

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 = 200

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

BAILEYS HARBOR - SISTER BAY

CTH Q - STH 42

STH 57

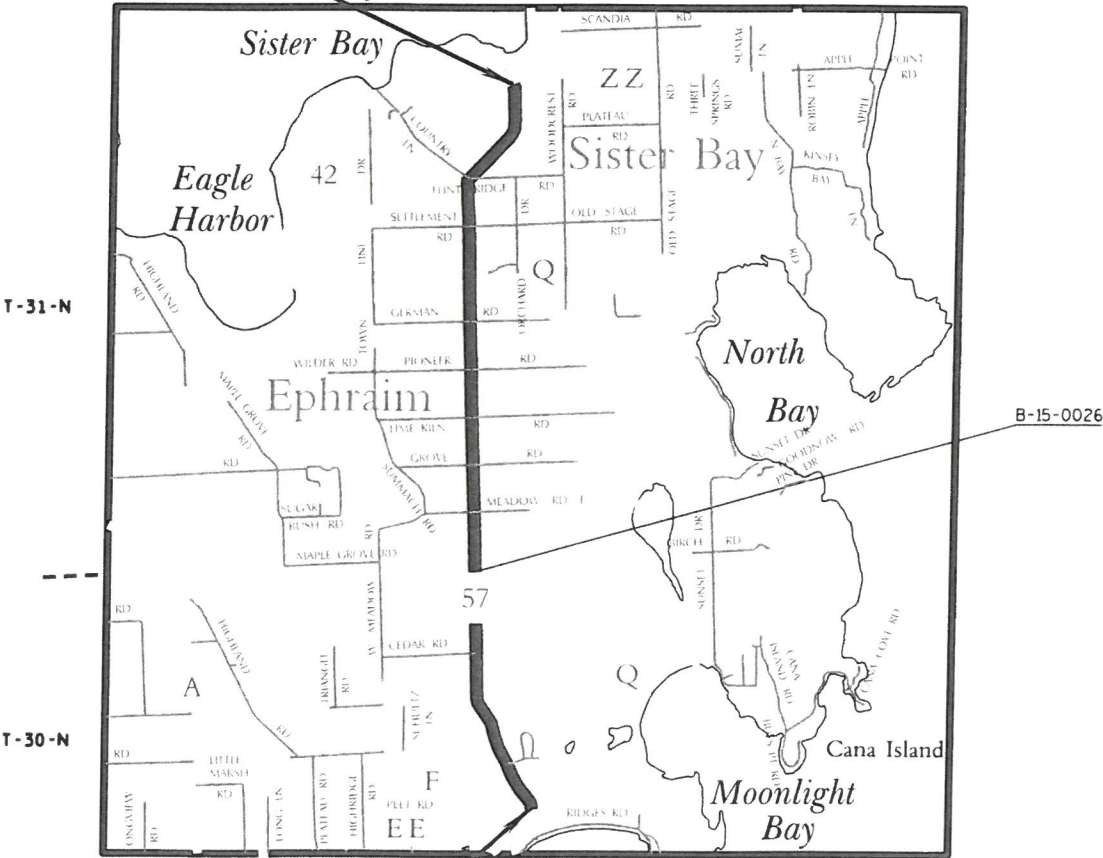
DOOR COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
4150-17-71	WISC 2017274	1

STATE PROJECT NUMBER
4150-17-71

END PROJECT 4150-17-71
STA. 1843+00.91

R-27-E R-28-E



T-31-N

T-30-N

BEGIN PROJECT 4150-17-71

STA. 1423+23.74
Y = 245934.00
X = 559933.21

TOTAL NET LENGTH OF CENTERLINE = 7.95 MI.

LAYOUT
SCALE 0 1 MI.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE
WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), DOOR
COUNTY, NAD 83 (1991).
ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE
VERTICAL DATUM OF 1988, NAVD 88 (1991).



DESIGN DESIGNATION

A.A.D.T. (2015)	2,800
A.A.D.T. (2035)	3,300
D.H.V.	480
D.D.	63/37
T.	8.0%
DESIGN SPEED	35 - 55 MPH
ESALS	591,300

CONVENTIONAL SYMBOLS

PLAN

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

PROFILE

GRADE LINE	
ORIGINAL GROUND	
MARSH OR ROCK PROFILE (To be noted as such)	
SPECIAL DITCH	
GRADE ELEVATION	
CULVERT (Profile View)	
UTILITIES	
ELECTRIC	
FIBER OPTIC	
GAS	
SANITARY SEWER	
STORM SEWER	
TELEPHONE	
WATER	
UTILITY PEDESTAL	
POWER POLE	
TELEPHONE POLE	

ROCK	
LABEL	
95.36	
E	
FO	
G	
SAN	
SS	
T	
W	
X	
Ø	

JT ENGINEERING, INC.
Transportation Engineering Services



1/31/2017
(Date) Andrew W. Block
(Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY	AYRES ASSOCIATES
Surveyor	JT ENGINEERING, INC.
Designer	JEREMY ASHAUER, PE
Project Manager	
Regional Examiner	JAMES THOMPSON, PE CPM
Regional Supervisor	
C.O. Examiner	

APPROVED FOR THE DEPARTMENT
DATE: 1/31/2017
(Signature)

E

GENERAL NOTES

CONTACT THE UTILITIES AND DIGGERS HOTLINE TO LOCATE AND FIELD VERIFY UTILITIES PRIOR TO THE START OF WORK. 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. ANY LOCAL, MUNICIPAL, OR OTHER UTILITY WHICH IS NOT A MEMBER OF THE DIGGERS HOTLINE MUST BE CONTACTED SEPERATELY.

CROSS SECTIONS SHOWN INCLUDE THE THICKNESS OF TOPSOIL WHERE REQUIRED. TOPSOIL SHALL BE REPLACED WITH SPECIFIED THICKNESS AS OUTLINED IN THE STANDARD SPECIFICATIONS OR AS SHOWN IN THE PLAN.

PRIOR TO ORDERING DRAINAGE PIPES AND STRUCTURES, THE CONTRACTOR SHALL VERIFY RELATED DRAINAGE INFORMATION IN THE PLAN AND PROVIDE DOCUMENTATION TO THE ENGINEER IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

EROSION CONTROL FEATURES ARE SHOWN AT APPROXIMATE LOCATIONS, WITH EXACT LOCATIONS TO BE DETERMINED BY THE ENGINEER.

DO NOT USE FERTILIZER NEAR NAVIGABLE WATERWAYS OR WETLANDS.

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

STATIONING, DISTANCES, AND OFFSETS FOR SIGNS AND TRAFFIC CONTROL DEVICES SHOWN IN THE PLANS ARE APPROXIMATE. EXACT LOCATIONS ARE DETERMINED BY THE ENGINEER.

ALL DRIVEWAYS ARE TO BE REPLACED IN KIND UNLESS OTHERWISE DIRECTED BY THE ENGINEER, OR AS SHOWN ON THE PLAN.

CURB AND GUTTER GRADES ARE GIVEN TO THE FLANGE. CURB AND GUTTER RADIARE ALSO MEASURED TO THE FLANGE.

UTILITY CONTACTS

ATC MANAGEMENT, INC.- ELECTRICITY
GERALD RHODE
801 O'KEEFE ROAD
P.O. BOX 6113
DE PERE, WI 54115-6113
PHONE: (920) 338-6523
GRHODE@ATCLLC.COM

CHARTER COMMUNICATIONS- COMMUNICATION LINE
NICK FRASE
3315 LINCOLN AVENUE
TWO RIVERS, WI 54241
PHONE: (920) 763-2216 EXT. 30
MOBILE: (920) 304-6797
NICK.FRASE@CHARTER.COM

FRONTIER COMMUNICATIONS OF WI LLC- COMM. LINE
RICHARD ENDSLEY
118 DIVISION STREET
PLYMOUTH, WI 53073
PHONE: (920) 893-7242
MOBILE: (920) 574-6859
RICHARD.J.ENDSLEY@FTR.COM

NET LEC LLC- COMMUNICATION LINE
DENNIS LAFAVE
1700 INDUSTRIAL DRIVE
GREEN BAY, WI 54302
PHONE: (920) 619-9774
DLAFAVE@MI-TECH.US

VILLAGE OF SISTER BAY- SEWER
MICHAEL C. SCHELL
2124 AUTUMN COURT
P.O. BOX 91
SISTER BAY, WI 54234
PHONE: (920) 854-2246
MOBILE: (920) 421-0257
MIKE.SCHELL@SISTERBAYWI.GOV

VILLAGE OF SISTER BAY- WATER
MICHAEL C. SCHELL
2124 AUTUMN COURT
P.O. BOX 91
SISTER BAY, WI 54234
PHONE: (920) 854-2246
MOBILE: (920) 421-0257
MIKE.SCHELL@SISTERBAYWI.GOV

WISCONSIN PUBLIC SERVICE CORPORATION- ELECTRICITY
JEFF PELISCHECK
800 COLUMBUS STREET
TWO RIVERS, WI 54241
PHONE: (920) 657-1816
MOBILE: (920) 323-4836
JSPELISCHEK@WISCONSINPUBLICSERVICE.COM

CONTACTS

DESIGNER
ANDREW BLOCK
JT ENGINEERING, INC.
1077 CENTENNIAL CENTRE BLVD.
HOBART, WI 54155
PHONE: (920) 468-4771

NORTHEAST REGIONAL SURVEY COORDINATOR
CORMAC MCINNIS
944 VANDERPERREN WAY
GREEN BAY, WI 54304-5344
PHONE: (920) 492-5638

WISCONSIN DNR LIASION
MATTHEW SCHAEVE
2984 SHAWANO AVENUE
GREEN BAY, WI 54313
PHONE: (920) 366-1544

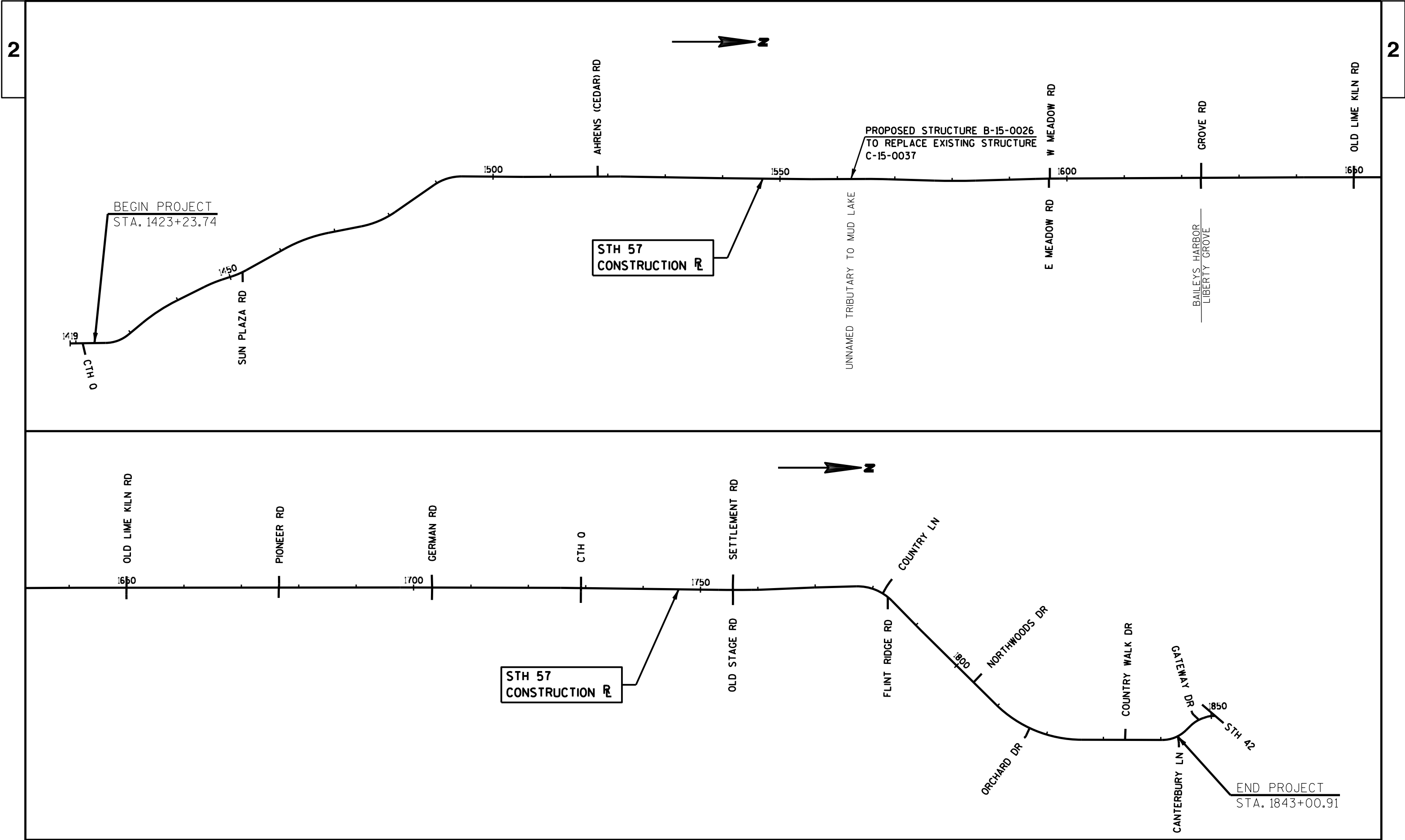
TOWN OF BAILEYS HARBOR TOWN CLERK
DOUGLAS SMITH
2392 COUNTY RD F
P.O. BOX 308
BAILEYS HARBOR, WI 54202
PHONE: (920) 839-9509

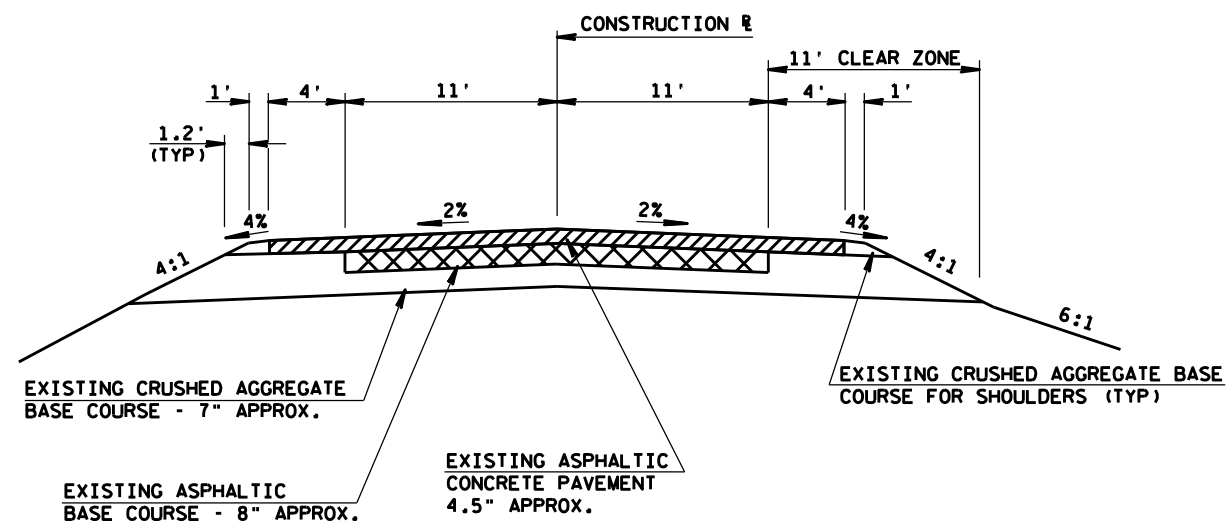
STANDARD ABBREVIATIONS

AEW	APRON END WALL
BAD	BASE AGGREGATE DENSE
BM	BENCHMARK
C/L	CENTERLINE
CL	CLASS
CONC	CONCRETE
CMCP	CORRUGATED METAL CULVERT PIPE
CPRC	CULVERT PIPE REINFORCED CONCRETE
CPRCHE	CULVERT PIPE REINFORCED CONCRETE
	HORIZONTAL ELLIPTICAL
CY	CUBIC YARD
D	DEGREE OF CURVE
DISCH	DISCHARGE
FE	FIELD ENTRANCE
HMA	HOT MIX ASPHALT
INV	INVERT
L	LENGTH OF CURVE
LT	LEFT
MIN	MINIMUM
PAVT	PAVEMENT
PC	POINT OF CURVE
PCC	POINT OF COMPOUND CURVE
PE	PRIVATE ENTRANCE
PI	POINT OF INTERSECTION
PL	PROPERTY LINE
PT	POINT OF TANGENCY
R	RADIUS OF CURVE
R/L	REFERENCE LINE
R/W	RIGHT OF WAY
RCAEW	APRON END WALL FOR CULVERT PIPE
	REINFORCED CONCRETE
REQD	REQUIRED
RT	RIGHT
SALV	SALVAGED
SDD	STANDARD DETAIL DRAWING
SF	SQUARE FOOT
STA	STATION
SY	SQUARE YARD
T	TANGENT LENGTH

ORDER OF DETAIL SHEETS

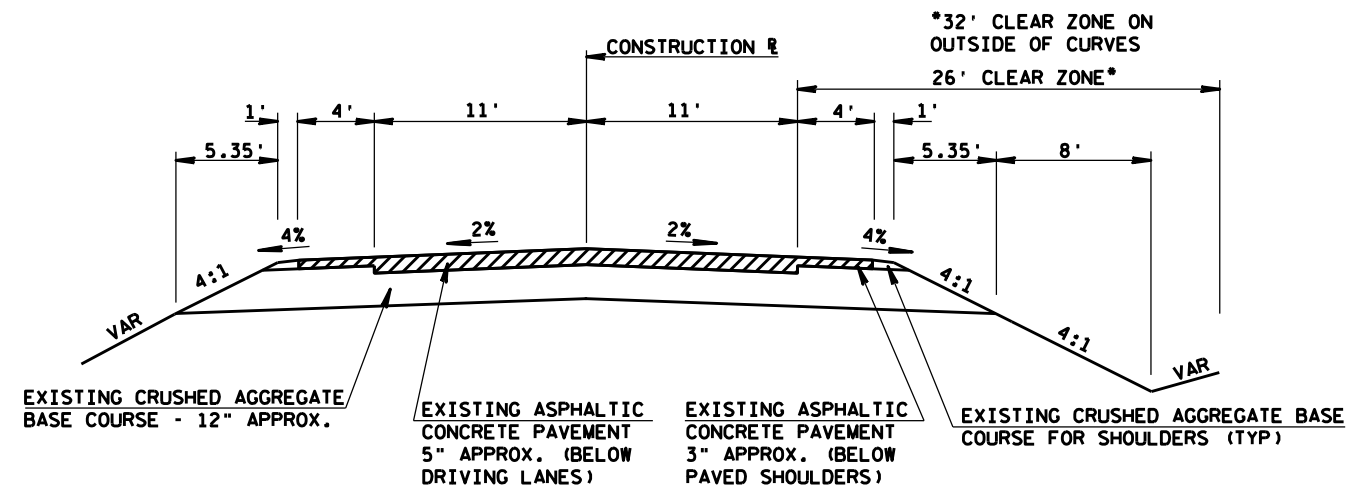
- PROJECT OVERVIEW
- TYPICAL SECTIONS
- CONSTRUCTION DETAILS
- PLAN DETAILS
- EROSION CONTROL PLAN
- STORM SEWER
- PERMANENT SIGNING PLAN
- DETOUR PLAN





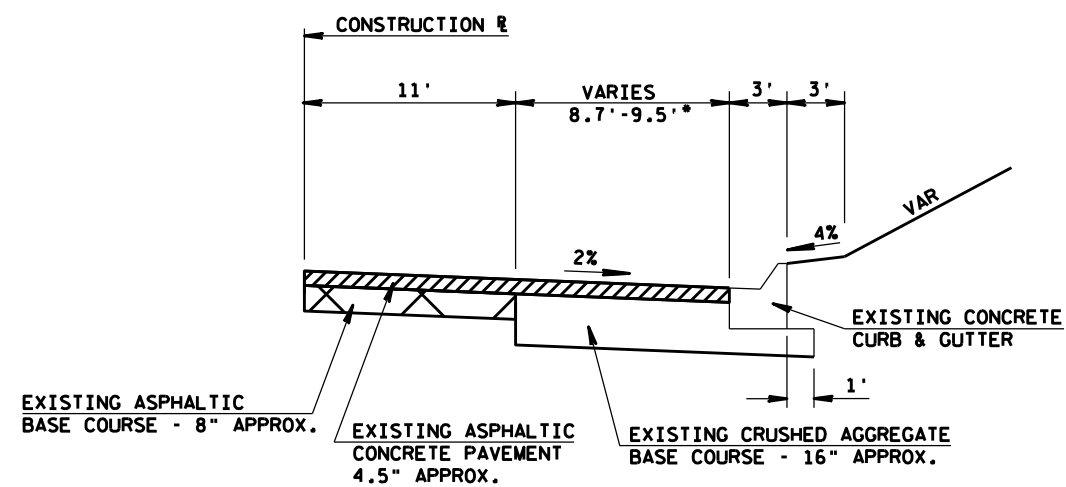
EXISTING TYPICAL SECTION FOR STH 57

STA 1423+23 - 1617+45
STA 1632+21 - 1803+64
STA 1841+20 - 1849+64



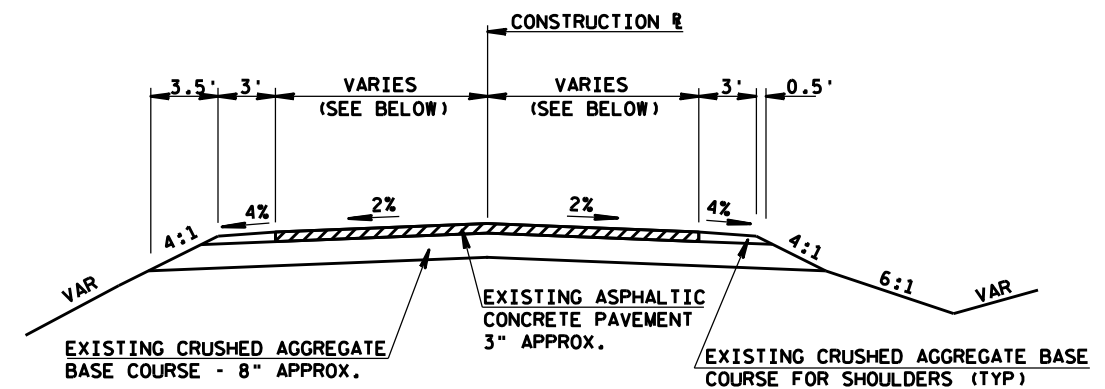
EXISTING TYPICAL SECTION FOR STH 57

STA 1617+45 - 1632+21
STA 1803+64 - 1841+20



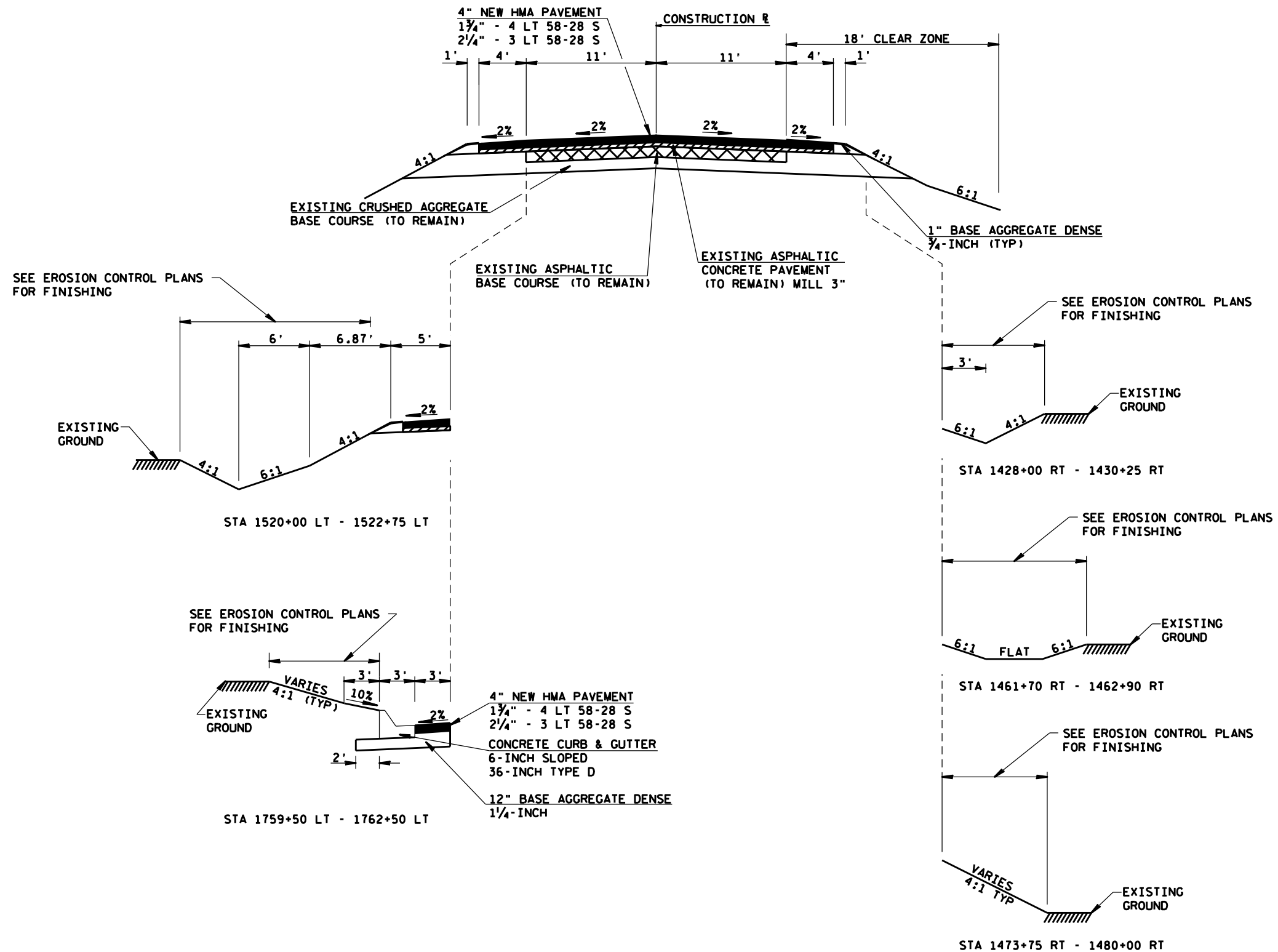
EXISTING TYPICAL SECTION FOR STH 57

*STA 1449+42 - 1453+74 LT (9')
*STA 1608+70 - 1609+80 RT (8.7')
*STA 1723+93 - 1728+51 RT (9.5')



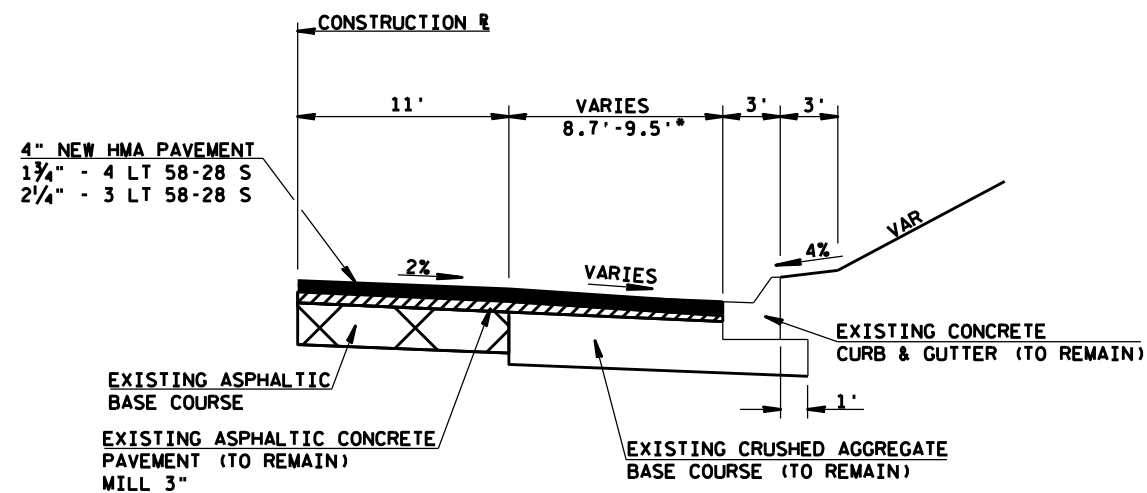
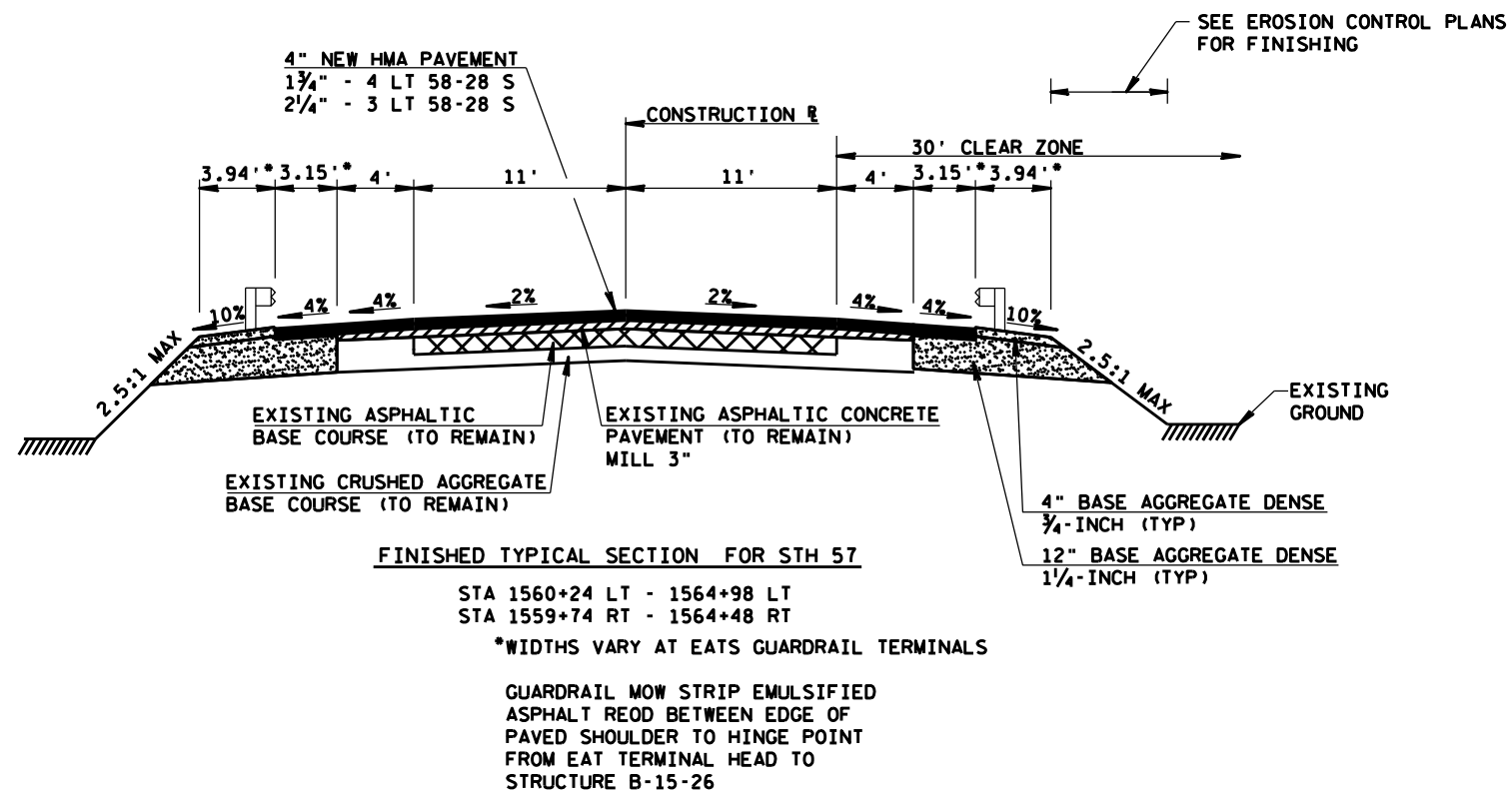
EXISTING TYPICAL SECTION FOR ASPHALTIC SIDE ROADS

SUN PLAZA ROAD (11')	SETTLEMENT ROAD (10')
AHRENS (CEDAR) ROAD (10')	OLD STAGE ROAD (11')
MEADOW ROAD (10')	COUNTRY LANE (11')
GROVE ROAD (10')	FLINT RIDGE ROAD (11')
OLD LIME KILN ROAD (10')	NORTHWOODS DRIVE (11')
PIONEER ROAD (11')	ORCHARD DRIVE (11')
GERMAN ROAD (10')	COUNTRY WALK DRIVE (14')
CTH 0 (11')	CANTERBURY LANE (11')
	GATEWAY DRIVE (10')



FINISHED TYPICAL SECTION FOR STH 57

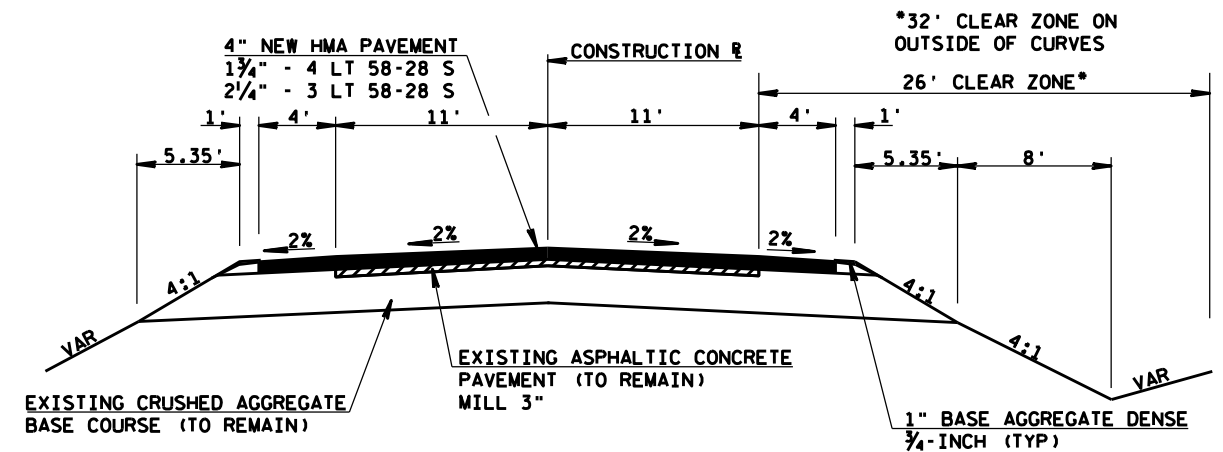
STA. 1423+23 - 1559+74 RT
 STA. 1423+23 - 1560+24 LT
 STA. 1564+48 - 1617+45 RT
 STA. 1564+98 - 1617+42 LT
 STA 1632+21 - 1803+64
 STA 1841+20 - 1843+00.91



FINISHED TYPICAL SECTION FOR STH 57

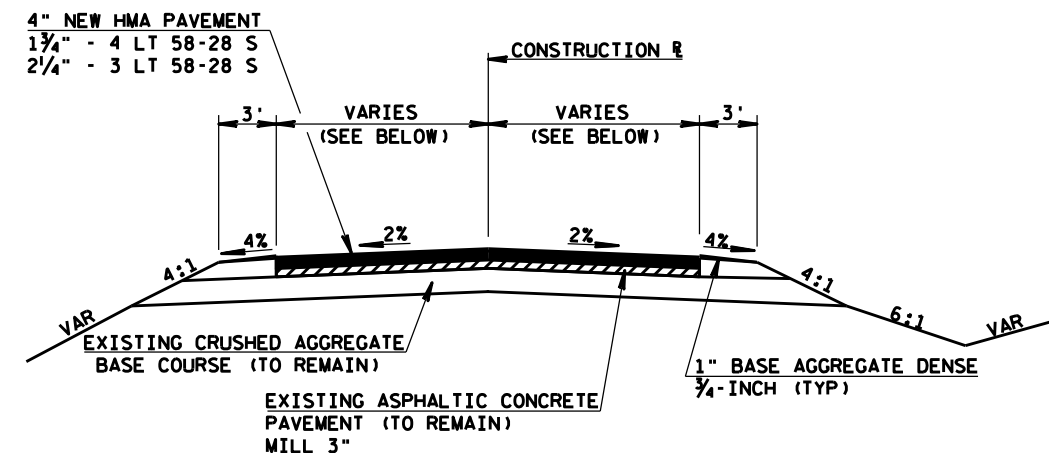
*STA 1449+42 - 1453+74 LT (9')
*STA 1608+70 - 1609+80 RT (8.7')
*STA 1723+93 - 1728+51 RT (9.5')

NOTE: VARY MILLING DEPTH FROM 3" AT THE EDGE OF LANE TO 4" AT THE EDGE OF CURB & GUTTER.



FINISHED TYPICAL SECTION FOR STH 57

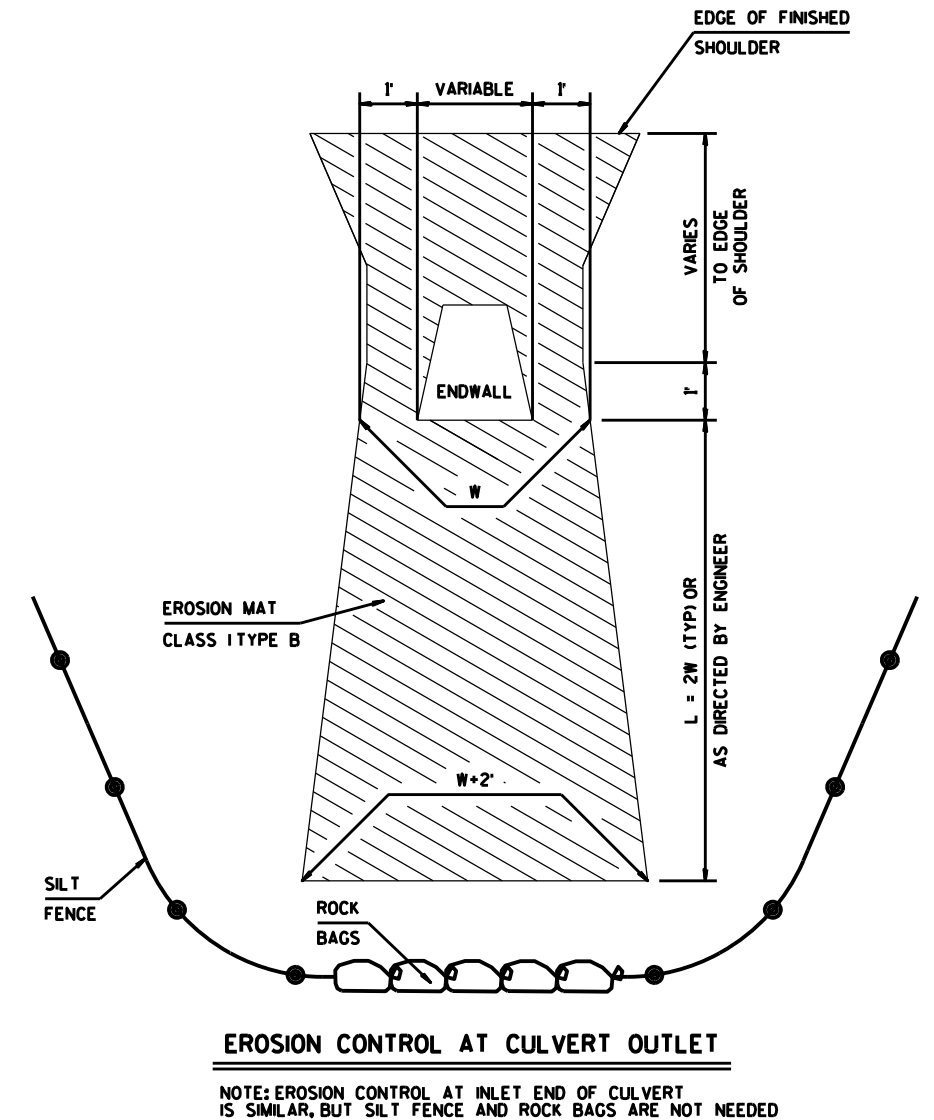
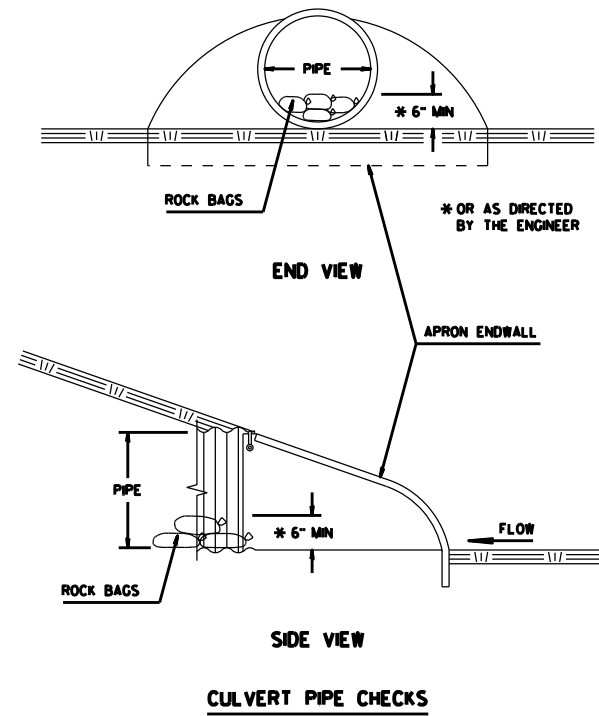
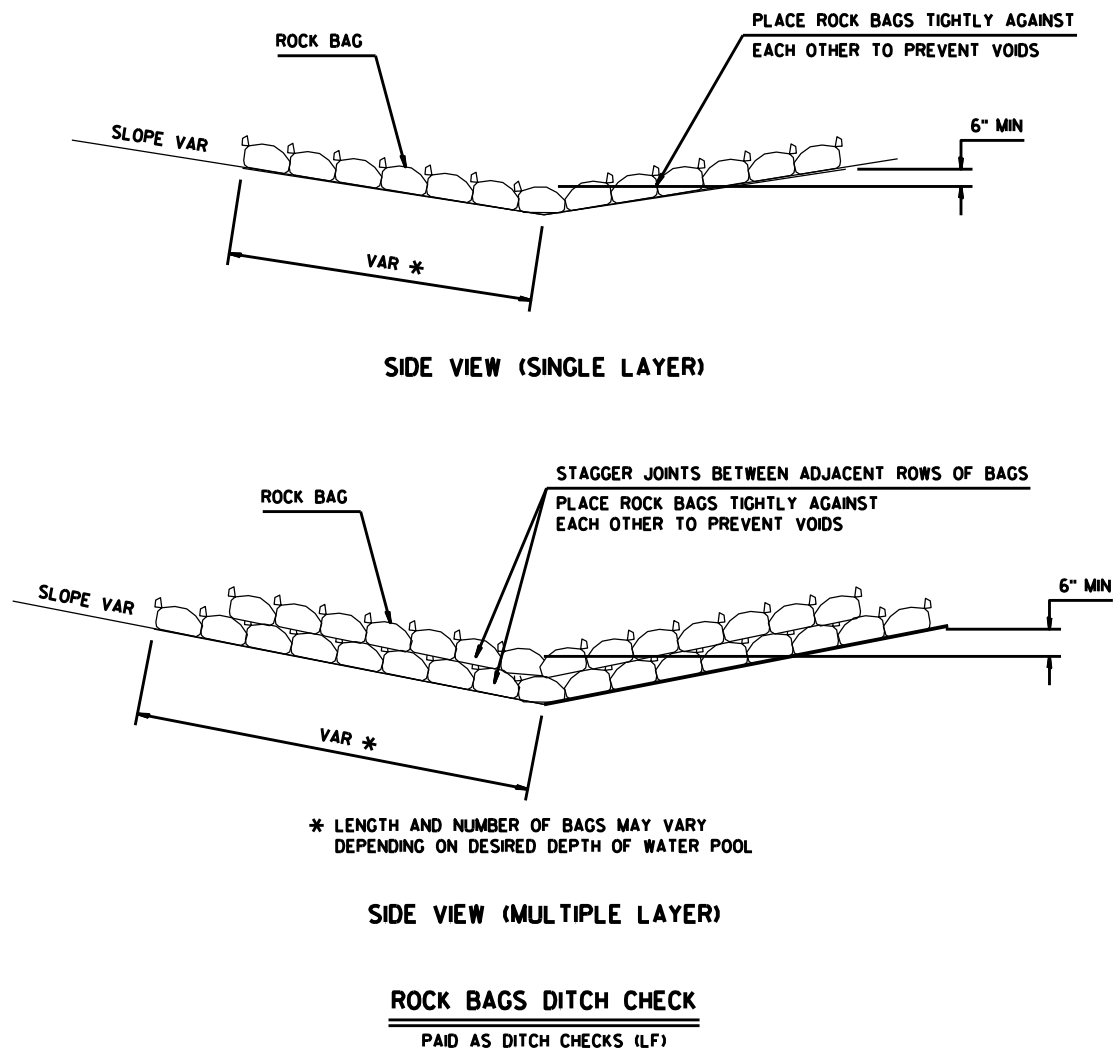
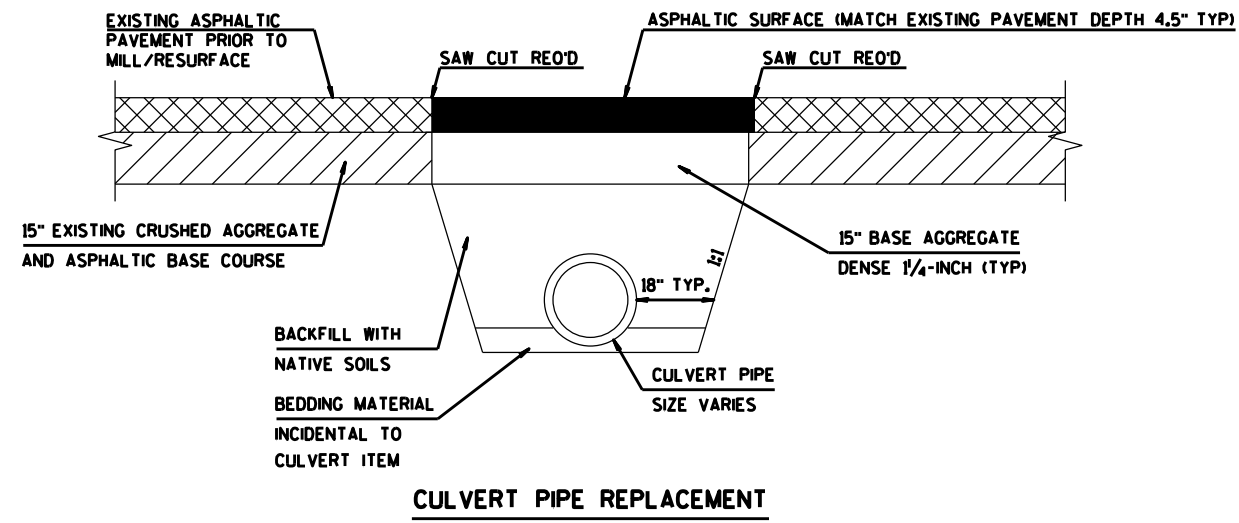
STA 1617+45 - 1632+21
STA 1803+64 - 1841+20

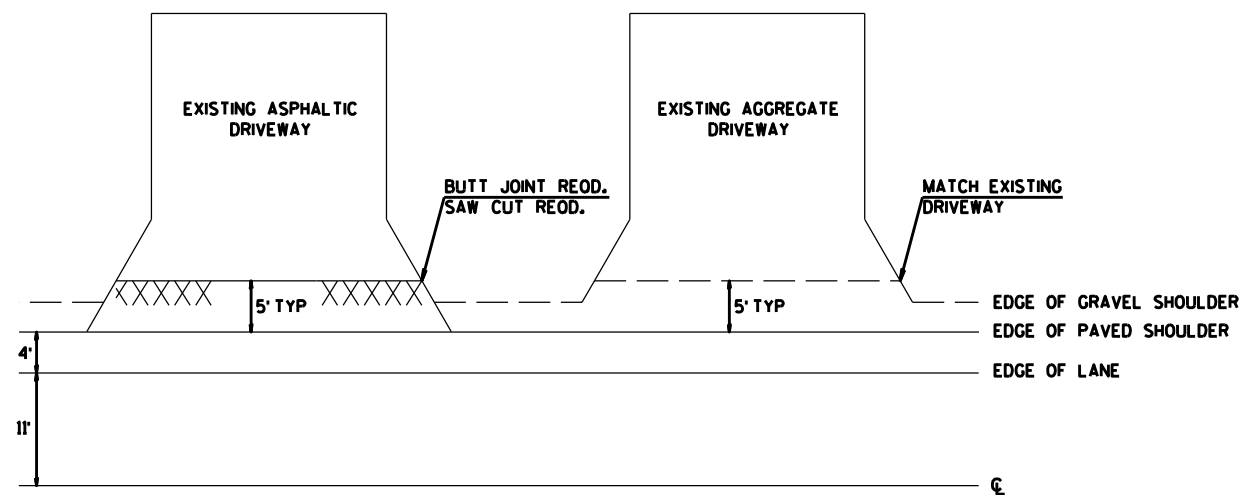


FINISHED TYPICAL SECTION FOR ASPHALTIC SIDE ROADS

SUN PLAZA ROAD (11')
AHRENS (CEDAR) ROAD (10')
MEADOW ROAD (10')
GROVE ROAD (10')
OLD LIME KILN ROAD (10')
PIONEER ROAD (11')
GERMAN ROAD (10')
CTH 0

SETTLEMENT ROAD (10')
OLD STAGE ROAD (11')
COUNTRY LANE (11')
FLINT RIDGE ROAD (11')
NORTHWOODS DRIVE (11')
ORCHARD DRIVE (11')
COUNTRY WALK DRIVE (14')
CANTERBURY LANE (11')
GATEWAY DRIVE (10')



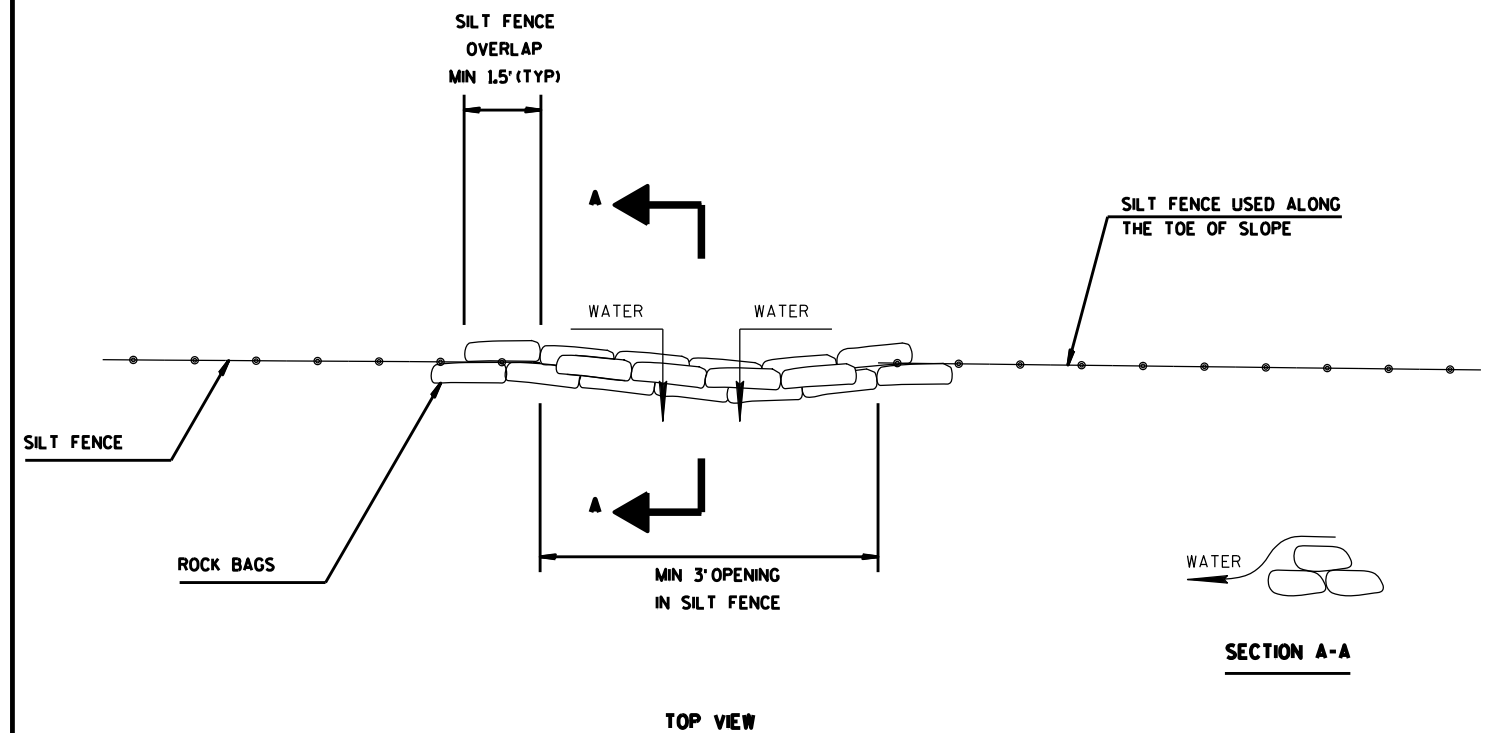


RURAL DRIVEWAY

NOTE:
LIMITS OF DRIVEWAY MAY BE
ADJUSTED BY THE ENGINEER
IN THE FIELD.

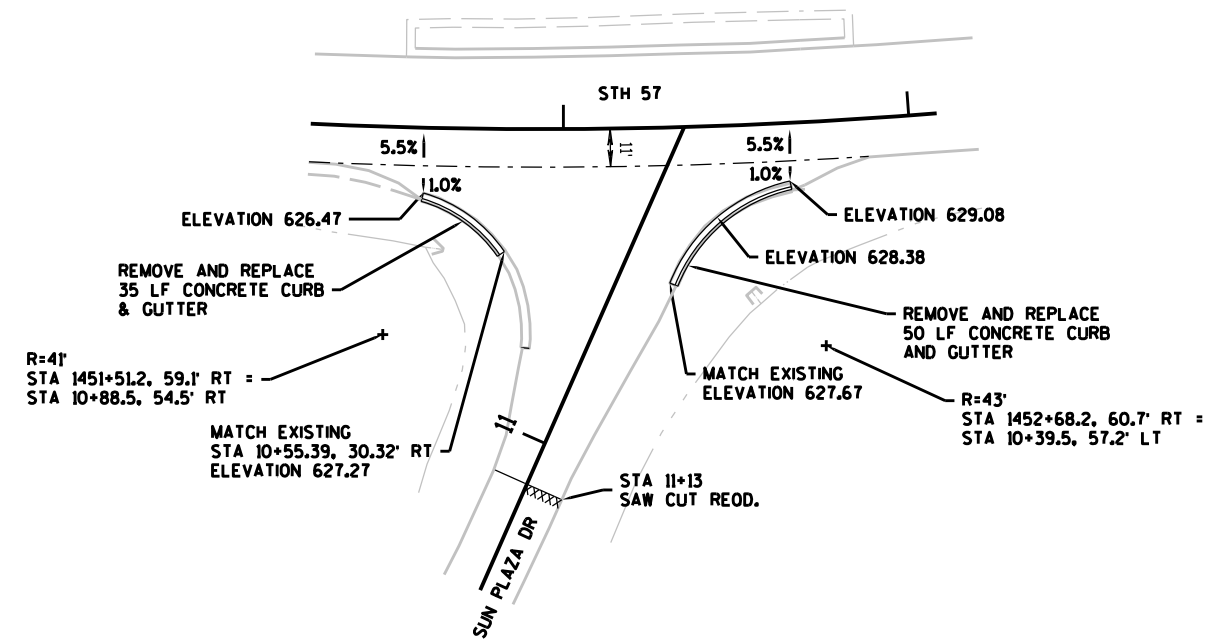
PAVED DRIVEWAYS SHALL BE
PAID AS HMA PAVEMENT

AGGREGATE DRIVEWAYS SHALL
BE PAID AS BASE AGGREGATE
DENSE $\frac{3}{4}$ -INCH

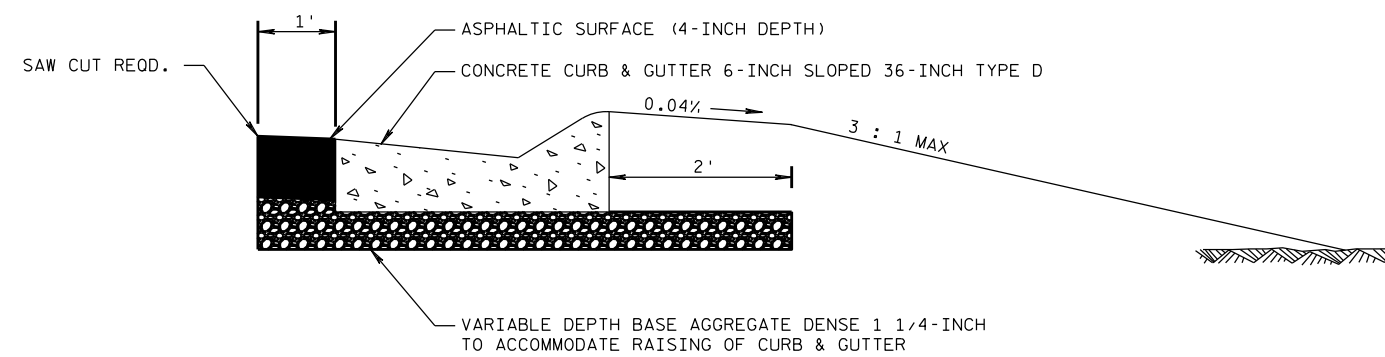


ROCK BAGS USED FOR SILT FENCE RELIEF DETAIL

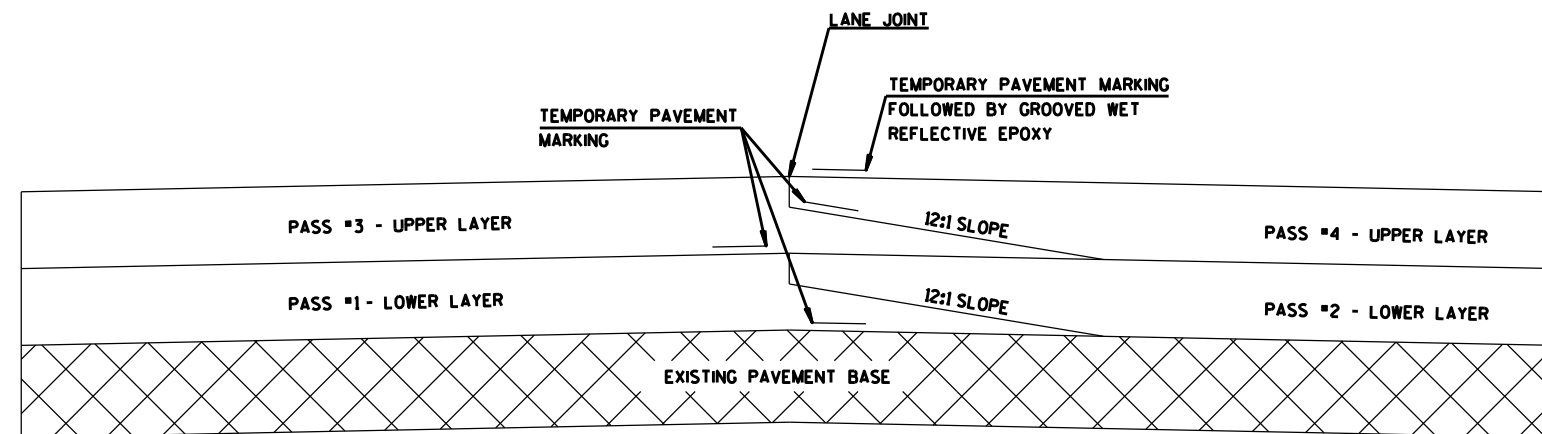
PAID AS ROCK BAGS



CONCRETE CURB & GUTTER REPLACEMENT AT STH 57/SUN PLAZA DRIVE

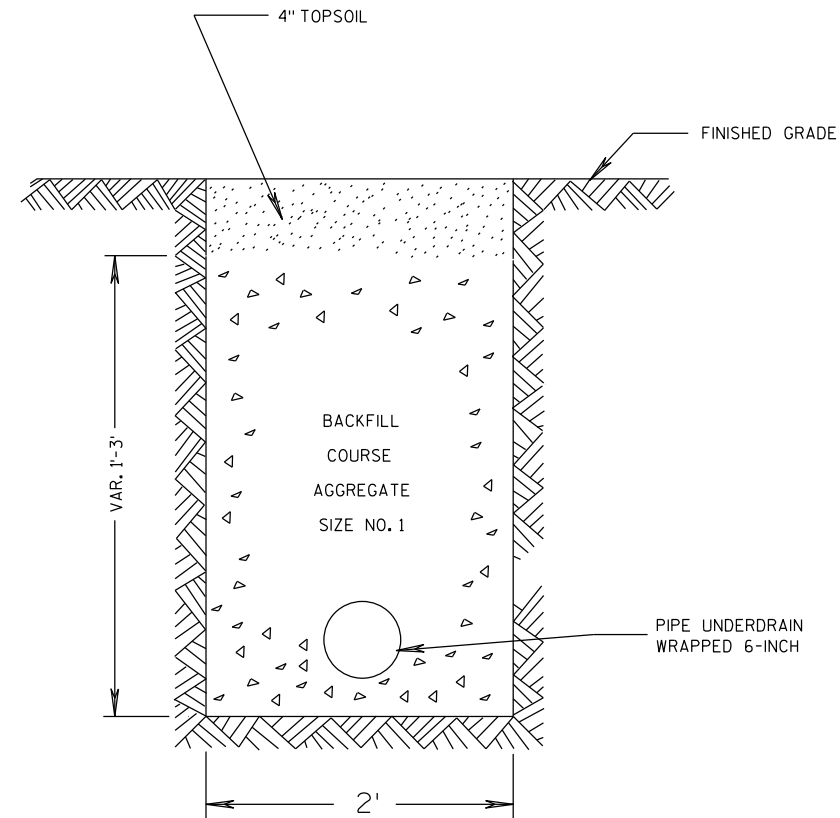


CONCRETE CURB & GUTTER REPLACEMENT TYPICAL SECTION

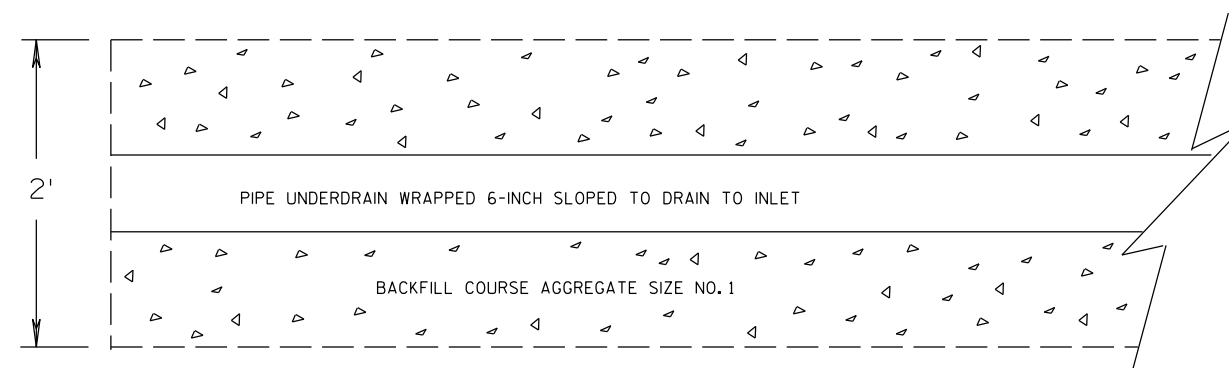


LOWER AND UPPER LAYERS

PAVEMENT MARKING DETAIL FOR TAPERED OVERLAPPING JOINTS IN ASPHALTIC PAVEMENTS

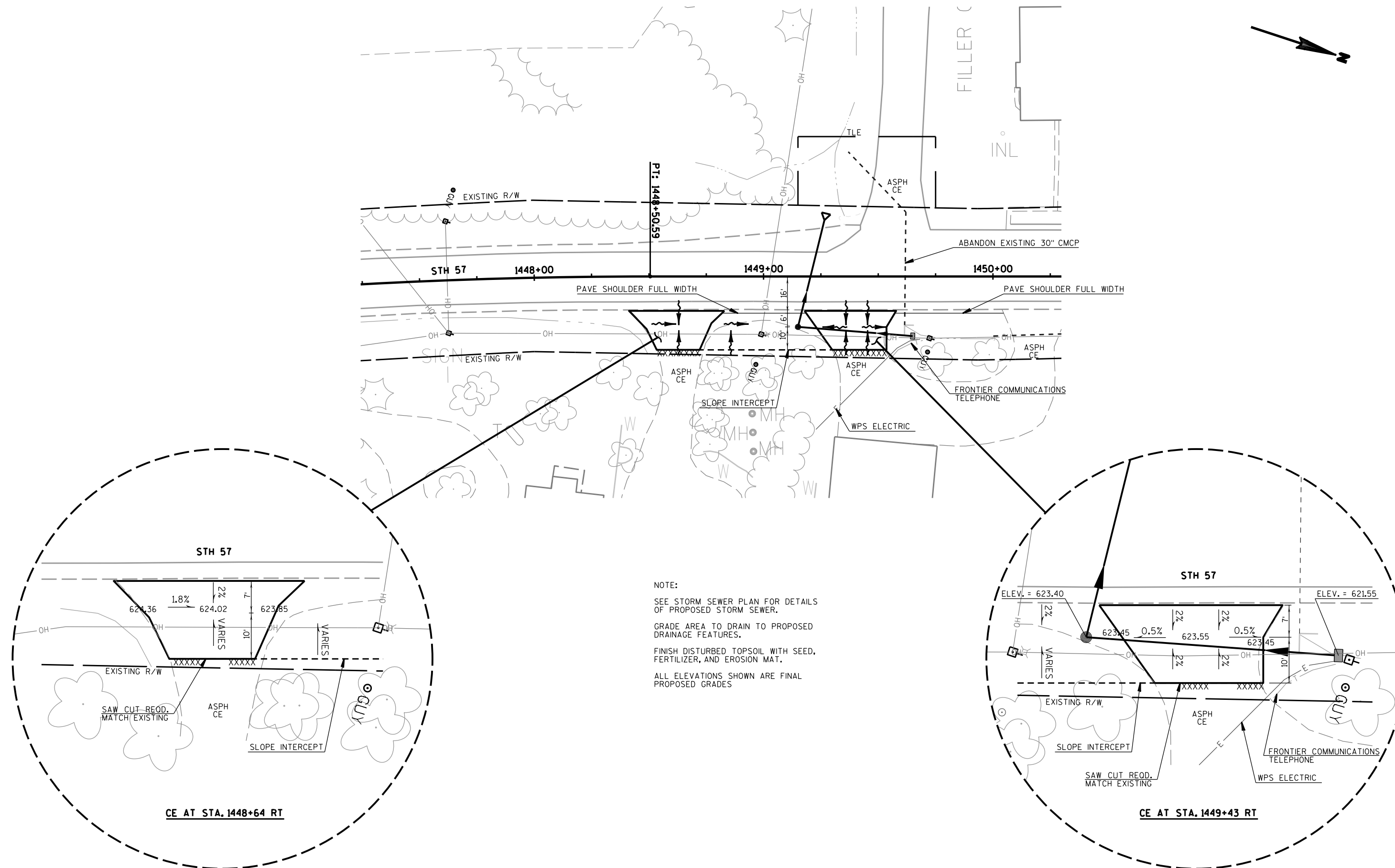


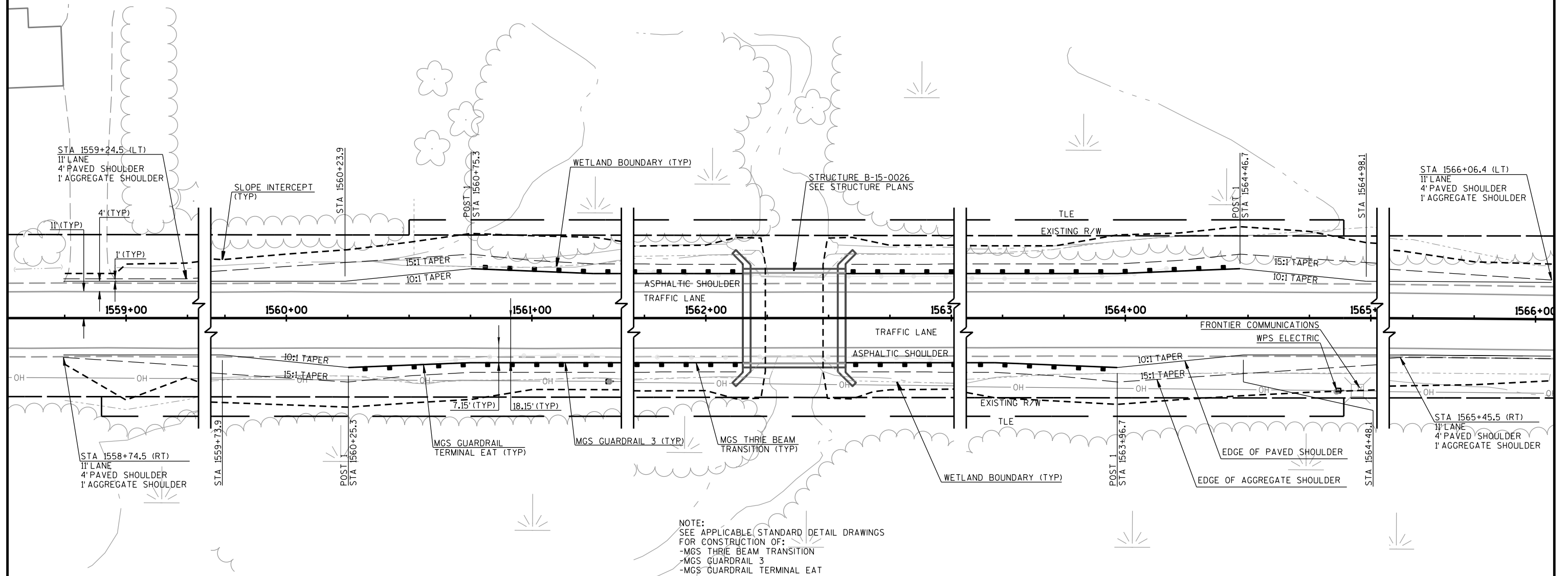
SECTION VIEW

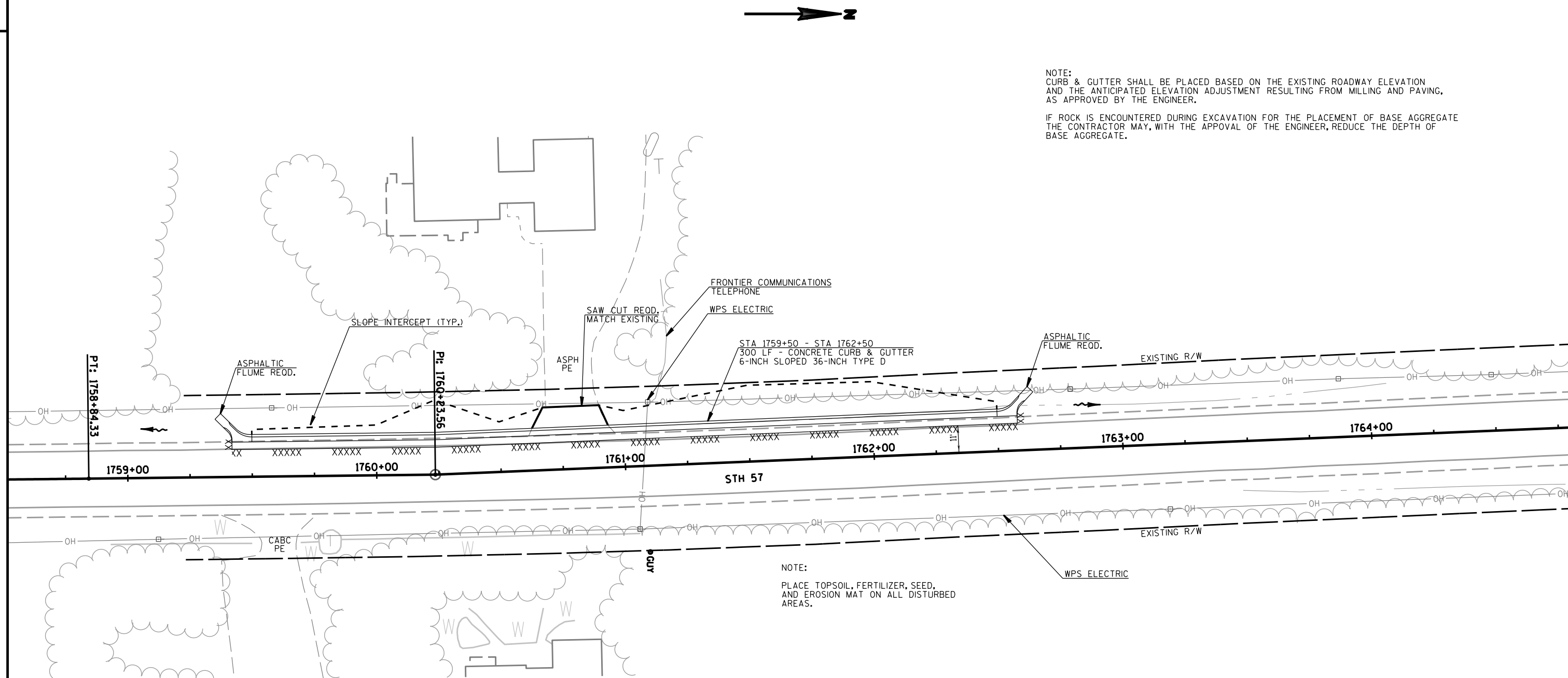


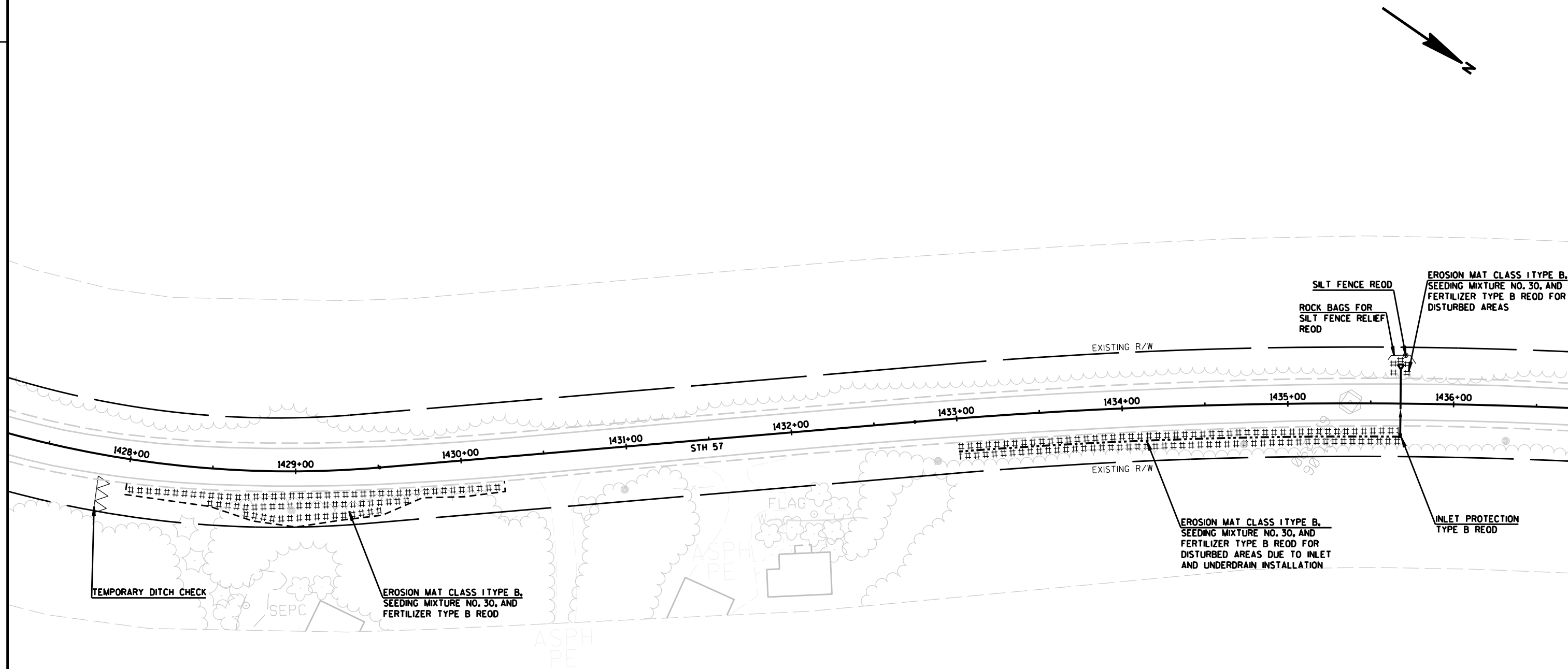
PLAN VIEW

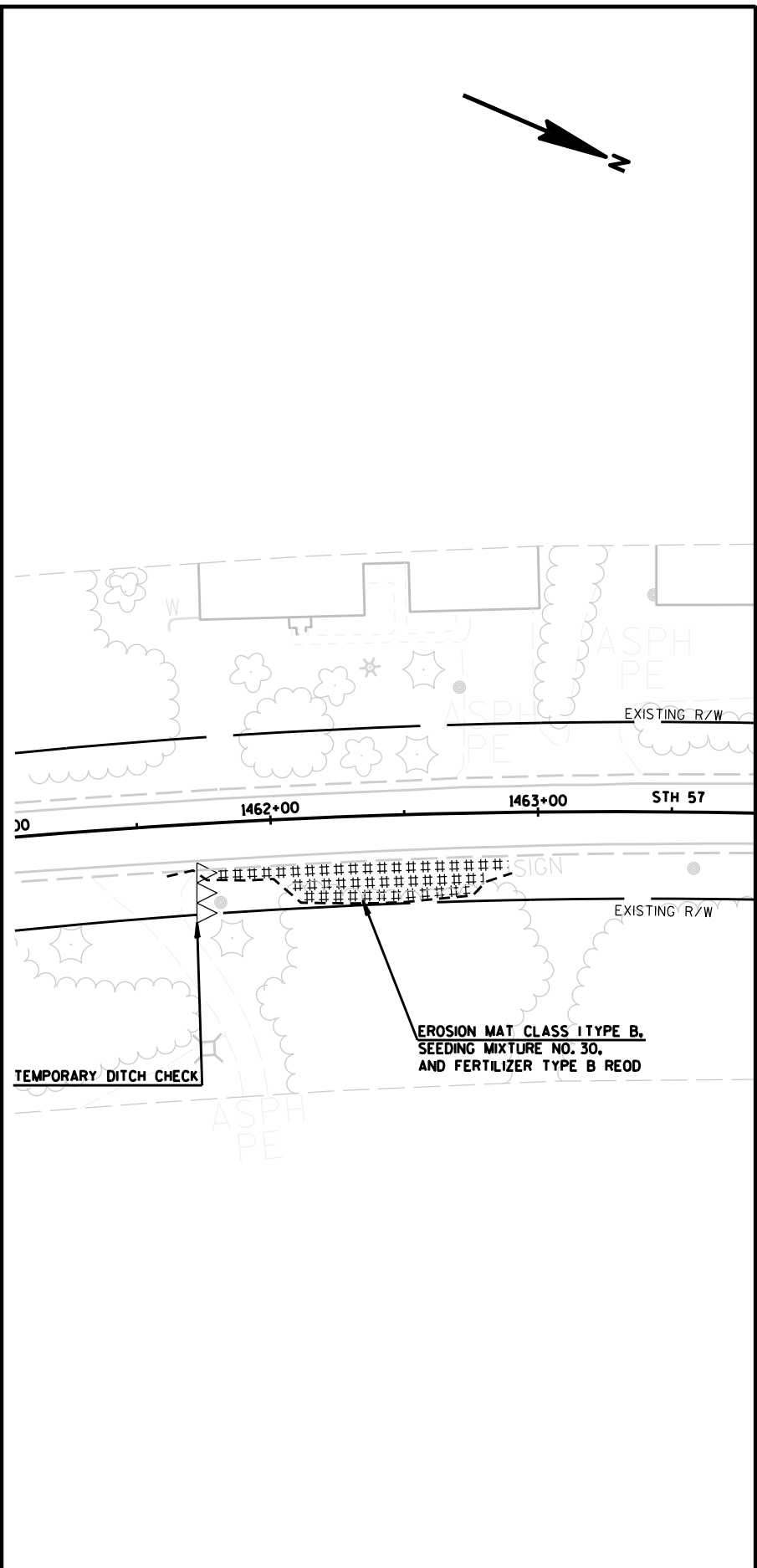
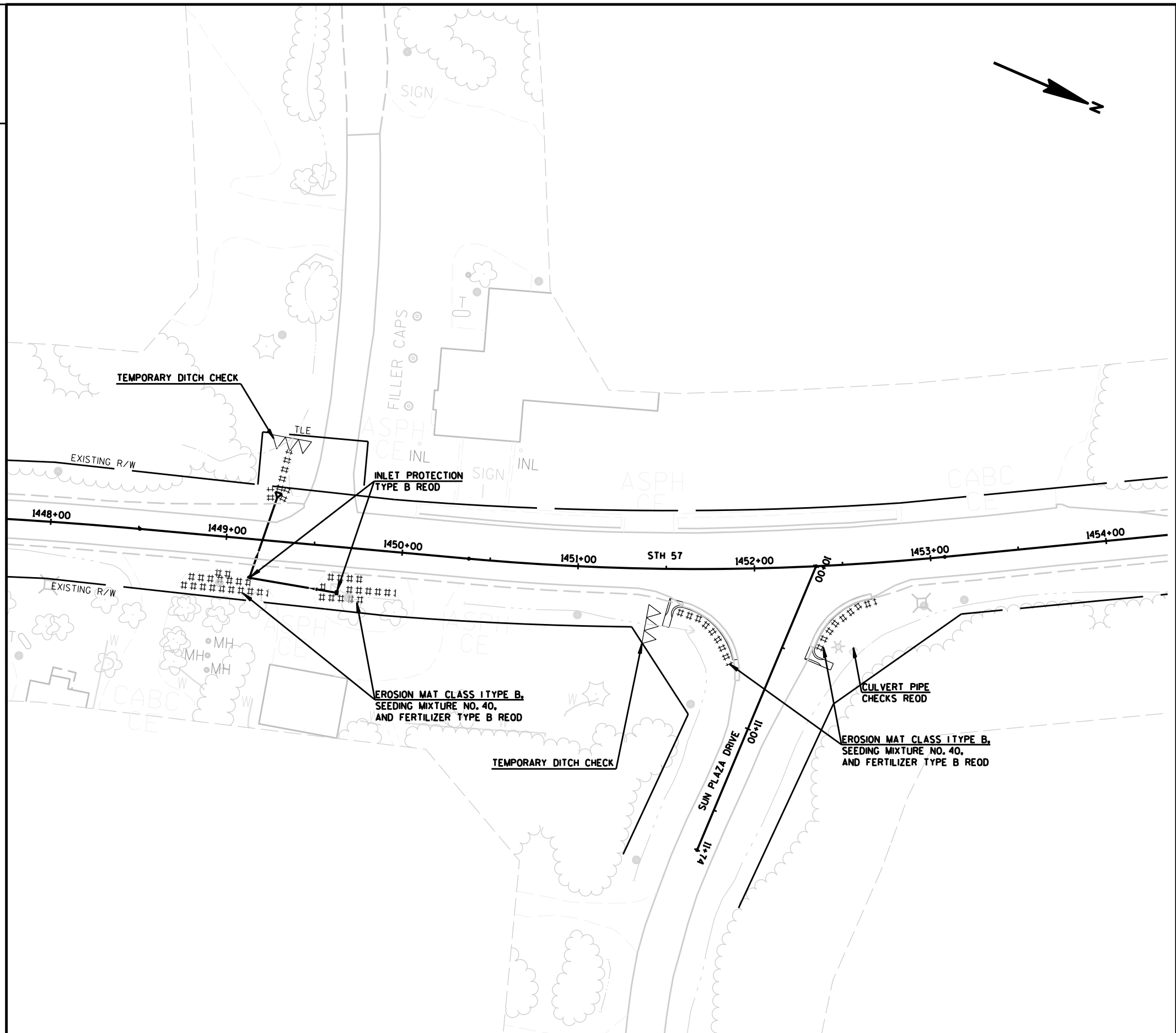
PIPE UNDERDRAIN DETAIL STA. 1433+00 TO STA. 1435+68, RT

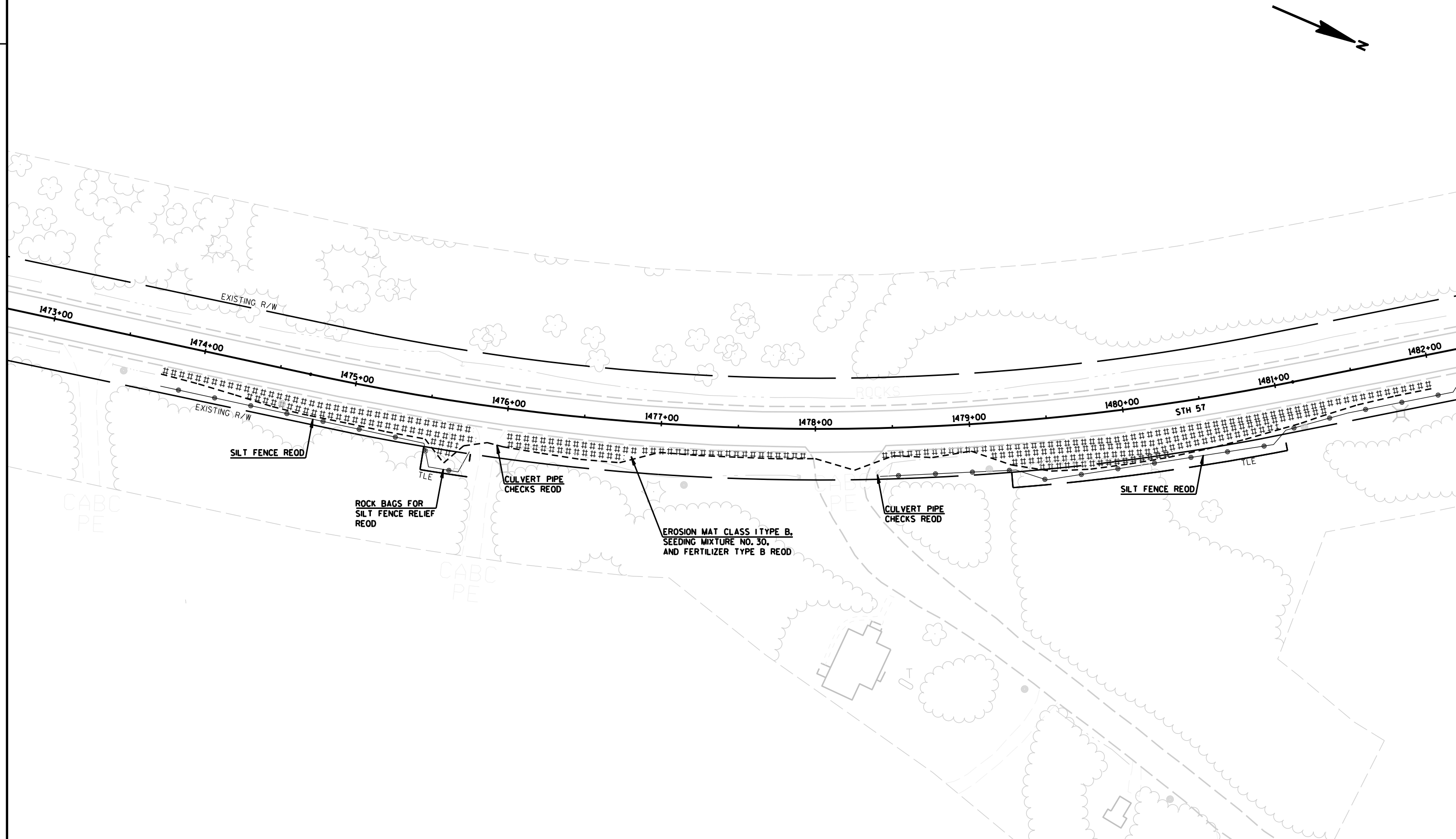


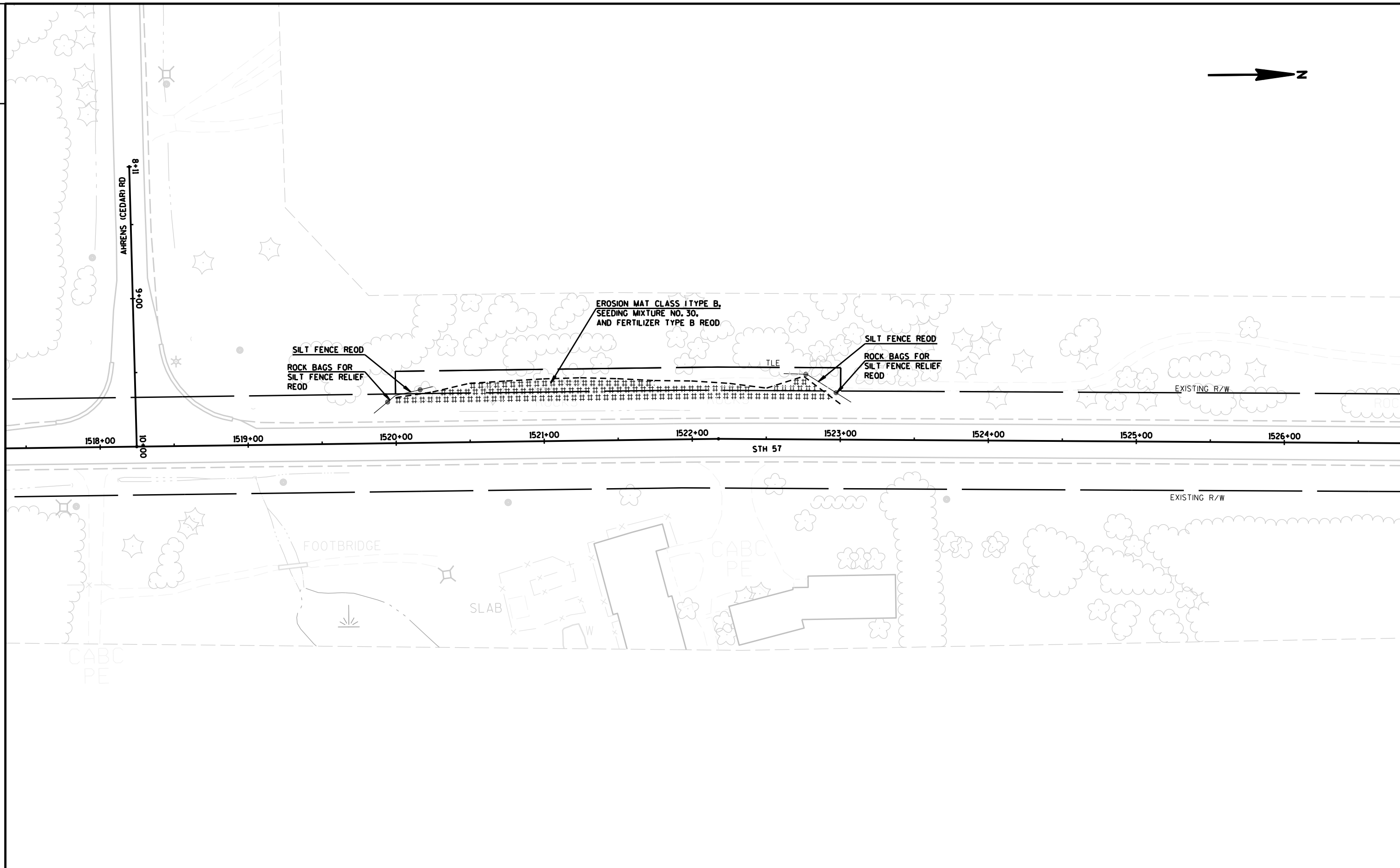




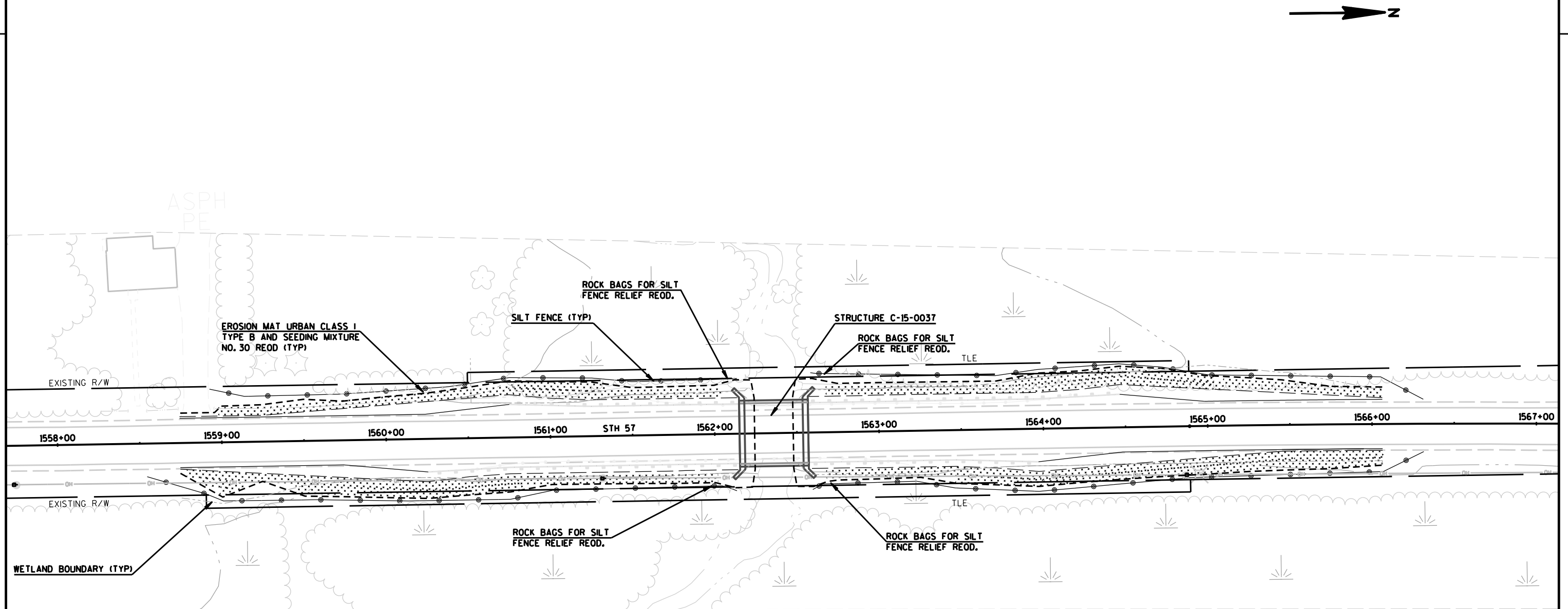




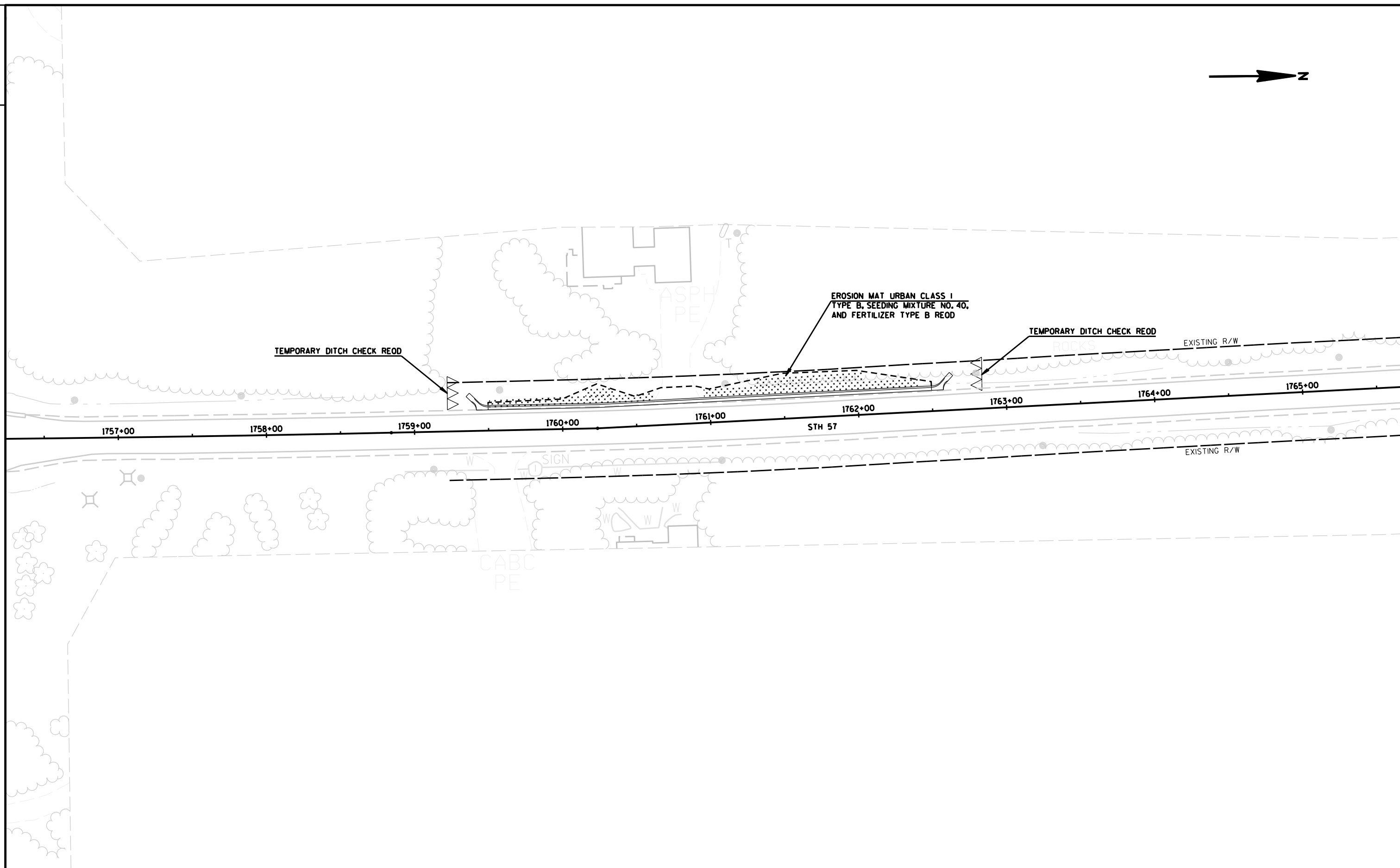




PROJECT NO: 4150-17-71	HWY: STH 57	COUNTY: DOOR	EROSION CONTROL PLAN	SHEET	E
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NOTE:
SEE STRUCTURE PLANS FOR LIMITS
OR RIPRAP AT STRUCTURE B-15-0026



PROJECT NO: 4150-17-71

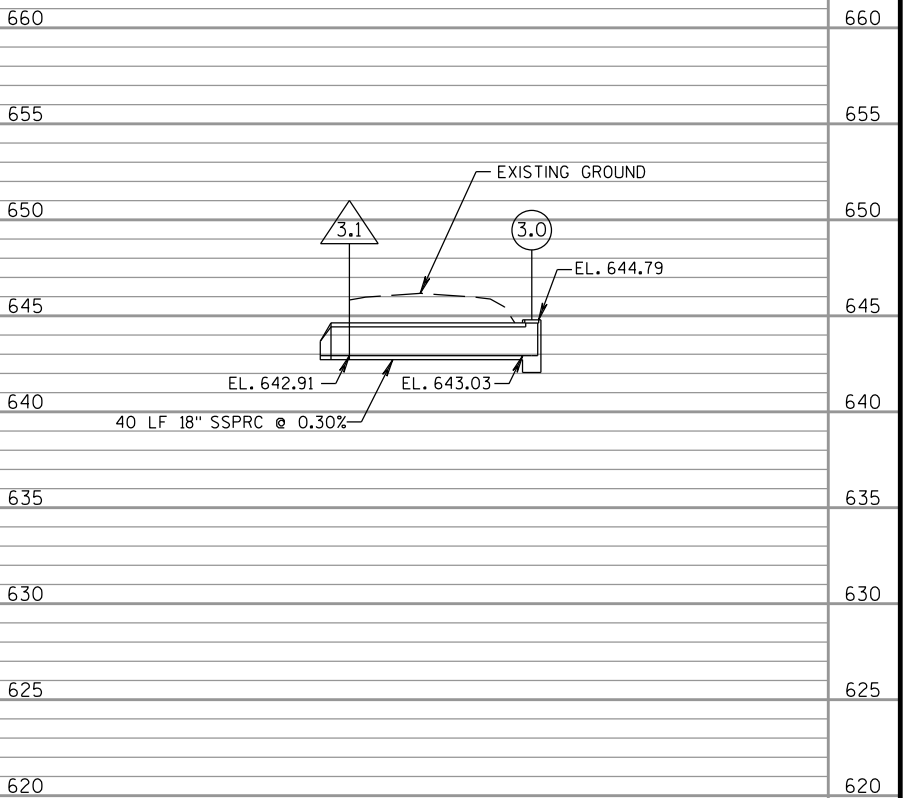
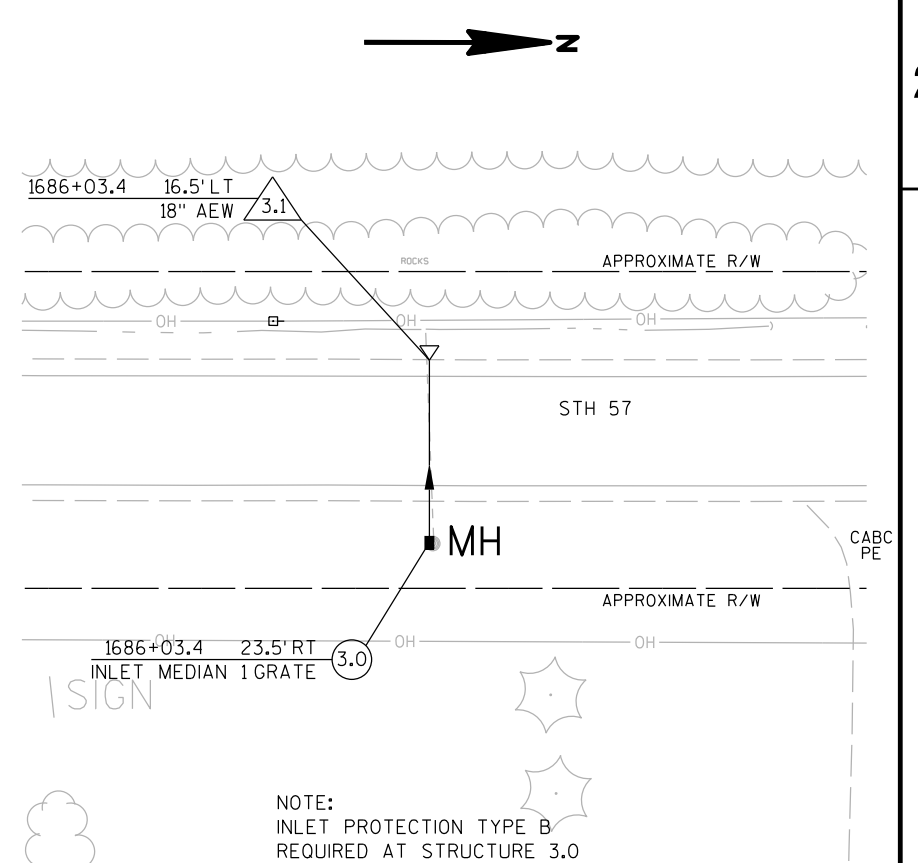
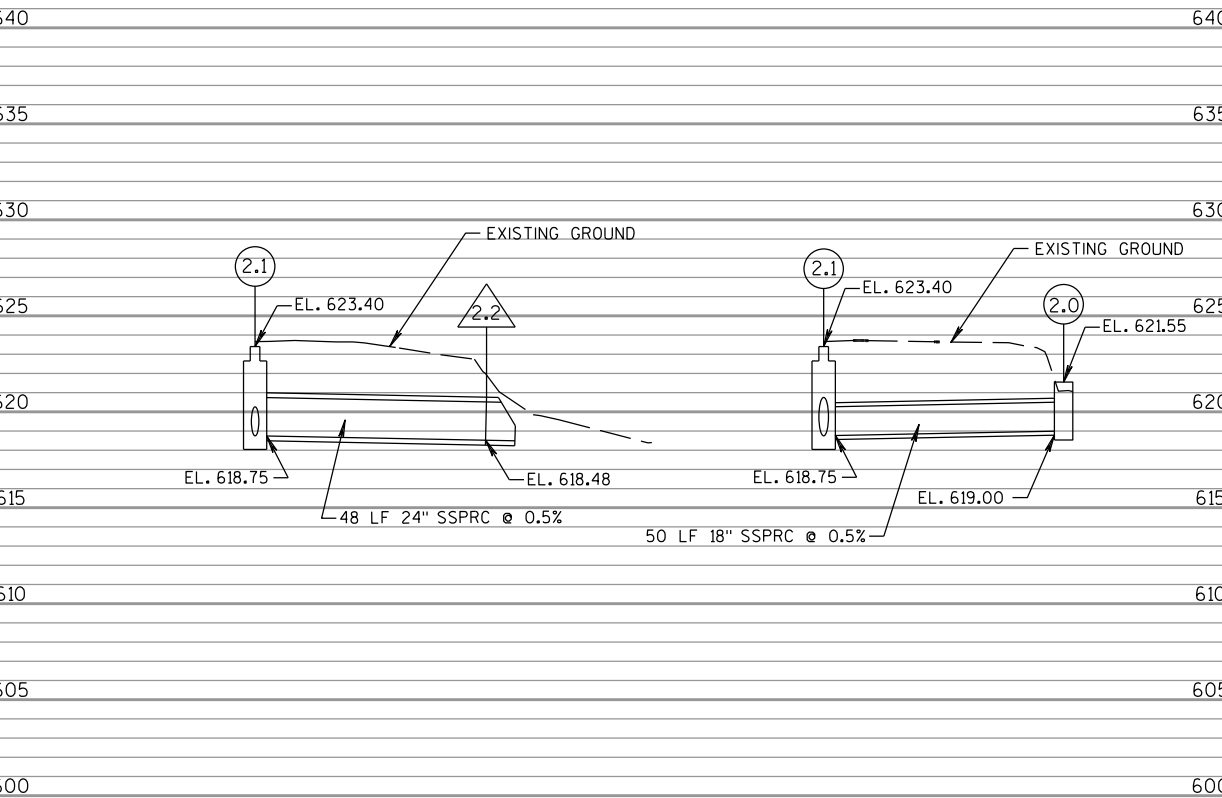
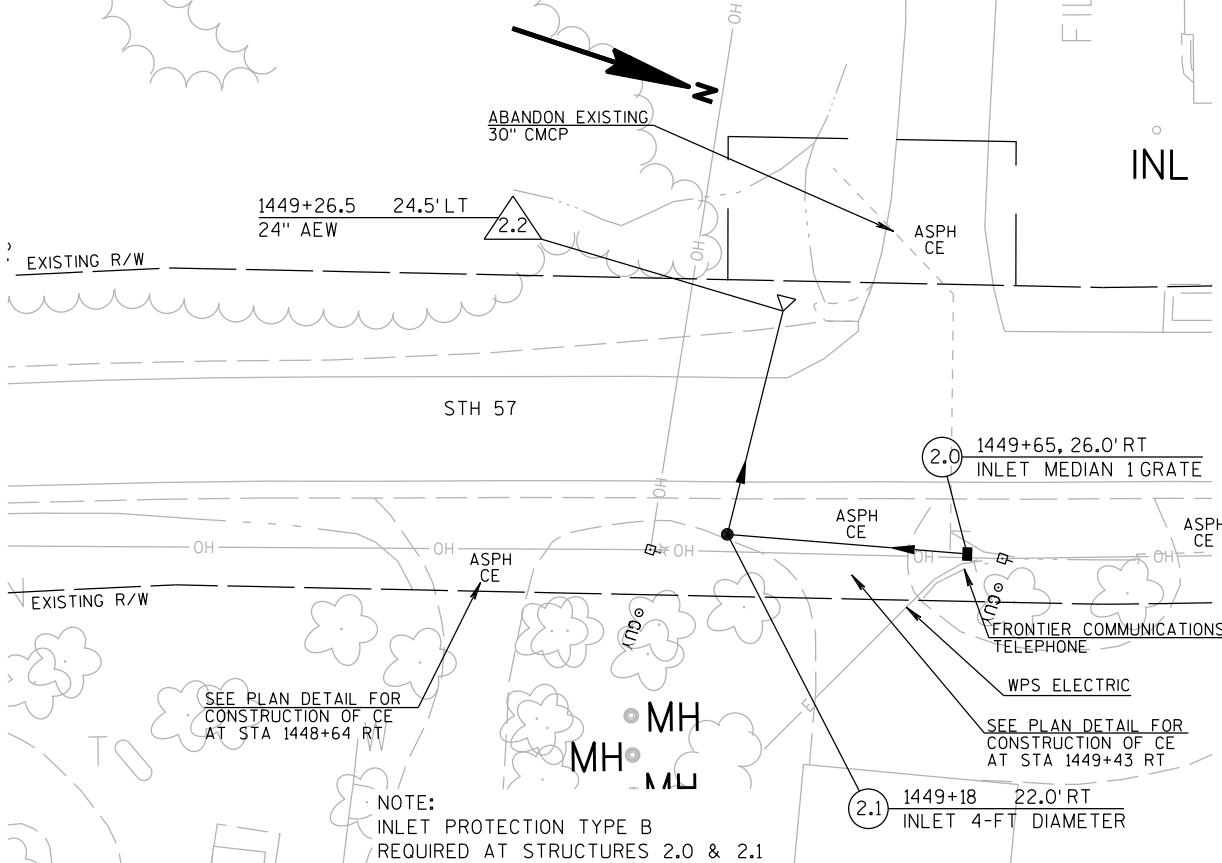
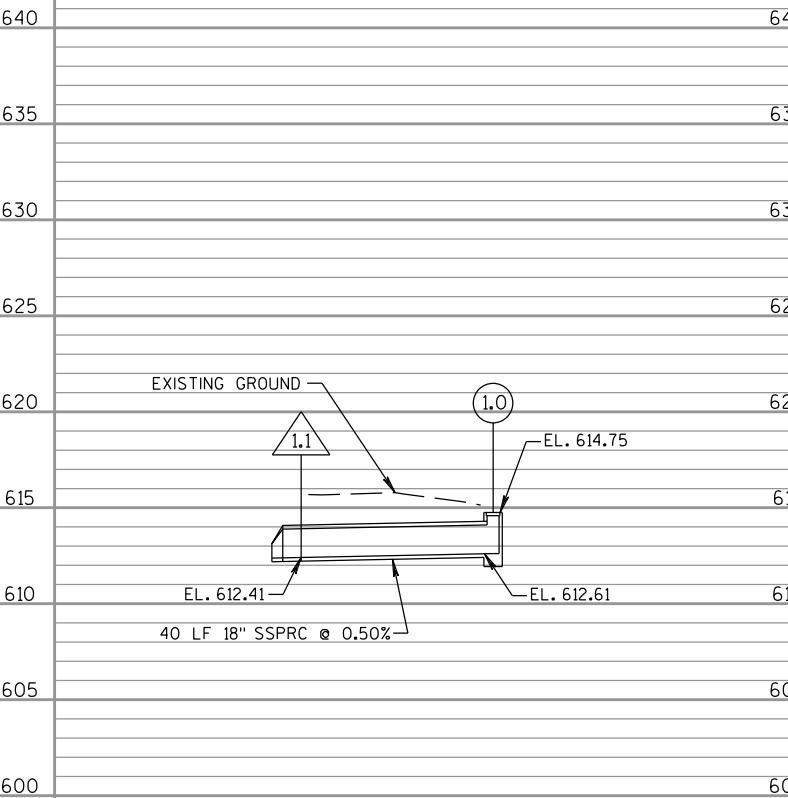
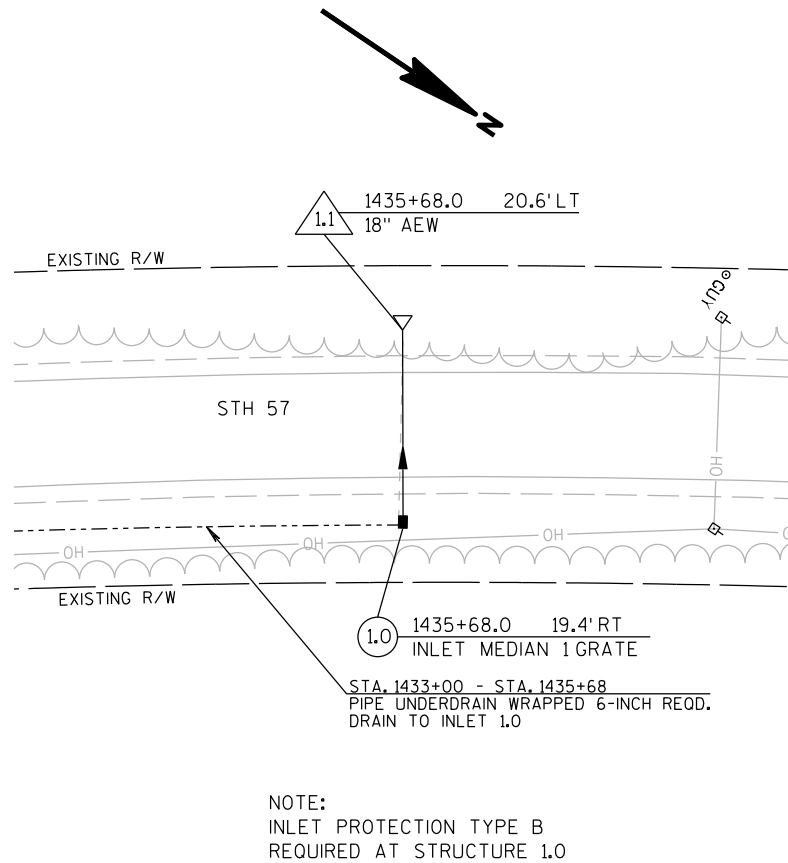
HWY: STH 57

COUNTY: DOOR

EROSION CONTROL PLAN

SHEET

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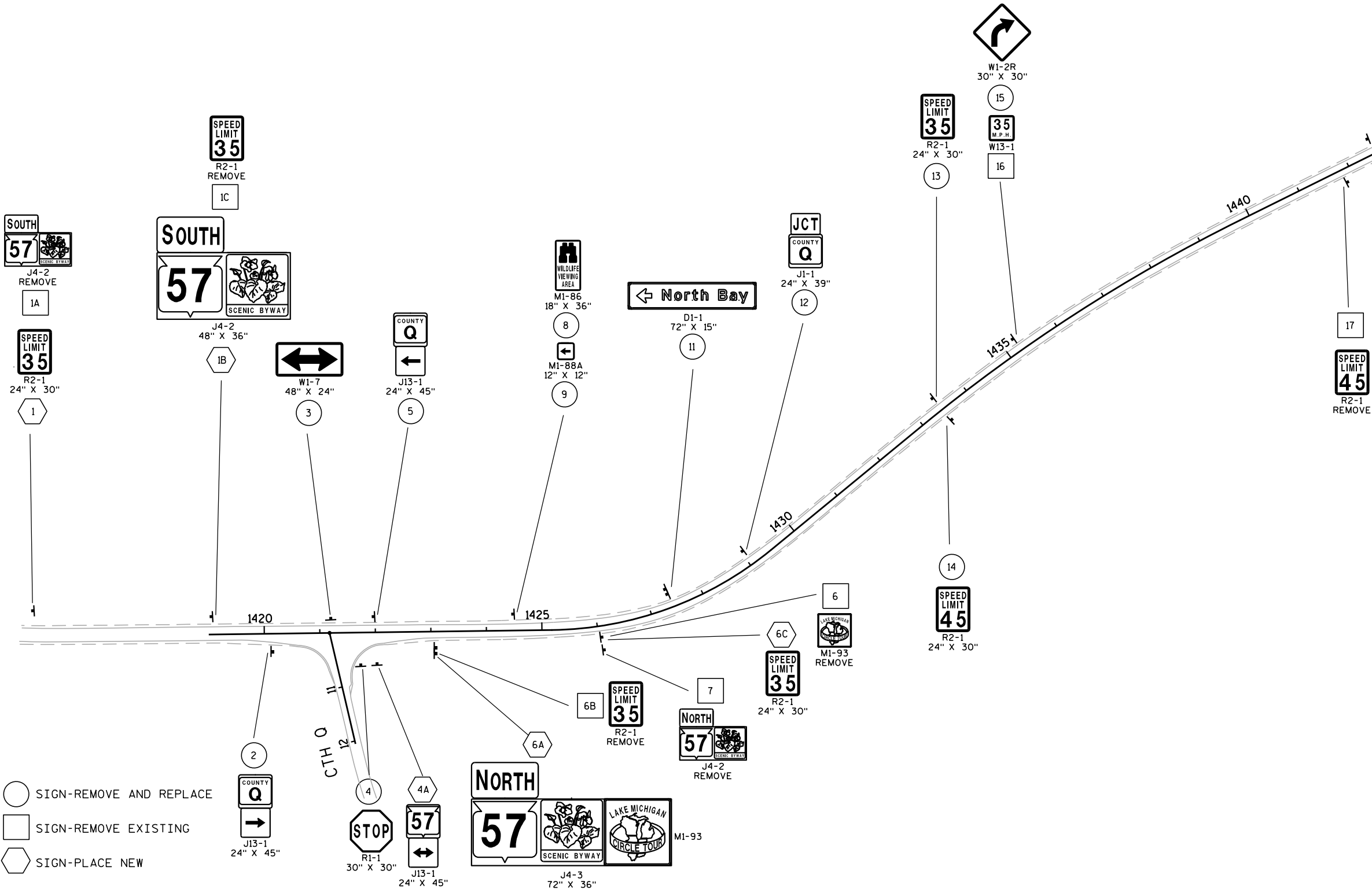


SIGNING NOTES

WHEN AN EXISTING STOP SIGN AND SUPPORT IS TO BE REMOVED AND A NEW STOP SIGN AND SUPPORT ERECTED THE WORK SHALL BE DONE CONCURRENTLY. FOR OTHER SIGNS AND SUPPORTS THAT ARE TO BE REMOVED AND NEW SIGNS AND SUPPORTS ERECTED, THE REMOVAL OF THE EXISTING SIGN/SUPPORT AND ERECTION OF THE NEW SIGN/SUPPORT SHOULD BE DONE AS CONCURRENTLY AS POSSIBLE. IN NO CASE SHALL A NEW SIGN/SUPPORT BE DOWN FOR MORE THAN 24 HOURS AND THERE SHALL NOT BE MORE THAN ONE SIGN OF THE SAME LEGEND MISSING IN A ROW.

WOOD POSTS SIZES, FOR TYPE II SIGNING, ARE ESTIMATED LENGTHS AND THE ACTUAL LENGTH WILL BE DETERMINED IN THE FIELD.

THE NUMBER OF "NO PASSING ZONE" SIGNS (W-14-3) ARE ESTIMATED AND THE ACTUAL NUMBER WILL BE DETERMINED AFTER THE ROADWAYS HAVE BEEN SPOTTED.



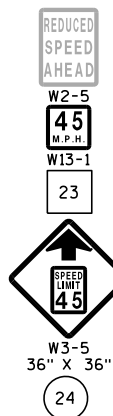
PLAN SHEET PRODUCED
BY WISDOT-NE REGION

SIGNING NOTES

WHEN AN EXISTING STOP SIGN AND SUPPORT IS TO BE REMOVED AND A NEW STOP SIGN AND SUPPORT ERECTED THE WORK SHALL BE DONE CONCURRENTLY. FOR OTHER SIGNS AND SUPPORTS THAT ARE TO BE REMOVED AND NEW SIGNS AND SUPPORTS ERECTED, THE REMOVAL OF THE EXISTING SIGN/SUPPORT AND ERECTION OF THE NEW SIGN/SUPPORT SHOULD BE DONE AS CONCURRENTLY AS POSSIBLE. IN NO CASE SHALL A NEW SIGN/SUPPORT BE DOWN FOR MORE THAN 24 HOURS AND THERE SHALL NOT BE MORE THAN ONE SIGN OF THE SAME LEGEND MISSING IN A ROW.

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SUN PLAZA DR



- SIGN-REMOVE AND REPLACE
- SIGN-REMOVE EXISTING
- SIGN-PLACE NEW

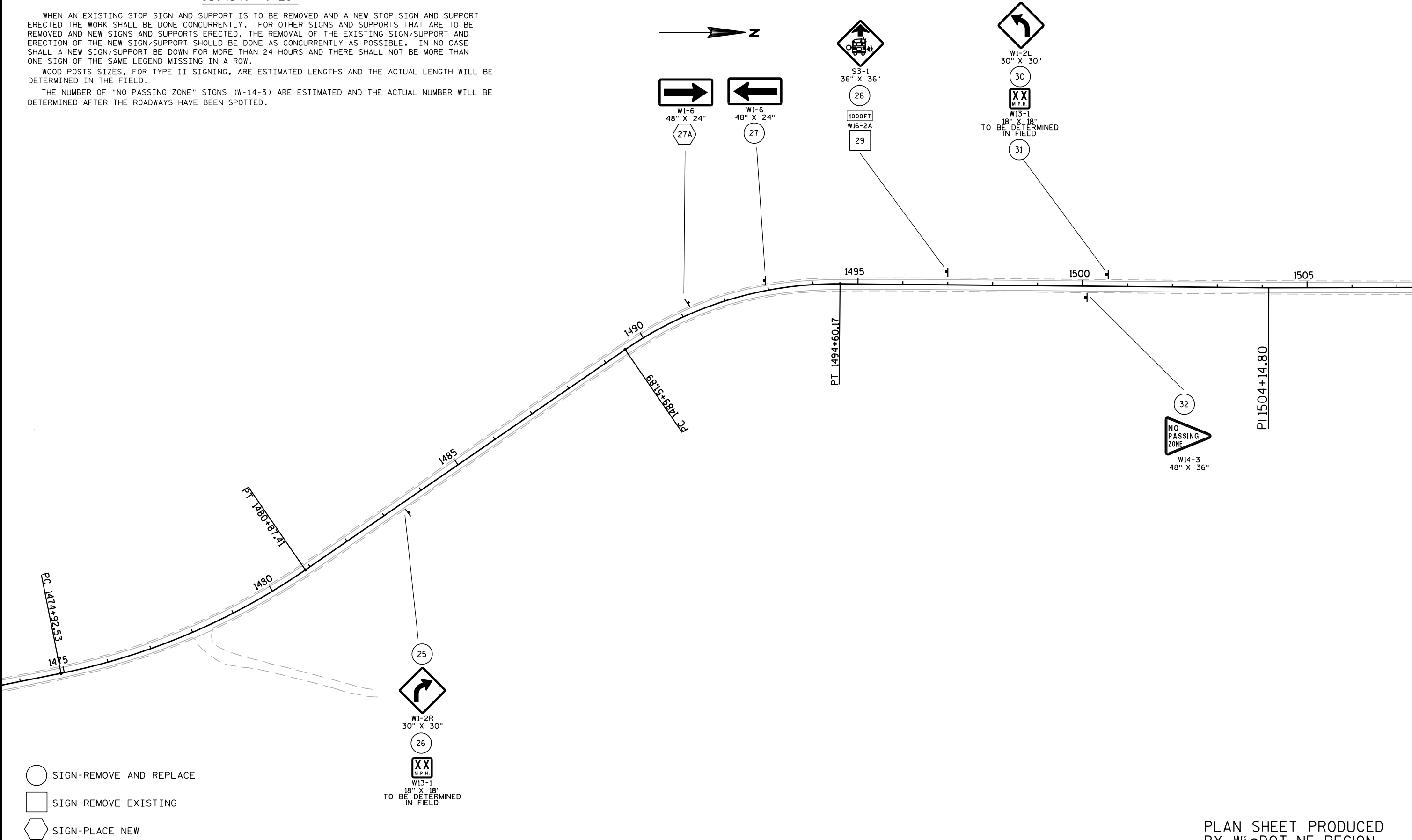
PLAN SHEET PRODUCED
BY WISDOT-NE REGION

SIGNING NOTES

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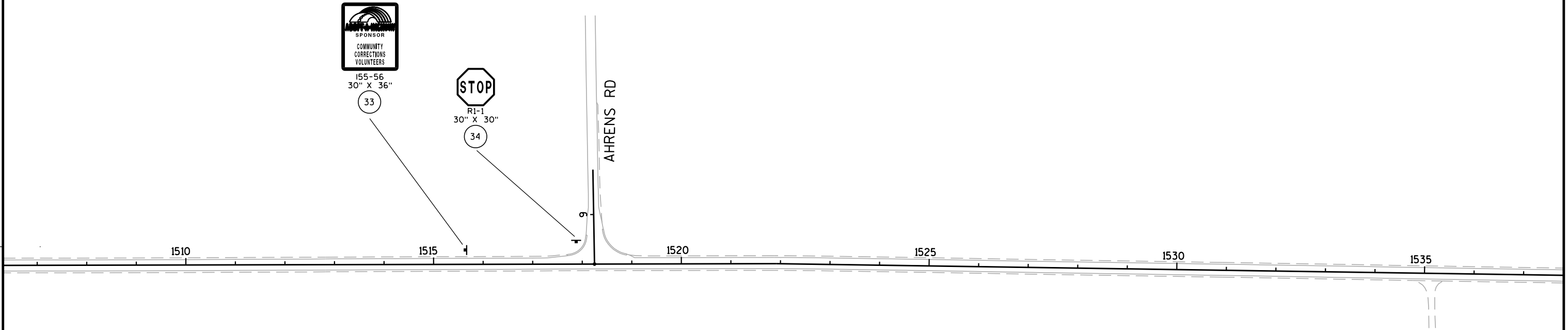
PLAN SHEET PRODUCED
BY WISDOT-NE REGION




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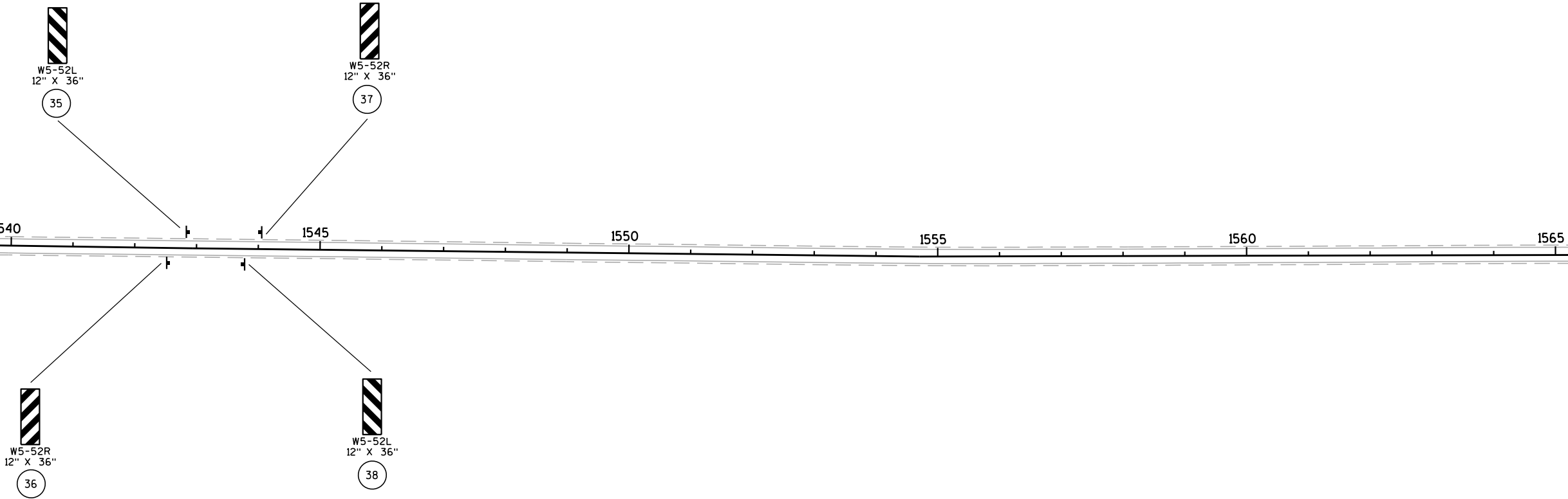
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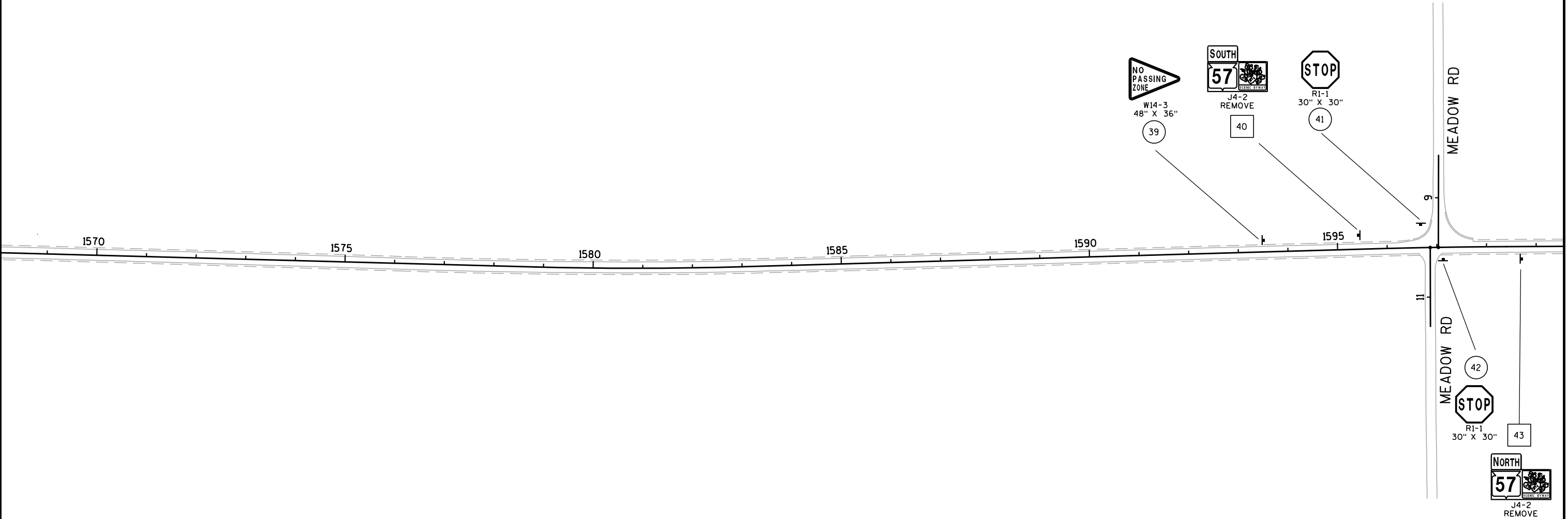
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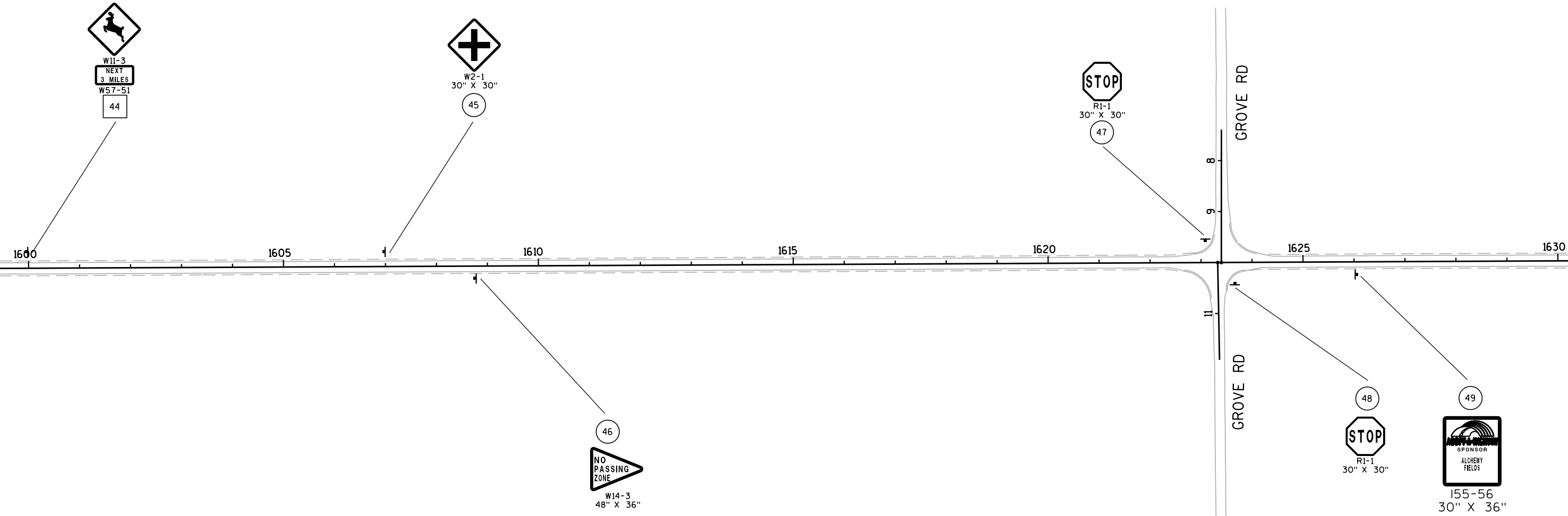
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PLAN SHEET PRODUCED
BY WISDOT-NE REGION

PROJECT NO: 4150-17-71	HWY: STH 57	COUNTY: DOOR	PERMANENT SIGNING	SHEET	E
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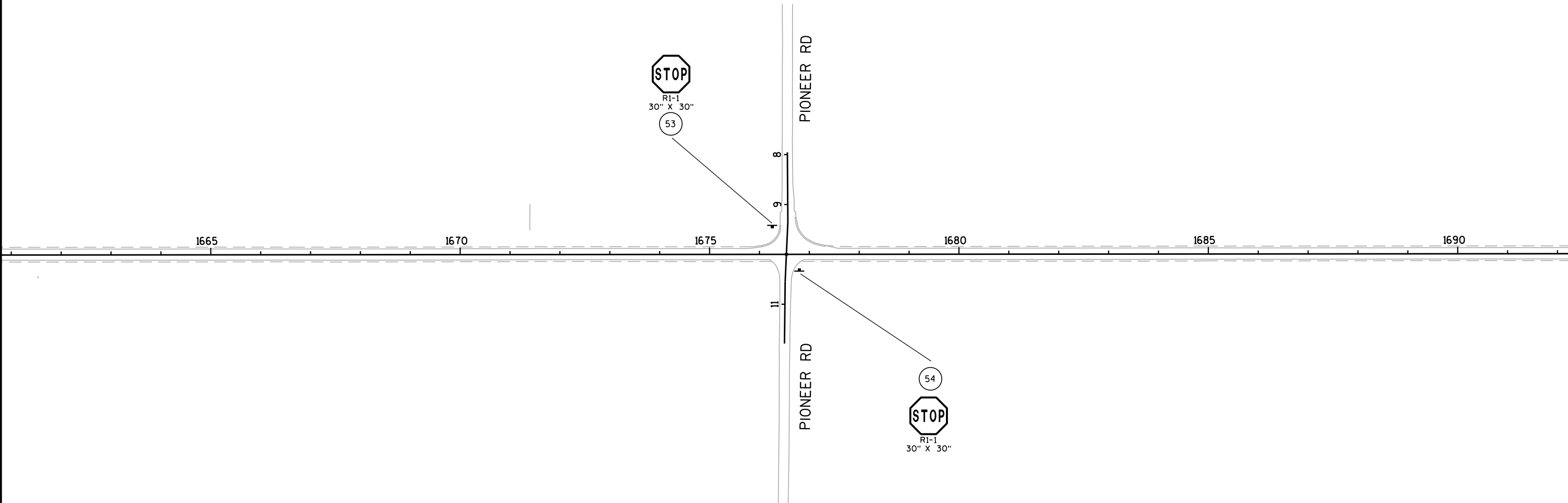
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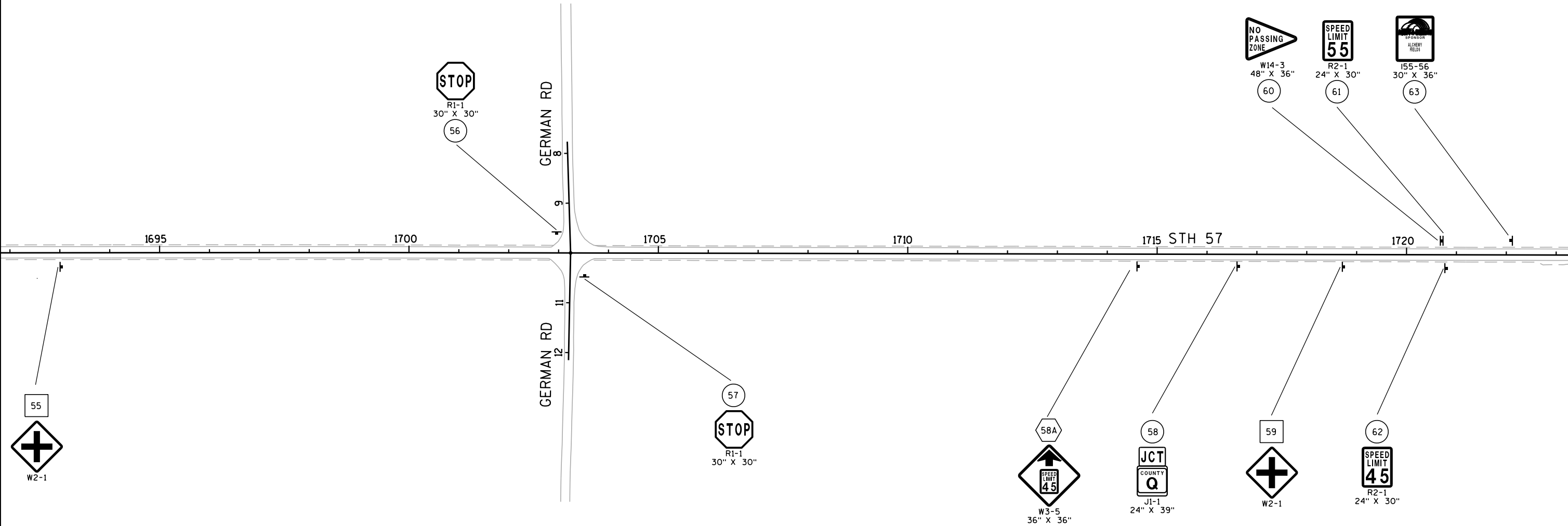
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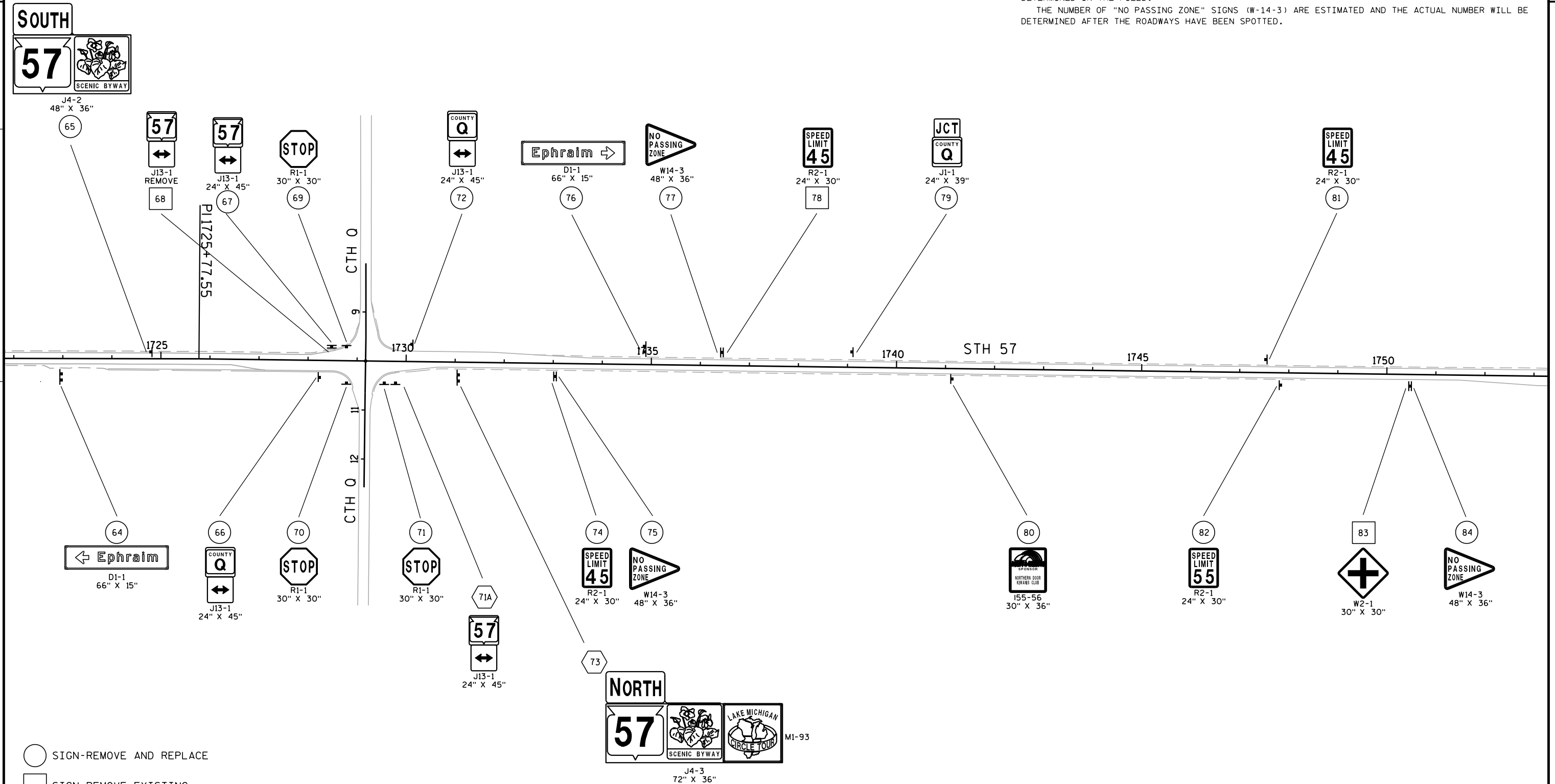
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PLAN SHEET PRODUCED
BY WisDOT-NE REGION

PROJECT NO: 4150-17-71

HWY: STH 57

COUNTY: DOOR

PERMANENT SIGNING

SHEET

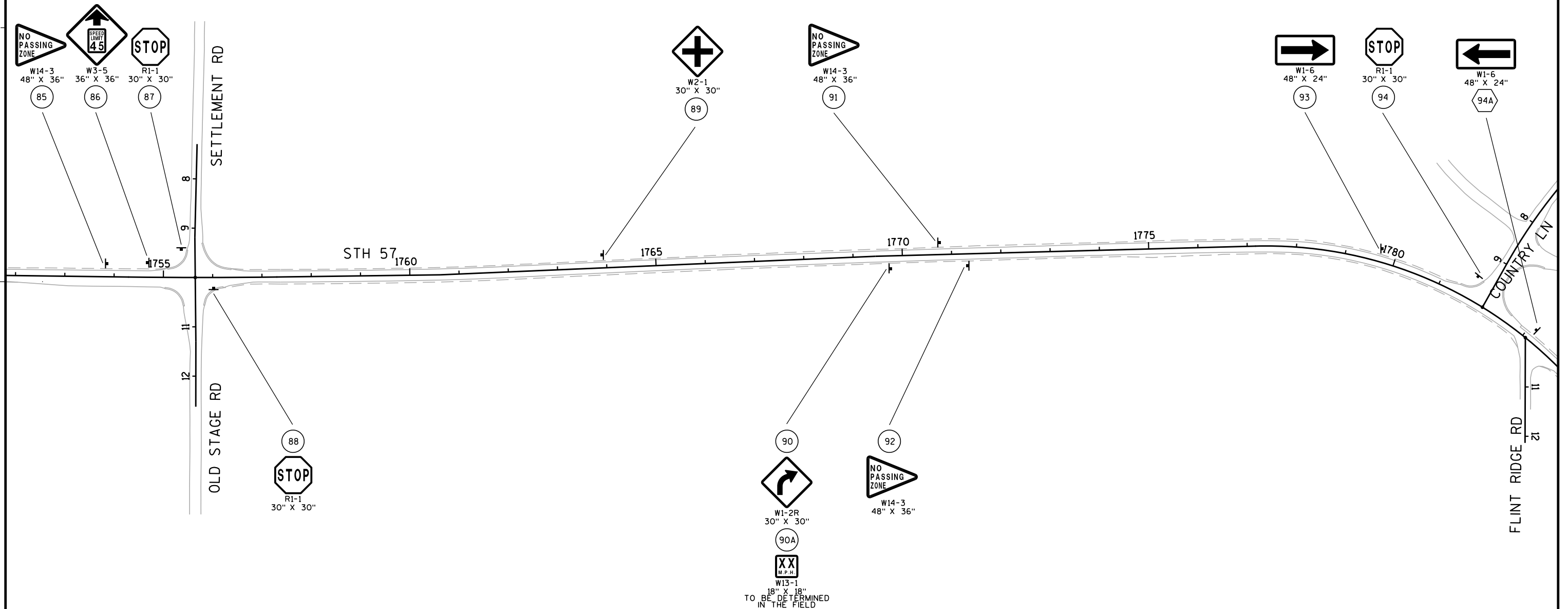
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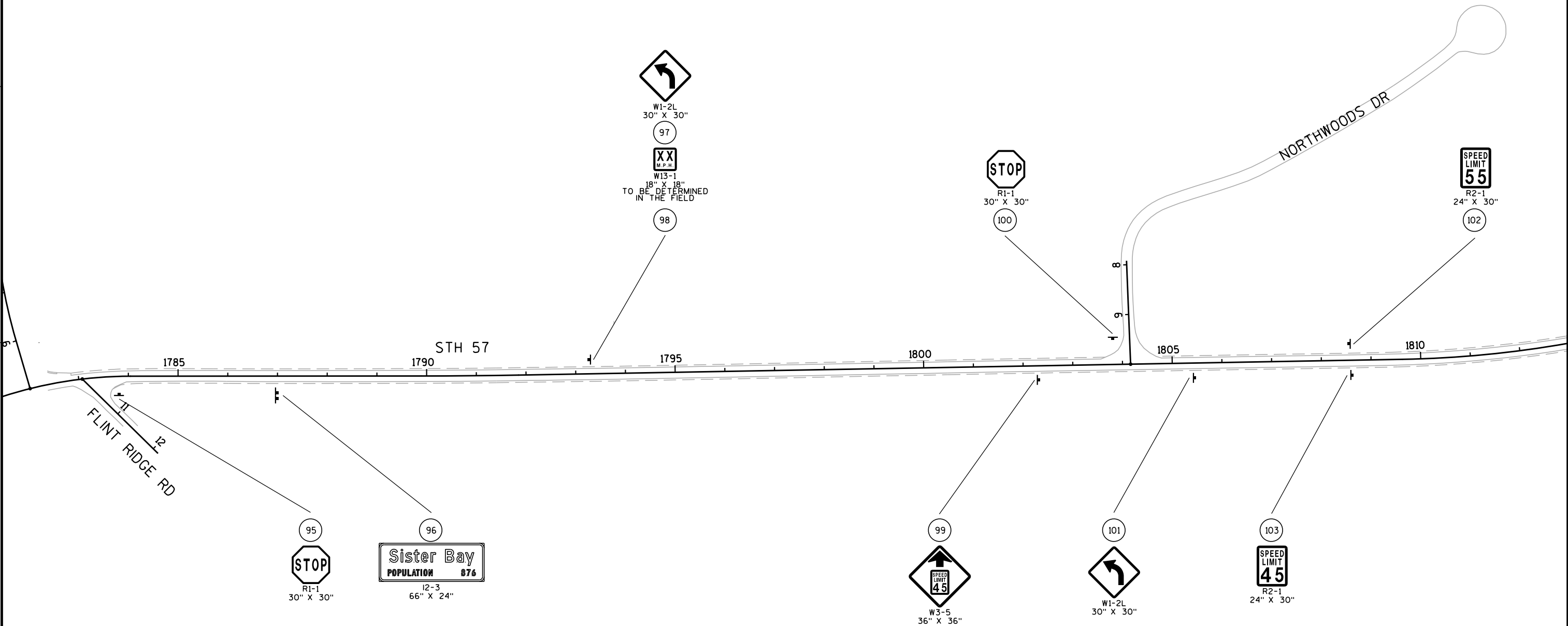
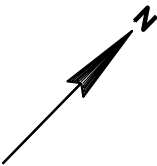
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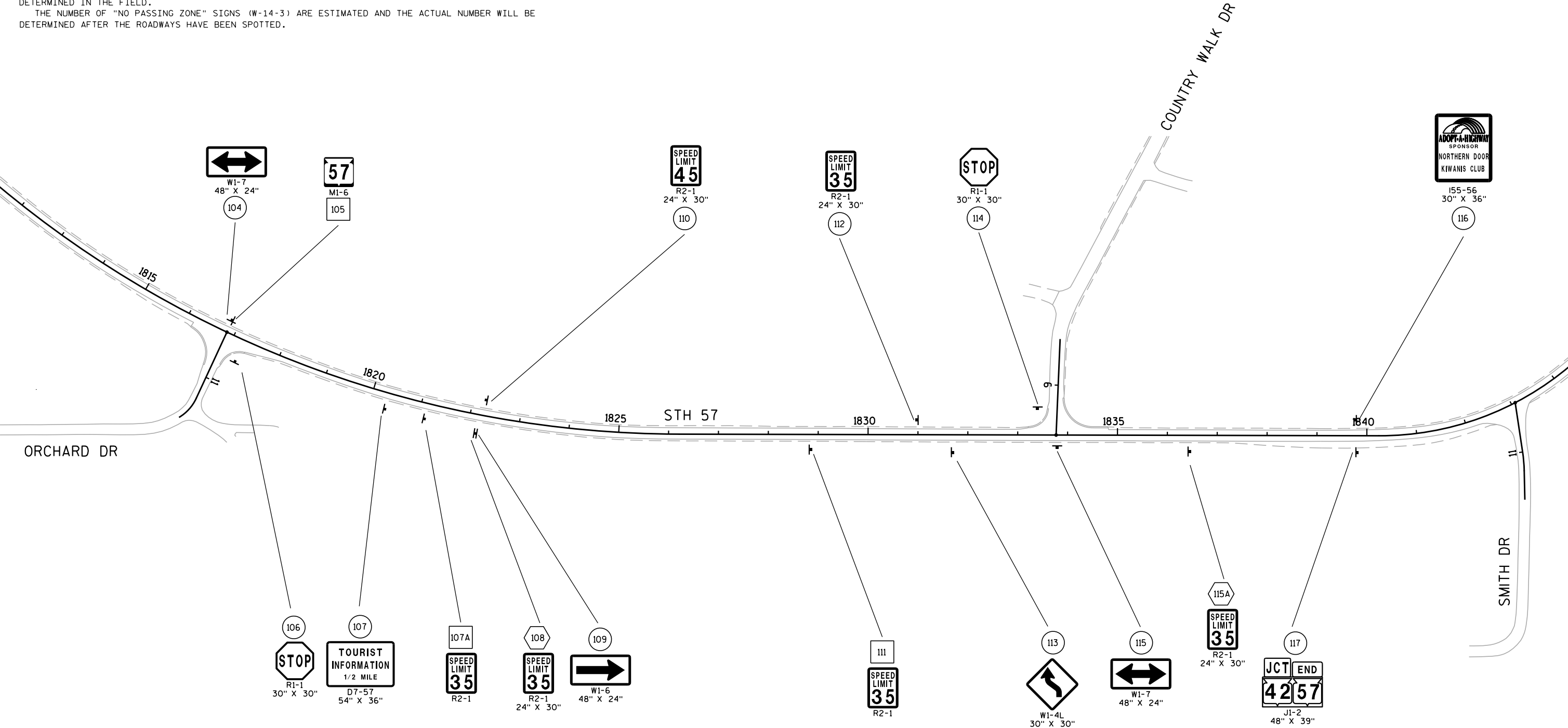
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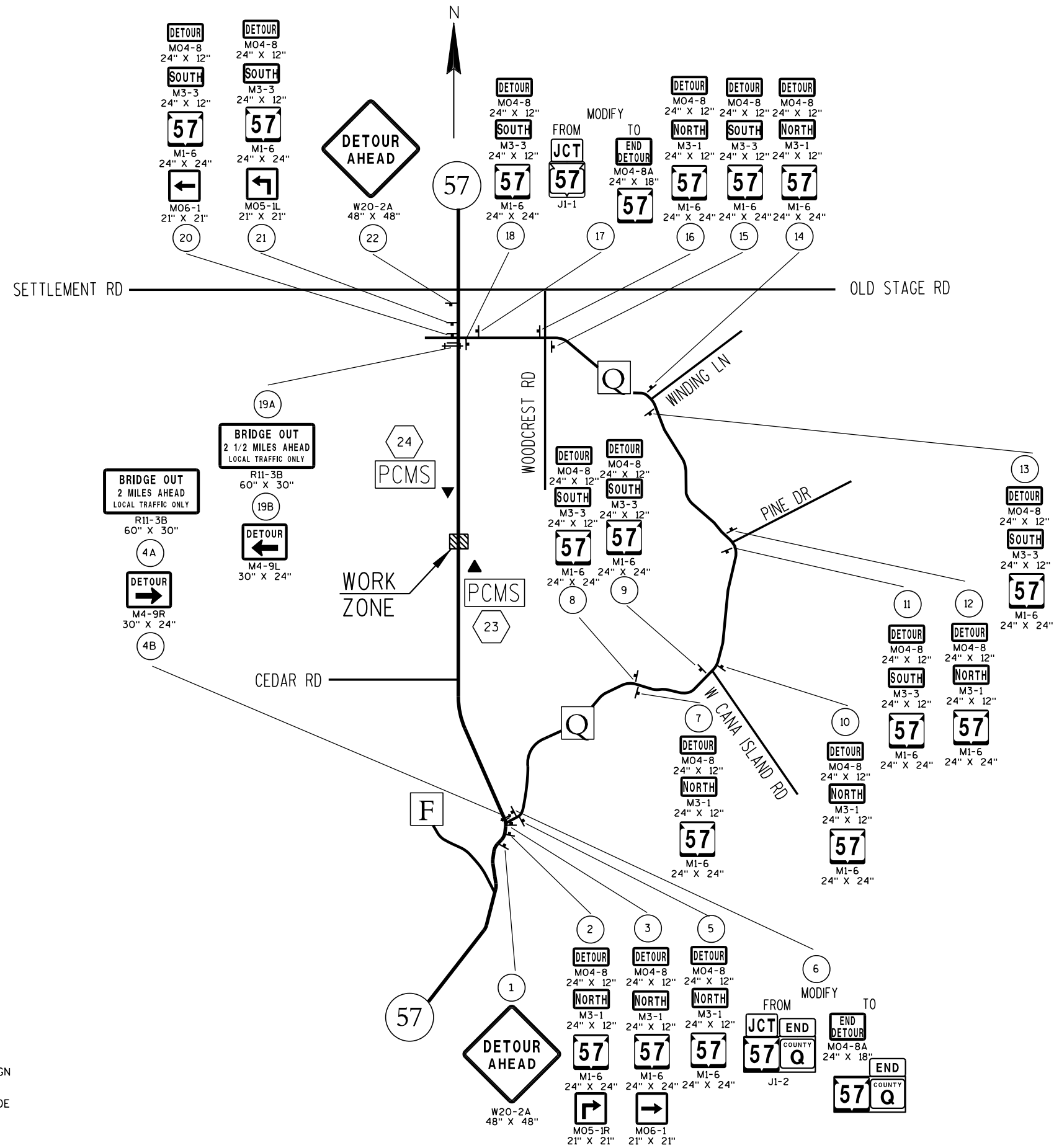
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PLAN SHEET PRODUCED
BY WISDOT-NE REGION



LEGEND

SHEET 1 OF 3

PLAN SHEET PRODUCED
BY WISDOT-NE REGION

PROJECT NO: 4150-17-71

HWY: STH 57

COUNTY: DOOR

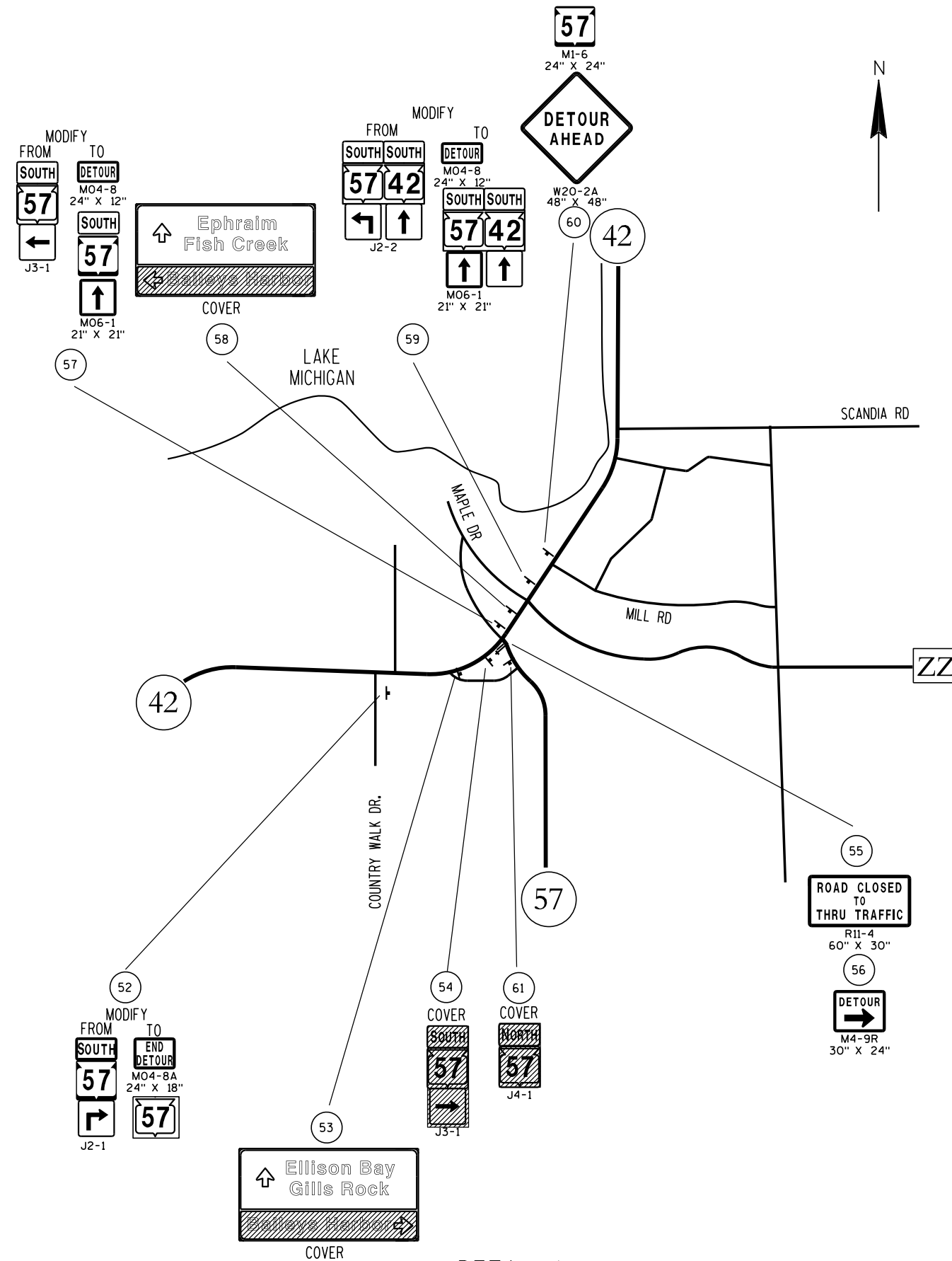
DETOUR SIGNING DETAIL-STAGE 1

SHEET






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- SHEET 2 OF 3
- PLAN SHEET PRODUCED
BY WisDOT-NE REGION



LEGEND

-  SIGN NUMBER. REFER TO MISCELLANEOUS QUANTITY SHEET
-   PORTABLE CHANGEABLE MESSAGE SIGN
-  SIGN MOUNTED ON TYPE III BARRICADE
-  POST MOUNTED SIGN

DETAIL 1

SHEET 3 OF 3

PLAN SHEET PRODUCED
BY WISDOT-NE REGION

Estimate Of Quantities

4150-17-71					
Line	Item	Item Description	Unit	Total	Qty
0010	201.0105	Clearing	STA	7.000	7.000
0020	201.0120	Clearing	ID	18.000	18.000
0030	201.0205	Grubbing	STA	7.000	7.000
0040	201.0220	Grubbing	ID	18.000	18.000
0050	203.0100	Removing Small Pipe Culverts	EACH	16.000	16.000
0060	203.0600.S	Removing Old Structure Over Waterway With Minimal Debris (station) 01. STA 1562+36	LS	1.000	1.000
0070	204.0110	Removing Asphaltic Surface	SY	40.000	40.000
0080	204.0115	Removing Asphaltic Surface Butt Joints	SY	440.000	440.000
0090	204.0120	Removing Asphaltic Surface Milling	SY	149,630.000	149,630.000
0100	204.0150	Removing Curb & Gutter	LF	110.000	110.000
0110	204.0165	Removing Guardrail	LF	480.000	480.000
0120	204.0205	Removing Utility Poles	EACH	1.000	1.000
0130	204.0220	Removing Inlets	EACH	1.000	1.000
0140	204.0245	Removing Storm Sewer (size) 01. 18-Inch	LF	45.000	45.000
0150	204.0270	Abandoning Culvert Pipes	EACH	1.000	1.000
0160	205.0100	Excavation Common	CY	760.000	760.000
0170	206.1000	Excavation for Structures Bridges (structure) 01. Structure B-15-26	LS	1.000	1.000
0180	206.5000	Cofferdams (structure) 01. Structure B-15-26	LS	1.000	1.000
0190	208.0100	Borrow	CY	67.000	67.000
0200	209.0300.S	Backfill Coarse Aggregate (size) 01. No 1	CY	40.000	40.000
0210	210.1500	Backfill Structure Type A	TON	330.000	330.000
0220	211.0100	Prepare Foundation for Asphaltic Paving (project) 01. 4150-17-71	LS	1.000	1.000
0230	213.0100	Finishing Roadway (project) 01. 4150-17-71	EACH	1.000	1.000
0240	305.0110	Base Aggregate Dense 3/4-Inch	TON	965.000	965.000
0250	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	1,315.000	1,315.000
0260	440.4410	Incentive IRI Ride	DOL	63,600.000	63,600.000
0270	450.4000	HMA Cold Weather Paving	TON	5,750.000	5,750.000
0280	455.0605	Tack Coat	GAL	18,025.000	18,025.000
0290	460.2005	Incentive Density PWL HMA Pavement	DOL	22,590.000	22,590.000
0300	460.2010	Incentive Air Voids HMA Pavement	DOL	33,020.000	33,020.000
0310	460.4110.S	Reheating HMA Pavement Longitudinal Joints	LF	83,870.000	83,870.000
0320	460.5223	HMA Pavement 3 LT 58-28 S	TON	18,560.000	18,560.000
0330	460.5224	HMA Pavement 4 LT 58-28 S	TON	14,455.000	14,455.000
0340	465.0105	Asphaltic Surface	TON	110.000	110.000
0350	465.0110	Asphaltic Surface Patching	TON	20.000	20.000
0360	465.0315	Asphaltic Flumes	SY	30.000	30.000
0370	502.0100	Concrete Masonry Bridges	CY	122.000	122.000

Estimate Of Quantities

4150-17-71

Line	Item	Item Description	Unit	Total	Qty
0380	502.3200	Protective Surface Treatment	SY	193.000	193.000
0390	505.0400	Bar Steel Reinforcement HS Structures	LB	5,900.000	5,900.000
0400	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	10,500.000	10,500.000
0410	506.2605	Bearing Pads Elastomeric Non-Laminated	EACH	18.000	18.000
0420	513.7083	Railing Steel Type NY3 (structure) 01. Structure B-15-26	LF	89.000	89.000
0430	516.0500	Rubberized Membrane Waterproofing	SY	20.000	20.000
0440	521.0115	Culvert Pipe Corrugated Steel 15-Inch	LF	34.000	34.000
0450	521.0118	Culvert Pipe Corrugated Steel 18-Inch	LF	152.000	152.000
0460	521.0124	Culvert Pipe Corrugated Steel 24-Inch	LF	430.000	430.000
0470	521.1015	Apron Endwalls for Culvert Pipe Steel 15-Inch	EACH	2.000	2.000
0480	521.1018	Apron Endwalls for Culvert Pipe Steel 18-Inch	EACH	7.000	7.000
0490	521.1024	Apron Endwalls for Culvert Pipe Steel 24-Inch	EACH	20.000	20.000
0500	522.1018	Apron Endwalls for Culvert Pipe Reinforced Concrete 18-Inch	EACH	2.000	2.000
0510	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	1.000	1.000
0520	550.0020	Pre-Boring Rock or Consolidated Materials	LF	210.000	210.000
0530	550.1100	Piling Steel HP 10-Inch X 42 Lb	LF	238.000	238.000
0540	601.0557	Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type D	LF	410.000	410.000
0550	606.0300	Riprap Heavy	CY	90.000	90.000
0560	608.0418	Storm Sewer Pipe Reinforced Concrete Class IV 18-Inch	LF	130.000	130.000
0570	608.0424	Storm Sewer Pipe Reinforced Concrete Class IV 24-Inch	LF	48.000	48.000
0580	611.0612	Inlet Covers Type C	EACH	1.000	1.000
0590	611.0642	Inlet Covers Type MS	EACH	3.000	3.000
0600	611.3004	Inlets 4-FT Diameter	EACH	1.000	1.000
0610	611.3901	Inlets Median 1 Grate	EACH	3.000	3.000
0620	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	430.000	430.000
0630	614.0397	Guardrail Mow Strip Emulsified Asphalt	SY	300.000	300.000
0640	614.2300	MGS Guardrail 3	LF	300.000	300.000
0650	614.2500	MGS Thrie Beam Transition	LF	158.000	158.000
0660	614.2610	MGS Guardrail Terminal EAT	EACH	4.000	4.000
0670	618.0100	Maintenance And Repair of Haul Roads (project) 01. Project 4150-17-71	EACH	1.000	1.000
0680	619.1000	Mobilization	EACH	1.000	1.000
0690	624.0100	Water	MGAL	10.000	10.000
0700	625.0100	Topsoil	SY	3,650.000	3,650.000
0710	628.1504	Silt Fence	LF	2,750.000	2,750.000
0720	628.1520	Silt Fence Maintenance	LF	2,750.000	2,750.000

Estimate Of Quantities

4150-17-71

Line	Item	Item Description	Unit	Total	Qty
0730	628.1905	Mobilizations Erosion Control	EACH	5.000	5.000
0740	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0750	628.2004	Erosion Mat Class I Type B	SY	2,315.000	2,315.000
0760	628.2008	Erosion Mat Urban Class I Type B	SY	1,330.000	1,330.000
0770	628.7010	Inlet Protection Type B	EACH	4.000	4.000
0780	628.7504	Temporary Ditch Checks	LF	100.000	100.000
0790	628.7555	Culvert Pipe Checks	EACH	45.000	45.000
0800	628.7570	Rock Bags	EACH	250.000	250.000
0810	629.0210	Fertilizer Type B	CWT	1.850	1.850
0820	630.0130	Seeding Mixture No. 30	LB	63.000	63.000
0830	630.0140	Seeding Mixture No. 40	LB	11.000	11.000
0840	630.0200	Seeding Temporary	LB	42.000	42.000
0850	633.5200	Markers Culvert End	EACH	32.000	32.000
0860	634.0612	Posts Wood 4x6-Inch X 12-FT	EACH	5.000	5.000
0870	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	90.000	90.000
0880	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	15.000	15.000
0890	637.2210	Signs Type II Reflective H	SF	443.390	443.390
0900	637.2230	Signs Type II Reflective F	SF	252.500	252.500
0910	638.2602	Removing Signs Type II	EACH	102.000	102.000
0920	638.3000	Removing Small Sign Supports	EACH	107.000	107.000
0930	642.5401	Field Office Type D	EACH	1.000	1.000
0940	643.0100	Traffic Control (project) 01. Project 4150-17-71	EACH	1.000	1.000
0950	643.0300	Traffic Control Drums	DAY	350.000	350.000
0960	643.0310.S	Temporary Portable Rumble Strips	LS	1.000	1.000
0970	643.0420	Traffic Control Barricades Type III	DAY	1,124.000	1,124.000
0980	643.0705	Traffic Control Warning Lights Type A	DAY	1,868.000	1,868.000
0990	643.0900	Traffic Control Signs	DAY	2,482.000	2,482.000
1000	643.0920	Traffic Control Covering Signs Type II	EACH	4.000	4.000
1010	643.1050	Traffic Control Signs PCMS	DAY	28.000	28.000
1020	643.2000	Traffic Control Detour (project) 01. Project 4150-17-71	EACH	1.000	1.000
1030	643.3000	Traffic Control Detour Signs	DAY	2,838.000	2,838.000
1040	645.0120	Geotextile Type HR	SY	190.000	190.000
1050	646.2304.S	Pavement Marking Grooved Wet Reflective Epoxy 4-Inch	LF	123,155.000	123,155.000
1060	646.2308.S	Pavement Marking Grooved Wet Reflective Epoxy 8-Inch	LF	540.000	540.000
1070	647.0566	Pavement Marking Stop Line Epoxy 18-Inch	LF	20.000	20.000
1080	648.0100	Locating No-Passing Zones	MI	7.950	7.950
1090	649.0402	Temporary Pavement Marking Paint 4-Inch	LF	54,450.000	54,450.000
1100	650.4000	Construction Staking Storm Sewer	EACH	7.000	7.000

Estimate Of Quantities

4150-17-71					
Line	Item	Item Description	Unit	Total	Qty
1110	650.6000	Construction Staking Pipe Culverts	EACH	14.000	14.000
1120	650.6500	Construction Staking Structure Layout (structure) 01. Structure B-15-26	LS	1.000	1.000
1130	650.8000	Construction Staking Resurfacing Reference	LF	41,977.000	41,977.000
1140	650.9910	Construction Staking Supplemental Control (project) 01. Project 4150-17-71	LS	1.000	1.000
1150	650.9920	Construction Staking Slope Stakes	LF	3,234.000	3,234.000
1160	690.0150	Sawing Asphalt	LF	3,340.000	3,340.000
1170	690.0250	Sawing Concrete	LF	12.000	12.000
1180	715.0502	Incentive Strength Concrete Structures	DOL	732.000	732.000
1190	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	2,400.000	2,400.000
1200	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	2,100.000	2,100.000
1210	SPV.0060	Special 01. Grading, Shaping, and Finishing Cross Culverts	EACH	15.000	15.000
1220	SPV.0060	Special 02. HMA Percent Within Limits (PWL) Test Strip	EACH	2.000	2.000
1230	SPV.0090	Special 01. 16 Gauge Galvanized Metal Flashing	LF	71.000	71.000
1240	SPV.0090	Special 02. Prestressed Girders Box Type 17-Inch	LF	347.000	347.000
1250	SPV.0120	Special 01. Water for Seeded Areas	MGAL	15.000	15.000

CLEARING AND GRUBBING								
				201.0105	201.0120	201.0205	201.0220	
CATEGORY	STATION	TO	STATION	LOCATION	STA	ID	STA	ID
0010	1520+66			LT		8		8
0010	1521+01			LT		10		10
0010	1560+00	-	1562+00	LT	2		2	
0010	1563+00	-	1566+00	LT	3		3	
0010	1761+00	-	1763+00	LT	2		2	
TOTALS					7	18	7	18

REMOVING SMALL PIPE CULVERT				
203.0100				
CATEGORY	STATION	LOCATION	EACH	REMARKS
0010	1435+68	STH 57	1	18" CMCP - 37 LF
0010	1475+66	STH 57	1	18" CMCP - 46 LF
0010	1510+37	STH 57	1	18" CMCP - 46 LF
0010	1519+04	STH 57	1	24" CMCP - 47 LF
0010	1536+62	STH 57	1	24" CMCP - 51 LF
0010	1543+13	STH 57	1	24" CMCP - 53 LF
0010	1603+91	STH 57	1	15" CMCP - 37 LF
0010	1675+98	STH 57	1	18" CMCP (WITH 15" LINER) - 67 LF
0010	1712+46	STH 57	1	24" CMCP - 39 LF
0010	1712+50	STH 57	1	24" CMCP - 40 LF
0010	1733+85	STH 57	1	24" CMCP - 42 LF
0010	1750+00	STH 57	1	24" CMCP - 49 LF
0010	1756+21	STH 57	1	24" CMCP - 59 LF
0010	1770+74	STH 57	1	24" CMCP - 46 LF
0010	1811+02	STH 57	1	24" CMCP - 62 LF
0010	10+59	SUN PLAZA	1	18" CMCP SOUTH AEW ONLY
TOTAL			16	

REMOVING ASHPHALTIC SURFACE						
204.0110						
CATEGORY	STATION	TO	STATION	LOCATION	SY	REMARKS
0010	1451+60	-	1452+65	RT	10	CURB & GUTTER REPLACEMENT
0010	1837+49	-	1838+00	RT	28	PARKING LOT REMOVAL
0010	1756+16	-	1756+37	LT & RT	2	CURB & GUTTER REPLACEMENT
TOTALS					40	

REMOVING ASPHALTIC SURFACE BUTT JOINTS				
204.0115				
CATEGORY	STATION	LOCATION	SY	REMARKS
0010	1423+24	STH 57	7	
0010	11+13	SUN PLAZA ROAD	5	
0010	8+86	AHRENS ROAD	5	
0010	10+39	E. MEADOW ROAD	5	
0010	9+00	W. MEADOW ROAD	5	
0010	11+04	GROVE ROAD (EAST)	5	
0010	8+75	GROVE ROAD (WEST)	5	
0010	10+84	OLD LIME KILN ROAD (EAST)	5	
0010	8+57	OLD LIME KILN ROAD (WEST)	5	
0010	10+53	PIONEER ROAD (EAST)	5	
0010	9+15	PIONEER ROAD (WEST)	6	
0010	11+00	GERMAN ROAD (EAST)	4	
0010	9+17	GERMAN ROAD (WEST)	5	
0010	11+02	CTH Q (EAST)	5	
0010	8+77	CTH Q (WEST)	5	
0010	9+32	SETTLEMENT ROAD	9	
0010	10+68	OLD STAGE ROAD	6	
0010	9+30	COUNTRY LANE	7	
0010	10+75	FLINT RIDGE ROAD	5	
0010	9+36	NORTHWOODS ROAD	5	
0010	11+19	ORCHARD ROAD	5	
0010	9+03	COUNTRY WALK DRIVE	6	
0010	1843+01	STH 57	20	
0010	DRIVEWAYS		300	
TOTAL			440	

REMOVING ASPHALTIC SURFACE MILLING						
						204.0120
CATEGORY	STATION	TO	STATION	LOCATION	SY	REMARKS
0010	1423+24	-	1452+35	STH 57	9875	
0010	1452+35	-	1518+25	STH 57	22090	
0010	1518+25	-	1562+56	STH 57	14620	
0010	1562+56	-	1596+87	STH 57	11420	
0010	1596+87	-	1623+33	STH 57	8880	
0010	1623+33	-	1649+99	STH 57	8890	
0010	1649+99	-	1676+54	STH 57	8850	
0010	1676+54	-	1703+24	STH 57	8900	
0010	1703+24	-	1729+17	STH 57	9050	
0010	1729+17	-	1755+65	STH 57	9110	
0010	1755+65	-	1782+01	STH 57	8790	
0010	1782+01	-	1804+16	STH 57	7385	
0010	1804+16	-	1816+84	STH 57	4295	
0010	1816+84	-	1833+77	STH 57	5645	
0010	1833+77	-	1843+01	STH 57	3520	
0010	11+13	-	STH 57	SUN PLAZA ROAD	435	
0010	8+86	-	STH 57	AHRENS ROAD	450	
0010	10+39	-	STH 57	E. MEADOW ROAD	80	
0010	9+00	-	STH 57	W. MEADOW ROAD	405	
0010	11+04	-	STH 57	GROVE ROAD (EAST)	390	
0010	8+75	-	STH 57	GROVE ROAD (WEST)	490	
0010	10+84	-	STH 57	OLD LIME KILN ROAD (EAST)	245	
0010	8+57	-	STH 57	OLD LIME KILN ROAD (WEST)	500	
0010	10+53	-	STH 57	PIONEER ROAD (EAST)	140	
0010	9+15	-	STH 57	PIONEER ROAD (WEST)	360	
0010	11+00	-	STH 57	GERMAN ROAD (EAST)	290	
0010	9+17	-	STH 57	GERMAN ROAD (WEST)	280	
0010	11+02	-	STH 57	CTH Q (EAST)	520	
0010	8+77	-	STH 57	CTH Q (WEST)	560	
0010	9+32	-	STH 57	SETTLEMENT ROAD	380	
0010	10+68	-	STH 57	OLD STAGE ROAD	290	
0010	9+30	-	STH 57	COUNTRY LANE	370	
0010	10+75	-	STH 57	FLINT RIDGE ROAD	230	
0010	9+36	-	STH 57	NORTHWOODS ROAD	260	
0010	11+19	-	STH 57	ORCHARD ROAD	510	
0010	9+03	-	STH 57	COUNTRY WALK DRIVE	380	
0010	DRIVEWAYS				745	
TOTALS					149630	

REMOVING CURB & GUTTER			
			204.0150
CATEGORY	LOCATION	LF	REMARKS
0010	SUN PLAZA ROAD	85	
0010	SETTLEMENT ROAD/OLD STAGE ROAD	25	
TOTALS		110	

REMOVING GUARDRAIL						
						204.0165
CATEGORY	STATION	TO	STATION	LOCATION	LF	REMARKS
0010	1560+54	-	1563+18	RT	240	RAIL ATTACHED TO STRUCTURE C-15-37 INCLUDED IN STRUCTURE REMOVAL
0010	1561+54	-	1564+48	LT	240	
TOTALS					480	

REMOVING UTILITY POLES				
				204.0205
CATEGORY	STATION	LOCATION	EACH	REMARKS
0010	1454+30	STH 57 LT	1	ABANDONED UTILITY POLE
TOTAL			1	

REMOVING INLETS				
				204.0220
CATEGORY	STATION	LOCATION	EACH	REMARKS
0010	1686+03	STH 57 RT	1	
TOTAL			1	

REMOVING STORM SEWER 18-INCH				
				204.0245.01
CATEGORY	STATION	LOCATION	LF	REMARKS
0010	1686+03	STH 57	45	
TOTAL			45	

ABANDONING CULVERT PIPES				
				204.0270
CATEGORY	STATION	LOCATION	EA	REMARKS
0010	1449+58	STH 57	1	30" CMCP
TOTAL			1	

PREPARE FOUNDATION FOR ASPHALTIC PAVING					
					211.0100
CATEGORY	STATION	TO	STATION	LOCATION	LS
0010	1423+23.74	-	1562+15.75	STH 57	1
0010	1562+56.25	-	1843+00.91	STH 57	
TOTAL					1

EARTHWORK SUMMARY											
DIVISION	Location	Excavation Common (1) Item # 205.0100		Salvaged/ Unusable Material	Available Material (4)	Unexpanded Fill	Expanded Fill (5)	Mass Ordinate +/- (6)	Waste	Borrow Item # 208.0100	Comment:
		Cut (2)	EBS Excava tion (3)				Factor 1.33			Factor 1.15	
1	STA. 1428+00 - STA. 1430+25, STH 57	42	0	0	42	0	0	42			
	STA. 1461+70 - STA. 1462+90, STH 57	1	0	0	1	16	21	-20			
	STA. 1473+75 - STA. 1482+00, STH 57	14	0	0	14	233	310	-296			
	STA. 1520+00 - STA. 1522+75, STH 57	311	0	0	311	7	9	302			
	STA. 1558+77 - STA. 1566+06, STH 57	200	0	0	200	372	495	-295			
	STA. 1759+50 - STA. 1762+50, STH 57	192	0	0	192	2	3	189			
Total		760	0	0	760		838	-78		67	
Total Common Ex 760											

- 1) Excavation Common is the sum of the Cut and EBS Excavation columns. Item number 205.0100
- 2) Salvaged/Unsuable Material is included in Cut. Volume of concrete pavement to be removed is included in salvaged/unusable material.
- 4) Available Material = Cut - Salvaged/Unusuable Material
- 5) Expanded Fill Factor = 1.33. Expanded Fill = Unexpanded Fill * Fill Factor. No Rock, Marsh, or EBS will be used in fill on this project.
- 6) The Mass Ordinate + or - Qty calculated for the Division. Plus quantity indicates an excess of material within the Division. Minus indicates a shortage of material within the Division.

BASE AGGREGATE DENSE							
					305.0110	305.0120	
					3/4-INCH	1-1/4-INCH	
CATEGORY	STATION	TO	STATION	LOCATION	TON	TON	REMARKS
0010	1423+24	-	1452+35	STH 57	50	20	1-1/4-INCH FOR CURB & GUTTER REPLACEMENT AT SUN PLAZA ROAD
0010	1452+35	-	1518+25	STH 57	125		
0010	1518+25	-	1562+15	STH 57	85	410	1-1/4-INCH FOR ROADWAY WIDENING AT STR. B-15-26
0010	1562+58	-	1596+87	STH 57	60	410	1-1/4-INCH FOR ROADWAY WIDENING AT STR. B-15-26
0010	1596+87	-	1623+33	STH 57	50		
0010	1623+33	-	1649+99	STH 57	50		
0010	1649+99	-	1676+54	STH 57	50		
0010	1676+54	-	1703+24	STH 57	55		
0010	1703+24	-	1729+17	STH 57	45		
0010	1729+17	-	1755+65	STH 57	50		
0010	1755+65	-	1782+01	STH 57	50	150	1-1/4 INCH FOR CURB & GUTTER PLACEMENT AT SETTLEMENT ROAD
0010	1782+01	-	1804+16	STH 57	40		
0010	1804+16	-	1816+84	STH 57	25		
0010	1816+84	-	1833+77	STH 57	35		
0010	1833+77	-	1843+01	STH 57	20		
0010	SIDEROADS				115		
0010	DRIVEWAYS				60		
0010	CULVERT PIPE REPLACEMENTS					325	
TOTALS					965	1315	

HMA PAVEMENT SUMMARY													
CATEGORY	STATION	TO	STATION	LOCATION	455.0605	HMA PAVEMENT 3 LT 58-28 S			HMA PAVEMENT 4 LT 58-28 S			460.4110.S	REMARKS
					TACK COAT GAL	460.5223 TON	PWL DENSITY INCENTIVE TON*	PWL AIR VOIDS TON**	460.5224 TON	PWL DENSITY INCENTIVE TON*	PWL AIR VOIDS TON**	REHEATING HMA PAVEMENT LONG. JOINTS LF	
0010	1423+24	-	1452+35	STH 57	1185	1225	885	1225	950	685	950	5822	
0010	1452+35	-	1518+25	STH 57	2650	2735	1995	2735	2125	1550	2125	13180	
0010	1518+25	-	1562+15	STH 57	1775	1830	1330	1830	1425	1035	1425	8780	
0010	1562+57	-	1596+87	STH 57	1390	1435	1040	1435	1115	805	1115	6860	
0010	1596+87	-	1623+33	STH 57	1065	1100	800	1100	860	625	860	5292	
0010	1623+33	-	1649+99	STH 57	1065	1100	805	1100	860	630	860	5332	
0010	1649+99	-	1676+54	STH 57	1065	1095	805	1095	850	625	850	5310	
0010	1676+54	-	1703+24	STH 57	1070	1105	810	1105	860	630	860	5340	
0010	1703+24	-	1729+17	STH 57	1085	1120	785	1120	870	610	870	5186	
0010	1729+17	-	1755+65	STH 57	1095	1130	805	1130	880	625	880	5296	
0010	1755+65	-	1782+01	STH 57	1055	1090	800	1090	845	620	845	5272	
0010	1782+01	-	1804+16	STH 57	890	915	670	915	710	520	710	4430	
0010	1804+16	-	1816+84	STH 57	515	535	385	535	415	300	415	2536	
0010	1816+84	-	1833+77	STH 57	680	700	515	700	545	400	545	3386	
0010	1833+77	-	1843+01	STH 57	425	435	280	435	340	220	340	1848	
0010	11+13	-	STH 57	SUN PLAZA ROAD	55	55		55	40		40		
0010	8+86	-	STH 57	AHRENS ROAD	55	55		55	45		45		
0010	10+39	-	STH 57	E. MEADOW ROAD	10	10		10	10		10		
0010	9+00	-	STH 57	W. MEADOW ROAD	45	50		50	40		40		
0010	11+04	-	STH 57	GROVE ROAD (EAST)	50	50		50	40		40		
0010	8+75	-	STH 57	GROVE ROAD (WEST)	60	60		60	45		45		
0010	10+84	-	STH 57	OLD LIME KILN ROAD (EAST)	30	30		30	25		25		
0010	8+57	-	STH 57	OLD LIME KILN ROAD (WEST)	60	60		60	50		50		
0010	10+53	-	STH 57	PIONEER ROAD (EAST)	20	20		20	15		15		
0010	9+15	-	STH 57	PIONEER ROAD (WEST)	45	45		45	35		35		
0010	11+00	-	STH 57	GERMAN ROAD (EAST)	35	35		35	30		30		
0010	9+17	-	STH 57	GERMAN ROAD (WEST)	35	35		35	25		25		
0010	11+02	-	STH 57	CTH Q (EAST)	65	65		65	50		50		
0010	8+77	-	STH 57	CTH Q (WEST)	70	70		70	55		55		
0010	9+32	-	STH 57	SETTLEMENT ROAD	45	45		45	35		35		
0010	10+68	-	STH 57	OLD STAGE ROAD	35	35		35	30		30		
0010	9+30	-	STH 57	COUNTRY LANE	45	45		45	35		35		
0010	10+75	-	STH 57	FLINT RIDGE ROAD	30	30		30	20		20		
0010	9+36	-	STH 57	NORTHWOODS ROAD	30	35		35	25		25		
0010	11+19	-	STH 57	ORCHARD ROAD	60	35		35	50		50		
0010	9+03	-	STH 57	COUNTRY WALK DRIVE	45	50		50	35		35		
	DRIVEWAYS				90	95		95	70		70		
TOTALS					18025	18560	12710	18560	14455	9880	14455	83870	
*TONNAGE IS ELIGIBLE FOR INCENTIVE DENSITY PWL 460.2005 AND INCENTIVE AIR VOIDS 460.2010.													
**TONNAGE IS ELIGIBLE FOR INCENTIVE AIR VOIDS 460.2010 AND DENSITY IS TESTED FOR ACCEPTANCE IN THOSE AREA.													

ASPHALT SURFACE SUMMARY				
		465.0105	465.0110	
		ASPHALTIC	ASPHALTIC	
		SURFACE	SURFACE	
		PATCHING		
CATEGORY	LOCATION	TON	TON	REMARKS
0010	STH 57	105		CULVERT/STORM REPLACEMENTS
0010	SUN PLAZA ROAD	4		CURB & GUTTER REPLACEMENT
0010	SETTLEMENT ROAD/OLD STAGE ROAD	1		CURB & GUTTER REPLACEMENT
0010	STH 57		20	UNDISTRIBUTED
TOTALS		110	20	

ASPHALTIC FLUMES			
		465.0315	
CATEGORY	LOCATION	SY	REMARKS
0010	SE QUADRANT STH 57/SUN PLAZA ROAD	4	
0010	NE QUADRANT STH 57/SUN PLAZA ROAD	3	
0010	NW QUADRANT STH 57/GROVE ROAD	3	
0010	SW QUADRANT STH 57/OLD LIME KILN ROAD	3	
0010	NW QUADRANT STH 57/OLD LIME KILN ROAD	3	
0010	SW QUADRANT STH 57/CTH Q	3	
0010	STA. 1759+50, STH 57 LT	4	
0010	STA. 1762+50, STH 57 LT	4	
0010	NE QUADRANT STH 57/ORCHARD ROAD	3	
TOTALS		30	

CULVERT PIPE SUMMARY																	
CATEGORY	STATION	LOCATION	521.0115	521.0118	521.0124	521.1015	521.1018	521.1024	*633.5200	650.6000	SPV.0060.01	ELEV. LEFT	ELEV. RIGHT	MINIMUM THICKNESS INCHES	REMARKS		
			CULVERT PIPE	CULVERT PIPE	CULVERT PIPE	APRON ENDWALLS	APRON ENDWALLS	APRON ENDWALLS	CONSTRUCTION								
			CORRUGATED	CORRUGATED	CORRUGATED	FOR CULVERT	FOR CULVERT	FOR CULVERT	MARKERS	STAKING	GRADING, SHAPING, AND FINISHING						
			STEEL	STEEL	STEEL	PIPE STEEL	PIPE STEEL	PIPE STEEL	CULVERT	PIPE	CROSS CULVERTS						
15-INCH	18-INCH	24-INCH	15-INCH	18-INCH	24-INCH	END	EACH	EACH	EACH	EACH	EACH						
0010	1475+66	STH 57		50			2		2	1	1	626.40	525.59	0.064			
0010	1510+37	STH 57		40			2		2	1	1	621.61	621.22	0.064			
0010	1519+04	STH 57			40			2	2	1	1	614.39	616.51	0.064			
0010	1536+62	STH 57			44			2	2	1	1	603.87	603.74	0.064			
0010	1543+13	STH 57			46			2	2	1	1	603.10	603.01	0.064			
0010	1603+91	STH 57	34			2			2	1	1	617.74	617.46	0.064			
0010	1675+98	STH 57		62			2		2	1	1	651.18	648.82	0.064			
0010	1712+46	STH 57			34			2	2	1	1	651.00	650.40	0.064			
0010	1712+50	STH 57			34			2	2	1	1	651.00	650.40	0.064			
0010	1733+85	STH 57			36			2	2	1	1	652.42	651.19	0.064			
0010	1750+00	STH 57			42			2	2	1	1	649.04	648.52	0.064			
0010	1756+21	STH 57			52			2	2	1	1	650.97	649.69	0.064			
0010	1770+74	STH 57			40			2	2	1	1	647.55	647.08	0.064			
0010	1811+02	STH 57			62			2	2	1	1	677.53	676.77	0.064			
0010	10+59	SUN PLAZA					1		1		1						
TOTAL			34	152	430	2	7	20	29	14	15						
*-ADDITIONAL QUANTITIES SHOWN ELSEWHERE																	
NOTE: PROPOSED CULVERTS ARE TO REPLACE EXISTING CULVERTS IN THE SAME LOCATION/ELEVATION TYPICALLY																	

CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D			
CATEGORY	LOCATION	601.0557	REMARKS
		LF	
0010	SUN PLAZA ROAD	85	
0010	SETTLEMENT ROAD/OLD STAGE ROAD	25	
0010	STA. 1759+50 TO STA. 1762+50, STH 57, LT	300	
TOTALS		410	

STORM SEWER PIPE SUMMARY									
		608.0418		608.0424					
		STORM SEWER		STORM SEWER					
		PIPE REINFORCED		PIPE REINFORCED					
		CONCRETE CLASS IV		CONCRETE CLASS IV		JOINT			
		18-INCH		24-INCH		TIES			
CATEGORY	FROM STRUCTURE	TO STRUCTURE	LF	LF	(INCIDENTAL)	INLET ELEVATION	DISCHARGE ELEVATION	SLOPE %	REMARKS
0010	1.0	1.1	40		4	612.61	612.41	0.50	
0010	2.0	2.1	50			619.00	618.75	0.50	
0010	2.1	2.2		48	4	618.75	618.48	0.50	
0010	3.0	3.1	40		4	643.03	642.92	0.30	
TOTAL			130	48					

STORM SEWER PIPE SUMMARY																		
					611.0612	611.0642	611.3004	611.3901	522.1018	522.1024	628.7010	*633.5200	650.4000					
					INLET	INLET	INLETS	INLETS	APRON ENDWALLS	APRON ENDWALLS	INLET	MARKERS	CONSTRUCTION					
					COVERS	COVERS	4-FT	MEDIAN	FOR CULVERT PIPE	FOR CULVERT PIPE	PROTECTION	CULVERT	STAKING					
					TYPE C	TYPE MS	DIAMETER	1 GRATE	18-INCH	24-INCH	TYPE B	END	STORM SEWER	RIM	TOP OF	FLOWLINE		
STRUCTURE					EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	ELEVATION	ELEVATION	ELEVATION	DEPTH
CATEGORY	NO.	STATION	OFFSET	LOCATION														REMARKS
0010	1.0	1435+68	19.4	STH 57, RT		1		1		1		1		1	614.75	614.75	612.61	2.14
0010	1.1	1435+68	20.6	STH 57, LT					1			1		1			612.41	
0010	2.0	1449+65	26	STH 57, RT		1		1			1		1	621.55	621.55	619.00	2.55	
0010	2.1	1449+18	22	STH 57, RT	1		1				1		1	623.40	622.65	618.75	3.90	
0010	2.2	1449+26	24.5	STH 57, LT						1		1	1			618.48		
0010	3.0	1686+03.4	23.5	STH 57, RT		1		1			1		1	644.79	644.79	643.03	1.76	
0010	3.1	1686+03.4	16.5	STH 57, LT					1			1	1			642.91		
TOTAL					1	3	1	3	2	1	4	3	7					
*-ADDITIONAL QUANTITIES SHOWN ELSEWHERE																		

PIPE UNDERDRAIN							
				209.0300.S *612.0406			
				BACKFILL			
				COURSE		PIPE	
				AGGREGATE		UNDERDRAIN	
				SIZE		WRAPPED	
				NO 1		6-INCH	
CATEGORY	STATION	TO	STATION	LOCATION	CY	LF	REMARKS
0010	1433+00	-	1435+68	STH 57, RT	40	270	
TOTALS					40	270	
*-ADDITIONAL QUANTITIES SHOWN ELSEWHERE							

GUARDRAIL SUMMARY									
				614.0397	614.2300	614.2500	614.2610		
				GUARDRAIL			MGS		
				MOW STRIP		MGS	GUARDRAIL		
				EMULSIFIED	MGS	THRIE BEAM	TERMINAL		
				ASPHALT	GUARDRAIL 3	TRANSITION	EAT		
CATEGORY	STATION	TO	STATION	LOCATION	SY	LF	LF	EACH	REMARKS
0010	1560+25	-	1562+15	STH 57, RT	86	100	39.5	1	
0010	1560+75	-	1562+15	STH 57, LT	64	50	39.5	1	
0010	1562+57	-	1564+47	STH 57, LT	86	100	39.5	1	
0010	1562+57	-	1563+97	STH 57, RT	64	50	39.5	1	
TOTALS					300	300	158	4	

WATER				
		624.0100	SPV.0120.01	
			WATER FOR	
			SEEDED	
			AREAS	
CATEGORY	LOCATION	WATER MGAL	AREAS MGAL	REMARKS
0010	STH 57	10		UNDISTRIBUTED - FOR AGGREGATE COMPACTION
0010	STH 57		15	FOR SEEDED AREAS AT STRUCTURE B-15-26
TOTALS		10	15	

FINISHING												
					625.0100	628.2004	628.2008	629.0210	630.0130	630.0140	630.0200	
						EROSION MAT	EROSION MAT		SEEDING	SEEDING		
						CLASS I	URBAN CLASS I	FERTILIZER	MIXTURE	MIXTURE	SEEDING	
					TOPSOIL	TYPE B	TYPE B	TYPE B	NO. 30	NO. 40	TEMPORARY	
CATEGORY	STATION	TO	STATION	LOCATION	SY	SY	SY	CWT	LB	LB	LB	REMARKS
0010	1428+00	-	1430+25	STH 57, RT	250	250	---	0.16	4.5	---	3.4	
0010	1433+00	-	1435+68	STH 57, RT	60	60	---	0.04	1.1	---	0.8	
0010	1448+75	-	1450+00	STH 57, LT & RT	185	---	185	0.12	---	3.3	---	
0010	1451+52	-	1452+70	STH 57, RT	60	---	60	0.04	---	1.1	---	
0010	1461+70	-	1462+90	STH 57, RT	160	160	---	0.10	2.9	---	2.2	
0010	1473+75	-	1482+00	STH 57, RT	850	850	---	0.54	15.3	---	11.5	
0010	1520+00	-	1523+00	STH 57, LT	750	750	---	0.47	13.5	---	10.2	
0010	1558+75	-	1566+05	STH 57, LT & RT	715	---	715	---	19.9	---	9.7	
0010	1686+00	-	1686+10	STH 57, LT & RT	5	5	---	0.01	0.1	---	0.1	
0010	1759+50	-	1762+50	STH 57, LT	250	---	250	0.16	---	4.5	---	
0010	1837+49	-	1838+00	STH 57, RT	30	30		0.02	---	0.5	---	
0010	UNDISTRIBUTED				335	210	120	0.19	5.7	1.6	4.1	
TOTALS					3650	2315	1330	1.85	63	11	42	
NOTE: TEMPORARY SEEDING RATE IS 1.5 LBS/1000 SF												

EROSION CONTROL												
					628.1504	628.1520	628.1905	628.1910	628.7504	628.7555	628.7570	
					MOBILIZATIONS							
					SILT	SILT	MOBILIZATIONS	EMERGENCY	TEMPORARY	CULVERT		
					FENCE	MAINTENANCE	EROSION	EROSION	DITCH	PIPE	ROCK	
CATEGORY	STATION	TO	STATION	LOCATION	LF	LF	EACH	EACH	LF	EACH	EACH	REMARKS
0010	1428+00	-	1430+25	STH 57, RT					10			
0010	1433+00	-	1435+68	STH 57, LT & RT	20	20					10	
0010	1448+75	-	1450+00	STH 57, LT & RT					15			
0010	1451+52	-	1452+70	STH 57, RT					15			
0010	1461+70	-	1462+90	STH 57, RT					15			
0010	1473+75	-	1482+00	STH 57, RT	625	625					20	
0010	1520+00	-	1523+00	STH 57, LT	100	100					20	
0010	1558+75	-	1566+05	STH 57, LT & RT	1450	1450	2				40	
0010	1686+00	-	1686+10	STH 57, LT & RT								
0010	1759+50	-	1762+50	STH 57, LT					30			
0010	CULVERT REPLACEMENTS			STH 57	280	280				38	140	
0010	UNDISTRIBUTED				275	275	3	2	15	7	20	
TOTALS					2750	2750	5	2	100	45	250	

REMOVING SMALL SIGN SUPPORTS				
*638.3000				
CATEGORY	STATION	LOCATION	EACH	REMARKS
0010	1519+55	STH 57, RT	1	ABANDONED SIGN POSTS NOT SHOWN IN THE PERMANENT SIGNING PLANS
0010	1697+75	STH 57, LT	1	
0010	1739+10	STH 57, LT	1	
TOTAL			3	
*ADDITIONAL QUANTITIES SHOWN ELSEWHERE				

ERECTION & REMOVAL OF PERMANENT SIGNING, TYPE II

SIGN NO.	LOCATION	SIGN CODE	W X H	637.2210 SIGNS TYPE II REFLECTIVE H S.F.	637.2230 SIGNS TYPE II REFLECTIVE F S.F.	634.0612 POSTS WOOD 4x6x12 EACH	634.0614 POSTS WOOD 4x6x14 EACH	634.0616 POSTS WOOD 4x6x16 EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
1	S. OF CTH Q	R2-1	24" X 30"	5.00	---	---	1	---	---	---	35 MPH
1A	"	J4-2	---	---	---	---	---	---	1	1	
1B	"	J4-2	48" X 36"	12.00	---	---	---	1	---	---	SOUTH STH 57, SOUTH SCENIC BYWAY, SEE PLAN SHEET
1C	"	R2-1	---	---	---	---	---	---	1	1	
2	"	J13-1	24" X 45"	7.50	---	---	---	1	1	1	CTH Q, SEE PLAN SHEET
3	CTH Q	W1-7	48" X 24"	---	8.00	---	1	---	1	1	
4	"	R1-1	30" X 30"	5.18	---	---	1	---	1	1	
4A	"	J13-1	24" X 45"	7.50	---	---	---	1			STH 57, SEE PLAN SHEET
5	N. OF CTH Q	J13-1	24" X 45"	7.50	---	---	---	1	1	1	CTH Q, SEE PLAN SHEET
6	"	M1-93	24" X 24"	4.00	---	---	---	1	1	1	
6A	"	J4-3	72" X 36"	18.00	---	---	---	2	---	---	NORTH STH 57, NORTH SCENIC BYWAY, LAKE MICHIGAN CIRCLE TOUR (M1-93)
6B	"										
6C	"										
7	"	J4-1	24" X 36"	6.00	---	---	---	---	---	---	NORTH STH 57, SEE PLAN SHEET, PART OF REMOVAL FOR SIGN #6
8	"	M1-86	18" X 36"	4.50	---	---	1	---	1	1	
9	"	M1-88A	12" X 12"	1.00	---	---	---	---	---	---	PART OF REMOVAL FOR SIGN #8
10	"	R2-1	24" X 30"	5.00	---	---	1	---	1	1	35 MPH
11	"	D1-1	72" X 15"	7.50	---	1	1	---	1	1	SEE SIGN DETAIL SHEET
12	"	J1-1	24" X 39"	6.50	---	---	1	---	1	1	JCT CTH Q, SEE PLAN SHEET
13	"	R2-1	24" X 30"	5.00	---	---	1	---	1	1	35 MPH
14	"	R2-1	24" X 30"	5.00	---	---	1	---	1	1	45 MPH
15	"	W1-2R	30" X 30"	---	6.25	---	1	---	1	1	
16	"	W13-1	---	---	---	---	---	---	---	---	PART OF REMOVAL FOR SIGN #15
17	"	R2-1	---	---	---	---	---	---	1	1	
18	S. OF SUN PLAZA DR	R2-1	---	---	---	---	---	---	1	1	
19	SUN PLAZA DR	R2-1	24" X 30"	5.00	---	---	1	---	1	1	45 MPH
20	"	R1-1	30" X 30"	5.18	---	---	1	---	1	1	
21	N. OF SUN PLAZA DR	R2-1	24" X 30"	5.00	---	---	1	---	1	1	55 MPH
22	"	W11-3	---	---	---	---	---	---	1	1	ALSO REMOVE W57-51
23	"	W2-5	---	---	---	---	---	---	1	1	ALSO REMOVE W13-1
24	"	W3-5	36" X 36"	---	9.00	---	1	---	---	---	45 MPH
25	"	W1-2R	30" X 30"	---	6.25	---	---	1	1	1	
26	"	W13-1	18" X 18"	---	2.25	---	---	---	---	---	MOUNT BELOW SIGN #25, PART OF REMOVAL FOR SIGN #25
27	"	W1-6	48" X 24"	---	8.00	---	1	---	1	1	
27A		W1-6	48" X 24"	---	8.00	---	1	---	---	---	
28	"	S3-1	36" X 36"	---	9.00	---	1	---	1	1	
29	"	W16-2A	---	---	---	---	---	---	---	---	PART OF REMOVAL FOR SIGN #28
30	"	W1-2L	30" X 30"	---	6.25	---	---	1	1	1	
31	"	W13-1	18" X 18"	---	2.25	---	---	---	---	---	MOUNT BELOW SIGN #30, PART OF REMOVAL FOR SIGN #30
PAGE SUBTOTALS				122.36	65.25	1	17	9	25	25	

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ERECTION & REMOVAL OF PERMANENT SIGNING, TYPE II

SIGN NO.	LOCATION	SIGN CODE	W X H	637.2210 SIGNS TYPE II REFLECTIVE H S.F.	637.2230 SIGNS TYPE II REFLECTIVE F S.F.	634.0612 POSTS WOOD 4x6x12 EACH	634.0614 POSTS WOOD 4x6x14 EACH	634.0616 POSTS WOOD 4x6x16 EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
32	S. OF AHRENS RD	W14-3	48" X 36"	---	6.00	---	1	---	1	1	
33	"	I55-56	30" X 36"	7.50	---	---	1	---	1	1	SEE PLAN SHEET
34	AHRENS RD	R1-1	30" X 30"	5.18	---	---	1	---	---	---	
35	N. OF AHRENS RD	W5-52L	12" X 36"	---	3.00	1	---	---	1	1	
36	"	W5-52R	12" X 36"	---	3.00	1	---	---	1	1	
37	"	W5-52R	12" X 36"	---	3.00	1	---	---	1	1	
38	"	W5-52L	12" X 36"	---	3.00	1	---	---	1	1	
39	S. OF MEADOW RD	W14-3	48" X 36"	---	6.00	---	1	---	1	1	
40	"	J4-2	---	---	---	---	---	---	1	1	
41	MEADOW RD	R1-1	30" X 30"	5.18	---	---	1	---	1	1	
42	"	R1-1	30" X 30"	5.18	---	---	1	---	1	1	
43	N. OF MEADOW RD	J4-2	---	---	---	---	---	---	1	1	
44	"	W11-3	---	---	---	---	---	---	1	1	ALSO REMOVE W57-51
45	"	W2-1	30" X 30"	---	6.25	---	1	---	1	1	
46	"	W14-3	48" X 36"	---	6.00	---	1	---	1	1	
47	GROVE RD	R1-1	30" X 30"	5.18	---	---	1	---	1	1	
48	"	R1-1	30" X 30"	5.18	---	---	1	---	1	1	
49	N. OF GROVE RD	I55-56	30" X 36"	7.50	---	---	1	---	1	1	
50	"	W2-1	30" X 30"	---	6.25	---	1	---	1	1	
51	OLD LIME KILN RD	R1-1	30" X 30"	5.18	---	---	1	---	1	1	
52	"	R1-1	30" X 30"	5.18	---	---	1	---	1	1	
53	PIONEER RD	R1-1	30" X 30"	5.18	---	---	1	---	1	1	
54	"	R1-1	30" X 30"	5.18	---	---	1	---	1	1	
55	S. OF GERMAN RD	W2-1	---	---	---	---	---	---	1	1	
56	GERMAN RD	R1-1	30" X 30"	5.18	---	---	1	---	1	1	
57	"	R1-1	30" X 30"	5.18	---	---	1	---	1	1	
58A	"	W3-5	36" X 36"	---	9.00	---	1	---	---	---	45 MPH
58	S. OF CTH Q	J1-1	24" X 39"	6.50	---	---	1	---	1	1	CTH Q, SEE PLAN SHEET
59	"	W2-1	---	---	---	---	---	---	1	1	
60	"	W14-3	48" X 36"	---	6.00	---	1	---	1	1	
61	"	R2-1	24" X 30"	5.00	---	---	1	---	---	---	55 MPH, PART OF REMOVAL FOR SIGN #60
PAGE SUBTOTALS				83.48	57.50	4	22	0	28	28	

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ERECTION & REMOVAL OF PERMANENT SIGNING, TYPE II

SIGN NO.	LOCATION	SIGN CODE	W X H	637.2210 SIGNS TYPE II REFLECTIVE H S.F.	637.2230 SIGNS TYPE II REFLECTIVE F S.F.	634.0612 POSTS WOOD 4x6x12 EACH	634.0614 POSTS WOOD 4x6x14 EACH	634.0616 POSTS WOOD 4x6x16 EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
62	"	R2-1	24" X 30"	5.00	---	---	1	---	1	1	45 MPH
63	S. OF CTH Q	I55-56	30" X 36"	7.50	---	---	1	---	1	1	SEE PLAN SHEET
64	"	D1-1	66" X 15"	6.88	---	---	2	---	1	2	SEE SIGN DETAIL
65	"	J4-2	48" X 36"	12.00	---	---	1	---	1	1	SEE PLAN SHEET
66	"	J13-1	24" X 45"	7.50	---	---	---	1	1	1	CTH Q, SEE PLAN SHEET
67	CTH Q	J13-1	24" X 45"	7.50	---	---	---	1	---	---	PART OF REMOVAL FOR SIGN 68
68	"	J13-1	---	---	---	---	---	---	1	1	
69	"	R1-1	30" X 30"	5.18	---	---	1	---	1	1	
70	"	R1-1	30" X 30"	5.18	---	---	1	---	1	1	
71	"	R1-1	30" X 30"	5.18	---	---	1	---	1	1	
71A	"	J13-2	48" X 45"	15.00	---	---	---	1	---	---	SEE PLAN SHEET
72	N. OF CTH Q	J13-1	24" X 45"	7.50	---	---	---	1	1	1	CTH Q, SEE PLAN SHEET
73	"	J4-3	72" X 36"	6.00	---	---	2	---	---	---	SEE PLAN SHEET
74	"	R2-1	24" X 30"	5.00	---	---	1	---	1	1	45 MPH
75	"	W14-3	48" X 36"	---	6.00	---	---	---	---	---	MOUNT ON BACK OF SIGN #14, PART OF REMOVAL FOR SIGN #74
76	"	D1-1	66" X 15"	6.88	---	---	2	---	1	2	SEE SIGN DETAIL
77	"	W14-3	48" X 36"	---	6.00	---	1	---	1	1	
78	"	R2-1	---	---	---	---	---	---	---	---	PART OF REMOVAL FOR SIGN #77
79	"	J1-1	24" X 39"	6.50	---	---	1	---	1	1	CTH Q, SEE PLAN SHEET
80	"	I55-56	30" X 36"	7.50	---	---	1	---	1	1	SEE PLAN SHEET
81	S. OF OLD STAGE RD/SETTLEMENT RD	R2-1	24" X 30"	5.00	---	---	1	---	1	1	45 MPH
82	"	R2-1	24" X 30"	5.00	---	---	1	---	1	1	55 MPH
83	"	W2-1	---	---	---	---	---	---	1	1	
84	"	W14-3	48" X 36"	---	6.00	---	---	1	---	---	PART OF REMOVAL FOR SIGN #83
85	"	W14-3	48" X 36"	---	6.00	---	1	---	1	1	
86	"	W3-5	36" X 36"	---	9.00	---	1	---	1	1	45 MPH
87	SETTLEMENT RD	R1-1	30" X 30"	5.18	---	---	1	---	1	1	
88	OLD STAGE RD	R1-1	30" X 30"	5.18	---	---	1	---	1	1	
89	N. OF OLD STAGE RD/SETTLEMENT RD	W2-1	30" X 30"	---	6.25	---	1	---	1	1	
90	S. OF COUNTRY LN	W1-2R	30" X 30"	---	6.25	---	---	1	---	---	PART OF REMOVAL FOR SIGN #90A
90A	"	W13-1	18" X 18"	---	2.25	---	---	---	1	1	MOUNT BELOW SIGN #90
91	"	W14-3	48" X 36"	---	6.00	---	1	---	1	1	
92	"	W14-3	48" X 36"	---	6.00	---	1	---	1	1	

PAGE SUBTOTALS 136.65 59.75 0 25 6 26 28

PLAN SHEET PRODUCED
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ERECTION & REMOVAL OF PERMANENT SIGNING, TYPE II

SIGN NO.	LOCATION	SIGN CODE	W X H	637.2210 SIGNS TYPE II REFLECTIVE H S.F.	637.2230 SIGNS TYPE II REFLECTIVE F S.F.	634.0612 POSTS WOOD 4x6x12 EACH	634.0614 POSTS WOOD 4x6x14 EACH	634.0616 POSTS WOOD 4x6x16 EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
93	S. OF COUNTRY LN	W1-6	48" X 24"	---	8.00	---	1	---	1	1	
94	COUNTRY LN	R1-1	30" X 30"	5.18	---	---	1	---	1	1	
94A	N. OF COUNTRY LN	W1-6	48" X 24"	---	8.00	---	1	---	---	---	
95	FLINT RIDGE RD	R1-1	30" X 30"	5.18	---	---	1	---	1	1	
96	N. OF FLINT RIDGE RD	I2-3	66" X 24"	11.00	---	---	2	---	1	1	SEE SIGN DETAIL
97	N. OF FLINT RIDGE RD	W1-2L	30" X 30"	---	6.25	---	1	---	---	---	PART OF REMOVAL FOR SIGN #98
98	"	W13-1	18" X 18"	---	2.25	---	---	---	1	1	MOUNT BELOW SIGN #97
99	S. OF NORTHWOODS DR	W3-5	36" X 36"	---	9.00	---	1	---	1	1	45 MPH
100	NORTHWOODS DR	R1-1	30" X 30"	5.18	---	---	1	---	1	1	
101	N. OF NORTHWOODS DR	W1-2L	30" X 30"	---	6.25	---	1	---	1	1	
102	"	R2-1	24" X 30"	5.00	---	---	1	---	1	1	55 MPH
103	"	R2-1	24" X 30"	5.00	---	---	1	---	1	1	45 MPH
104	ORCHARD DR	W1-7	48" X 24"	---	8.00	---	1	---	1	1	
105	"	M1-6	---	---	---	---	---	---	---	---	PART OF REMOVAL FOR SIGN #104
106	"	R1-1	30" X 30"	5.18	---	---	1	---	1	1	
107	"	D7-57	54" X 36"	13.50	---	---	2	---	1	1	1/2 MILE
107A	"	R2-1	---	---	---	---	---	---	1	1	
108	N. OF ORCHARD DR	R2-1	24" X 30"	5.00	---	---	1	---	---	---	35 MPH
109	S. OF COUNTRY WALK DR	W1-6	48" X 24"	---	8.00	---	1	---	1	1	MOUNT ON BACK OF SIGN #108
110	"	R2-1	24" X 30"	5.00	---	---	1	---	1	1	45 MPH
111	"	R2-1	---	---	---	---	---	---	1	1	
112	"	R2-1	24" X 30"	5.00	---	---	1	---	1	1	35 MPH
113	"	W1-4L	30" X 30"	---	6.25	---	1	---	1	1	
114	COUNTRY WALK DR	R1-1	30" X 30"	5.18	---	---	1	---	1	1	
115	"	W1-7	48" X 24"	---	8.00	---	1	---	1	1	
115A	"	R2-1	24" X 30"	5.00	---	---	1				
116	N. OF COUNTRY WALK DR	I55-56	30" X 36"	7.50	---	---	1	---	1	1	SEE PLAN SHEET
117	"	J1-2	48" X 39"	13.00	---	---	1	---	1	1	STH 42, STH 57, SEE PLAN SHEET
PAGE SUBTOTALS				100.90	70.00	0	26	0	23	23	
PROJECT TOTALS				443.39	252.50	5	90	15	102	104	

PLAN SHEET PRODUCED
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TRAFFIC CONTROL SUMMARY										
		643.0300			*643.0420		*643.0705		643.0900	
		TRAFFIC CONTROL			TRAFFIC CONTROL		TRAFFIC CONTROL		TRAFFIC CONTROL	
		DRUMS			BARRICADES		WARNING LIGHTS		SIGNS	
		TYPE III			TYPE A					
CAT	LOCATION	APPROX. SERVICE DAYS	NO IN SERVICE	DAYS	NO IN SERVICE	DAYS	NO IN SERVICE	DAYS	NO IN SERVICE	DAYS
0010	SUN PLAZA FOR CURB & GUTTER REPLACEMENT	10	10	100						
0010	NEAR SETTLEMENT ROAD FOR CURB & GUTTER REPLACEMENT	10	15	150						
0010	STH 57 DETOUR #1	38			26	988	42	1596	16	608
0010	STH 57 DETOUR #2	5			10	50	20	100	10	50
0010	STH 57 ADVANCE WARNING	57							10	570
0010	SIDEROAD ADVANCED WARNING	57							22	1254
0010	UNDISTRIBUTED	10	10	100						
TOTALS		350			1,038		1,696		2,482	
*ADDITIONAL QUANTITIES SHOWN ELSEWHERE										

TRAFFIC CONTROL DETOUR SIGN SUMMARY

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 38 DAYS	643.3000 DETOUR SIGNS DAYS	643.0420 BARRICADES TYPE III DAYS	643.0705 WARNING LIGHTS TYPE A DAYS	643.1050 SIGNS PORTABLE CHANGEABLE MESSAGE DAYS	NO. OF CYCLES	643.0920 COVERING TYPE II SIGNS EACH	REMARKS
	STAGE 1											
1	1000' S OF J1-1 (JCT Q)	WO 20-2A	48"x48"	1	38	38						
2	LT OF J1-1 (JCT Q)	MO 4-8	24"x12"	1	38	38						
	"	M 3-1	24"x12"	1	38	38						
	"	M 1-6	24"x24"	1	38	38						57
	"	MO 5-1R	21"x21"	1	38	38						
3	LT OF J13-1 (Q-RT)	MO 4-8	24"x12"	1	38	38						
	"	M 3-1	24"x12"	1	38	38						
	"	M 1-6	24"x24"	1	38	38						57
	"	MO 6-1	21"x21"	1	38	38						RIGHT
4A	NE QUAD OF STH 57 & CTH Q INTERSECTION	R 11-3B	60"x30"	1	38	38	38	76				2 MILES AHEAD
4B	BELOW SIGN # 4A	M 4-9R	30"x24"	1	38	38						
5	200' E OF STH 57 INTERSECTION ON CTH Q	MO 4-8	24"x12"	1	38	38						
	"	M 3-1	24"x12"	1	38	38						
	"	M 1-6	24"x24"	1	38	38						57
6	MODIFY J1-2 (JCT 57; END Q)	MO 4-8A	24"x18"	1	38	38						
	"	M 1-6	24"x24"	1	38	38						57
7	10,000' N OF SIGN # 5	MO 4-8	24"x12"	1	38	38						
	"	M 3-1	24"x12"	1	38	38						
	"	M 1-6	24"x24"	1	38	38						57
8	ACROSS FROM SIGN # 7 FOR SB	MO 4-8	24"x12"	1	38	38						
	"	M 3-3	24"x12"	1	38	38						
	"	M 1-6	24"x24"	1	38	38						57
9	200' S OF W CANA ISLAND RD INTERSECTION ON CTH Q	MO 4-8	24"x12"	1	38	38						
	"	M 3-3	24"x12"	1	38	38						
	"	M 1-6	24"x24"	1	38	38						57
10	200' N OF W CANA ISLAND RD INTERSECTION ON CTH Q	MO 4-8	24"x12"	1	38	38						
	"	M 3-1	24"x12"	1	38	38						
	"	M 1-6	24"x24"	1	38	38						57
11	200' S OF PINE DR INTERSECTION ON CTH Q	MO 4-8	24"x12"	1	38	38						
	"	M 3-3	24"x12"	1	38	38						
	"	M 1-6	24"x24"	1	38	38						57
12	200' N OF PINE DR INTERSECTION ON CTH Q	MO 4-8	24"x12"	1	38	38						
	"	M 3-1	24"x12"	1	38	38						
	"	M 1-6	24"x24"	1	38	38						57
13	200' S OF WINDING RD INTERSECTION ON CTH Q	MO 4-8	24"x12"	1	38	38						
	"	M 3-3	24"x12"	1	38	38						
	"	M 1-6	24"x24"	1	38	38						57
14	200' N OF WINDING RD INTERSECTION ON CTH Q	MO 4-8	24"x12"	1	38	38						
	"	M 3-1	24"x12"	1	38	38						
	"	M 1-6	24"x24"	1	38	38						57
15	200' S OF WOODCREST RD INTERSECTION ON CTH Q	MO 4-8	24"x12"	1	38	38						
	"	M 3-3	24"x12"	1	38	38						
	"	M 1-6	24"x24"	1	38	38						57

PAGE SUBTOTALS

43

1,634

38

76

0

0

PLAN SHEET PRODUCED
BY WisDOT - NE REGION

TRAFFIC CONTROL DETOUR SIGN SUMMARY

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 38 DAYS	643.3000 DETOUR SIGNS DAYS	643.0420 BARRICADES TYPE III DAYS	643.0705 WARNING LIGHTS TYPE A DAYS	643.1050 SIGNS PORTABLE CHANGEABLE MESSAGE DAYS	NO. OF CYCLES	643.0920 COVERING TYPE II SIGNS EACH	REMARKS
16	200' N OF WOODCREST RD INTERSECTION ON CTH Q	MO 4-8	24"x12"	1	38	38						
	"	M 3-1	24"x12"	1	38	38						
	"	M 1-6	24"x24"	1	38	38						57
17	MODIFY J1-1 (JCT 57)	MO 4-8A	24"x18"	1	38	38						
	"	M 1-6	EXISTING									
18	200' E OF STH 57 INTERSECTION ON CTH Q	MO 4-8	24"x12"	1	38	38						
	"	M 3-3	24"x12"	1	38	38						
	"	M 1-6	24"x24"	1	38	38						57
19A	SW QUAD OF STH 57 & CTH Q INTERSECTION	R 11-3B	60"x30"	1	38	38	38	76				2 1/2 MILES AHEAD
19B	BELOW SIGN # 19A	M 4-9L	30"x24"	1	38	38						
20	LT OF J13-1 (Q -DOUBLE ARROW)	MO 4-8	24"x12"	1	38	38						
	"	M 3-3	24"x12"	1	38	38						
	"	M 1-6	24"x24"	1	38	38						57
	"	MO 6-1	21"x21"	1	38	38						LEFT
21	LT OF J1-1 (JCT Q)	MO 4-8	24"x12"	1	38	38						
	"	M 3-3	24"x12"	1	38	38						
	"	M 1-6	24"x24"	1	38	38						57
	"	MO 5-1L	21"x21"	1	38	38						
22	200' N OF R2-1 (SPEED LIMIT 45) SIGN	WO 20-2A	48"x48"	1	38	38						
23	NB TRAFFIC DIRECTION	PCMS		1					7			
24	SB TRAFFIC DIRECTION	PCMS		1					7			
PAGE SUBTOTALS				20		684	38	76	14		0	
STAGE 1 SUBTOTALS				63		2,318	76	152	14		0	

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TRAFFIC CONTROL DETOUR SIGN SUMMARY

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 5 DAYS	643.3000 DETOUR SIGNS DAYS	643.0420 BARRICADES TYPE III DAYS	643.0705 WARNING LIGHTS TYPE A DAYS	643.1050 SIGNS PORTABLE CHANGEABLE MESSAGE DAYS	NO. OF CYCLES	643.0920 COVERING TYPE II SIGNS EACH	REMARKS
	STAGE 2				5							
25	750' S OF J1-1 (JCT Q-NORTH INTERSECTION)	WO 20-2A	48"x48"	1	5	5						
26	LT OF J1-1 (JCT Q-NORTH INTERSECTION)	MO 4-8	24"x12"	1	5	5						
	"	M 3-1	24"x12"	1	5	5						
	"	M 1-6	24"x24"	1	5	5						57
	"	MO 5-1L	21"x21"	1	5	5						
27	LT OF J13-1 (Q-LT & RT ARROW)	MO 4-8	24"x12"	1	5	5						
	"	M 3-1	24"x12"	1	5	5						
	"	M 1-6	24"x24"	1	5	5						57
	"	MO 6-1	21"x21"	1	5	5						LEFT
28	NE QUAD OF STH 57 & CTH Q INTERSECTION	R 11-4	60"x30"	1	5	5	5	10				
29	BELOW SIGN # 28	M 4-9L	30"x24"	1	5	5						
30	200' W OF STH 57 INTERSECTION ON CTH Q	MO 4-8	24"x12"	1	5	5						
	"	M 3-1	24"x12"	1	5	5						
	"	M 1-6	24"x24"	1	5	5						57
	"	MO 6-1	21"x21"	1	5	5						AHEAD
31	MODIFY J1-1 (JCT 57)	MO 4-8A	24"x18"	1	5	5						
	"	M 1-6	24"x24"	1	5	5						57
32	700' E OF TOWNLINE RD INTERSECTION ON CTH Q (WB)	MO 4-8	24"x12"	1	5	5						
	"	M 3-1	24"x12"	1	5	5						
	"	M 1-6	24"x24"	1	5	5						57
	"	MO 5-1R	21"x21"	1	5	5						
33	200' E OF TOWNLINE RD INTERSECTION ON CTH Q (EB)	MO 4-8	24"x12"	1	5	5						
	"	M 3-3	24"x12"	1	5	5						
	"	M 1-6	24"x24"	1	5	5						57
	"	MO 6-1	21"x21"	1	5	5						AHEAD
34	NE QUAD OF TOWNLINE RD & CTY Q INTERSECTION (NEAR RT)	MO 4-8	24"x12"	1	5	5						
	"	M 3-1	24"x12"	1	5	5						
	"	M 1-6	24"x24"	1	5	5						57
	"	MO 6-1	21"x21"	1	5	5						RIGHT
35	SW QUAD OF TOWNLINE RD & CTY Q INTERSECTION (FAR LT)	MO 4-8	24"x12"	1	5	5						
	"	M 3-1	24"x12"	1	5	5						
	"	M 1-6	24"x24"	1	5	5						57
	"	MO 6-1	21"x21"	1	5	5						RIGHT
36	SE QUAD OF TOWNLINE RD & CTY Q INTERSECTION (FAR LT)	MO 4-8	24"x12"	1	5	5						
	"	M 3-3	24"x12"	1	5	5						
	"	M 1-6	24"x24"	1	5	5						57
	"	MO 6-1	21"x21"	1	5	5						LEFT
37	LT OF STOP SIGN @ TOWNLINE RD & CTY Q INTERSECTION (NEAR RT)	MO 4-8	24"x12"	1	5	5						
	"	M 3-3	24"x12"	1	5	5						
	"	M 1-6	24"x24"	1	5	5						57
	"	MO 6-1	21"x21"	1	5	5						LEFT
38	500' N OF SIGN # 37 ON TOWNLINE RD (WB)	MO 4-8	24"x12"	1	5	5						
	"	M 3-3	24"x12"	1	5	5						
	"	M 1-6	24"x24"	1	5	5						57
	"	MO 5-1L	21"x21"	1	5	5						

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PAGE SUBTOTALS

45

225

5

10

0

0

TRAFFIC CONTROL DETOUR SIGN SUMMARY

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 5 DAYS	643.3000 DETOUR SIGNS DAYS	643.0420 BARRICADES TYPE III DAYS	643.0705 WARNING LIGHTS TYPE A DAYS	643.1050 SIGNS PORTABLE CHANGEABLE MESSAGE DAYS	NO. OF CYCLES	643.0920 COVERING TYPE II SIGNS EACH	REMARKS
39	200' S OF SETTLEMENT RD INTERSECTION ON TOWNLINE RD (SB)	MO 4-8	24"x12"	1	5	5						
	"	M 3-3	24"x12"	1	5	5						
	"	M 1-6	24"x24"	1	5	5						57
	"	MO 6-1	21"x21"	1	5	5						AHEAD
40	200' N OF SETTLEMENT RD INTERSECTION ON TOWNLINE RD (NB)	MO 4-8	24"x12"	1	5	5						
	"	M 3-1	24"x12"	1	5	5						
	"	M 1-6	24"x24"	1	5	5						57
	"	MO 6-1	21"x21"	1	5	5						AHEAD
41	500' S OF HWY 42 INTERSECTION ON TOWNLINE RD (NB)	MO 4-8	24"x12"	1	5	5						
	"	M 3-1	24"x12"	1	5	5						
	"	M 1-6	24"x24"	1	5	5						57
	"	MO 5-1R	21"x21"	1	5	5						
42	RT OF STOP SIGN @ HWY 42 INTERSECTION ON TOWNLINE RD (NB)	MO 4-8	24"x12"	1	5	5						
	"	M 3-1	24"x12"	1	5	5						
	"	M 1-6	24"x24"	1	5	5						57
	"	MO 6-1	21"x21"	1	5	5						RIGHT
43	200' S OF HWY 42 INTERSECTION ON TOWNLINE RD (SB)	MO 4-8	24"x12"	1	5	5						
	"	M 3-3	24"x12"	1	5	5						
	"	M 1-6	24"x24"	1	5	5						57
	"	MO 6-1	21"x21"	1	5	5						AHEAD
44	SE QUAD OF TOWNLINE RD & HWY 42 INTERSECTION (FAR LT)	MO 4-8	24"x12"	1	5	5						
	"	M 3-3	24"x12"	1	5	5						
	"	M 1-6	24"x24"	1	5	5						57
	"	MO 6-1	21"x21"	1	5	5						LEFT
45	NE QUAD OF TOWNLINE RD & HWY 42 INTERSECTION (NEAR RT)	MO 4-8	24"x12"	1	5	5						
	"	M 3-3	24"x12"	1	5	5						
	"	M 1-6	24"x24"	1	5	5						57
	"	MO 6-1	21"x21"	1	5	5						LEFT
46	200' E OF TOWNLINE RD INTERSECTION ON STH 42 (NB)	MO 4-8	24"x12"	1	5	5						
	"	M 3-1	24"x12"	1	5	5						
	"	M 1-6	24"x24"	1	5	5						57
	"	MO 6-1	21"x21"	1	5	5						AHEAD
47	500' N OF SIGN # 44 ON HWY 42 (SB)	MO 4-8	24"x12"	1	5	5						
	"	M 3-3	24"x12"	1	5	5						
	"	M 1-6	24"x24"	1	5	5						57
	"	MO 5-1L	21"x21"	1	5	5						
48	BACKSIDE OF SIGN # 45 (NB-NEAR RT)	MO 4-8	24"x12"	1	5	5						
	"	M 3-3	24"x12"	1	5	5						
	"	M 1-6	24"x24"	1	5	5						57
	"	MO 6-1	21"x21"	1	5	5						RIGHT
PAGE SUBTOTALS				40		200	0	0	0		0	

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TRAFFIC CONTROL DETOUR SIGN SUMMARY

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 5 DAYS	643.3000 DETOUR SIGNS DAYS	643.0420 BARRICADES TYPE III DAYS	643.0705 WARNING LIGHTS TYPE A DAYS	643.1050 SIGNS PORTABLE CHANGEABLE MESSAGE DAYS	NO. OF CYCLES	643.0920 COVERING TYPE II SIGNS EACH	REMARKS
49	BACKSIDE OF SIGN # 44 (NB-FAR LT)	MO 4-8	24"x12"	1	5	5						
	"	M 3-3	24"x12"	1	5	5						
	"	M 1-6	24"x24"	1	5	5						57
	"	MO 6-1	21"x21"	1	5	5						RIGHT
50	500' S OF SIGN # 46 ON HWY 42 (NB)	MO 4-8	24"x12"	1	5	5						
	"	M 3-3	24"x12"	1	5	5						
	"	M 1-6	24"x24"	1	5	5						57
	"	MO 5-1R	21"x21"	1	5	5						
51	500' S OF SIGN # 49 ON HWY 42 (NB)	M 1-6	24"x24"	1	5	5						57
	"	WO 20-2A	48"x48"	1	5	5						
52	MODIFY J1-1 (JCT 57) ON HWY 42 (NB)	MO 4-8A	24"x18"	1	5	5						
	"	M 1-6	EXISTING									
53	D1-3 (AH-ELLISON BAY/GILLS ROCK; BAILEYS HARBOR-RT)									1	1	BAILEYS HARBOR - RT
54	J3-1 (S-57-RT)									1	1	SOUTH 57 RT ARROW
55	SE QUAD OF STH 42 & STH 57 INTERSECTION	R 11-4	60"x30"	1	5	5	5	10				
56	BELOW SIGN # 55	M 4-9R	30"x24"	1	5	5						
57	MODIFY J3-1 (S-57-LT)	MO 4-8	24"x12"	1	5	5						
	"	M 3-3	EXISTING									
	"	M 1-6	EXISTING									57
	"	MO 6-1	21"x21"	1	5	5						AHEAD
58	D1-3 (AH-EPHRAIM/FISH CREEK; LT-BAILEYS HARBOR)									1	1	LT-BAILEYS HARBOR
59	MODIFY J2-2 (S-57-AH LT; S-42-AH)	MO 4-8	24"x12"	1	5	5						
	"	M 3-3	EXISTING									
	"	M 1-6	EXISTING									57
	"	MO 6-1	21"x21"	1	5	5						AHEAD
60	300' E OF SIGN # 59 ON STH 42 (SB)	M 1-6	24"x24"	1	5	5						57
	"	W 20-2A	48"x48"	1	5	5						
61	J4-1 (S-57)									1	1	SOUTH 57
62	LOCATION FIELD DETERMINED -SB TRAFFIC DIRECTION								7			
63	LOCATION FIELD DETERMINED -NB TRAFFIC DIRECTION								7			
PAGE SUBTOTALS				19		95	5	10	14		4	
STAGE 2 SUBTOTALS				104		520	10	20	14		4	
PROJECT TOTALS				167		2,838	86	172	28		4	

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BY WisDOT - NE REGION

PAVEMENT MARKING SUMMARY										
CATEGORY	STATION	TO	STATION	LOCATION	646.2304.S		646.2308.S	647.0566	649.0402	REMARKS
					PAVEMENT MARKING GROOVED WET REFLECTIVE EPOXY 4-INCH (YELLOW)	PAVEMENT MARKING GROOVED WET REFLECTIVE EPOXY 4-INCH (WHITE)	PAVEMENT MARKING GROOVED WET REFLECTIVE EPOXY 8-INCH (WHITE)	PAVEMENT MARKING STOP LINE EPOXY 18-INCH	TEMPORARY PAVEMENT MARKING PAINT 4-INCH	
					LF	LF	LF	LF	LF	
0010	1423+24	-	1497+30	STH 57	14,815	14,710			44,445	
0010	1497+30	-	1505+00	STH 57	960	1,540			2,490	
0010	1505+00	-	1594+30	STH 57	2,230	17,740			2,145	
0010	1594+30	-	1598+74	STH 57	555	730			1,440	
0010	1598+74	-	1602+30	STH 57	90	715			90	
0010	1602+30	-	1608+38	STH 57	760	1,215			1,965	
0010	1608+38	-	1718+75	STH 57	2,760	21,285			2,640	
0010	1718+75	-	1723+62	STH 57	610	975			1,575	
0010	1723+62	-	1726+77	STH 57	80	630	150		75	
0010	1726+77	-	1732+73	STH 57	745	945	190		1,935	
0010	1732+73	-	1736+11	STH 57	85	675			90	
0010	1736+11	-	1742+01	STH 57	740	1,180			1,920	
0010	1742+01	-	1744+80	STH 57	70	560			75	
0010	1744+80	-	1750+43	STH 57	705	1,125			1,830	
0010	1750+43	-	1753+80	STH 57	85	675			90	
0010	1753+80	-	1761+80	STH 57	1,000	1,300	200		2,595	
0010	1761+80	-	1762+68	STH 57	25	230			30	
0010	1762+68	-	1779+83	STH 57	2,145	3,310			5,550	
0010	1779+83	-	1843+01	STH 57	12,640	12,245			37,920	
	CTH Q				270			20		
TOTALS					123,155		540	20	54,450	

<u>CONSTRUCTION STAKING SUMMARY</u>							
				650.8000	650.9920		
				RESURFACIN	SLOPE		
				REFERENCE	STAKES		
CATEGORY	STATION	TO	STATION	LOCATION	LF	LF	REMARKS
0010	1428+00	-	1430+25	STH 57, RT		225	
0010	1461+70	-	1462+90	STH 57, RT		120	
0010	1473+75	-	1482+00	STH 57, RT		825	
0010	1520+00	-	1523+00	STH 57, LT		300	
0010	1558+75	-	1566+05	STH 57, LT & RT		1,464	
0010	1759+50	-	1762+50	STH 57, LT		300	
0010	PROJECT				41,977		
TOTALS					41,977	3,234	

*NOTE - ADDITIONAL STAKING ITEMS ARE SHOWN ELSEWHERE IN THE PLAN

SAWING SUMMARY					
CATEGORY	STATION	LOCATION	690.0150	690.0250	REMARKS
			ASPHALT LF	CONCRETE LF	
0010	1423+24	STH 57	30		
0010	1451+60 - 1452+65	STH 57, RT	90	6	
0010	1759+42 - 1762+58	STH 57, LT	310		
0010	1837+49 - 1838+00	STH 57, RT	50		
0010	1843+01	STH 57	80		
0010	SIDEROADS		500		
0010	STORM/CULVERT REPLACEMENTS	STH 57	935	6	
0010	DRIVEWAYS		1345		
TOTAL			3340	12	

DOC# : 796141



Recorded
JUNE 3, 2016 AT 02:41PM

CAREY PETERSILKA
REGISTER OF DEEDS
DOOR COUNTY, WI

Fee Amount Paid: \$30.00

Tract Indexed

This Vacation Order applies to Transportation Project Plat 4150-17-21-4.01, recorded on Feb 17, 2016 as Document Number 793802 in the Office of the Register of Deeds for Door County.

Whereas, parcel 2 of the above-described Transportation Project Plat has been determined to be unnecessary for transportation improvement project purposes, said parcel is vacated and rescinded.

This space is reserved for recording data

Return to

Wisconsin Department of Transportation
944 Vanderperren Way
Green Bay, WI 54304

Attn: Real Estate

Parcel Identification Number/Tax Key Number
002 0308302834B

This Vacation Order has been approved by the Wisconsin Department of Transportation.

X Carolyn Sampson
(Signature)

Carolyn Sampson

(Print Name)

Right of Way Plat Coordinator

(Title)

5-27-16
(Date - m/d/yyyy)

State of Wisconsin

Door County)
) ss.

On the above date, this instrument was acknowledged before me by the named person(s).

X Ruth A Johnson
(Signature, Notary Public, State of Wisconsin)

Ruth A Johnson
(Print or Type Name, Notary Public, State of Wisconsin)

4-17-17
(Date Commission Expires)

(Seal)
Real
Attended

Project ID 4150-17-21

This instrument was drafted by WISDOT

DOC# : 796142



Recorded
JUNE 3, 2016 AT 02:41PM

CAREY PETERSILKA
REGISTER OF DEEDS
DOOR COUNTY, WI

Fee Amount Paid: \$30.00

Tract Indexed

This space is reserved for recording data

Return to
Wisconsin Department of Transportation
944 Vanderperren Way
Green Bay, WI 54304

Attn: Real Estate

Parcel Identification Number/Tax Key Number
002 0308302833C

Document Number
VACATION ORDER

TRANSPORTATION PROJECT PLAT PARCEL

Wisconsin Department of Transportation
DT2222 11/2013 s.84.095(3)(b) Wis. Stats.

This Vacation Order applies to Transportation Project Plat 4150-17-21-4.02, recorded on Feb 17, 2016 as Document Number 793803 in the Office of the Register of Deeds for Door County.

Whereas, parcel 3 of the above-described Transportation Project Plat has been determined to be unnecessary for transportation improvement project purposes, said parcel is vacated and rescinded.

This Vacation Order has been approved by the Wisconsin Department of Transportation.

X Carolyn Sampson
(Signature)

Carolyn Sampson

(Print Name)

Right of Way Plat Coordinator
(Title)

5-27-16
(Date - m/d/yyyy)

State of Wisconsin

Brown

)
) ss.
County)

On the above date, this instrument was acknowledged before me by the named person(s).

X Ruth A Johnson
(Signature, Notary Public, State of Wisconsin)

Ruth A Johnson
(Print or Type Name, Notary Public, State of Wisconsin)

4-17-17
(Date Commission Expires)

(Seal)

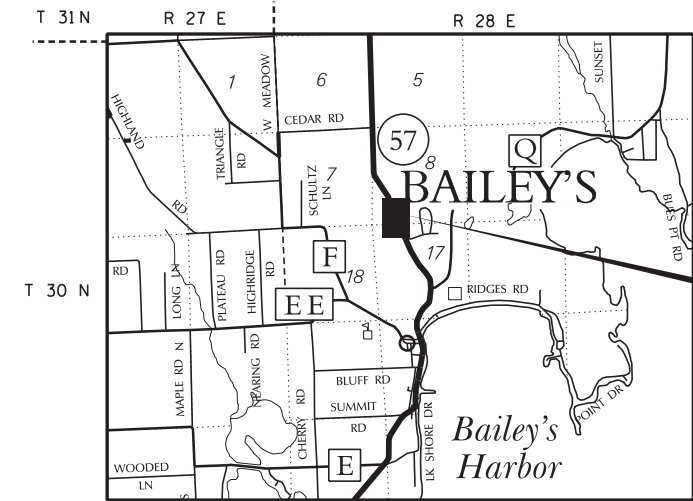
Seal
Affixed

Project ID 4150-17-21

This instrument was drafted by WISDOT

SCHEDULE OF LANDS & INTERESTS REQUIRED						
PARCEL NUMBER	OWNER (S)	INTEREST REQUIRED	R/W ACRES OR SF REQUIRED			PLE, TLE ACRES OR SF
			NEW	EXISTING	TOTAL	
3	CHARLENE ZAHN	TLE	-----	-----	-----	0.006
4	LEONARD L. & OLGA LEYENDECKER & JAMES C. LEYENDECKER	TLE	-----	-----	-----	0.010
5	CONNIE GREENAWALD & ELIZABETH J. VAN DE VEN LIFE ESTATE	TLE	-----	-----	-----	21 SF
7	THOMAS W. FRUIT & WILLIAM R. BARCOME	TLE	-----	-----	-----	0.042

OWNER NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT.



LOCATION SKETCH

SCALE, MILES
0 1 2 MI.

R/W COORDINATES

PT NO	Y	X
200	249426.743	558164.139
201	249945.139	557993.585
202	250610.198	557858.661
203	251140.677	557629.449
204	251159.687	557657.312
205	251177.831	557683.904
206	251166.274	557691.912
208	250623.654	557923.276
207	250623.653	557923.276
209	249958.414	558058.236
210	249427.355	558236.704
211	249427.050	558200.460

TRANSPORTATION PROJECT PLAT NO: 4150-17-21 - 4.02

THAT PART OF THE NORTHWEST 1/4 OF THE SOUTHWEST 1/4 AND THE SOUTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 8, TOWNSHIP 30 NORTH, RANGE 28 EAST, TOWN OF BAILEYS HARBOR, DOOR COUNTY, WISCONSIN.

RELOCATION ORDER STH 57- BAILEYS HARBOR - SISTER BAY (CTH 0 - STH 42) DOOR COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, 84.30 WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:

1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

SUBCURVE PRW1	SUBCURVE PRW2
L = 546.90'	L = 581.65'
R = 2419.53'	R = 1473.93'
LCH = 545.73'	LCH = 577.88'
LCB = N18°12'41"W	LCB = N23°22'07"W

SUBCURVE PRW3	SUBCURVE PRW4
L = 593.56'	L = 561.58'
R = 1539.93'	R = 2353.53'
LCH = 589.89'	LCH = 560.24'
LCB = S23°05'33"E	LCB = S18°34'32"E



SHEET LOCATION

TOWN

OF

SIXTEENTH LINE

SE-SW
8-30-28

NE-SW
8-30-28

STH 57
CURVE DATA

PI STA. 1477+95.47
Y 250280.480
X 556368.671
Δ 23°34'19"
L 641.80'
T 325.50'
R 1560.00'
PC STA. 1474+69.96
PT STA. 1481+11.76

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, DOOR COUNTY, NAD 83 (1991) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICALLY 1" X 24" IRON PIPE) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS OF PUBLIC RECORD".

PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY LINES, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:
EXISTING HIGHWAY RIGHT-OF-WAY FOR STH 57 ESTABLISHED FROM PREVIOUS PROJECT 4150-05-22 AND PROJECT NO. 3346.

A **TEMPORARY LIMITED EASEMENT (TLE)** IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE. ALL TLES EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO NEW REFERENCE LINES.

CONVENTIONAL ABBREVIATIONS

ACCESS POINT -
DRIVEWAY CONNECTION
ACCESS RIGHTS
ACRES
AND OTHERS
CENTERLINE
CERTIFIED SURVEY MAP
CORNER
DOCUMENT
EASEMENT
HIGHWAY EASEMENT
LAND CONTRACT
MONUMENT
PAGE
PERMANENT LIMITED EASEMENT
PROPERTY LINE
RECORDED AS
REFERENCE LINE

AP RELEASE OF RIGHTS
AR REMAINING
AC RIGHT-OF-WAY
ET AL. SECTION
C/L STATION
CSM TEMPORARY LIMITED EASEMENT
COR. VOLUME
DOC.
EASE.
H.E.
LC
MON.
P.
PLE
PL
(100')
R/L

ROR
REM.
R/W
SEC.
STA.
TLE
V.
LC
LCB
R
D
Δ
L
T

FOUND IRON PIPE/PI
R/W MONUMENT
R/W STANDARD
SIGN
SECTION CORNER MONUMENT
SECTION CORNER SYMBOL
FEE (HATCH VARIES)
TEMPORARY LIMITED
EASEMENT
PERMANENT LIMITED
EASEMENT
R/W BOUNDARY POINT
PARCEL NUMBER
SIGN NUMBER
(OFF PREMISE)
BUILDING

CONVENTIONAL SYMBOLS

IF
(1" UNLESS NOTED)
EXISTING R/W DEFINED ON PLAT
EXISTING H.E. LINE
PROPERTY LINE
LOT & TIE LINES
SLOPE INTERCEPTS
CORPORATE LIMITS
ACCESS RESTRICTED
(BY PREVIOUS ACQUISITION/CONTROL)
ACCESS RESTRICTED
(BY ACQUISITION)
NO ACCESS
(BY STATUTORY AUTHORITY)
SECTION LINE
QUARTER LINE
SIXTEENTH LINE
EXISTING CENTERLINE
PROPOSED REFERENCE LINE
PARALLEL OFFSET

CONVENTIONAL UTILITY SYMBOLS

WATER
GAS
TELEPHONE
OVERHEAD
TRANSMISSION LINES
ELECTRIC
CABLE TELEVISION
FIBER OPTIC
SANITARY SEWER
STORM SEWER
POWER POLE
TELEPHONE POLE
TELEPHONE PEDESTAL
ELECTRIC TOWER

AVRES ASSOCIATES

I, JAMES R. CAPPEART, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT 4150-17-21 - 4.02 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE LAND SURVEYED.

SIGNATURE *James R. Cappeart* DATE 11-05-2015
PRINTED NAME JAMES R. CAPPEART
REGISTRATION NUMBER S-3044
THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION
SIGNATURE *Curt Van Erum* DATE 2-09-2016
PRINTED NAME CURT VAN EREM

SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	OWNER (S)	INTEREST REQUIRED	R/W ACRES OR SF REQUIRED			PLE, TLE ACRES OR SF
			NEW	EXISTING	TOTAL	
8	WILLIAM R. OLDENBURG AND JOAN J. OLDENBURG REVOCABLE TRUST DATED 2-17-09, WILLIAM R. OLDENBURG, TRUSTEE OF THE IRENE OLDENBURG TESTAMENTARY TRUST, & KASEY A. OLDENBURG	TLE	-----	-----	-----	0.106

OWNER NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT.

EXISTING R/W MONUMENTS

PT NO	STATION	OFFSET	MON. TYPE
3000	1519+22.73	32.58'	1" IRON PIPE

R/W COORDINATES

PT NO	Y	X
300	254665.476	557031.604
301	254665.392	556998.535
302	254669.750	556998.521
303	254800.608	556998.088
304	255071.911	556997.191
305	255980.043	557010.831
306	255980.057	557044.719
307	255980.058	557047.668
308	255979.780	557076.835
309	255071.525	557063.193
310	254664.951	557064.537
311	254665.473	557031.799

TRANSPORTATION PROJECT PLAT NO: 4150-17-21 - 4.03

THAT PART OF THE SOUTHEAST 1/4 OF THE SOUTHEAST 1/4, SECTION 6, TOWNSHIP 30 NORTH, RANGE 28 EAST, TOWN OF BAILEYS HARBOR, DOOR COUNTY, WISCONSIN.

RELOCATION ORDER STH 57- BAILEYS HARBOR - SISTER BAY (CTH 0 - STH 42) DOOR COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, 84.30 WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:

1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS Laid OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

DOC#: 793804

Recorded
Feb 17, 2016 AT 10:53 AM

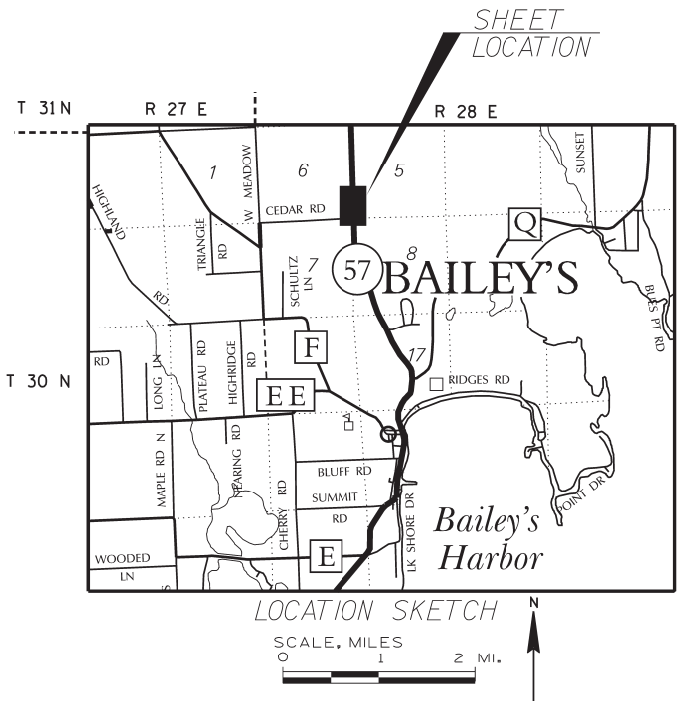
CAREY PETERSILKA
REGISTER OF DEEDS
DOOR COUNTY, WI

Fee Amount Paid: \$ 25.00

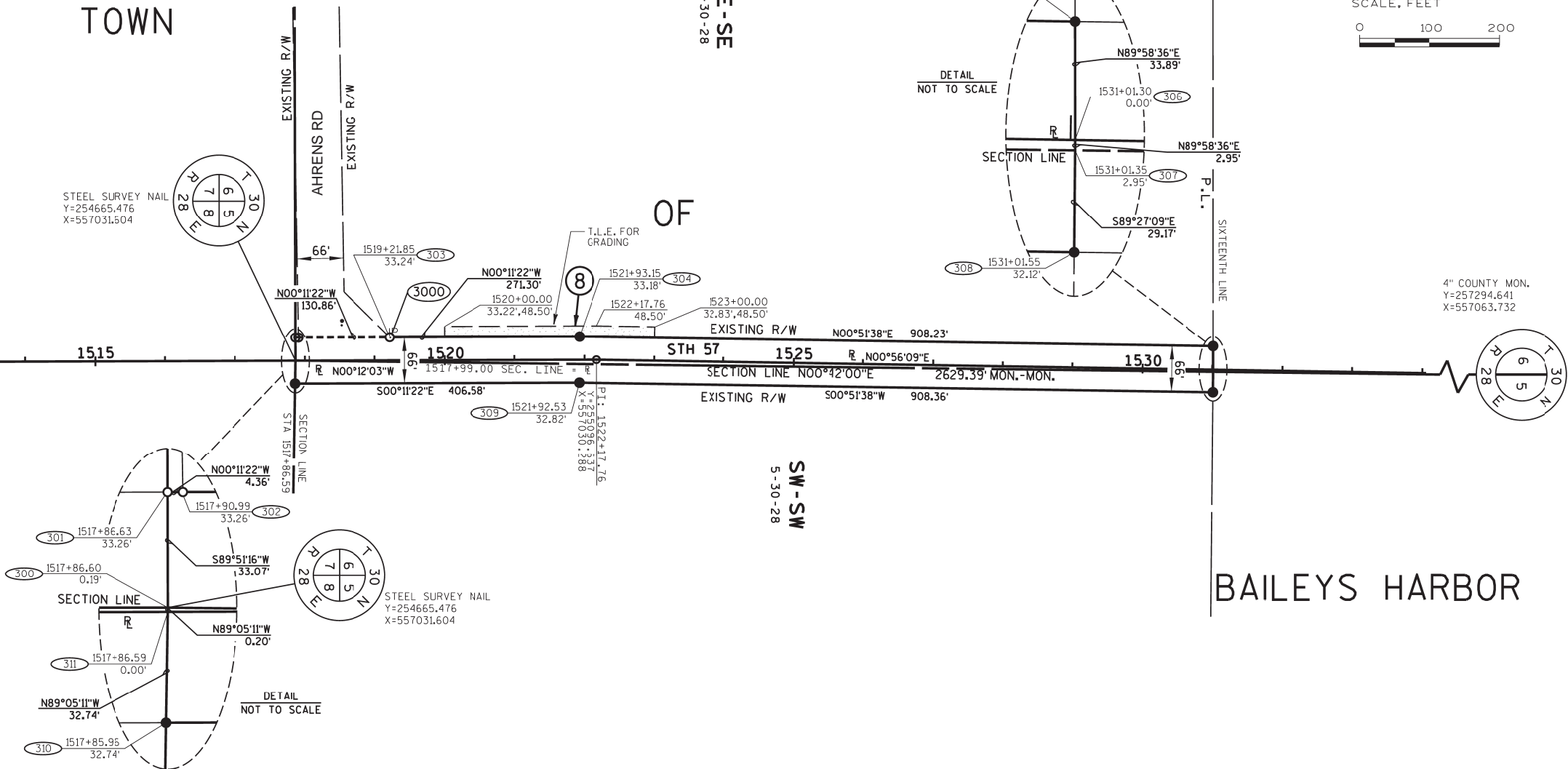
eRecorded By:
WISDOT - NE REGION - GREEN BAY

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 4150-17-21-4.03
AMENDMENT NO:

4



TOWN



NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, DOOR COUNTY, NAD 83 (1991) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICALLY 1" X 24" IRON PIPE) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS OF PUBLIC RECORD".

PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY LINES, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:

EXISTING HIGHWAY RIGHT-OF-WAY FOR STH 57 ESTABLISHED FROM PREVIOUS PROJECT 4150-05-22 AND PROJECT NO. 3346.

EXISTING HIGHWAY RIGHT-OF-WAY FOR SIDE ROADS ESTABLISHED FROM CENTERLINE OF EXISTING PAVEMENTS AND PREVIOUS PROJECT 4150-05-22.

EXISTING HIGHWAY ACCESS CONTROL SHOWN HEREIN IS BASED ON THE FOLLOWING POINT OF REFERENCE:

EXISTING HIGHWAY ACCESS CONTROL FOR STH 57 ESTABLISHED FROM PREVIOUS PROJECT 4150-05-22.

A TEMPORARY LIMITED EASEMENT (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE. ALL TLES EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO NEW REFERENCE LINES.

CONVENTIONAL ABBREVIATIONS

ACCESS POINT / DRIVEWAY CONNECTION	AP	RELEASE OF RIGHTS REMAINING	ROR REM.
ACCESS RIGHTS	AR	RIGHT-OF-WAY	R/W
ACRES	AC.	SECTION	SEC.
AND OTHERS	ET. AL.	STATION	STA.
CENTERLINE	C/L	TEMPORARY LIMITED EASEMENT	TLE
CERTIFIED SURVEY MAP CORNER	CSM COR.	VOLUME	V.
DOCUMENT	DOC.		
EASEMENT	EASE.		
HIGHWAY EASEMENT	H.E.		
LAND CONTRACT	LC		
MONUMENT	MON.		
PAGE	P.		
PERMANENT LIMITED EASEMENT	PLE		
PROPERTY LINE	PL		
RECORDED AS	(100')		
REFERENCE LINE	R/L		

CURVE DATA

LONG CHORD	LC
LONG CHORD BEARING	LCB
RADIUS	R
DEGREE OF CURVE	D
CENTRAL ANGLE OR DELTA	Δ
LENGTH OF CURVE	L
TANGENT	T

CONVENTIONAL SYMBOLS

EXISTING R/W DEFINED ON PLAT	---
EXISTING H.E. LINE	---
PROPERTY LINE	---
LOT & TIE LINES	---
SLOPE INTERCEPTS	---
CORPORATE LIMITS	---
ACCESS RESTRICTED (BY PREVIOUS ACQUISITION/CONTROL)	---
ACCESS RESTRICTED (BY ACQUISITION)	---
NO ACCESS (BY STATUTORY AUTHORITY)	---
SECTION LINE	---
QUARTER LINE	---
SIXTEENTH LINE	---
EXISTING CENTERLINE	---
PROPOSED REFERENCE LINE	---
PARALLEL OFFSET	---

CONVENTIONAL UTILITY SYMBOLS

WATER	---
GAS	---
TELEPHONE	---
OVERHEAD	---
TRANSMISSION LINES	---
ELECTRIC	---
CABLE TELEVISION	---
FIBER OPTIC	---
SANITARY SEWER	---
STORM SEWER	---
NON COMPENSABLE	---
COMPENSABLE	---
POWER POLE	---
TELEPHONE POLE	---
TELEPHONE PEDESTAL	---
ELECTRIC TOWER	---

AVRES ASSOCIATES

I, JAMES R. CAPPEART, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT 4150-17-21 - 4.03 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE LAND SURVEYED.

SIGNATURE James R. Cappeart DATE 11-05-2015
PRINTED NAME JAMES R. CAPPEART
REGISTRATION NUMBER S-3044

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION
SIGNATURE Curt Van Erem DATE 2-09-2016
PRINTED NAME CURT VAN EREM

SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	R/W ACRES OR SF REQUIRED			PLE, TLE ACRES OR SF
			NEW	EXISTING	TOTAL	
9	THE NATURE CONSERVANCY	TLE	-----	-----	-----	0.064
10	STATE OF WISCONSIN DEPARTMENT OF NATURAL RESOURCES	TLE	-----	-----	-----	0.106

OWNER NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT.

R/W COORDINATES

PT NO	Y	X
400	259367.574	557078.946
401	259367.698	557104.713
402	258604.946	557107.679
403	258604.816	557075.842
404	258604.806	557073.347
405	258605.287	557041.677
406	259367.380	557038.713
407	259367.541	557072.170

TRANSPORTATION PROJECT PLAT NO: 4150-17-21 - 4.04

THAT PART OF THE FRACTIONAL NORTHEAST 1/4 OF THE NORTHEAST 1/4, SECTION 6, AND PART OF THE FRACTIONAL NORTHWEST 1/4 OF THE NORTHWEST 1/4, SECTION 5, TOWNSHIP 30 NORTH, RANGE 28 EAST, TOWN OF BAILEYS HARBOR, DOOR COUNTY, WISCONSIN.

RELOCATION ORDER STH 57- BAILEYS HARBOR - SISTER BAY (CTH Q - STH 42) DOOR COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, 84.30 WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

DOC#: 793805

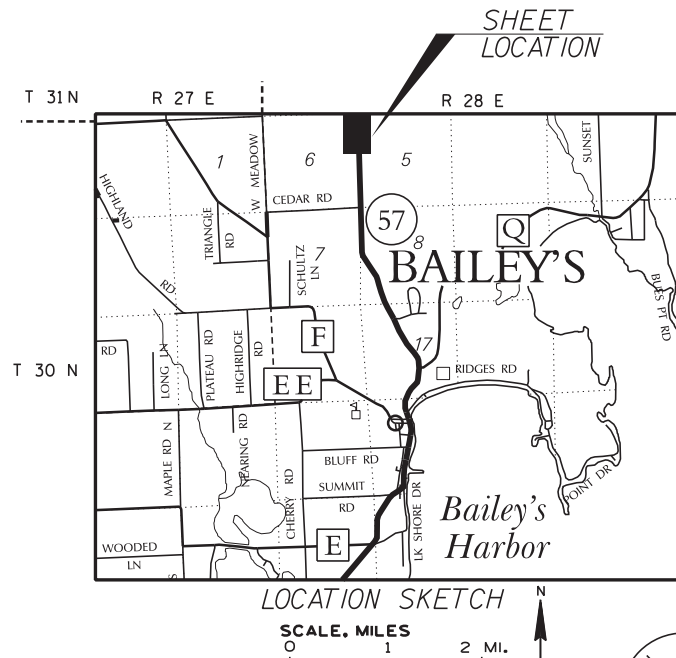
Recorded
Feb 17, 2016 AT 11:21 AM

CAREY PETERSILKA
REGISTER OF DEEDS
DOOR COUNTY, WI

Fee Amount Paid: \$ 25.00

eRecorded By:
WISDOT - NE REGION - GREEN BAY

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 4150-17-21-4.04
AMENDMENT NO:



NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, DOOR COUNTY, NAD 83 (1991) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICALLY 1" X 24" IRON PIPE) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS OF PUBLIC RECORD".

PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY LINES, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:
EXISTING HIGHWAY RIGHT-OF-WAY FOR STH 57 ESTABLISHED FROM PREVIOUS PROJECT 4150-05-22 AND PROJECT NO. 3346.

A **TEMPORARY LIMITED EASEMENT (TLE)** IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE. ALL TLES EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

CONVENTIONAL ABBREVIATIONS

ACCESS POINT/ DRIVEWAY CONNECTION	AP	RELEASE OF RIGHTS REMAINING	ROR	FOUND IRON PIPE/PIN
ACCESS RIGHTS	AR	RIGHT-OF-WAY	REM.	R/W MONUMENT
ACRES	AC.	SECTION	R/W	R/W STANDARD
AND OTHERS	ET.AL.	STATION	SEC.	SIGN
CENTERLINE	C/L	TEMPORARY LIMITED EASEMENT	STA.	SECTION CORNER MONUMENT
CERTIFIED SURVEY MAP	CSM	VOLUME	TLE	SECTION CORNER SYMBOL
CORNER	COR.		V.	
DOCUMENT	DOC.			
EASEMENT	EASE.			
HIGHWAY EASEMENT	H.E.			
LAND CONTRACT	LC			
MONUMENT	MON.			
PAGE	P.			
PERMANENT LIMITED EASEMENT	PLE			
PROPERTY LINE	PL			
RECORDED AS	(100')			
REFERENCE LINE	R/L			

CURVE DATA

LONG CHORD	LC	TEMPORARY LIMITED EASEMENT
LONG CHORD BEARING	LCB	PERMANENT LIMITED EASEMENT
RADIUS	R	R/W BOUNDARY POINT
DEGREE OF CURVE	D	PARCEL NUMBER
CENTRAL ANGLE OR DELTA	Δ	SIGN NUMBER
LENGTH OF CURVE	L	(OFF PREMISE)
TANGENT	T	BUILDING

CONVENTIONAL SYMBOLS

LP (1" UNLESS NOTED)	EXISTING R/W DEFINED ON PLAT
• (SET)	EXISTING H.E. LINE
Δ (SET)	PROPERTY LINE
ISIGN	LOT & TIE LINES
IB	SLOPE INTERCEPTS
IB	CORPORATE LIMITS
IB	ACCESS RESTRICTED (BY PREVIOUS ACQUISITION/CONTROL)
IB	ACCESS RESTRICTED (BY ACQUISITION)
IB	NO ACCESS (BY STATUTORY AUTHORITY)
IB	SECTION LINE
IB	QUARTER LINE
IB	SIXTEENTH LINE
IB	EXISTING CENTERLINE
IB	PROPOSED REFERENCE LINE
IB	PARALLEL OFFSET

CONVENTIONAL UTILITY SYMBOLS

WATER	W
GAS	G
TELEPHONE	T
OVERHEAD	OH
TRANSMISSION LINES	—
ELECTRIC	E
CABLE TELEVISION	TV
FIBER OPTIC	FO
SANITARY SEWER	SAN
STORM SEWER	SS
NON COMPENSABLE	COMPENSABLE
POWER POLE	—
TELEPHONE POLE	—
TELEPHONE PEDESTAL	—
ELECTRIC TOWER	—

SCALE, FEET

STH 57
CURVE DATA

PI STA. 1566+85.29
Y 259563.820
X 557071.225
Δ 01°57'45"
L 392.52'
T 196.28'
R 11459.20'
PC STA. 1564+89.01
PT STA. 1568+81.53

FRACT. NE-NE
6-30-28

FRACT. NW-NW
5-30-28

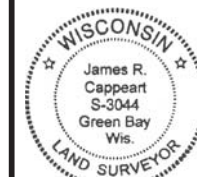


4" COUNTY MON.
Y=259942.499
X=557083.165

BAILEYS HARBOR

AVRES ASSOCIATES

I, JAMES R. CAPPEART, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT 4150-17-21 - 4.04 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE LAND SURVEYED.

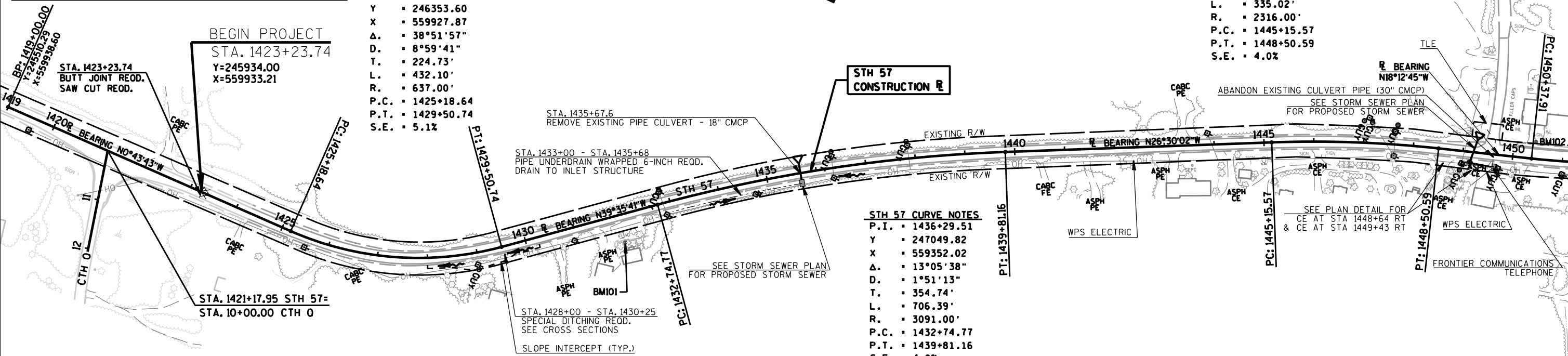


SIGNATURE James R. Cappeart DATE 11-05-2015
PRINTED NAME JAMES R. CAPPEART
REGISTRATION NUMBER S-3044
THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION
SIGNATURE Curt Van Erem DATE 2-09-2016
PRINTED NAME CURT VAN EREM

BENCH MARKS			
NO.	STATION	DESCRIPTION	ELEV.
101	1431+92.4	NW CORNER OF TOP STEP OF SIDEWALK TO HSE #8342	619.56
102	1450+43.4	TOP NE CORNER TO SIGN BASE FOR "PCI"	625.17

STH 57 CURVE NOTES	
P.I.	1427+43.38
Y	246353.60
X	559927.87
Δ	38°51'57"
D.	8°59'41"
T.	224.73'
L.	432.10'
R.	637.00'
P.C.	1425+18.64
P.T.	1429+50.74
S.E.	5.1%

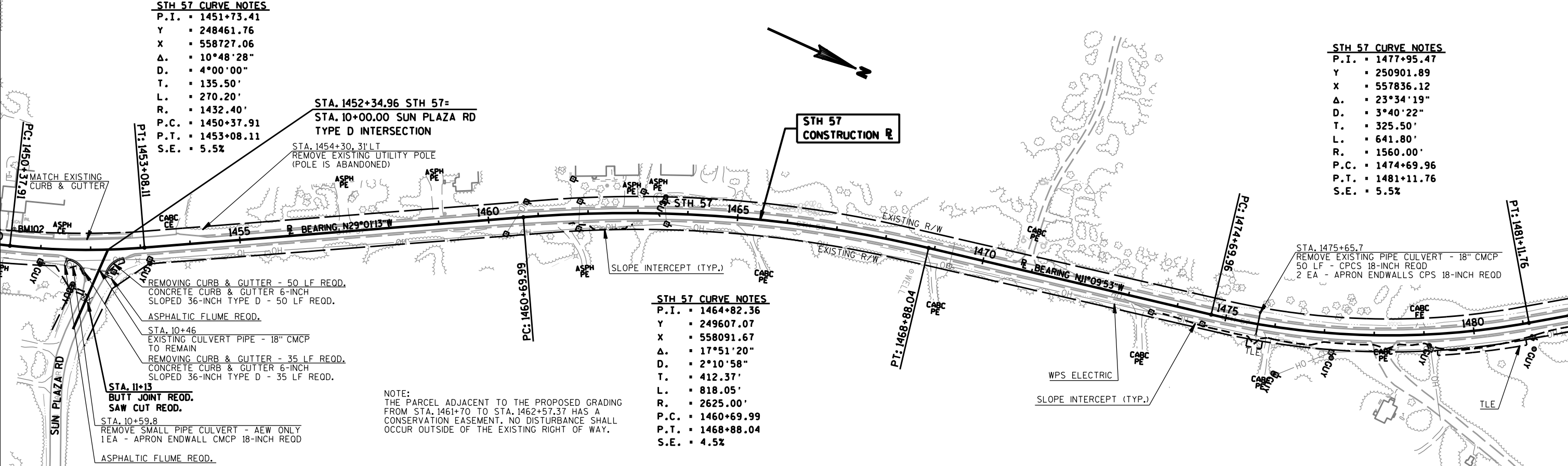
STH 57 CURVE NOTES	
P.I.	1446+83.38
Y	247995.72
X	558880.40
Δ	8°17'17"
D.	2°28'26"
T.	167.80'
L.	335.02'
R.	2316.00'
P.C.	1445+15.57
P.T.	1448+50.59
S.E.	4.0%



STH 57 CURVE NOTES	
P.I.	1451+73.41
Y	248461.76
X	558727.06
Δ	10°48'28"
D.	4°00'00"
T.	135.50'
L.	270.20'
R.	1432.40'
P.C.	1450+37.91
P.T.	1453+08.11
S.E.	5.5%

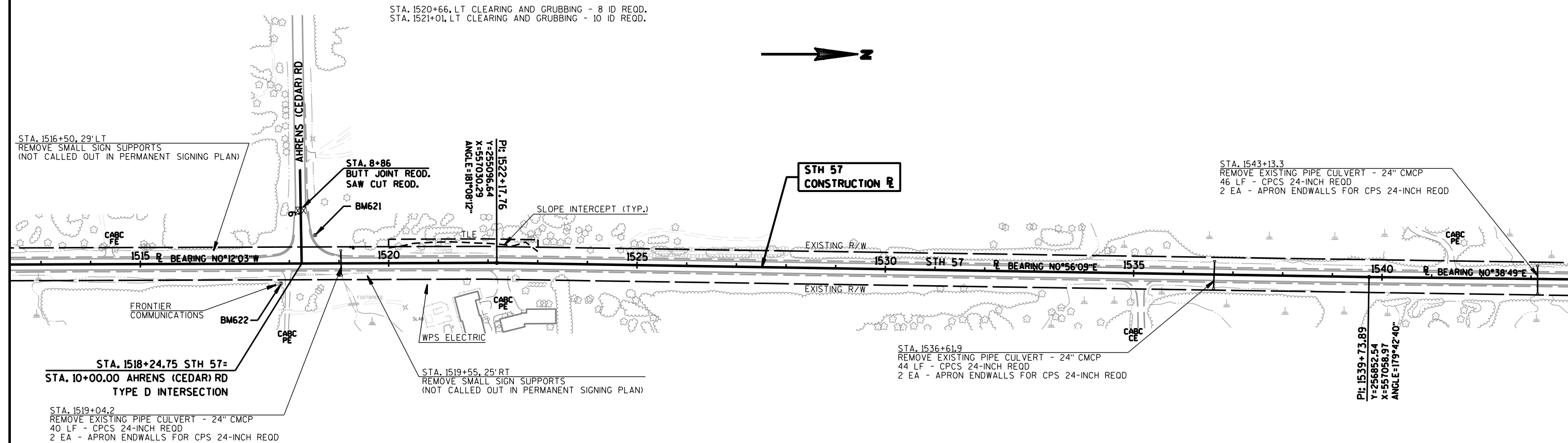
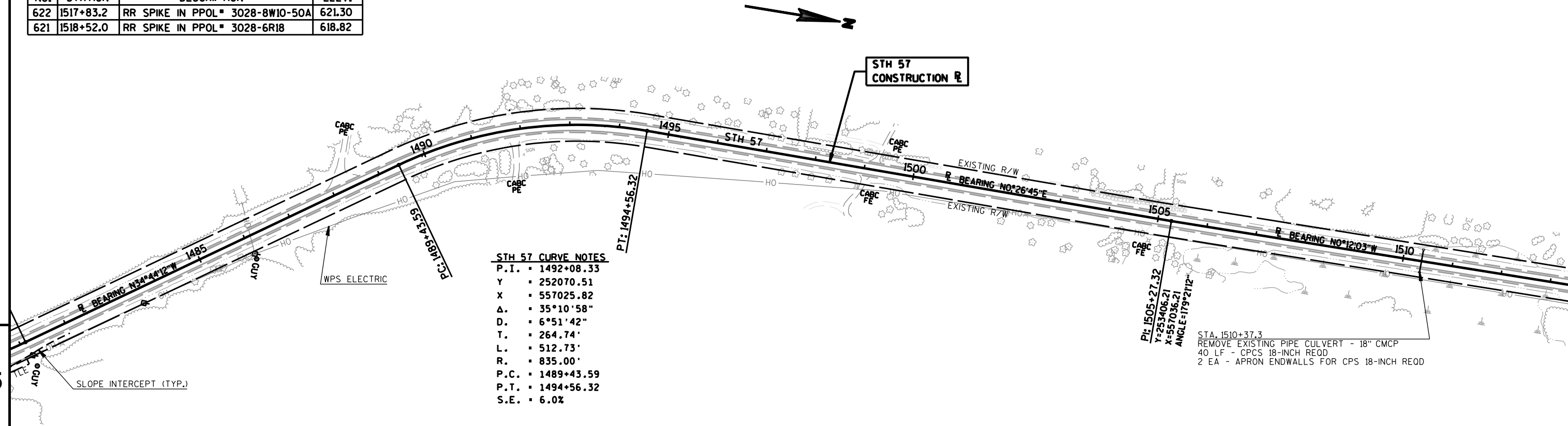
STH 57 CURVE NOTES	
P.I.	1477+95.47
Y	250901.89
X	557836.12
Δ	23°34'19"
D.	3°40'22"
T.	325.50'
L.	641.80'
R.	1560.00'
P.C.	1474+69.96
P.T.	1481+11.76
S.E.	5.5%

STH 57 CURVE NOTES	
P.I.	1464+82.36
Y	249607.07
X	558091.67
Δ	17°51'20"
D.	2°10'58"
T.	412.37'
L.	818.05'
R.	2625.00'
P.C.	1460+69.99
P.T.	1468+88.04
S.E.	4.5%



BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
622	1517+83.2	RR SPIKE IN PPOL = 3028-8W10-50A	621.30
621	1518+52.0	RR SPIKE IN PPOL = 3028-6R18	618.82



PROJECT NO: 4150-17-71

HWY: STH 57

COUNTY: DOOR

PLAN

SHEET

E

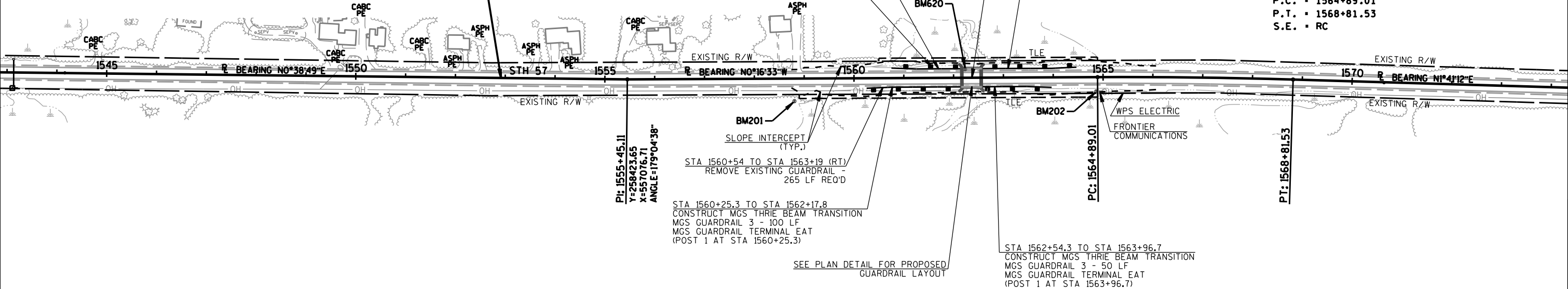
BENCH MARKS			
NO.	STATION	DESCRIPTION	ELEV.
201	1558+80.3	RR SPIKE IN MOST NORTHERLY CEDAR TREE IN CLUMP OF 3 TREES ACROSS FROM P.E. 8997	603.34
620	1562+23.05	CAP IN SOUTHWEST WINGWALL OF STRUCTURE STAMPED 6M26	604.25
202	1564+85.9	RR SPIKE IN PPOL# 3028-5W9	602.79
619	1596+50.2	RR SPIKE IN PPOL# 3028-6R18	614.75

STH 57
CONSTRUCTION R

STA. 1560+00 - STA. 1562+00, LT CLEARING AND GRUBBING - 2 STA REQD.
STA. 1563+00 - STA. 1566+00, LT CLEARING AND GRUBBING - 3 STA REQD.

REMOVE STRUCTURE C-15-0037
SEE PROPOSED STRUCTURE B-15-0026
PLANS FOR DETAILS

STH 57 CURVE NOTES
P.I. = 1566+85.29
Y = 259563.82
X = 557071.23
Δ = 1°57'45"
D. = 0°30'00"
T. = 196.28'
L. = 392.53'
R. = 11459.20'
P.C. = 1564+89.01
P.T. = 1568+81.53
S.E. = RC



STH 57 CURVE NOTES
P.I. = 1580+49.35
Y = 260927.33
X = 557111.38
Δ = 3°18'39"
D. = 0°27'44"
T. = 358.23'
L. = 716.27'
R. = 12395.00'
P.C. = 1576+91.12
P.T. = 1584+07.39
S.E. = 2.2%

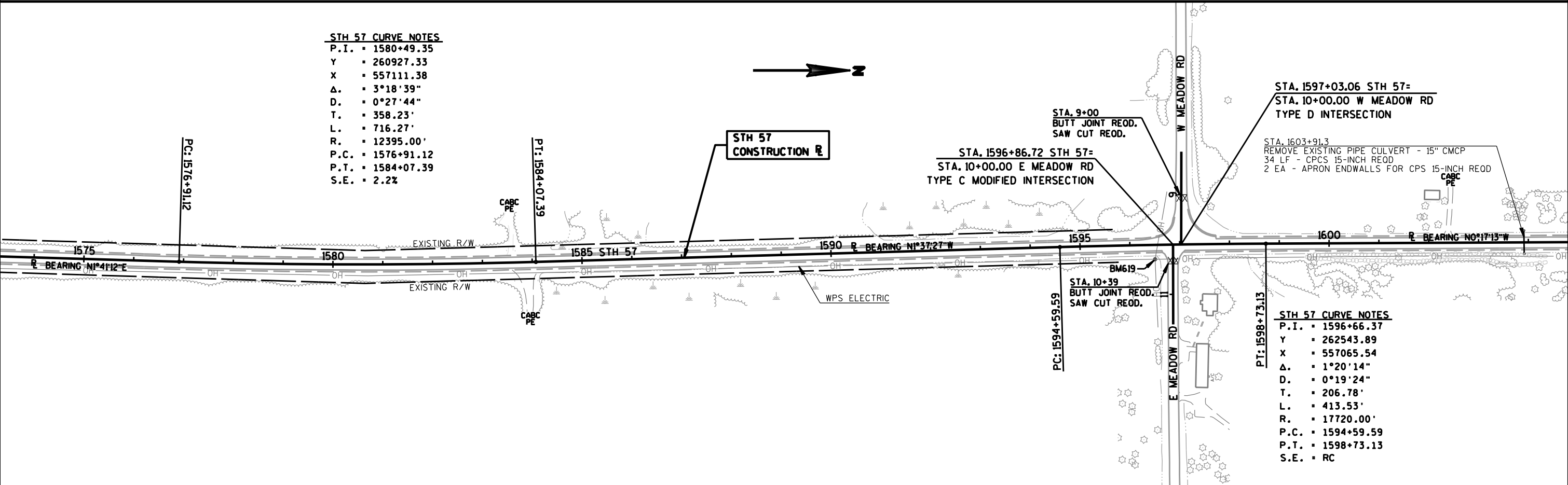
STH 57
CONSTRUCTION R

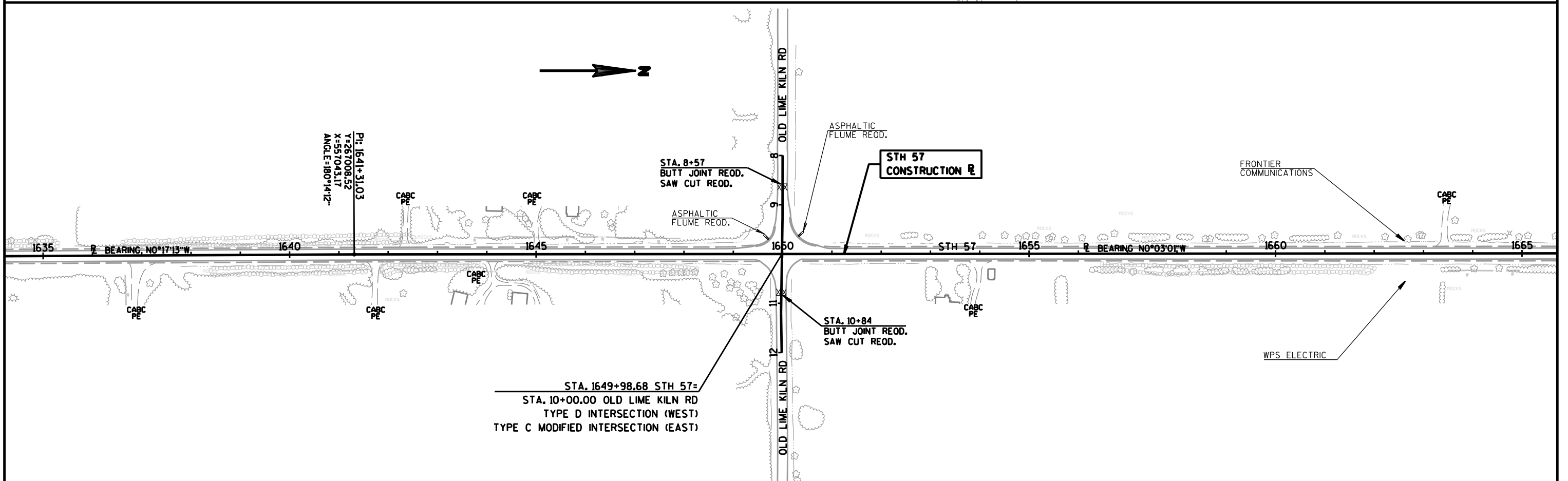
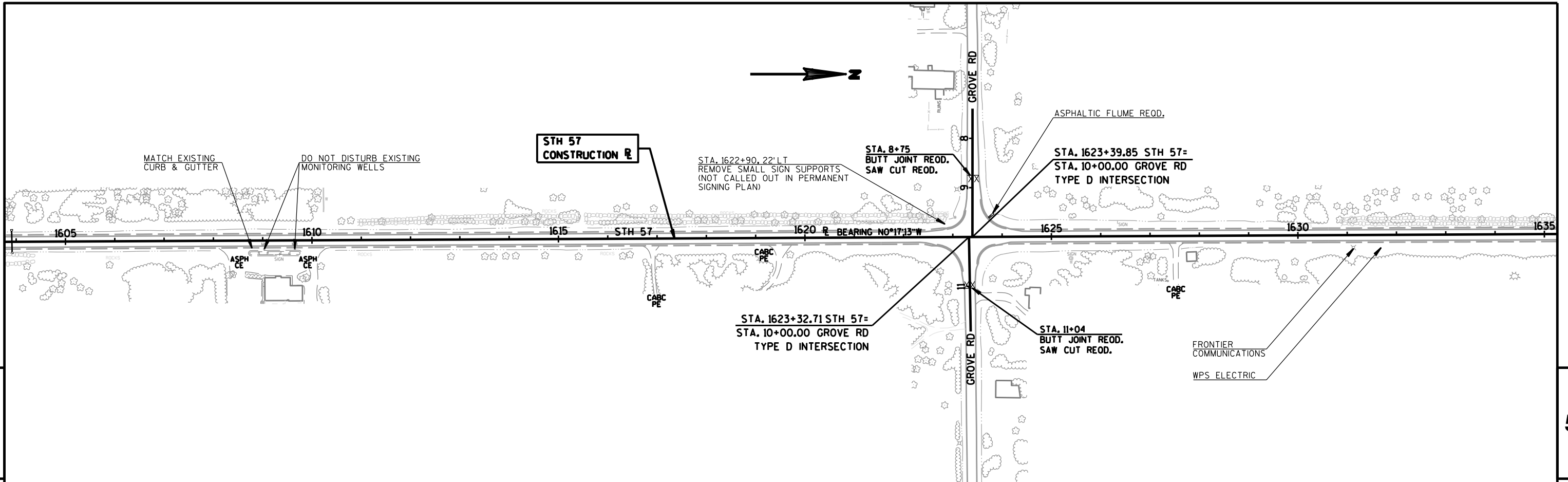
STA. 1596+86.72 STH 57=
STA. 10+00.00 E MEADOW RD
TYPE C MODIFIED INTERSECTION

STA. 9+00
BUTT JOINT REQD.
SAW CUT REQD.

STA. 1597+03.06 STH 57=
STA. 10+00.00 W MEADOW RD
TYPE D INTERSECTION

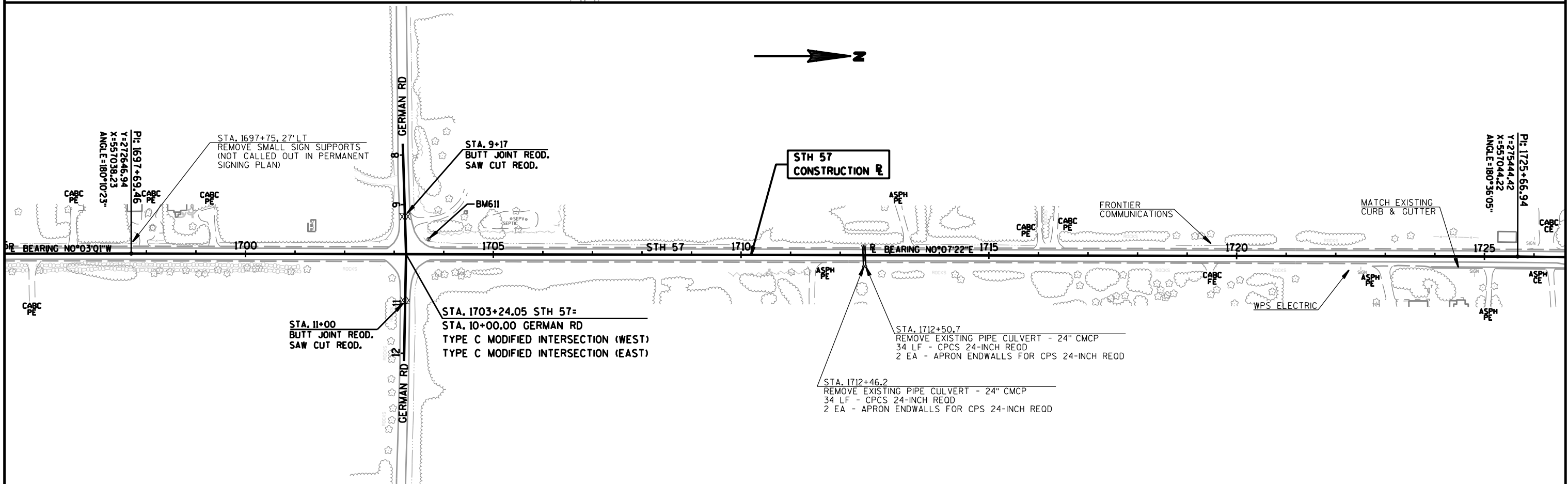
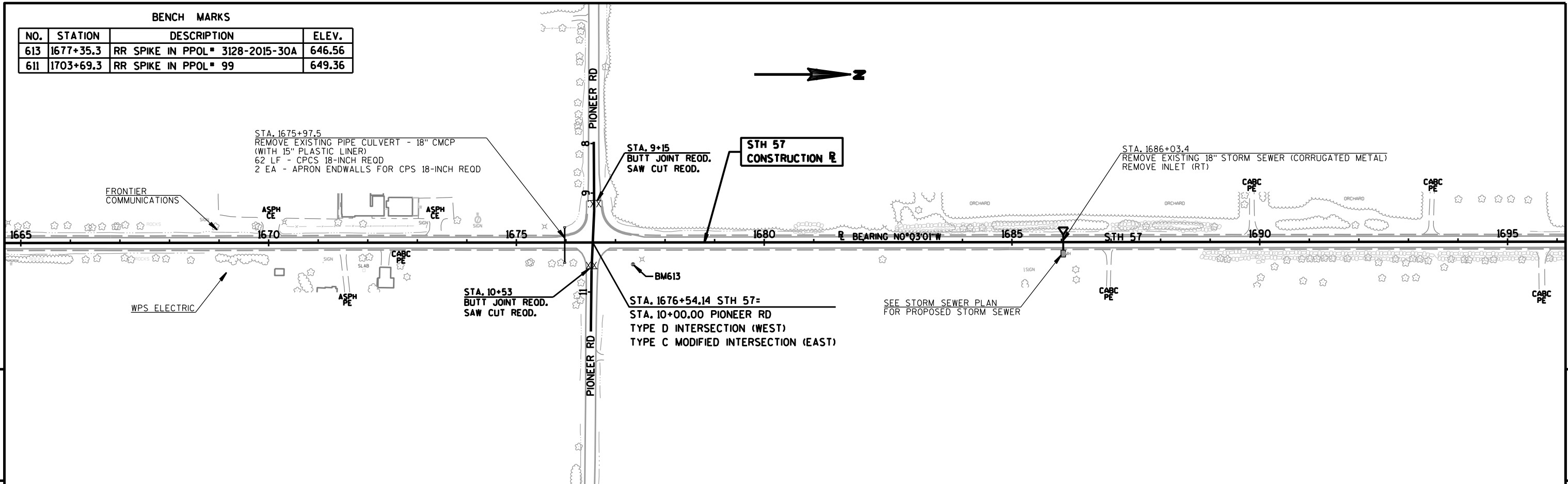
STA. 1603+91.3
REMOVE EXISTING PIPE CULVERT - 15" CMCP
34 LF - CPCS 15-INCH REQD
2 EA - APRON ENDWALLS FOR CPS 15-INCH REQD





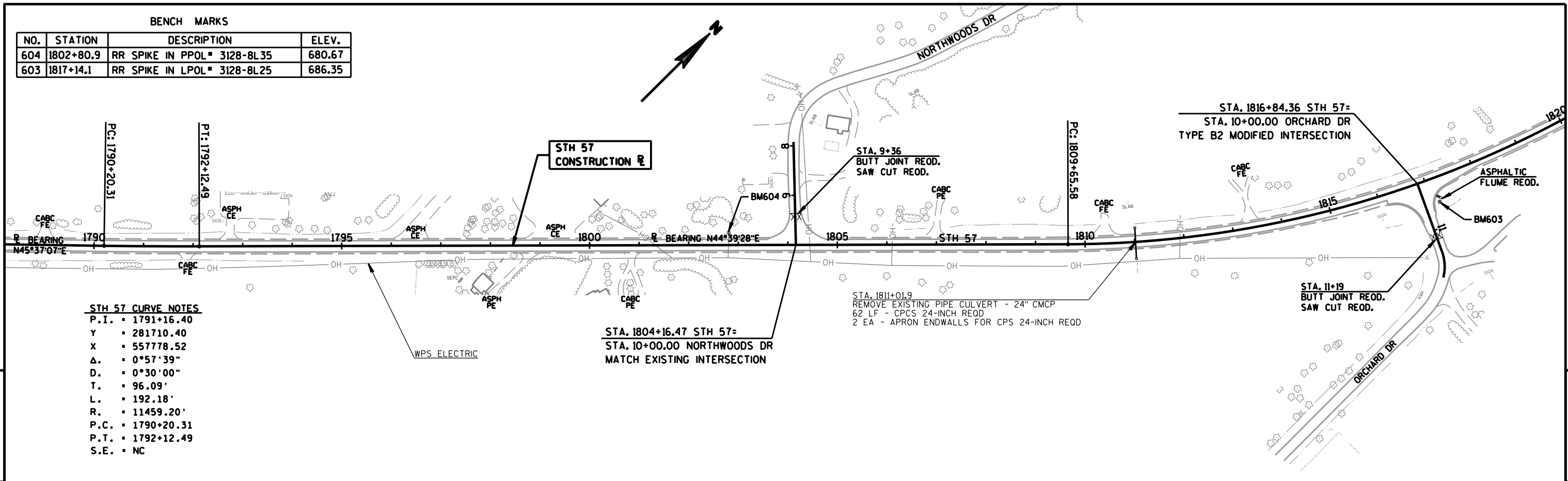
PROJECT NO: 4150-17-71	HWY: STH 57	COUNTY: DOOR	PLAN	SHEET	E
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BENCH MARKS			
NO.	STATION	DESCRIPTION	ELEV.
613	1677+35.3	RR SPIKE IN PPOL# 3128-2015-30A	646.56
611	1703+69.3	RR SPIKE IN PPOL# 99	649.36

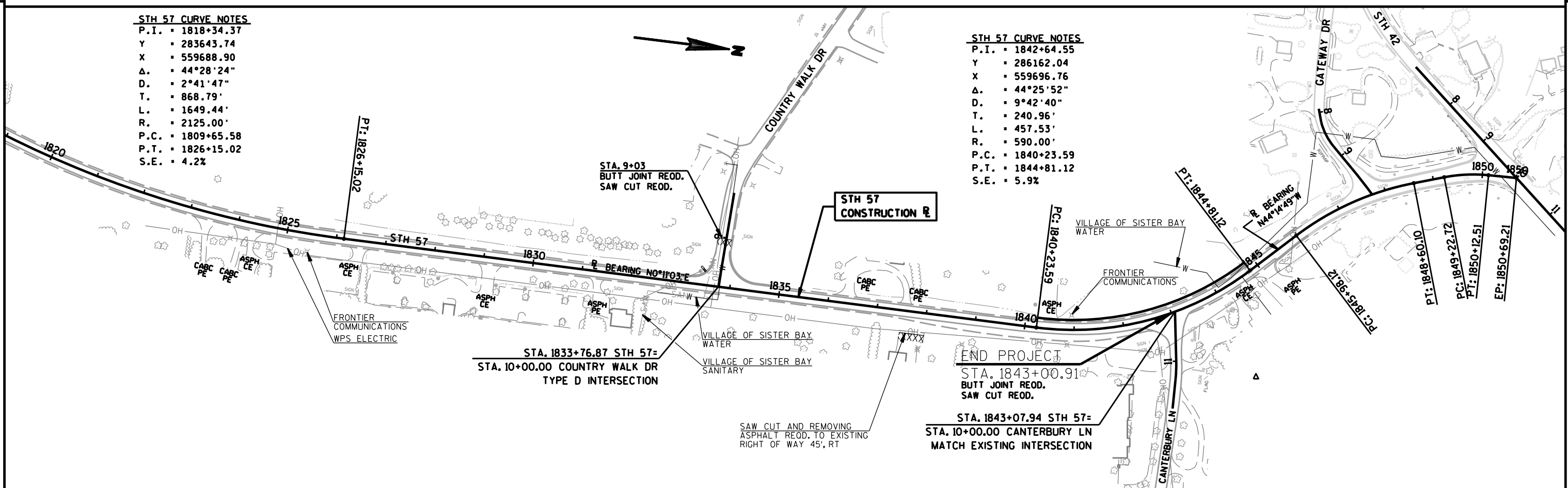


PROJECT NO: 4150-17-71	HWY: STH 57	COUNTY: DOOR	PLAN	SHEET	E
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BENCH MARKS			
NO.	STATION	DESCRIPTION	ELEV.
604	1802+80.9	RR SPIKE IN PPOL * 3128-8L35	680.67
603	1817+14.1	RR SPIKE IN LPOL * 3128-8L25	686.35



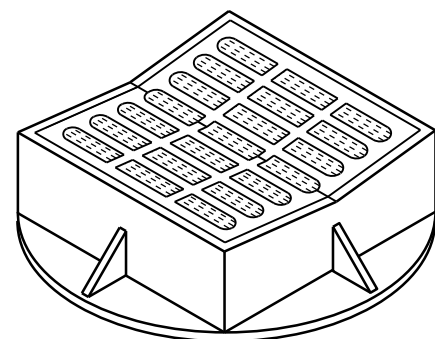
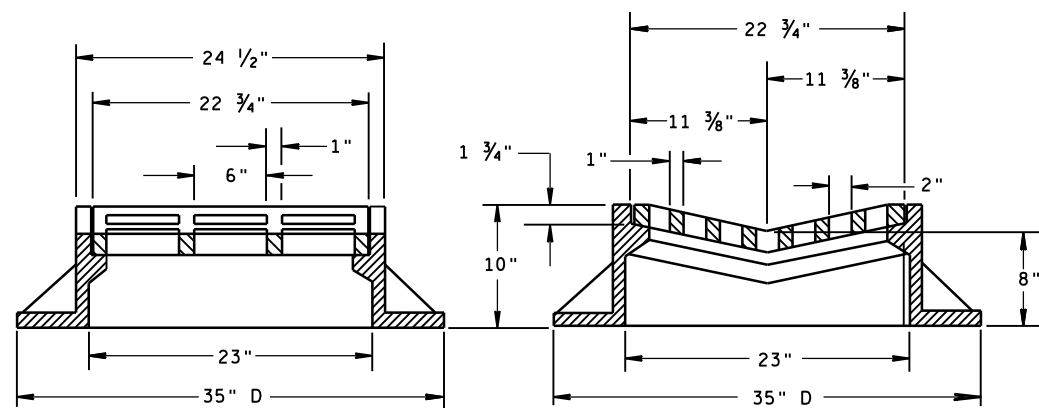
STH 57 CURVE NOTES	
P.I.	1791+16.40
Y	281710.40
X	557778.52
Δ	0°57'39"
D	0°30'00"
T	96.09'
L	192.18'
R	11459.20'
P.C.	1790+20.31
P.T.	1792+12.49
S.E.	NC



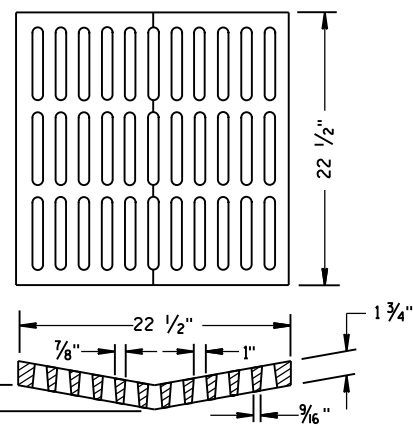
STH 57 CURVE NOTES	
P.I.	1842+64.55
Y	286162.04
X	559696.76
Δ	44°25'52"
D	9°42'40"
T	240.96'
L	457.53'
R	590.00'
P.C.	1840+23.59
P.T.	1844+81.12
S.E.	5.9%

Standard Detail Drawing List

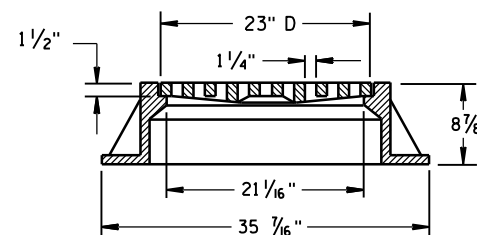
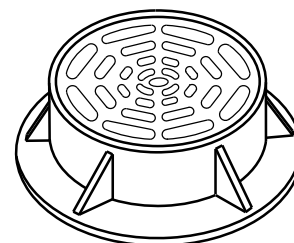
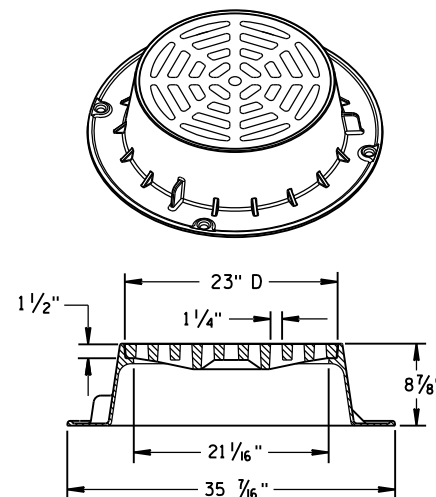
08A05-19B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08C06-02	INLETS 3-FT AND 4-FT DIAMETER
08C08-02	INLETS MEDIAN 1 AND 2 GRATE
08D01-19	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09A01-13A	AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND D AND TEE INTERSECTION BYPASS LANE
09A01-13B	AT-GRADE SIDE ROAD INTERSECTION, TYPE "A1" & "A2"
12A03-10	NAME PLATE (STRUCTURES)
14B28-03	GUARDRAIL MOW STRIP
14B42-04A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-04B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-04C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-02A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-02B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-02C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-04A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-04K	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C02-06A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C04-03	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M. P. H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C05-03	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M. P. H. OR LESS
15C08-17A	LONGITUDINAL MARKING (MAINLINE)
15C08-17B	PAVEMENT MARKING (TURN LANES)
15C12-05	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C19-04A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C33-02	STOP LINE AND CROSSWALK PAVEMENT MARKING
15C35-01A	PAVEMENT MARKING (INTERSECTIONS)
15D28-03	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY



TYPE "B"

ALTERNATIVE GRATE FOR
TYPE "B" COVER

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS POSSIBLE.
 NOTED AS TYPE B-A ON THE DRAINAGE TABLE



TYPE "C"

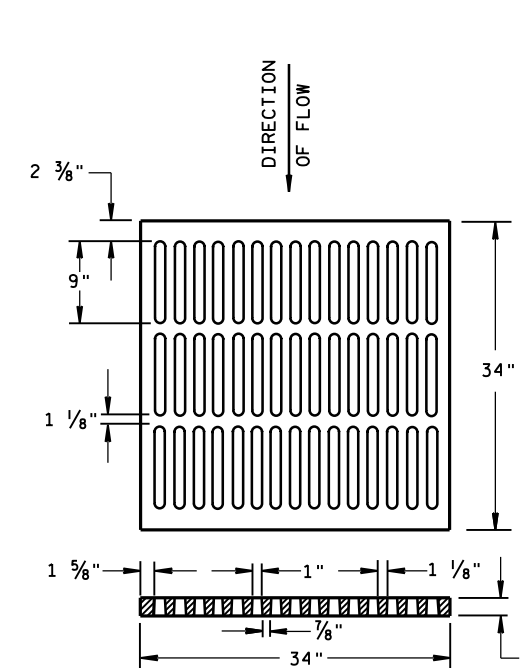
NOTE: EITHER CASTING IS ACCEPTABLE

GENERAL NOTES

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

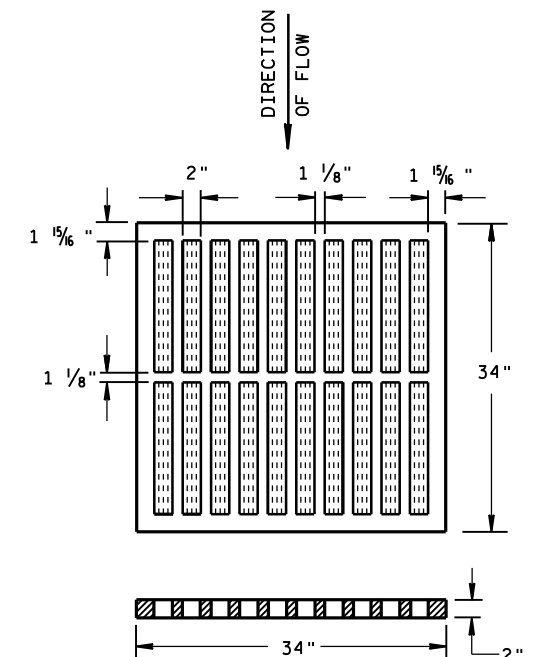
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.



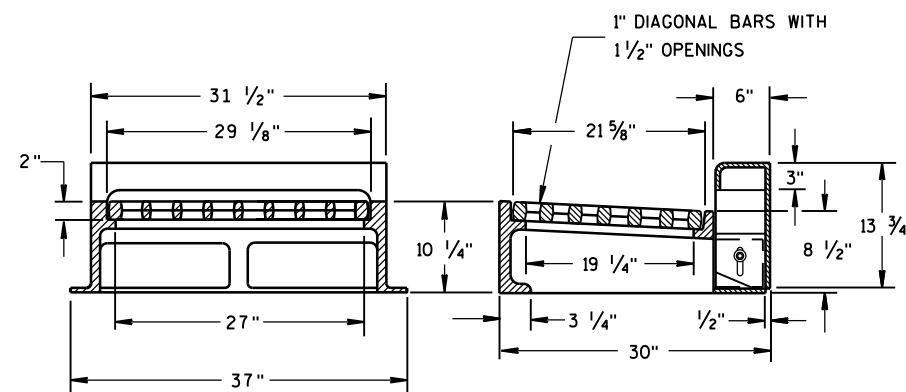
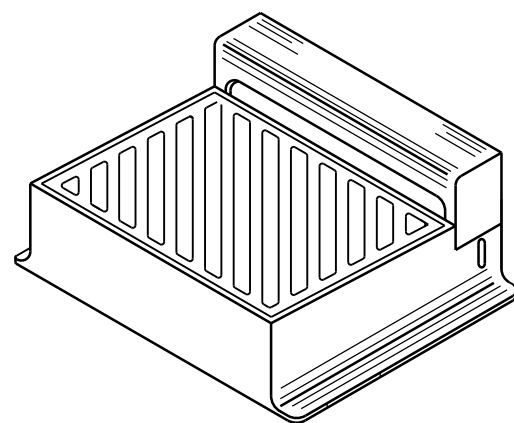
ALTERNATIVE TYPE "MS"

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS PERMITTED
 NOTED AS TYPE MS-A ON THE DRAINAGE TABLE



TYPE "MS"

USE ON FREEWAYS AND EXPRESSWAYS
 NOTED AS TYPE MS ON DRAINAGE TABLE



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

TYPE "WM"

DIAGONAL SLOTS, SHALL BE ORIENTED
 TO THE DIRECTION OF FLOW AS ILLUSTRATED.
 GRATES ARE MANUFACTURED TO BE REVERSIBLE.

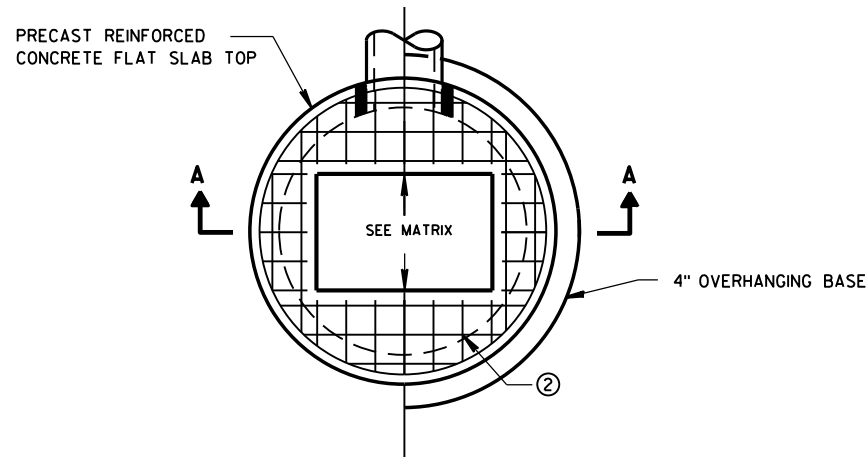
DIRECTION
OF FLOW

INLET COVERS
 TYPE B, B-A, C,
 MS, MS-A, & WM

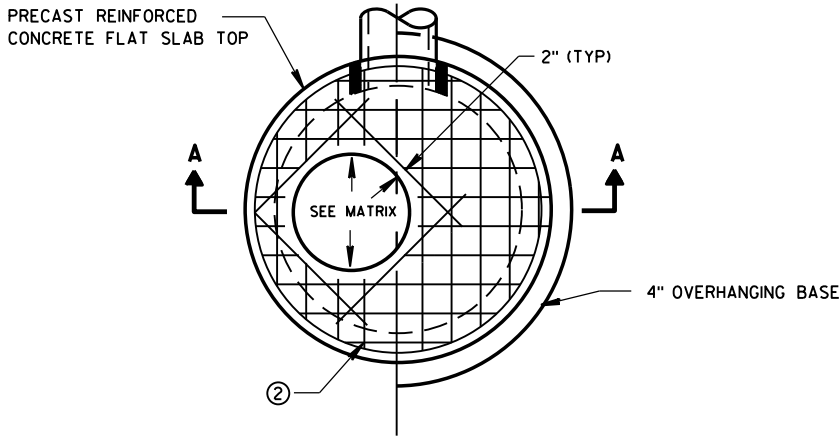
STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION

APPROVED
 11/27/2013
 DATE
 FHWA

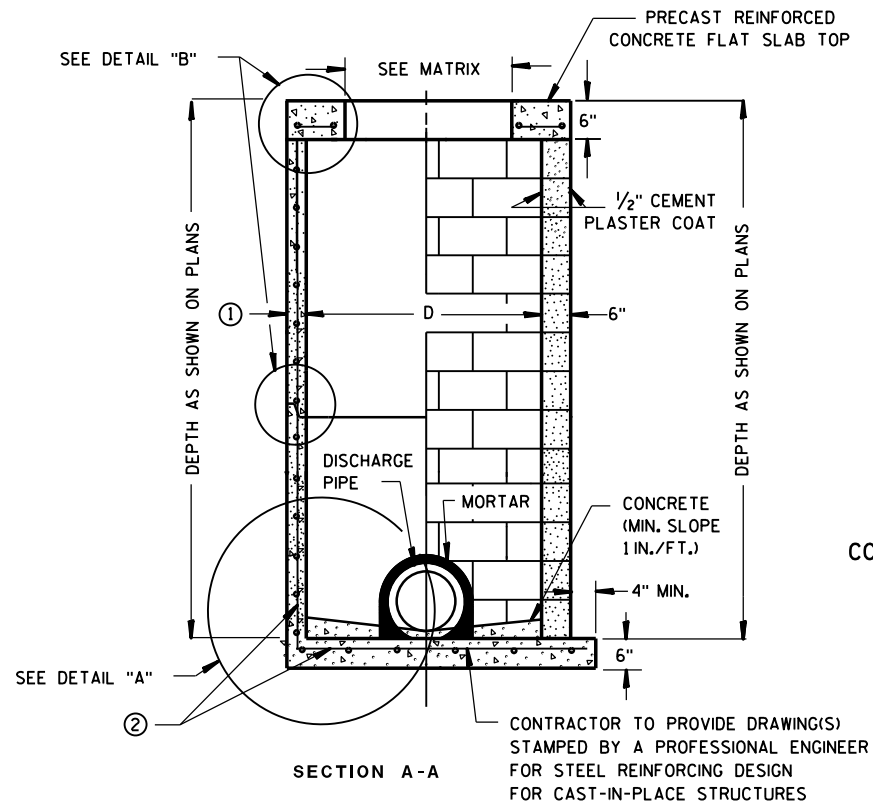
/S/ Jerry H. Zogg
 ROADWAY STANDARDS DEVELOPMENT
 ENGINEER



PLAN VIEW RECTANGULAR OPENING

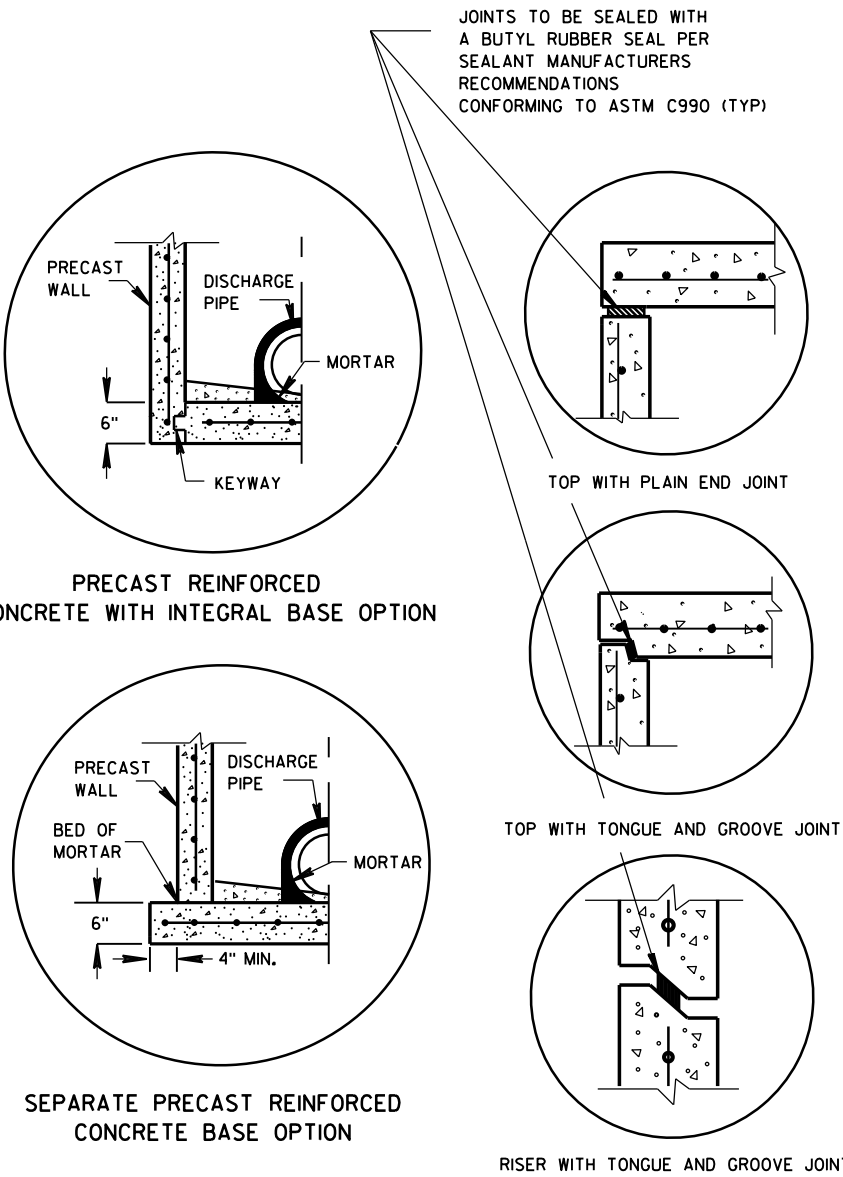


PLAN VIEW CIRCULAR OPENING



PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE OR CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

CIRCULAR INLETS W/ FLAT TOP



DETAIL "A"

DETAIL "B"

INLETS 3-FT AND 4-FT DIAMETER

GENERAL NOTES

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

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

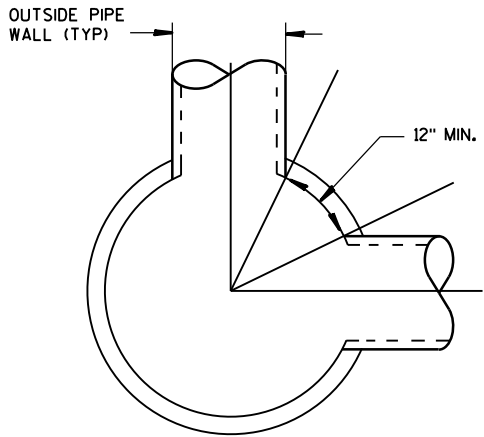
4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

- ① MINIMUM WALL THICKNESS SHALL BE 4-IN FOR 3-FT DIAMETER AND 5-IN FOR 4-FT DIAMETER PRECAST INLETS.
- ② FOR PRECAST CATCH BASINS PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

INLET COVER OPENING MATRIX

	INLET COVER TYPE	ALL A'S	ALL B'S	BW	C	F	ALL H'S	S	T	V	WM	Z
INLET SIZE	OPENING SIZE (FT)											
3-FT	2 DIA.				X							X
	2X2	X	X					X		X		
4-FT	2 DIA.				X							X
	2X2	X	X					X		X		
	2X2.5			X				X	X	X	X	
	2X3						X					
	2.5X3					X						



DETAIL "C"

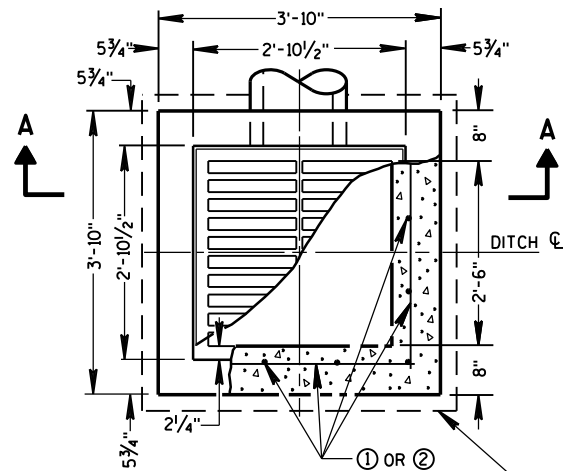
PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18

INLETS 3-FT AND 4-FT DIAMETER

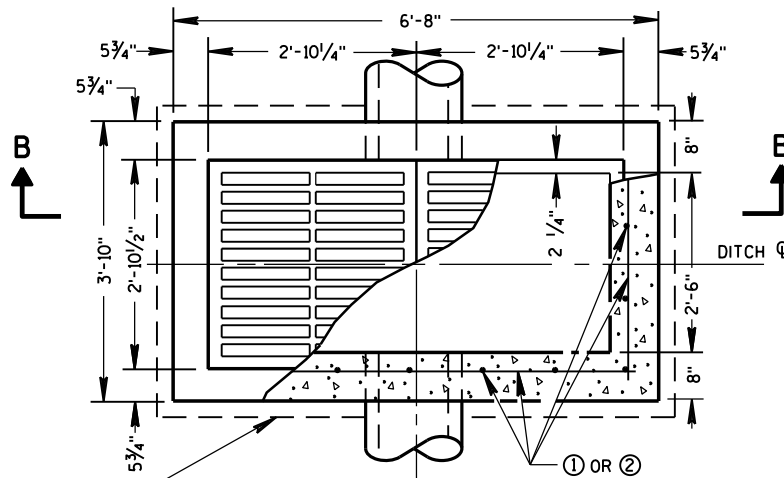
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept., 2016 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA UNIT SUPERVISOR

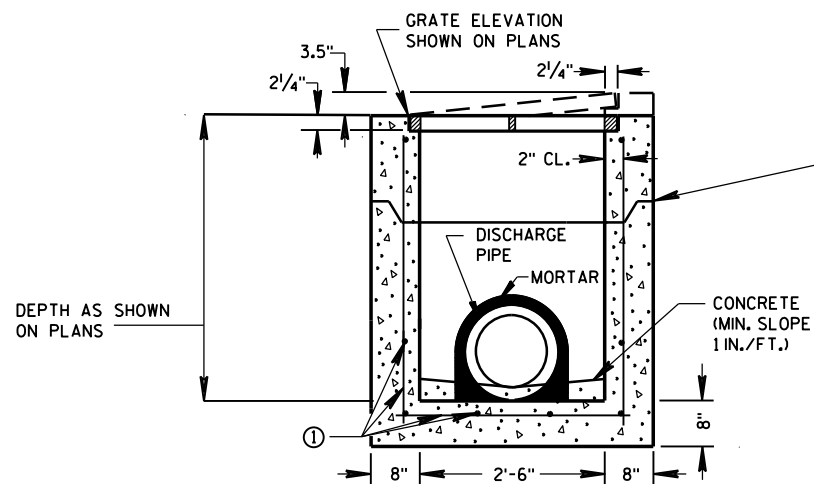


PLAN VIEW

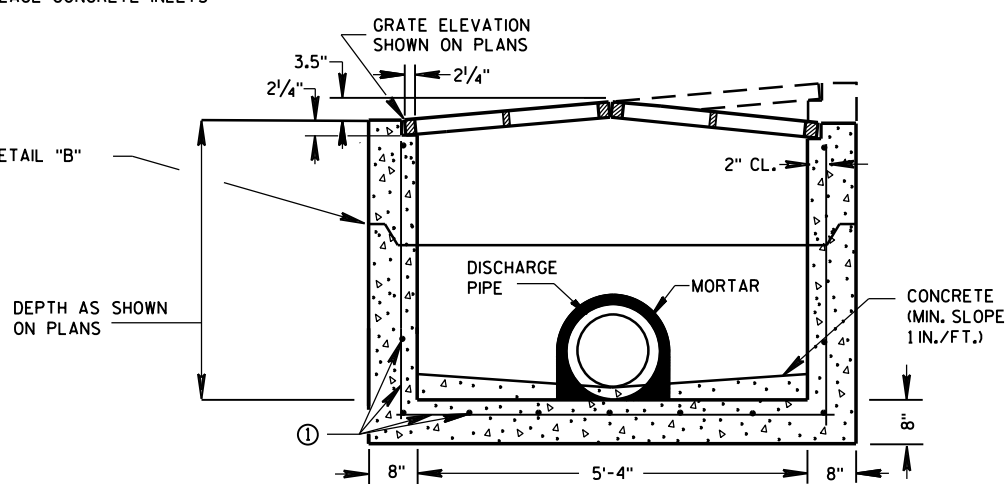
4" OVERHANGING BASE ON REINFORCED
CAST-IN-PLACE CONCRETE INLETS



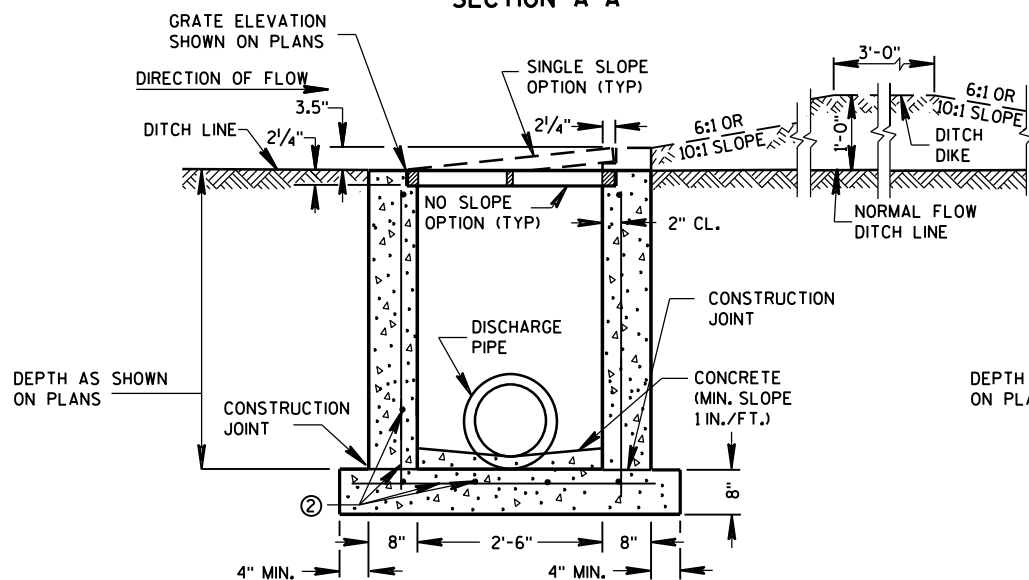
PLAN VIEW



PRECAST REINFORCED CONCRETE
SECTION A-A

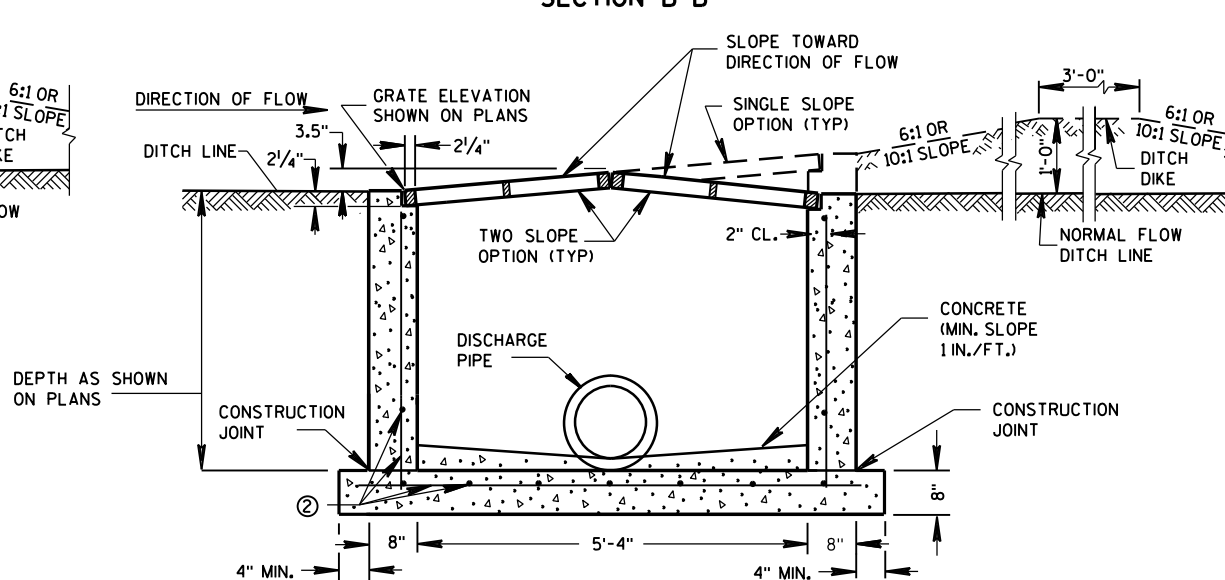


PRECAST REINFORCED CONCRETE
SECTION B-B



REINFORCED CAST-IN-PLACE CONCRETE
SECTION A-A

INLETS MEDIAN 1 GRATE



REINFORCED CAST-IN-PLACE CONCRETE
SECTION B-B

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, IG-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. BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION 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.

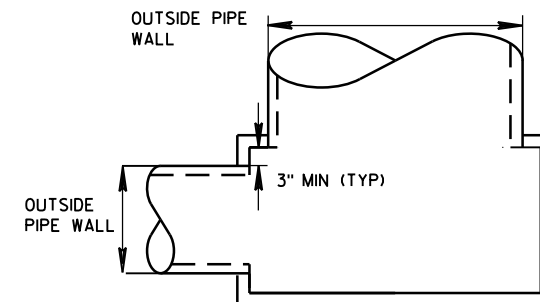
ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

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.

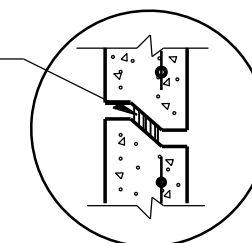
PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	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)



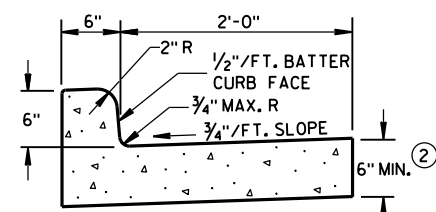
DETAIL "B"

INLETS MEDIAN 1 AND 2 GRATE

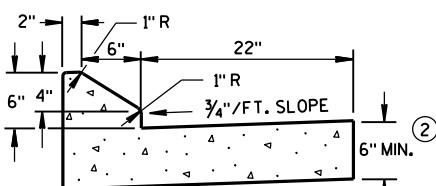
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept., 2016
DATE
FHWA

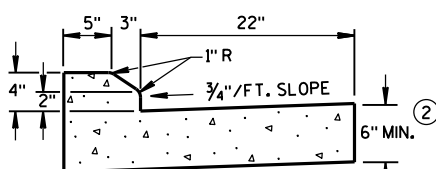
/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERVISOR



TYPES A & D ①

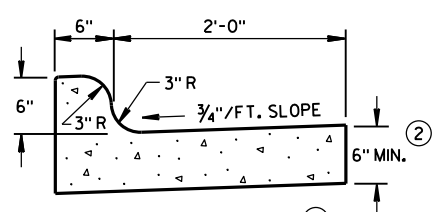


6" SLOPED CURB TYPES G & J ①



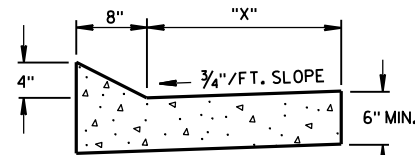
4" SLOPED CURB TYPES G & J ①

CONCRETE CURB & GUTTER 30"



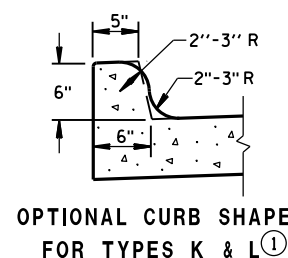
TYPES K & L ①

CONCRETE CURB & GUTTER 30"

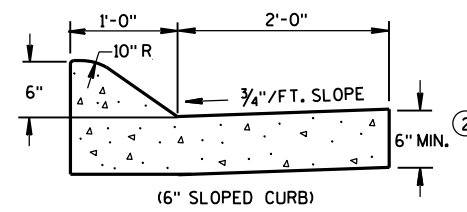


TYPES TBT & TBTT ①
CONCRETE CURB & GUTTER

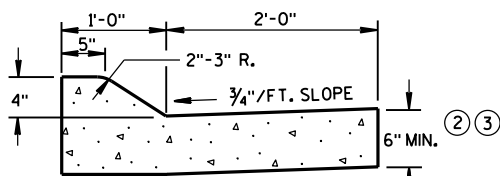
TBT & TBTT	"X"
30"	22"
36"	28"



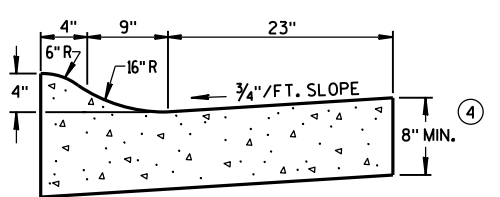
OPTIONAL CURB SHAPE
FOR TYPES K & L ①



(6" SLOPED CURB)



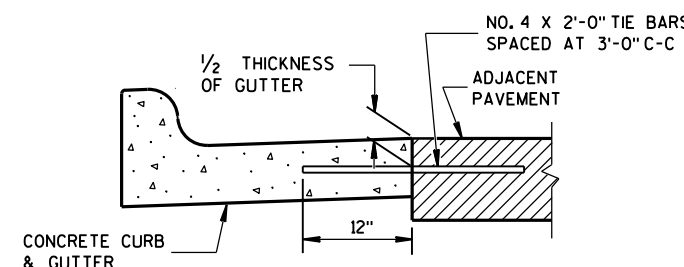
(4" SLOPED CURB)
TYPES A & D ①



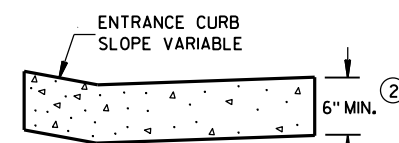
4" SLOPED CURB TYPES R & T ① ⑤
CONCRETE CURB & GUTTER 36"

GENERAL NOTES

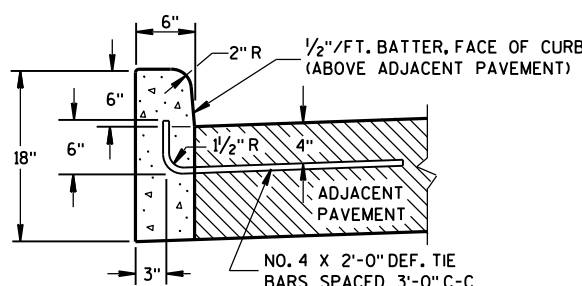
- DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.
- PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.
- INTEGRAL CURB & GUTTER SHALL CONFORM 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.
- TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K, R AND TBTT.
 - 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.
 - USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH AN ADJACENT CONCRETE TRUCK APRON PLACED BEHIND BACK OF CURB.
 - 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.
 - THE FACE OF CURB IS 6" FROM THE BACK OF CURB.
 - WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.



TYPICAL TIE BAR LOCATION ①

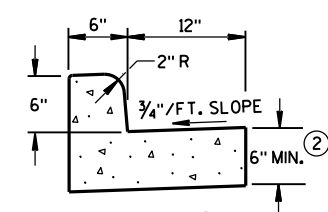


DRIVEWAY ENTRANCE CURB
(WHEN DIRECTED BY THE ENGINEER)

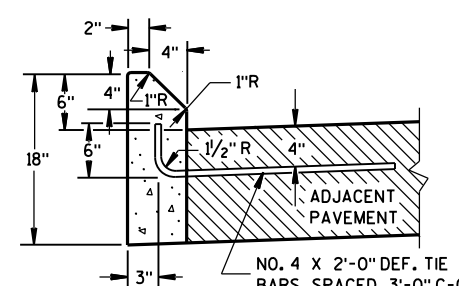


TYPES A & D ①

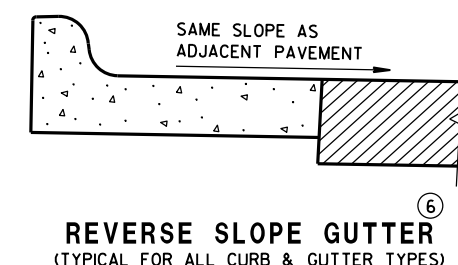
CONCRETE CURB



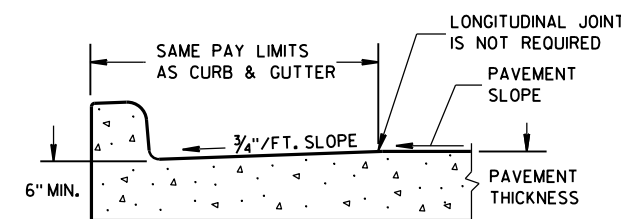
TYPES A & D
CONCRETE CURB & GUTTER 18"



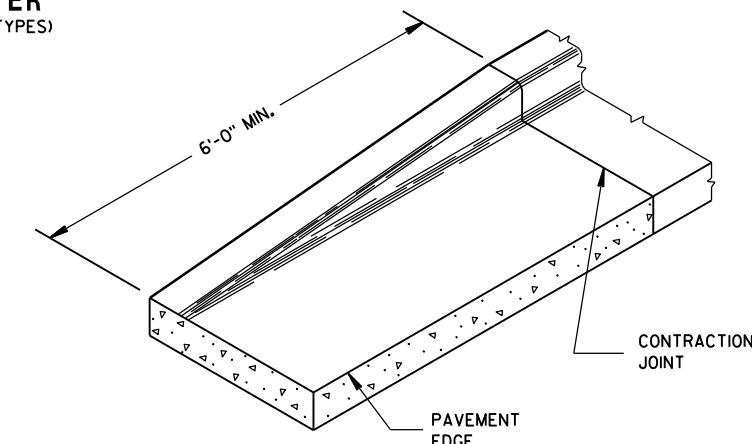
TYPES G & J ①



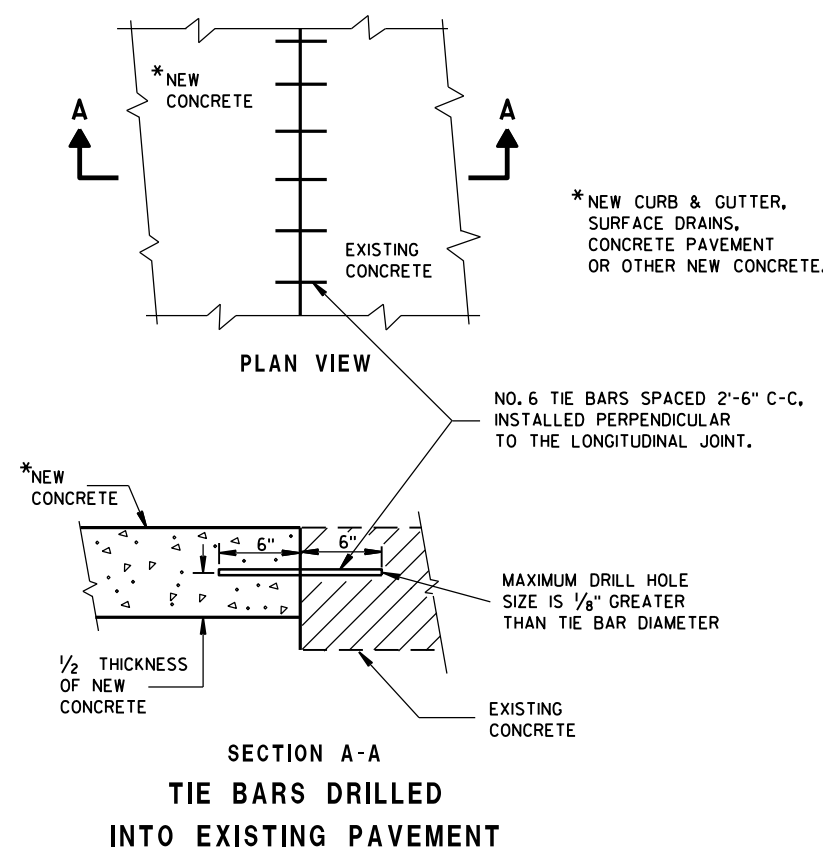
REVERSE SLOPE GUTTER
(TYPICAL FOR ALL CURB & GUTTER TYPES)



PARTIAL SECTION OF PAVEMENT
WITH INTEGRAL CURB & GUTTER



END SECTION CURB & GUTTER



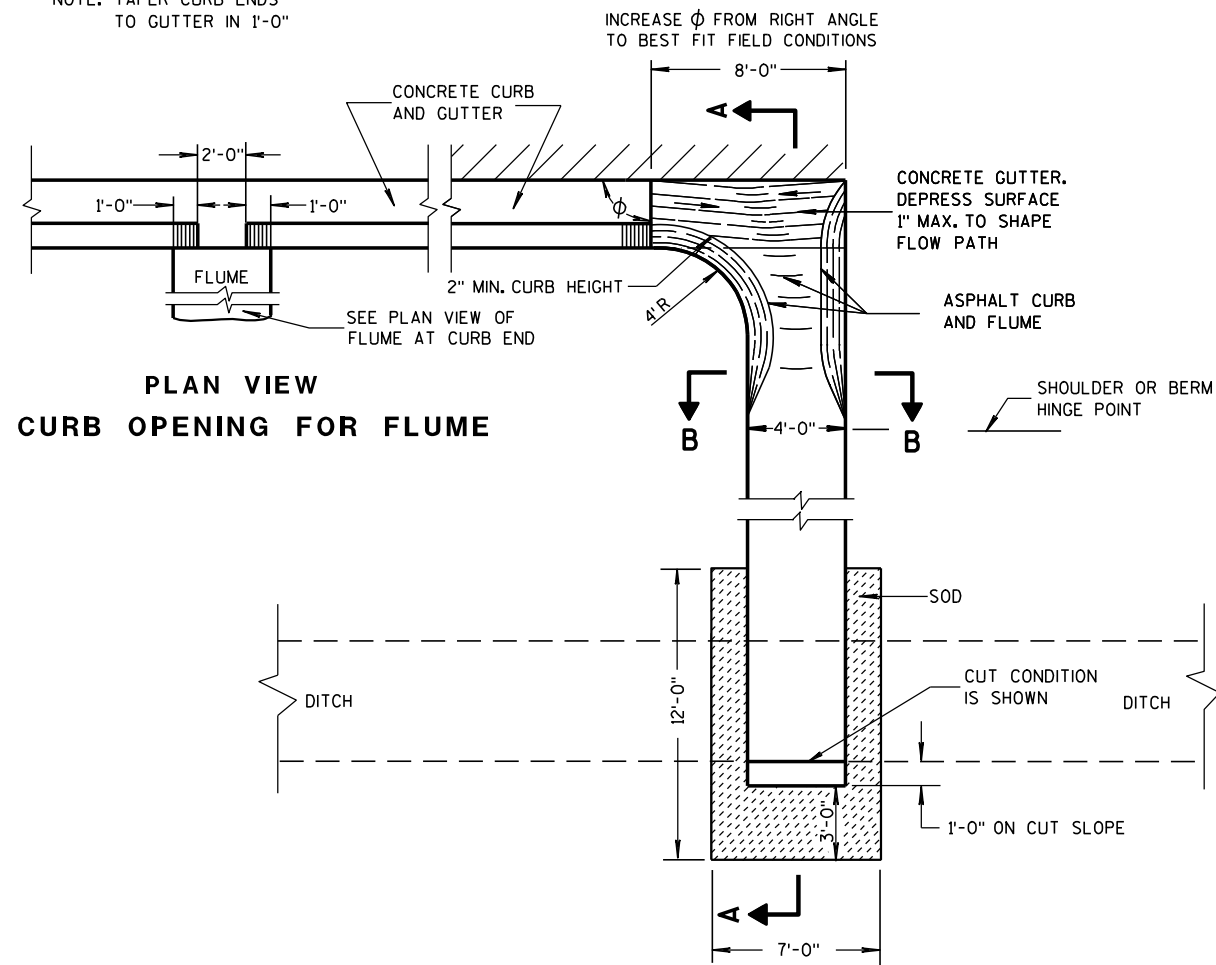
CONCRETE CURB, CONCRETE
CURB & GUTTER AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2016
DATE /S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER
FHWA

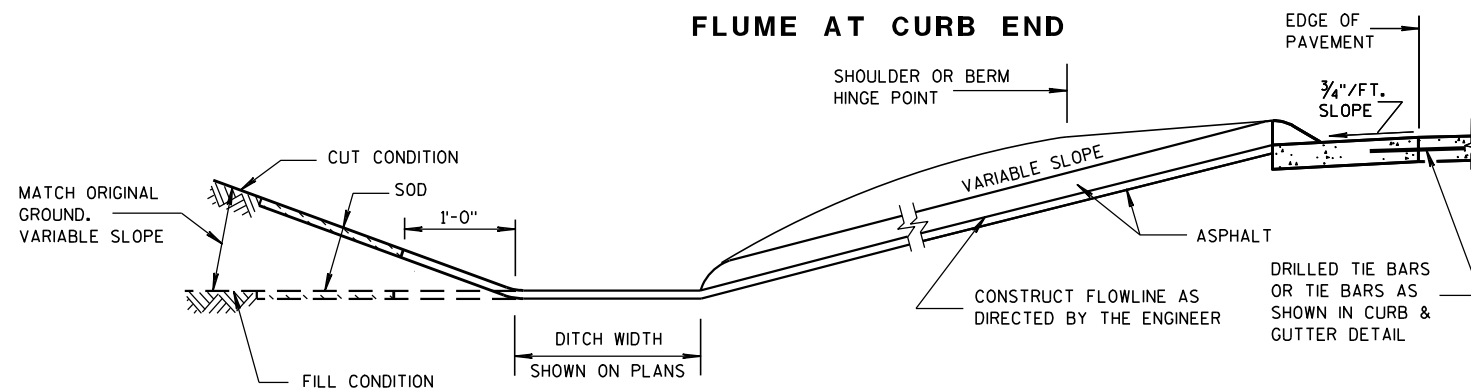
ASPHALTIC FLUME

NOTE: TAPER CURB ENDS
TO GUTTER IN 1'-0"

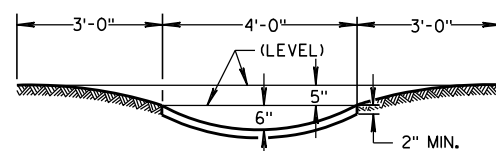


PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END



SECTION A-A



SECTION B-B

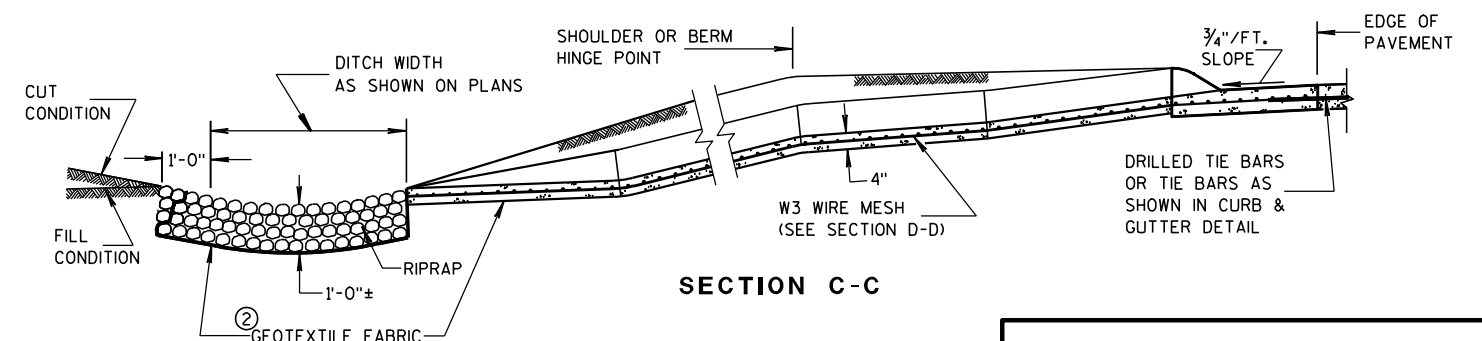
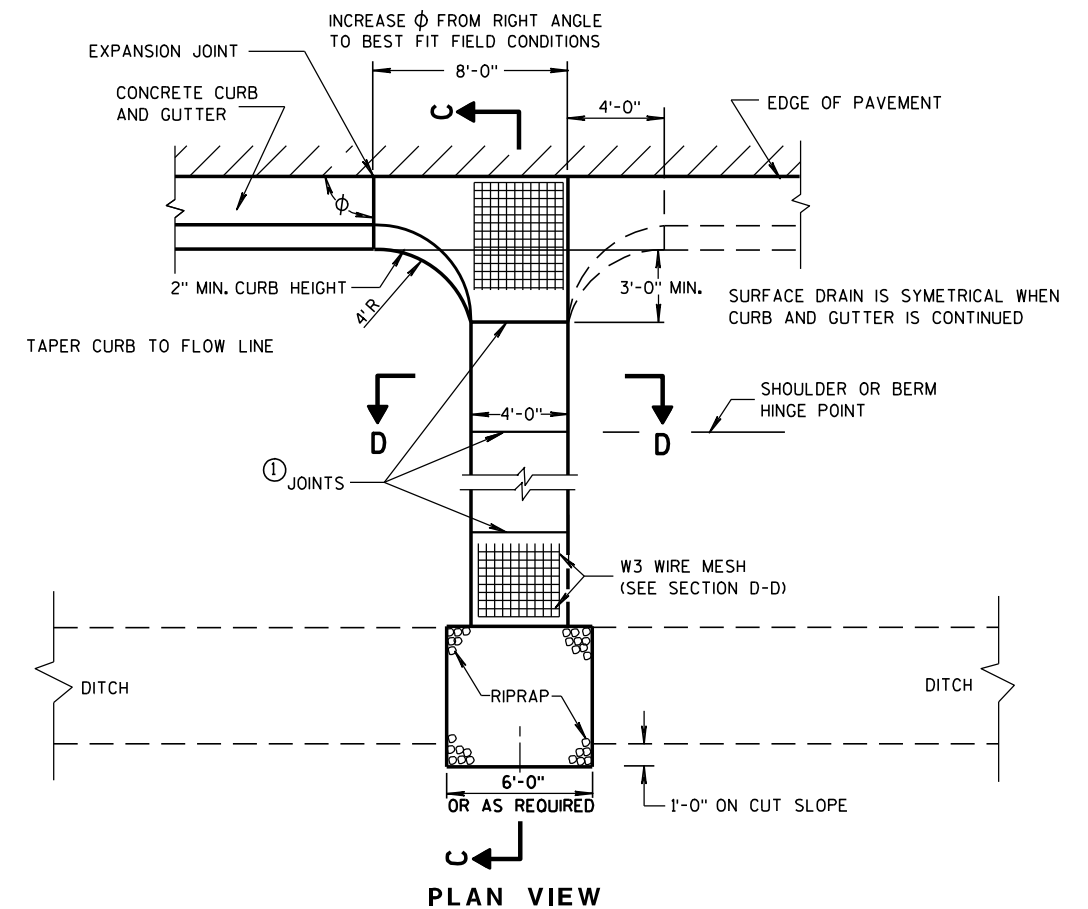
GENERAL NOTES

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

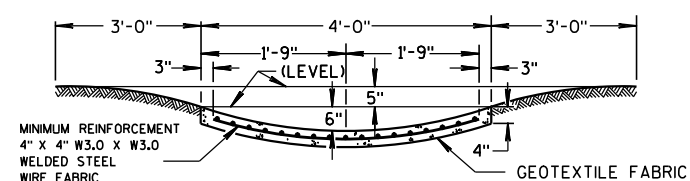
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

- ① JOINTS SHALL BE $\frac{1}{8}$ TO $\frac{1}{4}$ INCH WIDE BY $1\frac{1}{2}$ INCHES DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.
- ② GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.
- ③ CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED

③ CONCRETE SURFACE DRAIN



SECTION C-C



SECTION D-D

CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

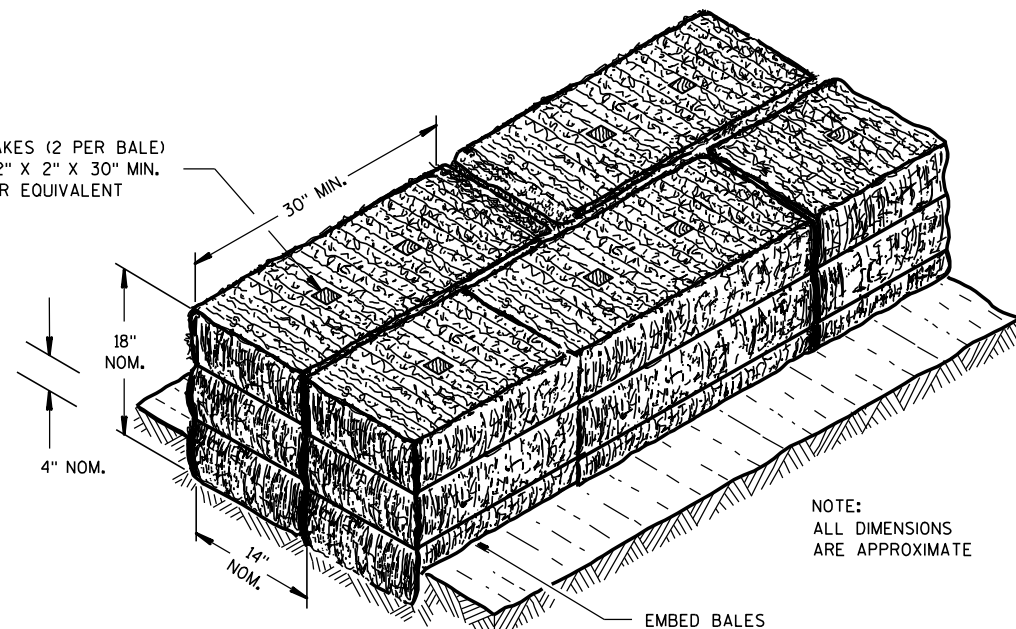
9-4-08

DATE

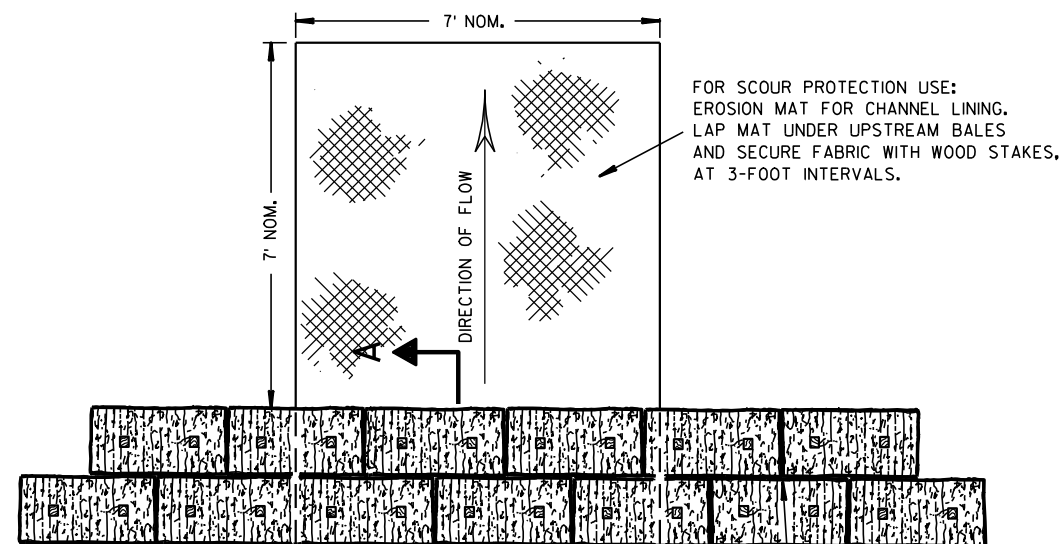
FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER

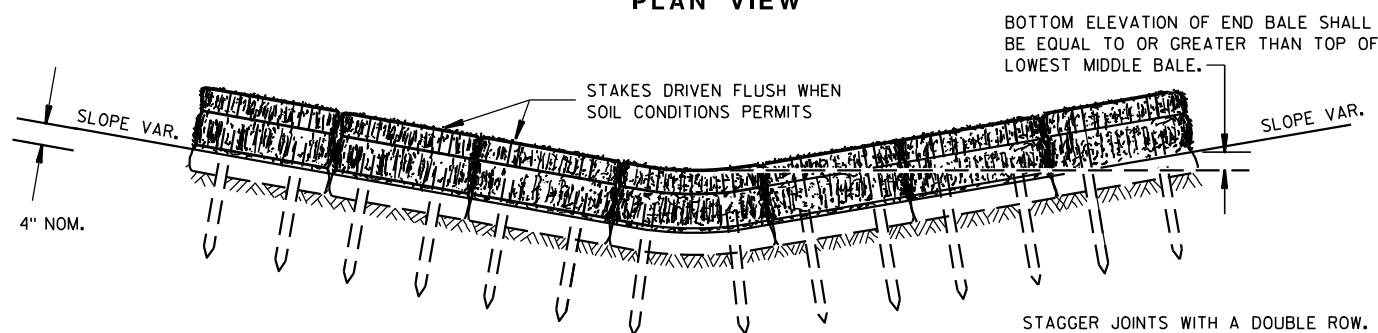
WOOD STAKES (2 PER BALE)
NOMINAL 2" X 2" X 30" MIN.
LENGTH OR EQUIVALENT



SECTION A-A



PLAN VIEW



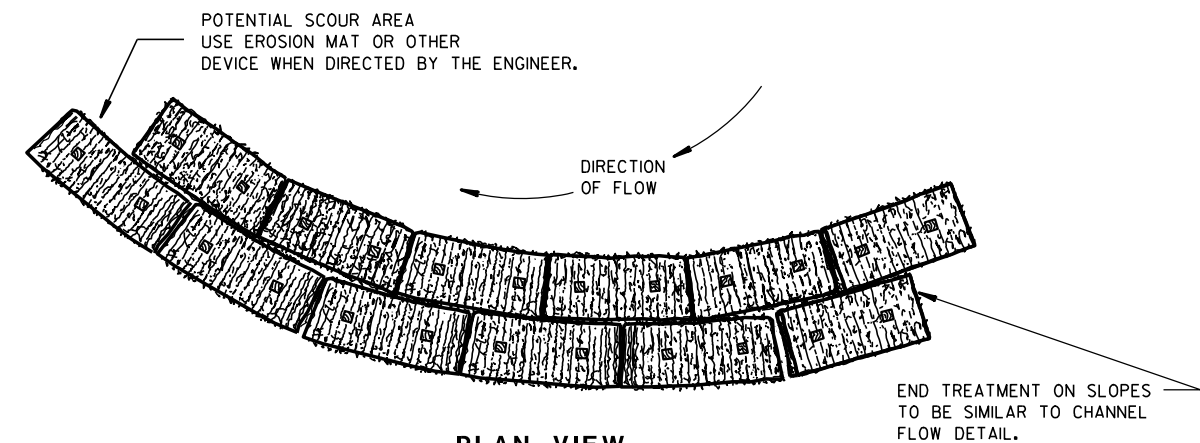
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

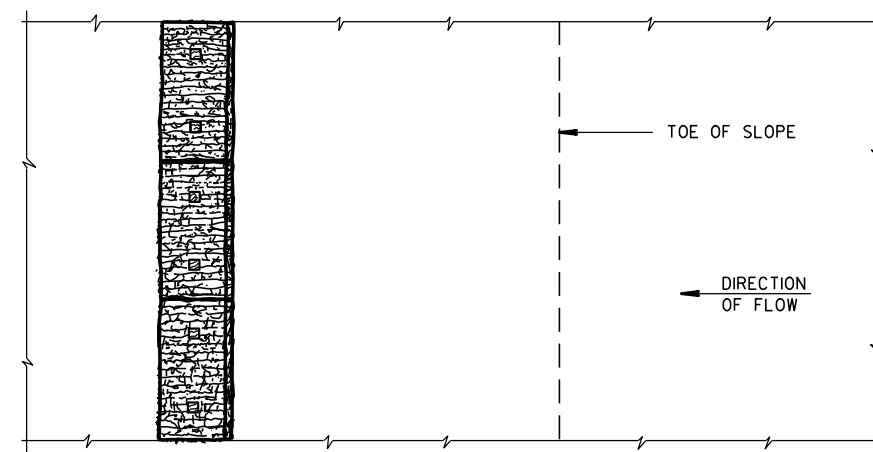
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

- 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.

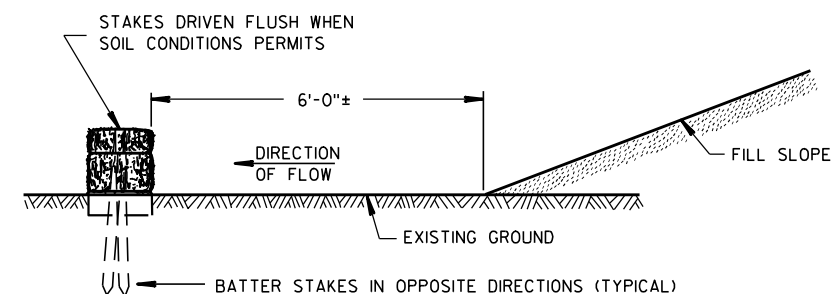


PLAN VIEW

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

FHWA

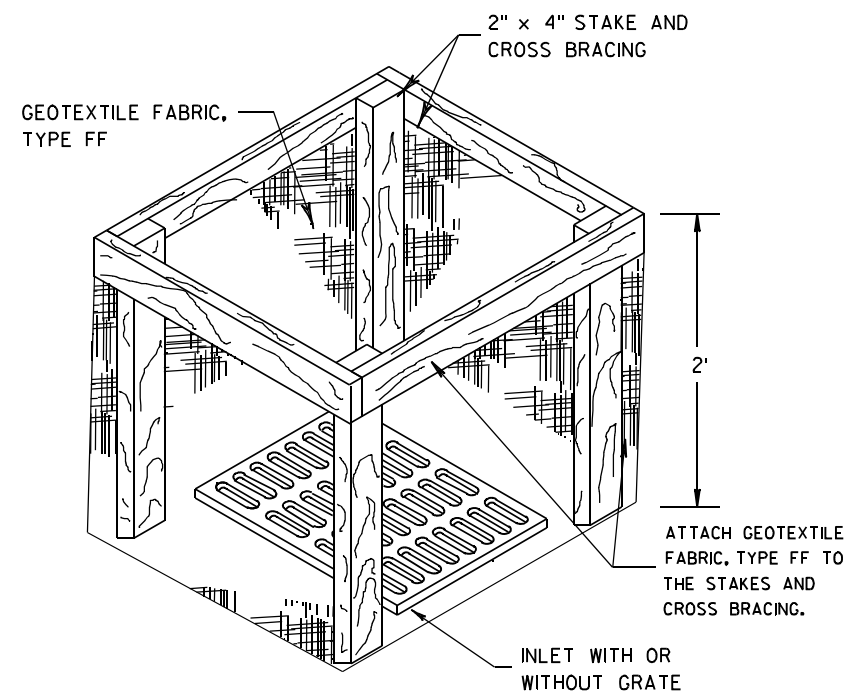
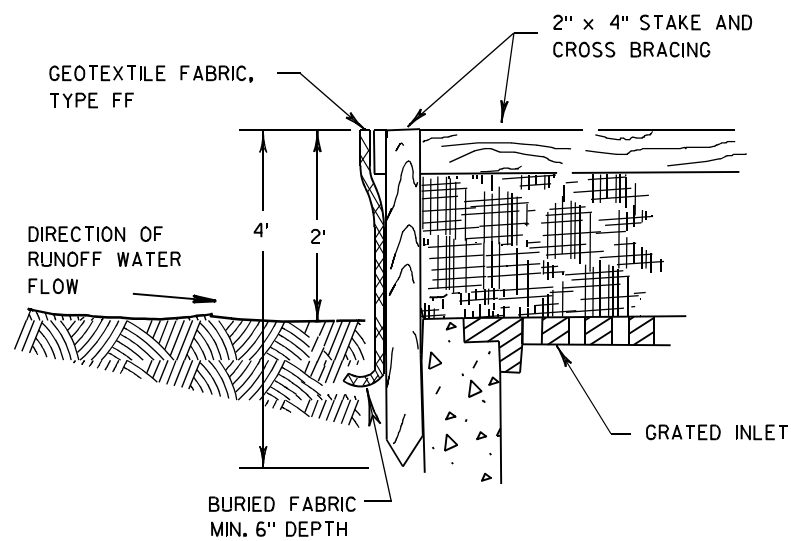
/S/ Beth Canestra
CHIEF ROADWAY DEVELOPMENT ENGINEER



- 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 1½" X 1½" 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.



SILT FENCE	
STATE OF WISCONSIN	
DEPARTMENT OF TRANSPORTATION	
APPROVED	
<u>4-29-05</u>	<u>/S/ Beth Cannestra</u>
DATE	CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	



INLET PROTECTION, TYPE A

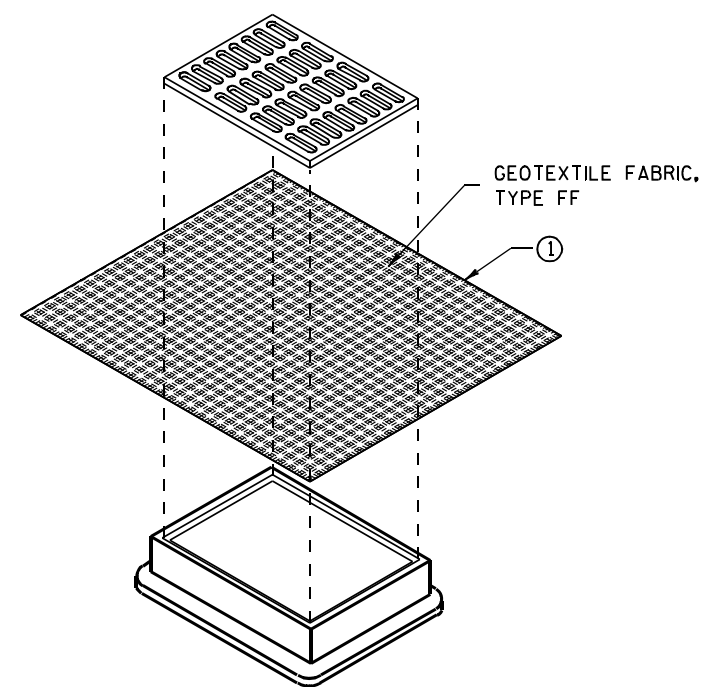
GENERAL NOTES

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.

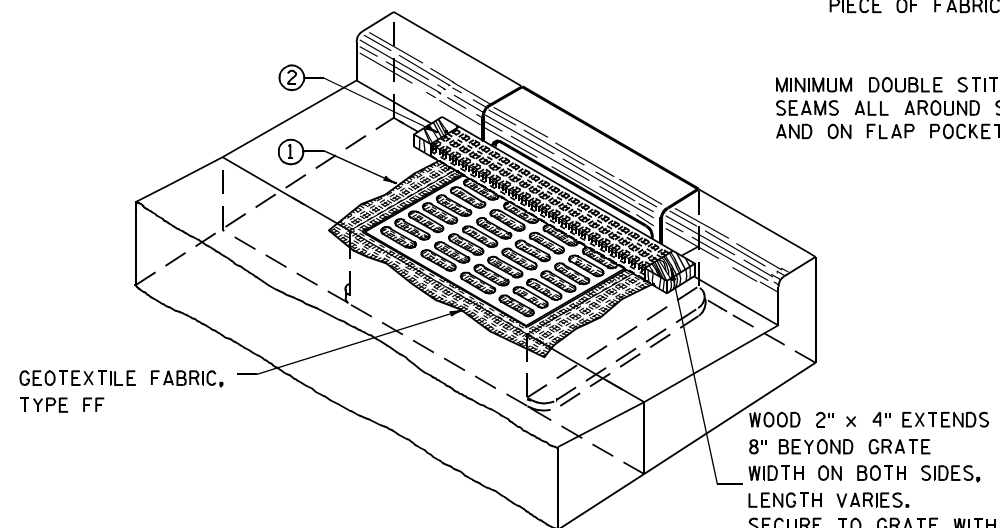
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- 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.



**INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)**

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE C (WITH CURB BOX)

INSTALLATION NOTES

TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

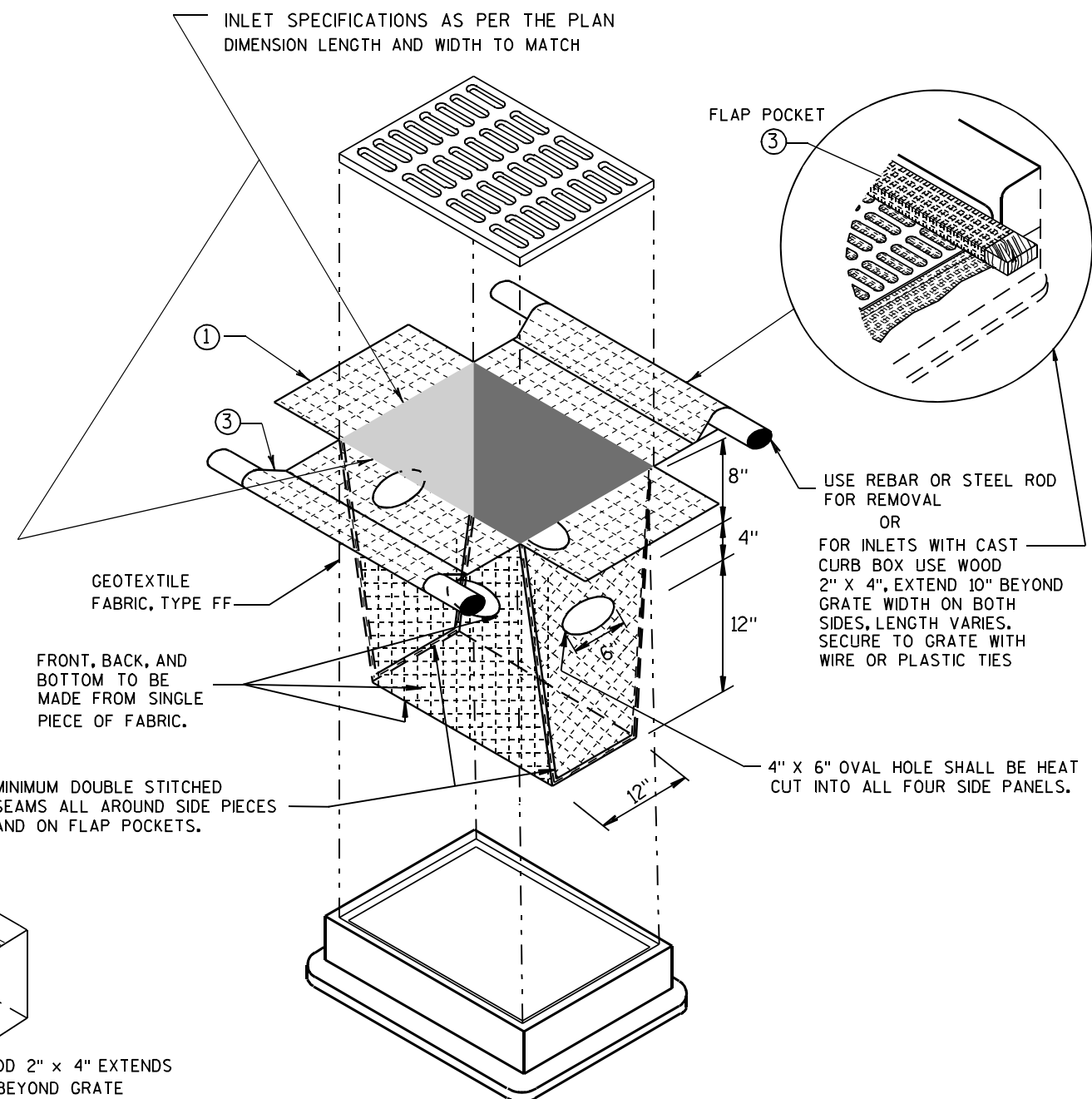
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

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 D

(CAN BE INSTALLED IN ANY INLET TYPE WITH OR WITHOUT A CURB BOX AS PER NOTE ②)

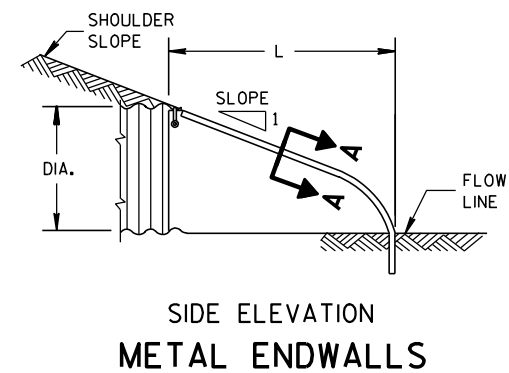
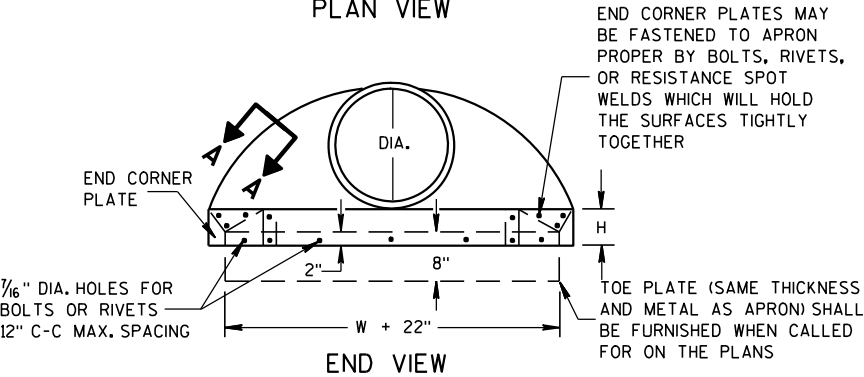
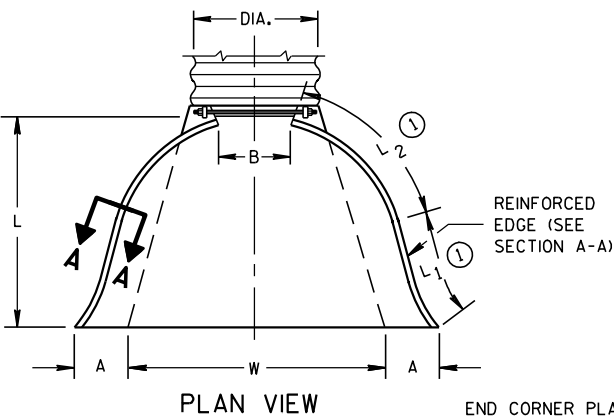
**INLET PROTECTION
TYPE A, B, C, AND D**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/16/02 /S/ Beth Cannestra
DATE
FHWA CHIEF ROADWAY DEVELOPMENT ENGINEER

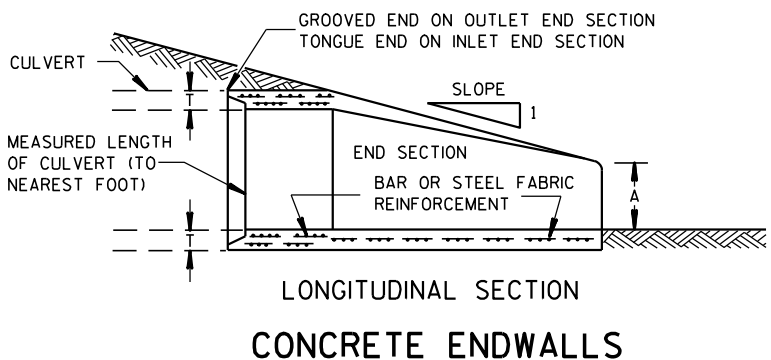
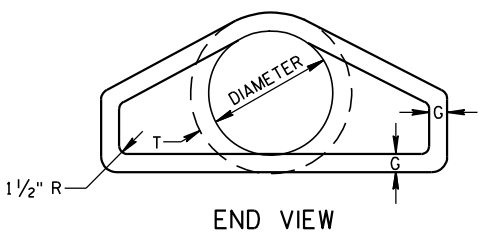
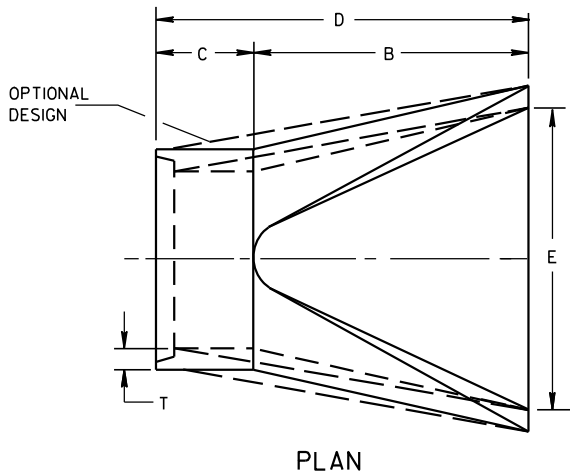
METAL APRON ENDWALLS											
PIPE DIA. (IN.)	MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY
	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")		
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 1	1 Pc.
21	.064	.060	9	12	6	36	18	29 5/8	42	2 1/2 to 1	1 Pc.
24	.064	.075	10	13	6	41	18	37 1/4	48	2 1/2 to 1	1 Pc.
30	.079	.075	12	16	8	51	18	52 1/4	60	2 1/2 to 1	1 Pc.
36	.079	.105	14	19	9	60	24	59 3/4	72	2 1/2 to 1	2 Pc.
42	.109	.105	16	22	11	69	24	75 5/8	84	2 1/2 to 1	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 1/4 to 1	3 Pc.
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/4 to 1	3 Pc.
60	.109x	.105x	18	33	12	87	—	—	114	2 to 1	3 Pc.
66	.109x	.105x	18	36	12	87	—	—	120	2 to 1	3 Pc.
72	.109x	.105x	18	39	12	87	—	—	126	2 to 1	3 Pc.
78	.109x	.105x	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.
84	.109x	.105x	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.
90	.109x	.105x	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.
96	.109x	.105x	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.

* EXCEPT CENTER PANEL
SEE GENERAL NOTES

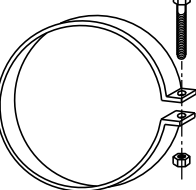


REINFORCED CONCRETE APRON ENDWALLS											
PIPE DIA. (IN.)	DIMENSIONS (Inches)							APPROX. SLOPE			
	T	A	B	C	D	E	G				
12	2	4	24	48 1/8	72 1/8	24	2	3 to 1			
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1			
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1			
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1			
24	3	9 1/2	43 1/2	30	73 1/2	48	3	3 to 1			
27	3 1/4	10 1/2	49 1/2	24	73 1/2	54	3 1/4	3 to 1			
30	3 1/2	12	54	19 3/4	73 1/2	60	3 1/2	3 to 1			
36	4	15	63	34 3/4	97 3/4	72	4	3 to 1			
42	4 1/2	21	63	35	98	78	4 1/2	3 to 1			
48	5	24	72	26	98	84	5	3 to 1			
54	5 1/2	27	65	33 1/4-35	98 1/4-100	90	5 1/2	2 1/2 to 1			
60	6	30-35	60	39	99	96	5	2 to 1			
66	6 1/2	24-30	72-78	21-27	99	102	5 1/2	2 to 1			
72	7	24-36	78	21	99	108	6	2 to 1			
78	7 1/2	24-36	78	21	99	114	6 1/2	2 to 1			
84	8	36	90 1/2	21	111 1/2	120	6 1/2	1 1/2 to 1			
90	8 1/2	41	87 1/2	24	111 1/2	132	6 1/2	1 1/2 to 1			

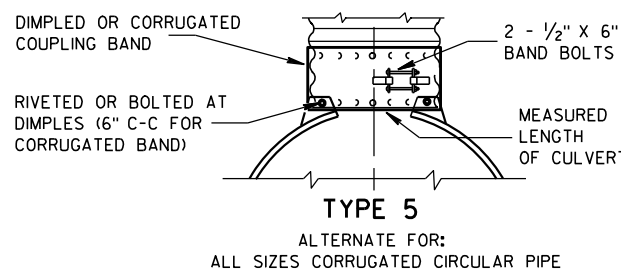
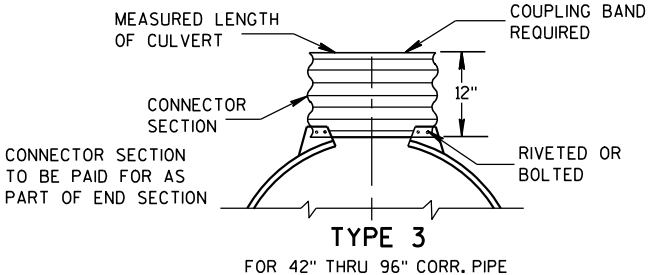
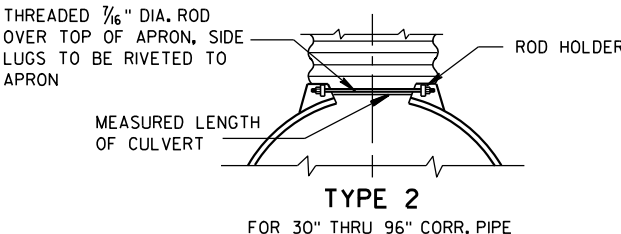
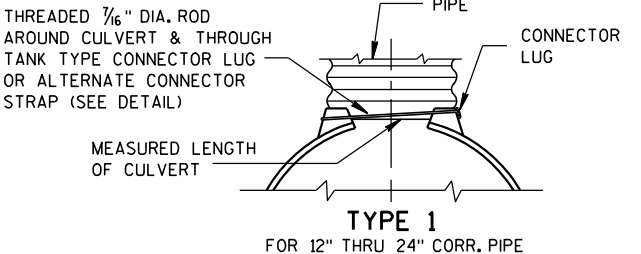
* MINIMUM
** MAXIMUM



1" WIDE, 12 GA. (0.109" THICK) GALVANIZED STRAP WITH STANDARD 6" X 1/2" BAND BOLT AND NUT



ALTERNATE FOR TYPE 1 CONNECTION
END SECTION CONNECTOR STRAP



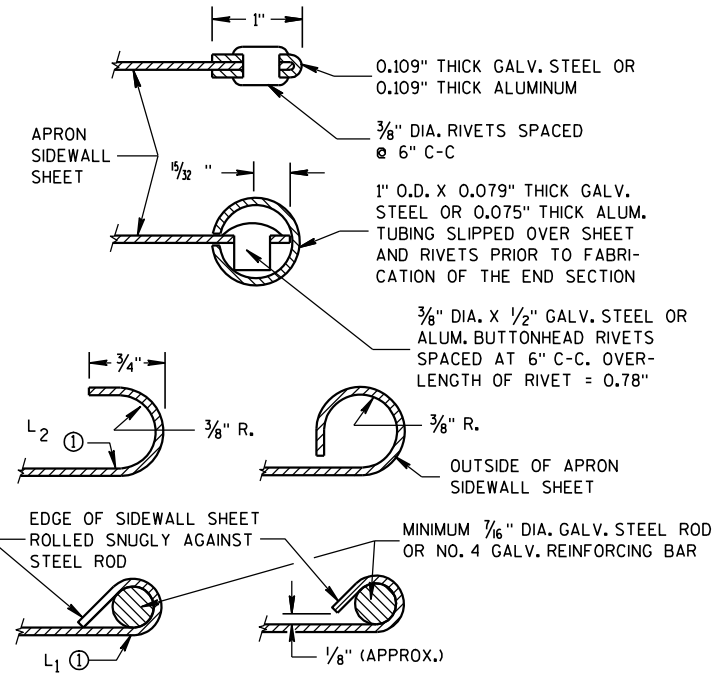
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

FOR CIRCUMFERENTIALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2, 3 OR 5 AS APPLICABLE.

FOR HELICALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2 OR 5.

FOR HELICALLY CORRUGATED PIPES WITH TWO CIRCUMFERENTIAL CORRUGATIONS AT EACH END USE ENDWALL CONNECTION DETAILS 1, 2 OR 3.

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

CONCRETE CULVERT ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE 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 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 60" THROUGH 96" DIAMETER 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.

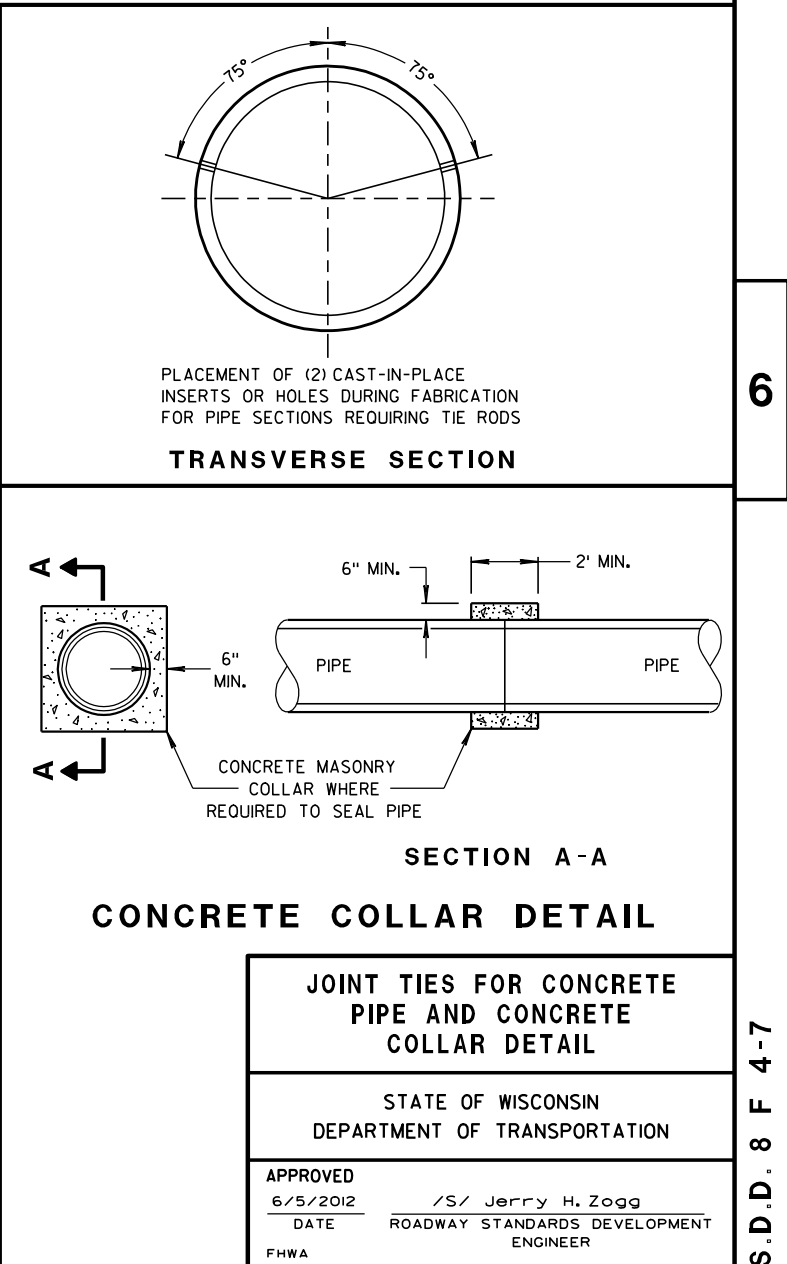
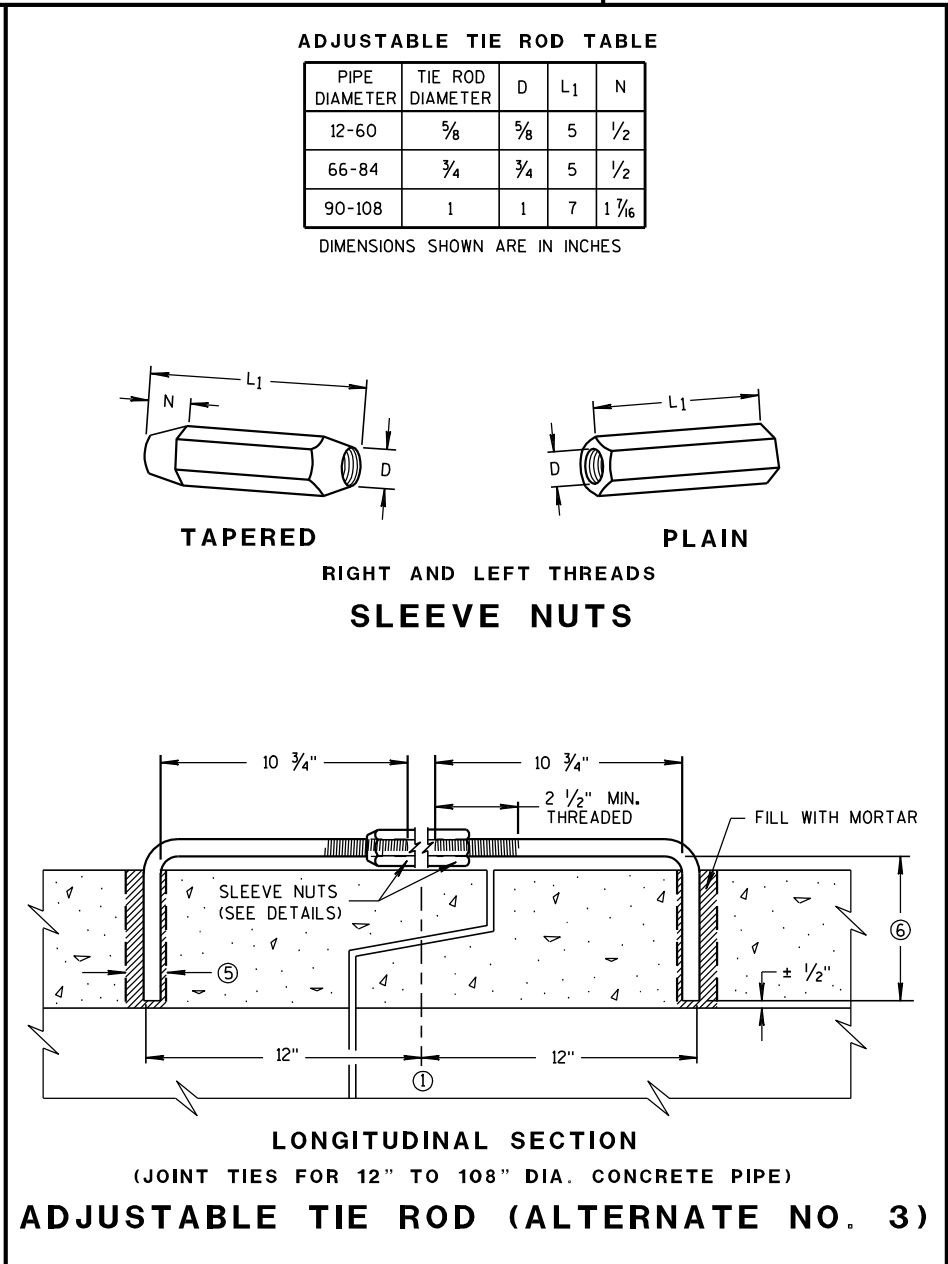
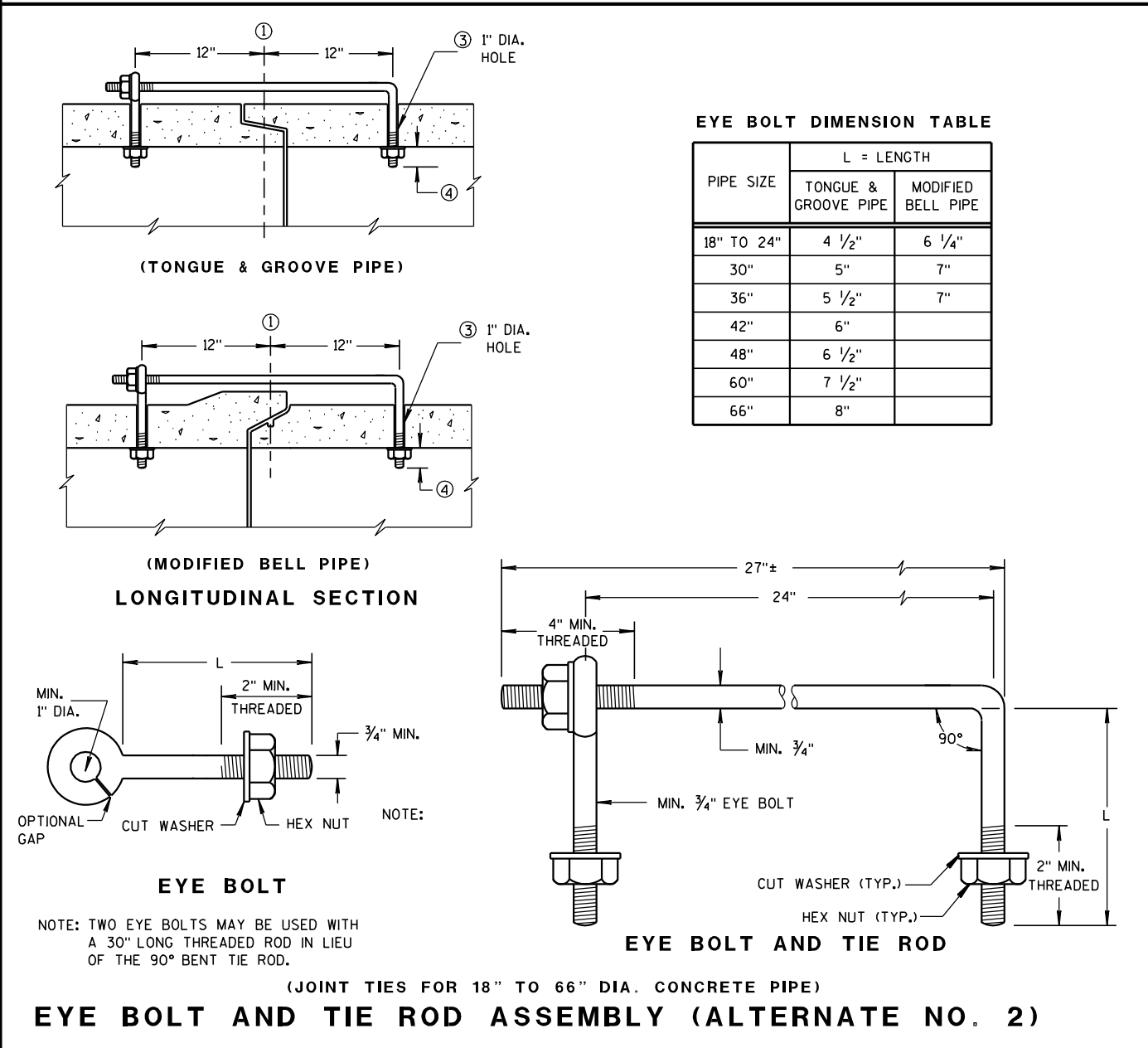
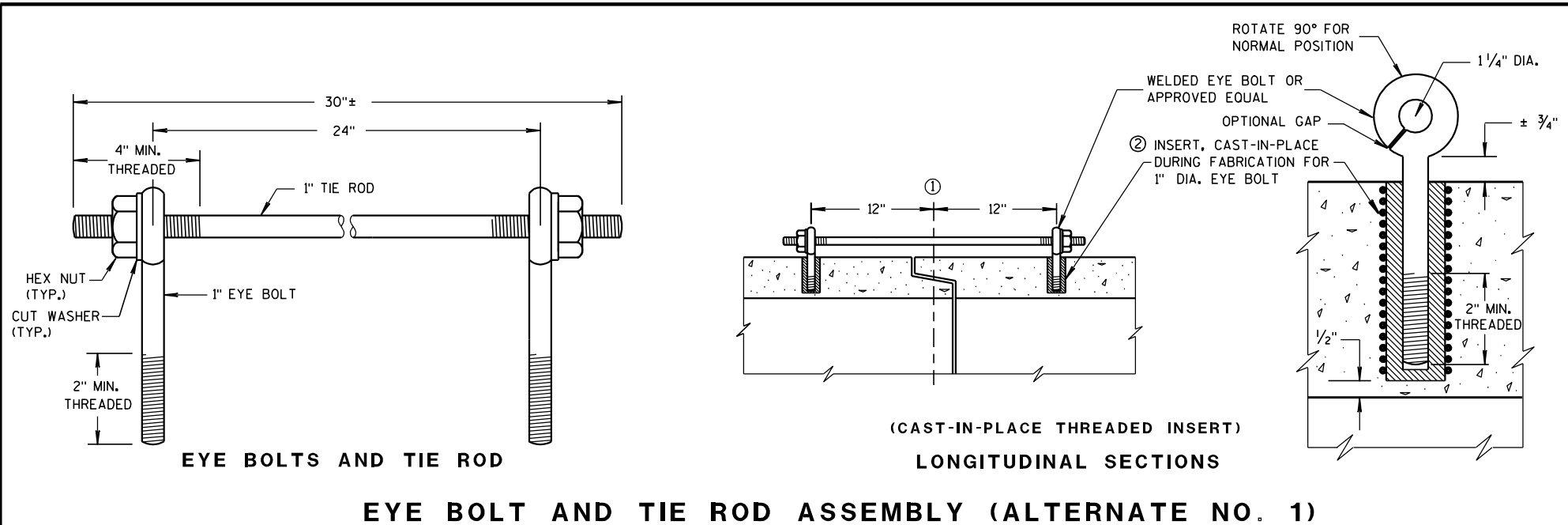
WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

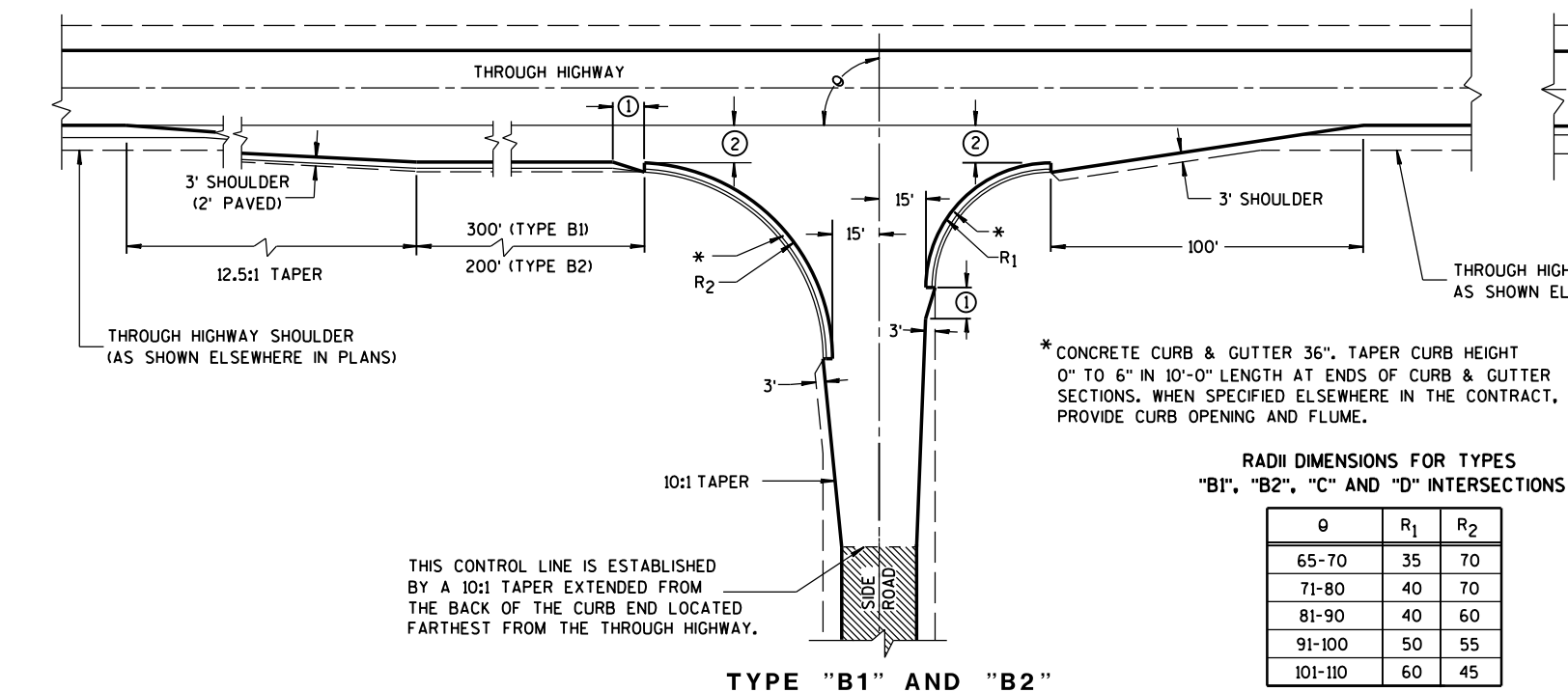
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/30/94
DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA





GENERAL NOTES

DESIGNS MAY BE USED INTERCHANGEABLY IN COMBINATION OR SEPARATELY FOR ANY ONE COMPLETE INTERSECTION DEPENDING UPON INTERSECTION ANGLE AND SURFACING OF EACH APPROACH ROADWAY.

SIDE ROAD SURFACING NOTE

WHEN THE SIDE ROAD IS NOT PRESENTLY PAVED, PAVEMENT SHALL BE PLACED TO THE LIMITS SHOWN UNLESS OTHERWISE PROVIDED IN THE CONTRACT. WHERE THE CONSTRUCTION LIMITS ARE BEYOND THE PAVING LIMITS, CRUSHED AGGREGATE SURFACING SHALL BE PLACED BETWEEN THE PAVING LIMITS AND CONSTRUCTION LIMITS.

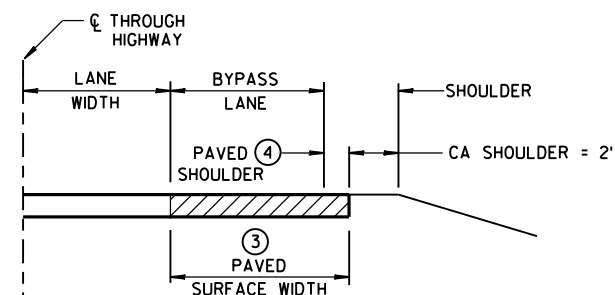
WHEN THE SIDE ROAD IS PRESENTLY PAVED, NEW PAVEMENT SHALL BE PLACED TO THE LIMITS OF DESIGN AS SHOWN AND BEYOND, IF NECESSARY, TO MEET EXISTING PAVEMENT.

WHEN THE SIDE ROAD IS THE CONSTRUCTION PROJECT, THE INTERSECTION SURFACING SHALL BE THE SAME AS FOR THE PROJECT.

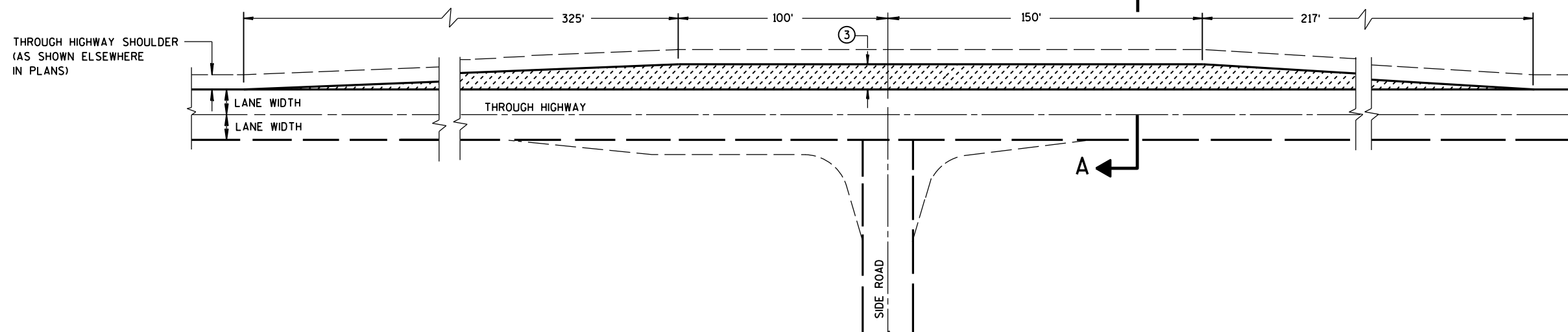
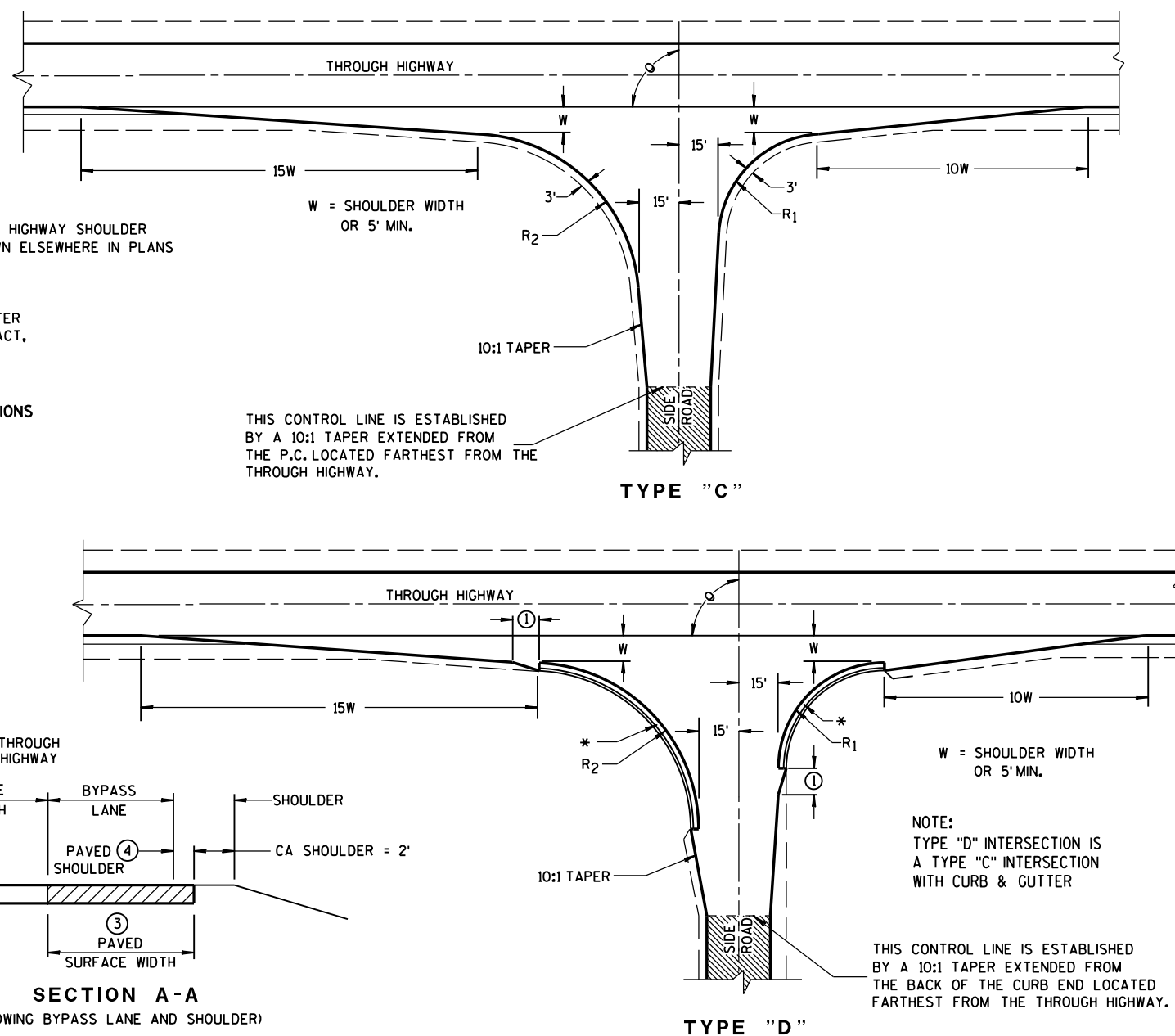
EXISTING PAVED SURFACE

BYPASS LANE

- ① 10-FT TYPICAL.
- ② 12-FT** PLUS ADDITIONAL WIDTH FOR BIKE LANE IF SHOWN ELSEWHERE IN THE PLAN.
- **10-FT MAY BE USED ON TYPE B2 ON RESURFACING PROJECTS IF SPECIFIED IN THE CONTRACT.
- ③ BYPASS LANE PAVED SURFACE WIDTH OUTSIDE OF TRAVEL LANE
-ASPHALT = 12-FT PLUS PAVED SHOULDER WIDTH.
-PC CONCRETE = 13-FT PLUS PAVED SHOULDER WIDTH.
- ④ BYPASS LANE PAVED SHOULDER WIDTH = THE GREATER OF 1-FT OR THE PAVED SHOULDER WIDTH OF THE THROUGH HIGHWAY.



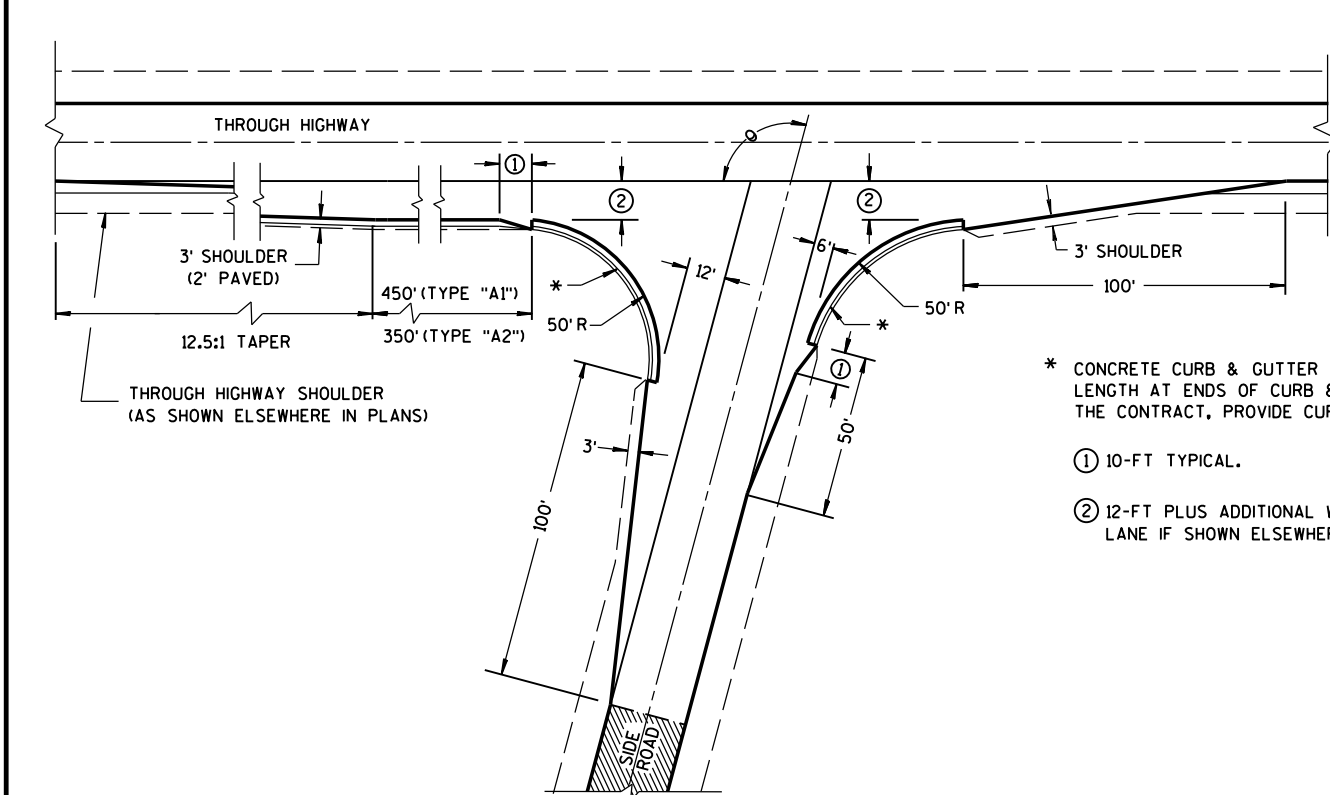
SECTION A-A
(SHOWING BYPASS LANE AND SHOULDER)



TEE INTERSECTION BYPASS LANE DETAIL

AT-GRADE SIDE ROAD
INTERSECTION, TYPES "B1", "B2",
"C" AND "D" AND TEE
INTERSECTION BYPASS LANE

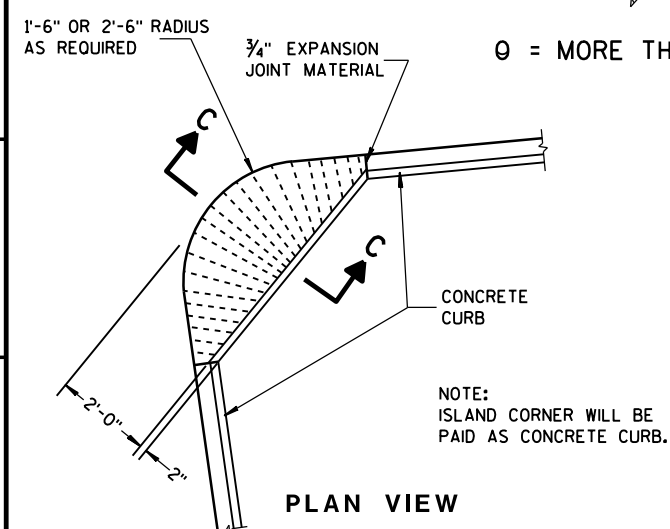
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



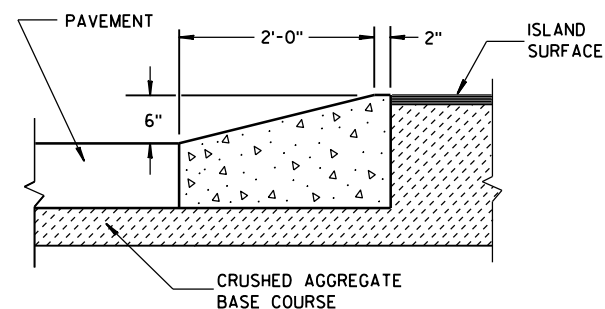
* CONCRETE CURB & GUTTER 36". TAPER CURB HEIGHT 0" TO 6" IN 10'-0" LENGTH AT ENDS OF CURB & GUTTER SECTIONS. WHEN SPECIFIED ELSEWHERE IN THE CONTRACT, PROVIDE CURB OPENING AND FLUME.

① 10-FT TYPICAL.

② 12-FT PLUS ADDITIONAL WIDTH FOR BIKE LANE IF SHOWN ELSEWHERE IN THE PLANS.



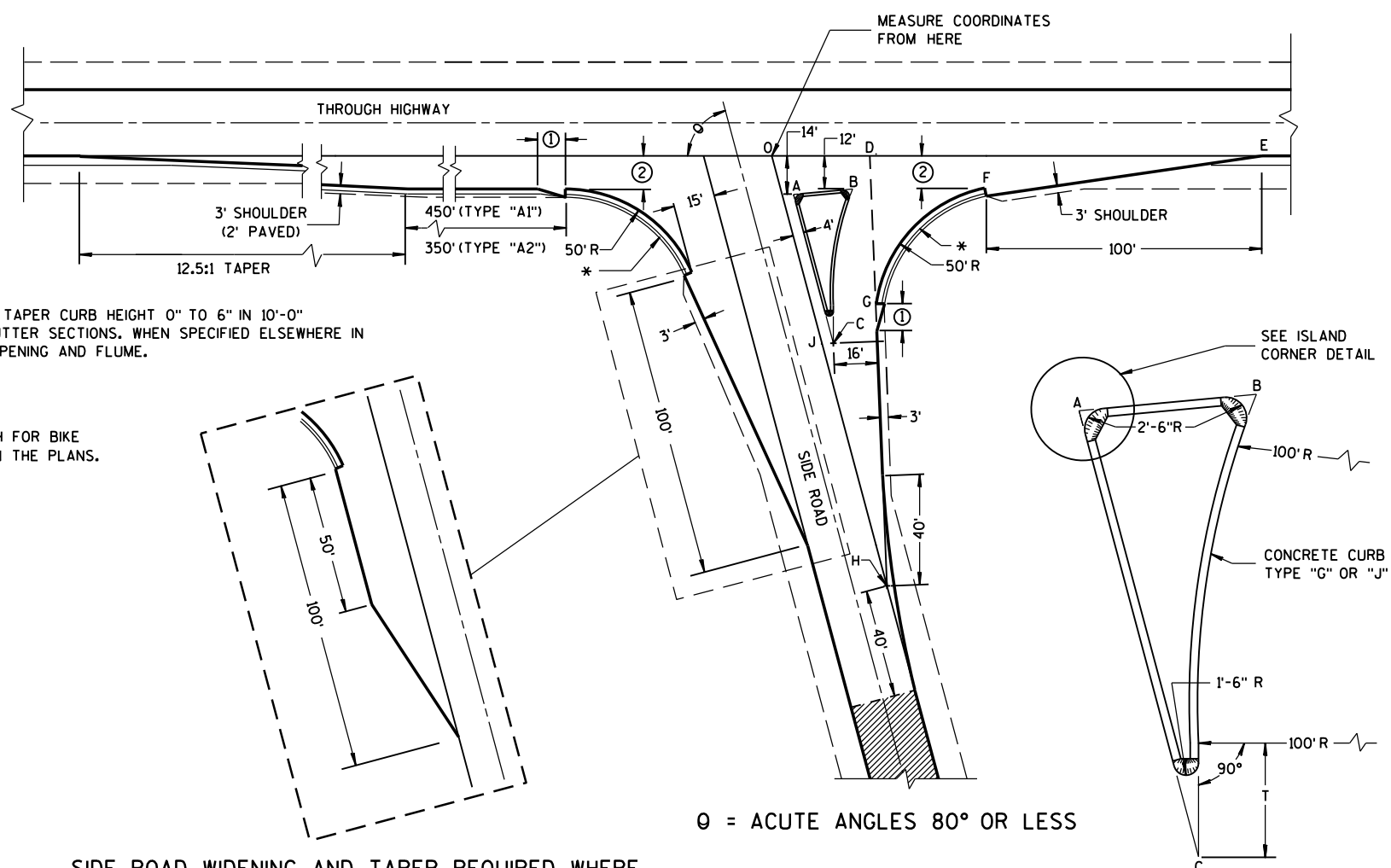
PLAN VIEW



SECTION C-C

ISLAND CORNER DETAIL

(TO BE CONSTRUCTED AT ALL ISLAND CORNERS)



SIDE ROAD WIDENING AND TAPER REQUIRED WHERE THE THROUGH HIGHWAY CARRIES TWO-WAY TRAFFIC
 θ = ACUTE ANGLES 70° OR LESS

TABLE OF DIMENSIONS FOR
VARIABLE SIDE ROAD INTERSECTION ANGLES

(INTERPOLATE VALUES FOR ANGLES NOT SHOWN)

ANGLE θ DEGREES	COORDINATES IN FEET (MEASURED FROM POINT "O")								LENGTH IN FEET				
	A	B	C	D	E	F	G	H	AB	AC	T	OJ	OH
60	12.7	44.9	46.4	41.9	205.0	104.6	64.0	85.0	32.3	67.4	4.9	85.9	169.9
	-14.0	-12.0	-72.4	0.0	0.0	-12.0	-75.5	-147.1					
65	10.9	39.0	37.8	39.4	196.1	95.7	54.1	70.5	28.2	63.6	8.5	80.9	166.9
	-14.0	-12.0	-71.6	0.0	0.0	-12.0	-71.5	-151.3					
70	9.4	33.9	29.8	37.4	188.3	87.8	45.6	56.1	24.6	59.7	11.5	76.1	164.1
	-14.0	-12.0	-70.1	0.0	0.0	-12.0	-67.5	-154.2					
75	7.9	29.3	22.3	35.7	181.2	80.7	38.2	41.8	21.5	55.8	13.8	71.4	161.4
	-14.0	-12.0	-67.9	0.0	0.0	-12.0	-63.4	-155.9					
80	6.5	25.4	15.6	34.4	174.8	74.4	31.8	27.6	18.9	52.0	15.6	66.9	158.9
	-14.0	-12.0	-65.2	0.0	0.0	-12.0	-59.3	-156.5					

TYPE "A1" & "A2" SIDE ROAD INTERSECTION DETAILS

AT-GRADE SIDE ROAD
INTERSECTION, TYPE "A1" & "A2"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

12/18/12

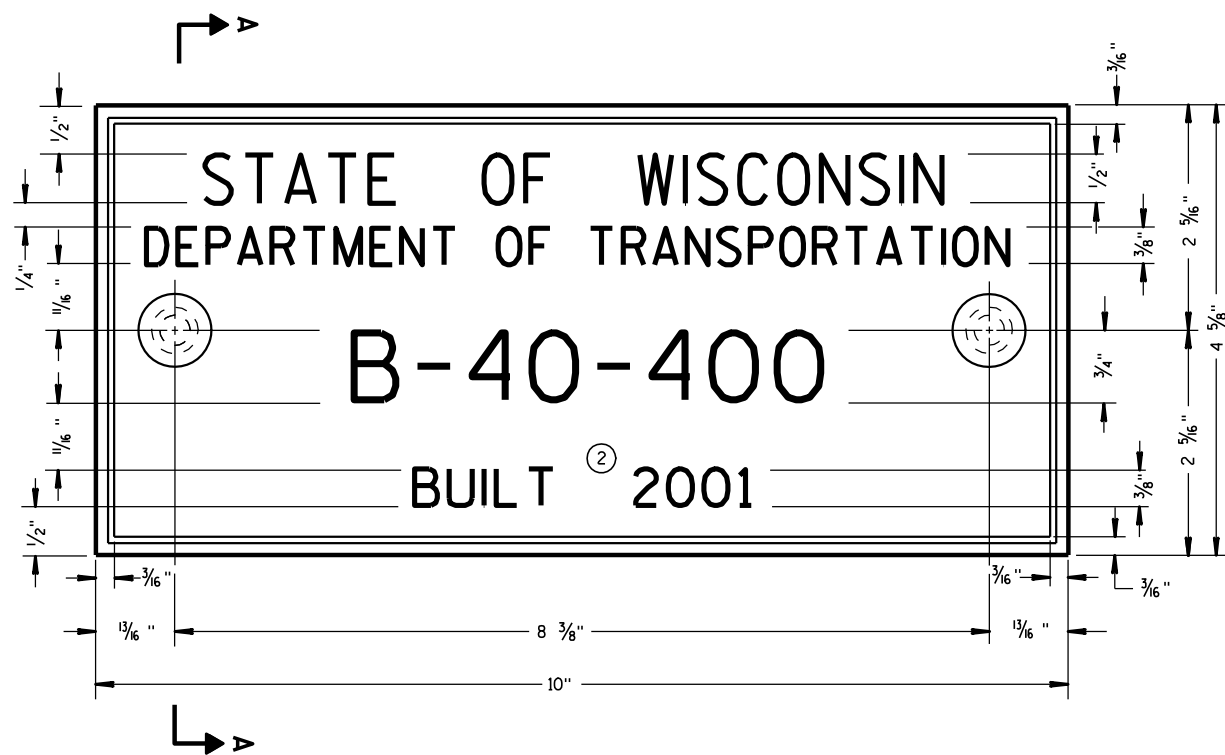
DATE

FHWA

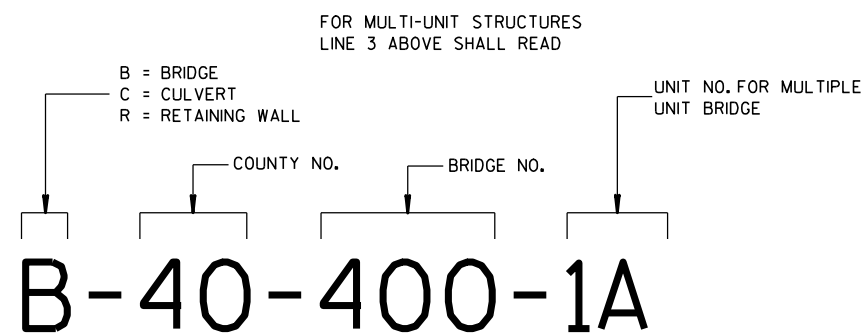
/S/ Jerry H. Zogg

ROADWAY STANDARDS DEVELOPMENT

ENGINEER



TYPICAL NAME PLATE
(BRIDGES, CULVERTS, AND RETAINING WALLS)



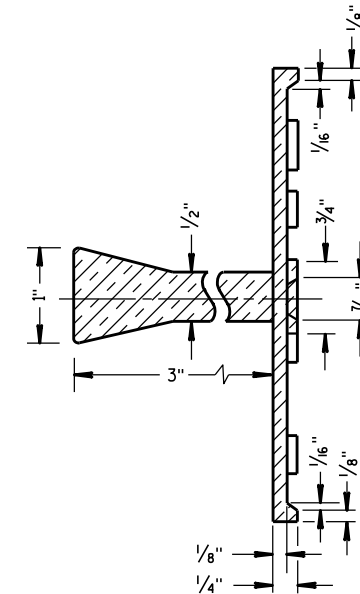
**NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES**

GENERAL NOTES

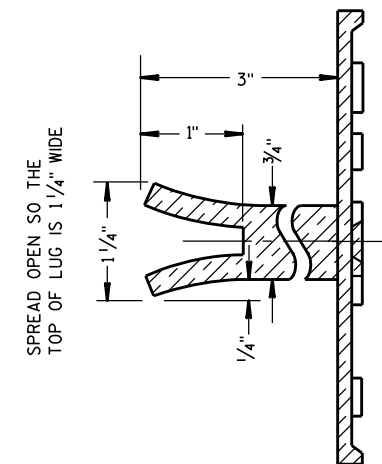
NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

- ① EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- ② REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.

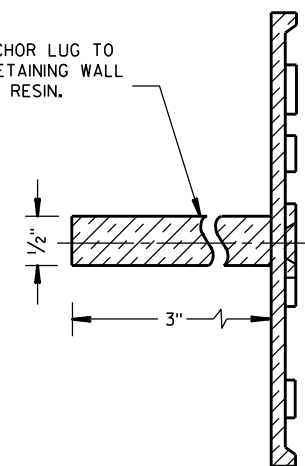


SECTION A-A



ALTERNATE LUG

- ① ADHERE ANCHOR LUG TO PRECAST RETAINING WALL WITH EPOXY RESIN.



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

**NAME PLATE
(STRUCTURES)**

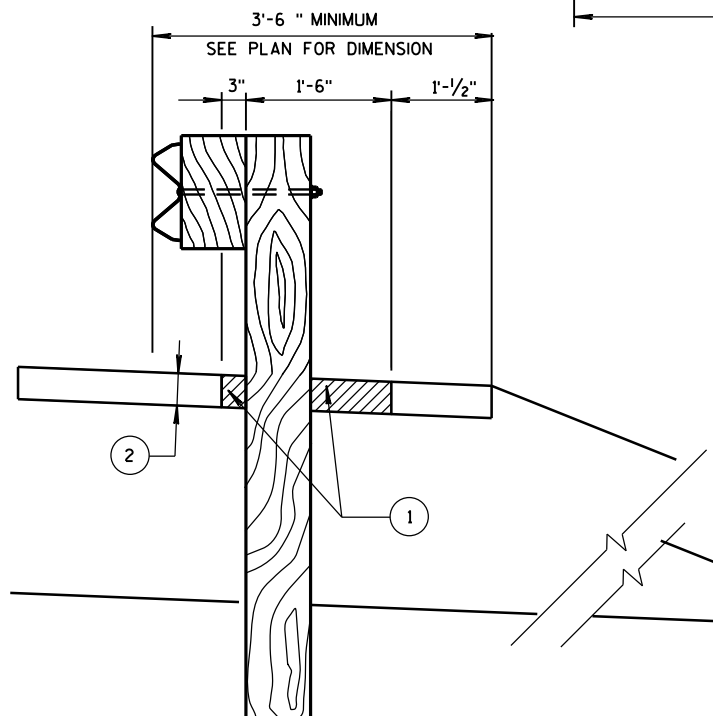
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

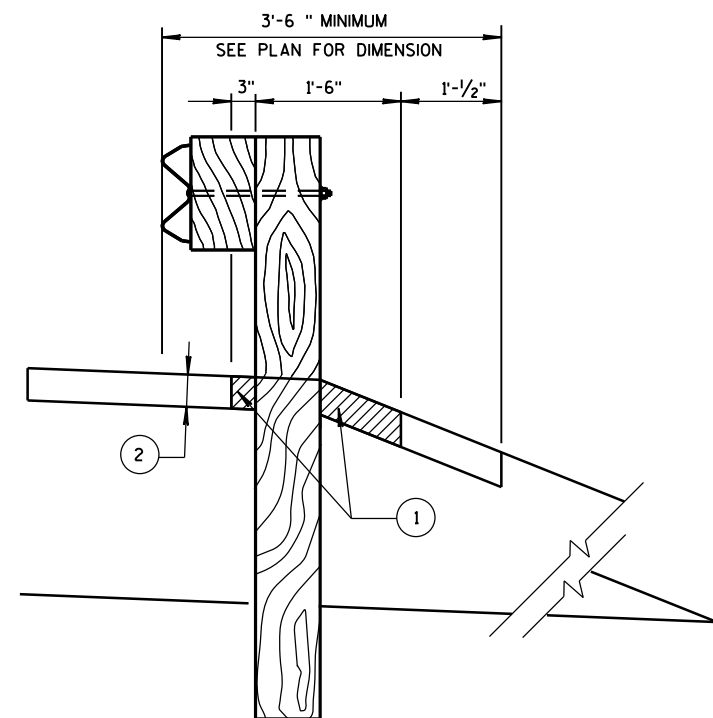
3/26/10
DATE

FHWA

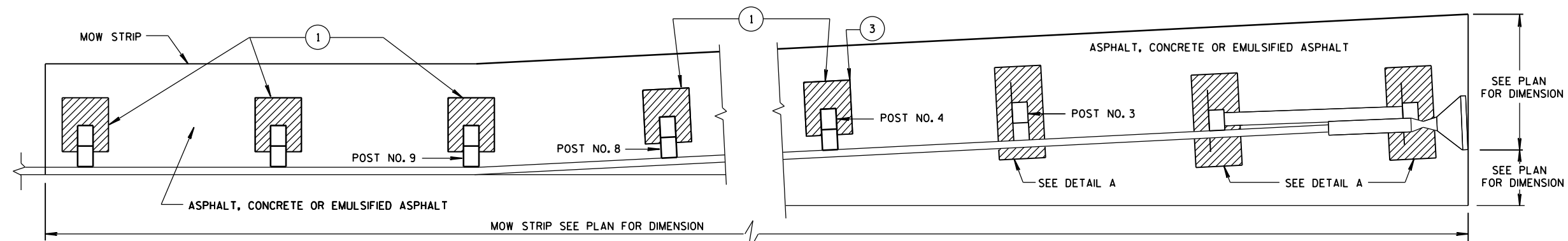
/S/ Scot Becker
CHIEF STRUCTURAL DEVELOPMENT ENGINEER



SECTION A-A

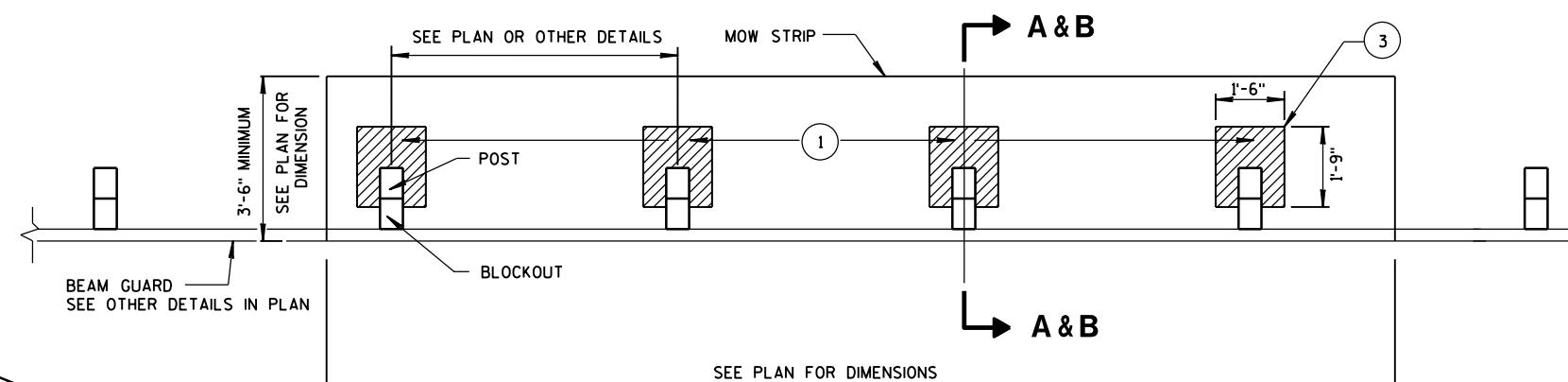


SECTION B-B



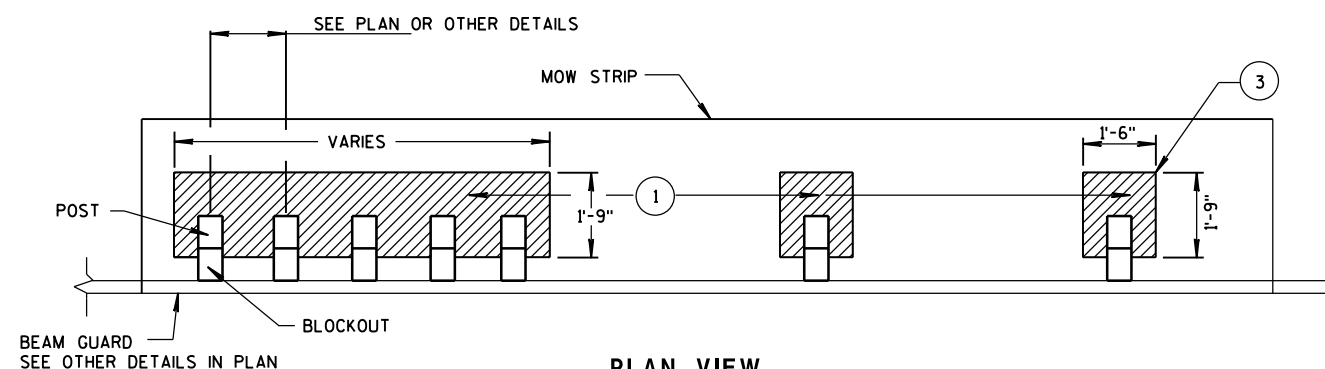
PLAN VIEW

MOW STRIP LAYOUT FOR ENERGY ABORING TERMINAL



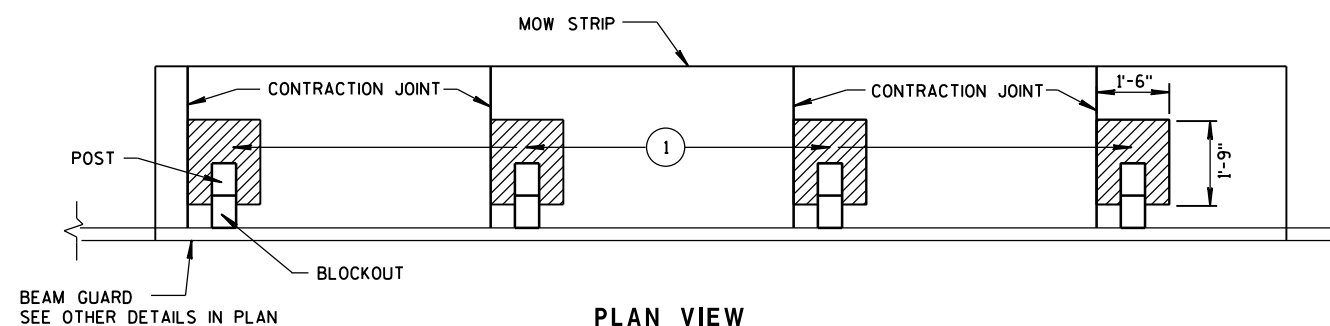
PLAN VIEW

MOW STRIP FOR TYPICAL BLOCKOUT LAYOUT



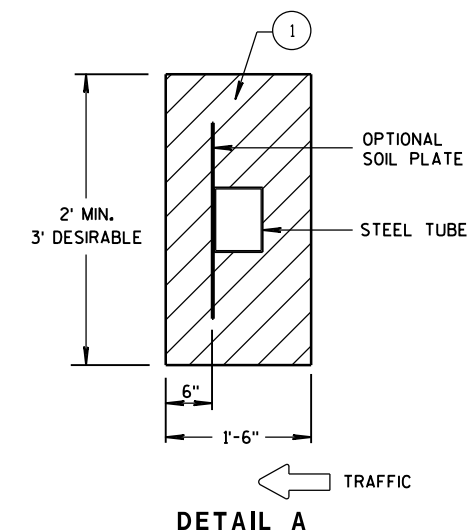
PLAN VIEW

MOW STRIP FOR TIGHT SPACING LAYOUT

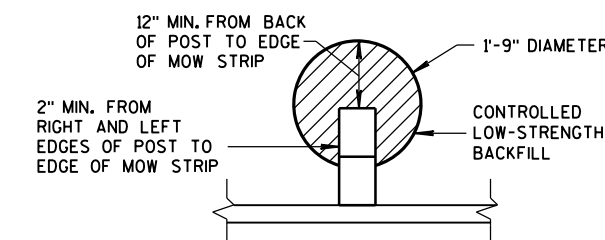


PLAN VIEW

JOINT PLACEMENT FOR CONCRETE MOW STRIP



DETAIL A

ALTERNATIVE HMA
MOW STRIP DESIGN

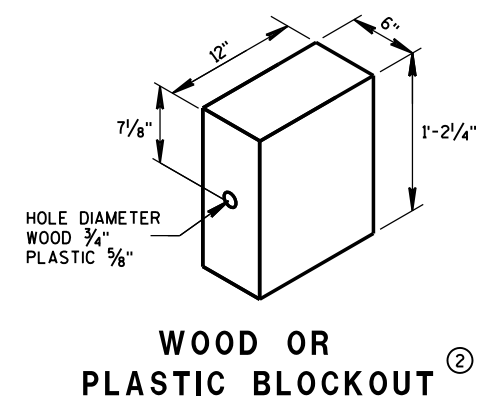
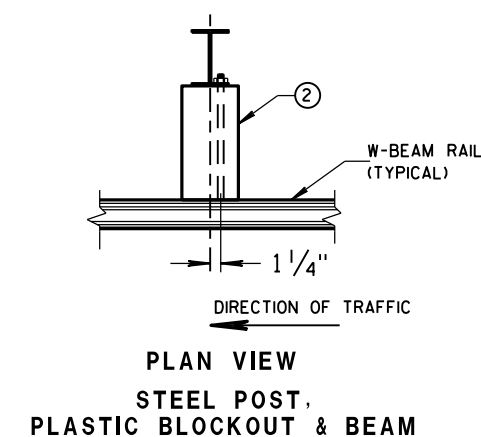
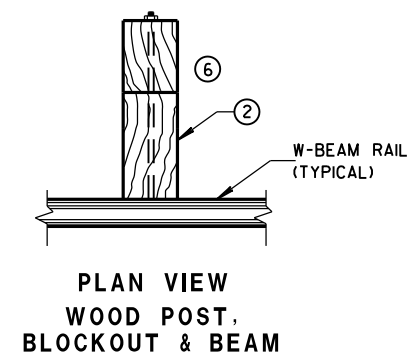
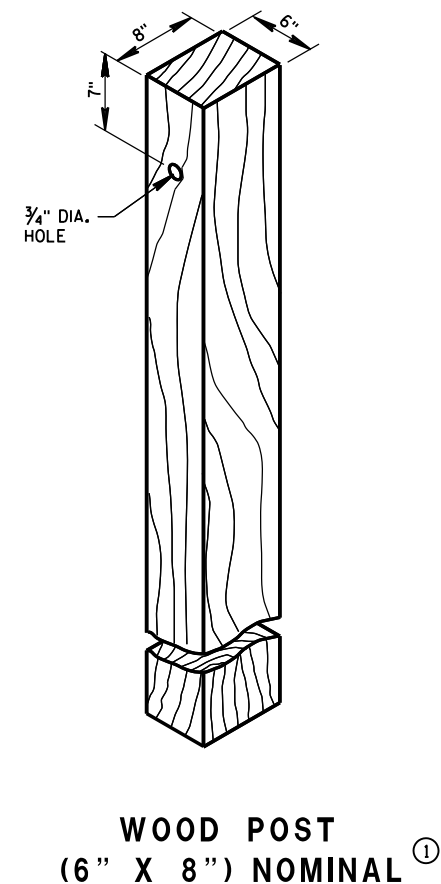
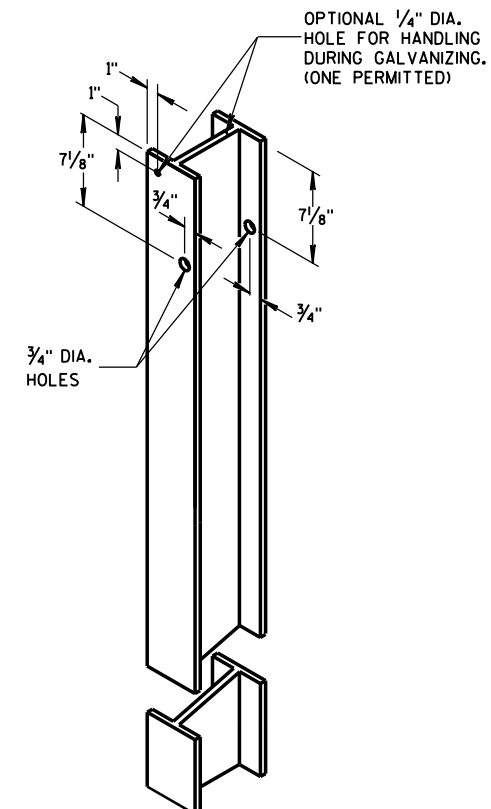
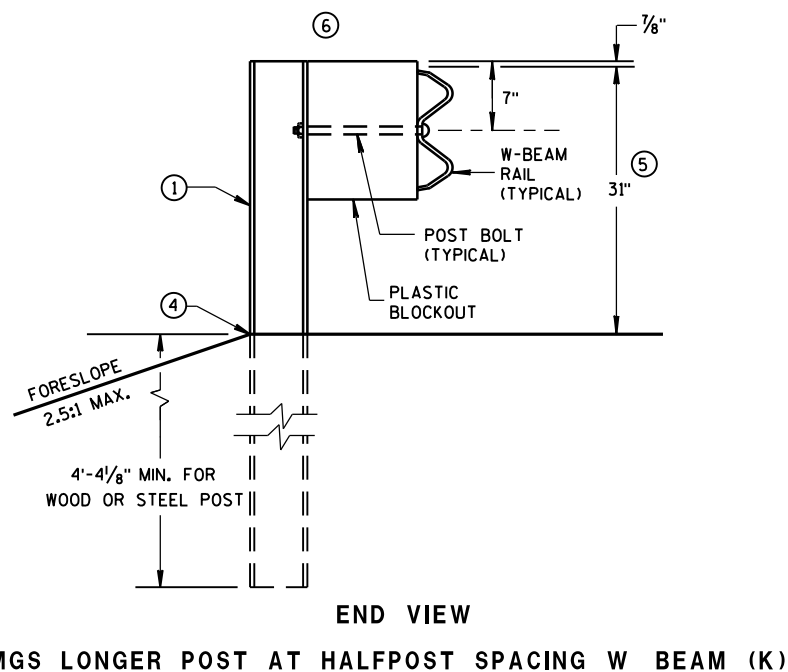
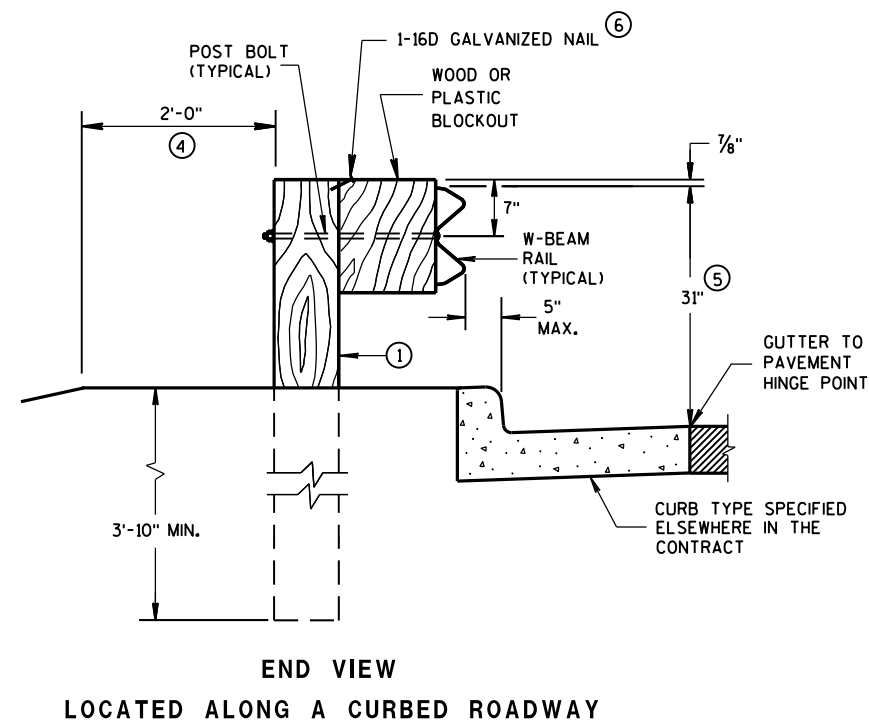
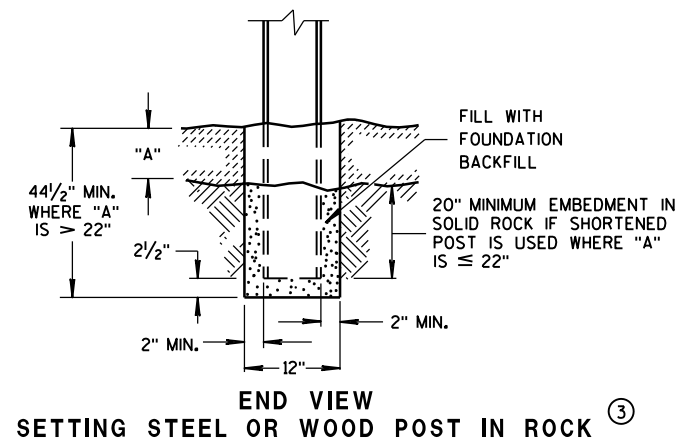
- ① CONTROLLED LOW-STRENGTH BACKFILL OR EMULSIFIED ASPHALT.
- ② DEPTH OF MOW STRIP:
ASPHALT - 4"
CONCRETE - 4"
EMULSIFIED ASPHALT - 1" OR LESS
- ③ FOR EMULSIFIED ASPHALT MOW STRIP LEAVE OUTS NOT REQUIRED. (TYPICAL FOR ALL POSTS.)

GUARDRAIL MOW STRIP

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

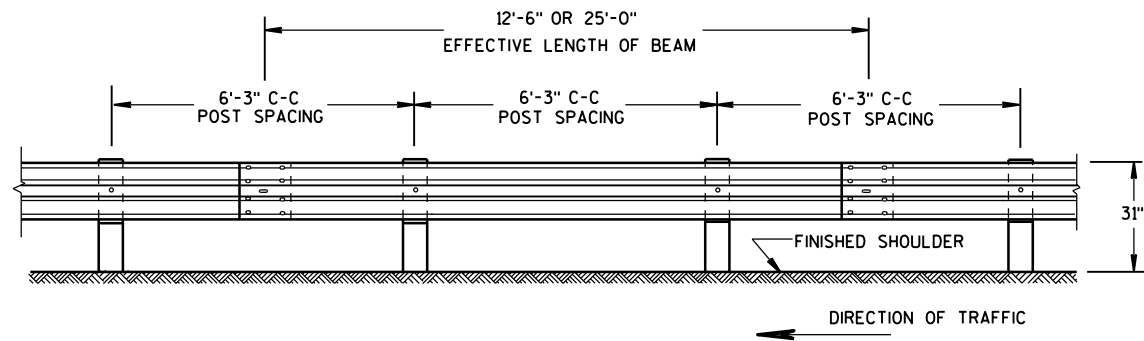
APPROVED June 2014	/S/ Jerry H. Zogg
DATE	ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	

- ① WOOD OR STEEL POSTS (W6X9 OR W6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.
- ② USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.
- ③ IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY $2\frac{1}{2}$ INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS TO THE LENGTH AND INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS TO BE FREE OF LARGE ROCKS.
- ④ WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).
- ⑤ FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS $\pm 1"$. FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN $27\frac{3}{4}"$ TO 32".
- ⑥ WHEN USING STEEL POST AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.



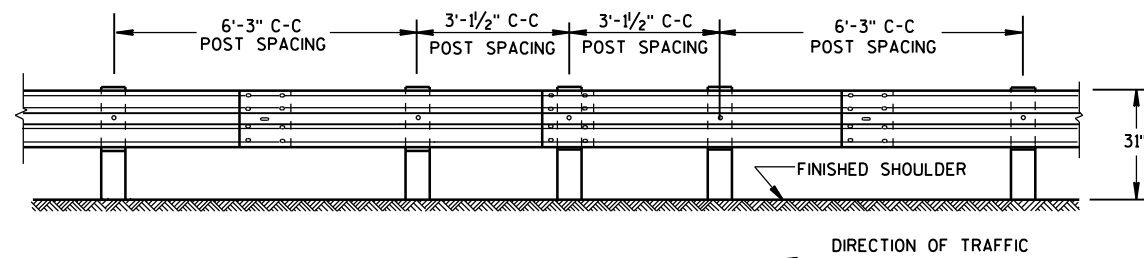
**MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



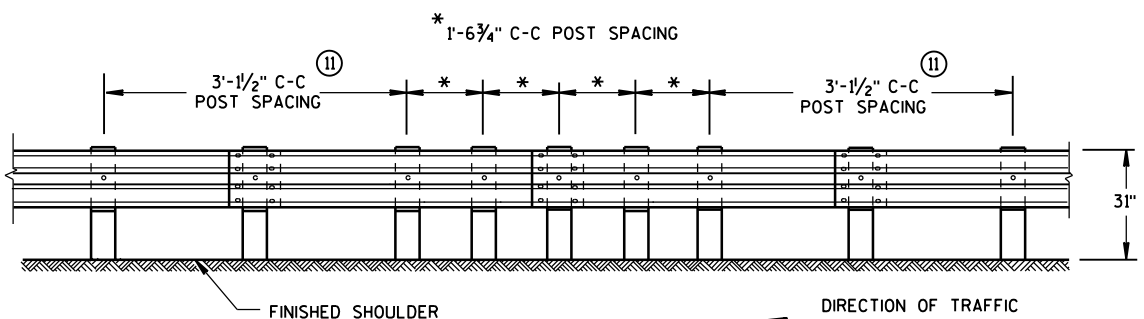
FRONT VIEW

POST SPACING STANDARD INSTALLATION



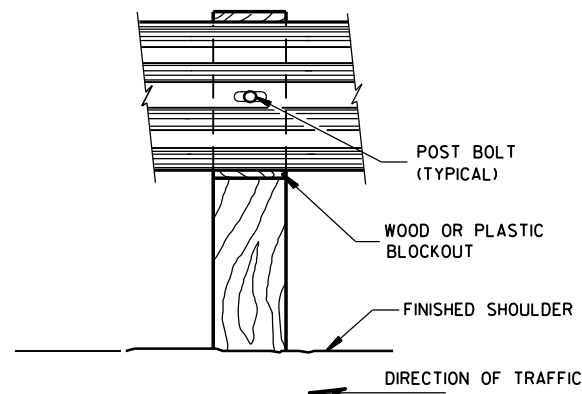
FRONT VIEW

HALF POST SPACING (HS) AND HALF POST SPACING WITH LONGER POSTS (K)

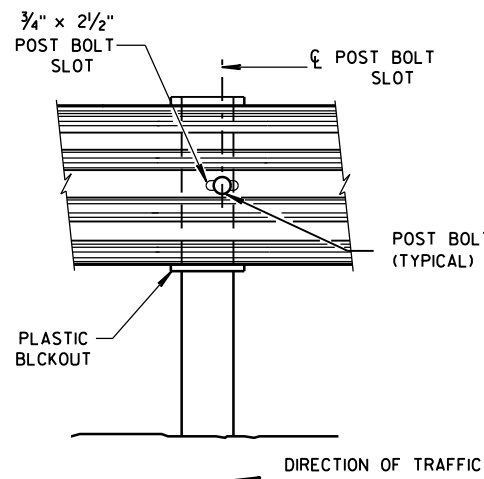


FRONT VIEW

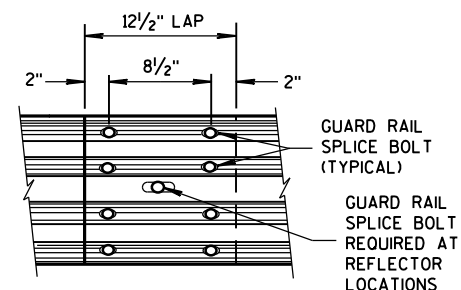
QUARTER POST SPACING (QS)



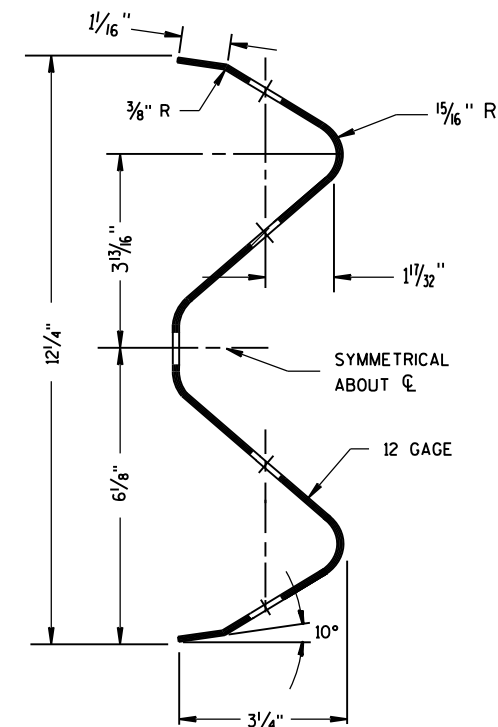
FRONT VIEW AT WOOD POST



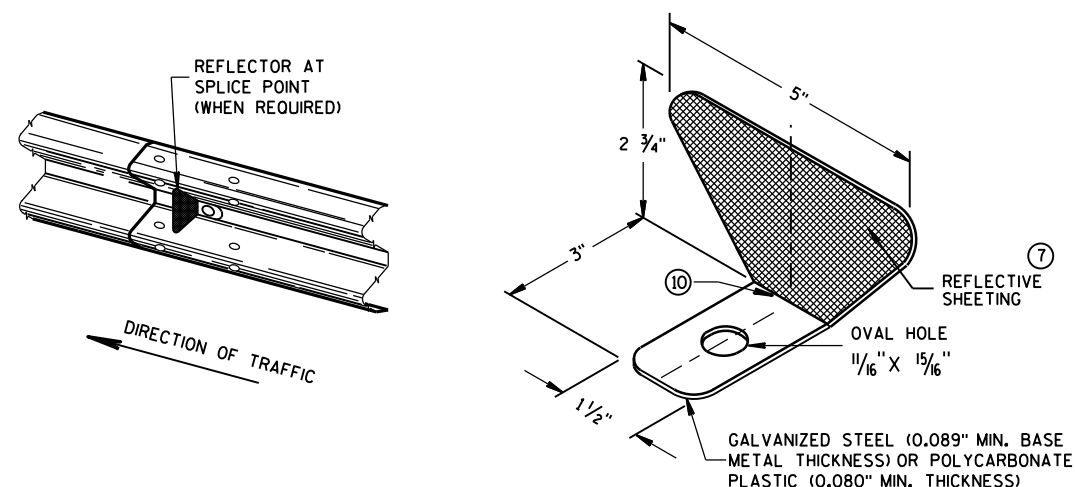
FRONT VIEW AT STEEL POST



FRONT VIEW
MID-SPAN BEAM SPLICE



SECTION THRU W-BEAM RAIL



ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION

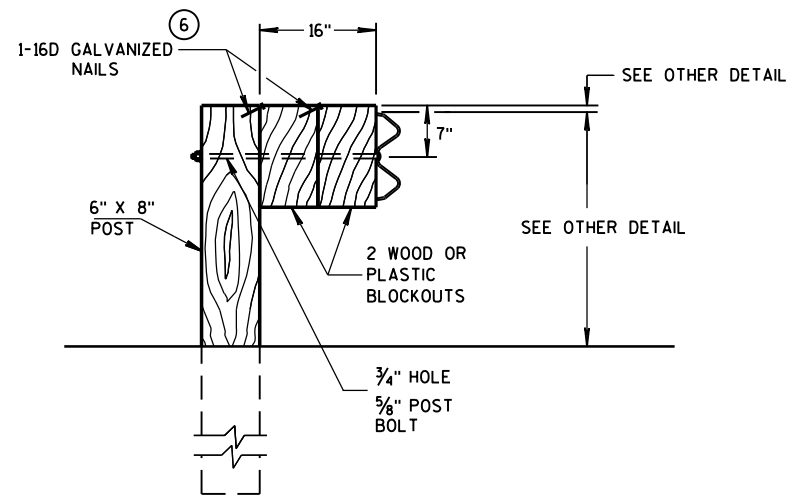
- ⑦ PROVIDE SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH YELLOW REFLECTIVE SHEETING. SHEETING IS TYPE H. SEE STANDARD SPECIFICATION 637.
 - ⑧ DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL. RAIL SPLICE LOCATIONS ARE THE ONLY ACCEPTABLE LOCATIONS FOR REFLECTORS.
 - ⑨ REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.
 - ⑩ PROVIDE AN ANGLE OF BEND OF $90^\circ \pm 1^\circ$ FOR TWO-SIDED REFLECTORS.
 - ⑪ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.
- POST BOLTS ARE A $\frac{5}{8}$ " DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES $\frac{5}{8}$ " DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND $\frac{5}{8}$ " DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.
- GUARD RAIL SPLICE BOLTS ARE A $\frac{5}{8}$ " DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES $\frac{5}{8}$ " DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

REFLECTOR SPACING

	BEAM GUARD LENGTH	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 ⑨	6
	> 200'	50' C-C	1	
TWO WAY TRAFFIC	< 200'	50' C-C	2 ⑩	3
	> 200'	100' C-C	2	

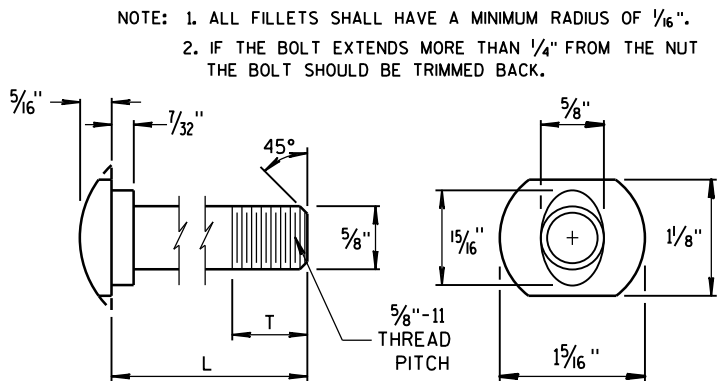
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

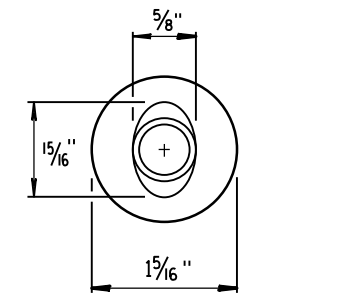


DETAIL FOR 16" BLOCKOUT DEPTH

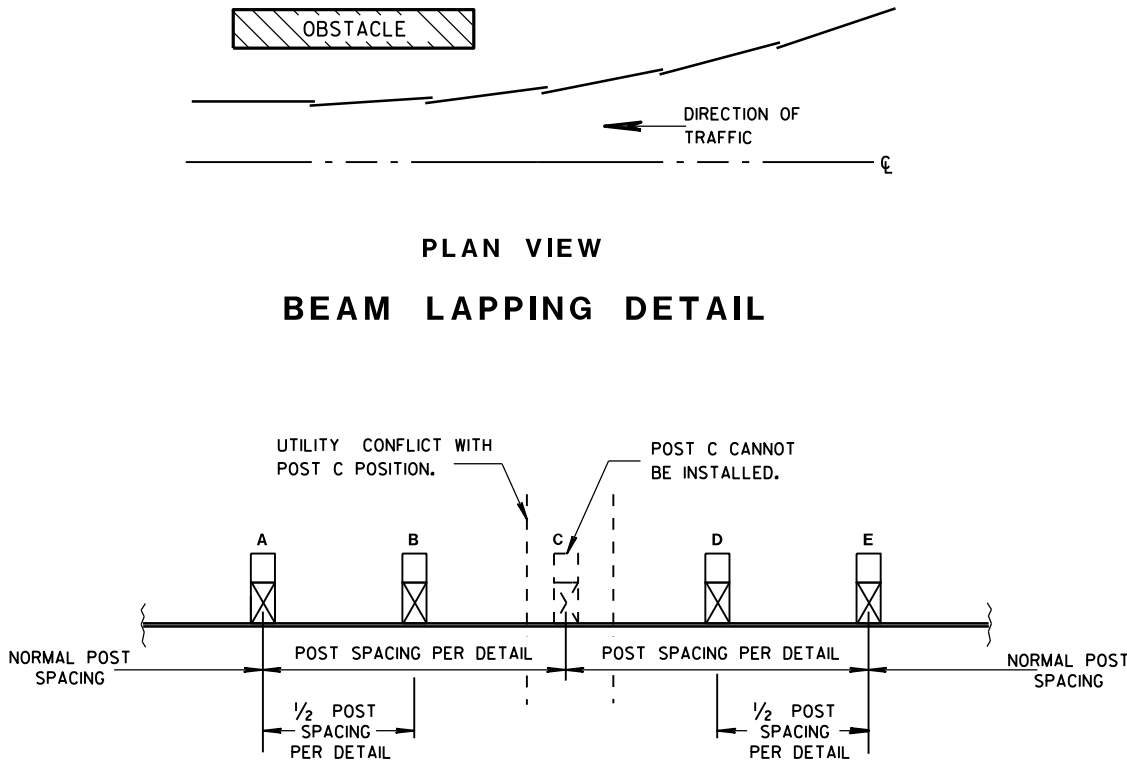
IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.



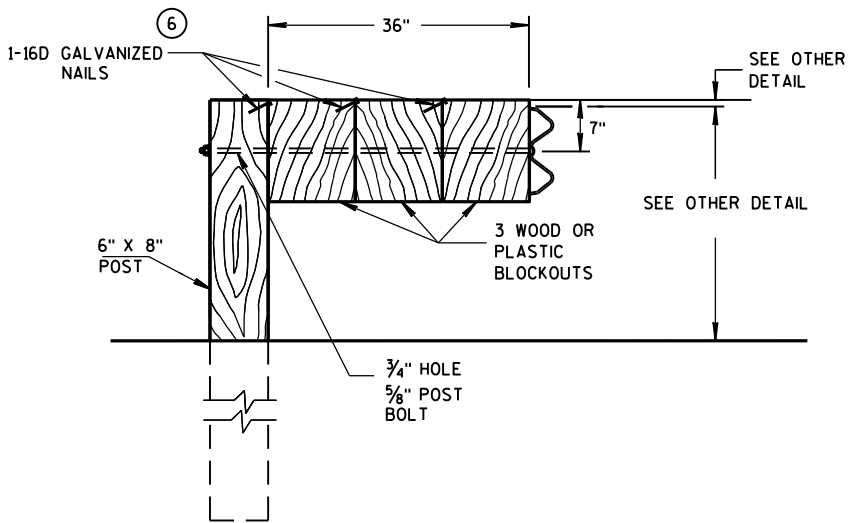
POST BOLT TABLE



ALTERNATE BOLT HEAD



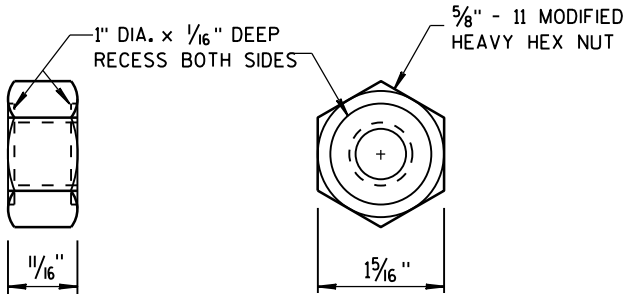
POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



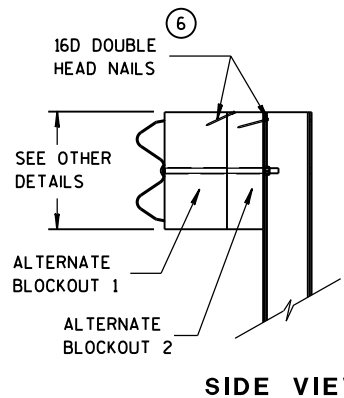
DETAIL FOR 36" BLOCKOUT DEPTH

NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

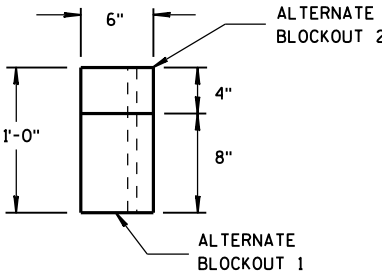
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.



POST BOLT, SPLICE BOLT AND RECESS NUT



SIDE VIEW



TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2016 DATE /S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

GENERAL NOTES

- (A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, THE HINGE POINT LINE (HPL), AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.
- (B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED.
- (C) DIFFERENT MANUFACTURES REQUIRE DIFFERENT PERFORATED W-BEAM RAIL END PANELS. SEE MANUFACTURES INFORMATION.
- (D) THE TOP OF THE STEEL TUBE ON POST 1 AND POST 2 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.
- (E) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS, ONE SCREW PER CORNER.
- (G) 1/2" DIAMETER X 3" LONG LAG BOLT AND WASHER.
- (H) HARDWARE VARIES BETWEEN DIFFERENT MANUFACTURES. SEE MANUFACTURE'S DRAWING FOR INFORMATION.
- (I) DIMENSIONS MAY VARY. SEE MANUFACTURE'S INFORMATION.

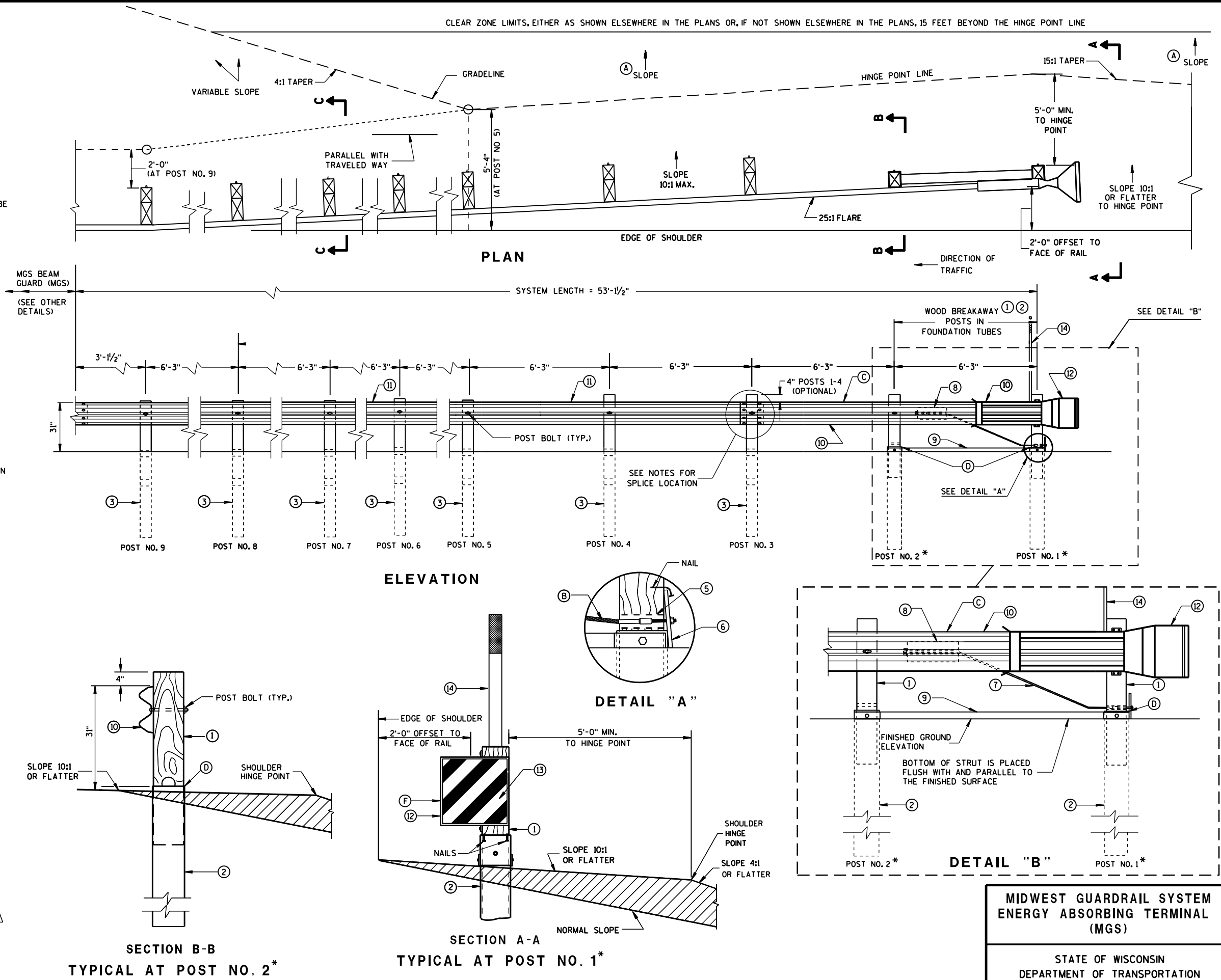
SEE SDD 14B42 FOR MORE INFORMATION.

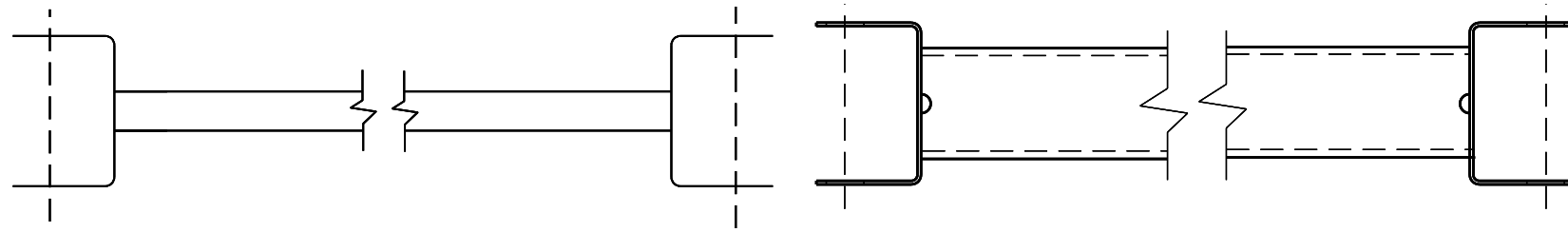
* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

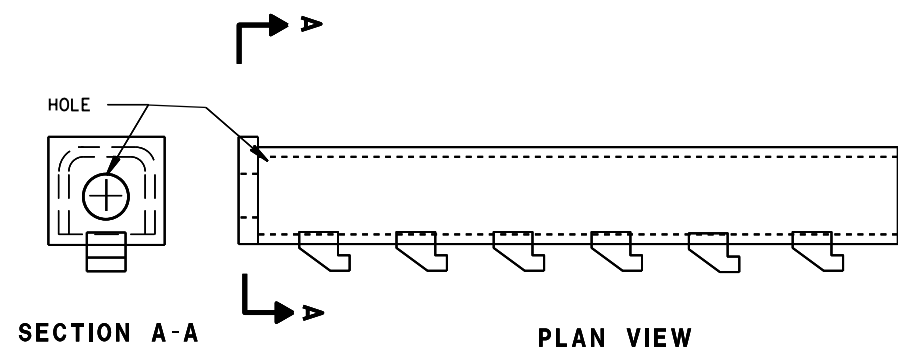
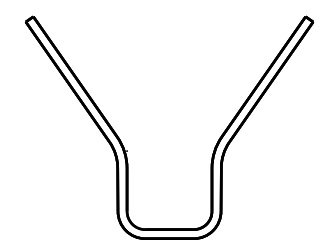
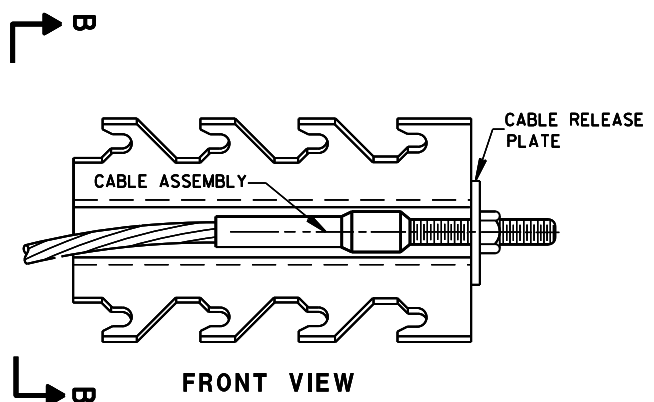
W-BEAM RAIL SPLICES ARE LOCATED AT POST NUMBER 3, AND BETWEEN POST 5 AND 6, BETWEEN POSTS 7 AND 8, AND MIDDLE OF THE SPAN AFTER POST 9.

THE CENTER OF THE UPPER 3/2" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE.





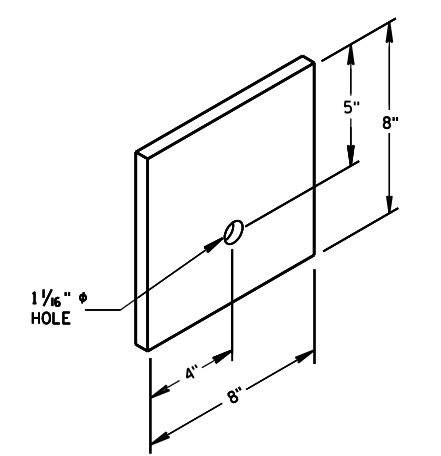
9 H
GENERIC GROUND STRUT



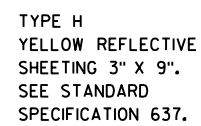
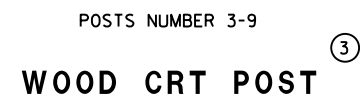
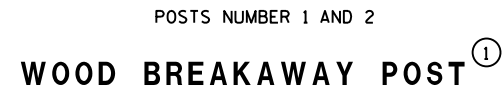
8 H
GENERIC ANCHOR CABLE BOX

BILL OF MATERIALS

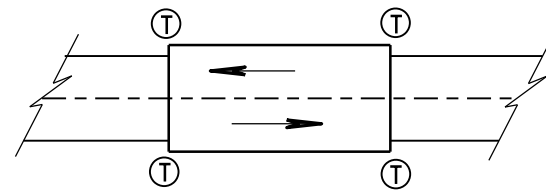
PART NO.	DESCRIPTION
MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.	
①	WOOD BREAKAWAY POST
②	6" X 8" X 0.188", 6'-0" LONG FOUNDATION TUBE AT POSTS 1 AND 2
③	WOOD CRT
④	WOOD BLOCKOUT
⑤	PIPE SLEEVE
⑥	BEARING PLATE
⑦	BCT CABLE ASSEMBLY
⑧	ANCHOR CABLE BOX
⑨	GROUND STRUT
⑩	PERFORATED W-BEAM RAIL END PANEL, 12'-6" LONG.
⑪	STANDARD W-BEAM RAIL. MULTIPLE SECTIONS REQUIRED. SECTIONS VARY IN LENGTH.
⑫	END SECTION EAT
⑬	0.040" ALUMINUM SHEET WITH REFLECTIVE SHEETING TYPE F PER SECTION 637 OF THE STANDARD SPECIFICATIONS
⑭	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)



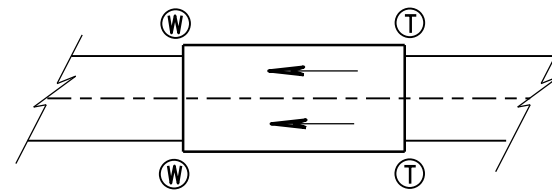
⑥
BEARING PLATE



MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2014	<i>/s/ Jerry H. Zogg</i>
DATE	ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	



TWO WAY TRAFFIC



ONE WAY TRAFFIC

(T) THRIE BEAM CONNECTION

(W) W-BEAM CONNECTION WHEN REQUIRED

GENERAL NOTES

IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2½", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

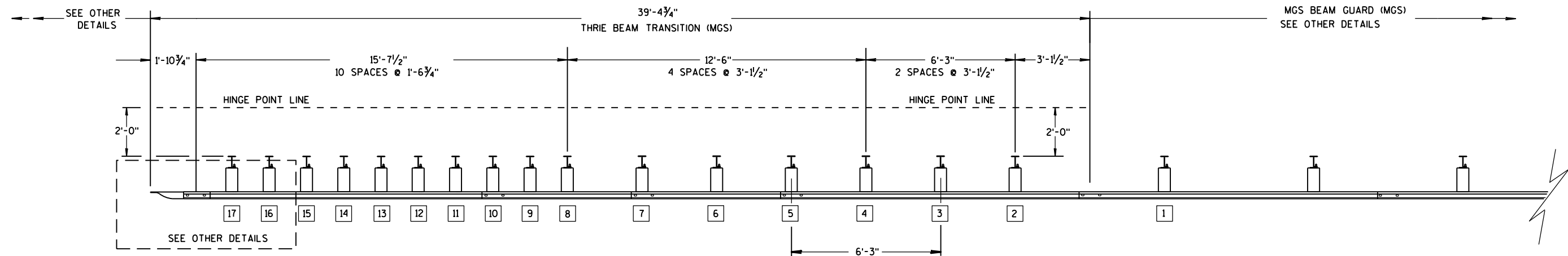
TRANSITION USES STEEL POSTS ONLY.

SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

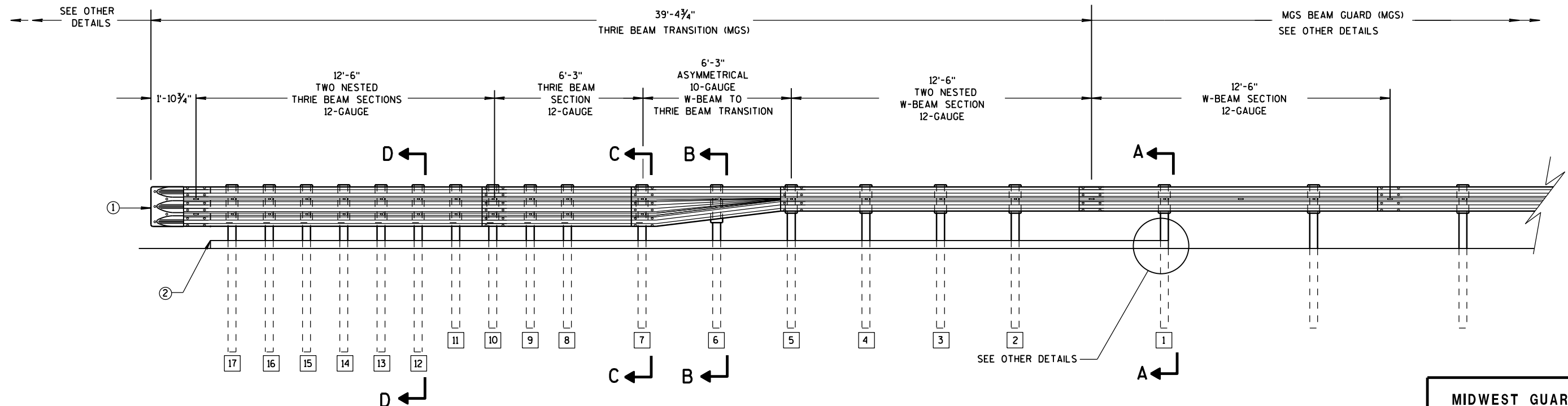
① BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE



PLAN VIEW



ELEVATION VIEW

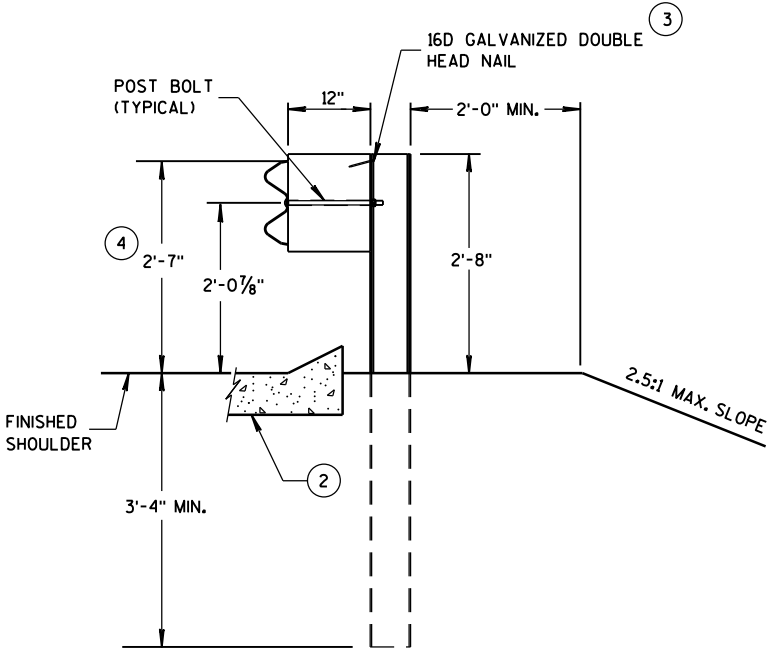
MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

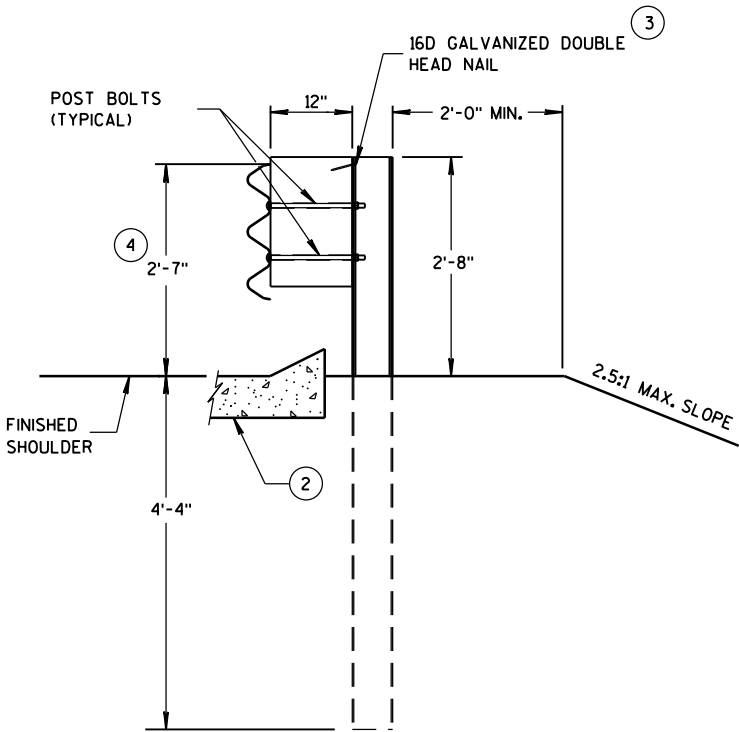
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

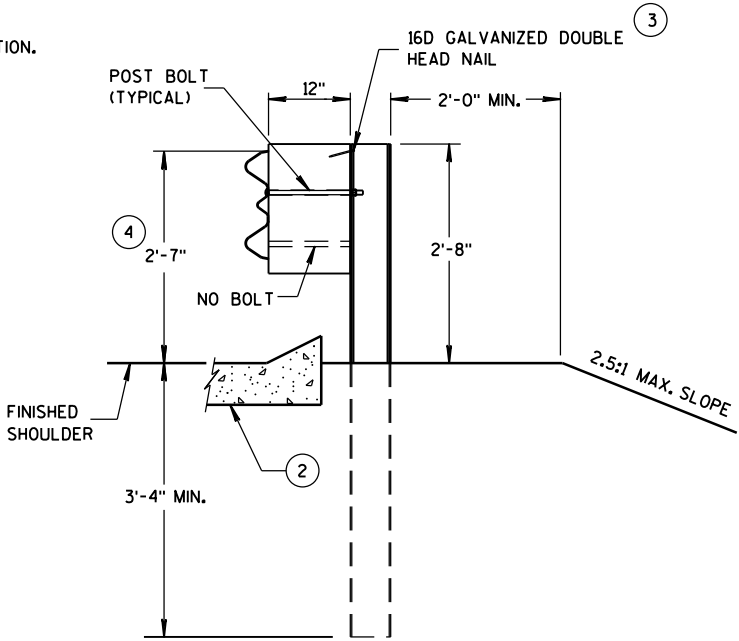
- 2 OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.
- 3 WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 10D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.
- 4 TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".



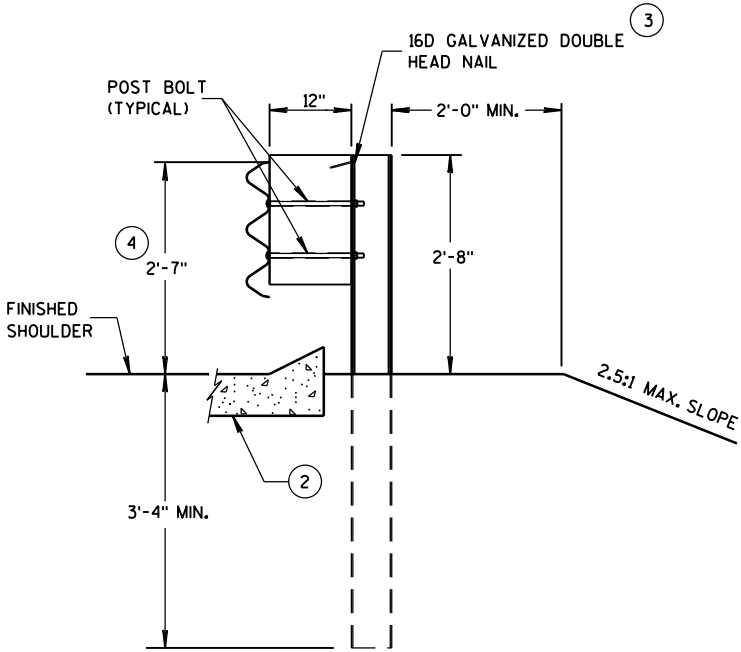
SECTION A-A
POSTS 1-5



SECTION D-D
POSTS 12-17



SECTION B-B
POST 6



SECTION C-C
POSTS 7-11

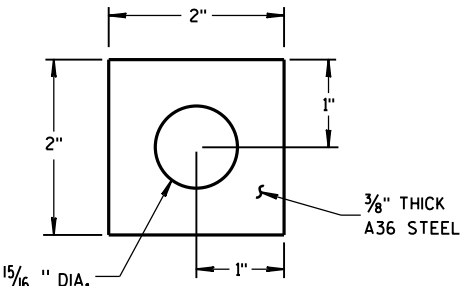
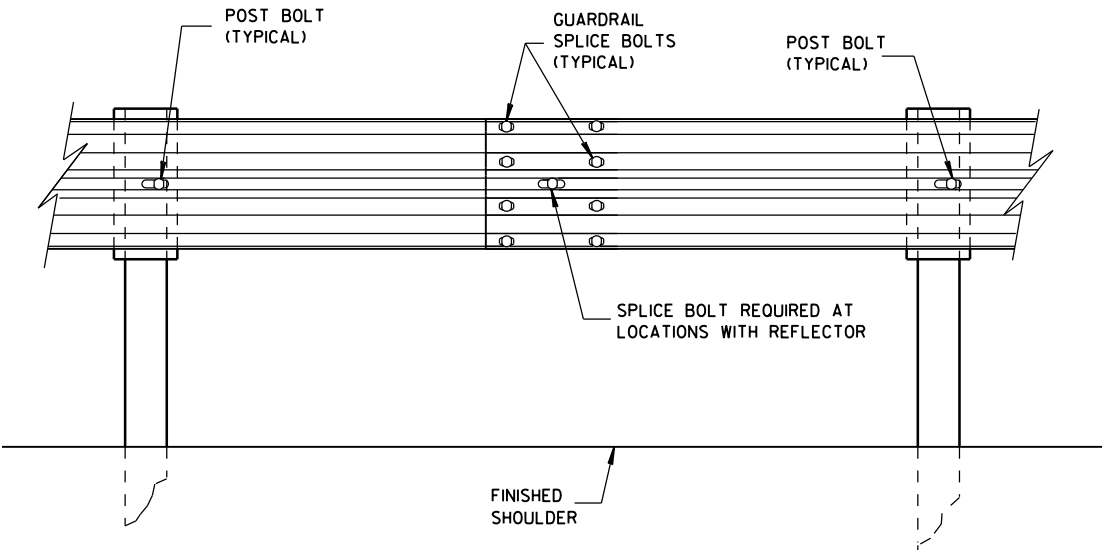
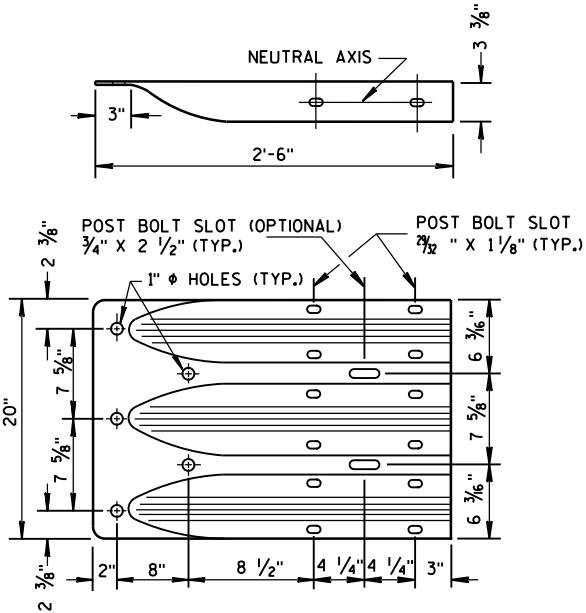


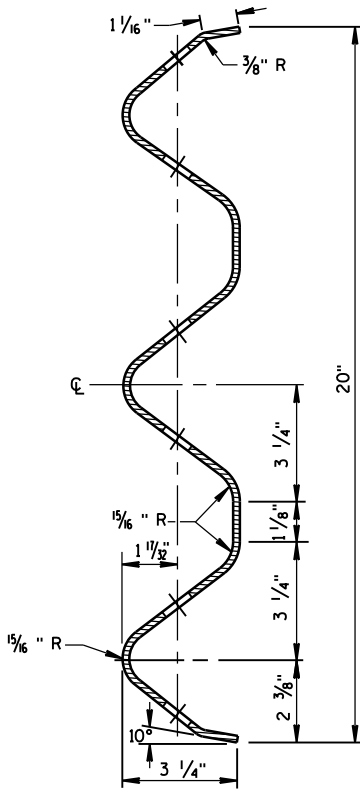
PLATE WASHER DETAIL



SPlice DETAIL



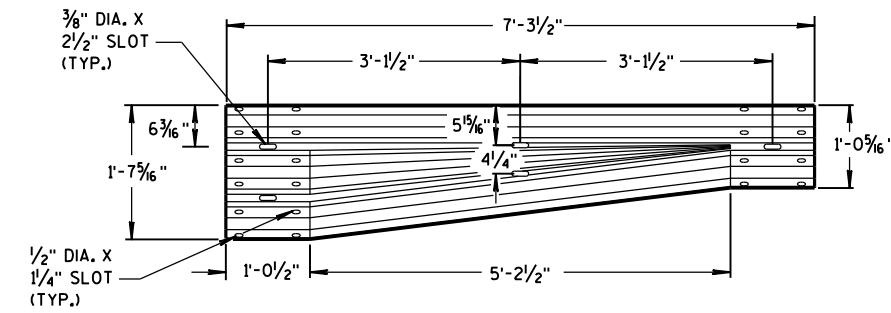
THRIE BEAM
TERMINAL CONNECTOR



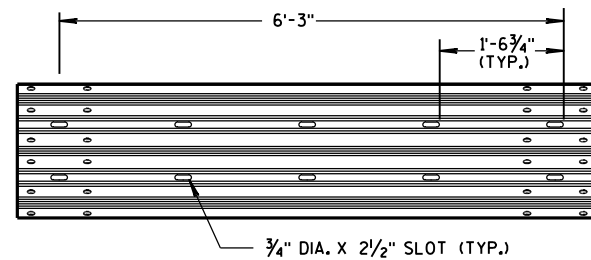
SECTION THRU THRIE
BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

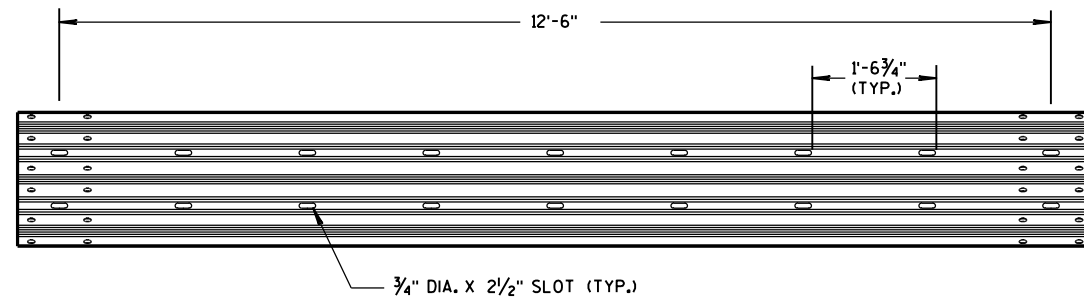
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



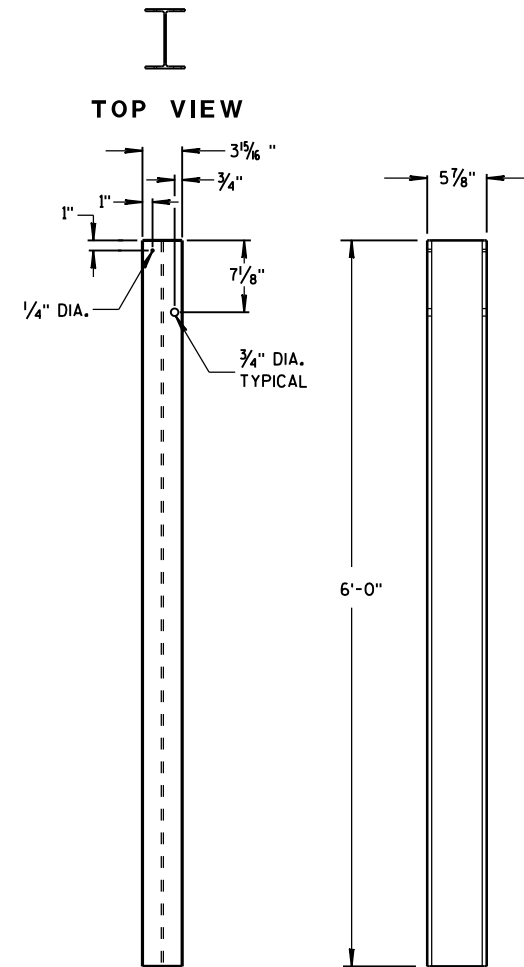
W-BEAM TO THRIE BEAM TRANSITION SECTION



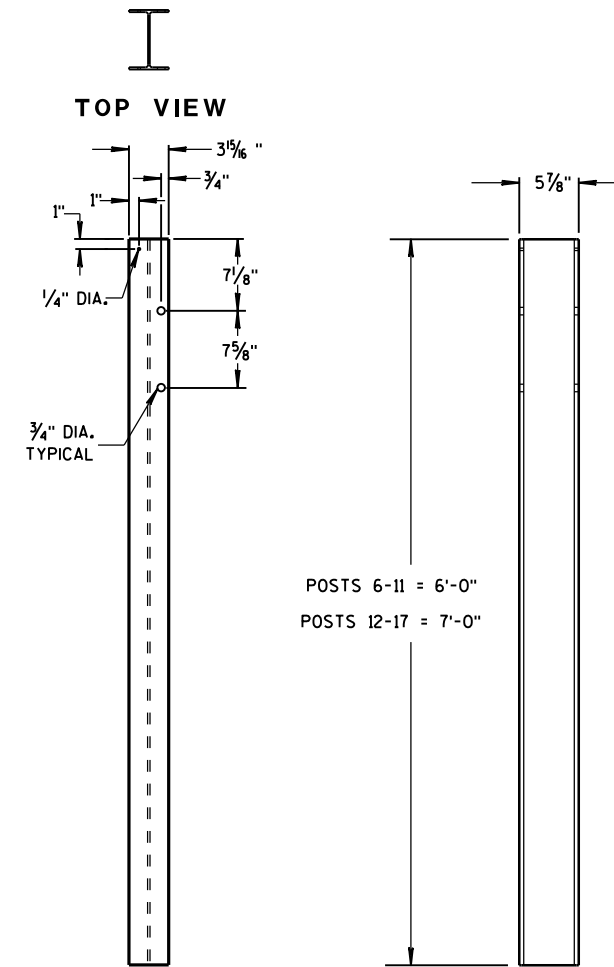
6'-3" THRIE BEAM SECTION



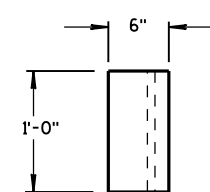
12'-6" THRIE BEAM SECTION



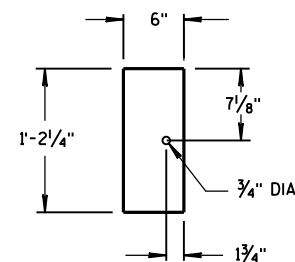
FRONT VIEW SIDE VIEW
STEEL POSTS 1-5



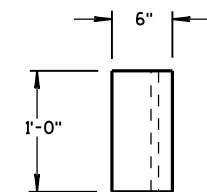
FRONT VIEW SIDE VIEW
STEEL POSTS 6-17



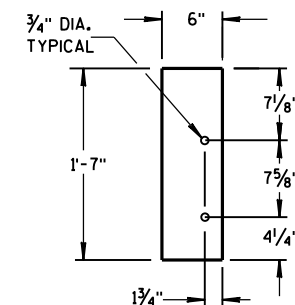
TOP VIEW



FRONT VIEW
BLOCKOUT
POSTS 1-5



TOP VIEW



FRONT VIEW
BLOCKOUT
POSTS 6-17

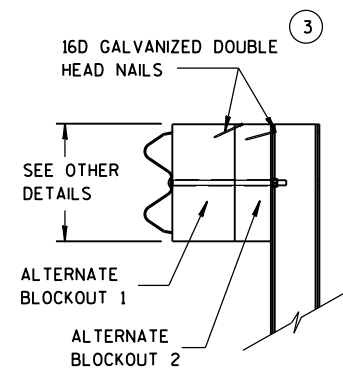
GENERAL NOTES

STEEL POSTS ARE W6X9 OR W6X8.5.

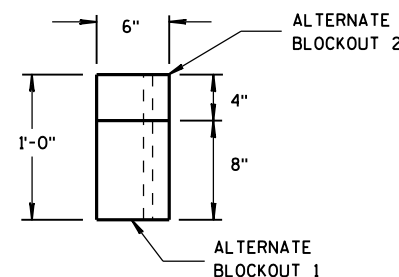
BOLT HOLES FOR POST ARE ON FRONT AND OF SIDE OF POST.

(3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

(5) WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.



SIDE VIEW



TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

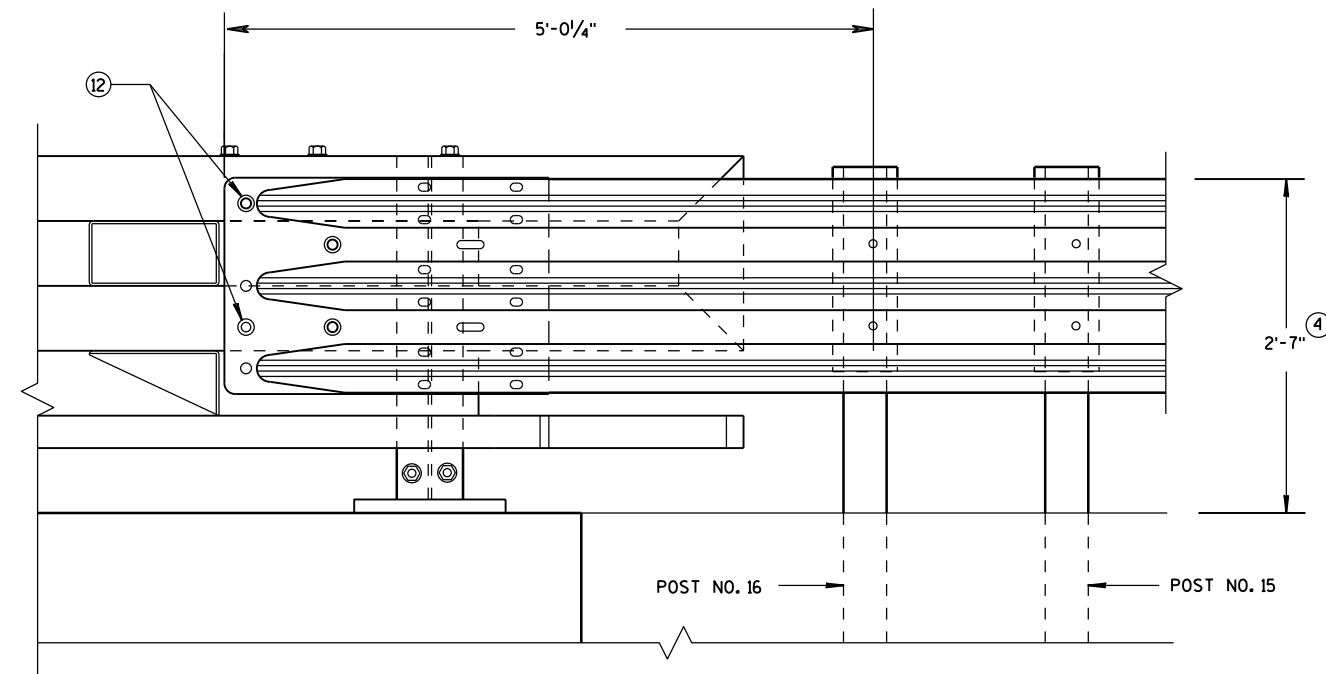
MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

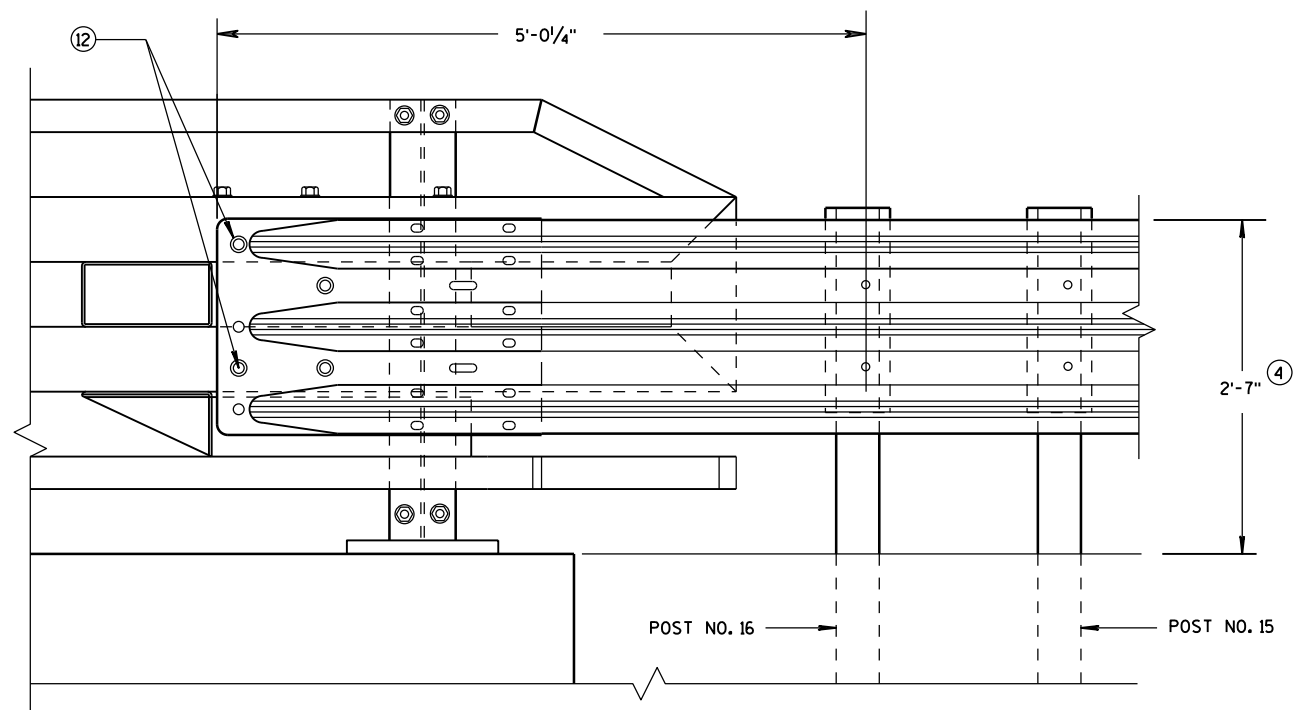
④ TOLERANCE FOR TOP OF BEAM IS $\pm 1"$.

⑫ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. ON BACKSIDE OF PARAPET ONE ROUND WASHER, AND NUT REQUIRED. BOLT THREAD IS TO EXTEND $\frac{1}{2}$ -INCH BEYOND NUT.



ELEVATION OF DETAIL AT NY3 END POST

THRIE BEAM RAIL ATTACHMENT



ELEVATION OF DETAIL AT NY4 END POST

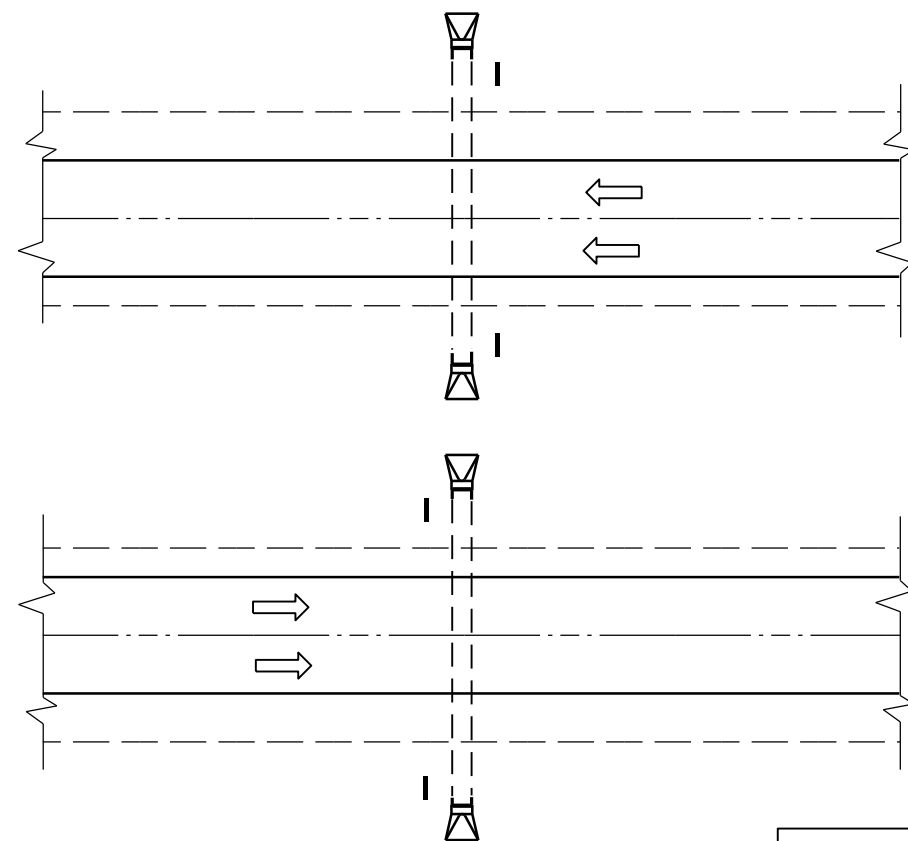
THRIE BEAM RAIL ATTACHMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

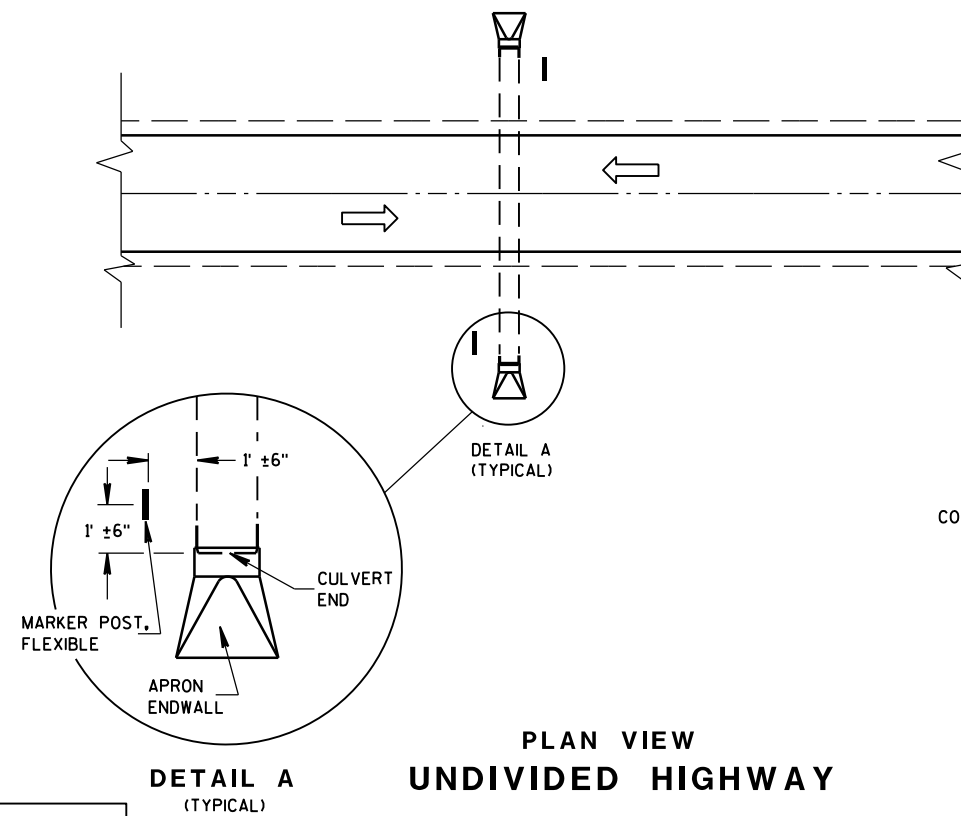
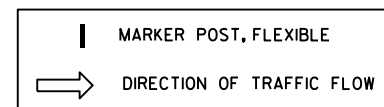
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015
DATE
FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER



PLAN VIEW
DIVIDED HIGHWAY

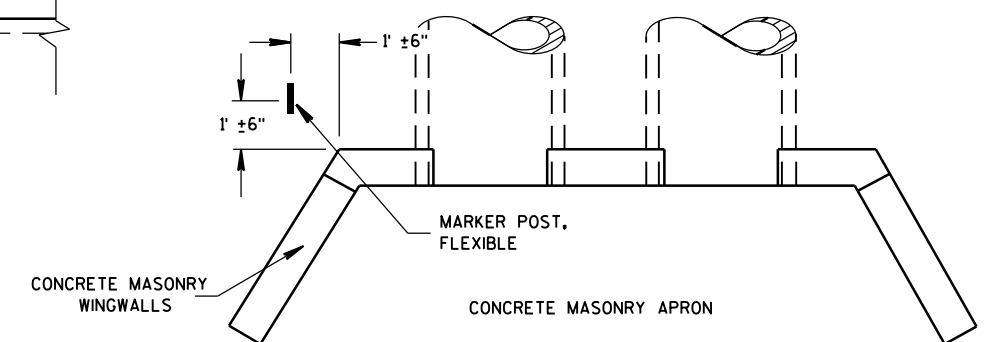


PLAN VIEW
UNDIVIDED HIGHWAY

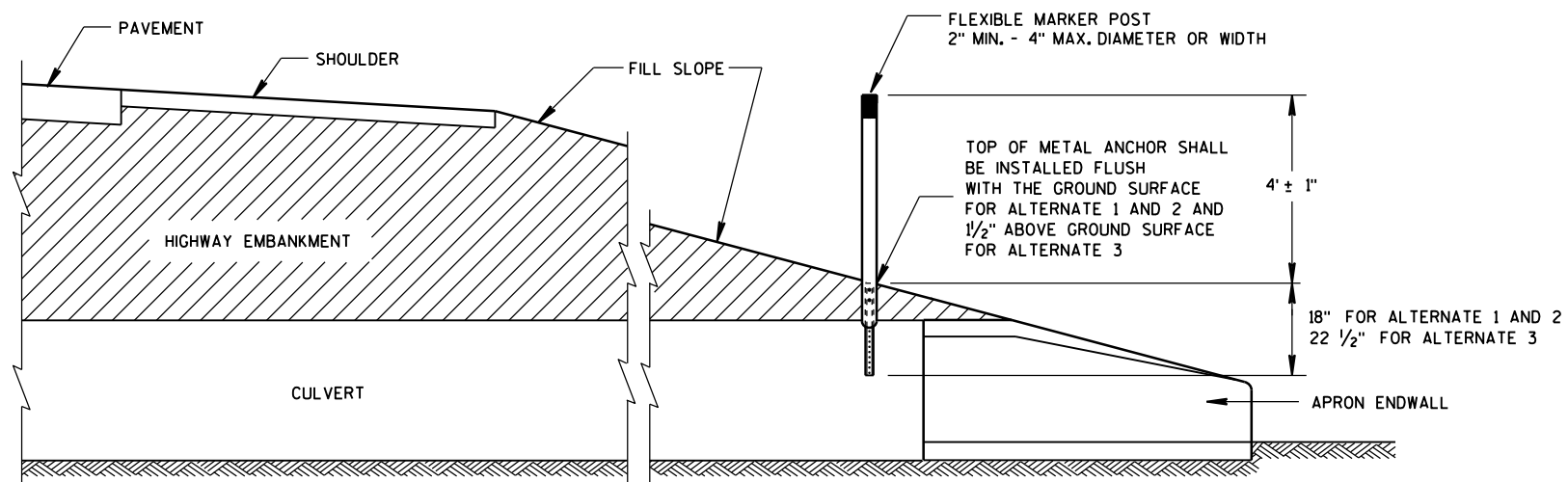
FLEXIBLE MARKER POST LOCATION

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.



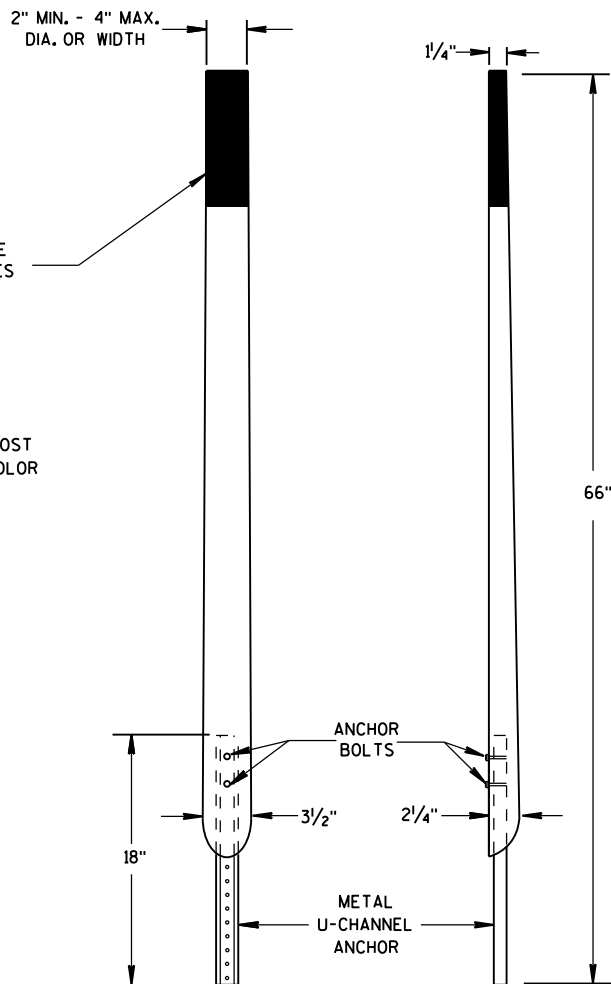
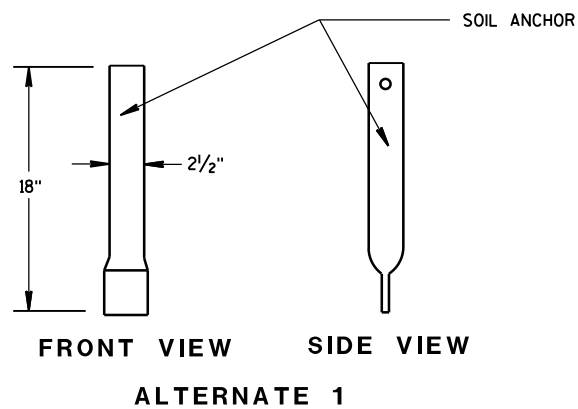
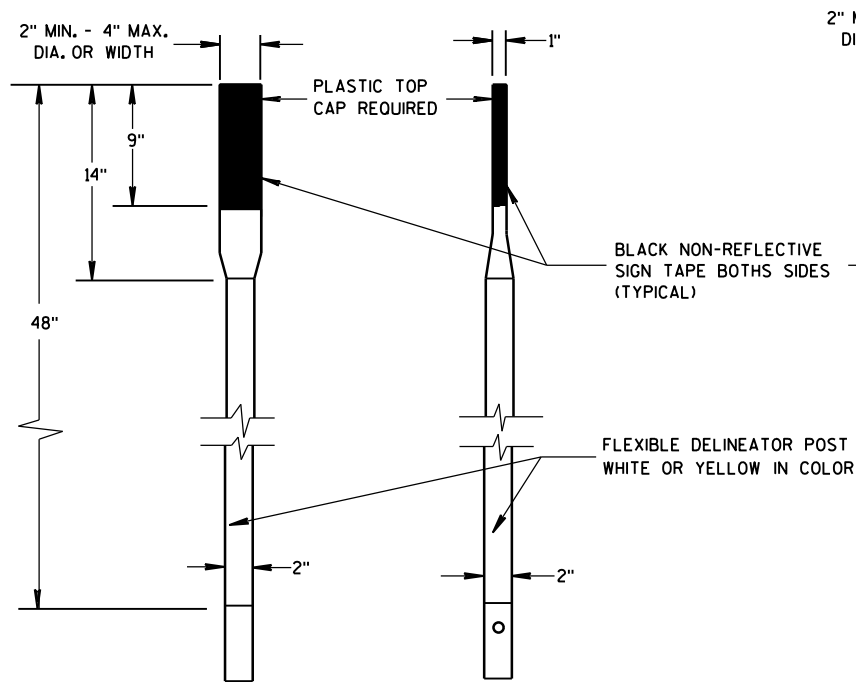
PLAN VIEW
CONCRETE MASONRY ENDWALLS FOR
CULVERT PIPE AND PIPE ARCH



CROSS SECTION
FLEXIBLE MARKER POST

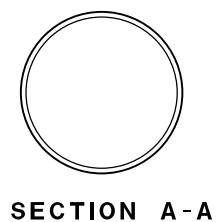
FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

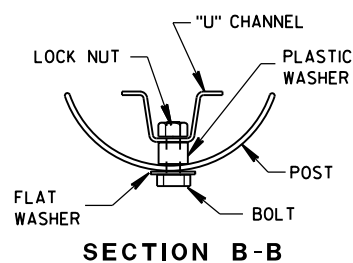
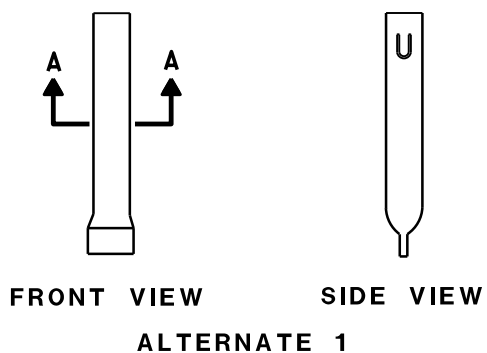


FRONT VIEW SIDE VIEW
ALTERNATE 2

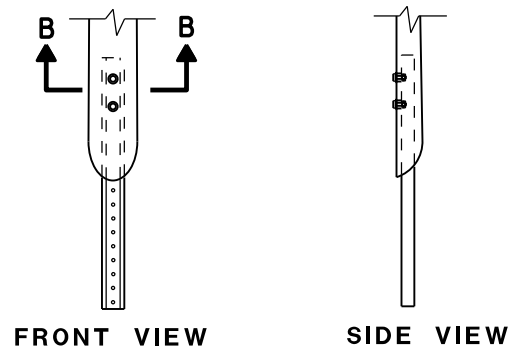
FLEXIBLE MARKER POSTS



SECTION A-A

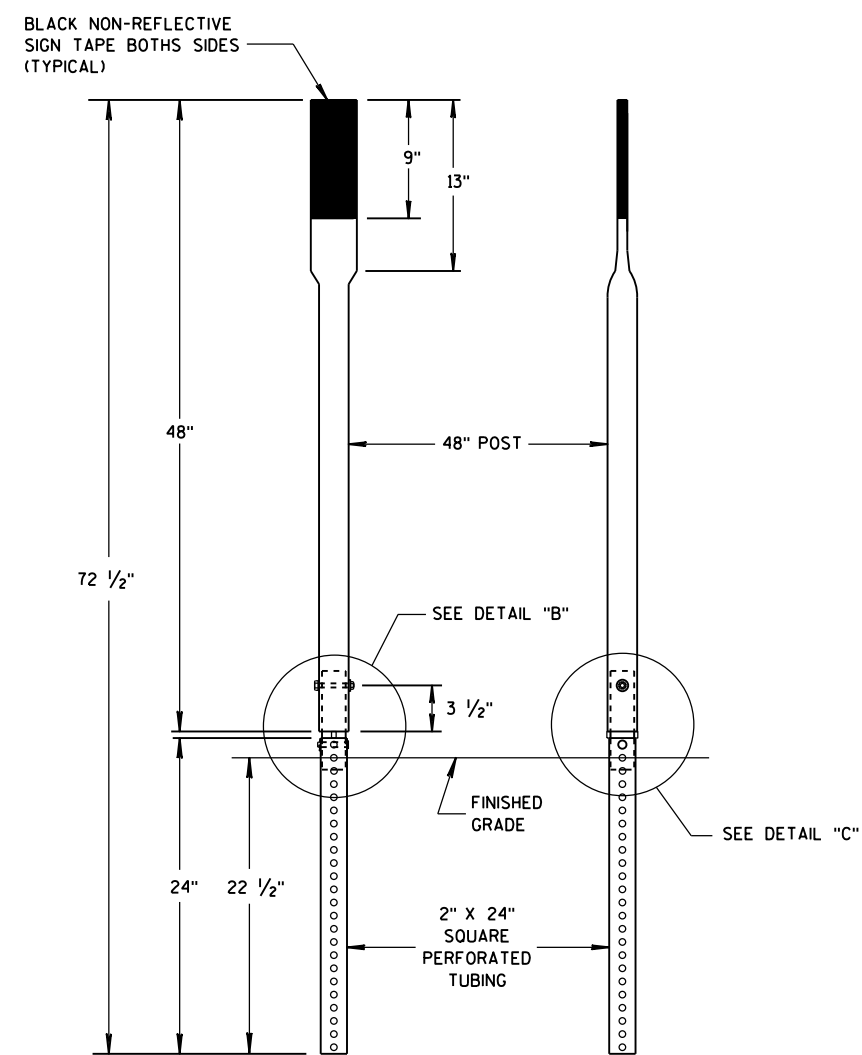


SECTION B-B

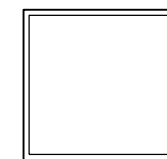


FRONT VIEW SIDE VIEW
ALTERNATE 2

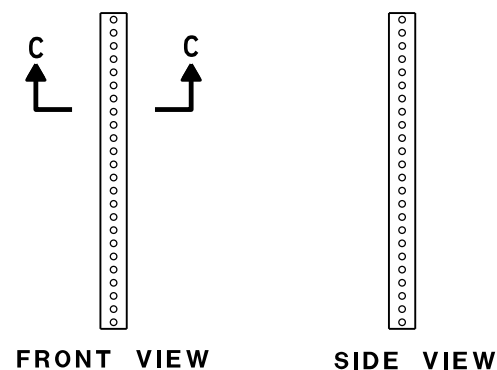
FLEXIBLE MARKER POST ANCHORS



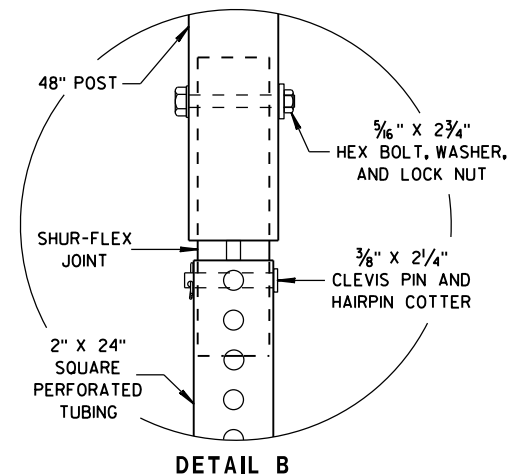
FRONT VIEW SIDE VIEW
ALTERNATE 3



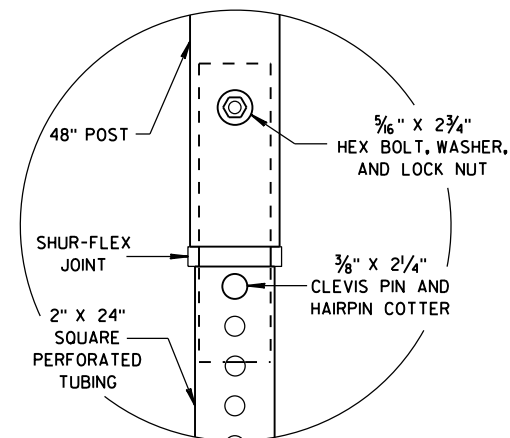
SECTION C-C



FRONT VIEW SIDE VIEW
ALTERNATE 3



DETAIL B



DETAIL C

FLEXIBLE MARKER POST FOR CULVERT END

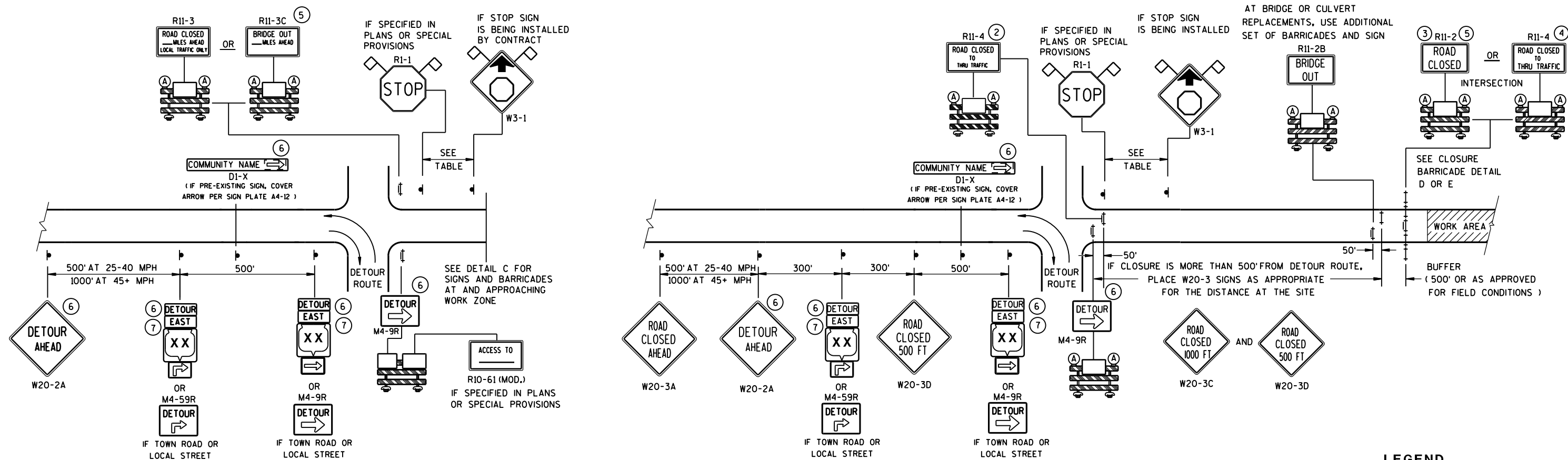
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/1/2012
DATE

FHWA

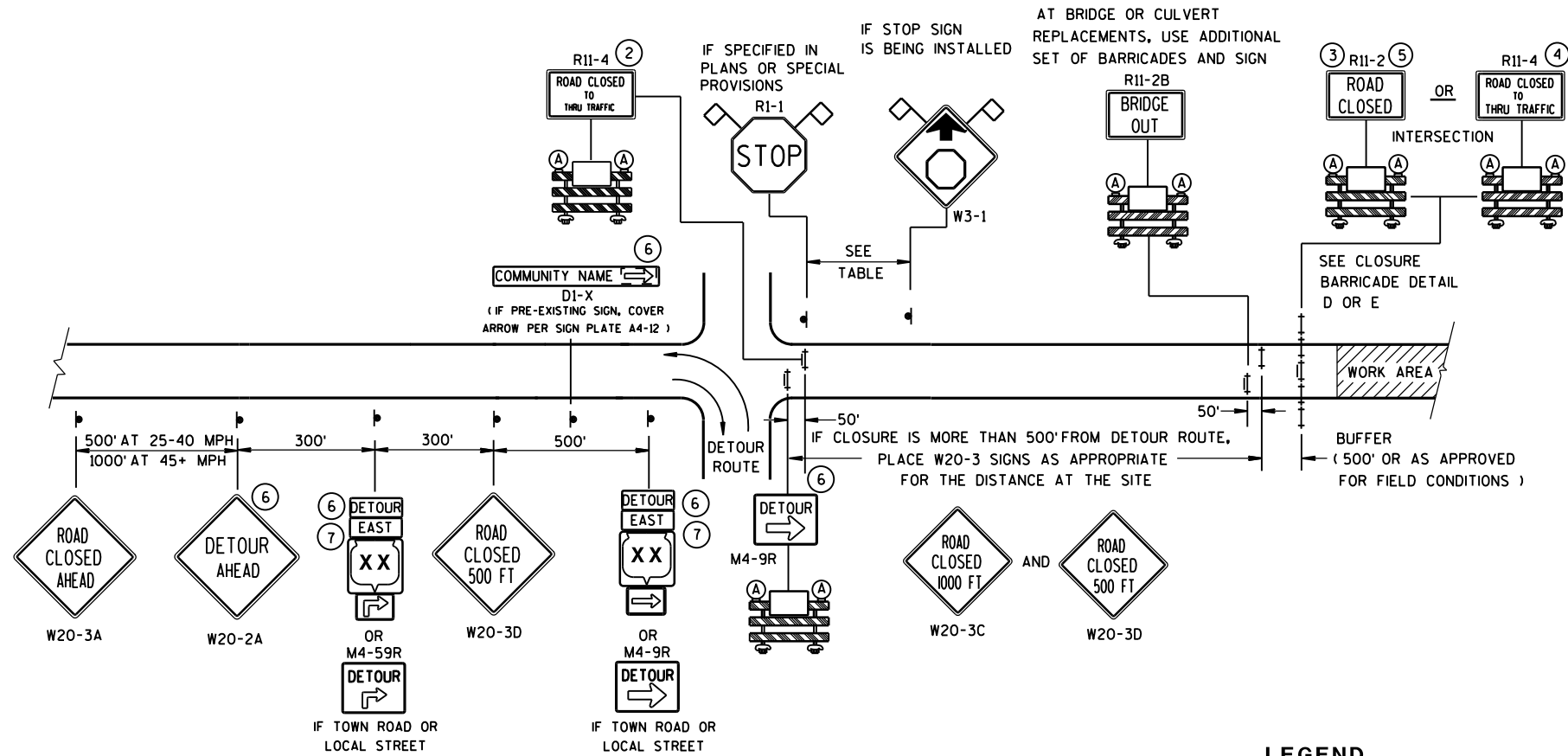
/S/ Travis Feltes
STATE TRAFFIC ENGINEER OF DESIGN



DETAIL A

MAINLINE CLOSURE WITH POSTED DETOUR

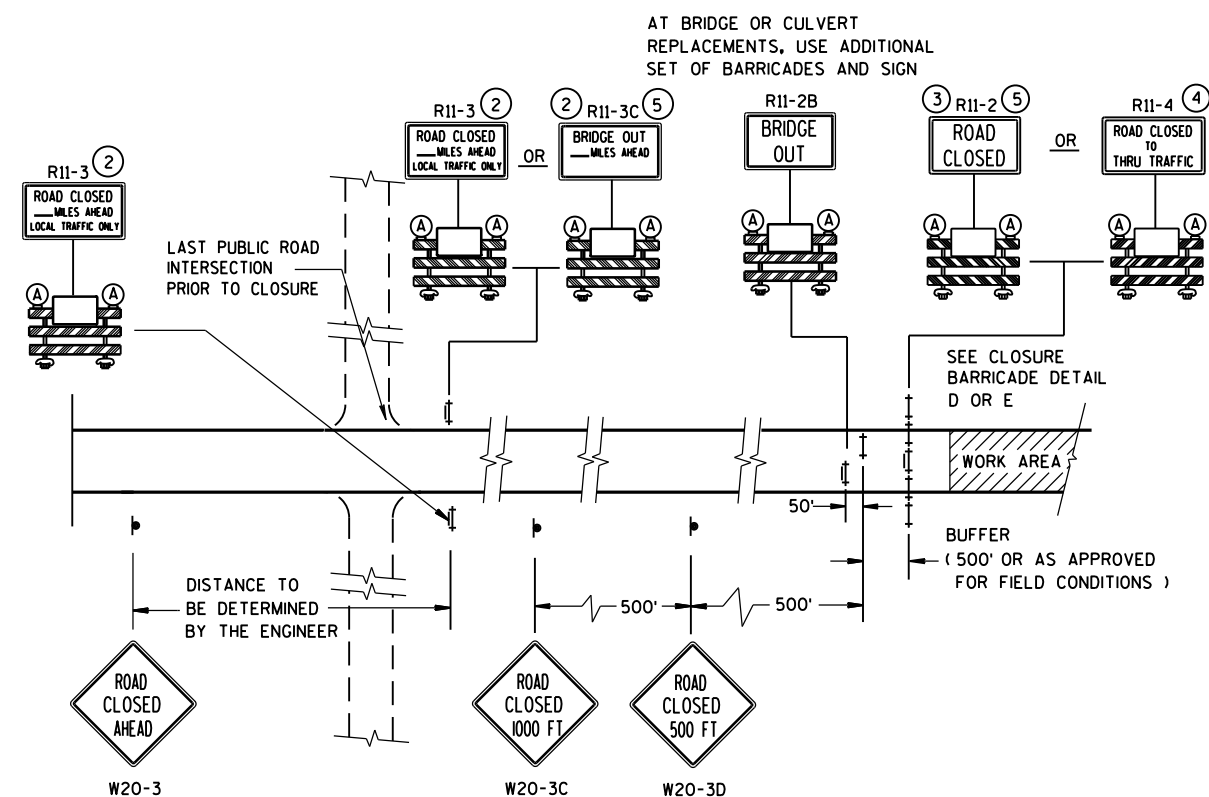
WORK ZONE GREATER THAN 1/2 MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL B













MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN 1/2 MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

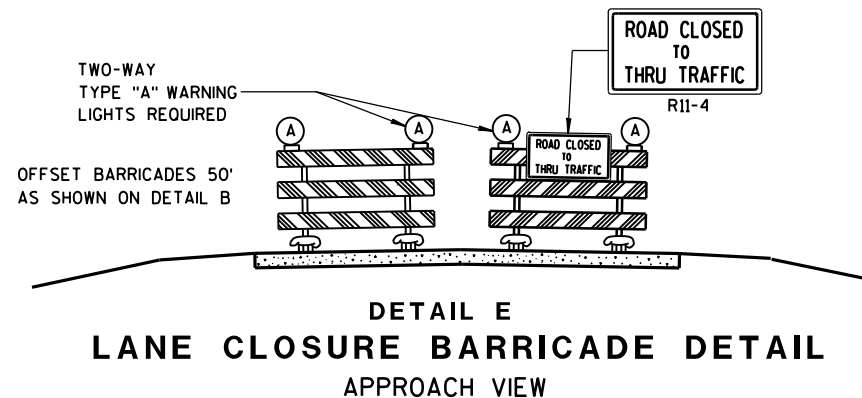
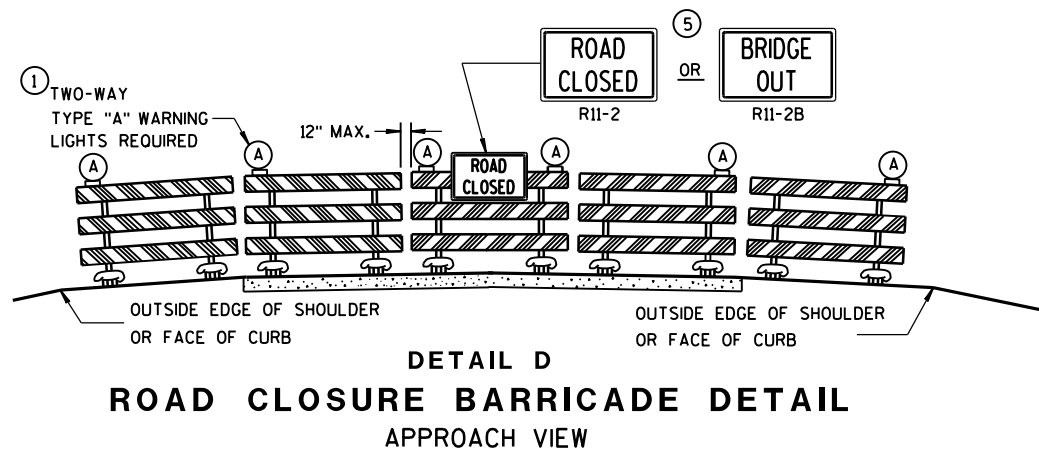
- # LEGEND
-  SIGN ON PERMANENT SUPPORT
-  TYPE III BARRICADE
-  TYPE III BARRICADE WITH ATTACHED SIGN
-  TYPE "A" WARNING LIGHT (FLASHING)
-  WORK AREA
-  M4-8
M3-X
-  OR  OR 
M1-4 M1-5A M1-6
-  OR 
MO5-1 MO6-1
-  FLAGS, 16" X 16" MIN., (ORANGE)

SEE SDD 15C2-SHEET "b"
FOR GENERAL NOTES
AND FOOTNOTES (1) THROUGH (7)

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

Sept. 2015	/S/ Peter Amakobe Atepe
DATE	STATEWIDE WORK ZONE TRAFFIC
FHWA	SAFETY ENGINEER



SEE SDD 15C2-SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL D FOR FULL ROAD CLOSURES.

TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11-2, R11-3, M4-9, R11-4 AND R10-61 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:

R11-2 SHALL BE 48" X 30".

R11-3, R11-4 AND R10-61 SHALL BE 60" X 30".

M4-9 SHALL BE 30" X 24".

M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)

M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)

M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)

M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)

D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

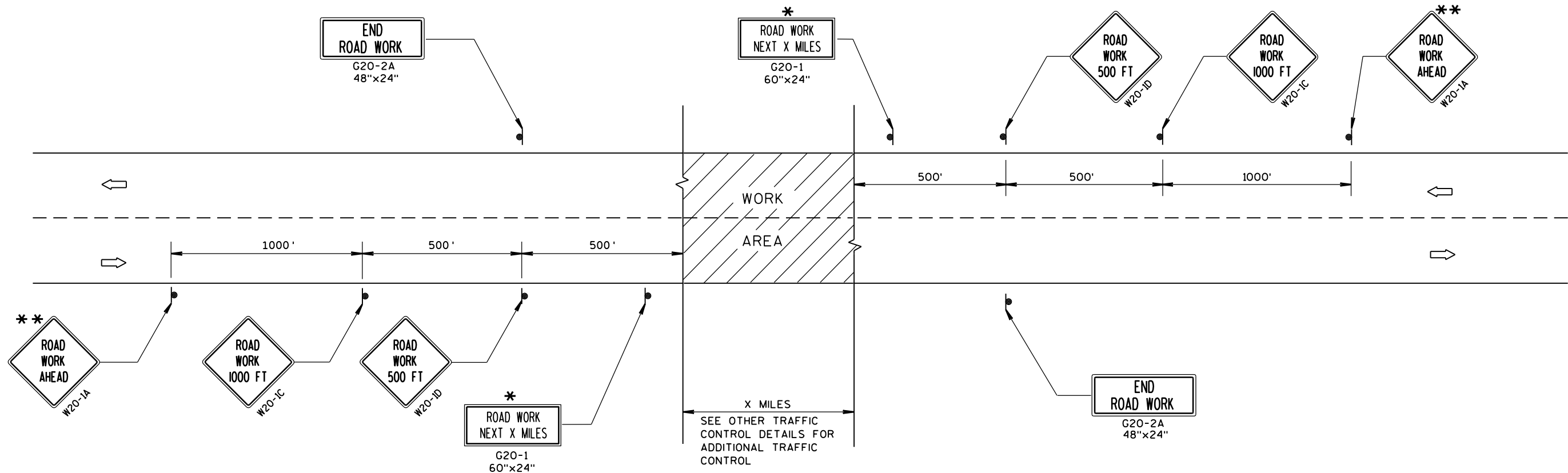
R1-1 SHALL BE 36" X 36".

- ① TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8-FOOT LIGHT SPACING).
- ② THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT INTERSECTION.
- ③ FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL D.
- ④ FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE LANE CLOSURE BARRICADE DETAIL E.
- ⑤ FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11-2 AND R11-3 SIGNS.
- ⑥ INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.
- ⑦ "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

Sept. 2015 /S/ Peter Amokobe Atepe
DATE STATEWIDE WORK ZONE TRAFFIC
FHWA SAFETY ENGINEER



TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL

GENERAL NOTES

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

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

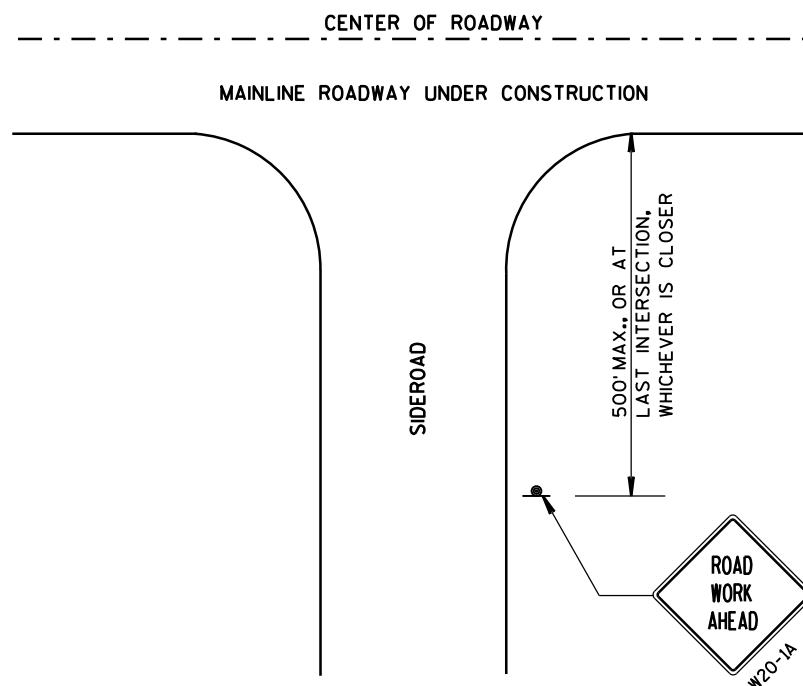
ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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.

* OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

** PLACE ADDITIONAL W20-1A "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.



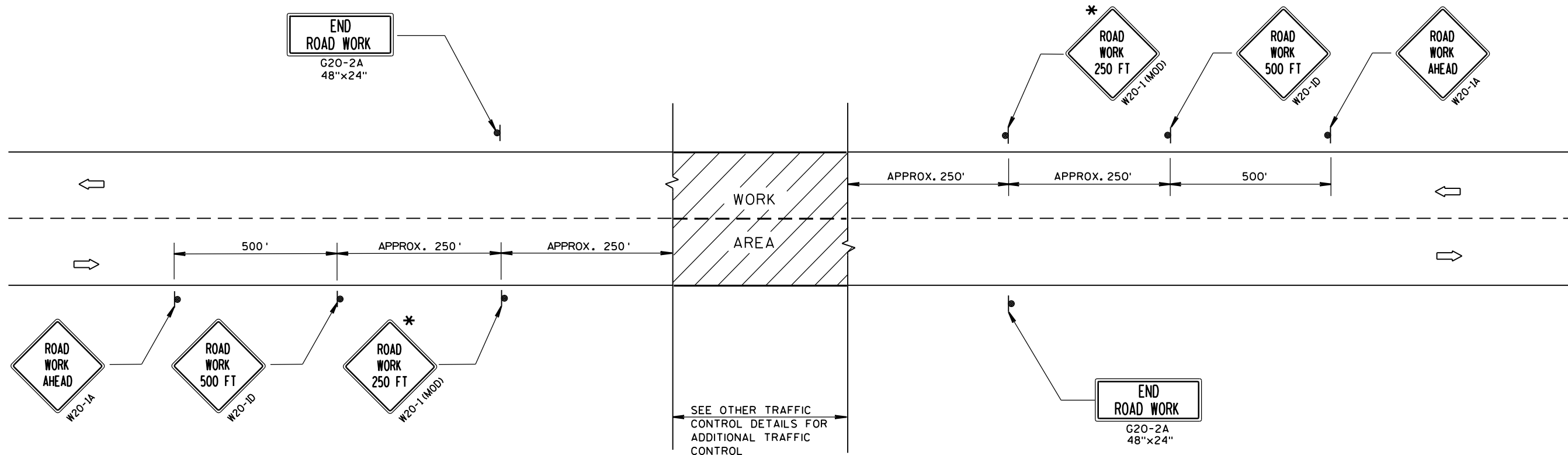
LEGEND

- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA

TRAFFIC CONTROL, ADVANCE
WARNING SIGNS 45 M.P.H.
OR GREATER TWO-WAY
UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED	/S/ Peter Amokobe Atepe
DATE	STATEWIDE WORK ZONE TRAFFIC
FHWA	SAFETY ENGINEER



TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL

GENERAL NOTES

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

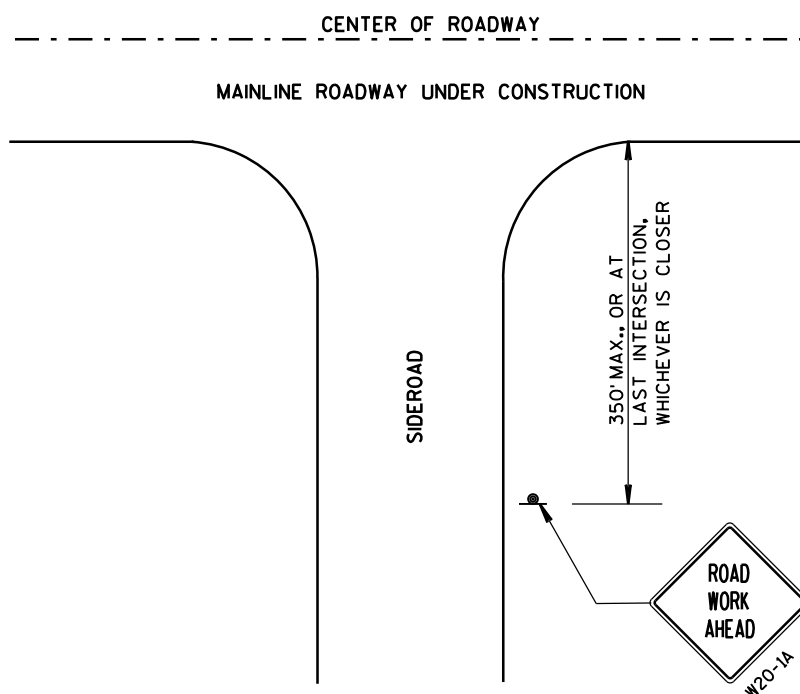
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"x36" SIGNS MAY BE USED INSTEAD OF 48"x48" SIGNS.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS RE-ESTABLISHED.

* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FT" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.



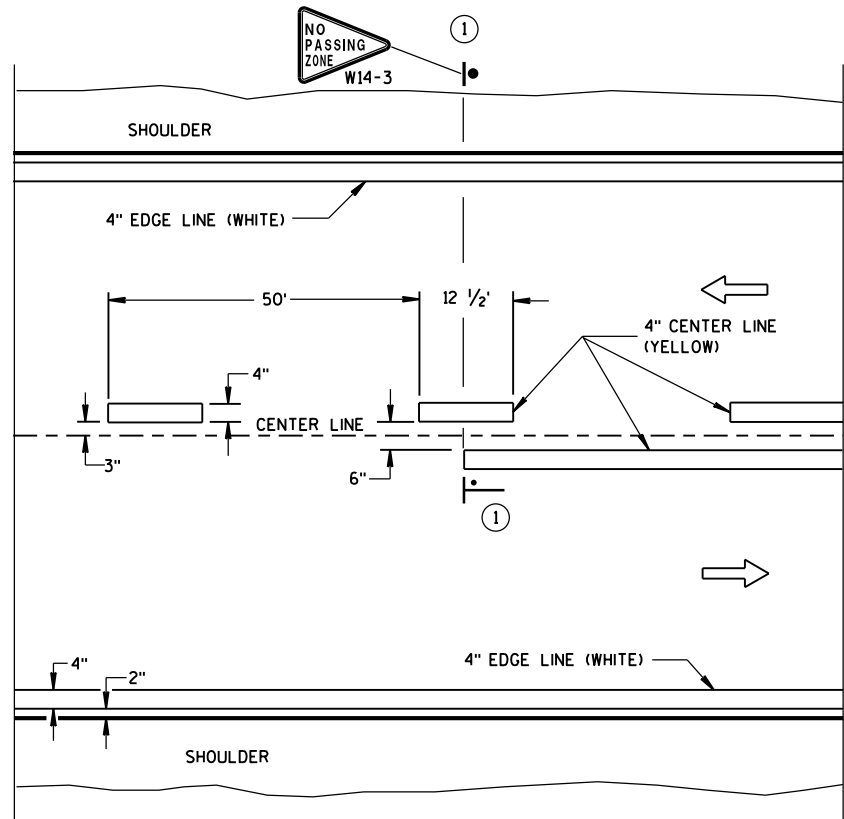
LEGEND

- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA

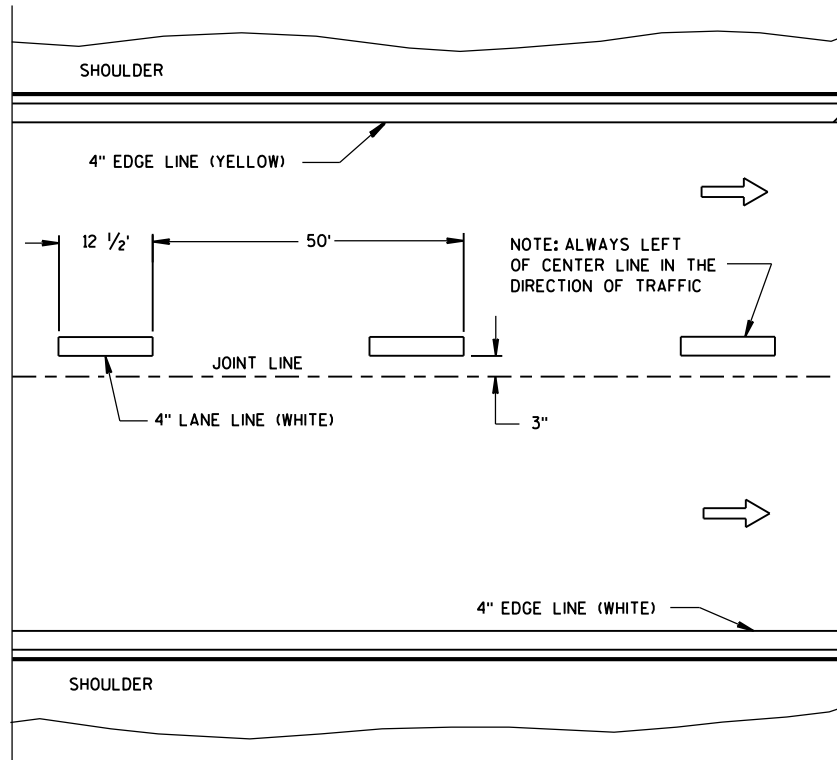
TRAFFIC CONTROL, ADVANCE
WARNING SIGNS 40 M.P.H.
OR LESS TWO-WAY UNDIVIDED
ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2015 /S/ Peter Amakobe Atepe
DATE STATEWIDE WORK ZONE TRAFFIC
FHWA SAFETY ENGINEER

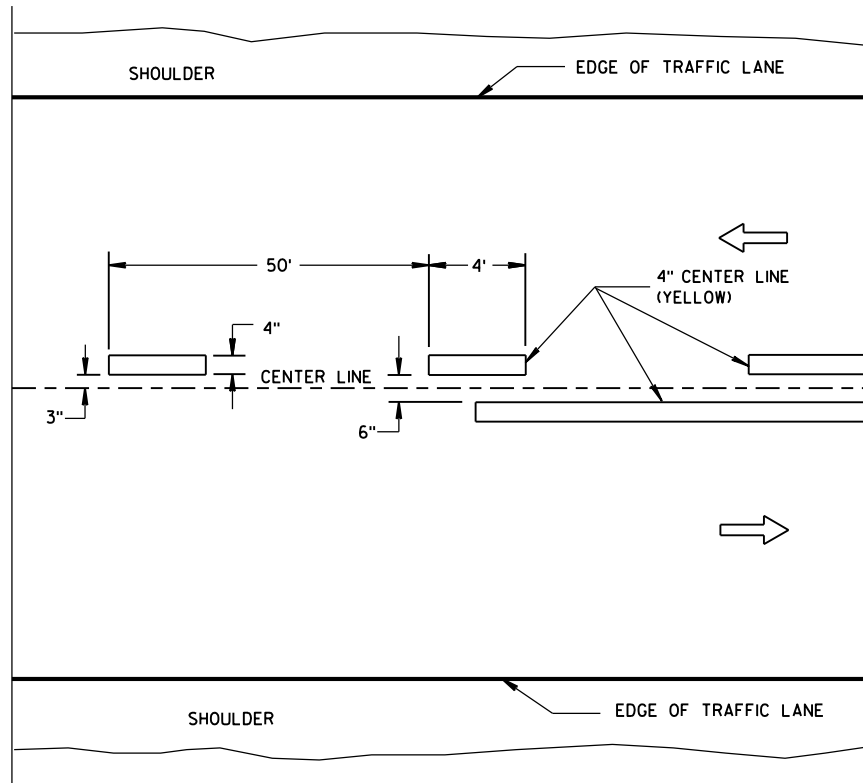


TWO WAY TRAFFIC

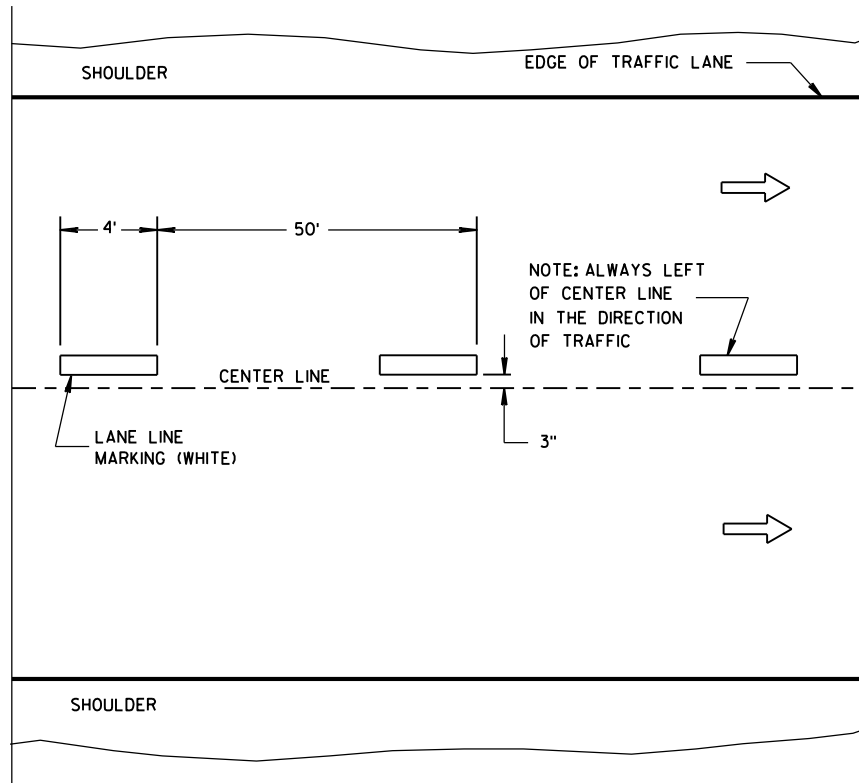


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

GENERAL NOTES

DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

- ① NO PASSING ZONE W14-3 SIGN SHALL BE LOCATED WITHIN 50 FEET OF THE "T" MARKING.

NOTE

ARROW SYMBOL (→) SHOWS DIRECTION OF TRAVEL

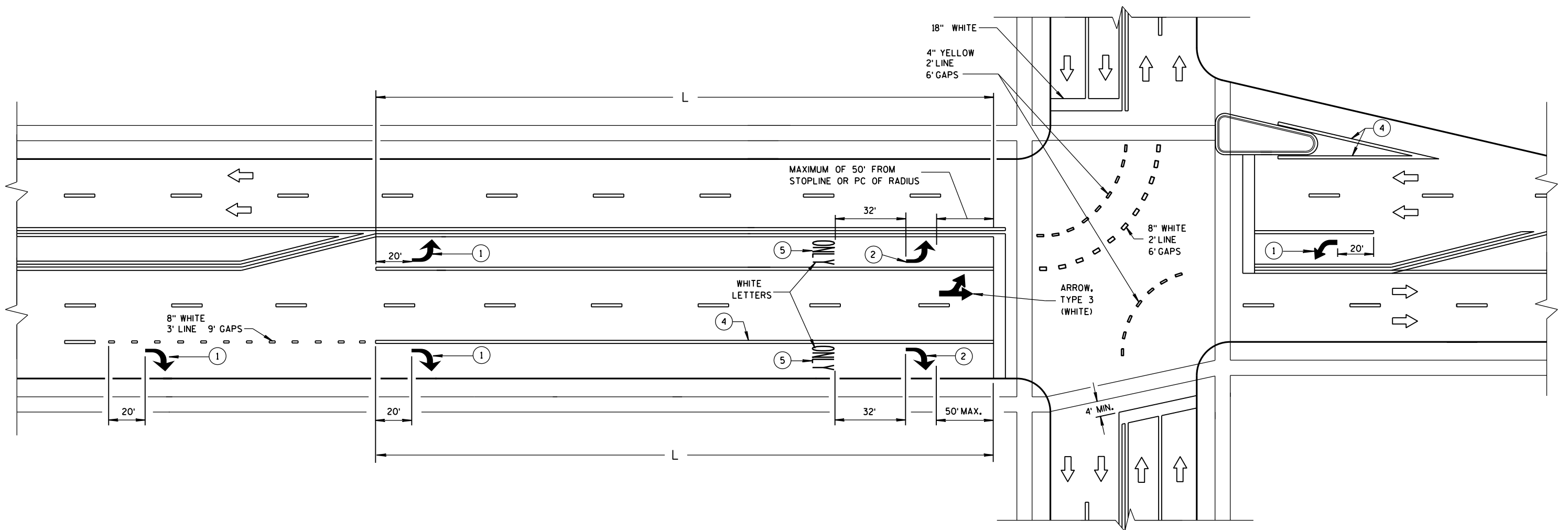
LEGEND

- ├── "T" MARKING
- POST MOUNTED SIGN

LONGITUDINAL MARKING
(MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept., 2016 /S/ Matthew R. Rauch
DATE STATE SIGNING AND MARKING ENGINEER
FHWA



GENERAL NOTES

- ① REQUIRED ARROW, TYPE 2 (WHITE).
- ② REQUIRED ARROW, TYPE 2 (WHITE) WHEN L IS GREATER THAN 78 FEET AND LESS THAN OR EQUAL TO 166 FEET.
- ③ A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
- ④ 8" WHITE
- ⑤ REQUIRED WORD ONLY WHEN L IS GREATER THAN 166 FEET.

TWO WAY LEFT TURN LANE

NOTE:
ARROW SYMBOL ()
SHOWS DIRECTION OF TRAVEL

L = LENGTH OF TURN BAY

PAVEMENT MARKING
(TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

LEGEND

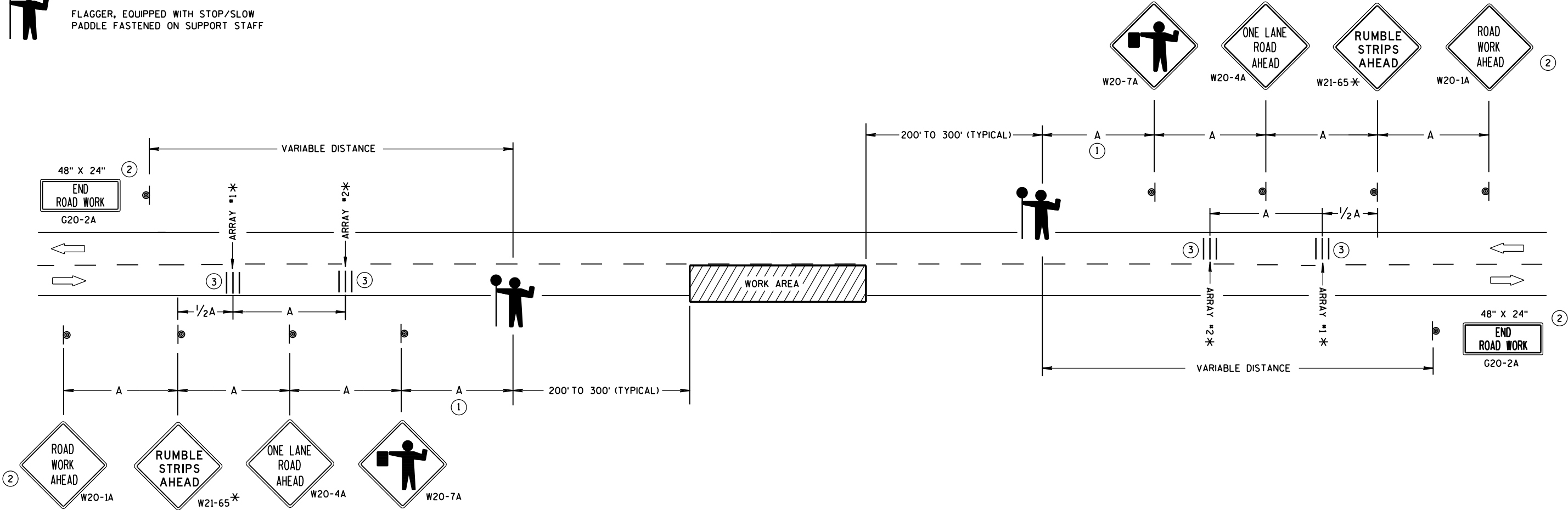
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA
- FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

SPEED LIMIT	SPACING A
25-35 MPH	200'
35-40 MPH	350'
45-55 MPH	500'



USE OF THE "BE PREPARED TO STOP" SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7A AND W20-4A SIGNS, USING SPACING A.



TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

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.

"W0" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

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.

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS. PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

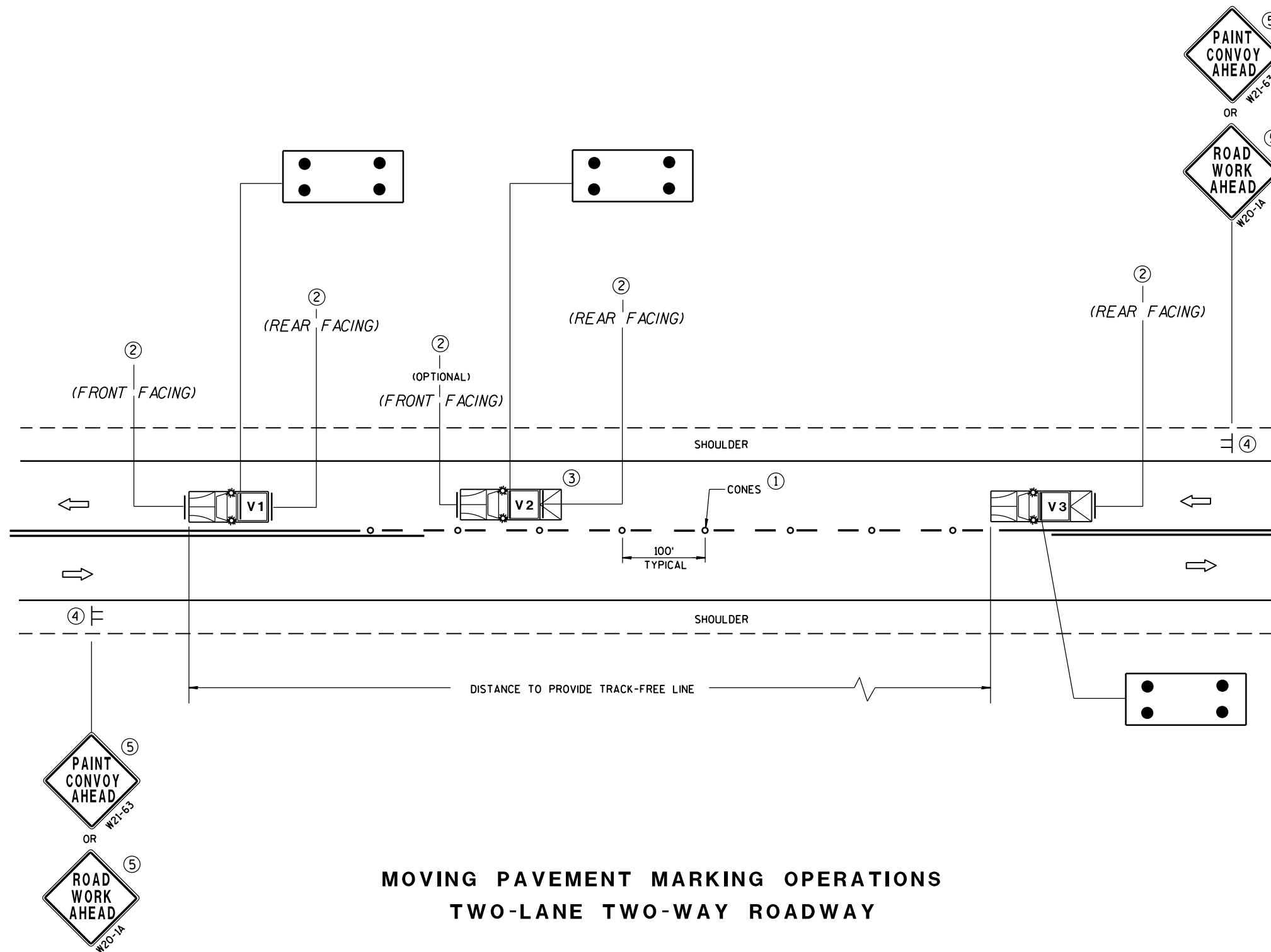
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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, REMOVE TEMPORARY RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.

* UTILIZE TEMPORARY RUMBLE STRIPS WHEN FLAGGING OPERATION IS ANTICIPATED TO BE STATIONARY IN EXCESS OF TWO HOURS.

- FOR A MOVING WORK OPERATION, SIGNING AND TEMPORARY RUMBLE STRIPS (IF USED) SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3,500 FOOT INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.
- SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.
- EACH TEMPORARY RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS SPACED ACCORDING TO MANUFACTURER'S RECOMMENDATION, PLACED TRANSVERSE ACROSS THE LANE AT LOCATIONS SHOWN.

TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED December, 2016 DATE	/S/ Andrew Heldtke WORK ZONE ENGINEER
FHWA	



MOVING PAVEMENT MARKING OPERATIONS TWO-LANE TWO-WAY ROADWAY

GENERAL NOTES

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL OPERATING IN CAUTION MODE. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

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

IF SPEED LIMIT IS 40 MPH OR LESS STATIONARY SIGNS MAY BE OMITTED IF CONES ARE USED.

ALTERNATE SIGN MESSAGES, SUCH AS "PAINT CREW AHEAD" OR "ROAD PAINTING AHEAD" MAY BE USED.

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

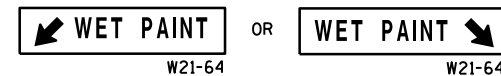
THE WORK AND SHADOW VEHICLES SHOULD PULL OVER PERIODICALLY TO ALLOW TRAFFIC TO PASS.

THIS DRAWING SHALL BE USED FOR CENTERLINE OR EDGELINE MARKING.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR TURN THE STATIONARY WARNING SIGNS AWAY FROM TRAFFIC.

① CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

② USE STANDARD SIGN W21-64 WITH APPROPRIATE ARROW.



③ OPTIONAL TRUCK-MOUNTED ATTENUATOR.

④ SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.

⑤ IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1 OR W21-63 ARE NOT REQUIRED.

LEGEND

V1 LEAD VEHICLE

V2 SHADOW VEHICLE

V3 TRAIL VEHICLE WITH TMA

TMA TRUCK-MOUNTED ATTENUATOR

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC

CONES

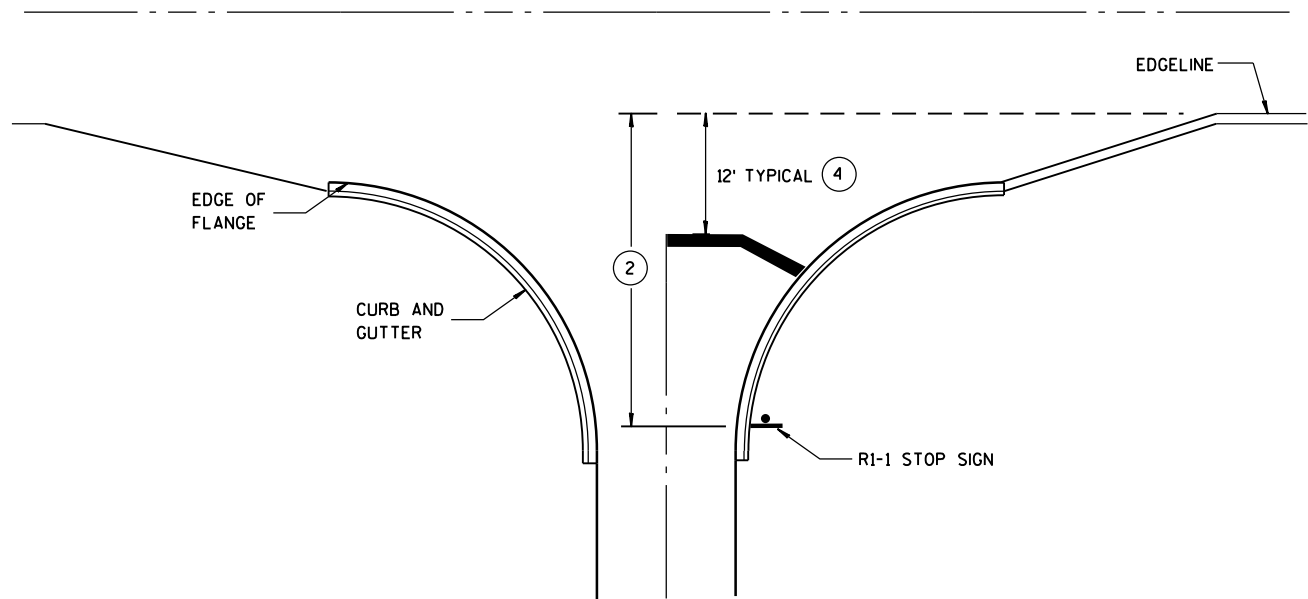
FLASHING ARROW PANEL (CAUTION)

MOVING PAVEMENT MARKING
OPERATION
TWO-LANE TWO-WAY ROADWAY

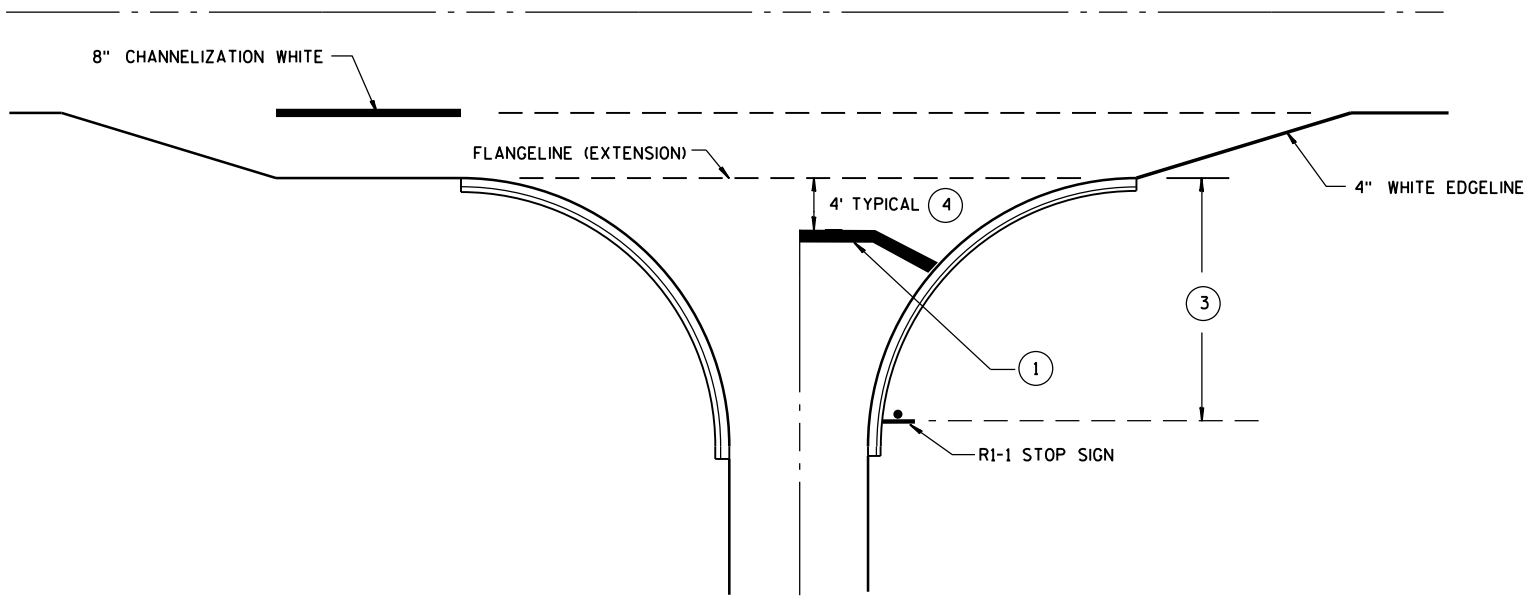
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2016
DATE
FHWA

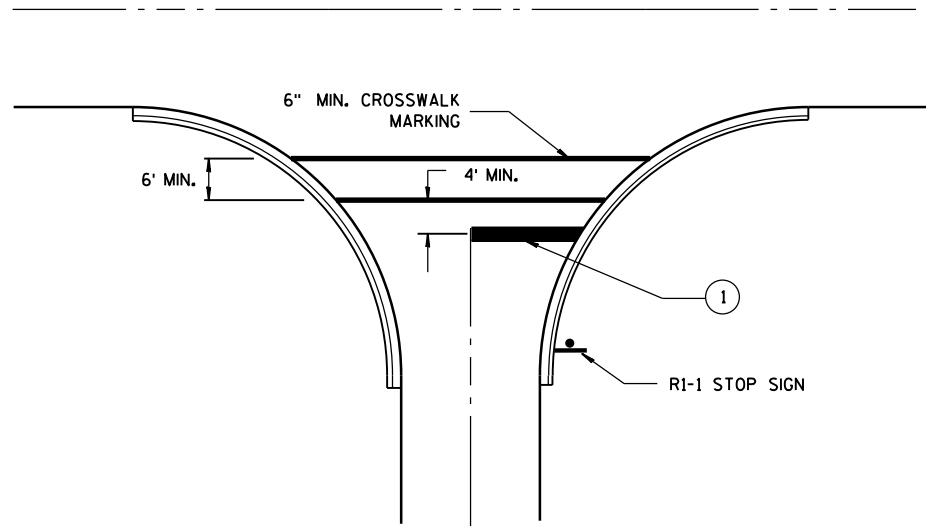
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE TRAFFIC
SAFETY ENGINEER



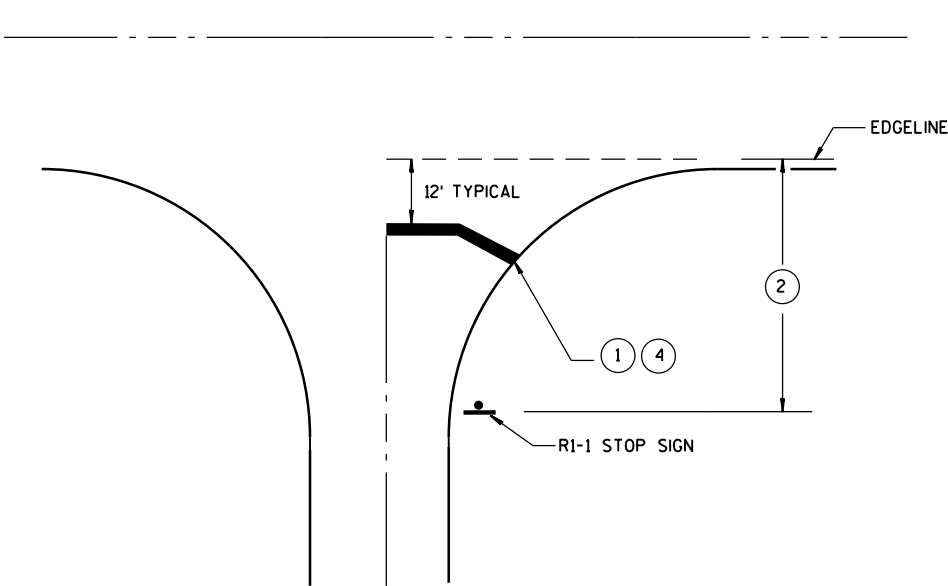
TYPICAL STOP LINE PAVEMENT MARKING
WITH CURB AND GUTTER



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

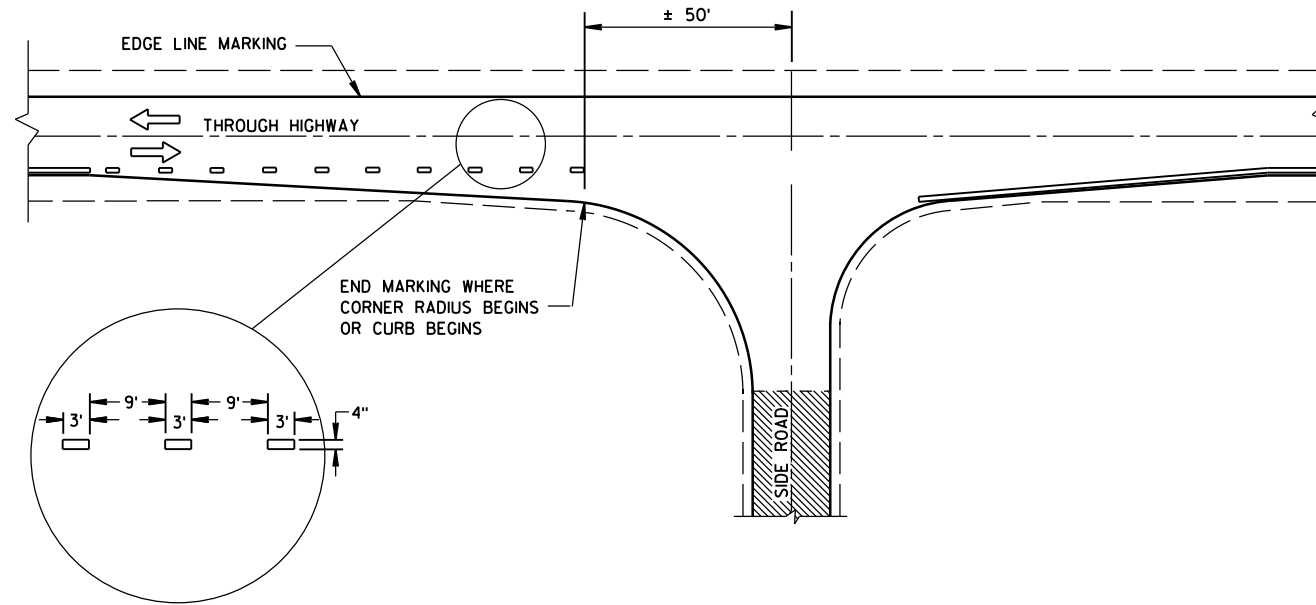
GENERAL NOTES

- 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 EDGE LINE 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. (NO CLOSER THAN 4 FEET).

STOP LINE AND CROSSWALK
PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4-18-2016 /S/ Matthew R. Rauch
DATE STATE SIGNING AND MARKING ENGINEER
FHWA




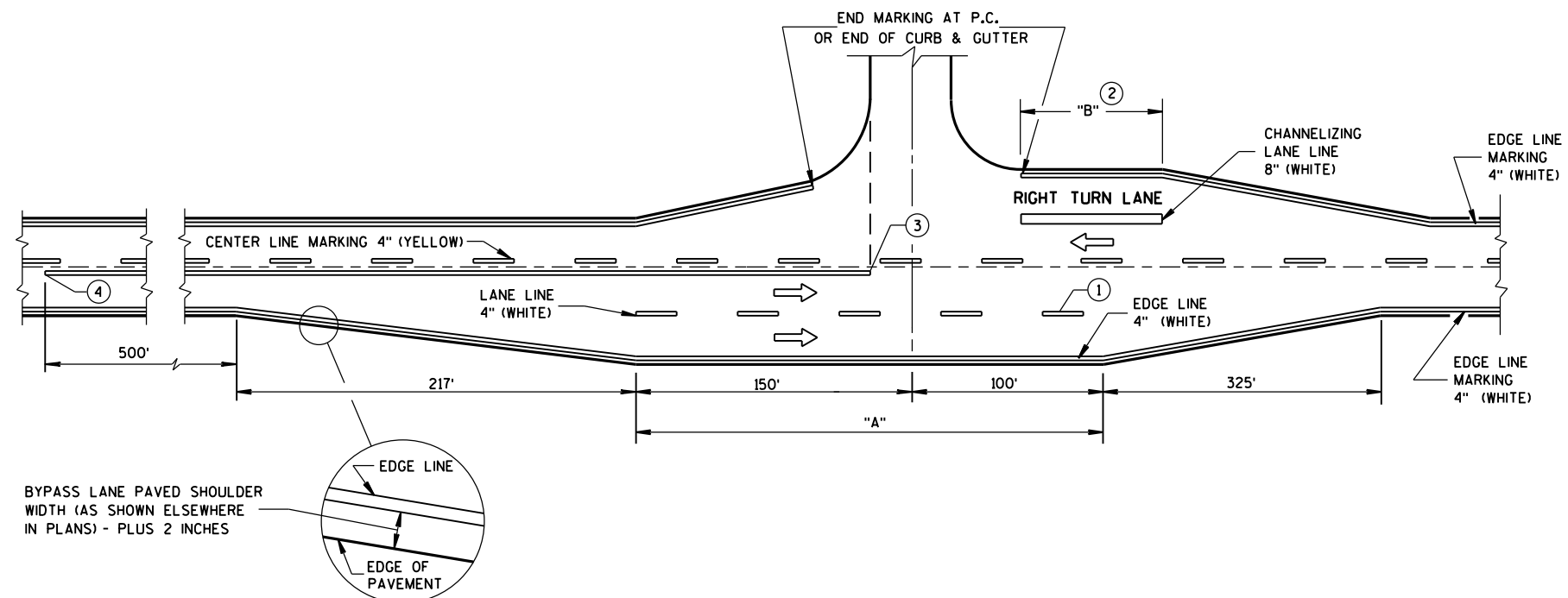
MINOR INTERSECTION WITHOUT CURBS

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 BARRIER LINE ENDS AT SIDE ROAD PAVEMENT/SURFACE EDGE EXTENSION.
- ④ BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.

ARROW SYMBOL () SHOWS DIRECTION OF TRAVEL



MAJOR INTERSECTIONS
(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANES)

**PAVEMENT MARKING
(INTERSECTIONS)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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.

W20-1A 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

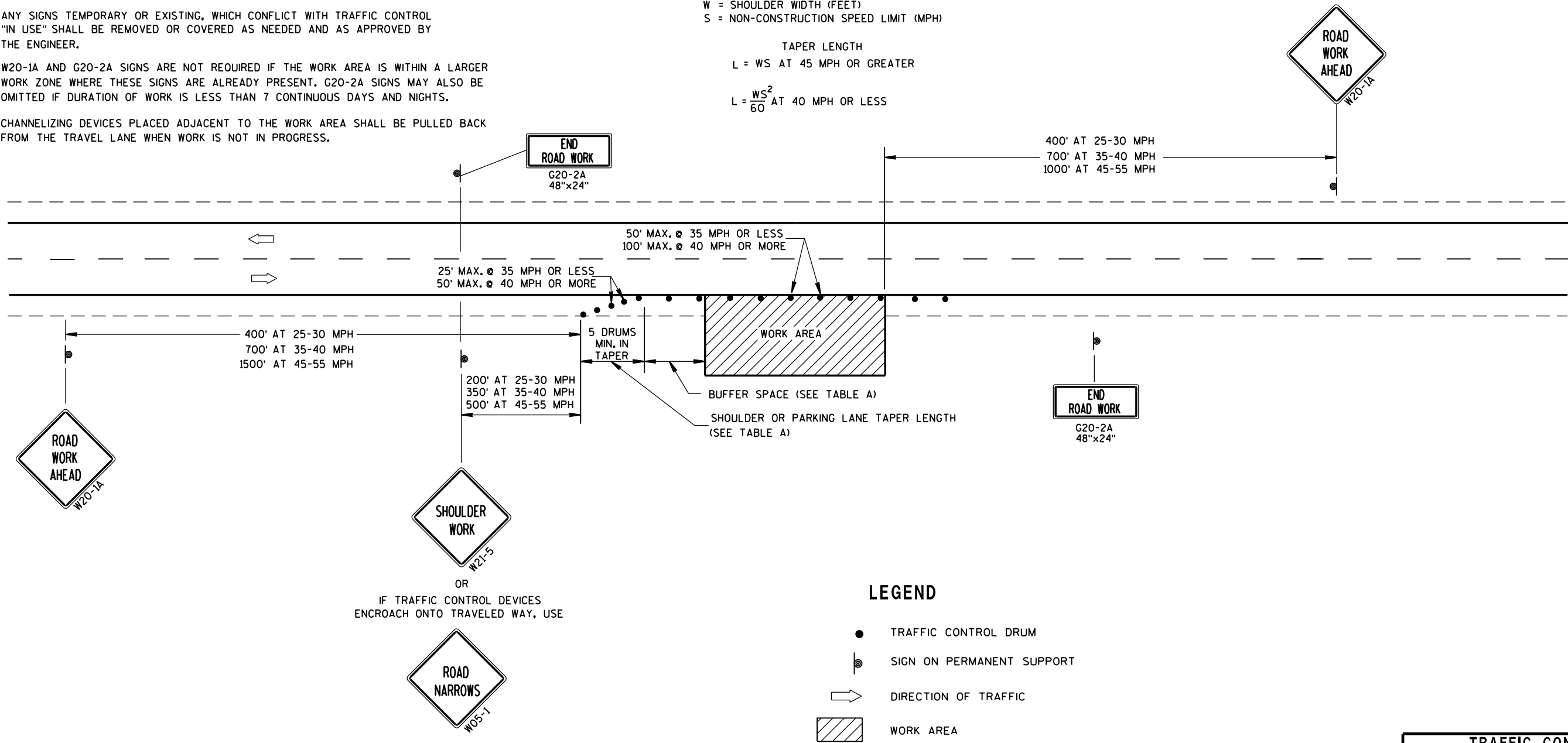
SHOULDER TAPER LENGTH (FEET)					BUFFER SPACE (FEET)
S	W	4	6	8	
30	20	30	40	50	200
35	30	45	55	70	250
40	40	55	75	90	305
45	60	90	120	150	360
50	70	100	135	170	425
55	75	110	150	185	495

W = SHOULDER WIDTH (FEET)
S = NON-CONSTRUCTION SPEED LIMIT (MPH)

TAPER LENGTH
L = WS AT 45 MPH OR GREATER

$L = \frac{WS^2}{60}$ AT 40 MPH OR LESS

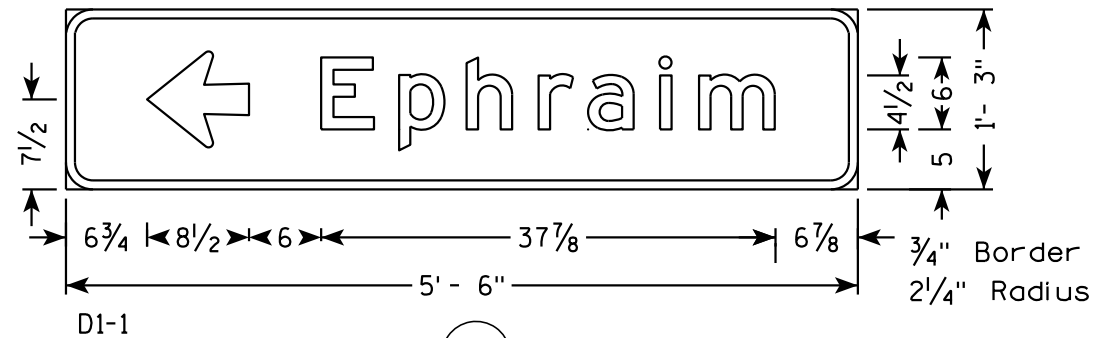
SHOULDER TAPER LENGTH = $\frac{1}{3}L$



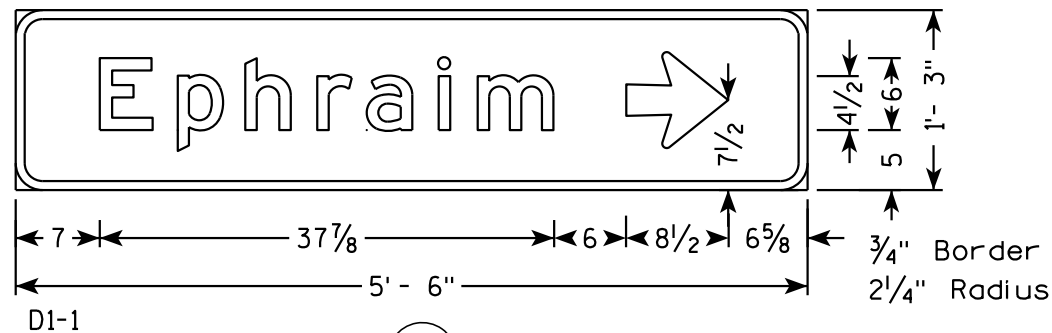
LEGEND

- TRAFFIC CONTROL DRUM
- ⦿ SIGN ON PERMANENT SUPPORT
- ➡ DIRECTION OF TRAFFIC
- ▨ WORK AREA

TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED July 14, 2015 DATE	/S/ Peter Amakobe Atepe STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA	



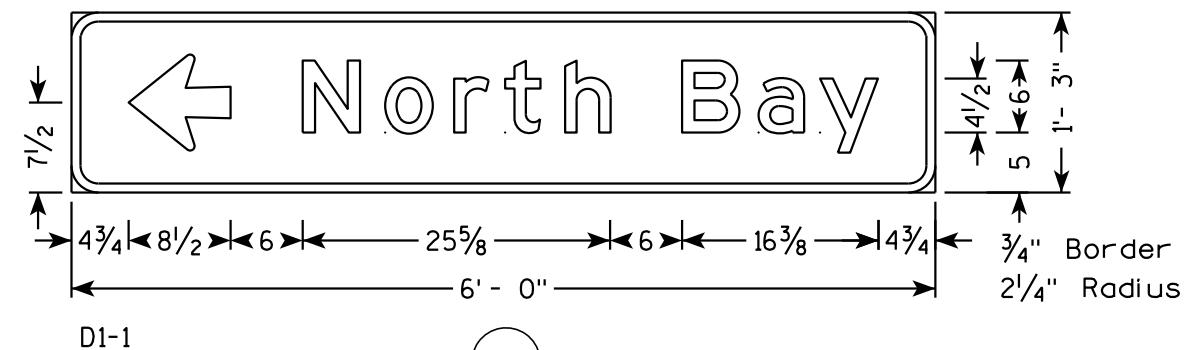
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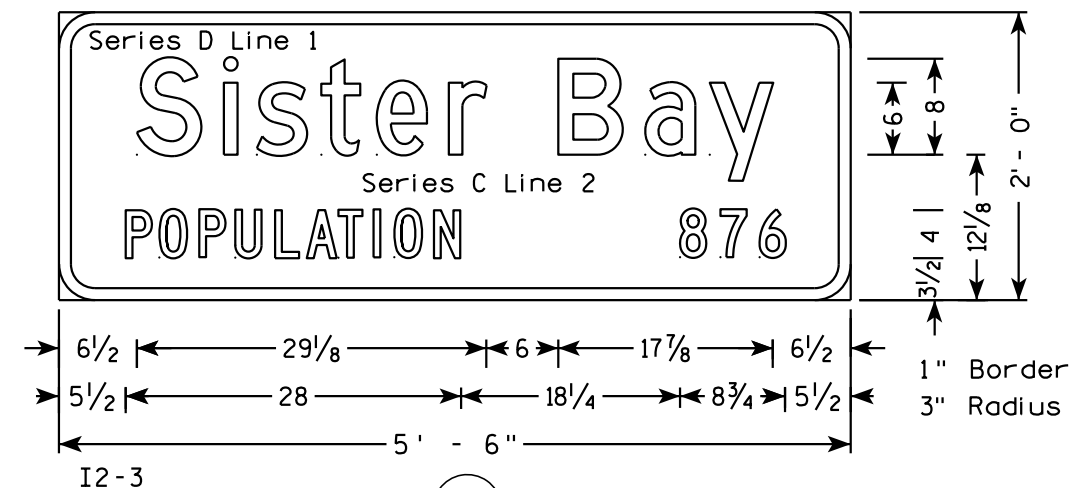
16

NOTES

1. All Signs Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - GREEN
Message - WHITE
3. Message Series - E except as Shown



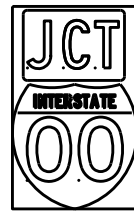
11



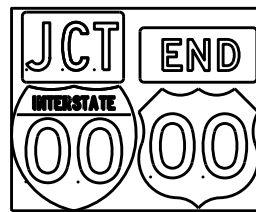
35

PLAN SHEET PRODUCED
BY WISDOT-NE REGION

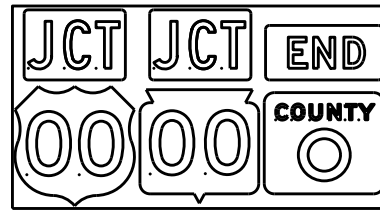
TYPICAL ASSEMBLIES



J1-1



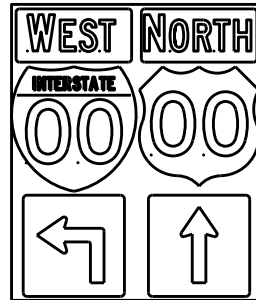
J1-2



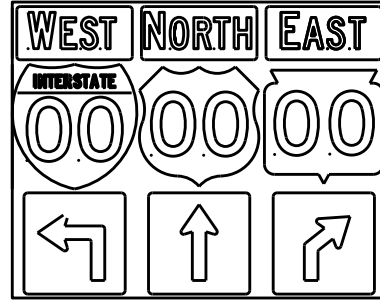
J1-3



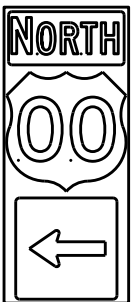
J2-1



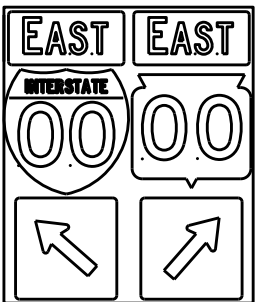
J2-2



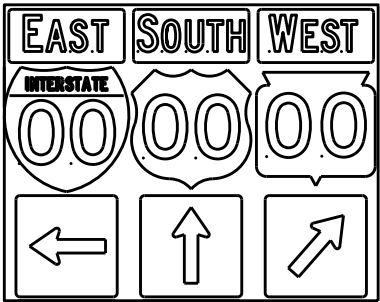
J2-3



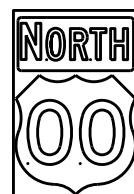
J3-1



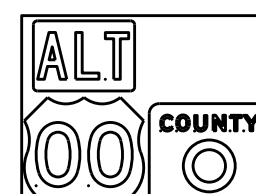
J3-2



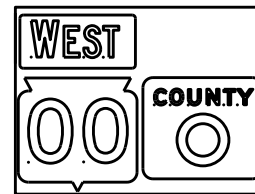
J3-3



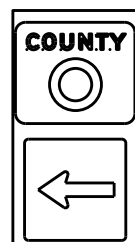
J4-1



J4-2



J4-2



J13-1



J12-1



J32-1



J33-1



J23-1

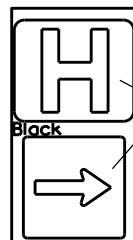


J22-1



JV

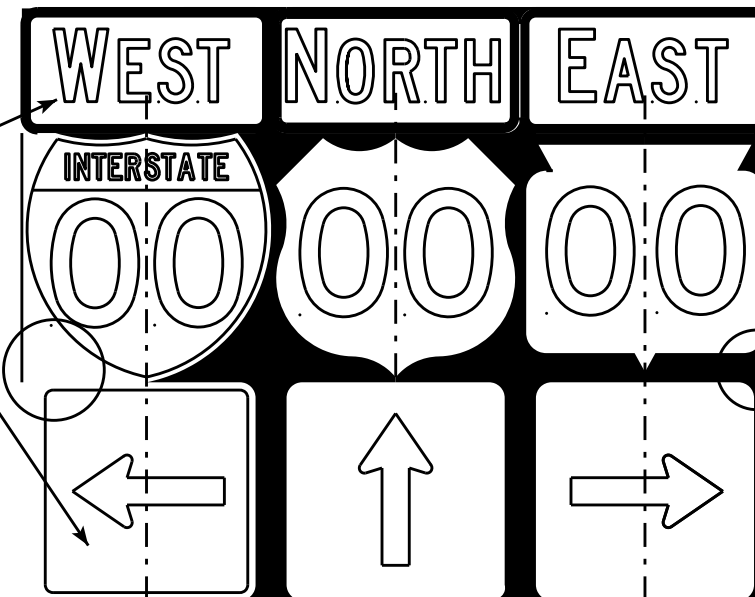
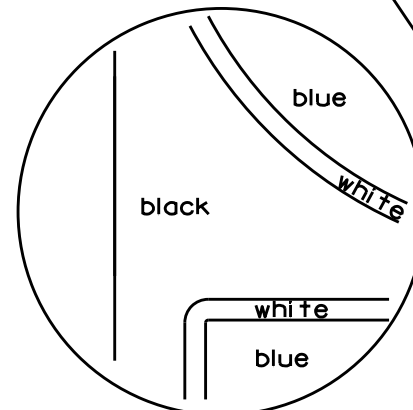
(Typical Vertical J-Assembly
See Note 10 and 11)



JH-1

Blue Background

[blue background
with interstate]



[black background]

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 2/06/14 PLATE NO. A2-1S.8

NOTES

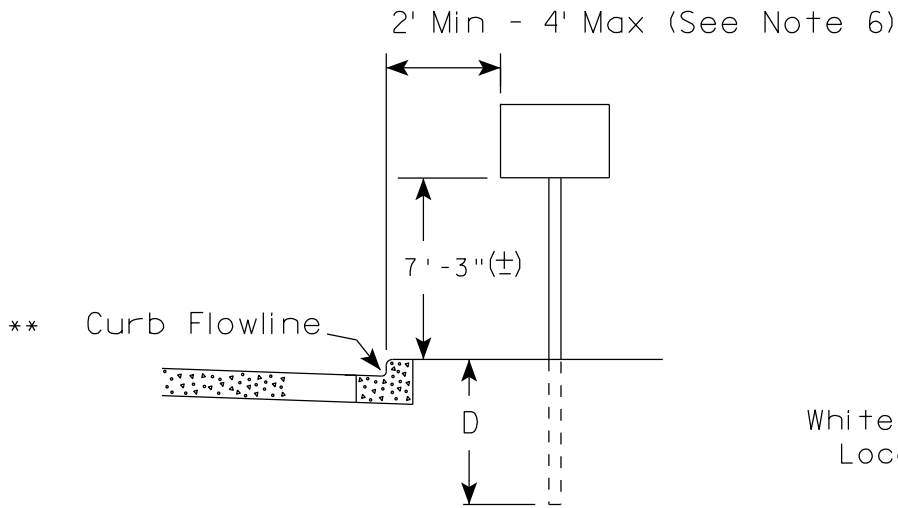
1. Signs are Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Black Non-reflective
Message - see Note 5
3. Message Series - See Note 5
4. Corners shall be square or rounded if base material is plywood. 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 inches (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.

PROJECT NO:

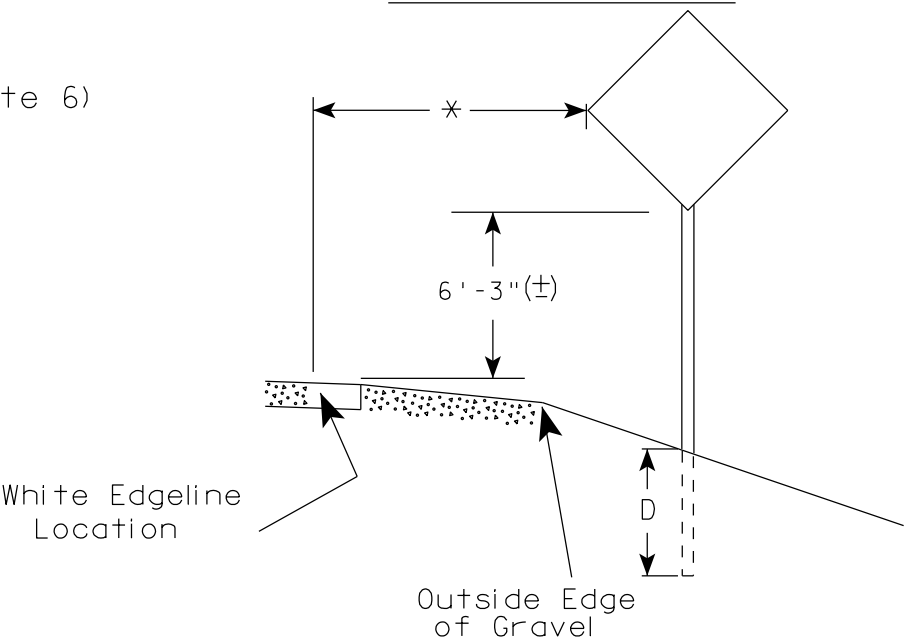
SHEET NO:

E

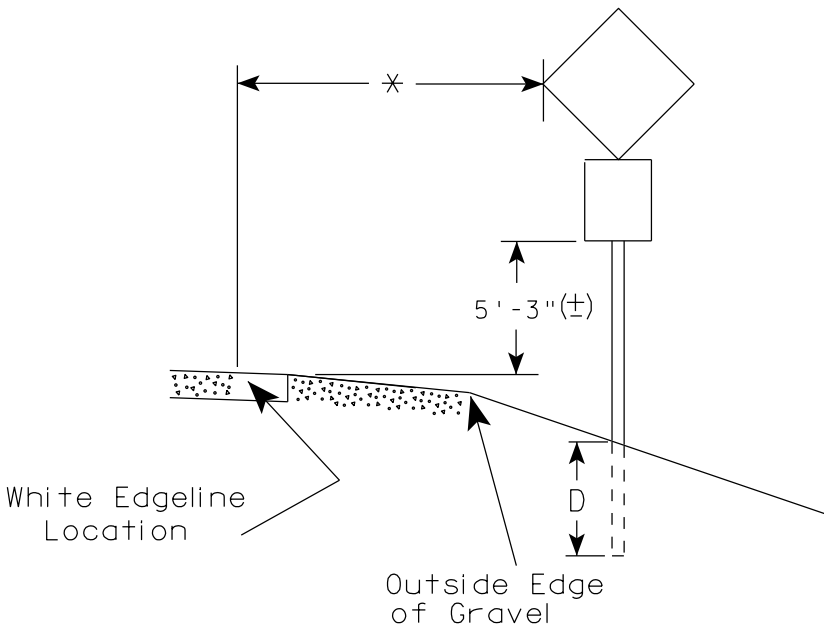
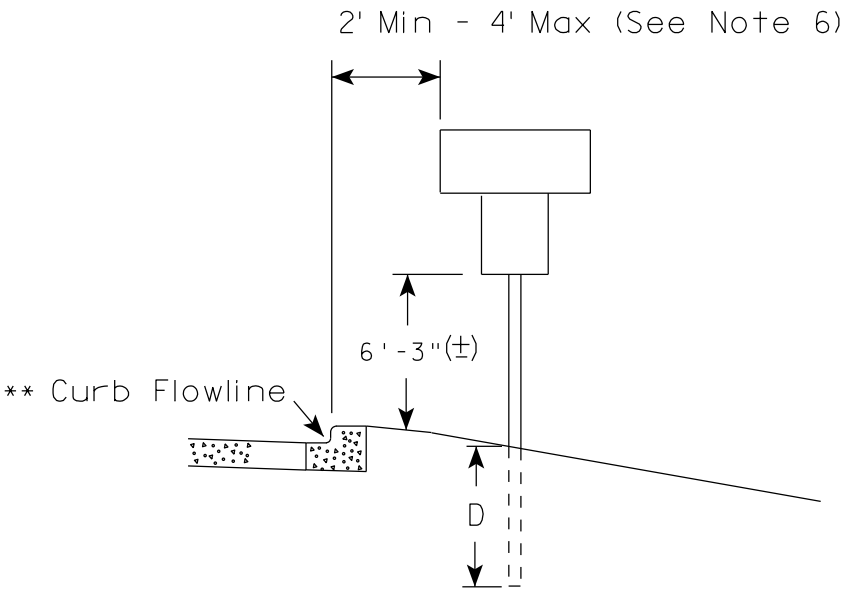
URBAN AREA



RURAL AREA (See Note 2)



- GENERAL NOTES
1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
 2. If signs are mounted on barrier wall, see A4-10 sign plate.
 3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
 4. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
 5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
 6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
 7. The (±) tolerance for mounting height is 3 inches.
 8. Folding signs shall be mounted at a height of 5'-3" (±) or as 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), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).



POST EMBEDMENT DEPTH

Area of Sign Installation (Sq.Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

* * The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

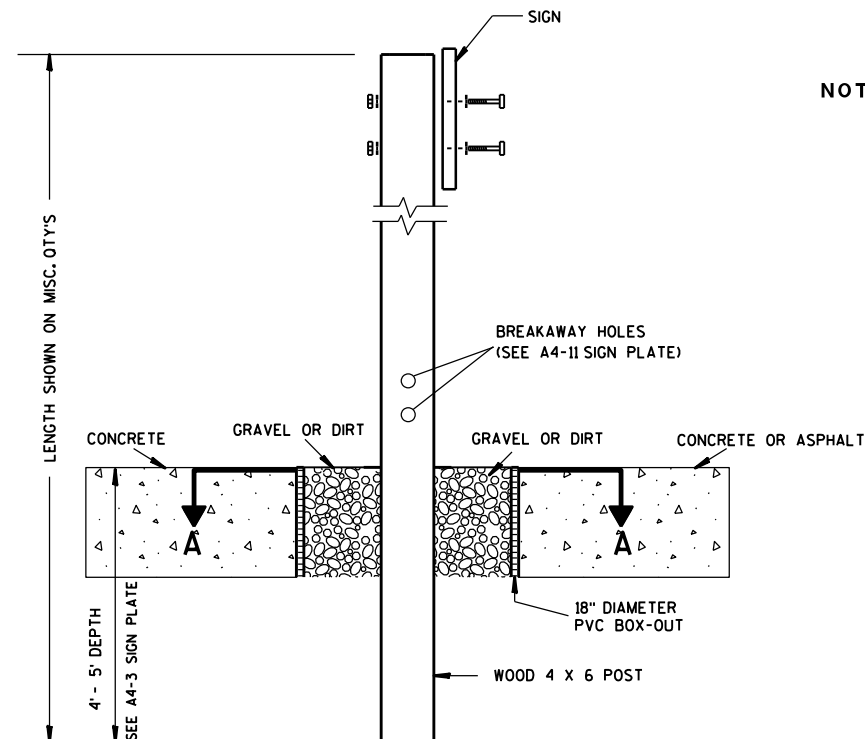
* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

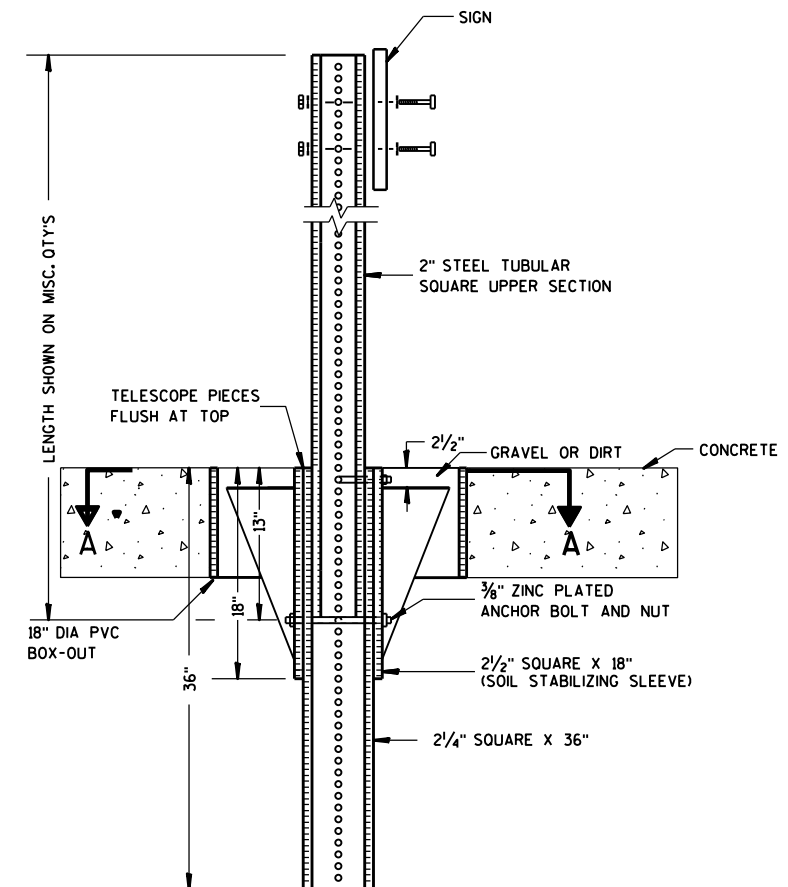
DATE 7/23/15 PLATE NO. A4-3.20



ELEVATION VIEW

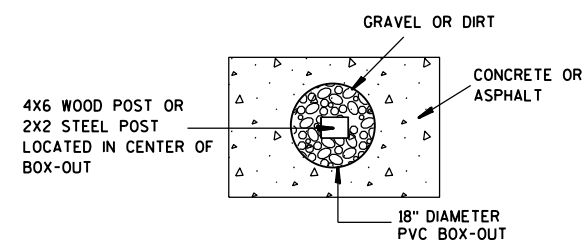
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

- NOTES: 1. ALL MATERIAL TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION
2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.



ELEVATION VIEW

DETAIL OF STEEL 2 X 2 SIGN POST IN BOX-OUT



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST
BOX-OUTS
A4-3B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 1/27/14 PLATE NO. A4-3B.1

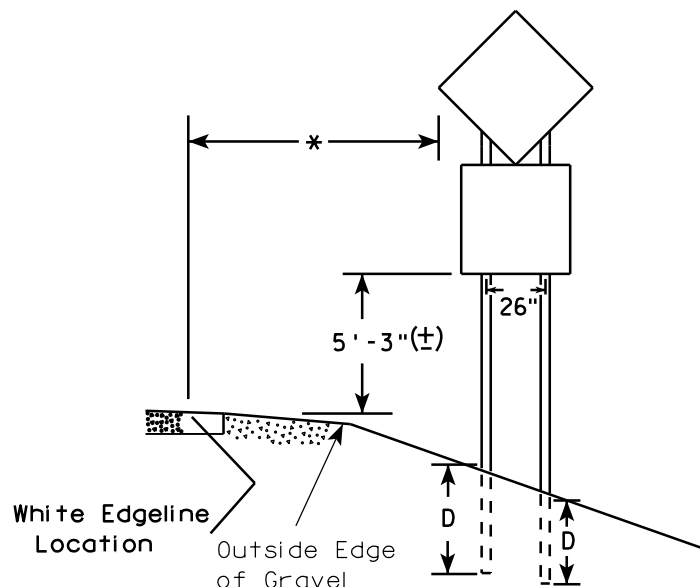
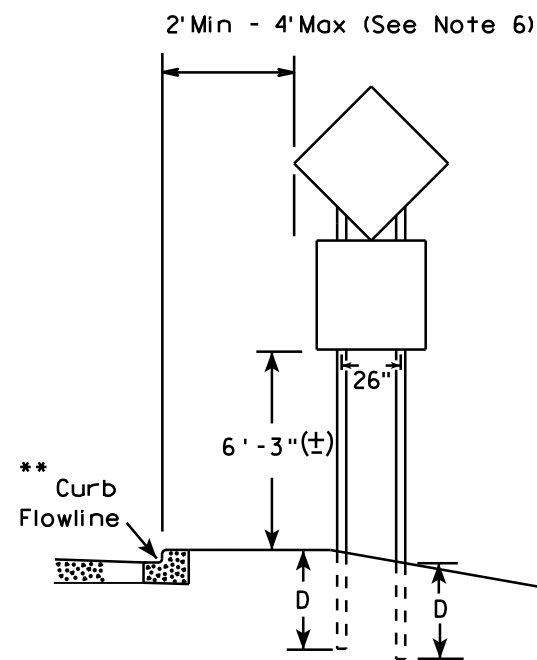
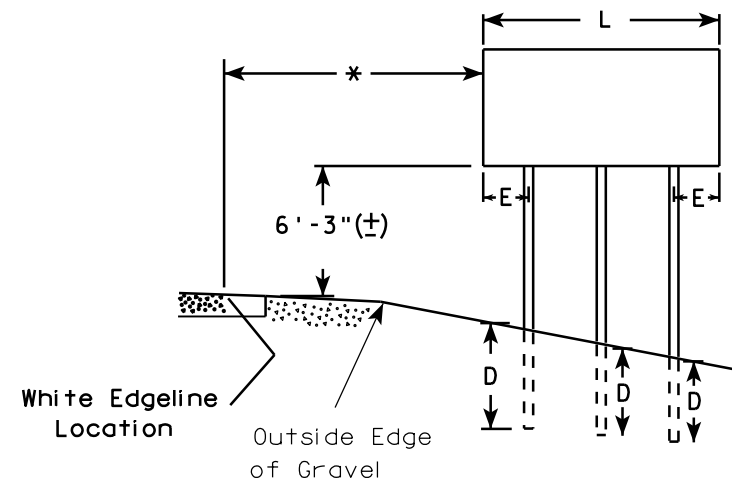
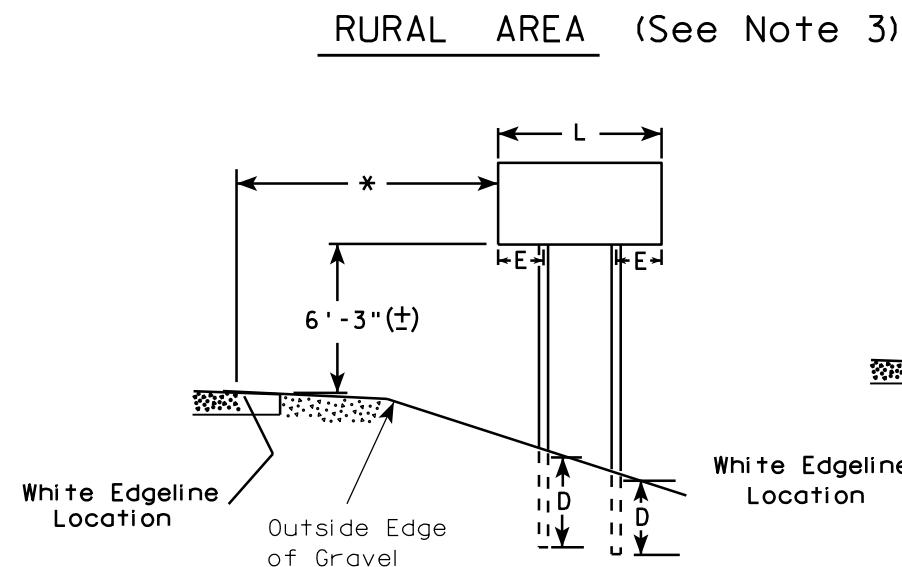
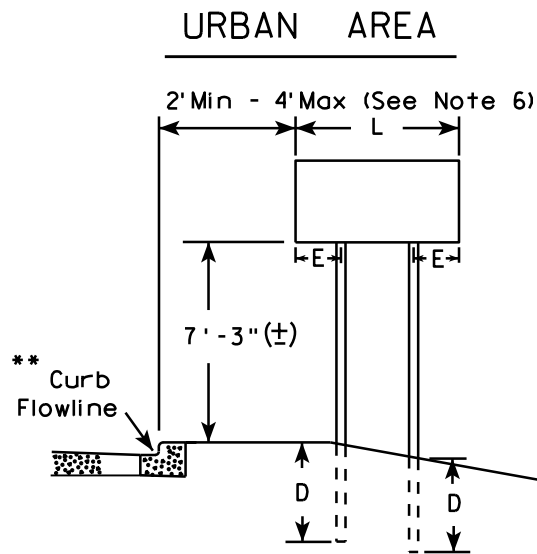
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



48" DIAMOND WARNING SIGN

48" DIAMOND WARNING SIGN

- GENERAL NOTES**
1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
 2. See tables below for required number of posts.
 3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
 4. The (±) tolerance for mounting height is 3 inches.
 5. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
 6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
 7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
 8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

*** See A4-3 sign plate for signs 4' or less in width and less than 20 S.F. in area.

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
Greater than 48" Less than 60"	12"
60" to 120"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 120" less than 168"	12"

SIGN SHAPE OTHER THAN DIAMOND (FOUR POSTS REQUIRED)	
L	E
168" and greater	12"

POST EMBEDMENT DEPTH

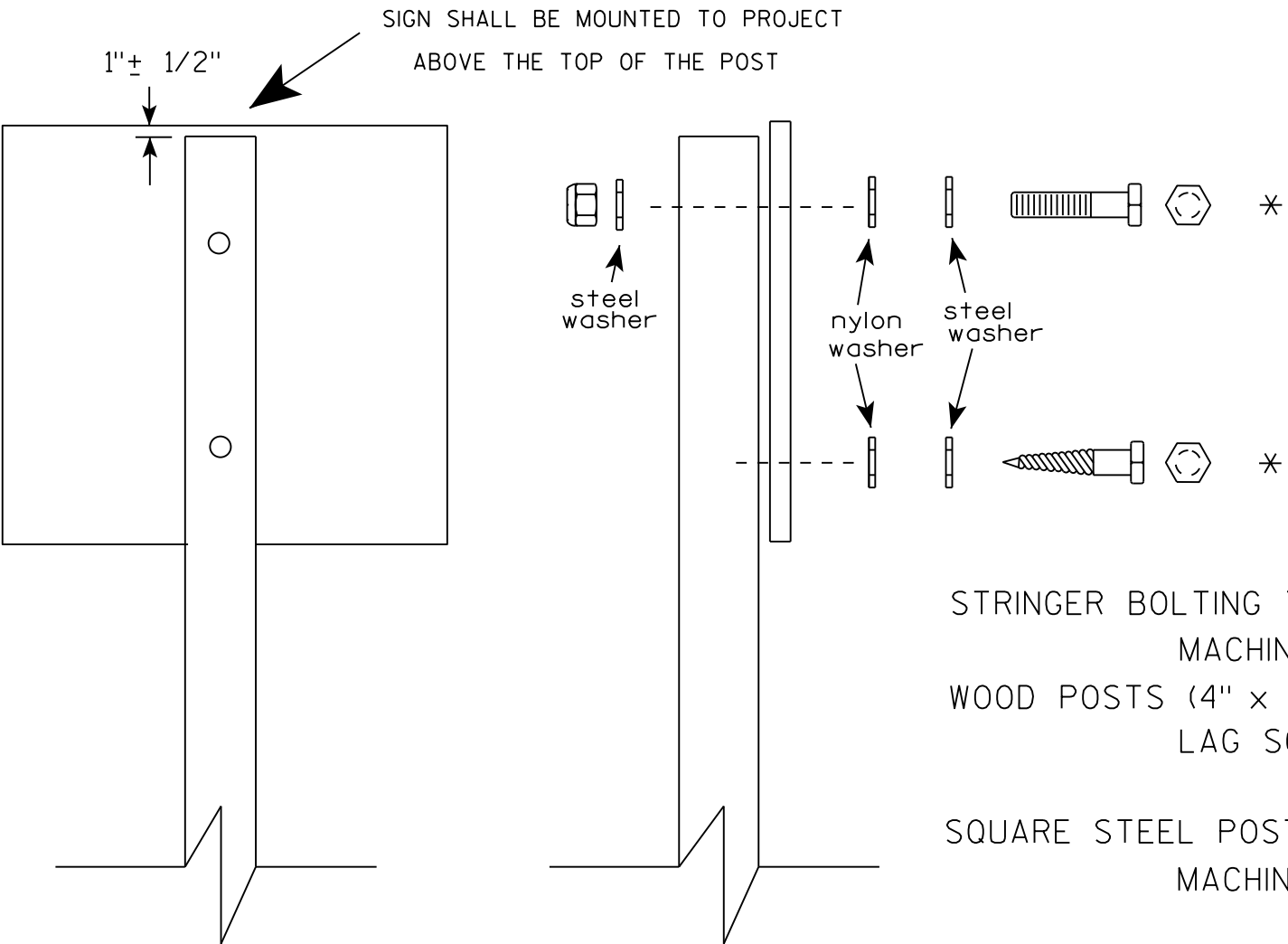
Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION
OF TYPE II SIGNS
ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 7/23/15 PLATE NO. A4-4.14



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.

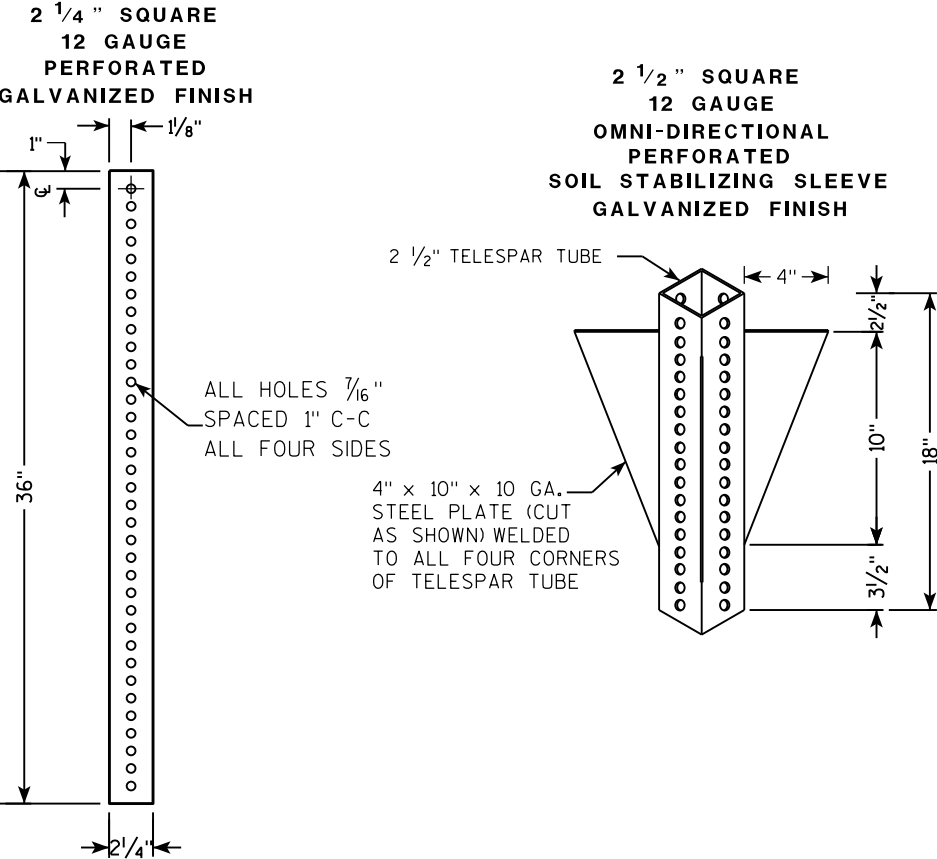
Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

- STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)
- MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts
- WOOD POSTS (4" x 4" or 4" x 6")
- LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
 - 3/8" X 4" (STRINGERS ON BACK OF SIGN)
- SQUARE STEEL POSTS (2" x 2")
- MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
 - 3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)
- 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

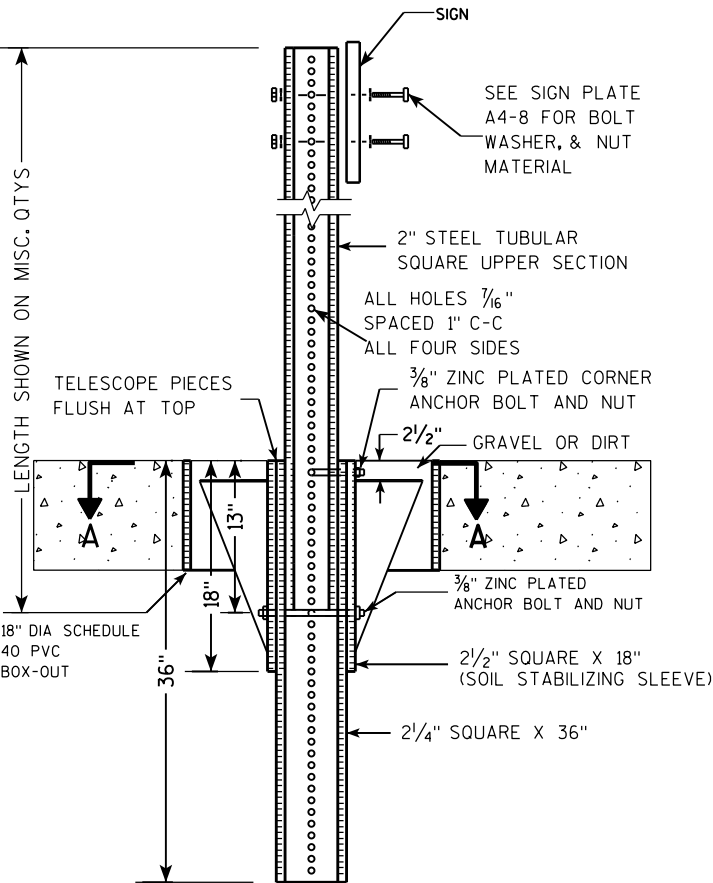
* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require the use of 3 fasteners.

ATTACHMENT OF SIGNS TO POSTS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 8/11/16	PLATE NO. A4-8.8

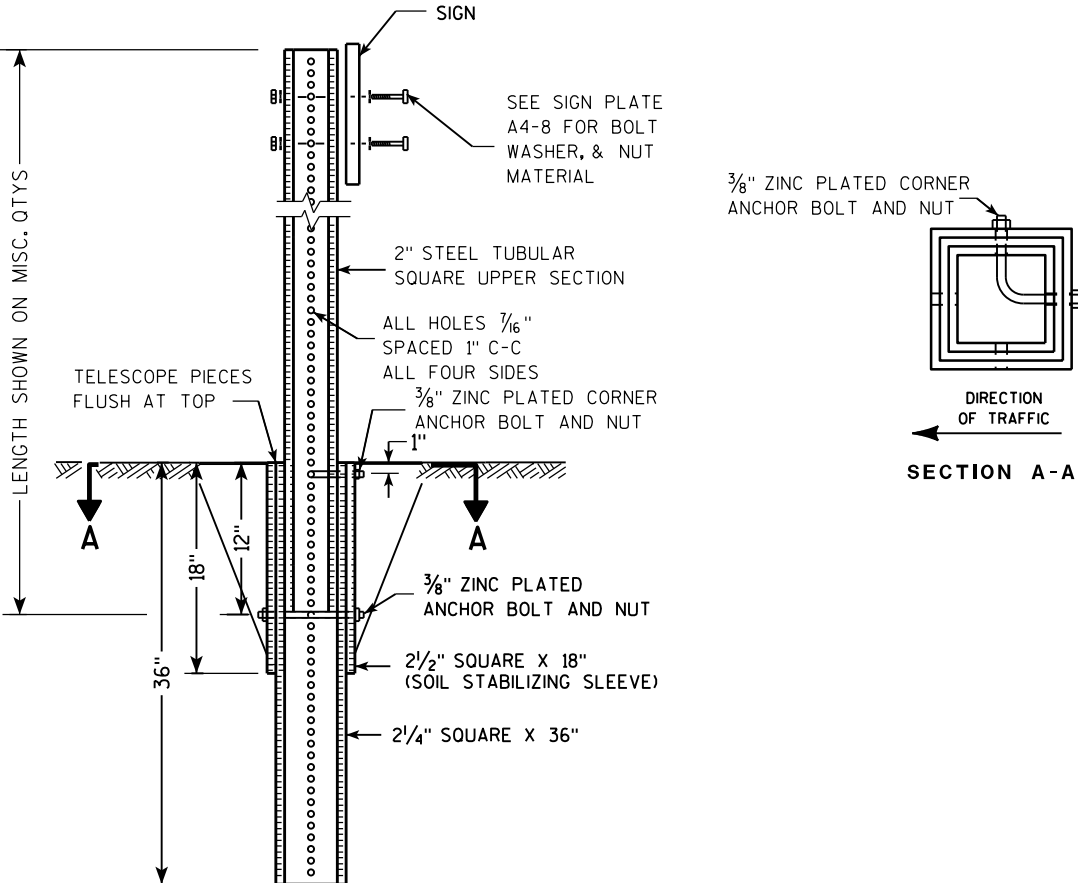
TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM



DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



DETAIL OF TUBULAR STEEL SIGN POST
(IN LOCATIONS OTHER THAN POURED CONCRETE OR ASPHALT)



Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

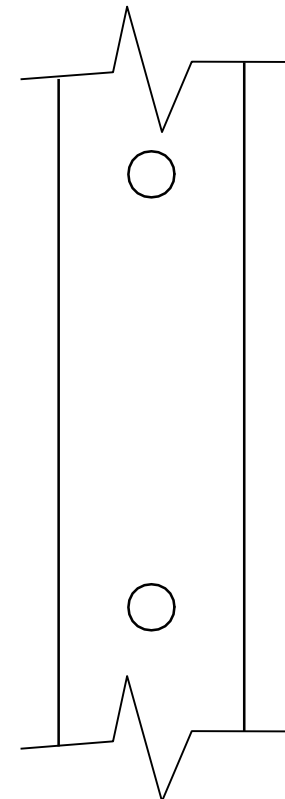
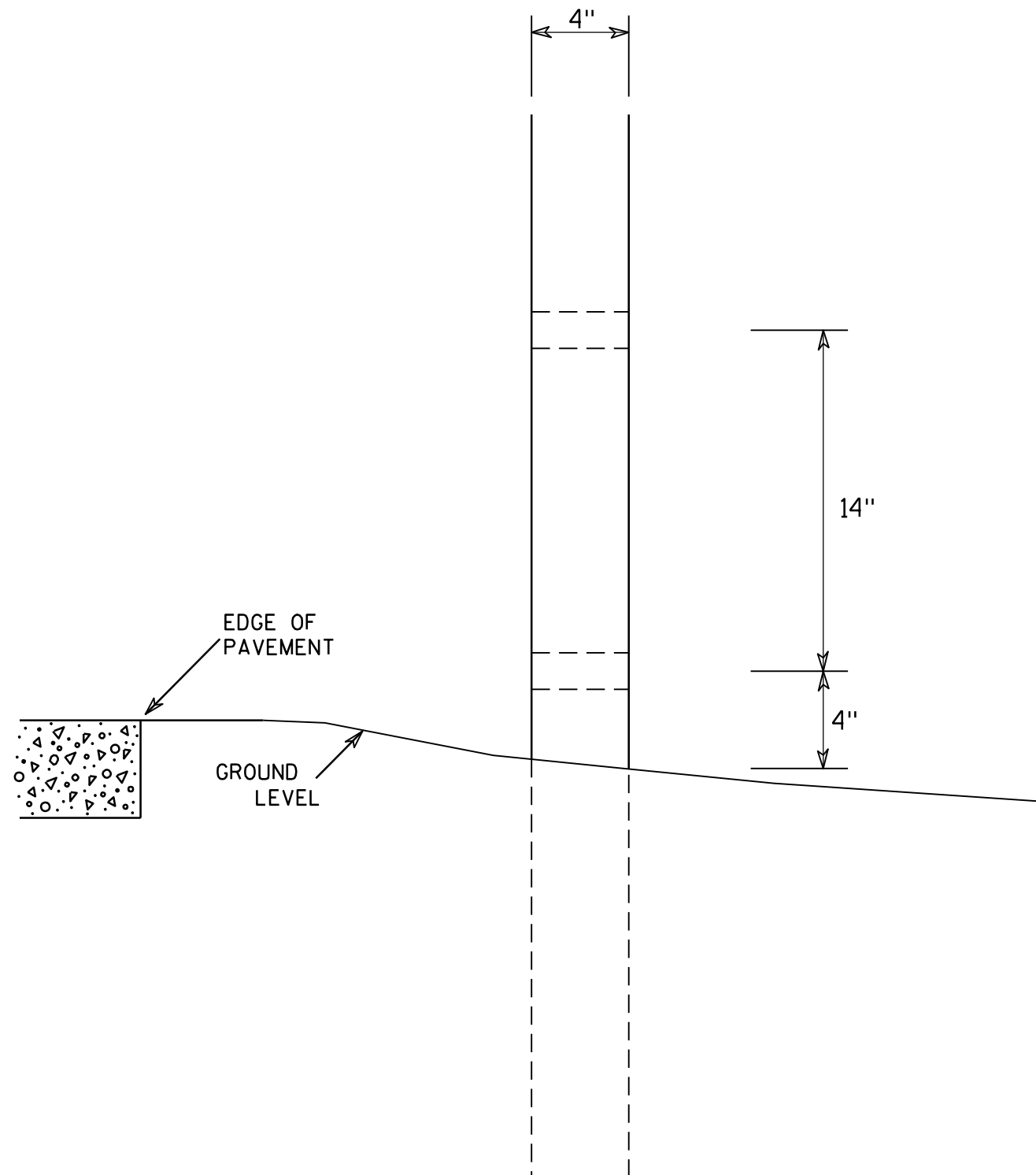
Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/05/15 PLATE NO. A4-9.9



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1 1/2" 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

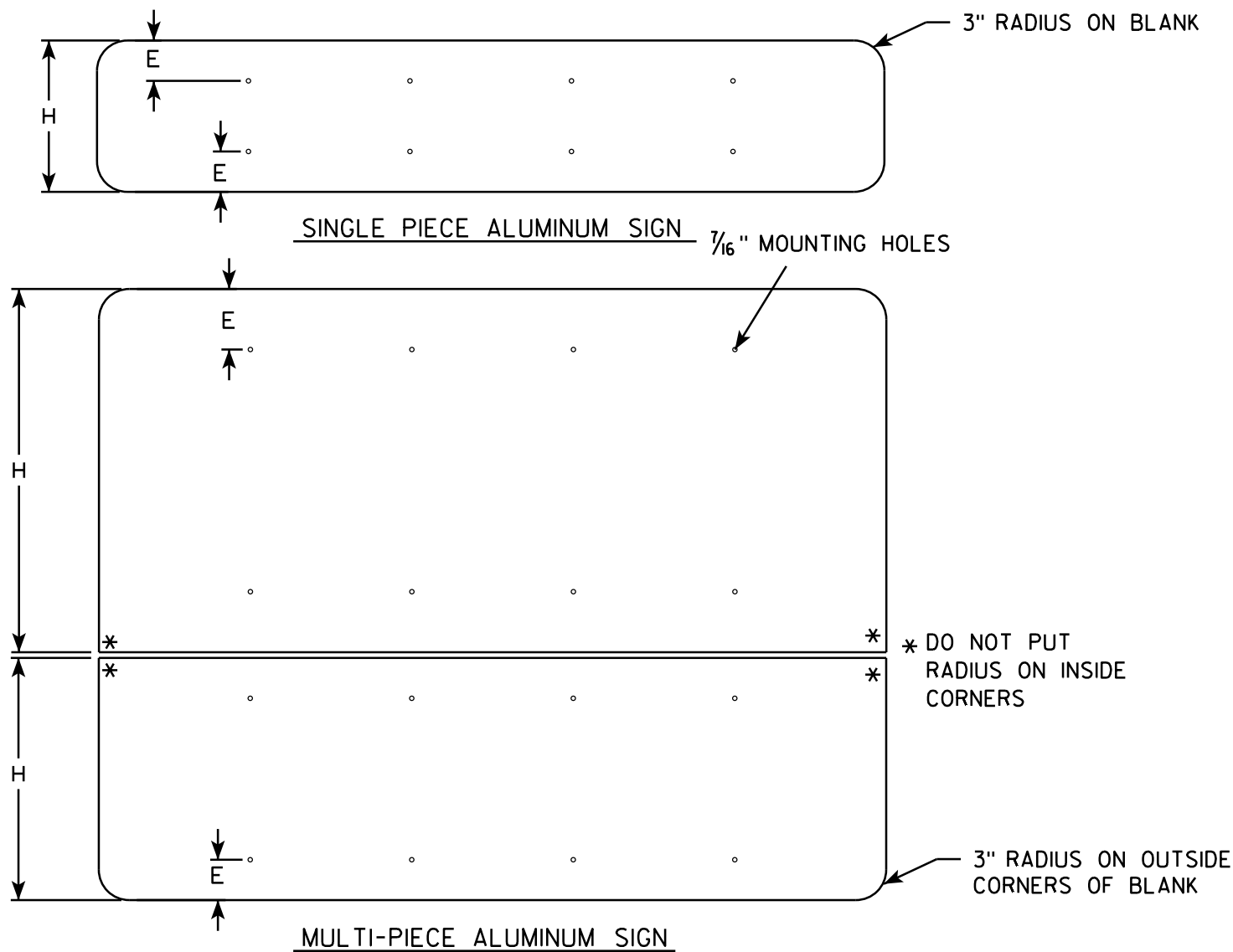
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

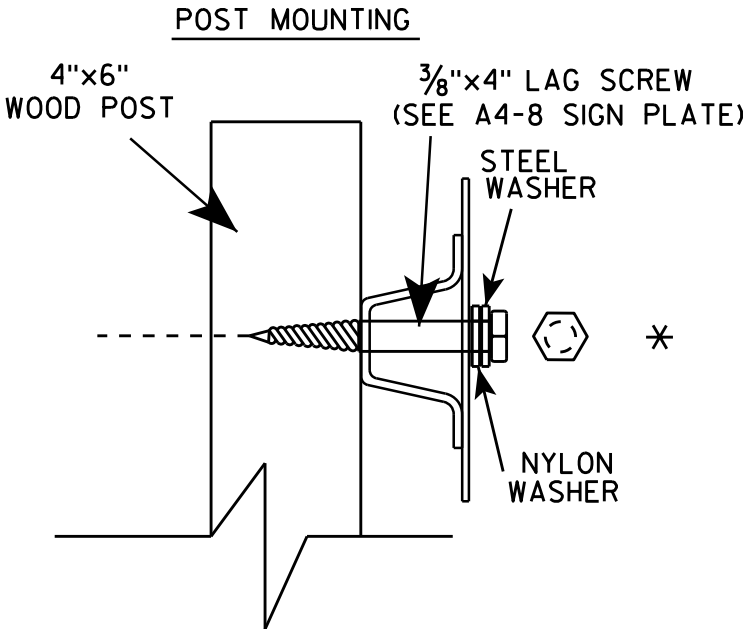
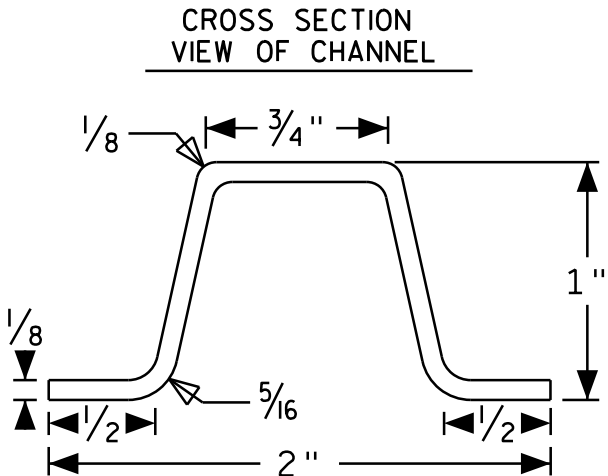
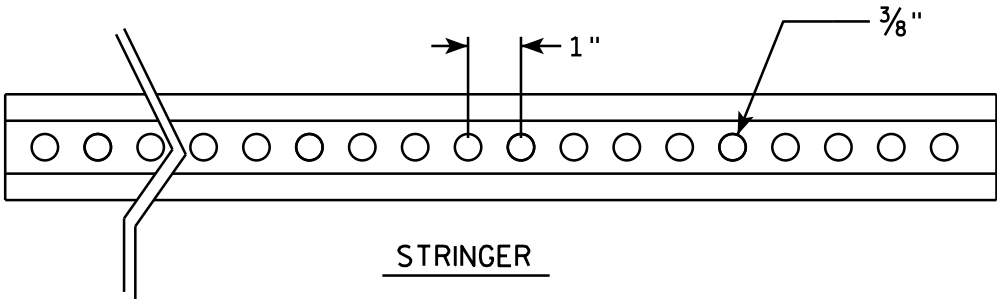
E



GENERAL NOTES

- ALL SIGNS OVER 60" IN WIDTH SHALL HAVE A 3" RADIUS ON THE OUTSIDE CORNERS OF THE ALUMINUM BLANK.
- MOUNTING HOLES SHALL BE 7/16" DIAMETER.
- SEE CHART FOR HOLE SPACING REQUIREMENTS
- FOR SIGN PANELS WITH DIMENSION (H) 36" AND OVER, DIMENSION E SHALL BE 6"
- FOR SIGN PANELS WITH DIMENSION (H) UNDER 36", DIMENSION E SHALL BE 4"
- SIGN STRINGER MATERIAL SHALL CONSIST OF STEEL CHANNEL POST SECTIONS, WEIGHING 1.12 LBS/FT IN ACCORDANCE WITH SECTION 633.2.1 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.
- SEE SIGN PLATE A4-8 FOR SIGN STRINGER BOLTING REQUIREMENTS.

SIGN WIDTH	STRINGER WIDTH	POSTS	HOLE SPACING	MOUNTING HOLES			
78"	72"	2	16"	15"	31"	47"	63"
84"	72"	2	17"	16 1/2"	33 1/2"	50 1/2"	67 1/2"
90"	72"	2	18"	18"	36"	54"	72"
96"	90"	2	19"	19 1/2"	38 1/2"	57 1/2"	76 1/2"
102"	90"	2	20"	21"	41"	61"	81"
108"	90"	2	21"	22 1/2"	43 1/2"	64 1/2"	85 1/2"
114"	108"	3	15"	12"	27"	42"	57" 72" 87" 102"
120"	108"	3	16"	12"	28"	44"	60" 76" 92" 108"
126"	108"	3	17"	12"	29"	46"	63" 80" 97" 114"
132"	126"	3	18"	12"	30"	48"	66" 84" 102" 120"
138"	126"	3	19"	12"	31"	50"	69" 88" 107" 126"
144"	126"	3	20"	12"	32"	52"	72" 92" 112" 132"

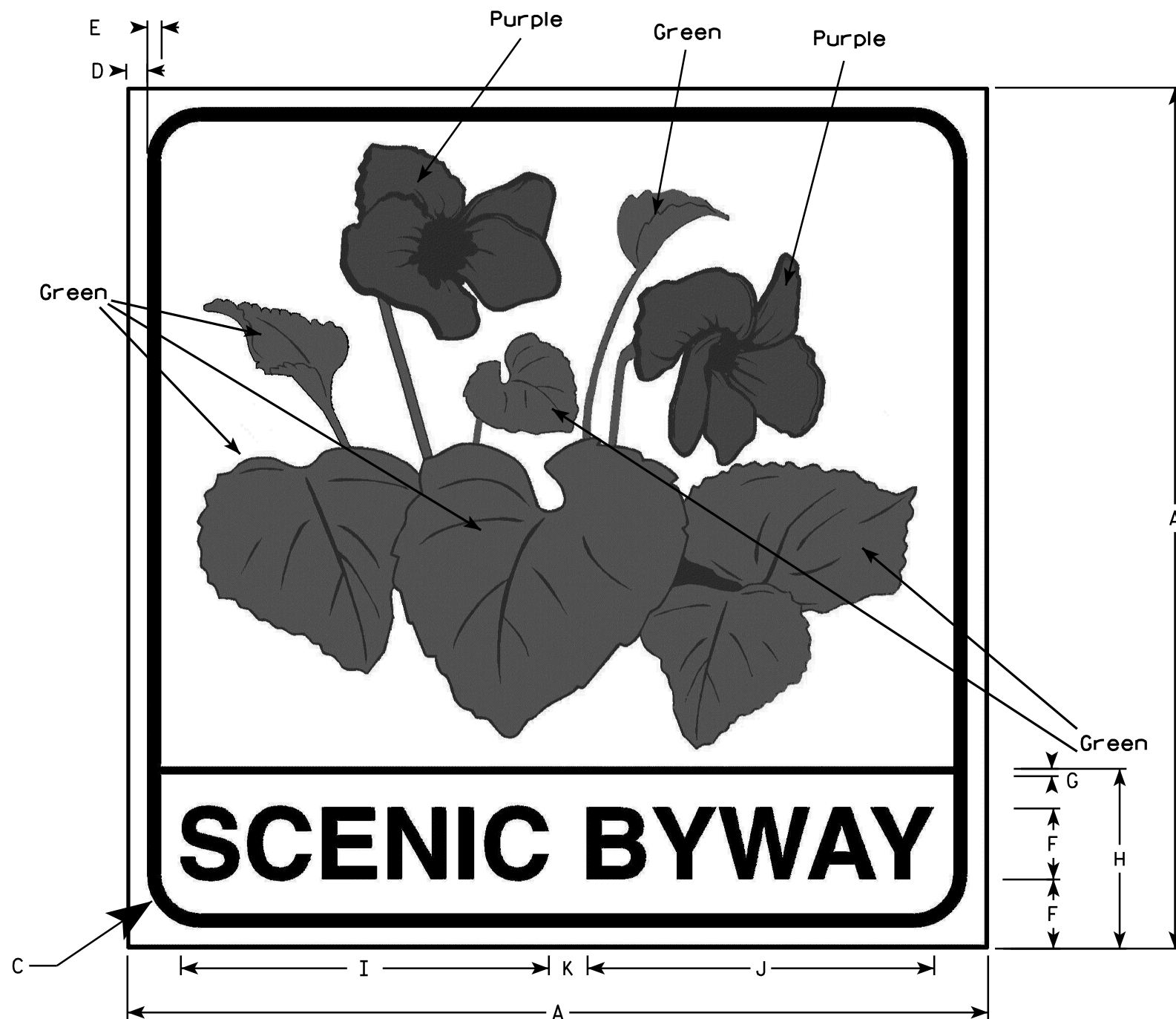


SIGN STRINGER
MOUNTING REQUIREMENTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 4/26/16 PLATE NO. A4-18.1



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 Except as noted
Border of Leaves and Flowers is Black
3. Message Series - Special
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. Contact WisDOT with any questions.

7

7

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.	Area m ²
1																												
2	24		1 1/2	5/8	3/8	2	1/4	5	10 1/4	9 5/8	1 1/8																4.0	.36
3																												
4	36		4	7/8	5/8	3	1/4	7 1/2	15 3/8	14 1/2	1 5/8																9.0	.81
5																												

STANDARD SIGN
D6-4S

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
State Traffic Engineer

DATE 10/05/09 For PLATE NO. D6-4S.1

PROJECT NO:

HWY:

COUNTY:

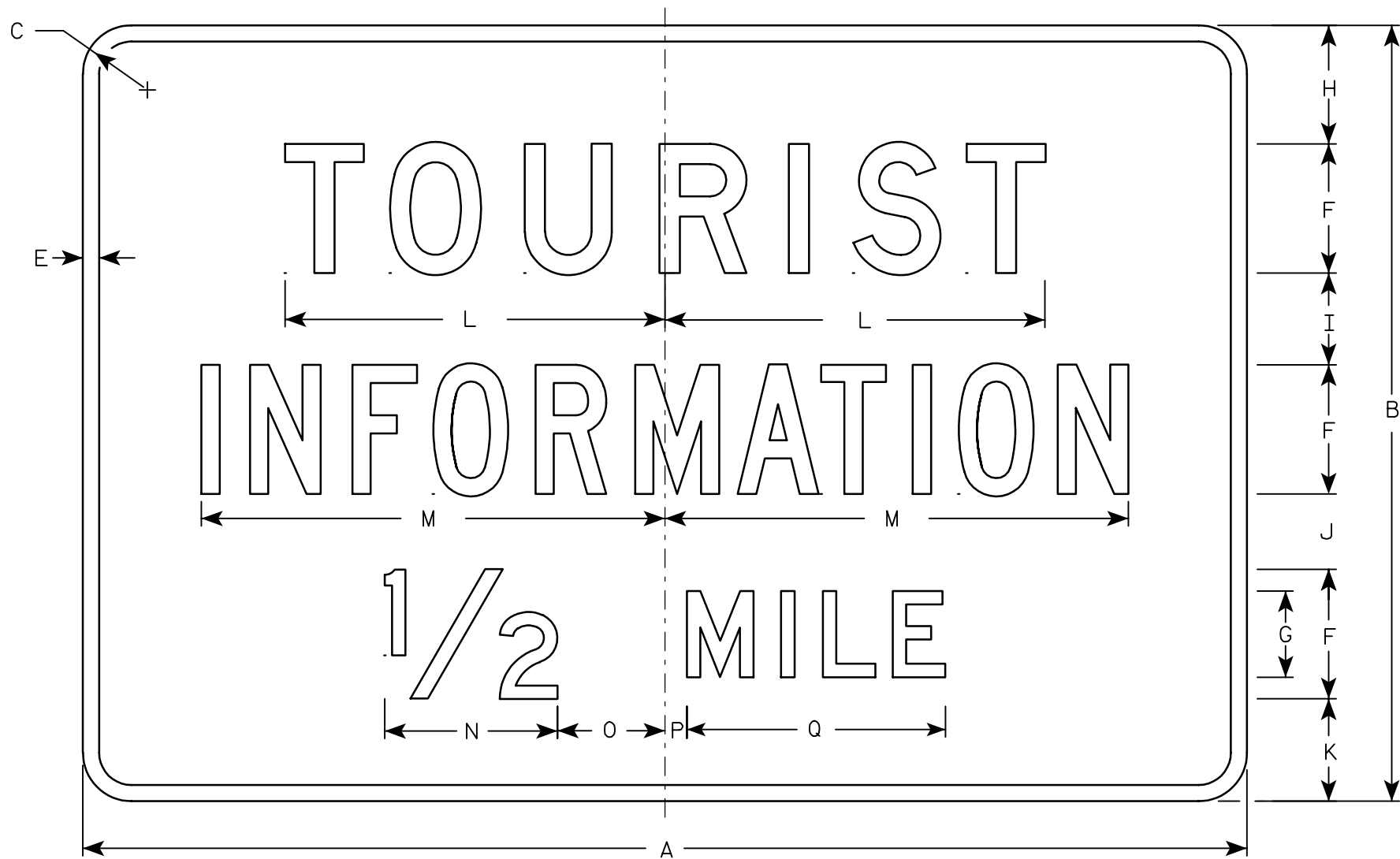
SHEET NO:

E

58.59, 61.61, 62.63

7

LEVELS ON - 2, 3, 5, 6



D7-57

Metric equivalent
for this sign is:

SIZE	
1	
2	1350 mm X 900 mm
3	
4	
5	

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	54	36	2 1/4		3/4	6	4	5 1/2	4 1/4	3 1/2	4 3/4	17 5/8	21 1/2	8	5	1	12										13.5	1.22
3																												
4																												
5																												

STATE PROJECT NUMBER:

SHEET NO:

E

NOTES

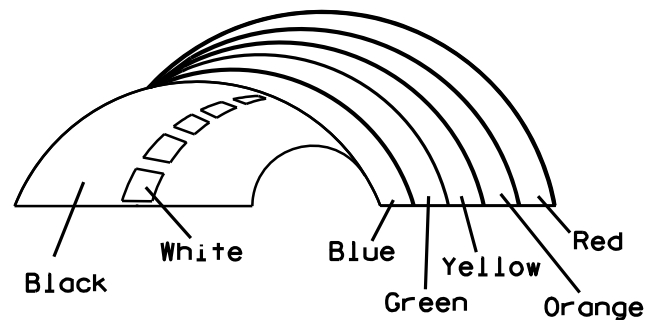
- Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - Blue
Message - White - Type H Reflective
- Message Series - See note 5
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- Lines 1 & 3 are series D
Line 2 is series C.

7



* VARIES

Background Colors of Symbol*



*1/4" Black Border between each color of rainbow and border of rainbow

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - (See Note 5)
3. Message Series - (See Note 6)
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Border - Blue
Line 1 - Red
Line 2 - Black
Line 3-5 - Blue
6. Line 1 - Dutch 8011L
Line 2 - Series E
Line 3-5 - Series C
7. Contractor shall provide and install a new post bracket in accordance with the I55-56B sign 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																											
2	30	36	1 1/2	1/2	5/8	3	2	3 1/2	2 7/8	1	8	2 1/8	11 1/4	11 1/8	9 3/8	1 1/4		3/4	12 5/8	7 1/2							7.5
3																											
4																											
5																											

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

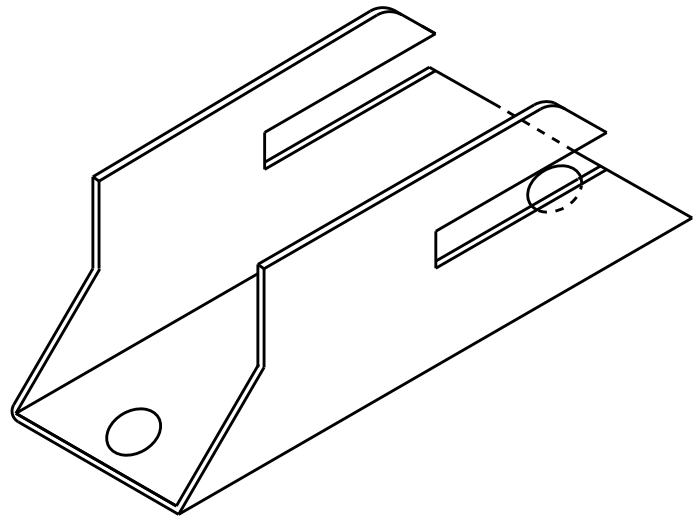
STANDARD SIGN
I55-56

WISCONSIN DEPT OF TRANSPORTATION

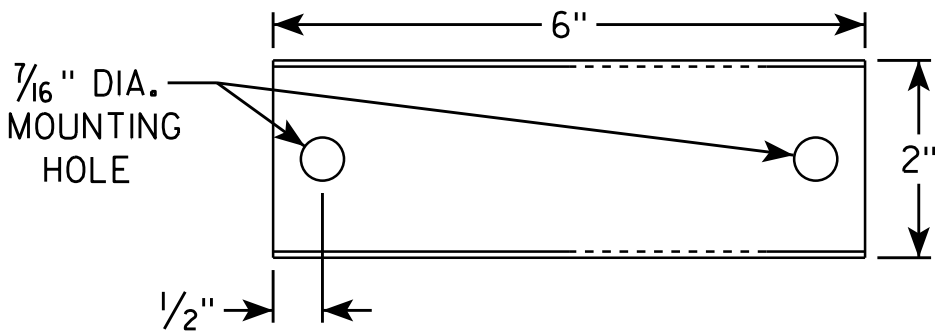
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 4/27/11 PLATE NO. I55-56.3

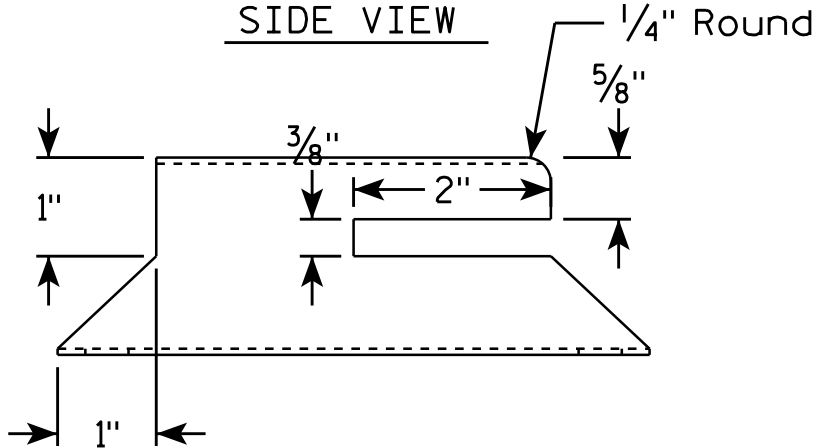
ISOMETRIC VIEW



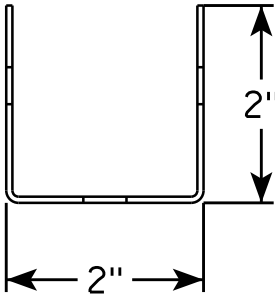
TOP VIEW



SIDE VIEW



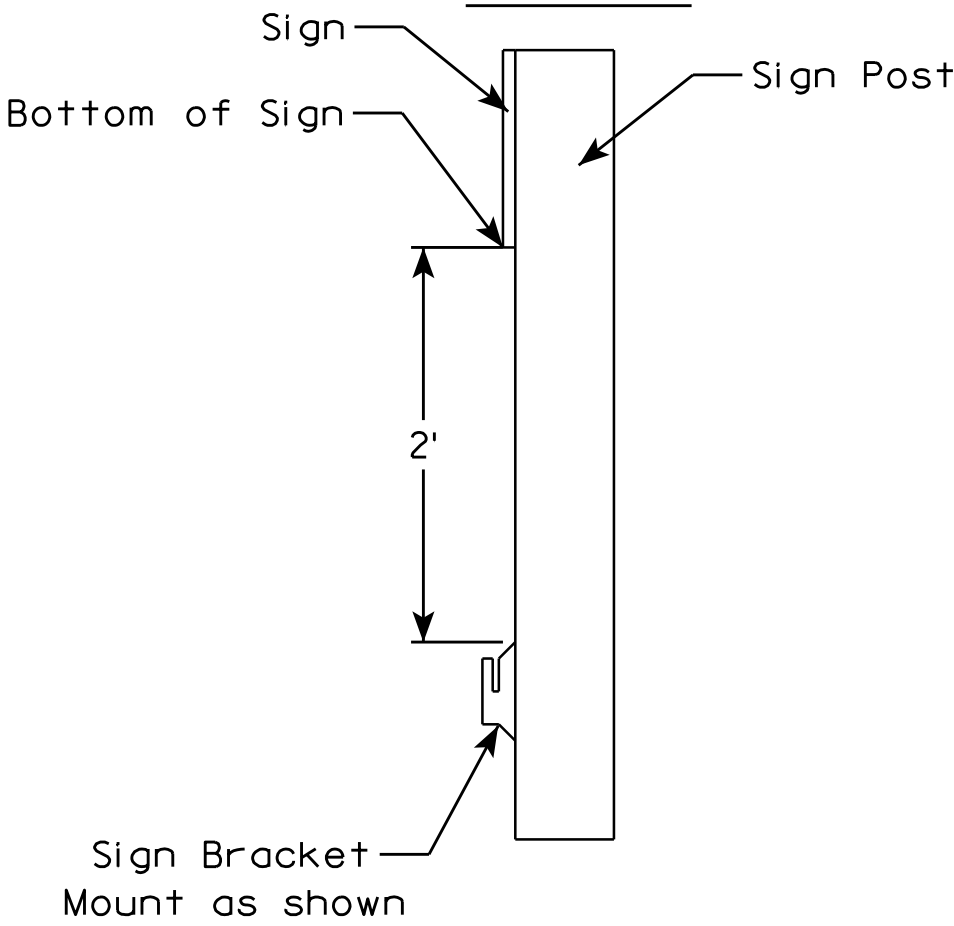
END VIEW



NOTES

1. Must be capable of permanent attachment to a wood or steel channel sign post utilizing the fastening hardware specified on the A4-8 sign plate.
2. Shall be entirely primed and painted with two coats of a black powder coated enamel paint.
3. Shall be made with 12 gauge steel, and incorporate no welds, no hinged components, no threaded lock-type components, and no parts which are loose or can be separated from the main body.
4. Shall have rounded edges with at least 1/8" radii.
5. Shall not have unrounded and uncoated metal edges which can contact the back surface of the roll-up sign.
6. Top of bracket shall be mounted 2' below the bottom of the I55-56 sign.
7. Cost of bracket and fastening hardware shall be incidental to the I55-56 sign.

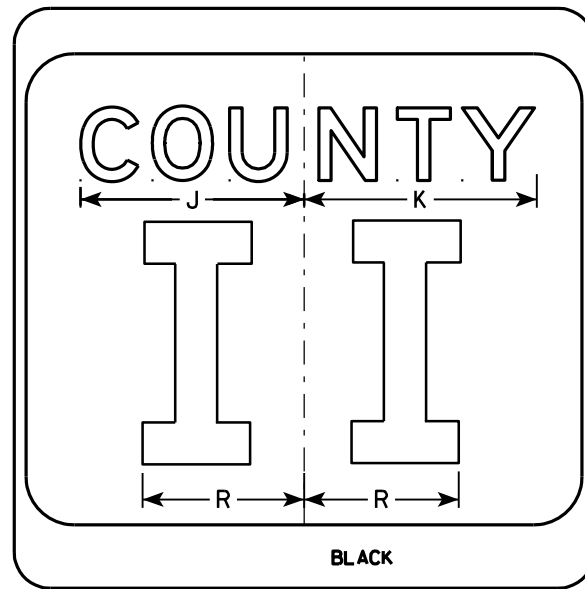
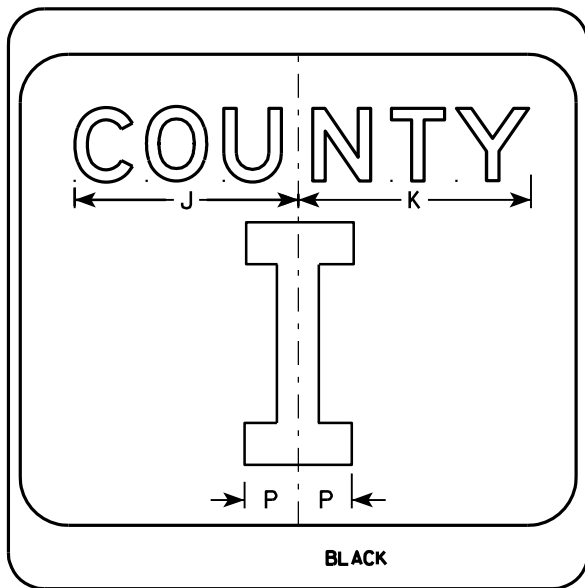
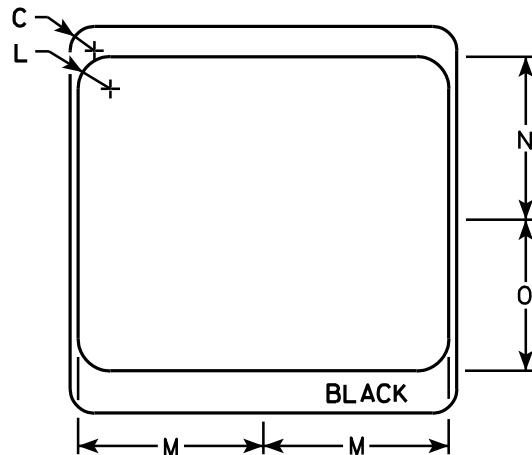
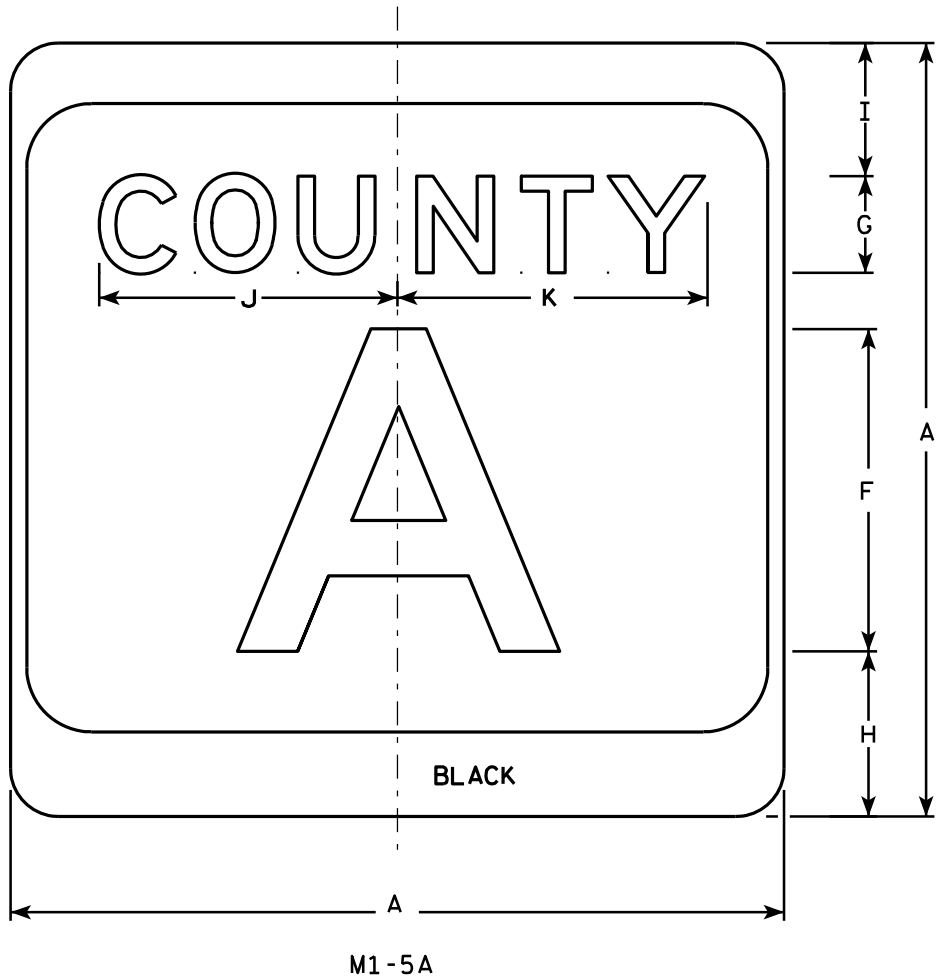
SIDE VIEW



ROLLUP SIGN BRACKET
I55-56B

WISCONSIN DEPT OF TRANSPORTATION
APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 4/26/16 PLATE NO. I55-56B.2

7



NOTES

- Sign is Type II - see Note 7 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - White & Black - See Note 7
Message - Black
- Message Series - see Note 5
- 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.
- 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.
- Substitute appropriate letters & optically center to achieve proper balance.
- Permanent Signs
Background - Type H Reflective
Detour or temporary Signs
Background - Reflective

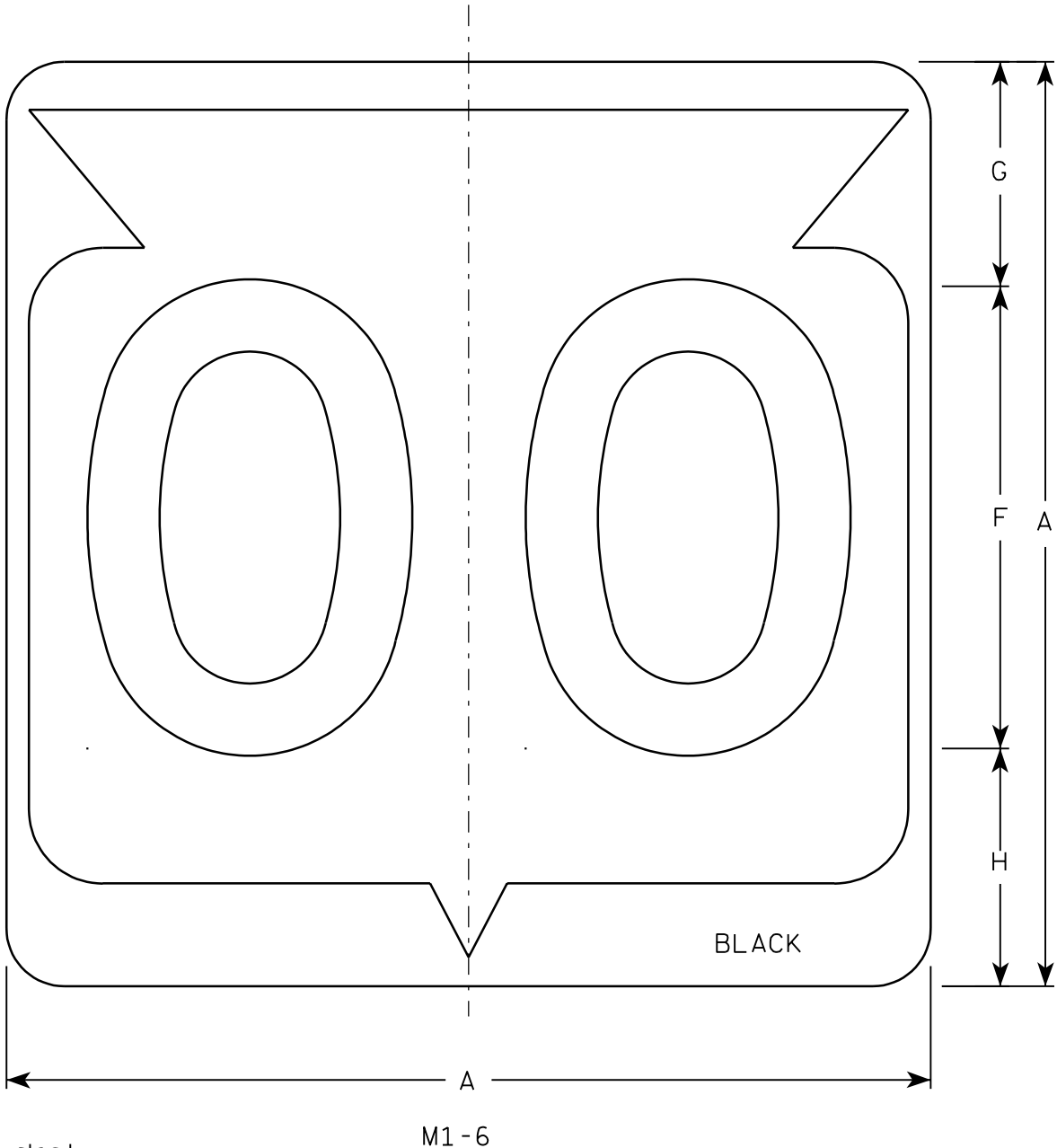
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24		1 1/2			10	3	5 1/8	4 1/8	9 1/4	9 5/8	2	11 1/2	10 1/8	9 3/8	2 1/4		6 5/8									4.0
3	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
4	36		2 1/4			16	4	7 5/8	5 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	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 9/27/11	PLATE NO. M1-5A.8

PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
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7

7



Metric equivalent
for this sign is:

SIZE	
1	
2	600 mm X 600 mm
3	900 mm X 900 mm
4	900 mm X 900 mm
5	900 mm X 900 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m ²
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

PROJECT NO:

HWY:

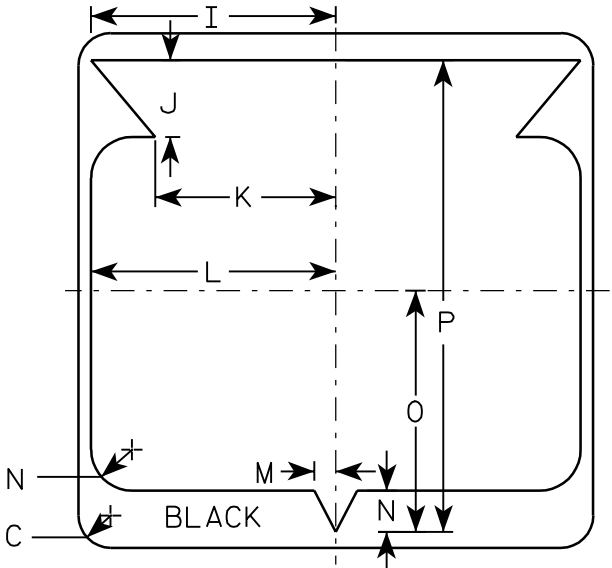
COUNTY:

SHEET NO:

E

NOTES

- Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - White & Black - See Note 6
Message - Black
- Message Series - See note 5
- 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.
- Substitute appropriate Series numerals and adjust spacing as per plate A10-1.
- Permanent Signs
Background - Type H Reflective
Detour or temporary Signs
Background - Reflective



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

7

Metric equivalent
for this sign is:

SIZE	
1	
2	450 mm X 900 mm
3	
4	
5	

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m ²
1																												
2	18	36	1 1/8	3/8		4	2	13 3/4	2 1/2	1 5/8	7 1/4	7	4 3/8	1 3/4	2 5/8	7/8	1/4	3/4	5 1/8	2 1/8							4.5	.41
3																												
4																												
5																												

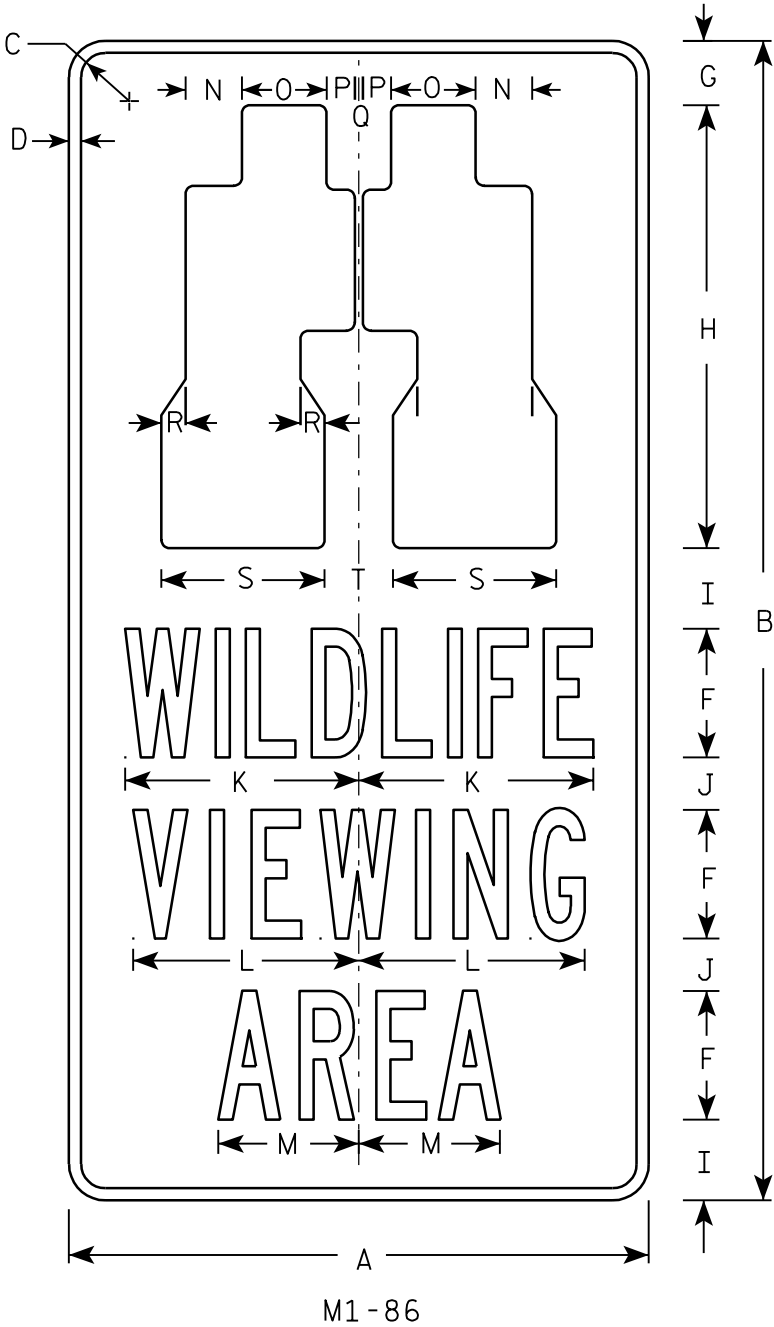
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

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 - Brown
Message - White - Type H Reflective
3. Message Series - B
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

STANDARD SIGN
M1-86

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Chester J. Spang
for State Traffic Engineer

DATE 1/30/02 PLATE NO. M1-86.3



NOTES

- 1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
 - Background - Green
 - Message - White - Graphics - White
 - Circle Tour Message is Green
- 3. Message Series - Special
- 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.	Area m ²
1																												
2	24			1 1/8	1/2																						4.0	.36
3																												
4	36			1 5/8	3/4																						9.0	.81
5																												

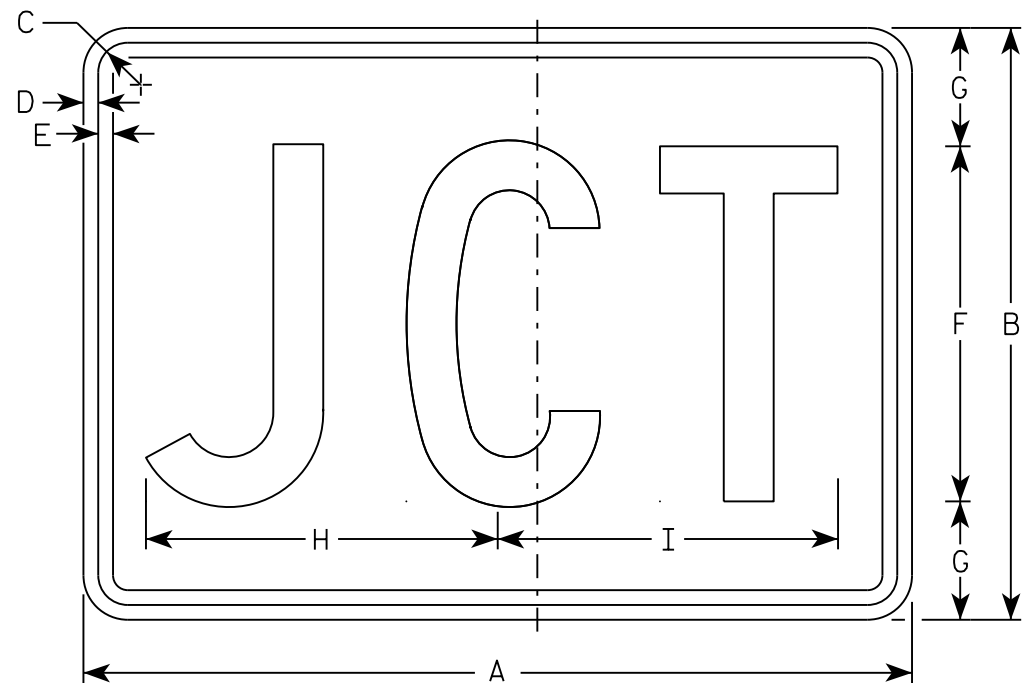
STANDARD SIGN

M1-93

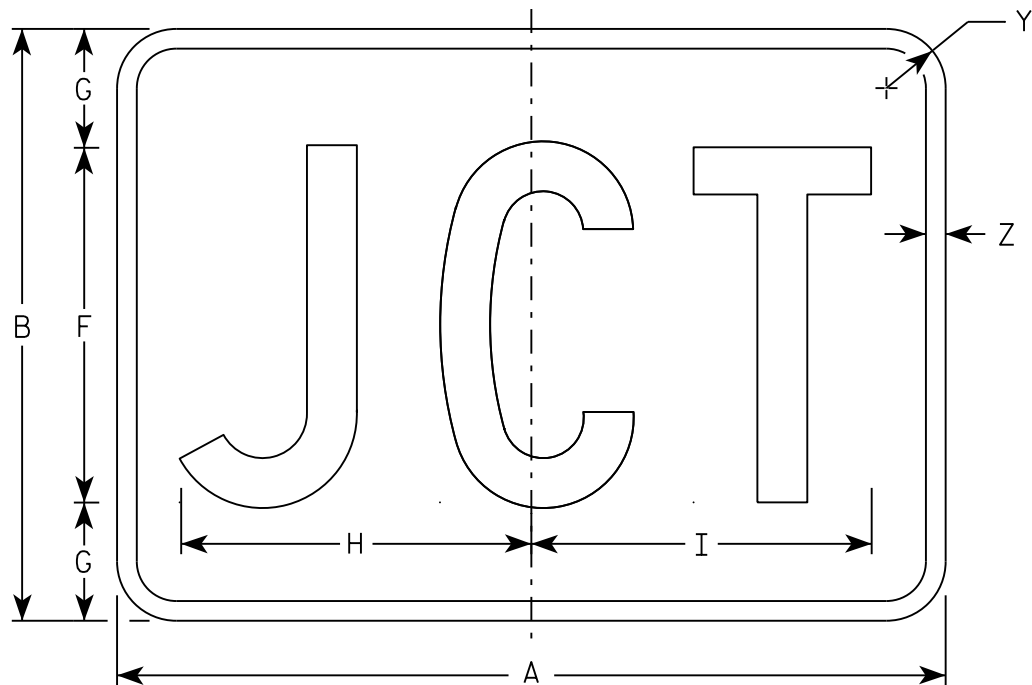
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
State Traffic Engineer

DATE 11/5/15 for PLATE NO. M1-93.2



M2-1
MM2-1
MP2-1



MB2-1
MK2-1
MN2-1
MR2-1

NOTES

- 1. Sign is Type II - Type H
- 2. Color:
 - Background - See note 5
 - Message - See note 5
- 3. Message Series - C
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 5. M2-1 Background - White
 Message - Black
 MB2-1 Background - Blue
 Message - White
 MK2-1 Background - Green
 Message - White
 MM2-1 Background - White
 Message - Green
 MN2-1 Background - Brown
 Message - White
 MP2-1 Background - White
 Message - Blue
 MR2-1 Background - Brown
 Message - Yellow

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21	15	1 1/8	3/8	3/8	9	3	8 7/8	8 5/8																1 1/2	1/2	2.20
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
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
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

STANDARD SIGN

M2 - 1

WISCONSIN DEPT OF TRANSPORTATION

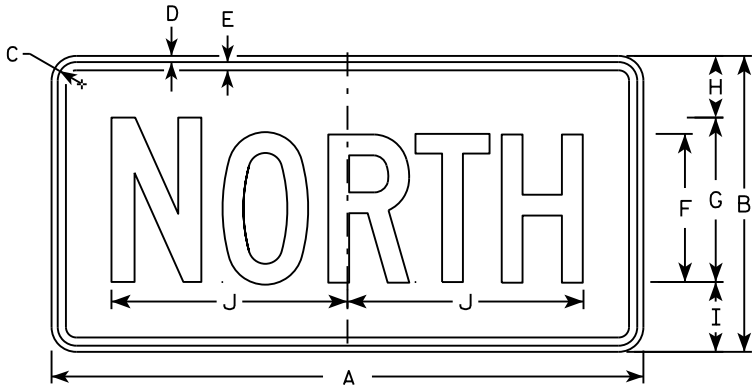
APPROVED

Matthew R. Rauch

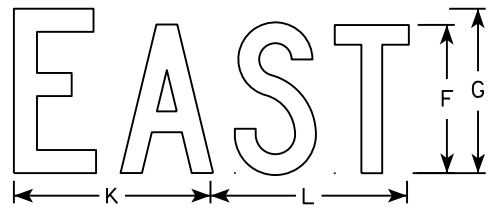
For State Traffic Engineer

DATE 10/15/15

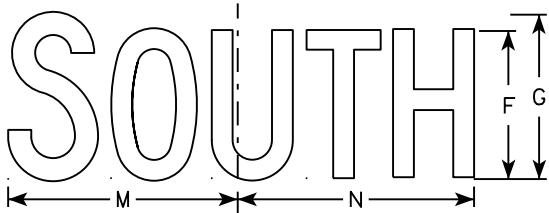
PLATE NO. M2-1.12



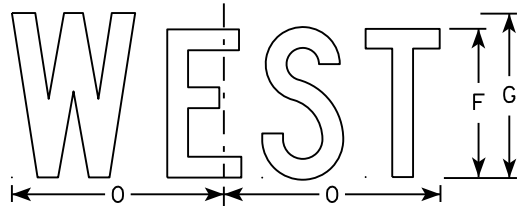
M3-1
MM3-1
MP3-1



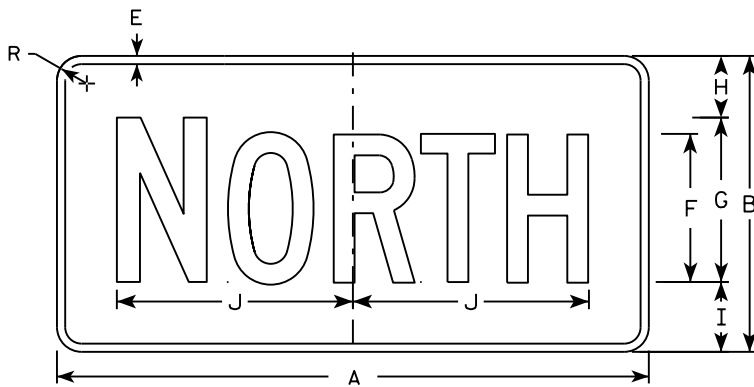
M3-2
MM3-2
MP3-2



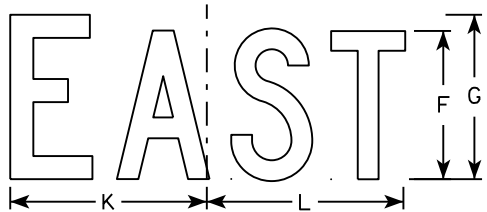
M3-3
MM3-3
MP3-3



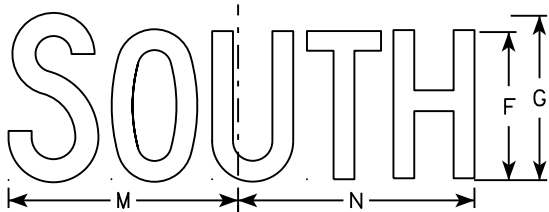
M3-4
MM3-4
MP3-4



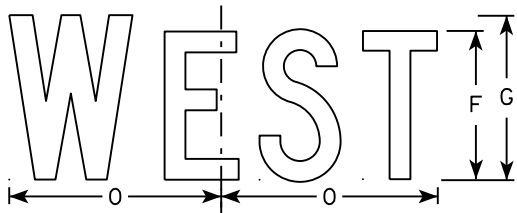
MB3-1
MK3-1
MN3-1



MB3-2
MK3-2
MN3-2



MB3-3
MK3-3
MN3-3



MB3-4
MK3-4
MN3-4

NOTES

1. All Signs Type II - Type H
2. Color:
Background - See note 5
Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White
Message - Black
MB3-1 thru MB3-4 Background - Blue
Message - White
MK3-1 thru MK3-4 Background - Green
Message - White
MM3-1 thru MM3-4 Background - White
Message - Green
MN3-1 thru MN3-4 Background - Brown
Message - White
MP3-1 thru MP3-4 Background - White
Message - Blue
6. Note the first letter of each direction is larger than the remainder of the message.

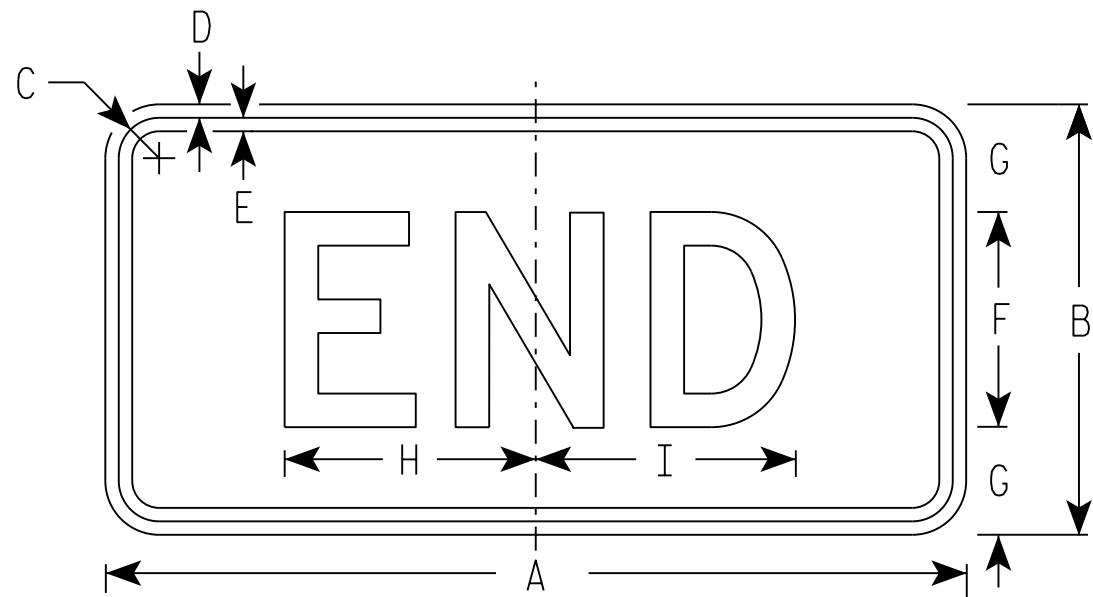
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8	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 thru M3-4
SERIES

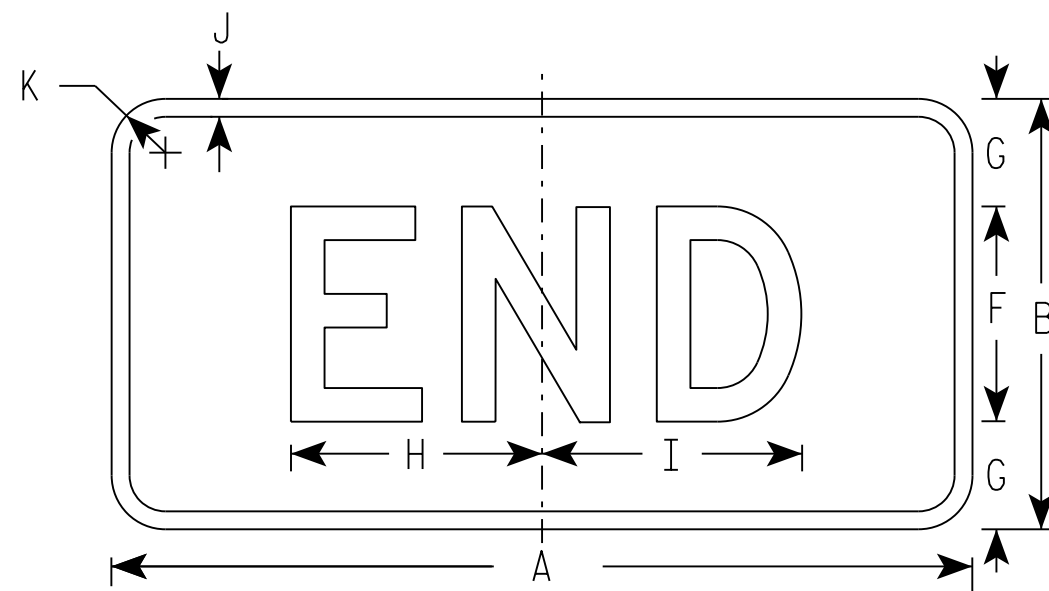
WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE NO. M3-1.14



M4-6
MM4-6
MP4-6



MB4-6
MK4-6
MN4-6
MR4-6

NOTES

- Sign is Type II - Type H
- Color:
Background - See note 5
Message - See note 5
- Message Series - D
- 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.
- M4-6 Background - White
Message - Black
MB4-6 Background - Blue
Message - White
MK4-6 Background - Green
Message - White
MM4-6 Background - White
Message - Green
MN4-6 Background - Brown
Message - White
MP4-6 Background - White
Message - Blue
MR4-6 Background - Brown
Message - Yellow

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	3	7	7 1/4	1/2	1 1/2																2.00
3	36	18	1 1/8	3/8	1/2	9	4 1/2	12	11 7/8	1/2	1 1/2																4.5
4	36	18	1 1/8	3/8	1/2	9	4 1/2	12	11 7/8	1/2	1 1/2																4.5
5	36	18	1 1/8	3/8	1/2	9	4 1/2	12	11 7/8	1/2	1 1/2																4.5

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

STANDARD SIGN
M4-6

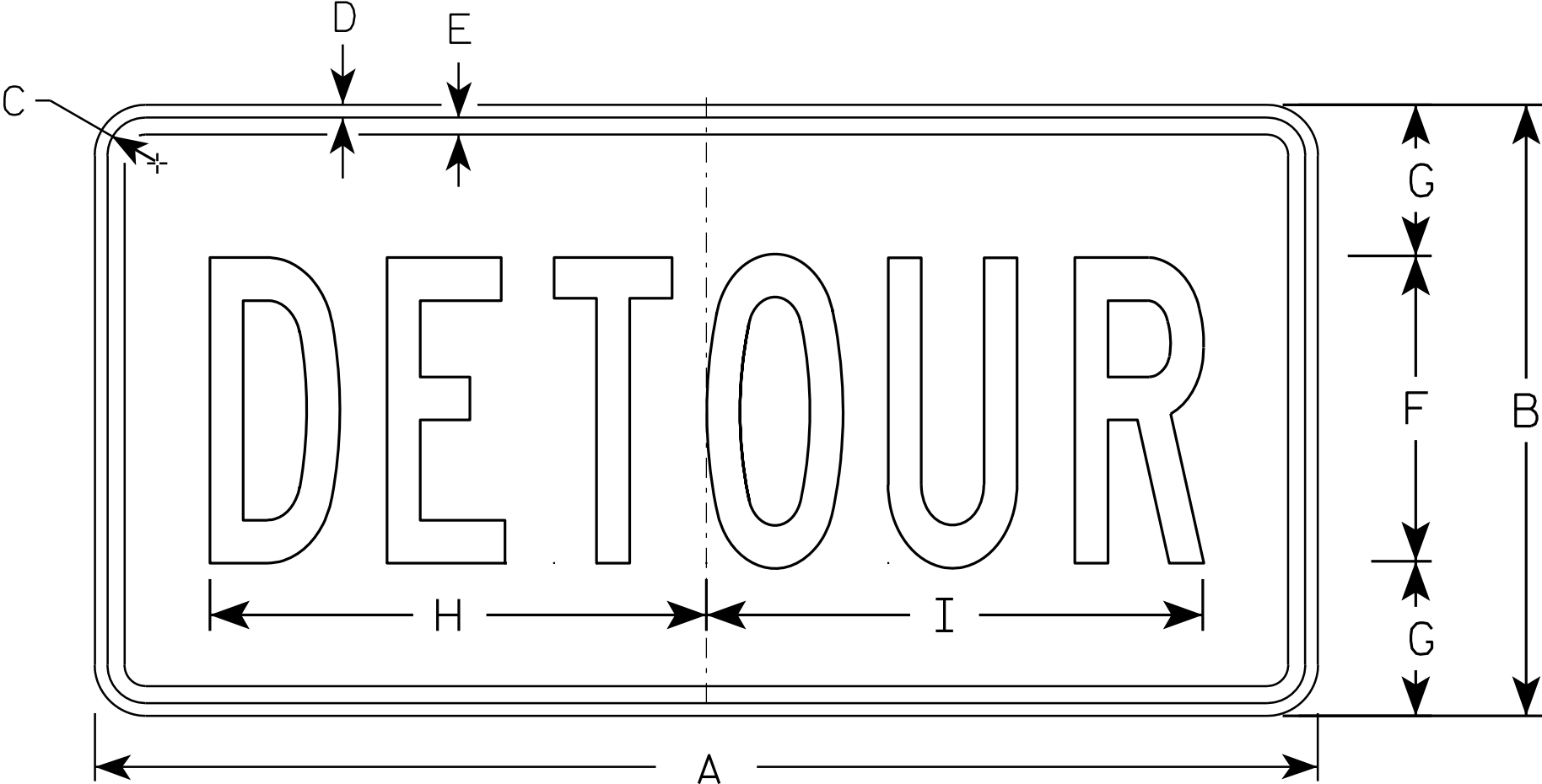
WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE NO. M4-7.9

NOTES

- 1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
 - Background - Orange
 - Message - Black
- 3. Message Series - B
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



M4 - 8

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	Areg sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	3	10	10 1/4																		2.0
3	36	18	1 1/8	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
4																											
5																											

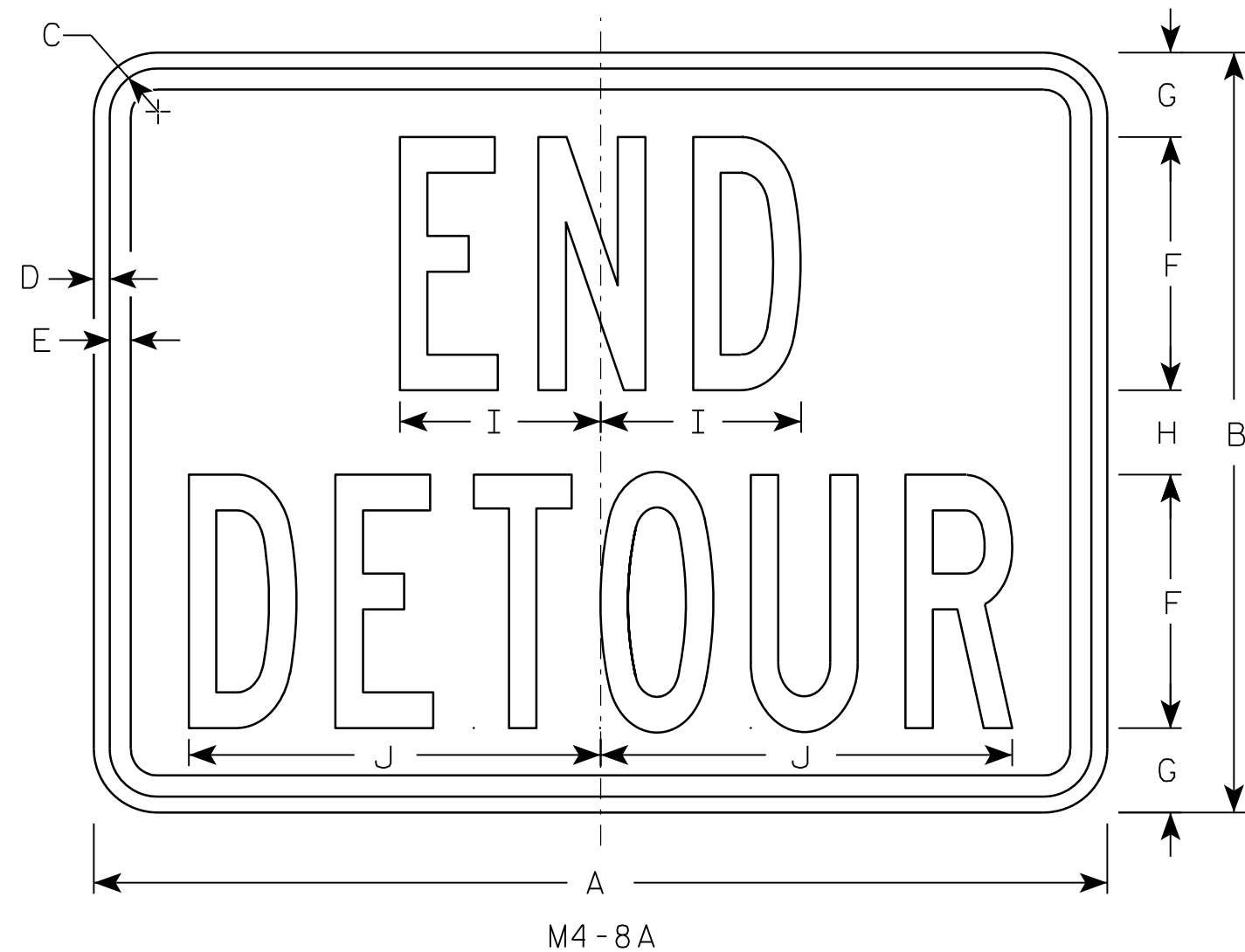
STANDARD SIGN
M4 - 8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

DATE 11/10/10 PLATE NO. M4-8.2

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 - Orange
Message - Black
3. Message Series - B
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

7

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	18	1 1/8	3/8	1/2	6	2	2	4 3/4	9 3/4																	3.0
3	30	24	1 1/8	3/8	1/2	8	2 1/2	3	6 3/4	13																	5.0
4																											
5																											

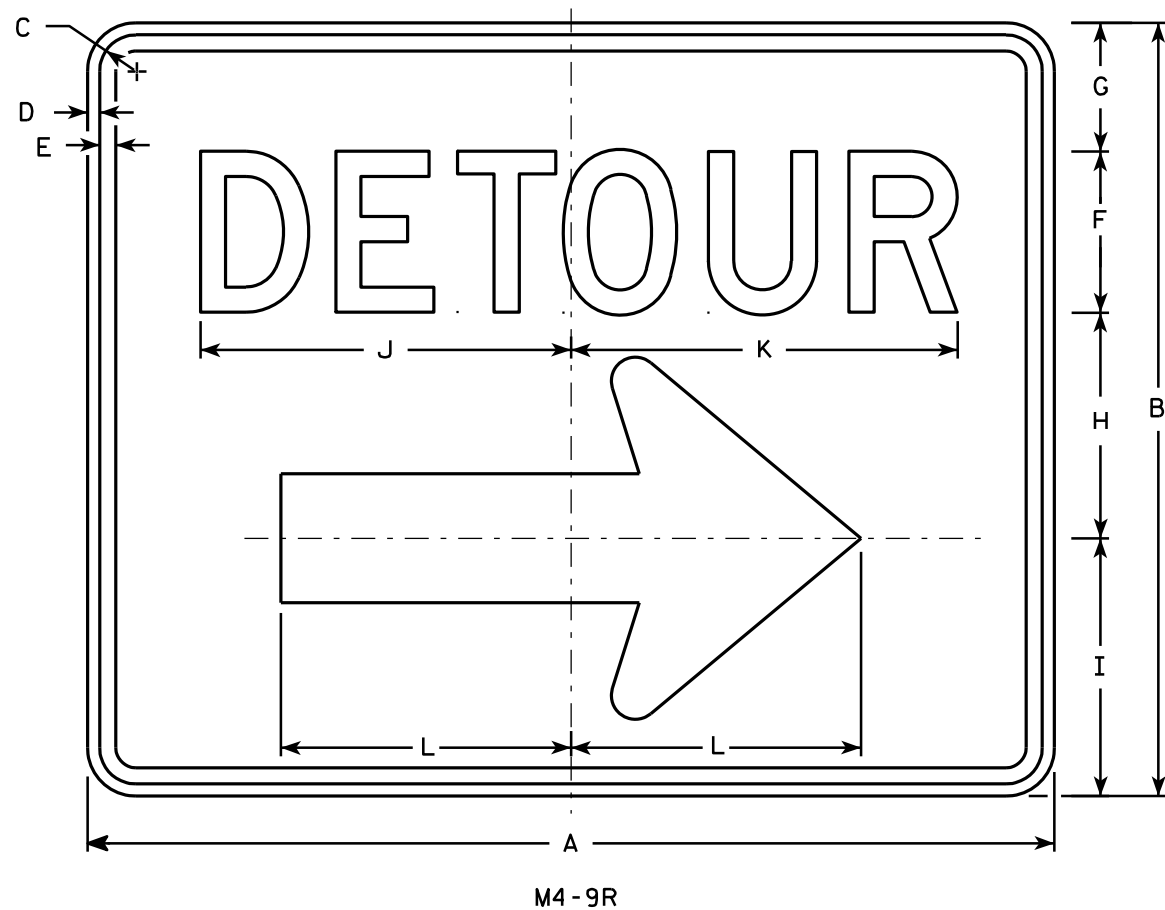
PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
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STANDARD SIGN
M4-8A

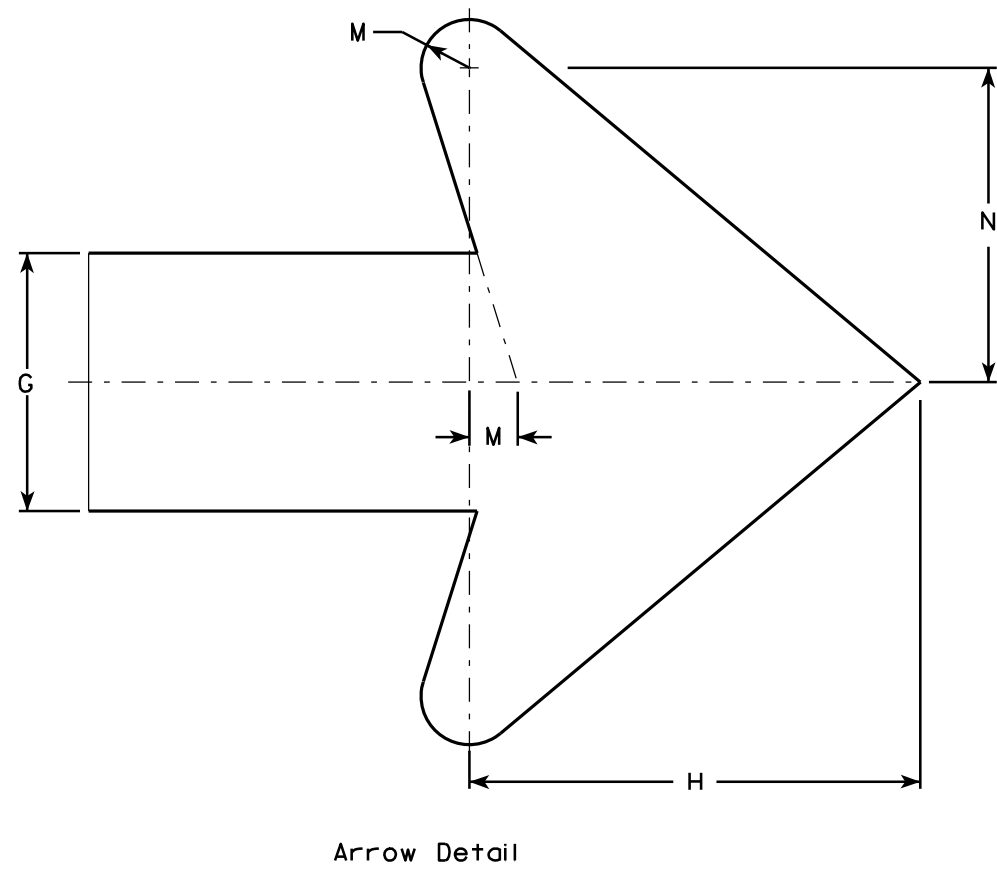
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/9/11 PLATE NO. M4-8A.2



- NOTES**
- 1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
 - 2. Color:
Background - Orange
Message - Black
 - 3. Message Series - D
 - 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
 - 5. M4-9L is the same as M4-9R except the arrow is reversed.



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	30	24	1 1/8	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
3	30	24	1 1/8	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
4	48	36	1 3/8	1/2	5/8	8	6	10 1/2	11 5/8	20 5/8	20 1/2	13 1/4	1 1/8	6 7/8													12.0
5	48	36	1 3/8	1/2	5/8	8	6	10 1/2	11 5/8	20 5/8	20 1/2	13 1/4	1 1/8	6 7/8													12.0

STANDARD SIGN
M4-9 R & L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 3/9/11 PLATE NO. M4-9R.4

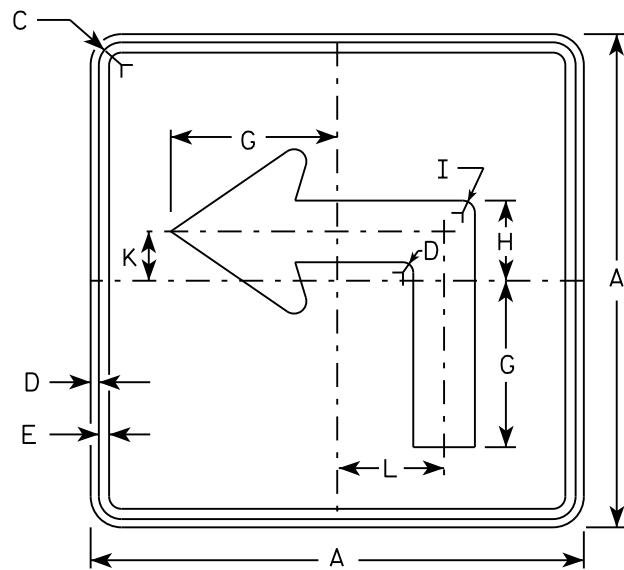
PROJECT NO:

HWY:

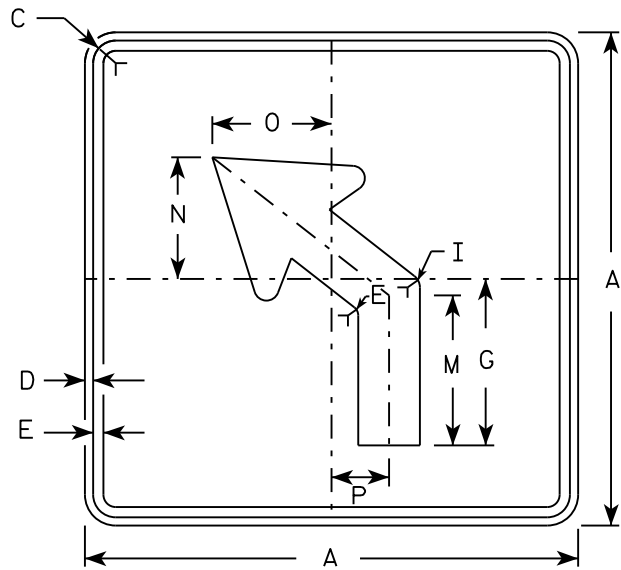
COUNTY:

SHEET NO:

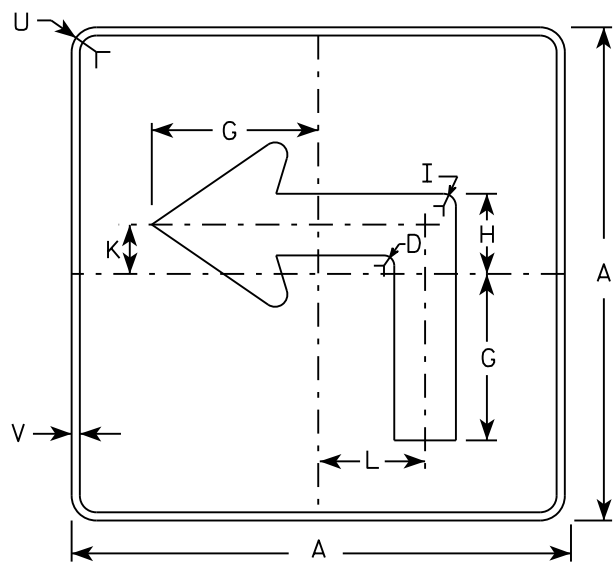
E



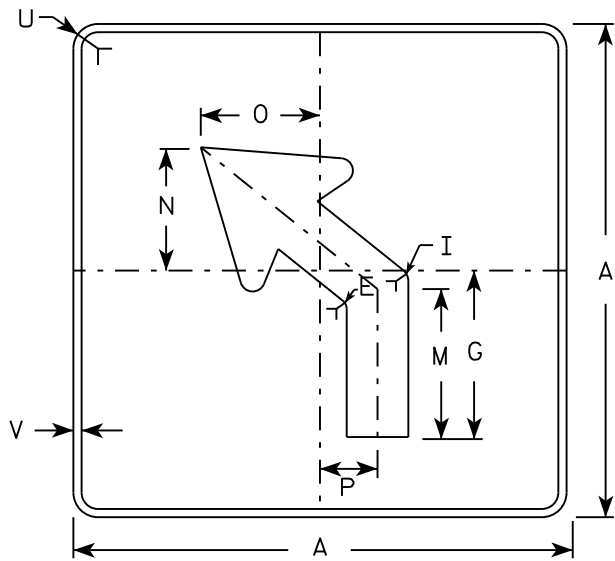
M5-1L
MM5-1L
M05-1L
MP5-1L



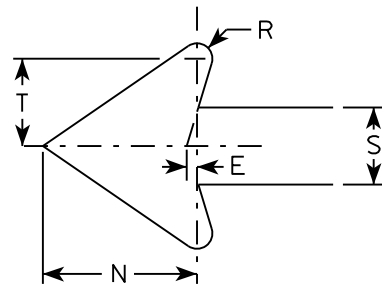
M5-2L
MM5-2L
M05-2L
MP5-2L



MB5-1L
MK5-1L
MN5-1L
MR5-1L



MB5-2L
MK5-2L
MN5-2L
MR5-2L



NOTES

- Signs are Type II - Type H reflective except as shown
- Color:
Background - See note 4
Message - See note 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.
- M5-1 and M5-2 Background - White
Message - Black
MB5-1 and MB5-2 Background - Blue
Message - White
MK5-1 and MK5-2 Background - Green
Message - White
MM5-1 and MM5-2 Background - White
Message - Green
MN5-1 and MN5-2 Background - Brown
Message - White
M05-1 and M05-2 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
- M5-1R same as M5-1L except arrow points right.
- 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 7/8	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 7/8	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 7/8	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

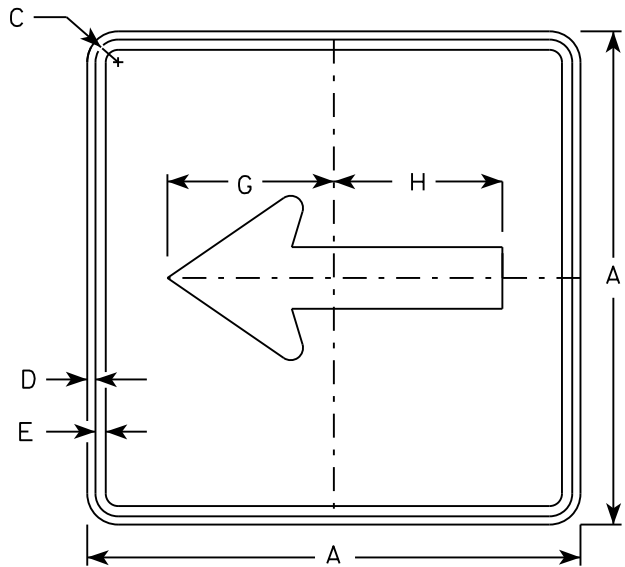
PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
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STANDARD SIGN
M5-1 & M5-2

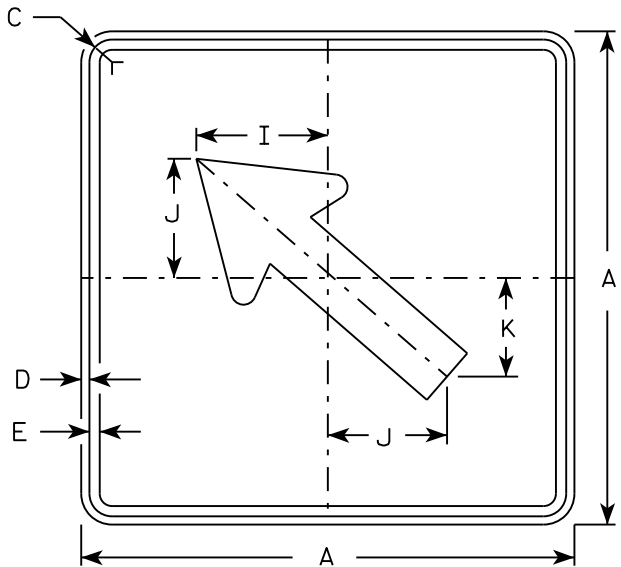
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

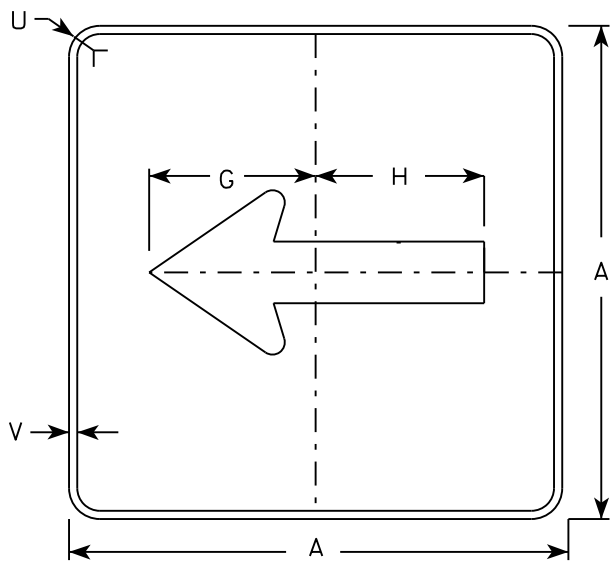
DATE 10/15/15 PLATE NO. M5-1.13



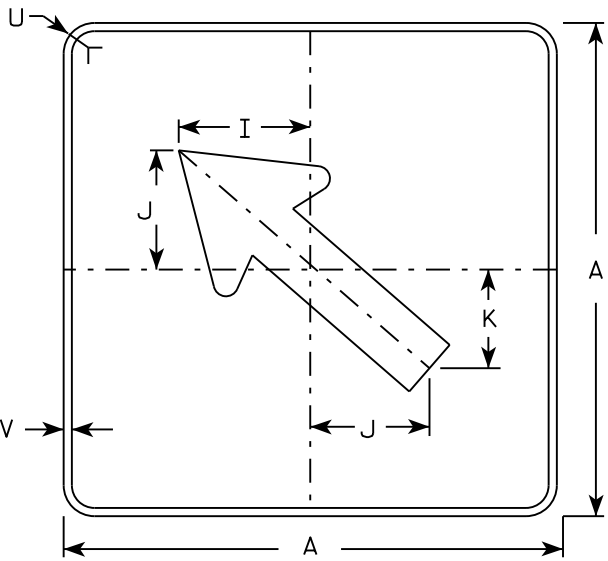
M6 - 1
MM6 - 1
M06 - 1
MP6 - 1



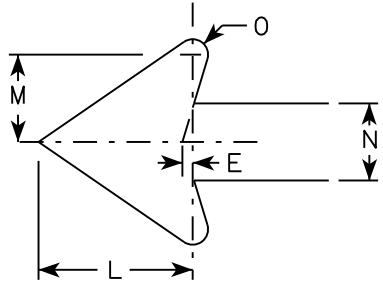
M6 - 2
MM6 - 2
M06 - 2
MP6 - 2



MB6 - 1
MK6 - 1
MN6 - 1
MR6 - 1



MB6 - 2
MK6 - 2
MN6 - 2
MR6 - 2



NOTES

- 1. Signs are Type II - Type H except as Shown
- 2. Color:
Background - See note 4
Message - See note 4
- 3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 4. M6-1 and M6-2 Background - White
Message - Black
MB6-1 and MB6-2 Background - Blue
Message - White
MK6-1 and MK6-2 Background - Green
Message - White
MM6-1 and MM6-2 Background - White
Message - Green
MN6-1 and MN6-2 Background - Brown
Message - White
M06-1 and M06-2 Background - Orange - Type F Reflective
Message - Black
MP6-1 and MP6-2 Background - White
Message - Blue
MR6-1 and MR6-2 Background - Brown
Message - Yellow

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

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

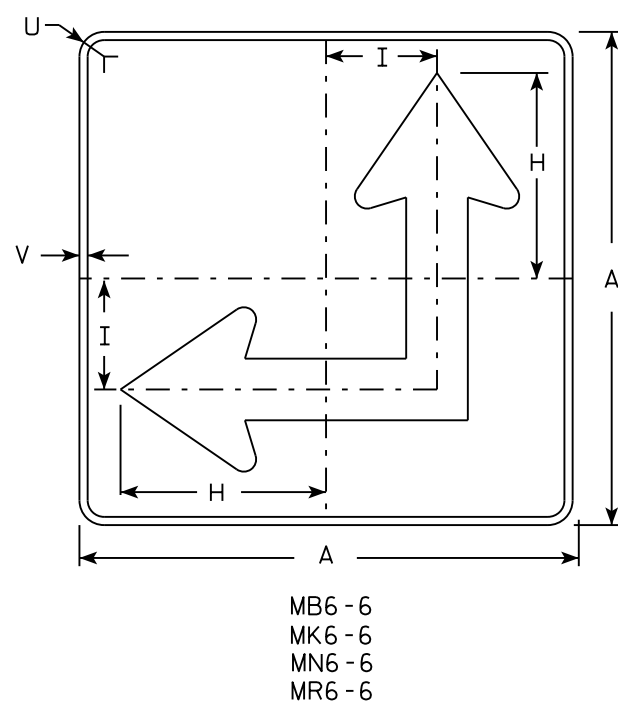
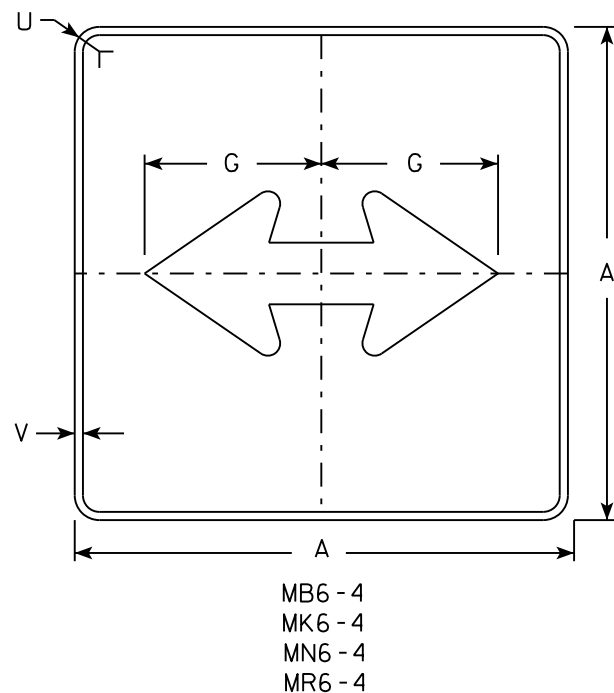
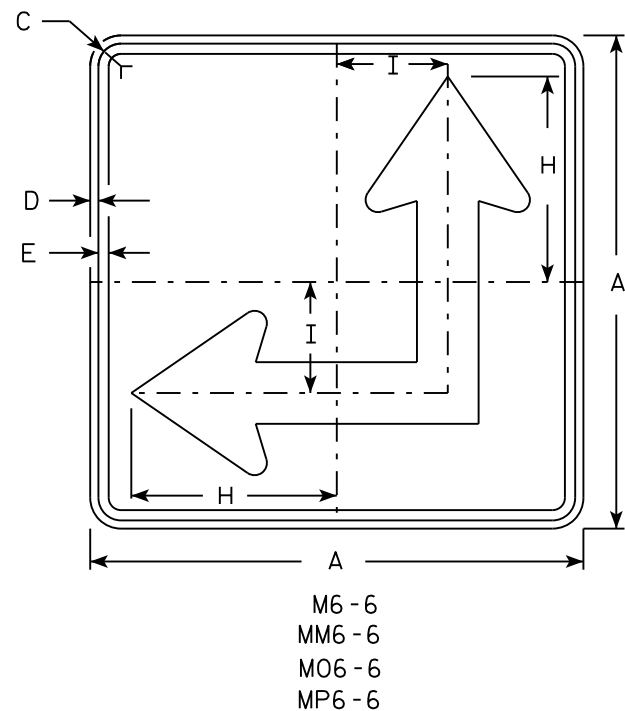
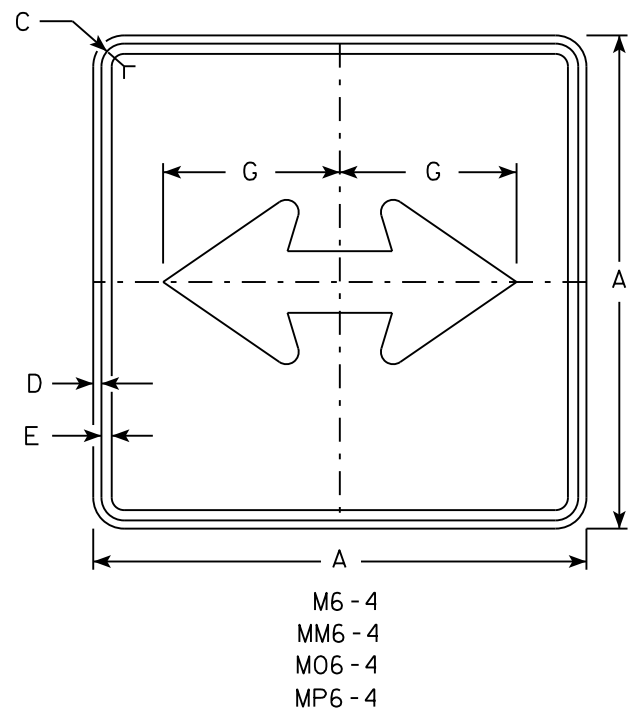
E

STANDARD SIGN
M6 - 1 & M6 - 2
SERIES

WISCONSIN DEPT OF TRANSPORTATION

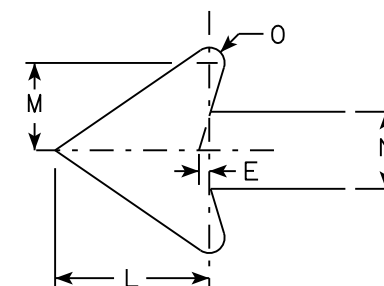
APPROVED
Matthew R. Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE NO. M6-1.15



NOTES

- Signs are Type II - Type H except as Shown
- Color:
Background - See Note 4
Message - See Note 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.
- M6-4 and M6-6 Background - White
Message - Black
MB6-4 and MB6-6 Background - Blue
Message - White
MK6-4 and MK6-6 Background - Green
Message - White
MM6-4 and MM6-6 Background - White
Message - Green
MN6-4 and MN6-6 Background - Brown
Message - White
M06-4 and M06-6 Background - Orange - Type F Reflective
Message - Black
MP6-4 and MP6-6 Background - White
Message - Blue
MR6-4 and MR6-6 Background - Brown
Message - Yellow
- M6-6R same as M6-6L except arrow points ahead and 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 1/2	8 3/4	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	12 1/2	6 3/4			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	12 1/2	6 3/4			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	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25

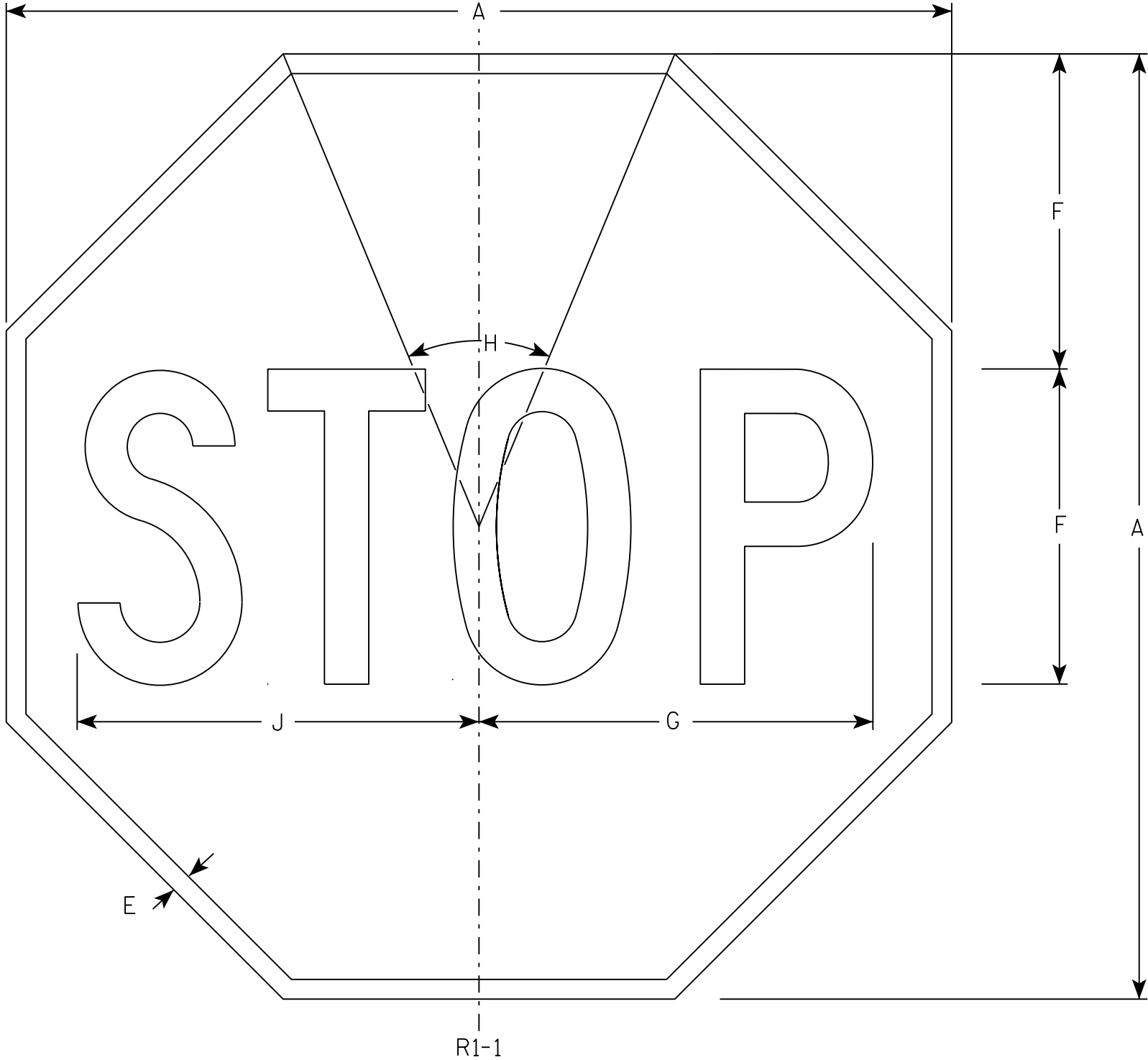
PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
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STANDARD SIGN
M6 - 4 & M6 - 6
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 10/15/15 PLATE NO. M6-4.10



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	30				5/8	10	12 1/2	45°		12 3/4																	5.18
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

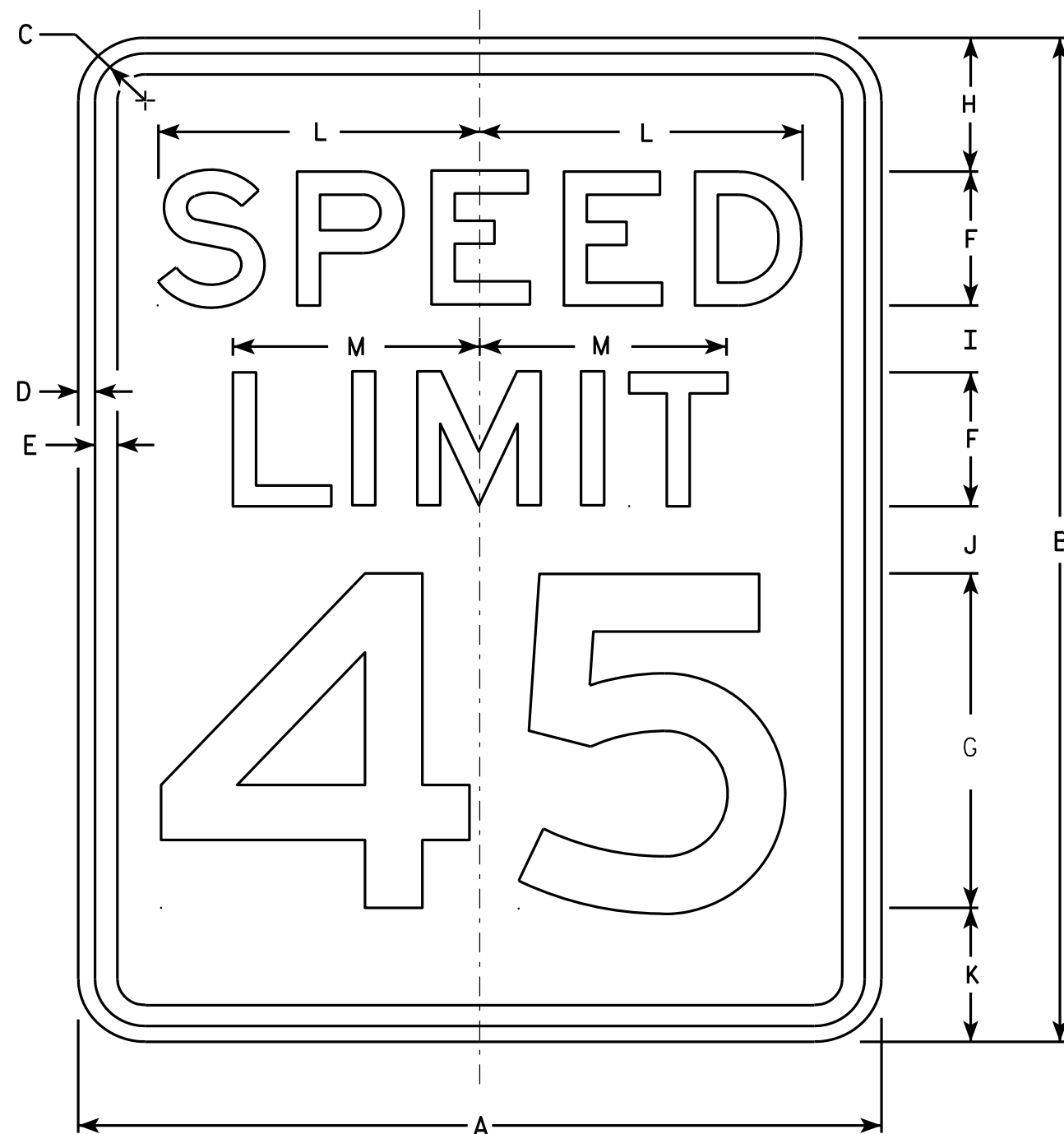
STANDARD SIGN

R1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 11/12/15 PLATE NO. R1-1.13



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

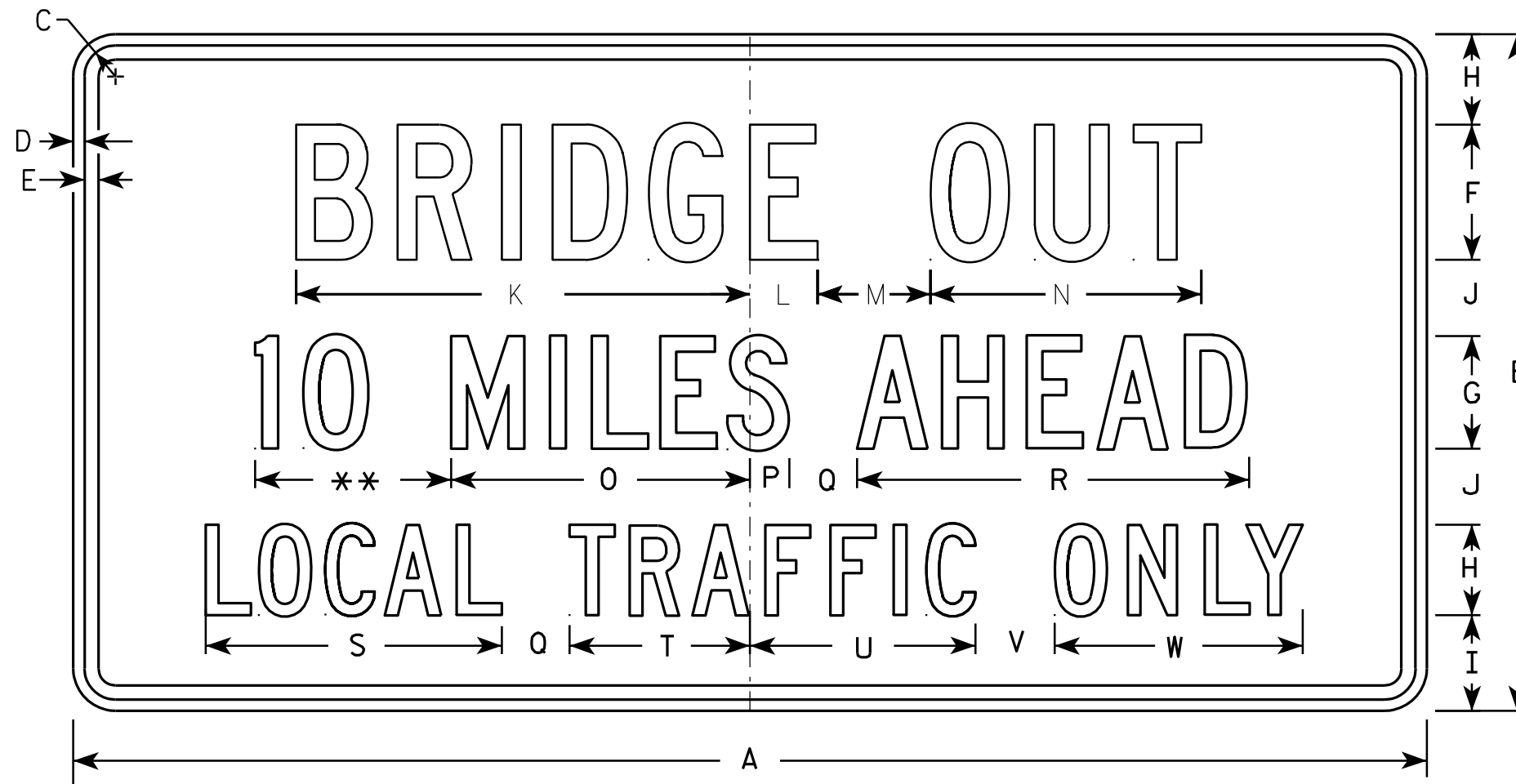
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



R11-3B

NOTES

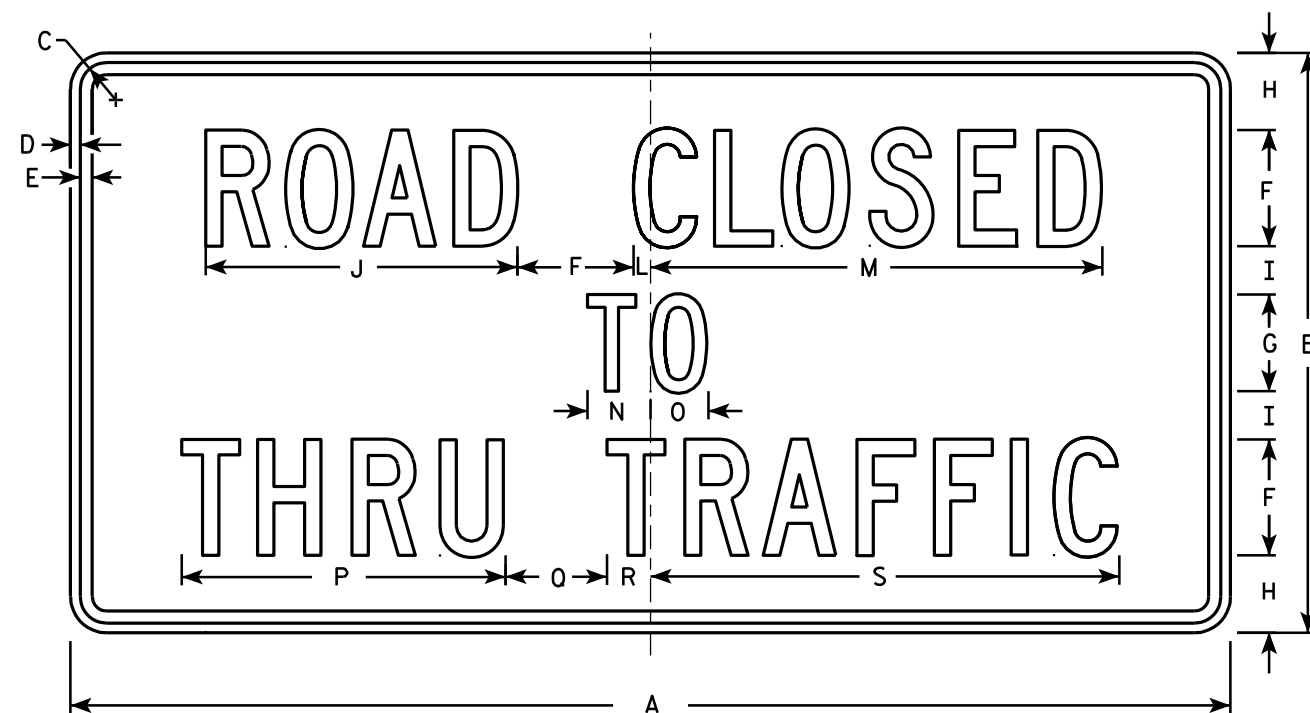
1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

** See Note 5

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 3/8	1/2	5/8	4	3	2 1/2	2	2	13 1/4	2 1/4	3	8	8	1 1/2	2	10 3/4	8 3/8	4 3/4	6 1/2	2	6 3/4				4.5
2S	60	30	1 3/8	1/2	5/8	6	5	4	4 1/4	3 3/8	20 1/8	3	5	12	13 1/4	1 3/4	3	17 3/8	13 1/8	8	10	3 1/2	11				12.5
2M	60	30	1 3/8	1/2	5/8	6	5	4	4 1/4	3 3/8	20 1/8	3	5	12	13 1/4	1 3/4	3	17 3/8	13 1/8	8	10	3 1/2	11				12.5
3																											
4																											
5																											

STANDARD SIGN R11-3B	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 4/1/11	PLATE NO. R11-3B.2

PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
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R11-4

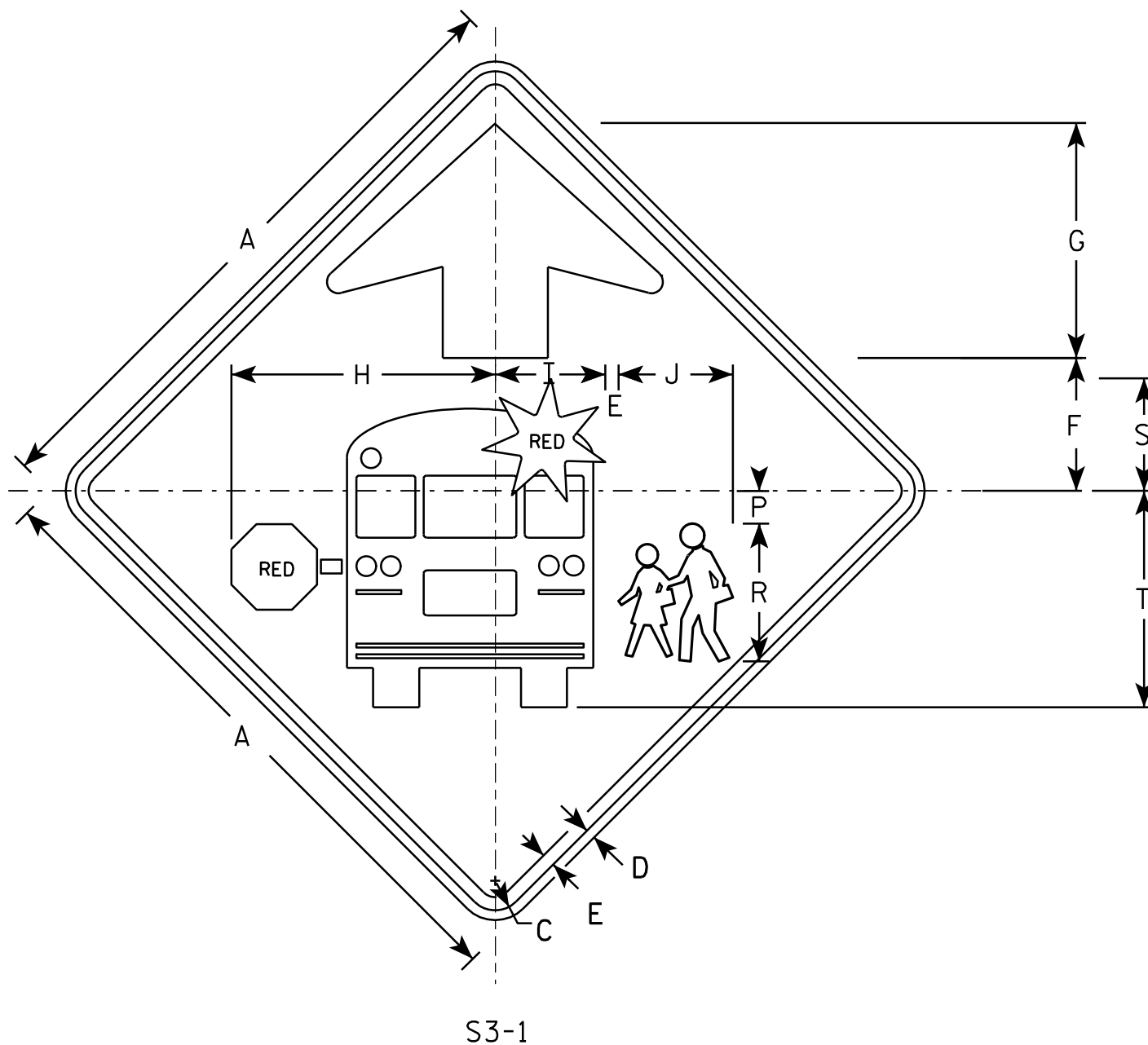
NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	60	30	1 3⁄8	1⁄2	5⁄8	6	5	4	2 1⁄2	16 1⁄8		7⁄8	23 3⁄8	3 1⁄4	3	16 3⁄4	5 1⁄4	2 1⁄4	24 1⁄4								12.5
2M	60	30	1 3⁄8	1⁄2	5⁄8	6	5	4	2 1⁄2	16 1⁄8		7⁄8	23 3⁄8	3 1⁄4	3	16 3⁄4	5 1⁄4	2 1⁄4	24 1⁄4								12.5
3																											
4																											
5																											

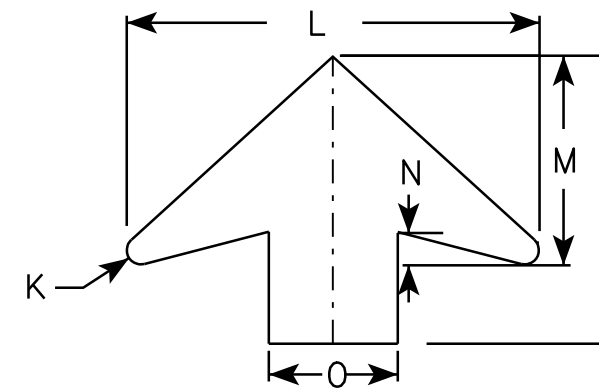
STANDARD SIGN	
R11 - 4	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 4/1/11	PLATE NO. R11-4.3

PROJECT NO:	HWY:	COUNTY:	SHEET NO:		E
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NOTES

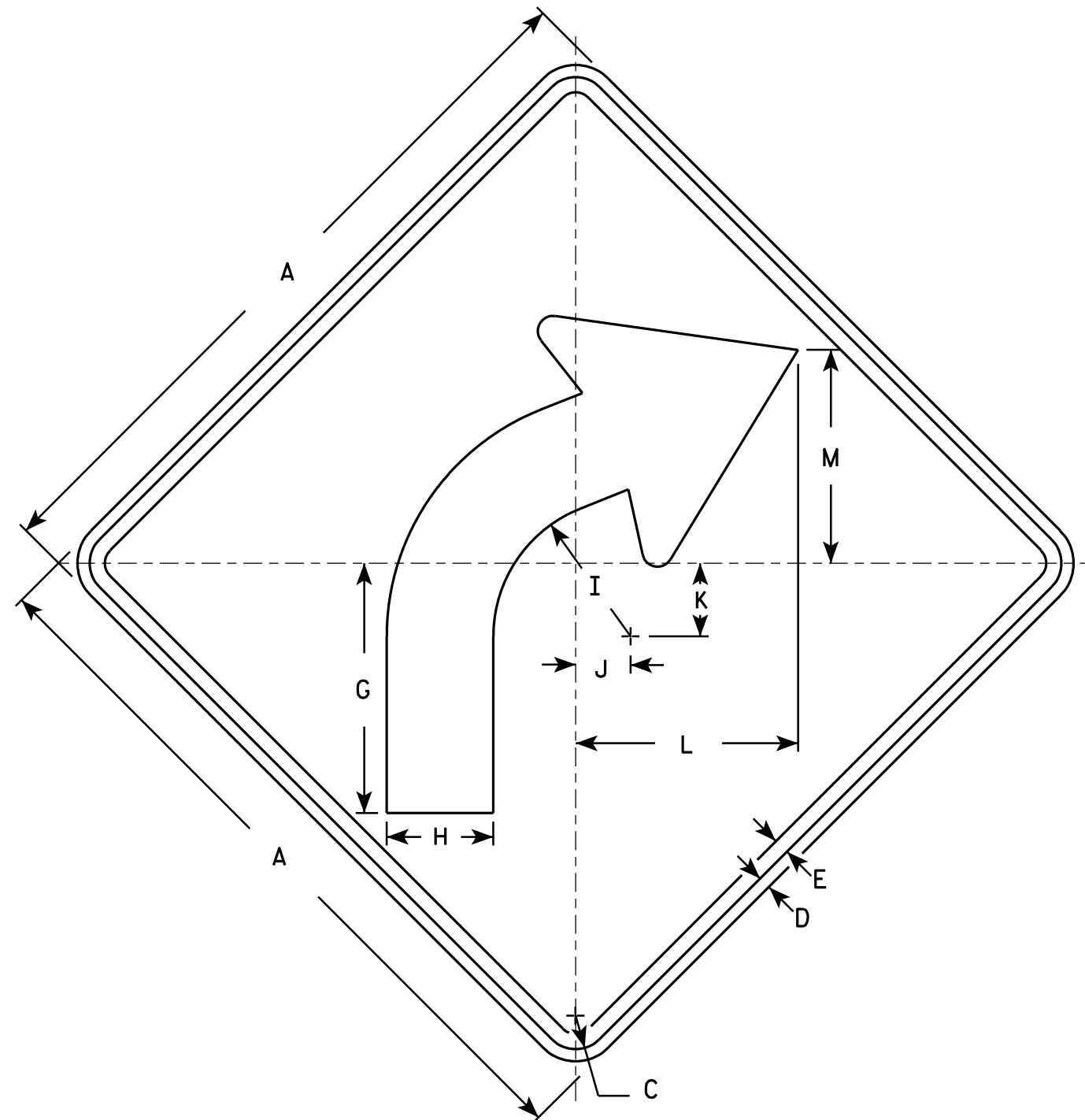
1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
 - Background - YELLOW-GREEN
 - Message - BLACK except as noted
 - Circles except PEDS- RED BACKGROUND
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

[illegible]

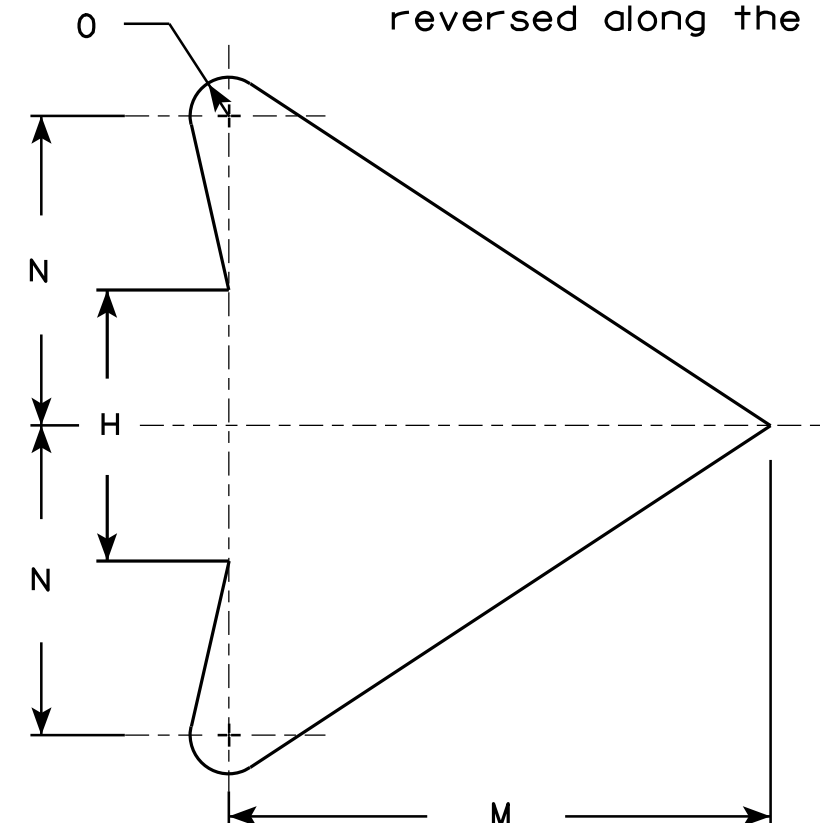
STANDARD SIGN	
S3-1	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<u>Matthew R. Rauch</u> for State Traffic Engineer
DATE <u>6/8/10</u>	PLATE NO. <u>S3-16</u>

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. W1-2L is the same as W1-2R except the arrow is reversed along the vertical centerline.



W1-2R



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		8 1/4	3 1/2	4 1/2	1 3/4	2 3/8	7 1/4	7	4	1/2												4.0
2S	30		1 3/8	1/2	5/8		10 1/4	4 3/8	5 5/8	2 1/4	3	9 1/8	8 3/4	5	5/8												6.25
2M	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
3	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
4	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
5	48		2 1/4	3/4	1		16 1/2	7	9	3 1/2	4 5/8	14 1/2	14	8	1												16.0

STANDARD SIGN

W1-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 5/15/12 PLATE NO. W1-2.10

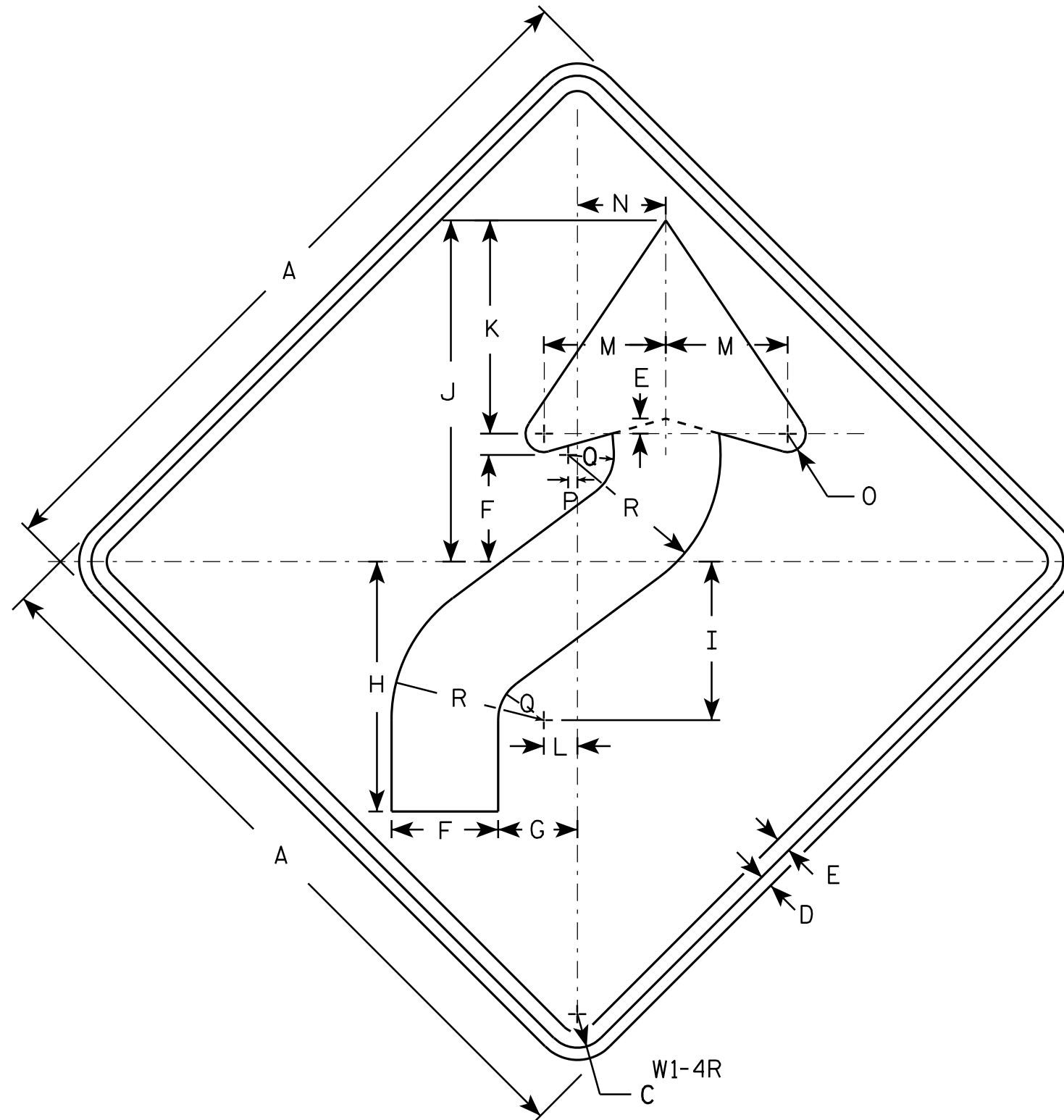
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



NOTES

- Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - Yellow
Message - Black
- 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.
- W1-4L is the same as W1-4R except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	3 1/2	2 5/8	8 1/4	5 1/4	11 1/4	7	1 1/8	4	3	5/8	1/4	1 1/2	5									4.0
2S	30		1 3/8	1/2	5/8	4 3/8	3 1/4	10 1/4	6 1/2	14	8 3/4	1 3/8	5	3 5/8	3/4	3/8	1 7/8	6 1/4									6.25
2M	36		1 5/8	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
3	36		1 5/8	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
4	36		1 5/8	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
5	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0

STANDARD SIGN

W1 - 4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 5/17/12 PLATE NO. W1-4.11

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

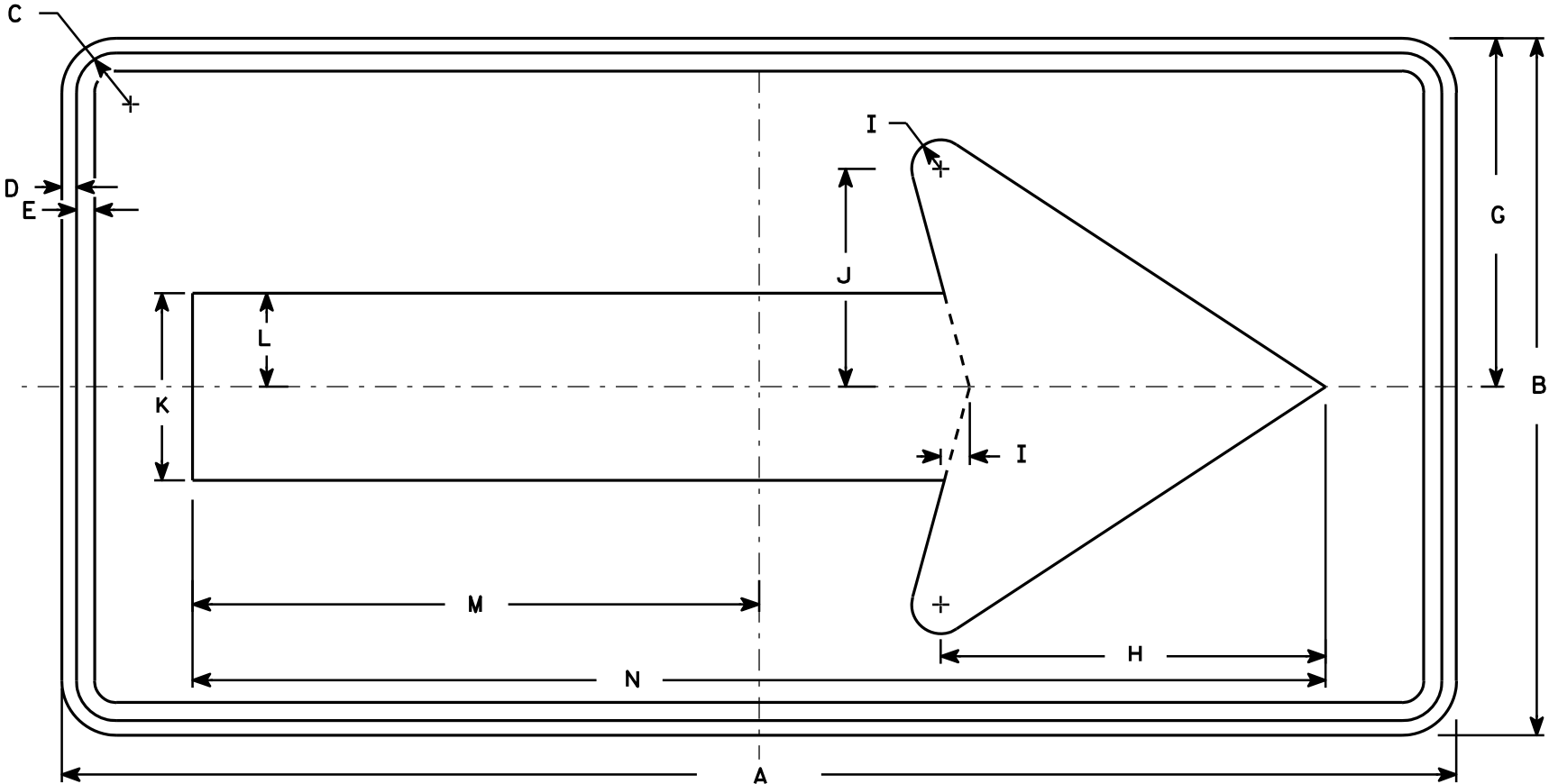
E

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:

Background - 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.



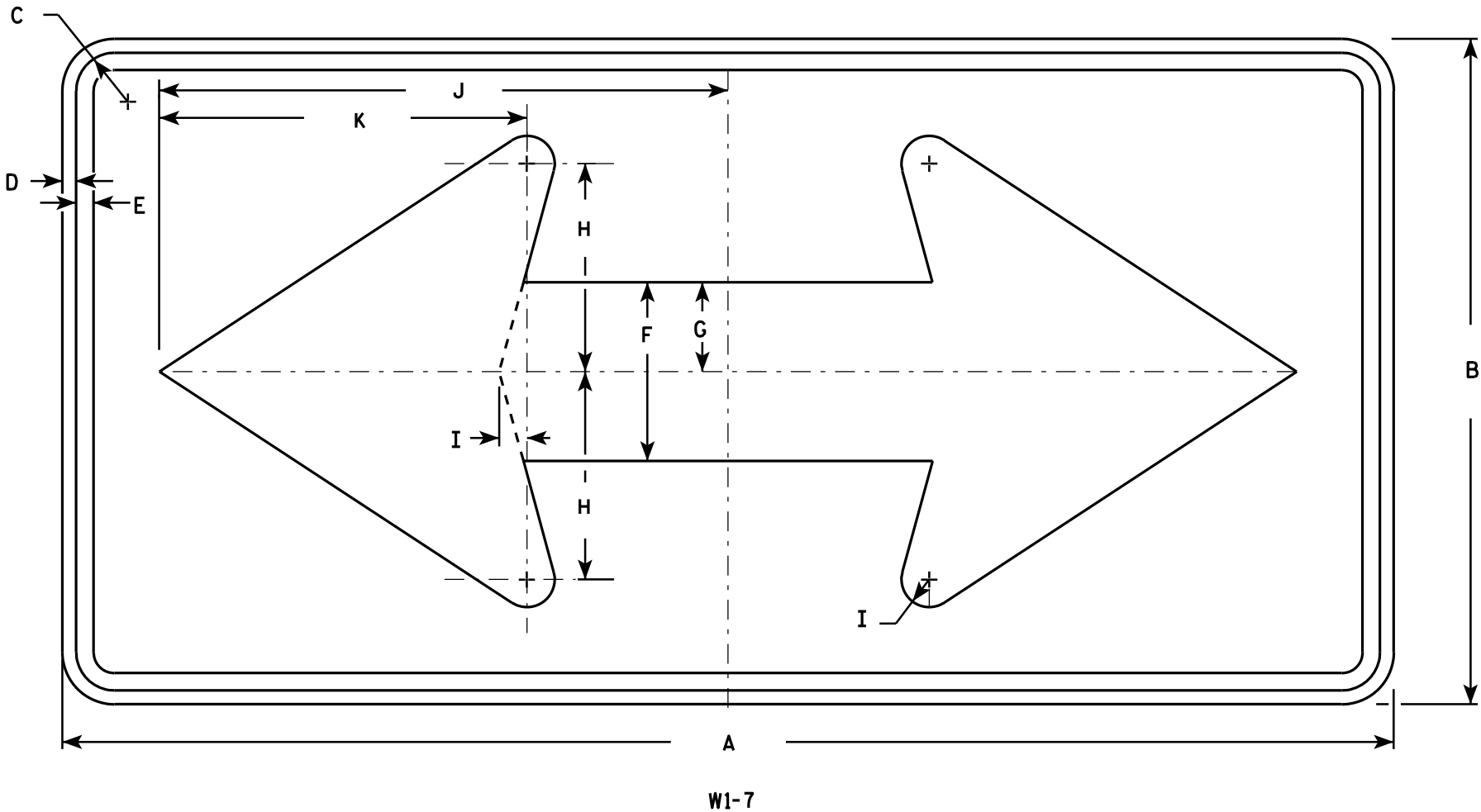
W1-6

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 1/8	3/8	3/8		9	10	3/4	5 5/8	4 3/4	2 3/8	14 5/8	29 1/4													4.5
2S	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
2M	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
3	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
4	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
5	96	48	2 1/4	3/4	1		24	26 1/2	2	15	13	6 1/2	39	78													32.0

STANDARD SIGN
W1-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 6/7/10 PLATE NO. W1-6.8



NOTES

- 1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
Background - Yellow
Message - Black
- 3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

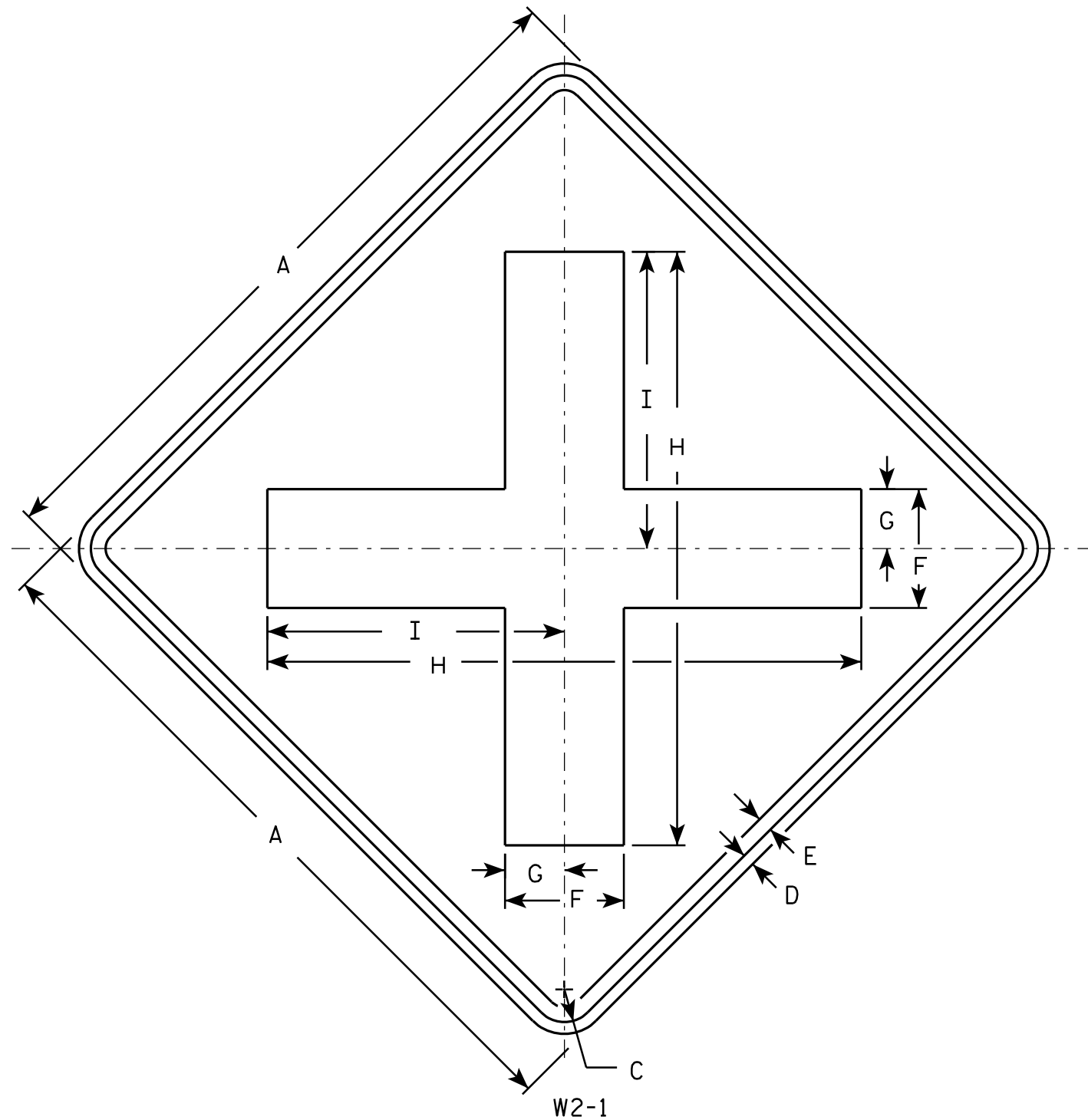
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 1/8	3/8	1/2	5	2 1/2	5 3/4	3/4	15 5/8	10 1/8																4.5
2S	48	24	1 3/8	1/2	5/8	6 1/2	3 1/4	7 1/2	1	20 1/2	13 1/4																8.0
2M	48	24	1 3/8	1/2	5/8	6 1/2	3 1/4	7 1/2	1	20 1/2	13 1/4																8.0
3	60	30	1 3/8	1/2	5/8	8	4	9 1/4	1 1/4	25 3/8	16 1/4																12.5
4	60	30	1 3/8	1/2	5/8	8	4	9 1/4	1 1/4	25 3/8	16 1/4																12.5
5	96	48	2 1/4	3/4	1	13	6 1/2	15	2	41	26 1/2																32.0

STANDARD SIGN
W1 - 7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W1-7.7



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.

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	4	2	20	10																		4.0
2S	30		1 3/8	1/2	5/8	5	2 1/2	25	12 1/2																		6.25
2M	30		1 3/8	1/2	5/8	5	2 1/2	25	12 1/2																		6.25
3	36		1 5/8	5/8	3/4	6	3	30	15																		9.0
4	48		2 1/4	3/4	1	8	4	40	20																		16.0
5																											

STANDARD SIGN W2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W2-1.9

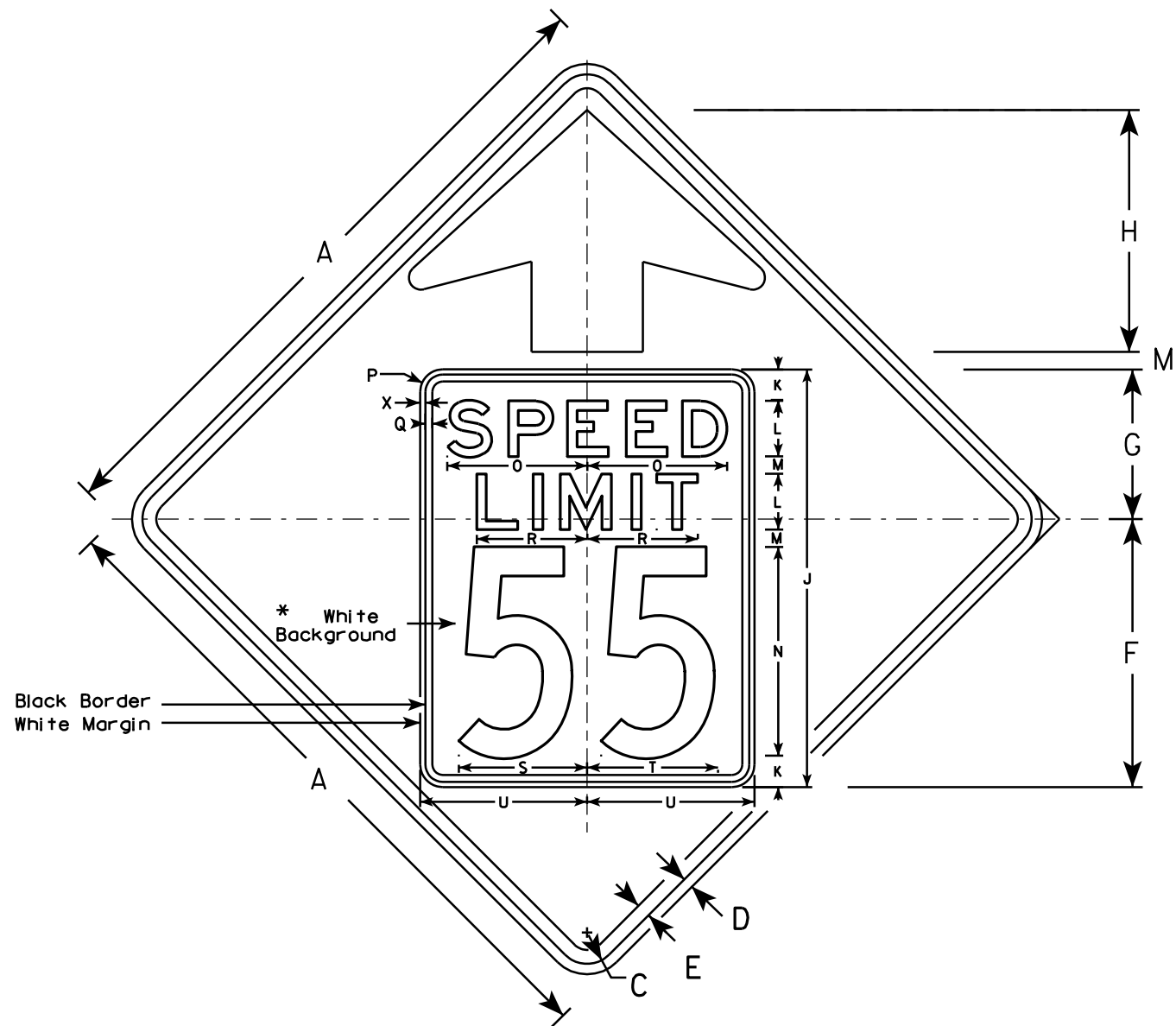
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

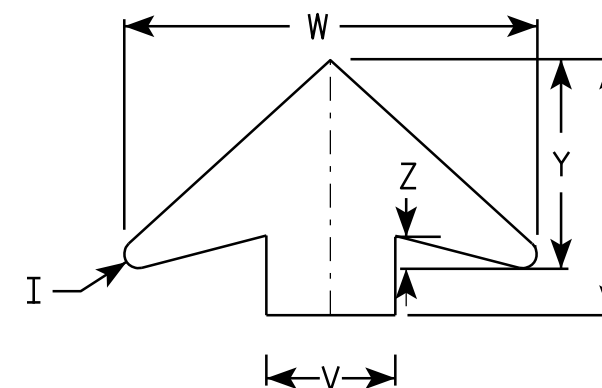


W3-5

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color: *
Background - YELLOW*
Message - BLACK
3. Message Series - C for numbers Series E for wording
4. Substitute appropriate numerals and optically adjust spacing to achieve proper balance

*Speed Limit Sign shall have a White Background



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	36		1 5⁄8	5⁄8	3⁄4	14 1⁄2	9 1⁄2	11 1⁄2	5⁄8	24	2	3	1	12	7 1⁄8	1 1⁄2	3⁄8	5 3⁄4	7 1⁄4	7 1⁄8	9	6	19 1⁄4	3⁄8	9 3⁄4	1 5⁄8	9.0
2M	36		1 5⁄8	5⁄8	3⁄4	14 1⁄2	9 1⁄2	11 1⁄2	5⁄8	24	2	3	1	12	7 1⁄8	1 1⁄2	3⁄8	5 3⁄4	7 1⁄4	7 1⁄8	9	6	19 1⁄4	3⁄8	9 3⁄4	1 5⁄8	9.0
3	36		1 5⁄8	5⁄8	3⁄4	14 1⁄2	9 1⁄2	11 1⁄2	5⁄8	24	2	3	1	12	7 1⁄8	1 1⁄2	3⁄8	5 3⁄4	7 1⁄4	7 1⁄8	9	6	19 1⁄4	3⁄8	9 3⁄4	1 5⁄8	9.0
4	48		2 1⁄4	3⁄4	1	19 1⁄4	10 3⁄4	17 3⁄8	7⁄8	30	2 1⁄4	4	1 1⁄4	15	10	1 5⁄8	1⁄2	8	9 1⁄4	9 3⁄8	12	8	25 5⁄8	3⁄8	13	2	16.0
5	48		2 1⁄4	3⁄4	1	19 1⁄4	10 3⁄4	17 3⁄8	7⁄8	30	2 1⁄4	4	1 1⁄4	15	10	1 5⁄8	1⁄2	8	9 1⁄4	9 3⁄8	12	8	25 5⁄8	3⁄8	13	2	16.0

STANDARD SIGN

W3-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch
for State Traffic Engineer

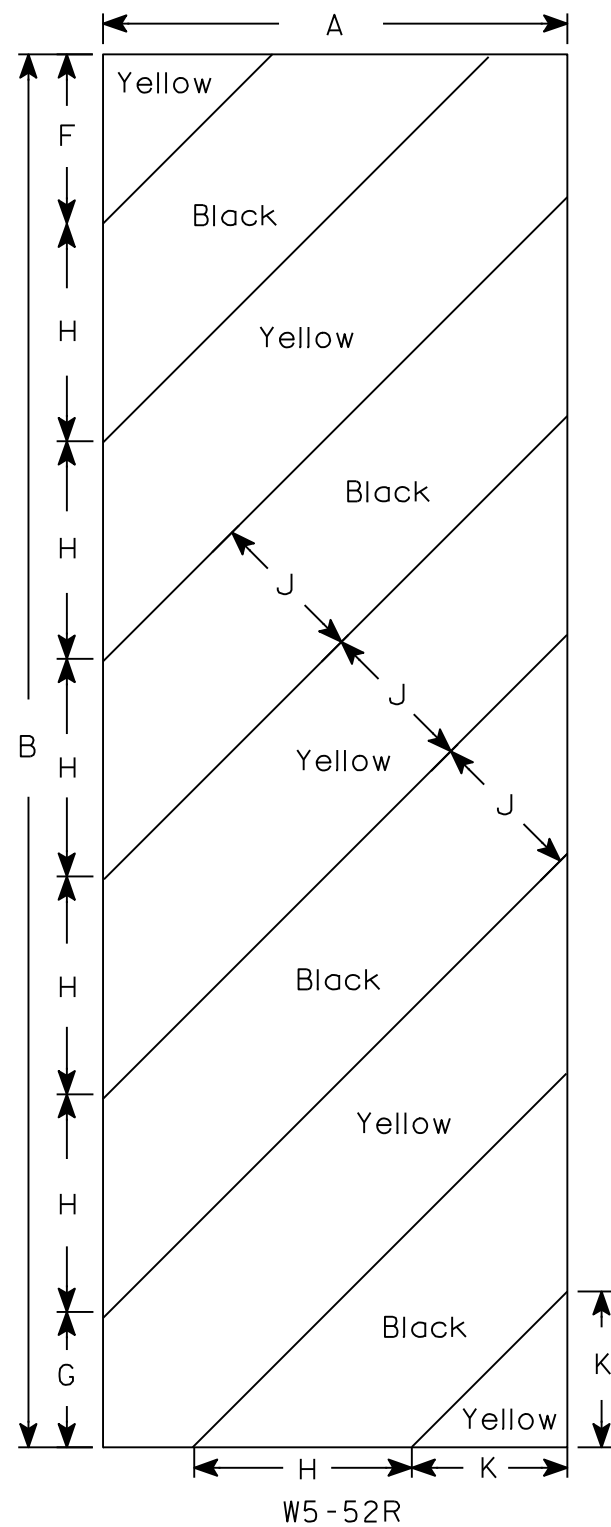
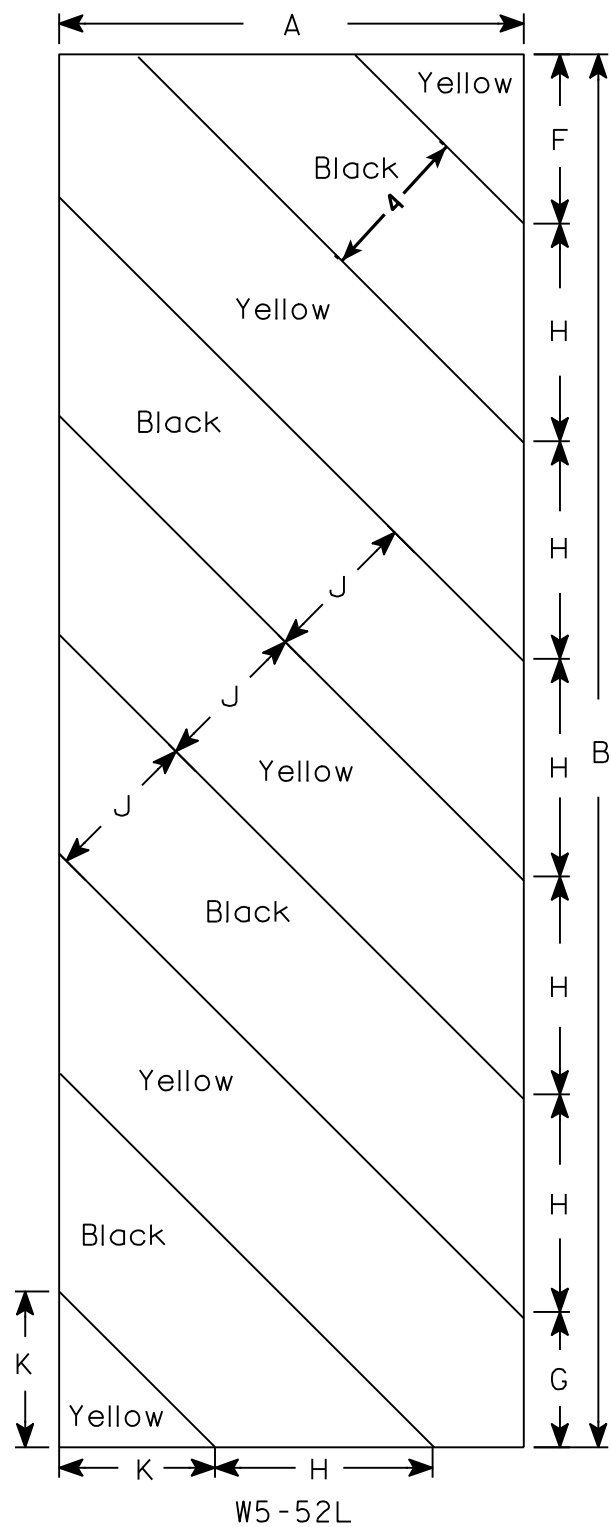
DATE 5/29/12

PLATE NO. W3-5.5

PROJECT NO:

SHEET NO:

E



NOTES

- 1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
Background - Yellow
Message - Black
- 3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 4. Alternate colors of stripes as shown.

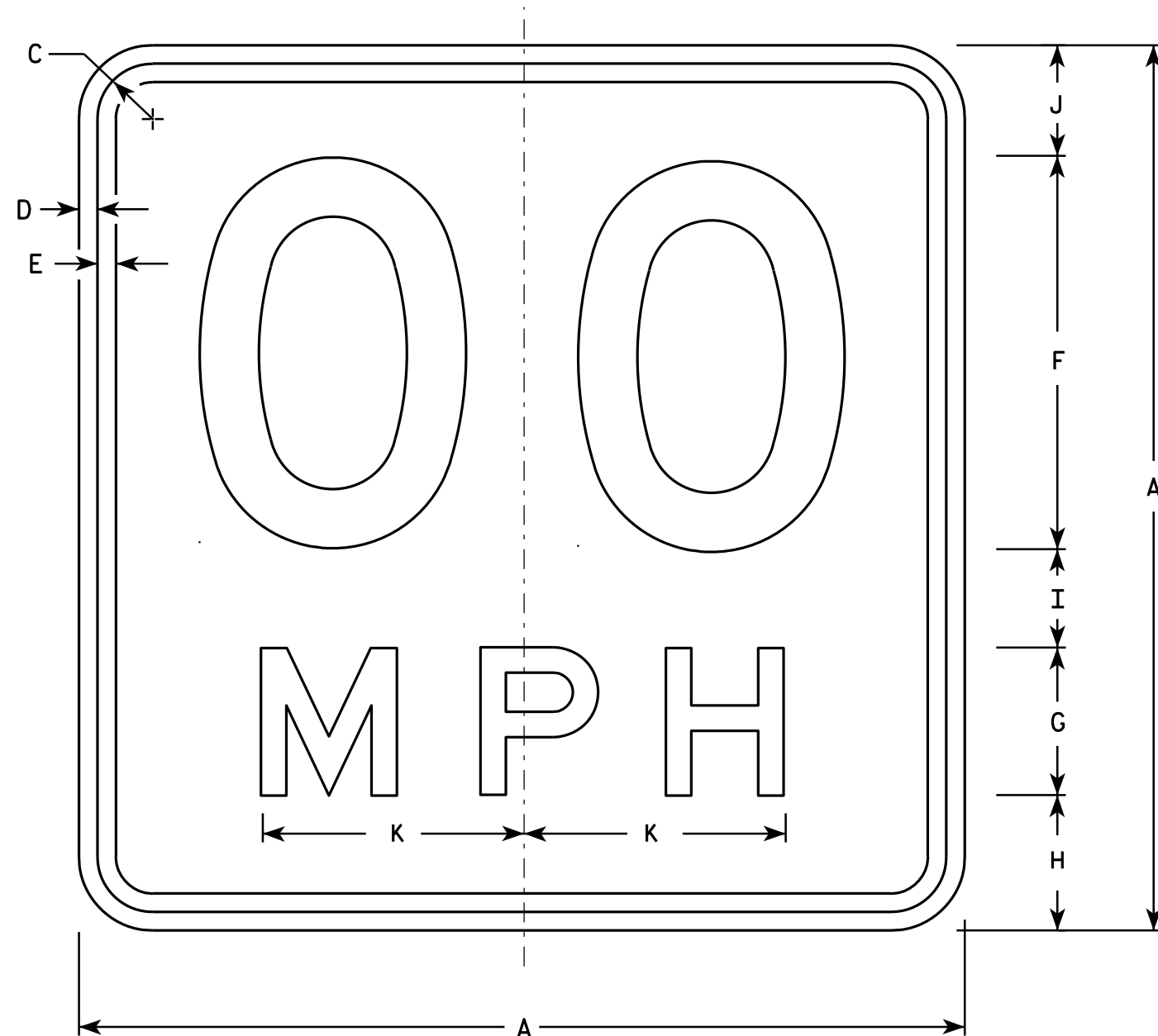
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	12	36				4 3⁄8	3 1⁄2	5 5⁄8	45°	4	4																3.0
2M	12	36				4 3⁄8	3 1⁄2	5 5⁄8	45°	4	4																3.0
3	18	54				6	5 1⁄2	8 1⁄2	45°	6	6 9⁄16																6.75
4																											
5																											

STANDARD SIGN
W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W5-52.9



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Yellow
Message - Black
3. Message Series - See Note 6
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically space about centerline to achieve proper balance.
6. Line 1 is Series D
Line 2 is Series E

W13-1

- * For 30" x 30" Warning Signs, use 18" x 18" W13-1 signs.
For 36" x 36" Warning Signs, use 24" x 24" W13-1 signs.

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	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
* 2S	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
* 2M	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
3	24		1 1/8	3/8	1/2	10	4	4	2 3/4	3 1/4	6 5/8																4.00
4	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
5	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00

STANDARD SIGN

W13-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 5/31/12 PLATE NO. W13-1.16

PROJECT NO:

HWY:

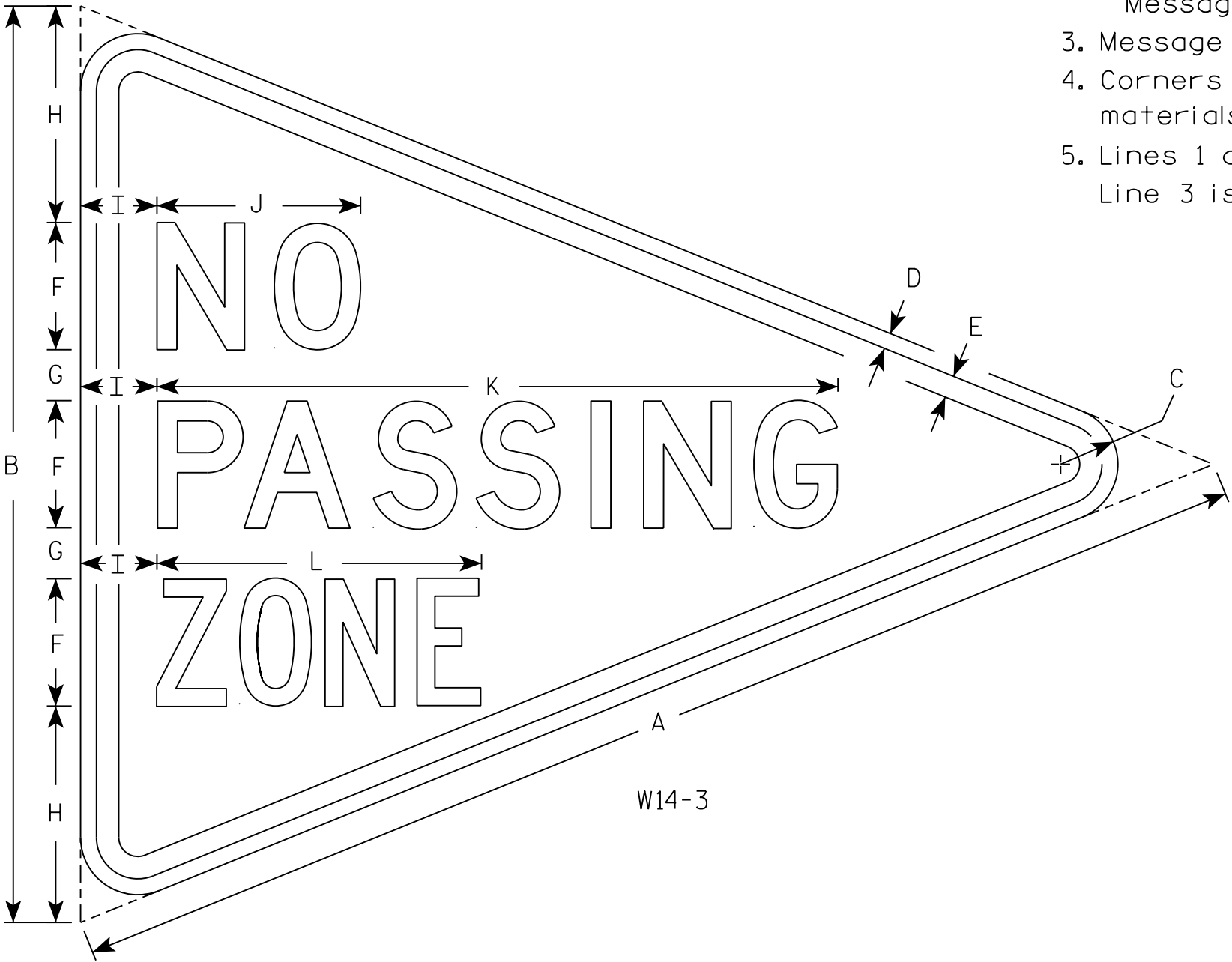
COUNTY:

SHEET NO:

E

NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:
Background - Yellow
Message - Black
- 3. Message Series - See note 5
- 4. Corners and borders shall be rounded on all base materials for this sign.
- 5. Lines 1 and 2 are Series D.
Line 3 is series C.



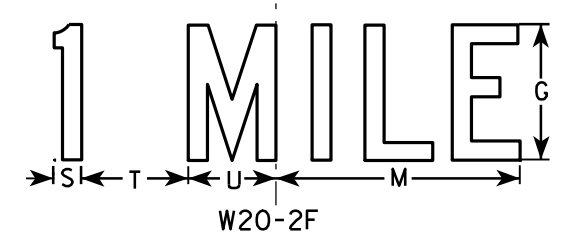
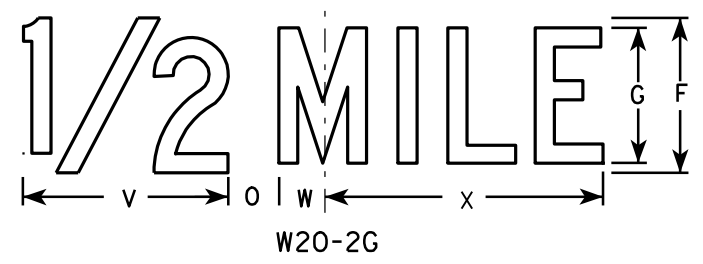
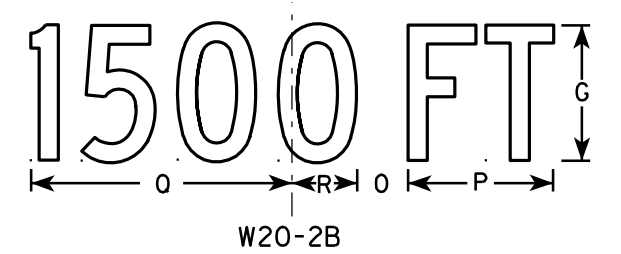
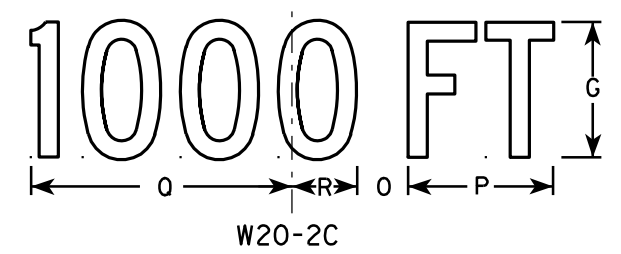
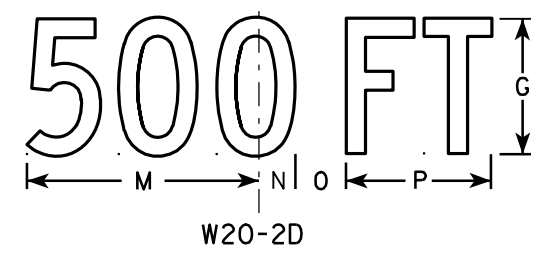
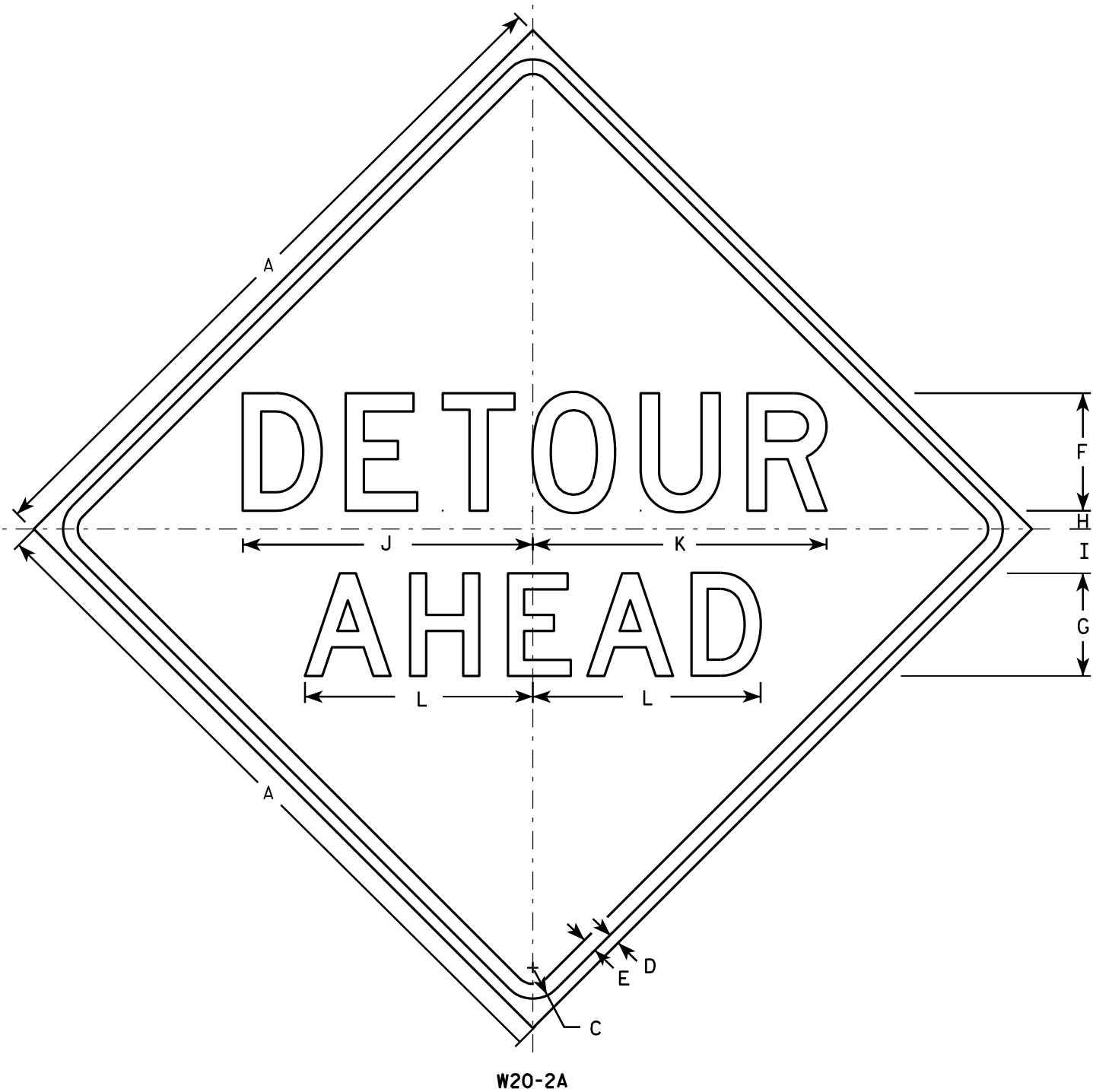
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	36	2 1/4	5/8	7/8	5	2	8 1/2	3	8	26 3/4	12 3/4															5.56
2M																											
3																											
4																											
5																											

STANDARD SIGN
W14-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/23/17 PLATE NO. W14-3.10



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 1 is Series D.
Line 2 is Series D for AHEAD and Series C for all other distances.

7

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	6	5	1	2 1/4	14 3/4	15	11 5/8	9	1 3/8	1 7/8	5 5/8	10 1/8	2 1/2	1 1/8	4 1/2	3 1/2	8	1 3/4	10 3/4			9.0
2S	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
2M	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
3	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
4	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
5	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0

STANDARD SIGN
W20-2A,B,C,D,F & G

WISCONSIN DEPT OF TRANSPORTATION
APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 3/18/11 PLATE NO. W20-2.6

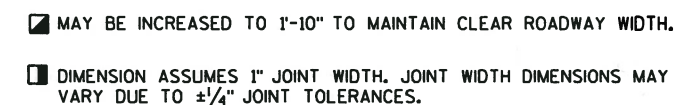
PROJECT NO:


HWY:

COUNTY:

SHEET NO:

E

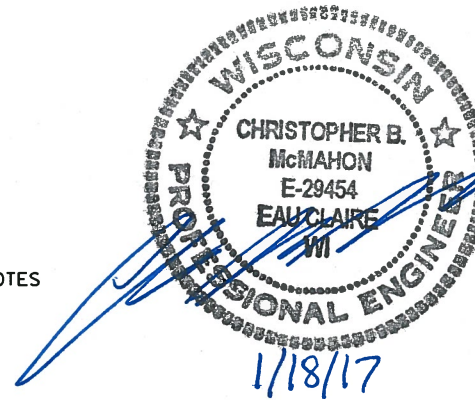


 COST OF EXCAVATION AND FILL IN THE HATCHED AREAS SHALL BE INCLUDED IN THE CONTRACT LUMP SUM PRICE FOR "EXCAVATION FOR STRUCTURES BRIDGES B-15-26".

1. GENERAL PLAN
2. DESIGN DATA, QUANTITIES, AND NOTES
3. SUBSURFACE EXPLORATION
4. SOUTH ABUTMENT
5. SOUTH ABUTMENT WING DETAILS
6. NORTH ABUTMENT
7. NORTH ABUTMENT WING DETAILS
8. ABUTMENT DETAILS AND BILL OF BARS
9. 17-INCH PRESTRESSED BOX GIRDER DETAILS
10. 17-INCH PRESTRESSED BOX GIRDER DETAILS
11. SUPERSTRUCTURE
12. SUPERSTRUCTURE DETAILS
13. TUBULAR STEEL RAILING TYPE NY3
14. END POST DETAILS FOR TUBULAR STEEL RAILING TYPE NY3

BRIDGE OFFICE CONTACT:
WILLIAM DREHER
(608)-266-8489

CONSULTANT CONTACT:
CHRIS MCMAHON
(715)-834-3161



NO.	DATE	REVISION	BY
ORIGINAL PLANS PREPARED BY			
AYRES ASSOCIATES		3433 Oakwood Hills Parkway Eau Claire, WI 54701 www.AyresAssociates.com	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED	<i>William C. Dreher</i> ^{SDR}		02/07/17
CHIEF STRUCTURES		DESIGN ENGINEER	DATE
STRUCTURE B-15-26			
STH 57 OVER BAILEYS HARBOR MARSH			
COUNTY	DOOR	TOWN/CITY/VILLAGE	
		BAILEYS HARBOR	
DESIGN SPEC. AASHTO LRFD DESIGN SPEC. 5th EDITION			
DESIGNED BY	AEB	DESIGN CK'D.	CKJ
DRAWN BY	JWZ	PLANS CK'D.	CBM
GENERAL PLAN			SHEET 1 OF 14

\$PRFNAME\$
U:\41-0626.dgn - Door Co. STH 57 Bridge#BRIDGE 2016#410626 GP.dgn

8

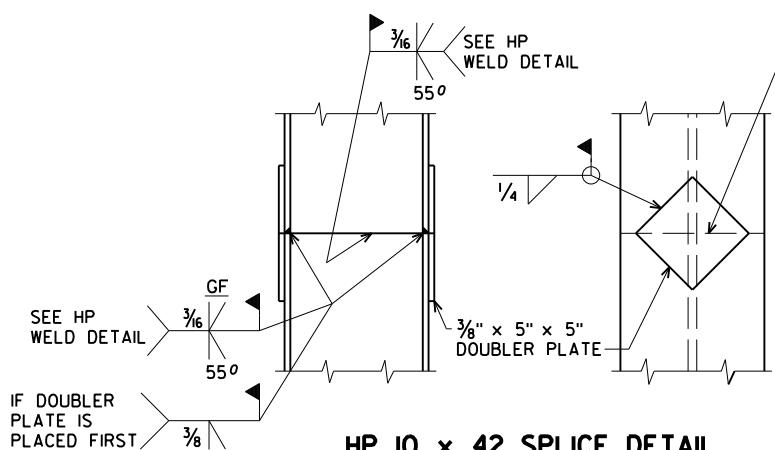
TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	S. ABUT.	N. ABUT.	SUPER.	TOTAL
203.0600.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS STATION 1562+36	LS	-----	-----	-----	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-15-26	LS	-----	-----	-----	1
206.5000	COFFERDAMS B-15-26	LS	-----	-----	-----	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	165	165	-----	330
502.0100	CONCRETE MASONRY BRIDGES	CY	35	35	52	122
502.3200	PROTECTIVE SURFACE TREATMENT	SY	-----	-----	193	193
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	2,950	2,950	-----	5,900
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	700	700	9,100	10,500
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	9	9	-----	18
513.7083	RAILING STEEL TYPE NY3 B-15-26	LF	-----	-----	89	89
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	10	10	-----	20
550.0020	PRE-BORING ROCK OR CONSOLIDATED MATERIALS	LF	105	105	-----	210
550.1100	PILING STEEL HP 10-INCH x 42 LB	LF	119	119	-----	238
606.0300	RIPRAP HEAVY	CY	45	45	-----	90
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	80	80	-----	160
645.0120	GEOTEXTILE TYPE HR	SY	95	95	-----	190
SPV.0090.01	16 GAUGE GALVANIZED METAL FLASHING	LF	-----	-----	71	71
SPV.0090.02	PRESTRESSED GIRDERS BOX TYPE 17-INCH	LF	-----	-----	347	347
	NON-BID ITEMS					
	FILLER	SIZE	-----	-----	-----	1/2" & 3/4"

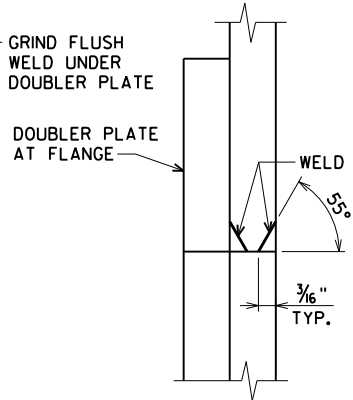
⊗ 4'-0" WIDE BOX SECTIONS

△ RAILING STEEL TYPE NY3 WILL BE PAINTED BLACK (FEDERAL COLOR NO. 27038)

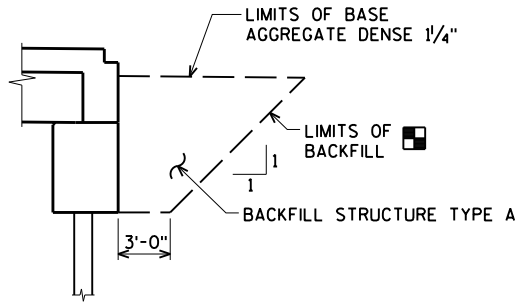
⊞ PREBORE TO PLAN DEPTH OR 3'-0" MIN. INTO LIMESTONE.



HP 10 x 42 SPLICE DETAIL

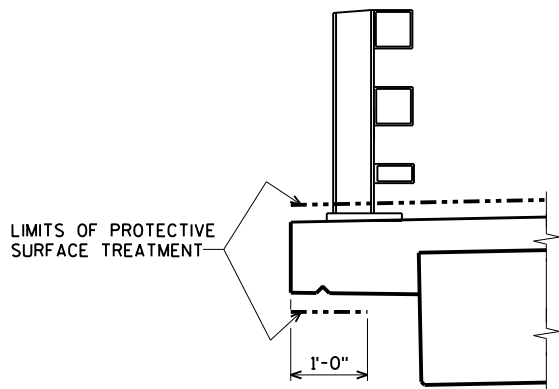


HP WELD DETAIL
FLANGE SHOWN, WEB SIMILAR

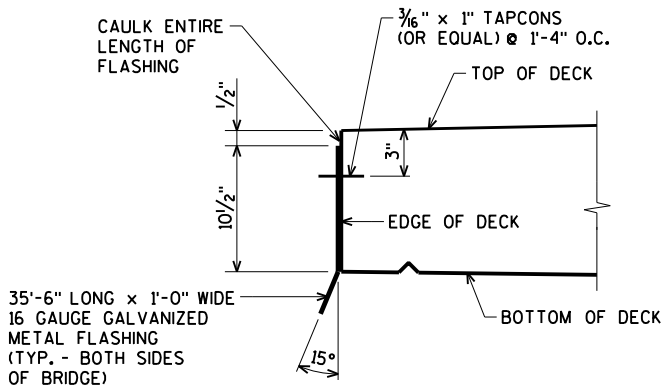


BACKFILL STRUCTURE LIMITS
AT ABUTMENTS

⊞ BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.



PROTECTIVE SURFACE TREATMENT DETAIL
AT FLASHING LOCATIONS
(PRIOR TO INSTALLATION OF THE FLASHING)



FLASHING DETAIL

THE BID ITEM "16 GAUGE GALVANIZED METAL FLASHING" SHALL INCLUDE THE METAL FLASHING, CAULK, TAPCONS (OR EQUAL), CLEANING THE EDGE OF DECK PRIOR TO ATTACHMENT OF THE FLASHING, AS WELL AS THE ATTACHMENT OF THE FLASHING TO THE SIDE OF DECK. THE BID ITEM ALSO INCLUDES FURNISHING ALL LABOR, TOOLS, EQUIPMENT, MATERIALS, AND ANY OTHER INCIDENTALS NECESSARY TO COMPLETE THE WORK.

STATE PROJECT NUMBER

4150-17-71

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: 1.31
OPERATING RATING FACTOR: 2.07
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 250 KIPS

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 #/S.F.

MATERIAL PROPERTIES:

CONCRETE MASONRY { SUPERSTRUCTURE _____ $f'_c =$ 4,000 p.s.i.
ALL OTHER _____ $f'_c =$ 3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT (GRADE 60) _____ $f_y =$ 60,000 p.s.i.
17" PRESTRESSED BOX GIRDERS
CONCRETE MASONRY _____ $f'_c =$ 5,000 p.s.i.
STRANDS - 0.5" DIA. WITH ULTIMATE TENSILE STRENGTH = 270,000 p.s.i.

HYDRAULIC DATA:

100 YEAR FREQUENCY
 $Q_{100} = 340$ c.f.s.
VEL. = 3.2 f.p.s.
HW₁₀₀ = EL. 602.6
WATERWAY AREA = 107 sq. ft.
DRAINAGE AREA = 3.91 sq. mi.
ROADWAY OVERTOPPING = N/A
SCOUR CRITICAL CODE = 8
DATUM = NAVD88 (2012)

2 YEAR FREQUENCY
 $Q_2 = 84$ c.f.s.
VEL. = 0.7 f.p.s.
HW₂ = EL. 601.4

FOUNDATION DATA:

ABUTMENTS TO BE SUPPORTED ON HP 10 x 42 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 145 TONS *PER PILE. ESTIMATED LENGTH 17'-0" AT NORTH AND SOUTH ABUTMENTS. (PREBORE PILING 15'-0".) ⊞

*THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.5 USING MODIFIED GATES TO DETERMINE DRIVEN PILE CAPACITY.

TRAFFIC DATA:

A.D.T. = 2,800 (2015)
A.D.T. = 3,300 (2035)
R.D.S. = 60 M.P.H.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.
BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS SHOWN OR NOTED OTHERWISE.
THE FIRST DIGIT OF A THREE DIGIT BAR NO. AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR NO. SIGNIFIES THE BAR SIZE.
JOINT FILLER SHALL CONFORM TO THE REQUIREMENTS OF A.A.S.H.T.O. DESIGNATION M 153, TYPE I, II OR III OR A.A.S.H.T.O. DESIGNATION M 213.
THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH RIPRAP HEAVY AND GEOTEXTILE TYPE HR TO THE EXTENT SHOWN ON THE GENERAL PLAN SHEET AND IN THE ABUTMENT DETAILS.
THE EXISTING GROUND LINE SHALL BE THE UPPER LIMIT FOR EXCAVATION FOR STRUCTURE.
THE EXISTING STRUCTURE, C-15-37, TO BE REMOVED, IS A SINGLE SPAN CONCRETE FLAT SLAB BRIDGE THAT HAS BEEN WIDENED ON EACH SIDE WITH PRESTRESSED CONCRETE BOX BEAMS, 16.0 FT. LONG WITH A 31.8 FT. CLEAR ROADWAY WIDTH.
AT THE BACKFACE OF ABUTMENTS, ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH BACKFILL STRUCTURE TYPE A.
THE EXISTING ROW OF PILING UNDER THE BRIDGE WILL NEED TO BE REMOVED, THIS WORK WILL BE INCIDENTAL TO "REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS STATION 1562+36".
BEVEL EXPOSED EDGES OF CONCRETE 3/4" UNLESS NOTED OTHERWISE.
VARIATIONS TO THE GRADE LINE OVER 1/4" MUST BE SUBMITTED BY THE FIELD ENGINEER TO THE STRUCTURES DESIGN SECTION FOR REVIEW.
AN AVERAGE DECK THICKNESS OF 8 3/8" WAS USED IN THE QUANTITY "CONCRETE MASONRY BRIDGES".
PROTECTIVE SURFACE TREATMENT IS TO BE APPLIED AS SHOWN IN THE DETAILS ON THIS SHEET.
COAT EDGE AND UNDERSIDE OF DECK (SEE PROTECTIVE SURFACE TREATMENT DETAIL) PRIOR TO INSTALLATION OF THE FLASHING AS DIRECTED BY THE ENGINEER.
ELASTOMERIC BEARING PADS NEED NOT BE INDIVIDUALLY MOLDED PROVIDED THE CUT EDGES ARE SMOOTH AND TRUE.

8

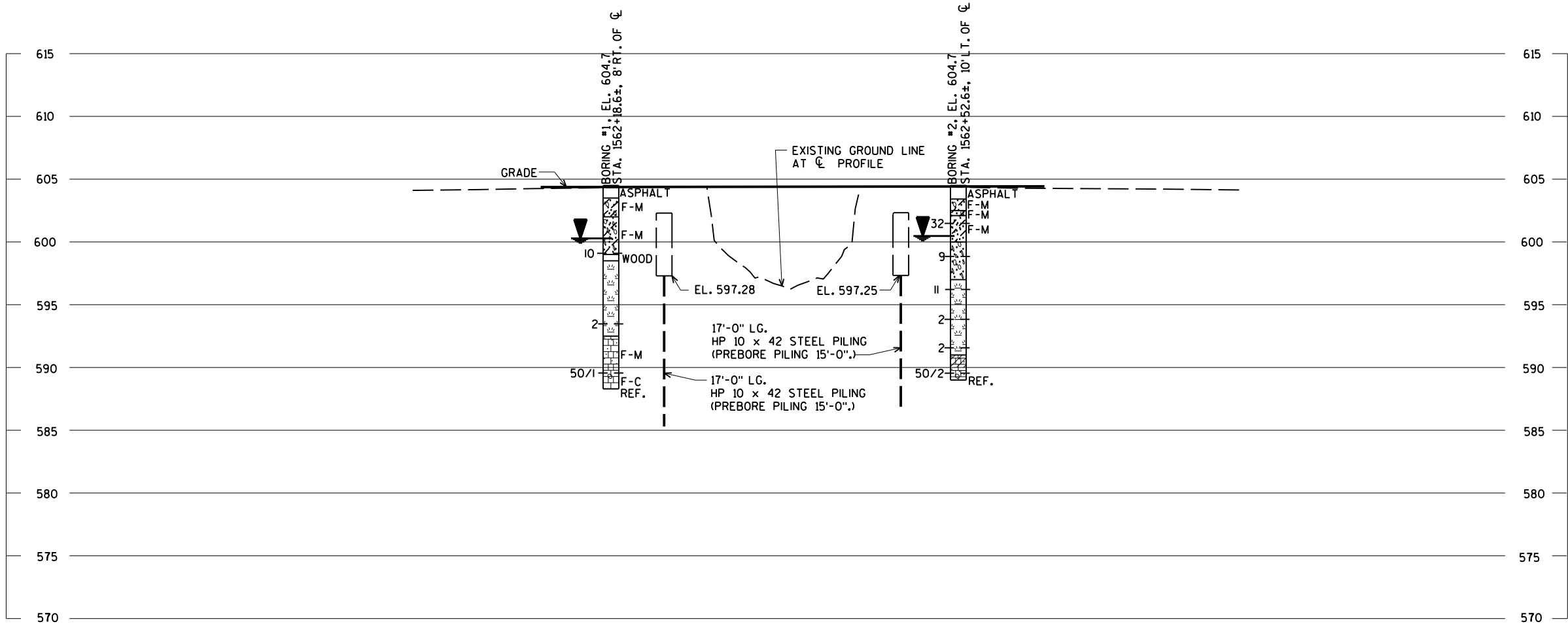
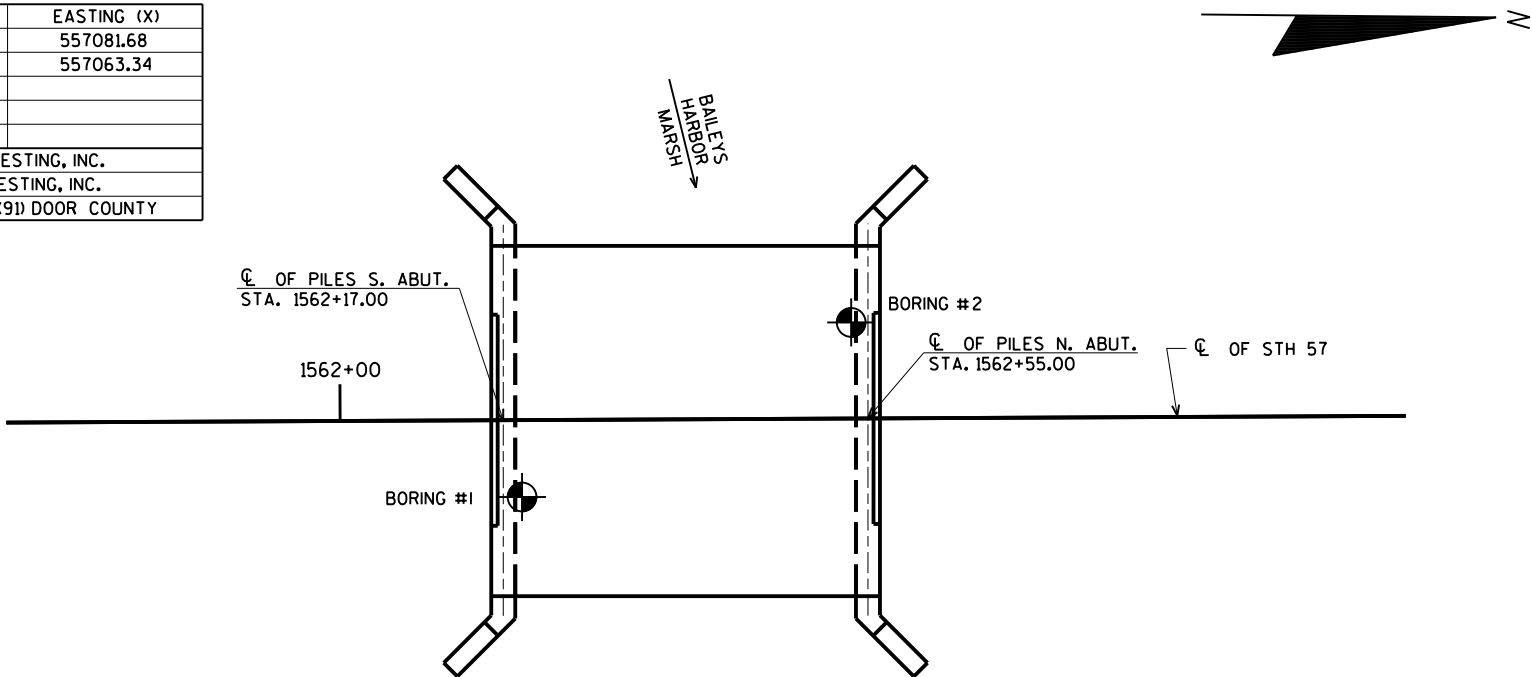
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-15-26			
	DRAWN BY	JWZ	PLANS CK'D. CBM
DESIGN DATA, QUANTITIES, AND NOTES			SHEET 2 OF 14

ORIGINAL PLANS PREPARED BY
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3433 Oakwood Hills Parkway
Eau Claire, WI 54701
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8

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	04/05/2012	259094.64	557081.68
2	04/05/2012	259134.02	557063.34
BORINGS COMPLETED BY: AMERICAN ENGINEERING TESTING, INC.			
REPORT COMPLETED BY: AMERICAN ENGINEERING TESTING, INC.			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) DOOR COUNTY			



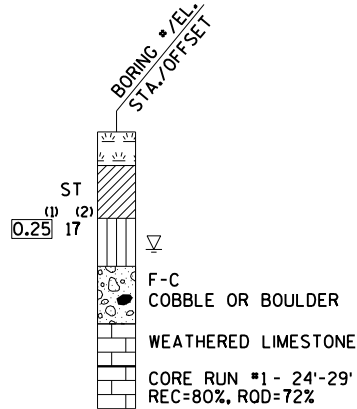
STATE PROJECT NUMBER

4150-17-71

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

- ▽ AT TIME OF DRILLING
- ▽ END OF DRILLING
- ▽ AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE ST-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

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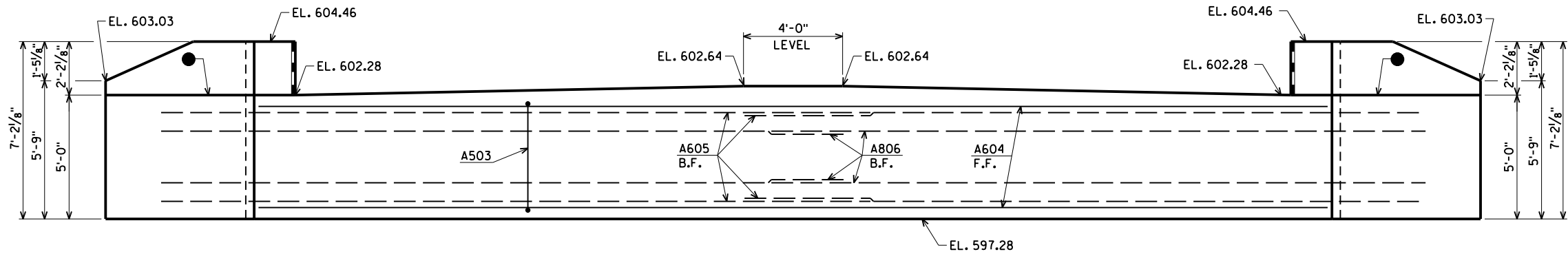
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-15-26			
DRAWN BY		JWZ	PLANS CK'D. CBM
SUBSURFACE EXPLORATION		SHEET 3 OF 14	

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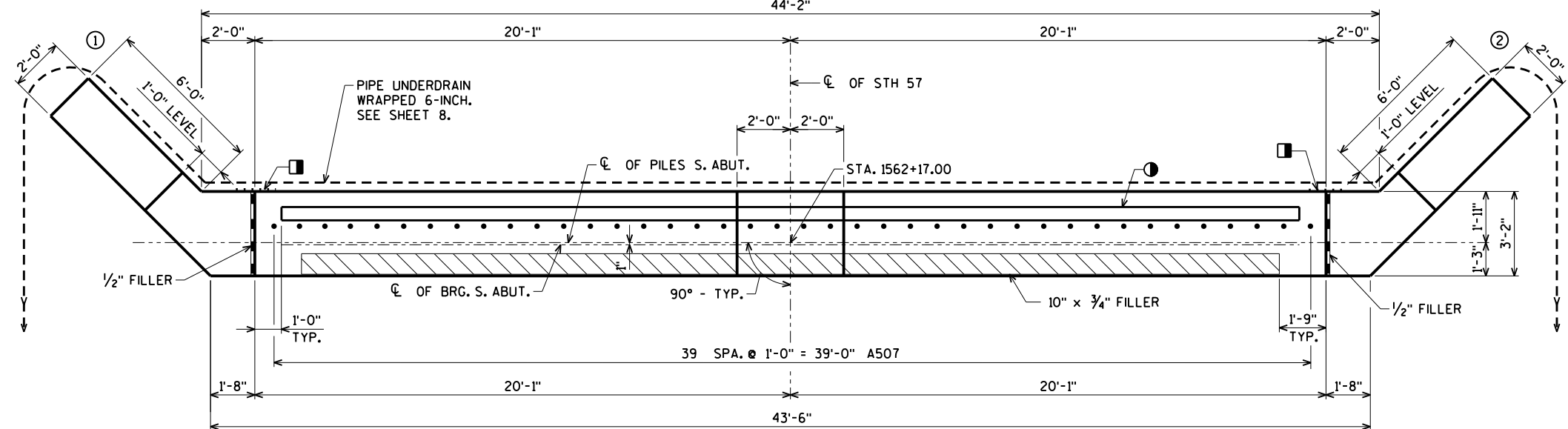
STATE PROJECT NUMBER

4150-17-71

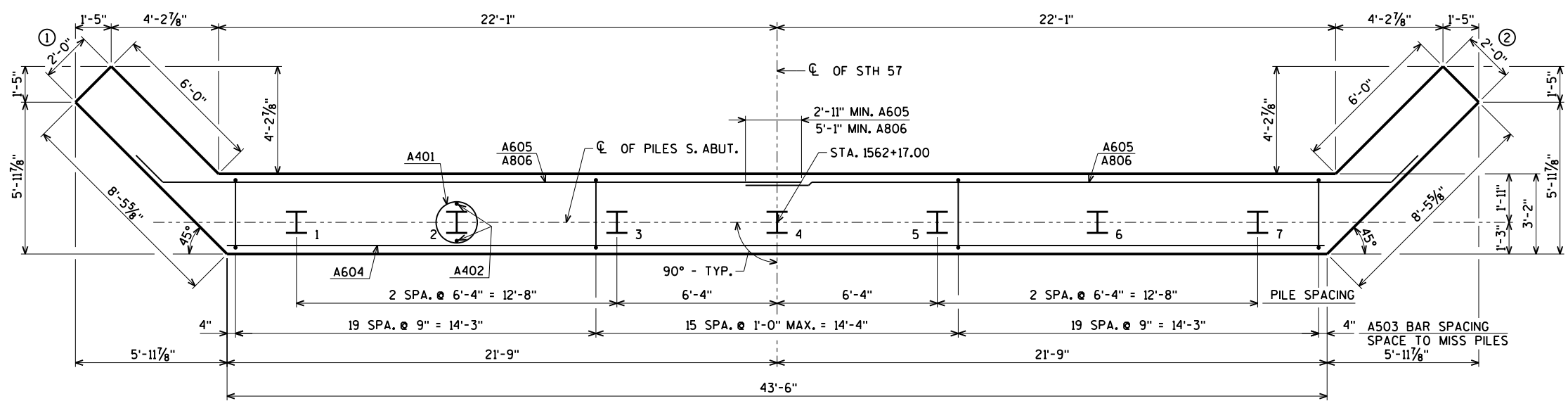
NOTE: SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF 1/2" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER, (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE.)



ELEVATION
(LOOKING SOUTH)



PLAN



PILE LAYOUT

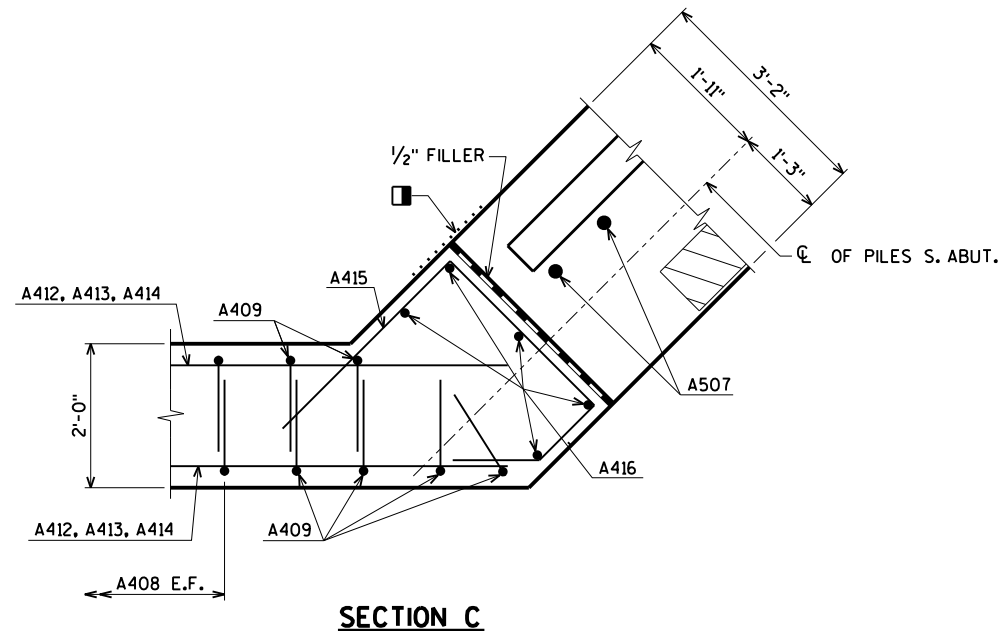
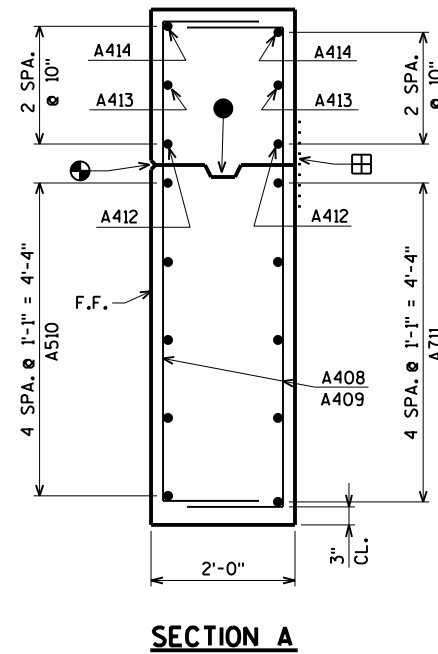
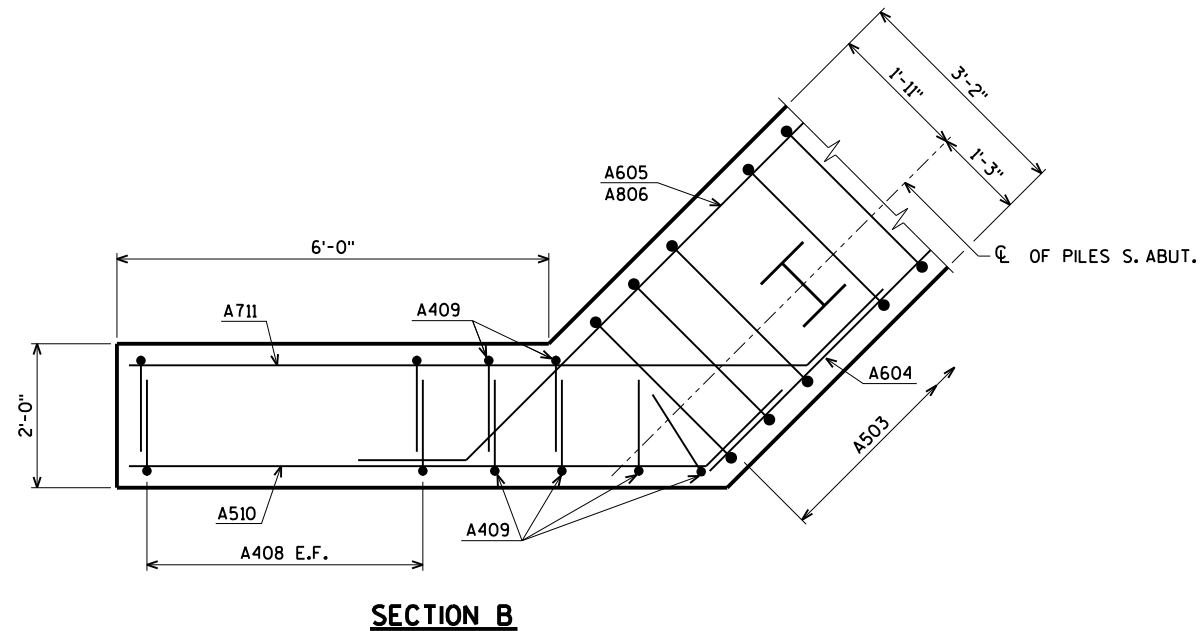
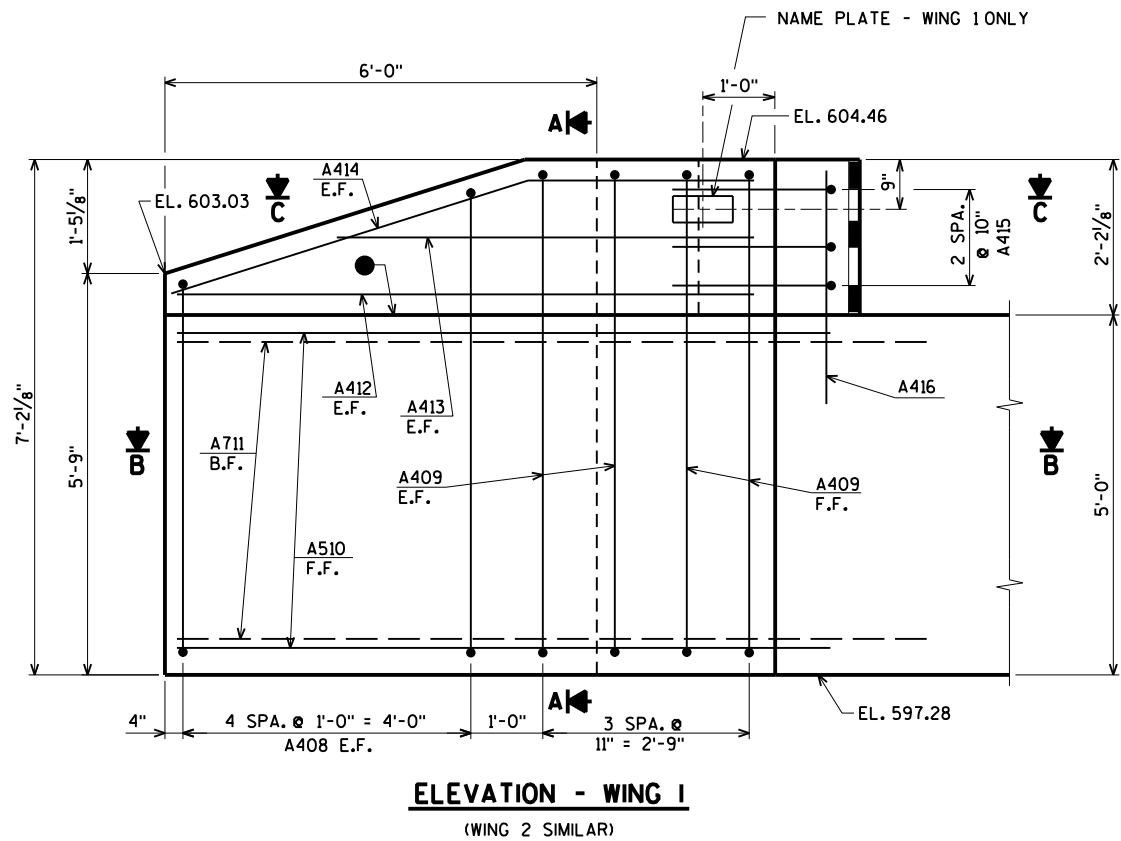
- OPT. KEYED CONST. JOINT - FORMED BY A BEVELED 2" x 6" WITH RUBBERIZED MEMBRANE WATERPROOFING ON B.F.
 - ① KEYED CONST. JOINT - FORMED BY A BEVELED 2" x 6".
 - VERTICAL 18" RUBBERIZED MEMBRANE WATERPROOFING TO EXTEND FROM BRIDGE SEAT TO TOP OF WING WALL.
- FOR PILE SPICE DETAIL SEE SHEET 2.
- FOR TYPICAL SECTION THRU ABUTMENT BODY SEE SHEET 8.
- B.F. DENOTES BACK FACE
F.F. DENOTES FRONT FACE

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-15-26			
DRAWN BY		JWZ	PLANS CK'D. CBM
SOUTH ABUTMENT		SHEET 4 OF 14	

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- 18" RUBBERIZED MEMBRANE WATERPROOFING ON BACK FACE. NOT REQUIRED IF CONST. JT. IS NOT USED.
 - OPT. KEYED CONST. JOINT - FORMED BY A BEVELED 2" x 6" WITH RUBBERIZED MEMBRANE WATERPROOFING ON B.F.
 - 3/4" V-GROOVE ON F.F. OF WING WALL NOT REQUIRED IF CONST. JT. IS NOT USED.
 - VERTICAL 18" RUBBERIZED MEMBRANE WATERPROOFING TO EXTEND FROM BRIDGE SEAT TO TOP OF WING WALL.
- FOR PILE SPLICE DETAIL SEE SHEET 2.
- B.F. DENOTES BACK FACE
- E.F. DENOTES EACH FACE
- F.F. DENOTES FRONT FACE

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-15-26			
DRAWN BY		JWZ	PLANS CK'D. CBM
SOUTH ABUTMENT WING DETAILS			SHEET 5 OF 14

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3433 Oakwood Hills Parkway
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8

The diagram illustrates the cross-section of a bridge deck with the following details:

- Elevations:**
 - Top left: EL. 603.00
 - Top left corner: EL. 604.42
 - Top left vertical face: EL. 602.25
 - Top center: EL. 602.61
 - Top right vertical face: EL. 602.25
 - Top right corner: EL. 604.42
 - Top right: EL. 603.00
 - Bottom center: EL. 597.25
- Dimensions:**
 - Left side (from top to bottom): 1'-5", 2'-2", 5'-9", 5'-0", 7'-2"
 - Top center: 4'-0" LEVEL
 - Right side (from top to bottom): 2'-2", 1'-5", 5'-0", 5'-9", 7'-2"
- Reinforcement:**
 - B503:** Vertical reinforcement bar.
 - B605 B.F.:** Bottom reinforcement bar.
 - B806 B.F.:** Bottom reinforcement bar.
 - B604 F.F.:** Top reinforcement bar.

[illegible]

Technical drawing of a bridge deck cross-section. The drawing shows a symmetrical deck with a total width of 43'-6". Key dimensions and details include:

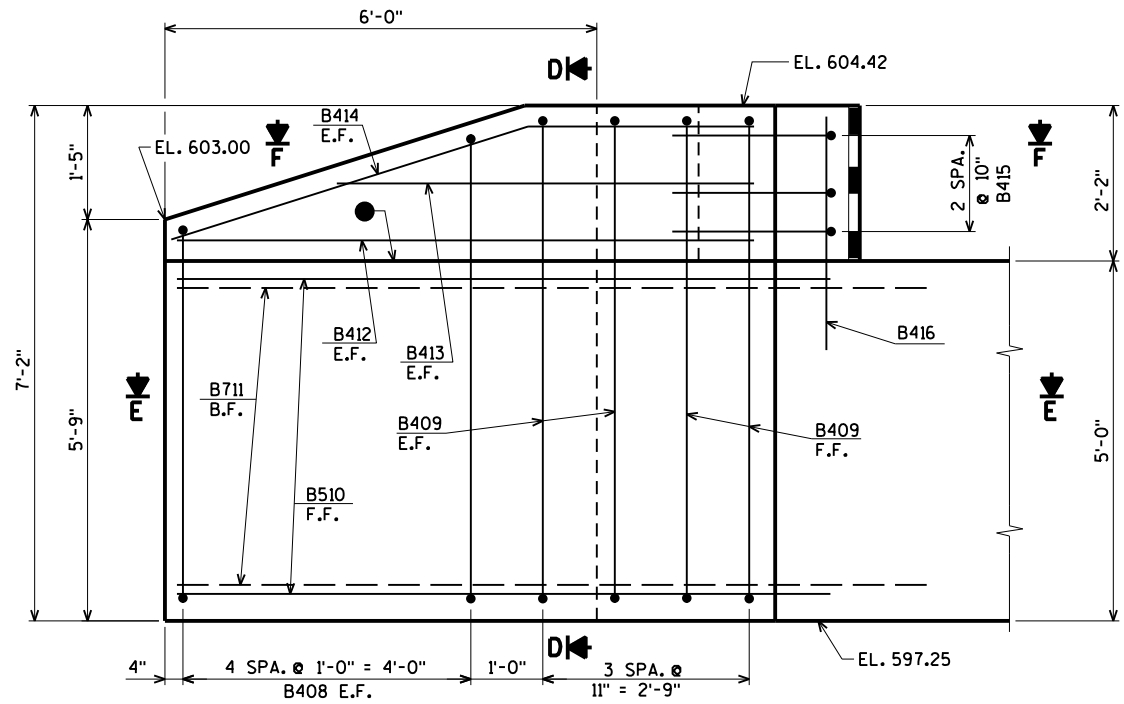
- Overall Dimensions:**
 - Total width: 43'-6"
 - Deck thickness: 5'-11 7/8"
 - Top flange width: 1'-5"
 - Top flange thickness: 2'-0"
 - Top flange slope: 45°
 - Top flange length: 8'-5 9/8"
 - Top flange height: 4'-2 7/8"
 - Top flange width: 4'-2 7/8"
- Reinforcement Details:**
 - B401:** Top reinforcement bar.
 - B402:** Bottom reinforcement bar.
 - B604:** Reinforcement bar for the top flange.
 - B605/B806:** Reinforcement bars for the deck.
 - B503:** Reinforcement bars for the pile spacing.
- Pile Spacing:**
 - 19 SPA. @ 9" = 14'-3"
 - 15 SPA. @ 1'-0" MAX. = 14'-4"
 - 19 SPA. @ 9" = 14'-3"
 - 4" B503 BAR SPACING SPACE TO MISS PILES 5'-11 7/8"
- Other Details:**
 - CL OF STH 57
 - CL OF PILES N. ABUT.
 - 2'-11" MIN. B605
 - 5'-1" MIN. B806
 - STA. 1562+55.00
 - 90° - TYP.
 - PILE SPACING

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-15-26			
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NORTH ABUTMENT		SHEET 6 OF 14	

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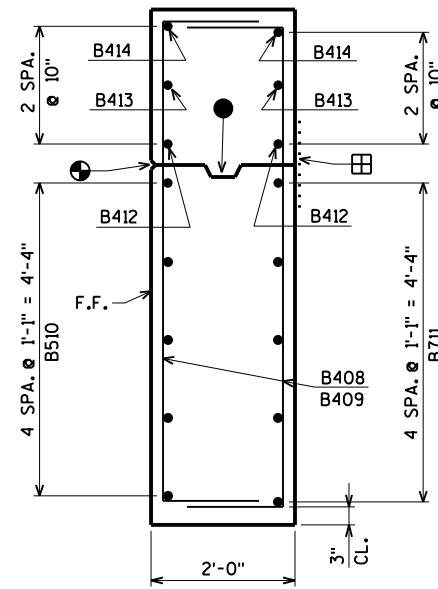
STATE PROJECT NUMBER

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ELEVATION - WING 3

(WING 4 SIMILAR)



SECTION D

18" RUBBERIZED MEMBRANE WATERPROOFING ON BACK FACE. NOT REQUIRED IF CONST. JT. IS NOT USED.

OPT. KEYED CONST. JOINT - FORMED BY A BEVELED 2" x 6" WITH RUBBERIZED MEMBRANE WATERPROOFING ON B.F.

3/4" V-GROOVE ON F.F. OF WING WALL NOT REQUIRED IF CONST. JT. IS NOT USED.

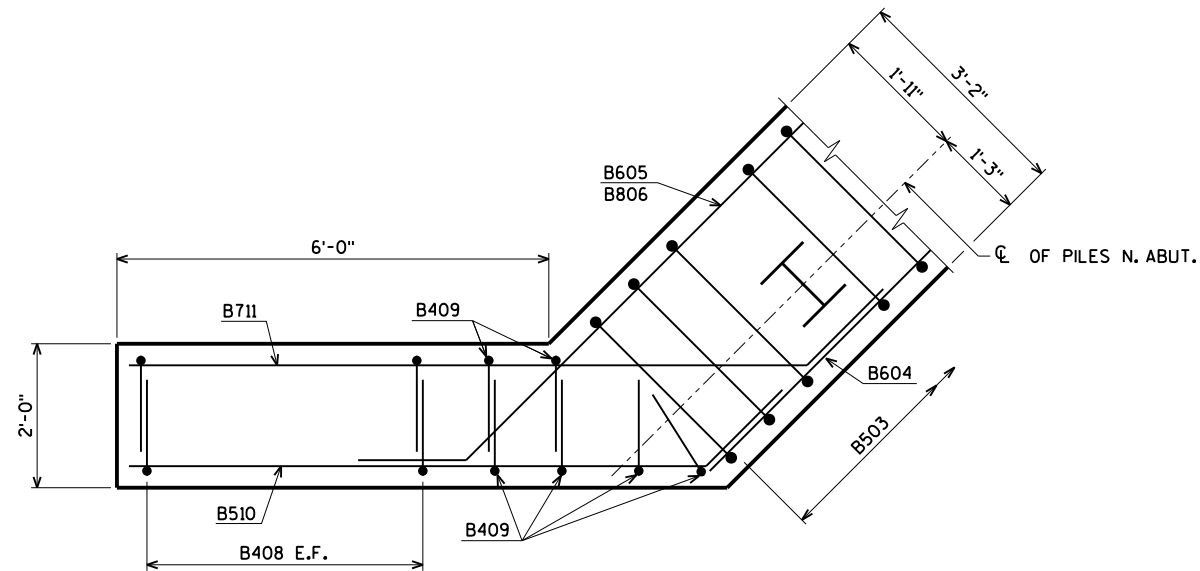
VERTICAL 18" RUBBERIZED MEMBRANE WATERPROOFING TO EXTEND FROM BRIDGE SEAT TO TOP OF WING WALL.

FOR PILE SPLICE DETAIL SEE SHEET 2.

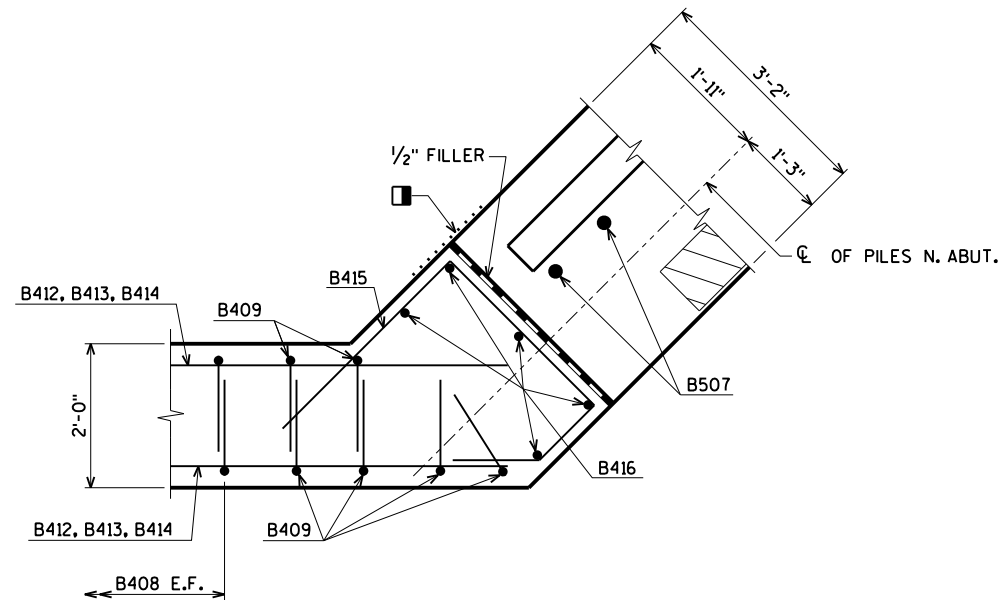
B.F. DENOTES BACK FACE

E.F. DENOTES EACH FACE

F.F. DENOTES FRONT FACE



SECTION E



SECTION F

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STRUCTURE B-15-26			
DRAWN BY		JWZ	PLANS CK'D. CBM
NORTH ABUTMENT WING DETAILS			SHEET 7 OF 14

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ORIGINAL PLANS PREPARED BY

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ASSOCIATES

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NOTES

THE CONCRETE MIX FOR THE PRESTRESSED BOX GIRDERS SHALL CONFORM TO SECTION 503.2.2 OF THE STANDARD SPECIFICATIONS.

AN APPROVED CONCRETE SEALER SHALL BE APPLIED TO THE BOTTOM OF THE GIRDERS AND THE EXTERIOR FACE OF EXTERIOR GIRDERS. DO NOT APPLY CONCRETE SEALER OR EPOXY TO THE SHEAR KEY OR THE TOP OF GIRDERS.

STRANDS SHALL BE FLUSH WITH END OF GIRDER. FOR CONCRETE ABUTMENTS, END OF STRANDS SHALL BE COATED WITH NON-BITUMINOUS JOINT SEALER.

FOUR WAY SLING MUST BE USED TO ENGAGE ALL FOUR LIFTING DEVICES ON BOTH ENDS OF UNITS.

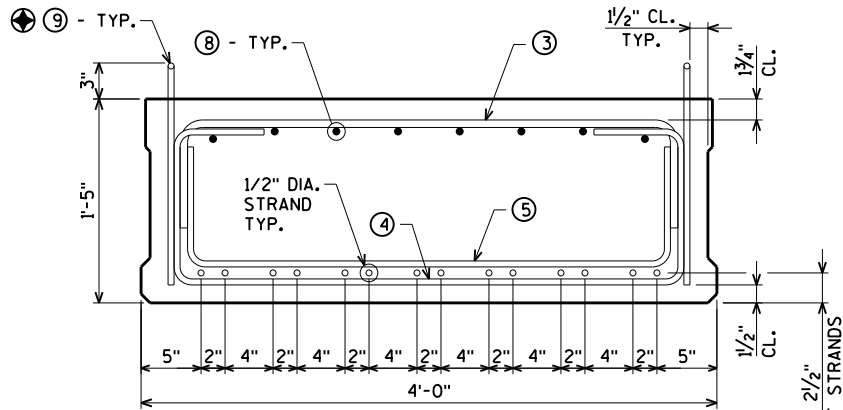
POST-TENSIONING OF THE TRANSVERSE TENDONS SHALL NOT BEGIN UNTIL THE GROUT BETWEEN THE PRECAST BOX GIRDERS HAS BEEN ALLOWED TO CURE FOR 48 HOURS AND GROUT HAS REACHED A COMPRESSIVE STRENGTH OF 3,000 PSI.

SEAL WASHER SHALL BE SPONGE NEOPRENE GASKET 3/4" MIN. THICK. STRESS POCKETS SHALL BE FILLED WITH CHLORIDE-FREE NON-SHRINK GROUT AFTER POST-TENSIONING.

TRANSITION BETWEEN CHANGING SLOPES OF POST-TENSIONING DUCTS SHALL BE PROVIDED BY EITHER A CIRCULAR OR PARABOLIC CURVE WITH A MINIMUM LENGTH OF 3'-0".

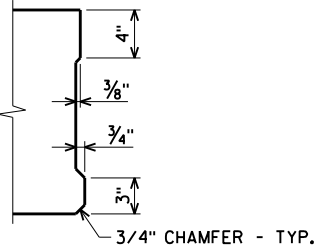
☆ OR EQUIVALENT. WELDED PLATE DETAIL OR LOOP INSERT DETAIL MAY BE SUBSTITUTED PROVIDED THEIR PULLOUT CAPACITY IS APPROXIMATELY EQUAL TO THE YIELD STRENGTH OF THE #4 BARS.

⦿ SUBSTITUTE ⑪ BAR ON EXTERIOR EDGE OF EXTERIOR GIRDERS.



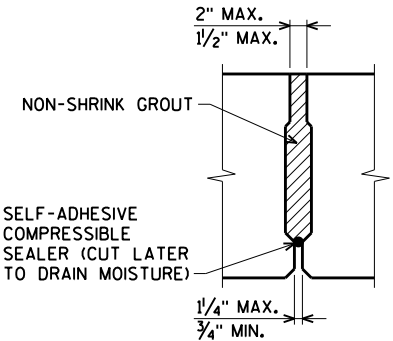
TYPICAL SECTION THRU GIRDER

(14 - 1/2" DIA. STRANDS WITH A TOTAL INITIAL PRESTRESS FORCE OF 434 KIPS)

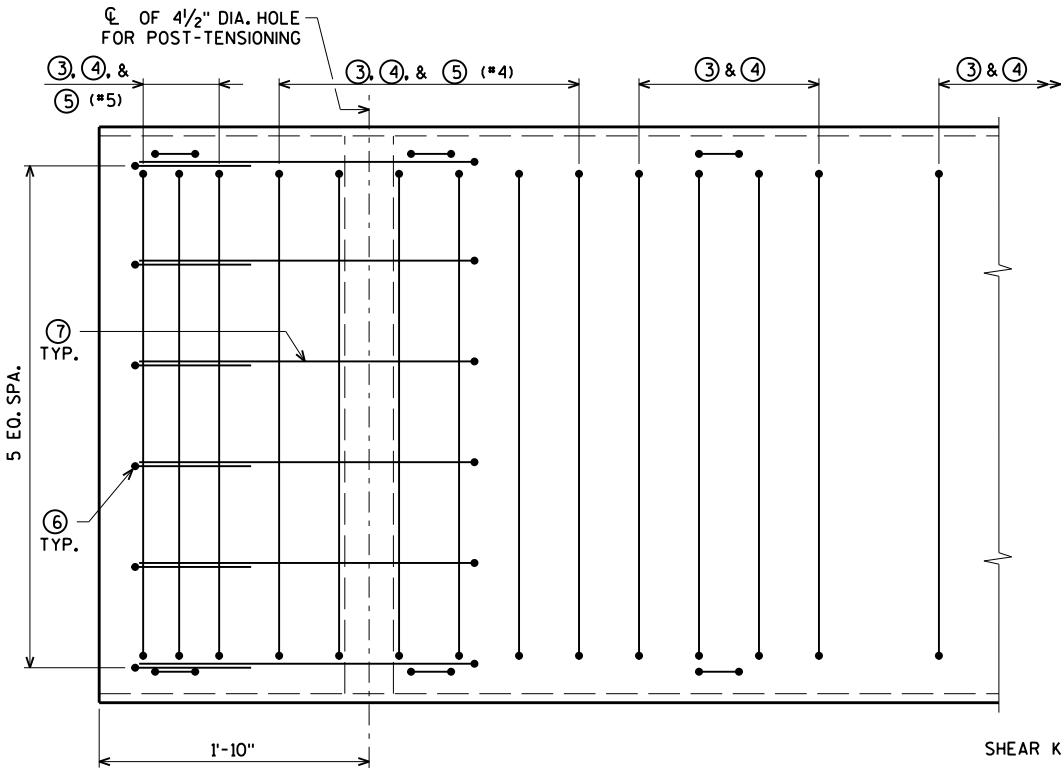


SHEAR KEY RECESS DETAIL

OMIT SHEAR KEY ON EXTERIOR FACE OF EXTERIOR GIRDERS.

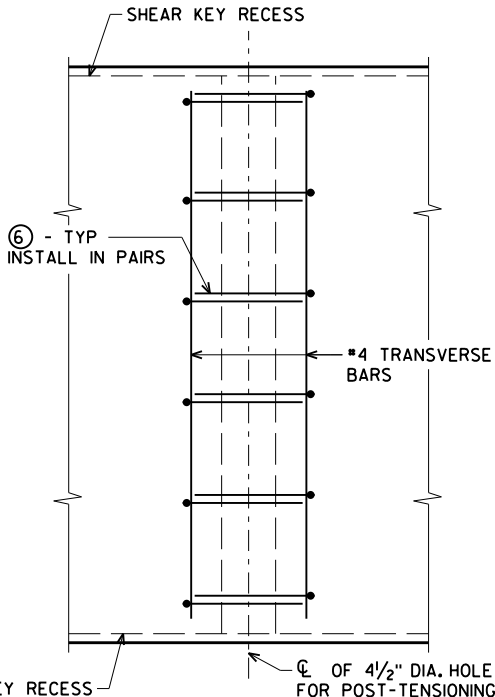


SHEAR KEY DETAIL

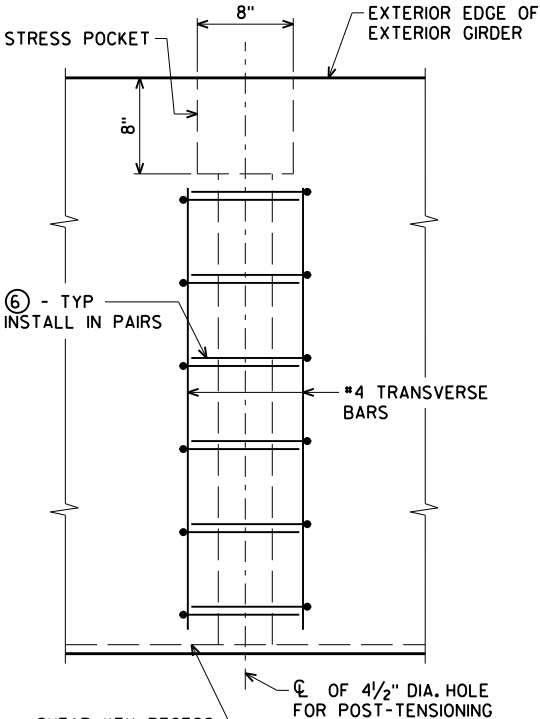


PART GIRDER PLAN

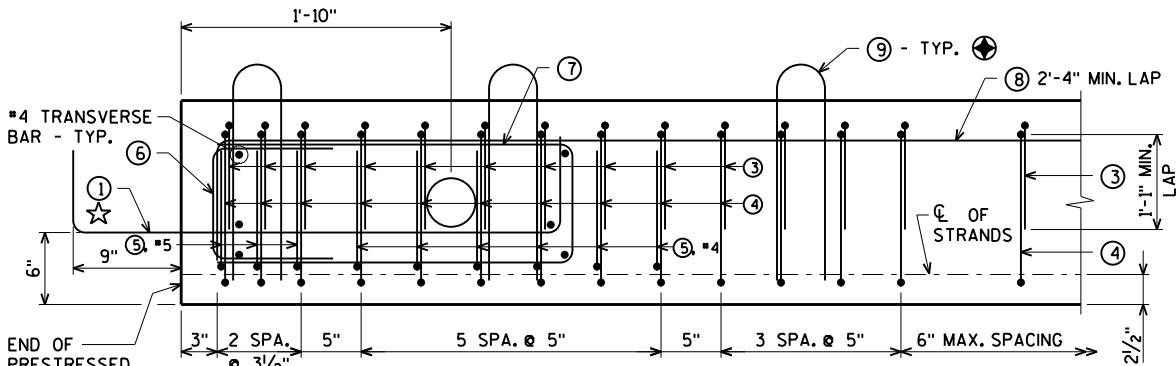
(① & #4 TRANSVERSE BARS NOT SHOWN FOR CLARITY)



INTERIOR GIRDER DUCT PLAN

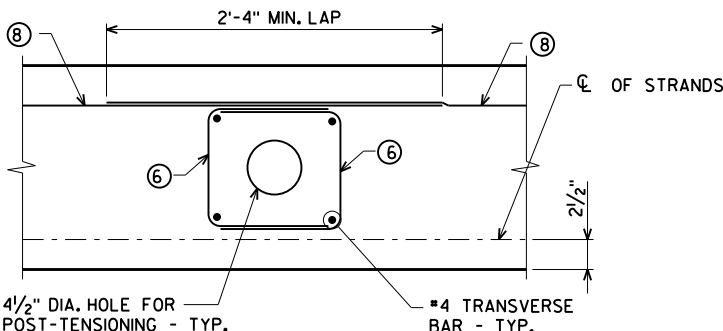


EXTERIOR GIRDER DUCT PLAN



AT END-SPAN

PART GIRDER ELEVATION



AT MID-SPAN

WORK THIS SHEET WITH SHEETS 10 AND 12.

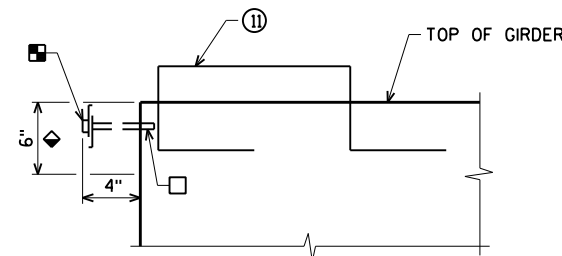
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-15-26			
DRAWN BY JWZ		PLANS CK'D. CBM	
17-INCH PRESTRESSED BOX GIRDER DETAILS		SHEET 9 OF 14	

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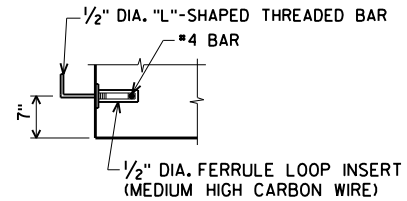
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STATE PROJECT NUMBER

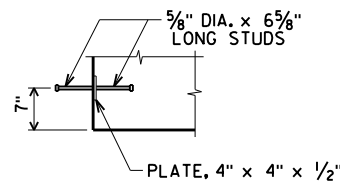
4150-17-71



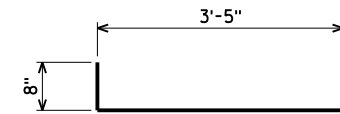
**TYPICAL SECTION THRU TOP
CORNER OF EXTERIOR GIRDER**



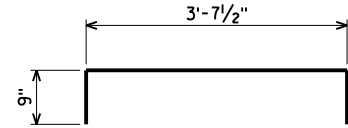
LOOP INSERT DETAIL



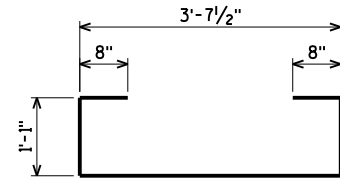
WELDED PLATE DETAIL
(EQUIVALENT TO ONE #4 BAR)



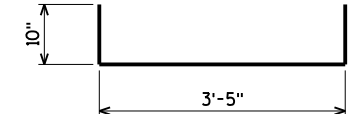
① BOTTOM ABUTMENT BAR
EPOXY COAT BARS
(5) #4 BARS



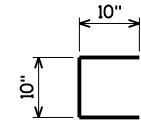
③ TOP STIRRUP
#5 AT 6" MAX.



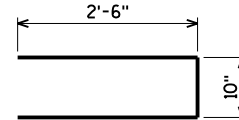
④ BOTTOM STIRRUP
#4 AT 6" MAX.



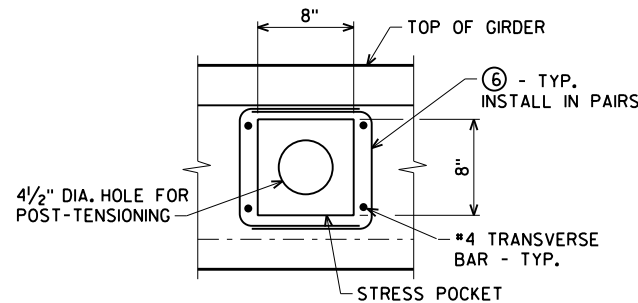
⑤ END BLOCK BOTTOM STIRRUP
#4 AND #5 BARS
SEE PART GIRDER ELEVATION
FOR SPACING



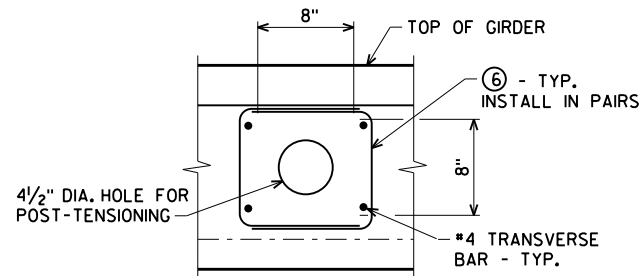
⑥ DUCT STIRRUP
#4 AT 9" MAX
(6) EACH GIRDER END
(12) EACH GIRDER DUCT



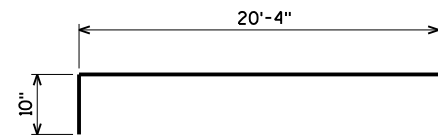
⑦ DUCT STIRRUP
#4 AT 9" MAX
(6) EACH GIRDER END



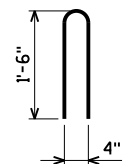
**EXTERIOR GIRDER
DUCT ELEVATION**



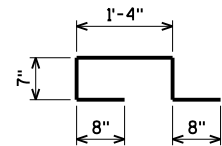
**INTERIOR GIRDER
DUCT ELEVATION**



⑧ LONGITUDINAL BAR
(8) #4 BARS



⑨ SHEAR CONNECTOR
TIE ONE LEG OF BAR TO ③
EPOXY COAT BARS
#4 AT 2'-0" MAX.



⑪ EXTERIOR EDGE SHEAR CONNECTOR
#4 AT 2'-0" MAX.
EPOXY COAT BARS
(SEE SHEET 11 FOR LOCATION)

- ◆ ROUGHEN EDGE OF BOX GIRDER AT INTERFACE WITH DECK OVERHANG CONCRETE TO AN AMPLITUDE OF 1/4".
- 1/2" DIA. HIGH STRENGTH BOLT WITH NUT AND 3 1/2" x 3 1/2" x 5/16" PLATE WASHER.
- 1/2" DIA. ELECTROPLATED FERRULE LOOP INSERT (MEDIUM HIGH CARBON WIRE) OR APPROVED EQUAL. SPACE AT 4'-0" MAX.
- ◆ SUBSTITUTE ⑪ BAR ON EXTERIOR EDGE OF EXTERIOR GIRDERS.

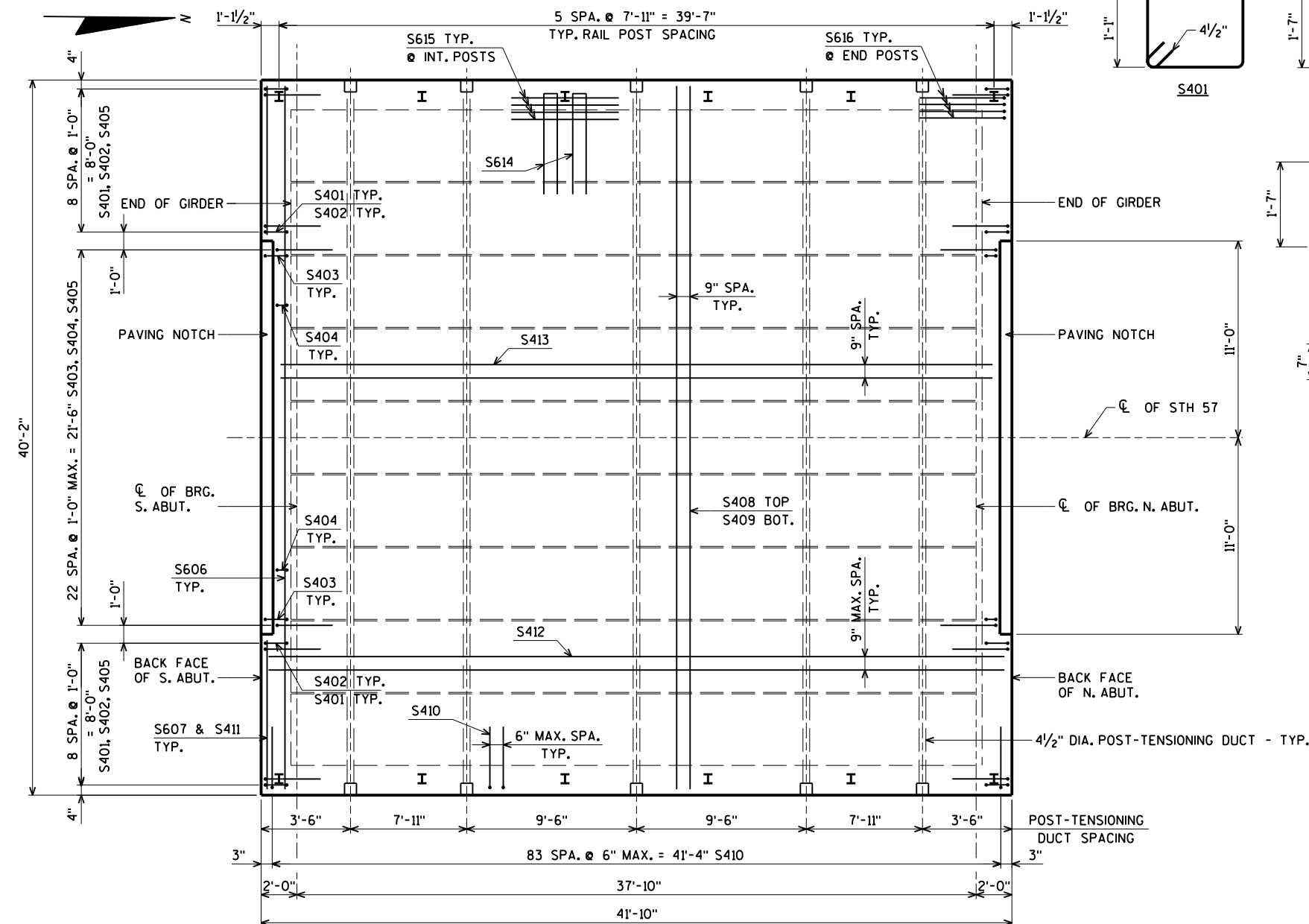
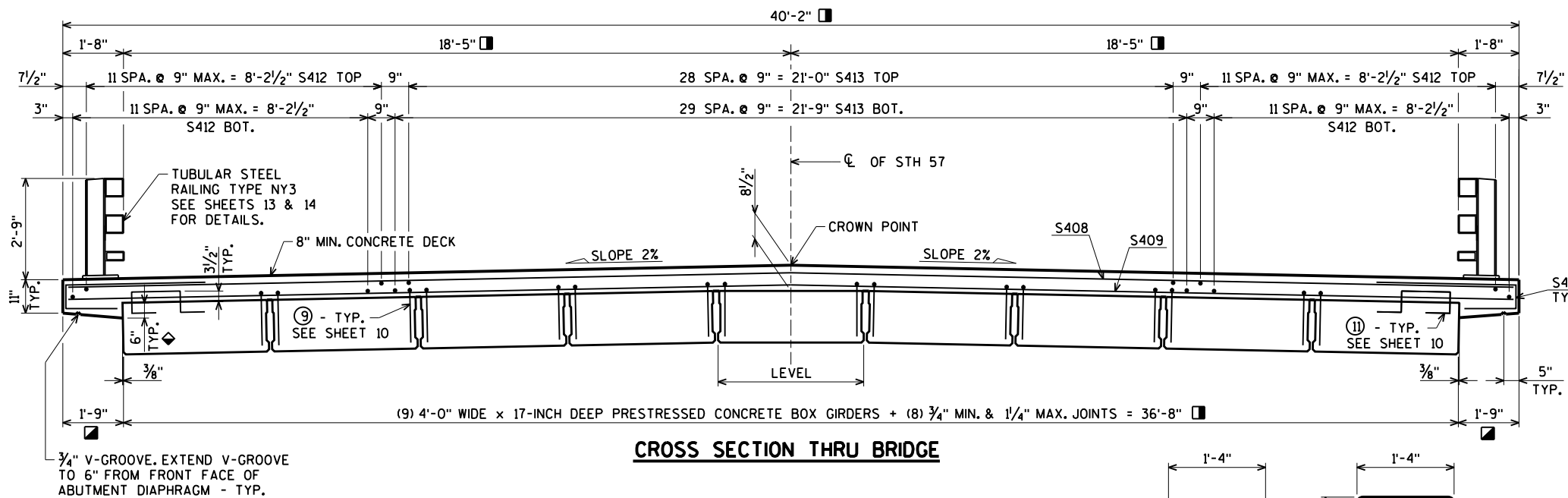
WORK THIS SHEET WITH SHEETS 9 AND 12.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-15-26			
DRAWN BY		JWZ	PLANS CK'D. CBM
17-INCH PRESTRESSED BOX GIRDER DETAILS		SHEET 10 OF 14	

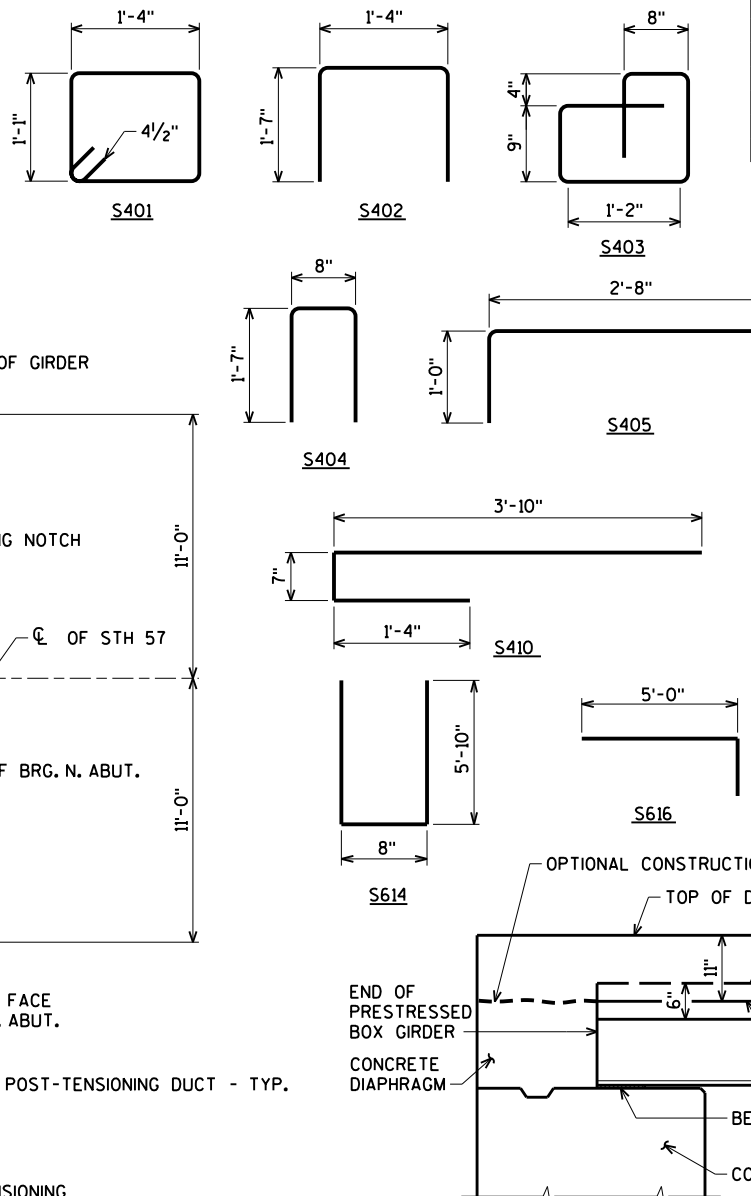
ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

\$PRNAME\$
Ut:41-0626.00 - Door Co. STH 57 Bridge+BRIDGE 2016+410626 sup.dgn

8



PLAN



ELEVATION

(SHOWING DECK OVERHANG TERMINATION AT ABUTMENT)

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES

3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

STATE PROJECT NUMBER

4150-17-71

BILL OF BARS

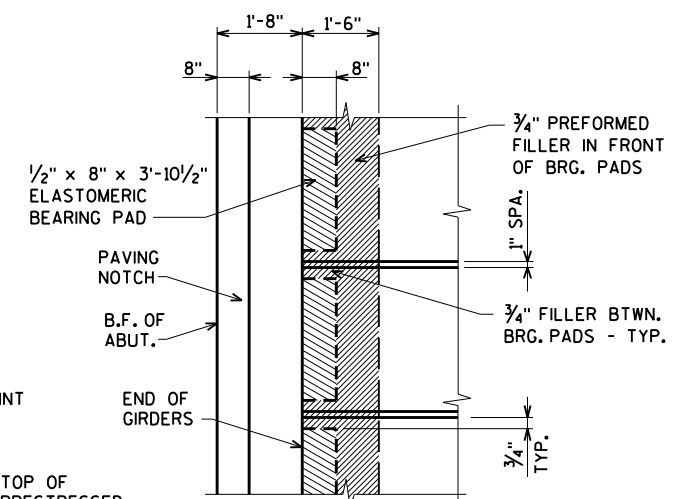
BAR NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR SERIES	9,100# COATED
						LOCATION
S401	X	36	5-4	X		VERT. AT CORNERS
S402	X	36	4-4	X		VERT. AT CORNERS
S403	X	46	5-1	X		VERT. AT PAVING NOTCH
S404	X	46	3-8	X		VERT. AT PAVING NOTCH
S405	X	82	3-7	X		LONG. AT ABUT. DIAPHRAGMS
S606	X	18	39-10			HORIZ. AT ENDS OF DECK
S607	X	8	8-9			HORIZ. AT ENDS OF DECK AT CORNERS
S408	X	54	39-10			SLAB TRANS. TOP
S409	X	51	39-10			SLAB TRANS. BOT.
S410	X	168	5-7	X		SLAB TRANS. AT EDGES OF DECK
S411	X	4	8-9			SLAB TRANS. TOP AT ENDS OF DECK
S412	X	48	41-6			SLAB LONG. TOP AND BOT.
S413	X	59	40-2			SLAB LONG. TOP AND BOT.
S614	X	24	12-0	X		SLAB AT RAIL POSTS
S615	X	32	6-0			SLAB AT INT. RAIL POSTS
S616	X	16	6-0	X		SLAB AT END RAIL POSTS

BENDING DIMENSIONS ARE OUT TO OUT OF BARS.

□ DIMENSION ASSUMES 1" JOINT WIDTH. JOINT WIDTH DIMENSIONS MAY VARY DUE TO ±1/4" JOINT TOLERANCES.

■ MAY BE INCREASED TO 1'-10" TO MAINTAIN CLEAR ROADWAY WIDTH.

◆ ROUGHEN EDGE OF BOX GIRDER AT INTERFACE WITH DECK OVERHANG CONCRETE TO AN AMPLITUDE OF 1/4".

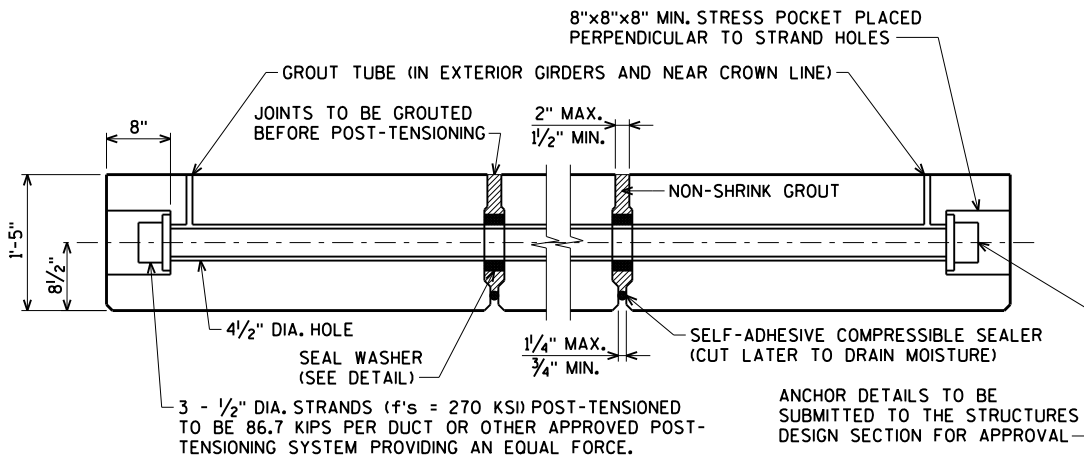


BEARING PAD PLAN

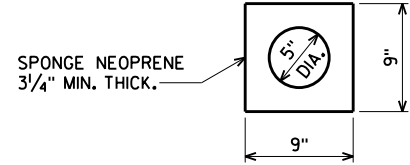
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-15-26			
DRAWN BY		JWZ	PLANS CK'D. CBM
SUPERSTRUCTURE		SHEET 11 OF 14	

\$PRNAME\$
U:\41-0626-00 - Door Co. STH 57 Bridge*BRIDGE 2016*410626 sup.dgn

8



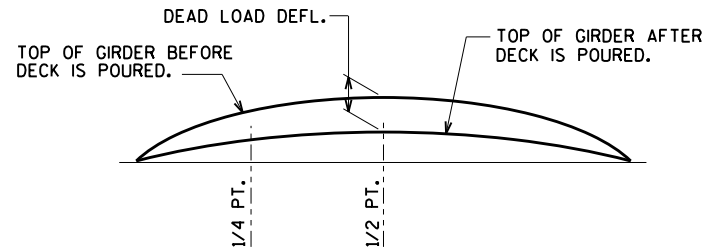
POST-TENSIONING DETAILS



SEAL WASHER DETAIL
(MAY ALSO BE ROUND)

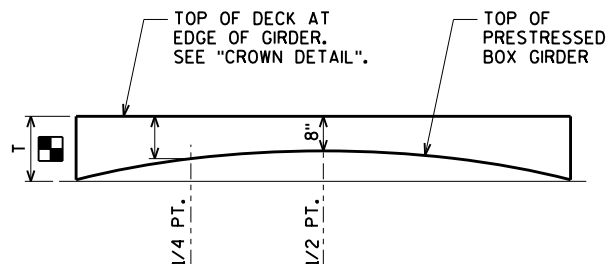
GIRDER DATA								
SPAN	GIRDER	GIRDER LENGTH "L"	DEAD LOAD DEFL. (IN.)		CONC. STRGTH. f'c (p.s.i.)	DIA. OF STRAND (IN.)	UNDRAINED PATTERN TOTAL NO. OF STRANDS	f'ci (p.s.i.) *
			1/4 PT.	1/2 PT.				
1	ALL	38'-6"	0.14	0.20	5,000	0.5	14	4,000

* MINIMUM CYLINDER STRENGTH OF CONCRETE @ TIME OF TRANSFER OF PRESTRESS FORCE.



DEAD LOAD DEFLECTION DIAGRAM

TOP OF DECK ELEVATIONS											
	℄ OF PILES S. ABUT.	0.1 PT.	0.2 PT.	0.3 PT.	0.4 PT.	0.5 PT.	0.6 PT.	0.7 PT.	0.8 PT.	0.9 PT.	℄ OF PILES N. ABUT.
W. EDGE OF DECK	604.46	604.46	604.46	604.46	604.45	604.45	604.45	604.44	604.44	604.43	604.42
℄ ROAD	604.86	604.86	604.86	604.86	604.85	604.85	604.85	604.84	604.84	604.83	604.83
E. EDGE OF DECK	604.46	604.46	604.46	604.46	604.45	604.45	604.45	604.44	604.44	604.43	604.42



DECK THICKNESS DIAGRAM

SPAN	CAMBER (IN.) **
1	0.79

THESE VALUES ARE NOT TO BE USED IN DETERMINING 'T'.
USE FIELD MEASURED GIRDER CAMBER.

THESE VALUES ARE FOR INFORMATIONAL PURPOSES ONLY.

** THE THEORETICAL INITIAL CAMBER VALUE AT THE TIME OF STRAND RELEASE AT MIDSPAN MULTIPLIED BY A FACTOR OF 1.4 TO ACCOUNT FOR CAMBER GROWTH FROM THE TIME OF STRAND RELEASE TO JOBSITE PLACEMENT.

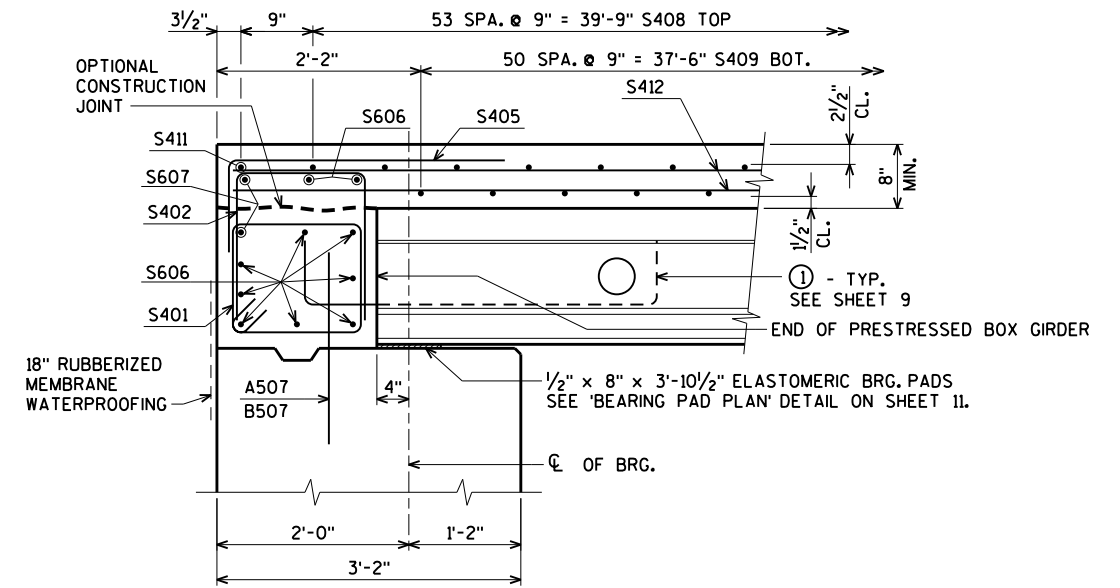
TO DETERMINE DECK THICKNESS AT GIRDER ENDS, FOLLOW THIS PROCESS:

8" MIN. DECK SLAB THICKNESS
+ FIELD MEASURED GIRDER CAMBER (AT MID SPAN)
- DEAD LOAD DEFLECTION (AT MIDSPAN)
= DECK THICKNESS, 'T'

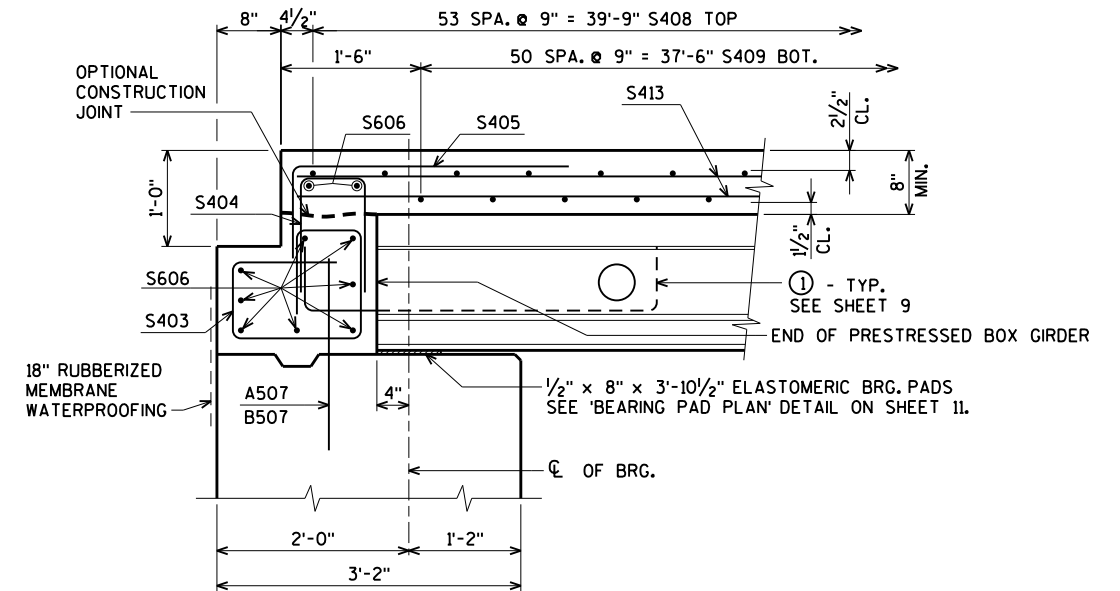
NOTE: PLAN DECK THICKNESS BASED ON THEORETICAL INITIAL CAMBER VALUE. 1/4 PT. MAY BE INTERPOLATED. USE FIELD MEASURED GIRDER CAMBER FOR ACTUAL DECK THICKNESS. THE 1/4 PT. IS INTERPOLATED BETWEEN DECK THICKNESS AT THE END OF DECK AND AT MIDSPAN.

STATE PROJECT NUMBER

4150-17-71



PART LONGITUDINAL SECTION
(NO PAVING NOTCH)



PART LONGITUDINAL SECTION
(AT PAVING NOTCH)

WORK THIS SHEET WITH SHEETS 9 AND 10.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-15-26			
	DRAWN BY	JWZ	PLANS CK'D. CBM
SUPERSTRUCTURE DETAILS			SHEET 12 OF 14

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
Eau Claire, WI 54701
www.AyresAssociates.com

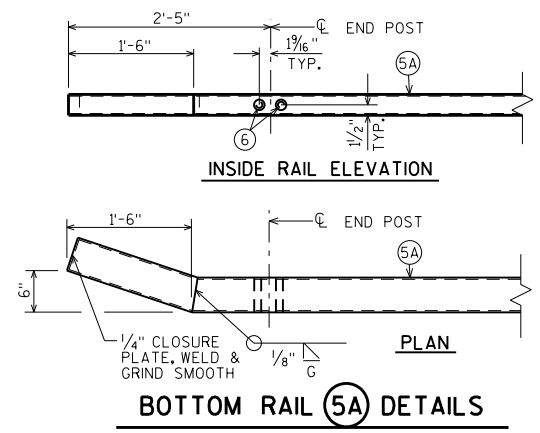
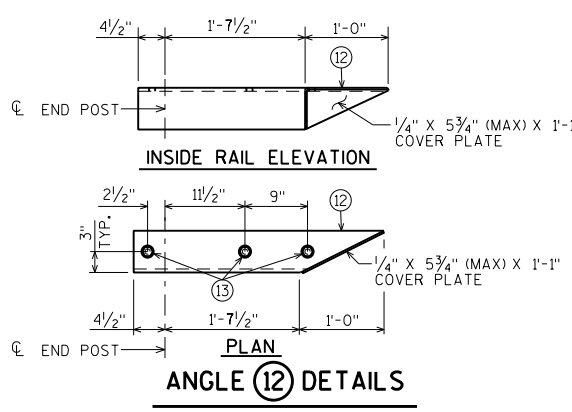
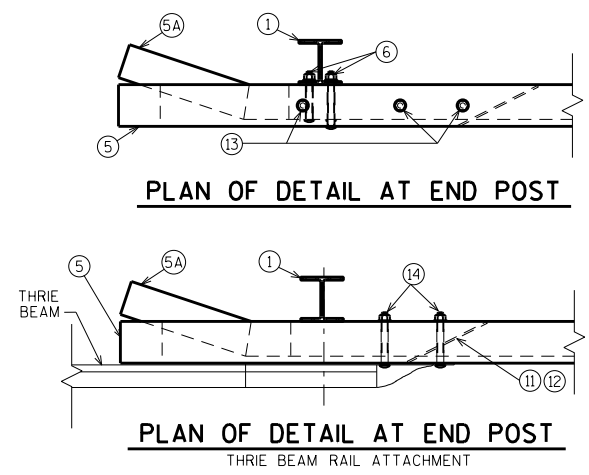
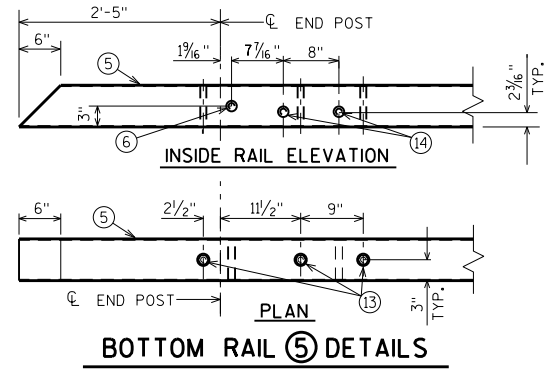
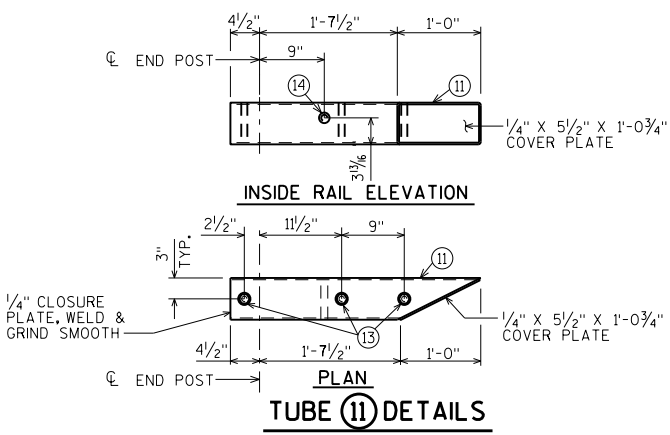
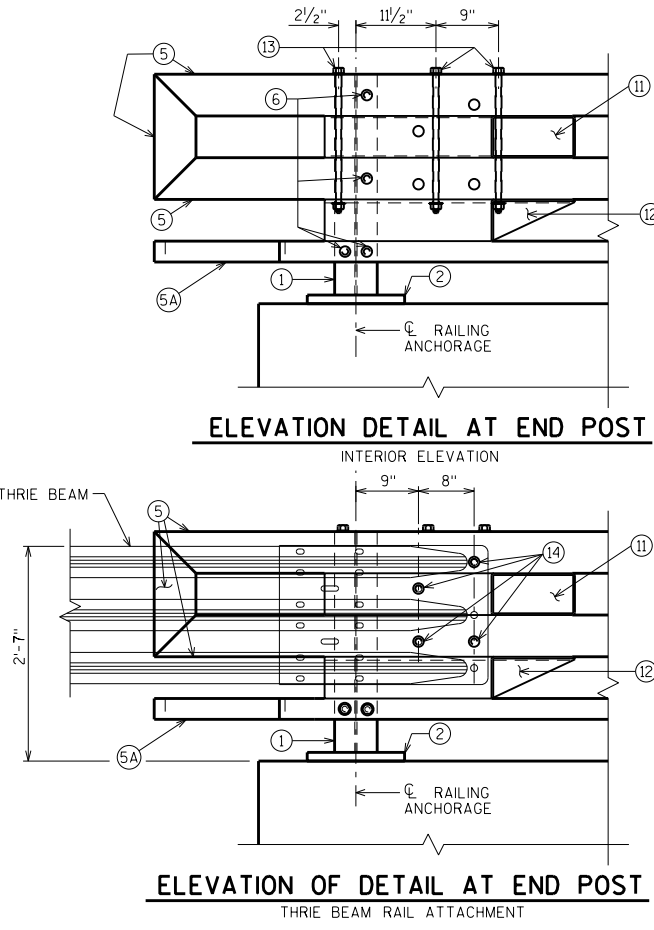
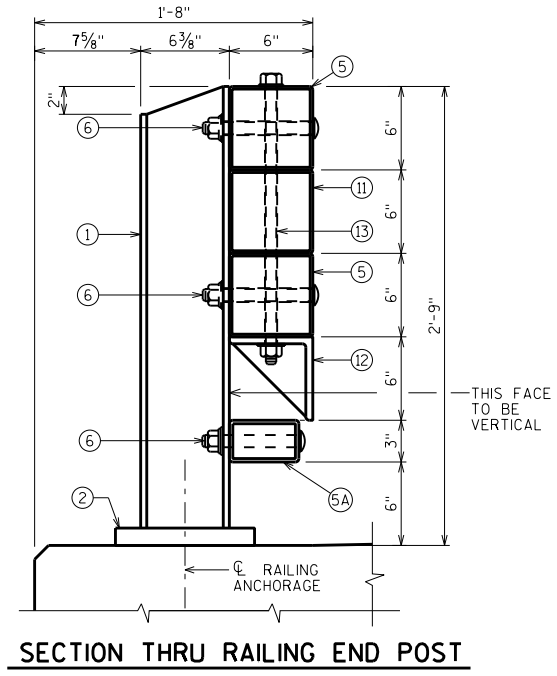
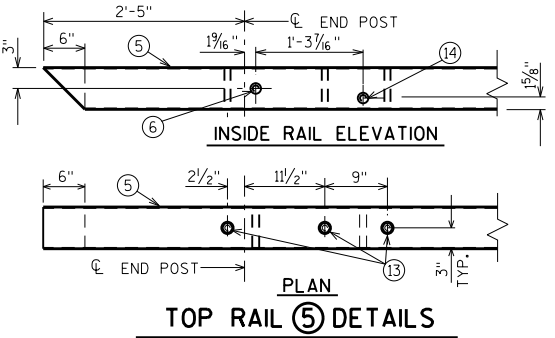
LEGEND

- ① W6 X 25 WITH 1/8" X 1 3/8" HORIZONTAL SLOTTED HOLES ON SIDE OF POST FOR BOLT NO. 6 AT NO. 5. USE 1" DIA. HOLE FOR BOLT NO. 6 AT NO. 5A BOTTOM RAIL. CUT BOTTOM OF POST TO MATCH CROSS SLOPE OF ROADWAY. PLACE POST VERTICAL. PLACE POSTS NORMAL TO GRADE LINE.
- ② PLATE 1/4" X 10" X 1'-2". SEE SHEET "TUBULAR STEEL RAILING NY3" FOR MORE INFORMATION.
- ⑤ TS 6 X 6 X 3/8" STRUCTURAL TUBING. USE 7/8" DIA. HOLES IN TOP AND BOTTOM OF RAILS FOR BOLT NO. 13 AS SHOWN IN PLAN DETAILS. USE 1" DIA. HOLES IN FRONT AND BACK OF RAILS FOR BOLTS NO. 6 & NO. 14 AS SHOWN IN ELEVATION DETAILS.
- ⑤A TS 5 X 3 X 1/4" STRUCTURAL TUBING. USE 1/8" X 1 3/8" HORIZONTAL SLOTTED HOLES FOR BOLT NO. 6 IN BOTTOM RAIL (FRONT & BACK) AND A 2" O.D. WASHER UNDER BOLT HEAD.
- ⑥ 7/8" DIA. A325 SLOTTED ROUND HEAD BOLT WITH HEX NUT, 3/8" X 1 3/4" X 1 3/4" WASHER, AND SPRING LOCK WASHER (1 REQUIRED AT RAIL NO. 5 TO POST NO. 1 CONNECTION LOCATIONS SHOWN. 2 REQUIRED AT RAIL NO. 5A TO POST NO. 1 CONNECTION LOCATIONS SHOWN).
- ⑪ TS 6 X 6 X 3/8" STRUCTURAL TUBING. USE 1" DIA. HOLES IN FRONT AND BACK FOR BOLT NO. 14 & 7/8" DIA. HOLES IN TOP & BOTTOM FOR BOLT NO. 13.
- ⑫ L 6 X 6 X 1/2" STRUCTURAL ANGLE. USE 7/8" DIA. HOLES IN TOP FLANGE FOR BOLT NO. 13.
- ⑬ 3/4" DIA. A325 FULLY THREADED BOLTS, 2 WASHERS AND A HEAVY HEX NUT, ON EACH BOLT. NUT TO BE FINGER TIGHT. 3 BOLTS AT EACH END POST.
- ⑭ 7/8" DIA. A325 SLOTTED ROUND HEAD BOLT WITH HEX NUT AND 3/8" X 2" X 2" WASHER FOR CONNECTION OF THRIE BEAM (4 REQUIRED)

NOTES

STRUCTURAL TUBING SHALL CONFORM TO THE REQUIREMENTS OF ASTM A500 GRADE B OR C WITH A CERTIFIED $f_y \geq 50$ KSI. STRUCTURAL ANGLE SHALL CONFORM TO THE REQUIREMENTS OF ASTM A709 GRADE 50.

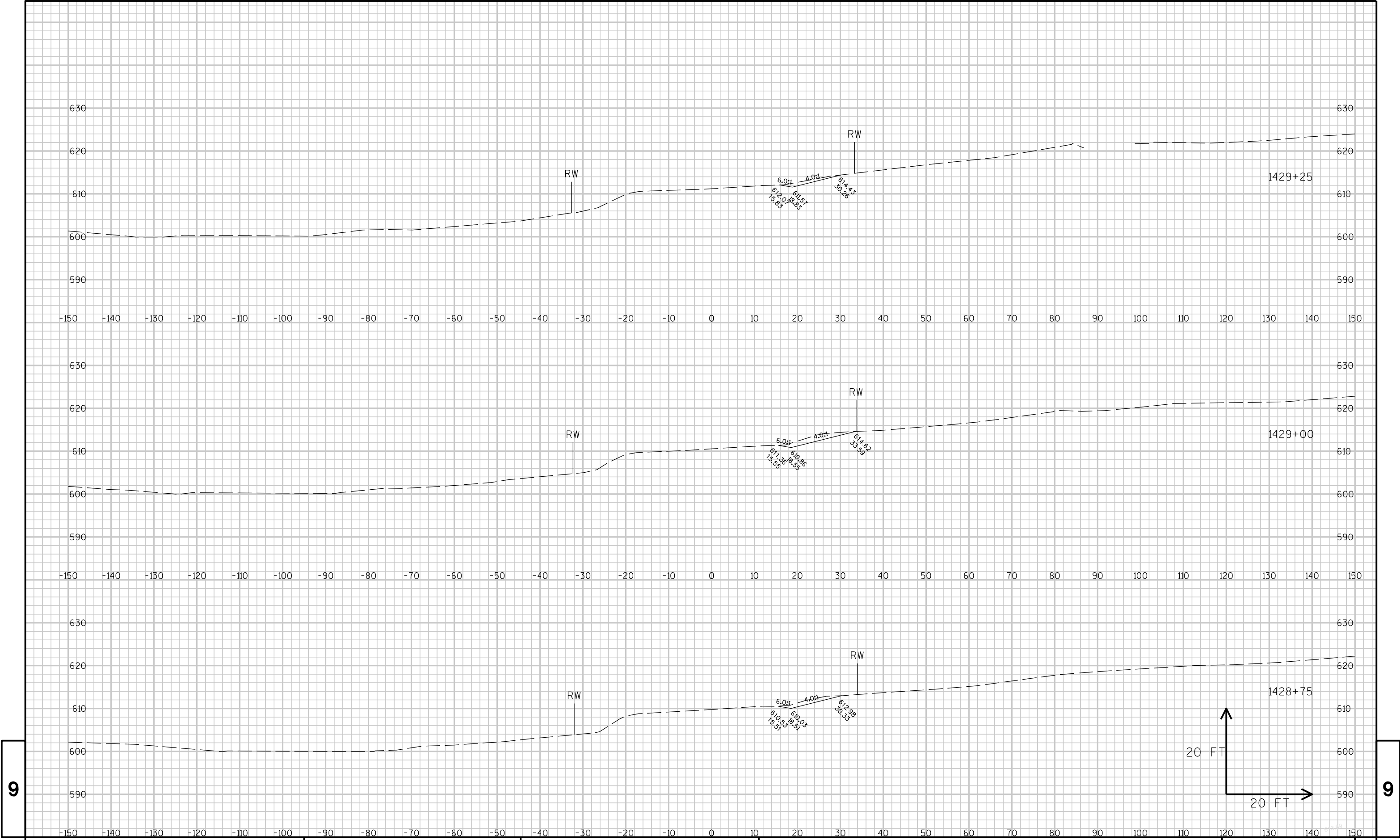
WORK THIS SHEET WITH "TUBULAR STEEL RAILING TYPE NY3" SHEET.



NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-15-26			
DRAWN BY JWZ		PLANS CK'D. CBM	
END POST DETAILS FOR TUBULAR STEEL RAILING TYPE NY3			SHEET 14 OF 14

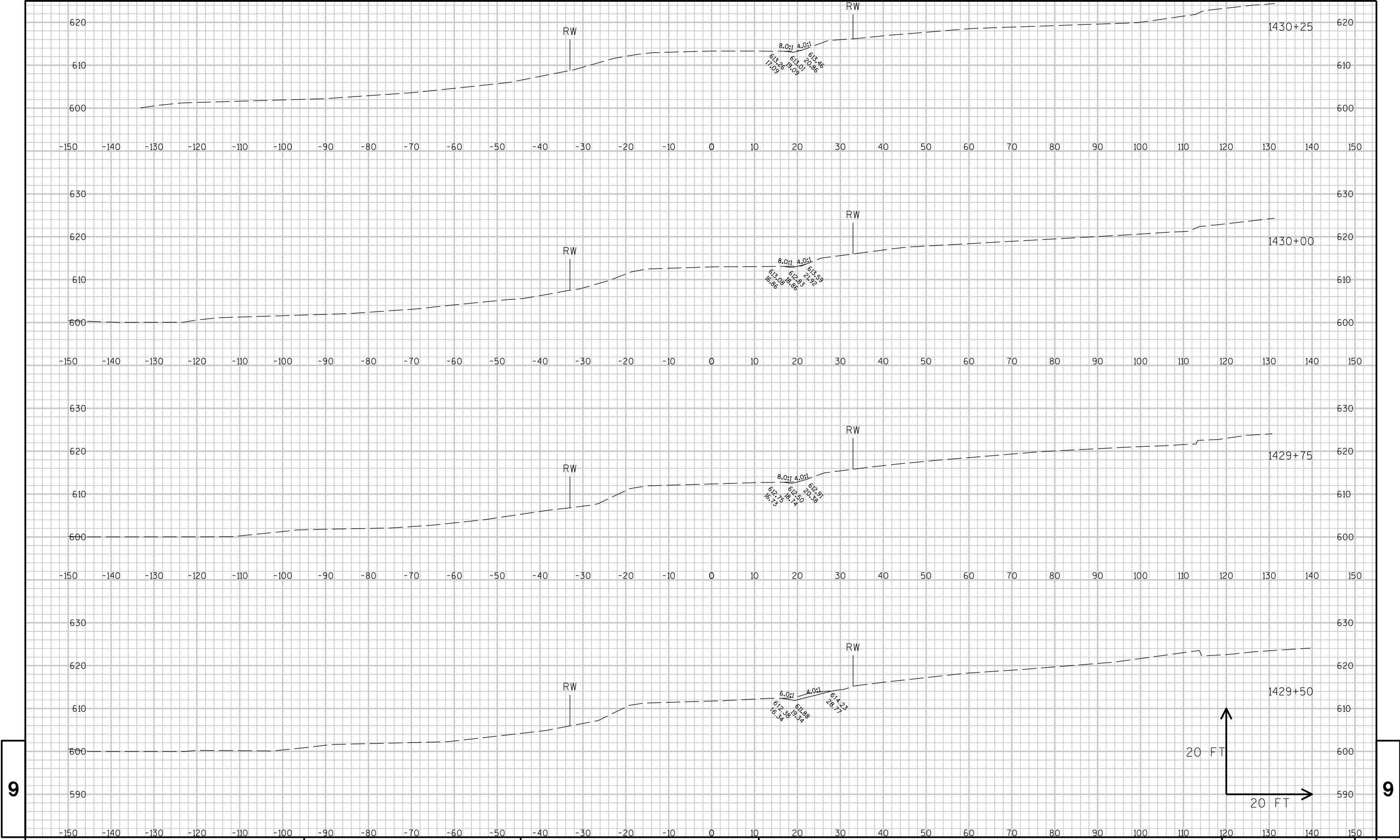
STH 57 EARTHWORK DETAIL									
STATION	AREA (SF)			INCREMENTAL VOLUME (CY) (UNADJUSTED)			CUMULATIVE VOLUME (CY)		MASS ORDINATE
	CUT	SALVAGED / UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED / UNUSABLE PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	
							1. 00	1. 33	
1428+00	1. 14	0	0. 00	0. 00	0	0. 00	0	0	0
1428+25	1. 84	0	0. 00	1. 38	0	0. 00	1	0	1
1428+50	2. 64	0	0. 00	2. 07	0	0. 00	3	0	3
1428+75	9. 94	0	0. 00	5. 82	0	0. 00	9	0	9
1429+00	15. 84	0	0. 00	11. 94	0	0. 00	21	0	21
1429+25	7. 14	0	0. 00	10. 64	0	0. 00	32	0	32
1429+50	6. 34	0	0. 00	6. 24	0	0. 00	38	0	38
1429+75	0. 59	0	0. 00	3. 21	0	0. 00	41	0	41
1430+00	0. 54	0	0. 14	0. 52	0	0. 06	42	0	42
1430+25	0. 59	0	0. 00	0. 52	0	0. 06	42	0	42
1430+25. 01	0. 00	0	0. 00	0. 00	0	0. 00	42	0	42
1461+69. 9	0. 00	0	0. 00	0. 00	0	0. 00	42	0	42
1461+70	0. 03	0	0. 00	0. 00	0	0. 00	42	0	42
1461+75	0. 13	0	0. 00	0. 01	0	0. 00	42	0	42
1462+00	0. 16	0	0. 08	0. 13	0	0. 04	42	0	42
1462+25	0. 12	0	9. 39	0. 13	0	4. 38	43	6	37
1462+50	0. 07	0	6. 67	0. 09	0	7. 44	43	16	27
1462+75	0. 24	0	1. 45	0. 14	0	3. 76	43	21	22
1462+90	0. 40	0	0. 02	0. 18	0	0. 41	43	21	22
1462+90. 01	0. 00	0	0. 00	0. 00	0	0. 00	43	21	22
1473+74. 99	0. 00	0	0. 00	0. 00	0	0. 00	43	21	22
1473+75	0. 01	0	0. 45	0. 00	0	0. 00	43	21	22
1474+00	0. 00	0	1. 32	0. 00	0	0. 82	43	23	20
1474+50	0. 00	0	7. 00	0. 00	0	7. 70	43	33	10
1475+00	0. 00	0	10. 23	0. 00	0	15. 95	43	54	- 11
1475+50	0. 00	0	10. 72	0. 00	0	19. 40	43	80	- 37
1475+66	19. 84	0	18. 75	5. 88	0	8. 73	49	91	- 43
1475+82	0. 00	0	0. 48	5. 88	0	5. 70	55	99	- 44
1476+25	0. 01	0	5. 20	0. 01	0	4. 52	55	105	- 50
1476+50	0. 03	0	6. 29	0. 02	0	5. 32	55	112	- 57
1477+00	0. 34	0	0. 00	0. 34	0	5. 82	55	120	- 65
1477+50	0. 44	0	0. 00	0. 72	0	0. 00	56	120	- 64
1478+00	0. 21	0	0. 00	0. 60	0	0. 00	56	120	- 63
1478+25	0. 02	0	0. 24	0. 11	0	0. 11	57	120	- 63
1478+50	0. 02	0	0. 08	0. 02	0	0. 15	57	120	- 64
1479+00	0. 09	0	0. 00	0. 10	0	0. 07	57	120	- 64
1479+50	0. 00	0	21. 87	0. 08	0	20. 25	57	147	- 90
1480+00	0. 00	0	28. 65	0. 00	0	46. 78	57	209	- 153
1480+50	0. 00	0	22. 41	0. 00	0	47. 28	57	272	- 216
1481+00	0. 00	0	10. 27	0. 00	0	30. 26	57	313	- 256
1481+50	0. 00	0	1. 94	0. 00	0	11. 31	57	328	- 271
1482+00	0. 00	0	0. 81	0. 00	0	2. 55	57	331	- 274
1482+00. 01	0. 00	0	0. 00	0. 00	0	0. 00	57	331	- 274

STH 57 EARTHWORK DETAIL CONT.									
STATION	AREA (SF)			INCREMENTAL VOLUME (CY) (UNADJUSTED)			CUMULATIVE VOLUME (CY)		MASS ORDINATE
	CUT	SALVAGED / UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED / UNUSABLE PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	
							1. 00	1. 33	
1519+99. 99	0. 00	0	0. 00	0. 00	0	0. 00	56. 80	331. 00	- 274. 20
1520+00	1. 34	0	2. 83	0. 00	0	0. 00	57	331	- 274
1520+50	32. 84	0	1. 21	31. 65	0	3. 74	88	336	- 248
1521+00	49. 09	0	0. 60	75. 86	0	1. 68	164	338	- 174
1521+50	42. 74	0	0. 39	85. 03	0	0. 92	249	339	- 90
1522+00	31. 14	0	0. 10	68. 41	0	0. 45	318	340	- 22
1522+50	11. 44	0	0. 02	39. 43	0	0. 11	357	340	17
1522+75	11. 84	0	1. 04	10. 78	0	0. 49	368	341	27
1522+75. 01	0. 00	0	0. 00	0. 00	0	0. 00	368	341	27
1558+73. 99	0. 00	0	0. 00	0. 00	0	0. 00	368	341	27
1558+74	0. 00	0	0. 00	0. 00	0	0. 00	368	341	27
1559+00	14. 24	0	0. 26	6. 86	0	0. 13	375	341	34
1559+24	12. 54	0	0. 00	11. 90	0	0. 12	387	341	46
1559+50	10. 80	0	11. 24	11. 24	0	5. 41	398	348	50
1559+74	8. 90	0	17. 37	8. 76	0	12. 72	407	365	41
1560+00	9. 44	0	19. 83	8. 83	0	17. 91	416	389	26
1560+25	8. 90	0	22. 70	8. 49	0	19. 69	424	415	9
1560+50	9. 44	0	25. 33	8. 49	0	22. 24	433	445	- 12
1560+75	7. 94	0	26. 89	8. 05	0	24. 18	441	477	- 36
1561+00	7. 14	0	22. 21	6. 98	0	22. 73	448	507	- 60
1561+25	6. 90	0	21. 70	6. 50	0	20. 33	454	534	- 80
1561+50	8. 30	0	12. 88	7. 04	0	16. 01	461	556	- 94
1561+75	6. 34	0	18. 19	6. 78	0	14. 38	468	575	- 107
1562+00	5. 90	0	18. 75	5. 67	0	17. 10	474	597	- 124
1562+15	5. 10	0	18. 78	3. 07	0	10. 48	477	611	- 135
1562+15. 09	0. 00	0	0. 00	0. 00	0	0. 00	477	611	- 135
1562+56. 91	0. 00	0	0. 00	0. 00	0	0. 00	477	611	- 135
1562+57	4. 70	0	21. 96	0. 00	0	0. 00	477	611	- 135
1562+75	4. 90	0	17. 73	3. 21	0	13. 29	480	629	- 149
1563+00	6. 60	0	12. 32	5. 32	0	13. 91	485	648	- 162
1563+25	8. 20	0	8. 87	6. 85	0	9. 81	492	661	- 169
1563+47	7. 20	0	14. 85	6. 27	0	9. 66	498	673	- 175
1563+72	6. 60	0	16. 96	6. 39	0	14. 73	505	693	- 188
1563+97	7. 30	0	22. 18	6. 44	0	18. 12	511	717	- 206
1564+22	8. 64	0	20. 22	7. 38	0	19. 63	518	743	- 225
1564+47	6. 74	0	23. 95	7. 12	0	20. 45	526	770	- 245
1564+75	6. 24	0	14. 02	6. 73	0	19. 69	532	797	- 264
1564+98	6. 90	0	10. 38	5. 60	0	10. 39	538	810	- 273
1565+25	6. 70	0	7. 80	6. 80	0	9. 09	545	823	- 278
1565+45	6. 84	0	4. 32	5. 01	0	4. 49	550	829	- 279
1565+75	8. 24	0	1. 80	8. 38	0	3. 40	558	833	- 275
1566+06	7. 78	0	1. 18	9. 20	0	1. 71	567	835	- 268
1566+06. 01	0. 00	0	0. 00	0. 00	0	0. 00	567	835	- 268
1759+49. 99	0. 00	0	0. 00	0. 00	0	0. 00	567	835	- 268
1759+50	11. 64	0	0. 00	0. 00	0	0. 00	567	835	- 268
1760+00	11. 30	0	0. 10	21. 24	0	0. 09	589	835	- 247
1760+50	11. 14	0	0. 10	20. 78	0	0. 19	609	836	- 226
1760+79	12. 44	0	0. 00	12. 66	0	0. 05	622	836	- 214
1761+00	11. 44	0	1. 10	9. 29	0	0. 43	631	836	- 205
1761+50	29. 74	0	0. 00	38. 13	0	1. 02	669	838	- 168
1762+00	28. 84	0	0. 00	54. 24	0	0. 00	724	838	- 114
1762+50	9. 94	0	0. 12	35. 91	0	0. 11	760	838	- 78



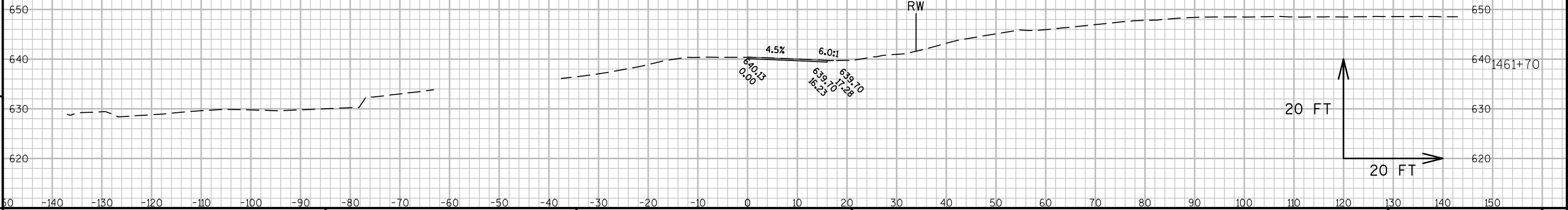
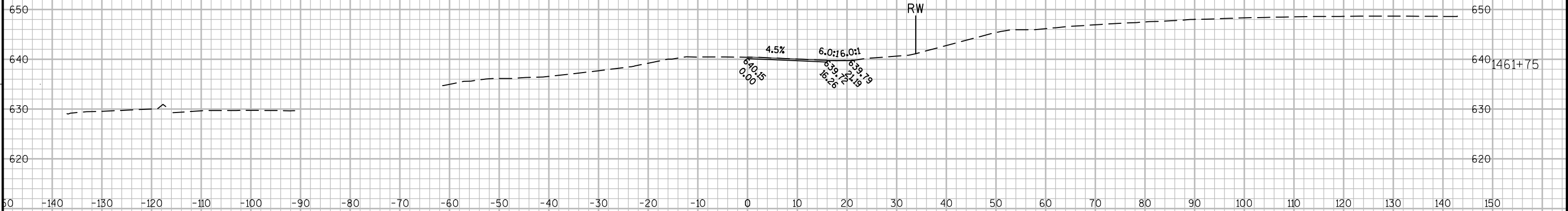
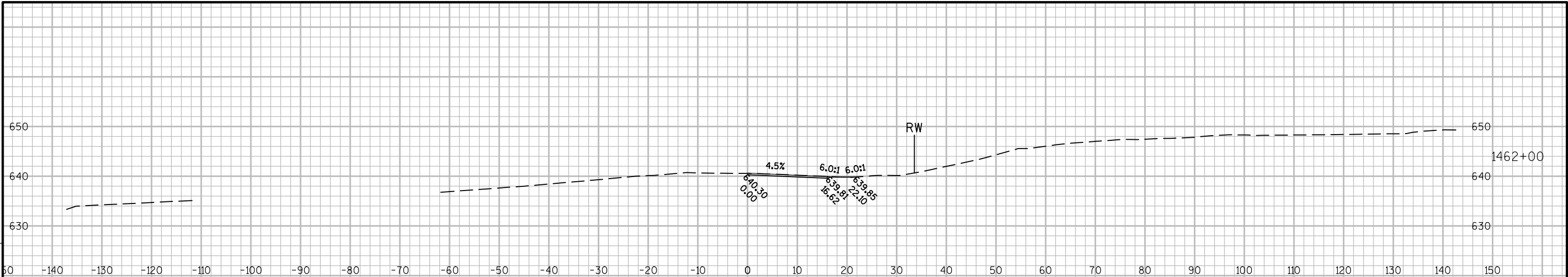
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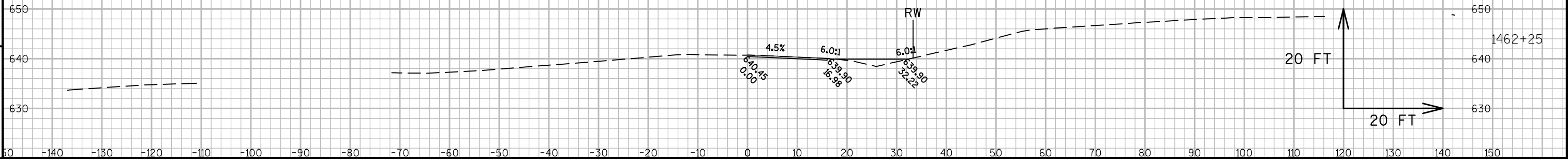
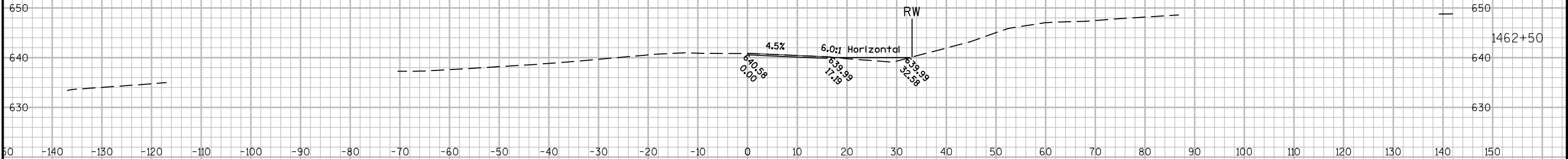
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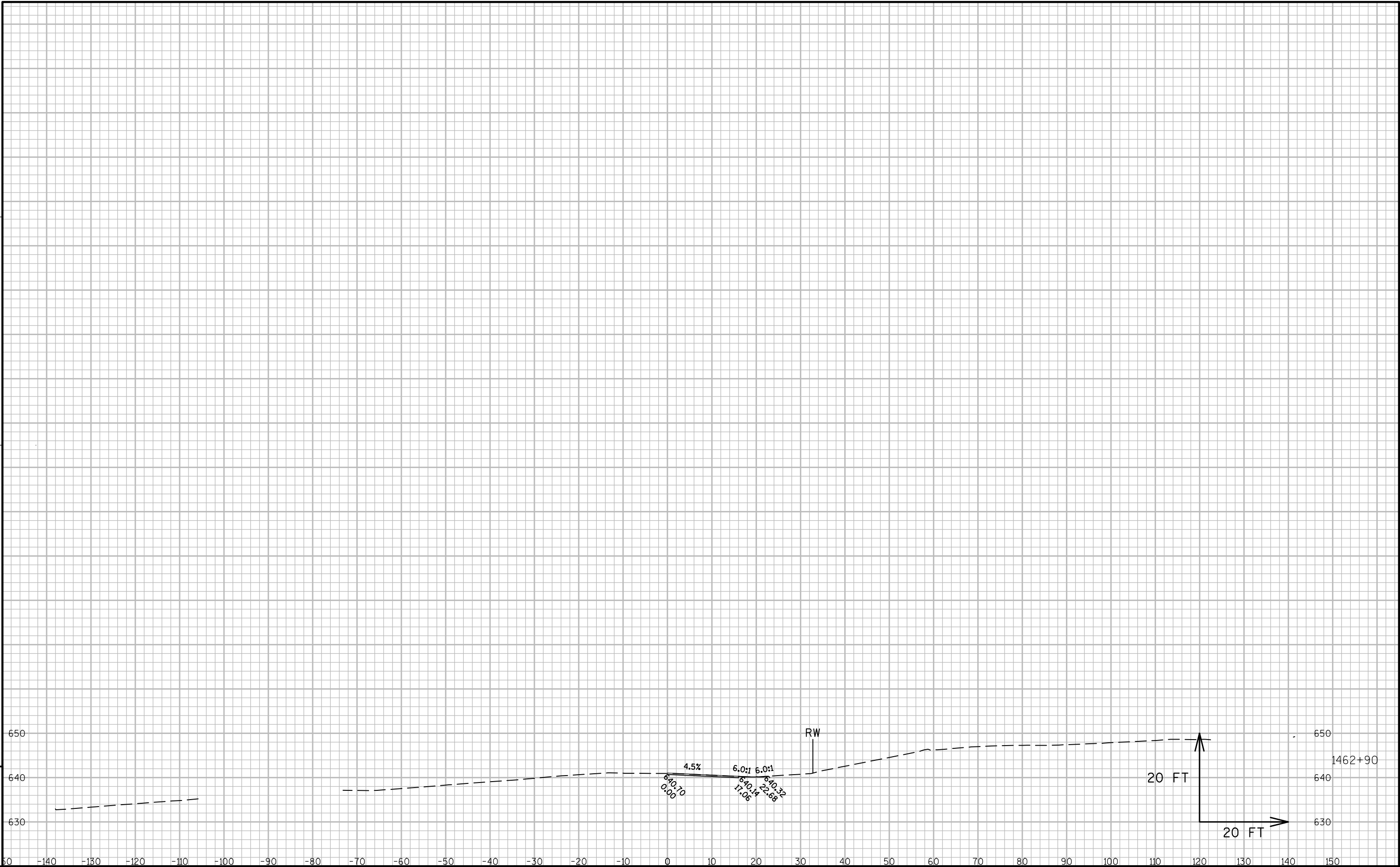
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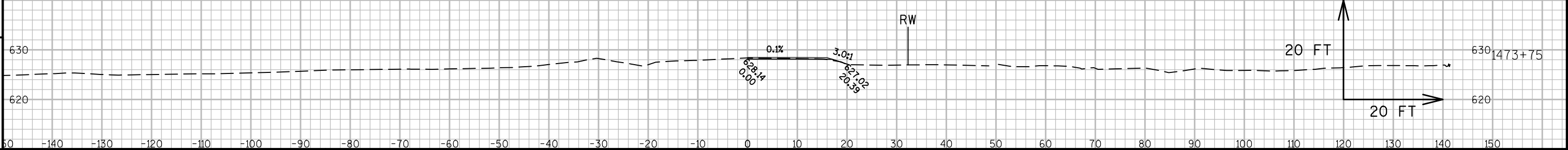
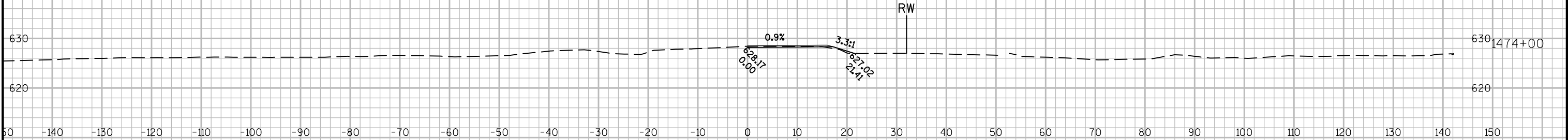
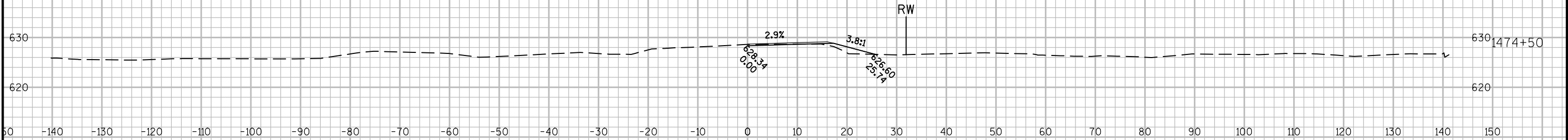
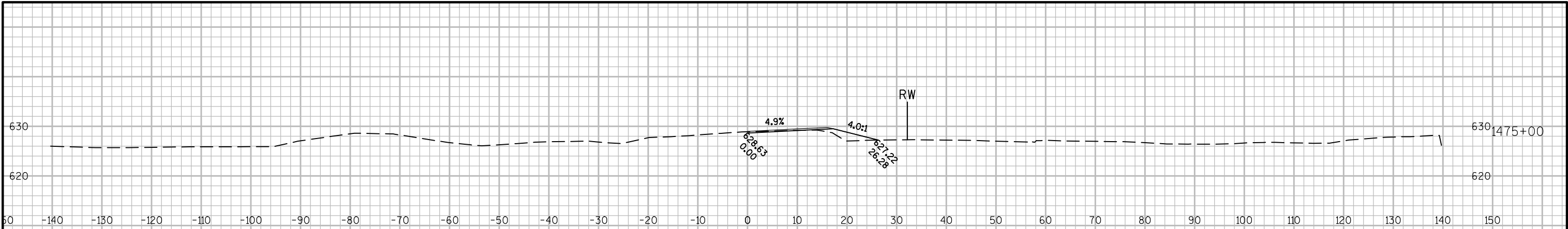
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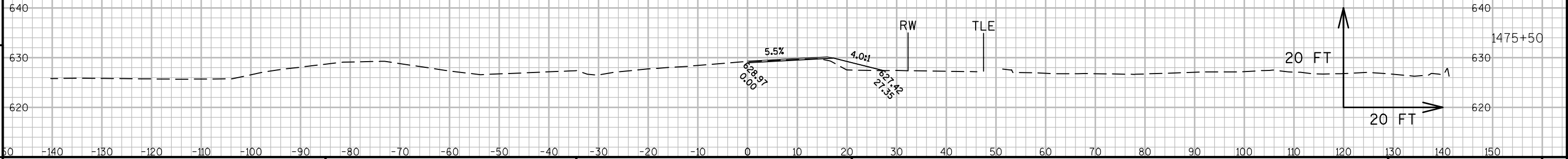
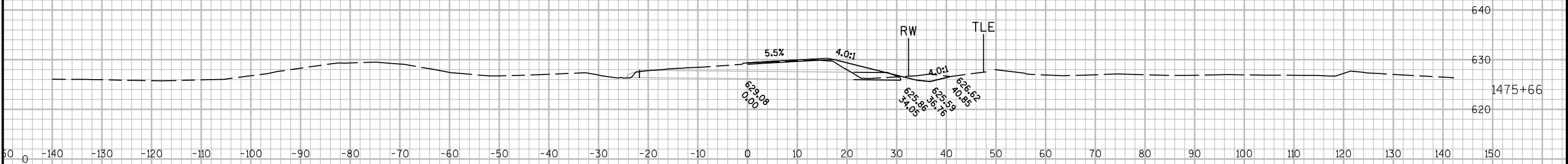
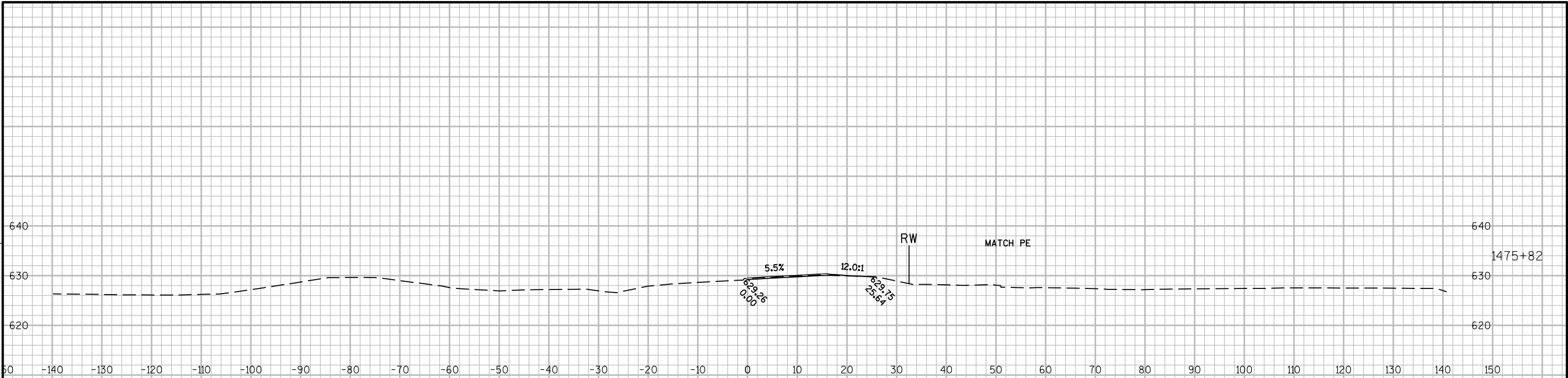


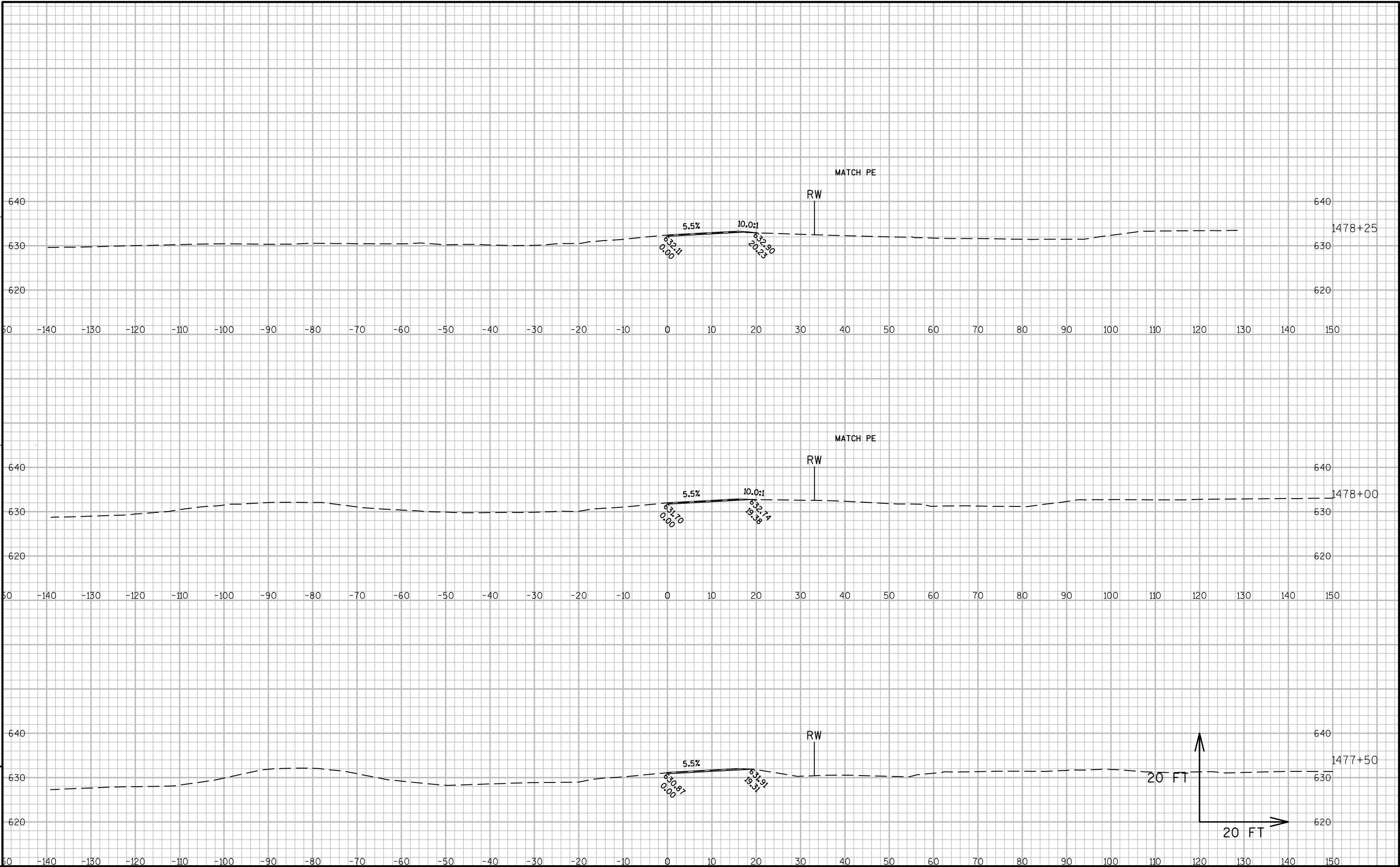


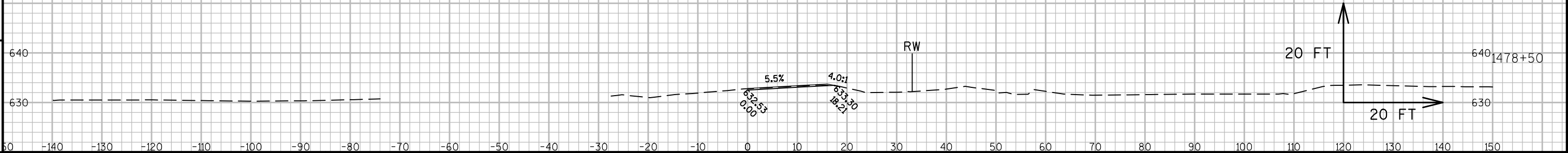
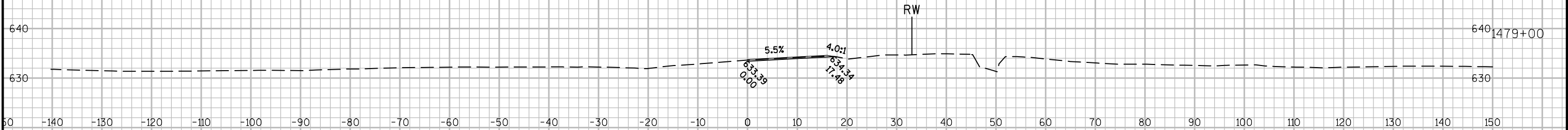
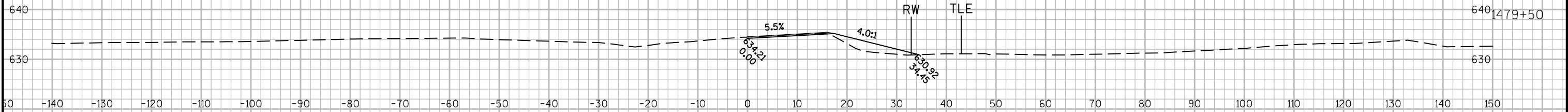
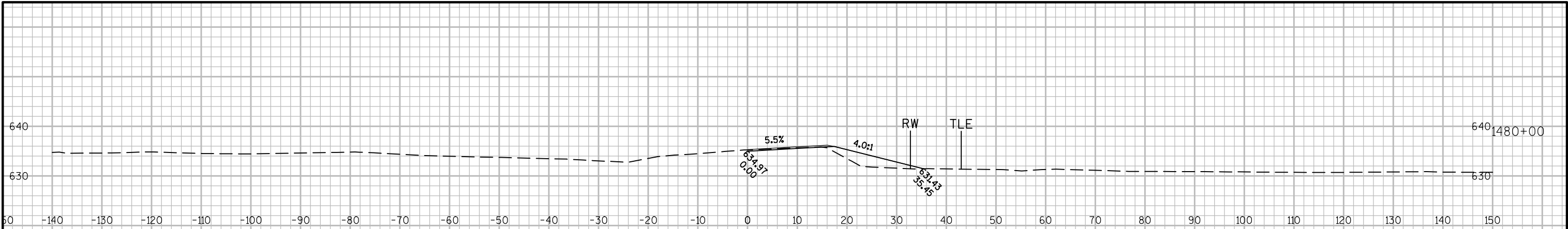
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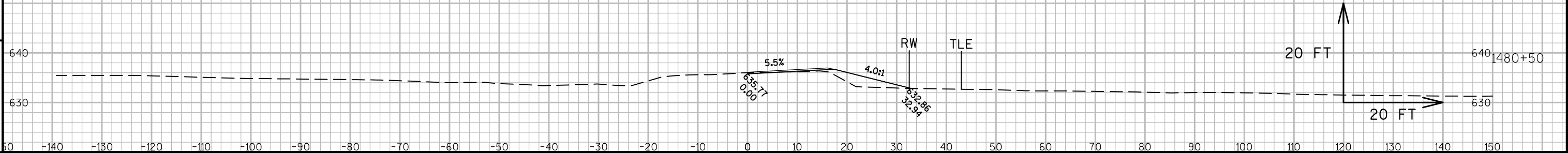
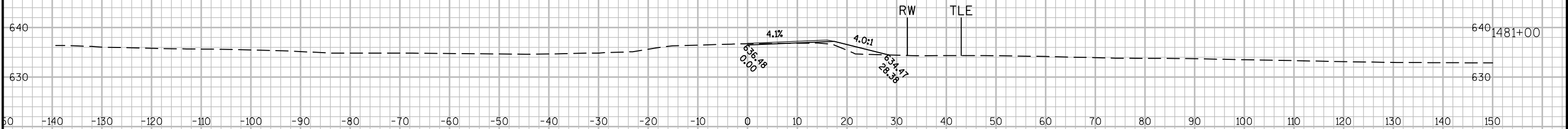
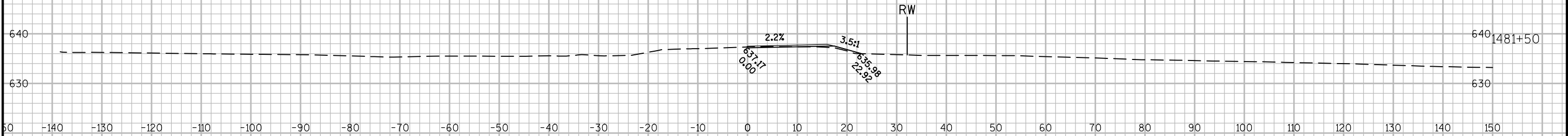
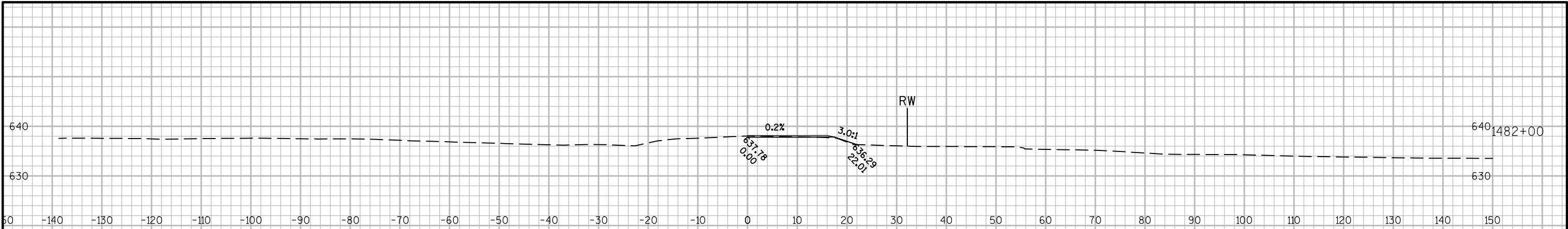
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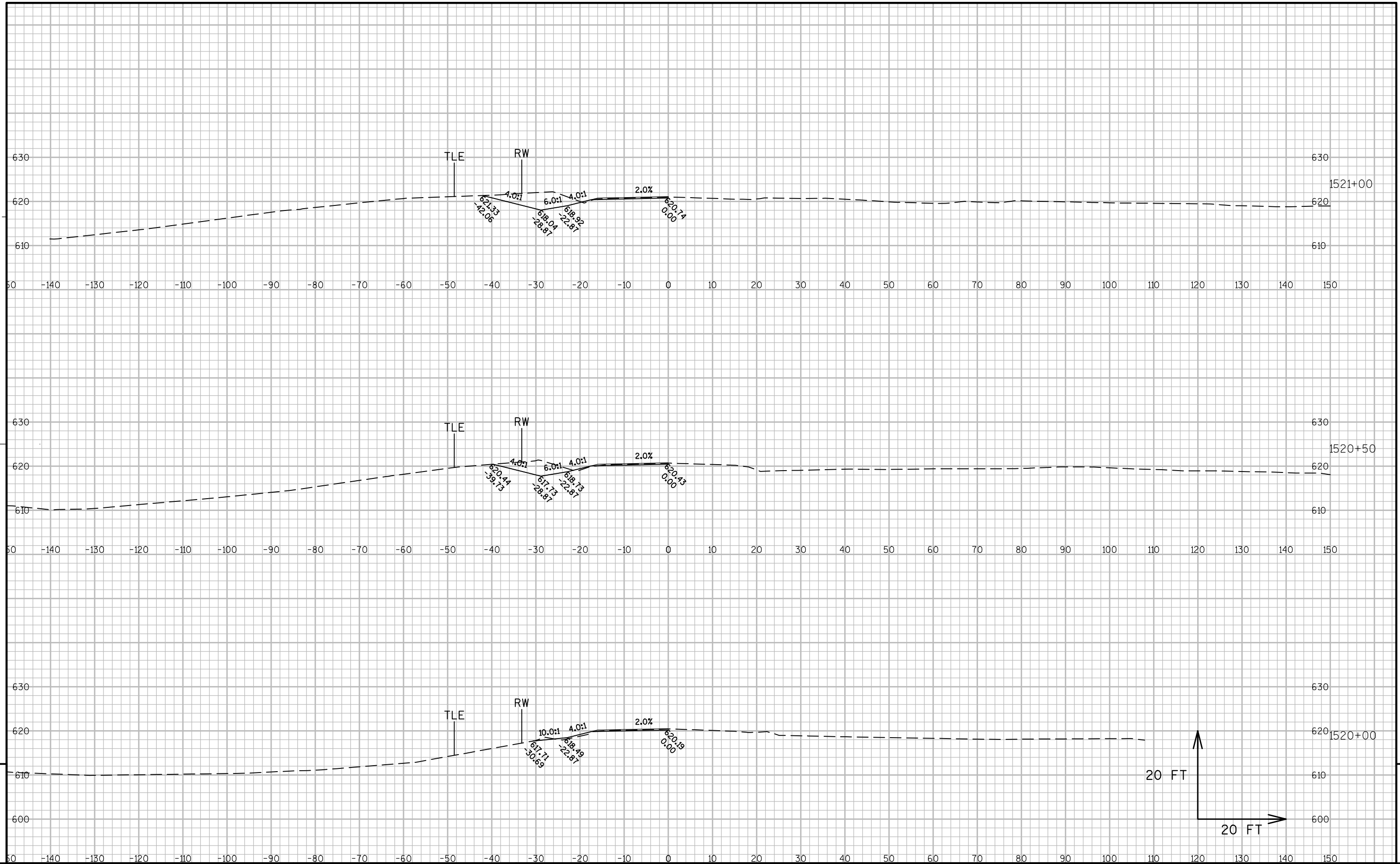


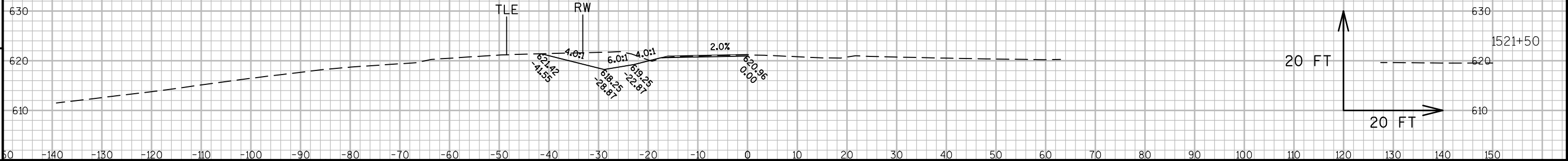
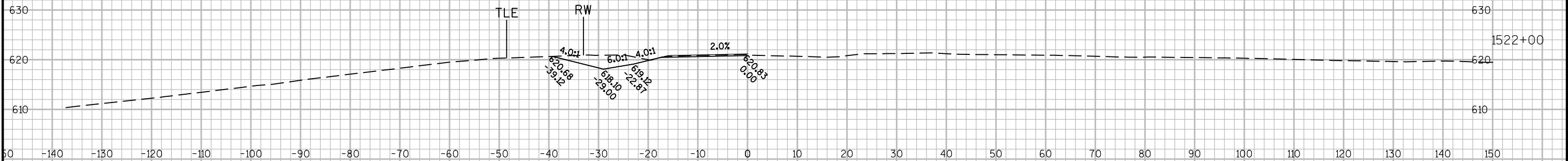
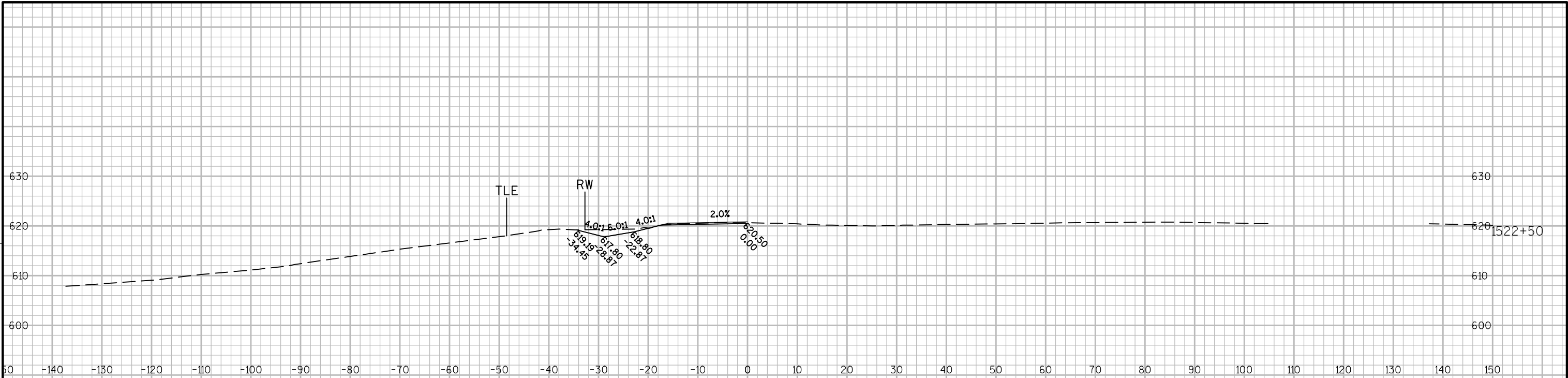


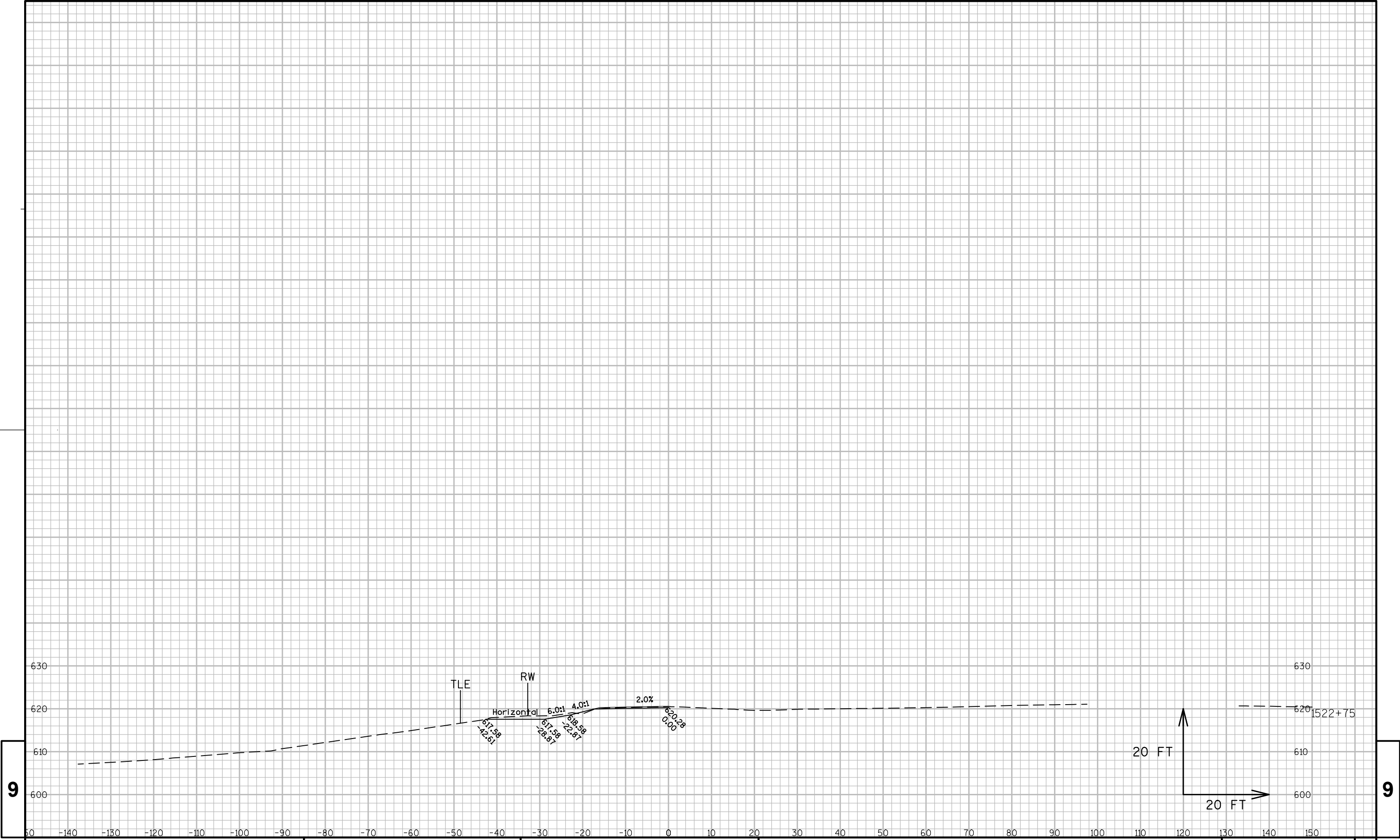






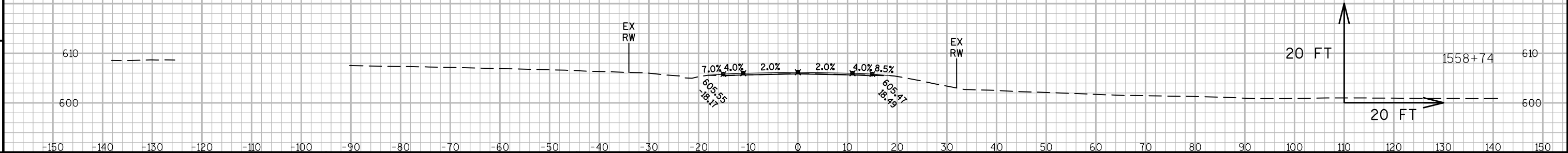
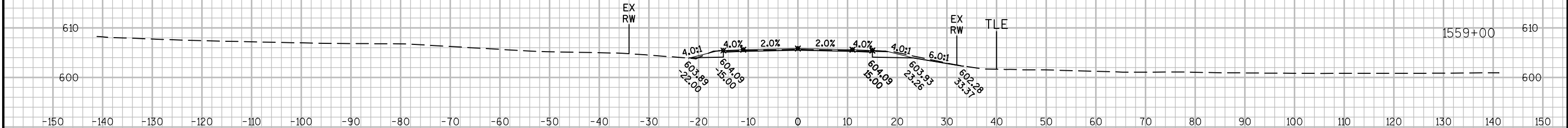
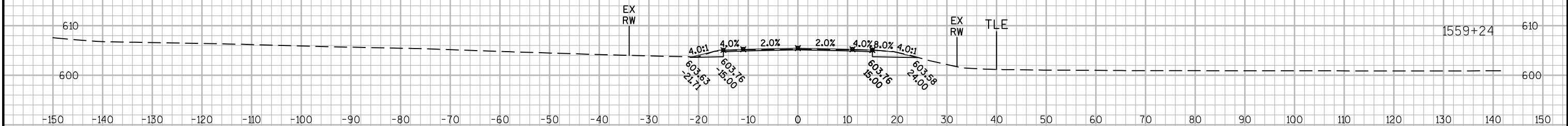
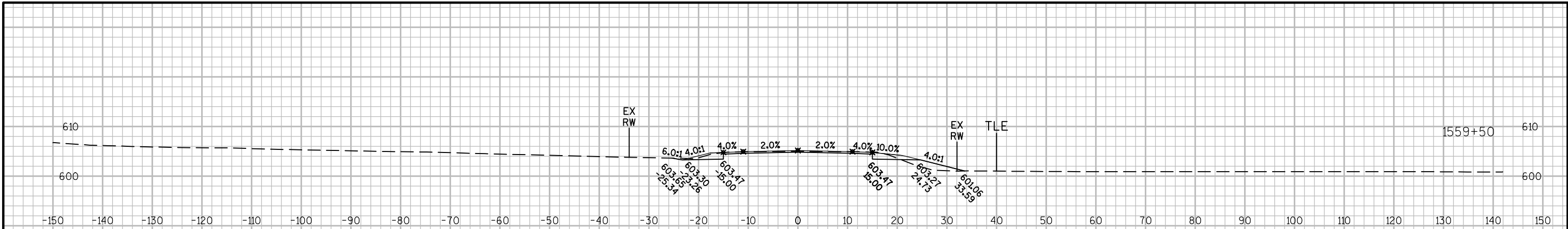


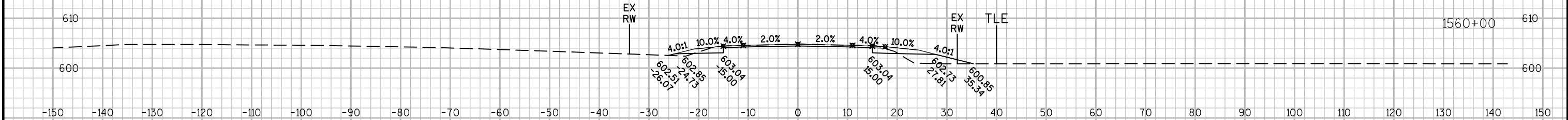
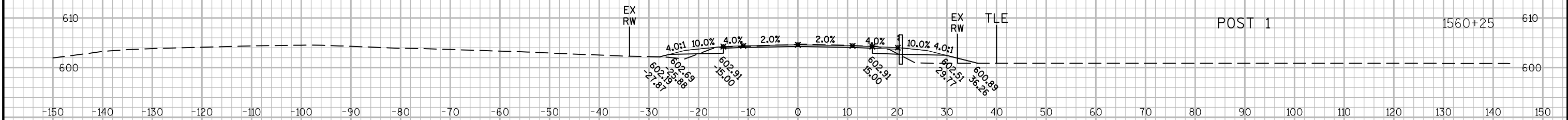
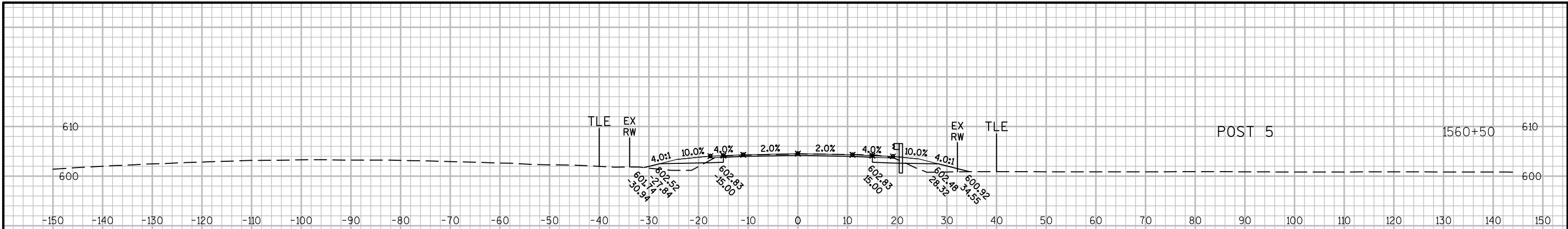


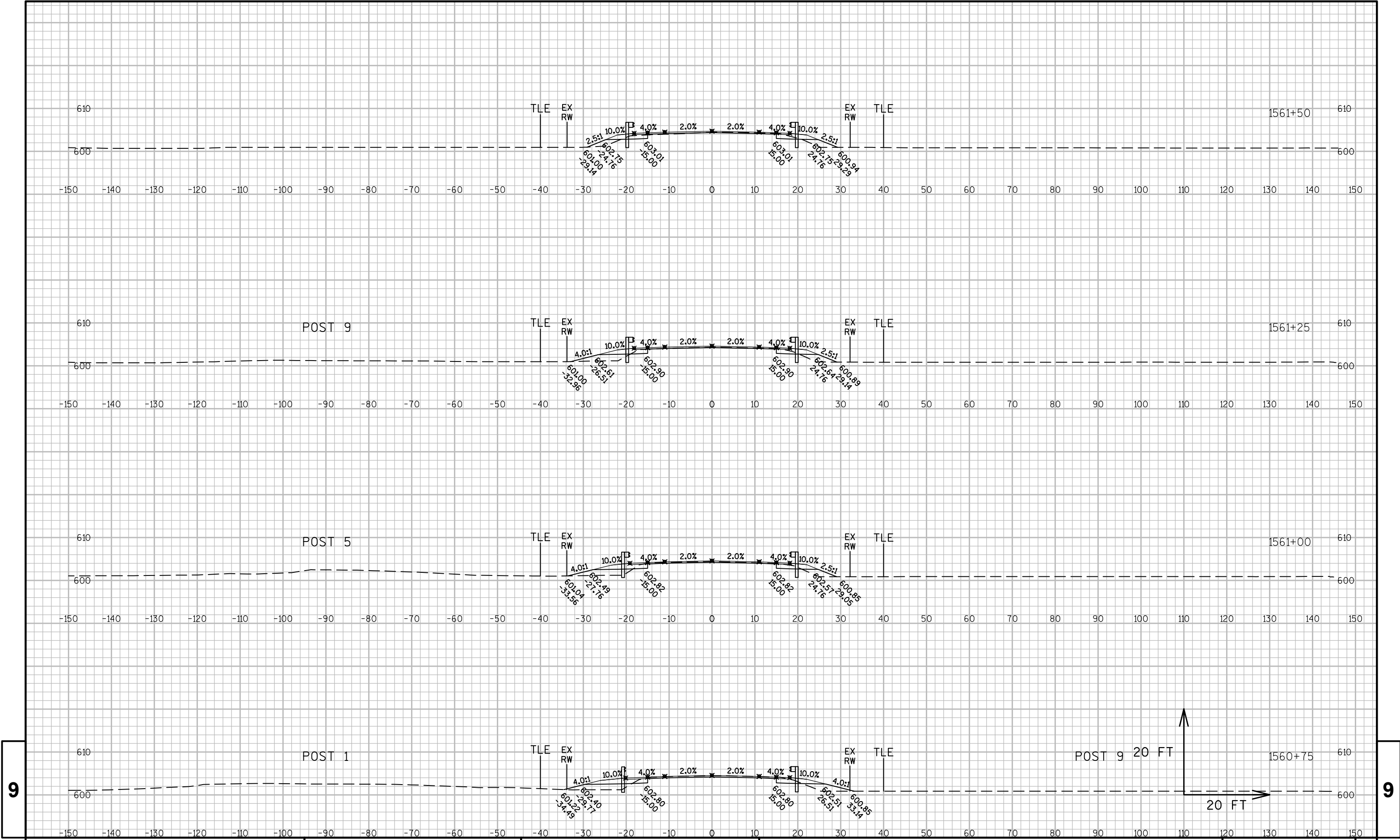


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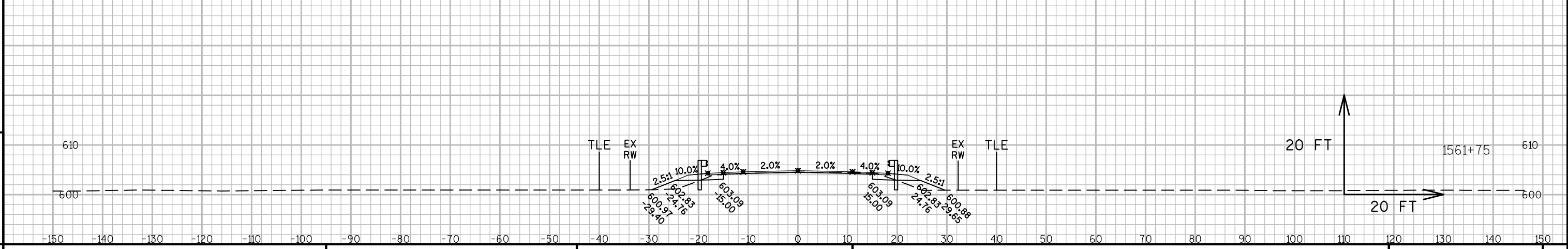
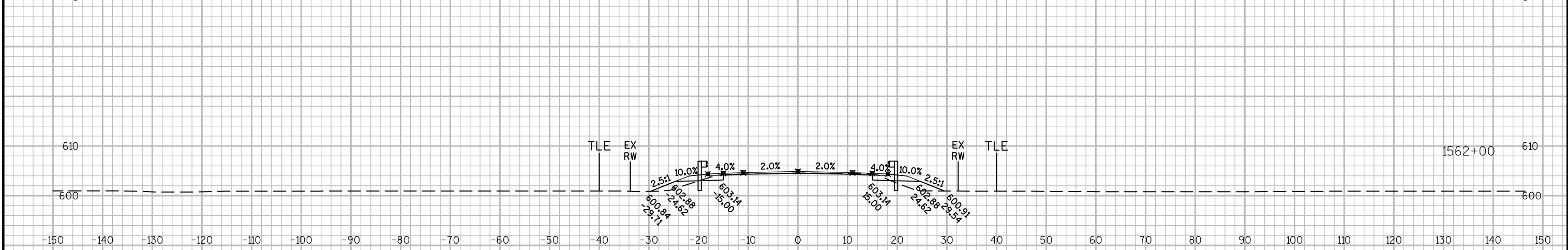
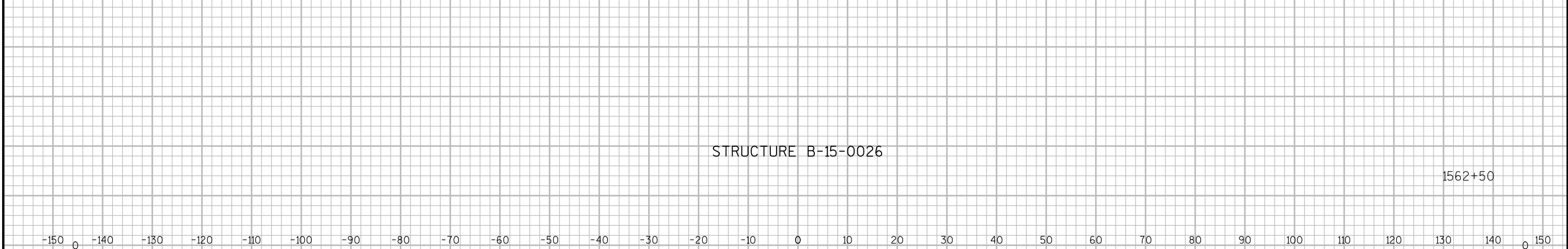
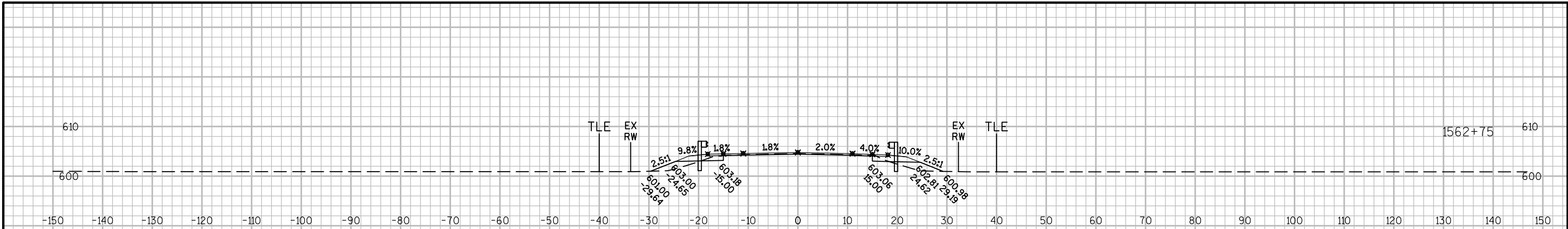


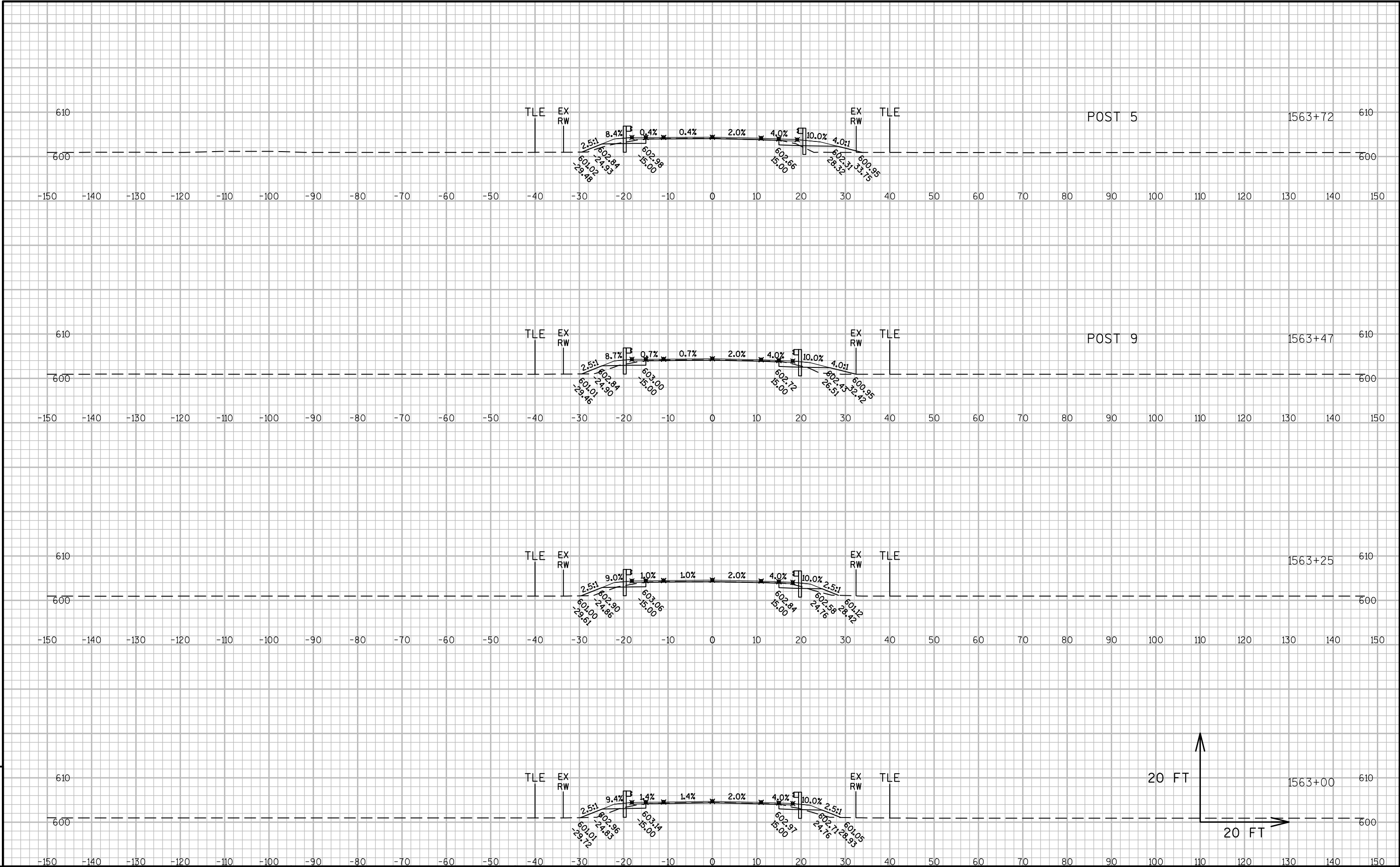


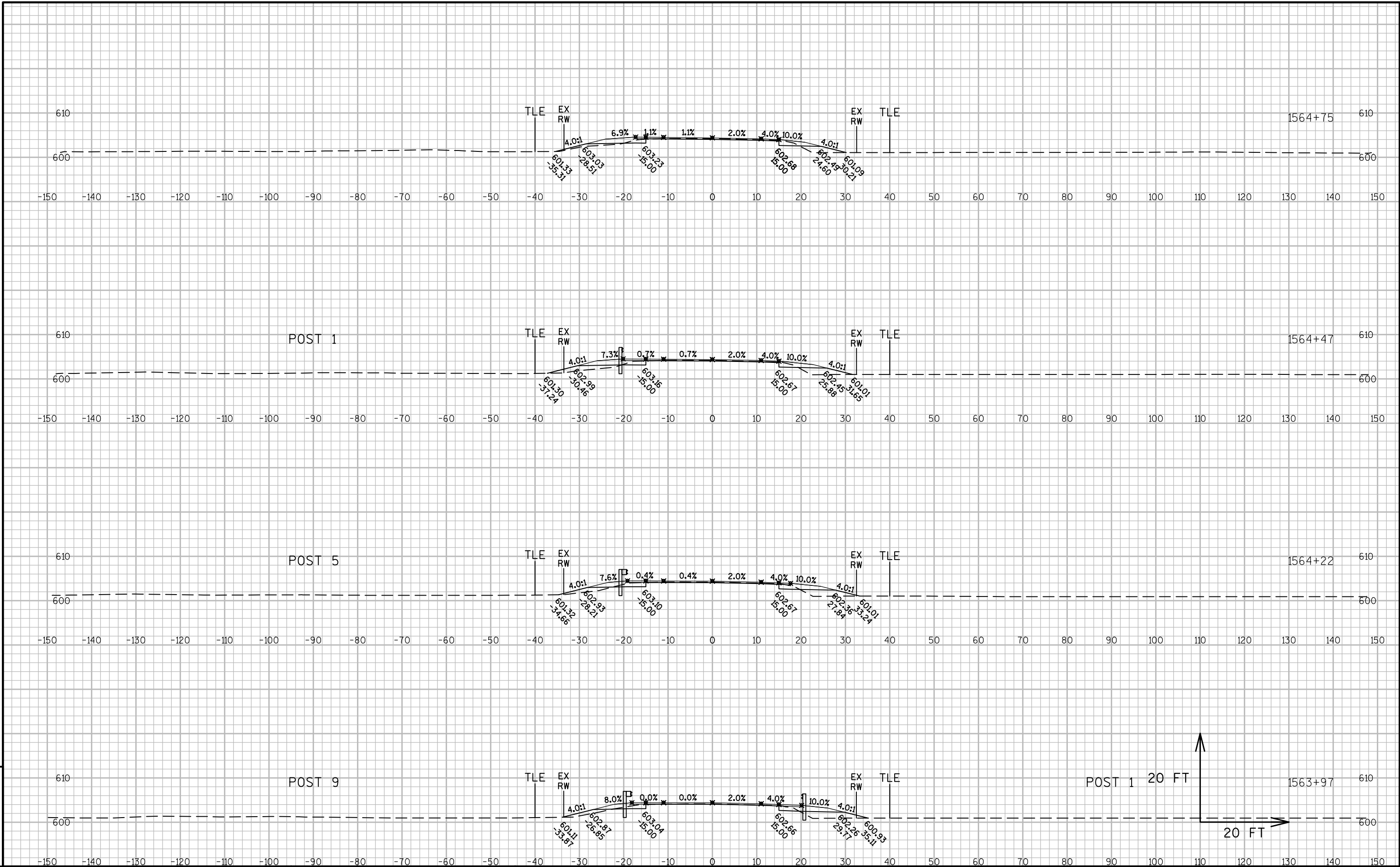


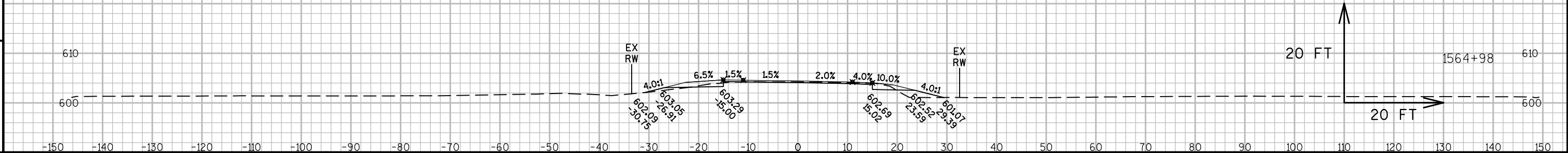
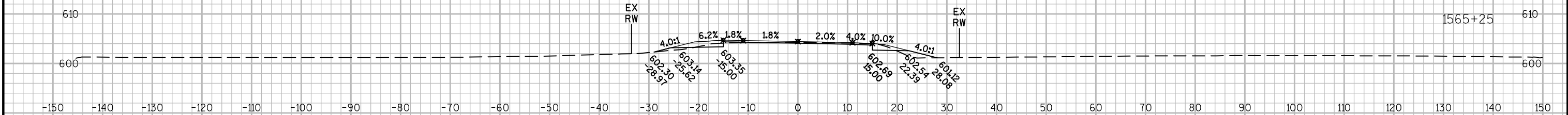
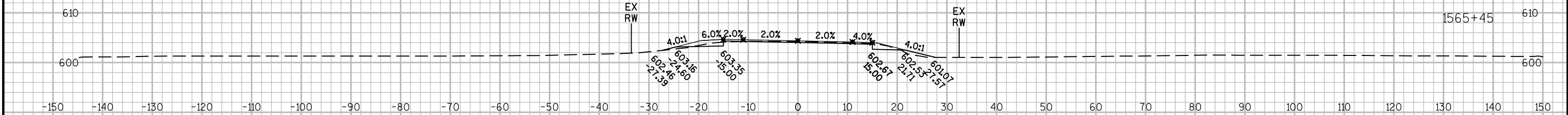
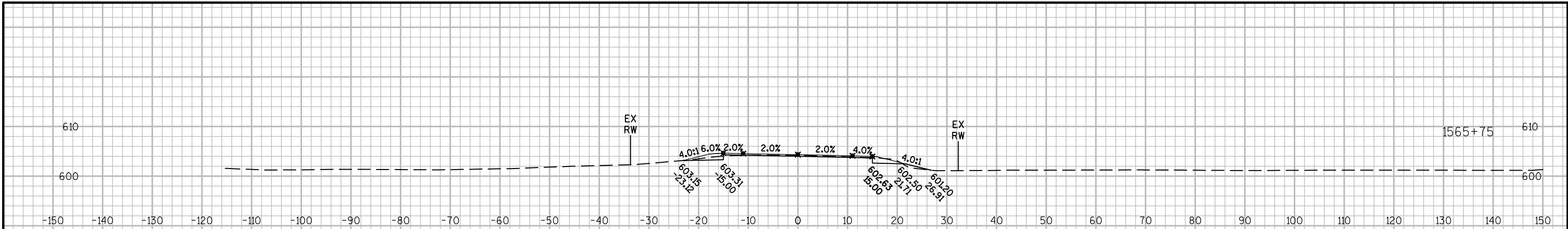
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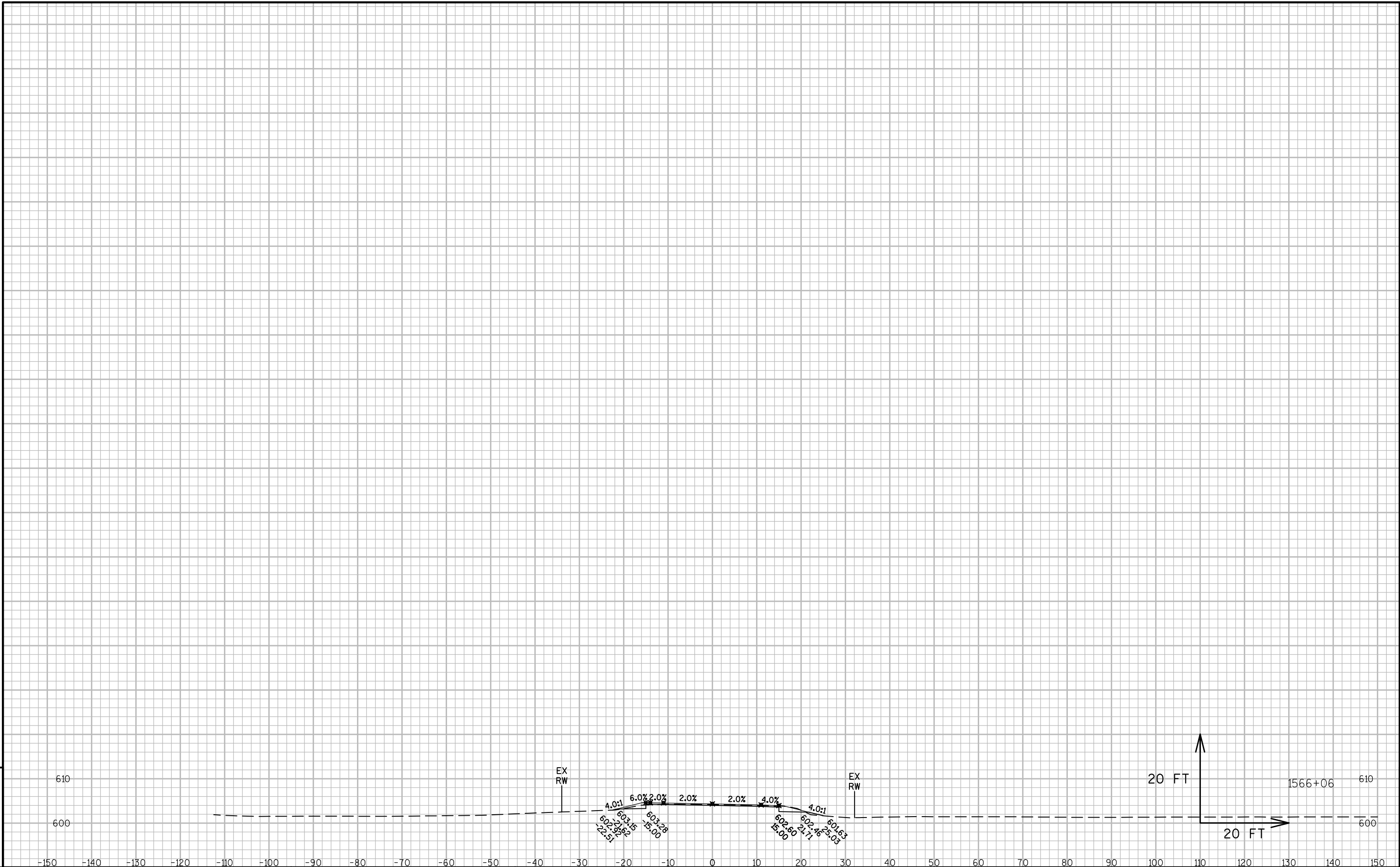




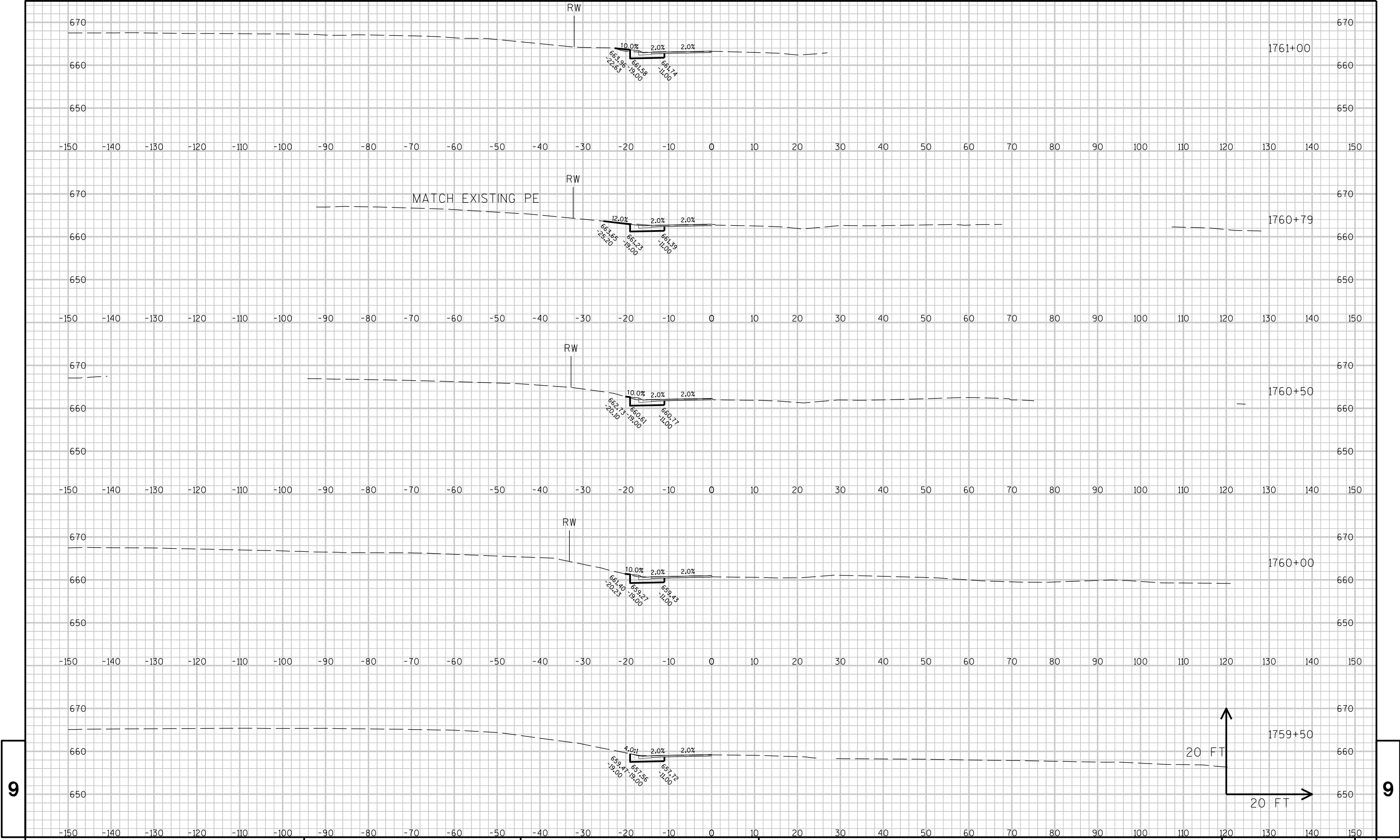




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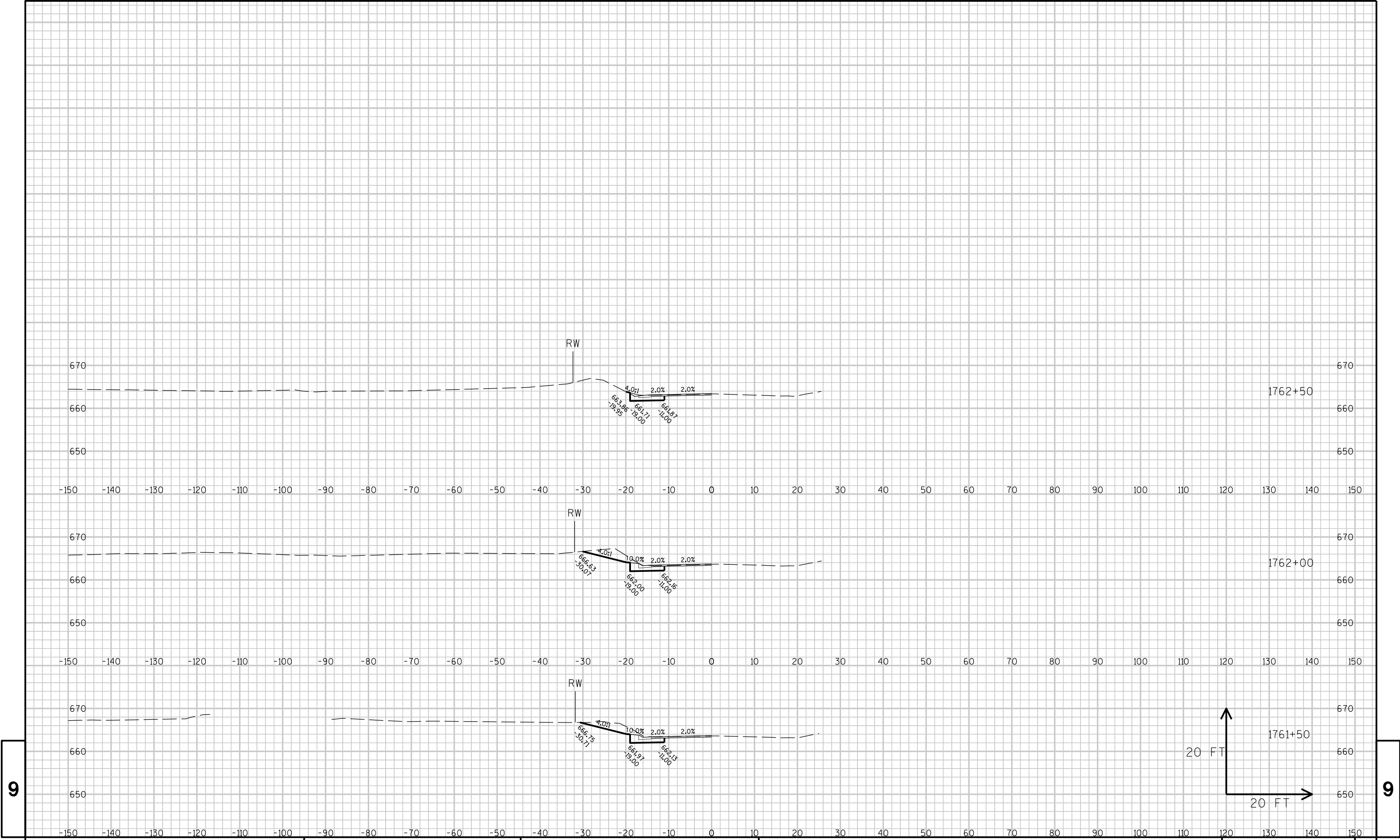


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