

SUP

JANUARY 2020

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 = 156

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

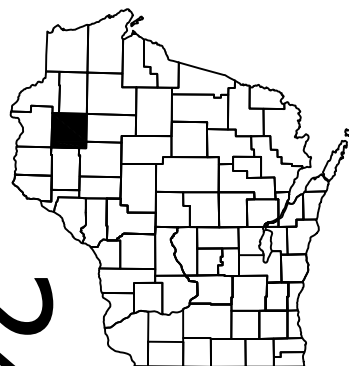
C CAMERON, USH 8
20TH STREET INTERSECTION
USH 8
BARRON

C CAMERON, USH 8
CTH SS SOUTH INTERSECTION
USH 8
BARRON

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1570-05-76	WISC 2019812	1
1570-05-77	WISC 2019813	1

STATE PROJECT NUMBER
1570-05-76

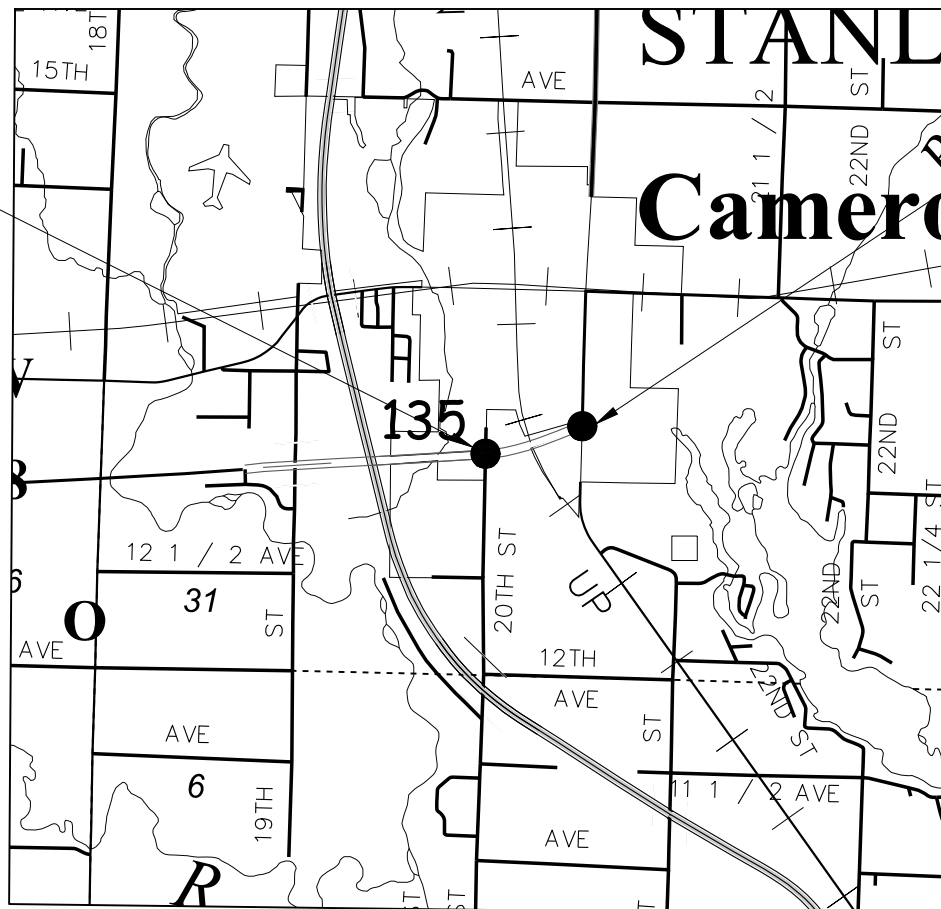
STATE PROJECT NUMBER
1570-05-77



R-12-W ← → R-11-W

1570-05-76 PROJECT LOCATION

1570-05-77 PROJECT LOCATION



DESIGN DESIGNATION 1570-05-76

A.A.D.T.	2022	=	4600
A.A.D.T.	2042	=	5400
D.H.V.		=	340
D.D.		=	60/40
T.		=	8.6%
DESIGN SPEED		=	55 MPH
ESALS		=	

DESIGN DESIGNATION 1570-05-77

A.A.D.T.	2022	=	6000
A.A.D.T.	2042	=	6600
D.H.V.		=	440
D.D.		=	60/40
T.		=	8.6
DESIGN SPEED		=	
ESALS		=	

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	



TOTAL NET LENGTH OF CENTERLINE = 0.3 MILES

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), BARRON COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. POSITIONS SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES ARE THE SAME AS GROUND DISTANCES. ELEVATIONS ARE REFERENCED TO NAVD 88 (2012). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 12A.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY	Surveyor	WISDOT
Designer	MITCHELL FINNEGAN	
Project Manager	MATTHEW DICKENSON	
Regional Examiner	TOU YANG	
Regional Supervisor	JEFFREY OLSON	

APPROVED FOR THE DEPARTMENT
DATE: 07/25/2019 *Matthew J. Dickenson*
(Signature)

E

PROJECT ID:

1570-05-76 & 1570-05-77

COUNTY:

BARRON

24

GENERAL NOTES

WHEN THE QUANTITY OF BASE AGGREGATE OR PAVEMENT IS MEASURED FOR PAYMENT BY THE TON OR BY THE CUBIC YARD, THE DEPTH OR THICKNESS OF THE LAYER SHOWN ON THE PLANS IS APPROXIMATE AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER

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

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT FOR AREAS WITHIN FINISHED SHOULDER POINT, SHALL BE FERTILIZED, SEEDED, AND COVERED WITH EROSION MAT.

THE LOCATION OF UTILITY FACILITIES AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY FACILITIES WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

THE EXACT LOCATION OF EROSION CONTROL DEVICES SHALL BE DETERMINED IN THE FIELD.

NO EQUIPMENT OR MATERIALS SHALL BE STORED IN WETLAND AREAS

PAVEMENT QUANTITIES ARE BASED ON 112 LBS/SY COMPACTED 1" THICK.

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

CONVENTIONAL ABBREVIATIONS

ACCESS POINT/ DRIVEWAY CONNECTION	AP	RELEASE OF RIGHTS REMAINING	ROR REM.
ACCESS RIGHTS	AR	RIGHT-OF-WAY	R/W
ACRES AND OTHERS	AC. ET.AL.	SECTION	SEC.
CENTERLINE	C/L	STATION	STA.
CERTIFIED SURVEY MAP	CSM	TEMPORARY LIMITED EASEMENT	TLE
CORNER	COR.	VOLUME	V.
DOCUMENT	DOC.		
FASFMNT	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		

UTILITY CONTACTS

MOSAIC TELECOM - COMMUNICATION LINE
DENNIS RUSSETT
401 S 1ST STREET
P.O. BOX 664
CAMERON, WI 54822
(715) 458-5378
CTCDENNIS@MOSAICTELECOM.COM

VILLAGE OF CAMERON MUNICIPAL WATER
UTILITY- SEWER
P.O. BOX 387
CAMERON, WI 54822-0387
JADEN EBERT
(715) 790-1140
CAMWATER@CHIBARDUN.NET

WE ENERGIES - GAS/PETROLEUM
NICOLE SMULLEN
A299
33 W EVERETT ST
MILWAUKEE, WI 53203
(414) 221-5617
NICOLE.SIMULLEN@WEENERGYGROUP.COM

XCEL ENERGY - ELECTRICITY
CORISSA SEELY
1414 W HAMILTON AVENUE
P.O. BOX 8
EAU CLAIRE, WI 54702-0008
(715) 373-4097
CORISSA.E.SEELY@XCELENERGY.COM

VILLAGE OF CAMERON MUNICIPAL WATER
UTILITY- WATER
P.O. BOX 387
CAMERON, WI 54822-0387
JADEN EBERT
(715) 790-1140
CAMWATER@CHIBARDUN.NET

WISDOT NW REGION

1701 NORTH 4TH STREET
SUPERIOR, WI 54880
MATTHEW DICKENSON
PROJECT MANAGER
MATTHEW.DICKENSON@DOT.WI.GOV
715-395-3022

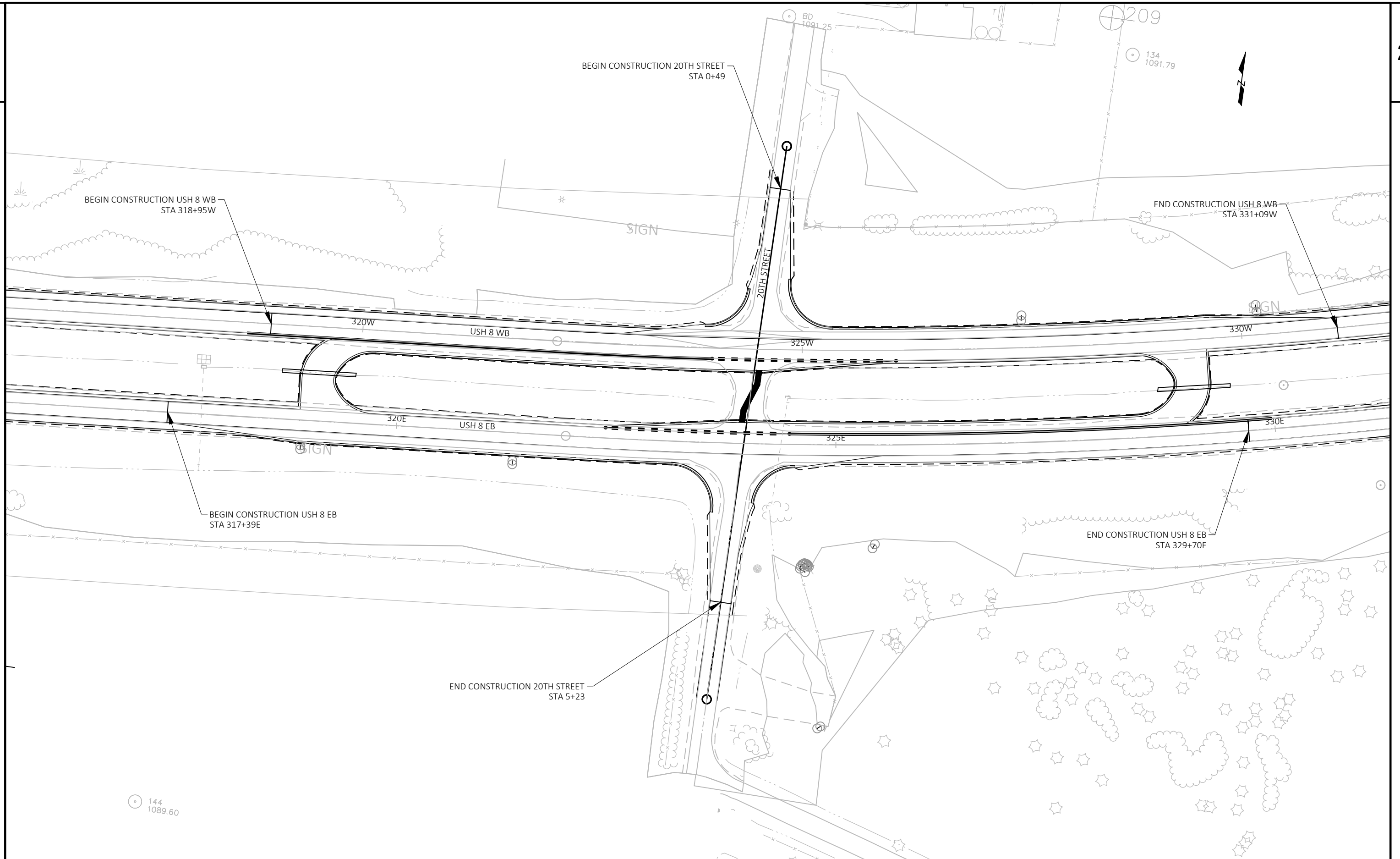
WISDNR

810 WEST MAPLE STREET
SPOONER, WI 54801
AMY CRONK, ENVIRONMENTAL
ANALYSIS AND REVIEW SPECIALIST
AMY.CRONK@WISCONSIN.GOV
715-635-4229

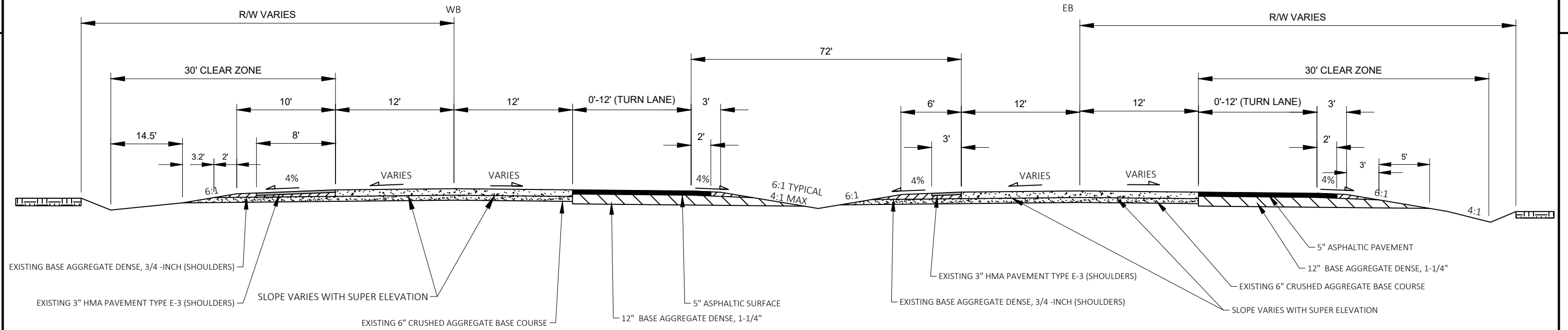


Dial **811** or (800)242-8511

www.DiggersHotline.com

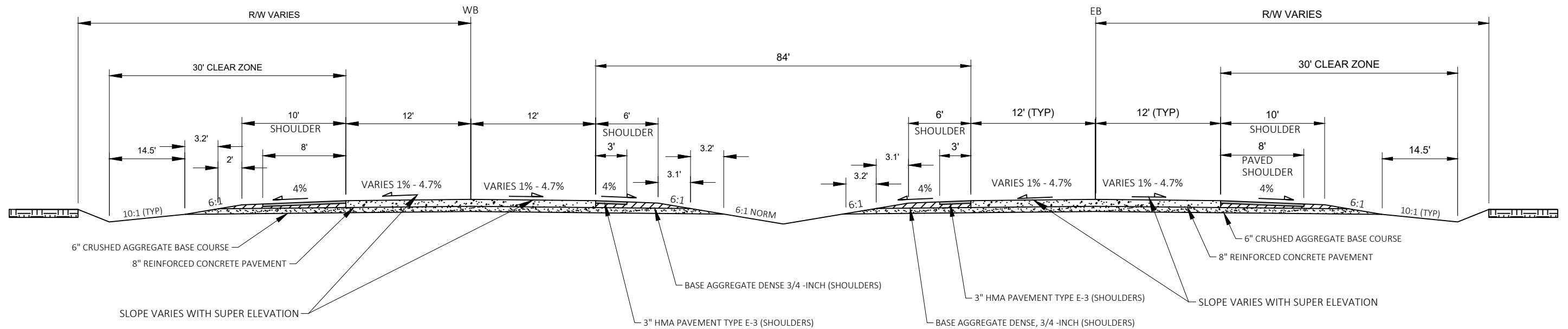


PROJECT NO: 1570-05-76	HWY: 8	COUNTY: BARRON	PROJECT OVERVIEW	SHEET E
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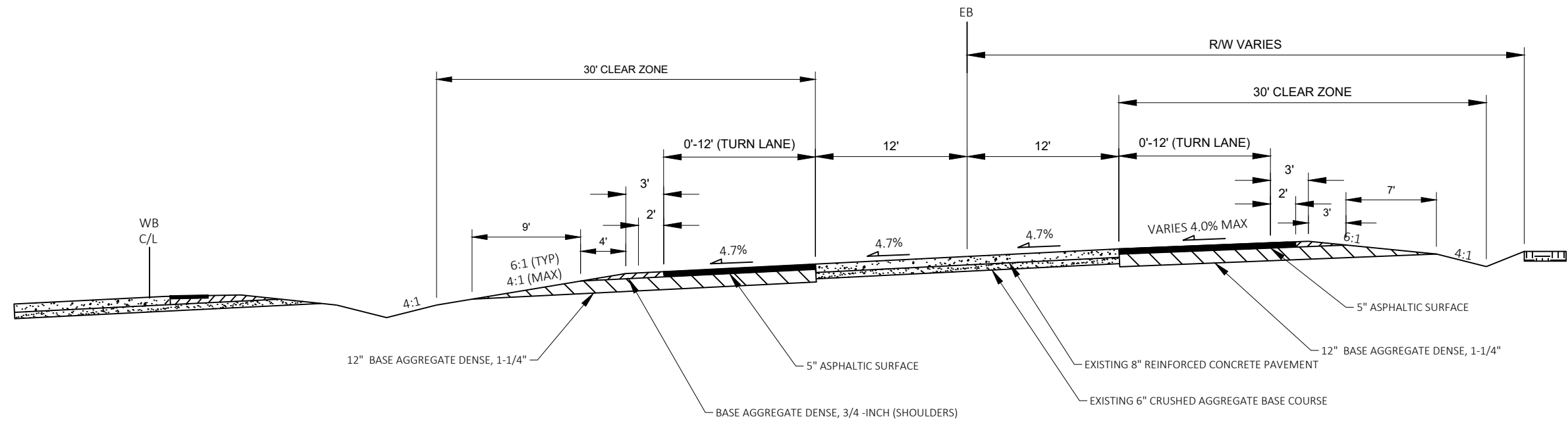
TYPICAL PROPOSED USH 8

STA. 317E+39 TO STA. 321E+92
STA. 318W+95 TO STA. 322W+21

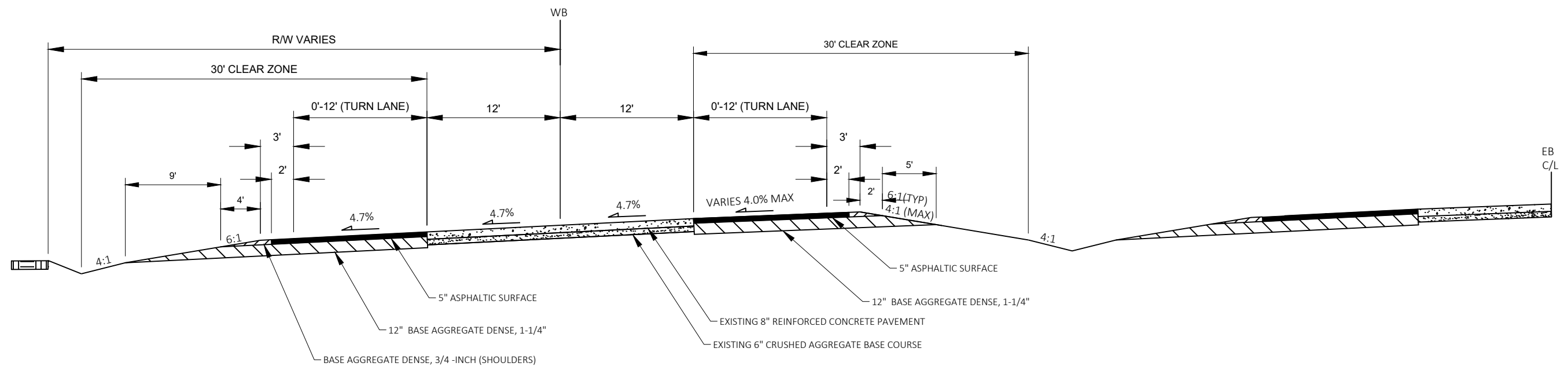


TYPICAL EXISTING USH 8

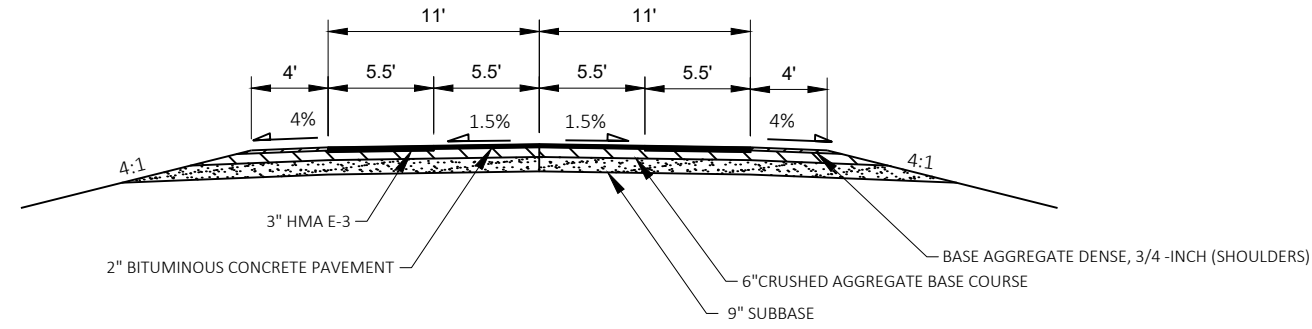
STA. 317E+39 TO STA. 329E+70
STA. 318W+95 TO STA. 331W+09



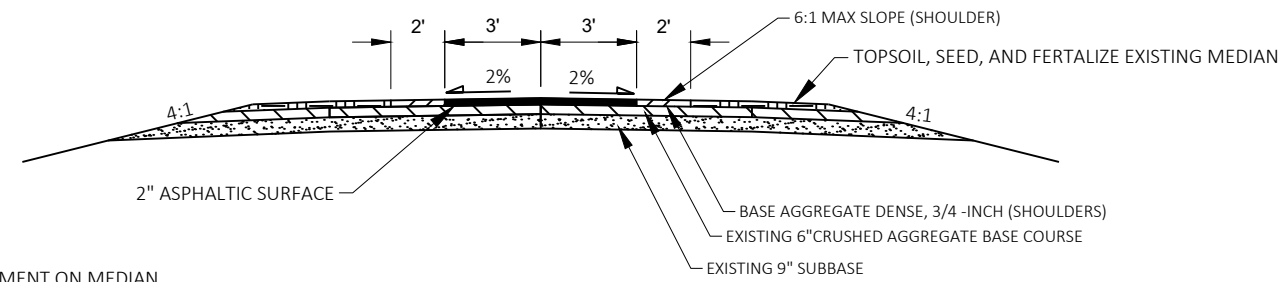
**TYPICAL PROPOSED SUPERELEVATED SECTION
EASTBOUND SECTION**
STA. 321E+92 TO STA. 329E+70



**TYPICAL PROPOSED SUPERELEVATED SECTION
WESTBOUND SECTION**
STA. 322W+21 TO STA. 331W+09



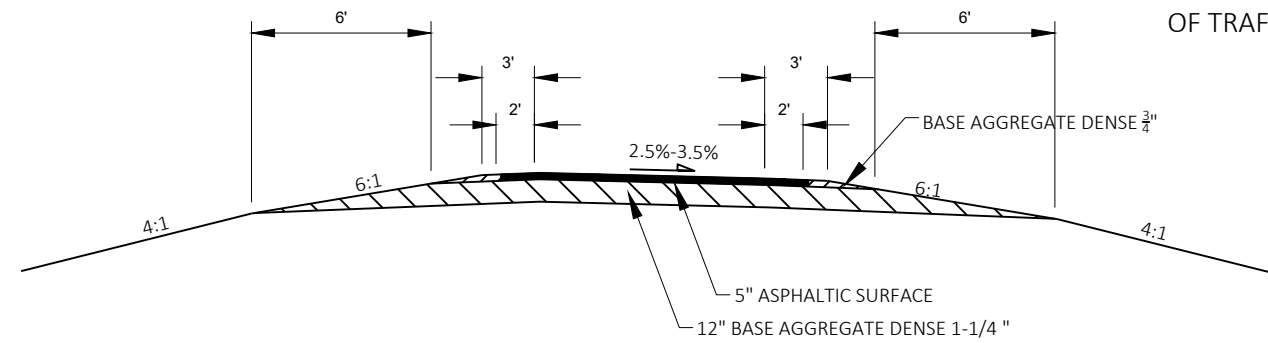
**TYPICAL EXISTING SECTION
20TH STREET**



REMOVE ALL EXISTING PAVEMENT ON MEDIAN
AND PLACE A SINGLE 2" LIFT OF ASPHALTIC
SURFACE FOR PEDESTRIAN PATH

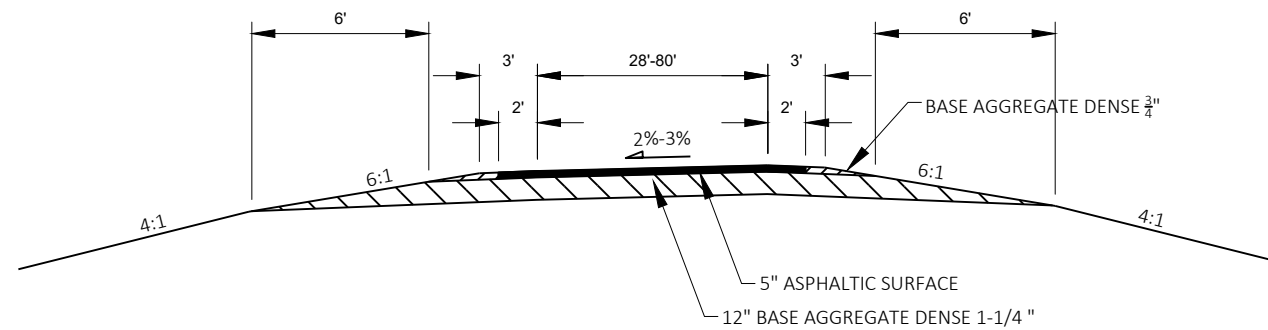
**TYPICAL PEDESTRIAN PATH SECTION
MEDIAN AT 20TH STREET & USH 8**

NOTE: THE TYPICAL FINISHED RESTRICTED U-TURN CROSSOVER SECTIONS ARE SHOWN IN THE DIRECTION OF TRAFFIC

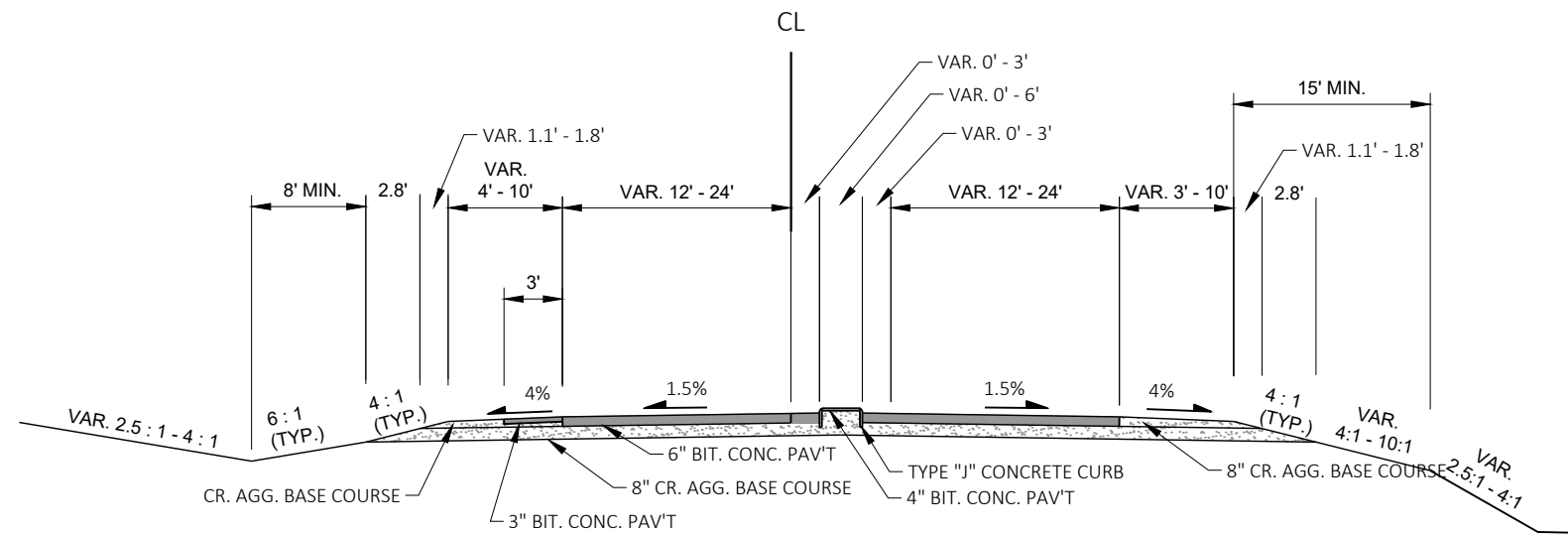


TYPICAL PROPOSED RESTRICTED U-TURN CROSSOVER SECTION WESTBOUND

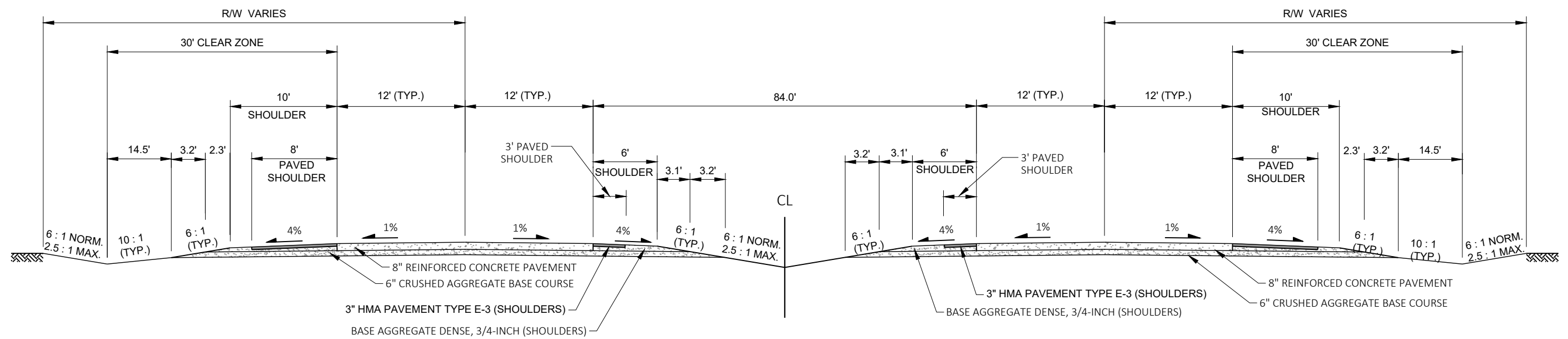
NOTE: THE TYPICAL FINISHED RESTRICTED U-TURN CROSSOVER SECTIONS ARE SHOWN IN THE DIRECTION OF TRAFFIC



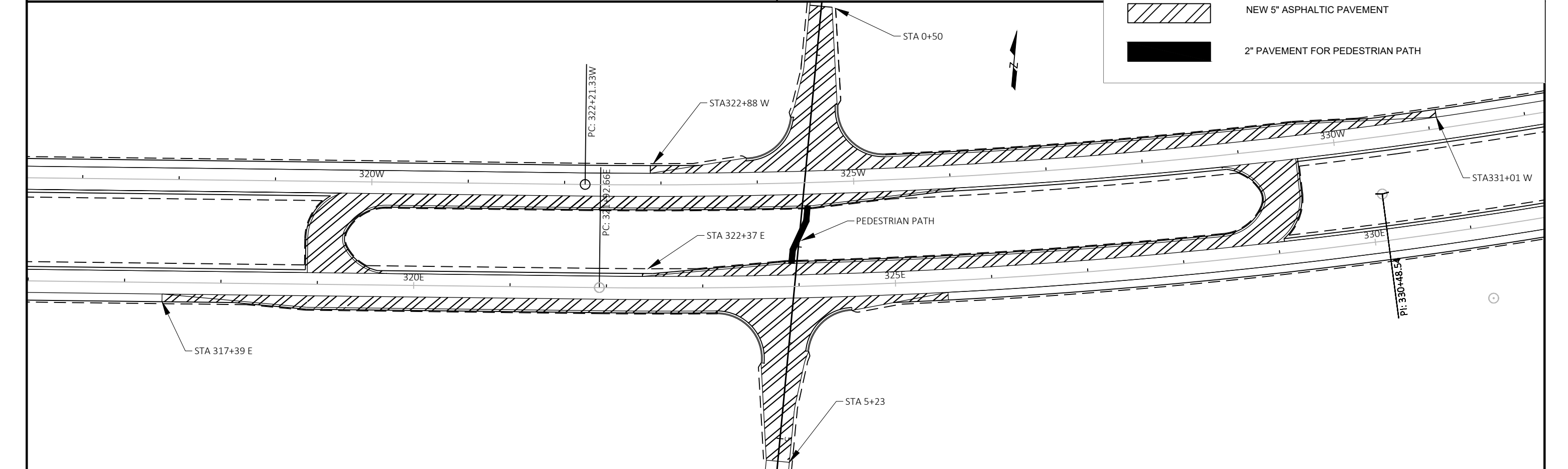
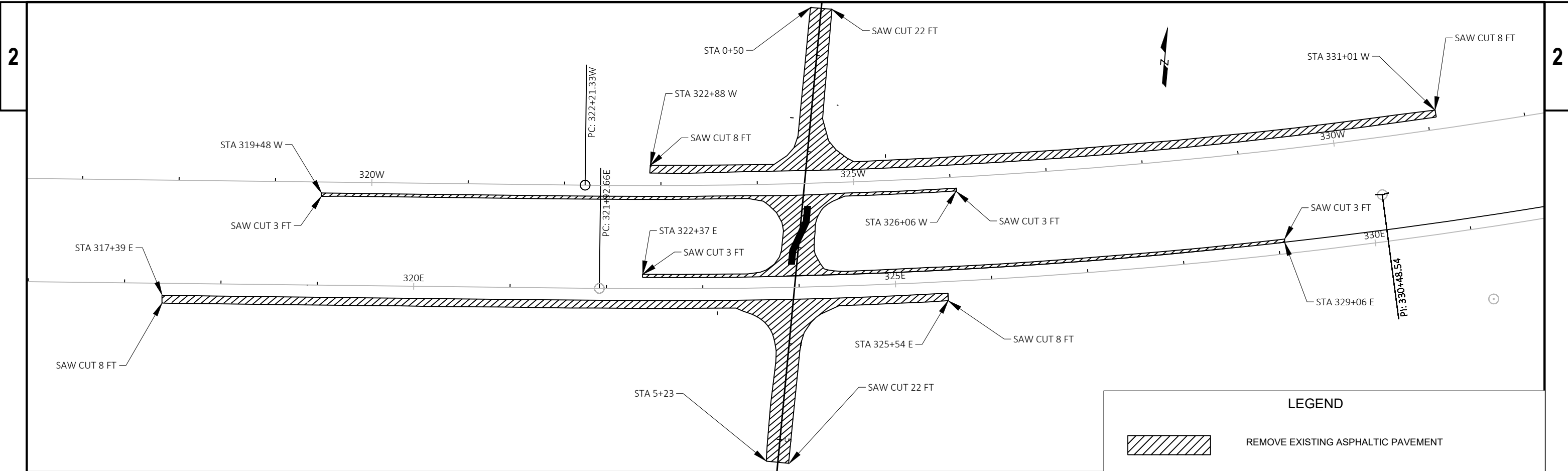
TYPICAL PROPOSED RESTRICTED U-TURN CROSSOVER SECTION EASTBOUND



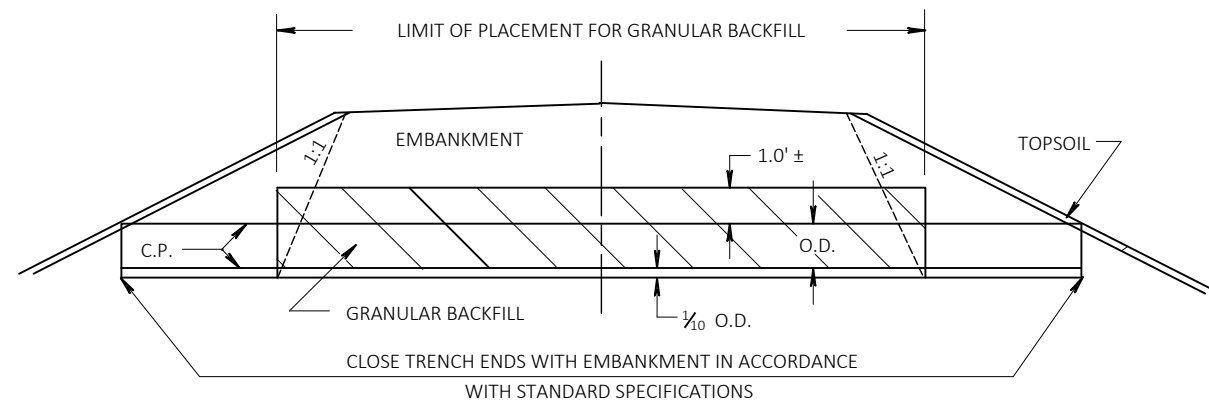
CTH SS - TYPICAL SECTION
 (EXISTING)
 STA. 93+00 TO STA. 110+00



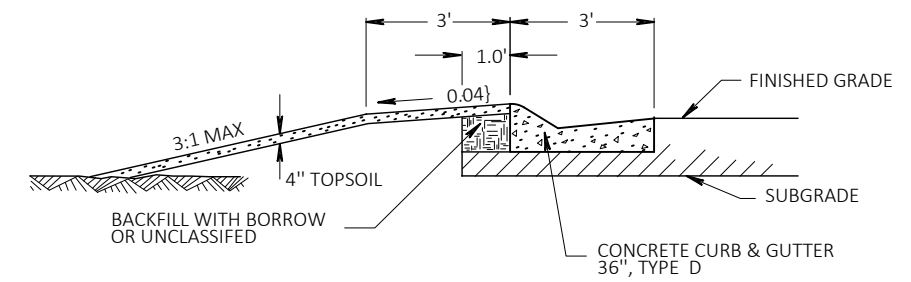
USH 8 - TYPICAL SECTION
 (EXISTING)
 STA. 259E+00 TO STA. 347E+27
 STA. 267W+63 TO STA. 348W+30



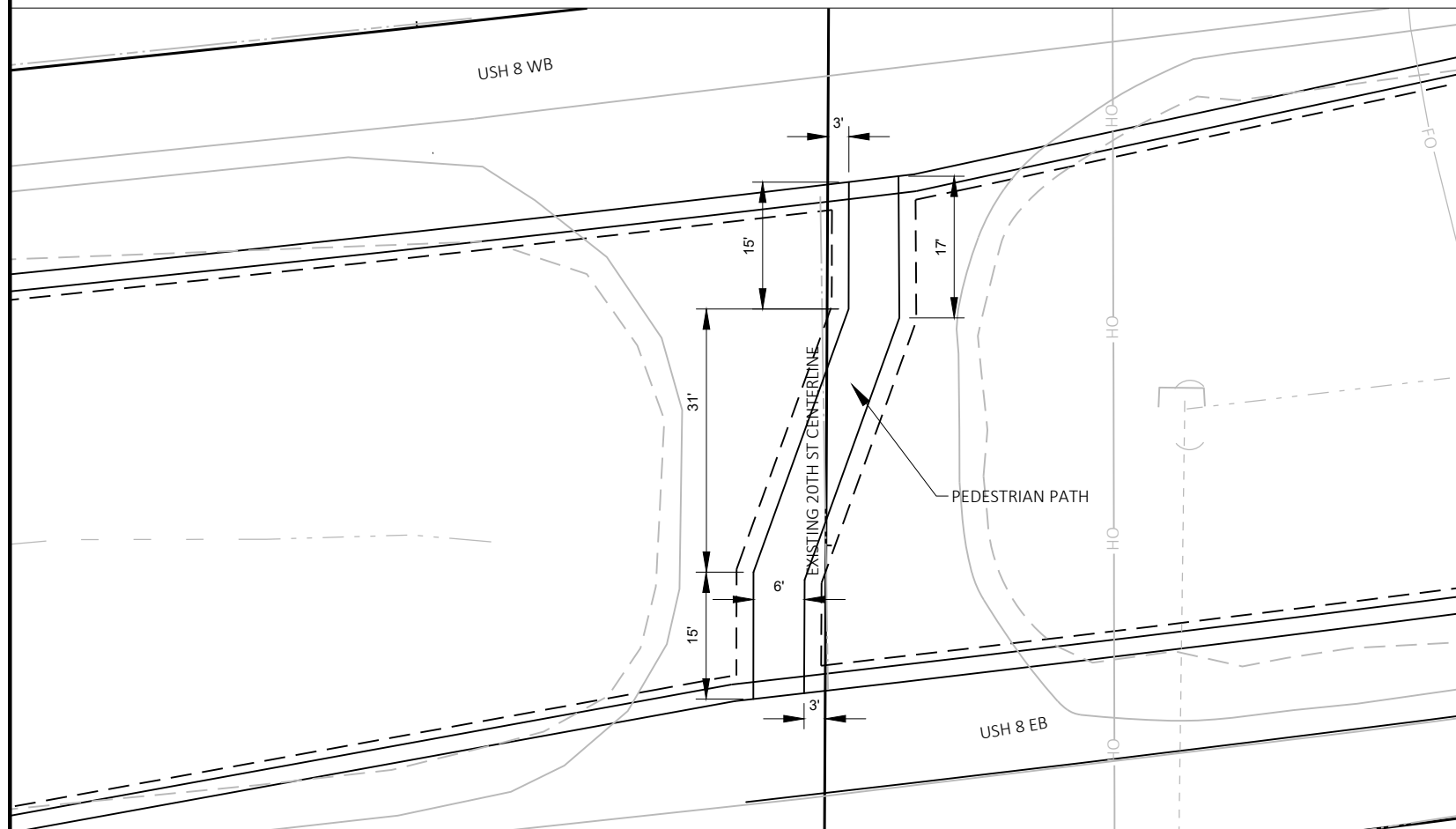
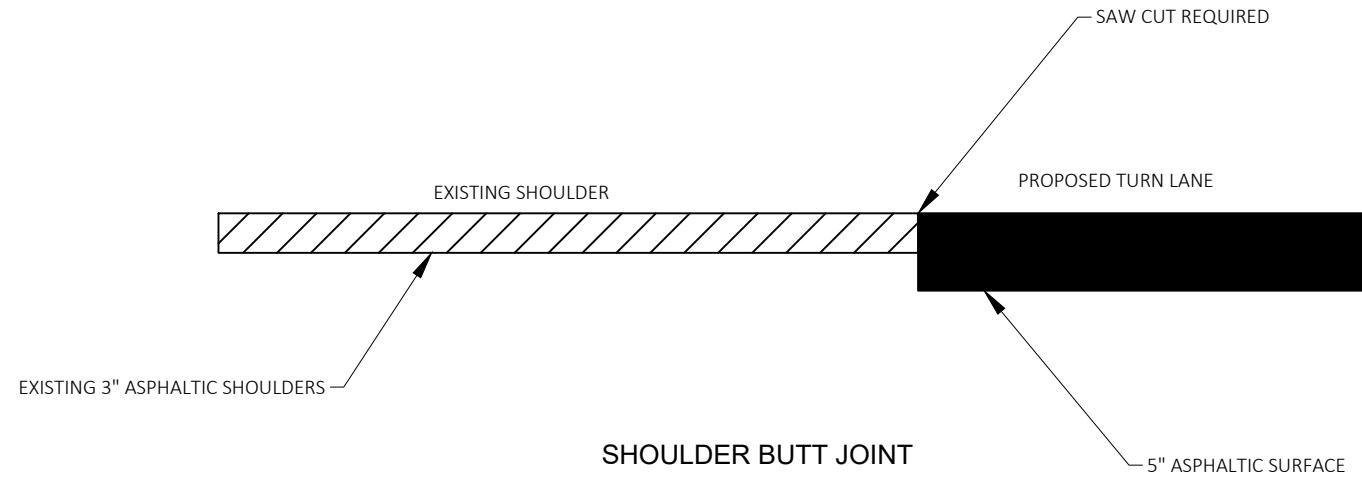
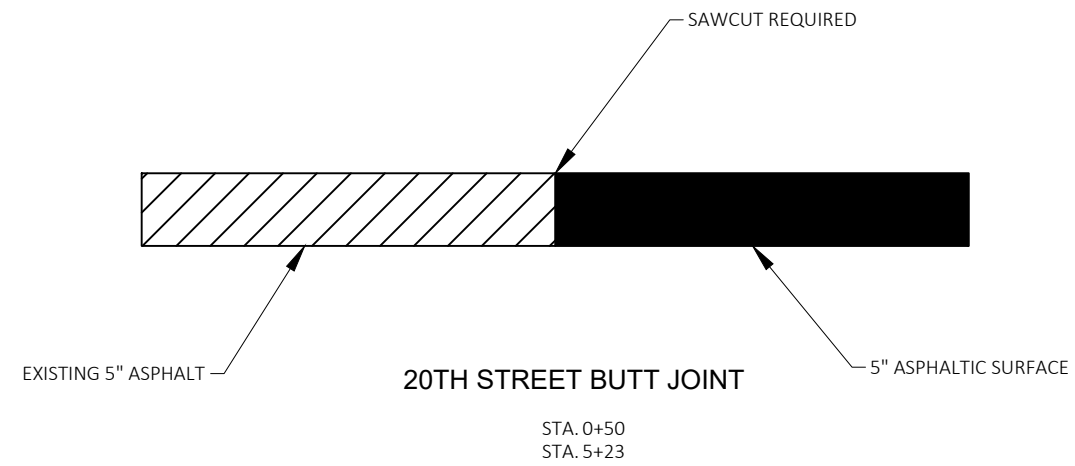
PROJECT NO: 1570-05-76	HWY: 8	COUNTY: BARRON	CONSTRUCTION DETAILS	SHEET	E
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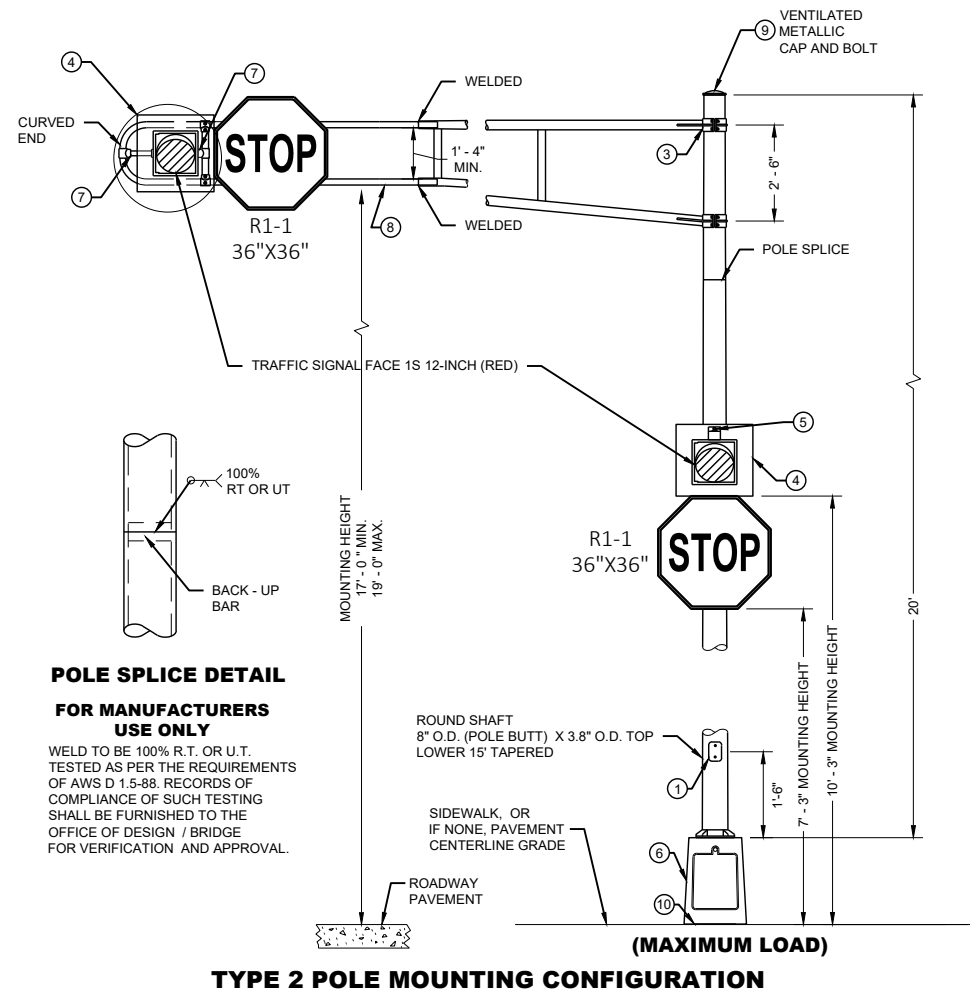


CULVERT BACKFILL DETAIL



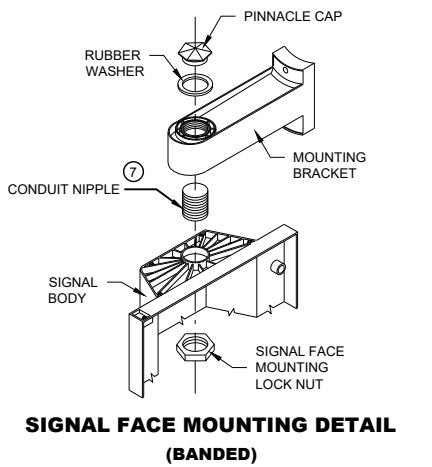
BERM DETAIL BEHIND 36" MOUNTABLE CURB & GUTTER



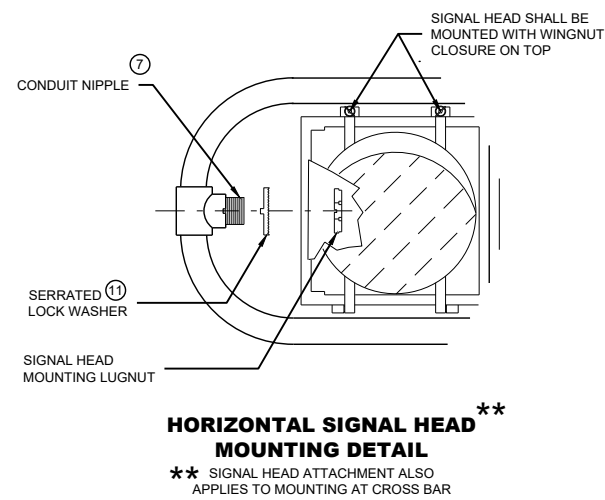


**POLE SPLICE DETAIL
FOR MANUFACTURERS
USE ONLY**

WELD TO BE 100% R.T. OR U.T.
TESTED AS PER THE REQUIREMENTS
OF AWS D 1.5-88. RECORDS OF
COMPLIANCE OF SUCH TESTING
SHALL BE FURNISHED TO THE
OFFICE OF DESIGN / BRIDGE
FOR VERIFICATION AND APPROVAL.



**SIGNAL FACE MOUNTING DETAIL
(BANDED)**



**HORIZONTAL SIGNAL HEAD
MOUNTING DETAIL ****
** SIGNAL HEAD ATTACHMENT ALSO
APPLIES TO MOUNTING AT CROSS BAR

GENERAL NOTES

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

POLES SHALL BE EITHER ALUMINUM OR GALVANIZED STEEL AS CALLED FOR IN THE CONTRACT.

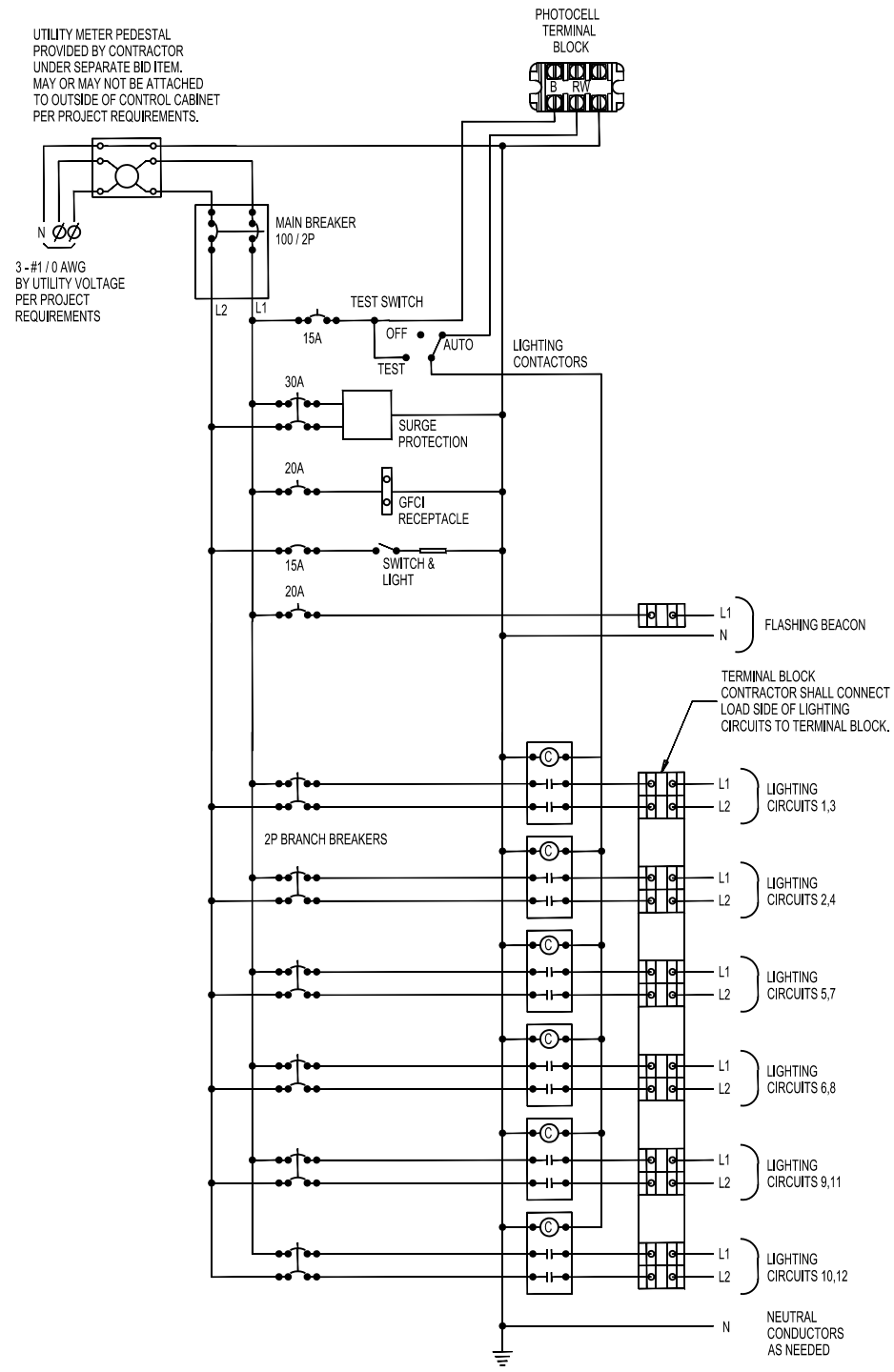
SECTION 657, POLES, OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

A PULL WIRE / ROPE SHALL BE INSTALLED IN EACH TROMBONE ARM RACEWAY DURING THE MANUFACTURING PROCESS.

TYPE 2 ALUMINUM POLES SHALL BE CONSTRUCTED OF 6063 - T6 ALUMINUM ALLOY. SLEEVING INSIDE THE POLE IS NOT ACCEPTABLE.

WHEN TRANSFORMER BASES ARE USED, WIRE CONNECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

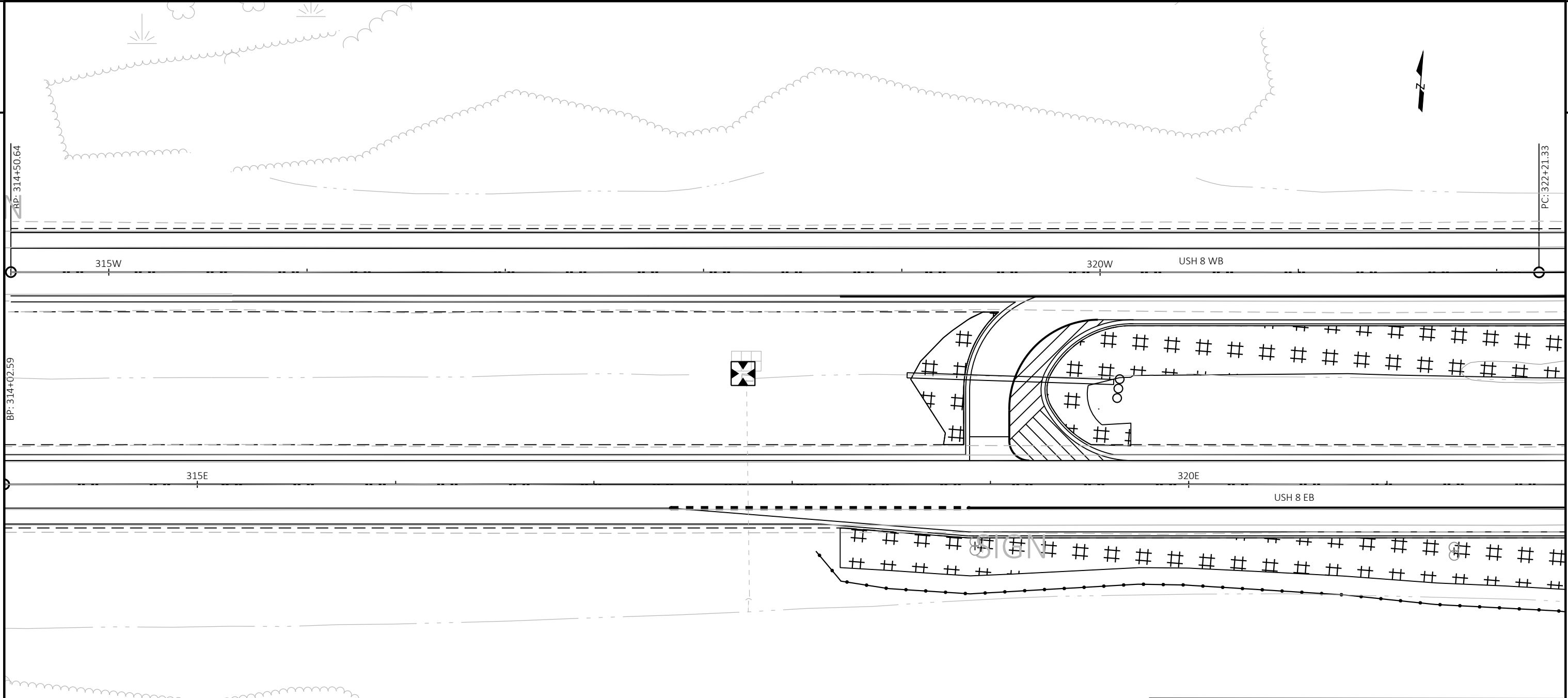
- ① 4" X 6" REINFORCED HANDHOLE AND COVER ASSEMBLY WITH TWO (2) 1/4" X 3/4" - 20 TPI , STAINLESS STEEL, HEX HEAD BOLTS.
- ② SIGNAL FACE MOUNTING BRACKETS. MOUNT WITH CAP SCREWS AND BANDING.
- ③ GROMMETS, 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1 3/8" HOLE IN POLE SHAFT FOR WIRING.
- ④ SECURELY MOUNT DULL BLACK POLYCARBONATE BACK PLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURER'S RECOMMENDATIONS.
- ⑤ POLE MOUNTED SIGNAL FACES SHALL REQUIRE ONE OR MORE MOUNTING SPACERS UNDER THE TOP MOUNTING BRACKET(S) AS REQUIRED, TO PLUMB THE SIGNAL FACES.
- ⑥ CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.
- ⑦ USE 1 1/2" ID NIPPLES ZINC-COATED RIGID METAL CONDUIT, LONG ENOUGH TO ACCOMMODATE FULL DEPTH THREADING INTO THE HEAD MOUNTING LOCK NUT IN ORDER TO TIGHTEN THE FACE, BUT THAT DO NOT INTERFERE WITH REFLECTOR CLOSURE. THREAD THE NIPPLE INTO THE MOUNTING BRACKET/ELBOW UNTIL TIGHT. USE APPROVED PINNACLE TYPE HARDWARE FROM A DEPARTMENT APPROVED MANUFACTURER TO CLOSE THE UNUSED 1 1/2" OPENING IN SIGNAL FACES AND BRACKET ENDS.
- ⑧ VERTICAL STRUT (ADJUSTABLE), ONE (1) SET SCREW (1/4" X 3/4" - 20 TPI STAINLESS STEEL, HEX HEAD) INTO EACH ARM MEMBER IF STRUTS THE SLIDING TYPE.
- ⑨ FURNISH AND INSTALL VENTILATED, CAST METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) 1/4" X 3/4" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.
- ⑩ SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND THE TRANSFORMER BASE.
- ⑪ USE SERRATED LOCK WASHERS WITH NOTCHES BETWEEN END TEE AND SIGNAL HEAD.
USE (3) -14 AWG IN POLE & ARM, SEPARATE RUNS TO EACH SIGNAL HEAD.
WIRE FLASHING BEACONS TO FLASH AT THE SAME TIME.



GENERAL NOTES

WIRE FLASHING BEACONS TO FLASH AT SAME TIME.

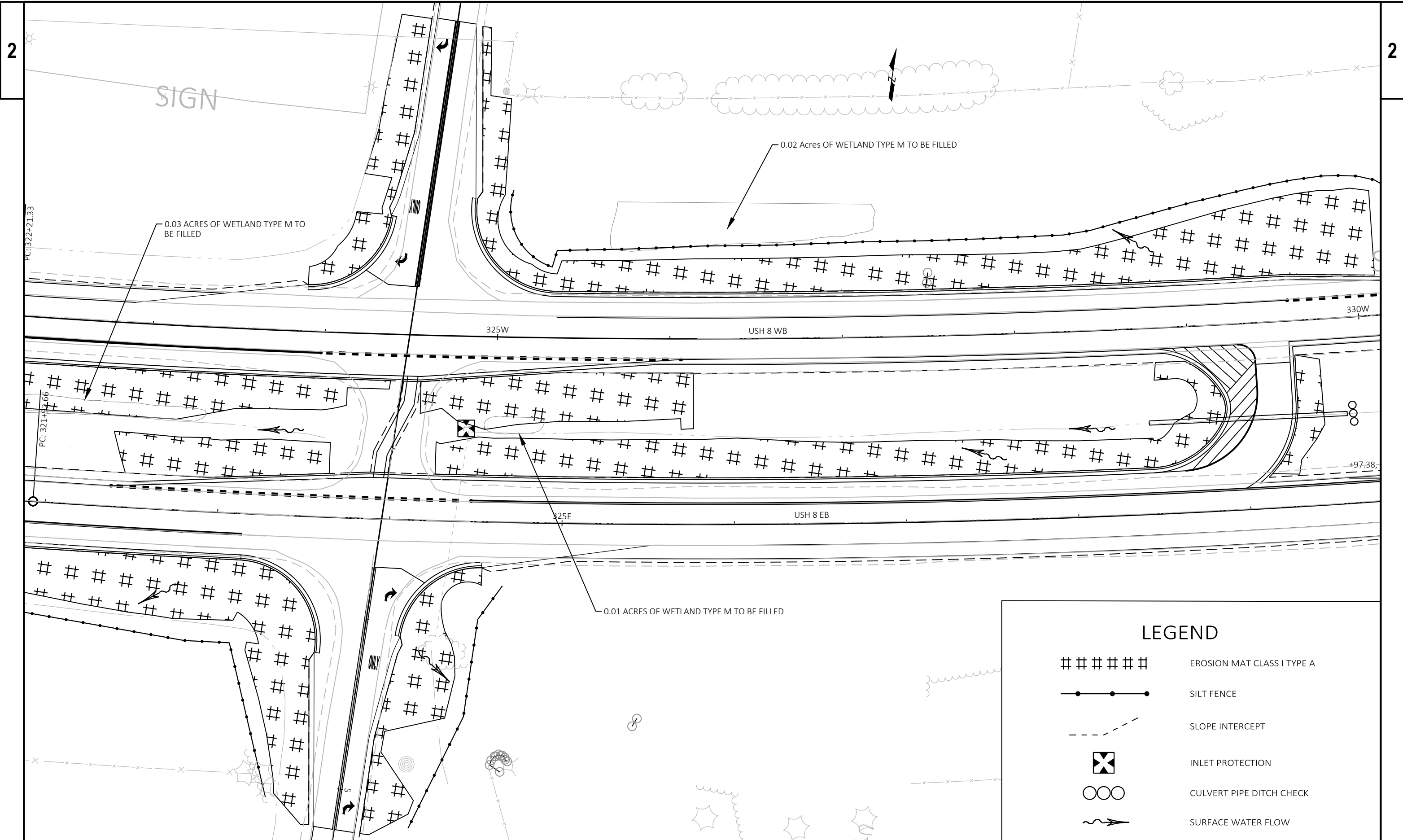
CONTROL CABINET SCHEMATIC



LEGEND

#####	EROSION MAT CLASS I TYPE A
—●—●—●—●—	SILT FENCE
- - - - -	SLOPE INTERCEPT
[X]	INLET PROTECTION
OOO	CULVERT PIPE DITCH CHECK
~>	SURFACE WATER FLOW

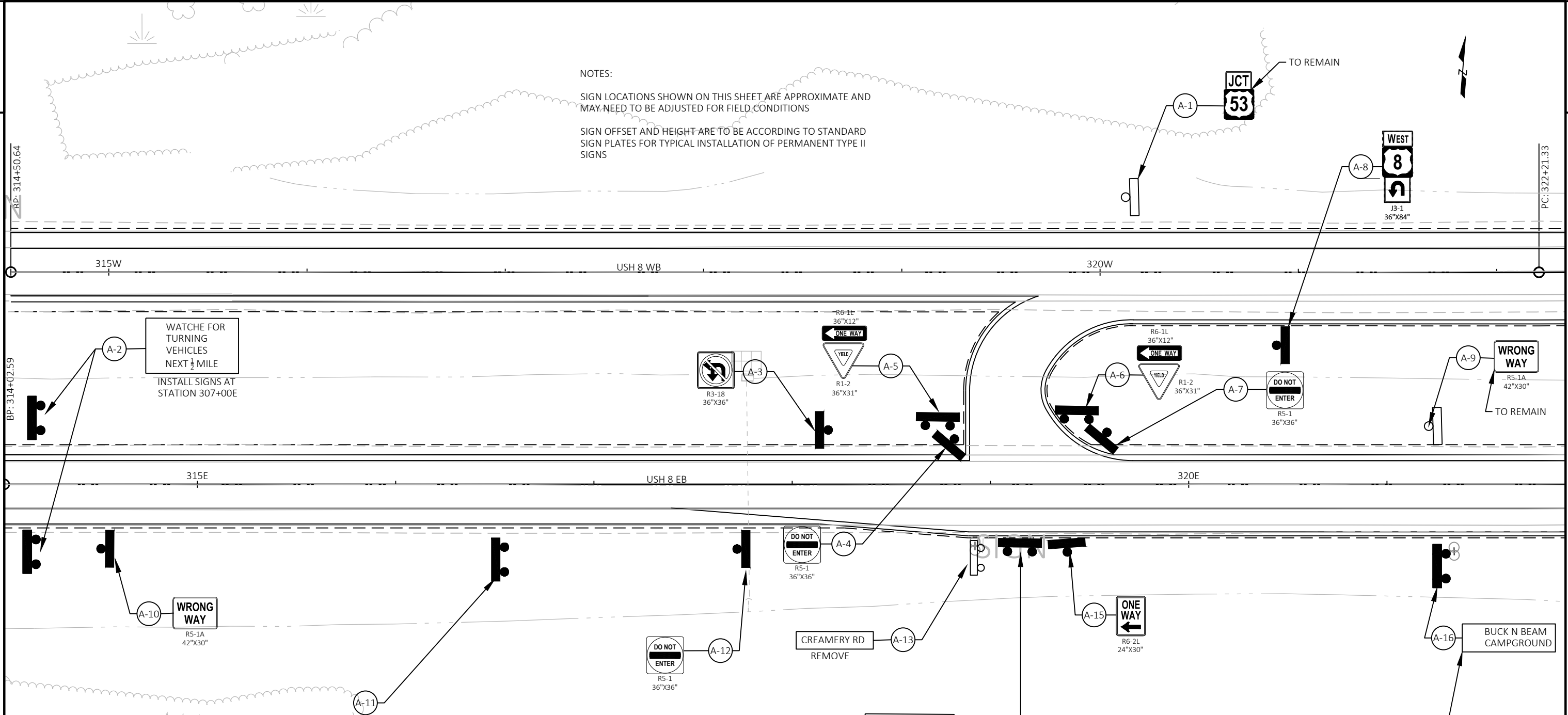
PROJECT NO: 1570-05-76	HWY: 8	COUNTY: BARRON	EROSION CONTROL	SHEET	E
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LEGEND

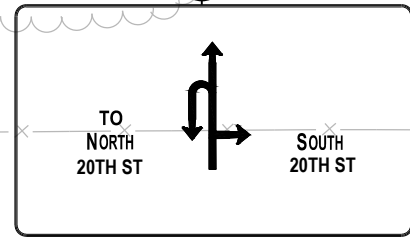
#####	EROSION MAT CLASS I TYPE A
—●—●—●—●—	SILT FENCE
- - - - -	SLOPE INTERCEPT
⊠	INLET PROTECTION
○○	CULVERT PIPE DITCH CHECK
~>	SURFACE WATER FLOW

NOTES:
 SIGN LOCATIONS SHOWN ON THIS SHEET ARE APPROXIMATE AND MAY NEED TO BE ADJUSTED FOR FIELD CONDITIONS
 SIGN OFFSET AND HEIGHT ARE TO BE ACCORDING TO STANDARD SIGN SET FOR TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS

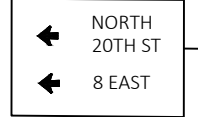


A-2
 WATCH FOR TURNING VEHICLES NEXT 1/2 MILE
 INSTALL SIGNS AT STATION 307+00E

A-10
 WRONG WAY
 R5-1A 42"x30"



A-13
 CREAMERY RD REMOVE

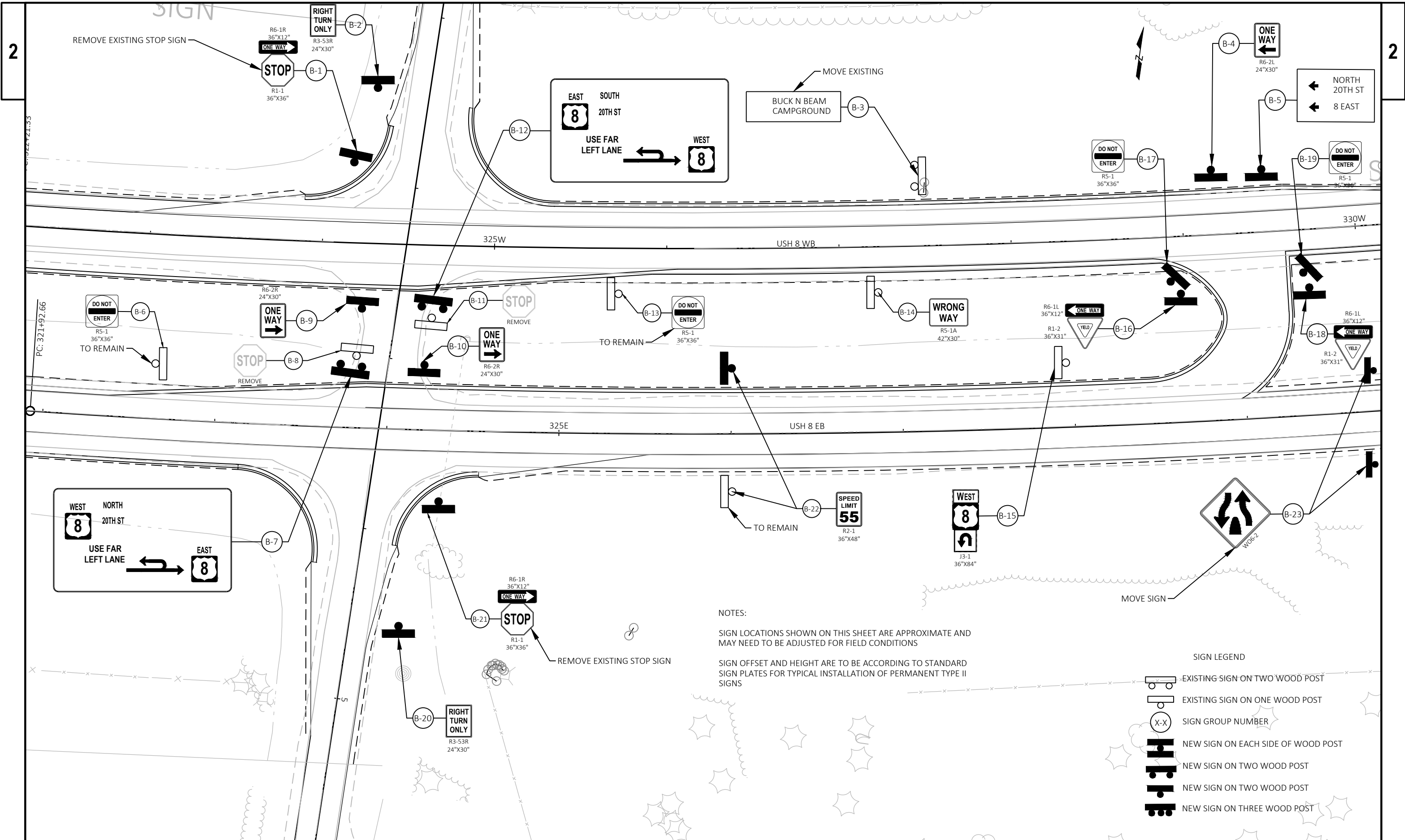


A-9
 WRONG WAY
 R5-1A 42"x30"
 TO REMAIN

A-16
 BUCK N BEAM CAMPGROUND

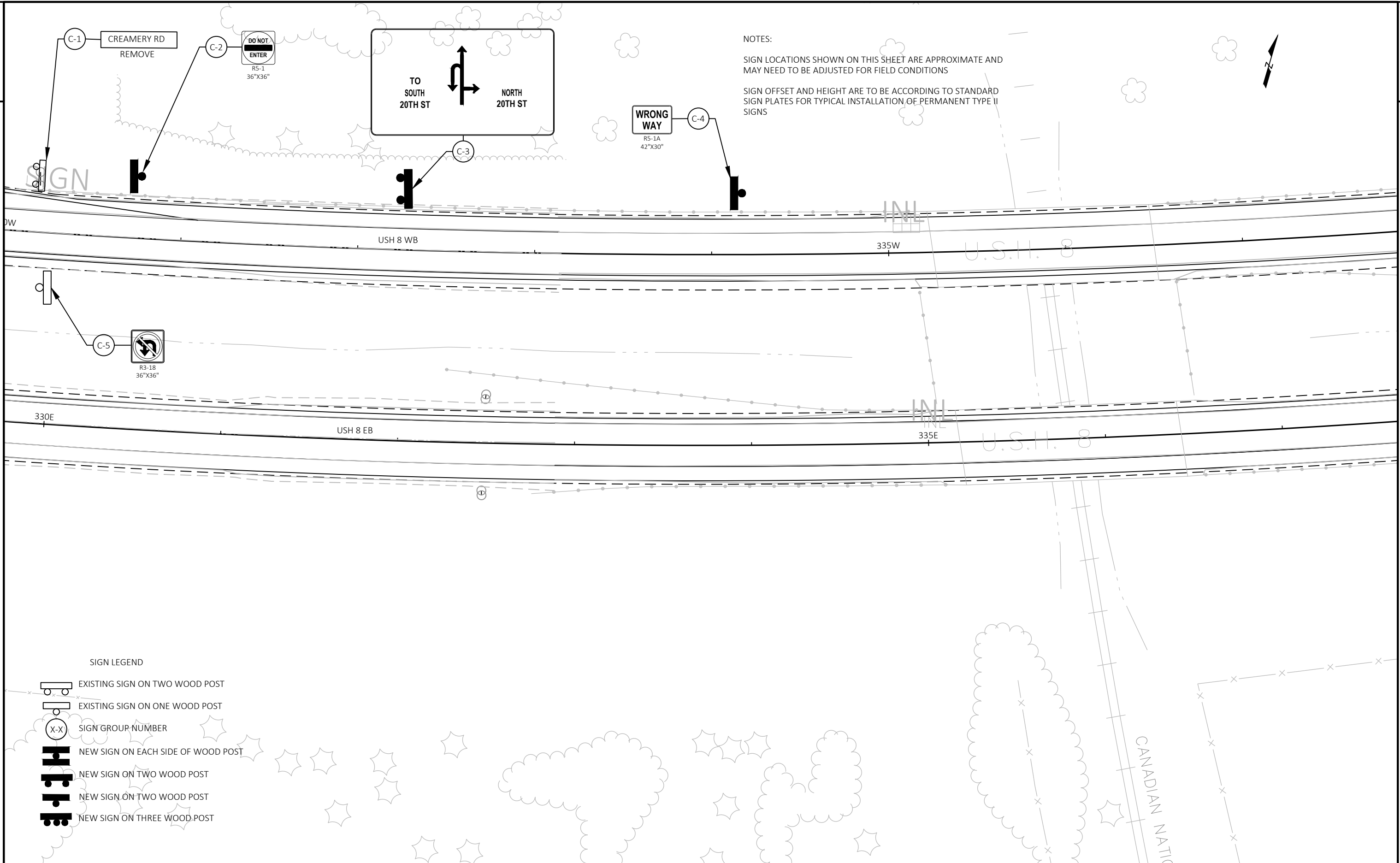
MOVE OVER TO ADD TURN LANE

- SIGN LEGEND
- EXISTING SIGN ON TWO WOOD POST
 - EXISTING SIGN ON ONE WOOD POST
 - SIGN GROUP NUMBER
 - NEW SIGN ON EACH SIDE OF WOOD POST
 - NEW SIGN ON TWO WOOD POST
 - NEW SIGN ON TWO WOOD POST
 - NEW SIGN ON THREE WOOD POST



NOTES:
 SIGN LOCATIONS SHOWN ON THIS SHEET ARE APPROXIMATE AND MAY NEED TO BE ADJUSTED FOR FIELD CONDITIONS
 SIGN OFFSET AND HEIGHT ARE TO BE ACCORDING TO STANDARD SIGN PLATES FOR TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS

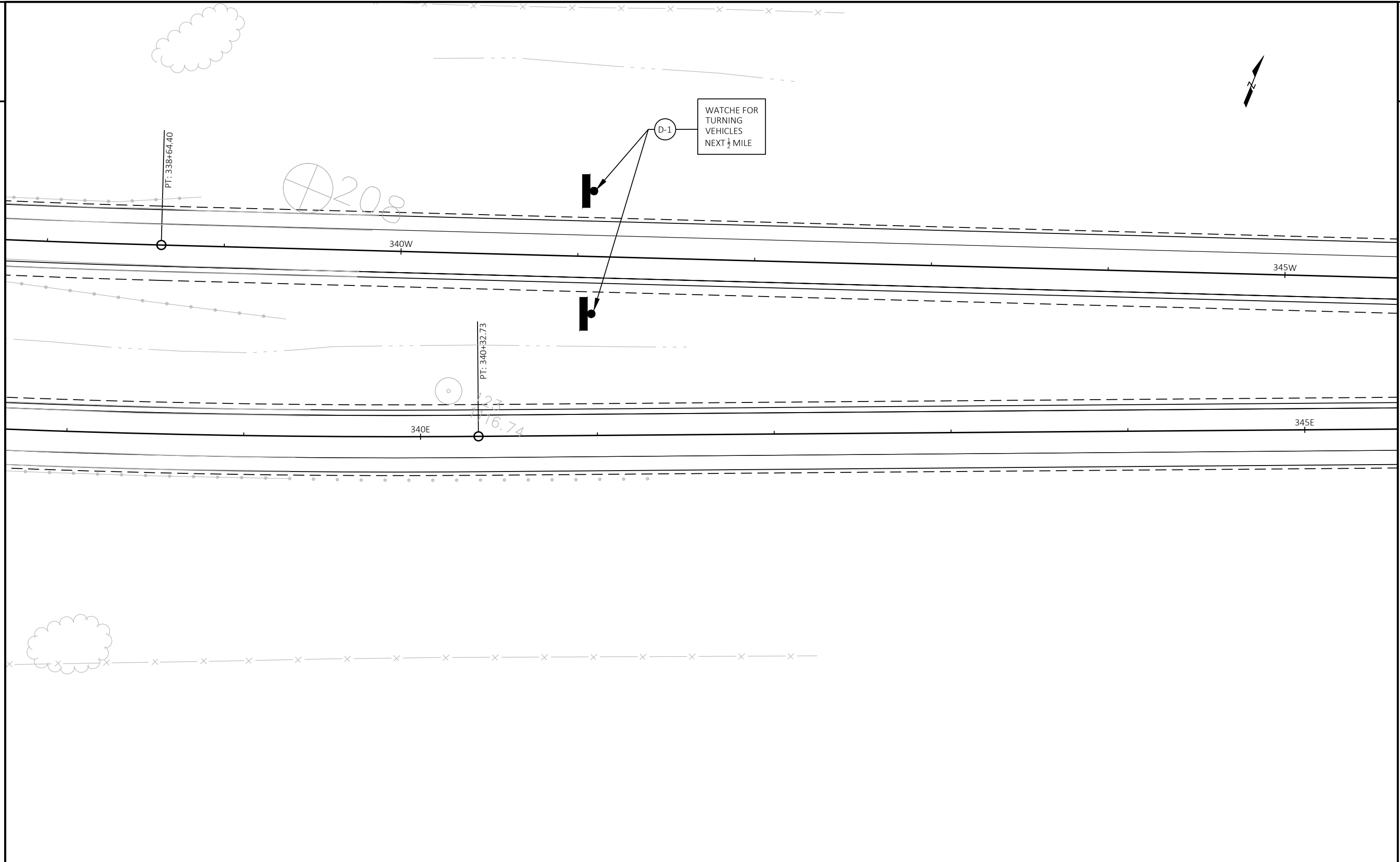
- SIGN LEGEND
- EXISTING SIGN ON TWO WOOD POST
 - EXISTING SIGN ON ONE WOOD POST
 - SIGN GROUP NUMBER
 - NEW SIGN ON EACH SIDE OF WOOD POST
 - NEW SIGN ON TWO WOOD POST
 - NEW SIGN ON TWO WOOD POST
 - NEW SIGN ON THREE WOOD POST



SIGN LEGEND

- EXISTING SIGN ON TWO WOOD POST
- EXISTING SIGN ON ONE WOOD POST
- SIGN GROUP NUMBER
- NEW SIGN ON EACH SIDE OF WOOD POST
- NEW SIGN ON TWO WOOD POST
- NEW SIGN ON TWO WOOD POST
- NEW SIGN ON THREE WOOD POST

PROJECT NO: 1570-05-76	HWY: 8	COUNTY: BARRON	PERMANENT SIGNING	SHEET	E
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PROJECT NO: 1570-05-76

HWY: 8

COUNTY: BARRON

PERMANENT SIGNING

SHEET

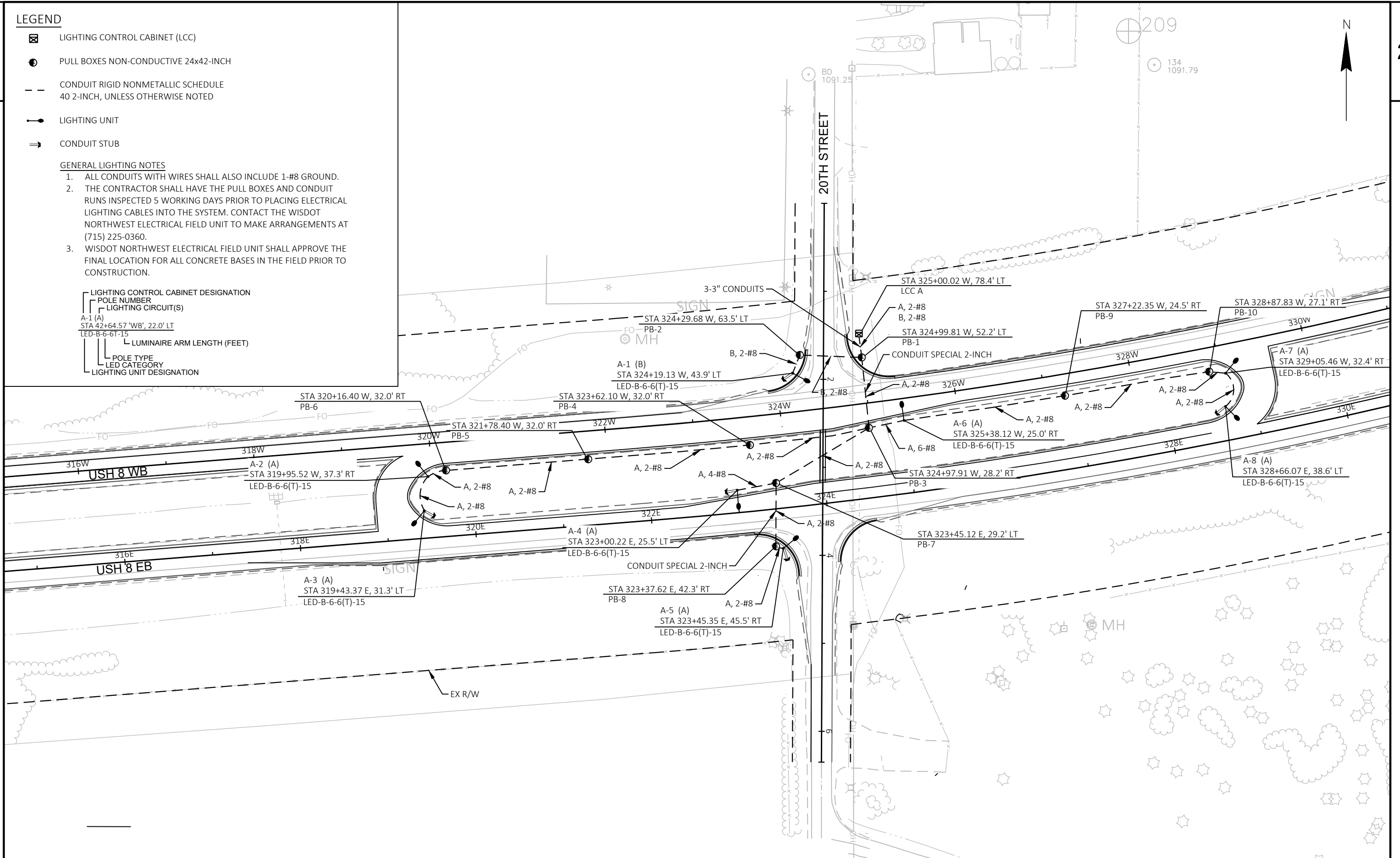
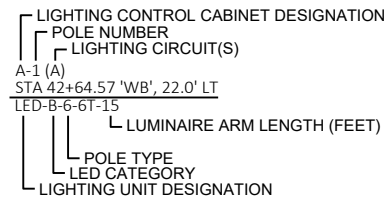
E

LEGEND






- ☒ LIGHTING CONTROL CABINET (LCC)
- PULL BOXES NON-CONDUCTIVE 24x42-INCH
- CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH, UNLESS OTHERWISE NOTED
- LIGHTING UNIT
- ⇒ CONDUIT STUB

GENERAL LIGHTING NOTES

1. ALL CONDUITS WITH WIRES SHALL ALSO INCLUDE 1-#8 GROUND.
2. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING ELECTRICAL LIGHTING CABLES INTO THE SYSTEM. CONTACT THE WISDOT NORTHWEST ELECTRICAL FIELD UNIT TO MAKE ARRANGEMENTS AT (715) 225-0360.
3. WISDOT NORTHWEST ELECTRICAL FIELD UNIT SHALL APPROVE THE FINAL LOCATION FOR ALL CONCRETE BASES IN THE FIELD PRIOR TO CONSTRUCTION.



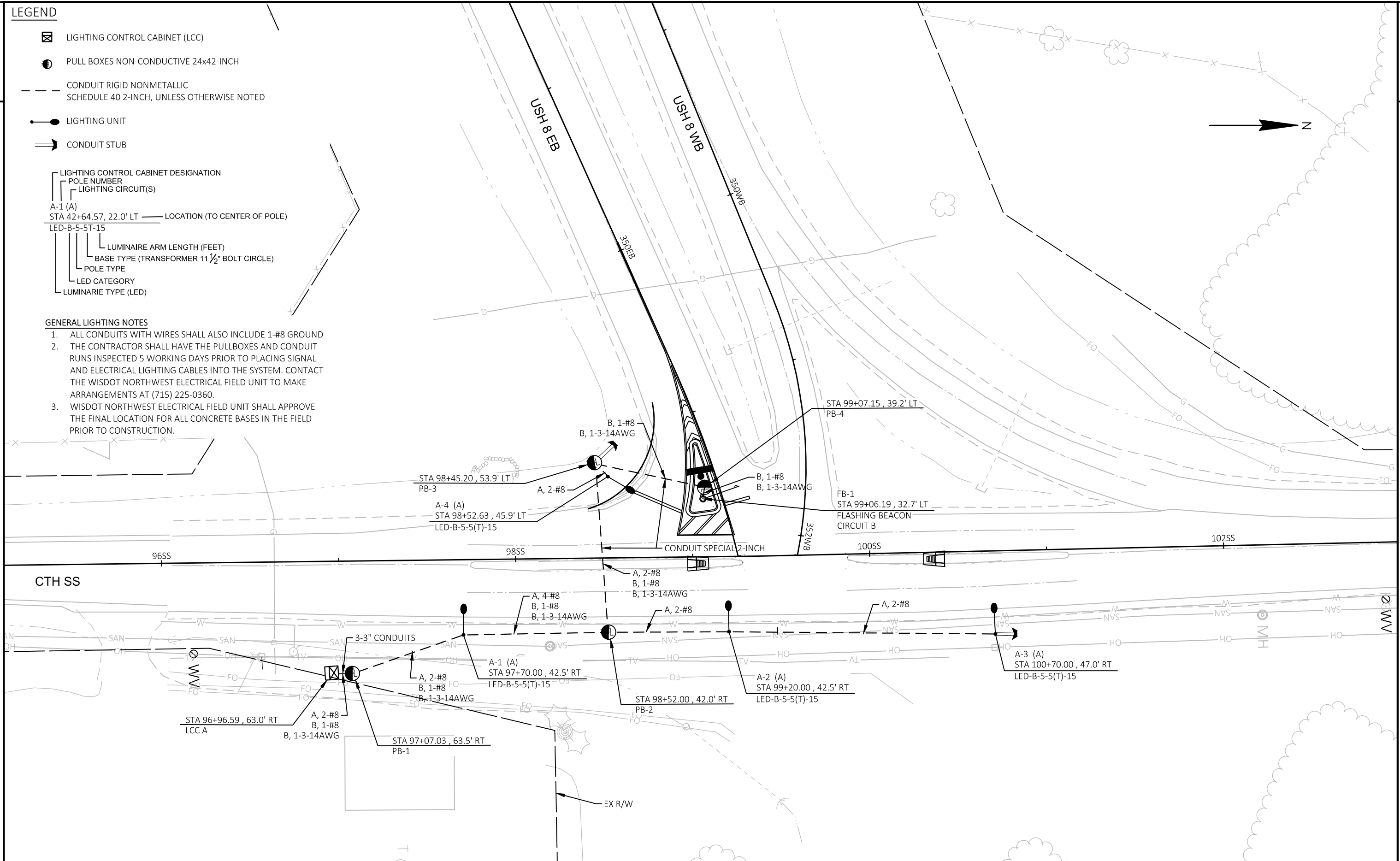
LEGEND

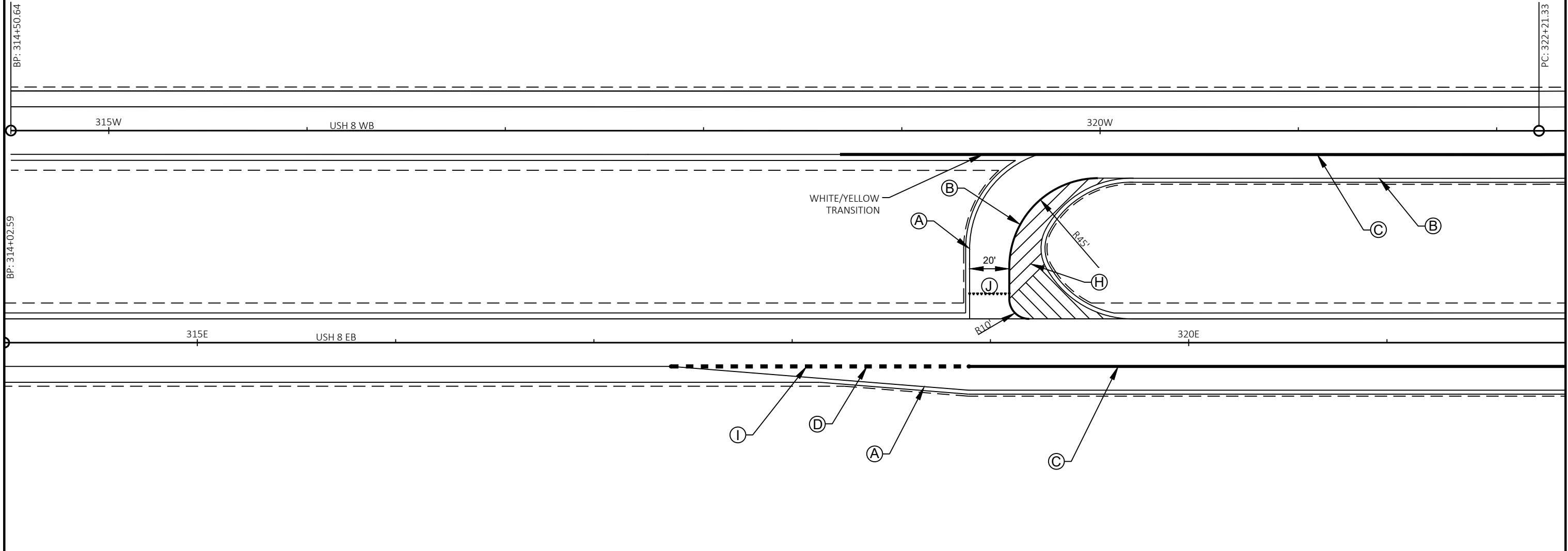
-  LIGHTING CONTROL CABINET (LCC)
-  PULL BOXES NON-CONDUCTIVE 24x42-INCH
-  CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH, UNLESS OTHERWISE NOTED
-  LIGHTING UNIT
-  CONDUIT STUB

LIGHTING CONTROL CABINET DESIGNATION
 POLE NUMBER
 LIGHTING CIRCUIT(S)
 A-1 (A)
 STA 42+64.57, 22.0' LT — LOCATION (TO CENTER OF POLE)
 LED-B-5-5T-15
 LUMINAIRE ARM LENGTH (FEET)
 BASE TYPE (TRANSFORMER 11 1/2" BOLT CIRCLE)
 POLE TYPE
 LED CATEGORY
 LUMINARIE TYPE (LED)

GENERAL LIGHTING NOTES

1. ALL CONDUITS WITH WIRES SHALL ALSO INCLUDE 1-#8 GROUND
2. THE CONTRACTOR SHALL HAVE THE PULLBOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING SIGNAL AND ELECTRICAL LIGHTING CABLES INTO THE SYSTEM. CONTACT THE WISDOT NORTHWEST ELECTRICAL FIELD UNIT TO MAKE ARRANGEMENTS AT (715) 225-0360.
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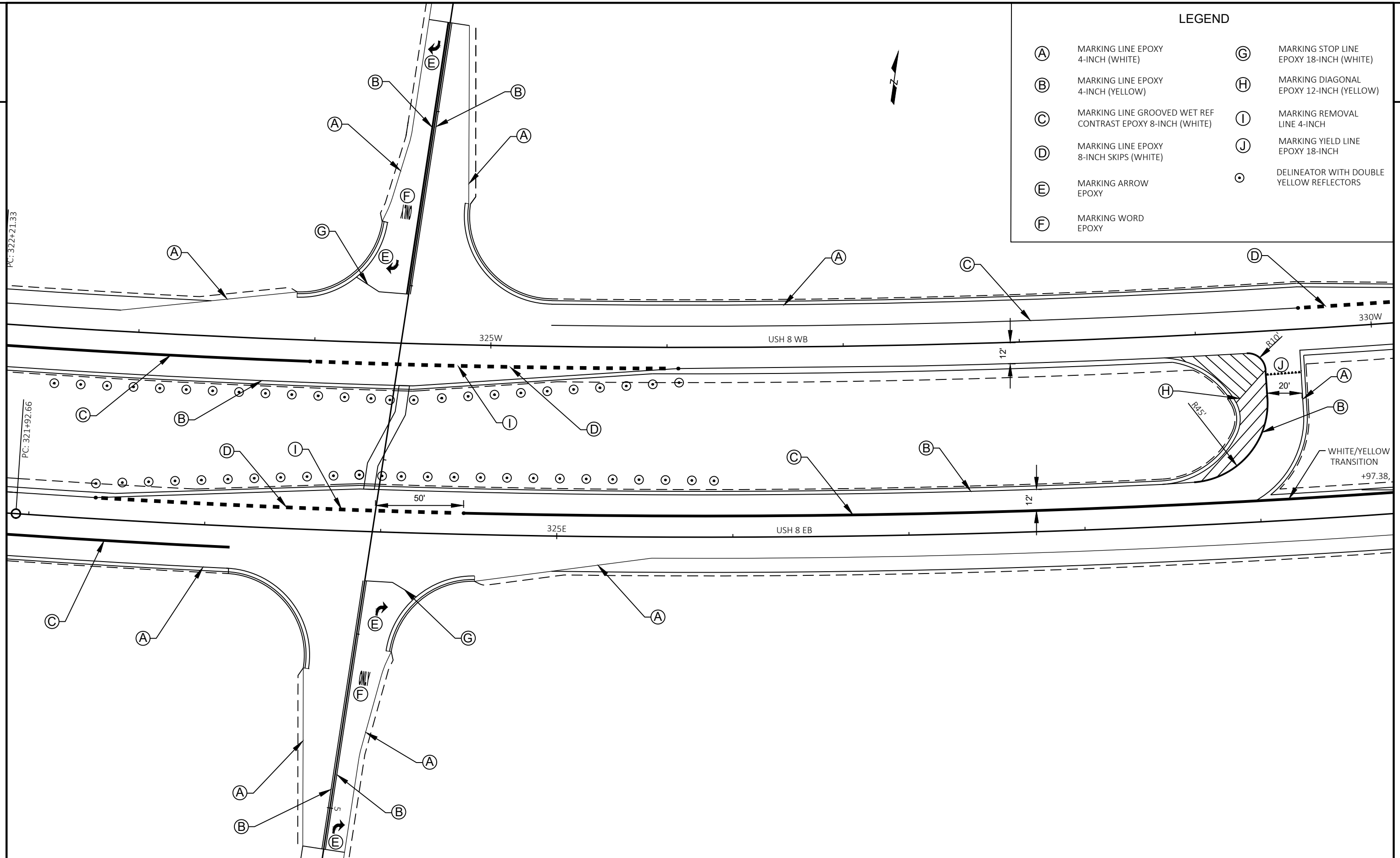


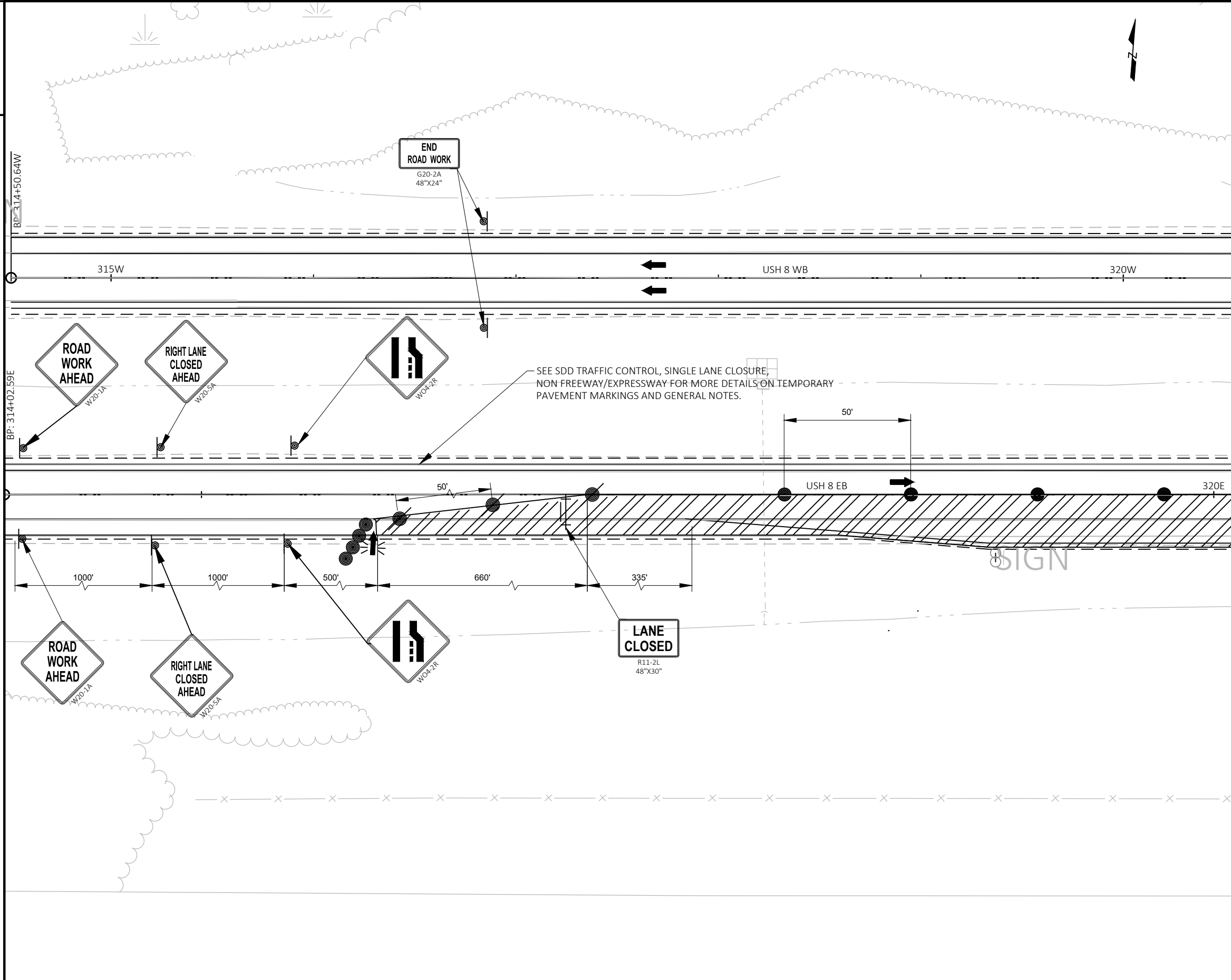
LEGEND

- | | | | |
|-----|---|-----|--|
| (A) | MARKING LINE EPOXY
4-INCH (WHITE) | (G) | MARKING STOP LINE
EPOXY 18-INCH (WHITE) |
| (B) | MARKING LINE EPOXY
4-INCH (YELLOW) | (H) | MARKING DIAGONAL
EPOXY 12-INCH (YELLOW) |
| (C) | MARKING LINE GROOVED WET REF
CONTRAST EPOXY 8-INCH (WHITE) | (I) | MARKING REMOVAL
LINE 4-INCH |
| (D) | MARKING LINE EPOXY
8-INCH SKIPS (WHITE) | (J) | MARKING YIELD LINE
EPOXY 18-INCH |
| (E) | MARKING ARROW
EPOXY | | |
| (F) | MARKING WORD
EPOXY | | |

LEGEND

- (A) MARKING LINE EPOXY 4-INCH (WHITE)
- (B) MARKING LINE EPOXY 4-INCH (YELLOW)
- (C) MARKING LINE GROOVED WET REF CONTRAST EPOXY 8-INCH (WHITE)
- (D) MARKING LINE EPOXY 8-INCH SKIPS (WHITE)
- (E) MARKING ARROW EPOXY
- (F) MARKING WORD EPOXY
- (G) MARKING STOP LINE EPOXY 18-INCH (WHITE)
- (H) MARKING DIAGONAL EPOXY 12-INCH (YELLOW)
- (I) MARKING REMOVAL LINE 4-INCH
- (J) MARKING YIELD LINE EPOXY 18-INCH
- (O) DELINEATOR WITH DOUBLE YELLOW REFLECTORS





NOTES

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THE EXACT LOCATION AND SPACING OF ALL TRAFFIC CONTROL DEVICES ARE APPROXIMATE AND SHALL BE ADJUSTED TO FIT FIELD CONDITIONS

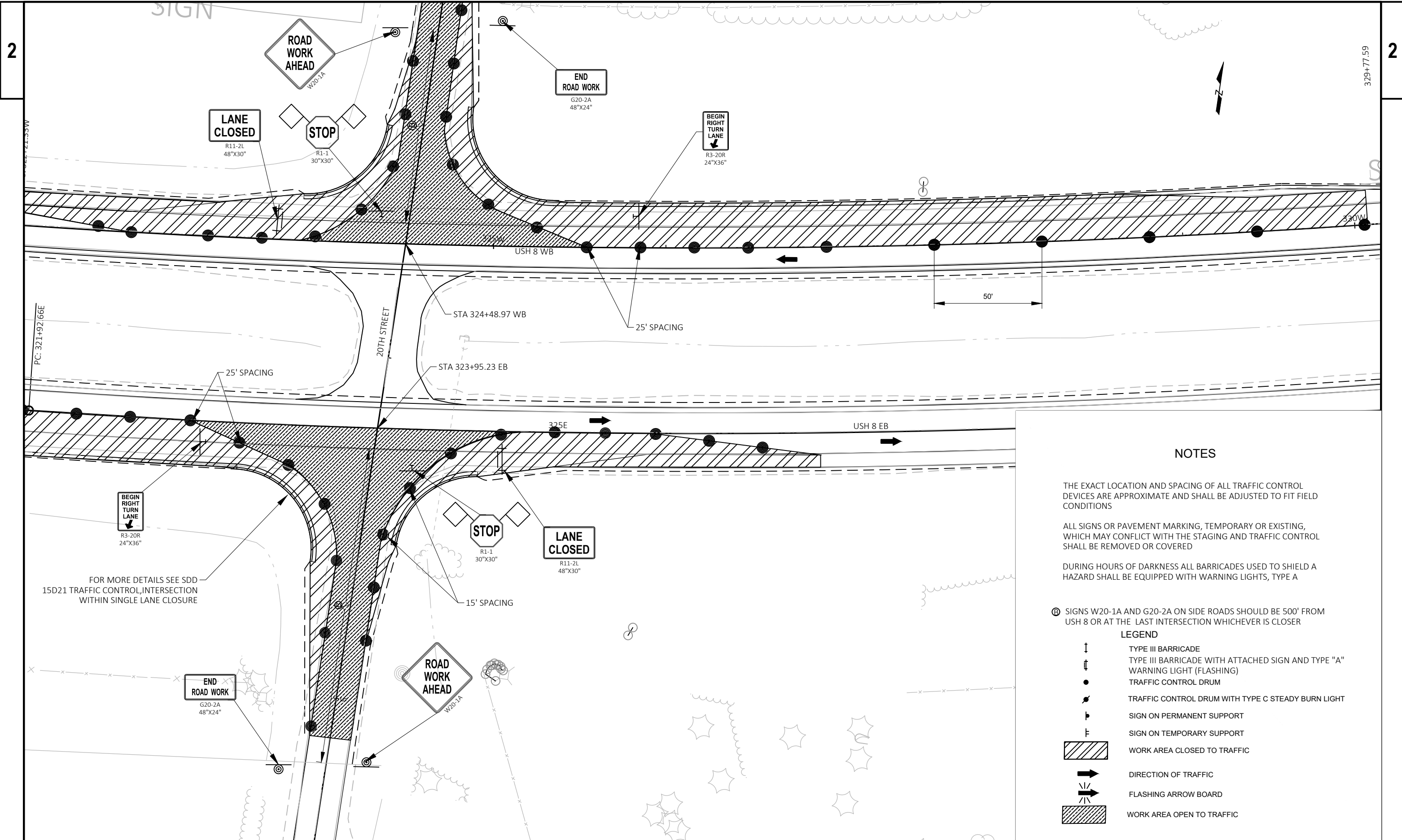
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DURING HOURS OF DARKNESS ALL BARRICADES USED TO SHIELD A HAZARD SHALL BE EQUIPPED WITH WARNING LIGHTS, TYPE A

Ⓢ SIGNS W20-1A AND G20-2A ON SIDE ROADS SHOULD BE 500' FROM USH 8 OR AT THE LAST INTERSECTION WHICHEVER IS CLOSER

LEGEND

- ↑ TYPE III BARRICADE
- ↑↓ TYPE III BARRICADE WITH ATTACHED SIGN AND TYPE "A" WARNING LIGHT (FLASHING)
- TRAFFIC CONTROL DRUM
- ⚡ TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- Ⓢ SIGN ON PERMANENT SUPPORT
- Ⓢ SIGN ON TEMPORARY SUPPORT
- ▨ WORK AREA CLOSED TO TRAFFIC
- ➡ DIRECTION OF TRAFFIC
- ⚡➡ FLASHING ARROW BOARD



NOTES

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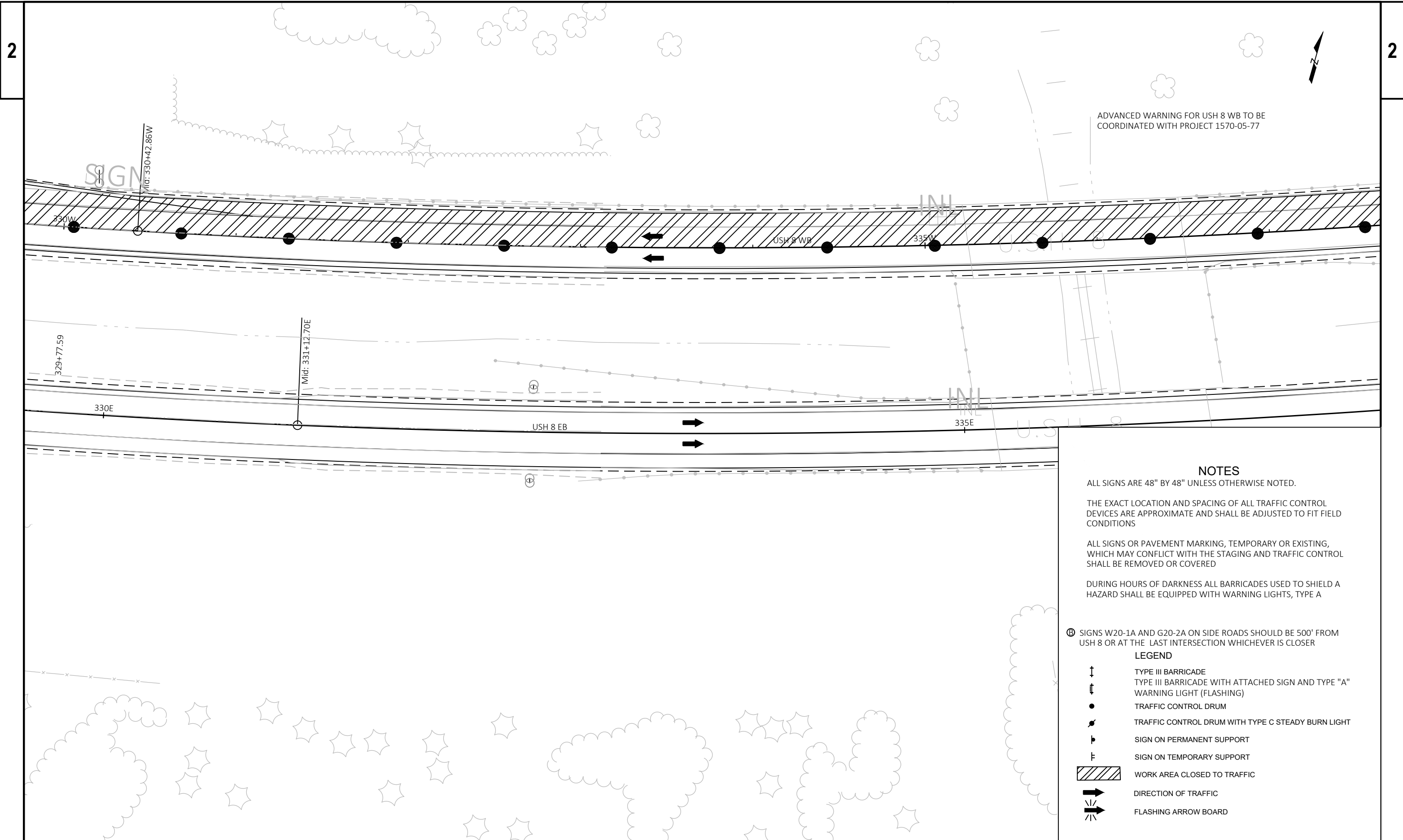
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- ↔ FLASHING ARROW BOARD
- ▨ WORK AREA OPEN TO TRAFFIC



ADVANCED WARNING FOR USH 8 WB TO BE COORDINATED WITH PROJECT 1570-05-77

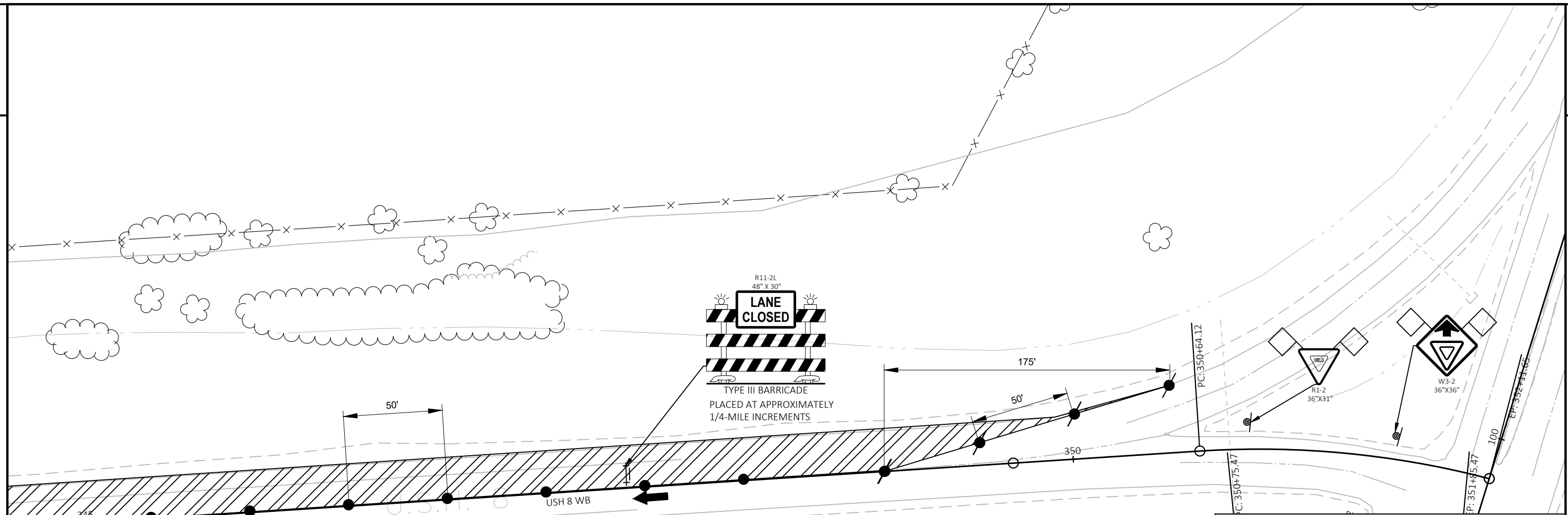
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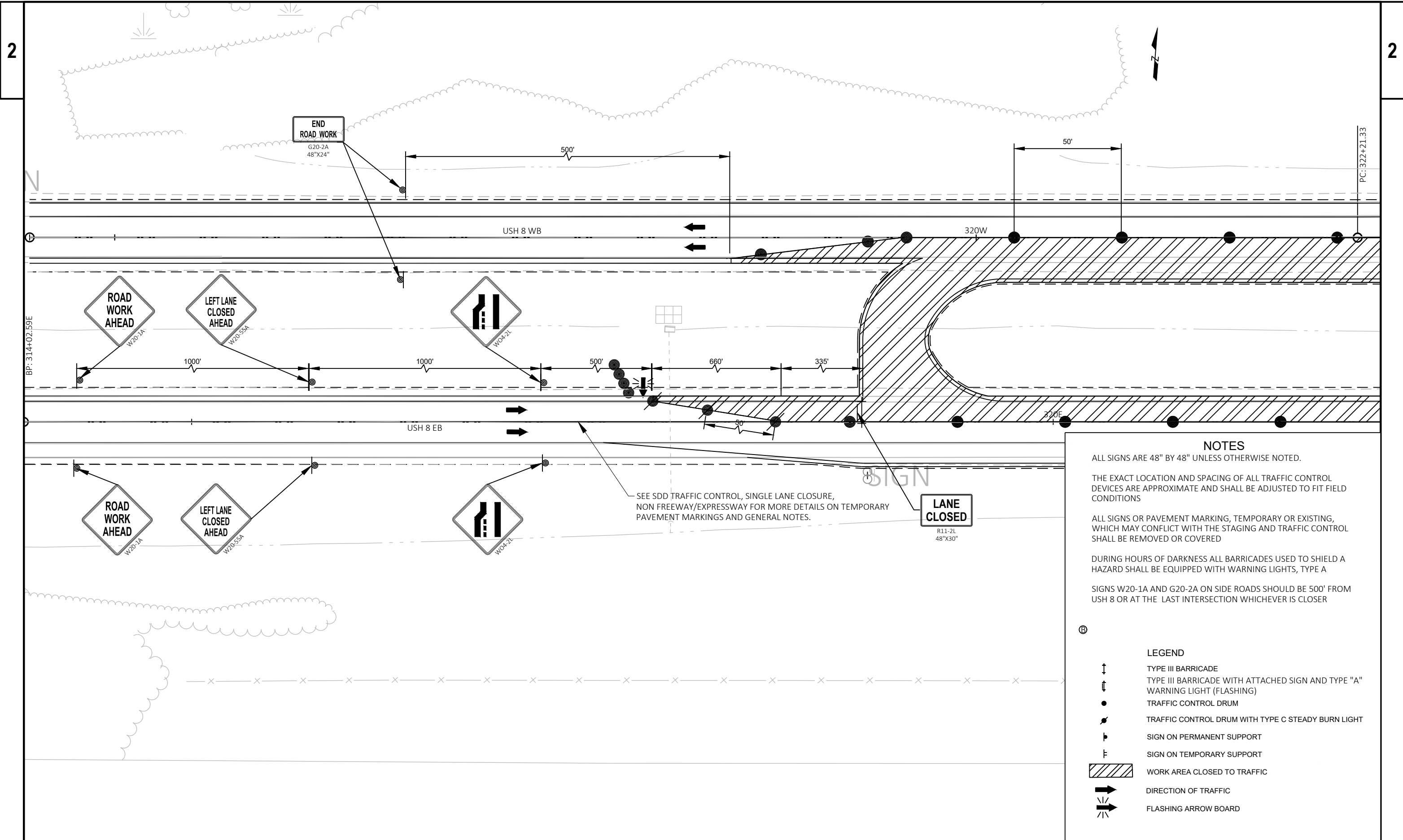


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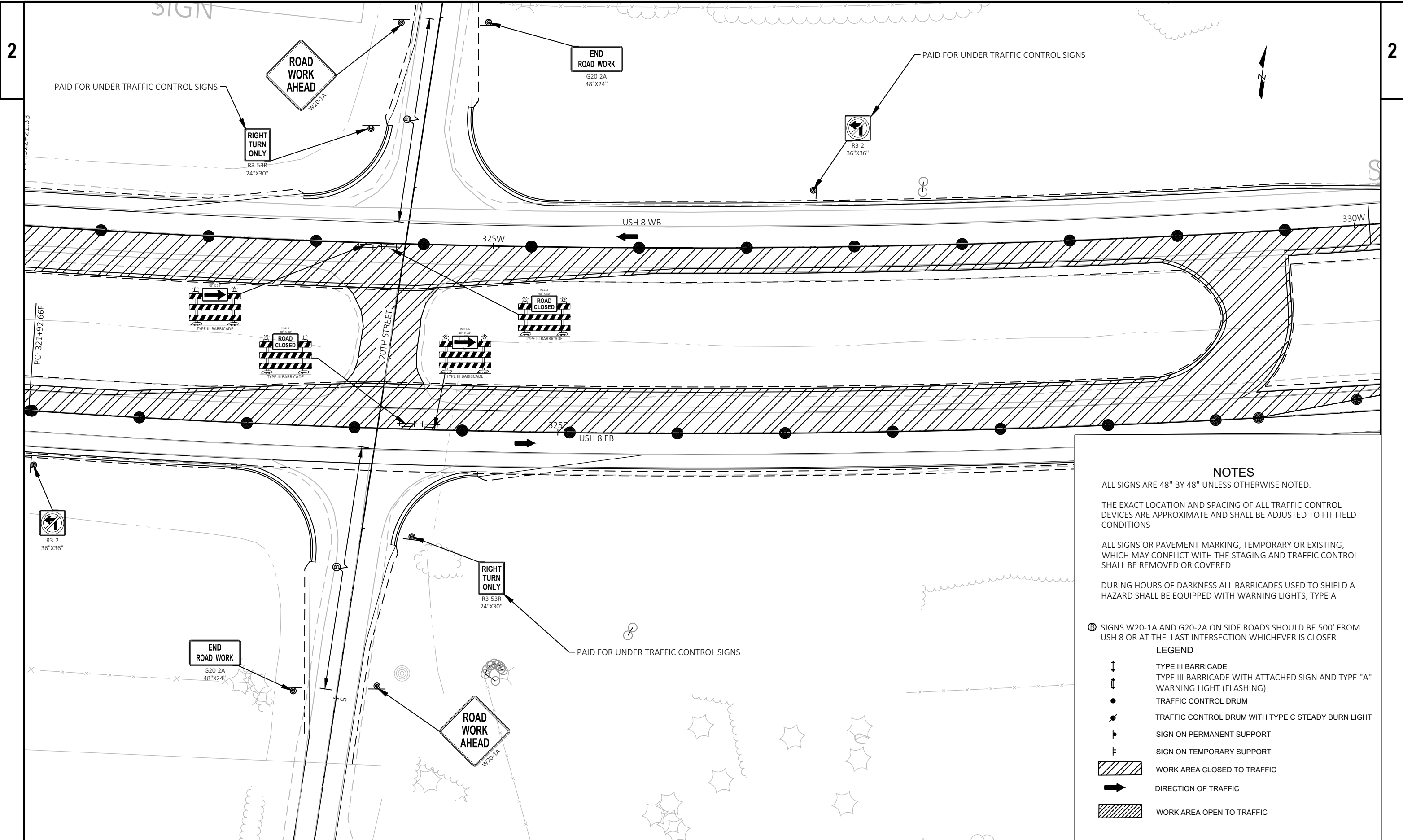
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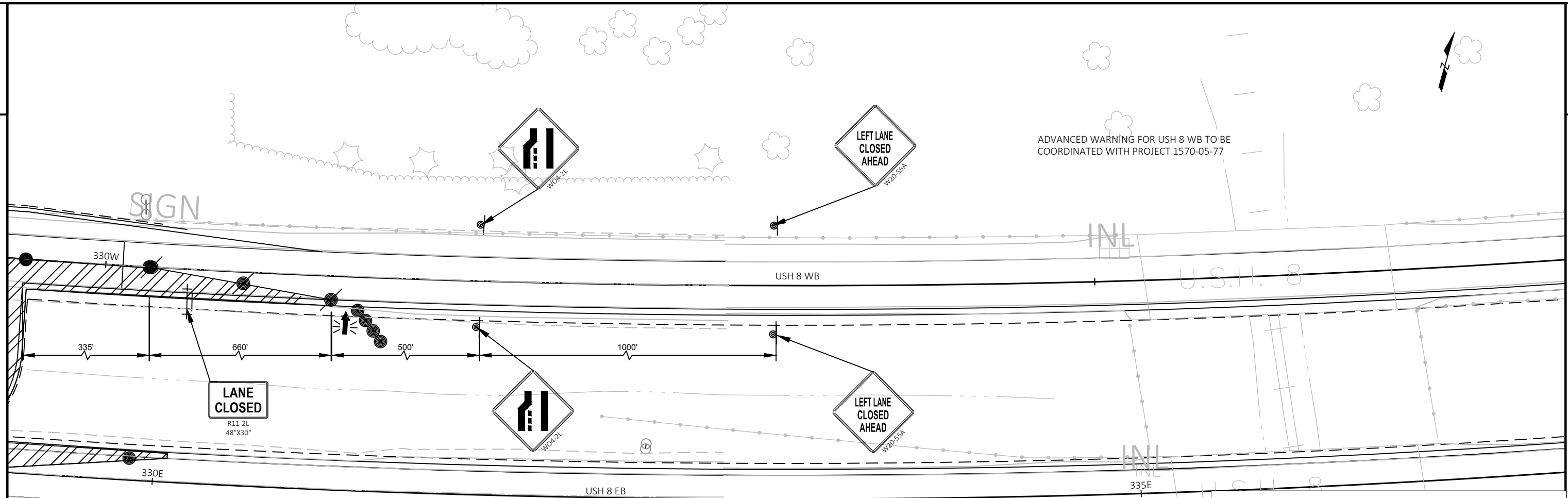
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ADVANCED WARNING FOR USH 8 WB TO BE COORDINATED WITH PROJECT 1570-05-77

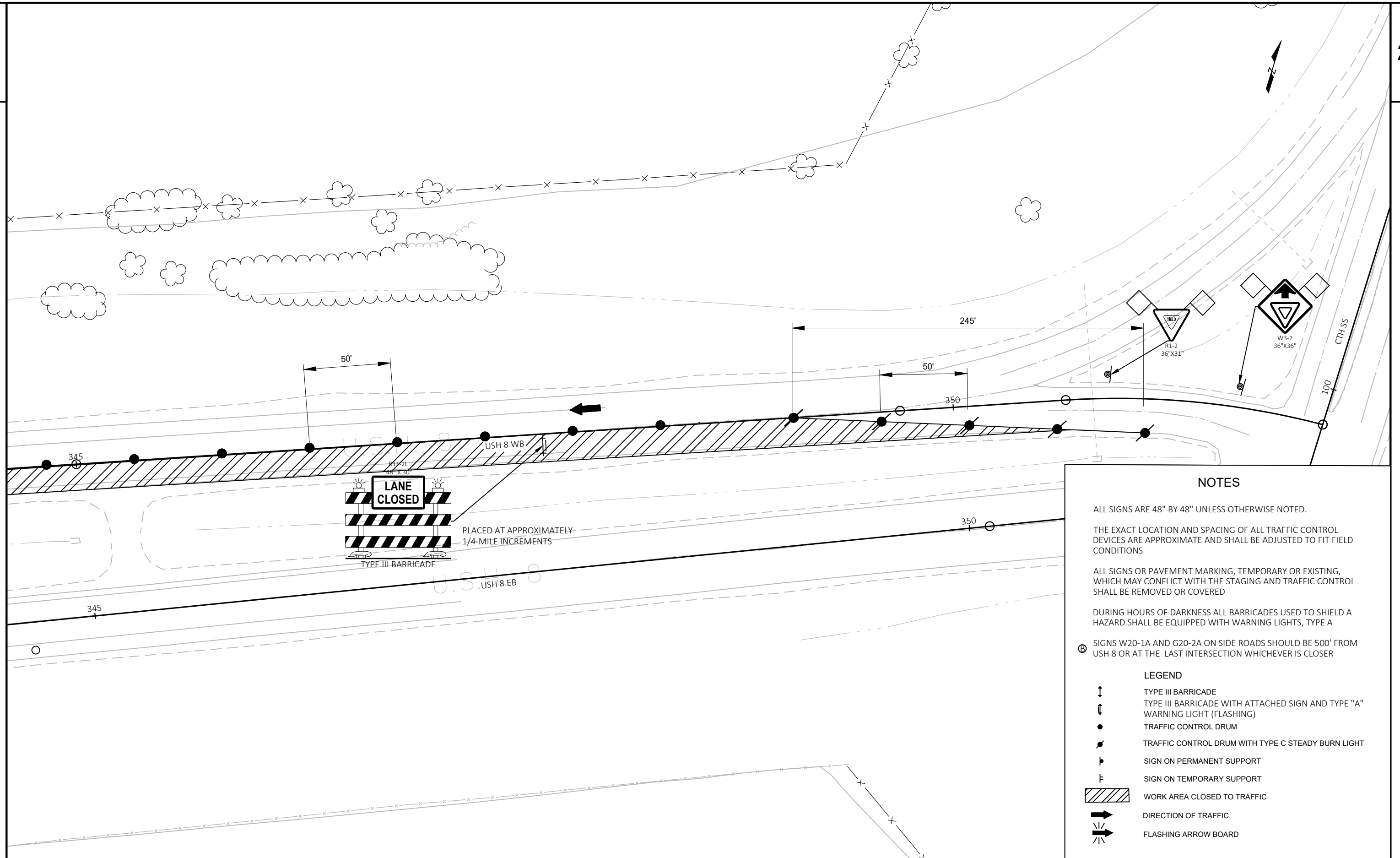
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PROJECT NO: 1570-05-77

HWY: USH 8

COUNTY: BARRON

TRAFFIC CONTROL STAGE 2

SHEET

E

TRAFFIC:



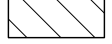

INSTALL ADVANCED WARNING SIGNS ON ALL APPROACHING LANES OF TRAFFIC.

CONTRACTOR SHALL CONTROL TRAFFIC OPERATION WITH FLAGGING DURING ACTIVE CONSTRUCTION TIMES.

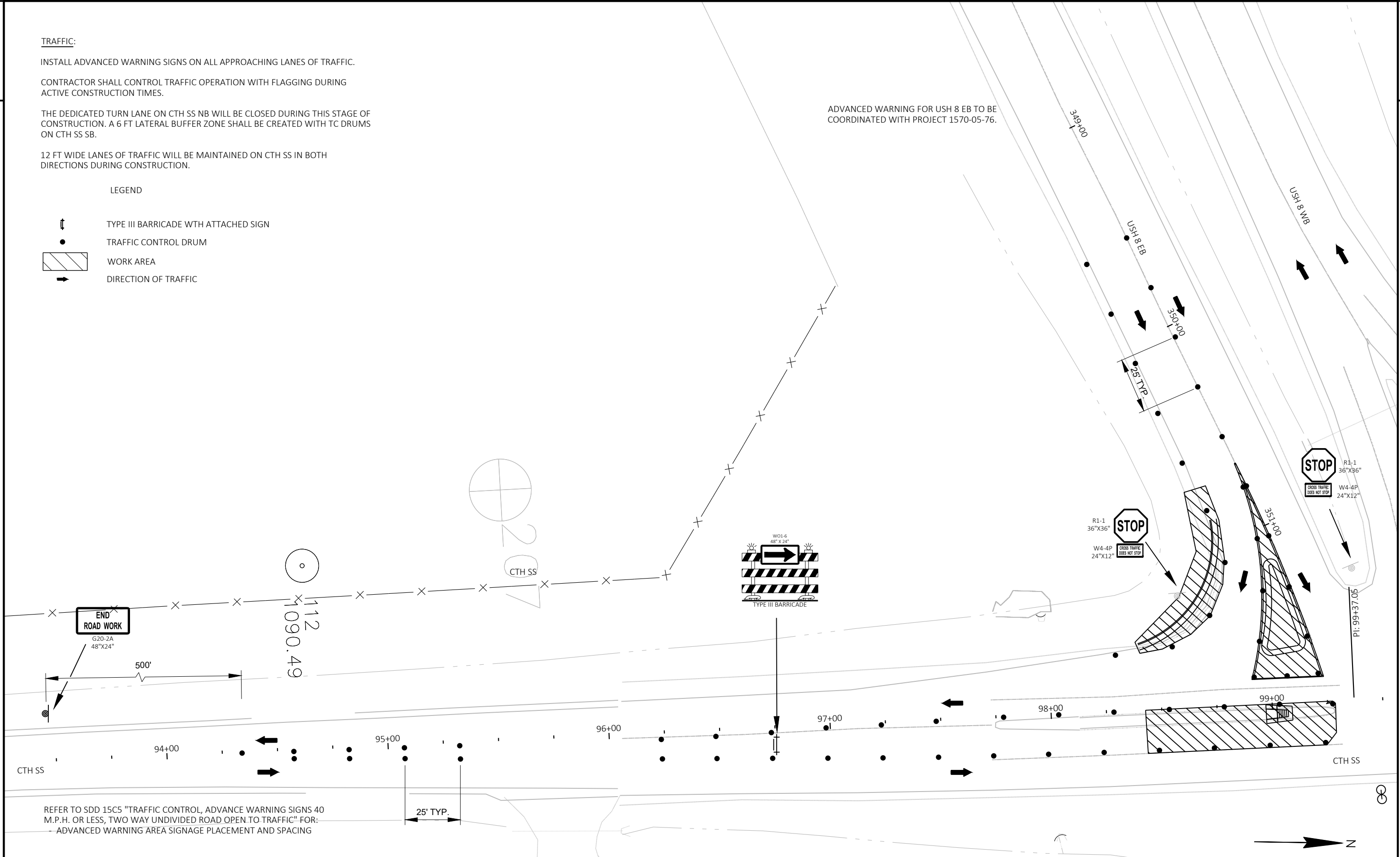
THE DEDICATED TURN LANE ON CTH SS NB WILL BE CLOSED DURING THIS STAGE OF CONSTRUCTION. A 6 FT LATERAL BUFFER ZONE SHALL BE CREATED WITH TC DRUMS ON CTH SS SB.

12 FT WIDE LANES OF TRAFFIC WILL BE MAINTAINED ON CTH SS IN BOTH DIRECTIONS DURING CONSTRUCTION.

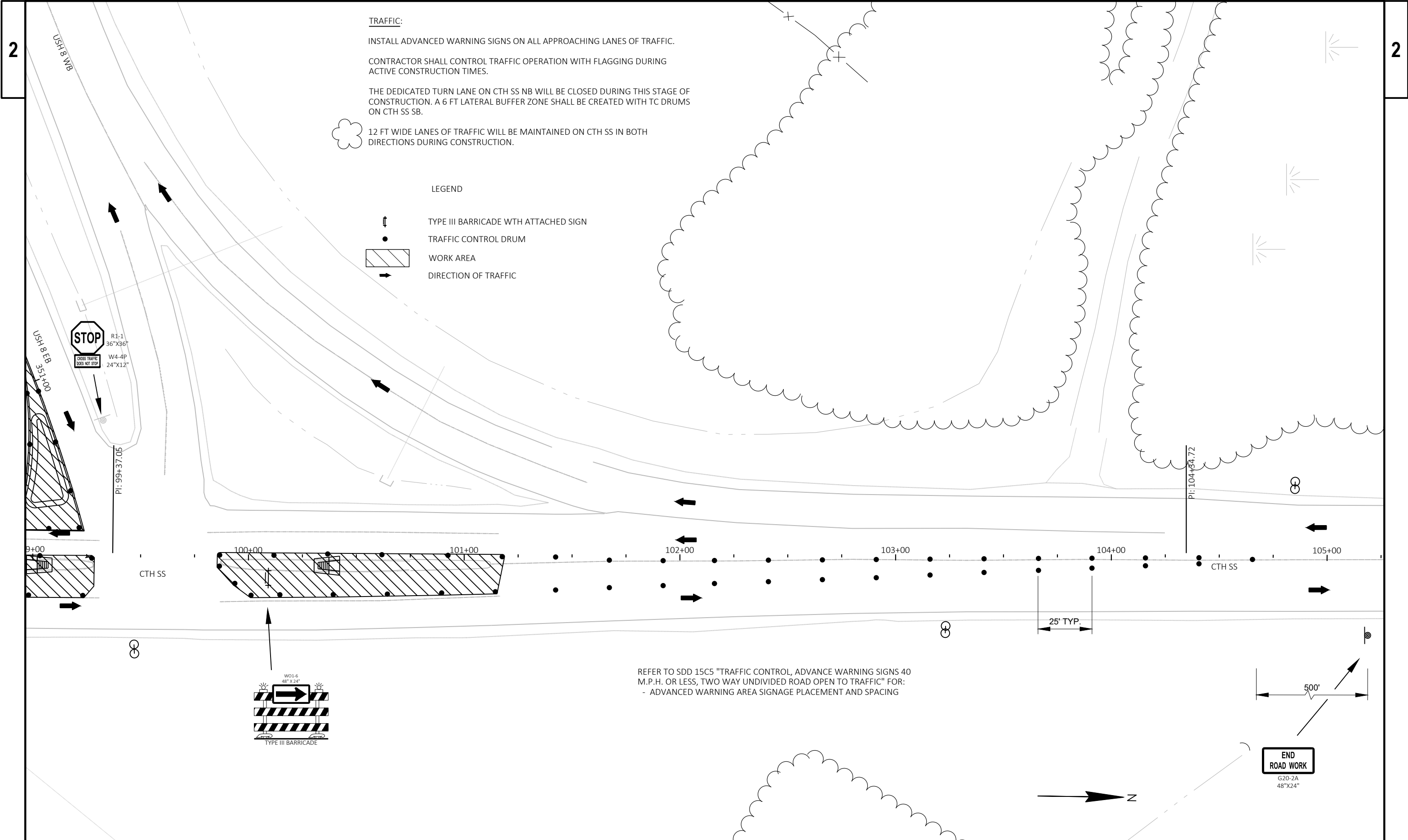
LEGEND

-  TYPE III BARRICADE WITH ATTACHED SIGN
-  TRAFFIC CONTROL DRUM
-  WORK AREA
-  DIRECTION OF TRAFFIC

ADVANCED WARNING FOR USH 8 EB TO BE COORDINATED WITH PROJECT 1570-05-76.







REFER TO SDD 15C5 "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC" FOR: ADVANCED WARNING AREA SIGNAGE PLACEMENT AND SPACING



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 CONTRACTOR SHALL CONTROL TRAFFIC OPERATION WITH FLAGGING DURING ACTIVE CONSTRUCTION TIMES.
 THE DEDICATED TURN LANE ON CTH SS NB WILL BE CLOSED DURING THIS STAGE OF CONSTRUCTION. A 6 FT LATERAL BUFFER ZONE SHALL BE CREATED WITH TC DRUMS ON CTH SS SB.

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-  TYPE III BARRICADE WTH ATTACHED SIGN
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-  WORK AREA
-  DIRECTION OF TRAFFIC

REFER TO SDD 15C5 "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS, TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC" FOR:
 - ADVANCED WARNING AREA SIGNAGE PLACEMENT AND SPACING

Estimate Of Quantities

		1570-05-76		1570-05-77		
Line	Item	Item Description	Unit	Total	Qty	Qty
0002	204.0110	Removing Asphaltic Surface	SY	3,610.000	3,420.000	190.000
0004	204.0150	Removing Curb & Gutter	LF	238.000		238.000
0006	205.0100	Excavation Common	CY	1,907.000	1,907.000	
0008	208.0100	Borrow	CY	2,746.000	2,724.000	22.000
0010	211.0100	Prepare Foundation for Asphaltic Paving (project) 01. 1570-05-76	LS	1.000	1.000	
0012	211.0400	Prepare Foundation for Asphaltic Shoulders	STA	30.000	30.000	
0014	213.0100	Finishing Roadway (project) 01. 1570-05-76	EACH	1.000	1.000	
0016	305.0110	Base Aggregate Dense 3/4-Inch	TON	176.000	176.000	
0018	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	2,564.000	2,484.000	80.000
0020	305.0500	Shaping Shoulders	STA	34.000	34.000	
0022	455.0605	Tack Coat	GAL	327.000	321.000	6.000
0024	465.0105	Asphaltic Surface	TON	1,858.000	1,808.000	50.000
0026	465.0315	Asphaltic Flumes	SY	7.000		7.000
0028	520.1024	Apron Endwalls for Culvert Pipe 24-Inch	EACH	4.000	4.000	
0030	520.3324	Culvert Pipe Class III-A 24-Inch	LF	152.000	152.000	
0032	520.8000	Concrete Collars for Pipe	EACH	1.000	1.000	
0034	522.0124	Culvert Pipe Reinforced Concrete Class III 24-Inch	LF	24.000	24.000	
0036	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	20.000		20.000
0038	601.0415	Concrete Curb & Gutter 6-Inch Sloped 30-Inch Type J	LF	97.000		97.000
0040	601.0557	Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type D	LF	379.000	308.000	71.000
0042	606.0100	Riprap Light	CY	4.000		4.000
0044	618.0100	Maintenance And Repair of Haul Roads (project) 01. 1570-05-76	EACH	1.000	1.000	
0046	619.1000	Mobilization	EACH	1.000	0.750	0.250
0048	620.0300	Concrete Median Sloped Nose	SF	96.000		96.000
0050	624.0100	Water	MGAL	31.000	31.000	
0052	625.0100	Topsoil	SY	7,380.000	7,380.000	
0054	627.0200	Mulching	SY	85.000		85.000
0056	628.1504	Silt Fence	LF	1,350.000	1,350.000	
0058	628.1520	Silt Fence Maintenance	LF	1,350.000	1,350.000	
0060	628.1905	Mobilizations Erosion Control	EACH	1.000	1.000	
0062	628.1910	Mobilizations Emergency Erosion Control	EACH	1.000	1.000	
0064	628.2002	Erosion Mat Class I Type A	SY	7,465.000	7,380.000	85.000
0066	628.7005	Inlet Protection Type A	EACH	2.000	2.000	
0068	628.7555	Culvert Pipe Checks	EACH	2.000	2.000	
0070	629.0210	Fertilizer Type B	CWT	4.750	4.650	0.100
0072	630.0110	Seeding Mixture No. 10	LB	101.200	100.000	1.200
0074	633.0100	Delineator Posts Steel	EACH	52.000	52.000	
0076	633.0500	Delineator Reflectors	EACH	104.000	104.000	

Estimate Of Quantities

1570-05-76 1570-05-77

Line	Item	Item Description	Unit	Total	Qty	Qty
0078	633.5200	Markers Culvert End	EACH	8.000	8.000	
0080	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	34.000	33.000	1.000
0082	637.2210	Signs Type II Reflective H	SF	571.000	549.000	22.000
0084	637.2230	Signs Type II Reflective F	SF	140.000	140.000	
0086	638.2102	Moving Signs Type II	EACH	8.000	4.000	4.000
0088	638.2602	Removing Signs Type II	EACH	8.000	8.000	
0090	638.3000	Removing Small Sign Supports	EACH	8.000	8.000	
0092	638.4000	Moving Small Sign Supports	EACH	9.000	6.000	3.000
0094	642.5001	Field Office Type B	EACH	1.000	0.750	0.250
0096	643.0300	Traffic Control Drums	DAY	3,892.000	3,248.000	644.000
0098	643.0420	Traffic Control Barricades Type III	DAY	210.000	196.000	14.000
0100	643.0705	Traffic Control Warning Lights Type A	DAY	392.000	392.000	
0102	643.0715	Traffic Control Warning Lights Type C	DAY	784.000	784.000	
0104	643.0800	Traffic Control Arrow Boards	DAY	42.000	42.000	
0106	643.0900	Traffic Control Signs	DAY	1,372.000	1,316.000	56.000
0108	643.5000	Traffic Control	EACH	1.000	0.750	0.250
0110	645.0130	Geotextile Type R	SY	10.000		10.000
0112	646.1020	Marking Line Epoxy 4-Inch	LF	4,198.000	4,087.000	111.000
0114	646.3020	Marking Line Epoxy 8-Inch	LF	283.000		283.000
0116	646.3545	Marking Line Grooved Wet Ref Contrast Epoxy 8-Inch	LF	1,930.000	1,930.000	
0118	646.5020	Marking Arrow Epoxy	EACH	4.000	4.000	
0120	646.5120	Marking Word Epoxy	EACH	2.000	2.000	
0122	646.6120	Marking Stop Line Epoxy 18-Inch	LF	106.000	62.000	44.000
0124	646.6220	Marking Yield Line Epoxy 18-Inch	EACH	2.000	2.000	
0126	646.7120	Marking Diagonal Epoxy 12-Inch	LF	395.000	350.000	45.000
0128	646.7220	Marking Chevron Epoxy 24-Inch	LF	21.000		21.000
0130	646.8120	Marking Curb Epoxy	LF	20.000		20.000
0132	646.8220	Marking Island Nose Epoxy	EACH	1.000		1.000
0134	646.9000	Marking Removal Line 4-Inch	LF	818.000	720.000	98.000
0136	646.9100	Marking Removal Line 8-Inch	LF	283.000		283.000
0138	646.9200	Marking Removal Line Wide	LF	44.000		44.000
0140	649.0150	Temporary Marking Line Removable Tape 4-Inch	LF	1,320.000	1,320.000	
0142	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	117.000		117.000
0144	650.8500	Construction Staking Electrical Installations (project) 01. 1570-05-76	LS	1.000	1.000	
0146	650.8500	Construction Staking Electrical Installations (project) 01. 1570-05-77	LS	1.000		1.000
0148	650.9910	Construction Staking Supplemental Control (project) 01. 1570-05-76	LS	1.000	1.000	
0150	650.9910	Construction Staking Supplemental Control (project) 01. 1570-05-77	LS	1.000		1.000

Estimate Of Quantities

1570-05-76 1570-05-77

Line	Item	Item Description	Unit	Total	Qty	Qty
0152	650.9920	Construction Staking Slope Stakes	LF	3,600.000	3,600.000	
0154	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	1,734.000	1,329.000	405.000
0156	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	105.000	72.000	33.000
0158	652.0605	Conduit Special 2-Inch	LF	309.000	151.000	158.000
0160	653.0164	Pull Boxes Non-Conductive 24x42-Inch	EACH	14.000	10.000	4.000
0162	654.0102	Concrete Bases Type 2	EACH	1.000		1.000
0164	654.0105	Concrete Bases Type 5	EACH	4.000		4.000
0166	654.0106	Concrete Bases Type 6	EACH	8.000	8.000	
0168	654.0224	Concrete Control Cabinet Bases Type L24	EACH	2.000	1.000	1.000
0170	655.0210	Cable Traffic Signal 3-14 AWG	LF	439.000		439.000
0172	655.0610	Electrical Wire Lighting 12 AWG	LF	2,172.000	1,488.000	684.000
0174	655.0620	Electrical Wire Lighting 8 AWG	LF	7,515.000	5,284.000	2,231.000
0176	656.0200	Electrical Service Meter Breaker Pedestal (location) 01. 1570-05-76	LS	1.000	1.000	
0178	656.0200	Electrical Service Meter Breaker Pedestal (location) 01. CTH SS Station 96+96.55	LS	1.000		1.000
0180	657.0255	Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	EACH	12.000	8.000	4.000
0182	657.0310	Poles Type 3	EACH	1.000		1.000
0184	657.0322	Poles Type 5-Aluminum	EACH	4.000		4.000
0186	657.0327	Poles Type 6-Aluminum	EACH	8.000	8.000	
0188	657.0590	Trombone Arms 20-FT	EACH	1.000		1.000
0190	657.0715	Luminaire Arms Truss Type 4 1/2-Inch Clamp 15-FT	EACH	12.000	8.000	4.000
0192	658.0170	Traffic Signal Face 1S 8-Inch	EACH	2.000		2.000
0194	659.1120	Luminaires Utility LED B	EACH	12.000	8.000	4.000
0196	659.2124	Lighting Control Cabinets 120/240 24-Inch	EACH	2.000	1.000	1.000
0198	690.0150	Sawing Asphalt	LF	415.000	80.000	335.000
0200	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	300.000	300.000	
0202	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	300.000	300.000	
0204	SPV.0090	Special 01. Cure and Seal Treatment Concrete Curb and Gutter	LF	308.000	308.000	

REMOVING ASPHALTIC SURFACE

204.0110

CATEGORY	STATION	TO	STATION	LOCATION	SY	REMARKS
<u>PROJECT 1570-05-76</u>						
0010	317+38E	-	325+53E	RT	723	
0010	318+87E	-	319+71E	LT	31	
0010	322+37E	-	329+07E	LT	243	
0010	319+57W	-	326+06W	RT	219	
0010	322+89W	-	331+01W	LT	723	
0010	328+81W	-	329+60W	RT	30	
0010	0+49	-	2+16	LT&RT	512	20TH STREET
0010	2+55	-	3+18	LT&RT	389	20TH STREET MEDIAN
0010	3+56	-	5+23	LT&RT	549	20TH STREET
PROJECT ID 1570-05-76					<u>3420</u>	

<u>PROJECT 1570-05-77</u>						
0010	98+97	-	99+28	CTH SS	31	MEDIAN SOUTH OF INTERSECTION
0010	99+87	-	100+42	CTH SS	56	MEDIAN NORTH OF INTERSECTION
10	350+75	-	351+48	USH 8 EAST	22	SB TURN LANE C & G ADJACENT
0010	351+13	-	351+60	USH 8 EAST	81	PORK CHOP PLUS C & G MARGIN
PROJECT ID 1570-05-77					<u>190</u>	TOTAL 0010

TOTAL 0010 3610

REMOVING CURB & GUTTER

204.0150

STATION	TO	STATION	LOCATION	LF
351+05	-	351+51	USH 8	63
98+97	-	9928.15	CTH SS	63.4
99+87	-	10042.27	CTH SS	111.4
PROJECT ID 1570-05-77			TOTAL 0010	<u>238</u>

PREPARE FOUNDATION FOR ASPHALTIC PAVING (1570-05-76)

LOCATION	211.0100 LS
PROJECT	1
TOTAL 0010	<u>1</u>

PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS

211.0400

STATION	TO	STATION	LOCATION	STA
317+39E	-	325+54E	RT	8
322+37E	-	329+06E	LT	7
319+48W	-	326+06W	RT	7
322+88W	-	331+01W	LT	8
PROJECT ID 1570-05-76			TOTAL 0010	<u>30</u>

BASE AGGREGATE DENSE 3/4-INCH

CATEGORY	STATION	TO	STATION	LOCATION	TON
PROJECT 1570-05-76					
0010	318+31E	-	325+04E	RT	35
0010	322+94E	-	329+31E	LT	53
0010	3+77	-	5+23	LT&RT	17
0010	323+34W	-	329+27W	LT	35
0010	319+31W	-	325+38W	RT	53
0010	2+13	-	0+49	LT&RT	17
PROJECT ID 1570-05-76				TOTAL 0010	176

305.0110

EARTHWORK SUMMARY TABLE

LOCATION	(1)	(2)	(3)	(4)	(5)	
	205.0100	205.0100				208.0100
	EXCAVATION COMMON (CUT) CY	EXCAVATION COMMON (EBS) CY				BORROW [FILL] CY
318+24 EB - 329+50 EB	810	132	571	1809	1238	
319+00 WB - 330+50 WB	852	113	600	1486	1486	
1570-05-76 TOTAL	1662	245	1171	3295	2724	
350+85 EB - 351+38 EB					22	
1570-05-77 TOTAL					22	

- (1) EXCAVATION COMMON (CUT) FROM C3D SURFACES (INCLUDES EXISTING PAVEMENT IF WITHIN CUT LIMIT)
- (2) EXCAVATION COMMON (EBS) TO BE BACKFILLED WITH BORROW
- (3) REUSEABLE MATERIAL = USEABLE EXCAVATION COMMON (CUT) + USEABLE EXCAVATION COMMON (EBS)
- (4) EXPANDED FILL = REQUIRED FILL MATERIAL = FILL + EBS FILL (EXPANSION FACTOR = 1.18)
- (5) BORROW (FILL) = REQUIRED EMBANKMENT MATERIAL (=EXPANDED FILL - REUSABLE MATERIAL)

3

BASE AGGREGATE DENSE 1 1/4-INCH

305.0120

CATEGORY	STATION	TO	STATION	LOCATION	TON
PROJECT 1570-05-76					
0010	318+31E	-	325+04E	RT	566
0010	322+94E	-	329+31E	LT	670
0010	323+34W	-	329+27W	LT	575
0010	319+31W	-	325+38W	RT	673
PROJECT ID 1570-05-76					2484

PROJECT 1570-05-77

0010	98+97	-	99+28	CTH SS	10
0010	99+87	-	100+42	CTH SS	10
0010	351+13	-	351+60	USH 8 EAST	60
PROJECT ID 1570-05-77					TOTAL 0010
					80

TOTAL 0010 2564

TACK COAT

455.0605

CATEGORY	STATION	TO	STATION	LOCATION	GAL
PROJECT 1570-05-76					
0010	317+38E	-	325+53E	RT	66
0010	322+37E	-	329+30E	LT	80
0010	322+89W	-	331+01W	LT	67
0010	319+32W	-	326+06W	RT	80
0010	0+49	-	2+16	RT<	45
0010	2+59	-	3+15	RT<	4
0010	3+56	-	5+23	RT<	45
PROJECT ID 1570-05-76					TOTAL 0010
					321

PROJECT 1570-05-77

0010	98+97.12	-	99+28.15	CTH SS	2
0010	99+87.27	-	100+42.27	CTH SS	1
0010	351+13	-	351+60	USH 8 EAST	3
PROJECT ID 1570-05-77					TOTAL 0010
					6

TOTAL 0010 327

SHAPING SHOULDERS

305.0500

STATION	TO	STATION	LOCATION	STA
317+39E	-	325+54E	RT	8
322+37E	-	329+06E	LT	7
319+48W	-	326+06W	RT	7
322+88W	-	331+01W	LT	8
0+49	-	1+66	LT&RT	2
4+07	-	5+23	LT&RT	2

PROJECT ID 1570-05-76

TOTAL 0010 34

ASPHALTIC SURFACE

465.0105

CATEGORY	STATION	TO	STATION	LOCATION	TON	REMARKS
PROJECT 1570-05-76						
0010	317+38E	-	325+53E	RT	309	
0010	322+37E	-	329+30E	LT	372	
0010	322+89W	-	331+01W	LT	314	
0010	319+32W	-	326+06W	RT	375	
0010	0+49	-	2+16	RT<	208	20TH STREET NORTH
0010	2+59	-	3+15	RT<	17	MEDIAN PATH
0010	3+56	-	5+23	RT<	212	20TH STREET SOUTH
PROJECT ID 1570-05-76					TOTAL 0010	1808

PROJECT 1570-05-77

0010	351+17	-	351+55	PORK CHOP	35	USH 8 ALIGNMENT
0010	99+07	-	99+28	SOUTH MEDIAN	5	CTH SS
0010	99+87	-	100+30	NORTH MEDIAN	10	CTH SS
PROJECT ID 1570-05-77					TOTAL 0010	50

TOTAL 0010 1858

ASPHALT FLUME

STATION	TO	STATION	LOCATION	ASPHALTIC FLUMES SY	RIPRAP LIGHT CY	GEOTEXTILE TYPE R SY
465.0315 606.0100 645.0130						
350+77	-	350+88	USH 8 EAST	7	4	10
PROJECT 1570-05-77				TOTAL 0010	7	4
						10

APRON ENDWALLS FOR CULVERT PIPE 24-INCH

LOCATION	520.1024 EACH	REMARKS
PROJECT	4	MEDIAN PIPES
PROJECT ID 1570-05-76	<u>4</u>	TOTAL 0010

CONCRETE COLLARS FOR PIPE

STATION	LOCATION	520.8000 EACH
324+28E	RT	1
PROJECT ID 1570-05-76	TOTAL 0010	<u>1</u>

CULVERT PIPE CLASS III-A 24-INCH

STATION	LOCATION	520.3324 LF	REMARKS
319+18E	LT	69	IN MEDIAN
329+05E	LT	83	IN MEDIAN
PROJECT ID 1570-05-76	TOTAL 0010	<u>152</u>	

CULVERT PIPE REINFORCED CONCRETE CLASS III 24-INCH

STATION	LOCATION	522.0124 LF
324+32	RT	24
PROJECT ID 1570-05-76	TOTAL 0010	<u>24</u>

CONCRETE C & G

STATION	TO	STATION	LOCATION	CONCRETE CURB & GUTTER 30-INCH TYPE D	CONCRETE CURB & GUTTER 6-INCH SLOPED 30-INCH TYPE J	CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D	REMARKS
				601.0411 LF	601.0415 LF	601.0557 LF	
PROJECT 1570-05-76							
		323+14E	RT	-	-	82	
		324+05E	RT	-	-	72	
		323+89W	LT	-	-	72	
		324+83W	LT	-	-	82	
PROJECT ID 1570-05-76 TOTAL 0010				0	0	308	
PROJECT 1570-05-77							
350+89		351+39	USH 8 EAST	-	-	71	SB TURN LANE
351+17		351+56	USH 8 EAST	-	97	-	PORK CHOP PERIMETER
98+97		99+02	CTH SS	5	-	-	WEST OF MEDIANS
98+97		99+02	CTH SS	5	-	-	EAST OF MEDIANS
100+37		100+42	CTH SS	5	-	-	WEST OF MEDIANS
100+37		100+42	CTH SS	5	-	-	EAST OF MEDIANS
PROJECT ID 1570-05-77 TOTAL 0010				20	97	71	
TOTAL 0010				20	97	379	

EROSION CONTROL

STATION	TO	STATION	LOCATION	TOPSOIL	MULCHING	SILT FENCE	SILT FENCE MAINTENANCE	EROSION MAT CLASS I TYPE A	FERTILIZER TYPE B	SEEDING MIXTURE NO. 10
				625.0100 SY	627.0200 SY	628.1504 LF	628.1520 LF	628.2002 SY	629.0210 CWT	630.0110 LB
PROJECCT 1570-05-76										
318+24E		324+54E	RT	2090	-	750	750	2090	1.32	28
322+37E		329+46E	LT	1519	-	-	-	1519	0.96	21
323+89W		330+11W	LT	1901	-	600	600	1901	1.20	26
319+05W		326+14W	RT	1870	-	-	-	1870	1.18	25
PROJECT ID 1570-05-76 TOTAL 0010				7380	0	1350	1350	7380	4.65	100
PROJECT 1570-05-77										
350+79		351+38	RT	-	85	-	-	85	0.1	1.2
PROJECT ID 1570-05-77 TOTAL 0010				0	85	0	0	85	0.1	1.2
TOTAL 0010				7380	85	1350	1350	7465	4.75	101.2

3

CONCRETE MEDIAN SLOPED NOSE

STATION	TO	STATION	LOCATION	620.0300 SF
9897	-	9909	CTH SS	47.67
10030	-	10042	CTH SS	48.03
PROJECT ID 1570-05-77			TOTAL 0010	<u>96</u>

INLET PROTECTION TYPE A

STATION	LOCATION	628.7005 EACH
317+77E	LT	1
324+44E	LT	1
PROJECT ID 1570-05-76		TOTAL 0010 <u>2</u>

3

MOBILIZATIONS EROSION CONTROL

LOCATION	628.1905 EACH
PROJECT	1
TOTAL 0010	<u>1</u>

MOBILIZATIONS EMERGENCY EROSION CONTROL

LOCATION	628.1910 EACH
PROJECT	1
TOTAL 0010	<u>1</u>

DELINEATOR REFLECTORS

STATION	TO	STATION	LOCATION	633.0500 EACH
322+37E	-	326+02E	RT	52
322+41W	-	326+06W	RT	52
PROJECT ID 1570-05-76			TOTAL 0010	<u>104</u>

DELINEATOR POSTS STEEL

STATION	TO	STATION	LOCATION	633.0100 EACH
322+37E	-	326+02E	RT	26
322+41W	-	326+06W	RT	26
PROJECT ID 1570-05-76			TOTAL 0010	<u>52</u>

MARKERS CULVERT END

LOCATION	633.5200 EACH
PROJECT	8
PROJECT ID 1570-05-76	TOTAL 0010 <u>8</u>

PERMANENT SIGNS

SIGN GROUP #	SIGN CODE	SIGN MESSAGE	SIZE (W X H) (INCHES)	POST WOOD 4X6 - INCH X 16 FT 634.0616 EACH	SIGNS TYPE II REFLECTIVE H 637.2210 SF	SIGNS TYPE II REFLECTIVE F 637.2230 SF	MOVING SIGNS TYPE II 638.2102 EACH	REMOVING SIGNS TYPE II 638.2602 EACH	REMOVING SMALL SIGN SUPPORTS 638.3000 EACH	MOVING SMALL SIGN SUPPORTS 638.4000 EACH	REMARKS
PROJECT 1570-05-76											
A-1		JCT	-	-	-	-	-	-	-	-	TO REMAIN
		53	-	-	-	-	-	-	-	-	
A-2		WATCH FOR TURNING VEHICLES	84 X 60	2	-	35	-	-	-	-	
		WATCH FOR TURNING VEHICLES	84 X 60	2	-	35	-	-	-	-	
A-3	R3-18	NO LEFT/ U-TURN SYMBOL	36 X 36	1	9.00	-	-	-	-	-	
A-4	R5-1	DO NOT ENTER	36 X 36	1	9.00	-	-	-	-	-	
A-5	R6-1L	ONE WAY LEFT ARROW	36 X 12	2	3.00	-	-	-	-	-	
	R1-2		36 X 31	-	3.88	-	-	-	-	-	
A-6	R6-1L	ONE WAY LEFT ARROW	36 X 12	2	3.00	-	-	-	-	-	
	R1-2	YIELD	36 X 31	-	3.88	-	-	-	-	-	
A-7		DO NOT ENTER	36 X 36	1	9.00	-	-	-	-	-	
A-8	J3-1	WEST	36 X 84	1	21.00	-	-	-	-	-	
		8	-	-	-	-	-	-	-	-	
		U-TURN	-	-	-	-	-	-	-	-	
A-9		WRONG WAY	42 X30	-	-	-	-	-	-	-	TO REMAIN
A-10	R6-2L	WRONG WAY	42 X 30	1	8.75	-	-	-	-	-	
A-11			144 X 72	2	72.00	-	-	-	-	-	
A-12	R5-1	DO NOT ENTER	36 X 36	1	9.00	-	-	-	-	-	
A-13		CREAMERY RD	36 X 84	-	-	-	-	1	2	-	REMOVE
A-14		NORTH 20 ST	114 X 54	2	42.75	-	-	-	-	-	
A-15	R6-2L	ONE WAY LEFT ARROW	24 X 30	1	5.00	-	-	-	-	-	
A-16		BUCK N BEAM CAMPGROUND	-	-	-	-	1	-	-	2	MOVE SIGN
B-1	R6-1R	ONE WAY RIGHT ARROW	36 X 12	1	3.00	-	-	1	1	-	
	R1-1	STOP	36 X 36	1	7.46	-	-	1	-	-	
B-2	R3-53R	RIGHT TURN ONLY	24 X 30	1	5.00	-	-	-	-	-	

PERMANENT SIGNS

SIGN GROUP #	SIGN CODE	SIGN MESSAGE	SIZE (W X H) (INCHES)	POST WOOD 4X6 - INCH X 16 FT 634.0616 EACH	SIGNS TYPE II REFLECTIVE H 637.2210 SF	SIGNS TYPE II REFLECTIVE F 637.2230 SF	MOVING SIGNS TYPE II 638.2102 EACH	REMOVING SIGNS TYPE II 638.2602 EACH	REMOVING SMALL SIGN SUPPORTS 638.3000 EACH	MOVING SMALL SIGN SUPPORTS 638.4000 EACH	REMARKS
PROJECT 1570-05-76											
B-3		BUCK N BEAM CAMPGROUND				-	1	-	-	2	MOVE SIGN
B-4	R6-2L	ONE WAY LEFT ARROW	24 X 30	1	5.00	-	-	-	-	-	
B-5		NORTH 20TH STREET	114 X 54	2	42.75	-	-	-	-	-	
B-6	R5-1	DO NOT ENTER	36 X 36	-	-	-	-	-	-	-	TO REMAIN
B-7			120 X 66	2	55.00	-	-	-	-	-	
B-8	R1-1	STOP	36 X 36	-	-	-	-	1	1	-	REMOVE
B-9	R6-2R	ONE WAY RIGHT ARROW	24 X 30	1	5.00	-	-	-	-	-	
B-10	R6-2R		24 X 30	1	5.00	-	-	-	-	-	
B-11	R1-1	STOP	36 X 36	-	-	-	-	1	1	-	REMOVE
B-12			120 X 66	2	55.00	-	-	-	-	-	
B-13	R5-1	DO NOT ENTER	36 X 36	-	-	-	-	-	-	-	TO REMAIN
B-14	R5-1A	WRONG WAY	42 X 30	-	-	-	-	-	-	-	TO REMAIN
B-15		WEST	36 X 84	1	21.00	-	-	-	-	-	
		8	-	-	-	-	-	-	-	-	
		U-TURN	-	-	-	-	-	-	-	-	
B-16	R6-1L	ONE WAY LEFT ARROW	36 X 12	1	3.00	-	-	-	-	-	
	R1-2	YIELD	36 X 31	-	3.88	-	-	-	-	-	
B-17	R5-1	DO NOT ENTER	36 X 36	1	9.00	-	-	-	-	-	
B-18	R6-1L	ONE WAY LEFT ARROW	36 X 12	1	3.00	-	-	-	-	-	
	R1-2	YIELD	36 X 31	-	3.88	-	-	-	-	-	
B-19	R5-1	DO NOT ENTER	36 X 36	1	9.00	-	-	-	-	-	
B-20	R3-53R	RIGHT TURN ONLY	24 X 30	1	5.00	-	-	-	-	-	
B-21	R6-1R	ONE WAY RIGHT ARROW	36 X 12	1	6.75	-	-	1	1	-	
	R1-1	STOP	36 X 36	-	-	-	-	1	-	-	
B-22		SPEED LIMIT 55	36 X 48	1	12.00	-	-	-	-	-	
		SPEED LIMIT 55	36 X 48	-	-	-	-	-	-	-	TO REMAIN
B-23	W06-2	DIVIDED HIGHWAY ENDS	48 x48	-	-	-	1	-	-	1	MOVE SIGN
	W06-2	DIVIDED HIGHWAY ENDS	48 x48	-	-	-	1	-	-	1	MOVE SIGN
C-1	D1-1	CREAMERY RD	101 X 21	-	-	-	-	1	2	-	REMOVE SIGN
C-2	R5-1	DO NOT ENTER	36 X 36	2	9.00	-	-	-	-	-	

PERMANENT SIGNS

SIGN GROUP #	SIGN CODE	SIGN MESSAGE	SIZE	POST WOOD 4X6 -	SIGNS TYPE II	SIGNS TYPE II	MOVING SIGNS	REMOVING SIGNS	REMOVING SMALL	MOVING SMALL	REMARKS
			(W X H)	INCH X 16 FT	REFLECTIVE H	REFLECTIVE F	TYPE II	TYPE II	SIGN SUPPORTS	SIGN SUPPORTS	
			(INCHES)	634.0616	637.2210	637.2230	638.2102	638.2602	638.3000	638.4000	
				EACH	SF	SF	EACH	EACH	EACH	EACH	
C-3			144 X 72	2	72.00	-	-	-	-	-	
C-4	R5-1A	WRONG WAY	42 X 30	-	-	-	-	-	-	-	TO REMAIN
C-5	R3-18	NO LEFT / U-TURN SYMBOL	36 X 36	1	9.00	-	-	-	-	-	
D-1		WATCH FOR TURNING VEHICLES	82 X 21	2	-	35	-	-	-	-	
		WATCH FOR TURNING VEHICLES	84 X 60	2	-	35	-	-	-	-	
PROJECT 1570-05-76			TOTAL 0010	33	549	140	4	8	8	6	
R1-1		STOP	36 X 36	-	14.92	-	-	-	-	-	
R1-1		STOP	36 X 36	-	-	-	1	-	-	-	
W4-4P		CROSS TRAFFIC DOES NOT STOP	24 X 12	-	-	-	1	-	-	1	
W12-1-D		DOUBLE DOWN ARROW	30 X 30	1	6.25	-	-	-	-	-	
R4-7		KEEP RIGHT	24 X 30	-	-	-	2	-	-	2	
PROJECT ID 1570-05-77			TOTAL 0010	1	22	0	4	0	0	3	
			TOTAL 0010	34	571	140	8	8	8	9	

TRAFFIC CONTROL

CATEGORY	STATION TO	STATION	LOCATION	TRAFFIC CONTROL DRUMS	TRAFFIC CONTROL BARICADES TYPE III	TRAFFIC CONTROL WARNING LIGHTS TYPE A	TRAFFIC CONTROL WARNING LIGHTS TYPE C	TRAFFIC CONTROL ARROW BOARDS	TRAFFIC CONTROL SIGNS	REMARKS
				643.0300	643.0420	643.0705	643.0715	643.0800	643.0900	
				DAY	DAY	DAY	DAY	DAY	DAY	
0010			USH 8 EB	644	28	56	182	14	196	STAGE 1
0010			USH 8 WB	672	42	84	70	0	224	STAGE 1
0010			USH 8 EB	924	56	112	364	28	420	STAGE 2
0010			USH 8 WB	1008	70	140	168	0	476	STAGE 2
PROJECT ID 1570-05-76			TOTAL 0010	3248	196	392	784	42	1316	
0010	91+00	-	109+00	CTH SS	-	-	-	-	56	
0010	94+34	-	104+65	CTH SS	532	-	-	-	-	
0010	96+70	-	100+12	CTH SS	-	14	-	-	-	
0010	349+56	-	351+71	USH 8	112	-	-	-	-	
PROJECT ID 1570-05-77			TOTAL 0010	644	14	0	0	0	56	
			TOTAL 0010	3892	210	392	784	42	1372	

3

3

PAVEMENT MARKING

STATION	TO	STATION	LOCATION	MARKING LINE		MARKING GROOVED WET REF CONTRAST		MARKING STOP LINE		MARKING YIELD LINE		MARKING DIAGONAL EPOXY		REMARKS
				LINE EPOXY 4-INCH (YELLOW) 646.1020 LF	LINE EPOXY 4-INCH (WHITE) 646.1020 LF	8-INCH EPOXY 8-INCH 646.3545 LF	ARROW EPOXY 646.5020 EACH	WORD EPOXY 646.5120 EACH	EPOXY 18-INCH 646.6120 LF	EPOXY 18-INCH 646.6220 EACH	12-INCH 646.7120 LF			
USH 8														
317+39E		329+77E	RT<	750	769	975	-	-	-	-	-	-	-	
331+10W		318+88W	RT<	740	768	955	-	-	-	-	-	-	-	
318+89E		319+67E	LT	-	-	-	-	-	-	-	1	-	175	
328+82W		329+59W	RT	-	-	-	-	-	-	-	1	-	175	
20TH ST - NORTH														
0+49		2+05	RT<	310	220	-	2	1	31	-	-	-	-	CENTER DOUBLE YELLOW - EDGE WHITE
20TH ST - SOUTH														
3+69		5+24	RT<	310	220	-	2	1	31	-	-	-	-	CENTER DOUBLE YELLOW - EDGE WHITE
PROJECT 1570-05-76				TOTAL 0010	2110	1977	1930	4	2	62	2	350		

PAVEMENT MARKINGS

STATION	TO	STATION	LOCATION	MARKING LINE		MARKING STOP LINE		MARKING DIAGONAL		MARKING CHEVRON		MARKING ISLAND		REMARKS
				EPOXY 4-INCH 646.1020 LF	EPOXY 8-INCH 646.3020 LF	EPOXY 18-INCH 646.6120 LF	EPOXY 12-INCH 646.7120 LF	EPOXY 24-INCH 646.7220 LF	NOSE EPOXY 646.8220 EACH					
349+95	-	351+73	USH 8 EAST	-	178	-	-	-	-	-	-	-	-	RT OF PORK CHOP
350+60	-	351+65	USH 8 EAST	-	105	-	-	-	-	-	-	-	-	LT OF PORK CHOP
350+91	-	351+16	USH 8 EAST	-	-	-	-	-	-	21	-	-	-	APPROACH NOSE OF PORK CHOP
351+17	-	351+17	USH 8 EAST	-	-	-	-	-	-	-	-	1	-	EB APPROACH
351+32	-	351+54	USH 8 EAST	-	-	30	-	-	-	-	-	-	-	SOUTH BOUND TRUN LANE 30
351+54	-	351+56	USH 8 EAST	-	-	14	-	-	-	-	-	-	-	NORTH BOUND TURN LANE 13.5
351+57	-	351+70	USH 8 EAST	-	-	-	-	14	-	-	-	-	-	MARKINGS BEHING PORK CHOP
351+57	-	351+70	USH 8 EAST	-	-	-	-	17	-	-	-	-	-	MARKINGS BEHING PORK CHOP
351+57	-	351+70	USH 8 EAST	-	-	-	-	14	-	-	-	-	-	MARKINGS BEHING PORK CHOP
350+00	-	350+78	USH 8 EAST	78	-	-	-	-	-	-	-	-	-	WHITE EDGE LINE
351+65	-	351+73	USH 8 EAST	33	-	-	-	-	-	-	-	-	-	BACK OF PORK CHOP
PROJECT ID 1570-05-77				TOTAL 0010	111	283	44	45	21	1				

PROJECT NO: 1570-05-76

HWY: 8

COUNTY: BARRON

MISCELLANEOUS QUANTITIES

SHEET:

E

MARKING CURB EPOXY

CATEGORY	STATION	TO	STATION	LOCATION	646.8120 LF	REMARKS
0010	98+97	-	99+02	CTH SS	5	MEDIAN LEFT SIDE
0010	98+97	-	99+02	CTH SS	5	MEDIAN RIGHT SIDE
0010	100+37	-	100+42	CTH SS	5	MEDIAN LEFT SIDE
0010	100+37	-	100+42	CTH SS	5	MEDIAN RIGHT SIDE
PROJECT ID 1570-05-77				TOTAL 0010	<u>20</u>	

MARKING REMOVAL

STATION	TO	STATION	LOCATION	MARKING REMOVAL LINE 4-INCH 646.9000 LF	MARKING REMOVAL LINE 8-INCH 646.9100 LF	MARKING REMOVAL LINE WIDE 646.9200 LF	TEMPORARY MARKING LINE REMOVEABLE TAPE 4-INCH 649.0150 LF	REMARKS
PROJECT 1570-05-76								
317+39E	-	329+77E	RT<	360	-	-	1320	
331+10W	-	318+88W	RT<	360	-	-	0	
PROJECT ID 1570-05-76				TOTAL 0010	720	0	0	1320
PROJECT 1570-05-77								
98+98	-	99+18	CTH SS	20	-	-	-	MARKING REMOVAL LINE 4-INCH EDGELINE OF CHANNELIZING ISLAND
349+95	-	351+73	USH 8 EAST	-	178	-	-	LT OF PORK CHOP
350+00	-	350+78	USH 8 EAST	78	-	-	-	MARKING REMOVAL 4-INCH RIGHT EDGELINE
350+60	-	351+65	USH 8 EAST	-	105	-	-	RT OF PORK CHOP
351+54	-	351+56	USH 8 EAST	-	-	14	-	NORTH BOUND TURN LANE 14
351+32	-	351+54	USH 8 EAST	-	-	30	-	SOUTH BOUND TRUN LANE 30
PROJECT ID 1570-05-77				TOTAL 0010	98	283	44	0
TOTAL 0010				818	283	44	1320	

PULL BOXES NON-CONDUCTIVE 24X42-INCH

PULL BOXES NON-
CONDUCTIVE 24X42-
INCH
653.0164

STATION	OFFSET	NAME	EACH
PROJECT ID 1570-05-76			
324+99W	52.2' LT	PB-1	1
324+29W	63.5' LT	PB-2	1
324+97W	28.2' RT	PB-3	1
323+62W	32.0' RT	PB-4	1
321+78W	32.0' RT	PB-5	1
320+16W	32.0' RT	PB-6	1
323+45E	29.2' LT	PB-7	1
323+37E	42.3' RT	PB-8	1
327+22W	24.5' RT	PB-9	1
328+87W	27.1' RT	PB-10	1
PROJECT ID 1570-05-76 TOTAL 0010			10

STATION	OFFSET	NAME	EACH
PROJECT ID 1570-05-77			
97+07	60.5' RT	PB-1	1
98+52	42.0' RT	PB-2	1
98+55	44.7' LT	PB-3	1
99+07	39.2' LT	PB-4	1
PROJECT ID 1570-05-77 TOTAL 0010			4

TOTAL 0010 14

FLASHING BEACON

POLE NUMBER	STATION	OFFSET	ALIGN	CONCRETE BASES TYPE 2 654.0102 EACH	CABLE TRAFFIC SIGNAL 3-14 AWG 655.0210 EACH	POLES TYPE 3 657.0310 EACH	TROMBONE ARMS 20-FT 657.0590 EACH	TRAFFIC SIGNAL FACE 1S 8-INCH 658.0170 EACH
FB-1	99+06	32.7' LT	CTH SS	1	54	1	1	2
PROJECT ID 1570-05-77 TOTAL 0010				1	54	1	1	2

LIGHTING UNITS AND ELECTRICAL WIRE LIGHTING

CATEGORY	POLE NUMBER	STATION	OFFSET	ALIGN	CONCRETE BASES TYPE 5 654.0105 EACH	ELECTRICAL WIRE LIGHTING 12 AWG 655.0610 LF	TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE 657.0255 EACH	POLES TYPE 5-ALUMINUM 657.0322 EACH	LUMINAIRE ARMS TRUSS TYPE 4 1/2-INCH CLAMP 15-FT 657.0715 EACH	LUMINAIRES UTILITY LED B 659.1120 EACH
0010	A-1	97+70	42.5' RT	CTH SS	1	171	1	1	1	1
0010	A-2	99+20	42.5' RT	CTH SS	1	171	1	1	1	1
0010	A-3	100+70	47.0' RT	CTH SS	1	171	1	1	1	1
0010	A-4	98+59	54.5' LT	CTH SS	1	171	1	1	1	1
PROJECT ID 1570-05-77 TOTAL 0010					4	684	4	4	4	4

CONDUIT AND ELECTRICAL WIRE LIGHTING

FROM	TO	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH 652.0225 LF	CONDUIT RIGID NONMETALLIC SHCHEDULE 40 3-INCH 652.0235 LF	CONDUIT SPECIAL 2-INCH 652.0605 LF	ELECTRICAL WIRE LIGHTING 8 AWG 655.0620 LF
PROJECT 1570-05-76					
LCC	PB-1	-	72	-	170
PB-1	PB-2	70	-	-	240
PB-2	A-1	22	-	-	96
A-1	STUB	10	-	-	-
PB-1	PB-3	-	-	80	270
PB-3	PB-4	137	-	-	441
PB-4	PB-5	185	-	-	585
PB-5	PB-6	162	-	-	516
PB-6	A-2	22	-	-	96
A-2	A-3	48	-	-	174
A-3	STUB	10	-	-	-
PB-3	PB-7	123	-	-	399
PB-7	A-4	45	-	-	275
A-4	STIN	10	-	-	-
PB-7	PB-8	-	-	71	243
PB-8	A-5	9	-	-	57
A-5	STUB	10	-	-	-
PB-3	A-6	41	-	-	357
A-6	PB-9	185	-	-	585
PB-9	PB-10	166	-	-	528
PB-10	A-7	19	-	-	87
A-7	A-8	45	-	-	165
A-8	STUB	10	-	-	-
PROJECT ID 1570-05-76 TOTAL 0010		1329	72	151	5284

CONDUIT AND ELECTRICAL WIRE LIGHTING

FROM	TO	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH 652.0225 LF	CONDUIT RIGID NONMETALLIC SHCHEDULE 40 3-INCH 652.0235 LF	CONDUIT SPECIAL 2-INCH 652.0605 LF	ELECTRICAL WIRE LIGHTING 8 AWG 655.0620 LF	CABLE TRAFFIC SIGNALS 3-14 AWG 655.0210 LF
PROJECT 1570-05-77						
LCC	PB-1	-	33	-	84	21
PB-1	A-1	67	-	-	308	77
A-1	PB-2	82	-	-	552	92
PB-2	PB-3	-	-	95	420	105
PB-2	A-2	68	-	-	234	-
A-2	A-3	150	-	-	480	-
A-3	STUB	10	-	-	-	-
PB-3	PB-4	-	-	63	73	73
PB-3	A-4	11	-	-	63	-
A-4	STUB	10	-	-	-	-
PB-4	FLASHER	7	-	-	17	17
PROJECT ID 1570-05-77 TOTAL 0010		405	33	158	2231	385

LIGHTING CONTROL CABINET AND BASES

STATION	LOCATION	CONCRETE CONTROL CABINET BASES TYPE L24 654.0224 EACH	ELECTRICAL SERVICE METER BREAKER PEDESTAL (LCC) 656.0200 EACH	LIGHTING CONTROL CABINETS 120/240 24-INCH 659.2124 LS
PROJECT 1570-05-76 325+00W	LT	1	1	1
PROJECT ID 1570-05-76	TOTAL 0010	1	1	1
PROJECT 1570-05-77 96+96	60' RT	1	1	1
PROJECT ID 1570-05-77	TOTAL 0010	1	1	1
	TOTAL 0010	2	2	2

LIGHTING UNITS AND ELECTRICAL WIRE LIGHTING

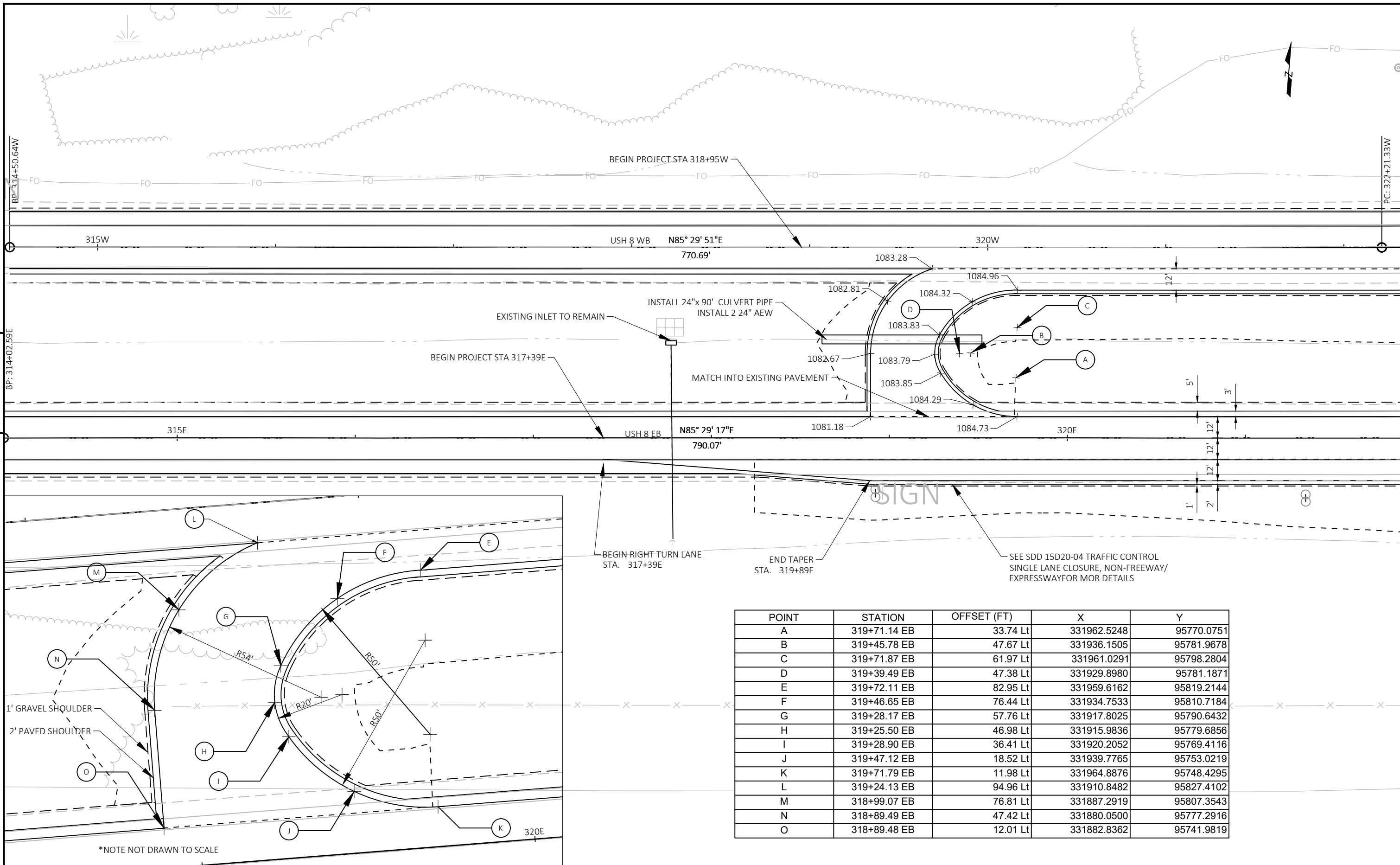
STATION	LIGHTING TO UNIT NO.	OFFSET	CONCRETE BASES TYPE 6 654.0106 EACH	ELECTRICAL WIRE LIGHTING 12 AWG 655.0610 LF	TRANSFORMER BASES BREAKAWAY 11 1/2 -INCH BOLT CIRCLE 657.0255 EACH	POLES TYPE 6-ALUMINUM 657.0327 EACH	LUMINAIRE ARMS TRUSS TYPE 4 1/2 - INCH CLAMP 15-FT 657.0715 EACH	LUMINAIRES UTILITY LED B 659.1120 EACH
324+26W	A-1	54.4' LT	1	186	1	1	1	1
319+95W	A-2	37.3' RT	1	186	1	1	1	1
319+44E	A-3	31.3' LT	1	186	1	1	1	1
323+00E	A-4	25.5' LT	1	186	1	1	1	1
323+45E	A-5	45.5' RT	1	186	1	1	1	1
325+38W	A-6	25.0' RT	1	186	1	1	1	1
329+05W	A-7	32.3' RT	1	186	1	1	1	1
328+66E	A-8	38.6' LT	1	186	1	1	1	1
PROJECT ID 1570-05-76		TOTAL 0010	8	1488	8	8	8	8

SAWING ASPHALT

CATEGORY	STATION	TO	STATION	LOCATION	LF	REMARKS
PROJECT 1570-05-76						
0010			317+41E	RT	8	
0010			325+53E	RT	8	
0010			322+88W	LT	8	
0010			331+09W	LT	8	
0010			5+23.68	RT<	24	
0010			0+50.79	RT<	24	
PROJECT ID 1570-05-76				TOTAL 0010	80	
PROJECT 1570-05-77						
0010	98+97	-	99+29	CTH SS	81	SOUTHERN MED
0010	99+86	-	100+42	CTH SS	130	NORTHERN MED
0010	351+14	-	351+61	USH 8 EAST	124	
PROJECT ID 1570-05-77				TOTAL 0010	335	
TOTAL 0010					415	

SPECIAL CURE AND SEAL TREATMENT CONCRETE CURB AND GUTTER

STATION	TO	STATION	LOCATION	LF
323+14E	-	323+62E	RT	81
324+05E	-	324+53E	RT	71
323+89W	-	324+39W	LT	72
324+83W	-	325+34W	LT	84
TOTAL 0010				308

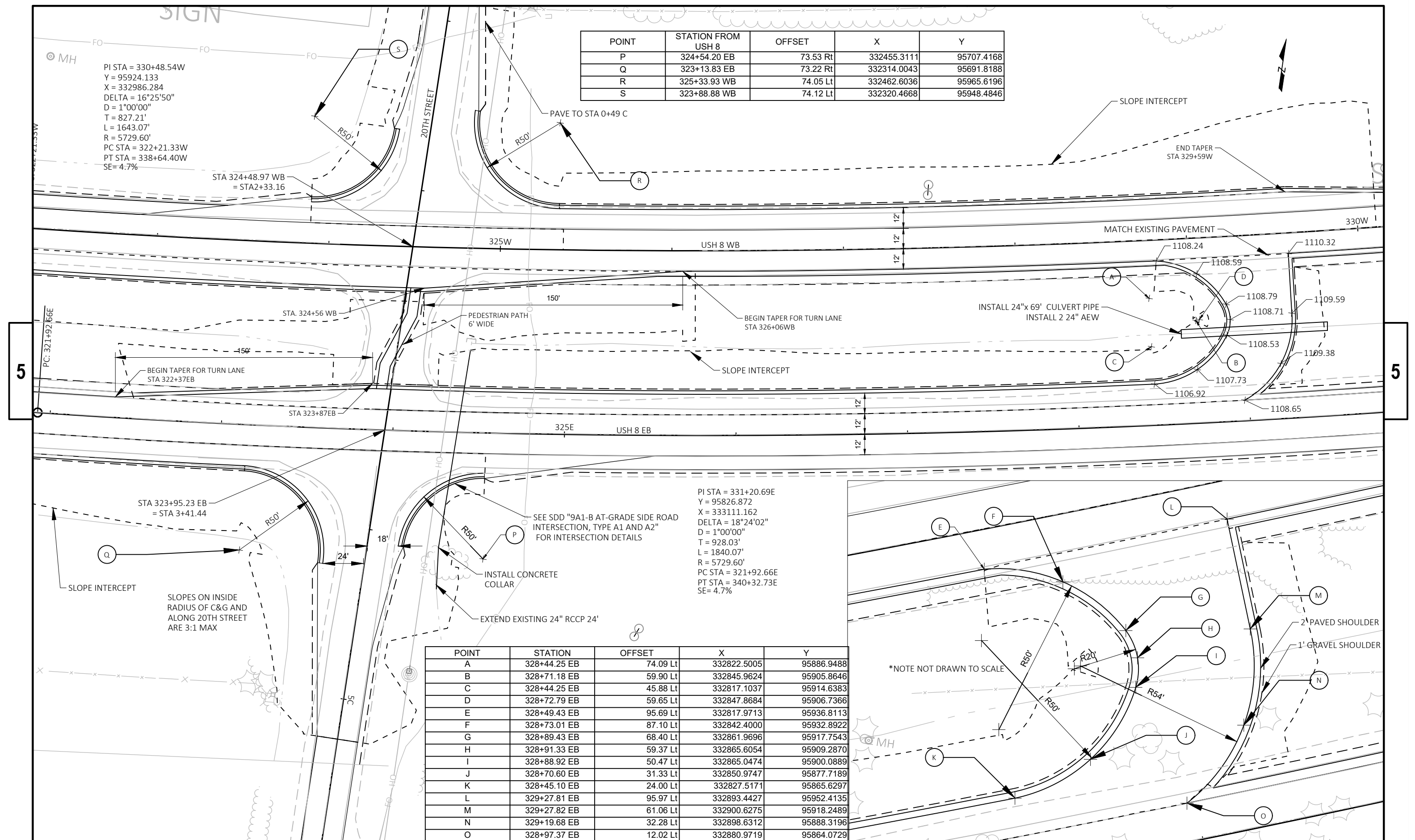


POINT	STATION	OFFSET (FT)	X	Y
A	319+71.14 EB	33.74 Lt	331962.5248	95770.0751
B	319+45.78 EB	47.67 Lt	331936.1505	95781.9678
C	319+71.87 EB	61.97 Lt	331961.0291	95798.2804
D	319+39.49 EB	47.38 Lt	331929.8980	95781.1871
E	319+72.11 EB	82.95 Lt	331959.6162	95819.2144
F	319+46.65 EB	76.44 Lt	331934.7533	95810.7184
G	319+28.17 EB	57.76 Lt	331917.8025	95790.6432
H	319+25.50 EB	46.98 Lt	331915.9836	95779.6856
I	319+28.90 EB	36.41 Lt	331920.2052	95769.4116
J	319+47.12 EB	18.52 Lt	331939.7765	95753.0219
K	319+71.79 EB	11.98 Lt	331964.8876	95748.4295
L	319+24.13 EB	94.96 Lt	331910.8482	95827.4102
M	318+99.07 EB	76.81 Lt	331887.2919	95807.3543
N	318+89.49 EB	47.42 Lt	331880.0500	95777.2916
O	318+89.48 EB	12.01 Lt	331882.8362	95741.9819

SIGN

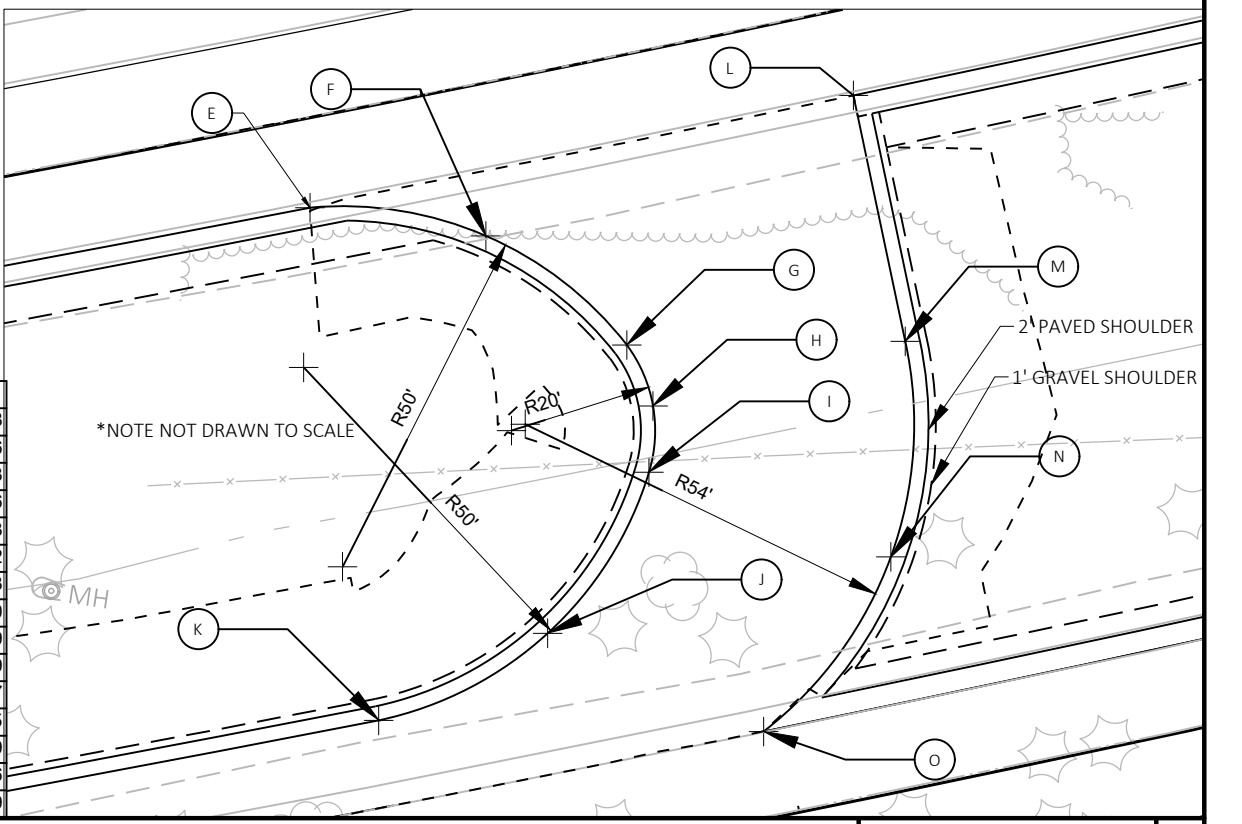
POINT	STATION FROM USH 8	OFFSET	X	Y
P	324+54.20 EB	73.53 Rt	332455.3111	95707.4168
Q	323+13.83 EB	73.22 Rt	332314.0043	95691.8188
R	325+33.93 WB	74.05 Lt	332462.6036	95965.6196
S	323+88.88 WB	74.12 Lt	332320.4668	95948.4846

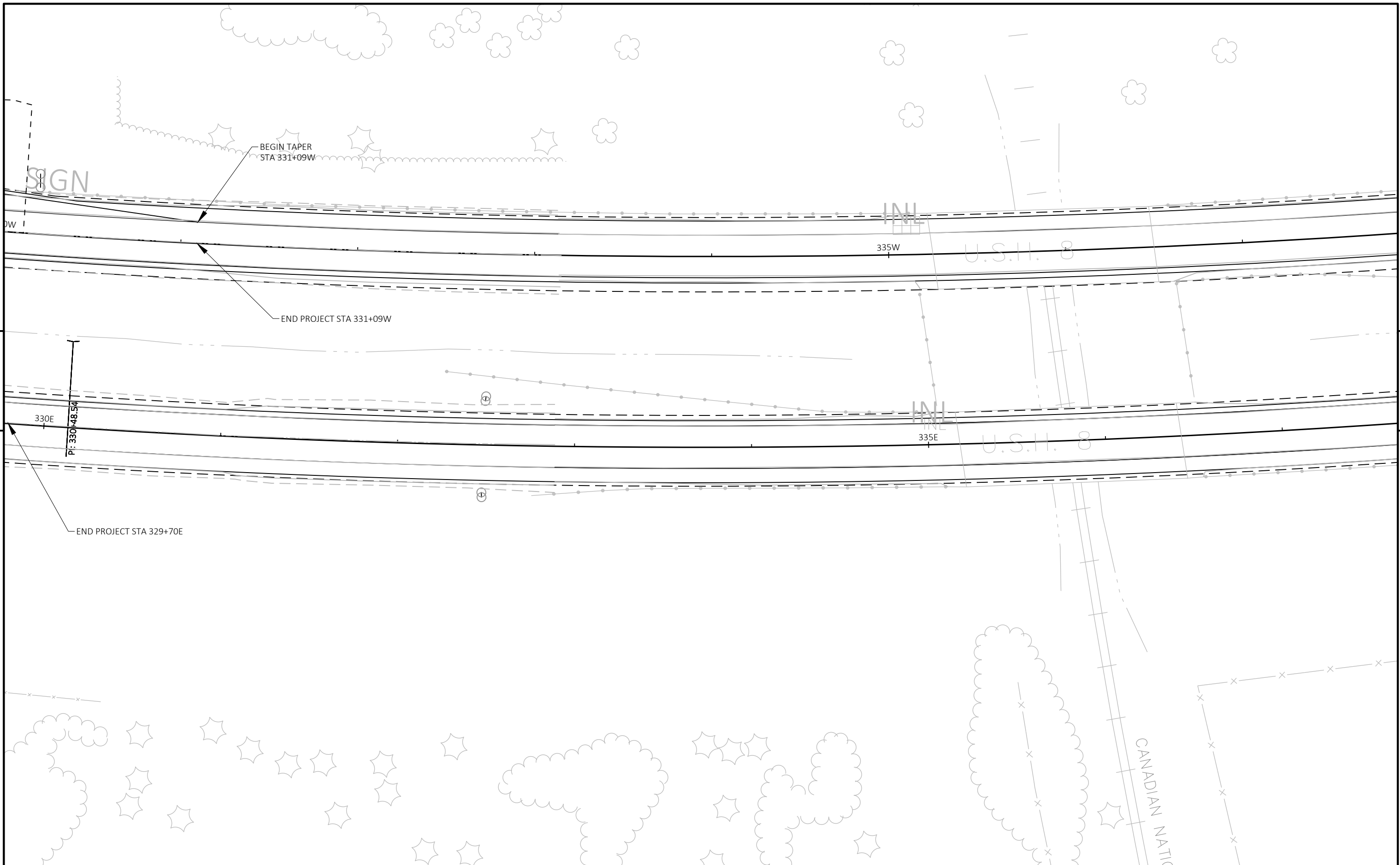
PI STA = 330+48.54W
 Y = 95924.133
 X = 332986.284
 DELTA = 16°25'50"
 D = 1°00'00"
 T = 827.21'
 L = 1643.07'
 R = 5729.60'
 PC STA = 322+21.33W
 PT STA = 338+64.40W
 SE = 4.7%



PI STA = 331+20.69E
 Y = 95826.872
 X = 333111.162
 DELTA = 18°24'02"
 D = 1°00'00"
 T = 928.03'
 L = 1840.07'
 R = 5729.60'
 PC STA = 321+92.66E
 PT STA = 340+32.73E
 SE = 4.7%

POINT	STATION	OFFSET	X	Y
A	328+44.25 EB	74.09 Lt	332822.5005	95886.9488
B	328+71.18 EB	59.90 Lt	332845.9624	95905.8646
C	328+44.25 EB	45.88 Lt	332817.1037	95914.6383
D	328+72.79 EB	59.65 Lt	332847.8684	95906.7366
E	328+49.43 EB	95.69 Lt	332817.9713	95936.8113
F	328+73.01 EB	87.10 Lt	332842.4000	95932.8922
G	328+89.43 EB	68.40 Lt	332861.9696	95917.7543
H	328+91.33 EB	59.37 Lt	332865.6054	95909.2870
I	328+88.92 EB	50.47 Lt	332865.0474	95900.0889
J	328+70.60 EB	31.33 Lt	332850.9747	95877.7189
K	328+45.10 EB	24.00 Lt	332827.5171	95865.6297
L	329+27.81 EB	95.97 Lt	332893.4427	95952.4135
M	329+27.82 EB	61.06 Lt	332900.6275	95918.2489
N	329+19.68 EB	32.28 Lt	332898.6312	95888.3196
O	328+97.37 EB	12.02 Lt	332880.9719	95864.0729





5

5

PROJECT NO: 1570-05-76	HWY: 8	COUNTY: BARRON	PLAN	SHEET	E
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FILE NAME : N:\PDS\C3D\15700506\SHEETSPLAN\1570-05-06_PLAN.DWG
LAYOUT NAME - PLAN SHEET 3

PLOT DATE : 7/24/2019 4:02 PM

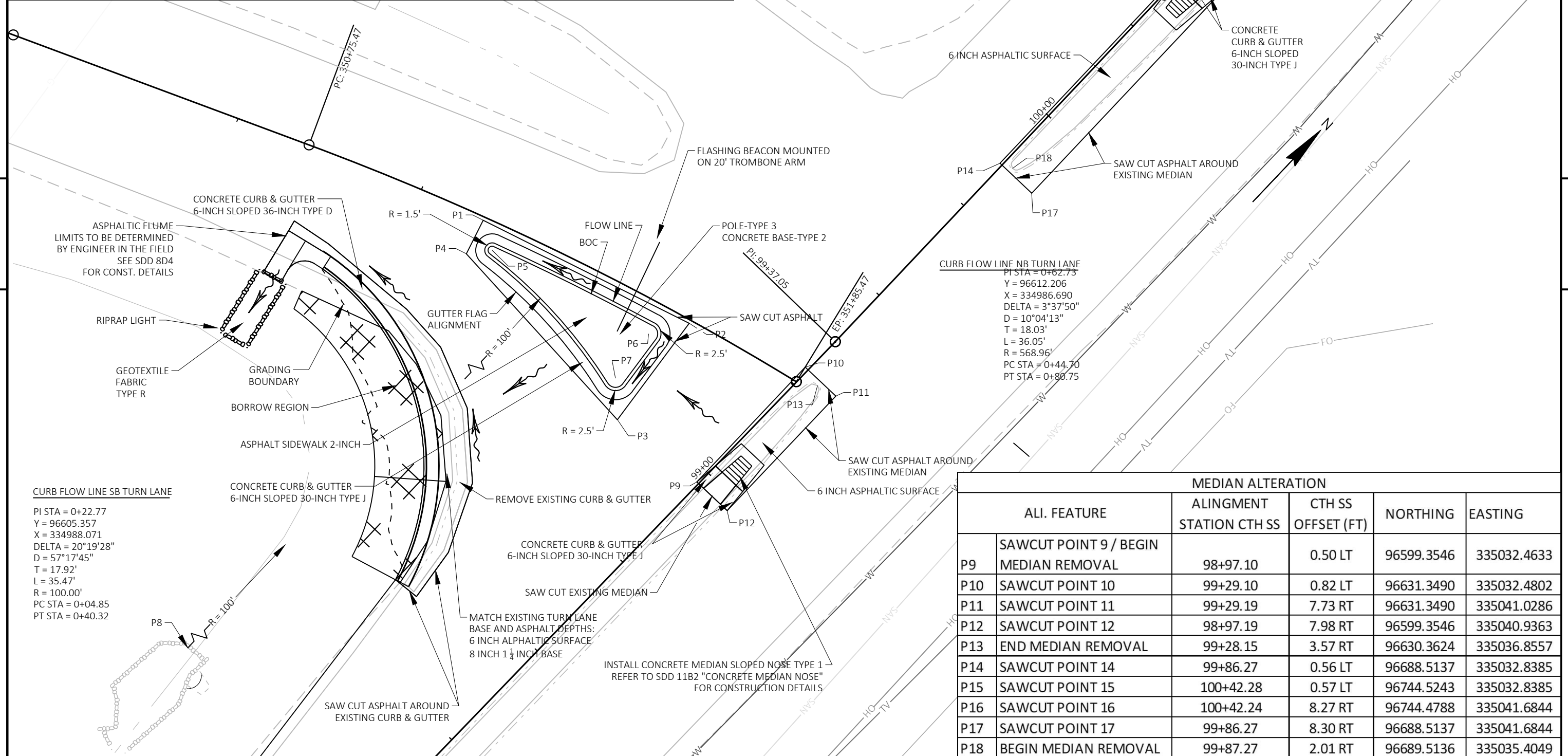
PLOT BY : FINNEGAN, MITCHELL

PLOT NAME :

PLOT SCALE : 1 IN:50 FT

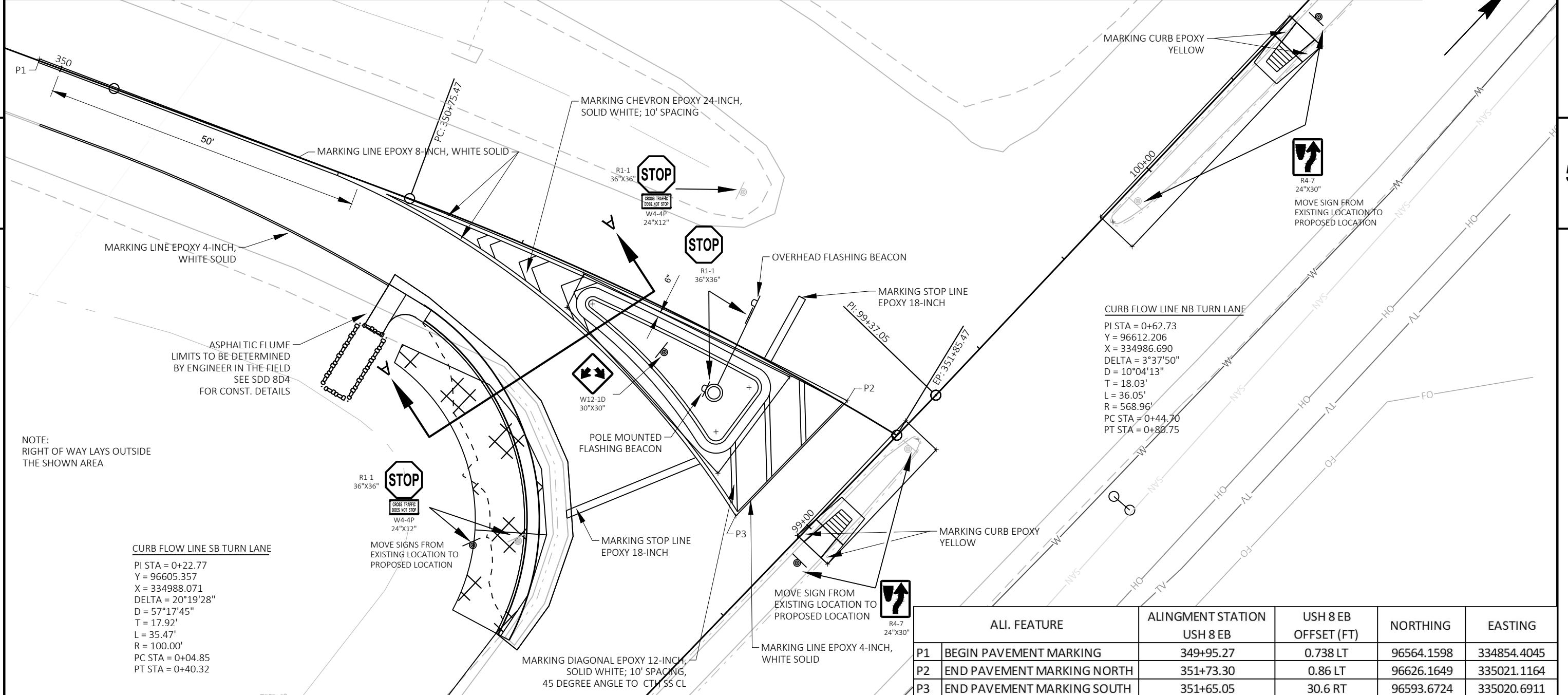
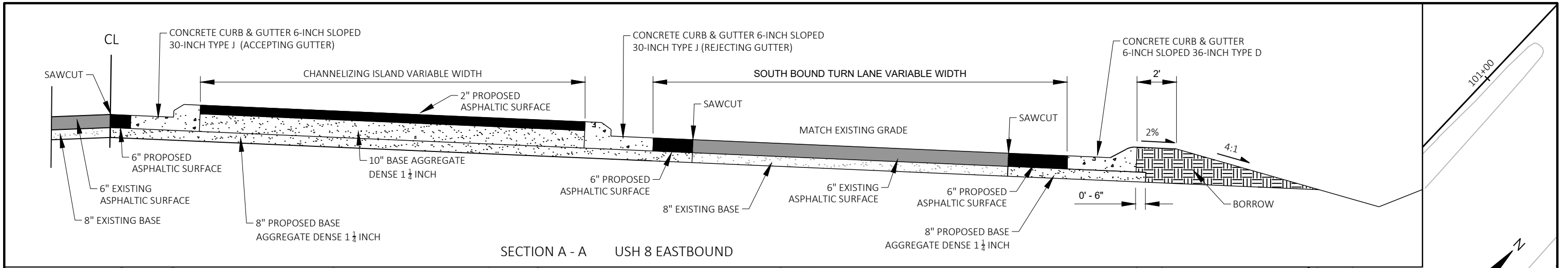
WISDOT/CADD SHEET 44

ALI. FEATURE	ALIGNMENT STATION USH 8 EB	USH 8 EB OFFSET (FT)	NORTHING	EASTING	
P1	SAWCUT POINT 1	351+13.98	0.70 RT	96608.2014	334964.5767
P2	SAWCUT POINT 2	351+60.74	0.68 RT	96621.6795	335009.2836
P3	SAWCUT POINT 3	351+57.29	24.81 RT	96597.4723	335012.1007
P4	SAWCUT POINT 4	351+13.65	8.30 RT	96600.9137	334966.7561
P5	APPROACH NOSE RADIUS POINT	351+18.18	5.50 RT	96605.0144	334970.0867
P6	NB NOSE RADIUS POINT	351+54.49	6.50 RT	96614.4686	335004.7535
P7	SB NOSE RADIUS POINT	351+52.79	17.62 RT	96603.3061	335006.0525
P8	FLOW LINE RADIUS POINT	350+90.73	103.94 RT	96504.0478	334980.4786



MEDIAN ALTERATION					
ALI. FEATURE	ALIGNMENT STATION CTH SS	CTH SS OFFSET (FT)	NORTHING	EASTING	
P9	SAWCUT POINT 9 / BEGIN MEDIAN REMOVAL	98+97.10	0.50 LT	96599.3546	335032.4633
P10	SAWCUT POINT 10	99+29.10	0.82 LT	96631.3490	335032.4802
P11	SAWCUT POINT 11	99+29.19	7.73 RT	96631.3490	335041.0286
P12	SAWCUT POINT 12	98+97.19	7.98 RT	96599.3546	335040.9363
P13	END MEDIAN REMOVAL	99+28.15	3.57 RT	96630.3624	335036.8557
P14	SAWCUT POINT 14	99+86.27	0.56 LT	96688.5137	335032.8385
P15	SAWCUT POINT 15	100+42.28	0.57 LT	96744.5243	335032.8385
P16	SAWCUT POINT 16	100+42.24	8.27 RT	96744.4788	335041.6844
P17	SAWCUT POINT 17	99+86.27	8.30 RT	96688.5137	335041.6844
P18	BEGIN MEDIAN REMOVAL	99+87.27	2.01 RT	96689.5136	335035.4049

PROJECT NO: 1570-05-77 HWY: USH 8 COUNTY: BARRON PLAN SHEET E



NOTE:
RIGHT OF WAY LAYS OUTSIDE
THE SHOWN AREA

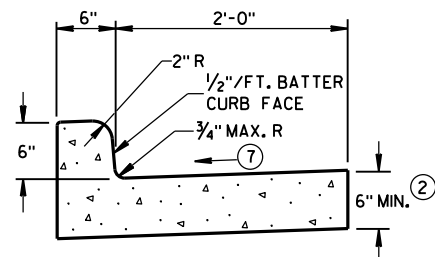
CURB FLOW LINE SB TURN LANE
 PI STA = 0+22.77
 Y = 96605.357
 X = 334988.071
 DELTA = 20°19'28"
 D = 57°17'45"
 T = 17.92'
 L = 35.47'
 R = 100.00'
 PC STA = 0+04.85
 PT STA = 0+40.32

CURB FLOW LINE NB TURN LANE
 PI STA = 0+62.73
 Y = 96612.206
 X = 334986.690
 DELTA = 3°37'50"
 D = 10°04'13"
 T = 18.03'
 L = 36.05'
 R = 568.96'
 PC STA = 0+44.70
 PT STA = 0+80.75

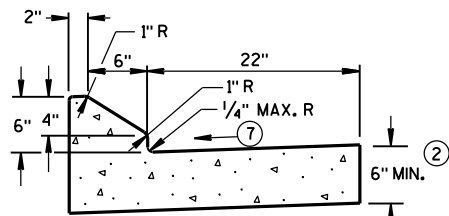
	ALI. FEATURE	ALIGNMENT STATION USH 8 EB	USH 8 EB OFFSET (FT)	NORTHING	EASTING
P1	BEGIN PAVEMENT MARKING	349+95.27	0.738 LT	96564.1598	334854.4045
P2	END PAVEMENT MARKING NORTH	351+73.30	0.86 LT	96626.1649	335021.1164
P3	END PAVEMENT MARKING SOUTH	351+65.05	30.6 RT	96593.6724	335020.6911

Standard Detail Drawing List

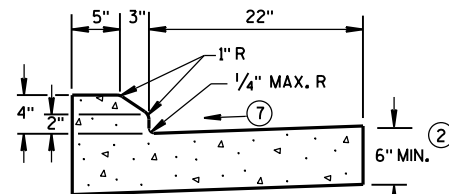
08D01-20A	CONCRETE CURB & GUTTER
08D01-20B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E15-01	CULVERT PIPE CHECK
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09A01-13B	AT-GRADE SIDE ROAD INTERSECTION, TYPE "A1" & "A2"
09B02-10	CONDUIT
09B16-01	PULL BOX NON-CONDUCTIVE
09C02-09	CONCRETE BASES, TYPES 1, 2, 5, & 6
09C03-04	TRANSFORMER/PEDESTAL BASES
09C14-03	CONCRETE CONTROL CABINET BASE, TYPE L
09D01-05	CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)
09D04-03	LIGHTING CONTROL CABINET 120/240 VOLT
09E01-15B	POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS, TYPE 3 (HEAVY DUTY)
09E01-15D	POLE MOUNTINGS FOR LIGHTING UNITS, TYPE 5 (30 FEET)
09E01-15E	POLE MOUNTINGS FOR LIGHTING UNITS, TYPE 6 (35 FEET)
09E01-15G	HARDWARE DETAILS FOR POLE MOUNTINGS
09E03-06	NON-FREEWAY LIGHTING UNIT POLE WIRING
11B02-02	CONCRETE MEDIAN NOSE
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15A04-05C	DELINEATOR POST WITH REFLECTIVE SHEETING
15C05-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C07-14B	PAVEMENT MARKING WORDS
15C07-14C	PAVEMENT MARKING ARROWS
15C08-19A	LONGITUDINAL MARKING (MAINLINE)
15C11-07B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-07	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C20-02	YIELD MARKING
15C27-03B	PAVEMENT MARKING (ISLANDS)
15C33-03	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D12-07A	TRAFFIC CONTROL, LANE CLOSURE
15D20-04	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D21-06	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS



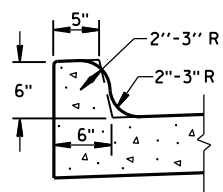
TYPES A^① & D



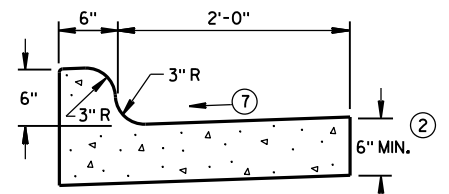
6" SLOPED CURB TYPES G^① & J



4" SLOPED CURB TYPES G^① & J

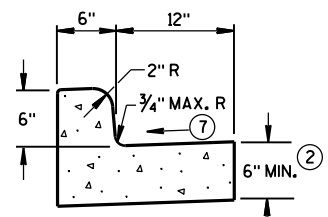


TYPES K^① & L
(OPTIONAL CURB SHAPE)



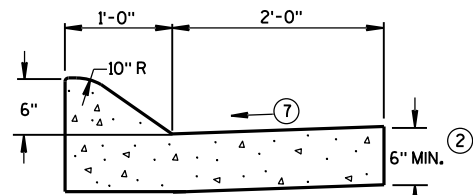
TYPES K^① & L

CONCRETE CURB & GUTTER 30"

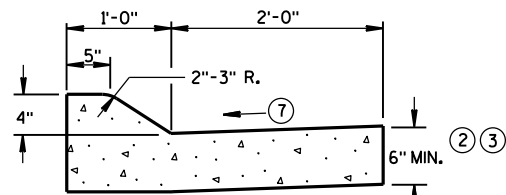


TYPES A^① & D

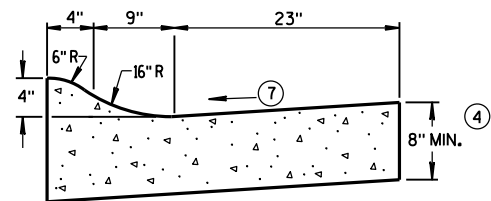
CONCRETE CURB & GUTTER 18"



6" SLOPED CURB TYPES A^① & D

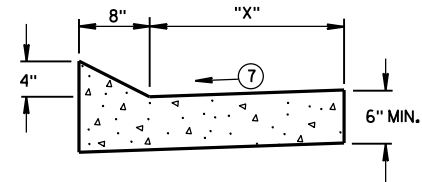


4" SLOPED CURB TYPES A^① & D



4" SLOPED CURB TYPES R^① & T^⑤

CONCRETE CURB & GUTTER 36"



TYPES TBT & TBTT^①

CONCRETE CURB & GUTTER

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

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.

WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

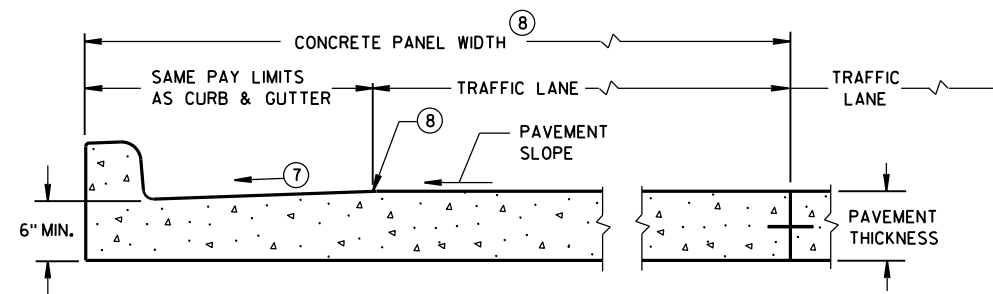
UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2'-0" BEHIND THE BACK OF CURBS.

- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K, R AND TBTT.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ③ USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH AN ADJACENT CONCRETE TRUCK APRON PLACED BEHIND BACK OF CURB.
- ④ 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.
- ⑤ THE FACE OF CURB IS 6" FROM THE BACK OF CURB.
- ⑥ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.
- ⑦ USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.
- ⑧ INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.

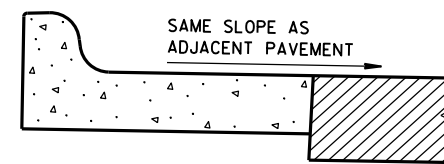
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

PAVEMENT THICKNESS	MAXIMUM PANEL WIDTH
LESS THAN 10"	12'
10" & ABOVE	15'

* BIKE LANE IS NOT SHOWN.



PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB & GUTTER

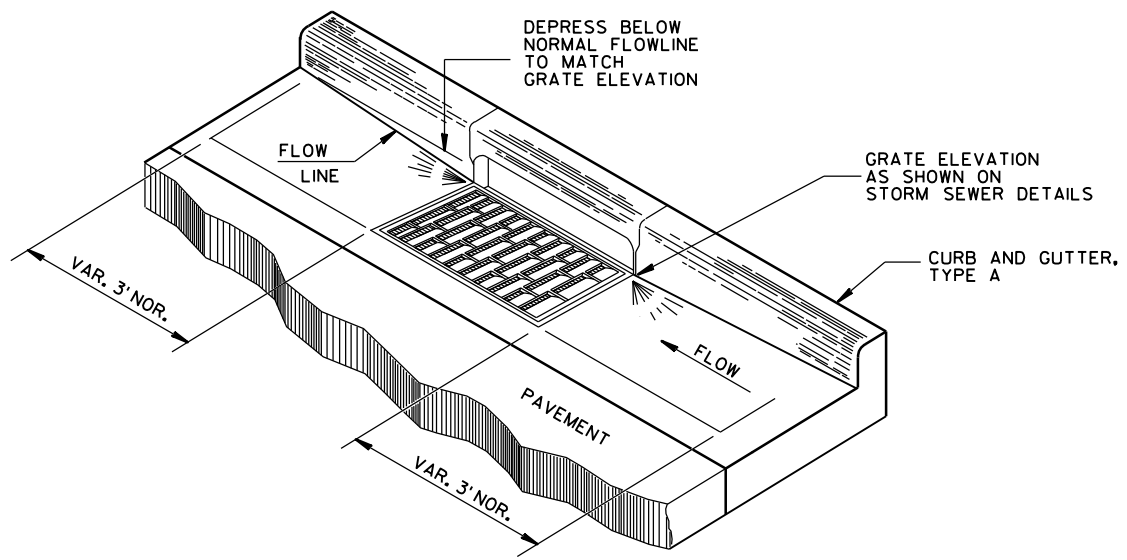


REVERSE SLOPE GUTTER^⑥

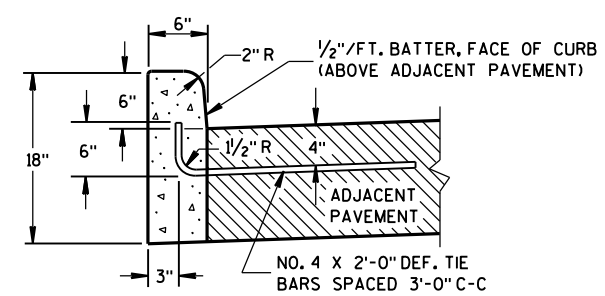
(TYPICAL FOR ALL CURB & GUTTER TYPES)

CONCRETE CURB & GUTTER

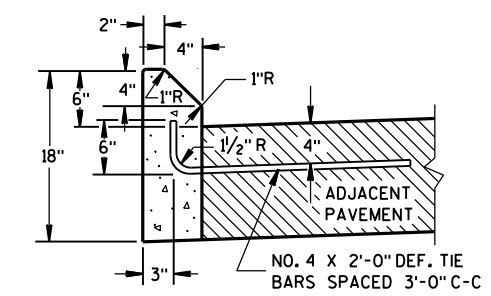
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



DETAIL OF CURB AND GUTTER AT INLETS
(TYPE H INLET COVER SHOWN)



TYPES A^① & D

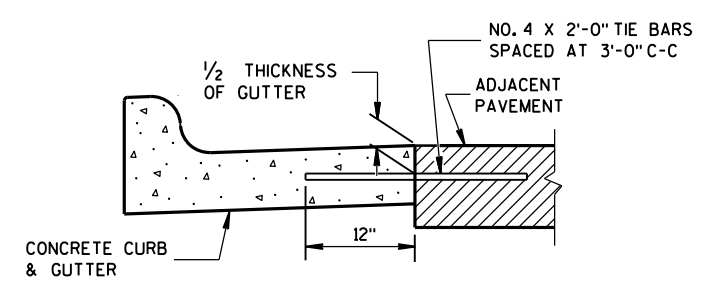


TYPES G^① & J

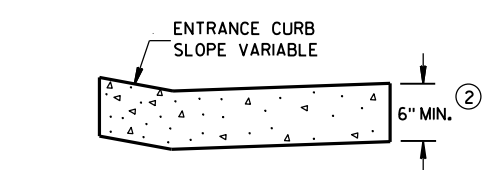
GENERAL NOTES

- 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.
- UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2'-0" BEHIND THE BACK OF CURBS.
- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K, R AND TBTT.
 - ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
 - ③ REFER TO SDD 8D18 AND SDD 8D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.

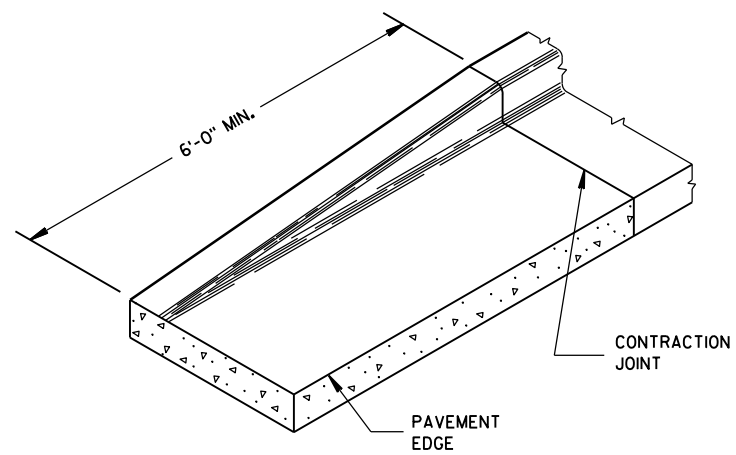
CONCRETE CURB



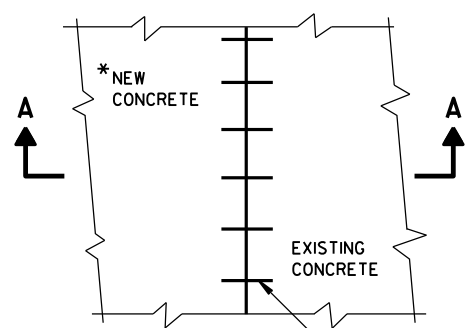
TYPICAL TIE BAR LOCATION^①



DRIVEWAY ENTRANCE CURB^⑨
(WHEN DIRECTED BY THE ENGINEER)



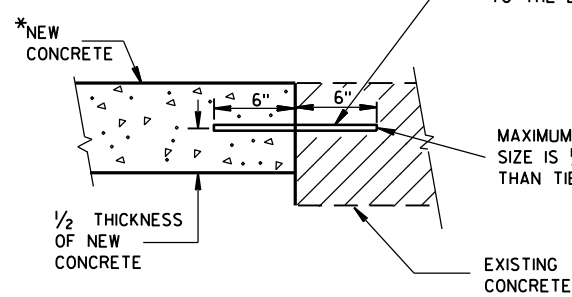
END SECTION CURB & GUTTER



PLAN VIEW

* NEW CURB & GUTTER, SURFACE DRAINS, CONCRETE PAVEMENT OR OTHER NEW CONCRETE.

NO. 6 TIE BARS SPACED 2'-6" C-C, INSTALLED PERPENDICULAR TO THE LONGITUDINAL JOINT.



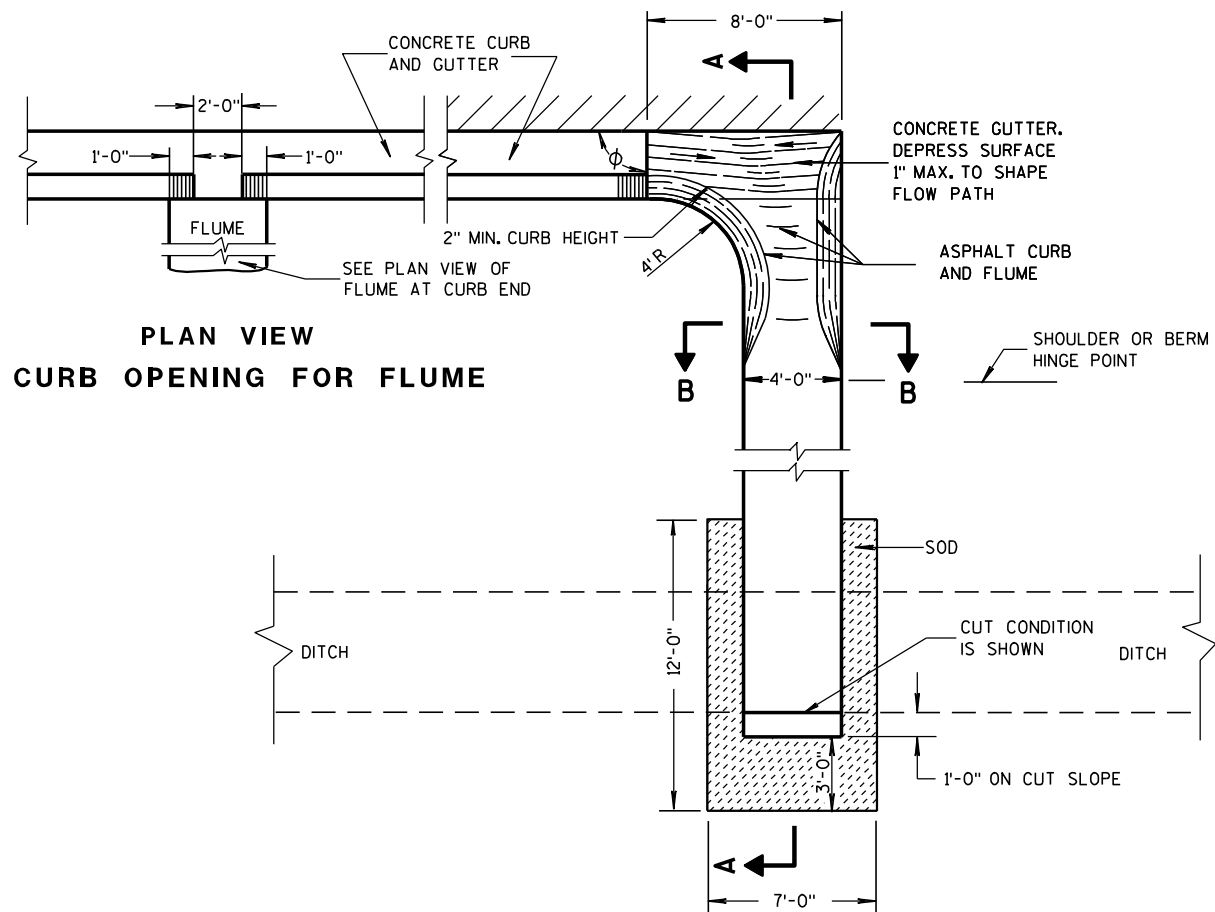
SECTION A-A
TIE BARS DRILLED INTO EXISTING PAVEMENT

CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June, 2017 DATE	/s/ Rodney Taylor ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
FHWA	

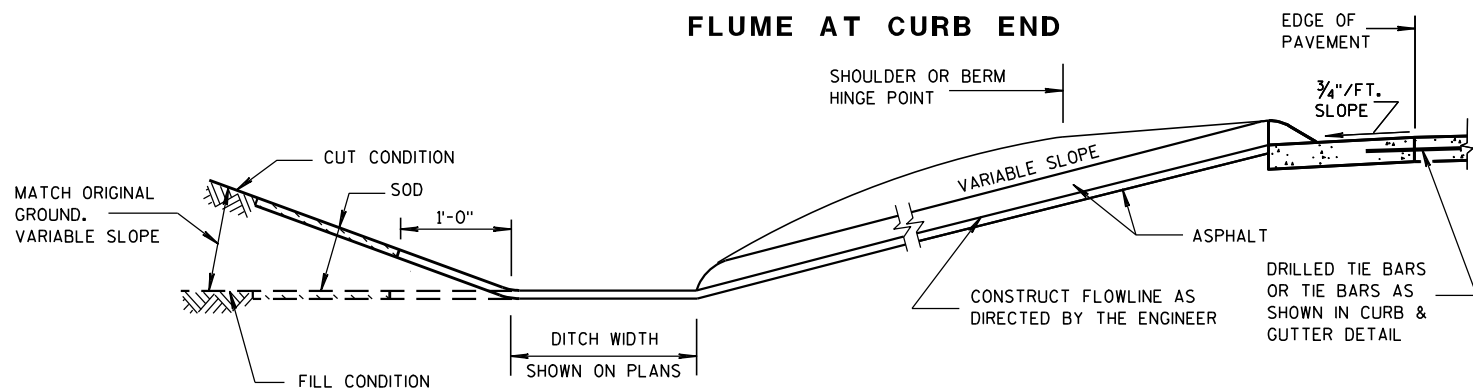
ASPHALTIC FLUME

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

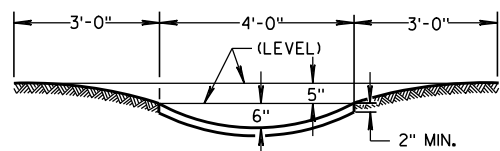
INCREASE ϕ FROM RIGHT ANGLE TO BEST FIT FIELD CONDITIONS



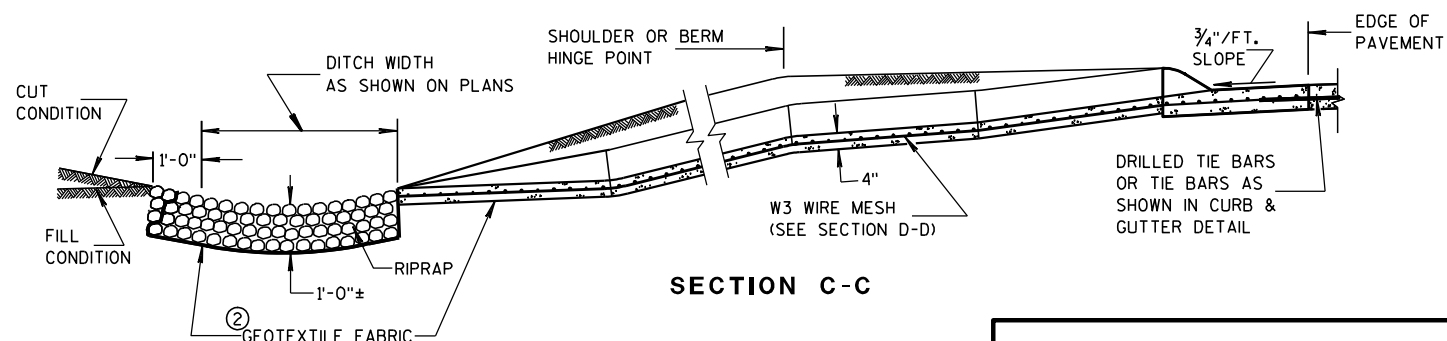
SECTION A-A



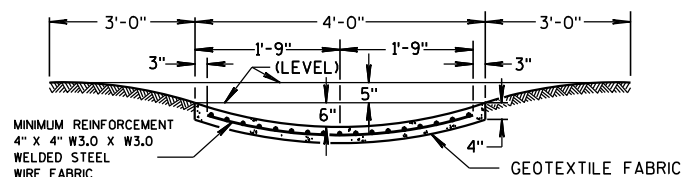
SECTION B-B



SECTION C-C



SECTION D-D



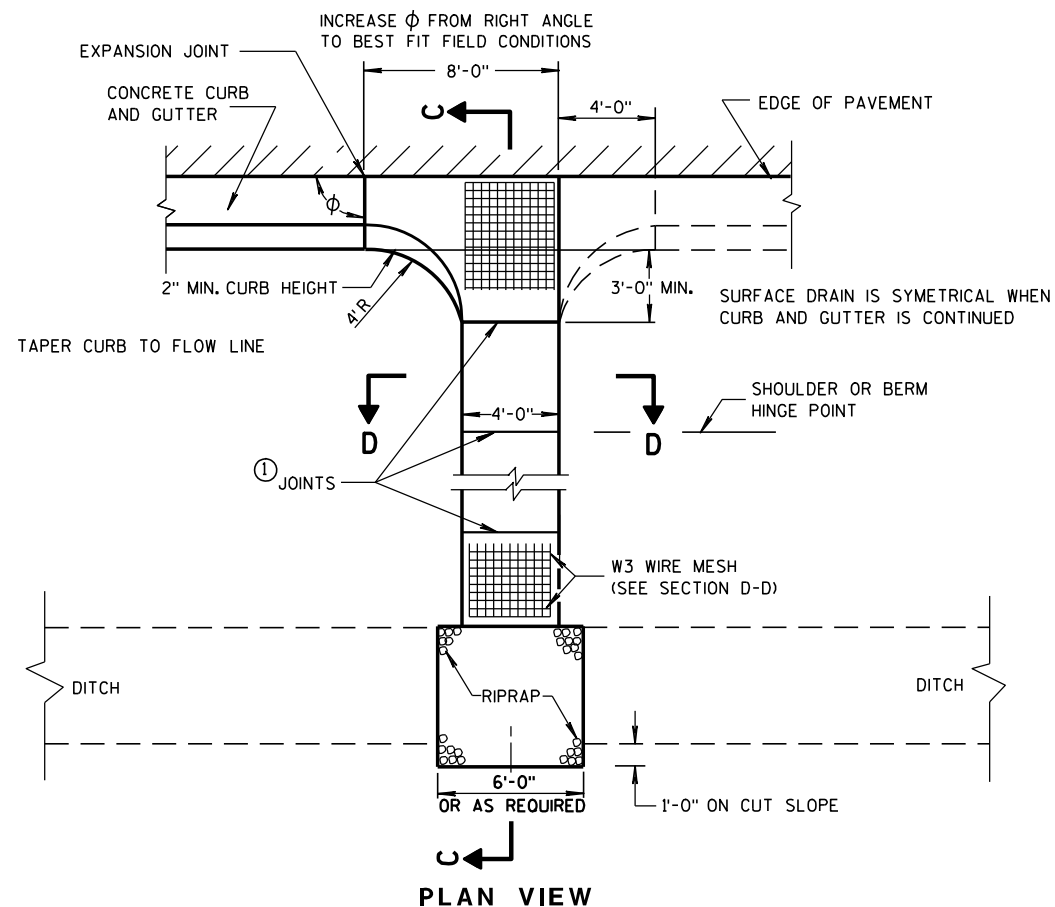
GENERAL NOTES

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 1/8 TO 1/4 INCH WIDE BY 1 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

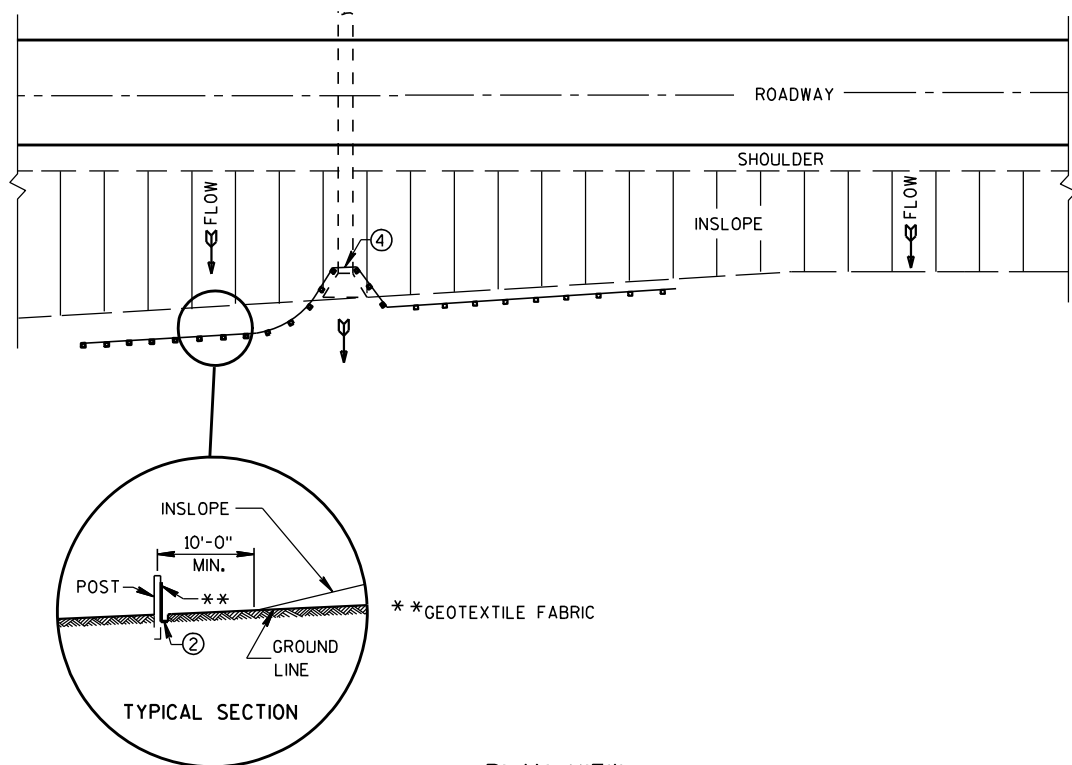


PLAN VIEW

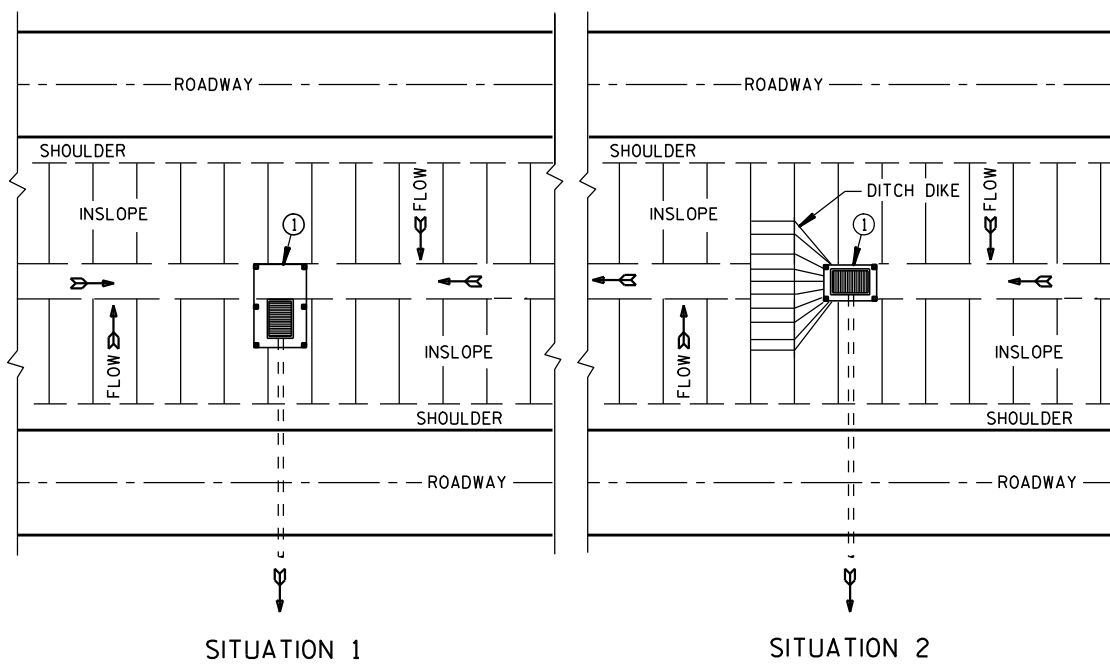
CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9-4-08 /S/ Jerry H. Zogg
DATE ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA



PLAN VIEW
TYPICAL APPLICATION OF SILT FENCE

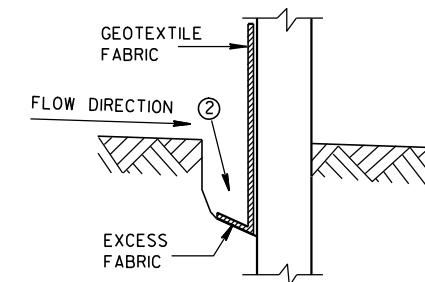


SITUATION 1 SITUATION 2
PLAN VIEW
SILT FENCE AT MEDIAN SURFACE DRAINS

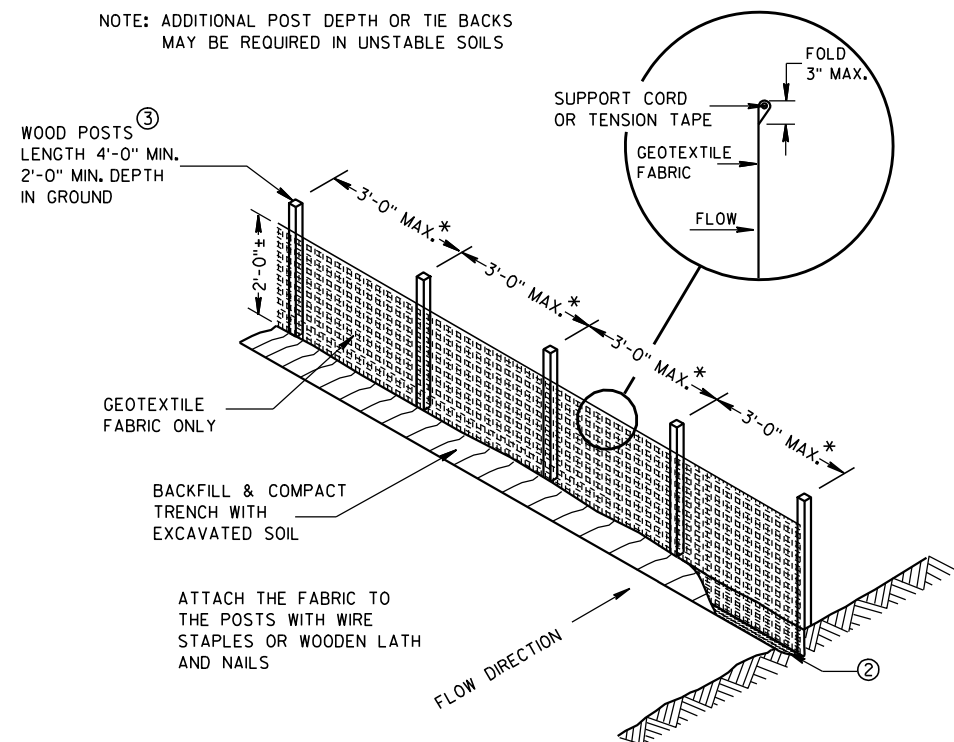
GENERAL NOTES

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

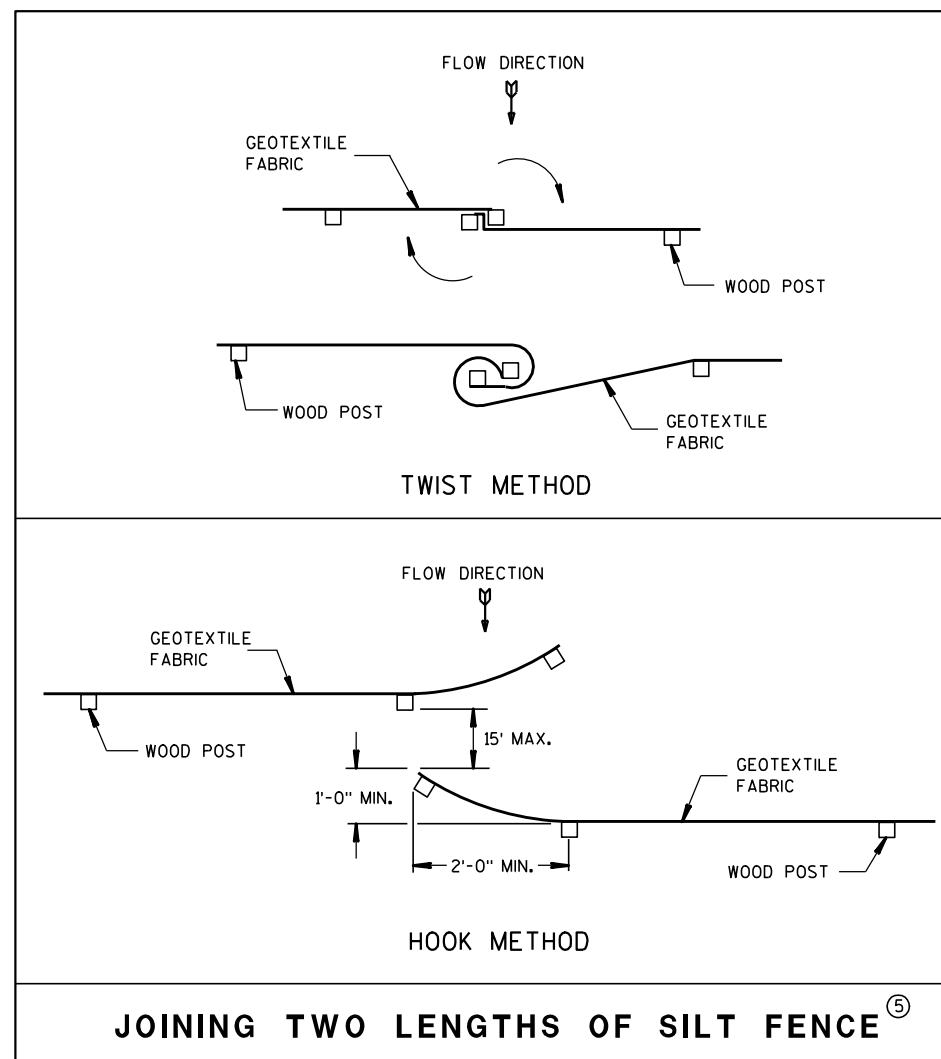
- ① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
- ② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
- ③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1 1/8" X 1 1/8" OF OAK OR HICKORY.
- ④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
- ⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



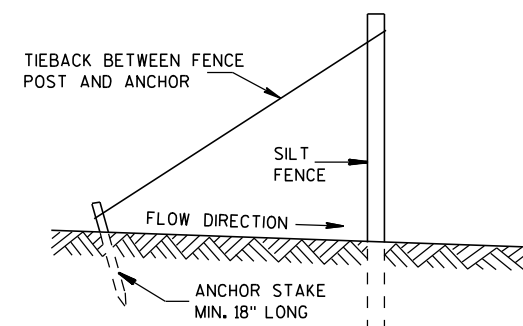
TRENCH DETAIL



SILT FENCE



JOINING TWO LENGTHS OF SILT FENCE ⑤



SILT FENCE TIE BACK
(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

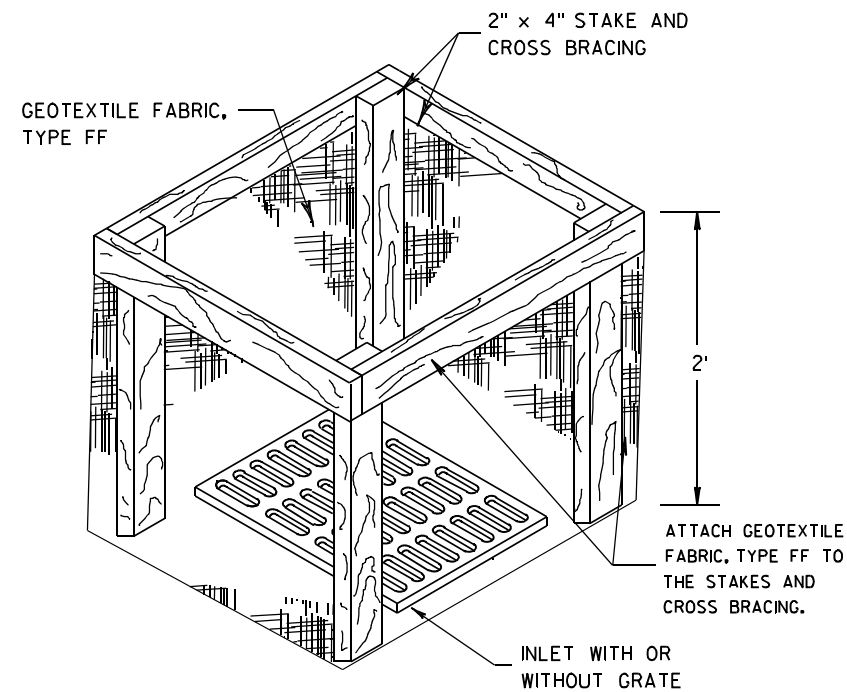
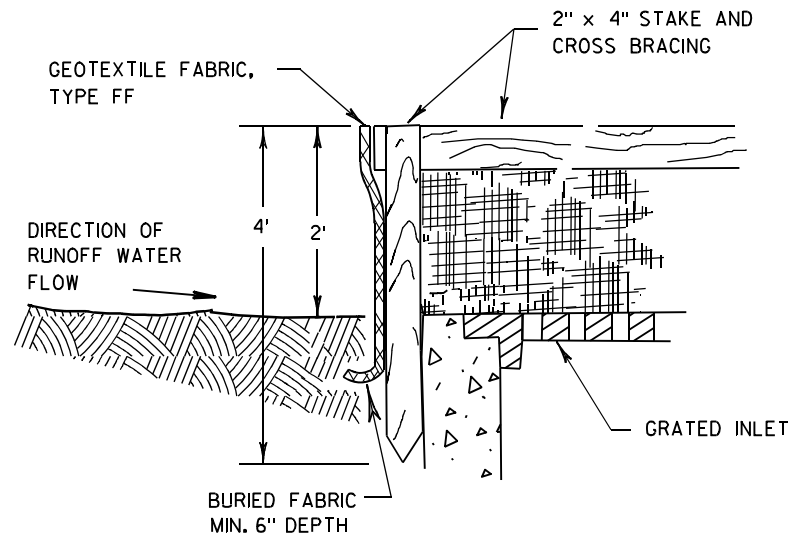
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

4-29-05
DATE

FHWA

/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER



INLET PROTECTION, TYPE A

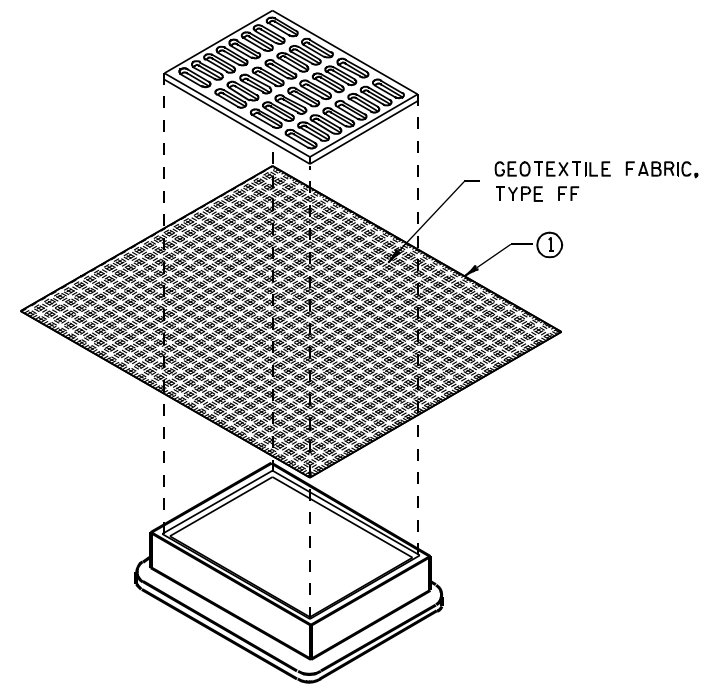
GENERAL NOTES

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.

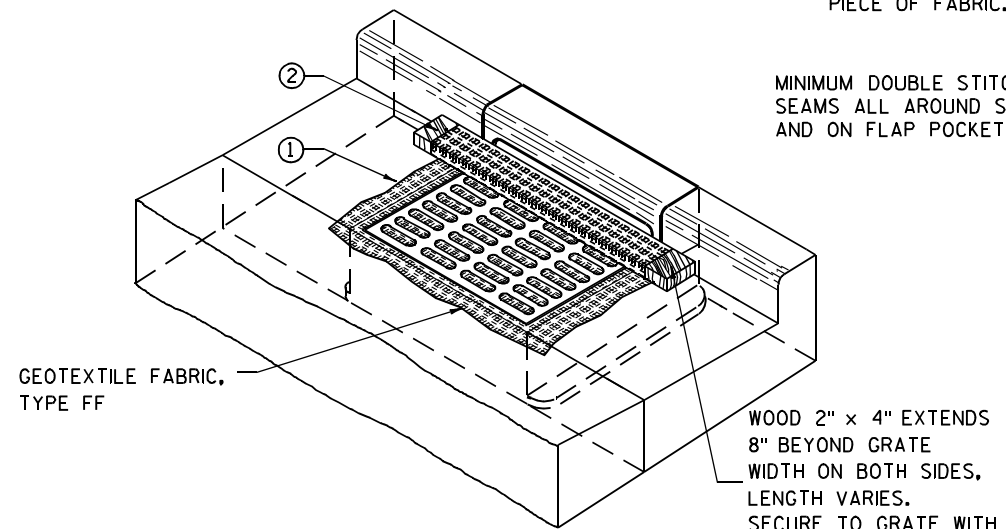
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- 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.

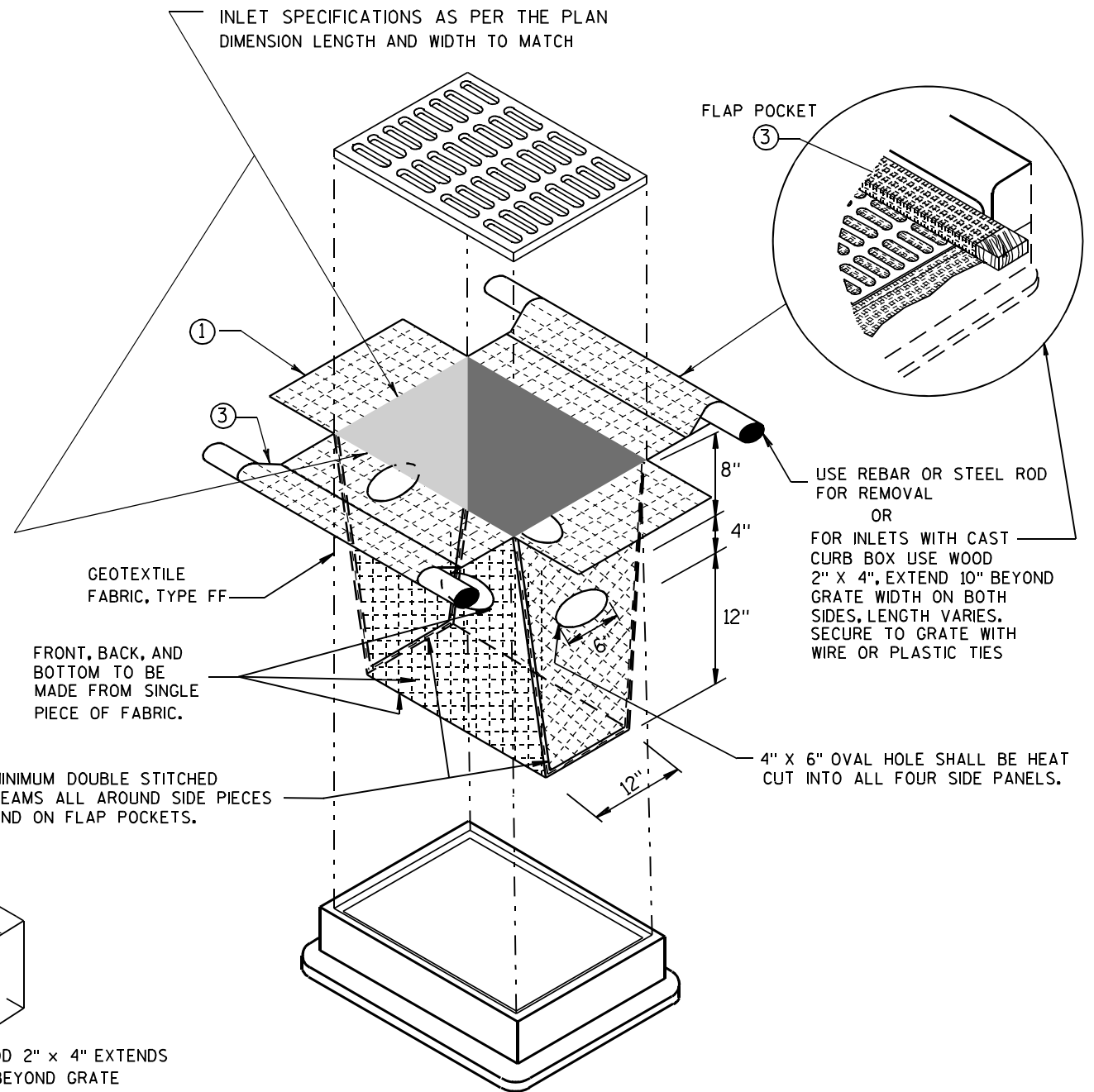
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

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.



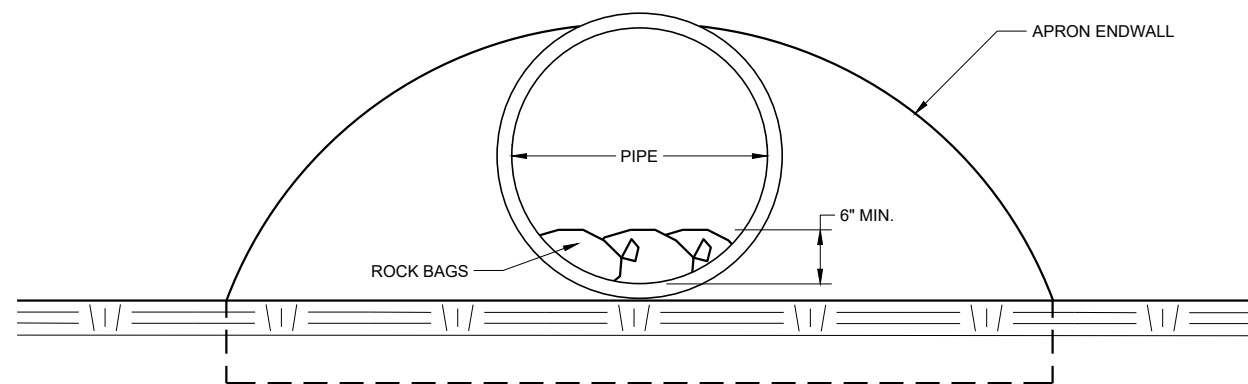
INLET PROTECTION, TYPE D

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

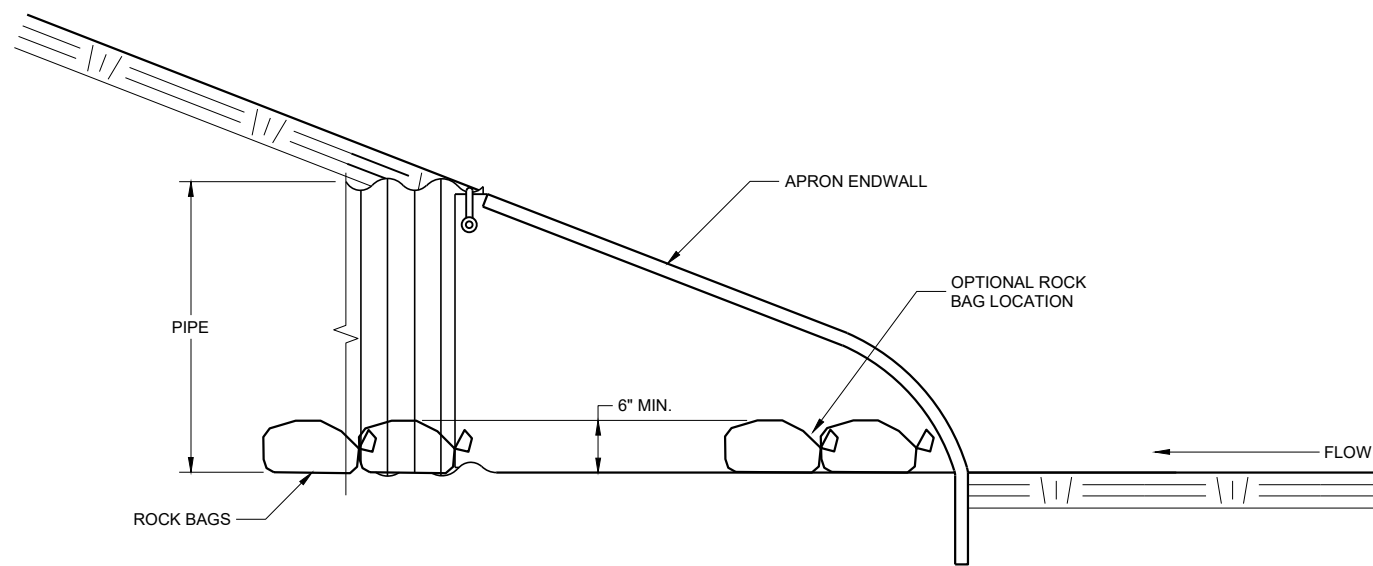
**INLET PROTECTION
TYPE A, B, C, AND D**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



END VIEW



SIDE VIEW

CULVERT PIPE CHECK
 (INSTALL ON INLET END ONLY)

CULVERT PIPE CHECK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
 May 2019 /S/ Daniel Schave
 DATE EROSION CONTROL ENGINEER

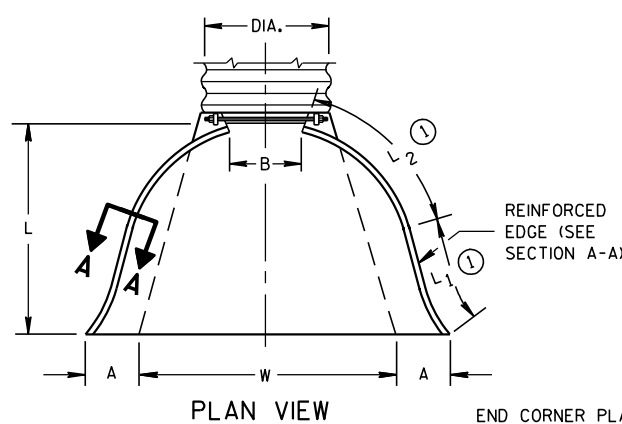
FHWA

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	L2	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.

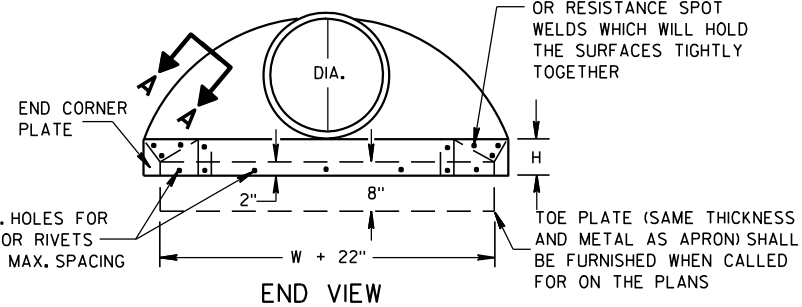
* EXCEPT CENTER PANEL SEE GENERAL NOTES

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	30-35	72-78	21-27	99	102	5 1/2	2 to 1	
72	7	30-35	78	21	99	108	6	2 to 1	
78	7 1/2	30-35	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	

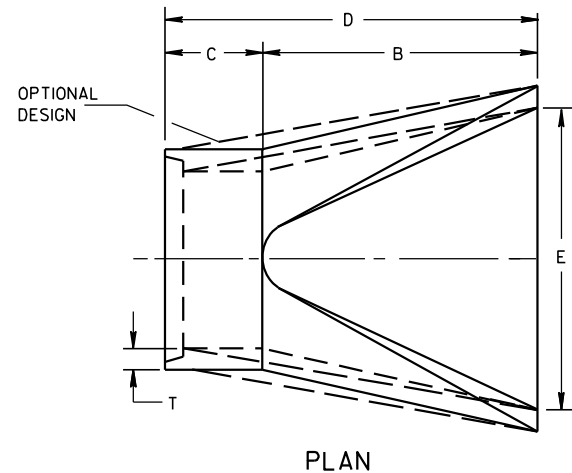
* MINIMUM
** MAXIMUM



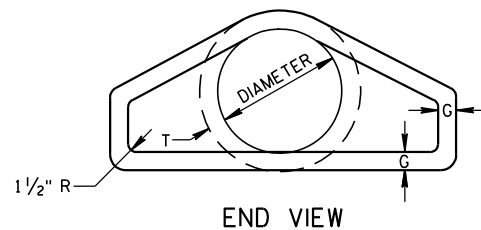
END CORNER PLATES MAY BE FASTENED TO APRON PROPER BY BOLTS, RIVETS, OR RESISTANCE SPOT WELDS WHICH WILL HOLD THE SURFACES TIGHTLY TOGETHER



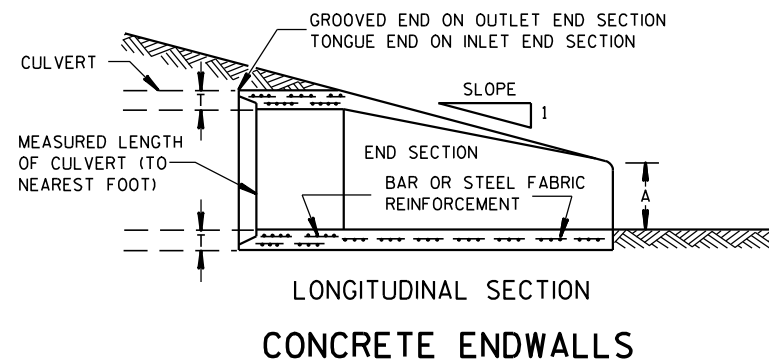
SIDE ELEVATION
METAL ENDWALLS



PLAN

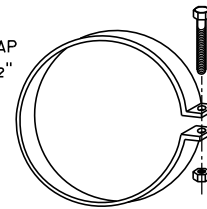


END VIEW

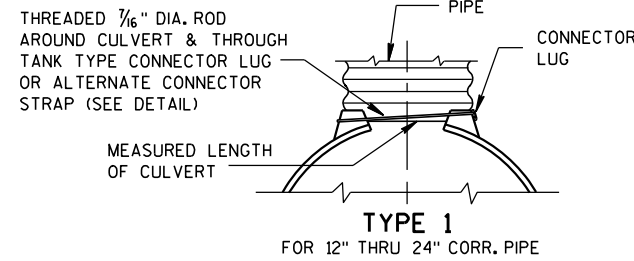


LONGITUDINAL SECTION
CONCRETE ENDWALLS

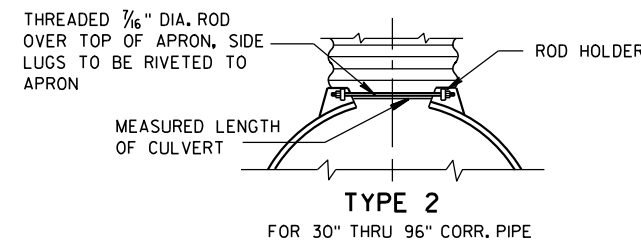
1" WIDE, 12 GA. (0.109" THICK) GALVANIZED STRAP WITH STANDARD 6" X 1/2" BAND BOLT AND NUT



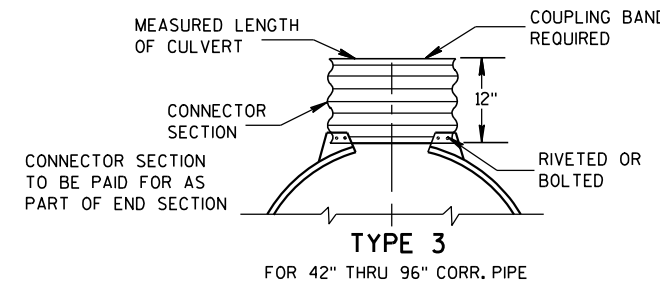
ALTERNATE FOR TYPE 1 CONNECTION
END SECTION CONNECTOR STRAP



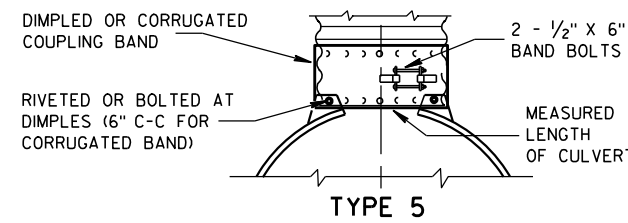
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

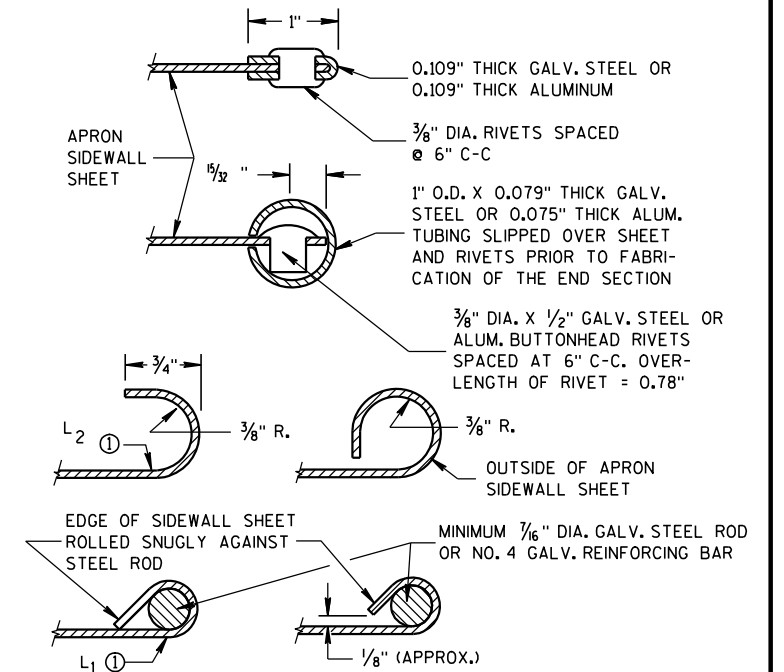
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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 VICE 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.

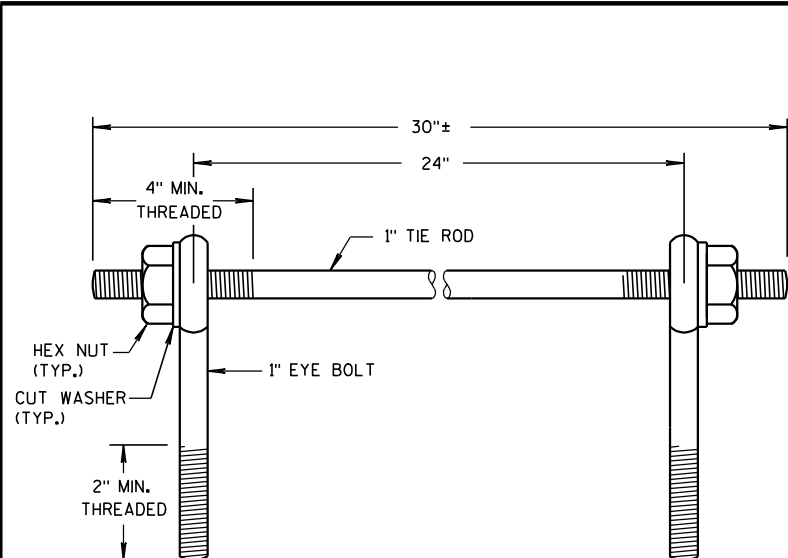
WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

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

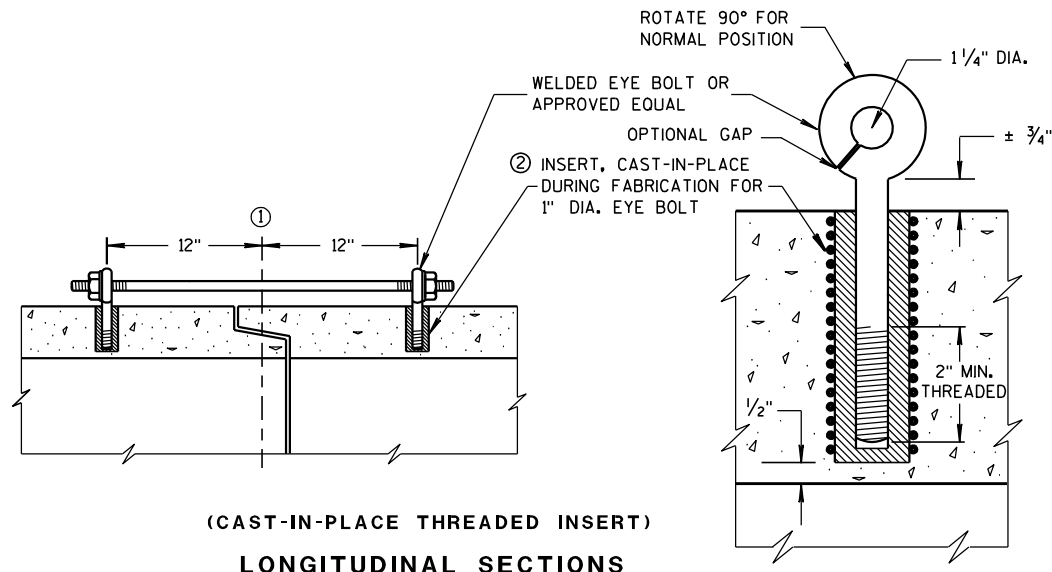
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



EYE BOLTS AND TIE ROD

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 1)



(CAST-IN-PLACE THREADED INSERT)
LONGITUDINAL SECTIONS

GENERAL NOTES

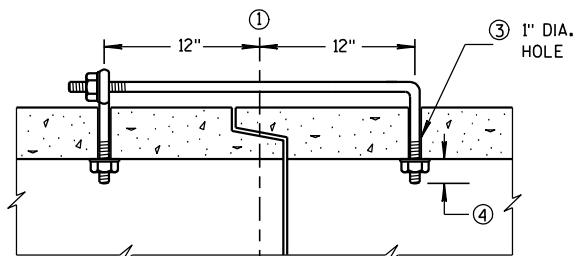
DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT AND STORM SEWER PIPE SHALL BE TIED TOGETHER IN THE MANNER ILLUSTRATED BY THIS DETAIL AT LOCATIONS DESIGNATED IN THE STANDARD SPECIFICATIONS AND THE PLAN. THE CONTRACTOR MAY USE EITHER ALTERNATE 1, 2 OR 3 FOR DRAINAGE STRUCTURES. ONLY ALTERNATE 1 AND 3 MAY BE USED FOR CATTLE PASSES, UNLESS OTHERWISE STATED IN THE CONTRACT. THE MATERIALS, FABRICATION AND WORK NECESSARY TO TIE THE PIPE BY THIS DETAIL WILL BE CONSIDERED INCIDENTAL TO THE PIPE AND APRON ENDWALLS IF REQUIRED.

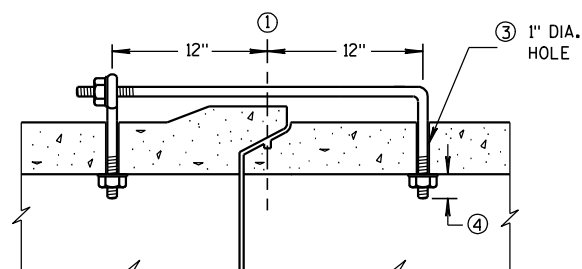
DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

- ① ϕ OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.
- ② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.
- ③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12 INCHES FROM ϕ OF TONGUE AND GROOVE.
- ④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.
- ⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.
- ⑥ LENGTH ADEQUATE TO EXTEND TO WITHIN $\frac{1}{2}$ INCH OF THE INNER SURFACE OF THE PIPE.



(TONGUE & GROOVE PIPE)



(MODIFIED BELL PIPE)
LONGITUDINAL SECTION

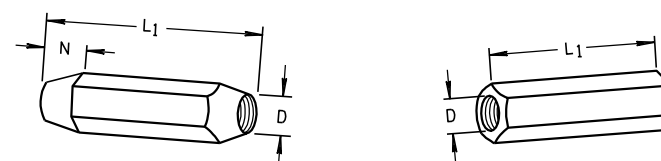
EYE BOLT DIMENSION TABLE

PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	

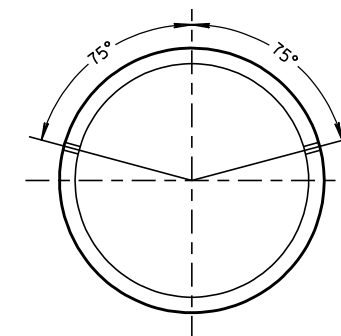
ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L ₁	N
12-60	5/8	5/8	5	1/2
66-84	3/4	3/4	5	1/2
90-108	1	1	7	1 1/6

DIMENSIONS SHOWN ARE IN INCHES

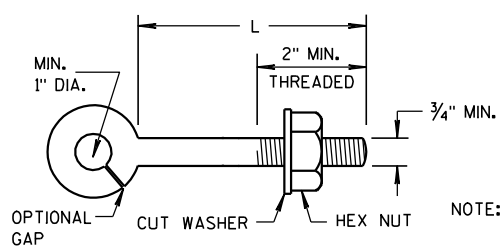


TAPERED PLAIN
RIGHT AND LEFT THREADS
SLEEVE NUTS



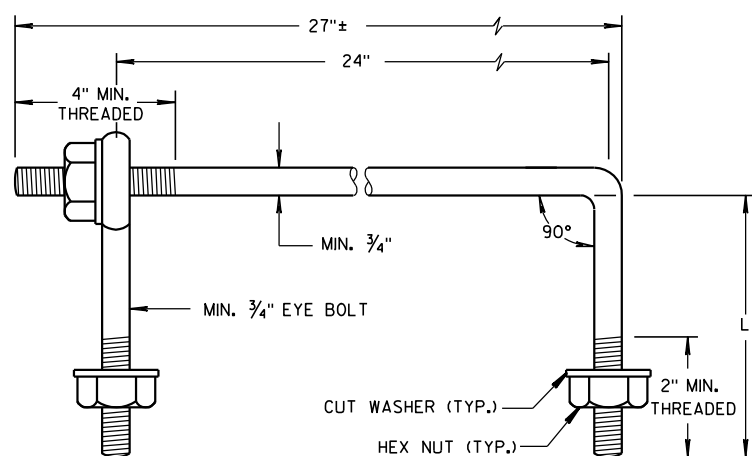
PLACEMENT OF (2) CAST-IN-PLACE
INSERTS OR HOLES DURING FABRICATION
FOR PIPE SECTIONS REQUIRING TIE RODS

TRANSVERSE SECTION



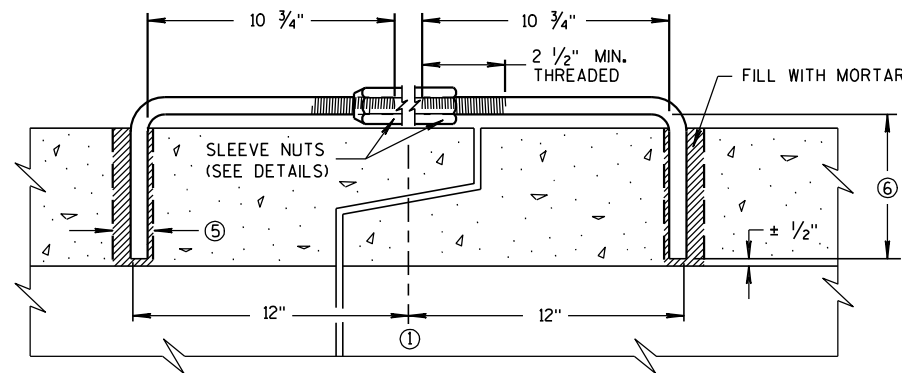
EYE BOLT

NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.

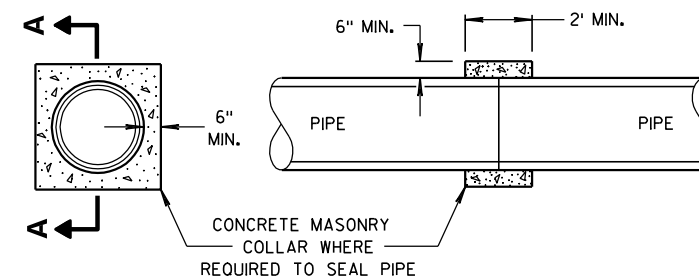


EYE BOLT AND TIE ROD

(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)
EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)



LONGITUDINAL SECTION
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)
ADJUSTABLE TIE ROD (ALTERNATE NO. 3)

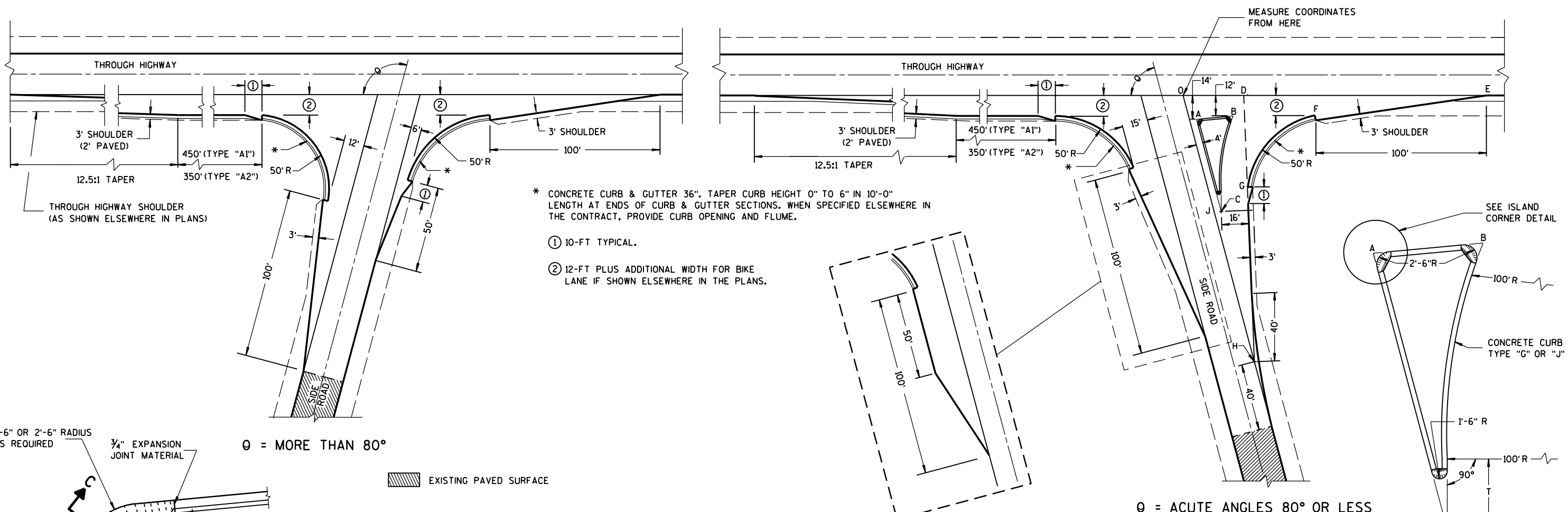


SECTION A-A
CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE
PIPE AND CONCRETE
COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 /S/ Jerry H. Zogg
DATE ROADWAY STANDARDS DEVELOPMENT
ENGINEER
FHWA



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

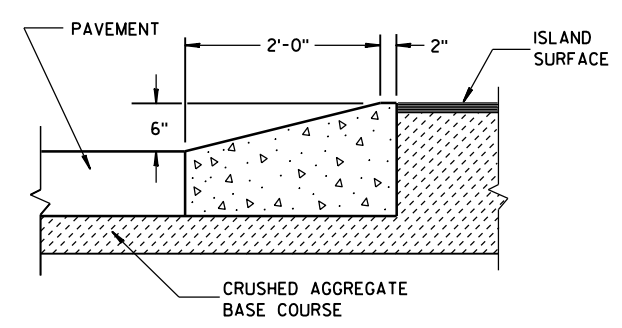
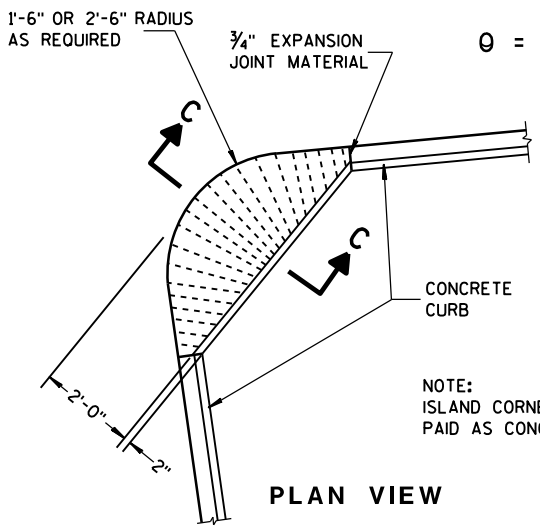


TABLE OF DIMENSIONS FOR VARIABLE SIDE ROAD INTERSECTION ANGLES
 (INTERPOLATE VALUES FOR ANGLES NOT SHOWN)

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
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
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
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
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

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

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

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

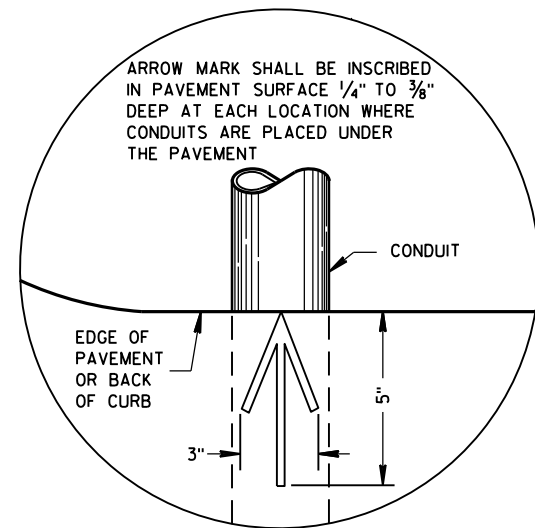
APPROVED 12/18/12 /S/ Jerry H. Zogg
 DATE ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

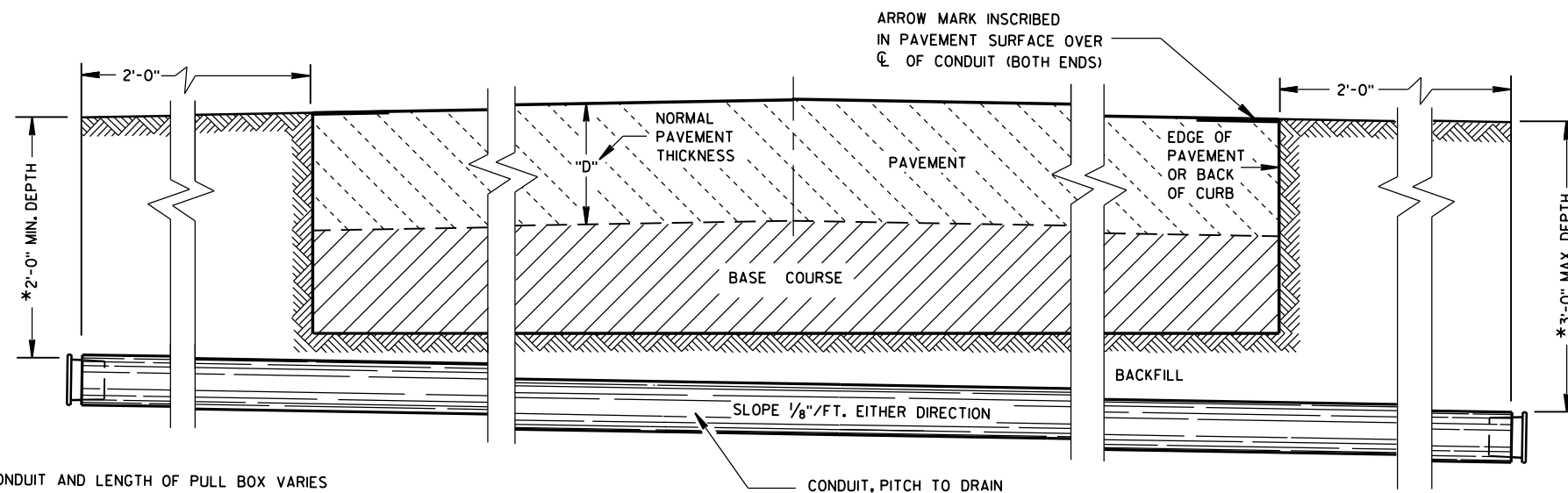
S.D.D. 9 A 1-13b

S.D.D. 9 A 1-13b

ISLAND CORNER DETAIL
 (TO BE CONSTRUCTED AT ALL ISLAND CORNERS)



**PLAN VIEW
ARROW MARK**



**SIDE ELEVATION
DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS**

*DEPTH OF CONDUIT AND LENGTH OF PULL BOX VARIES WITH HEIGHT OF CURB USED. ALSO SEE PULL BOX S.D.D. 9B4

GENERAL NOTES

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

METALLIC (STANDARD SPECIFICATION 652.2.2) OR NONMETALLIC (STANDARD SPECIFICATION 652.2.3) CONDUIT SHALL BE FURNISHED AND PLACED AS SHOWN.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

THE TRENCH SHALL NOT BE BACKFILLED PRIOR TO INSPECTION OF THE CONDUIT.

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

ALL METALLIC CONDUIT IN WHICH WIRE OR CABLE IS TO BE INSTALLED SHALL BE BUSHED WITH APPROVED THREADED BUSHINGS BEFORE INSTALLATION OF THE WIRE OR CABLE.

ALL METALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT TO BE INSTALLED SHALL BE CAPPED WITH THREADED PROTECTIVE CAPS, AS APPROVED BY THE ENGINEER.

ALL NONMETALLIC CONDUIT SHALL BE CAPPED OR PLUGGED IMMEDIATELY AFTER INSTALLATION AND SHALL REMAIN CAPPED OR PLUGGED UNTIL WIRE/CABLES ARE INSTALLED.

NONMETALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BENDING OF PVC ELECTRICAL CONDUIT SHALL BE ACCOMPLISHED BY USING A BLANKET OR EMERSON TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT.

ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON NONMETALLIC CONDUIT. (SEE NEC 347.5)

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY U.L. LISTED ADAPTER FITTINGS SHALL BE USED.

PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

ALL CONDUIT BEING FURNISHED AND INSTALLED SHALL HAVE THE U.L. LABEL FIRMLY ATTACHED.

CONDUIT RUNS SHALL BE THE SAME SIZE OF CONDUIT FROM ONE END TO THE OTHER (FROM PULL BOX TO PULL BOX-OR-JUNCTION BOX TO JUNCTION BOX-OR-BASE TO BASE, ETC.).

TRACER WIRE SHALL BE INSTALLED AS STATED IN THE STANDARD SPECIFICATION, ITEM 652.3.1.1.

ALL CONDUIT RUNS SHALL BE STRAIGHT (WITHOUT BENDS) FROM PULL BOX TO PULL BOX, PULL BOX TO BASE AND BASE TO BASE AS SHOWN ON THE PLANS.

6

6

S.D.D. 9 B 2-10

S.D.D. 9 B 2-10

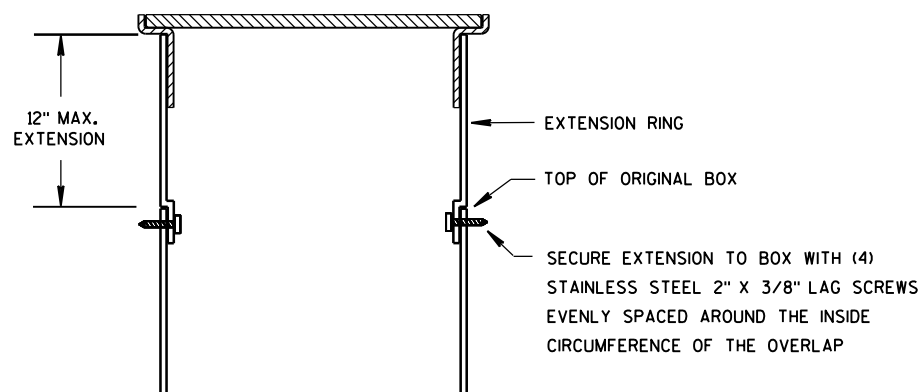
CONDUIT	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED March, 2017 DATE	/S/ Ahmet Demirbilek STATE ELECTRICAL ENGINEER
FHWA	

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

DIMENSION IN INCHES		NON-CONDUCTIVE PULL BOX	
BOX DIAMETER ** (INSIDE)	A	24	24
BOX OVERALL OUTSIDE DIAMETER	B	27	27
BOX LENGTH	C	36	42
FRAME OPENING	D	22 1/2	22 1/2
WEIGHT IN POUNDS *			
COVER		50	50
BOX ONLY		75	85

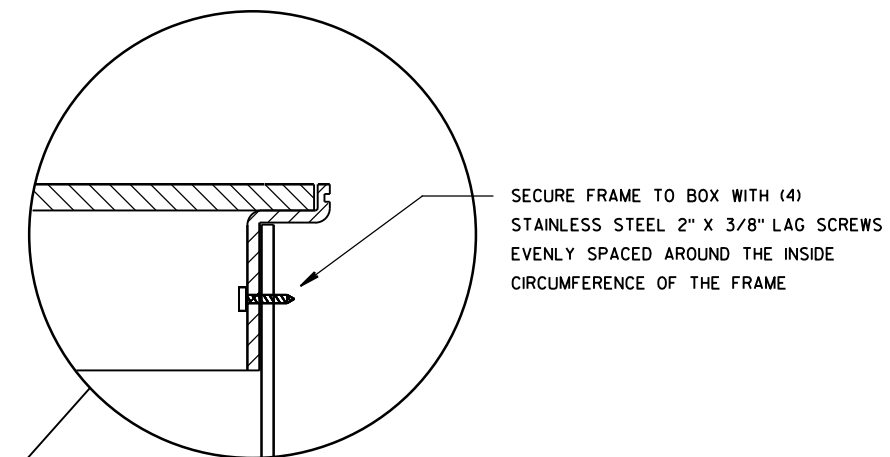
* THE ACTUAL WEIGHT OF THE COVER OR BOX ONLY MAY VARY NOT TO EXCEED 100 LBS INDIVIDUALLY.

** DIAMETER VARIES FROM TOP TO BOTTOM WITH THE DIAMETER LARGER AT THE BOTTOM TO PREVENT FROST HEAVE



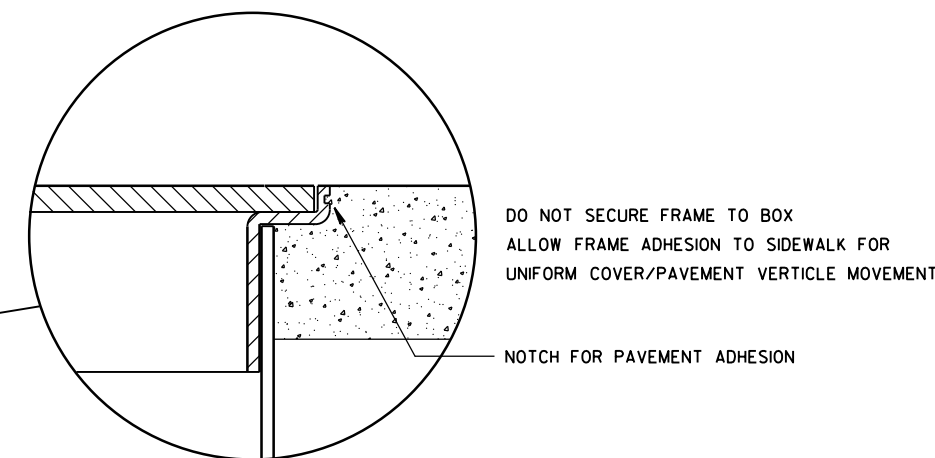
BOX EXTENSION

INSTALLED IN SOD OR CRUSHED AGGREGATE

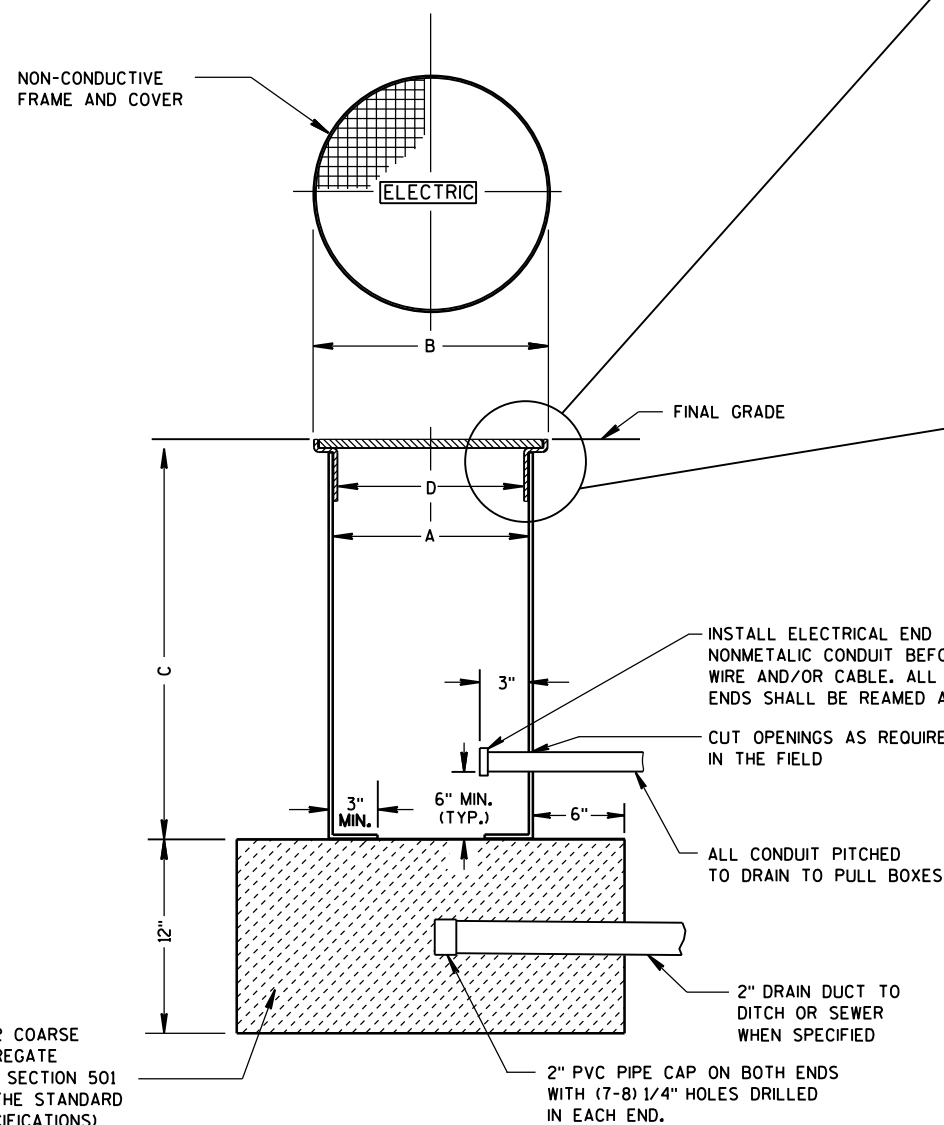


SECURE FRAME TO BOX WITH (4) STAINLESS STEEL 2" X 3/8" LAG SCREWS EVENLY SPACED AROUND THE INSIDE CIRCUMFERENCE OF THE FRAME

INSTALLED IN SIDEWALK



DO NOT SECURE FRAME TO BOX ALLOW FRAME ADHESION TO SIDEWALK FOR UNIFORM COVER/PAVEMENT VERTICLE MOVEMENT



NON-CONDUCTIVE PULL BOX

GENERAL NOTES

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

ALL BOXES, FRAMES AND COVERS SHALL BE SUITABLE FOR TIER 15 LOADING AS SPECIFIED IN ANSI/SCTE 77.

PROVIDE AN OPENING FOR TOOL ASSISTED COVER REMOVAL NOT LARGE ENOUGH TO PERMIT PASSAGE OF A SPHERE MORE THAN 1/2" DIAMETER

ENSURE COVER SURFACE IS SKID RESISTANT WITH A COEFFICIENT OF FRICTION OF AT LEAST 0.5 AND VERTICAL SURFACE DISCONTINUITIES LESS THAN 1/4".

COVER SHALL BE MAGNETICALLY LOCATABLE.

BOXES AND EXTENSIONS ARE TRIMMABLE FOR CUSTOM LENGTHS. TRIMMED PIECES SHALL MAINTAIN A UNIFORM LENGTH.

ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN 1/4".

THE CONTRACTOR SHALL NOT INSTALL WIRE IN ANY PULL BOX UNTIL ITS INSTALLATION HAS BEEN INSPECTED AND ACCEPTED BY THE ENGINEER.

ALL METALLIC CONDUIT IN WHICH WIRE AND/OR CABLE IS TO BE INSTALLED, SHALL BE BUSHED BEFORE INSTALLATION OF THE WIRE AND/OR CABLE.

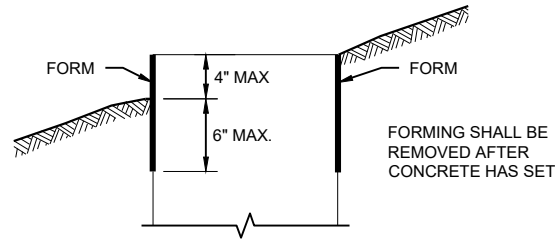
ENTIRE BOX MUST BE CONSTRUCTED OF NON-CONDUCTIVE MATERIALS WITH THE EXCEPTION OF STAINLESS STEEL FASTENERS AND MAGNETIC LOCATABLE DEVICE.

WHEN A PULL BOX IS INSTALLED IN CRUSHED AGGREGATE SHOULDERS, PLACE IT 2-3 INCHES BELOW GRADE AND COVER IT WITH 2-3 INCHES OF CRUSHED AGGREGATE

LABEL ON COVER SHALL READ "ELECTRIC" FOR SIGNAL AND LIGHTING SYSTEMS, "WISDOT ITS" FOR COMMUNICATIONS AND ITS EQUIPMENT SYSTEMS.

PULL BOX NON-CONDUCTIVE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED DATE FHWA	/S/ Ahmet Demirbilek STATE ELECTRICAL ENGINEER

FORM DEPTH SHALL BE NO MORE THAN 6" BELOW GRADE ON THE LOWER SIDE OF BASE



FORMING DETAIL

QUANTITY REQUIREMENTS	CONCRETE BASE TYPE		
	1	2	5 & 6
APPROX. CUBIC YARDS OF CONCRETE	0.40	0.57	0.40
LBS. OF HOOP BAR STEEL	NONE	23	16
LBS. OF VERTICAL BAR STEEL	NONE	60	18

GENERAL NOTES

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

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

TOP SURFACES OF CONCRETE BASES SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE SHOWN ON THE PLANS

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN AT THE ENTRANCE OF THE BASE.

ENDS OF CONDUIT INSTALLED BELOW GRADE FOR FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON-METALLIC.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 1 INCH. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON-METALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BELL BENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION.

WHEN REQUIRED TO CONNECT NON-METALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

A NO. 4 AWG STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD) FOR TYPE 2, TYPE 5 AND TYPE 6 BASES.

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER ALL BASE TYPES THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD. ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 OF THE STANDARD SPECIFICATIONS.

WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

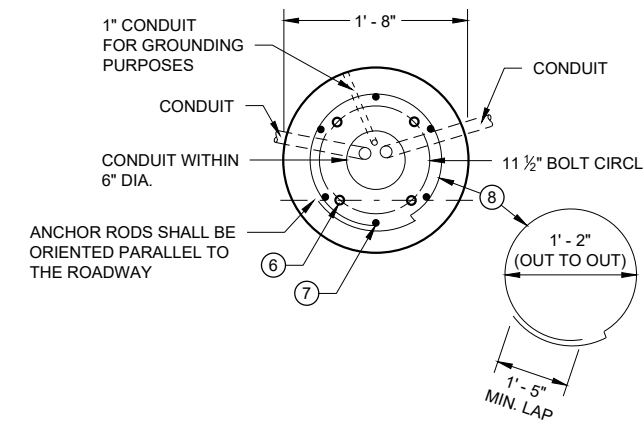
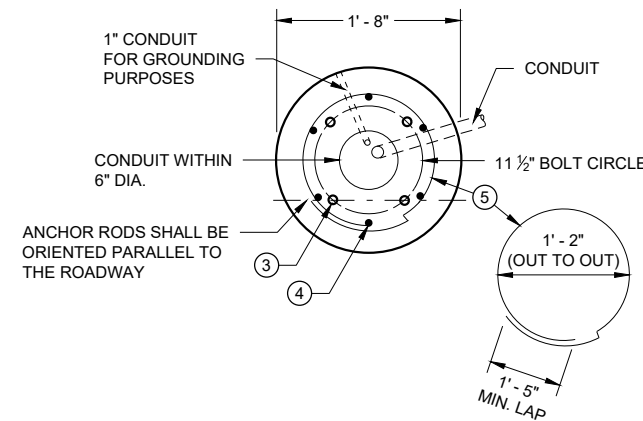
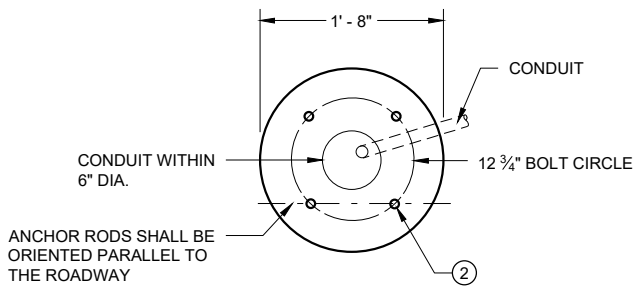
WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4 INCH "L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND SHALL NOT BE THREADED.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

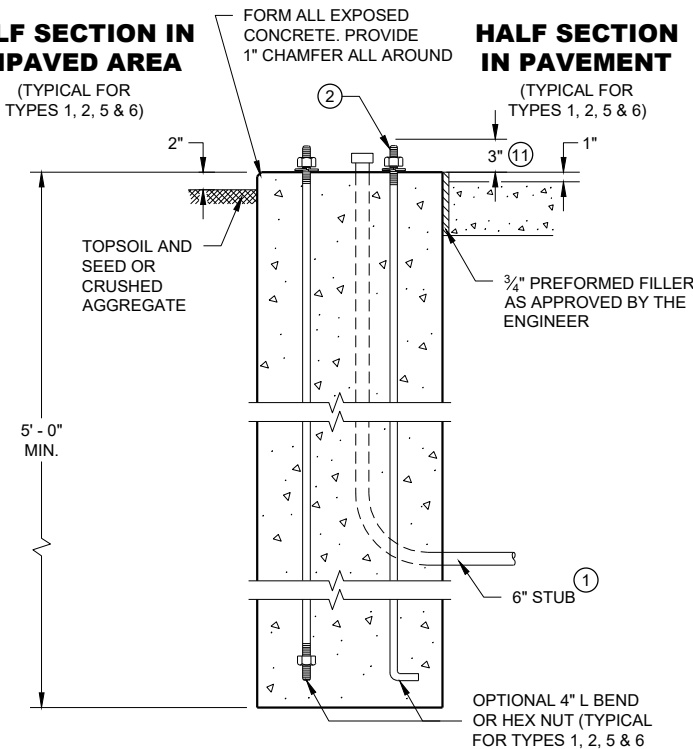
WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TIE WIRES SHALL BE USED.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).

- ① THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN APPROVAL OF THE ENGINEER.
- ② (4) 1" DIA. X 3' - 6" ANCHOR RODS.
- ③ (4) 1" DIA. X 5' - 0" ANCHOR RODS.
- ④ (6) NO. 6 X 6' - 8" BAR STEEL REINFORCEMENT.
- ⑤ (7) NO. 4 X 5' - 1" BAR STEEL REINFORCEMENT @ 1' - 0" C - C.
- ⑥ (4) 1" DIA. X 3' - 6" ANCHOR RODS.
- ⑦ (6) NO. 4 X 4' - 8" BAR STEEL REINFORCEMENT.
- ⑧ (5) NO. 4 X 5' - 1" BAR STEEL REINFORCEMENT @ 1' - 0" C - C.
- ⑨ EXOTHERMIC CONNECTION TO EQUIPMENT GROUNDING CONDUCTOR
- ⑩ 5/8" DIA. X 8' - 0" COPPERCLAD EQUIPMENT GROUNDING ELECTRODE REQUIRED
- ⑪ ANY ANCHOR ROD PROJECTION SHORTER THAN 2 3/4" OR LONGER THAN 3 1/4" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.
- ⑫ FOR NON - BREAKAWAY INSTALLATIONS, 4 1/2" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

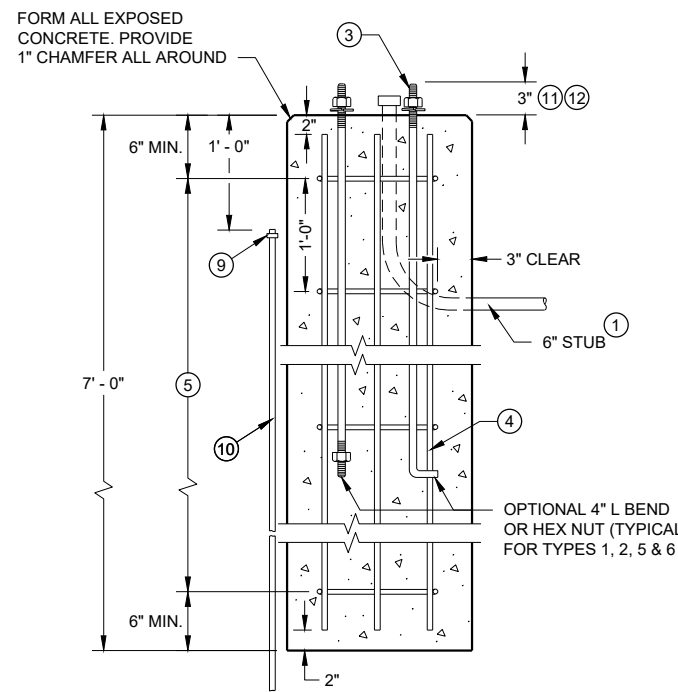


HALF SECTION IN UNPAVED AREA

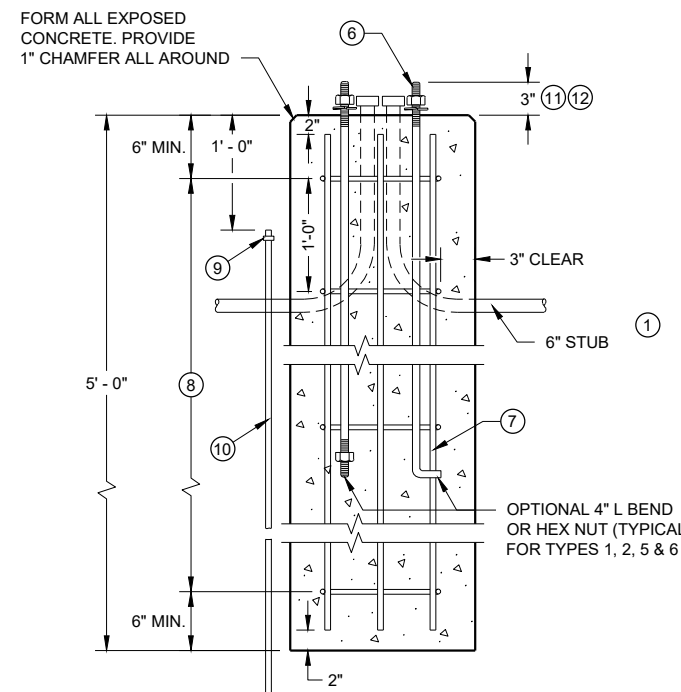


TYPE 1

HALF SECTION IN PAVEMENT



TYPE 2



TYPE 5 & 6

CONCRETE BASES

**CONCRETE BASES
TYPES 1, 2, 5, & 6**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019 /S/ Ahmet Demirelek
DATE STATE ELECTRICAL ENGINEER

FHWA

GENERAL NOTES

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

FOUR (4) BOLTS SHALL BE FURNISHED WITH EACH TRANSFORMER BASE. BOLTS SHALL BE 1" DIAMETER, 4" IN LENGTH, WITH WASHERS, LOCK WASHERS AND NUTS. BOLTS, NUTS AND WASHERS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 641.2.2 OF THE STANDARD SPECIFICATIONS.

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

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

DOUBLE NUTTING IS NOT ACCEPTABLE FOR LEVELING OR MOUNTING PURPOSES.

A NEMA APPROVED, U.L. LISTED, COPPER WITH BRASS OR STAINLESS STEEL SET SCREW, DIRECT BURY RATED, MECHANICAL CONNECTOR (LUG), SIZED TO ACCEPT AWG. #10 TO #4 COPPER STRANDED WIRE SHALL BE FURNISHED AND INSTALLED IN THE PEDESTAL AND TRANSFORMER BASES.

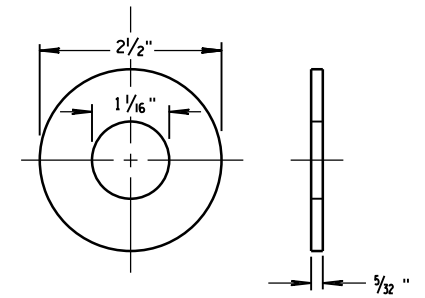
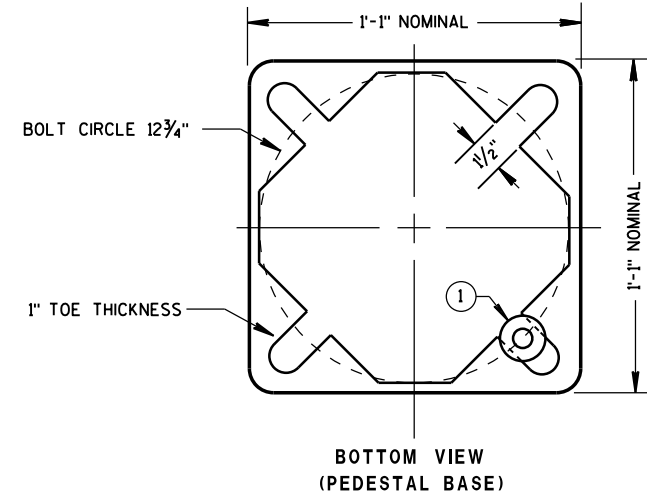
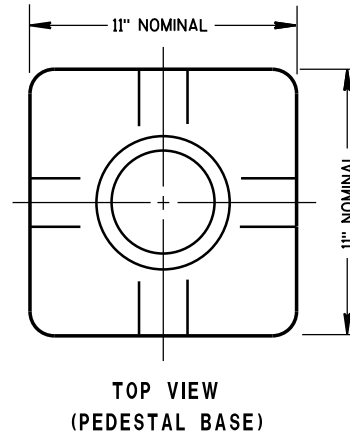
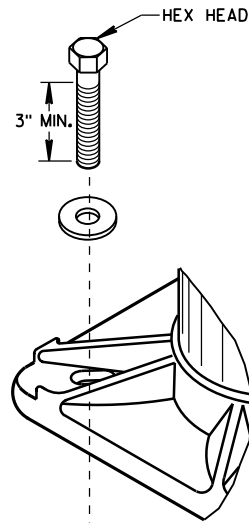
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

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

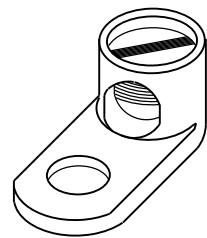
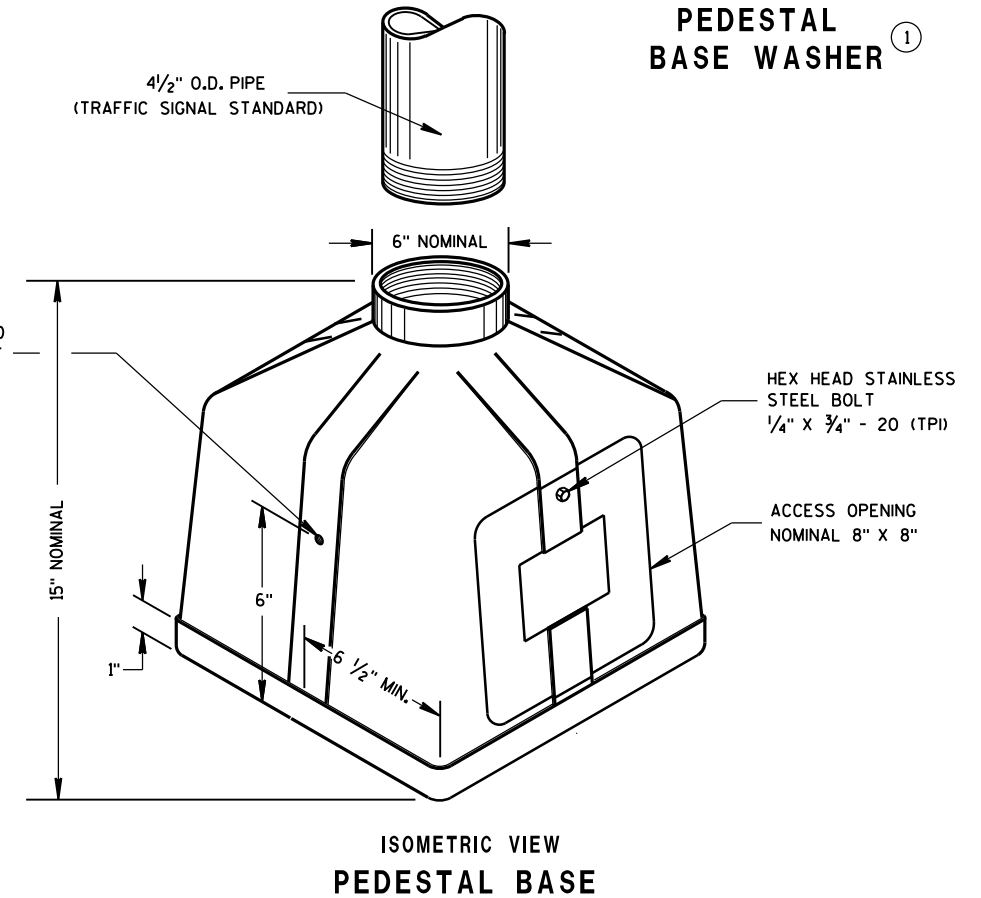
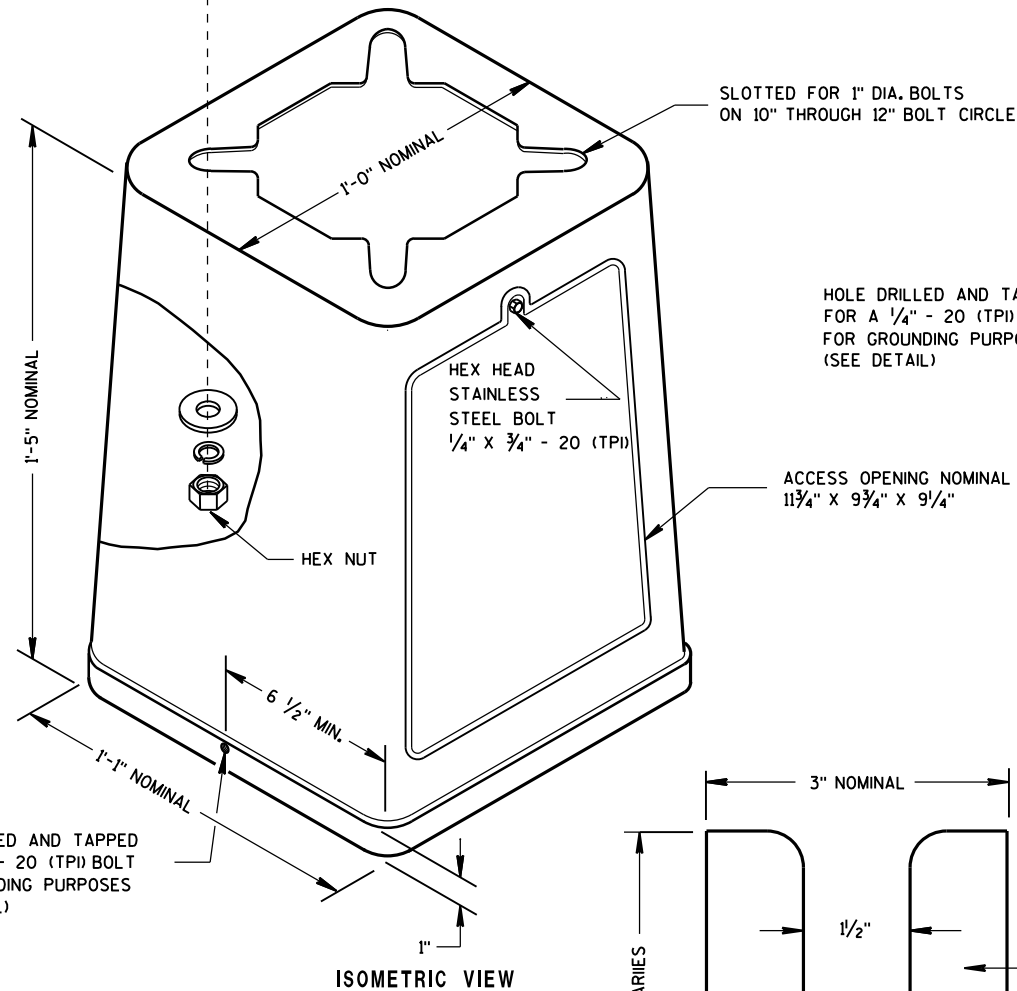
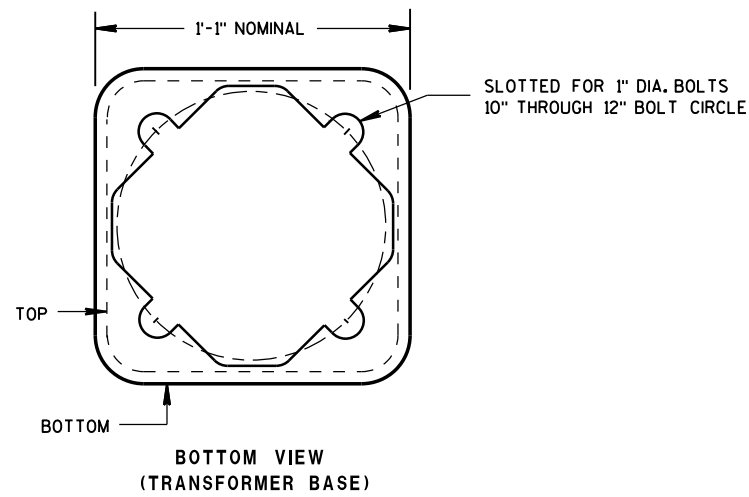
PEDESTAL BASE COLLAR THREADING SHALL BE TAPERED AND IN ACCORDANCE WITH NATIONAL PIPE THREADING DIMENSIONS.

BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1/2", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

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

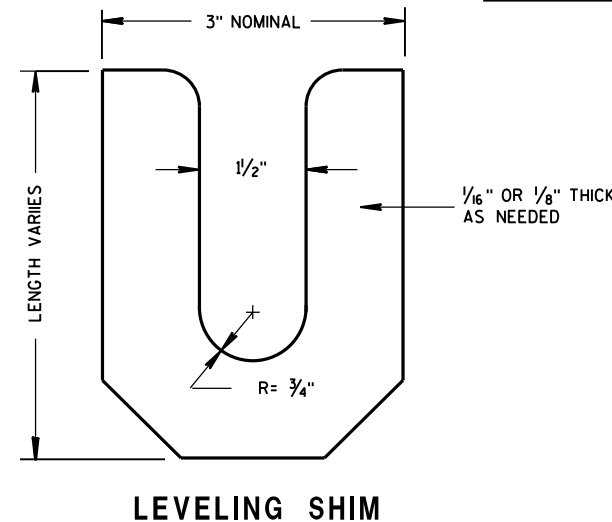


ZINC COATED STEEL WASHER TO BE PROVIDED BY THE CONTRACTOR
PEDESTAL BASE WASHER ①



TYPICAL MECHANICAL CONNECTOR LUG
TO BE FURNISHED WITH EACH BASE

TRANSFORMER BASE
INTENDED FOR USE WITH TYPE 2, 3, 4, 5 & 6 POLES



LEVELING SHIM

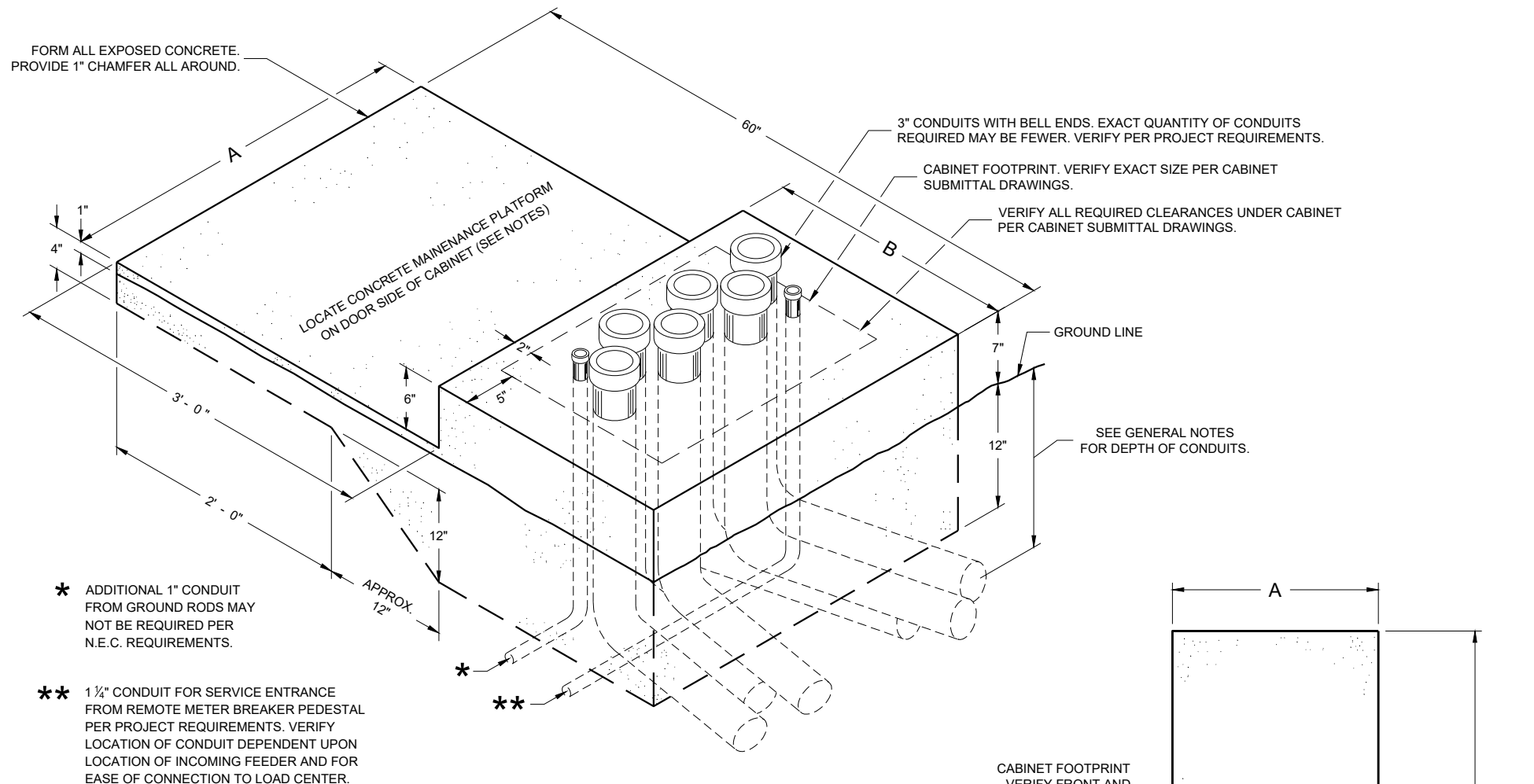
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S.D.D. 9 C 3-4

S.D.D. 9 C 3-4

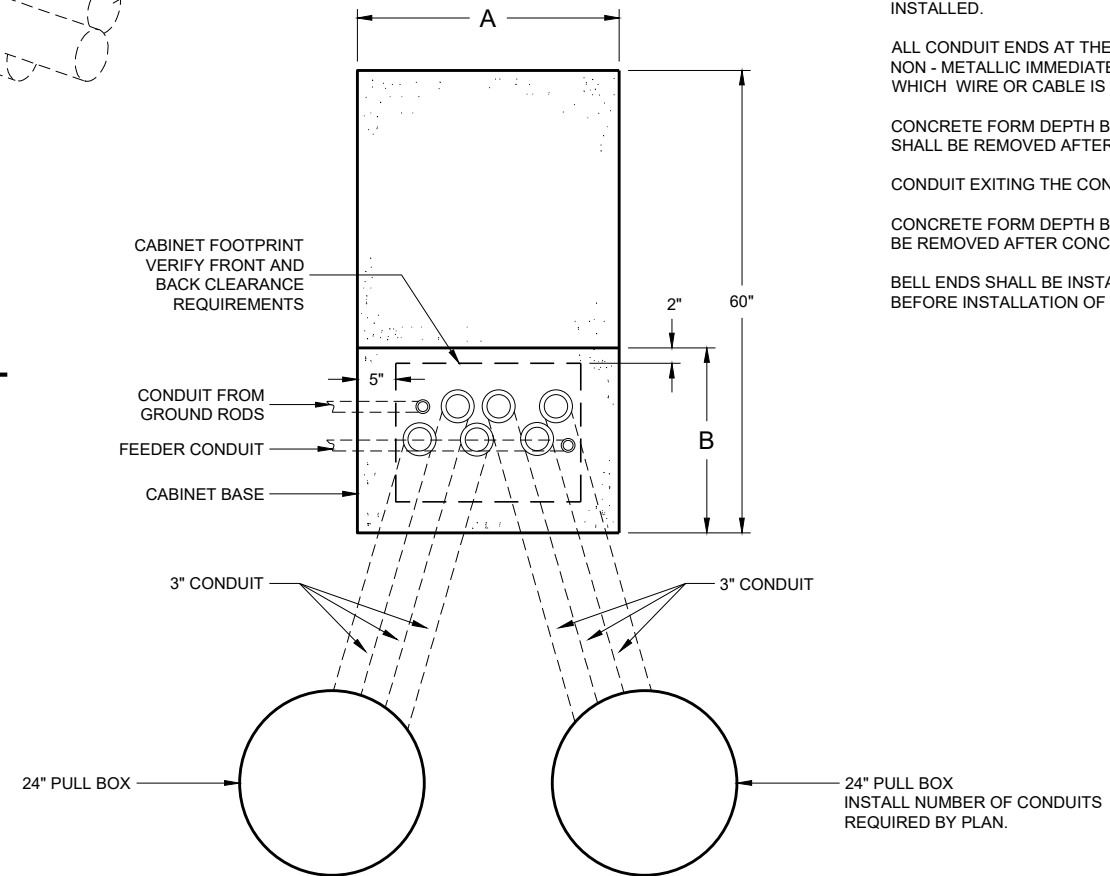
TRANSFORMER/PEDESTAL BASES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED Sept. 2014 DATE	/S/ Ahmet Demirbilek STATE ELECTRICAL ENGINEER
FHWA	



**ISOMETRIC VIEW
CONCRETE CONTROL CABINET BASE, TYPE L**
(C.Y. CONCRETE = APPROX. 0.4)

- * ADDITIONAL 1" CONDUIT FROM GROUND RODS MAY NOT BE REQUIRED PER N.E.C. REQUIREMENTS.
- ** 1 1/2" CONDUIT FOR SERVICE ENTRANCE FROM REMOTE METER BREAKER PEDESTAL PER PROJECT REQUIREMENTS. VERIFY LOCATION OF CONDUIT DEPENDENT UPON LOCATION OF INCOMING FEEDER AND FOR EASE OF CONNECTION TO LOAD CENTER.

CONCRETE BASE TYPE	CABINET WIDTH	DIMENSIONS		MAXIMUM 3" CONDUITS
		A	B	
L24	24"	34"	24"	4
L30	30"	40"	24"	6



**PLAN VIEW
CONCRETE CONTROL CABINET BASE, TYPE L**

GENERAL NOTES

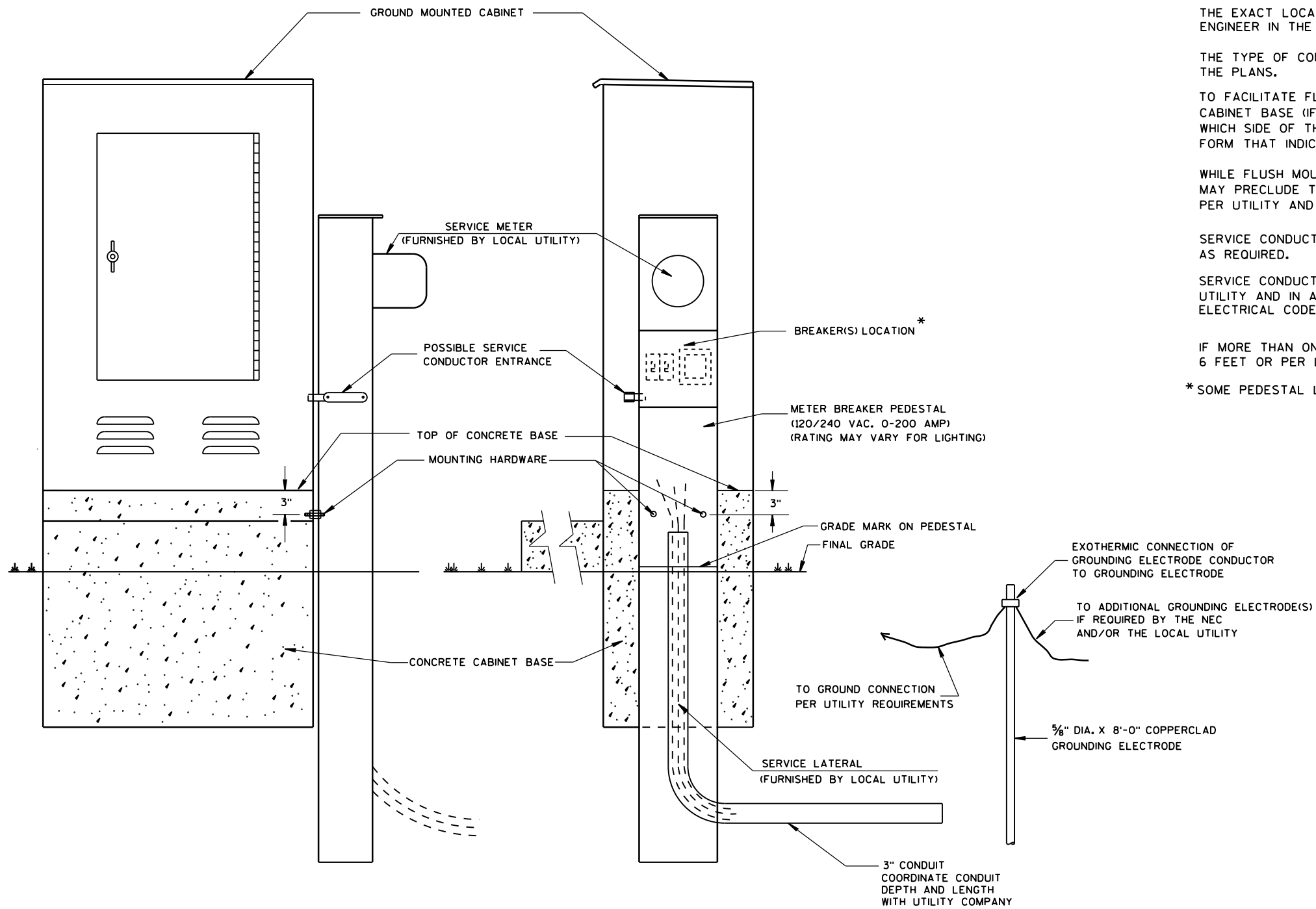
- DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.
- INSTALL FOUR STAINLESS STEEL APPROVED CONCRETE MASONRY ANCHORS TO ANCHOR THE CABINET BASES. THE ANCHORS SHALL BE LOCATED AS DIRECTED BY THE ENGINEER TO PROPERLY ANCHOR THE CONTROL CABINET TO THE BASE.
- WHEN REQUIRED TO CONNECT NON - METALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U. L. LISTED FOR ELECTRICAL USE, SHALL BE USED.
- CONDUIT HEIGHT ABOVE THE CONCRETE BASE SHALL BE 1 INCH.
- DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.
- DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.
- ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.
- LOCATIONS SHALL BE AS SHOWN ON THE PLANS UNLESS DETERMINED BY THE ENGINEER IN THE FIELD.
- CONTROL CABINET BASE TOP SURFACE SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.
- MAINTENANCE PLATFORM SHALL BE FLOAT OR BROOM FINISHED AND LEVEL.
- MAINTENANCE PLATFORMS ARE NOT REQUIRED WHEN THE SURROUNDING AREA IS PAVED.
- MINIMUM BENDING RADIUS OF CONDUIT EQUALS 6 TIMES THE DIAMETER.
- ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.
- CAP ALL BELOW GRADE METALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.
- PLUG ALL BELOW GRADE NON - METALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.
- ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON - METALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.
- CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6 INCHES MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.
- CONDUIT EXITING THE CONCRETE BASE SHALL TERMINATE IN PULL BOXES AS SHOWN ON THE PLANS.
- CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6 INCH MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.
- BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF THE CONCRETE BASE BEFORE INSTALLATION OF CABLE OR WIRE.

**CONCRETE CONTROL
CABINET BASE, TYPE L**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018 /S/ Ahmet Demirbilek
DATE STATE ELECTRICAL ENGINEER

FHWA



TYPICAL CABINET SERVICE INSTALLATION

GENERAL NOTES

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

THE EXACT LOCATION OF THE METER BREAKER PEDESTAL SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

THE TYPE OF CONCRETE CABINET BASE TO BE INSTALLED SHALL BE AS CALLED FOR IN THE PLANS.

TO FACILITATE FLUSH MOUNTING OF THE METER BREAKER PEDESTAL AGAINST THE SIDE OF THE CABINET BASE (IF FLUSH MOUNTING POSSIBLE, CONFER WITH THE LOCAL UTILITY TO DETERMINE WHICH SIDE OF THE CONCRETE BASE THE ELECTRICAL SERVICE LATERAL WILL APPROACH, THEN FORM THAT INDICATED SIDE FOR FULL SIDE DEPTH.

WHILE FLUSH MOUNTING IS THE MOST DESIRABLE MOUNTING CONFIGURATION UTILITY REQUIREMENTS MAY PRECLUDE THIS OPTION. CONTRACTOR MUST PROVIDE UTILITY APPROVED PEDESTAL AND INSTALL PER UTILITY AND MANUFACTURERS REQUIREMENTS.

SERVICE CONDUCTOR ENTRANCES SHALL BE RIGID METALLIC CONDUIT, NIPPLES AND/OR CONDULETS AS REQUIRED.

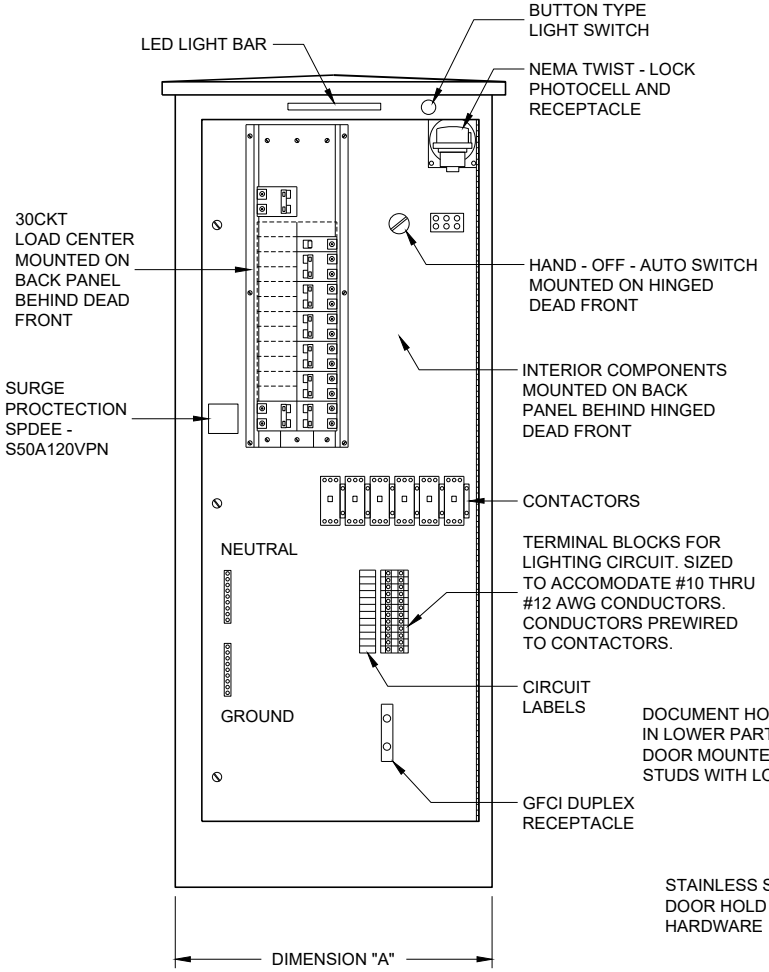
SERVICE CONDUCTOR ENTRANCES SHALL BE SIZED AND LOCATED AS REQUIRED BY THE LOCAL UTILITY AND IN ACCORDANCE WITH APPROPRIATE ARTICLES OF THE LATEST ACCEPTED NATIONAL ELECTRICAL CODE.

IF MORE THAN ONE GROUNDING ELECTRODE IS REQUIRED, THE DISTANCE APART SHALL BE 6 FEET OR PER LOCAL UTILITY REGULATIONS.

* SOME PEDESTAL LIGHTING PLANS SHOW MAIN LUGS ONLY.

CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED DATE FHWA	/S/ Ahmet Demirbilek STATE ELECTRICAL ENGINEER

FRONT INTERIOR ELEVATION



SIDE VIEW

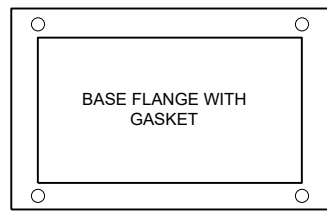
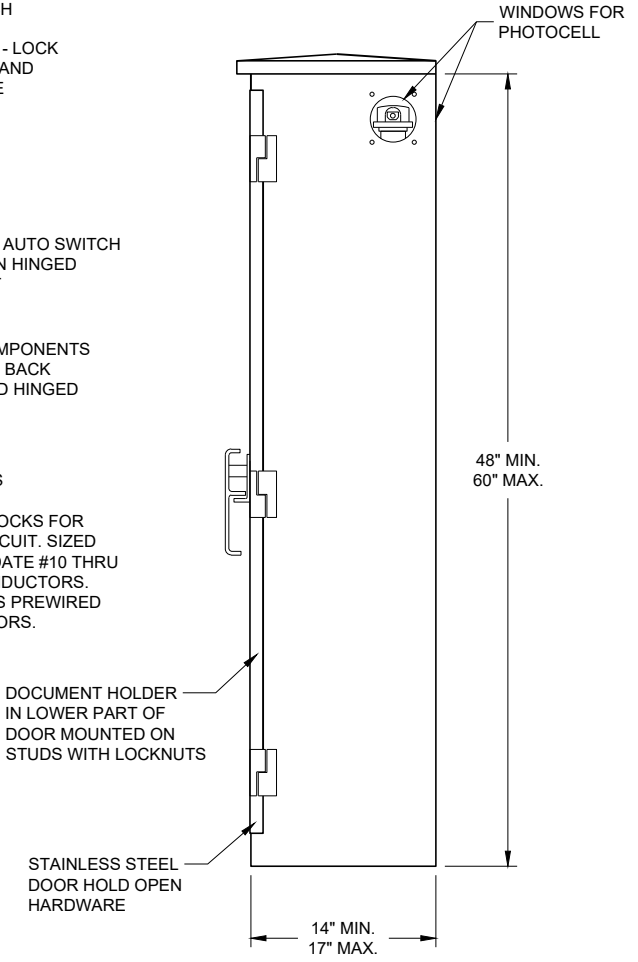


TABLE OF DIMENSIONS (INCHES)

CONCRETE BASE TYPE	CABINET WIDTH	DIMENSION "A"
L24	24"	24"
L30	30"	30"

LIGHTING CONTROL CABINET

GENERAL NOTES

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

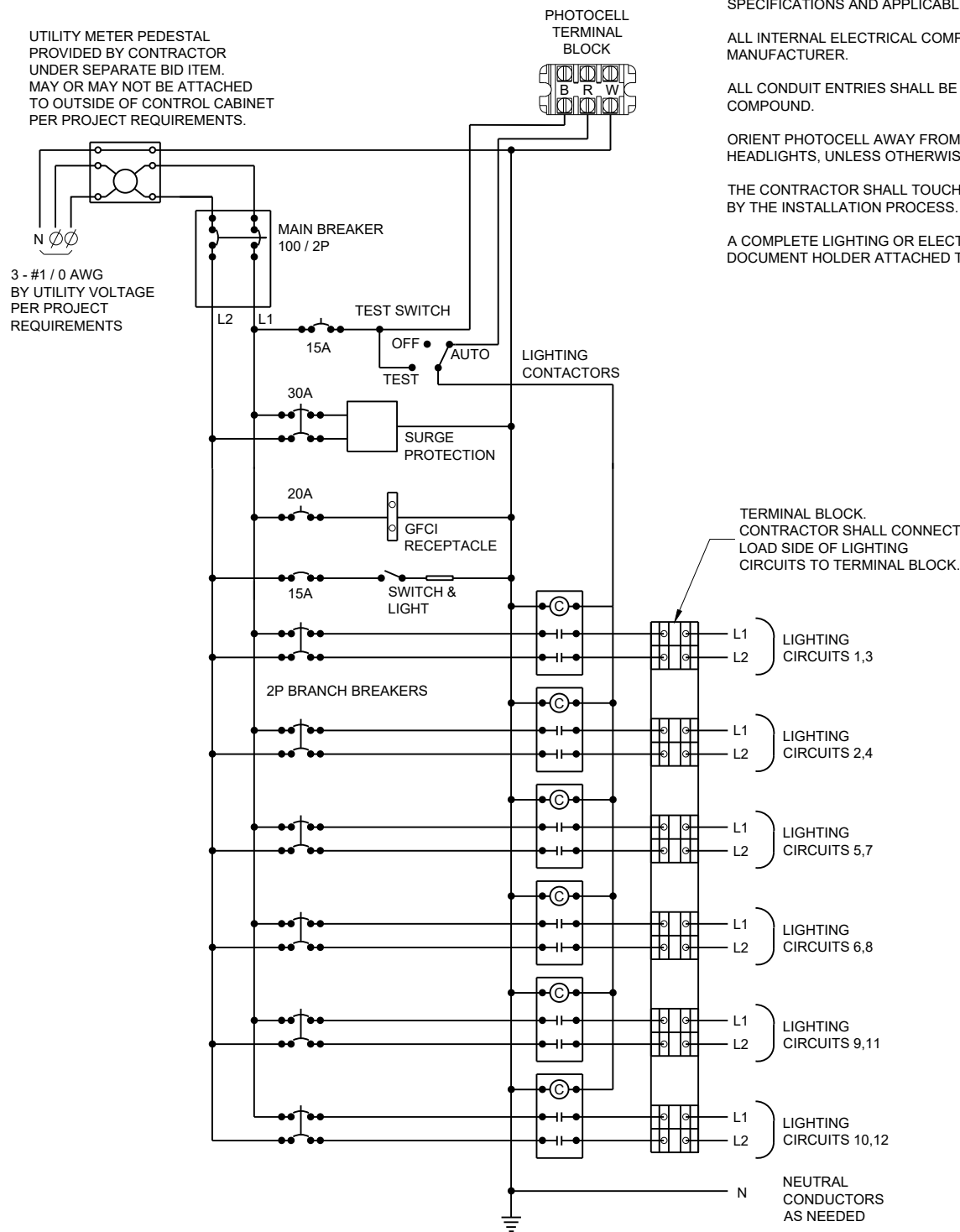
ALL INTERNAL ELECTRICAL COMPONENTS WILL BE PRE - WIRED BY THE CABINET MANUFACTURER.

ALL CONDUIT ENTRIES SHALL BE SEALED WITH AN APPROPRIATE DUCT SEALING COMPOUND.

ORIENT PHOTOCELL AWAY FROM AMBIENT LIGHT SOURCES AND ONCOMING TRAFFIC HEADLIGHTS, UNLESS OTHERWISE CALLED FOR IN THE SPECIAL PROVISION.

THE CONTRACTOR SHALL TOUCH UP ANY DAMAGE TO THE ANODIZED FINISH CAUSED BY THE INSTALLATION PROCESS. COLOR MATCH PAINT SHALL BE USED.

A COMPLETE LIGHTING OR ELECTRICAL PLAN SHALL BE SECURELY PLACED IN THE DOCUMENT HOLDER ATTACHED TO THE DOOR.



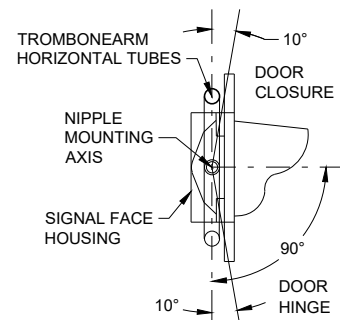
CONTROL CABINET SCHEMATIC

**LIGHTING CONTROL CABINET
120 / 240 VOLT**

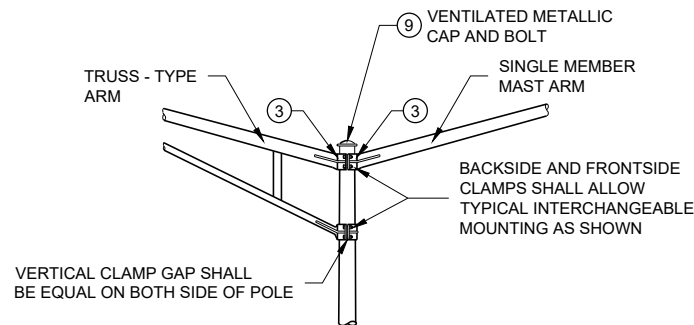
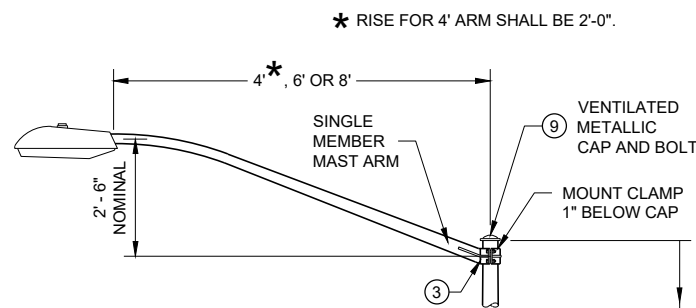
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018 /S/ Ahmet Demirelek
DATE STATE ELECTRICAL ENGINEER

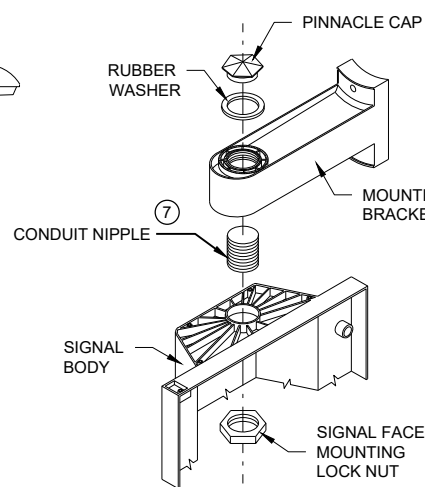
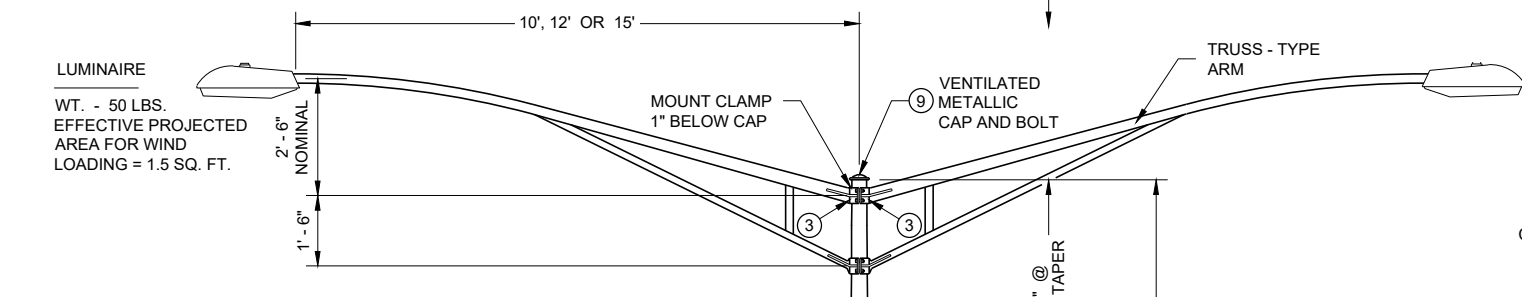
FHWA



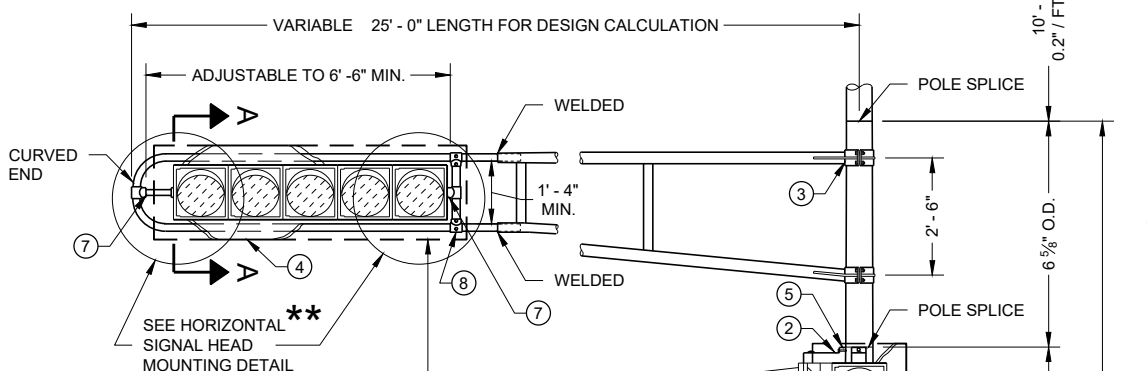
SECTION A-A



INTERCHANGEABLE MOUNTING DETAIL

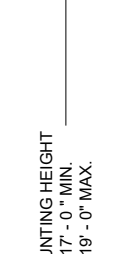


SIGNAL FACE MOUNTING DETAIL (BANDED)

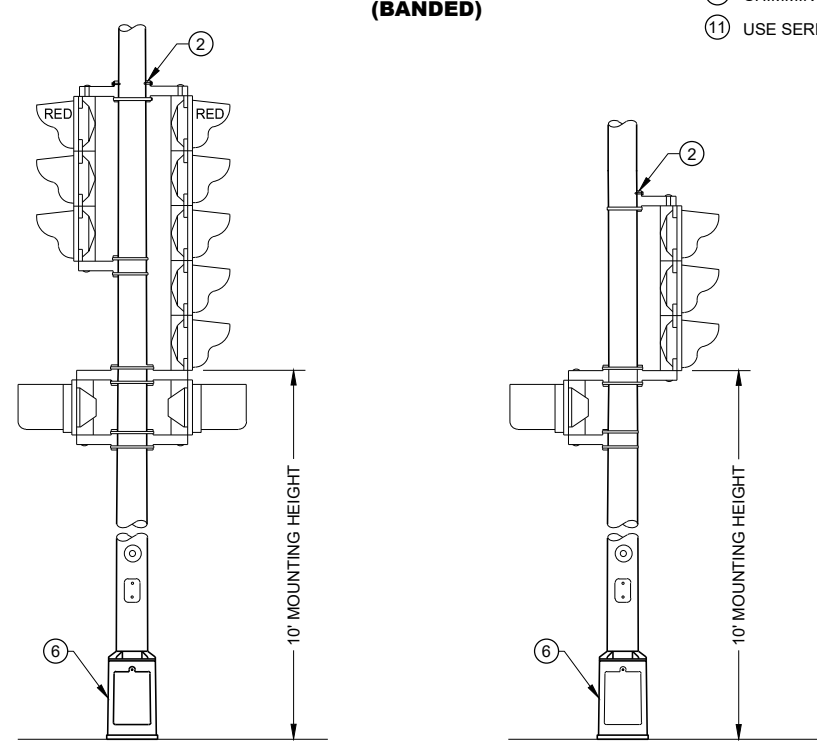
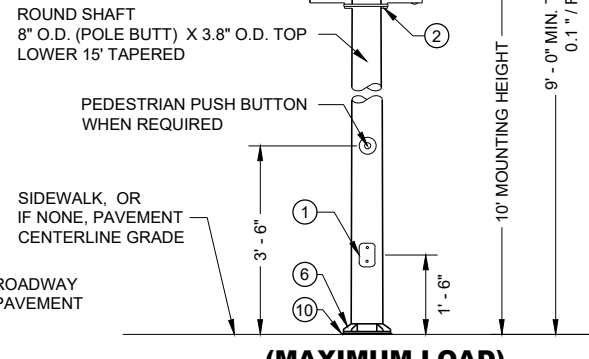


POLE SPLICE DETAIL FOR MANUFACTURERS USE ONLY

WELD TO BE 100% R.T. OR U.T. TESTED AS PER THE REQUIREMENTS OF AWS D 1.5-88. RECORDS OF COMPLIANCE OF SUCH TESTING SHALL BE FURNISHED TO THE OFFICE OF DESIGN / BRIDGE FOR VERIFICATION AND APPROVAL.

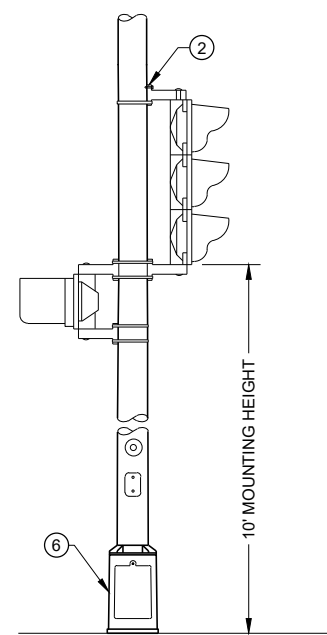


POLE SPLICE DETAIL

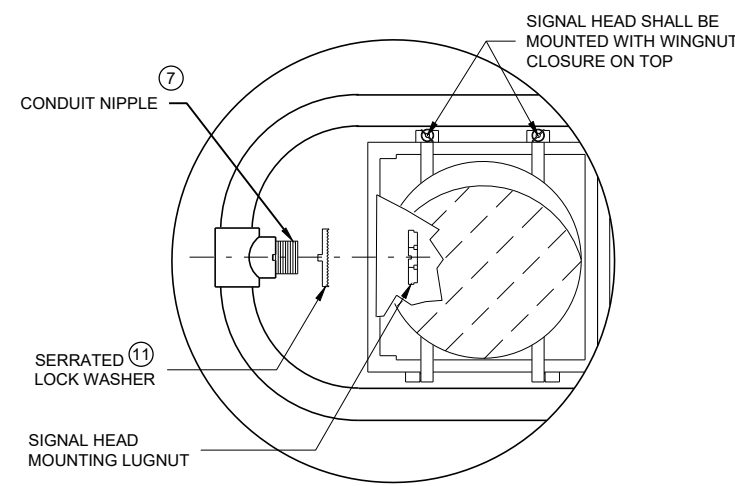


TYPICAL MOUNTING OF BACK TO BACK 3 AND 5 SECTION SIGNAL FACES

TYPE 3 POLE MOUNTING CONFIGURATION



TYPICAL MOUNTING OF 3 SECTION SIGNAL FACE



HORIZONTAL SIGNAL HEAD MOUNTING DETAIL

** SIGNAL HEAD ATTACHMENT ALSO APPLIES TO MOUNTING AT CROSS BAR

GENERAL NOTES

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

ALL TYPE 3 POLE MOUNTINGS SHALL BE DESIGNED TO INCLUDE TWIN 15' ARMS WITH LUMINAIRES.

POLES SHALL BE GALVANIZED STEEL.

SECTION 657, POLES, OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

A PULL WIRE / ROPE SHALL BE INSTALLED IN EACH TROMBONE ARM RACEWAY DURING THE MANUFACTURING PROCESS.

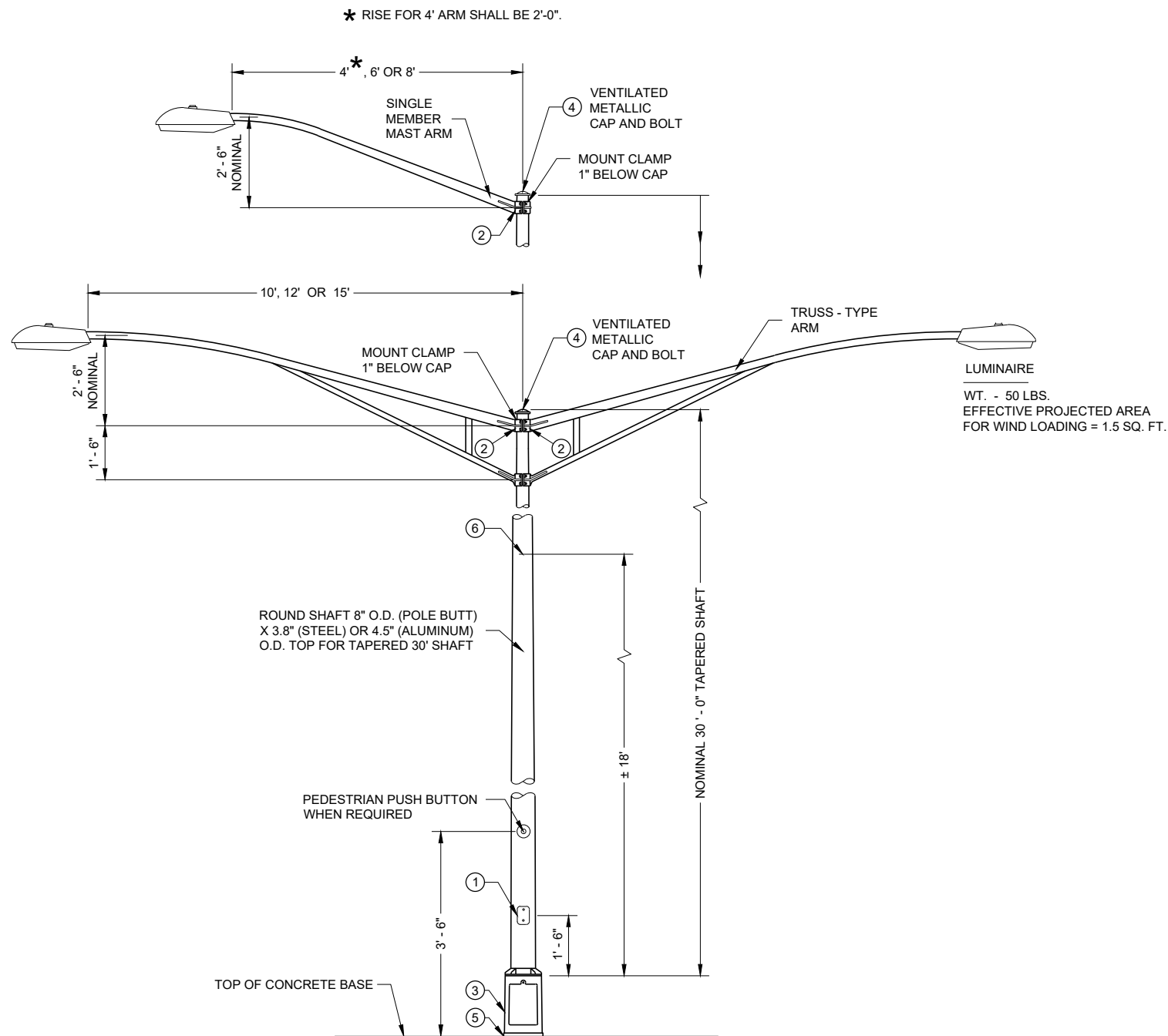
THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2 3/8 INCHES IN OUTSIDE DIAMETER. THE STRAIGHT PORTION OF THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 12 INCHES IN LENGTH.

WHEN TRANSFORMER BASES ARE USED, WIRE CONNECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

- ① 4" X 6" REINFORCED HANDHOLE AND COVER ASSEMBLY WITH TWO (2) 1/2" X 3/4" - 20 TPI, STAINLESS STEEL, HEX HEAD BOLTS.
- ② SIGNAL FACE MOUNTING BRACKETS. MOUNT WITH CAP SCREWS AND BANDING.
- ③ GROMMETS. 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1 1/2" HOLE IN POLE SHAFT FOR WIRING.
- ④ SECURELY MOUNT DULL BLACK POLYCARBONATE BACKPLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURER'S RECOMMENDATIONS.
- ⑤ POLE MOUNTED SIGNAL FACES SHALL REQUIRE ONE OR MORE MOUNTING SPACERS UNDER THE TOP MOUNTING BRACKET(S) AS REQUIRED, TO PLUMB THE SIGNAL FACE.
- ⑥ CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED. UNDER MAX LOADING, TYPE 3 POLE SHALL BE MOUNTED DIRECTLY TO ITS CONCRETE BASE.
- ⑦ USE 1 1/2" ID NIPPLES ZINC-COATED RIGID METAL CONDUIT, LONG ENOUGH TO ACCOMMODATE FULL DEPTH THREADING INTO THE HEAD MOUNTING LOCK NUT IN ORDER TO TIGHTEN THE FACE, BUT THAT DO NOT INTERFERE WITH REFLECTOR CLOSURE. THREAD THE NIPPLE INTO THE MOUNTING BRACKET/ELBOW UNTIL TIGHT. USE APPROVED PINNACLE TYPE HARDWARE FROM A DEPARTMENT APPROVED MANUFACTURER TO CLOSE THE UNUSED 1 1/2" OPENING IN SIGNAL FACES AND BRACKET ENDS.
- ⑧ VERTICAL STRUT (ADJUSTABLE), ONE (1) SET SCREW (1/2" X 3/4" - 20 TPI STAINLESS STEEL, HEX HEAD) INTO EACH ARM MEMBER IF STRUT IS THE SLIDING TYPE.
- ⑨ FURNISH AND INSTALL VENTILATED, CAST METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) 1/2" X 3/4" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.
- ⑩ SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND POLE.
- ⑪ USE SERRATED LOCK WASHERS WITH NOTCHES BETWEEN END TEE AND SIGNAL HEAD.

POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS TYPE 3 (HEAVY DUTY)

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION



**TYPE 5 POLE MOUNTING CONFIGURATION
(MAXIMUM LOAD)
LIGHTING ONLY**

GENERAL NOTES

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

SECTION 657, POLES, OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

ALL TYPE 5 POLE MOUNTINGS SHALL BE DESIGNED TO INCLUDE TWIN 15' ARMS WITH LUMINAIRES.

POLES SHALL BE GALVANIZED STEEL OR ALUMINUM, AS CALLED FOR IN THE CONTRACT.

TYPE 5 ALUMINUM POLES SHALL BE CONSTRUCTED OF 6063 - T6 ALUMINUM ALLOY. SLEEVING INSIDE THE POLE IS NOT ACCEPTABLE.

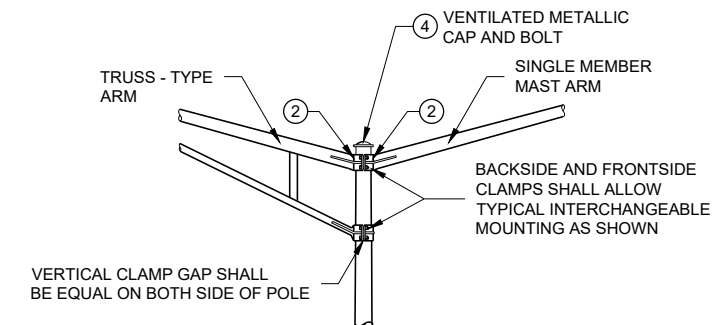
TYPE 5 ALUMINUM POLES SHALL HAVE A MINIMUM WALL THICKNESS OF 0.1888".

TYPE 5 STEEL POLES SHALL HAVE A MINIMUM WALL THICKNESS OF U.S. STANDARD 11 GAGE (0.1196").

THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2 3/8 INCHES IN OUTSIDE DIAMETER. THE STRAIGHT PORTION OF THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 12 INCHES IN LENGTH.

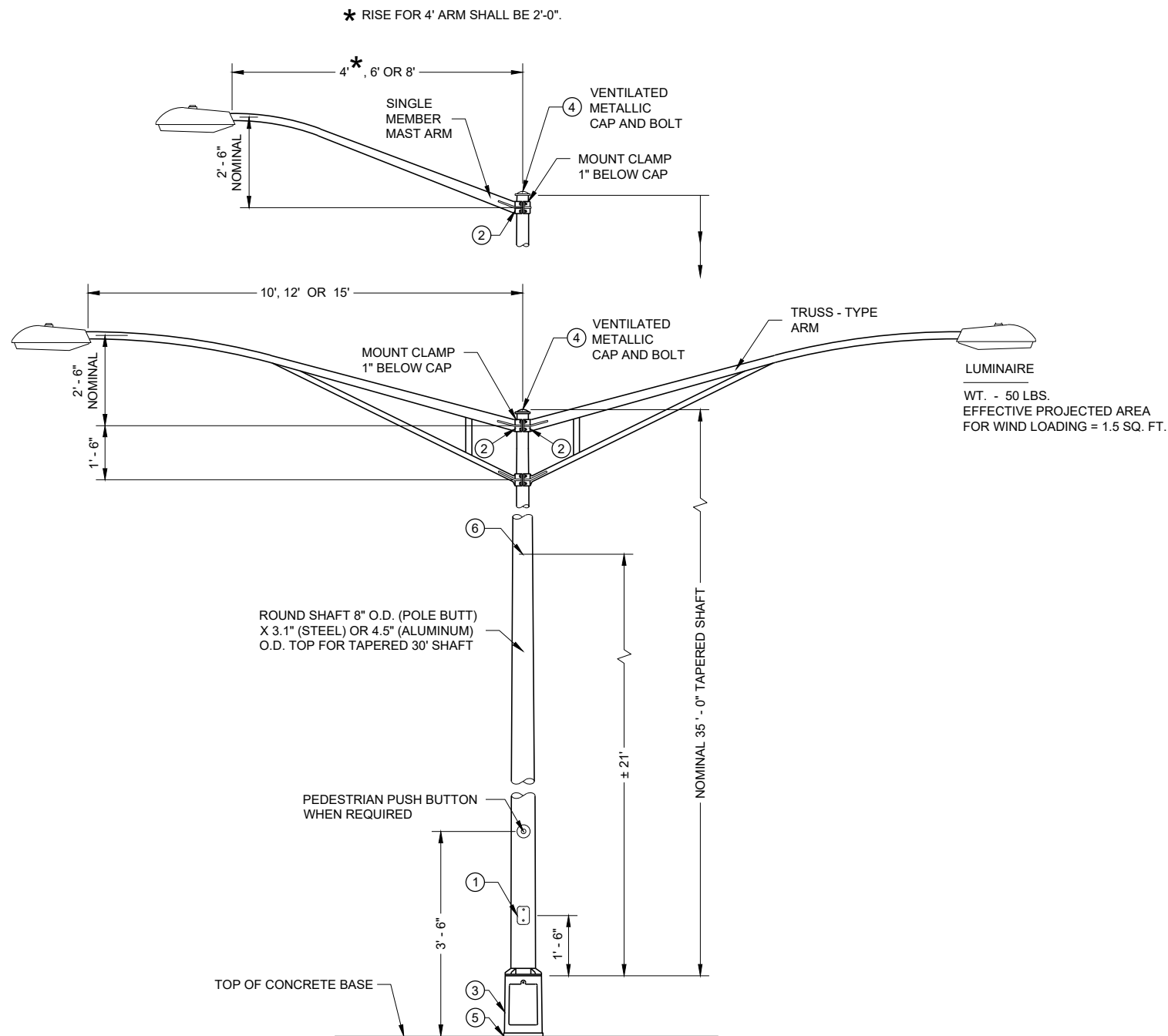
WHEN TRANSFORMER BASES ARE USED, WIRE CONNECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

- ① 4" X 6" REINFORCED HANDHOLE AND COVER ASSEMBLY WITH TWO (2) 1/4" X 3/4" - 20 TPI , STAINLESS STEEL, HEX HEAD BOLTS.
- ② GROMMETS. 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1 3/8" HOLE IN POLE SHAFT FOR WIRING.
- ③ CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.
- ④ FURNISH AND INSTALL VENTILATED, CAST METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) 1/4" X 3/4" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.
- ⑤ SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND POLE.
- ⑥ INTERNAL DUMBBELL - TYPE VIBRATION DAMPER.



INTERCHANGEABLE MOUNTING DETAIL

<p>POLE MOUNTINGS FOR LIGHTING UNITS, TYPE 5 (30 FEET)</p>
<p>STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION</p>



**TYPE 6 POLE MOUNTING CONFIGURATION
(MAXIMUM LOAD)
LIGHTING ONLY**

GENERAL NOTES

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

SECTION 657, POLES, OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

ALL TYPE 6 POLE MOUNTINGS SHALL BE DESIGNED TO INCLUDE TWIN 15' ARMS WITH LUMINAIRES.

POLES SHALL BE GALVANIZED STEEL OR ALUMINUM, AS CALLED FOR IN THE CONTRACT.

TYPE 6 ALUMINUM POLES SHALL BE CONSTRUCTED OF 6063 - T6 ALUMINUM ALLOY. SLEEVING INSIDE THE POLE IS NOT ACCEPTABLE.

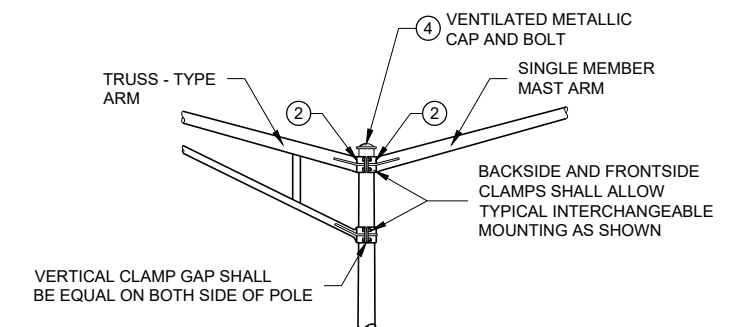
TYPE 6 ALUMINUM POLES SHALL HAVE A MINIMUM WALL THICKNESS OF 0.219".

TYPE 6 STEEL POLES SHALL HAVE A MINIMUM WALL THICKNESS OF U.S. STANDARD 11 GAGE (0.1196").

THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2 3/8 INCHES IN OUTSIDE DIAMETER. THE STRAIGHT PORTION OF THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 12 INCHES IN LENGTH.

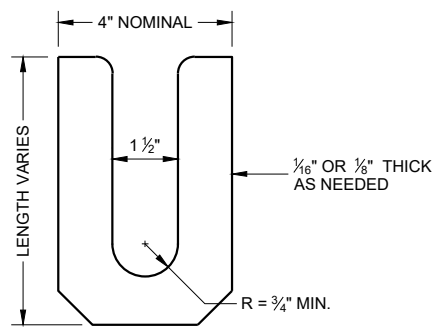
WHEN TRANSFORMER BASES ARE USED, WIRE CONNECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

- ① 4" X 6" REINFORCED HANDHOLE AND COVER ASSEMBLY WITH TWO (2) 1/4" X 3/4" - 20 TPI , STAINLESS STEEL, HEX HEAD BOLTS.
- ② GROMMETS. 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1 3/8" HOLE IN POLE SHAFT FOR WIRING.
- ③ CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.
- ④ FURNISH AND INSTALL VENTILATED, CAST METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) 1/4" X 3/4" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.
- ⑤ SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND POLE.
- ⑥ INTERNAL DUMBBELL - TYPE VIBRATION DAMPER.

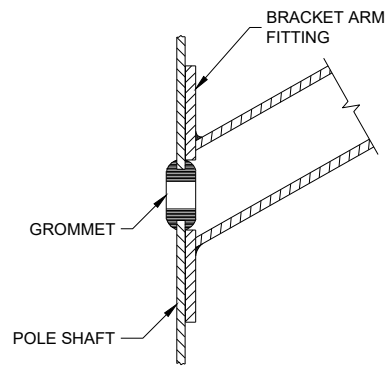


INTERCHANGEABLE MOUNTING DETAIL

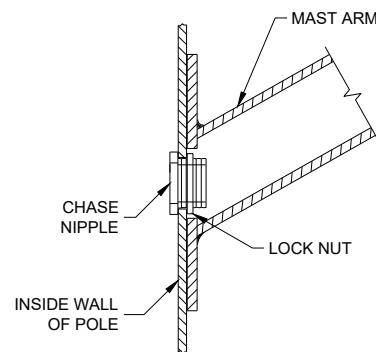
<p>POLE MOUNTINGS FOR LIGHTING UNITS, TYPE 6 (35 FEET)</p>
<p>STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION</p>



LEVELING SHIM
SHALL BE ALUMINUM



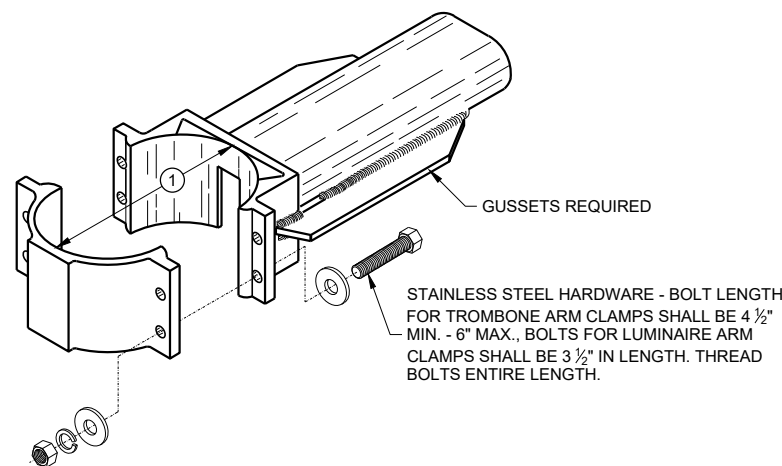
TYPICAL APPLICATION OF GROMMET IN POLE SHAFT



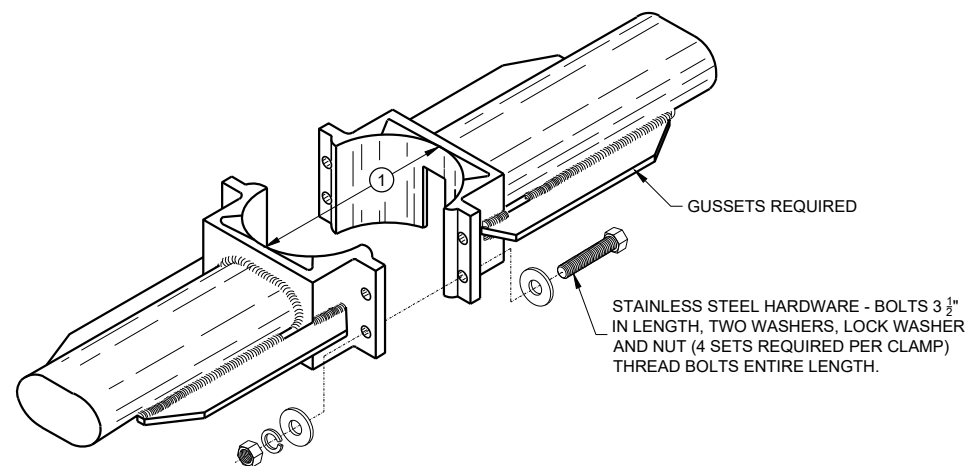
TYPICAL APPLICATION OF CHASE NIPPLE IN POLE SHAFT

GENERAL NOTES

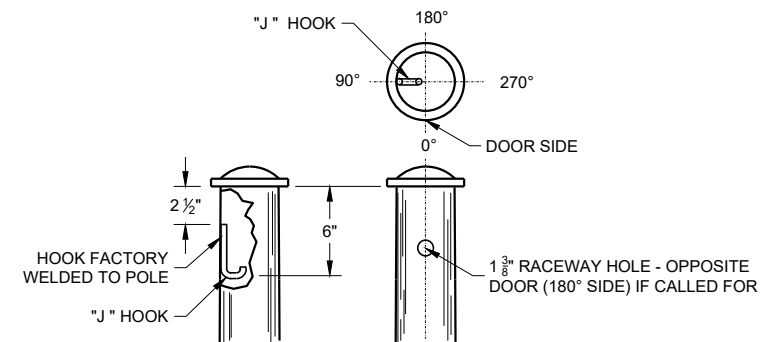
- CLAMP BOLT-NUT TIGHTENING TORQUE SHALL BE INDICATED BY INDENT STAMPING (1/2 INCH NUMERALS AND LETTERS) OR WEATHERPROOF PRINTING ON THE INSIDE OF THE CLAMP THAT IS WELDED TO THE ARM MEMBER.
- 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP. 6.625" I.D. FOR TROMBONE MAST ARM CLAMP.
 - INDIVIDUAL BASE PLATE ANCHOR ROD COVERS. (4 REQUIRED)
 - BASE PLATE SLOTTED TO ACCEPT 11" THROUGH 12" BOLT CIRCLE USING 1" DIAMETER ANCHOR RODS.
 - LEVELING SHIMS, DESIGNED FOR THE PURPOSE, SHALL BE USED WHEN PLUMBING POLES. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE. LEVELING SHIMS SHALL BE USED ONLY BETWEEN THE TOP OF THE CONCRETE BASE AND A METALLIC BASE PLATE.
- SHIMS SHALL BE LONG ENOUGH AND WIDE ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.



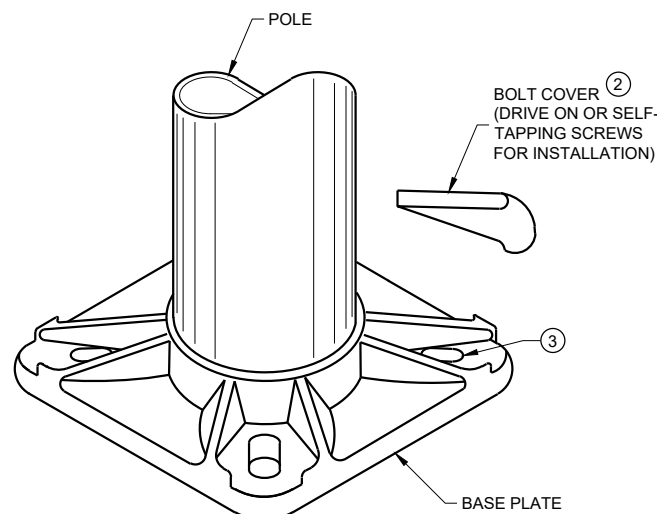
TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP



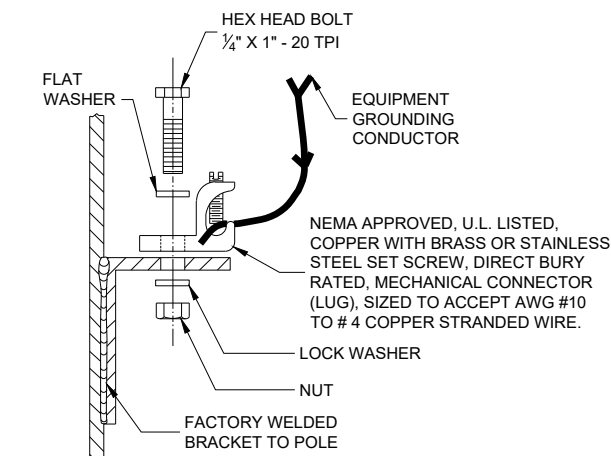
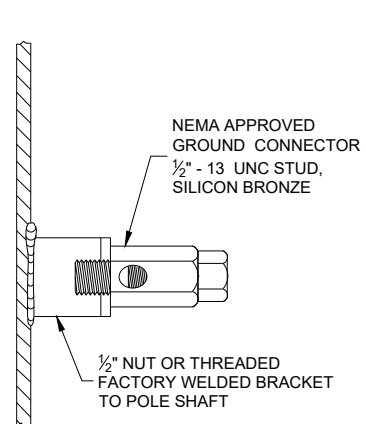
TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS



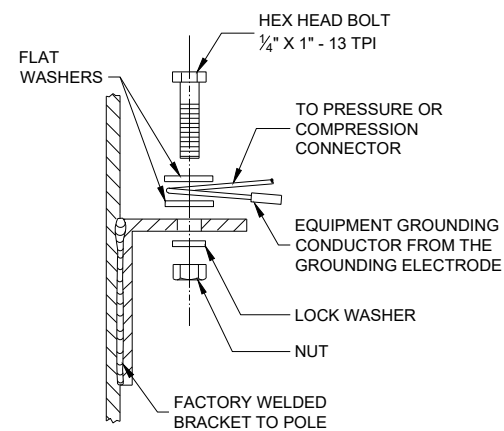
TYPICAL "J" HOOK LOCATION



BASE PLATE



TYPICAL GROUNDING CONNECTIONS
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



HARDWARE DETAILS FOR POLE MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018 /S/ Ahmet Demirbilek
DATE STATE ELECTRICAL ENGINEER

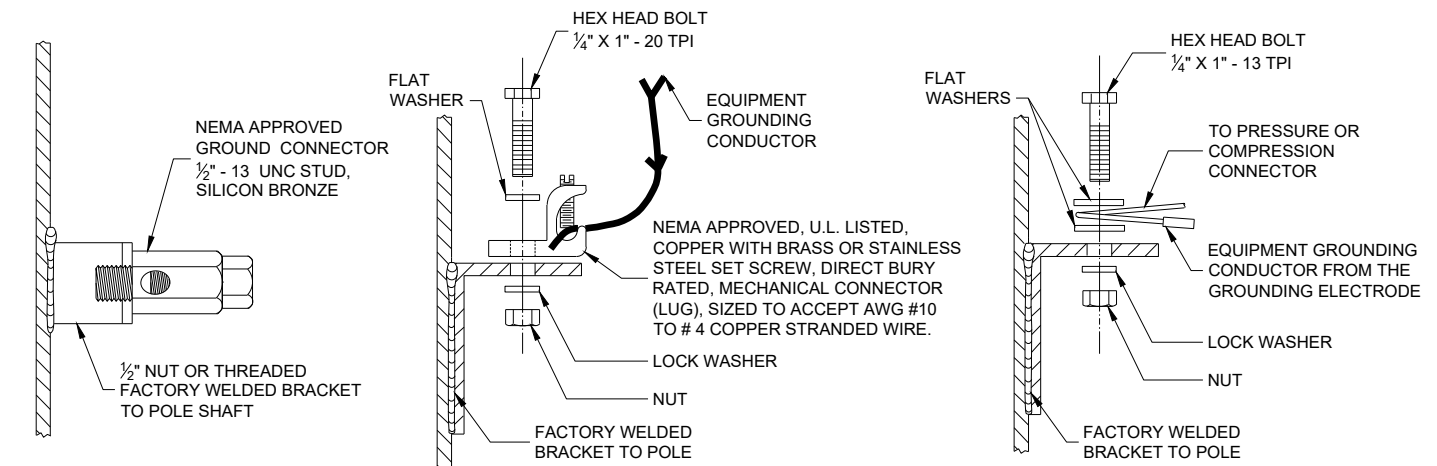
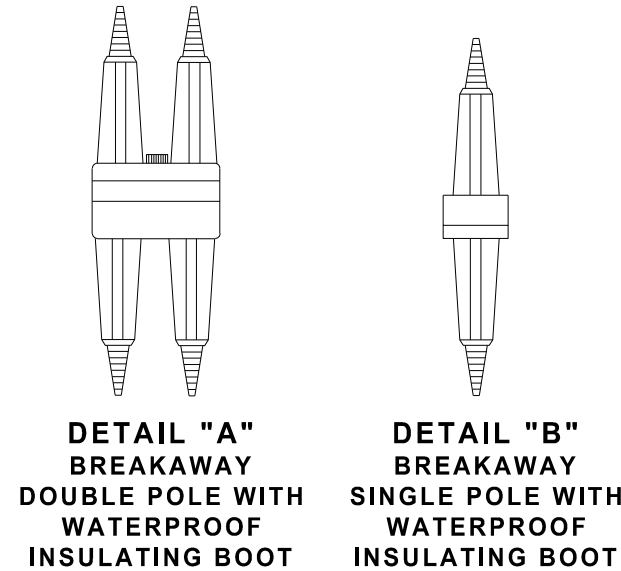
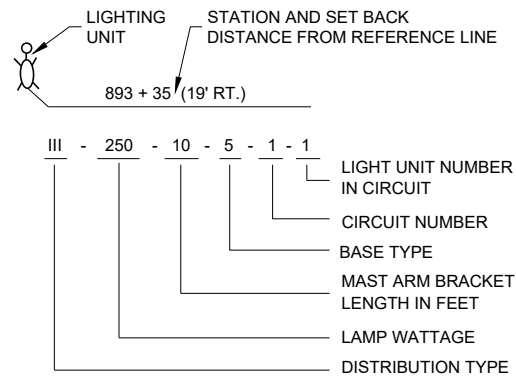
FHWA

GENERAL NOTES

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

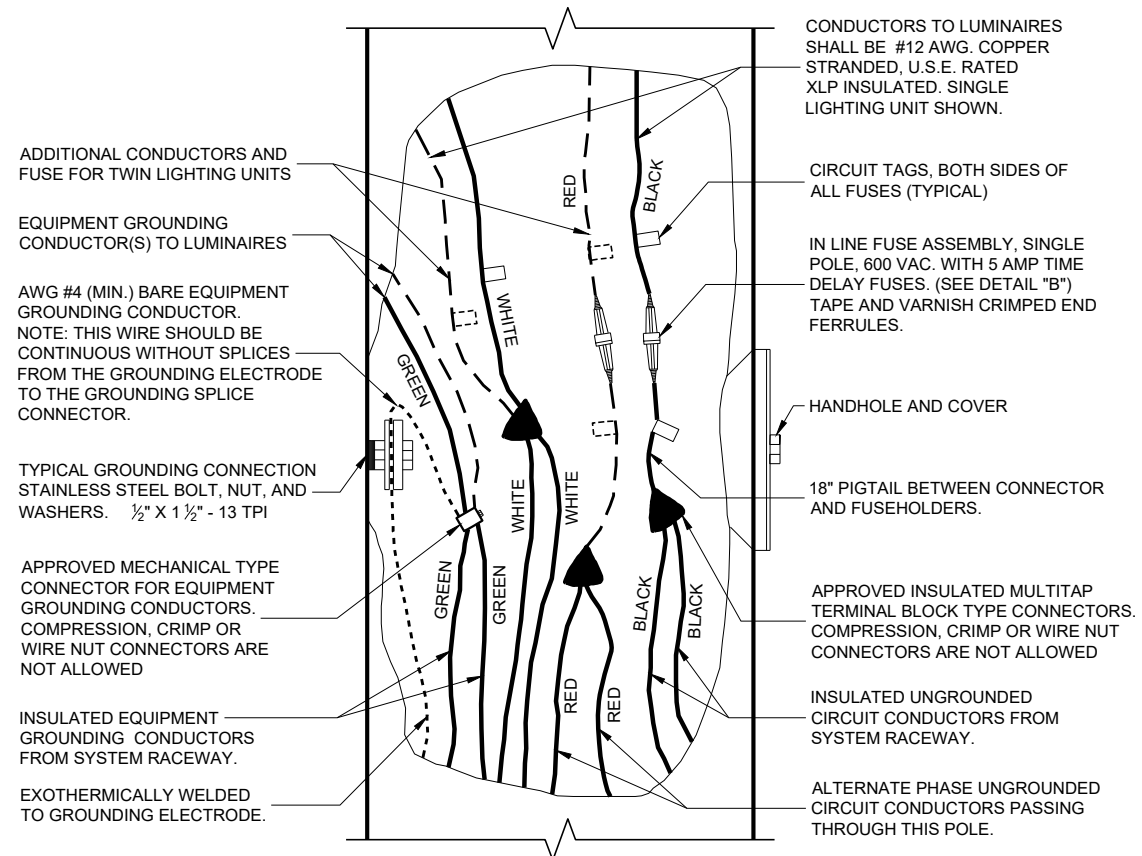
THE EQUIPMENT GROUND CONNECTOR SHALL BE TAPED WITH 3 WRAPS (MINIMUM) OF APPROVED RUBBER TAPE AND 3 WRAPS (MINIMUM) OF APPROVED VINYL TAPE TO COVER SHARP WIRE ENDS AFTER THE CONNECTION IS COMPLETED.

WHEN TRANSFORMER BASES ARE USED, ALL WIRING CONNECTIONS SHALL OCCUR WITHIN THE TRANSFORMER BASES.

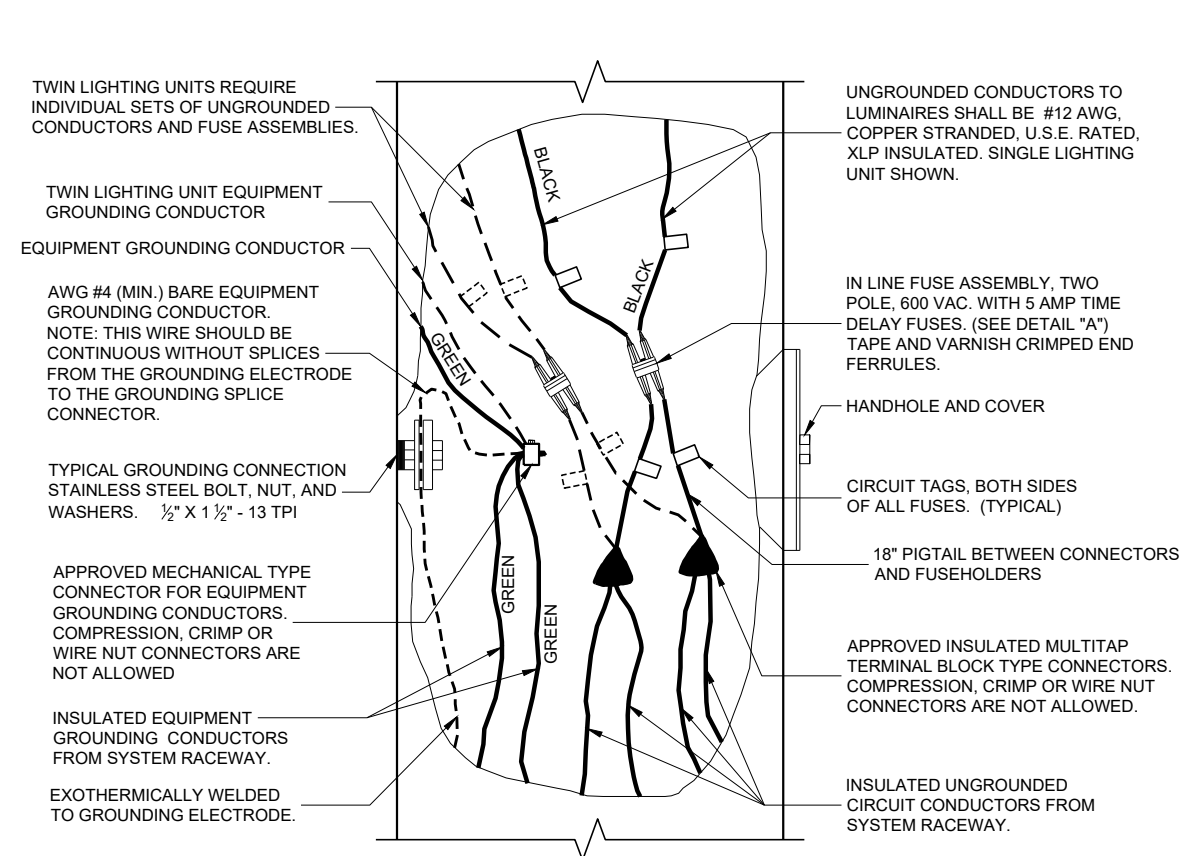


TYPICAL GROUNDING CONNECTIONS
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

LIGHTING UNIT CODE (TYPICAL)



3 WIRE - 120, 240 OR 480 VAC (UNGROUNDING CONDUCTORS) WITH GROUNDING CONDUCTOR AND EQUIPMENT GROUNDING CONDUCTOR



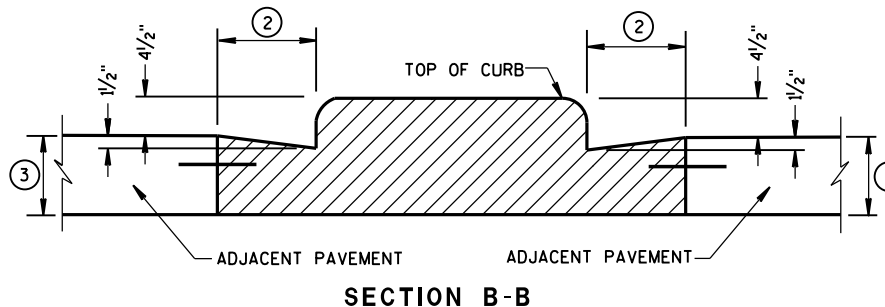
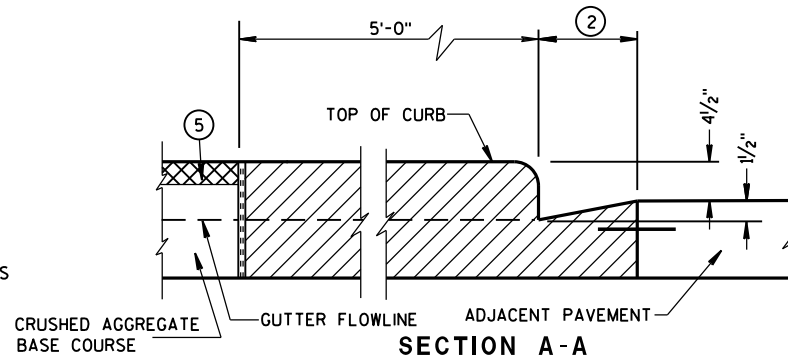
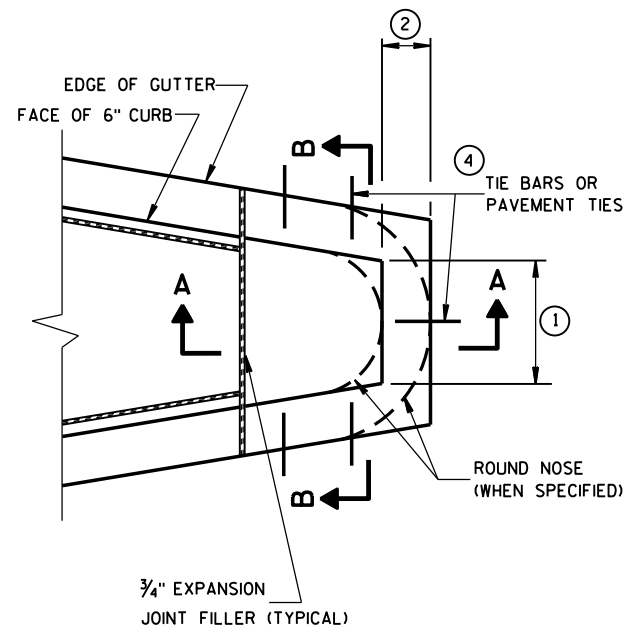
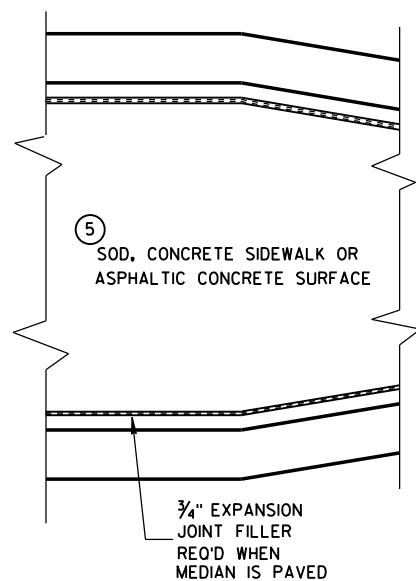
2 WIRE - 240 OR 480 VAC (UNGROUNDING CONDUCTORS) WITH EQUIPMENT GROUNDING CONDUCTOR

NON - FREEWAY LIGHTING UNIT POLE WIRING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018 /S/ Ahmet Demirelek
DATE STATE ELECTRICAL ENGINEER

FHWA

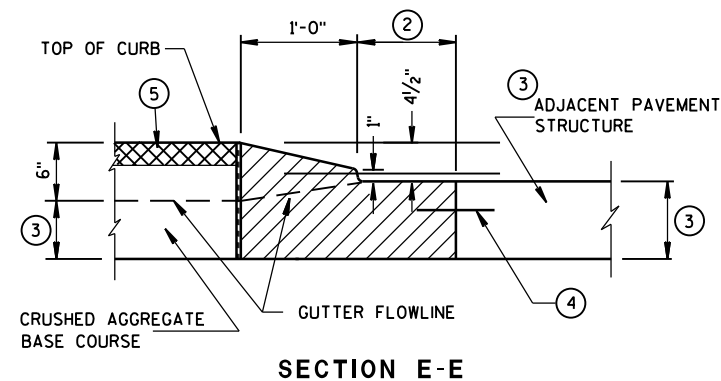
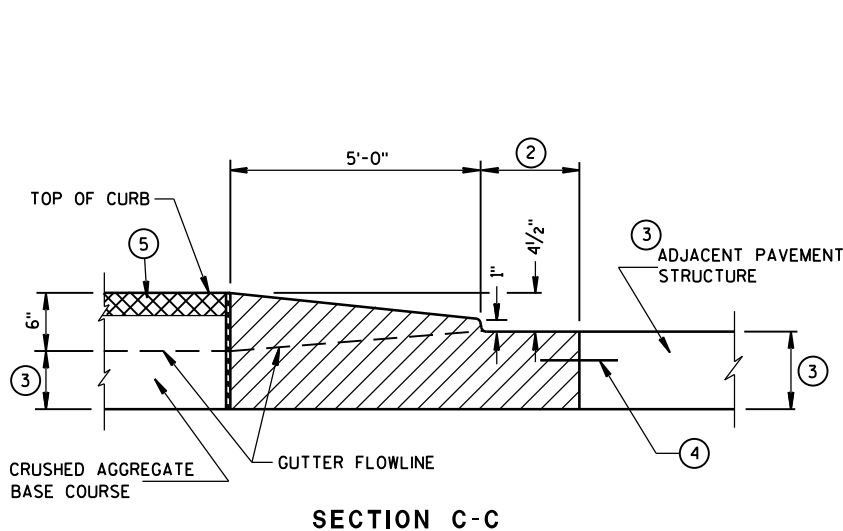
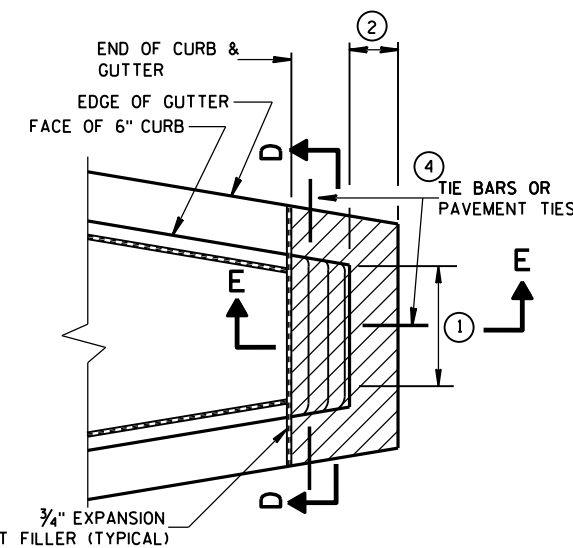


CONCRETE MEDIAN BLUNT NOSE DETAIL

GENERAL NOTES

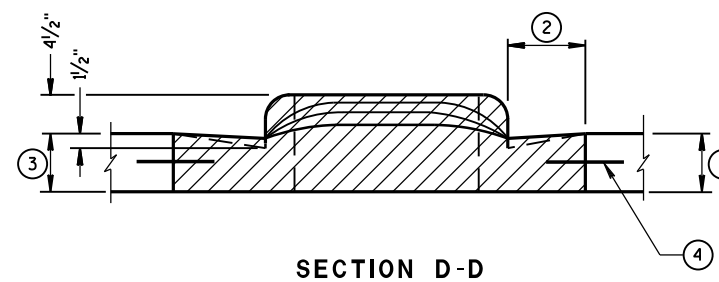
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

- ① SEE PLAN FOR MEDIAN NOSE WIDTH AND RADIUS (FOR ROUND NOSE ALTERNATE).
- ② WIDTH OF GUTTER TO MATCH EXISTING ADJACENT GUTTER OR AS SPECIFIED ELSEWHERE IN THE PLAN.
- ③ DEPTH EQUAL TO ADJACENT PAVEMENT. ADJACENT PAVEMENT STRUCTURE DETAILS ARE SHOWN ON THE PLAN. TYPICAL OPTIONS ARE:
 - (1) NEW OR EXISTING CONCRETE PAVEMENT.
 - (2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.
 - (3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.
- ④ TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C.
- PAVEMENT TIES REQUIRED IN EXISTING CONCRETE BASE COURSE. PAVEMENT TIES SHALL BE NO. 6 X 1'-0" SPACED AT 3'-0" C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1. THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.
- ⑤ SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.



CONCRETE MEDIAN SLOPED NOSE TYPE 2

CONCRETE MEDIAN SLOPED NOSE TYPE 1



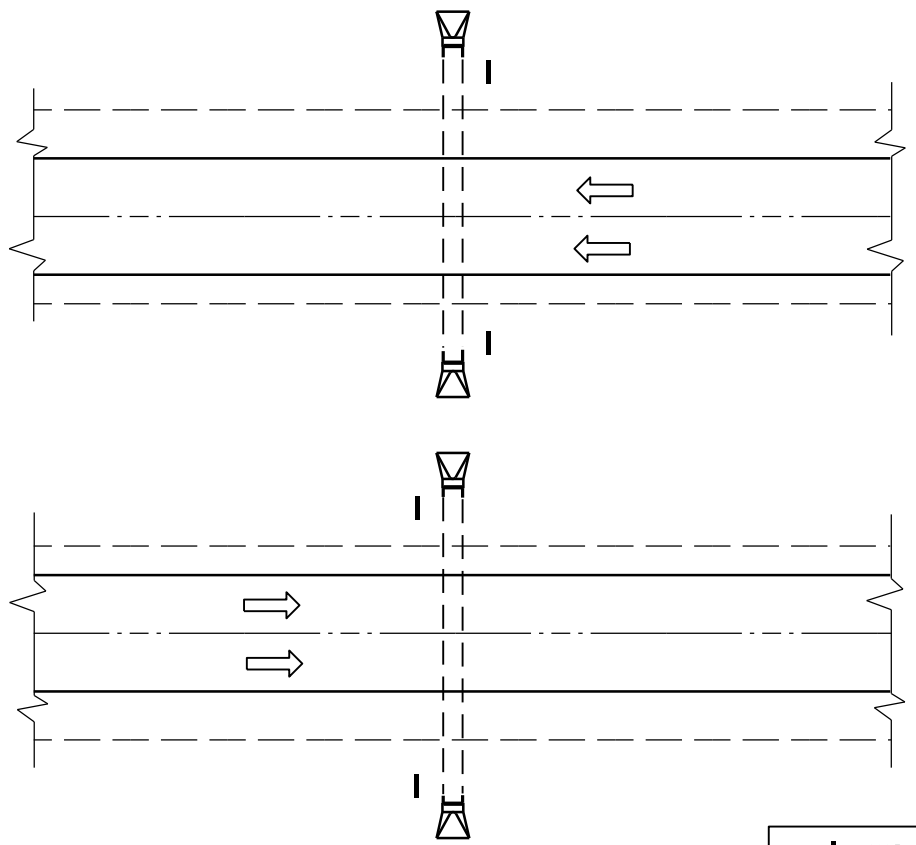
CONCRETE MEDIAN NOSE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 6/8/2006 DATE	/s/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	

6

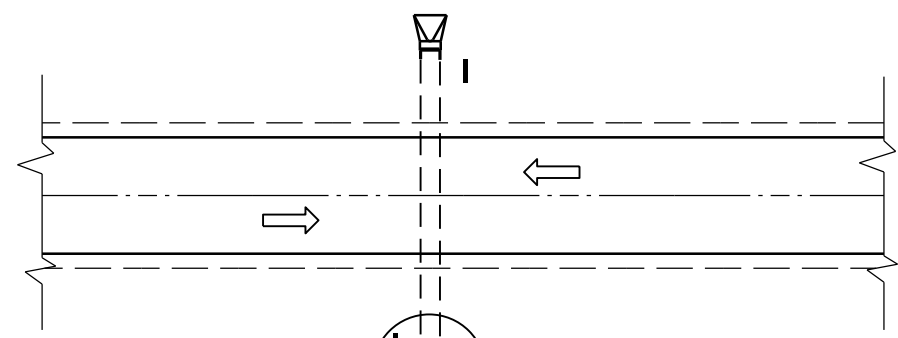
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S.D.D. 11 B 2-2

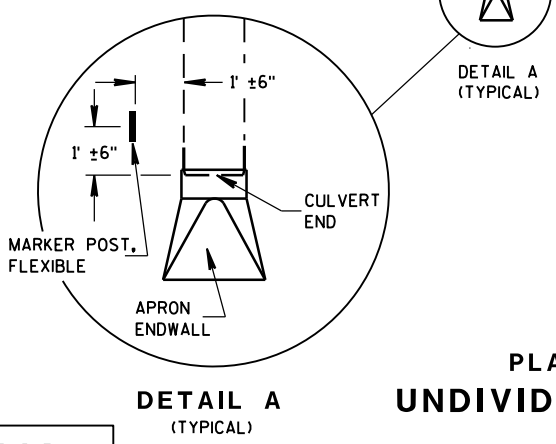
S.D.D. 11 B 2-2



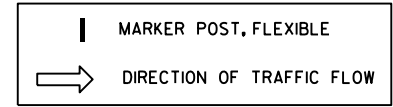
PLAN VIEW
DIVIDED HIGHWAY



PLAN VIEW
UNDIVIDED HIGHWAY

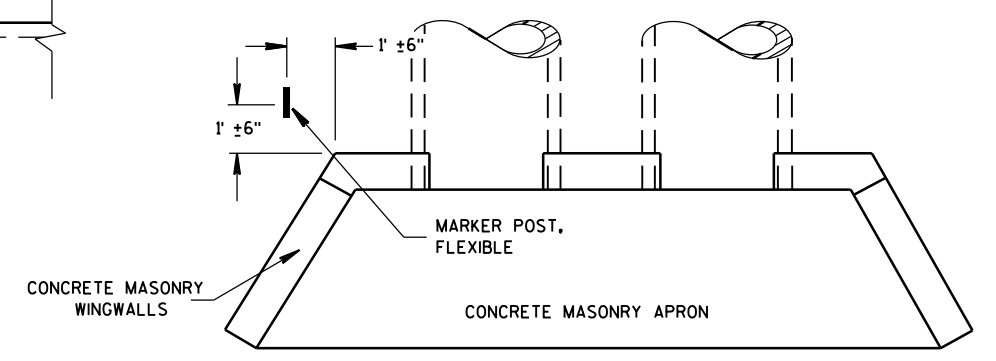


DETAIL A
(TYPICAL)



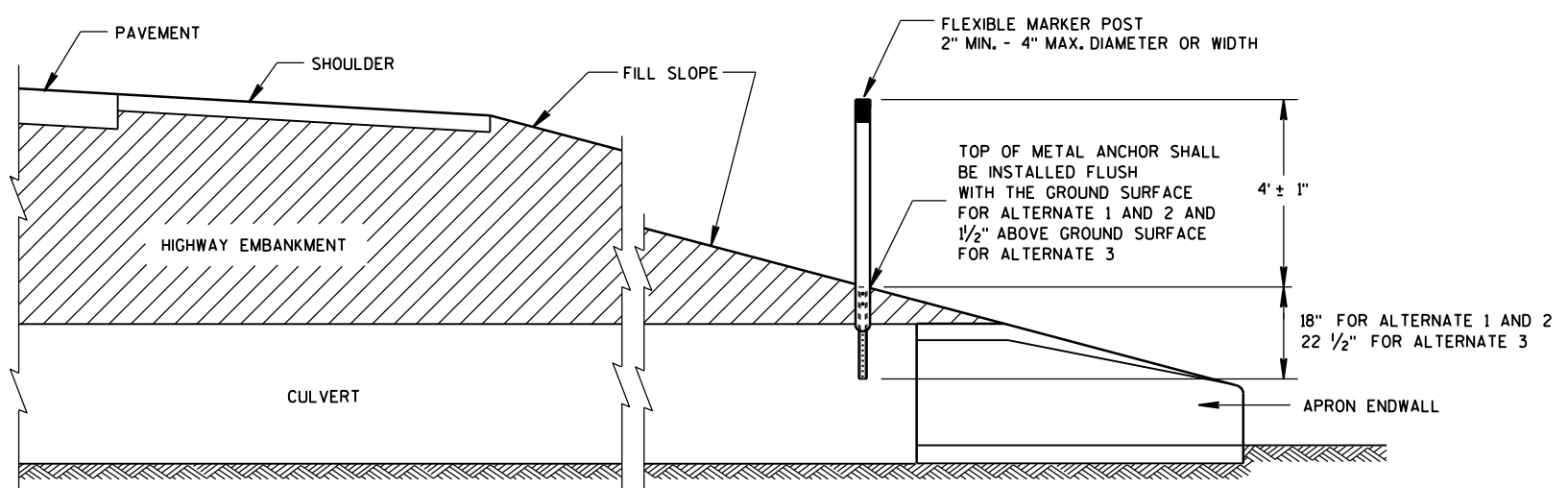
GENERAL NOTES

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



PLAN VIEW
CONCRETE MASONRY ENDWALLS FOR
CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



CROSS SECTION
FLEXIBLE MARKER POST

**FLEXIBLE MARKER POST
FOR CULVERT END**

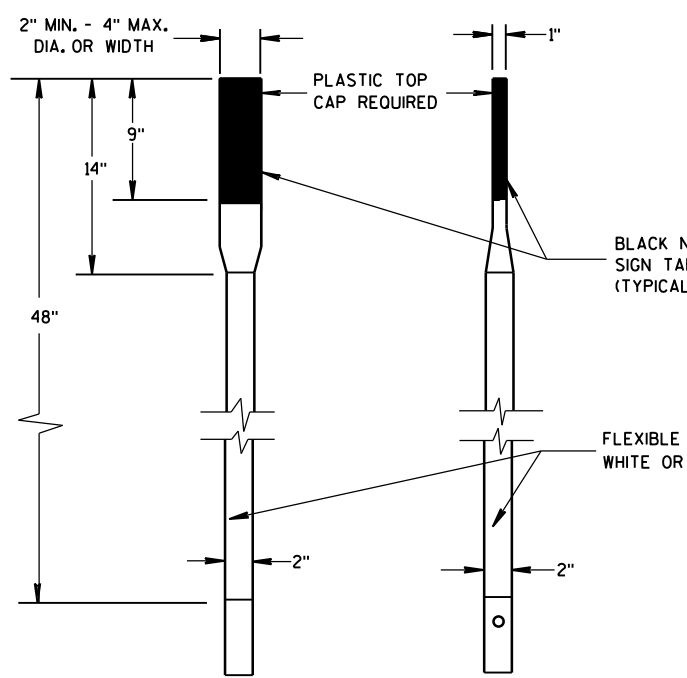
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

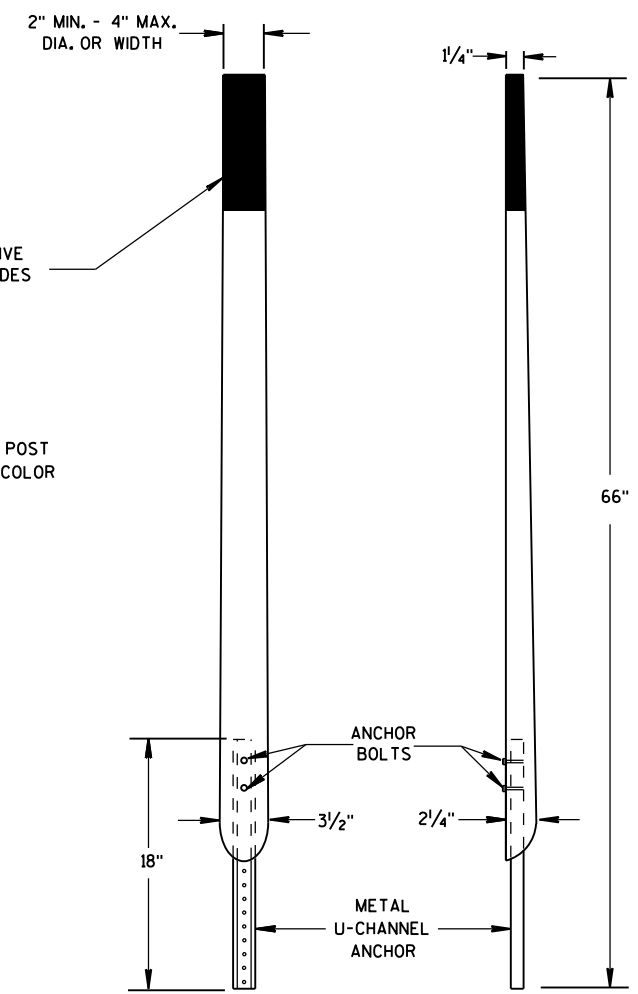
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S.D.D. 15 A 3-2a

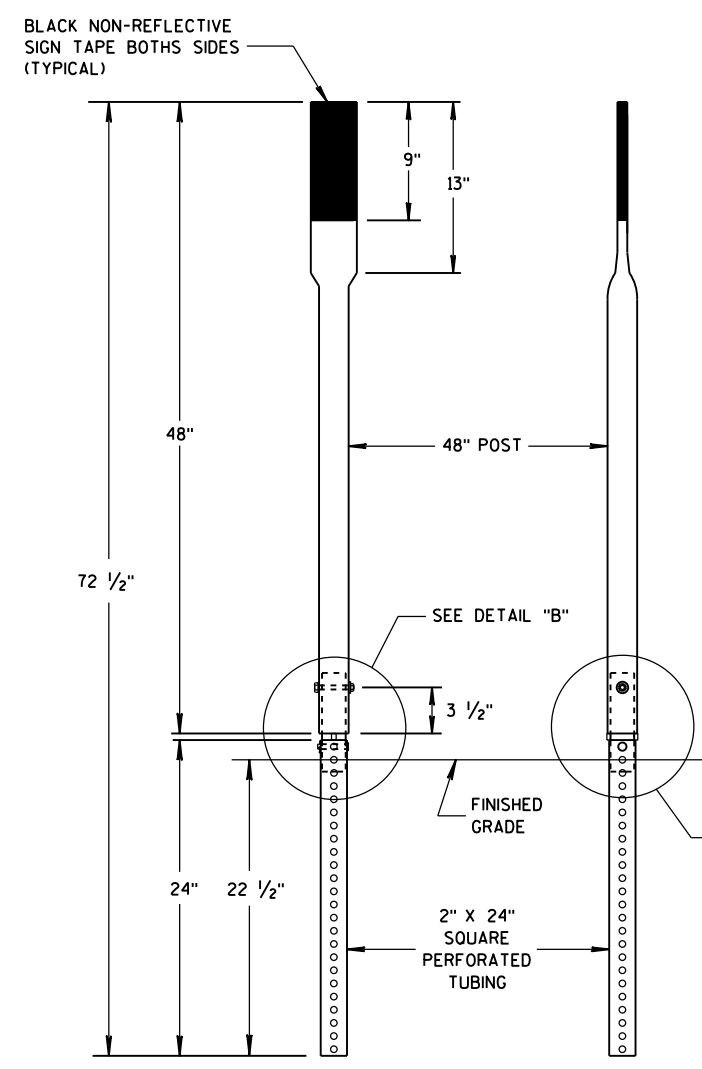
S.D.D. 15 A 3-2a



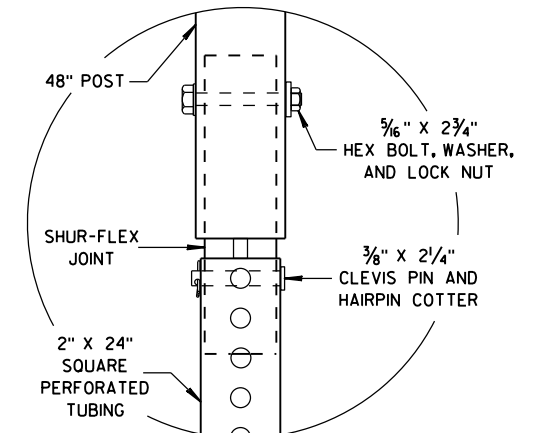
FRONT VIEW SIDE VIEW
ALTERNATE 1



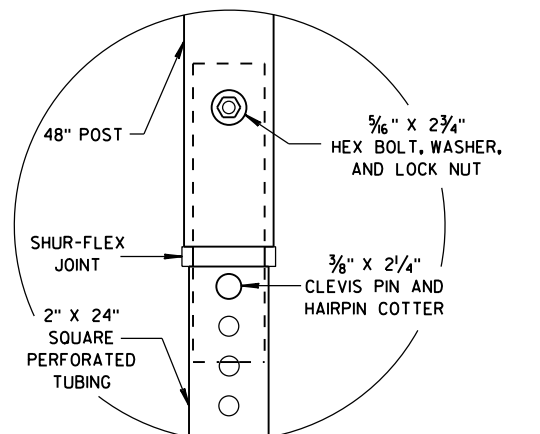
FRONT VIEW SIDE VIEW
ALTERNATE 2



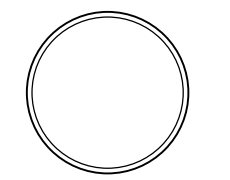
FRONT VIEW SIDE VIEW
ALTERNATE 3



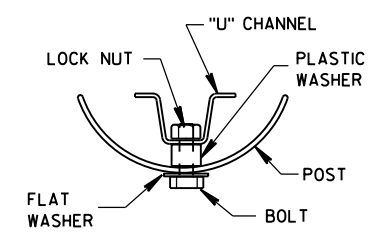
DETAIL B



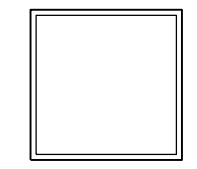
DETAIL C



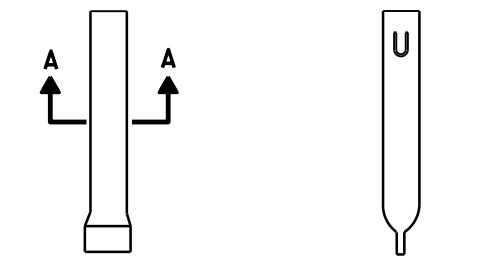
SECTION A-A



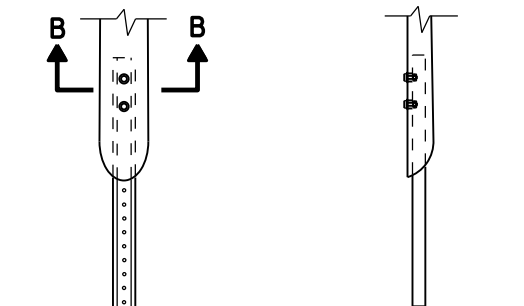
SECTION B-B



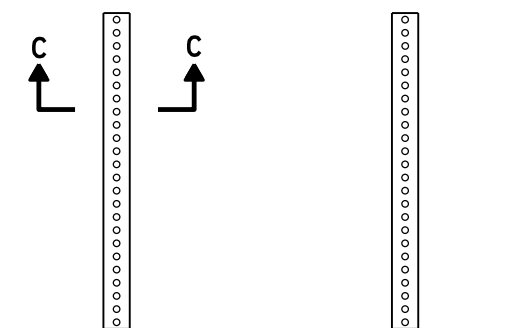
SECTION C-C



FRONT VIEW SIDE VIEW
ALTERNATE 1



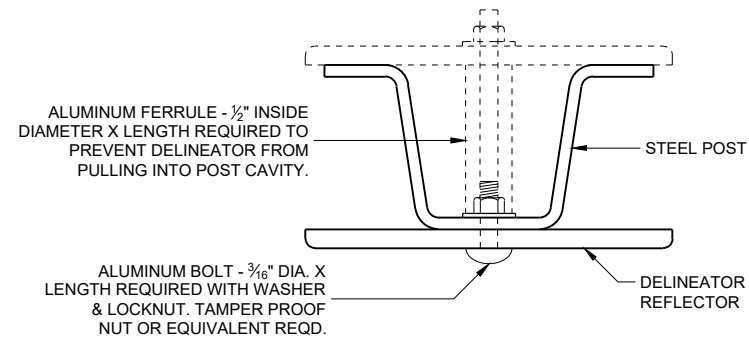
FRONT VIEW SIDE VIEW
ALTERNATE 2



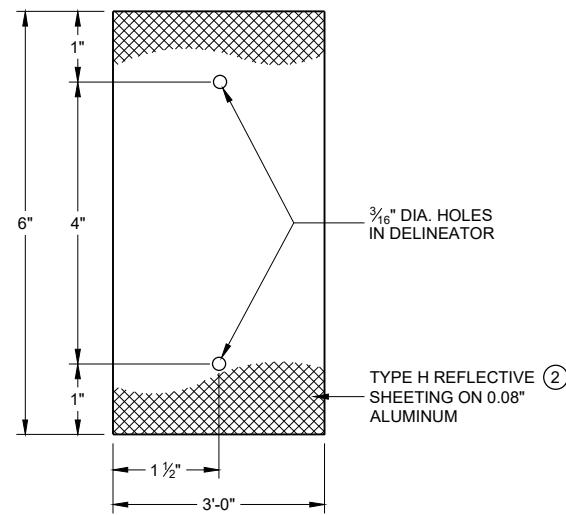
FRONT VIEW SIDE VIEW
ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS

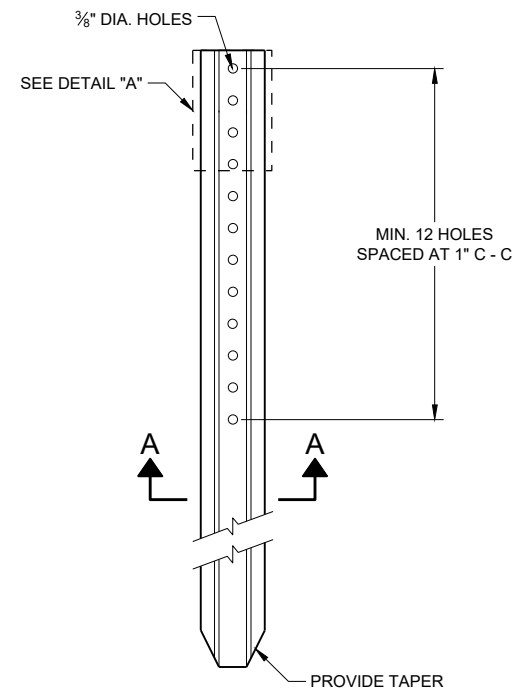
FLEXIBLE MARKER POST FOR CULVERT END	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 10/1/2012 DATE	/S/ Travis Feltes STATE TRAFFIC ENGINEER OF DESIGN
FHWA	



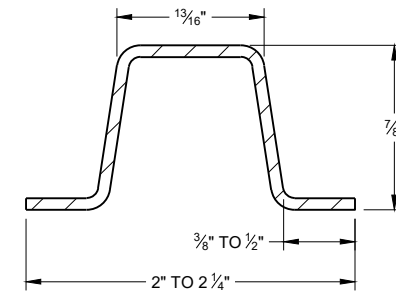
MOUNTING DETAIL FOR DELINEATOR REFLECTOR



DETAIL "A" 3" X 6" DELINEATOR REFLECTOR



DELINEATOR POST



SECTION A - A
WEIGHT 1.12 LBS PER FT. \ 0.1 LB.

REFLECTOR SPACING TABLE

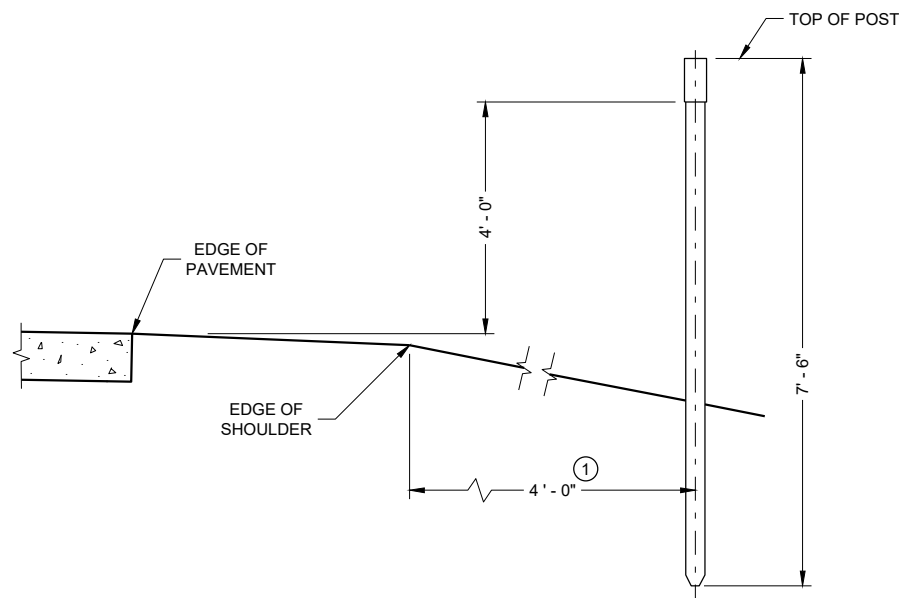
REFLECTOR SPACING	LOCATION
* 100' C-C	RAMPS
400' C-C	MAINLINE

* START AT BEGINNING OF RAMP TAPER AND END AT END OF RAMP TAPER

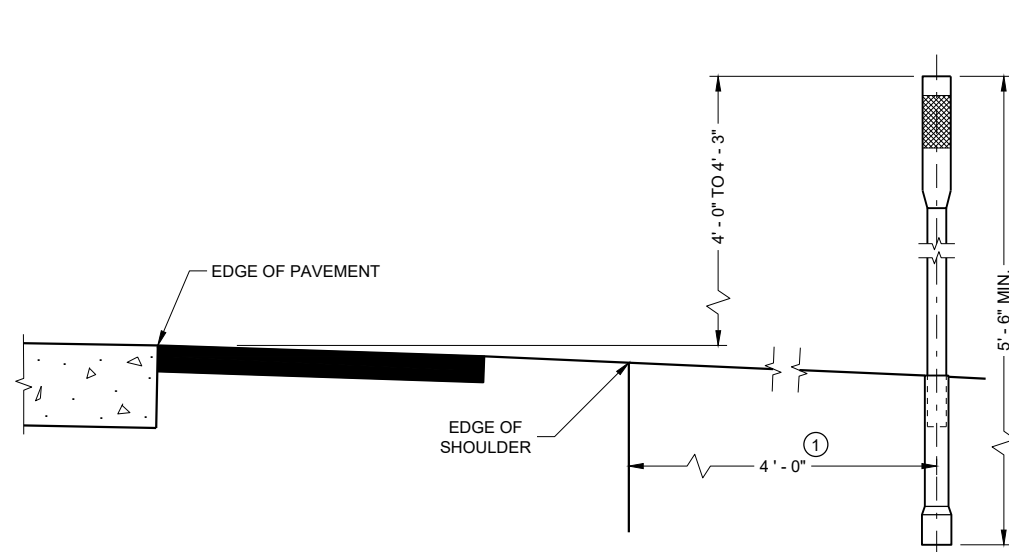
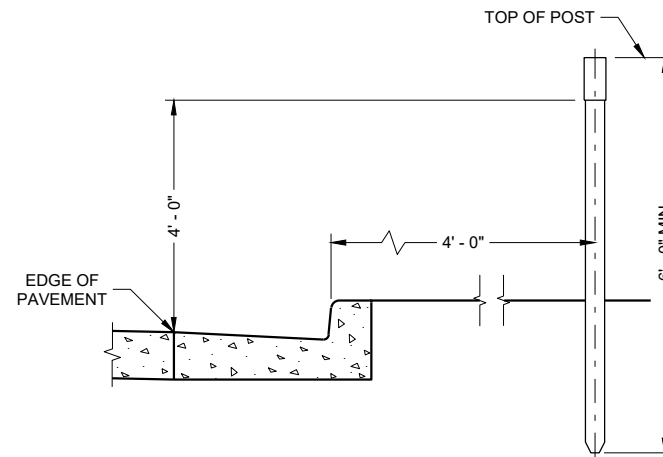
GENERAL NOTES

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

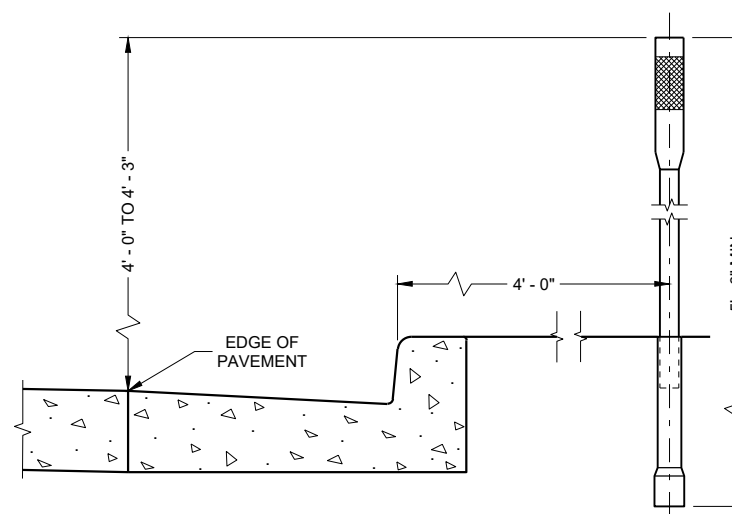
- ① DELINEATORS SHALL BE PLACED AT A CONSTANT DISTANCE FROM THE EDGE OF THE SHOULDER FOR THE LENGTH OF THE INSTALLATION.
- ② FURNISH TYPE H SHEETING FROM THE APPROVED PRODUCTS LIST.



TYPICAL INSTALLATIONS OF DELINEATOR POSTS



TYPICAL INSTALLATIONS OF FLEXIBLE DELINEATOR POSTS



DELINEATOR POST WITH REFLECTIVE SHEETING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2019 /S/ Matthew Rauch
DATE STATE SIGNING AND MARKING ENGINEER

FHWA

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" X 48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"X36" SIGNS MAY BE USED INSTEAD OF 48" X 48" SIGNS.

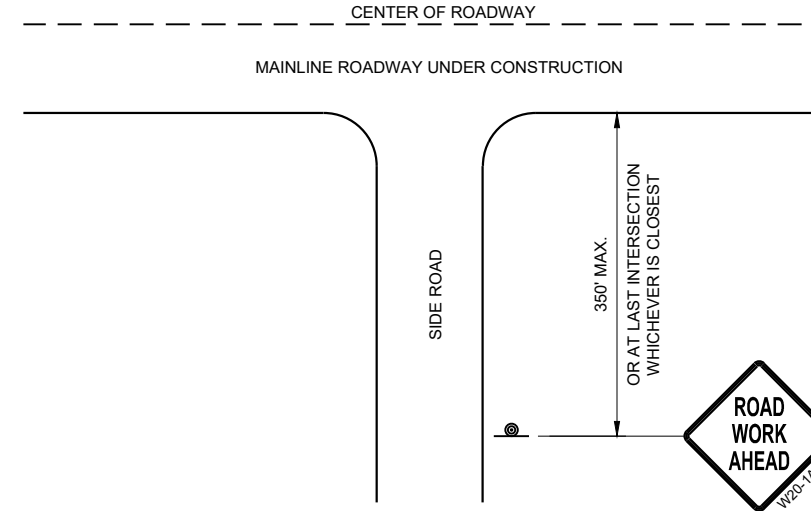
SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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 REESTABLISHED.

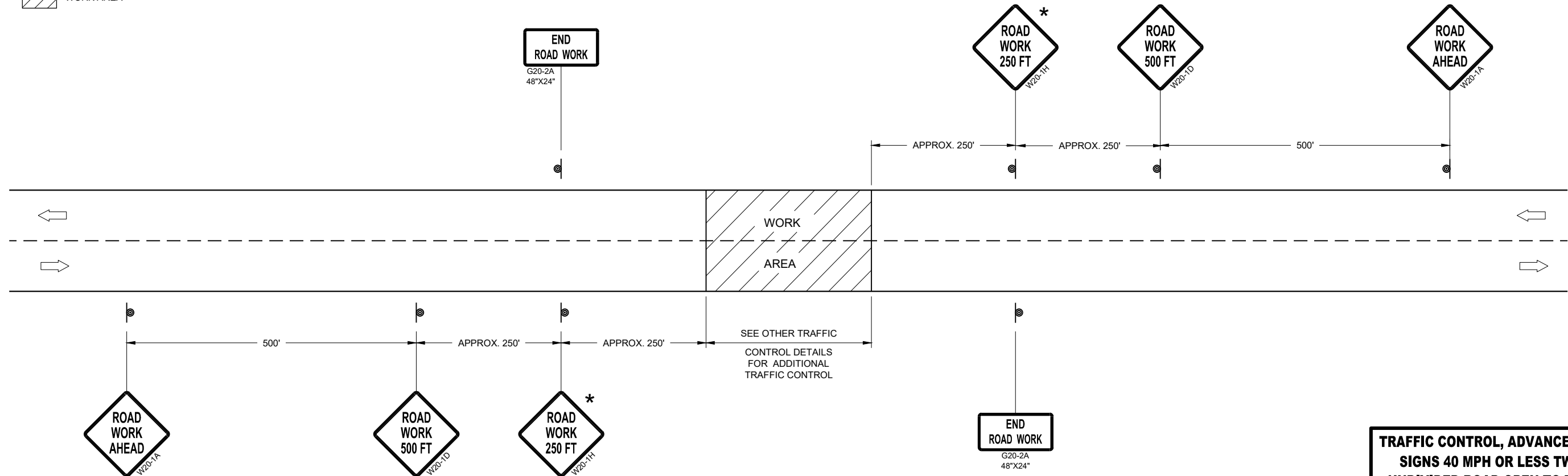
* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FEET" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.

LEGEND

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



**TYPICAL SIDE ROAD APPROACH
WARNING SIGN DETAIL**



TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40MPH OR LESS

**TRAFFIC CONTROL, ADVANCE WARNING
SIGNS 40 MPH OR LESS TWO-WAY
UNDIVIDED ROAD OPEN TO TRAFFICE**

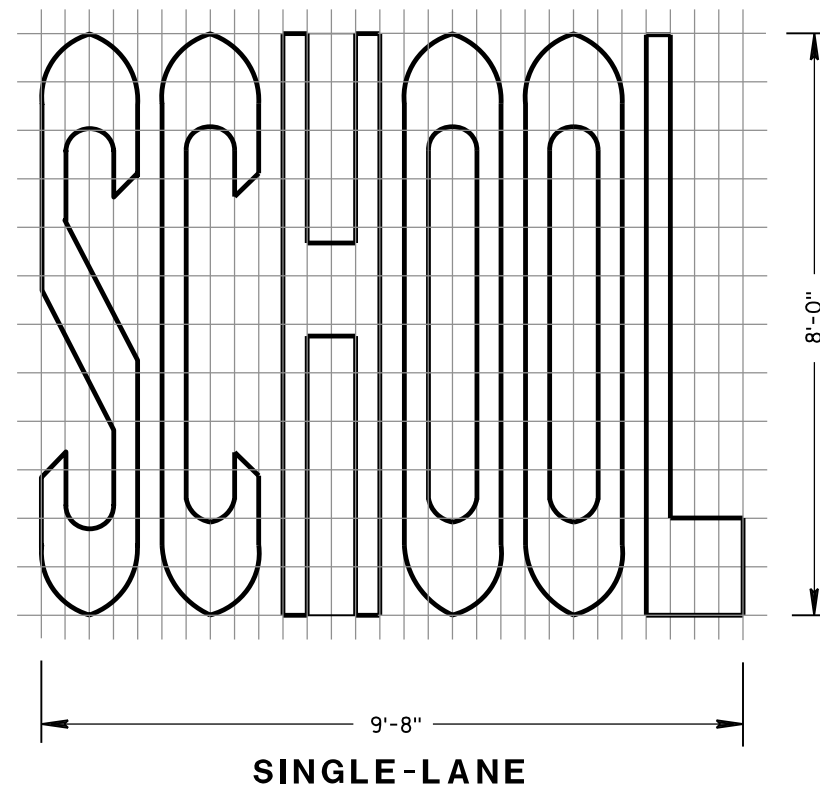
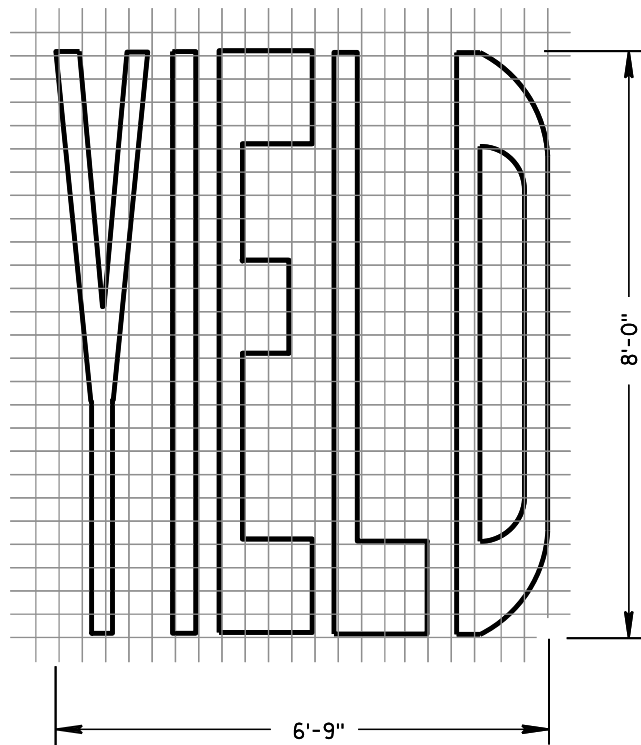
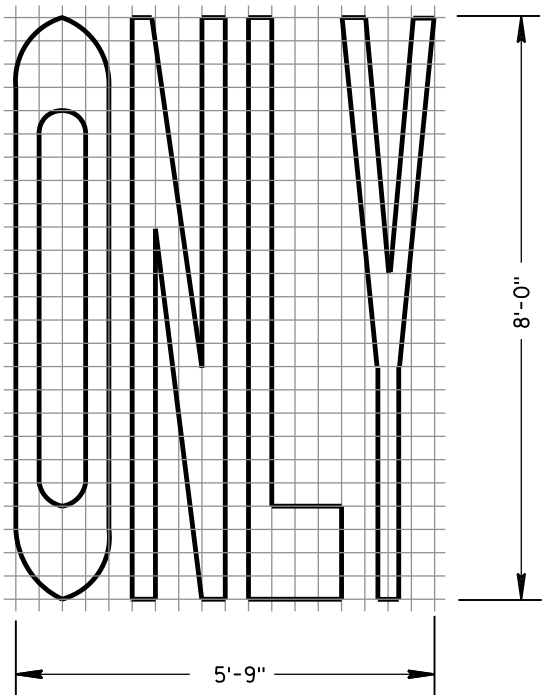
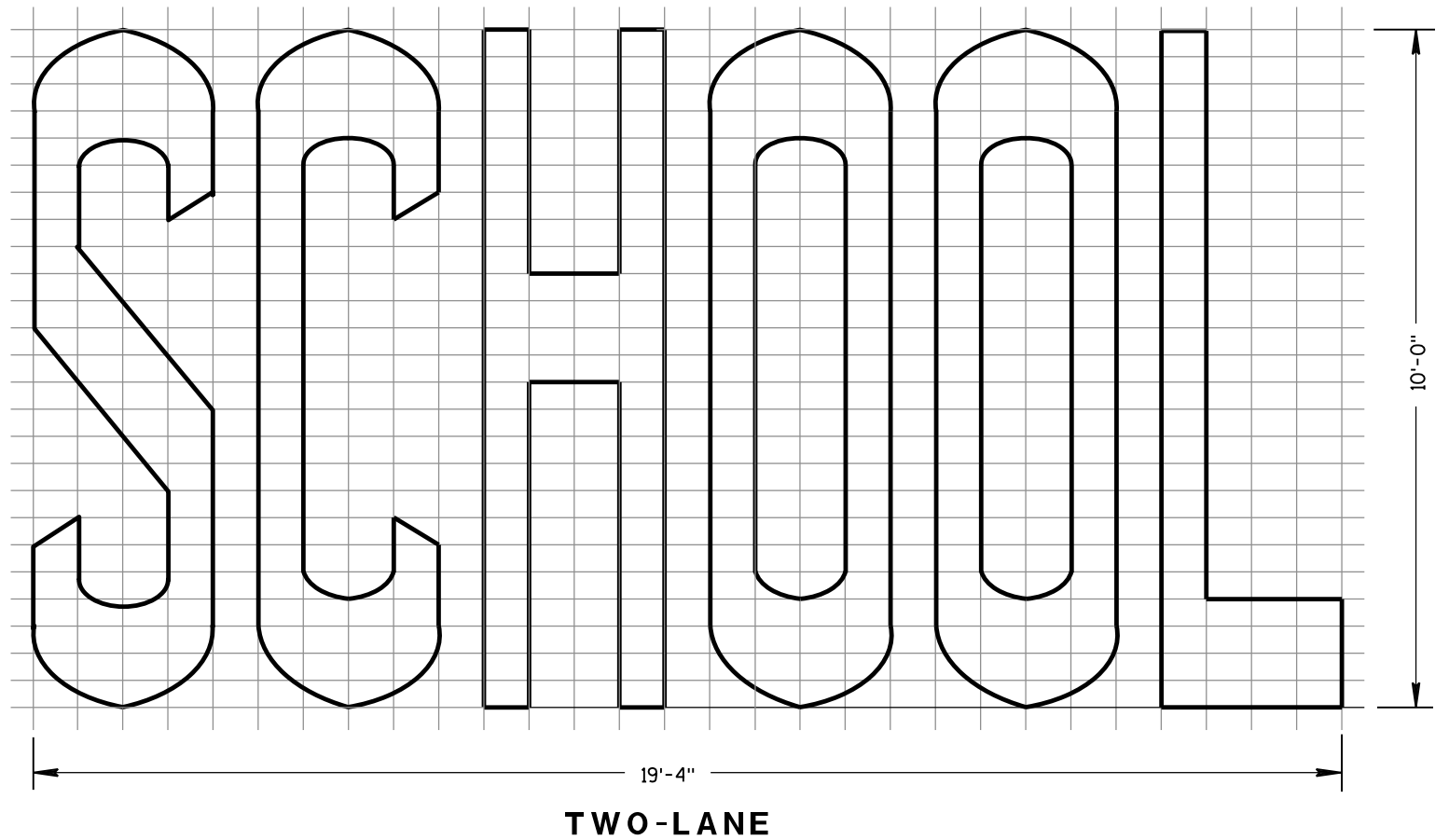
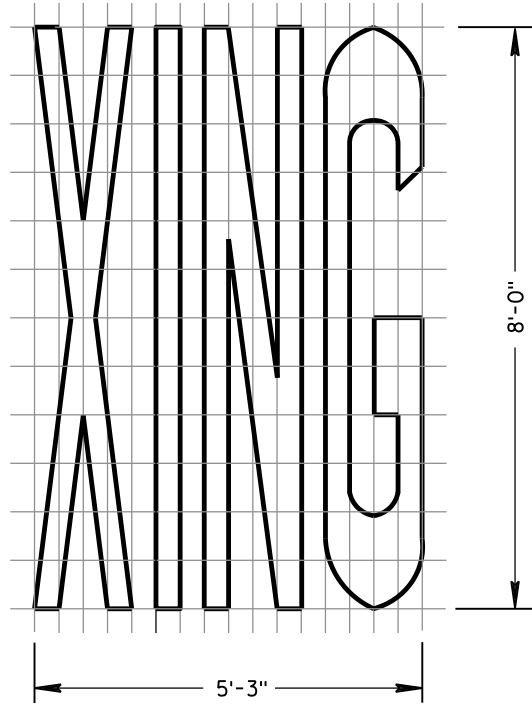
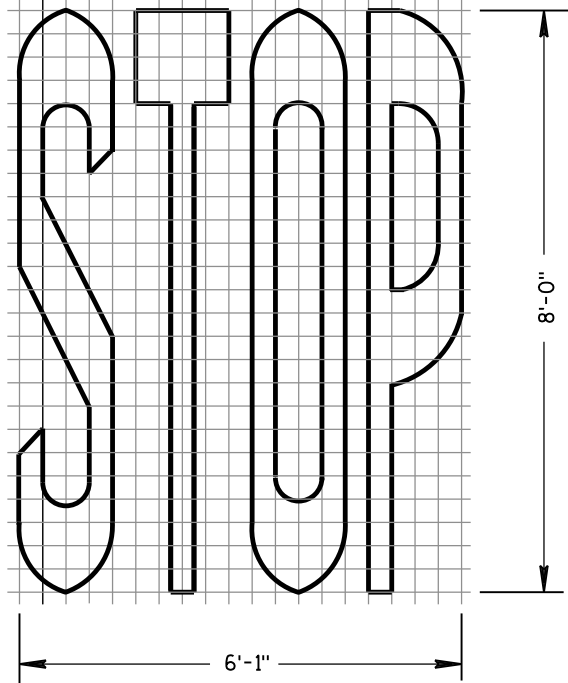
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
DATE July 2018 /S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

GENERAL NOTES

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



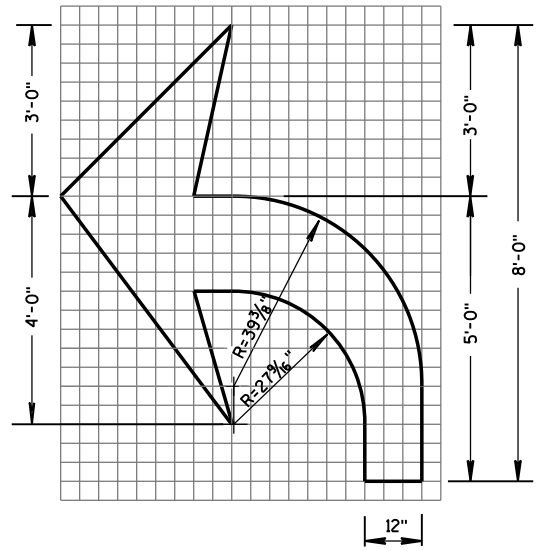
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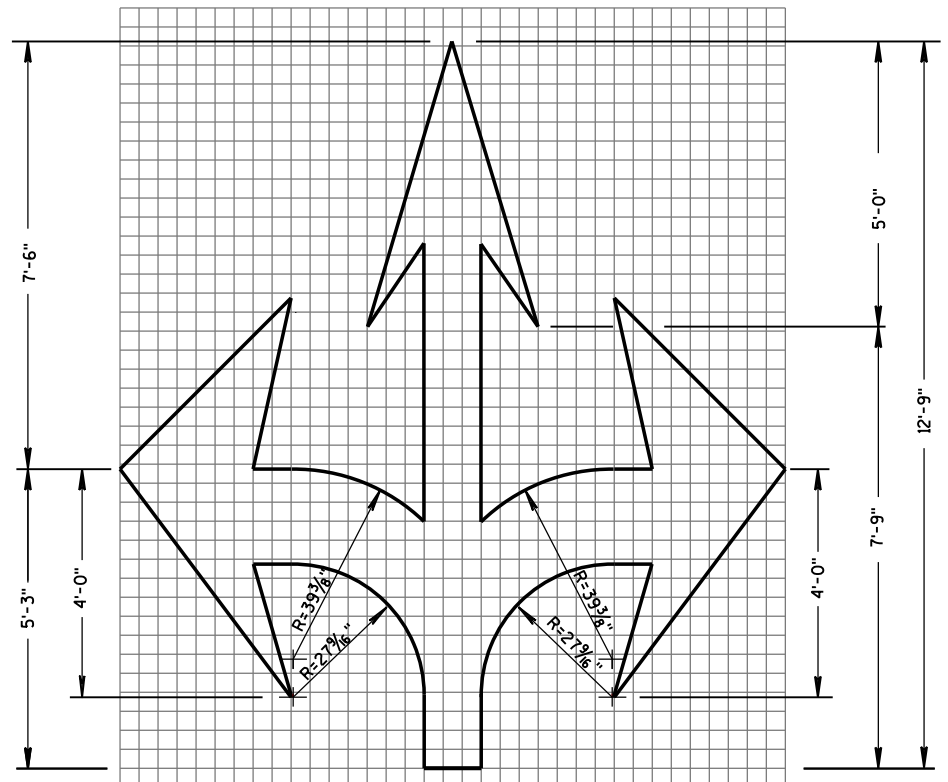
S.D.D. 15 C 7-14b

S.D.D. 15 C 7-14b

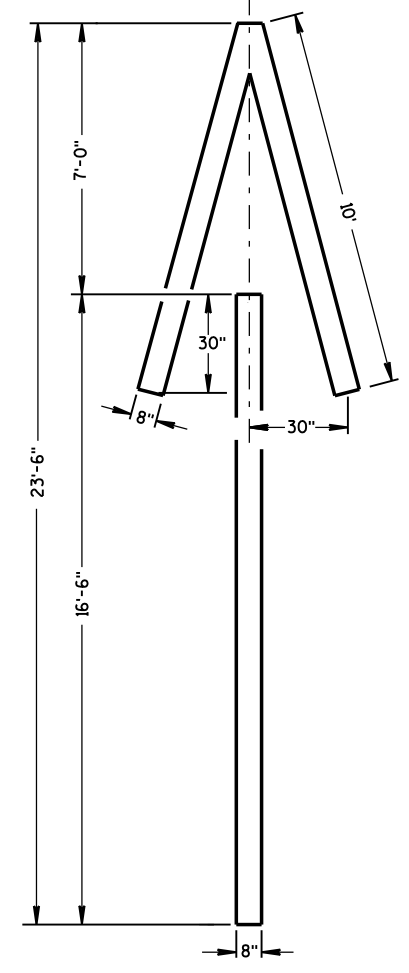
PAVEMENT MARKING WORDS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2017 DATE	/S/ Matthew R. Rauch STATE SIGNING AND MARKING ENGINEER
FHWA	



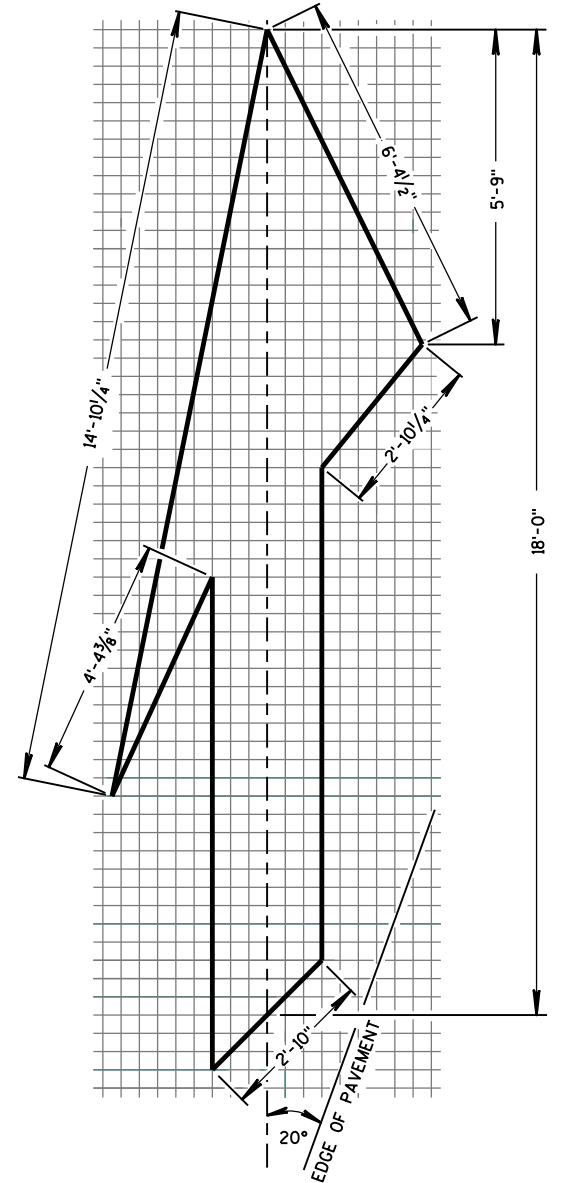
TYPE 2



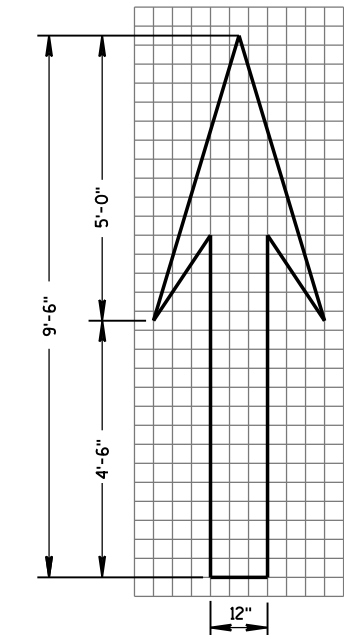
TYPE 6



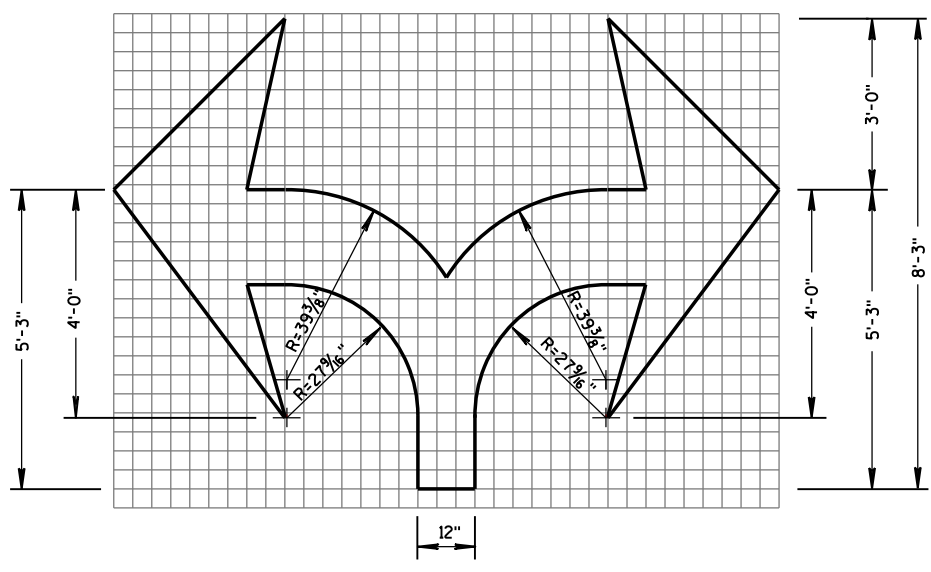
TYPE 4



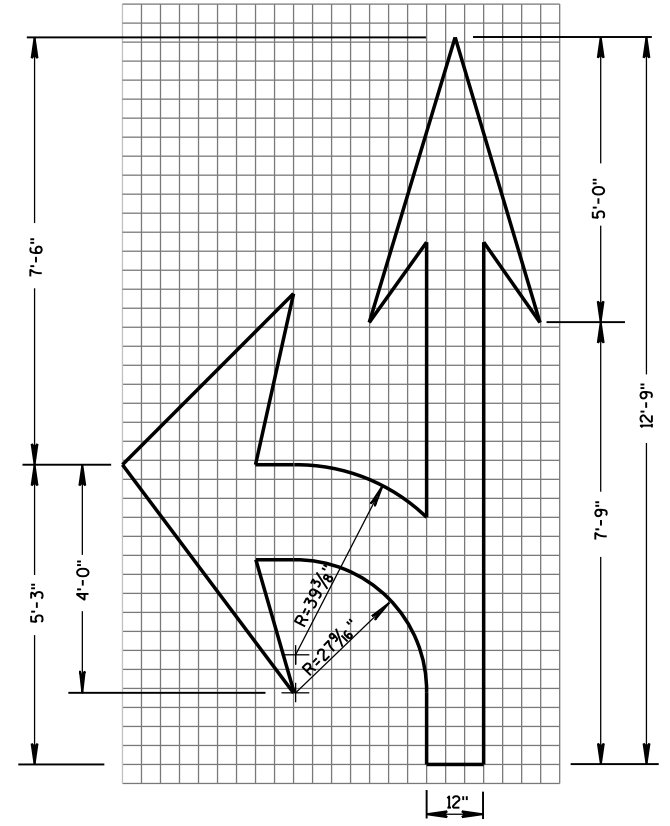
TYPE 5 LANE DROP ARROW



TYPE 1



TYPE 7

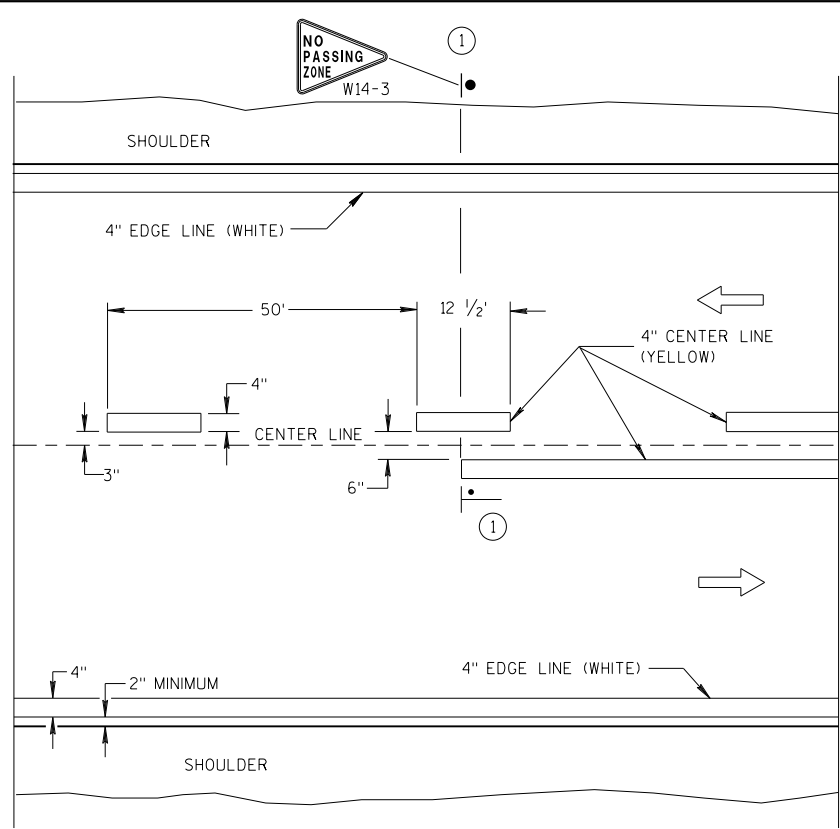


TYPE 3

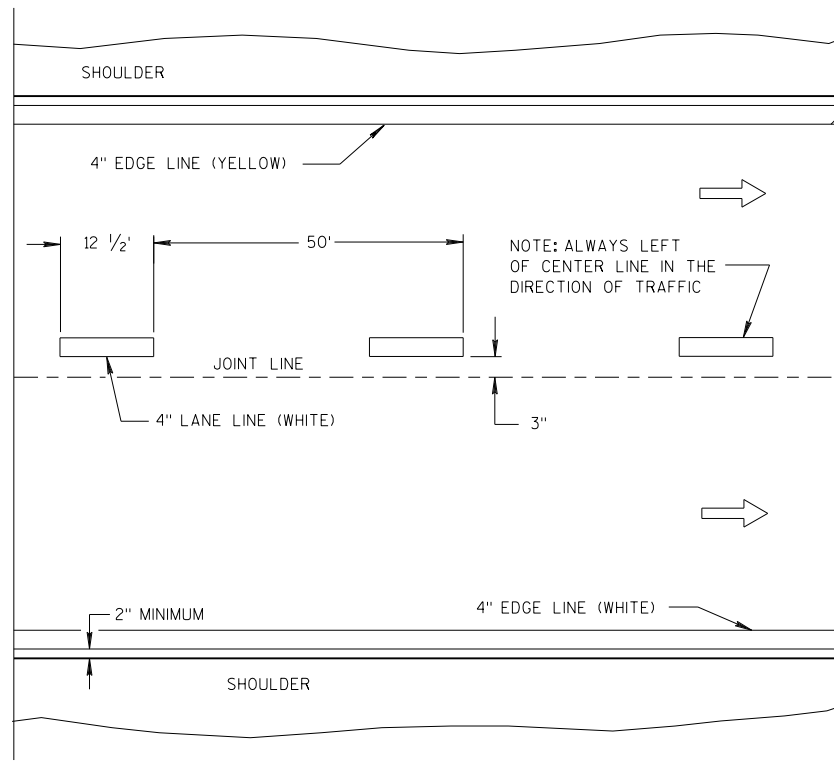
GENERAL NOTES

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

PAVEMENT MARKING ARROWS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2017 DATE	/s/ Matthew R. Rauch STATE SIGNING AND MARKING ENGINEER
FHWA	

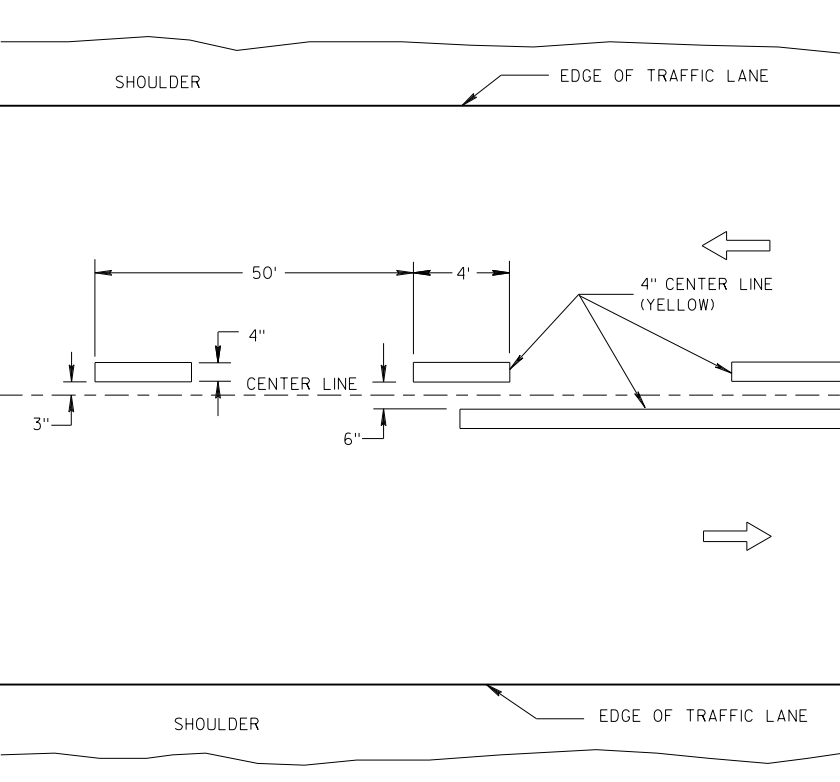


TWO WAY TRAFFIC

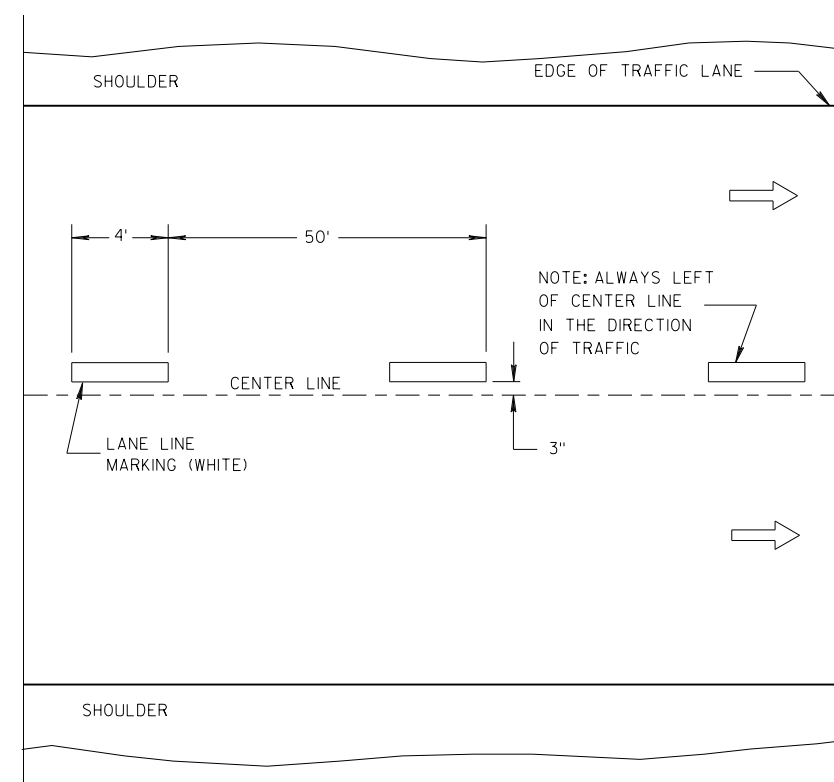


ONE WAY TRAFFIC

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 LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING.

NOTE

ARROW SYMBOL (→) SHOWS DIRECTION OF TRAVEL

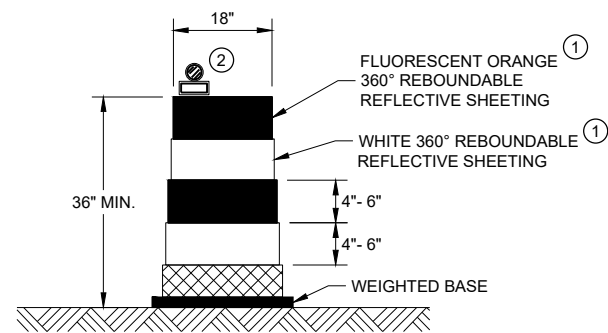
LEGEND

- "T" MARKING
- POST MOUNTED SIGN

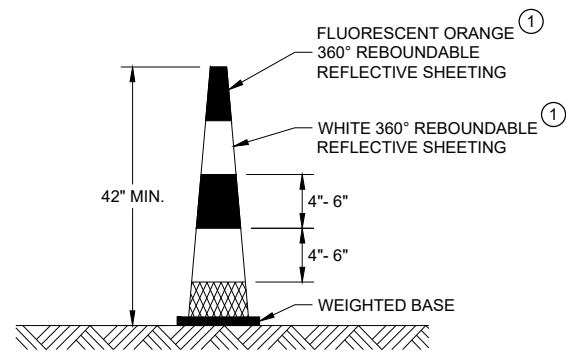
LONGITUDINAL MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
DATE 7/2018 /S/ Matthew R. Rauch
STATE SIGNING AND MARKING ENGINEER
FHWA

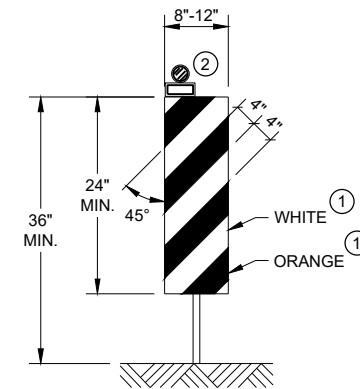


DRUM



42" CONE

DO NOT USE IN TAPERS
 1/2 SPACING OF DRUMS

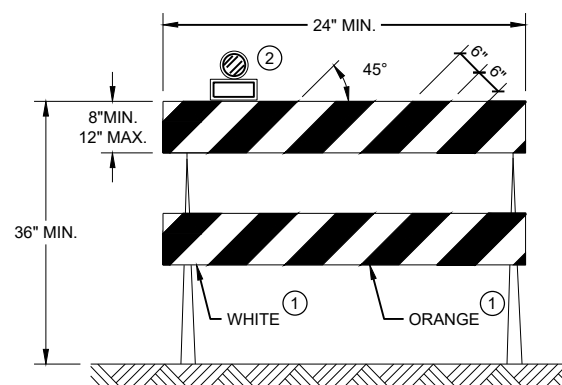


VERTICAL PANEL

THE STRIPES SHALL SLOPE DOWNWARD TO THE TRAFFIC SIDE FOR CHANNELIZATION.

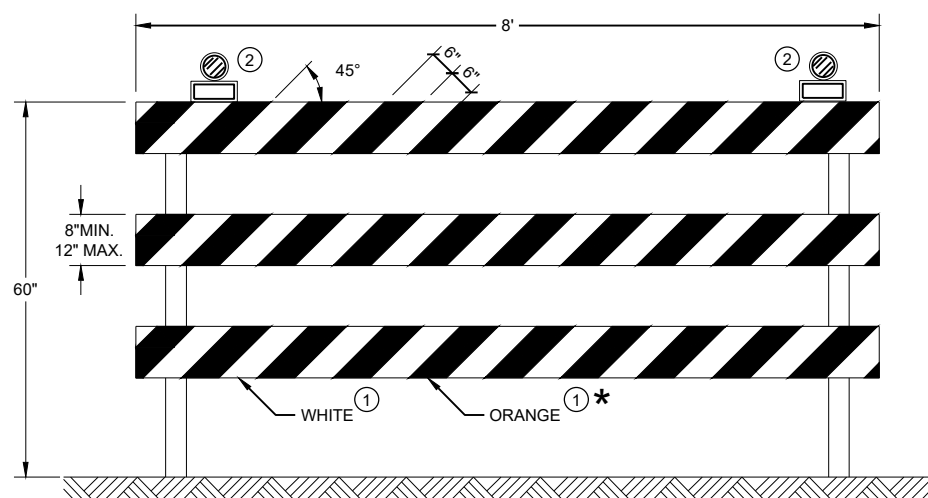
GENERAL NOTES

- ① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
- ② LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.



TYPE II BARRICADE

FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES MAY BE USED. ALL STRIPES SHALL SLOPE DOWNWARD TO THE TRAFFIC SIDE FOR CHANNELIZATION.








TYPE III BARRICADE

IF SIGN MOUNTED, DO NOT COVER MORE THAN 50% OF THE TOP TWO RAILS OR 33% OF THE TOTAL AREA OF THE THREE RAILS.

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2017 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
<small>FHWA</small>	

LEGEND

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

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.

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

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

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

THE FIRST ADVANCE WARNING SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR QUEUE.

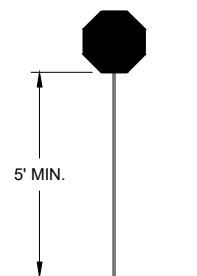
WHEN A SIDE ROAD OR RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

FLAGGING

- 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 PORTABLE RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.
- ① FOR MOVING WORK OPERATIONS, POST ADDITIONAL W20-7A FLAGGER SIGNS AT APPROXIMATELY 3,500' INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.
 - ② SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.
- WHEN THE DISTANCE BETWEEN FLAGGERS EXCEEDS 2 MILES, A PILOT CAR IS REQUIRED. WHEN CURVES REDUCE SIGHT DISTANCE BELOW 400', A PILOT CAR IS REQUIRED.

TEMPORARY PORTABLE RUMBLE STRIPS

- UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.
- ③ EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS SPACED ACCORDING TO MANUFACTURER'S RECOMMENDATION, PLACED TRANSVERSE ACROSS THE LANE AT LOCATIONS SHOWN.
- ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FOR THE APPROVED PRODUCTS LIST.
- INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.
- PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.
- DO NOT INSTALL TEMPORARY PORTABLE RUMBLE STRIPS ON GRAVEL, MILLED SURFACES, OR ASPHALT THAT HAS BEEN PAVED LESS THAN 12 HOURS.



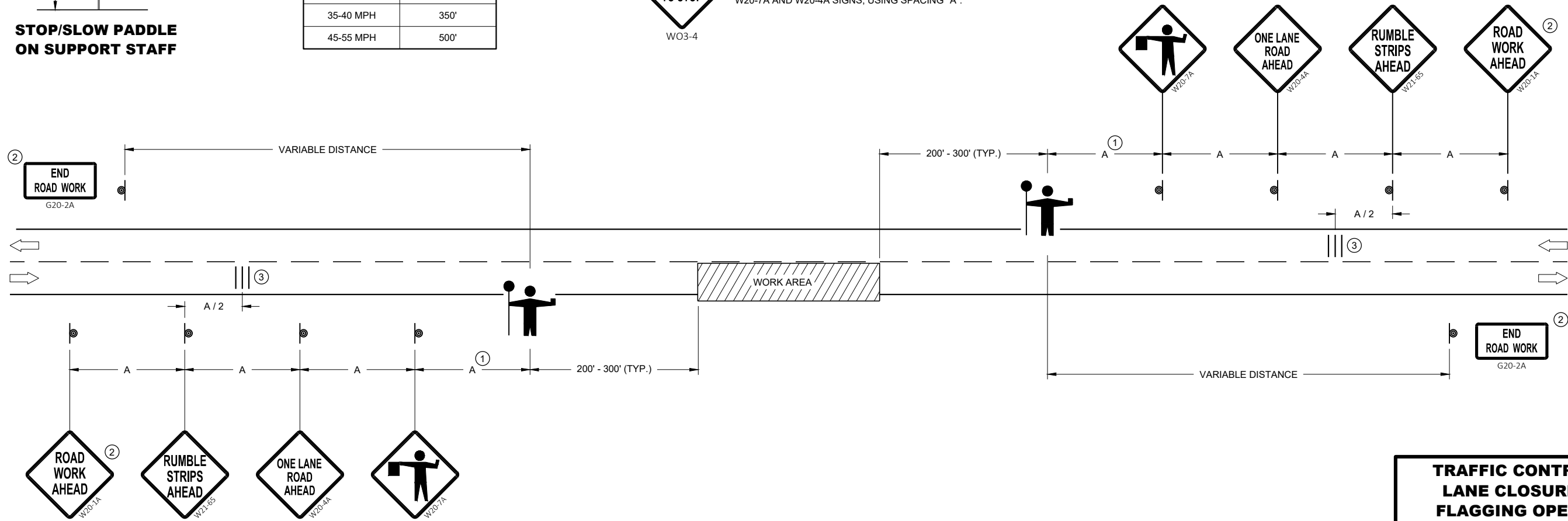
STOP/SLOW PADDLE ON SUPPORT STAFF

SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

SPEED LIMIT	SPACING "A"
25-30 MPH	200'
35-40 MPH	350'
45-55 MPH	500'



USE OF W03-4 SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7A AND W20-4A SIGNS, USING SPACING "A".



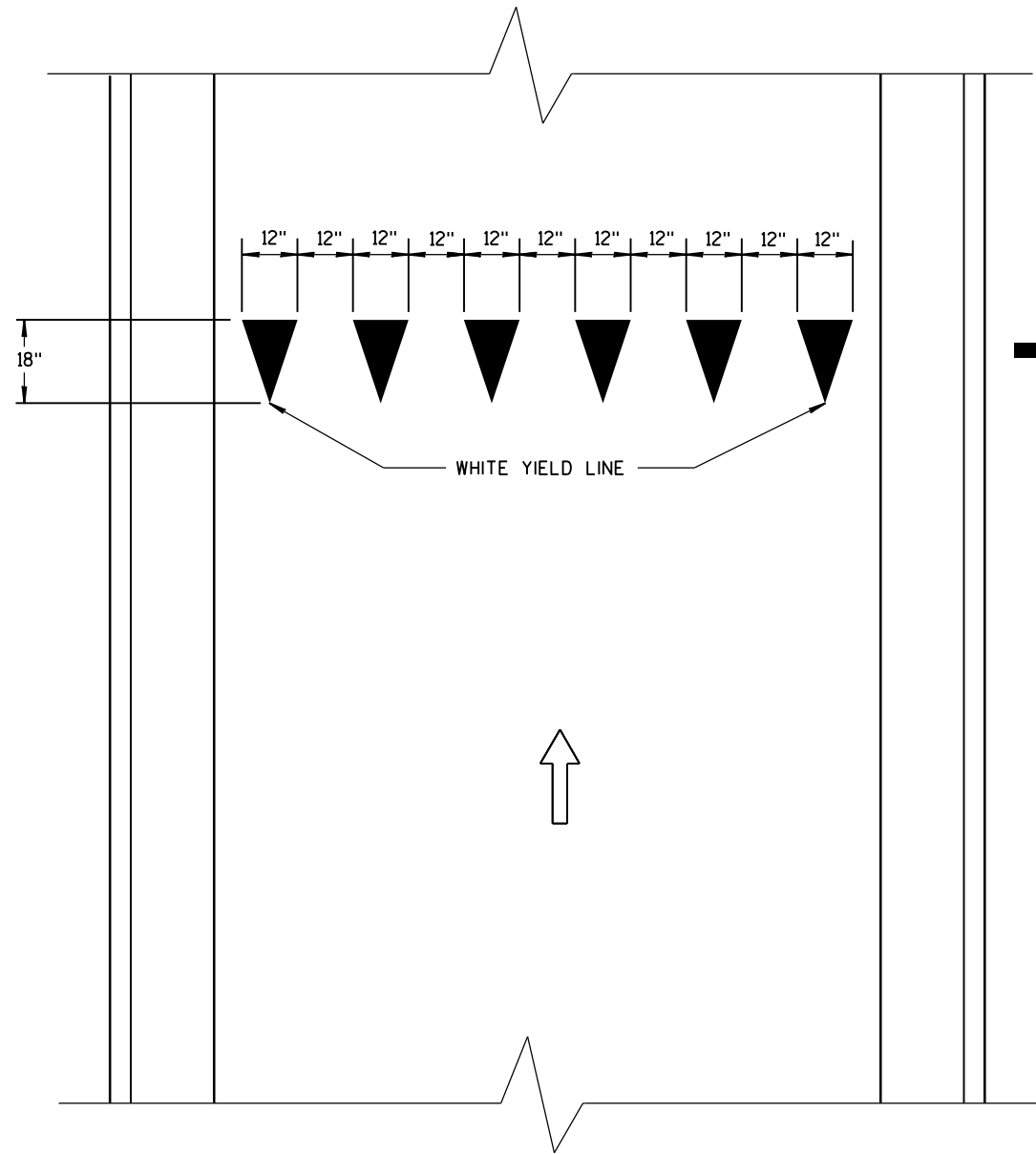
TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

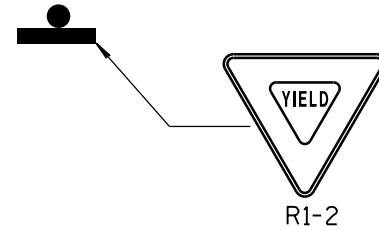
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
DATE: May 2019 /S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA



→ DIRECTION OF TRAVEL



YIELD LINE

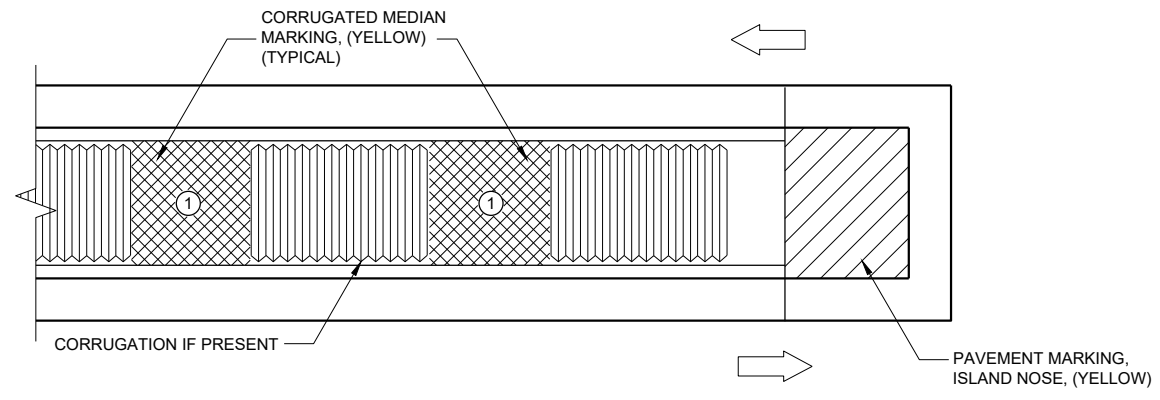
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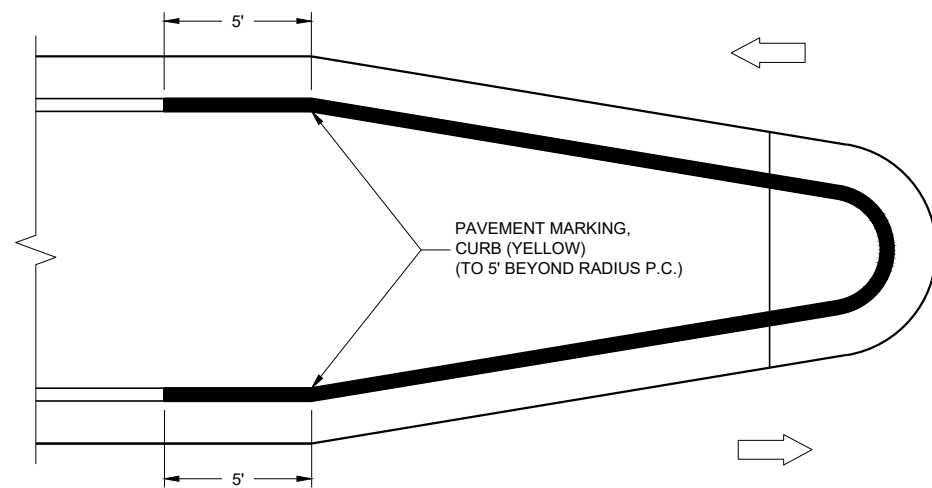
S.D.D. 15 C 20-2

S.D.D. 15 C 20-2

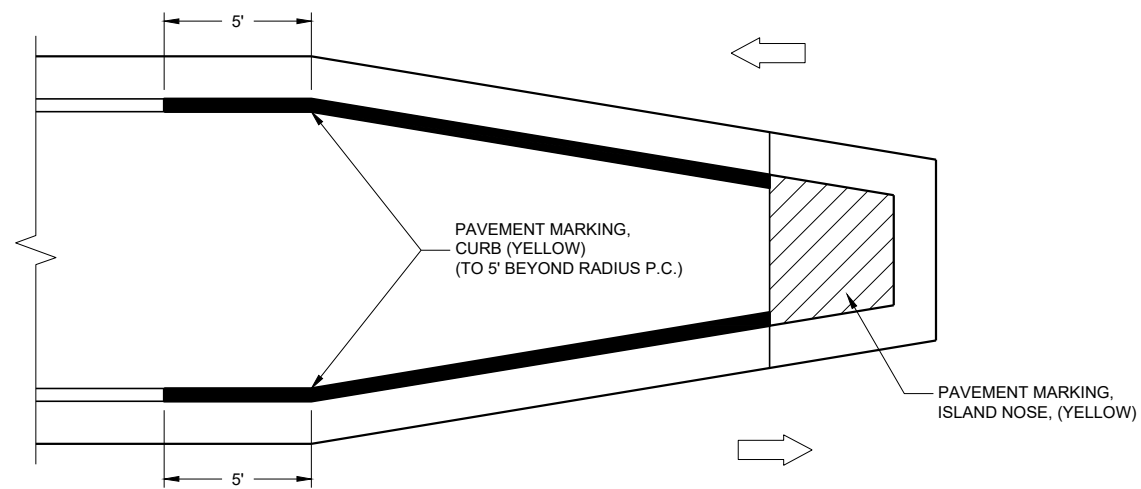
YIELD MARKINGS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
4-18-2016 DATE	/S/ Matthew R. Rauch STATE SIGNING AND MARKING ENGINEER
FHWA	



MEDIAN ISLAND WITH SQUARE BLUNT NOSE



MEDIAN ISLAND WITH ROUND BLUNT NOSE







MEDIAN ISLAND WITH SLOPED NOSE

TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS

GENERAL NOTES

WHEN CONCRETE CORRUGATED MEDIAN IS CONSTRUCTED TO SEPARATE TRAFFIC OPERATING IN THE OPPOSING DIRECTION, YELLOW PAVEMENT MARKING SHALL BE APPLIED TO THE FLAT PORTION OF THE CONCRETE CORRUGATED MEDIAN. THE ITEM OF PAVEMENT MARKING, CONCRETE CORRUGATED MEDIAN, WILL BE MEASURED IN PLACE AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.

-  ISLAND NOSE MARKING
-  CURB MARKING
-  CORRUGATED MEDIAN MARKING
-  DIRECTION OF TRAVEL

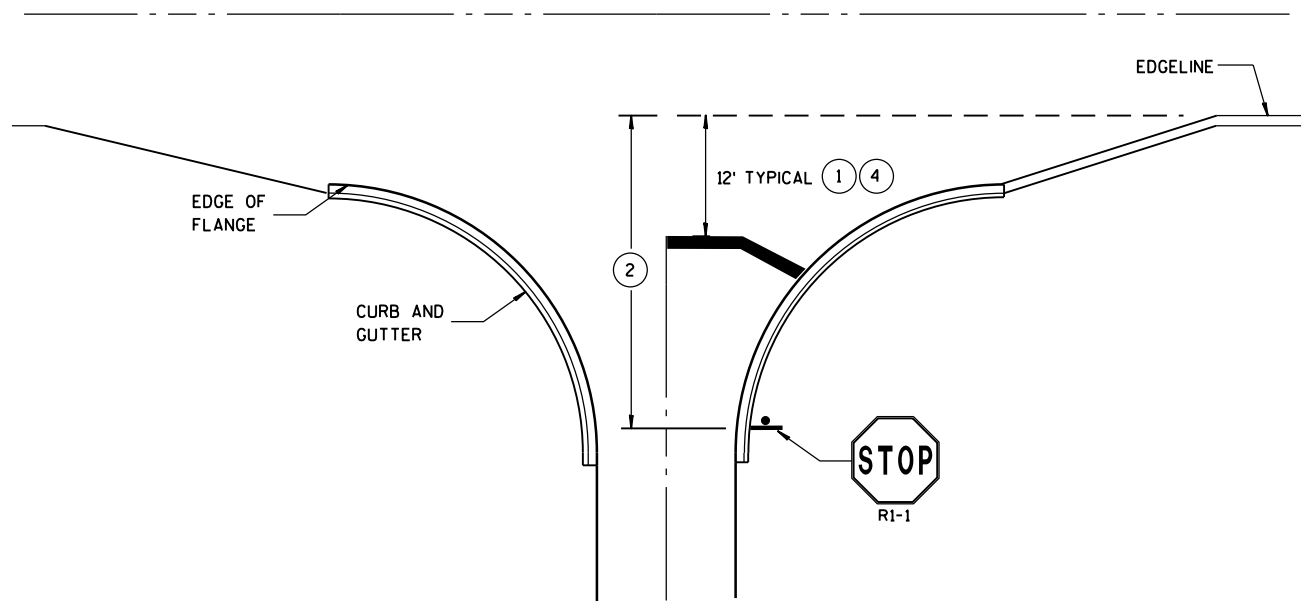
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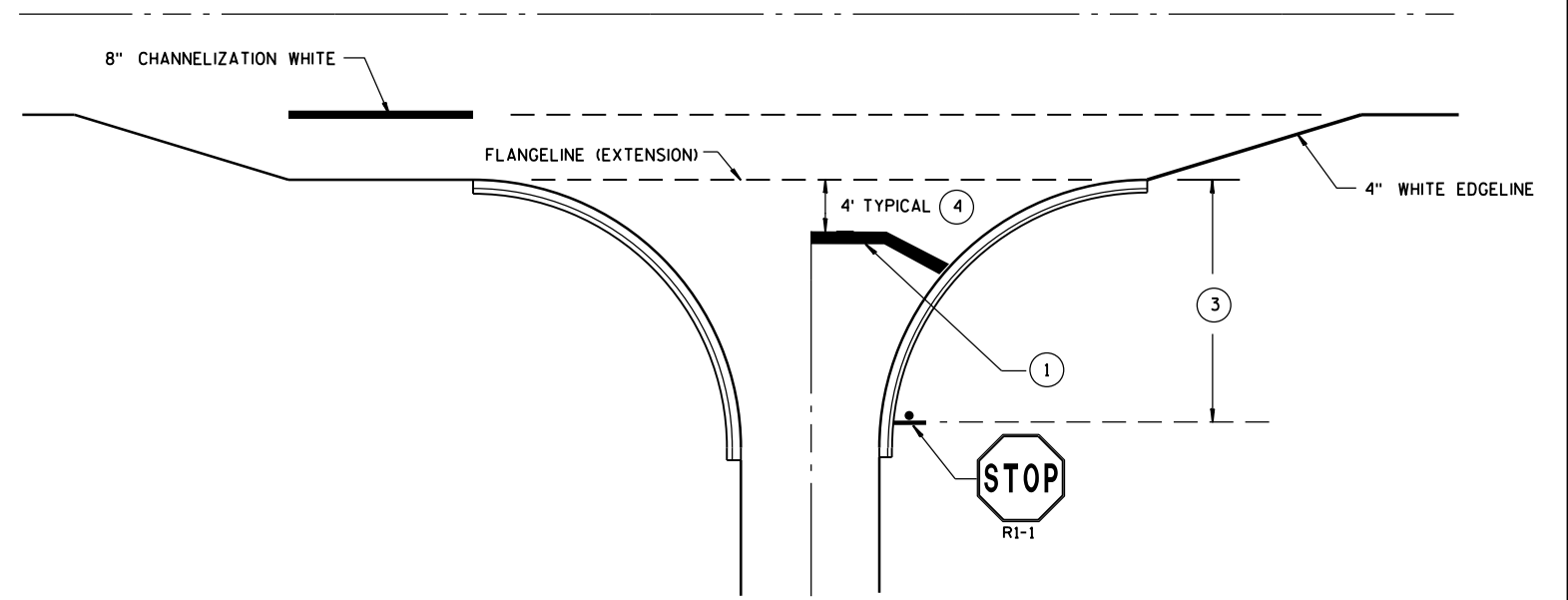
SDD 15C27 - 03b

SDD 15C27 - 03b

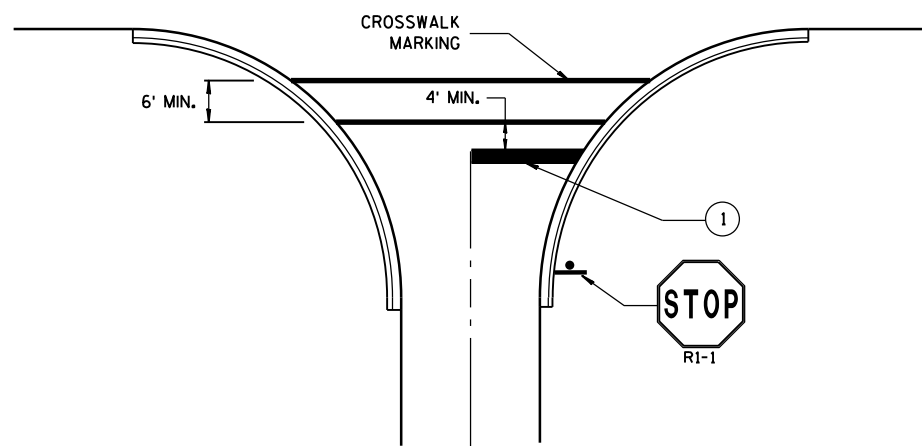
PAVEMENT MARKINGS (ISLANDS)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED DATE 7/2018	/S/ Matthew R. Rauch STATE SIGNING AND MARKING ENGINEER
FHWA	



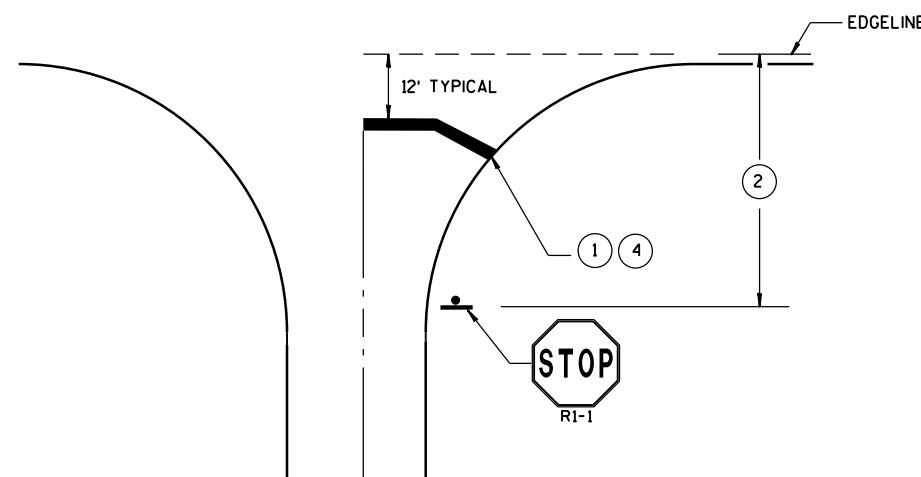
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



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

STOP SIGN SHALL BE PLACED A MINIMUM OF 6 FEET TO A MAXIMUM OF 50 FEET FROM THE EDGELINE LOCATION.

- ① 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE PROJECT ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
- ② IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE THAN NO STOP LINE IS REQUIRED.
- ③ IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION THAN NO STOP LINE IS REQUIRED.
- ④ MOVE CLOSER TO EDGE OF TRAVEL LANE AS NEEDED FOR VISIBILITY AND SIGHT LINES. (NO CLOSER THAN 4 FEET).

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
DATE: Sept., 2017 /S/ Matthew R. Rauch
STATE SIGNING AND MARKING ENGINEER
FHWA

GENERAL NOTES

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

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

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

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

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

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

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.










WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

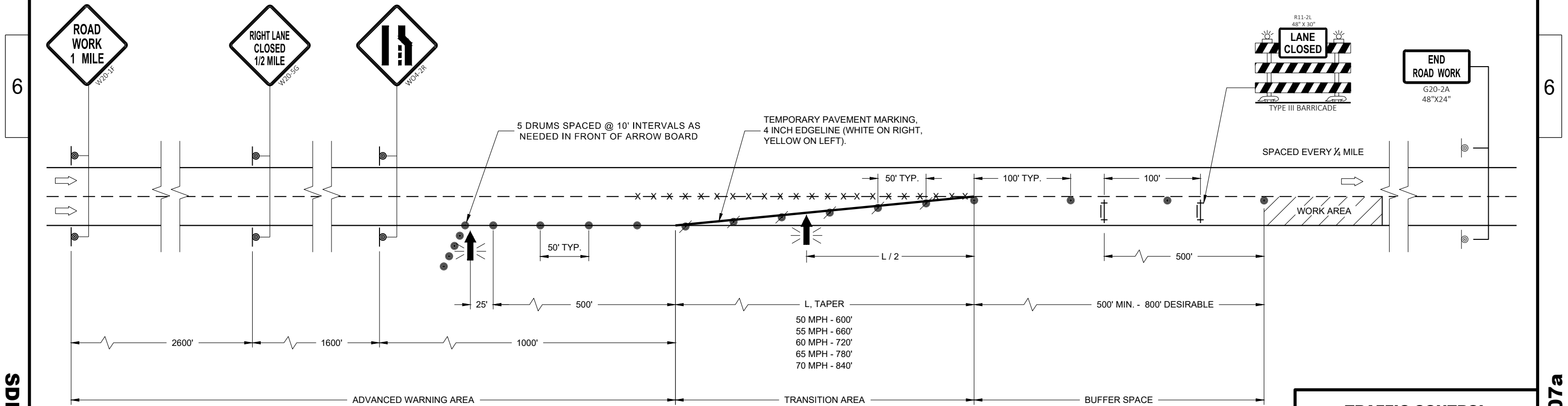
ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS

NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP OR INTERSECTION. THE LANE CLOSURE MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE ONE HALF THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS.

LEGEND

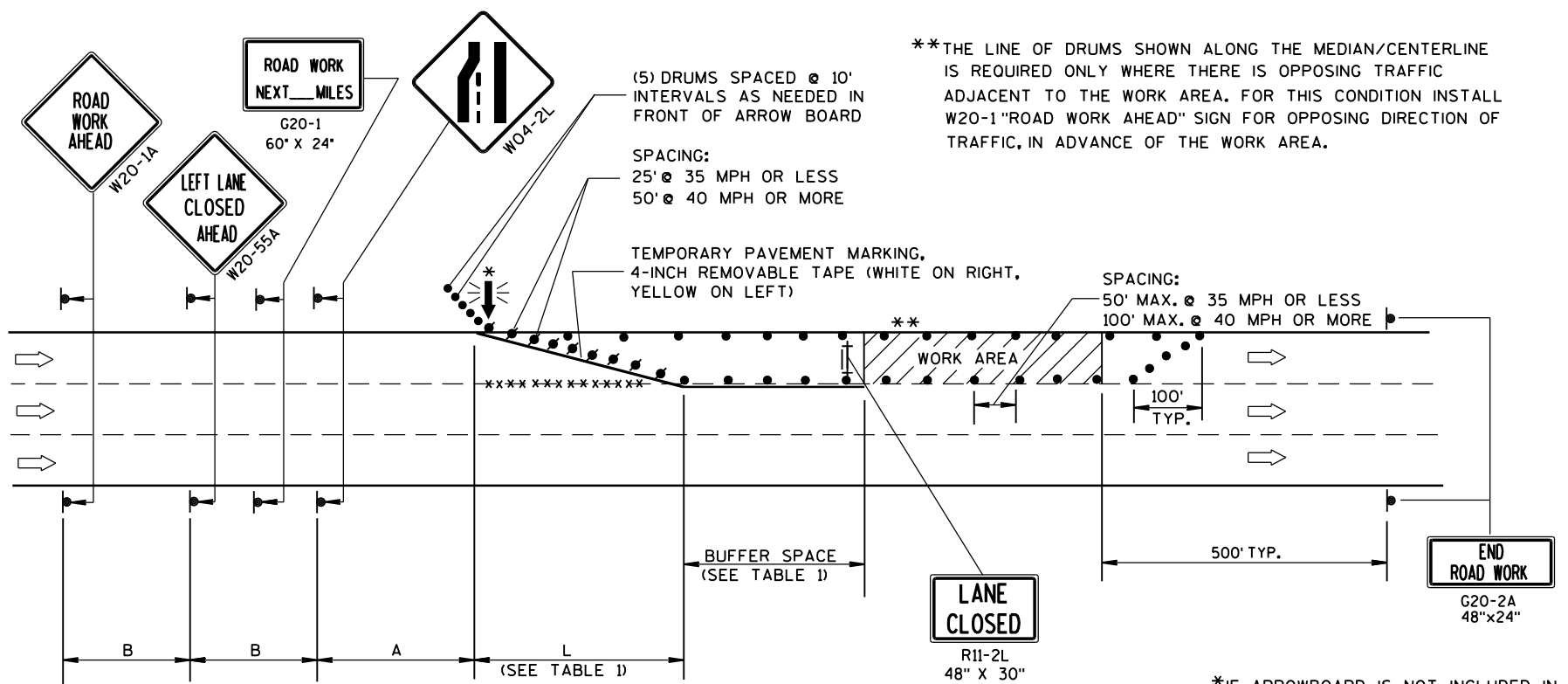
-  TYPE III BARRICADE WITH ATTACHED SIGN
-  SIGN ON PERMANENT SUPPORT
-  TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
-  TRAFFIC CONTROL DRUM
-  TYPE "A" WARNING LIGHT (FLASHING)
-  REMOVING PAVEMENT MARKING
-  DIRECTION OF TRAFFIC
-  WORK AREA
-  FLASHING ARROW BOARD



SDD 15D12 - 07a

SDD 15D12 - 07a

TRAFFIC CONTROL LANE CLOSURE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED November 2018 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	



B=400' AT 25-30 MPH
700' AT 35-40 MPH
1000' AT 45-55 MPH

A=200' AT 25-30 MPH
350' AT 35-40 MPH
500' AT 45-55 MPH

TABLE 1
TAPER AND BUFFER SPACE
FOR 12' LANE WIDTH

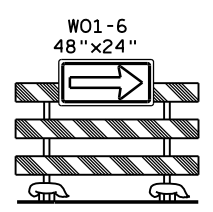
S	L	BUFFER SPACE
25	125'	55'
30	180'	85'
35	245'	120'
40	320'	170'
45	540'	220'
50	600'	280'
55	660'	335'

FOR LANE WIDTH OTHER THAN 12':

L = WS AT 45 MPH OR GREATER
 $L = \frac{WS^2}{60}$ AT 40 MPH OR LESS
 L = TAPER LENGTH IN FEET
 S = NON-CONSTRUCTION SPEED LIMIT (MPH)
 W = WIDTH OF LANE CLOSURE

(PLACE BARRICADE AND SIGN APPROX. EVERY 1000' ACROSS THE CLOSED LANE)

*IF ARROWBOARD IS NOT INCLUDED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE A TYPE III BARRICADE WITH W01-6 SIGN IN THE LANE CLOSURE TAPER.



LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- WORK AREA

GENERAL NOTES

THIS LANE CLOSURE DETAIL IS TYPICAL FOR CLOSING THE LEFT LANE. FOR A RIGHT LANE CLOSURE, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

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

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

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

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

ON UNDIVIDED ROADWAYS, OMIT THE SIGNS SHOWN ON LEFT SIDE OF ROAD.

W20-1A, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

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

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROWBOARDS AND LANE CLOSURE DRUMS.

PLACE THE ARROWBOARD AS CLOSE AS POSSIBLE TO THE BEGINNING OF THE LANE CLOSURE TAPER, PREFERABLY ON THE SHOULDER OR TERRACE.

CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

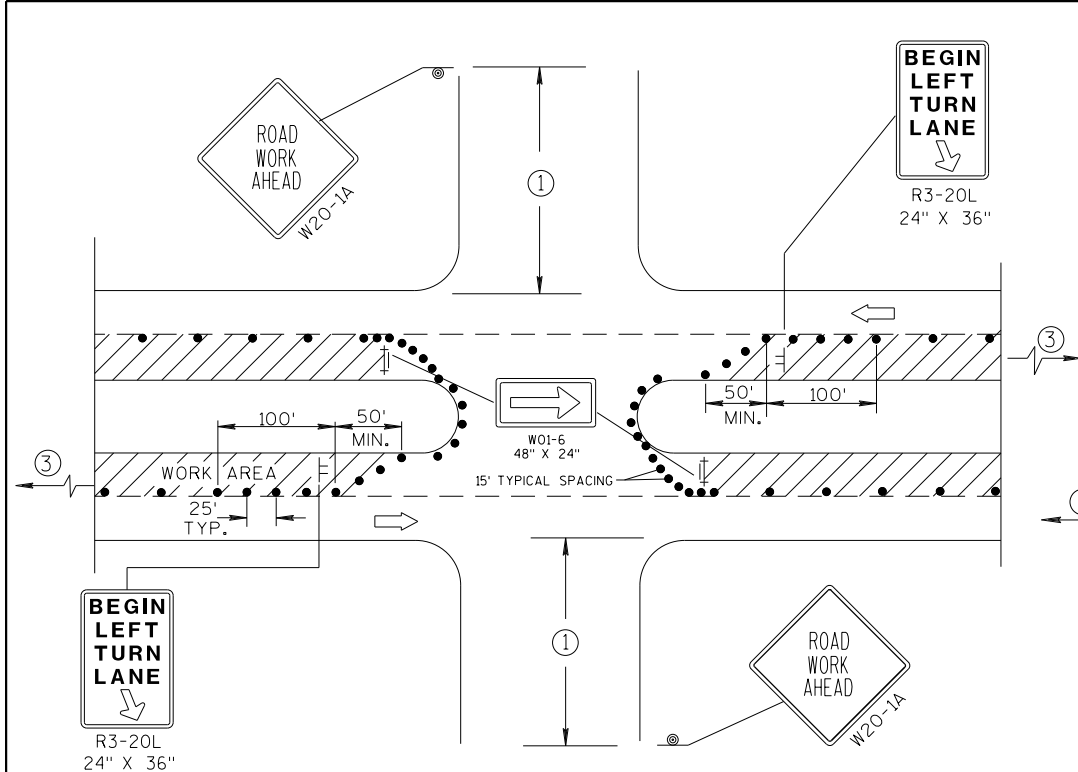
BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

**TRAFFIC CONTROL,
SINGLE LANE CLOSURE,
NON-FREEWAY/EXPRESSWAY**

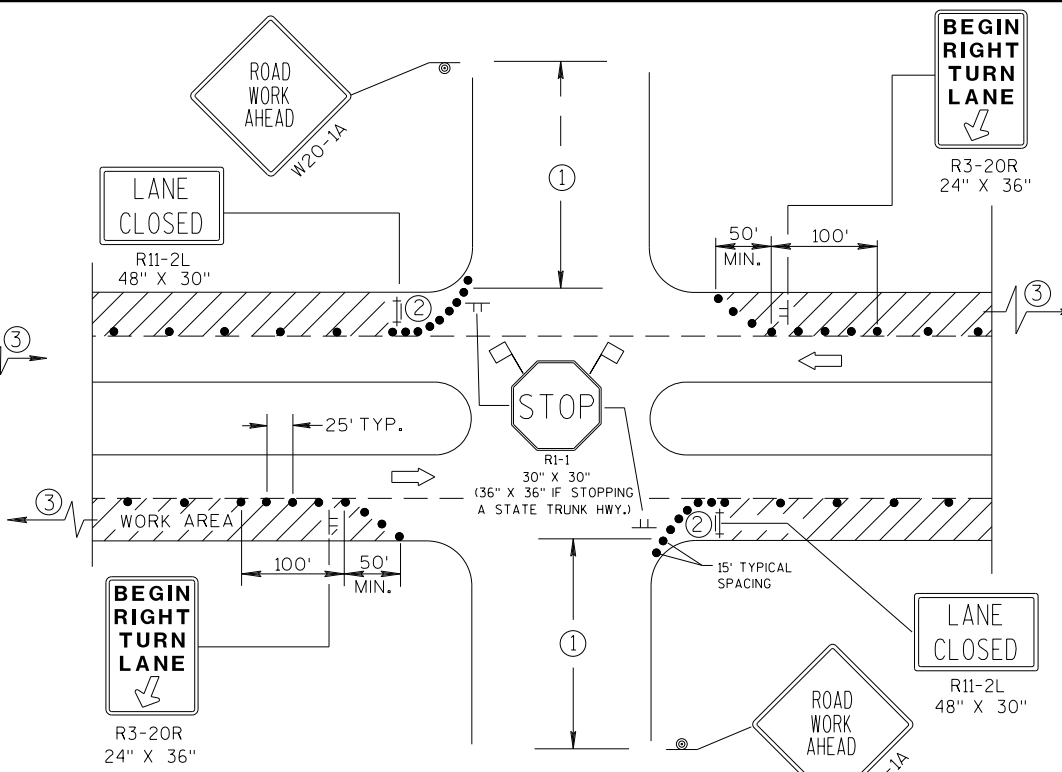
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2016 /s/ Peter Amakobe Atepe
DATE STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA



DETAIL A
FOR LEFT LANE CLOSURE AT
INTERSECTION OR MEDIAN OPENING

PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

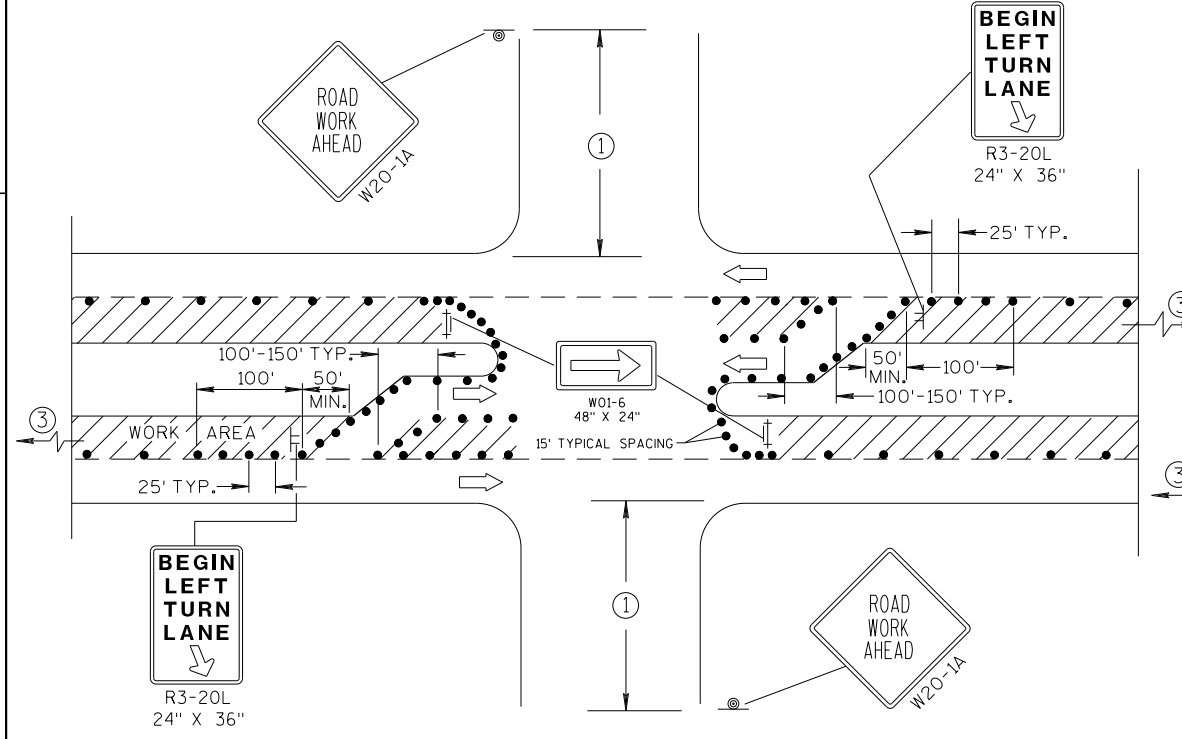


DETAIL B
FOR RIGHT LANE CLOSURE
AT INTERSECTION

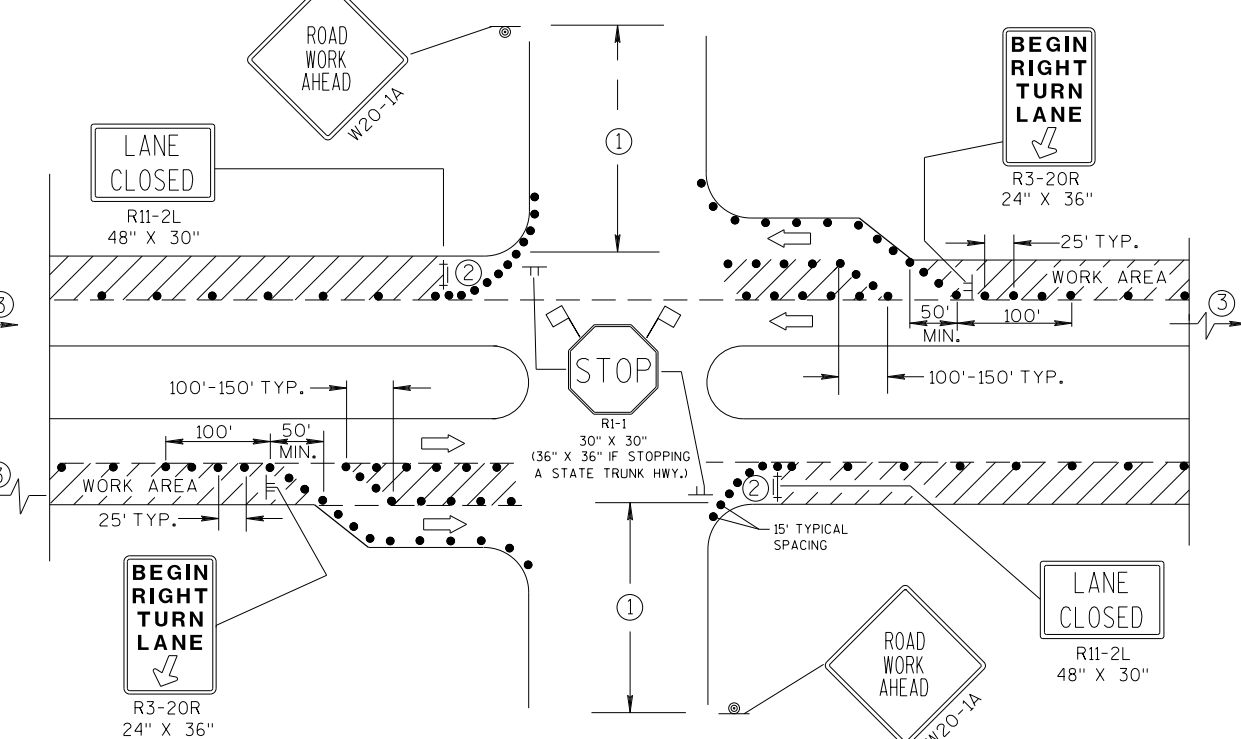
GENERAL NOTES

- THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
- THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.
- ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.
- "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.
- SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.
- SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.
- ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.
- CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.
- BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

- ① 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER. 350' IF 35-40 MPH. 200' IF 25-30 MPH.
- ② ALSO USE BARRICADE AND 15-FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS.
- ③ SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.



DETAIL C
FOR LEFT LANE CLOSURE AT INTERSECTION OR
MEDIAN OPENING (WITH LEFT TURN BAY OPEN)



DETAIL D
FOR RIGHT LANE CLOSURE AT INTERSECTION
(WITH RIGHT TURN BAY OPEN)

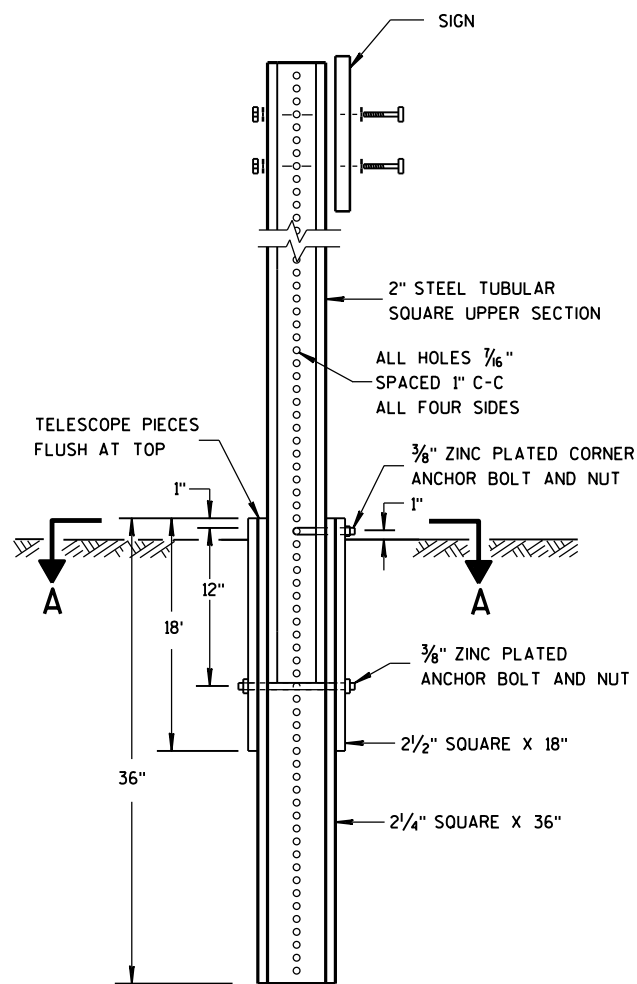
LEGEND

- TRAFFIC CONTROL DRUM
- ⊙ SIGN ON PERMANENT SUPPORT
- ⊞ SIGN ON TEMPORARY SUPPORT (5' MIN. MOUNTING HEIGHT)
- ⊞ TYPE III BARRICADE WITH ATTACHED SIGN AND TYPE "A" WARNING LIGHT (FLASHING)
- ➔ DIRECTION OF TRAFFIC
- 🚩 FLAGS, 16" X 16" MIN., (ORANGE)
- ▨ WORK AREA

**TRAFFIC CONTROL,
INTERSECTION WITHIN
SINGLE LANE CLOSURE**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED _____
DATE 7/2018 /S/ Andrew Heidtke
FHWA WORK ZONE ENGINEER



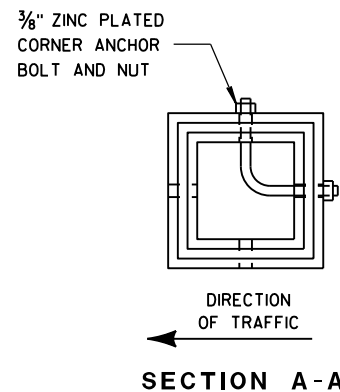
DETAIL OF TUBULAR STEEL SIGN POST

TUBULAR STEEL POSTS

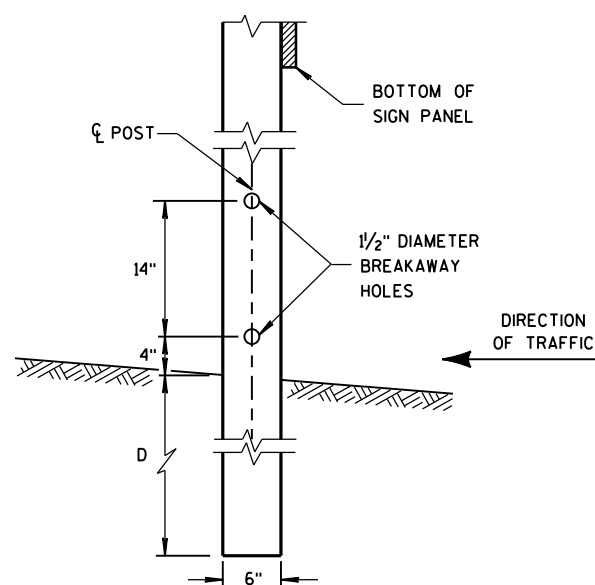
AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL POSTS
9 OR LESS	1
GREATER THAN 9 LESS THAN OR EQUAL TO 18	2
GREATER THAN 18 LESS THAN OR EQUAL TO 27	3

SIGNS WIDER THAN 3 FEET OR LARGER THAN 9 SQ. FT. SHALL BE MOUNTED ON MULTIPLE POSTS (SEE ABOVE TABLE).

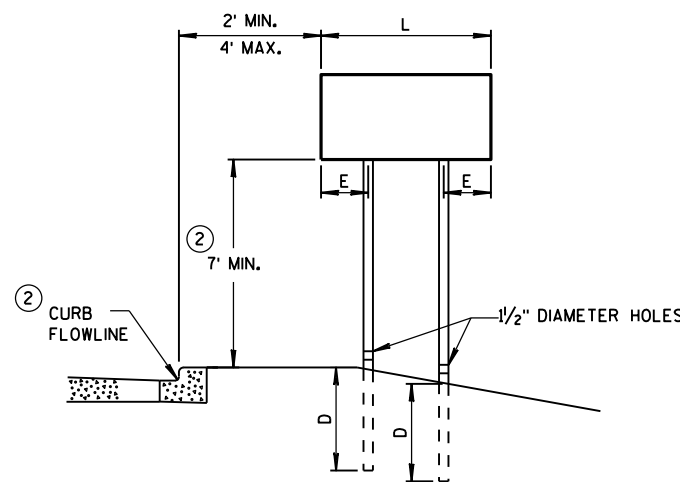
SIGNS LARGER THAN 27 SQ. FT. SHALL NOT BE MOUNTED ON TUBULAR STEEL POSTS.



SECTION A-A

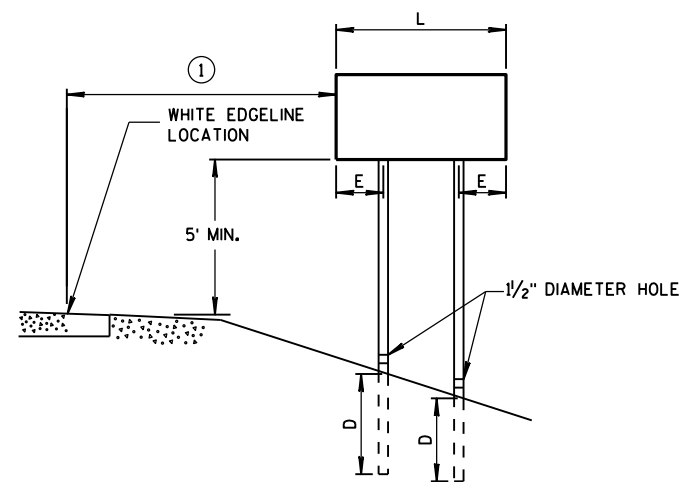


4" X 6" WOOD POST MODIFICATION



URBAN AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS



RURAL AREA

WOOD POST EMBEDMENT DEPTH

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

4" X 6" WOOD POST

POST SPACING REQUIREMENTS		NUMBER OF WOOD POSTS REQUIRED
L	E	
48" OR LESS AND LESS THAN 20 SQ. FT.	-	1
LESS THAN 60"	12"	2
60" TO 120"	L/5	2
GREATER THAN 120" LESS THAN 168"	12"	3
168" AND GREATER	12"	4

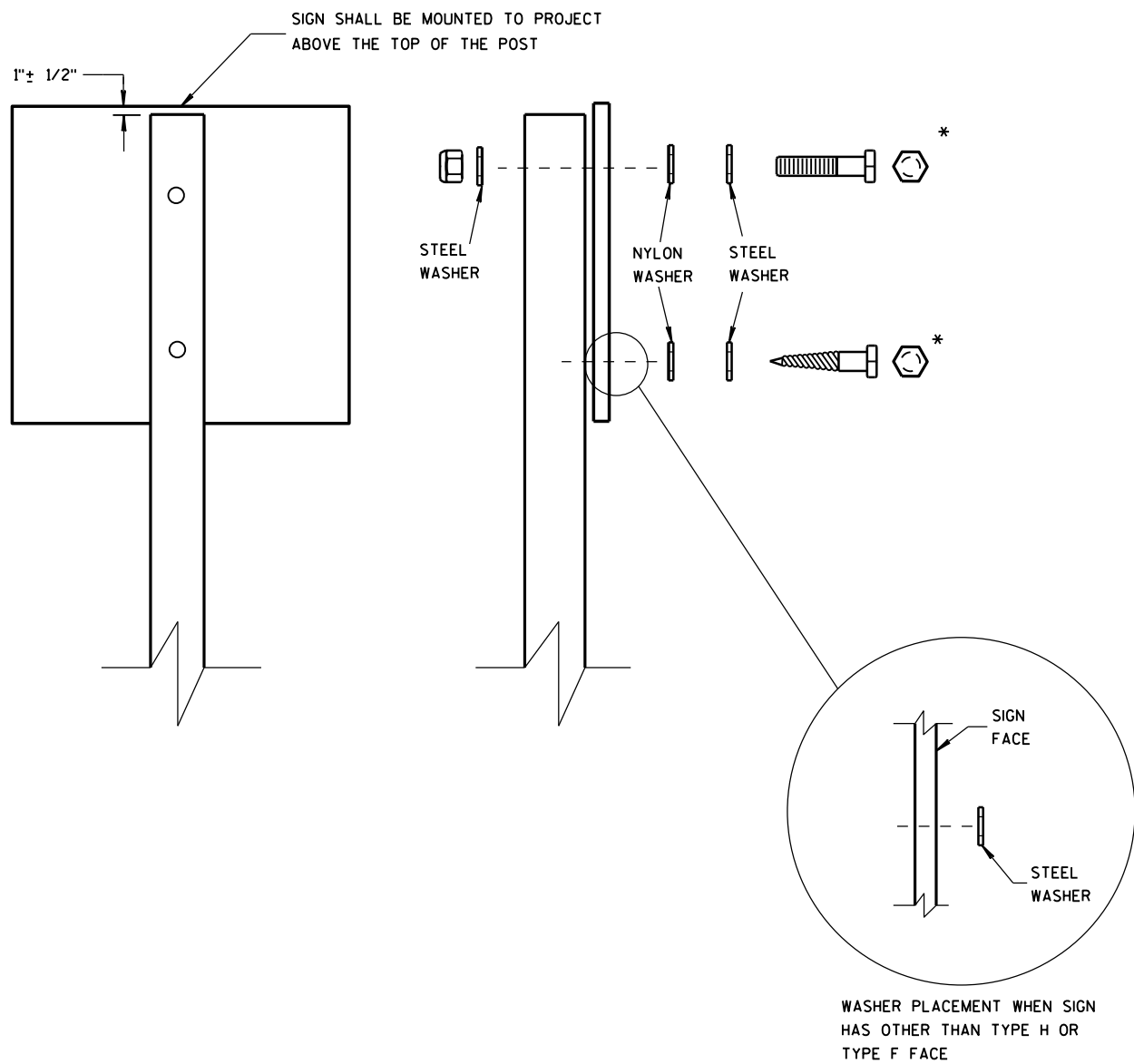
SEE NOTE ③

GENERAL NOTES

- ① 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.
- ② THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.
- ③ FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.

TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



NUTS, BOLTS AND LAGS USED FOR MOUNTING SIGNS SHALL HAVE HEXAGONAL HEADS AND SHALL BE EITHER:

A. HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: A 153, CLASS D, OR SC 3

B. ELECTRO-GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: B 633, TYPE III, SC 3

THREADS ON BOLTS AND NUTS SHALL BE MANUFACTURED WITH SUFFICIENT ALLOWANCE FOR THE CADMIUM PLATE OR GALVANIZED COATING TO PERMIT THE NUTS TO RUN FREELY ON THE BOLTS.

WOOD POSTS (4" x 4" or 4" x 6")

LAG SCREWS - 3/8" x 3"

MACHINE BOLTS - 5/16" x 6-1/2" OR 7" LENGTH W/ NUTS

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" x 3-1/4" LENGTH W/ NUTS

RIVETS - 5/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -

1-1/4" O.D. x 3/8" I.D. x 1/16" STEEL

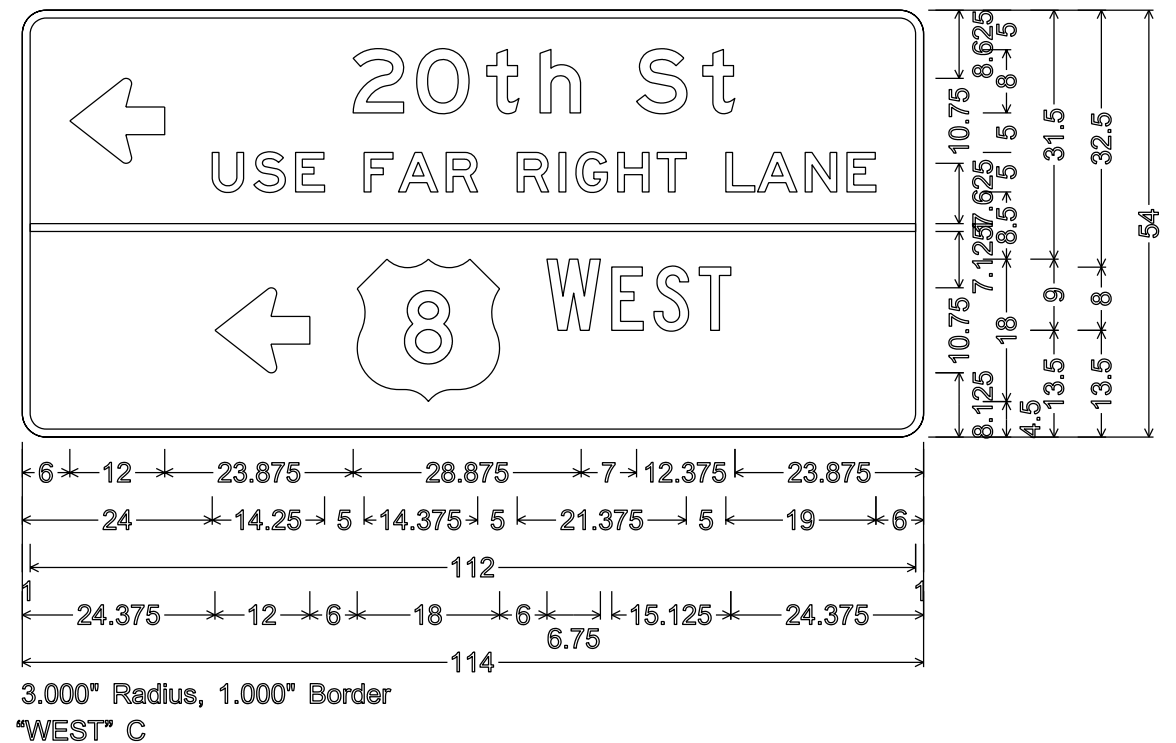
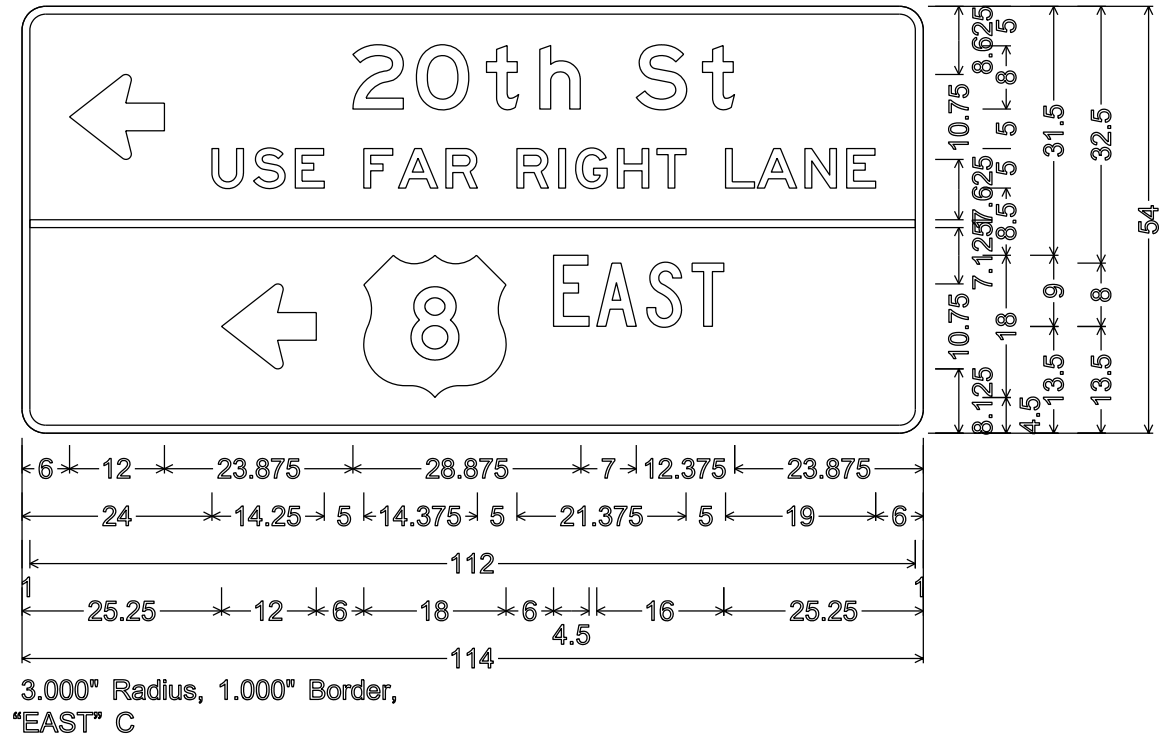
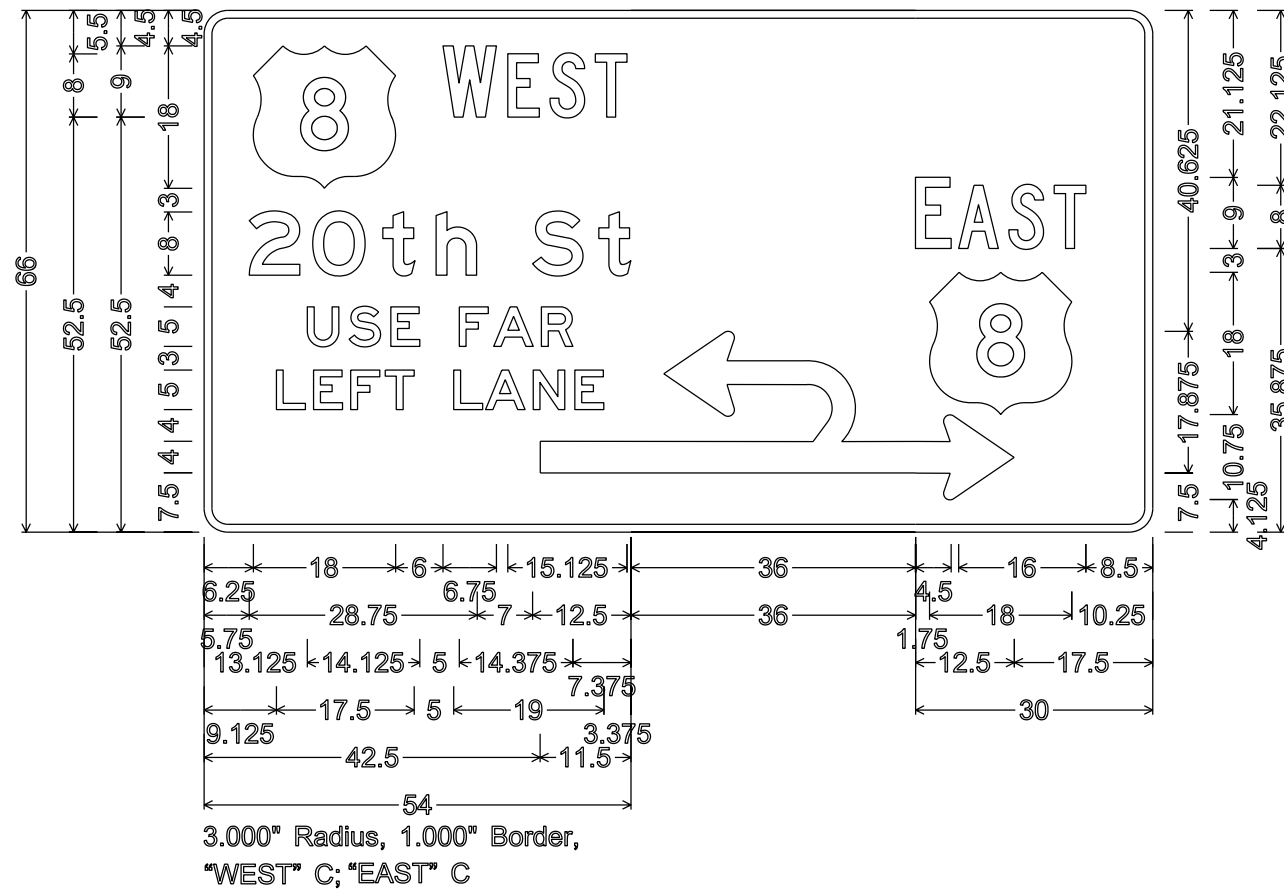
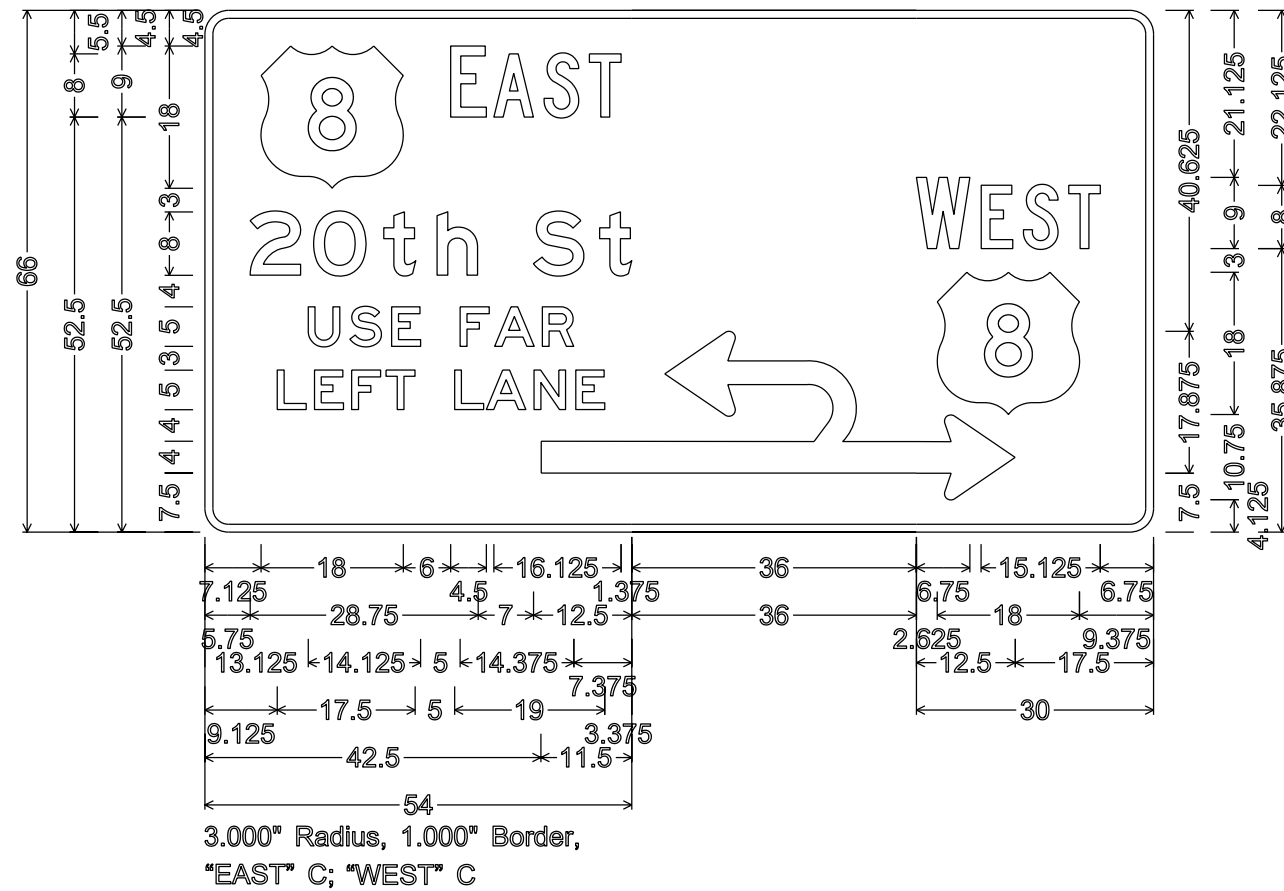
1-1/4" O.D. x 3/8" I.D. x .080 NYLON FOR ALL TYPE H SIGNS

* 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. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

ATTACHMENT OF SIGNS TO POSTS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2017 DATE	/s/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - Green
Message - White
3. Message Series - E except as noted

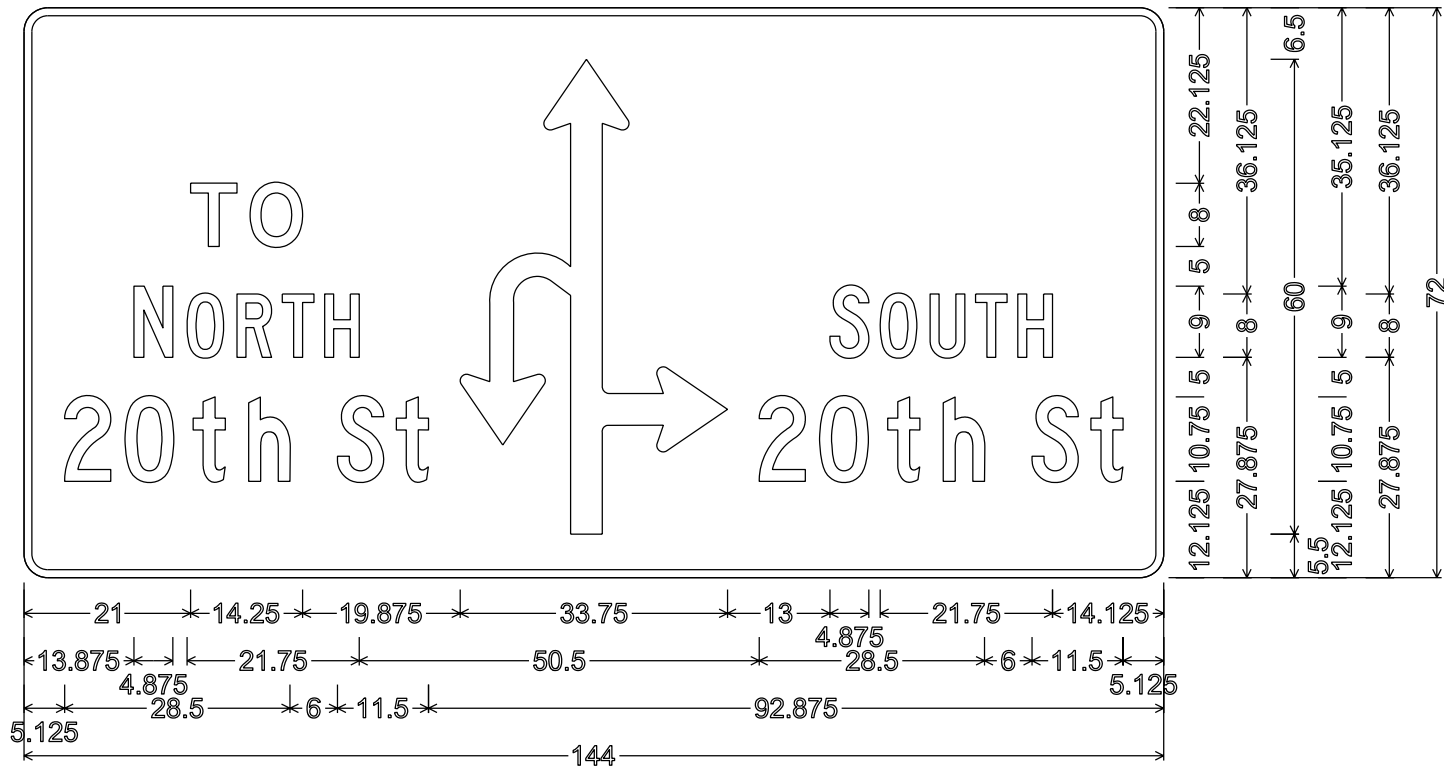


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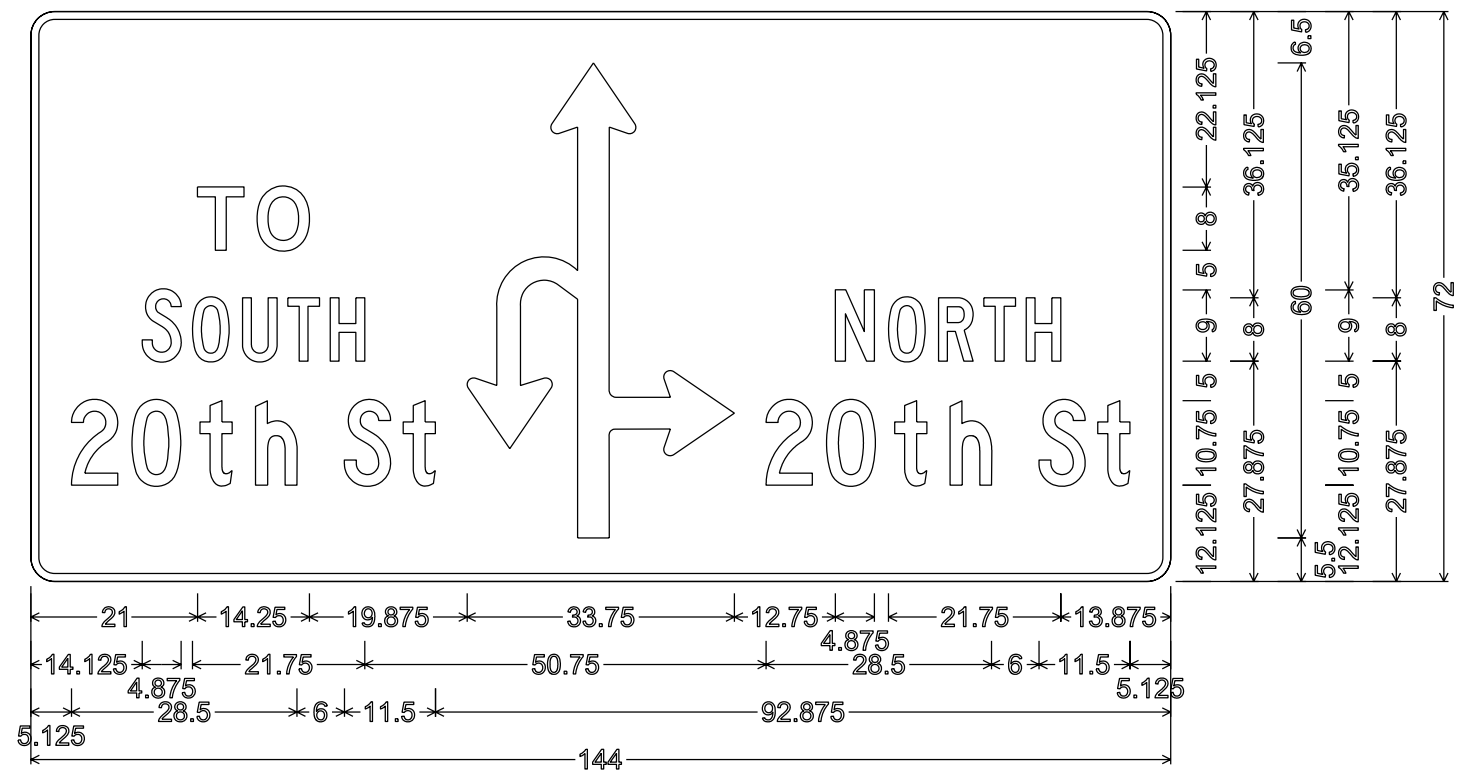
7

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
 - Background - Green
 - Message - White
3. Message Series - E except as noted



3.000" Radius, 1.000" Border,
 "TO" E; "NORTH" C; "20th" C; "St" C; "SOUTH" C; "20th" C; "St" C



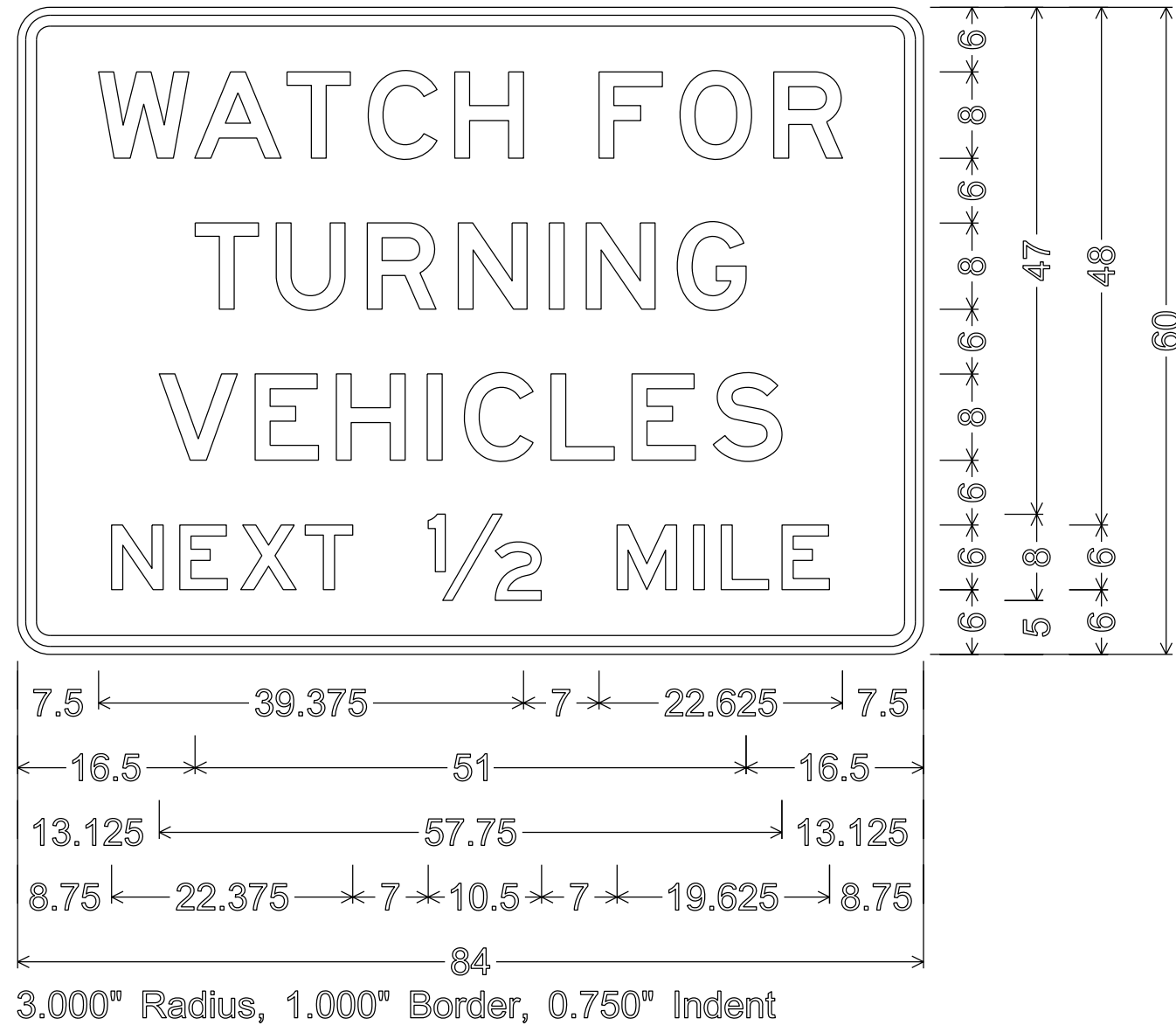
3.000" Radius, 1.000" Border,
 "TO" E; "SOUTH" C; "20th" C; "St" C; "NORTH" C; "20th" C; "St" C

7

7

NOTES

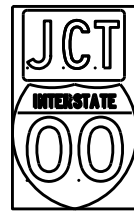
1. Sign is Type II - Type F Reflective
2. Color:
 - Background - Yellow
 - Message - Background
3. Message Series - E



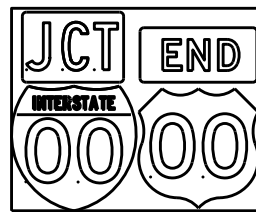
7

7

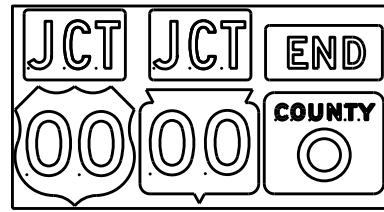
TYPICAL ASSEMBLIES



JI-1



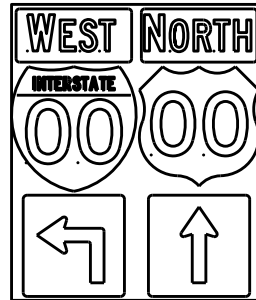
JI-2



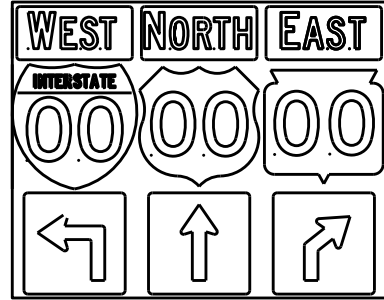
JI-3



J2-1



J2-2

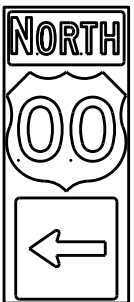


J2-3

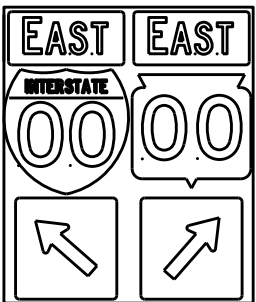


JV

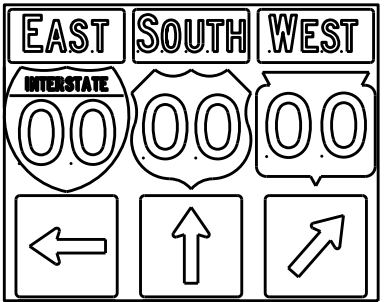
(Typical Vertical J-Assembly
See Note 10 and 11)



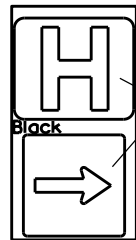
J3-1



J3-2

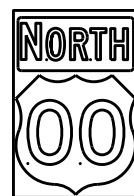


J3-3

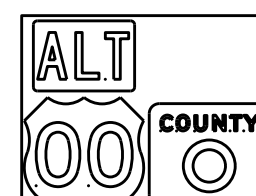


JH-1

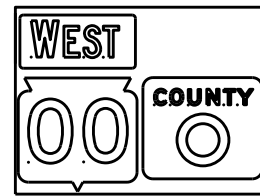
Blue Background



J4-1

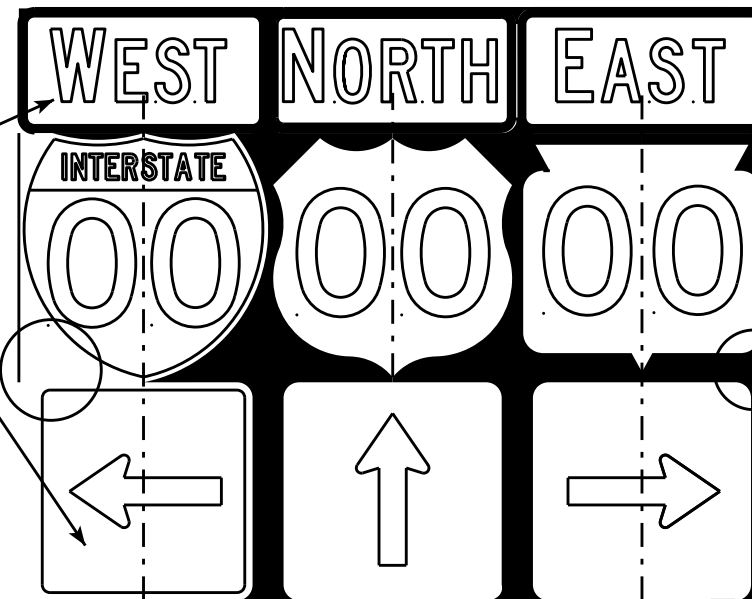
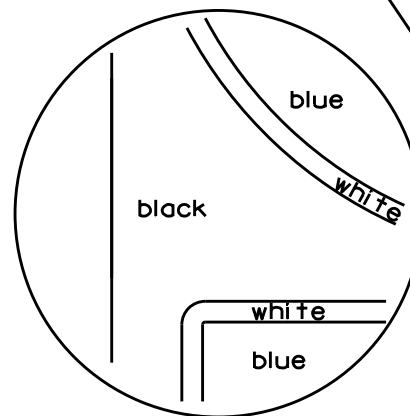


J4-2



J4-2

[blue background with interstate]



black

white

[black background]

**ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES**

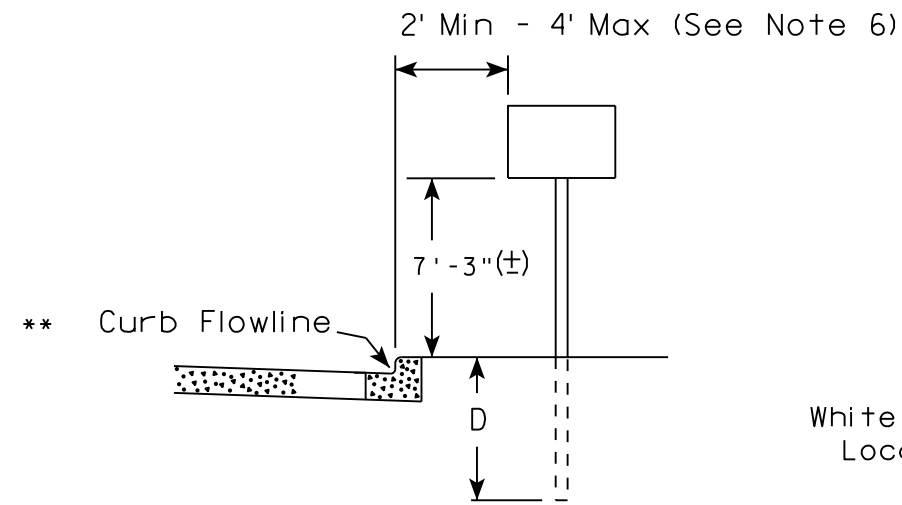
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

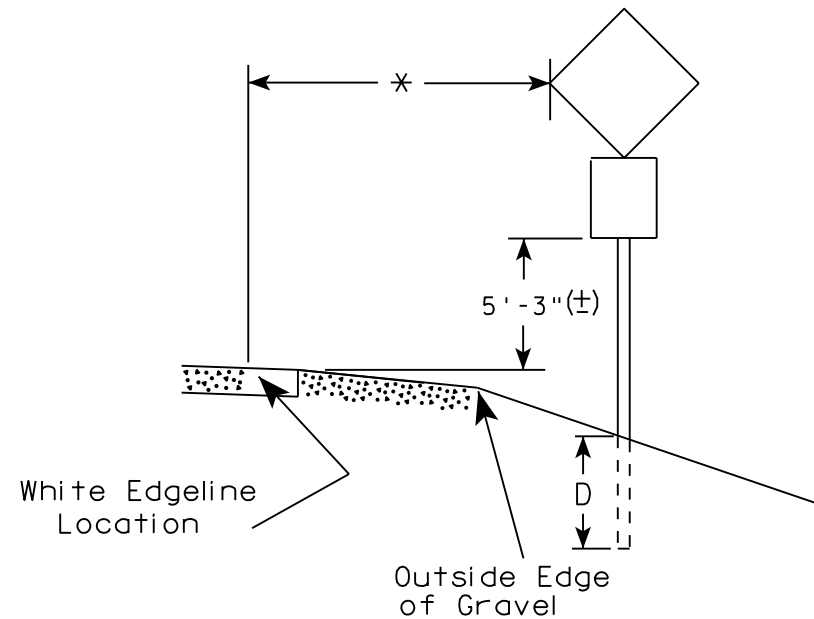
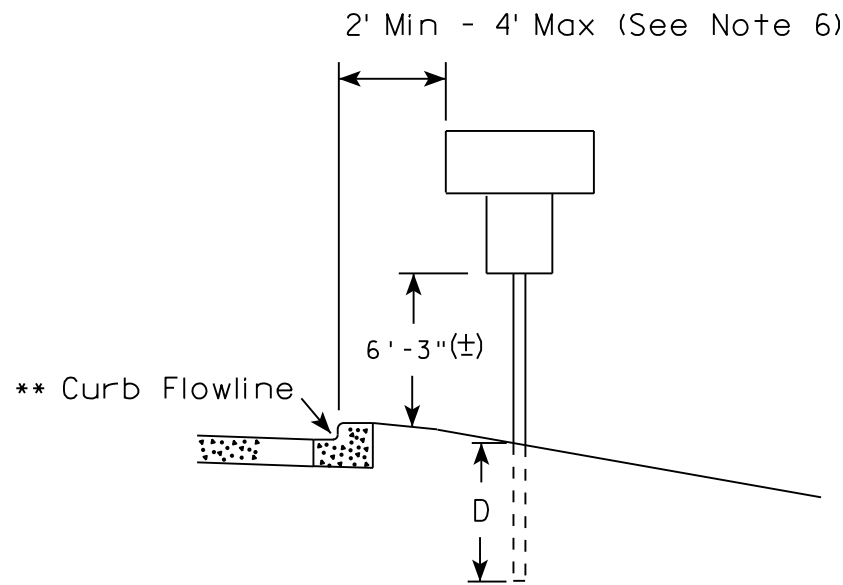
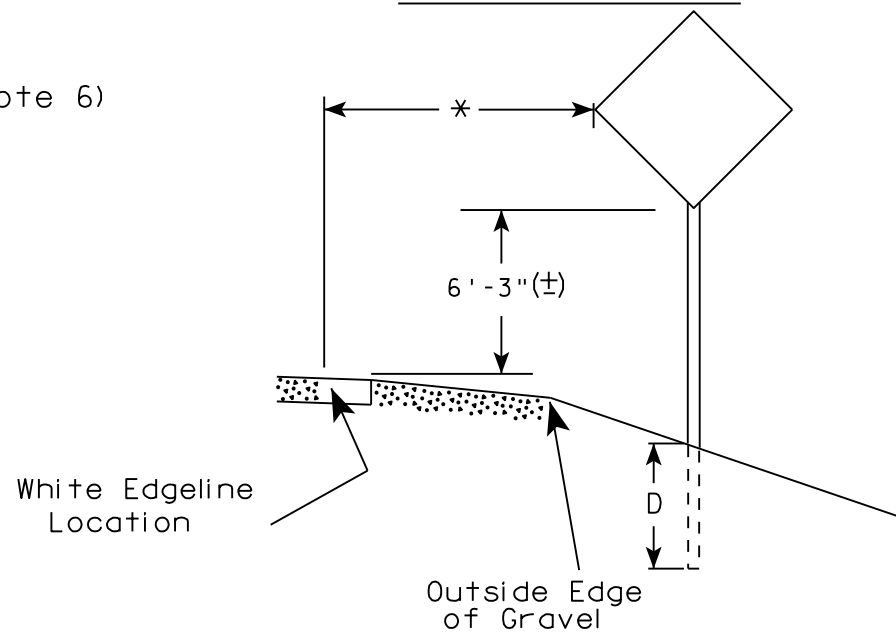
DATE 2/06/14 PLATE NO. A2-1S.8

- NOTES**
- Signs are Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
 - Color:
Background - Black Non-reflective
Message - see Note 5
 - Message Series - See Note 5
 - Corners shall be square or rounded if base material is plywood. If base material is metal the corners shall be rounded.
 - The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
 - Certain marker heads require the component pieces to be the same color. As an example, all the components used with an MI-1 Interstate marker shall be blue.
 - 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.
 - 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.
 - 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.
 - All Vertical J Assemblies are given a Sign Code of JV
 - For JV Assemblies that have a mixture of Interstate and non Interstate shields, arrows and cardinals shall be white on blue.

URBAN AREA



RURAL AREA (See Note 2)



POST EMBEDMENT DEPTH

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

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. J-Assemblies are considered to be one sign for mounting height.
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" (±).

* * 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.

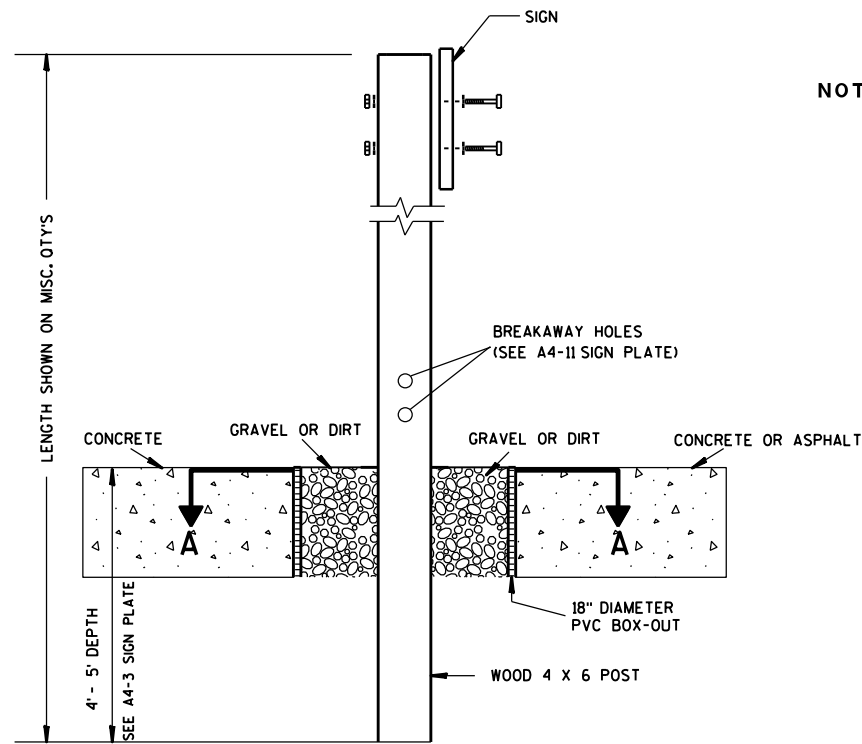
* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

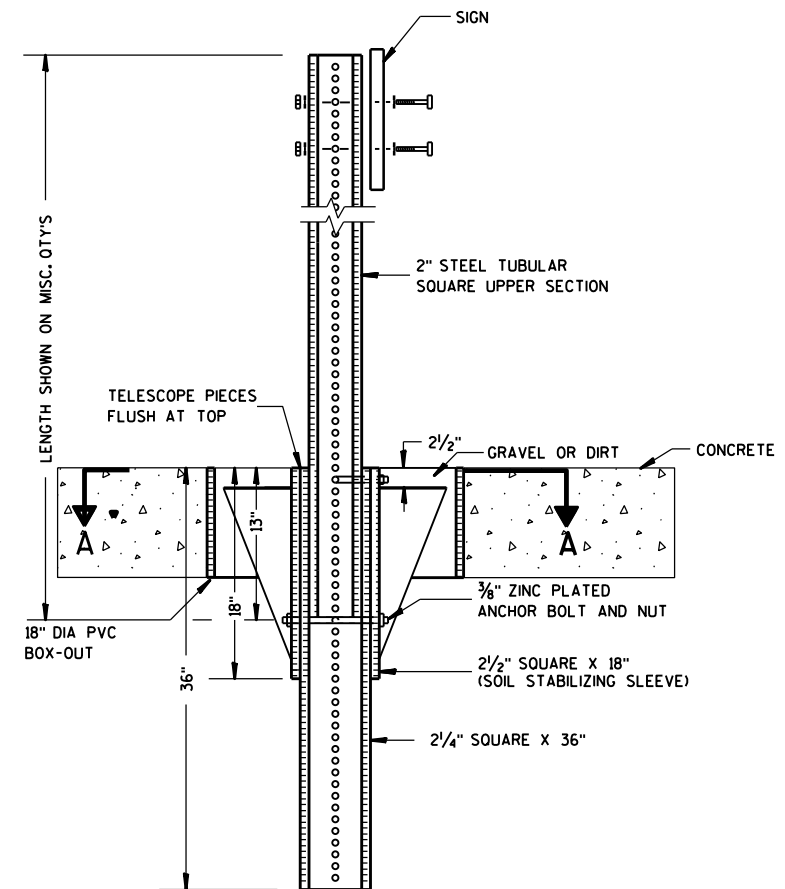
DATE 8/21/17 PLATE NO. A4-3.21



ELEVATION VIEW

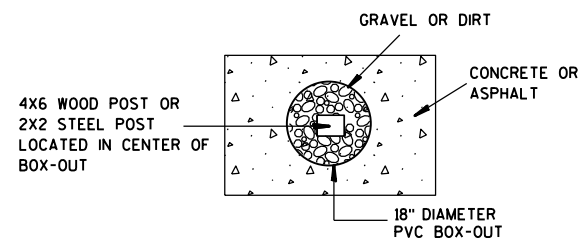
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

- 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

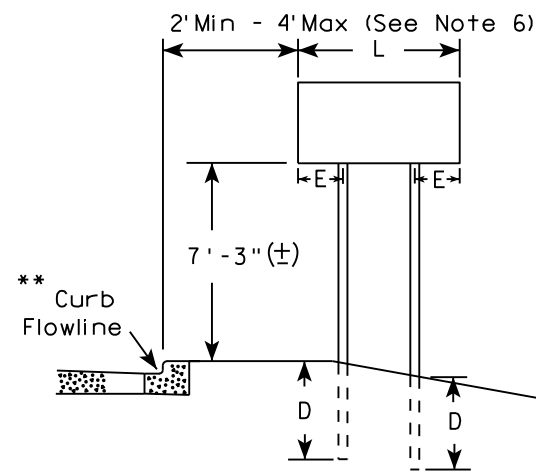
FOR NEW CONCRETE/ ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B	
<small>WISCONSIN DEPT OF TRANSPORTATION</small>	
APPROVED <i>Matthew R. Rauch</i> <small>for State Traffic Engineer</small>	
<small>DATE 1/27/14</small>	<small>PLATE NO. A4-3B.1</small>

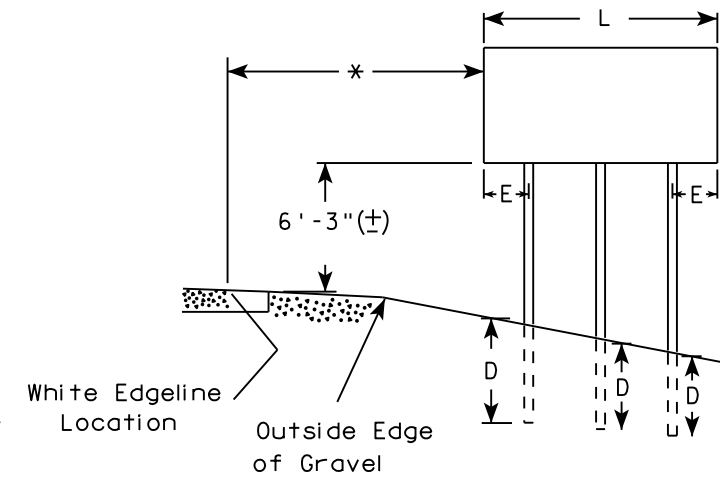
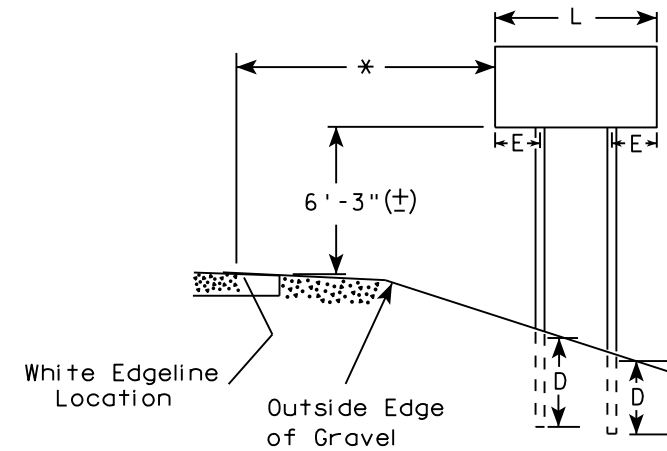
GENERAL NOTES

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. J-Assemblies are considered to be one sign for mounting height.
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" (±).

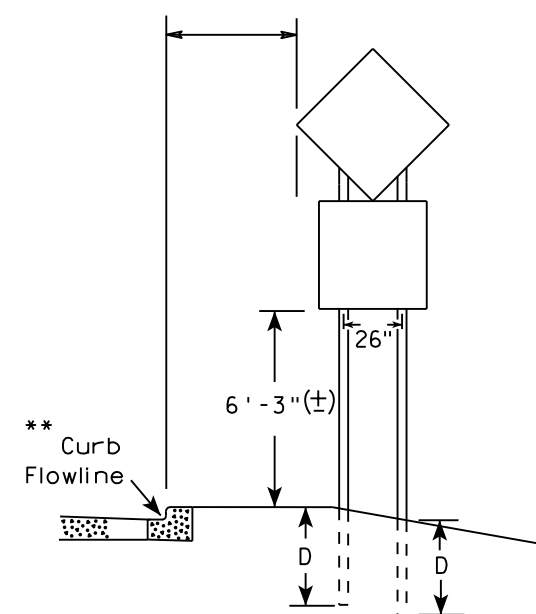
URBAN AREA



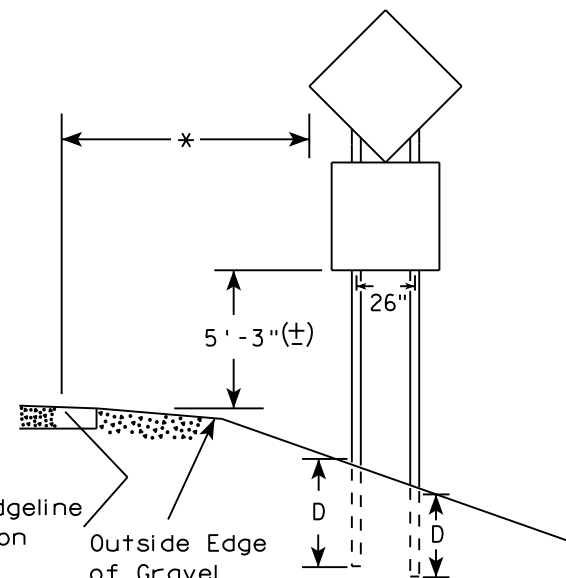
RURAL AREA (See Note 3)



2' Min - 4' Max (See Note 6)



48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

* 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 108"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

POST EMBEDMENT DEPTH

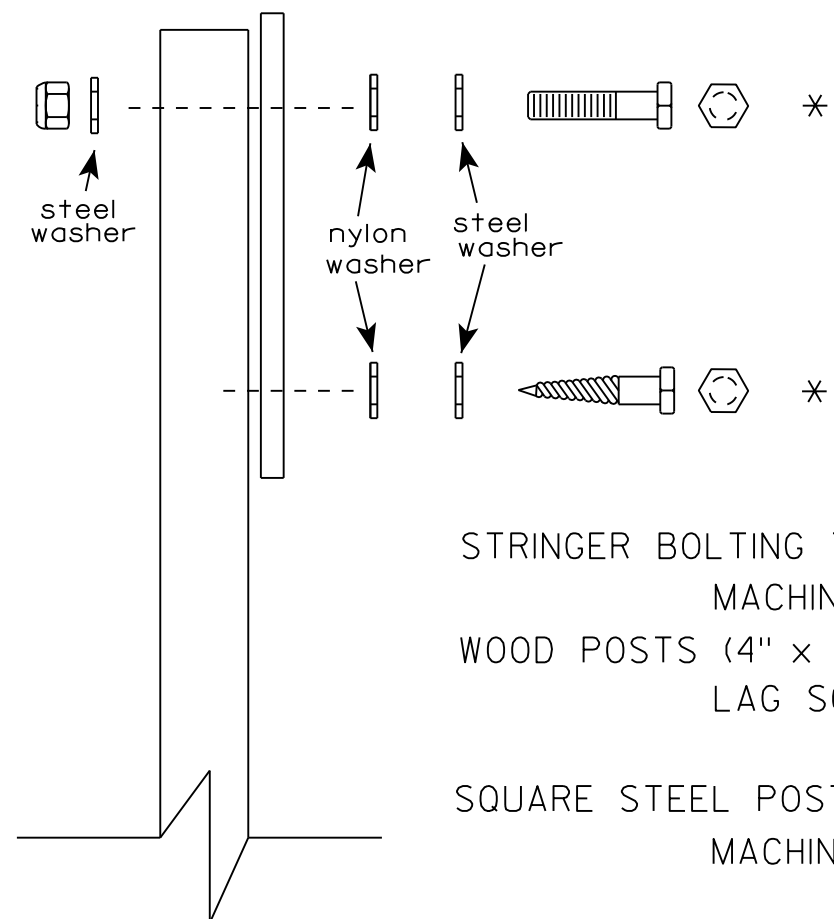
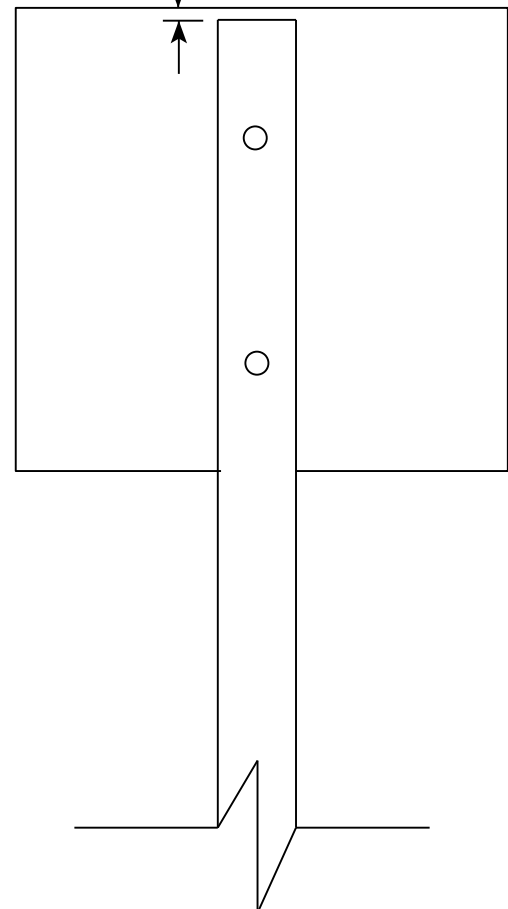
Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION
 APPROVED *Matthew R. Rauch*
 For State Traffic Engineer
 DATE 8/21/17 PLATE NO. A4-4.15

1"± 1/2"

SIGN SHALL BE MOUNTED TO PROJECT ABOVE THE TOP OF THE POST



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

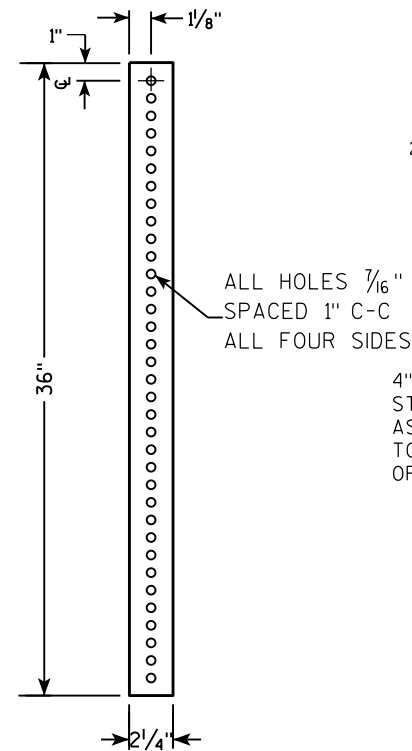
* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require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

7

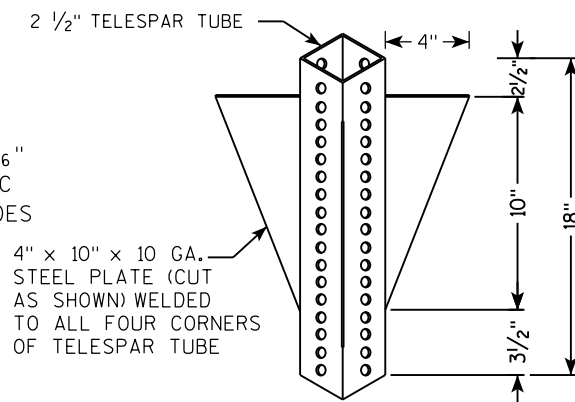
ATTACHMENT OF SIGNS TO POSTS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 8/11/16	PLATE NO. A4-8.8

**TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM**

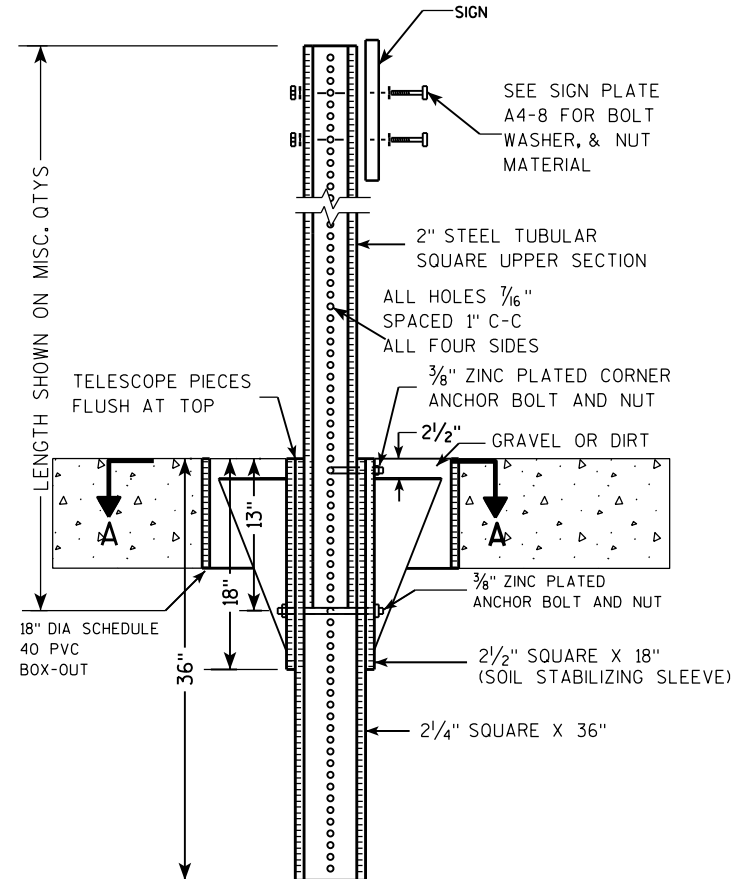
2 1/4" SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



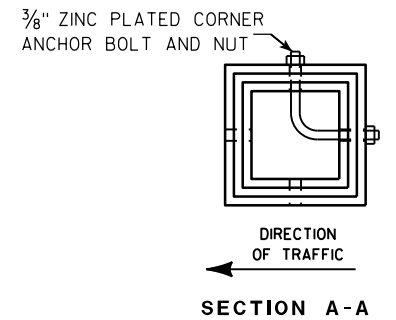
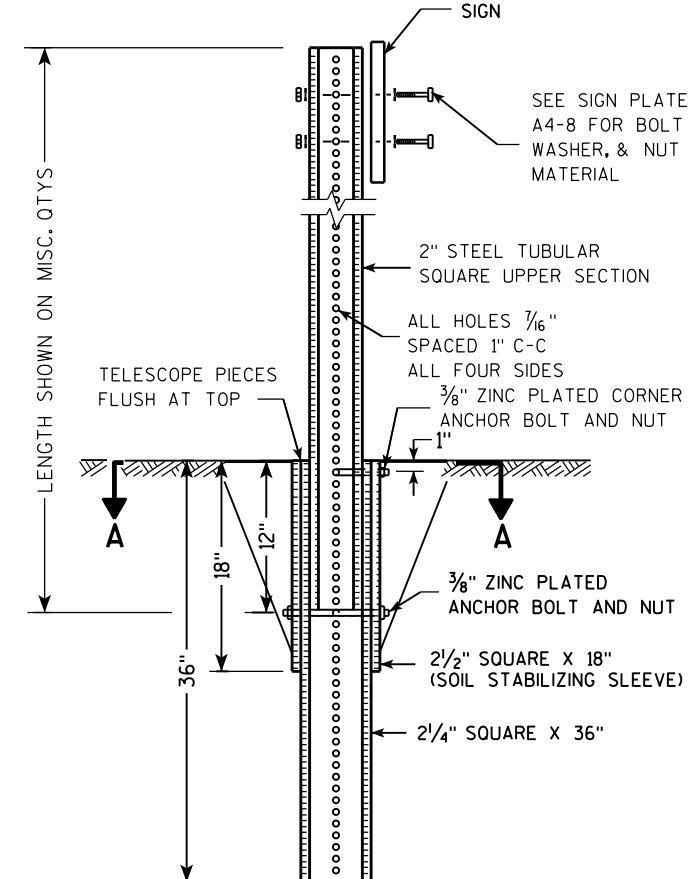
2 1/2" SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH



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



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



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

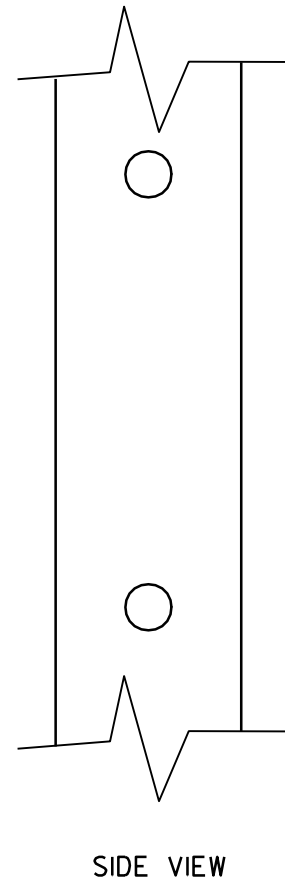
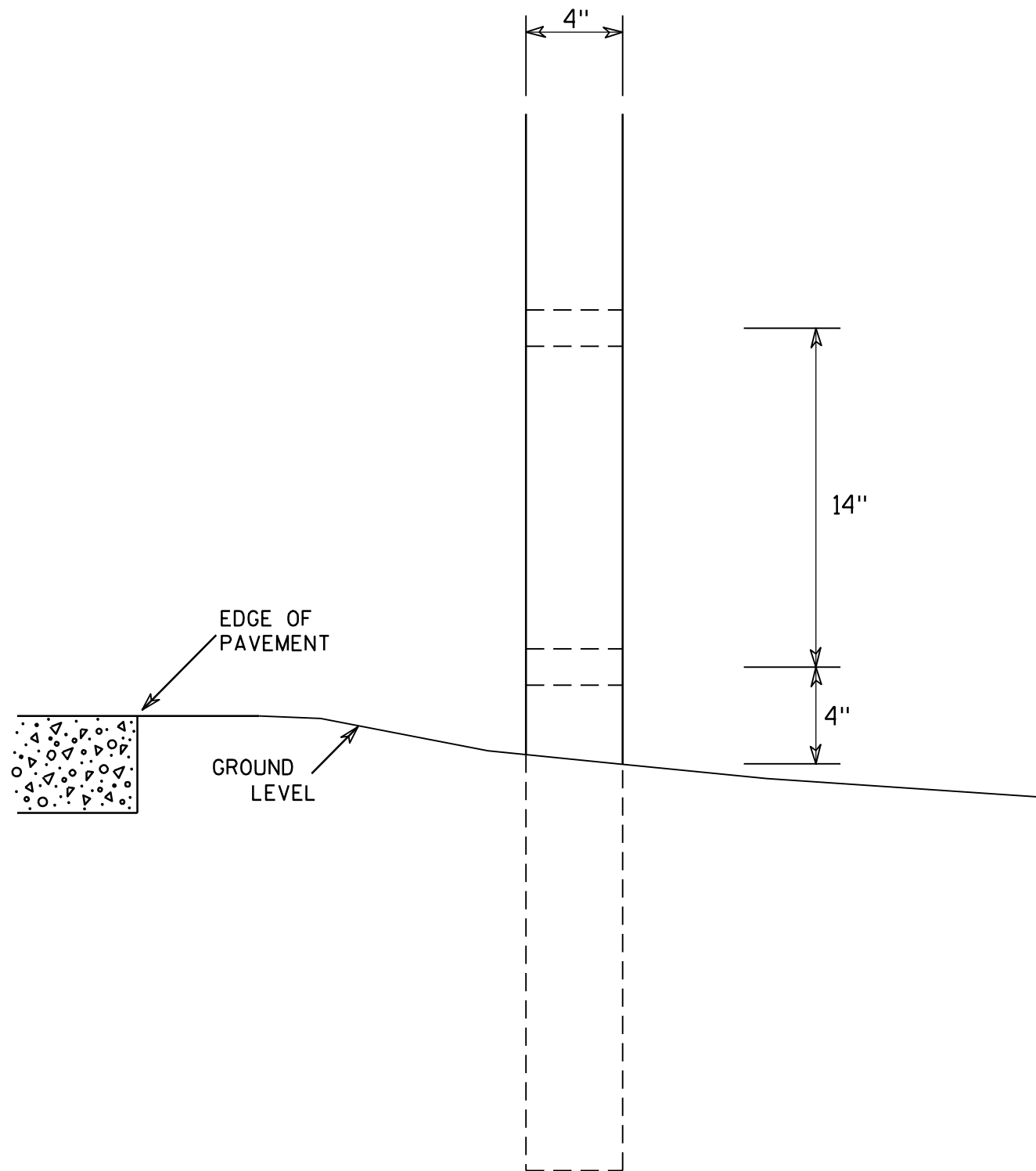
Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

**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



GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

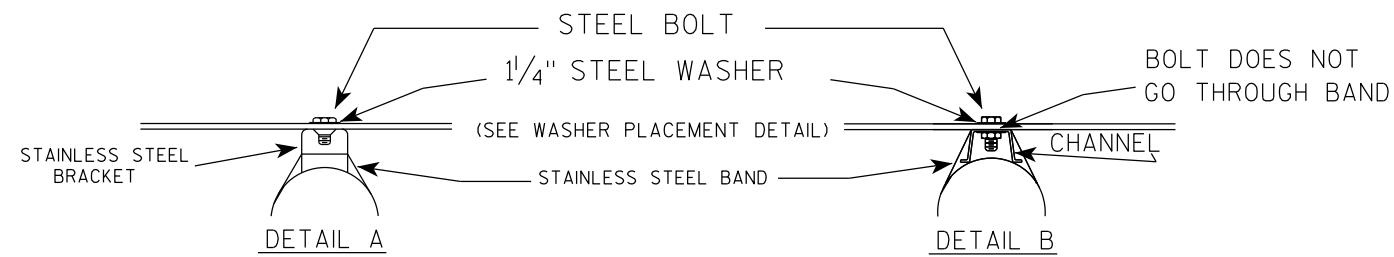
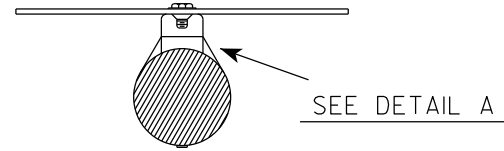
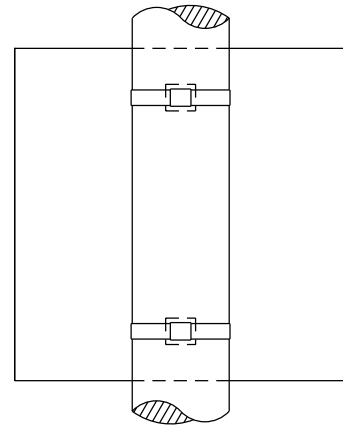
7

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4 X 6 WOOD POST MODIFICATIONS	
<i>WISCONSIN DEPT OF TRANSPORTATION</i>	
APPROVED	<i>Chester J Spang</i> for State Traffic Engineer
DATE <u>3/27/97</u>	PLATE NO. <u>A4-11.2</u>

BANDING

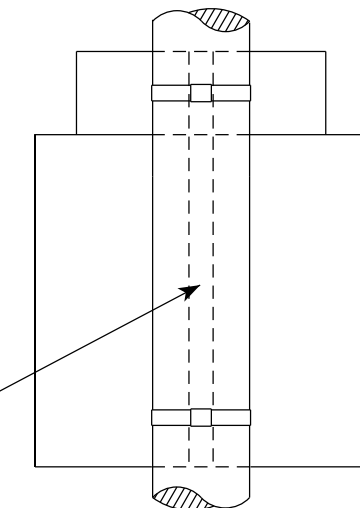
SINGLE SIGN



GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be 3/4" in width and 0.025" thickness.
4. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
 - a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
 - b. Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

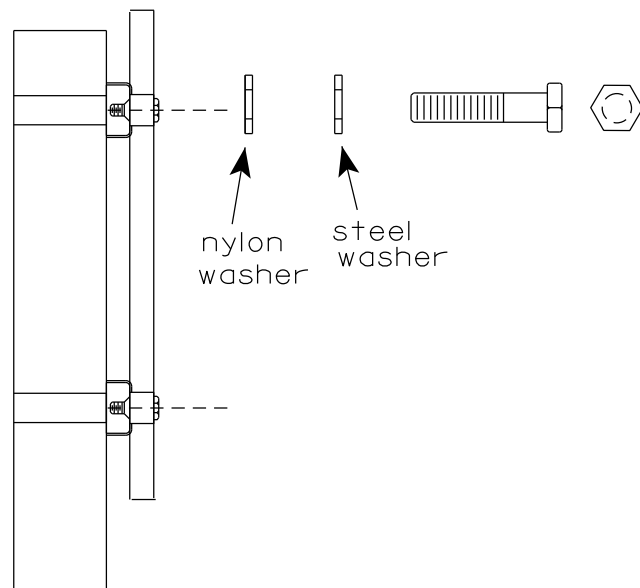
"J" ASSEMBLY



CHANNEL
SEE TYPICAL PANEL INSTALLATION SHEET

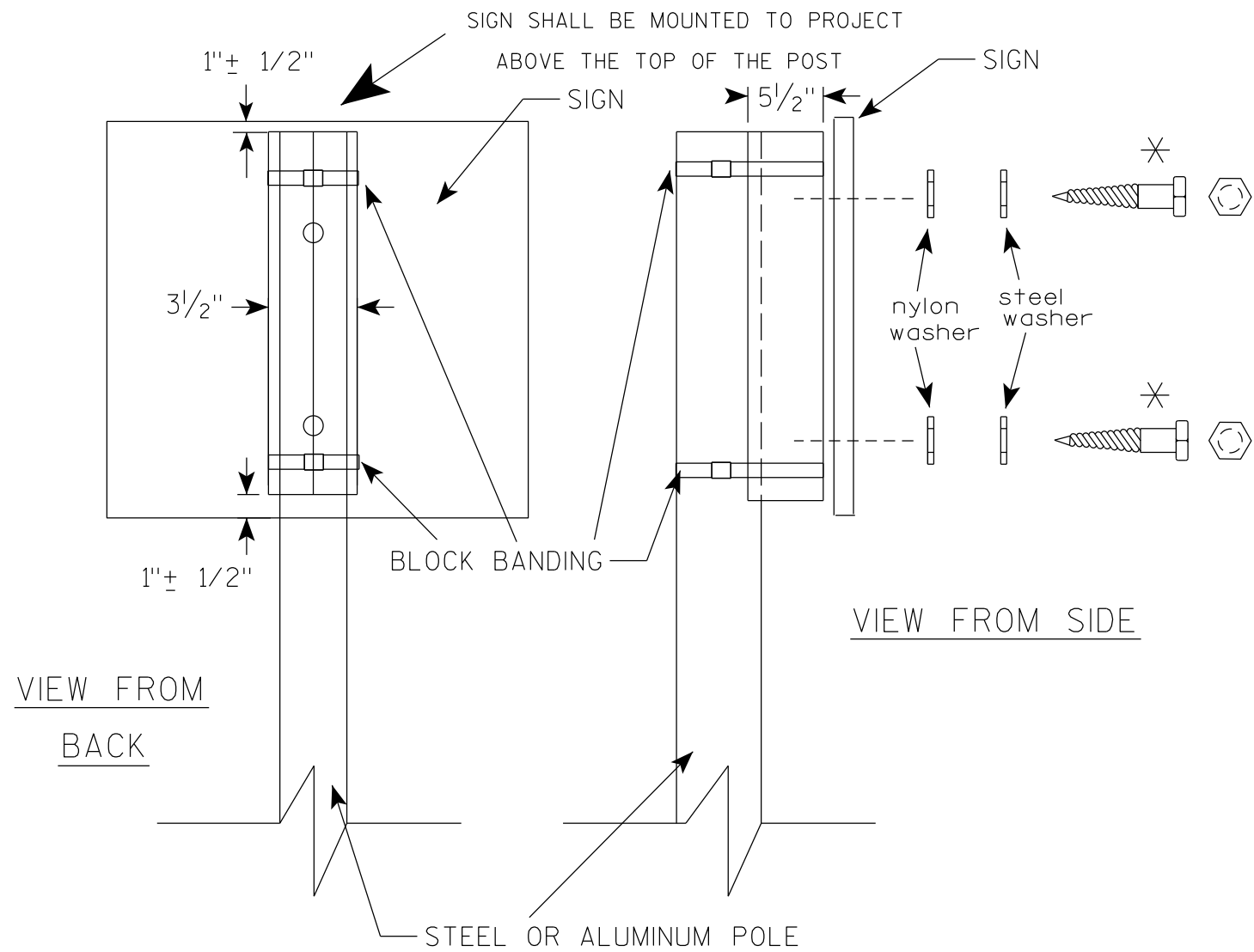


WASHER PLACEMENT



WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

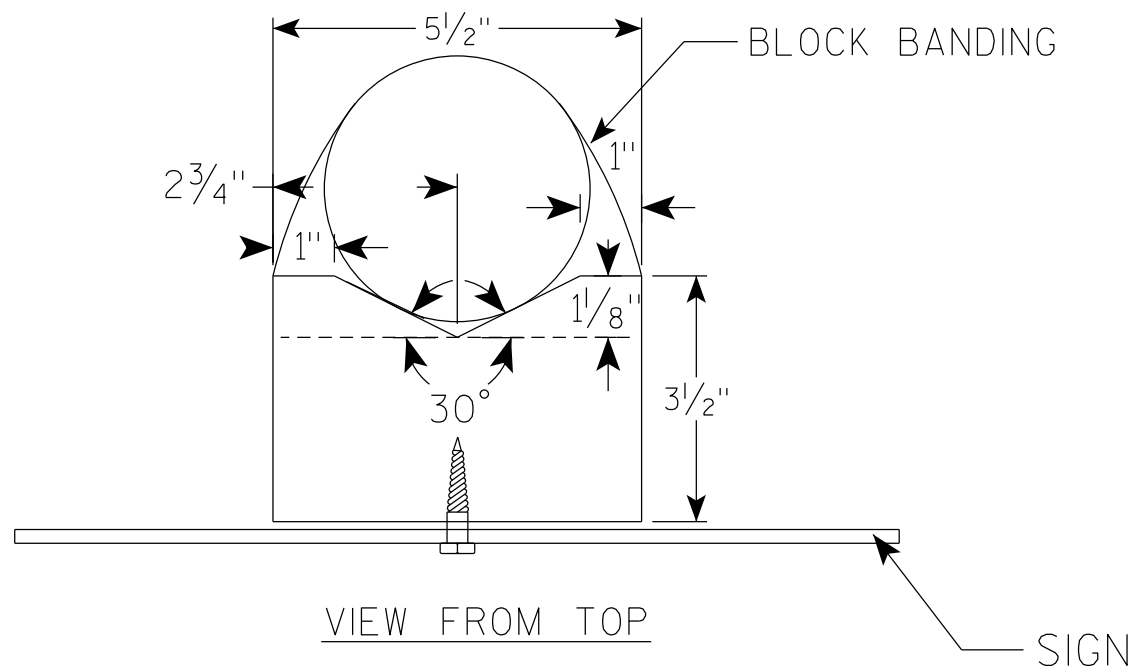
STANDARD SIGN
SIGN BANDING DETAILS
WISCONSIN DEPT OF TRANSPORTATION
APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 6/10/19 PLATE NO. A5-9.4



GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, 3/4" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORMALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
 - a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
 - b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1 1/4" O.D. X 3/8" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1 1/4" O.D. X 3/8" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

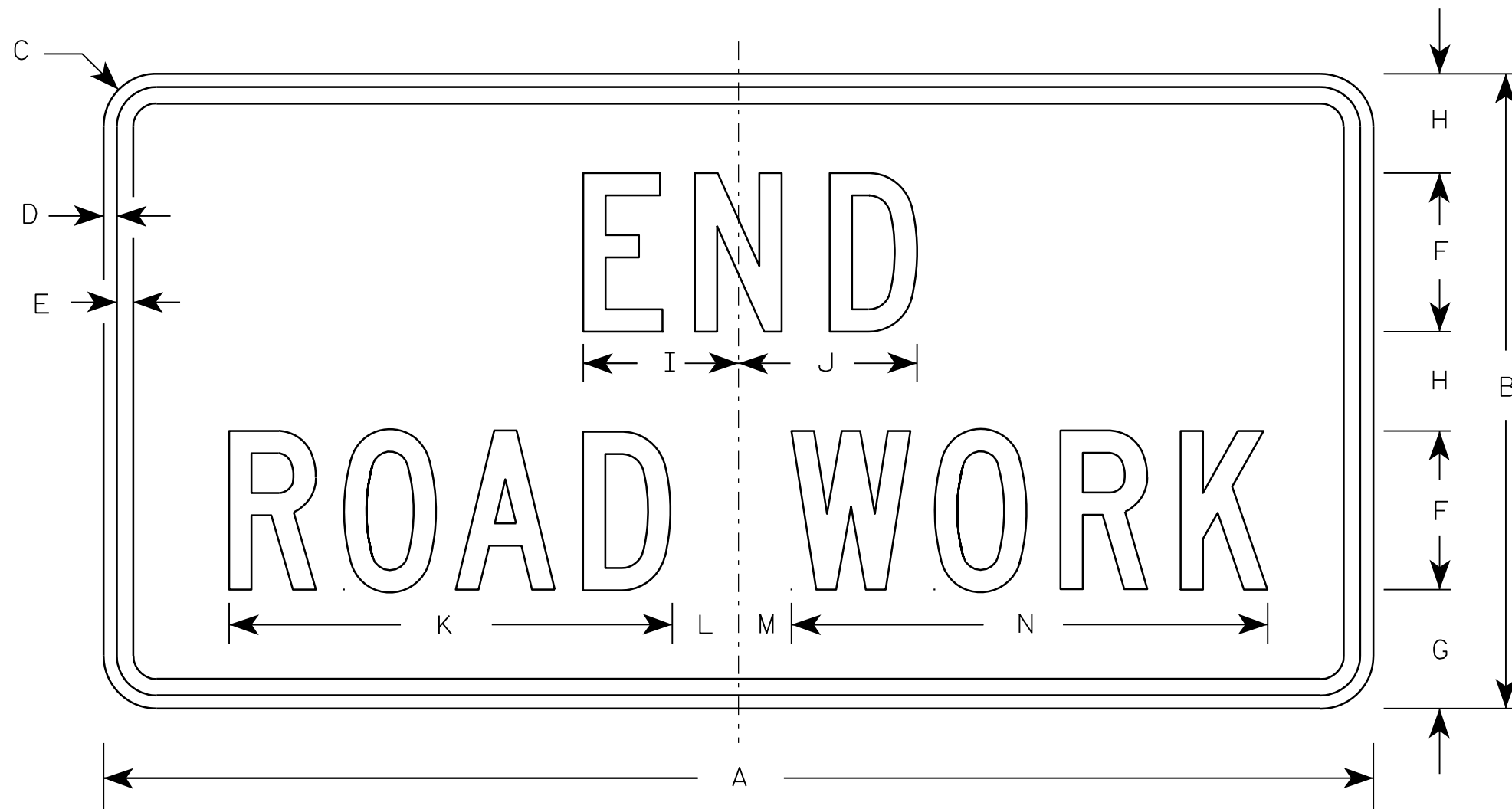
* LAG BOLTS SHALL BE 3/8" X 2 1/2"



BLOCK BANDING DETAIL (V-BLOCK OPTION)	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R Rauch</i> for State Traffic Engineer
DATE <u>6/10/19</u>	PLATE NO. <u>A5-10.2</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 - Orange
Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



G20-2A

7

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Metric equivalent for this sign is:

SIZE	
1	900 mm X 450 mm
2	1200 mm X 600 mm
3	1200 mm X 600 mm
4	1200 mm X 600 mm
5	1200 mm X 600 mm

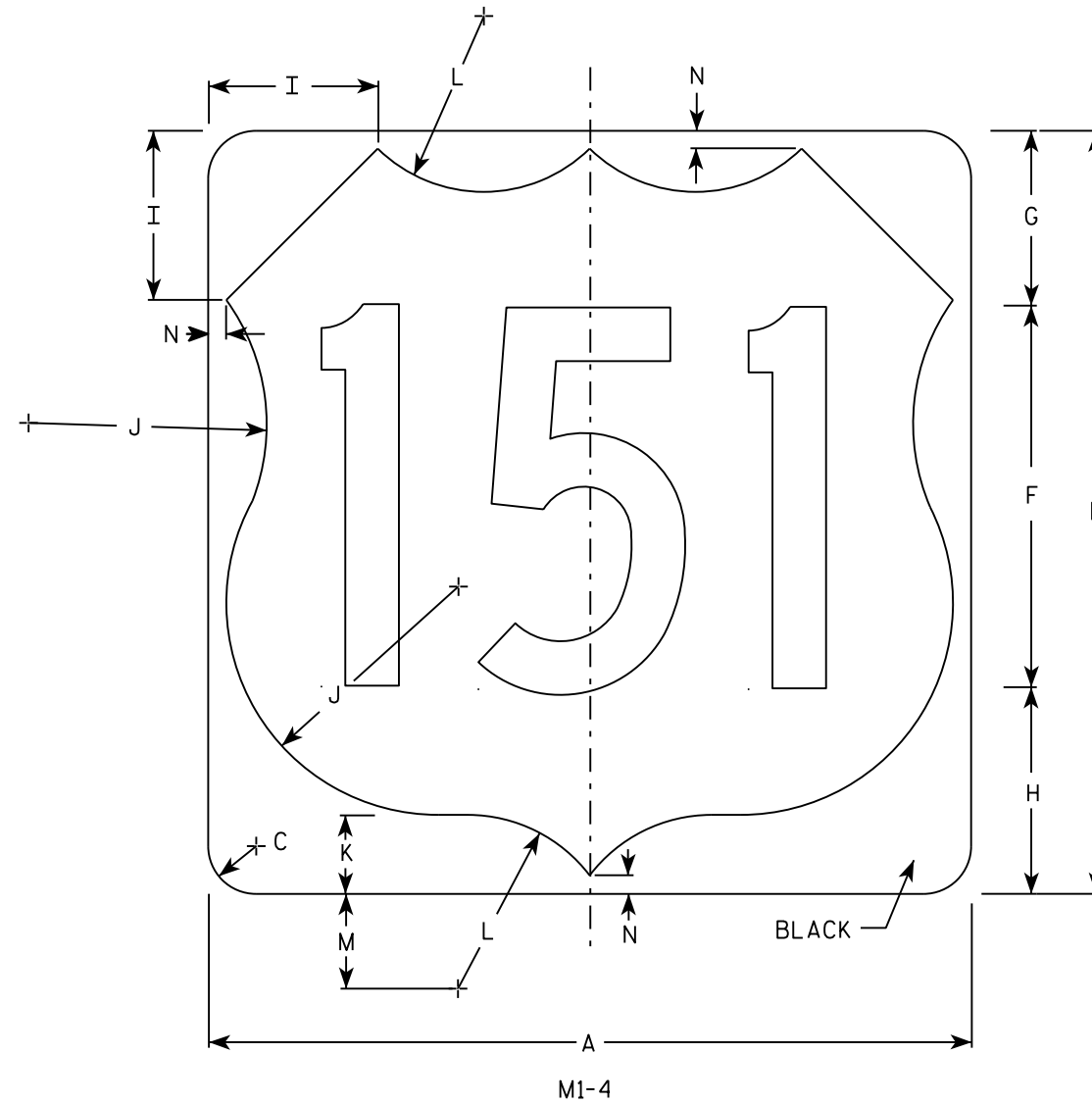
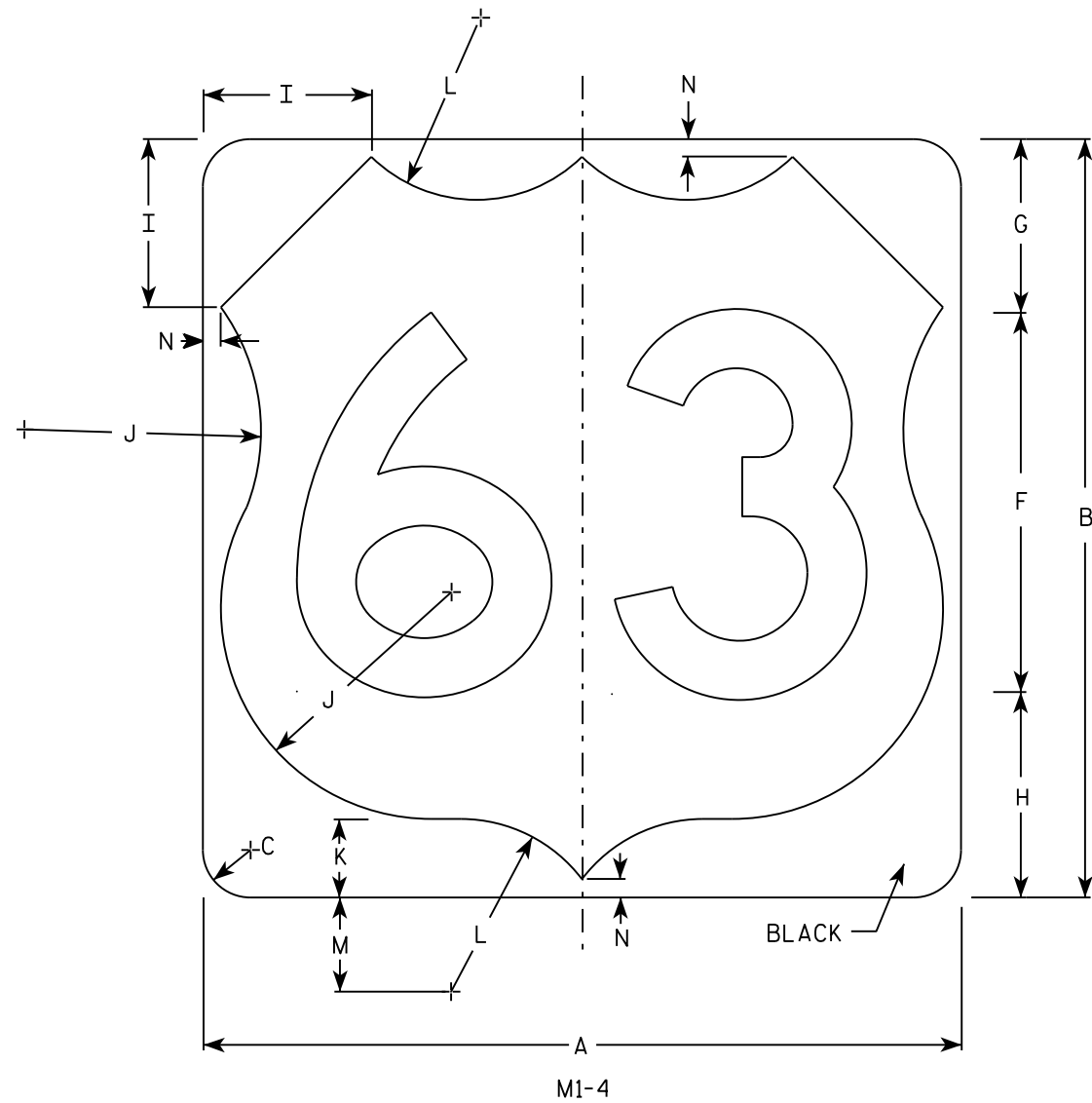
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area sq. m.
1	36	18	1 1/8	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5	0.41
2	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
3	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
4	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
5	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72

STANDARD SIGN G20-2A	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 9/30/09	PLATE NO. G20-2A.8

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

1. Sign is Type II - Type H Reflective
2. Color:
Background - White
Message - Black
3. Message Series - D except 3 number signs 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.



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																											
2	24	24	1 1/2			12	5 1/2	6 1/2	5	7 1/2	2 1/2	5 1/2	3	1/2													4.0
3	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0
4	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0
5	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0

USH MARKER
M1-4 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

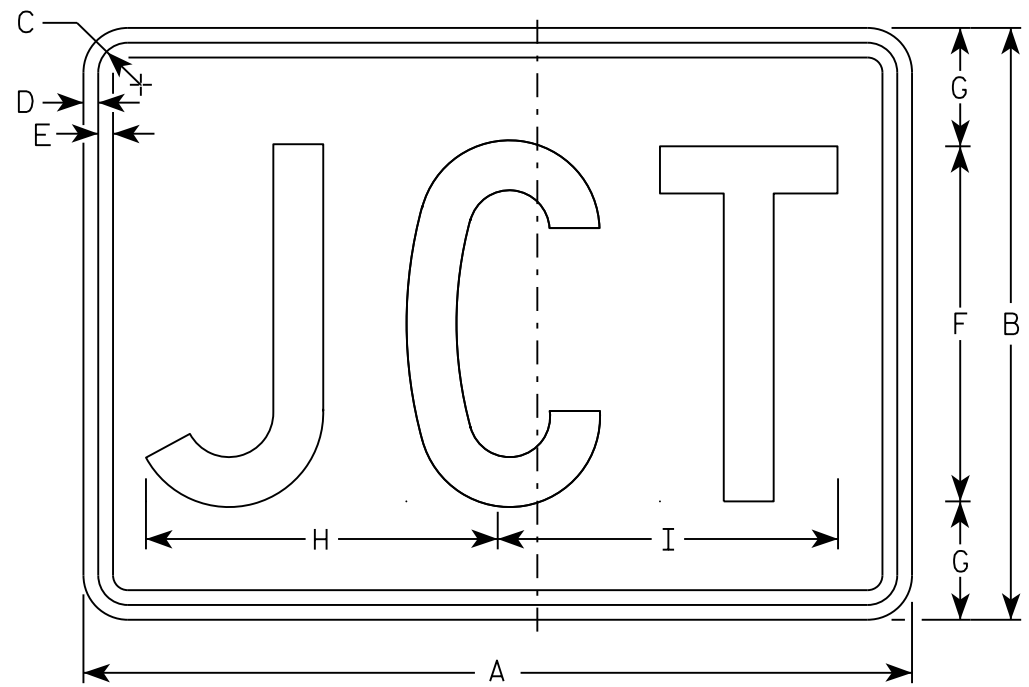
APPROVED *Matthew R Rauch*
For State Traffic Engineer

DATE 3/16/18 PLATE NO. M1-4.10

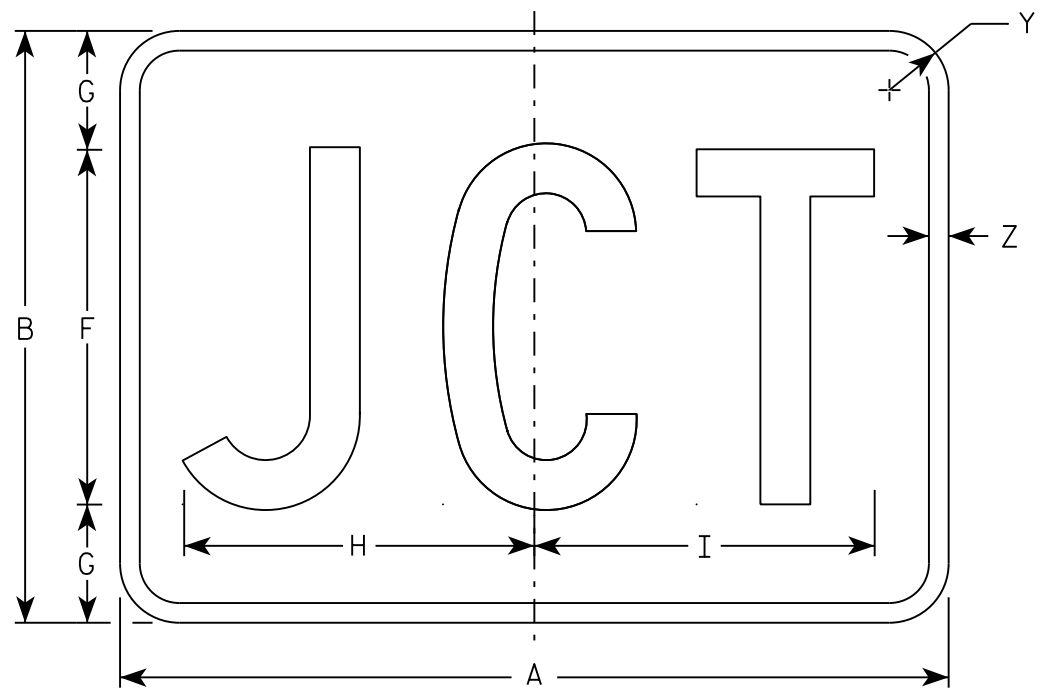
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: _____ **E**

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



M2-1
MM2-1
MP2-1



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

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	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

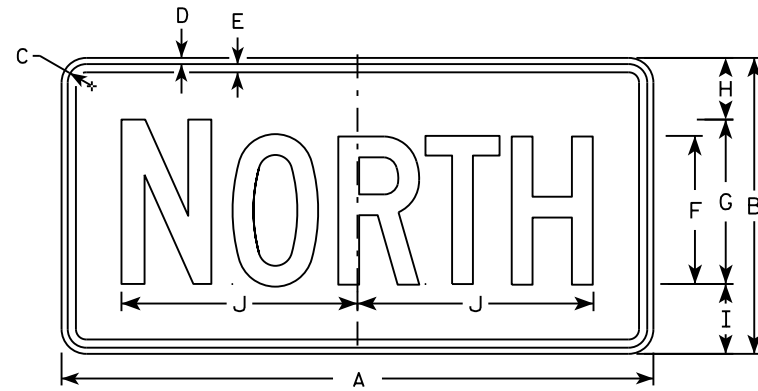
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 10/15/15 PLATE NO. M2-1.12

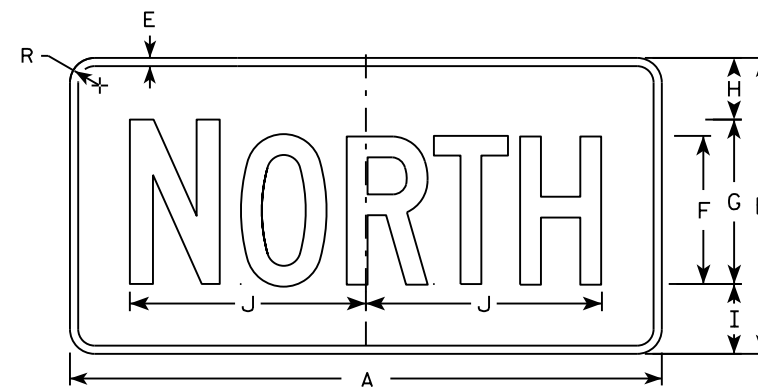
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**

NOTES

- All Signs Type II - Type H
- Color:
 - Background - See note 5
 - Message - See note 5
- Message Series - C
- 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.
- 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
- Note the first letter of each direction is larger than the remainder of the message.



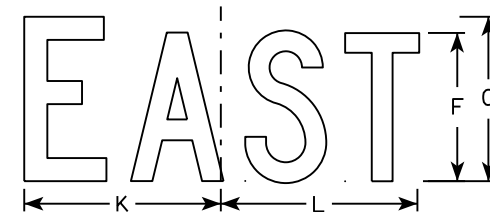
M3-1
MM3-1
MP3-1



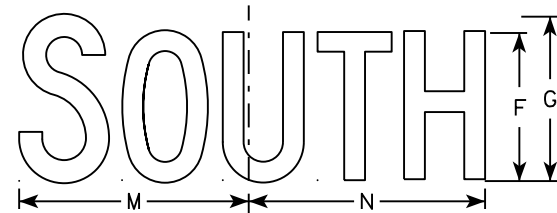
MB3-1
MK3-1
MN3-1



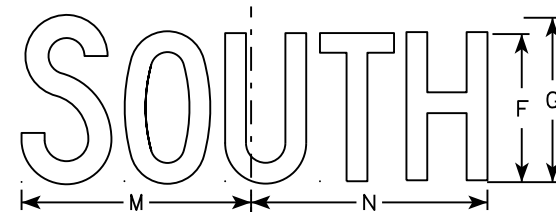
M3-2
MM3-2
MP3-2



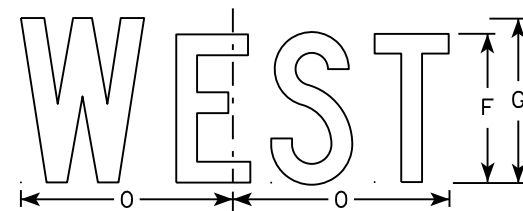
MB3-2
MK3-2
MN3-2



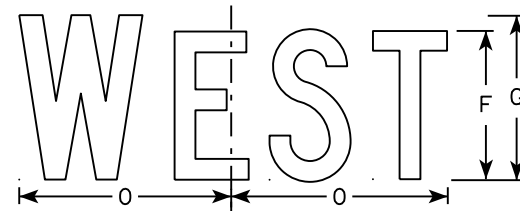
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

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	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

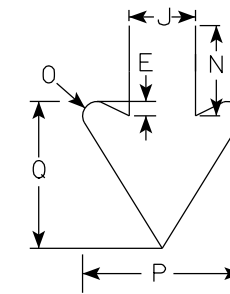
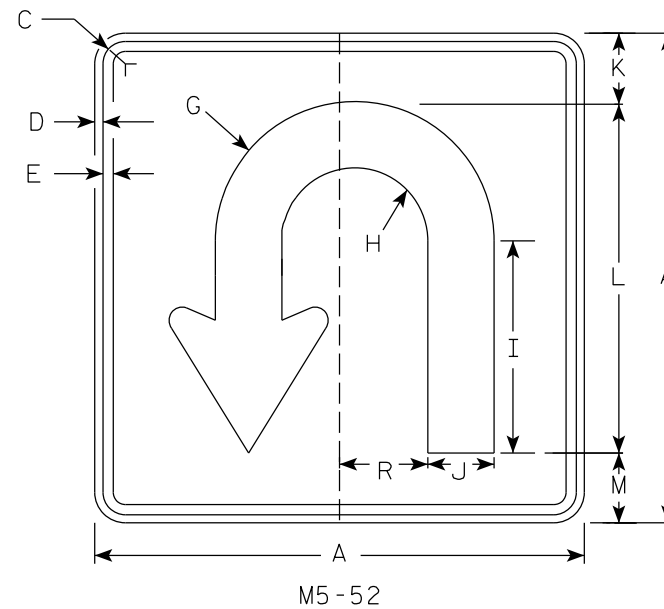
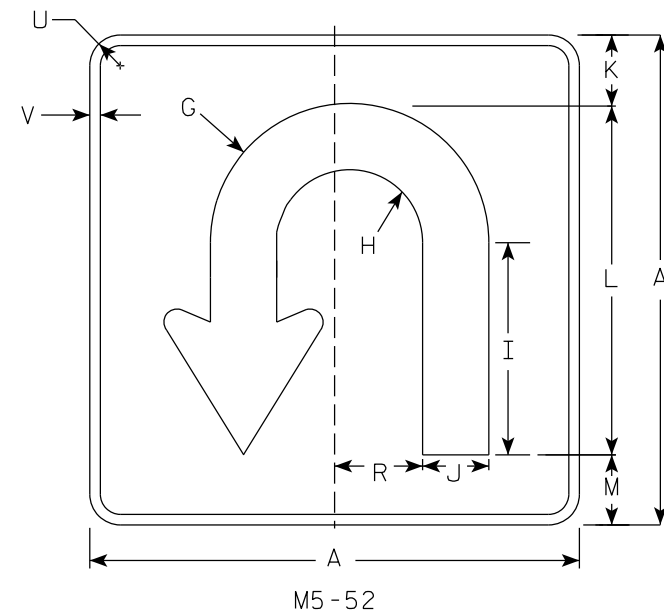
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

NOTES

1. Signs are Type II - Type H except as Shown
2. Color:
 - Background - See Note 4
 - Message - See note 4
3. M5-52 Background - White
Message - Black
- MB5-52 Background - Blue
Message - White
- MK5-52 Background - Green
Message - White
- MM5-52 Background - White
Message - Green
- MN5-52 Background - Brown
Message - White
- M05-52 Background - Orange - Type F Reflective
Message - Black
- MP5-52 Background - White
Message - Blue
- MR5-52 Background - Brown
Message - Yellow



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																											
2	21		1 1/8	3/8	3/8		6	3 1/8	9 1/8	2 7/8	3	15	3	3 7/8	5/8	6 7/8	6 3/4	3 3/4			1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		8 1/2	4 1/2	13	4 1/8	4 3/8	21 3/8	4 1/4	5 1/2	7/8	9 3/4	8 1/8	5 1/4			2 1/2	5/8					6.25
4																											
5																											

STANDARD SIGN
M5-52
SERIES

WISCONSIN DEPT OF TRANSPORTATION

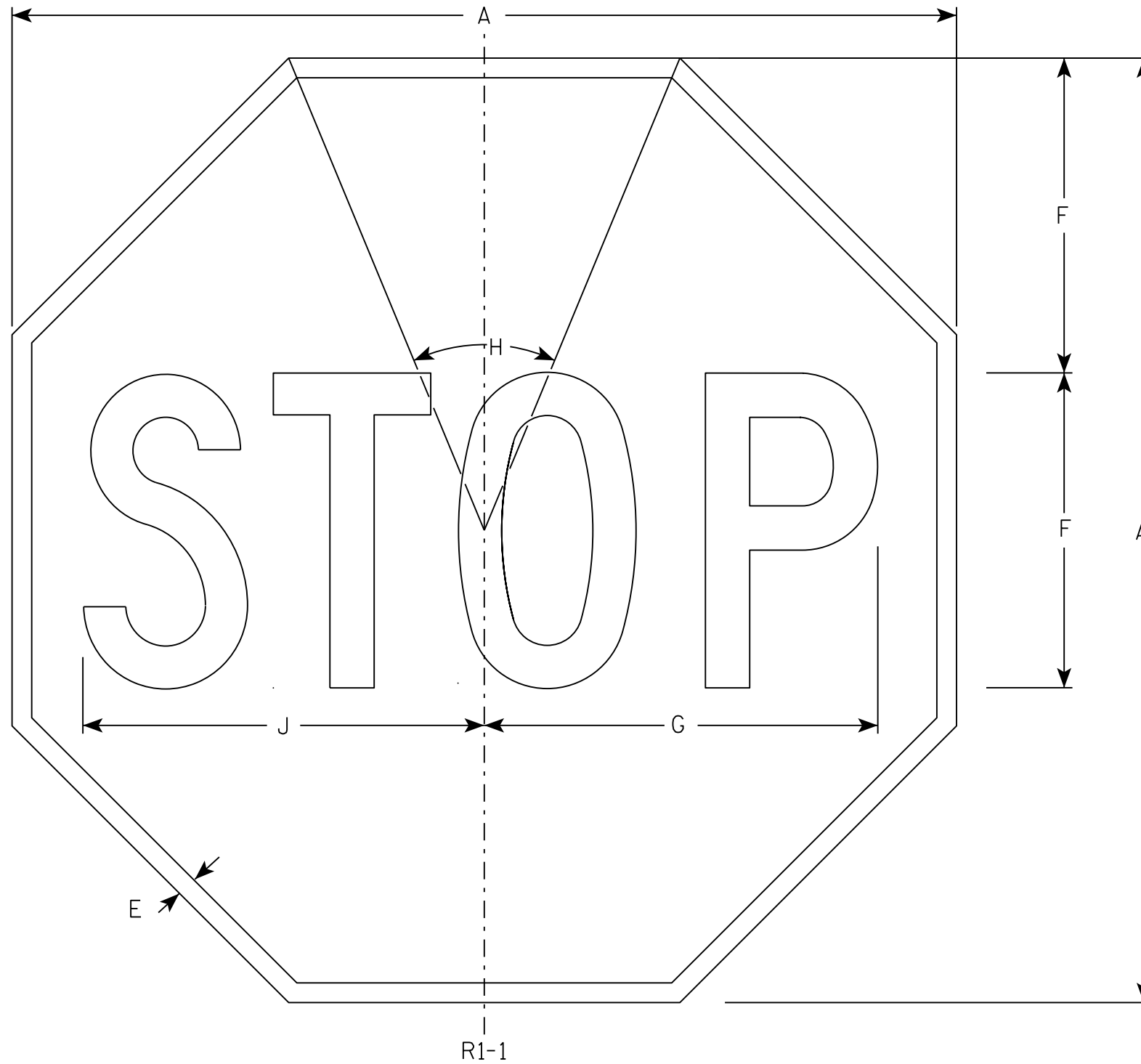
APPROVED *Matthew R. Rauch*
State Traffic Engineer

DATE 5/21/19 PLATE NO. M5-52.1

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 - Red
Message - White
3. Message Series - C



R1-1

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

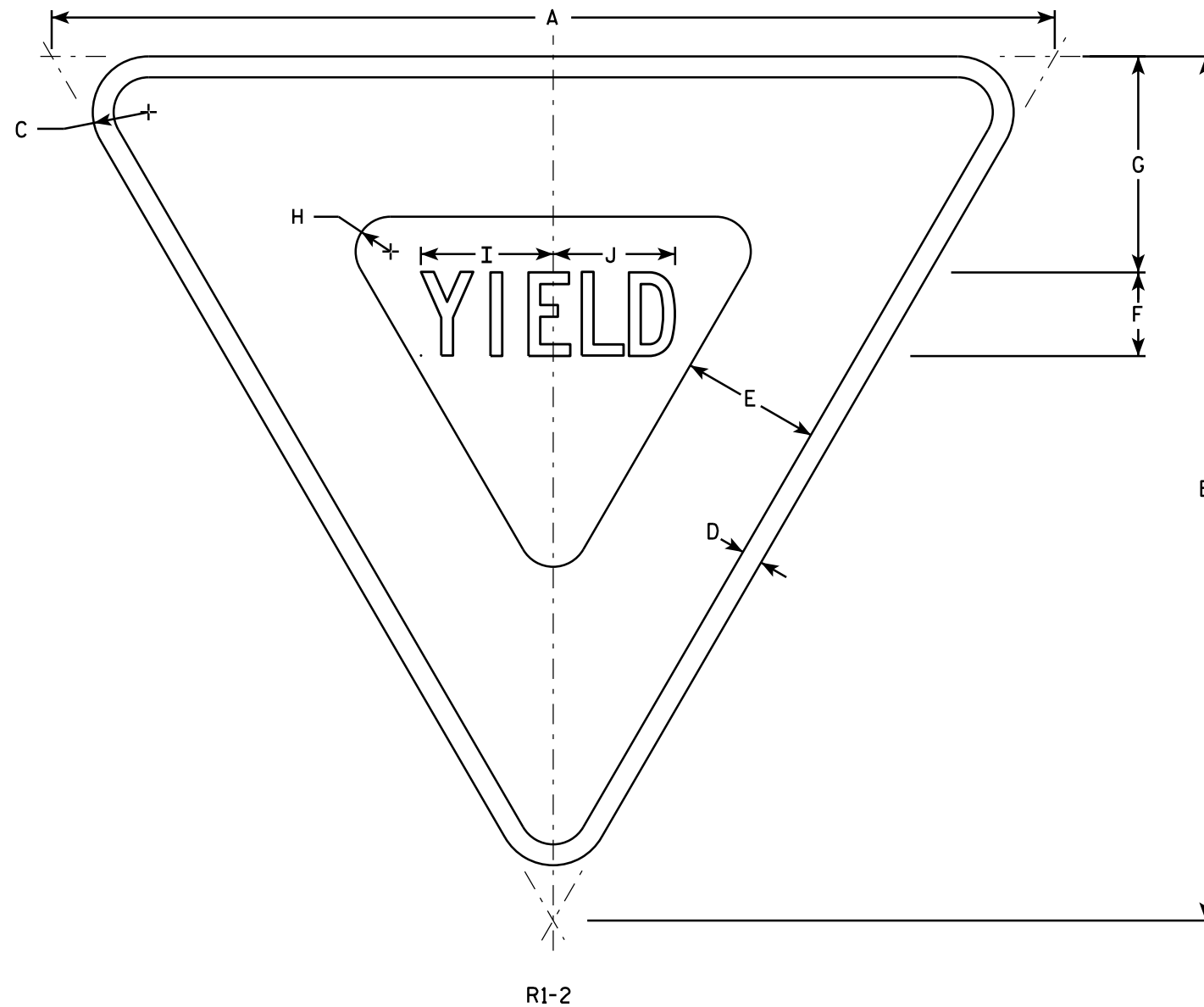
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

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 - White
Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. The border strip and word message are reflectorized red.



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	30	26	1 1/2	5/8	4	2 1/2	6 3/8	7/8	4	3 5/8																	2.71
2S	36	31	2	3/4	5	3	7 3/4	1 1/4	4 3/4	4 3/8																	3.88
2M	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
3	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
4	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
5	60	52	3	1 1/2	8	5	13	2 1/2	7 7/8	7 1/4																	10.83
6																											
7	18	15 1/2	1	3/8	2 1/2	1 1/2	3 7/8	5/8	2 3/8	2 1/4																	0.97

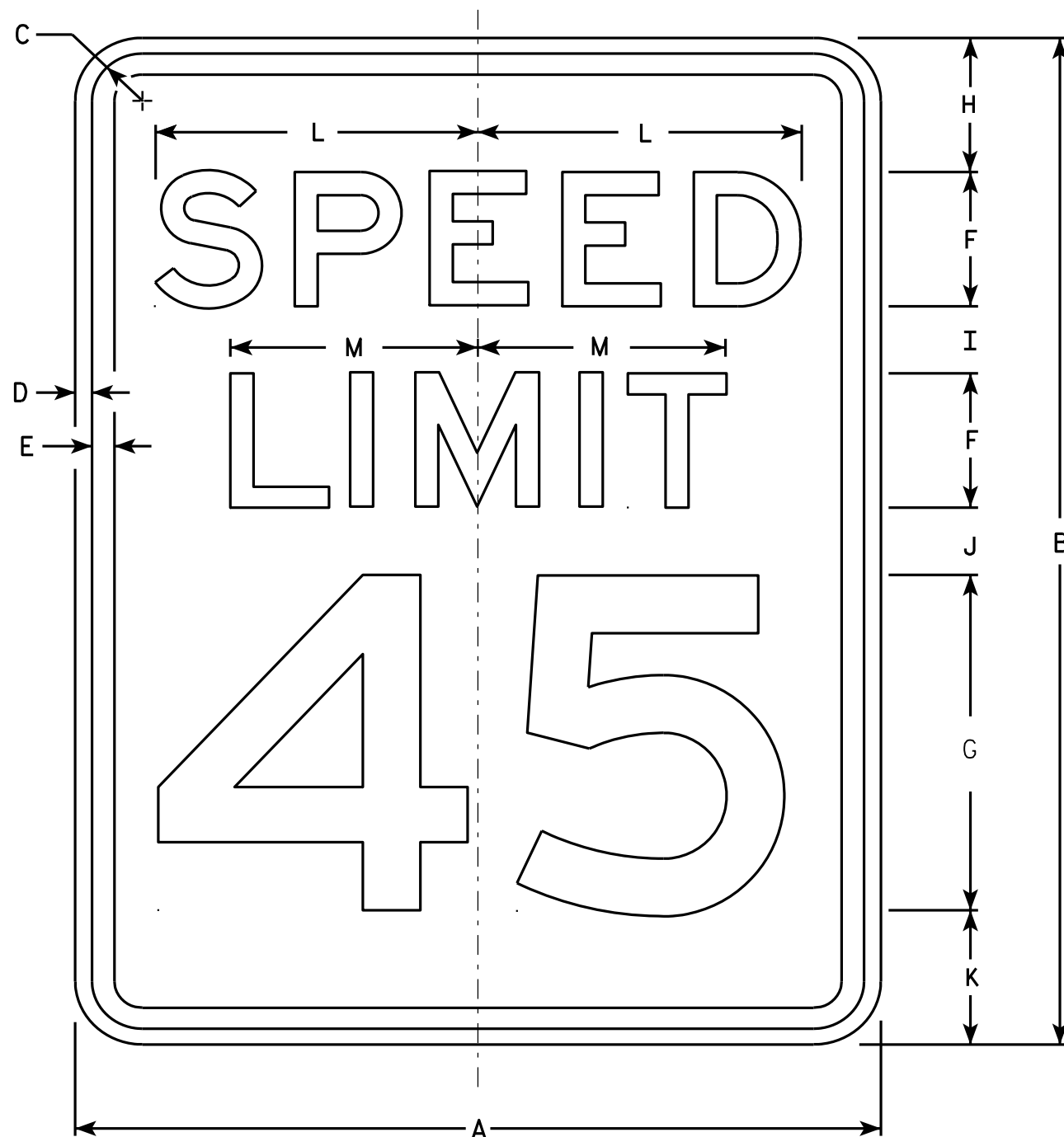
STANDARD SIGN
R1-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 10/13/14 PLATE NO. R1-2.12

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: _____ E



R2-1

NOTES

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

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	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

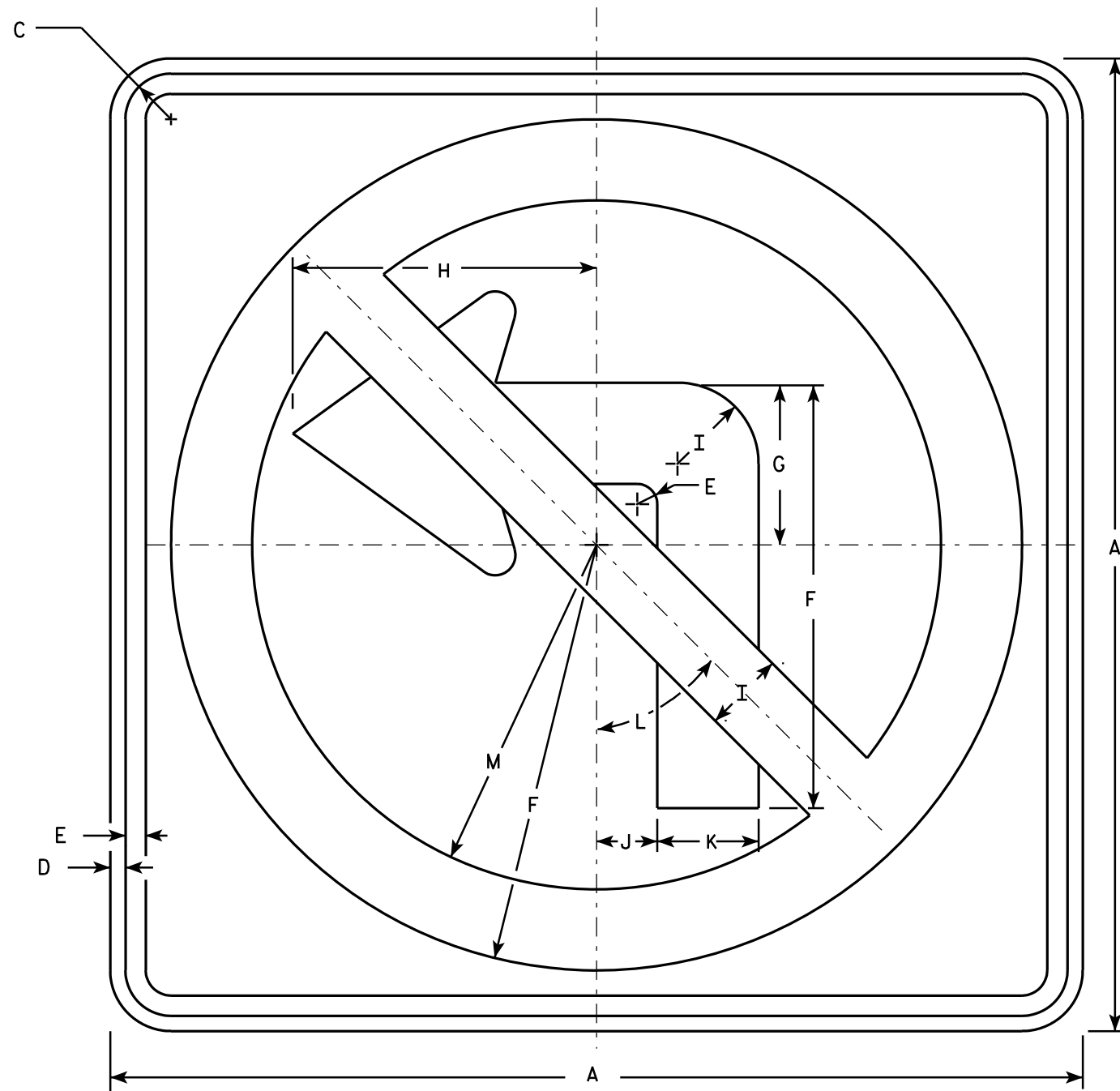
STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 5/26/10 PLATE NO. R2-1.13

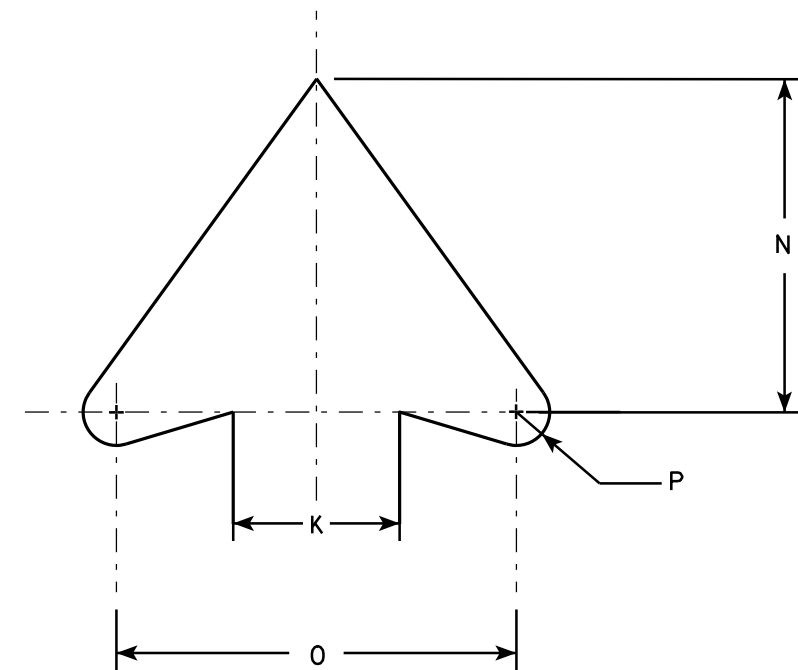
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: _____ E



R3-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. Ft.
1	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2S	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2M	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
3	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
4	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1											16.0

STANDARD SIGN
R3-2

WISCONSIN DEPT OF TRANSPORTATION

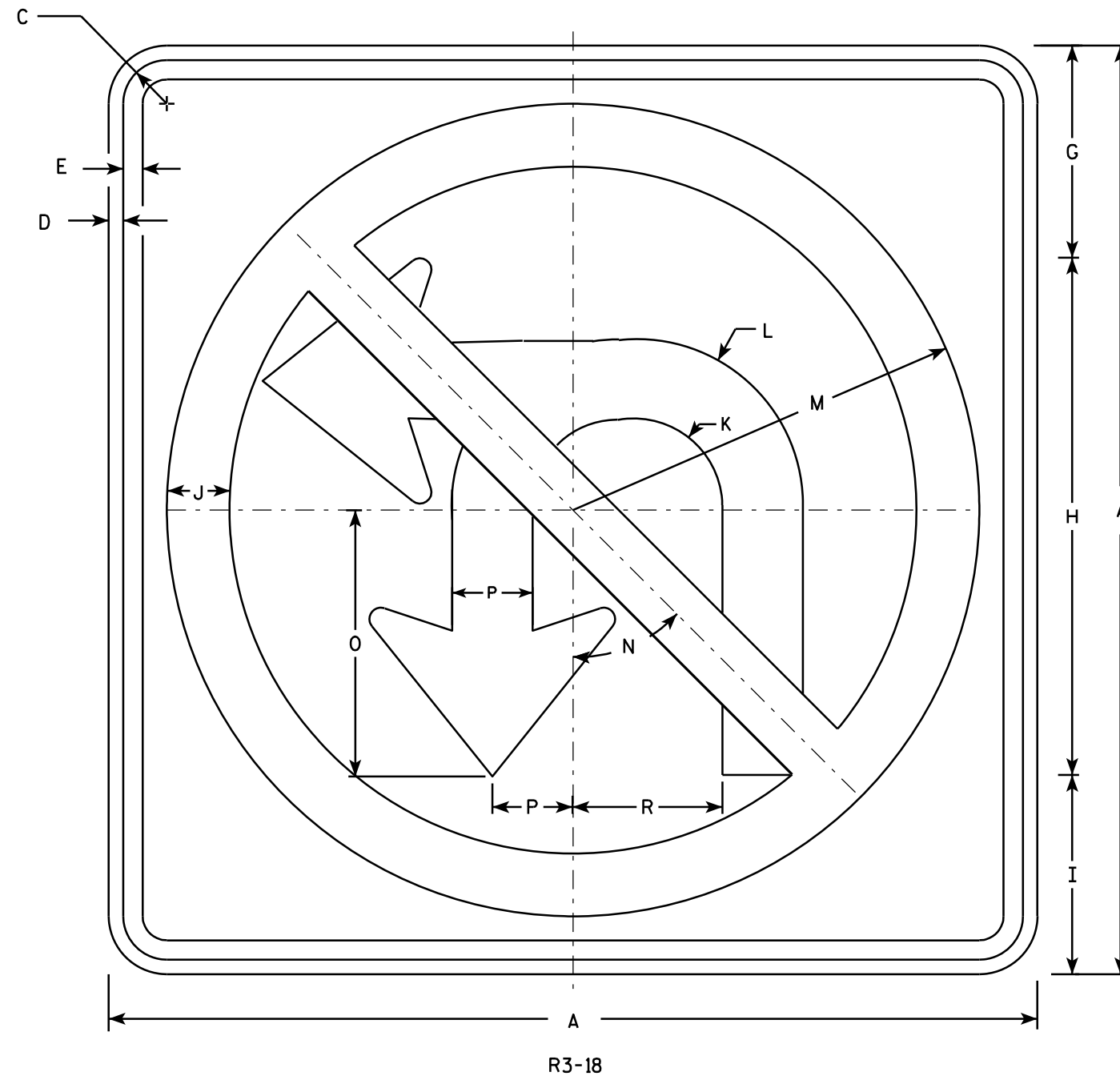
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-2.10

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



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																											
2S	24		1 1/8	3/8	1/2		5 1/2	13 3/8	5 1/8	1 5/8	2 1/4	4 1/4	10 1/2	45°	6 7/8	2 1/8		3 7/8									4.0
2M	36		1 5/8	5/8	3/4		8 1/4	20	7 3/4	2 1/2	3 3/8	6 1/2	15 3/4	45°	10 3/8	3 1/8		5 3/4									9.0
3	36		1 5/8	5/8	3/4		8 1/4	20	7 3/4	2 1/2	3 3/8	6 1/2	15 3/4	45	10 3/8	3 1/8		5 3/4									9.0
4	36		1 5/8	5/8	3/4		8 1/4	20	7 3/4	2 1/2	3 3/8	6 1/2	15 3/4	45	10 3/8	3 1/8		5 3/4									9.0
5	48		2 1/4	3/4	1		11	26 3/4	10 1/4	3 1/4	4 5/8	8 5/8	21	45°	13 3/4	4 1/8		7 3/4									16.0

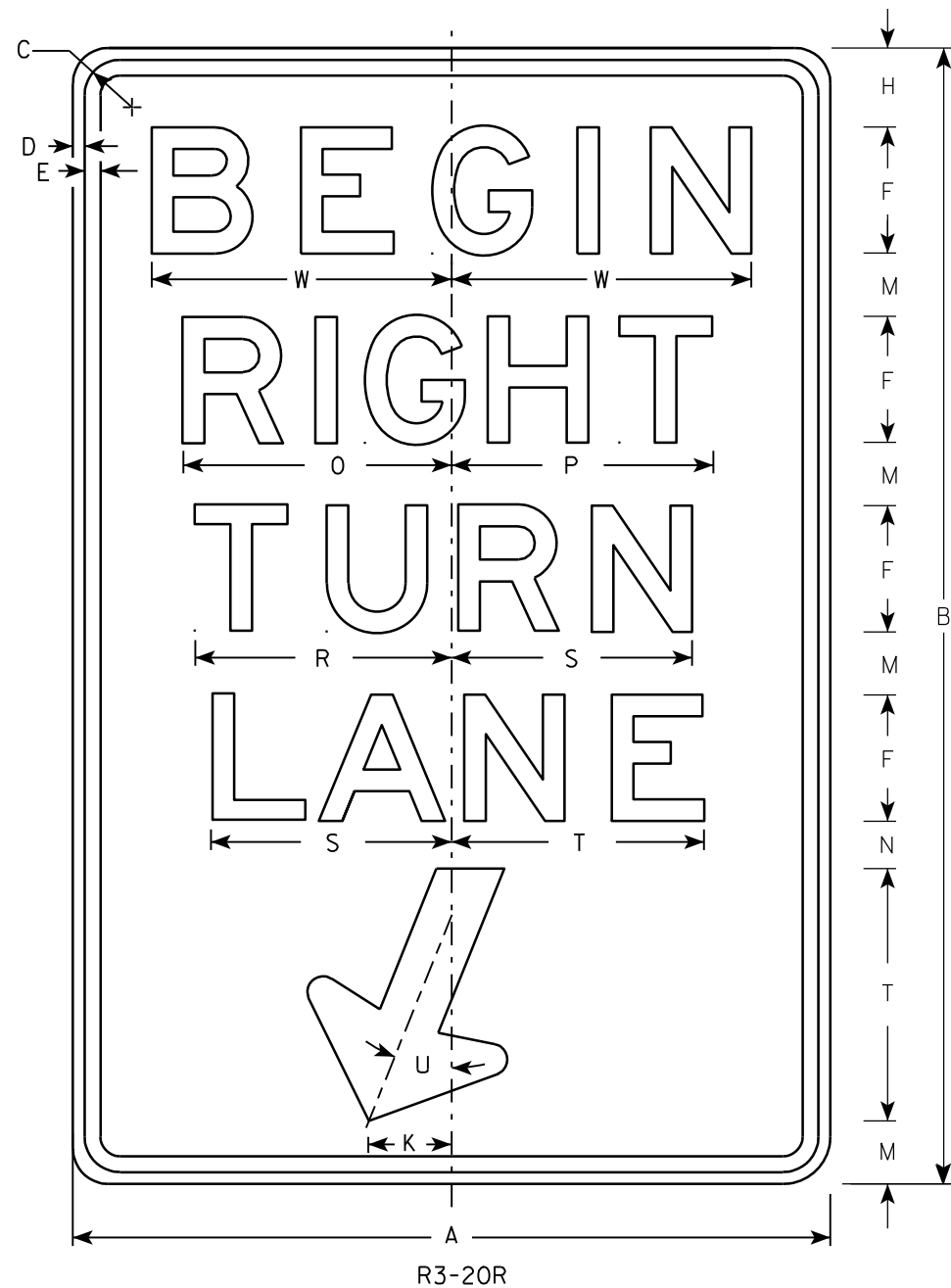
STANDARD SIGN
R3-18

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 11/21/10 PLATE NO. R3-18.2

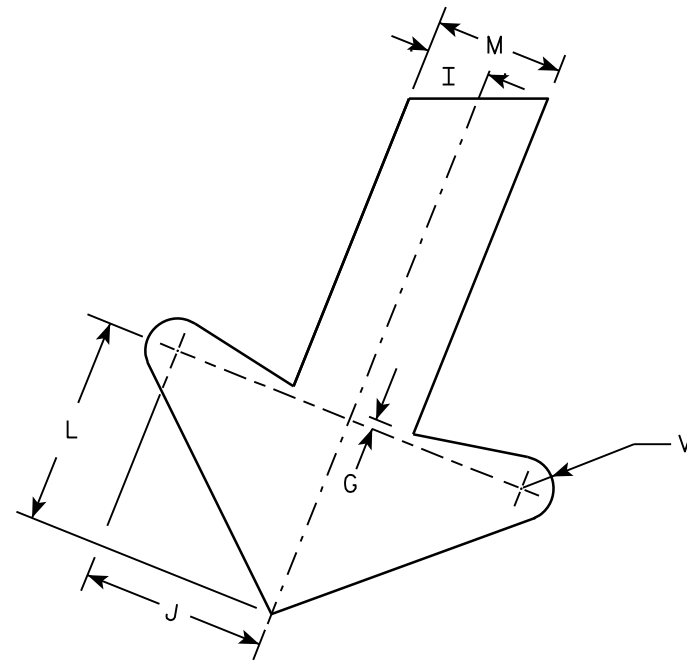
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: _____ E



R3-20R

NOTES

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



ARROW DETAIL

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																												
2S	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	8 1/2	8 1/4		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0	
2M	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	8 1/2	8 1/4		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0	
3	36	54	1 3/4	1/2	5/8	6	3/8	3 3/4	1 1/2	4 1/4	4	4 7/8	3	2 1/4	12 3/4	12 1/2		12 1/4	11 1/2	12	22°	3/4	13 1/4				13.5	
4																												
5																												

STANDARD SIGN
R3-20R

WISCONSIN DEPT OF TRANSPORTATION

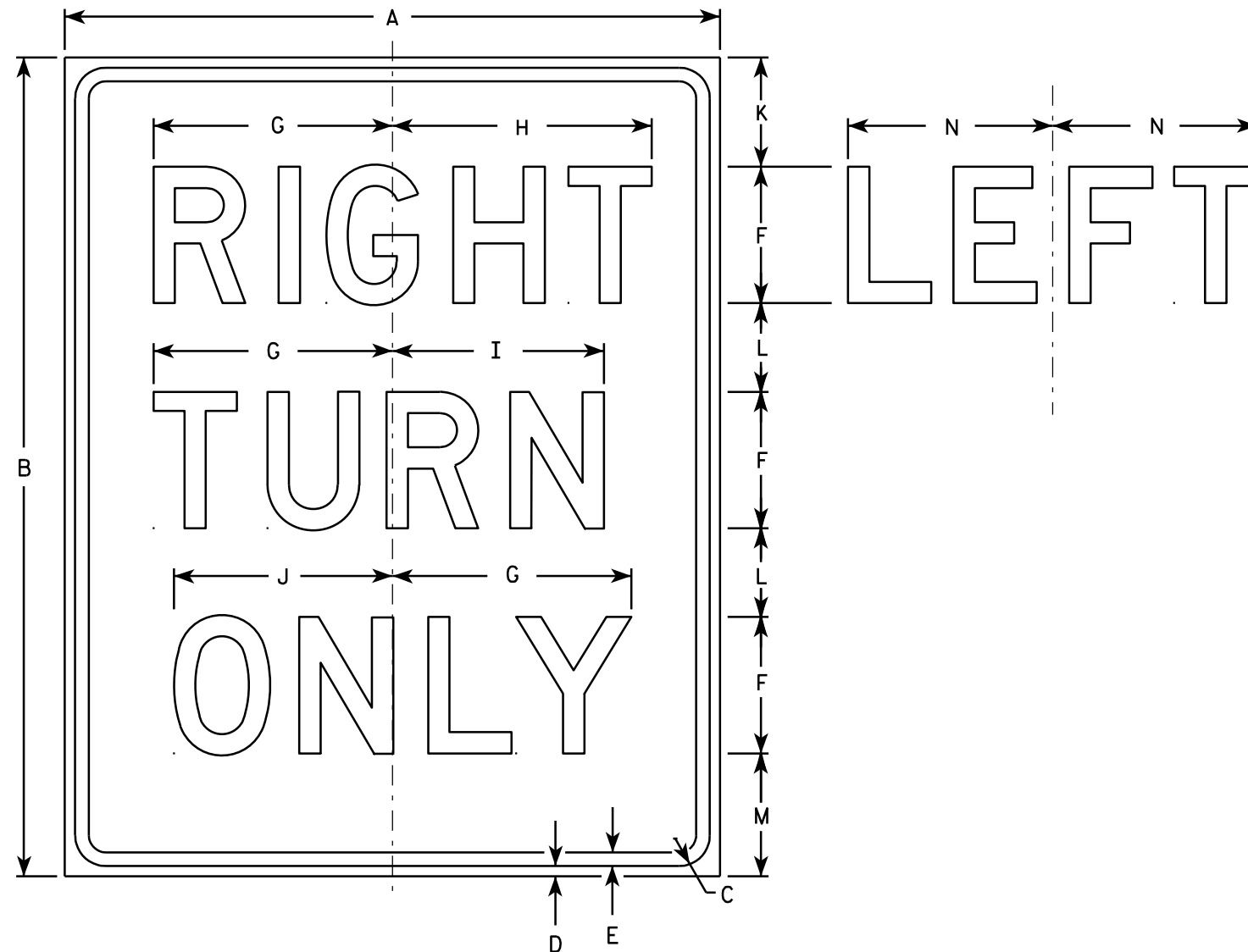
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 10/18/10 PLATE NO. R3-20R.6

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. R3-53L same as R3-53R except LEFT is substituted for RIGHT.



R3-53R

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																											
2S	24	30	1 1/8	3/8	1/2	5	8 3/4	9 1/2	7 3/4	8	4	3 1/4	4 1/2	7 1/2													5.0
2M	24	30	1 1/8	3/8	1/2	5	8 3/4	9 1/2	7 3/4	8	4	3 1/4	4 1/2	7 1/2													5.0
3	24	30	1 1/8	3/8	1/2	5	8 3/4	9 1/2	7 3/4	8	4	3 1/4	4 1/2	7 1/2													5.0
4																											
5																											

STANDARD SIGN
R3-53

WISCONSIN DEPT OF TRANSPORTATION

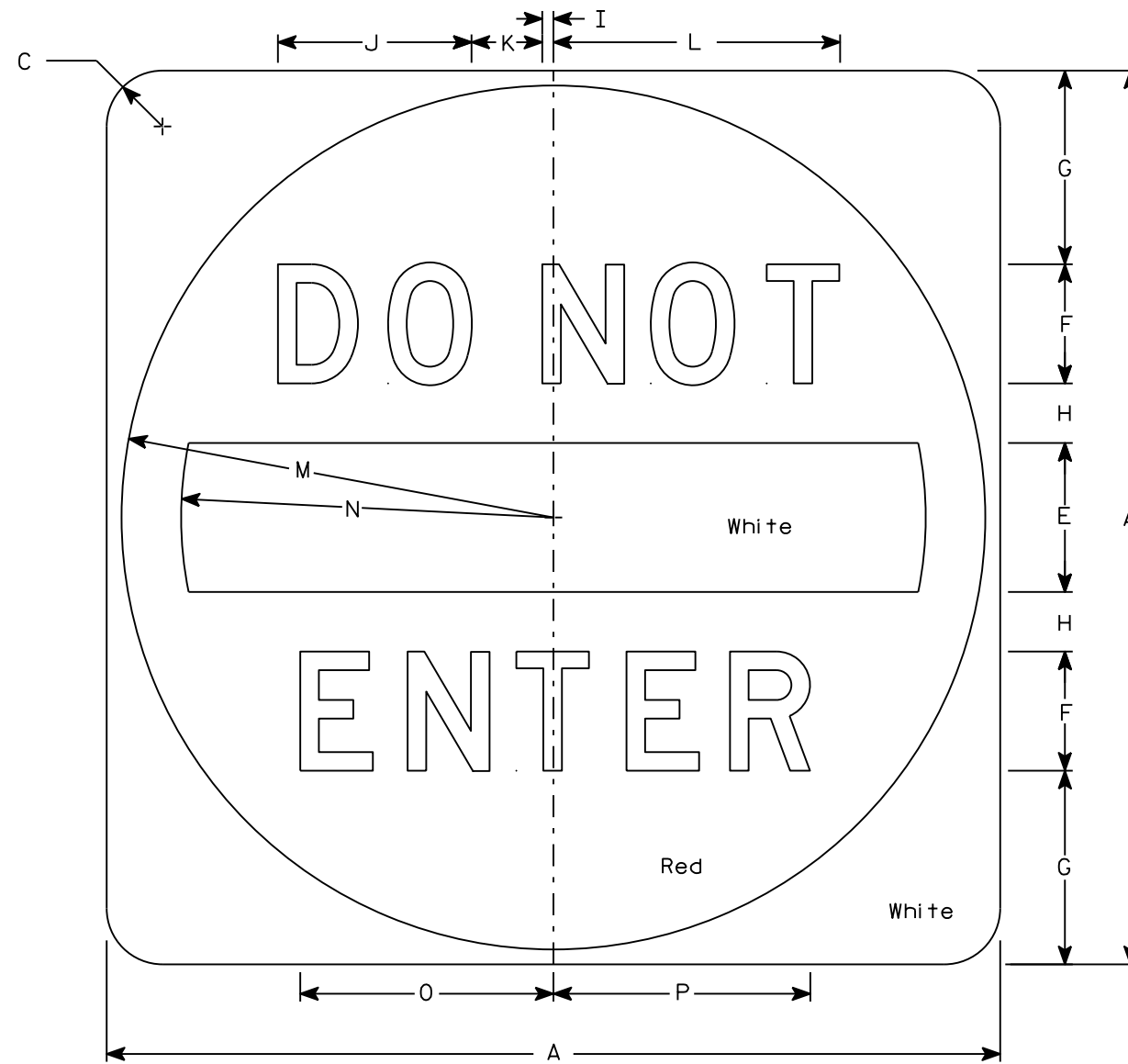
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 3/24/2011 PLATE NO. R3-53.8

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: _____ E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - See detail
Message - White
3. Message Series - D



R5-1

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																											
2S	30		1 7/8		5	4	6 1/2	2	3/8	6 1/2	2 3/8	9 5/8	14 1/2	12 1/2	8 1/2	8 5/8											6.25
2M	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
3	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
4	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
5	48		3		8	6	11	3	5/8	9 3/4	3 5/8	14 1/2	23 1/2	20	12 3/4	12 7/8											16.0

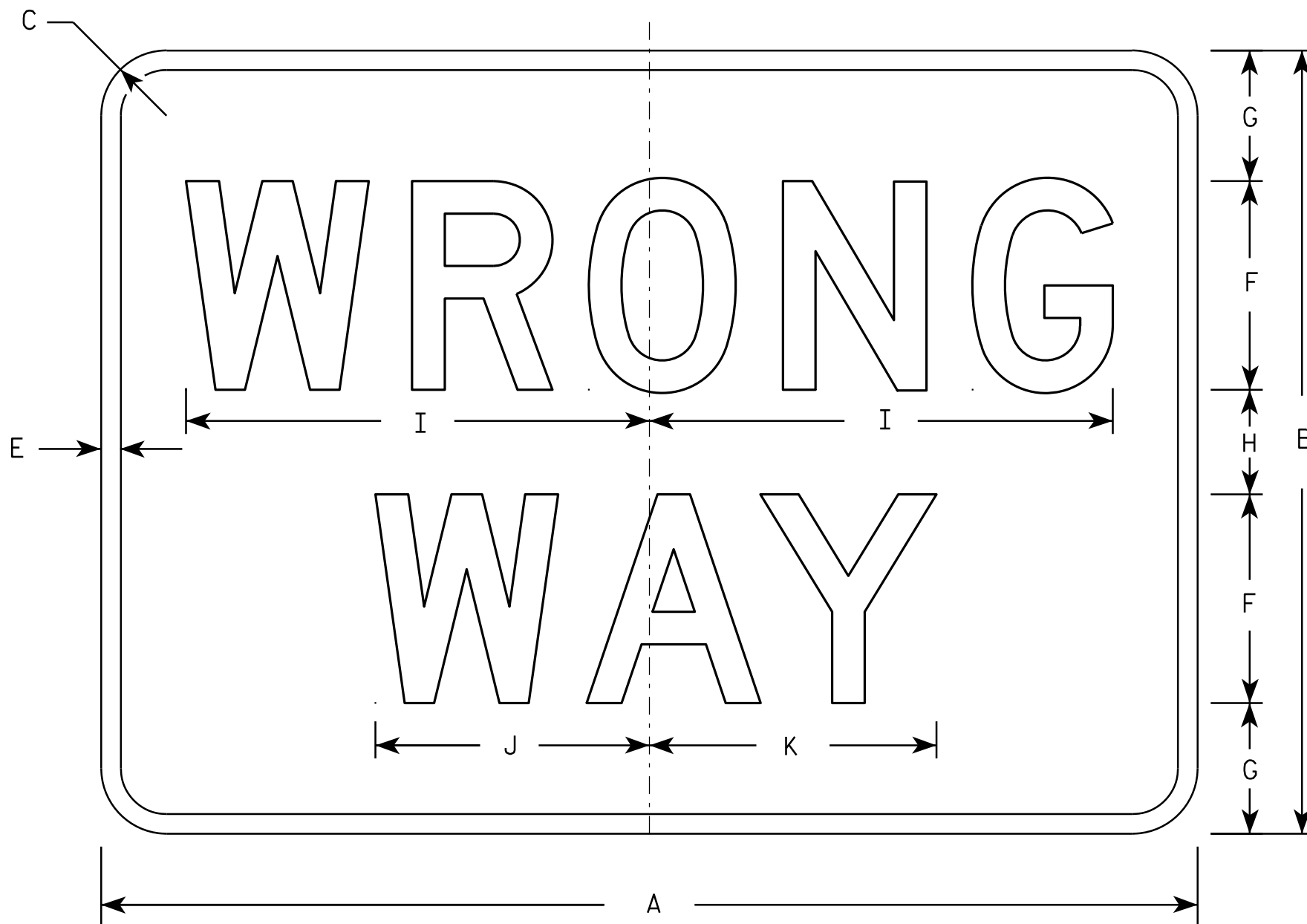
STANDARD SIGN
R5-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/15/18 PLATE NO. R5-1.16

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

7

7

R5-1A

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30	18	1 1/2		1/2	5	3	2	11	6 1/2	6 7/8																3.75
2S	36	24	2		5/8	6	4 1/2	3	13 1/4	7 7/8	8 1/4																6.00
2M	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
3	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
4	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
5	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75

STANDARD SIGN
R5-1A

WISCONSIN DEPT OF TRANSPORTATION

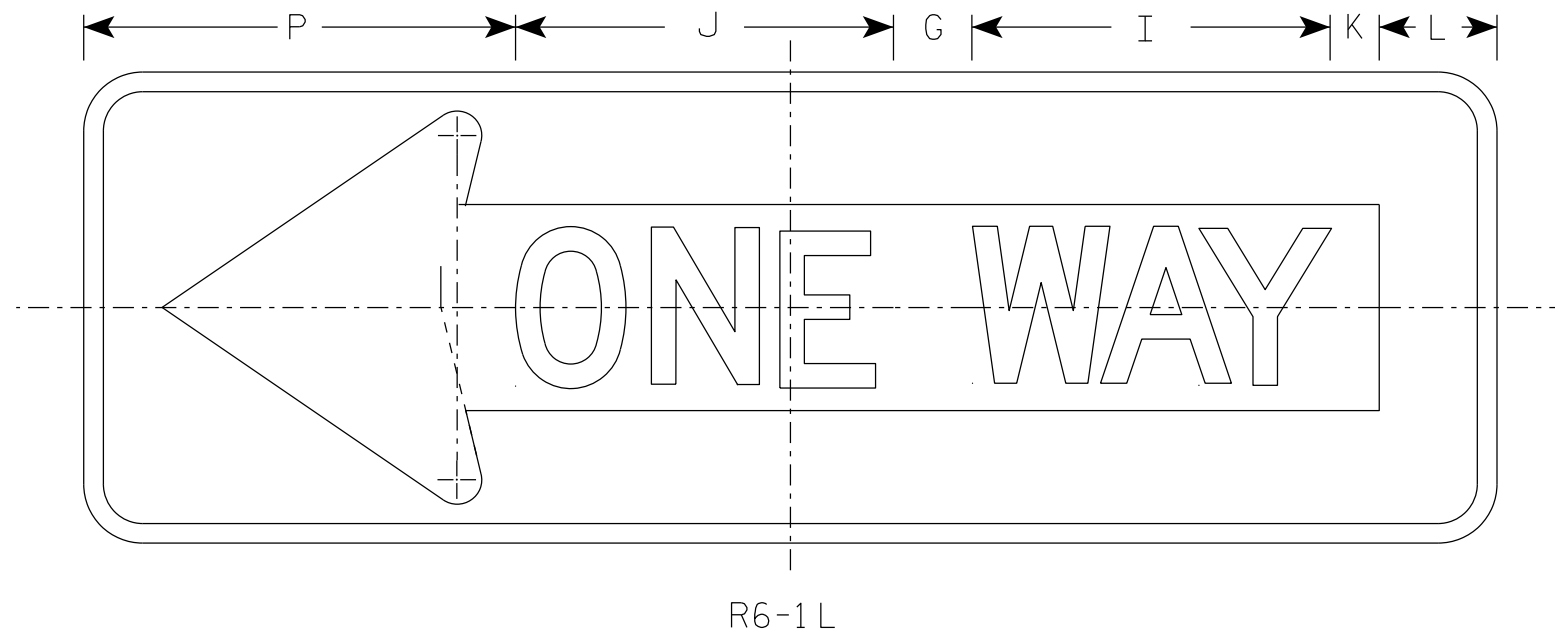
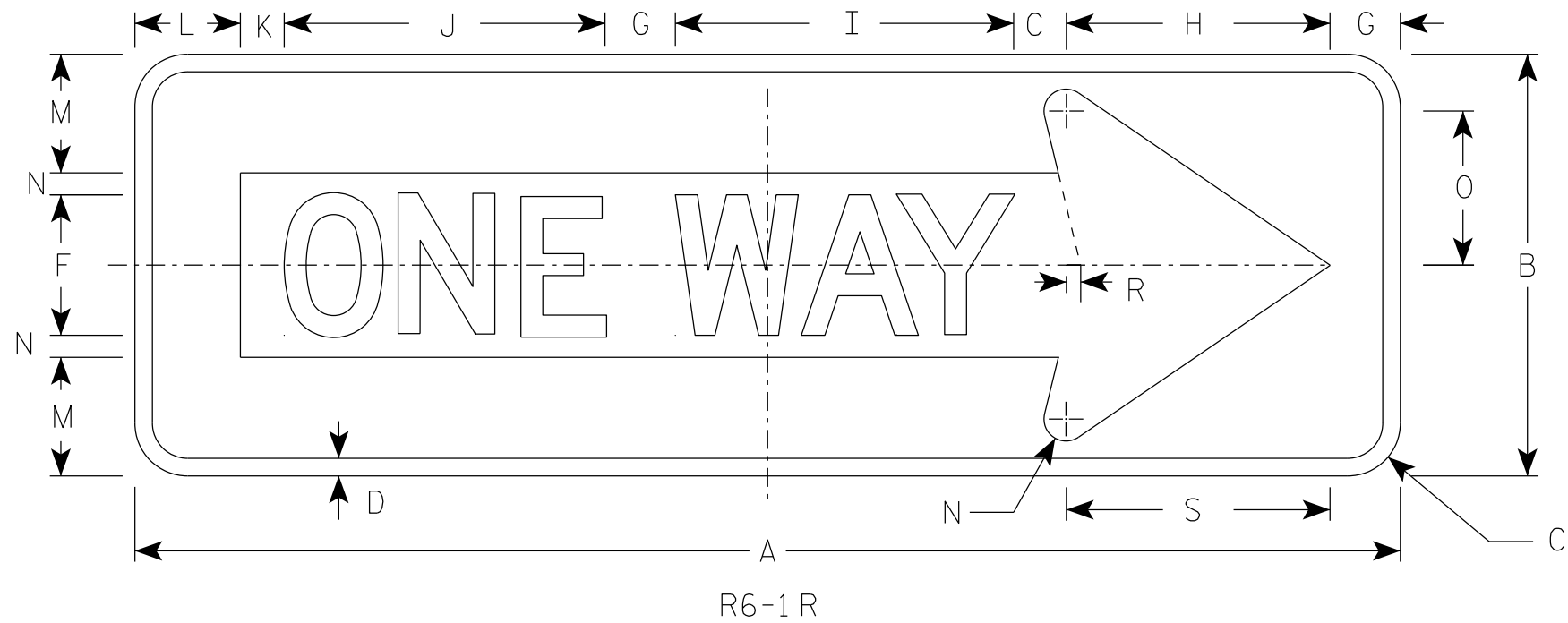
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 12/17/10 PLATE NO. R5-1A.2

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: _____ E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - BLACK
Message - BLACK LEGEND & WHITE ARROW & BORDER
3. Message Series - D



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	36	12	1 1/2	1/2		4	2	7 1/2	9 5/8	9 1/8	1 1/4	3	3 3/8	5/8	4 3/8	11		3/8	7 1/2								3.0
2M	54	18	2 1/4	3/4		6	3	11 1/4	13 5/8	14 1/2	1 7/8	4 1/2	5	1	6 1/2	16 1/2		5/8	11 1/4								6.75
3	54	18	2 1/4	3/4		6	3	11 1/4	13 5/8	14 1/2	1 7/8	4 1/2	5	1	6 1/2	16 1/2		5/8	11 1/4								6.75
4	54	18	2 1/4	3/4		6	3	11 1/4	13 5/8	14 1/2	1 7/8	4 1/2	5	1	6 1/2	16 1/2		5/8	11 1/4								6.75
5																											

STANDARD SIGN
R6-1 L & R

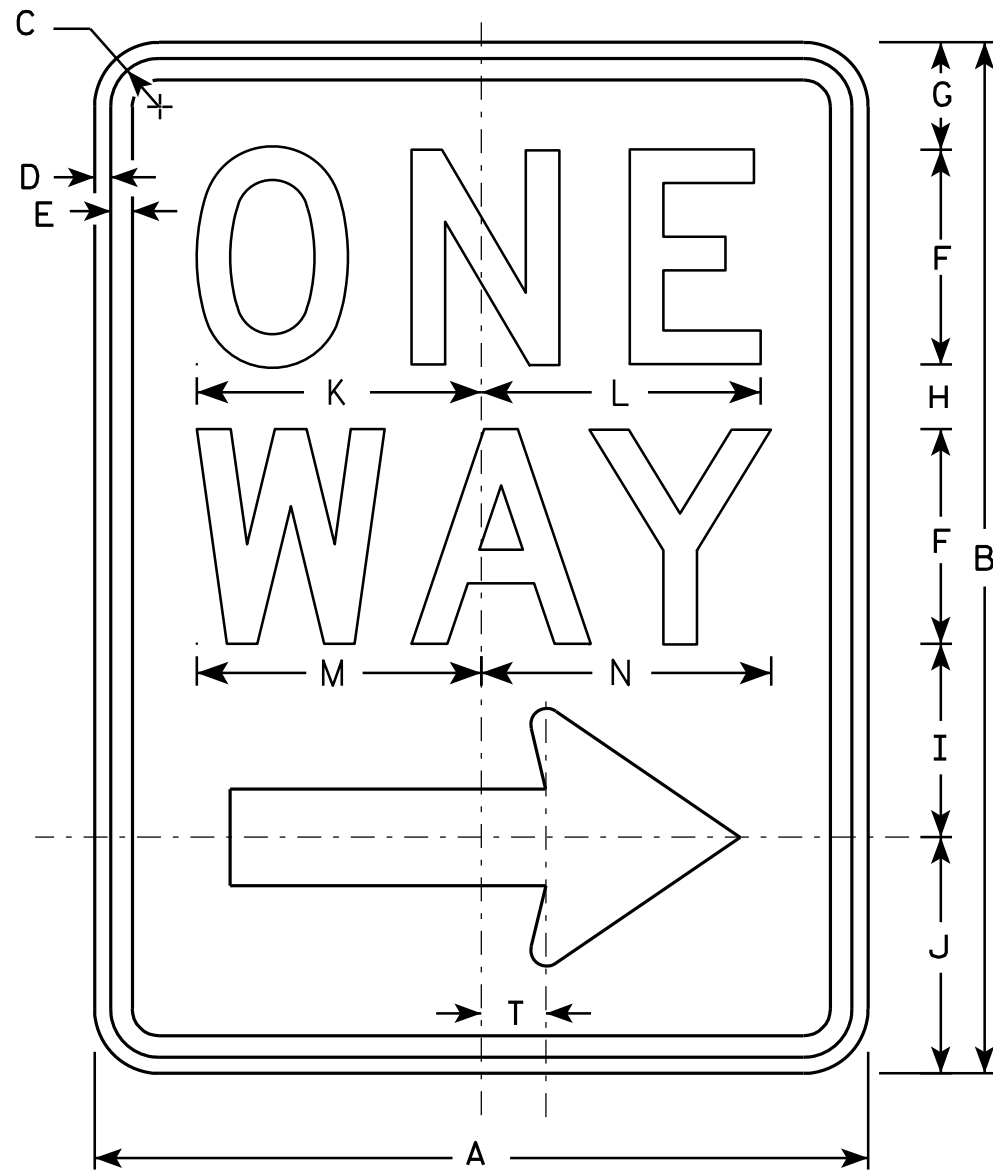
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 07/11/18 PLATE NO. R6-1.3

7

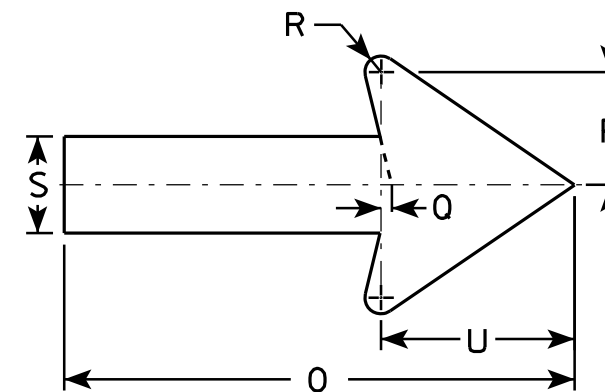
7



R6-2R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. R6-2L same as R6-2R except arrow points to the left.



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
1	18	24	1 1/8	3/8	1/2	5	2 1/2	1 1/2	4 1/2	5 1/2	6 5/8	6 1/2	6 5/8	6 3/4	11 7/8	2 5/8	1/4	3/8	2 1/4	1 1/2	4 1/2					
2S	24	30	1 1/8	3/8	1/2	6	3	2 1/2	5 1/2	7	8 1/8	8 1/8	8 1/2	8 5/8	16	3 1/2	3/8	1/2	3	2	6					
2M	30	36	1 3/8	1/2	5/8	8	2 1/2	2 5/8	6 7/8	8	10 1/2	10 1/2	11 1/4	11 1/4	20	4 3/8	1/2	5/8	3 3/4	2 1/2	7 1/2					
3	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
4	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
5																										

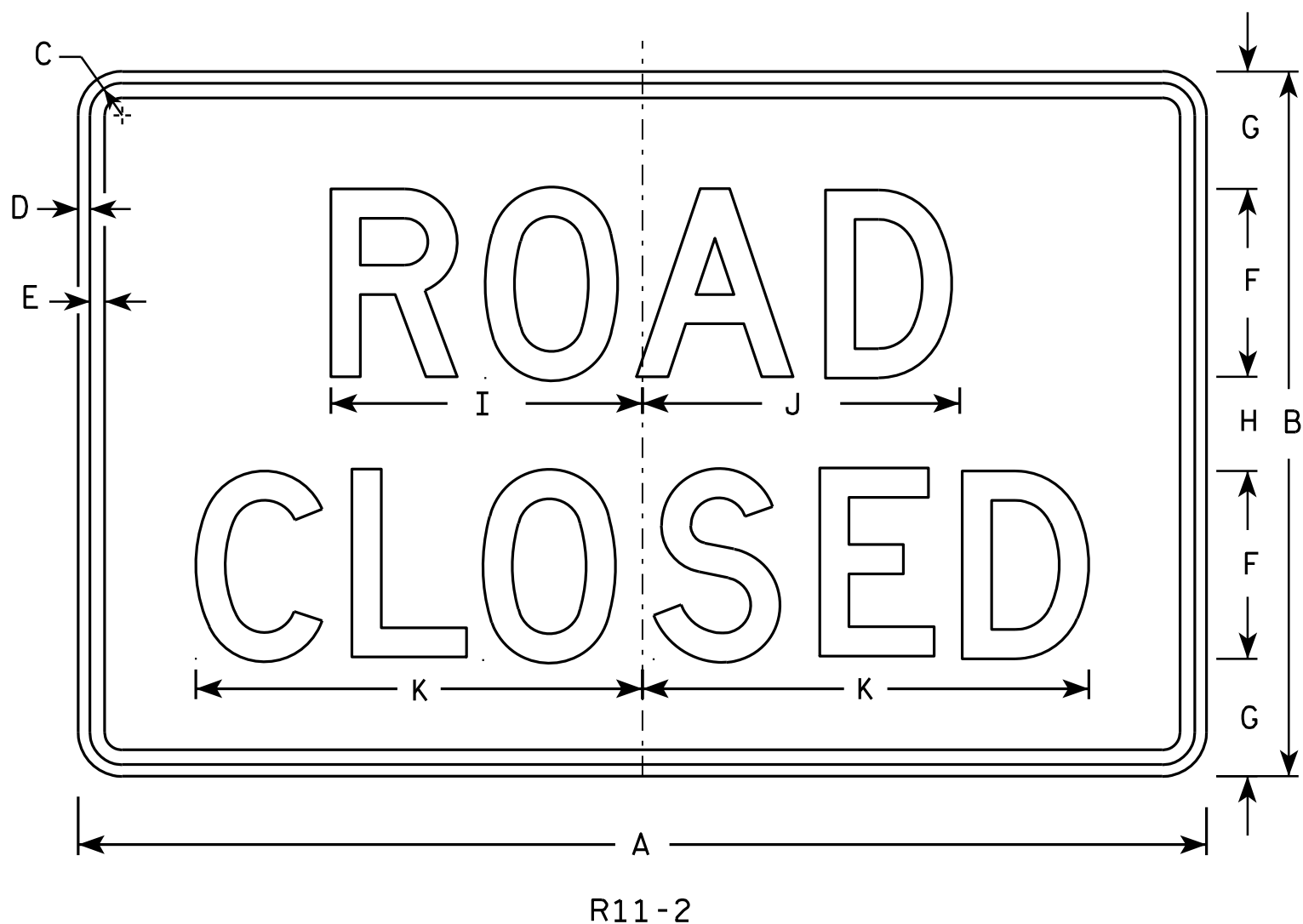
STANDARD SIGN
R6-2 R&L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

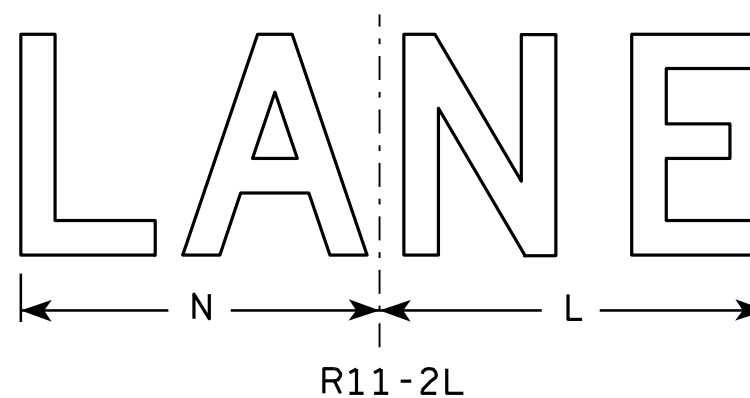
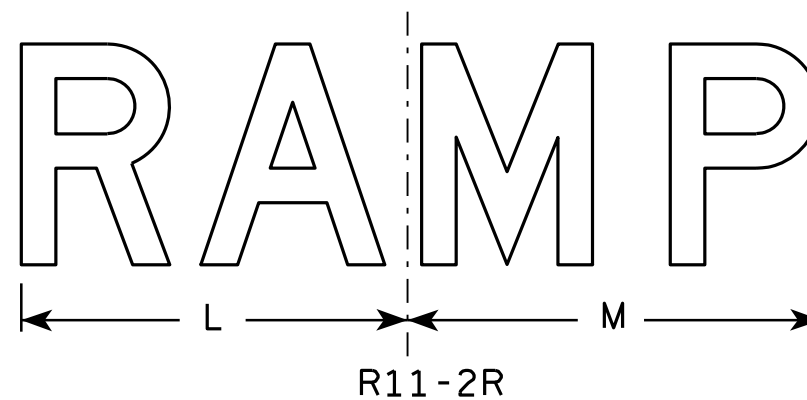
DATE 11/2/10 PLATE NO. R6-2.8

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: _____ E



NOTES

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



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																											
2S	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
2M	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
3	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
4	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
5	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0

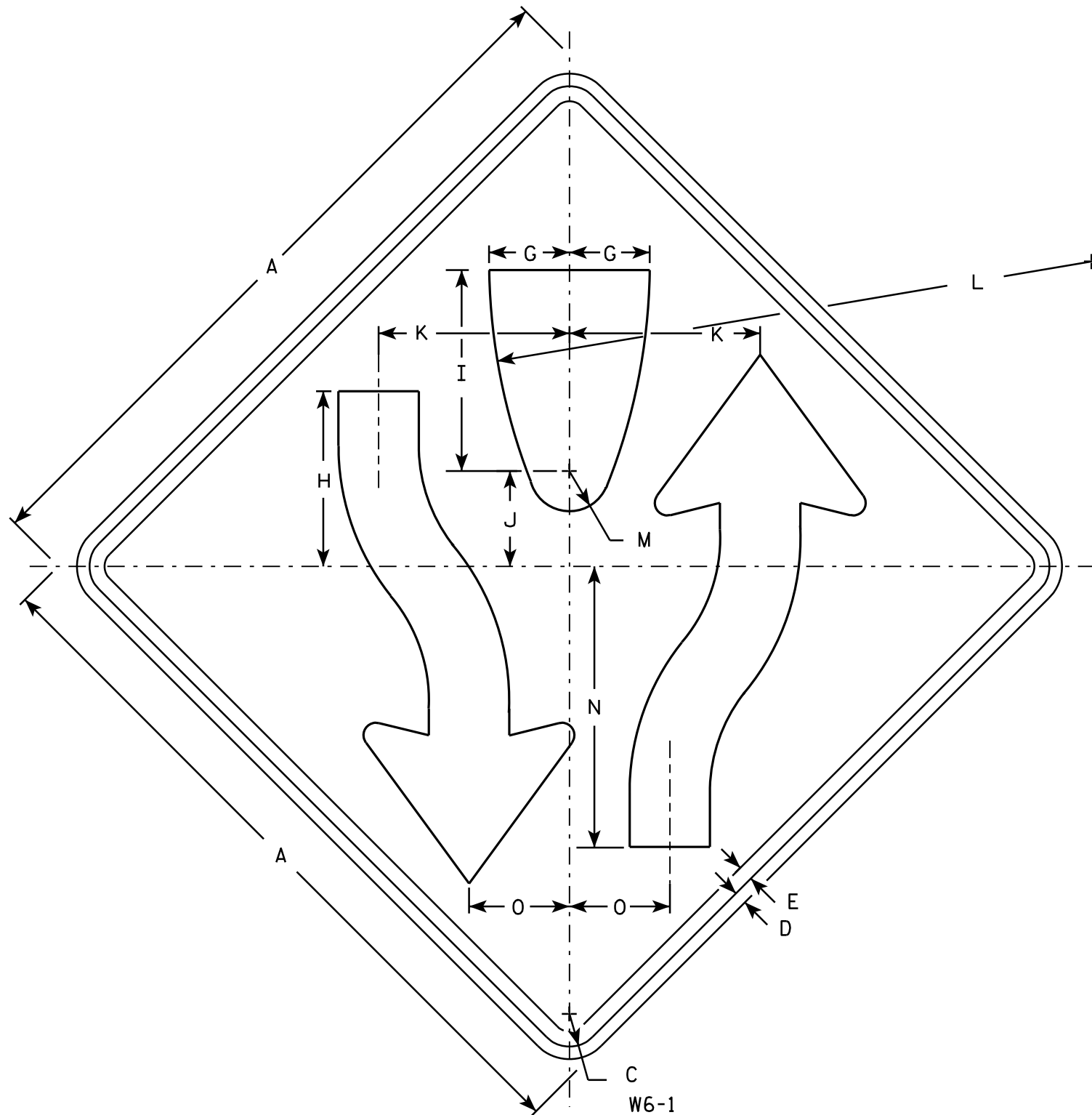
STANDARD SIGN
R11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

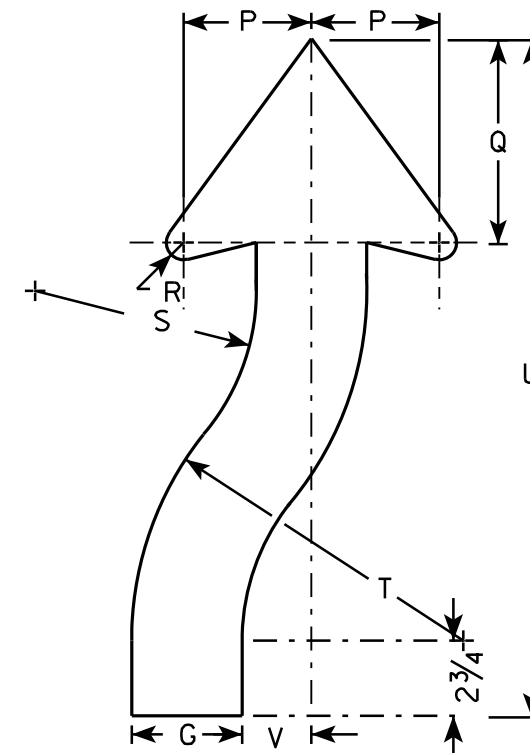
DATE 4/1/11 PLATE NO. R11-2.10

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: _____ E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Yellow
Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W6-2 same as W6-1 but is rotated 180° when mounted.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8		3 1/4	8	8 1/4	4 1/8	7 7/8	25	1 3/4	11 5/8	4 1/8	3 7/8	6 3/4	5/8	6 5/8	9 7/8	21 5/8	2					6.25
2S	36		1 5/8	5/8	3/4		4	8 3/4	10	4 3/4	9 1/2	30	2	14	5	4 5/8	7 3/8	7/8	8	12	24 1/2	2 1/2					9.0
2M	36		1 5/8	5/8	3/4		4	8 3/4	10	4 3/4	9 1/2	30	2	14	5	4 5/8	7 3/8	7/8	8	12	24 1/2	2 1/2					9.0
3																											
4	48		2 1/4	3/4	1		5 3/8	11 5/8	13 3/8	6 3/8	12 5/8	40	2 5/8	18 5/8	6 5/8	6 1/4	9 7/8	1 1/4	10 5/8	16	32 5/8	3 3/8					16.0
5	48		2 1/4	3/4	1		5 3/8	11 5/8	13 3/8	6 3/8	12 5/8	40	2 5/8	18 5/8	6 5/8	6 1/4	9 7/8	1 1/4	10 5/8	16	32 5/8	3 3/8					16.0

STANDARD SIGN
W6-1 & W6-2

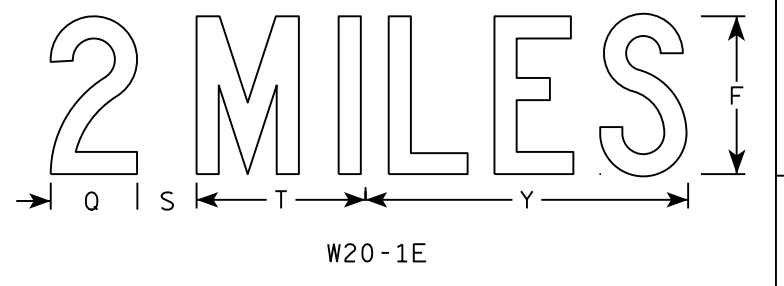
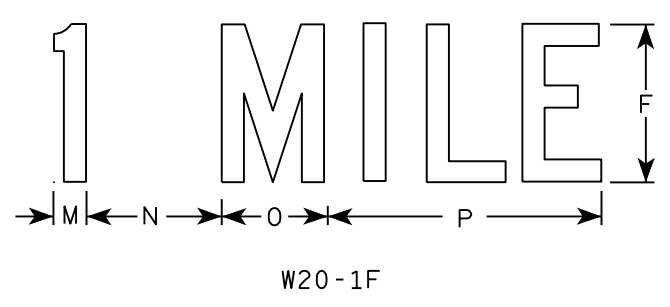
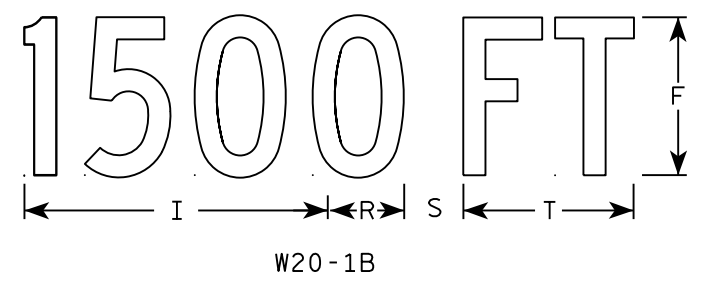
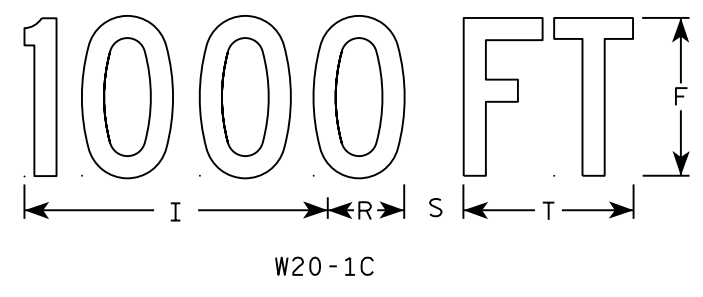
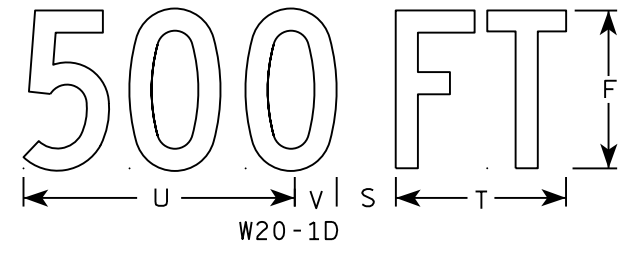
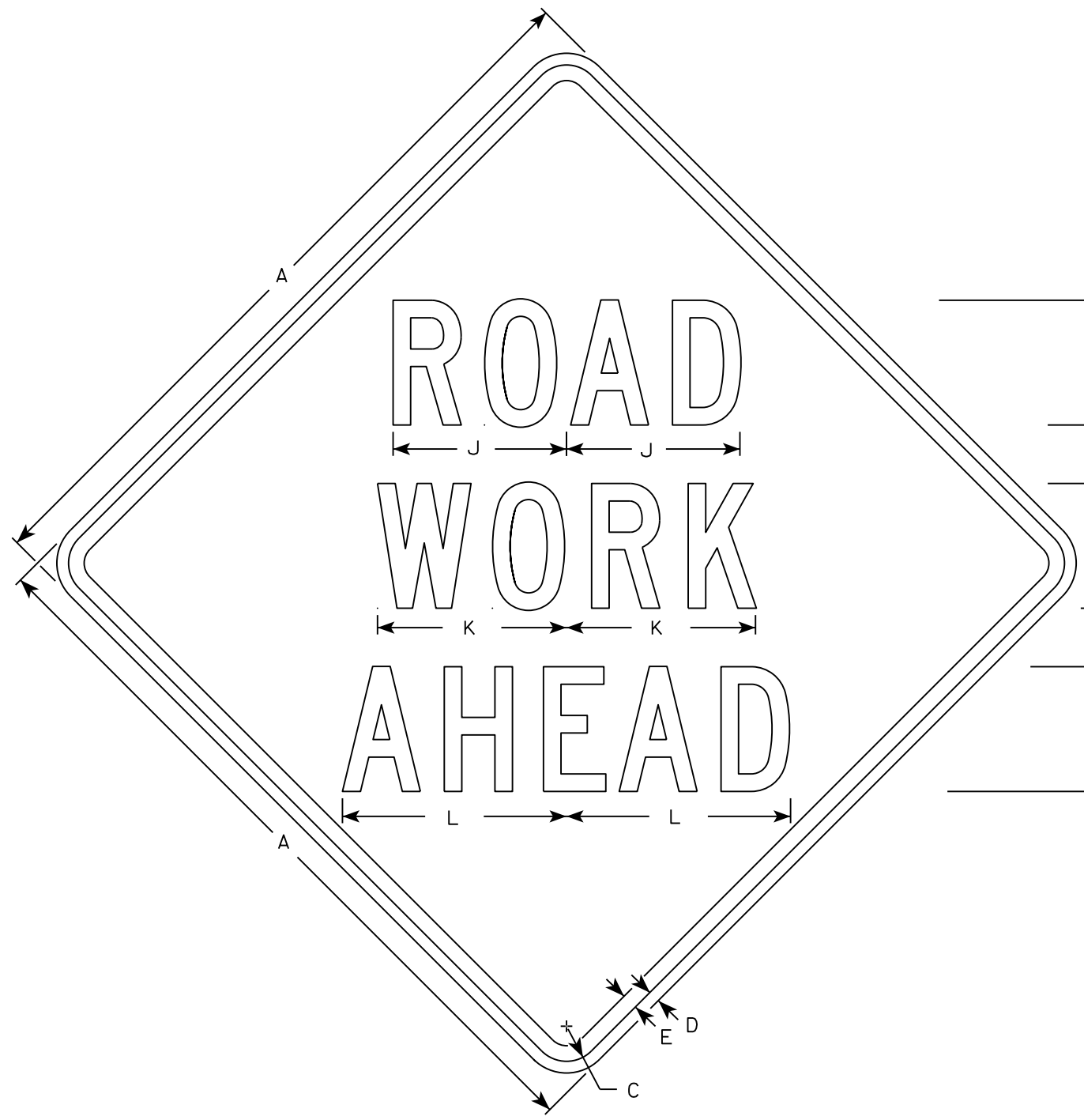
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 03/12/13 PLATE NO. W6-1.14

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
Background - Orange
Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



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 3/8	1/2	5/8	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9		2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
2M	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
3	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
4	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
5	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0

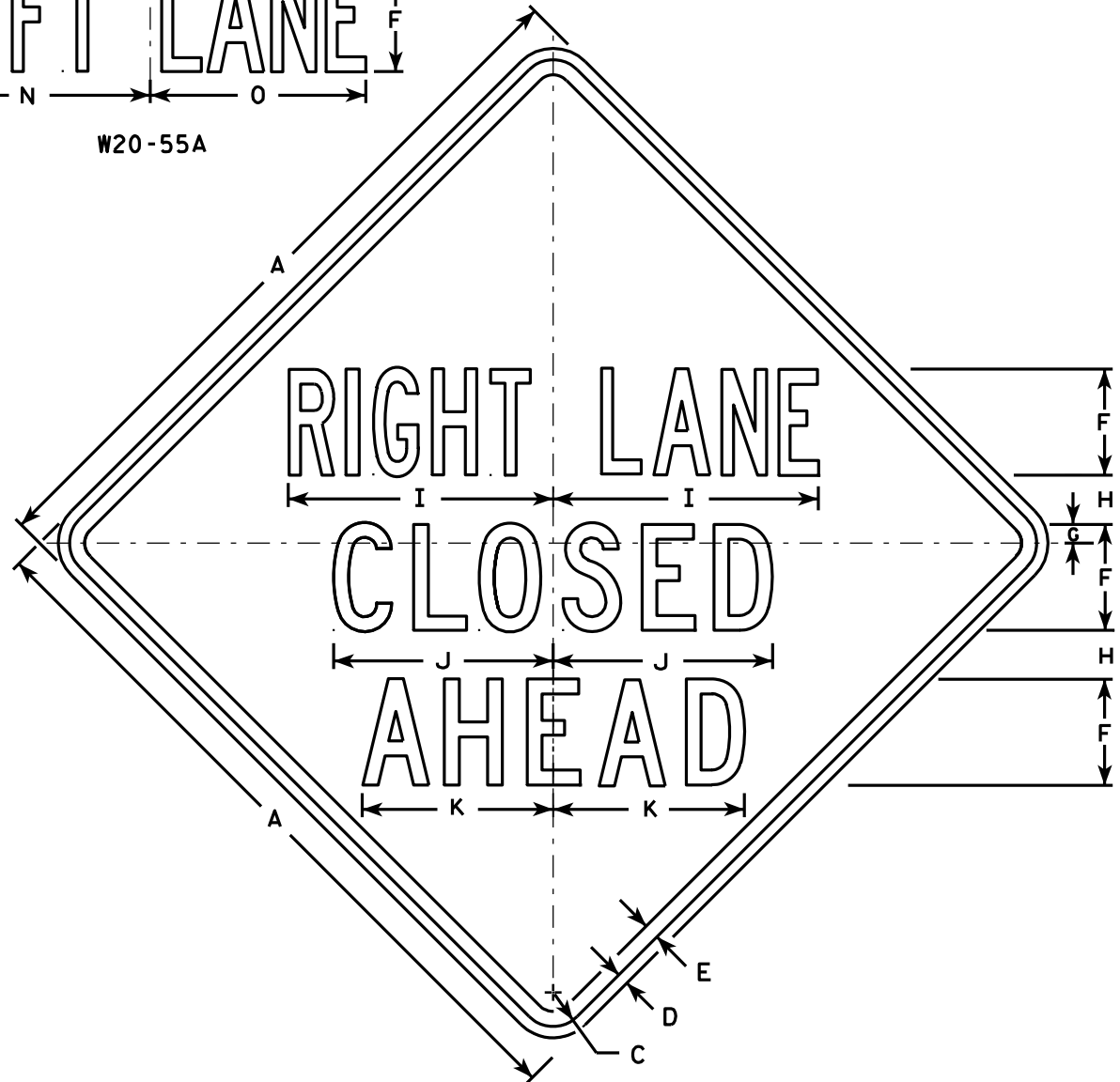
STANDARD SIGN
W20-1A, B, C, D, F & G
WISCONSIN DEPT OF TRANSPORTATION
APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 5/07/15 PLATE NO. W20-1.10

CENTER LANE

W20-56A

LEFT LANE

W20-55A



W20-5A

NOTES

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

500 FT

W20-5D

1000 FT

W20-5C

1500 FT

W20-5B

1/2 MILE

W20-5G

1 MILE

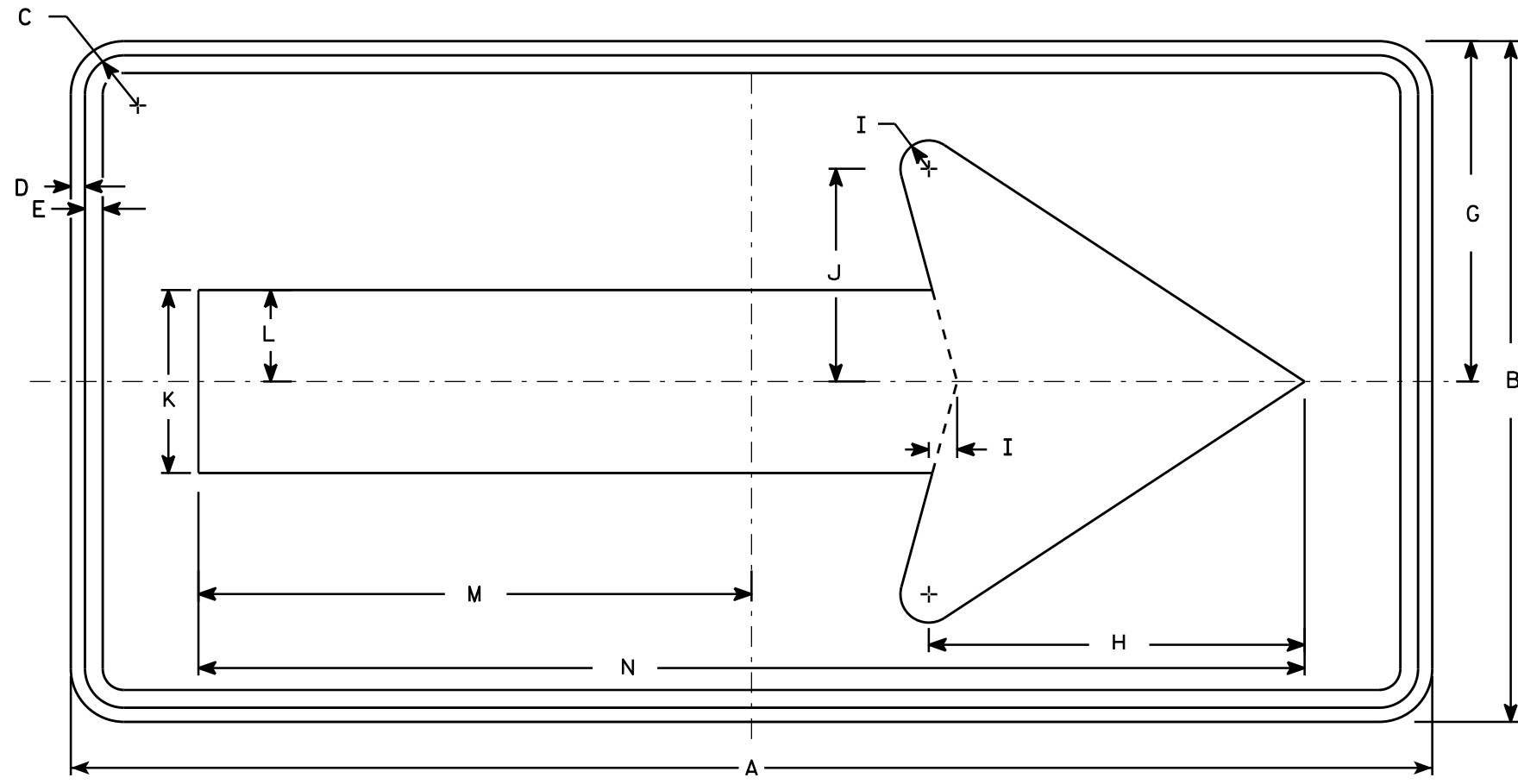
W20-5F

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	6	1 5/8	5/8	3/4	5	7/8	2 1/2	13 1/8	10 3/4	9 1/2	14 1/4	13 5/8	12	12	1 3/8	1 1/8	4 1/2	3 1/2	9	1 7/8	5 5/8	10 1/8	2 1/2	1 3/4	8	9.0
2S	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
2M	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
3	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
4	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
5	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**

NOTES

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



W01-6

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																											
2S	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
2M	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
3	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
4	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
5	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5

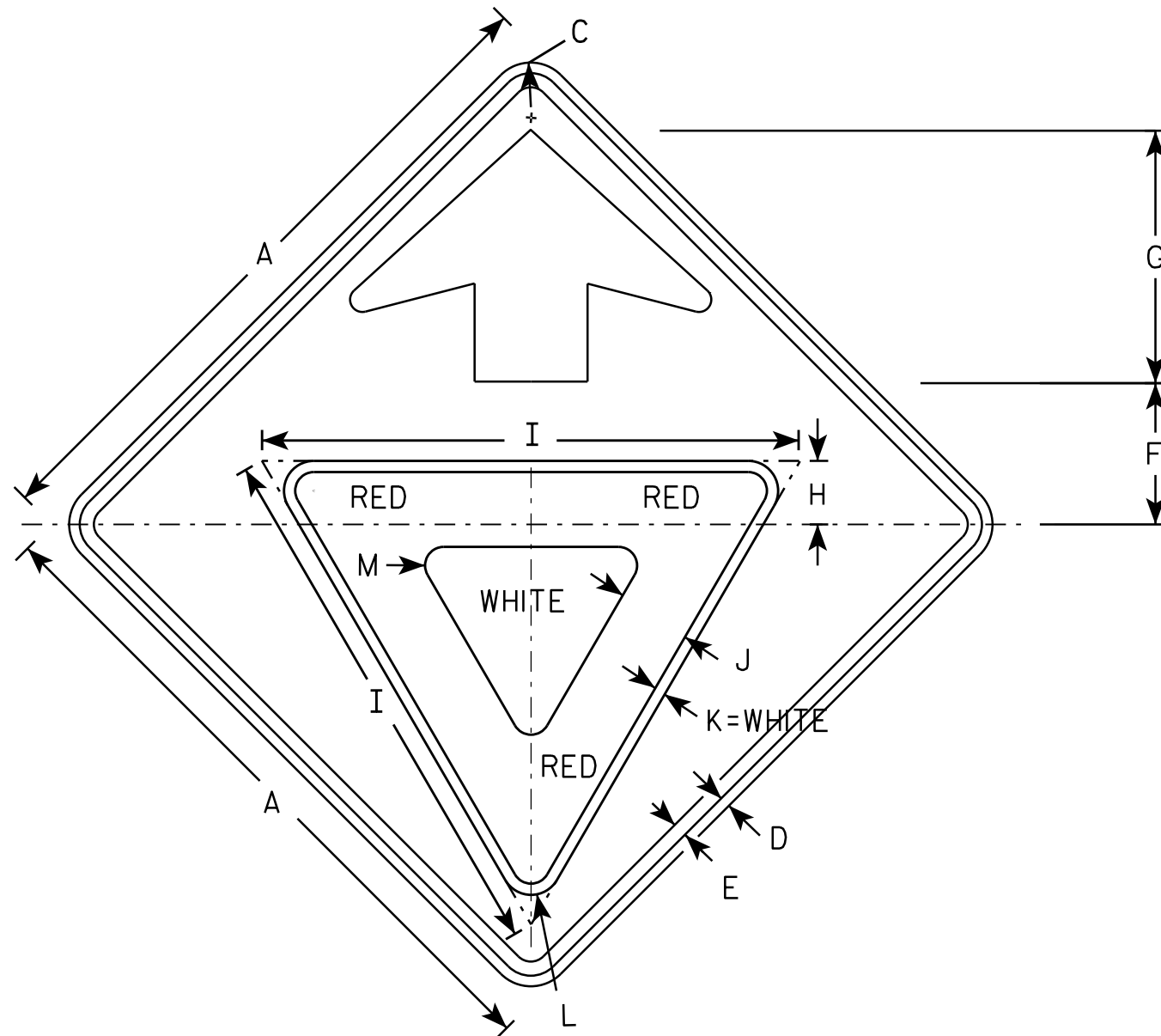
STANDARD SIGN
W01-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 11/18/13 PLATE NO. W01-6.1

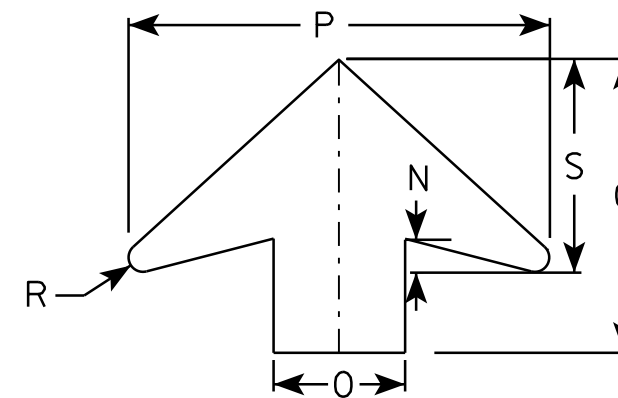
PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: **E**



W03-2

NOTES

1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
 - Background - ORANGE
 - Arrow & Border - BLACK
 - Yield Symbol - WHITE BORDER ON RED BACKGROUND

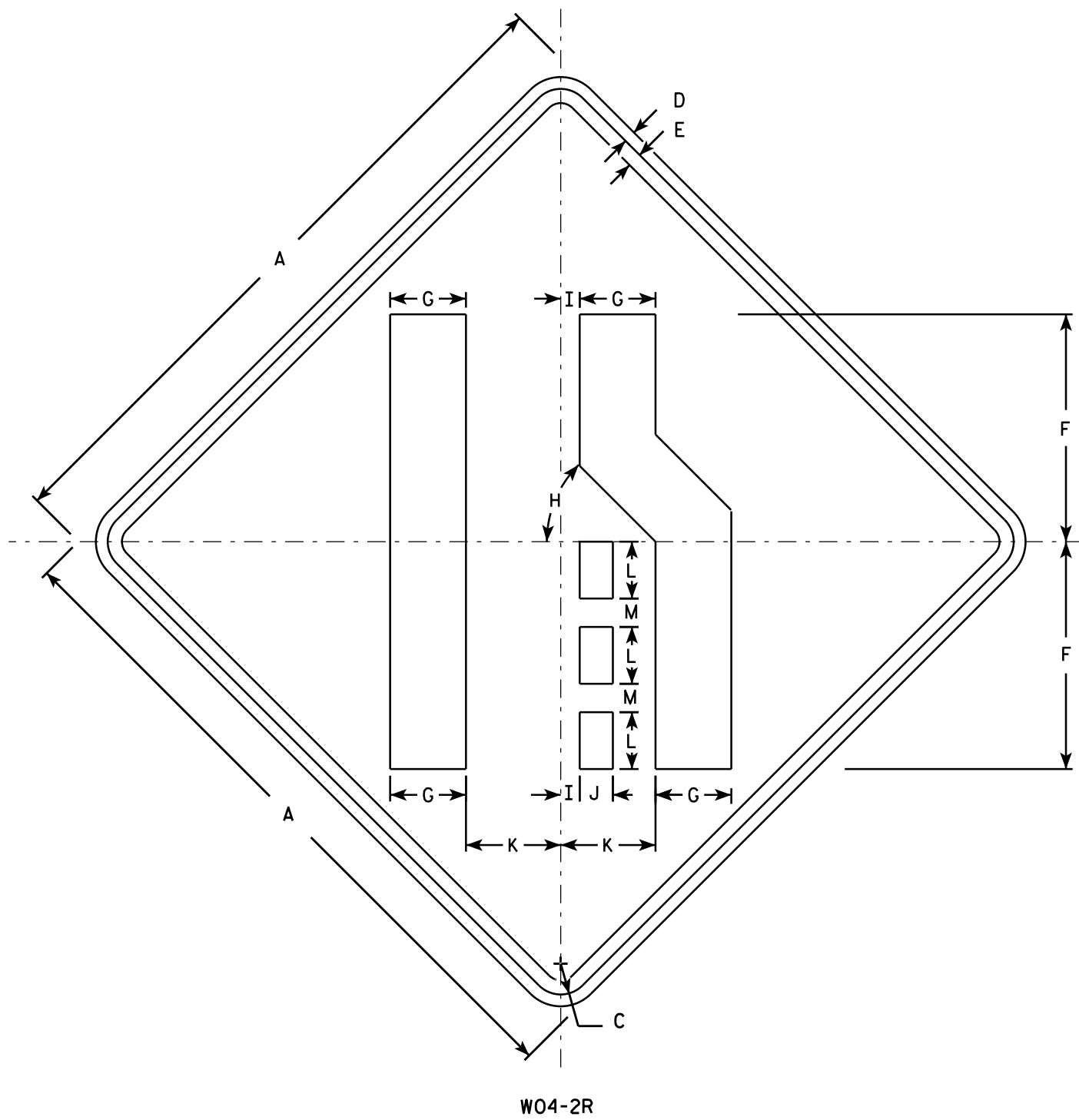


ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 3/8	28	3 3/4	5/8	1 1/2	1	1 5/8	6	19 1/4		5/8	9 3/4								9.0
2S	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0
2M	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0
3	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0
4	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0
5	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0

STANDARD SIGN
W03-2

WISCONSIN DEPT OF TRANSPORTATION
APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 11/20/13 PLATE NO. W03-2.1



W04-2R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W04-2L is the same as W04-2R except the symbols is reversed along the vertical centerline.

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SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2S	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
2M	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
3	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
4	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
5	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0

STANDARD SIGN
W04-2

WISCONSIN DEPT OF TRANSPORTATION

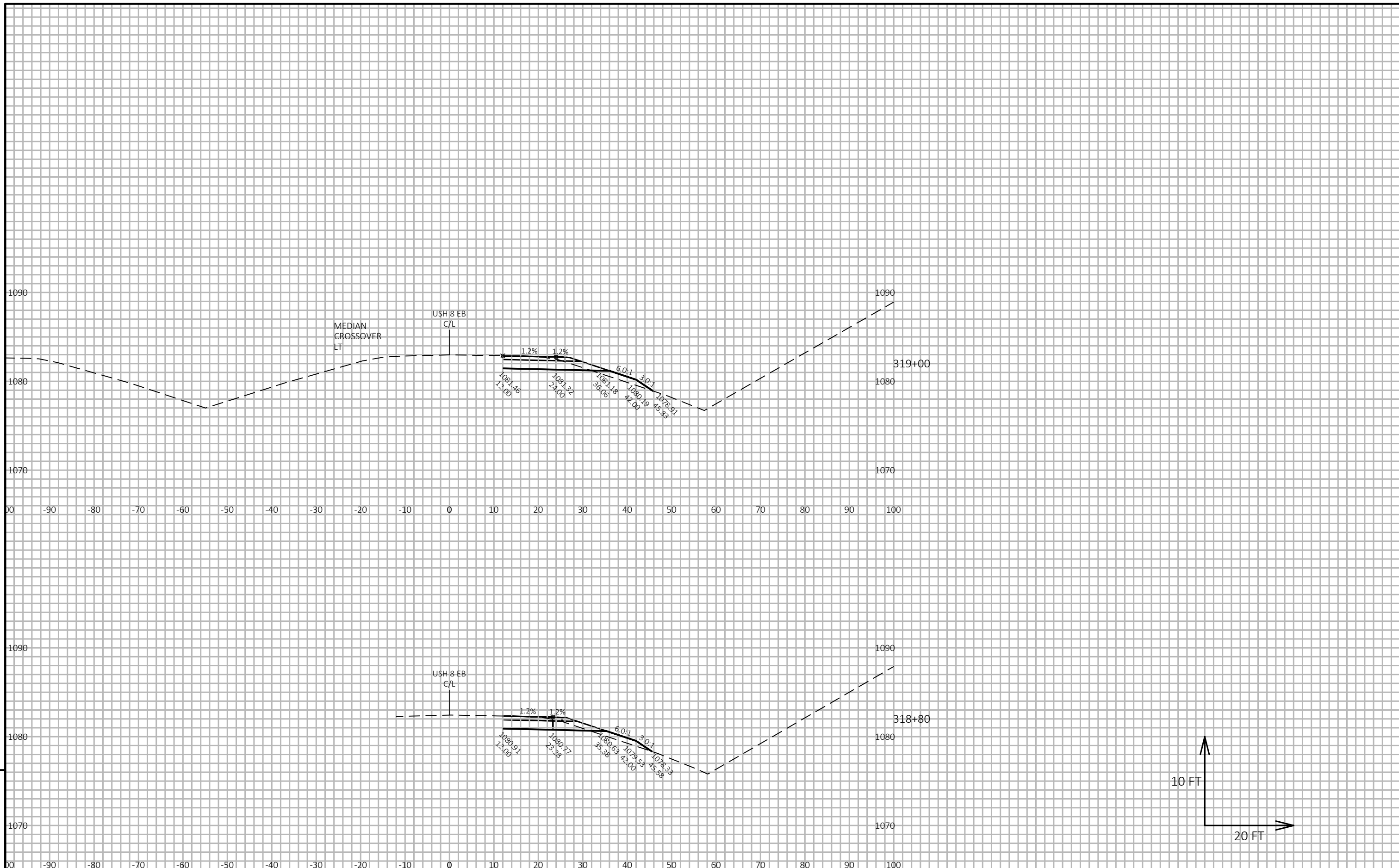
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 11/20/13 PLATE NO. W04-2.1

EARTHWORK DATA: USH 8 (1570-05-76)

STATION	AREA (SF)				INCREMENTAL VOLUME (CY)				CUMULATIVE VOLUME (CY)	NOTES
	205.0100 COMMON EXCAVATION CUT	EBS CUT	REUSEABLE CUT	FILL	CUT	(3) EBS EXCAVATION	(1) REUSEABLE CUT	208.0100 BORROW (2) FILL	MASS ORDINATE	
20TH STREET NORTH										INCLUDES C&G SECTION
0+50	12.57	0.00	12.57	5.84	0.00	0.00	0.00	0.00	0.00	
1+00	12.22	0.00	12.22	23.10	23.00	0.00	16.00	31.86	-15.86	
1+50	15.96	0.00	15.96	17.42	75.00	0.00	53.00	95.58	-58.44	
2+00	20.00	0.00	20.00	13.94	26.00	0.00	18.00	41.30	-81.74	
2+16	0.00	0.00	0.00	21.68	16.00	0.00	11.00	33.04	-103.78	
SUBTOTAL:					140.00	0.00	98.00	201.78		
20TH STREET SOUTH										INCLUDES C&G SECTION
3+57	7.83	0.00	7.83	82.18	0.00	0.00	0.00	0.00	0.00	
4+00	44.28	0.00	44.28	125.04	126.00	0.00	89.00	261.49	-172.49	
4+50	10.15	0.00	10.15	143.64	49.00	0.00	34.00	490.88	-629.37	
5+00	11.92	0.00	11.92	37.06	20.00	0.00	14.00	197.30	-812.66	
5+23	0.00	0.00	0.00	0.00	5.00	0.00	4.00	18.88	-827.54	
SUBTOTAL:					200.00	0.00	141.00	968.54		
USH 8 EASTBOUND										
318+24	20.64	0.00	20.64	0.00	0.00	0.00	0.00	0.00	0.00	
318+50	20.52	0.00	20.52	2.52	20.00	0.00	14.12	1.89	12.23	
319+00	21.15	0.00	21.15	6.39	39.00	0.00	27.53	9.44	30.32	
319+50	23.24	0.00	23.24	1.58	41.00	0.00	28.94	8.50	50.76	
320+00	23.40	0.00	23.40	0.34	43.00	0.00	30.35	1.89	79.23	
320+50	20.60	0.00	20.60	4.17	41.00	0.00	28.94	5.66	102.51	
321+00	18.78	0.00	18.78	8.94	36.00	0.00	25.41	14.16	113.76	
321+50	17.39	0.00	17.39	13.56	33.00	0.00	23.29	24.54	112.51	
322+00	16.97	0.00	16.97	19.58	32.00	0.00	22.59	35.87	99.22	
322+50	17.49	0.00	17.49	29.55	32.00	0.00	22.59	53.81	68.00	
323+00	18.65	0.00	18.65	52.84	33.00	0.00	23.29	89.68	1.62	
323+50	15.15	0.00	15.15	7.70	5.00	0.00	3.53	17.94	-12.79	
324+00	23.98	0.00	23.98	0.00	36.00	0.00	25.41	8.50	4.13	
324+50	11.04	0.00	11.04	14.94	32.00	0.00	22.59	16.99	9.72	
325+00	9.51	0.00	9.51	21.43	19.00	0.00	13.41	39.65	-16.51	
325+50	9.68	0.00	9.68	19.26	18.00	0.00	12.71	44.37	-48.17	
326+00	8.46	0.00	8.46	18.80	17.00	0.00	12.00	41.54	-77.71	
326+50	7.54	0.00	7.54	15.95	15.00	0.00	10.59	38.70	-105.83	
327+00	7.26	0.00	7.26	16.82	14.00	0.00	9.88	35.87	-131.82	
327+50	7.71	0.00	7.71	15.87	14.00	0.00	9.88	34.93	-156.86	
328+00	8.00	0.00	8.00	12.04	15.00	0.00	10.59	31.15	-177.42	
328+50	14.64	38.00	14.64	20.60	25.00	32.20	17.65	81.42	-241.20	MEDIAN CROSSOVER INCLUDED
329+00	14.64	78.78	14.64	20.60	25.00	66.79	17.65	122.20	-345.76	MEDIAN CROSSOVER INCLUDED
329+50	14.64	39.00	14.64	20.60	25.00	33.01	17.65	82.42	-410.54	MEDIAN CROSSOVER INCLUDED
SUBTOTAL:					610.00	132.00	430.59	841.12		
USH 8 WESTBOUND										
319+00	12.09	67.00	12.09	39.90	0.00	0.00	0.00	0.00	0.00	MEDIAN CROSSOVER INCLUDED
319+50	12.09	71.74	12.09	39.00	26.00	54.57	18.35	209.54	-191.19	MEDIAN CROSSOVER INCLUDED
320+00	10.28	0.00	10.28	32.04	26.00	58.43	18.35	218.96	-391.79	
320+50	10.45	0.00	10.45	31.67	13.00	0.00	9.18	49.09	-431.71	
321+00	10.60	0.00	10.60	29.97	19.00	0.00	13.41	67.02	-485.32	
321+50	10.66	0.00	10.66	32.31	20.00	0.00	14.12	67.97	-539.17	
322+00	11.30	0.00	11.30	36.61	20.00	0.00	14.12	75.52	-600.57	
322+50	11.45	0.00	11.45	40.13	21.00	0.00	14.82	84.02	-669.76	
323+00	11.90	0.00	11.90	41.46	22.00	0.00	15.53	88.74	-742.97	
323+50	12.95	0.00	12.95	20.72	23.00	0.00	16.24	67.97	-794.70	
324+00	14.41	0.00	14.41	14.72	25.00	0.00	17.65	38.70	-815.76	
324+50	20.14	0.00	20.14	0.00	32.00	0.00	22.59	16.05	-809.22	
325+00	11.83	0.00	11.83	19.83	30.00	0.00	21.18	33.04	-821.08	
325+50	37.60	0.00	37.60	18.37	28.00	0.00	19.76	38.70	-840.02	
326+00	24.25	0.00	24.25	4.40	46.00	0.00	32.47	8.50	-816.05	
326+50	23.43	0.00	23.43	5.38	44.00	0.00	31.06	8.50	-793.49	
327+00	23.98	0.00	23.98	6.00	44.00	0.00	31.06	12.27	-774.70	
327+50	23.44	0.00	23.44	6.28	44.00	0.00	31.06	13.22	-756.86	
328+00	25.13	0.00	25.13	4.46	45.00	0.00	31.76	12.27	-737.36	
328+50	25.10	0.00	25.10	6.20	47.00	0.00	33.18	11.33	-715.51	
329+00	23.48	0.00	23.48	25.35	45.00	0.00	31.76	34.93	-718.68	
329+50	23.30	0.00	23.30	29.19	43.00	0.00	30.35	59.47	-747.80	
330+00	22.44	0.00	22.44	24.32	42.00	0.00	29.65	58.53	-776.68	
330+50	22.17	0.00	22.17	30.26	7.00	0.00	4.94	10.38	-782.12	
SUBTOTAL:					712.00	113.00	502.59	1284.71		
TOTAL	940.48		940.48	1352.55	1662.00		1172.18	3296.16		-2123.98

-- (1): REUSEABLE CUT MATERIAL AVAILABLE FOR USE IN CONSTRUCTION OUTSIDE ROADWAY 1:1
 -- (2): FILL QUANTITIES ARE EXPANDED (BORROW=1.18)
 (3): EBS EXCAVATION IS PAID FOR UNDER COMMON EXCAVATION



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PROJECT NO: 1570-05-76

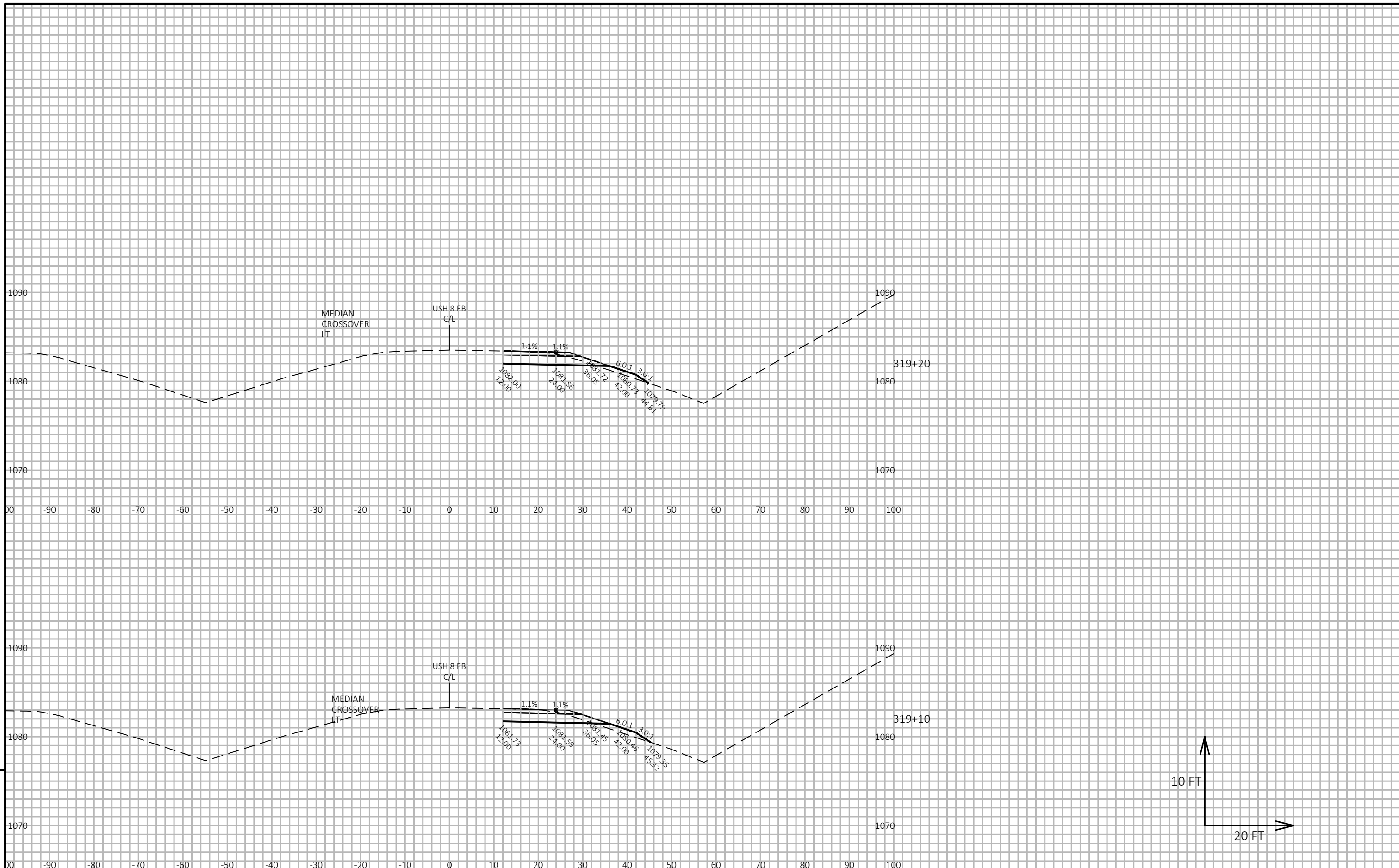
HWY: 8

COUNTY: BARRON

CROSS SECTIONS: USH 8 EB

SHEET

E

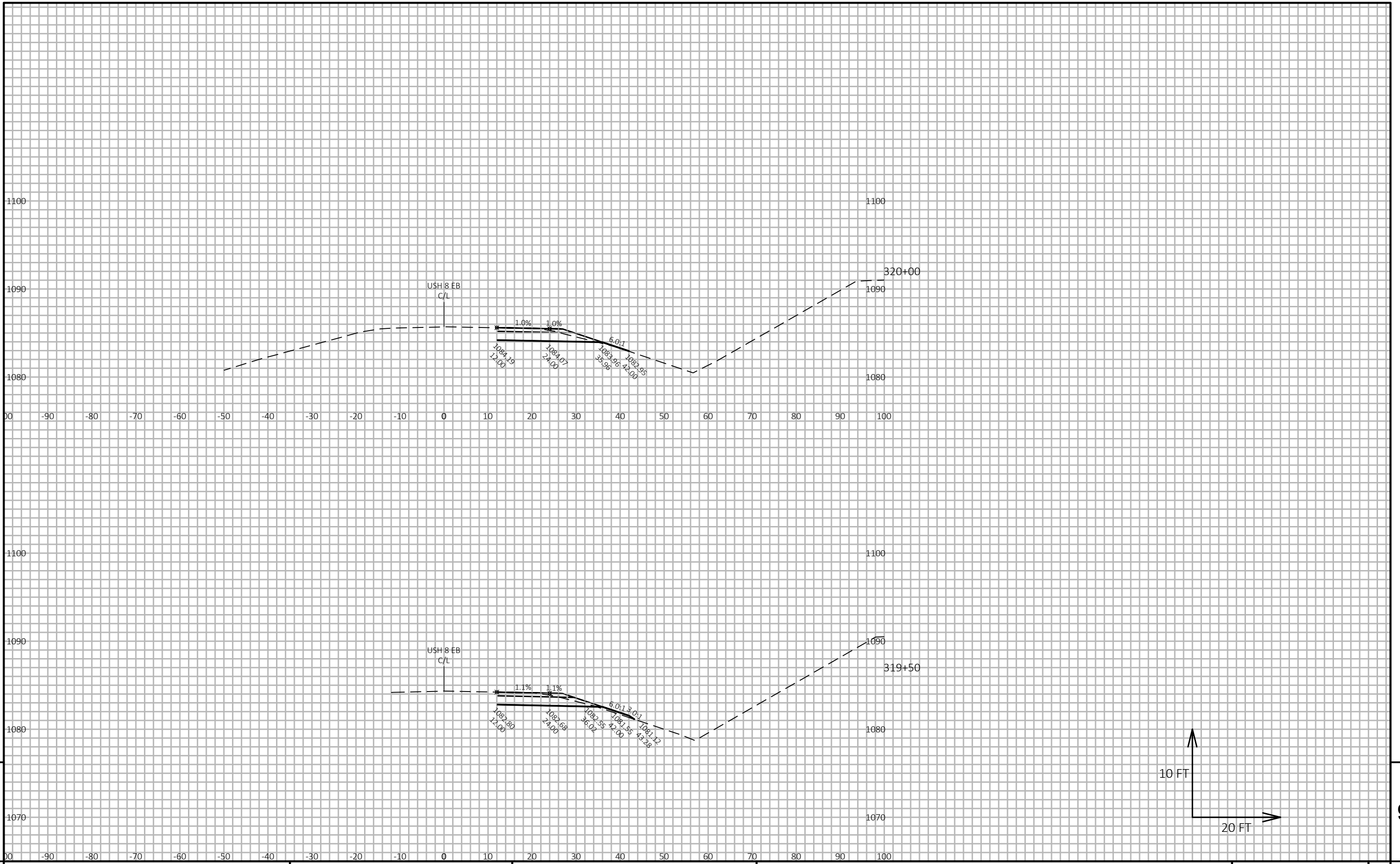


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PROJECT NO: 1570-05-76 HWY: 8 COUNTY: BARRON CROSS SECTIONS: USH 8 EB SHEET E

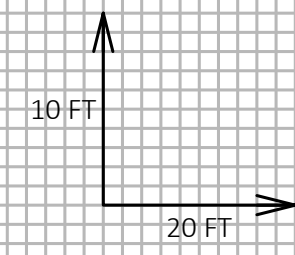
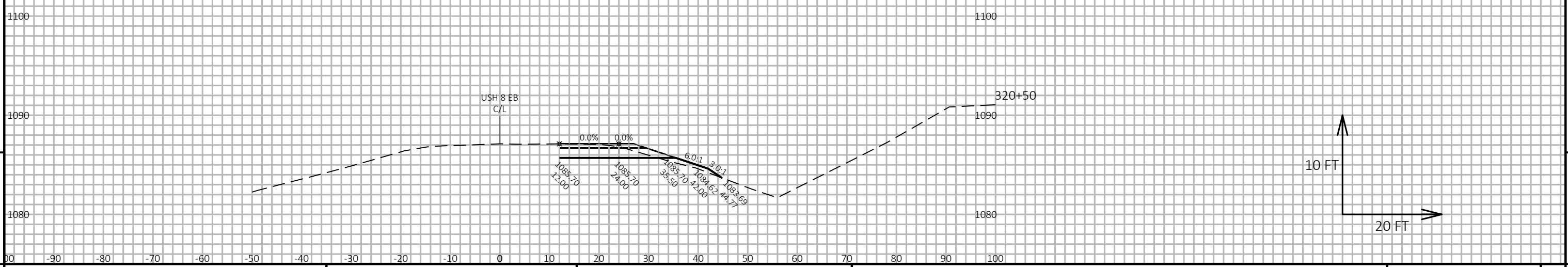
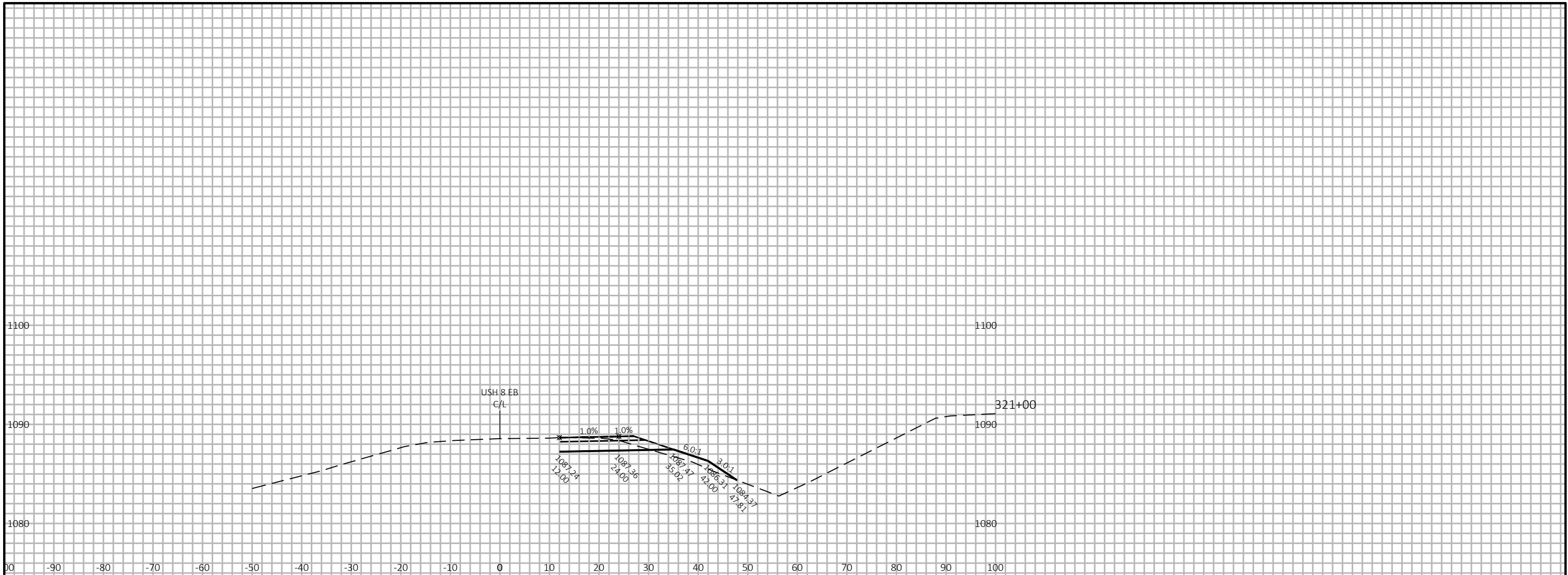
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PROJECT NO: 1570-05-76	HWY: 8	COUNTY: BARRON	CROSS SECTIONS: USH 8 EB	SHEET	E
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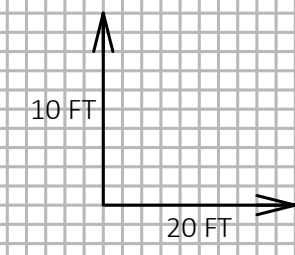
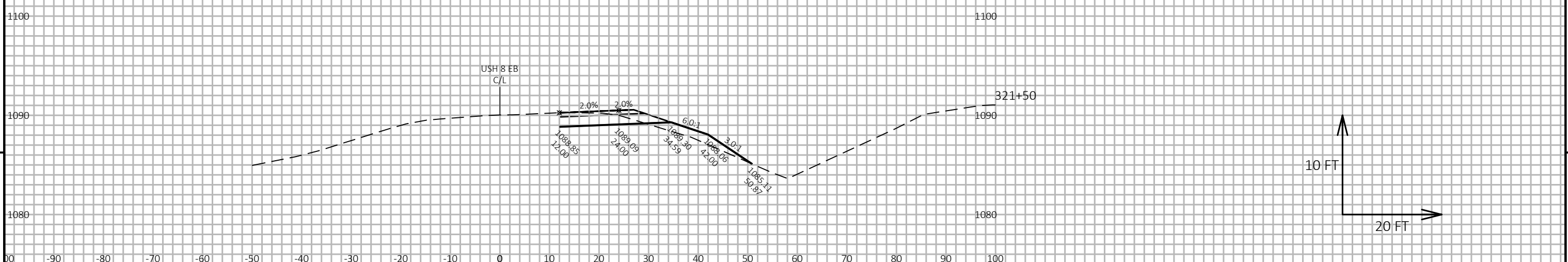
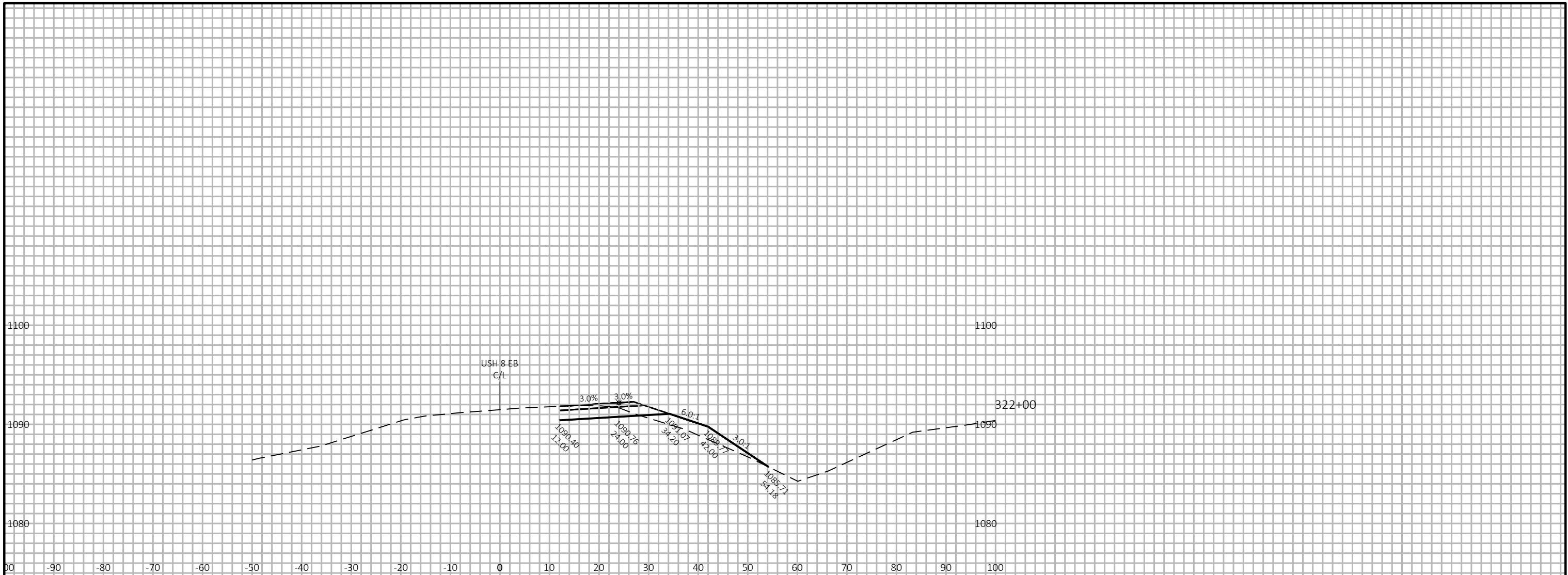
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PROJECT NO: 1570-05-76 HWY: 8 COUNTY: BARRON CROSS SECTIONS: USH 8 EB SHEET E

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LAYOUT NAME - USH 8 EB XS 4



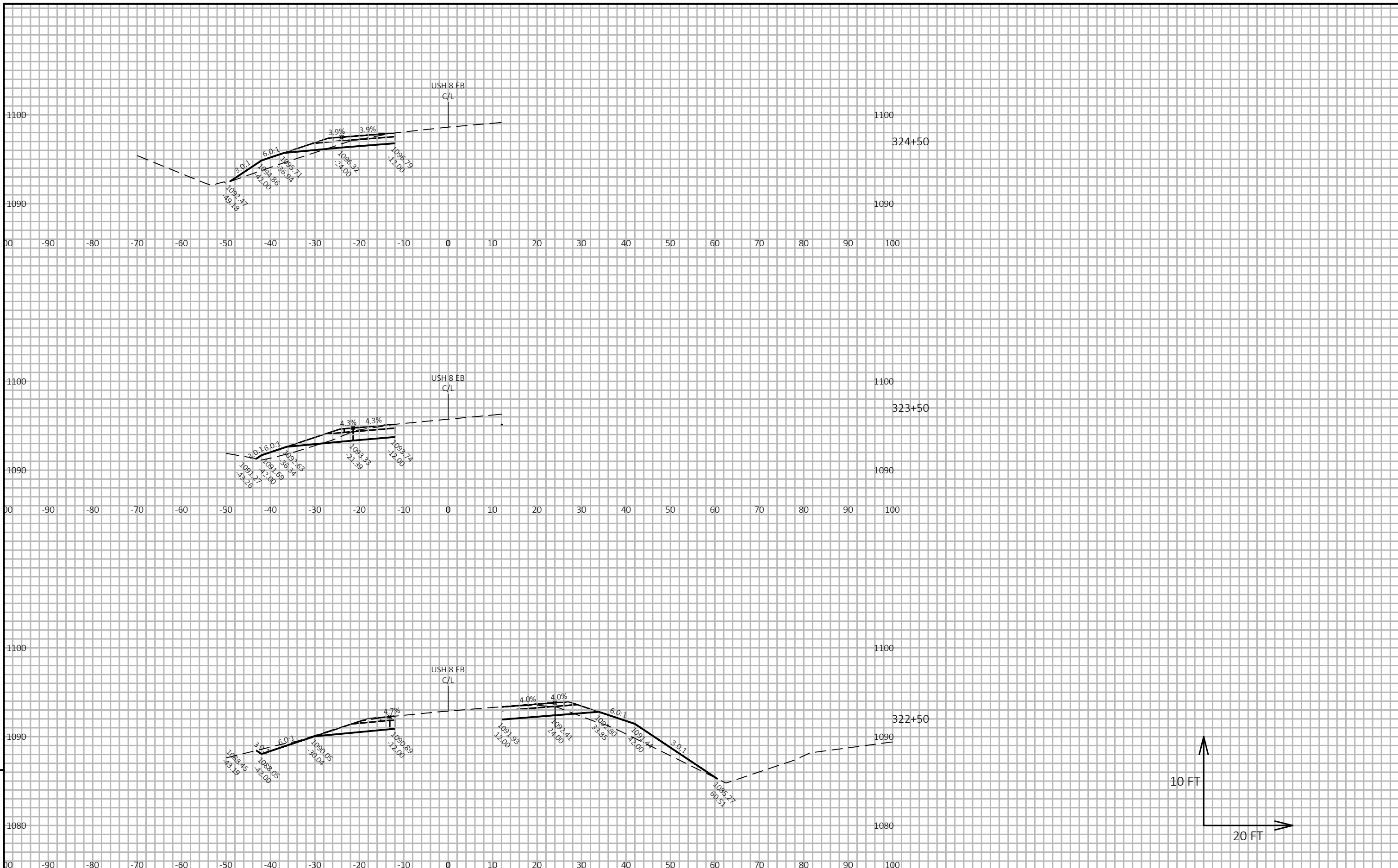
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PROJECT NO: 1570-05-76 HWY: 8 COUNTY: BARRON CROSS SECTIONS: USH 8 EB SHEET E

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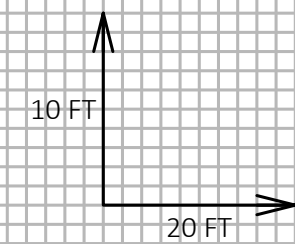
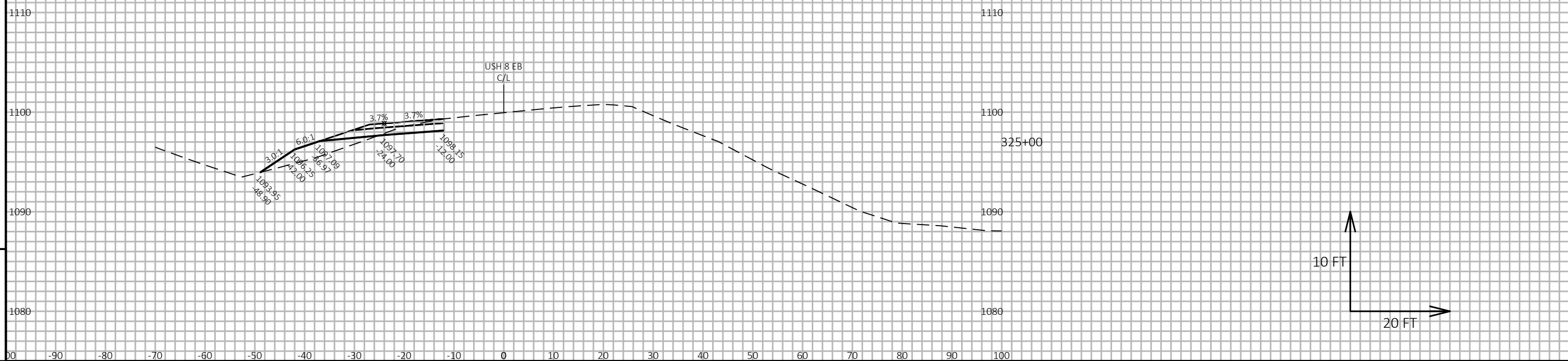
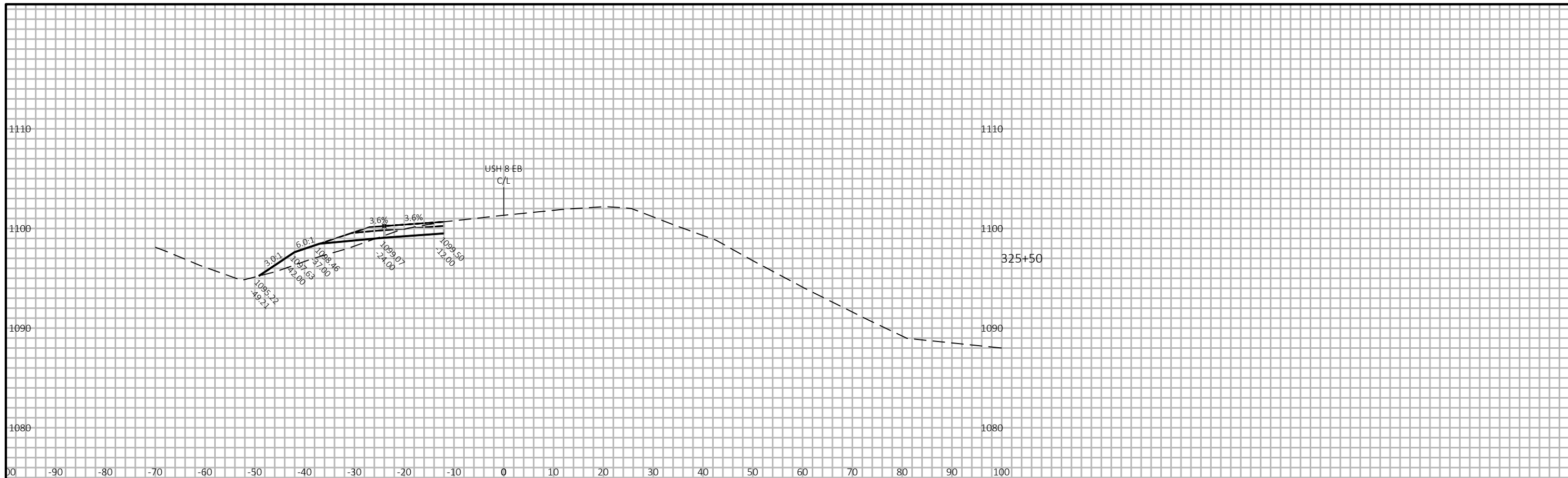
LAYOUT NAME: USH 8 EB XS 5



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PROJECT NO: 1570-05-76	HWY: 8	COUNTY: BARRON	CROSS SECTIONS: USH 8 EB	SHEET	E
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PROJECT NO: 1570-05-76

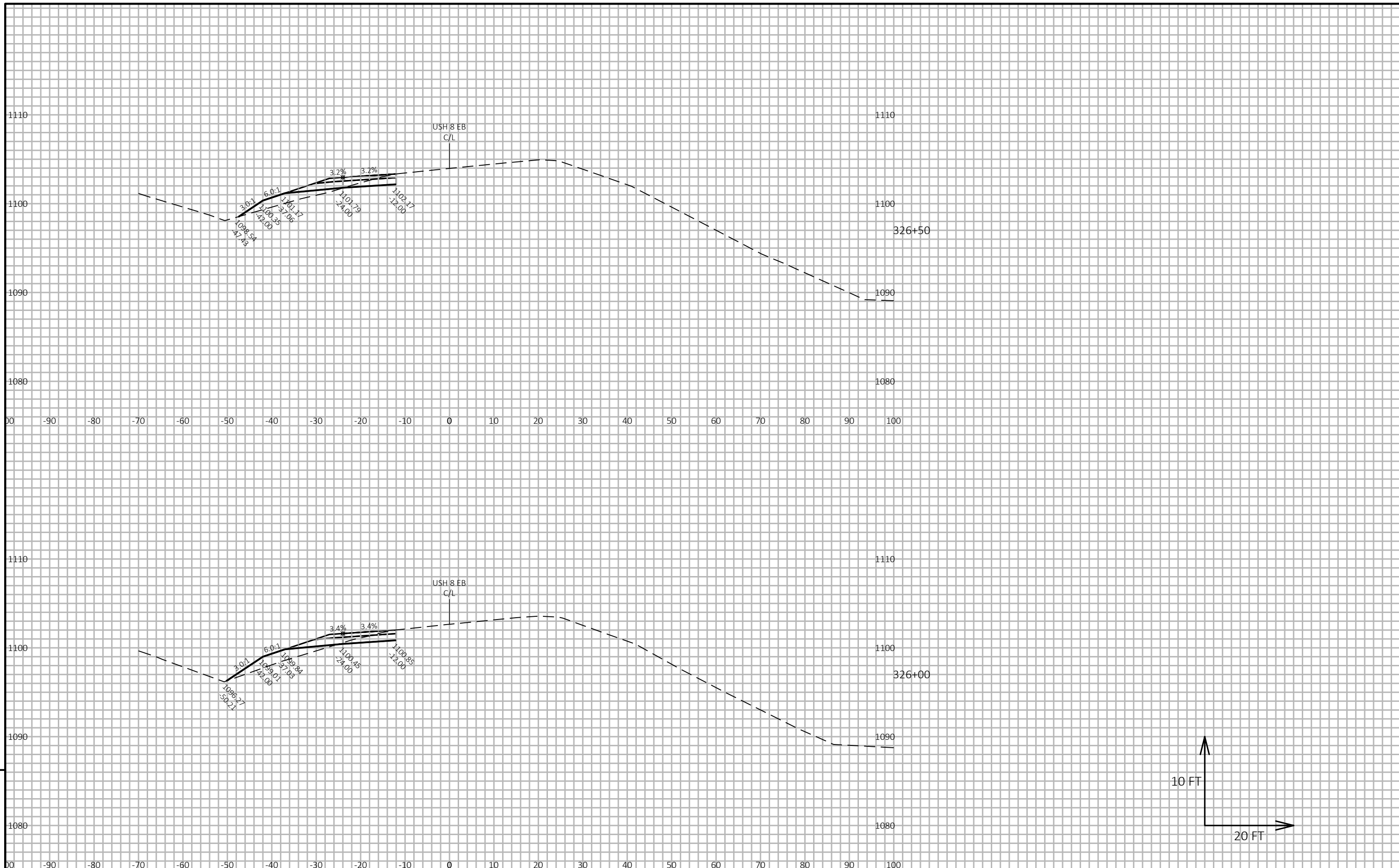
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COUNTY: BARRON

CROSS SECTIONS: USH 8 EB

SHEET

E



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PROJECT NO: 1570-05-76

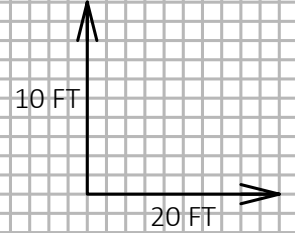
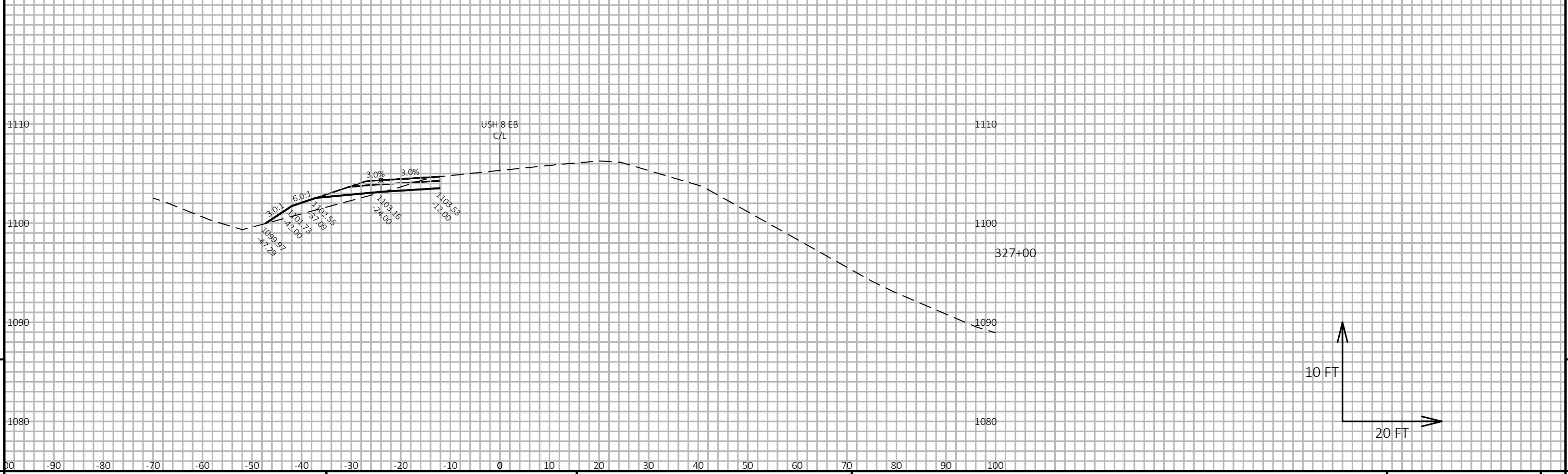
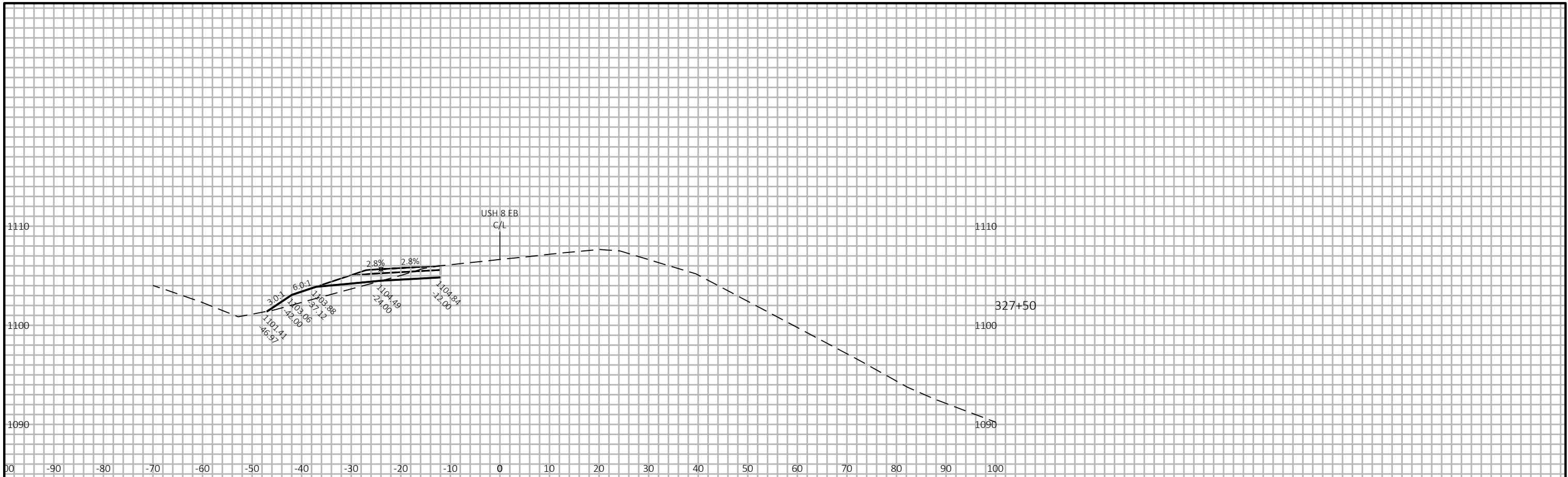
HWY: 8

COUNTY: BARRON

CROSS SECTIONS: USH 8 EB

SHEET

E



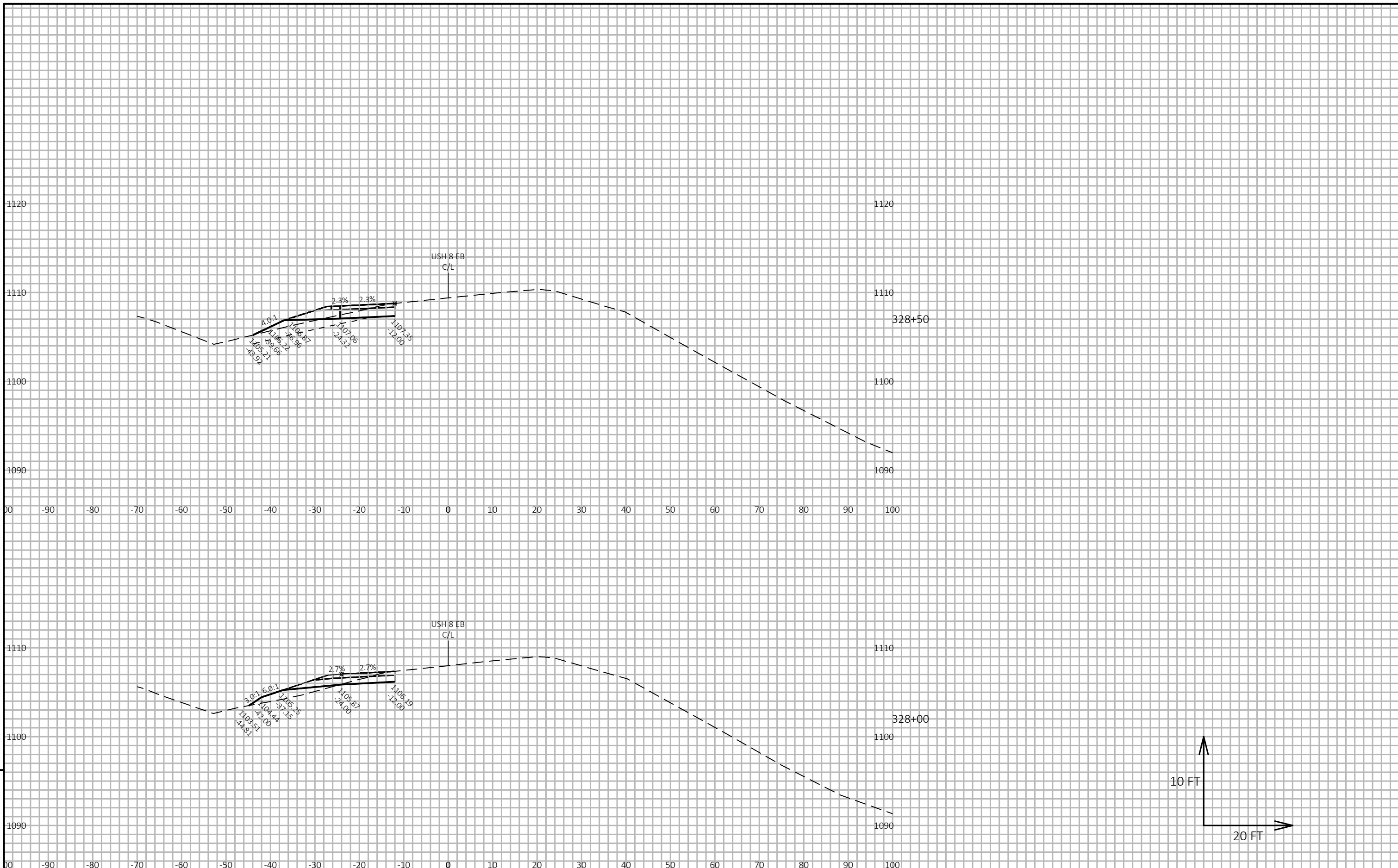
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PROJECT NO: 1570-05-76 HWY: 8 COUNTY: BARRON CROSS SECTIONS: USH 8 EB SHEET E

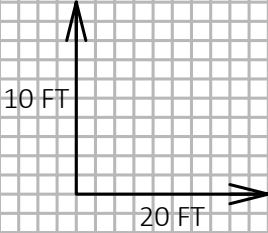
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LAYOUT NAME - USH 8 EB XS 9

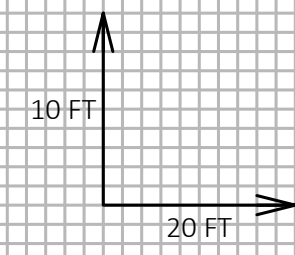
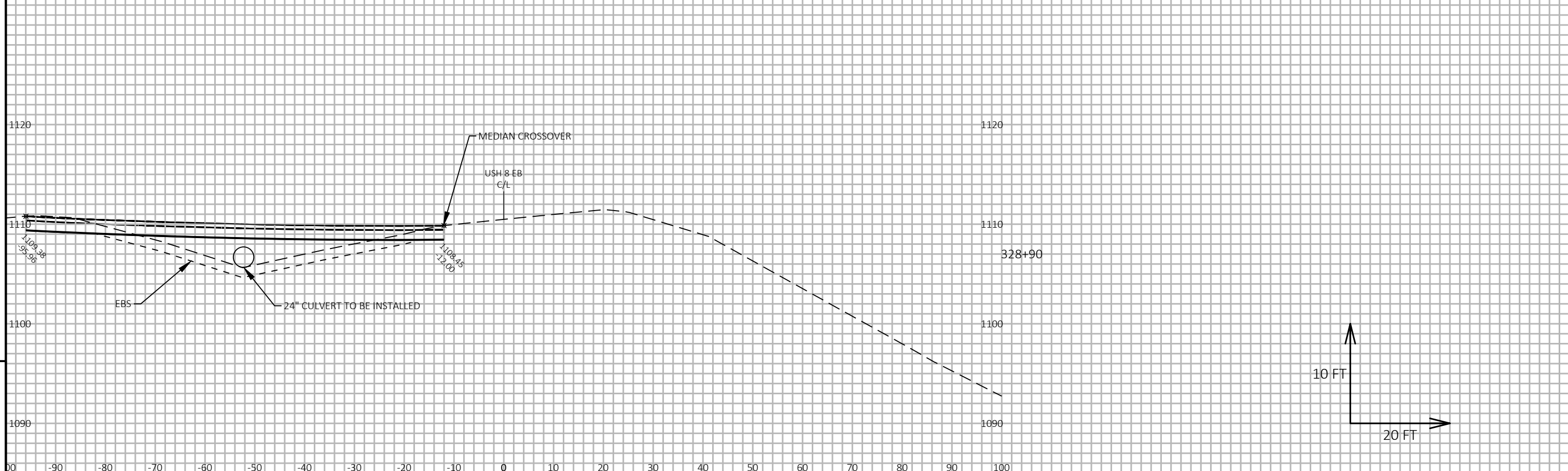
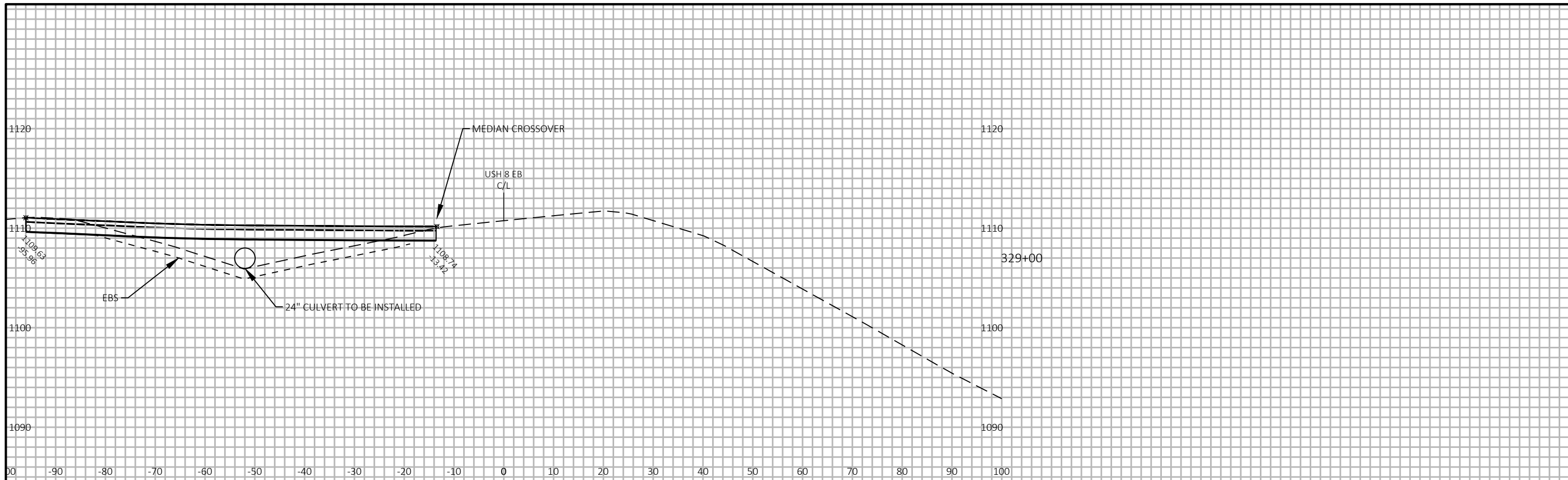


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PROJECT NO: 1570-05-76 HWY: 8 COUNTY: BARRON CROSS SECTIONS: USH 8 EB SHEET E



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PROJECT NO: 1570-05-76

HWY: 8

COUNTY: BARRON

CROSS SECTIONS: USH 8 EB

SHEET

E

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LAYOUT NAME - USH 8 EB XS 11

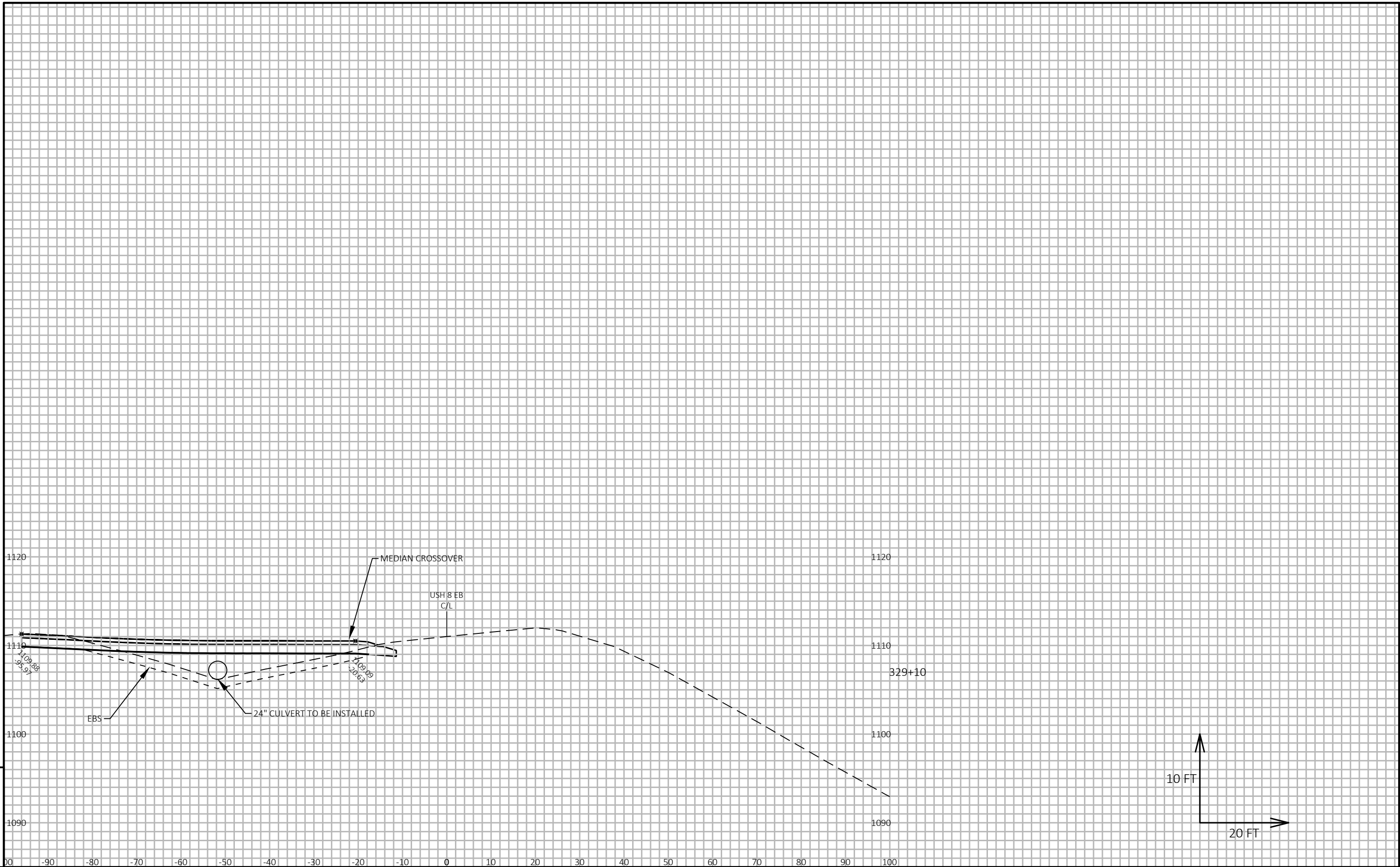
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PLOT NAME :

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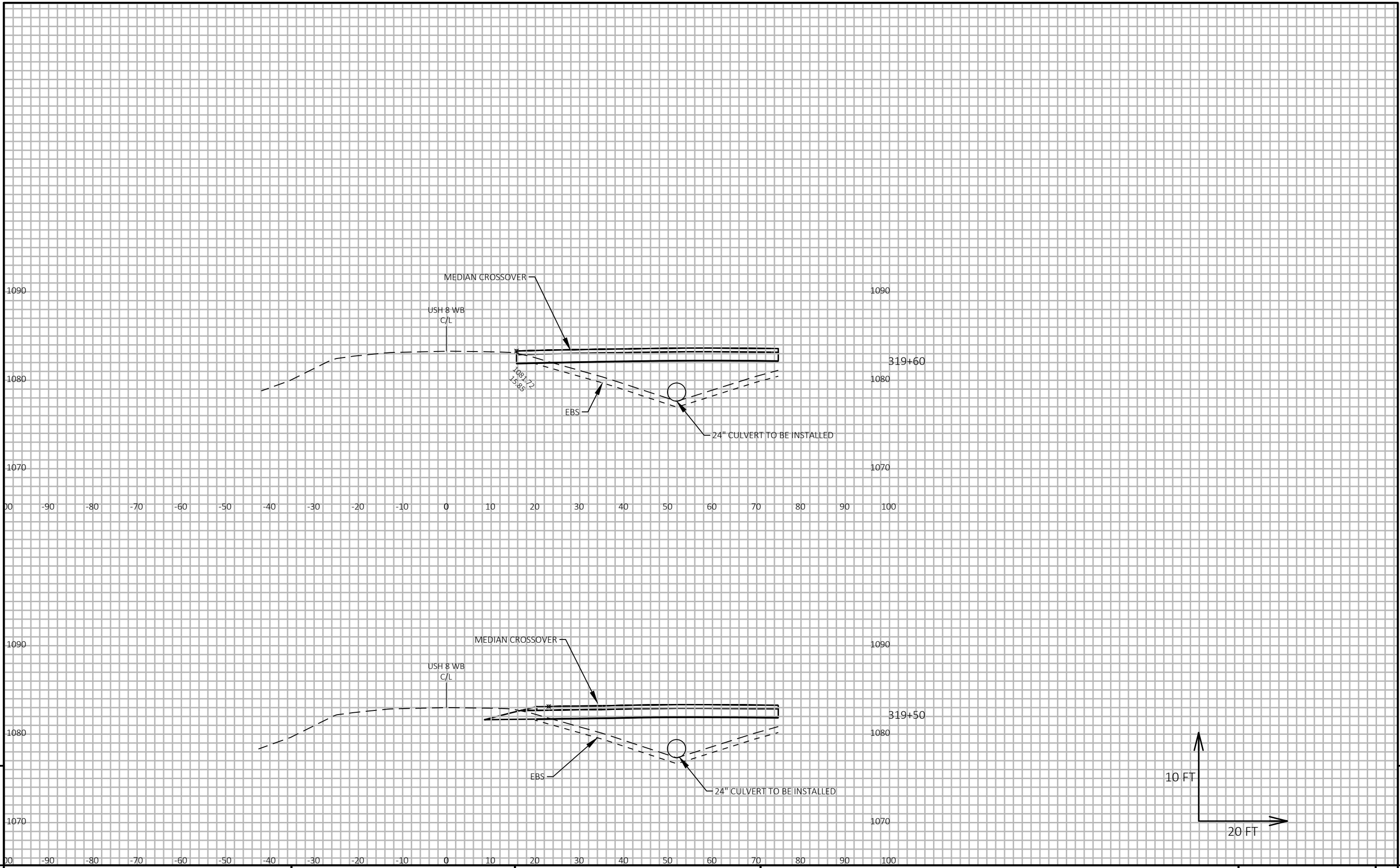
WISDOT/CADD SHEET 49



PROJECT NO: 1570-05-76	HWY: 8	COUNTY: BARRON	CROSS SECTIONS: USH 8 EB	SHEET
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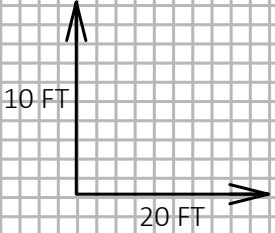
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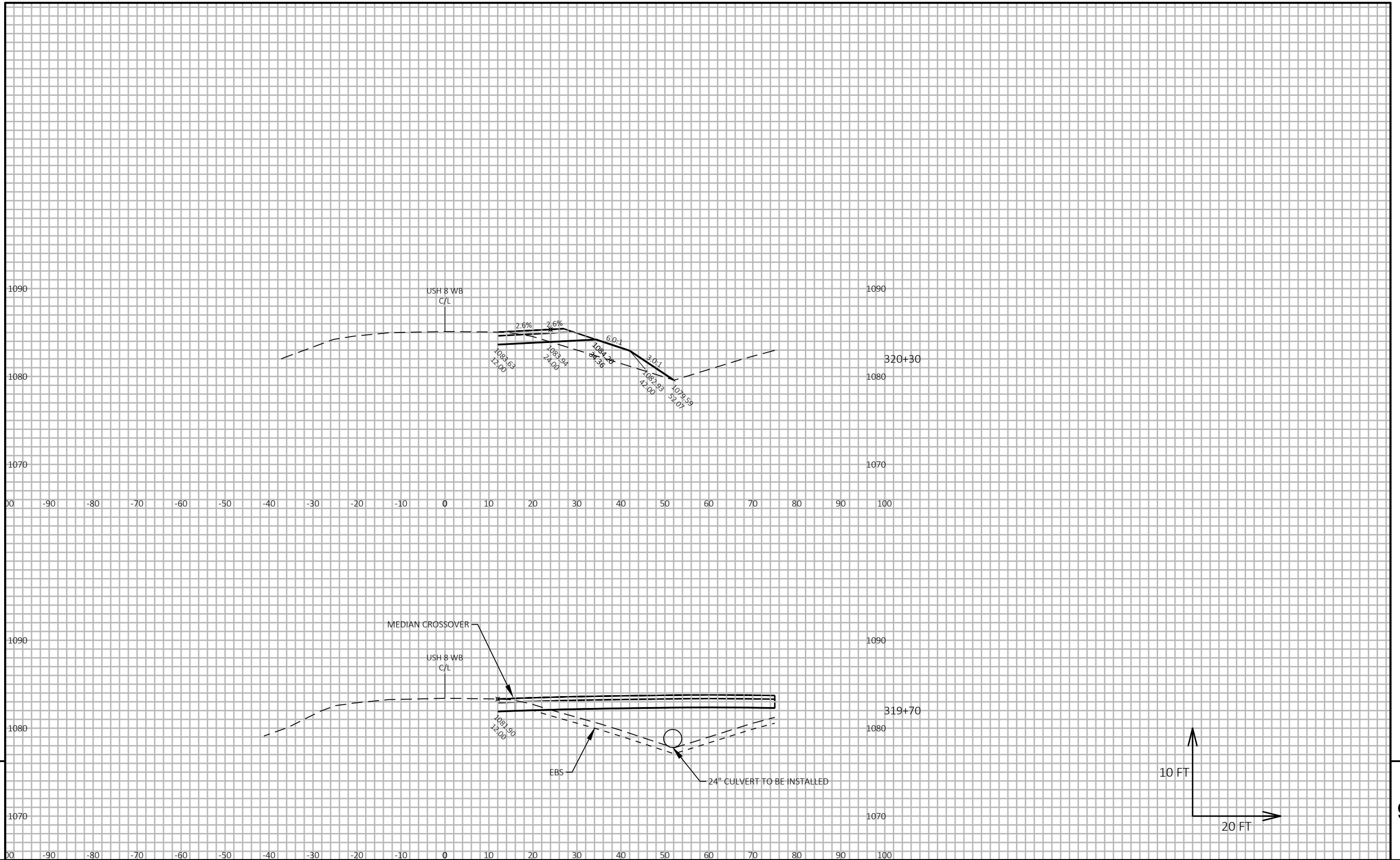
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PROJECT NO: 1570-05-76 HWY: 8 COUNTY: BARRON CROSS SECTIONS: USH 8 WB SHEET E

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PROJECT NO: 1570-05-76

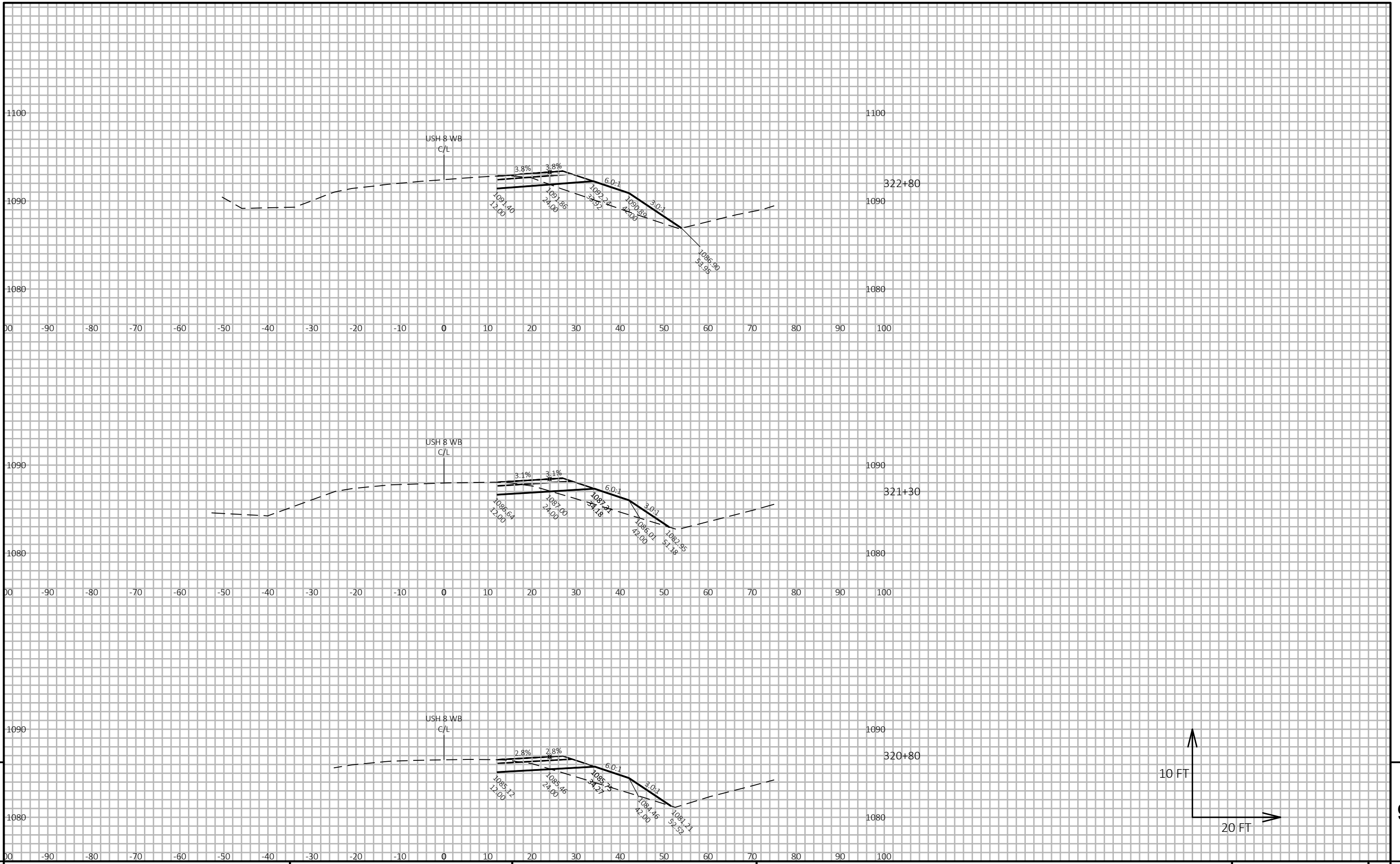
HWY: 8

COUNTY: BARRON

CROSS SECTIONS: USH 8 WB

SHEET

E



PROJECT NO: 1570-05-76

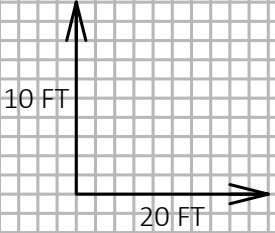
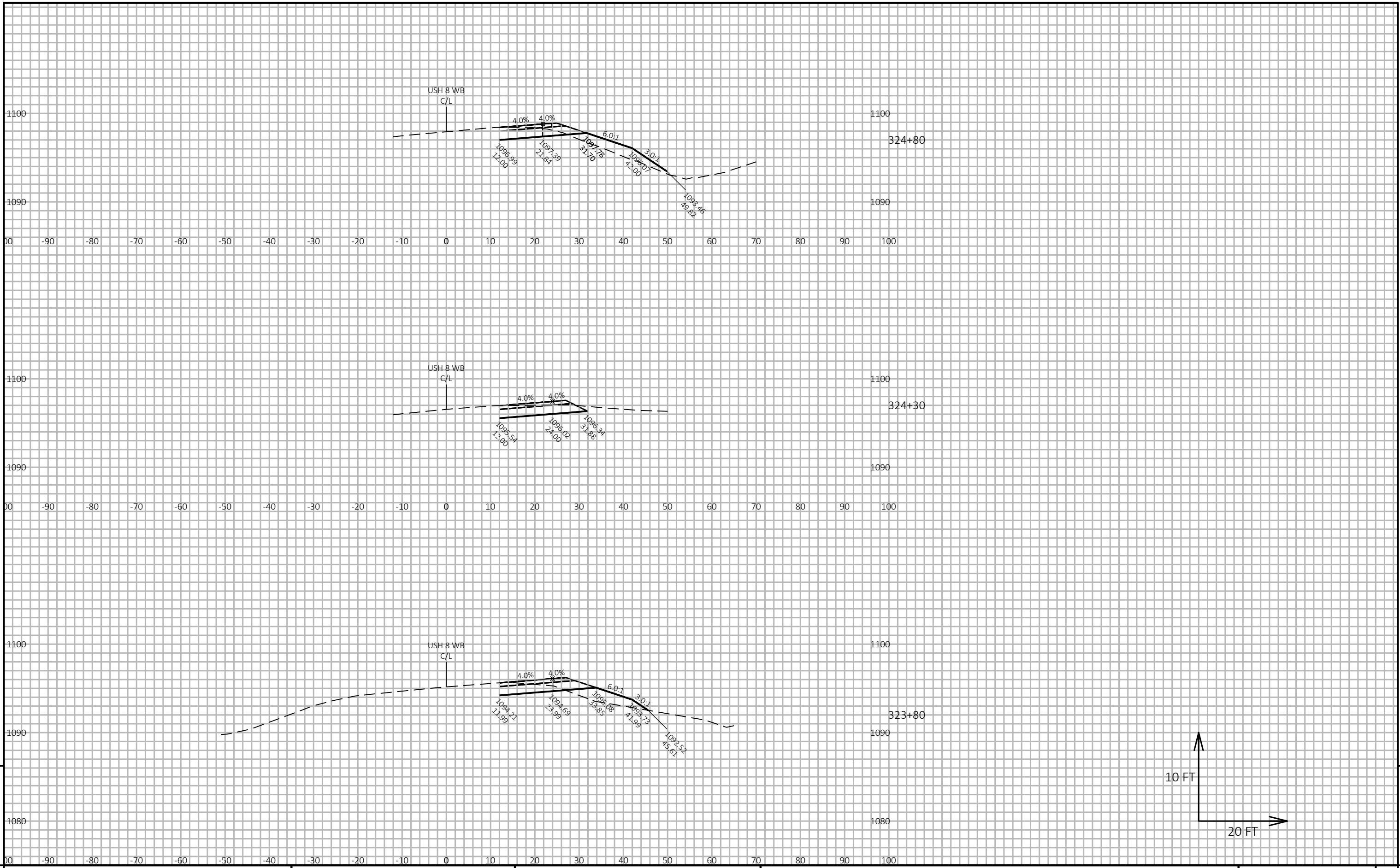
HWY: 8

COUNTY: BARRON

CROSS SECTIONS: USH 8 WB

SHEET

E



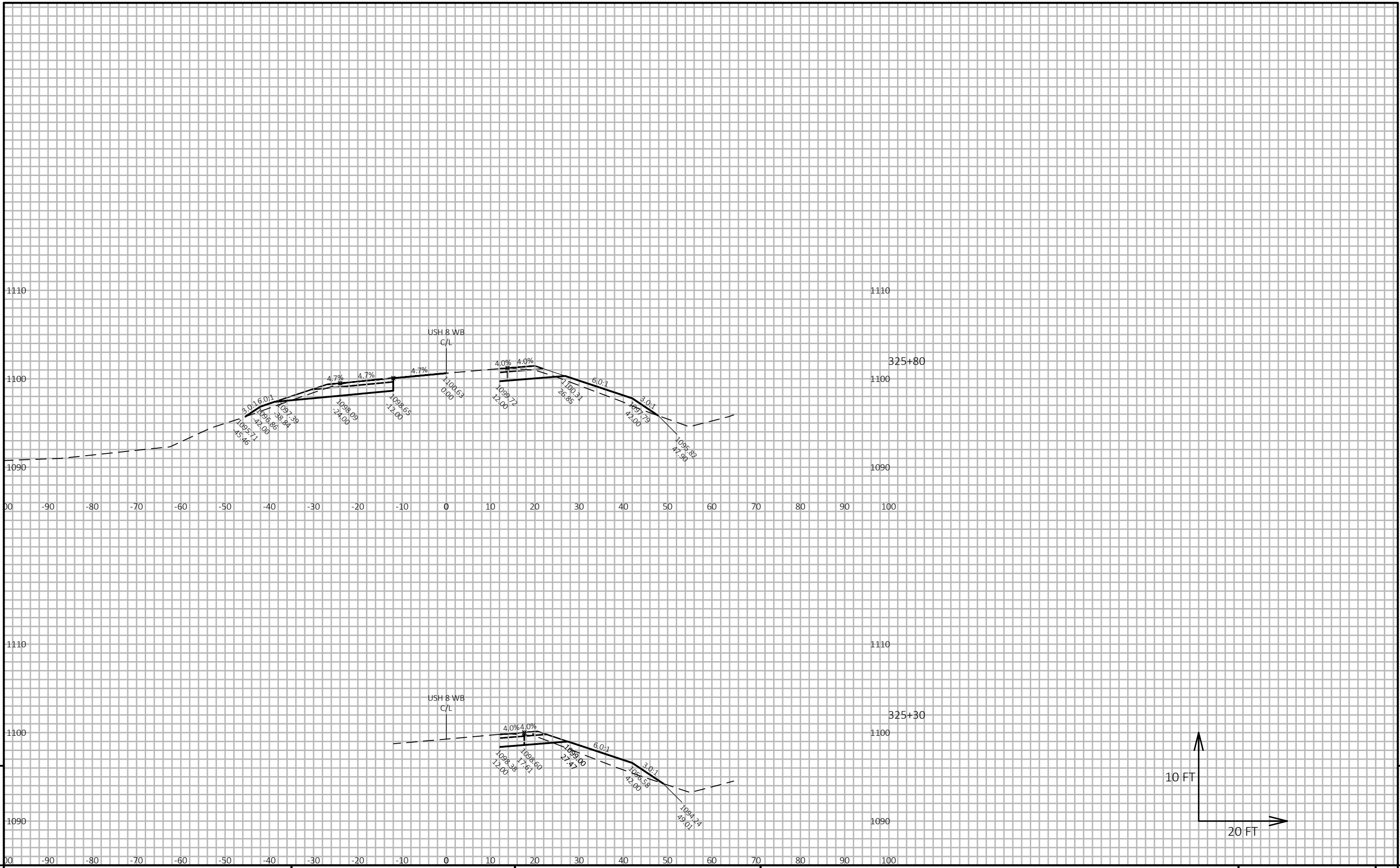
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PROJECT NO: 1570-05-76 HWY: 8 COUNTY: BARRON CROSS SECTIONS: USH 8 WB SHEET E

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LAYOUT NAME - USH 8 WB XS 4

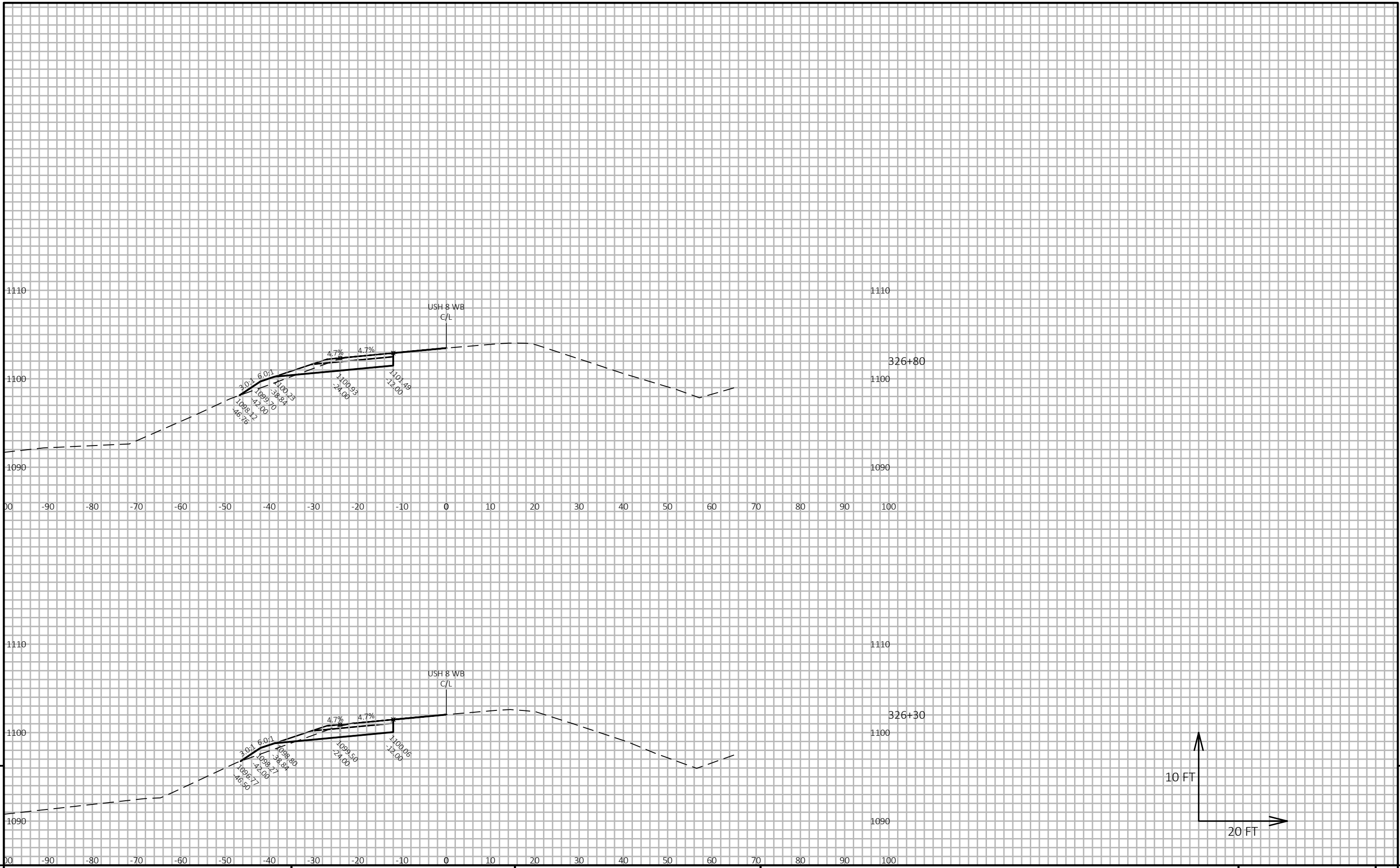


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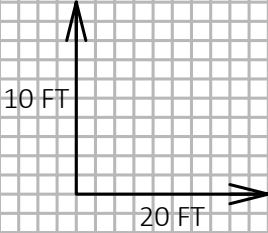
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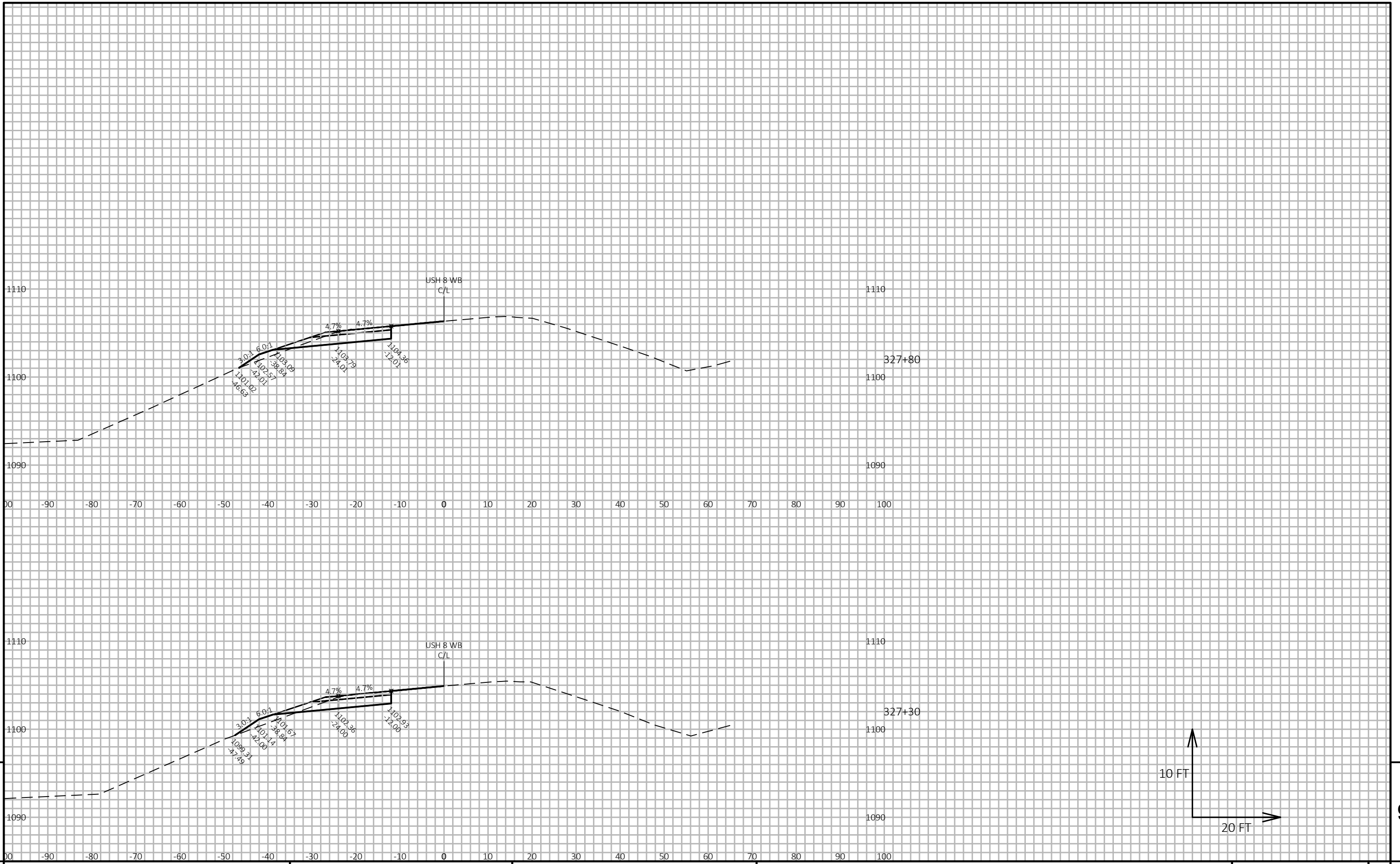
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PROJECT NO: 1570-05-76 HWY: 8 COUNTY: BARRON CROSS SECTIONS: USH 8 WB SHEET E

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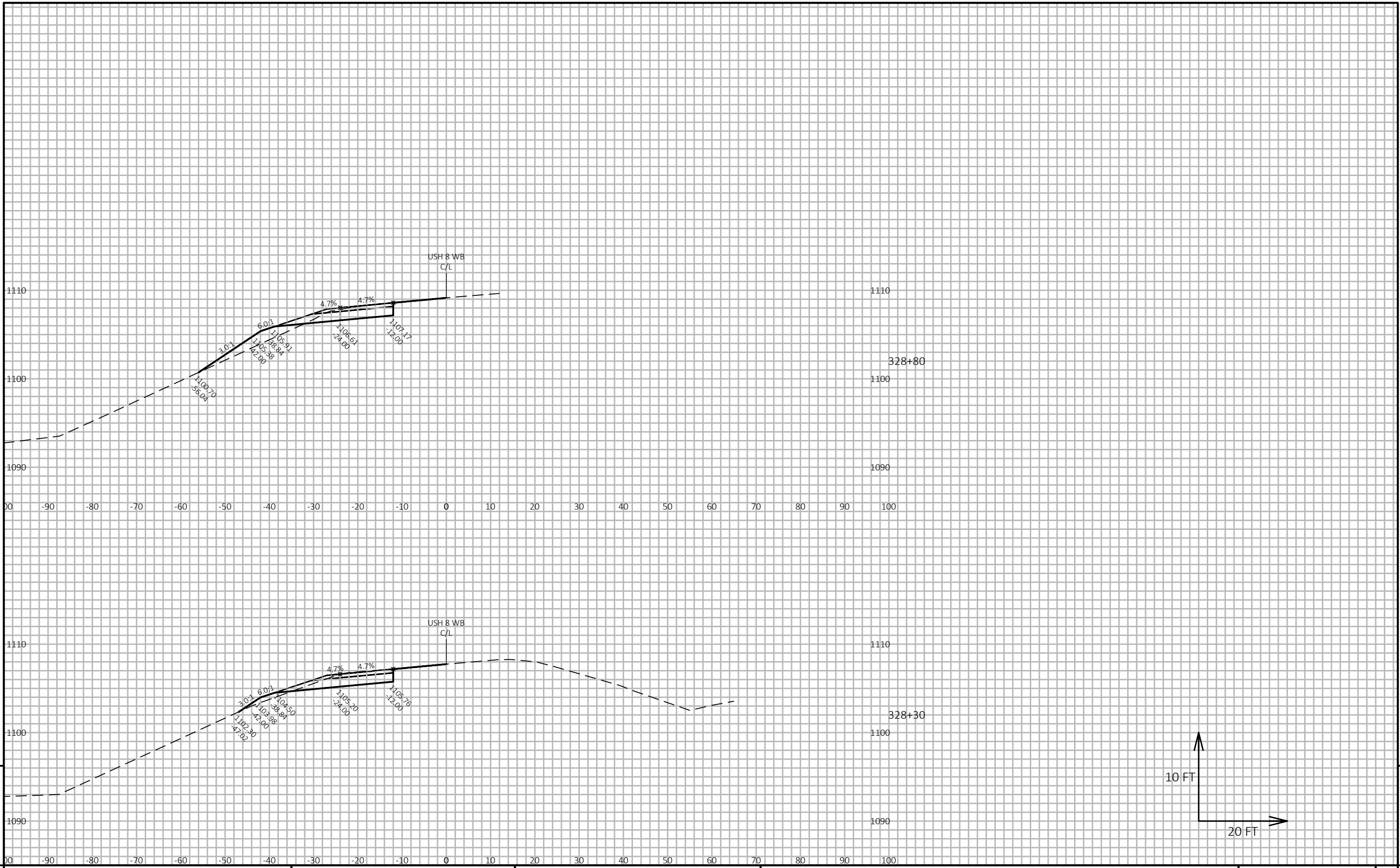
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PROJECT NO: 1570-05-76 HWY: 8 COUNTY: BARRON CROSS SECTIONS: USH 8 WB SHEET E

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LAYOUT NAME - USH 8 WB XS 7



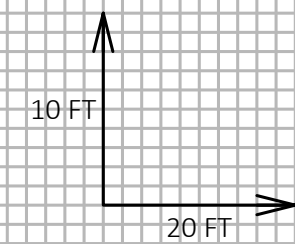
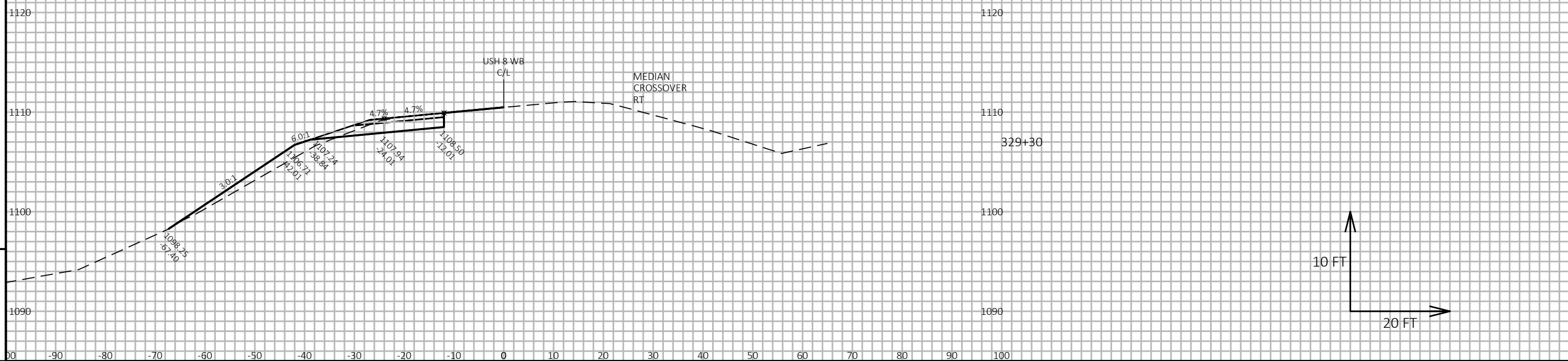
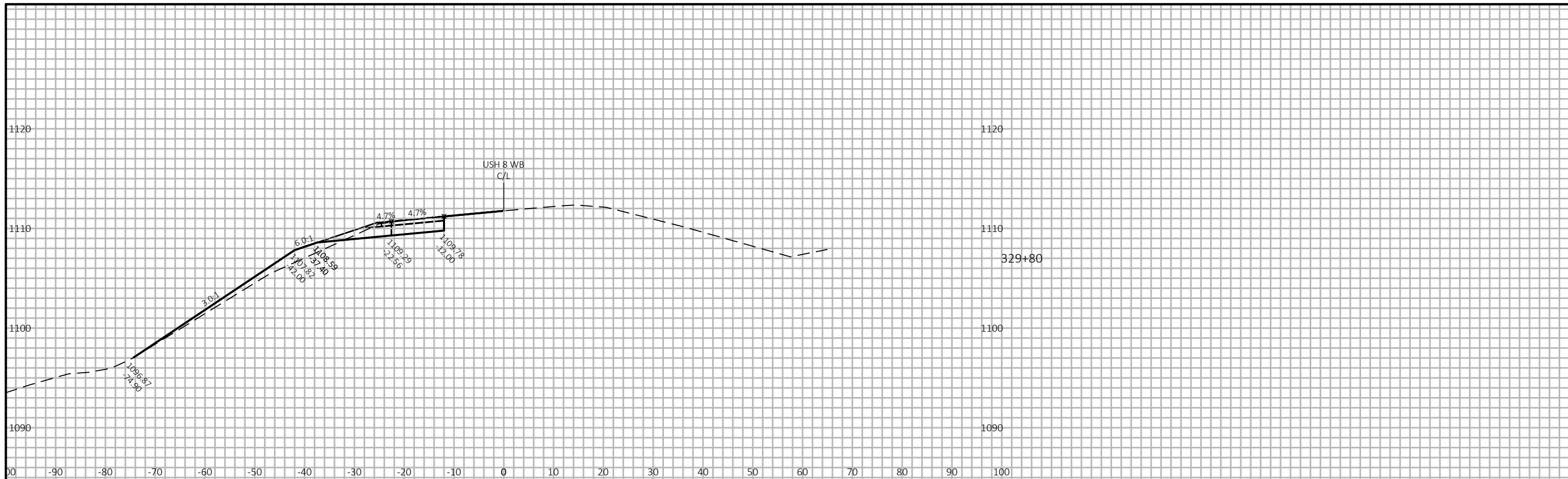
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PROJECT NO: 1570-05-76	HWY: 8	COUNTY: BARRON	CROSS SECTIONS: USH 8 WB	SHEET	E
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FILE NAME : N:\PDS\C3D\15700506\SHEETSPLAN\CROSS SECTIONS.DWG PLOT DATE : 7/24/2019 4:03 PM PLOT BY : FINNEGAN, MITCHELL PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - USH 8 WB XS 8



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PROJECT NO: 1570-05-76

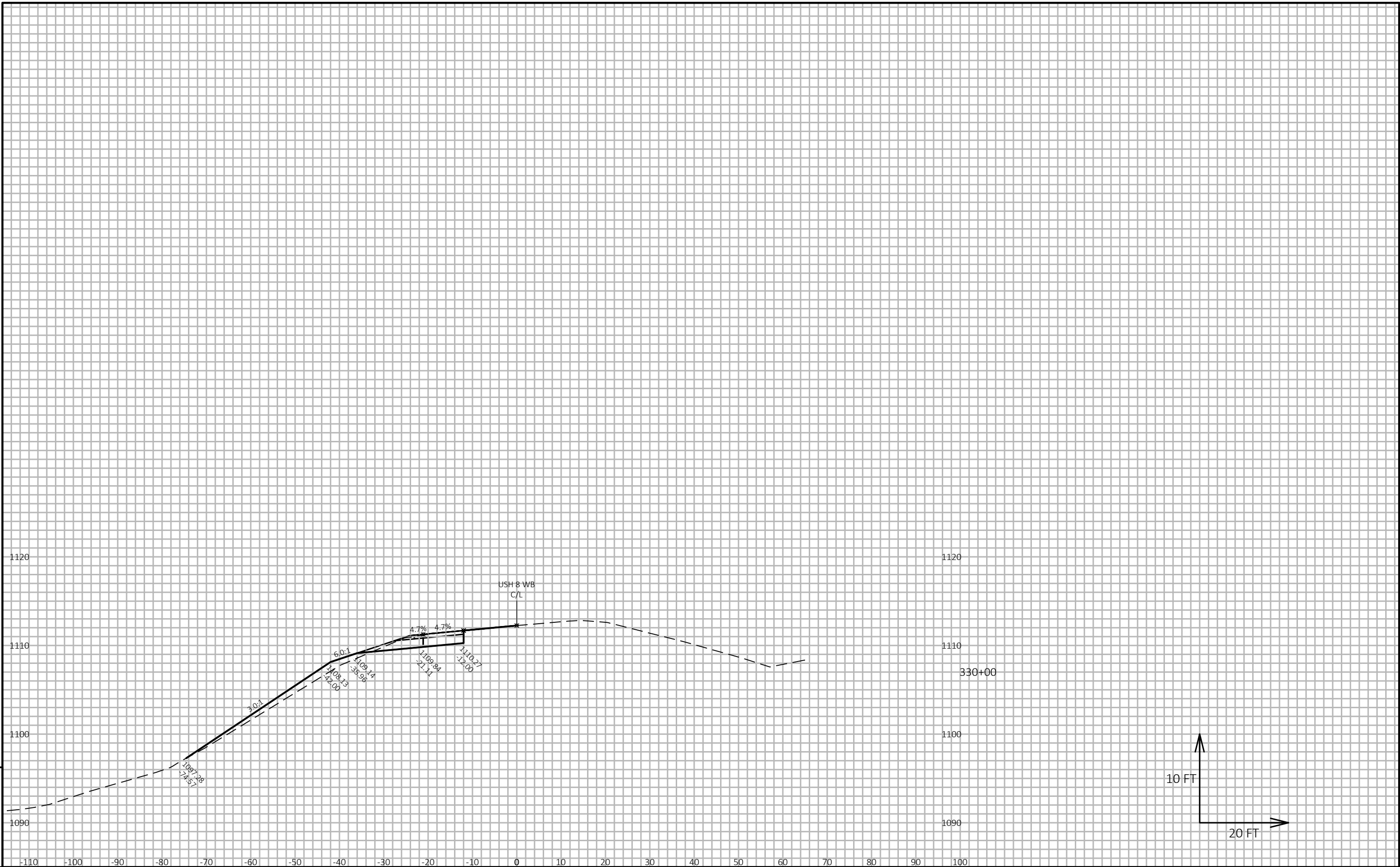
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COUNTY: BARRON

CROSS SECTIONS: USH 8 WB

SHEET

E



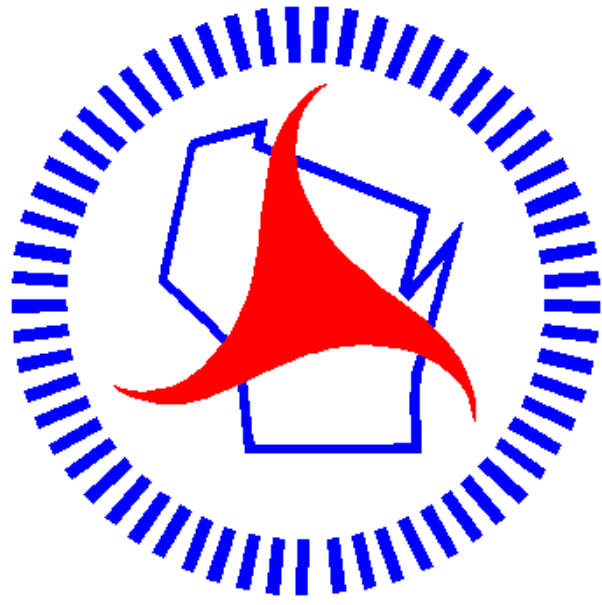
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PROJECT NO: 1570-05-76 HWY: 8 COUNTY: BARRON CROSS SECTIONS: USH 8 WB SHEET E

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Notes



Wisconsin Department of Transportation

Dedicated people creating transportation solutions through innovation and exceptional service.

<http://www.dot.wisconsin.gov>