

LAX NOVEMBER 2022
 PROJECT ID: 5898-00-73
 COUNTY: GRANT

NOVEMBER 2022

ORDER OF SHEETS

Section No.	1	Title
Section No.	2	Typical Sections and Details
Section No.	3	Estimate of Quantities
Section No.	3	Miscellaneous Quantities
Section No.	4	Right of Way Plat
Section No.	5	Plan and Profile
Section No.	6	Standard Detail Drawings
Section No.	7	Sign Plates
Section No.	8	Structure Plans
Section No.	9	Computer Earthwork Data
Section No.	9	Gross Sections

TOTAL SHEETS = 18

STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION
 PLAN OF PROPOSED IMPROVEMENT

CITY OF FENNIMORE, BROWNWOOD ROAD
 BRONSON BLVD TO TERMINI
 LOC STR
 GRANT COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
5898-00-73	WISC 2023076	1

STATE PROJECT NUMBER
5898-00-73



16

BEGIN PROJECT
STA. 10+00
 Y = 569,620.97
 X = 838,995.11

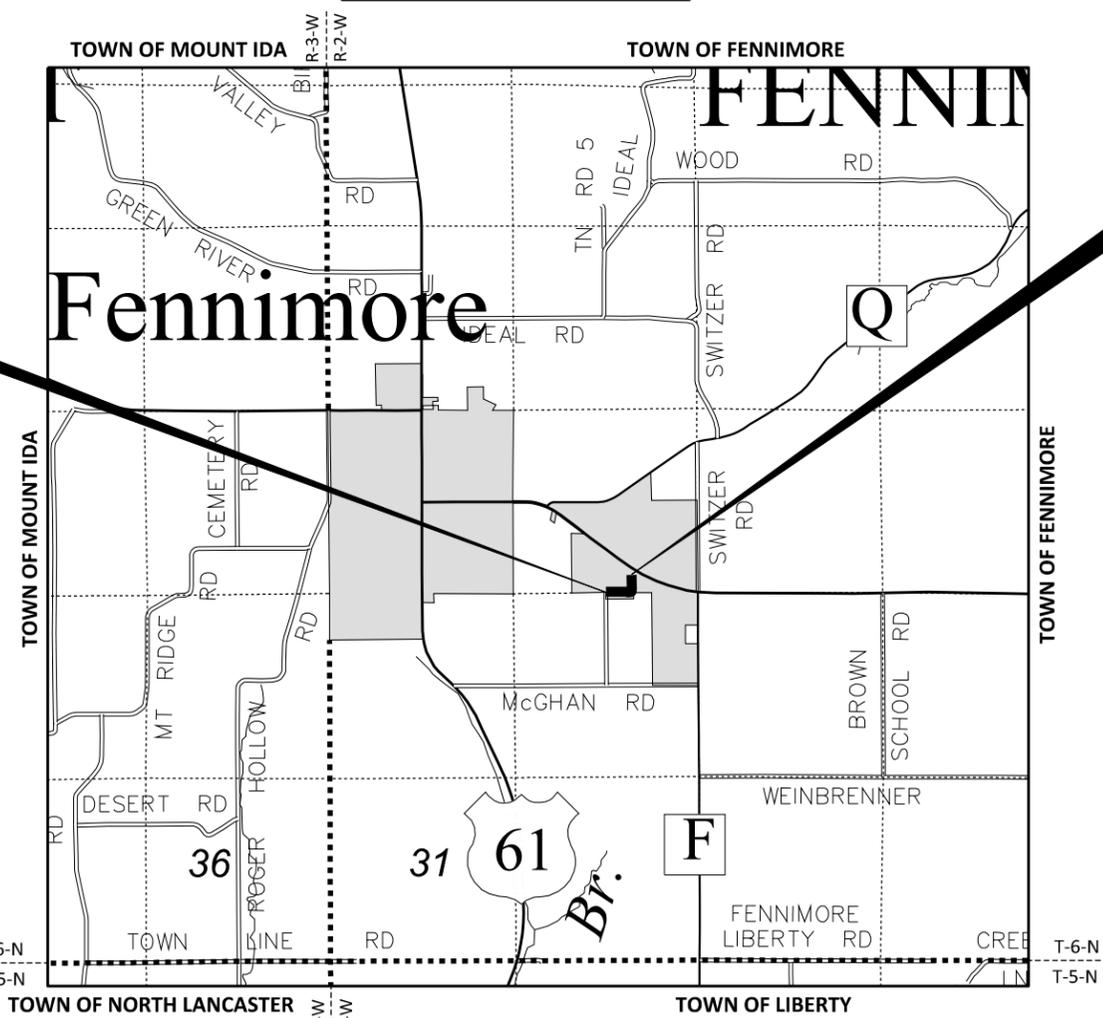
END PROJECT
STA. 22+92.36
 Y = 570,177.02
 X = 839,787.02

DESIGN DESIGNATION

A.A.D.T. (2023)	=	50
A.A.D.T. (2043)	=	75
D.H.V. (2043)	=	-
D.D. (2043)	=	-
T.	=	-
DESIGN SPEED	=	25 M.P.H.
ESALS	=	-

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



LAYOUT
 SCALE 0 1 MI
 TOTAL NET LENGTH OF CENTERLINE = 0.245

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), GRANT COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCE MAY BE USED AS GROUND DISTANCES.
 ELEVATION SHOWN ON THIS PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988, NAVD88 (2012).

ACCEPTED FOR
 CITY of FENNIMORE
 07/21/2022 John Murray
 (Date) (Public Works Director)

ORIGINAL PLANS PREPARED BY
 tc TOWN & COUNTRY ENGINEERING, INC.

WISCONSIN PROFESSIONAL ENGINEER
 CHRISTIAN J. REID
 E-48520-6
 OREGON, WI
 Christian J. Reid
 7/21/22

STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION

PREPARED BY
 Surveyor TOWN AND COUNTRY ENGINEERING, INC.
 Designer TOWN AND COUNTRY ENGINEERING, INC.
 Project Manager BRANDAN BURGER
 Regional Examiner SW REGION
 Regional Supervisor KYLE HEMP

APPROVED FOR THE DEPARTMENT
 DATE: 7/21/2022 Brandan Burger
 (Signature)

E

GENERAL NOTES

EROSION CONTROL ITEMS IN THE MISC. QUAN. ARE SUGGESTED. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD. MAINTAIN EROSION CONTROL ITEMS UNTIL SUCH TIME AS THE ENGINEER DETERMINES THE MEASURE IS NO LONGER NECESSARY. PROTECT WETLANDS AND OTHER WATERWAYS THAT ARE PRESENT WITHIN THE PROJECT LIMITS.

DISTURBED AREAS SHOWN WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS ARE TO BE FERTILIZED (TYPE B), SEEDED (USE SEEDING TEMPORARY, & SEED MIX NO. 40), AND MULCHING AS DIRECTED BY THE ENGINEER. FERTILIZER (TYPE B) & SEEDING (SEEDING TEMPORARY, & SEEDING MIX NO. 40) ARE PAID FOR UNDER THE BID ITEM CURB AND GUTTER REPLACEMENT.

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

REMOVAL OF ASPHALTIC SURFACES WHERE AN ABUTTING ASPHALTIC SURFACE IS TO REMAIN IN PLACE SHALL REQUIRE A VERTICAL EDGE MEETING THE APPROVAL OF THE ENGINEER IN THE FIELD.

HMA PAVEMENT QUANTITIES WERE CALCULATED USING 112 LB/SY/IN.

3.25-INCHES OF HMA PAVEMENT SHALL BE CONSTRUCTED WITH A 1 3/4-INCH LOWER LAYER OF HMA PAVEMENT 4 LT 58-28 S, AND A 1 1/2-INCH UPPER LAYER OF HMA PAVEMENT 5 LT 58-28 S.

PAVING LIMITS AT INTERSECTIONS ARE TO BE DETERMINED IN THE FIELD BY THE ENGINEER.

APPLY TACK COAT AT A RATE OF 0.05 GAL/SY BETWEEN LAYERS OF HMA PAVEMENT.

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

THE LOCATION OF EXISTING UTILITY INSTALLATIONS ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH A CALL TO "DIGGERS HOTLINE" AND/OR A DIRECT CALL TO THE UTILITIES THAT HAVE FACILITIES IN THE AREA. NOT ALL UTILITIES ARE MEMBERS OF DIGGERS HOTLINE.

IF THERE ARE CONFLICTS WITH SIGNS OR OTHER WORK UNDER THIS PROJECT, THE CONTRACTOR WILL WORK AROUND THESE FACILITIES.

CONTACTS

WISCONSIN DEPARTMENT OF TRANSPORTATION:

WISDOT PROJECT MANAGER
2101 WRIGHT STREET
MADISON, WI 53704
ATTN: BRANDAN BURGER
PH: (608) 267-4019
E-MAIL: BRANDAN.BURGER@DOT.WI.GOV

DESIGN ENGINEER:

JEWELL ASSOCIATES ENGINEERS, INC.
1001 FOURIER DRIVE SUITE 104
MADISON, WI 53717
ATTN: JEFF SMITH, P.E.
PH: (608) 690-6060
CELL: (608) 669-4412
EMAIL: JEFF.SMITH@JEWELLASSOC.COM

WDNR LIASON:

STATE OF WISCONSIN
DNR SOUTH CENTRAL REGION HEADQUARTERS
3911 FISH HATCHERY ROAD
FITCHBURG, WI 53711
ATTN: ANDY BARTA
PH: (608) 235-2955
E-MAIL: ANDREW.BARTA@WISCONSIN.GOV

CONSULTANT PROJECT MANAGER:

TOWN AND COUNTRY ENGINEERING, INC.
6264 NESBITT ROAD
MADISON, WI 53719
ATTN: CHRISTIAN REID, P.E.
PH: (608) 273-3350
EMAIL: CREID@TCENGINEERS.NET

UTILITIES

CITY OF FENNIMORE
DIRECTOR OF PUBLIC WORKS
ATTN: JOHN MURRAY
960 LINCOLN AVENUE
PO BOX 17
FENNIMORE, WI 53809
PH: (608) 822-6119
EMAIL: DPW@FENNIMORE.COM

GAS

WE ENERGIES
ATTN: ADAM MARING
PH: (608) 426-1715
EMAIL: ADAM.MARING@WE-ENERGIES.COM

ELECTRIC/WATER

CITY OF FENNIMORE
ATTN: GARY SMITH
PH: (608) 822-3185
EMAIL: UTILITY@FENNIMORE.COM

TELEPHONE/FIBER OPTIC

TDS TELECOM
ATTN: CHRIS FERGUSON
827 16TH AVENUE
PO BOX 88
MONROE, WI 53566
PH: (608) 328-1158
CELL: (608) 558-8563
EMAIL: CHRIS.FERGUSON@TDSTELECOM.COM

CABLE

MEDIACOM
ATTN: CRAIG EGGERT
PH: (563) 419-5160
EMAIL: CEGGERT@MEDIACOMCC.COM

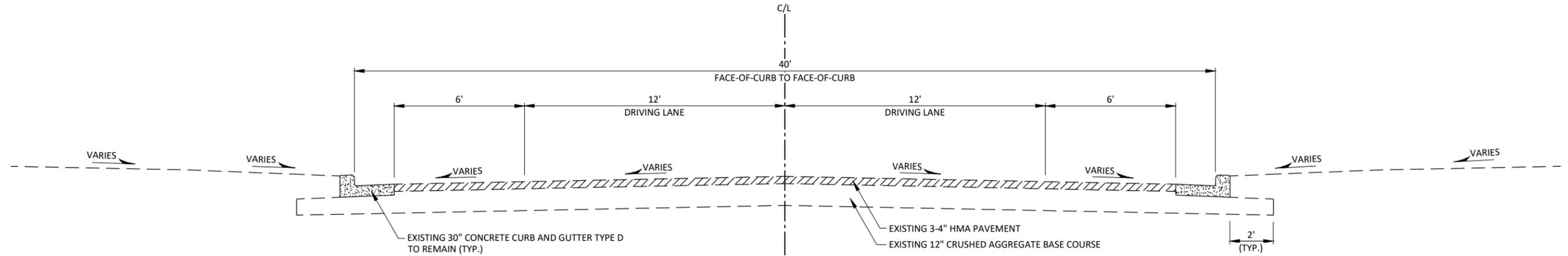
LIST OF STANDARD ABBREVIATIONS

Table with 6 columns of abbreviations and their corresponding full names, including terms like ABUT, AC, AGG, AH, <, ASPH, AVG, ADT, BAD, BK, BF, BM, BR, C or C/L, CC, C.E., CTH, CR, CR, CR, CY or CU YD, CP, C & G, D, DHV, DIA, E, X, ELEC, EL or ELEV, ESALS, EBS, FF, F.E., F, FG, FL or F/L, FT, FTG, GN, HT, CWT, HYD, INL, ID, INV, IP, IRS, JT, JCT, LHF, L, LIN FT, or LF, LC, MH, MB, ML or M/L, N, Y, OD, PLE, PT, PC, PI, PRC, PT, POC, POT, PVC, PCC, LB, PSI, P.E., R, RR, R, RL or R/L, RP, RCCP, REQD, RES, RW, RT, RHF, R/W, RD, R, INV, Invert, Iron Pipe or Pin, Iron Rod Set, Joint, Junction, Left-Hand Forward, Length of Curve, Linear Foot, Long Chord of Curve, Manhole, Mailbox, Match Line, North, North Grid Coordinate, Outside Diameter, Permanent Limited Easement, Point, Point of Curvature, Point of Intersection, Point of Reverse Curvature, Point of Tangency, Point On Curve, Point on Tangent, Polyvinyl Chloride, Portland Cement Concrete, Pound, Pounds Per Square Inch, Private Entrance, Radius, Railroad, Range, Reference Line, Reference Point, Reinforced Concrete Culvert Pipe, Required, Residence or Residential, Retaining Wall, Right, Right-Hand Forward, Right-of-Way, Road, River, RDWY, SALV, SAN S, SEC, SHLDR, SHR, SW, S, SQ, SF or SQ FT, SY or SQ YD, STD, SDD, STH, STA, SS, SG, SE, SL or S/L, SV, T, TEL, TEMP, TI, TLE, t, T or TN, TRANS, TL or T/L, T, TYP, UNCL, UG, USH, VAR, V, VERT, VC, VOL, WM, WV, W, WB, YD, Roadway, Salvaged, Sanitary Sewer, Section, Shoulder, Shrinkage, Sidewalk, South, Square, Square Feet, Square Yard, Standard, Standard Detail Drawings, State Trunk Highways, Station, Storm Sewer, Subgrade, Superelevation, Survey Line, Septic Vent, Tangent, Telephone, Temporary, Temporary Interest, Temporary Limited Easement, Ton, Town, Transition, Transit Line, Trucks (percent of), Typical, Unclassified, Underground Cable, United States Highway, Variable, Velocity or Design Speed, Vertical, Vertical Curve, Volume, Water Main, Water Valve, West, Westbound, Yard.

ORDER OF SECTION 2 SHEETS:

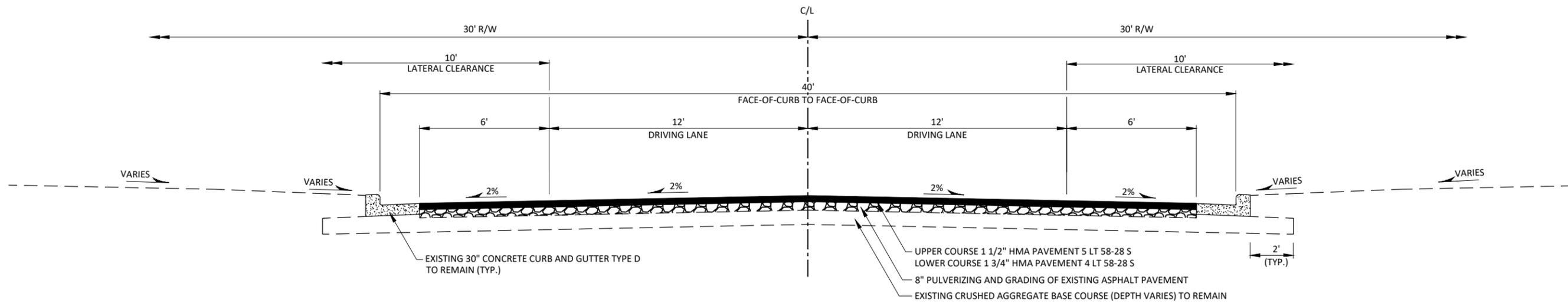
- GENERAL NOTES
- TYPICAL SECTIONS
- CONSTRUCTION DETAILS
- PLAN DETAILS
- TRAFFIC CONTROL PLAN
- PAVEMENT MARKING AND PERMANENT SIGNING





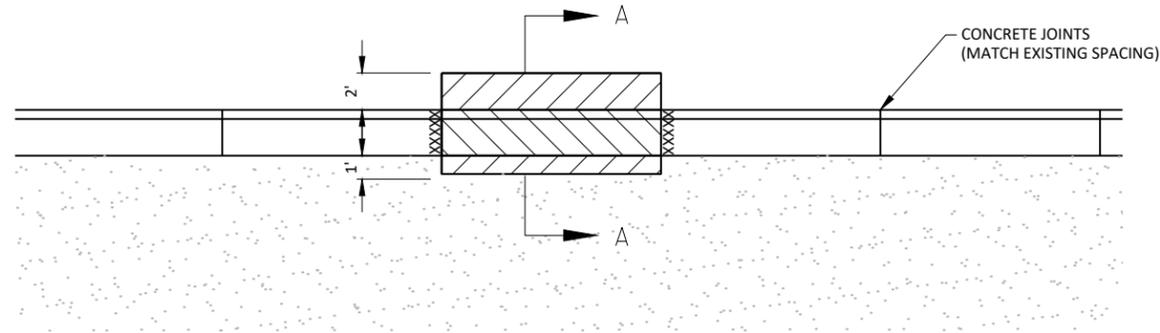
TYPICAL EXISTING SECTION

BROWNWOOD ROAD
STA. 10+00 - STA. 22+92.36



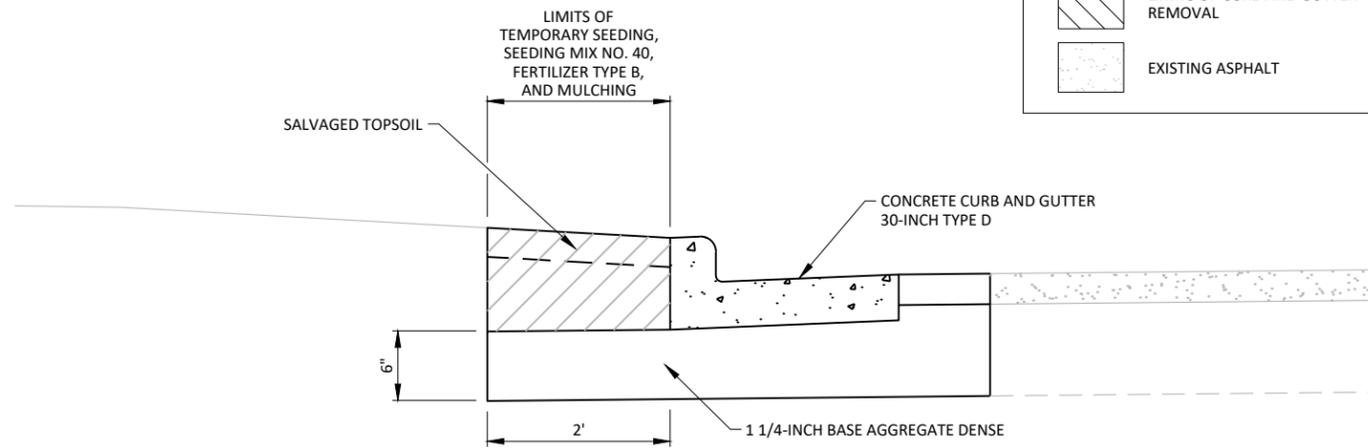
TYPICAL FINISHED SECTION

BROWNWOOD ROAD
STA. 10+00 - STA. 22+92.36



PLAN VIEW (LIMITS OF CURB AND GUTTER REMOVAL)

LEGEND	
XXXXXX	SAWING CONCRETE
	LIMITS OF EXCAVATION *
	LIMITS OF CURB AND GUTTER REMOVAL
	EXISTING ASPHALT



SECTION A-A (CURB AND GUTTER REPLACEMENT)

NOTES

- AREAS OF CURB AND GUTTER REPLACEMENT ARE TO BE DETERMINED BY THE ENGINEER IN THE FIELD
- CURB AND GUTTER REPLACEMENT IS TO BE PERFORMED PRIOR TO ASPHALT PAVING
- ALL CONCRETE REMOVAL IS TO REQUIRE SAWCUT

* EXCAVATION IS INCIDENTAL TO CONCRETE CURB & GUTTER 30-INCH TYPE D BID ITEM

CONSTRUCTION DETAIL FOR CURB & GUTTER REPLACEMENT

LOCATIONS TO BE DETERMINED BY ENGINEER IN THE FIELD



BEGIN PROJECT
STA. 10+00
 Y = 569,620.97
 X = 838,995.11

CURVE 1
 PI STA. = 15+25.12
 Y = 569,623.11
 X = 839,520.22
 R = 195.00
 D = 29°22'57"
 DELTA = 22°29'26"
 L = 76.54
 T = 38.77
 C = 76.05
 PC STA. = 14+86.35
 Y = 569,622.04
 X = 839,481.46
 PT STA. = 15+62.90
 Y = 569,609.27
 X = 839,556.44

CURVE 4
 PI STA. = 20+84.05
 Y = 569,970.82
 X = 839,746.58
 R = 490.00
 D = 11°41'35"
 DELTA = 20°16'47"
 L = 173.43
 T = 87.63
 C = 172.53
 PC STA. = 19+96.42
 Y = 569,884.15
 X = 839,759.55
 PT STA. = 21+69.85
 Y = 570,056.61
 X = 839,764.45

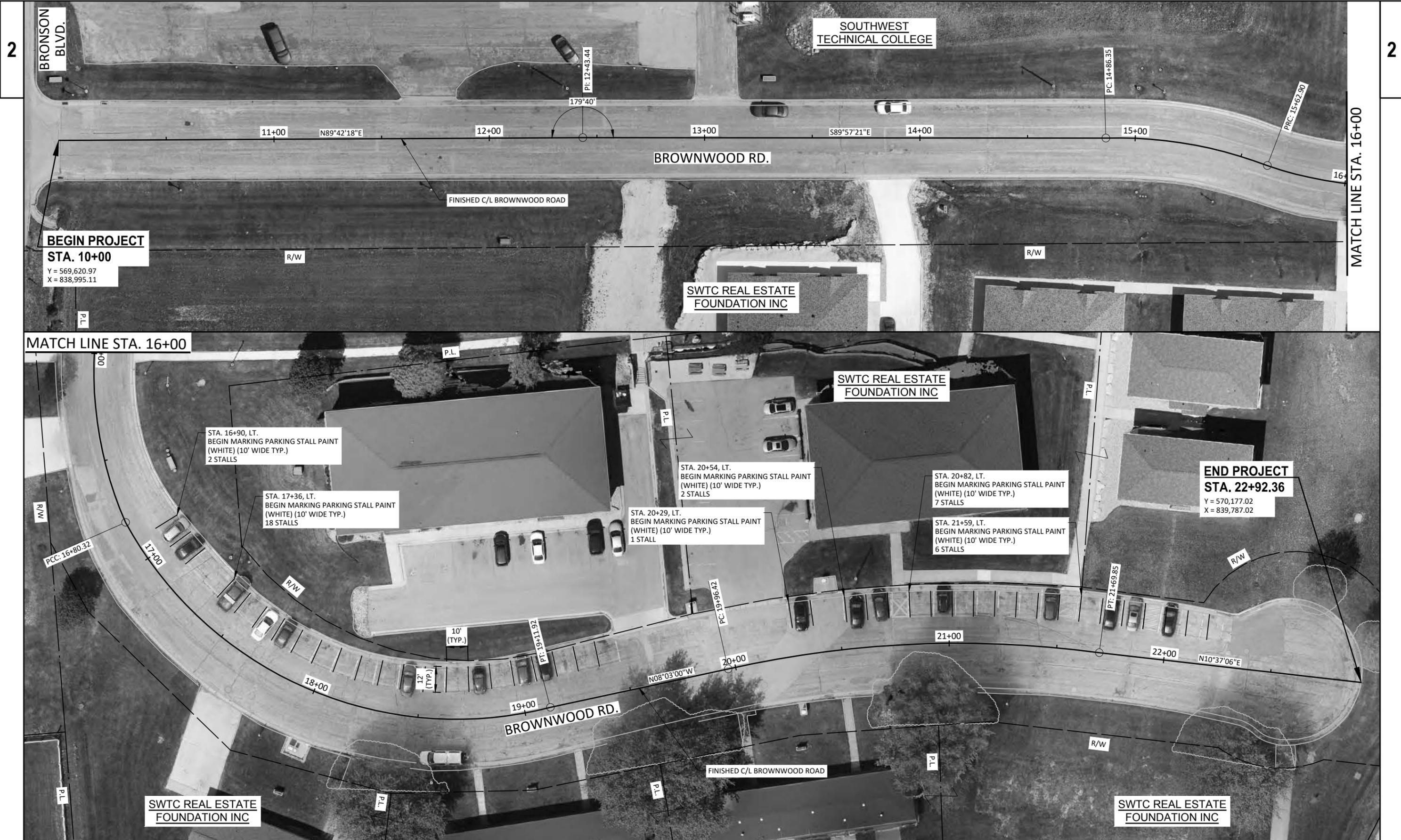
CURVE 2
 PI STA. = 16+23.91
 Y = 569,589.51
 X = 839,614.17
 R = 175.00
 D = 32°44'26"
 DELTA = 38°26'40"
 L = 117.42
 T = 61.02
 C = 115.23
 PC STA. = 15+62.90
 Y = 569,609.27
 X = 839,556.44
 PT STA. = 16+80.32
 Y = 569,609.93
 X = 839,671.67

CURVE 3
 PI STA. = 18+16.62
 Y = 569,666.37
 X = 839,795.73
 R = 175.00
 D = 32°44'26"
 DELTA = 75°49'37"
 L = 231.60
 T = 136.30
 C = 215.06
 PC STA. = 16+80.32
 Y = 569,609.93
 X = 839,671.67
 PT STA. = 19+11.92
 Y = 569,800.48
 X = 839,771.38

END PROJECT
STA. 22+92.36
 Y = 570,177.02
 X = 839,787.02



** PLACE 500' IN ADVANCE OF BROWNWOOD ROAD INTERSECTION



BEGIN PROJECT
STA. 10+00
 Y = 569,620.97
 X = 838,995.11

END PROJECT
STA. 22+92.36
 Y = 570,177.02
 X = 839,787.02

STA. 16+90, LT.
 BEGIN MARKING PARKING STALL PAINT
 (WHITE) (10' WIDE TYP.)
 2 STALLS

STA. 17+36, LT.
 BEGIN MARKING PARKING STALL PAINT
 (WHITE) (10' WIDE TYP.)
 18 STALLS

STA. 20+29, LT.
 BEGIN MARKING PARKING STALL PAINT
 (WHITE) (10' WIDE TYP.)
 1 STALL

STA. 20+54, LT.
 BEGIN MARKING PARKING STALL PAINT
 (WHITE) (10' WIDE TYP.)
 2 STALLS

STA. 20+82, LT.
 BEGIN MARKING PARKING STALL PAINT
 (WHITE) (10' WIDE TYP.)
 7 STALLS

STA. 21+59, LT.
 BEGIN MARKING PARKING STALL PAINT
 (WHITE) (10' WIDE TYP.)
 6 STALLS

Estimate Of Quantities

5898-00-73

Line	Item	Item Description	Unit	Total	Qty
0002	204.0115	Removing Asphaltic Surface Butt Joints	SY	180.000	180.000
0004	204.0150	Removing Curb & Gutter	LF	200.000	200.000
0006	204.9180.S	Removing (item description) 01. Removing Excess Pulverized Material	SY	5,600.000	5,600.000
0008	211.0101	Prepare Foundation for Asphaltic Paving (project) 01. 5898-00-73	EACH	1.000	1.000
0010	213.0100	Finishing Roadway (project) 01. 5898-00-73	EACH	1.000	1.000
0012	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	50.000	50.000
0014	325.0100	Pulverize and Relay	SY	5,600.000	5,600.000
0016	455.0605	Tack Coat	GAL	280.000	280.000
0018	460.2000	Incentive Density HMA Pavement	DOL	660.000	660.000
0020	460.5224	HMA Pavement 4 LT 58-28 S	TON	550.000	550.000
0022	460.5225	HMA Pavement 5 LT 58-28 S	TON	470.000	470.000
0024	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	200.000	200.000
0026	611.8110	Adjusting Manhole Covers	EACH	3.000	3.000
0028	619.1000	Mobilization	EACH	1.000	1.000
0030	624.0100	Water	MGAL	1.500	1.500
0032	625.0500	Salvaged Topsoil	SY	50.000	50.000
0034	627.0200	Mulching	SY	50.000	50.000
0036	628.1905	Mobilizations Erosion Control	EACH	1.000	1.000
0038	628.1910	Mobilizations Emergency Erosion Control	EACH	1.000	1.000
0040	628.7015	Inlet Protection Type C	EACH	3.000	3.000
0042	629.0210	Fertilizer Type B	CWT	1.000	1.000
0044	630.0140	Seeding Mixture No. 40	LB	3.000	3.000
0046	630.0200	Seeding Temporary	LB	3.000	3.000
0048	642.5001	Field Office Type B	EACH	1.000	1.000
0050	643.0300	Traffic Control Drums	DAY	200.000	200.000
0052	643.0420	Traffic Control Barricades Type III	DAY	60.000	60.000
0054	643.0900	Traffic Control Signs	DAY	120.000	120.000
0056	643.5000	Traffic Control	EACH	1.000	1.000
0058	646.8105	Marking Curb Paint	LF	30.000	30.000
0060	646.8305	Marking Parking Stall Paint	LF	530.000	530.000
0062	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	200.000	200.000
0064	650.8000	Construction Staking Resurfacing Reference	LF	1,295.000	1,295.000
0066	650.9911	Construction Staking Supplemental Control (project) 01. 5898-00-73	EACH	1.000	1.000
0068	690.0150	Sawing Asphalt	LF	32.000	32.000
0070	690.0250	Sawing Concrete	LF	50.000	50.000
0072	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	200.000	200.000
0074	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	100.000	100.000
0076	SPV.0060	Special 01. Adjusting Water Valves	EACH	2.000	2.000

REMOVING ASPHALTIC SURFACE BUTT JOINTS <table border="1"> <tr> <td>STATION</td> <td>LOCATION</td> <td>204.0115 (SY)</td> </tr> <tr> <td>10+00</td> <td>BEGIN PROJECT</td> <td>180</td> </tr> <tr> <td colspan="2">TOTAL =</td> <td>180</td> </tr> </table>	STATION	LOCATION	204.0115 (SY)	10+00	BEGIN PROJECT	180	TOTAL =		180	REMOVING CURB & GUTTER <table border="1"> <tr> <td>LOCATION</td> <td>204.0150 (SY)</td> </tr> <tr> <td>UNDISTRIBUTED**</td> <td>200</td> </tr> <tr> <td colspan="2">TOTAL =</td> <td>200</td> </tr> </table> <p>** LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD</p>	LOCATION	204.0150 (SY)	UNDISTRIBUTED**	200	TOTAL =		200	BASE AGGREGATE DENSE <table border="1"> <tr> <td>LOCATION</td> <td>305.0120 B.A.D. 1 1/4-INCH (TON)</td> <td>624.0100 WATER (MGAL)</td> </tr> <tr> <td>UNDISTRIBUTED**</td> <td>50</td> <td>1.5</td> </tr> <tr> <td colspan="2">TOTAL =</td> <td>50 1.5</td> </tr> </table> <p>** LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD</p>	LOCATION	305.0120 B.A.D. 1 1/4-INCH (TON)	624.0100 WATER (MGAL)	UNDISTRIBUTED**	50	1.5	TOTAL =		50 1.5	CONCRETE CURB & GUTTER <table border="1"> <tr> <td>LOCATION</td> <td>601.0411 30-INCH TYPE D (LF)</td> </tr> <tr> <td>UNDISTRIBUTED**</td> <td>200</td> </tr> <tr> <td colspan="2">TOTAL =</td> <td>200</td> </tr> </table> <p>** LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD</p>	LOCATION	601.0411 30-INCH TYPE D (LF)	UNDISTRIBUTED**	200	TOTAL =		200	REMOVING EXCESS PULVERIZED MATERIAL <table border="1"> <tr> <td>LOCATION</td> <td>204.9180.S.01 (SY)</td> </tr> <tr> <td>10+00 - 22+92.36</td> <td>5,600</td> </tr> <tr> <td colspan="2">TOTAL =</td> <td>5,600</td> </tr> </table>	LOCATION	204.9180.S.01 (SY)	10+00 - 22+92.36	5,600	TOTAL =		5,600
STATION	LOCATION	204.0115 (SY)																																									
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10+00 - 22+92.36	5,600																																										
TOTAL =		5,600																																									

ASPHALT ITEMS					
LOCATION	211.0101 PREPARE FOUNDATION FOR ASPHALTIC PAVING (EACH)	325.0100 PULVERIZE AND RELAY (SY)	455.0605 TACK COAT (GAL)	460.5224 HMA PAVEMENT 4 LT 58-24 S (TON)	460.5225 HMA PAVEMENT 5 LT 58-34 S (TON)
10+00 - 22+92.36	1	5,600	280	550	470
TOTALS =		1	5,600	280	550 470

MOBILIZATION		
LOCATION	628.1905 MOBILIZATIONS EROSION CONTROL (EACH)	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL (EACH)
PROJECT	1	1

FINISHING ITEMS						
LOCATION	625.0500 SALVAGED TOPSOIL (SY)	627.0200 MULCHING (SY)	628.7015 INLET PROTECTION TYPE C (EACH)	629.0210 FERTILIZER TYPE B (CWT)	630.0140 SEEDING MIXTURE NO. 40 (LB)	630.0200 SEEDING TEMPORARY (LB)
STA. 10+00, RT.	-	-	1	-	-	-
STA. 10+02, LT.	-	-	1	-	-	-
STA. 10+20, LT.	-	-	1	-	-	-
UNDISTRIBUTED**	50.0	50.0	-	1.00	3.0	3.0
TOTALS =		50.0	50.0	3	1.00	3.0 3.0

** LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

MARKING ITEMS				
STATION - STATION	LOCATION	DESCRIPTION	646.8105 MARKING CURB PAINT (YELLOW) (LF)	646.8305 MARKING PARKING STALL PAINT (WHITE) (LF)
16+90 - 22+19	MAINLINE, LT. PROJECT	PARKING STALLS UNDISTRIBUTED**	-	530
TOTAL =			30	-

** MARKING CURB PAINT (YELLOW) ONLY IN AREAS OF CURB AND GUTTER REPLACEMENT TO MATCH EXISTING

TRAFFIC CONTROL				
LOCATION	643.0300 TRAFFIC CONTROL DRUMS (DAY)	643.0420 TRAFFIC CONTROL BARRICADES TYPE III (DAY)	643.0900 TRAFFIC CONTROL SIGNS (DAY)	643.5000 TRAFFIC CONTROL (EACH)
PROJECT	200	60	120	1
TOTALS =		200	60	120 1

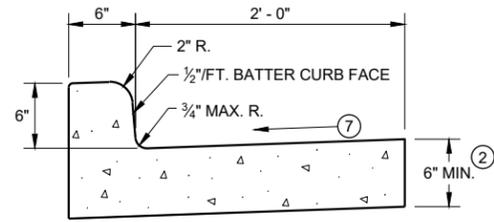
CONSTRUCTION STAKING			
STATION - STATION	LOCATION	650.5500 CURB GUTTER AND CURB & GUTTER (LF)	650.8000 RESURFACING REFERENCE (LF)
10+00 - 22+92.36	MAINLINE PROJECT	-	1,295
TOTALS =		200	1,295

SAWING			
STATION	LOCATION	ASPHALT 690.0150 (LF)	CONCRETE 690.0250 (LF)
10+00	BEGIN PROJECT	32	-
-	PROJECT	-	50
TOTAL =		32	50

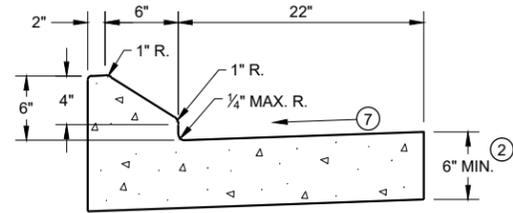
ADJUSTING ITEMS		
CATEGORY		
20		
LOCATION	611.8110 ADJUSTING MANHOLE COVERS (EACH)	SPV.0060.01 ADJUSTING WATER VALVES (EACH)
PROJECT	3	2
TOTAL =		3 2

Standard Detail Drawing List

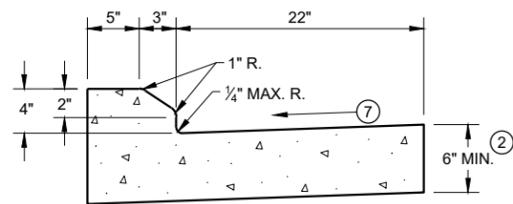
08D01-22A	CONCRETE CURB & GUTTER
08D01-22B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08E10-02	INLET PROTECTION TYPE A, B, C AND D
13C19-03	HMA LONGITUDINAL JOINTS
15C02-08A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-08B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES



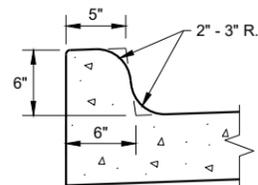
TYPES A^① & D



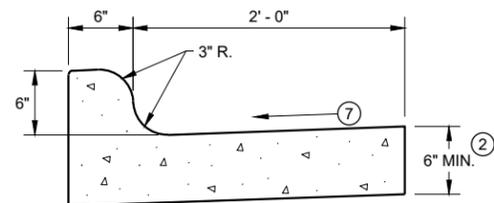
6" SLOPED CURB TYPES G^① & J



4" SLOPED CURB TYPES G^① & J

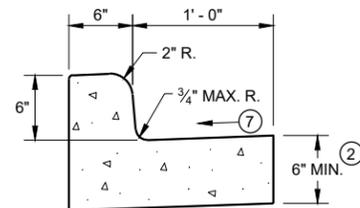


TYPES K^① & L
(OPTIONAL CURB SHAPE)



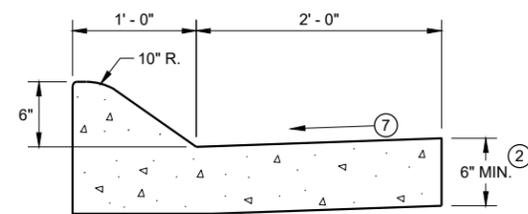
TYPES K^① & L

CONCRETE CURB AND GUTTER 30"

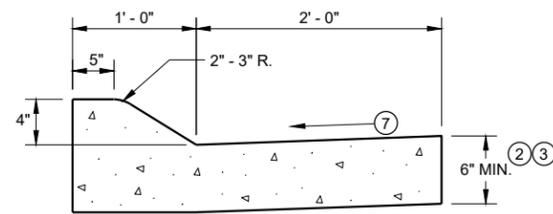


TYPES A^① & D

CONCRETE CURB AND GUTTER 18"

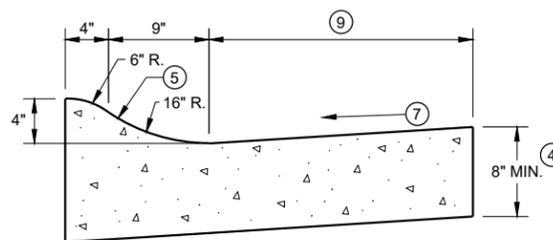


6" SLOPED CURB TYPES A^① & D



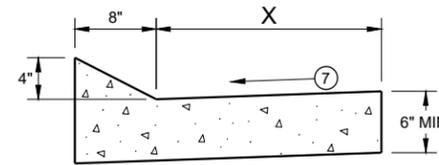
4" SLOPED CURB TYPES A^① & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R^① & T

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

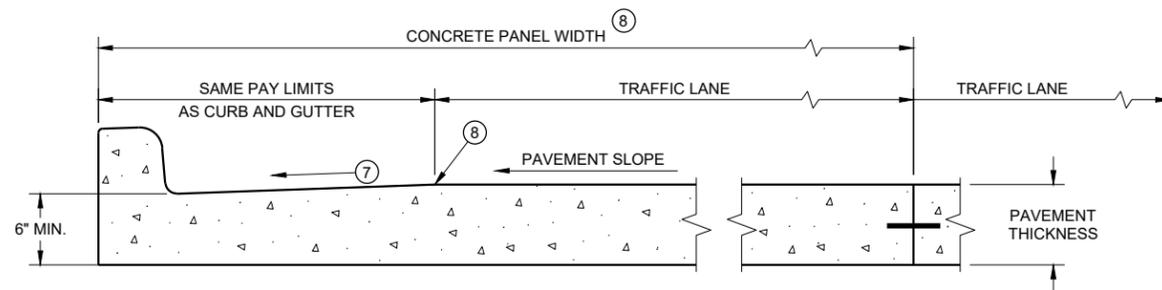


TYPES TBT & TBTT^①

CONCRETE CURB AND GUTTER

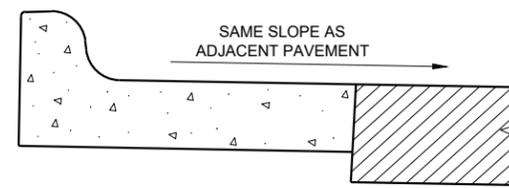
PAVEMENT THICKNESS
AND MAXIMUM CONCRETE
PANEL WIDTH TABLE

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



PARTIAL SECTION OF PAVEMENT *
WITH INTEGRAL CURB AND GUTTER

* BIKE LANE IS NOT SHOWN



REVERSE SLOPE GUTTER^⑥
(TYPICAL FOR ALL CURB & GUTTER TYPES)

GENERAL NOTES

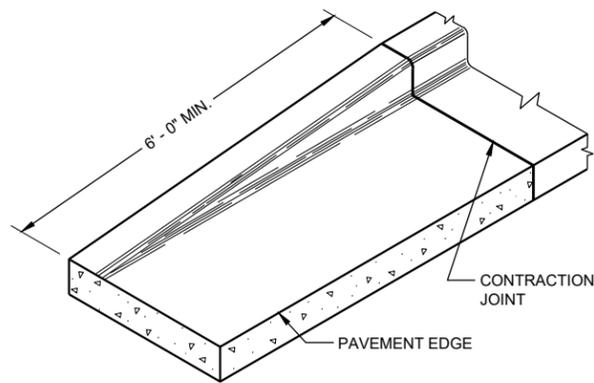
DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

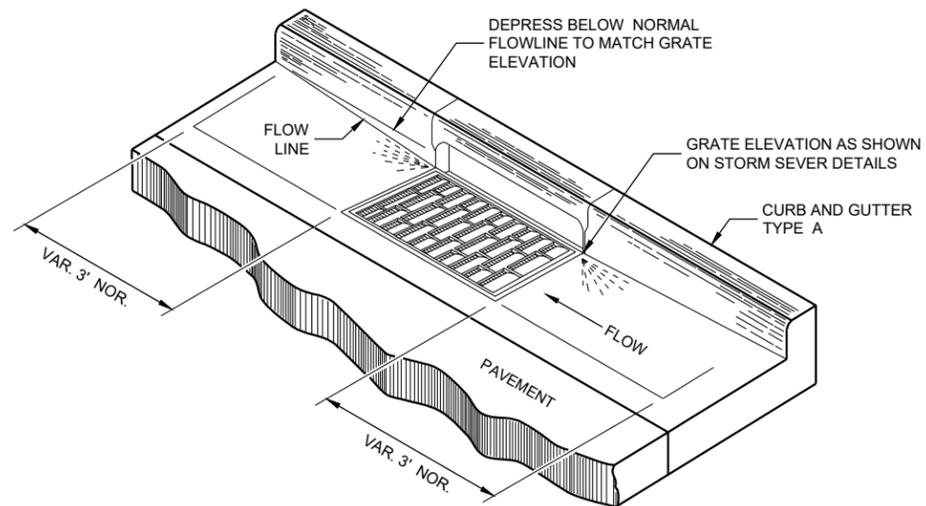
INTEGRAL CURB AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE.

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

- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ③ USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH AN ADJACENT CONCRETE TRUCK APRON PLACED BEHIND BACK OF CURB.
- ④ THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ⑤ UNLESS OTHERWISE NOTED, FOR STAKING PURPOSES THE FACE OF CURB IS 6" FROM THE BACK OF CURB.
- ⑥ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.
- ⑦ USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.
- ⑧ INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.
- ⑨ CONCRETE CURB AND GUTTER 4-INCH SLOPED 30-INCH TYPE "R" AND "T" = 17 INCHES
CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE "R" AND "T" = 23 INCHES



END SECTION CURB AND GUTTER



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

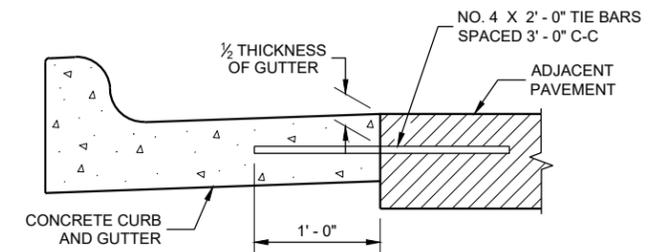
GENERAL NOTES

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

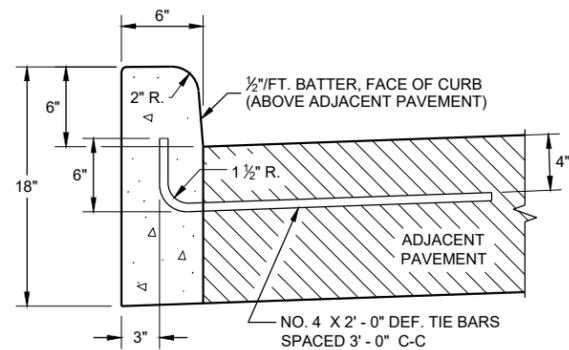
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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

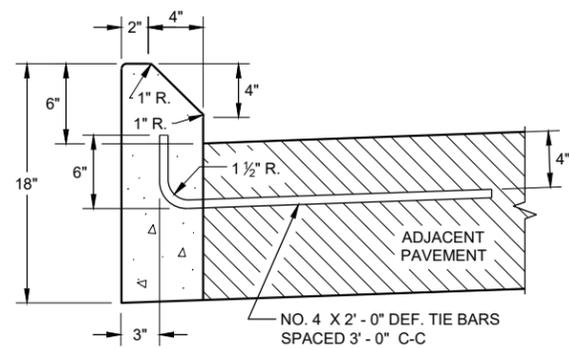
- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ⑨ REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.



TYPICAL TIE BAR LOCATION ①

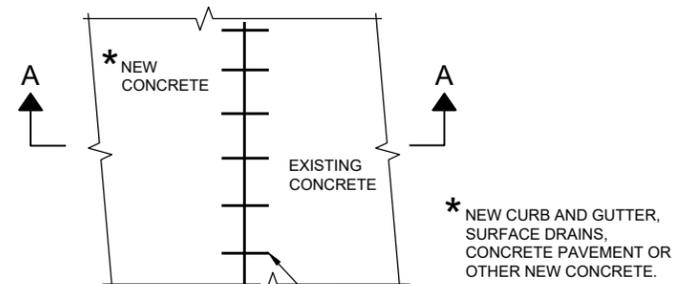


TYPES A ① & D

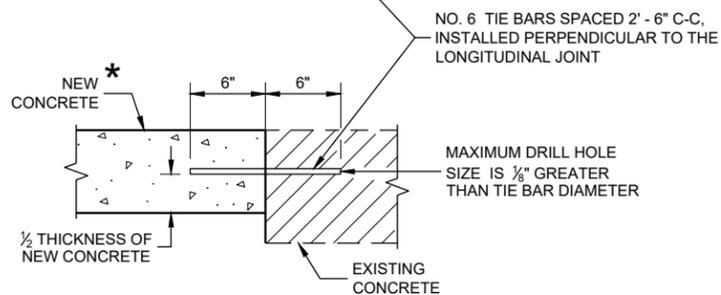


TYPES G ① & J

CONCRETE CURB

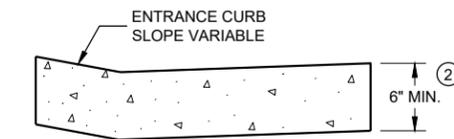


PLAN VIEW



SECTION A - A

TIE BARS DRILLED INTO EXISTING PAVEMENT



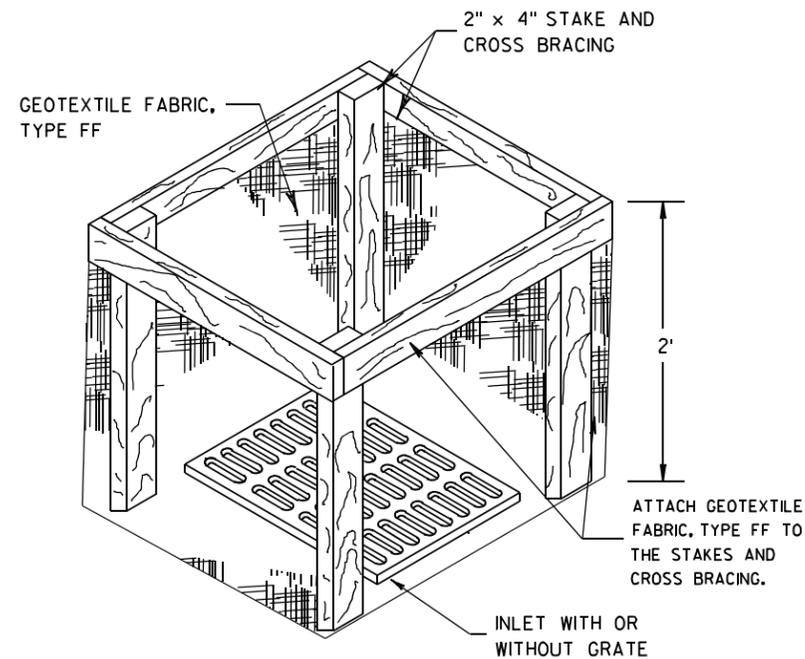
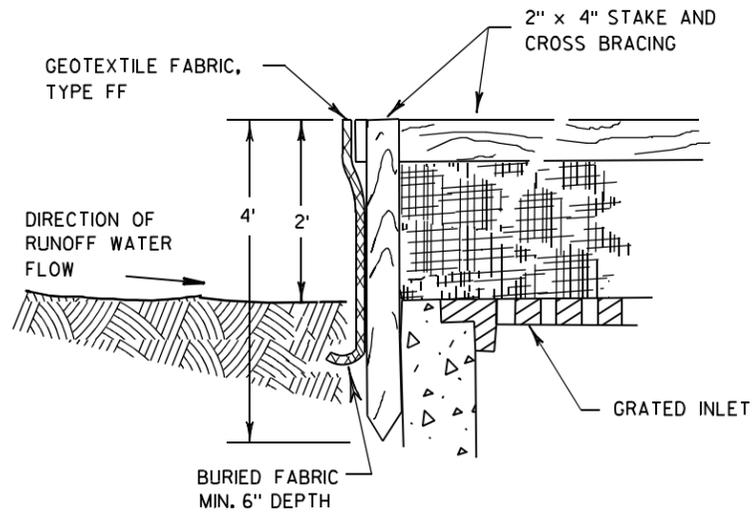
DRIVEWAY ENTRANCE CURB ⑨
(WHEN DIRECTED BY THE ENGINEER)

CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2021 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
ENGINEER

FHWA



INLET PROTECTION, TYPE A

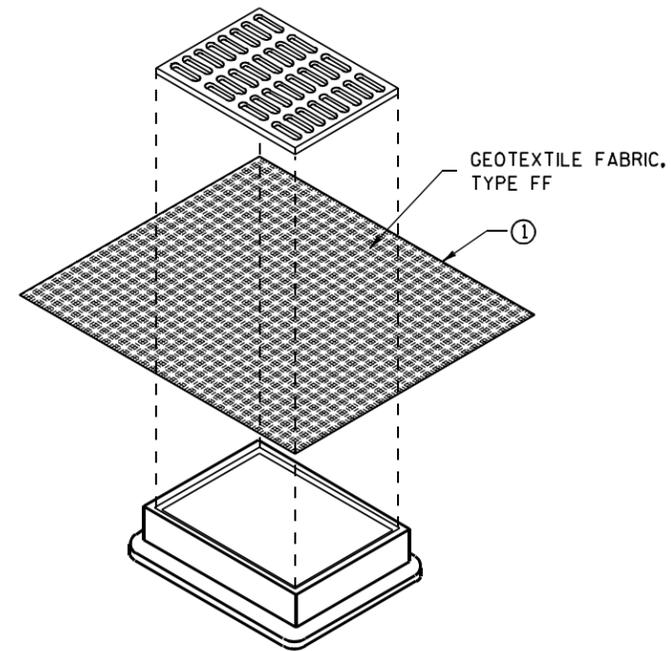
GENERAL NOTES

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.

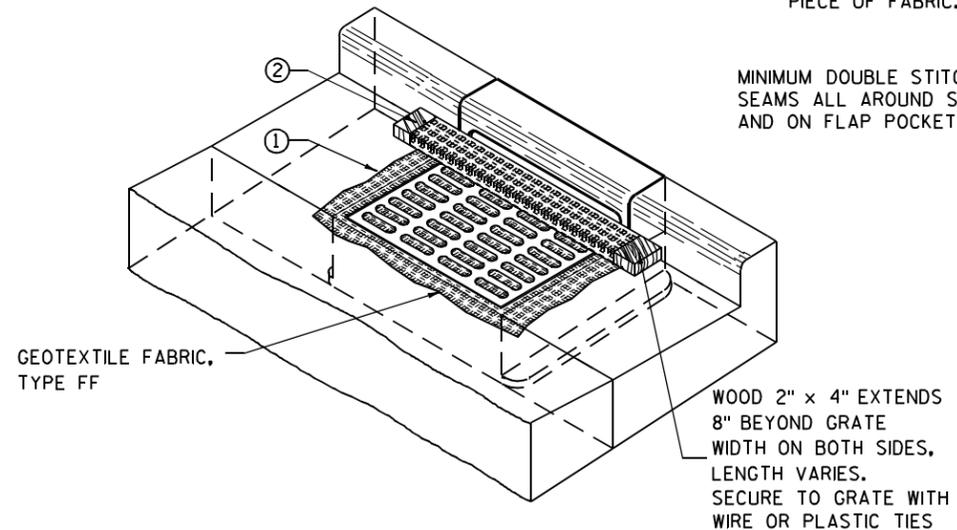
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- 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.

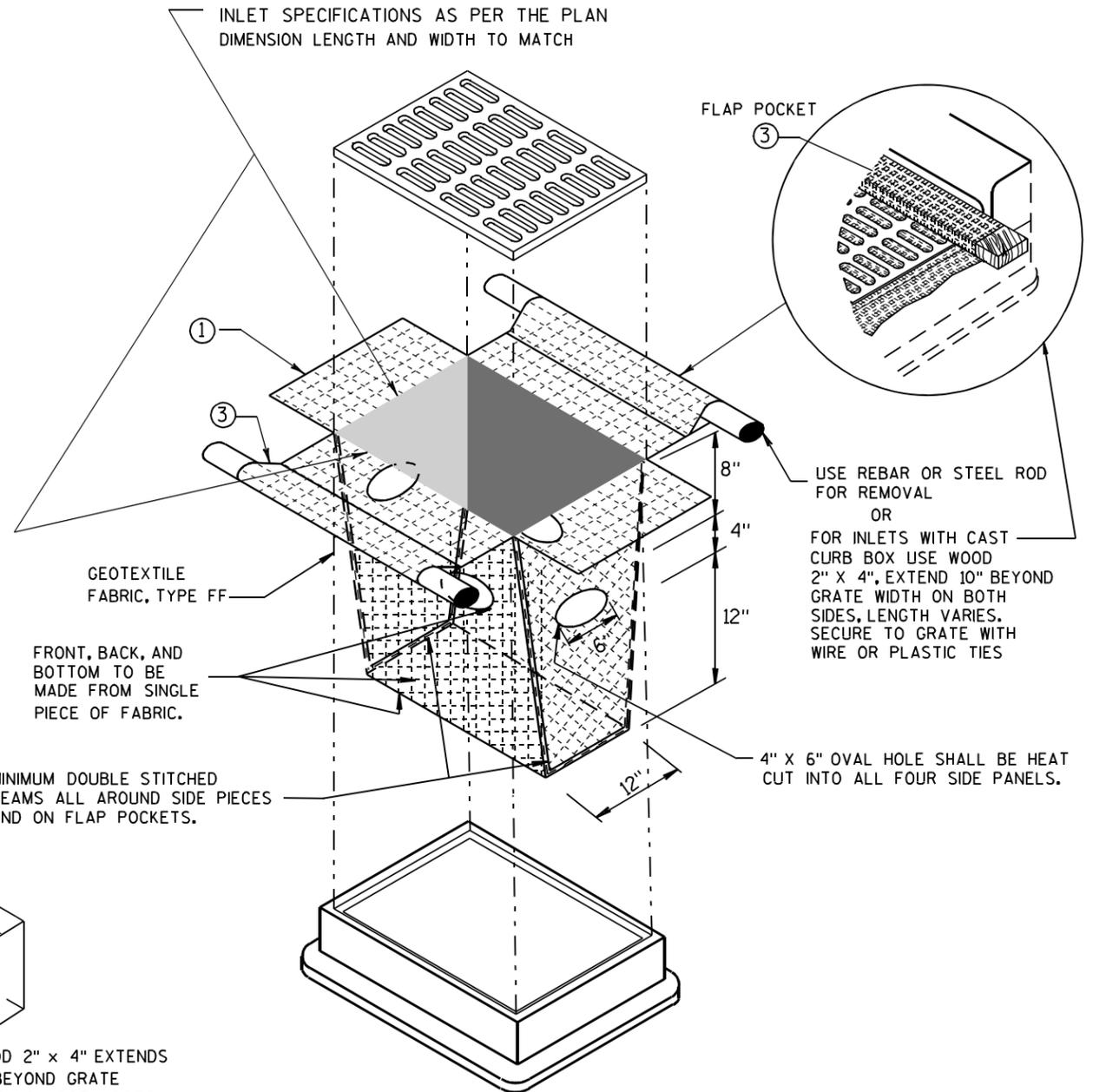
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

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.



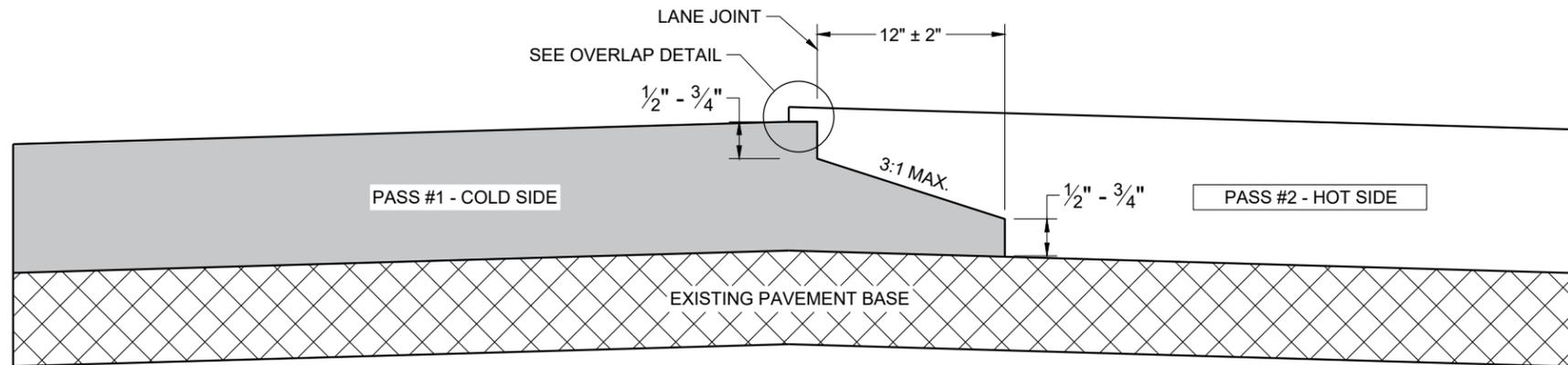
INLET PROTECTION, TYPE D

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

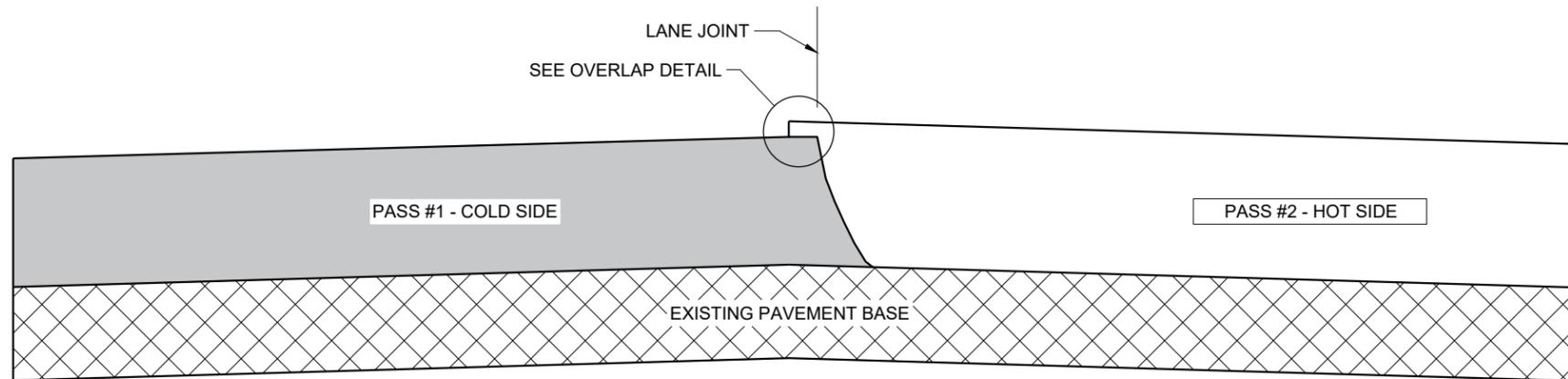
**INLET PROTECTION
TYPE A, B, C, AND D**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

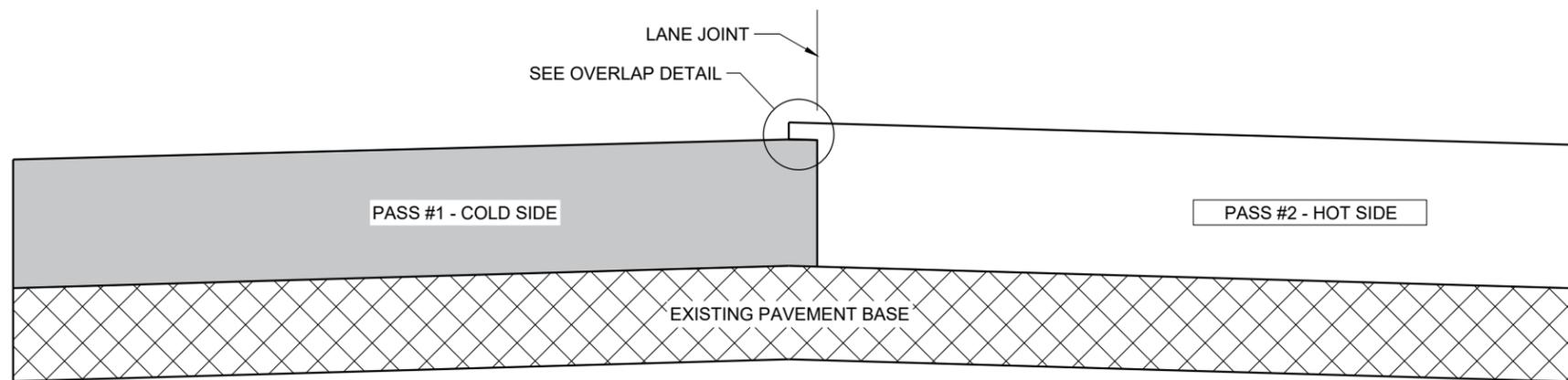
APPROVED
10/16/02 /S/ Beth Connestra
DATE
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA



TYPICAL PAVEMENT CROSS SECTION NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION VERTICAL JOINT (MILLED)

GENERAL NOTES

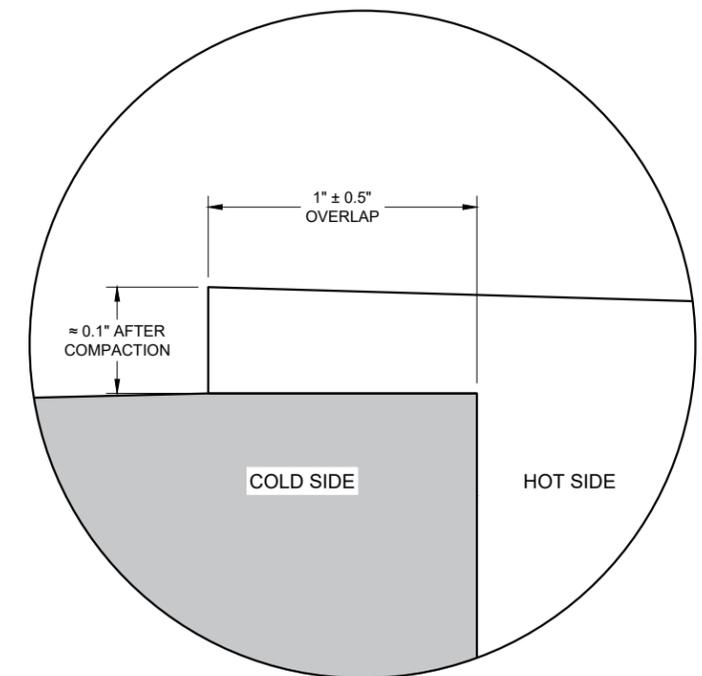
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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

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

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

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



OVERLAP DETAIL (TYPICAL)

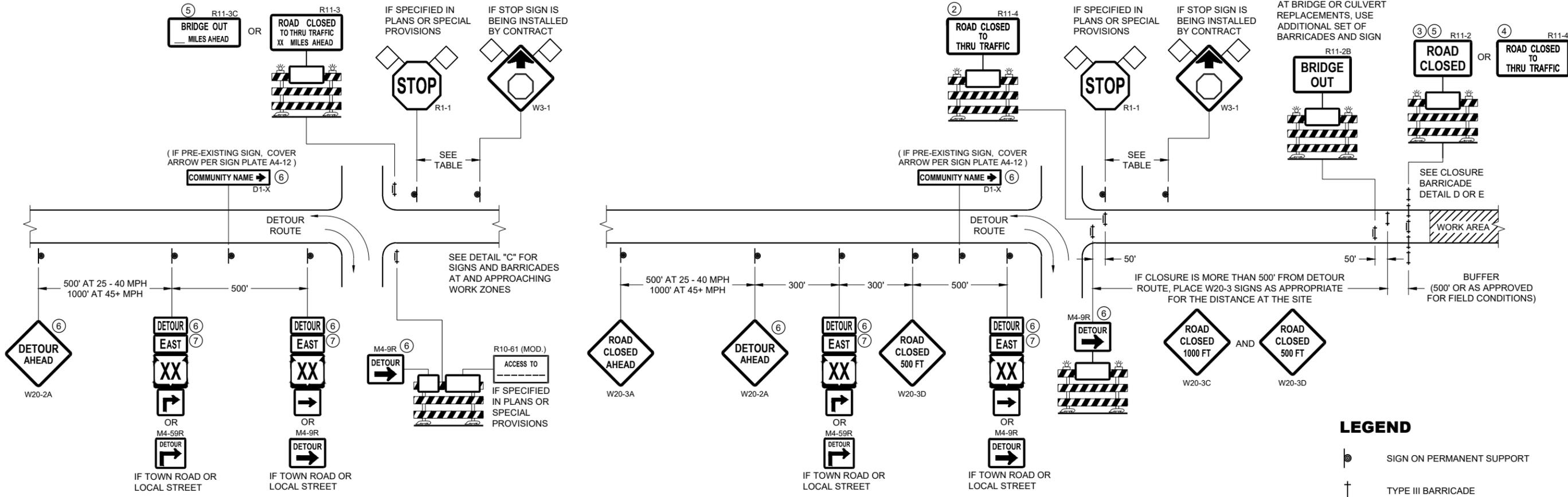
6

6

SDD 13C19 - 03

SDD 13C19 - 03

HMA LONGITUDINAL JOINTS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED November 2020 DATE	/S/ Steven Hefel HMA PAVEMENT ENGINEER
FHWA	



**DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR**

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

**DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR**

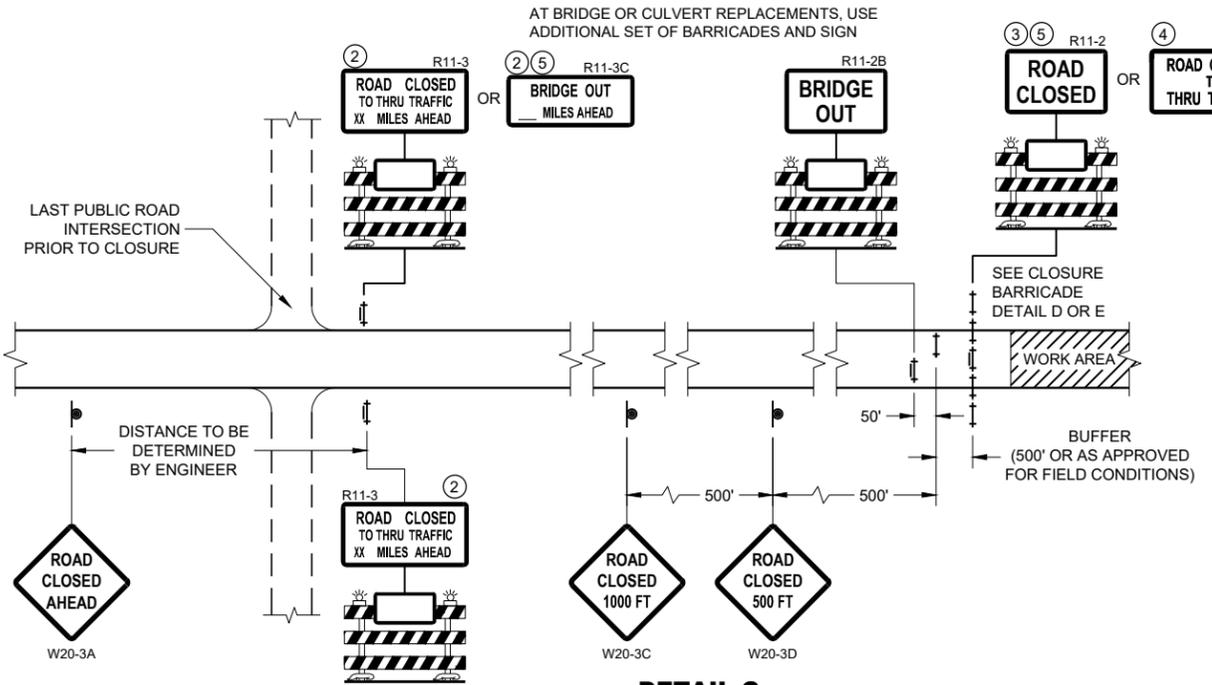
WORK ZONE LESS THAN 1/2 MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- FLAGS, 16" X 16" MIN. (ORANGE)

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

- M4 - 8
- M3 - X
- M1 - 4
- M1 - 6
- M1 - 5A
- M05 - 1
- M06 - 1



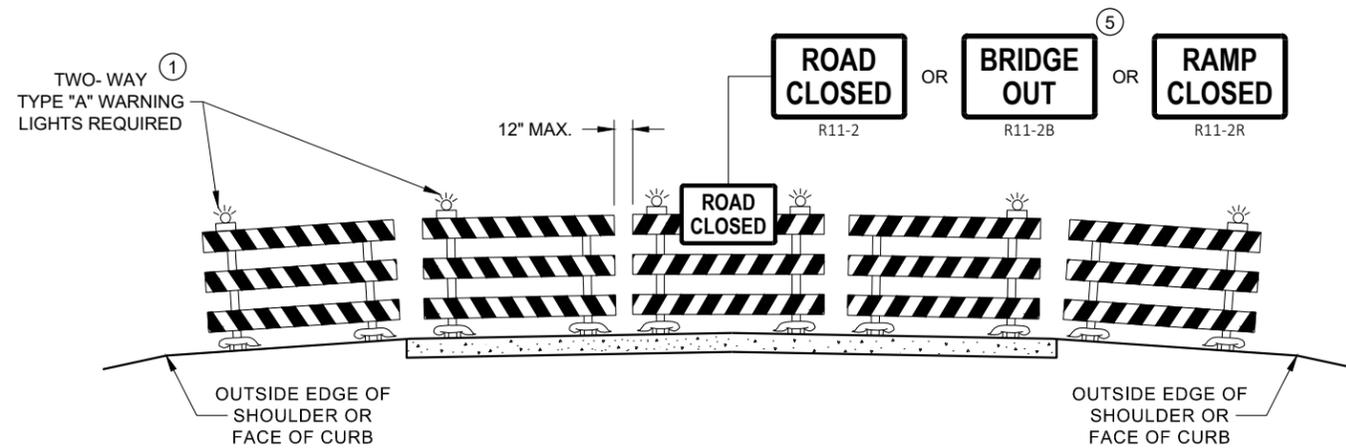
**DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR**

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

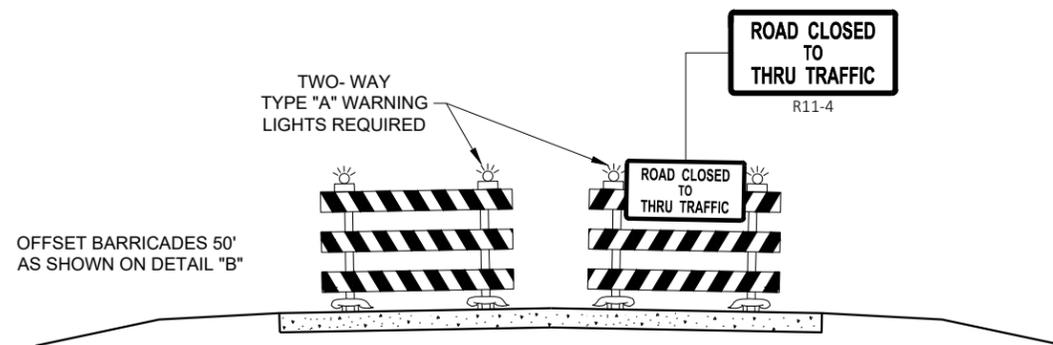
**BARRICADES AND SIGNS
FOR MAINLINE CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



**DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW**



**DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW**

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

- R11 - 2 SHALL BE 48" X 30"
- R11 - 3 SHALL, R11 - 4 AND R10 - 61 SHALL BE 60" X 30"
- M4 - 9 SHALL BE 30" X 24"
- M3 - X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4 - 8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1 - 4, M1 - 5A AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- MO5 - 1 AND MO6 - 1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- D1 - X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1 - 1 SHALL BE 36" X 36"

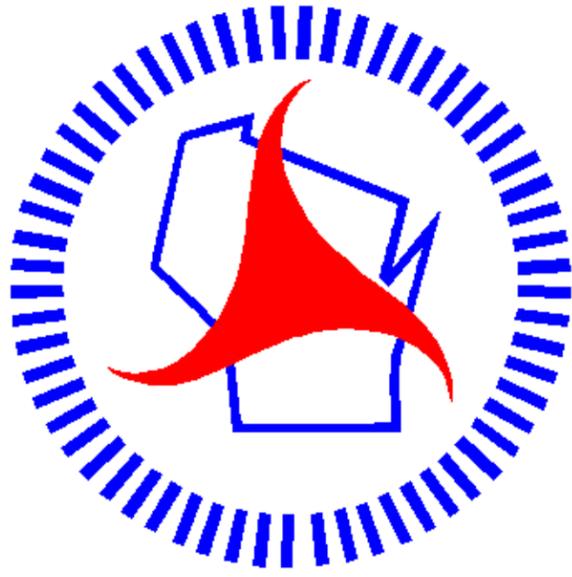
- ① TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING).
- ② THESE SIGNS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

**BARRICADES AND SIGNS
FOR
VARIOUS CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

Notes



Wisconsin Department of Transportation

Dedicated people creating transportation solutions through innovation and exceptional service.

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