

NOVEMBER 2021
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 = 74



DESIGN DESIGNATION

A.A.D.T.	2020	=	3900
A.A.D.T.	2040	=	4400
D.H.V.		=	587
D.D.		=	61/39
T.		=	20.9%
DESIGN SPEED		=	60 MPH
ESALS		=	XXX.XXX

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	

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

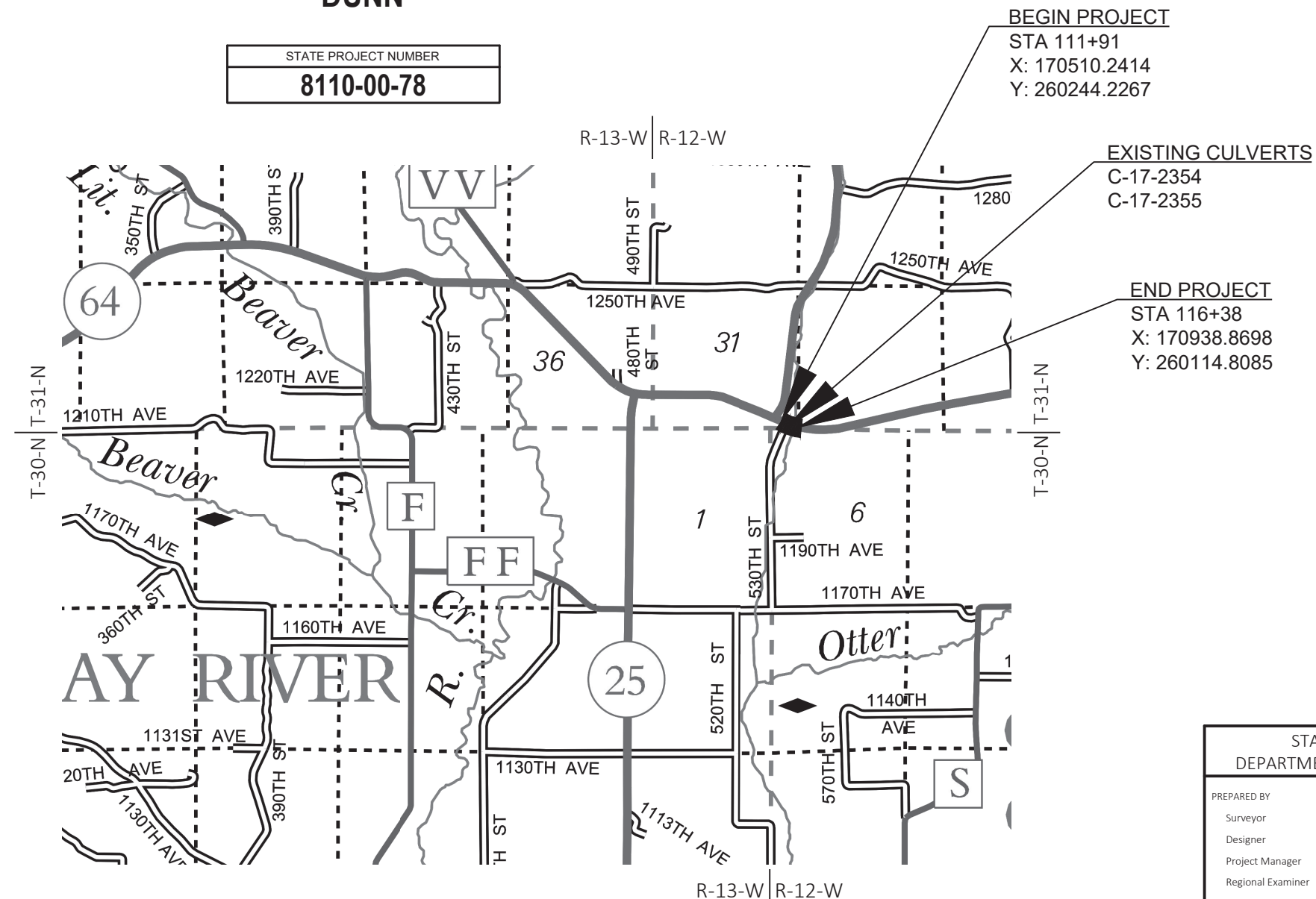
CONNORSVILLE - BLOOMER

CULVERT C-17-0047

STH 64 DUNN

STATE PROJECT NUMBER
8110-00-78

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
8110-00-78	WISC 2022028	1



BEGIN PROJECT
STA 111+91
X: 170510.2414
Y: 260244.2267

EXISTING CULVERTS
C-17-2354
C-17-2355

END PROJECT
STA 116+38
X: 170938.8698
Y: 260114.8085



TOTAL NET LENGTH OF CENTERLINE = 0.085 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS) DUNN COUNTY, NAD 83 (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 NAV 88 (2012).

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
PREPARED BY	
Surveyor	NW REGION EAU CLAIRE
Designer	ALLISSA MUNDEN
Project Manager	TYLER RONGSTAD
Regional Examiner	TOU YANG
Regional Supervisor	JAMES KOENIG

APPROVED FOR THE DEPARTMENT
DATE: 9/2/2021 *James Koenig*
(Signature)

E

LIST OF STANDARD ABBREVIATIONS

ABUT	ABUTMENT
AC	ACRE
AGG	AGGREGATE
AH	AHEAD
APPROX	APPROXIMATE
AEW	APRON ENDWALL
ASPH	ASPHALTIC
ADT	AVERAGE DAILY TRAFFIC
AVG	AVERAGE
AZ	AZIMUTH
BK	BACK
BEG	BEGIN
BM	BENCH MARK
CL	CENTER LINE
CONC	CONCRETE
CONST	CONSTRUCTION
CO	COUNTY
CTH	COUNTY TRUNK HIGHWAY
X-SEC	CROSS SECTION
CR	CRUSHED
CFS	CUBIC FEET/SECOND
CY OR CU YD	CUBIC YARD
CULV	CULVERT
CP	CULVERT PIPE
DOT	DEPARTMENT OF TRANSPORTATION
DHV	DESIGN HOUR VOLUME
DIA	DIAMETER
DD	DIRECTIONAL DISTRIBUTION
DISCH OR DIS	DISCHARGE
EA	EACH
ELECT	ELECTRIC
EL OR ELEV	ELEVATION
EMB	EMBANKMENT
EBS	EXCAVATION BELOW SUBGRADE
EXIST	EXISTING
FERT	FERTILIZE
FE	FIELD ENTRANCE
FIN	FINISHED
FT	FOOT
FL	FLOW LINE
GA	GAUGE
HORIZ	HORIZONTAL
CWT	HUNDREDWEIGHT
INL	INLET
LT	LEFT
LHF	LEFT-HAND FORWARD
LIN	LINEAR
LIN FT	LINEAR FOOT
LS	LUMP SUM
MAX	MAXIMUM
MI	MILE
MISC	MISCELLANEOUS
NE	NORTH EAST
NW	NORTH WEST
PAV'T	PAVEMENT
PC	POINT OF CURVATURE
PI	POINT OF INTERSECTION
PT	POINT OF TANGENCY
POT	POINT ON TANGENT
LB	POUND
PE	PRIVATE ENTRANCE
PROJ	PROJECT
R	RANGE
REQ'D	REQUIRED
RT	RIGHT
RHF	RIGHT-HAND FORWARD
RW	RIGHT OF WAY
RD	ROAD
SHR	SHRINKAGE
SL	SLOPE
SE	SOUTH EAST
SW	SOUTH WEST
STD	STANDARD
SDD	STANDARD DETAIL DRAWINGS
STH	STATE TRUNK HIGHWAY
STA	STATION
SPPA	STRUCTURAL PLATE PIPE ARCH
STRUCT	STRUCTURE
SURF	SURFACE
TEL	TELEPHONE
TN	TOWN
T	TRUCKS (PERCENT OF)
UNCL	UNCLASSIFIED
UG	UNDERGROUND
V	VELOCITY OR DESIGN SPEED
VC	VERTICAL CURVE

UTILITIES

COMMUNICATION
MOSAIC TELECOM
DENNIS RUSSETT
401 S. 1ST STREET
P.O. BOX 664
CAMERON, WI 54822-0664
715-458-5378
ctcdennis@mosaictelecom.com

ELECTRIC-DISTRIBUTION
DUNN ENERGY COOPERATIVE
MIKE ANDRASCHKO
N5725 600TH STREET
P.O. BOX 220
MENOMONIE, WI 54751-0220
715-232-6240
mandra@dunnenergy.com

GAS
WE ENERGIES
STEVEN CHAVERS
104 W. SOUTH STREET
RICE LAKE, WI 54868
715-234-9605 (OFFICE)
715-213-4327 (MOBILE)
Steven.chavers@we-energies.com
24-HOUR EMERGENCY 800-261-5325

WISCONSIN DOT

DEPARTMENT OF TRANSPORTATION
NORTHWEST REGION
718 WEST CLAIREMONT AVE
EAU CLAIRE WI 54701
ATTN: JIM KOENIG
EMAIL: James.Koenig@dot.wi.gov
PH: 715-838-8391

WISCONSIN DNR - LIASON

DEPARTMENT OF NATURAL RESOURCES
WEST CENTRAL REGION
1300 W. CLAIREMONT AVE
EAU CLAIRE, WI 54701
ATTN: AMY LESIK
EMAIL: Amy.Lesik@wisconsin.gov
PH: 715-836-6571

DUNN COUNTY HIGHWAY DEPT.

3303 US HIGHWAY 12 EAST
MENOMONIE, WI 54751
PH: (715) 232-2181
SHOP PH: (715) 232-3888



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

GENERAL NOTES

COORDINATES AND BEARINGS ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), DUNN COUNTY NAD 83 (1991).

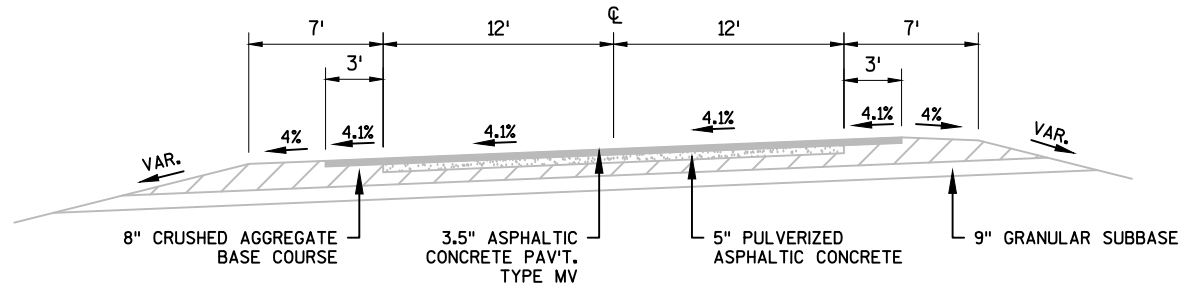
NO TREES OR SHRUBS ARE TO BE REMOVED WITHOUT APPROVAL OF THE ENGINEER.

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

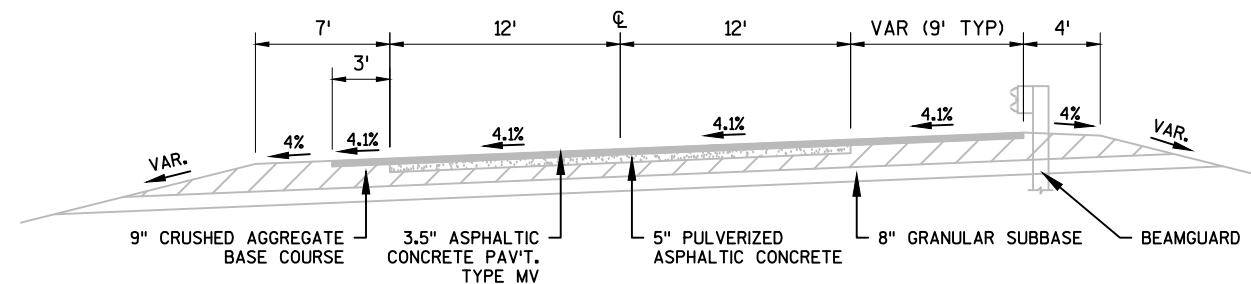
5-INCH HMA PAVEMENT SHALL BE PLACED IN TWO LIFTS. USE A TACK COAT APPLICATION RATE OF 0.05 GAL/SY BETWEEN LIFTS.

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

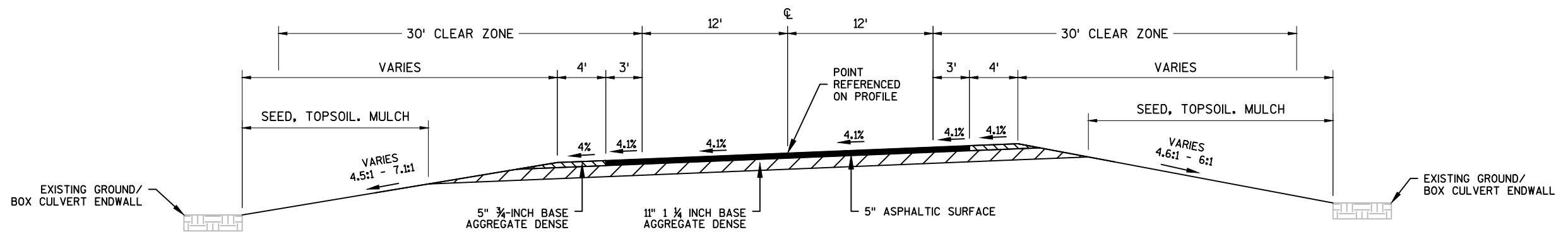
DISTURBED AREAS WITHIN THE RIGHT OF WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS SHALL BE SALVAGE TOPSOILED, FERTILIZED, SEEDDED, AND MULCHED AS DIRECTED BY THE ENGINEER.



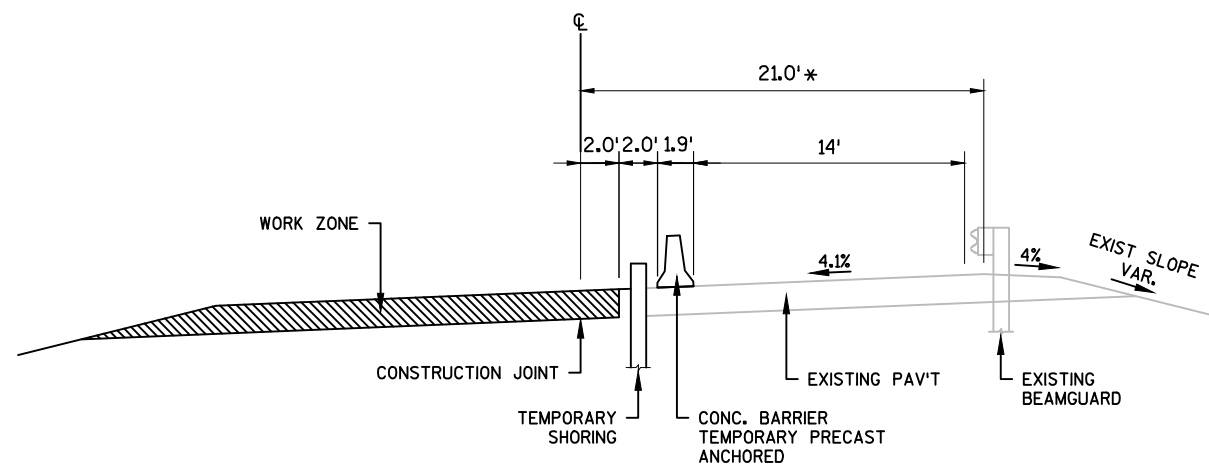
EXISTING TYPICAL SECTION
 STH 64
 STA 111+91 - STA 113+77.1
 STA 115+01.6 - STA 116+38



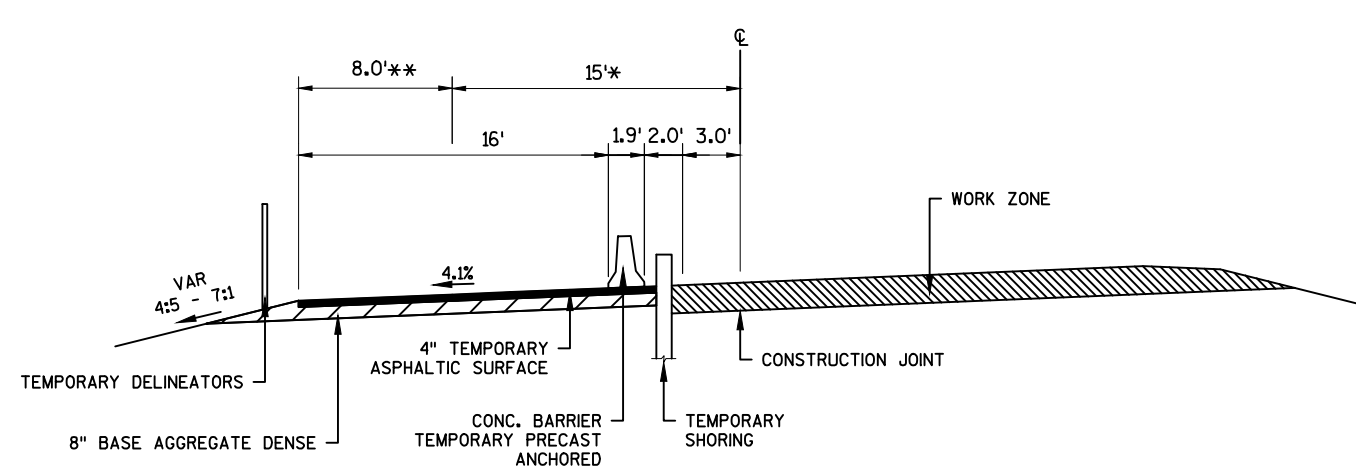
EXISTING TYPICAL SECTION
 STH 64
 STA 113+77.1 - STA 115+01.6



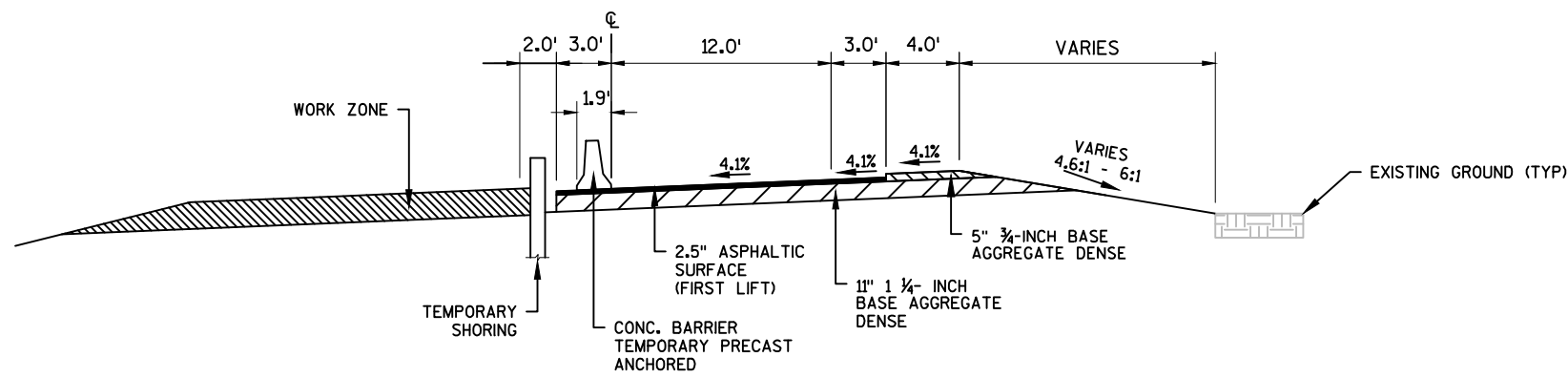
FINISHED TYPICAL SECTION
 STH 64
 REPAIR LEFT SHOULDER AND SLOPE STA 112+86 - 115+43
 REPAIR RIGHT SHOULDER AND SLOPE STA 113+44 - 115+43
 FULL PAVEMENT AND SHOULDER REPLACEMENT STA 113+86 - 114+43



STAGE 1 TYPICAL SECTION
 STH 64
 STA 113+86 - 114+34

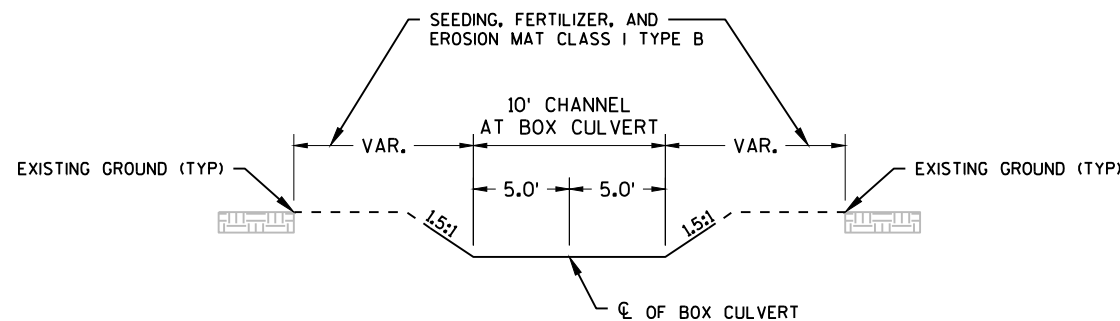


STAGE 2 TYPICAL SECTION
 STH 64
 STA 113+86 - 114+43



STAGE 3 TYPICAL SECTION
 STH 64
 STA 113+86 - 114+43

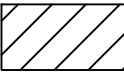

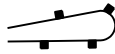
* EXISTING ROADWAY WIDTH
 ** ROADWAY WIDENING

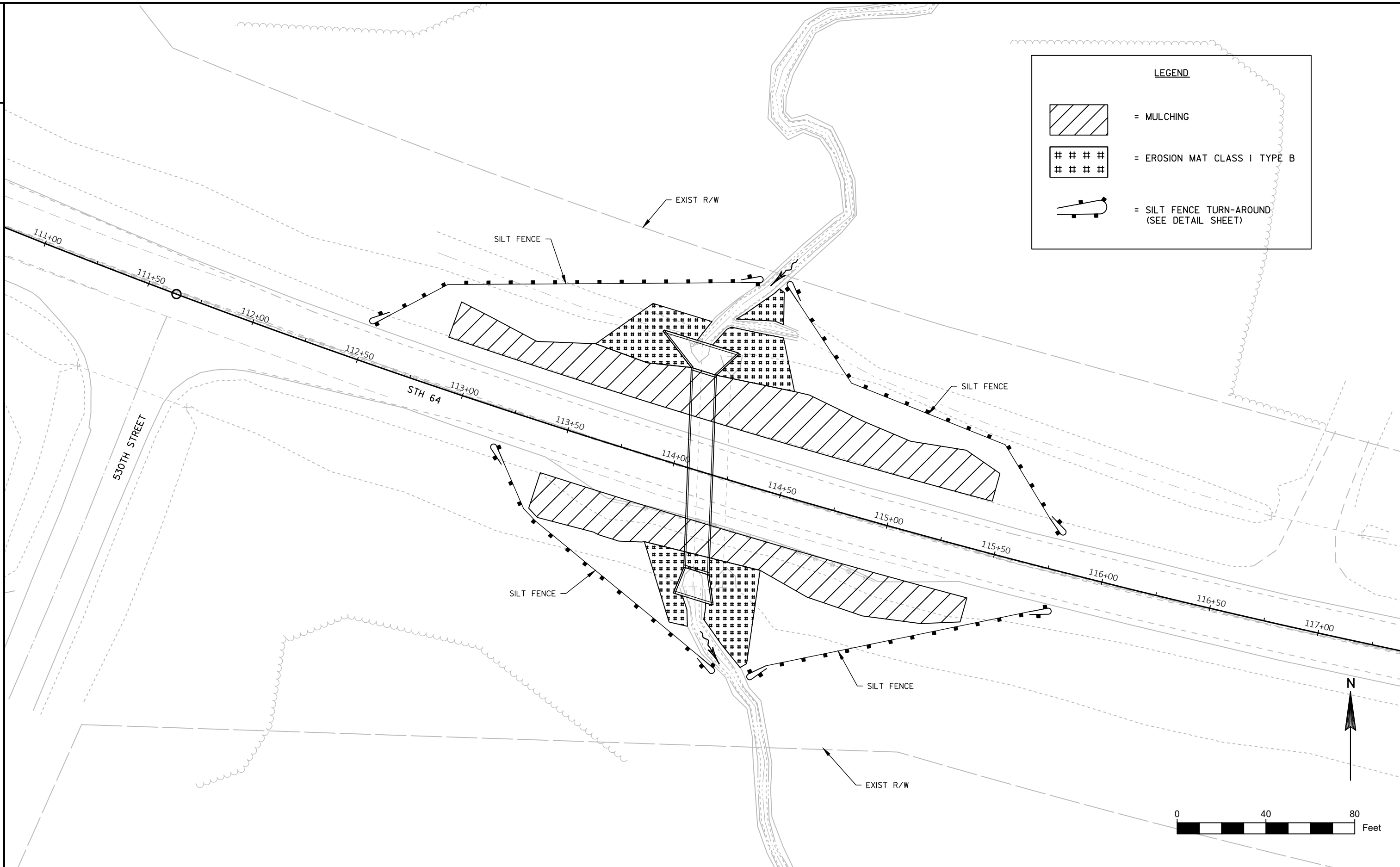


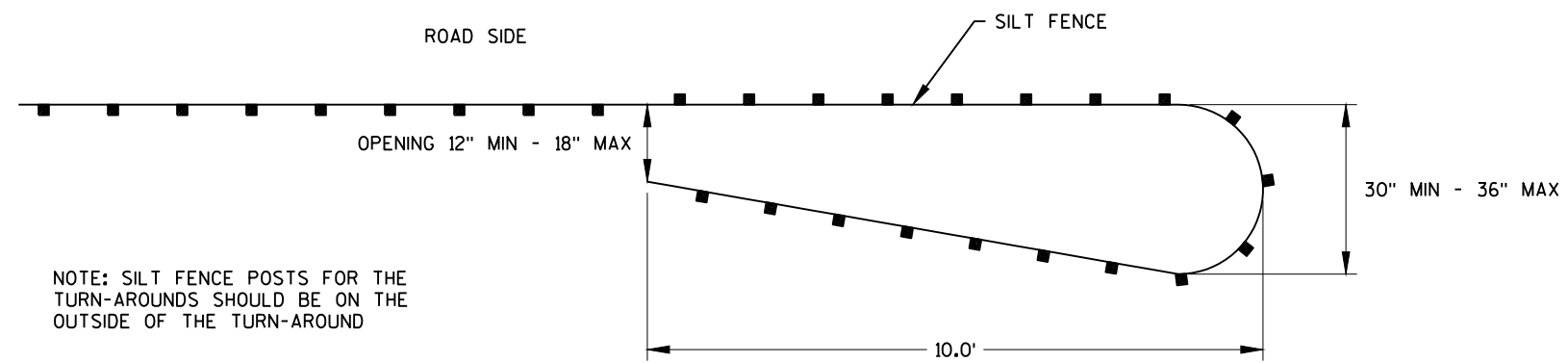
TEMPORARY STREAM DIVERSION
 CHANNEL SECTION

BLAIRMOR BRANCH FLOWS THROUGH THE EXISTING WESTERN CULVERT (C-17-2355) AND WILL NEED TO BE TEMPORARILY DIVERTED THROUGH THE EASTERN CULVERT (C-17-2354) FOR CONSTRUCTION OF THE NEW BOX CULVERT. AFTER THE BOX CULVERT IS CONSTRUCTED DIVERSION WILL BE REMOVED AND FLOW SHALL BE ESTABLISHED TO THE ORIGINAL FLOW THROUGH THE NEW BOX CULVERT.
 SEE SPV.0105.01 FOR DETAILS

LEGEND

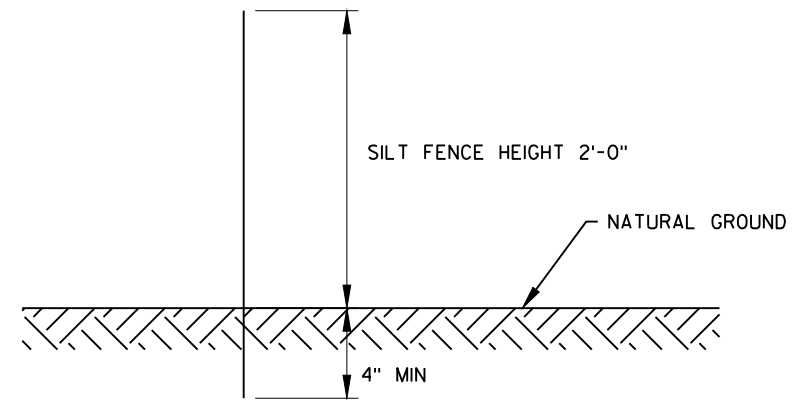
-  = MULCHING
-  = EROSION MAT CLASS I TYPE B
-  = SILT FENCE TURN-AROUND (SEE DETAIL SHEET)





NOTE: SILT FENCE POSTS FOR THE TURN-AROUNDS SHOULD BE ON THE OUTSIDE OF THE TURN-AROUND

PLAN VIEW



SIDE VIEW



LEGEND

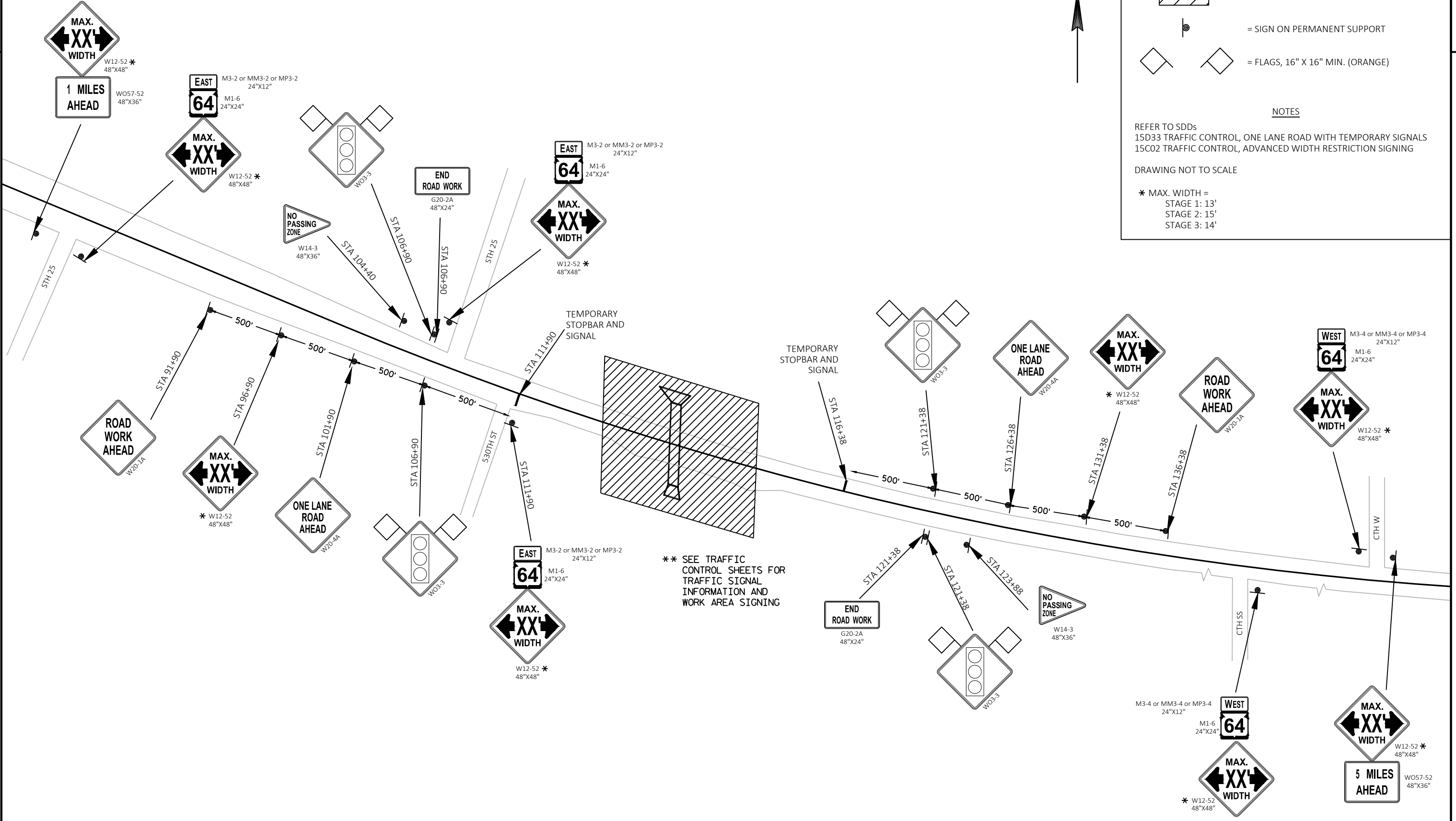
- = WORK AREA
- = SIGN ON PERMANENT SUPPORT
- = FLAGS, 16" X 16" MIN. (ORANGE)

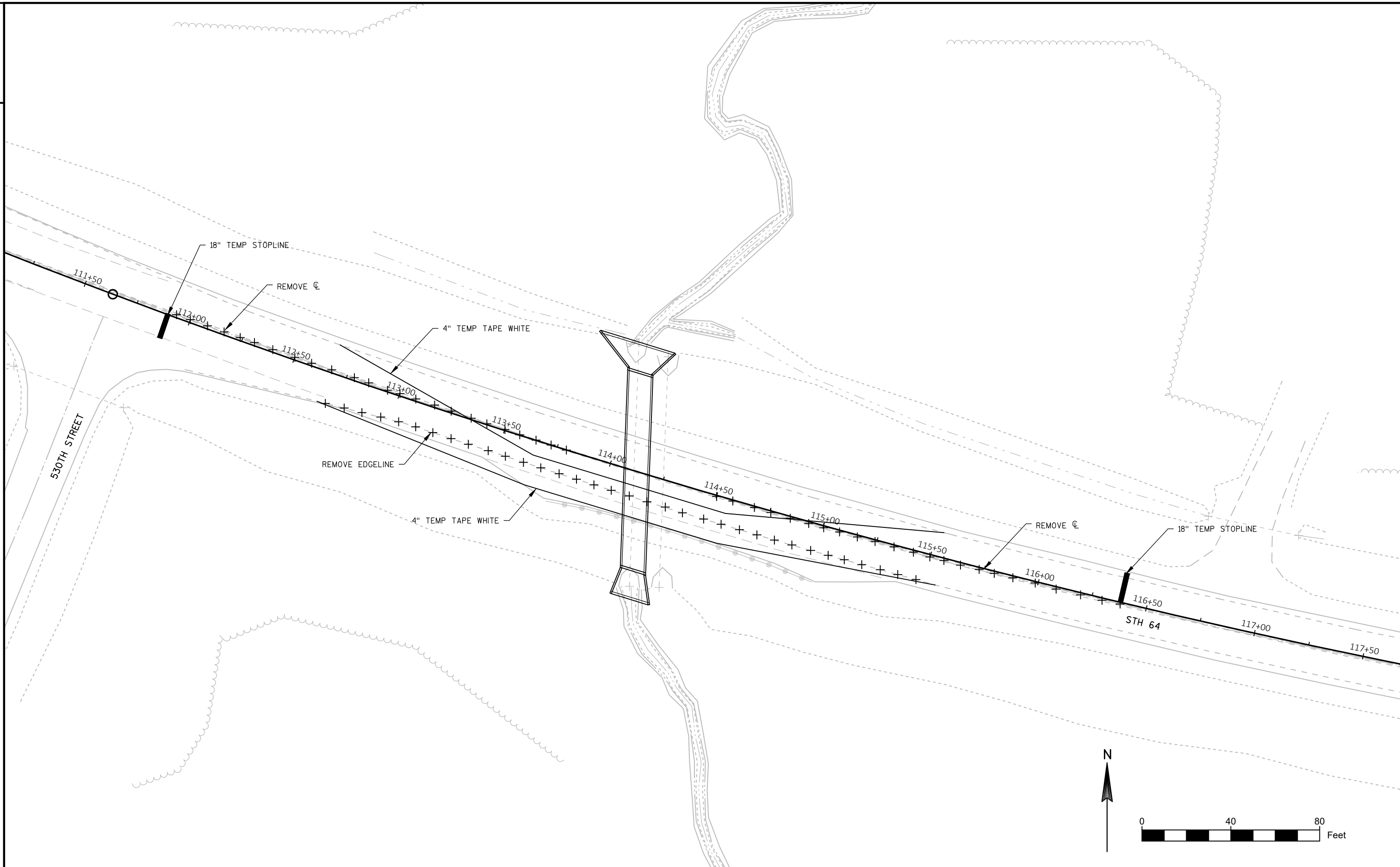
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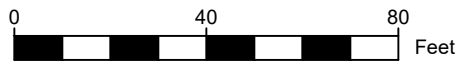
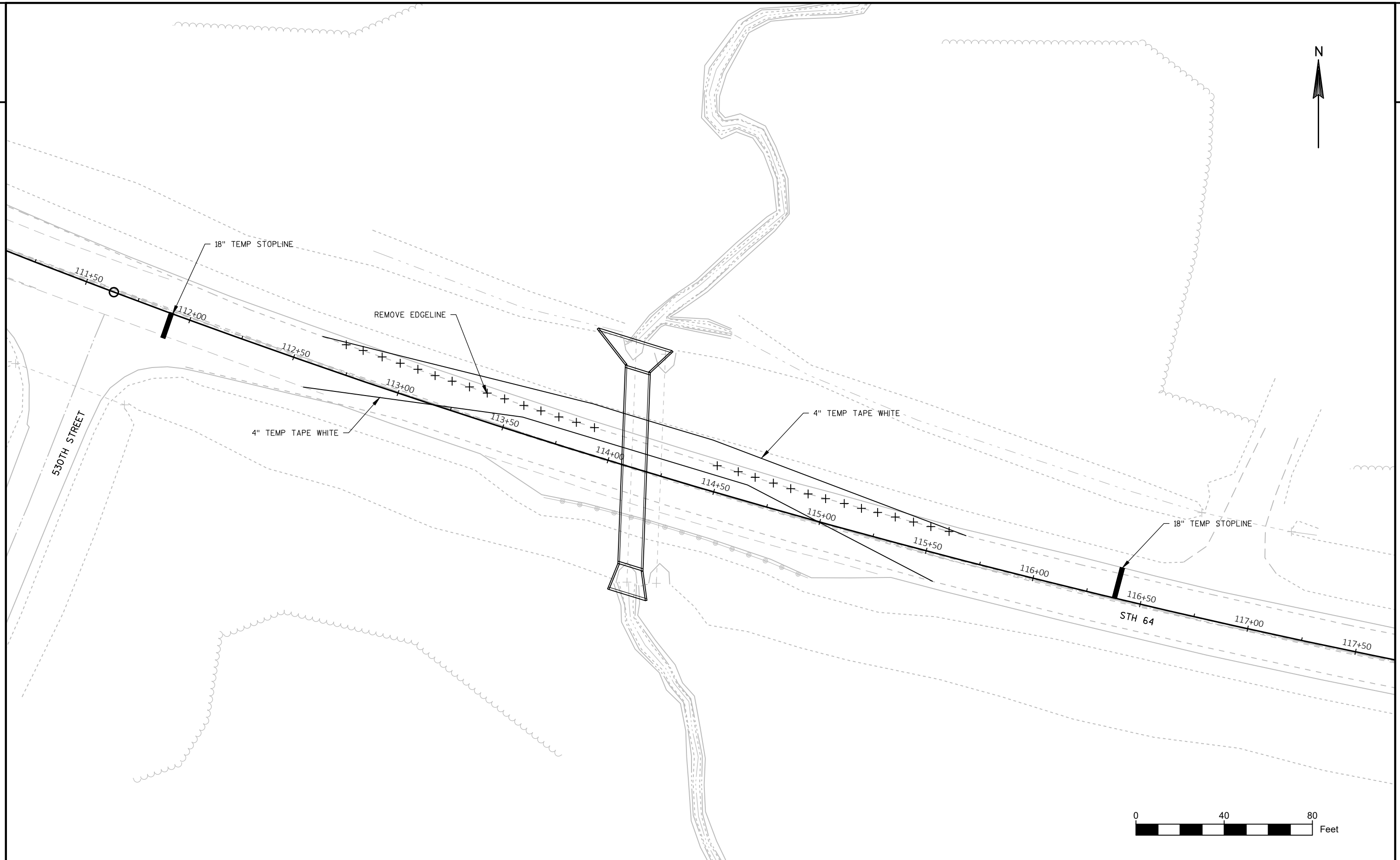
REFER TO SDDs
 15D33 TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS
 15C02 TRAFFIC CONTROL, ADVANCED WIDTH RESTRICTION SIGNING

DRAWING NOT TO SCALE

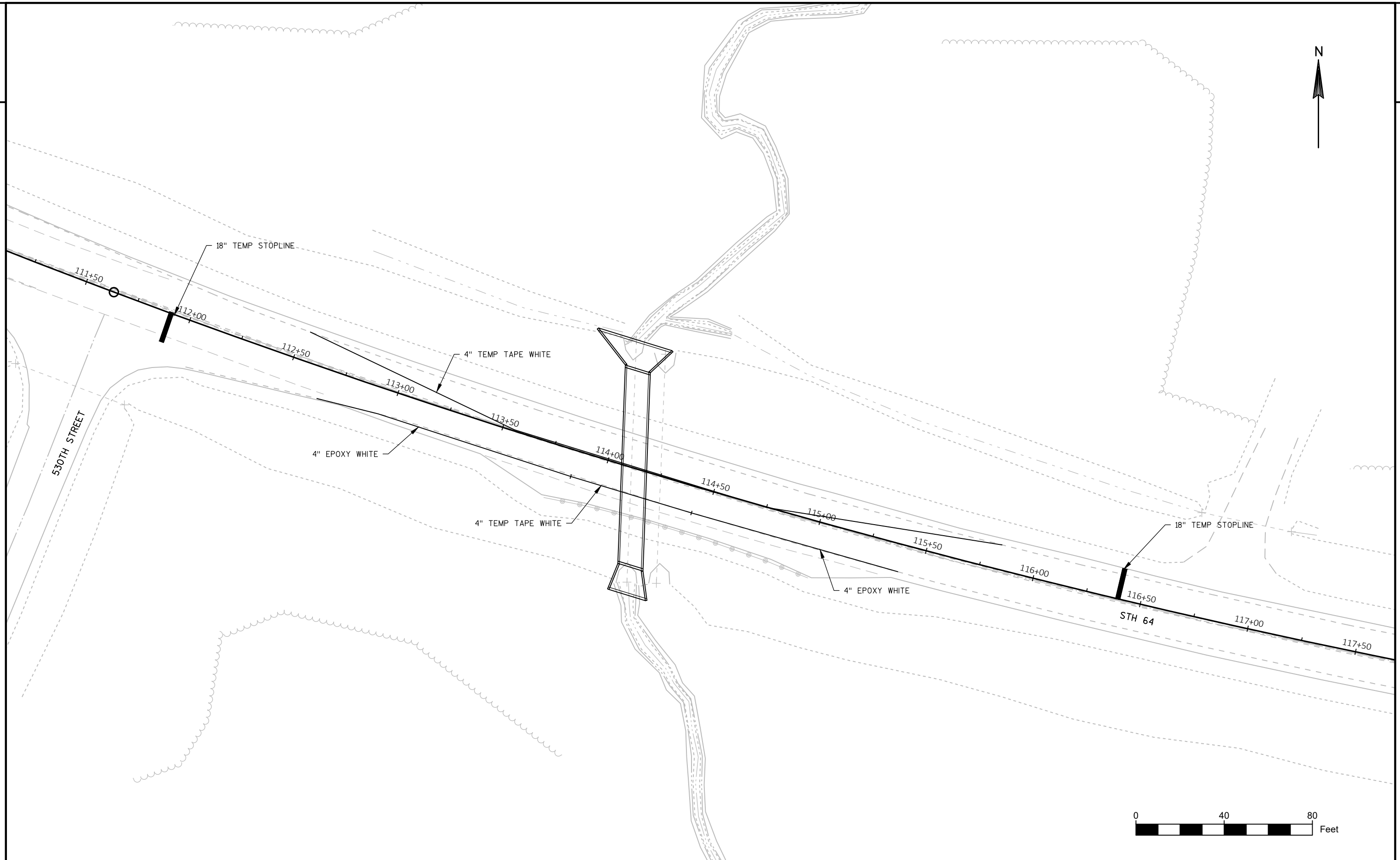
* MAX. WIDTH =
 STAGE 1: 13'
 STAGE 2: 15'
 STAGE 3: 14'



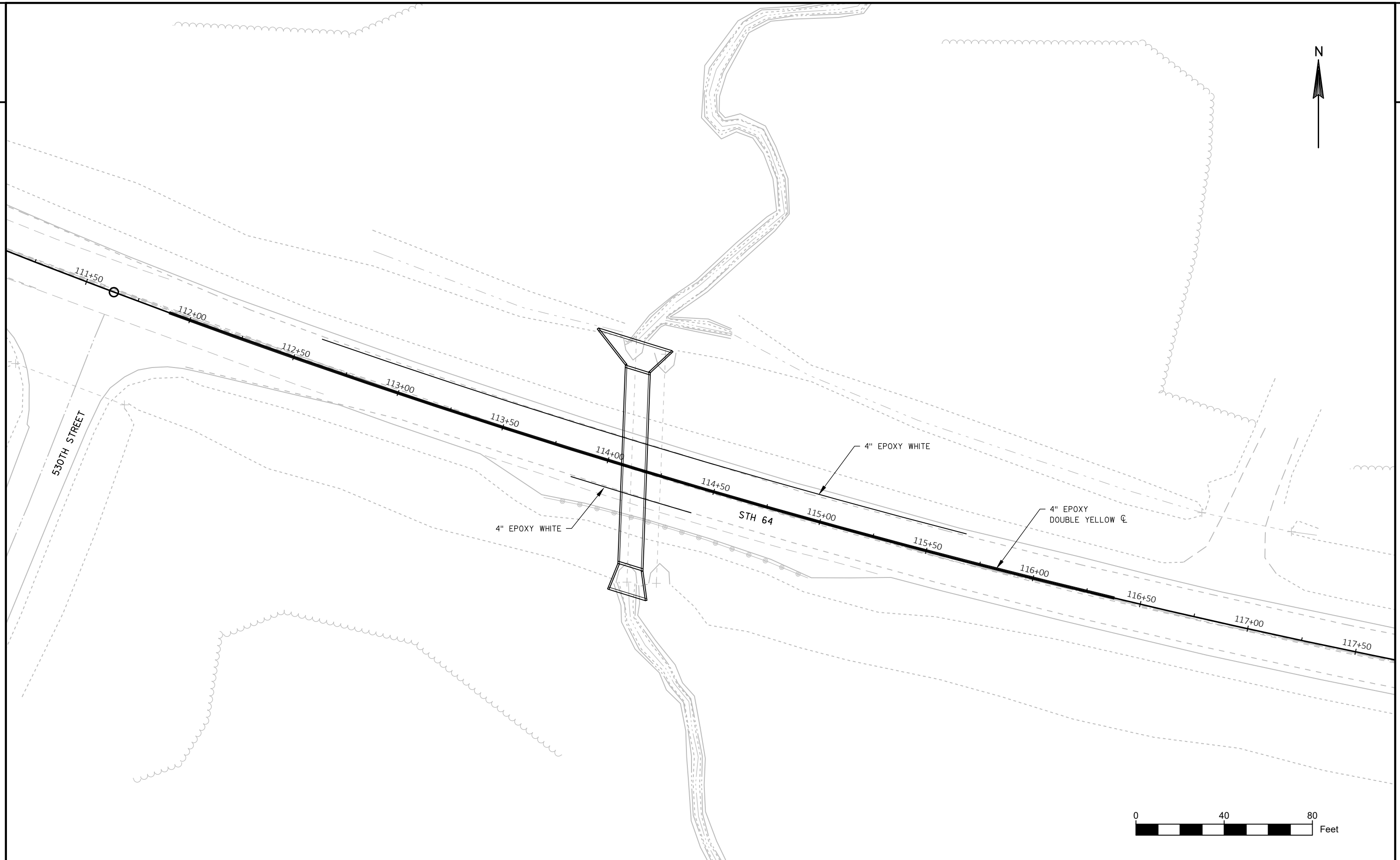




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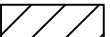







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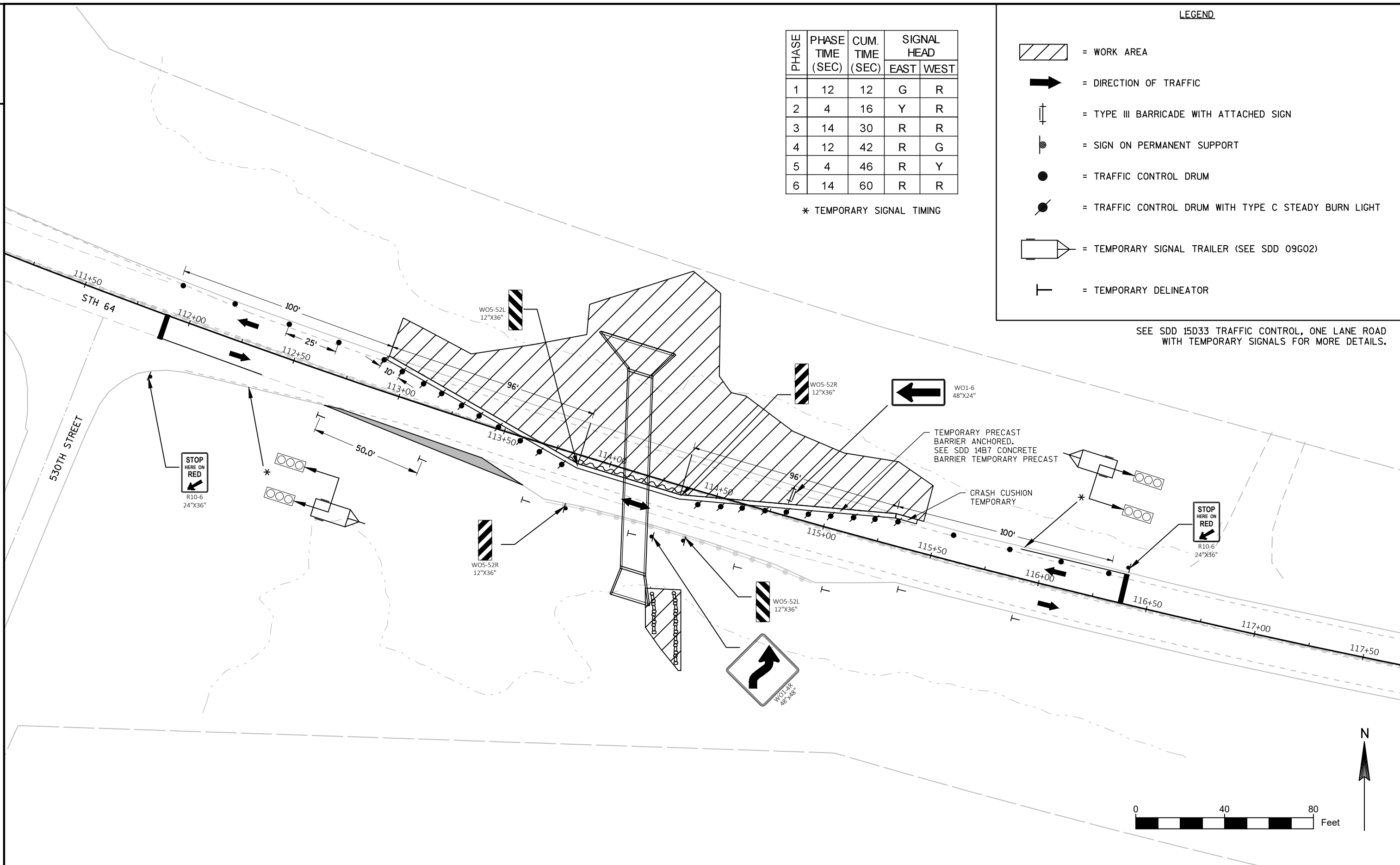
PHASE	PHASE TIME (SEC)	CUM. TIME (SEC)	SIGNAL HEAD	
			EAST	WEST
1	12	12	G	R
2	4	16	Y	R
3	14	30	R	R
4	12	42	R	G
5	4	46	R	Y
6	14	60	R	R

* TEMPORARY SIGNAL TIMING

LEGEND

-  = WORK AREA
-  = DIRECTION OF TRAFFIC
-  = TYPE III BARRICADE WITH ATTACHED SIGN
-  = SIGN ON PERMANENT SUPPORT
-  = TRAFFIC CONTROL DRUM
-  = TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
-  = TEMPORARY SIGNAL TRAILER (SEE SDD 09G02)
-  = TEMPORARY DELINEATOR

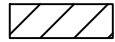







SEE SDD 15D33 TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS FOR MORE DETAILS.



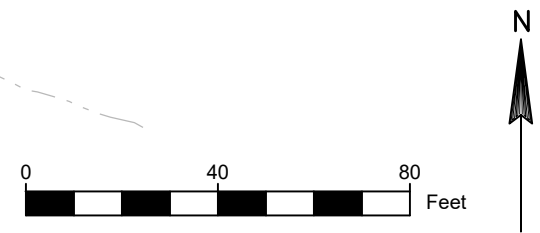
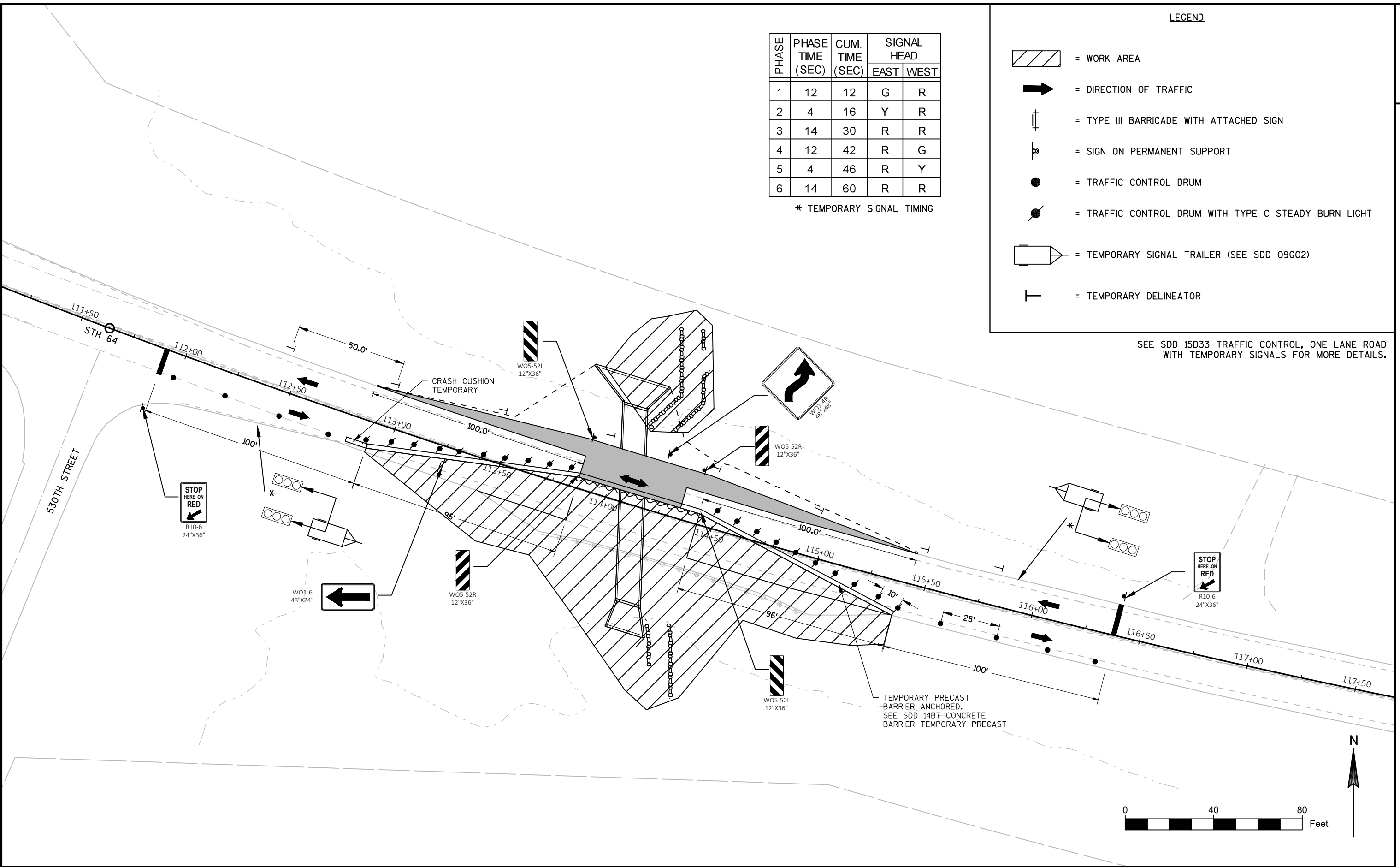
PHASE	PHASE TIME (SEC)	CUM. TIME (SEC)	SIGNAL HEAD	
			EAST	WEST
1	12	12	G	R
2	4	16	Y	R
3	14	30	R	R
4	12	42	R	G
5	4	46	R	Y
6	14	60	R	R

* TEMPORARY SIGNAL TIMING

LEGEND

-  = WORK AREA
-  = DIRECTION OF TRAFFIC
-  = TYPE III BARRICADE WITH ATTACHED SIGN
-  = SIGN ON PERMANENT SUPPORT
-  = TRAFFIC CONTROL DRUM
-  = TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
-  = TEMPORARY SIGNAL TRAILER (SEE SDD 09G02)
-  = TEMPORARY DELINEATOR

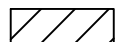







SEE SDD 15D33 TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS FOR MORE DETAILS.



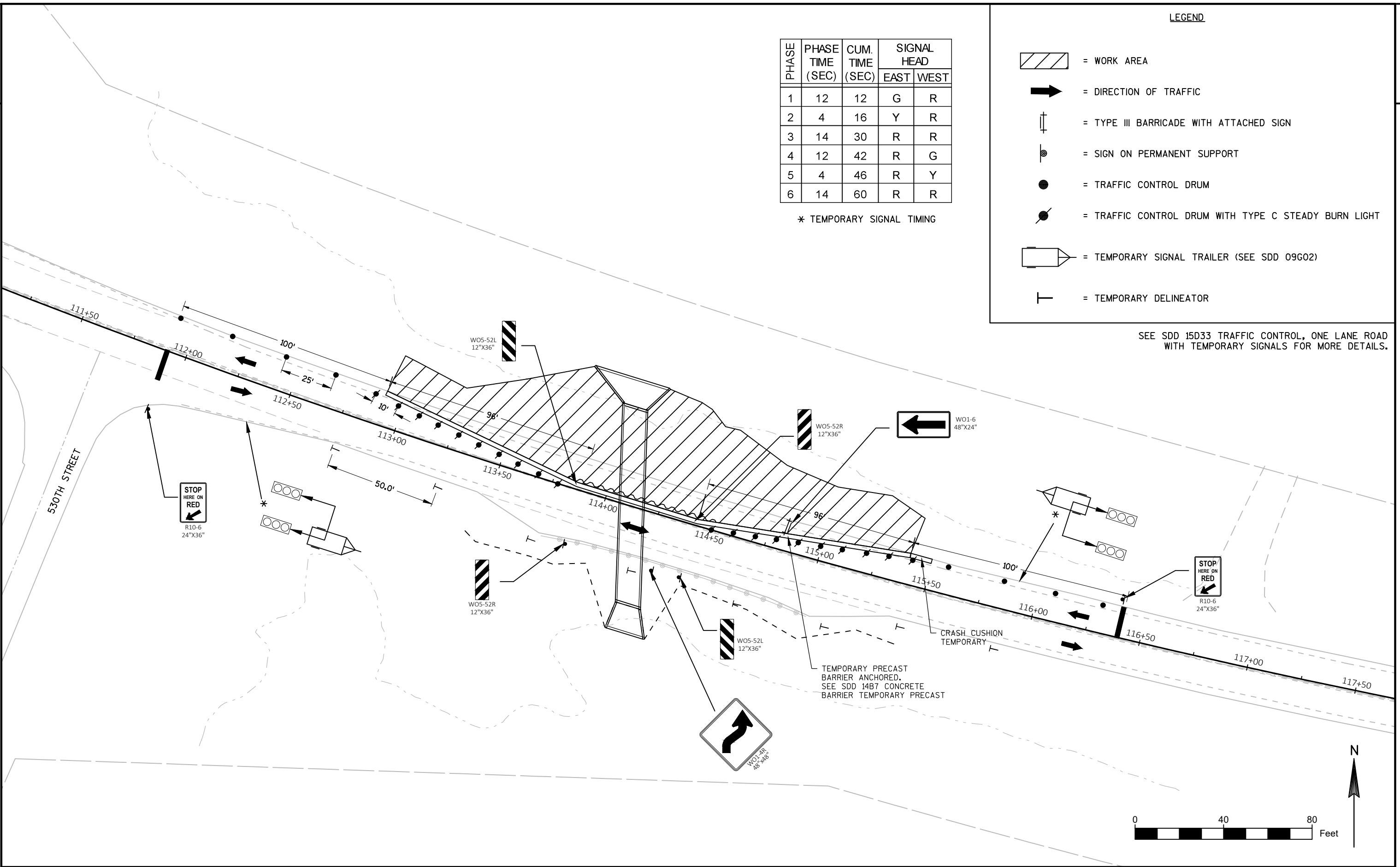
PHASE	PHASE TIME (SEC)	CUM. TIME (SEC)	SIGNAL HEAD	
			EAST	WEST
1	12	12	G	R
2	4	16	Y	R
3	14	30	R	R
4	12	42	R	G
5	4	46	R	Y
6	14	60	R	R

* TEMPORARY SIGNAL TIMING

LEGEND


-  = WORK AREA
-  = DIRECTION OF TRAFFIC
-  = TYPE III BARRICADE WITH ATTACHED SIGN
-  = SIGN ON PERMANENT SUPPORT
-  = TRAFFIC CONTROL DRUM
-  = TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
-  = TEMPORARY SIGNAL TRAILER (SEE SDD 09G02)
-  = TEMPORARY DELINEATOR


SEE SDD 15D33 TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS FOR MORE DETAILS.

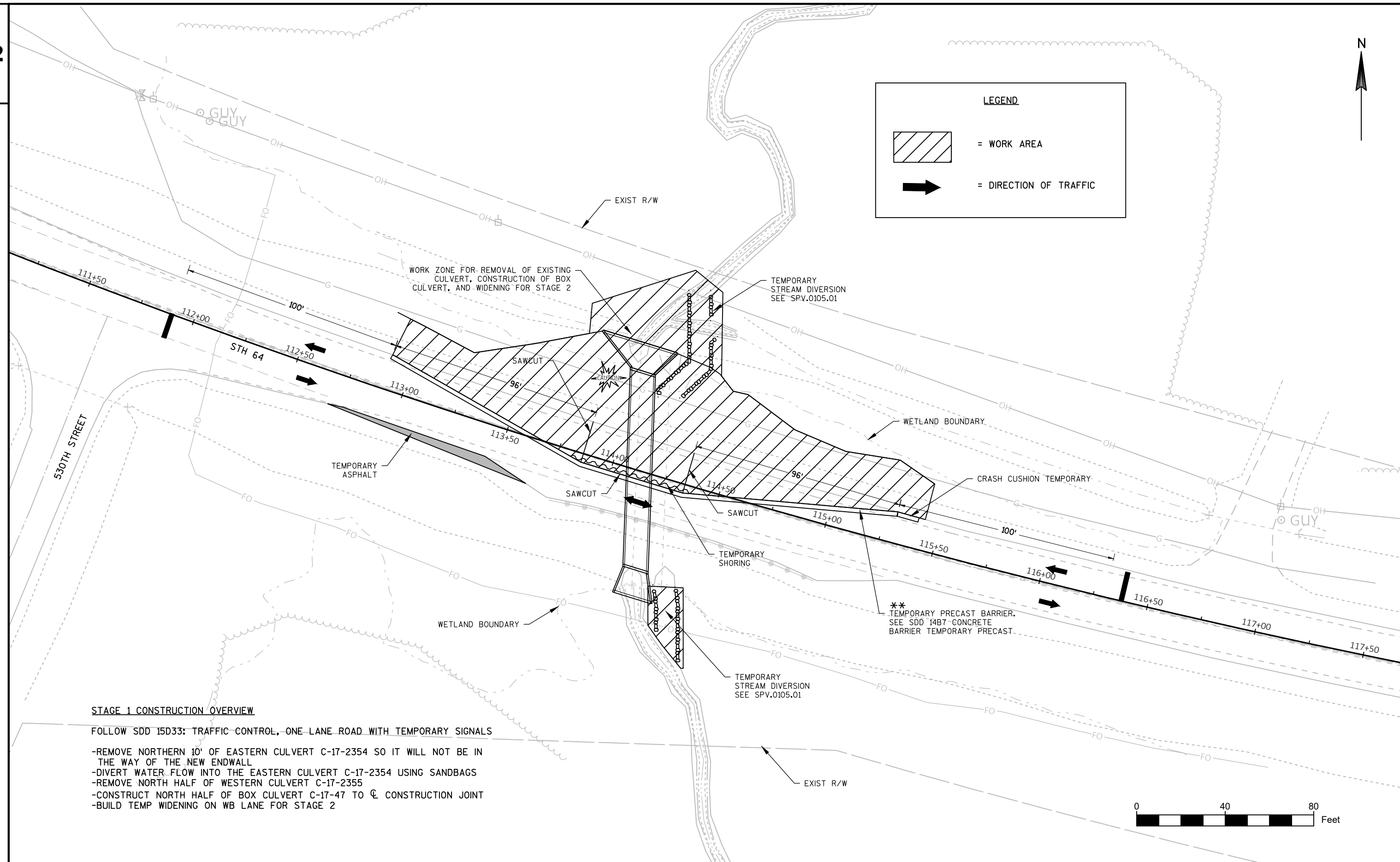




LEGEND

 = WORK AREA

 = DIRECTION OF TRAFFIC



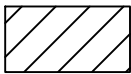
STAGE 1 CONSTRUCTION OVERVIEW


- FOLLOW SDD 15D33: TRAFFIC CONTROL, ONE-LANE ROAD WITH TEMPORARY SIGNALS
- REMOVE NORTHERN 10' OF EASTERN CULVERT C-17-2354 SO IT WILL NOT BE IN THE WAY OF THE NEW ENDWALL
- DIVERT WATER FLOW INTO THE EASTERN CULVERT C-17-2354 USING SANDBAGS
- REMOVE NORTH HALF OF WESTERN CULVERT C-17-2355
- CONSTRUCT NORTH HALF OF BOX CULVERT C-17-47 TO CL CONSTRUCTION JOINT
- BUILD TEMP WIDENING ON WB LANE FOR STAGE 2

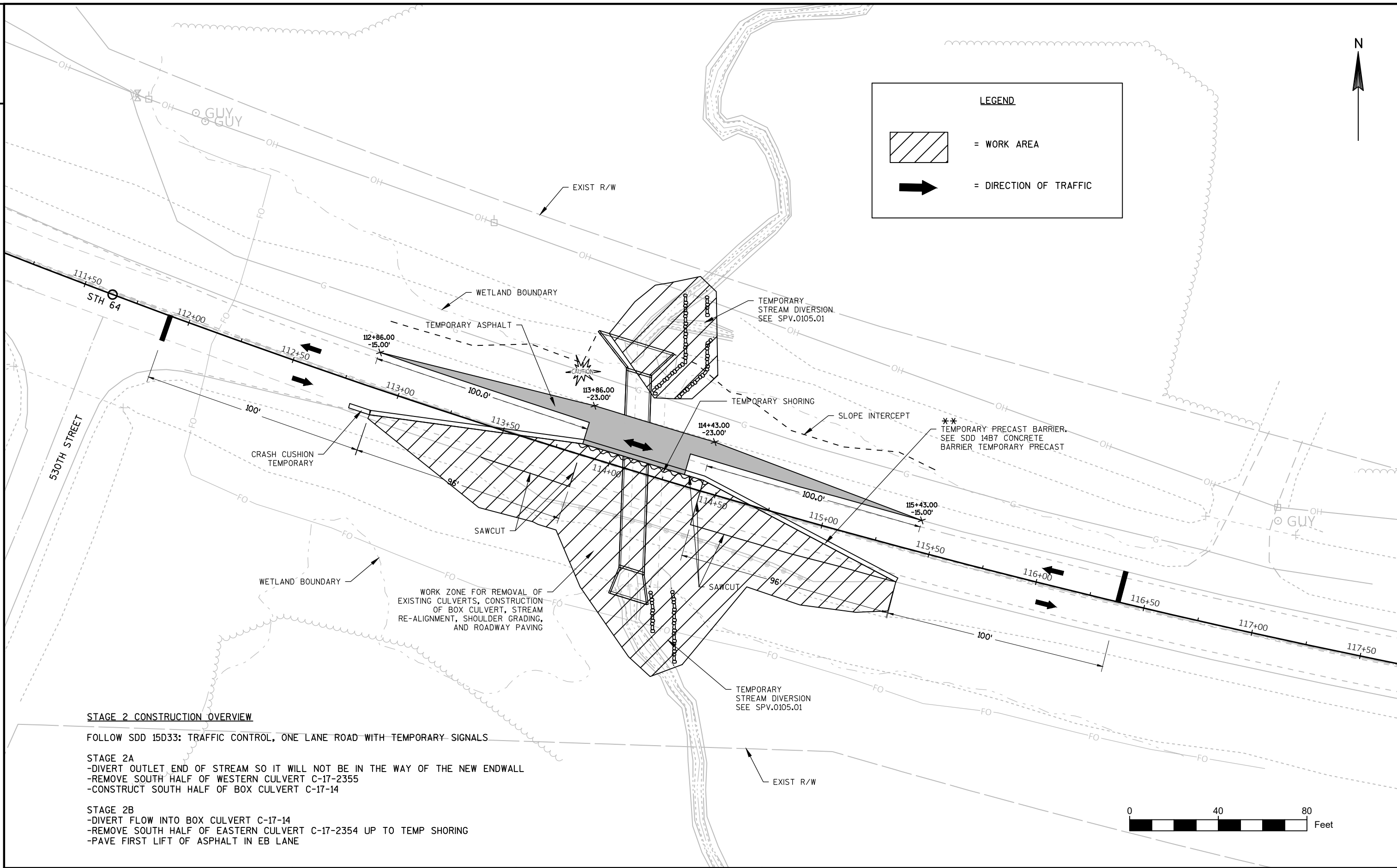




LEGEND

 = WORK AREA

 = DIRECTION OF TRAFFIC



STAGE 2 CONSTRUCTION OVERVIEW

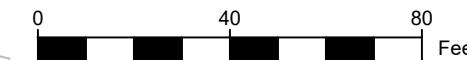
FOLLOW SDD 15D33: TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS

STAGE 2A

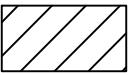
- DIVERT OUTLET END OF STREAM SO IT WILL NOT BE IN THE WAY OF THE NEW ENDWALL
- REMOVE SOUTH HALF OF WESTERN CULVERT C-17-2355
- CONSTRUCT SOUTH HALF OF BOX CULVERT C-17-14


STAGE 2B

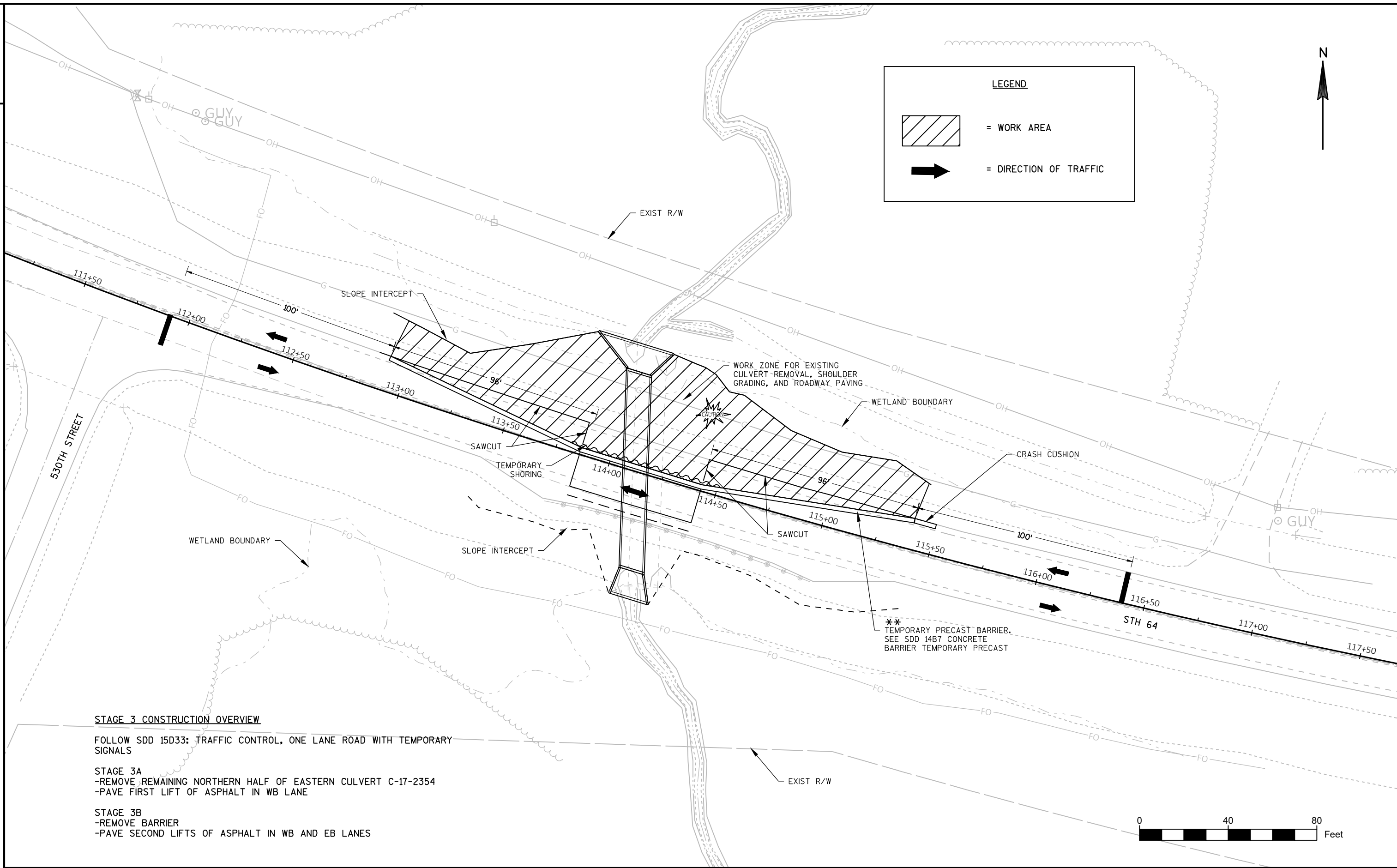
- DIVERT FLOW INTO BOX CULVERT C-17-14
- REMOVE SOUTH HALF OF EASTERN CULVERT C-17-2354 UP TO TEMP SHORING
- PAVE FIRST LIFT OF ASPHALT IN EB LANE



LEGEND

 = WORK AREA

 = DIRECTION OF TRAFFIC



STAGE 3 CONSTRUCTION OVERVIEW

FOLLOW SDD 15D33: TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS

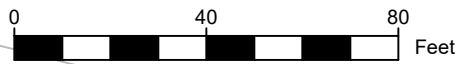
STAGE 3A

- REMOVE REMAINING NORTHERN HALF OF EASTERN CULVERT C-17-2354
- PAVE FIRST LIFT OF ASPHALT IN WB LANE

STAGE 3B

- REMOVE BARRIER
- PAVE SECOND LIFTS OF ASPHALT IN WB AND EB LANES

** TEMPORARY PRECAST BARRIER. SEE SDD 14B7 CONCRETE BARRIER TEMPORARY PRECAST



Estimate Of Quantities

8110-00-78

Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	2.000	2.000
0004	203.0260	Removing Structure Over Waterway Minimal Debris (structure) 01. C-17-2354/2355	EACH	1.000	1.000
0006	204.0165	Removing Guardrail	LF	126.000	126.000
0008	205.0100	Excavation Common	CY	495.000	495.000
0010	206.2000	Excavation for Structures Culverts (structure) 01. C-17-0047	LS	1.000	1.000
0012	208.0100	Borrow	CY	612.000	612.000
0014	210.2500	Backfill Structure Type B	TON	1,286.000	1,286.000
0016	213.0100	Finishing Roadway (project) 01. 8110-00-78	EACH	1.000	1.000
0018	305.0110	Base Aggregate Dense 3/4-Inch	TON	75.000	75.000
0020	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	545.000	545.000
0022	311.0115	Breaker Run	CY	83.000	83.000
0024	455.0605	Tack Coat	GAL	20.700	20.700
0026	465.0105	Asphaltic Surface	TON	55.000	55.000
0028	465.0125	Asphaltic Surface Temporary	TON	51.000	51.000
0030	502.4205	Adhesive Anchors No. 5 Bar	EACH	36.000	36.000
0032	504.0100	Concrete Masonry Culverts	CY	114.000	114.000
0034	505.0400	Bar Steel Reinforcement HS Structures	LB	22,260.000	22,260.000
0036	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	1,570.000	1,570.000
0038	511.1200	Temporary Shoring (structure) 01. C-17-0047	SF	1,100.000	1,100.000
0040	516.0500	Rubberized Membrane Waterproofing	SY	29.000	29.000
0042	603.8000	Concrete Barrier Temporary Precast Delivered	LF	260.000	260.000
0044	603.8125	Concrete Barrier Temporary Precast Installed	LF	780.000	780.000
0046	603.8500	Anchoring Concrete Barrier Temporary Precast	LF	780.000	780.000
0048	606.0300	Riprap Heavy	CY	48.000	48.000
0050	614.0905	Crash Cushions Temporary	EACH	3.000	3.000
0052	618.0100	Maintenance And Repair of Haul Roads (project) 01. 8110-00-78	EACH	1.000	1.000
0054	619.1000	Mobilization	EACH	1.000	1.000
0056	624.0100	Water	MGAL	8.000	8.000
0058	625.0500	Salvaged Topsoil	SY	1,065.000	1,065.000
0060	627.0200	Mulching	SY	886.000	886.000
0062	628.1504	Silt Fence	LF	741.000	741.000
0064	628.1520	Silt Fence Maintenance	LF	741.000	741.000
0066	628.1905	Mobilizations Erosion Control	EACH	4.000	4.000
0068	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0070	628.2004	Erosion Mat Class I Type B	SY	321.000	321.000
0072	629.0210	Fertilizer Type B	CWT	0.800	0.800
0074	630.0120	Seeding Mixture No. 20	LB	33.000	33.000
0076	630.0200	Seeding Temporary	LB	19.000	19.000
0078	630.0500	Seed Water	MGAL	27.000	27.000
0080	633.1100	Delineators Temporary	EACH	24.000	24.000
0082	633.5200	Markers Culvert End	EACH	2.000	2.000
0084	642.5001	Field Office Type B	EACH	1.000	1.000
0086	643.0300	Traffic Control Drums	DAY	1,988.000	1,988.000
0088	643.0420	Traffic Control Barricades Type III	DAY	71.000	71.000
0090	643.0705	Traffic Control Warning Lights Type A	DAY	142.000	142.000
0092	643.0715	Traffic Control Warning Lights Type C	DAY	1,420.000	1,420.000
0094	643.0900	Traffic Control Signs	DAY	2,698.000	2,698.000
0096	643.5000	Traffic Control	EACH	1.000	1.000
0098	645.0105	Geotextile Type C	SY	270.000	270.000

Estimate Of Quantities

8110-00-78

Line	Item	Item Description	Unit	Total	Qty
0100	645.0120	Geotextile Type HR	SY	70.000	70.000
0102	646.1020	Marking Line Epoxy 4-Inch	LF	1,477.000	1,477.000
0104	646.9000	Marking Removal Line 4-Inch	LF	1,331.000	1,331.000
0106	649.0150	Temporary Marking Line Removable Tape 4-Inch	LF	1,578.000	1,578.000
0108	649.0850	Temporary Marking Stop Line Removable Tape 18-Inch	LF	24.000	24.000
0110	650.5000	Construction Staking Base	LF	257.000	257.000
0112	650.6500	Construction Staking Structure Layout (structure) 01. C-17-0047	LS	1.000	1.000
0114	650.9910	Construction Staking Supplemental Control (project) 01. 8110-00-78	LS	1.000	1.000
0116	650.9920	Construction Staking Slope Stakes	LF	257.000	257.000
0118	661.0100	Temporary Traffic Signals for Bridges (structure) C-17-0047	LS	1.000	1.000
0120	690.0150	Sawing Asphalt	LF	479.000	479.000
0122	715.0502	Incentive Strength Concrete Structures	DOL	684.000	684.000
0124	999.2000.S	Installing and Maintaining Bird Deterrent System (Station) 01. 114+18	EACH	1.000	1.000
0126	ASP.1TOA	On-the-Job Training Apprentice at \$5.00/HR	HRS	300.000	300.000
0128	ASP.1TOG	On-the-Job Training Graduate at \$5.00/HR	HRS	300.000	300.000
0130	SPV.0060	Special 01. Temporary Stream Diversion Culvert C-17-0047	EACH	1.000	1.000

3

3

<u>CLEARING</u>					201.0105
CATEGORY	STATION	TO	STATION	LOCATION	STA
0010	113+00	-	115+00	WB	2
TOTAL 0010					2

<u>BASE AGGREGATE DENSE 1 1/4 INCH (2 TON/CY)</u>							305.0120
CATEGORY	STATION	TO	STATION	LOCATION	TON	REMARKS	
0010	112+86	-	115+43	WIDENING	134	STAGE 1	
0010	112+86	-	114+43	STH 64 EB	161	STAGE 2	
0010	112+86	-	114+43	STH 64 WB	250	STAGE 3	
TOTAL 0010					545		

<u>TACK COAT</u>										455.0605
CATEGORY	STATION	TO	STATION	LOCATION	GAL	REMARKS				
0010	112+69	-	113+65	EB WIDENING	1.3	STAGE 1				
0010	112+86	-	115+43	WB WIDENING	9.9	STAGE 1				
0010	113+86	-	114+43	MAINLINE	9.5	STAGE 4				
TOTAL 0010					20.7					

<u>REMOVING GUARDRAIL</u>					204.0165
CATEGORY	STATION	TO	STATION	LOCATION	LF
0010	113+77.1		115+01.6	EB	126
TOTAL 0010					126

<u>ASPHALTIC SURFACE</u>							465.0105
CATEGORY	STATION	TO	STATION	LOCATION	TON	REMARKS	
0010	113+86	-	114+43	MAINLINE EB	14	STAGE 2	
0010	113+86	-	114+43	MAINLINE WB	14	STAGE 3	
0010	113+86	-	114+43	MAINLINE	27	STAGE 4	
TOTAL 0010					55		

<u>TEMPORARY ASPHALTIC SURFACE (112 LBS/SY*IN)</u>										465.0125
CATEGORY	STATION	TO	STATION	LOCATION	TON	REMARKS				
0010	112+69	-	113+65	WIDENING	6	STAGE 1				
0010	112+86	-	115+43	WIDENING	45	STAGE 2				
TOTAL 0010					51					

<u>EARTHWORK</u>				
CATEGORY	LOCATION	COMMON		REMARKS
		205.0100	208.0100	
0010	OVER CULVERT		580	EW TABLE 2
0010	STAGE 3 REMOVAL	90	23	EW CUT/FILL REPORTS 1 & 2
0010	STH 64 AND SHLD	330	9	EW TABLE 1
0010	TEMP. ASPH REMOVAL	75		
TOTAL 0010		495	612	

<u>603 - CONCRETE BARRIER TEMPORARY</u>										
CATEGORY	STATION	TO	STATION	LOCATION	DELIVERED	INSTALLED	ANCHORING	REMARKS		
					603.8000	603.8125	603.85		LF	LF
0010	112+89.7	-	115+30.4	WB	260	260	260	STAGE 1		
0010	112+90.1	-	115+39+3	EB	-	260	260	STAGE 2		
0010	112+91.0	-	115+40.2	WB	-	260	260	STAGE 3		
TOTAL 0010					260	780	780			

<u>BASE AGGREGATE DENSE 3/4 INCH (2 TON/CY)</u>						
CATEGORY	STATION	TO	STATION	LOCATION	TON	REMARKS
0010	113+86	-	114+43	SHOULDER EB	30	STAGE 4
0010	113+86	-	114+43	SHOULDER WB	45	STAGE 4
TOTAL 0010					75	

<u>CRASH CUSHIONS TEMPORARY</u>						
CATEGORY	LOCATION	OFFSET	EA	REMARKS		
0010	115+30.1	13.2' L	1	STAGE 1	ALL CRASH CUSHIONS:	
0010	112+90.5	11.1' R	1	STAGE 2	BACK WIDTH: SHIELDING 1.9' TEMP BARRIER	
0010	115+39.9	13.1' L	1	STAGE 3	OBJECT MARKING PATTERN: OM-3R	
TOTAL 0010					3	CRASH TEST LEVEL: TL-2
						TRAFFIC DIRECTION: UNIDIRECTIONAL
						TRAFFIC LOCATION: LEFT

<u>FINISHING ROADWAY (8110-00-78)</u>			
CATEGORY	LOCATION	EACH	213.0100
0010	STH 64	1	
TOTAL 0010			1

3

LANDSCAPING

CATEGORY	STATION	TO	STATION	LOCATION	SALVAGED		EMAT CLASS I		FERTILIZER	SEEDING	SEEDING
					TOPSOIL 625.0500	MULCHING 627.0200	TYPE B 628.2004	TYPE B 629.0210	NO. 20 630.0120	TEMP 630.0200	
					SY	SY	SY	CWT	LB	LB	
0010	113+61.4	-	114+52.8	NORTH ENDWALL			178				
0010	114+00	-	114+56.9	SOUTH ENDWALL			143				
0010	112+86	-	115+43	NORTH SLOPE	690	513		0.5	19	19	
0010	113+44	-	115+43	SOUTH SLOPE	375	373		0.3	14		
TOTAL 0100					1065	886	321	0.8	33	19	

MARKERS CULVERT END

CATEGORY	STATION	OFFSET	633.5200 EACH
0010	114+02	39' L FROM CL	1
0010	114+23	39' R FROM CL	1
TOTAL 0100			2

628 - SILT FENCE

CATEGORY	STATION	TO	STATION	LOCATION	SILT FENCE MAINTENACE		REMARKS
					628.1504 LF	628.1520 LF	
0010	112+61.5	-	114+05.4	LT	161	161	-
0010	114+33.0	-	115+70.0	LT	157	157	-
0010	113+27.3	-	114+35.3	RT	126	126	-
0010	114+64.9	-	115+71.5	RT	121	121	-
0010	TURN-AROUNDS AT SILT FENCE ENDS				176	176	22' PER TURN-AROUND
TOTAL 0100					741	741	

FIELD OFFICE TYPE B

CATEGORY	LOCATION	642.5001 EACH
0010	STH 64	1
TOTAL 0010		1

TRAFFIC CONTROL (8110-00-78)

CATEGORY	LOCATION	643.5000 EACH
0010	STH 64	1
TOTAL 0010		1

WATER

CATEGORY	LOCATION	624.0100	SEED 630.0500	REMARKS
		MGAL	MGAL	
0010	STH 64	8	27	ITEM 624.0100 IS TO BE USED FOR BASE AGG. PLACEMENT AND COMPACTION
TOTAL 0010		8	27	

MOBILIZATION

CATEGORY	LOCATION	619.1000 EACH
0010	STH 64	1
TOTAL 0010		1

628 - MOBILIZATIONS EROSION CONTROL

CATEGORY	LOCATION	EMERGENCY	
		628.1905 EACH	628.1910 EACH
0010	STH 64	4	2
TOTAL 0010		4	2

MAINTENANCE AND REPAIR OF HAUL ROADS (8110-00-08)

CATEGORY	LOCATION	618.0100 EACH
0010	STH 64	1
TOTAL 0010		1

DELINEATORS TEMPORARY

CATEGORY	LOCATION	633.1100	REMARKS
		EACH	
0010	R SHOULDER	8	STAGE 1
0010	L SHOULDER	8	STAGE2
0010	R SHOULDER	8	STAGE 3
TOTAL 0100		24	

643 - TRAFFIC CONTROL

CATEGORY	LOCATION	BARRICADES	LIGHTS	LIGHTS	LIGHTS	SIGNS	REMARKS
		DRUMS 643.0300	TYPE III 643.0420	TYPE A 643.0705	TYPE C 643.0715	643.0900	
		DAY	DAY	DAY	DAY	DAY	
0010	STH 64	868	31	62	620	1178	STAGE 1
0010	STH 64	868	31	62	620	1178	STAGE 2
0010	STH 64	252	9	18	180	342	STAGE 3
TOTAL 0010		1988	71	142	1420	2698	

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PAVEMENT MARKING EPOXY 4-INCH

646.1020

CATEGORY	STATION	TO	STATION	LOCATION	LF	REMARKS	COLOR
0010	112+66	-	113+86	RIGHT EDGELINE	120	STAGE 3	WHITE
0010	114+43	-	115+40	RIGHT EDGELINE	97	STAGE 3	WHITE
0010	112+59	-	115+66	LEFT EDGELINE	307	STAGE 4	WHITE
0010	113+86	-	114+43	RIGHT EDGELINE	57	STAGE 4	WHITE
0010	111+90	-	116+38	CENTERLINE	896	STAGE 4	YELLOW
TOTAL 0010					1477		

CONSTRUCTION STAKING BASE

650.5000

CATEGORY	STATION	TO	STATION	LOCATION	LF
0010	112+86	-	115+43	STH 64	257
TOTAL 0010					257

SAWING ASPHALT

690.0150

CATEGORY	STATION	TO	STATION	LOCATION	LF	REMARKS
0010			113+86	STH 64 WB	19	STAGE 1
0010	113+86	-	114+34	4' R OF CL	48	STAGE 1
0010			114+34	STH 64 WB	19	STAGE 1
0010	113+44	-	113+86	12' R OF CL	42	STAGE 2
0010			113+86	STH 64 EB	12	STAGE 2
0010	114+34	-	114+43	5' L OF CL	9	STAGE 2
0010			114+43	STH 64 EB	21	STAGE 2
0010	114+43	-	115+38	12' R OF CL	96	STAGE 2
0010	112+90	-	113+86	12' L OF CL	96	STAGE 3
0010			113+86	STH 64 WB	10	STAGE 3
0010			114+43	STH 64 WB	10	STAGE 3
0010	114+43	-	115+40	12' L OF CL	97	STAGE 3
TOTAL 0010					479	

MARKING REMOVAL LINE 4-INCH

646.9000

CATEGORY	STATION	TO	STATION	LOCATION	LF	REMARKS
0010	111+90	-	113+86	CENTERLINE	392	STAGE 1
0010	114+43	-	116+38	CENTERLINE	390	STAGE 1
0010	112+66	-	115+56	RIGHT EDGELINE	290	STAGE 1
0010	112+59	-	113+86	LEFT EDGELINE	127	STAGE 2
0010	114+34	-	115+66	LEFT EDGELINE	132	STAGE 2
TOTAL 0010					1331	

CONSTRUCTION STAKING STRUCTURE LAYOUT (C-17-0047)

650.6500

CATEGORY	LOCATION	LS
0010	STH 64	1
TOTAL 0010		1

CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (8110-00-78)

650.9910

CATEGORY	LOCATION	LS
0010	STH 64	1
TOTAL 0010		1

TEMPORARY STREAM DIVERSTION CULVERT C-17-0047

SPV.0060

CATEGORY	LOCATION	EACH
0010	STH 64	1
TOTAL 0010		1

TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH

649.0850

CATEGORY	STATION	LOCATION	LF
0010	111+90	STH 64 EB	12
0010	116+38	STH 64 WB	12
TOTAL 0010			24

CONSTRUCTION STAKING SLOPE STAKES

650.9920

CATEGORY	STATION	TO	STATION	LOCATION	LF
0010	112+86		115+43	STH 64	257
TOTAL 0010					257

TEMPORARY PAVEMENT MARKING TAPE 4-INCH

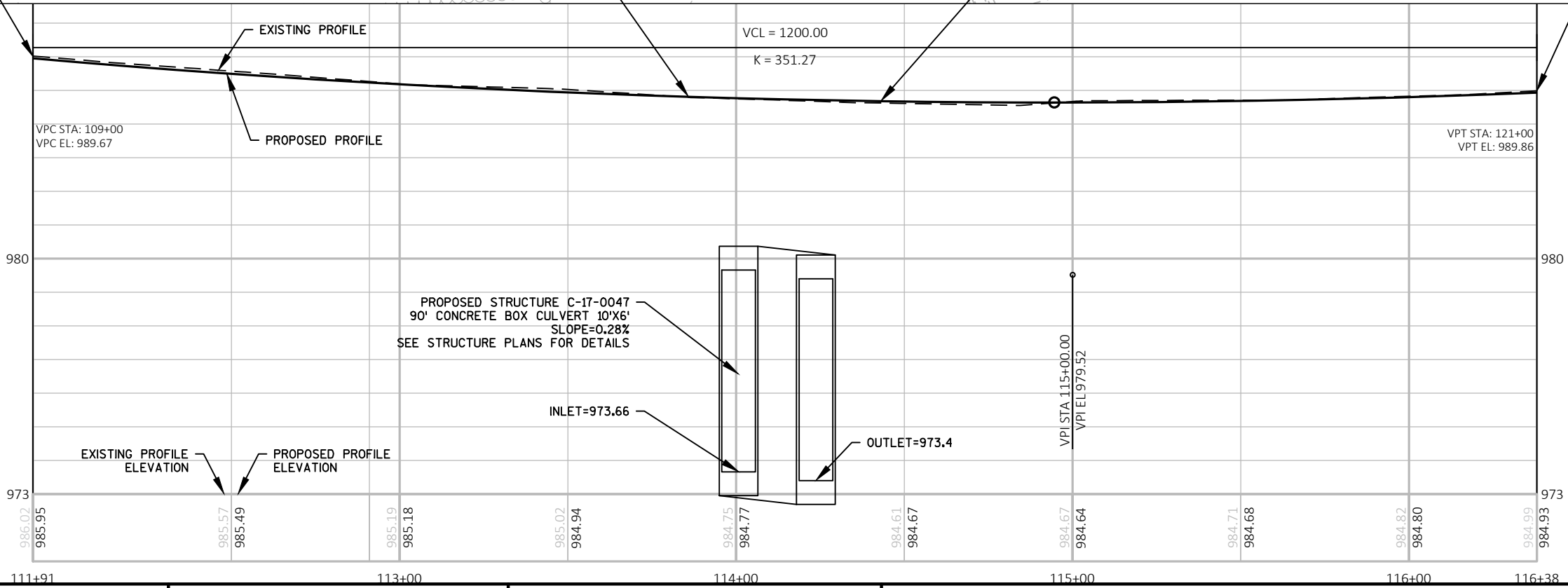
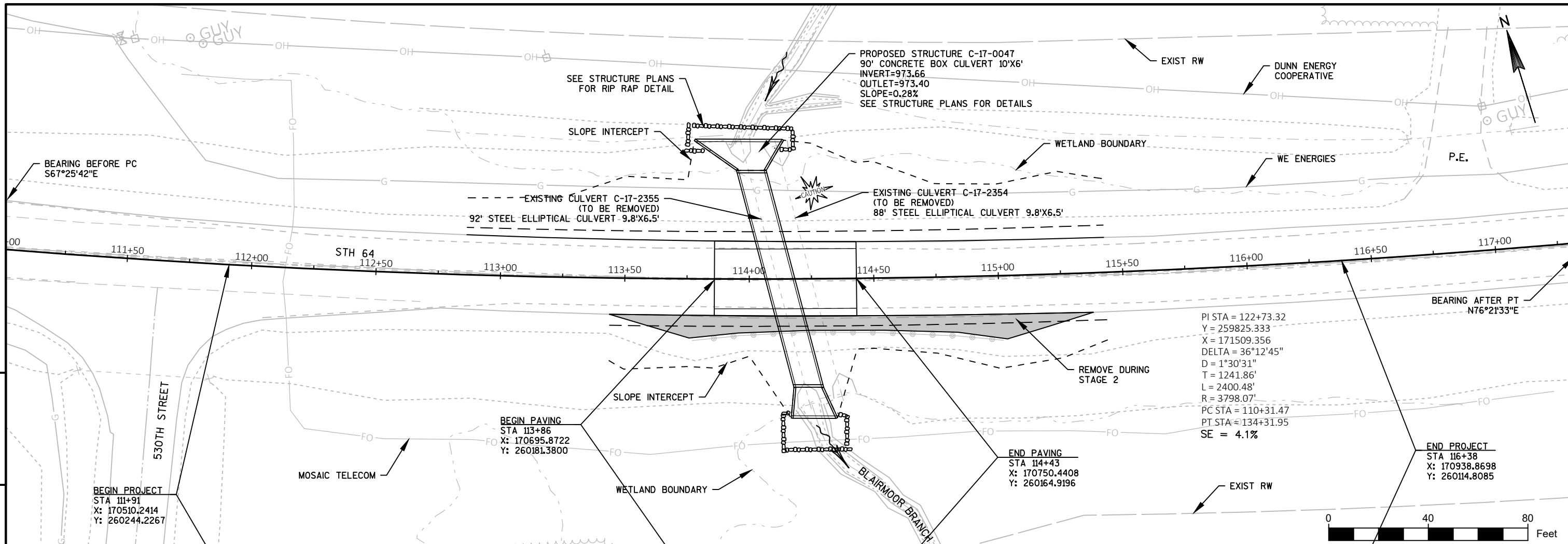
649.0150

CATEGORY	STATION	TO	STATION	LOCATION	LF	REMARKS	COLOR
0010	112+67	-	115+53	LEFT EDGELINE	290	STAGE 1	WHITE
0010	112+67	-	115+56	RIGHT EDGELINE	292	STAGE 1	WHITE
0010	112+59		115+66	LEFT EDGELINE	306	STAGE 2	WHITE
0010	112+59	-	115+56	RIGHT EDGELINE	302	STAGE 2	WHITE
0010	112+53	-	115+83	LEFT EDGELINE	331	STAGE 3	WHITE
0010	113+86		114+43	RIGHT EDGELINE	57	STAGE 3	WHITE
TOTAL 0010					1578		

TEMPORARY TRAFFIC SIGNALS FOR BRIDGES (C-17-0047)

661.0100

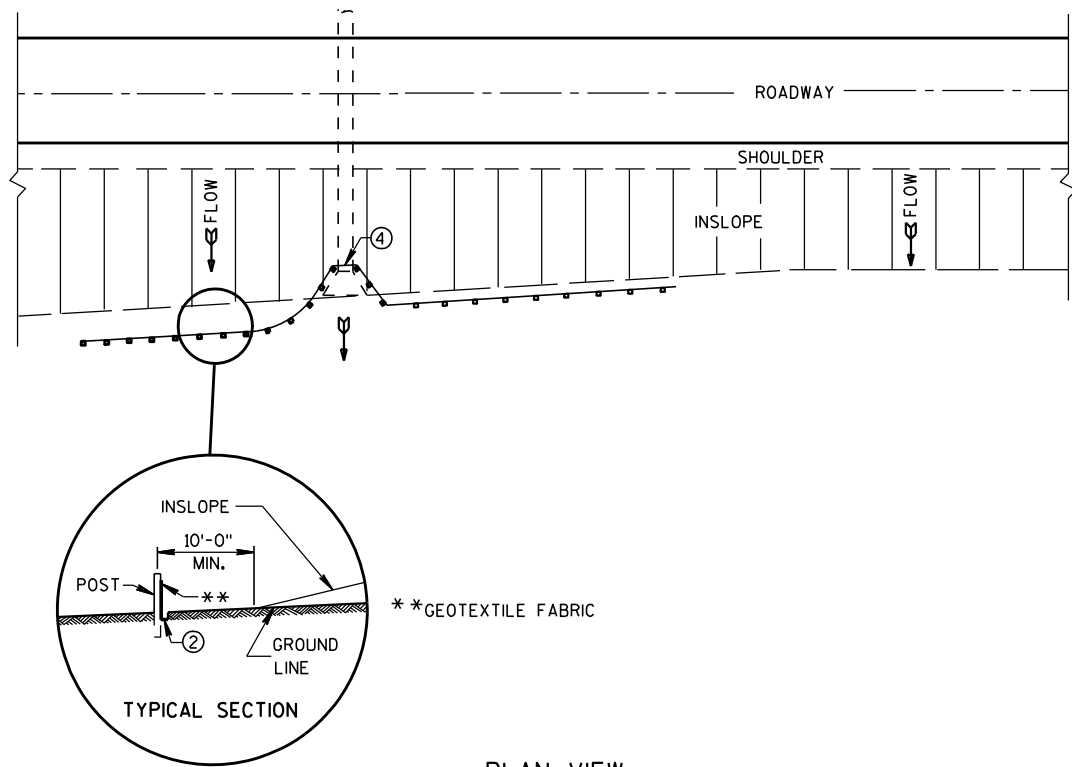
CATEGORY	LOCATION	LS
0010	STH 64	1
TOTAL 0010		1



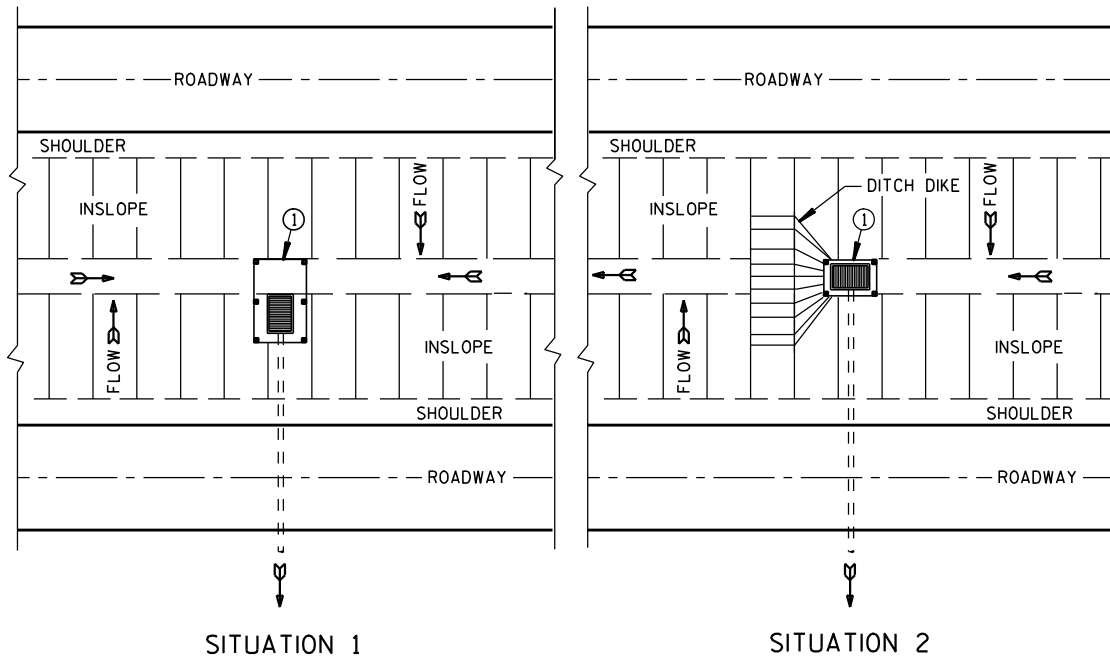
PROJECT NO: 8110-00-78	HWY: STH 64	COUNTY: DUNN	PLAN AND PROFILE - STH 64	SHEET	E
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Standard Detail Drawing List

08E09-06	SILT FENCE
09G02-05A	BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION
09G02-05B	BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION
09G02-05C	BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION
12A03-10	NAME PLATE (STRUCTURES)
13C19-03	HMA LONGITUDINAL JOINTS
14B07-15A	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15B	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15C	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15D	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15E	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15F	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15G	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15H	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15I	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B08-02A	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02B	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02C	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02D	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02E	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15A04-06A	PERMANENT FLEXIBLE DELINEATOR POST
15C02-08F	ADVANCED WIDTH RESTRICTION SIGNING
15C08-20A	LONGITUDINAL MARKING (MAINLINE)
15C11-09B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-07	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15D33-06	TRAFFIC CONTROL, ONE LANE ROAD WITH TEMPORARY SIGNALS
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS



PLAN VIEW
TYPICAL APPLICATION OF SILT FENCE

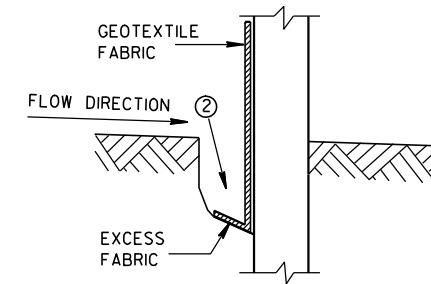


SITUATION 1 SITUATION 2
PLAN VIEW
SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

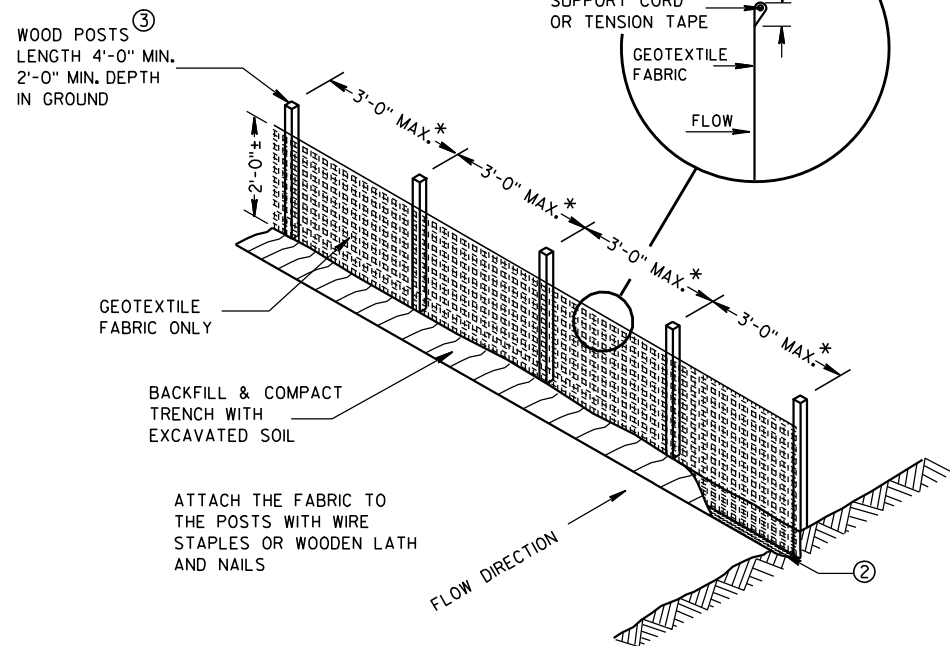
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

- 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.



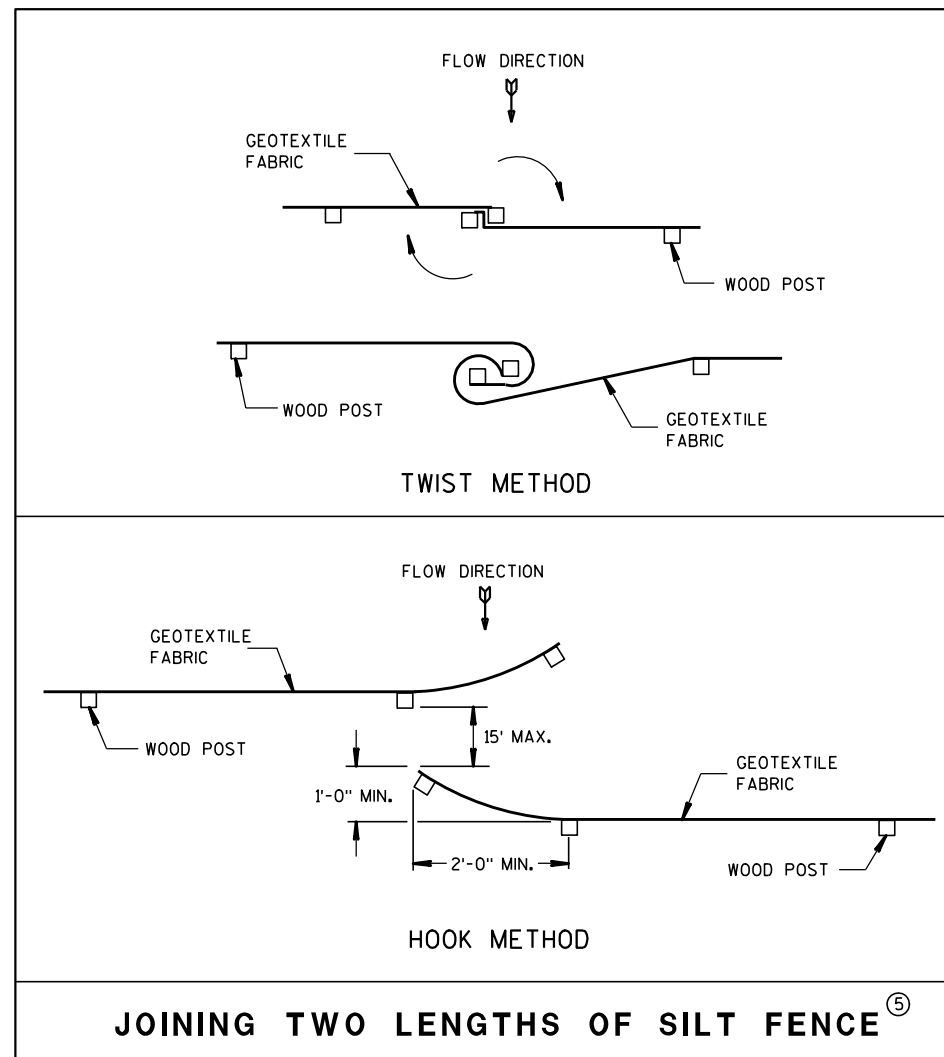
TRENCH DETAIL

NOTE: ADDITIONAL POST DEPTH OR TIE BACKS MAY BE REQUIRED IN UNSTABLE SOILS

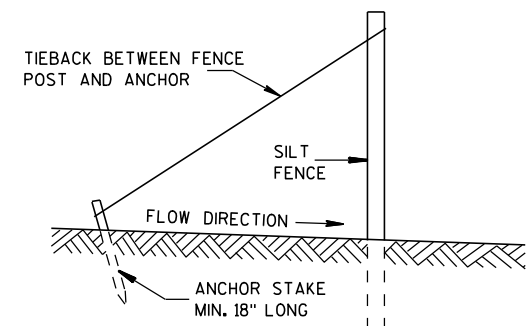


SILT FENCE

* NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.



JOINING TWO LENGTHS OF SILT FENCE ⑤

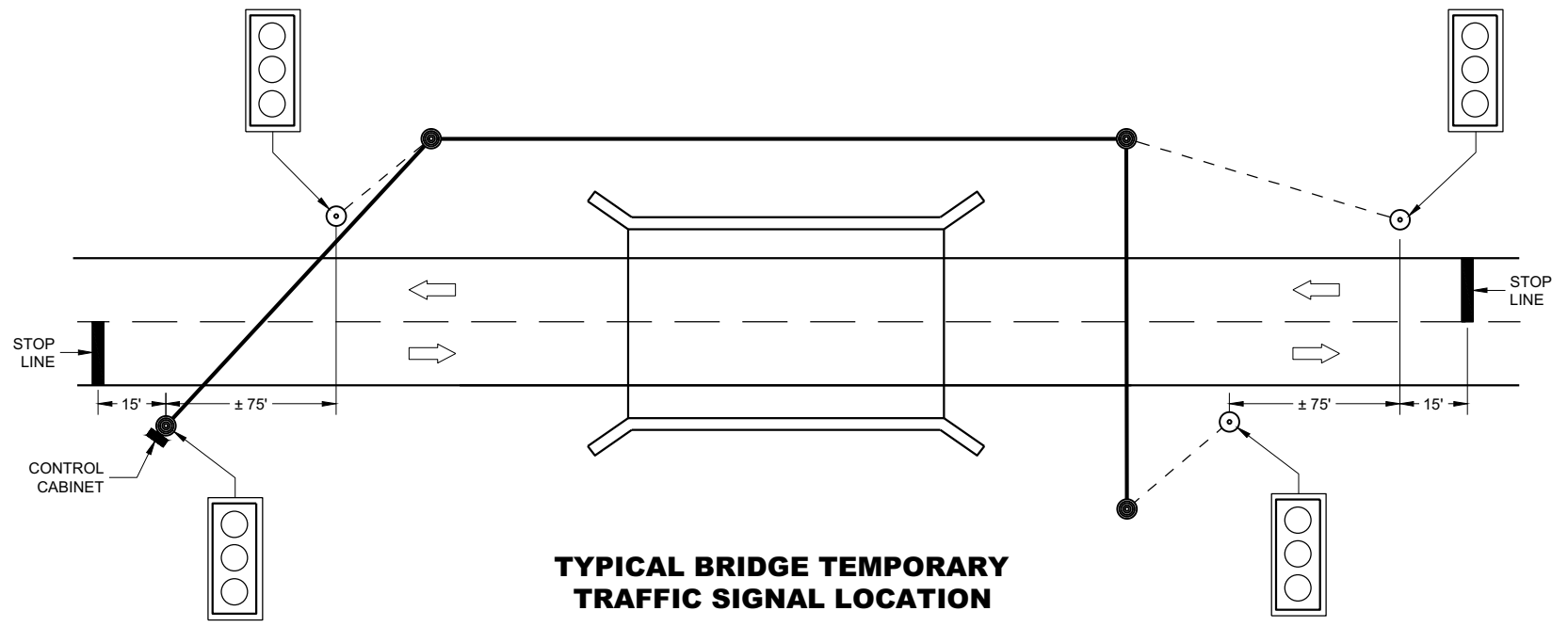


SILT FENCE TIE BACK
(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4-29-05 /S/ Beth Canestra
DATE CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA



TYPICAL BRIDGE TEMPORARY TRAFFIC SIGNAL LOCATION

LEGEND

- WOOD POLE (NON-BREAKAWAY)
- WOOD POST (BREAKAWAY)
- - - SIGNAL CABLE
- SIGNAL CABLE W/MESSENGER
- DIRECTION OF TRAFFIC
- LED TRAFFIC SIGNAL WITH BACKPLATE
3-12"

GENERAL NOTES

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

POLE MOUNTED TRAFFIC SIGNAL CONTROL CABINET MAY BE MOUNTED ON THE SERVICE POLE IF THE ELECTRICAL UTILITY ALLOWS THE INSTALLATION.

WHEN UTILITY POLES ARE USED TO SPAN THE TEMPORARY OVERHEAD CABLE, WRITTEN PERMISSION MUST BE OBTAINED FROM THE OWNER OF THE POLES AND GIVEN TO THE PROJECT MANAGER. ALL PERTINENT UTILITY AND CODE CLEARANCES SHALL BE MAINTAINED.

WOOD POLES (NON-BREAKAWAY) SHALL BE NO CLOSER TO EDGE OF PAVEMENT THAN OFFSET DISTANCE CHART ALLOWS OR 4 FEET BEHIND PROTECTIVE BARRIER (BEAM GUARD, ETC.).

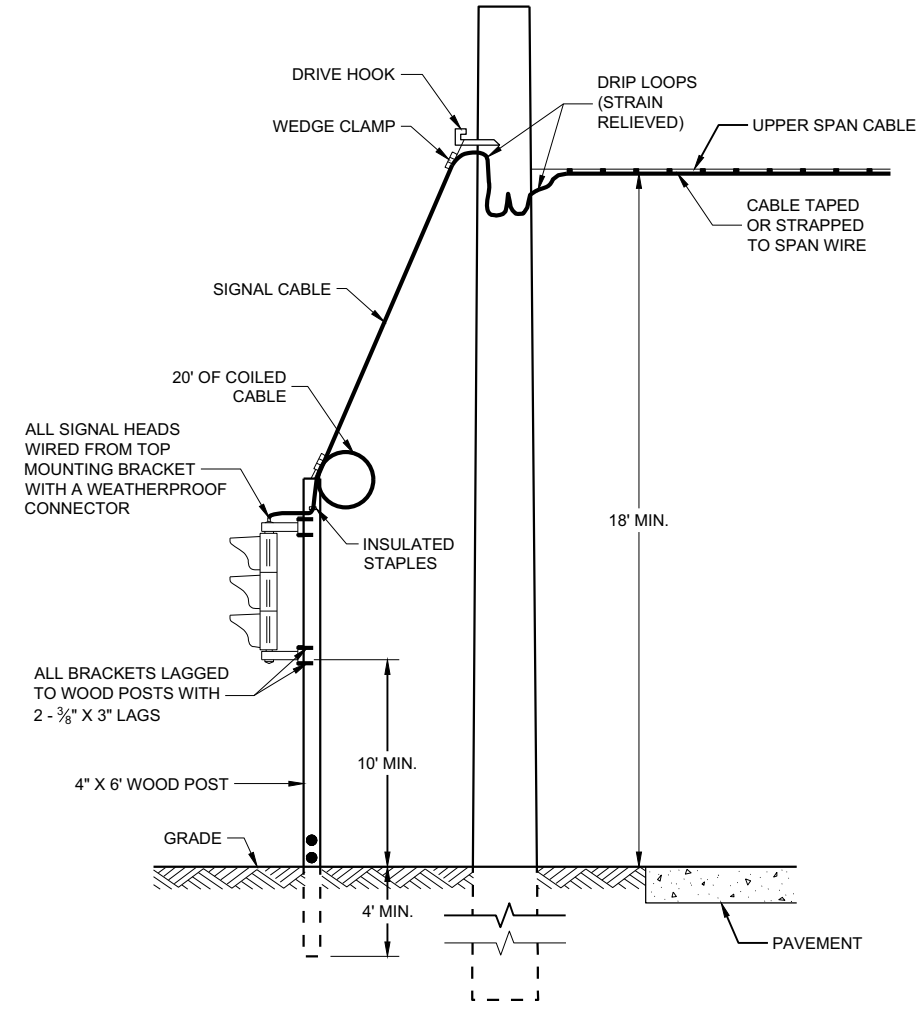
WOOD POSTS (BREAKAWAY) SHALL BE NO CLOSER THAN 2 FEET OUTSIDE OF SHOULDER.

VERTICAL CLEARANCE ETC. PER NEC.

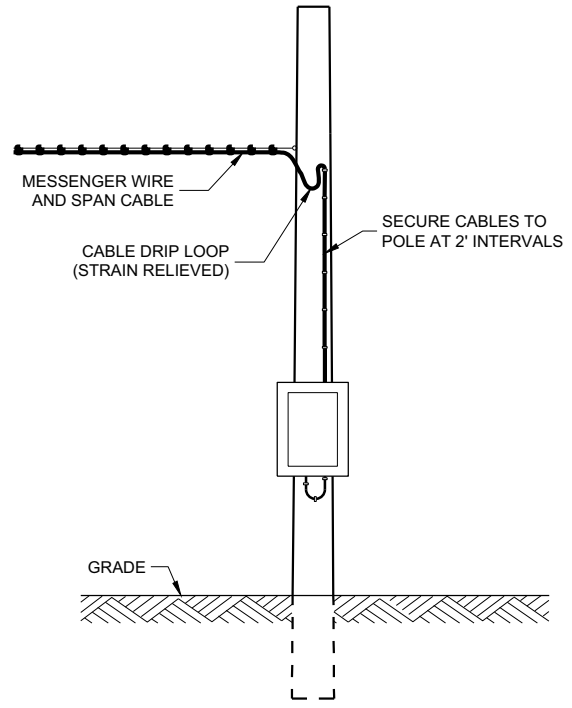
TRAFFIC SIGNAL FACES SHALL BE TYPICALLY PLACED 12 FEET FROM EDGE OF PAVEMENT.

EACH TRAFFIC SIGNAL SHALL HAVE A BACKPLATE.

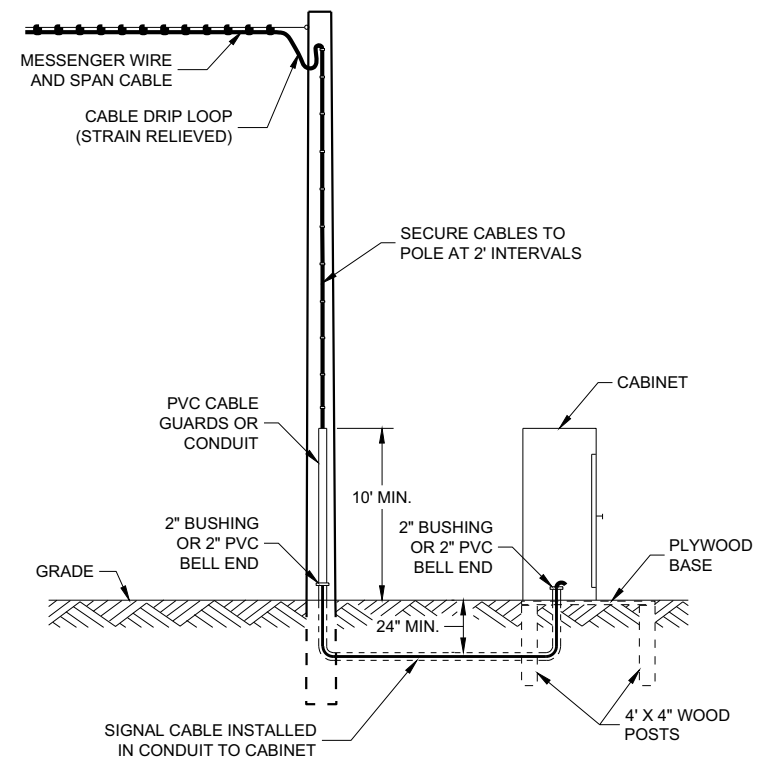
SIGNING, PAVEMENT MARKING AND LANE CONTROL REQUIREMENTS SHALL CONFORM TO STANDARD DETAIL DRAWING 15D33.



TYPICAL DROP TO TRAFFIC SIGNAL FACE



POLE MOUNT CABINET INSTALLATION



GROUND MOUNT CABINET INSTALLATION

MINIMUM POLE LENGTHS	CLASS	POLE BURIAL DEPTHS
25'	V	5'
30'	V	6'
35'	IV	7'
40'	IV	8'
45'	IV	9'

OFFSET DISTANCES FOR TEMPORARY NON-BREAKAWAY POLES	
SPEED LIMIT	OFFSET DISTANCE*
GREATER THAN 45 MPH	18 FT
45 MPH OR LESS	12 FT
45 MPH OR LESS W/CURBS	2 FT

* NOTE: OFFSET MEASURED FROM OUTER EDGE OF OUTSIDE THRU LANE.

BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 /S/ Ahmet Demirelek
DATE ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

6

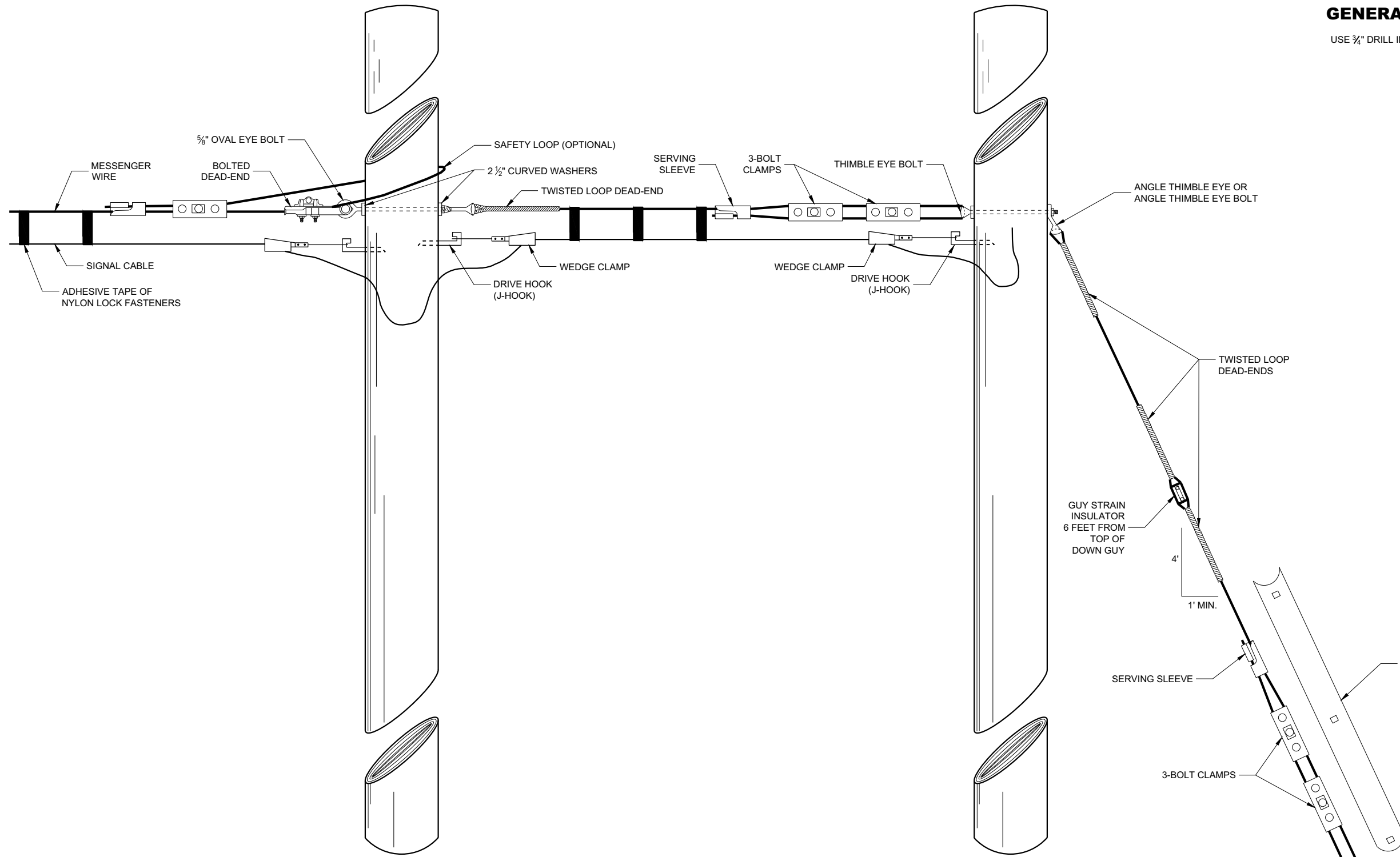
6

SDD09G02 - 05a

SDD09G02 - 05a

GENERAL NOTES

USE 3/4" DRILL IN WOOD POLE TO PROVIDE FOR 5/8" BOLTS.



SPAN WIRE POLE

GUY POLE

TYPICAL DEAD-ENDINGS OR GUYING

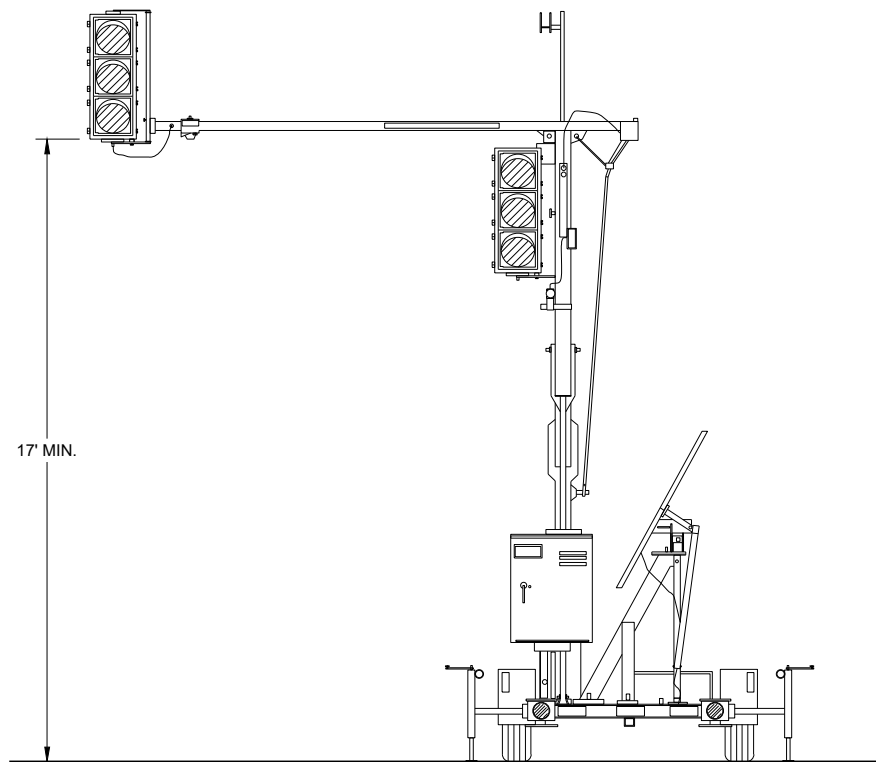
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SDD09G02 - 05b

SDD09G02 - 05b

BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2015 DATE	/S/ Ahmet Demerbilek ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	

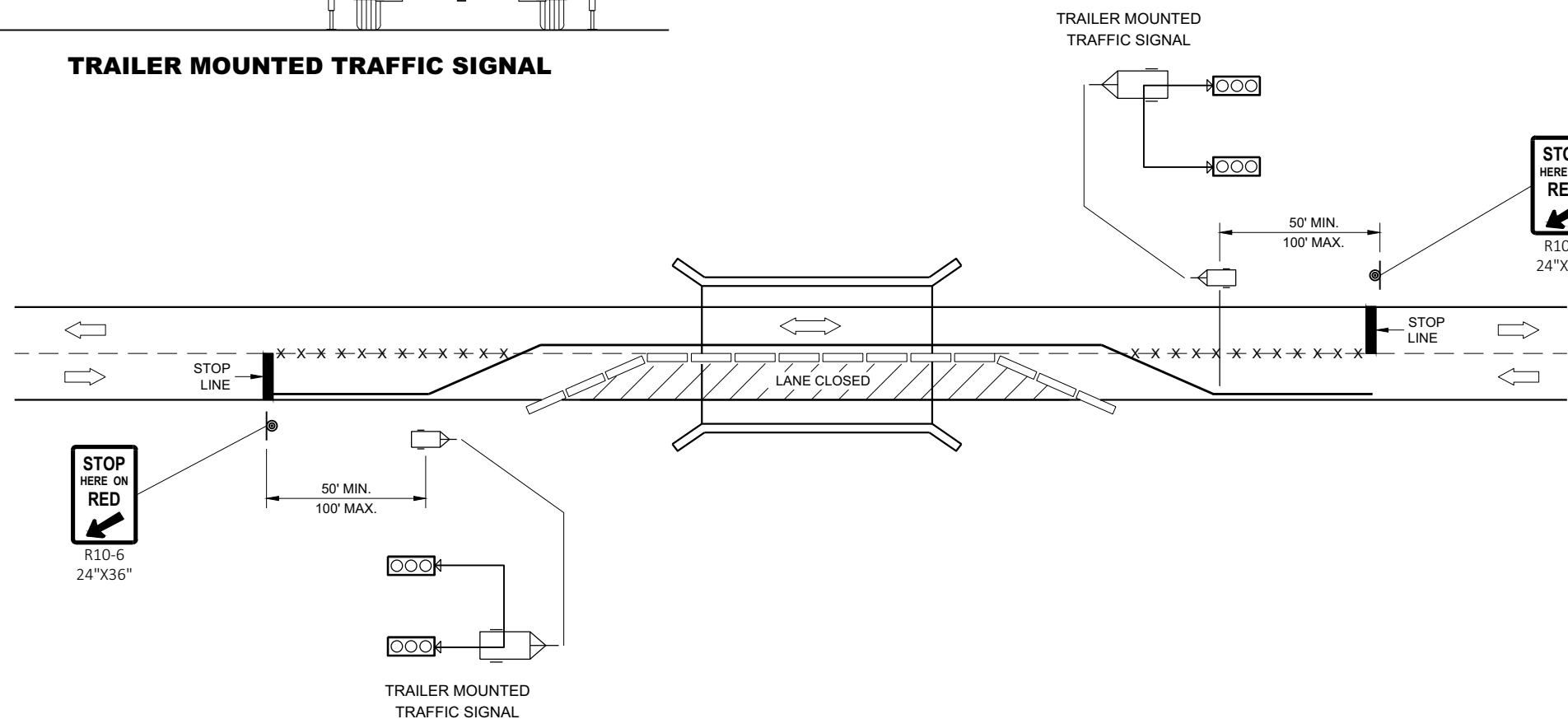


TRAILER MOUNTED TRAFFIC SIGNAL

GENERAL NOTES






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

SIGNING, PAVEMENT MARKING AND LANE CONTROL REQUIREMENTS SHALL CONFORM TO STANDARD DETAIL DRAWING 15D33.



TYPICAL TRAILER MOUNTED TRAFFIC SIGNAL LOCATION

LEGEND

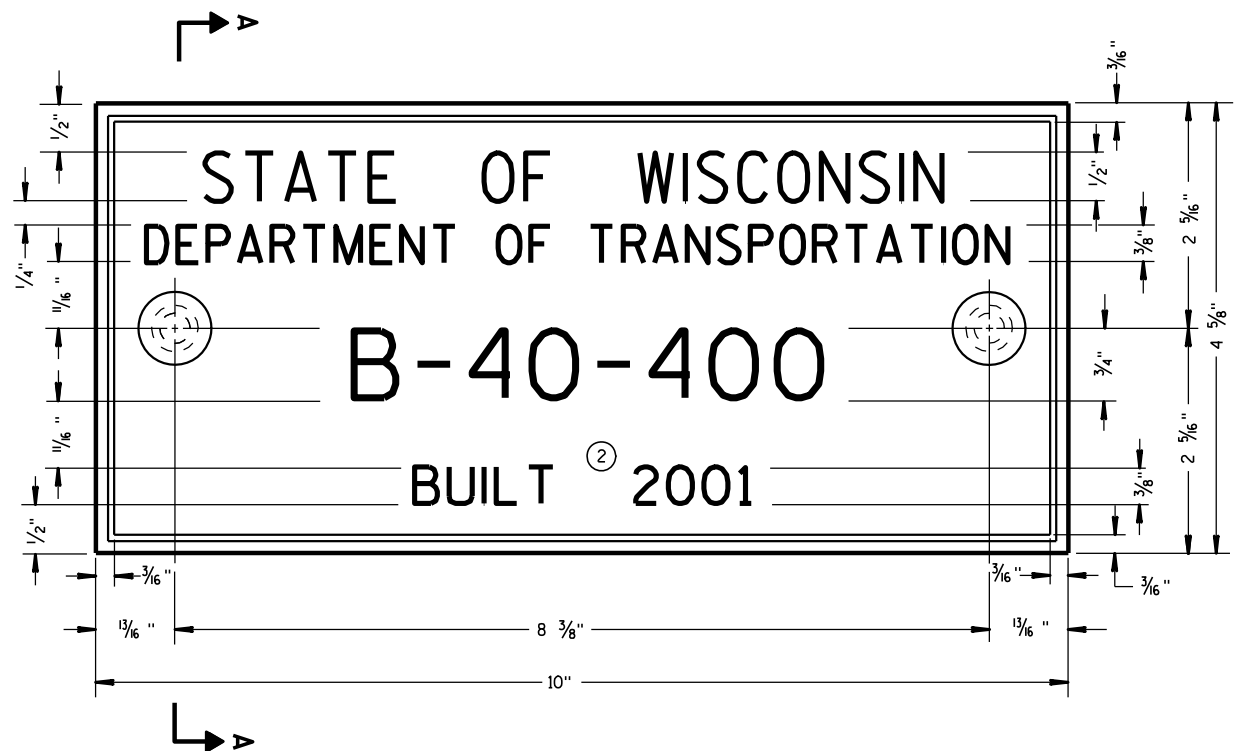
-  POST MOUNTED SIGN
-  TEMPORARY PRECAST CONCRETE BARRIER
-  TRAILER MOUNTED TRAFFIC SIGNAL
-  REMOVE PAVEMENT MARKINGS
-  DIRECTION OF TRAFFIC

BRIDGE TEMPORARY TRAFFIC SIGNAL INSTALLATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2015 /S/ Ahmet Demerbilek
DATE ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA



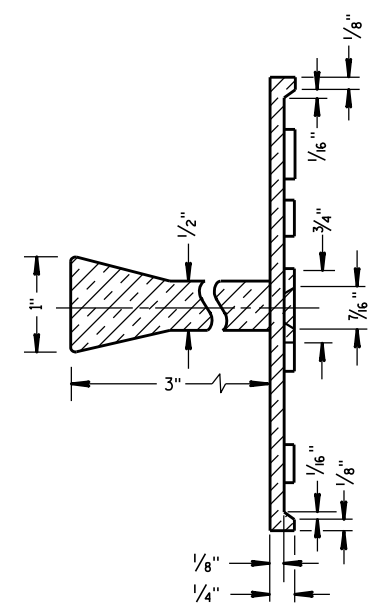
TYPICAL NAME PLATE
(BRIDGES, CULVERTS, AND RETAINING WALLS)

GENERAL NOTES

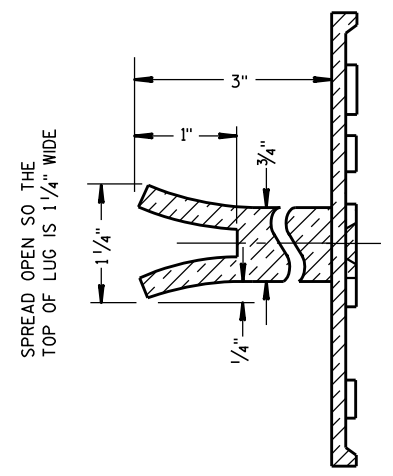
NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

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

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



SECTION A-A



ALTERNATE LUG

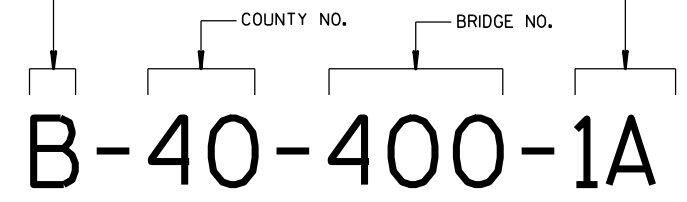
6

6

FOR MULTI-UNIT STRUCTURES
LINE 3 ABOVE SHALL READ

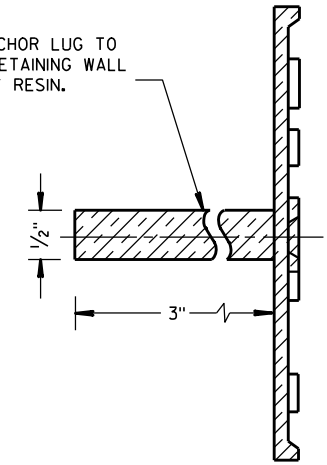
B = BRIDGE
C = CULVERT
R = RETAINING WALL

UNIT NO. FOR MULTIPLE
UNIT BRIDGE



**NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES**

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

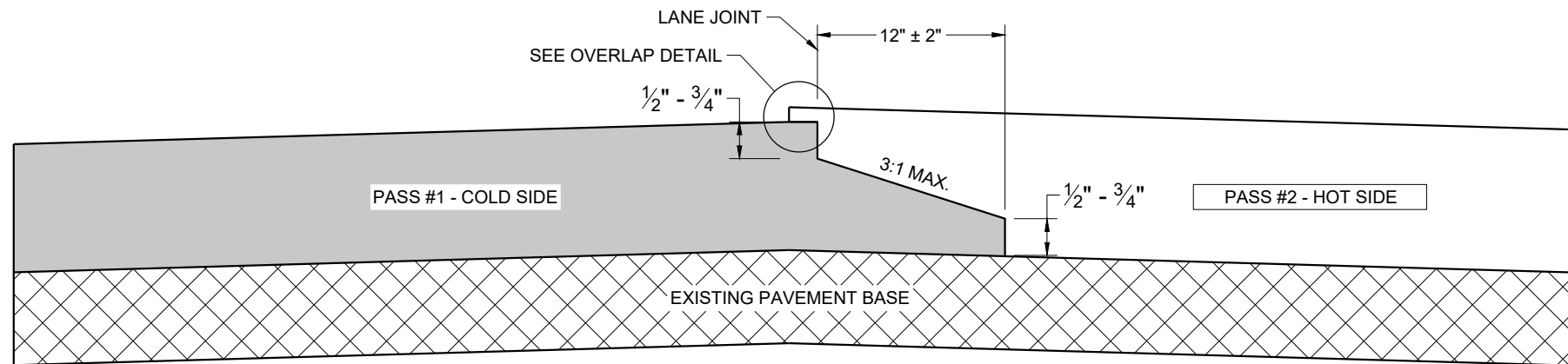


ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

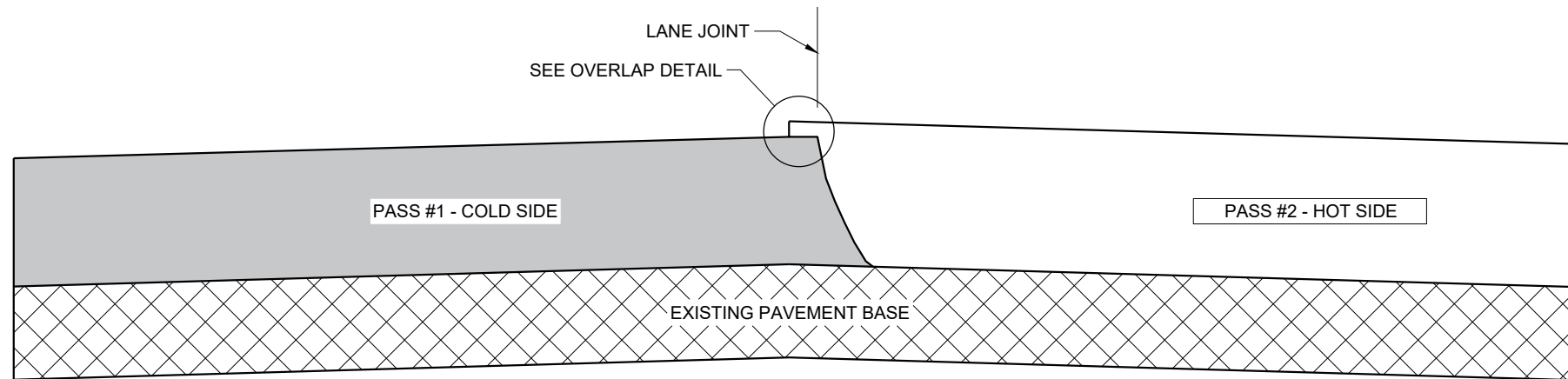
S.D.D. 12 A 3-10

S.D.D. 12 A 3-10

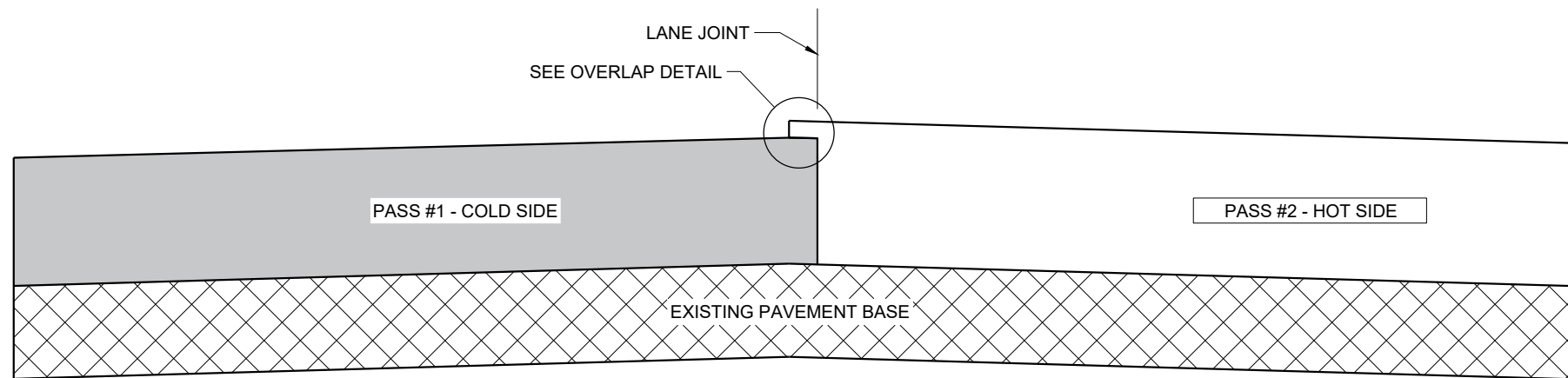
NAME PLATE (STRUCTURES)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED DATE 3/26/10	/S/ Scot Becker CHIEF STRUCTURAL DEVELOPMENT ENGINEER
FHWA	



TYPICAL PAVEMENT CROSS SECTION NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION VERTICAL JOINT (MILLED)

GENERAL NOTES

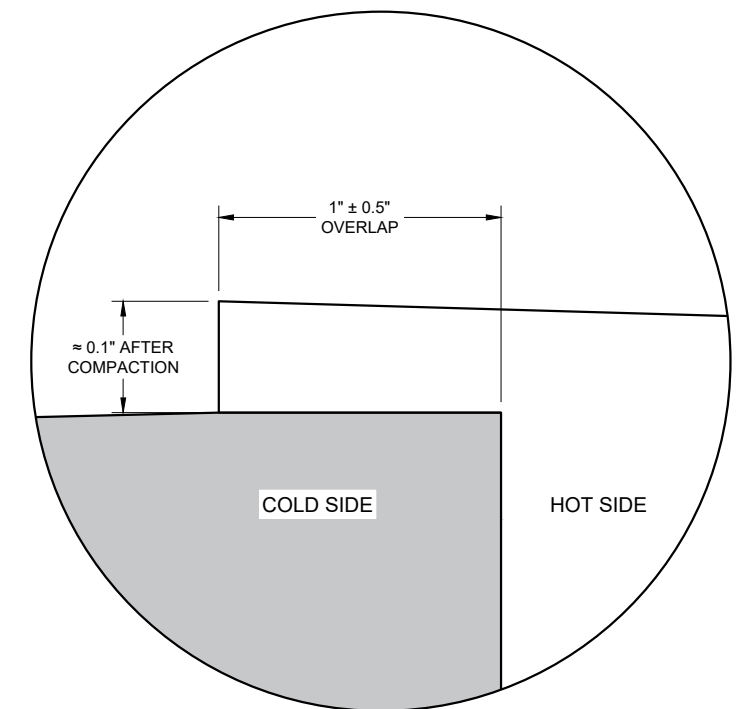
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

FOR ALL LONGITUDINAL JOINTS, ENSURE THE PAVER SCREED OVERLAPS THE PREVIOUSLY PLACED PAVEMENT BY $1" \pm 0.5"$ AND THE HOT SIDE OF THE JOINT REMAINS HIGHER THAN THE COLD SIDE BY APPROXIMATELY 0.1" AFTER FINAL COMPACTION. (IT WILL BE FLUSH WHEN PAVING IN ECHELON.)

ONLY REMOVE THE LONGITUDINAL NOTCHED WEDGE JOINT FOR SMA PAVEMENT OR AS DIRECTED BY THE ENGINEER TO ADDRESS SPECIFIC LENGTHS OF JOINT DAMAGED BY TRAFFIC.

WHEN MILLING BACK OR REMOVING ANY LONGITUDINAL JOINT, LIMIT THE MATERIAL REMOVED TO 2" FROM THE TOP NOTCH OR FROM THE VERTICAL JOINT EDGE ON THE COLD SIDE OF THE JOINT.

USE LONGITUDINAL MILLED JOINT AS PLANS SHOW OR THE AS THE ENGINEER DIRECTS.



OVERLAP DETAIL (TYPICAL)

6

6

SDD 13C19 - 03

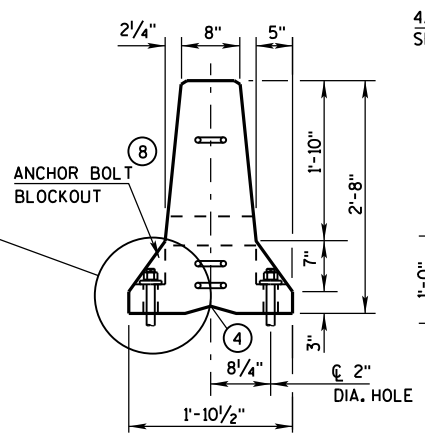
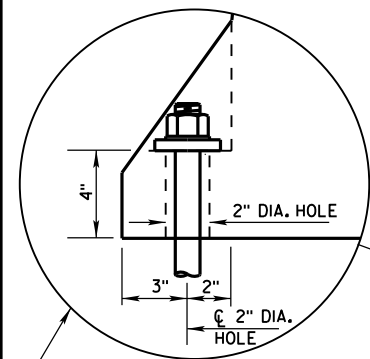
SDD 13C19 - 03

HMA LONGITUDINAL JOINTS

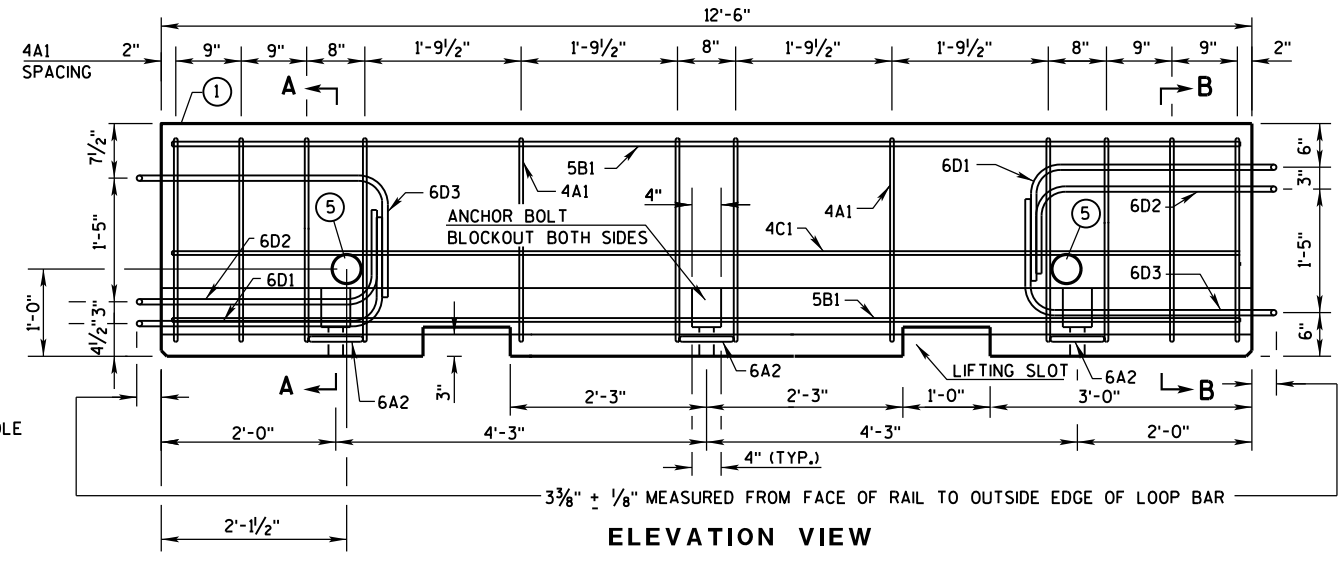
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2020 DATE /S/ Steven Hefel
HMA PAVEMENT ENGINEER

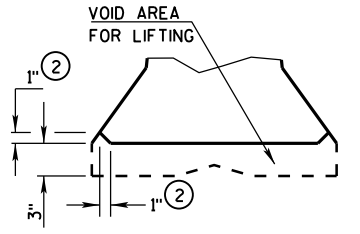
FHWA



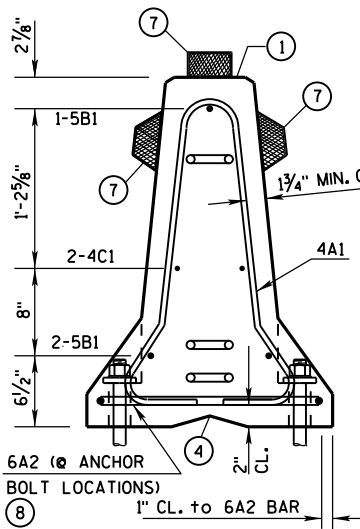
END VIEW



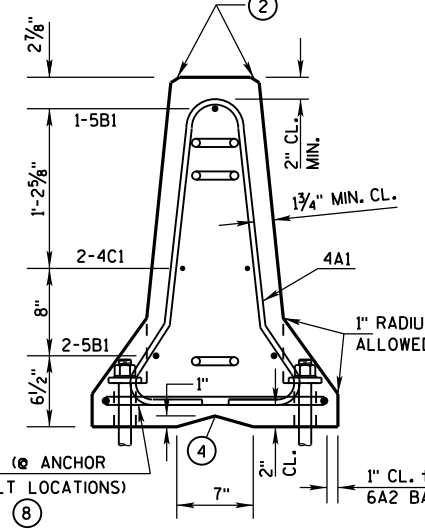
ELEVATION VIEW



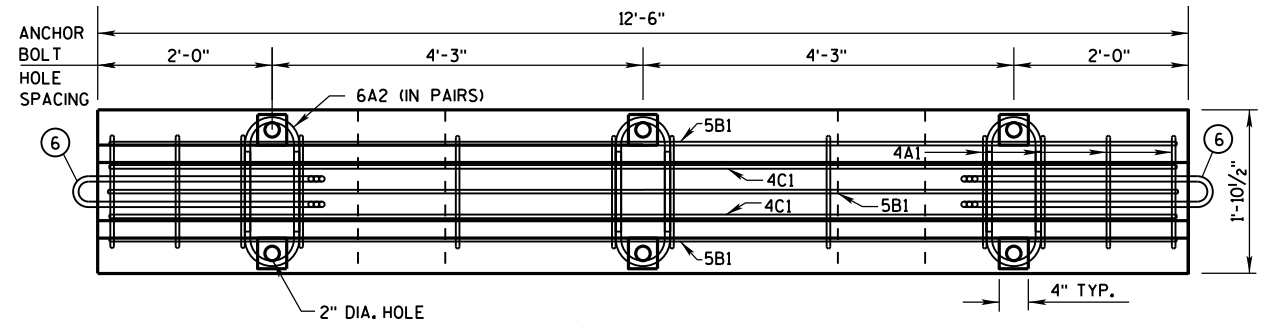
DETAIL "B"
LIFTING SLOT DETAIL



SECTION A-A
(STIRRUP PLACEMENT)



SECTION B-B
(STIRRUP PLACEMENT)



PLAN VIEW

DETAILS OF BARRIER SECTION

GENERAL NOTES

THESE GENERAL NOTES APPLY TO SHEETS 14B7-15(d) THRU 14B7-15(i).

DO NOT INTERMIX CONCRETE BARRIER TEMPORARY PRECAST, 12'-6" (CBTP12.5) WITH OTHER TEMPORARY CONCRETE BARRIERS.

USE ASTM A-615, GRADE 60, DEFORMED STEEL BARS FOR BARS 4A1, 6A2, 5B1 AND 4C1 IN THE BARRIER SECTION AND FOR 4V1, 4V2, 4V3, 4V4, 4V5, 4V6, 4F1, 4F2 AND 5F3 IN THE BARRIER TAPER SECTION.

LOOP BARS 6D1, 6D2 AND 6D3 SHALL BE 3/4" SMOOTH STEEL BARS WITH A MINIMUM YIELD STRENGTH OF 60 KSI, A TENSILE STRENGTH OF NOT LESS THAN 1.25 TIMES THE YIELD STRENGTH BUT A MINIMUM OF 80 KSI, A MINIMUM 14% ELONGATION IN 8 INCHES AND PASSING A 180 DEGREE BEND TEST USING A 3-1/2" PIN BEND DIAMETER FOR BEND TESTS. THE LOOPS SHALL BE INSTALLED WITHIN 1/8" OF THE PLAN DIMENSION.

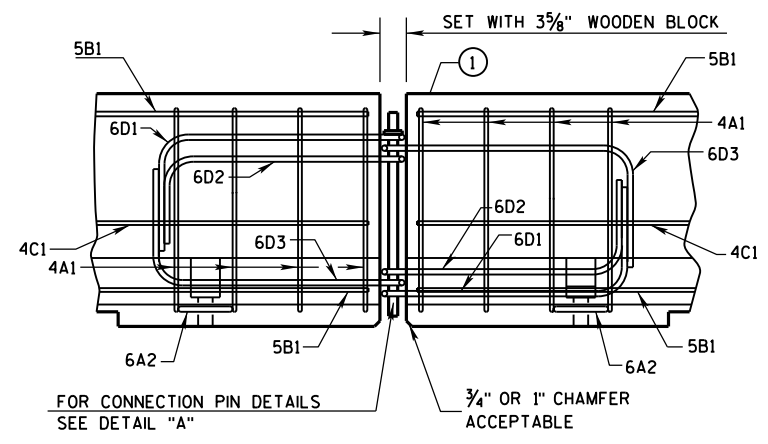
CONSTRUCT LIFTING SLOTS AS SPECIFIED ON THE PLANS TO FACILITATE THE DRAINAGE OF WATER AFTER INSTALLATION.

PLACE BARRIER ON A PAVED SURFACE. REMOVE ALL LOOSE DIRT AND SAND FROM THE ROADWAY SURFACE PRIOR TO PLACEMENT OF THE BARRIER.

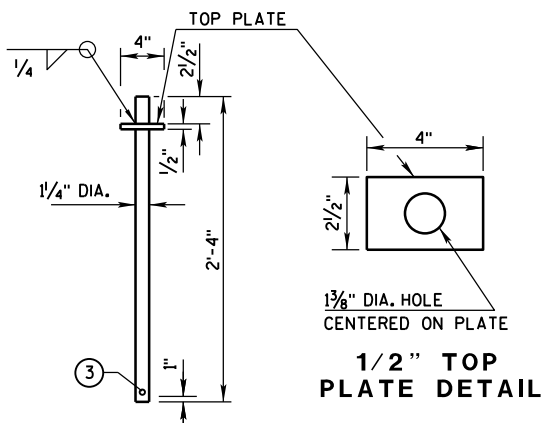
INSTALL MECHANICAL OR ADHESIVE ANCHORS PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE MANUFACTURER'S INFORMATION TO PROJECT ENGINEER.

- ① MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
 - a. TYPE: WICBTP
 - b. MANUFACTURER
 - c. DATE MANUFACTURED (MONTH AND YEAR)
- ② 1" CHAMFER TO PREVENT SPALLING.
- ③ A 3/8" HOLE IN THE CONNECTION PIN, AT THE LOCATION SHOWN, IS ACCEPTABLE, BUT NOT REQUIRED..
- ④ "V" NOTCH IS OPTIONAL.
- ⑤ THE 4" DIAMETER, 11 GAUGE STEEL, ROUND MECHANICAL TUBING SLEEVE FOR LIFTING (OPTIONAL).
- ⑥ NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.
- ⑦ USE DELINEATORS CONFORMING TO SECTION 633 OF THE STANDARD SPECIFICATIONS. CONTRACTOR MAY USE ALTERNATE SHAPES AND HOUSING. INSTALL DELINEATORS ACCORDING TO MANUFACTURER'S INSTRUCTION. INSTALL YELLOW REFLECTORS WHEN BARRIER IS LOCATED TO THE LEFT OF TRAFFIC AND WHITE REFLECTORS WHEN BARRIER IS LOCATED TO THE RIGHT OF TRAFFIC. SPACE DELINEATORS A MAXIMUM OF 25 FEET APART. PROVIDE TOP MOUNTED DELINEATORS IN ADDITION TO THE SIDE MOUNTED DELINEATORS ON ALL BARRIER INSTALLATIONS LOCATED ON A CURVED ALIGNMENT LONGER THAN 200 FEET AND ON BARRIERS USED TO SEPARATE OPPOSING TRAFFIC.
- ⑧ SEE SHEET D FOR HOW TO ANCHOR BARRIER. SEE SHEET E FOR WHEN TO ANCHOR BARRIER.
- ⑨ 1" CHAMFER OPTIONAL.

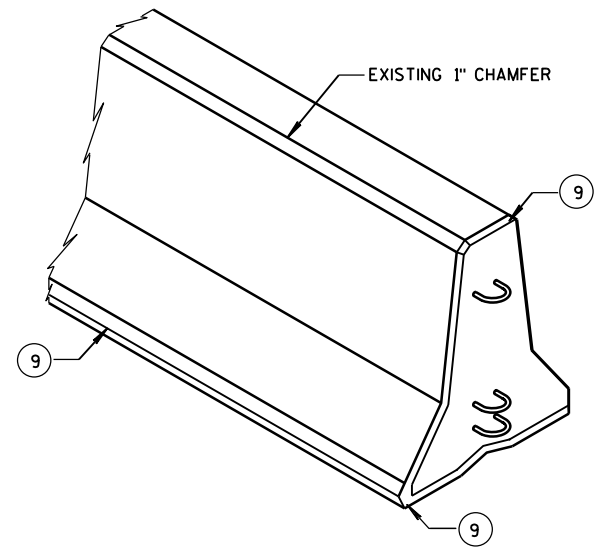
f'c = 4,000 psi



DETAILS OF BARRIER CONNECTION

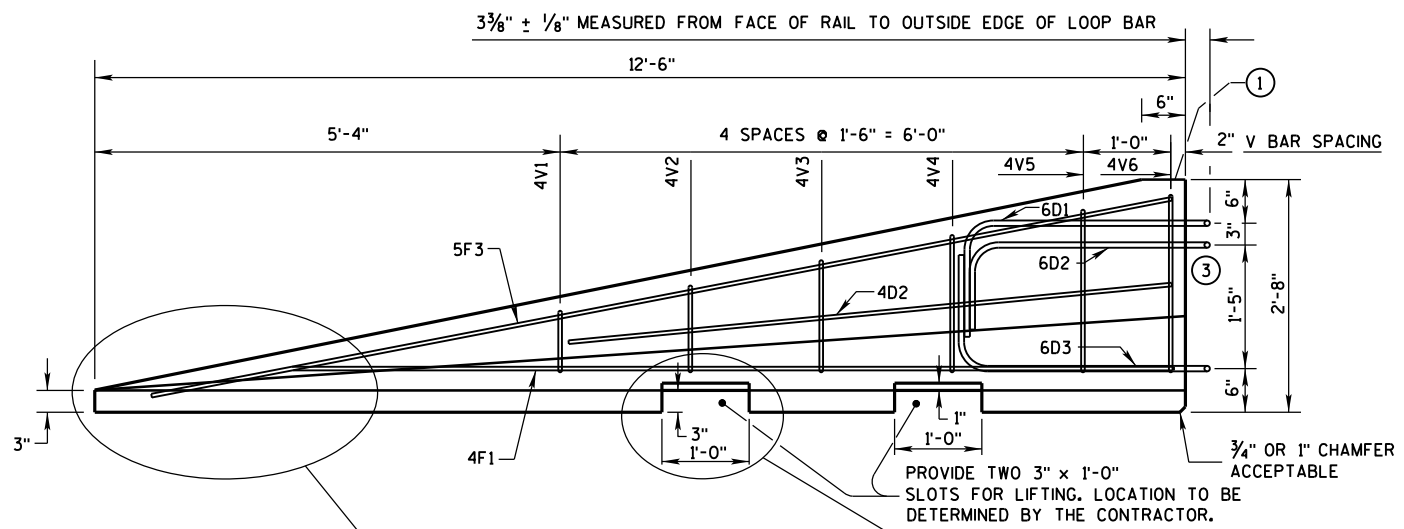


DETAIL "A"
CONNECTION PIN
(A36 STEEL (10.9 LB EACH))

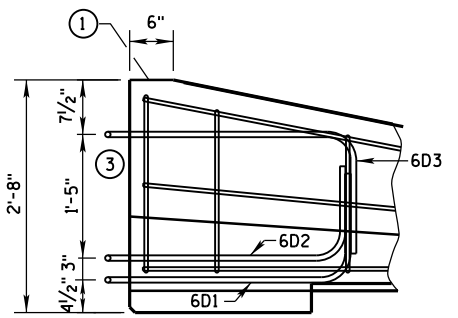


CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

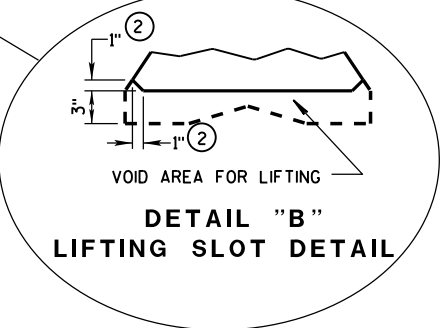
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



SIDE ELEVATION
(FOR CONNECTION TO LEFT END OF BARRIER)



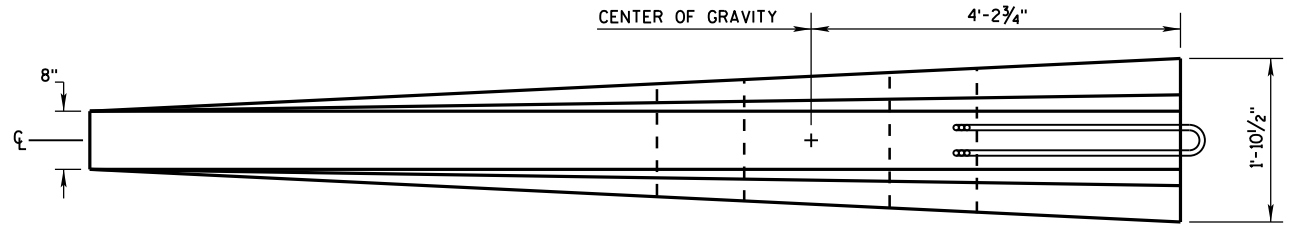
SIDE ELEVATION
LOOP BAR ASSEMBLY INVERTED
FOR OPPOSITE END.
(FOR CONNECTION TO RIGHT END OF BARRIER)



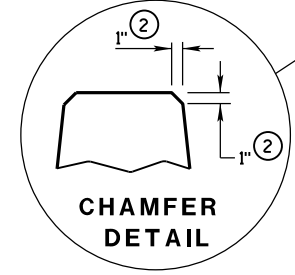
DETAIL "B"
LIFTING SLOT DETAIL

GENERAL NOTES

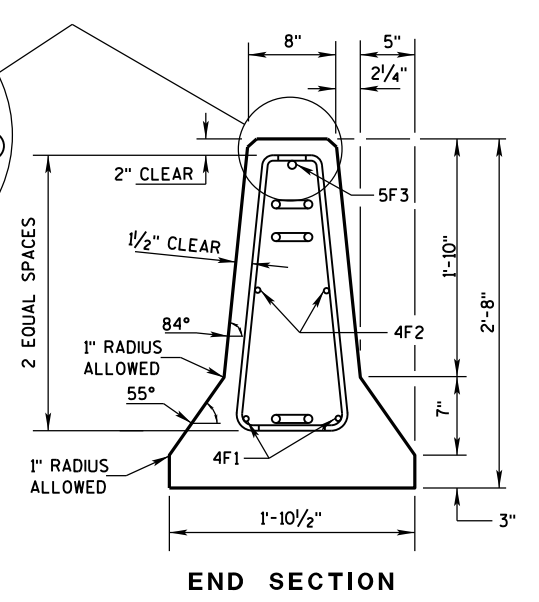
- ① MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
a. TYPE WICBTP
b. MANUFACTURER
c. DATE MANUFACTURED (MONTH AND YEAR)
- ② 1" CHAMFER TO PREVENT SPALLING.
- ③ NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.



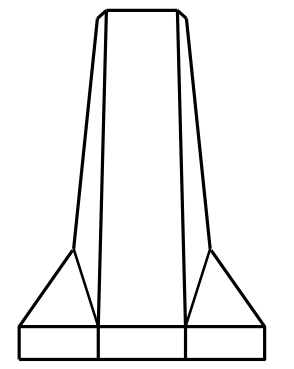
PLAN VIEW



CHAMFER DETAIL

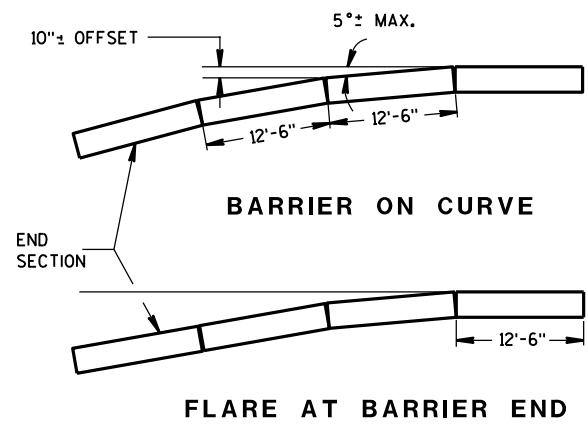


END SECTION



FRONT ELEVATION

DETAILS OF BARRIER TAPER SECTION



POSTED SPEED, (MPH)	FLARE RATE
40 OR LESS	6:1
45 OR GREATER	8:1

**CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

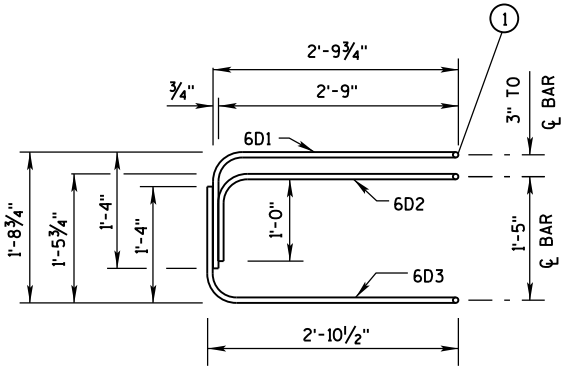
GENERAL NOTES

① NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

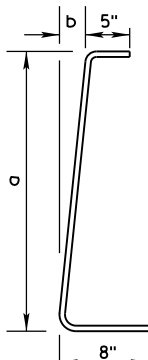
**BARRIER TAPER SECTION
BILL OF MATERIALS**
(PER 12'-6" BARRIER TAPER SECTION)

BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4V1	4	2	1'-11"
4V2	4	2	2'-2"
4V3	4	2	2'-6"
4V4	4	2	2'-9"
4V5	4	2	3'-2"
4V6	4	2	3'-4"
4F1	4	2	12'-0"
4F2	4	2	7'-6"
5F3	5	1	11'-9"

LOOP ASSEMBLY			
6D1	6	1	8'-5"
6D2	6	1	7'-7"
6D3	6	1	8'-6"

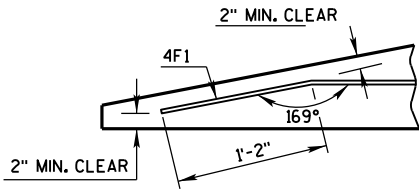


**ELEVATION
LOOP BAR ASSEMBLY**



BAR	a	b
V1	10"	1"
V2	1'-1"	1 1/4"
V3	1'-5"	1 5/8"
V4	1'-8"	1 7/8"
V5	2'-0 1/2"	2 3/8"
V6	2'-3"	2 3/4"

4V BARS
2 AT EACH SIZE REQUIRED
FOR STIRRUP ASSEMBLY



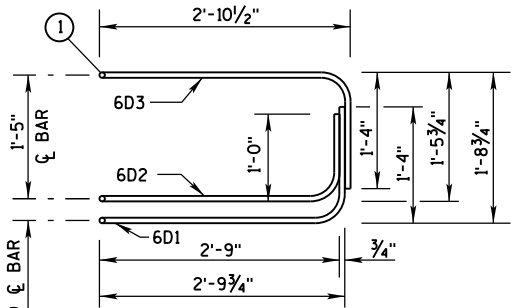
**DETAIL "C"
BENT BAR DETAIL**

TAPER BARRIER SECTION

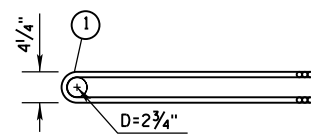
**BARRIER SECTION
BILL OF MATERIALS**
(PER 12'-6" BARRIER SECTION)

BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4A1	4	12	6'-0"
6A2	6	6	2'-11"
5B1	5	3	12'-2"
4C1	4	2	12'-2"

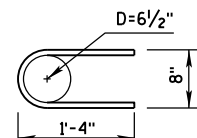
LOOP ASSEMBLY			
6D1	6	2	8'-5"
6D2	6	2	7'-7"
6D3	6	2	8'-6"



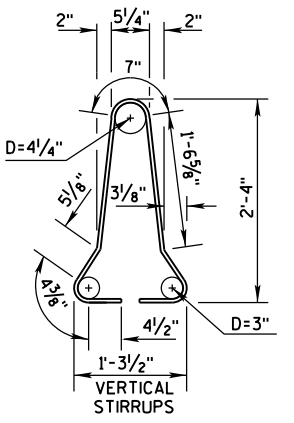
ELEVATION VIEW



**PLAN VIEW
LOOP BAR ASSEMBLY**
(MARKED END SHOWN, INVERT FOR OTHER END)



6A2

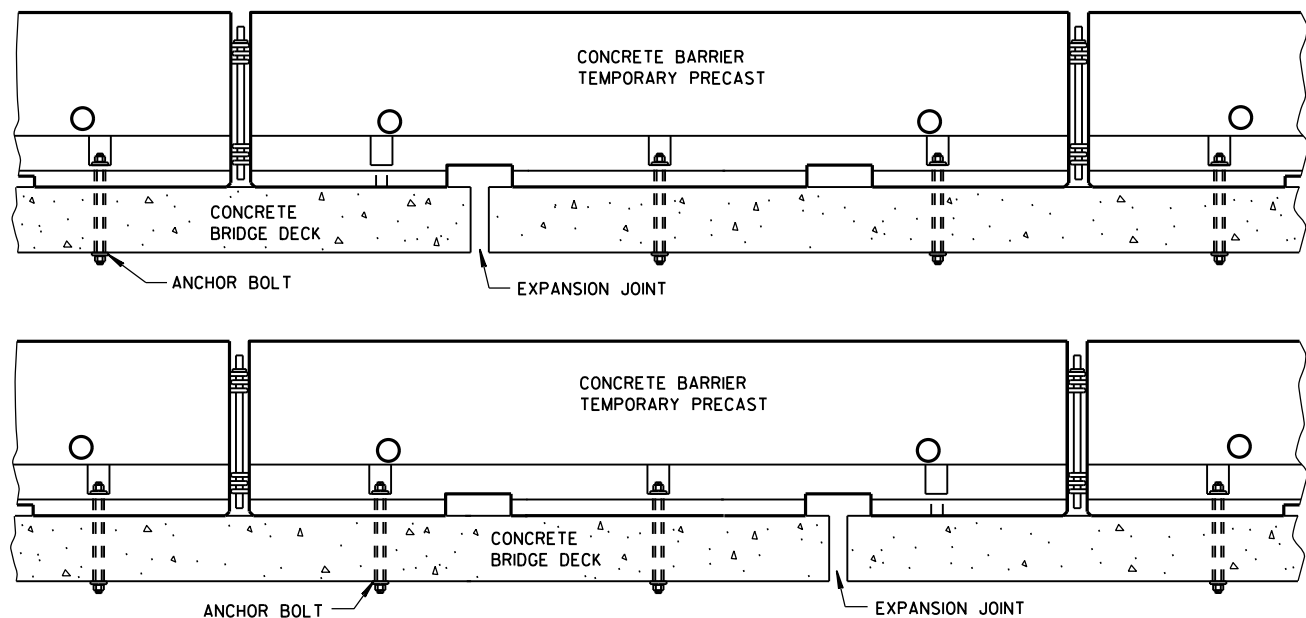


4A1

BARRIER SECTION

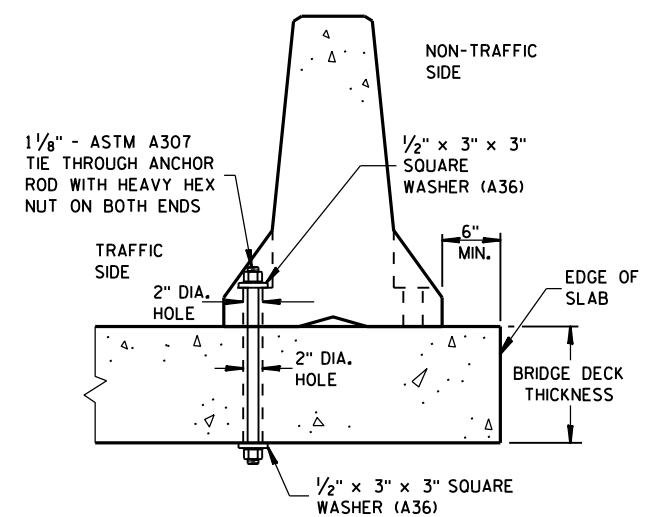
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



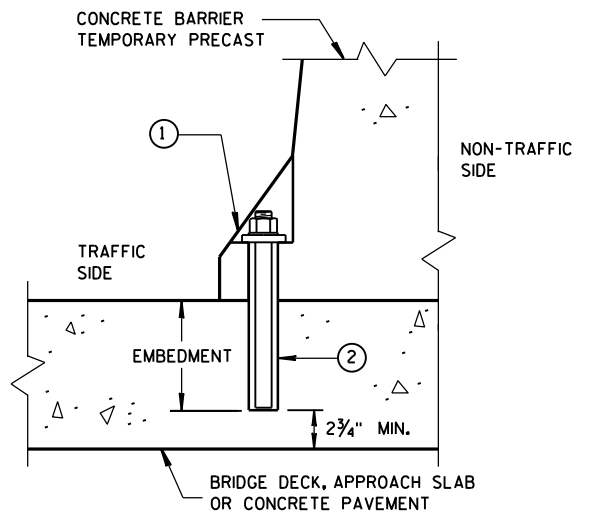
TREATMENT AT BRIDGE DECK EXPANSION JOINTS

(NO SINGLE CONCRETE BARRIER SECTION SHALL BE ANCHORED TO BOTH THE BRIDGE DECK AND THE APPROACH SLAB. ALL ANCHOR BOLT LOCATIONS SHALL BE ANCHORED TO THE DECK IN ACCORDANCE WITH THE DETAIL. NO MORE THAN ONE ANCHOR BOLT SHALL BE ELIMINATED FROM A BARRIER SECTION WHEN SPANNING AN EXPANSION JOINT.)



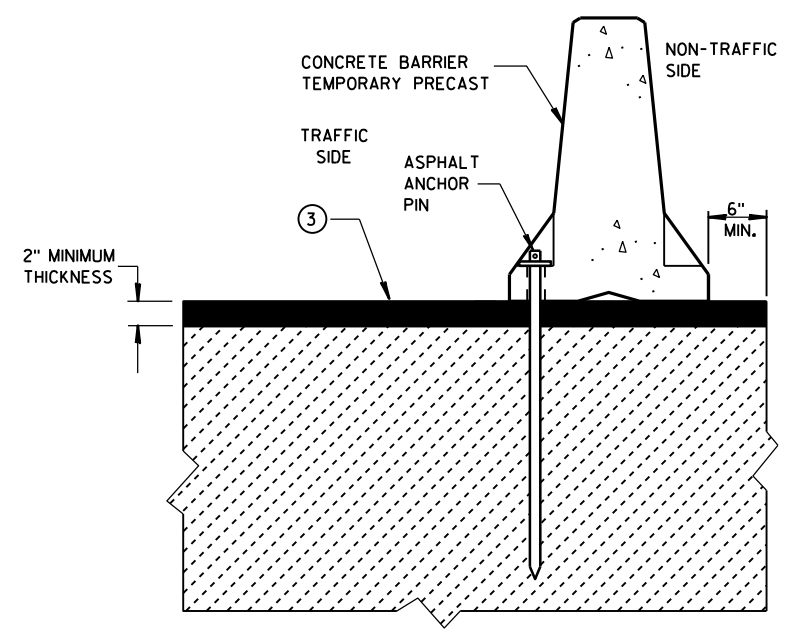
THROUGH BOLTED ANCHOR INSTALLATION ON BRIDGE DECK

(DO NOT USE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY)

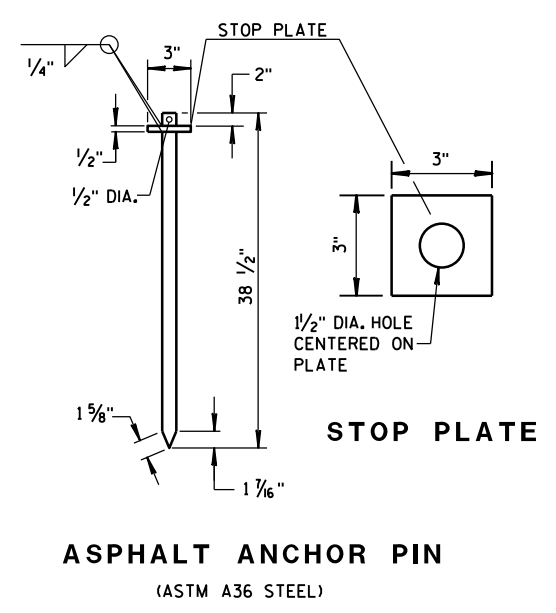


REMOVABLE ADHESIVE ANCHOR INSTALLATION ON CONCRETE BRIDGE DECK, CONCRETE APPROACH SLAB, OR CONCRETE PAVEMENT

(DO NOT USE ON CONCRETE WITH AN ASPHALTIC OVERLAY)



STAKE DOWN INSTALLATION FOR ASPHALTIC SURFACE



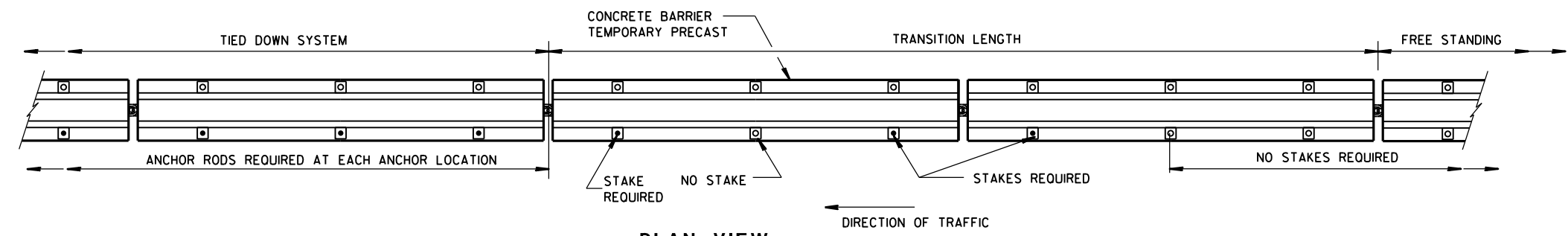
ASPHALT ANCHOR PIN (ASTM A36 STEEL)

GENERAL NOTES

SEE SHEET E FOR WHEN TO ANCHOR. OTHER PARTS OF THE PLAN MAY SHOW ADDITIONAL LOCATIONS REQUIRING ANCHORING.

REMOVE ALL ANCHORS WHEN NO LONGER NEEDED. FILL CONCRETE PAVEMENTS, DECKS AND APPROACH SLABS WITH NON-SHRINK COMMERCIAL GROUT FROM THE APPROVED PRODUCT LIST. FILL ASPHALT PAVEMENTS WITH ASTM D6690 TYPE II RUBBERIZED CRACK FILLER.

- ① 1/8" DIAMETER A307 THREADED ROD, 1/2" X 3" X 3" SQUARE PLATE WASHER WITH ASTM A36 STEEL, ASTM A563A HEAVY HEX NUT.
- ② ADHESIVE ANCHORS WITH A MINIMUM BOND STRENGTH OF 1,800 PSI AND 5/4" EMBEDMENT. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.
- ③ ASPHALT SURFACE SHOWN. CONTRACTOR MAY DRILL THROUGH CONCRETE PAVEMENT AND THEN DRIVE ASPHALT ANCHOR PIN.



FREE STANDING TRANSITION TO TIED-DOWN SYSTEM

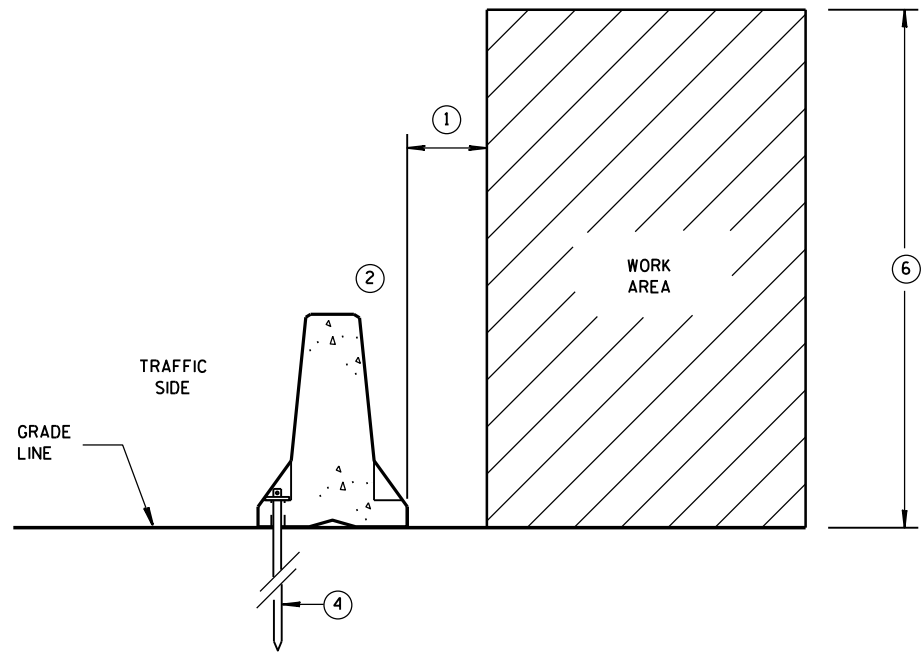
(PLACE TRANSITION IN A TANGENT SECTION OF BARRIER PARALLEL TO THE ROADWAY. IF TRANSITION OCCURS ON STRUCTURAL SLAB, ANCHOR AS SHOWN.)

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

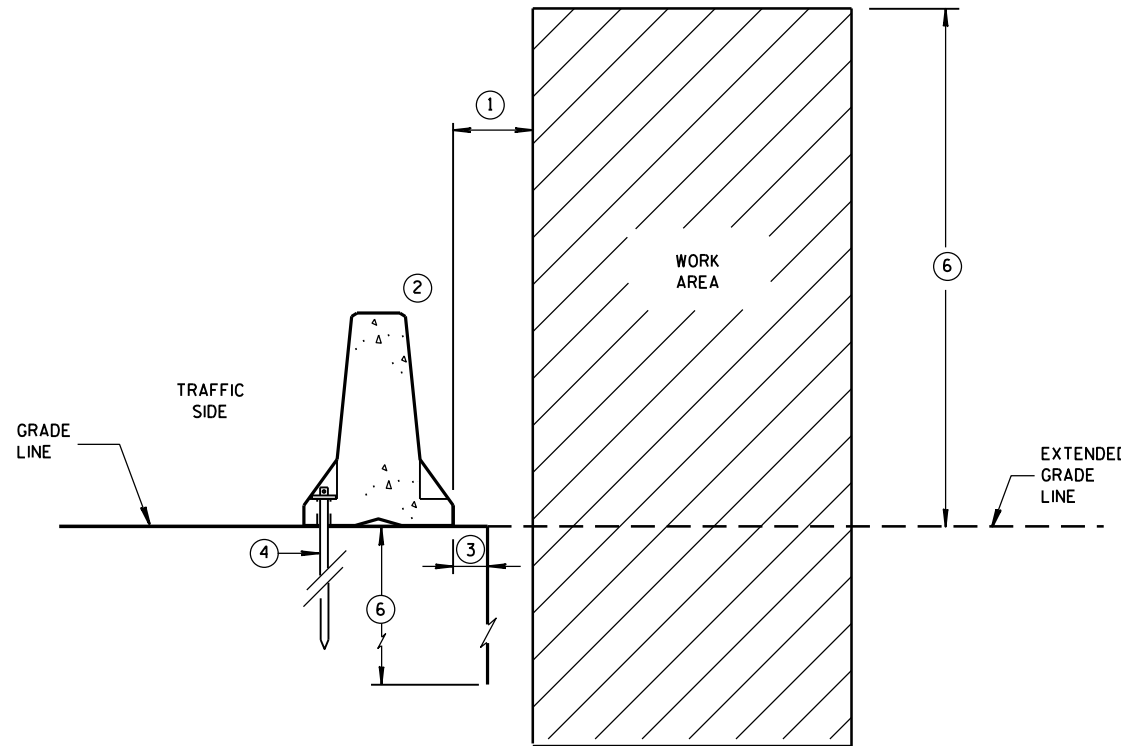
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

- ① WHEN OBJECTS EXTEND ABOVE THE GRADE, A MINIMUM OF 1 FOOT IS REQUIRED FROM BACK OF BARRIER TO OBJECT. SEE OTHER DETAILS FOR THE MINIMUM OFFSET FROM BACK OF BARRIER TO SLOPES OR VERTICAL DROPS.
- ② OBJECTS ARE NOT TO BE PLACED ON, MOUNTED TO, OR LEANED AGAINST THE BARRIER WITHOUT PERMISSION OF THE PROJECT ENGINEER.
- ③ SEE OTHER DETAIL ON SHEET "D" FOR SPACE REQUIREMENTS.
- ④ SEE BOLT THROUGH DECK, REMOVABLE ADHESIVE ANCHOR, OR A STAKE DOWN FOR ASPHALTIC SURFACE TREATMENT DETAILS. ASPHALTIC ANCHOR SHOWN.
- ⑤ DEPTH OF 3 FEET OR MORE.
- ⑥ Y = 6'-6".

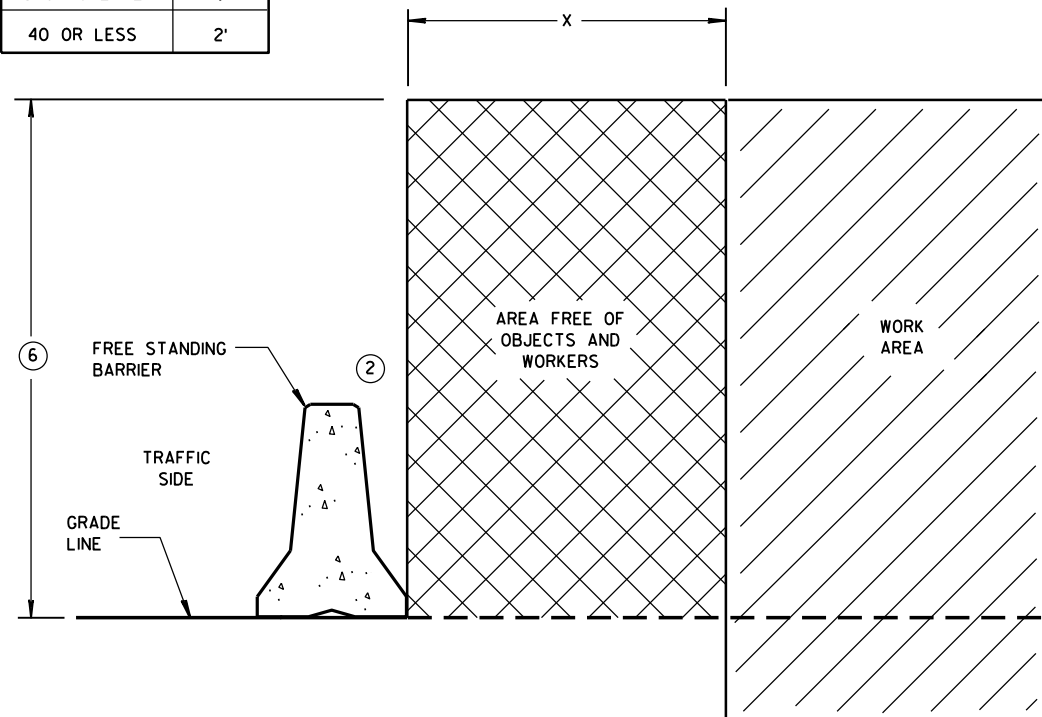


ANCHORED BARRIER SPACE REQUIREMENTS FOR HAZARDS EXTENDED ABOVE THE GRADE LINE

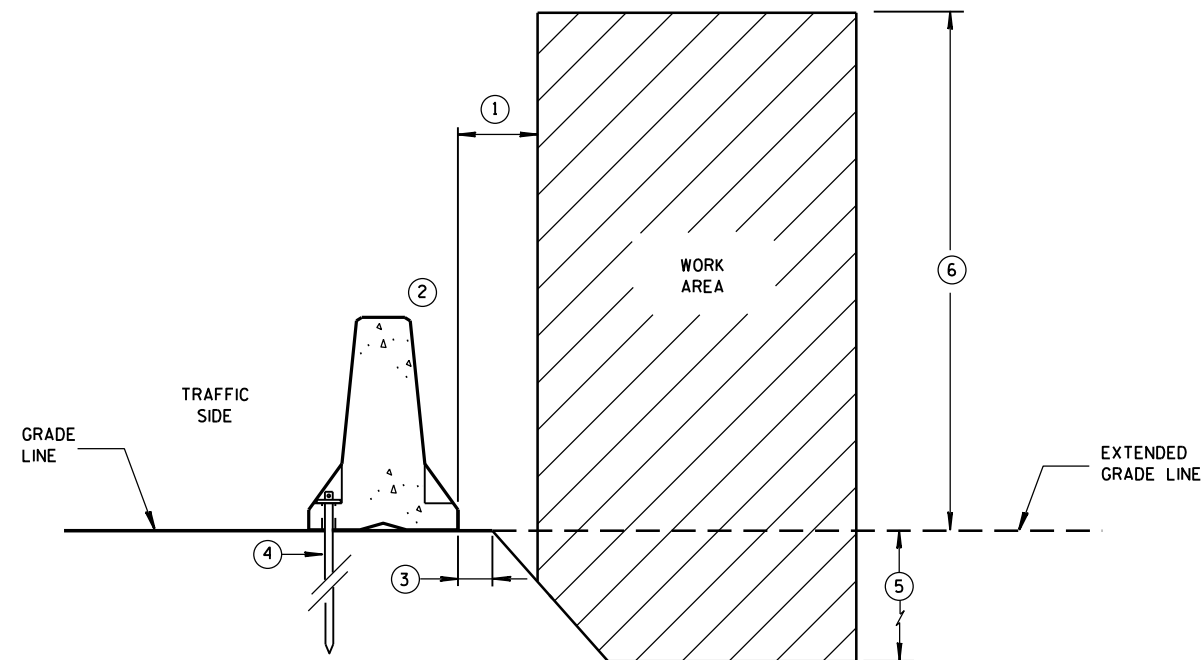


ANCHORED BARRIER SPACE REQUIREMENTS ON VERTICAL DROP OFFS

POSTED SPEED MPH	X
45 OR GREATER	4'
40 OR LESS	2'



FREE STANDING BARRIER SPACE REQUIREMENTS



ANCHORED BARRIER SPACE REQUIREMENTS ON SLOPES

**CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"**

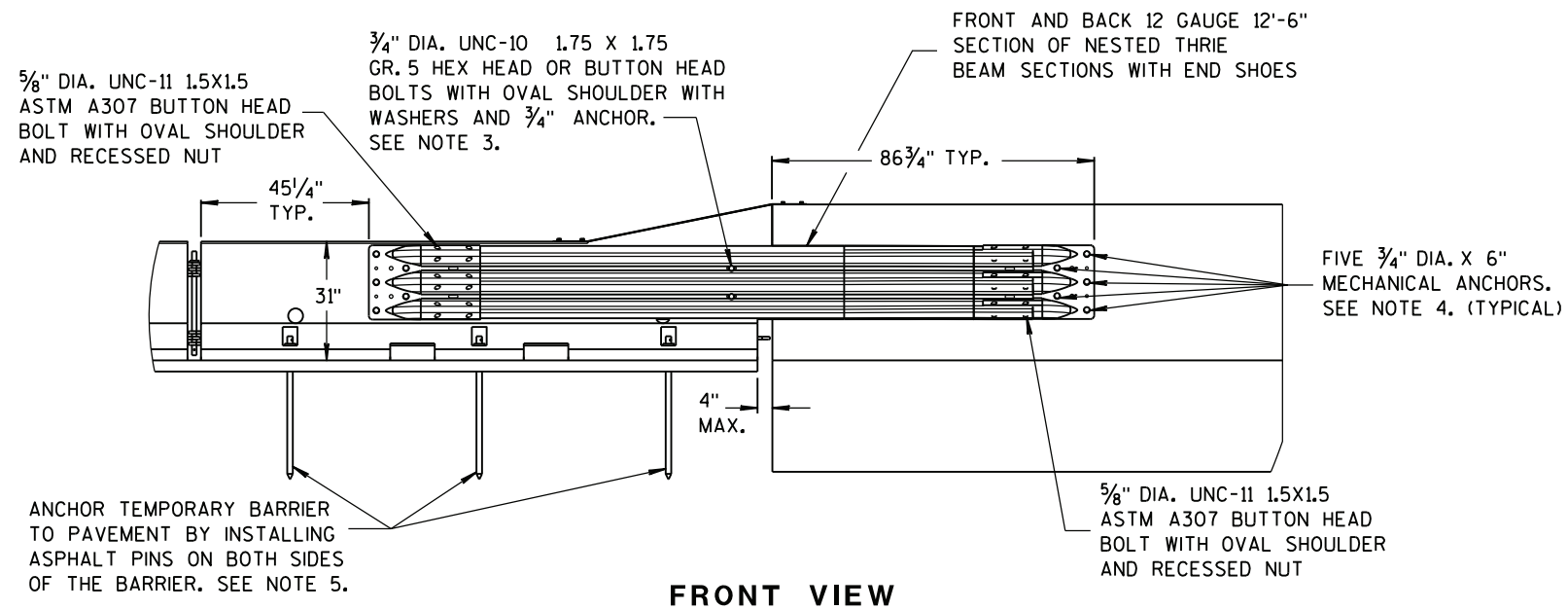
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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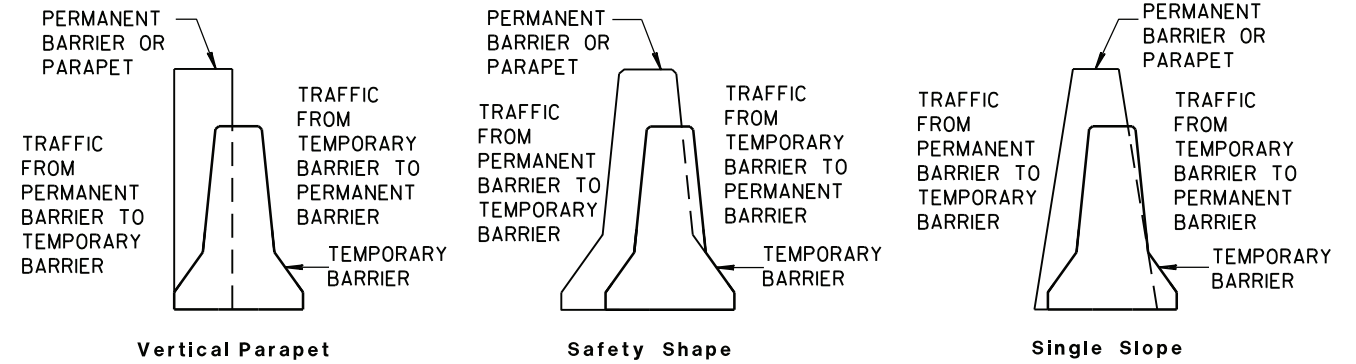
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S.D.D. 14 B 7-15e

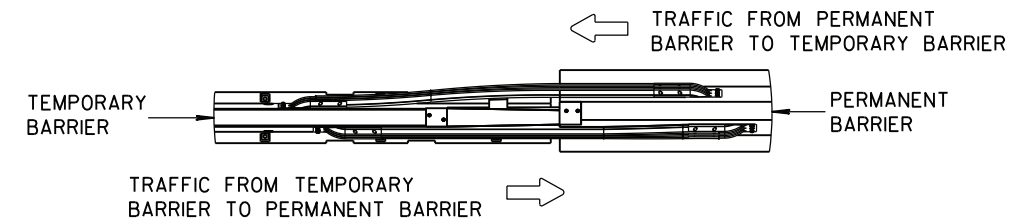
S.D.D. 14 B 7-15e



FRONT VIEW

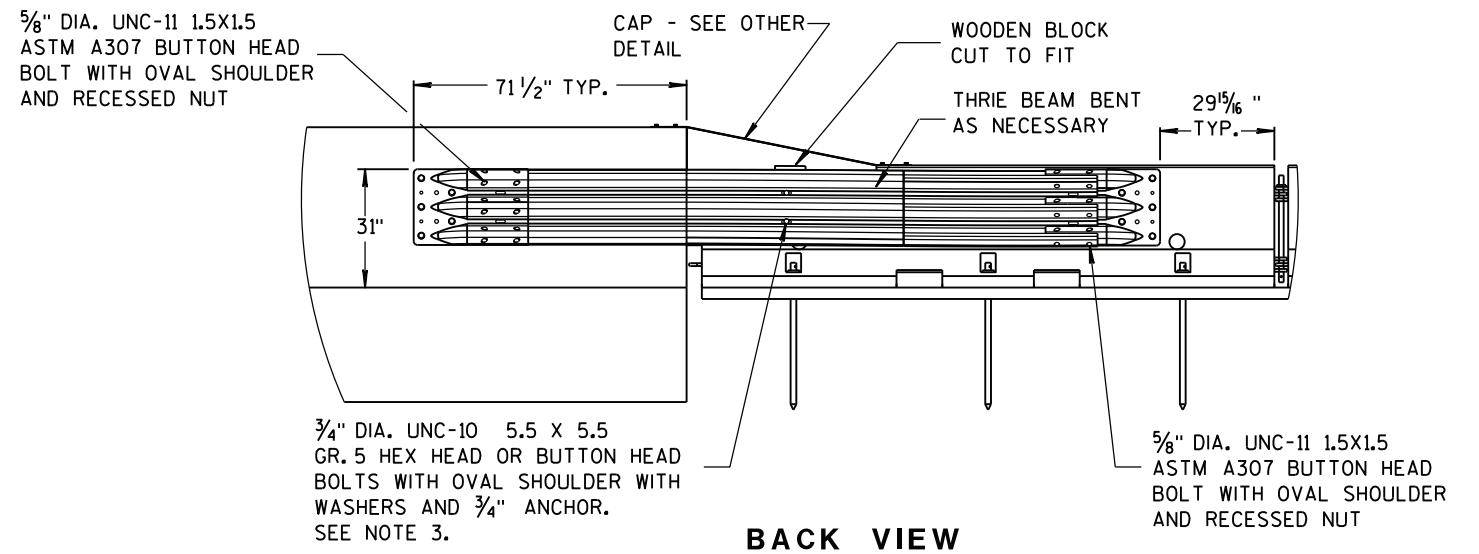


TEMPORARY BARRIER PLACEMENT FOR TRANSITION TO TIED DOWN SYSTEM

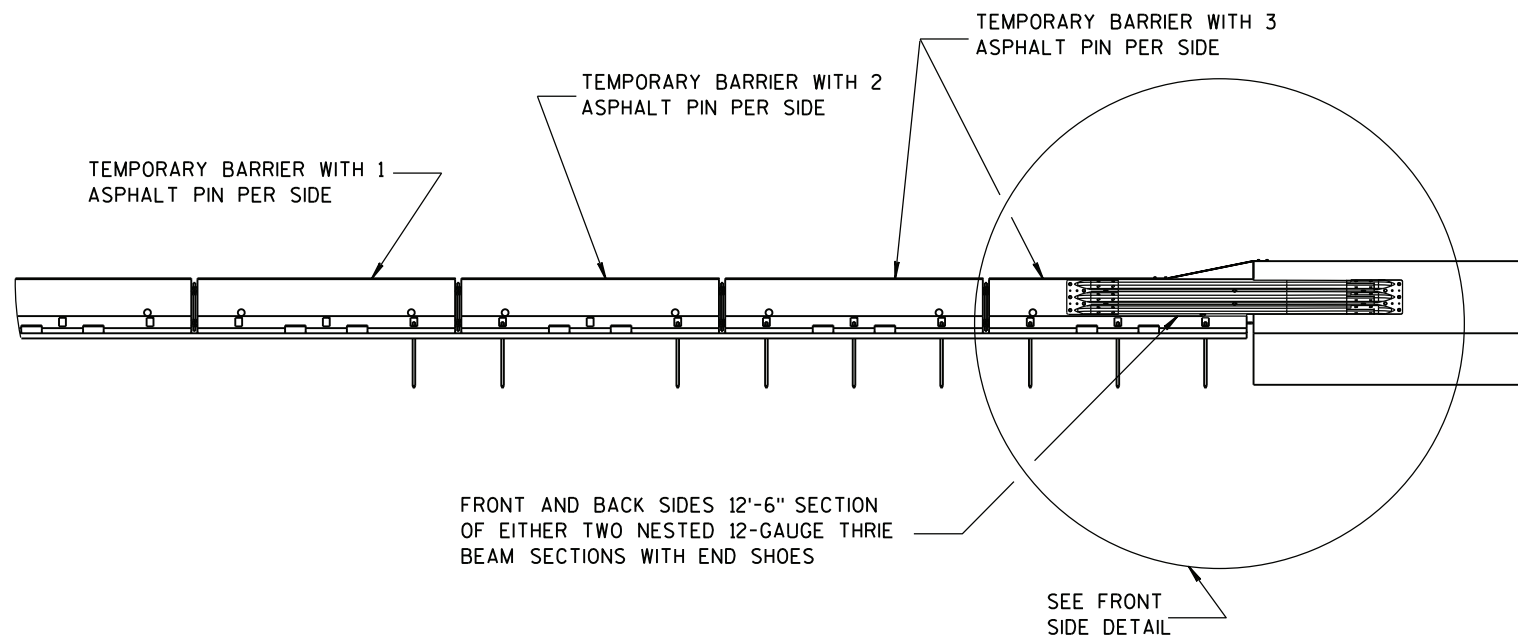


NOTES

- NESTED THRIE BEAM IS REQUIRED ON BOTH SIDES OF THE TEMPORARY BARRIER FOR ALL INSTALLATIONS REGARDLESS OF TRAFFIC.
- CAP END PLATE PLACED FLUSH WITH UPSTREAM END OF PERMANENT BARRIER OR PARAPET.
 - THRIE BEAM PIECES ARE OFFSET 15 1/4" TO PREVENT INTERFERENCE FROM THE ANCHORS ON OPPOSING SIDES.
 - MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 9.48 KIPS AND ULTIMATE SHEAR LOAD 10.48 KIPS.
 - MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 17.9 KIPS AND ULTIMATE SHEAR LOAD 21.96 KIPS.
 - MAY BE USED ON CONCRETE OR ASPHALT PAVEMENTS. ASPHALT OPTION SHOWN. FOR CONCRETE OPTION SEE OTHER DETAILS.
 - MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 12.14 KIPS AND ULTIMATE SHEAR LOAD 17.5 KIPS.

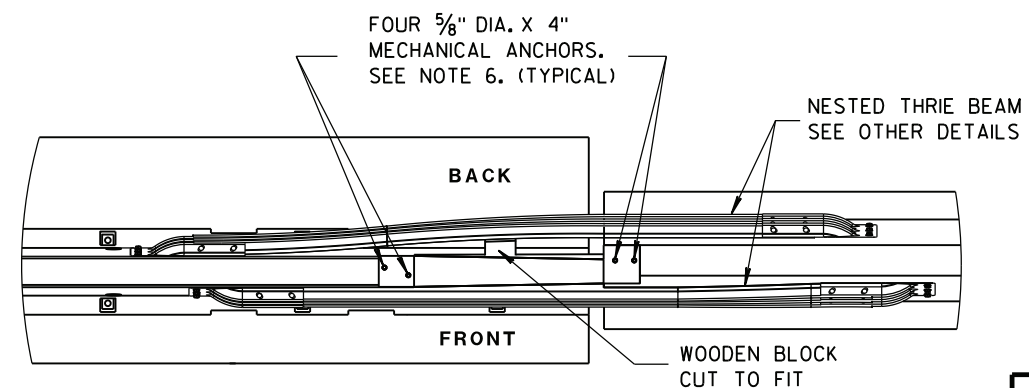


BACK VIEW



FRONT VIEW

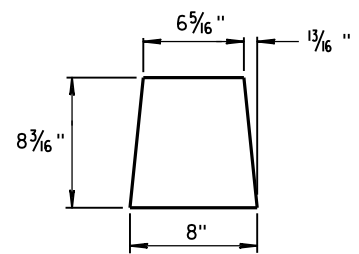
TRANSITION TO TIED DOWN SYSTEM



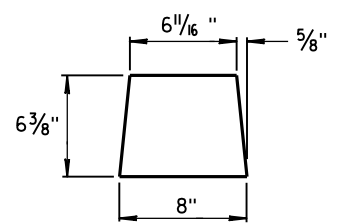
PLAN VIEW

**CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"**

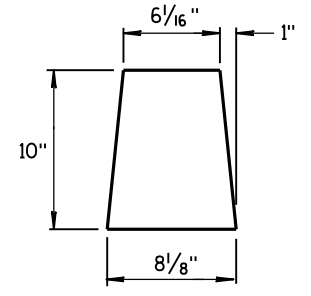
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



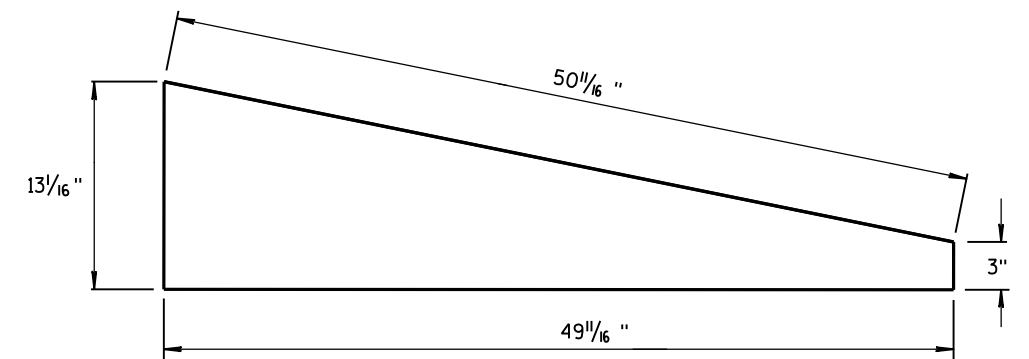
GUSSET 1



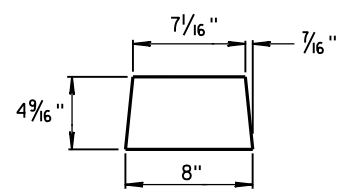
GUSSET 2



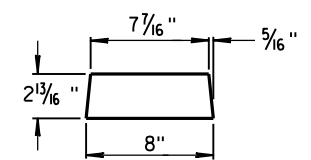
END PLATE



SIDE PLATE

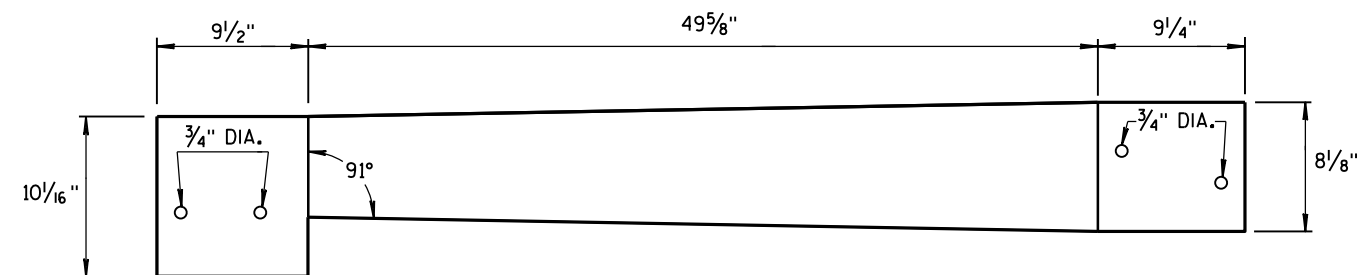


GUSSET 3

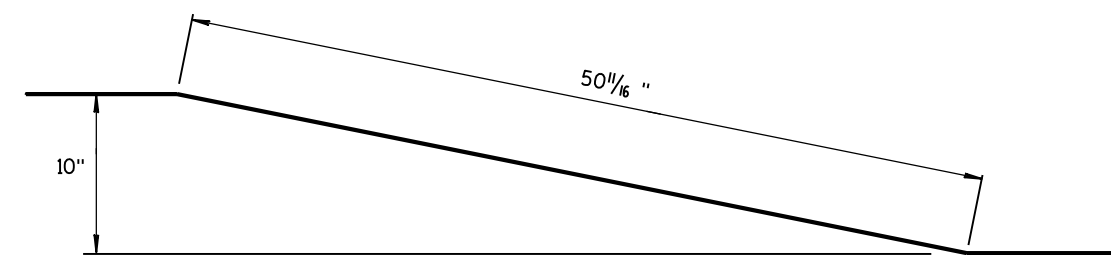


GUSSET 4

GUSSETS

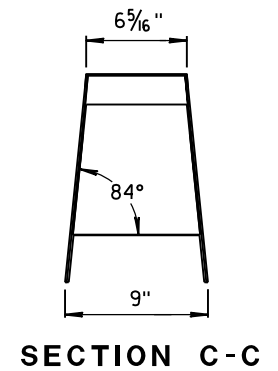
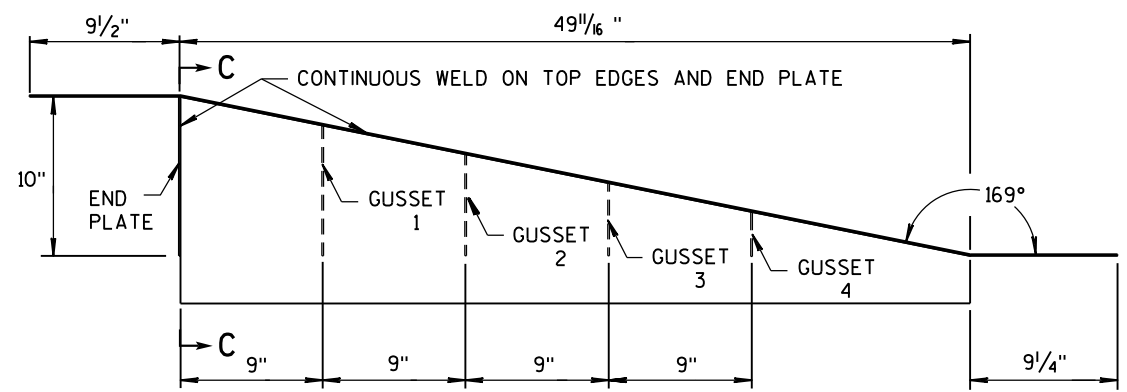
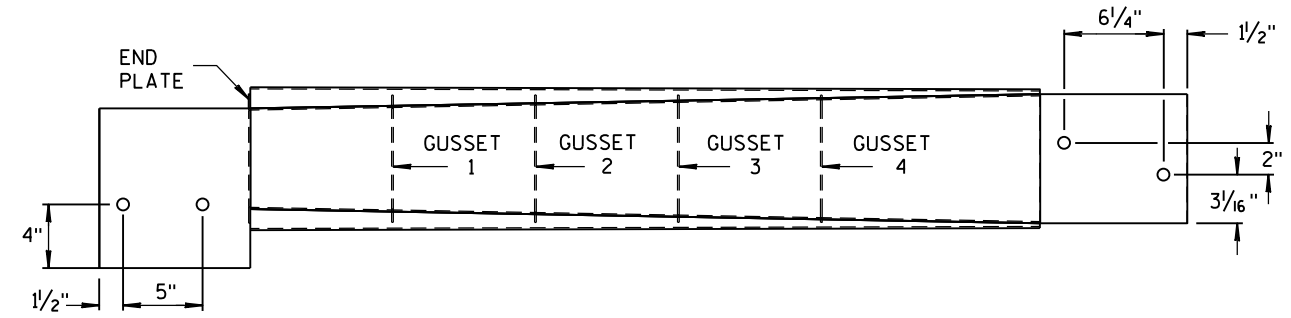


TOP PLATE



SIDE, TOP AND END PLATES FOR CAP FROM TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 GALVANIZED STEEL.



SECTION C-C

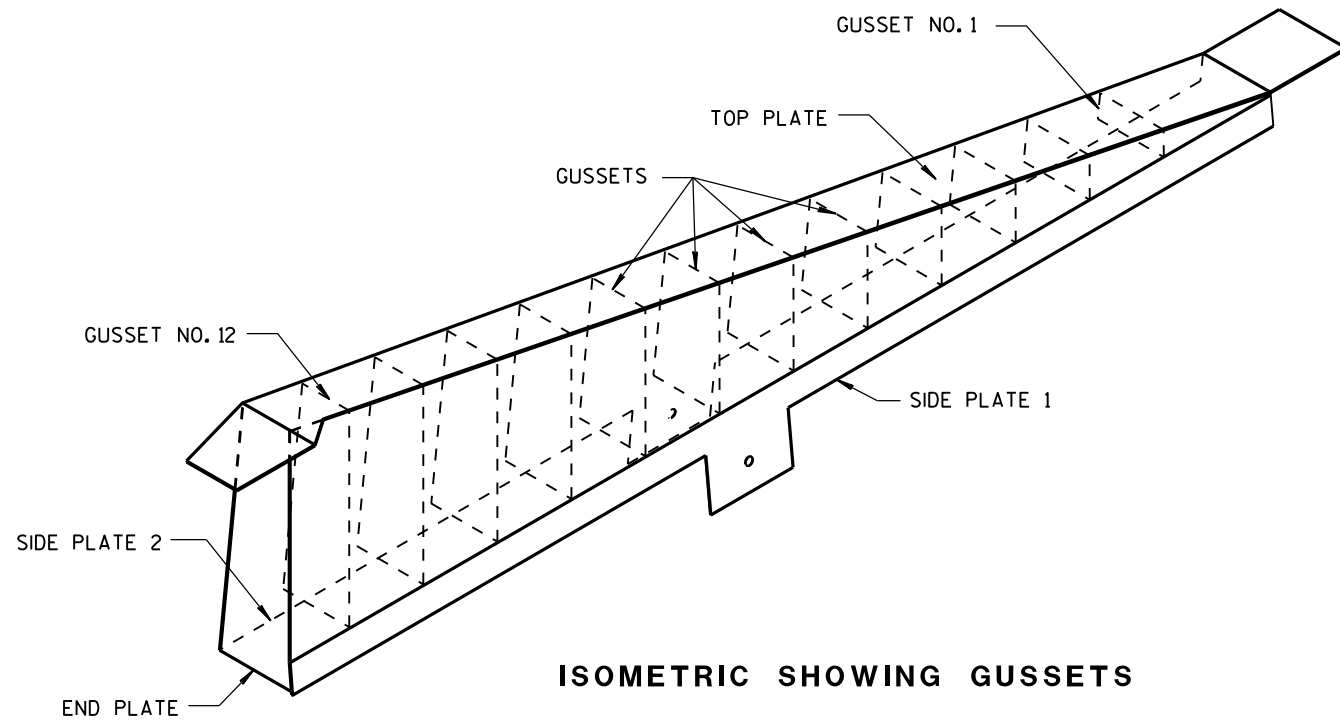
NOTES

1. FOUR GUSSETS AND END PLATE ARE STITCH WELDED ON THREE SIDES.
2. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE, AND GUSSETS.

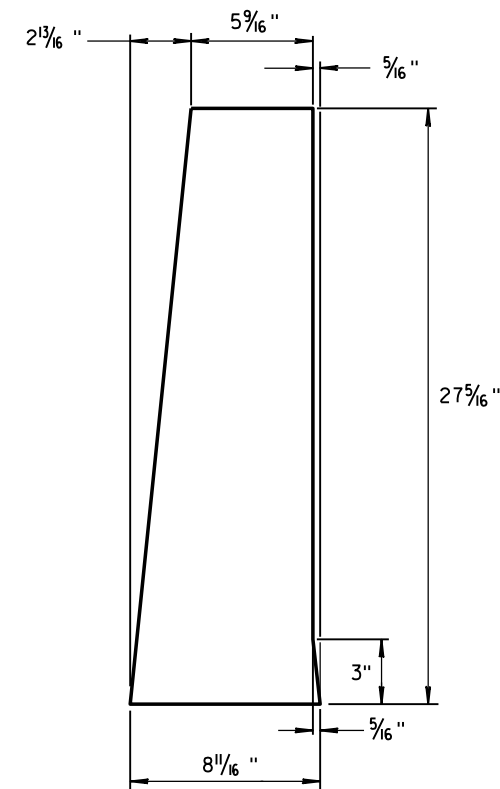
CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

**CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

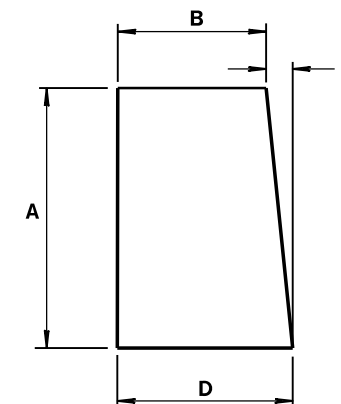


ISOMETRIC SHOWING GUSSETS



END PLATE

1/8" STEEL PLATE



GUSSETS 1 - 12

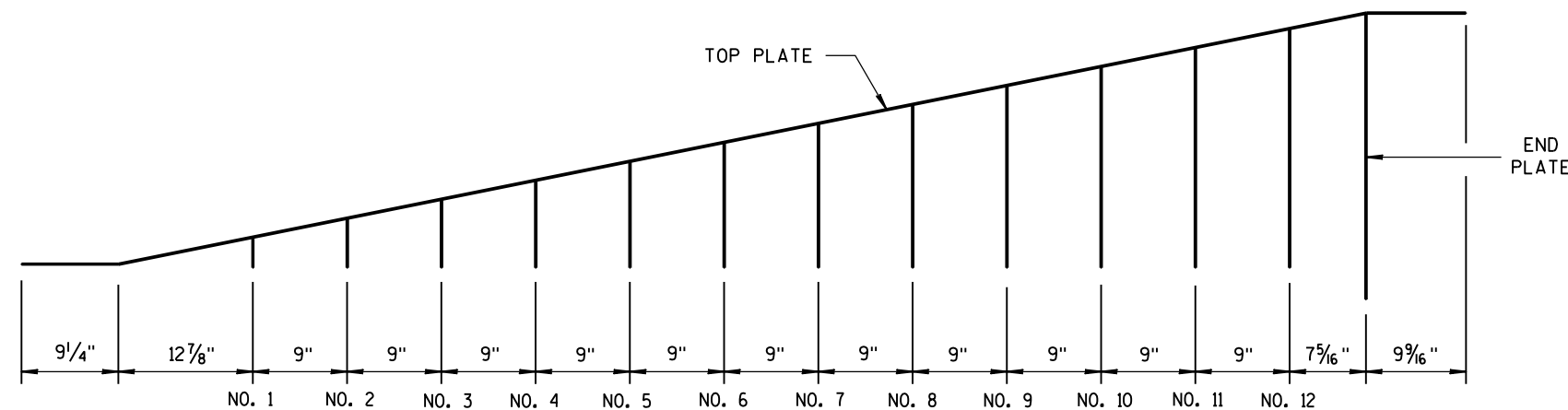
ALL GUSSETS 1/8" STEEL PLATE

GUSSET DIMENSIONS

GUSSET NO.	A	B	C	D
1	2 7/8"	7 3/4"	1/4"	8
2	4 1/16"	7 7/16"	1/2"	8
3	6 1/2"	7 3/8"	11/16"	8 1/16"
4	8 5/16"	7 3/16"	7/8"	8 1/16"
5	10 1/8"	7"	1 1/16"	8 1/16"
6	11 5/16"	6 13/16"	1 1/4"	8 1/16"
7	13 3/4"	6 5/8"	1 7/16"	8 1/16"
8	15 3/16"	6 7/16"	1 9/16"	8 1/16"
9	17 3/8"	6 1/4"	1 13/16"	8 1/16"
10	19 3/16"	6 1/16"	1 15/16"	8 1/16"
11	21"	5 7/8"	2 3/16"	8 1/16"
12	22 13/16"	5 11/16"	2 5/16"	8 1/16"

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 STEEL AND GALVANIZED.

GUSSETS AND END PLATE ARE STITCH WELDED ON 3 SIDES. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE AND GUSSETS.

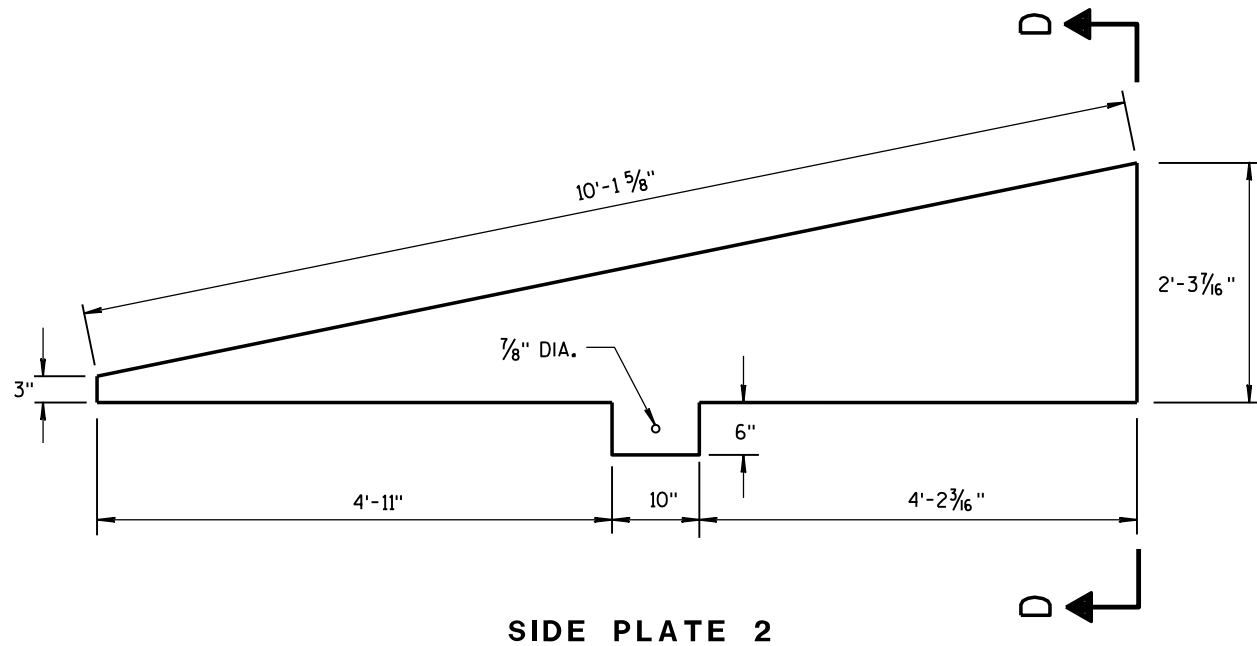


GUSSET LOCATION

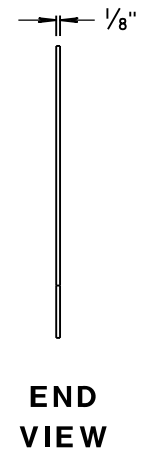
CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

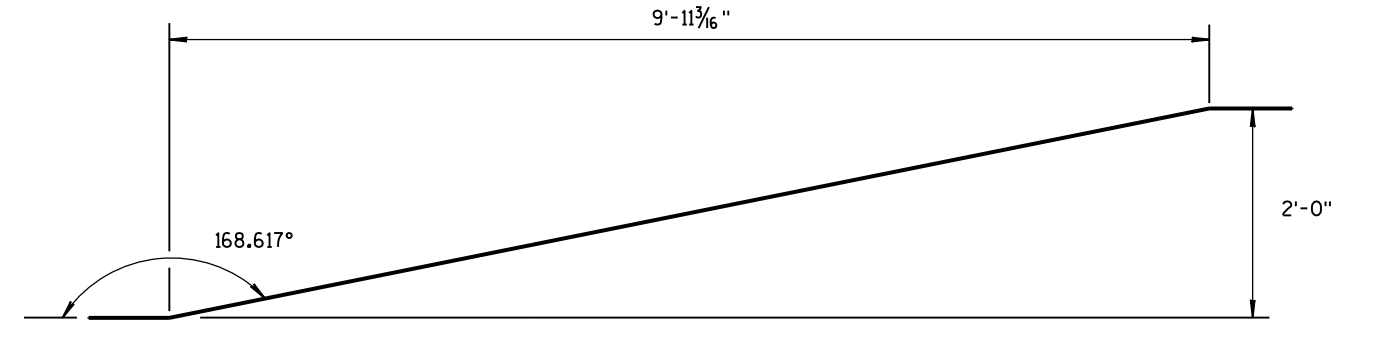
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



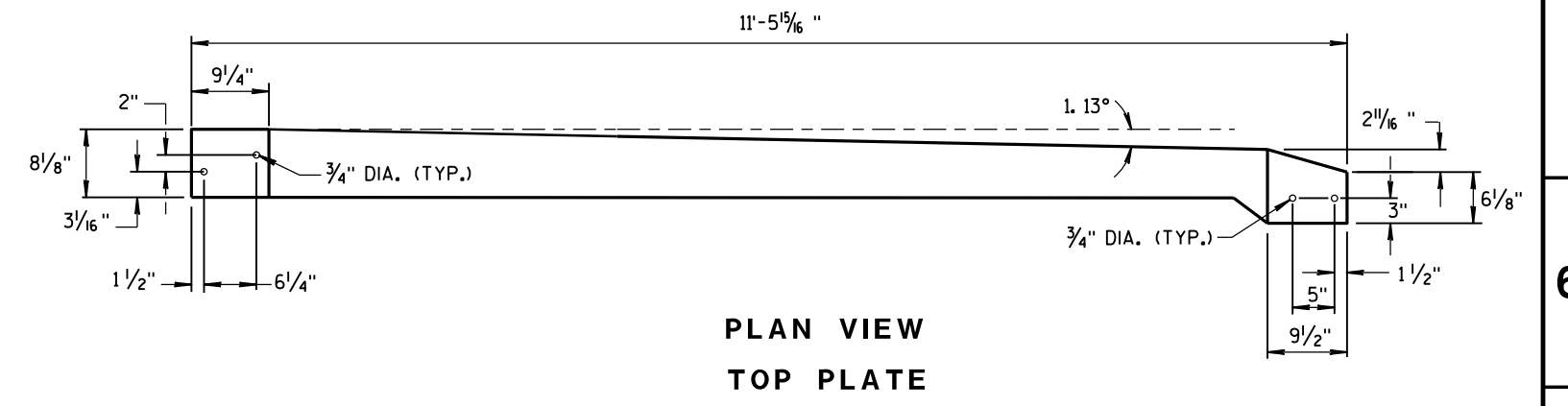
SIDE PLATE 2



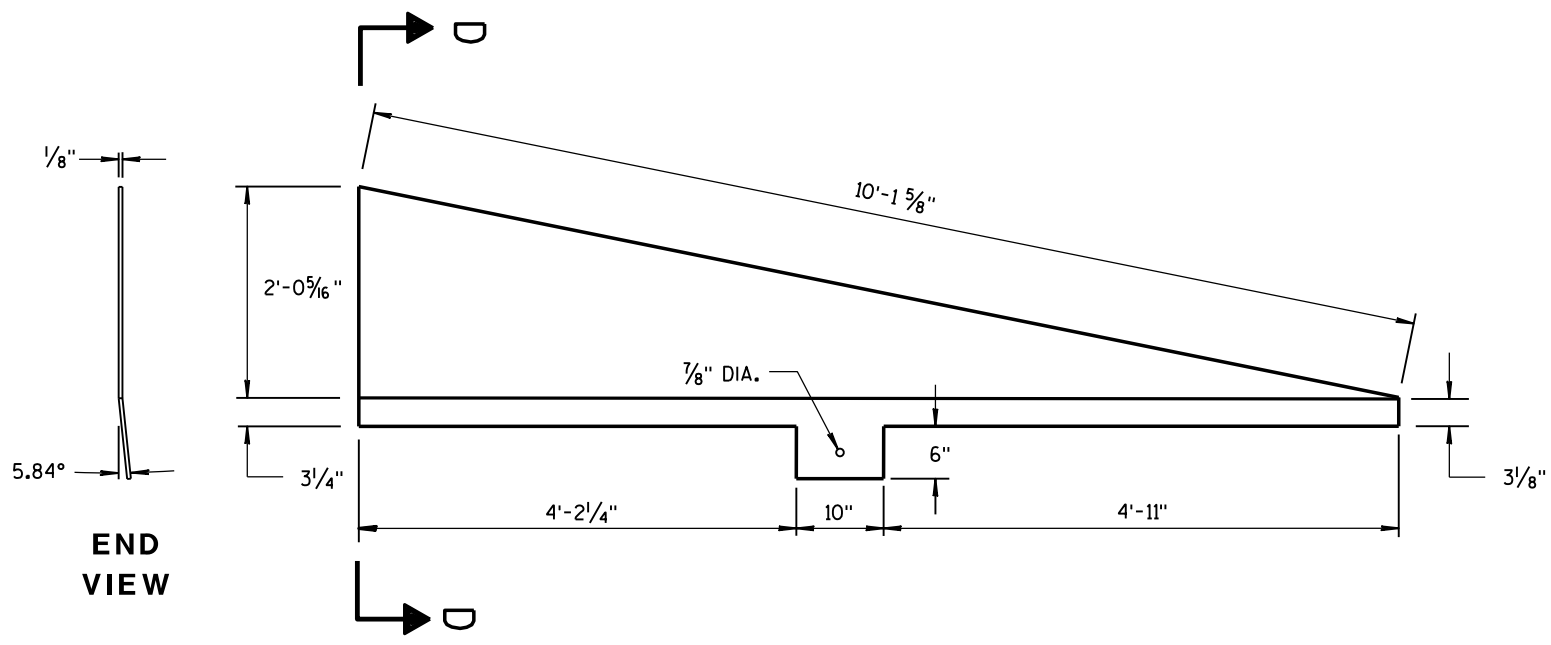
END VIEW



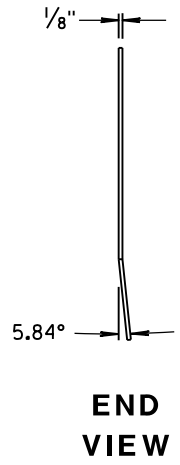
**SIDE VIEW
TOP PLATE**



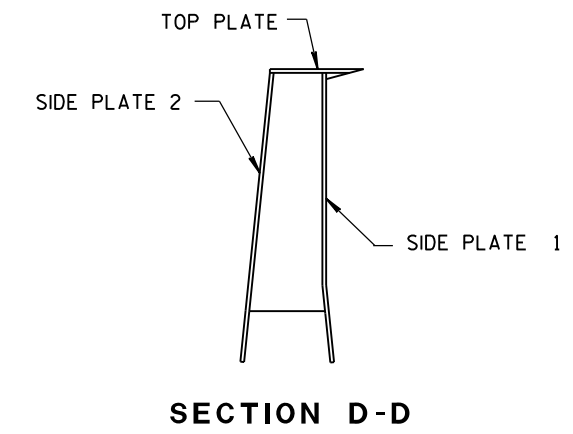
**PLAN VIEW
TOP PLATE**



SIDE PLATE 1



END VIEW



SECTION D-D

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

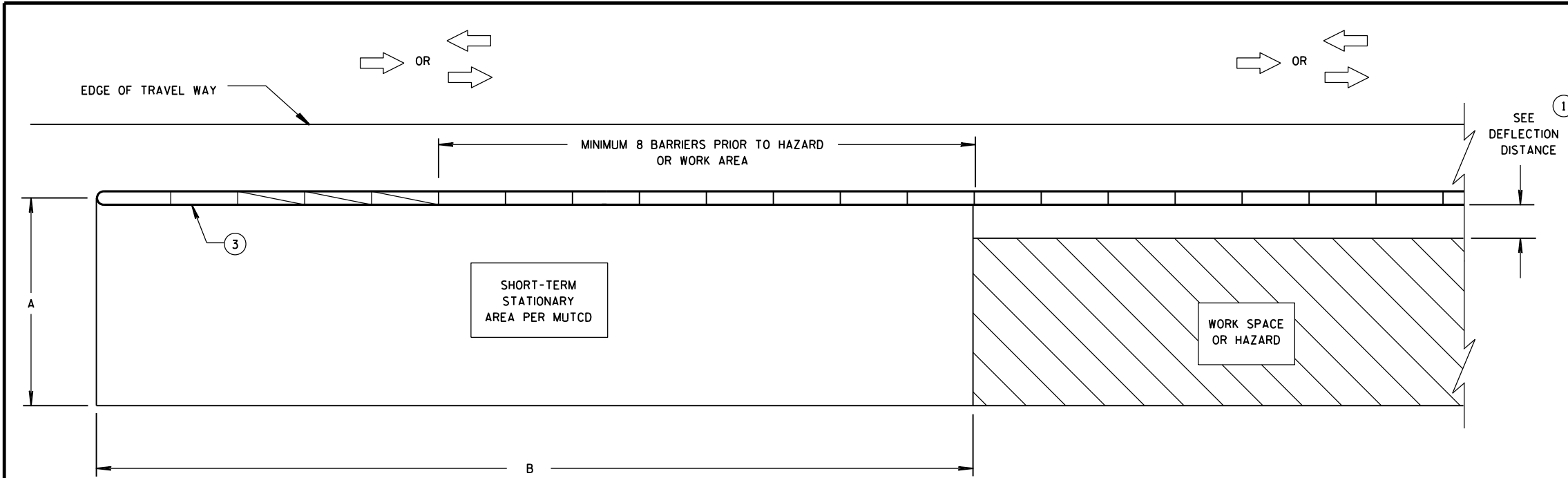
CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2017 DATE	/s/ Rodney Taylor ROADWAY STANDARD DEVELOPMENT UNIT SUPERVISOR
FHWA	

6

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S.D.D. 14 B 7-15i

S.D.D. 14 B 7-15i



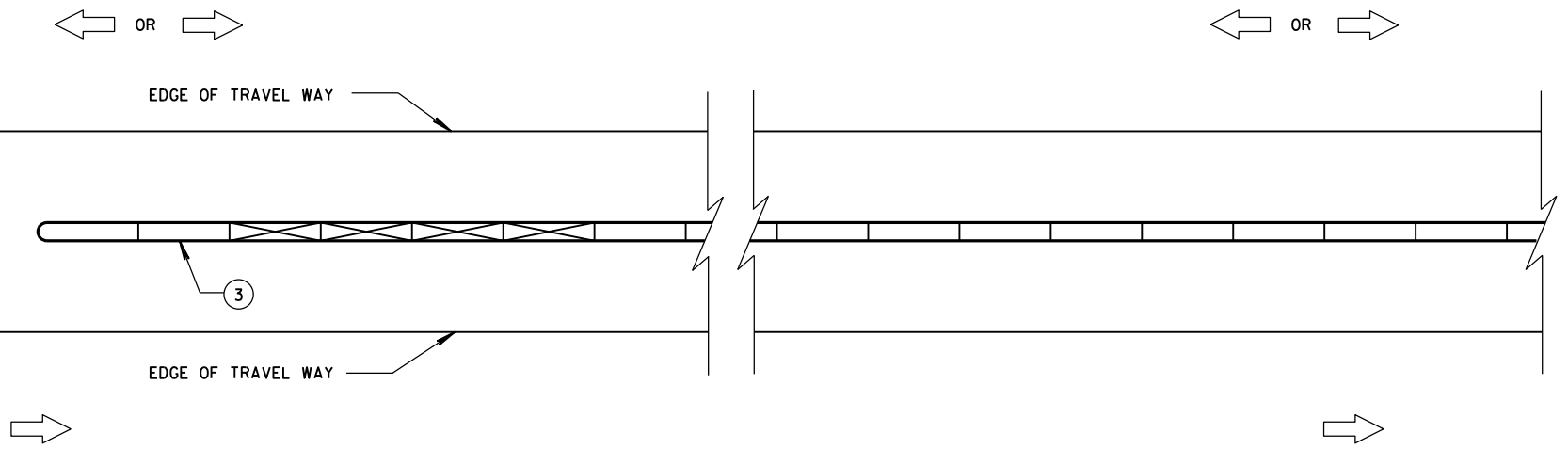
DIMENSION A TABLE ②

FACILITY	POSTED SPEED MPH	DIMENSION A	
		MIN. FT	MAX. FT
FREEWAY/EXPRESSWAY	ALL	15	20
NON-FREEWAY/EXPRESSWAY	GREATER THAN OR EQUAL TO 45	10	15
NON-FREEWAY/EXPRESSWAY	LESS THAN 45	8	10
AADT LESS THAN 1,500	ALL	8	10

**CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER
INSTALLATION FOR TRAFFIC ON ONE SIDE OF BARRIER**

DIMENSION B TABLE ②

POSTED SPEEDS MPH	DIMENSION B FT
20	115
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645



**CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER
INSTALLATION FOR TRAFFIC ON BOTH SIDES OF BARRIER**

LEGEND

- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

GENERAL NOTES

SEE STANDARD DETAIL DRAWING 14B7 FOR MORE INFORMATION.

DETAILS PROVIDE A GENERAL LAYOUT OF TEMPORARY CONCRETE BARRIER, CRASH CUSHIONS, SAND BARREL ARRAYS AND TIE DOWN TRANSITIONS. DETAILS PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

ADDITIONAL TEMPORARY BARRIER MAY BE REQUIRED TO PROTECT TRAVELING PUBLIC FROM HAZARDS, CONTRACTOR'S OPERATIONS OR TO CONTROL TRAFFIC.

TEMPORARY BARRIER MAY BE REQUIRED TO BE ANCHORED TO PAVEMENT OR BRIDGE DECK.

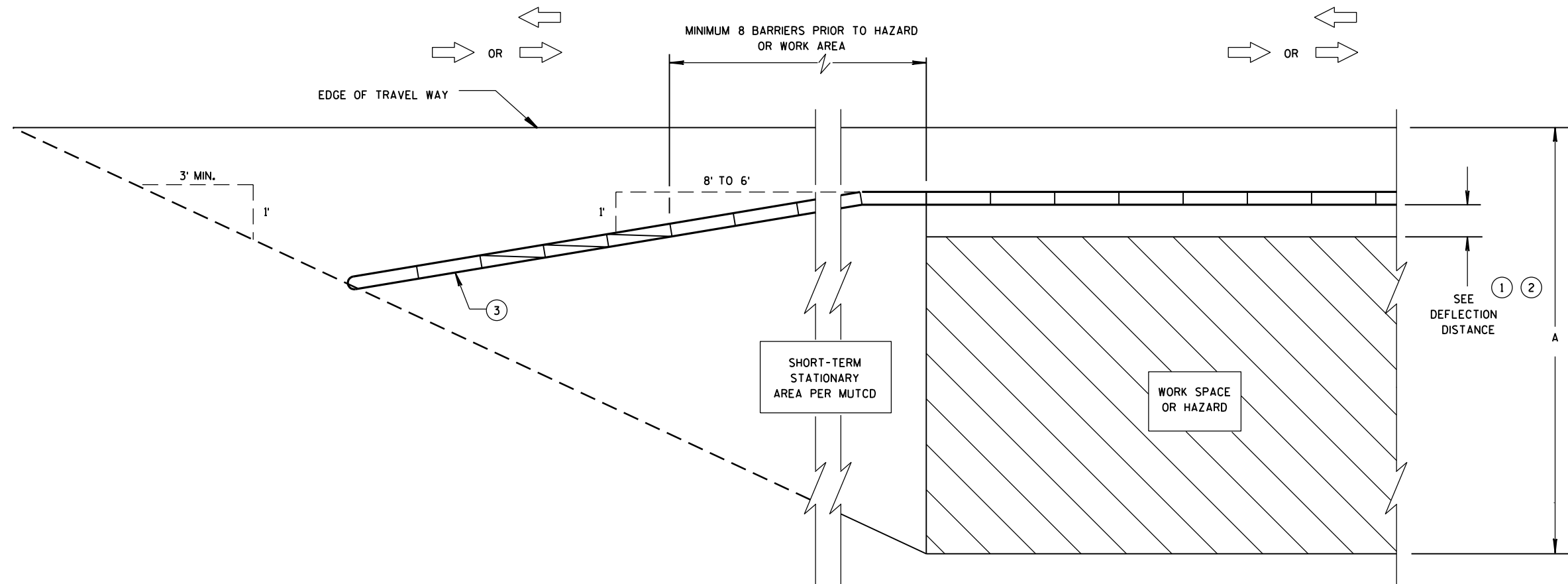
- ① FOR DEFLECTION INFORMATION SEE STANDARD DETAIL DRAWING 14B7.
- ② VALUES PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.
- ③ ANCHOR TEMPORARY BARRIER ACCORDING TO CRASH CUSHION OR SAND BARREL MANUFACTURER'S RECOMMENDATIONS. IF MANUFACTURER'S RECOMMENDATIONS ARE NOT PROVIDED, ANCHOR 3 PINS ON TRAFFIC SIDE.

**CRASH CUSHION/SAND BARREL
ARRAY AND OTHER TEMPORARY
BARRIER LAYOUT DETAILS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

S.D.D. 14 B 8-2a

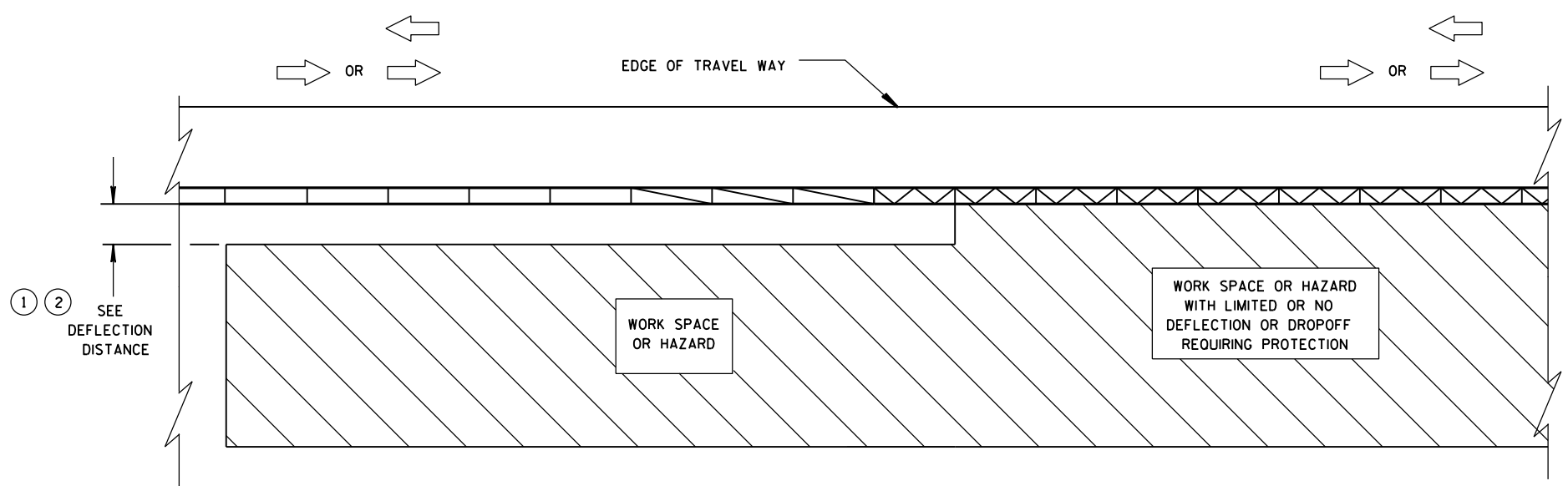
S.D.D. 14 B 8-2a



CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE - FLARED INSTALLATION

6

6



TRANSITION FROM FREE STANDING TEMPORARY BARRIER TO ANCHORED BARRIER

LEGEND

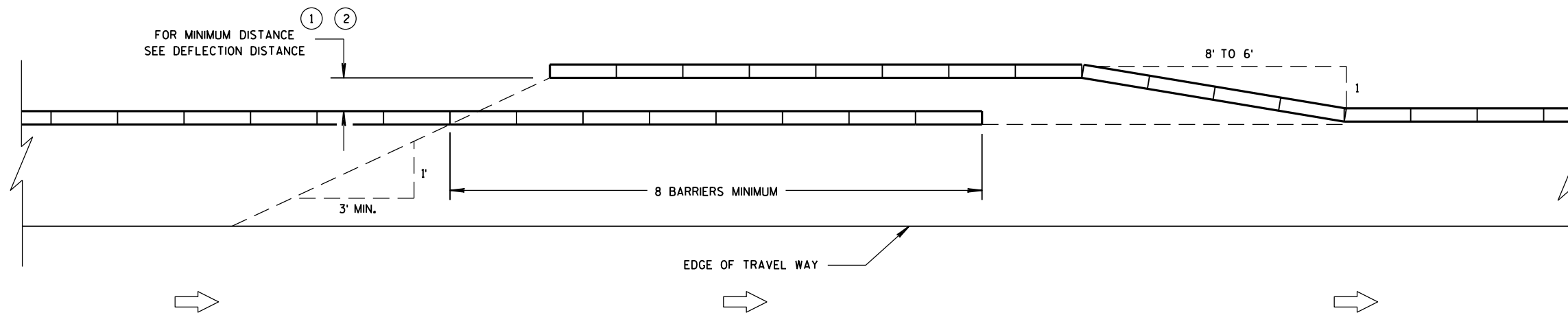
- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

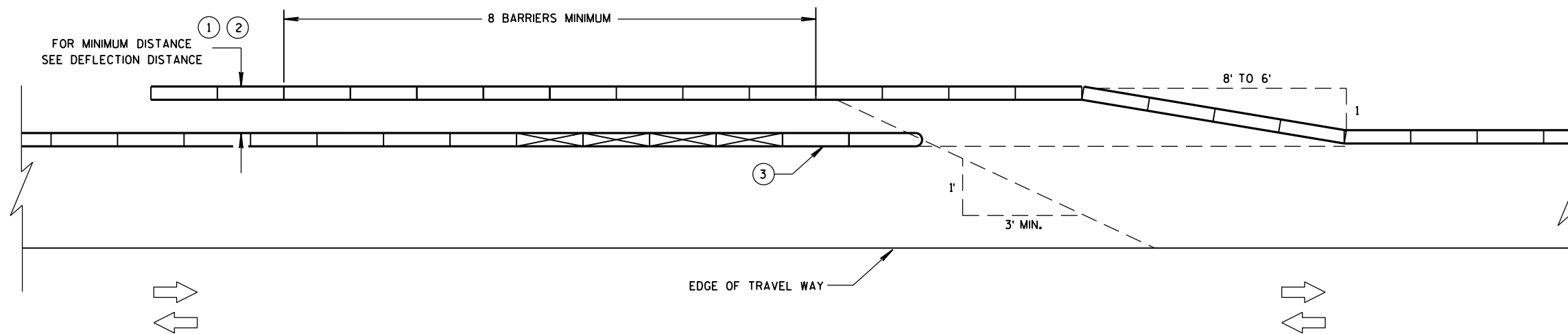
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

S.D.D. 14 B 8-2b

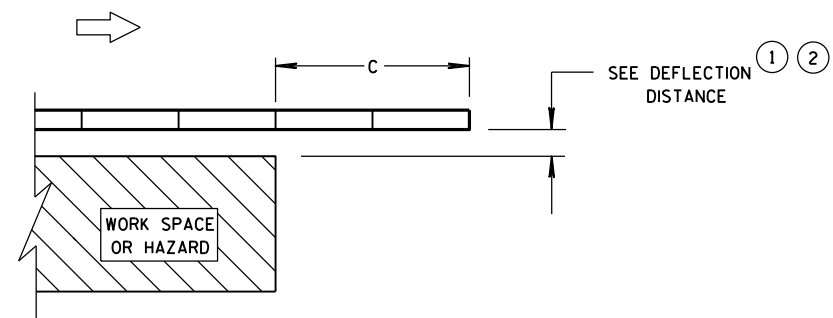
S.D.D. 14 B 8-2b



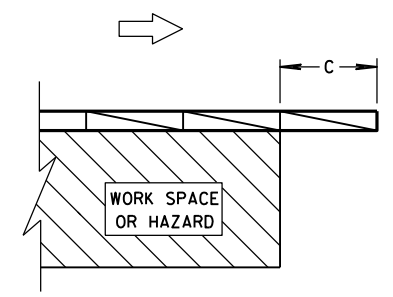
TEMPORARY BARRIER OVERLAP - ONE-WAY TRAFFIC



TEMPORARY BARRIER OVERLAP - TWO-WAY TRAFFIC



**ENDING TEMPORARY BARRIER
DOWNSTREAM - UNANCHORED**



**ENDING TEMPORARY BARRIER
DOWNSTREAM - ANCHORED**

LEGEND

- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

**CRASH CUSHION/SAND BARREL
ARRAY AND OTHER TEMPORARY
BARRIER LAYOUT DETAILS**

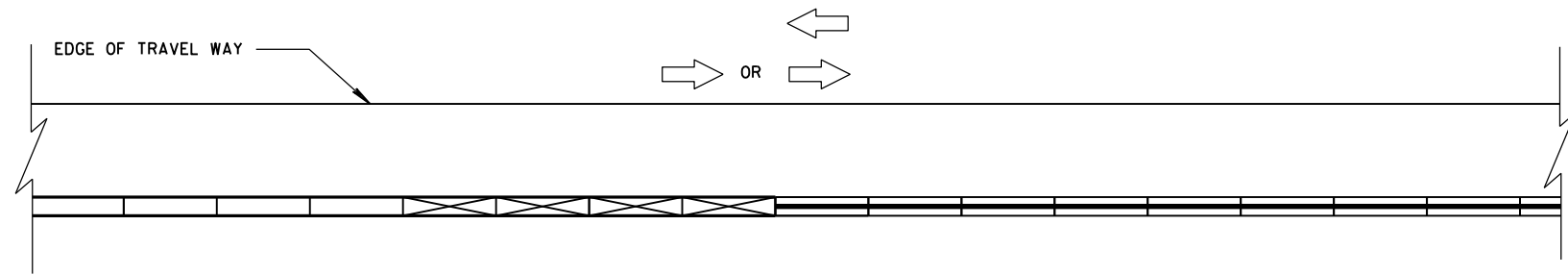
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

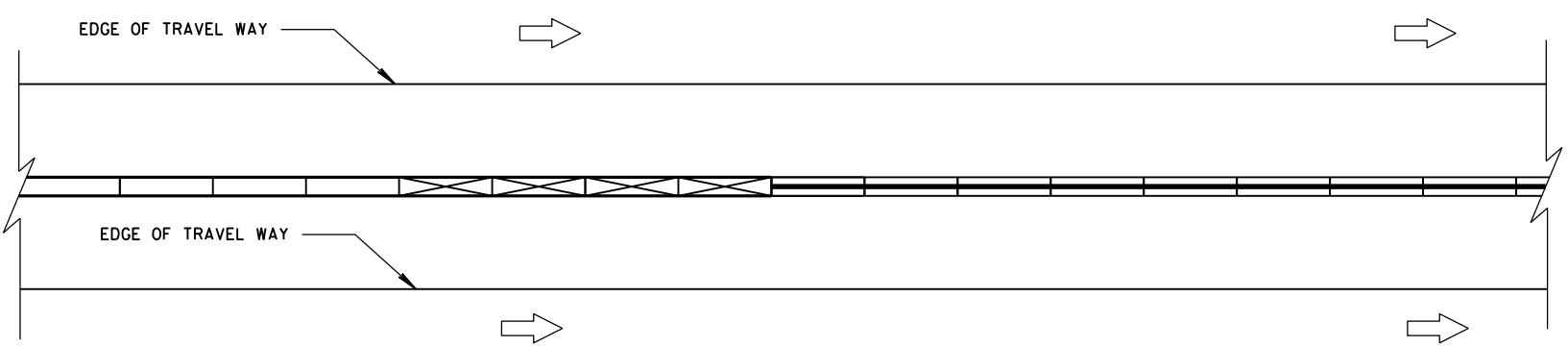
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S.D.D. 14 B 8-2c

S.D.D. 14 B 8-2c



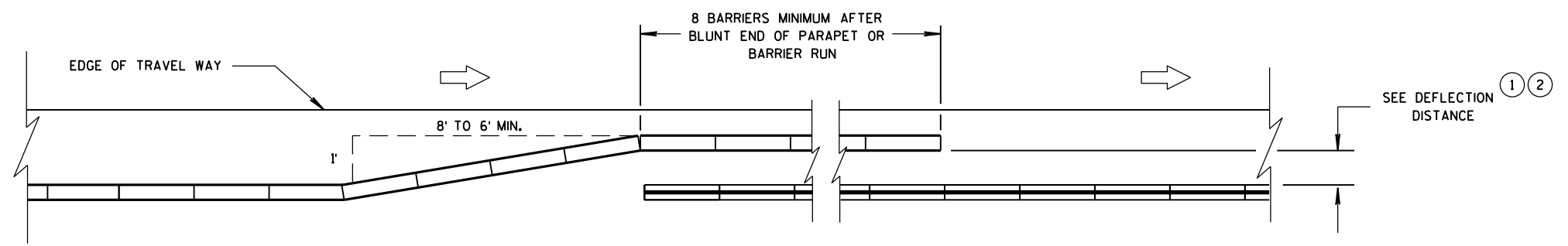
CONNECTING TEMPORARY BARRIER TO PERMANENT CONCRETE BARRIER-TRAFFIC ON ONE SIDE



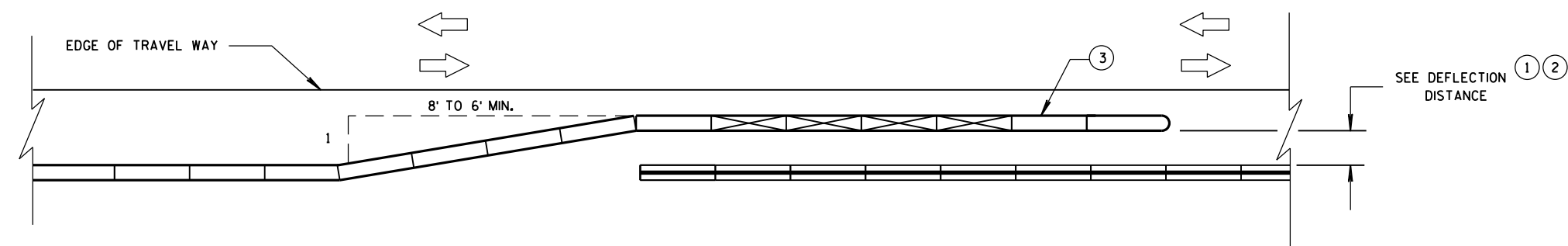
CONNECTING TEMPORARY BARRIER TO PERMANENT CONCRETE BARRIER-TRAFFIC ON BOTH SIDES

LEGEND

- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER - ONE WAY TRAFFIC



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER - TWO WAY TRAFFIC

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

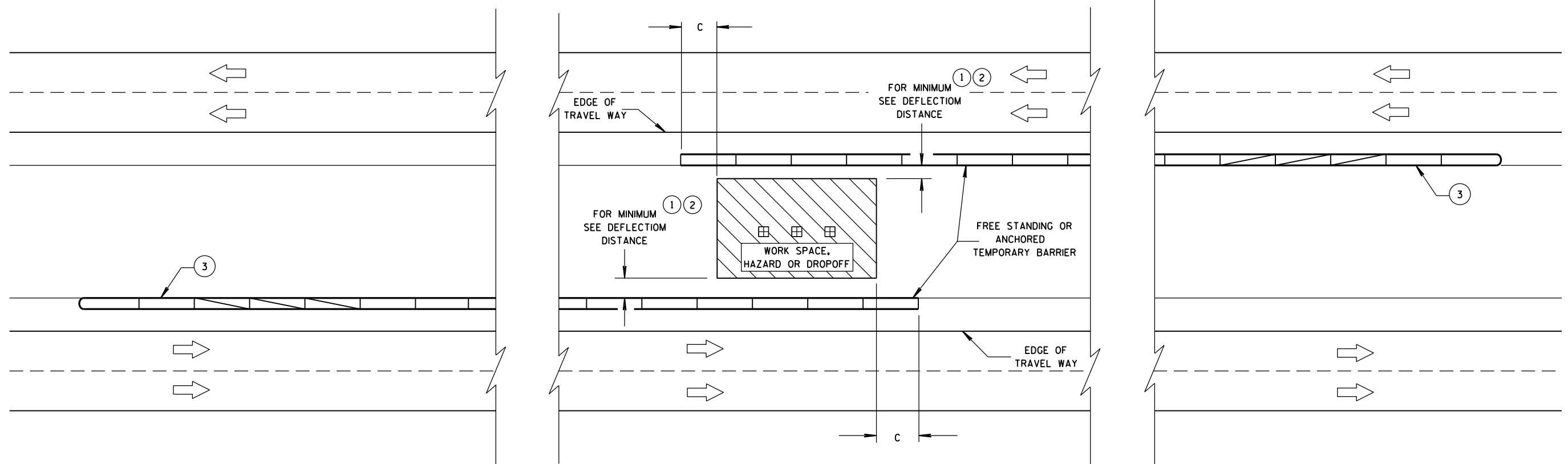
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

LEGEND

- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

DIMENSION C TABLE ²

AVAILABLE DEFLECTION DISTANCE	MINIMUM LENGTH OF BARRIER BEYOND HAZARD FT
GREATER THAN 8'	12.5
LESS THAN OR EQUAL TO 8' BUT GREATER THAN 4'	50
LESS THAN OR EQUAL TO 4'	100



6

6

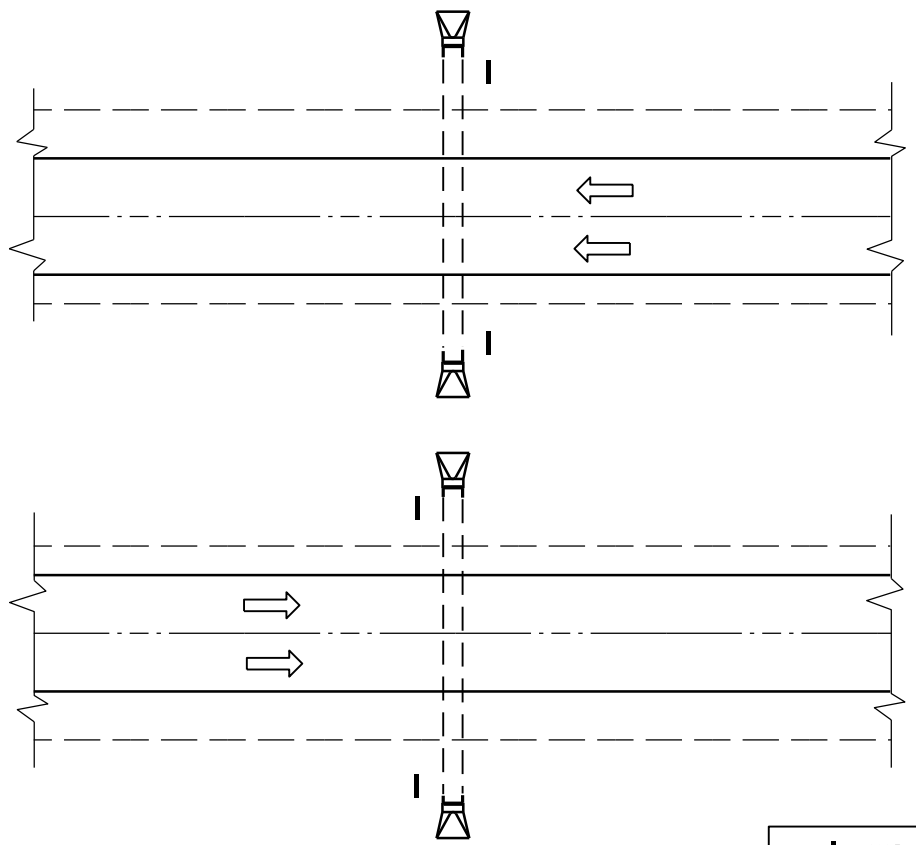
S.D.D. 14 B 8-2e

S.D.D. 14 B 8-2e

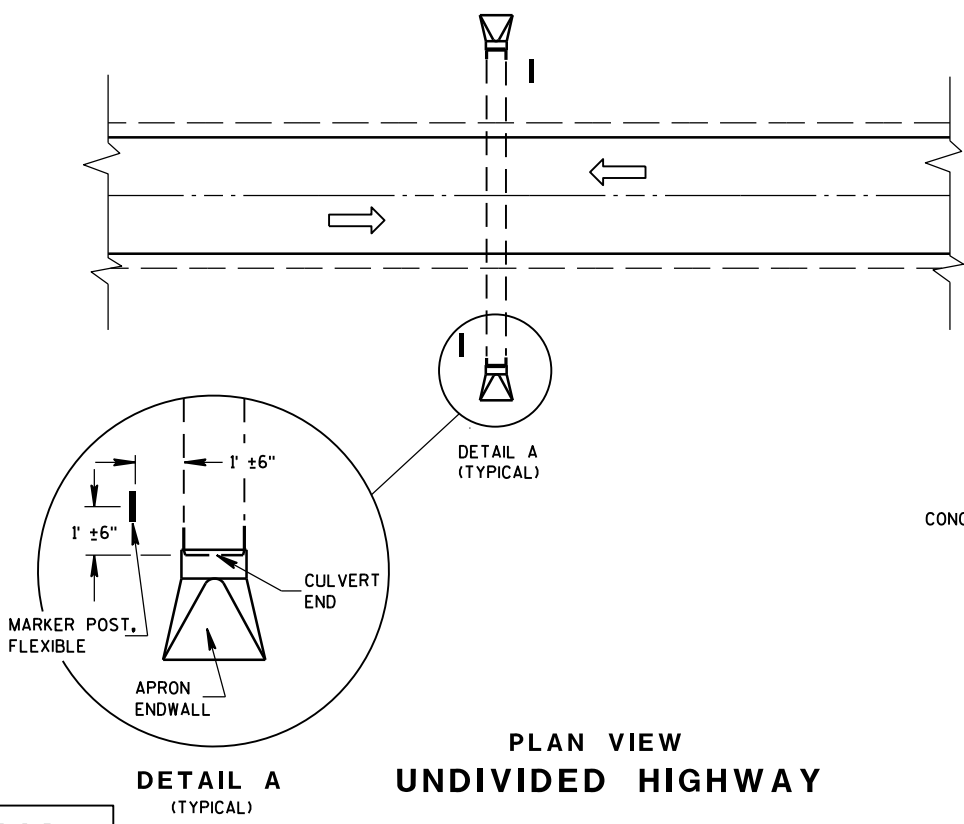
CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

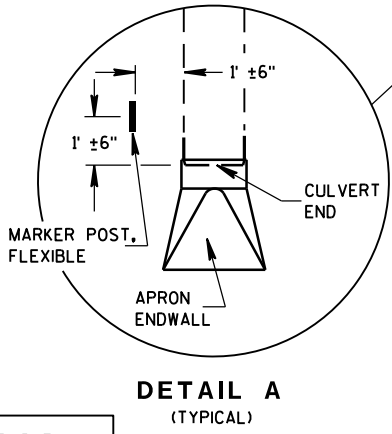
APPROVED
June, 2015 DATE /S/ Jerry H. Zogg
FHWA ROADWAY STANDARDS DEVELOPMENT ENGINEER



PLAN VIEW
DIVIDED HIGHWAY



PLAN VIEW
UNDIVIDED HIGHWAY

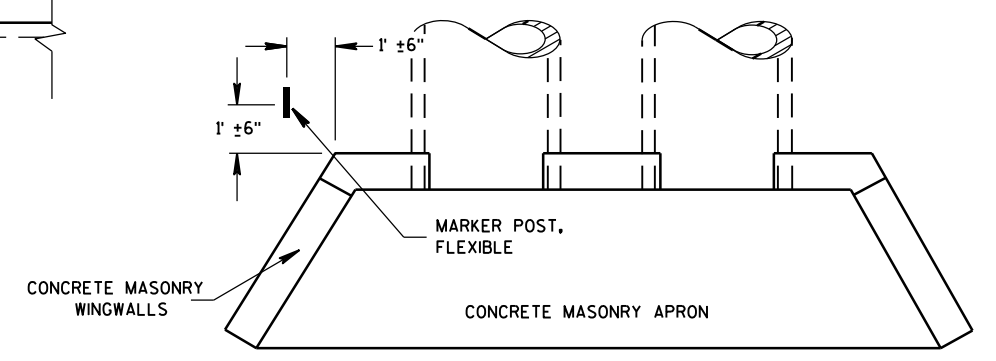


MARKER POST, FLEXIBLE
DIRECTION OF TRAFFIC FLOW

FLEXIBLE MARKER POST LOCATION

GENERAL NOTES

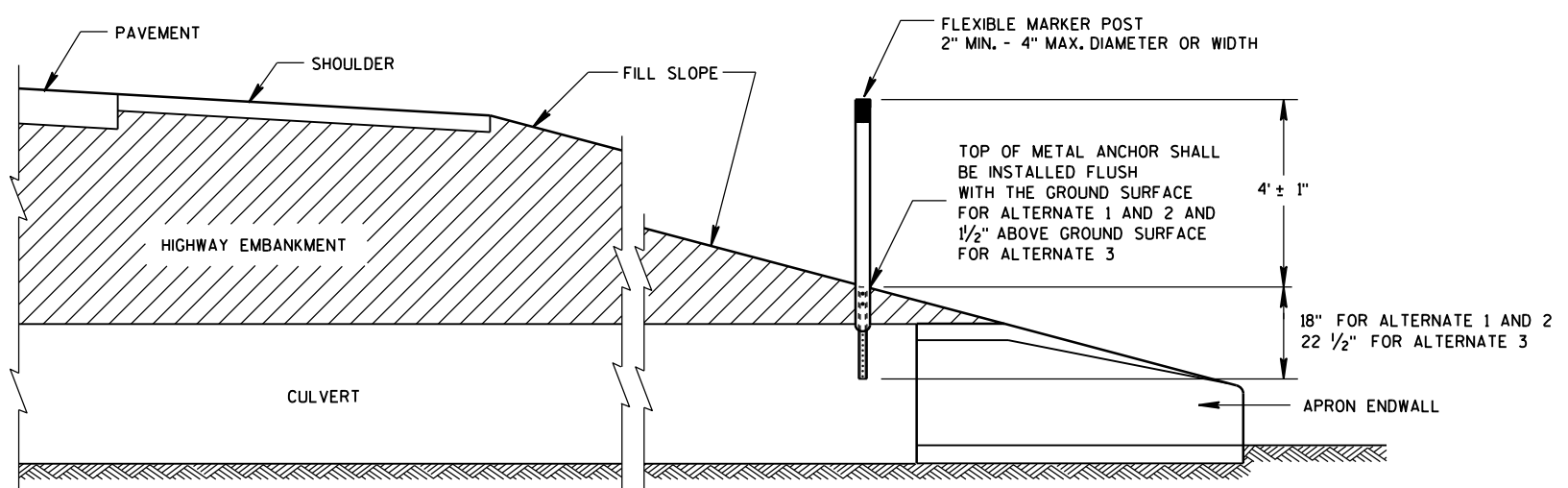
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW
CONCRETE MASONRY ENDWALLS FOR
CULVERT PIPE AND PIPE ARCH

6

6

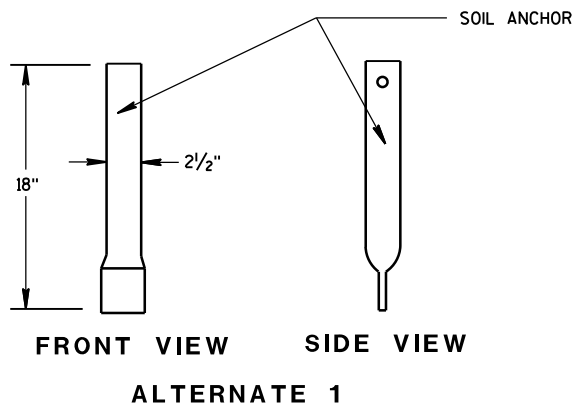
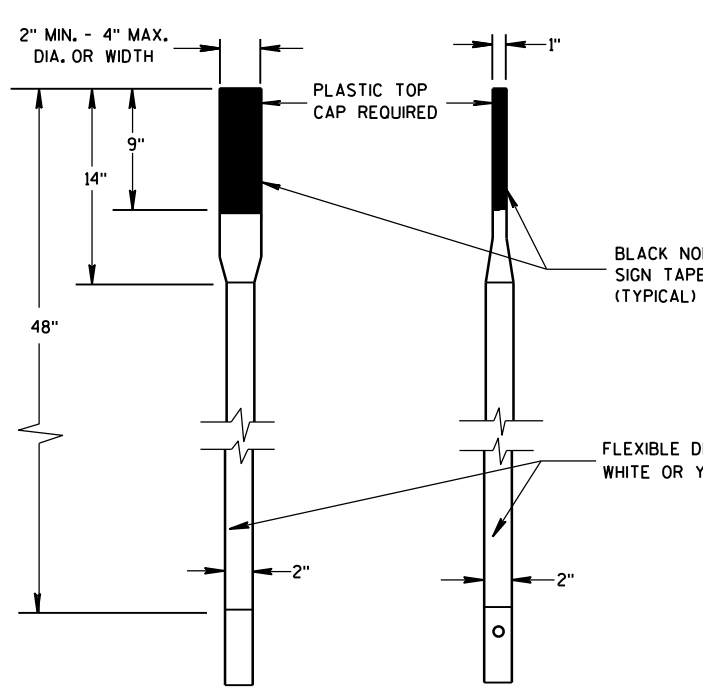


CROSS SECTION
FLEXIBLE MARKER POST

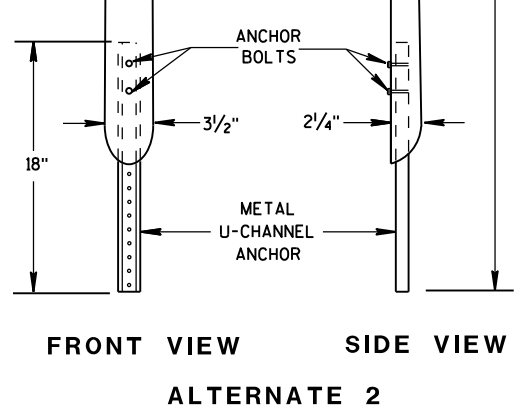
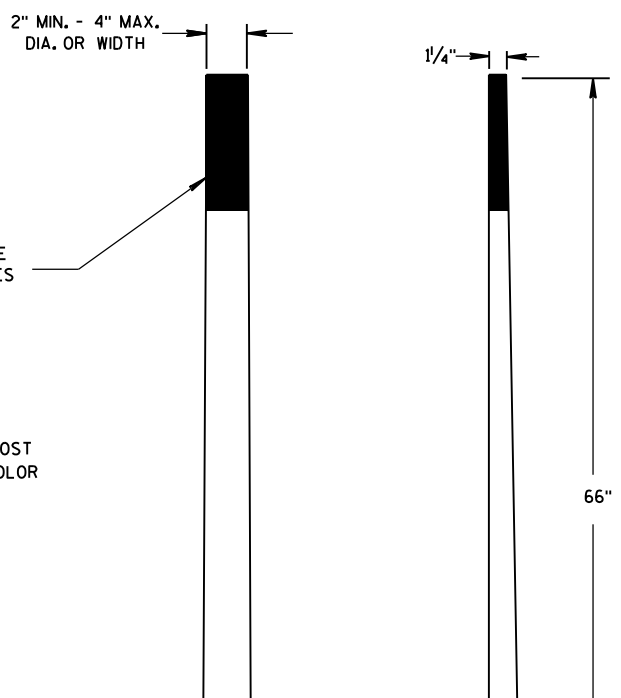
FLEXIBLE MARKER POST
FOR CULVERT END
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

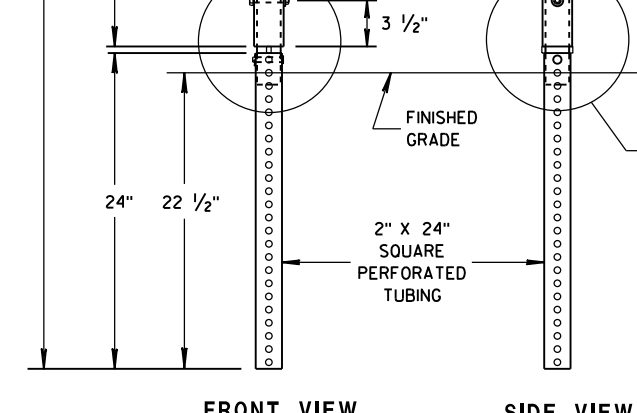
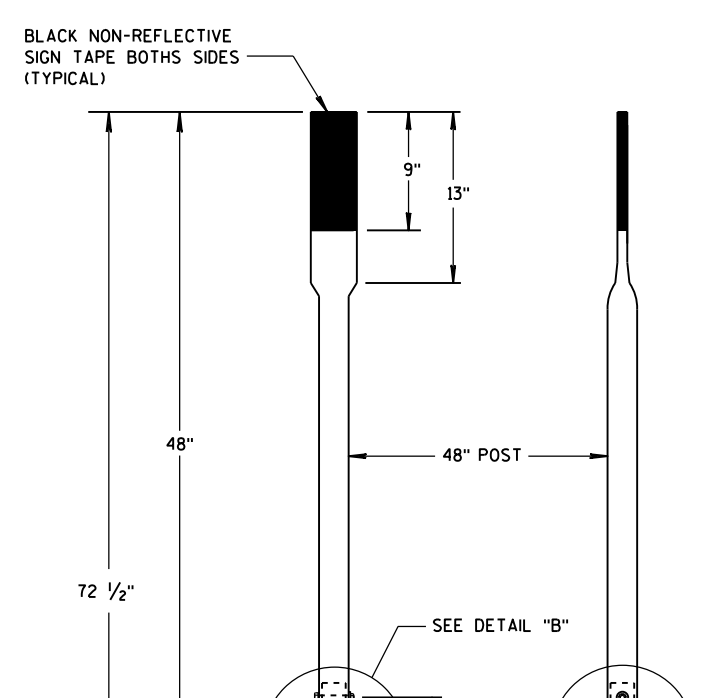
S.D.D. 15 A 3-2a



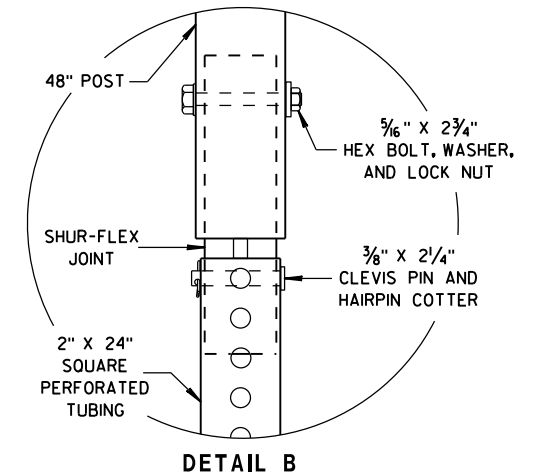
FRONT VIEW SIDE VIEW
ALTERNATE 1



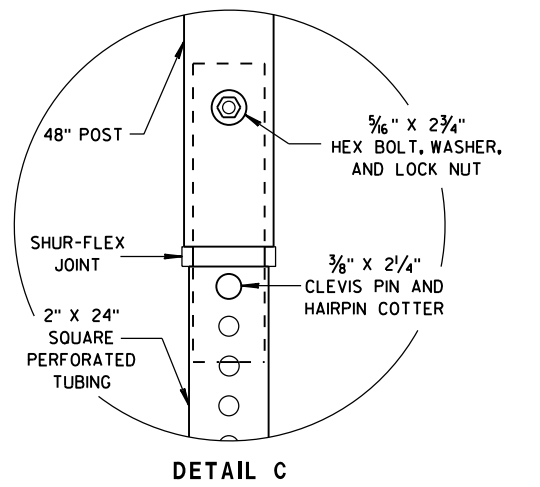
FRONT VIEW SIDE VIEW
ALTERNATE 2



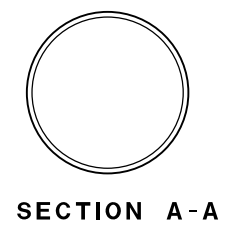
FRONT VIEW SIDE VIEW
ALTERNATE 3



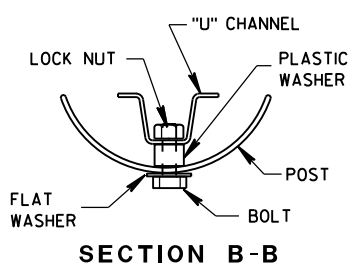
DETAIL B



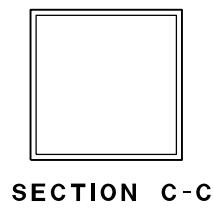
DETAIL C



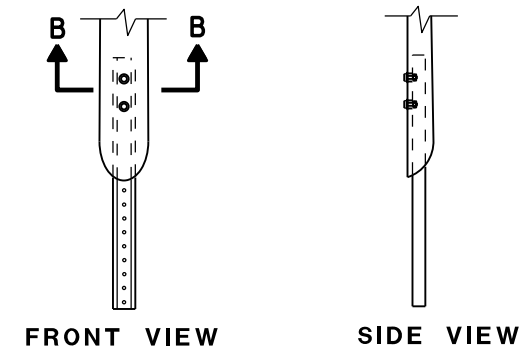
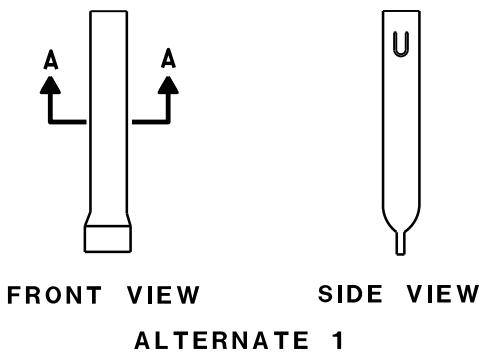
SECTION A-A



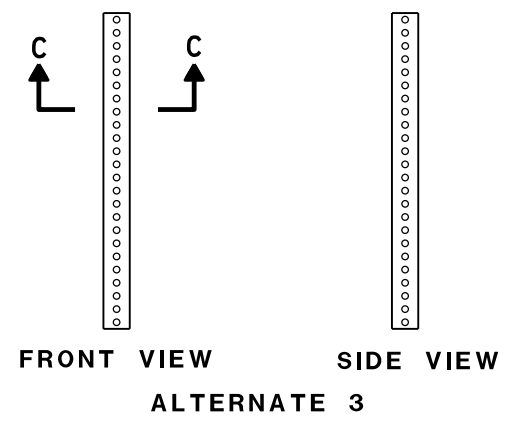
SECTION B-B



SECTION C-C

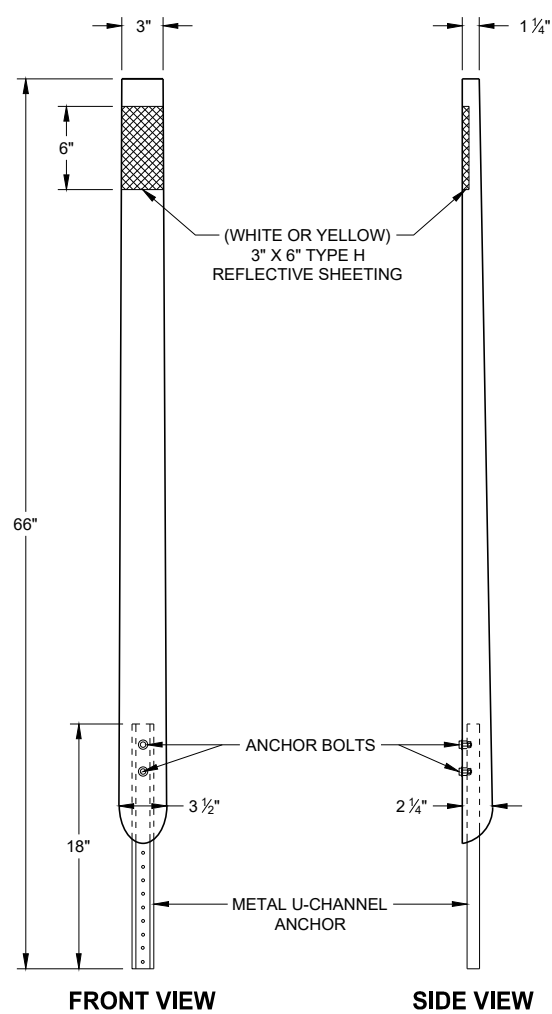
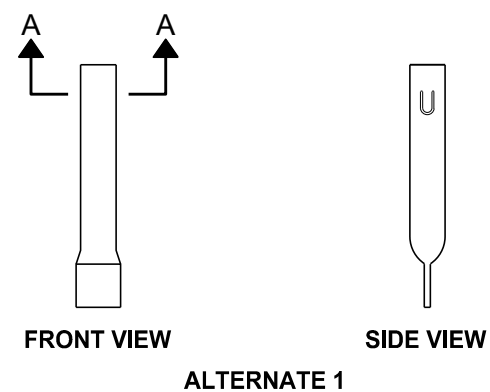
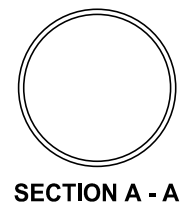
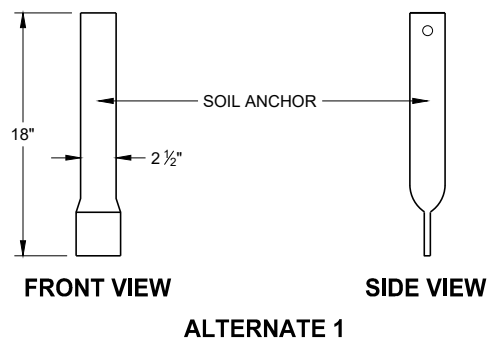
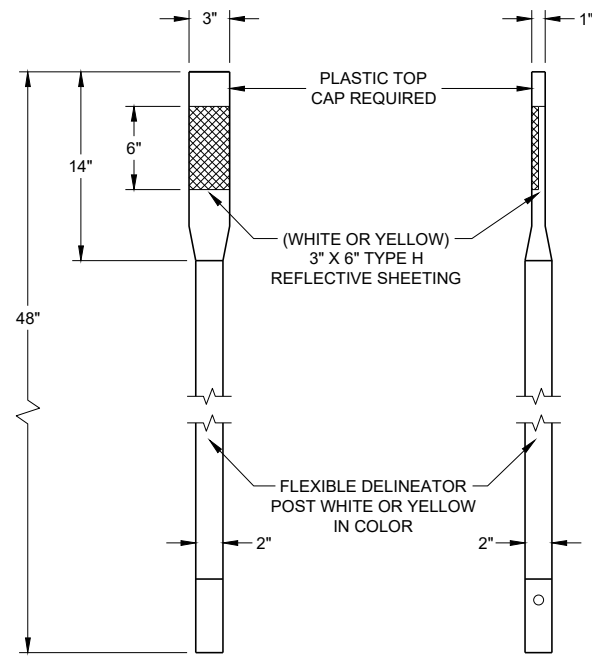


FRONT VIEW SIDE VIEW
ALTERNATE 2
FLEXIBLE MARKER POST ANCHORS

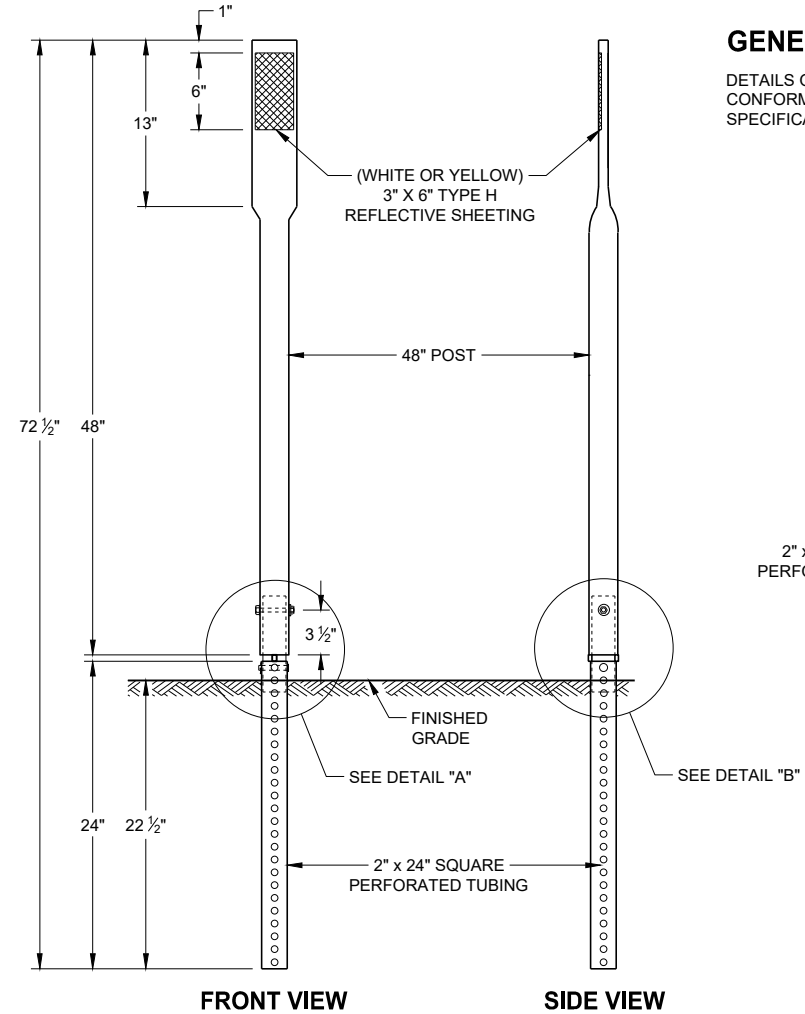
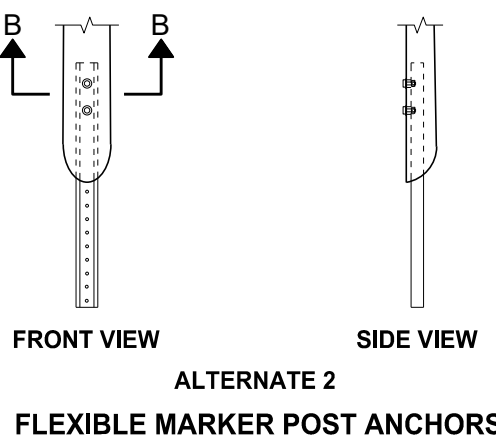
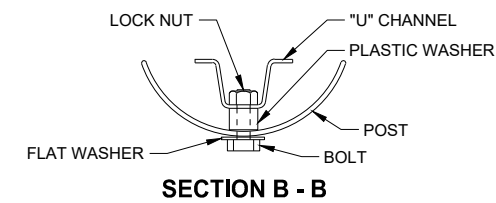


FRONT VIEW SIDE VIEW
ALTERNATE 3

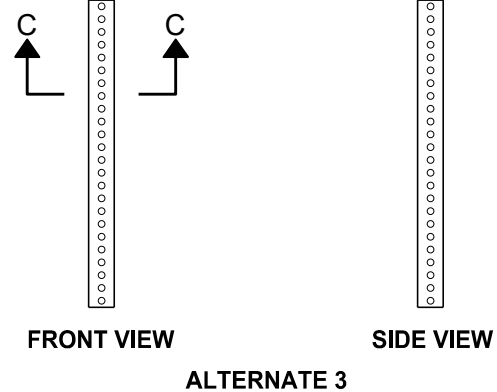
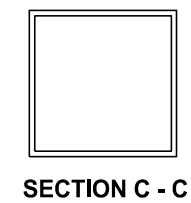
FLEXIBLE MARKER POST FOR CULVERT END	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 10/1/2012 DATE	/S/ Travis Feltes STATE TRAFFIC ENGINEER OF DESIGN
FHWA	



FLEXIBLE DELINEATOR POSTS

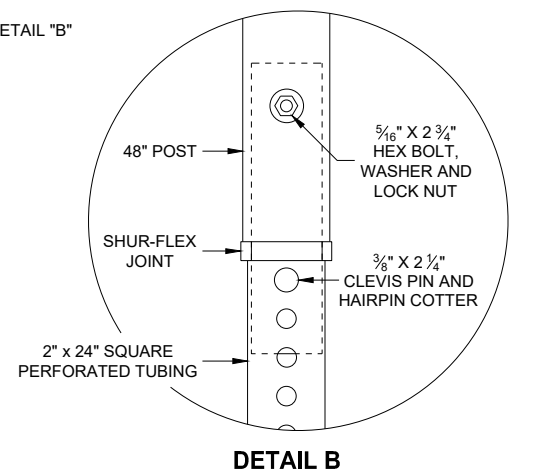
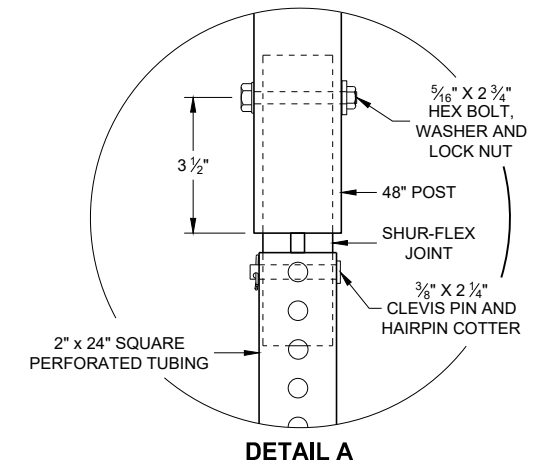


ALTERNATE 3



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.



REFLECTOR SPACING TABLE

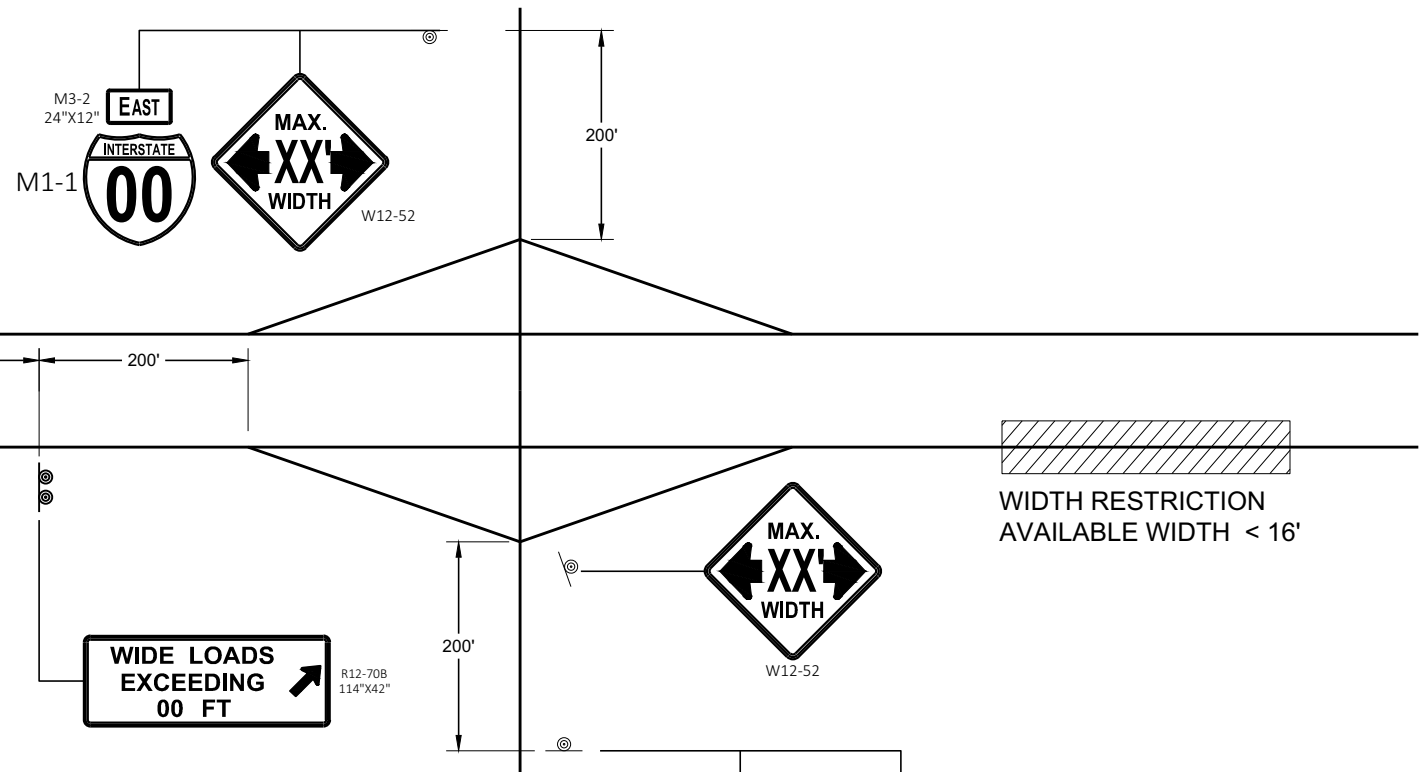
REFLECTOR SPACING	LOCATION
* 100' C-C	RAMPS
400' C-C	MAINLINE

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

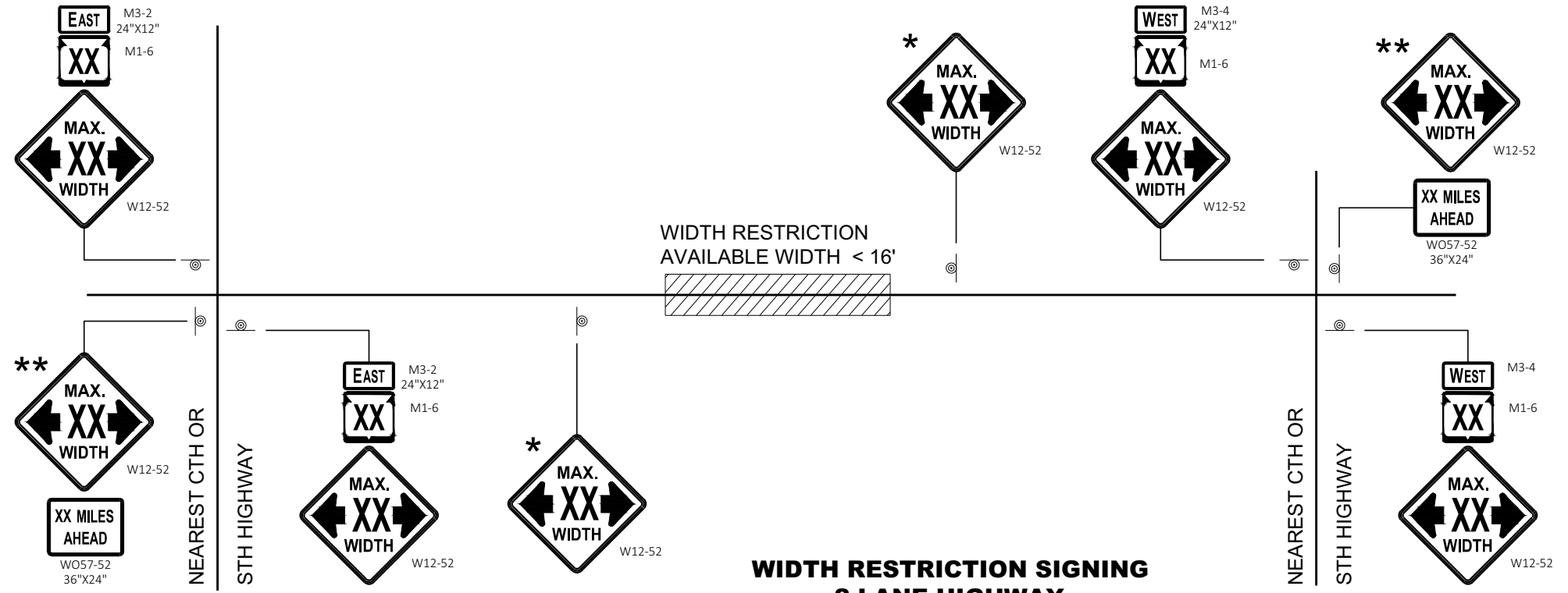
FLEXIBLE DELINEATOR POST

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
DATE: May 2021 /S/ Matthew Rauch
STATE SIGNING AND MARKING ENGINEER



WIDTH RESTRICTION SIGNING



**WIDTH RESTRICTION SIGNING
2 LANE HIGHWAY**

LEGEND

⊙ SIGN ON PERMANENT SUPPORT

GENERAL NOTES

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS 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 DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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

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

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

WIDTH ON SIGN TO BE APPROXIMATELY ONE FOOT LESS THAN AVAILABLE WIDTH.

* PLACE 500 FEET AFTER THE W20 - 1A AND 500 FEET BEFORE ADDITIONAL SIGNS FOR ROADWAYS WITH A PRE - CONSTRUCTION SPEED LIMIT OF 45 MPH OR MORE. FOR 35-40 MPH, USE 350 FOOT TYPICAL SPACING. FOR 25-30 MPH, USE 200 FOOT TYPICAL SPACING.

** SIGN SHALL BE VISIBLE FROM ROADWAY.

*** ADDITIONAL SIGNS NEEDED IF THERE IS AN ON RAMP BETWEEN SIGNS.

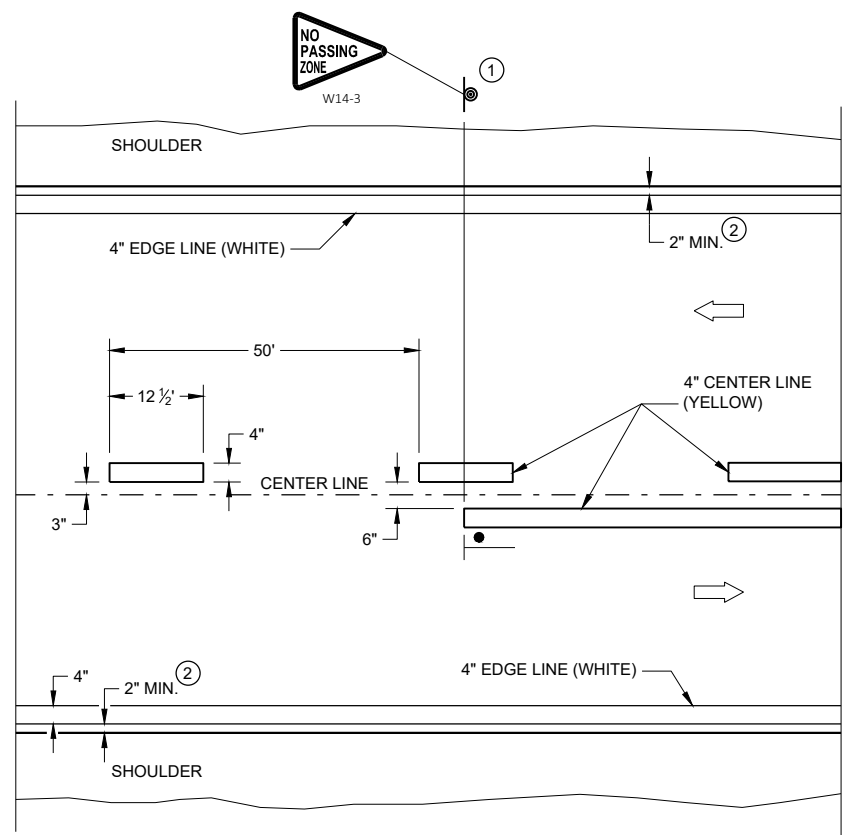


WIDTH ON SIGN TO BE APPROX. 1 - FOOT LESS THAN AVAILABLE WIDTH

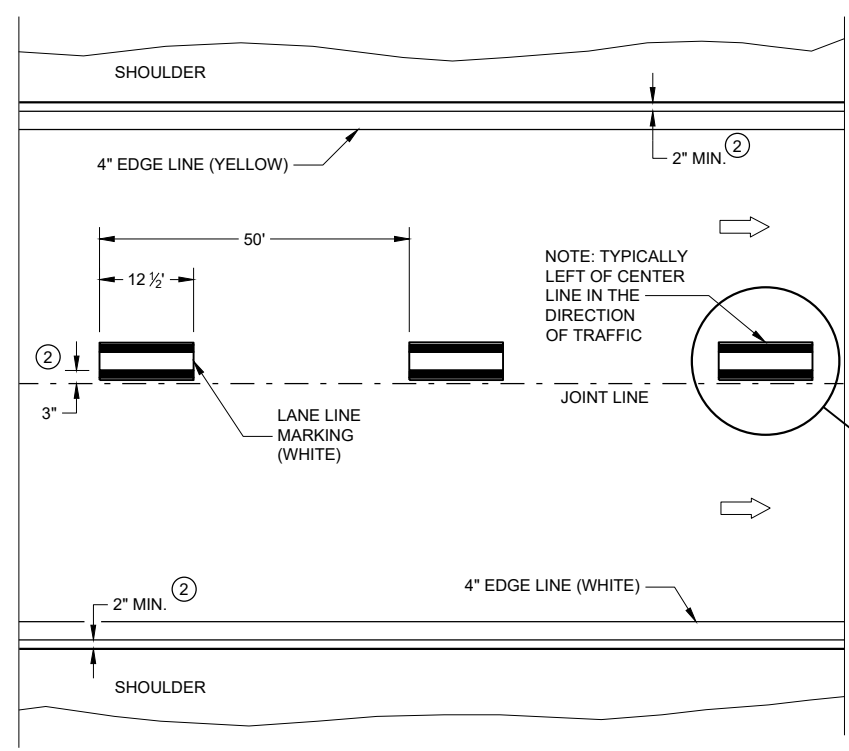
**ADVANCED WIDTH
RESTRICTION SIGNING**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED	
February 2020	/s/ Andrew Heidtke
DATE	WORK ZONE ENGINEER
FHWA	

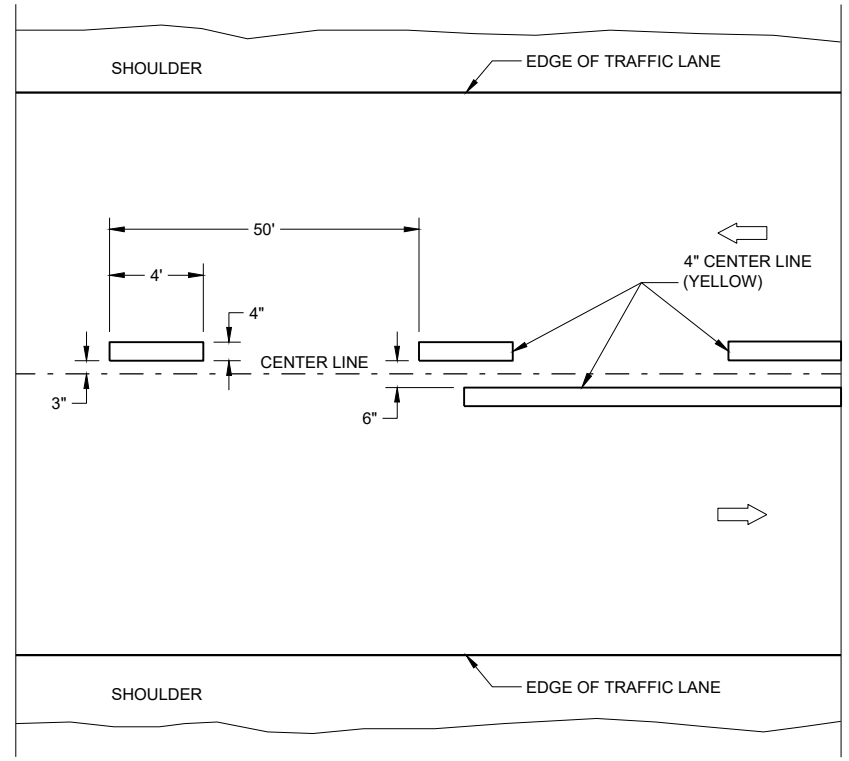


TWO WAY TRAFFIC

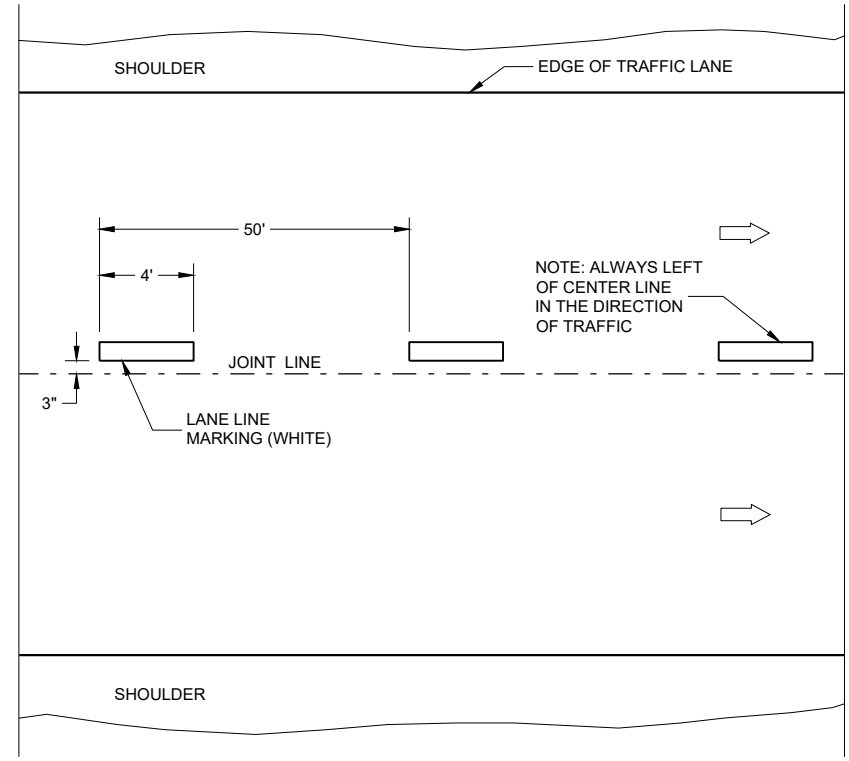


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

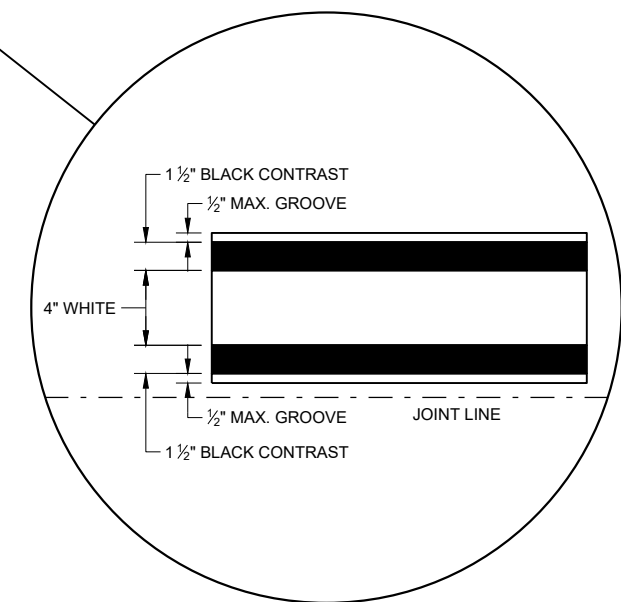
GENERAL NOTES

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
- ② MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

LEGEND

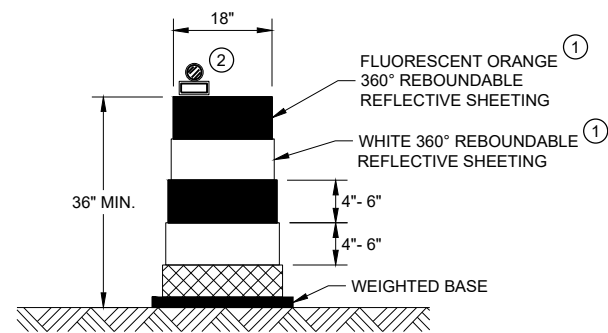
- "T" MARKING
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC



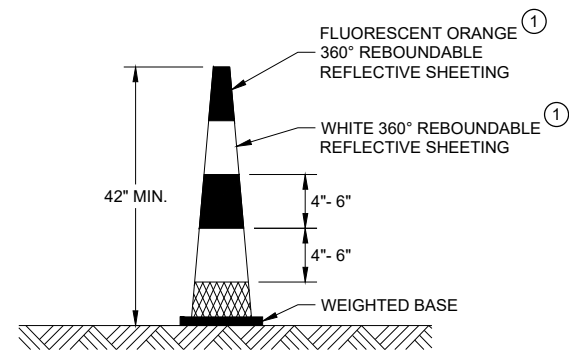
LONGITUDINAL MARKING (MAINLINE)

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

APPROVED
 February 2020 /S/ Matthew Rauch
 DATE STATEWIDE SIGNING AND MARKING ENGINEER
 FHWA

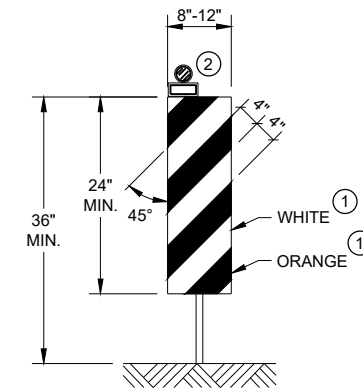


DRUM



42" CONE

DO NOT USE IN TAPERS
 1/2 SPACING OF DRUMS

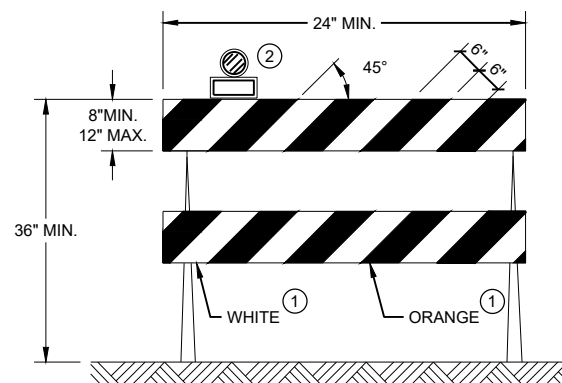


VERTICAL PANEL

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

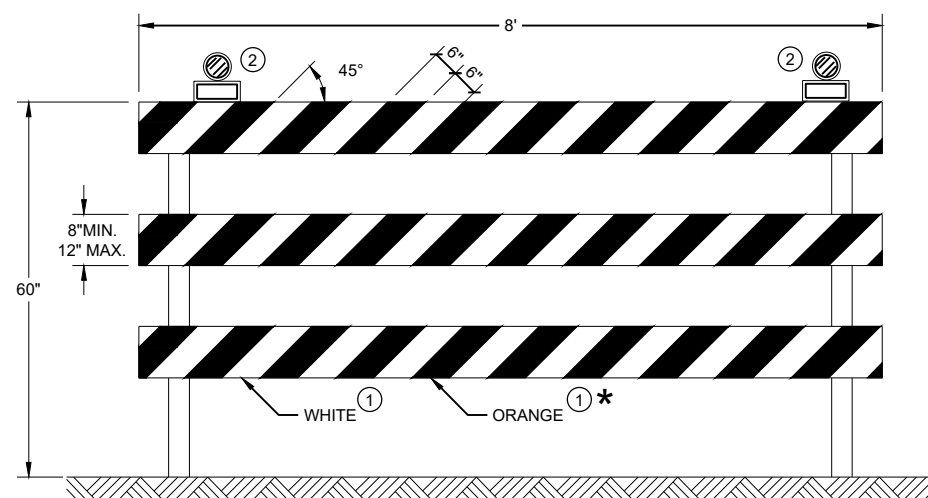
GENERAL NOTES

- 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 May 2021 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.

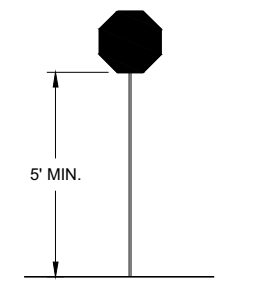
WHEN A SIDE ROAD OR RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

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.



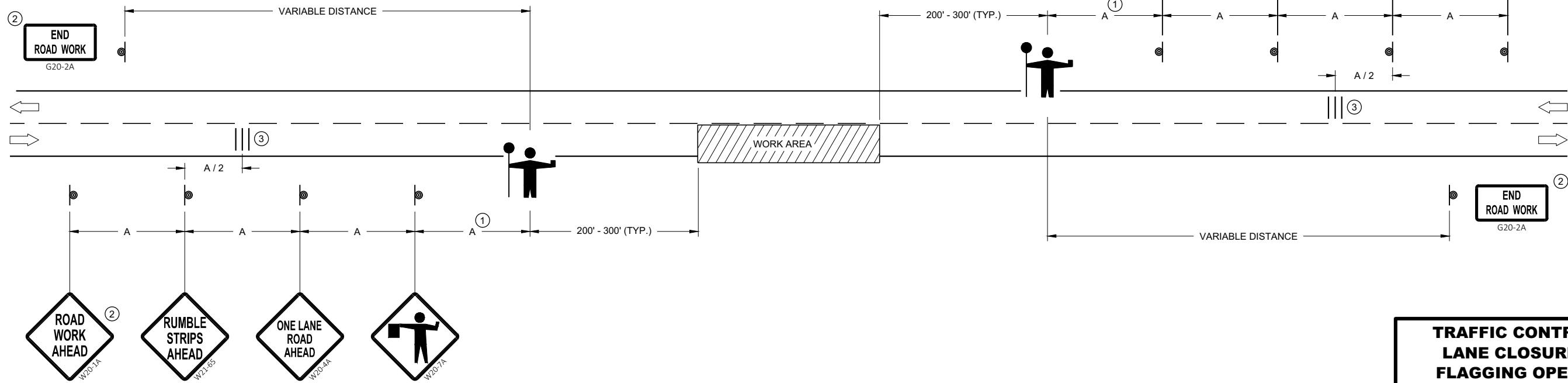
STOP/SLOW PADDLE ON SUPPORT STAFF

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

6

6

SDD 15C12 - 07

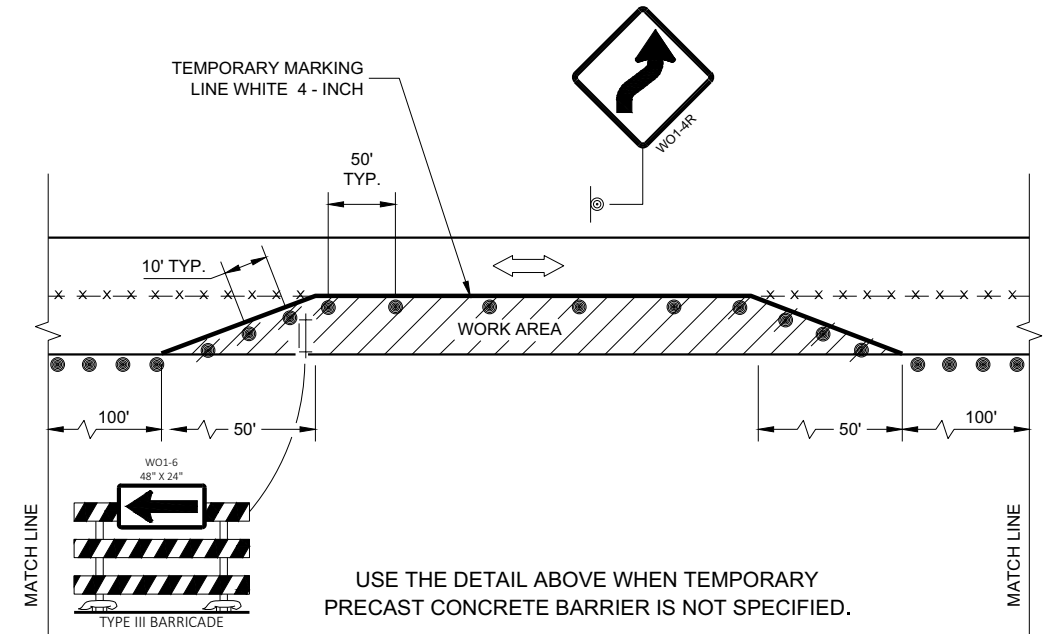
SDD 15C12 - 07

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLAGS, 16" X 16" MIN. (ORANGE)
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC
- ASPHALTIC PAVEMENT WIDENING
- CONCRETE BARRIER TEMPORARY PRECAST
- TEMPORARY SIGNAL. SEE SDD 09G02 FOR EXACT PLACEMENT

GENERAL NOTES

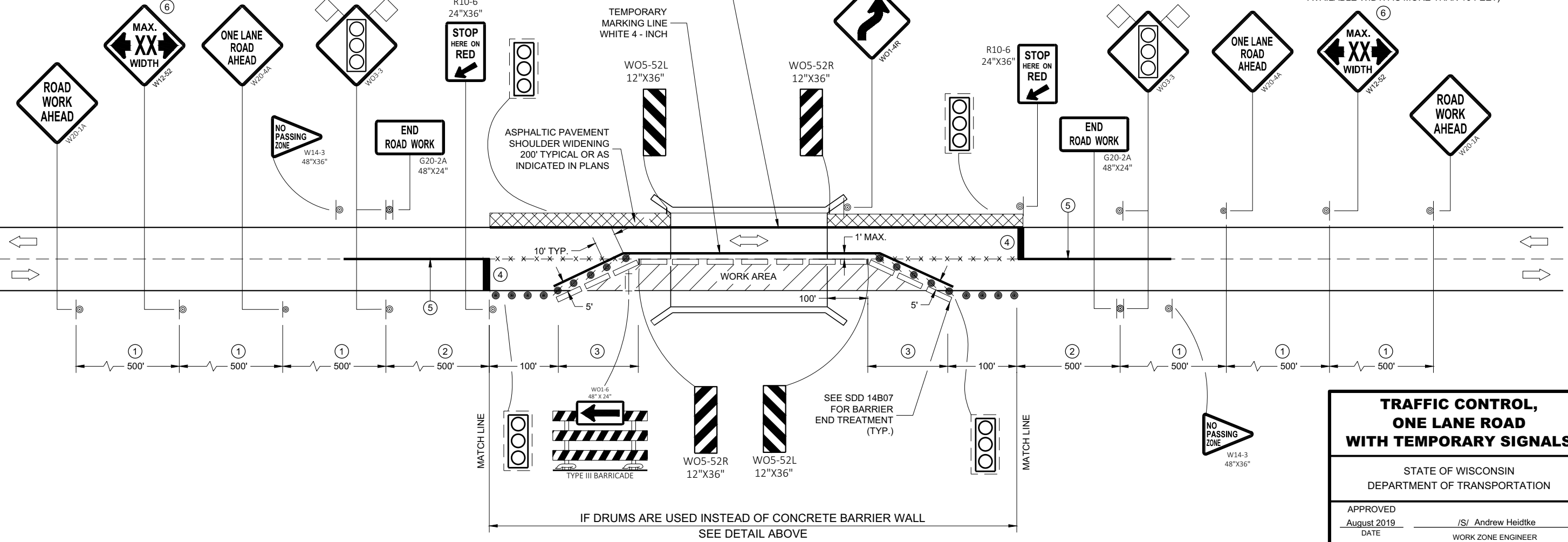
- THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
- THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE..
- 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.
- PLACE TEMPORARY PAVEMENT MARKING EDGELINE AND CENTERLINE AND REMOVE EXISTING PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS AND NIGHTS OR AS NOTED ON DETAIL.
- ① 500 FOOT SPACING SHOWN IS FOR ROADWAYS WITH A PRE-CONSTRUCTION REGULATORY SPEED LIMIT OF 45 MPH OR MORE. FOR 35 - 40 MPH, USE 350 FOOT TYPICAL SPACING. FOR 25 - 30 MPH, USE 200 FOOT TYPICAL SPACING.
 - ② USE 300 FOOT SPACING IF THE PRE - CONSTRUCTION REGULATORY SPEED IS 35 MPH OR LESS.
 - ③ DIMENSION DETERMINED BY CBTP TAPER FROM EDGE LINE TO TANGENT SECTION OF THE ROAD.
 - ④ TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18 - INCH.
 - ⑤ 700 FOOT TEMPORARY MARKING LINE, DOUBLE YELLOW 4 - INCH . WHEN THE DISTANCE FOR THE PRECEDING NO - PASSING ZONE IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES AS INDICATED IN THE SPECIFICATIONS, THE TWO ZONES SHALL BE CONNECTED.
 - ⑥ SEE SDD 15C02 - SHEET "F" FOR ADVANCED WIDTH RESTRICTION SIGNING.



TEMPORARY MARKING LINE WHITE 4 - INCH (STOPLINE TO STOPLINE). REMOVE EXISTING EDGELINE AND OFFSET THE TEMPORARY EDGELINE IF THE DISTANCE FROM THE EDGELINE TO CONCRETE BARRIER WALL IS LESS THAN 9 FEET.

WIDTH ON SIGN TO BE APPROX. 1-FOOT LESS THAN AVAILABLE WIDTH. (OMIT IF AVAILABLE WIDTH IS MORE THAN 16 FEET)

WIDTH ON SIGN TO BE APPROX. 1-FOOT LESS THAN AVAILABLE WIDTH. (OMIT IF AVAILABLE WIDTH IS MORE THAN 16 FEET)

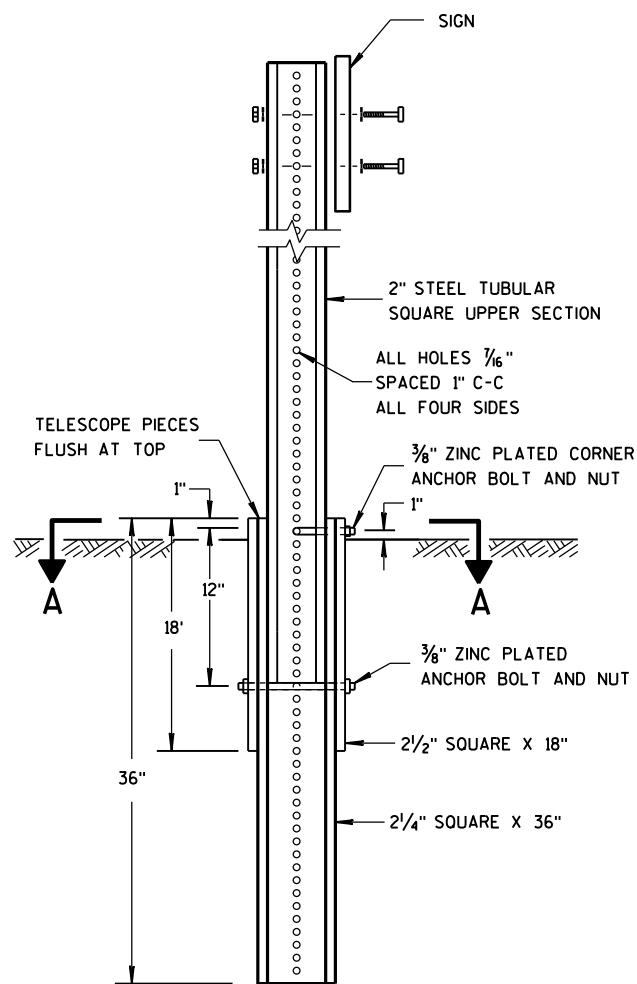


**TRAFFIC CONTROL,
ONE LANE ROAD
WITH TEMPORARY SIGNALS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED _____
August 2019 /S/ Andrew Heidtke
DATE DATE WORK ZONE ENGINEER

FHWA



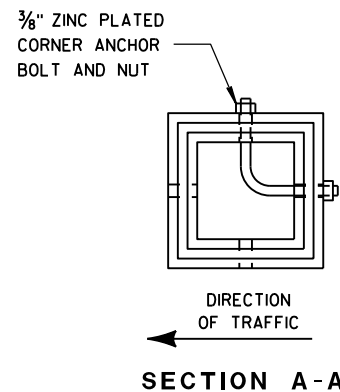
DETAIL OF TUBULAR STEEL SIGN POST

TUBULAR STEEL POSTS

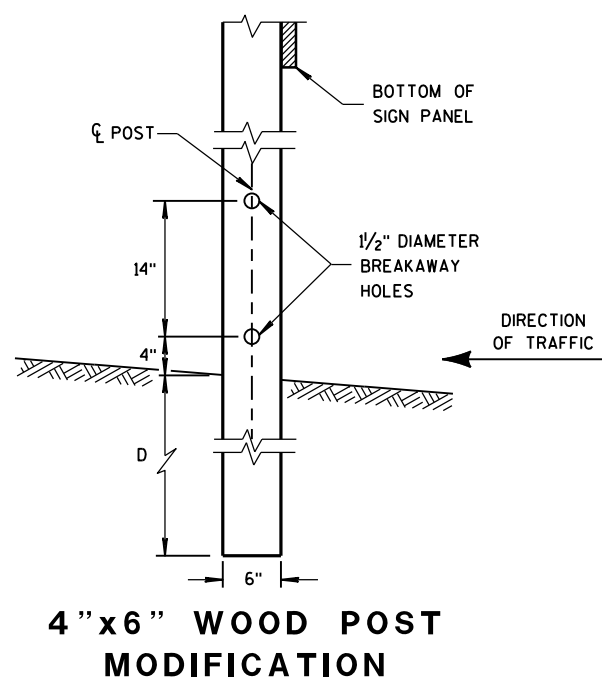
AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL POSTS
9 OR LESS	1
GREATER THAN 9 LESS THAN OR EQUAL TO 18	2
GREATER THAN 18 LESS THAN OR EQUAL TO 27	3

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

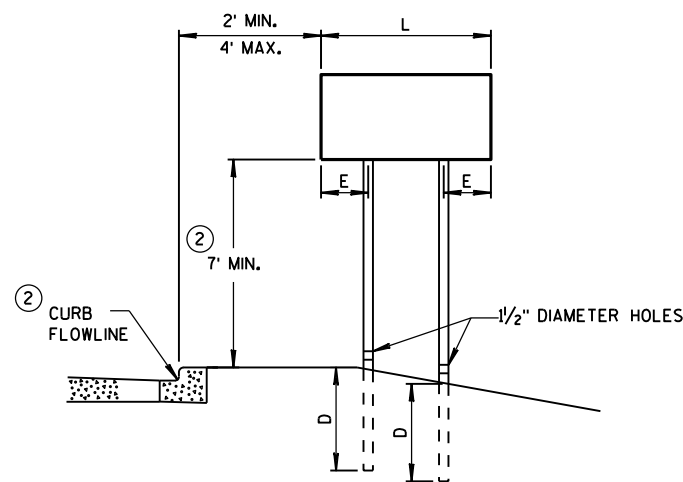
SIGNS LARGER THAN 27 SQ. FT. SHALL NOT BE MOUNTED ON TUBULAR STEEL POSTS.



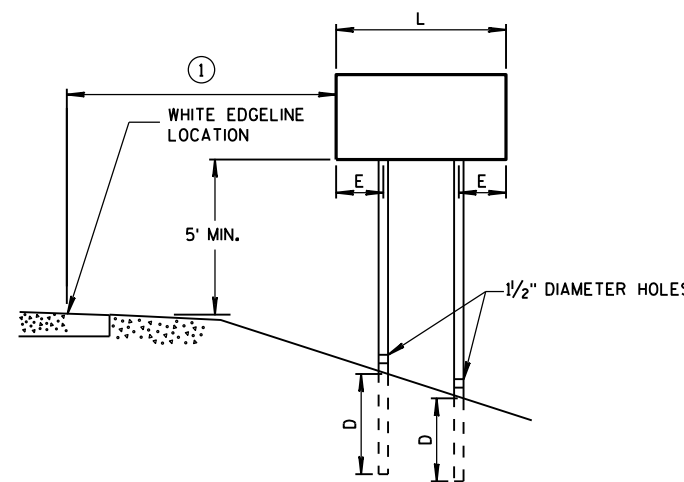
SECTION A-A



4" X 6" WOOD POST MODIFICATION



URBAN AREA



RURAL AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

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

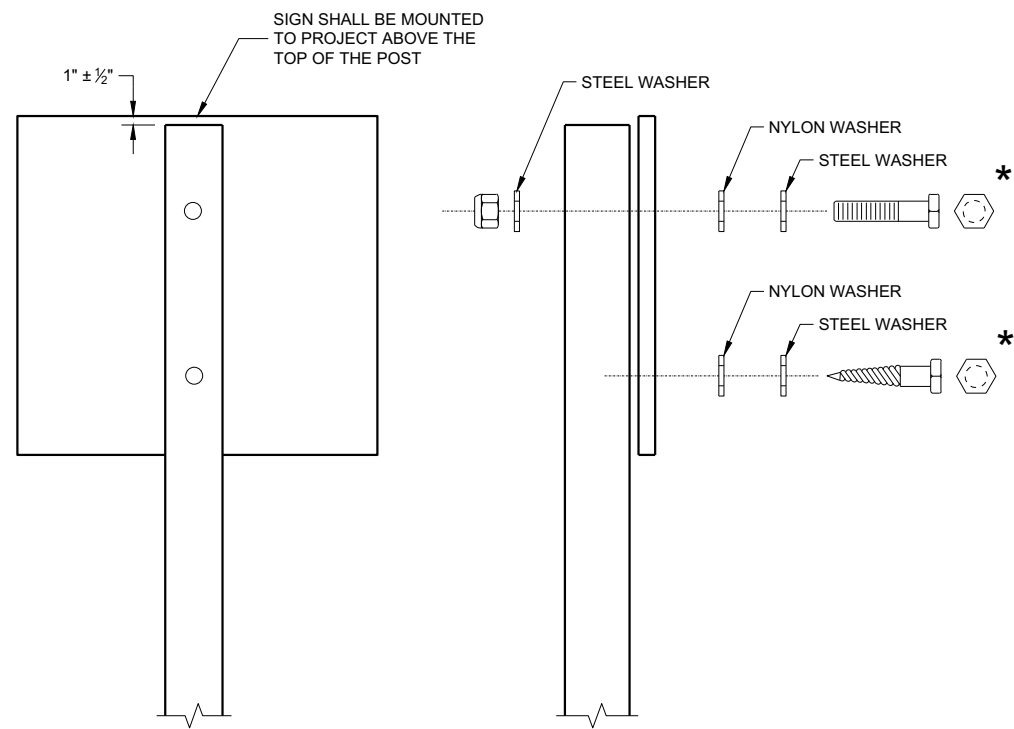
SEE NOTE ③

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.

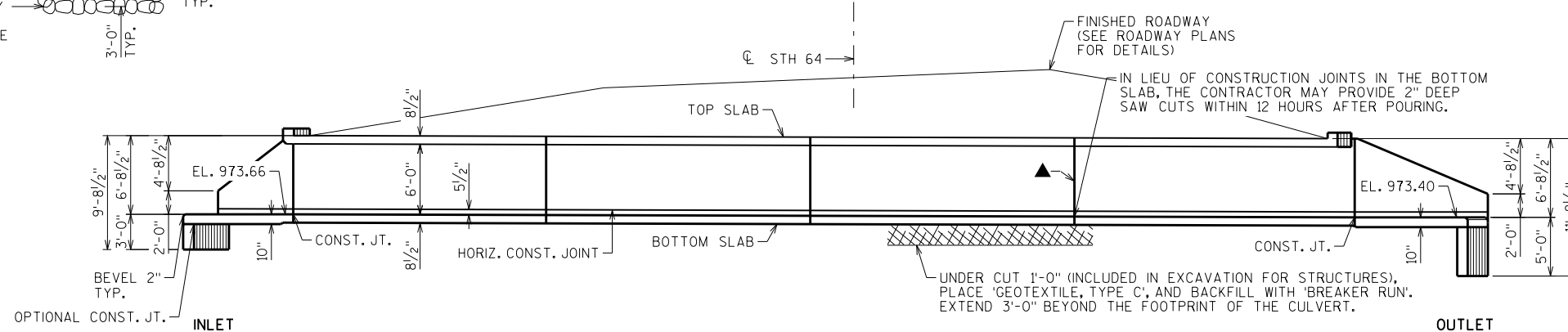
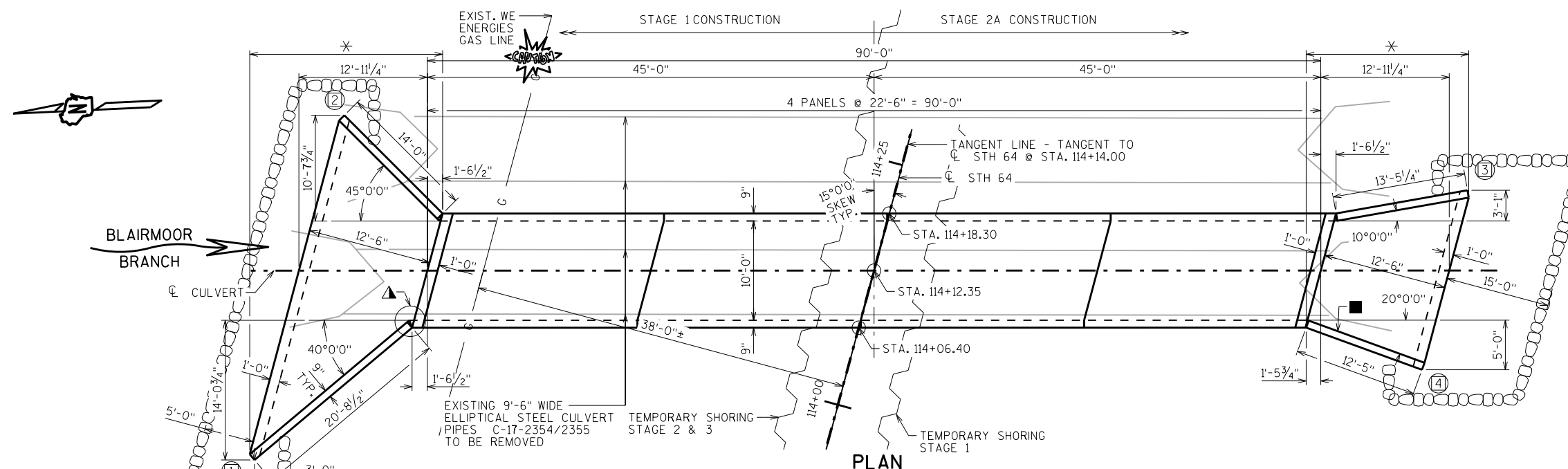
WOOD POST (4" x 6")
 LAG SCREWS - 3/8" x 3"
 MACHINE BOLTS - 5/16" x 6 1/2" OR 7" LENGTH W/NUTS

SQUARE STEEL POST (2" x 2")
 MACHINE BOLTS - 3/8" x 3 1/4" LENGTH W/NUTS
 RIVETS - 3/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM
 BODY/MANDREL O.D. FLANGE 0.720 - 0.765 INCH,
 GRIP RANGE 0.042 - 0.375 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 0.080 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. 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
<small>FHWA</small>	



ELEVATION

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BEVEL EXPOSED EDGES OF CONCRETE 3/4" UNLESS OTHERWISE NOTED.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES CULVERTS C-17-47" SHALL BE THE EXISTING GROUNDLINE.

ALL VOLUME WHICH CANNOT BE PLACED BEFORE CULVERT CONSTRUCTION AND NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL WITHIN THE LENGTH OF THE CULVERT INCLUDING THE APRON WING WALLS.

THE QUANTITY FOR BACKFILL STRUCTURE IS CALCULATED BASED ON THE DETAIL SHOWN IN THE PLANS.

THE CONCRETE IN THE CUTOFF WALLS MAY BE PLACED UNDERWATER IF THE EXCAVATION CANNOT BE DEWATERED.

PLACE 18" (MIN.) WIDE SHEET OF "RUBBERIZED MEMBRANE WATERPROOFING" ON TOP SLAB OVER ALL CONSTRUCTION JOINTS AND EXTEND DOWN TO BOTTOM OF OUTSIDE WALLS.

THE CONTRACTOR MAY FURNISH A PRECAST CONCRETE BOX CULVERT IN LIEU OF THE CAST-IN-PLACE BOX CULVERT WITH THE ACCEPTANCE OF THE SHOP DRAWINGS BY THE STRUCTURES DESIGN SECTION. THE PRECAST CONCRETE BOX CULVERT SHALL CONFORM TO PRECAST DETAILS ON CHAPTER 36 STANDARDS OF THE CURRENT WISC. DOT BRIDGE MANUAL. PAYMENT FOR THE PRECAST CULVERT SHALL BE BASED ON THE QUANTITIES AND PRICES BID FOR THE ITEMS LISTED IN THE "TOTAL ESTIMATED QUANTITIES".

THE CONTRACTOR MAY ELECT TO SUBSTITUTE #10R #2 CONCRETE COARSE AGGREGATE, SELECT CRUSHED MATERIAL OR OTHER GRANULAR MATERIAL AS APPROVED BY THE FIELD ENGINEER, IN LIEU OF THE BREAKER RUN, TO BE UTILIZED AS A CONSTRUCTION PLATFORM FOR THE BOX. THE CONTRACTOR IS RESPONSIBLE FOR BASE STABILITY WITH ANY SUBSTITUTED MATERIAL.

STREAM DIVERSION FOR STAGING TO BE PAID FOR UNDER ROADWAY BID ITEM "TEMPORARY STREAM DIVERSION CULVERT C-17-47".

- ▲ SEE CORNER DETAILS ON "APRON DETAILS" SHEET TYP.
- NAME PLATE LOCATION (SEE "APRON DETAILS" SHEET)
- * BUILD APRON AND END OF BOX LEVEL
- ⊙ INDICATES WING NUMBER
- ▲ VERT. CONST. JOINT (TYP.)

LIST OF DRAWINGS

1. LAYOUT
2. BOX DETAILS
3. APRON
4. APRON DETAILS
5. SUBSURFACE EXPLORATION
6. STAGES 1 & 2A
7. STAGES 2B & 3

STRUCTURE DESIGN CONTACTS:

STACIE WEIS (608) 261-6109
DOMINIQUE BECHLE (608) 261-8205

DESIGN DATA

LIVE LOAD:
DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: RF = 1.05
OPERATING RATING FACTOR: RF = 1.35
WISCONSIN STANDARD PERMIT VEHICLE (WIS.-SPV): 255(KIPS)

EARTHLOAD:
DESIGNED FOR 4.0 TO 7.0 FT. OF FILL.

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

HYDRAULIC DATA

100 YEAR FREQUENCY
Q₁₀₀ = 550 C.F.S.
VEL₁₀₀ = 12 F.P.S.
HW₁₀₀ = EL. 981.41
WATERWAY AREA = 60 SQ. FT.
DRAINAGE AREA = 3.9 SQ. MI.
ROADWAY OVERTOPPING = N/A
SCOUR CRITICAL CODE = 8

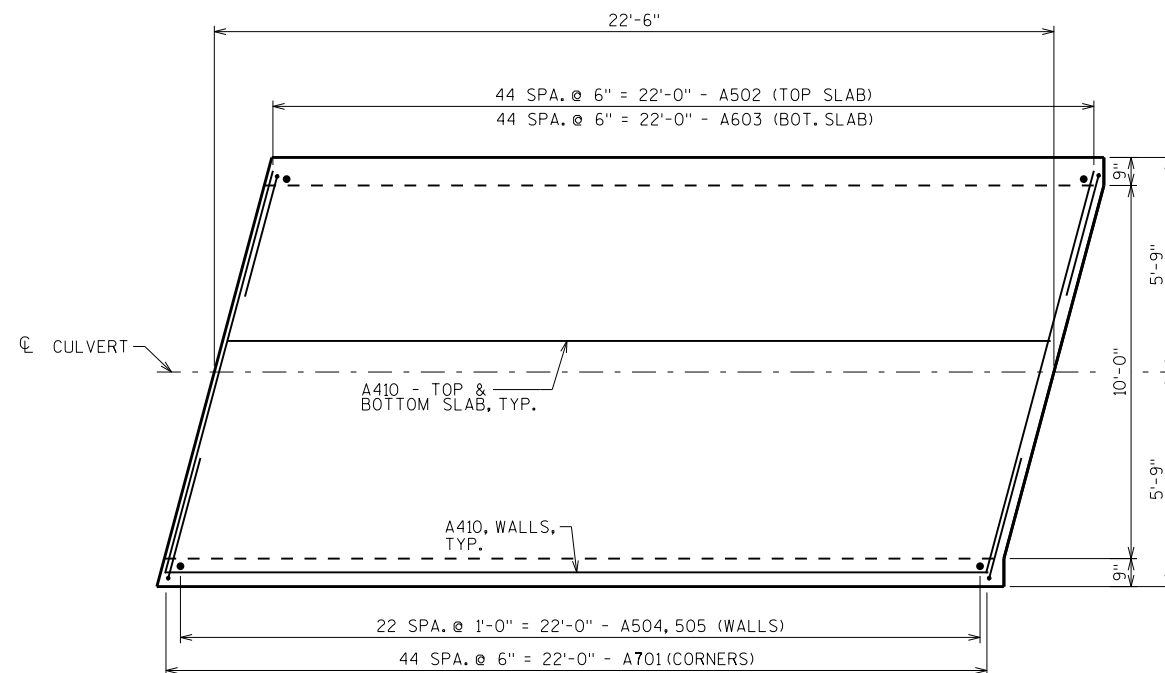
TRAFFIC VOLUME

STH 64
ADT = 3,900 (2020)
R.D.S. = 55 M.P.H.

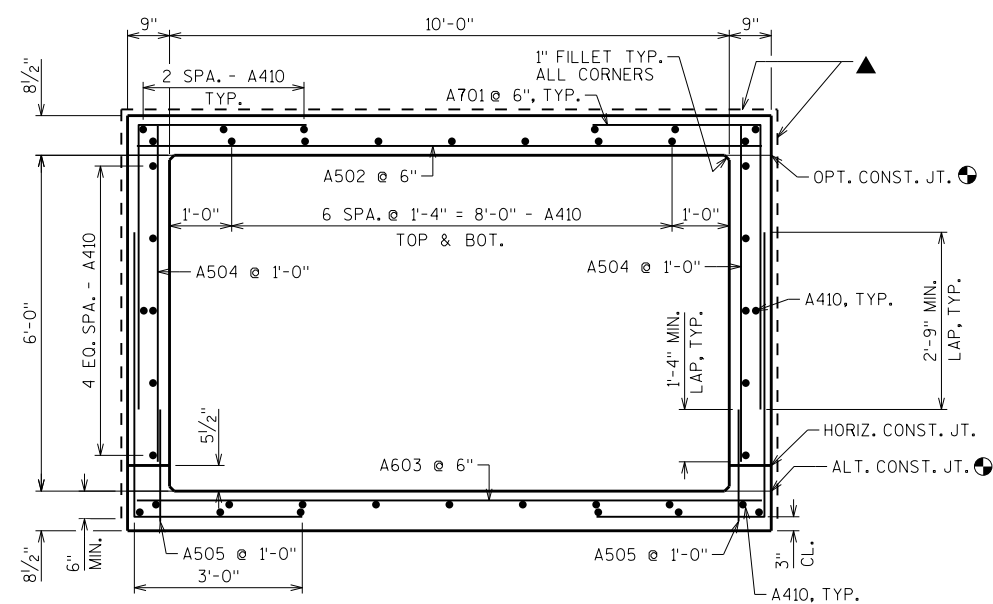
TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTALS
203.0260	REMOVING STRUCTURE OVER WATERWAY MINIMAL DEBRIS (C-17-2354/2355)	EACH	1
206.2000	EXCAVATION FOR STRUCTURES CULVERTS C-17-47	LS	1
210.2500	BACKFILL STRUCTURE TYPE B	TON	1,286
311.0115	BREAKER RUN	CY	83
502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH	36
504.0100	CONCRETE MASONRY CULVERTS	CY	114
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	22,260
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1,570
511.1200	TEMPROARY SHORING C-17-47	SF	1,100
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	29
606.0300	RIPRAP HEAVY	CY	48
645.0105	GEOTEXTILE TYPE C	SY	270
645.0120	GEOTEXTILE TYPE HR	SY	70
NON-BID ITEMS			
	FILLER	SIZE	3/4"

NO.	DATE	REVISION	BY
ACCEPTED			08/04/21
CHIEF STRUCTURES DESIGN ENGINEER		DATE	
STRUCTURE C-17-47			
STH 64 OVER BLAIRMOR BRANCH			
COUNTY	DUNN	VILLAGE	WHEELER
DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS			
DESIGNED BY	DESIGNED CK'D.	DRAWN BY	PLANS CK'D.
SEW	MJL	SEW	MJL
LAYOUT			SHEET 1 OF 7



PLAN VIEW OF PANELS



TYPICAL SECTION THRU PANELS

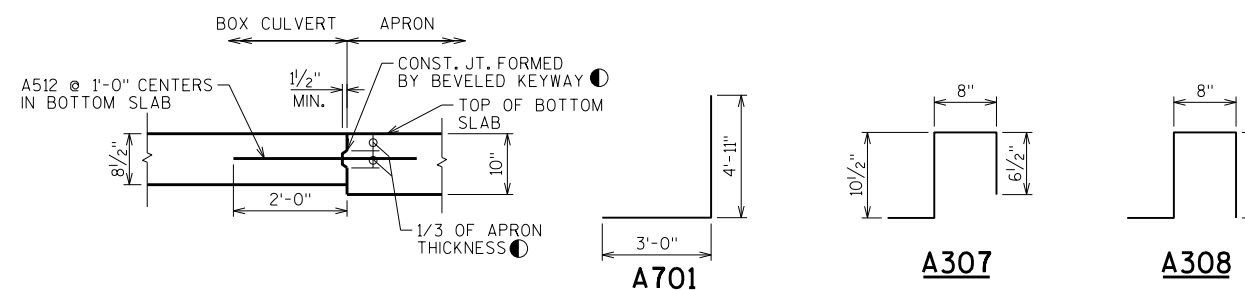


BILL OF BARS

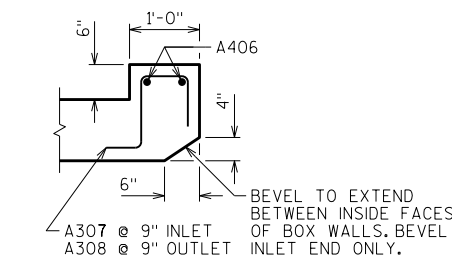
NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A701		720	7'-9"	X		CORNERS
A502		180	11'-6"			TOP SLAB - TRANS.
A603		180	11'-6"			BOT. SLAB - TRANS.
A504		184	6'-0"			WALLS - VERT.
A505		184	2'-3"			WALLS - VERT. - DOWELS
A406		4	11'-6"			HEADER - HORIZ.
A307		16	2'-4"	X		HEADER - VERT. - INLET
A308		16	2'-8"	X		HEADER - VERT. - OUTLET
A509		72	4'-0"			VERT. CONST. JT.
A410		168	22'-2"			TOP & BOT. SLAB & WALL LONGIT.
☆ A511		36	2'-6"			STAGING VERT. CONST. JT.
A512		24	4'-0"			BOX APRON CONNECTION

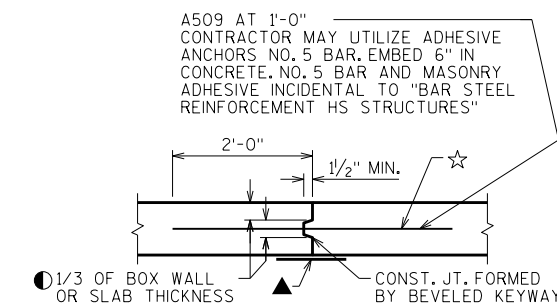
☆ ADHESIVE ANCHORS NO. 5 BAR AT STAGING JOINT.



APRON CONNECTION DETAIL



SECTION THRU HEADER



VERTICAL CONSTRUCTION JOINT

● IN LIEU OF CONSTRUCTION JOINTS IN THE BOTTOM SLAB, THE CONTRACTOR MAY USE 2" DEEP SAW CUTS WITHIN 12 HOURS AFTER POURING.

▲ 18" MIN. WIDTH RUBBERIZED MEMBRANE WATERPROOFING UP WALLS & ACROSS TOP SLAB AT VERTICAL CONSTRUCTION JOINTS. EXTEND 6" MIN. BELOW TOP OF BOTTOM SLAB.

● OMIT 1" FILLET IF JT. USED

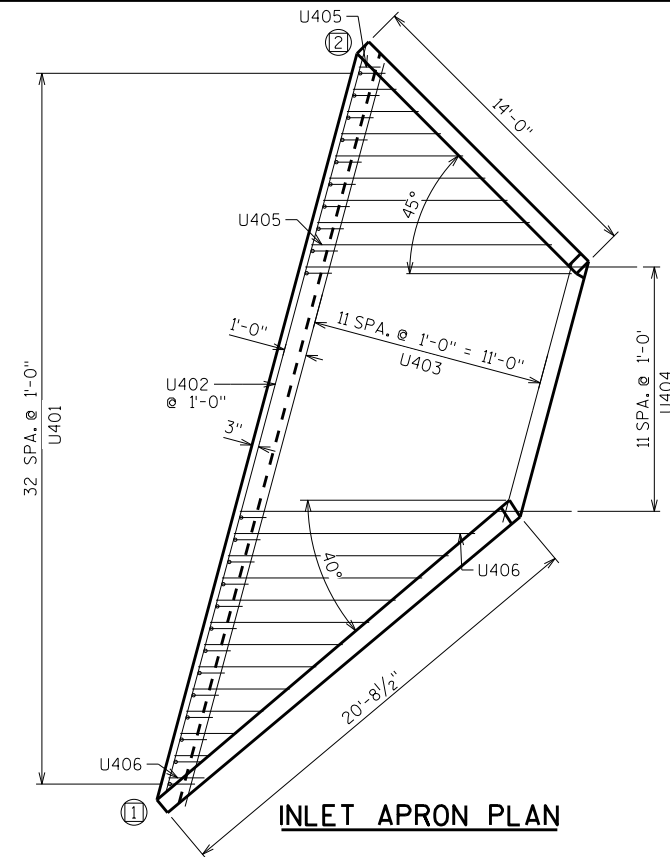
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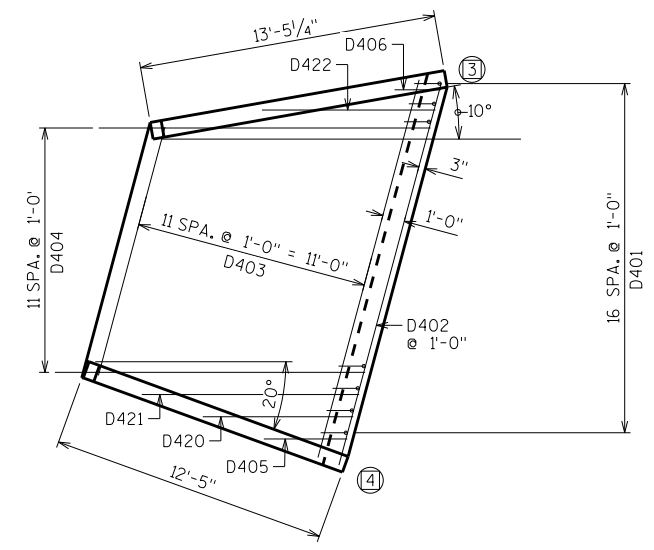
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE C-17-47			
DRAWN BY		SEW	PLANS CKD. MJL
BOX DETAILS		SHEET 2	

▲ 18" RUBBERIZED MEMBRANE WATERPROOFING. PLACE ALONG HORIZ. CONST. JT. FOR ENTIRE WING LENGTH (TYP.)

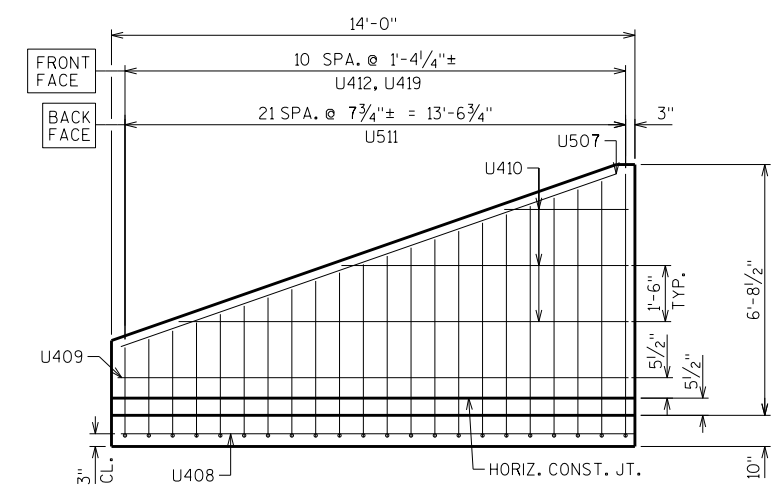
Ⓢ INDICATES WING NUMBER



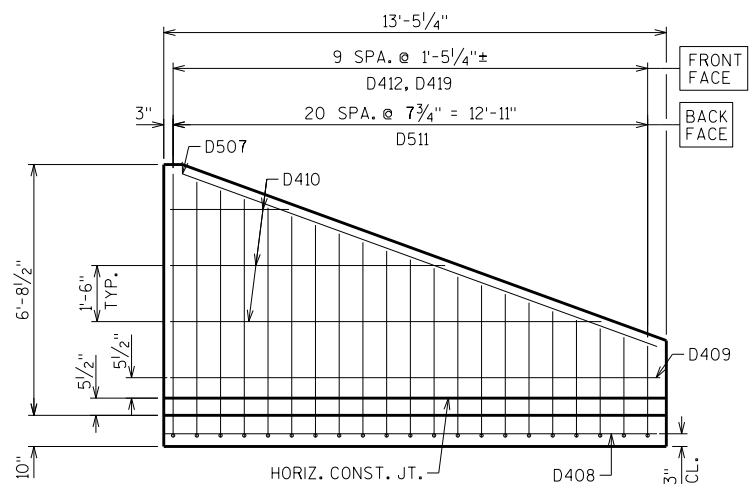
INLET APRON PLAN



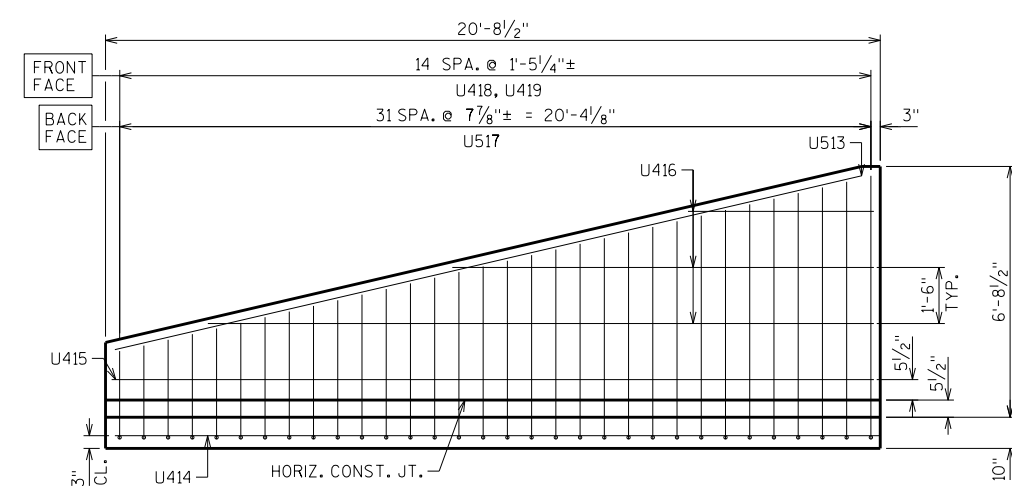
OUTLET APRON PLAN



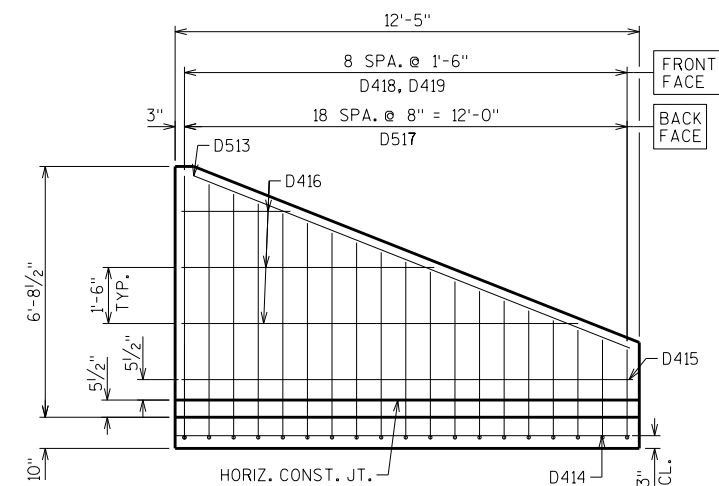
WING 2



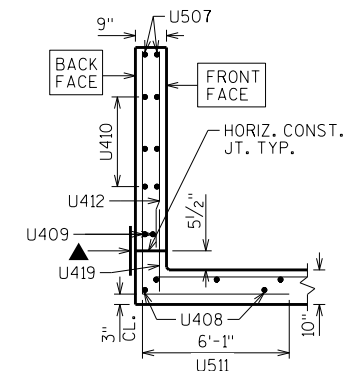
WING 3



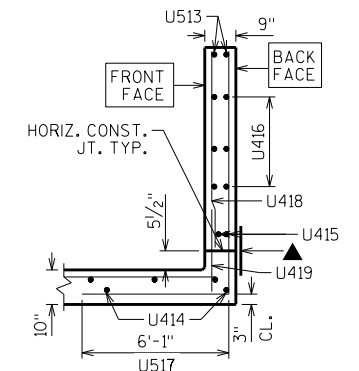
WING 1



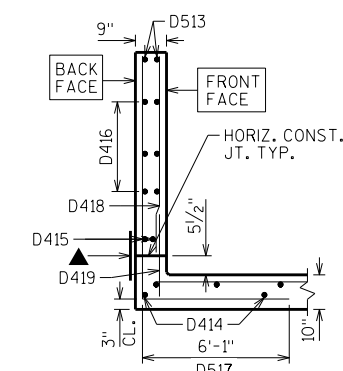
WING 4



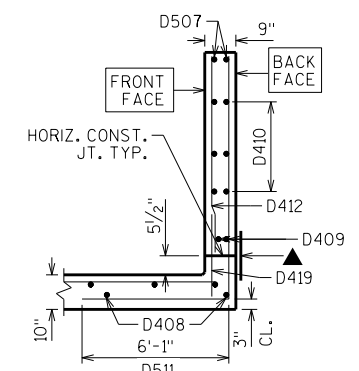
WING 2 SECTION



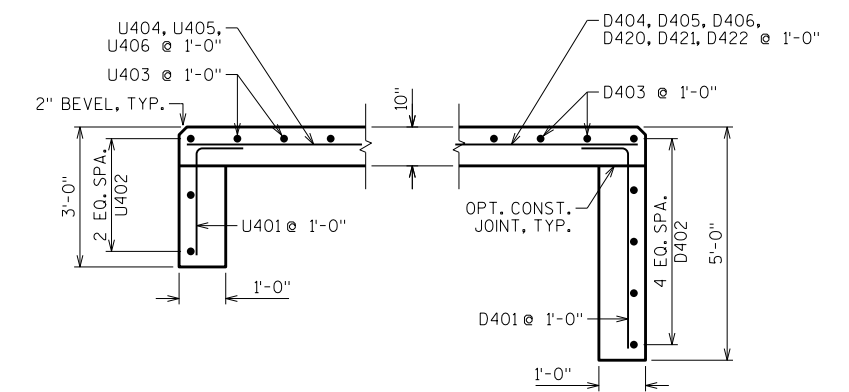
WING 1 SECTION



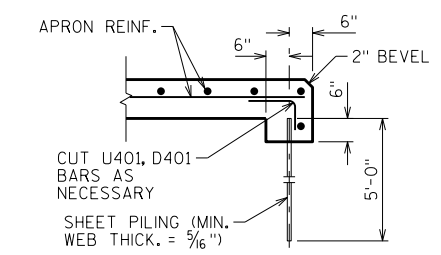
WING 4 SECTION



WING 3 SECTION



CUT-OFF WALLS



ALTERNATE CUT-OFF WALLS

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE C-17-47			
DRAWN BY		SEW	PLANS CK'D. MJL
APRON		SHEET 3	

8

8

BILL OF BARS

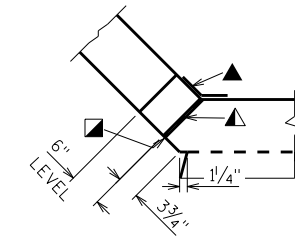
NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
U401		33	3'-5"	X		INLET APRON AND CUTOFF WALL - VERT.
U402		3	34'-9"			INLET APRON AND CUTOFF WALL - HORIZ.
U403		12	23'-0"	▲		INLET APRON
U404		12	12'-6"			INLET APRON
U405		9	6'-6"	▲		INLET APRON
U406		12	6'-7"	▲		INLET APRON
U507	X	2	14'-5"			WING 2 - HORIZ. - TOP BOTH FACES
U408		2	13'-8"			WING 2 - HORIZ. - APRON BOT. SLAB
U409	X	2	13'-8"			WING 2 - HORIZ. - BOTH FACES
U410	X	6	7'-10"	▲		WING 2 - HORIZ. - BOTH FACES
U511	X	22	10'-8"	X	▲	WING 2 - VERT. - BACK FACE
U412	X	11	3'-9"	▲		WING 2 - VERT. - FRONT FACE
U513	X	2	20'-10"			WING 1 - HORIZ. - TOP BOTH FACES
U414		2	20'-3"			WING 1 - HORIZ. - APRON BOT. SLAB
U415	X	2	20'-3"			WING 1 - HORIZ. - BOTH FACES
U416	X	6	11'-4"	▲		WING 1 - HORIZ. - BOTH FACES
U517	X	32	10'-8"	X	▲	WING 1 - VERT. - BACK FACE
U418	X	15	3'-9"	▲		WING 1 - VERT. - FRONT FACE
U419	X	26	2'-3"			WINGS 1 & 2 - DOWELS - FRONT FACE
D401		17	5'-5"	X		OUTLET APRON AND CUTOFF WALL - VERT.
D402		5	17'-11"			OUTLET APRON AND CUTOFF WALL - HORIZ.
D403		12	14'-9"	▲		OUTLET APRON
D404		12	12'-6"			OUTLET APRON
D405		1	3'-9"			OUTLET APRON
D406		1	2'-3"			OUTLET APRON
D507	X	2	13'-11"			WING 3 - HORIZ. - TOP BOTH FACES
D408		2	13'-0"			WING 3 - HORIZ. - APRON BOT. SLAB
D409	X	2	13'-0"			WING 3 - HORIZ. - BOTH FACES
D410	X	6	7'-4"	▲		WING 3 - HORIZ. - BOTH FACES
D511	X	21	10'-8"	X	▲	WING 3 - VERT. - BACK FACE
D412	X	10	3'-9"	▲		WING 3 - VERT. - FRONT FACE
D513	X	2	12'-10"			WING 4 - HORIZ. - TOP BOTH FACES
D414		2	12'-0"			WING 4 - HORIZ. - APRON BOT. SLAB
D415	X	2	12'-0"			WING 4 - HORIZ. - BOTH FACES
D416	X	6	6'-10"	▲		WING 4 - HORIZ. - BOTH FACES
D517	X	19	10'-8"	X	▲	WING 4 - VERT. - BACK FACE
D418	X	9	3'-9"	▲		WING 4 - VERT. - FRONT FACE
D419	X	19	2'-3"			WINGS 3 & 4 - DOWELS - FRONT FACE
D420		1	6'-9"			OUTLET APRON
D421		1	9'-10"			OUTLET APRON
D422		1	7'-7"			OUTLET APRON

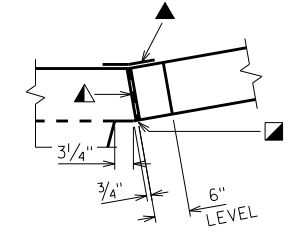
BAR SERIES TABLE

BAR MARK	NO. REQ'D.	LENGTH
U403	1 SERIES OF 12	11'-11" TO 34'-0"
U405	1 SERIES OF 9	1'-5" TO 11'-6"
U406	1 SERIES OF 12	1'-6" TO 11'-9"
U410	2 SERIES OF 3	3'-6" TO 12'-1"
U511	1 SERIES OF 22	8'-4" TO 13'-0"
U412	1 SERIES OF 11	1'-5" TO 6'-0"
U416	2 SERIES OF 3	4'-10" TO 17'-10"
U517	1 SERIES OF 32	8'-4" TO 13'-0"
U418	1 SERIES OF 15	1'-5" TO 6'-0"
D403	1 SERIES OF 12	11'-8" TO 17'-9"
D410	2 SERIES OF 3	3'-2" TO 11'-6"
D511	1 SERIES OF 21	8'-4" TO 13'-0"
D412	1 SERIES OF 10	1'-5" TO 6'-0"
D416	2 SERIES OF 3	3'-0" TO 10'-8"
D517	1 SERIES OF 19	8'-4" TO 13'-0"
D418	1 SERIES OF 9	1'-5" TO 6'-0"

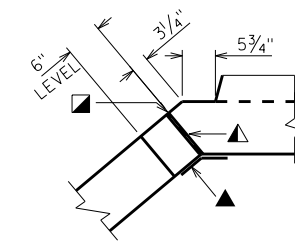
BUNDLE AND TAG EACH SERIES SEPARATELY.



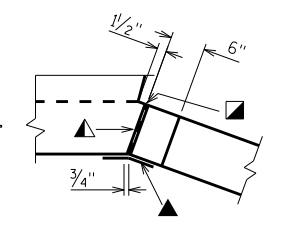
CORNER 2



CORNER 3



CORNER 1



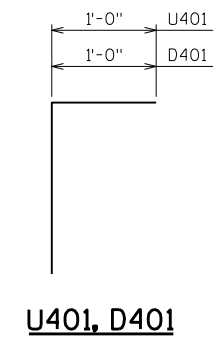
CORNER 4

▲ 3/4" FILLER TYPICAL. EXTEND FILLER FROM HORIZ. CONST. JT. TO TOP OF WING.

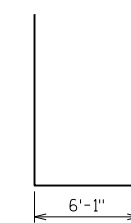
1" BEVEL TYPICAL

▲ 18" RUBBERIZED MEMBRANE WATER-PROOFING. EXTEND FROM HORIZ. CONST. JT. TO TOP OF WALL.

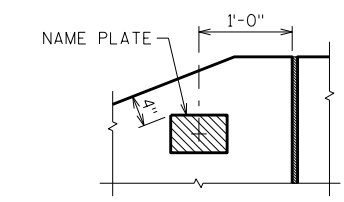
CORNER DETAILS



U401, D401

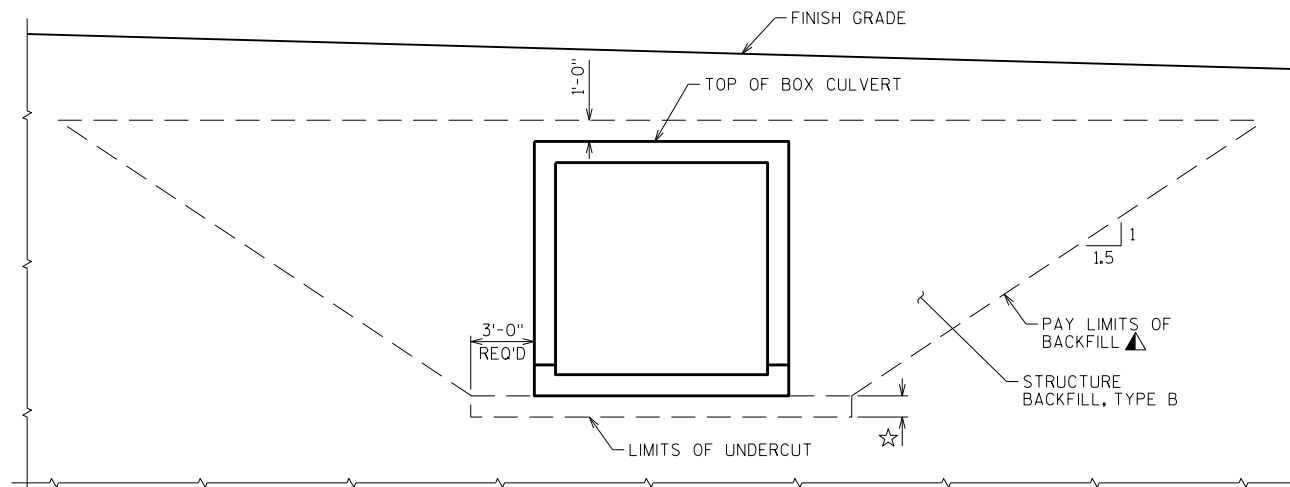


U511, D511, U517, D517



NAME PLATE LOCATION WING 4

▲ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.



TYPICAL SECTION THRU BOX CULVERT

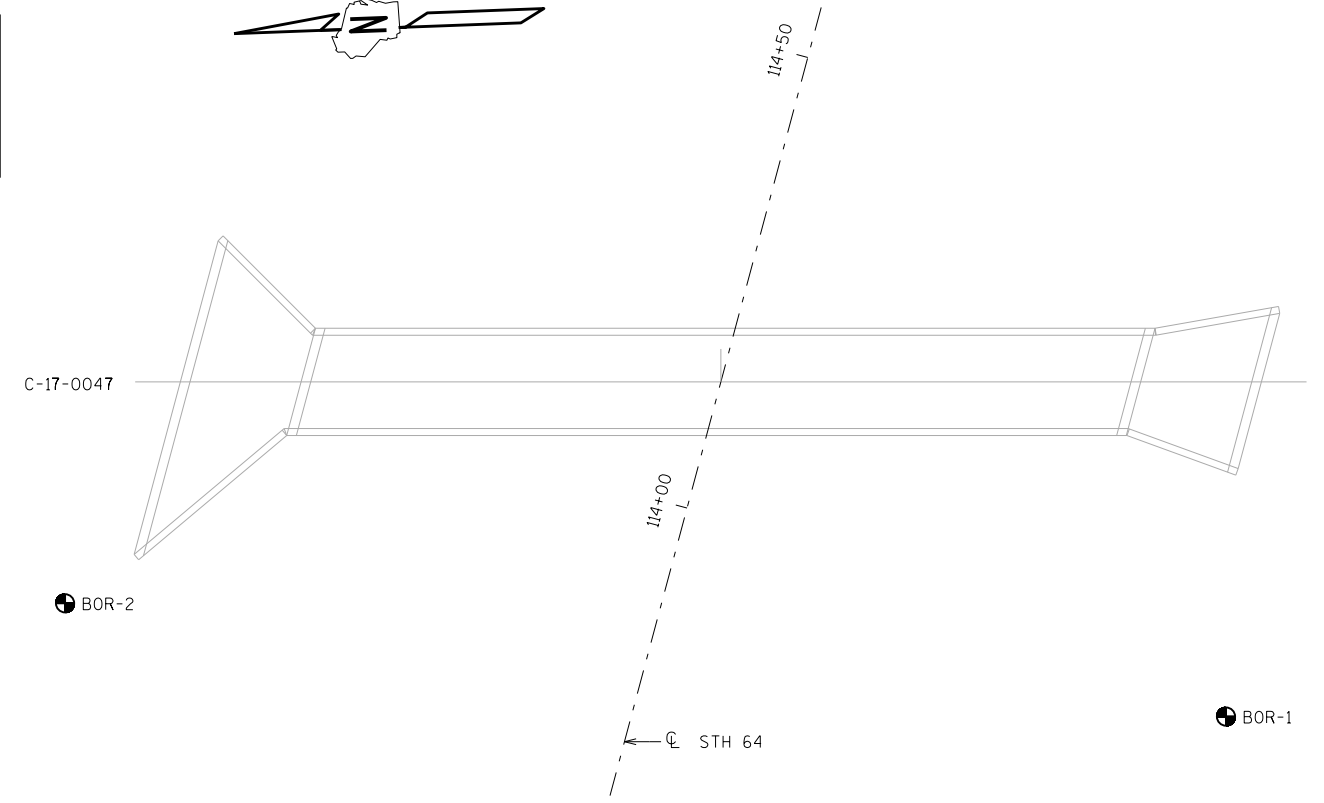
▲ BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

☆ UNDER CUT 1'-0". EXCAVATION FOR UNDER CUT TO BE INCLUDED IN EXCAVATION FOR STRUCTURES. PLACE "GEOTEXTILE TYPE C" AND BACKFILL WITH "BREAKER RUN".

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE C-17-47			
DRAWN BY		SEW PLANS CK'D.	MJL
APRON DETAILS		SHEET 4	

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	9/24/2018	260120.5	170684.8
2	9/25/2018	260244.4	170701.6

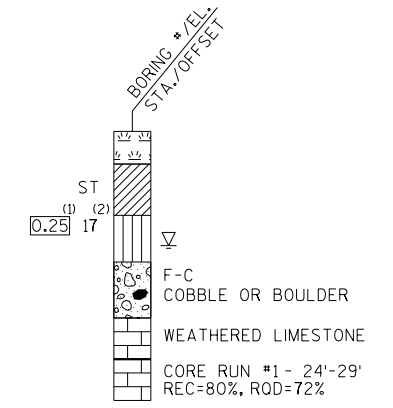
BORINGS COMPLETED BY: WISDOT
 REPORT COMPLETED BY: WISDOT
 ALL COORDINATES REFERENCED TO WCCS NAD 83(91) DUNN COUNTY
 COORDINATES COLLECTED USING NON-SURVEY GRADE EQUIPMENT



MATERIAL SYMBOLS

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

LEGEND OF BORING



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

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

GROUND WATER ELEVATION

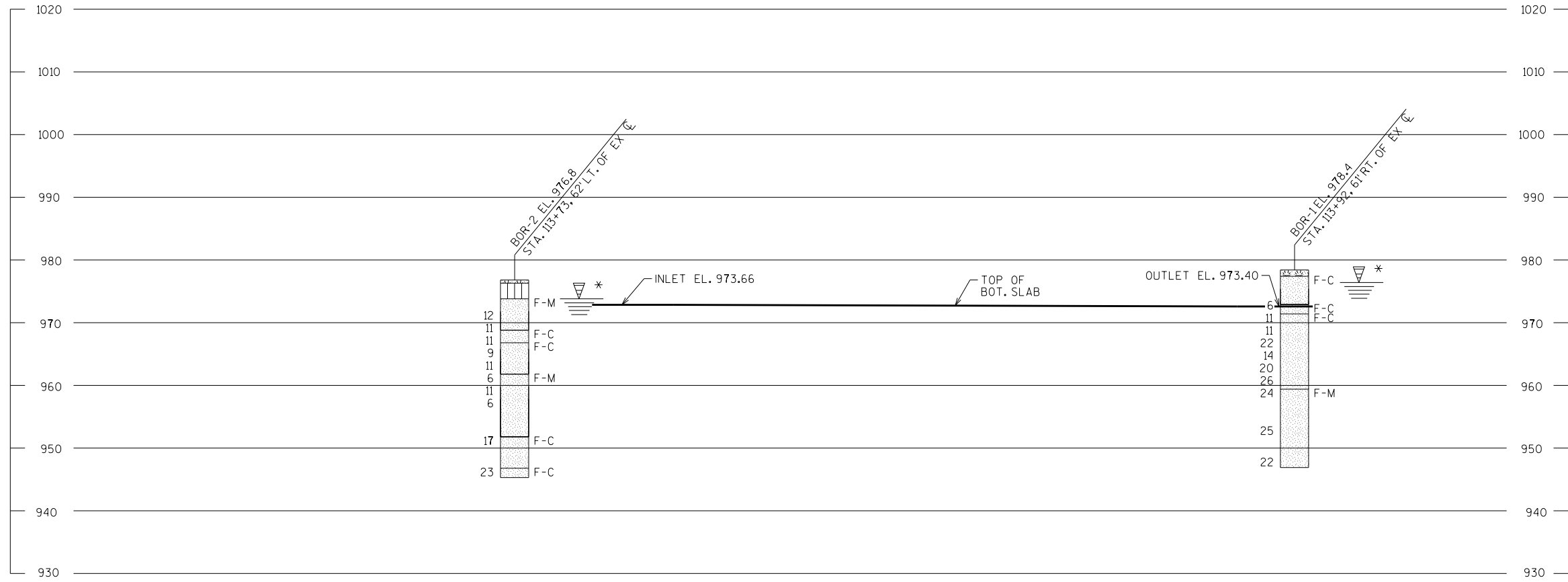
- ▽ AT TIME OF DRILLING
- ▽ END OF DRILLING
- ▽ AFTER DRILLING

ABBREVIATIONS

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

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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

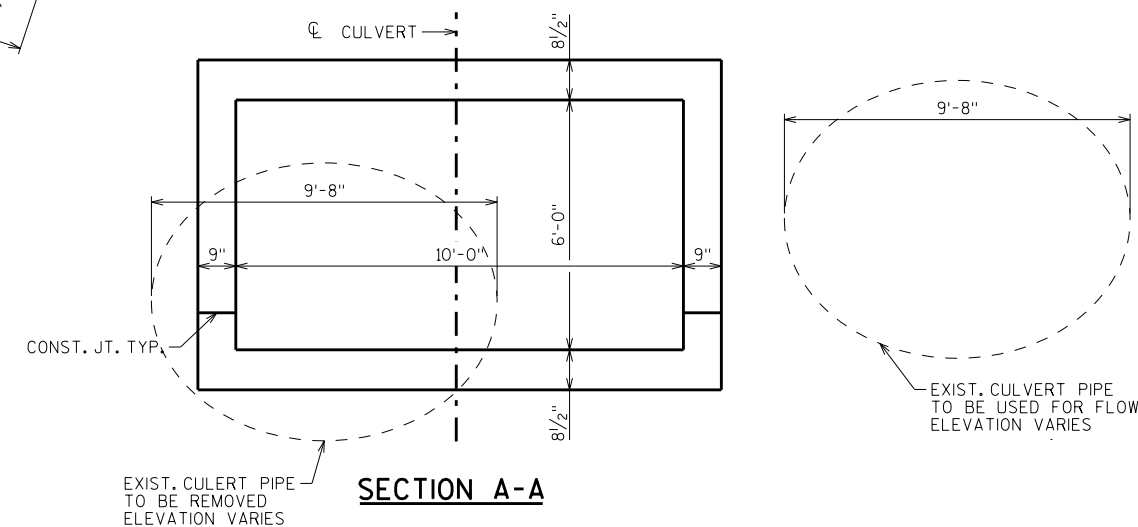
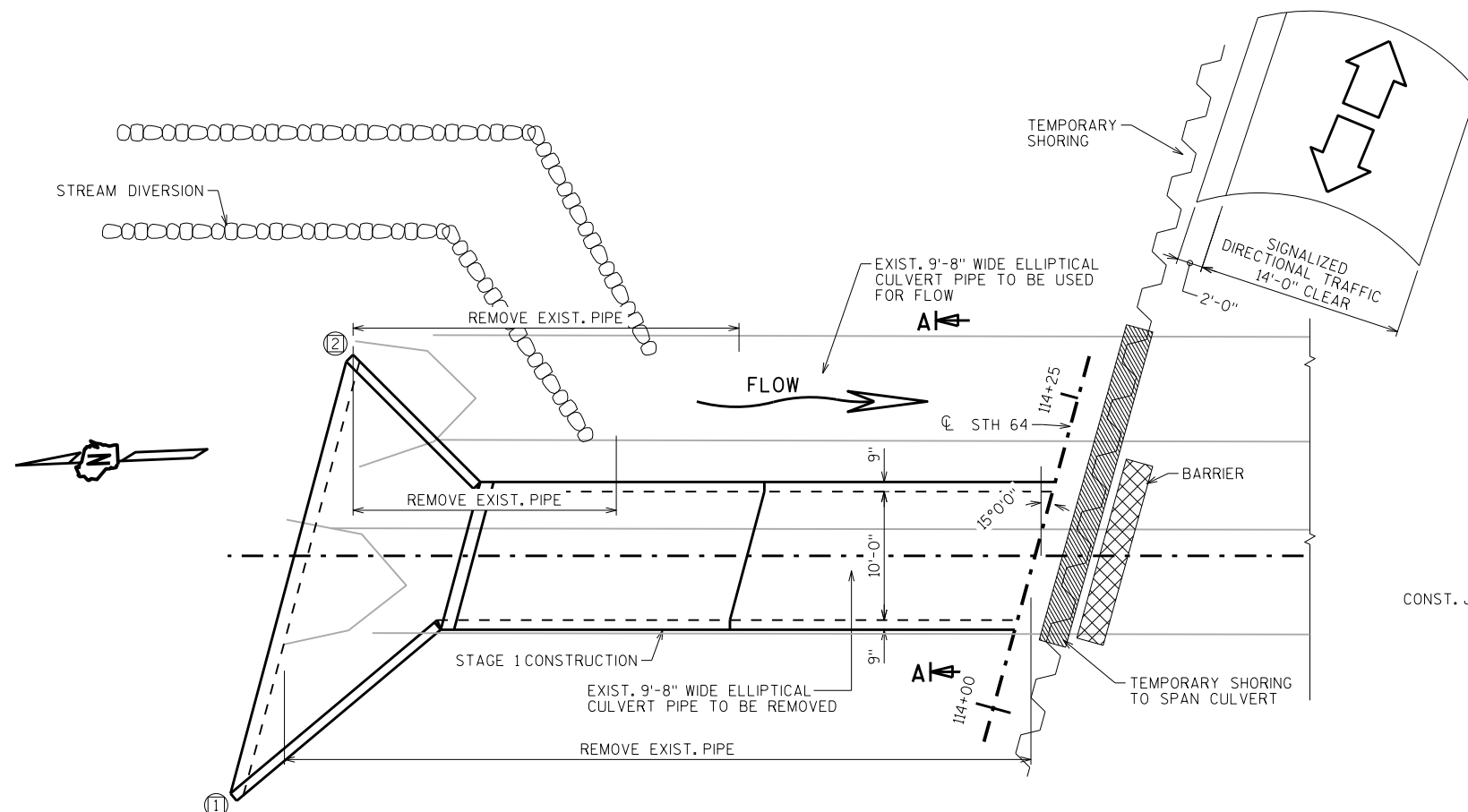


* THE GROUND WATER ELEVATION WAS DETERMINED FROM WHERE THE SOIL SAMPLE WAS DESCRIBED AS WET.

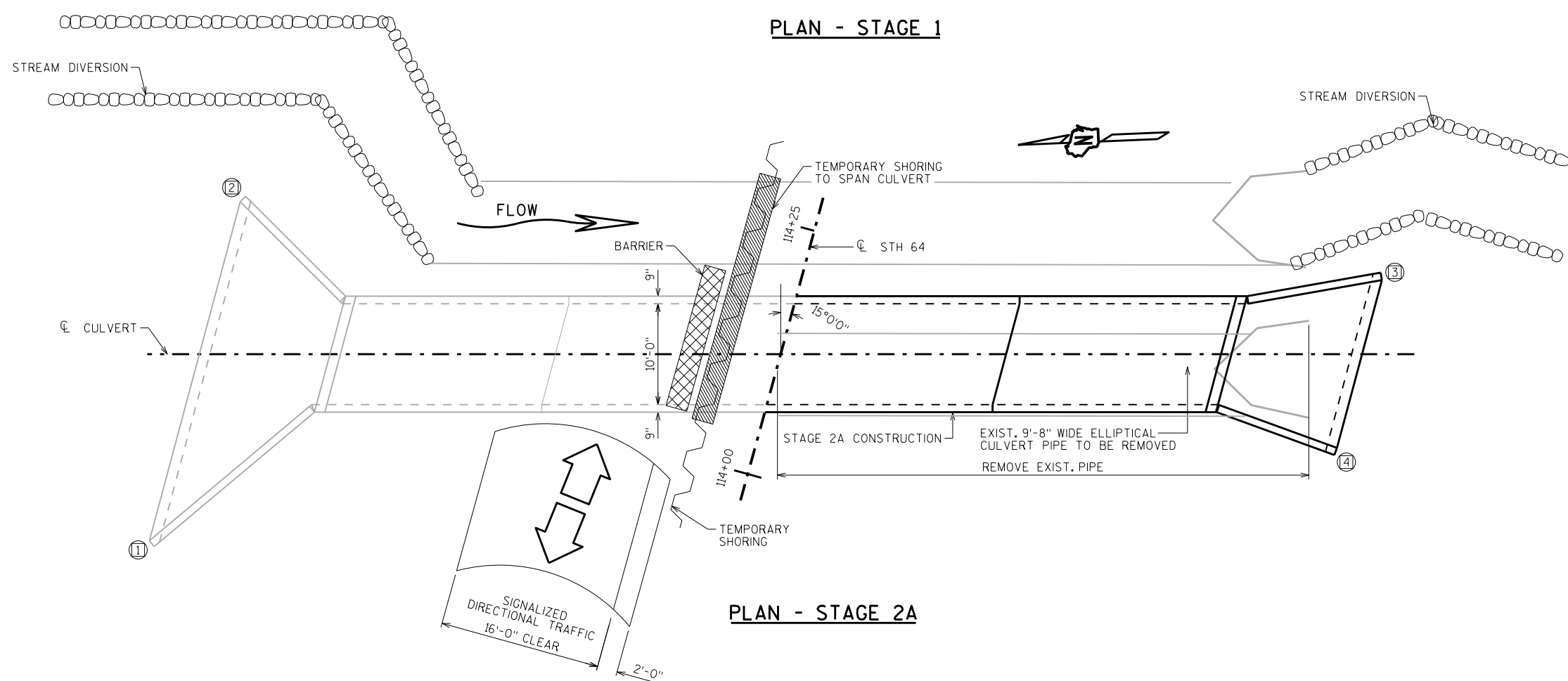
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8

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE C-17-47			
DRAWN BY: TLP/SEW		PLANS CKD. MJL	
SUBSURFACE EXPLORATION			SHEET 5



PLAN - STAGE 1

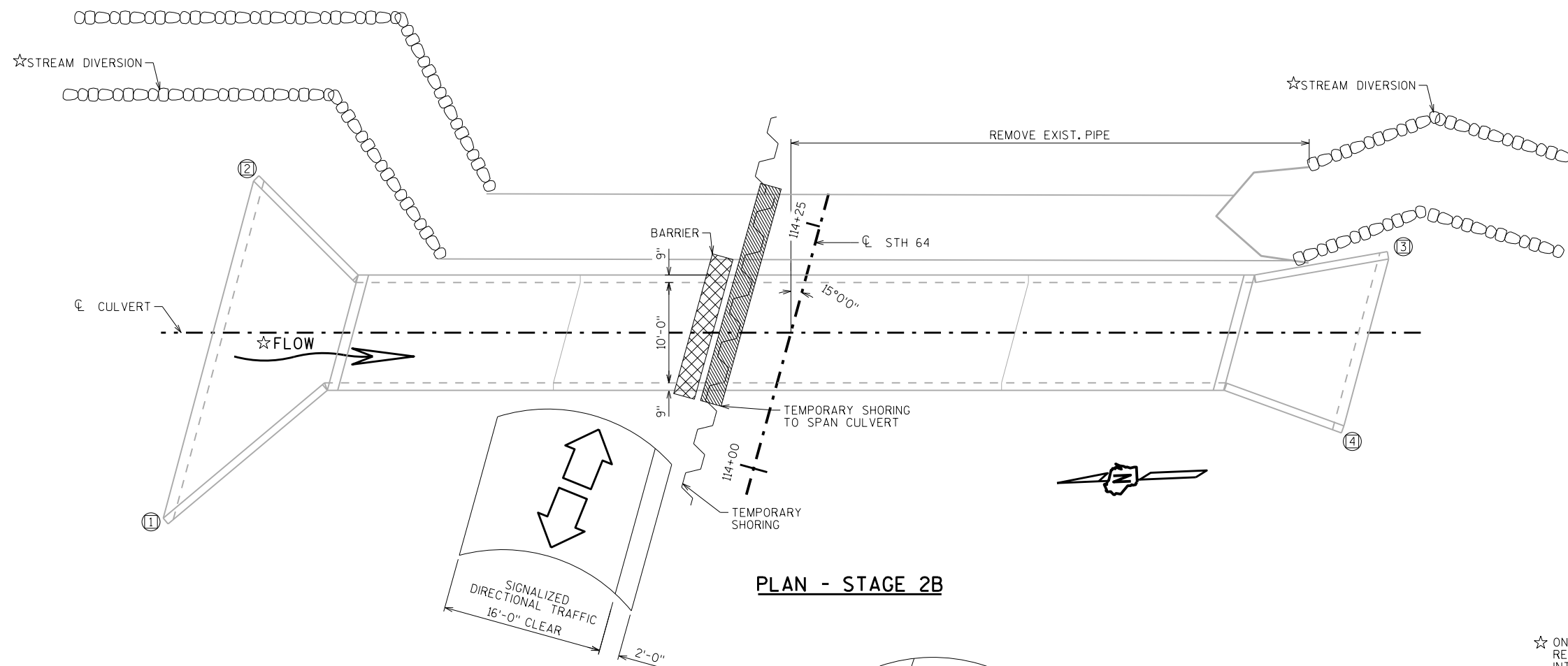


PLAN - STAGE 2A

NOTE:
DETAILS SHOWN ARE FOR INFORMATION ONLY. SEE
ROADWAY SHOWN FOR STAGING DETAILS.

STREAM DIVERSION FOR STAGING TO BE PAID FOR
UNDER ROADWAY BID ITEM "TEMPORARY STREAM
DIVERSION CULVERT C-17-47".

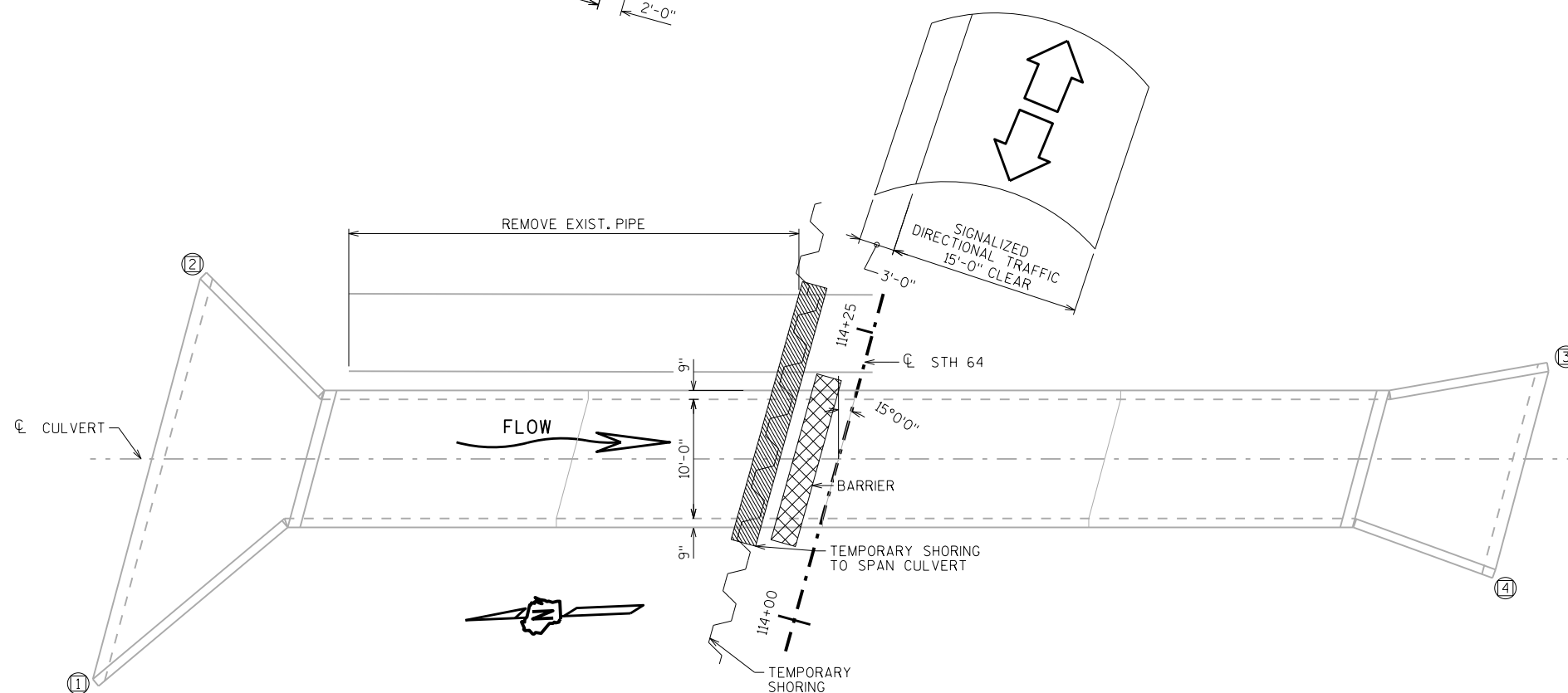
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE C-17-47			
DRAWN BY		SEW PLANS CK'D.	MJL
STAGES 1 & 2A			SHEET 6



PLAN - STAGE 2B

☆ ONCE SOUTH END OF CULVERT IS BUILT REMOVE EXIST. PIPE AND DIVERT FLOW INTO NEW CULVERT

NOTE: DETAILS SHOWN ARE FOR INFORMATION ONLY. SEE ROADWAY PLANS FOR ADDITIONAL STAGING DETAILS.



PLAN - STAGE 3

8

8

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE C-17-47			
DRAWN BY SEW		PLANS CK'D. MJL	
STAGES 2B & 3			SHEET 7

SCALE = 6.50

TABLE 1: STH 64 AND SHOULDER COMMON EXCAVATION AND BORROW

Total Volume Table							
Station	Cut Area	Fill Area	Cut Vol	Unusable Cut	Cum Cut Vol	Fill Vol	Cum Fill Vol
112+86.00	12.00	0.00	0.00	0.00	0.00	0.00	0.00
113+00.00	12.49	0.00	6.35	6.35	6.35	0.00	0.00
113+25.00	11.92	0.29	11.30	11.30	17.65	0.17	0.17
113+50.00	25.96	0.00	17.54	17.54	35.19	0.17	0.33
113+75.00	28.27	0.00	25.10	25.10	60.29	0.00	0.33
113+86.00	81.70	0.05	22.40	22.40	82.69	0.01	0.34
114+00.00	66.47	0.00	38.42	38.42	121.11	0.02	0.36
114+25.00	78.62	6.10	67.17	67.17	188.28	3.53	3.89
114+43.00	70.78	0.00	49.80	49.80	238.08	2.54	6.43
114+50.00	30.66	0.00	13.15	13.15	251.23	0.00	6.43
114+75.00	21.31	0.00	24.06	24.06	275.30	0.00	6.43
115+00.00	25.87	0.23	21.84	21.84	297.14	0.13	6.57
115+25.00	18.80	2.17	20.68	20.68	317.82	1.39	7.96
115+43.00	16.84	0.62	11.88	11.88	329.69	1.16	9.12

ASPHALT PAVEMENT REMOVAL IS INCLUDED IN THIS TABLE, TEMPORARY ASPHALT REMOVAL IS NOT. SEE MQ TABLE FOR TEMPORARY ASPHALT REMOVAL CUT QUANTITY. *1.25 fill factor

CUT/FILL REPORT 1: STAGE 3 COMMON EXCAVATION FOR CULVERT REMOVAL

Volume Summary							
Name	Type	Cut Factor	Fill Factor	2d Area (Sq. Ft.)	Cut (Cu. Yd.)	Fill (Cu. Yd.)	Net (Cu. Yd.)
stage 3 culvert removal	full	1.000	1.000	331.76	90.23	0.00	90.23<Cut>

TABLE 2: BORROW BETWEEN CULVERT BACKFILL AND ROAD BASE

Total Volume Table				
Station	Cut Area	Fill Area	Fill Vol	Cum Fill Vol
0+00.00	0.00	0.00	0.00	0.00
0+10.00	41.16	0.65	0.15	0.15
0+20.00	14.33	73.16	17.09	17.24
0+30.00	6.44	181.12	58.86	76.10
0+40.00	0.00	210.29	90.60	166.70
0+50.00	0.00	191.28	92.96	259.65
0+60.00	0.00	164.81	82.43	342.08
0+70.00	0.55	146.25	72.01	414.09
0+80.00	3.34	124.47	62.67	476.76
0+90.00	7.06	104.10	52.91	529.67
1+00.00	19.80	53.07	36.38	566.05
1+10.00	6.48	0.37	12.37	578.42
1+20.00	0.00	0.00	0.08	578.50
1+23.77	0.00	0.00	0.00	578.50

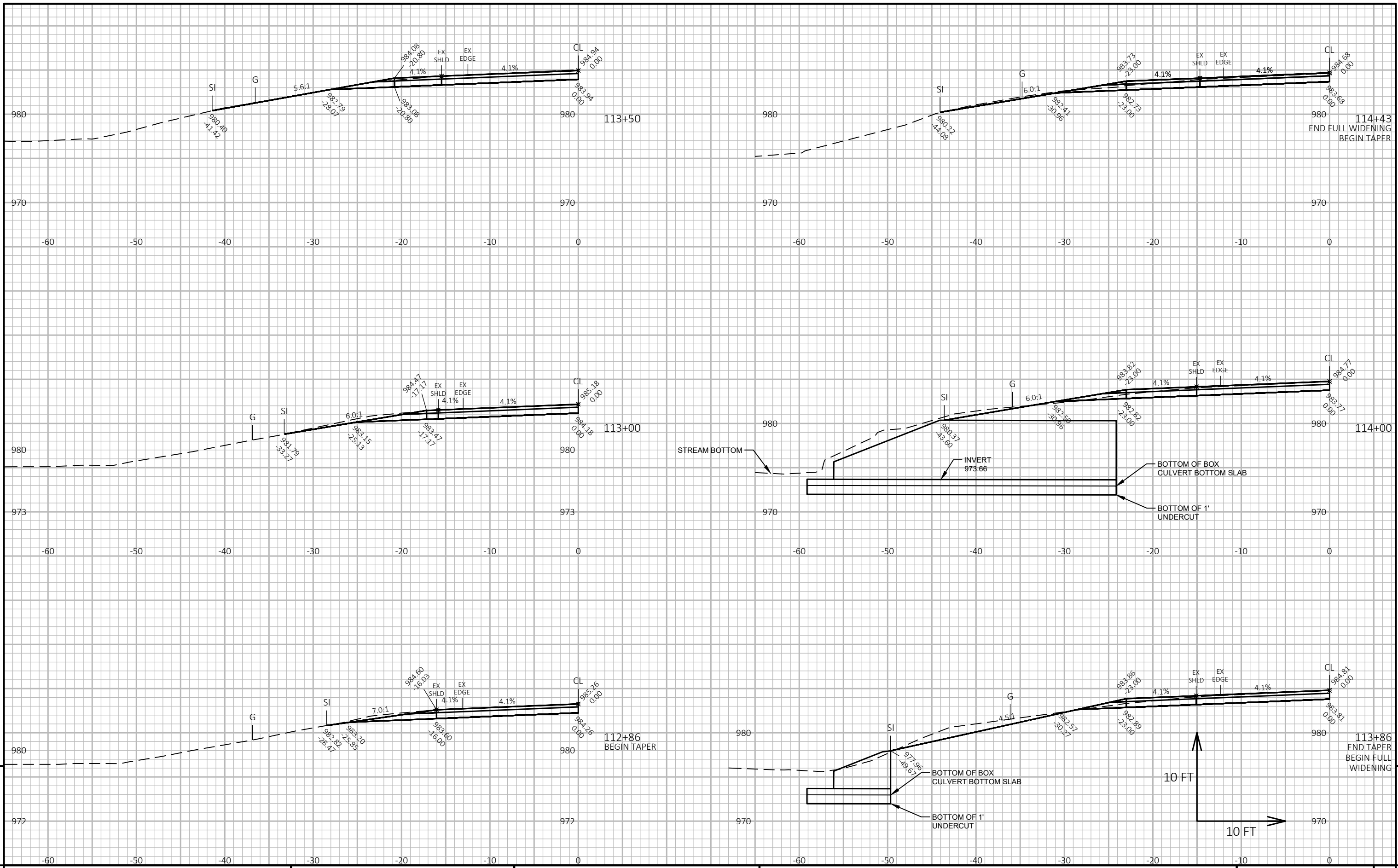
STATIONING ALONG LENGTH OF BOX CULVERT

*1.25 fill factor

CUT/FILL REPORT 2: STAGE 3 BORROW FOR CULVERT REMOVAL

Volume Summary							
Name	Type	Cut Factor	Fill Factor	2d Area (Sq. Ft.)	Cut (Cu. Yd.)	Fill (Cu. Yd.)	Net (Cu. Yd.)
stage 3 culvert removal	full	1.000	1.250	331.76	0.00	112.79*	112.79*

113 CY BORROW - 90 CY USABLE CUT = 23 CY BORROW *1.25 fill factor



PROJECT NO: 8110-00-08

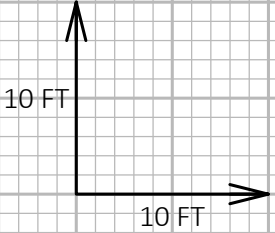
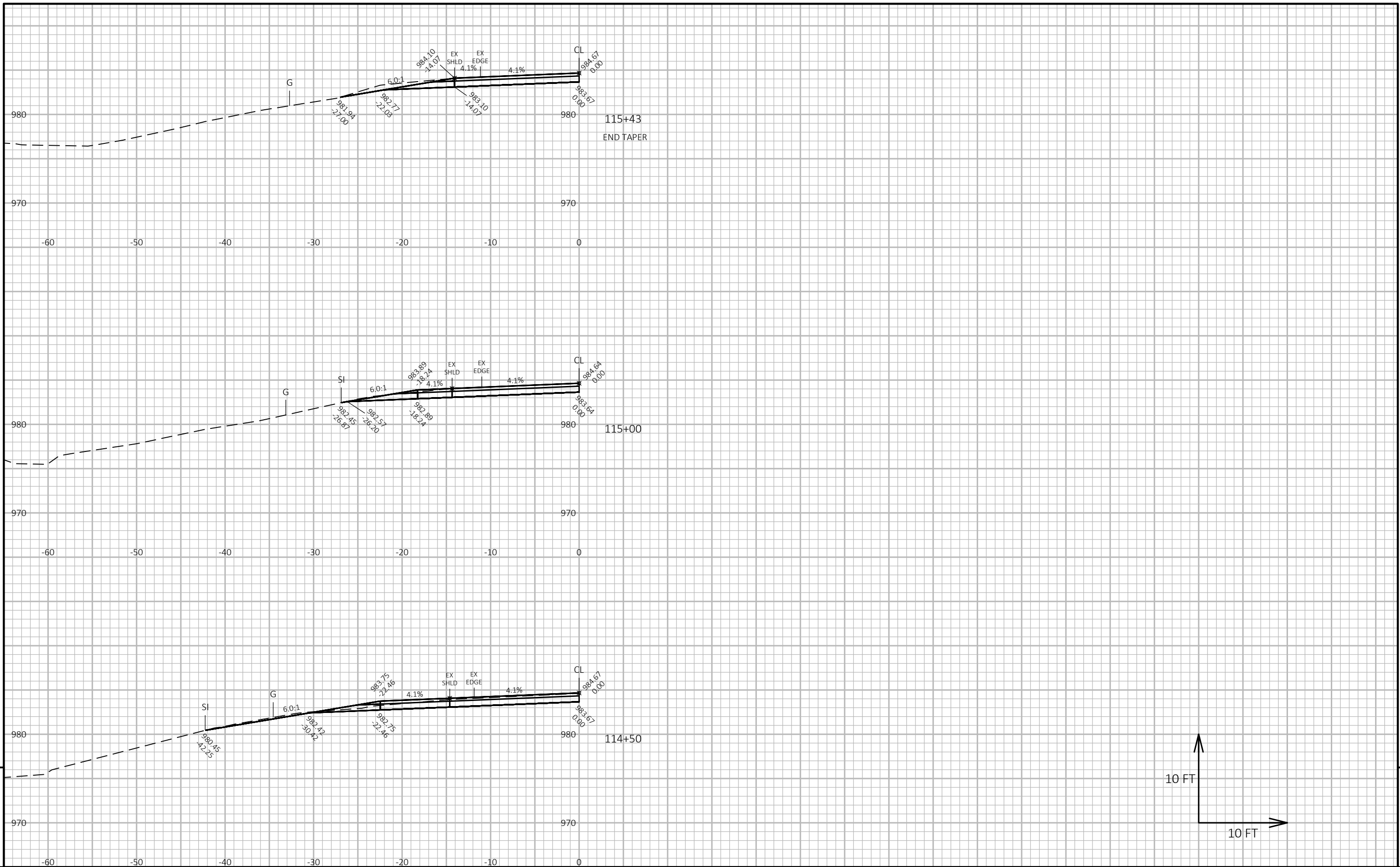
HWY: STH 64

COUNTY: DUNN

CROSS SECTIONS: STAGE 2 WIDENING

SHEET

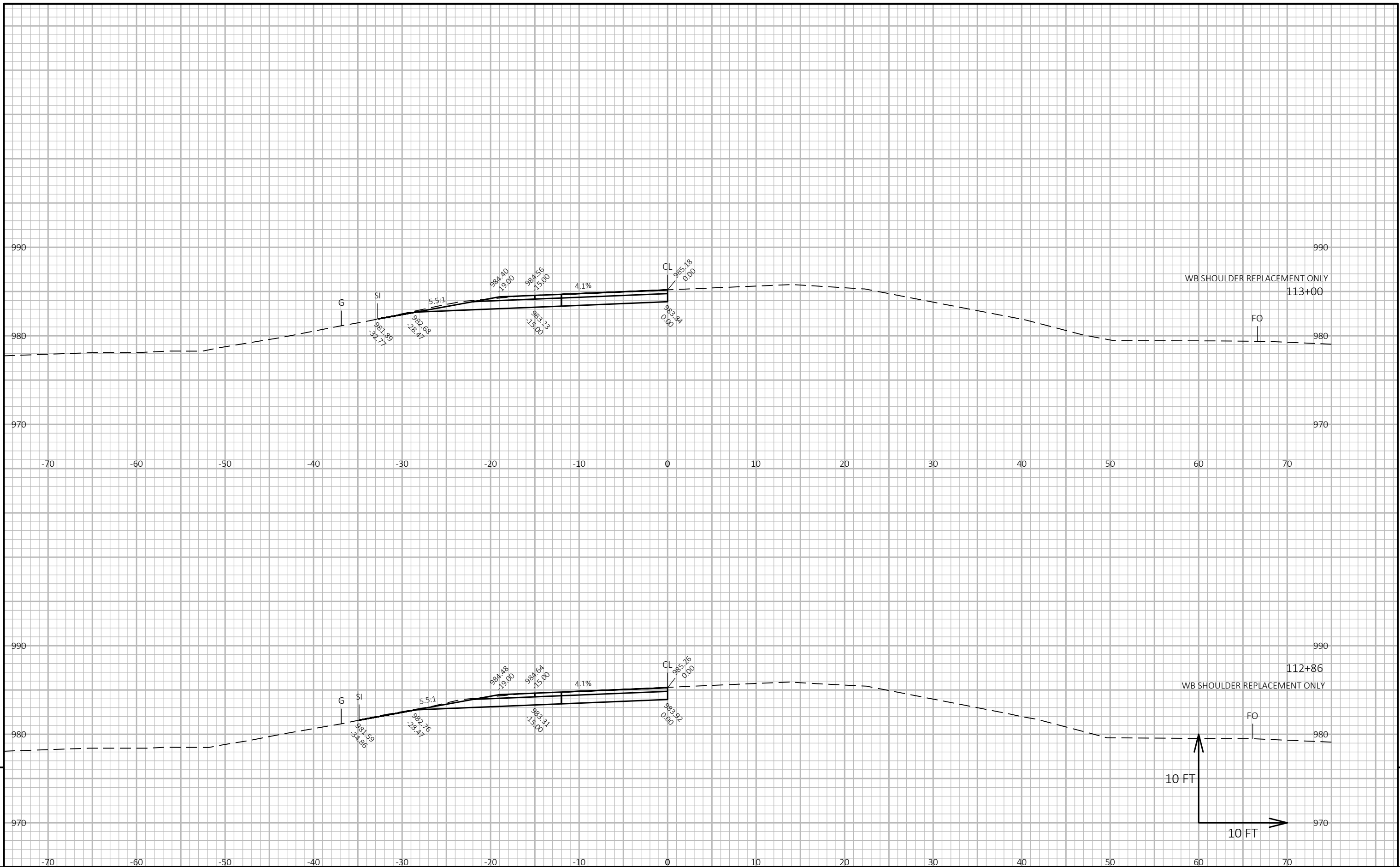
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PROJECT NO: 8110-00-08	HWY: STH 64	COUNTY: DUNN	CROSS SECTIONS: STAGE 2 WIDENING	SHEET	E
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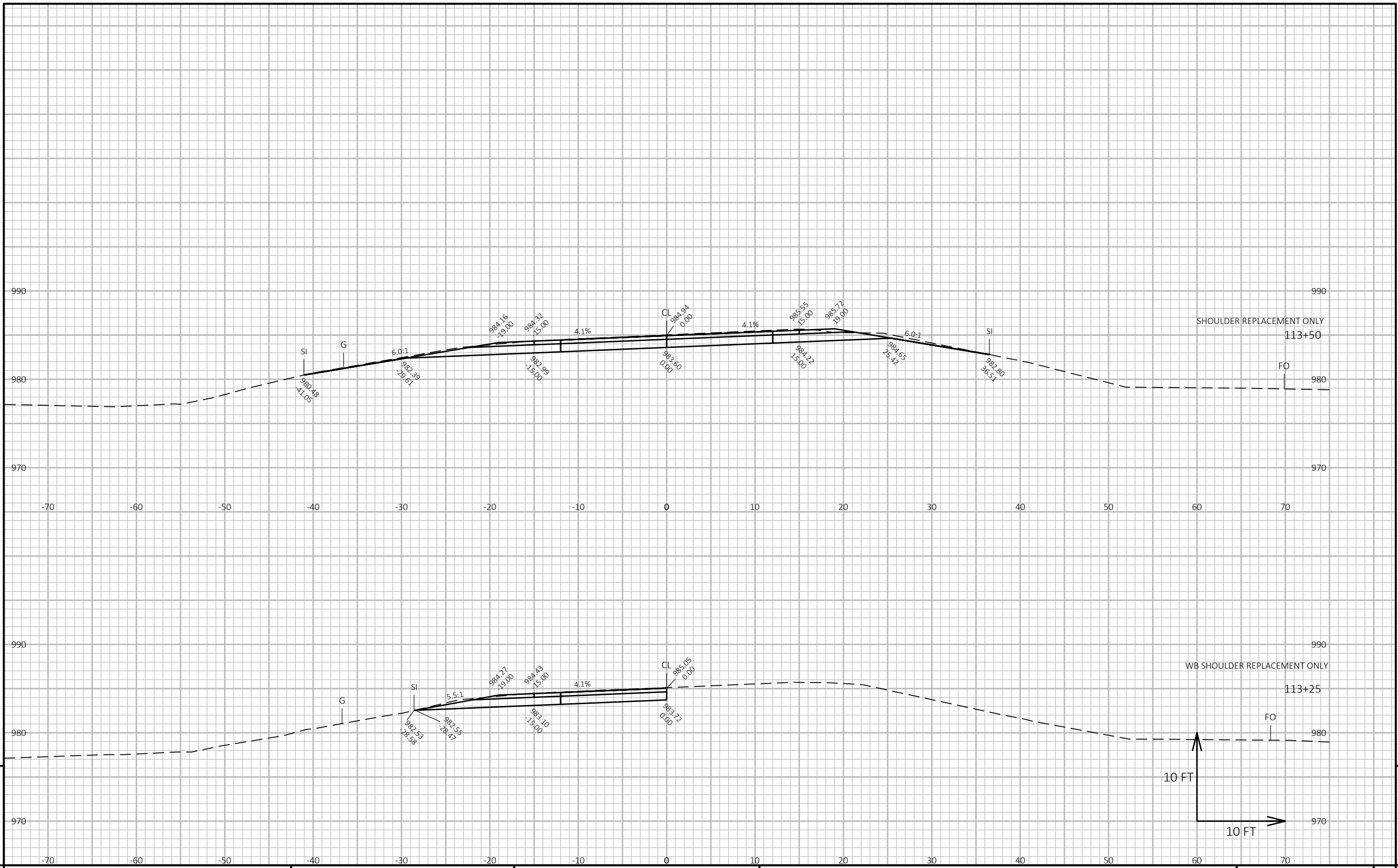
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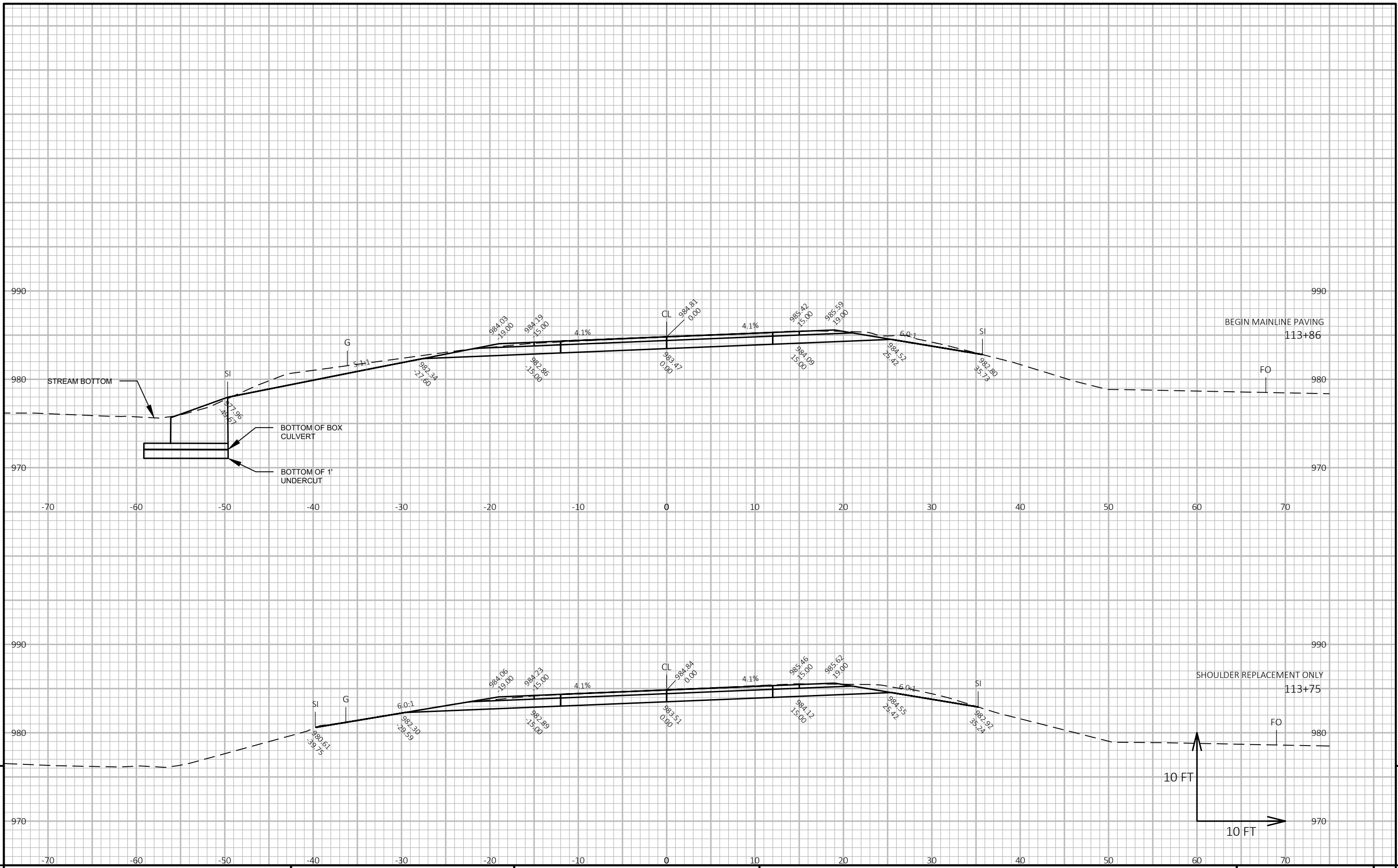
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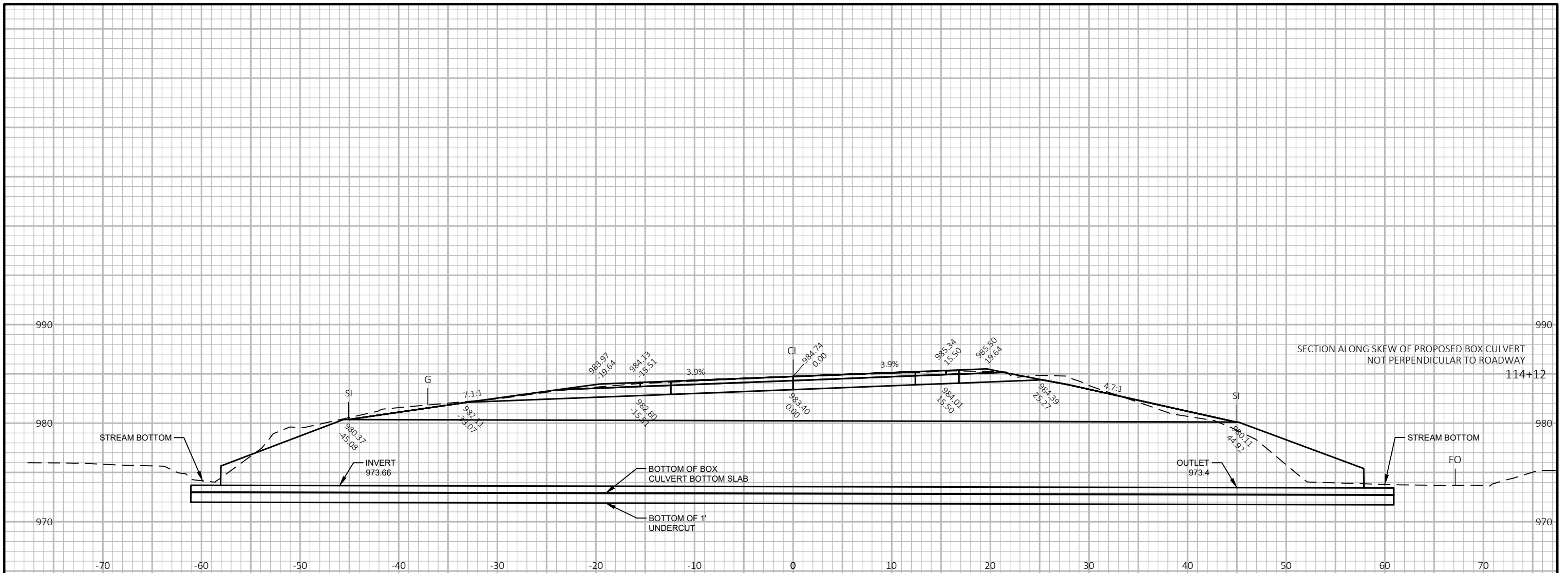
LAYOUT NAME - STH 64 - 1



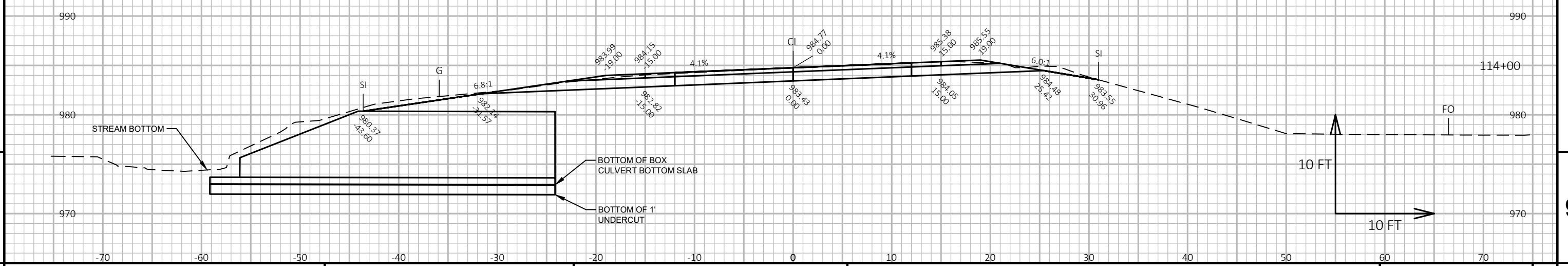
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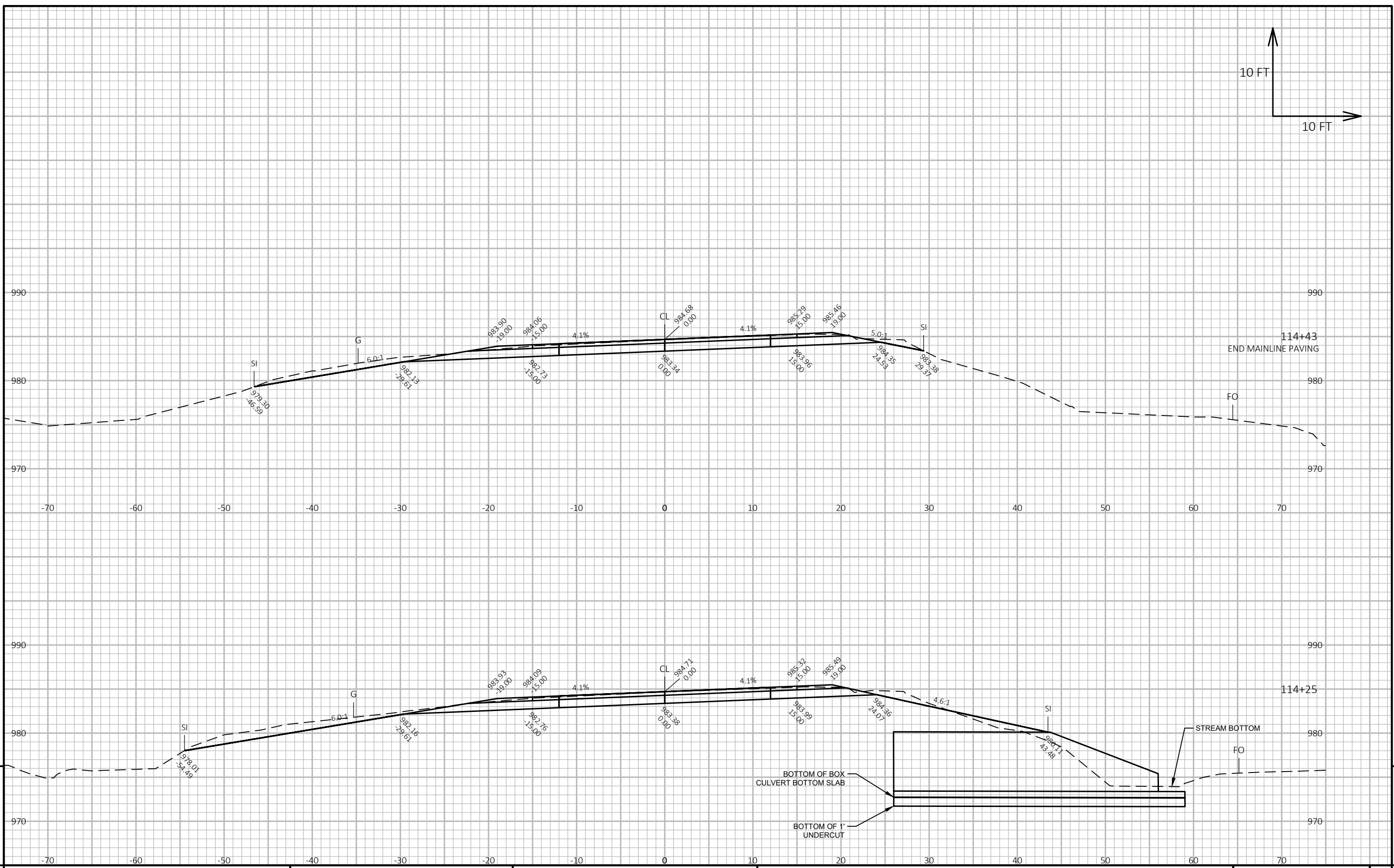
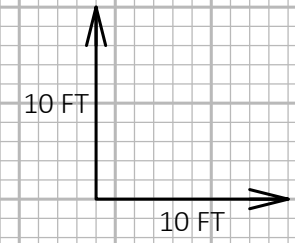
PROJECT NO: 8110-00-08 HWY: STH 64 COUNTY: EAU CLAIRE CROSS SECTIONS: STH 64 SHEET E



SECTION ALONG SKEW OF PROPOSED BOX CULVERT
NOT PERPENDICULAR TO ROADWAY
114+12



PROJECT NO: 8110-00-08	HWY: STH 64	COUNTY: EAU CLAIRE	CROSS SECTIONS: STH 64	SHEET	E
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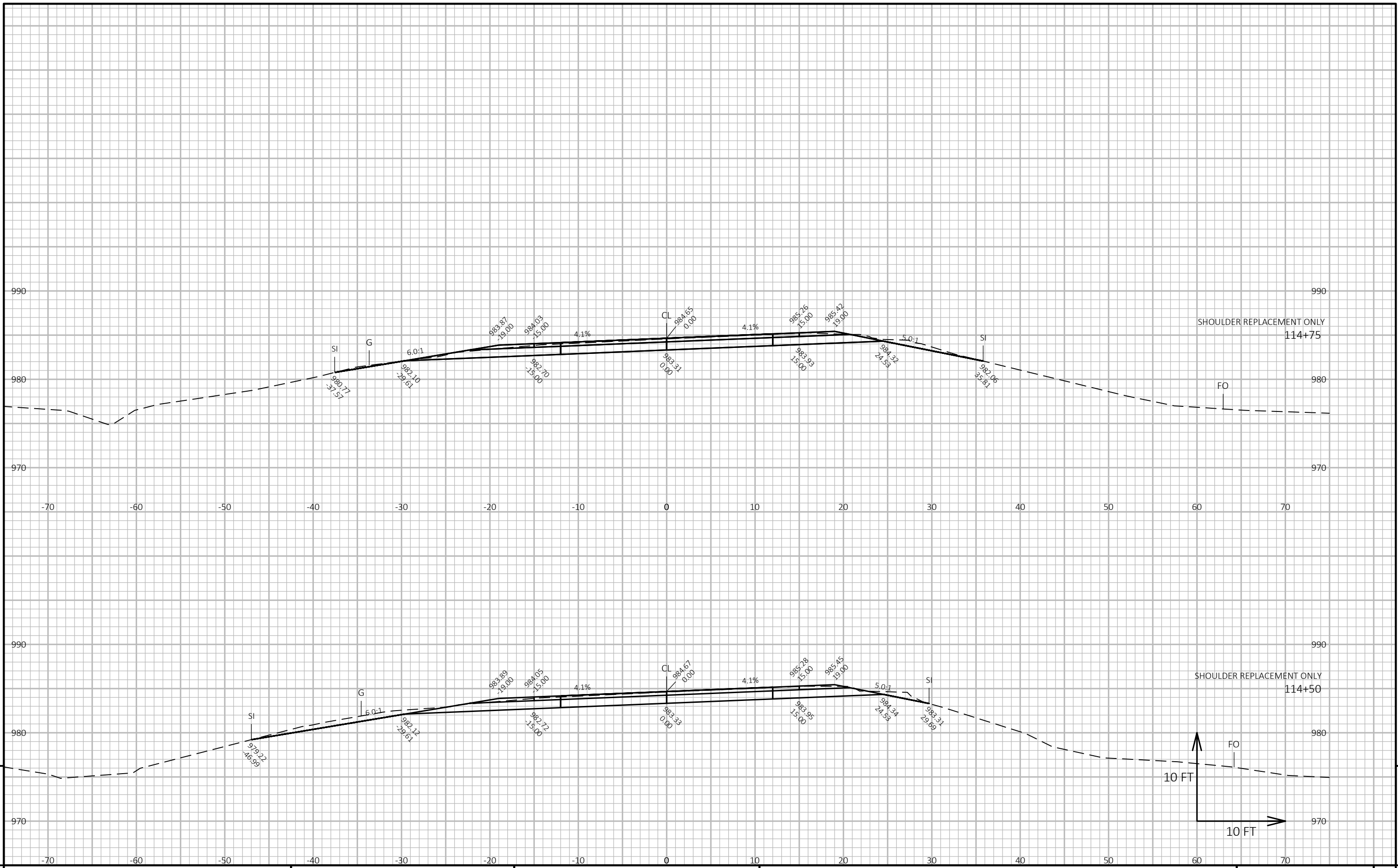
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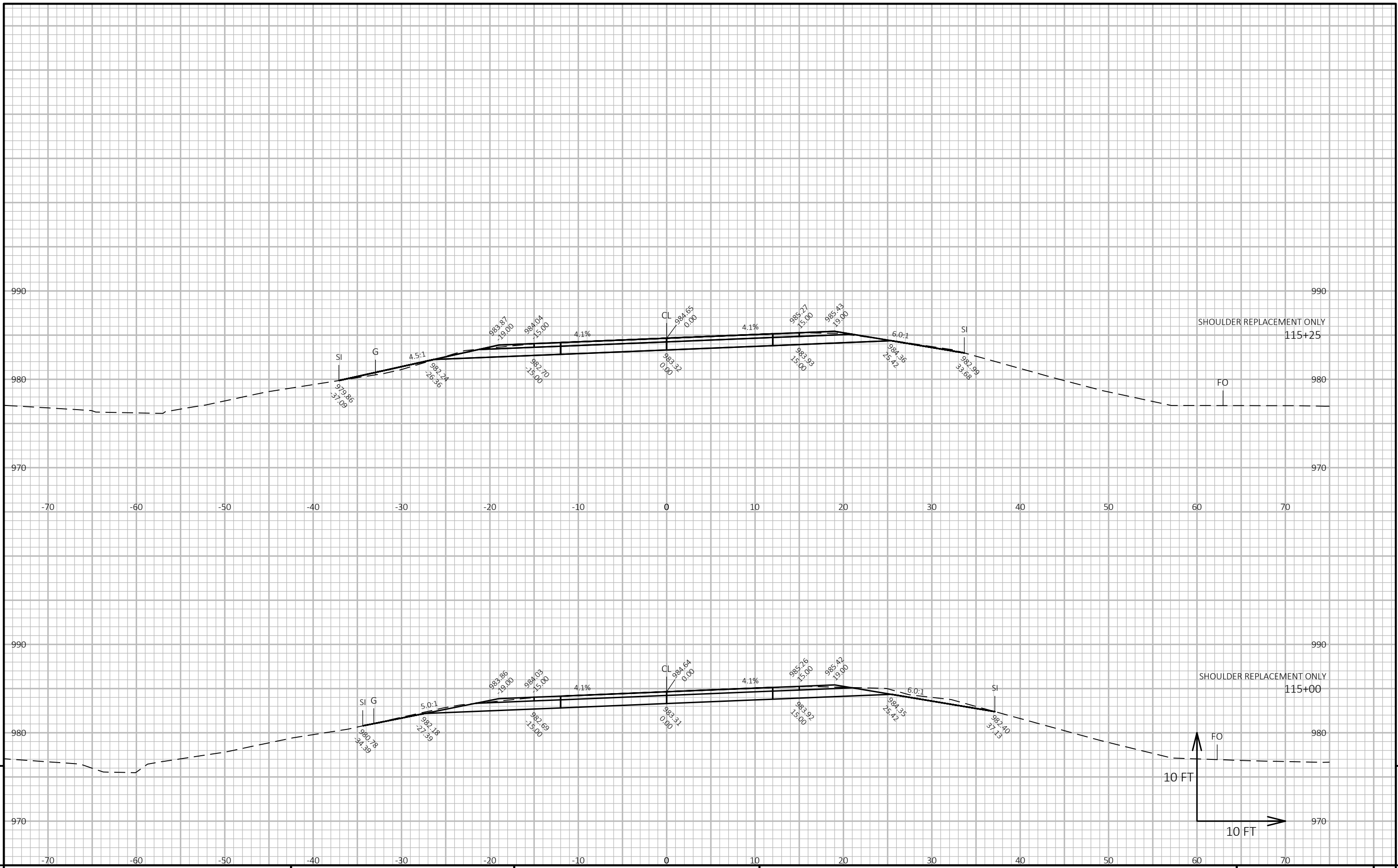
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FILE NAME: N:\PDS\C3D\81100008\DESIGN\CORRIDORS\CORR_STH 64.DWG PLOT DATE: 7/30/2021 1:27 PM PLOT BY: MUNDEN, ALLISSA L PLOT NAME: PLOT SCALE: 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

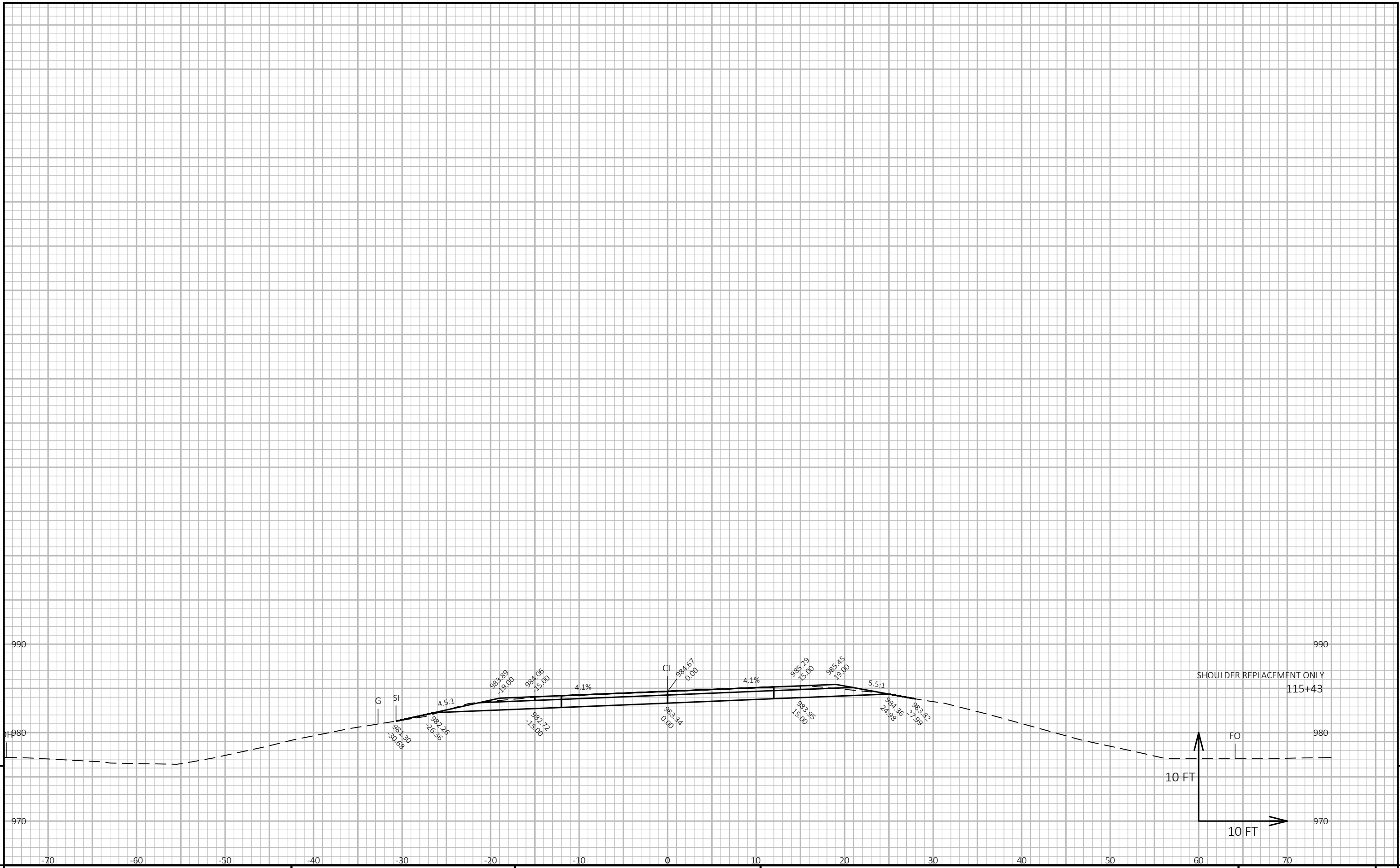
LAYOUT NAME - STH 64 - 5



PROJECT NO: 8110-00-08 HWY: STH 64 COUNTY: EAU CLAIRE CROSS SECTIONS: STH 64 SHEET E



PROJECT NO: 8110-00-08 HWY: STH 64 COUNTY: EAU CLAIRE CROSS SECTIONS: STH 64 SHEET E



9

9

PROJECT NO: 8110-00-08 HWY: STH 64 COUNTY: EAU CLAIRE CROSS SECTIONS: STH 64 SHEET E

FILE NAME : N:\PDS\C3D\81100008\DESIGN\CORRIDORS\CORR_STH 64.DWG PLOT DATE : 7/30/2021 1:28 PM PLOT BY : MUNDEN, ALLISSA L PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

LAYOUT NAME - STH 64 - 8

Notes



Wisconsin Department of Transportation

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