

SUP

JANUARY 2022

PROJECT ID:

8180-01-60

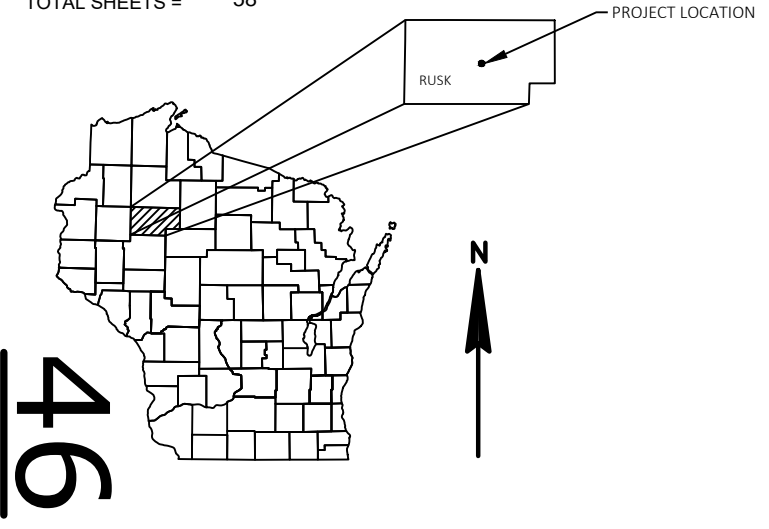
COUNTY:

RUSK COUNTY

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 Plan
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	Gross Sections

TOTAL SHEETS = 58



DESIGN DESIGNATION

A.A.D.T.	2014	=	5,800
A.A.D.T.	2043	=	8,500
D.H.V.		=	59/41
D.D.		=	1,002
T.		=	6.0%
DESIGN SPEED		=	35 MPH
ESALS		=	1,200,000

CONVENTIONAL SYMBOLS

PLAN		PROFILE	
CORPORATE LIMITS		GRADE LINE	
PROPERTY LINE		ORIGINAL GROUND	
LOT LINE		MARSH OR ROCK PROFILE (To be noted as such)	
LIMITED HIGHWAY EASEMENT		SPECIAL DITCH	
EXISTING RIGHT OF WAY		GRADE ELEVATION	
PROPOSED OR NEW R/W LINE		CULVERT (Profile View)	
SLOPE INTERCEPT		UTILITIES	
REFERENCE LINE		ELECTRIC	
EXISTING CULVERT		FIBER OPTIC	
PROPOSED CULVERT (Box or Pipe)		GAS	
COMBUSTIBLE FLUIDS		SANITARY SEWER	
MARSH AREA		STORM SEWER	
WOODED OR SHRUB AREA		TELEPHONE	
		WATER	
		UTILITY PEDESTAL	
		POWER POLE	
		TELEPHONE POLE	

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

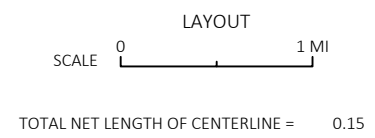
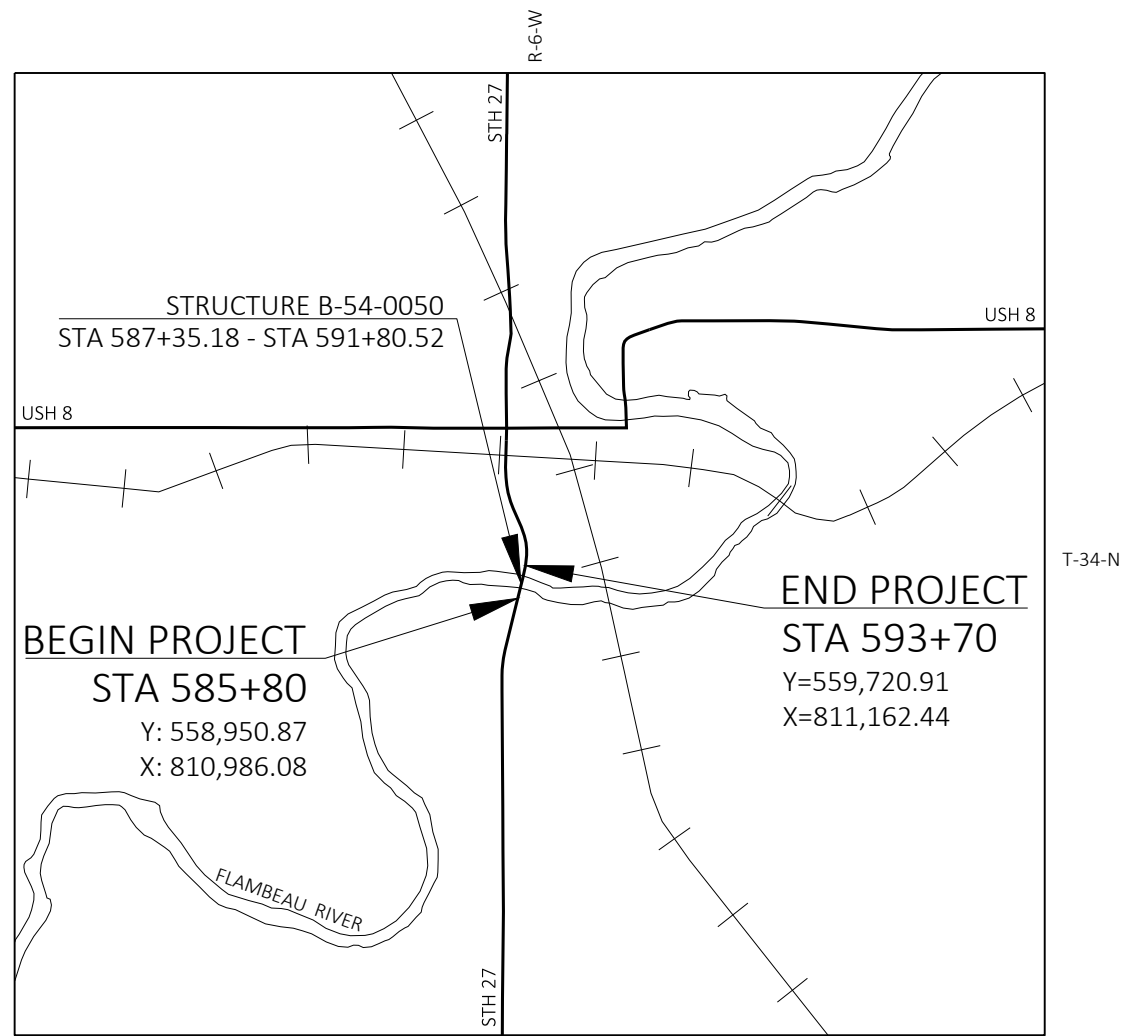
PLAN OF PROPOSED IMPROVEMENT

C LADYSMITH, NINTH STREET

FLAMBEAU RIVER BRIDGE B-54-0050

STH 27
RUSK COUNTY

STATE PROJECT NUMBER
8180-01-60



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

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
8180-01-60	_____	_____

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
PREPARED BY	_____
Surveyor	CBS SQUARED
Designer	CAITLIN BUKOVITZ
Project Manager	MATTHEW DICKENSON
Regional Examiner	TOU YANG
Regional Supervisor	JEFFREY OLSON

APPROVED FOR THE DEPARTMENT
DATE: 7/22/21 *Matthew J. Dickenson*
(Signature)

E

LIST OF STANDARD ABBREVIATIONS

ABUT.	ABUTMENT
AGG.	AGGREGATE
AH.	AHEAD
APPROX.	APPROXIMATE
A.E.W.	APRON ENDWALL
ASPH.	ASPHALTIC
A.D.T.	AVERAGE DAILY TRAFFIC
AZ.	AZIMUTH
BK.	BACK
BEG.	BEGIN
B.M.	BENCH MARK
C/L	CENTER LINE
CONC.	CONCRETE
CONST.	CONSTRUCTION
CO.	COUNTY
C.T.H.	COUNTY TRUNK HIGHWAY
X-SEC.	CROSS SECTION
CR.	CRUSHED
CFS	CUBIC FEET/SECOND
C.Y., CU. YD.	CUBIC YARD
CULV.	CULVERT
C.P.	CULVERT PIPE
D.O.T.	DEPARTMENT OF TRANSPORTATION
D.H.V.	DESIGN HOUR VOLUME
DIA.	DIAMETER
D.	DIRECTIONAL DISTRIBUTION
DISCH. OR DIS.	DISCHARGE
EA.	EACH
ELECT.	ELECTRIC
EL. OR ELEV.	ELEVATION
EMB.	EMBANKMENT
E.B.S.	EXCAVATION BELOW SUBGRADE
EXIST.	EXISTING
FERT.	FERTILIZE
F.E.	FIELD ENTRANCE
FIN.	FINISHED
FT.	FOOT
F.L.	FLOW LINE
GA.	GAUGE
HORIZ.	HORIZONTAL
CWT.	HUNDREDWEIGHT
INL.	INLET
LT.	LEFT
L.H.F.	LEFT-HAND FORWARD
LIN.	LINEAR
LIN. FT.	LINEAR FOOT
L.S.	LUMP SUM
MAX.	MAXIMUM
MI.	MILE
MISC.	MISCELLANEOUS
N.E.	NORTH EAST
N.W.	NORTH WEST
PAV'T	PAVEMENT
P.C.	POINT OF CURVATURE
P.I.	POINT OF INTERSECTION
P.T.	POINT OF TANGENCY
P.O.T.	POINT ON TANGENT
LB.	POUND
P.E.	PRIVATE ENTRANCE
PROJ.	PROJECT
R.	RANGE
REQ'D	REQUIRED
RT.	RIGHT
R.H.F.	RIGHT-HAND FORWARD
R/W	RIGHT OF WAY
RD.	ROAD
SHR.	SHRINKAGE
SL.	SLOPE
STD.	STANDARD
S.D.D.	STANDARD DETAIL DRAWINGS
S.T.H.	STATE TRUNK HIGHWAY
STA.	STATION
S.P.P.A.	STRUCTURAL PLATE PIPE ARCH
STRUCT.	STRUCTURE
SURF.	SURFACE
TEL.	TELEPHONE
TN.	TOWN
T.	TRUCKS (PERCENT OF)
UNCL.	UNCLASSIFIED
U.G.	UNDERGROUND
V.	VELOCITY OR DESIGN SPEED
V.C.	VERTICAL CURVE

GENERAL NOTES

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

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

DETAILS OF CONSTRUCTION NOT SHOWN SHALL BE IN ACCORDANCE WITH THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS.

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

THE 6.5" ASPHALTIC SURFACE SHALL BE PLACED IN THREE LIFTS.

ASPHALTIC SURFACE WEIGHT CALCULATIONS ARE BASED ON 112 LB/SY/IN.



UTILITY CONTACTS

COMMUNICATION:

CENTURYLINK-COMMUNICATION LINE

ATTN: BRIAN HUHN
425 ELLINGSON AVENUE
HAWKINS, WI 54530
PHONE (OFFICE): 715-532-0023
PHONE (MOBILE): 715-563-8294
EMAIL: brian.huhn@centurylink.com

CHARTER COMMUNICATIONS

ATTN: JAMEY OLDEEN
2304 S MAIN STREET
RICE LAKE, WI 54868
PHONE (OFFICE): 715-719-0561
PHONE (MOBILE): 715-651-7488
EMAIL: jamey.oldeen@charter.com

GAS/PETROLEUM:

WE ENERGIES

ATTN: STEVEN CHAVERS
104 W. SOUTH STREET
RICE LAKE, WI 54868
PHONE (OFFICE): 715-234-9605
PHONE (MOBILE): 715-213-4327
EMAIL: steven.chavers@we-energies.com
24-HOUR EMERGENCY CONTACT: 1-800-261-5325

WATER:

CITY OF LADYSMITH - WATER

ATTN: KURTIS GORSEGNER
PO BOX 431
LADYSMITH, WI 54848
PHONE: 715-532-2603
EMAIL: kgorsegner@cityofladysmithwi.com

ELECTRICITY:

XCEL ENERGY - ELECTRICITY

ATTN: KATHY SCHANTNER
310 HICKORY HILLS LANE
PHILLIPS, WI 54555
PHONE (OFFICE): 715-737-1102
EMAIL: kathleen.r.schantner@xcelenergy.com

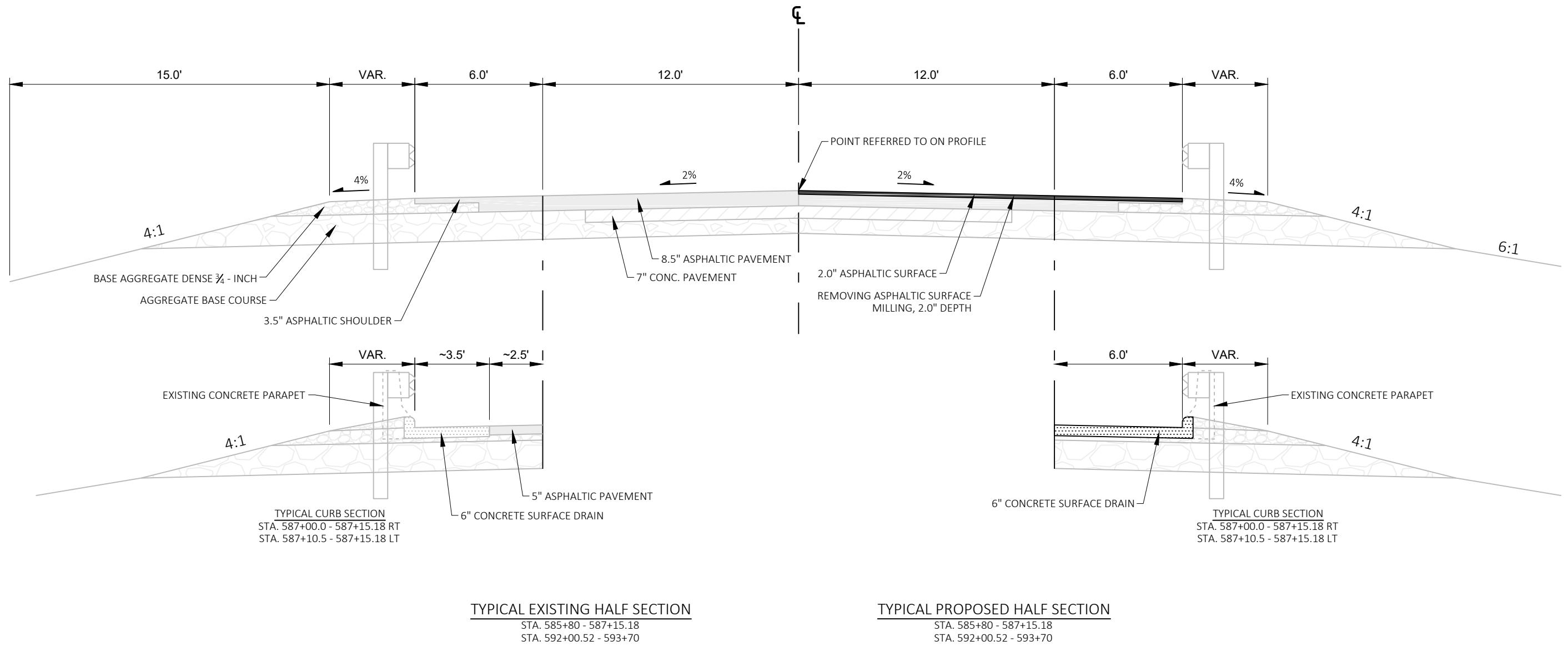
WISCONSIN DNR-LIASON

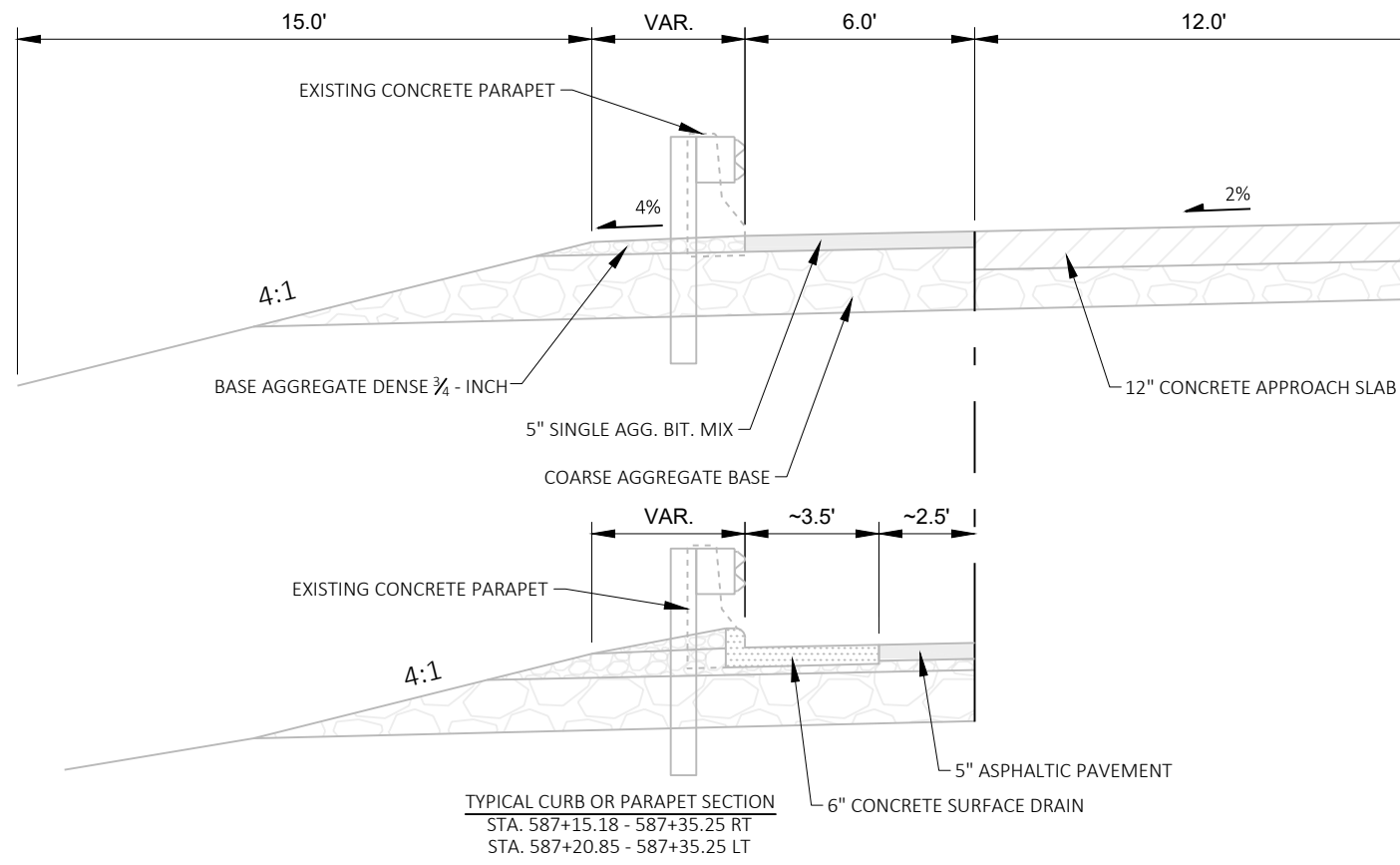
ATTN: LEAH NICOL
1300 W. CLAIREMONT
EAU CLAIRE, WI 54701
PHONE: 715-934-9014
EMAIL: leah.nicol@wisconsin.gov

WISDOT NW REGION

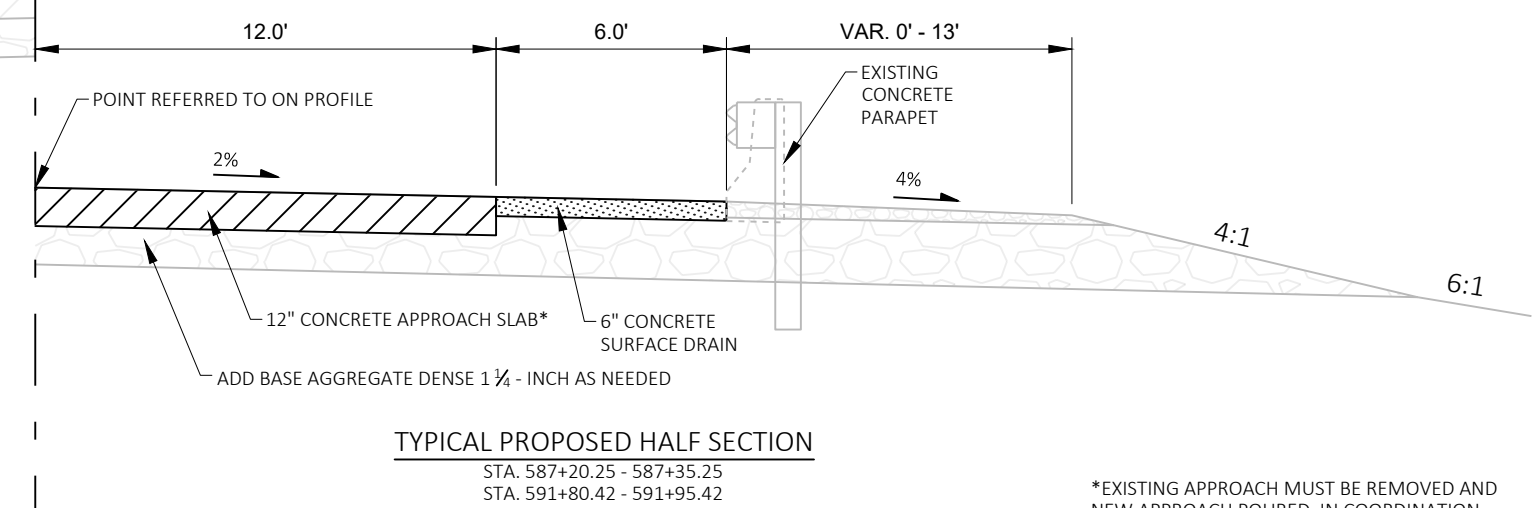
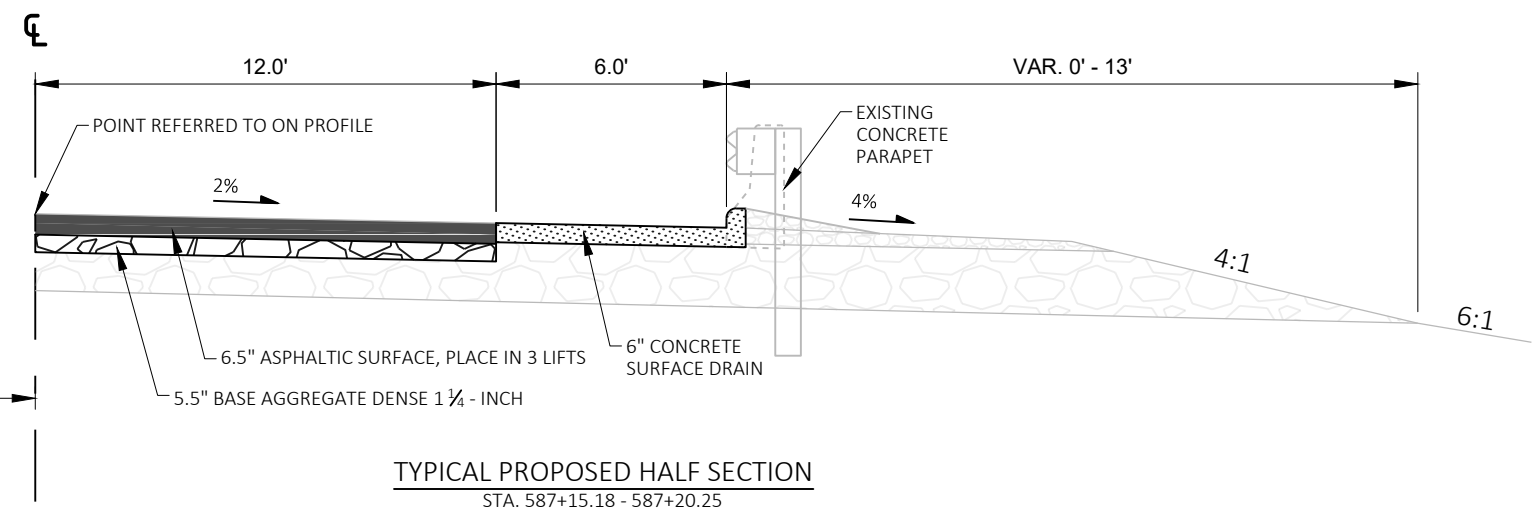
ATTN: MATTHEW DICKENSON - PROJECT MANAGER
1701 N. 4TH ST
SUPERIOR, WI 54880
PHONE: (718) 395-3022
EMAIL: matthew.dickenson@dot.wi.gov

ATTN: CAITLIN BUKOVITZ - DESIGN PROJECT LEADER
1701 N. 4TH ST
SUPERIOR, WI 54880
PHONE: (715) 392-7975
EMAIL: caitlin.bukovitz@dot.wi.gov

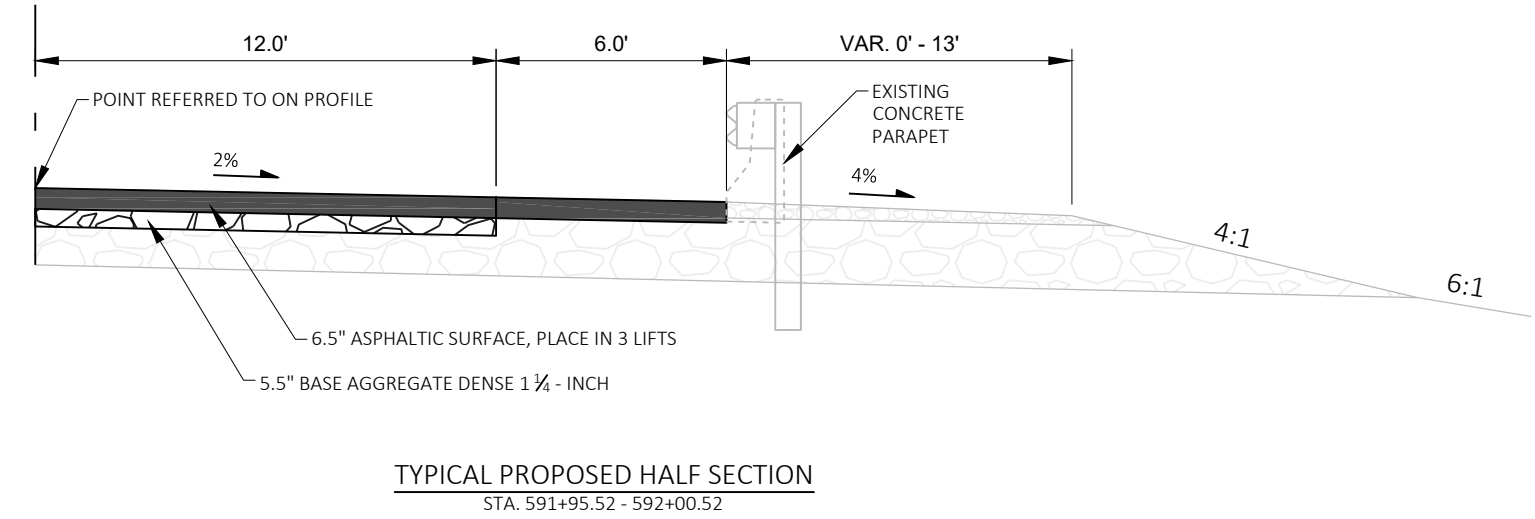


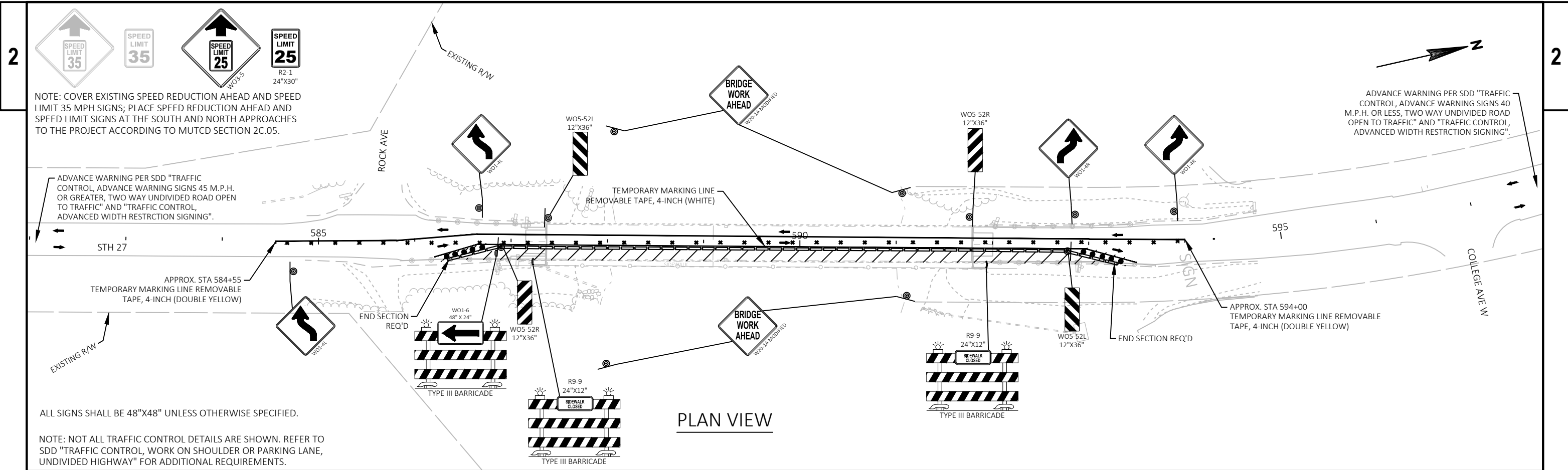


TYPICAL EXISTING HALF SECTION
 STA. 587+15.18 - 587+35.25
 STA. 591+80.42 - 592+00.52



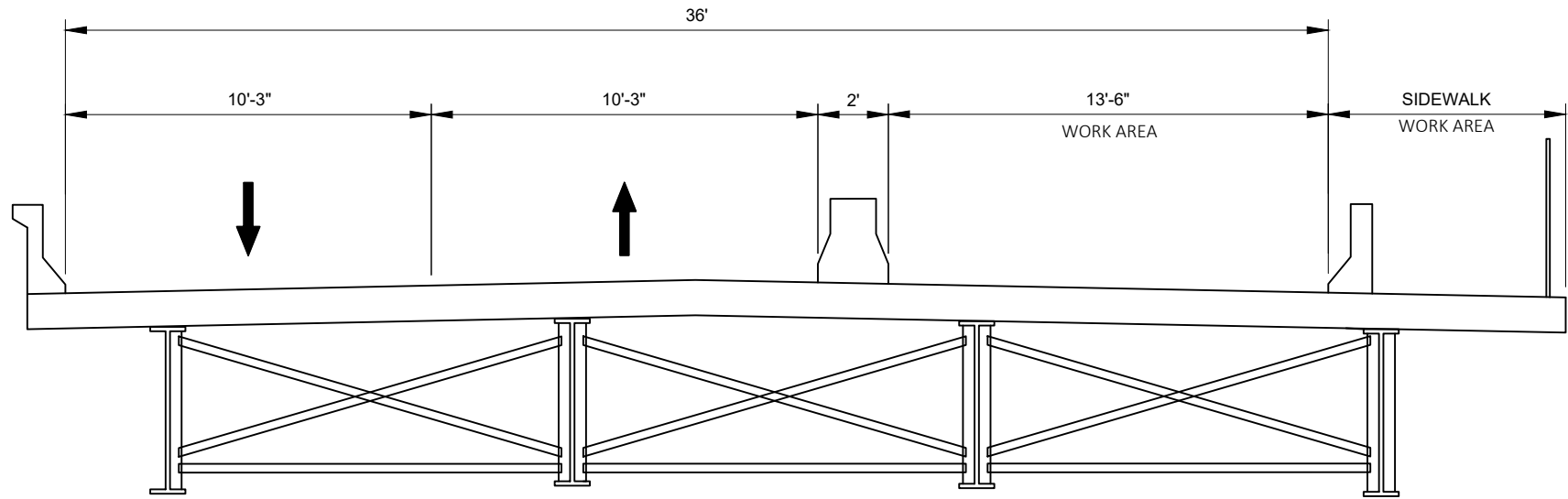
*EXISTING APPROACH MUST BE REMOVED AND NEW APPROACH POURED IN COORDINATION WITH JOINT REPAIR.

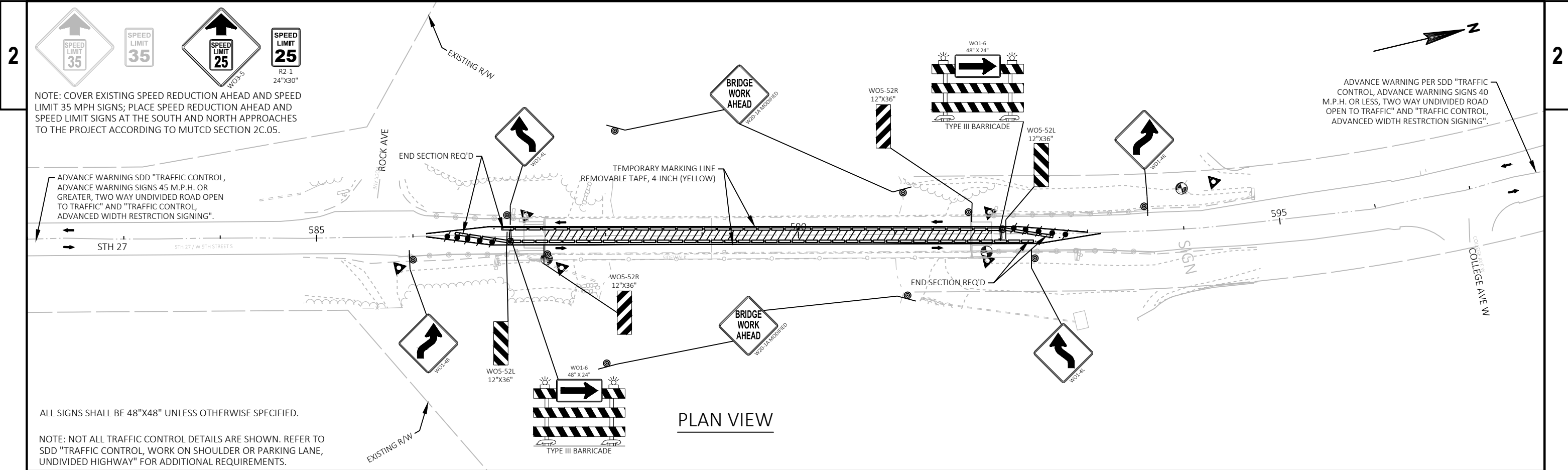




- x x x x MARKING REMOVAL LINE 4-INCH
- ← TRAFFIC FLOW
- DRUM W/ WARNING LIGHTS TYPE C
- DRUM
- || BARRICADE
- ▭ TEMPORARY CONCRETE BARRIER PRE-CAST
- ▨ WORK ZONE

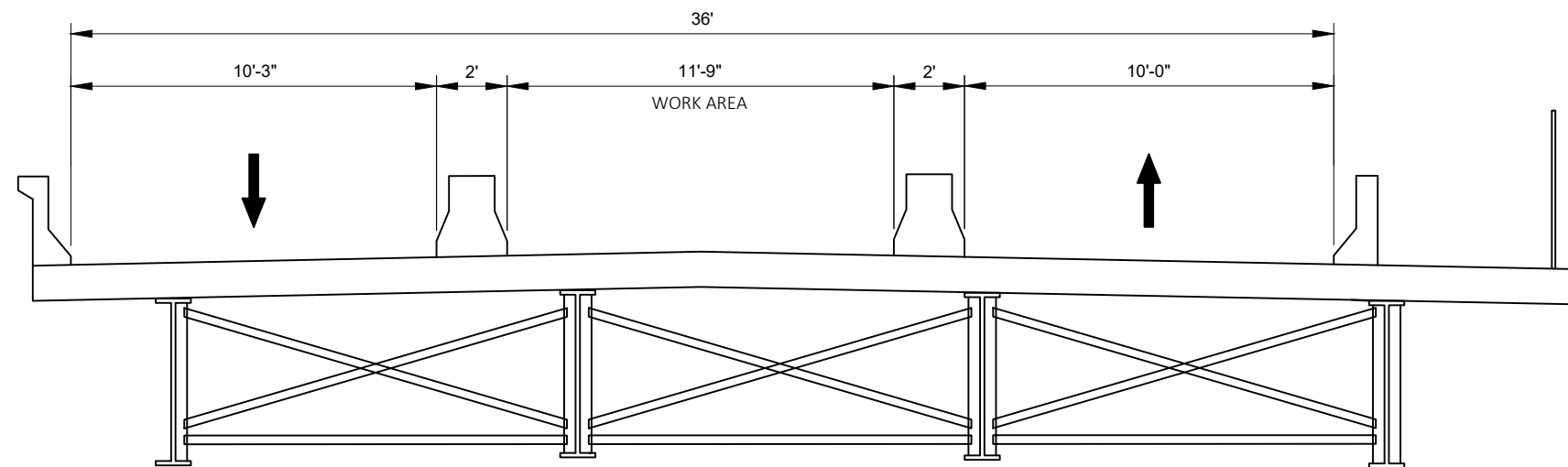
LEGEND

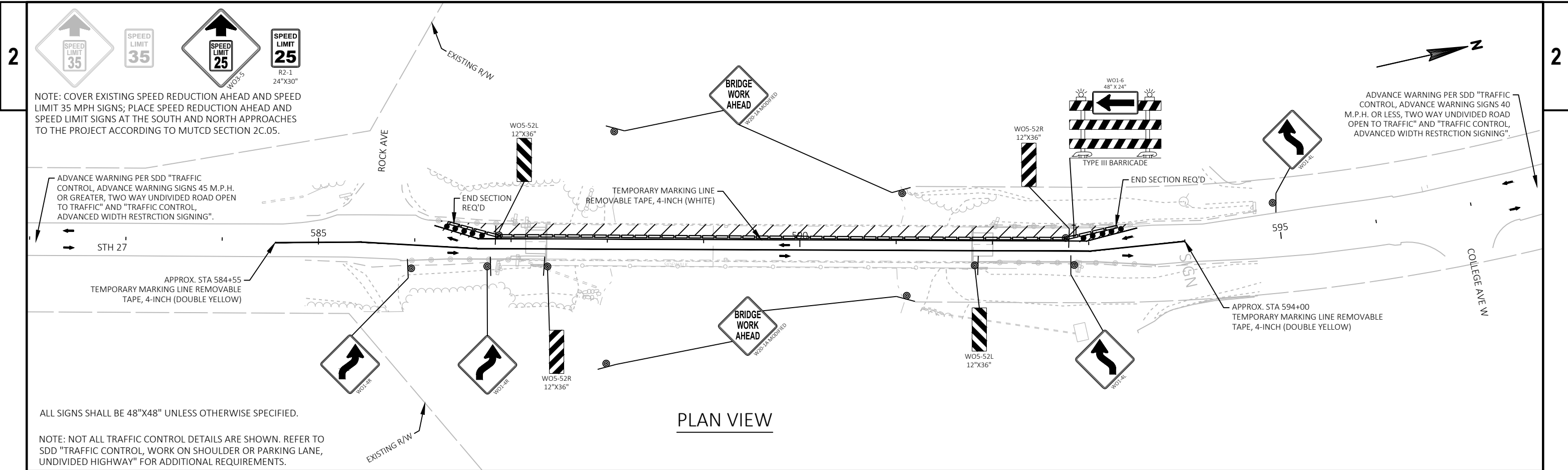




- x x x x MARKING REMOVAL LINE 4-INCH
- ← TRAFFIC FLOW
- DRUM W/ WARNING LIGHTS TYPE C
- DRUM
- ▬ BARRICADE
- ▬ TEMPORARY CONCRETE BARRIER PRE-CAST
- ▨ WORK ZONE

LEGEND



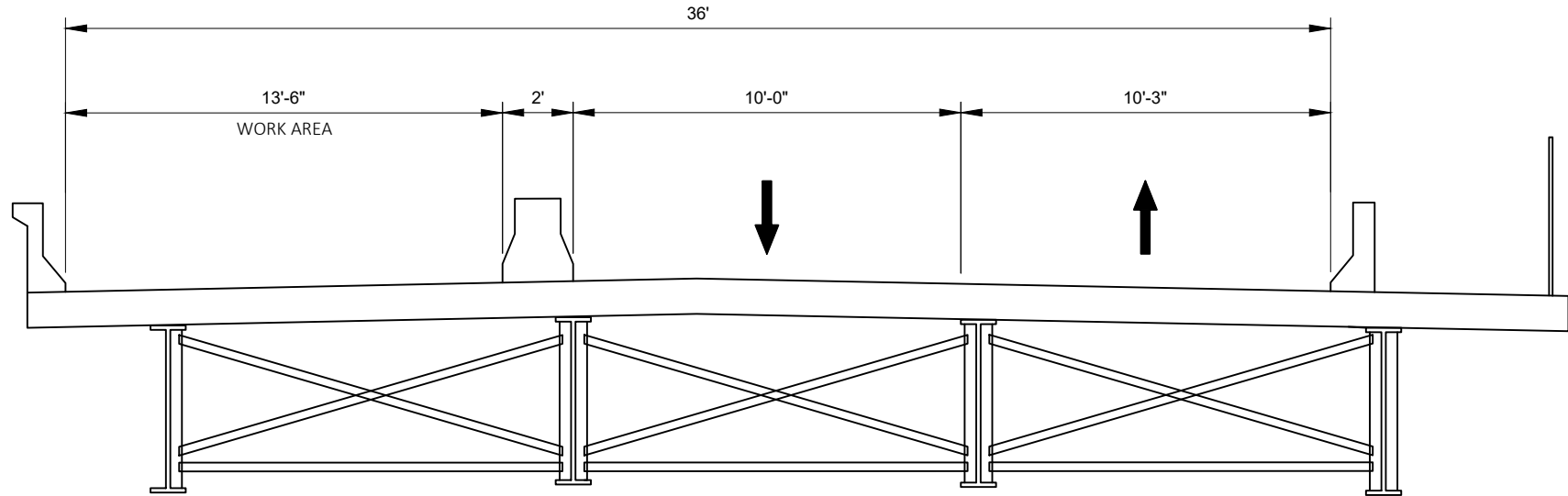


ALL SIGNS SHALL BE 48"X48" UNLESS OTHERWISE SPECIFIED.

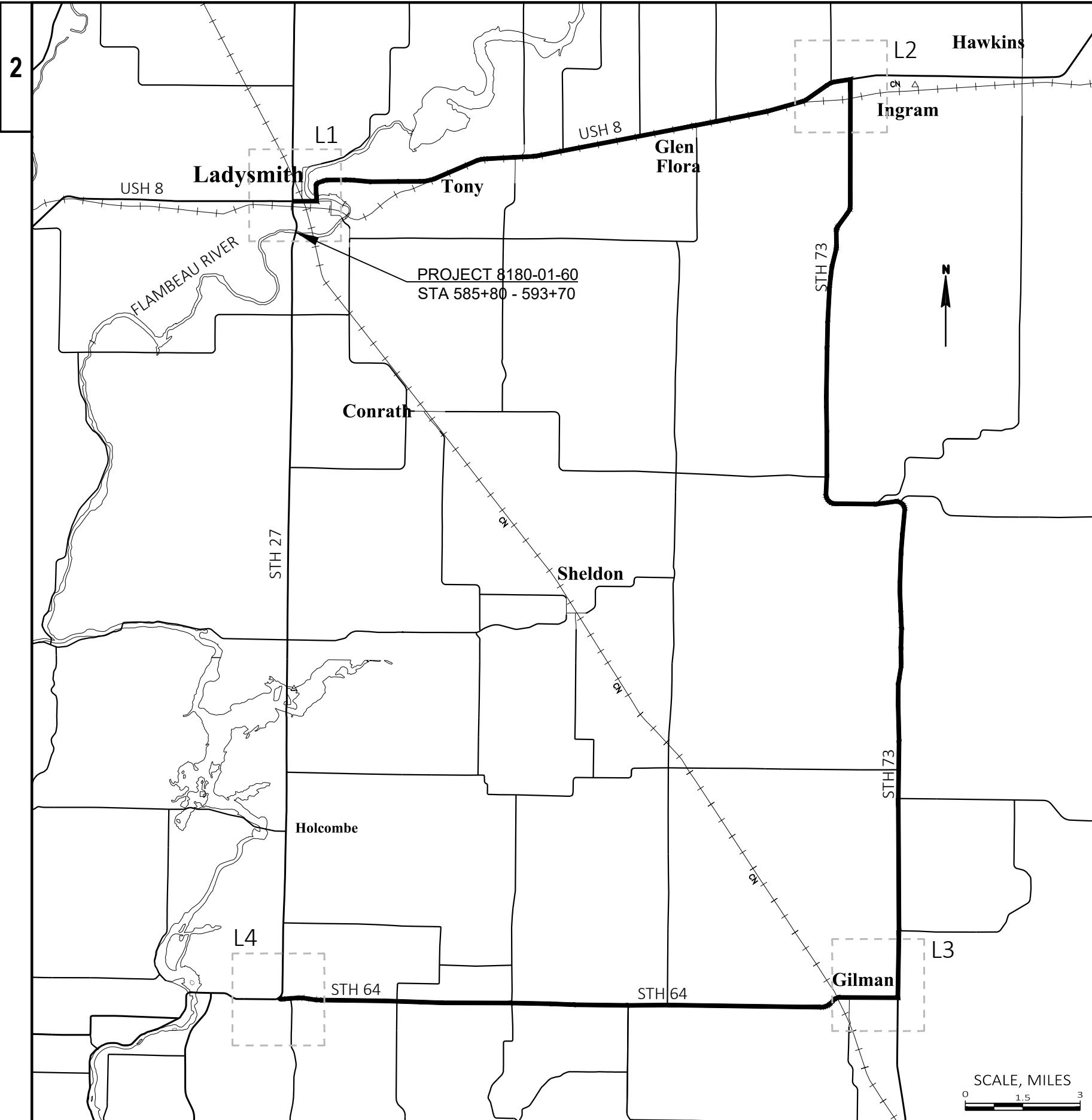
NOTE: NOT ALL TRAFFIC CONTROL DETAILS ARE SHOWN. REFER TO SDD "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED HIGHWAY" FOR ADDITIONAL REQUIREMENTS.

- x x x x MARKING REMOVAL LINE 4-INCH
- ← TRAFFIC FLOW
- DRUM W/ WARNING LIGHTS TYPE C
- DRUM
- ▤ BARRICADE
- ▬ TEMPORARY CONCRETE BARRIER PRE-CAST
- ▨ WORK ZONE

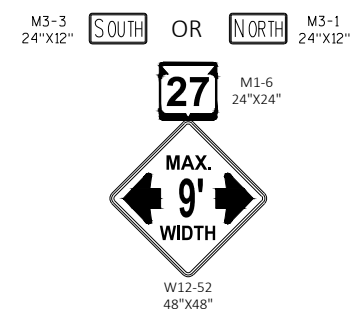
LEGEND



TYPICAL SECTION ON BRIDGE

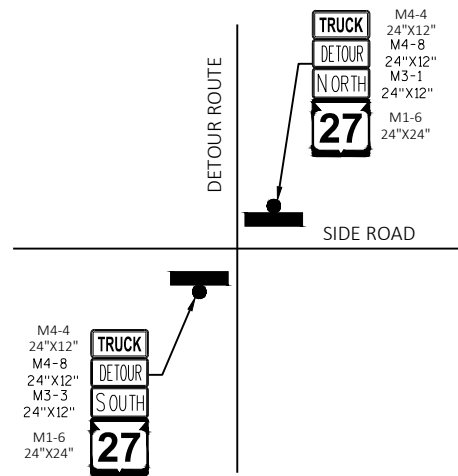


ALL SIGNS SHALL BE 48"X48" UNLESS OTHERWISE SPECIFIED.
 ALL SIGNS "XO" ARE THE SAME AS "X" EXCEPT THE BACKGROUND IS ORANGE.

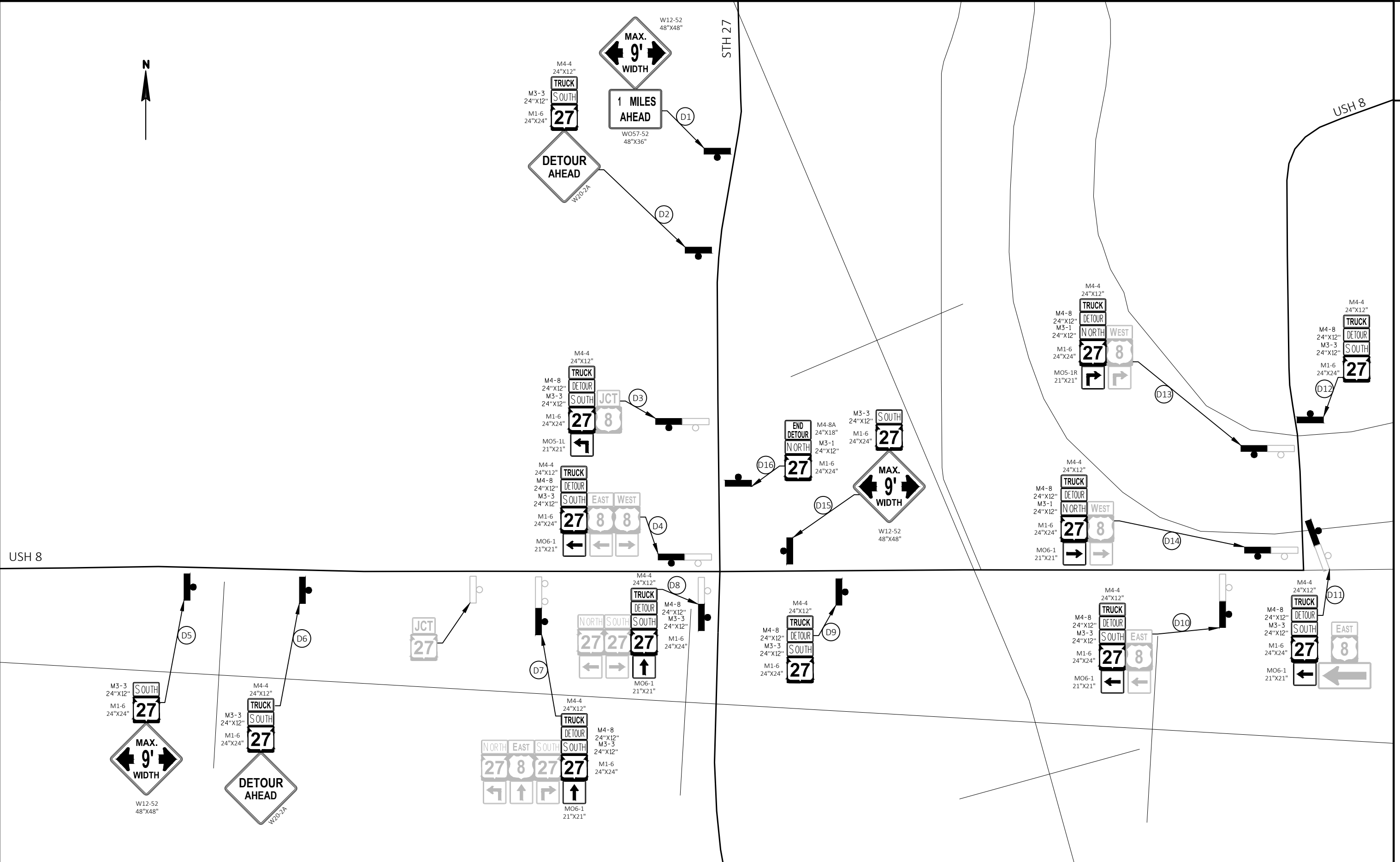


- WIDTH RESTRICTIONS TO BE PLACED AT THE FOLLOWING INTERSECTIONS:
- STH 27 AND CTH P ON STH 27 NB (NORTH)
 - STH 64 AND STH 40 ON STH 64 EB (NORTH)
 - USH 8 AND STH 40 S. ON STH 8 EB (SOUTH)
 - USH 8 AND STH 73 ON 8 WB (SOUTH)
 - STH 73 AND STH 64 ON STH 73 NB (NORTH)

FOR ADDITIONAL DETAILS, SEE SDD "TRAFFIC CONTROL, ADVANCED WIDTH RESTRICTION SIGNING".



- REASSURANCES TO BE PLACED AT THE FOLLOWING INTERSECTIONS:
- STH 27 AND CTH D
 - STH 64 AND CTH H
 - STH 73 AND FRAINLEL AVE (CTH M)
 - STH 73 AND CTH MM
 - USH 8 AND CTH B
 - USH 8 AND CTH I



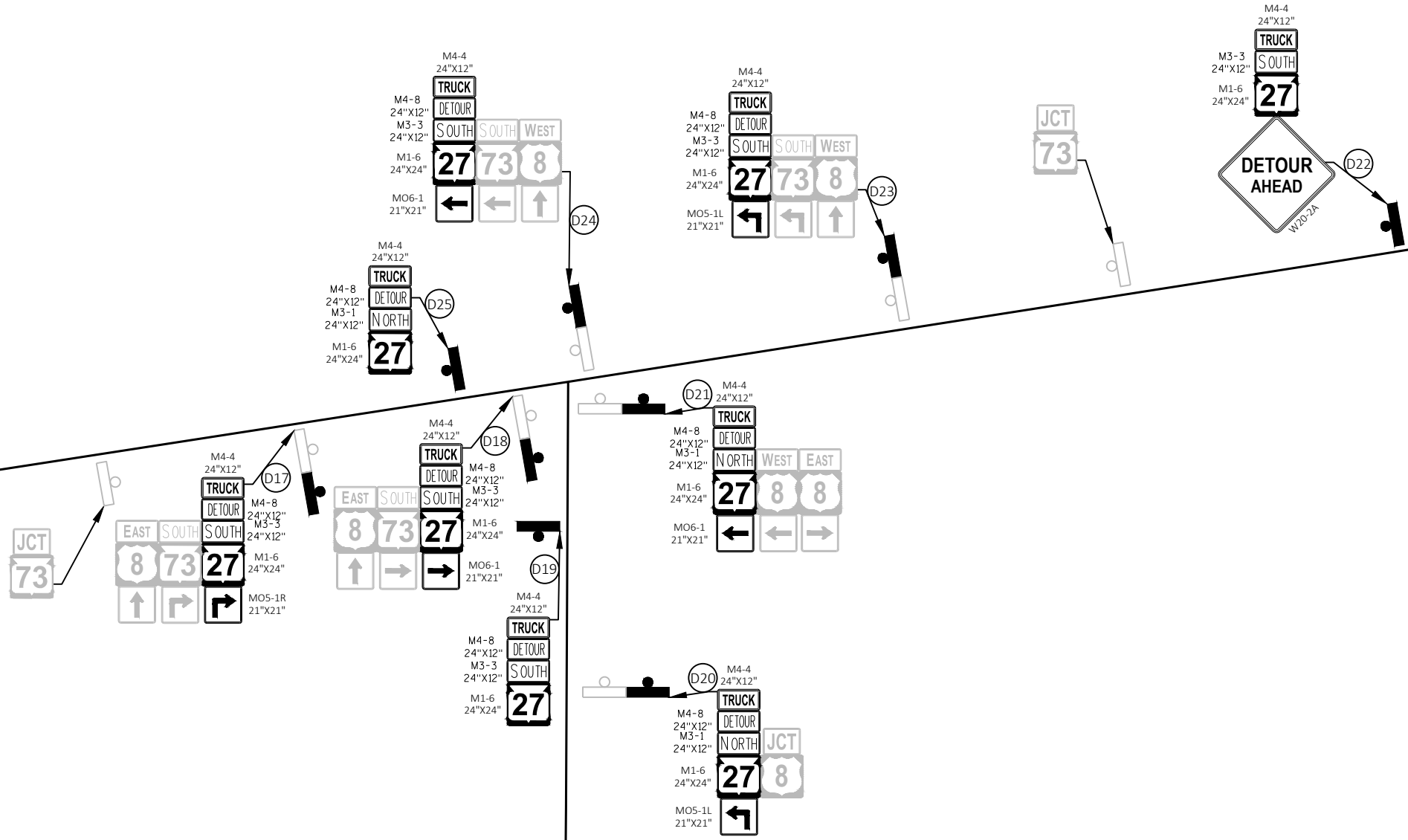


COUNTY HWY B NORTH

USH 8

USH 8

STH 73

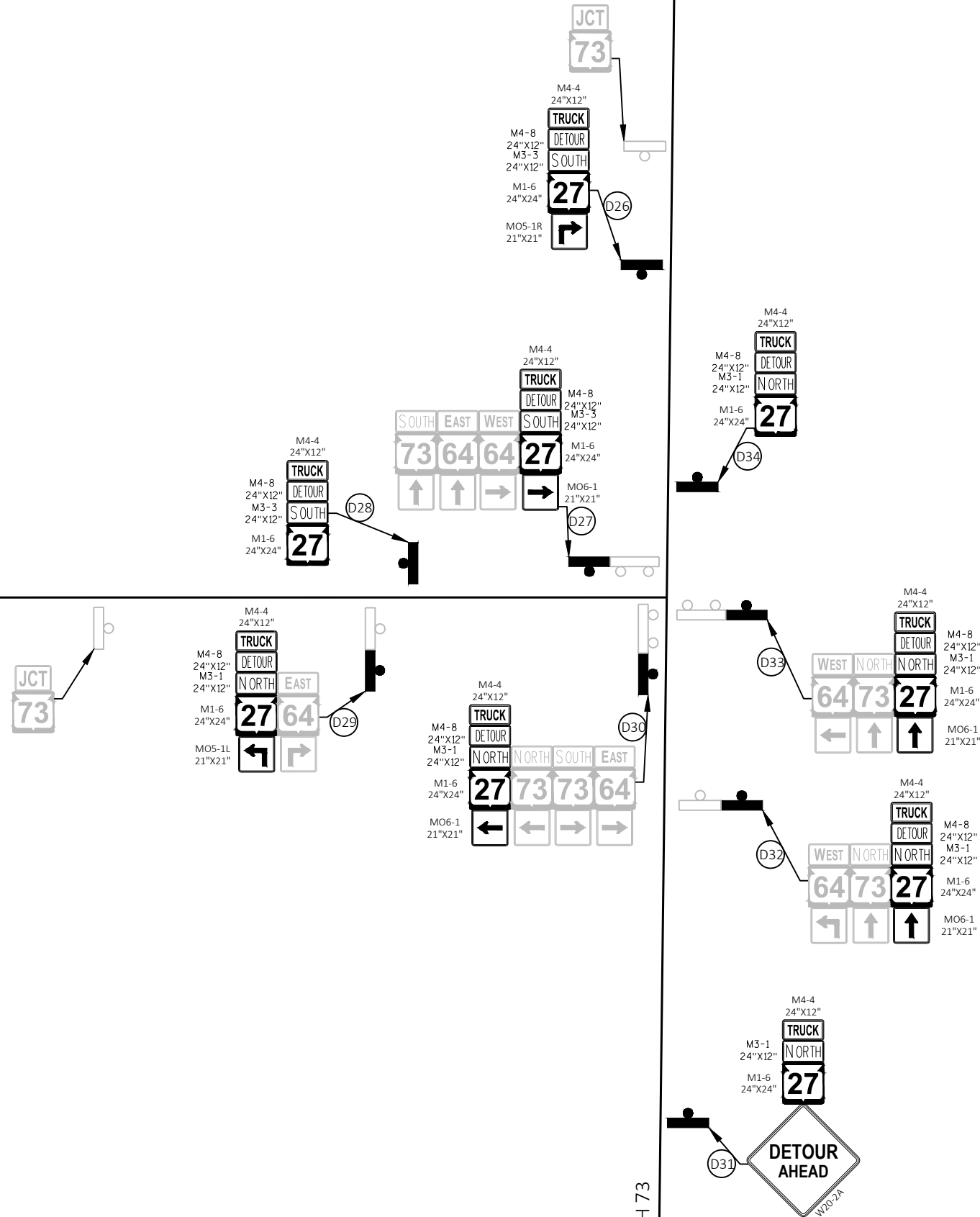




STH 64

STH 73

STH 73



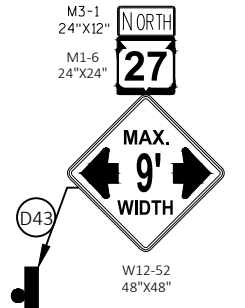
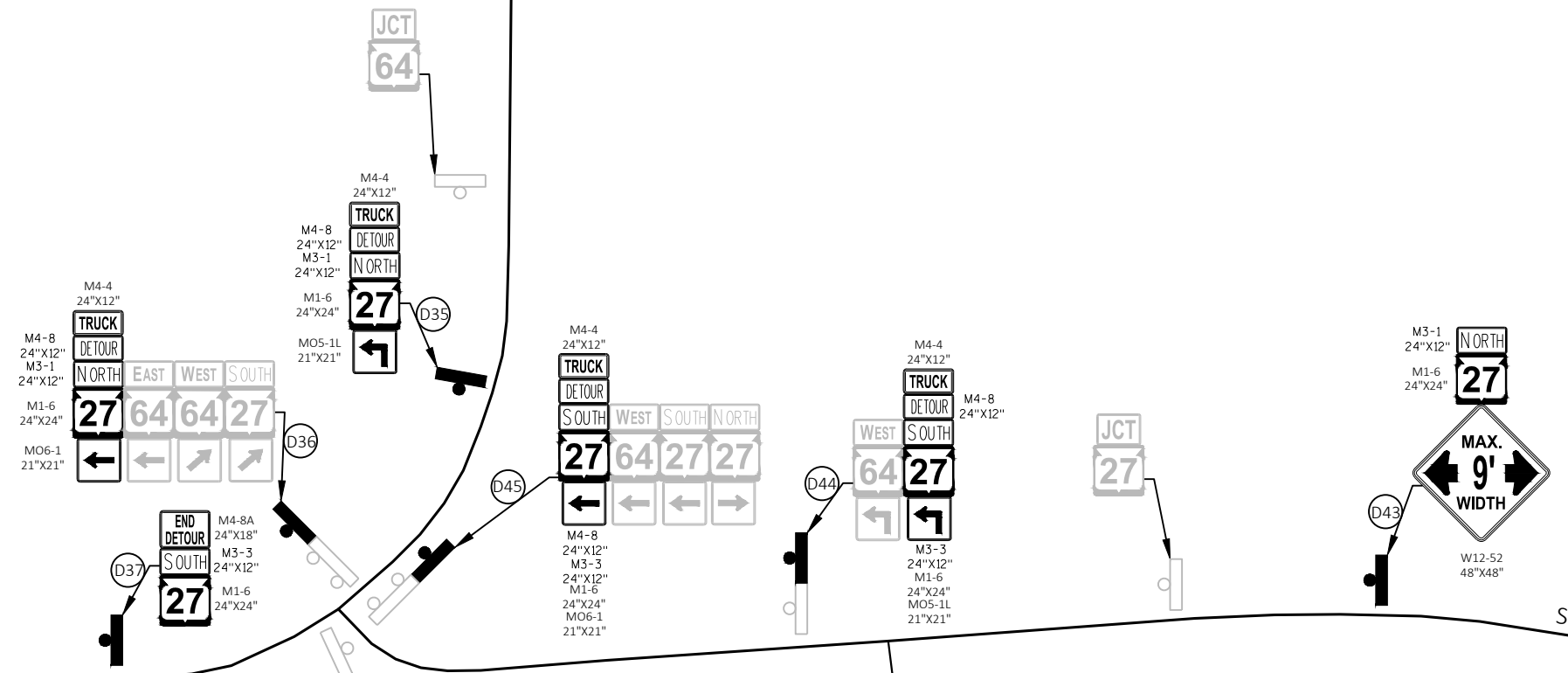
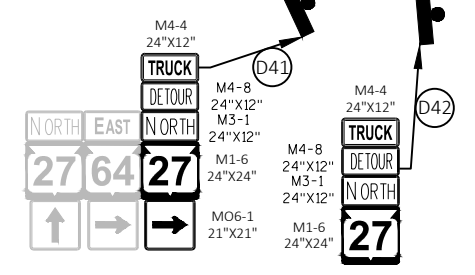
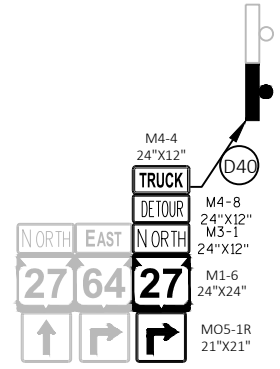
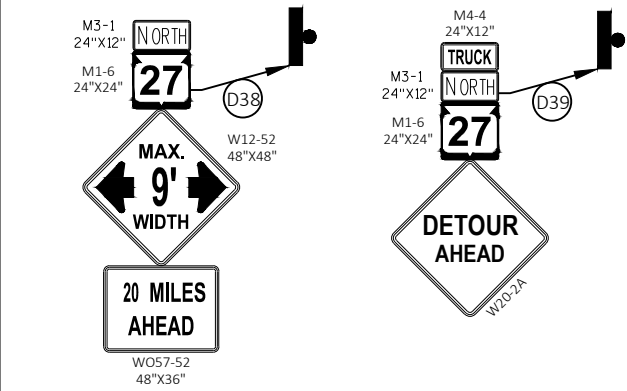


STH 64

STH 27

STH 64

CTH EE



Estimate Of Quantities

8180-01-60

Line	Item	Item Description	Unit	Total	Qty
0002	203.0335	Debris Containment Over Waterway (structure) 01. B-54-0050	EACH	1.000	1.000
0004	204.0100	Removing Concrete Pavement	SY	131.000	131.000
0006	204.0110	Removing Asphaltic Surface	SY	50.000	50.000
0008	204.0120	Removing Asphaltic Surface Milling	SY	1,220.000	1,220.000
0010	204.0170	Removing Fence	LF	63.000	63.000
0012	205.0100	Excavation Common	CY	10.000	10.000
0014	213.0100	Finishing Roadway (project) 01. 8180-01-60	EACH	1.000	1.000
0016	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	10.000	10.000
0018	415.0060	Concrete Pavement 6-Inch	SY	20.000	20.000
0020	415.0410	Concrete Pavement Approach Slab	SY	80.000	80.000
0022	416.1010	Concrete Surface Drains	CY	7.000	7.000
0024	455.0605	Tack Coat	GAL	95.000	95.000
0026	465.0105	Asphaltic Surface	TON	155.000	155.000
0028	502.3101	Expansion Device 01. B-54-0050	LF	89.000	89.000
0030	502.3200	Protective Surface Treatment	SY	46.000	46.000
0032	502.3210	Pigmented Surface Sealer	SY	10.000	10.000
0034	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	3,050.000	3,050.000
0036	505.0904	Bar Couplers No. 4	EACH	4.000	4.000
0038	505.0905	Bar Couplers No. 5	EACH	12.000	12.000
0040	505.0906	Bar Couplers No. 6	EACH	46.000	46.000
0042	509.1000	Joint Repair	SY	40.000	40.000
0044	509.1500	Concrete Surface Repair	SF	20.000	20.000
0046	509.2100.S	Concrete Masonry Deck Repair	CY	14.000	14.000
0048	517.0901.S	Preparation and Coating of Top Flanges (structure) 01. B-54-0050	EACH	1.000	1.000
0050	517.4001.S	Containment and Collection of Waste Materials (structure) 01. B-54-0050	EACH	1.000	1.000
0052	603.8000	Concrete Barrier Temporary Precast Delivered	LF	1,190.000	1,190.000
0054	603.8125	Concrete Barrier Temporary Precast Installed	LF	3,030.000	3,030.000
0056	611.9710	Salvaged Inlet Covers	EACH	4.000	4.000
0058	614.0400	Adjusting Steel Plate Beam Guard	LF	60.000	60.000
0060	616.0204	Fence Chain Link 4-FT	LF	536.000	536.000
0062	618.0100	Maintenance And Repair of Haul Roads (project) 01. 8180-01-60	EACH	1.000	1.000
0064	619.1000	Mobilization	EACH	1.000	1.000
0066	624.0100	Water	MGAL	0.100	0.100
0068	628.1905	Mobilizations Erosion Control	EACH	2.000	2.000
0070	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0072	628.7010	Inlet Protection Type B	EACH	4.000	4.000
0074	642.5001	Field Office Type B	EACH	1.000	1.000
0076	643.0300	Traffic Control Drums	DAY	600.000	600.000
0078	643.0420	Traffic Control Barricades Type III	DAY	84.000	84.000
0080	643.0705	Traffic Control Warning Lights Type A	DAY	140.000	140.000
0082	643.0715	Traffic Control Warning Lights Type C	DAY	600.000	600.000
0084	643.0900	Traffic Control Signs	DAY	17,142.000	17,142.000
0086	643.0920	Traffic Control Covering Signs Type II	EACH	3.000	3.000
0088	643.1000	Traffic Control Signs Fixed Message	SF	64.000	64.000
0090	643.1050	Traffic Control Signs PCMS	DAY	14.000	14.000
0092	643.5000	Traffic Control	EACH	1.000	1.000
0094	646.1020	Marking Line Epoxy 4-Inch	LF	1,745.000	1,745.000
0096	646.4520	Marking Line Same Day Epoxy 4-Inch	LF	1,440.000	1,440.000
0098	646.9000	Marking Removal Line 4-Inch	LF	3,185.000	3,185.000

Estimate Of Quantities

8180-01-60

Line	Item	Item Description	Unit	Total	Qty
0100	649.0150	Temporary Marking Line Removable Tape 4-Inch	LF	5,200.000	5,200.000
0102	650.8000	Construction Staking Resurfacing Reference	LF	345.000	345.000
0104	650.9910	Construction Staking Supplemental Control (project) 01. 8180-01-60	LS	1.000	1.000
0106	690.0250	Sawing Concrete	LF	108.000	108.000
0108	715.0502	Incentive Strength Concrete Structures	DOL	500.000	500.000
0110	715.0720	Incentive Compressive Strength Concrete Pavement	DOL	500.000	500.000
0112	999.2000.S	Installing and Maintaining Bird Deterrent System (station) 01. 587+37	EACH	1.000	1.000
0114	SPV.0060	Special 01. Cleaning and Painting Bearings	EACH	8.000	8.000

REMOVING FENCE

STATION TO	STATION	LOCATION	204.0170 LF
586+90 -	587+23	ML RT	33
591+95 -	592+25	ML RT	30
TOTAL 0010			63

(1) See structure plans for additional work on fence

PAVEMENT REMOVAL

STATION TO	STATION	LOCATION	REMOVING CONCRETE PAVEMENT 204.0100 SY	REMOVING ASPHALTIC SURFACE 204.0110 SY	REMOVING ASPHALTIC SURFACE MILLING 204.0120 SY
585+80 -	587+15	ML			540
587+00 -	587+35	ML	77	14	
591+80 -	592+00	ML	54	28	
592+00 -	593+70	ML			680
TOTAL 0010			131	50	1,220

EXCAVATION COMMON

STATION TO	STATION	LOCATION	205.0100 CY	REMARKS
587+15 -	587+35	ML	5	AS NEEDED TO COMPLETE CONCRETE APPROACHES, SURFACE DRAINS, PAVEMENT, AND CURB & GUTTER
591+80 -	592+00	ML	5	
TOTAL 0010			10	

FINISHING ROADWAY (PROJECT) (01. 8180-01-60)

STATION TO	STATION	LOCATION	213.0100.01 EACH
584+50 -	594+50	PROJECT	1
TOTAL 0010			1

BASE AGGREGATE DENSE 1 1/4-INCH

STATION TO	STATION	LOCATION	305.0120 TON	REMARKS
587+15 -	587+35	ML	5	AS NEEDED TO MATCH EXISTING GRADING
591+80 -	592+00	ML	5	AS NEEDED TO MATCH EXISTING GRADING
TOTAL 0010			10	

CONCRETE

STATION TO	STATION	LOCATION	CONCRETE PAVEMENT 6-INCH 415.0060 SY	CONCRETE PAVEMENT APPROACH SLAB 415.0410 SY	CONCRETE SURFACE DRAINS 416.1010 CY
587+00 -	587+35	ML SOUTH		40	7
591+80 -	591+95	ML NORTH	20	40	
TOTAL 0010			20	80	7

ASPHALT

STATION TO	STATION	LOCATION	TACK COAT 455.0605 GAL	ASPHALTIC SURFACE 465.0105 TON	REMARKS
585+80 -	587+15	ML	42	66	2-INCH LAYER
587+15 -	587+20	ML	2	5	6.5-INCH LAYER IN 3 LIFTS
591+95 -	592+00	ML	3	8	6.5-INCH LAYER IN 3 LIFTS
592+00 -	593+70	ML	48	76	2-INCH LAYER
TOTAL 0010			95	155	

3

CONCRETE BARRIER

STATION TO	STATION	LOCATION	CONCRETE BARRIER	CONCRETE BARRIER	REMARKS
			TEMPORARY PRECAST DELIVERED 603.8000	TEMPORARY PRECAST INSTALLED 603.8125	
			LF	LF	
586+30 -	594+00	ML	920	920	STAGE 1
586+30 -	594+00	ML	270	1,190	STAGE 2
586+30 -	594+00	ML		920	STAGE 3
TOTAL 0010			1,190	3,030	

INLETS

STATION	OFFSET	LOCATION	SALVAGED	INLET PROTECTION
			INLET COVERS 611.9710 EACH	TYPE B 628.7010 EACH
587+05	16	RT	1	1
587+19	16	LT	1	1
589+23	16	RT	1	1
589+23	16	LT	1	1
TOTAL 0010			4	4

3

FENCE CHAIN LINK 4-FT

STATION TO	STATION	LOCATION	(1) 616.0204 LF
586+90 -	587+23	ML RT	33
591+95 -	592+25	ML RT	30
TOTAL 0010			63

(1) See structure plans for additional quantity located on the structure

ADJUSTING STEEL PLATE BEAM GUARD

STATION TO	STATION	LOCATION	614.0400 LF	REMARKS
587+05 -	587+20	SE CORNER	15	
587+10 -	587+25	SW CORNER	15	ADJUST RAIL AS NEEDED TO
591+92 -	592+07	NW CORNER	15	COMPLETE CONTRACT WORK
591+96 -	592+11	NE CORNER	15	
TOTAL 0010			60	

**MAINTENANCE AND REPAIR OF HAUL ROADS
(PROJECT) (01. 8180-01-60)**

STATION TO	STATION	LOCATION	618.0100.01 EACH
585+80 -	593+70	ML	1
TOTAL 0010			1

WATER

STATION TO	STATION	LOCATION	624.0100 MGAL
585+80 -	593+70	ML	0.1
TOTAL 0010			0.1

EROSION CONTROL MOBILIZATIONS

STATION TO	STATION	LOCATION	MOBILIZATIONS	MOBILIZATIONS
			EROSION CONTROL 628.1905 EACH	EMERGENCY EROSION CONTROL 628.1910 EACH
585+80 -	593+70	ML	2	2
TOTAL 0010			2	2

FIELD OFFICE TYPE B

STATION TO	STATION	LOCATION	642.5001 EACH
587+80 -	593+70	ML	1
TOTAL 0010			1

3

TRAFFIC CONTROL SIGNS DETOUR



643.0900

TRAFFIC CONTROL SIGN GROUP #	LAYOUT	SIGN CODE	DESCRIPTION	DAY	REMARKS
D1	L1	W12-52	MAX WIDTH 9'	60	NW OF USH 8/STH 27 INT.
		W057-52	1 MILES AHEAD	60	
D2	L1	M4-4	TRUCK	60	NW OF USH 8/STH 27 INT.
		M3-3	SOUTH	60	
		M1-6	STH 27	60	
		W20-2A	DETOUR AHEAD	60	
D3	L1	M4-4	TRUCK	60	NW OF USH 8/STH 27 INT.
		M4-8	DETOUR	60	
		M3-3	SOUTH	60	
		M1-6	STH 27	60	
		MO5-1L	LEFT TURN ARROW	60	
D4	L1	M4-4	TRUCK	60	NW OF USH 8/STH 27 INT.
		M4-8	DETOUR	60	
		M3-3	SOUTH	60	
		M1-6	STH 27	60	
		MO6-1	LEFT ARROW	60	
D5		M3-3	SOUTH	60	SW OF USH 8/STH 27 INT.
		M1-6	STH 27	60	
		W12-52	MAX WIDTH 9'	60	
D6	L1	M4-4	TRUCK	60	SW OF USH 8/STH 27 INT.
		M3-3	SOUTH	60	
		M1-6	STH 27	60	
		W20-2A	DETOUR AHEAD	60	
D7	L1	M4-4	TRUCK	60	SW OF USH 8/STH 27 INT.
		M4-8	DETOUR	60	
		M3-3	SOUTH	60	
		M1-6	STH 27	60	
		MO6-1	UP ARROW	60	
D8	L1	M4-4	TRUCK	60	SW OF USH 8/STH 27 INT.
		M4-8	DETOUR	60	
		M3-3	SOUTH	60	
		M1-6	STH 27	60	
D9	L1	M4-4	TRUCK	60	SE OF USH 8/STH 27 INT.
		M4-8	DETOUR	60	
		M3-3	SOUTH	60	
		M1-6	STH 27	60	
D10	L1	M4-4	TRUCK	60	SW OF LAKE AVE E./E. 3RD ST S. INT.
		M4-8	DETOUR	60	
		M3-3	SOUTH	60	
		M1-6	STH 27	60	
		MO6-1	LEFT ARROW	60	
D11	L1	M4-4	TRUCK	60	NE OF LAKE AVE E./E. 3RD ST S. INT.
		M4-8	DETOUR	60	
		M3-3	SOUTH	60	
		M1-6	STH 27	60	
		MO6-1	LEFT ARROW	60	
SECTION TOTAL				2,820	

TRAFFIC CONTROL SIGNS DETOUR



643.0900

TRAFFIC CONTROL SIGN GROUP #	LAYOUT	SIGN CODE	DESCRIPTION	DAY	REMARKS
D12	L1	M4-4	TRUCK	60	NE OF LAKE AVE E./E. 3RD ST S. INT.
		M4-8	DETOUR	60	
		M3-3	SOUTH	60	
		M1-6	STH 27	60	
D13	L1	M4-4	TRUCK	60	NW OF LAKE AVE E./E. 3RD ST S. INT.
		M4-8	DETOUR	60	
		M3-1	NORTH	60	
		M1-6	STH 27	60	
D14	L1	M4-4	TRUCK	60	NW OF LAKE AVE E./E. 3RD ST S. INT.
		M4-8	DETOUR	60	
		M3-1	NORTH	60	
		M1-6	STH 27	60	
D15		MO5-1R	RIGHT TURN ARROW	60	SW OF USH 8/STH 27 INT.
		M4-4	TRUCK	60	
		M4-8	DETOUR	60	
		M3-1	NORTH	60	
D16	L1	M4-8A	END DETOUR	60	NE OF USH 8/STH 27 INT.
		M3-1	NORTH	60	
		M1-6	STH 27	60	
		W12-52	MAX WIDTH 9'	60	
D17	L2	M4-4	TRUCK	60	SW OF USH 8/STH 73 INT.
		M4-8	DETOUR	60	
		M3-3	SOUTH	60	
		M1-6	STH 27	60	
		MO5-1R	RIGHT TURN ARROW	60	
D18	L2	M4-4	TRUCK	60	SW OF USH 8/STH 73 INT.
		M4-8	DETOUR	60	
		M3-3	SOUTH	60	
		M1-6	STH 27	60	
		MO6-1	RIGHT ARROW	60	
D19	L2	M4-4	TRUCK	60	SW OF USH 8/STH 73 INT.
		M4-8	DETOUR	60	
		M3-3	SOUTH	60	
		M1-6	STH 27	60	
		MO6-1	RIGHT ARROW	60	
D20	L2	M4-4	TRUCK	60	SE OF USH 8/STH 73 INT.
		M4-8	DETOUR	60	
		M3-1	NORTH	60	
		M1-6	STH 27	60	
		MO5-1L	LEFT TURN ARROW	60	
D21	L2	M4-4	TRUCK	60	SE OF USH 8/STH 73 INT.
		M4-8	DETOUR	60	
		M3-1	NORTH	60	
		M1-6	STH 27	60	
		MO6-1	LEFT ARROW	60	
D22	L2	M4-4	TRUCK	60	NE OF USH 8/STH 73 INT.
		M3-3	SOUTH	60	
		M1-6	STH 27	60	
		W20-2A	DETOUR AHEAD	60	
SECTION TOTAL				2,880	

Additional quantities shown on other sheets

3

TRAFFIC CONTROL SIGNS DETOUR



643.0900

TRAFFIC CONTROL SIGN GROUP #	LAYOUT	SIGN CODE	DESCRIPTION	DAY	REMARKS
D23	L2	M4-4	TRUCK	60	NE OF USH 8/STH 73 INT.
		M4-8	DETOUR	60	
		M3-3	SOUTH	60	
		M1-6	STH 27	60	
		MO5-1L	LEFT TURN ARROW	60	
D24	L2	M4-4	TRUCK	60	NE OF USH 8/STH 73 INT.
		M4-8	DETOUR	60	
		M3-3	SOUTH	60	
		M1-6	STH 27	60	
		MO6-1	LEFT ARROW	60	
D25	L2	M4-4	TRUCK	60	NW OF USH 8/STH 73 INT.
		M4-8	DETOUR	60	
		M3-1	NORTH	60	
		M1-6	STH 27	60	
D26	L3	M4-4	TRUCK	60	NW OF STH 73/STH 64 INT.
		M4-8	DETOUR	60	
		M3-3	SOUTH	60	
		M1-6	STH 27	60	
		MO5-1R	RIGHT TURN ARROW	60	
D27	L3	M4-4	TRUCK	60	NW OF STH 73/STH 64 INT.
		M4-8	DETOUR	60	
		M3-3	SOUTH	60	
		M1-6	STH 27	60	
		MO6-1	RIGHT ARROW	60	
D28	L3	M4-4	TRUCK	60	NW OF STH 73/STH 64 INT.
		M4-8	DETOUR	60	
		M3-3	SOUTH	60	
		M1-6	STH 27	60	
D29	L3	M4-4	TRUCK	60	SW OF STH 73/STH 64 INT.
		M4-8	DETOUR	60	
		M3-1	NORTH	60	
		M1-6	STH 27	60	
		MO5-1L	LEFT TURN ARROW	60	
D30	L3	M4-4	TRUCK	60	SW OF STH 73/STH 64 INT.
		M4-8	DETOUR	60	
		M3-1	NORTH	60	
		M1-6	STH 27	60	
		MO6-1	LEFT ARROW	60	
D31	L3	M4-4	TRUCK	60	SE OF STH 73/STH 64 INT.
		M3-1	NORTH	60	
		M1-6	STH 27	60	
		W20-2A	DETOUR AHEAD	60	
D32	L3	M4-4	TRUCK	60	SE OF STH 73/STH 64 INT.
		M4-8	DETOUR	60	
		M3-1	NORTH	60	
		M1-6	STH 27	60	
		MO6-1	UP ARROW	60	
SECTION TOTAL				2,820	

TRAFFIC CONTROL SIGNS DETOUR



643.0900

TRAFFIC CONTROL SIGN GROUP #	LAYOUT	SIGN CODE	DESCRIPTION	DAY	REMARKS
D33	L3	M4-4	TRUCK	60	SE OF STH 73/STH 64 INT.
		M4-8	DETOUR	60	
		M3-1	NORTH	60	
		M1-6	STH 27	60	
		MO6-1	UP ARROW	60	
D34	L3	M4-4	TRUCK	60	NE OF STH 73/STH 64 INT.
		M4-8	DETOUR	60	
		M3-1	NORTH	60	
		M1-6	STH 27	60	
D35	L4	M4-4	TRUCK	60	NE OF STH 27/STH 64 INT.
		M4-8	DETOUR	60	
		M3-1	NORTH	60	
		M1-6	STH 27	60	
		MO5-1L	LEFT TURN ARROW	60	
D36	L4	M4-4	TRUCK	60	NE OF STH 27/STH 64 INT.
		M4-8	DETOUR	60	
		M3-1	NORTH	60	
		M1-6	STH 27	60	
		MO6-1	LEFT ARROW	60	
D37	L4	M4-8A	END DETOUR	60	NW OF STH 27/STH 64 INT.
		M3-3	SOUTH	60	
		M1-6	STH 27	60	
D38	L4	M3-1	NORTH	60	SW OF STH 27/STH 64 INT.
		M1-6	STH 27	60	
		W12-52	MAX WIDTH 9'	60	
D39	L4	WO57-52	20 MILES AHEAD	60	SW OF STH 27/STH 64 INT.
		M4-4	TRUCK	60	
		M3-1	NORTH	60	
D40	L4	M1-6	STH 27	60	SW OF STH 27/STH 64 INT.
		W20-2A	DETOUR AHEAD	60	
		M4-4	TRUCK	60	
		M4-8	DETOUR	60	
		M3-1	NORTH	60	
D41	L4	M1-6	STH 27	60	SW OF STH 27/STH 64 INT.
		MO5-1R	RIGHT TURN ARROW	60	
		M4-4	TRUCK	60	
		M4-8	DETOUR	60	
		M3-1	NORTH	60	
D42	L4	M1-6	STH 27	60	SE OF STH 27/STH 64 INT.
		MO6-1	RIGHT ARROW	60	
		M4-4	TRUCK	60	
		M4-8	DETOUR	60	
		M3-1	NORTH	60	
		M1-6	STH 27	60	
SECTION TOTAL				2,640	

Additional quantities shown on other sheets

TRAFFIC CONTROL SIGNS DETOUR

TRAFFIC CONTROL SIGN GROUP #	LAYOUT	SIGN CODE	DESCRIPTION	643.0900 DAY	REMARKS
D43	L4	M3-1	NORTH	60	SW OF STH 27/STH 64 INT.
		M1-6	STH 27	60	
		W12-52	MAX WIDTH 9'	60	
D44	L4	M4-4	TRUCK	60	NE OF STH 27/STH 64 INT.
		M4-8	DETOUR	60	
		M3-3	SOUTH	60	
		M1-6	STH 27	60	
D45	L4	MO5-1L	LEFT TURN ARROW	60	NE OF STH 27/STH 64 INT.
		M4-4	TRUCK	60	
		M4-8	DETOUR	60	
		M3-3	SOUTH	60	
		M1-6	STH 27	60	
		MO6-1	LEFT ARROW	60	
PROJECT SPECIFIC WIDTH RESTRICTIONS		M3-1	NORTH	180	SEE DETOUR-OVERVIEW
		M3-3	SOUTH	120	
		M1-6	STH 27	300	
		W12-52	MAX WIDTH 9'	300	
REASSURANCES		M4-4	TRUCK	720	REASSURANCES
		M4-8	DETOUR	720	
		M3-1	NORTH	360	
		M3-3	SOUTH	360	
		M1-6	STH 27	720	
TOTAL 0010				15,720	

 Additional quantities shown on other sheets

MARKING

MARKING LINE EPOXY 4-INCH	MARKING LINE SAME DAY EPOXY 4-INCH	MARKING REMOVAL LINE 4-INCH	REMARKS
646.1020 LF	646.4520 LF	646.9000 LF	
584+55 - 594+00	ML LT	945	WHITE
584+55 - 594+00	ML CL	1,440	YELLOW
586+00 - 594+00	ML RT	800	WHITE
TOTAL 0010		1,745	1,440
			3,185

CONSTRUCTION STAKING RESURFACING REFERENCE

STATION TO	STATION	LOCATION	650.8000 LF
585+80	- 587+35	ML	155
591+80	- 593+70	ML	190
TOTAL 0010			345

CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) (01. 8180-01-60)

STATION TO	STATION	LOCATION	650.9910.01 LS
585+80	- 593+70	ML	1
TOTAL 0010			1

TRAFFIC CONTROL SUMMARY

STATION TO	STATION	LOCATION	TRAFFIC CONTROL DRUMS 643.0300 DAY	TRAFFIC CONTROL BARRICADES TYPE III 643.0420 DAY	TRAFFIC CONTROL WARNING LIGHTS TYPE A 643.0705 DAY	TRAFFIC CONTROL WARNING LIGHTS TYPE C 643.0715 DAY	TRAFFIC CONTROL SIGNS 643.0900 DAY	(1) TRAFFIC CONTROL COVERS SIGNS TYPE II 643.0920 EACH	TRAFFIC CONTROL SIGNS FIXED MESSAGE 643.1000 SF	TRAFFIC CONTROL SIGNS PCMS 643.1050 DAY	TRAFFIC CONTROL 643.5000 EACH	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH 649.0150 LF	REMARKS
587+80 - 593+70	PROJECT	NORTH OF FLAMBEAU RIVER BRIDGE									1		PRIOR TO CONSTRUCTION
		SOUTH OF FLAMBEAU RIVER BRIDGE								7			PRIOR TO CONSTRUCTION
		DOUBLE YELLOW CENTERLINE		42	56		28					1,900	STAGE 1
		YELLOW LINE ALONG BARRIER (NB & SB)		28	56		14					1,400	STAGE 2
		DOUBLE YELLOW CENTERLINE		14	28							1,900	STAGE 3
587+80 - 593+70	PROJECT		600			600	900	3	64				ALL STAGES (SEE TRAFFIC CONTROL SHEETS)
	PROJECT						480						ALL STAGES (SEE TRAFFIC CONTROL SHEETS FOR SDD REFERENCES)
TOTAL 0010			600	84	140	600	1,422	3	64	14	1	5,200	

(1) One cycle of covering signs required.

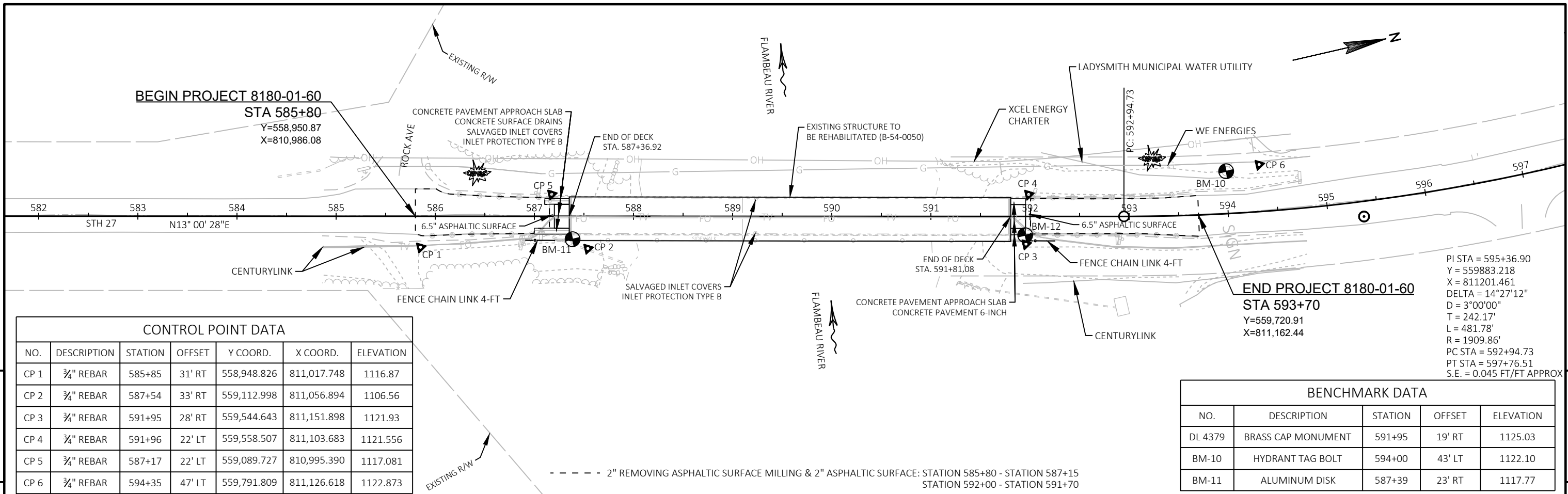
⚠ Additional quantities shown on other sheets

SAWING CONCRETE

STATION TO	STATION	LOCATION	690.0250 LF	REMARKS
587+00 - 587+35	ML		84	AS NEEDED TO REMOVE EXISTING CONCRETE APPROACHES
591+80 - 591+80	ML		24	AND OTHER CONCRETE ITEMS UNDER STAGING
TOTAL 0010			108	

INSTALLING AND MAINTAINING BIRD DETERRENT

STATION TO	STATION	LOCATION	999.2000.S EACH
587+80 - 593+70	ML		1
TOTAL 0010			1



BEGIN PROJECT 8180-01-60
STA 585+80
 Y=558,950.87
 X=810,986.08

END PROJECT 8180-01-60
STA 593+70
 Y=559,720.91
 X=811,162.44

PI STA = 595+36.90
 Y = 559883.218
 X = 811201.461
 DELTA = 14°27'12"
 D = 3°00'00"
 T = 242.17'
 L = 481.78'
 R = 1909.86'
 PC STA = 592+94.73
 PT STA = 597+76.51
 S.E. = 0.045 FT/FT APPROX

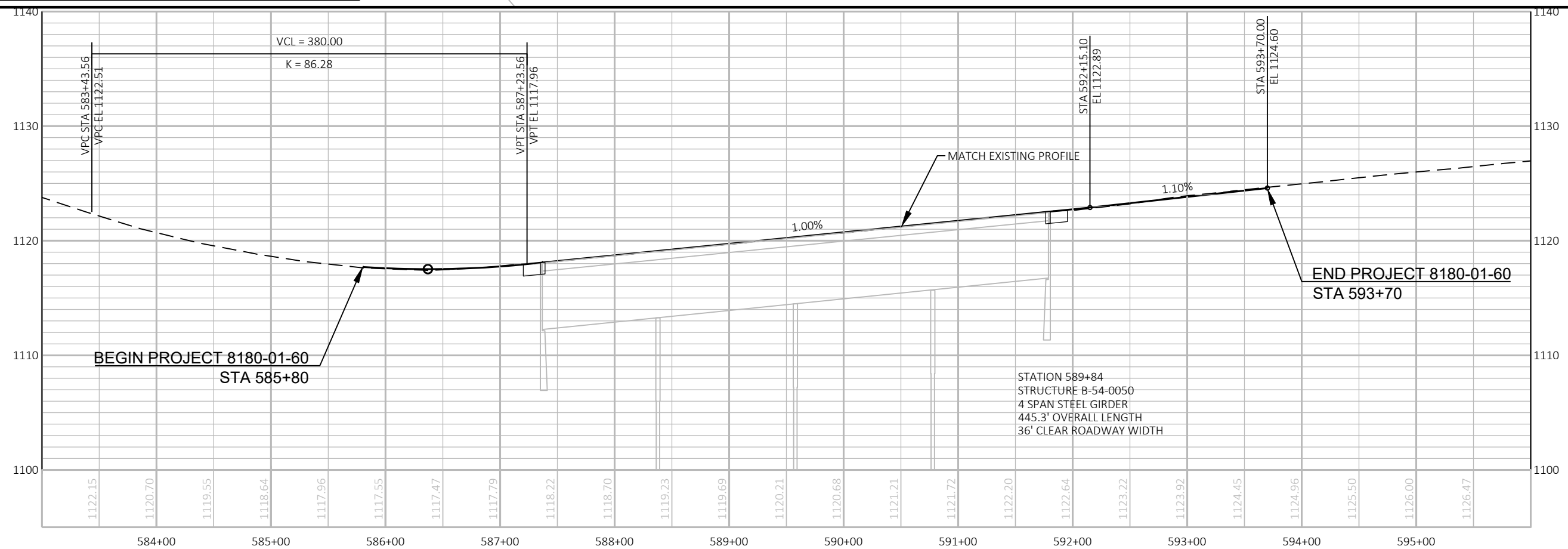
CONTROL POINT DATA

NO.	DESCRIPTION	STATION	OFFSET	Y COORD.	X COORD.	ELEVATION
CP 1	¾" REBAR	585+85	31' RT	558,948.826	811,017.748	1116.87
CP 2	¾" REBAR	587+54	33' RT	559,112.998	811,056.894	1106.56
CP 3	¾" REBAR	591+95	28' RT	559,544.643	811,151.898	1121.93
CP 4	¾" REBAR	591+96	22' LT	559,558.507	811,103.683	1121.556
CP 5	¾" REBAR	587+17	22' LT	559,089.727	810,995.390	1117.081
CP 6	¾" REBAR	594+35	47' LT	559,791.809	811,126.618	1122.873

BENCHMARK DATA

NO.	DESCRIPTION	STATION	OFFSET	ELEVATION
DL 4379	BRASS CAP MONUMENT	591+95	19' RT	1125.03
BM-10	HYDRANT TAG BOLT	594+00	43' LT	1122.10
BM-11	ALUMINUM DISK	587+39	23' RT	1117.77

--- 2" REMOVING ASPHALTIC SURFACE MILLING & 2" ASPHALTIC SURFACE: STATION 585+80 - STATION 587+15
 STATION 592+00 - STATION 591+70



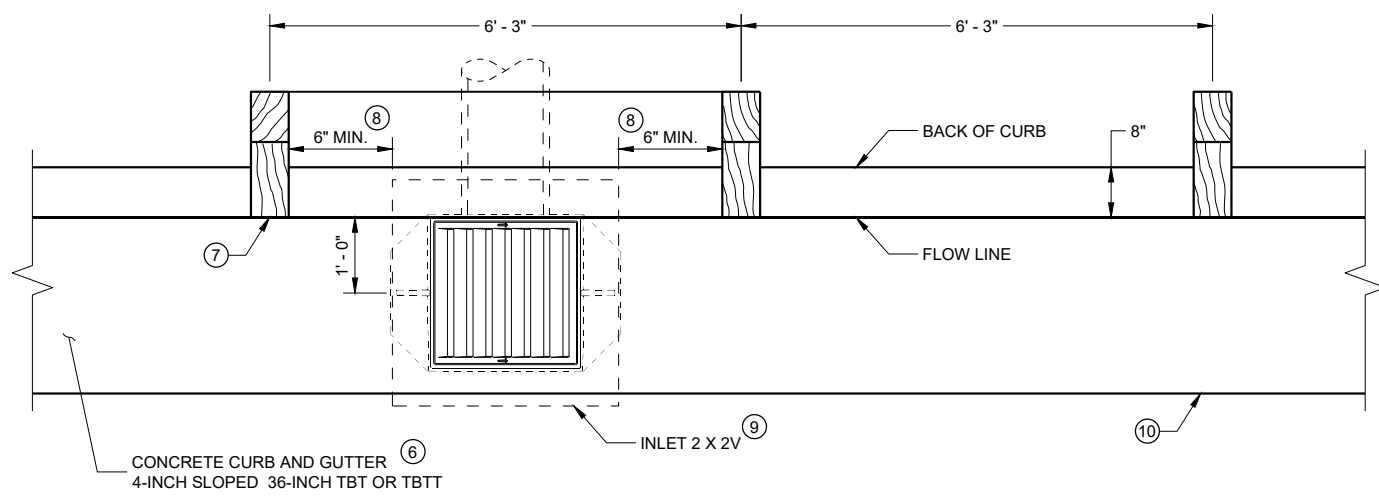
BEGIN PROJECT 8180-01-60
STA 585+80

END PROJECT 8180-01-60
STA 593+70

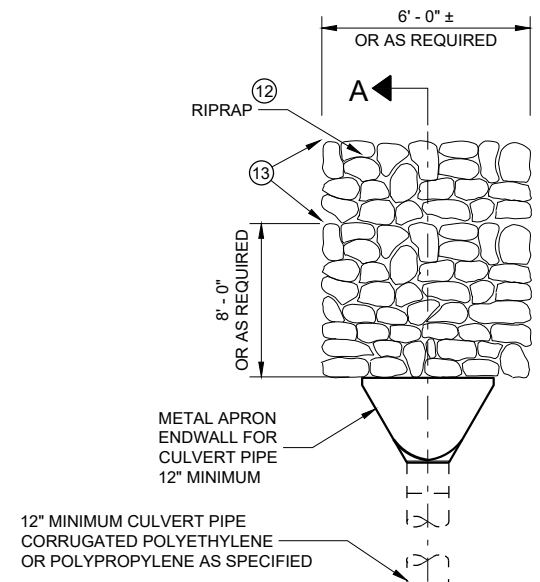
STATION 589+84
 STRUCTURE B-54-0050
 4 SPAN STEEL GIRDER
 445.3' OVERALL LENGTH
 36' CLEAR ROADWAY WIDTH

Standard Detail Drawing List

08D03-08A	CONCRETE SURFACE DRAINS DROP INLET TYPE AT STRUCTURES
08D03-08B	CONCRETE SURFACE DRAINS DROP INLET TYPE AT STRUCTURES
08E10-02	INLET PROTECTION TYPE A, B, C AND D
13B02-09A	CONCRETE PAVEMENT APPROACH SLAB
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"
15B03-15A	FENCE CHAIN LINK
15B03-15B	FENCE CHAIN LINK
15C02-08F	ADVANCED WIDTH RESTRICTION SIGNING
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M. P. H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C05-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M. P. H. OR LESS
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
15D28-04	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY



INLET PLAN VIEW
(NOTE: RAIL NOT SHOWN FOR CLARITY)

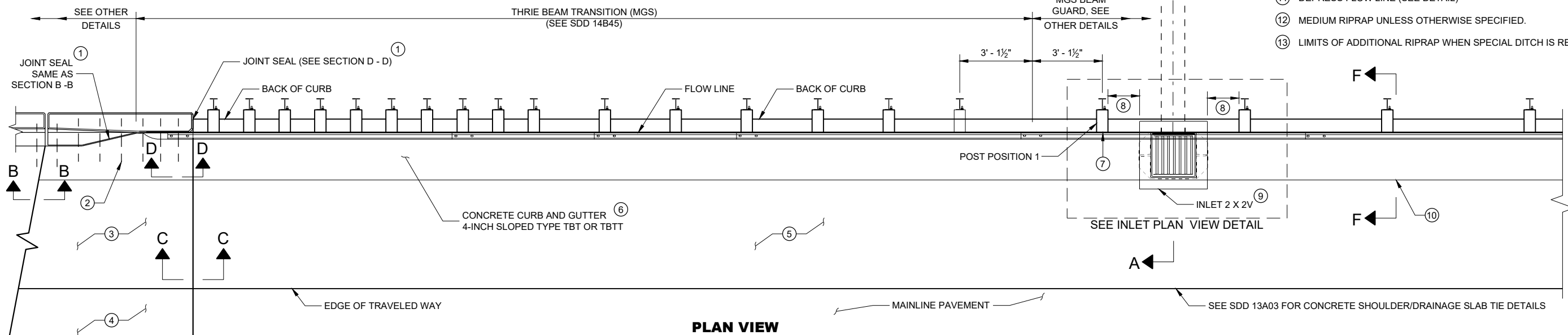


GENERAL NOTES

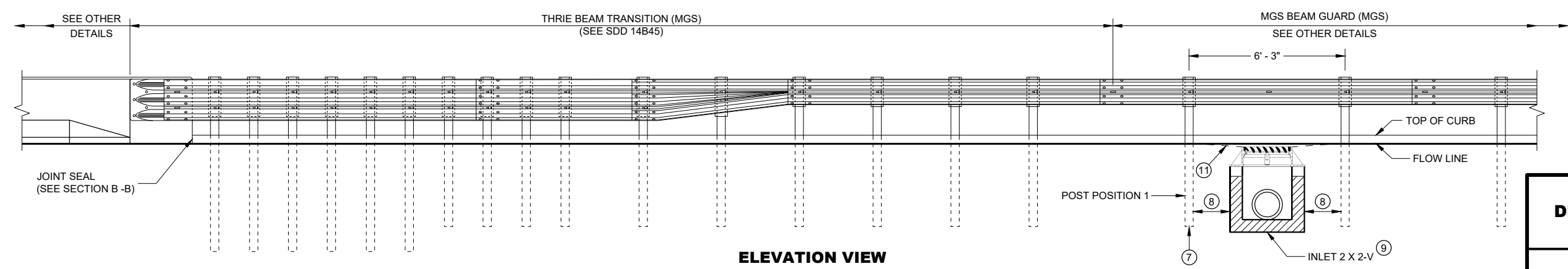
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

- ① USE A JOINT SEALANT CONFORMING TO STANDARD SPECIFICATION 415.2.6.
- ② NO. 4 X 2' - 0" TIE BARS SPACED AT 12" C-C TO BE PLACED BY BRIDGE CONTRACTOR OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.
- ③ PAVED CONCRETE SHOULDER (SDD 13A03) OR CONCRETE DRAINAGE SLAB.
- ④ CONCRETE PAVEMENT APPROACH SLAB (SHOWN) OR STRUCTURE APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB. SEE SDD 13B02.
- ⑤ PAVED CONCRETE SHOULDER (SDD 13A03) OR ASPHALT SHOULDER.
- ⑥ CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE TBT OR TBTT. USE TYPE TBTT CURB WITH NO. 4 X 2' - 0" TIE BARS SPACED AT 3' - 0" C-C ONLY WHEN ADJACENT TO CONCRETE PAVEMENTS.
- ⑦ PLACE DRAINAGE STRUCTURE BEFORE MSG THRIE BEAM TRANSITION POST 1 (SEE SDD 14B45)
- ⑧ CENTER DRAINAGE STRUCTURE BETWEEN POSTS. 6-INCH MINIMUM SEPARATION FROM OUTSIDE WALL OF DRAINAGE STRUCTURE TO POSTS.
- ⑨ SEE SDD 08A05 AND 08C07 FOR DETAILS. SEE ROADWAY PLANS FOR LOCATION.
- ⑩ START CURB AND GUTTER TRANSITION OR END SECTION.
- ⑪ DEPRESS FLOW LINE (SEE DETAIL)
- ⑫ MEDIUM RIPRAP UNLESS OTHERWISE SPECIFIED.
- ⑬ LIMITS OF ADDITIONAL RIPRAP WHEN SPECIAL DITCH IS REQUIRED.



PLAN VIEW



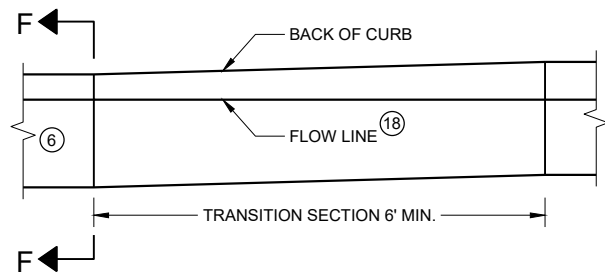
ELEVATION VIEW

**CONCRETE SURFACE
DRAINS DROP INLET TYPE
AT STRUCTURES**

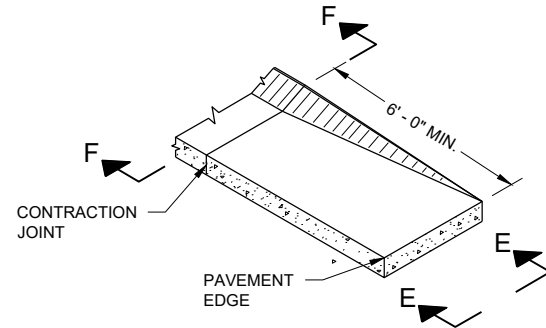
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 08D03 - 08a

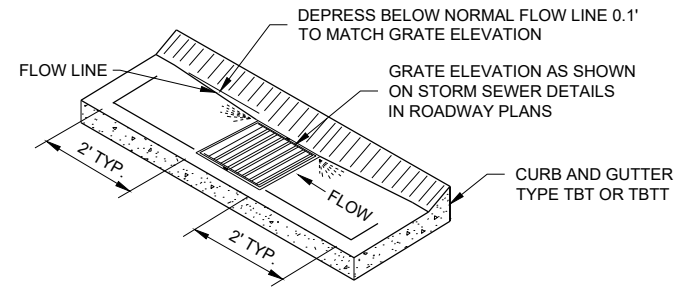
SDD 08D03 - 08a



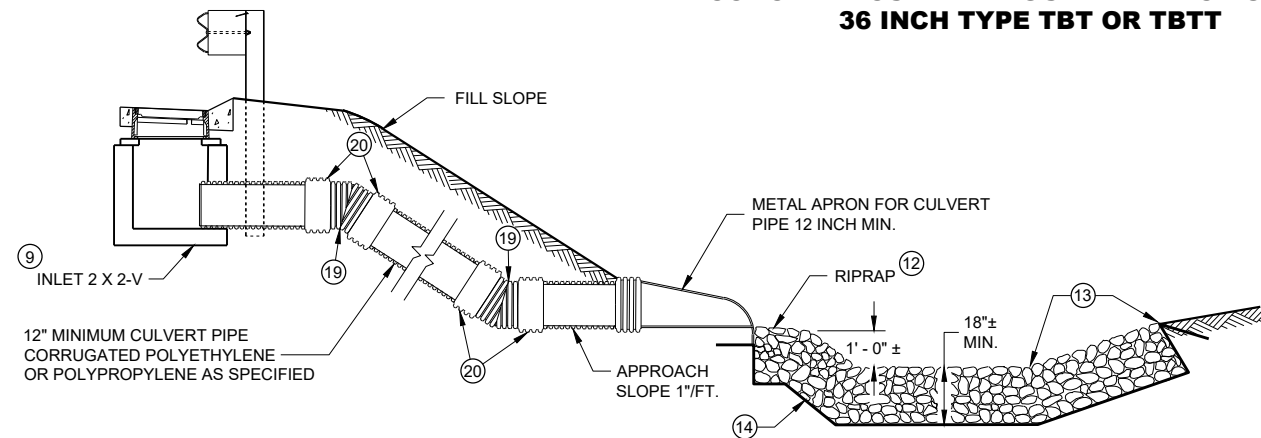
**CURB AND GUTTER TRANSITION SECTION
CONCRETE CURB AND GUTTER 4-INCH SLOPED
36 INCH TYPE TBT OR TBTT**



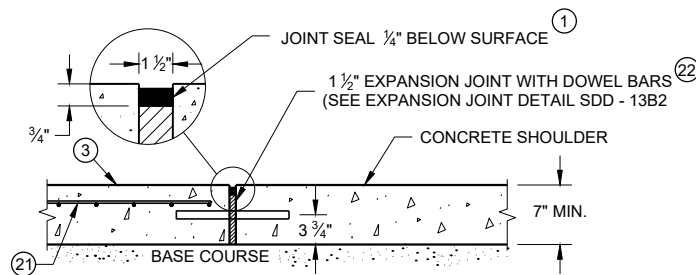
**CURB AND GUTTER END SECTION
CONCRETE CURB AND GUTTER 4-INCH SLOPED
36 INCH TYPE TBT OR TBTT**



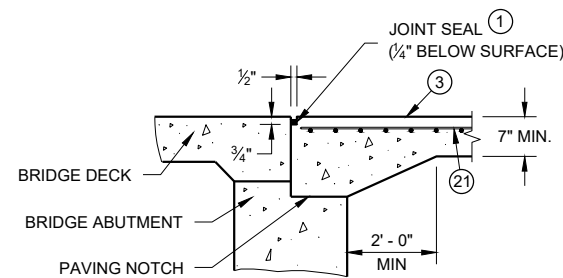
**CURB AND GUTTER FLOW LINE DEPRESSION
AT INLETS CONCRETE CURB AND GUTTER
4-INCH SLOPED 36 INCH TYPE TBT OR TBTT**



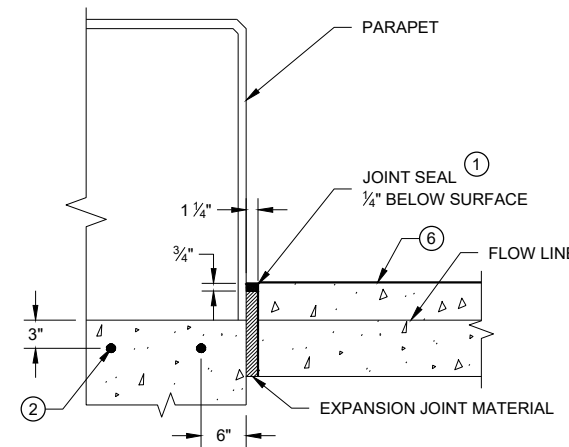
SECTION A - A



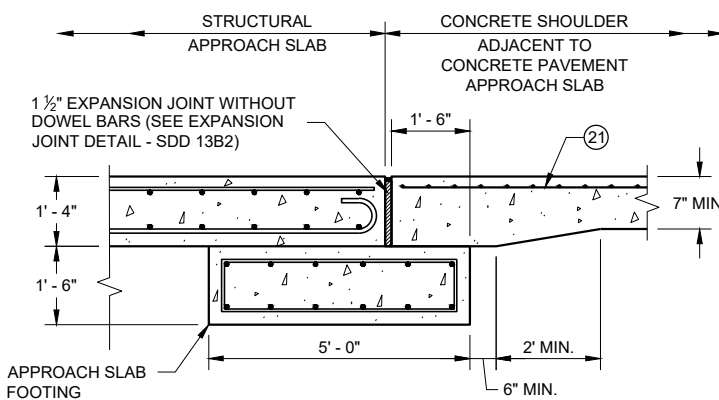
**SECTION C - C
JOINT DETAIL FOR BRIDGE APPROACH
WITH CONCRETE SHOULDERS**



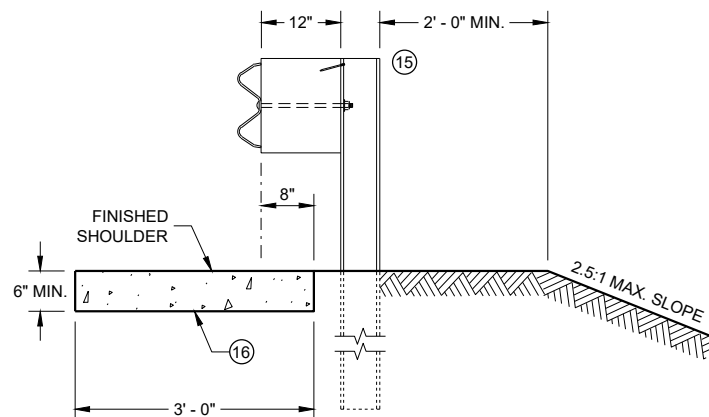
SECTION B - B



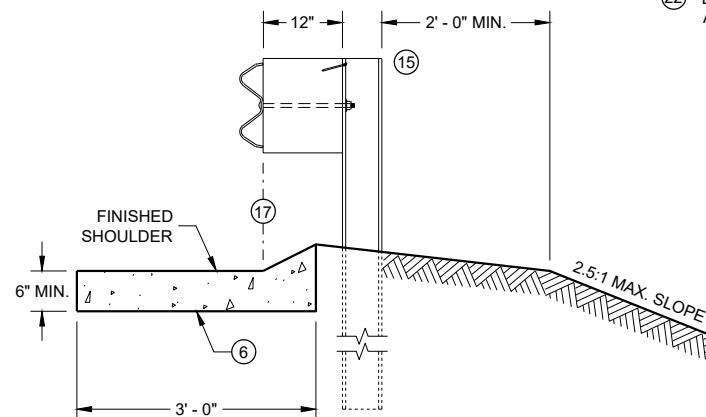
SECTION D - D



**SECTION C - C
JOINT DETAIL FOR BRIDGE WITH STRUCTURAL
APPROACH SLAB AND CONCRETE APPROACH SLAB**



SECTION E - E



SECTION F - F

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.

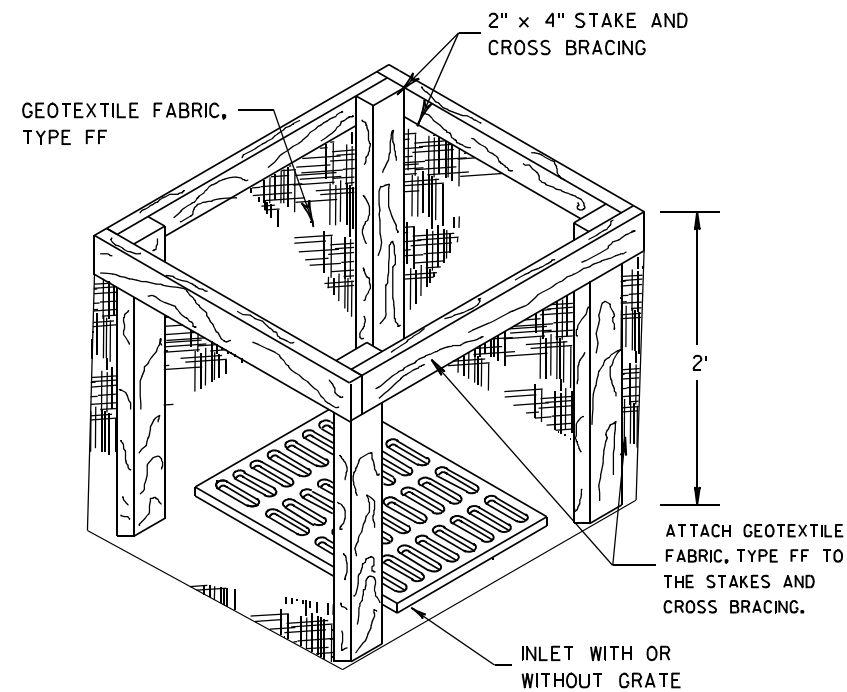
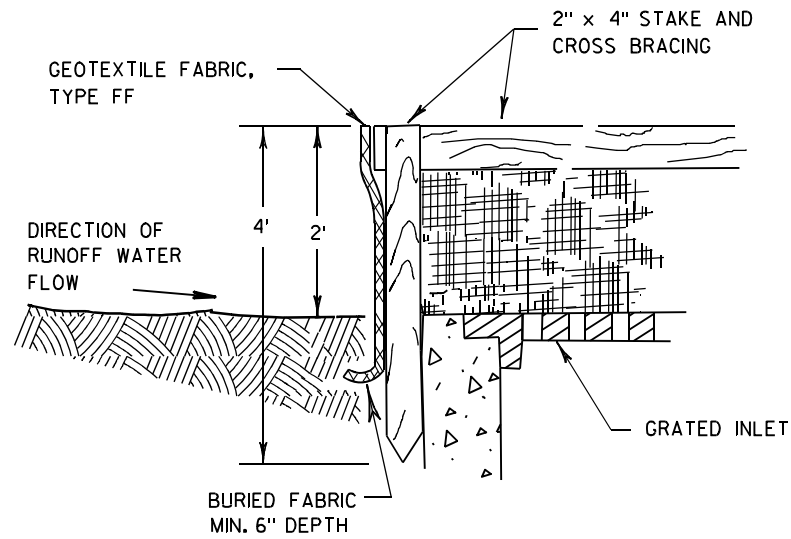
ALL STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

- ① USE A JOINT SEALANT CONFORMING TO STANDARD SPECIFICATION 415.2.6.
- ② NO. 4 X 2' - 0" TIE BARS SPACED AT 12" C-C TO BE PLACED BY BRIDGE CONTRACTOR OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.
- ③ PAVED CONCRETE SHOULDER (SDD 13A03) OR CONCRETE DRAINAGE SLAB.
- ④ CONCRETE PAVEMENT APPROACH SLAB (SHOWN) OR STRUCTURE APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB. SEE SDD 13B02 AND STRUCTURE PLANS.
- ⑤ PAVED CONCRETE SHOULDER (SDD 13A03) OR ASPHALT SHOULDER.
- ⑥ CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE TBT OR TBTT. USE TYPE TBTT CURB WITH NO. 4 X 2' - 0" TIE BARS SPACED AT 3' - 0" C-C ONLY WHEN ADJACENT TO CONCRETE PAVEMENTS.
- ⑦ PLACE DRAINAGE STRUCTURE BEFORE MSG THRIE BEAM TRANSITION POST 1 (SEE SDD 14B45)
- ⑧ CENTER DRAINAGE STRUCTURE BETWEEN POSTS. 6-INCH MINIMUM SEPARATION FROM OUTSIDE WALL OF DRAINAGE STRUCTURE TO POSTS.
- ⑨ SEE SDD 08A05 AND 08C07 FOR DETAILS. SEE ROADWAY PLANS FOR LOCATION.
- ⑩ START CURB AND GUTTER TRANSITION OR END SECTION.
- ⑪ DEPRESS FLOW LINE (SEE DETAIL)
- ⑫ MEDIUM RIPRAP UNLESS OTHERWISE SPECIFIED.
- ⑬ LIMITS OF ADDITIONAL RIPRAP WHEN SPECIAL DITCH IS REQUIRED.
- ⑭ GEOTEXTILE FABRIC TYPE HR.
- ⑮ MSG THRIE BEAM TRANSITION POST 1. SEE SDD 14B45 FOR ADDITIONAL CONSTRUCTION DETAILS AND ACCEPTABLE MATERIALS.
- ⑯ MAINTAIN WIDTH, THICKNESS AND CROSS SLOPE OF ADJACENT TYPE TBT OR TBTT CURB. SEE NOTE 6 FOR TIE BAR SPACING.
- ⑰ ALIGN FACE OF POST BLOCK WITH FLOW LINE.
- ⑱ MAINTAIN FLOW LINE AT EDGE OF PAVEMENT/FACE OF BEAM GUARD AS APPLICABLE.
- ⑲ MANUFACTURER SUPPLIED BEND.
- ⑳ MANUFACTURER SUPPLIED EXTERNAL MECHANICAL COUPLING OR A MANUFACTURER RECOMMENDED COUPLING WITH A MASTIC IMPREGNATED GEOTEXTILE WRAP AND MECHANICAL FASTENING BANDS.
- ㉑ MINIMUM REINFORCEMENT SHALL BE 6" X 6" - W4.0 X W4.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C - C.
- ㉒ DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING HMA PAVEMENTS.

**CONCRETE SURFACE
DRAINS DROP INLET TYPE
AT STRUCTURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
ENGINEER
FHWA



INLET PROTECTION, TYPE A

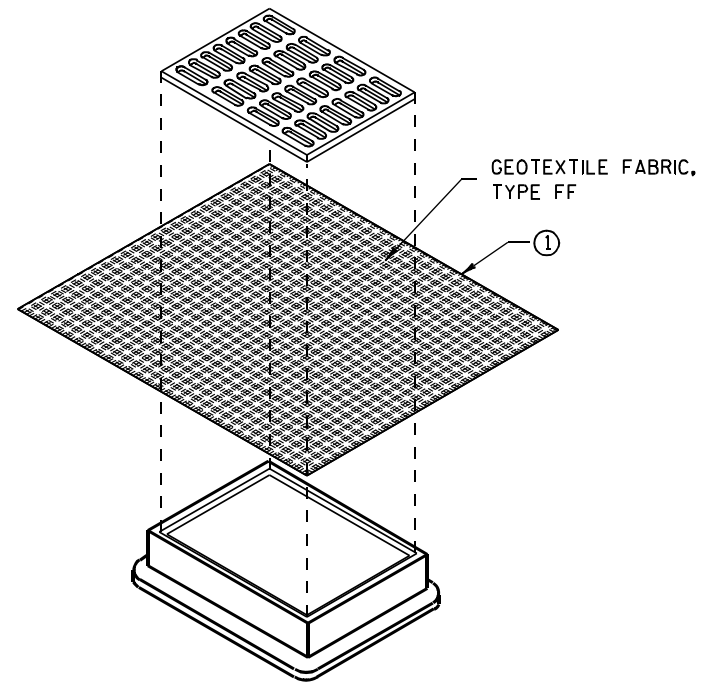
GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

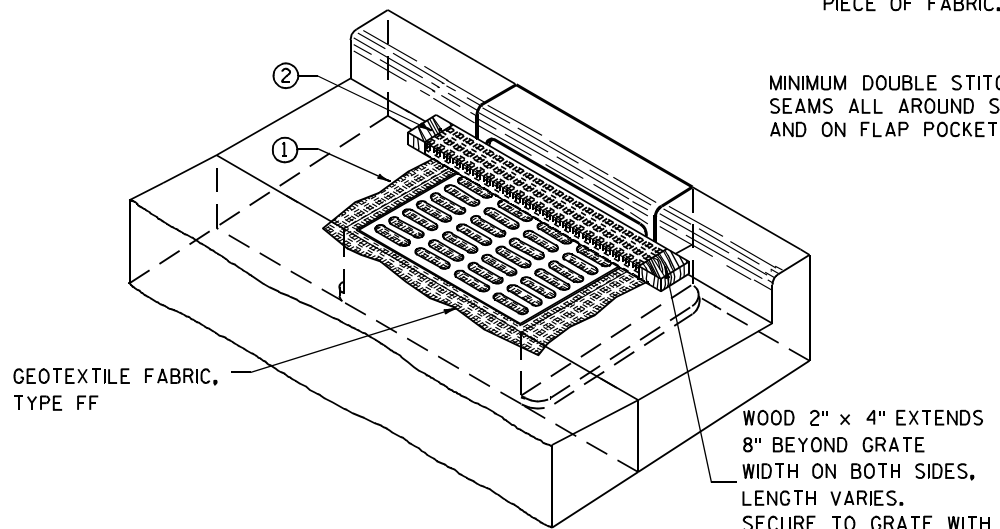
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- ① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.
- ② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.
- ③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.



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

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



INLET PROTECTION, TYPE C (WITH CURB BOX)

INSTALLATION NOTES

TYPE B & C

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

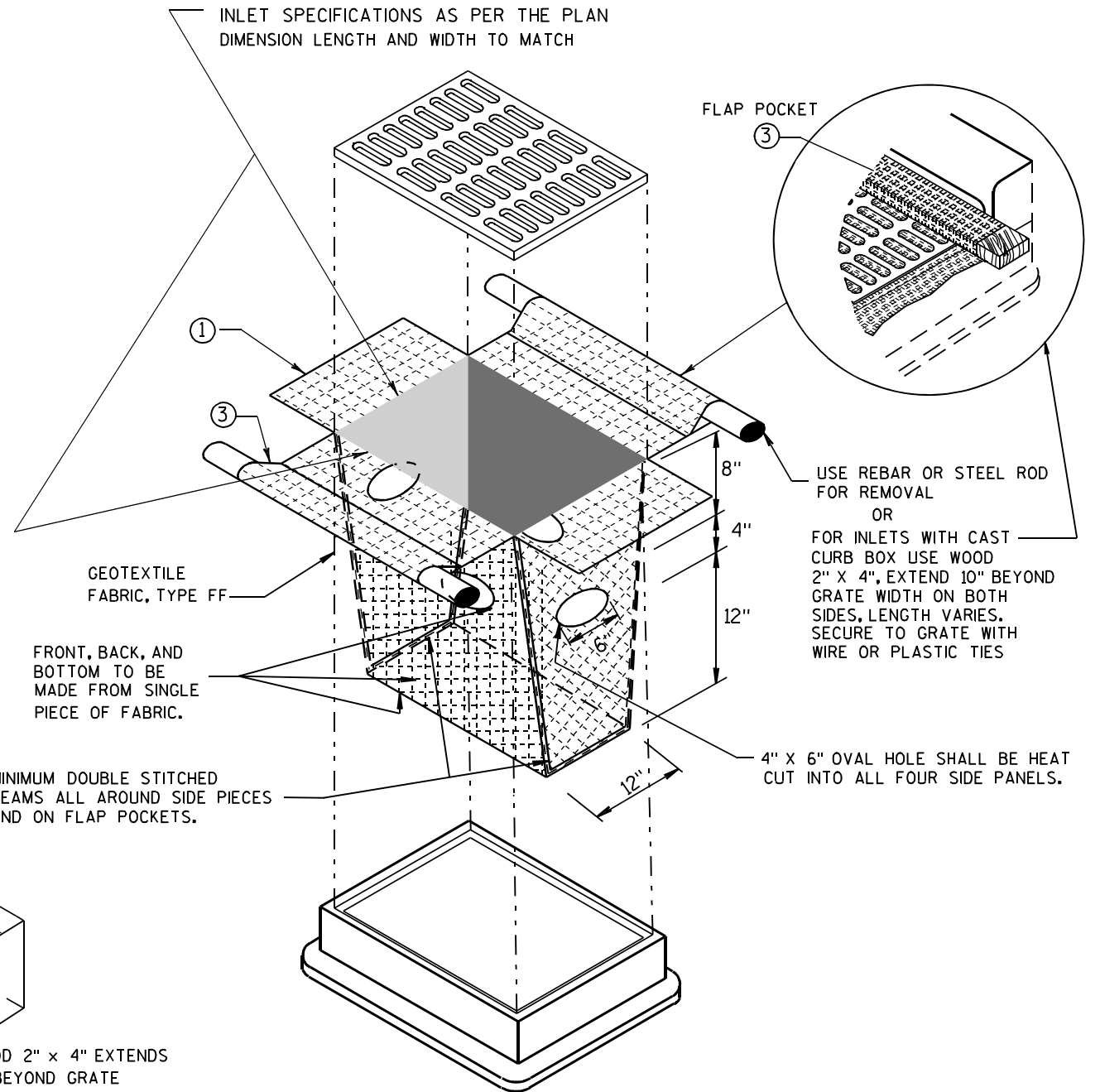
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

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

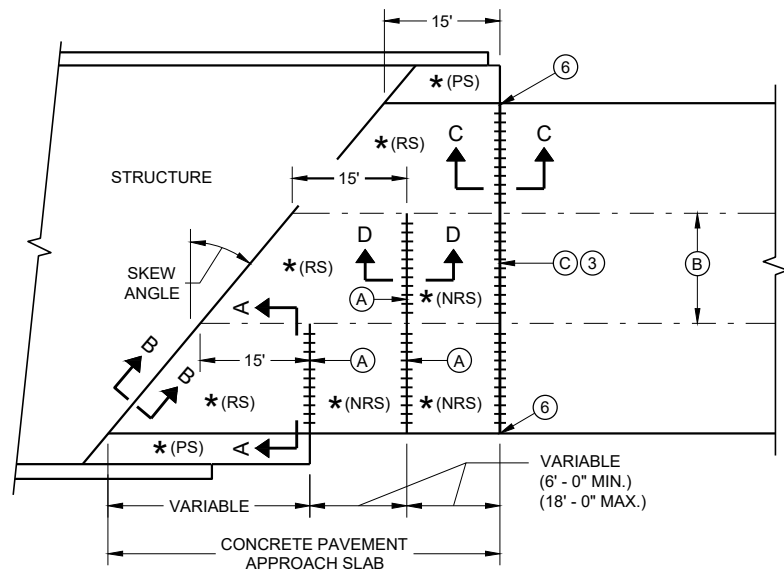
THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.



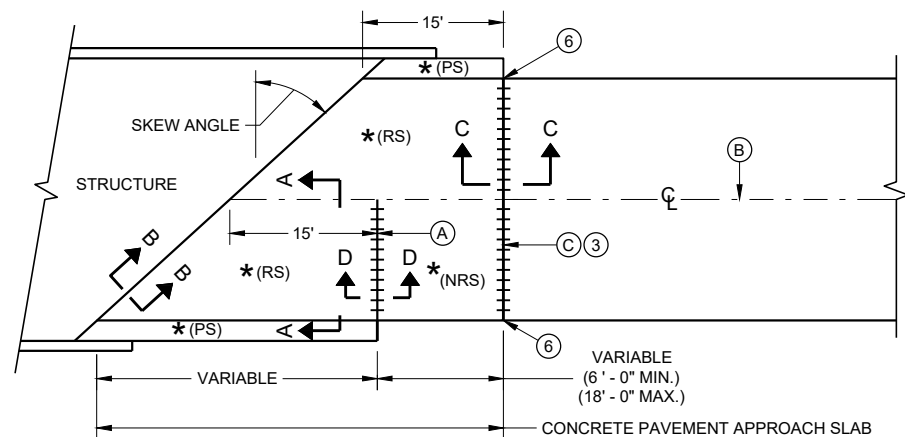
INLET PROTECTION, TYPE D

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

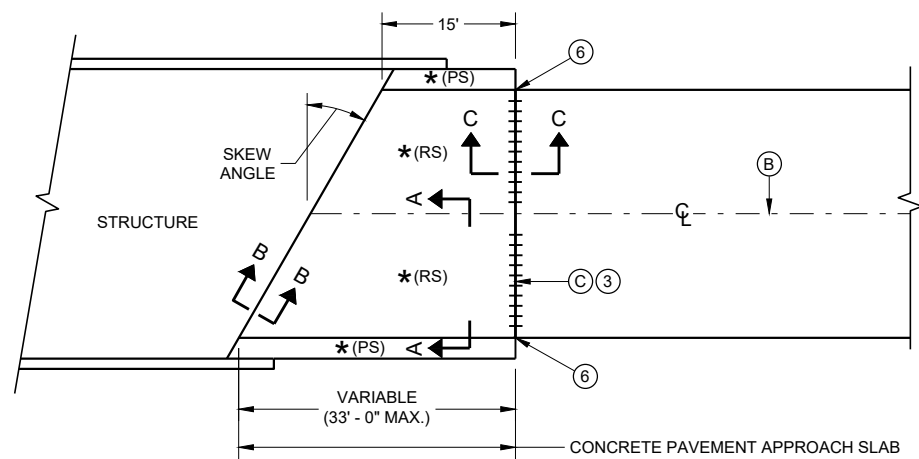
INLET PROTECTION TYPE A, B, C, AND D	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 10/16/02 DATE	/s/ Beth Conestra CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	



**SKewed APPROACH
(PAVEMENT MORE THAN TWO LANES)**

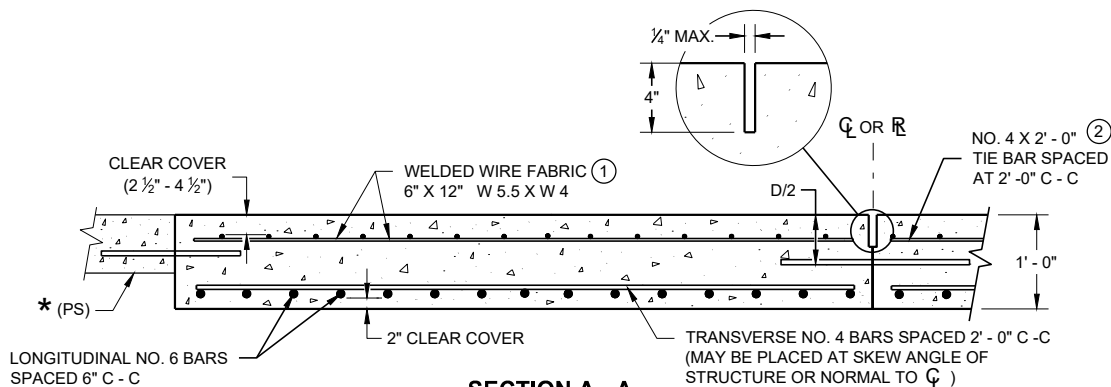


**SKews > 20°
(PAVEMENT WIDTH ≤ 30')**

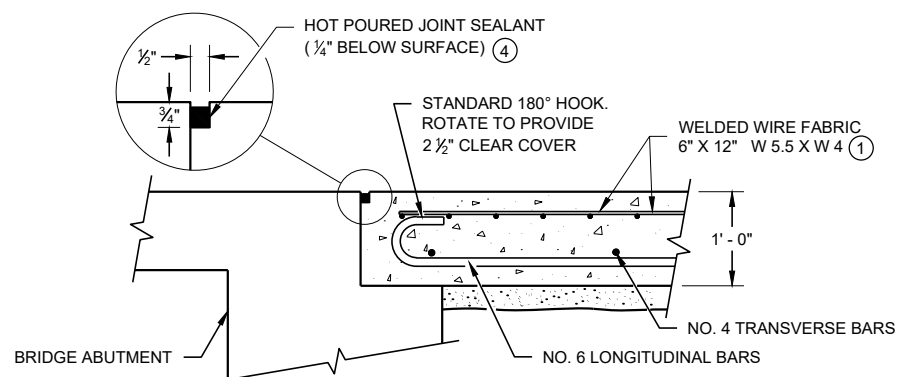


**SKews ≤ 20°
(PAVEMENT WIDTH ≤ 30')**
APPROACH SLAB AND ADJACENT PAVEMENT

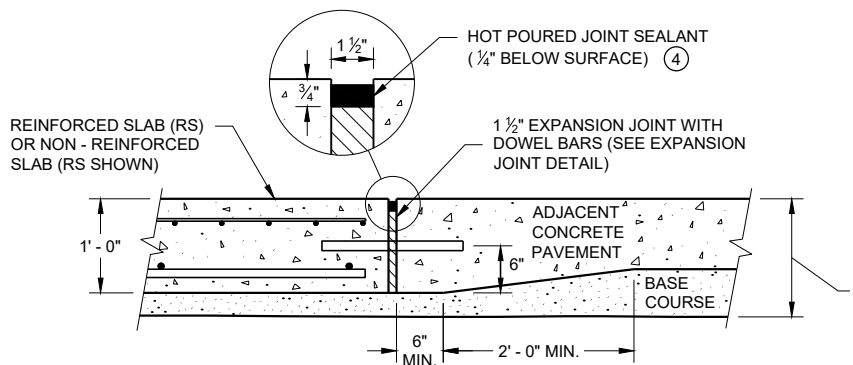
- * (RS) = REINFORCED CONCRETE SLAB
- * (PS) = PAVED CONCRETE SHOULDER OR CONCRETE DRAINAGE SLAB
- * (NRS) = NON - REINFORCED CONCRETE SLAB
- *** STANDARD DOWEL BAR DIAMETER (SEE SDD 13C11 AND SDD 13C13)



**SECTION A - A
REINFORCEMENT POSITIONING DETAIL**



**SECTION B - B
BEND DETAIL
BOTTOM REINFORCEMENT**



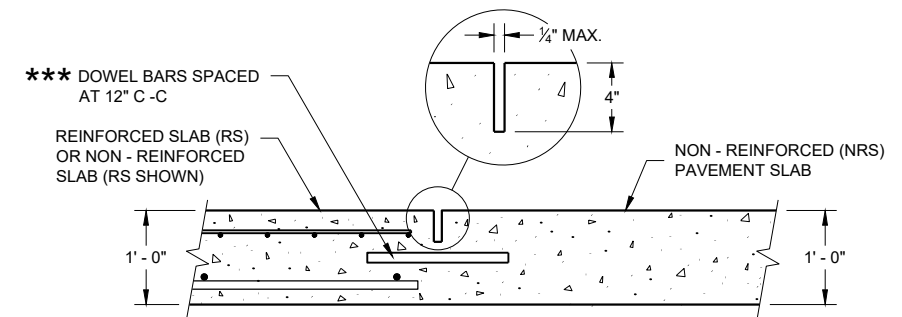
**SECTION C - C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT**

GENERAL NOTES

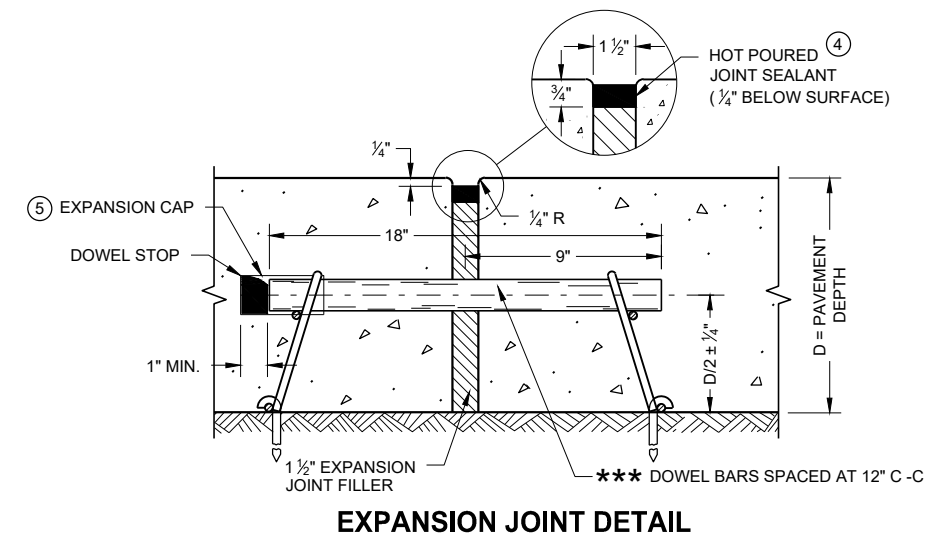
THE CONTRACTOR MAY SPLICE NO. 6 BARS IN THE APPROACH SLAB FOR SKEWED STRUCTURES ONLY. STAGGER SPLICES WITH A MAXIMUM OF ONE SPLICE PER BAR. THE LENGTH OF LAP IS 20 INCHES.

TACK WELD DOWEL BARS TO THE BASKETS ON ALTERNATE ENDS.

- ① THE CONTRACTOR MAY USE NO. 4 BARS SPACED AT 2' - 0" C - C IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTIONS FOR TOP REINFORCEMENT AS AN ALTERNATIVE TO THE WELDED WIRE FABRIC.
- ② THE CONTRACTOR MAY OMIT THE BARS BETWEEN REINFORCED SLABS WHERE SLAB REINFORCEMENT BARS EXTEND ACROSS THE CENTERLINE OR REFERENCE LINE.
- ③ DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING AN HMA PAVEMENT.
- ④ USE A JOINT SEALANT CONFORMING TO STANDARD SPECIFICATION 415.2.6.
- ⑤ PLACE EXPANSION CAP ON THE END OF THE DOWEL THAT IS NOT TACK WELDED TO THE BASKET. DO NOT FORCE DOWEL BAR PAST THE DOWEL STOP.
- ⑥ EXTEND EXPANSION JOINT THROUGH ANY ADJACENT TIED CONCRETE.
- (A) STANDARD CONTRACTION JOINT NORMAL TO C-C OR B-B.
- (B) STANDARD LONGITUDINAL JOINT WITH TIE BARS.
- (C) 1 1/2" EXPANSION JOINT WITH DOWEL BARS NORMAL TO C-C OR B-B.



**SECTION D - D
CONTRACTION JOINT**



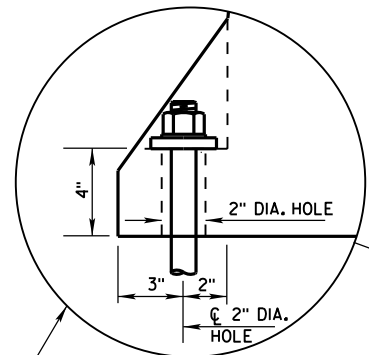
EXPANSION JOINT DETAIL

**CONCRETE PAVEMENT
APPROACH SLAB**

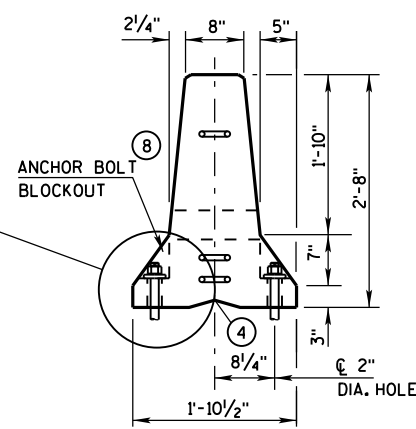
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018 /S/ Peter Kemp, P.E.
DATE DATE PAVEMENT SUPERVISOR

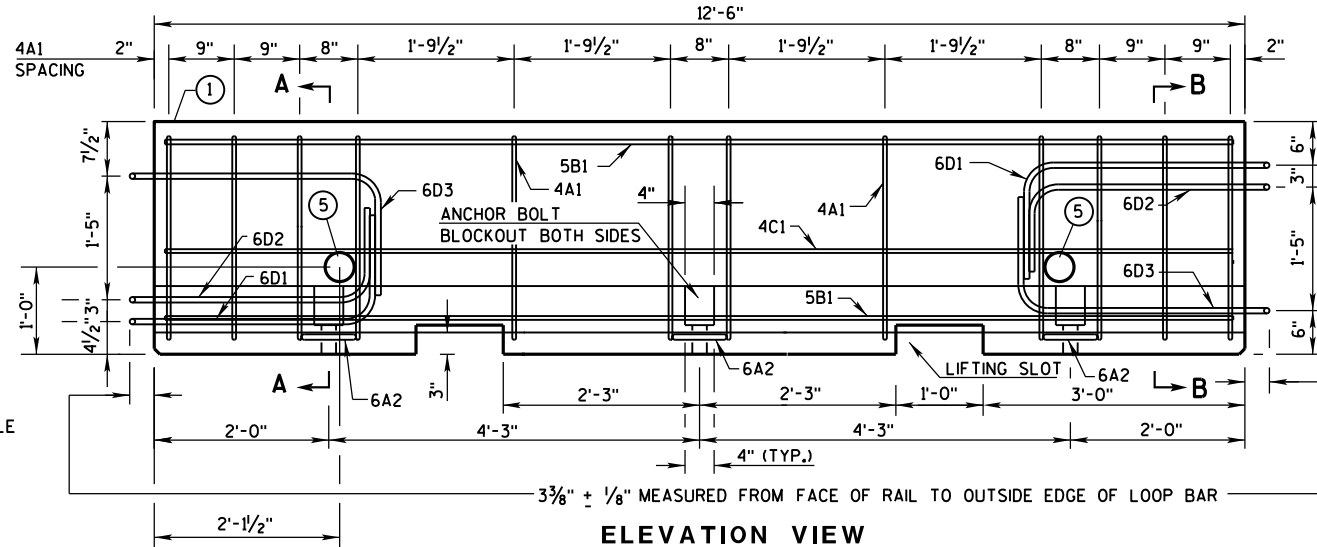
FHWA



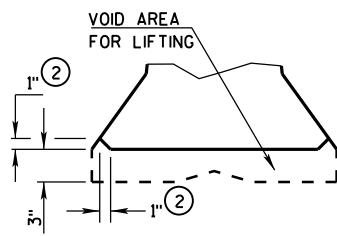
ANCHOR ON TRAFFIC SIDE ONLY WHEN REQUIRED (SEE SHEET D FOR ADDITIONAL ANCHOR DETAIL)



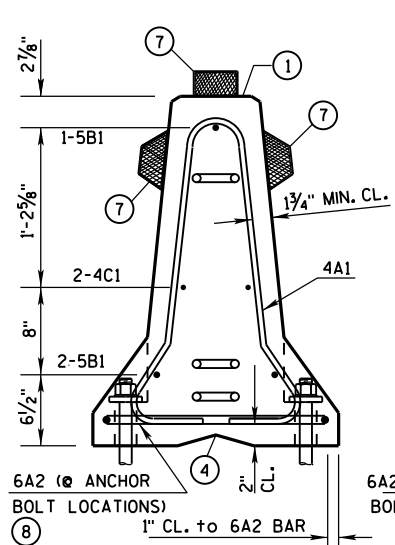
END VIEW



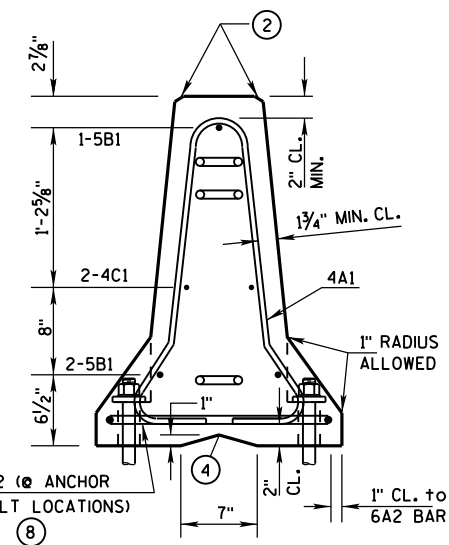
ELEVATION VIEW



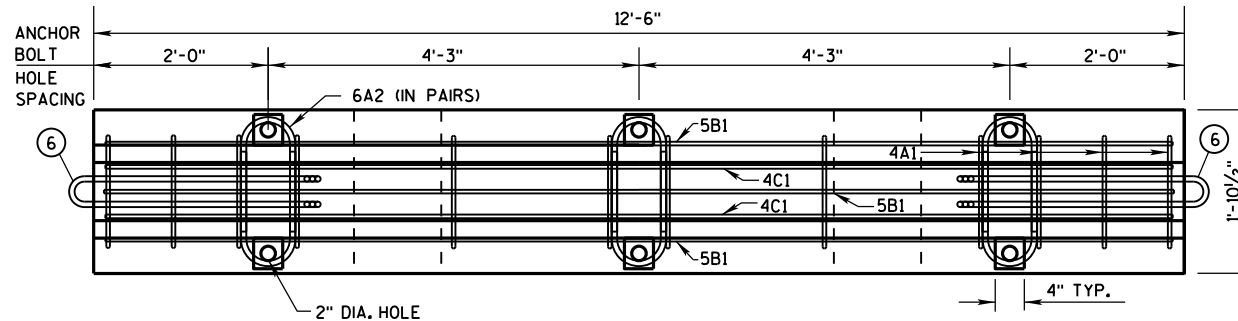
DETAIL "B" LIFTING SLOT DETAIL



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.

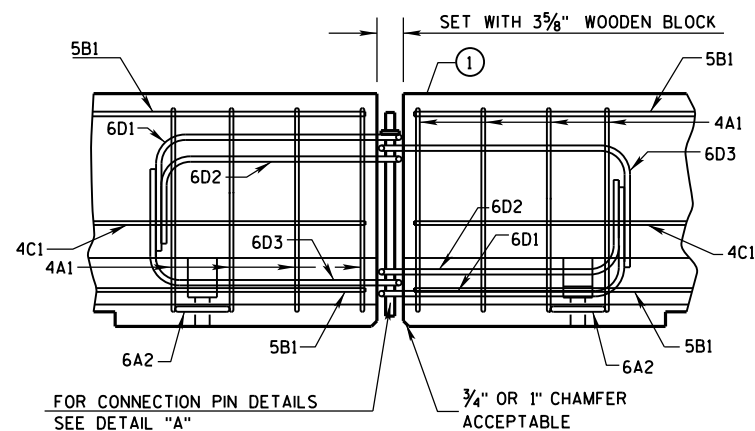
CONSTRUCT LIFTING SLOTS AS SPECIFIED ON THE PLANS TO FACILITATE THE DRAINAGE OF WATER AFTER INSTALLATION.

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

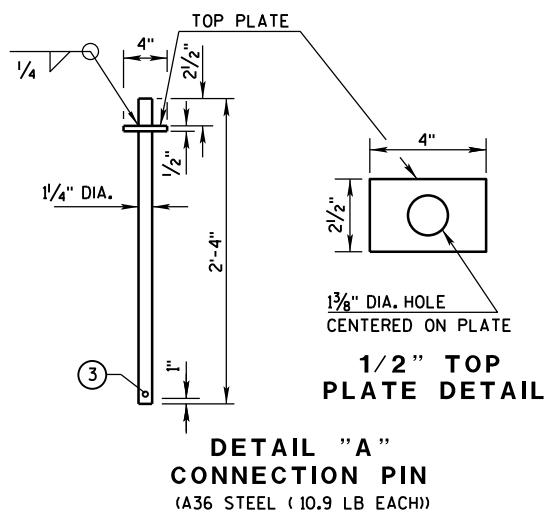
INSTALL MECHANICAL OR ADHESIVE ANCHORS PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE MANUFACTURER'S INFORMATION TO PROJECT ENGINEER.

- 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.

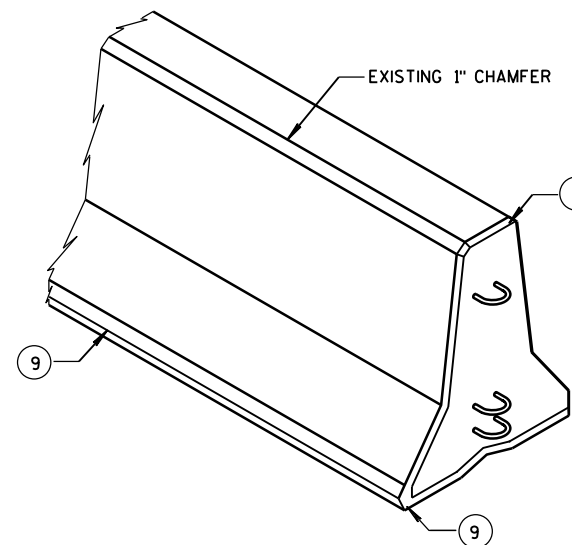
f'c = 4,000 psi



DETAILS OF BARRIER CONNECTION



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

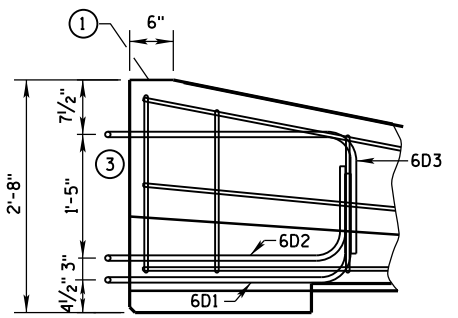
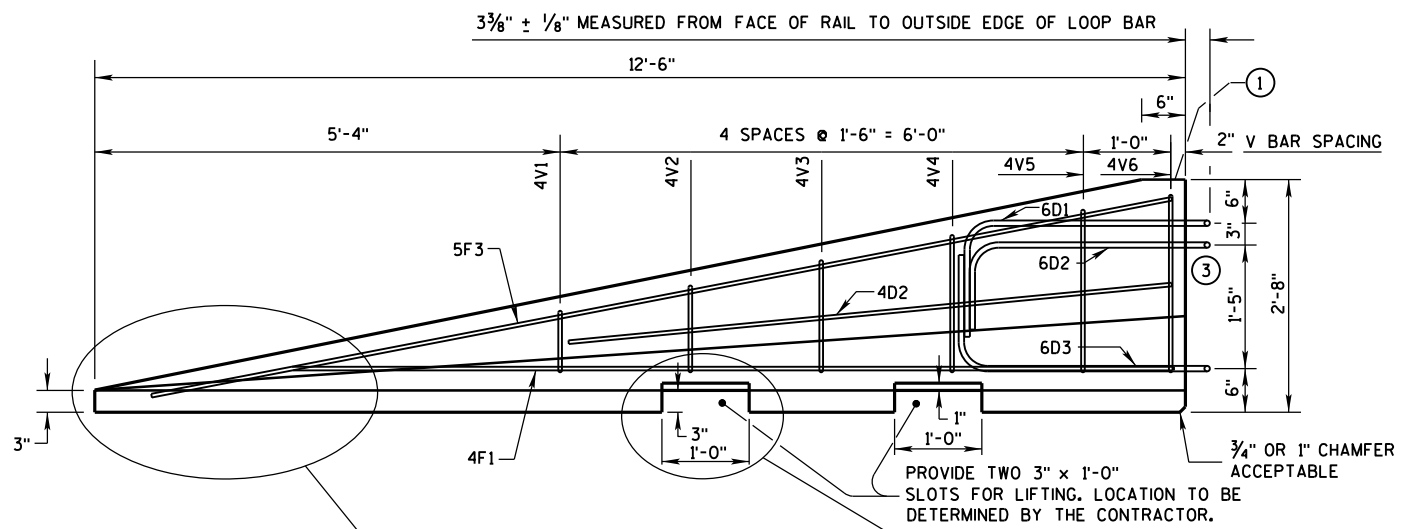


CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

6

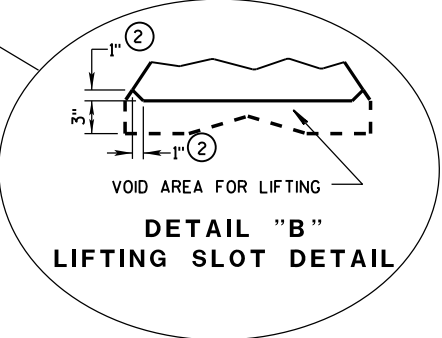
6



GENERAL NOTES

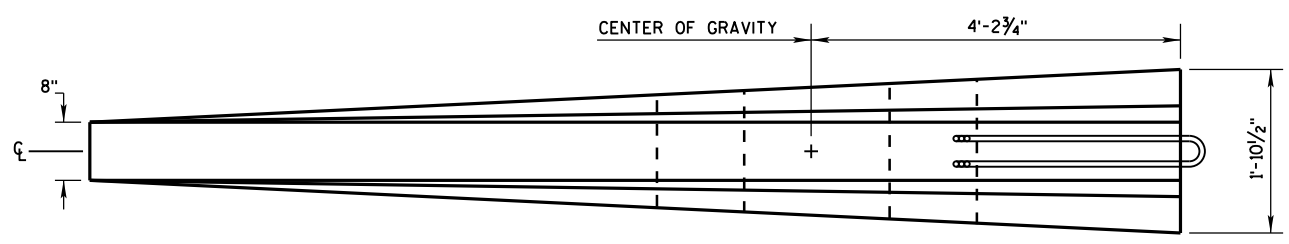
- ① MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
 - a. TYPE WICBTP
 - b. MANUFACTURER
 - c. DATE MANUFACTURED (MONTH AND YEAR)
- ② 1" CHAMFER TO PREVENT SPALLING.
- ③ NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

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

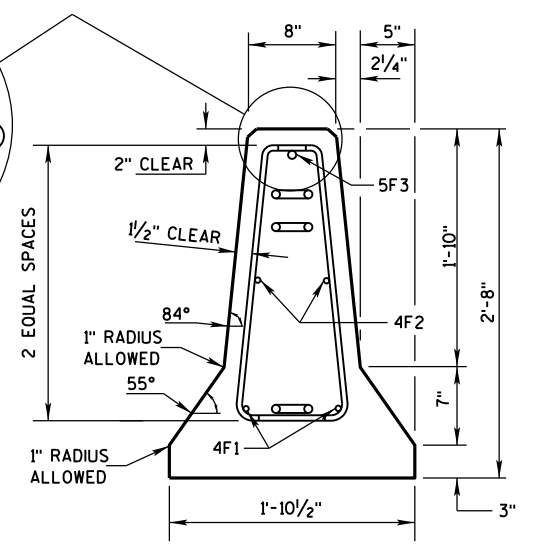
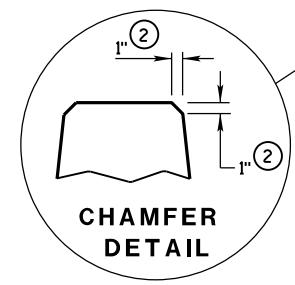


SIDE ELEVATION
 (FOR CONNECTION TO LEFT END OF BARRIER)

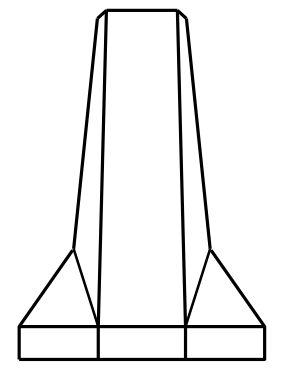
SEE DETAIL "C", BENT BAR DETAIL



PLAN VIEW

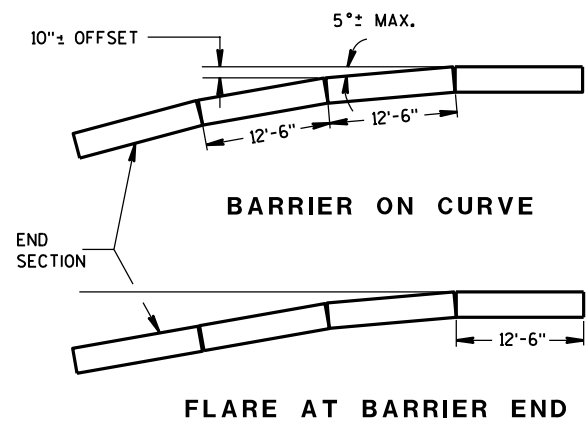


END SECTION



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

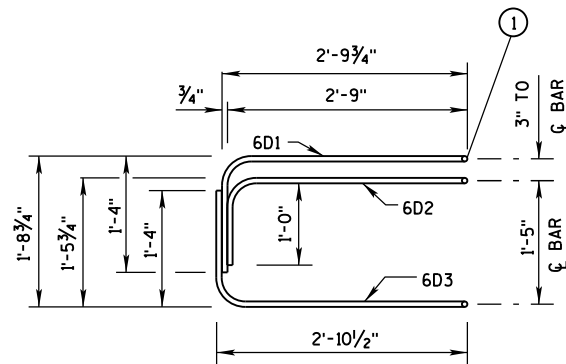
① NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

BARRIER TAPER SECTION BILL OF MATERIALS

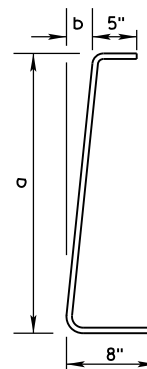
(PER 12'-6" BARRIER TAPER SECTION)

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			
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
6D1	6	1	8'-5"
6D2	6	1	7'-7"
6D3	6	1	8'-6"

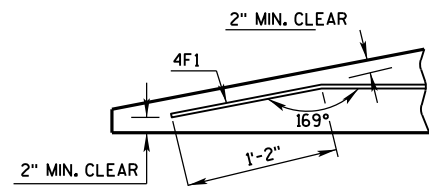


ELEVATION
LOOP BAR ASSEMBLY



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

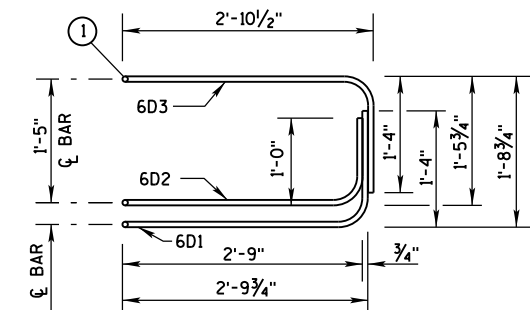
TAPER BARRIER SECTION

BARRIER SECTION BILL OF MATERIALS

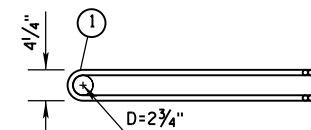
(PER 12'-6" BARRIER SECTION)

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"

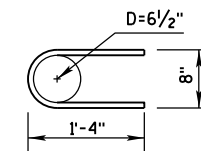
LOOP ASSEMBLY			
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
6D1	6	2	8'-5"
6D2	6	2	7'-7"
6D3	6	2	8'-6"



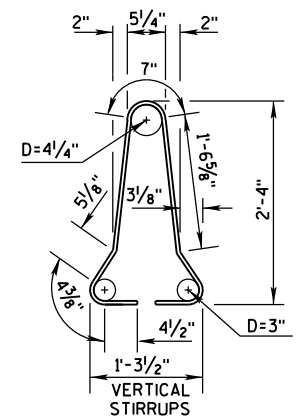
ELEVATION VIEW



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



6A2

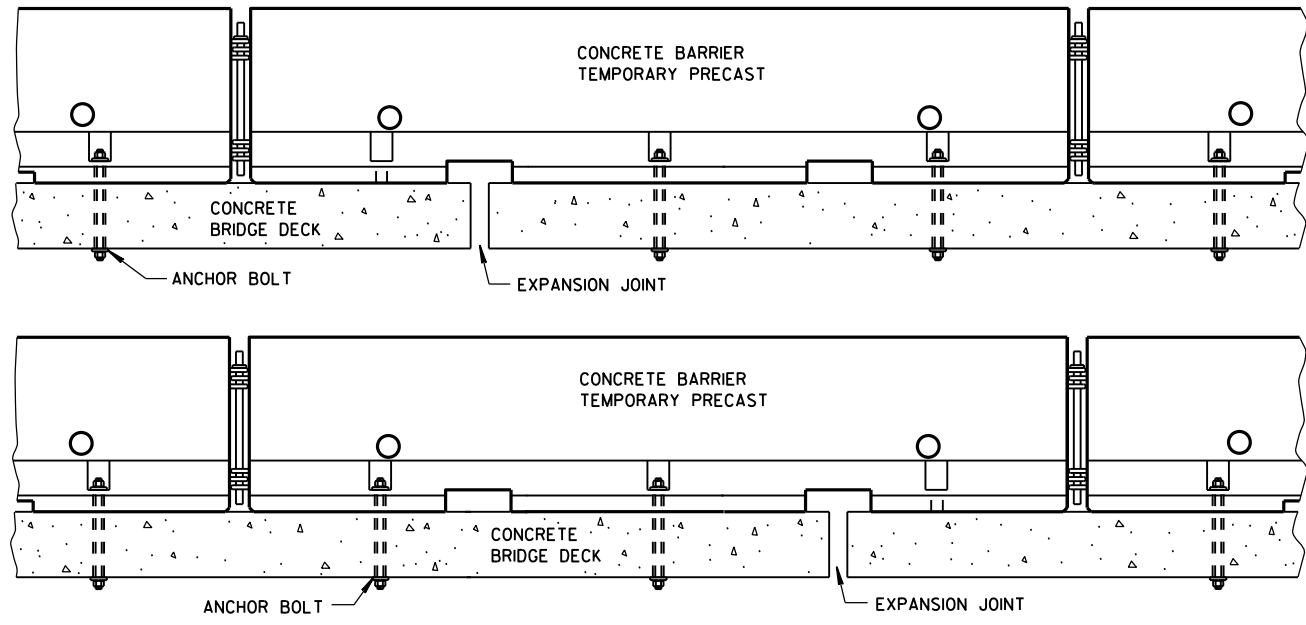


4A1

BARRIER SECTION

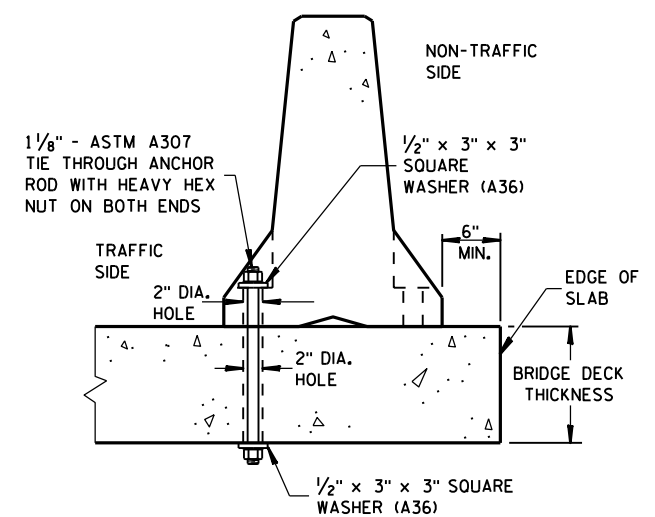
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



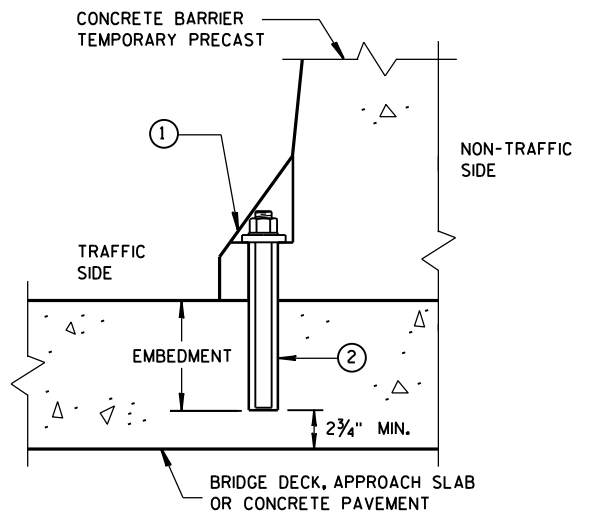
TREATMENT AT BRIDGE DECK EXPANSION JOINTS

(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

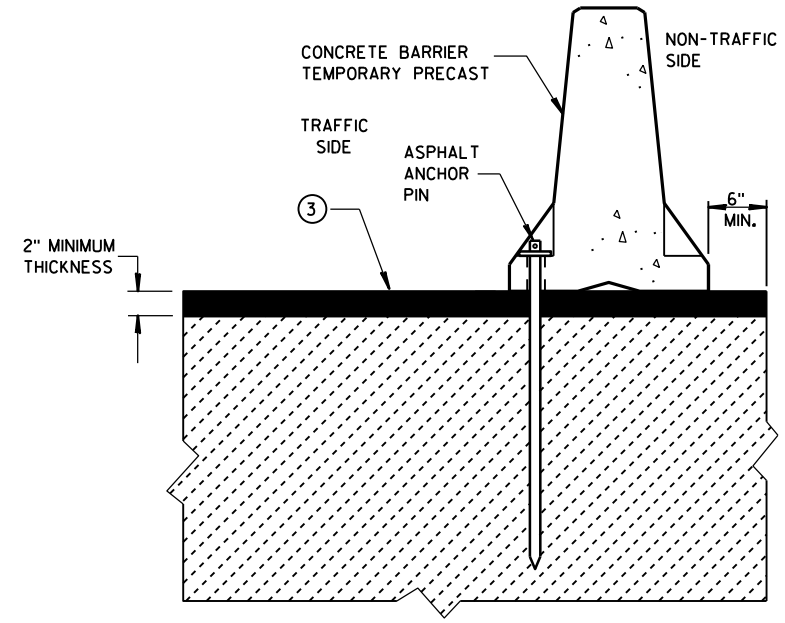
(DO NOT USE ON CONCRETE WITH AN ASPHALTIC OVERLAY)

GENERAL NOTES

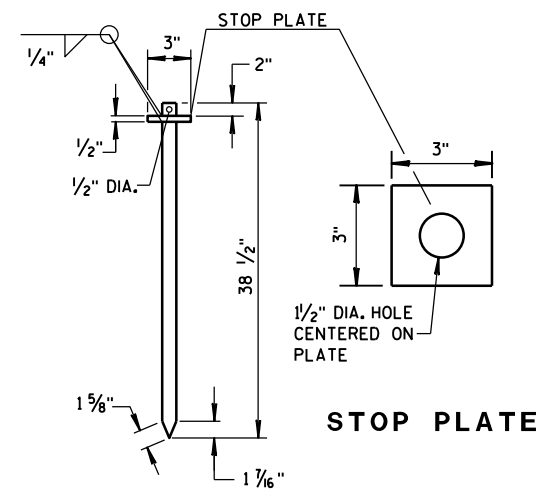
SEE SHEET E FOR WHEN TO ANCHOR. OTHER PARTS OF THE PLAN MAY SHOW ADDITIONAL LOCATIONS REQUIRING ANCHORING.

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.

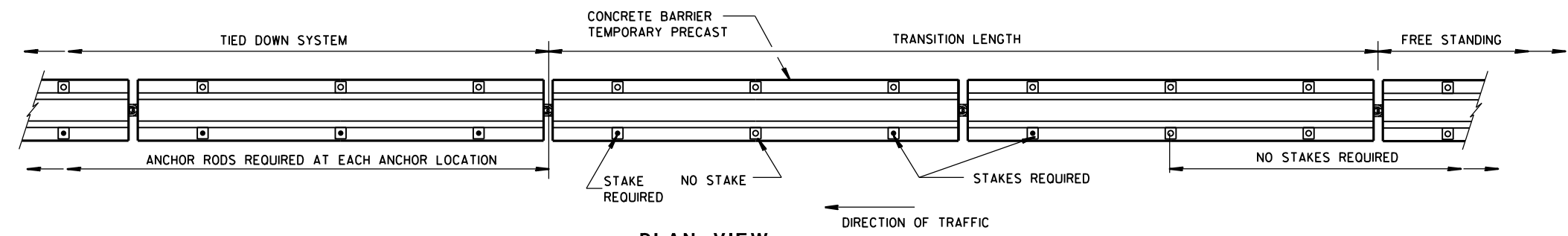
- ① 1/8" DIAMETER A307 THREADED ROD, 1/2" X 3" X 3" SQUARE PLATE WASHER WITH ASTM A36 STEEL, ASTM A563A HEAVY HEX NUT.
- ② ADHESIVE ANCHORS WITH A MINIMUM BOND STRENGTH OF 1,800 PSI AND 5/4" EMBEDMENT. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.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



STAKE DOWN INSTALLATION FOR ASPHALTIC SURFACE



ASPHALT ANCHOR PIN (ASTM A36 STEEL)



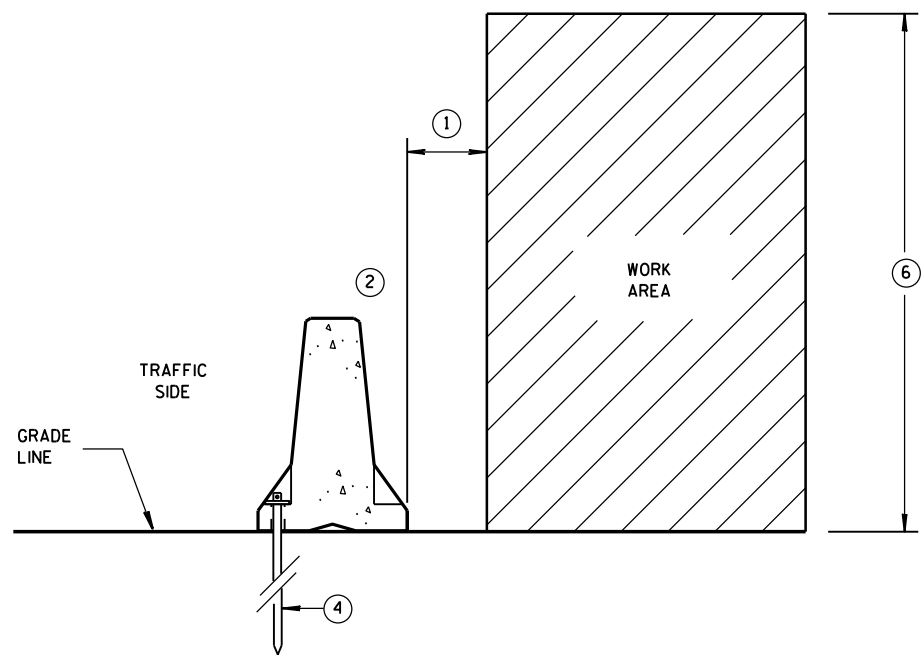
FREE STANDING TRANSITION TO TIED-DOWN SYSTEM

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

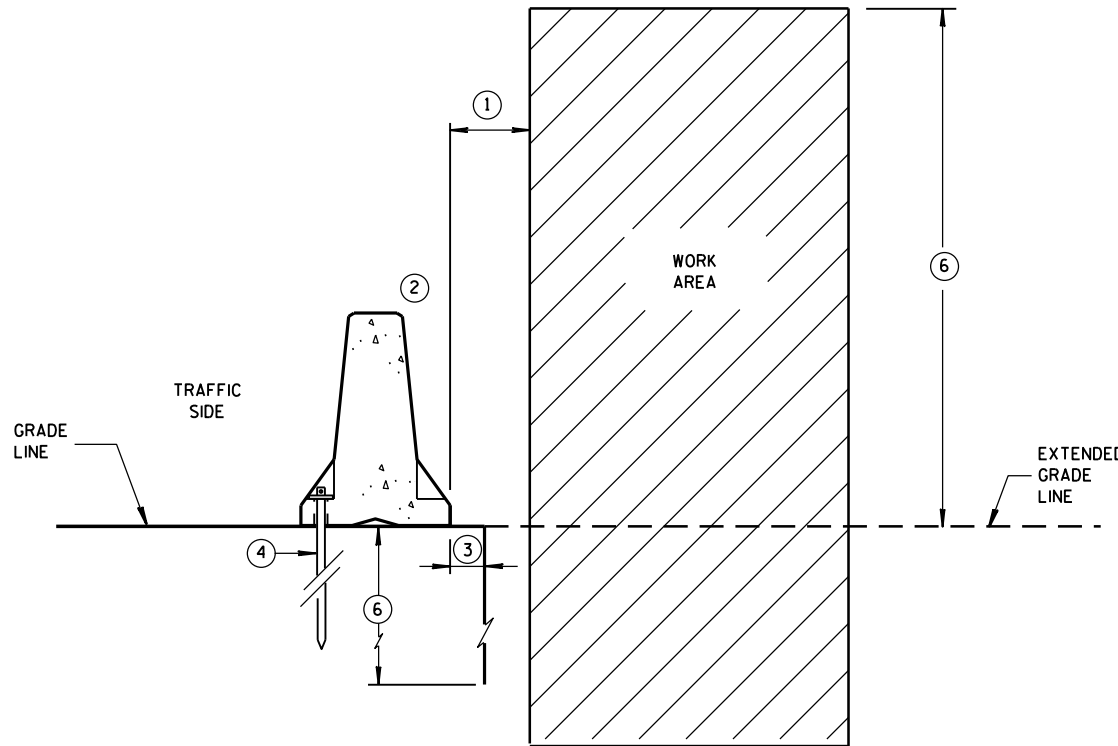
CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

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".

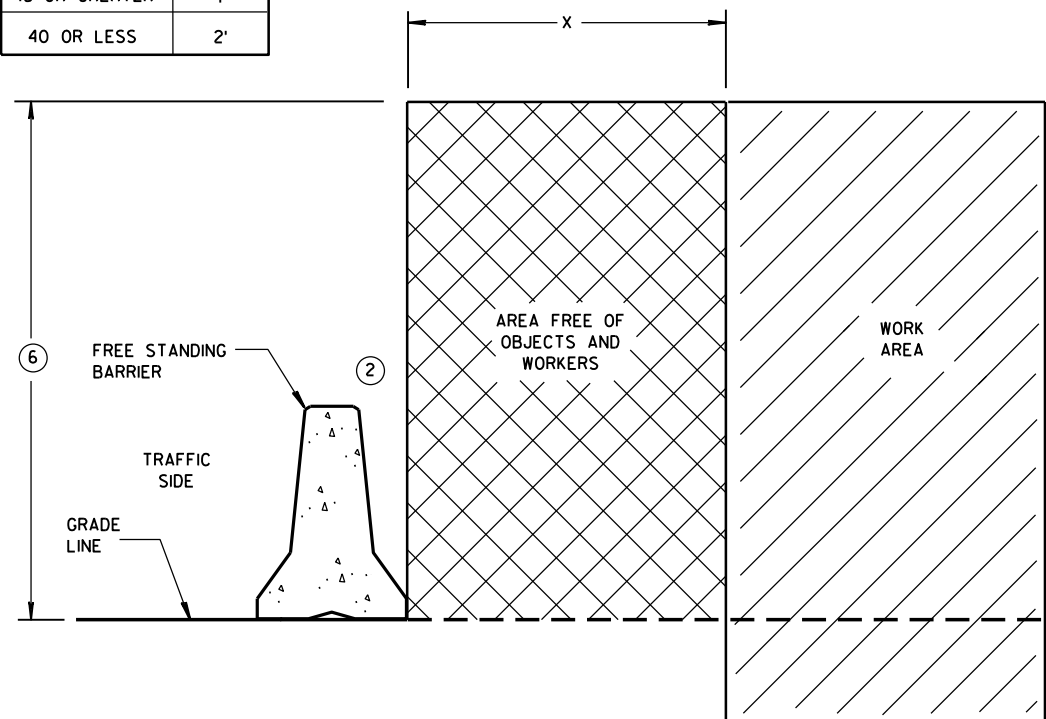


ANCHORED BARRIER SPACE REQUIREMENTS FOR HAZARDS EXTENDED ABOVE THE GRADE LINE

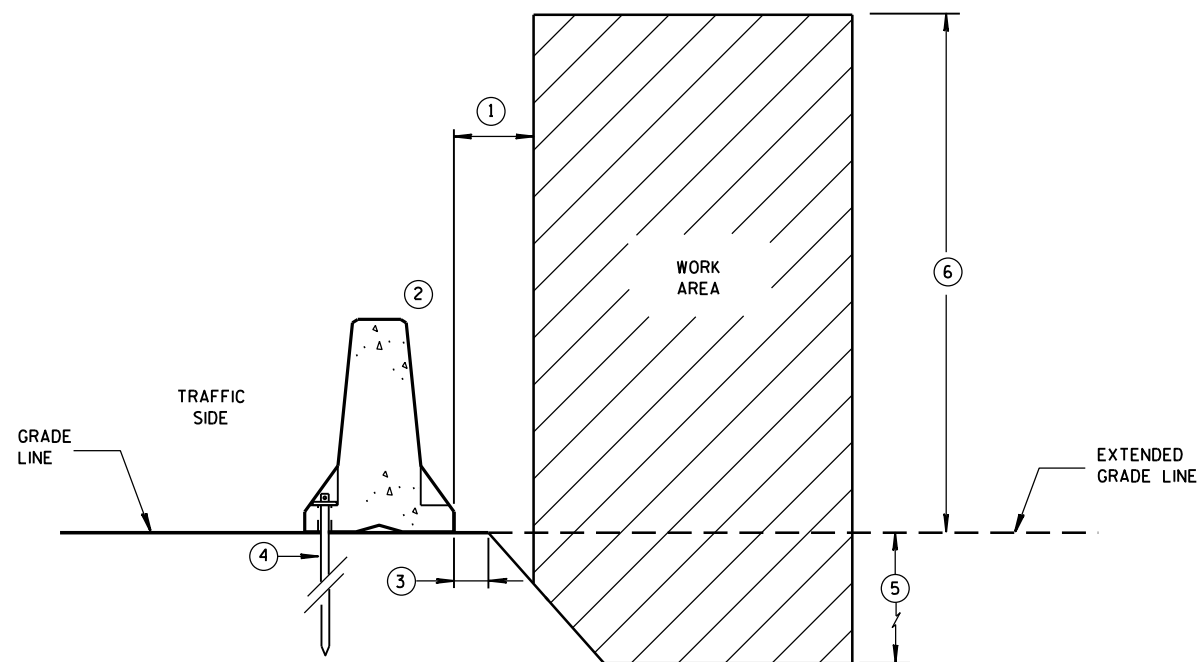


ANCHORED BARRIER SPACE REQUIREMENTS ON VERTICAL DROP OFFS

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



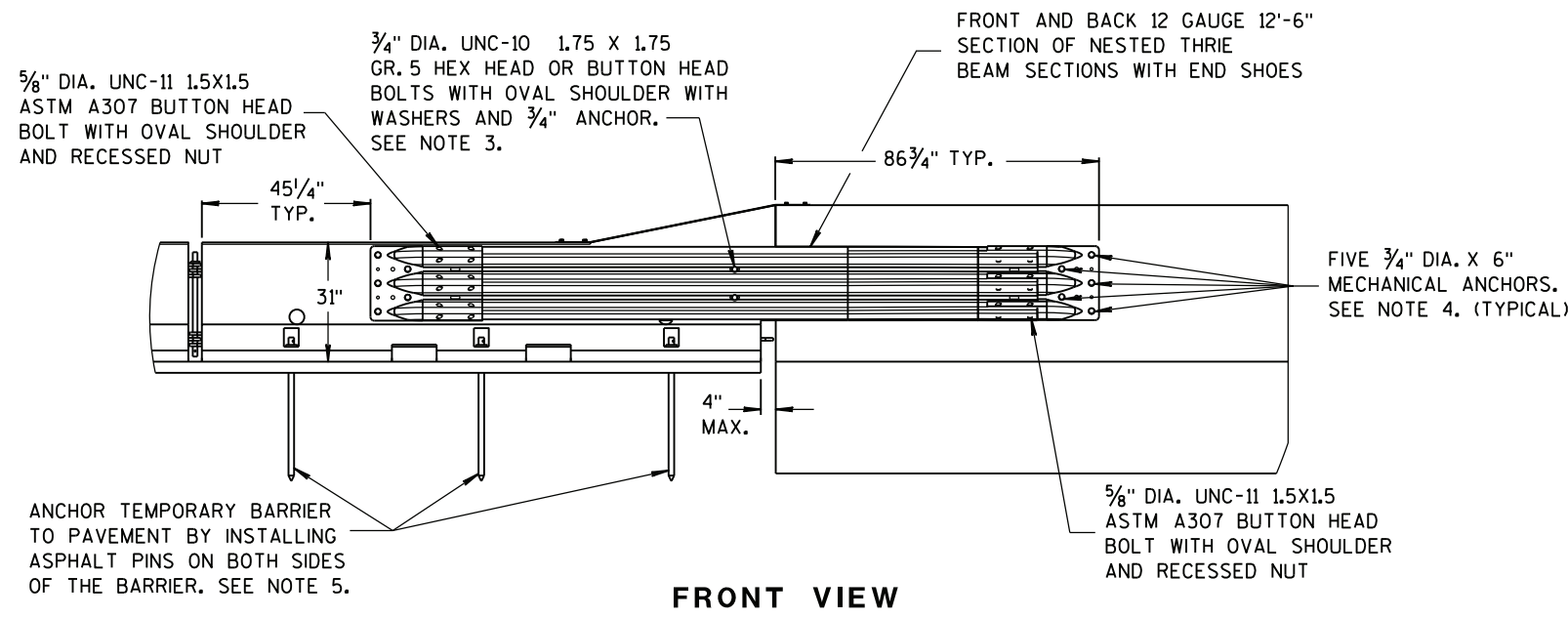
FREE STANDING BARRIER SPACE REQUIREMENTS



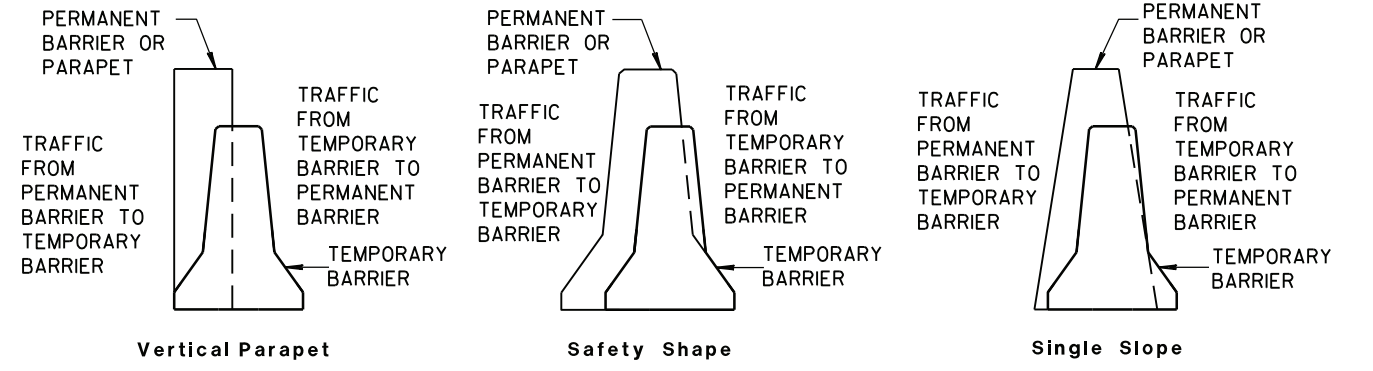
ANCHORED BARRIER SPACE REQUIREMENTS ON SLOPES

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

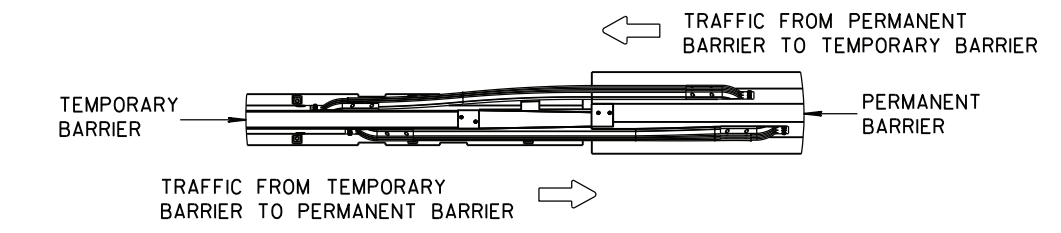
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



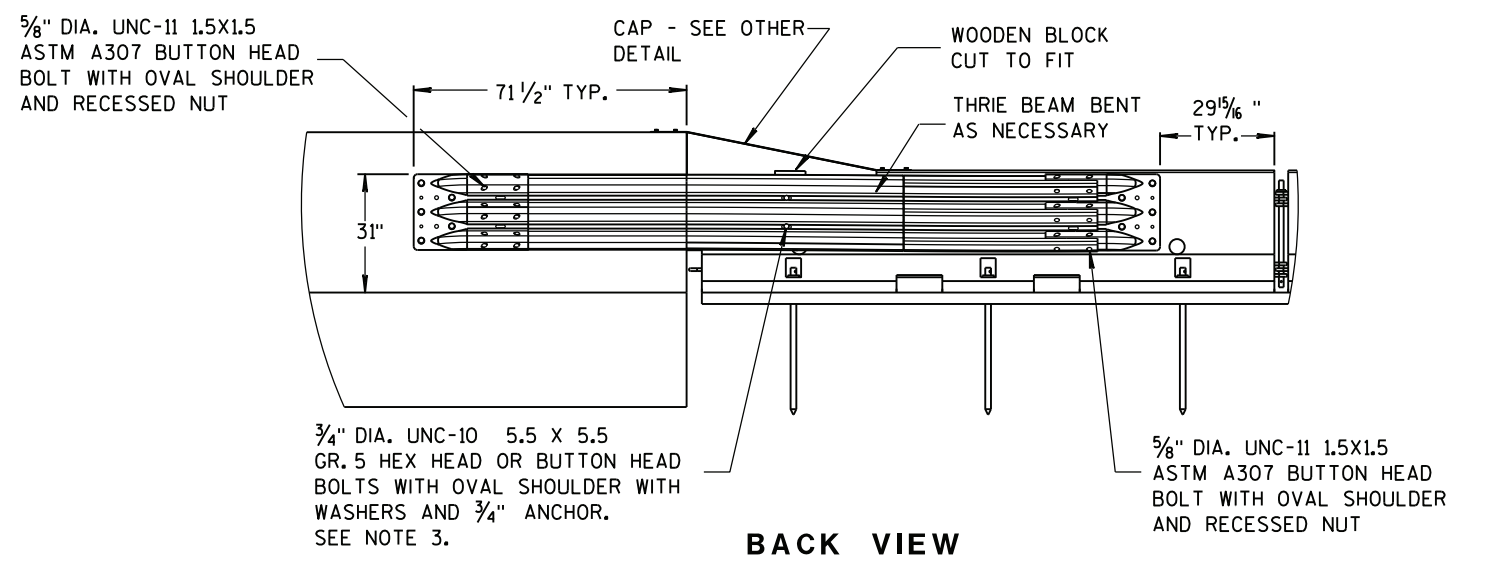
FRONT VIEW



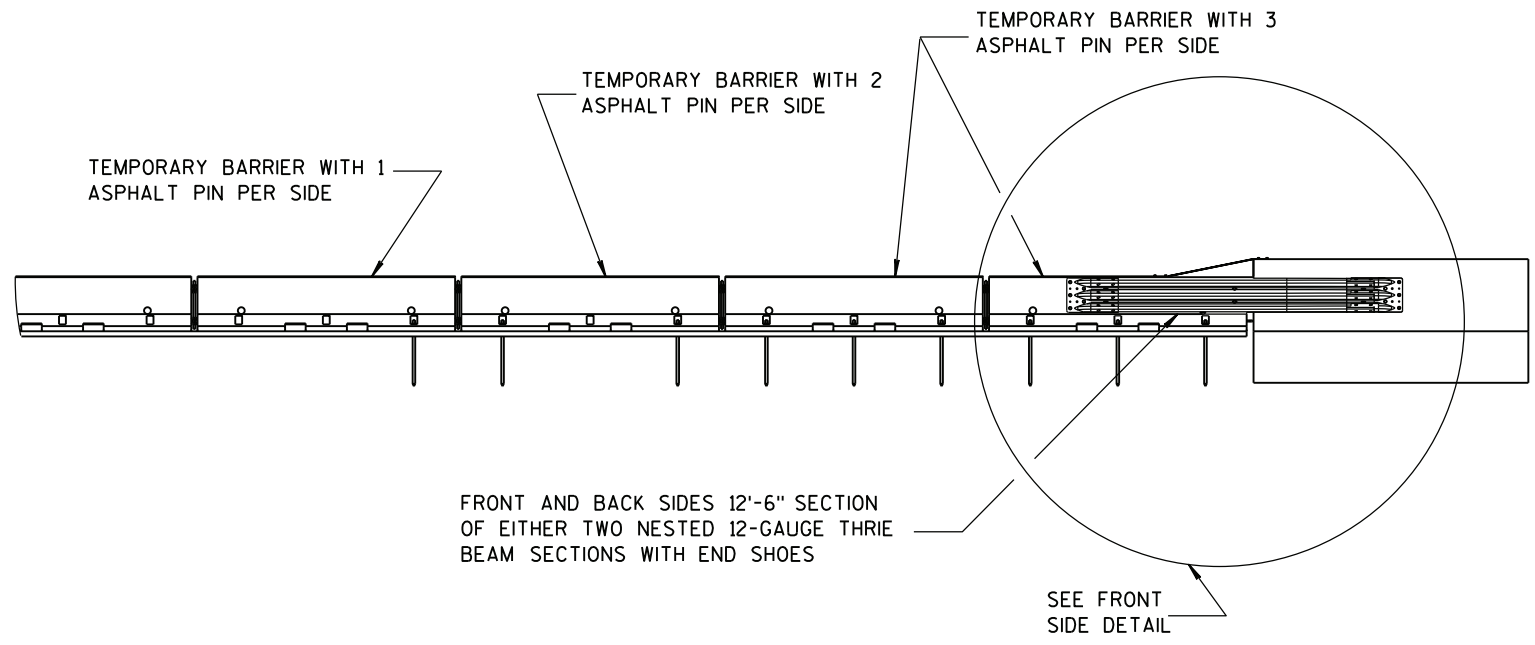
TEMPORARY BARRIER PLACEMENT FOR TRANSITION TO TIED DOWN SYSTEM



- 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.

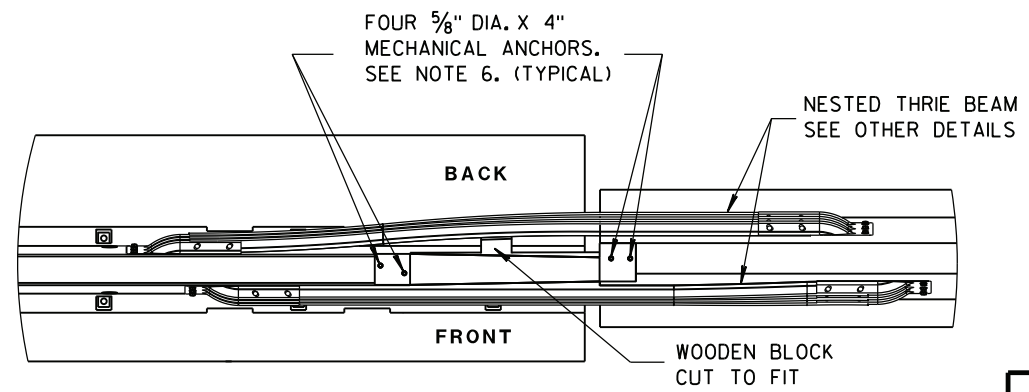


BACK VIEW



FRONT VIEW

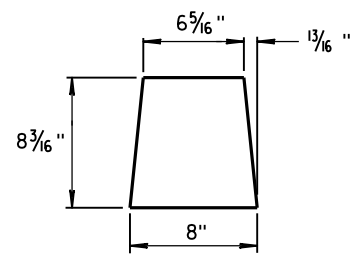
TRANSITION TO TIED DOWN SYSTEM



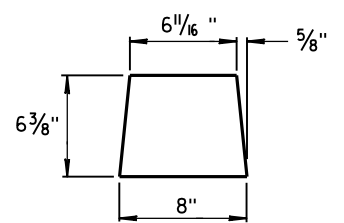
PLAN VIEW

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

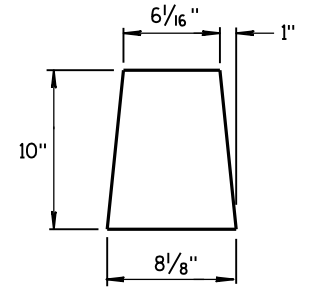
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



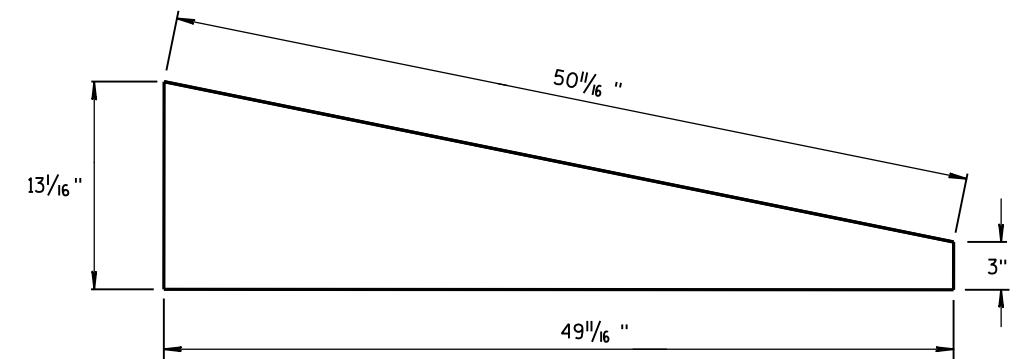
GUSSET 1



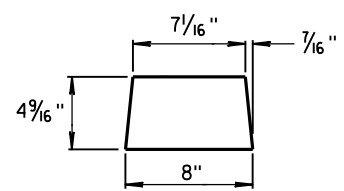
GUSSET 2



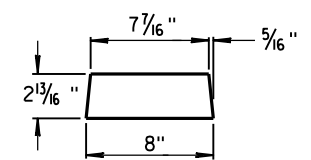
END PLATE



SIDE PLATE

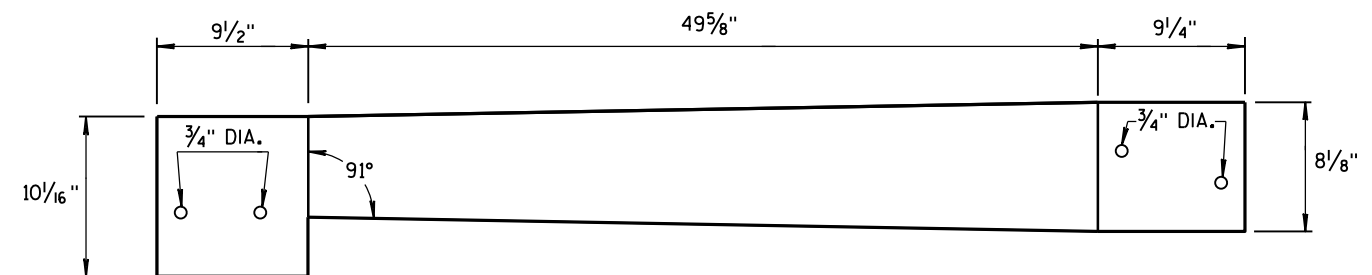


GUSSET 3

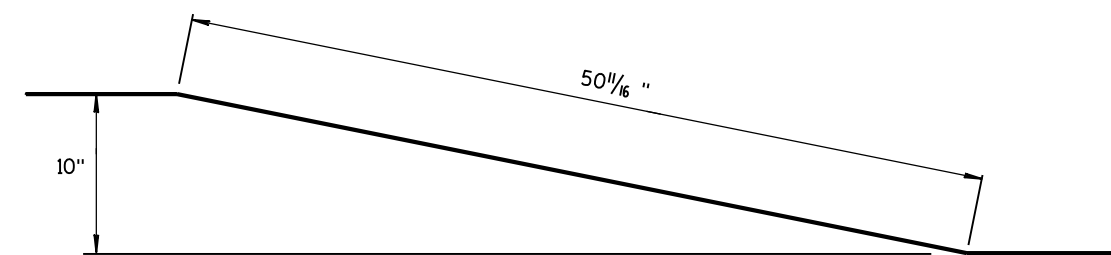


GUSSET 4

GUSSETS

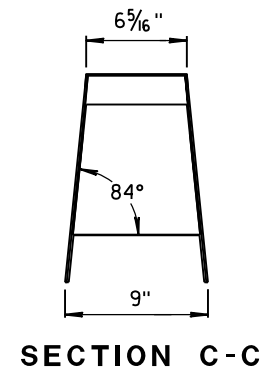
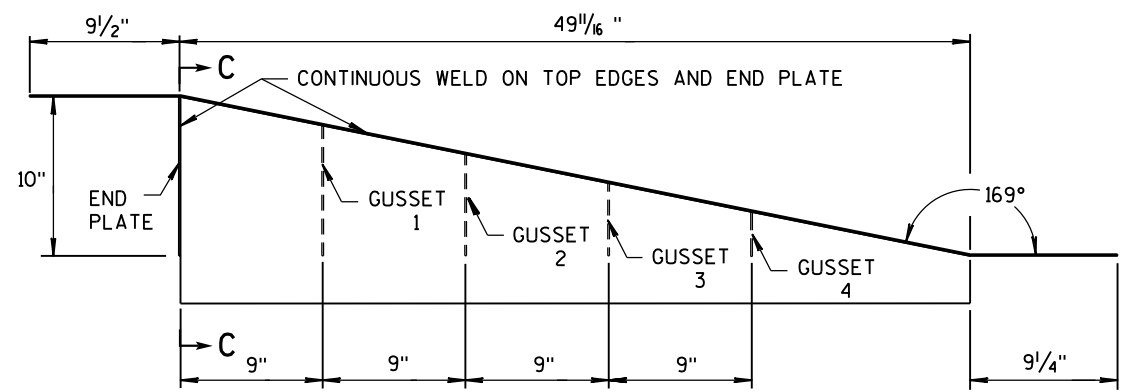
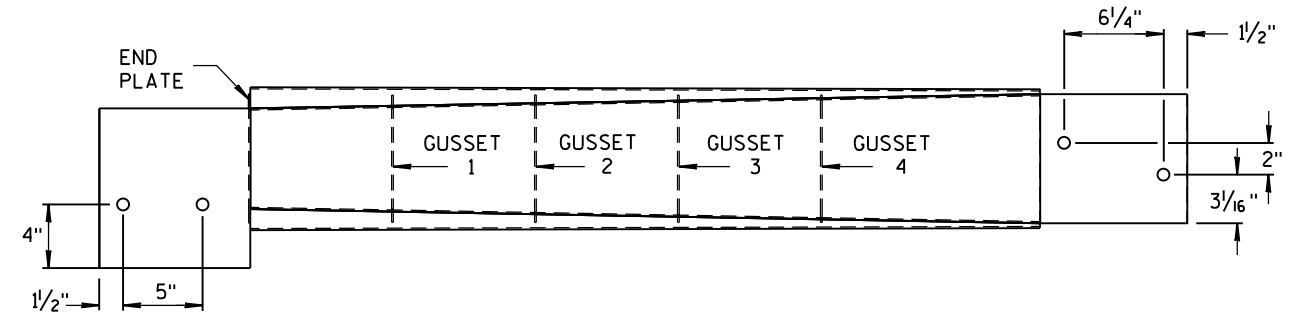


TOP PLATE



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

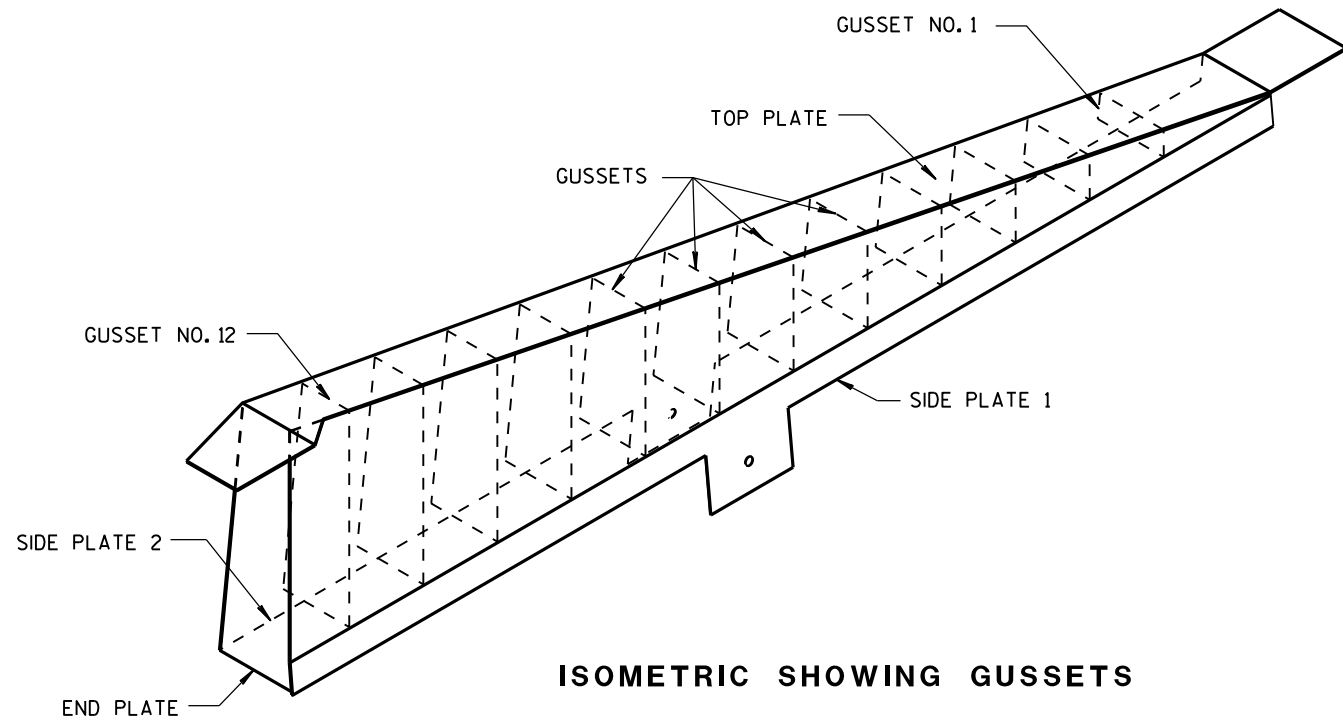
NOTES

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

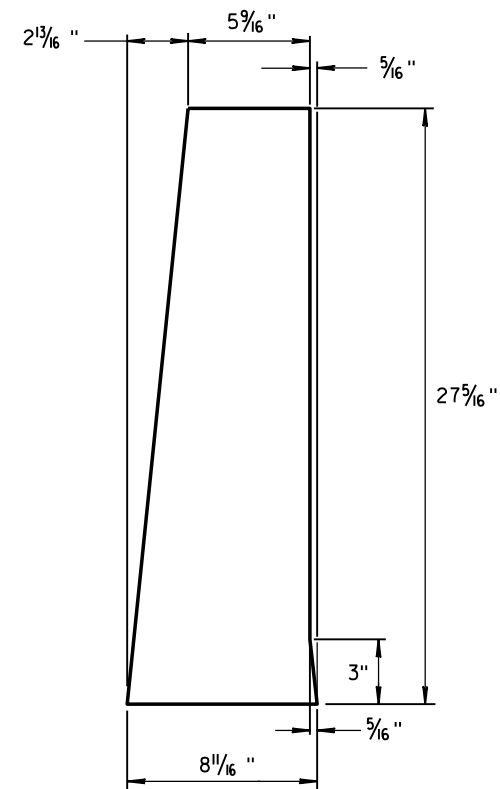
CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

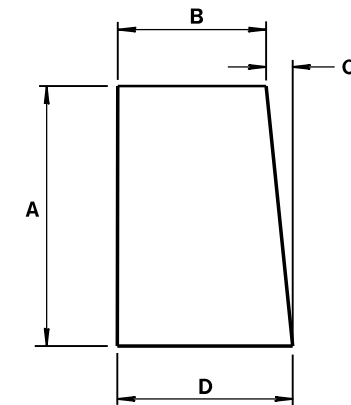


ISOMETRIC SHOWING GUSSETS



END PLATE

1/8" STEEL PLATE



GUSSETS 1 - 12

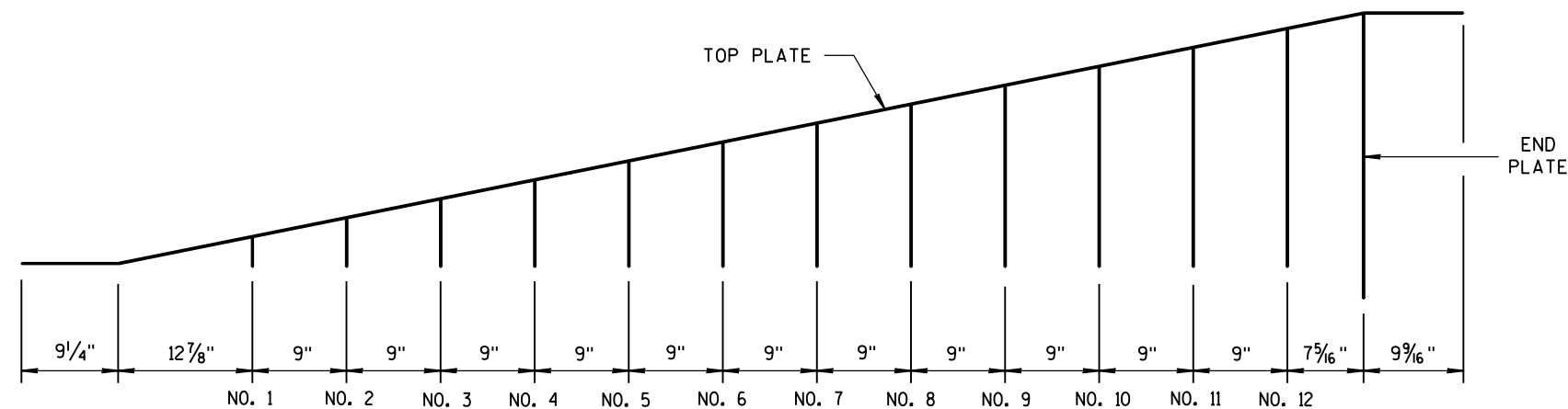
ALL GUSSETS 1/8" STEEL PLATE

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"	1 1/16"	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 1/16"	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.

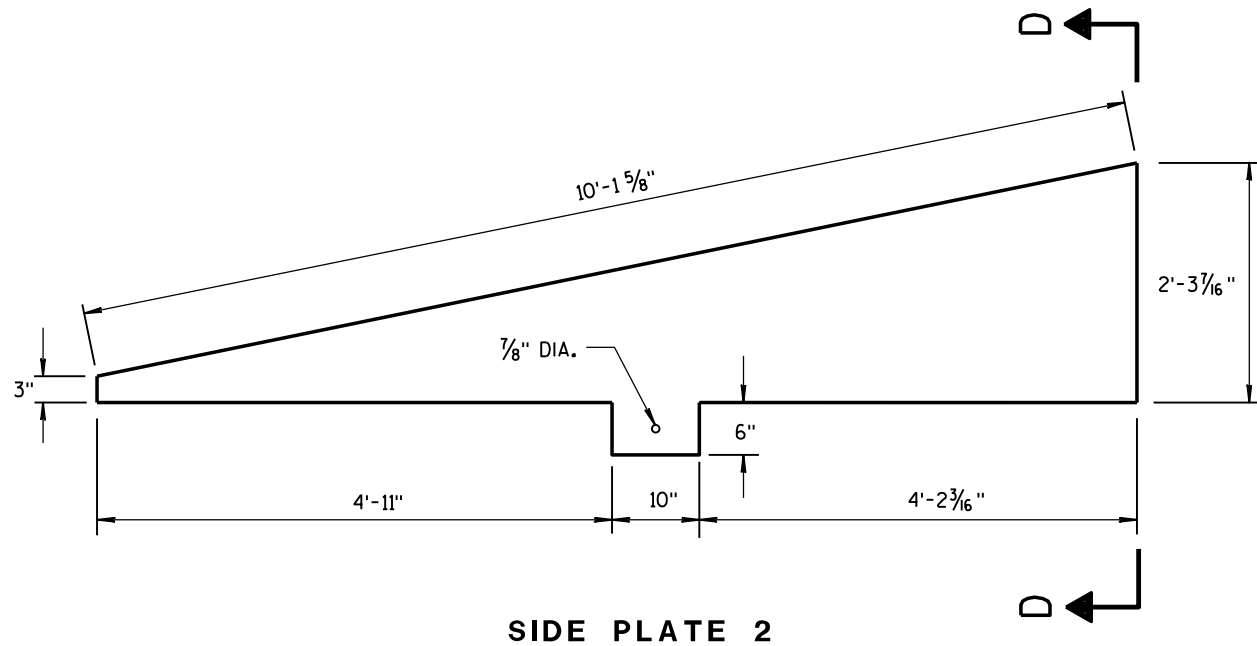


GUSSET LOCATION

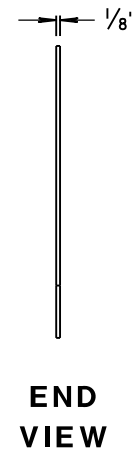
CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

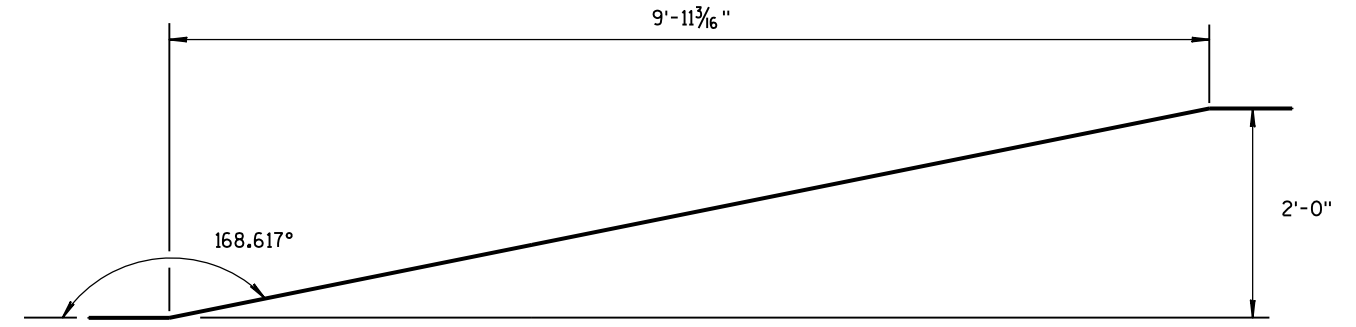
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



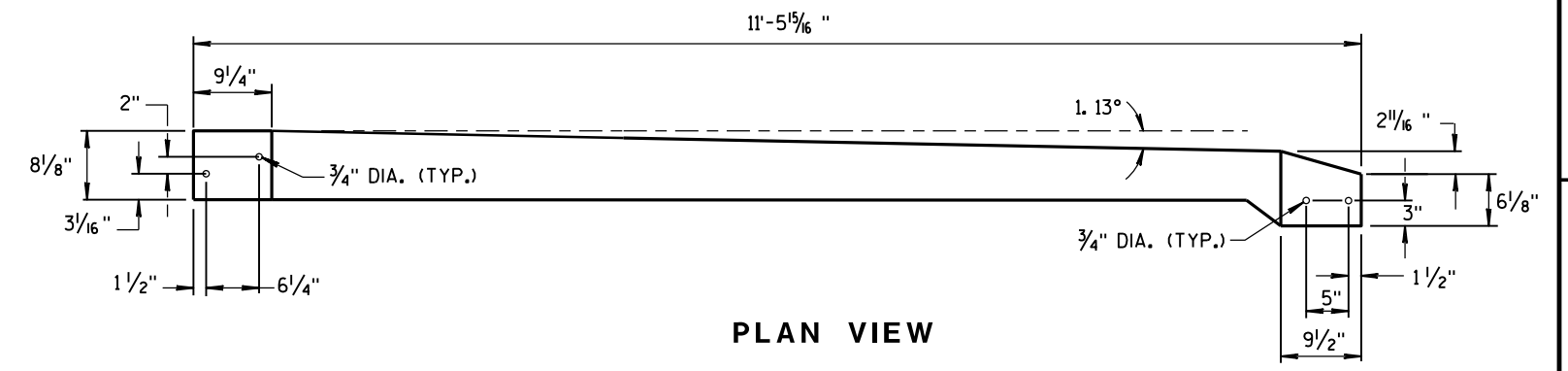
SIDE PLATE 2



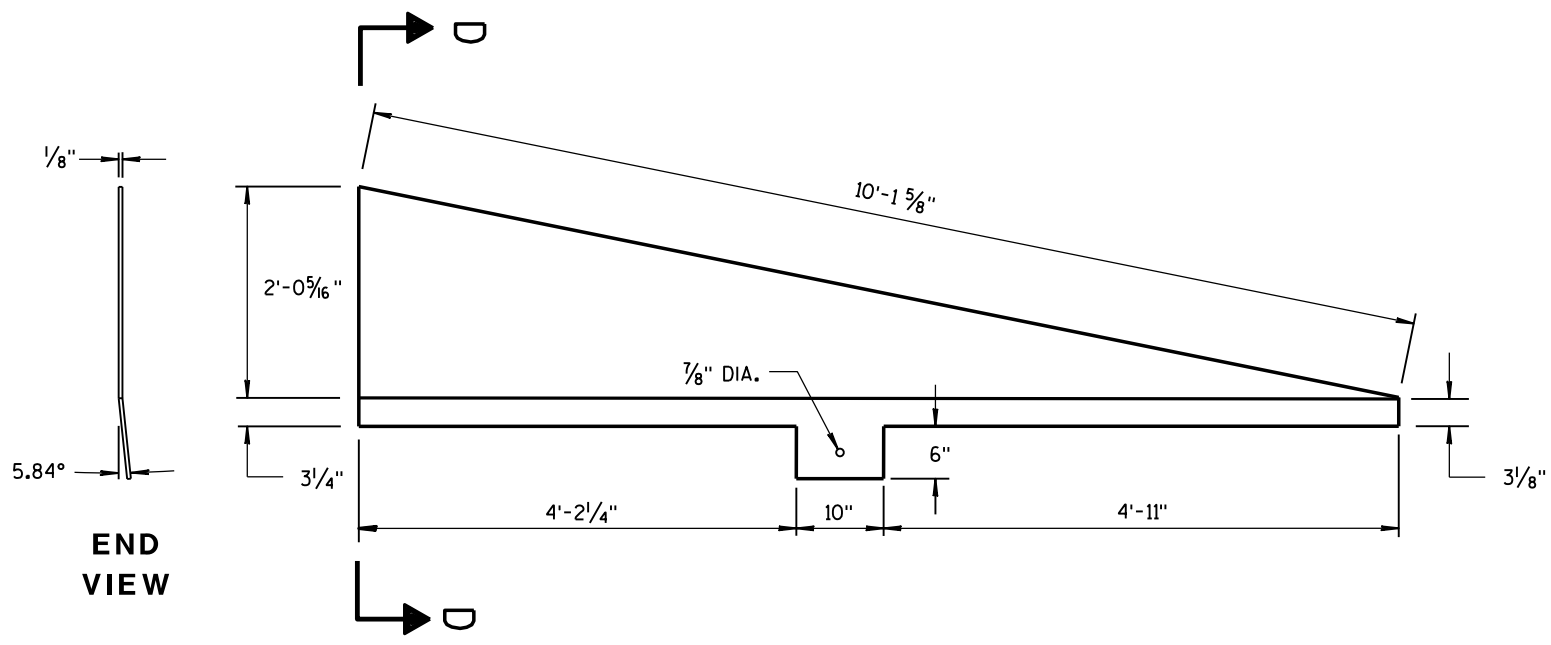
END VIEW



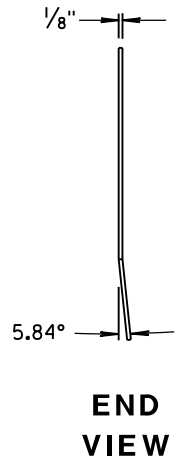
SIDE VIEW
TOP PLATE



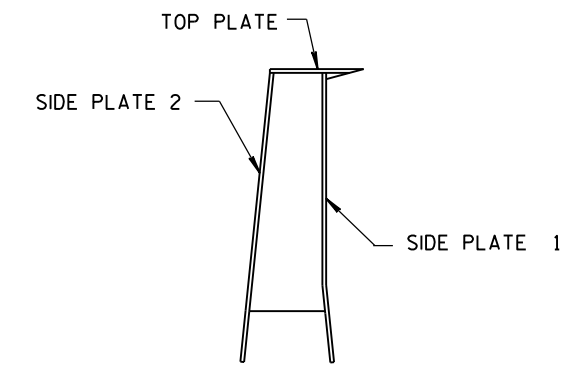
PLAN VIEW
TOP PLATE



SIDE PLATE 1



END VIEW



SECTION D-D

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

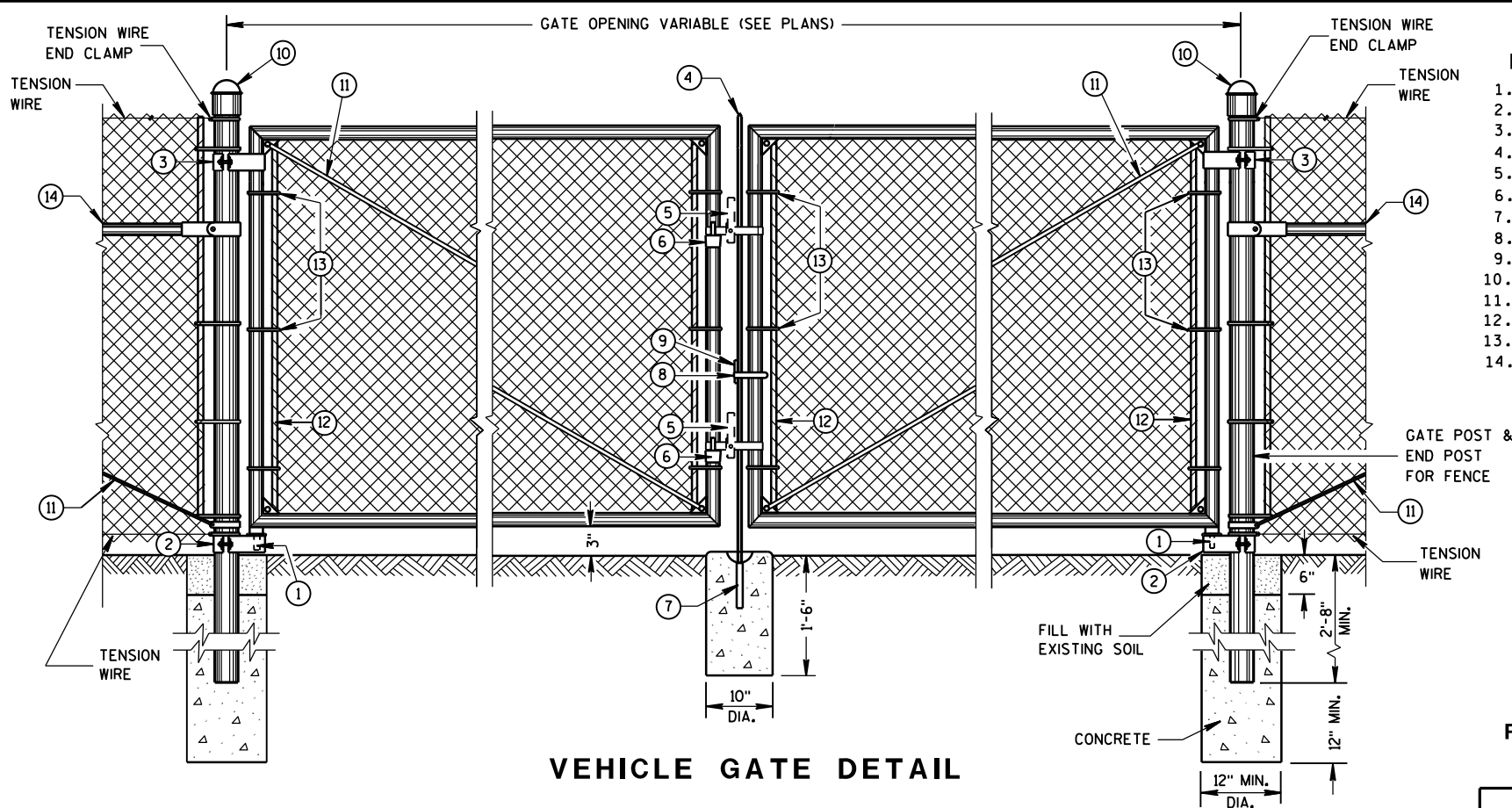
CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2017 DATE	/s/ Rodney Taylor ROADWAY STANDARD DEVELOPMENT UNIT SUPERVISOR
FHWA	

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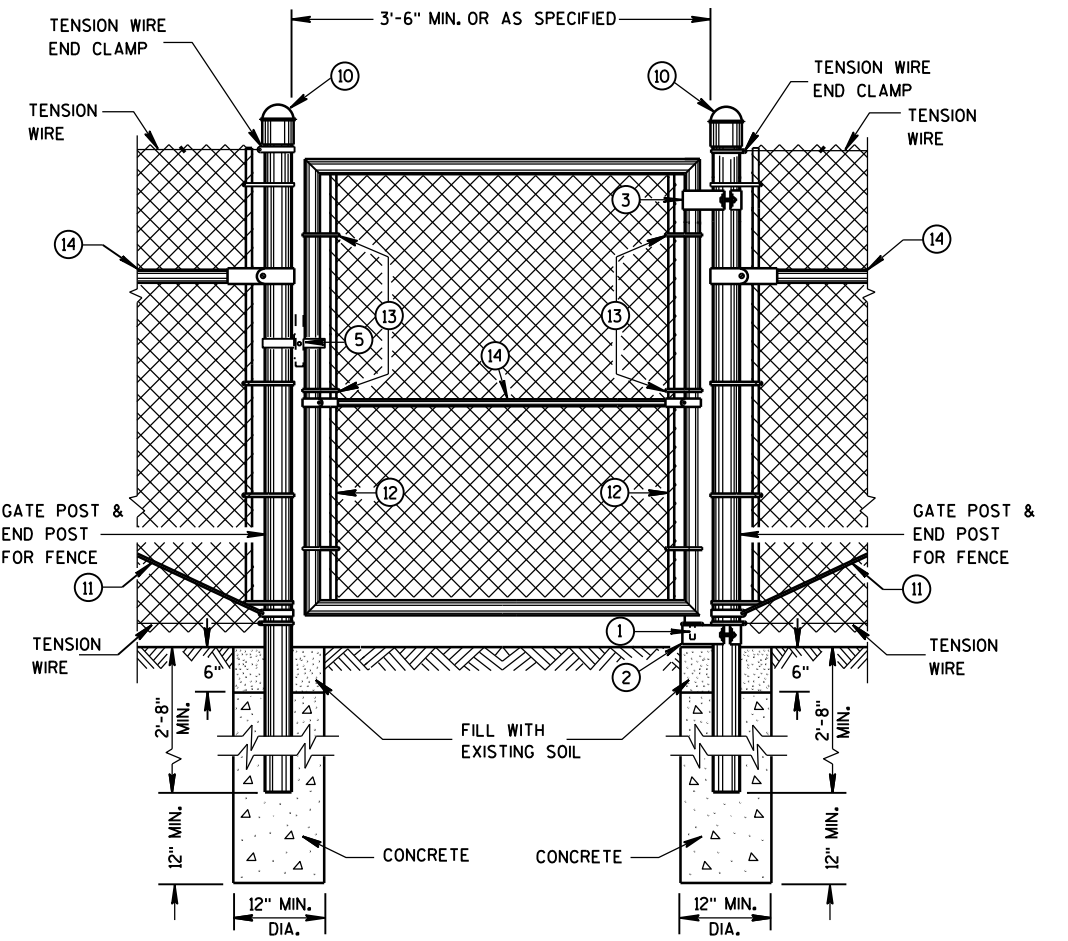
6

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

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



VEHICLE GATE DETAIL



PEDESTRIAN GATE DETAIL

LEGEND

- 1. STRAIGHT PLUG
- 2. BOTTOM HINGE
- 3. TOP HINGE
- 4. PLUNGER ROD
- 5. FULCRUM LATCH
- 6. FORK CATCH *
- 7. PLUNGER ROD CATCH
- 8. LOCK KEEPER GUIDE
- 9. LOCK KEEPER
- 10. DOME TOPS
- 11. TRUSS RODS
- 12. TENSION BAR
- 13. TENSION BANDS
- 14. BRACE RAIL

*NOT REQUIRED ON SINGLE SWING PEDESTRIAN GATE

GENERAL NOTES

FENCE POSTS INSTALLED ON CONCRETE WALLS SHALL BE ANCHORED INTO EMBEDDED METAL SLEEVES OR CORED HOLE BY FILLING THE ANNULAR SPACE WITH PEA GRAVEL FOLLOWED BY AN EPOXY RESIN ADHESIVE. THE EPOXY RESIN ADHESIVE SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M 235, CLASS A, B OR C.

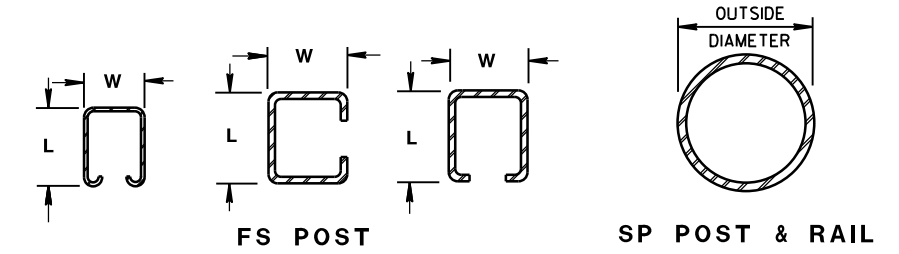
USE FENCE FABRIC KNUCKLED AT BOTH SELVAGES.

FOR LEAF GATES GREATER THAN 8 FEET WIDE, INSTALL INTERIOR VERTICAL BRACE RAIL AT 8 FOOT INTERVALS.

FOR FABRIC HEIGHTS GREATER THAN 8 FEET, INSTALL INTERIOR HORIZONTAL BRACE RAILS TO LEAF GATE.

MAXIMUM SAG FOR OUTER GATE MEMBER SHALL NOT EXCEED THE GREATER OF 1% OF THE LEAF GATE WIDTH OR 2 INCHES.

USE TYPE 2, CLASS 3, MARCELLED/CRIMPED, TENSION WIRE PER ASTM A 817.



CROSS SECTIONS OF POSTS AND RAILS

ROLLED-FORMED STEEL FENCE POST (2.0 OZ./SQ. FT. COATING)

POST TYPE	LENGTH (L) INCH	WIDTH (W) INCH	WEIGHT LBS/FT
FS1	1.625	1.25	1.35
FS2†	1.875	1.625	1.850
FS2	1.875	1.625	2.400
FS3	2.250	1.700	2.780

ROUND STEEL FENCE POST (1.8 OZ./SQ. FT. COATING)

POST TYPE	OUTSIDE DIMENSION INCH	WALL THICKNESS INCH	WEIGHT LBS/FT
SP1	1.660	0.140	2.270
SP2	1.900	0.145	2.720
SP3	2.375	0.154	3.650
SP4	2.875	0.203	5.800
SP5	4.000	0.226	9.120
SP6	6.625	0.280	18.990
SP7	8.625	0.322	28.580

REQUIRED FENCE POST SIZES

USE	FABRIC HEIGHTS FEET	POST TYPE
TERMINAL POSTS **	LESS THAN OR EQUAL TO 6 FT.	SP3
	GREATER THAN OR EQUAL TO 6 FT.	SP4
LINE POSTS	LESS THAN OR EQUAL TO 6 FT.	SP2
	LESS THAN OR EQUAL TO 8 FT.	SP3
	GREATER THAN OR EQUAL TO 8 FT.	SP4
	LESS THAN OR EQUAL TO 8 FT.	FS2 OR FS2†
	GREATER THAN OR EQUAL TO 8 FT.	FS3

REQUIRED POST SIZE FOR GATES

USE	LEAF WIDTHS FEET	POST TYPE
GATES	LESS THAN OR EQUAL TO 6 FT.	SP4
	LESS THAN OR EQUAL TO 13 FT.	SP5
	LESS THAN OR EQUAL TO 18 FT.	SP6
	LESS THAN OR EQUAL TO 23 FT.	SP7

BRACE RAIL TYPES

USE	TYPE
BRACE RAIL	SP1 OR FS1

** INCLUDES END, CORNER, ANGLE, INTERSECTION AND INTERMEDIATE BRACED POSTS

FENCE CHAIN LINK

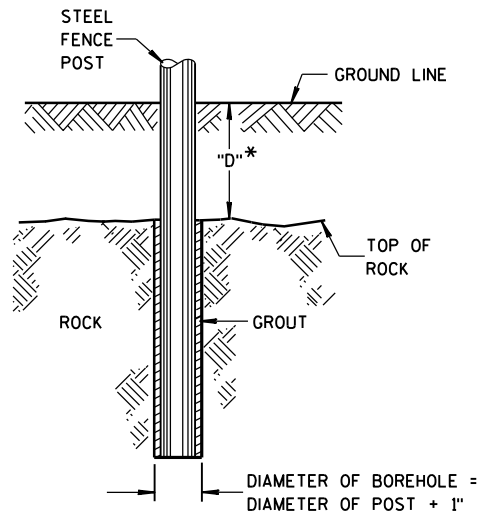
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

6

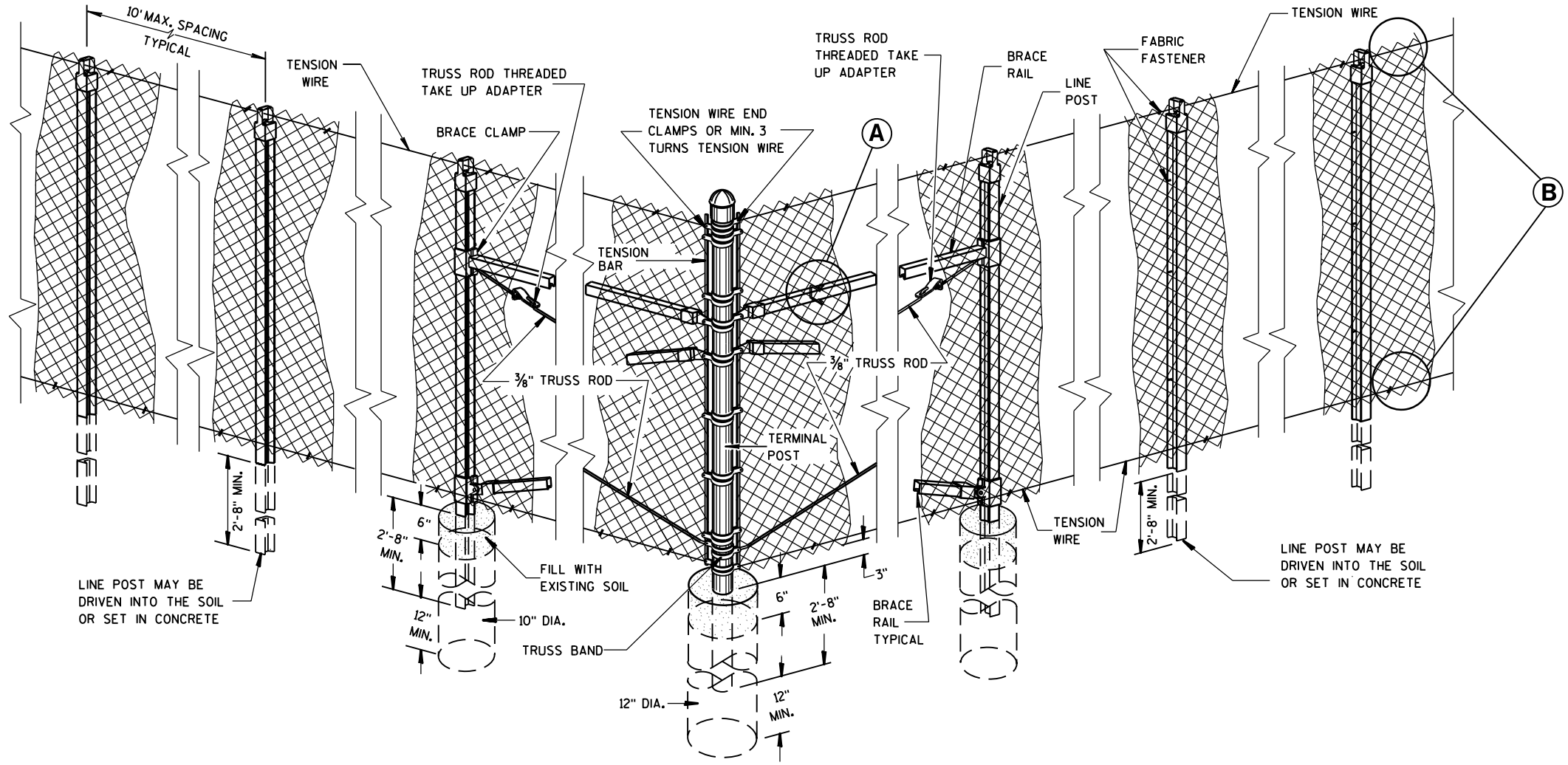
S.D.D. 15 B 3-15a

S.D.D. 15 B 3-15a

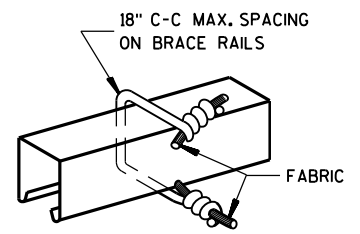


* IF "D" IS LESS THAN 2'-6",
DRILL ROCK AND INSTALL GROUT

**ROCK INSTALLATION
OF LINE POST**

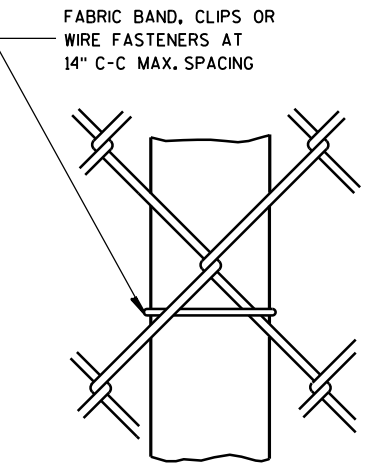
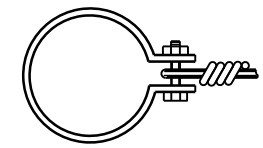


**END, CORNER, ANGLE
INTERSECTION & INTERMEDIATE
BRACED POSTS**

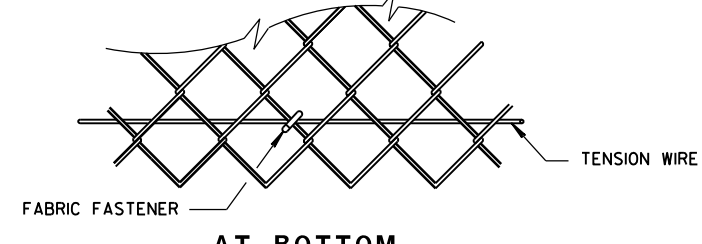
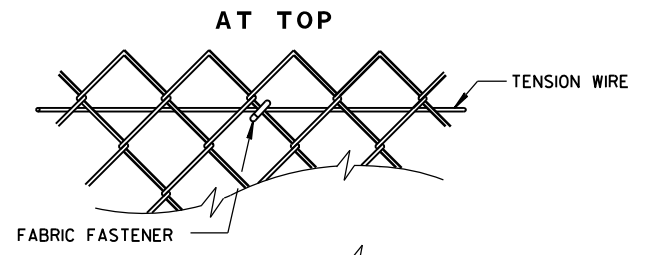


**BRACE RAIL
FABRIC FASTENER**

(A)



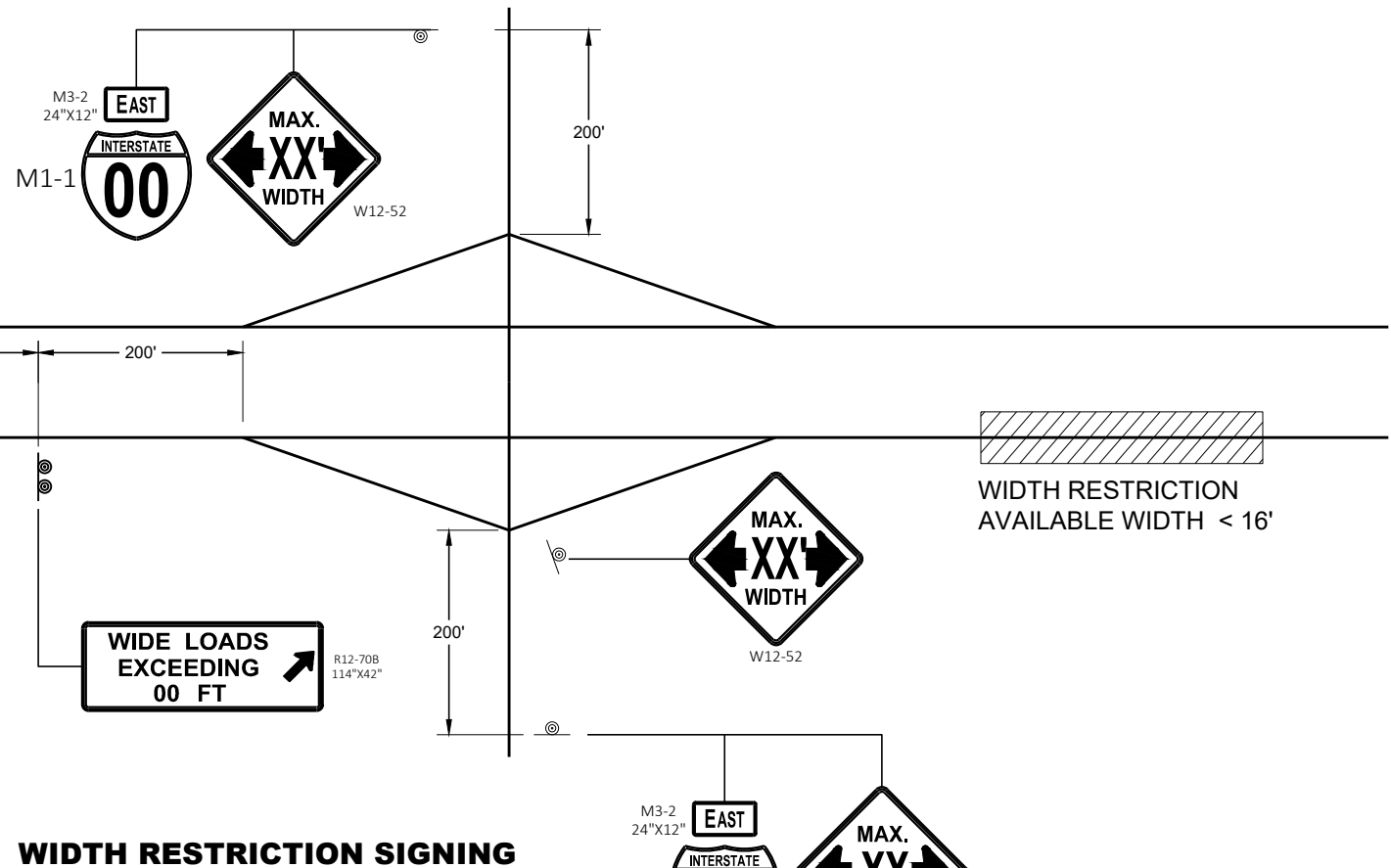
**LINE POST
FABRIC FASTENER**



**AT BOTTOM
SELVAGES**

(B)

FENCE CHAIN LINK	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED FEB. 2015 DATE	/s/ Jerry H. Zogg ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA	



WIDTH RESTRICTION SIGNING

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.

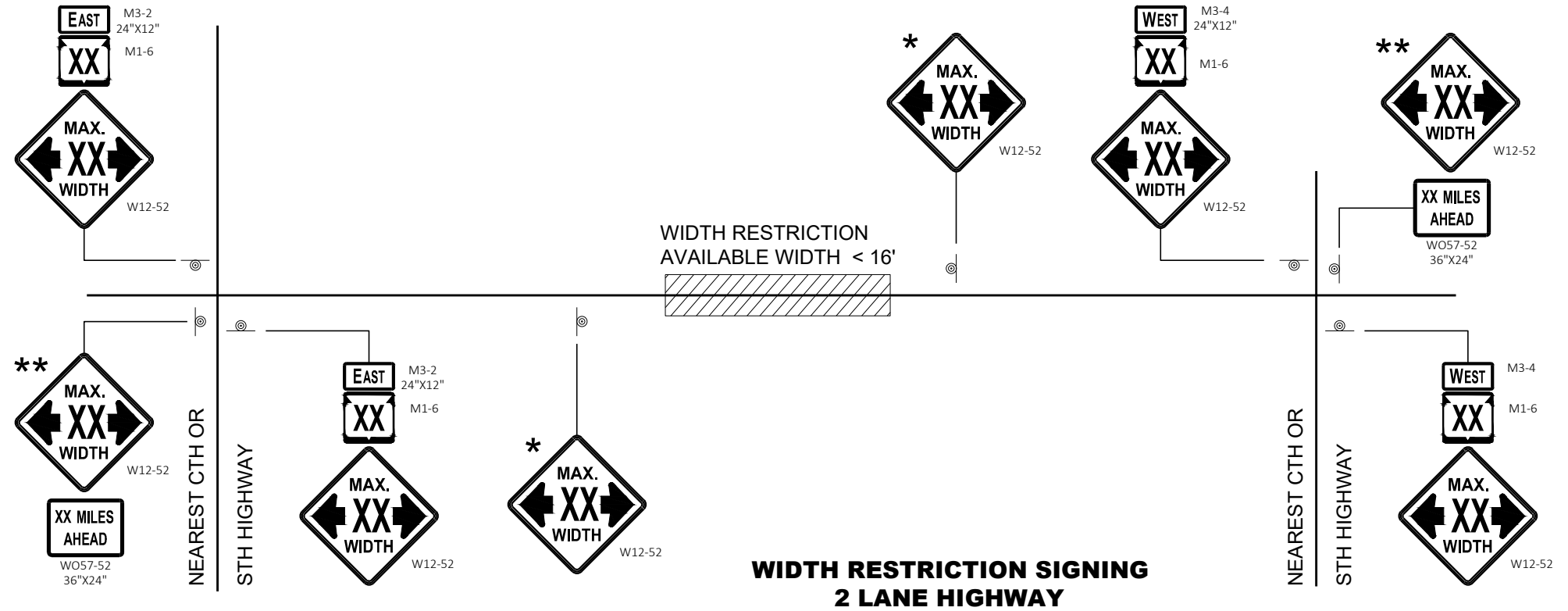
* PLACE 500 FEET AFTER THE W20 - 1A AND 500 FEET BEFORE ADDITIONAL SIGNS FOR ROADWAYS WITH A PRE - CONSTRUCTION SPEED LIMIT OF 45 MPH OR MORE. FOR 35-40 MPH, USE 350 FOOT TYPICAL SPACING. FOR 25-30 MPH, USE 200 FOOT TYPICAL SPACING.

** 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



**WIDTH RESTRICTION SIGNING
2 LANE HIGHWAY**

**ADVANCED WIDTH
RESTRICTION SIGNING**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED	/S/ Andrew Heidtke
February 2020	DATE
	WORK ZONE ENGINEER

FHWA

GENERAL NOTES

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

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




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

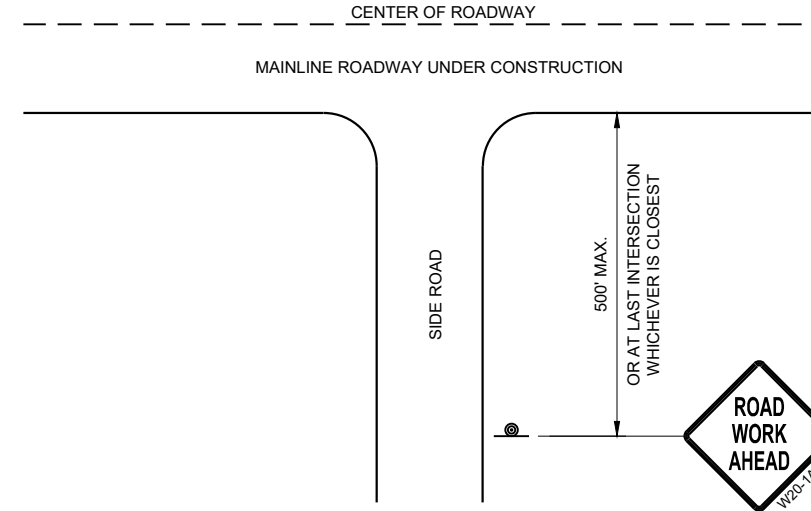
SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

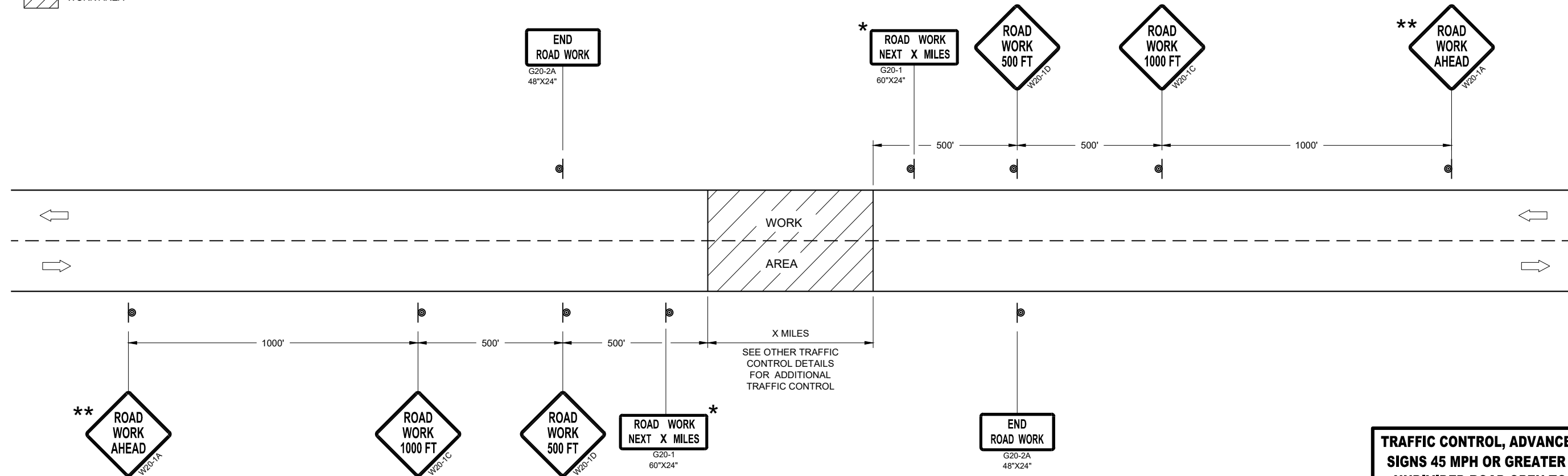
- * OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS
- ** PLACE AN ADDITIONAL W20-1A "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.

LEGEND

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



**TYPICAL SIDE ROAD APPROACH
WARNING SIGN DETAIL**



TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45MPH OR GREATER

**TRAFFIC CONTROL, ADVANCE WARNING
SIGNS 45 MPH OR GREATER TWO-WAY
UNDIVIDED ROAD OPEN TO TRAFFIC**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

GENERAL NOTES

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

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




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

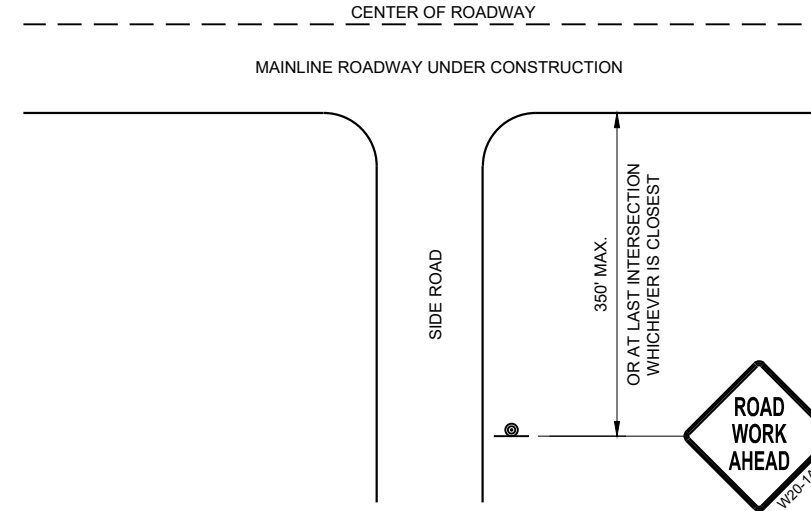
SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

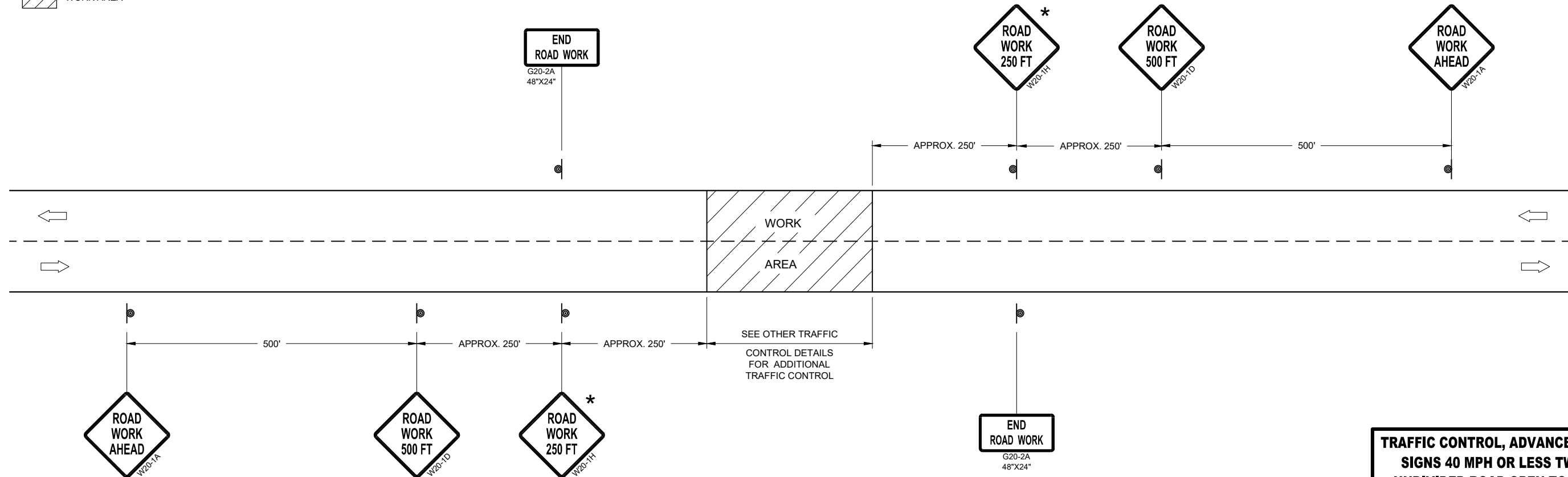
* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FEET" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.

LEGEND

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



**TYPICAL SIDE ROAD APPROACH
WARNING SIGN DETAIL**



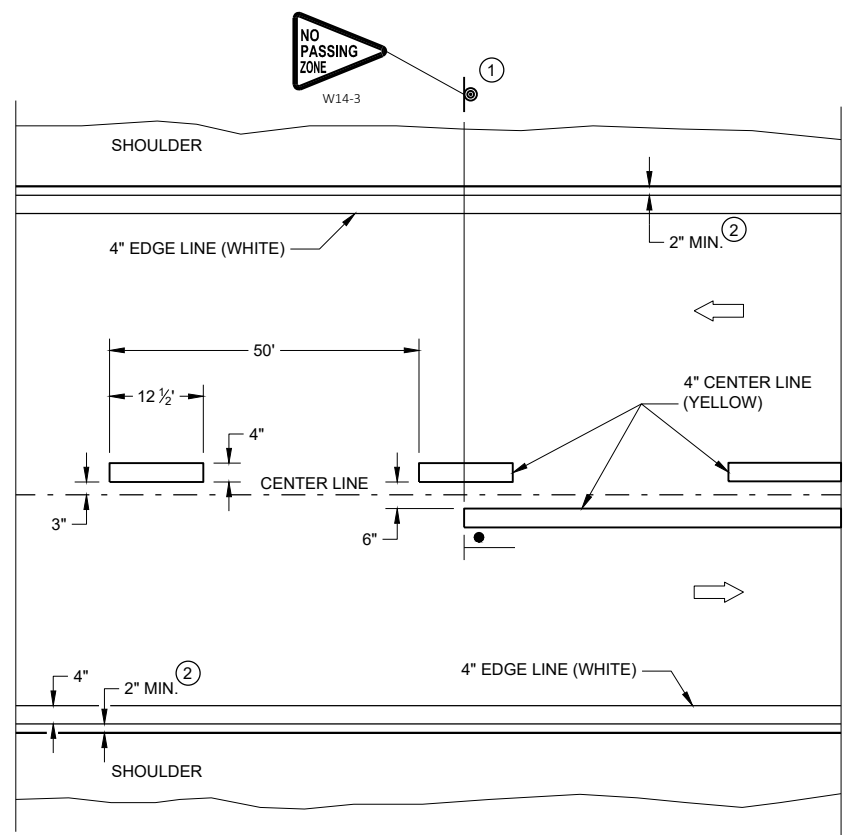
TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40MPH OR LESS

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

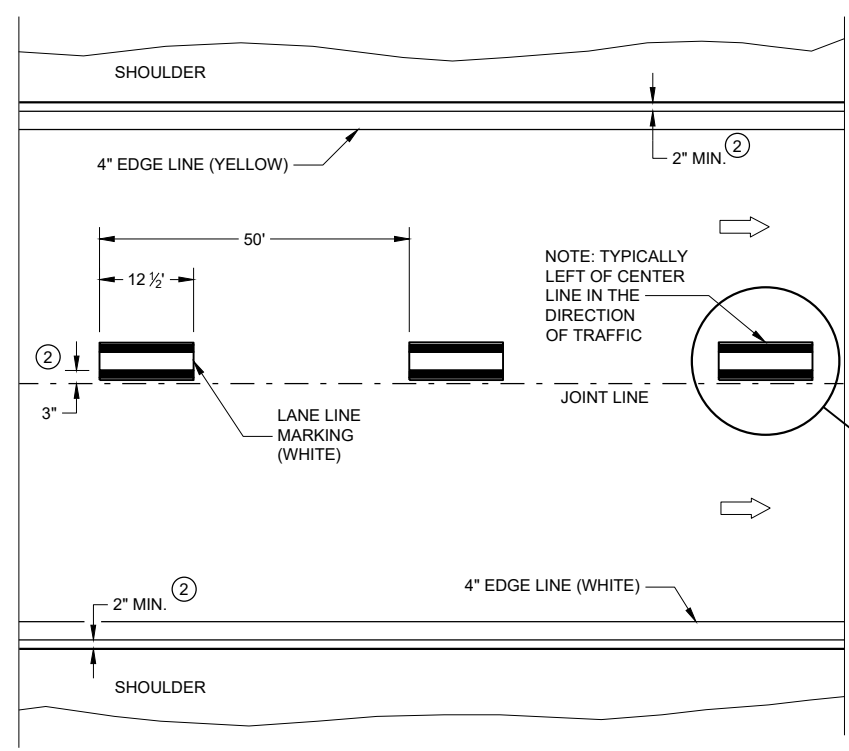
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

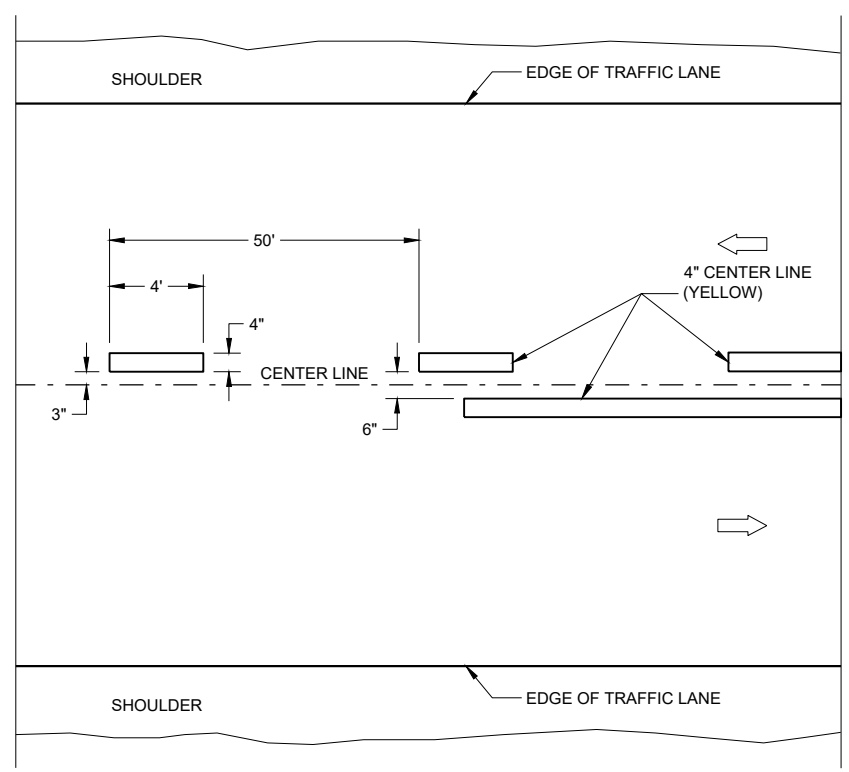


TWO WAY TRAFFIC

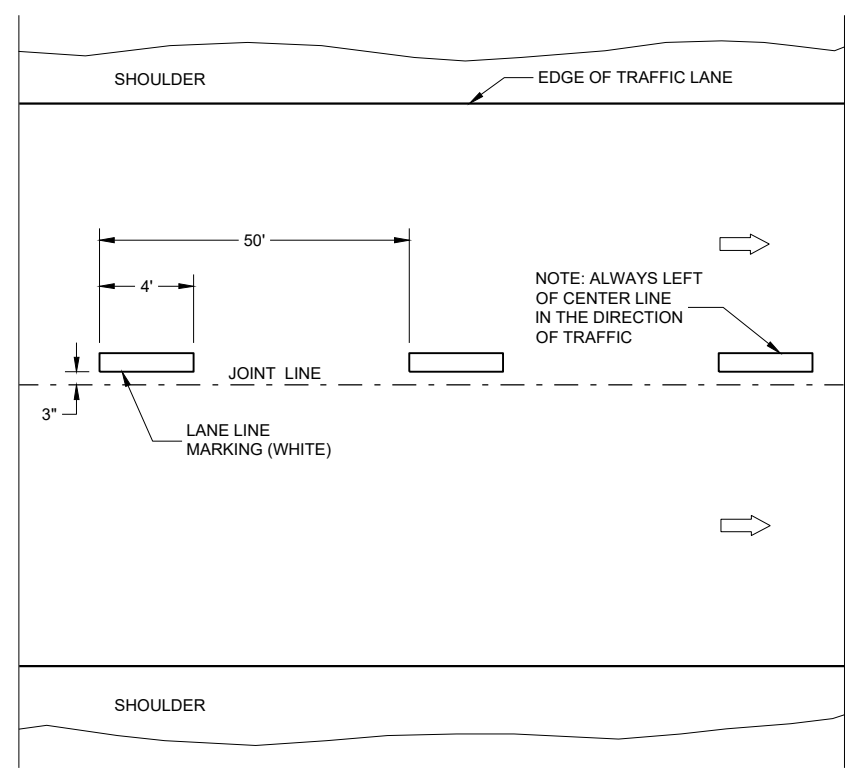


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

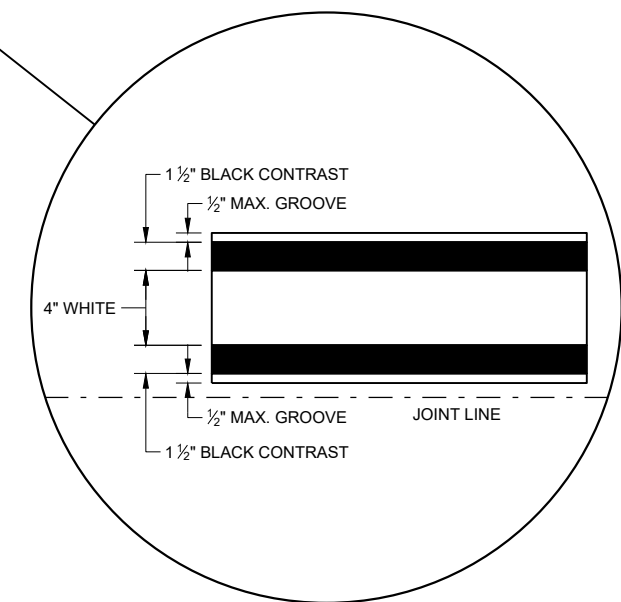
GENERAL NOTES

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

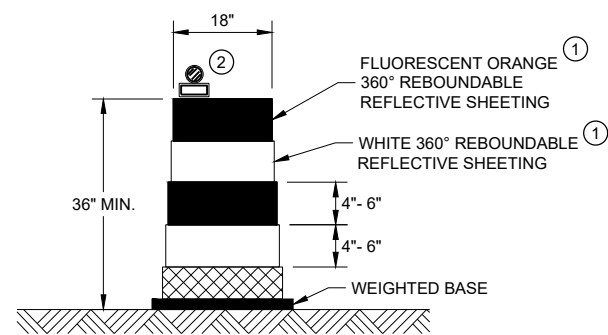


LONGITUDINAL MARKING (MAINLINE)

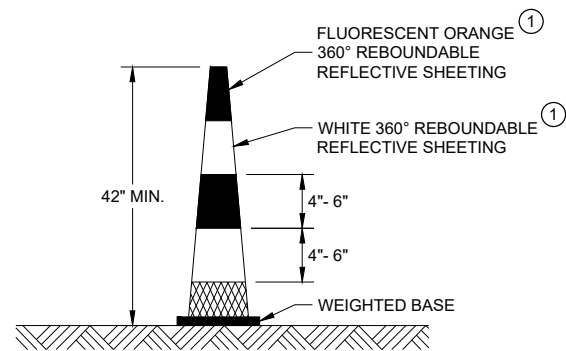
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

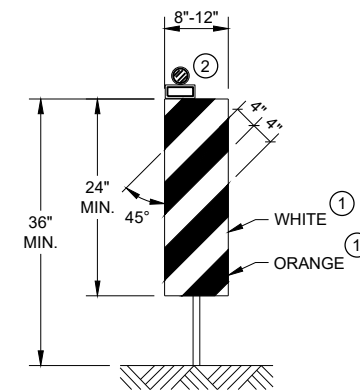


DRUM



42" CONE

DO NOT USE IN TAPERS
 1/2 SPACING OF DRUMS

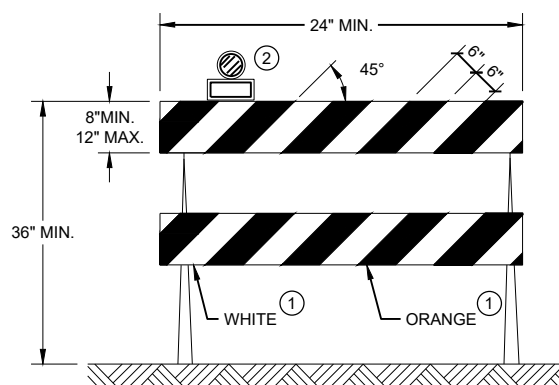


VERTICAL PANEL

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

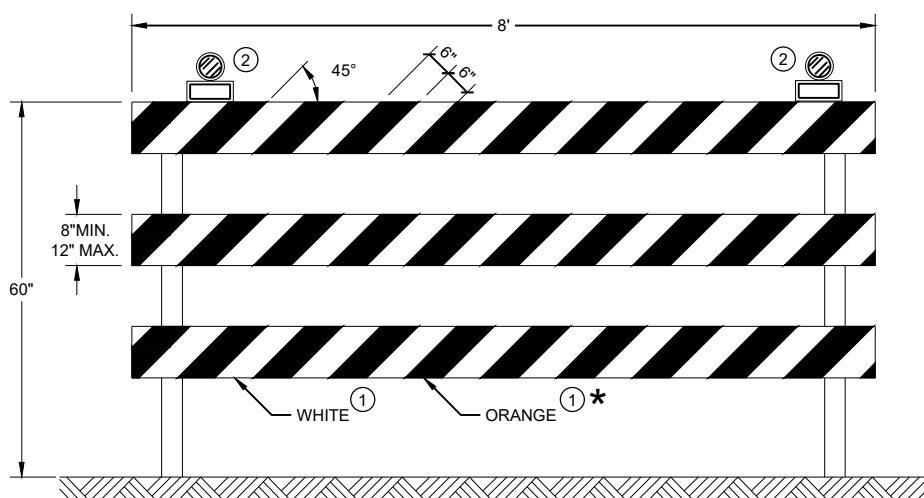
GENERAL NOTES

- 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.

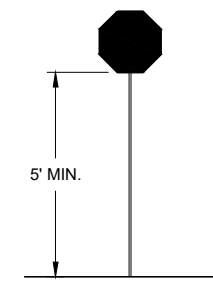
WHEN A SIDE ROAD OR RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

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.



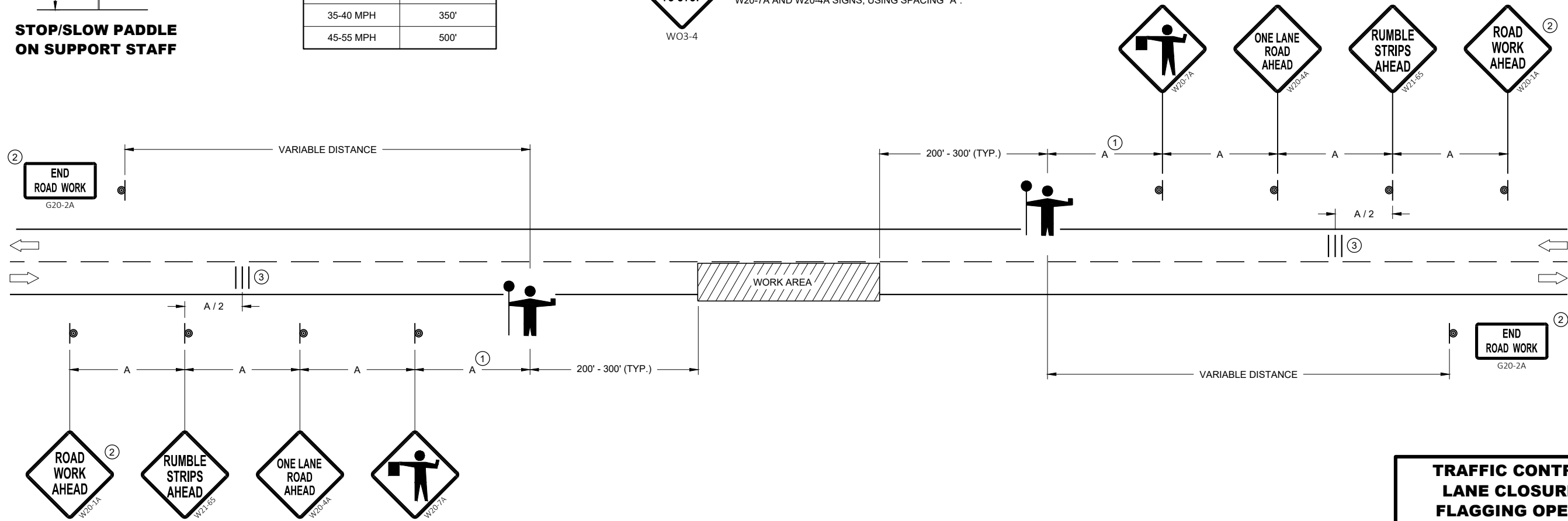
STOP/SLOW PADDLE ON SUPPORT STAFF

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

LEGEND

-  SIGN ON PERMANENT SUPPORT
-  TRAFFIC CONTROL DRUM
-  DIRECTION OF TRAFFIC
-  WORK ZONE

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY THE REGIONAL TRAFFIC UNIT.

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

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

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

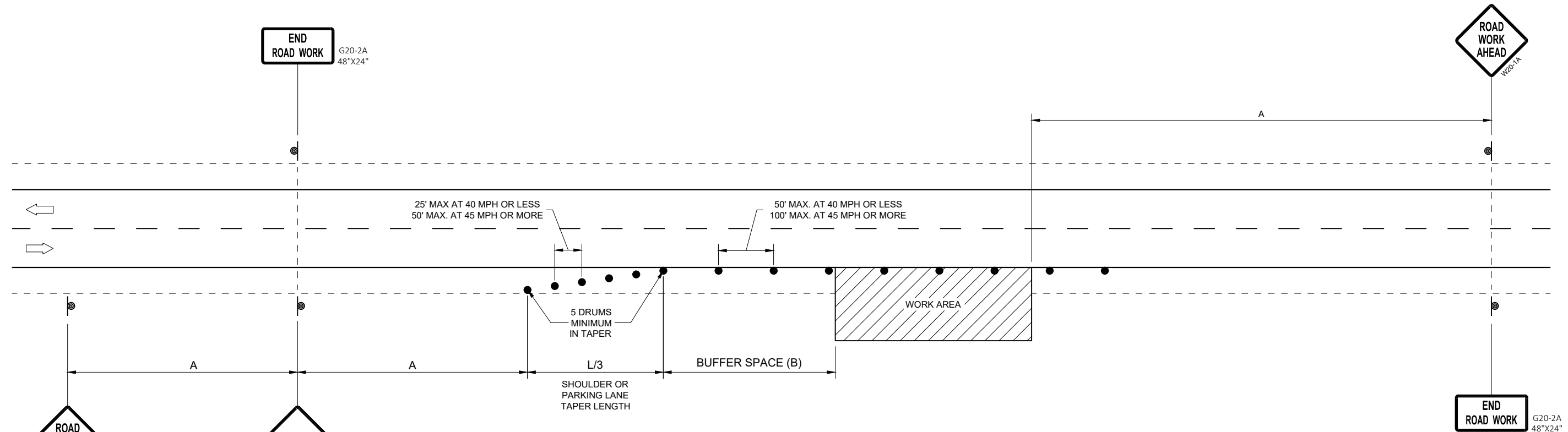
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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

W20-1A AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION OF WORK IS LESS THAN 7 CONTINUOUS DAYS AND NIGHTS.

6

6



OR
IF TRAFFIC CONTROL DEVICES
ENCROACH ONTO TRAVELED WAY, USE

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	SHOULDER TAPER L / 3 W, LATERAL OFFSET (FT)						BUFFER SPACE (B) FEET
		3	4	5	6	7	8	
25	200'	10	14	17	21	24	28	55
30	200'	15	20	25	30	35	40	85
35	350'	20	27	34	40	47	54	120
40	350'	26	35	44	53	62	70	170
45	500'	45	59	74	89	104	119	220
50	500'	50	66	83	99	116	132	280
55	500'	54	73	91	109	127	145	335'

**TRAFFIC CONTROL, WORK ON
SHOULDER OR PARKING LANE,
UNDIVIDED ROADWAY**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2020 /S/ Andrew Heidtke
DATE STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER

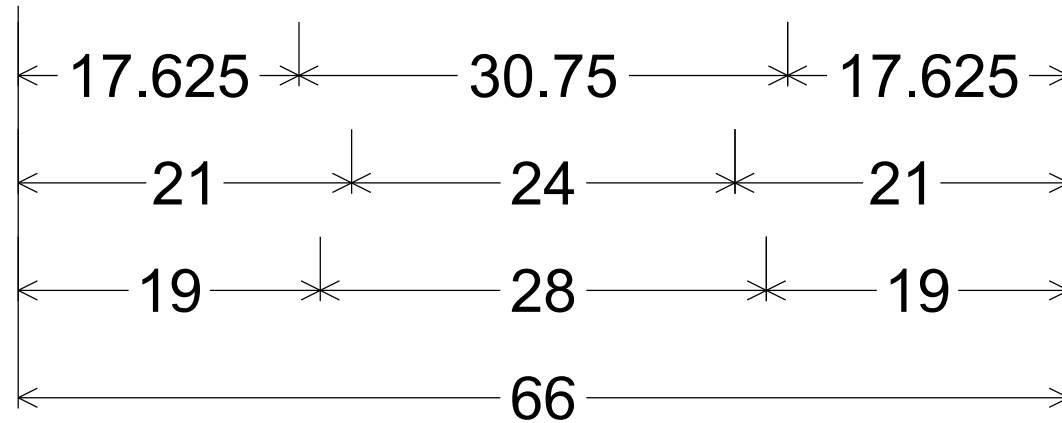
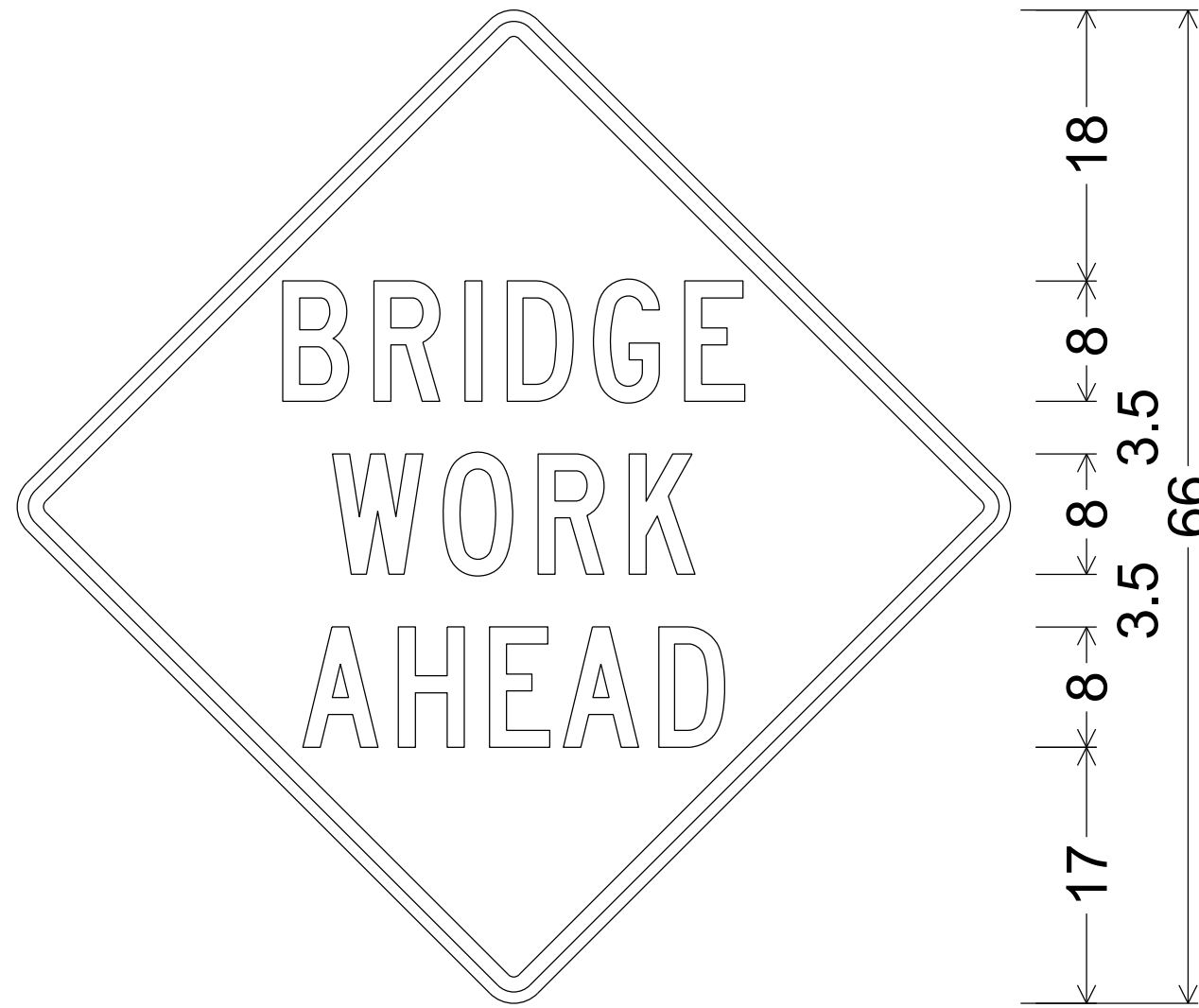
FHWA

SDD 15D28 - 04

SDD 15D28 - 04

NOTES

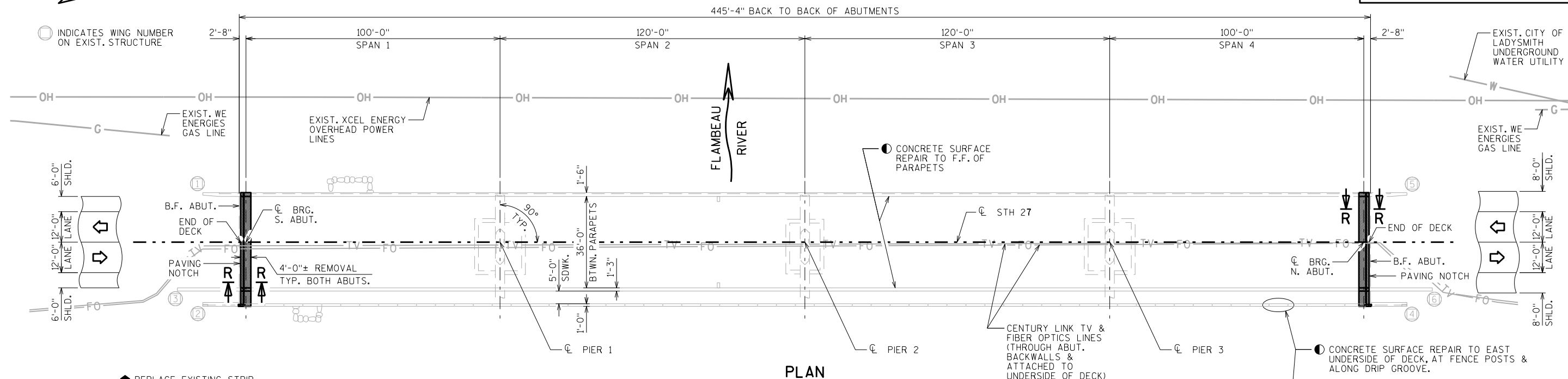
- 1. Fixed Message Type II Sign - Type F Reflective
- 2. Color:
 - Background - Orange
 - Message - Black
- 3. Message Series - C



48.000" across sides 2.250" Radius, 1.000" Border, 0.750" Indent

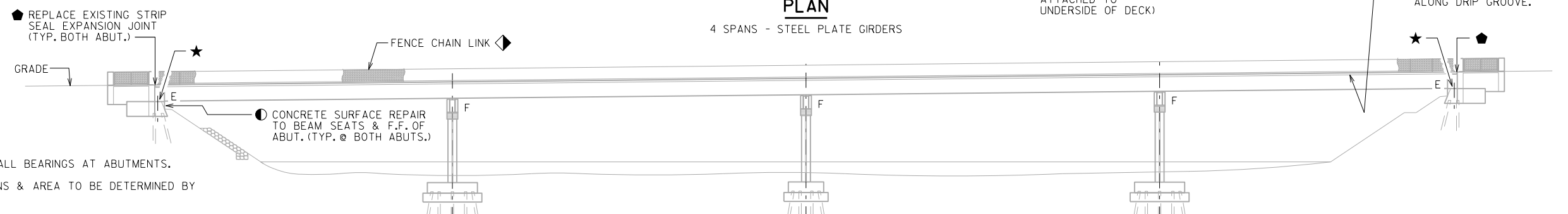
7

7



PLAN

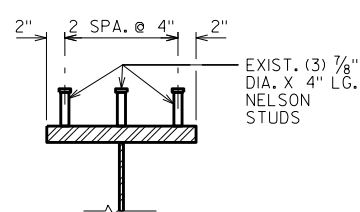
4 SPANS - STEEL PLATE GIRDERS



ELEVATION

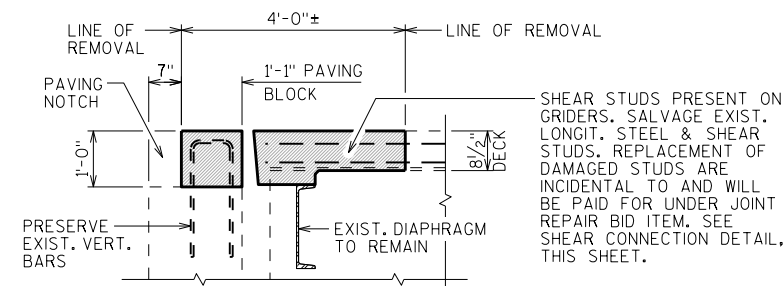
LEGEND

- ★ CLEAN & PRIME ALL BEARINGS AT ABUTMENTS.
- ACTUAL LOCATIONS & AREA TO BE DETERMINED BY THE ENGINEER.
- ◊ REPLACE 4FT. HIGH CHAIN LINK FABRIC AND ANY BROKEN PARTS FOUND, COST TO REPLACE ANY BROKEN FENCE PARTS IS INCIDENTAL AND TO BE PAID FOR UNDER BID ITEM "FENCE CHAIN LINK 4-FT." SEE PLAN SHEET "FENCE CHAIN LINK DETAILS" FOR DETAILS.
- ◆ REMOVE EXISTING VERTICAL CONCRETE WING & FENCE POSTS THAT CONFLICT WITH THE STRIP SEAL EXP. JOINT REPLACEMENT, COST TO REPLACE CHAIN LINK FENCE POSTS & COMPONENTS TO BE PAID FOR UNDER BID ITEM "FENCE CHAIN LINK 4-FT." COST TO REMOVE EXISTING VERTICAL CONCRETE WING & FENCE POSTS TO BE PAID FOR UNDER "JOINT REPAIR" BID ITEM. SEE PLAN SHEET "ABUT. & DIAPH. STRIP SEAL JOINT REINF. DETAILS 2" FOR REMOVAL DETAILS.



SHEAR CONNECTION DETAIL

(STUDS MATERIAL - STRUCTURAL CARBON STEEL)



SECTION R-R

DESIGN DATA

MATERIAL PROPERTIES:
 CONCRETE MASONRY DECK — $f'_c = 4,000$ P.S.I. ALL OTHER — $f'_c = 3,500$ P.S.I.
 BAR STEEL REINFORCEMENT, GRADE 60 — $f_y = 60,000$ P.S.I.
 STRUCTURAL CARBON STEEL (A.S.T.M. A709 GRADE 36) — $f_y = 36,000$ P.S.I.

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 $\frac{3}{4}$ " UNLESS OTHERWISE NOTED.
- AT JOINT REPAIR AREAS, PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO EXPOSED TOP OF NEW DECK AND SIDEWALK SURFACES, AND TO THE NEW VERTICAL SURFACE OF THE PAVING NOTCH.
- AT JOINT REPAIR LOCATIONS, PIGMENTED SURFACE SEALER TO BE APPLIED TO THE FRONT FACE AND TOP OF THE SLOPE FACED PARAPET 'B', AND ENTIRE EXPOSED PERIMETER OF SLOPE FACED PARAPET 'C'.
- DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.
- ANY EXCAVATION NECESSARY TO COMPLETE THE JOINT REPAIR AT THE ABUTMENTS IS TO BE CONSIDERED INCIDENTAL TO THE BID ITEM "JOINT REPAIR".
- CLEAN AND COAT TOP FLANGES OF PLATE GIRDERS, AT DECK REMOVAL AREAS, AS PER BID ITEM "PREPARATION AND COATING OF TOP FLANGES B-54-50".
- CONTAINMENT OF REMOVALS FOR CONCRETE SURFACE REPAIR & FENCE CHAIN LINK BASE CONNECTIONS OVER WATERWAY TO BE PAID FOR UNDER BID ITEM "DEBRIS CONTAINMENT OVER WATERWAY B-54-50".

TRAFFIC VOLUME

STH 27
 ADT = 5,800 (2014)
 R.D.S. = 35 M.P.H.

LIST OF DRAWINGS

1. GENERAL PLAN
2. CROSS SECTION & QUANTITIES
3. TRAFFIC CONTROL 1
4. TRAFFIC CONTROL 2
5. ABUT. & DIAPH. STRIP SEAL JOINT REINF. DETAILS 1
6. ABUT. & DIAPH. STRIP SEAL JOINT REINF. DETAILS 2
7. ABUT. & DIAPH. STRIP SEAL JOINT REINF. DETAILS 3
8. STRIP SEAL JOINT REPAIR DETAILS
9. PARAPET 'B' COVER PLATE DETAILS
10. PPT. 'C' & SIDEWALK COVER PLATE DETAILS
11. FENCE CHAIN LINK DETAILS

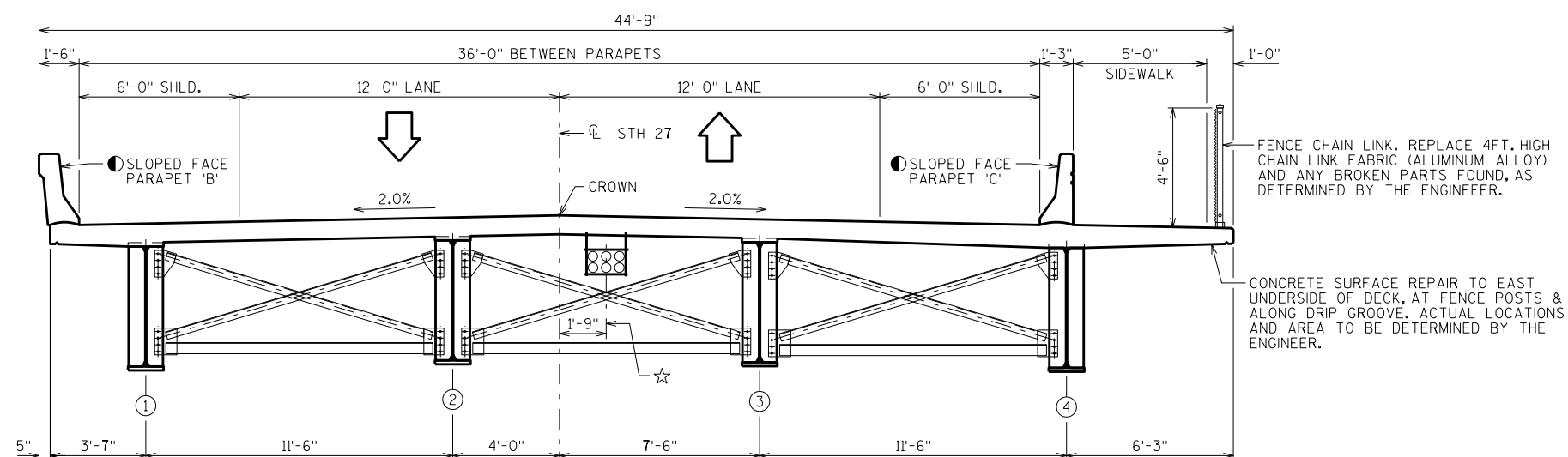
STRUCTURE DESIGN CONTACTS:
 ALEXANDER CRABTREE (608) 266-3686
 LAURA SHADEWALD (608) 267-9592

NO.	DATE	REVISION	BY
ACCEPTED		11/4/21	
CHIEF STRUCTURES DESIGN ENGINEER		DATE	
STRUCTURE B-54-50			
STH 27 OVER THE FLAMBEAU RIVER			
COUNTY	RUSK	TOWN/CITY/VILLAGE	LADYSMITH
DESIGN SPEC. REHABILITATION	N/A		
DESIGNED BY	DESIGNED CK'D.	DRAWN BY	PLANS CK'D.
ARC	JLR	ARC	JLR
GENERAL PLAN			SHEET 1 OF 11

8

8

SCALE = 20:00



CROSS SECTION THRU ROADWAY LOOKING NORTH

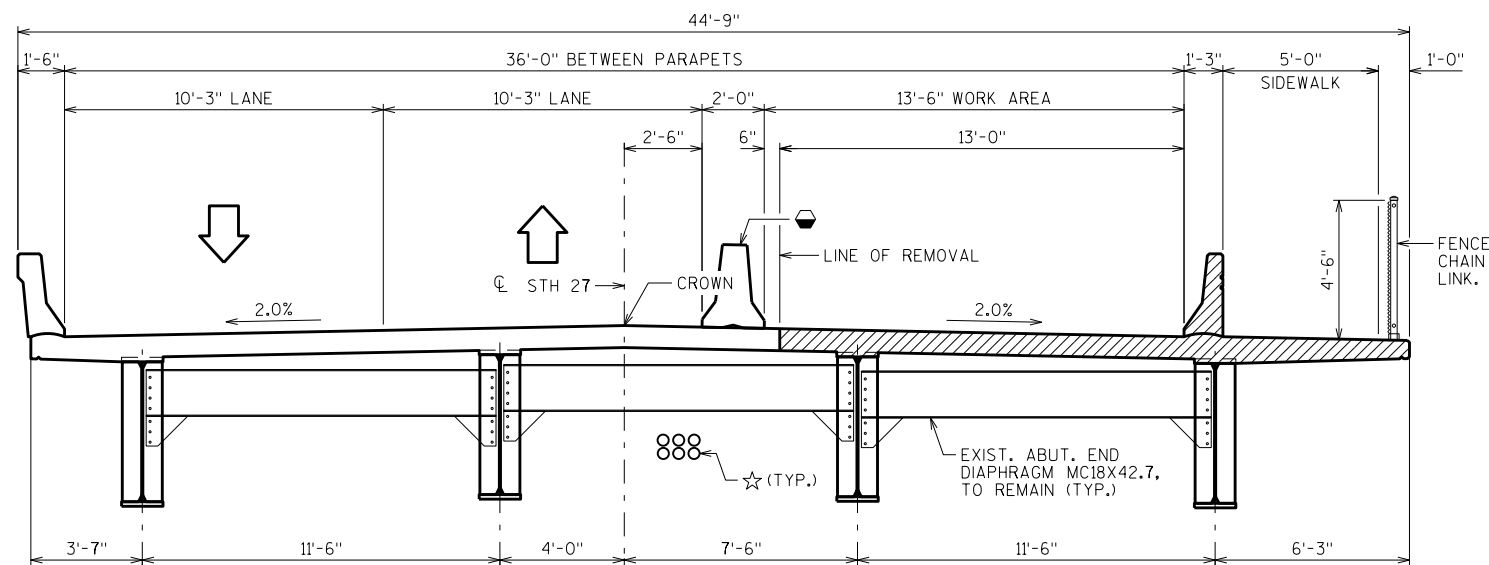
☆ (6) 4" DIA. DUCTS CARRYING TV & FIBER-OPTIC CABLE

● CONCRETE SURFACE REPAIR TO F.F. OF PARAPETS. ACTUAL LOCATIONS & AREA TO BE DETERMINED BY THE ENGINEER.

TOTAL ESTIMATED QUANTITIES

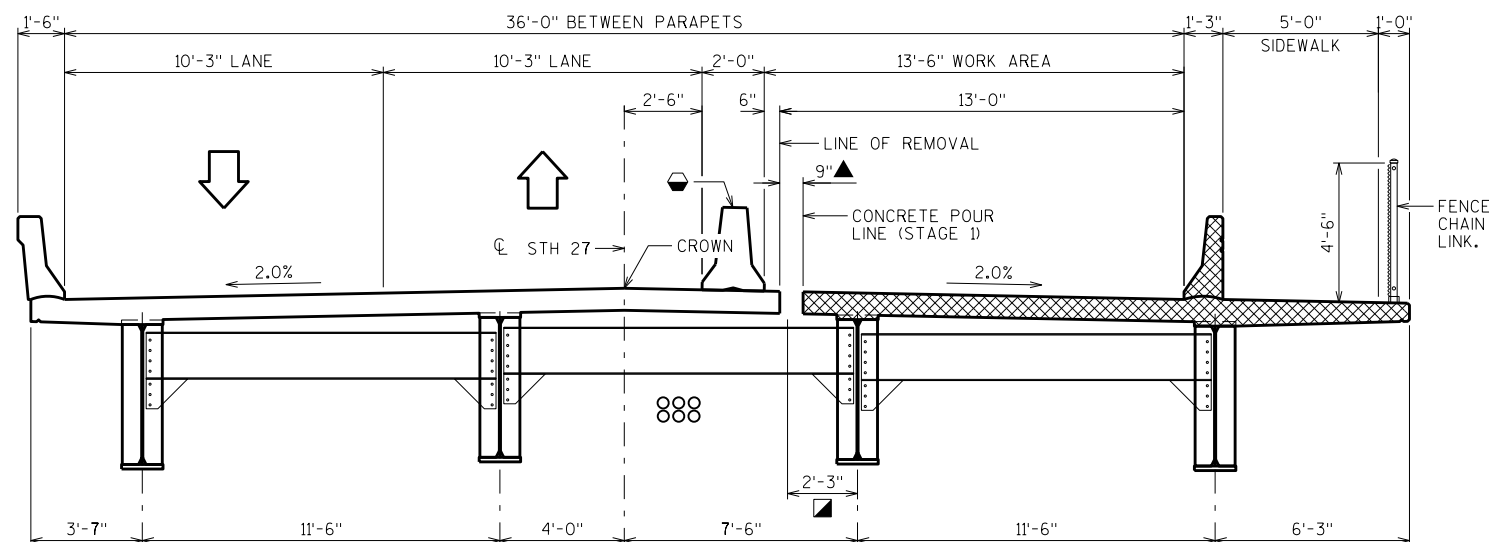
BID ITEM NUMBER	BID ITEMS	UNIT	QUANTITY
203.0335	DEBRIS CONTAINMENT OVER WATERWAY B-54-50	EACH	1
502.3101	EXPANSION DEVICE B-54-50	LF	89
502.3200	PROTECTIVE SURFACE TREATMENT	SY	46
502.3210	PIGMENTED SURFACE SEALER	SY	10
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	3,050
505.0904	BAR COUPLERS NO. 4	EACH	4
505.0905	BAR COUPLERS NO. 5	EACH	12
505.0906	BAR COUPLERS NO. 6	EACH	46
509.1000	JOINT REPAIR	SY	40
509.1500	CONCRETE SURFACE REPAIR	SF	20
509.2100.S	CONCRETE MASONRY DECK REPAIR	CY	14
517.0901.S	PREPARATION AND COATING OF TOP FLANGES B-54-50	EACH	1
517.4001.S	CONTAINMENT AND COLLECTION OF WASTE MATERIALS B-54-50	EACH	1
616.0204	FENCE CHAIN LINK 4-FT.	LF	473
SPV.0060	CLEANING AND PAINTING BEARINGS	EACH	8

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-54-50			
DRAWN BY		ARC	PLANS CK'D. JLR
CROSS SECTION & QUANTITIES			SHEET 2



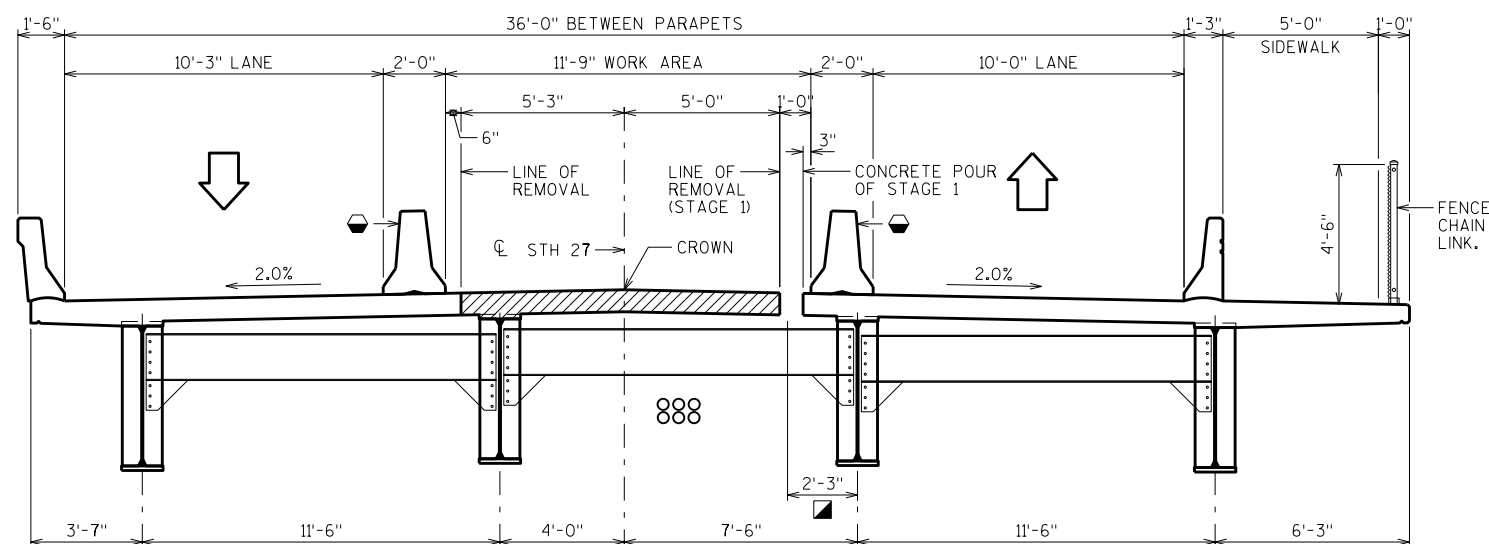
STAGE 1 JOINT REPLACEMENT -- DECK REMOVAL

(LOOKING NORTH)



STAGE 1 JOINT REPLACEMENT -- CLOSURE POUR

(LOOKING NORTH)



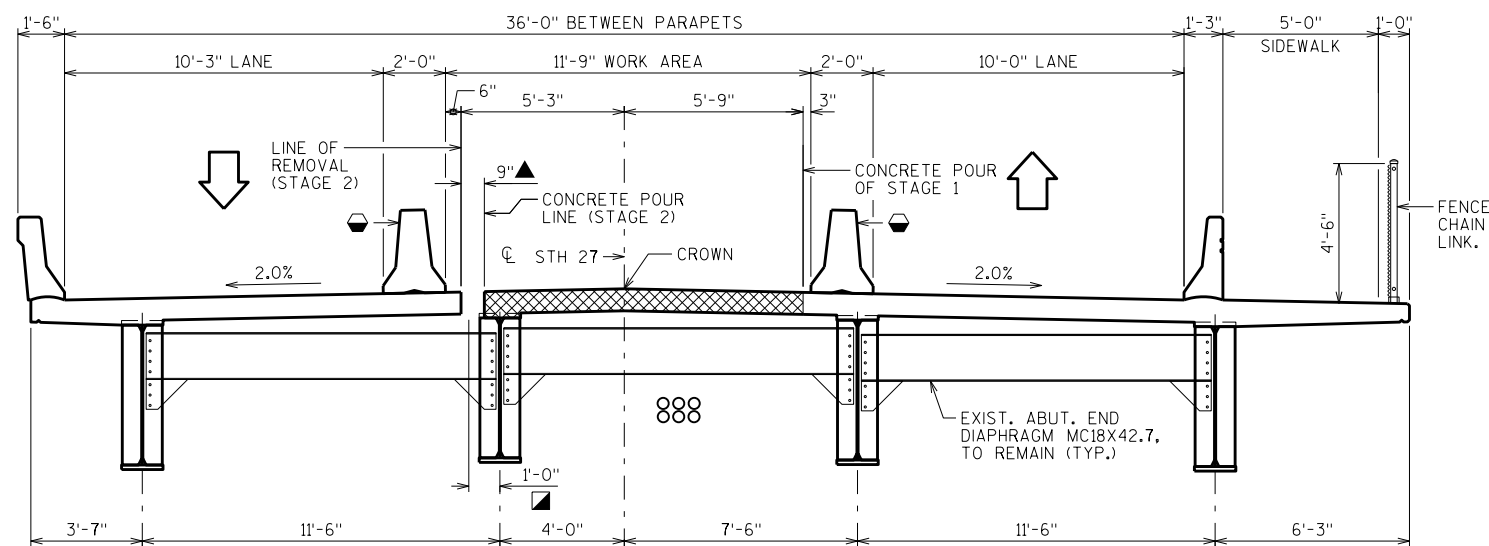
STAGE 2 JOINT REPLACEMENT -- REMOVAL

(LOOKING NORTH)

LEGEND

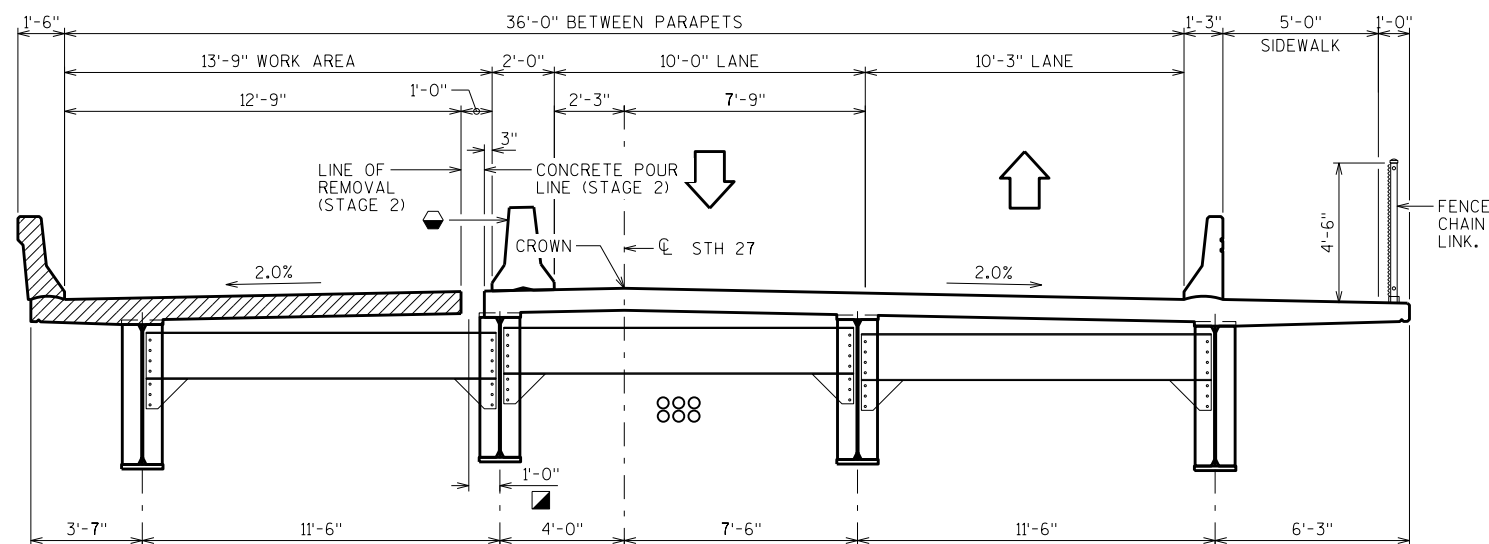
- ☆ (6) 4" DIA. DUCTS CARRYING TV & FIBER-OPTIC CABLE
- ▒ TEMP. CONCRETE BARRIER
- ▣ MAX. DISTANCE TO STRIP SEAL FIELD SPLICE
- ▲ DIMENSION SHOWN ALLOWS 6" OF THE STRIP SEAL'S STEEL EXTRUSION TO BE ACCESSIBLE FOR WELDING.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-54-50			
DRAWN BY		ARC	PLANS CK'D. JLR
TRAFFIC CONTROL 1			SHEET 3



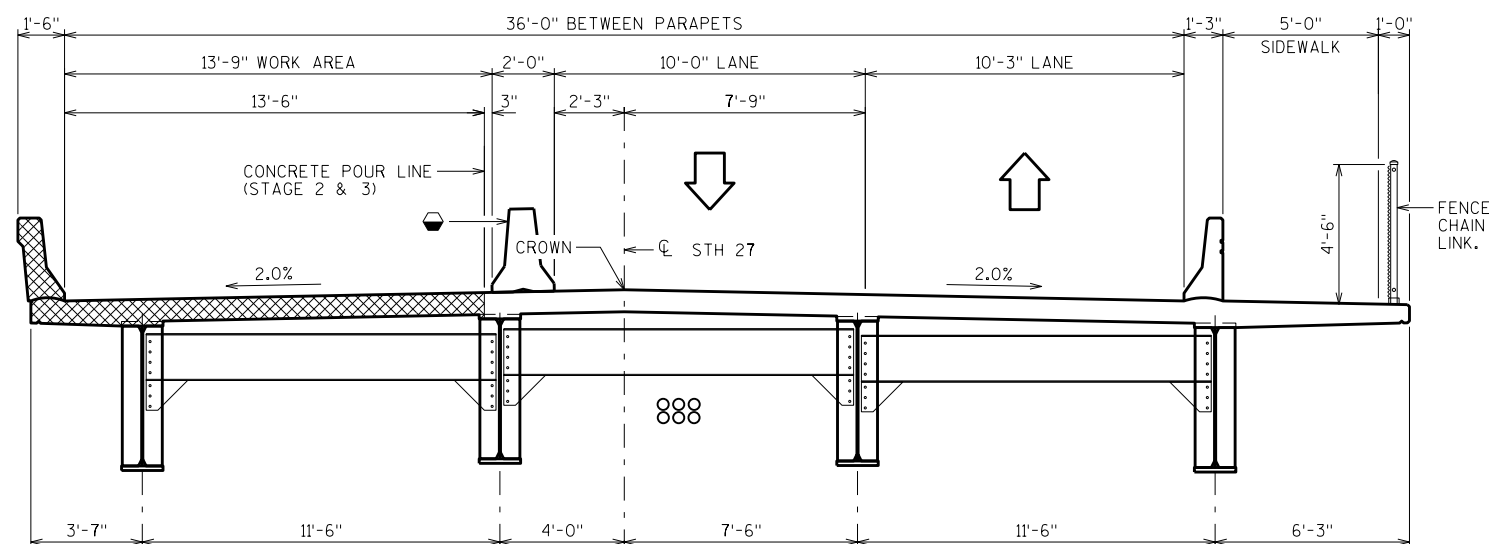
STAGE 2 JOINT REPLACEMENT -- CLOSURE POUR

(LOOKING NORTH)



STAGE 3 JOINT REPLACEMENT -- REMOVAL

(LOOKING NORTH)



STAGE 3 JOINT REPLACEMENT -- CLOSURE POUR

(LOOKING NORTH)

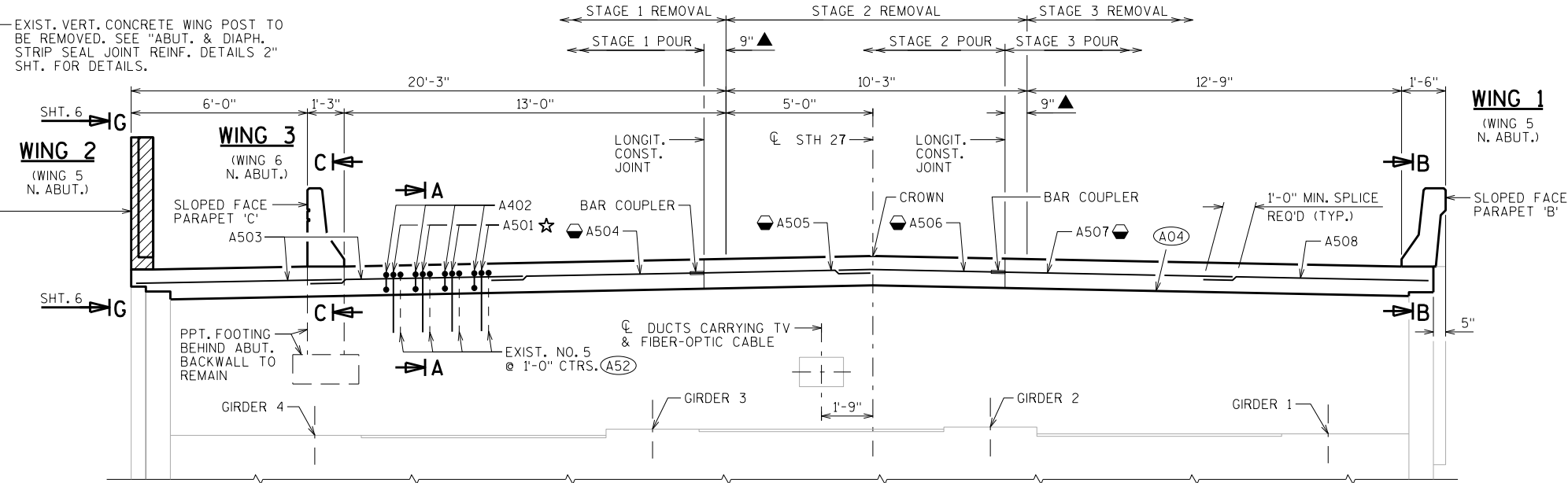
LEGEND

- ☆ (6) 4" DIA. DUCTS CARRYING TV & FIBER-OPTIC CABLE
- ◐ TEMP. CONCRETE BARRIER
- ◑ MAX. DISTANCE TO STRIP SEAL FIELD SPLICE
- ▲ DIMENSION SHOWN ALLOWS 6" OF THE STRIP SEAL'S STEEL EXTRUSION TO BE ACCESSIBLE FOR WELDING.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-54-50			
DRAWN BY		ARC	PLANS CK'D. JLR
TRAFFIC CONTROL 2			SHEET 4

8

8



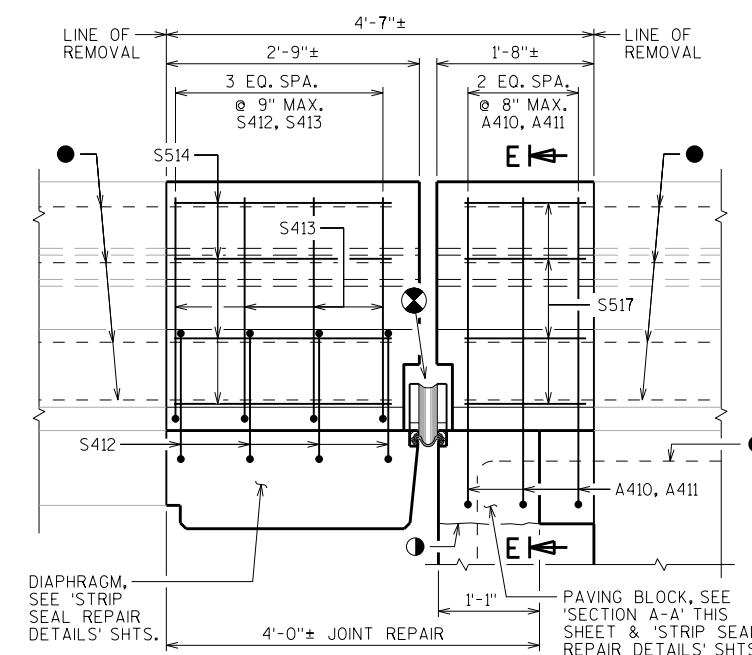
PARTIAL ELEVATION LOOKING SOUTH @ SOUTH ABUTMENT
(NORTH ABUTMENT SIMILAR EXCEPT OPPOSITE HAND)

BILL OF BARS

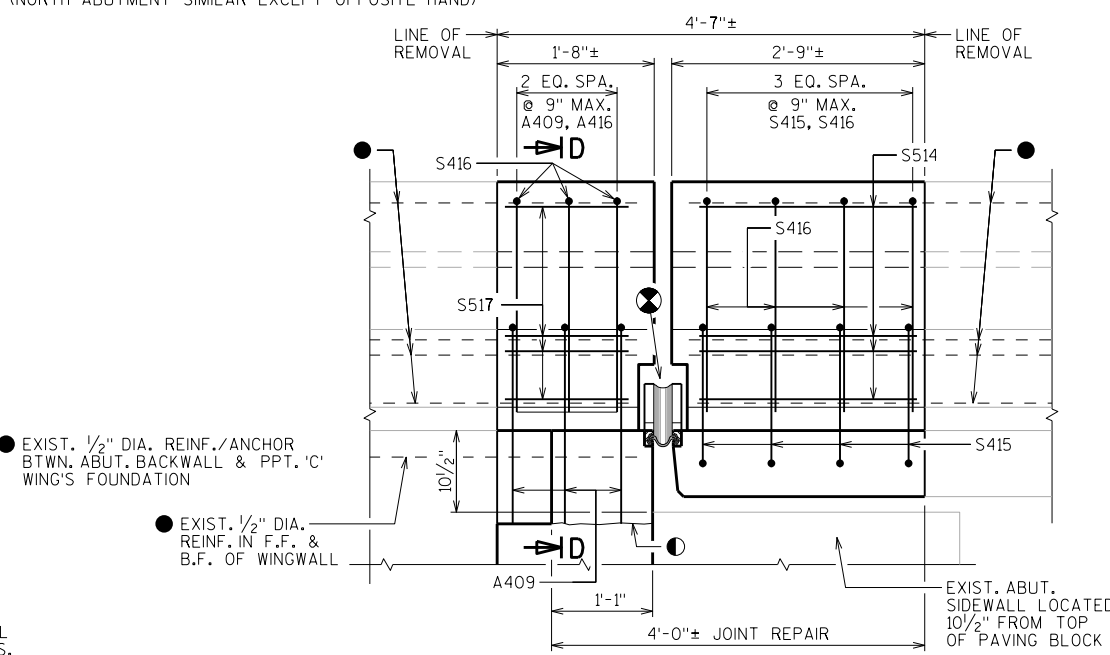
NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

BAR MARK	COAT	NO. REQ'D.		LENGTH	BENT	BAR SERIES	LOCATION
		S. ABUT.	N. ABUT.				
A501	X	43	43	2'-11"	X		PAVING BLOCK-VERT.
A402	X	43	43	3'-2"	X		PAVING BLOCK-VERT.-STIRRUPS
A503	X	6	6	7'-4"			PAVING BLOCK-HORIZ.-STAGE 1
A504	X	3	3	7'-4"			PAVING BLOCK-HORIZ.-STAGE 1
A505	X	3	3	6'-0"			PAVING BLOCK-HORIZ.-STAGE 2
A506	X	3	3	6'-0"			PAVING BLOCK-HORIZ.-STAGE 2
A507	X	3	3	7'-9"			PAVING BLOCK-HORIZ.-STAGE 3
A508	X	3	3	7'-9"			PAVING BLOCK-HORIZ.-STAGE 3
A409	X	3	3	4'-7"	X		PAVING BLOCK/PPT.-VERT.-WINGS 1&5
A410	X	3	3	4'-1"	X		PAVING BLOCK/PPT.-VERT.-WINGS 3&6
A411	X	3	3	4'-1"	X		PAVING BLOCK/PPT.-VERT.-WINGS 3&6
S401	X	42	42	4'-5"	X		DIAPHRAGM-VERT.
S602	X	10	10	10'-2"			DIAPHRAGM-HORIZ.-BOT.-STAGES 1&3
S603	X	5	5	1'-1"			DIAPHRAGM-HORIZ.-BOT.-STAGE 1
S604	X	5	5	9'-1"			DIAPHRAGM-HORIZ.-BOT.-STAGE 2
S405	X	4	4	10'-2"			DIAPHRAGM-HORIZ.-TOP.-STAGES 1&3
S406	X	2	2	1'-1"			DIAPHRAGM-HORIZ.-TOP-STAGE 1
S407	X	2	2	9'-1"			DIAPHRAGM-HORIZ.-TOP-STAGE 2
S608	X	9	9	19'-4"			DECK-TRANSVERSE-STAGE 1
S609	X	9	9	6'-11"			DECK-TRANSVERSE-STAGE 2
S610	X	9	9	6'-11"			DECK-TRANSVERSE-STAGE 2
S611	X	9	9	14'-5"			DECK-TRANSVERSE-STAGE 3
S412	X	4	4	4'-0"	X		DECK/PPT.-VERT.-PPT. 'C'
S413	X	4	4	5'-0"	X		DECK-VERT.-PPT. 'C'
S514	X	10	10	2'-4"			DECK-PPT.-HORIZ.-PPTS. 'B' & 'C'
S415	X	4	4	4'-3"	X		DECK/PPT.-VERT.-PPT. 'B'
S416	X	4	4	4'-10"	X		DECK-VERT.-PPT. 'B'
S517	X	10	10	1'-4"			PAVING BLOCK-PPT.-HORIZ.-PPTS. 'B' & 'C'

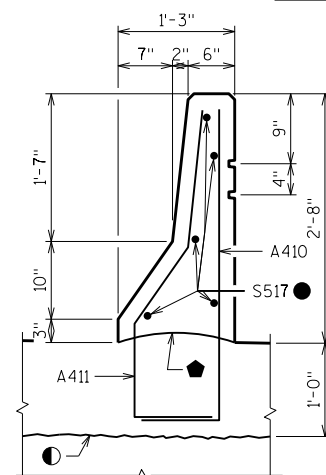
BAR COUPLERS REQUIRED. BAR LENGTHS REQUIRED DETERMINED AND CALCULATED TO CL OF JOINT AT SPLICE LOCATION. MODIFY IF NECESSARY TO BAR COUPLER MANUFACTURER'S SPECIFICATIONS. PAY BASED ON BARS AS DETAILED.



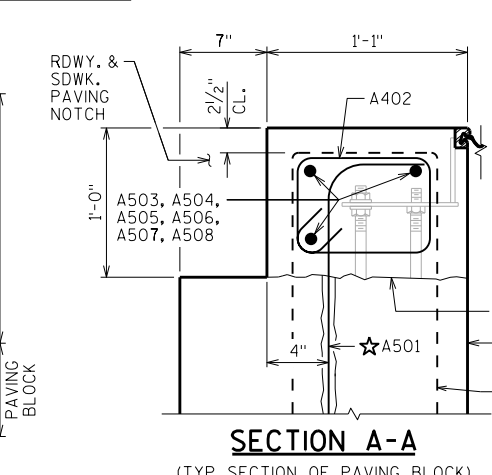
SECTION C-C



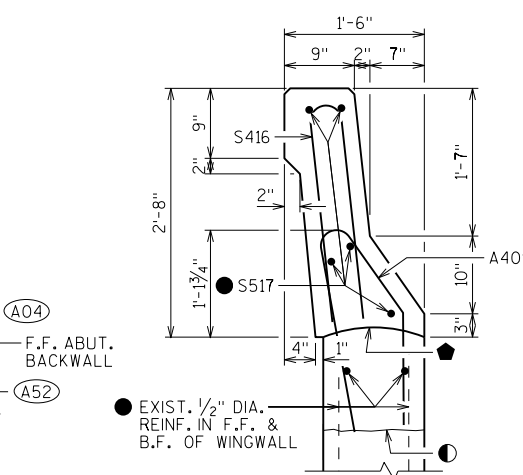
SECTION B-B



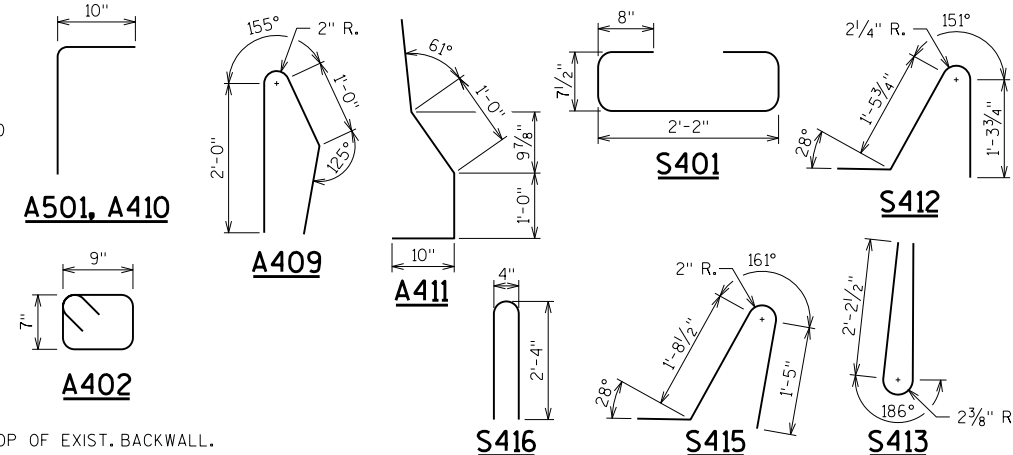
SECTION E-E
(WINGS 3&6)



SECTION A-A
(TYP. SECTION OF PAVING BLOCK)

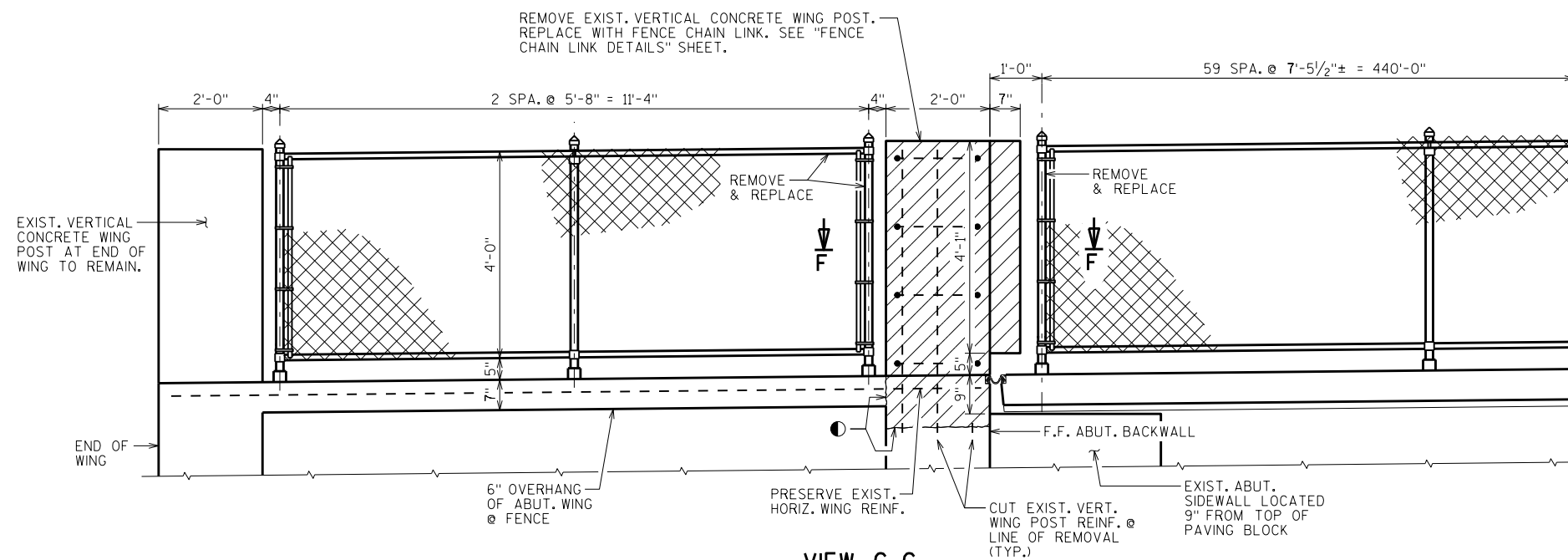


SECTION D-D
(WINGS 1&5)

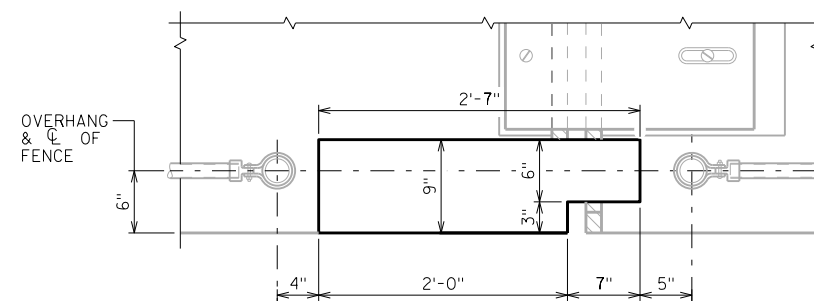


- LEGEND**
- (A04) EXISTING PAVING BLOCK TO BE REMOVED TO TOP OF EXIST. BACKWALL.
 - (A52) SALVAGE EXIST. REINF. & EXTEND FULL LENGTH INTO NEW WORK.
 - ★ ADHESIVE ANCHOR A501. EMBED 1'-6" IN CONCRETE. SPACE AT 1'-0". TURN LEG AS NECESSARY TO FIT.
 - ☉ BAR COUPLERS REQUIRED
 - ▲ DIMENSION SHOWN ALLOWS 6" OF THE STRIP SEAL'S STEEL EXTRUSION TO BE ACCESSIBLE FOR WELDING.
 - PRESERVE & INCORPORATE EXISTING REINFORCEMENT INTO PARAPET & PAVING BLOCK AT JOINT REPAIR AREAS.
 - ⊗ BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING.
 - ◆ CONST. JOINT - STRIKE OFF AS SHOWN AND LEAVE ROUGH
 - CONST. JOINT/LINE OF REMOVAL

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-54-50			
DRAWN BY		ARC	PLANS CK'D. JLR
ABUT. & DIAPH. STRIP SEAL JOINT REINF. DETAILS 1		SHEET 5	



VIEW G-G
 ELEVATIONAL VIEW OF EXISTING FENCE
 (WING 2 SHOWN, WING 4 SIMILAR EXCEPT OPPOSITE HAND)

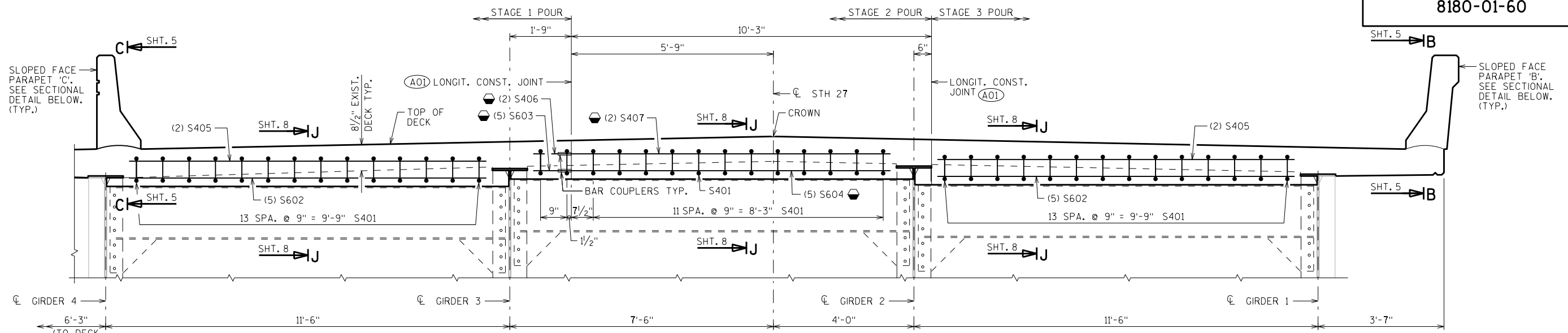


SECTION F-F
 (SHOWING PLAN DIMS. OF VERT. CONC. POST)

LEGEND

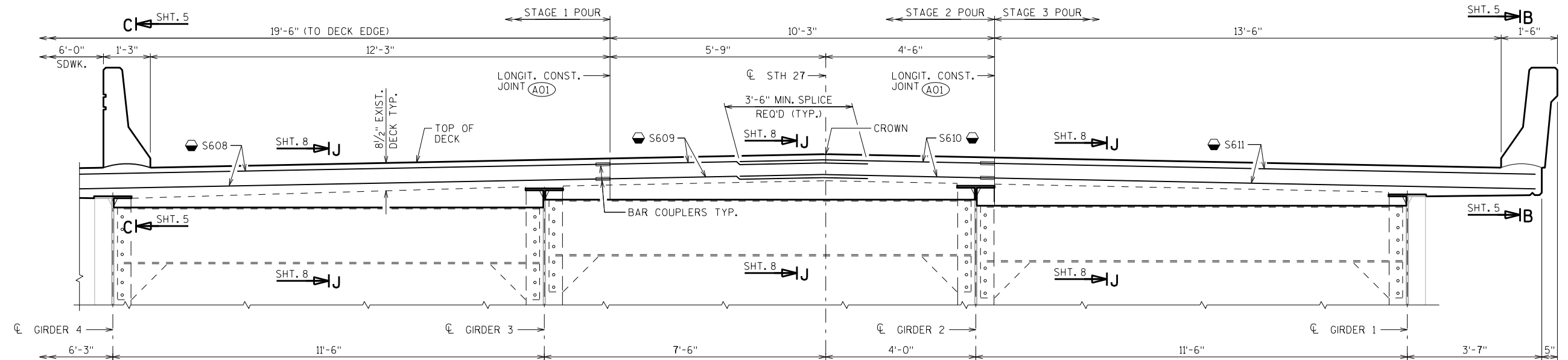
● CONST. JOINT/LINE OF REMOVAL

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-54-50			
DRAWN BY		ARC	PLANS CK'D. JLR
ABUT. & DIAPH. STRIP SEAL JOINT REINF. DETAILS 2			SHEET 6



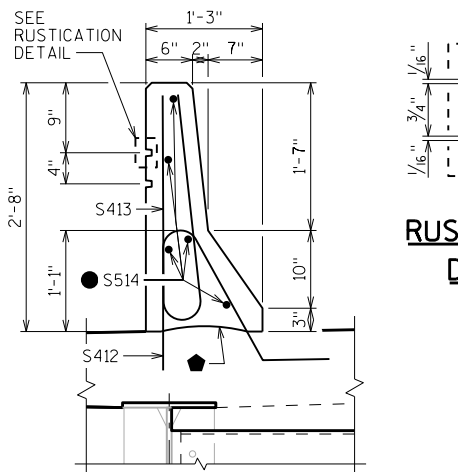
PARTIAL SECTION OF DIAPHRAGM REINFORCEMENT

SHOWING DIAPHRAGM REINF. AT STRIP SEAL REPAIR
(DIAPHRAGM @ SOUTH ABUT. SHOWN, NORTH ABUT. SIMILAR EXCEPT OPPOSITE HAND.)

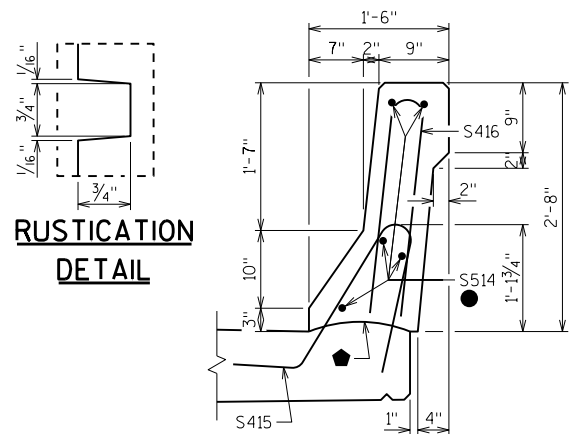


PARTIAL SECTION OF DECK REINFORCEMENT

SHOWING DECK REINF. AT STRIP SEAL REPAIR
(DECK @ SOUTH ABUT. SHOWN, NORTH ABUT. SIMILAR EXCEPT OPPOSITE HAND.)



SECTIONAL DETAIL PARAPET 'C'



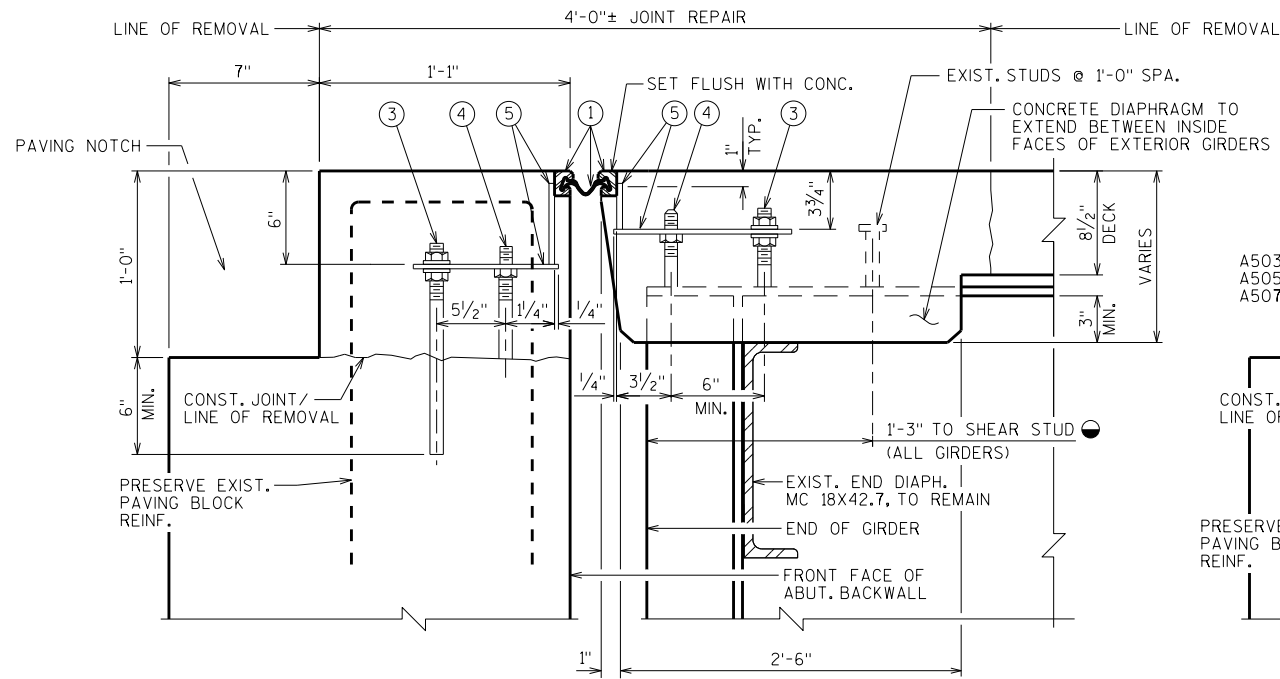
SECTIONAL DETAIL PARAPET 'B'

RUSTICATION DETAIL

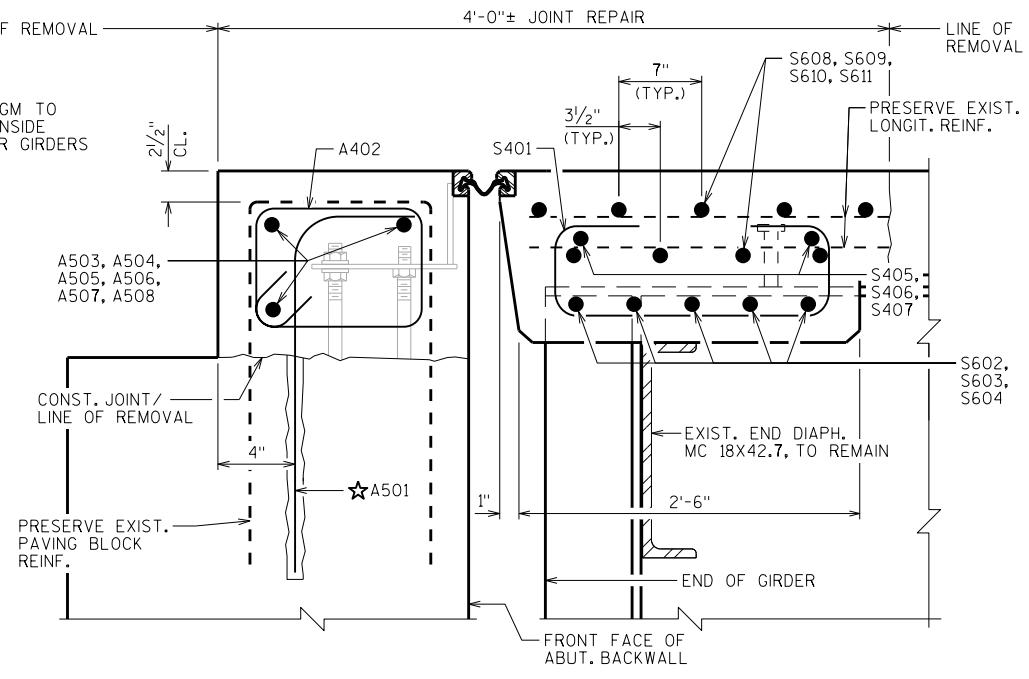
LEGEND

- ◆ CONST. JOINT - STRIKE OFF AS SHOWN AND LEAVE ROUGH
- (A01) CONSTRUCTION JOINT: KEYWAY REQUIRED
- BAR COUPLERS REQUIRED
- ▲ DIMENSION SHOWN ALLOWS 6" OF THE STRIP SEAL'S STEEL EXTRUSION TO BE ACCESSIBLE FOR WELDING.
- PRESERVE & INCORPORATE EXISTING REINFORCEMENT INTO PARAPET AT JOINT REPAIR AREAS.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-54-50			
DRAWN BY		ARC	PLANS CK'D. JLR
ABUT. & DIAPH. STRIP SEAL JOINT REINF. DETAILS 3			SHEET 7



SECTION THRU JOINT AT ABUTMENT
NORMAL TO CL SUBSTRUCTURE



SECTION J-J
NORMAL TO CL SUBSTRUCTURE
(DECK SIDE OF JOINT HARDWARE NOT SHOWN FOR CLARITY)

LEGEND

- ① NEOPRENE STRIP SEAL (4" - INCH) AND STEEL EXTRUSIONS.
- ② STUDS 5/8" DIA. X 6 3/8" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS AND BEND AS SHOWN AFTER WELDING.
- ②A 1/2" THICK ANCHOR PLATE WITH 5/8" DIA. ROD (OR ALTERNATE STRIP SEAL ANCHOR). WELD ROD TO ANCHOR PLATE, WELD ANCHOR PLATE TO NO. 1 AT 1'-6" CENTERS BETWEEN GIRDERS.
- ③ 3/4" DIA. THREADED ROD WITH 2 NUTS AND PLATE WASHERS. WELD THREADED ROD TO TOP FLANGE OR ATTACH BY BOLTING THRU FLANGE. ON ABUTMENT SIDE GROUT THREADED ROD INTO FIELD DRILLED HOLES IN ABUTMENT BACKWALL AS SHOWN.
- ④ 3/4" DIA. THREADED ROD WITH NUT. TACK WELD NUT TO NO. 5.
- ⑤ FABRICATE SUPPORT FROM 3" X 1/2" BAR AS SHOWN OR EQUIVALENT, ONE PER GIRDER PER SIDE, SHOP OR FIELD WELD TO NO. 1. IF FIELD WELDED, COVER WELDED AREAS WITH EPOXY-COATING MATERIAL. PROVIDE 1 1/2" DIA. HOLE FOR NO. 3 AND 1" DIA. HOLE FOR NO. 4.
- ⑥ GALVANIZED PLATE 3/8" X 1'-2" X 2'-2" LONG WITH HOLES FOR NO. 7. BEND AS SHOWN.
- ⑦ 3/4" DIA. X 1 1/2" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. PLACE IN COUNTERSUNK HOLE. RECESS 1/16" BELOW PLATE SURFACE.
- ⑧ 3/4" DIA. X 4" GALVANIZED HEX HEAD BOLT. BEND 45°.
- ⑨ 3/4" DIA. X 2 1/4" GALVANIZED THREADED COUPLING.
- ⑩ 1" X 5" SLOTTED COUNTERSUNK HOLE FOR NO. 7. PLACE SLOT PARALLEL TO DIRECTION OF MOVEMENT.
- ⑪ SIDEWALK COVER PLATE 3/8" X 2'-0" X LIMITS SHOWN WITH HOLES FOR NO. 7. GALVANIZE PLATE AFTER SLIP-RESISTANT SURFACE IS APPLIED.
- ⑫ GALVANIZED PLATE 3/8" X 10" X 2'-2" LONG WITH HOLES FOR NO. 7.

NOTES

ONE FIELD SPLICE PERMITTED IN STEEL EXTRUSIONS, UNLESS MORE ARE REQUIRED FOR STAGED CONSTRUCTION, HANDLING OR GALVANIZING REQUIREMENTS. IF USED, DETAILS SHALL BE SUBMITTED FOR APPROVAL. NO SPLICING PERMITTED IN NEOPRENE STRIP SEAL.

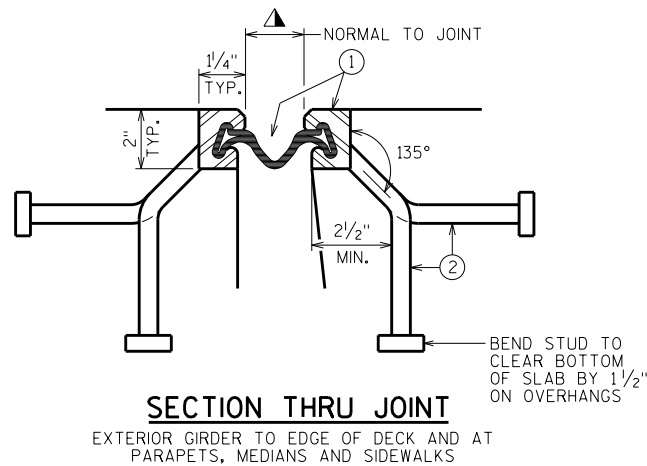
AFTER FABRICATION, BUT BEFORE SHIPMENT, STRAIGHTEN STEEL EXTRUSIONS SUCH THAT THEY SHALL BE FREE FROM WARP, TWIST AND SWEEP.

FABRICATOR SHALL PROVIDE MEANS OF KEEPING GALVANIZED EXTRUSIONS CLEAN AND SMOOTH DURING SHIPMENT AND PRIOR TO APPLYING LUBRICANT ADHESIVE FOR NEOPRENE GLAND INSTALLATION.

SANDBLAST PLATES, SUPPORTS AND EXTRUSIONS AFTER FABRICATION IN ACCORDANCE WITH SSPC SP. #6 "COMMERCIAL BLAST CLEANING". AFTER BLAST CLEANING, THE PLATES, SUPPORTS AND EXTRUSIONS SHALL BE HOT DIPPED GALVANIZED.

ANCHOR SYSTEM NO. 8 AND NO. 9 SHALL CONFORM TO ASTM A307 & SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C AND D.

ALL MATERIAL IN THE EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS AND HARDWARE SHALL BE PAID AT THE UNIT PRICE BID FOR "EXPANSION DEVICE B-54-50", LF.

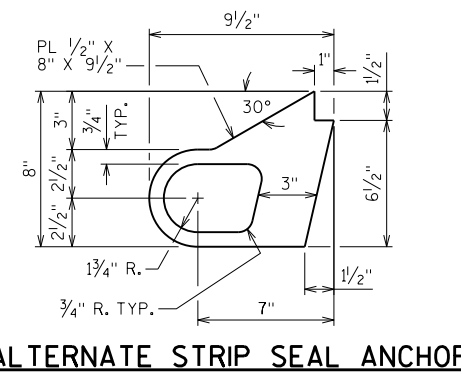


SECTION THRU JOINT
EXTERIOR GIRDER TO EDGE OF DECK AND AT PARAPETS, MEDIANS AND SIDEWALKS

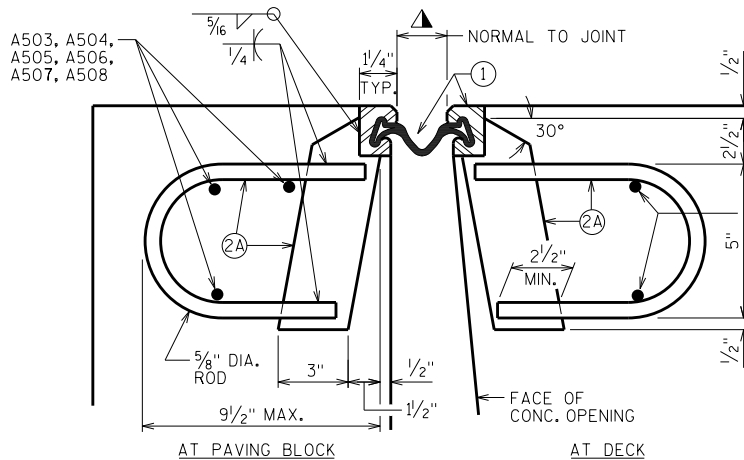
TEMPERATURE TABLE

SHADED UNDERSIDE DECK TEMP. (°F)	JOINT OPENING (NORMAL TO JT.)
85°	1 9/16"
75°	1 7/4"
65°	1 1/8"
55°	2 1/16"
45°	2 1/4"
35°	2 1/16"
25°	2 5/8"
15°	2 3/4"
5°	2 5/16"

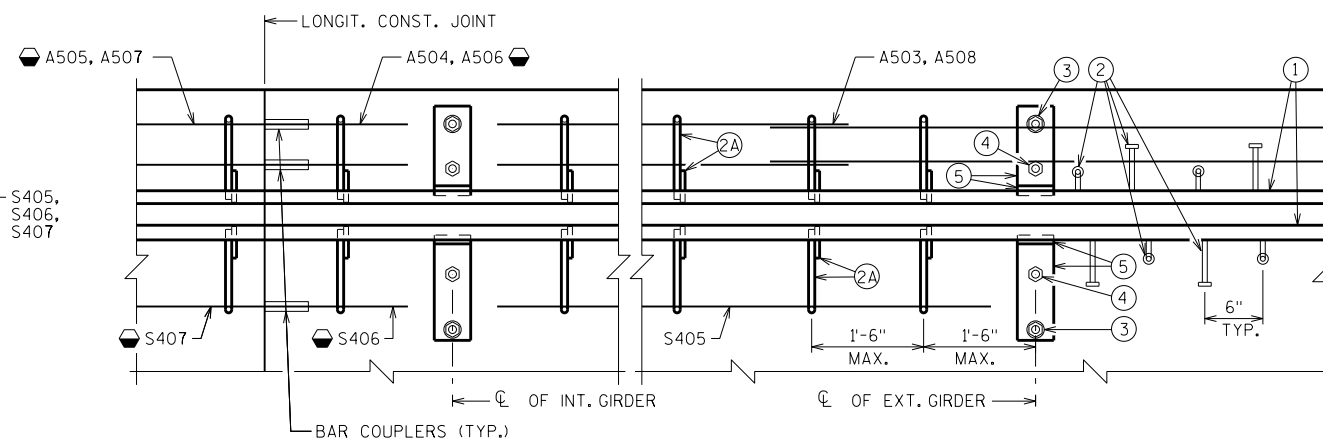
A SMALL JOINT OPENING DUE TO A HIGH TEMPERATURE AT TIME OF CONSTRUCTION MAY REQUIRE NEOPRENE STRIP SEAL INSTALLATION INTO STEEL EXTRUSIONS PRIOR TO SETTING THE EXPANSION JOINT.



ALTERNATE STRIP SEAL ANCHOR



SECTION THRU JOINT
ROADWAY TRAFFIC AREA BETWEEN EXTERIOR GIRDERS.

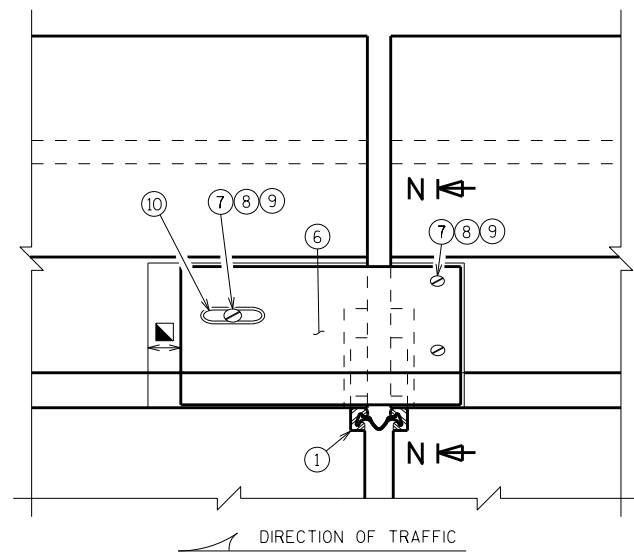


PARTIAL PLAN - HORIZ. PAVING BLOCK & DECK REINF. @ JOINT
(SEE 'ABUT. & DIAPH. STRIP SEAL JOINT REINF. DETAILS 1&3' SHEETS, FOR FURTHER DETAILS.)

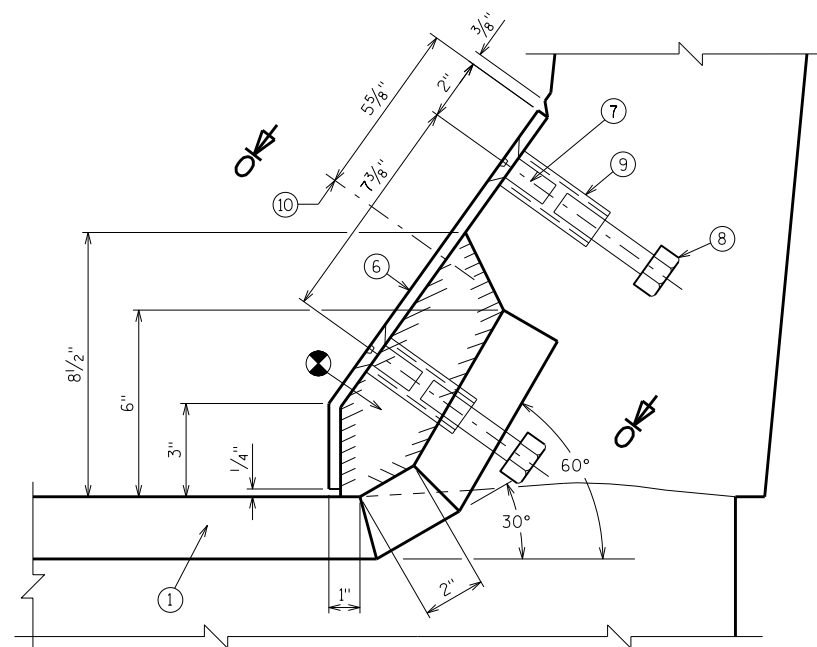
LEGEND

- DIMENSION IS PARALLEL TO CL OF GIRDER
- ☆ ADHESIVE ANCHOR A501. EMBED 1'-6" IN CONCRETE. SPACE AT 1'-0". TURN LEG AS NECESSARY TO FIT.
- BAR COUPLERS REQUIRED

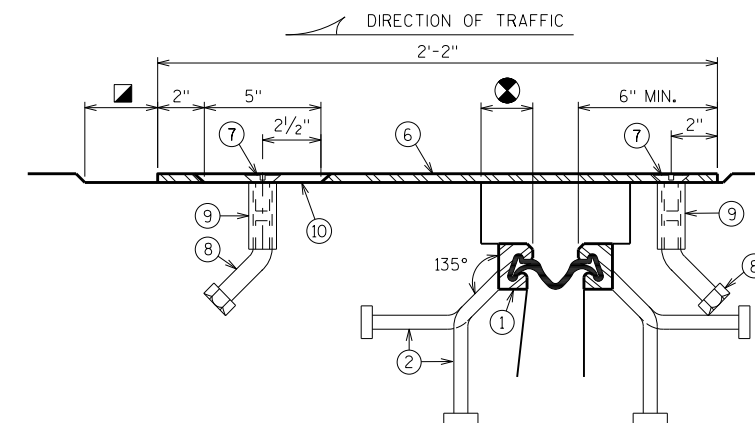
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-54-50			
DRAWN BY		ARC	PLANS CK'D. JLR
STRIP SEAL JOINT REPAIR DETAILS			SHEET 8



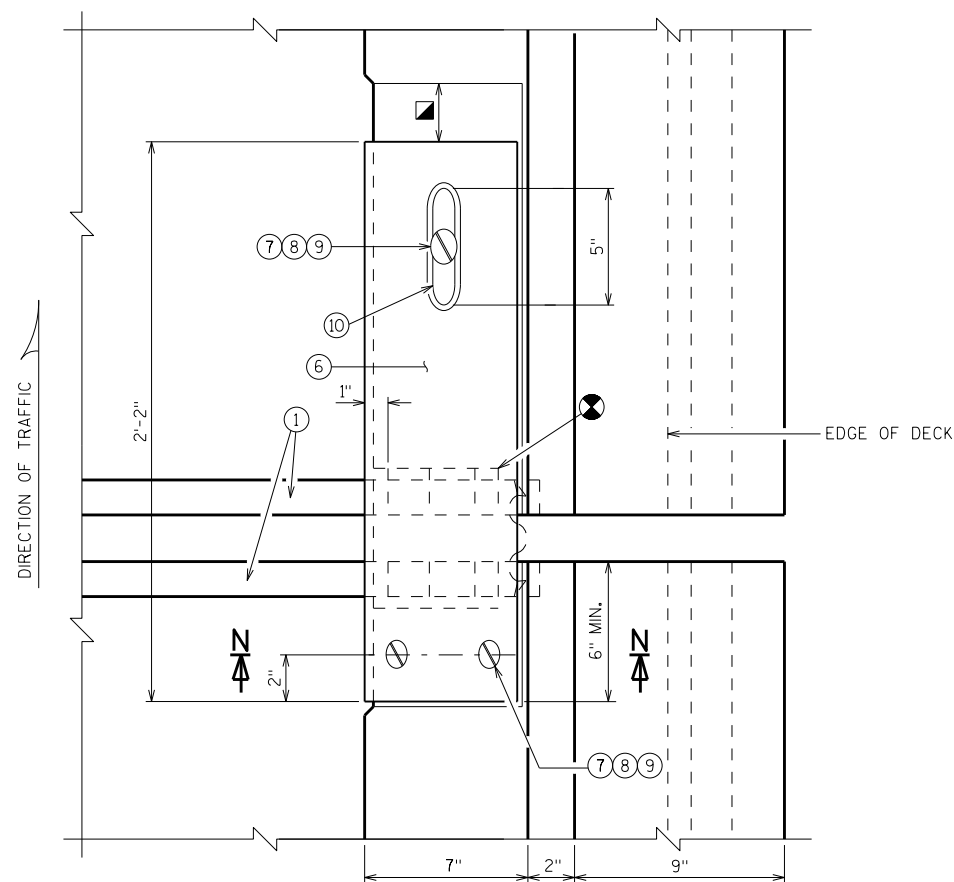
VIEW OF PARAPET 'B' COVER PLATE FROM ROADWAY



SECTION N-N



SECTION O-O



PLAN

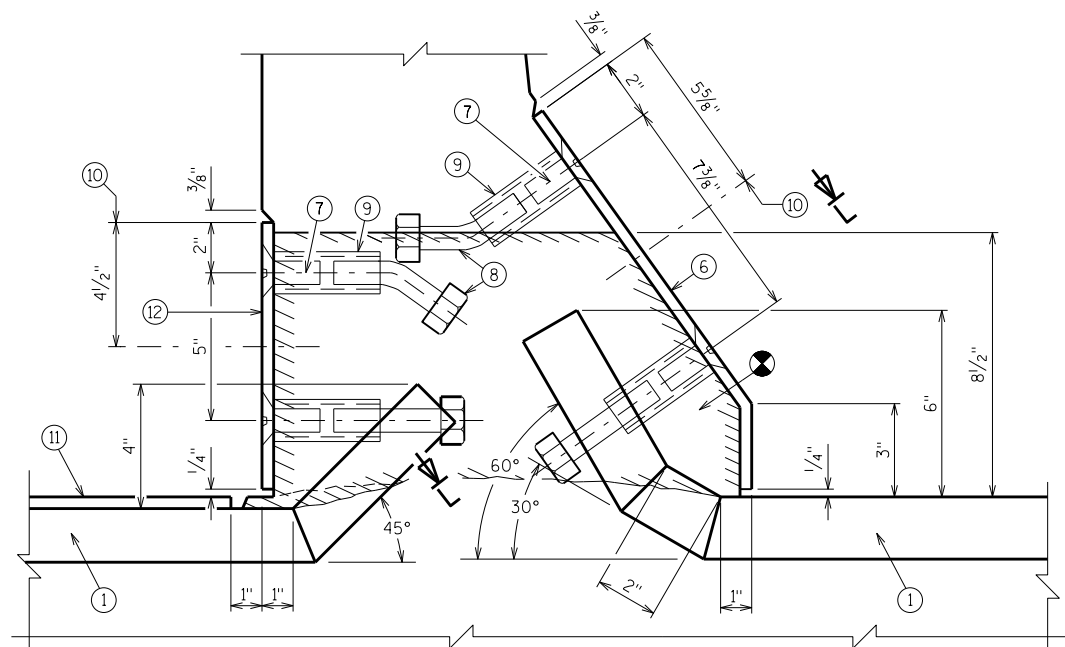
NOTE: FOR DESCRIPTION OF ⊕, SEE LEGEND ON "STRIP SEAL JOINT REPAIR DETAILS" SHEET.

LEGEND

⊗ BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING.

▣ JOINT OPENING DIMENSION PLUS 1/2".

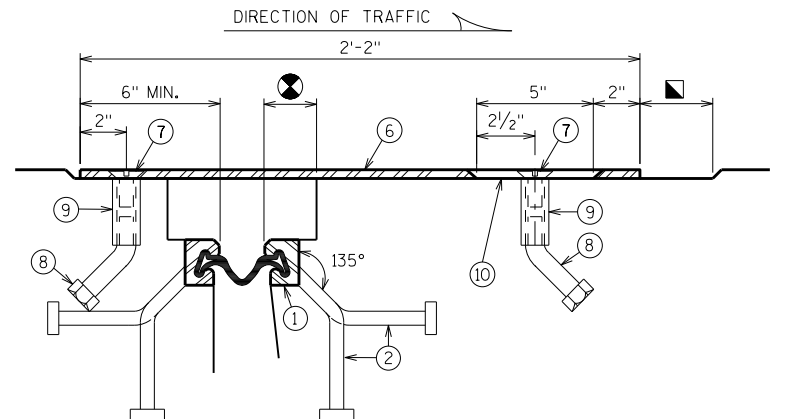
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-54-50			
DRAWN BY		ARC	PLANS CK'D. JLR
PARAPET 'B' COVER PLATE DETAILS			SHEET 9



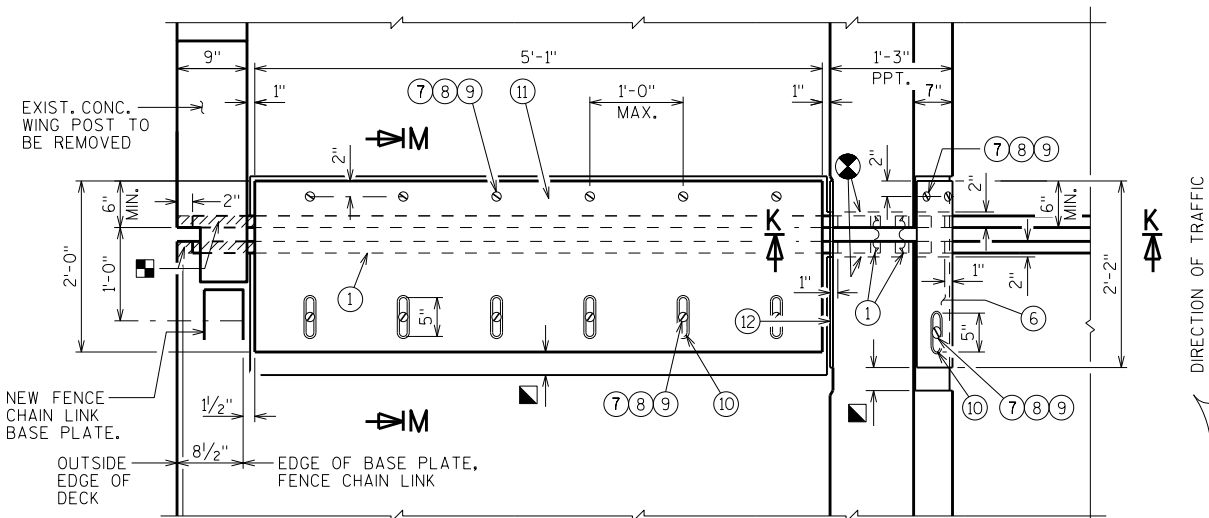
SECTION K-K

COVER PLATES REQUIRED @ SLOPED FACE PARAPET 'C'

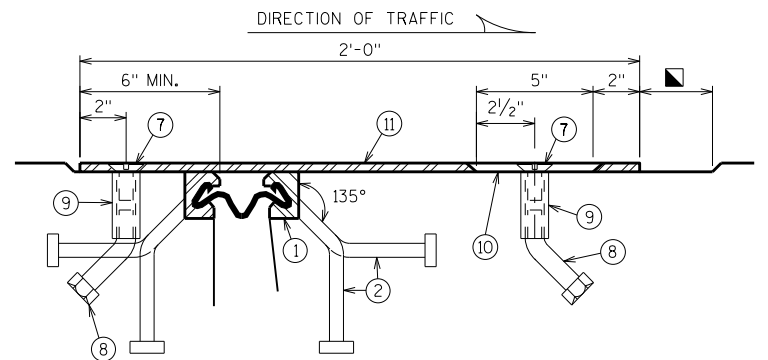
NOTE: FOR DESCRIPTION OF ⊕, SEE LEGEND ON "STRIP SEAL JOINT REPAIR DETAILS" SHEET.



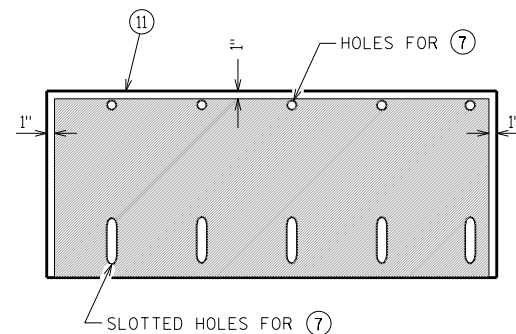
SECTION L-L



PLAN AT SIDEWALK



SECTION M-M



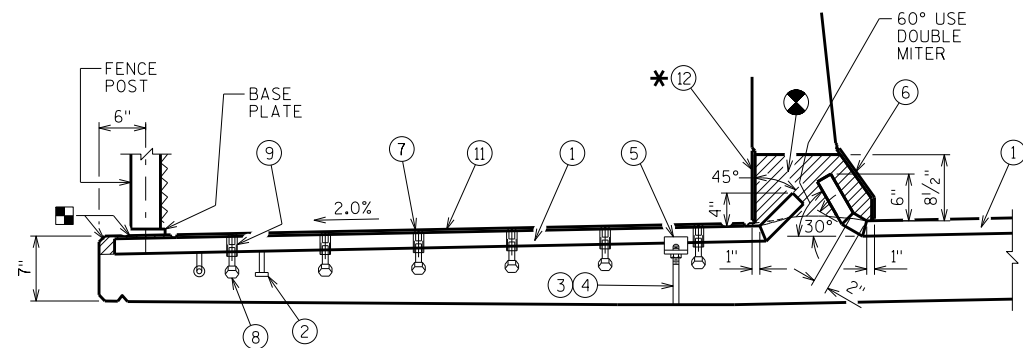
PLAN OF SIDEWALK COVER PLATE WITH SLIP-RESISTANT SURFACE

PLACE SLIP-RESISTANT SURFACE ON TOP WALKING SURFACE IN SHADED AREA ONLY.

APPROVED SLIP-RESISTANT APPLIED SURFACES FOR STEEL PLATES		
PRODUCT	MANUFACTURER	CONTACT AT
SLIPNOT GRADE 2, STEEL	W. S. MOLNAR COMPANY	1-800-SLIPNOT
ALGRIP, STEEL	ROSS TECHNOLOGY CORP.	1-800-345-8170

LEGEND

- * HORIZ. BOLT LOCATIONS FOR ⑫ SAME AS FOR SECTION B-B
- BLOCK OUT CONCRETE ABOVE AND AT END OF EXTRUSIONS.
- ⊗ BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING.
- ▣ JOINT OPENING DIMENSION PLUS 1/2".

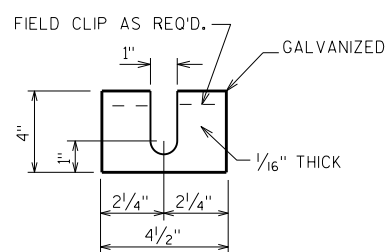


SECTION AT SIDEWALK

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STRUCTURE B-54-50			
DRAWN BY		ARC	PLANS CK'D. JLR
PPT. 'C' & SIDE-WALK COVER PLATE DETAILS			SHEET 10

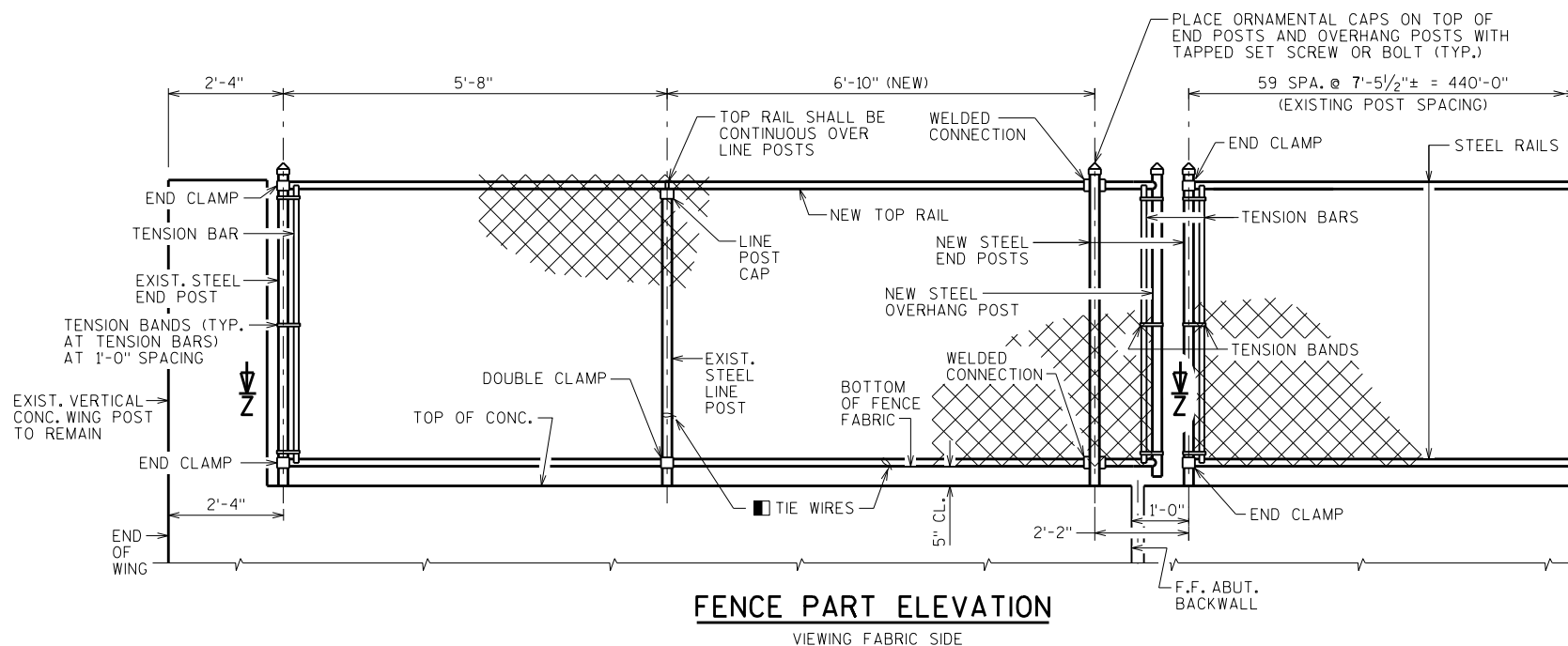
FENCE MEMBER SIZE & WEIGHT

STEEL FENCE MEMBER	OUTSIDE DIAMETER (INCHES)	WEIGHT (LB/FT)
RAILS	1.660	2.27
END POST	2.875	5.80
OVERHANG POST	2.875	5.80
LINE POST	2.375	3.65
POST SLEEVE	4.000	9.12



POST SHIM DETAILS

SHIMS REQUIRED ONLY WHEN END POSTS AND LINE POSTS ARE WELDED TO BASE PLATES. PROVIDE 4 SHIMS PER POST. USE WHERE REQUIRED FOR ALIGNMENT.

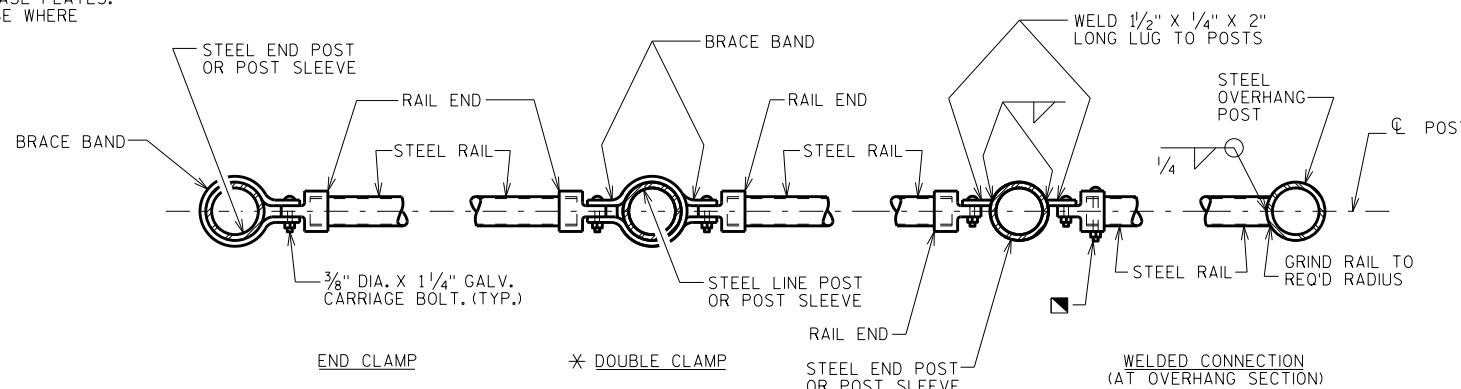


FENCE PART ELEVATION

VIEWING FABRIC SIDE

NOTES

- POSTS ARE TO BE SET VERTICAL.
- ALL FENCE COMPONENTS SHALL BE GALVANIZED STEEL, EXCEPT THE FENCE FABRIC WHICH MAY BE ALUMINUM-COATED STEEL OR GALVANIZED STEEL.
- FABRIC SHALL CONFORM TO ASTM A491 OR A392, CLASS 2. STEEL RAILS, POSTS AND POST SLEEVES SHALL CONFORM TO ASTM F1083, STANDARD WEIGHT PIPE (SCHEDULE 40). FITTINGS SHALL CONFORM TO ASTM F626.
- THE BID ITEM SHALL BE "FENCE CHAIN LINK 4-FT."
- COMPLETE ANY REQUIRED WELDING OF COMPONENTS BEFORE GALVANIZING.
- POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.
- BASE PLATES, ANCHOR PLATES AND SHIMS SHALL BE ASTM A572, GRADE 36.
- ALL POST SPACINGS ARE MEASURED HORIZONTALLY ALONG THE C/L OF THE POST.
- CAULK AROUND PERIMETER OF BASE PLATE AND FILL PORTION OF SLOTTED HOLE AROUND ANCHOR BOLT IN SHIM WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.
- ALTERNATE TO DOUBLE CLAMP: USE LINE RAIL CLAMP (BOULEVARD) OR 180° BRACE BAND, WHICH MAY BE USED WHEN THE POSTS ARE EITHER BOLTED TO THE POST SLEEVES OR DIRECTLY WELDED TO THE BASE PLATE.
- 1/2" DIA. X 6 7/8" LONG GALVANIZED HEX BOLT WITH NUT & WASHER.
- ATTACH FABRIC TO RAILS, AND TO POSTS WITHOUT TENSION BANDS, WITH TIE WIRES (ROUND, 9-GAGE) SPACED AT 1'-0".
- BOLT RAIL TO RAIL END TO SECURE OVERHANG SECTION. ALTERNATE IS TO WELD RAIL DIRECTLY TO END POST.
- MINIMUM LENGTH OF TOP RAIL BETWEEN SPLICES SHALL BE 20'-0". LOCATE SPLICES NEAR 1/4 POINT OF POST SPACING.



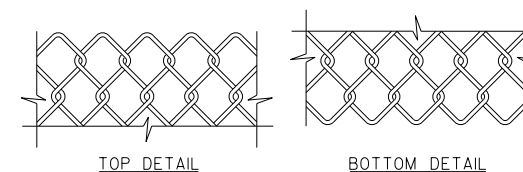
SECTION Z-Z

NOTE: PLACE ALL BOLT HEADS ON SIDE OF FENCE ADJACENT TO PEDESTRIANS

3/8" DIA. GALV. CARRIAGE BOLT WITH LOCKING NUT. (TO BE SUPPLIED WITH ASSEMBLY)

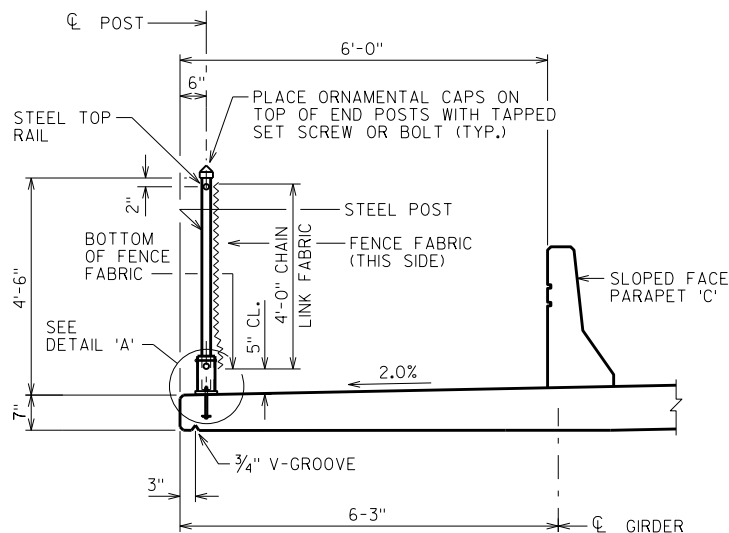
FILL SLEEVE AND BEVEL AWAY FROM POST WITH NON-SHRINK GROUT AFTER SETTING POST. (LEAVE NO VOIDS)

DRILL 3/16" DIA. DRAIN HOLE PARALLEL TO ROADWAY IMMEDIATELY ABOVE GROUT IN POST. SLEEVE LOCATIONS ONLY.

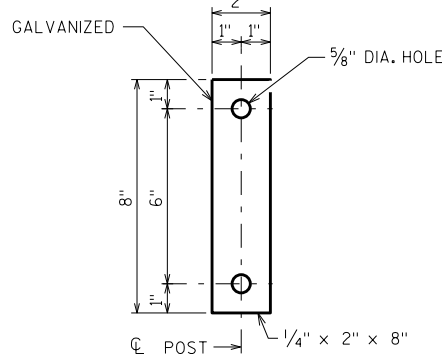


FENCE FABRIC

FENCE FABRIC WOVEN OF 9-GAGE WIRE IN 2" DIAMOND PATTERN MESH WITH BOTH THE TOP AND BOTTOM SELVAGES KNUCKLED.

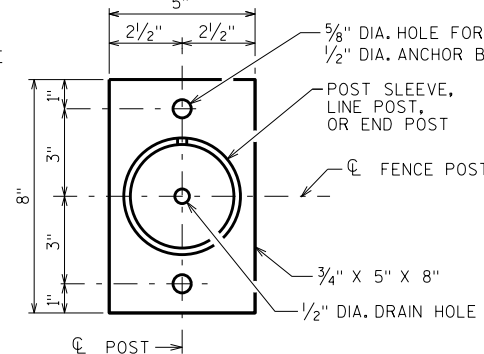


SECTION THRU FENCE

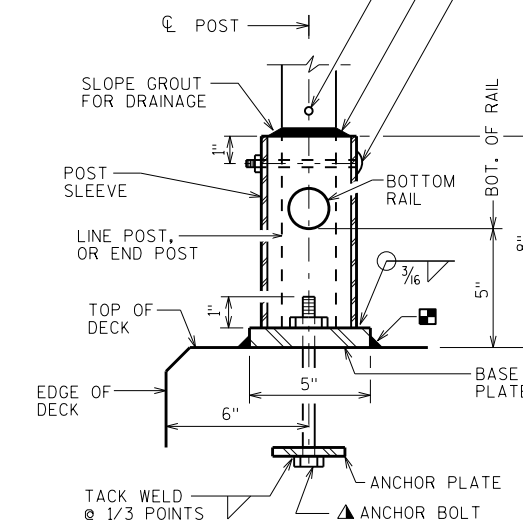


ANCHOR PLATE

NOTE: ANCHOR PLATE REQUIRED, DUE TO 7" THICKNESS OF SIDEWALK. NO ADHESIVE ANCHORS



BASE PLATE



DETAIL 'A'

UNIT SHALL BE GALVANIZED AFTER FABRICATION

NOTE: IN LIEU OF USING THE POST SLEEVE, THE FENCE POST MAY BE WELDED TO THE BASE PLATE.

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STRUCTURE B-54-50			
DRAWN BY		ARC	PLANS CK'D. JLR
FENCE CHAIN LINK DETAILS		SHEET 11	

Notes



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