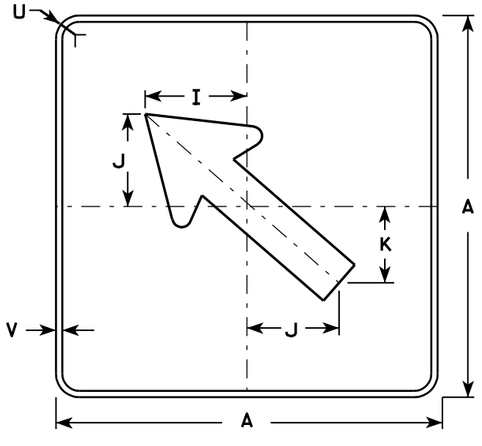
M6-1
MK6-1
MM6-1
MO6-1
MP6-1
MR6-1



M6-2
MK6-2
MM6-2
MO6-2
MP6-2
MR6-2



MB6-1
MG6-1
MN6-1



MB6-2
MG6-2
MN6-2

NOTES

1. Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White - Type H Reflective
   Message - Black

   MB6-1 and MB6-2 Background - Blue
   Message - White - Type H Reflective

   MG6-1 and MG6-2 Background - Green
   Message - White - Type H Reflective

   MK6-1 and MK6-2 Background - Green
   Message - White - Type H Reflective

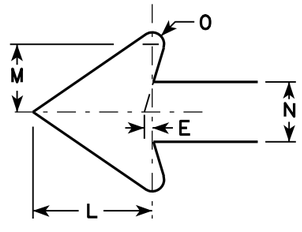
   MM6-1 and MM6-2 Background - White - Type H Reflective
   Message - Green

   MN6-1 and MN6-2 Background - Brown
   Message - White - Type H Reflective

   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black

   MP6-1 and MP6-2 Background - White - Type H Reflective
   Message - Blue

   MR6-1 and MR6-2 Background - Brown
   Message - Yellow - Type H Reflective



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2						1 1/2	1/2						3.06
3	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25
4	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25
5	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2						6.25

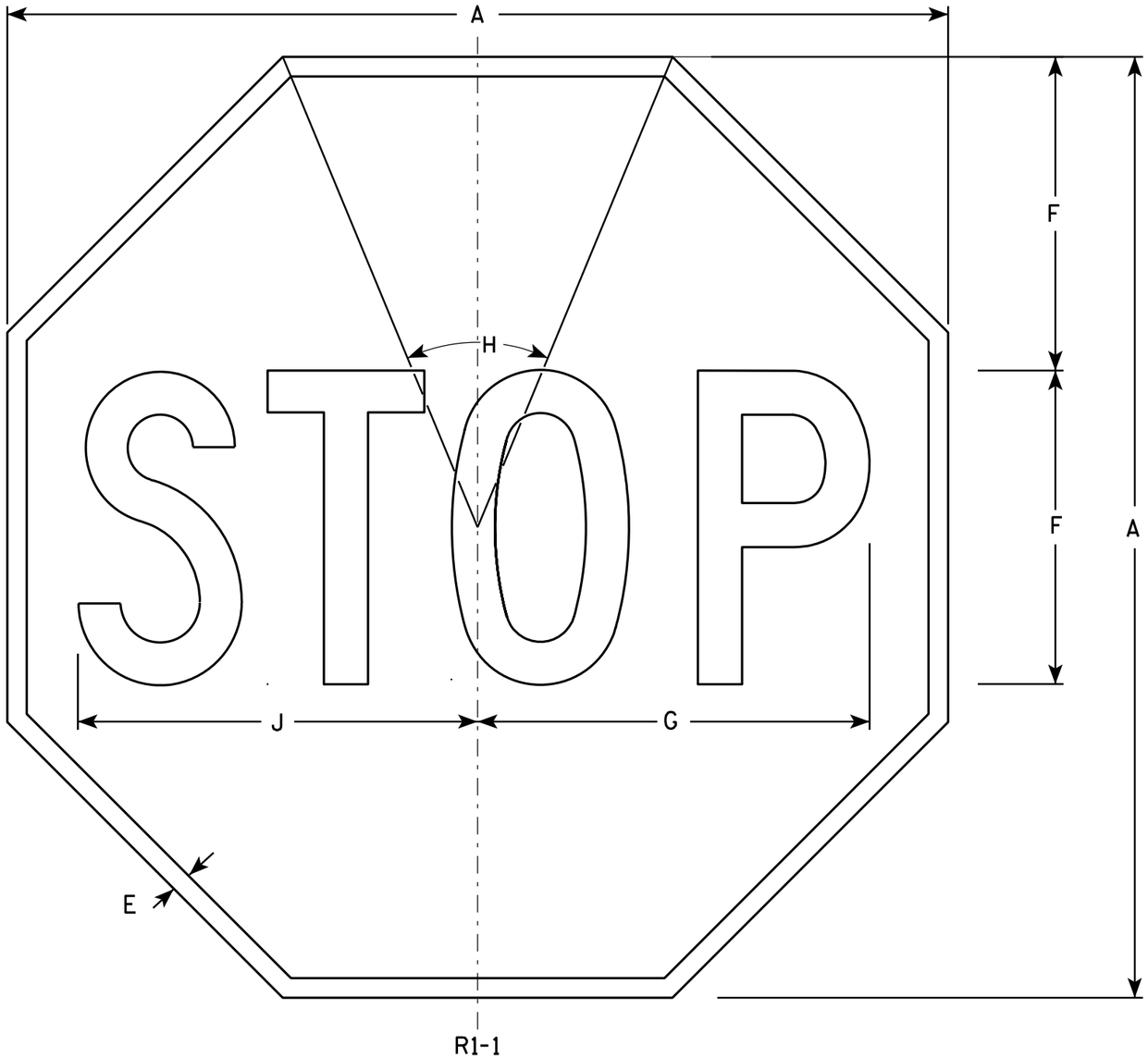
STANDARD SIGN M6-1 & M6-2 SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/29/13 PLATE NO. M6-1.13

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 537	E



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24				3/8	8	10	45°		10 1/4																	3.31
2S	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2M	36				3/4	12	15	45°		15 3/8																	7.46
3	36				3/4	12	15	45°		15 3/8																	7.46
4	48				1	16	20	45°		20 1/2																	13.25
5	48				1	16	20	45°		20 1/2																	13.25
6	18				3/8	6	7 3/4	45°		7 3/4																	1.86
7	12				1/4	4	5	45°		5 1/8																	0.78

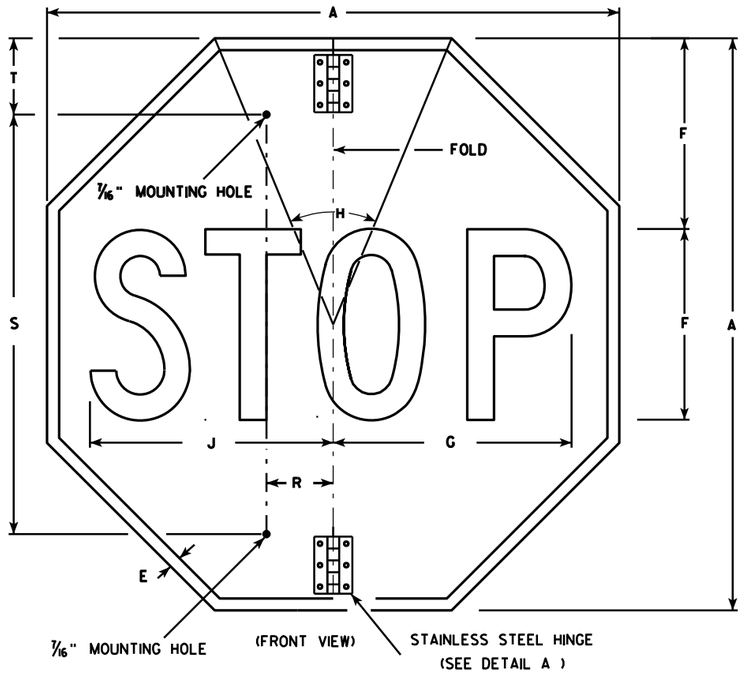
STANDARD SIGN
R1-1

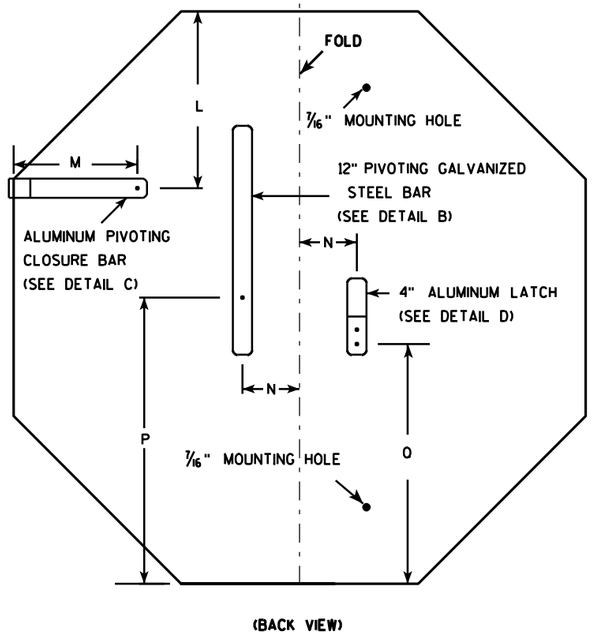
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-1.12

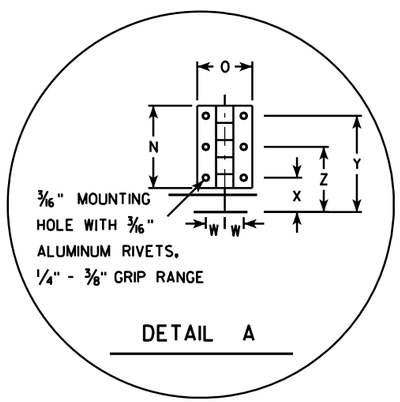
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 538	E



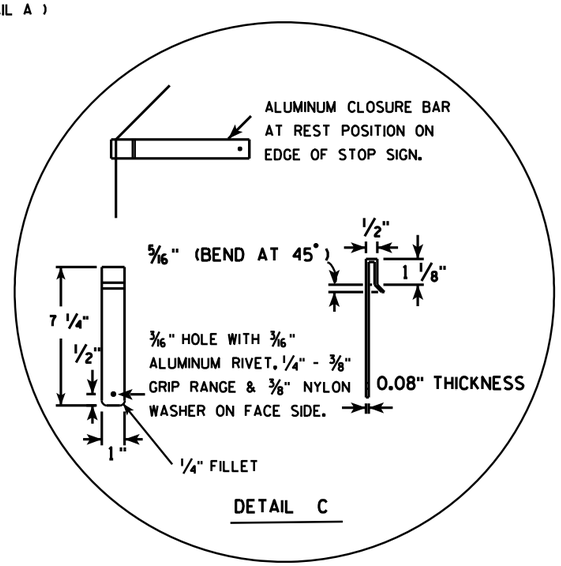


NOTES

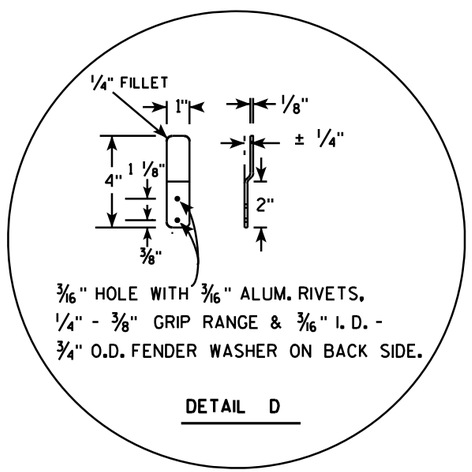
1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C
4. All hardware used on the folding STOP sign installation shall conform to 637.2.4 of the WIS DOT Standard Specification.



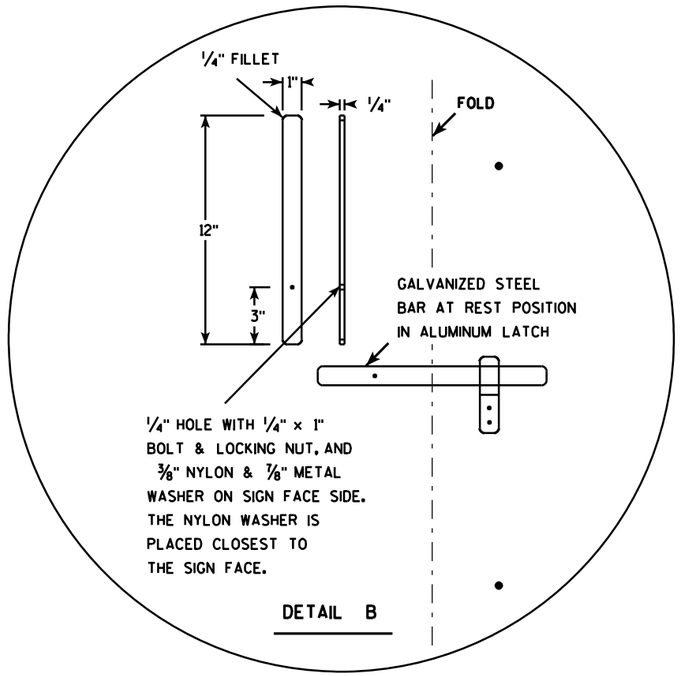
DETAIL A



DETAIL C



DETAIL D



DETAIL B

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30				5/8	10	12 1/2	45		12 3/4		9 1/4	6 1/2	3	2	15	12 3/8	2 1/2	22	5			11/16	1 1/4	3 1/2	2 3/8	5.18
2M	36				3/4	12	15	45		15 3/8		11	6 1/2	3	2	18	15 3/8	2 1/2	26	5			11/16	1 1/4	3 1/2	2 3/8	7.46
3	36				3/4	12	15	45		15 3/8		11	6 1/2	3	2	18	15 3/8	2 1/2	26	5			11/16	1 1/4	3 1/2	2 3/8	7.46
4																											
5																											

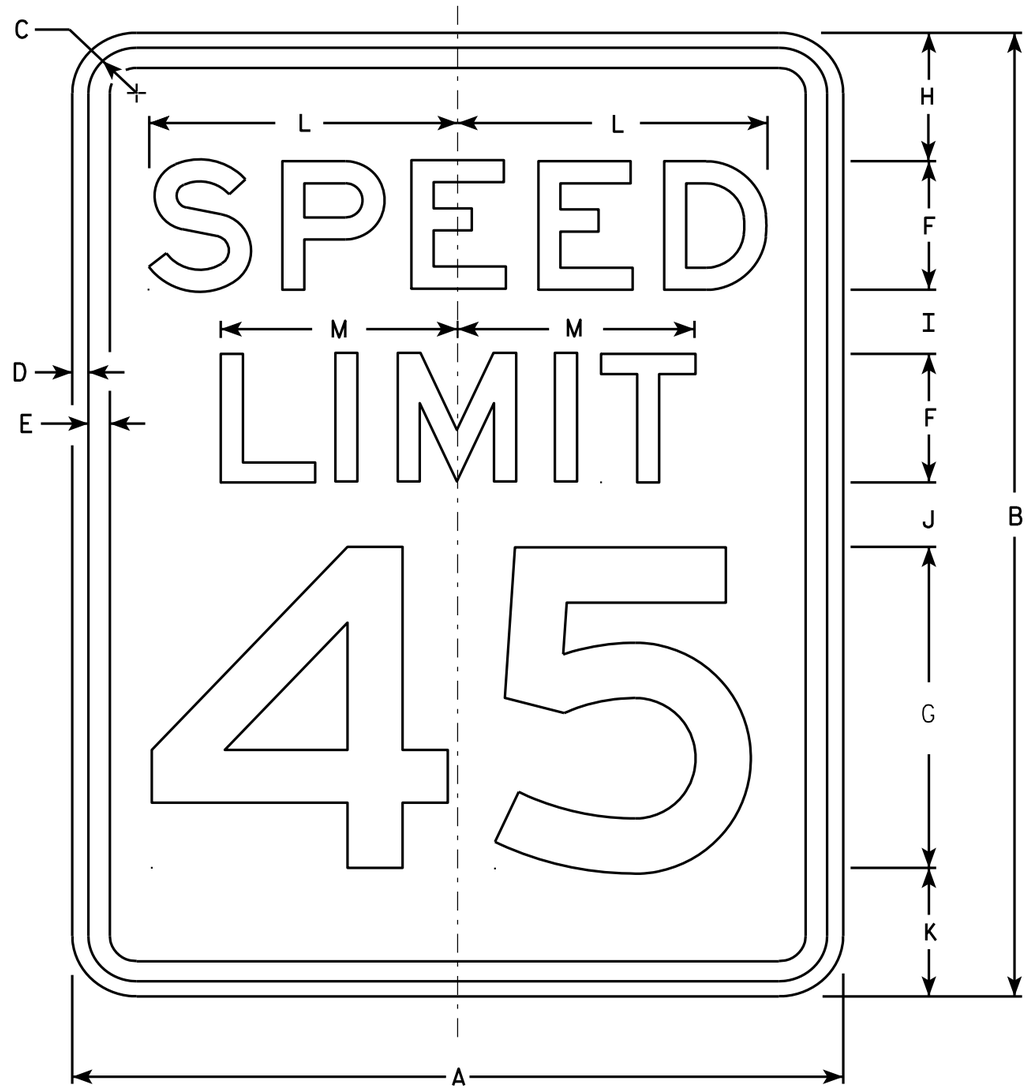
STANDARD SIGN
R1-1F

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-1F.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 539	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

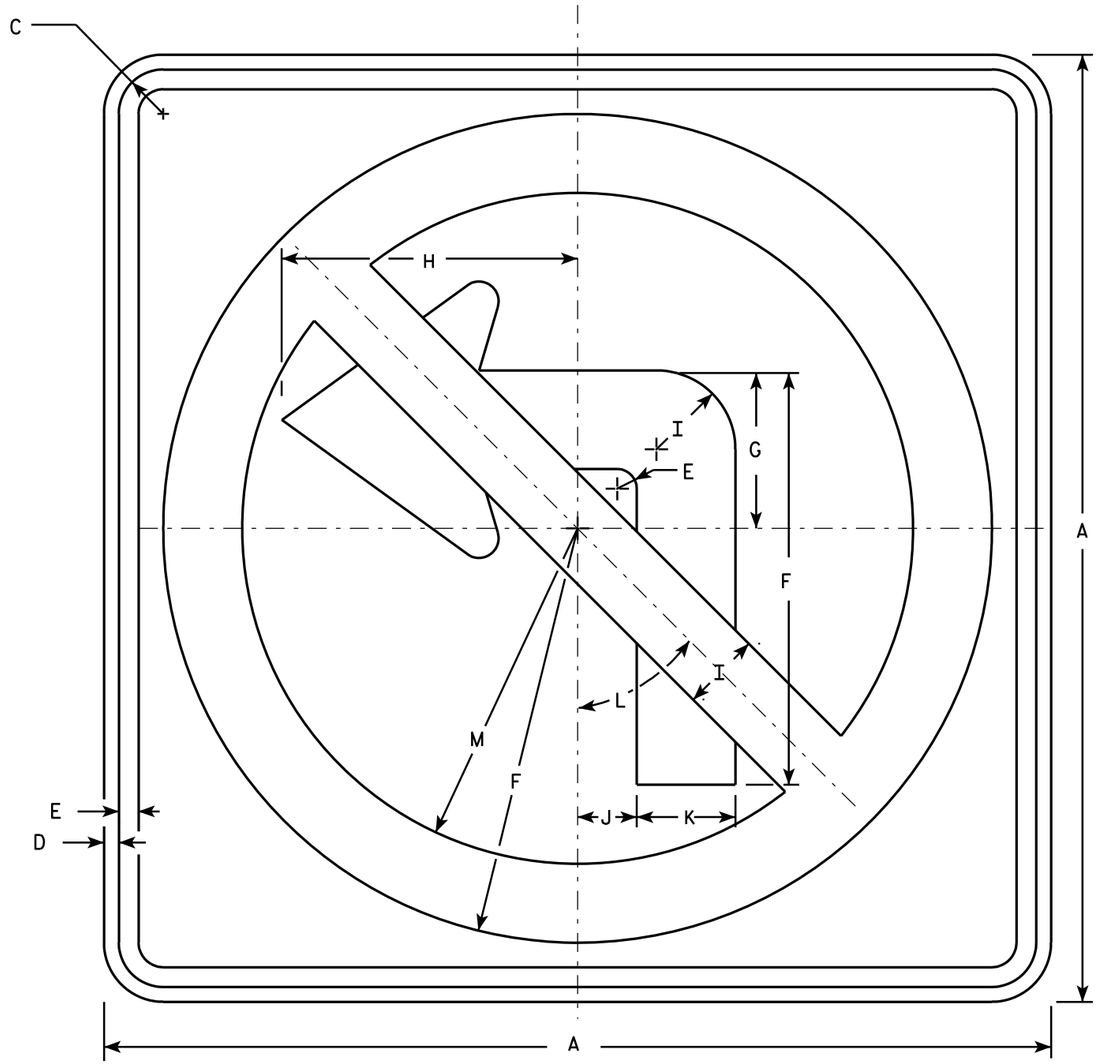
STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/26/10 PLATE NO. R2-1.13

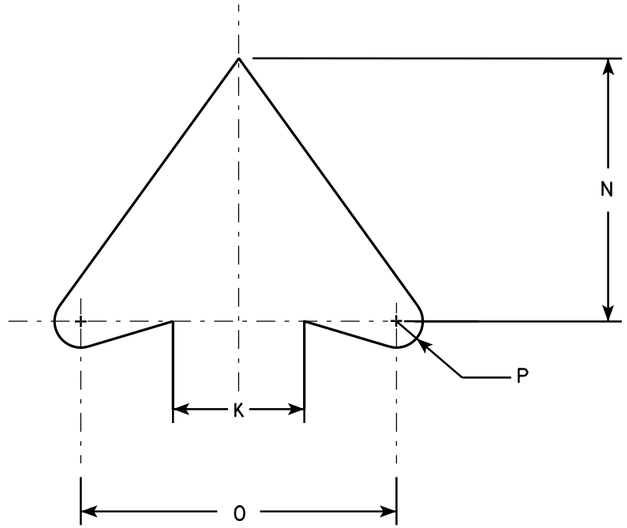
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 540 | E



R3-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2S	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2M	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
3	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
4	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1											16.0

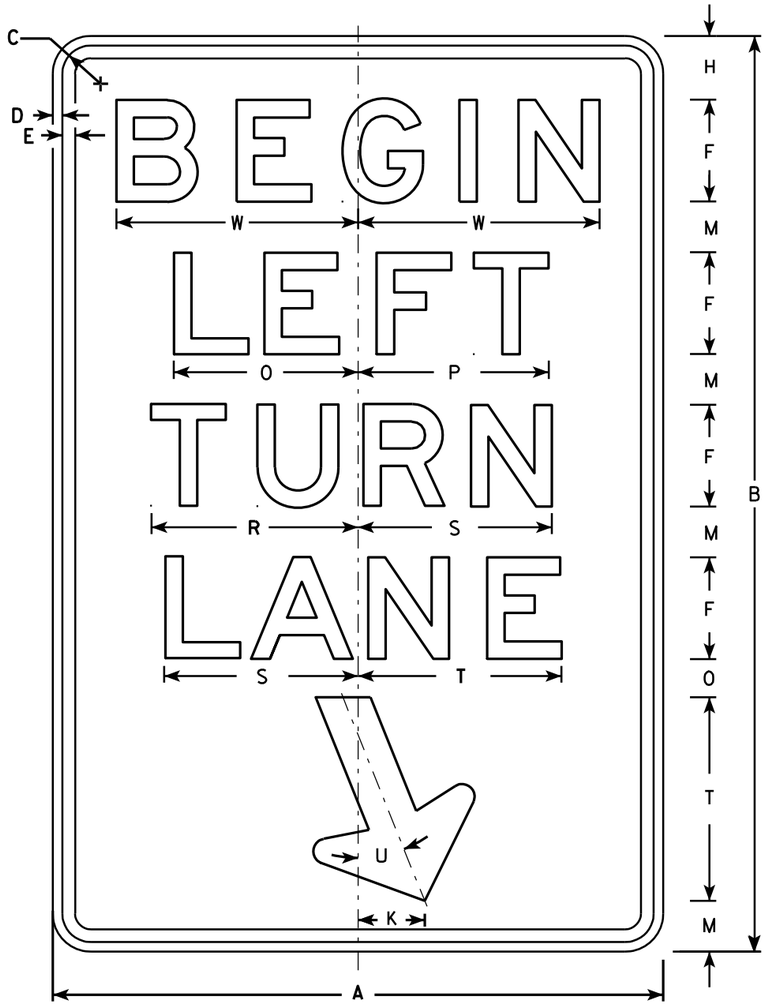
STANDARD SIGN
R3-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-2.10

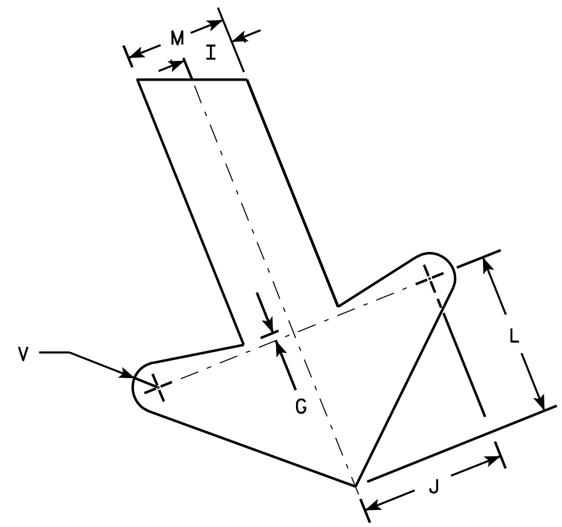
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 541	E



R3-20L

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	7 1/4	7 1/2		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
2M	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	7 1/4	7 1/2		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
3	36	54	1 3/4	1/2	5/8	6	3/8	3 3/4	1 1/2	4 1/4	4	4 7/8	3	2 1/4	10 7/8	11 1/4		12 1/4	11 1/2	12	22°	3/4	13 1/4				13.5
4																											
5																											

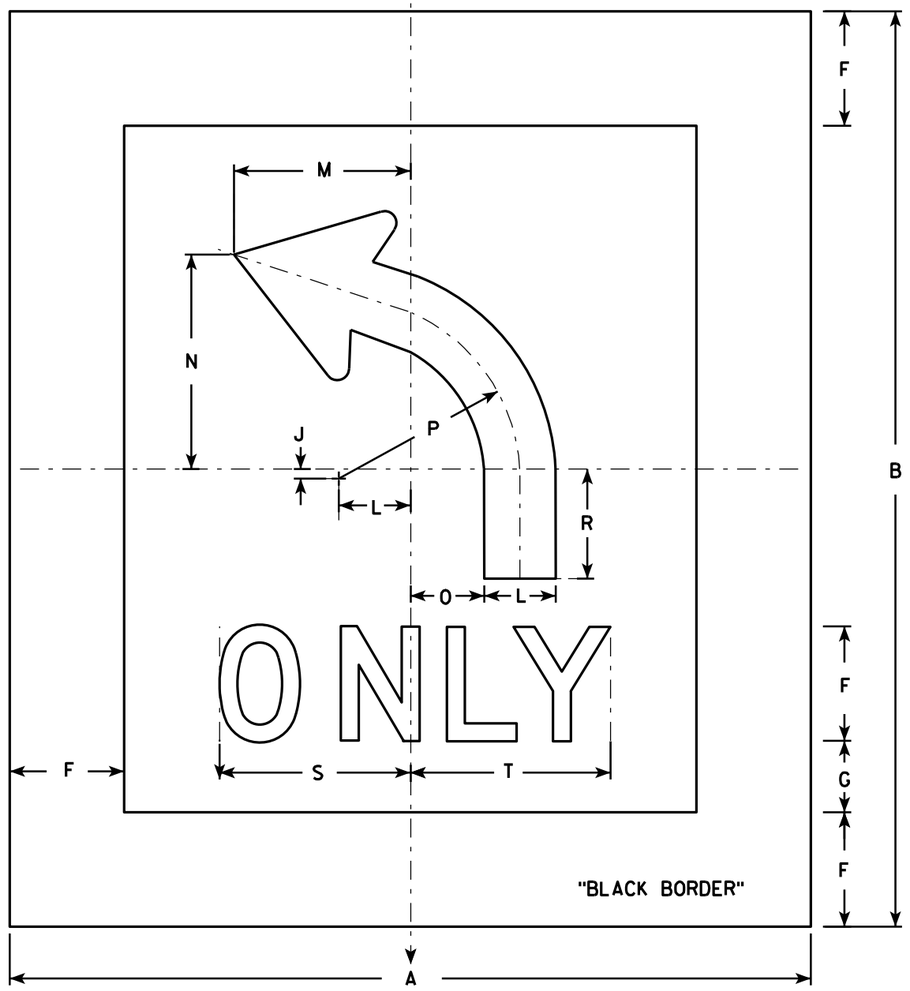
STANDARD SIGN
R3-20L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/18/10 PLATE NO. R3-20L.7

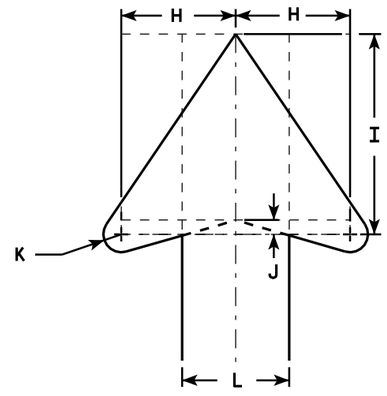
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 542 | E



R3-5L

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood. When base material is metal, the corners shall be rounded.
5. R3-5R is the same as R3-5L except curved portion of arrow points right.
6. The 6" border is non-reflective black.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	42	48				6	3 3/4	4	7	1/2	5/8	3 3/4	9 1/4	11 1/4	3 7/8	9 1/2		5 3/4	10	10 1/2							1.26
2M	42	48				6	3 3/4	4	7	1/2	5/8	3 3/4	9 1/4	11 1/4	3 7/8	9 1/2		5 3/4	10	10 1/2							1.26
3																											
4																											
5																											

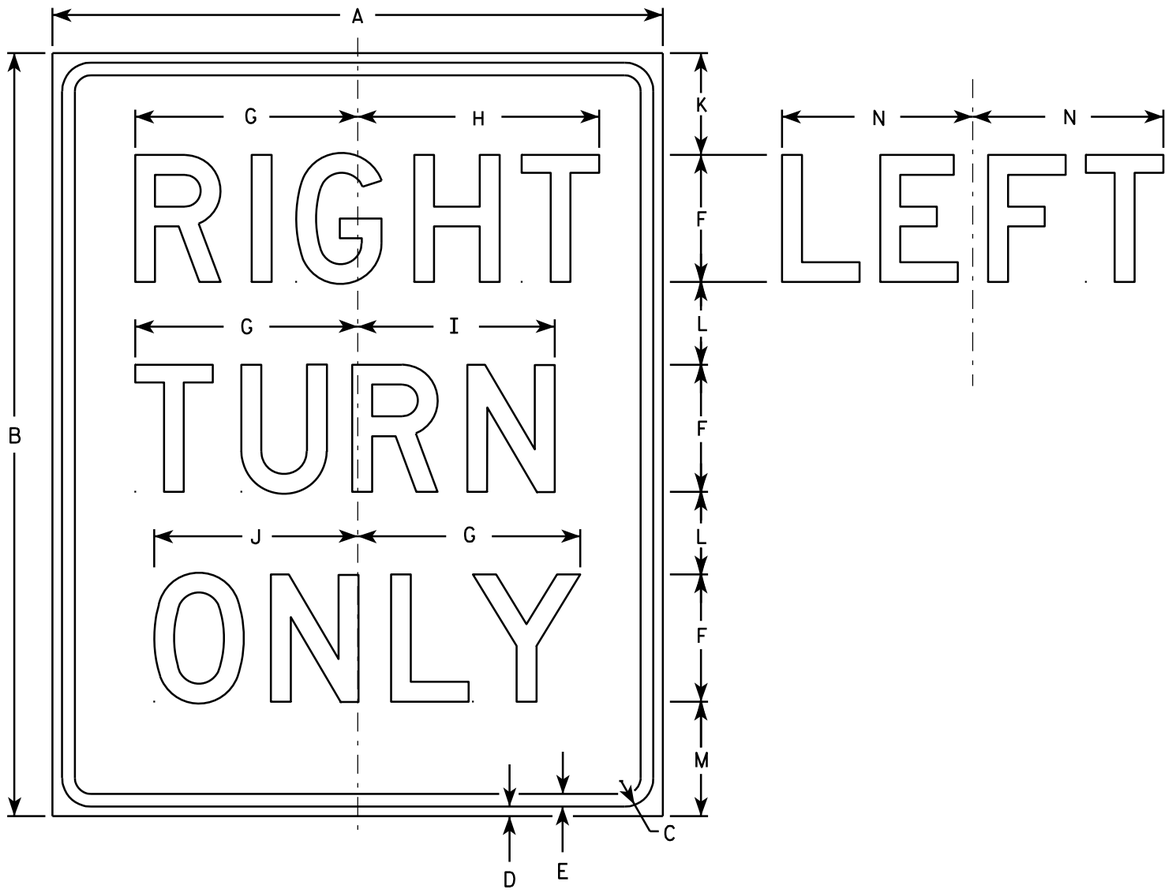
STANDARD SIGN
R3-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/24/11 PLATE NO. R3-5.6

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 543 | 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.

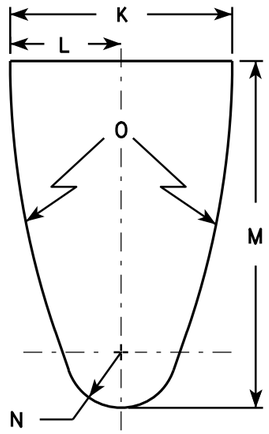
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	30	1 1/8	3/8	1/2	5	8 3/4	9 1/2	7 3/4	8	4	3 1/4	4 1/2	7 1/2													5.0
2M	24	30	1 1/8	3/8	1/2	5	8 3/4	9 1/2	7 3/4	8	4	3 1/4	4 1/2	7 1/2													5.0
3	24	30	1 1/8	3/8	1/2	5	8 3/4	9 1/2	7 3/4	8	4	3 1/4	4 1/2	7 1/2													5.0
4																											
5																											

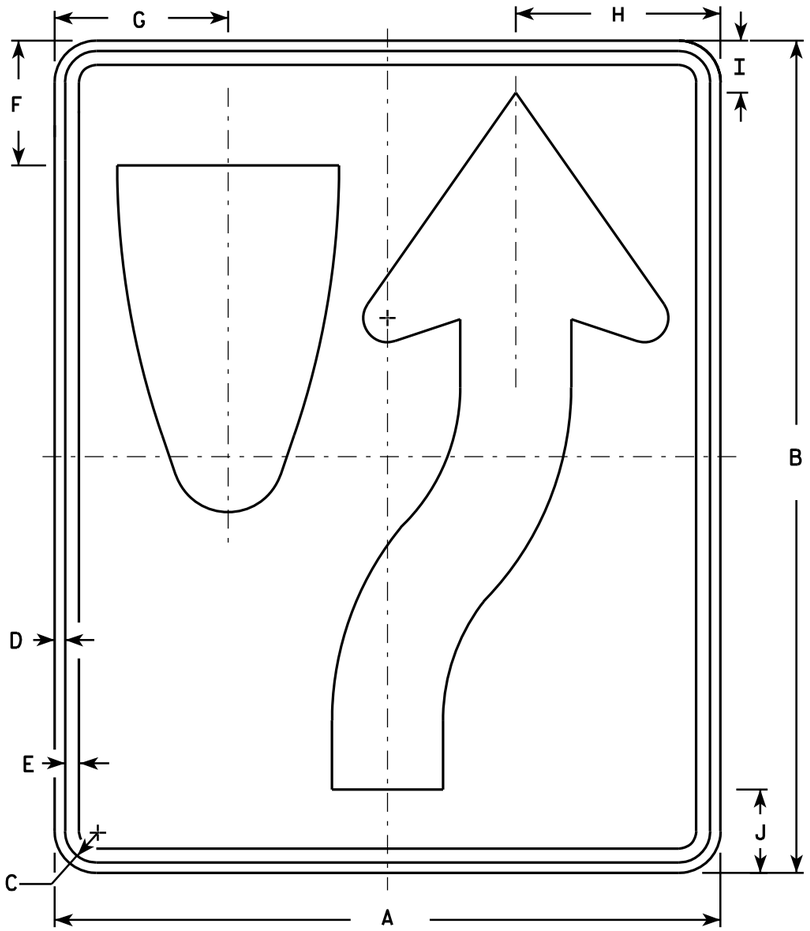
STANDARD SIGN
R3-53

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: 544	E

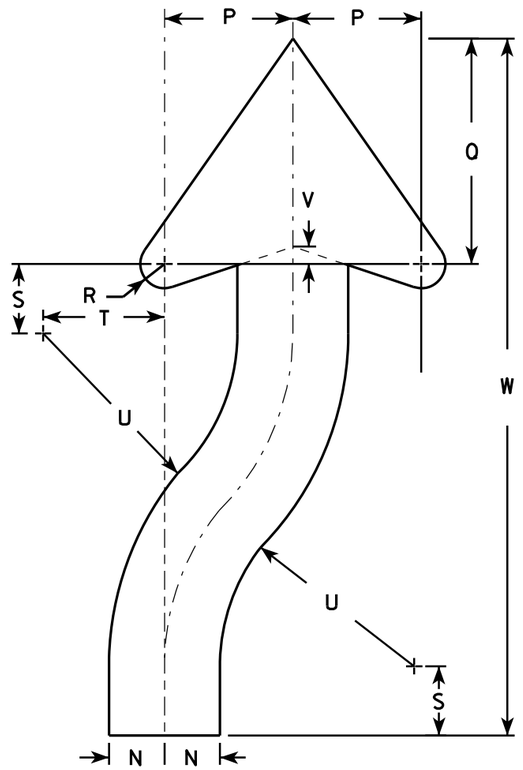




R4-7

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

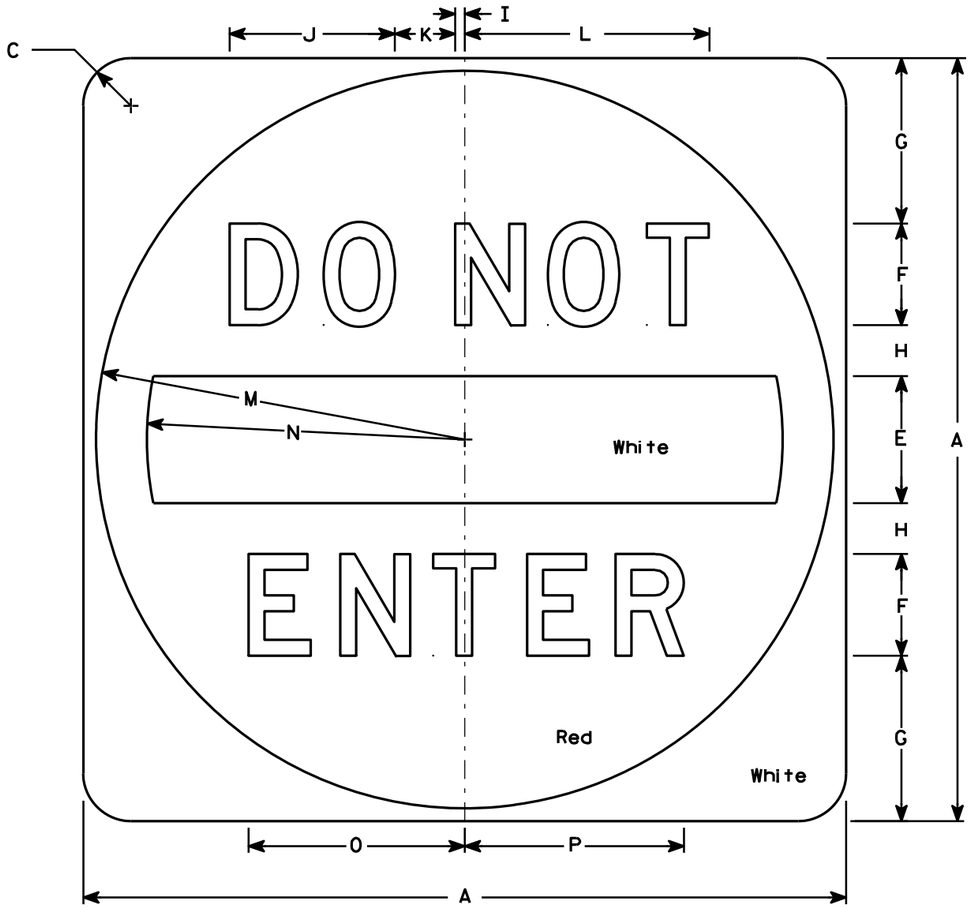
STANDARD SIGN
R4-7 & R4-8

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: 545	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

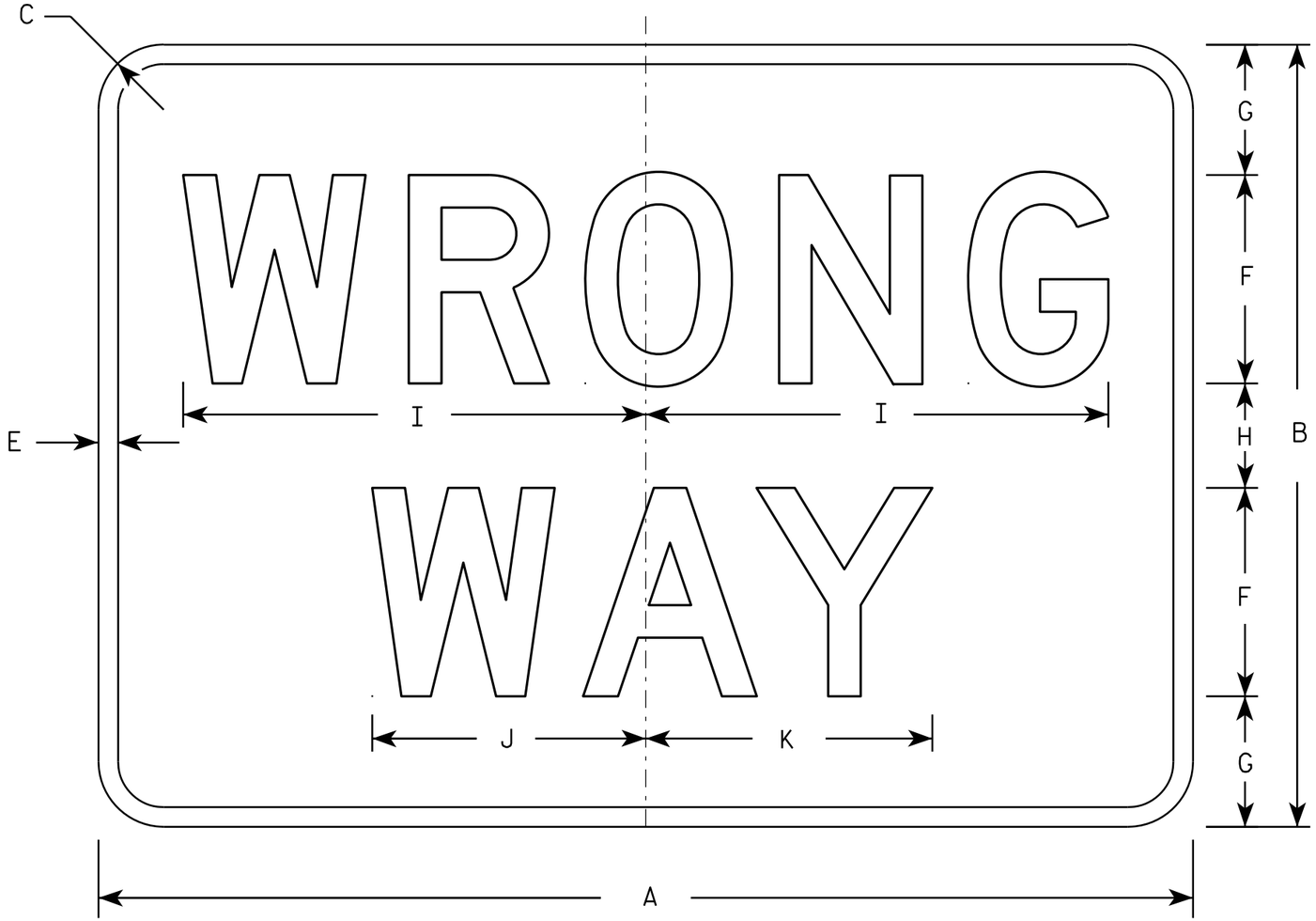
STANDARD SIGN
R5-1

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: 546 | E



R5-1A

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30	18	1 1/2		1/2	5	3	2	11	6 1/2	6 7/8																3.75
2S	36	24	2		5/8	6	4 1/2	3	13 1/4	7 7/8	8 1/4																6.00
2M	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
3	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
4	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
5	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75

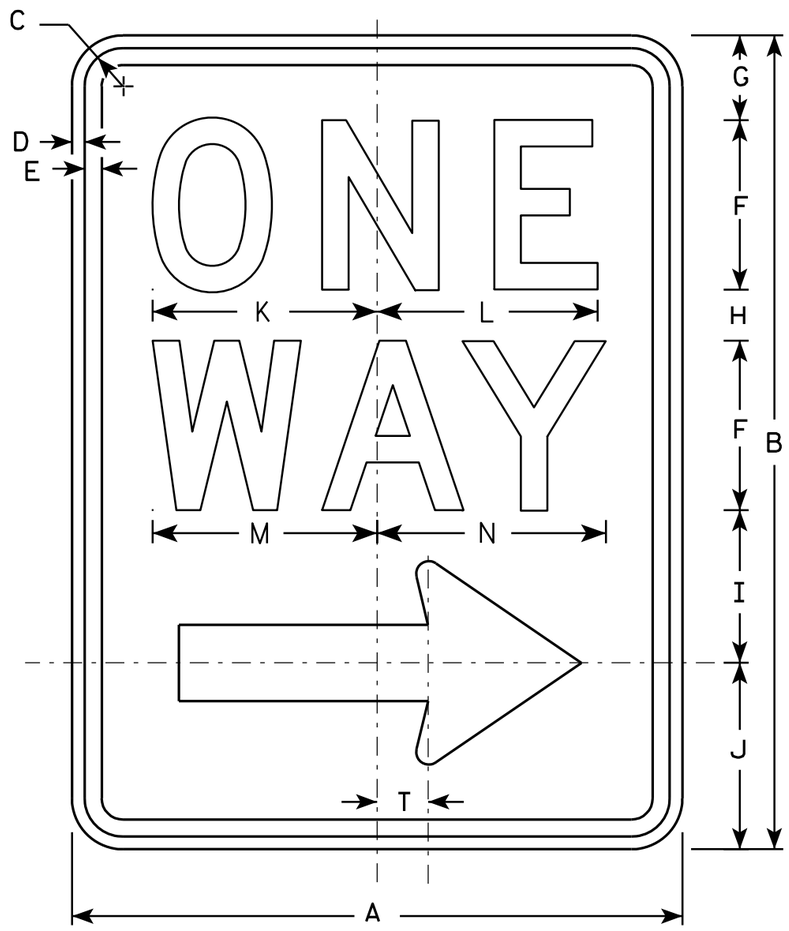
STANDARD SIGN
R5-1A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/17/10 PLATE NO. R5-1A.2

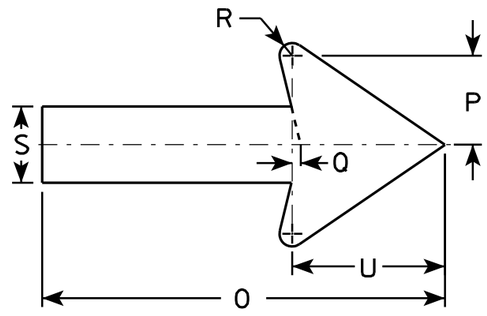
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 547	E



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	Q	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																										

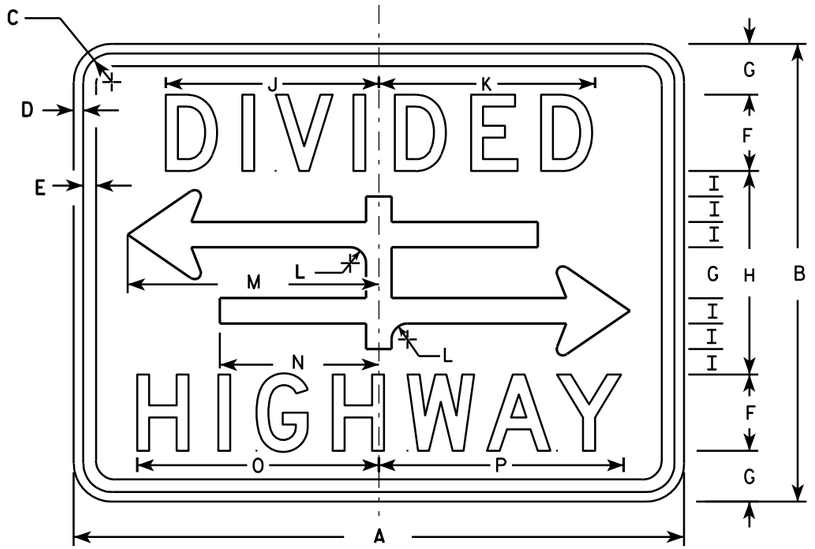
STANDARD SIGN
R6-2 R&L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/2/10 PLATE NO. R6-2.8

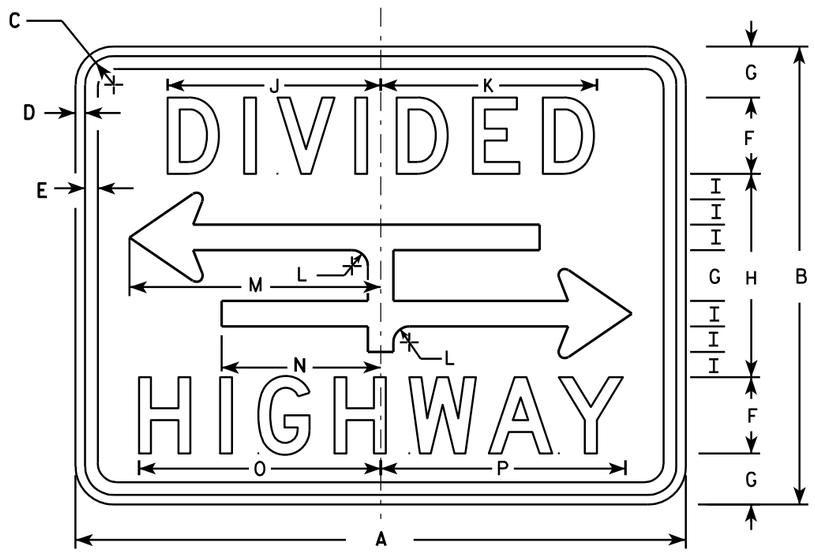
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 548	E



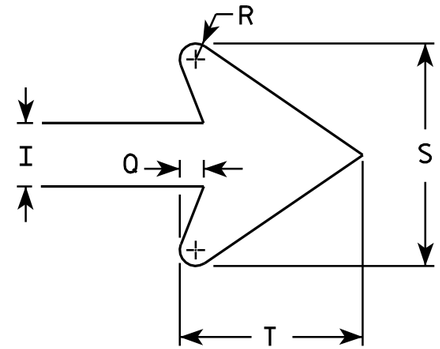
R6-3

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



R6-3A



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24	18	1 1/8	3/8	3/8	3	2	8	1	8 3/8	8 1/2	5/8	9 7/8	6 1/4	9 1/2	9 5/8	3/8	1/4	3 1/2	2 3/4							3.0
2S	30	24	1 1/8	3/8	1/2	4	2 5/8	10 3/4	1 3/8	10 1/2	10 5/8	7/8	12 1/2	7 7/8	12 1/4	12 3/8	1/2	3/8	4 5/8	3 5/8							5.0
2M	30	24	1 1/8	3/8	1/2	4	2 5/8	10 3/4	1 3/8	10 1/2	10 5/8	7/8	12 1/2	7 7/8	12 1/4	12 3/8	1/2	3/8	4 5/8	3 5/8							5.0
3																											
4																											
5																											

STANDARD SIGN
R6-3 & R6-3A

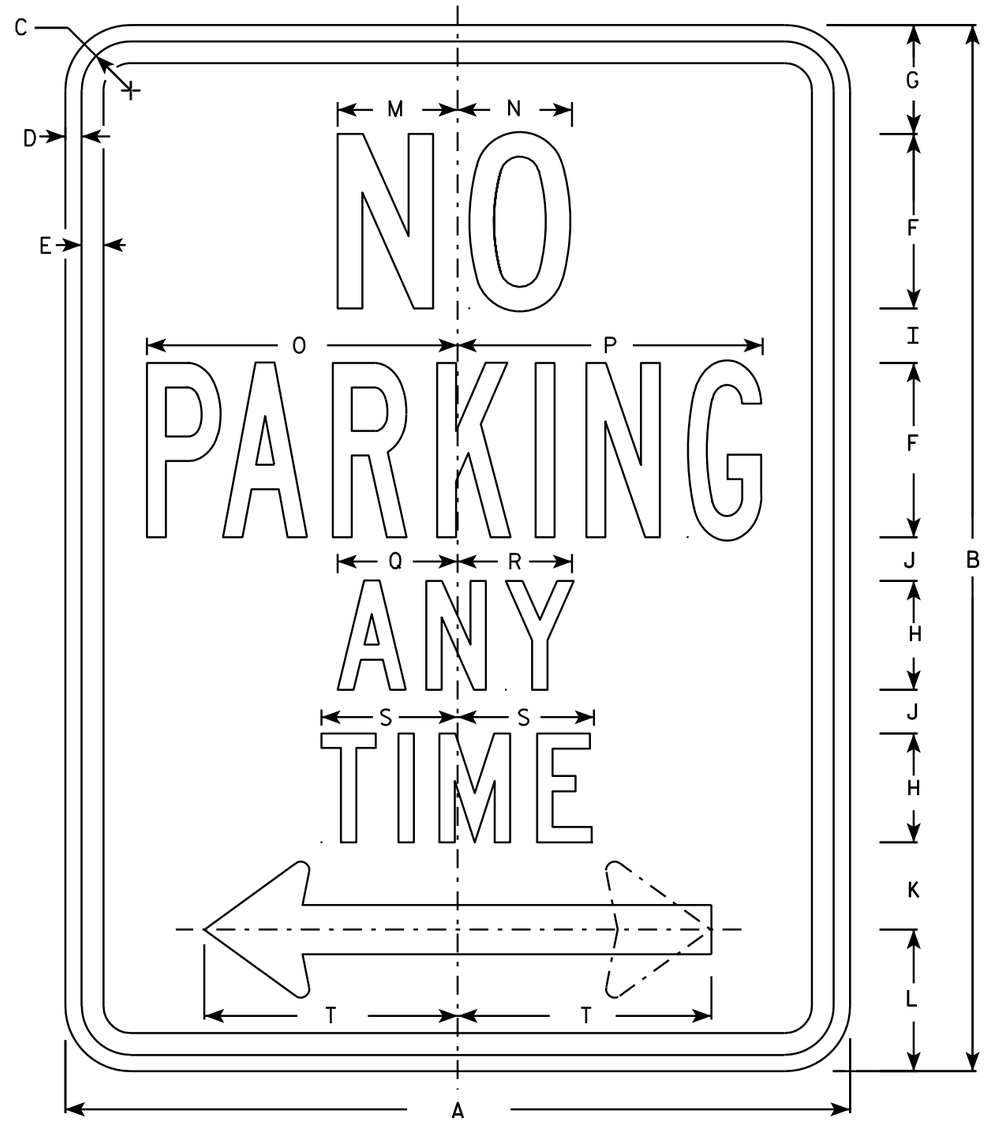
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R6-3.5

PROJECT NO:

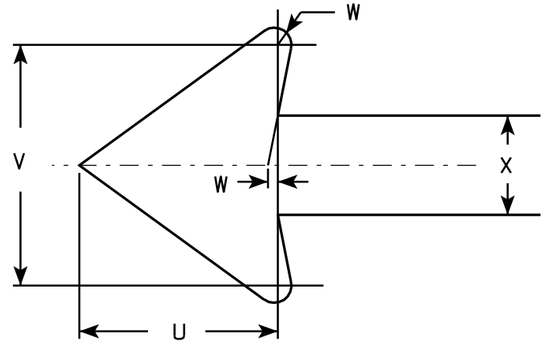
SHEET NO: 549 E



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

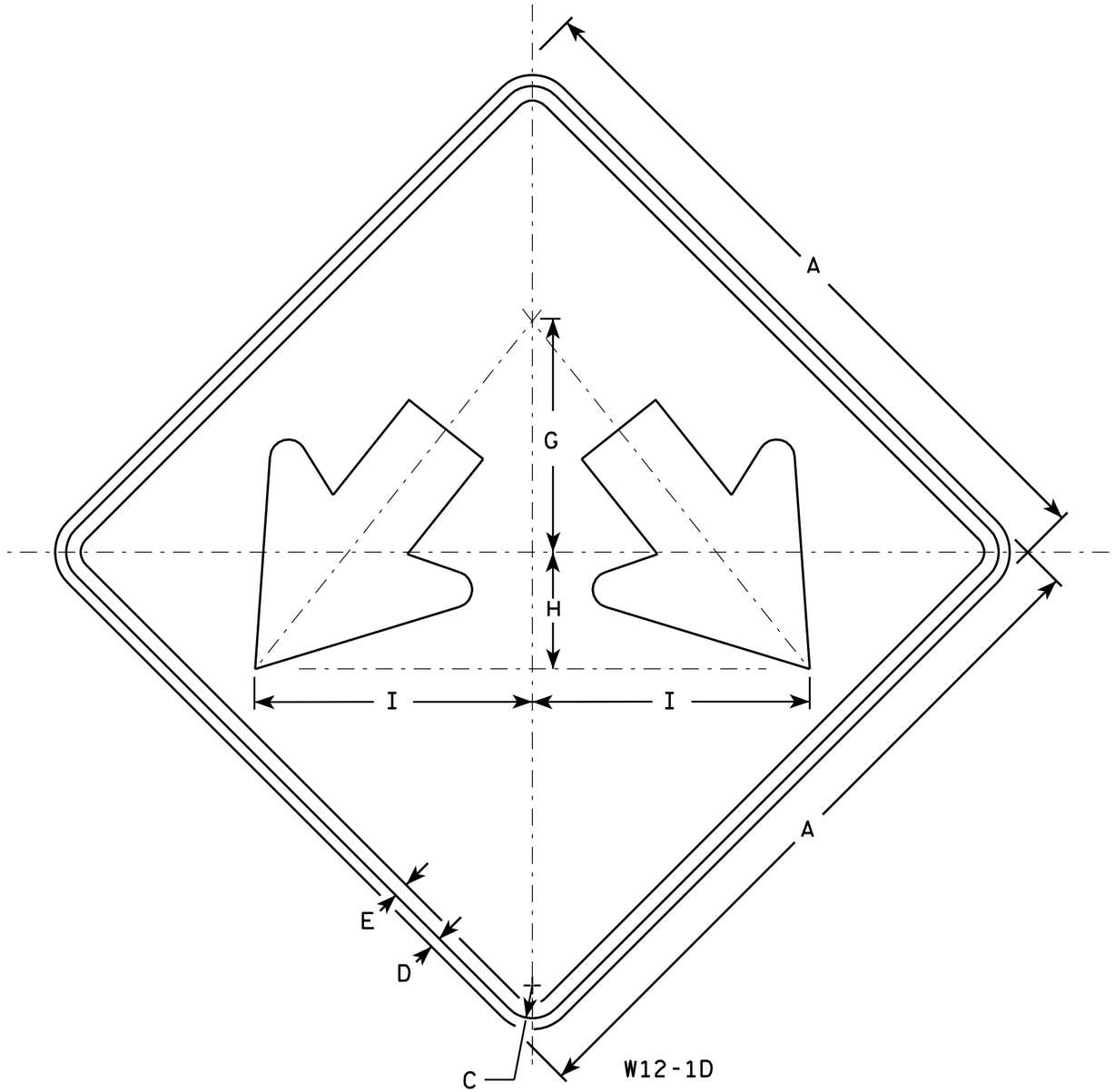
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R7-1.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 550	E

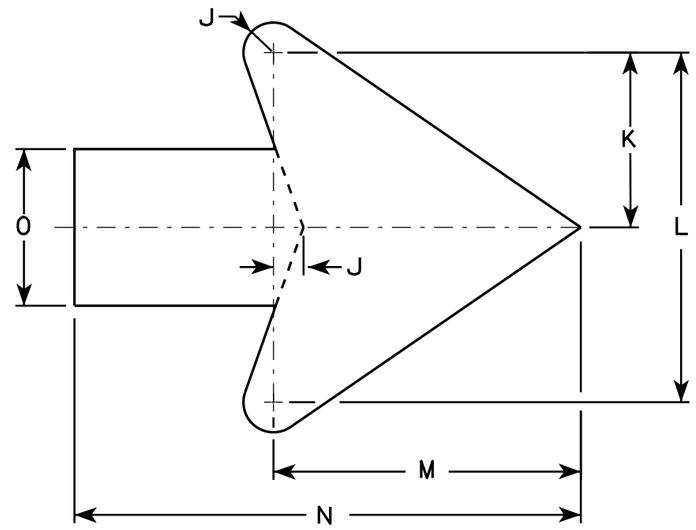
FILE NAME : C:\Users\PROJECTS\tr_stdplate\R71.DGN PLOT DATE : 31-MAR-2011 09:20 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 3.476110:1.000000

WISDOT/CADDS SHEET 42



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
2M	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
3	30		1 3/8	1/2	5/8		10	5	11 7/8	3/4	4 1/2	9	7 7/8	13	4												6.25
4	36		1 3/8	1/2	5/8		12	6	14 1/4	1	5 1/2	10 7/8	9 5/8	15 3/4	4 3/4												9.0
5	48		2 1/4	3/4	1		16	8	19	1 1/4	7 1/4	14 1/2	12 3/4	21	6 1/4												16.0

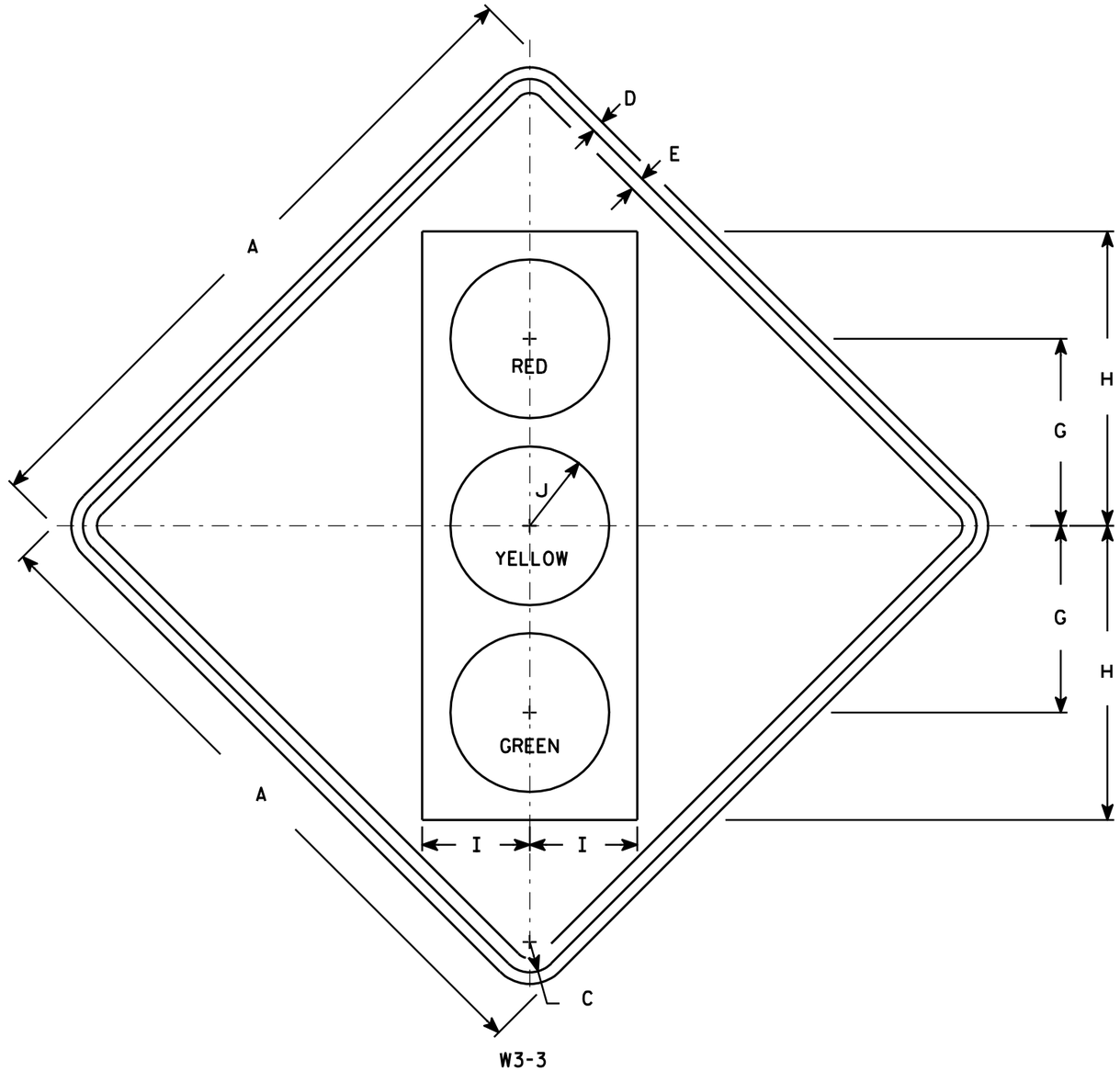
STANDARD SIGN
W12-1D

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/13/13 PLATE NO. W12-1D.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 551	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 - See Note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Symbol and border are non-reflective black.
   Top circle - Type H Reflectorized Red
   Center circle - Same as background
   Bottom circle - Type H Reflectorized Green

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8		8 3/4	13 3/4	5	3 3/4																	6.25
2S	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
2M	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
3	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
4	48		2 1/4	3/4	1		12 1/2	20	7 1/2	5																	16.0
5	48		2 1/4	3/4	1		12 1/2	20	7 1/2	5																	16.0

STANDARD SIGN
W3-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W3-3.11

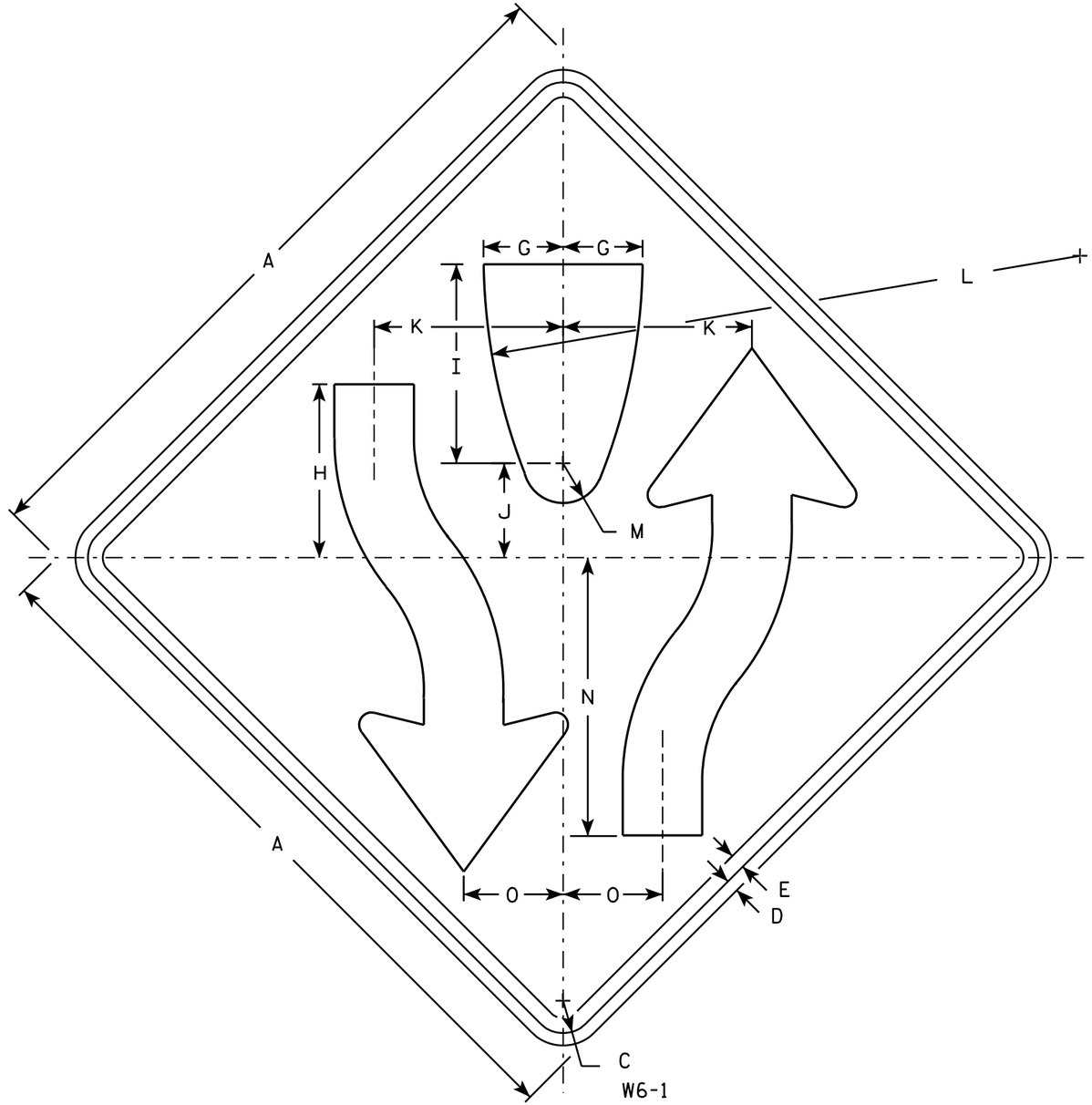
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 552 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W33.DGN PLOT DATE : 07-JUN-2010 13:07 PLOT BY : ditjph PLOT NAME : PLOT SCALE : 7.448805:1.000000

WISDOT/CADDS SHEET 42

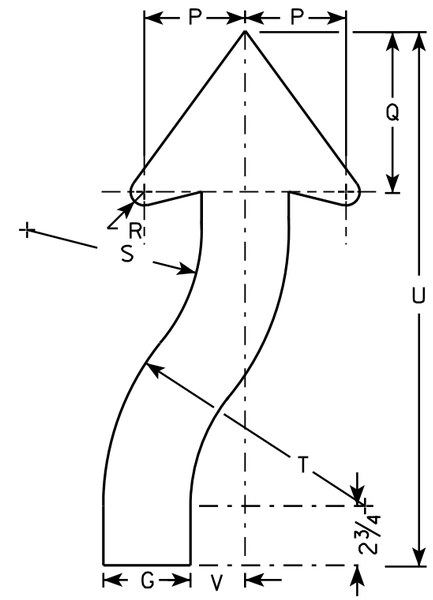
7

7



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W6-2 same as W6-1 but is rotated 180° when mounted.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8		3 1/4	8	8 1/4	4 1/8	7 7/8	25	1 3/4	11 5/8	4 1/8	3 7/8	6 3/4	5/8	6 5/8	9 7/8	21 5/8	2					6.25
2S	36		1 5/8	5/8	3/4		4	8 3/4	10	4 3/4	9 1/2	30	2	14	5	4 5/8	7 3/8	7/8	8	12	24 1/2	2 1/2					9.0
2M	36		1 5/8	5/8	3/4		4	8 3/4	10	4 3/4	9 1/2	30	2	14	5	4 5/8	7 3/8	7/8	8	12	24 1/2	2 1/2					9.0
3																											
4	48		2 1/4	3/4	1		5 3/8	11 5/8	13 3/8	6 3/8	12 5/8	40	2 5/8	18 5/8	6 5/8	6 1/4	9 7/8	1 1/4	10 5/8	16	32 5/8	3 3/8					16.0
5	48		2 1/4	3/4	1		5 3/8	11 5/8	13 3/8	6 3/8	12 5/8	40	2 5/8	18 5/8	6 5/8	6 1/4	9 7/8	1 1/4	10 5/8	16	32 5/8	3 3/8					16.0

STANDARD SIGN
W6-1 & W6-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 03/12/13 PLATE NO. W6-1.14

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 553 | E

7

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W61.DGN PLOT DATE : 12-MAR-2013 14:02 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 6.946657:1.000000
WISDOT/CADDS SHEET 42

Stage 1 RYAN ROAD

POND SPILLWAY			AREA (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)				
Station	Real Station	Distance	Cut	Salvaged/Unusable Pavement Material	Fill	EBS	Cut Note 1	Salvaged/Unusable Pavement Material	Fill Note 2	EBS	Cut 1.00 Note 1	Expanded Fill 1.2	Expanded EBS Backfill	Reduced EBS in Fill	Mass Ordinate Note 3
36P+20	3620	0	22	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
37P+00	3700	80	64	0	0	0	127.41	0.00	0.00	0.00	127.41	0.00	0.00	0.00	127.41
38P+00	3800	100	55	0	0	0	220.37	0.00	0.00	0.00	347.78	0.00	0.00	0.00	347.78
39P+00	3900	100	145	0	0	0	370.37	0.00	0.00	0.00	718.15	0.00	0.00	0.00	718.15
40P+00	4000	100	98	0	0	0	450.00	0.00	0.00	0.00	1168.15	0.00	0.00	0.00	1168.15
40P+80	4080	80	154	0	0	0	373.33	0.00	0.00	0.00	1541.48	0.00	0.00	0.00	1541.48
		460					1541.48		0.00						

POND			AREA (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)				
Station	Real Station	Distance	Cut	Salvaged/Unusable Pavement Material	Fill	EBS	Cut Note 1	Salvaged/Unusable Pavement Material	Fill Note 2	EBS	Cut 1.00 Note 1	Expanded Fill 1.2	Expanded EBS Backfill	Reduced EBS in Fill	Mass Ordinate Note 3
40P+50	4050	0	0	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
40P+80	4080	30	1322	0	0	0	734.44	0.00	0.00	0.00	734.44	0.00	0.00	0.00	734.44
41P+00	4100	20	1310	0	0	0	974.81	0.00	0.00	0.00	1709.26	0.00	0.00	0.00	1709.26
41P+50	4150	50	1278	0	0	0	2396.30	0.00	0.00	0.00	4105.56	0.00	0.00	0.00	4105.56
42P+00	4200	50	1212	0	0	0	2305.56	0.00	0.00	0.00	6411.11	0.00	0.00	0.00	6411.11
42P+50	4250	50	1139	0	4	0	2176.85	0.00	3.70	0.00	8587.96	4.44	0.00	0.00	8583.52
43P+00	4300	50	1046	0	18	0	2023.15	0.00	20.37	0.00	10611.11	28.89	0.00	0.00	10582.22
43P+20	4320	20	1009	0	24	0	761.11	0.00	15.56	0.00	11372.22	47.56	0.00	0.00	11324.67
43P+50	4350	30	0	0	0	0	560.56	0.00	13.33	0.00	11932.78	63.56	0.00	0.00	11869.22
		300					11932.78		52.96						

NOTES:	
1-CUT	CUT DOES INCLUDE SALVAGED/UNUSABLE PAVEMENT MATERIAL.
2-FILL	DOES NOT INCLUDE PAVEMENT EXC. VOLUME
3-MASS ORDINATE	[(CUMULATIVE CUT) - ((CUMULATIVE FILL)*FILL FACTOR)]

9

9

Stage 1 RYAN ROAD

WEST			AREA (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)				
Station	Real Station	Distance	Cut	Salvaged/Unusable Pavement Material	Fill	EBS	Cut Note 1	Salvaged/Unusable Pavement Material	Fill Note 2	EBS	Cut 1.00 Note 1	Expanded Fill 1.2	Expanded EBS Backfill	Reduced EBS in Fill	Mass Ordinate Note 3
12+95.0	1295.00	0.00	125	0	4	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13+00	1300.00	5.00	125	0	4	0	23.15	0.00	0.74	0.00	23.15	0.89	0.00	0.00	22.26
13+50	1350.00	50.00	81	0	0	0	190.74	0.00	3.70	0.00	213.89	5.33	0.00	0.00	208.56
14+00	1400.00	50.00	71	0	0	0	140.74	0.00	0.00	0.00	354.63	5.33	0.00	0.00	349.30
14+50	1450.00	50.00	75	0	0	0	135.19	0.00	0.00	0.00	489.81	5.33	0.00	0.00	484.48
15+00	1500.00	50.00	58	0	0	0	123.15	0.00	0.00	0.00	612.96	5.33	0.00	0.00	607.63
15+50	1550.00	50.00	64	0	0	0	112.96	0.00	0.00	0.00	725.93	5.33	0.00	0.00	720.59
16+00	1600.00	50.00	66	0	0	0	120.37	0.00	0.00	0.00	846.30	5.33	0.00	0.00	840.96
16+50	1650.00	50.00	47	0	1	0	104.63	0.00	0.93	0.00	950.93	6.44	0.00	0.00	944.48
17+00	1700.00	50.00	52	0	0	0	91.67	0.00	0.93	0.00	1042.59	7.56	0.00	0.00	1035.04
17+50	1750.00	50.00	65	0	0	0	108.33	0.00	0.00	0.00	1150.93	7.56	0.00	0.00	1143.37
18+00	1800.00	50.00	153	0	0	0	201.85	0.00	0.00	0.00	1352.78	7.56	0.00	0.00	1345.22
18+50	1850.00	50.00	200	0	0	0	326.85	0.00	0.00	0.00	1679.63	7.56	0.00	0.00	1672.07
19+00	1900.00	50.00	203	0	0	0	373.15	0.00	0.00	0.00	2052.78	7.56	0.00	0.00	2045.22
19+50	1950.00	50.00	200	0	0	0	373.15	0.00	0.00	0.00	2425.93	7.56	0.00	0.00	2418.37
20+00	2000.00	50.00	186	0	0	0	357.41	0.00	0.00	0.00	2783.33	7.56	0.00	0.00	2775.78
20+50	2050.00	50.00	167	0	0	0	326.85	0.00	0.00	0.00	3110.19	7.56	0.00	0.00	3102.63
21+00	2100.00	50.00	150	0	0	0	293.52	0.00	0.00	0.00	3403.70	7.56	0.00	0.00	3396.15
21+50	2150.00	50.00	183	0	0	0	308.33	0.00	0.00	0.00	3712.04	7.56	0.00	0.00	3704.48
22+00	2200.00	50.00	174	0	0	0	330.56	0.00	0.00	0.00	4042.59	7.56	0.00	0.00	4035.04
22+50	2250.00	50.00	165	0	0	0	313.89	0.00	0.00	0.00	4356.48	7.56	0.00	0.00	4348.93
23+00	2300.00	50.00	163	0	0	0	303.70	0.00	0.00	0.00	4660.19	7.56	0.00	0.00	4652.63
23+50	2350.00	50.00	206	0	0	0	341.67	0.00	0.00	0.00	5001.85	7.56	0.00	0.00	4994.30
24+00	2400.00	50.00	168	0	0	0	346.30	0.00	0.00	0.00	5348.15	7.56	0.00	0.00	5340.59
24+50	2450.00	50.00	176	0	0	0	318.52	0.00	0.00	0.00	5666.67	7.56	0.00	0.00	5659.11
25+00	2500.00	50.00	158	0	0	0	309.26	0.00	0.00	0.00	5975.93	7.56	0.00	0.00	5968.37
25+50	2550.00	50.00	147	0	0	0	282.41	0.00	0.00	0.00	6258.33	7.56	0.00	0.00	6250.78
26+00	2600.00	50.00	145	0	6	0	270.37	0.00	5.56	0.00	6528.70	14.22	0.00	0.00	6514.48
26+50	2650.00	50.00	160	0	10	0	282.41	0.00	14.81	0.00	6811.11	32.00	0.00	0.00	6779.11

NOTES:	
1-CUT	CUT DOES INCLUDE SALVAGED/UNUSABLE PAVEMENT MATERIAL.
2-FILL	DOES NOT INCLUDE PAVEMENT EXC. VOLUME
3-MASS ORDINATE	[(CUMULATIVE CUT) - ((CUMULATIVE FILL)*FILL FACTOR)]

(CONTINUED ON NEXT SHEET)

Stage 1 RYAN ROAD

WEST			AREA (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)				
Station	Real Station	Distance	Cut	Salvaged/Unusable Pavement Material	Fill	EBS	Cut Note 1	Salvaged/Unusable Pavement Material	Fill Note 2	EBS	Cut 1.00 Note 1	Expanded Fill 1.2	Expanded EBS Backfill	Reduced EBS in Fill	Mass Ordinate Note 3
27+00	2700.00	50.00	202	0	8	0	335.19	0.00	16.67	0.00	7146.30	52.00	0.00	0.00	7094.30
27+50	2750.00	50.00	213	0	10	0	384.26	0.00	16.67	0.00	7530.56	72.00	0.00	0.00	7458.56
28+00	2800.00	50.00	216	0	6	0	397.22	0.00	14.81	0.00	7927.78	89.78	0.00	0.00	7838.00
28+50	2850.00	50.00	212	0	8	0	396.30	0.00	12.96	0.00	8324.07	105.33	0.00	0.00	8218.74
29+00	2900.00	50.00	198	0	11	0	379.63	0.00	17.59	0.00	8703.70	126.44	0.00	0.00	8577.26
29+50	2950.00	50.00	197	0	12	0	365.74	0.00	21.30	0.00	9069.44	152.00	0.00	0.00	8917.44
30+00	3000.00	50.00	195	0	6	0	362.96	0.00	16.67	0.00	9432.41	172.00	0.00	0.00	9260.41
30+50	3050.00	50.00	224	0	0	0	387.96	0.00	5.56	0.00	9820.37	178.67	0.00	0.00	9641.70
31+00	3100.00	50.00	187	0	0	0	380.56	0.00	0.00	0.00	10200.93	178.67	0.00	0.00	10022.26
31+50	3150.00	50.00	183	0	0	0	342.59	0.00	0.00	0.00	10543.52	178.67	0.00	0.00	10364.85
32+00	3200.00	50.00	196	0	0	0	350.93	0.00	0.00	0.00	10894.44	178.67	0.00	0.00	10715.78
32+50	3250.00	50.00	171	0	0	0	339.81	0.00	0.00	0.00	11234.26	178.67	0.00	0.00	11055.59
33+00	3300.00	50.00	161	0	0	0	307.41	0.00	0.00	0.00	11541.67	178.67	0.00	0.00	11363.00
33+50	3350.00	50.00	215	0	0	0	348.15	0.00	0.00	0.00	11889.81	178.67	0.00	0.00	11711.15
34+00	3400.00	50.00	155	0	1	0	342.59	0.00	0.93	0.00	12232.41	179.78	0.00	0.00	12052.63
34+50	3450.00	50.00	135	0	2	0	268.52	0.00	2.78	0.00	12500.93	183.11	0.00	0.00	12317.81
35+00	3500.00	50.00	160	0	1	0	273.15	0.00	2.78	0.00	12774.07	186.44	0.00	0.00	12587.63
35+50	3550.00	50.00	157	0	2	0	293.52	0.00	2.78	0.00	13067.59	189.78	0.00	0.00	12877.81
36+00	3600.00	50.00	188	0	0	0	319.44	0.00	1.85	0.00	13387.04	192.00	0.00	0.00	13195.04
36+50	3650.00	50.00	227	0	10	0	384.26	0.00	9.26	0.00	13771.30	203.11	0.00	0.00	13568.19
37+00	3700.00	50.00	284	0	0	0	473.15	0.00	9.26	0.00	14244.44	214.22	0.00	0.00	14030.22
37+50	3750.00	50.00	323	0	0	0	562.04	0.00	0.00	0.00	14806.48	214.22	0.00	0.00	14592.26
38+00	3800.00	50.00	342	0	0	0	615.74	0.00	0.00	0.00	15422.22	214.22	0.00	0.00	15208.00
38+50	3850.00	50.00	403	0	0	0	689.81	0.00	0.00	0.00	16112.04	214.22	0.00	0.00	15897.81
39+00	3900.00	50.00	378	0	0	0	723.15	0.00	0.00	0.00	16835.19	214.22	0.00	0.00	16620.96
39+48	3948.00	48.00	307	0	0	0	608.89	0.00	0.00	0.00	17444.07	214.22	0.00	0.00	17229.85
		2653.00					17444.07		178.52						

NOTES:	
1-CUT	CUT DOES INCLUDE SALVAGED/UNUSABLE PAVEMENT MATERIAL.
2-FILL	DOES NOT INCLUDE PAVEMENT EXC. VOLUME
3-MASS ORDINATE	[(CUMULATIVE CUT) - ((CUMULATIVE FILL)*FILL FACTOR)]

Stage 1 RYAN ROAD

EAST			AREA (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)				
Station	Real Station	Distance	Cut	Salvaged/Unusable Pavement Material	Fill	EBS	Cut Note 1	Salvaged/Unusable Pavement Material	Fill Note 2	EBS	Cut 1.00 Note 1	Expanded Fill 1.2	Expanded EBS Backfill	Reduced EBS in Fill	Mass Ordinate Note 3
60+42	6042	0	203	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60+50	6050	8	203	0	0	0	60.15	0.00	0.00	0.00	60.15	0.00	0.00	0.00	60.15
61+00	6100	50	208	0	0	0	380.56	0.00	0.00	0.00	440.70	0.00	0.00	0.00	440.70
61+50	6150	50	236	0	0	0	411.11	0.00	0.00	0.00	851.81	0.00	0.00	0.00	851.81
62+00	6200	50	232	0	0	0	433.33	0.00	0.00	0.00	1285.15	0.00	0.00	0.00	1285.15
62+50	6250	50	259	0	0	0	454.63	0.00	0.00	0.00	1739.78	0.00	0.00	0.00	1739.78
63+00	6300	50	322	0	0	0	537.96	0.00	0.00	0.00	2277.74	0.00	0.00	0.00	2277.74
63+50	6350	50	305	0	0	0	580.56	0.00	0.00	0.00	2858.30	0.00	0.00	0.00	2858.30
64+00	6400	50	249	0	0	0	512.96	0.00	0.00	0.00	3371.26	0.00	0.00	0.00	3371.26
64+50	6450	50	230	0	0	0	443.52	0.00	0.00	0.00	3814.78	0.00	0.00	0.00	3814.78
65+00	6500	50	248	0	0	0	442.59	0.00	0.00	0.00	4257.37	0.00	0.00	0.00	4257.37
65+50	6550	50	223	0	0	0	436.11	0.00	0.00	0.00	4693.48	0.00	0.00	0.00	4693.48
66+00	6600	50	191	0	0	0	383.33	0.00	0.00	0.00	5076.81	0.00	0.00	0.00	5076.81
66+50	6650	50	164	0	3	0	328.70	0.00	2.78	0.00	5405.52	3.33	0.00	0.00	5402.19
67+00	6700	50	146	0	6	0	287.04	0.00	8.33	0.00	5692.56	13.33	0.00	0.00	5679.22
67+50	6750	50	135	0	2	0	260.19	0.00	7.41	0.00	5952.74	22.22	0.00	0.00	5930.52
68+00	6800	50	139	0	3	0	253.70	0.00	4.63	0.00	6206.44	27.78	0.00	0.00	6178.67
68+50	6850	50	135	0	3	0	253.70	0.00	5.56	0.00	6460.15	34.44	0.00	0.00	6425.70
69+00	6900	50	104	0	0	0	221.30	0.00	2.78	0.00	6681.44	37.78	0.00	0.00	6643.67
69+50	6950	50	125	0	8	0	212.04	0.00	7.41	0.00	6893.48	46.67	0.00	0.00	6846.81
70+00	7000	50	118	0	0	0	225.00	0.00	7.41	0.00	7118.48	55.56	0.00	0.00	7062.93
70+50	7050	50	104	0	0	0	205.56	0.00	0.00	0.00	7324.04	55.56	0.00	0.00	7268.48
71+00	7100	50	92	0	0	0	181.48	0.00	0.00	0.00	7505.52	55.56	0.00	0.00	7449.96
71+50	7150	50	77	0	2	0	156.48	0.00	1.85	0.00	7662.00	57.78	0.00	0.00	7604.22
72+00	7200	50	60	0	4	0	126.85	0.00	5.56	0.00	7788.85	64.44	0.00	0.00	7724.41
72+50	7250	50	50	0	6	0	101.85	0.00	9.26	0.00	7890.70	75.56	0.00	0.00	7815.15
73+00	7300	50	44	0	11	0	87.04	0.00	15.74	0.00	7977.74	94.44	0.00	0.00	7883.30
73+50	7350	50	42	0	18	0	79.63	0.00	26.85	0.00	8057.37	126.67	0.00	0.00	7930.70
74+00	7400	50	72	0	5	0	105.56	0.00	21.30	0.00	8162.93	152.22	0.00	0.00	8010.70
74+50	7450	50	112	0	0	0	170.37	0.00	4.63	0.00	8333.30	157.78	0.00	0.00	8175.52
75+00	7500	50	149	0	0	0	241.67	0.00	0.00	0.00	8574.96	157.78	0.00	0.00	8417.19
75+50	7550	50	175	0	0	0	300.00	0.00	0.00	0.00	8874.96	157.78	0.00	0.00	8717.19
76+00	7600	50	189	0	0	0	337.04	0.00	0.00	0.00	9212.00	157.78	0.00	0.00	9054.22
76+50	7650	50	200	0	4	0	360.19	0.00	3.70	0.00	9572.19	162.22	0.00	0.00	9409.96
77+00	7700	50	211	0	1	0	380.56	0.00	4.63	0.00	9952.74	167.78	0.00	0.00	9784.96
77+50	7750	50	217	0	0	0	396.30	0.00	0.93	0.00	10349.04	168.89	0.00	0.00	10180.15
78+00	7800	50	229	0	0	0	412.96	0.00	0.00	0.00	10762.00	168.89	0.00	0.00	10593.11
78+50	7850	50	227	0	0	0	422.22	0.00	0.00	0.00	11184.22	168.89	0.00	0.00	11015.33
79+00	7900	50	243	0	0	0	435.19	0.00	0.00	0.00	11619.41	168.89	0.00	0.00	11450.52

NOTES:

1-CUT	CUT DOES INCLUDE SALVAGED/UNUSABLE PAVEMENT MATERIAL.
2-FILL	DOES NOT INCLUDE PAVEMENT EXC. VOLUME
3-MASS ORDINATE	[(CUMULATIVE CUT) - ((CUMULATIVE FILL)*FILL FACTOR)]

(CONTINUED ON NEXT SHEET)

Stage 1 RYAN ROAD

EAST			AREA (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)				
Station	Real Station	Distance	Cut	Salvaged/Unusable Pavement Material	Fill	EBS	Cut Note 1	Salvaged/Unusable Pavement Material	Fill Note 2	EBS	Cut 1.00 Note 1	Expanded Fill 1.2	Expanded EBS Backfill	Reduced EBS in Fill	Mass Ordinate Note 3
79+50	7950	50	229	0	0	0	437.04	0.00	0.00	0.00	12056.44	168.89	0.00	0.00	11887.56
80+00	8000	50	230	0	0	0	425.00	0.00	0.00	0.00	12481.44	168.89	0.00	0.00	12312.56
80+50	8050	50	257	0	0	0	450.93	0.00	0.00	0.00	12932.37	168.89	0.00	0.00	12763.48
81+00	8100	50	266	0	0	0	484.26	0.00	0.00	0.00	13416.63	168.89	0.00	0.00	13247.74
81+50	8150	50	264	0	0	0	490.74	0.00	0.00	0.00	13907.37	168.89	0.00	0.00	13738.48
82+00	8200	50	241	0	0	0	467.59	0.00	0.00	0.00	14374.96	168.89	0.00	0.00	14206.07
82+50	8250	50	227	0	0	0	433.33	0.00	0.00	0.00	14808.30	168.89	0.00	0.00	14639.41
83+00	8300	50	185	0	0	0	381.48	0.00	0.00	0.00	15189.78	168.89	0.00	0.00	15020.89
83+50	8350	50	183	0	0	0	340.74	0.00	0.00	0.00	15530.52	168.89	0.00	0.00	15361.63
84+00	8400	50	187	0	0	0	342.59	0.00	0.00	0.00	15873.11	168.89	0.00	0.00	15704.22
84+50	8450	50	170	0	0	0	330.56	0.00	0.00	0.00	16203.67	168.89	0.00	0.00	16034.78
85+00	8500	50	188	0	0	0	331.48	0.00	0.00	0.00	16535.15	168.89	0.00	0.00	16366.26
85+50	8550	50	211	0	0	0	369.44	0.00	0.00	0.00	16904.59	168.89	0.00	0.00	16735.70
86+00	8600	50	191	0	0	0	372.22	0.00	0.00	0.00	17276.81	168.89	0.00	0.00	17107.93
86+50	8650	50	215	0	0	0	375.93	0.00	0.00	0.00	17652.74	168.89	0.00	0.00	17483.85
87+00	8700	50	216	0	0	0	399.07	0.00	0.00	0.00	18051.81	168.89	0.00	0.00	17882.93
87+50	8750	50	212	0	0	0	396.30	0.00	0.00	0.00	18448.11	168.89	0.00	0.00	18279.22
88+00	8800	50	205	0	0	0	386.11	0.00	0.00	0.00	18834.22	168.89	0.00	0.00	18665.33
88+50	8850	50	204	0	0	0	378.70	0.00	0.00	0.00	19212.93	168.89	0.00	0.00	19044.04
89+00	8900	50	202	0	0	0	375.93	0.00	0.00	0.00	19588.85	168.89	0.00	0.00	19419.96
89+50	8950	50	183	0	1	0	356.48	0.00	0.93	0.00	19945.33	170.00	0.00	0.00	19775.33
90+00	9000	50	187	0	1	0	342.59	0.00	1.85	0.00	20287.93	172.22	0.00	0.00	20115.70
90+50	9050	50	169	0	0	0	329.63	0.00	0.93	0.00	20617.56	173.33	0.00	0.00	20444.22
91+00	9100	50	195	0	0	0	337.04	0.00	0.00	0.00	20954.59	173.33	0.00	0.00	20781.26
91+50	9150	50	198	0	1	0	363.89	0.00	0.93	0.00	21318.48	174.44	0.00	0.00	21144.04
92+00	9200	50	192	0	0	0	361.11	0.00	0.93	0.00	21679.59	175.56	0.00	0.00	21504.04
92+50	9250	50	184	0	0	0	348.15	0.00	0.00	0.00	22027.74	175.56	0.00	0.00	21852.19
93+00	9300	50	193	0	0	0	349.07	0.00	0.00	0.00	22376.81	175.56	0.00	0.00	22201.26
93+50	9350	50	191	0	0	0	355.56	0.00	0.00	0.00	22732.37	175.56	0.00	0.00	22556.81
94+00	9400	50	187	0	0	0	350.00	0.00	0.00	0.00	23082.37	175.56	0.00	0.00	22906.81
94+50	9450	50	170	0	0	0	330.56	0.00	0.00	0.00	23412.93	175.56	0.00	0.00	23237.37
95+00	9500	50	156	0	1	0	301.85	0.00	0.93	0.00	23714.78	176.67	0.00	0.00	23538.11
95+50	9550	50	146	0	0	0	279.63	0.00	0.93	0.00	23994.41	177.78	0.00	0.00	23816.63
96+00	9600	50	138	0	1	0	262.96	0.00	0.93	0.00	24257.37	178.89	0.00	0.00	24078.48
96+50	9650	50	153	0	0	0	269.44	0.00	0.93	0.00	24526.81	180.00	0.00	0.00	24346.81
97+00	9700	50	148	0	1	0	278.70	0.00	0.93	0.00	24805.52	181.11	0.00	0.00	24624.41
97+50	9750	50	150	0	1	0	275.93	0.00	1.85	0.00	25081.44	183.33	0.00	0.00	24898.11
98+00	9800	50	148	0	0	0	275.93	0.00	0.93	0.00	25357.37	184.44	0.00	0.00	25172.93
98+50	9850	50	145	0	0	0	271.30	0.00	0.00	0.00	25628.67	184.44	0.00	0.00	25444.22

NOTES:	
1-CUT	CUT DOES INCLUDE SALVAGED/UNUSABLE PAVEMENT MATERIAL.
2-FILL	DOES NOT INCLUDE PAVEMENT EXC. VOLUME
3-MASS ORDINATE	[(CUMULATIVE CUT) - ((CUMULATIVE FILL)*FILL FACTOR)]

(CONTINUED ON NEXT SHEET)

Stage 1 RYAN ROAD

EAST			AREA (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)				
Station	Real Station	Distance	Cut	Salvaged/Unusable Pavement Material	Fill	EBS	Cut Note 1	Salvaged/Unusable Pavement Material	Fill Note 2	EBS	Cut 1.00 Note 1	Expanded Fill 1.2	Expanded EBS Backfill	Reduced EBS in Fill	Mass Ordinate Note 3
99+00	9900	50	152	0	0	0	275.00	0.00	0.00	0.00	25903.67	184.44	0.00	0.00	25719.22
99+50	9950	50	146	0	0	0	275.93	0.00	0.00	0.00	26179.59	184.44	0.00	0.00	25995.15
100+00	10000	50	161	0	0	0	284.26	0.00	0.00	0.00	26463.85	184.44	0.00	0.00	26279.41
100+50	10050	50	150	0	0	0	287.96	0.00	0.00	0.00	26751.81	184.44	0.00	0.00	26567.37
101+00	10100	50	142	0	0	0	270.37	0.00	0.00	0.00	27022.19	184.44	0.00	0.00	26837.74
101+50	10150	50	154	0	3	0	274.07	0.00	2.78	0.00	27296.26	187.78	0.00	0.00	27108.48
102+00	10200	50	150	0	4	0	281.48	0.00	6.48	0.00	27577.74	195.56	0.00	0.00	27382.19
102+50	10250	50	157	0	1	0	284.26	0.00	4.63	0.00	27862.00	201.11	0.00	0.00	27660.89
103+00	10300	50	185	0	0	0	316.67	0.00	0.93	0.00	28178.67	202.22	0.00	0.00	27976.44
103+50	10350	50	177	0	0	0	335.19	0.00	0.00	0.00	28513.85	202.22	0.00	0.00	28311.63
104+00	10400	50	199	0	0	0	348.15	0.00	0.00	0.00	28862.00	202.22	0.00	0.00	28659.78
104+50	10450	50	200	0	0	0	369.44	0.00	0.00	0.00	29231.44	202.22	0.00	0.00	29029.22
105+00	10500	50	189	0	0	0	360.19	0.00	0.00	0.00	29591.63	202.22	0.00	0.00	29389.41
105+00	10550	50	162	0	0	0	325.00	0.00	0.00	0.00	29916.63	202.22	0.00	0.00	29714.41
106+00	10600	50	135	0	1	0	275.00	0.00	0.93	0.00	30191.63	203.33	0.00	0.00	29988.30
106+50	10650	50	114	0	7	0	230.56	0.00	7.41	0.00	30422.19	212.22	0.00	0.00	30209.96
107+00	10700	50	98	0	10	0	196.30	0.00	15.74	0.00	30618.48	231.11	0.00	0.00	30387.37
107+50	10750	50	99	0	8	0	182.41	0.00	16.67	0.00	30800.89	251.11	0.00	0.00	30549.78
108+00	10800	50	121	0	6	0	203.70	0.00	12.96	0.00	31004.59	266.67	0.00	0.00	30737.93
108+50	10850	50	129	0	5	0	231.48	0.00	10.19	0.00	31236.07	278.89	0.00	0.00	30957.19
109+00	10900	50	141	0	0	0	250.00	0.00	4.63	0.00	31486.07	284.44	0.00	0.00	31201.63
109+50	10950	50	168	0	0	0	286.11	0.00	0.00	0.00	31772.19	284.44	0.00	0.00	31487.74
110+00	11000	50	172	0	2	0	314.81	0.00	1.85	0.00	32087.00	286.67	0.00	0.00	31800.33
110+50	11050	50	184	0	0	0	329.63	0.00	1.85	0.00	32416.63	288.89	0.00	0.00	32127.74
111+00	11100	50	195	0	0	0	350.93	0.00	0.00	0.00	32767.56	288.89	0.00	0.00	32478.67
111+50	11150	50	210	0	0	0	375.00	0.00	0.00	0.00	33142.56	288.89	0.00	0.00	32853.67
112+00	11200	50	194	0	0	0	374.07	0.00	0.00	0.00	33516.63	288.89	0.00	0.00	33227.74
112+50	11250	50	180	0	0	0	346.30	0.00	0.00	0.00	33862.93	288.89	0.00	0.00	33574.04
113+00	11300	50	168	0	4	0	322.22	0.00	3.70	0.00	34185.15	293.33	0.00	0.00	33891.81
113+50	11350	50	181	0	1	0	323.15	0.00	4.63	0.00	34508.30	298.89	0.00	0.00	34209.41
114+00	11400	50	187	0	0	0	340.74	0.00	0.93	0.00	34849.04	300.00	0.00	0.00	34549.04
114+50	11450	50	174	0	4	0	334.26	0.00	3.70	0.00	35183.30	304.44	0.00	0.00	34878.85
114+97	11497	47	151	0	17	0	282.87	0.00	18.28	0.00	35466.17	326.38	0.00	0.00	35139.79
		5455					35466.17		271.98						

NOTES:	
1-CUT	CUT DOES INCLUDE SALVAGED/UNUSABLE PAVEMENT MATERIAL.
2-FILL	DOES NOT INCLUDE PAVEMENT EXC. VOLUME
3-MASS ORDINATE	[(CUMULATIVE CUT) - ((CUMULATIVE FILL)*FILL FACTOR)]

Stage 2 RYAN ROAD

WEST			AREA (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)				
Station	Real Station	Distance	Cut	Salvaged/Unusable Pavement Material	Fill	EBS	Cut Note 1	Salvaged/Unusable Pavement Material	Fill Note 2	EBS	Cut 1.00 Note 1	Expanded Fill 1.2	Expanded EBS Backfill	Reduced EBS in Fill	Mass Ordinate Note 3
12+77.0	1277.00	0.00	135	0	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13+00	1300.00	23.00	63	0	0	0	84.33	0.00	0.00	0.00	84.33	0.00	0.00	0.00	84.33
13+50	1350.00	50.00	41	0	0	0	96.30	0.00	0.00	0.00	180.63	0.00	0.00	0.00	180.63
14+00	1400.00	50.00	37	0	0	0	72.22	0.00	0.00	0.00	252.85	0.00	0.00	0.00	252.85
14+50	1450.00	50.00	31	0	0	0	62.96	0.00	0.00	0.00	315.81	0.00	0.00	0.00	315.81
15+00	1500.00	50.00	44	0	0	0	69.44	0.00	0.00	0.00	385.26	0.00	0.00	0.00	385.26
15+50	1550.00	50.00	56	0	0	0	92.59	0.00	0.00	0.00	477.85	0.00	0.00	0.00	477.85
16+00	1600.00	50.00	55	0	6	0	102.78	0.00	5.56	0.00	580.63	6.67	0.00	0.00	573.96
16+50	1650.00	50.00	53	0	29	0	100.00	0.00	32.41	0.00	680.63	45.56	0.00	0.00	635.07
17+00	1700.00	50.00	49	0	40	0	94.44	0.00	63.89	0.00	775.07	122.22	0.00	0.00	652.85
17+50	1750.00	50.00	64	0	0	0	104.63	0.00	37.04	0.00	879.70	166.67	0.00	0.00	713.04
18+00	1800.00	50.00	79	0	9	0	132.41	0.00	8.33	0.00	1012.11	176.67	0.00	0.00	835.44
18+50	1850.00	50.00	115	0	13	0	179.63	0.00	20.37	0.00	1191.74	201.11	0.00	0.00	990.63
19+00	1900.00	50.00	230	0	6	0	319.44	0.00	17.59	0.00	1511.19	222.22	0.00	0.00	1288.96
19+50	1950.00	50.00	230	0	12	0	425.93	0.00	16.67	0.00	1937.11	242.22	0.00	0.00	1694.89
20+00	2000.00	50.00	231	0	12	0	426.85	0.00	22.22	0.00	2363.96	268.89	0.00	0.00	2095.07
20+50	2050.00	50.00	226	0	9	0	423.15	0.00	19.44	0.00	2787.11	292.22	0.00	0.00	2494.89
21+00	2100.00	50.00	243	0	0	0	434.26	0.00	8.33	0.00	3221.37	302.22	0.00	0.00	2919.15
21+50	2150.00	50.00	160	0	2	0	373.15	0.00	1.85	0.00	3594.52	304.44	0.00	0.00	3290.07
22+00	2200.00	50.00	152	0	2	0	288.89	0.00	3.70	0.00	3883.41	308.89	0.00	0.00	3574.52
22+50	2250.00	50.00	146	0	1	0	275.93	0.00	2.78	0.00	4159.33	312.22	0.00	0.00	3847.11
23+00	2300.00	50.00	143	0	1	0	267.59	0.00	1.85	0.00	4426.93	314.44	0.00	0.00	4112.48
23+50	2350.00	50.00	147	0	0	0	268.52	0.00	0.93	0.00	4695.44	315.56	0.00	0.00	4379.89
24+00	2400.00	50.00	149	0	2	0	274.07	0.00	1.85	0.00	4969.52	317.78	0.00	0.00	4651.74
24+50	2450.00	50.00	157	0	3	0	283.33	0.00	4.63	0.00	5252.85	323.33	0.00	0.00	4929.52
25+00	2500.00	50.00	151	0	4	0	285.19	0.00	6.48	0.00	5538.04	331.11	0.00	0.00	5206.93
25+50	2550.00	50.00	154	0	8	0	282.41	0.00	11.11	0.00	5820.44	344.44	0.00	0.00	5476.00
26+00	2600.00	50.00	160	0	10	0	290.74	0.00	16.67	0.00	6111.19	364.44	0.00	0.00	5746.74

NOTES:

1-CUT	CUT DOES INCLUDE SALVAGED/UNUSABLE PAVEMENT MATERIAL.
2-FILL	DOES NOT INCLUDE PAVEMENT EXC. VOLUME
3-MASS ORDINATE	[(CUMULATIVE CUT) - ((CUMULATIVE FILL)*FILL FACTOR)]

(CONTINUED ON NEXT SHEET)

Stage 2 RYAN ROAD

WEST			AREA (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)				
Station	Real Station	Distance	Cut	Salvaged/Unusable Pavement Material	Fill	EBS	Cut Note 1	Salvaged/Unusable Pavement Material	Fill Note 2	EBS	Cut 1.00 Note 1	Expanded Fill 1.2	Expanded EBS Backfill	Reduced EBS in Fill	Mass Ordinate Note 3
26+50	2650.00	50.00	170	0	21	0	305.56	0.00	28.70	0.00	6416.74	398.89	0.00	0.00	6017.85
27+00	2700.00	50.00	156	0	30	0	301.85	0.00	47.22	0.00	6718.59	455.56	0.00	0.00	6263.04
27+50	2750.00	50.00	139	0	37	0	273.15	0.00	62.04	0.00	6991.74	530.00	0.00	0.00	6461.74
28+00	2800.00	50.00	118	0	46	0	237.96	0.00	76.85	0.00	7229.70	622.22	0.00	0.00	6607.48
28+50	2850.00	50.00	109	0	37	0	210.19	0.00	76.85	0.00	7439.89	714.44	0.00	0.00	6725.44
29+00	2900.00	50.00	125	0	0	0	216.67	0.00	34.26	0.00	7656.56	755.56	0.00	0.00	6901.00
29+50	2950.00	50.00	133	0	0	0	238.89	0.00	0.00	0.00	7895.44	755.56	0.00	0.00	7139.89
30+00	3000.00	50.00	125	0	0	0	238.89	0.00	0.00	0.00	8134.33	755.56	0.00	0.00	7378.78
30+50	3050.00	50.00	132	0	1	0	237.96	0.00	0.93	0.00	8372.30	756.67	0.00	0.00	7615.63
31+00	3100.00	50.00	130	0	0	0	242.59	0.00	0.93	0.00	8614.89	757.78	0.00	0.00	7857.11
31+50	3150.00	50.00	123	0	2	0	234.26	0.00	1.85	0.00	8849.15	760.00	0.00	0.00	8089.15
32+00	3200.00	50.00	172	0	0	0	273.15	0.00	1.85	0.00	9122.30	762.22	0.00	0.00	8360.07
32+50	3250.00	50.00	153	0	3	0	300.93	0.00	2.78	0.00	9423.22	765.56	0.00	0.00	8657.67
33+00	3300.00	50.00	152	0	5	0	282.41	0.00	7.41	0.00	9705.63	774.44	0.00	0.00	8931.19
33+50	3350.00	50.00	128	0	3	0	259.26	0.00	7.41	0.00	9964.89	783.33	0.00	0.00	9181.56
34+00	3400.00	50.00	150	0	2	0	257.41	0.00	4.63	0.00	10222.30	788.89	0.00	0.00	9433.41
34+50	3450.00	50.00	154	0	6	0	281.48	0.00	7.41	0.00	10503.78	797.78	0.00	0.00	9706.00
35+00	3500.00	50.00	164	0	8	0	294.44	0.00	12.96	0.00	10798.22	813.33	0.00	0.00	9984.89
35+50	3550.00	50.00	182	0	2	0	320.37	0.00	9.26	0.00	11118.59	824.44	0.00	0.00	10294.15
36+00	3600.00	50.00	168	0	0	0	324.07	0.00	1.85	0.00	11442.67	826.67	0.00	0.00	10616.00
36+50	3650.00	50.00	180	0	0	0	322.22	0.00	0.00	0.00	11764.89	826.67	0.00	0.00	10938.22
37+00	3700.00	50.00	170	0	0	0	324.07	0.00	0.00	0.00	12088.96	826.67	0.00	0.00	11262.30
37+50	3750.00	50.00	165	0	58	0	310.19	0.00	53.70	0.00	12399.15	891.11	0.00	0.00	11508.04
38+00	3800.00	50.00	175	0	62	0	314.81	0.00	111.11	0.00	12713.96	1024.44	0.00	0.00	11689.52
38+50	3850.00	50.00	176	0	45	0	325.00	0.00	99.07	0.00	13038.96	1143.33	0.00	0.00	11895.63
39+00	3900.00	50.00	176	0	36	0	325.93	0.00	75.00	0.00	13364.89	1233.33	0.00	0.00	12131.56
39+48	3948.00	48.00	118	0	16	0	261.33	0.00	46.22	0.00	13626.22	1288.80	0.00	0.00	12337.42
		2671.00					13626.22		1074.00						

NOTES:

1-CUT	CUT DOES INCLUDE SALVAGED/UNUSABLE PAVEMENT MATERIAL.
2-FILL	DOES NOT INCLUDE PAVEMENT EXC. VOLUME
3-MASS ORDINATE	[(CUMULATIVE CUT) - ((CUMULATIVE FILL)*FILL FACTOR)]

Stage 2 RYAN ROAD

EAST			AREA (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)				
Station	Real Station	Distance	Cut	Salvaged/Unusable Pavement Material	Fill	EBS	Cut Note 1	Salvaged/Unusable Pavement Material	Fill Note 2	EBS	Cut 1.00 Note 1	Expanded Fill 1.2	Expanded EBS Backfill	Reduced EBS in Fill	Mass Ordinate Note 3
60+42	6042	0	159	0	30	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60+50	6050	8	160	0	44	0	47.26	0.00	10.96	0.00	47.26	13.16	0.00	0.00	34.10
61+00	6100	50	173	0	43	0	308.33	0.00	80.56	0.00	355.59	109.82	0.00	0.00	245.77
61+50	6150	50	181	0	33	0	327.78	0.00	70.37	0.00	683.37	194.27	0.00	0.00	489.10
62+00	6200	50	188	0	10	0	341.67	0.00	39.81	0.00	1025.04	242.04	0.00	0.00	782.99
62+50	6250	50	219	0	0	0	376.85	0.00	9.26	0.00	1401.89	253.16	0.00	0.00	1148.73
63+00	6300	50	272	0	0	0	454.63	0.00	0.00	0.00	1856.52	253.16	0.00	0.00	1603.36
63+50	6350	50	230	0	0	0	464.81	0.00	0.00	0.00	2321.33	253.16	0.00	0.00	2068.18
64+00	6400	50	162	0	18	0	362.96	0.00	16.67	0.00	2684.30	273.16	0.00	0.00	2411.14
64+50	6450	50	158	0	29	0	296.30	0.00	43.52	0.00	2980.59	325.38	0.00	0.00	2655.21
65+00	6500	50	148	0	20	0	283.33	0.00	45.37	0.00	3263.93	379.82	0.00	0.00	2884.10
65+50	6550	50	140	0	15	0	266.67	0.00	32.41	0.00	3530.59	418.71	0.00	0.00	3111.88
66+00	6600	50	116	0	19	0	237.04	0.00	31.48	0.00	3767.63	456.49	0.00	0.00	3311.14
66+50	6650	50	112	0	15	0	211.11	0.00	31.48	0.00	3978.74	494.27	0.00	0.00	3484.47
67+00	6700	50	97	0	3	0	193.52	0.00	16.67	0.00	4172.26	514.27	0.00	0.00	3657.99
67+50	6750	50	78	0	17	0	162.04	0.00	18.52	0.00	4334.30	536.49	0.00	0.00	3797.81
68+00	6800	50	41	0	20	0	110.19	0.00	34.26	0.00	4444.48	577.60	0.00	0.00	3866.88
68+50	6850	50	21	0	20	0	57.41	0.00	37.04	0.00	4501.89	622.04	0.00	0.00	3879.84
69+00	6900	50	4	0	37	0	23.15	0.00	52.78	0.00	4525.04	685.38	0.00	0.00	3839.66
69+50	6950	50	6	0	48	0	9.26	0.00	78.70	0.00	4534.30	779.82	0.00	0.00	3754.47
70+00	7000	50	10	0	57	0	14.81	0.00	97.22	0.00	4549.11	896.49	0.00	0.00	3652.62
70+50	7050	50	9	0	63	0	17.59	0.00	111.11	0.00	4566.70	1029.82	0.00	0.00	3536.88
71+00	7100	50	11	0	64	0	18.52	0.00	117.59	0.00	4585.22	1170.93	0.00	0.00	3414.29
71+50	7150	50	8	0	66	0	17.59	0.00	120.37	0.00	4602.81	1315.38	0.00	0.00	3287.44
72+00	7200	50	13	0	79	0	19.44	0.00	134.26	0.00	4622.26	1476.49	0.00	0.00	3145.77
72+50	7250	50	14	0	65	0	25.00	0.00	133.33	0.00	4647.26	1636.49	0.00	0.00	3010.77
73+00	7300	50	16	0	58	0	27.78	0.00	113.89	0.00	4675.04	1773.16	0.00	0.00	2901.88
73+50	7350	50	54	0	45	0	64.81	0.00	95.37	0.00	4739.85	1887.60	0.00	0.00	2852.25
74+00	7400	50	95	0	25	0	137.96	0.00	64.81	0.00	4877.81	1965.38	0.00	0.00	2912.44
74+50	7450	50	120	0	14	0	199.07	0.00	36.11	0.00	5076.89	2008.71	0.00	0.00	3068.18
75+00	7500	50	136	0	4	0	237.04	0.00	16.67	0.00	5313.93	2028.71	0.00	0.00	3285.21
75+50	7550	50	142	0	3	0	257.41	0.00	6.48	0.00	5571.33	2036.49	0.00	0.00	3534.84
76+00	7600	50	135	0	6	0	256.48	0.00	8.33	0.00	5827.81	2046.49	0.00	0.00	3781.33
76+50	7650	50	136	0	0	0	250.93	0.00	5.56	0.00	6078.74	2053.16	0.00	0.00	4025.59
77+00	7700	50	151	0	0	0	265.74	0.00	0.00	0.00	6344.48	2053.16	0.00	0.00	4291.33
77+50	7750	50	167	0	0	0	294.44	0.00	0.00	0.00	6638.93	2053.16	0.00	0.00	4585.77
78+00	7800	50	234	0	0	0	371.30	0.00	0.00	0.00	7010.22	2053.16	0.00	0.00	4957.07
78+50	7850	50	184	0	0	0	387.04	0.00	0.00	0.00	7397.26	2053.16	0.00	0.00	5344.10

NOTES:

1-CUT	CUT DOES INCLUDE SALVAGED/UNUSABLE PAVEMENT MATERIAL.
2-FILL	DOES NOT INCLUDE PAVEMENT EXC. VOLUME
3-MASS ORDINATE	[(CUMULATIVE CUT) - ((CUMULATIVE FILL)*FILL FACTOR)]

(CONTINUED ON NEXT SHEET)

Stage 2 RYAN ROAD

EAST			AREA (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)				
Station	Real Station	Distance	Cut	Salvaged/Unusable Pavement Material	Fill	EBS	Cut Note 1	Salvaged/Unusable Pavement Material	Fill Note 2	EBS	Cut 1.00 Note 1	Expanded Fill 1.2	Expanded EBS Backfill	Reduced EBS in Fill	Mass Ordinate Note 3
79+00	7900	50	241	0	0	0	393.52	0.00	0.00	0.00	7790.78	2053.16	0.00	0.00	5737.62
79+50	7950	50	190	0	0	0	399.07	0.00	0.00	0.00	8189.85	2053.16	0.00	0.00	6136.70
80+00	8000	50	180	0	0	0	342.59	0.00	0.00	0.00	8532.44	2053.16	0.00	0.00	6479.29
80+50	8050	50	207	0	0	0	358.33	0.00	0.00	0.00	8890.78	2053.16	0.00	0.00	6837.62
81+00	8100	50	199	0	0	0	375.93	0.00	0.00	0.00	9266.70	2053.16	0.00	0.00	7213.55
81+50	8150	50	193	0	0	0	362.96	0.00	0.00	0.00	9629.67	2053.16	0.00	0.00	7576.51
82+00	8200	50	178	0	0	0	343.52	0.00	0.00	0.00	9973.19	2053.16	0.00	0.00	7920.03
82+50	8250	50	165	0	0	0	317.59	0.00	0.00	0.00	10290.78	2053.16	0.00	0.00	8237.62
83+00	8300	50	151	0	0	0	292.59	0.00	0.00	0.00	10583.37	2053.16	0.00	0.00	8530.21
83+50	8350	50	146	0	0	0	275.00	0.00	0.00	0.00	10858.37	2053.16	0.00	0.00	8805.21
84+00	8400	50	151	0	0	0	275.00	0.00	0.00	0.00	11133.37	2053.16	0.00	0.00	9080.21
84+50	8450	50	136	0	0	0	265.74	0.00	0.00	0.00	11399.11	2053.16	0.00	0.00	9345.96
85+00	8500	50	150	0	0	0	264.81	0.00	0.00	0.00	11663.93	2053.16	0.00	0.00	9610.77
85+50	8550	50	169	0	0	0	295.37	0.00	0.00	0.00	11959.30	2053.16	0.00	0.00	9906.14
86+00	8600	50	180	0	0	0	323.15	0.00	0.00	0.00	12282.44	2053.16	0.00	0.00	10229.29
86+50	8650	50	181	0	0	0	334.26	0.00	0.00	0.00	12616.70	2053.16	0.00	0.00	10563.55
87+00	8700	50	181	0	0	0	335.19	0.00	0.00	0.00	12951.89	2053.16	0.00	0.00	10898.73
87+50	8750	50	162	0	0	0	317.59	0.00	0.00	0.00	13269.48	2053.16	0.00	0.00	11216.33
88+00	8800	50	150	0	0	0	288.89	0.00	0.00	0.00	13558.37	2053.16	0.00	0.00	11505.21
88+50	8850	50	149	0	0	0	276.85	0.00	0.00	0.00	13835.22	2053.16	0.00	0.00	11782.07
89+00	8900	50	144	0	0	0	271.30	0.00	0.00	0.00	14106.52	2053.16	0.00	0.00	12053.36
89+50	8950	50	134	0	0	0	257.41	0.00	0.00	0.00	14363.93	2053.16	0.00	0.00	12310.77
90+00	9000	50	137	0	0	0	250.93	0.00	0.00	0.00	14614.85	2053.16	0.00	0.00	12561.70
90+50	9050	50	124	0	0	0	241.67	0.00	0.00	0.00	14856.52	2053.16	0.00	0.00	12803.36
91+00	9100	50	116	0	0	0	222.22	0.00	0.00	0.00	15078.74	2053.16	0.00	0.00	13025.59
91+50	9150	50	114	0	0	0	212.96	0.00	0.00	0.00	15291.70	2053.16	0.00	0.00	13238.55
92+00	9200	50	134	0	0	0	229.63	0.00	0.00	0.00	15521.33	2053.16	0.00	0.00	13468.18
92+50	9250	50	131	0	0	0	245.37	0.00	0.00	0.00	15766.70	2053.16	0.00	0.00	13713.55
93+00	9300	50	206	0	0	0	312.04	0.00	0.00	0.00	16078.74	2053.16	0.00	0.00	14025.59
93+50	9350	50	199	0	0	0	375.00	0.00	0.00	0.00	16453.74	2053.16	0.00	0.00	14400.59
94+00	9400	50	200	0	0	0	369.44	0.00	0.00	0.00	16823.19	2053.16	0.00	0.00	14770.03
94+50	9450	50	207	0	0	0	376.85	0.00	0.00	0.00	17200.04	2053.16	0.00	0.00	15146.88
95+00	9500	50	169	0	1	0	348.15	0.00	0.93	0.00	17548.19	2054.27	0.00	0.00	15493.92
95+50	9550	50	167	0	0	0	311.11	0.00	0.93	0.00	17859.30	2055.38	0.00	0.00	15803.92
96+00	9600	50	165	0	0	0	307.41	0.00	0.00	0.00	18166.70	2055.38	0.00	0.00	16111.33
96+50	9650	50	154	0	2	0	295.37	0.00	1.85	0.00	18462.07	2057.60	0.00	0.00	16404.47
97+00	9700	50	143	0	1	0	275.00	0.00	2.78	0.00	18737.07	2060.93	0.00	0.00	16676.14
97+50	9750	50	117	0	2	0	240.74	0.00	2.78	0.00	18977.81	2064.27	0.00	0.00	16913.55
98+00	9800	50	126	0	0	0	225.00	0.00	1.85	0.00	19202.81	2066.49	0.00	0.00	17136.33
98+50	9850	50	103	0	5	0	212.04	0.00	4.63	0.00	19414.85	2072.04	0.00	0.00	17342.81
99+00	9900	50	120	0	1	0	206.48	0.00	5.56	0.00	19621.33	2078.71	0.00	0.00	17542.62

NOTES:

1-CUT	CUT DOES INCLUDE SALVAGED/UNUSABLE PAVEMENT MATERIAL.
2-FILL	DOES NOT INCLUDE PAVEMENT EXC. VOLUME
3-MASS ORDINATE	[(CUMULATIVE CUT) - ((CUMULATIVE FILL)*FILL FACTOR)]

(CONTINUED ON NEXT SHEET)

Stage 2 RYAN ROAD

EAST			AREA (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)				
Station	Real Station	Distance	Cut	Salvaged/Unusable Pavement Material	Fill	EBS	Cut Note 1	Salvaged/Unusable Pavement Material	Fill Note 2	EBS	Cut 1.00 Note 1	Expanded Fill 1.2	Expanded EBS Backfill	Reduced EBS in Fill	Mass Ordinate Note 3
99+50	9950	50	114	0	2	0	216.67	0.00	2.78	0.00	19838.00	2082.04	0.00	0.00	17755.96
100+00	10000	50	108	0	6	0	205.56	0.00	7.41	0.00	20043.56	2090.93	0.00	0.00	17952.62
100+50	10050	50	100	0	7	0	192.59	0.00	12.04	0.00	20236.15	2105.38	0.00	0.00	18130.77
101+00	10100	50	100	0	6	0	185.19	0.00	12.04	0.00	20421.33	2119.82	0.00	0.00	18301.51
101+50	10150	50	94	0	1	0	179.63	0.00	6.48	0.00	20600.96	2127.60	0.00	0.00	18473.36
102+00	10200	50	105	0	1	0	184.26	0.00	1.85	0.00	20785.22	2129.82	0.00	0.00	18655.40
102+50	10250	50	113	0	1	0	201.85	0.00	1.85	0.00	20987.07	2132.04	0.00	0.00	18855.03
103+00	10300	50	112	0	1	0	208.33	0.00	1.85	0.00	21195.41	2134.27	0.00	0.00	19061.14
103+50	10350	50	113	0	1	0	208.33	0.00	1.85	0.00	21403.74	2136.49	0.00	0.00	19267.25
104+00	10400	50	119	0	0	0	214.81	0.00	0.93	0.00	21618.56	2137.60	0.00	0.00	19480.96
104+50	10450	50	139	0	0	0	238.89	0.00	0.00	0.00	21857.44	2137.60	0.00	0.00	19719.84
105+00	10500	50	138	0	0	0	256.48	0.00	0.00	0.00	22113.93	2137.60	0.00	0.00	19976.33
105+00	10550	50	128	0	3	0	246.30	0.00	2.78	0.00	22360.22	2140.93	0.00	0.00	20219.29
106+00	10600	50	133	0	2	0	241.67	0.00	4.63	0.00	22601.89	2146.49	0.00	0.00	20455.40
106+50	10650	50	126	0	0	0	239.81	0.00	1.85	0.00	22841.70	2148.71	0.00	0.00	20692.99
107+00	10700	50	133	0	0	0	239.81	0.00	0.00	0.00	23081.52	2148.71	0.00	0.00	20932.81
107+50	10750	50	138	0	1	0	250.93	0.00	0.93	0.00	23332.44	2149.82	0.00	0.00	21182.62
108+00	10800	50	128	0	0	0	246.30	0.00	0.93	0.00	23578.74	2150.93	0.00	0.00	21427.81
108+50	10850	50	137	0	0	0	245.37	0.00	0.00	0.00	23824.11	2150.93	0.00	0.00	21673.18
109+00	10900	50	124	0	1	0	241.67	0.00	0.93	0.00	24065.78	2152.04	0.00	0.00	21913.73
109+50	10950	50	122	0	1	0	227.78	0.00	1.85	0.00	24293.56	2154.27	0.00	0.00	22139.29
110+00	11000	50	123	0	1	0	226.85	0.00	1.85	0.00	24520.41	2156.49	0.00	0.00	22363.92
110+50	11050	50	122	0	10	0	226.85	0.00	10.19	0.00	24747.26	2168.71	0.00	0.00	22578.55
111+00	11100	50	131	0	0	0	234.26	0.00	9.26	0.00	24981.52	2179.82	0.00	0.00	22801.70
111+50	11150	50	149	0	0	0	259.26	0.00	0.00	0.00	25240.78	2179.82	0.00	0.00	23060.96
112+00	11200	50	154	0	0	0	280.56	0.00	0.00	0.00	25521.33	2179.82	0.00	0.00	23341.51
112+50	11250	50	131	0	29	0	263.89	0.00	26.85	0.00	25785.22	2212.04	0.00	0.00	23573.18
113+00	11300	50	139	0	1	0	250.00	0.00	27.78	0.00	26035.22	2245.38	0.00	0.00	23789.84
113+50	11350	50	151	0	0	0	268.52	0.00	0.93	0.00	26303.74	2246.49	0.00	0.00	24057.25
114+00	11400	50	217	0	0	0	340.74	0.00	0.00	0.00	26644.48	2246.49	0.00	0.00	24397.99
114+50	11450	50	278	0	0	0	458.33	0.00	0.00	0.00	27102.81	2246.49	0.00	0.00	24856.33
114+97	11497	47	322	0	26	0	522.22	0.00	22.63	0.00	27625.04	2273.64	0.00	0.00	25351.39
		5455					27625.04		1894.70						

NOTES:

1-CUT	CUT DOES INCLUDE SALVAGED/UNUSABLE PAVEMENT MATERIAL.
2-FILL	DOES NOT INCLUDE PAVEMENT EXC. VOLUME
3-MASS ORDINATE	[(CUMULATIVE CUT) - ((CUMULATIVE FILL)*FILL FACTOR)]

Division 1 Preload Ramp RYB

STATION	Real Station	Distance	AREA (SF) Cut	Salvaged/ Unusable Pavement Material	Fill	EBS	Incremental Vol (CY) (Unadjusted) Cut Note 1	Salvaged/Unusable Pavement Material Note 2	Fill Note 3	EBS	Cumulative Vol (CY) Cut 1.00 Note 1	Expanded Fill 1.20	Expanded EBS Backfill 1.30 Note 4	Reduced EBS In Fill 0.80 Note 5	Mass Ordinate Note 6
240+50.00 AH	24050.00	0.00	50.39	0.00	110.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
241+00.00	24100.00	50.00	281.22	0.00	1058.82	0.00	520.78	0.00	1960.78	0.00	520.78	2352.93	0.00	0.00	-1832.16
241+50.00	24150.00	50.00	148.80	0.00	1538.30	0.00	398.17	0.00	2404.74	0.00	918.94	5238.62	0.00	0.00	-4319.68
242+00.00	24200.00	50.00	234.35	0.00	1921.50	0.00	354.77	0.00	3203.52	0.00	1273.71	9082.84	0.00	0.00	-7809.13
242+50.00	24250.00	50.00	281.46	0.00	2158.36	0.00	477.60	0.00	3777.65	0.00	1751.31	13616.02	0.00	0.00	-11864.71
243+00.00	24300.00	50.00	270.49	0.00	2237.24	0.00	511.06	0.00	4070.00	0.00	2262.38	18500.02	0.00	0.00	-16237.64
243+50.00	24350.00	50.00	290.29	0.00	2399.39	0.00	519.24	0.00	4293.18	0.00	2781.62	23651.83	0.00	0.00	-20870.21
244+00.00	24400.00	50.00	289.18	0.00	2570.73	0.00	536.55	0.00	4601.96	0.00	3318.17	29174.19	0.00	0.00	-25856.02
244+50.00	24450.00	50.00	331.52	0.00	2888.42	0.00	574.72	0.00	5054.77	0.00	3892.89	35239.91	0.00	0.00	-31347.02
245+00.00	24500.00	50.00	256.39	0.00	3010.29	0.00	544.36	0.00	5461.77	0.00	4437.25	41794.03	0.00	0.00	-37356.78
245+50.00	24550.00	50.00	334.14	0.00	3222.74	0.00	546.79	0.00	5771.32	0.00	4984.04	48719.62	0.00	0.00	-43735.59
246+00.00	24600.00	50.00	361.01	0.00	3366.11	0.00	643.66	0.00	6100.79	0.00	5627.69	56040.57	0.00	0.00	-50412.87
246+50.00	24650.00	50.00	347.70	0.00	3383.55	0.00	656.21	0.00	6249.69	0.00	6283.91	63540.19	0.00	0.00	-57256.28
247+00.00	24700.00	50.00	310.86	0.00	3185.81	0.00	609.78	0.00	6082.74	0.00	6893.69	70839.48	0.00	0.00	-63945.79
247+50.00	24750.00	50.00	294.56	0.00	2870.06	0.00	560.57	0.00	5607.29	0.00	7454.26	77568.22	0.00	0.00	-70113.96
247+93.00 BK	24793.00	43.00	53.03	0.00	127.68	0.00	276.78	0.00	2387.09	0.00	7731.04	80432.73	0.00	0.00	-72701.69
					Column totals		7731.04	0.00	67027.27	0.00					

Notes:	
1 - Cut	Cut includes Salvaged/Unusable Pavement material
2 - Salvaged/Unusable Pavement Material	This does not show up in cross sections nor is it shown in these sheets. Refer to Summary Table for this roadway's quantity.
3 - Fill	Does not include Unusable Pavement Exc volume
4 - Expanded EBS	Will be backfilled with Borrow
5 - Reduced EBS in Fill	Reduced EBS Excavation that can be used in Fill
6 - Mass Ordinate	If EBS to be backfilled with Cut or Borrow: [(Cut + EBS) - ((Fill) - (Reduced EBS in Fill)) * Fill Factor)]

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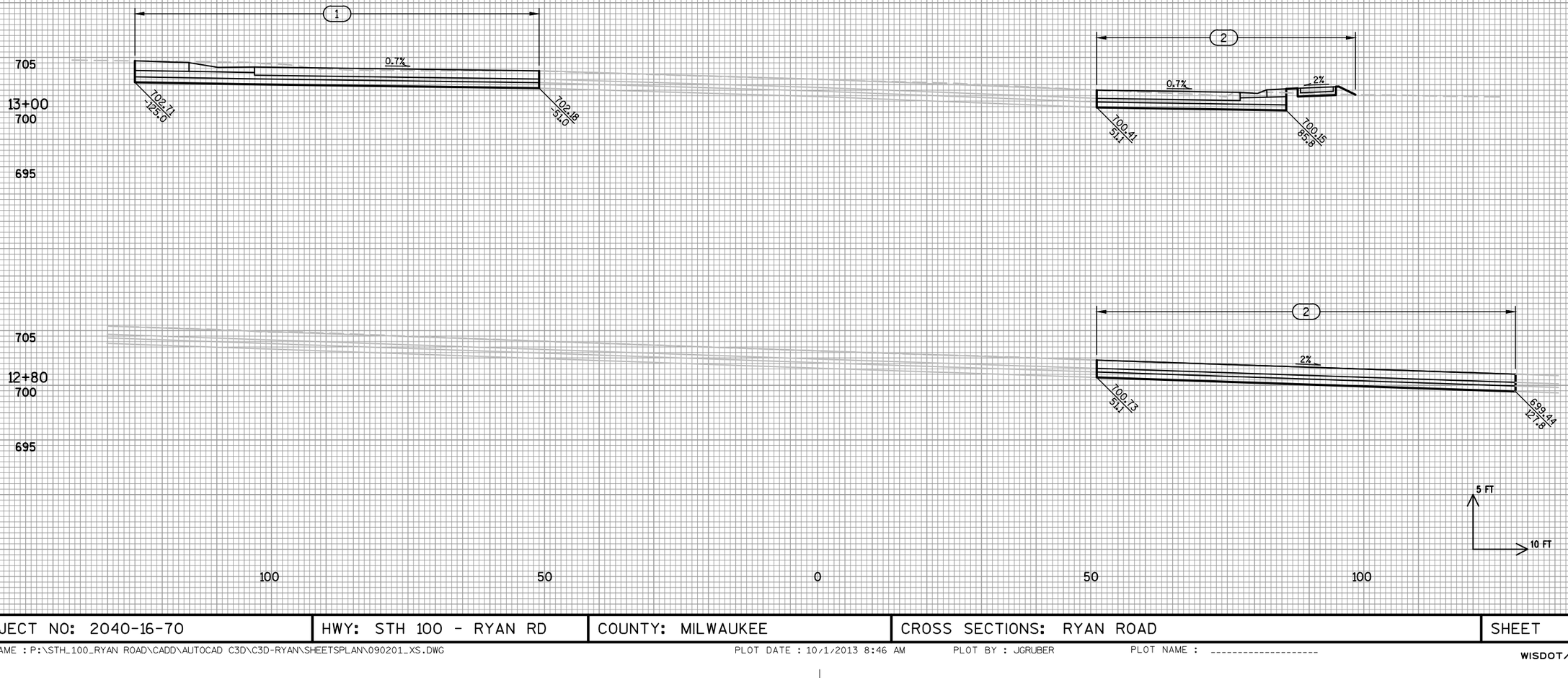
Division 1 SE DETENTION POND

STATION	Real Station	Distance	AREA (SF) Cut	Salvaged/ Unusable Pavement Material	Fill	EBS	Incremental Vol (CY) (Unadjusted) Cut Note 1	Salvaged/Unusable Pavement Material Note 2	Fill Note 3	EBS	Cumulative Vol (CY) Cut 1.00 Note 1	Expanded Fill 1.20	Expanded EBS Backfill 1.30 Note 4	Reduced EBS In Fill 0.80 Note 5	Mass Ordinate Note 6
240+50.00 AH	24125.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
241+00.00	24150.00	25.00	0.00	0.00	137.21	0.00	0.00	0.00	127.05	0.00	0.00	152.46	0.00	0.00	-152.46
241+50.00	24200.00	50.00	0.00	0.00	66.89	0.00	0.00	0.00	188.98	0.00	0.00	379.23	0.00	0.00	-379.23
242+00.00	24250.00	50.00	0.00	0.00	176.74	0.00	0.00	0.00	225.58	0.00	0.00	649.93	0.00	0.00	-649.93
242+50.00	24300.00	50.00	0.00	0.00	400.28	0.00	0.00	0.00	534.28	0.00	0.00	1291.07	0.00	0.00	-1291.07
243+00.00	24350.00	50.00	0.00	0.00	679.44	0.00	0.00	0.00	999.74	0.00	0.00	2490.76	0.00	0.00	-2490.76
243+50.00	24400.00	50.00	0.00	0.00	601.32	0.00	0.00	0.00	1185.89	0.00	0.00	3913.82	0.00	0.00	-3913.82
244+00.00	24450.00	50.00	3.22	0.00	599.20	0.00	2.98	0.00	1111.59	0.00	2.98	5247.73	0.00	0.00	-5244.75
244+50.00	24500.00	50.00	0.00	0.00	723.44	0.00	2.98	0.00	1224.67	0.00	5.96	6717.33	0.00	0.00	-6711.37
245+00.00	24550.00	50.00	0.00	0.00	776.96	0.00	0.00	0.00	1389.26	0.00	5.96	8384.44	0.00	0.00	-8378.48
245+50.00	24600.00	50.00	0.00	0.00	801.02	0.00	0.00	0.00	1461.09	0.00	5.96	10137.76	0.00	0.00	-10131.79
246+00.00	24650.00	50.00	0.00	0.00	785.84	0.00	0.00	0.00	1469.31	0.00	5.96	11900.93	0.00	0.00	-11894.97
246+50.00	24700.00	50.00	0.00	0.00	776.31	0.00	0.00	0.00	1446.44	0.00	5.96	13636.66	0.00	0.00	-13630.69
247+00.00	24750.00	50.00	0.51	0.00	792.09	0.00	0.47	0.00	1452.22	0.00	6.44	15379.32	0.00	0.00	-15372.89
247+50.00	24777.00	27.00	0.00	0.00	1413.68	0.00	0.26	0.00	1102.89	0.00	6.69	16702.78	0.00	0.00	-16696.09
247+93.00 BK	24793.00	16.00	0.00	0.00	0.00	0.00	0.00	0.00	418.87	0.00	6.69	17205.43	0.00	0.00	-17198.74
					Column totals		6.69	0.00	14337.86	0.00					

Notes:	
1 - Cut	Cut includes Salvaged/Unusable Pavement material
2 - Salvaged/Unusable Pavement Material	This does not show up in cross sections nor is it shown in these sheets. Refer to Summary Table for this roadway's quantity.
3 - Fill	Does not include Unusable Pavement Exc volume
4 - Expanded EBS	Will be backfilled with Borrow
5 - Reduced EBS in Fill	Reduced EBS Excavation that can be used in Fill
6 - Mass Ordinate	If EBS to be backfilled with Cut or Borrow: [(Cut + EBS) - ((Fill) - (Reduced EBS in Fill)) * Fill Factor)]

9



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9

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	CROSS SECTIONS: RYAN ROAD	SHEET	E

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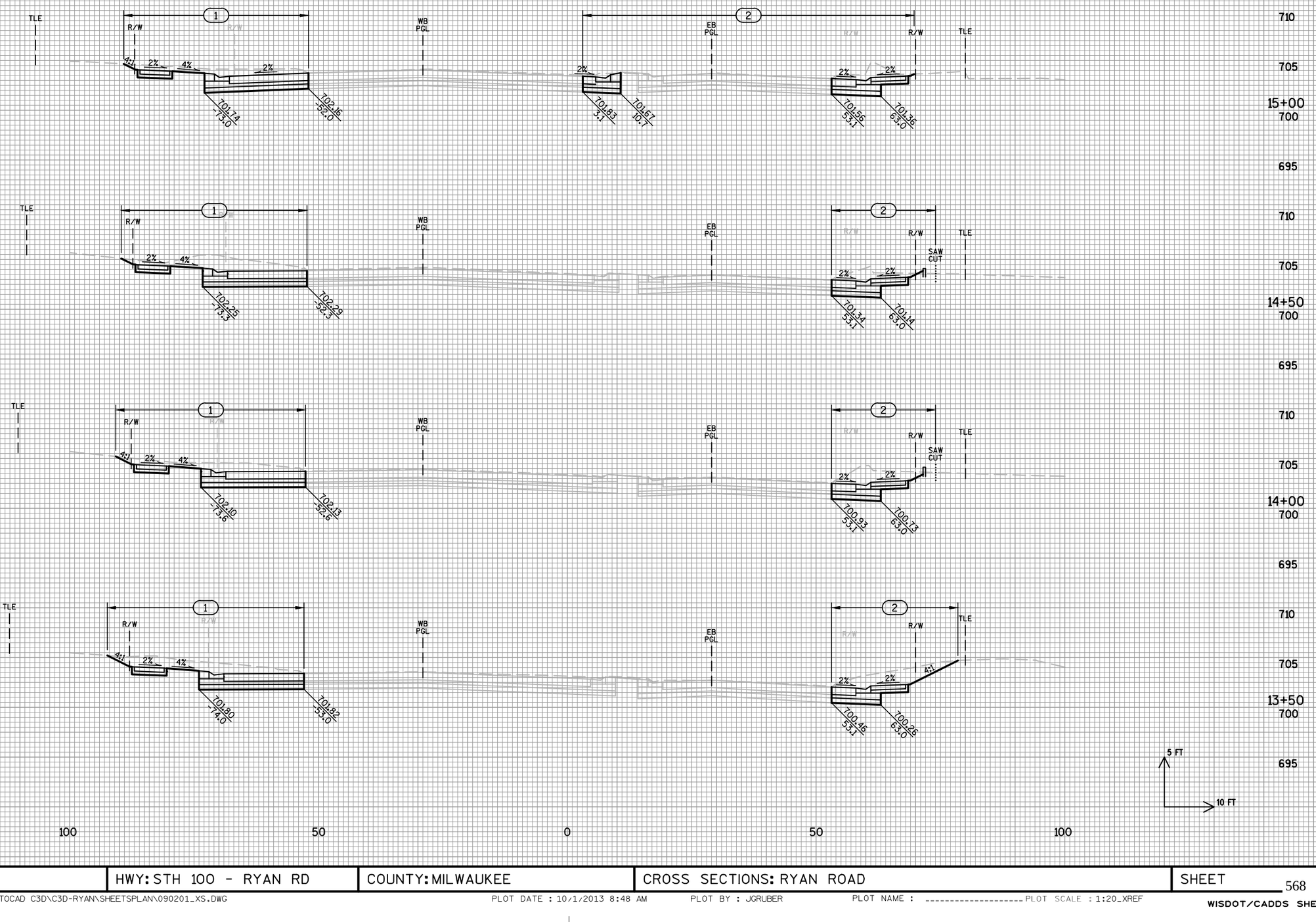
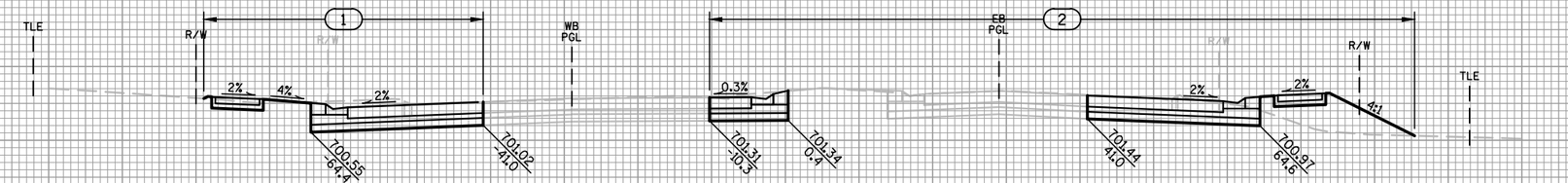


PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	CROSS SECTIONS: RYAN ROAD	SHEET 568	E



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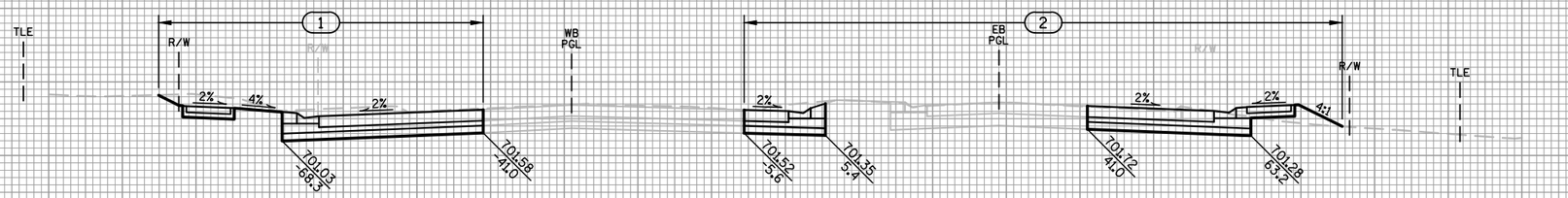

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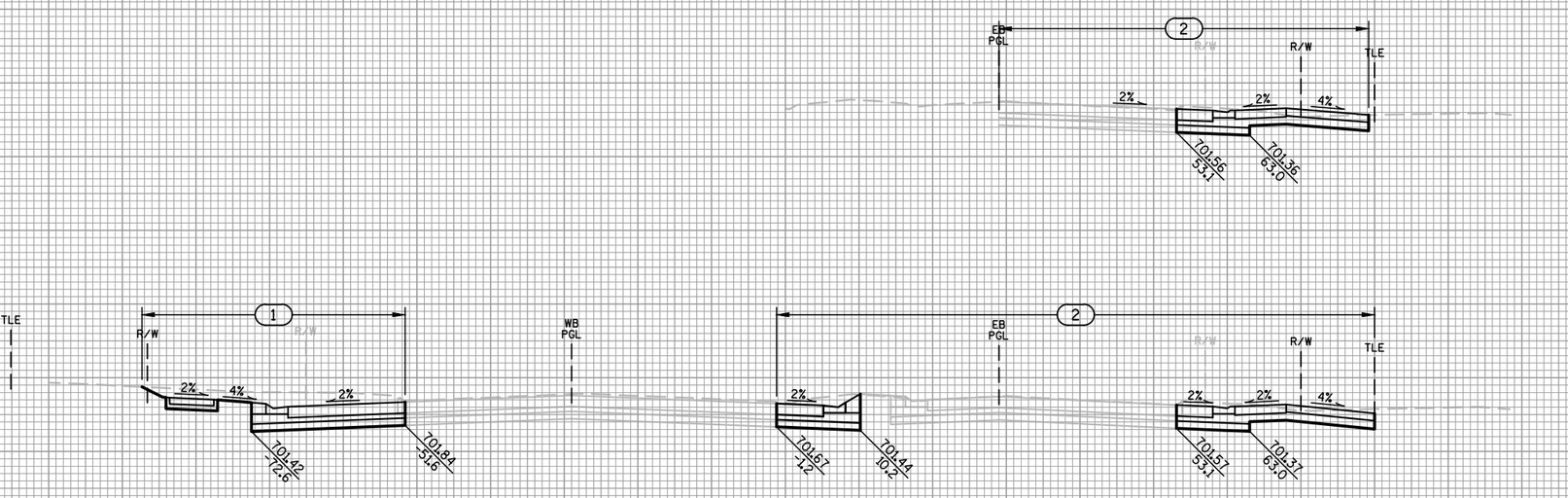

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5 FT
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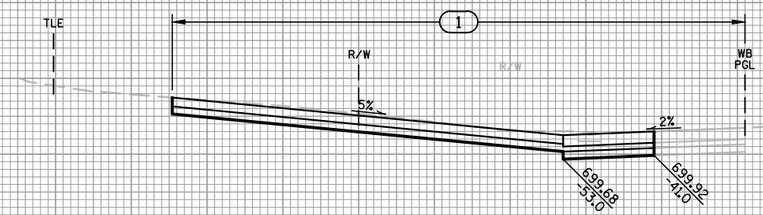
9

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	CROSS SECTIONS: RYAN ROAD	SHEET 569	E

FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\090201_XS.DWG PLOT DATE : 10/1/2013 8:49 AM PLOT BY : JGRUBER PLOT NAME : ---------- PLOT SCALE : 1:20_XREF

WISDOT/CADDS SHEET 49



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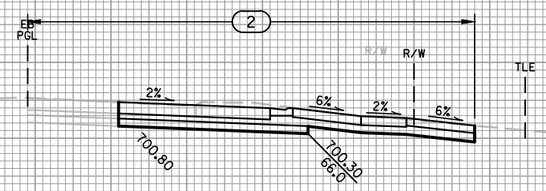

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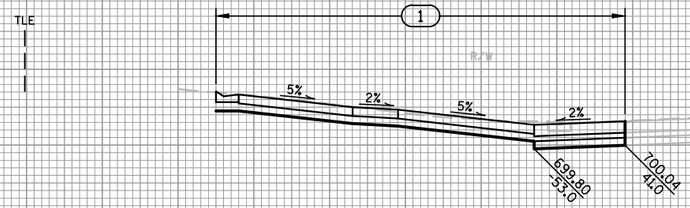

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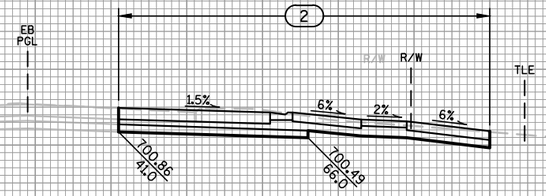
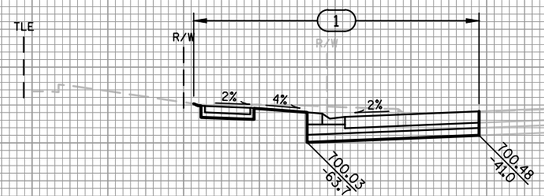
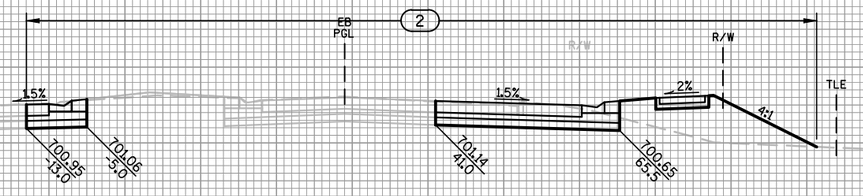
700
695



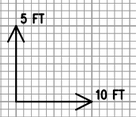
705
17+50
700
695



705
17+00
700
695



705
17+00
700
695



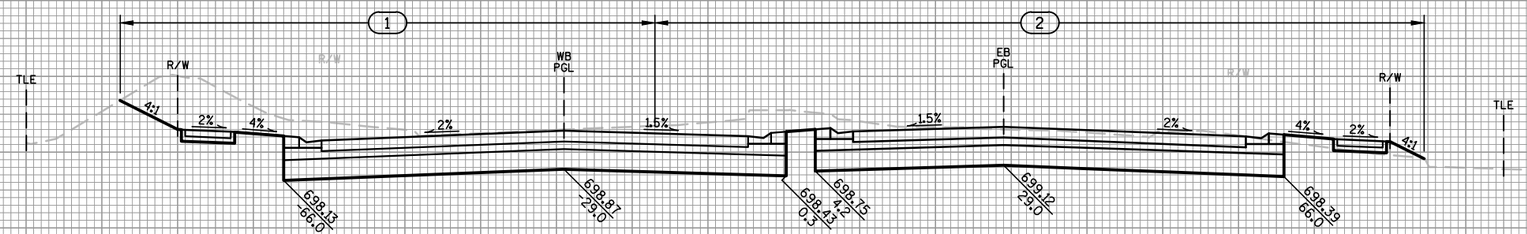
100 50 0 50 100

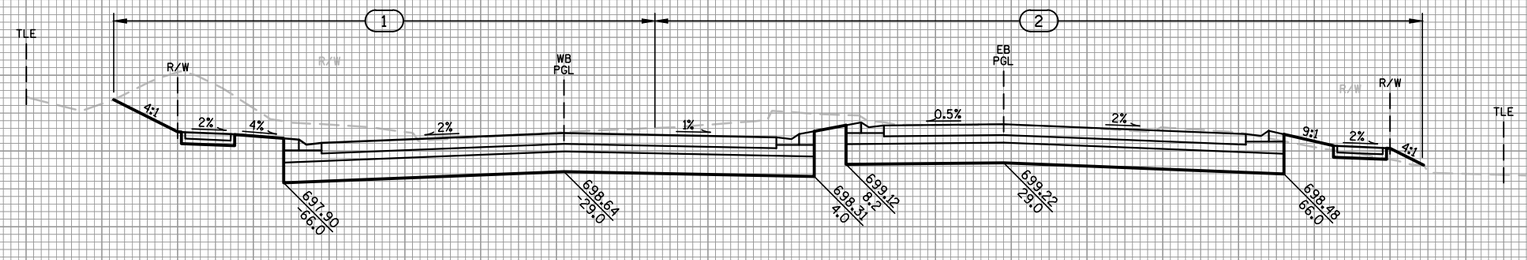
9

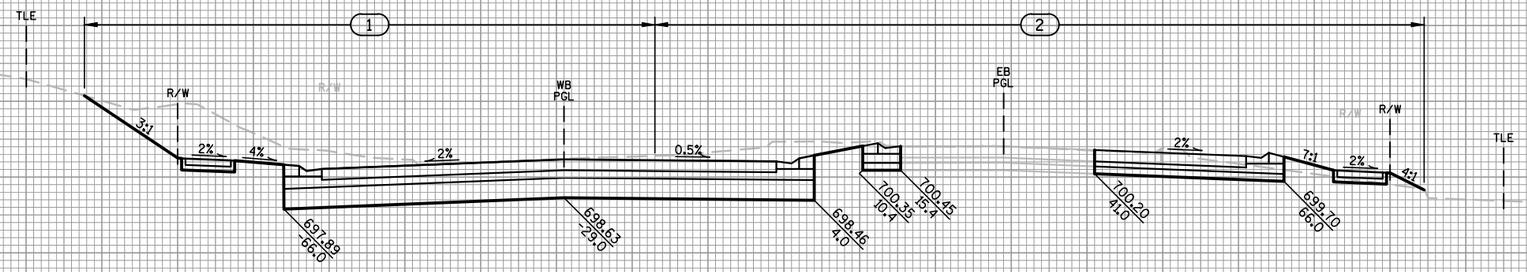
PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	CROSS SECTIONS: RYAN ROAD	SHEET 570	E

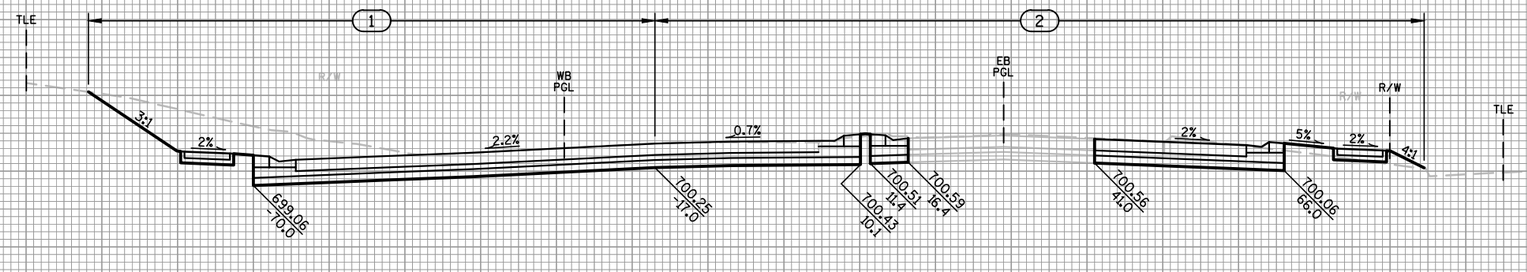
FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\090201_XS.DWG PLOT DATE : 10/1/2013 8:49 AM PLOT BY : JGRUBER PLOT NAME : ---------- PLOT SCALE : 1:20_XREF

WISDOT/CADDS SHEET 49





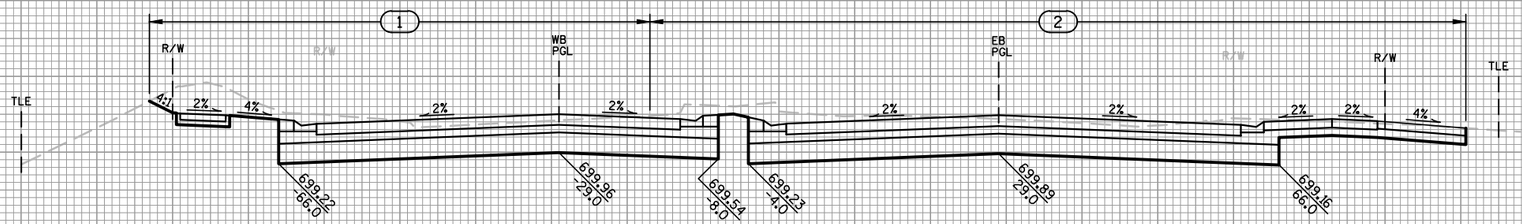




PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	CROSS SECTIONS: RYAN ROAD	SHEET 571	E

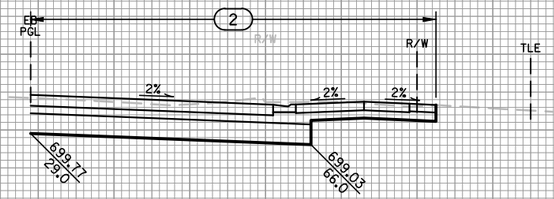
FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\090201_XS.DWG PLOT DATE : 10/1/2013 8:49 AM PLOT BY : JGRUBER PLOT NAME : ---------- PLOT SCALE : 1:20_XREF

WISDOT/CADDS SHEET 49

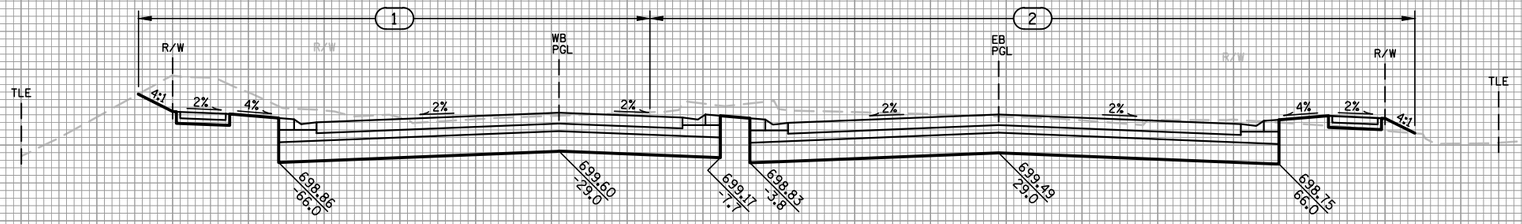


705
21+00
700
695

705
21+00
700
695

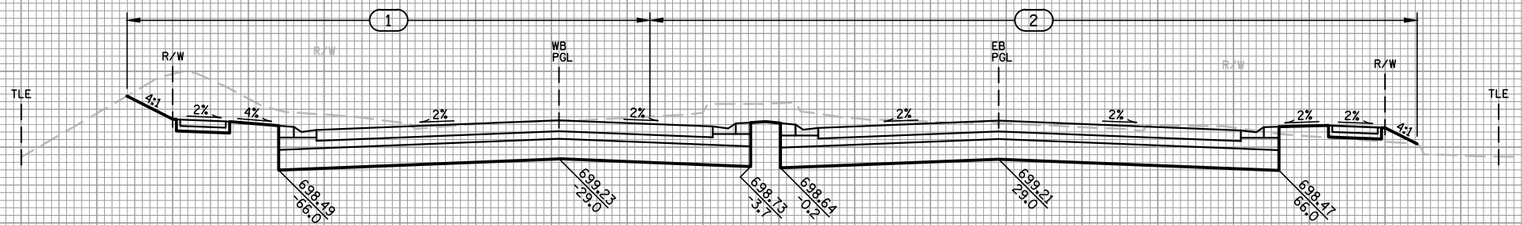


705
PE RT
20+86
700
695



705
20+50
700
695

705
20+50
700
695



705
20+00
700
695

705
20+00
700
695

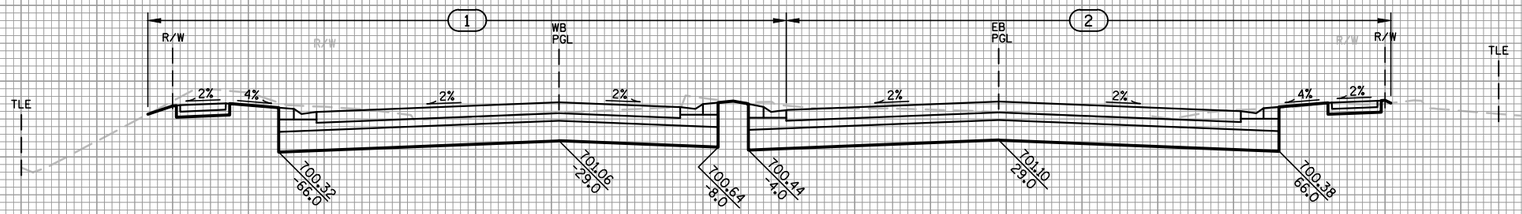
5 FT
10 FT

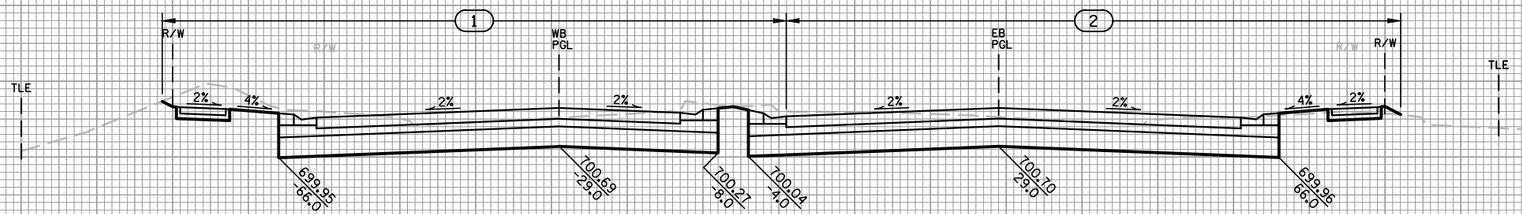
100 50 0 50 100

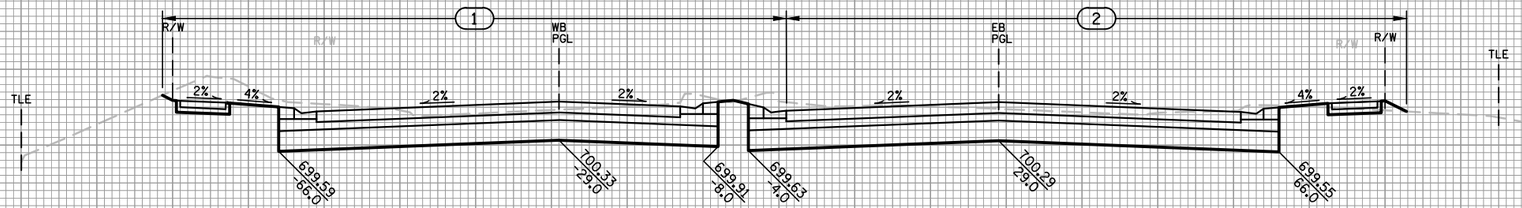
9

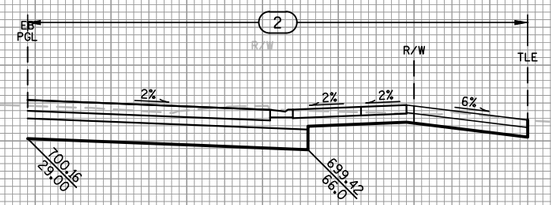
9

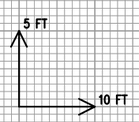
PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	CROSS SECTIONS: RYAN ROAD	SHEET 572	E











100 50 0 50 100

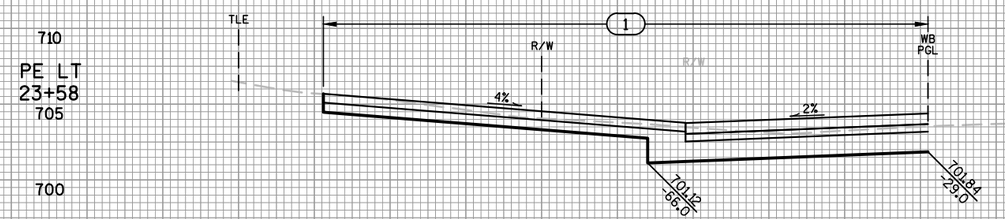
9

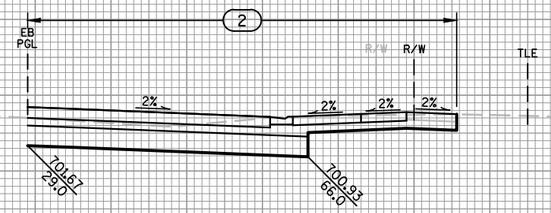
9

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	CROSS SECTIONS: RYAN ROAD	SHEET 573	E

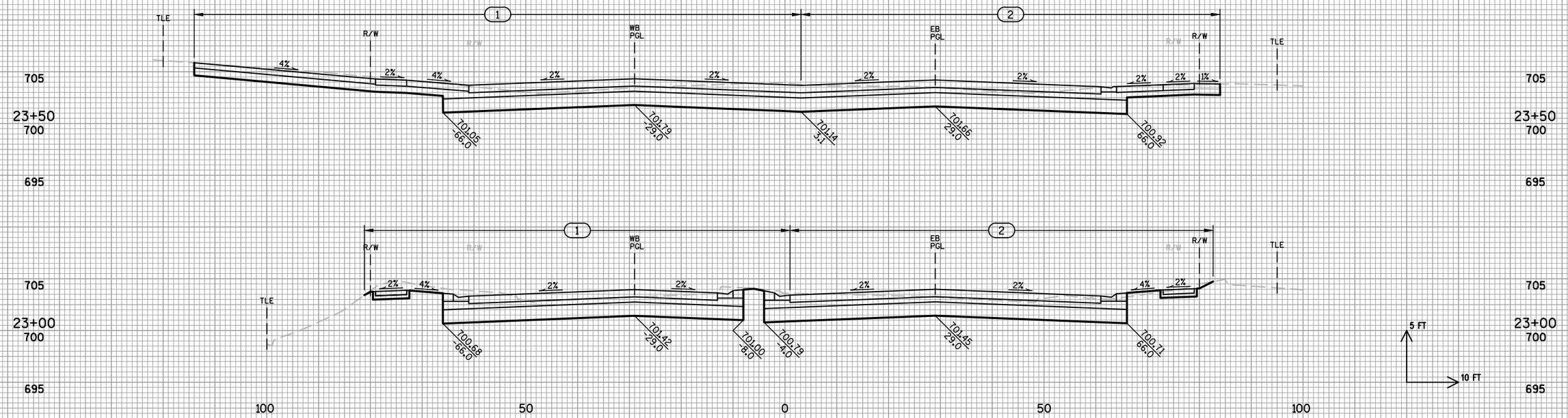
FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\090201_XS.DWG PLOT DATE : 10/1/2013 8:49 AM PLOT BY : JGRUBER PLOT NAME : ---------- PLOT SCALE : 1:20_XREF

WISDOT/CADDS SHEET 49





PE RT
23+54
705
700



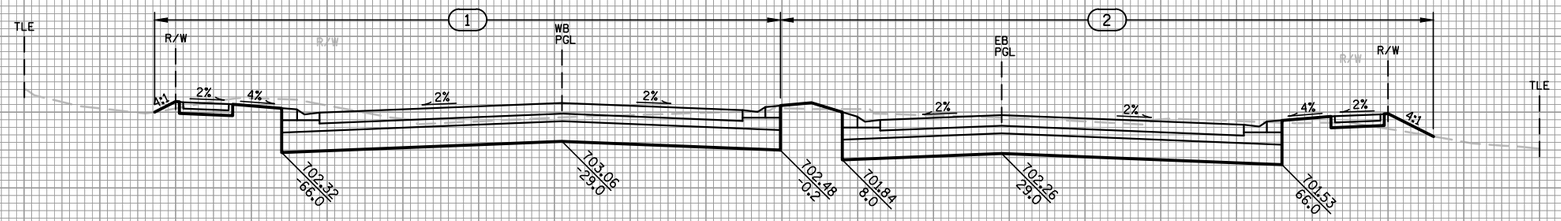
9

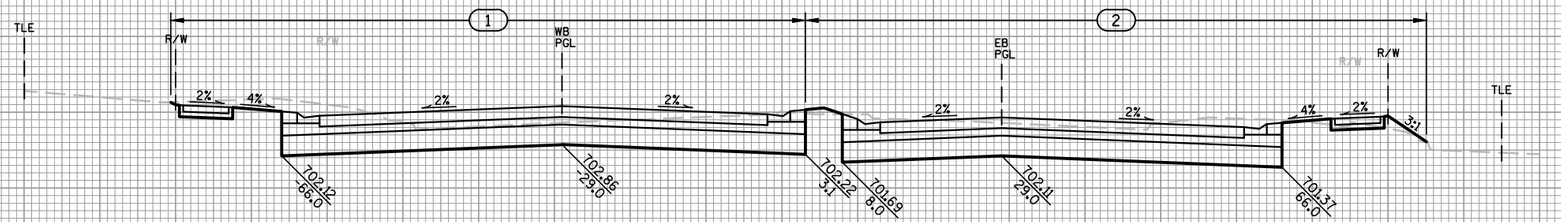
9

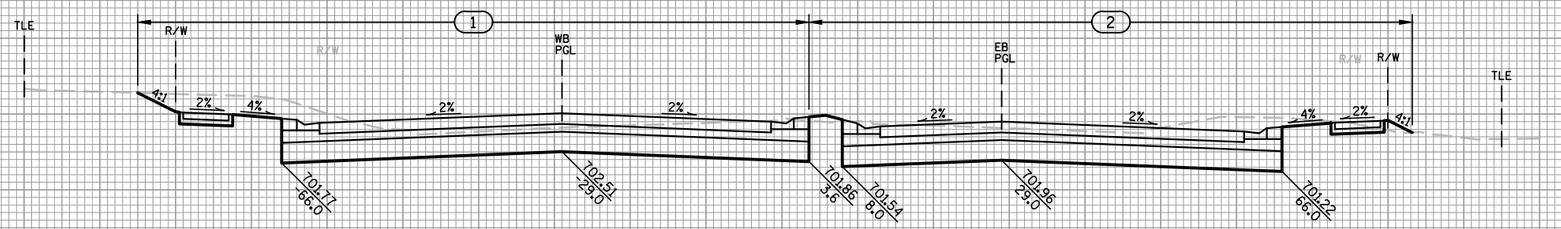
PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	CROSS SECTIONS: RYAN ROAD	SHEET 574	E

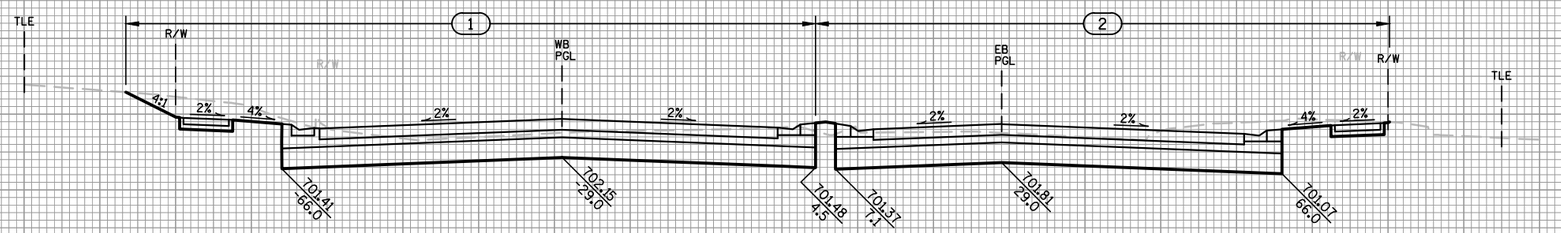
FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\090201_XS.DWG PLOT DATE : 10/1/2013 8:49 AM PLOT BY : JGRUBER PLOT NAME : ---------- PLOT SCALE : 1:20_XREF

WISDOT/CADDS SHEET 49







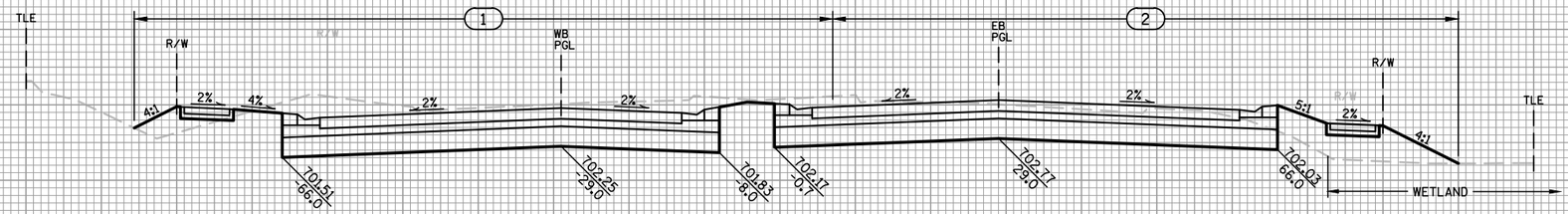


9

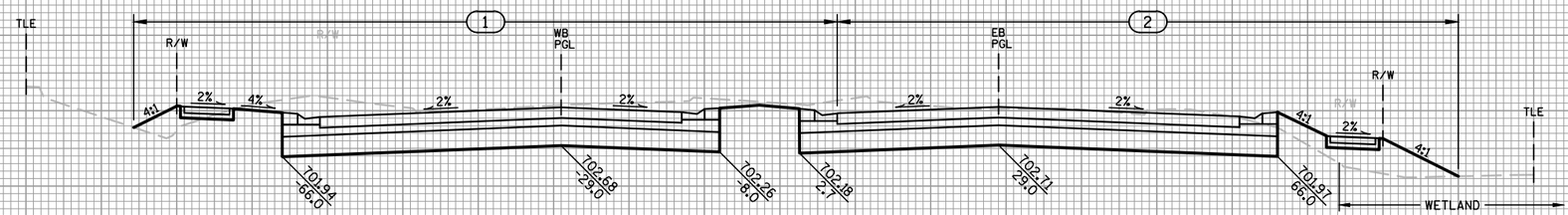
9

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	CROSS SECTIONS: RYAN ROAD	SHEET 575	E

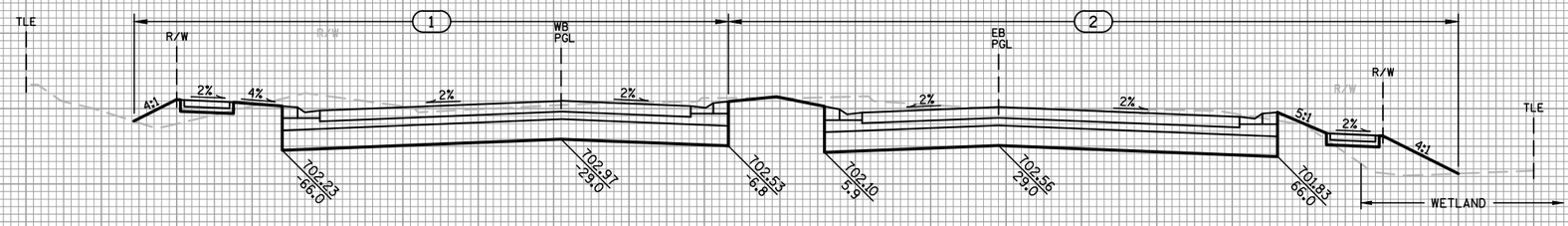
FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\090201_XS.DWG PLOT DATE : 10/1/2013 8:49 AM PLOT BY : JGRUBER PLOT NAME : ---------- PLOT SCALE : 1:20_XREF



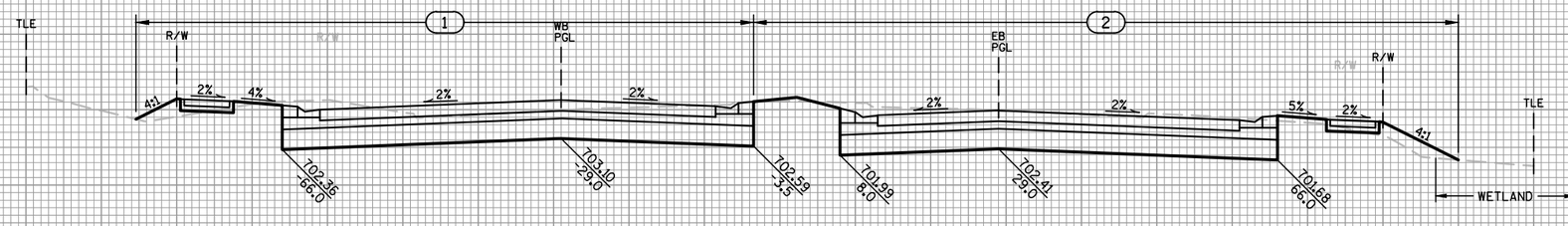
710
27+50
705
700



710
27+00
705
700



710
26+50
705
700



710
26+00
705
700

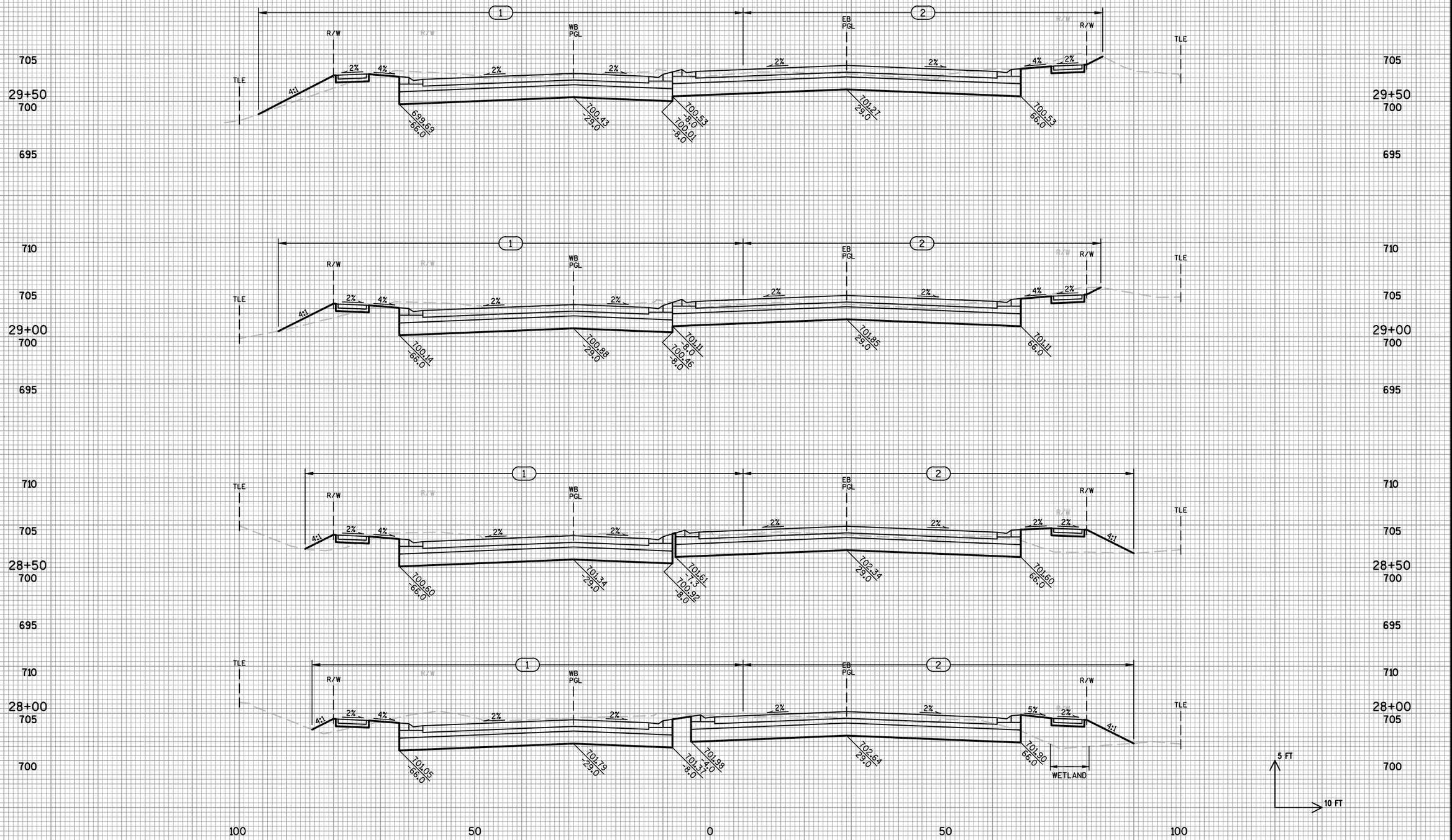
5 FT
10 FT

100 50 0 50 100

9

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	CROSS SECTIONS: RYAN ROAD	SHEET	E

FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\090201_XS.DWG PLOT DATE : 10/1/2013 8:49 AM PLOT BY : JGRUBER PLOT NAME : ---------- PLOT SCALE : 1:20_XREF

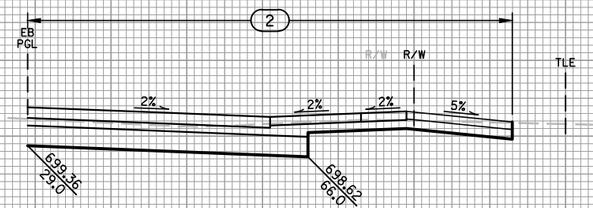


9

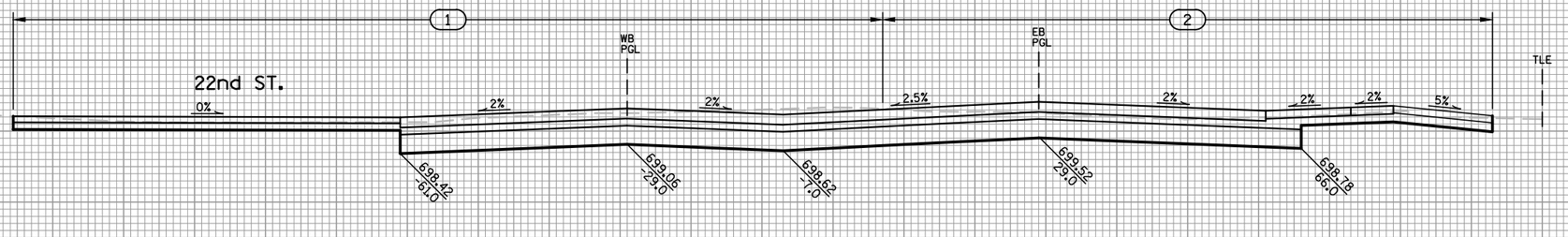
PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	CROSS SECTIONS: RYAN ROAD	SHEET 577	E

FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\090201_XS.DWG PLOT DATE : 10/1/2013 8:49 AM PLOT BY : JGRUBER PLOT NAME : ---------- PLOT SCALE : 1:20_XREF

WISDOT/CADDS SHEET 49

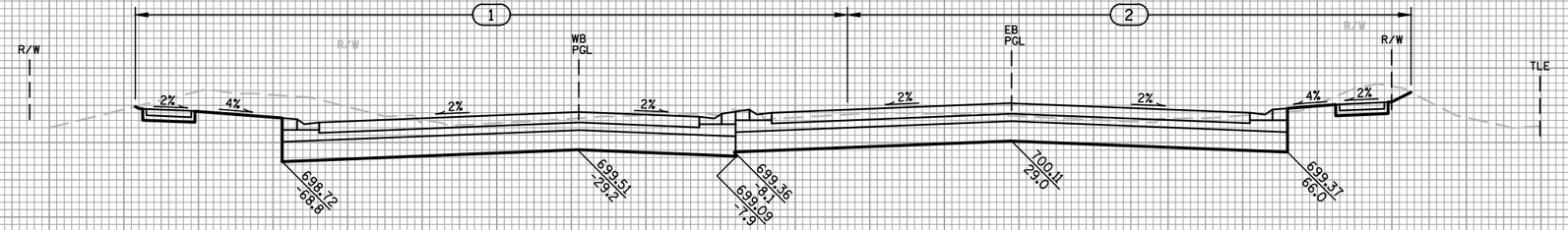


705
PE RT
31+14
700
695



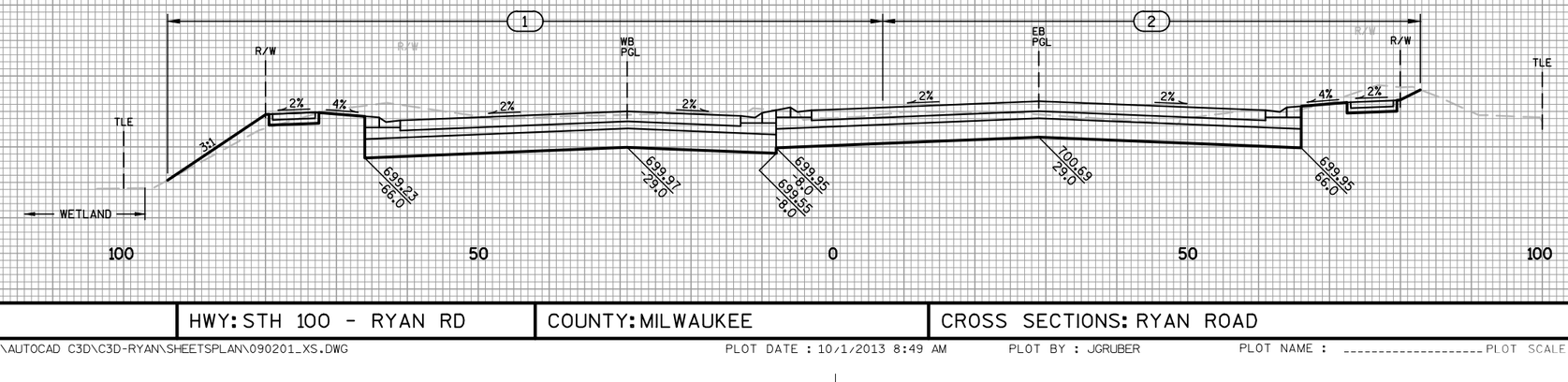
705
31+00
700
695

705
31+00
700
695



705
30+50
700
695

705
30+50
700
695



705
30+00
700
695

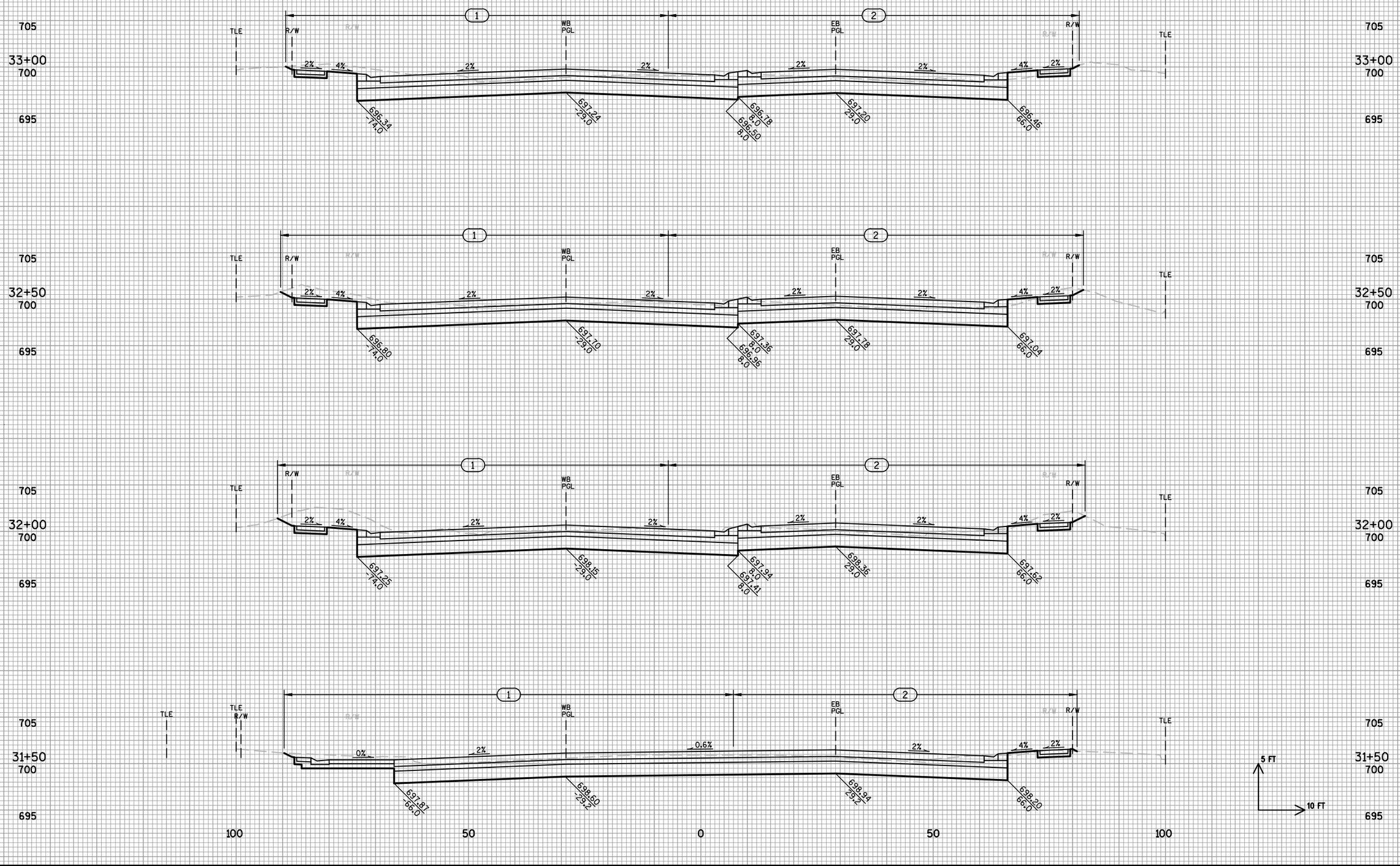
705
30+00
700
695

100 50 0 50 100

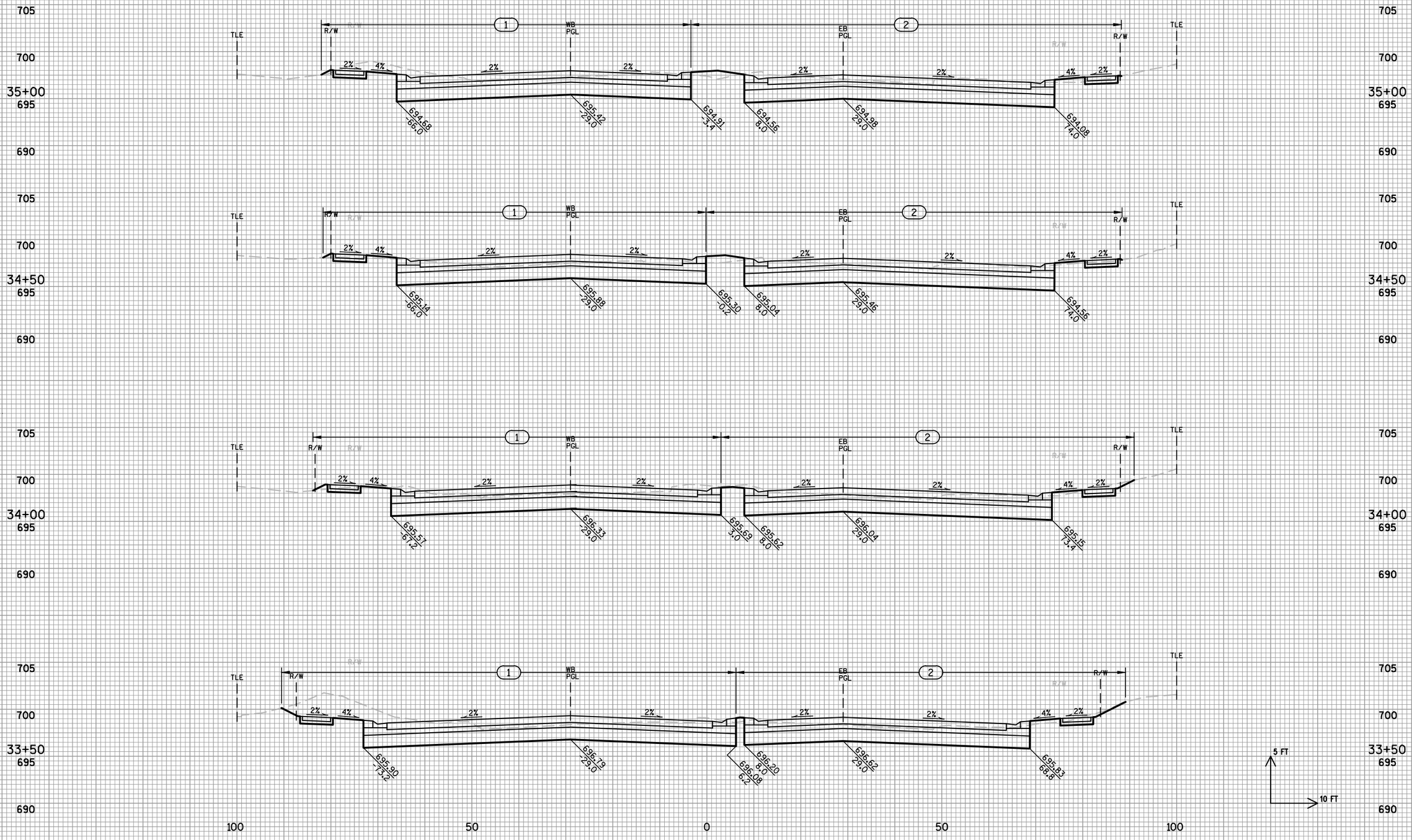
9

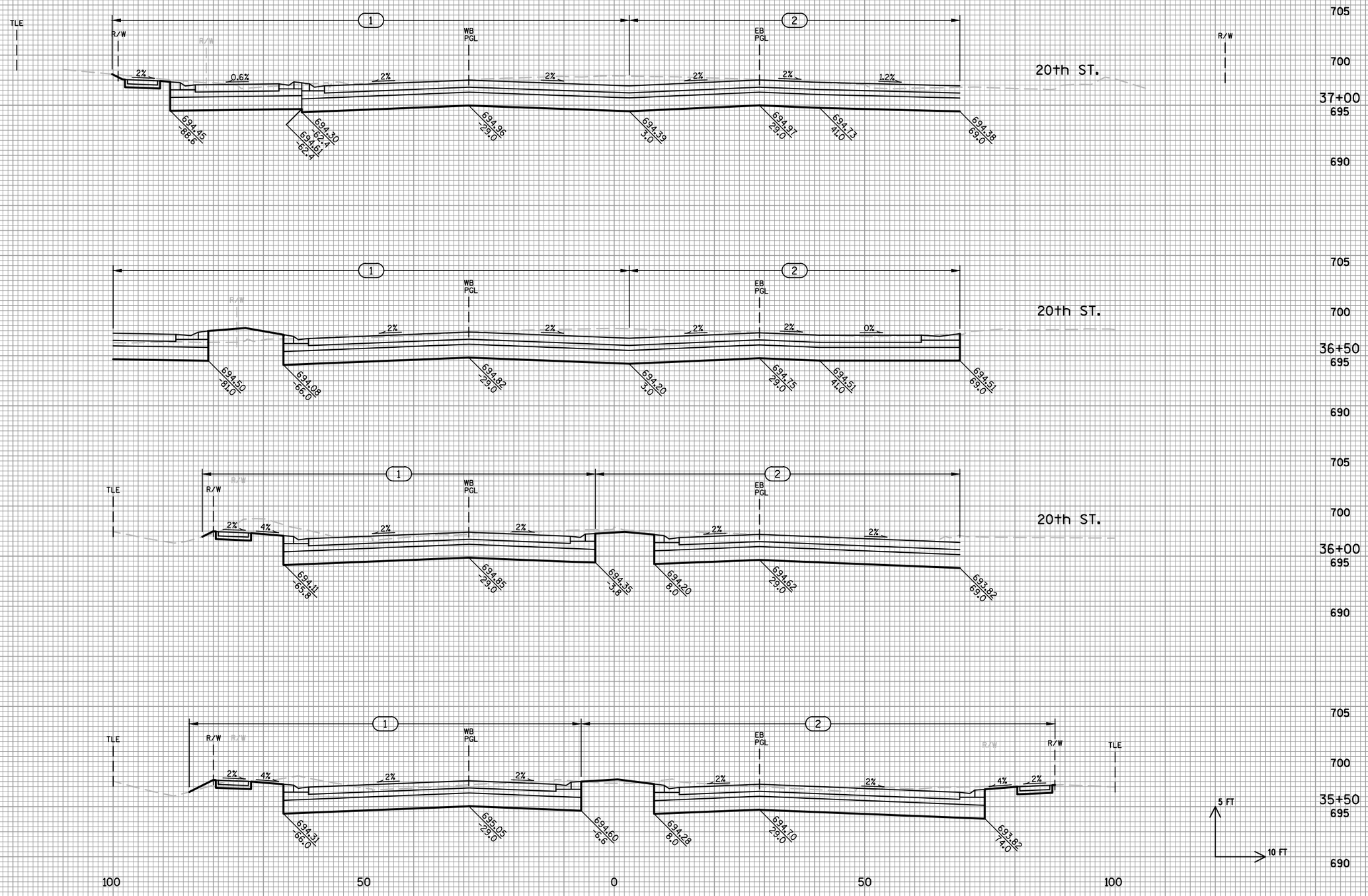
9

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	CROSS SECTIONS: RYAN ROAD	SHEET 578	E



PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	CROSS SECTIONS: RYAN ROAD	SHEET 579	E


35+00
34+50
34+00
33+50
705
700
695
690
TLE
R/W
1
2
WB PGL
EB PGL
2%
4%
694.68 -66.0
695.42 -29.0
694.91 -5.4
694.55 8.0
694.98 29.0
694.08 74.0
695.14 -66.0
695.88 -29.0
695.30 -0.2
695.04 8.0
695.46 29.0
694.55 74.0
695.57 -67.2
696.33 -29.0
696.69 3.0
696.62 8.0
696.04 29.0
695.15 73.4
695.90 -73.2
696.79 -29.0
696.20 8.0
696.08 8.2
696.62 29.0
695.83 68.8
100
50
0
5 FT
10 FT

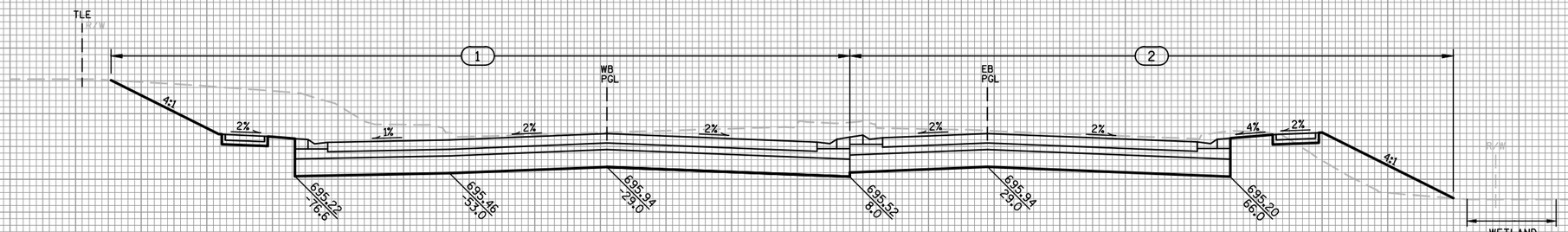


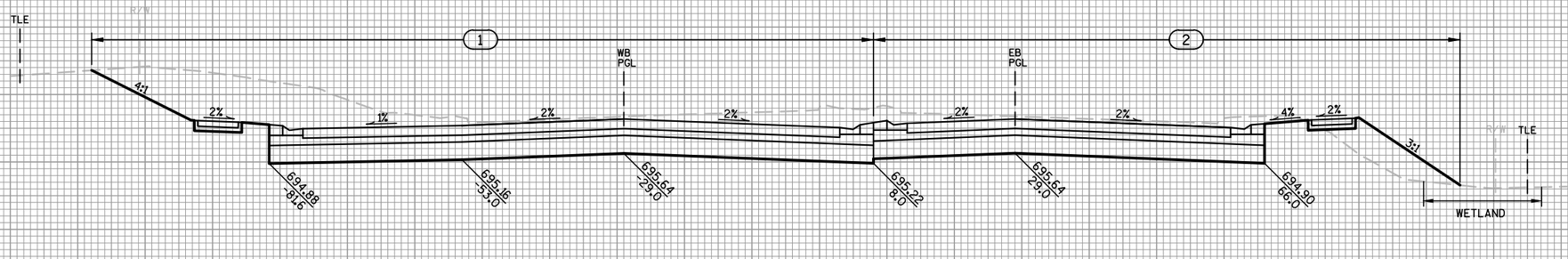
9

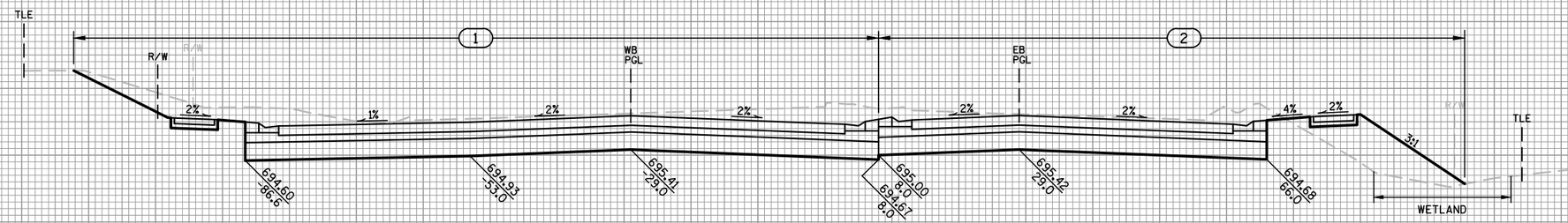
9

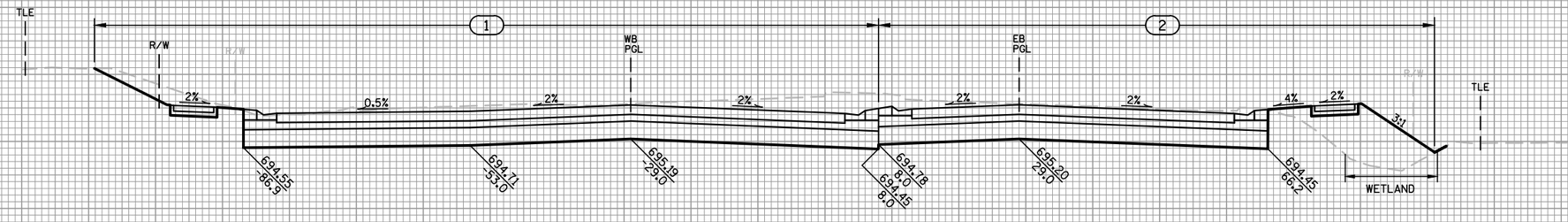
PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	CROSS SECTIONS: RYAN ROAD	SHEET 581	E

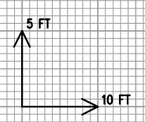
FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\090201_XS.DWG PLOT DATE : 10/1/2013 8:50 AM PLOT BY : JGRUBER PLOT NAME : ---------- PLOT SCALE : 1:20_XREF









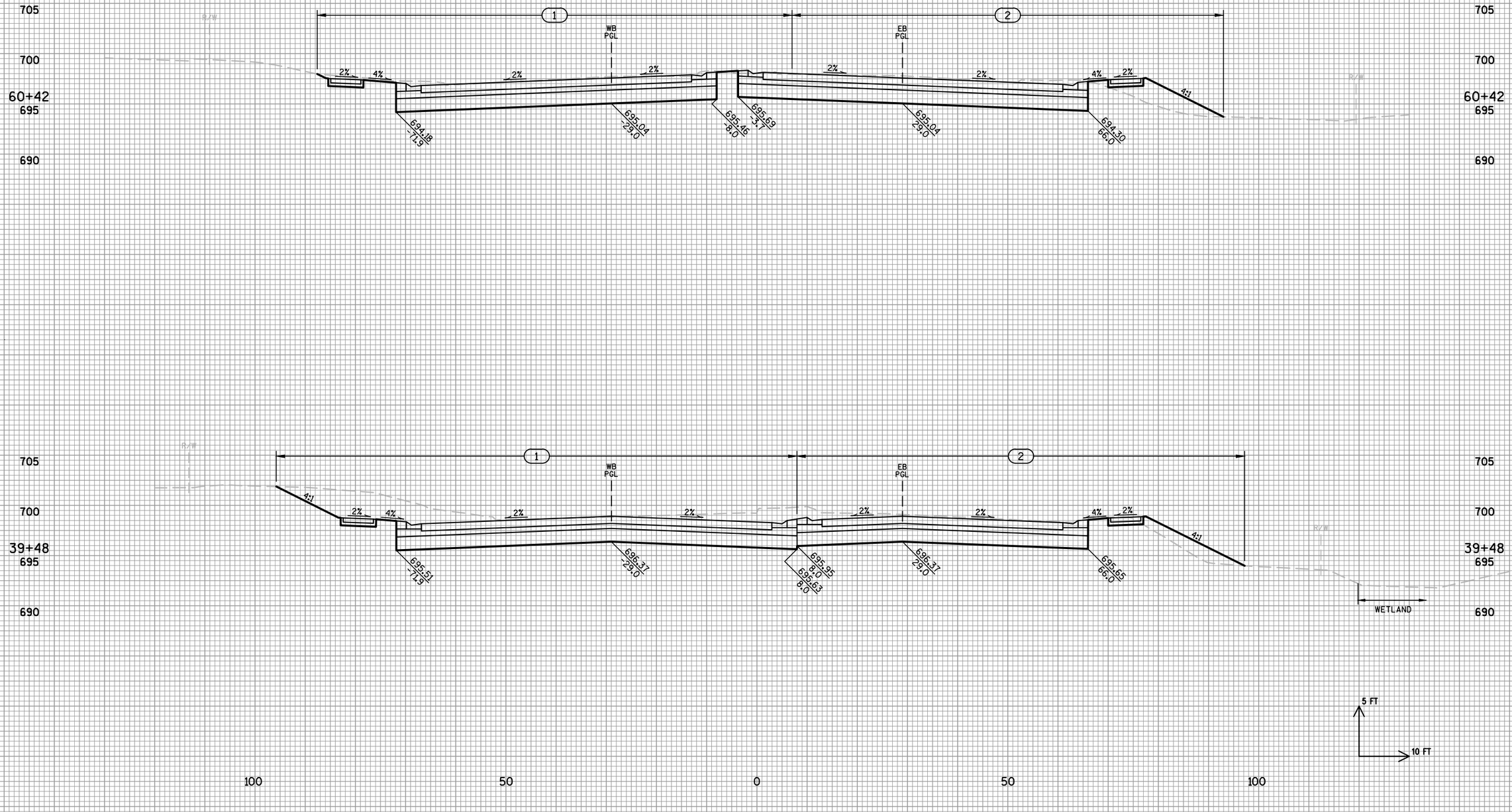


100 50 0 50 100

9 9

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	CROSS SECTIONS: RYAN ROAD	SHEET	E

FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\090201_XS.DWG PLOT DATE : 10/8/2013 2:30 PM PLOT BY : JGRUBER PLOT NAME : ---------- PLOT SCALE : 1:20_XREF



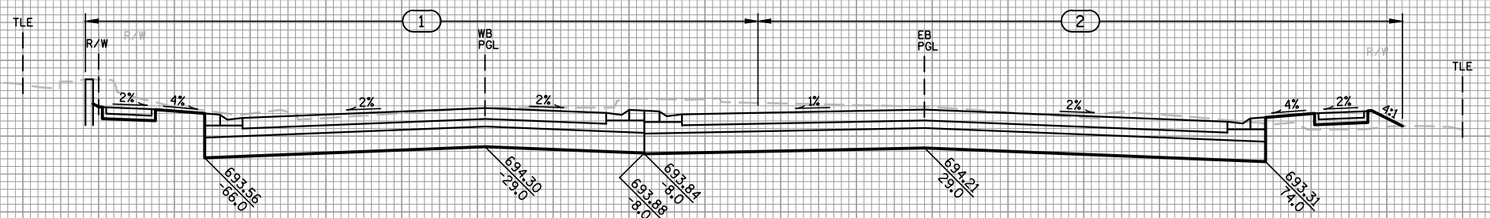
9

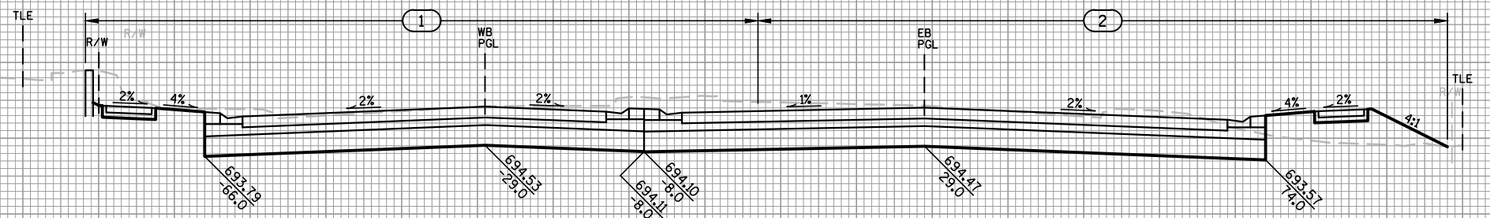
9

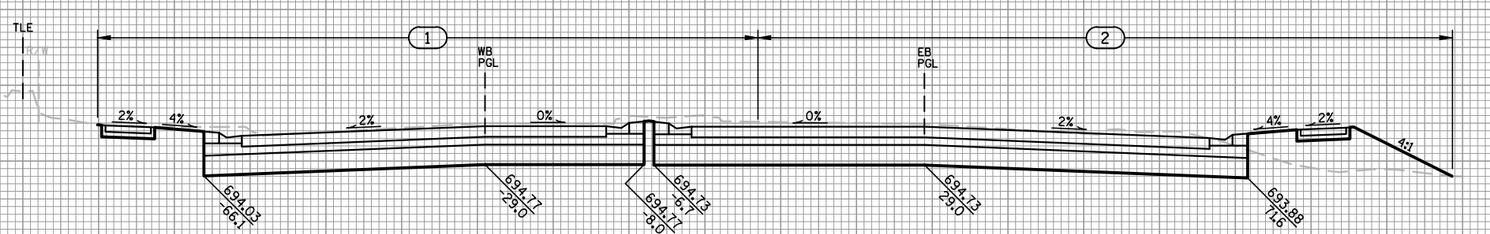
PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	CROSS SECTIONS: RYAN ROAD	SHEET 583	E

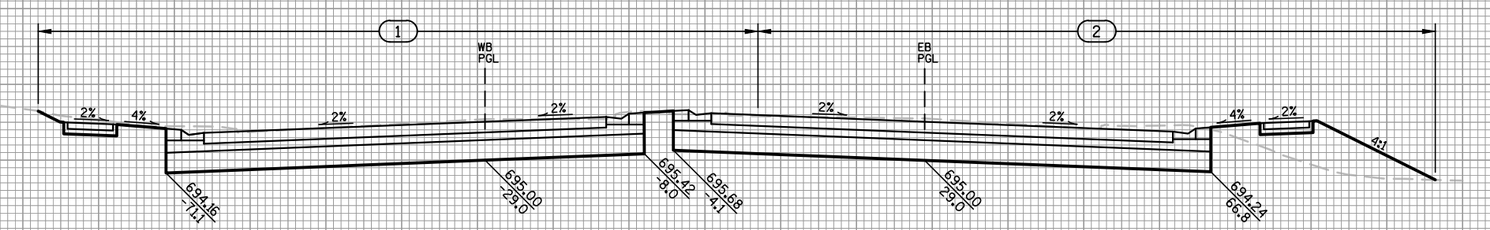
FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\090201_XS.DWG PLOT DATE : 10/1/2013 10:15 AM PLOT BY : JGRUBER PLOT NAME : ----------

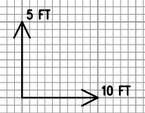
WISDOT/CADDS SHEET 49











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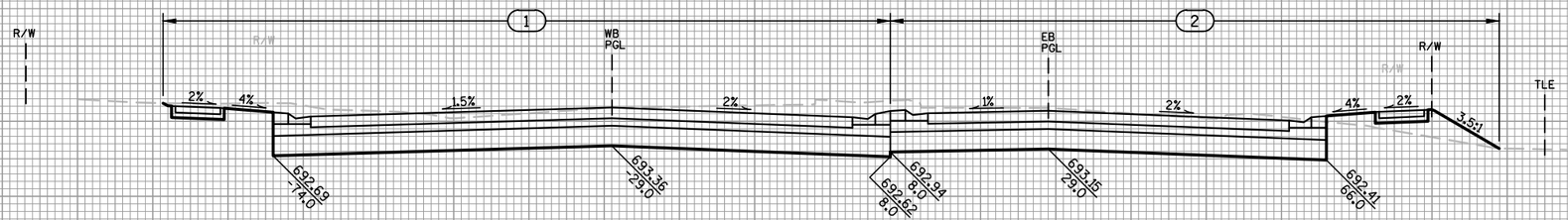
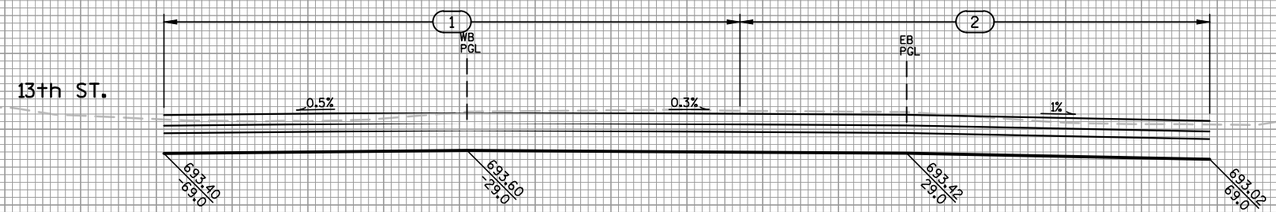
9 9

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	CROSS SECTIONS: RYAN ROAD	SHEET 584	E

FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\090201_XS.DWG PLOT DATE : 10/1/2013 8:50 AM PLOT BY : JGRUBER PLOT NAME : ---------- PLOT SCALE : 1:20_XREF



64+00 695 690



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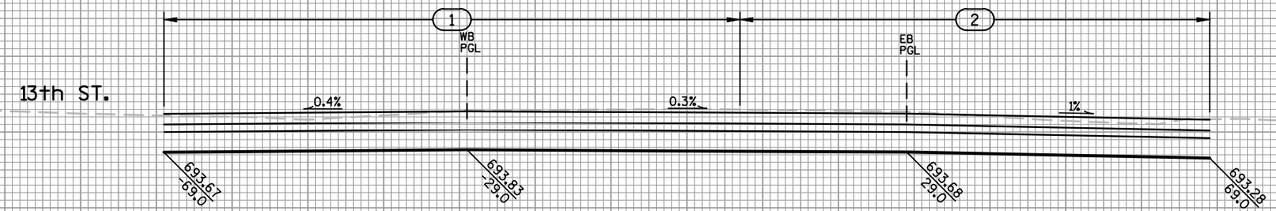
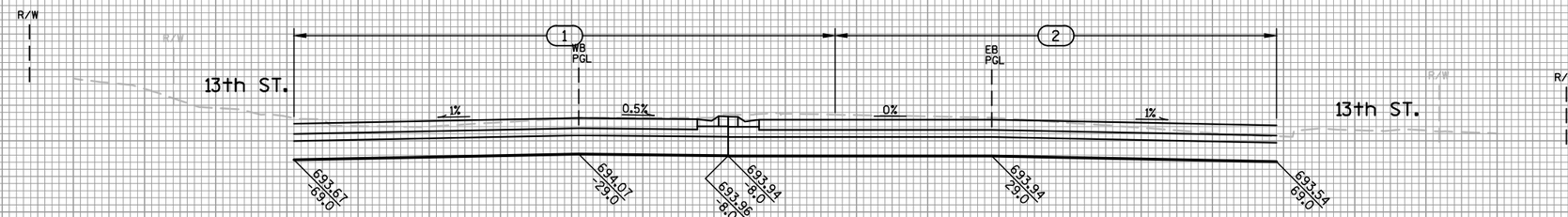


63+00 695 690



62+50 695 690

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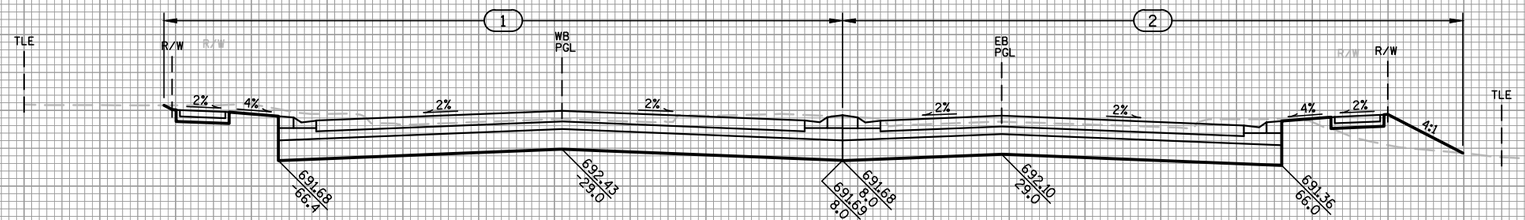
PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	CROSS SECTIONS: RYAN ROAD	SHEET 585	E



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66+00
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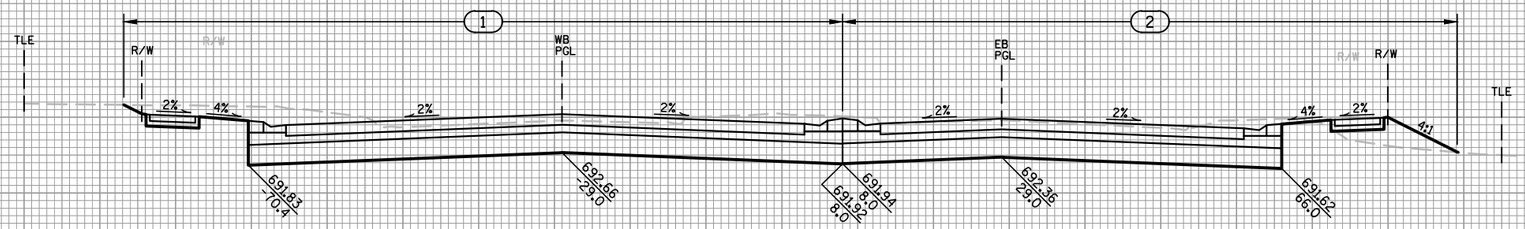

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65+50
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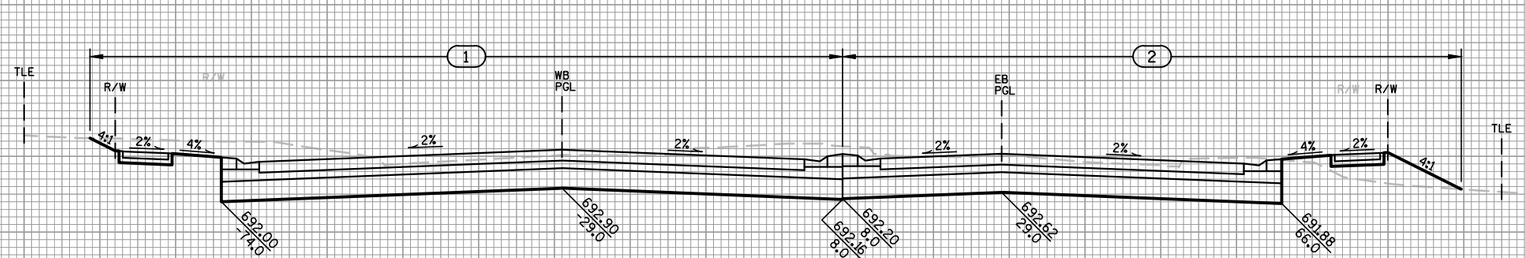

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65+00
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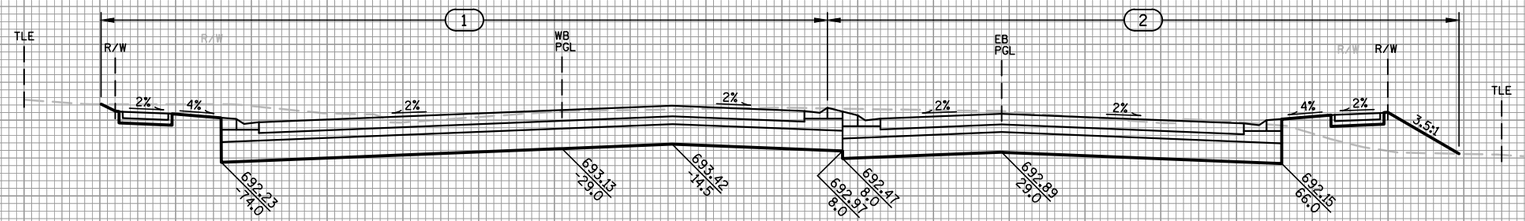

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64+50
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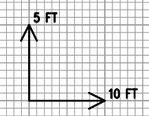

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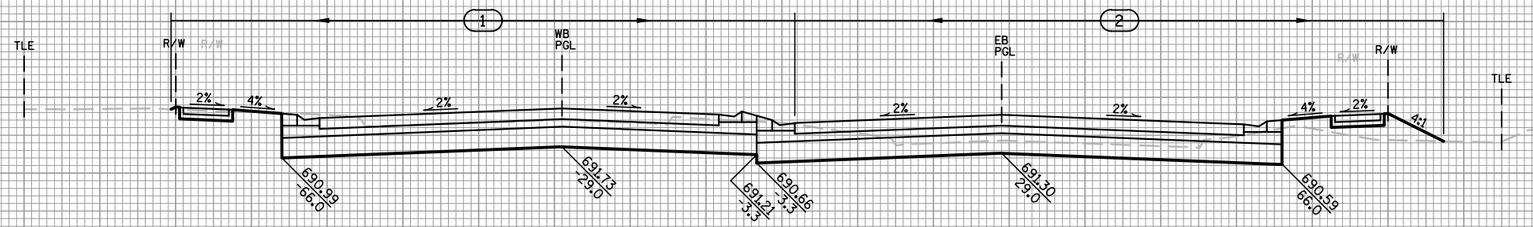
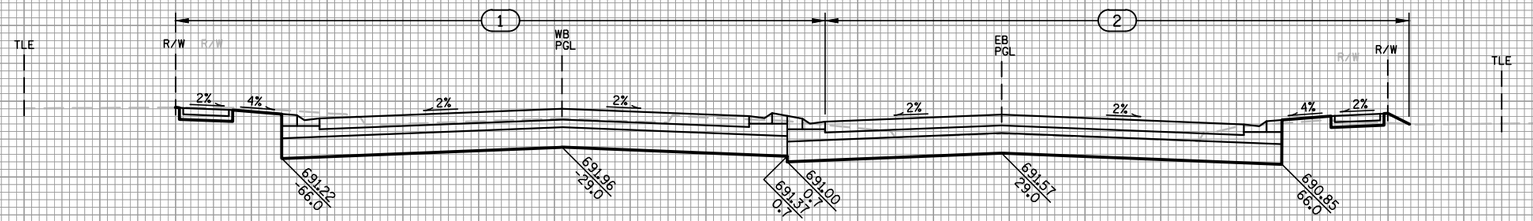
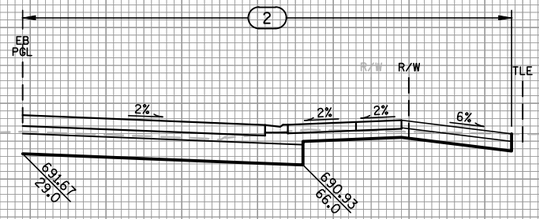
PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	CROSS SECTIONS: RYAN ROAD	SHEET	E

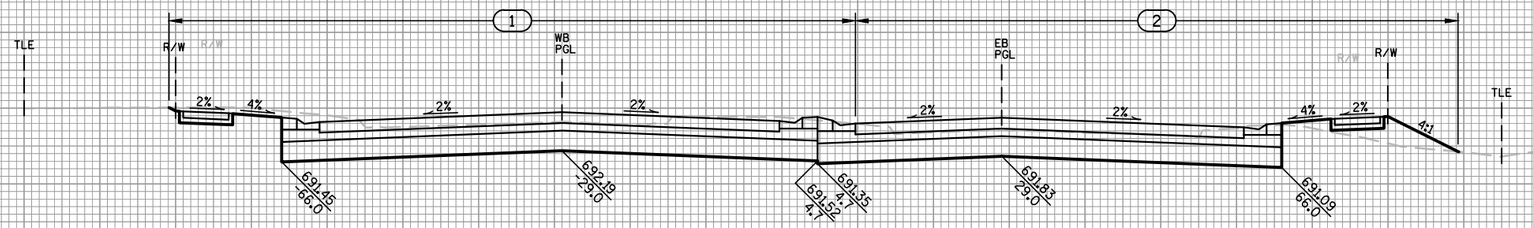
FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\090201_XS.DWG PLOT DATE : 10/1/2013 8:50 AM PLOT BY : JGRUBER PLOT NAME : ---------- PLOT SCALE : 1:20_XREF

WISDOT/CADDS SHEET 49









67+50 695 690 685

67+00 695 690

PE RT 66+80 695 690

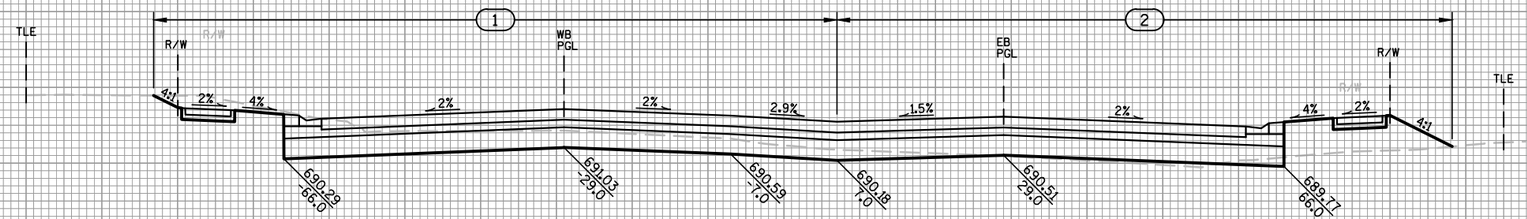
66+50 695 690

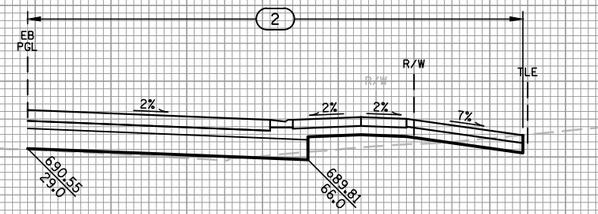
5 FT
10 FT

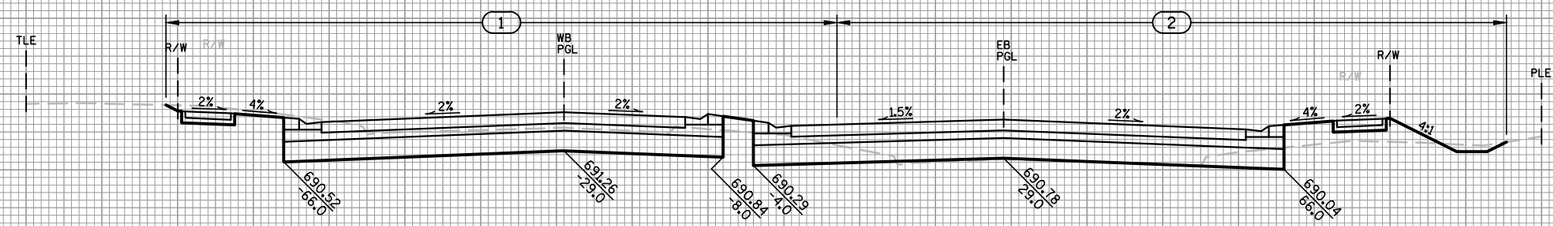
100 50 0 50 100

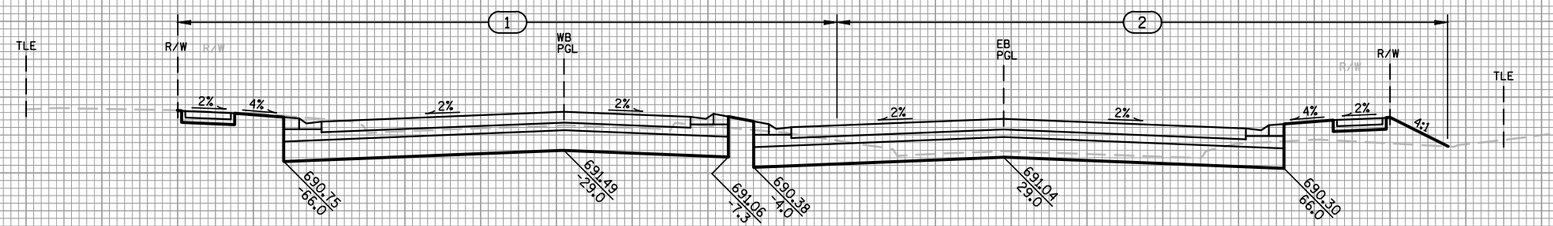
9 9

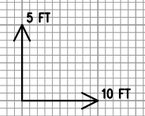
PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	CROSS SECTIONS: RYAN ROAD	SHEET 587	E











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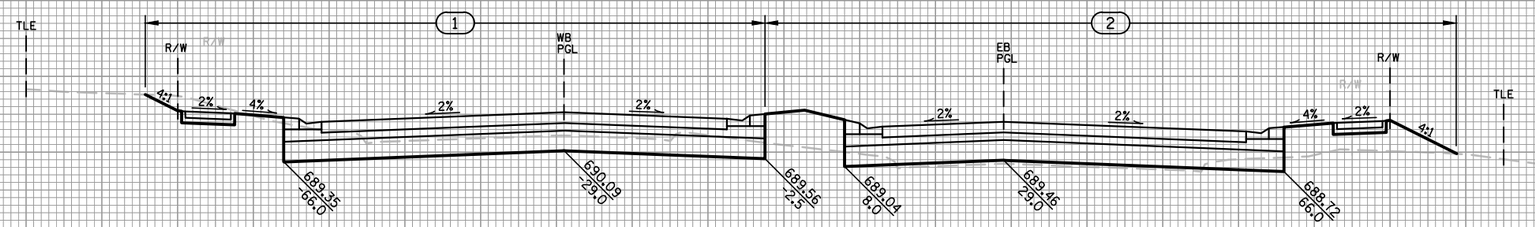
PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	CROSS SECTIONS: RYAN ROAD	SHEET 588	E

FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\090201_XS.DWG PLOT DATE : 10/1/2013 8:50 AM PLOT BY : JGRUBER PLOT NAME : ---------- PLOT SCALE : 1:20_XREF

WISDOT/CADDS SHEET 49



695
71+00
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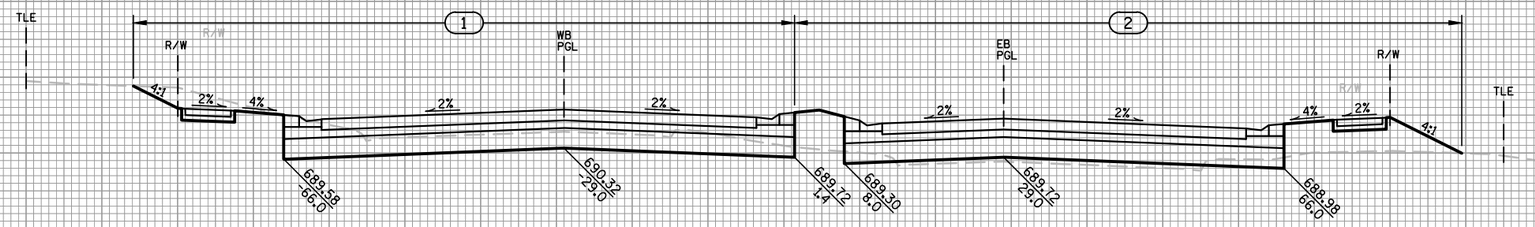
685



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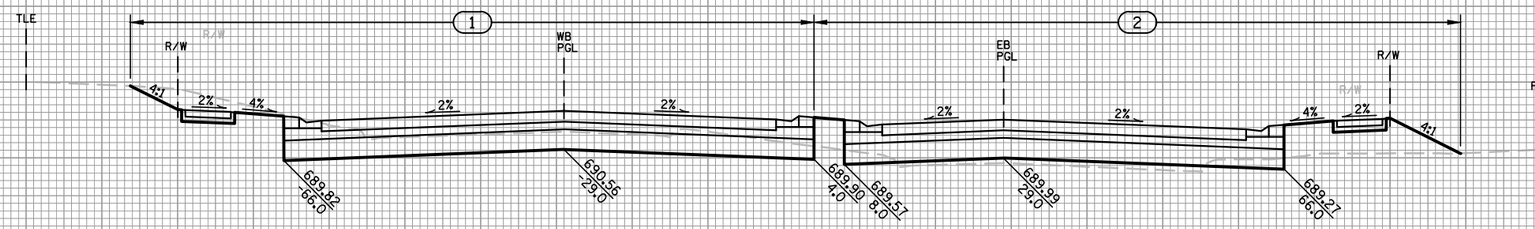

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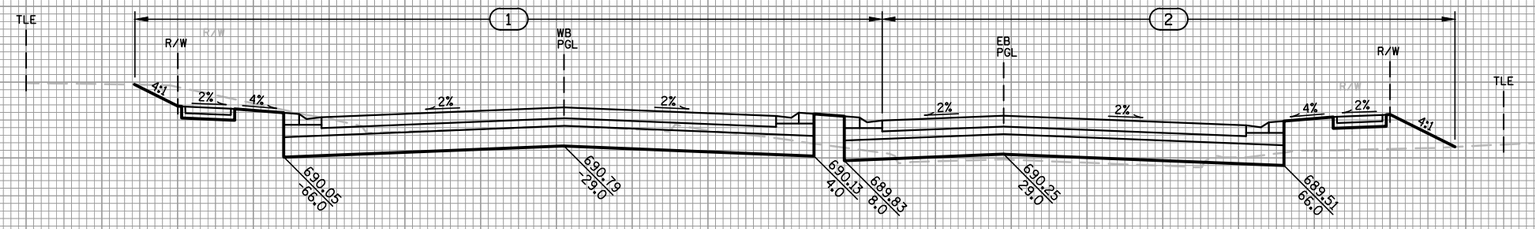

695
69+50
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685

100 50 0 50 100

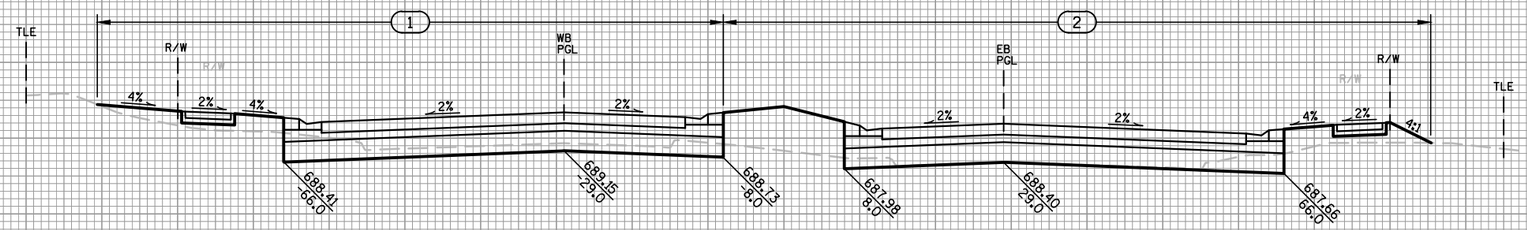
5 FT
10 FT

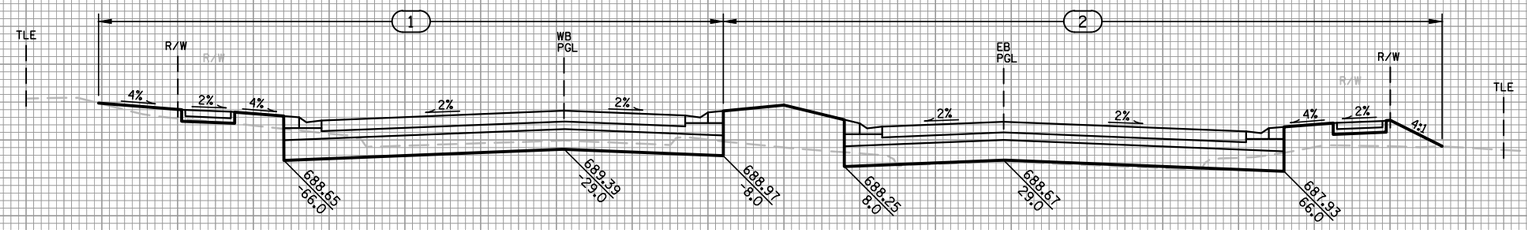
9

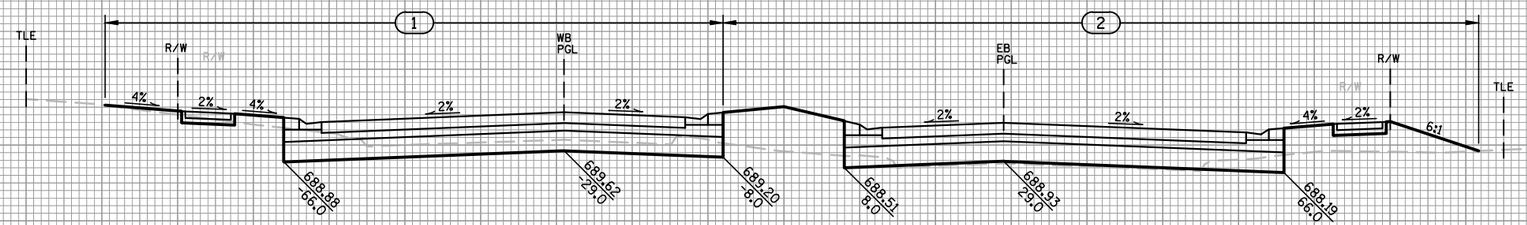
PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	CROSS SECTIONS: RYAN ROAD	SHEET	E

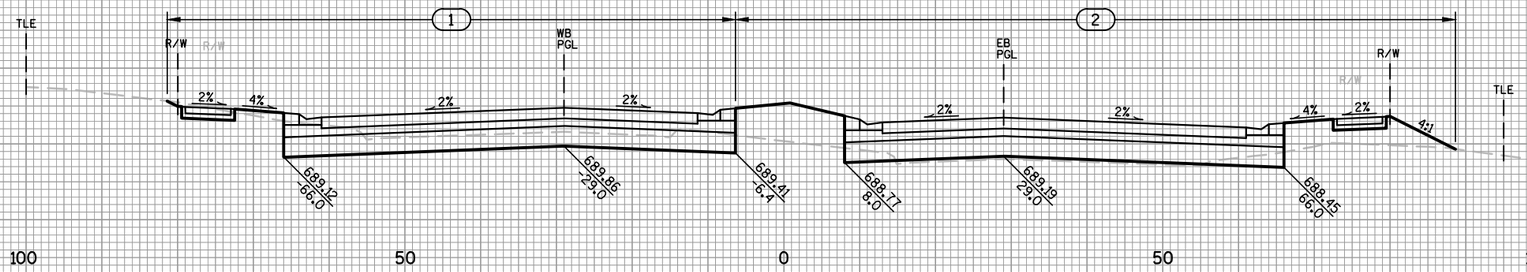
FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\090201_XS.DWG PLOT DATE : 10/1/2013 8:50 AM PLOT BY : JGRUBER PLOT NAME : ---------- PLOT SCALE : 1:20_XREF

WISDOT/CADDS SHEET 49









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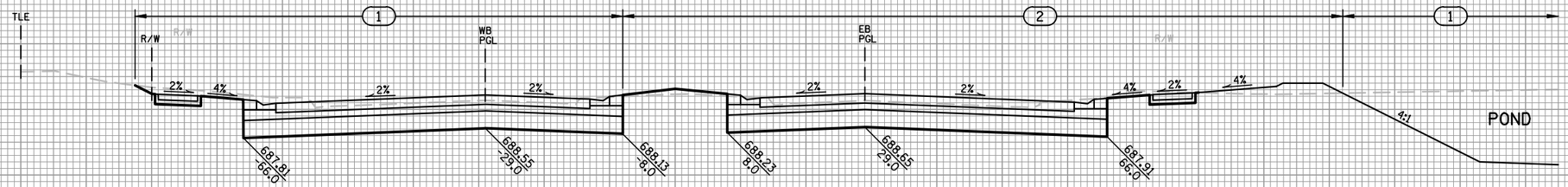
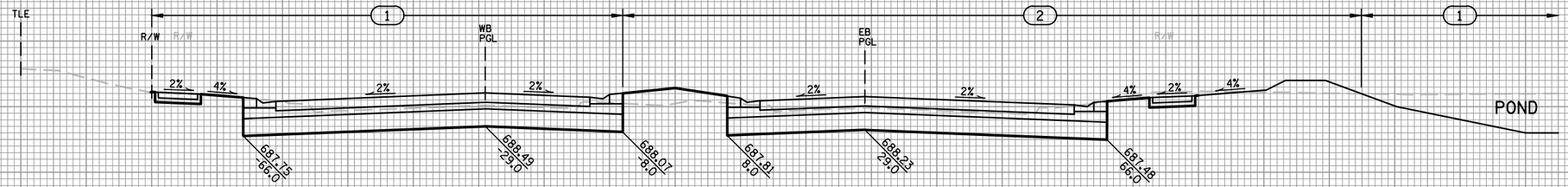
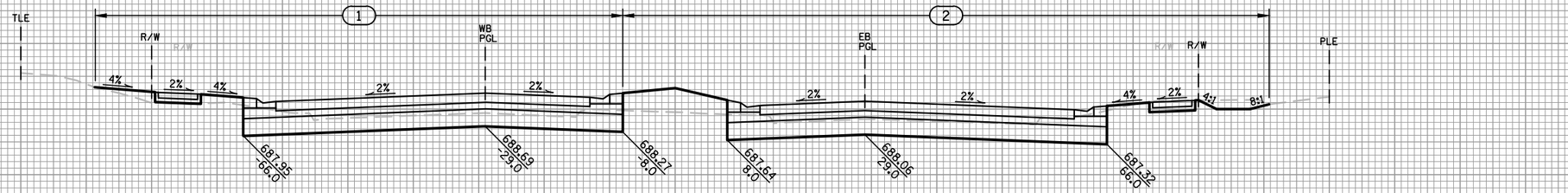
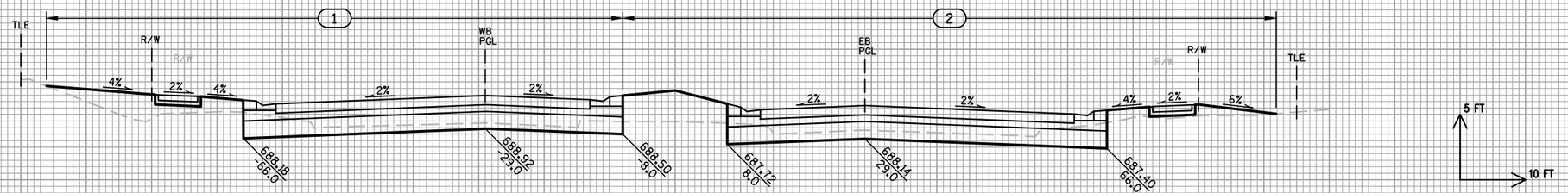
PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	CROSS SECTIONS: RYAN ROAD	SHEET 590	E

FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\090201_XS.DWG PLOT DATE : 10/1/2013 8:50 AM PLOT BY : JGRUBER PLOT NAME : ---------- PLOT SCALE : 1:20_XREF









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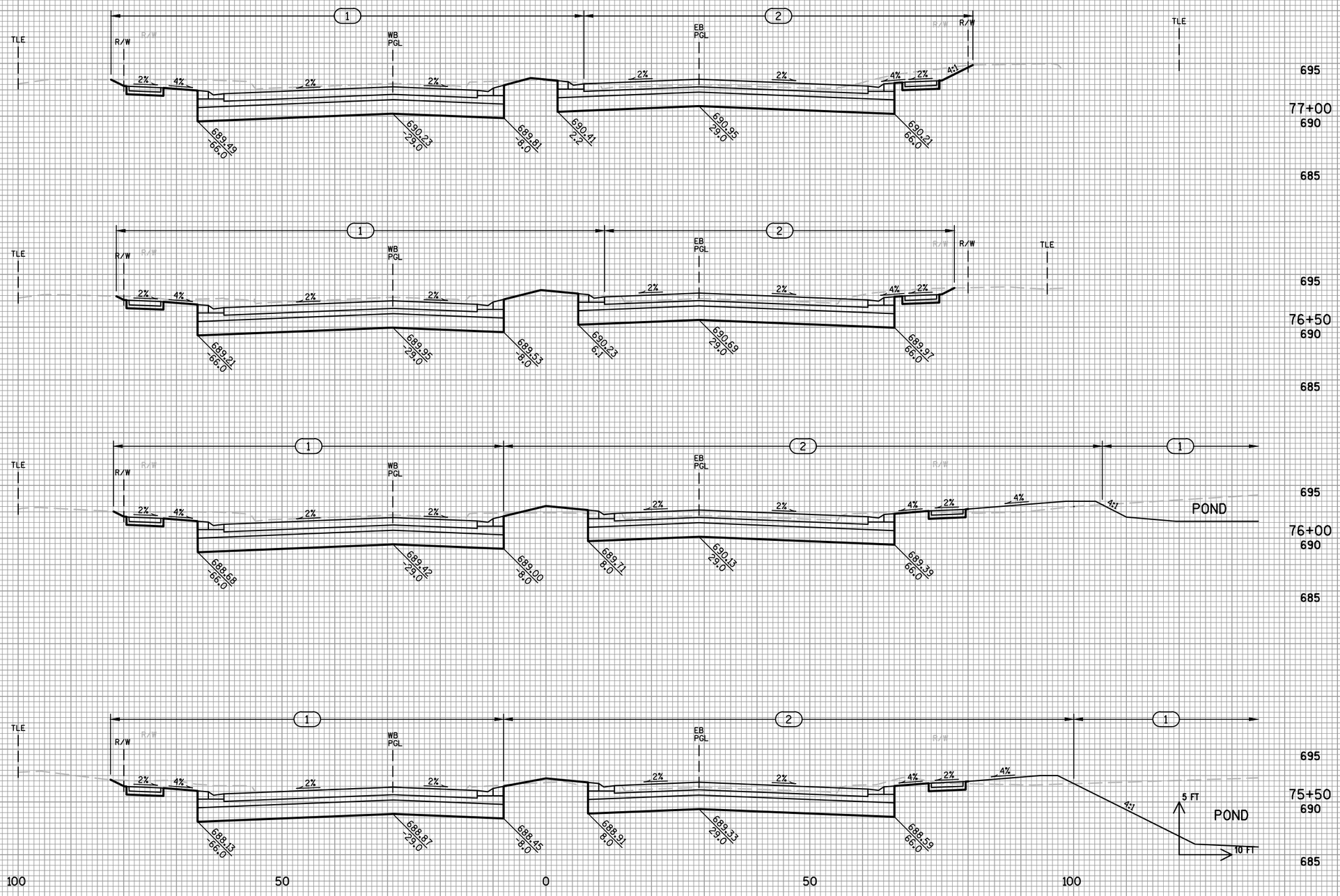
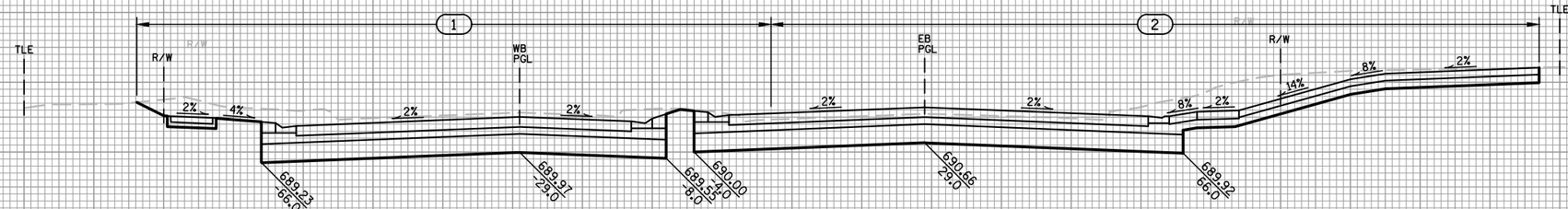
PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	CROSS SECTIONS: RYAN ROAD	SHEET 591	E

FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\090201_XS.DWG PLOT DATE : 10/1/2013 8:50 AM PLOT BY : JGRUBER PLOT NAME : ---------- PLOT SCALE : 1:20_XREF

WISDOT/CADDS SHEET 49



PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	CROSS SECTIONS: RYAN ROAD	SHEET 592	E



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78+00
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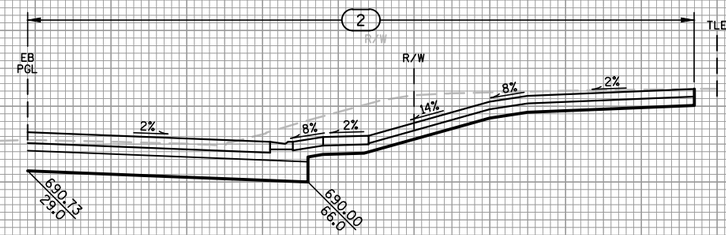

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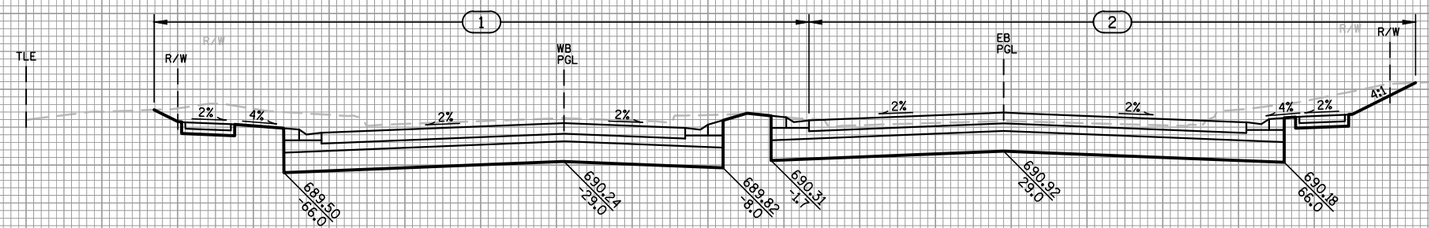

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77+50
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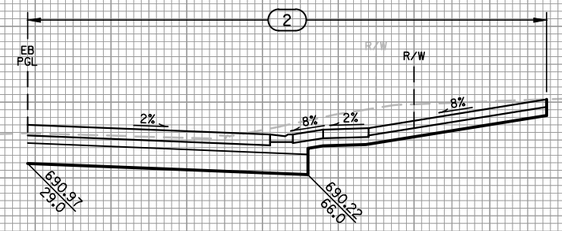

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PE RT
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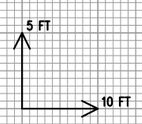

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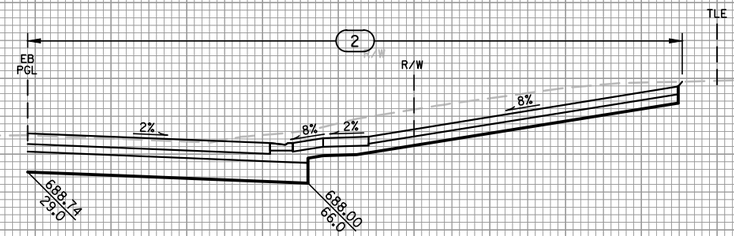
PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	CROSS SECTIONS: RYAN ROAD	SHEET 593	E



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PE RT
79+19
690
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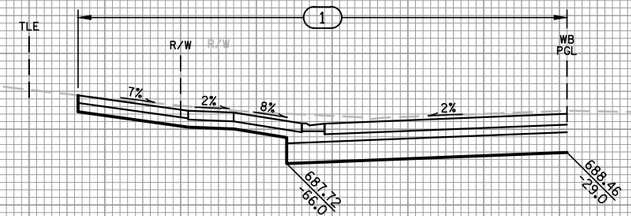

695
PE LT
79+17
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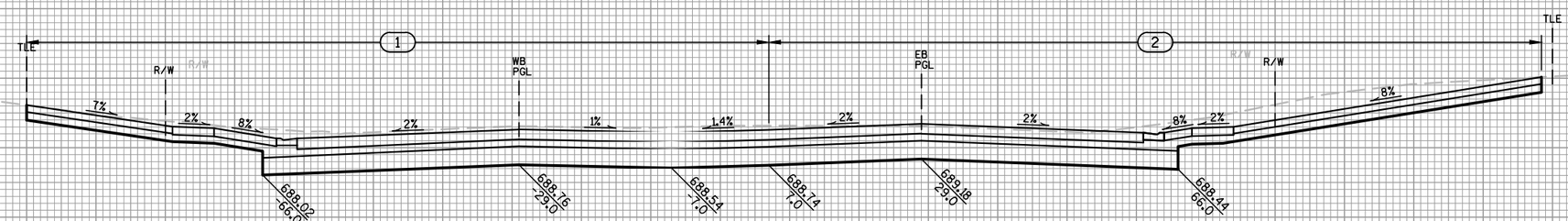
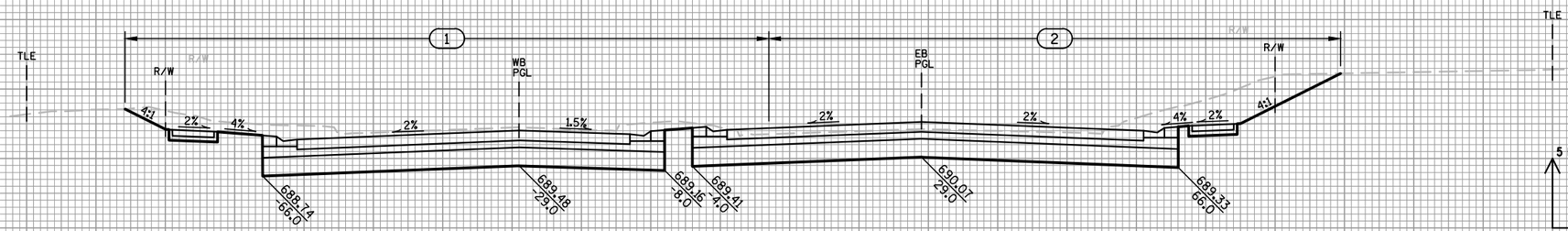


695
79+00
690
685



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78+50
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100 50 0 50 100

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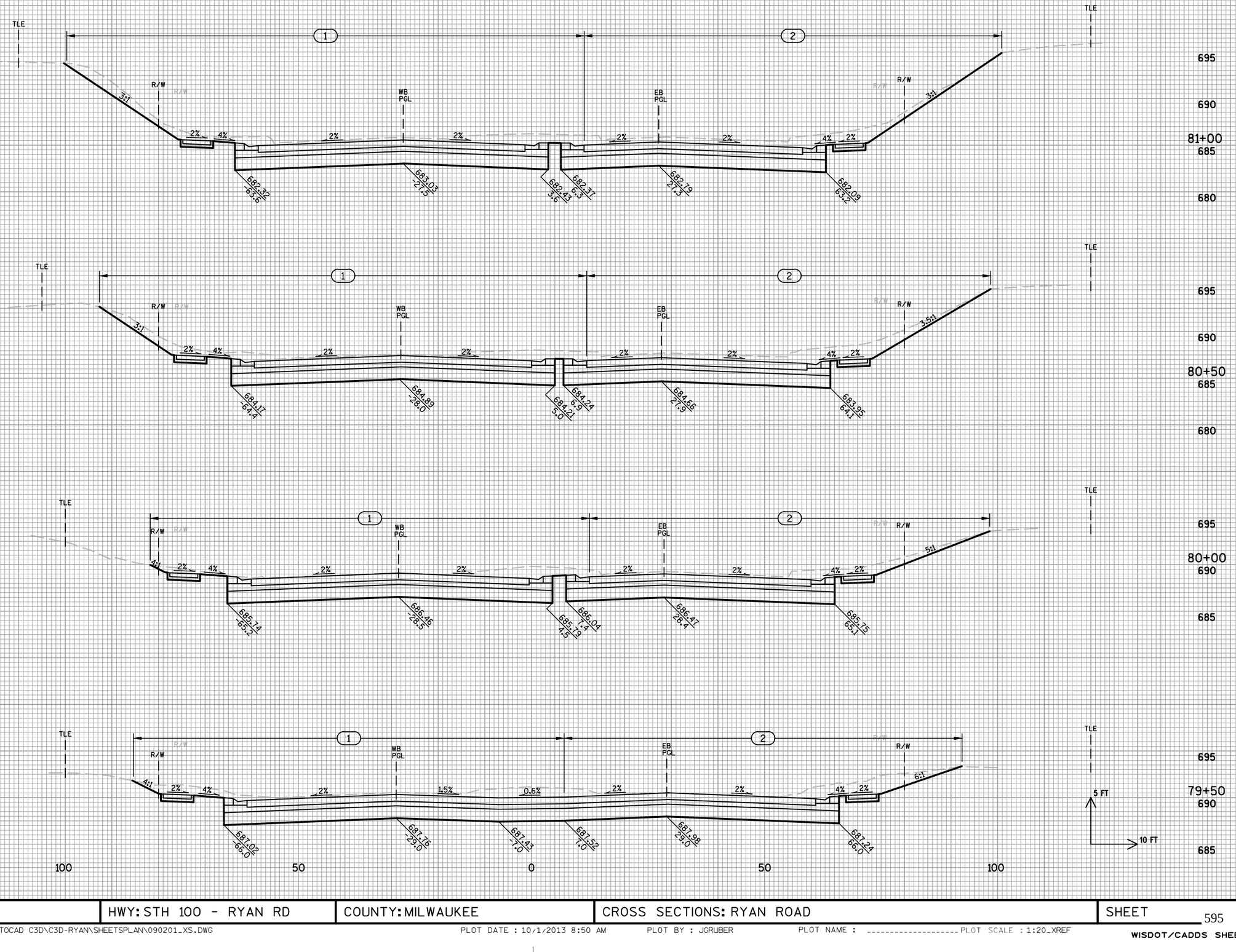
PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	CROSS SECTIONS: RYAN ROAD	SHEET 594	E



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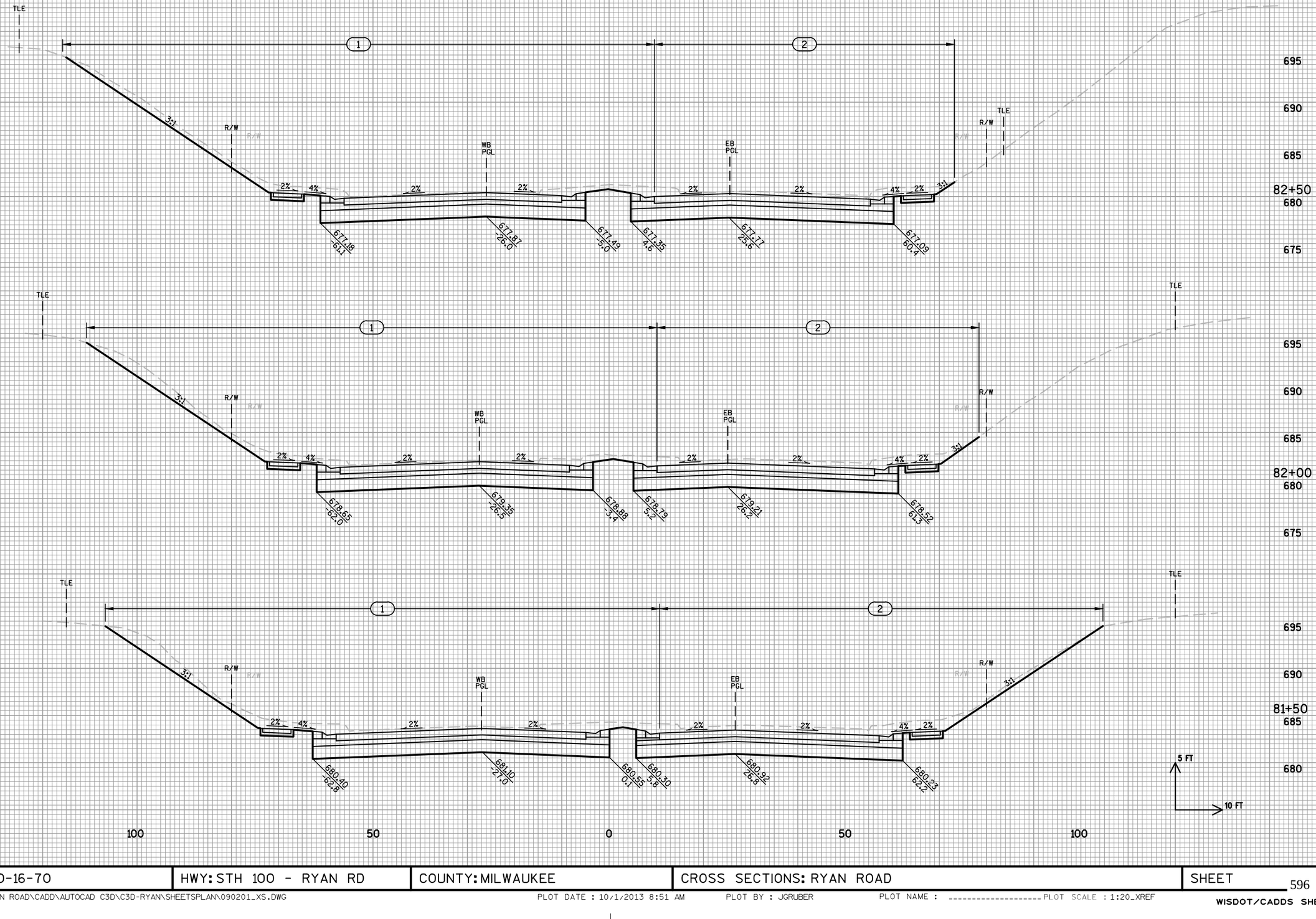
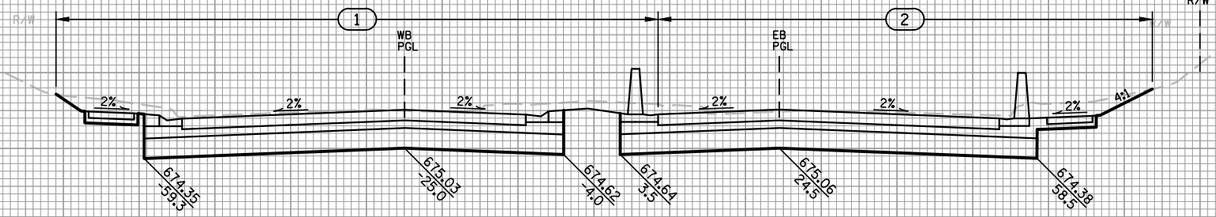
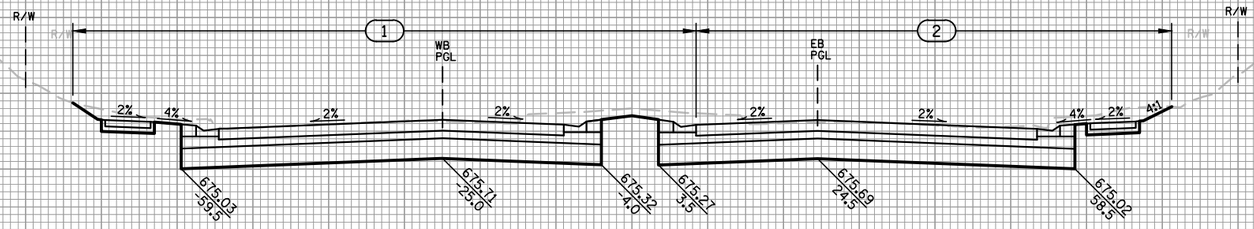
PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	CROSS SECTIONS: RYAN ROAD	SHEET 595	E

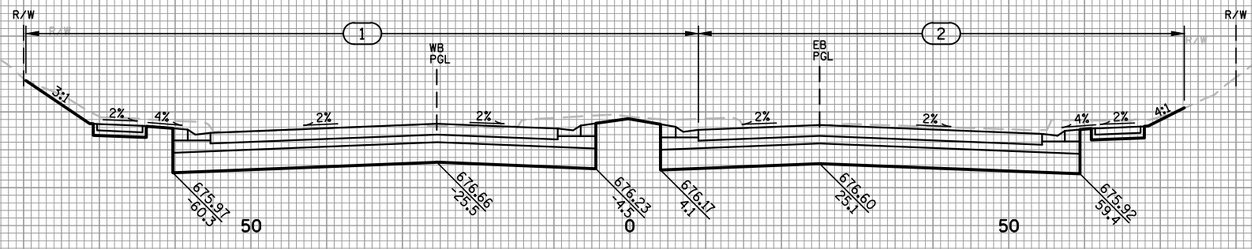


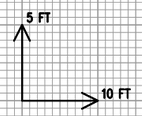
PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	CROSS SECTIONS: RYAN ROAD	SHEET	E

FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\090201_XS.DWG PLOT DATE : 10/1/2013 8:51 AM PLOT BY : JGRUBER PLOT NAME : ---------- PLOT SCALE : 1:20_XREF
WISDOT/CADDS SHEET 49

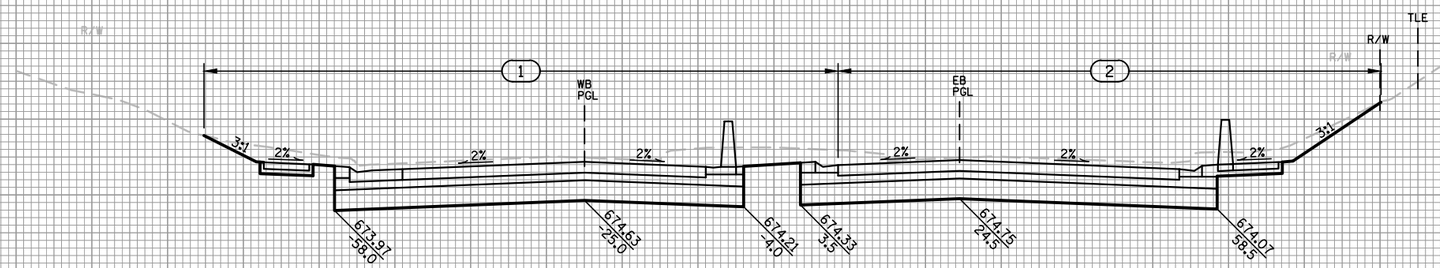


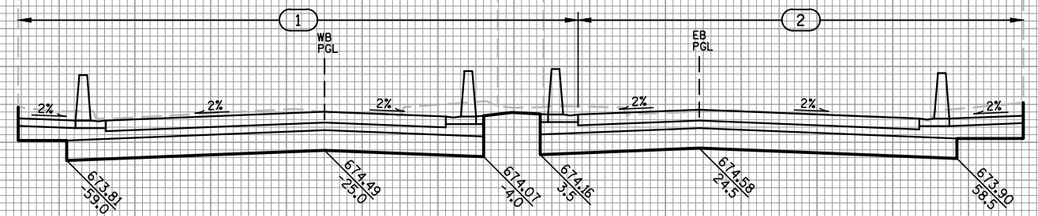


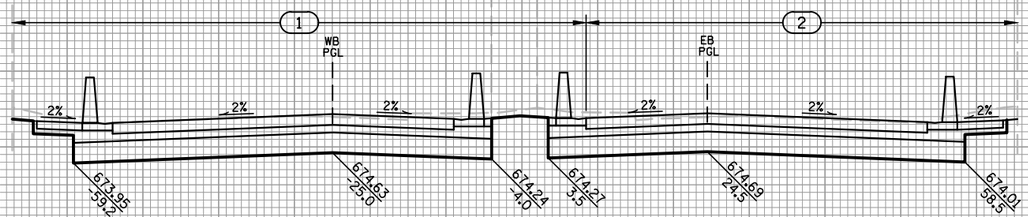


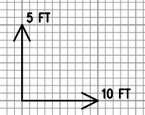


PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	CROSS SECTIONS: RYAN ROAD	SHEET 597	E





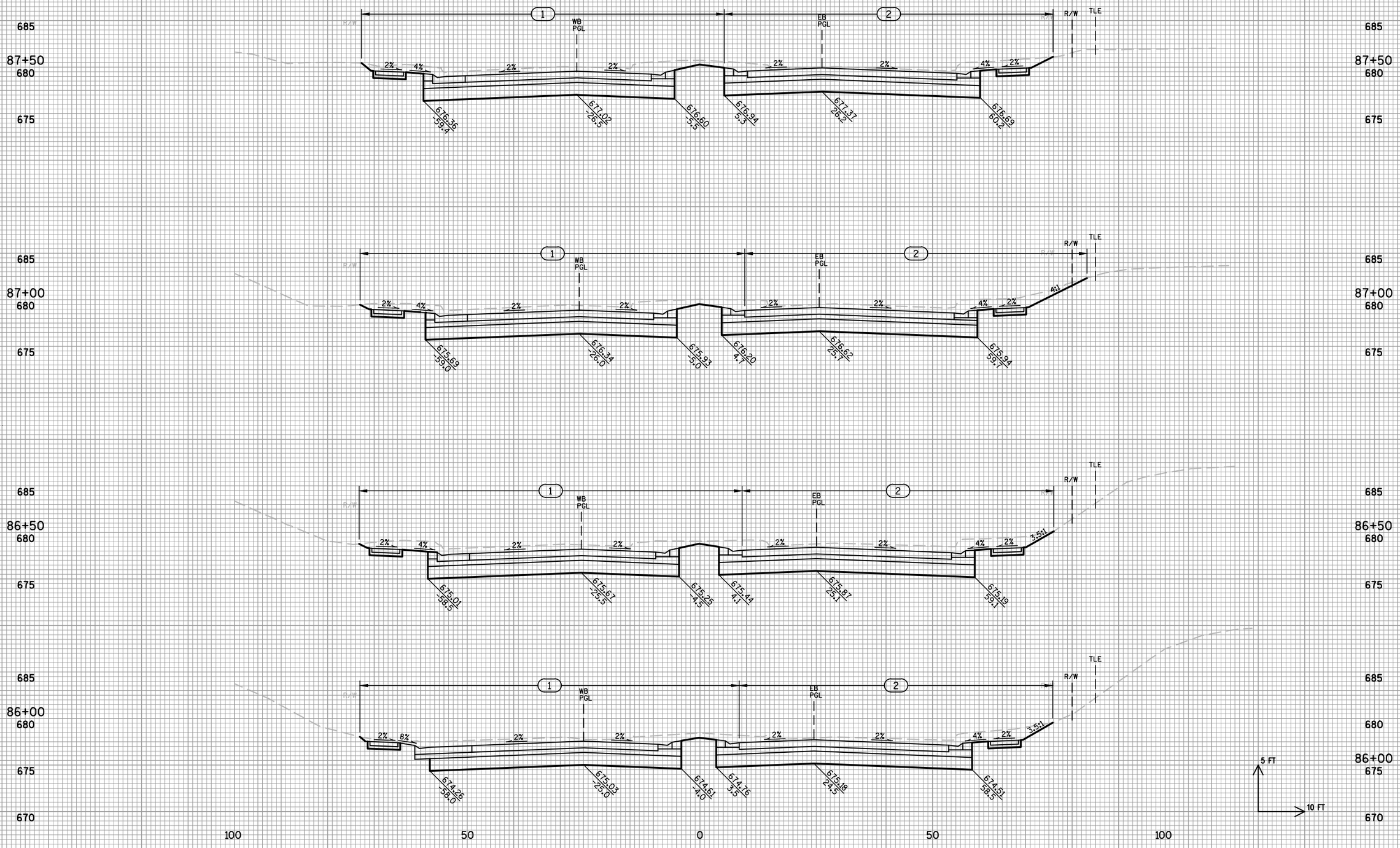




PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	CROSS SECTIONS: RYAN ROAD	SHEET 598	E

FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\090201_XS.DWG PLOT DATE : 10/1/2013 8:51 AM PLOT BY : JGRUBER PLOT NAME : ---------- PLOT SCALE : 1:20_XREF

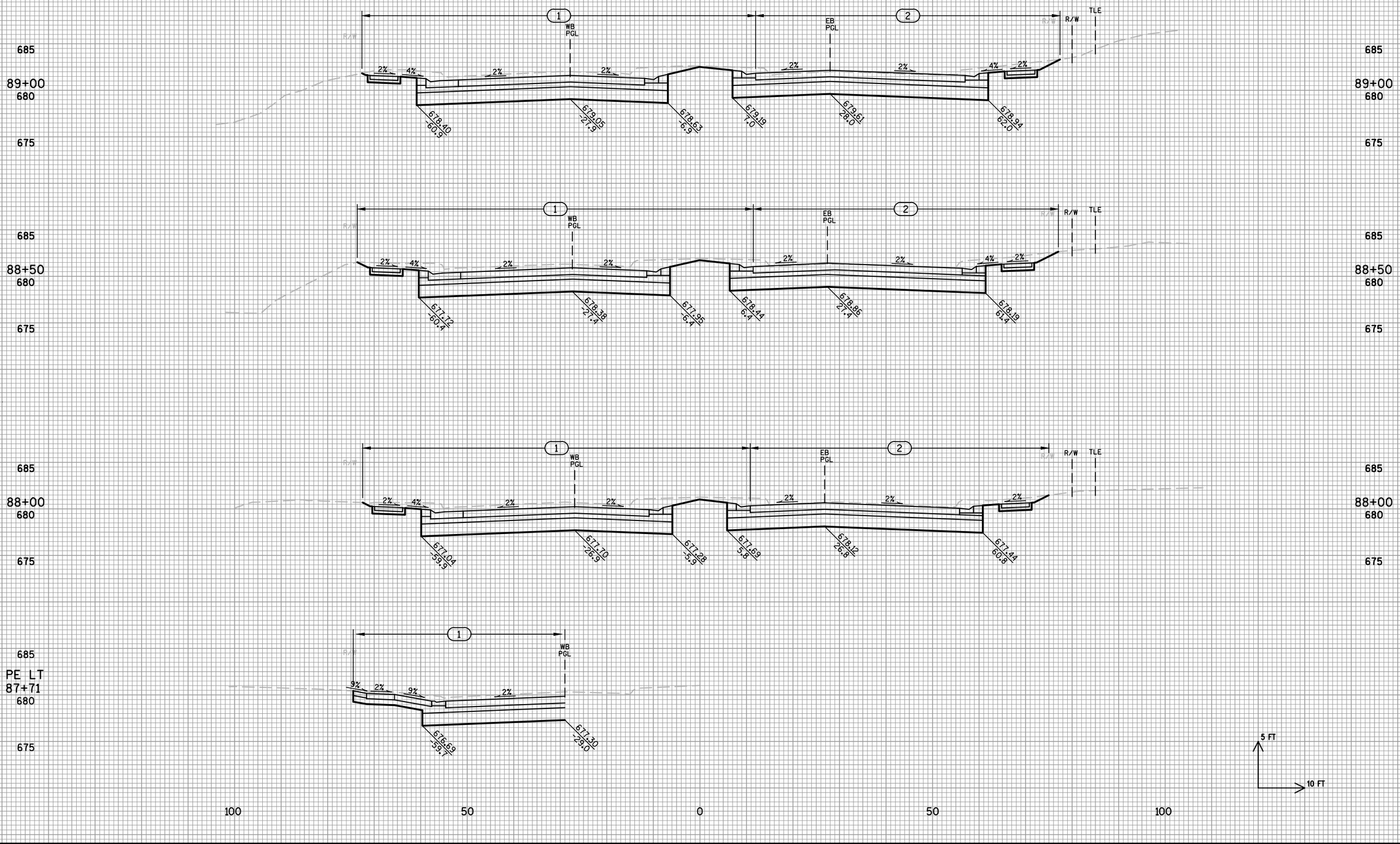
WISDOT/CADDS SHEET 49



PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	CROSS SECTIONS: RYAN ROAD	SHEET 599	E

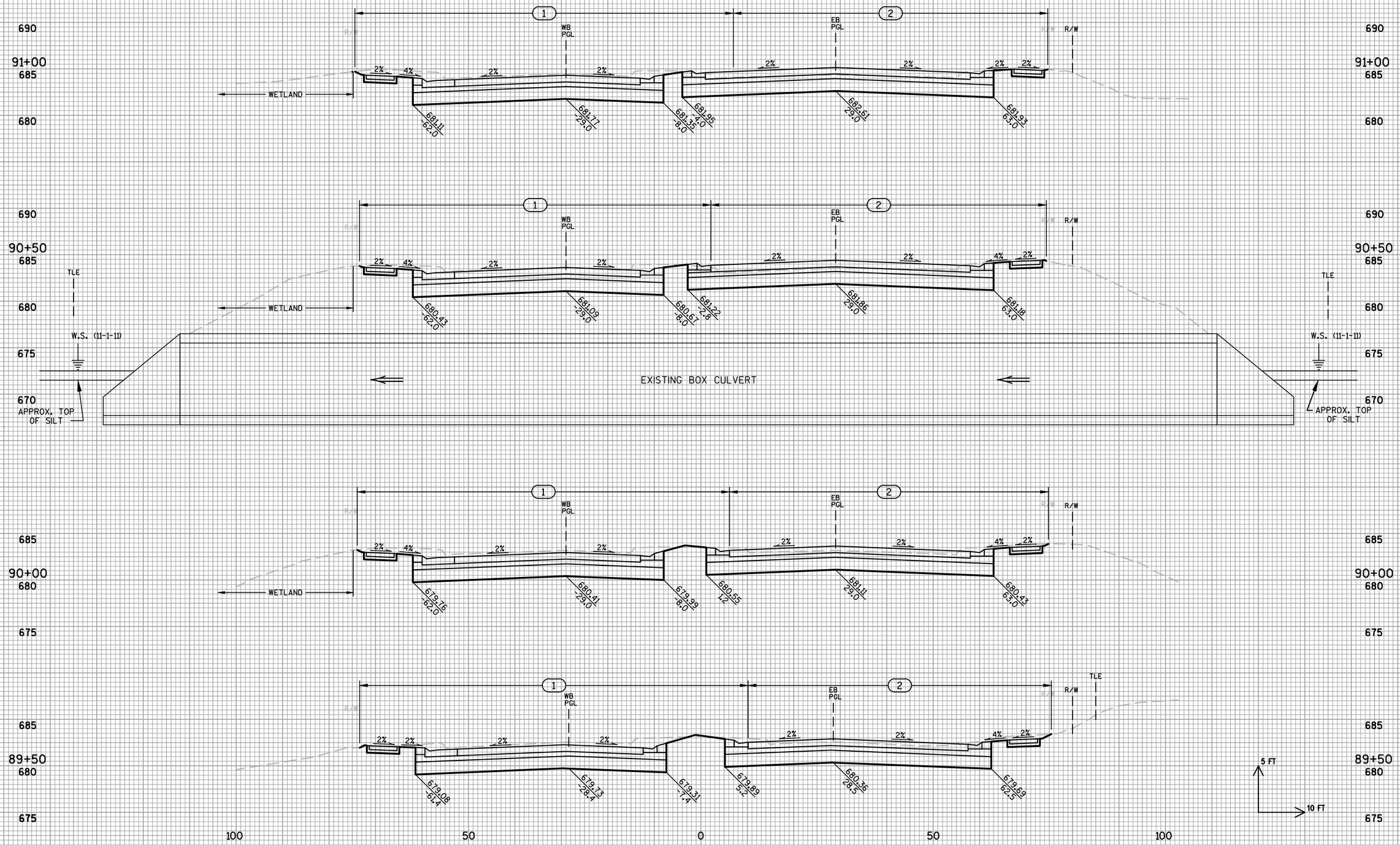
FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\090201_XS.DWG PLOT DATE : 10/1/2013 8:51 AM PLOT BY : JGRUBER PLOT NAME : ---------- PLOT SCALE : 1:20_XREF

WISDOT/CADDS SHEET 49



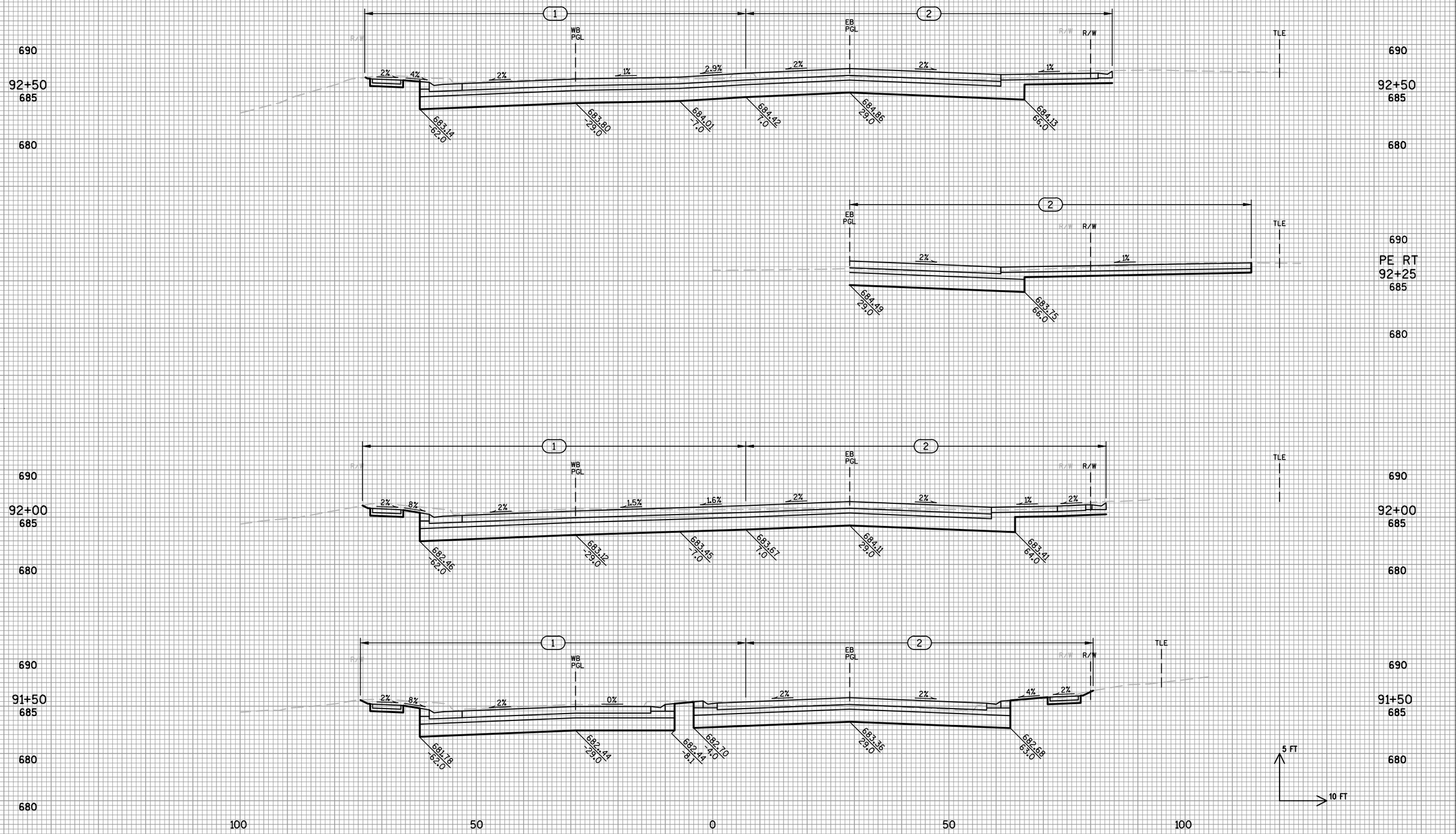
PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	CROSS SECTIONS: RYAN ROAD	SHEET 600	E

FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\090201_XS.DWG PLOT DATE : 10/1/2013 8:51 AM PLOT BY : JGRUBER PLOT NAME : ---------- PLOT SCALE : 1:20_XREF



PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	CROSS SECTIONS: RYAN ROAD	SHEET 601	E

FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\090201_XS.DWG PLOT DATE : 10/1/2013 8:51 AM PLOT BY : JGRUBER PLOT NAME : ---------- PLOT SCALE : 1:20_XREF



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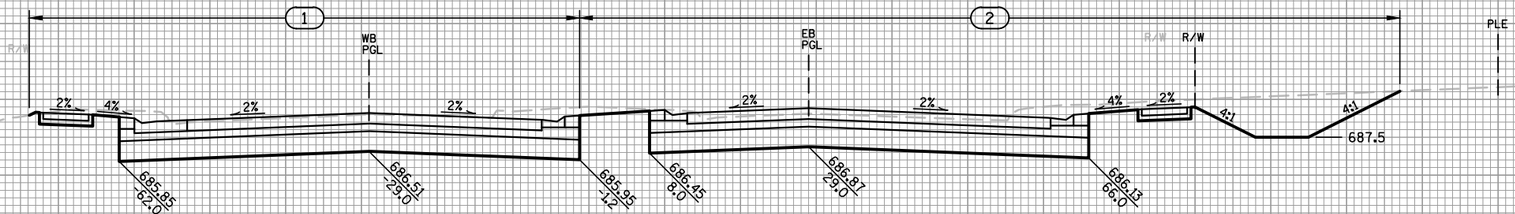
9

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	CROSS SECTIONS: RYAN ROAD	SHEET	E

FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\090201_XS.DWG PLOT DATE : 10/1/2013 8:51 AM PLOT BY : JGRUBER PLOT NAME : ---------- PLOT SCALE : 1:20_XREF



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94+50
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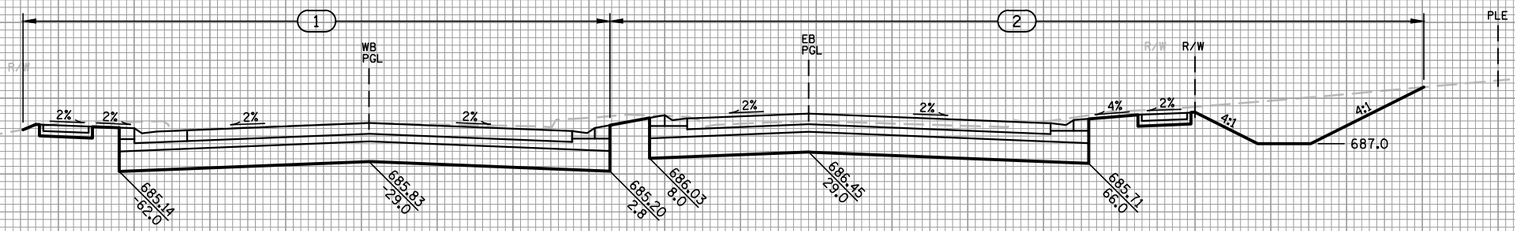
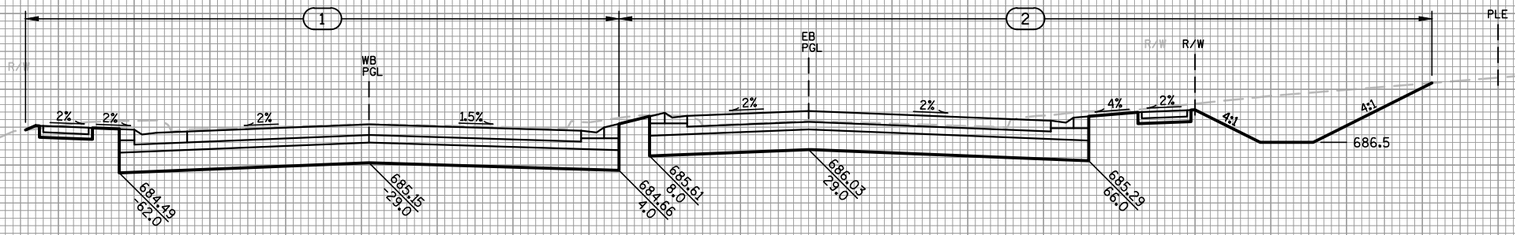
680



690
94+00
685
680



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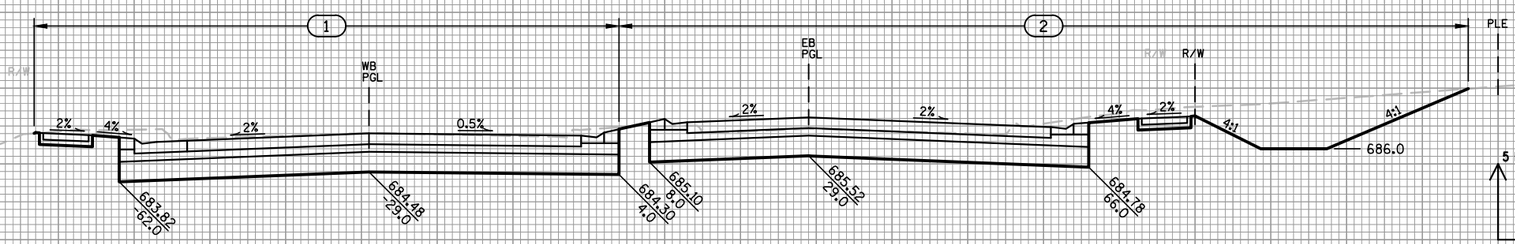

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93+00
685
680

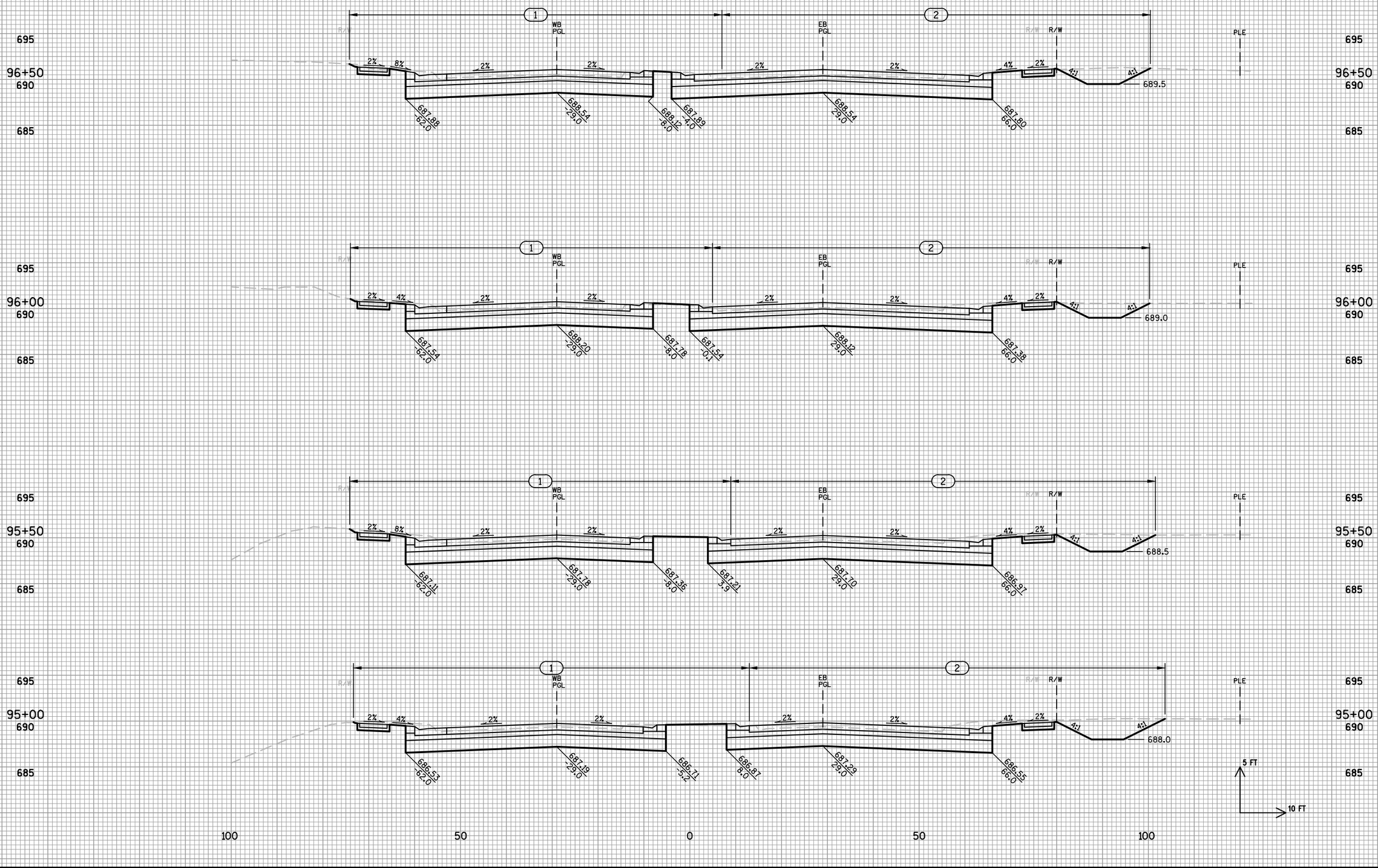
100 50 0 50 100

9

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	CROSS SECTIONS: RYAN ROAD	SHEET 603	E

FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\090201_XS.DWG PLOT DATE : 10/1/2013 8:51 AM PLOT BY : JGRUBER PLOT NAME : ---------- PLOT SCALE : 1:20_XREF

WISDOT/CADDS SHEET 49



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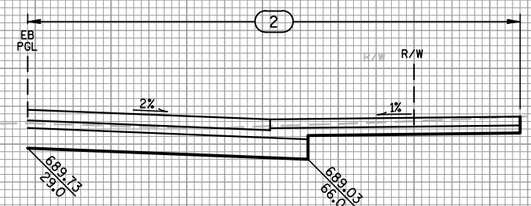
PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	CROSS SECTIONS: RYAN ROAD	SHEET 604	E

FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\090201_XS.DWG PLOT DATE : 10/1/2013 8:51 AM PLOT BY : JGRUBER PLOT NAME : ---------- PLOT SCALE : 1:20_XREF

WISDOT/CADDS SHEET 49



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PE RT
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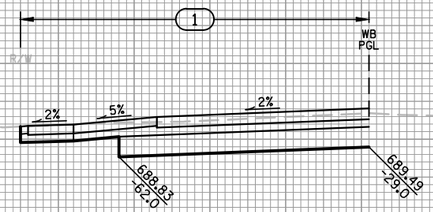
690
685



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PE LT
97+91
690
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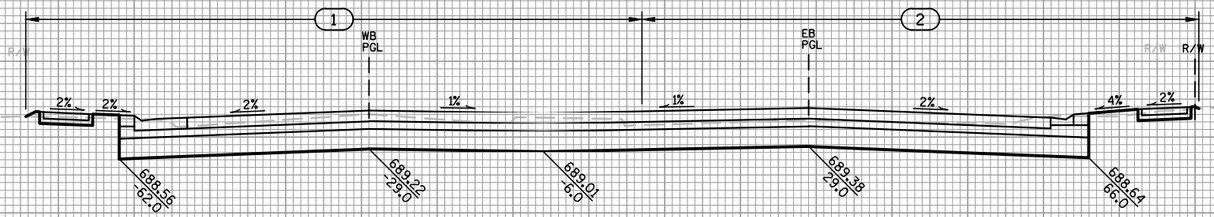

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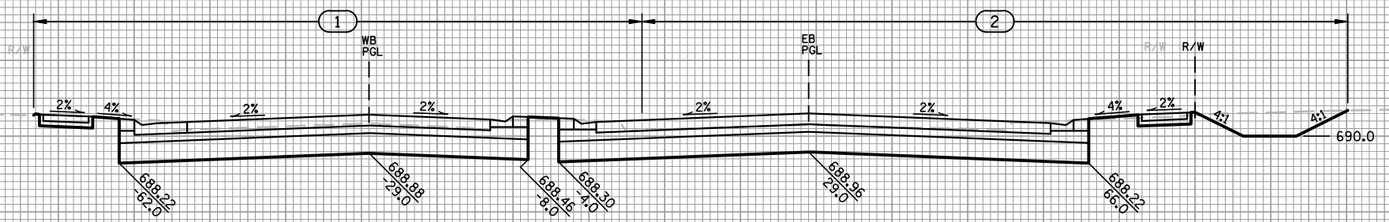
97+50
690
685

PLE

695
97+50
690
685



695
97+00
690
685

PLE

695
97+00
690
685

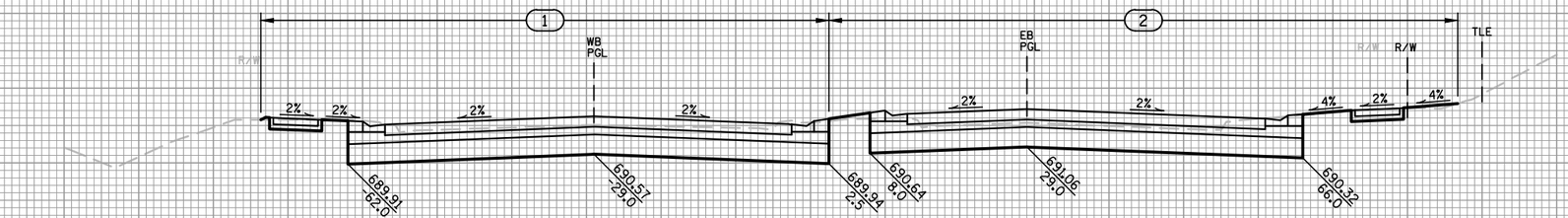
5 FT
10 FT

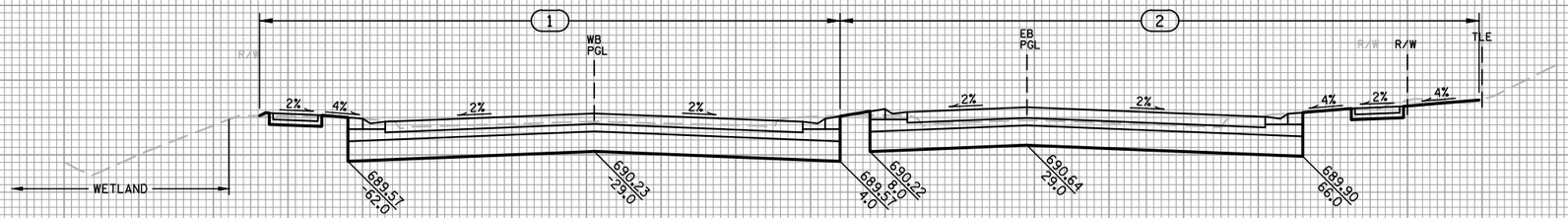
100 50 0 50 100

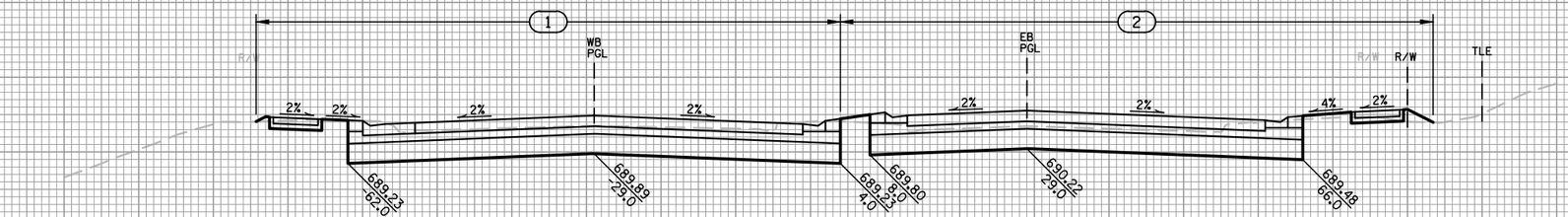
9 9

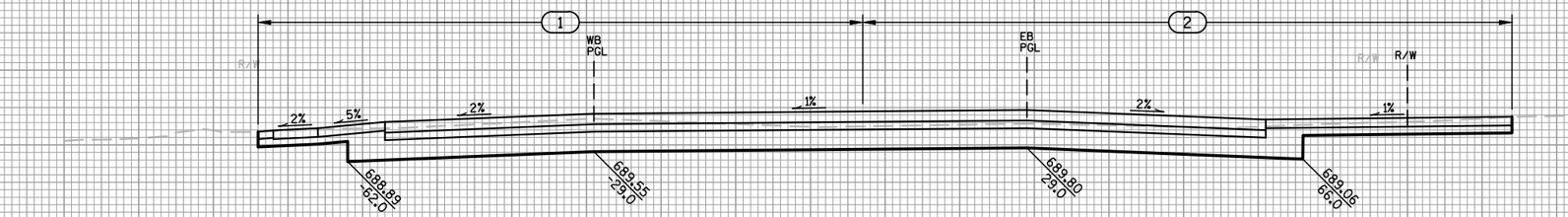
PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	CROSS SECTIONS: RYAN ROAD	SHEET 605	E

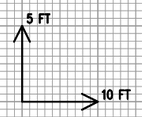
FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\090201_XS.DWG PLOT DATE : 10/1/2013 8:51 AM PLOT BY : JGRUBER PLOT NAME : ---------- PLOT SCALE : 1:20_XREF











695 690 685 — 99+50 — 100 50 0 50 100

695 690 685 — 99+00

695 690 685 — 98+50

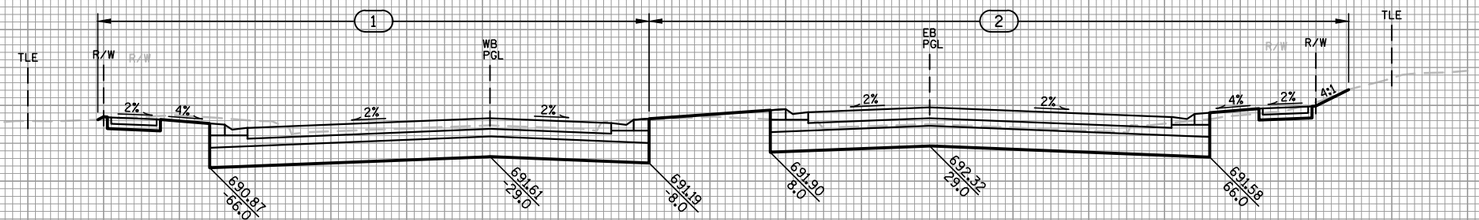
695 690 685 — 98+00

9

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	CROSS SECTIONS: RYAN ROAD	SHEET 606	E

FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\090201_XS.DWG PLOT DATE : 10/1/2013 8:51 AM PLOT BY : JGRUBER PLOT NAME : ---------- PLOT SCALE : 1:20_XREF

WISDOT/CADDS SHEET 49



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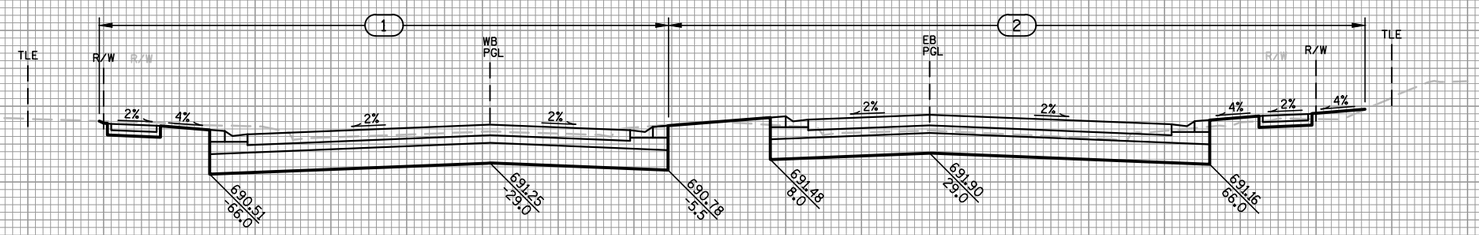
101+00
695
690



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100+50
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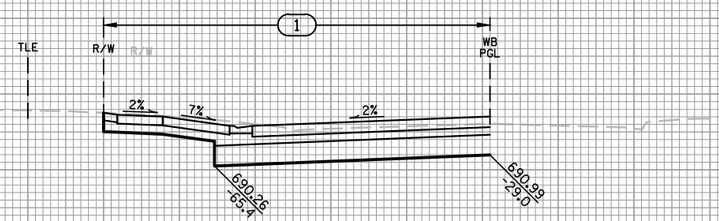

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PE LT
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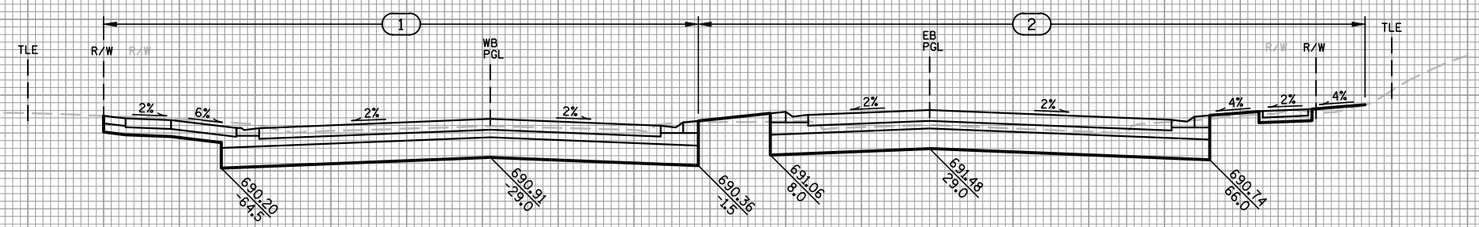
690



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100+00
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695
100+00
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685

5 FT
10 FT

100 50 0 50 100

9

9

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	CROSS SECTIONS: RYAN ROAD	SHEET 607	E

FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\090201_XS.DWG PLOT DATE : 10/1/2013 8:51 AM PLOT BY : JGRUBER PLOT NAME : ---------- PLOT SCALE : 1:20_XREF

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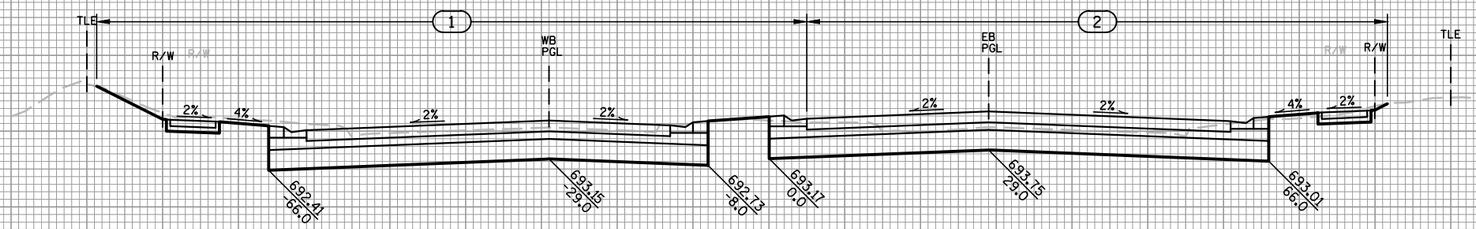

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695
690

700
102+50
695
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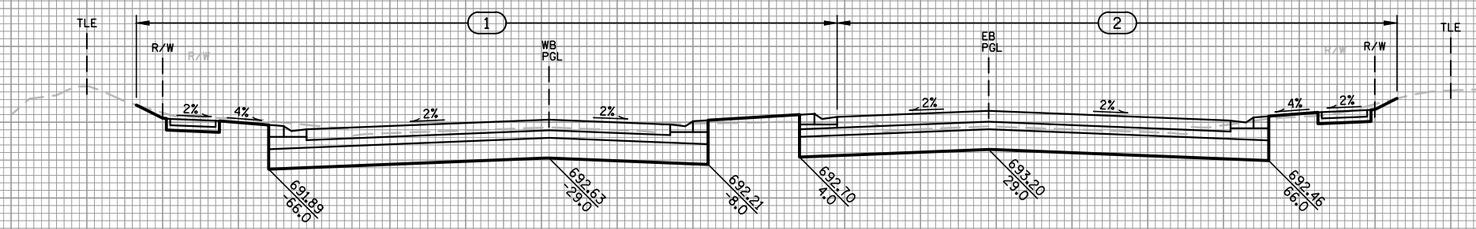

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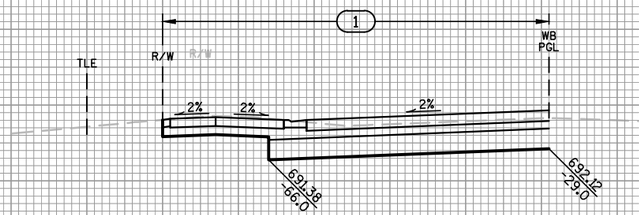
695
690

700
102+00
695
690



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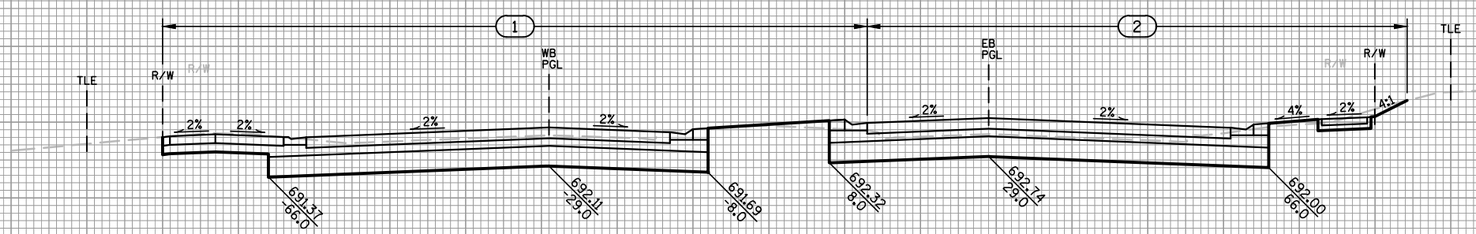
PE LT
101+51
695
690



700
101+50
695
690

700
101+50
695
690

5 FT
10 FT

100 50 0 50 100

9 9

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	CROSS SECTIONS: RYAN ROAD	SHEET 608	E

FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\090201_XS.DWG PLOT DATE : 10/1/2013 8:51 AM PLOT BY : JGRUBER PLOT NAME : ---------- PLOT SCALE : 1:20_XREF

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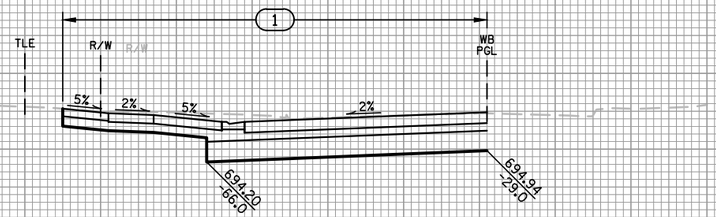

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PE LT
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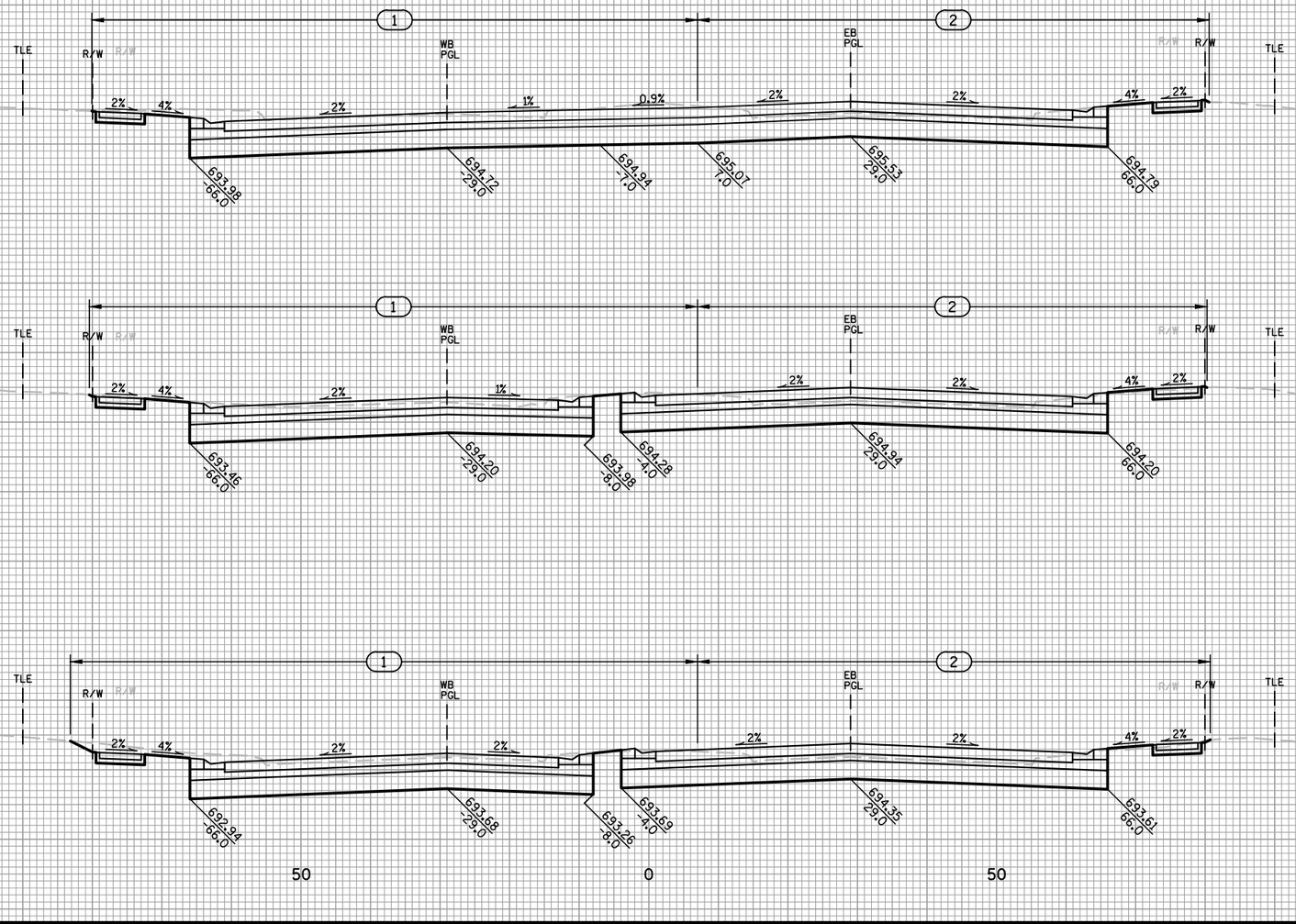

700
104+00
695
690

700
103+50
695
690

700
103+00
695
690

5 FT
10 FT

100 50 0 50 100

9

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	CROSS SECTIONS: RYAN ROAD	SHEET 609	E

FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\090201_XS.DWG PLOT DATE : 10/1/2013 8:51 AM PLOT BY : JGRUBER PLOT NAME : ---------- PLOT SCALE : 1:20_XREF

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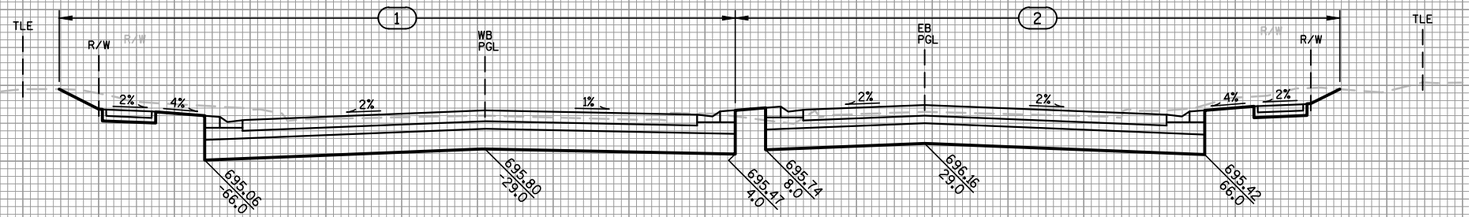

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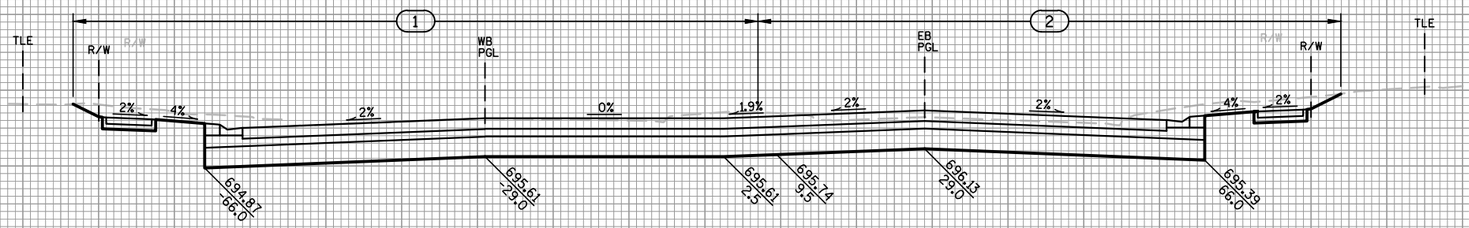
105+50
695
690



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105+00
695
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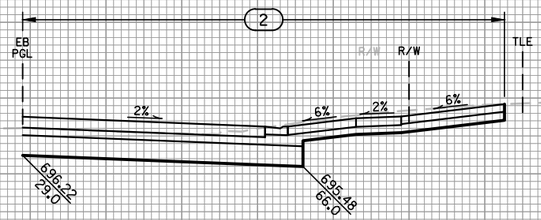

PE RT
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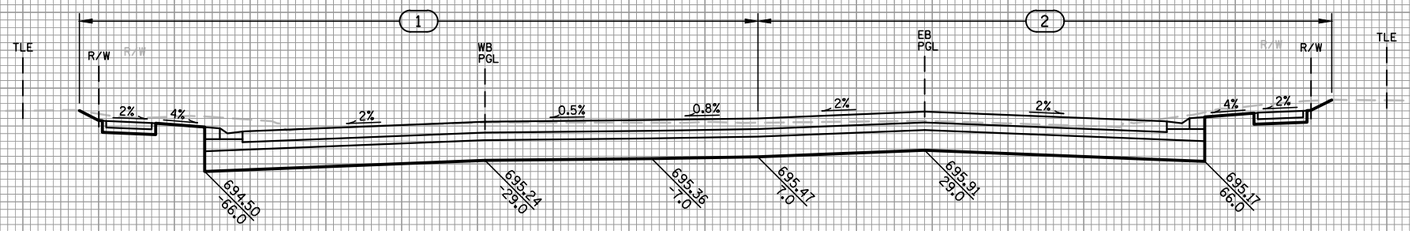
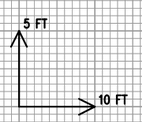
695



700
104+50
695
690



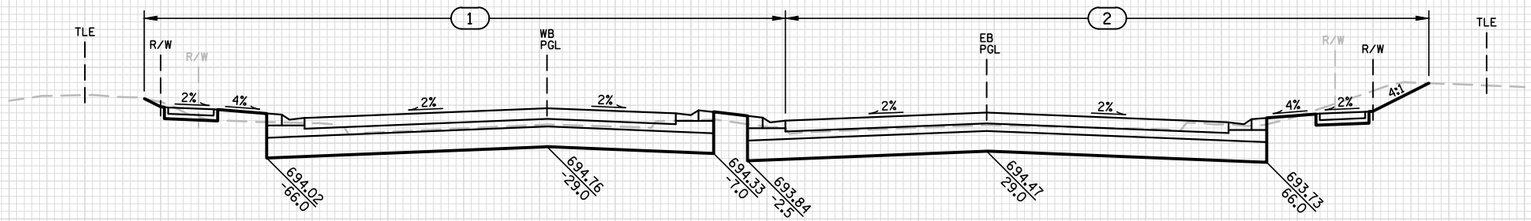
100 50 0 50 100

9

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	CROSS SECTIONS: RYAN ROAD	SHEET 610	E

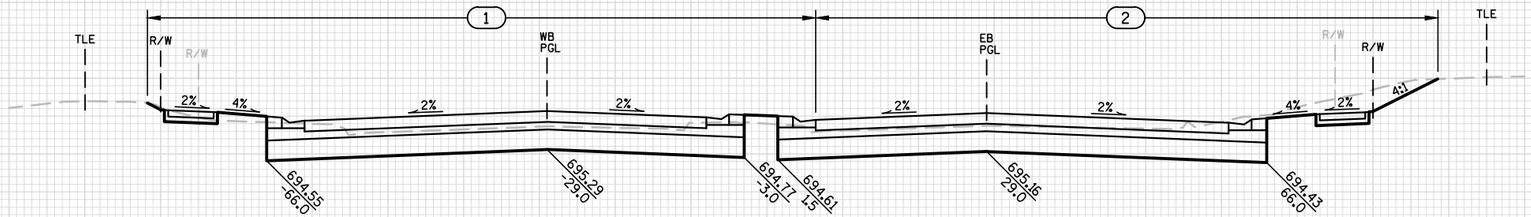
FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\090201_XS.DWG PLOT DATE : 10/1/2013 8:51 AM PLOT BY : JGRUBER PLOT NAME : ---------- PLOT SCALE : 1:20_XREF

WISDOT/CADDS SHEET 49



700
107+50
695
690

700
107+50
695
690



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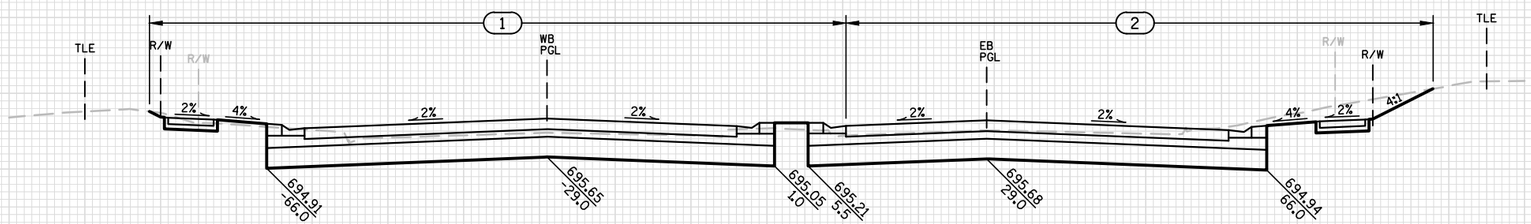
107+00
695
690

700
107+00
695
690



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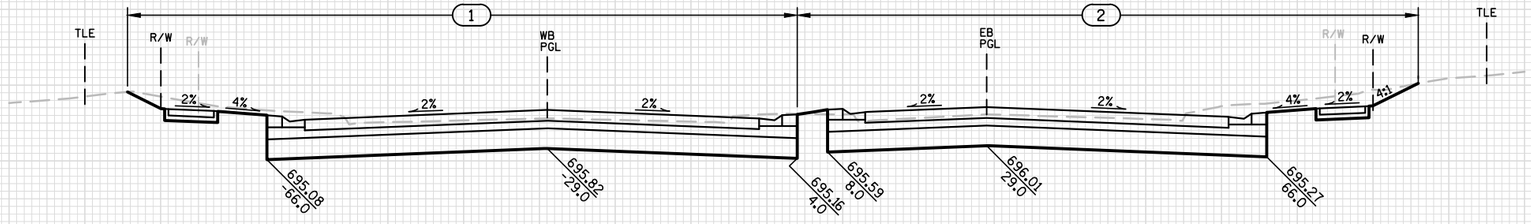
106+50
695
690

700
106+50
695
690



700
106+00
695
690

700
106+00
695
690

100 50 0 50 100

5 FT
10 FT

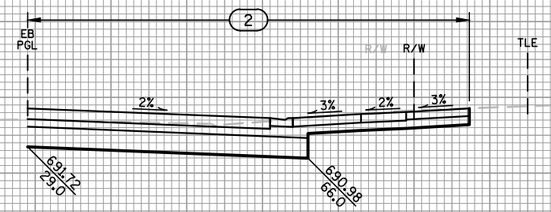
9

9

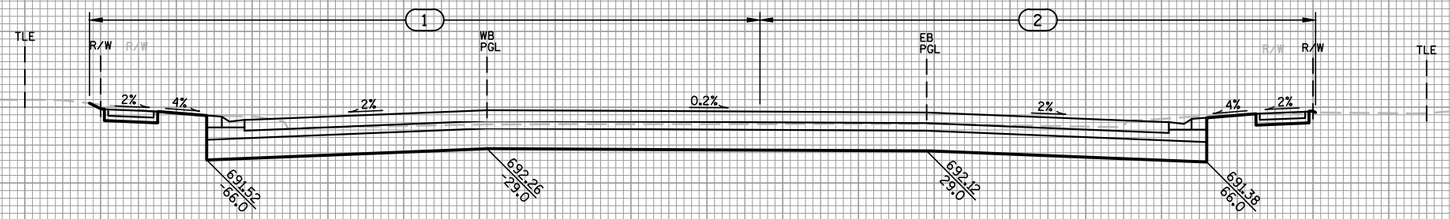
PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	CROSS SECTIONS: RYAN ROAD	SHEET 611	E

FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\090201_XS.DWG PLOT DATE : 11/21/2013 2:25 PM PLOT BY : JGRUBER PLOT NAME : ---------- PLOT SCALE : 1:20_XREF

WISDOT/CADDS SHEET 49

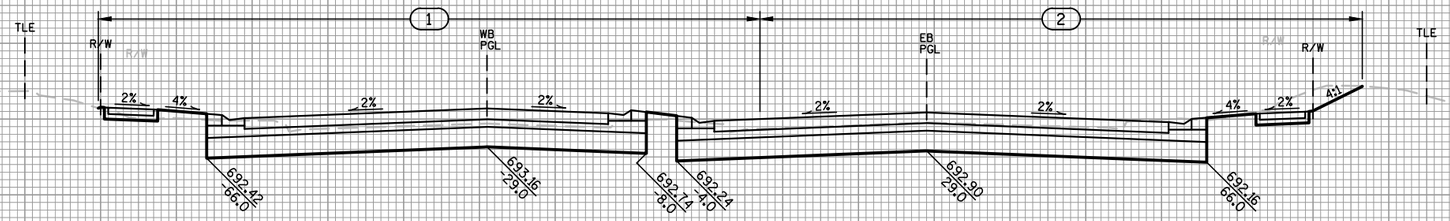


700
PE RT
109+25
695
690



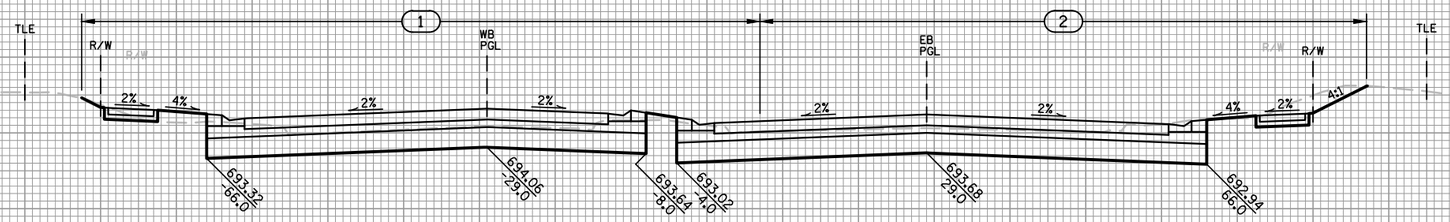
109+00
695
690

109+00
695
690



700
108+50
695
690

700
108+50
695
690



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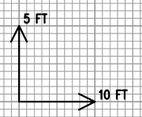
108+00
695
690

700
108+00
695
690



100 50 0 50 100

9

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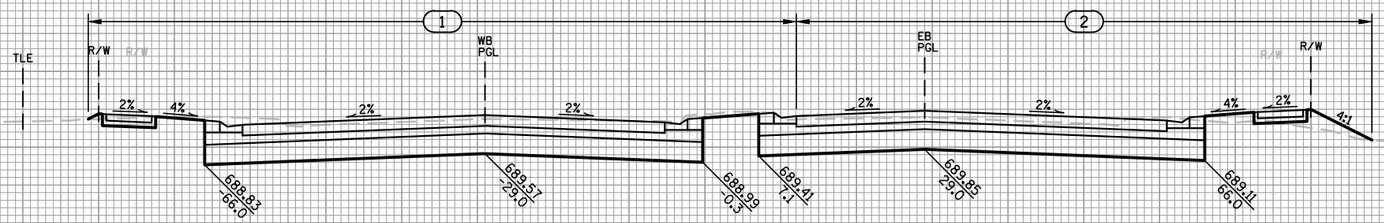
PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	CROSS SECTIONS: RYAN ROAD	SHEET 612	E

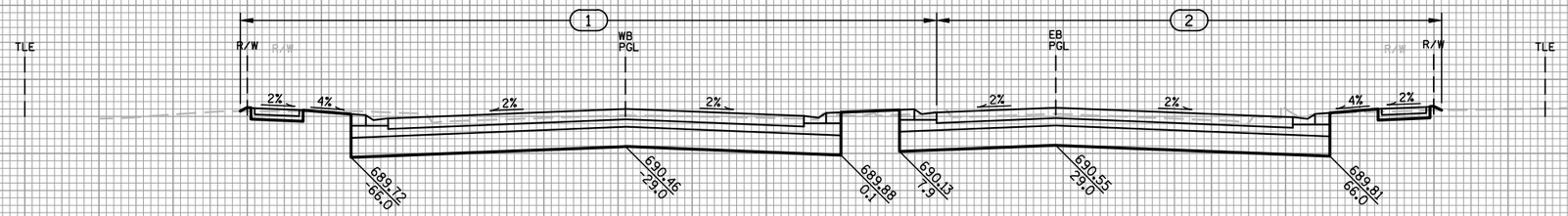
FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\090201_XS.DWG PLOT DATE : 10/1/2013 8:52 AM PLOT BY : JGRUBER PLOT NAME : ---------- PLOT SCALE : 1:20_XREF

WISDOT/CADDS SHEET 49



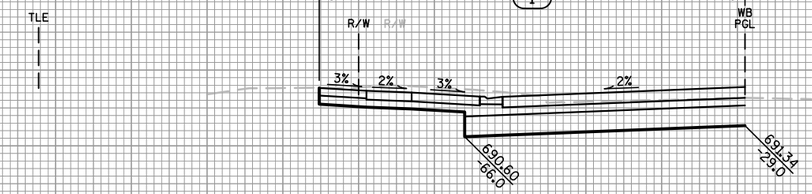
695
110+50
690
685

695
110+50
690
685

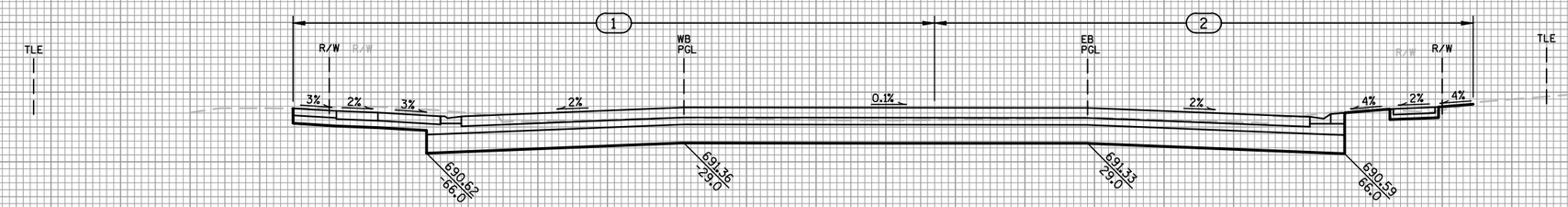


695
110+00
690
685

695
110+00
690
685



PE LT
109+51
695
690



695
109+50
690
685

695
109+50
690
685

100 50 0 50 100

5 FT
10 FT

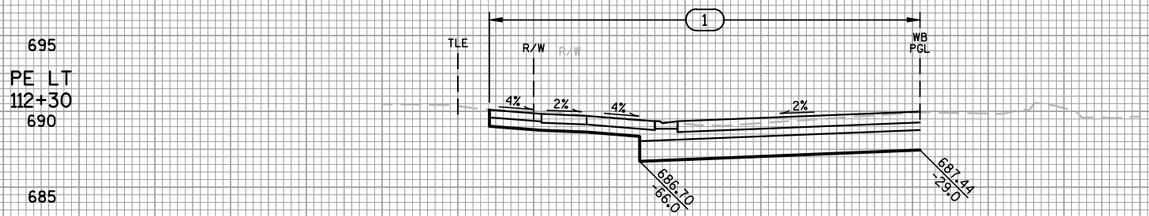
9

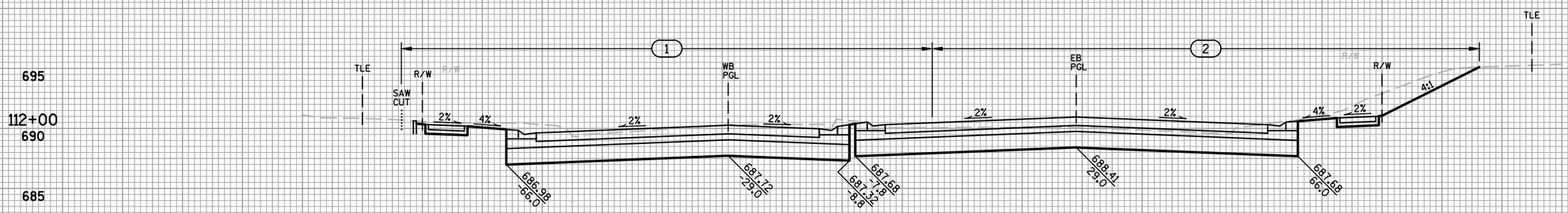
9

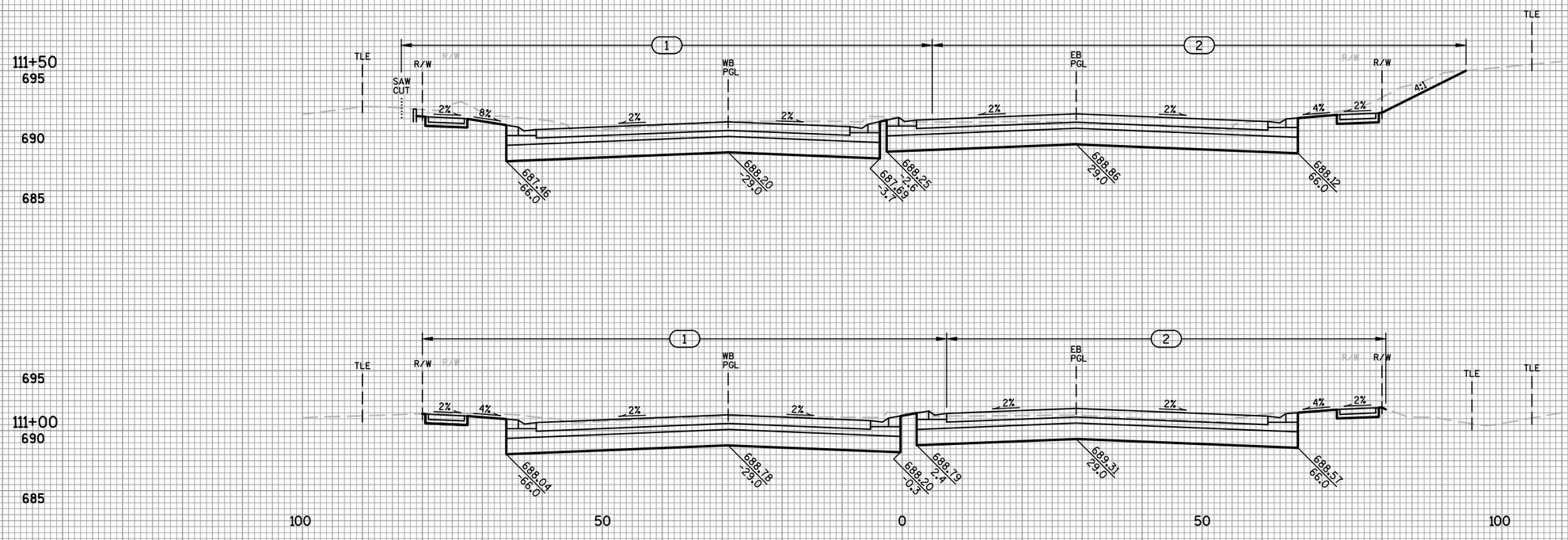
PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	CROSS SECTIONS: RYAN ROAD	SHEET 613	E

FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\090201_XS.DWG PLOT DATE : 10/1/2013 8:52 AM PLOT BY : JGRUBER PLOT NAME : ---------- PLOT SCALE : 1:20_XREF

WISDOT/CADDS SHEET 49







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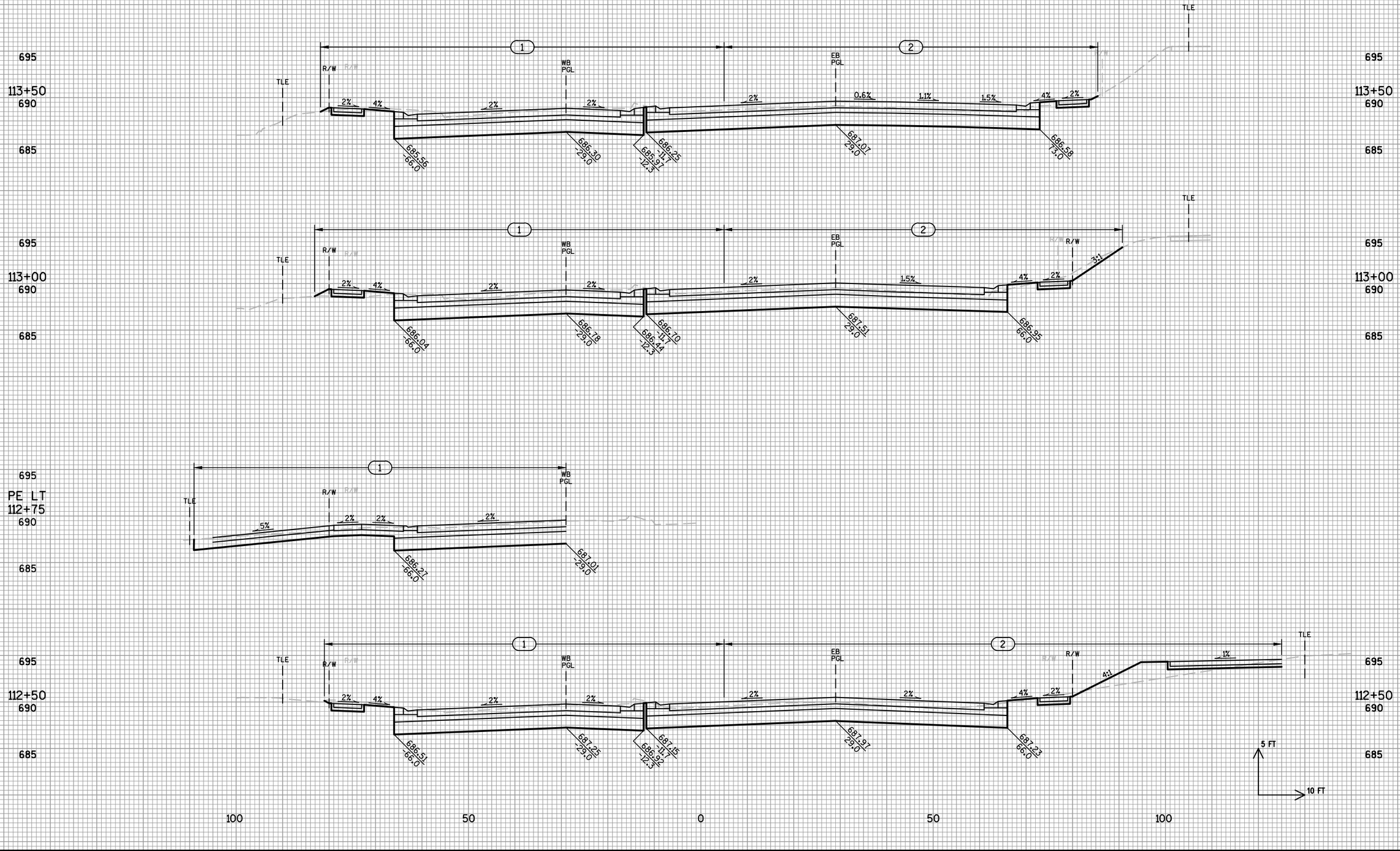
PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	CROSS SECTIONS: RYAN ROAD	SHEET 614	E

FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\090201_XS.DWG PLOT DATE : 10/1/2013 8:52 AM PLOT BY : JGRUBER PLOT NAME : ---------- PLOT SCALE : 1:20_XREF

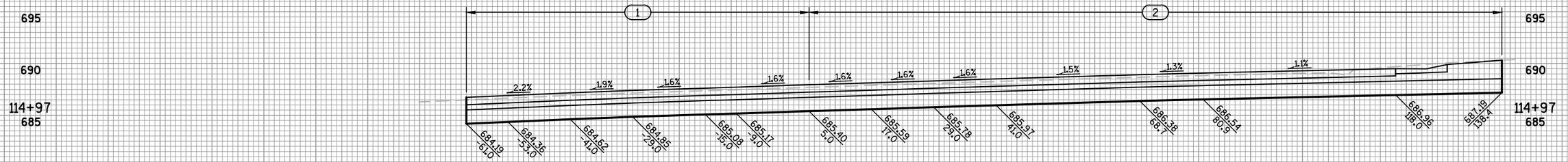
WISDOT/CADDS SHEET 49

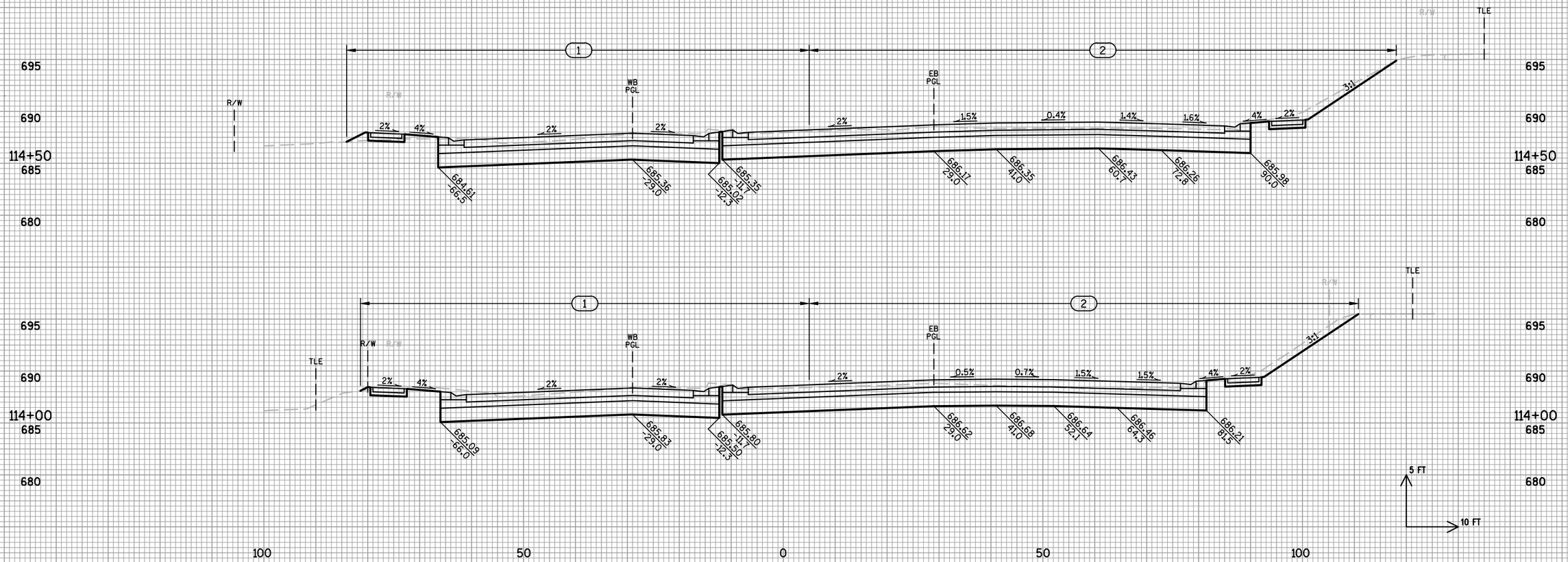


PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	CROSS SECTIONS: RYAN ROAD	SHEET 615	E

FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\090201_XS.DWG PLOT DATE : 10/1/2013 8:52 AM PLOT BY : JGRUBER PLOT NAME : ---------- PLOT SCALE : 1:20_XREF

WISDOT/CADDS SHEET 49





9

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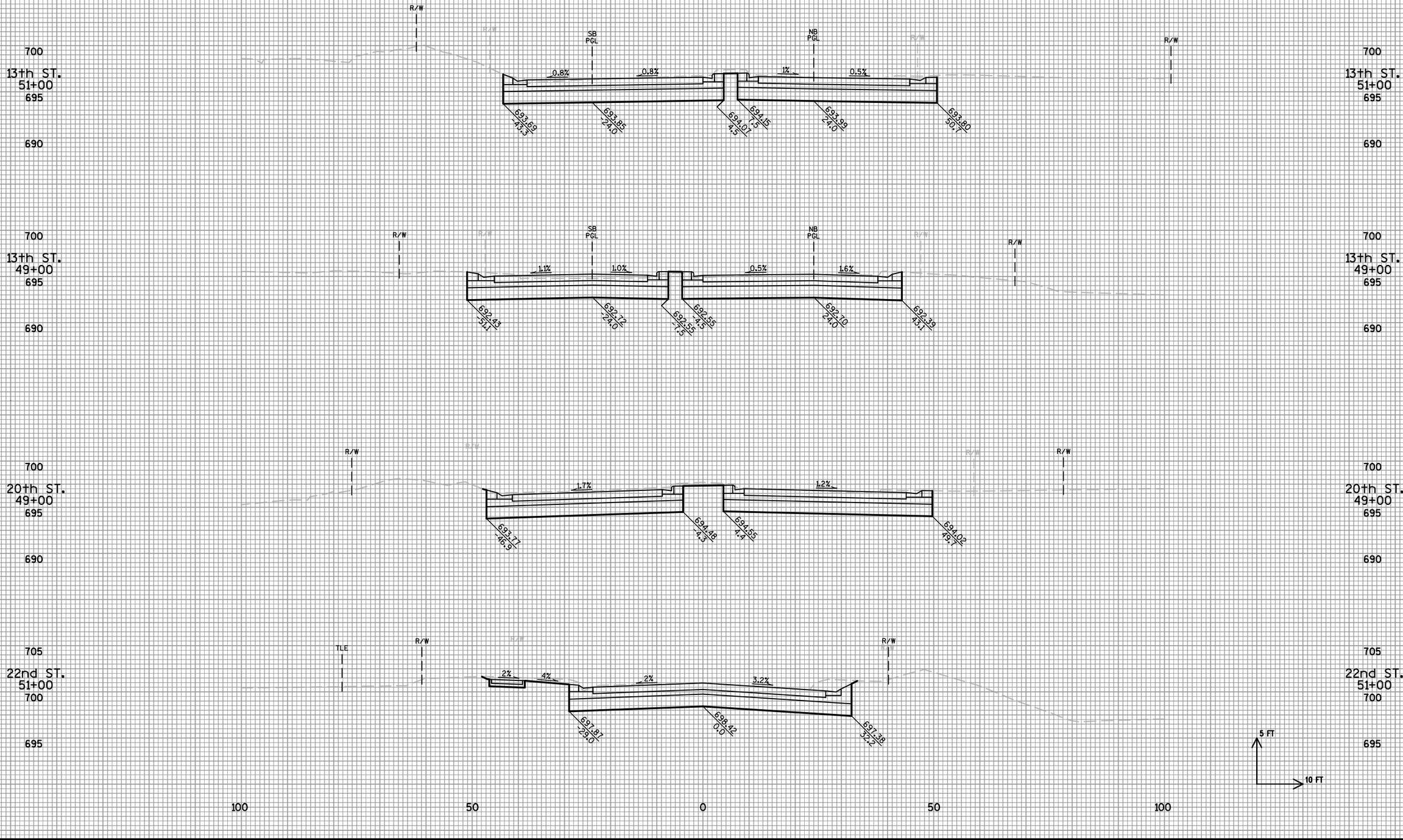
PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	CROSS SECTIONS: RYAN ROAD	SHEET 616	E

FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\090201_XS.DWG PLOT DATE : 10/1/2013 8:52 AM PLOT BY : JGRUBER PLOT NAME : ---------- PLOT SCALE : 1:20_XREF

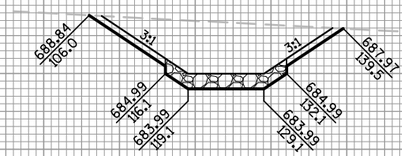
WISDOT/CADDS SHEET 49



PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	CROSS SECTIONS: SIDE STREETS	SHEET 617	E

FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\090201_XS.DWG PLOT DATE : 10/1/2013 10:30 AM PLOT BY : JGRUBER PLOT NAME : ----------

WISDOT/CADDS SHEET 49

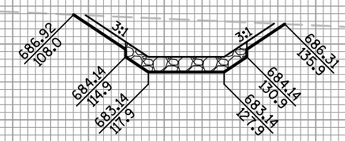


690

38P+50

685

680



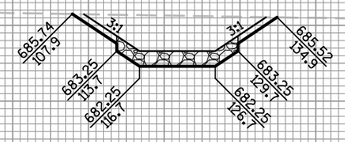
690

38P+00

685

680

690

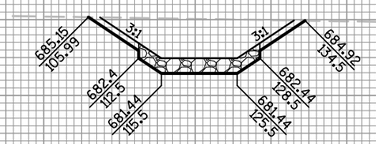


37P+50

685

680

690

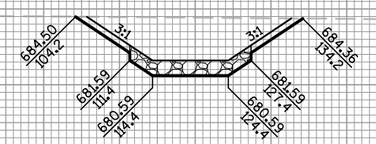


37P+00

685

680

690



36P+50

685

680

5 FT

10 FT

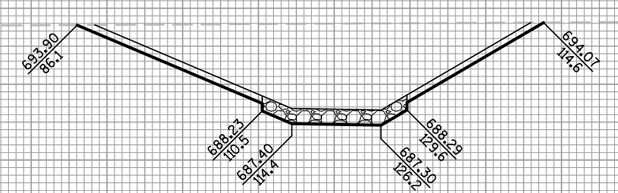
0 50 100 150

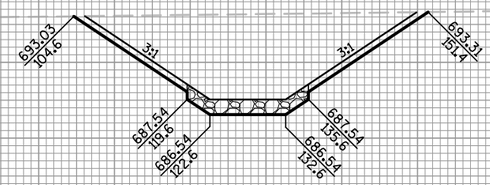
9 9

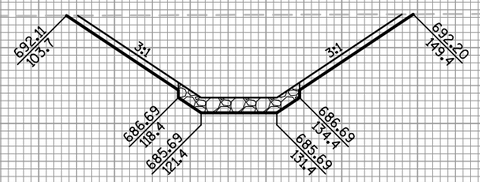
PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	CROSS SECTIONS: POND SPILLWAY	SHEET 618	E

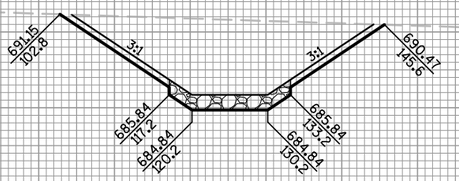
FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\090201_XS.DWG PLOT DATE : 10/1/2013 8:52 AM PLOT BY : JGRUBER PLOT NAME : ----------

WISDOT/CADDS SHEET 49









695
690
40P+50
685
695
690
40P+00
685
695
690
39P+50
685
695
690
39P+00
685

5 FT
10 FT

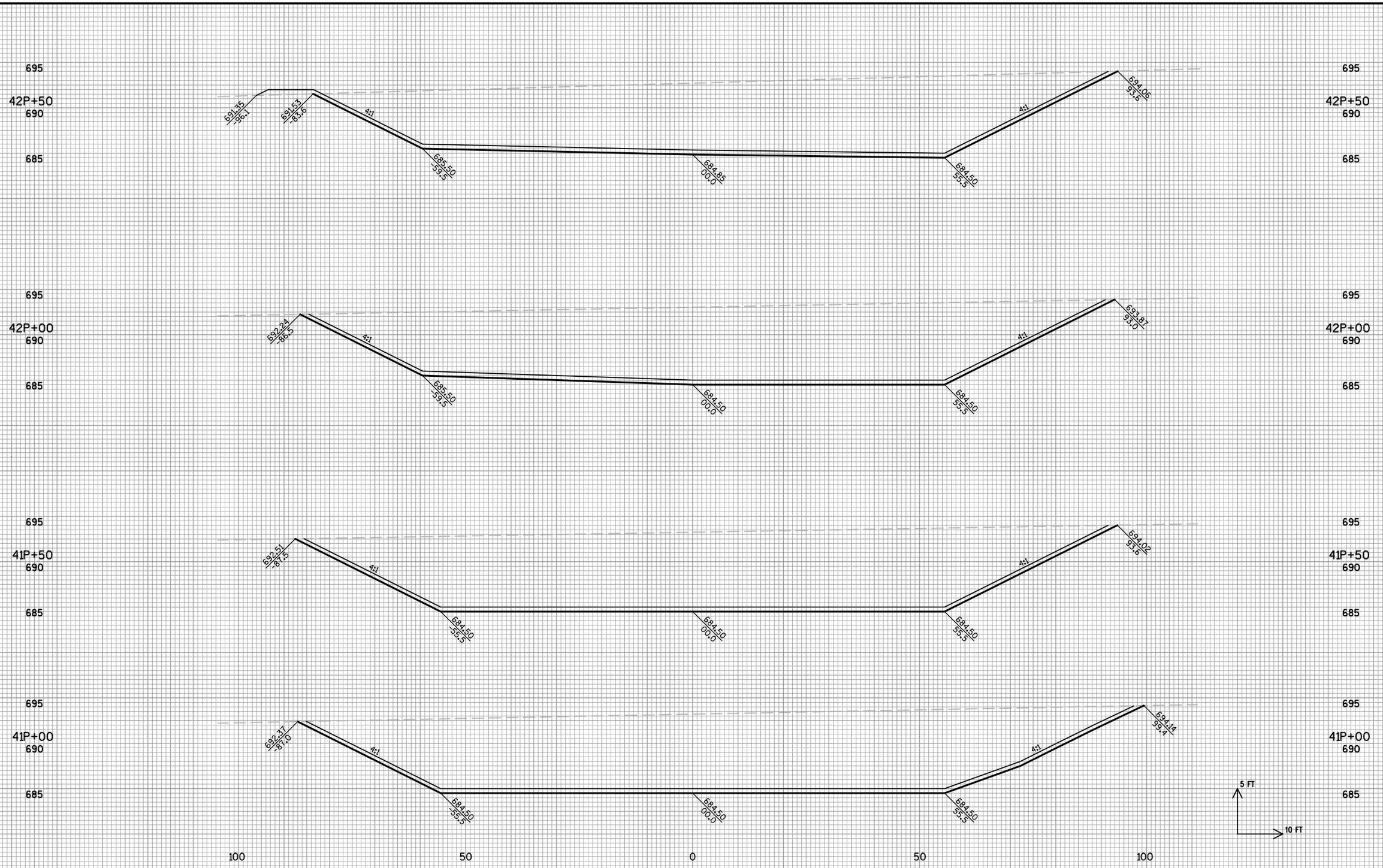
0 50 100 150

9 9

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	CROSS SECTIONS: POND SPILLWAY	SHEET 619	E

FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\090201_XS.DWG PLOT DATE : 10/1/2013 8:52 AM PLOT BY : JGRUBER PLOT NAME : ----------

WISDOT/CADDS SHEET 49

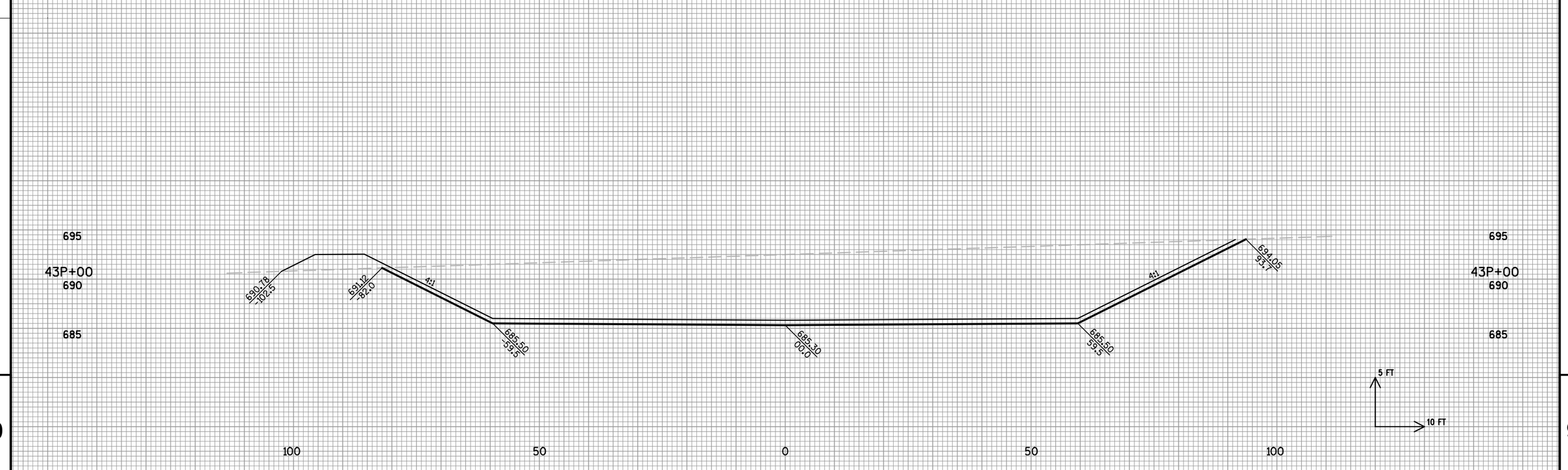


9

9

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	CROSS SECTIONS: POND	SHEET 620	E

FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\090201_XS.DWG PLOT DATE : 10/1/2013 8:52 AM PLOT BY : JGRUBER PLOT NAME : ----------



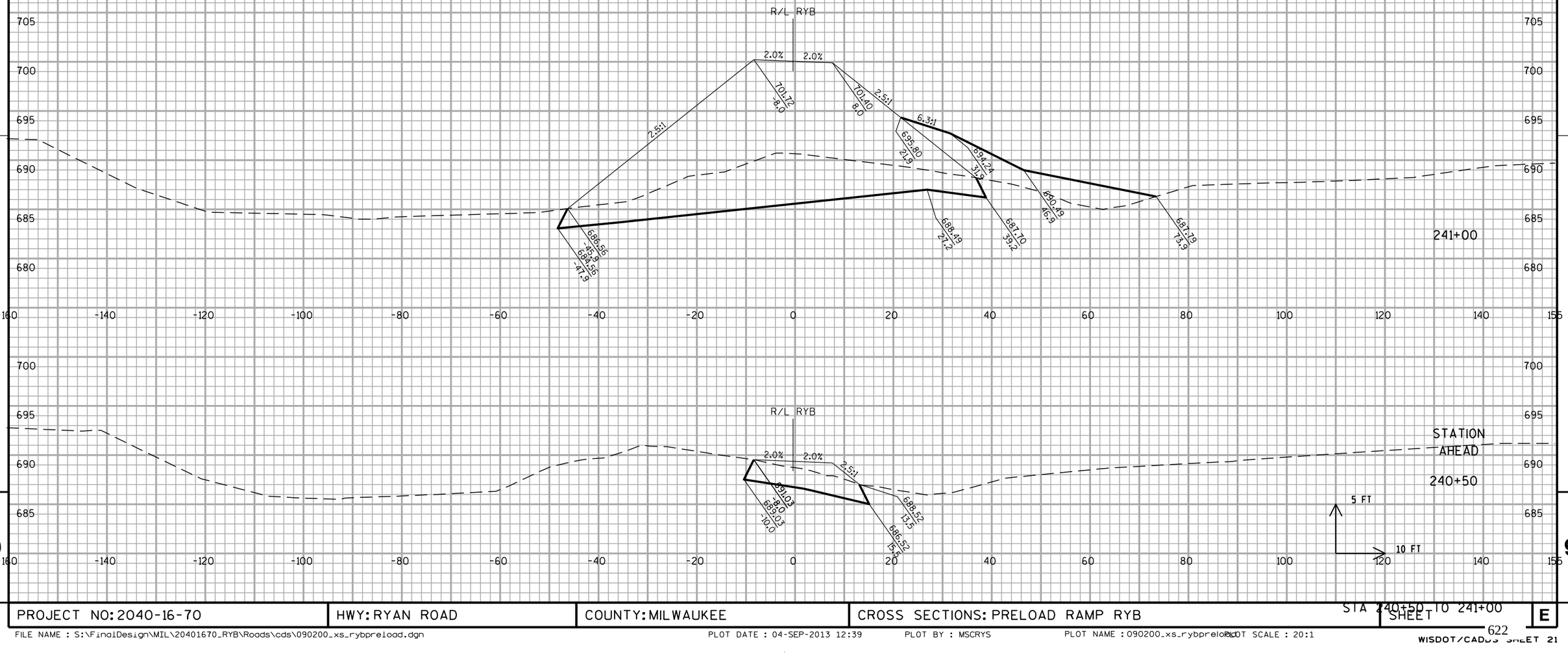
9

9

PROJECT NO: 2040-16-70	HWY: STH 100 - RYAN RD	COUNTY: MILWAUKEE	CROSS SECTIONS: POND	SHEET 621	E

FILE NAME : P:\STH_100_RYAN ROAD\CADD\AUTOCAD C3D\C3D-RYAN\SHEETSPLAN\090201_XS.DWG PLOT DATE : 10/1/2013 8:52 AM PLOT BY : JGRUBER PLOT NAME : ----------

ALL WORK IN STAGE 1

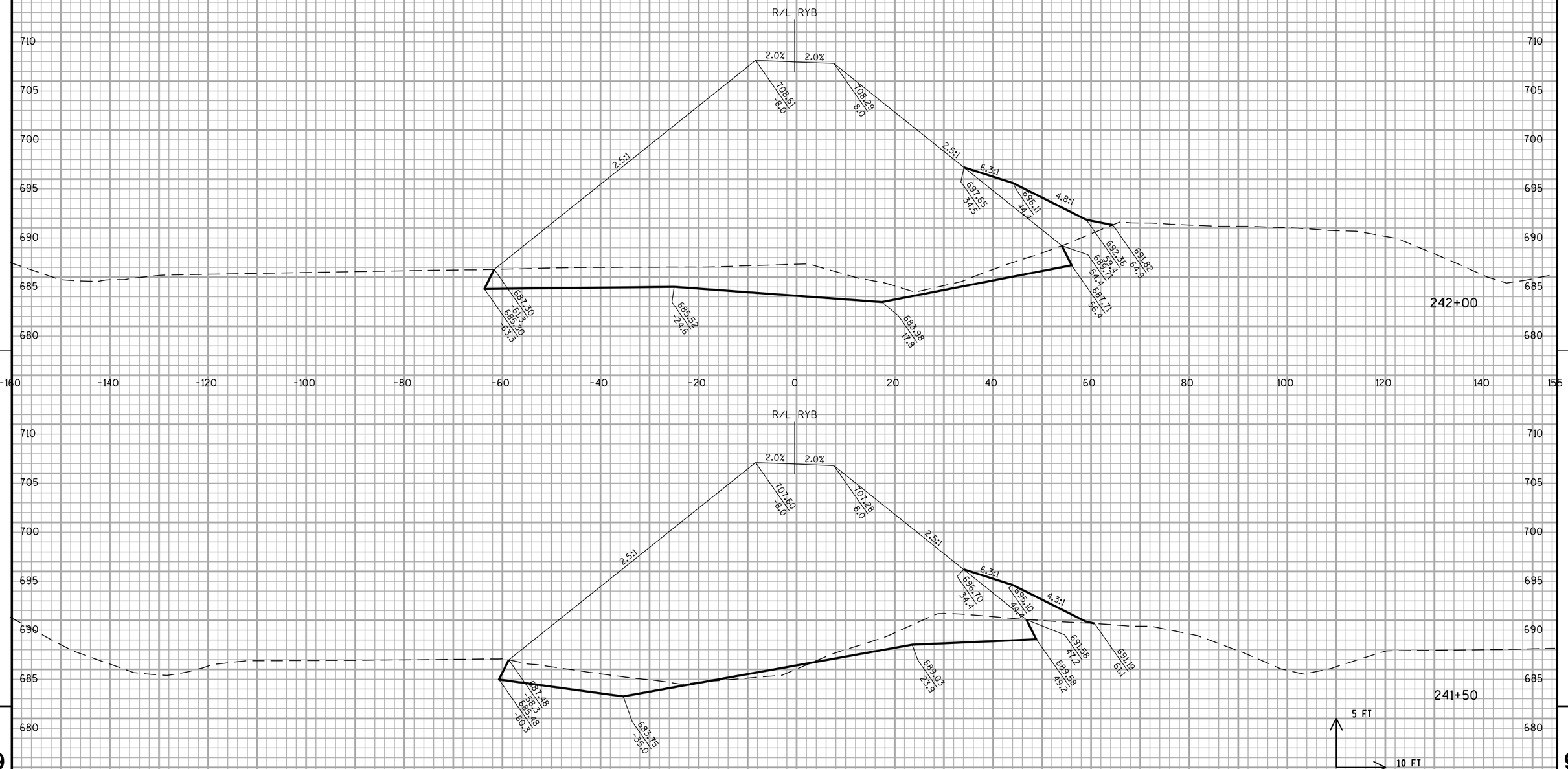


PROJECT NO: 2040-16-70	HWY: RYAN ROAD	COUNTY: MILWAUKEE	CROSS SECTIONS: PRELOAD RAMP RYB	STA 240+50 TO 241+00	SHEET E

FILE NAME : S:\FinalDesign\MIL\20401670_RYB\Roads\cds\090200_xs_rybpreload.dgn PLOT DATE : 04-SEP-2013 12:39 PLOT BY : MSCRYS PLOT NAME : 090200_xs_rybpreload.dgn PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

ALL WORK IN STAGE 1



9

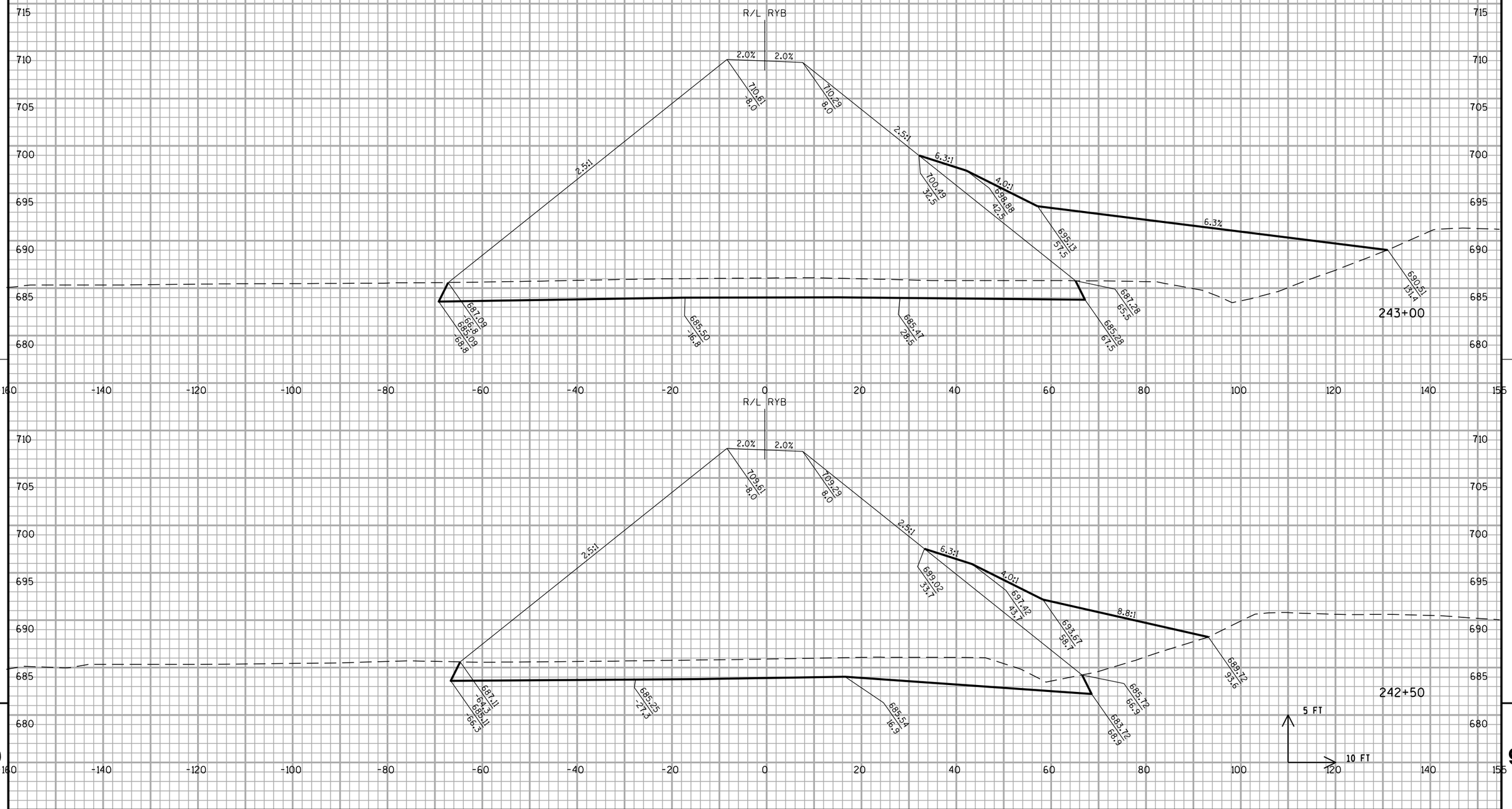
9

PROJECT NO: 2040-16-70	HWY: RYAN ROAD	COUNTY: MILWAUKEE	CROSS SECTIONS: PRELOAD RAMP RYB	STA 241+50 TO 242+00	SHEET E

FILE NAME : S:\FinalDesign\MIL\20401670_RYB\Roads\cds\090200_xs_rybpreload.dgn PLOT DATE : 04-SEP-2013 12:39 PLOT BY : MSCRYS PLOT NAME : 090200_xs_rybpreload.dgn PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

ALL WORK IN STAGE 1



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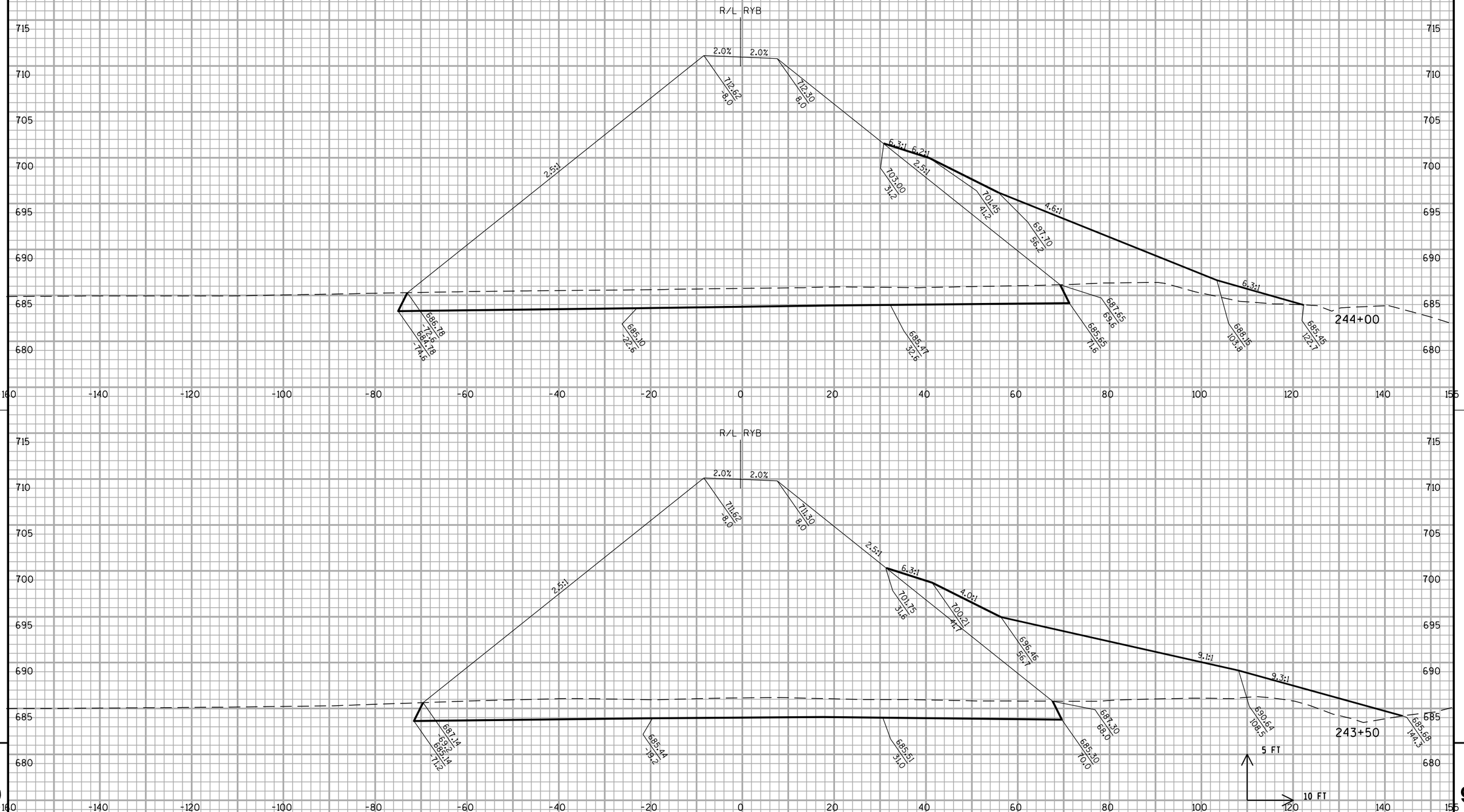
PROJECT NO: 2040-16-70	HWY: RYAN ROAD	COUNTY: MILWAUKEE	CROSS SECTIONS: PRELOAD RAMP RYB	STA 242+50 TO 243+00	SHEET E

FILE NAME : S:\FinalDesign\MIL\20401670_RYB\Roads\cds\090200_xs_rybpreload.dgn PLOT DATE : 04-SEP-2013 12:39 PLOT BY : MSCRYS PLOT NAME : 090200_xs_rybpreload.dgn PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

ALL WORK IN STAGE 1

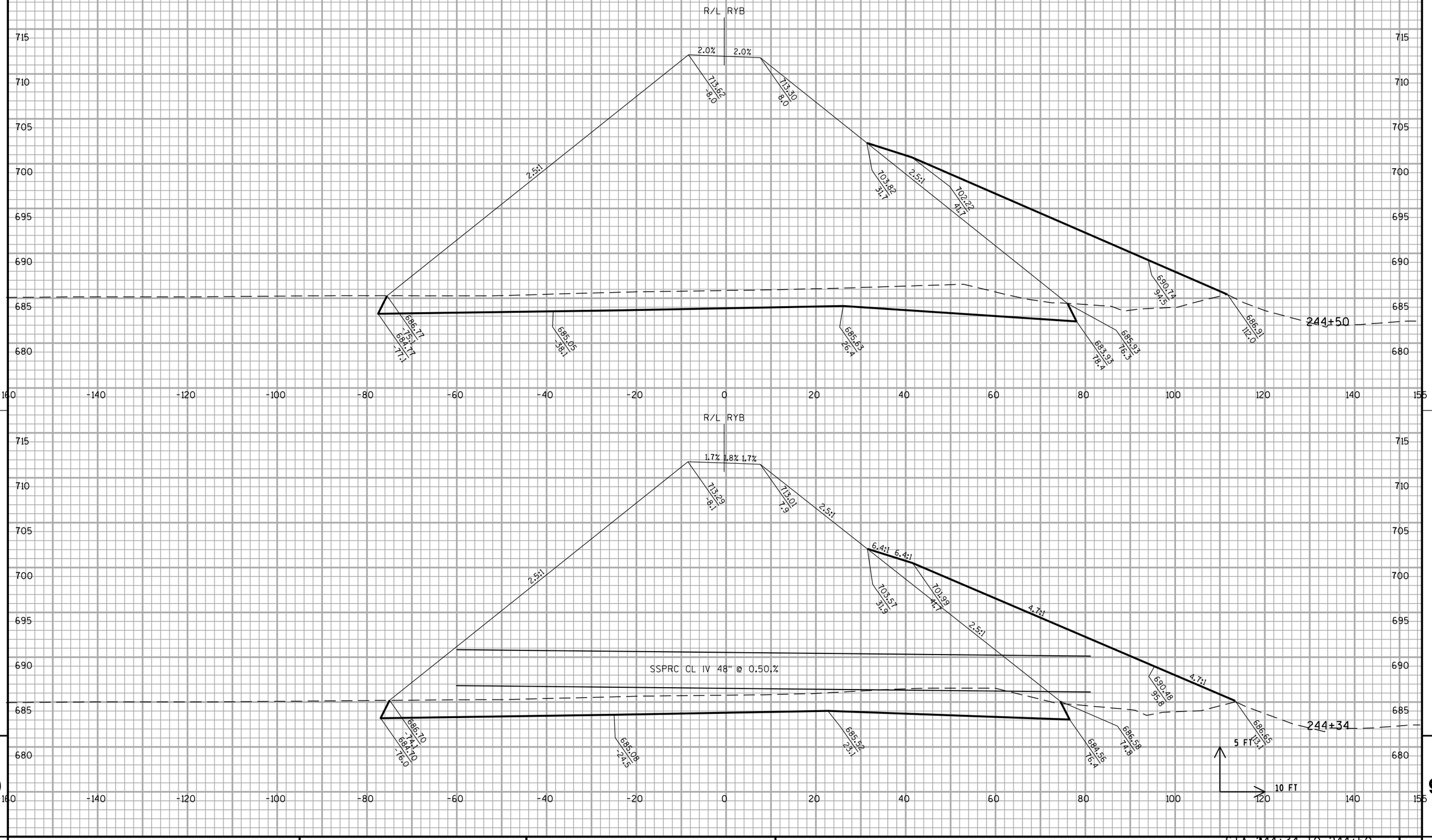


PROJECT NO: 2040-16-70	HWY: RYAN ROAD	COUNTY: MILWAUKEE	CROSS SECTIONS: PRELOAD RAMP RYB	STA 243+50 TO 244+00	SHEET	E

FILE NAME : S:\FinalDesign\MIL\20401670_RYB\Roads\cds\090200_xs_rybpreload.dgn PLOT DATE : 04-SEP-2013 12:39 PLOT BY : MSCRYS PLOT NAME : 090200_xs_rybpreload.dgn PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

ALL WORK IN STAGE 1



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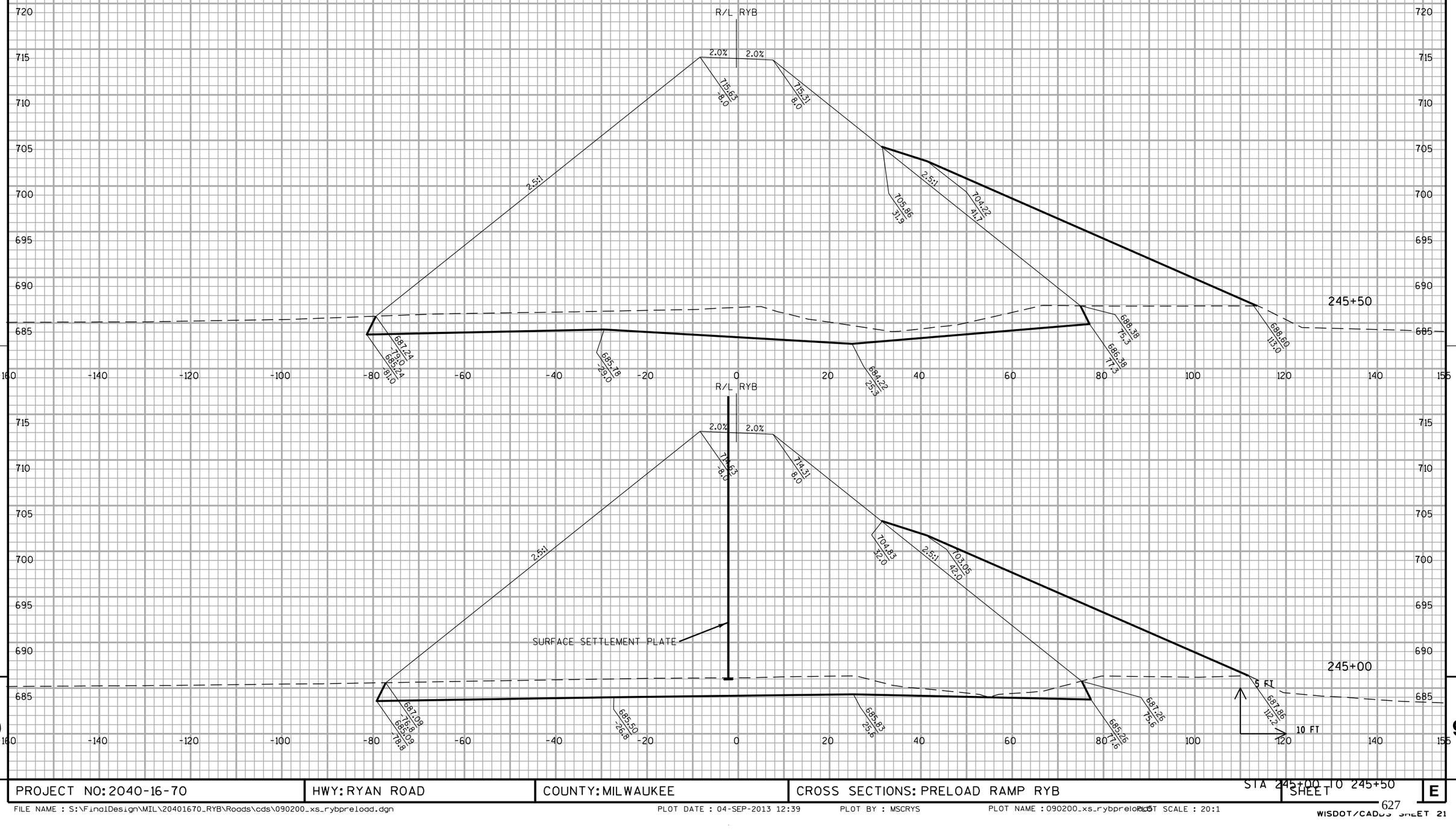
PROJECT NO: 2040-16-70	HWY: RYAN ROAD	COUNTY: MILWAUKEE	CROSS SECTIONS: PRELOAD RAMP RYB	STA 244+34 TO 244+50	SHEET	E

FILE NAME : S:\FinalDesign\MIL\20401670_RYB\Roads\cds\090200_xs_rybpreload.dgn PLOT DATE : 04-SEP-2013 12:39 PLOT BY : MSCRYS PLOT NAME : 090200_xs_rybpreload.dgn PLOT SCALE : 20:1

WISDOT/CADDS SHEET 21

ALL WORK IN STAGE 1



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9

PROJECT NO: 2040-16-70	HWY: RYAN ROAD	COUNTY: MILWAUKEE	CROSS SECTIONS: PRELOAD RAMP RYB	STA 245+00 TO 245+50	SHEET E

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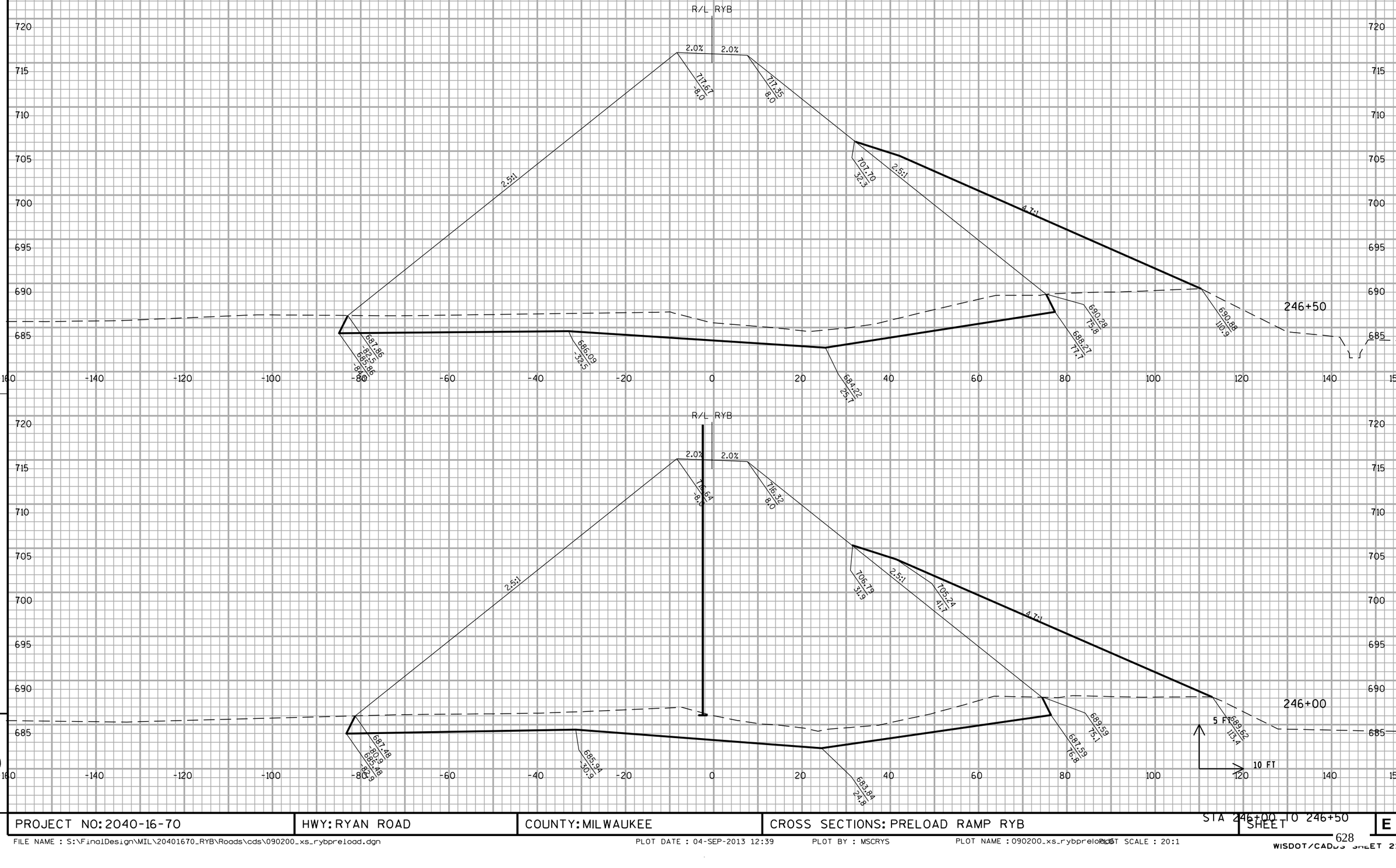
WISDOT/CADDS SHEET 21

ALL WORK IN STAGE 1



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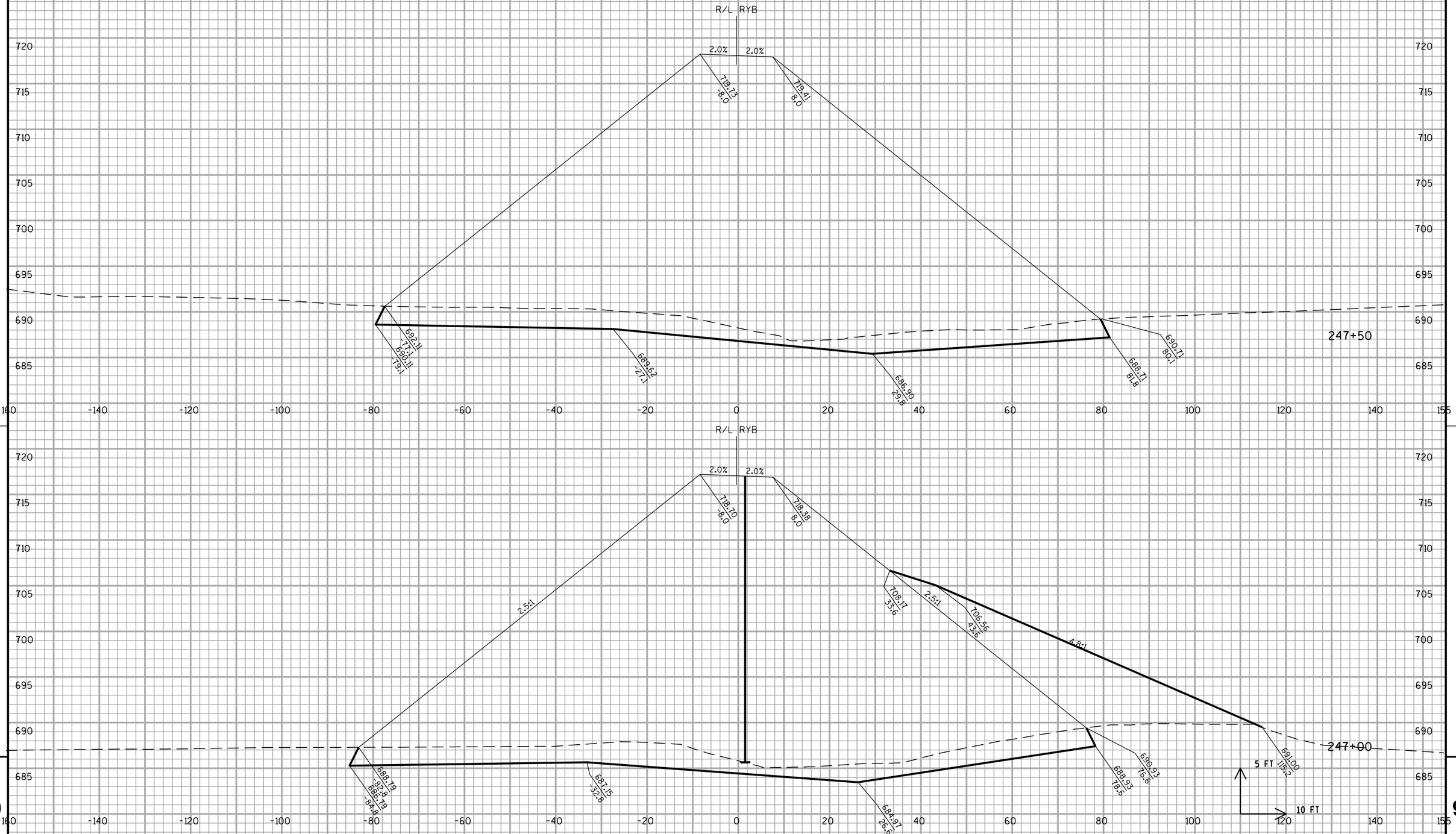
PROJECT NO: 2040-16-70	HWY: RYAN ROAD	COUNTY: MILWAUKEE	CROSS SECTIONS: PRELOAD RAMP RYB	STA 246+00 TO 246+50	SHEET	E

9

ALL WORK IN STAGE 1



PROJECT NO: 2040-16-70	HWY: RYAN ROAD	COUNTY: MILWAUKEE	CROSS SECTIONS: PRELOAD RAMP RYB	STA 247+00 TO 247+50 SHEET E

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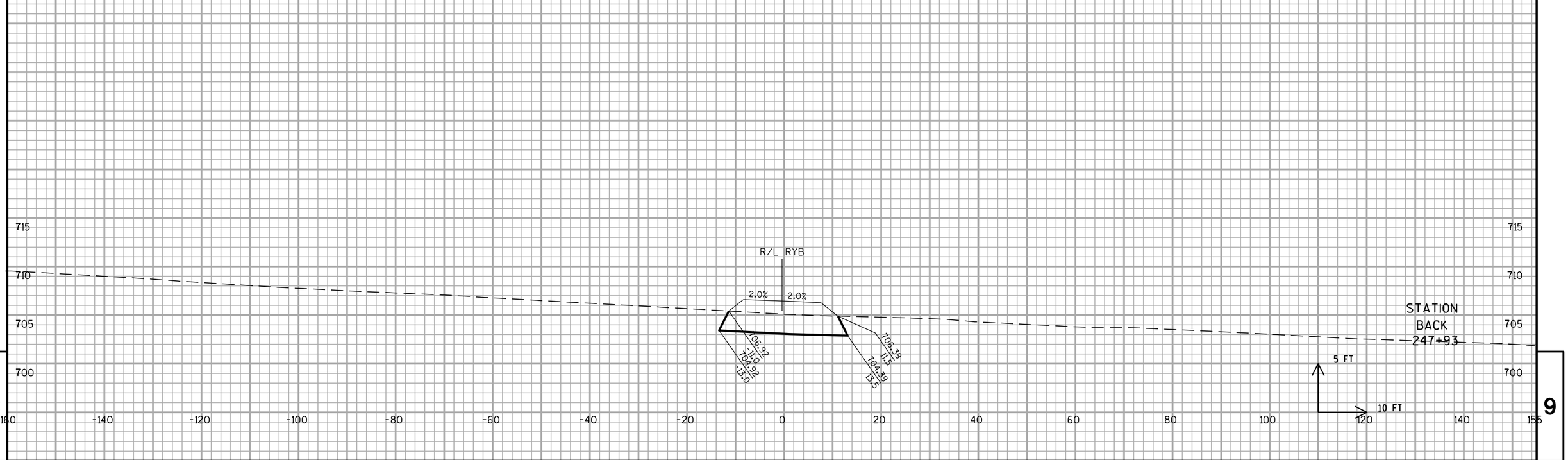

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9

PROJECT NO: 2040-16-70	HWY: RYAN ROAD	COUNTY: MILWAUKEE	CROSS SECTIONS: PRELOAD RAMP RYB	STA 247+93 TO 247+93 SHEET	E

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WISDOT/CADDS SHEET 21

Notes

Wisconsin Department of Transportation

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