GRE

JULY 2019

PROJECT ID: 4202-04-71
WITH: 4202-05-71, 4202-06-71

COUNTY: SHEBOYGAN

ORDER OF SHEETS

TOTAL SHEETS = 46

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
4202-04-71	———	———

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

T SHERMAN, SILVER CREEK CASCADE RD

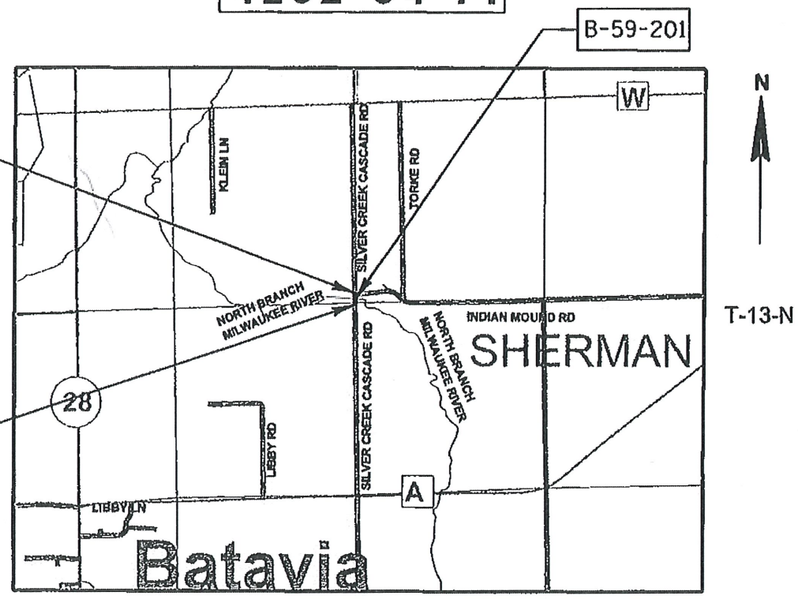
N BRANCH MILWAUKEE RIVER BRIDGE NOR

LOC STR

SHEBOYGAN COUNTY

07

STATE PROJECT NUMBER
4202-04-71



LAYOUT
SCALE 0 .2 MI.

TOTAL NET LENGTH OF CENTERLINE = 0.031 MI.

DESIGN DESIGNATION

A.A.D.T.	2019	=	140
A.A.D.T.	2039	=	160
D.H.V.	2039	=	90
D.D.		=	60/40
T.		=	6.1%
DESIGN SPEED		=	25 MPH
ESALS		=	14,600

CONVENTIONAL SYMBOLS

PLAN
- CORPORATE LIMITS
- PROPERTY LINE (PL + 50.)
- LOT LINE
- LIMITED HIGHWAY EASEMENT
- EXISTING RIGHT OF WAY
- PROPOSED OR NEW R/W LINE
- SLOPE INTERCEPT
- REFERENCE LINE
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

PROFILE
- GRADE LINE
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such) (ROCK)
- SPECIAL DITCH (LABEL)
- GRADE ELEVATION (95.36)
- CULVERT (Profile View)

UTILITIES
- ELECTRIC — E —
- FIBER OPTIC — FO —
- GAS — G —
- SANITARY SEWER — SAN —
- STORM SEWER — SS —
- TELEPHONE — T —
- WATER — W —
- UTILITY PEDESTAL
- POWER POLE
- TELEPHONE POLE

COORDINATES ON THE PLAN ARE REFERENCED TO SHEBOYGAN COUNTY COORDINATES NAD 1983 (2011).

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE NATIONAL GEODETIC VERTICAL DATUM (NGVD29).

ACCEPTED FOR SHEBOYGAN COUNTY
1/29/2019 (Date) HIGHWAY COMMISSIONER

ORIGINAL PLANS PREPARED BY
KAPUR & ASSOCIATES, INC.
CONSULTING ENGINEERS
MILWAUKEE, WISCONSIN
414.751.7200

WISCONSIN
JUSTIN M. ARNDT
E-37695
ONTARIO, WI.
PROFESSIONAL ENGINEER

1/23/19 (Date) (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	KAPUR & ASSOCIATES, INC
Designer	KAPUR & ASSOCIATES, INC
Project Manager	SCOTT EBEL
Regional Examiner	
Regional Supervisor	

APPROVED FOR THE DEPARTMENT
DATE: 1/29/19 (Signature)

E

FILE NAME : S:\DOT\DOT_NE\170175-ID 4202-04-00_Silver Creek Cascade Rd Brdg\DGN\Plansheets\010101_TI.dgn | PLOT DATE : 1/23/2019 | PLOT BY : wwolak | PLOT NAME : | PLOT SCALE : 1:2112

WISDOT/CADDS SHEET 15

2

GENERAL NOTES

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

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

THE EARTHWORK YARDAGE IS ESTIMATED BY EXPANDING THE FILL VOLUME. AN EXPANSION FACTOR OF 1.25 IS USED.

THE LOCATION AND LIMITS OF EBS (EXCAVATION BELOW SUBGRADE), IF REQUIRED, WILL BE DETERMINED BY THE ENGINEER. SUCH EBS SHALL NOT BE USED TO BALANCE YARDAGE.

TEMPORARY STORAGE OF ANY EXCAVATED MATERIAL WILL NOT BE PERMITTED IN WETLAND AREAS.

EROSION CONTROL FEATURES AS SHOWN IN THE PLANS ARE AT SUGGESTED LOCATIONS. EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER.

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

BROKEN CONCRETE CONTAINING RE-BAR SHALL NOT BE USED AS RIPRAP OR HEAVY RIPRAP.

TRAFFIC CONTROL DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

RUNOFF COEFFICENT TABLE

	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	0.08	0.16	0.22	0.12	0.20	0.27	0.15	0.24	0.33	0.19	0.28	0.38
	0.22	0.30	0.38	0.26	0.34	0.44	0.30	0.37	0.50	0.34	0.41	0.56
MEDIAN STRIP-	0.19	0.20	0.24	0.19	0.22	0.26	0.20	0.23	0.30	0.20	0.25	0.30
TURF	0.24	0.26	0.30	0.25	0.28	0.33	0.26	0.30	0.37	0.27	0.32	0.40
SIDE SLOPE-			0.25			0.27			0.28			0.30
TURF			0.32			0.34			0.36			0.38
PAVEMENT:												
ASPHALT	.70 - .95											
CONCRETE	.80 - .95											
BRICK	.70 - .80											
DRIVES, WALKS	.75 - .85											
ROOFS	.75 - .95											
GRAVEL ROADS, SHOULDERS	.40 - .60											

TOTAL PROJECT AREA = 0.2 ACRES
DISTURBED PROJECT AREA = 0.2 ACRES

UTILITY CONTACTS

FRONTIER COMMUNICATIONS OF WISCONSIN
MR. RUSS RYAN
107 PLEASANT VIEW DRIVE
PLYMOUTH, WI 53073
OFFICE: (920) 583-3275
RUSSELL.W.RYAN@FTR.COM

WE ENERGIES - ELECTRIC
MS. NICOLE SMULLEN
333 W EVERETT ST, A299
MILWAUKEE, WI 53203
OFFICE: (414) 221-5617
NICOLE.SMULLEN@WECENERGYGROUP.COM

OTHER CONTACTS

WI DEPT OF NATURAL RESOURCES
MR. JAY SCHIEFELBEIN
2984 SHAWANO AVENUE
GREEN BAY, WI 54313
(920) 360-3784
JEREMIAH.SCHIEFELBEIN@WI.GOV

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

DESIGN INDEX

STANDARD ABBREVIATIONS

<	ANGLE
ADT	AVERAGE DAILY TRAFFIC
AC	ACRE
AE, AEW	APRON ENDWALL
AGG	AGGREGATE
AH	AHEAD
ASPH	ASPHALTIC
BC	BACK OF CURB
BF	BACK FACE
BIT	EXISTING BITUMINOUS
BM	BENCH MARK
BEG	BEGIN
BK	BACK
C & G	CURB AND GUTTER
CABC	CRUSHED AGGREGATE BASE COURSE
CB	CATCH BASIN
CMCP	CORRUGATED METAL CULVERT PIPE
CMP	CORRUGATED METAL PIPE
CP	CULVERT PIPE
CY	CUBIC YARD
CL OR C/L	CENTER LINE
CO	COUNTY
CONC	CONCRETE
CONST	CONSTRUCTION
CR	CREEK
CTH	COUNTY TRUNK HIGHWAY
CWT	HUNDRED WEIGHT
D	DEGREE OF CURVE
△	DELTA
DHV	DESIGN HOUR VOLUME
DIA	DIAMETER
DISCH	DISCHARGE
E	EAST
EA	EACH
EB	EASTBOUND
EBS	EXCAVATION BELOW SUBGRADE
EL, ELEV	ELEVATION
ELEC	ELECTRIC(AL), ELEC CABLE
EMB	EMBANKMENT
ESALS	EQUIVALENT SINGLE AXEL LOADS
ESMT	EASEMENT
EW	ENDWALL
EXC	EXCAVATION
EXIST	EXISTING BITUMINOUS
EXP	EXPANSION
FC	FACE OF CURB
FE	FIELD ENTRANCE
FF	FACE TO FACE
F/L, FL	FLOW LINE
FERT	FERTILIZER
FHWA	FEDERAL HIGHWAY
FT	FOOT (FEET)
G	GAS
GN	GRID NORTH
H	HOUSE
HMA	HOT MIX ASPHALT
HORZ	HORIZONTAL
HP	HIGH POINT
HR	HANDICAP RAMP
HYD	HYDRANT
I	INTERSECTION ANGLE
ID	INSIDE DIAMETER
INL	INLET
INTER	INTERSECTION
INV	INVERT
IP	IRON PIPE
JT	JOINT
K	RATE OF VERTICAL CURVATURE
L	LENGTH OF CURVE
LB	POUND
LC	LONG CHORD OF CURVE
LP	LOW POINT
LF	LINEAR FOOT(FEET)
LHF	LEFT HAND FORWARD
LS	LUMP SUM
LT	LEFT
M	MARSH
MATL	MATERIAL
MP	MARKER POST
MAX	MAXIMUM
MGAL	1000 GALLONS
MH	MANHOLE
MIN	MINIMUM
ML OR M/L	MATCH LINE
N	NORTH
NB	NORTHBOUND
NC	NORMAL CROWN OR NO CHANGE
NO	NUMBER
NW OR N/W	NORMAL WATER
OBLIT	OBLITERATE
OD	OUTSIDE DIAMETER
PAVT	PAVEMENT
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVE
PE	PRIVATE ENTRANCE
PGL	PROFILE GRADE LINE
PI	POINT OF INTERSECTION
PL	PROPERTY LINE
PLE	PERMANENT LIMITED EASEMENT
PRC	POINT OF REVERSE CURVE
PROJ	PROJECT
PSI	POUNDS PER SQUARE INCH
PT	POINT OF TANGENCY
PVC	POLYVINYL CHLORIDE
PT	POINT OF TANGENCY
PAV'T	PAVEMENT
PCC	PORTLAND CEMENT CONCRETE
R	RADIUS OR RANGE
RC	REVERSE CURVE
RCCP	REINFORCED CONCRETE CULVERT PIPE
RCHECP	REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CULVERT PIPE
RCPSS	REINFORCED CONCRETE PIPE STORM SEWER
RHF	RIGHT HAND FORWARD
R/L	REFERENCE LINE
R/W	RIGHT OF WAY
RD	ROAD
RDWY	ROADWAY
REL	RELOCATE
REM	REMAINING
REQD	REQUIRED
RO	RUN OFF LENGTH
RT	RIGHT
RW	RETAINING WALL
S	SOUTH
SALV	SALVAGED
SAN	SANITARY
SB	SOUTHBOUND
SDD	STANDARD DETAIL DRAWINGS
SE	SUPERELEVATION
SEC	SECTION
SF	SQUARE FOOT (FEET)
S/L	SURVEY LINE
SHLDR	SHOULDER(S)
SHR	SHRINKAGE
SPECS	SPECIFICATIONS
SS	STORM SEWER
STA	STATION
STH	STATE TRUNK HIGHWAY
STR	STRUCTURE
SW	SIDEWALK
SY	SQUARE YARD
TAN	TANGENT
TEL	TELEPHONE
T	(TRUCKS) PERCENT OF
TC	TOP OF CURB
TAN	TANGENT
TEMP	TEMPORARY
TL OR T/L	TRANSIT LINE
TLE	TEMPORARY LIMITED EASEMENT
TYP	TYPICAL
UG	UNDERGROUND (CABLE)
UNCL	UNCLASSIFIED
VAR	VARIABLE
VCL	VERTICAL CURVE LENGTH
VPC	VERTICAL POINT OF CURVATURE
VPCC	VERTICAL POINT OF COMPOUND CURVE
VPI	VERTICAL POINT OF INTERSECTION
VPRC	VERTICAL POINT OF REVERSE CURVE
VPT	VERTICAL POINT OF TANGENCY
VLV	VALVE
VOL	VOLUME
W	WEST
WB	WESTBOUND
WV	WATER VALVE
X	EASTING OR EAST GRID COORDINATE
Y	NORTHING OR NORTH GRID COORDINATE
YD	YARD

2

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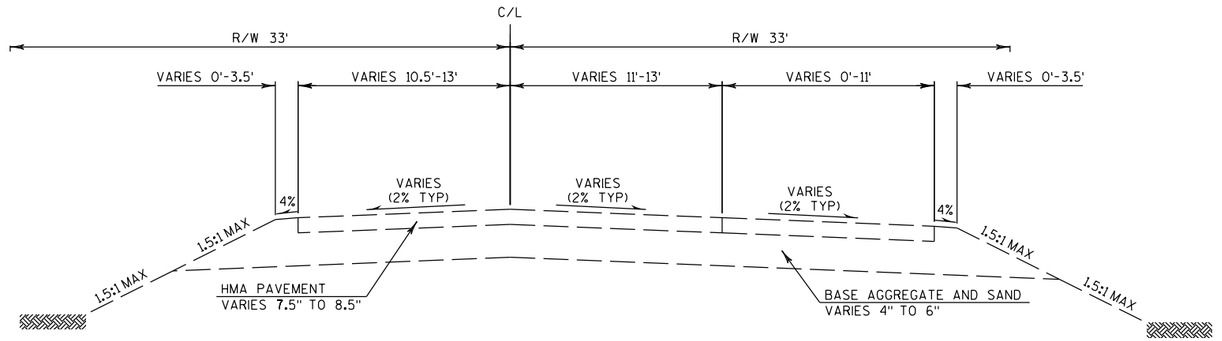
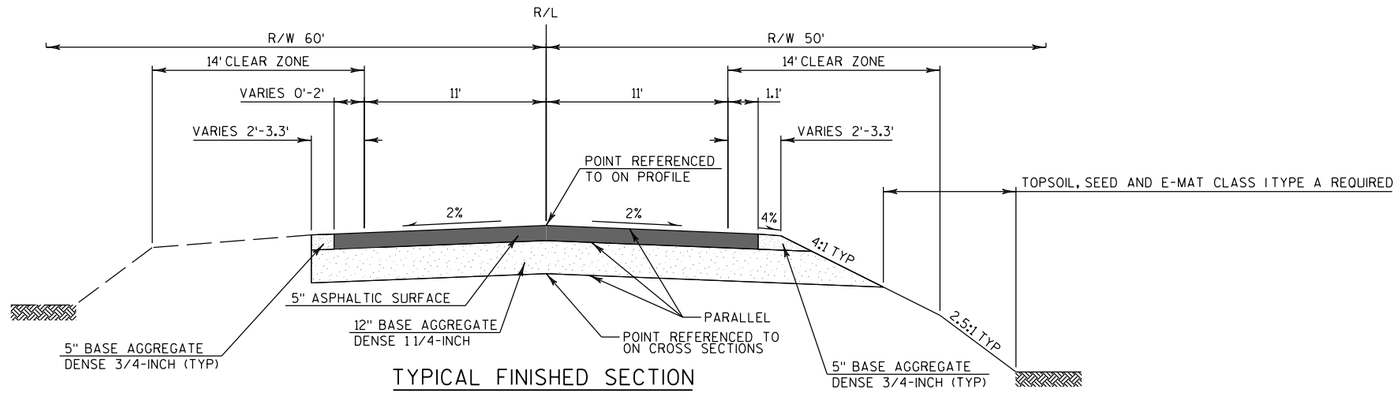


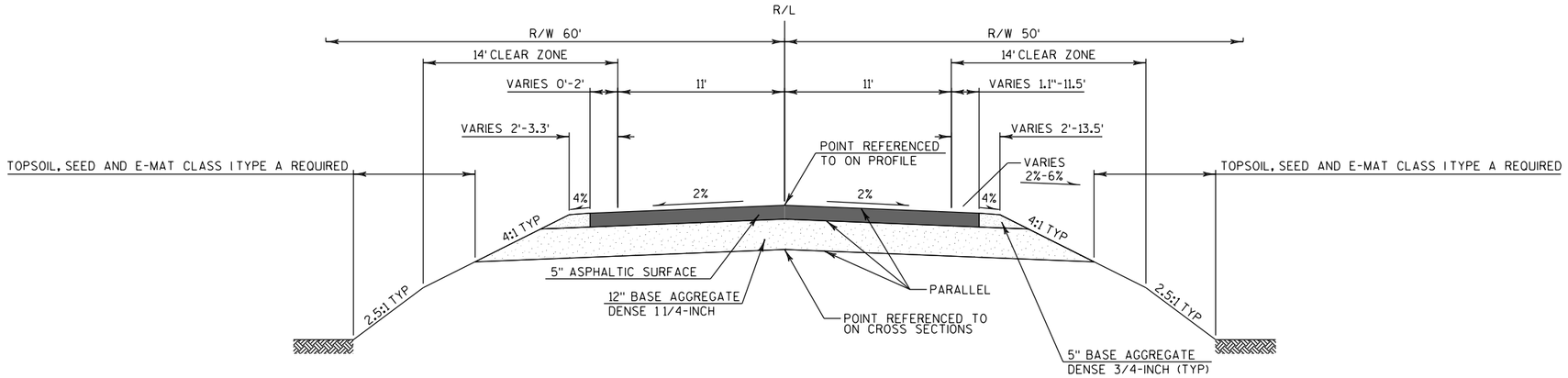
TYPICAL EXISTING SECTION

SILVER CREEK CASCADE ROAD
STA 127+37.62 TO STA 127+84.19
STA 128+49.69 TO STA 128+98.77



TYPICAL FINISHED SECTION

SILVER CREEK CASCADE ROAD
STA 127+37.62 TO STA 127+62.00



TYPICAL FINISHED SECTION

SILVER CREEK CASCADE ROAD
STA 127+62.00 TO STA 127+84.19
STA 128+49.69 TO STA 128+98.77

PAVEMENT TYPE	TOTAL PAVEMENT THICKNESS	LAYERS	NOMINAL SIZE
ASPHALTIC SURFACE	5"	2" UPPER LAYER	12.5 mm
		3" LOWER LAYER	19.0 mm

PROJECT NO: 4202-04-71	HWY: SILVER CREEK CASCADE ROAD	COUNTY: SHEBOYGAN	TYPICAL SECTIONS	SHEET 3	E

2

LEGEND

- SILT FENCE
- TURBIDITY BARRIER
- RXXX — EXISTING SIGN TO BE REMOVED
- PXXX — PROPOSED SIGN
- 1 — PAVEMENT MARKING EPOXY 4-INCH (YELLOW)

N

R101

P101

W5-52L
12" X 36"

HEAVY RIPRAP SEE STRUCTURE PLAN FOR DETAILS

NORTH BRANCH MILWAUKEE RIVER

SLOPE INTERCEPT (TYP)

R103

P103

W5-52R
12" X 36"

WETLAND BOUNDARY (TYP)

PROPOSED R/W

EXISTING R/W

B-59-201

ETR

R/L SILVER CREEK CASCADE RD

BEGIN PROJECT
STA 127+37.62
X=137331.524
Y=127530.384

1 DOUBLE

HO

GUY

126 127 128 129 130 131

SEE SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES" DETAIL C FOR TRAFFIC CONTROL LAYOUT

SEE SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES" DETAIL C FOR TRAFFIC CONTROL LAYOUT

END PROJECT
STA 128+98.77

SILVER CREEK CASCADE RD

SILVER CREEK CASCADE RD

EXISTING R/W

WETLAND BOUNDARY (TYP)

SLOPE INTERCEPT (TYP)

PROPOSED R/W

R102

P102

W5-52R
12" X 36"

HEAVY RIPRAP SEE STRUCTURE PLAN FOR DETAILS

NORTH BRANCH MILWAUKEE RIVER

R104

P104

W5-52L
12" X 36"

INDIAN MOUND RD

PROJECT NO: 4202-04-71	HWY: SILVER CREEK CASCADE ROAD	COUNTY: SHEBOYGAN	CONSTRUCTION DETAILS	SHEET 4	E

4202-04-71

Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	2.000	2.000
0004	201.0205	Grubbing	STA	2.000	2.000
0006	203.0500.S	Removing Old Structure Over Waterway (station) 01. 128+25	LS	1.000	1.000
0012	205.0100	Excavation Common	CY	213.000	213.000
0016	206.1000	Excavation for Structures Bridges (structure) 01. B-59-201	LS	1.000	1.000
0022	208.0100	Borrow	CY	112.000	112.000
0026	210.1500	Backfill Structure Type A	TON	1,305.000	1,305.000
0028	213.0100	Finishing Roadway (project) 01. 4202-04-71	EACH	1.000	1.000
0034	305.0110	Base Aggregate Dense 3/4-Inch	TON	23.000	23.000
0036	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	314.000	314.000
0042	455.0605	Tack Coat	GAL	7.100	7.100
0044	465.0105	Asphaltic Surface	TON	77.000	77.000
0048	502.0100	Concrete Masonry Bridges	CY	220.000	220.000
0050	502.3200	Protective Surface Treatment	SY	189.000	189.000
0052	502.3210	Pigmented Surface Sealer	SY	64.000	64.000
0054	503.0136	Prestressed Girder Type I 36-Inch	LF	256.000	256.000
0058	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	28,680.000	28,680.000
0060	506.2605	Bearing Pads Elastomeric Non-Laminated	EACH	8.000	8.000
0062	506.4000	Steel Diaphragms (structure) 01. B-59-201	EACH	3.000	3.000
0066	516.0500	Rubberized Membrane Waterproofing	SY	22.000	22.000
0068	550.1100	Piling Steel HP 10-Inch X 42 Lb	LF	420.000	420.000
0072	606.0300	Riprap Heavy	CY	175.000	175.000
0074	612.0206	Pipe Underdrain Unperforated 6-Inch	LF	40.000	40.000
0076	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	120.000	120.000
0078	618.0100	Maintenance And Repair of Haul Roads (project) 01. 4202-04-71	EACH	1.000	1.000
0084	619.1000	Mobilization	EACH	0.400	0.400
0086	624.0100	Water	MGAL	3.600	3.600
0088	625.0100	Topsoil	SY	499.000	499.000
0090	628.1504	Silt Fence	LF	254.000	254.000
0092	628.1520	Silt Fence Maintenance	LF	254.000	254.000
0094	628.1905	Mobilizations Erosion Control	EACH	5.000	5.000
0096	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0098	628.2002	Erosion Mat Class I Type A	SY	499.000	499.000
0102	628.6005	Turbidity Barriers	SY	192.000	192.000
0104	628.7570	Rock Bags	EACH	20.000	20.000
0106	630.0120	Seeding Mixture No. 20	LB	13.500	13.500
0108	630.0200	Seeding Temporary	LB	13.500	13.500

4202-04-71

Line	Item	Item Description	Unit	Total	Qty
0110	634.0612	Posts Wood 4x6-Inch X 12-FT	EACH	4.000	4.000
0112	637.2230	Signs Type II Reflective F	SF	12.000	12.000
0116	638.2602	Removing Signs Type II	EACH	4.000	4.000
0118	638.3000	Removing Small Sign Supports	EACH	4.000	4.000
0120	642.5201	Field Office Type C	EACH	0.400	0.400
0122	643.0420	Traffic Control Barricades Type III	DAY	1,155.000	1,155.000
0124	643.0705	Traffic Control Warning Lights Type A	DAY	1,980.000	1,980.000
0126	643.0900	Traffic Control Signs	DAY	1,155.000	1,155.000
0128	643.5000	Traffic Control	EACH	0.400	0.400
0130	645.0111	Geotextile Type DF Schedule A	SY	88.000	88.000
0132	645.0120	Geotextile Type HR	SY	315.000	315.000
0134	646.1020	Marking Line Epoxy 4-Inch	LF	324.000	324.000
0136	650.4500	Construction Staking Subgrade	LF	97.000	97.000
0138	650.5000	Construction Staking Base	LF	97.000	97.000
0140	650.6500	Construction Staking Structure Layout (structure) 01. B-59-201	LS	1.000	1.000
0146	650.9910	Construction Staking Supplemental Control (project) 01. 4202-04-71	LS	1.000	1.000
0154	650.9920	Construction Staking Slope Stakes 02. 4202-04-71	LF	97.000	97.000
0156	690.0150	Sawing Asphalt	LF	56.000	56.000
0158	715.0502	Incentive Strength Concrete Structures	DOL	1,320.000	1,320.000

3

GRUBBING

STATION	-	STATION	OFFSET	LOCATION	201.0105 CLEARING STA	201.0205 GRUBBING STA
127+37	-	128+99	LT/RT	SILVER CREEK CASCADE	2	2
PROJECT 4202-04-71 TOTAL					2	2

FINISHING ROADWAY

LOCATION	213.0100 FINISHING ROADWAY PROJECT ID 4202-04-71 EACH
PROJECT 4202-04-71	1
PROJECT 4202-04-71 TOTAL	1

3

EARTHWORK SUMMARY

From/To Station	Location	205.0100 Excavation Common (1)		Available Material (2)	Unexpanded Fill	Expanded Fill (3)	Mass Ordinate +/- (4)	Waste	208.0100 Borrow
		Cut	EBS Excavation			Factor 1.25			
127+37.62 to 128+98.77	SILVER CREEK CASCADE ROAD	163	0	163	220	275	-112	0	112
	UNDISTRIBUTED	0	50	0	0	0	0	-65	0
Grand Total		163	50	163	220	275	-112	-65	112
Total Excavation Common		213							

NOTES:

1) Common Excavation is the sum of the Cut and EBS Excavation columns.

2) Available Material = Cut

3) Expanded Fill expansion factor = 1.25. Expanded Fill = Unexpanded Fill * Expansion Factor

4) The Mass Ordinate + or - Qty calculated for the Division. Plus quantity indicates an excess of material within the Division. Minus indicates a shortage of material within the Division.

AGGREGATE ITEMS

STATION	-	STATION	OFFSET	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON
127+37	-	127+84	RL	SILVER CREEK CASCADE	12	133
128+49	-	128+99	RL	SILVER CREEK CASCADE	9	152
UNDISTRIBUTED					2	29
PROJECT 4202-04-71 TOTAL					23	314

PAVEMENT ITEMS

STATION	-	STATION	OFFSET	LOCATION	455.0605 TACK COAT GAL	465.0105 ASPHALTIC SURFACE TON
127+37	-	127+84	RL	SILVER CREEK CASCADE	3.3	36
128+49	-	128+99	RL	SILVER CREEK CASCADE	3.8	41
PROJECT 4202-04-71 TOTAL					7.1	77

ALL ITEMS ARE CATEGORY **0010** UNLESS OTHERWISE SPECIFIED.

MAINTENANCE AND REPAIR OF HAUL ROADS

LOCATION	618.0100 **CAT 0030** MAINTENANCE AND REPAIR OF HAUL ROADS PROJECT I.D. 4202-04-71 EACH
PROJECT 4202-04-71	1
PROJECT 4202-04-71 TOTAL	1

MOBILIZATION

LOCATION	619.1000 MOBILIZATION EACH
PROJECT 4202-04-71	0.4
PROJECT 4202-04-71 TOTAL	0.4

WATER

LOCATION	624.0100 WATER MGAL
AGGREGATE COMPACTION	0.7
EARTHWORK COMPACTION	1.1
DUST CONTROL	1.8
PROJECT 4202-04-71 TOTAL	3.6

RESTORATION

STATION	OFFSET	LOCATION	625.0100 TOPSOIL SY	628.2002 EROSION MAT CLASS I TYPE A SY	630.0120 SEEDING MIXTURE NO. 20 LB	630.0200 SEEDING TEMPORARY LB
127+37 - 127+84	LT/RT	ER CREEK CASC/	168	168	4.6	4.6
128+49 - 128+99	LT/RT	ER CREEK CASC/	286	286	7.7	7.7
UNDISTRIBUTED			45	45	1.2	1.2
PROJECT 4202-04-71 TOTAL			499	499	13.5	13.5

SILT FENCE

STATION	OFFSET	LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF
127+35 - 127+62	LT	SILVER CREEK CASCADE	55	55
127+35 - 127+98	RT	SILVER CREEK CASCADE	86	86
128+42 - 129+00	RT	SILVER CREEK CASCADE	62	62
UNDISTRIBUTED			51	51
PROJECT 4202-04-71 TOTAL			254	254

MOBILIZATIONS EROSION CONTROL

LOCATION	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
UNDISTRIBUTED	5	2
PROJECT 4202-04-71 TOTAL	5	2

TURBIDITY BARRIER

STATION	OFFSET	LOCATION	628.1520 TURBIDITY BARRIER SY
127+62 - 128+02	LT/RT	SILVER CREEK CASCADE	70
128+35 - 129+00	LT/RT	SILVER CREEK CASCADE	122
PROJECT 4202-04-71 TOTAL			192

ROCK BAGS

LOCATION	628.7570 ROCK BAGS EACH
UNDISTRIBUTED	20
PROJECT 4202-04-71 TOTAL	20

ALL ITEMS ARE CATEGORY **0010** UNLESS OTHERWISE SPECIFIED.

3

PERMANENT SIGNING

SIGN NO.	LOCATION	SIGN CODE	W x H	634.0612 POSTS WOOD 4x6-INCH 12-FT EACH	637.2230 SIGNS TYPE II REFLECTIVE F SF
P101	B-59-201 SW CORNER	W5-52L	12 x 36	1	3.0
P102	B-59-201 SE CORNER	W5-52R	12 x 36	1	3.0
P103	B-59-201 NW CORNER	W5-52L	12 x 36	1	3.0
P104	B-59-201 NE CORNER	W5-52R	12 x 36	1	3.0
PROJECT 4202-04-71 TOTAL				4	12.0

TRAFFIC CONTROL

LOCATION	DURATION DAYS	643.0420 TRAFFIC CONTROL BARRICADES TYPE III EACH	643.0420 TRAFFIC CONTROL BARRICADES TYPE III DAYS	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A EACH	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A DAYS	643.0900 TRAFFIC CONTROL SIGNS EACH	643.0900 TRAFFIC CONTROL SIGNS DAYS	643.5000 TRAFFIC CONTROL EACH
PROJECT 4198-05-71	75	14	1,050	24	1,800	14	1,050	--
UNDISTRIBUTED			105		180		105	0.4
PROJECT 4202-04-71 TOTAL			1,155		1,980		1,155	0.4

3

REMOVING SIGNS

SIGN NO.	LOCATION	SIGN CODE	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH
R101	P-59-153 SW CORNER	W5-52L	1	1
R102	P-59-153 SE CORNER	W5-52R	1	1
R103	P-59-153 NW CORNER	W5-52L	1	1
R104	P-59-153 NE CORNER	W5-52R	1	1
PROJECT 4202-04-71 TOTAL			4	4

PAVEMENT MARKING

STATION	LOCATION	646.1020 MARKING LINE EPOXY 4-INCH (YELLOW) LF
127+37 - 128+99	SILVER CREEK CASCADE	324
PROJECT 4202-04-71 TOTAL		324

FIELD OFFICE TYPE C

LOCATION	642.5201 FIELD OFFICE TYPE C EACH
PROJECT 4202-04-71	0.4
PROJECT 4202-04-71 TOTAL	0.4

SAWCUTS

STATION	OFFSET	LOCATION	690.0150 SAWING ASPHALT LF
127+37.62	LT/RT	SILVER CREEK CASCADE	23
128+98.77	LT/RT	SILVER CREEK CASCADE	33
PROJECT 4202-04-71 TOTAL			56

CONSTRUCTION STAKING

STATION	OFFSET	LOCATION	650.4500 **CAT 0010** CONSTRUCTION STAKING SUBGRADE LF	650.5000 **CAT 0010** CONSTRUCTION STAKING BASE LF	650.6500 **CAT 0020** CONSTRUCTION STAKING STRUCTURE LAYOUT B-59-201 LS	650.9910 **CAT 0010** CONSTRUCTION STAKING SUPPLEMENTAL CONTROL 4202-04-71 LS	650.9920 **CAT 0010** CONSTRUCTION STAKING SLOPE STAKES LF
127+37 - 127+84	RL	SILVER CREEK CASCADE	47	47	--	--	47
128+49 - 128+99	RL	SILVER CREEK CASCADE	50	50	--	--	50
PROJECT 4198-05-71			--	--	1	1	--
PROJECT 4202-04-71 TOTAL			97	97	1	1	97

ALL ITEMS ARE CATEGORY **0010** UNLESS OTHERWISE SPECIFIED.

PROJECT NUMBER: 4202-04-71	HWY: SILVER CREEK CASCADE ROAD	COUNTY: SHEBOYGAN	MISCELLANEOUS QUANTITIES	SHEET NO: 9

FILE NAME: S:\DOT\DOT_NE\170175-ID 4202-04-00_Silver Creek Cascade Rd Brdg\Misc Quants\030201_MQ.PPT ORIGINATOR: Justin Arndt ORIG. DATE: November 4, 2018 PLOTTED DATE: 4/29/2019 11:52 AM

TRANSPORTATION PROJECT PLAT NO: 4202-04-00 - 4.01

PART OF THE SE 1/4 OF THE SE 1/4 OF SECTION 6 AND PART OF THE SW 1/4 OF THE SW 1/4 OF SECTION 5 ALL IN TOWN 13 NORTH RANGE 21 EAST, TOWN OF SHERMAN, SHEBOYGAN COUNTY WISCONSIN.

RELOCATION ORDER: SILVER CREEK CASCADE ROAD, TOWN OF SHERMAN, SHEBOYGAN COUNTY

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

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SUBSECTION 60.50 AND 82.12, WISCONSIN STATUTES, TOWN OF SHERMAN HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE NAMED PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY TOWN OF SHERMAN FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF TOWN OF SHERMAN, PURSUANT TO THE PROVISIONS OF SUBSECTION 60.50 AND 82.12, WISCONSIN STATUTES.

2059475
SHEBOYGAN COUNTY WI
RECORDED ON
07/12/2018 10:17 AM
ELLEN R. SCHLEICHER
REGISTER OF DEEDS
PLAT FEE: 25.00
Cashier ID: 3
Vol.: 1 Page(s): 192

Ellen R. Schleicher

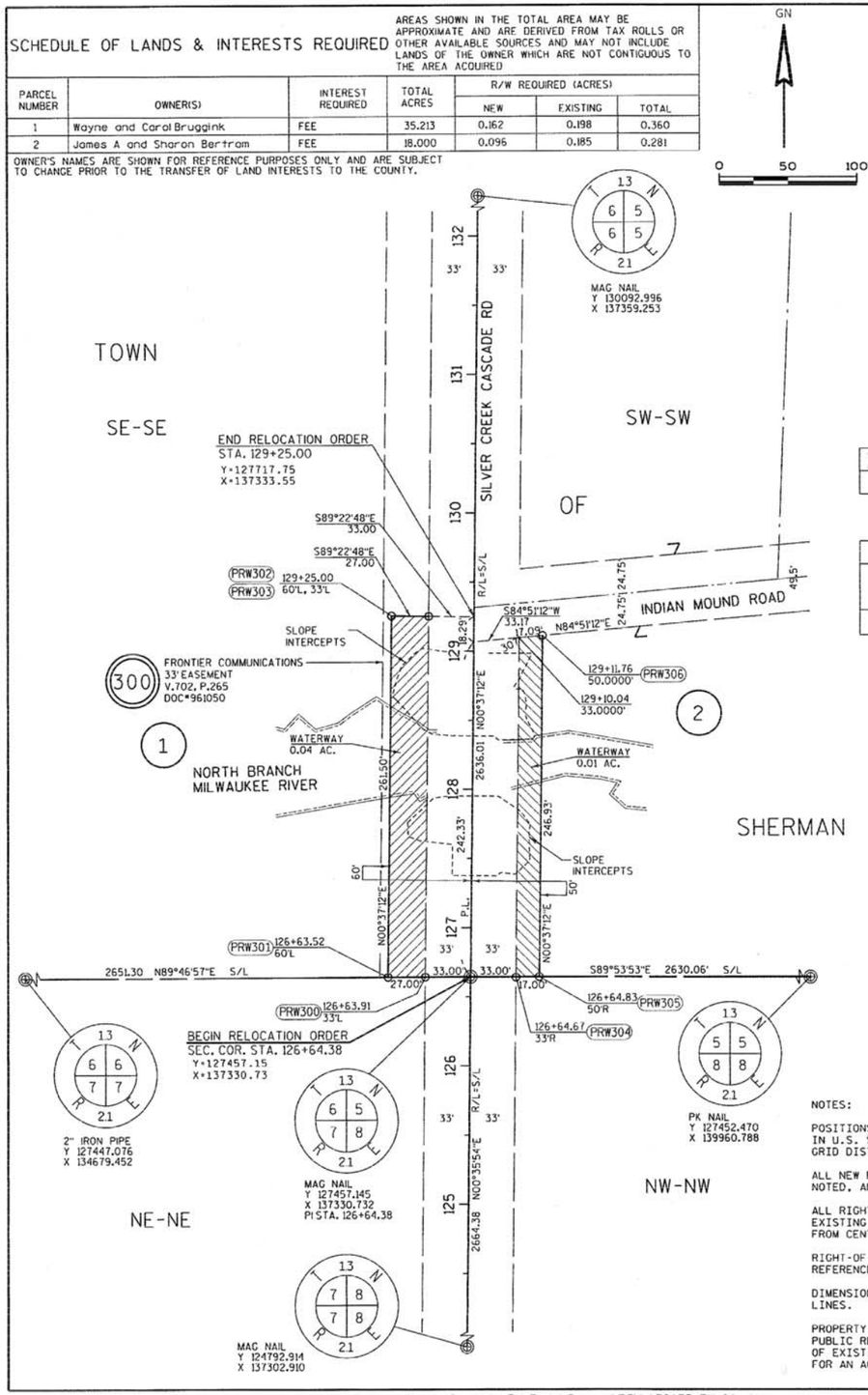
RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 4202-04-00
AMENDMENT NO:___

SCHEDULE OF LANDS & INTERESTS REQUIRED

AREAS SHOWN IN THE TOTAL AREA MAY BE APPROXIMATE AND ARE DERIVED FROM TAX ROLLS OR OTHER AVAILABLE SOURCES AND MAY NOT INCLUDE LANDS OF THE OWNER WHICH ARE NOT CONTIGUOUS TO THE AREA ACQUIRED

PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	TOTAL ACRES	R/W REQUIRED (ACRES)		
				NEW	EXISTING	TOTAL
1	Wayne and Carol Bruggink	FEE	35.213	0.162	0.198	0.360
2	James A and Sharon Bertram	FEE	18.000	0.096	0.185	0.281

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



NEW R/W COORDINATE TABLE

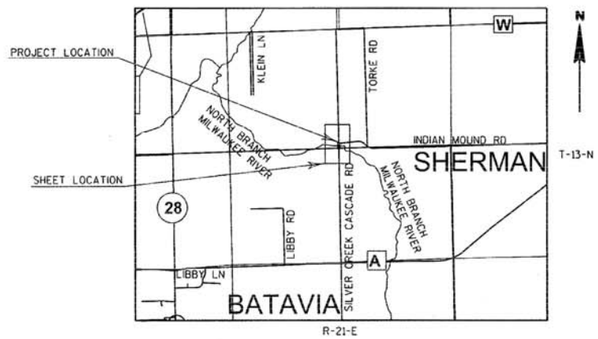
Point	Northing	Easting
PRW300	127457.02	137297.73
PRW301	127456.92	137270.73
PRW302	127718.40	137273.56
PRW303	127718.11	137300.55
PRW304	127457.09	137363.73
PRW305	127457.06	137380.73
PRW306	127703.97	137383.41
ERW307	127702.44	137366.39

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	OWNER(S)	
300	FRONTIER COMMUNICATIONS	RELEASE OF RIGHTS

ROAD NAME	BASIS OF EXISTING R/W	YEAR	WIDTH
SILVER CREEK CASCADE ROAD	STATUTORY AUTHORITY - WISCONSIN STATUTES 82.31(2)(a) TOWN ROAD RECORD 43	1849	66'
INDIAN MOUND ROAD	TOWN ROAD RECORD 35	1880	3 RODS

LOCATION MAP



NOT TO SCALE
TOTAL NET LENGTH OF CENTERLINE = 0.049 MI.

CONVENTIONAL ABBREVIATIONS

ACCESS POINT/ DRIVEWAY CONNECTION	AP	REFERENCE LINE	R/L
ACCESS RIGHTS	AR	RELEASE OF RIGHTS	ROR
ACRES	AC.	REMAINING	REM.
AND OTHERS	ET.AL.	RIGHT-OF-WAY	R/W
CENTERLINE	C/L	SECTION	SEC.
CERTIFIED SURVEY MAP	CSM	SECTION LINE	S/L
CORNER	COR.	STATION	STA.
DOCUMENT	DOC.	TEMPORARY LIMITED EASEMENT	TLE
EASEMENT	EASE.	VOLUME	V.
HIGHWAY EASEMENT	H.E.	**CURVE DATA**	
LAND CONTRACT	LC	LONG CHORD	LCH
MONUMENT	MON.	LONG CHORD BEARING	LCB
PAGE	P.	RADIUS	R
PERMANENT LIMITED EASEMENT	PLE	DEGREE OF CURVE	D
PROPERTY LINE	PL	CENTRAL ANGLE OR DELTA	DELTA
RECORDED AS	(100')	LENGTH OF CURVE	L
		TANGENT	TAN

CONVENTIONAL SYMBOLS

FOUND IRON PIPE/PIN	⌀ (1" UNLESS NOTED)	PROPOSED R/W LINE	
		EXISTING H.E. LINE	
R/W MONUMENT	•(SET)	PROPERTY LINE	
R/W STANDARD	▲ •(SET)	LOT & TIE LINES	
SIGN	SIGN	SLOPE INTERCEPTS	
SECTION CORNER MONUMENT	⊕	CORPORATE LIMITS	
SECTION CORNER SYMBOL		NO ACCESS (BY PREVIOUS ACQUISITION/CONTROL)	
FEE (HATCH VARIES)		NO ACCESS (BY ACQUISITION)	
TEMPORARY LIMITED EASEMENT		NO ACCESS (BY STATUTORY AUTHORITY)	
PERMANENT LIMITED EASEMENT		SECTION LINE	
R/W BOUNDARY POINT	RWB20	QUARTER LINE	
PARCEL NUMBER	102	SIXTEENTH LINE	
UTILITY PARCEL NUMBER	92	EXISTING CENTERLINE	
SIGN NUMBER (OFF PREMISE)	21	PROPOSED REFERENCE LINE	
BUILDING		PARALLEL OFFSET	

CONVENTIONAL UTILITY SYMBOLS

WATER	W	CABLE TELEVISION	TV
GAS	G	FIBER OPTIC	FO
TELEPHONE	T	SANITARY SEWER	SAN
OVERHEAD TRANSMISSION LINES	OH	STORM SEWER	SS
ELECTRIC	E		

	COMPENSABLE	NON-COMPENSABLE
ELECTRIC POLE		
TELEPHONE POLE		
PEDESTAL (LABEL TYPE) (TV, TEL, ELEC, ETC.)		

NOTES:

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

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 3/4"X24" IRON ROD), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

ALL RIGHT-OF-WAY LINES DEPICTED IN THE NON-ACQUISITION AREAS ARE INTENDED TO RE-ESTABLISH EXISTING RIGHT-OF-WAY LINES AS DETERMINED FROM PREVIOUS PROJECTS, OTHER RECORDED DOCUMENTS, OR FROM CENTERLINE OF EXISTING PAVEMENTS.

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

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

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

KAPUR & ASSOCIATES, INC.
CONSULTING ENGINEERS
MILWAUKEE, WISCONSIN
414.351.6668

I, GARY D. SCHNEIDER, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF TOWN OF SHERMAN, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

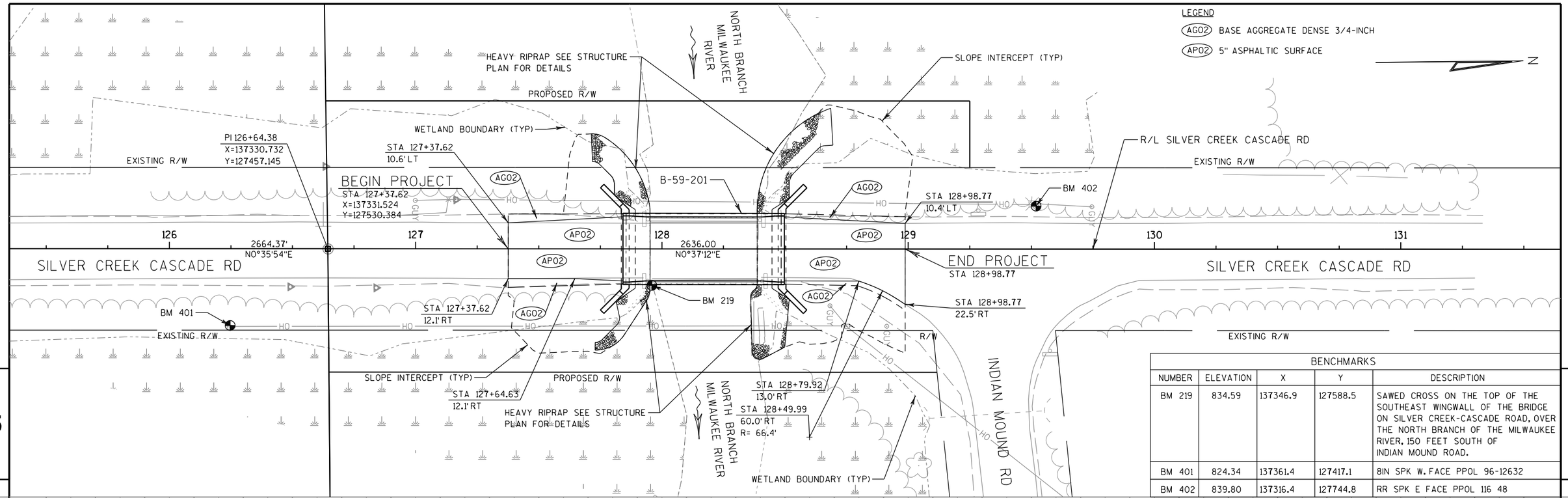
WISCONSIN
GARY D. SCHNEIDER
S-1297
West Bend
Wisconsin
LAND SURVEYOR

SIGNATURE _____ DATE 05/17/2018
GARY D. SCHNEIDER, P.L.S. S-1297

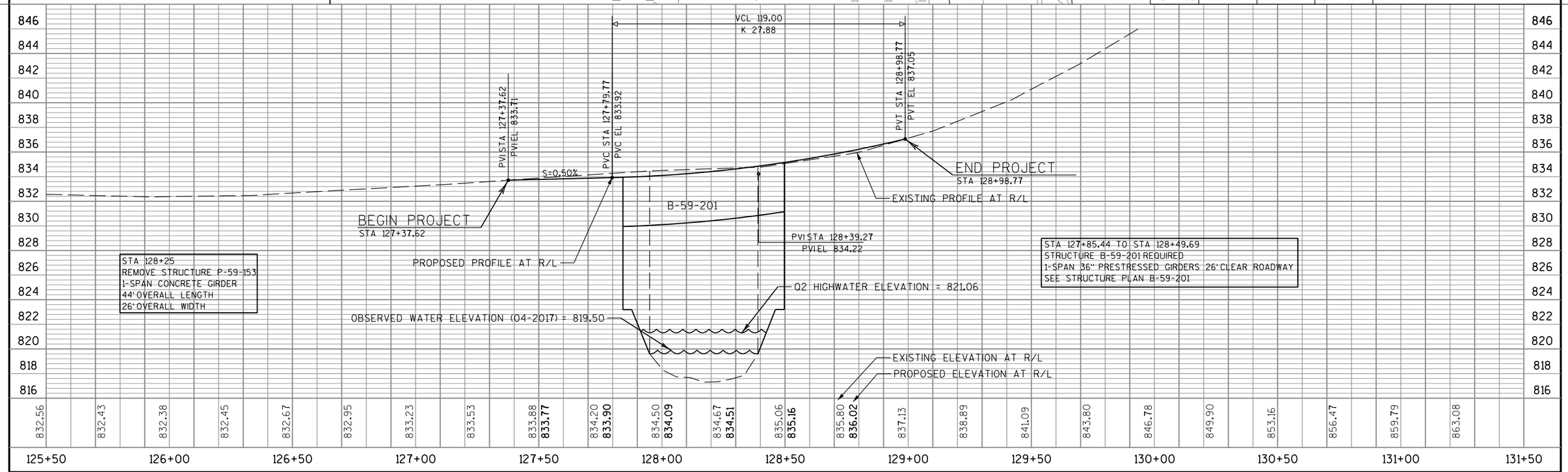
THIS PLAT AND RELOCATION ORDER ARE APPROVED BY THE TOWN OF SHERMAN

SIGNATURE _____ DATE 7/9/18
PRINT William Gochnour

FILE NAME: S:\DOT\DOT_NE\170175-ID 4202-04-00_Silver Creek Cascade Rd Brdg\Survey\DGN\170175_RW_01.dgn
PLOT DATE: 5/17/2018
PLOT BY: rkhayting
1:50
APPRAISAL PLAT DATE: _____
4202-04-00 - 4.01



BENCHMARKS				
NUMBER	ELEVATION	X	Y	DESCRIPTION
BM 219	834.59	137346.9	127588.5	SAWED CROSS ON THE TOP OF THE SOUTHEAST WINGWALL OF THE BRIDGE ON SILVER CREEK-CASCADE ROAD, OVER THE NORTH BRANCH OF THE MILWAUKEE RIVER, 150 FEET SOUTH OF INDIAN MOUND ROAD.
BM 401	824.34	137361.4	127417.1	8IN SPK W. FACE PPOL 96-12632
BM 402	839.80	137316.4	127744.8	RR SPK E FACE PPOL 116 48

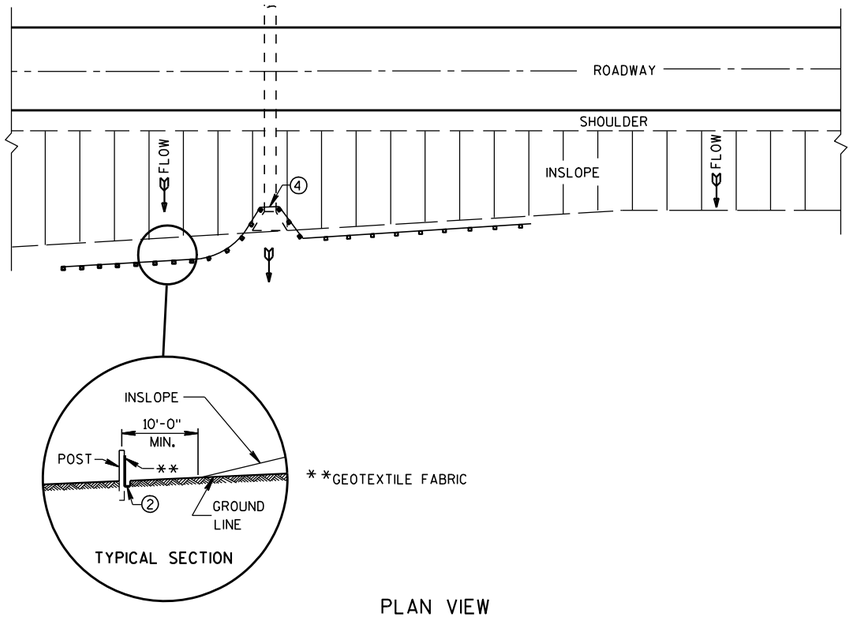


PROJECT NO: 4202-04-71	HWY: SILVER CREEK CASCADE ROAD	COUNTY: SHEBOYGAN	PLAN AND PROFILE: SILVER CREEK CASCADE RD	SHEET 11 E

Standard Detail Drawing List

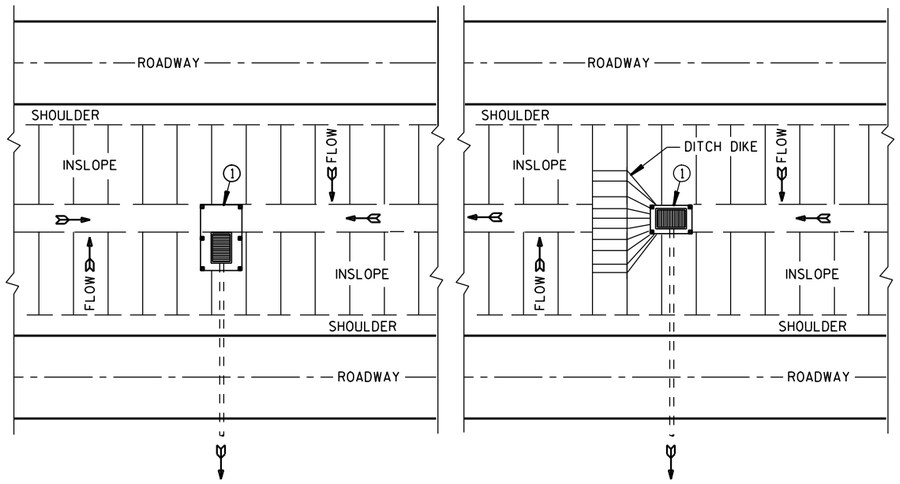
08E09-06	SILT FENCE
08E11-02	TURBIDITY BARRIER
12A03-10	NAME PLATE (STRUCTURES)
15C02-07A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-07B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C06-09	SIGNING & MARKING FOR TWO LANE BRIDGES

6



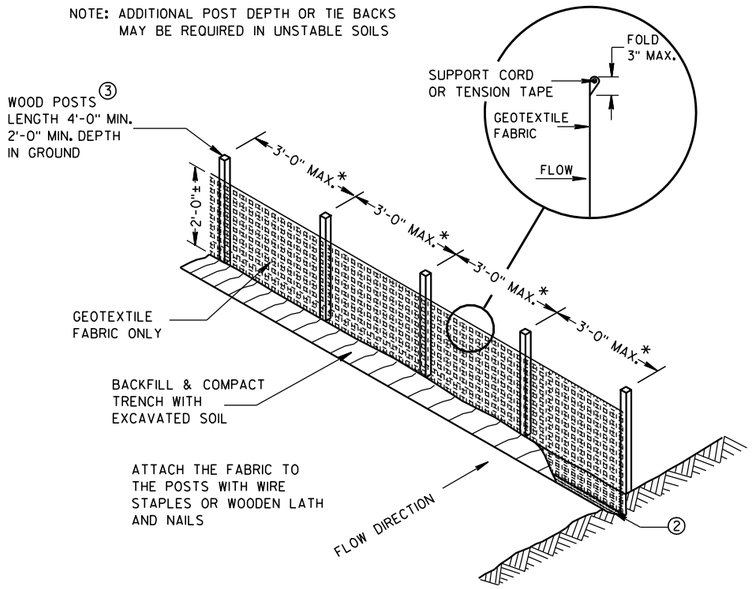
PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



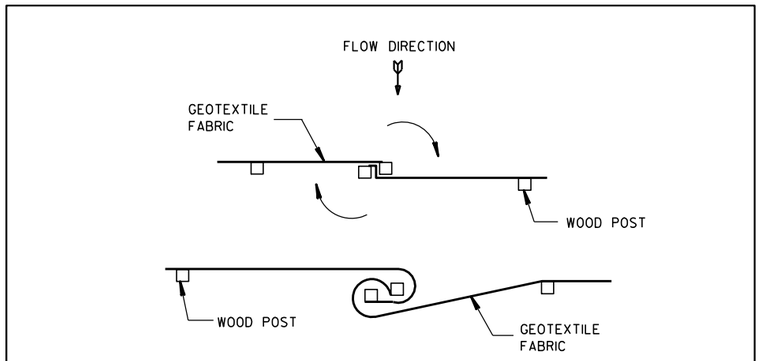
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

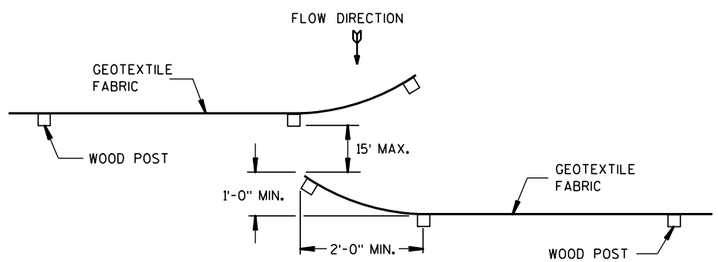


*NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.

SILT FENCE



TWIST METHOD



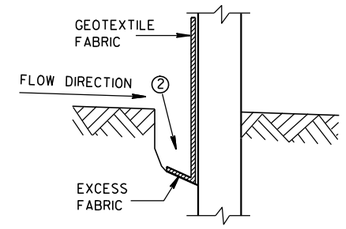
HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE 5

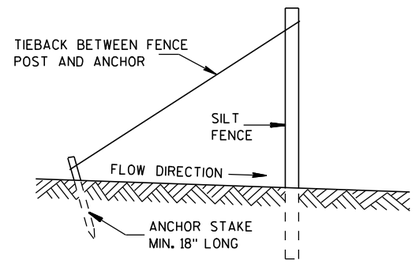
GENERAL NOTES

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

1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.
4. SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
5. CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



TRENCH DETAIL



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

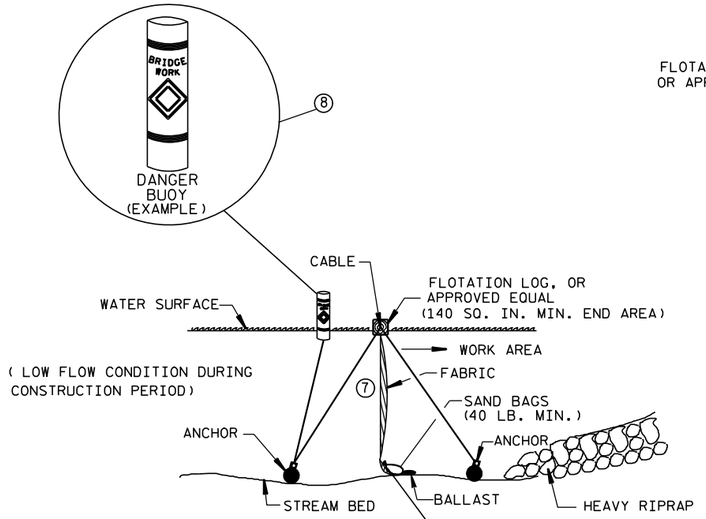
SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

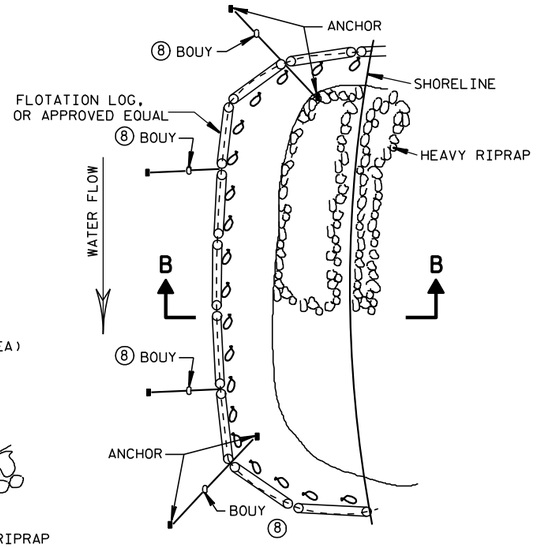
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

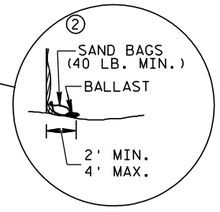
S.D.D. 8 E 9-6

S.D.D. 8 E 9-6

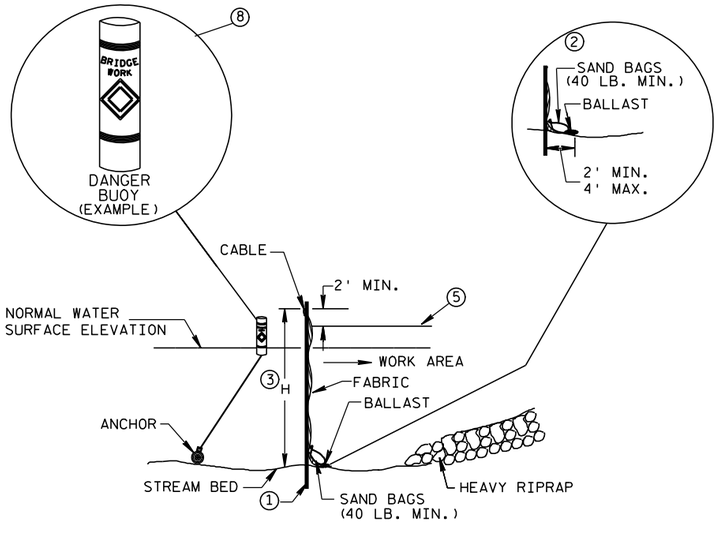


SECTION B-B

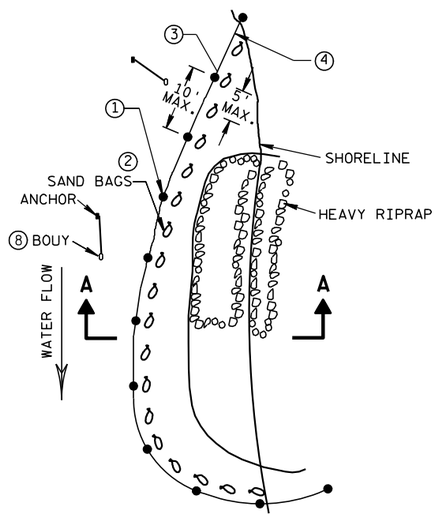




TURBIDITY BARRIER FLOAT ALTERNATIVE
CAUTION - SEE NOTE 6



SECTION A-A



PLAN VIEW

TURBIDITY BARRIER STANDARD POST INSTALLATION

TURBIDITY BARRIER PLACEMENT DETAILS

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.

TURBIDITY BARRIER MAY BE REMOVED AT THE ENGINEERS DISCRETION, WHEN PERMANENT EROSION CONTROL MEASURES HAVE BEEN ESTABLISHED.

① DRIVEN STEEL POSTS, PIPES, OR CHANNELS. LENGTH SHALL BE SUFFICIENT TO SECURELY SUPPORT BARRIER AT HIGH WATER ELEVATIONS.

② SANDBAGS TO BE USED AS ADDITIONAL BALLAST WHEN ORDERED BY THE ENGINEER TO MEET ADVERSE FIELD CONDITIONS. SPACE AS APPROPRIATE FOR SITE CONDITIONS.

③ WHEN BARRIER HEIGHT, H, EXCEEDS 8 FT., POST SPACING MAY NEED TO BE DECREASED.

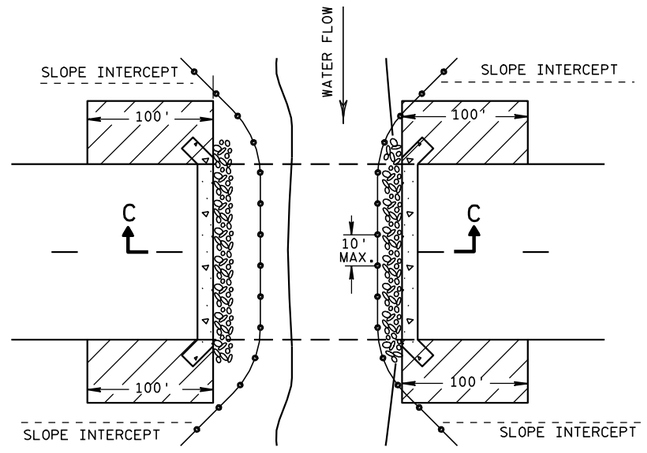
④ IN WATERWAYS SUBJECT TO FLUCTUATING WATER ELEVATIONS, PROVISIONS SHOULD BE MADE TO ALLOW THE WATER TO EQUALIZE ON EACH SIDE OF THE BARRIER. THIS MAY BE ACCOMPLISHED BY LEAVING A PORTION OF THE BARRIER OPEN ON THE UPSTREAM END.

⑤ ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION PERIOD. MIMIMUM BARRIER HEIGHT SHALL BE 2'GREATER THAN EITHER THE O2 ELEVATION OR THE ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION, WICHEVER IS GREATER.

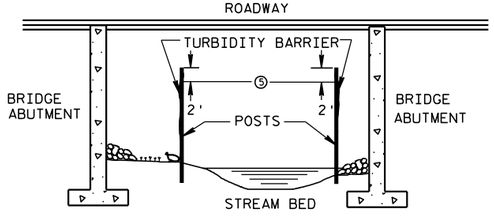
⑥ FLOAT ALTERNATIVE WILL ONLY BE ALLOWED WITH WRITTEN APPROVAL OF THE ENGINEER, AND IS MEANT FOR LOCATIONS WHERE BED ROCK PREVENTS THE INSTALLATION OF POSTS.

⑦ ALLOW SUFFICIENT SLACK VERTICALLY AND HORIZONTALLY SO THAT SEDIMENT BUILD UP WILL NOT SEPARATE OR LOWER THE TURBIDITY BARRIER.

⑧ USE AS DIRECTED BY COAST GUARD OR DNR PERMIT WHEN WORKING IN NAVIGABLE WATERWAYS.



PLAN VIEW



SECTION C-C

TURBIDITY BARRIER DETAIL SHOWING TYPICAL PLACEMENT AT STRUCTURES

TURBIDITY BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

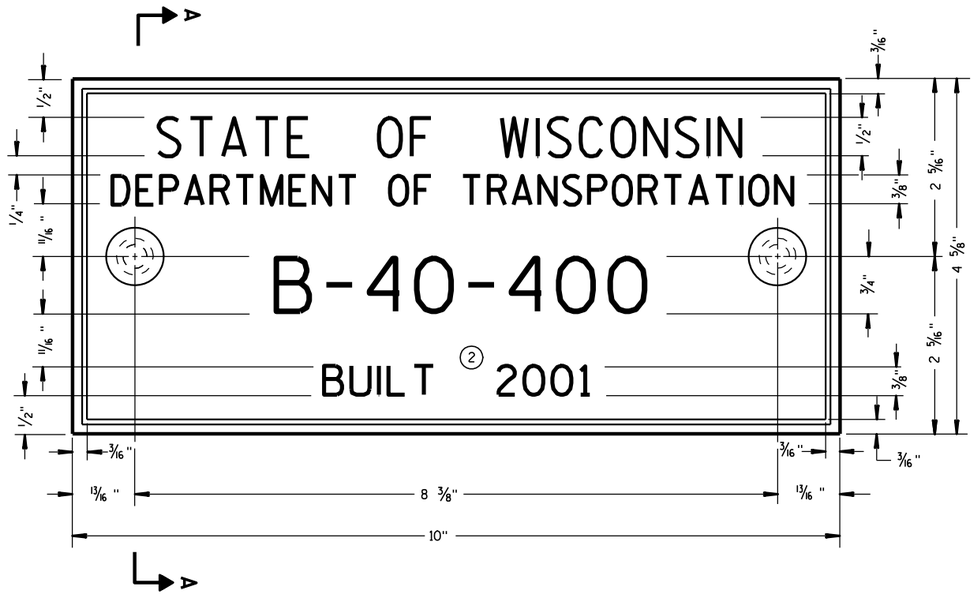
APPROVED
6/04/02 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 E 11-2

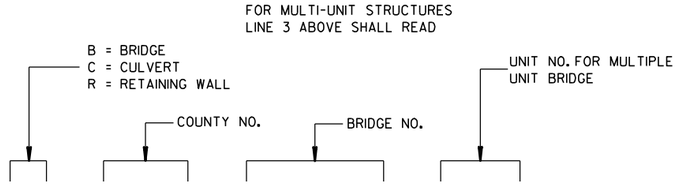
6

S.D.D. 8 E 11-2



TYPICAL NAME PLATE

(BRIDGES, CULVERTS, AND RETAINING WALLS)



NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES

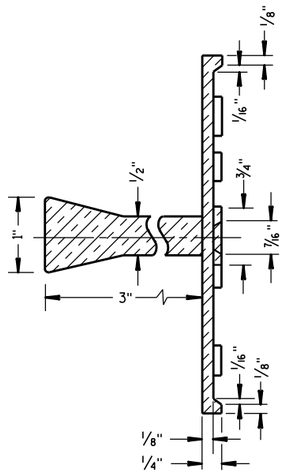
GENERAL NOTES

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

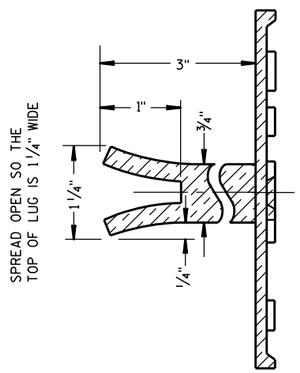
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

(1) EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

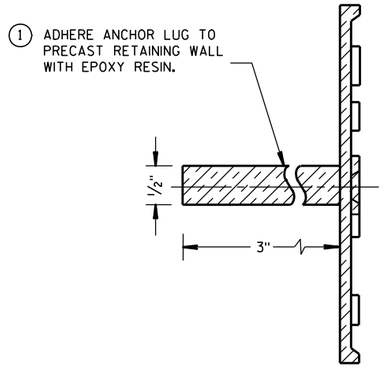
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG



ALTERNATE LUG

(FOR ATTACHMENT TO PRECAST STRUCTURES)

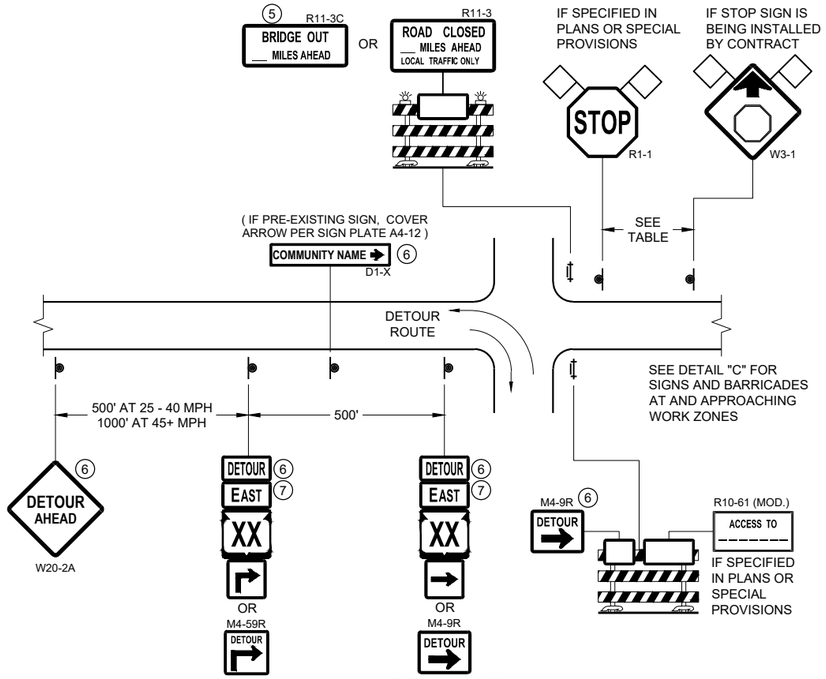
NAME PLATE (STRUCTURES)	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
3/26/10 DATE	/S/ Scot Beck -- CHIEF STRUCTURAL DEVELOP ENGINEER
FHWA	

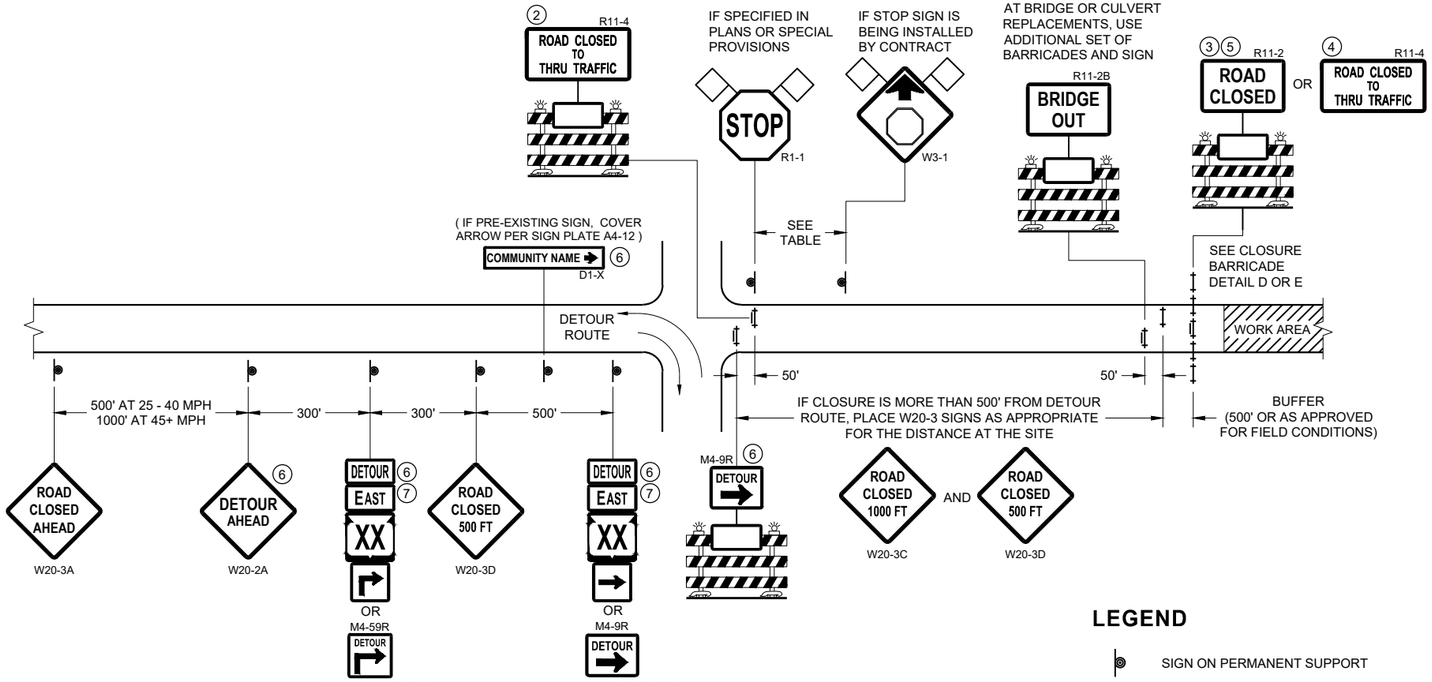
6

S.D.D. 12 A 3-10

6

S.D.D. 12 A 3-10



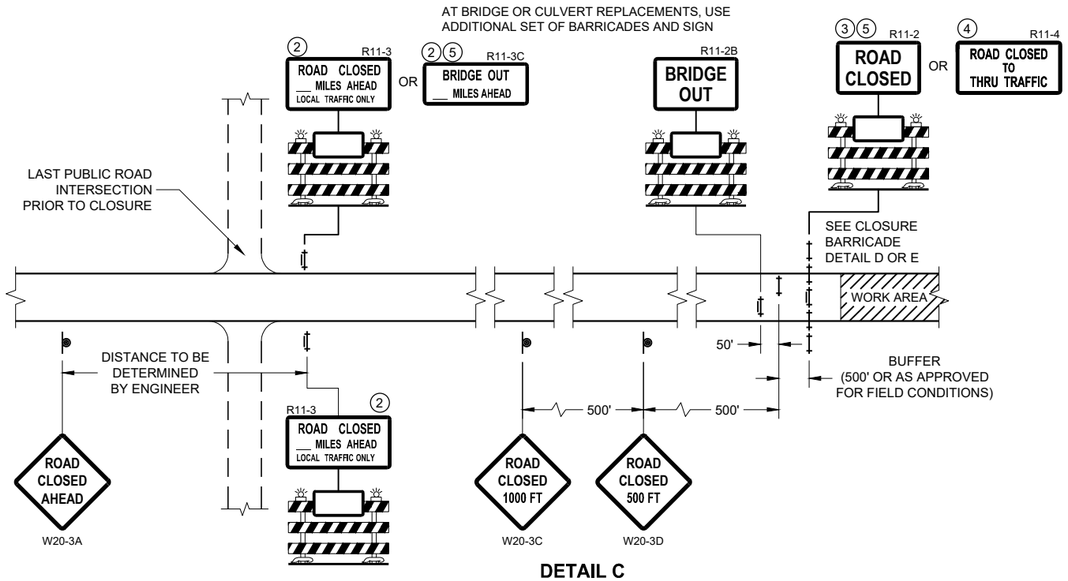


DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER LESS THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)

DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

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

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

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)
- DETOUR — M4 - 8
- EAST — M3 - X
- XX — M1 - 4 OR XX — M1 - 6 OR COUNTY X — M1 - 5A
- M05 - 1 OR M06 - 1

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

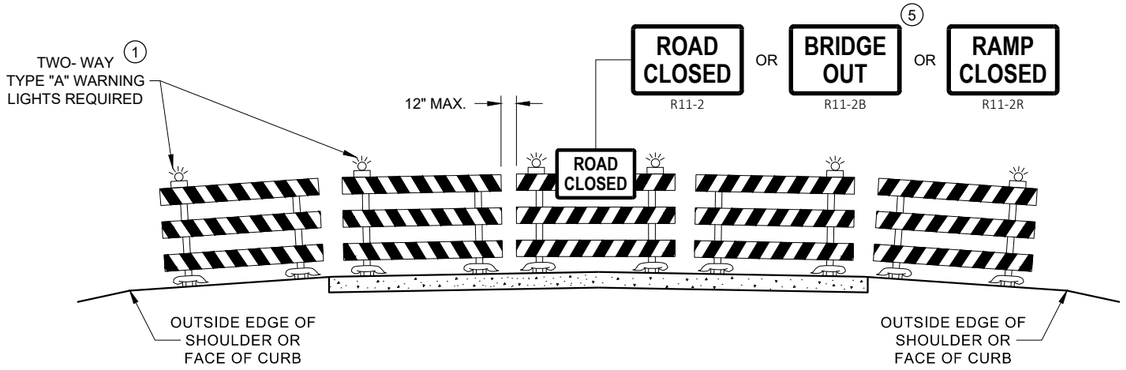
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

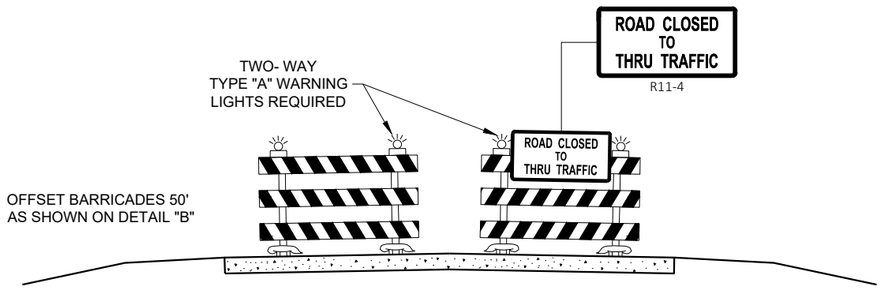
FHWA

SDD 15C02 - 07a

6
SDD 15C02 - 07a



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 PORTABLBLE 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 15" IF NEEDED TO MATCH EXISTING SIGNS)
- M1 - 4, M1 - 5A AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- 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 CARDIANAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR VARIOUS CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE
FHWA

6

SDD 15C02 - 07b

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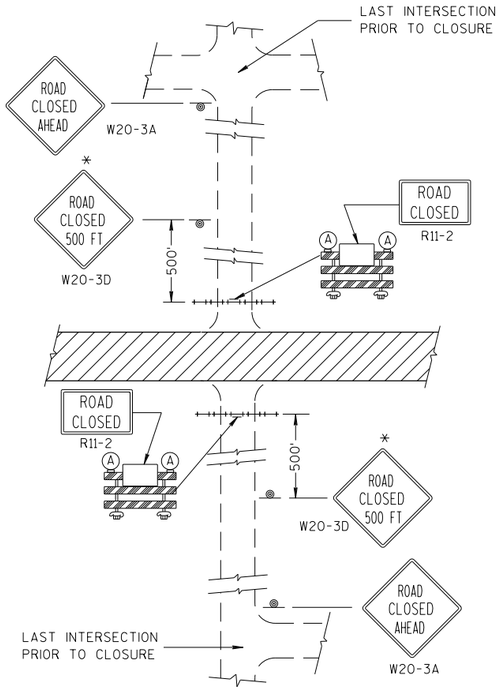
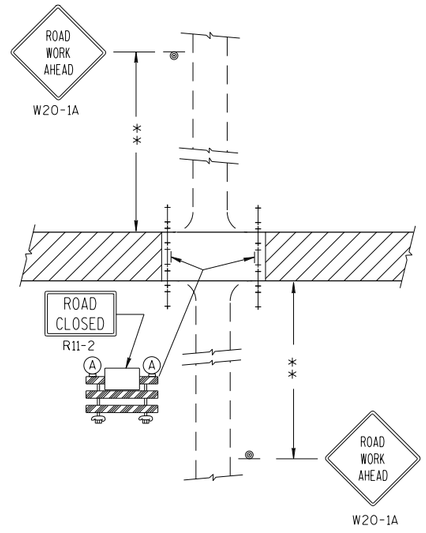
SDD 15C02 - 07b



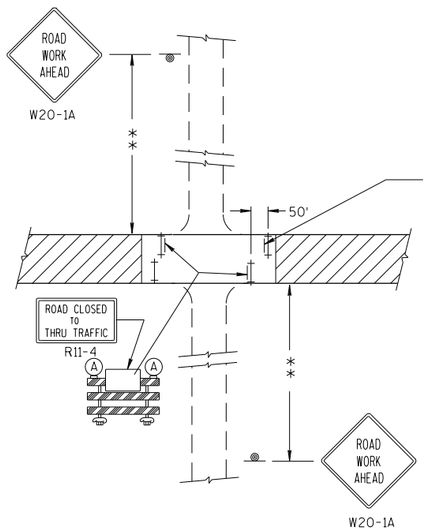
DETAIL 1

(NO ACCESS TO PROJECT)



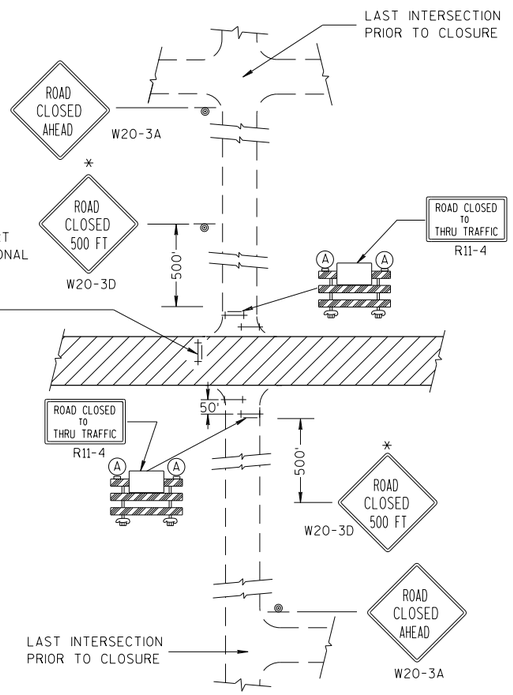
DETAIL 2

(PUBLIC CROSS-TRAFFIC MAINTAINED.
NO ACCESS TO PROJECT).



DETAIL 3

(PUBLIC CROSS-TRAFFIC MAINTAINED. CONTRACTOR,
LOCAL BUSINESS AND RESIDENT ACCESS).



DETAIL 4

(CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)

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.

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

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 AND R11-4 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
R11-2 SHALL BE 48" X 30".
R11-4 AND R11-3 SHALL BE 60" X 30".

*OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FT. OR LESS FROM THE WORK ZONE.

**500' MAX. OR AT LAST INTERSECTION WHICHEVER IS CLOSER.

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGI

FHWA

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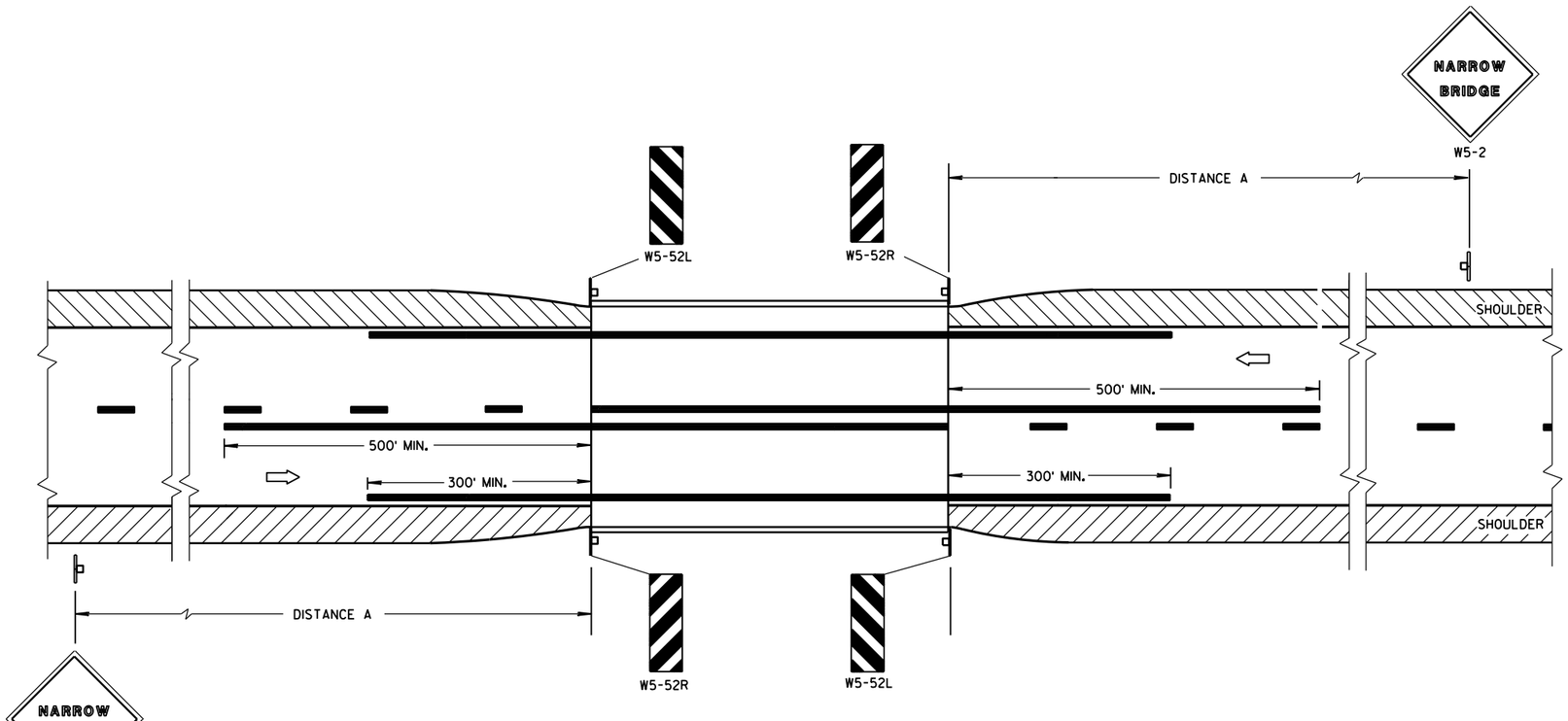
S.D.D. 15 C 3-5



SITUATION 1

WARRANTING CRITERIA:
BRIDGE WIDTH IS AT LEAST 16 FEET BUT LESS THAN 24 FEET.

DISTANCE TABLE

POSTED OR 85th PERCENTILE SPEED	DISTANCE "A"
25	150'
30	200'
35	250'
40	300'
45	400'
50	550'
55	750'

GENERAL NOTES

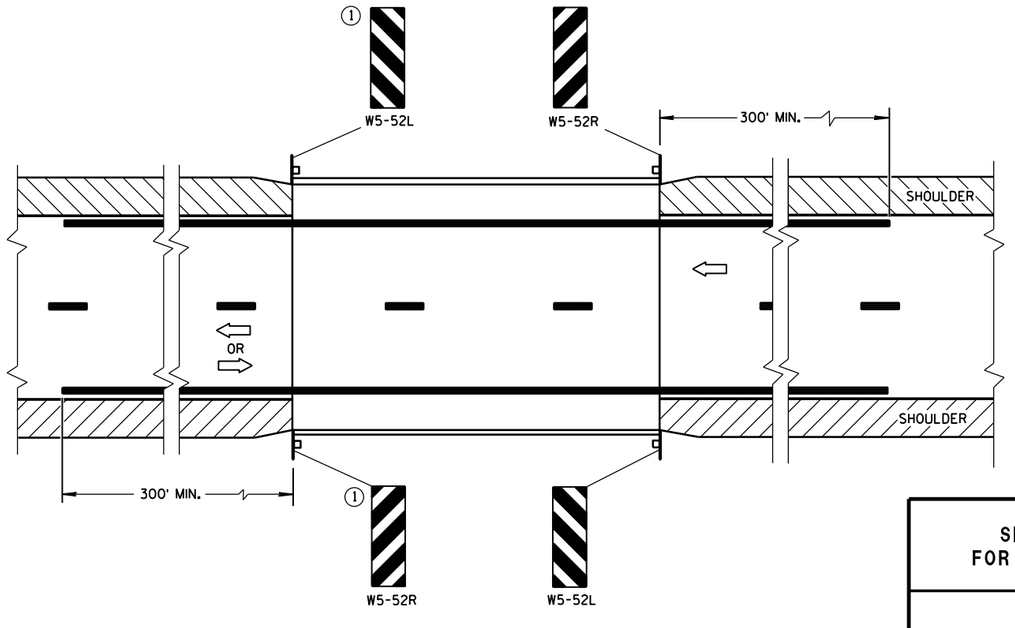
DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

LOCATE W5-52 SIGN POST(S) BEHIND GUARDRAIL WHEN PRESENT.

PLACE THE EDGE OF THE W5-52 SIGN IN LINE WITH FACE OF CURB OR PARAPET.

(1) OMIT ON ONE-WAY TRAVELLED WAYS.

⇨ DIRECTION OF TRAFFIC



SITUATION 2

WARRANTING CRITERIA:

1. BRIDGE WIDTH IS AT LEAST 24 FEET AND
2. BRIDGE SHOULDER WIDTH IS LESS THAN 6 FEET.

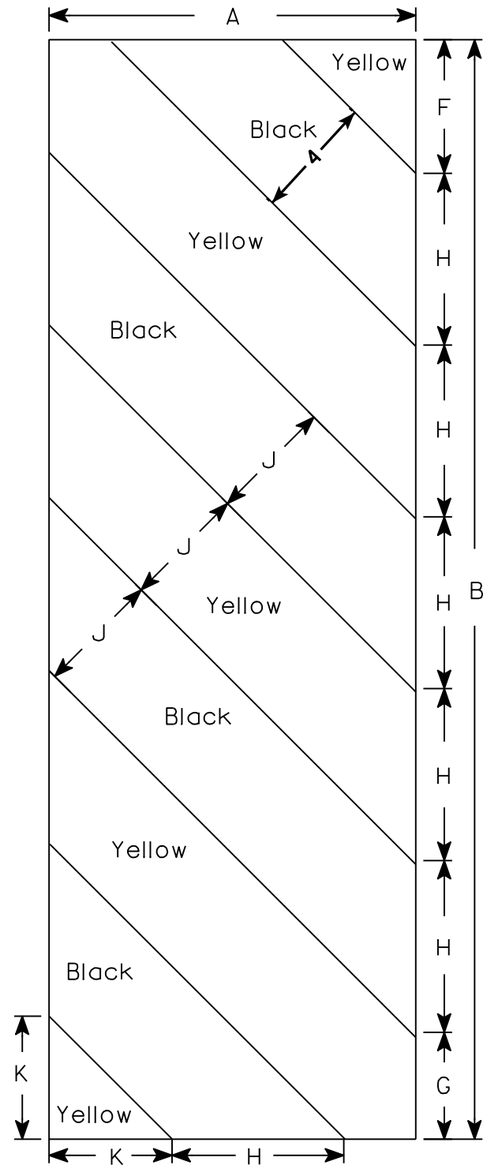
SIGNING & MARKING FOR TWO LANE BRIDGES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

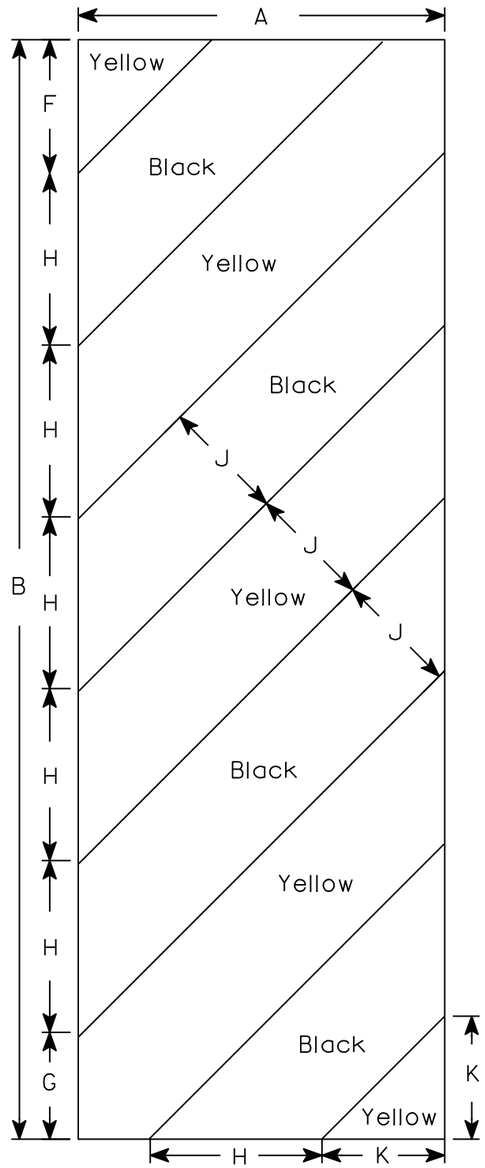
APPROVED
June 2017 — DATE
/S/ Matthew R. Rauch — STATE SIGNING AND MAR[illegible]EER
FHWA

6

S.D.D. 15 C 6-9



W5-52L



W5-52R

NOTES

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

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

STANDARD SIGN

W5-52L & W5-52R

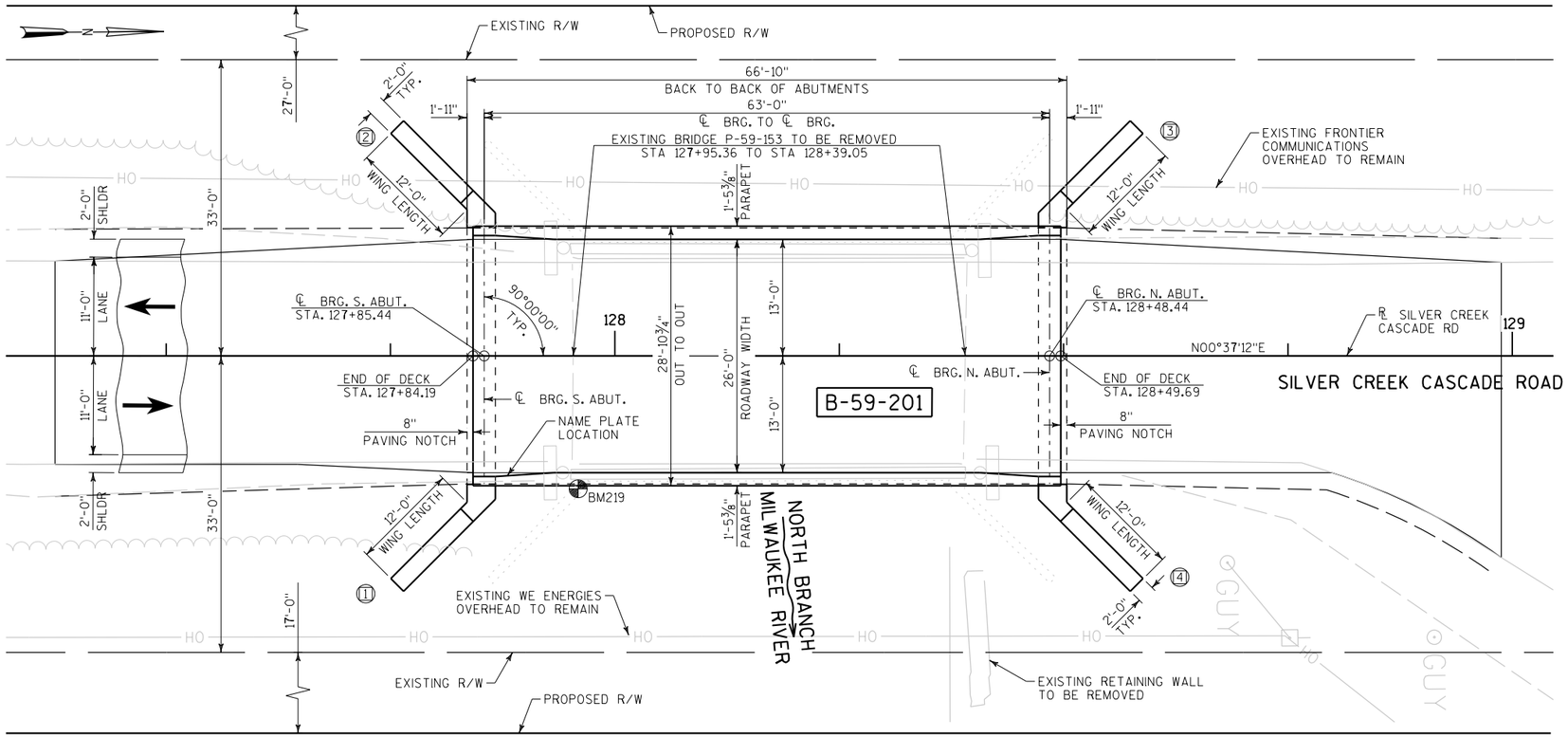
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 20 | E

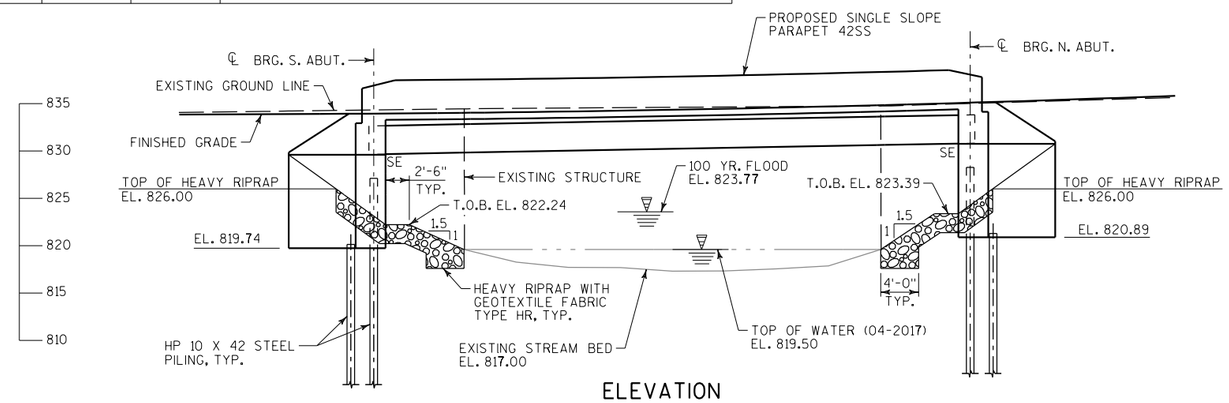
STATE PROJECT NUMBER
4202-04-71



PLAN

(SINGLE SPAN 36" PRESTRESSED GIRDER)
(HEAVY RIPRAP NOT SHOWN FOR CLARITY. SEE SHEET 20 FOR HEAVY RIPRAP LIMITS)

BENCHMARKS				
NUMBER	ELEVATION	X	Y	DESCRIPTION
BM 219	834.59	137346.948	127588.526	SAWED CROSS ON THE TOP OF THE SOUTHEAST WINGWALL OF THE BRIDGE ON SILVER CREEK-CASCADE ROAD, OVER THE NORTH BRANCH OF THE MILWAUKEE RIVER, 150 FEET SOUTH OF INDIAN MOUND ROAD.
BM 401	824.34	137361.418	127417.136	8IN SPK W. FACE PPOL 96-12632
BM 402	839.80	137316.425	127744.865	RR SPK E FACE PPOL 116 48



ELEVATION

(LOOKING WEST)

HYDRAULIC DATA:

100 YEAR FREQUENCY

DRAINAGE AREA ..... 32.4 SQ. MI.
Q100 ..... 1767 C.F.S.
VELOCITY ..... 6.0 F.P.S.
BRIDGE WATERWAY AREA ..... 293 SQ. FT.
HIGHWATER ELEVATION 823.77
ROAD OVERTOPPING NOT APPLICABLE
SCOUR CODE 8

2 YEAR FREQUENCY

Q2 ..... 444 C.F.S.
VELOCITY ..... 3.58 F.P.S.
HIGHWATER ELEVATION 821.06

LIST OF DRAWINGS

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: RF = 1.16
OPERATING RATING FACTOR: RF = 1.62
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 250 KIPS

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 POUNDS PER SQUARE FOOT.

MATERIAL PROPERTIES:

CONCRETE MASONRY:
SUPERSTRUCTURE ..... f'c = 4,000 psi
SUBSTRUCTURE ..... f'c = 3,500 psi
PRESTRESSED CONCRETE GIRDERS ..... f'c = 8,000 psi
BAR STEEL REINFORCEMENT ..... Fy = 60,000 psi
STEEL PILING ..... Fy = 50,000 psi
0.5" DIA. PRESTRESSING STRANDS ..... ULTIMATE TENSILE STRENGTH = 270,000 psi

FOUNDATION DATA

USING THE MODIFIED GATES ACCEPTANCE METHOD:

ABUTMENTS TO BE SUPPORTED ON HP 10 X 42 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 155 TONS* PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA.

*THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.50 USING MODIFIED GATES TO DETERMINE DRIVEN PILE CAPACITY.

ESTIMATED PILE LENGTHS:
SOUTH ABUTMENT ..... 30 FEET
NORTH ABUTMENT ..... 25 FEET

TRAFFIC DATA

SILVER CREEK CASCADE RD

2019 ADT = 140
2039 ADT = 160
RDS = 55 MPH

LEGEND

→ DIRECTION OF TRAFFIC
Ⓧ WINGWALL NUMBER
T.O.B. TOP OF BERM

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
WILLIAM DREHER (608) 266-8489
CONSULTANT:
MOHAMMED ZAGLOUL (414) 751-7200

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY
KAPUR & ASSOCIATES
CONSULTING ENGINEERS
414.751.7200

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
ACCEPTED William C. Dreher SDR 02/06/19
CHIEF STRUCTURES DESIGN ENGINEER DATE

WISCONSIN
SHANNON CONNOLLY
E-44309-6
MILWAUKEE, WI.
PROFESSIONAL ENGINEER
1/10/2019

STRUCTURE B-59-201

SILVER CREEK CASCADE ROAD OVER NORTH BRANCH MILWAUKEE RIVER

COUNTY	TOWN
SHEBOYGAN	SHERMAN

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

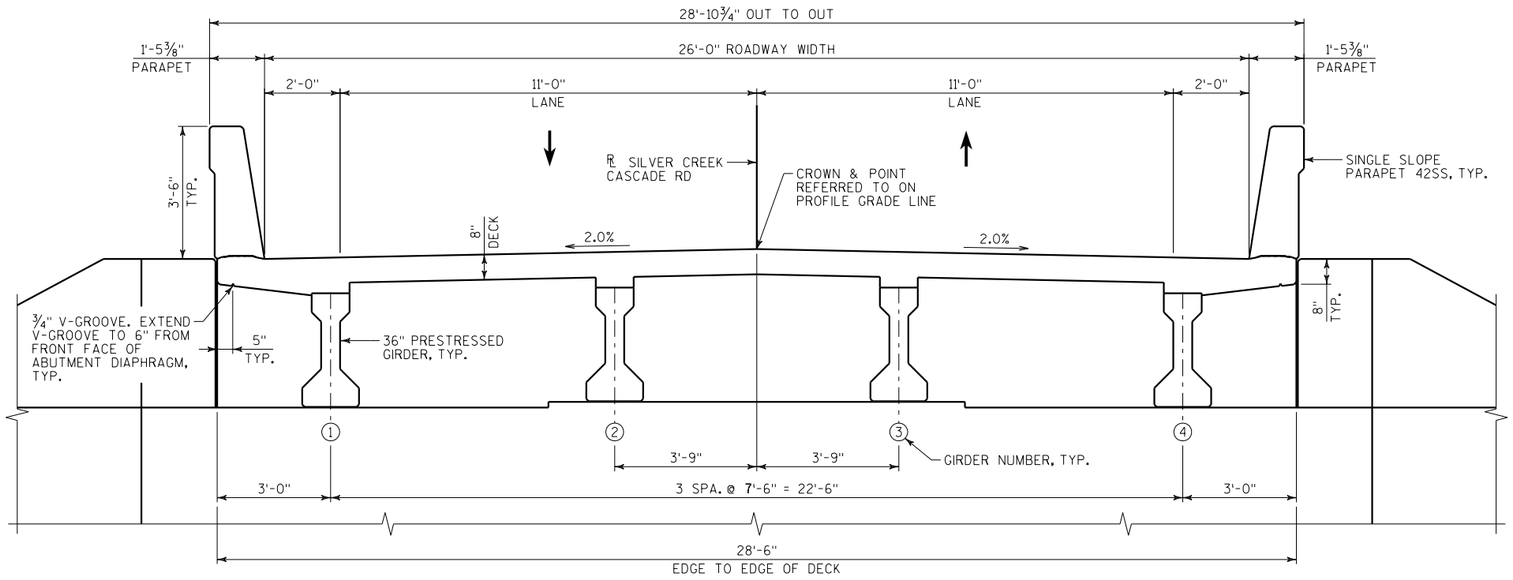
DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
SMC	MHZ	MM	MHZ

GENERAL PLAN & ELEVATION

SHEET 1 OF 20

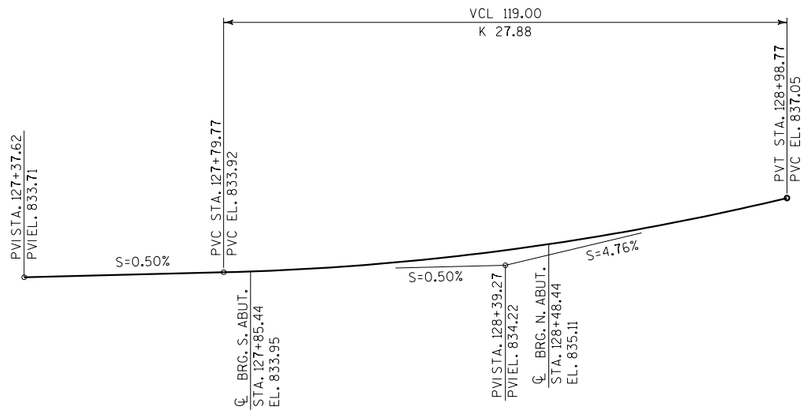
FILE NAME : S:\DOT\DOT_NE\170175-ID 4202-04-00_Silver Creek Cascade Rd Brdg\Structure\cds\B201_080101_gp.dgn
PLOT DATE : 1/10/2019
PLOT BY : sconnolly
PLOT NAME : $FILE$
PLOT SCALE : 1:16

STATE PROJECT NUMBER
4202-04-71



TYPICAL SECTION

(LOOKING NORTH)



PROFILE GRADE LINE - SILVER CREEK CASCADE RD

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-59-201

DRAWN BY SMC | PLANS CK'D. MHZ

TYPICAL SECTION AND PROFILE GRADE LINE

SHEET 2 OF 20

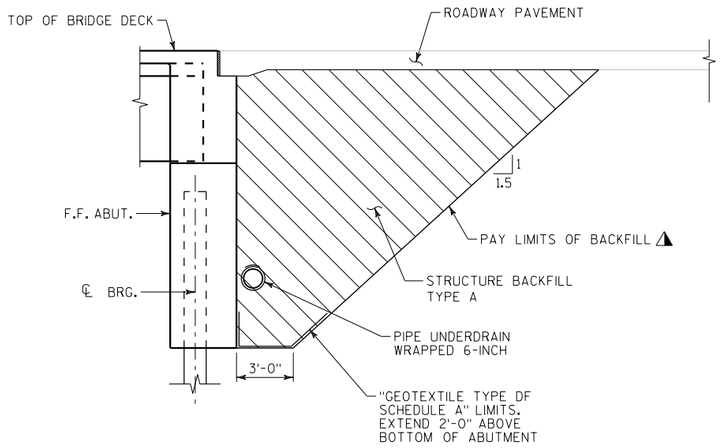
FILE NAME : S:\DOT\DOT_NE\170175-ID 4202-04-00_Silver Creek Cascade Rd Brdg\Structure\cds\B201_080102_ts.dgn PLOT DATE : 1/10/2019 PLOT BY : sconnolly PLOT NAME : $FILE$ PLOT SCALE : 1:8

STATE PROJECT NUMBER
4202-04-71

TOTAL ESTIMATED QUANTITIES

ITEM NO.	BID ITEMS	UNIT	SOUTH ABUTMENT	NORTH ABUTMENT	SUPER.	TOTAL
203.0500.S	REMOVING OLD STRUCTURE OVER WATERWAY STATION 128+25	LS	-	-	-	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-59-201	LS	-	-	-	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	652	653	-	1305
502.0100	CONCRETE MASONRY BRIDGES	CY	66	66	88	220
502.3200	PROTECTIVE SURFACE TREATMENT	SY	-	-	189	189
502.3210	PIGMENTED SURFACE SEALER	SY	-	-	64	64
503.0136	PRESTRESSED GIRDER TYPE I 36-INCH	LF	-	-	256	256
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	5,010	5,030	18,640	28,680
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	4	4	-	8
506.4000	STEEL DIAPHRAGMS B-59-201	EACH	-	-	3	3
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	11	11	-	22
550.1100	PILING STEEL HP 10-INCH X 42 LB	LF	230	190	-	420
606.0300	RIPRAP HEAVY	CY	73	102	-	175
612.0206	PIPE UNDERDRAIN UNPERFORATED 6-INCH	LF	20	20	-	40
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	60	60	-	120
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	44	44	-	88
645.0120	GEOTEXTILE TYPE HR	SY	133	182	-	315
	NON-BID ITEMS					
	PREFORMED JOINT FILLER	SIZE				1/2"
	NON-BITUMINOUS JOINT FILLER	SIZE				1/2"
	CORK FILLER	SIZE				3/4"
	NAME PLATE	EACH				1

ALL ITEMS ARE CATEGORY 0020



BACKFILL LIMITS

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

BAR STEEL REINFORCEMENT SHALL BE PLACED WITH 2" OF CLEAR CONCRETE COVER UNLESS OTHERWISE NOTED.

BEVEL EXPOSED EDGES OF CONCRETE $\frac{3}{4}$" UNLESS OTHERWISE NOTED.

ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), SHEBOYGAN COUNTY ZONE, NAD 83 (2011). ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS REFERENCED TO THE NATIONAL GEODETIC VERTICAL DATUM (NGVD29).

THE UTILITY INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE. UTILITIES LABELED AS PROPOSED MAY BE INSTALLED BY OTHERS PRIOR TO THIS CONTRACT.

THE FIRST DIGIT OF A THREE DIGIT BAR MARK OR THE FIRST TWO DIGITS OF A FOUR DIGIT BAR MARK SIGNIFY THE BAR SIZE.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES BRIDGES B-59-201" SHALL BE THE EXISTING GROUND LINE & THE EXISTING STREAM BED.

AT THE BACK FACE OF ABUTMENT, ALL SPACES EXCAVATED AND NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL.

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH HEAVY RIPRAP AND GEOTEXTILE FABRIC TYPE 'HR' TO THE EXTENT SHOWN ON SHEET 20 AND IN THE ABUTMENT DETAILS.

THE STREAM BED IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH RIPRAP AS SHOWN ON SHEET 20 AND IN THE ABUTMENT DETAILS.

APPLY PROTECTIVE SURFACE TREATMENT TO THE TOP OF THE DECK AND THE PAVING NOTCH.

APPLY PIGMENTED SURFACE SEALER TO THE TOP & INSIDE FACE OF PARAPETS ON THE BRIDGE.

THE EXISTING BRIDGE, P-59-153, IS A SINGLE SPAN REINFORCED CONCRETE DECK GIRDER SUPPORTED ON FULL RETAINING TYPE ABUTMENTS. THE ENTIRE STRUCTURE SHALL BE REMOVED IN ACCORDANCE WITH PROJECT CONSTRUCTION PLANS. AS-BUILT PLANS FOR THE EXISTING BRIDGE ARE NOT AVAILABLE.

EXISTING RETAINING WALL AT THE NORTHEAST CORNER OF THE BRIDGE IS TO BE REMOVED. THE REMOVAL OF THE RETAINING WALL IS TO BE INCIDENTAL TO BID ITEM "REMOVING OLD STRUCTURE OVER WATERWAY STATION 128+25".

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

PRESTRESSED GIRDER BRIDGES - THE HAUNCH CONCRETE QUANTITY IS BASED ON THE AVERAGE HAUNCH SHOWN ON THE PRESTRESSED GIRDER DETAILS SHEET.

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-59-201

DRAWN BY SMC | PLANS CK'D. MHZ

GENERAL NOTES & QUANTITIES

SHEET 3 OF 20

FILE NAME : S:\DOT\DOT_NE\170175-ID 4202-04-00_Silver Creek Cascade Rd Brdg\Structure\cds\B201_080103_qu.dgn PLOT DATE : 1/10/2019 PLOT BY : sconnolly PLOT NAME : $FILE$ PLOT SCALE : 1:8

NOTES

THE SUBSURFACE INFORMATION PRESENTED HEREIN IS AN ABBREVIATED VERSION OF THE INFORMATION PRESENTED IN THE GEOTECHNICAL ENGINEERING REPORT. REVIEW THE APPROPRIATE GEOTECHNICAL REPORT AND SOIL BORING LOGS FOR ADDITIONAL SUBSURFACE INFORMATION.

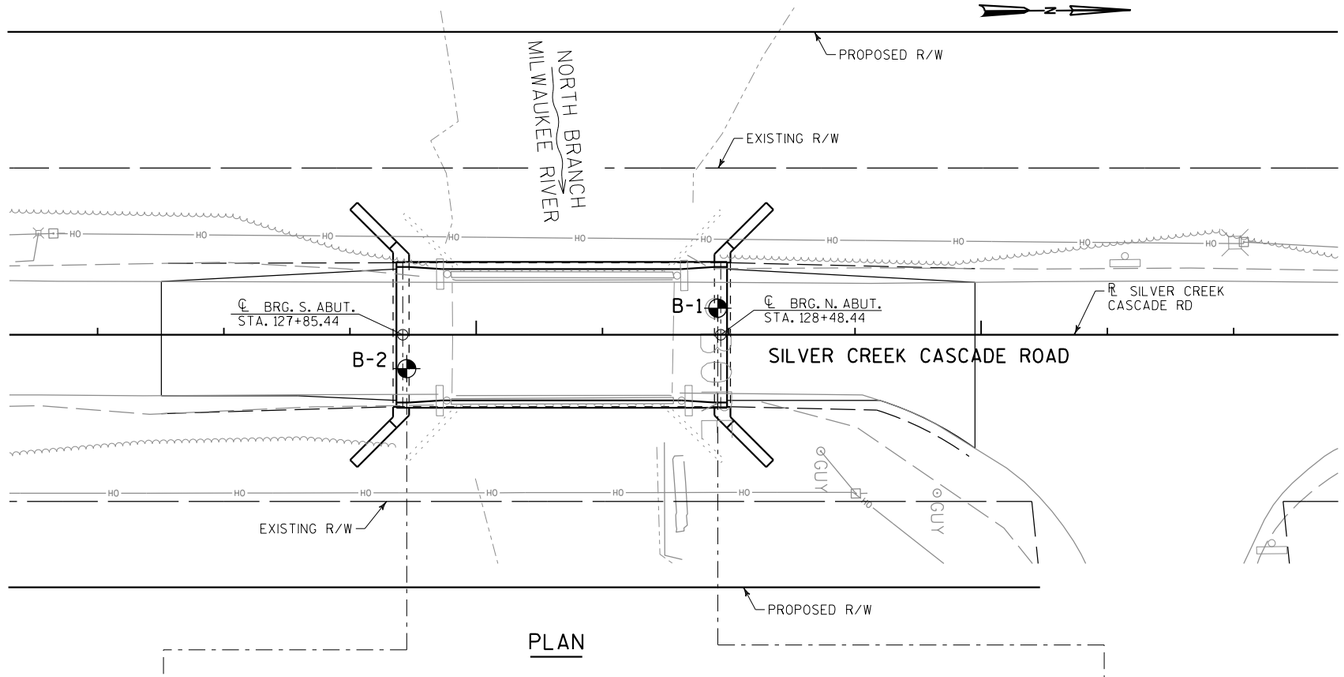
WATER LEVELS INDICATED MAY NOT BE REPRESENTATIVE OF HYDROSTATIC WATER LEVELS.

HISTORICAL BORING LOCATIONS ARE APPROXIMATE. ADDITIONAL INFORMATION IS AVAILABLE FROM THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

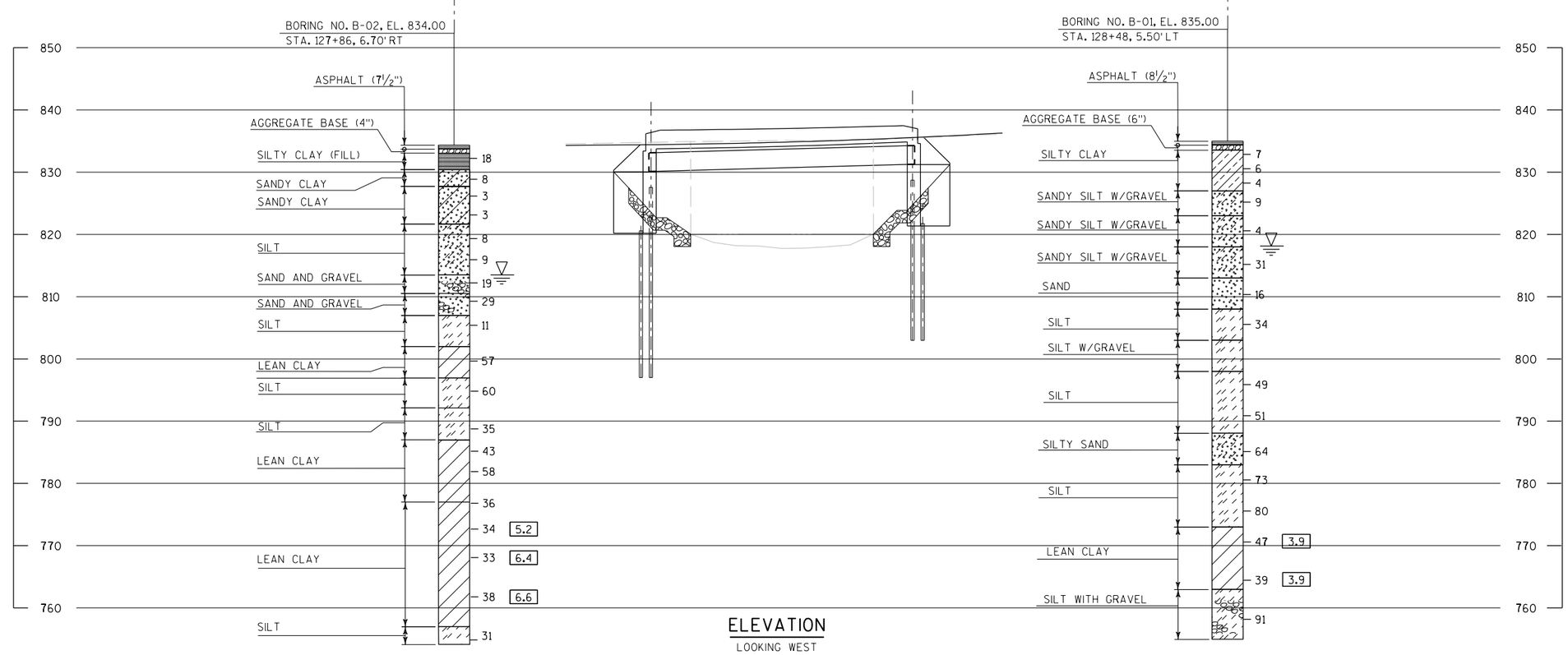
⊕ DENOTES SOIL BORING LOCATION

SOIL BORINGS COMPLETED BY:
PROFESSIONAL SERVICE INDUSTIRES, INC.

SOIL BORING TAKEN:
MARCH 21, 2017 - BORING B-01
MARCH 19, 2017 - BORING B-02



PLAN



ELEVATION
LOOKING WEST

STATE PROJECT NUMBER

4202-04-71

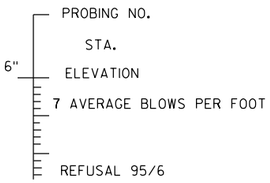
ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

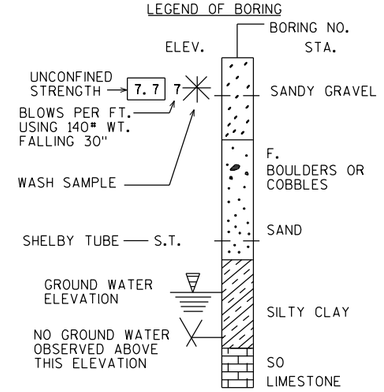
MATERIAL SYMBOLS

TOPSOIL / FILL, SILT, SANDSTONE
SAND, PEAT, LIMESTONE
GRAVEL, CLAY, IGNEOUS ROCK

LEGEND OF PROBING



LEGEND OF BORING



UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-59-201

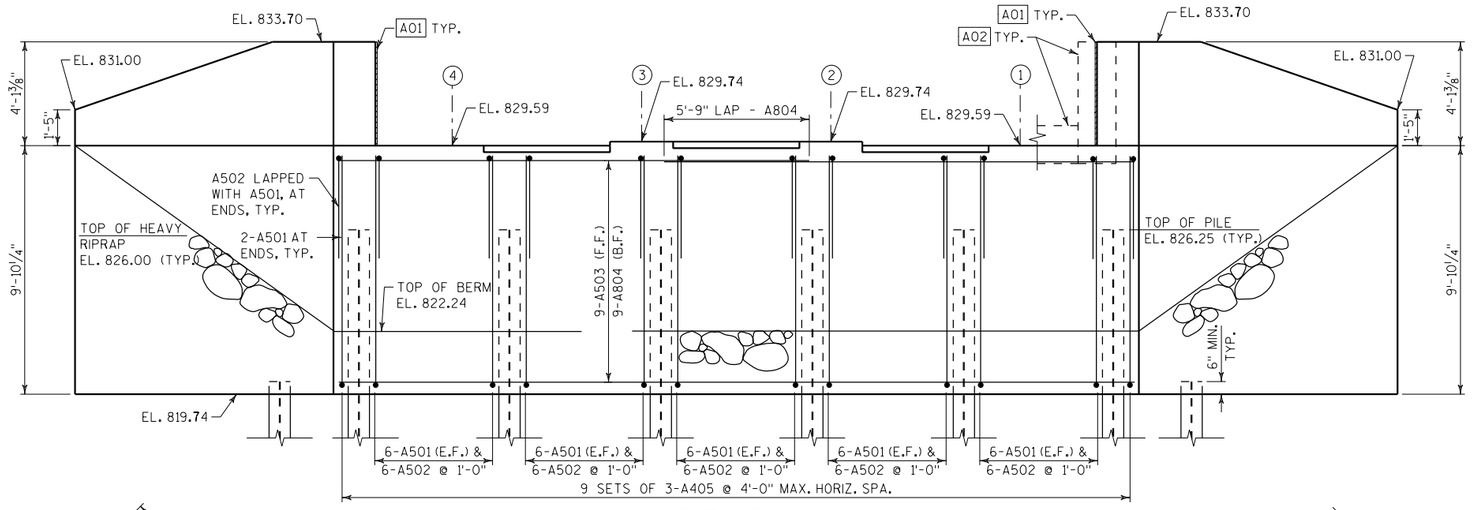
DRAWN BY AJA | PLANS CK'D. MHZ

SUBSURFACE EXPLORATION

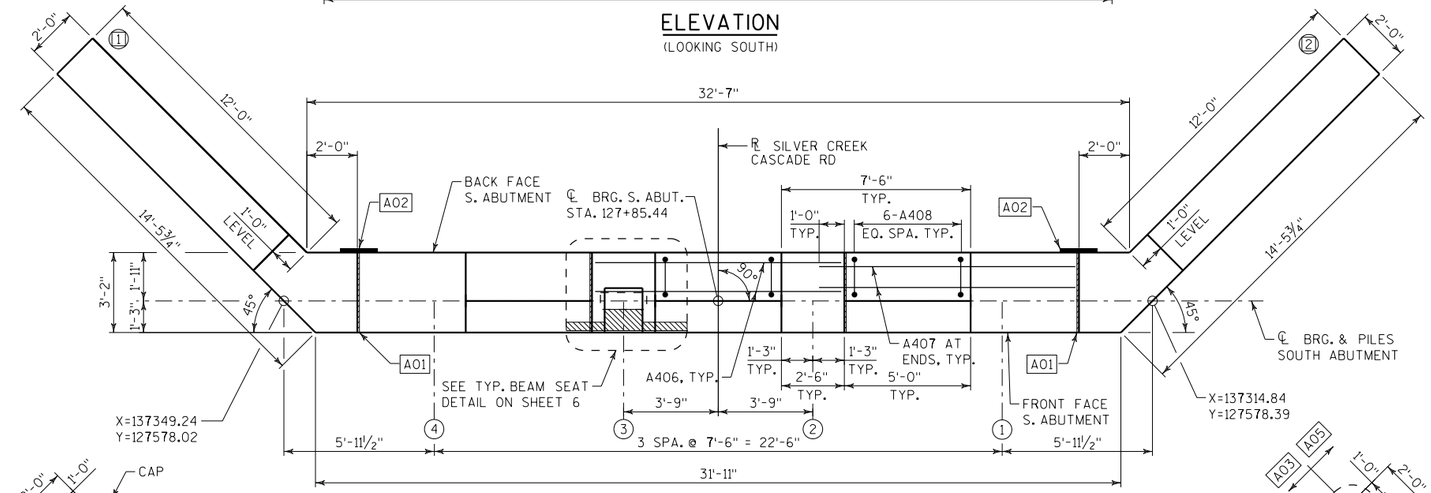
SHEET 4 OF 20

FILE NAME : S:\DOT\DOT_NE\170175-ID 4202-04-00_Silver Creek Cascade Rd Brdg\Structure\cds\B201_080201_se.dgn PLOT DATE : 1/10/2019 PLOT BY : sconnolly PLOT NAME : $FILE$ PLOT SCALE : 1:30

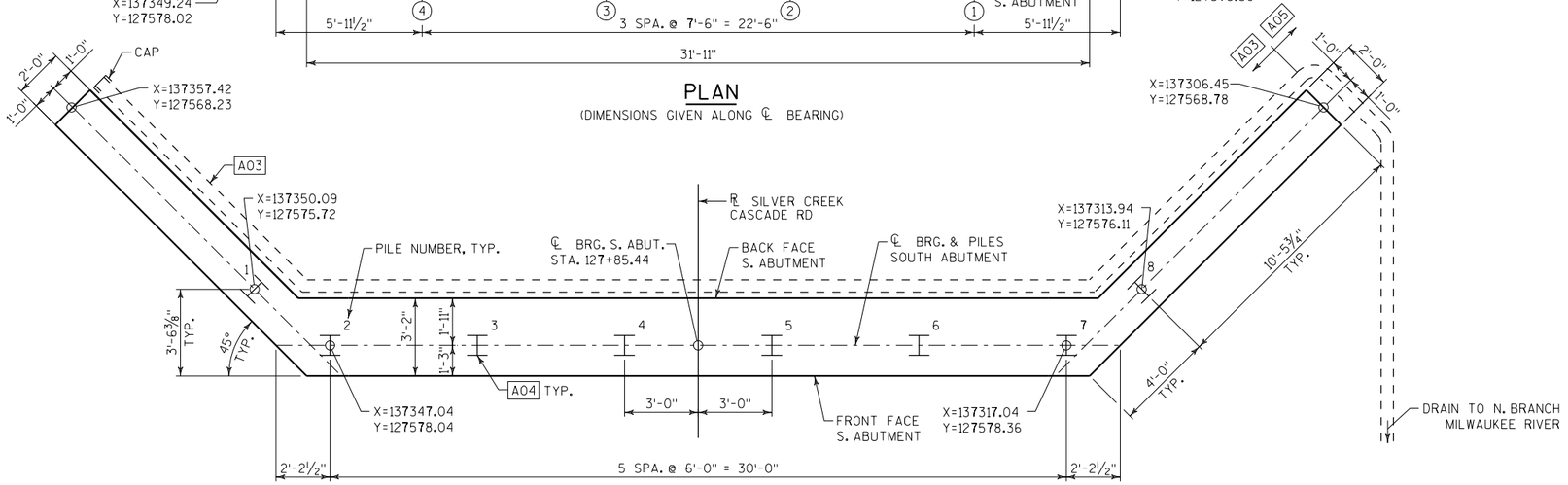
STATE PROJECT NUMBER
4202-04-71



ELEVATION
(LOOKING SOUTH)



PLAN
(DIMENSIONS GIVEN ALONG ℄ BEARING)



PILE PLAN
(DIMENSIONS GIVEN ALONG ℄ BEARING)

LEGEND

- A01 ½" FILLER, SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF ½" FILLER WITH NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONC.).
- A02 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE OF ABUTMENTS.
- A03 PIPE UNDERDRAIN WRAPPED (6-INCH) SLOPE 0.5% MIN.
- A04 ABUTMENTS SHALL BE SUPPORTED ON HP 10 X 42 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 155 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES ACCEPTANCE METHOD.
  ESTIMATED PILE LENGTH = 30 FEET.
- A05 PIPE UNDERDRAIN UNPERFORATED (6-INCH) SLOPE 0.5% MIN.
- I HP 10 X 42 STEEL PILING
- (X) WINGWALL NUMBER
- X GIRDER NUMBER

NOTES

ELEVATIONS ARE GIVEN AT TOP OF CONCRETE AT THE INTERSECTION OF THE GIRDER & ℄ BEARING.

FOR TYPICAL SECTION THRU ABUTMENT BODY AND REINFORCEMENT BILL OF BARS SEE SHEET 6.

FOR WINGWALL REINFORCEMENT SEE SHEET 7.

DO NOT PLACE FILL ABOVE 3'-0" FROM BOTTOM OF ABUTMENT UNTIL SUPERSTRUCTURE IS IN PLACE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-59-201

DRAWN BY SMC | PLANS CK'D. MHZ

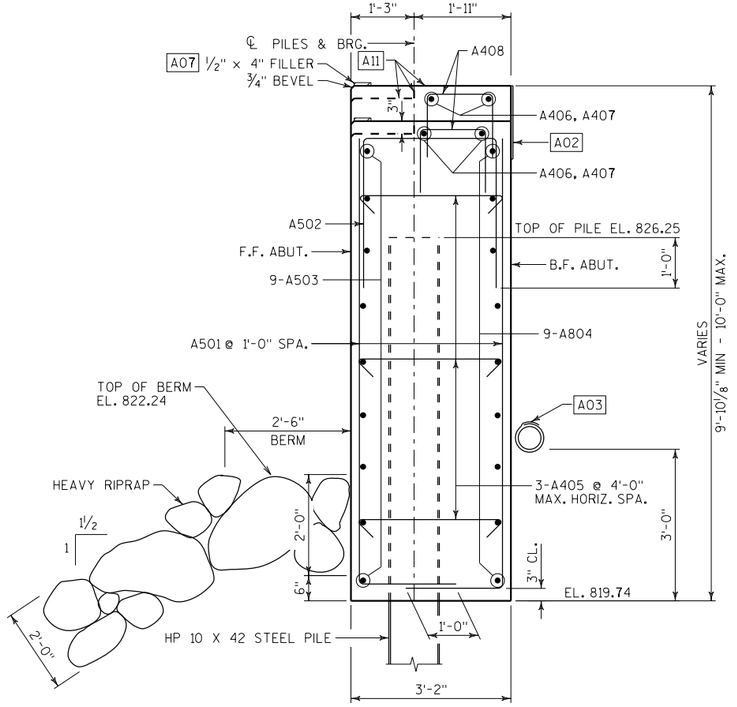
SOUTH ABUTMENT

SHEET 5 OF 20

FILE NAME : S:\DOT\DOT_NE\170175-ID 4202-04-00_Silver Creek Cascade Rd Brdg\Structure\cds\B201_080301_ab.dgn PLOT DATE : 1/10/2019 PLOT BY : sconnolly PLOT NAME : $FILE$ PLOT SCALE : 1:6

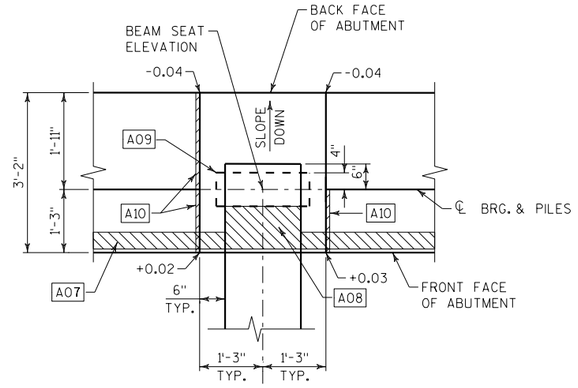
STATE PROJECT NUMBER

4202-04-71

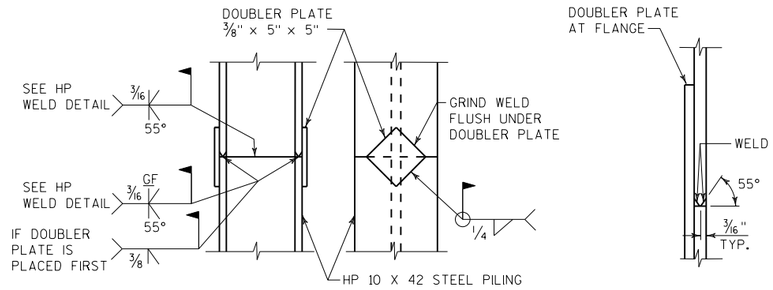


SECTION THRU ABUTMENT BODY

(LOOKING EAST)



TYPICAL BEAM SEAT DETAIL



STEEL 'HP' SHAPE

'HP' WELD DETAIL

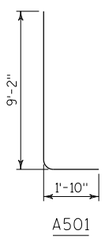
FLANGE SHOWN, WEB SIMILAR

PILE SPLICE DETAIL

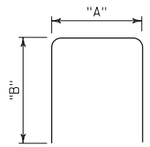
BILL OF BARS

BAR MARK	COAT	NO REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
A501	X	64	11'-0"	X	-	ABUTMENT BODY - VERT.
A502	X	32	10'-9"	X	-	ABUTMENT BODY - VERT.
A503	X	9	31'-9"	-	-	ABUTMENT BODY - LONG.
A804	X	18	23'-1"	X	-	ABUTMENT BODY - LONG.
A405	X	27	3'-7"	X	-	ABUTMENT BODY - TRANS.
A406	X	2	9'-8"	-	-	ABUTMENT SEAT - LONG.
A407	X	4	10'-2"	-	-	ABUTMENT SEAT - LONG.
A408	X	18	4'-5"	X	-	ABUTMENT SEAT - VERT.

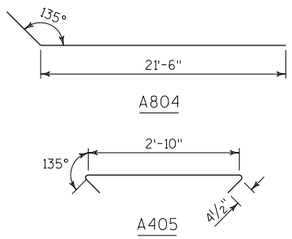
NOTE:
BAR DIMENSIONS ARE OUT TO OUT OF BAR. THE FIRST OR FIRST TWO DIGITS OF A BAR MARK SIGNIFIES THE BAR SIZE



A501



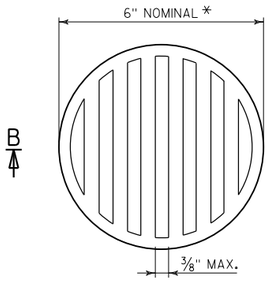
BAR MARK	DIM "A"	DIM "B"
A502	2'-10"	4'-1"
A408	1'-7"	1'-6"

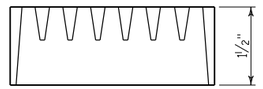


A804

A405

BENDING DIAGRAMS





SECTION B-B

(ORIENT SHIELD SO SLOTS ARE VERTICAL)

A12 RODENT SHIELD

*DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

LEGEND

- A02 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE OF ABUTMENTS.
- A03 PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN.
- A07 4" X ½" FILLER, TYP. RUN FULL LENGTH OF ABUTMENT.
- A08 ½" PREFORMED FILLER, TYP.
- A09 ½" THICK x 8" x 1'-10" ELASTOMERIC BEARING PAD, TYP.
- A10 ¾" CORK FILLER UP VERTICAL FACES OF BEAM SEATS, TYP.
- A11 STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING BEARING PADS AND/OR SUPERSTRUCTURE. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03"
- A12 THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHEILD TO THE OUTFALL PIPE. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

NOTES

FOR ABUTMENT PLAN & ELEVATION SEE SHEET 5.

FOR WINGWALL DETAILS, REINFORCEMENT & BILL OF BARS SEE SHEET 7.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-59-201

DRAWN BY SMC | PLANS CK'D. MHZ

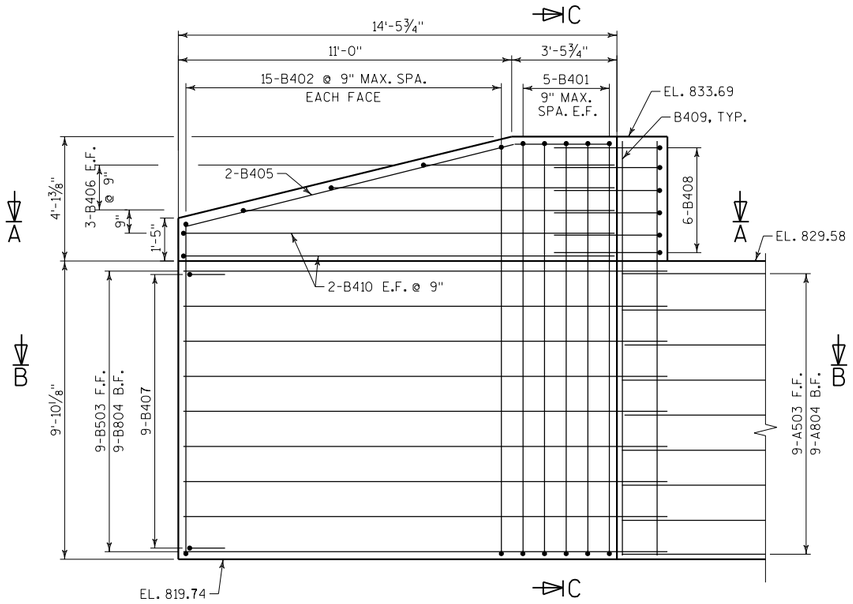
SOUTH ABUTMENT DETAILS

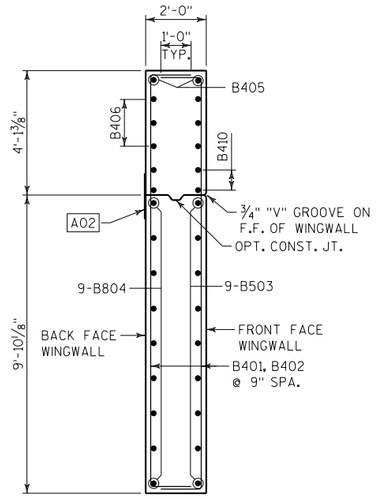
SHEET 6 OF 20

FILE NAME : S:\DOT\DOT_NE\170175-ID 4202-04-00_Silver Creek Cascade Rd Brdg\Structure\cds\B201_080302_ab.dgn PLOT DATE : 1/10/2019 PLOT BY : sconnolly PLOT NAME : $FILE$ PLOT SCALE : 1:3

STATE PROJECT NUMBER

4202-04-71



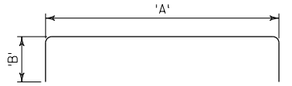


SECTION C-C

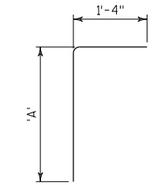
BILL OF BARS

BAR MARK	COAT	NO REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
B401	X	20	16'-0"	X	-	WINGWALLS 1 & 2 - VERT.
B402	X	60	14'-8"	X	⚠	WINGWALLS 1 & 2 - VERT.
B503	X	18	15'-8"	X	-	WINGWALLS 1 & 2 - HORIZ. F.F.
B804	X	18	17'-3"	X	-	WINGWALLS 1 & 2 - HORIZ. B.F.
B405	X	4	14'-3"	X	-	WINGWALLS 1 & 2 - HORIZ. TOP
B406	X	12	10'-8"	X	⚠	WINGWALLS 1 & 2 - HORIZ. E.F.
B407	X	18	4'-5"	X	-	WINGWALLS 1 & 2 - HORIZ. ENDS
B408	X	12	9'-6"	X	-	WINGWALLS 1 & 2 - HORIZ.
B409	X	10	13'-6"	-	-	WINGWALLS 1 & 2 - VERT.
B410	X	8	15'-4"	X	-	WINGWALLS 1 & 2 - HORIZ. F.F.

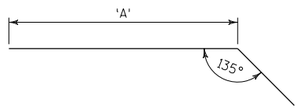
NOTE:
BAR DIMENSIONS ARE OUT TO OUT OF BAR. THE FIRST OR FIRST TWO DIGITS OF A BAR MARK SIGNIFIES THE BAR SIZE



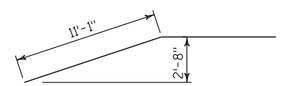
BAR MARK	DIM 'A'	DIM 'B'
B401	13'-6"	1'-4"
B402	10'-11" TO 13'-5"	1'-4"



BAR MARK	DIM 'A'
B406	6-4" TO 12'-6"
B410	14'-1"



BAR MARK	DIM 'A'
B503	14'-1"
B804	15'-10"

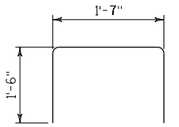


B405

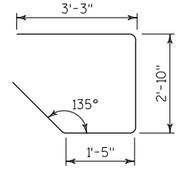
BAR SERIES TABLE

BAR MARK	NO. REQ'D	LENGTH
B402	4 SERIES OF 15	13'-5" TO 15'-11"
B406	4 SERIES OF 3	7'-7" TO 13'-9"

⚠ BUNDLE AND TAG EACH SERIES SEPARATELY



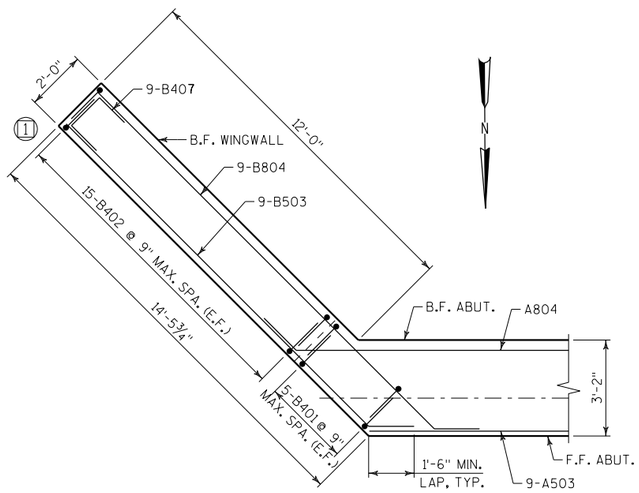
B407



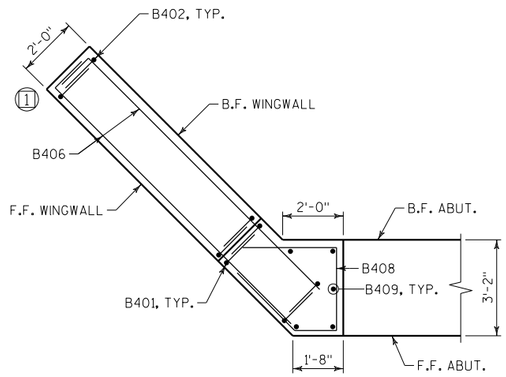
B408

WINGWALL REINFORCEMENT ELEVATION

(FRONT FACE OF WINGWALL 1 SHOWN.
WINGWALL 2 SIMILAR BUT MIRRORED)
(LOOKING SOUTH)



SECTION B-B



SECTION A-A

LEGEND

A02 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE OF ABUTMENTS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-59-201

DRAWN BY SMC | PLANS CK'D. MHZ

SOUTH ABUTMENT WINGWALLS

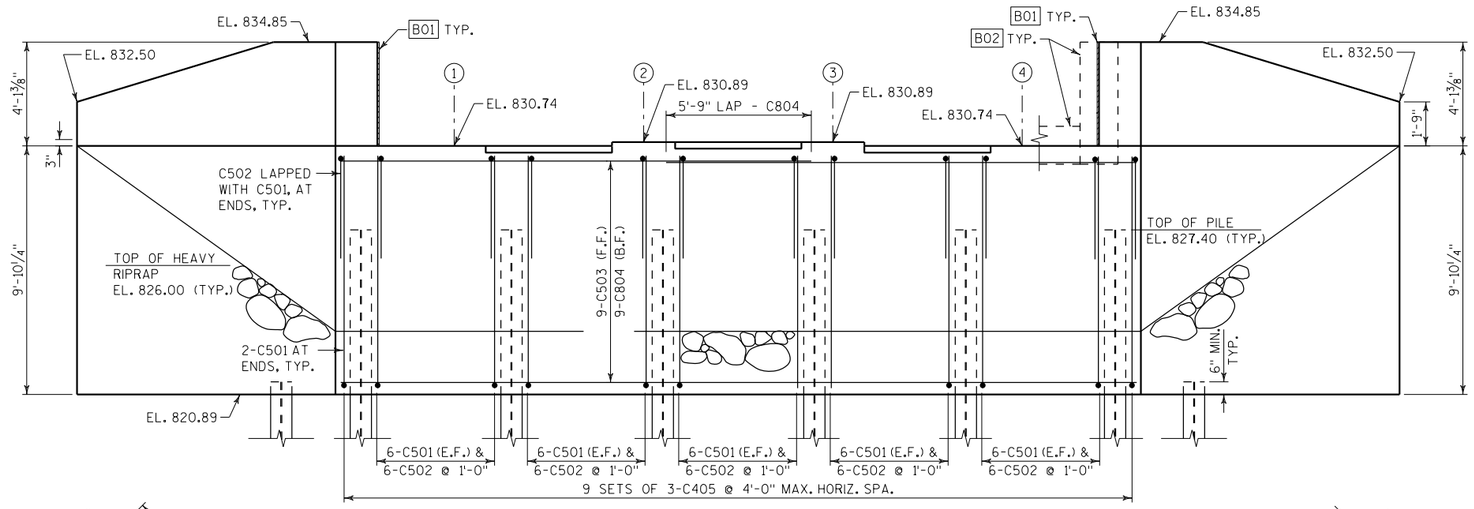
SHEET 7 OF 20

8

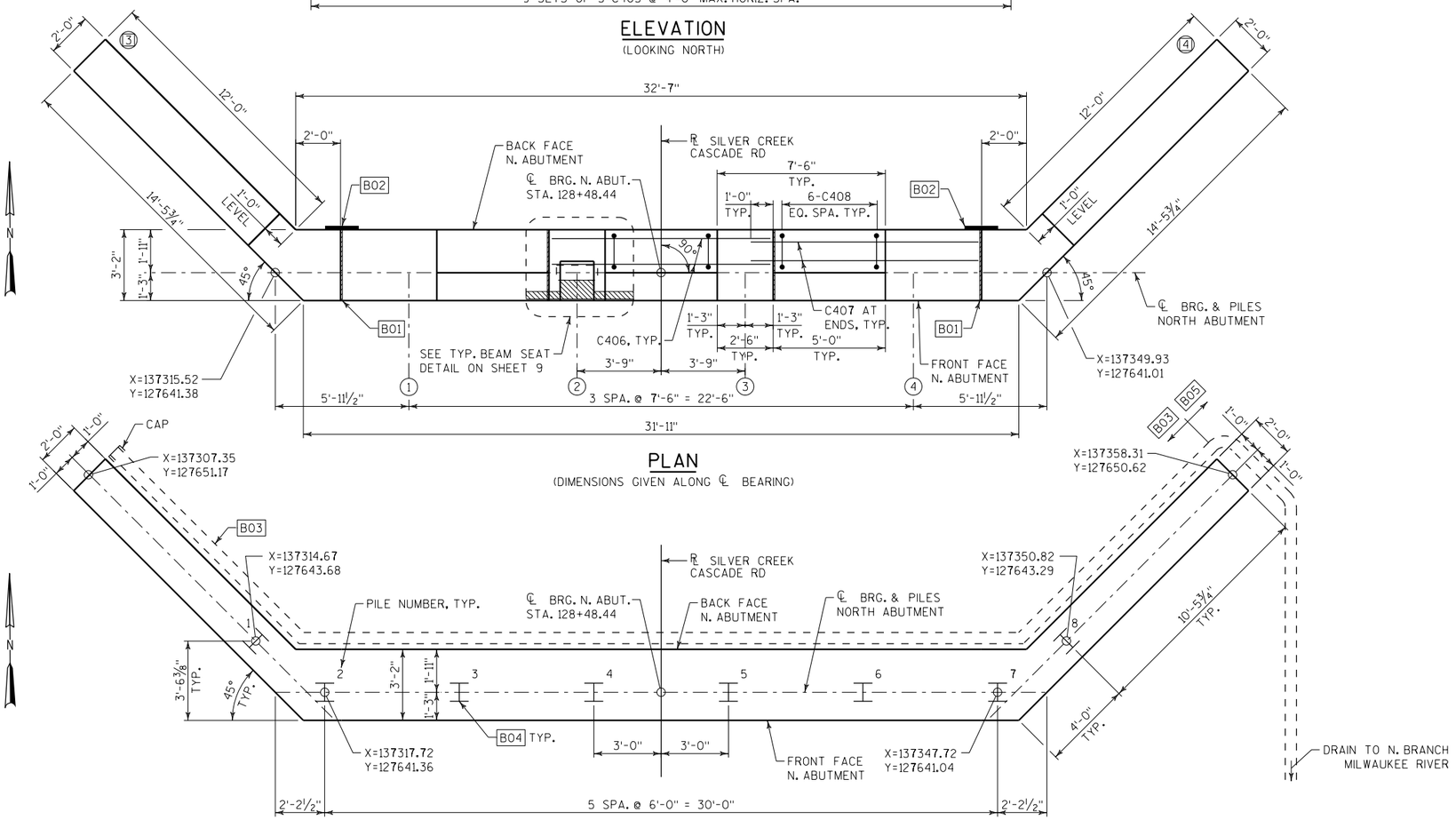
8

FILE NAME : S:\DOT\DOT_NE\170175-ID 4202-04-00_Silver Creek Cascade Rd Brdg\Structure\cds\B201_080303_ab.dgn PLOT DATE : 1/10/2019 PLOT BY : sconnolly PLOT NAME : $FILE$ PLOT SCALE : 1:5

STATE PROJECT NUMBER
4202-04-71



ELEVATION
(LOOKING NORTH)



PLAN
(DIMENSIONS GIVEN ALONG ℄ BEARING)

PILE PLAN
(DIMENSIONS GIVEN ALONG ℄ BEARING)

LEGEND

- B01 ½" FILLER, SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF ½" FILLER WITH NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONC.).
- B02 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE OF ABUTMENTS.
- B03 PIPE UNDERDRAIN WRAPPED (6-INCH) SLOPE 0.5% MIN.
- B04 ABUTMENTS SHALL BE SUPPORTED ON HP 10 X 42 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 155 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES ACCEPTANCE METHOD.
  ESTIMATED PILE LENGTH = 25 FEET.
- B05 PIPE UNDERDRAIN UNPERFORATED (6-INCH) SLOPE 0.5% MIN.
- I HP 10 X 42 STEEL PILING
- (X) WINGWALL NUMBER
- (X) GIRDER NUMBER

NOTES

ELEVATIONS ARE GIVEN AT TOP OF CONCRETE AT THE INTERSECTION OF THE GIRDER & ℄ BEARING.

FOR TYPICAL SECTION THRU ABUTMENT BODY AND REINFORCEMENT BILL OF BARS SEE SHEET 9.

FOR WINGWALL REINFORCEMENT SEE SHEET 10.

DO NOT PLACE FILL ABOVE 3'-0" FROM BOTTOM OF ABUTMENT UNTIL SUPERSTRUCTURE IS IN PLACE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-59-201

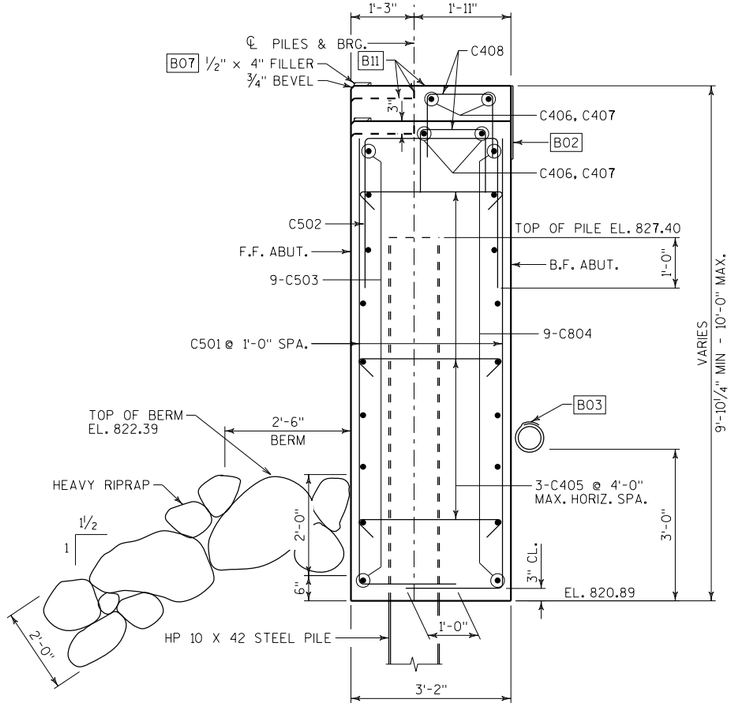
DRAWN BY SMC | PLANS CK'D. MHZ

NORTH ABUTMENT

SHEET 8 OF 20

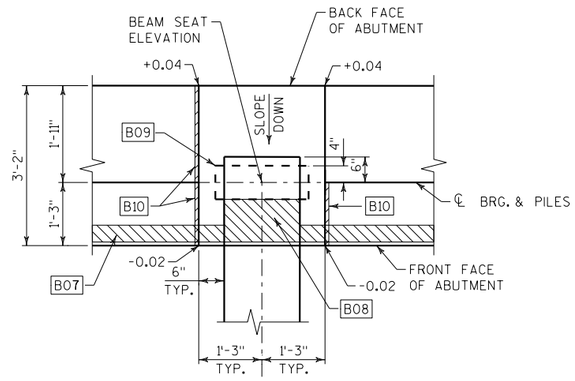
FILE NAME : S:\DOT\DOT_NE\170175-ID 4202-04-00_Silver Creek Cascade Rd Brdg\Structure\cds\B201_080311_ab.dgn
PLOT DATE : 1/10/2019
PLOT BY : sconnolly
PLOT NAME : $FILE$
PLOT SCALE : 1:6

STATE PROJECT NUMBER
4202-04-71



SECTION THRU ABUTMENT BODY

(LOOKING WEST)



TYPICAL BEAM SEAT DETAIL

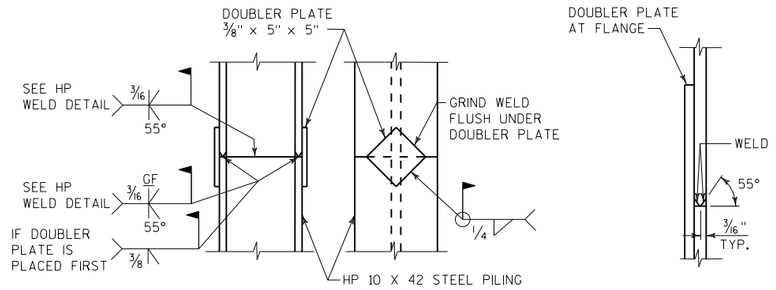
LEGEND

- B02 — 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE OF ABUTMENTS.
- B03 — PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN.
- B07 — 4" X ½" FILLER, TYP. RUN FULL LENGTH OF ABUTMENT.
- B08 — ½" PREFORMED FILLER, TYP.
- B09 — ½" THICK x 8" x 1'-6" ELASTOMERIC BEARING PAD, TYP.
- B10 — ¾" CORK FILLER UP VERTICAL FACES OF BEAM SEATS, TYP.
- B11 — STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING BEARING PADS AND/OR SUPERSTRUCTURE. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03"
- B12 — THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHEILD TO THE OUTFALL PIPE. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

NOTES

FOR ABUTMENT PLAN & ELEVATION SEE SHEET 8.

FOR WINGWALL DETAILS, REINFORCEMENT & BILL OF BARS SEE SHEET 10.



STEEL 'HP' SHAPE

'HP' WELD DETAIL

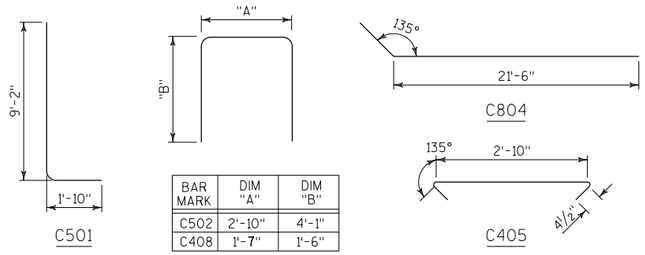
FLANGE SHOWN, WEB SIMILAR

PILE SPLICE DETAIL

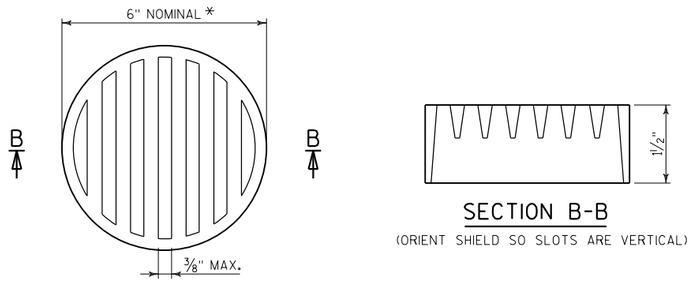
BILL OF BARS

BAR MARK	COAT	NO REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
C501	X	64	11'-0"	X	-	ABUTMENT BODY - VERT.
C502	X	32	10'-9"	X	-	ABUTMENT BODY - VERT.
C503	X	9	31'-9"	-	-	ABUTMENT BODY - LONG.
C804	X	18	23'-1"	X	-	ABUTMENT BODY - LONG.
C405	X	27	3'-7"	X	-	ABUTMENT BODY - TRANS.
C406	X	2	9'-8"	-	-	ABUTMENT SEAT - LONG.
C407	X	4	10'-2"	-	-	ABUTMENT SEAT - LONG.
C408	X	18	4'-5"	X	-	ABUTMENT SEAT - VERT.

NOTE:
BAR DIMENSIONS ARE OUT TO OUT OF BAR. THE FIRST OR FIRST TWO DIGITS OF A BAR MARK SIGNIFIES THE BAR SIZE



BENDING DIAGRAMS



SECTION B-B

(ORIENT SHIELD SO SLOTS ARE VERTICAL)

B12 RODENT SHIELD

*DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-59-201

DRAWN BY SMC | PLANS CK'D. MHZ

NORTH ABUTMENT DETAILS

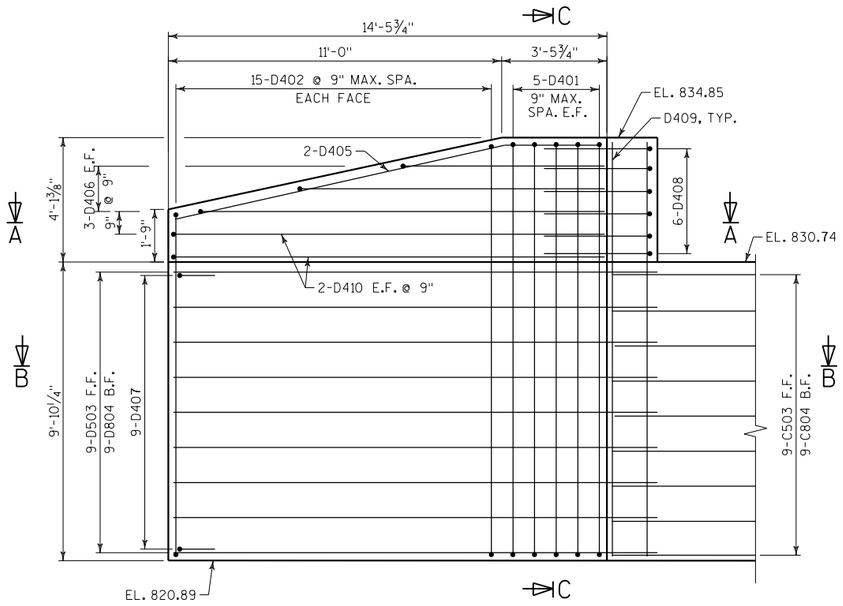
SHEET 9 OF 20

8

8

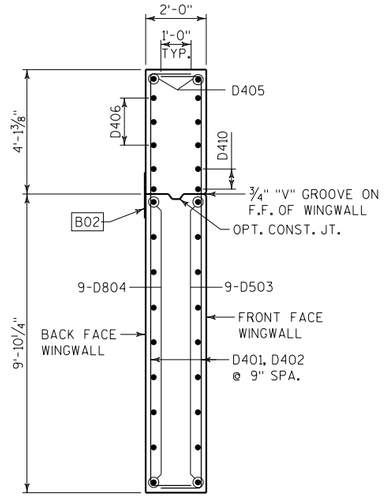
FILE NAME : S:\DOT\DOT_NE\170175-ID 4202-04-00_Silver Creek Cascade Rd Brdg\Structure\cds\B201_080312_ab.dgn PLOT DATE : 1/10/2019 PLOT BY : sconnolly PLOT NAME : $FILE$ PLOT SCALE : 1:3

STATE PROJECT NUMBER
4202-04-71



WINGWALL REINFORCEMENT ELEVATION

(FRONT FACE OF WINGWALL 3 SHOWN, WINGWALL 4 SIMILAR BUT MIRRORED) (LOOKING NORTH)

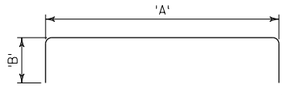


SECTION C-C

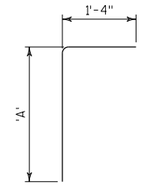
BILL OF BARS

BAR MARK	COAT	NO REQ'D	LENGTH	BENT	BAR SERIES	LOCATION
D401	X	20	16'-0"	X	-	WINGWALLS 3 & 4 - VERT.
D402	X	60	14'-10"	X	⚠	WINGWALLS 3 & 4 - VERT.
D503	X	18	15'-8"	X	-	WINGWALLS 3 & 4 - HORIZ. F.F.
D804	X	18	17'-3"	X	-	WINGWALLS 3 & 4 - HORIZ. B.F.
D405	X	4	14'-3"	X	-	WINGWALLS 3 & 4 - HORIZ. TOP
D406	X	12	11'-7"	X	⚠	WINGWALLS 3 & 4 - HORIZ. E.F.
D407	X	18	4'-5"	X	-	WINGWALLS 3 & 4 - HORIZ. ENDS
D408	X	12	9'-6"	X	-	WINGWALLS 3 & 4 - HORIZ.
D409	X	10	13'-6"	-	-	WINGWALLS 3 & 4 - VERT.
D410	X	8	15'-4"	X	-	WINGWALLS 3 & 4 - HORIZ. F.F.

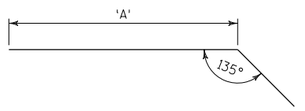
NOTE:
BAR DIMENSIONS ARE OUT TO OUT OF BAR. THE FIRST OR FIRST TWO DIGITS OF A BAR MARK SIGNIFIES THE BAR SIZE



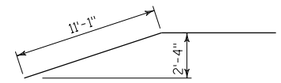
BAR MARK	DIM 'A'	DIM 'B'
D401	13'-6"	1'-4"
D402	11'-3" TO 13'-5"	1'-4"



BAR MARK	DIM 'A'
D406	6'-0" TO 13'-10"
D410	14'-1"



BAR MARK	DIM 'A'
D503	14'-2"
D804	15'-9"

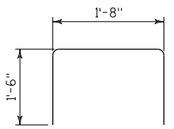


D405

BAR SERIES TABLE

BAR MARK	NO. REQ'D	LENGTH
D402	4 SERIES OF 15	13'-9" TO 15'-11"
D406	4 SERIES OF 3	8'-1" TO 15'-1"

⚠ BUNDLE AND TAG EACH SERIES SEPARATELY



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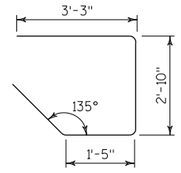
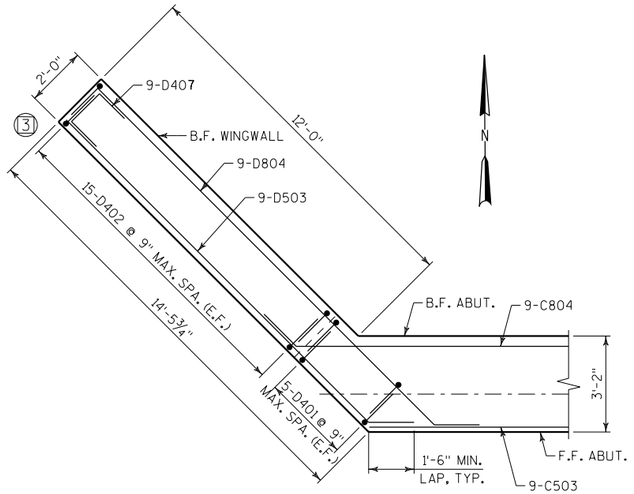


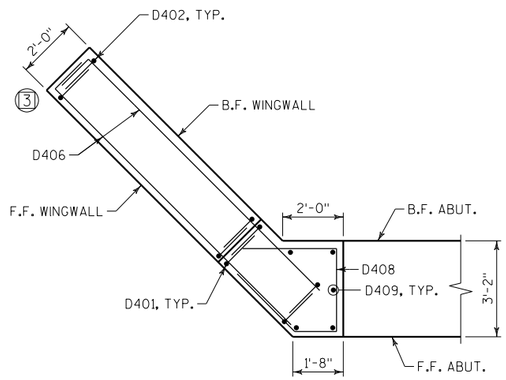
D408

LEGEND

B02 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE OF ABUTMENTS.



SECTION B-B



SECTION A-A

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-59-201

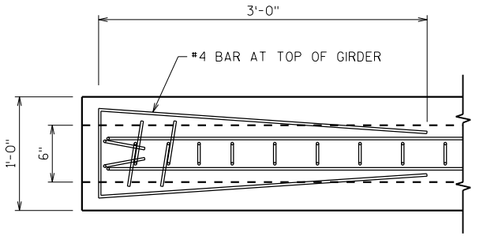
DRAWN BY SMC | PLANS CK'D. MHZ

NORTH ABUTMENT WINGWALLS

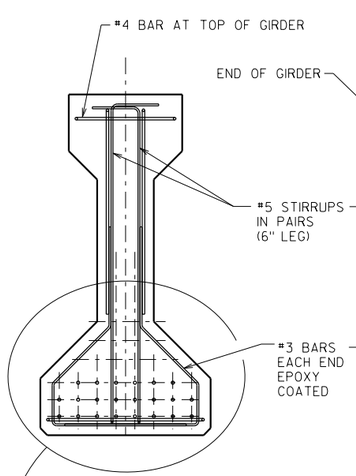
SHEET 10 OF 20

FILE NAME : S:\DOT\DOT_NE\170175-ID 4202-04-00_Silver Creek Cascade Rd Brdg\Structure\cds\B201_080313_ab.dgn PLOT DATE : 1/10/2019 PLOT BY : sconnolly PLOT NAME : $FILE$ PLOT SCALE : 1:5

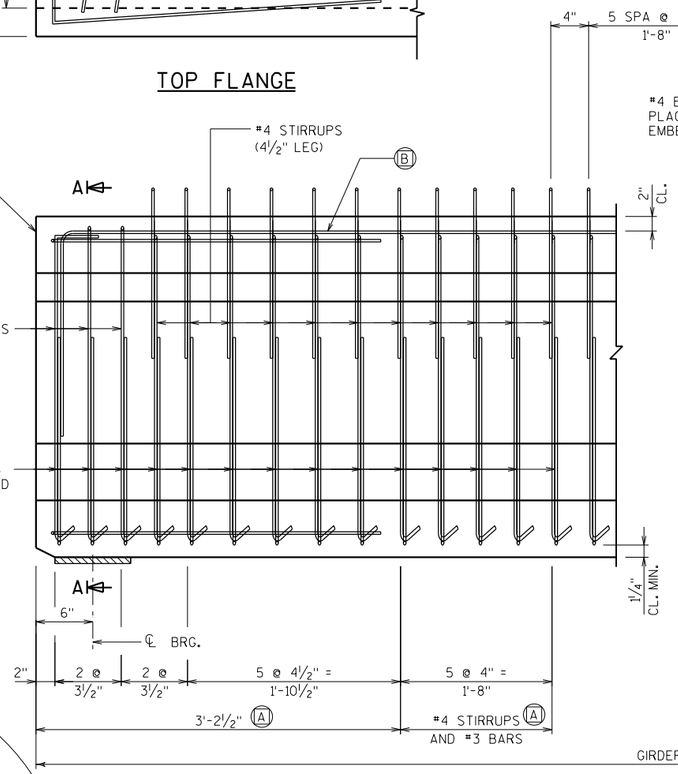
STATE PROJECT NUMBER
4202-04-71

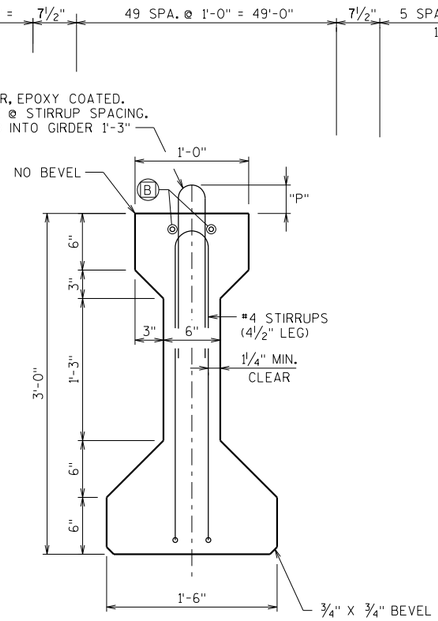


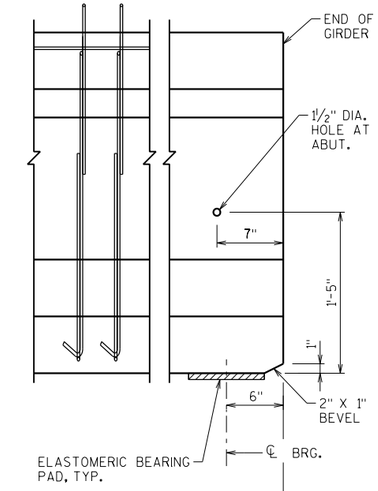
TOP FLANGE



SECTION A-A







GIRDER NOTES

TOP OF GIRDER TO BE ROUGH FLOATED AND BROOMED TRANSVERSELY FOR BONDING TO THE SLAB, EXCEPT THE OUTSIDE 2" OF GIRDER, WHICH SHALL RECEIVE A SMOOTH FINISH. AN APPROVED CONCRETE SEALER SHALL BE APPLIED TO ALL SMOOTH SURFACES INCLUDING THE OUTSIDE 2" OF THE TOP FLANGE.

DO NOT APPLY CONCRETE SEALER OR EPOXY TO SURFACES RECEIVING APPLICATION OF CONCRETE STAINING.

THE GIRDERS SHALL BE PROVIDED WITH A SUITABLE LIFTING DEVICE FOR HANDLING AND ERECTING THE GIRDERS. SEE SECTION 503.3.3 OF THE STANDARD SPECIFICATIONS FOR GUIDANCE.

STRANDS SHALL BE FLUSH WITH THE END OF GIRDER AND ENDS OF STRANDS SHALL BE COATED WITH NON-BITUMINOUS JOINT SEALER.

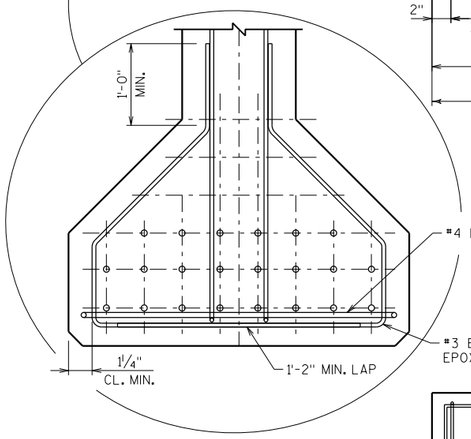
ALL GIRDERS SHALL BE CAST FULL LENGTH AS SHOWN.

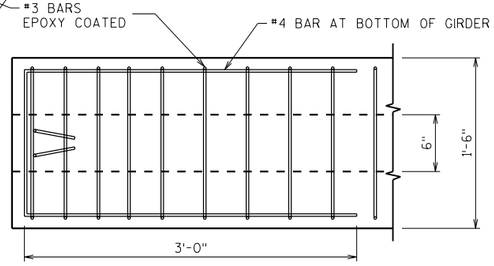
SPACING SHOWN FOR #4 STIRRUPS IS FOR GRADE 60 REINFORCEMENT.

AN EQUIVALENT OF WELDED WIRE FABRIC (WWF) ASTM A1064 MAY BE SUBSTITUTED FOR THE STIRRUP REINFORCEMENT SHOWN, UPON APPROVAL OF THE STRUCTURES MAINTENANCE SECTION. IF USED, WWF SUBSTITUTION DETAILS SHALL BE SUBMITTED ELECTRONICALLY TO THE WISDOT FABRICATION LIBRARY AND ACCEPTED PRIOR TO SHOP DRAWING SUBMITTAL.

PRESTRESSING STRANDS SHALL BE 0.5" ϕ - 7 WIRE LOW-RELAXATION STRANDS WITH AN ULTIMATE STRENGTH OF 270,000 psi.

FOR DIAPHRAGM INSERT & CONNECTION DETAILS, SEE SHEET 14.





BOTTOM FLANGE

SIDE VIEW & TYP. SECTION IN SPAN

(A) DETAIL TYP. AT EACH END

(B) 2-#5 BARS, FULL LENGTH, MIN. LAP = 2'-5"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-59-201

DRAWN BY	MM	PLANS CK'D.	MHZ

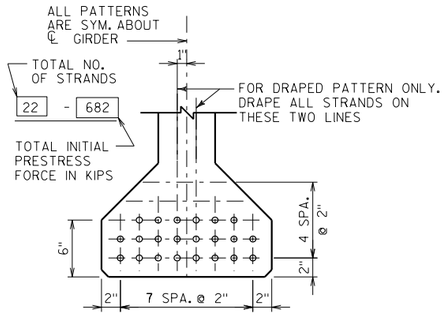
36" PRESTRESSED GIRDER

SHEET 11 OF 20

FILE NAME : S:\DOT\DOT_NE\170175-ID 4202-04-00_Silver Creek Cascade Rd Brdg\Structure\cds\B201_080501_gr.dgn PLOT DATE : 1/10/2019 PLOT BY : sconnolly PLOT NAME : $FILE$ PLOT SCALE : 1:8

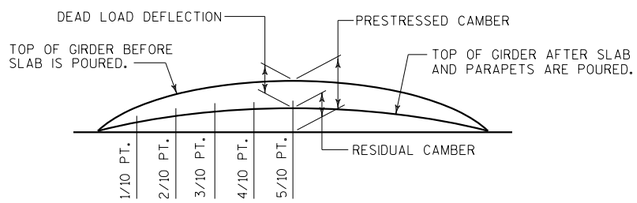
STATE PROJECT NUMBER

4202-04-71

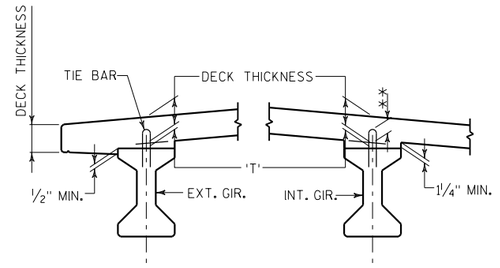


STRAND PATTERN

ALL GIRDERS
0.5" DIA. STRANDS



DEAD LOAD DEFLECTION DIAGRAM



SLAB HAUNCH DETAIL

IF 1¼" MINIMUM HAUNCH HEIGHT AT EDGE OF GIRDER CANNOT BE MAINTAINED, THE GRADE LINE MAY BE REVISED BY THE ENGINEER AT THE OPTION OF THE CONTRACTOR. THE PLAN SLAB THICKNESS SHALL BE HELD. NOTIFY THE STRUCTURES SECTION IF THE GRADE LINE IS RAISED FROM THE PLAN PROFILE BY MORE THAN ½" OR,

** IF 3" MINIMUM DECK EMBEDMENT OF TIE BAR CANNOT BE OBTAINED.

TO DETERMINE 'T', ELEV. OF TOP OF GIR'S. AT ℄ OF SUBSTRUCTURE UNITS & AT 1/10 POINTS OF EACH SPAN SHALL BE TAKEN. THEN FOLLOW THIS PROCESS:

TOP OF DECK ELEV. AT FINAL GRADE
- TOP OF GIRDER ELEVATION
+ DEAD LOAD DEFLECTION
- SLAB THICKNESS
= HAUNCH HEIGHT 'T'

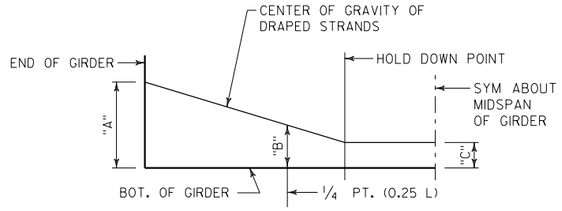
NOTE: AN AVERAGE HAUNCH ('T') OF 3⅜" WAS USED IN QUANTITY "CONCRETE MASONRY BRIDGES"

SPAN	GIRDER LOCATION	PRESTRESS CAMBER* (IN.)	DEAD LOAD DEFLECTION (IN.)	RESIDUAL CAMBER (IN.)
1	EXTERIOR	1⅞	⅞	1
1	INTERIOR	1⅞	1	⅞

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

THESE VALUES ARE NOT TO BE USED IN DETERMINING HAUNCH HEIGHT 'T'. USE ACTUAL GIRDER SHOTS.

THESE VALUES ARE FOR INFORMATIONAL PURPOSES ONLY.



DRAPED STRAND PROFILE

GIRDER DATA

SPAN	LOCATION	GIRDER LENGTH "L"	DEAD LOAD DEFL. (IN.) *** 1/10	2/10	3/10	4/10	5/10	CONC. STRGTH. f'c (p.s.i.)	▲"P" IST 1/3 OF GIRDER	"P" MID 1/3 OF GIRDER	▲"P" END 1/3 OF GIRDER	DIA. OF STRAND (IN.)	DRAPED PATTERN NO. OF STRANDS	NO. OF DRAPED STRANDS	f'ci (P.S.I.) *	(IN.) "A"	"B" MIN.	"B" MAX.	"C"
1	EXTERIOR	64'-0"	¼	½	¾	⅞	⅞	8000	9.0	7.0	9.0	0.5	22	6	6800	32	11	14	4
1	INTERIOR	64'-0"	¼	½	¾	⅞	1	8000	9.0	7.0	9.0	0.5	22	6	6800	32	11	14	4

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

*** SEE DEADLOAD DEFLECTION DIAGRAM. DEAD LOAD DEFLECTIONS ARE SYMMETRICAL ON GIRDERS.

▲ FIELD BEND TIE REINFORCEMENT IN CONFLICT WITH DECK SLAB TOP REINFORCEMENT MAT AS NEEDED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-59-201

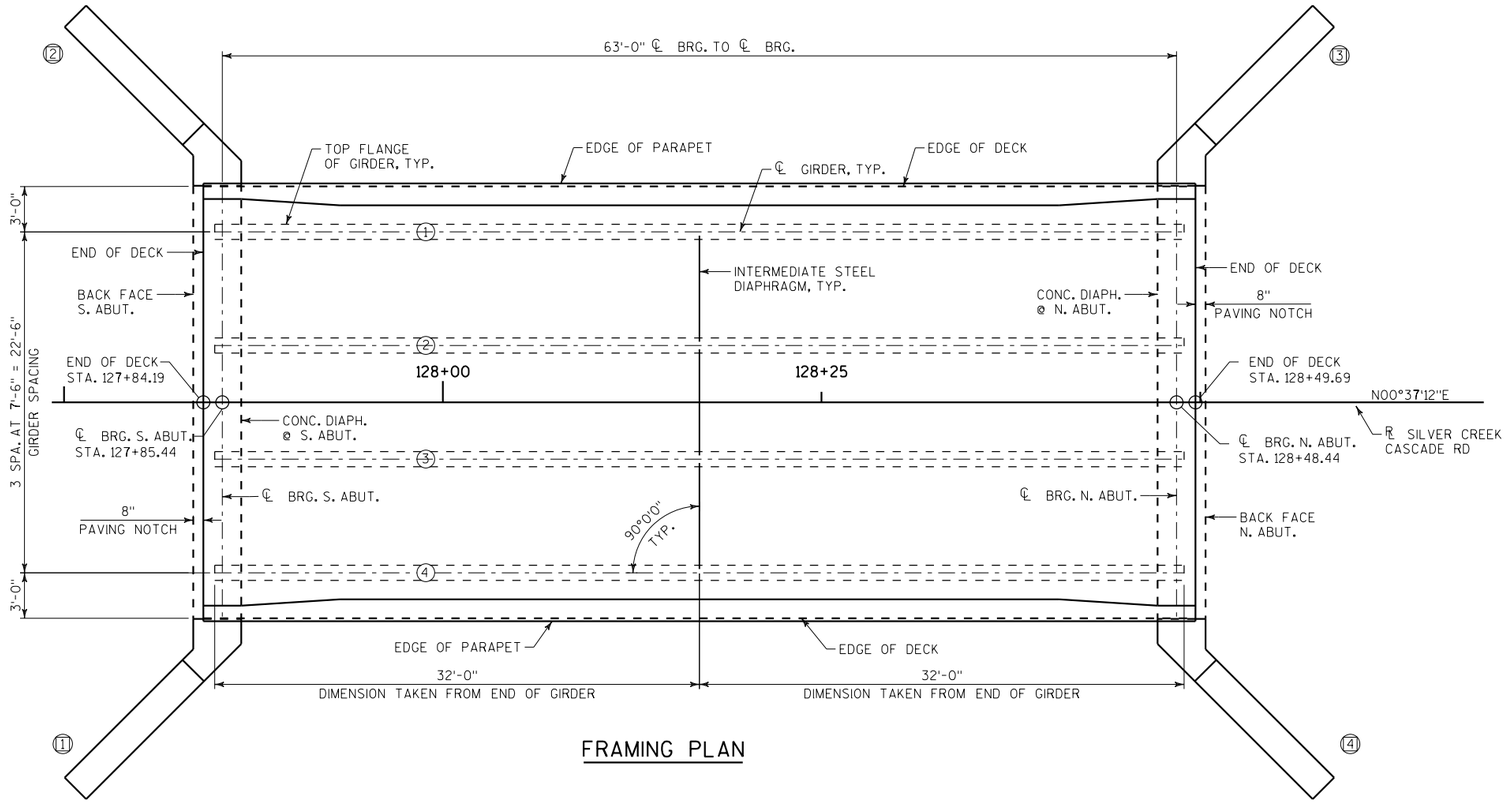
DRAWN BY MM | PLANS CK'D. MHZ

36" PRESTRESSED GIRDER DETAILS

SHEET 12 OF 20

FILE NAME : S:\DOT\DOT_NE\170175-ID 4202-04-00_Silver Creek Cascade Rd Brdg\Structure\cds\B201_080502_gr.dgn PLOT DATE : 1/10/2019 PLOT BY : sconnolly PLOT NAME : $FILE$ PLOT SCALE : 1:8

STATE PROJECT NUMBER
4202-04-71



FRAMING PLAN

LEGEND

(X) GIRDER NUMBER

(X) WINGWALL NUMBER

NOTES

FOR INTERMEDIATE STEEL DIAPHRAGMS, SEE SHEET 14.

FOR SECTION THRU DECK & CONCRETE DIAPHRAGM SECTION AT ABUTMENT, SEE SHEET 16.

TOP OF DECK ELEVATIONS

LOCATION	S. ABUT. BRG.	0.1L	0.2L	0.3L	0.4L	0.5L	0.6L	0.7L	0.8L	0.9L	N. ABUT. BRG.
W. EDGE OF DECK	833.69	833.75	833.81	833.89	833.98	834.09	834.22	834.35	834.50	834.67	834.85
℄ GIRDER 1	833.73	833.78	833.85	833.93	834.02	834.13	834.25	834.39	834.54	834.70	834.88
℄ GIRDER 2	833.88	833.93	834.00	834.08	834.17	834.28	834.40	834.54	834.69	834.85	835.03
CROWN/PGL	833.95	834.01	834.07	834.15	834.24	834.35	834.48	834.61	834.76	834.93	835.11
℄ GIRDER 3	833.88	833.93	834.00	834.08	834.17	834.28	834.40	834.54	834.69	834.85	835.03
℄ GIRDER 4	833.73	833.78	833.85	833.93	834.02	834.13	834.25	834.39	834.54	834.70	834.88
E. EDGE OF DECK	833.69	833.75	833.81	833.89	833.98	834.09	834.22	834.35	834.50	834.67	834.85

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-59-201

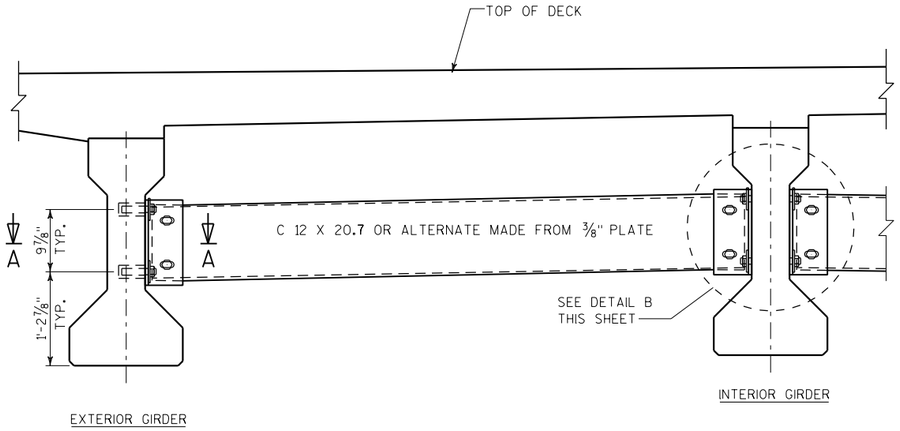
DRAWN BY SMC | PLANS CK'D. MHZ

FRAMING PLAN

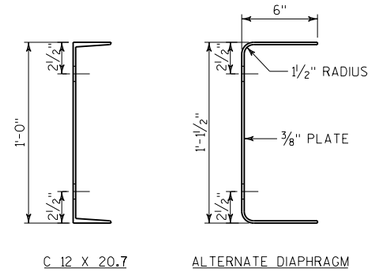
SHEET 13 OF 20

FILE NAME : S:\DOT\DOT_NE\170175-ID 4202-04-00_Silver Creek Cascade Rd Brdg\Structure\cds\B201_080503_ss.dgn PLOT DATE : 1/10/2019 PLOT BY : sconnolly PLOT NAME : $FILE$ PLOT SCALE : 1:10

STATE PROJECT NUMBER
4202-04-71



PART TRANSVERSE SECTION AT DIAPHRAGM



SECTION THRU DIAPHRAGM

NOTES

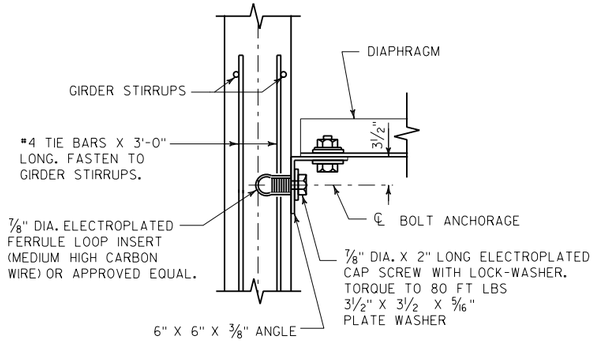
ALL DIAPHRAGM MATERIAL NOT EMBEDDED IN THE CONCRETE GIRDER SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "STEEL DIAPHRAGMS B-59-201", EACH.

EACH DIAPHRAGM BETWEEN GIRDERS SHALL CONSTITUTE ONE UNIT.

ALL DIAPHRAGM STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 36.

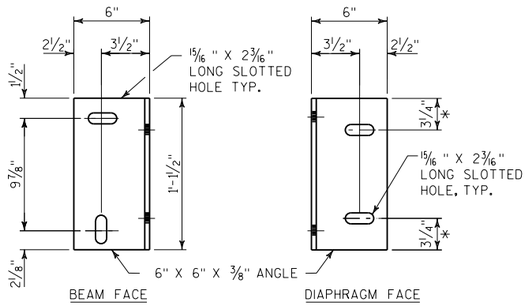
ALL DIAPHRAGM MATERIALS INCLUDING BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED AFTER FABRICATION.

STEEL DIAPHRAGM TO CONCRETE WEB CONNECTION SHALL BE SNUG-TIGHT PLUS 1/4 TURN, UNLESS NOTED OTHERWISE. HIGH STRENGTH BOLTS FOR WEB CONNECTION SHALL MEET THE REQUIREMENTS FOR ASTM A325 OR ASTM A449.



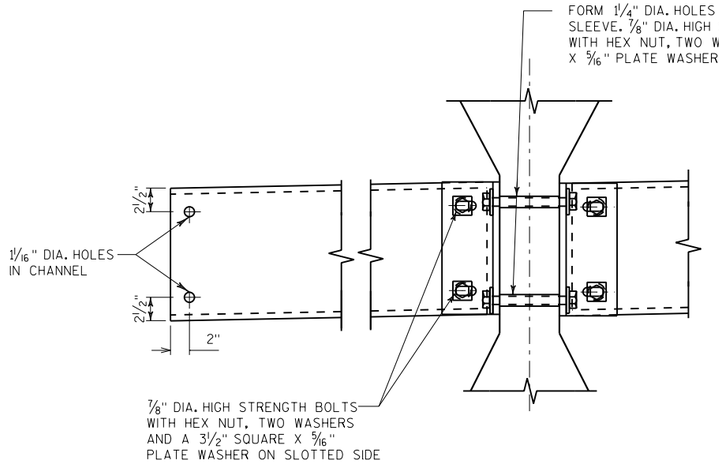
SECTION A-A

(FOR EXTERIOR ATTACHMENT)



DIAPHRAGM SUPPORT

* 2 1/4" FOR ALTERNATE PLATE DIAPHRAGM



DETAIL B

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-59-201

DRAWN BY SMC | PLANS CK'D. MHZ

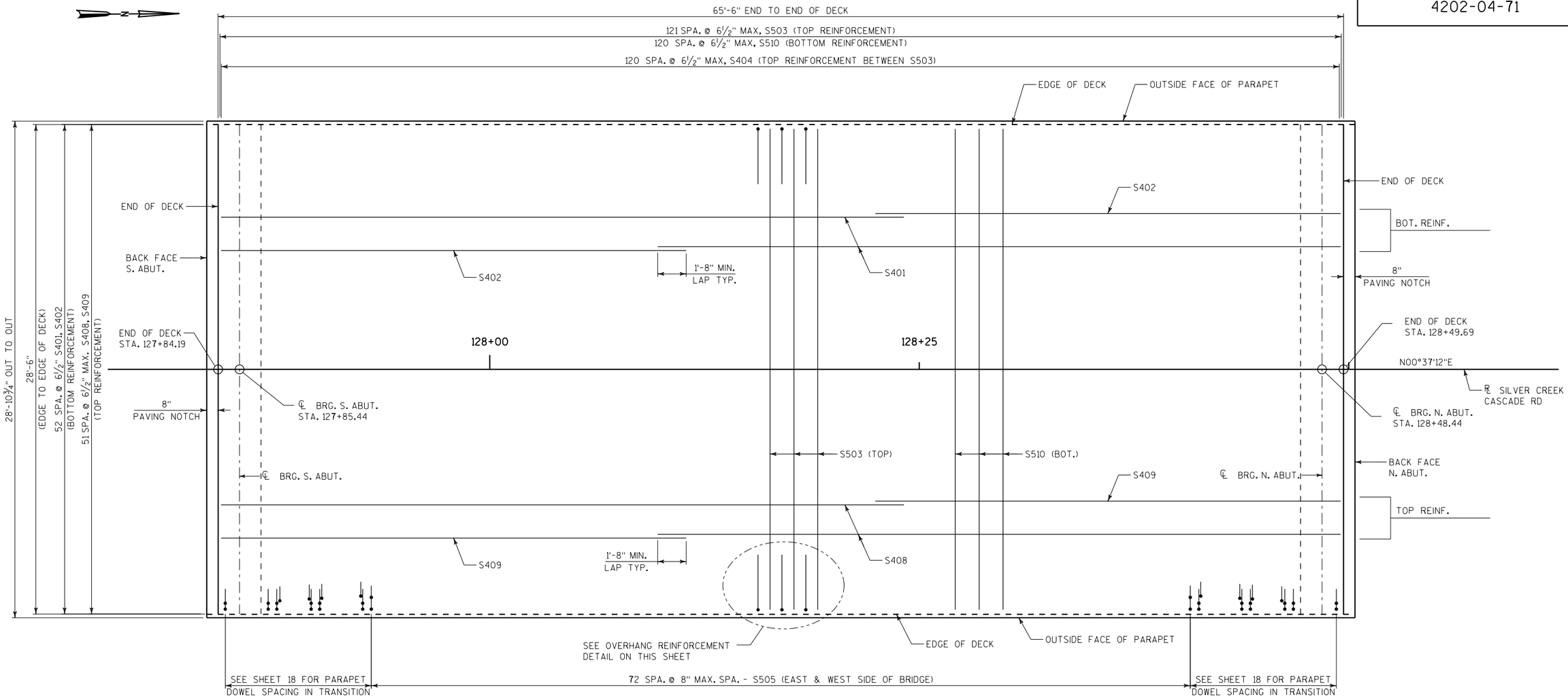
STEEL DIAPHRAGM

SHEET 14 OF 20

FILE NAME : S:\DOT\DOT_NE\170175-ID 4202-04-00_Silver Creek Cascade Rd Brdg\Structure\cds\B201_080504_ss.dgn PLOT DATE : 1/10/2019 PLOT BY : sconnolly PLOT NAME : $FILE$ PLOT SCALE : 1:2

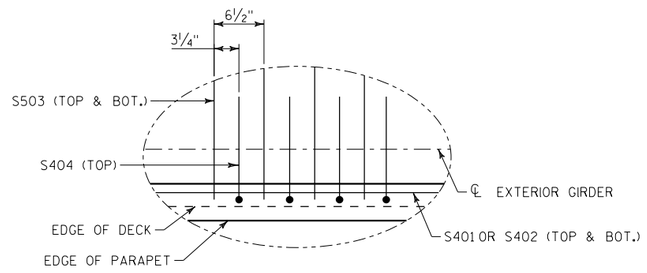
STATE PROJECT NUMBER

4202-04-71



DECK REINFORCEMENT PLAN

(PARAPET NOT SHOWN FOR CLARITY)



OVERHANG REINFORCEMENT DETAIL

NOTES

FOR INTERMEDIATE STEEL DIAPHRAGMS, SEE SHEETS 13 & 14.

FOR SECTION THRU DECK & CONCRETE DIAPHRAGM PARTIAL PLANS, SEE SHEET 16.

FOR CONCRETE DIAPHRAGM SECTIONS AT ABUTMENTS, SEE SHEETS 16 & 17.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-59-201

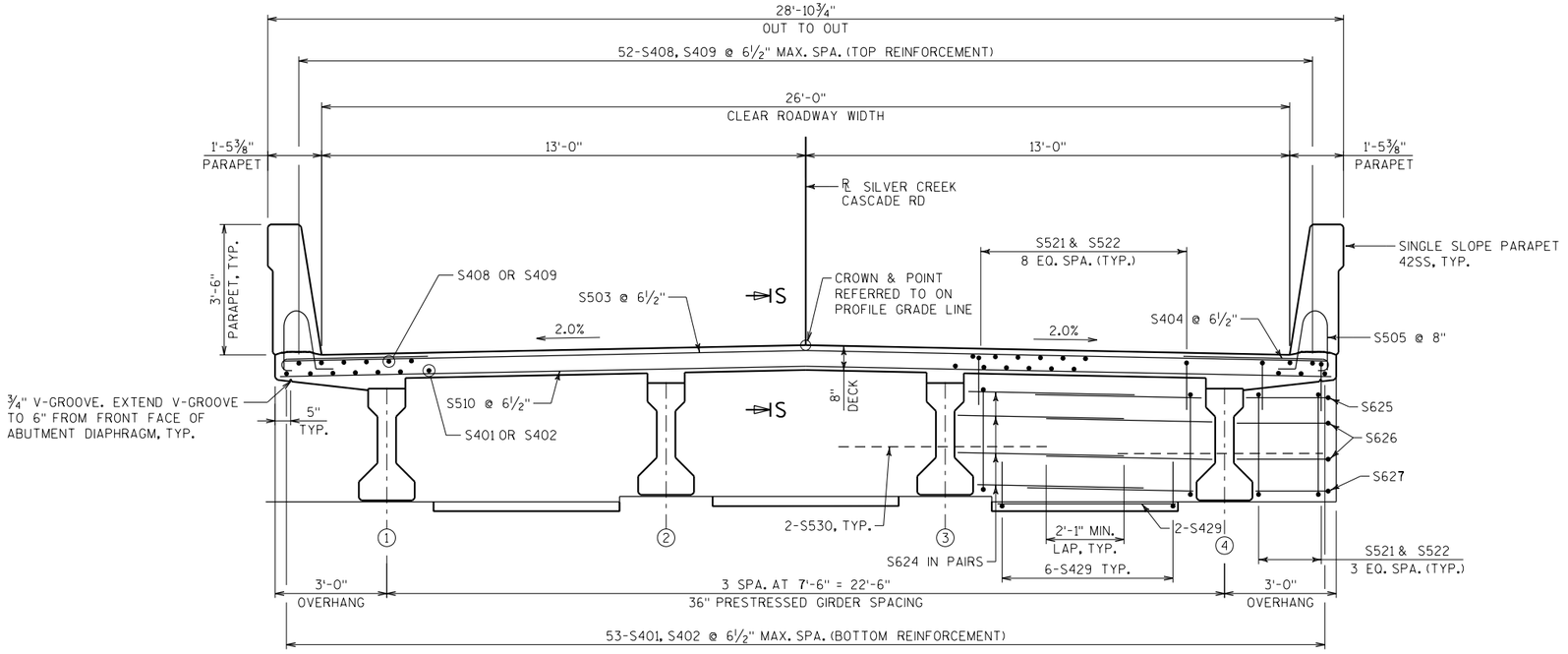
DRAWN BY SMC | PLANS CK'D. MHZ

SUPERSTRUCTURE REINFORCEMENT

SHEET 15 OF 20

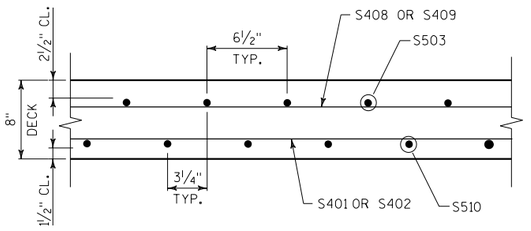
FILE NAME : S:\DOT\DOT_NE\170175-ID 4202-04-00_Silver Creek Cascade Rd Brdg\Structure\cds\B201_080505_ss.dgn PLOT DATE : 1/10/2019 PLOT BY : sconnolly PLOT NAME : $FILE$ PLOT SCALE : 1:6

STATE PROJECT NUMBER
4202-04-71



CONCRETE DIAPHRAGM AT ABUTMENT

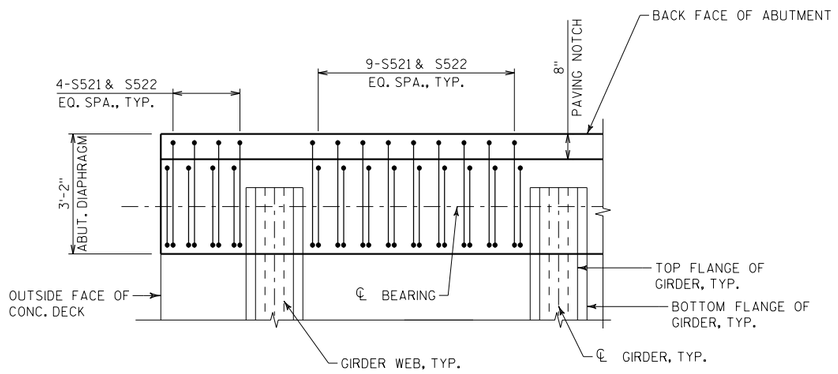
(TYPICAL)
(LONG. BACK FACE REINFORCEMENT NOT SHOWN FOR CLARITY)



SECTION S-S

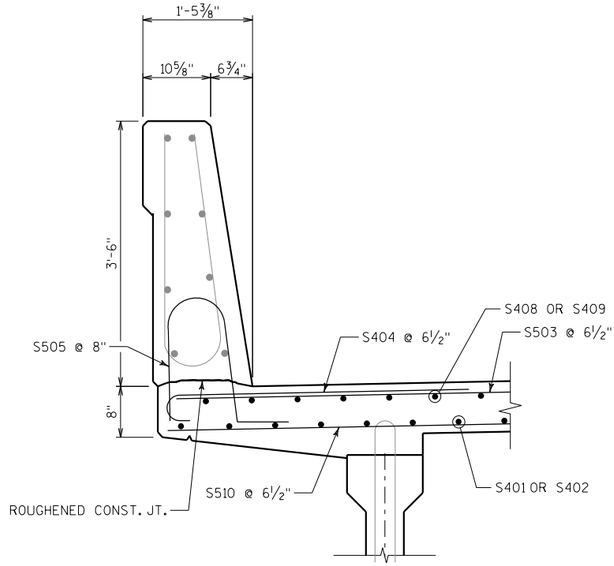
CROSS SECTION THRU DECK

(LOOKING NORTH)



ABUTMENT CONCRETE DIAPHRAGM PART PLAN

(LONGITUDINAL BARS NOT SHOWN FOR CLARITY)



OVERHANG REINFORCEMENT SECTION

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-59-201

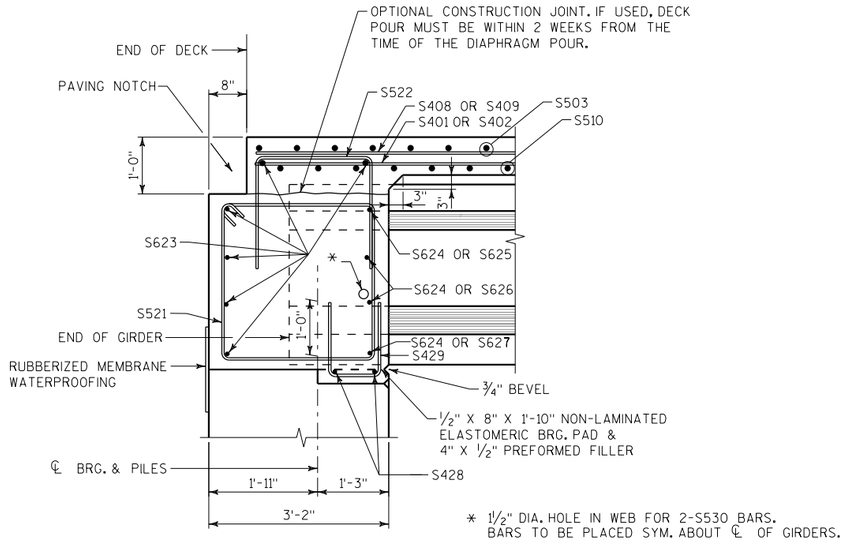
DRAWN BY SMC | PLANS CK'D. MHZ

SUPERSTRUCTURE DETAILS 1 OF 2

SHEET 16 OF 20

FILE NAME : S:\DOT\DOT_NE\170175-ID 4202-04-00_Silver Creek Cascade Rd Brdg\Structure\cds\B201_080506_ss.dgn
PLOT DATE : 1/10/2019
PLOT BY : sconnolly
PLOT NAME : $FILE$
PLOT SCALE : 1:4

STATE PROJECT NUMBER
4202-04-71

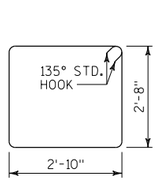


PART LONGITUDINAL SECTION AT ABUTMENT

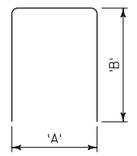
BILL OF BARS

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	LOCATION
S401	X	53	40'-0"	-	DECK BOTTOM - LONG.
S402	X	53	26'-10"	-	DECK BOTTOM - LONG.
S503	X	122	28-2"	-	DECK TOP - TRANS.
S404	X	242	4'-4"	X	DECK TOP OVERHANG - TRANS.
S505	X	146	4'-5"	X	PARAPET DOWELS
S506	X	44	2'-9"	X	PARAPET DOWELS
S507	X	68	4'-4"	X	PARAPET DOWELS
S408	X	52	40'-0"	-	DECK TOP - LONG.
S409	X	52	26'-10"	-	DECK TOP - LONG.
S510	X	121	28'-2"	-	DECK BOTTOM - TRANS.
S521	X	70	9'-10"	X	ABUTMENT DIAPHRAGM - VERT.
S522	X	70	5'-11"	X	ABUTMENT DIAPHRAGM - VERT.
S623	X	12	28'-2"	-	ABUTMENT DIAPHRAGM B.F. - TRANS.
S624	X	48	4'-5"	-	ABUTMENT DIAPHRAGM F.F. - TRANS.
S625	X	4	6'-10"	X	ABUTMENT DIAPHRAGM CORNERS - TRANS.
S626	X	8	7'-4"	X	ABUTMENT DIAPHRAGM CORNERS - TRANS.
S627	X	4	6'-4"	X	ABUTMENT DIAPHRAGM CORNERS - TRANS.
S428	X	12	4'-8"	-	ABUTMENT DIAPHRAGM BEAM SEAT - TRANS.
S429	X	36	3'-9"	X	ABUTMENT DIAPHRAGM BEAM SEAT - VERT.
S530	X	16	6'-0"	-	ABUTMENT DIAPHRAGM THRU GIRDERS

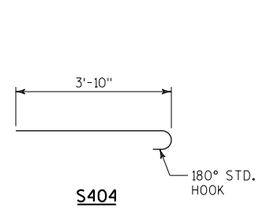
NOTE:
BAR DIMENSIONS ARE OUT TO OUT OF BAR. THE FIRST OR FIRST TWO DIGITS OF A BAR MARK SIGNIFIES THE BAR SIZE



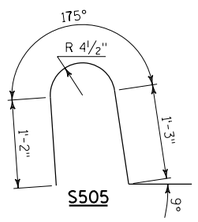
S521



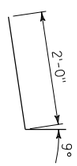
BAR MARK	DIM. 'A'	DIM. 'B'
S522	2'-3"	2'-0"
S625	2'-10"	2'-2"
S626	2'-10"	2'-5"
S627	2'-10"	1'-11"
S429	11"	1'-6"



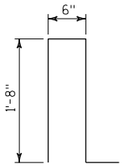
S404



S505



S506



S507

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-59-201

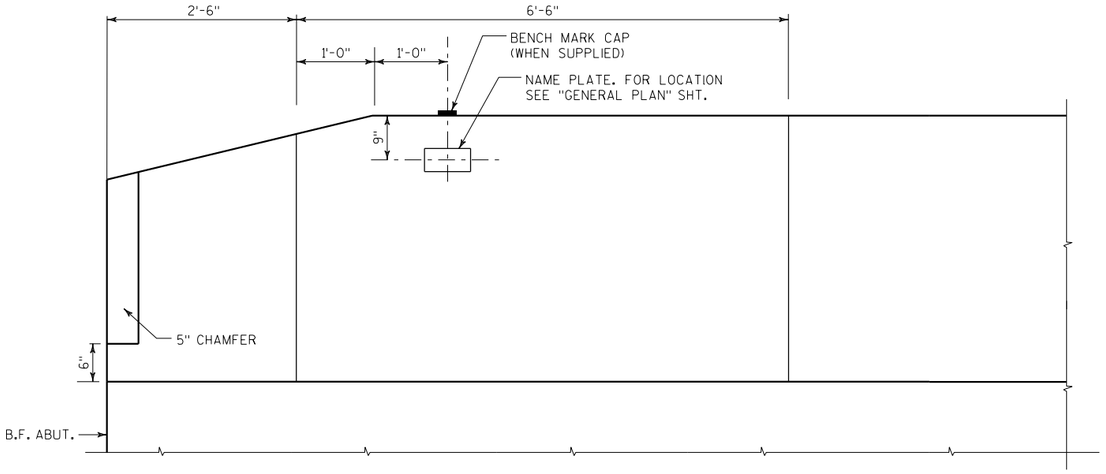
DRAWN BY SMC | PLANS CK'D. MHZ

SUPERSTRUCTURE DETAILS 2 OF 2

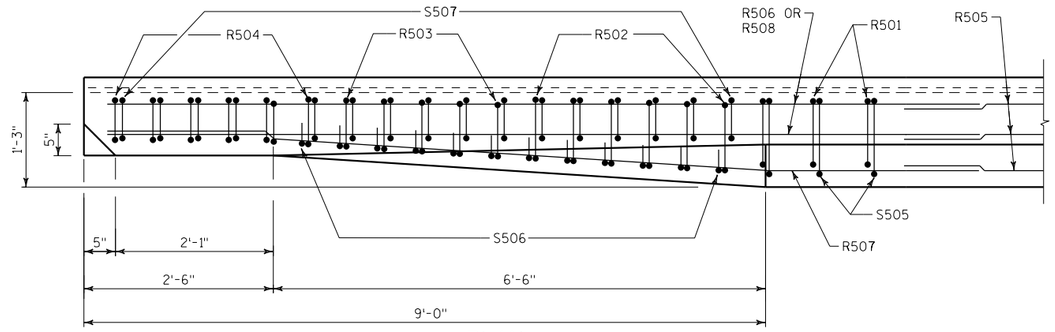
SHEET 17 OF 20

FILE NAME : S:\DOT\DOT_NE\170175-ID 4202-04-00_Silver Creek Cascade Rd Brdg\Structure\cds\B201_080507_ss.dgn PLOT DATE : 1/10/2019 PLOT BY : sconnolly PLOT NAME : $FILE$ PLOT SCALE : 1:4

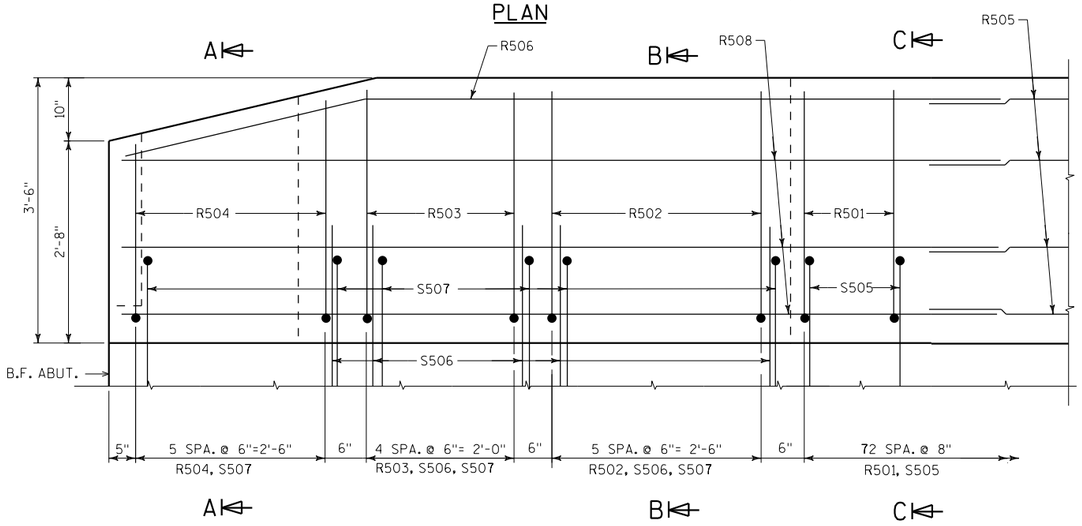
STATE PROJECT NUMBER
4202-04-71



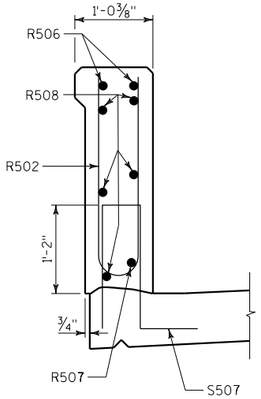
INSIDE ELEVATION



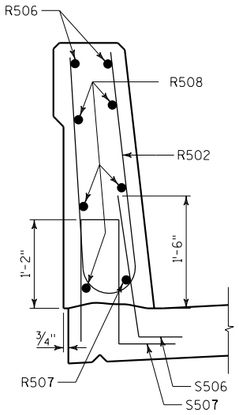
PLAN



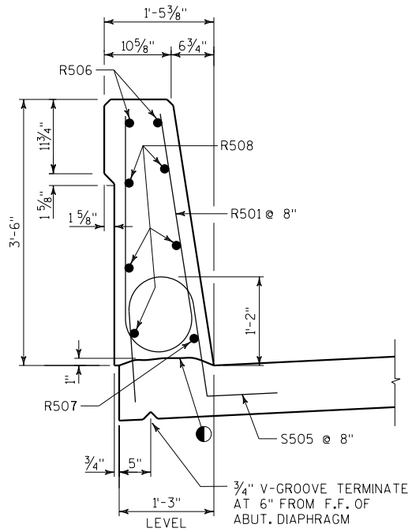
OUTSIDE ELEVATION



SECTION A-A



SECTION B-B



SECTION C-C

◐ CONST. JOINT - STRIKE OFF AS SHOWN.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-59-201

DRAWN BY SMC | PLANS CK'D. MHZ

SINGLE SLOPE
PARAPET 42SS
1 OF 2

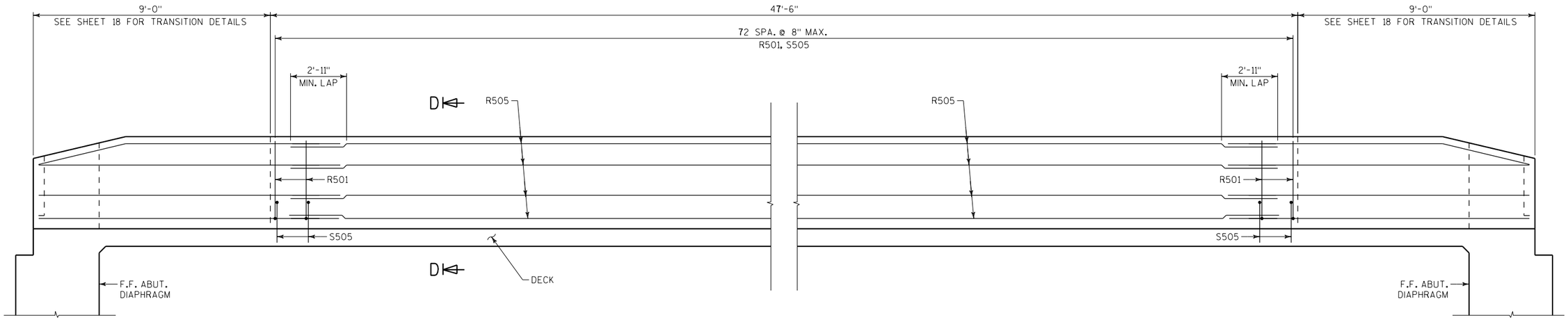
SHEET 18 OF 20

8

8

FILE NAME : S:\DOT\DOT_NE\170175-ID 4202-04-00_Silver Creek Cascade Rd Brdg\Structure\cds\B201_080601_rp.dgn PLOT DATE : 1/10/2019 PLOT BY : sconnolly PLOT NAME : $FILE$ PLOT SCALE : 1:2

STATE PROJECT NUMBER
4202-04-71



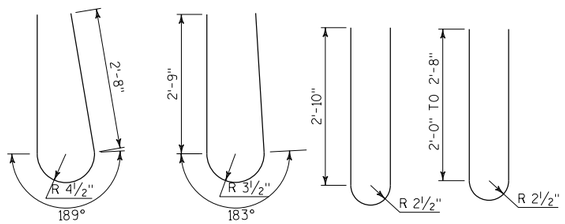
OUTSIDE ELEVATION

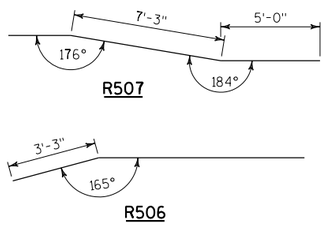
BILL OF BARS

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
R501	X	146	6'-8"	X		PARAPET VERT.
R502	X	24	6'-6"	X		PARAPET VERT.
R503	X	20	6'-5"	X		PARAPET VERT.
R504	X	24	5'-5"	X	⚠	PARAPET VERT.
R505	X	16	47'-6"	-		PARAPET HORIZ.
R506	X	8	11'-9"	X		PARAPET HORIZ.
R507	X	4	11'-9"	X		PARAPET HORIZ.
R508	X	20	11'-9"	-		PARAPET HORIZ.

NOTES:
BAR DIMENSIONS ARE OUT TO OUT OF BAR. THE FIRST OR FIRST TWO DIGITS OF A BAR MARK SIGNIFIES THE BAR SIZE

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

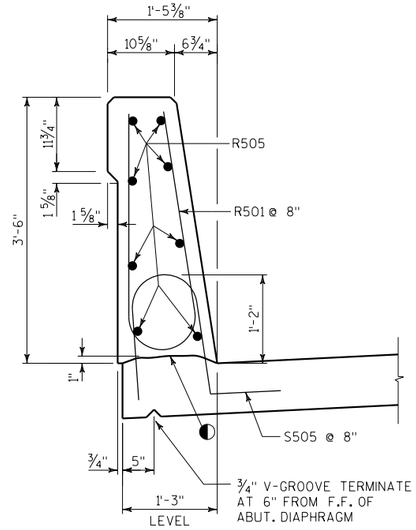




BAR SERIES TABLE

BAR MARK	NO. REQ'D.	LENGTH
R504	4 SERIES OF 6	4'-9" TO 6'-1"

BUNDLE AND TAG EACH SERIES SEPARATELY.



SECTION D-D

◐ CONST. JOINT - STRIKE OFF AS SHOWN.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-59-201

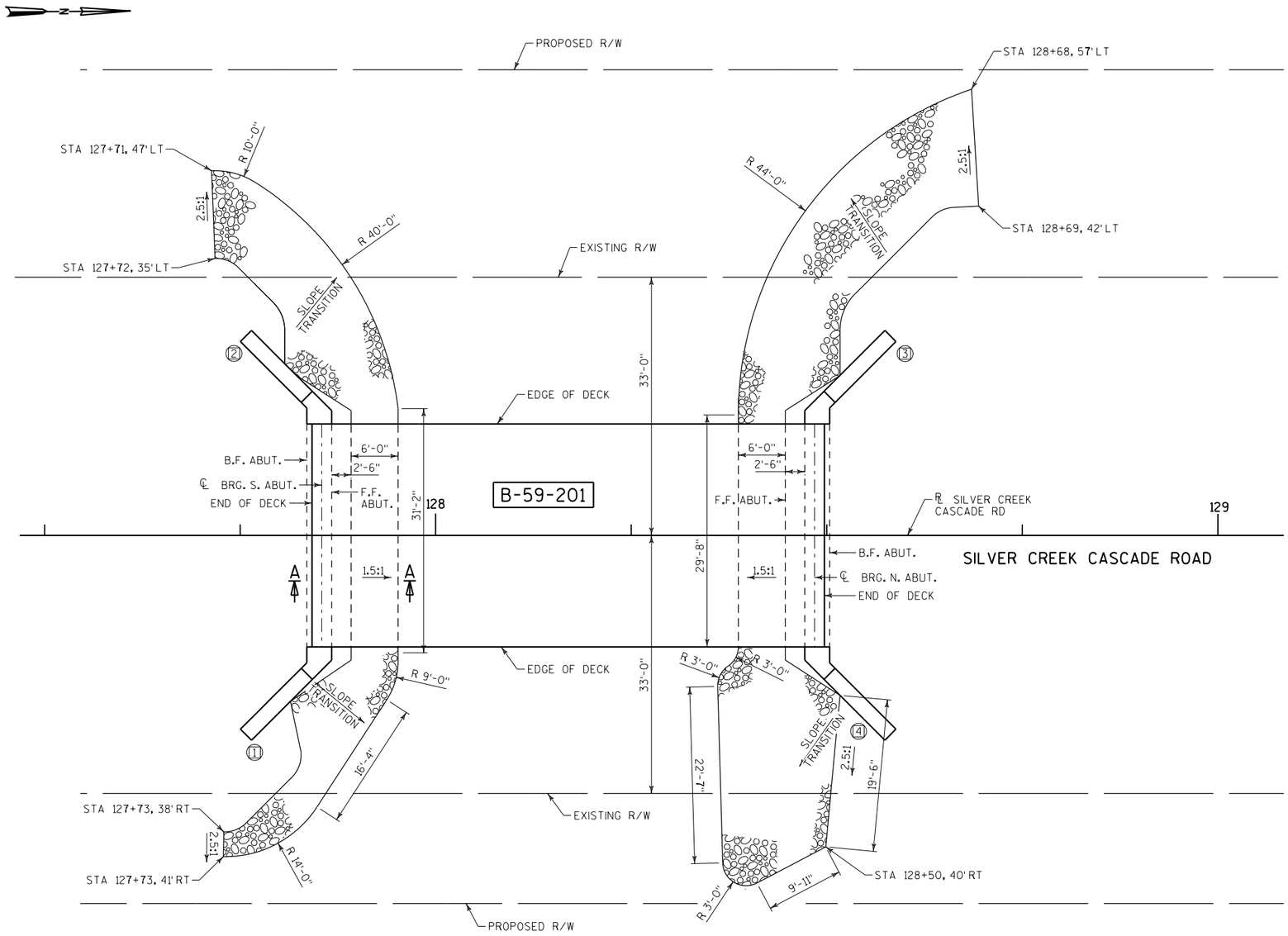
DRAWN BY SMC | PLANS CK'D. MHZ

SINGLE SLOPE PARAPET 42SS 2 OF 2

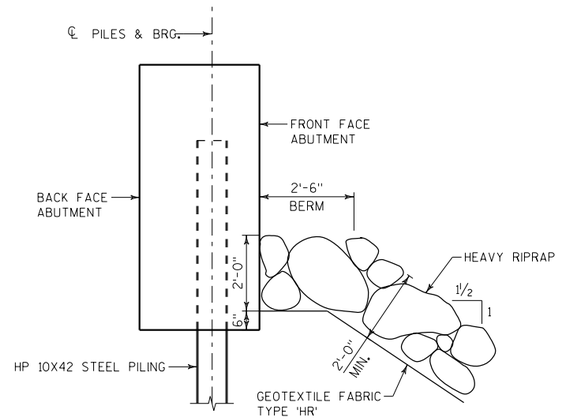
SHEET 19 OF 20

FILE NAME : S:\DOT\DOT_NE\170175-ID 4202-04-00_Silver Creek Cascade Rd Brdg\Structure\cds\B201_080602_rp.dgn PLOT DATE : 1/10/2019 PLOT BY : sconnolly PLOT NAME : $FILE$ PLOT SCALE : 1:4

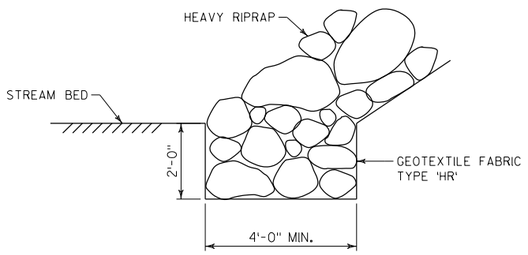
STATE PROJECT NUMBER
4202-04-71



PLAN



SECTION A-A



TOE DETAIL

LEGEND

(X) WINGWALL NUMBER

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-59-201

DRAWN BY SMC | PLANS CK'D. MHZ

HEAVY RIPRAP DETAILS

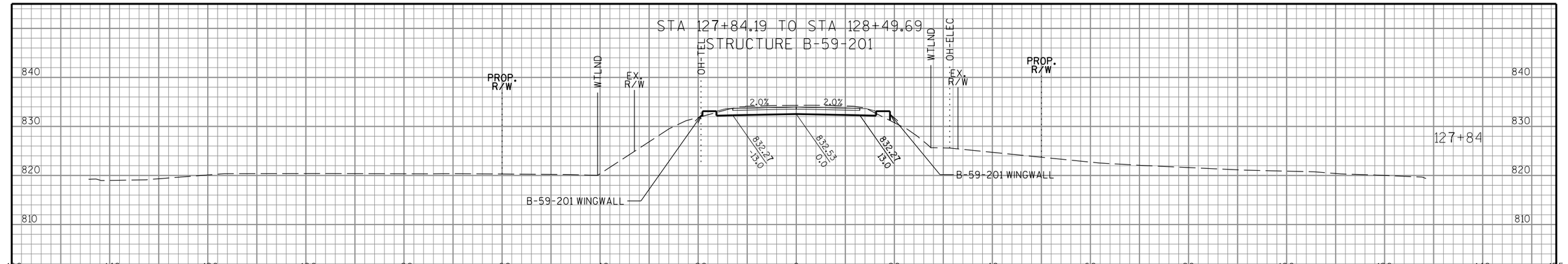
SHEET 20 OF 20

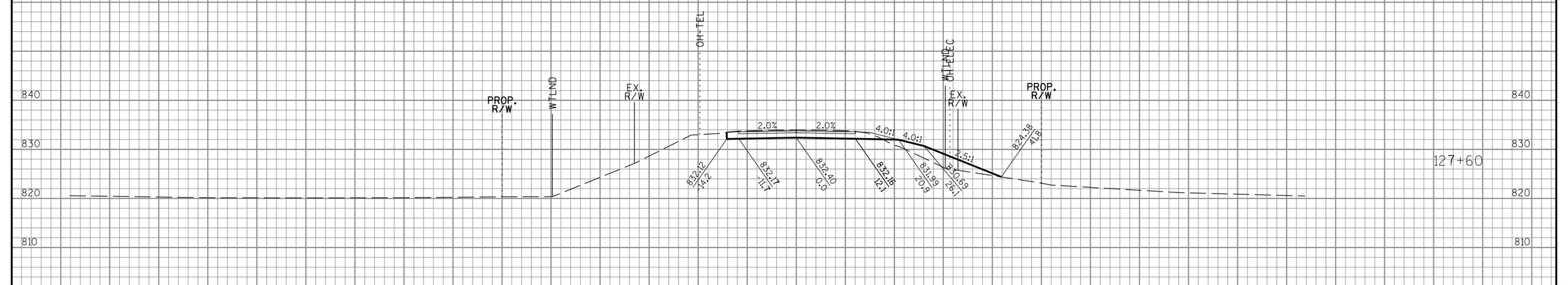
FILE NAME : S:\DOT\DOT_NE\170175-ID 4202-04-00_Silver Creek Cascade Rd Brdg\Structure\cds\B201_080701_sp.dgn PLOT DATE : 1/10/2019 PLOT BY : sconnolly PLOT NAME : $FILE$ PLOT SCALE : 1:16

SILVER CREEK CASCADE ROAD

STATION	Distance (FT)	Area (SF) Cut	Area (SF) Fill	Incremental Vol (CY) Cut	Incremental Vol (CY) Fill	Cumulative Vol (CY) Cut 1.00	Cumulative Vol (CY) Expanded Fill 1.25	Mass Ordinate
127+37.62		41	0	0	0	0	0	0
127+60.	22.38	47	40	36	17	36	21	16
127+83.52	23.52	76	1	54	18	90	43	47
128+50.36		35	13	0	0	90	43	47
128+75.	24.64	31	201	30	98	120	165	-45
128+98.77	23.77	67	0	43	88	163	275	-112
				163	**220**			

STA 127+84.19 TO STA 128+49.69
STRUCTURE B-59-201





BEGIN PROJECT STA 127+37.62

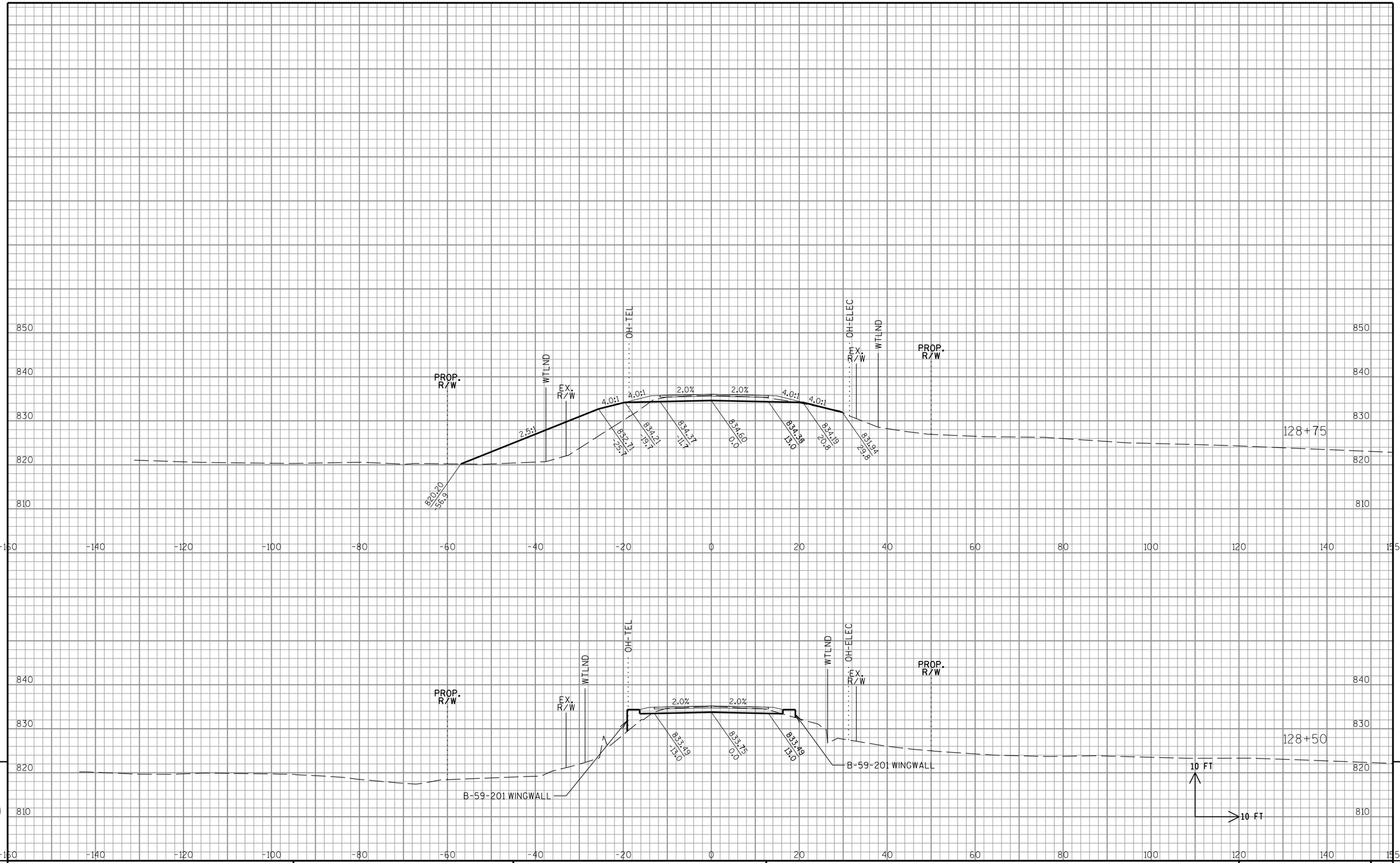
10 FT
10 FT

9

9

STATE PROJECT NO: 4202-04-71	HWY: SILVER CREEK CASCADE ROAD	COUNTY: SHEBOYGAN	CROSS SECTIONS: SILVER CREEK CASCADE ROAD	SHEET NO: 42	E

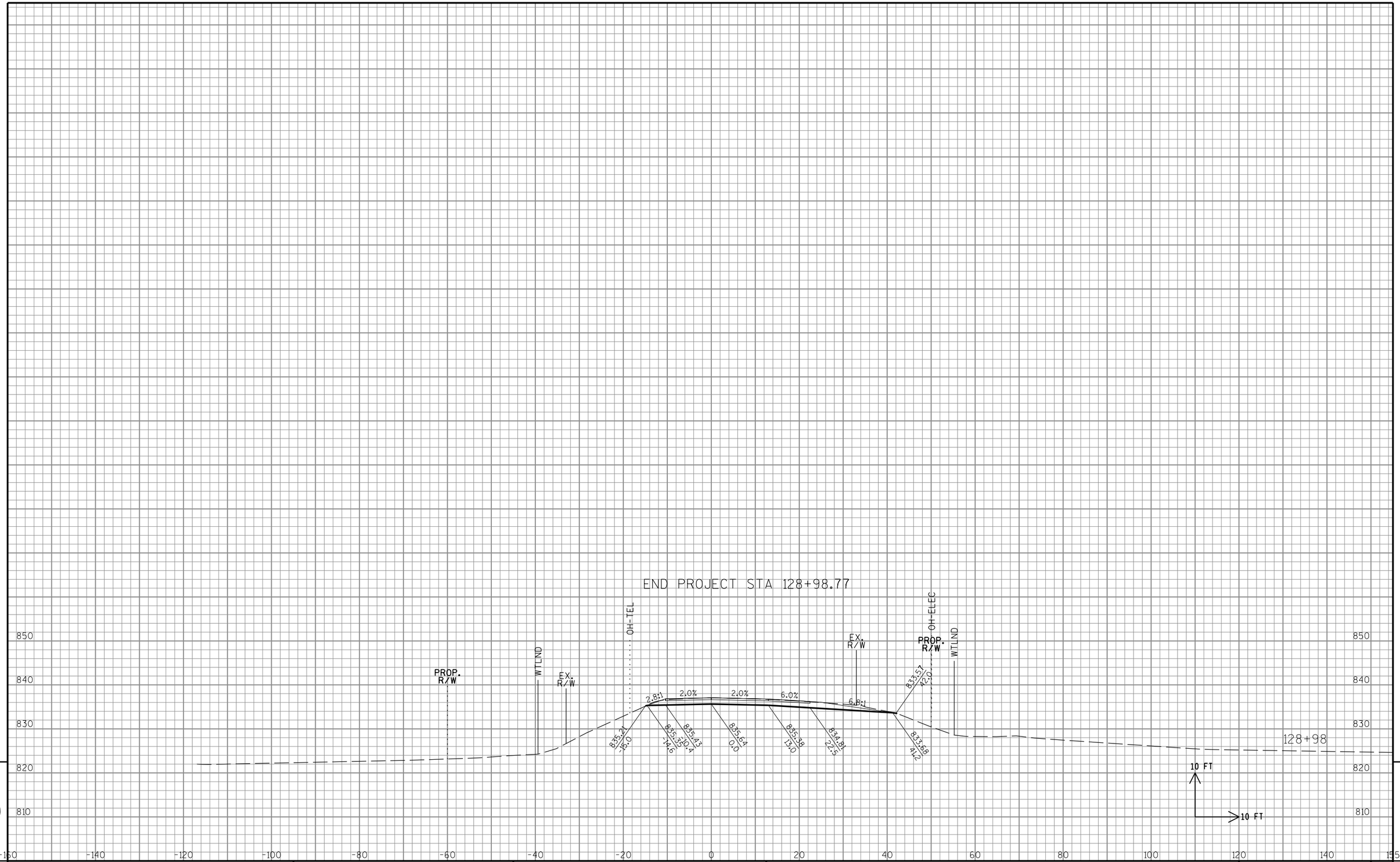
FILE NAME : S:\DOT\DOT_NE\170175-ID 4202-04-00_Silver Creek Cascade Rd Brdg\DGN\Plansheets\090201_XS.dgn PLOT DATE : 12/3/2018 PLOT BY : wwolak PLOT NAME : PLOT SCALE : 1:20



9

STATE PROJECT NO: 4202-04-71	HWY: SILVER CREEK CASCADE ROAD	COUNTY: SHEBOYGAN	CROSS SECTIONS: SILVER CREEK CASCADE ROAD	SHEET NO: . 43	E

FILE NAME : S:\DOT\DOT_NE\170175-ID 4202-04-00_Silver Creek Cascade Rd Brdg\DGN\Plansheets\090201_XS.dgn PLOT DATE : 12/3/2018 PLOT BY : wwolak PLOT NAME : PLOT SCALE : 1:20



STATE PROJECT NO: 4202-04-71	HWY: SILVER CREEK CASCADE ROAD	COUNTY: SHEBOYGAN	CROSS SECTIONS: SILVER CREEK CASCADE ROAD	SHEET NO: 44	E

FILE NAME : S:\DOT\DOT_NE\170175-ID 4202-04-00_Silver Creek Cascade Rd Brdg\DGN\Plansheets\090201_XS.dgn PLOT DATE : 12/3/2018 PLOT BY : wwolak PLOT NAME : PLOT SCALE : 1:20

Notes

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov

GRE JULY 2019

PROJECT ID: 4202-05-71
WITH: 4202-04-71 & 4202-06-71

COUNTY: SHEBOYGAN

ORDER OF SHEETS

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

TOTAL SHEETS = 50

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

T. SHERMAN, SILVER CREEK CASCADE RD

N BRANCH MILWAUKEE RIVER BRIDGE SOUTH

LOCAL STREET

SHEBOYGAN COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
4202-05-71		

STATE PROJECT NUMBER
4202-05-71

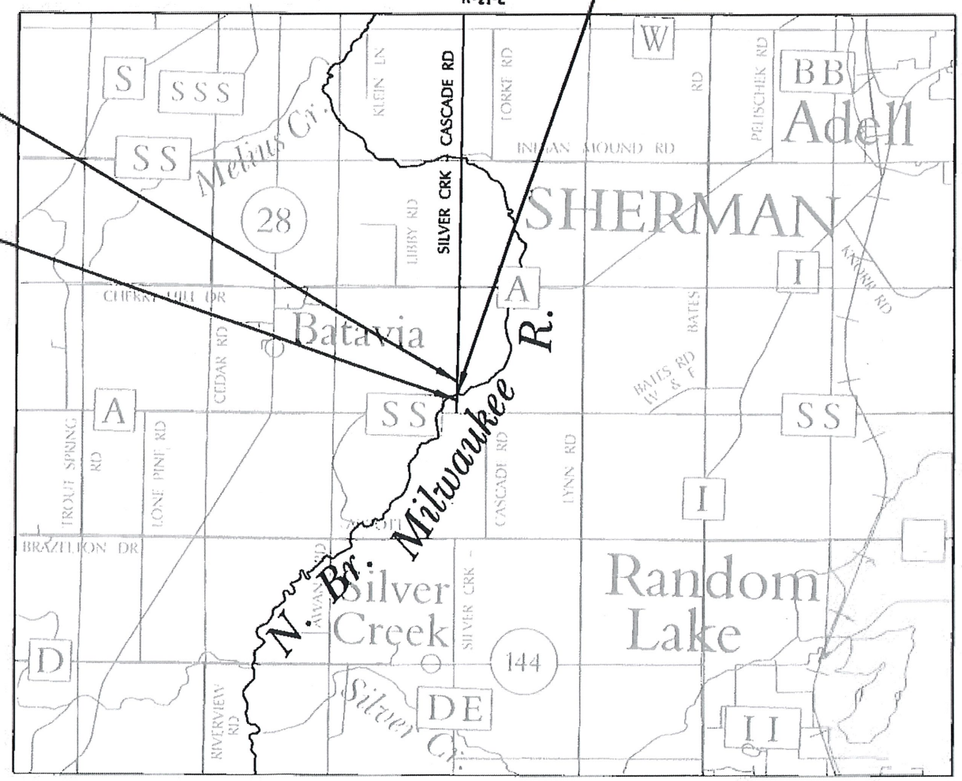
END PROJECT
STA. 10+00.00
X=137,212.38
Y=117,659.70

BEGIN PROJECT
STA. 8+50.00
X=137,210.63
Y=117,509.71

T-13-N

STRUCTURE
B-59-202

R-21-E



DESIGN DESIGNATION

A.A.D.T.	(2019)	= 145
A.A.D.T.	(2039)	= 159
D.H.V.	(2038)	= 4.9%
D.D.	(2038)	= 60/40
T.		= 5.8%
DESIGN SPEED		= 35 MPH
ESALS		= N/A

CONVENTIONAL SYMBOLS

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

PROFILE
- GRADE LINE
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such) (ROCK)
- SPECIAL DITCH (LABEL)
- GRADE ELEVATION (95.36)
- CULVERT (Profile View)

UTILITIES
- ELECTRIC (E)
- FIBER OPTIC (FO)
- GAS (G)
- SANITARY SEWER (SAN)
- STORM SEWER (SS)
- TELEPHONE (T)
- WATER (W)
- UTILITY PEDESTAL
- POWER POLE
- TELEPHONE POLE

LAYOUT
SCALE 0 0.5 MI.

TOTAL NET LENGTH OF CENTERLINE = 0.028 MI.

Coordinates on this plan are referenced to the Wisconsin County Coordinate System (WCCS), Sheboygan, NAD 1983 (2011)

Elevations shown on this plan are referenced to the North American Vertical Datum of 1988 NAVD 88 (2011).

ACCEPTED FOR SHEBOYGAN COUNTY
Date: 1/31/2019
SIGNATURE AND TITLE OF OFFICIAL

ORIGINAL PLANS PREPARED BY:

STRAND ASSOCIATES
910 WEST WINGRA DRIVE
MADISON, WISCONSIN 53715
(608) 251-4843

WISCONSIN
KEITH R. BEHREND
E-42073
MADISON
WI
PROFESSIONAL ENGINEER
Keith R. Behrend
1-31-2019

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY
Surveyor: STRAND ASSOCIATES, INC.
Designer: STRAND ASSSOCIATES, INC.

APPROVED FOR THE DEPARTMENT
DATE: 2/1/19

E

GENERAL NOTES

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

EROSION CONTROL FEATURES AS SHOWN ON THE PLANS ARE AT SUGGESTED LOCATIONS. THE ENGINEER MAY MODIFY LOCATIONS AS NEEDED. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL SUCH TIME AS THE ENGINEER DETERMINES THE MEASURE IS NO LONGER NECESSARY.

THE LOCATION OF PROPOSED SIGNS AS SHOWN ON THE PLANS ARE APPROXIMATE. THE EXACT NUMBER OF SIGNS AND SIGN LOCATIONS ARE TO BE APPROVED BY THE ENGINEER IN THE FIELD.

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY SHALL BE RESTORED AS DIRECTED BY THE ENGINEER.

MISCELLANEOUS REMOVAL ITEMS SHALL BE REMOVED TO AN EXISTING JOINT, SAWCUT WHERE SHOWN ON THE PLANS, OR AS DIRECTED BY THE ENGINEER.

A SAWED JOINT SHALL BE REQUIRED WHERE NEW PAVEMENT IS TO MEET AN EXISTING PAVED SURFACE.

SILT FENCE SHALL BE PLACED AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER AND IN PLACE PRIOR TO CONSTRUCTION OPERATIONS IN THE AREA.

WETLANDS EXIST IN THE PROJECT AREA. DO NOT DISTURB AREAS OUTSIDE OF THE SLOPE INTERCEPTS. FERTILIZER SHALL NOT BE USED IN WETLANDS.

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

FOLLOW S.D.D. "BARRICADES AND SIGNS FOR MAINLINE CLOSURES" FOR TRAFFIC CONTROL ALONG SILVER CREEK CASCADE ROAD.

UTILITIES

** WE ENERGIES ELECTRIC

AL SCHMITT
245 SAND DR
WEST BEND, WI 53095
PH: (262) 338-7662
alan.schmitt@we-energies.com

** FRONTIER

CALVIN KLADE
1851 N. 14TH AVENUE
WAUSAU, WI 54401
PH: (715) 847-1525
calvin.klade@ftr.com

**DENOTES DIGGERS HOTLINE MEMBER

OTHER CONTACTS

WISDNR

JAY SCHIEFELBEIN
DNR NORTHEAST REGION
2984 SHAWANO AVENUE
GREEN BAY, WI 54313
PH: (920) 360-3784
jeremiah.schiefelbein@wisconsin.gov

SILVER CREEK FIRE DEPARTMENT

TODD STANGE, CHIEF
SILVER CREEK FIRE DEPARTMENT
W6566 STATE HWY 144
RANDOM LAKE, WI 53075
PH: (920) 994-9421

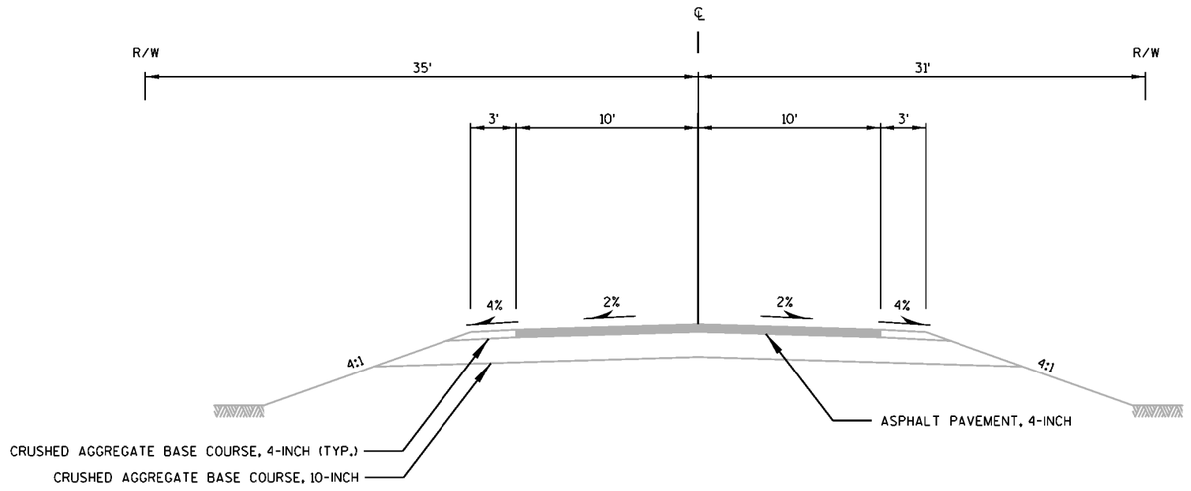
2

ASPHALT BID/MIX SPECIFICATIONS

	THICKNESS	GRADATION NOMINAL SIZE	BID/MIX SPECIFICATION
UPPER LAYER	1.75-INCHES	12.5 MM	ASPHALTIC SURFACE
LOWER LAYER	2.25-INCHES	19.0 MM	ASPHALTIC SURFACE

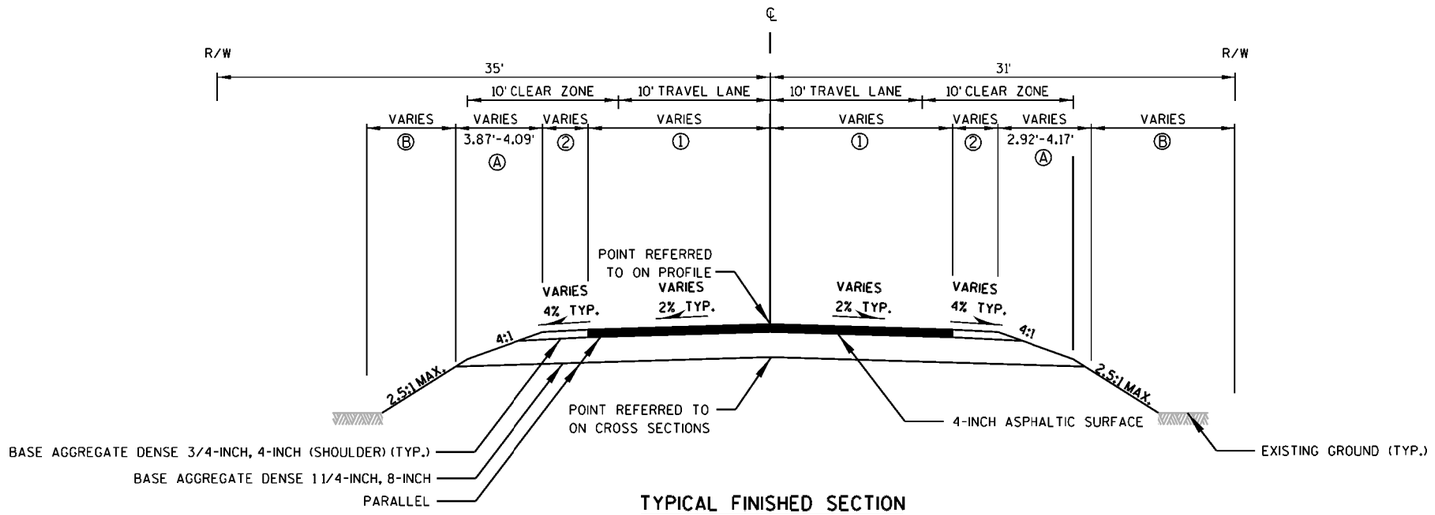
DIGGERS HOTLINE
Dial 811 or (800)242-8511
www.DiggersHotline.com

PROJECT NO: 4202-05-71	HWY: LOCAL STREET	COUNTY: SHEBOYGAN	GENERAL NOTES	SHEET 2	E



TYPICAL EXISTING SECTION

SILVER CREEK CASCADE ROAD
STA. 8+50.00 TO STA. 8+96.14
STA. 9+43.48 TO STA. 10+00.00



TYPICAL FINISHED SECTION

SILVER CREEK CASCADE ROAD
STA. 8+50.00 TO STA. 8+89.75
STA. 9+52.25 TO STA. 10+00.00

① VARIES FROM 10.20'-13.00'
SEE LAYOUT DETAIL

② VARIES FROM 2'-3.95'
SEE LAYOUT DETAIL

Ⓐ SEEDING MIXTURE NO. 20

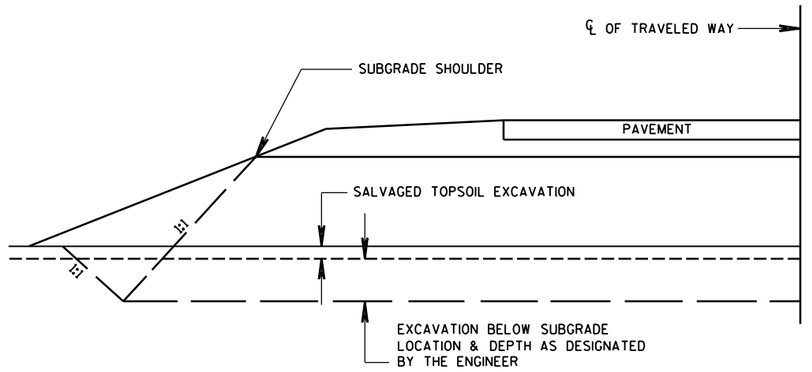
Ⓑ TOPSOIL; SEEDING MIXTURE NO. 20; SEEDING TEMPOARARY; AND EROSION MAT CLASS I TYPE A

PROJECT NO: 4202-05-71	HWY: LOCAL STREET	COUNTY: SHEBOYGAN	TYPICAL SECTIONS	SHEET 3	E

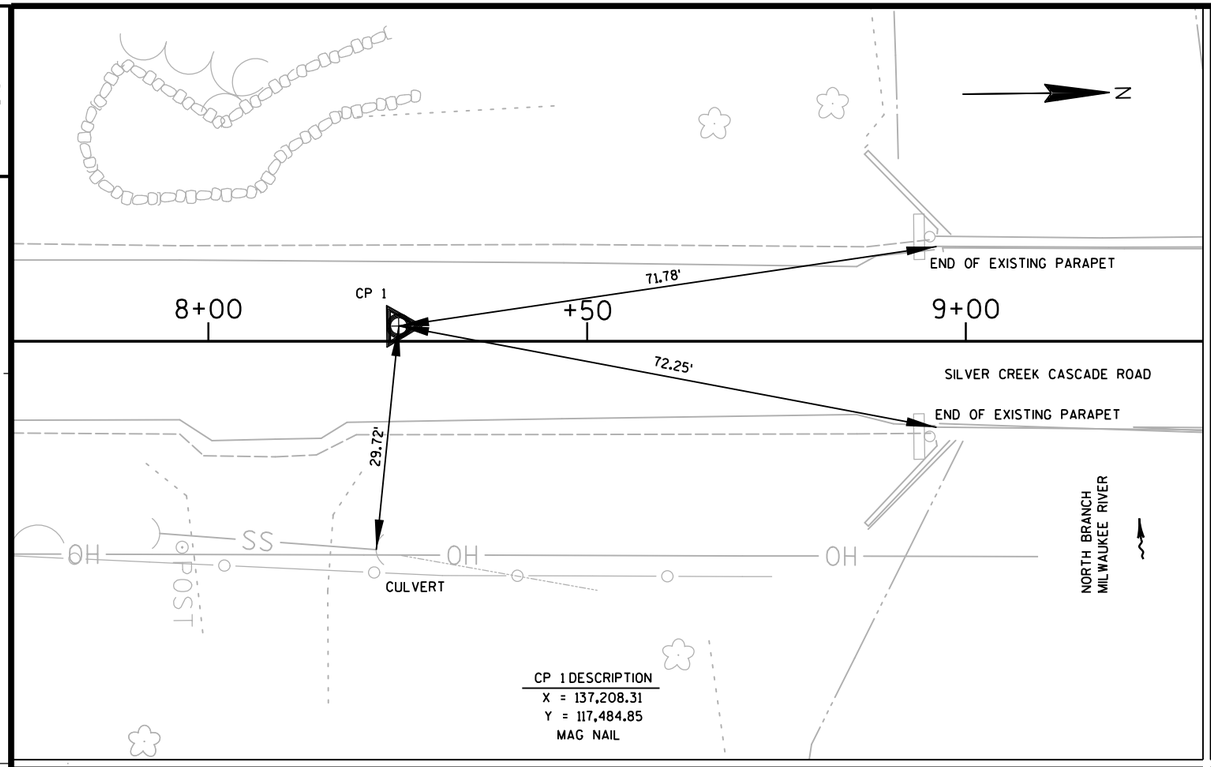
RUNOFF COEFFICIENT TABLE

	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33 .50	.19 .34	.28 .41	.38 .56
MEDIAN STRIP-TURF	.19 .24	.20 .26	.24 .30	.19 .25	.22 .28	.26 .33	.20 .26	.23 .30	.30 .37	.20 .27	.25 .32	.30 .40
SIDE SLOPE-TURF			.25 .32			.27 .34			.28 .36			.30 .38
PAVEMENT:												
ASPHALT	.70 - .95											
CONCRETE	.80 - .95											
BRICK	.70 - .80											
DRIVES, WALKS	.75 - .85											
ROOFS	.75 - .95											
GRAVEL ROADS, SHOULDERS	.40 - .60											

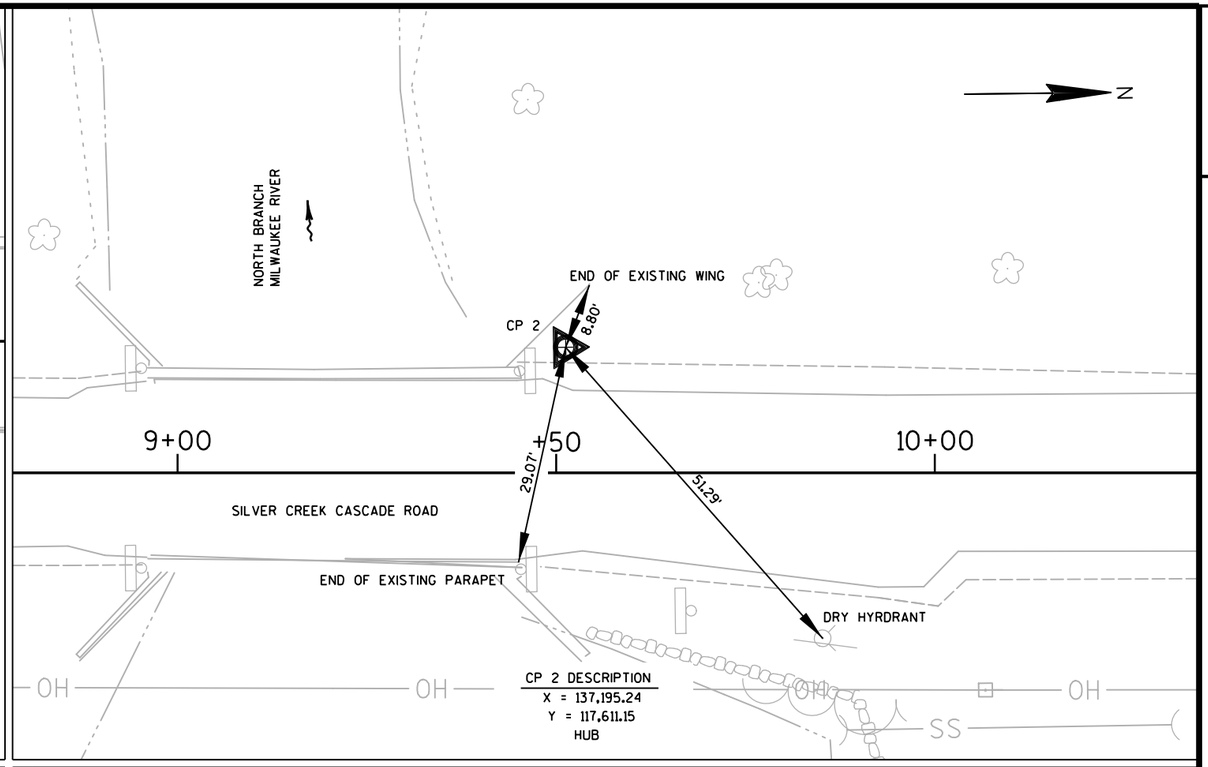
TOTAL PROJECT AREA = 0.25 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.14 ACRES



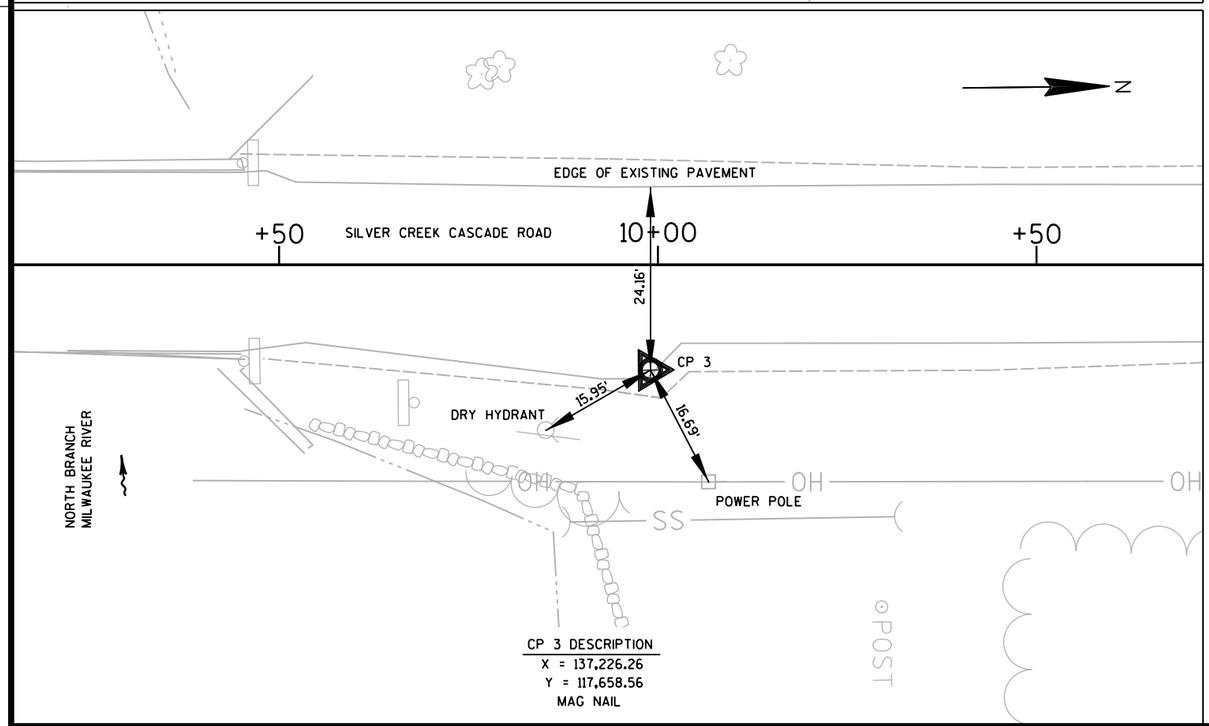
DETAIL FOR EXCAVATION BELOW SUBGRADE



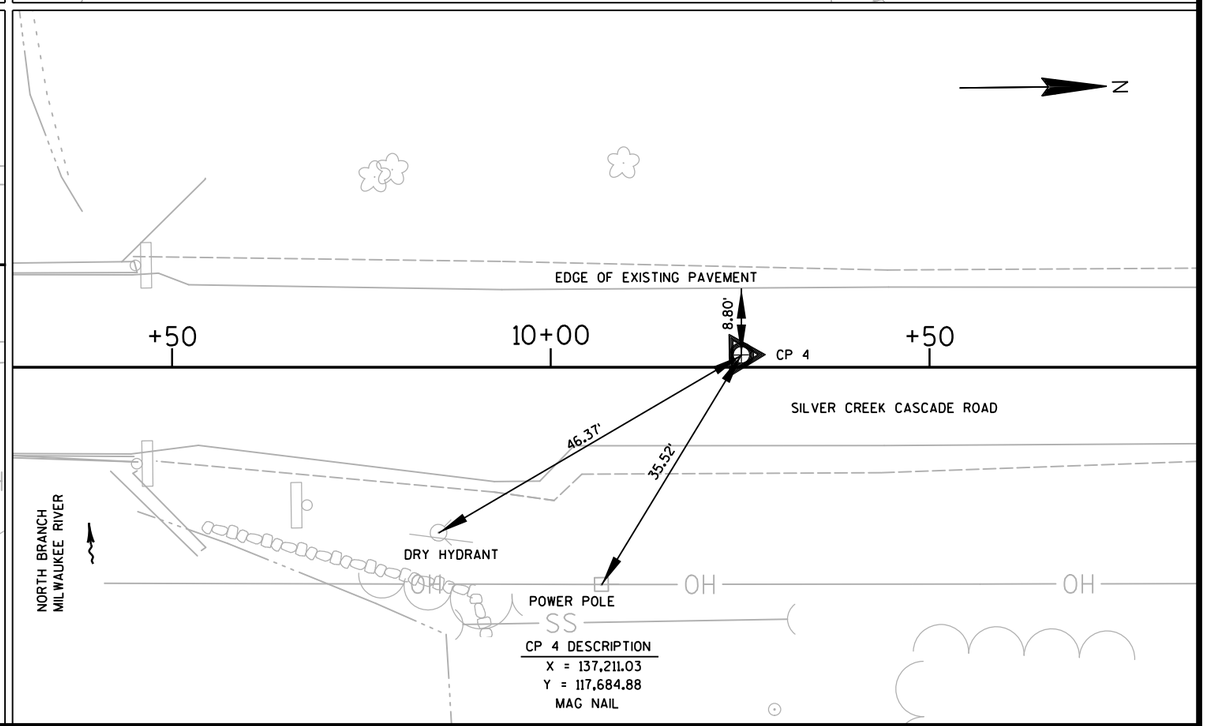
CP 1 DESCRIPTION
X = 137,208.31
Y = 117,484.85
MAG NAIL



CP 2 DESCRIPTION
X = 137,195.24
Y = 117,611.15
HUB



CP 3 DESCRIPTION
X = 137,226.26
Y = 117,658.56
MAG NAIL



CP 4 DESCRIPTION
X = 137,211.03
Y = 117,684.88
MAG NAIL

PROJECT NO: 4202-05-71	HWY: LOCAL STREET	COUNTY: SHEBOYGAN	CONSTRUCTION DETAILS	SHEET 5	E

2

N

R/W

PROPOSED STRUCTURE B-59-202

ASPHALTIC FLUMES REO'D

BEGIN PROJECT
8+50.00
X: 137,210.63
Y: 117,509.71

STA. 8+50.00
12.74' LT

STA. 8+50.00
10.30' LT

STA. 8+52.44
13.28' LT

STA. 8+52.79
10.30' LT

STA. 8+79.58
16.00' LT

10:1

STA. 8+79.75
13.00' LT

STA. 9+62.25
16.00' LT

STA. 9+70.26
32.02' LT

STA. 9+84.44
13.80' LT

STA. 10+00.00
13.80' LT

STA. 10+00.00
10.27' LT

10:1

STA. 9+62.25
13.00' LT

STA. 9+89.55
10.27' LT

4-INCH ASPHALTIC SURFACE

8+00 +50 9+00 +50 10+00 +50

4-INCH ASPHALTIC SURFACE

STA. 8+51.76
10.20' RT

STA. 8+79.75
13.00' RT
10:1

SILVER CREEK CASCADE ROAD

STA. 9+76.25
13.00' RT

STA. 10+00.00
13.60' RT

STA. 9+98.64
15.00' RT
6:1

END PROJECT
10+00.00

STA. 8+50.00
10.20' RT

STA. 8+50.00
12.34' RT

STA. 8+51.61
13.20' RT

STA. 8+79.54
15.99' RT

STA. 9+76.43
15.06' RT

STA. 9+88.25
15.00' RT

STA. 9+88.08
17.00' RT

STA. 10+00.00
17.55' RT

NORTH BRANCH
MILWAUKEE RIVER

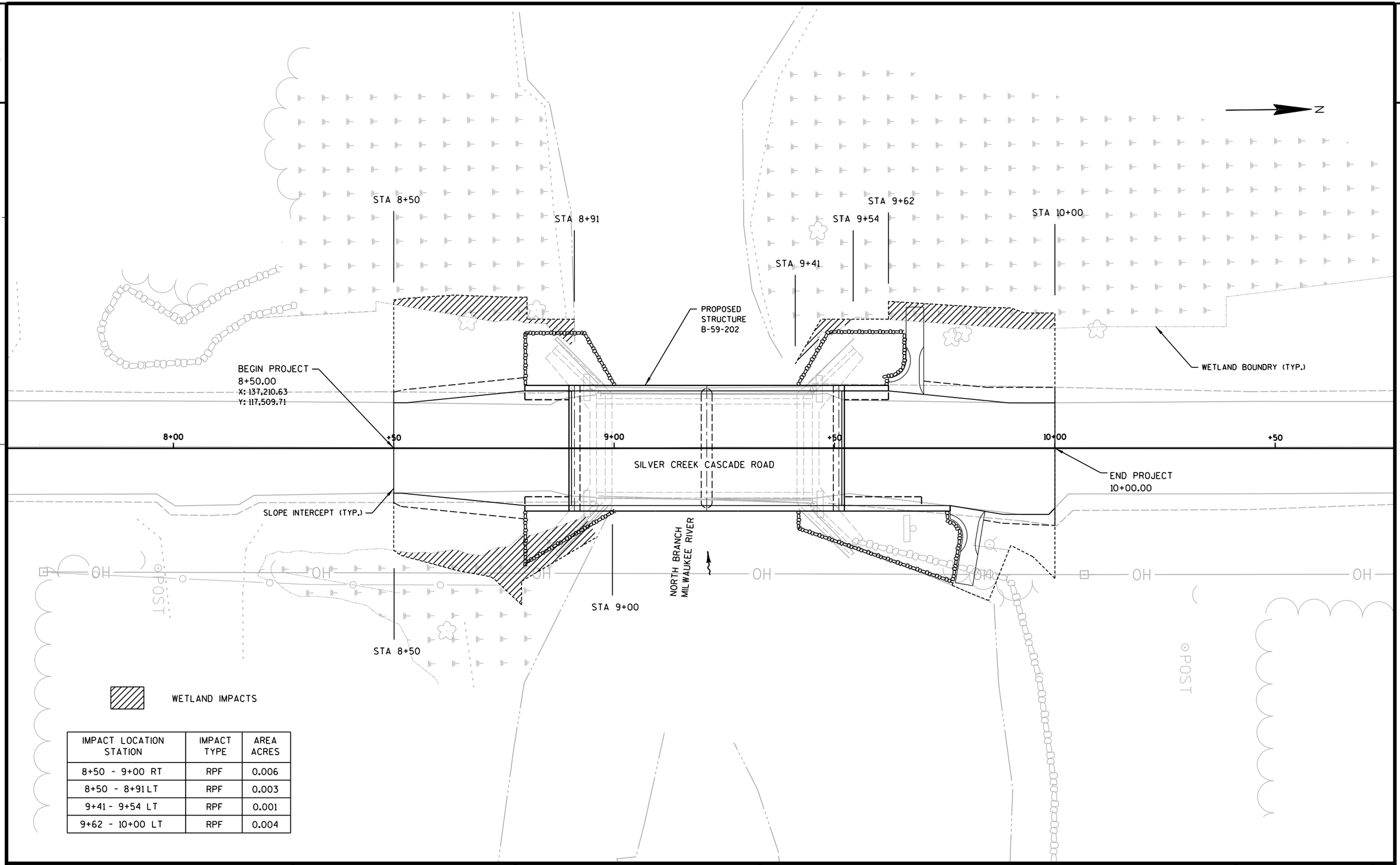
STA. 9+81.35
31.17' RT

R/W

ASPHALTIC FLUMES REO'D

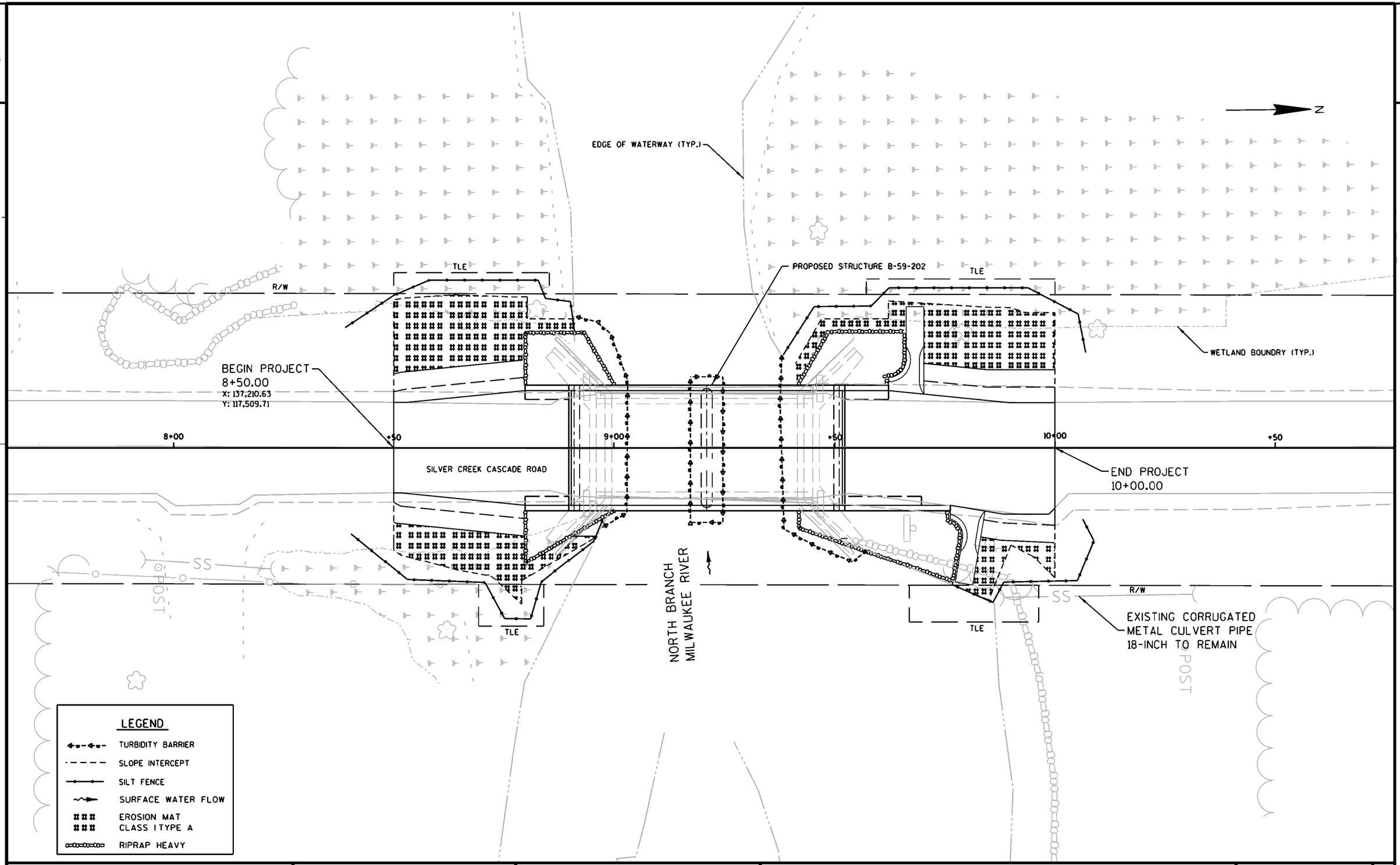
PROJECT NO: 4202-05-71	HWY: LOCAL STREET	COUNTY: SHEBOYGAN	LAYOUT DETAIL	SHEET	E

FILE NAME : S:\MAD\3700--3799\3774\004\Micros\PLAN\021201_pd.dgn PLOT DATE : 10/24/2018 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42



IMPACT LOCATION STATION	IMPACT TYPE	AREA ACRES
8+50 - 9+00 RT	RPF	0.006
8+50 - 8+91 LT	RPF	0.003
9+41 - 9+54 LT	RPF	0.001
9+62 - 10+00 LT	RPF	0.004

PROJECT NO: 4202-05-71	HWY: LOCAL STREET	COUNTY: SHEBOYGAN	WETLAND DETAIL	SHEET 7	E



PROJECT NO: 4202-05-71	HWY: LOCAL STREET	COUNTY: SHEBOYGAN	EROSION CONTROL DETAIL	SHEET	E

FILE NAME : S:\MAD\3700--3799\3774\004\Micros\PLAN\022001_ec.dgn PLOT DATE : 5/7/2019 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 42

2

2

① REMOVING SIGNS TYPE II & REMOVING SMALL SIGN SUPPORTS REO'D

② W5-52L 12" X 36"

③ W5-52R 12" X 36"

PROPOSED SIGN MOUNTED ON POSTS WOOD 4X6-INCH X12-FT OR X16-FT (SEE MISC. QUANTITIES)

N

PROPOSED STRUCTURE B-59-202

R/W

8+00 +50 9+00 +50 10+00 +50

SILVER CREEK CASCADE ROAD

NORTH BRANCH MILWAUKEE RIVER

MOVING SIGNS TYPE II

R/W

PROJECT NO: 4202-05-71	HWY: LOCAL STREET	COUNTY: SHEBOYGAN	PERMANENT SIGNING	SHEET	E

FILE NAME : S:\MAD\3700--3799\3774\004\Micros\PLAN\023201_ps.dgn PLOT DATE : 1/10/2019 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

4202-05-71

Line	Item	Item Description	Unit	Total	Qty
0008	203.0500.S	Removing Old Structure Over Waterway (station) 02. 9+21	LS	1.000	1.000
0012	205.0100	Excavation Common	CY	101.000	101.000
0018	206.1000	Excavation for Structures Bridges (structure) 02. B-59-202	LS	1.000	1.000
0022	208.0100	Borrow	CY	20.000	20.000
0026	210.1500	Backfill Structure Type A	TON	210.000	210.000
0030	213.0100	Finishing Roadway (project) 02. 4202-05-71	EACH	1.000	1.000
0034	305.0110	Base Aggregate Dense 3/4-Inch	TON	8.000	8.000
0036	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	146.000	146.000
0038	311.0110	Breaker Run	TON	17.000	17.000
0040	450.4000	HMA Cold Weather Paving	TON	53.000	53.000
0044	465.0105	Asphaltic Surface	TON	53.000	53.000
0046	465.0315	Asphaltic Flumes	SY	20.000	20.000
0048	502.0100	Concrete Masonry Bridges	CY	213.000	213.000
0050	502.3200	Protective Surface Treatment	SY	177.000	177.000
0052	502.3210	Pigmented Surface Sealer	SY	89.000	89.000
0056	505.0400	Bar Steel Reinforcement HS Structures	LB	5,310.000	5,310.000
0058	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	29,570.000	29,570.000
0066	516.0500	Rubberized Membrane Waterproofing	SY	19.000	19.000
0068	550.1100	Piling Steel HP 10-Inch X 42 Lb	LF	525.000	525.000
0072	606.0300	Riprap Heavy	CY	137.000	137.000
0076	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	163.000	163.000
0080	618.0100	Maintenance And Repair of Haul Roads (project) 02. 4202-05-71	EACH	1.000	1.000
0084	619.1000	Mobilization	EACH	0.300	0.300
0086	624.0100	Water	MGAL	1.500	1.500
0088	625.0100	Topsoil	SY	166.000	166.000
0090	628.1504	Silt Fence	LF	343.000	343.000
0092	628.1520	Silt Fence Maintenance	LF	343.000	343.000
0094	628.1905	Mobilizations Erosion Control	EACH	5.000	5.000
0096	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0098	628.2002	Erosion Mat Class I Type A	SY	166.000	166.000
0102	628.6005	Turbidity Barriers	SY	116.000	116.000
0106	630.0120	Seeding Mixture No. 20	LB	8.000	8.000
0108	630.0200	Seeding Temporary	LB	8.000	8.000
0110	634.0612	Posts Wood 4x6-Inch X 12-FT	EACH	4.000	4.000
0112	637.2230	Signs Type II Reflective F	SF	12.000	12.000
0114	638.2102	Moving Signs Type II	EACH	1.000	1.000
0116	638.2602	Removing Signs Type II	EACH	4.000	4.000

4202-05-71

Line	Item	Item Description	Unit	Total	Qty
0118	638.3000	Removing Small Sign Supports	EACH	4.000	4.000
0120	642.5201	Field Office Type C	EACH	0.300	0.300
0122	643.0420	Traffic Control Barricades Type III	DAY	944.000	944.000
0124	643.0705	Traffic Control Warning Lights Type A	DAY	1,416.000	1,416.000
0126	643.0900	Traffic Control Signs	DAY	826.000	826.000
0128	643.5000	Traffic Control	EACH	0.300	0.300
0130	645.0111	Geotextile Type DF Schedule A	SY	80.000	80.000
0132	645.0120	Geotextile Type HR	SY	270.000	270.000
0136	650.4500	Construction Staking Subgrade	LF	88.000	88.000
0138	650.5000	Construction Staking Base	LF	88.000	88.000
0142	650.6500	Construction Staking Structure Layout (structure) 02. B-59-202	LS	1.000	1.000
0148	650.9910	Construction Staking Supplemental Control (project) 02. 4202-05-71	LS	1.000	1.000
0152	650.9920	Construction Staking Slope Stakes	LF	88.000	88.000
0156	690.0150	Sawing Asphalt	LF	45.000	45.000
0158	715.0502	Incentive Strength Concrete Structures	DOL	1,278.000	1,278.000
0160	SPV.0195	Special 01. Select Crushed Material for Travel Corridor	TON	53.000	53.000

EARTHWORK SUMMARY

CATEGORY	STATION - STATION	LOCATION	(1) 205.0100 EXCAVATION COMMON CUT CY	(1) 205.0100 EXCAVATION COMMON EBS CY	(2) SALVAGED/ UNUSABLE PAVEMENT MATERIAL REMOVAL CY	(3) AVAILABLE MATERIAL CY	UNEXPANDED FILL CY	(4) EXPANDED FILL FACTOR 1.25 CY	(6) EBS BACKFILL CY	(5) MASS ORDINATE CY	(6) 208.0100 -BORROW CY	+WASTE CY	(6) 311.0110 BREAKER RUN TON	* 624.0100 WATER MGAL
0010	8+50.00 - 8+89.75	LT & RT	36	3	10	26	47	59	4	-33	-33	-	7	0.2
	9+52.25 - 10+00.00	LT & RT	57	5	12	45	26	33	6	13	-	13	10	0.3
	TOTALS		93	8	22	71	73	46	10	-20	-33	13	17	0.5
	PAY QUANTITIES		101		-	-	-	-	-	-	20	-	17	0.5

1) EXCAVATION COMMON IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS.
EBS QUANTITY IS UNDISTRIBUTED
2) SALVAGED/UNUSABLE MATERIALS ARE INCLUDED IN EXCAVATION COMMON COLUMN
3) AVAILABLE MATERIAL = CUT - SALVAGED MATERIALS
4) EXPANDED FILL FACTOR = 1.25
5) THE MASS ORDINATE + OR - QTY CALCULATED FOR THE CATEGORY.
PLUS QTY INDICATES AN EXCESS OF MATERIAL WITHIN THE CATEGORY,
MINUS QTY INDICATES A SHORTAGE OF MATERIAL WITHIN THE CATEGORY
6) EBS TO BE BACKFILLED WITH BREAKER RUN

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

BASE AGGREGATE SUMMARY

CATEGORY	STATION - STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	624.0100 WATER MGAL *
0010	8+50.00 - 8+89.79	LT & RT	5	67	0.5
	9+52.25 - 10+00.00	LT & RT	3	78	0.5
		TOTALS	8	146	1.0

*ADDITIONAL QUANTITIES LISTED ELSEWHERE

FINISHING ROADWAY

CATEGORY	PROJECT I.D.	213.0100 EACH
0010	4202-05-71	1

MOBILIZATION

CATEGORY	PROJECT I.D.	619.1000 EACH
0010	4202-05-71	0.3

ASPHALT ITEMS

CATEGORY	STATION - STATION	LOCATION	450.4000 HMA COLD WEATHER PAVING TON	465.0105 ASPHALTIC SURFACE TON	465.0315 ASPHALTIC FLUMES SY
0010	8+50.00 - 8+89.79	LT & RT	23	23	0
	9+52.25 - 10+00.00	LT & RT	30	30	20
		TOTALS	53	53	20

FINISHING ITEMS

CATEGORY	STATION - STATION	LOCATION	625.0100 TOPSOIL SY	628.2002 EROSION MAT CLASS I TYPE A SY	630.0120 SEEDING MIXTURE NO. 20 CWT	630.0200 SEEDING TEMPORARY LB
0010	8+50.00 - 8+89.79	LT & RT	95	95	3	3
	9+52.25 - 10+00.00	LT & RT	71	71	3	3
	UNDISTRIBUTED		---	---	2	2
		TOTALS	166	166	8	8

TURBIDITY BARRIERS

CATEGORY	STATION	LOCATION	628.6005 SY
0010	9+03	LT & RT	33
	9+20	LT & RT	47
	938	LT & RT	36
		TOTAL	116

MAINTENANCE AND REPAIR OF HAUL ROADS

CATEGORY	PROJECT	618.0100 EACH
0030	4202-05-71	1

SILT FENCE

CATEGORY	STATION - STATION	LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF
0010	8+39 - 8+91	LT	64	64
	8+40 - 8+97	RT	78	78
	9+38 - 10+07	LT	85	85
	9+77 - 10+08	RT	47	47
	UNDISTRIBUTED	---	69	69
		TOTALS	343	343

MOBILIZATIONS EROSION CONTROL

CATEGORY	628.1905 EACH
0010	5

MOBILIZATIONS EMERGENCY EROSION CONTROL

CATEGORY	628.1910 EACH
0010	2

REMOVING SIGNS SUMMARY

CATEGORY	LOCATION	SIGN MESSAGE	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH
0010	BRIDGE CORNERS	CLEARANCE STRIPE	4	4
		TOTALS	4	4

PERMANENT SIGNING QUANTITIES

CATEGORY	STATION	LOCATION	SIGN CODE	SIGN MESSAGE	SIGN SIZE (W x H) IN X IN	637.2230 SIGNS TYPE II REFLECTIVE F SF	634.0612 POSTS WOOD 4X6-INCH X12-FT EACH	638.2102 MOVING SIGNS TYPE II EACH	REMARKS
0010	8+90	LT	W5-52L	CHEVRON	12X36	3.00	1	---	INSTALL AT END OF BRIDGE
	8+90	RT	W5-52R	CHEVRON	12X36	3.00	1	---	INSTALL AT END OF BRIDGE
	9+52	LT	W5-52R	CHEVRON	12X36	3.00	1	---	INSTALL AT END OF BRIDGE
	9+52	RT	W5-52L	CHEVRON	12X36	3.00	1	---	INSTALL AT END OF BRIDGE
	9+65	RT	---	NO PARKING ANY TIME FIRE DEPT. DRY HYDRANT	---	---	---	1	REMOVE AND REINSTALL SIGN IN SAME LOCATION
					TOTALS	12.00	4	1	

3

FIELD OFFICE TYPE C

CATEGORY	PROJECT I.D.	642.5201 EACH
0010	4202-05-71	0.3

TRAFFIC CONTROL

CATEGORY		643.5000 EACH
0010	4202-05-71	0.3

TRAFFIC CONTROL

CATEGORY	LOCATION	DURATION CALENDAR DAYS	643.0420 BARRICADES TYPE III EACH	643.0420 BARRICADES TYPE III DAYS	643.0900 SIGNS EACH	643.0900 SIGNS DAYS	643.0705 WARINING LIGHTS TYPE A EACH	643.0705 WARINING LIGHTS TYPE A DAYS
0010	ROAD CLOSURE	59	16	944	14	826	24	1,416
		TOTALS		944		826		1,416

CONSTRUCTION STAKING SUMMARY

CATEGORY	STATION - STATION	LOCATION	650.4500 SUBGRADE LF	650.5000 BASE LF	650.9920 SLOPE STAKES LF
0010	8+50 - 8+89.75	LT/RT	40	40	40
	9+52.25 - 10+00	LT/RT	48	48	48
		TOTALS	88	88	88

CONSTRUCTION STAKING STRUCTURE LAYOUT

CATEGORY	STRUCTURE	650.6500 LS
0020	B-59-202	1

CONSTRUCTION STAKING SUPPLEMENTAL CONTROL

CATEGORY	PROJECT	650.9910 LS
0010	4202-05-71	1

SAWING ASPHALT

CATEGORY	STATION	LOCATION	690.0150 LF
0010	8+50	LT/RT	21
	10+00	LT/RT	24
		TOTAL	45

ALIGNMENT LAYOUT INFORMATION

P.I. 5+00.00	P.I. 13+72.91
X=137,206.54	X=137,216.73
Y=117,159.73	Y=118,032.58

Ⓐ INSTALL ASPHALTIC FLUMES

Ⓑ AVOID EXISTING DRY HYRDRANT WHEN INSTALLING ASPHALTIC FLUME

Ⓒ EXISTING DRY HYRDRANT OWNED BY SILVER CREEK FIRE DEPARTMENT SEE GENERAL NOTES FOR CONTACT INFO

* TREES TO BE REMOVED BY OTHERS PRIOR TO START OF CONSTRUCTION

TOWN OF SHERMAN

N

KENNETH & DEBORAH COBLENTZ

NORTH BRANCH MILWAUKEE RIVER

EXISTING STRUCTURE P-59-0147 TO BE REMOVED

PROPOSED STRUCTURE B-59-202

SEC.18 SEC.17 SEC.19 SEC.20

TLE-SLOPES 167 S.F. (1)

N 0° 40' 7" E 35.25'

BEGIN PROJECT
STA. 8+50.00
SAWING ASPHALT REQ'D
MATCH EXISTING
X = 137,210.63
Y = 117,509.71

8+50.00 39.72'

N 89° 19' 53" W 4.72'

8+50.00 35.00'

8+85.25 39.72'

S 89° 19' 53" E 4.78'

8+85.25 34.94'

8+00.00 35.09'

N 89° 19' 53" W 33.00'

N 0° 45' 58" E 50.00'

N 0° 45' 58" E 250.00'

N 0° 45' 58" E 72.00'

N 0° 45' 58" E 624.23'

TLE-SLOPES 151 S.F. (1)

N 89° 14' 02" W 3.49'

9+57.26 38.31'

N 0° 40' 07" E 42.76'

9+57.25 34.82'

10+00.02 38.31'

S 89° 14' 2" E 3.56'

10+00.01 34.75'

10+50.00 34.66'

N 0° 45' 58" E 49.99'

S 89° 19' 53" E 33.00'

R/W

S 0° 45' 58" W 1795.70'

33'

33'

+50 7+00 P.L. +50 8+00 +50 9+00 +50 10+00 P.L. +50 11+00 +50

SILVER CREEK - CASCADE ROAD

BM2

N 0° 40' 06.71"E

SLOPE INTERCEPT (TYP.)

N 89° 19' 53" W 33.00'

N 89° 19' 53" W 9.48'

8+69.24 31.03'

S 0° 45' 58" W 82.97'

S 0° 45' 58" W 53.67'

S 89° 19' 53" E 33.00'

END RELOCATION ORDER
STA 10+50.00
874.13 FEET NORTH AND
13.35 FEET EAST
OF THE SOUTHEAST CORNER OF
SEC.18, T.13N., R.21E.

FOUND MAG NAIL
X=137199.61
Y=116835.56

BEGIN RELOCATION ORDER
STA 8+00.00
624.15 FEET NORTH AND
10.43 FEET EAST
OF THE SOUTHEAST CORNER OF
SEC.18, T.13N., R.21E.

BM1

8+00.00 30.91'

S 0° 45' 58" W 69.24'

S 0° 45' 58" W 250.00' R/W

8+84.00 31.05'

S 89° 19' 53" E 9.46'

N 89° 19' 53" W 8.36'

9+66.97 31.19'

9+66.97 39.55'

9+96.33 31.24'

S 89° 19' 53" E 8.31'

9+96.33 39.55'

10+50.00 31.34'

END PROJECT
STA. 10+00.00
SAWING ASPHALT REQ'D
MATCH EXISTING

WE ENERGIES (ELECTRIC)
FRONTIER (COMMUNICATION)

FOUND IRON ROD W/CAP
X=137235.31
Y=119505.25

WETLANDS (TYP.)

8+69.24 40.51'

S 0° 40' 7" W 14.76'

8+84.00 40.51'

TLE-SLOPES 140 S.F. (2)

S 0° 40' 07" W 29.36'

TLE-SLOPES 245 S.F. (2)

MARION A. BERRES

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), SHEBOYGAN COUNTY, NAD 83(2011) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES. GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 3/4" X 24" REBARS) UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

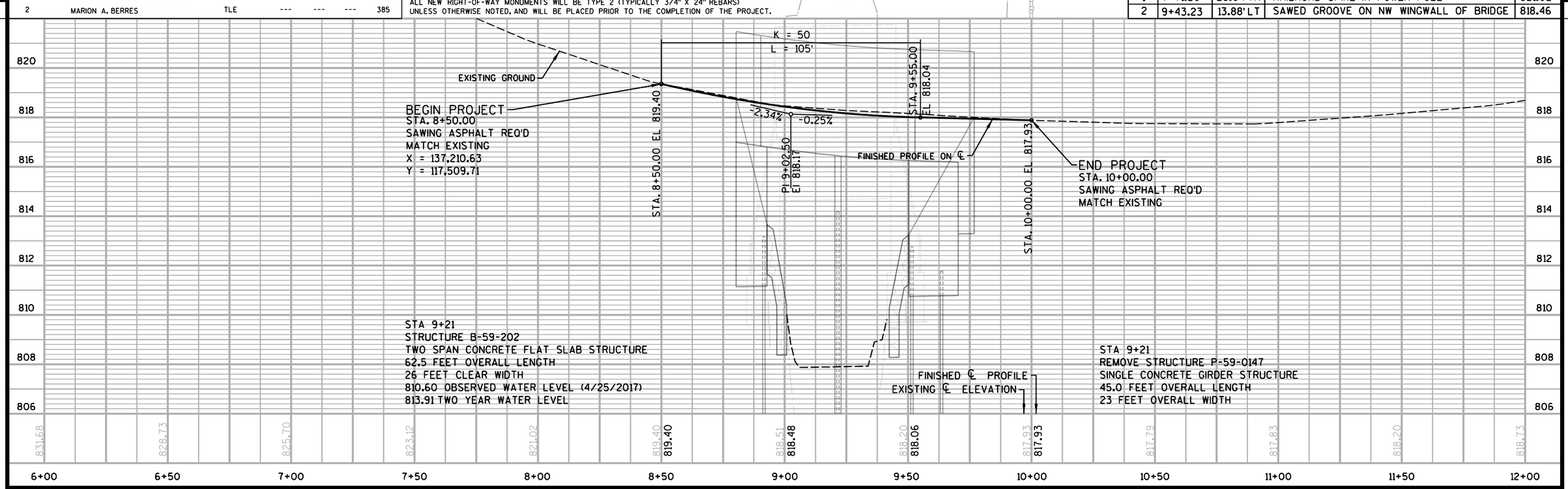
SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTEREST TO THE TOWN OF SHERMAN.

PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	R/W S.F. REQUIRED NEW	EXISTING	TOTAL	TLE S.F.
1	KENNETH & DEBORAH COBLENTZ	TLE	---	---	---	318
2	MARION A. BERRES	TLE	---	---	---	385

BENCH MARKS

NO.	STATION	OFFSET	DESCRIPTION	ELEV.
1	7+71.20	28.04' RT	RAILROAD SPIKE IN POWER POLE	821.02
2	9+43.23	13.88' LT	SAWED GROOVE ON NW WINGWALL OF BRIDGE	818.46



PROJECT NO: 4202-05-71	HWY: LOCAL STREET	COUNTY: SHEBOYGAN	PLAN AND PROFILE	SHEET 15	E

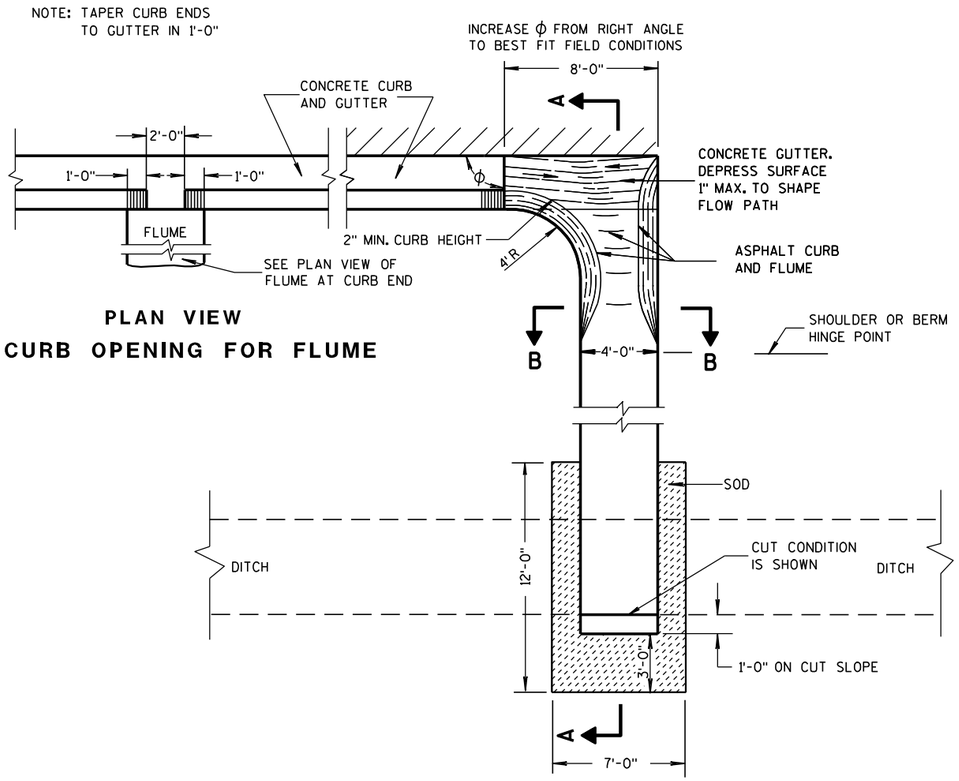
Standard Detail Drawing List

08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08E09-06	SILT FENCE
08E11-02	TURBIDITY BARRIER
12A03-10	NAME PLATE (STRUCTURES)
15C02-07A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-07B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C06-09	SIGNING & MARKING FOR TWO LANE BRIDGES
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS

6

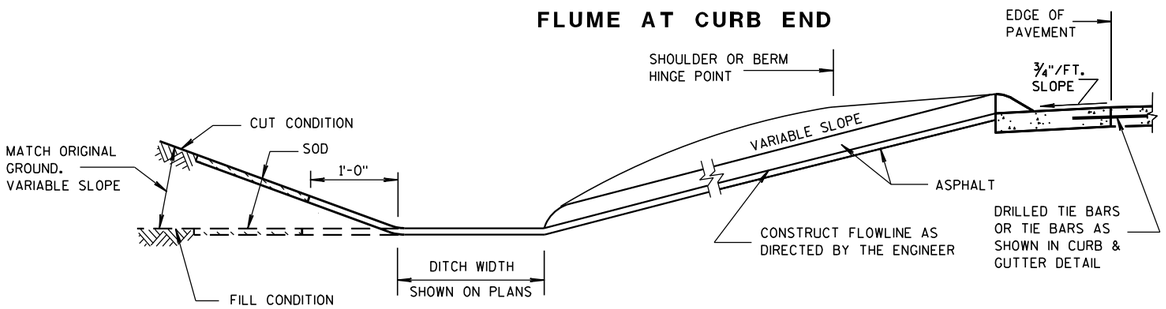
6

ASPHALTIC FLUME

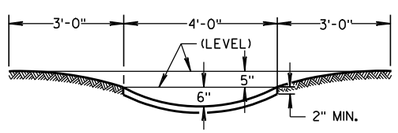


PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END



SECTION A-A



SECTION B-B

GENERAL NOTES

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

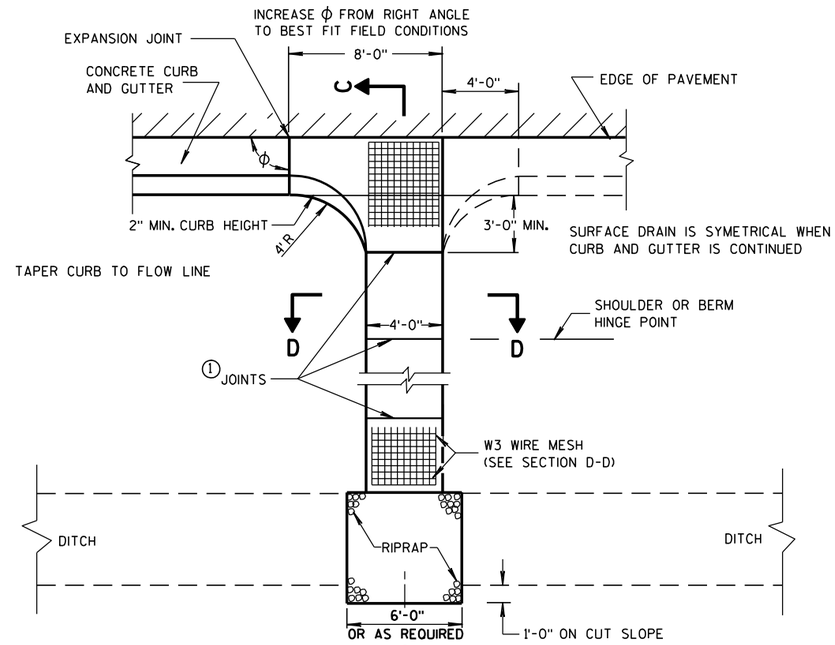
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

① JOINTS SHALL BE $\frac{1}{8}$ TO $\frac{1}{4}$ INCH WIDE BY $1\frac{1}{2}$ INCHES DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.

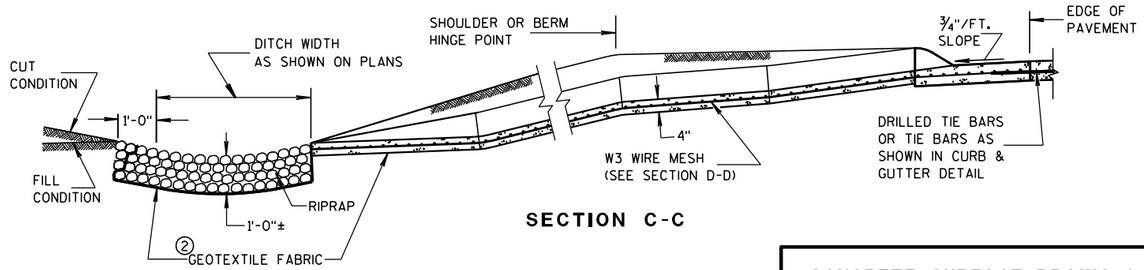
② GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.

③ CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED

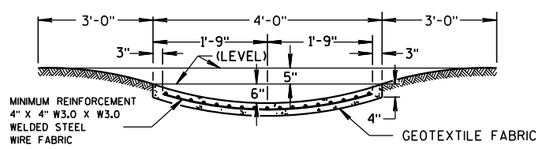
③ CONCRETE SURFACE DRAIN



PLAN VIEW



SECTION C-C

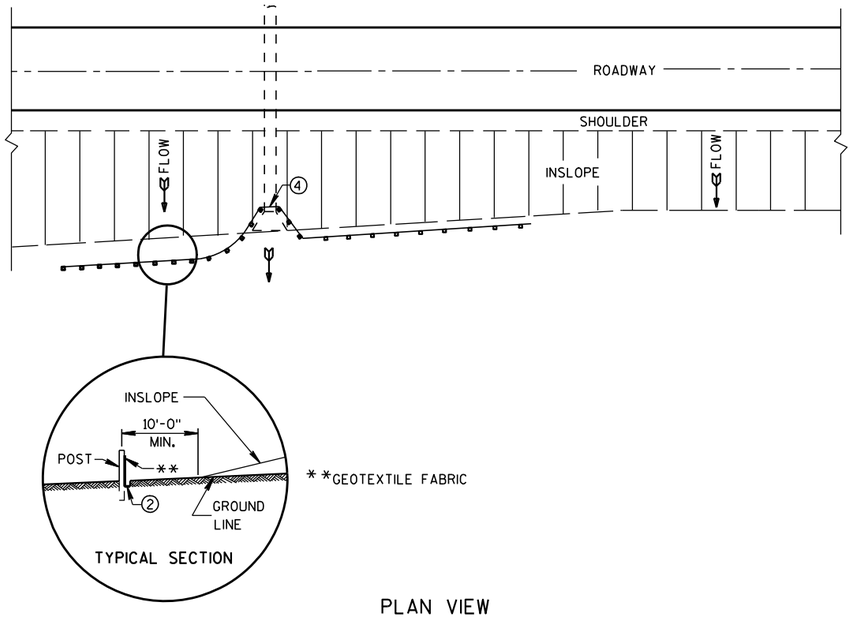


SECTION D-D

CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES

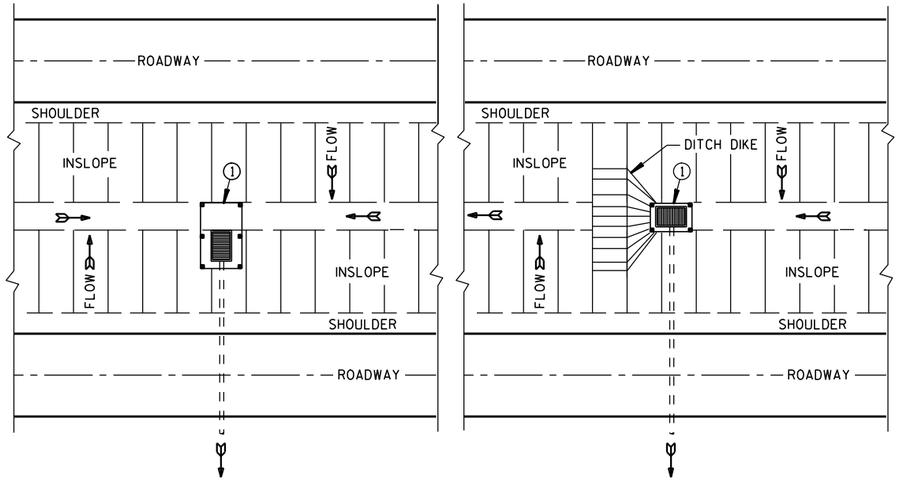
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



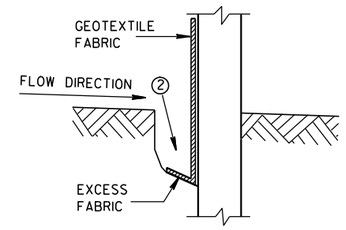
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

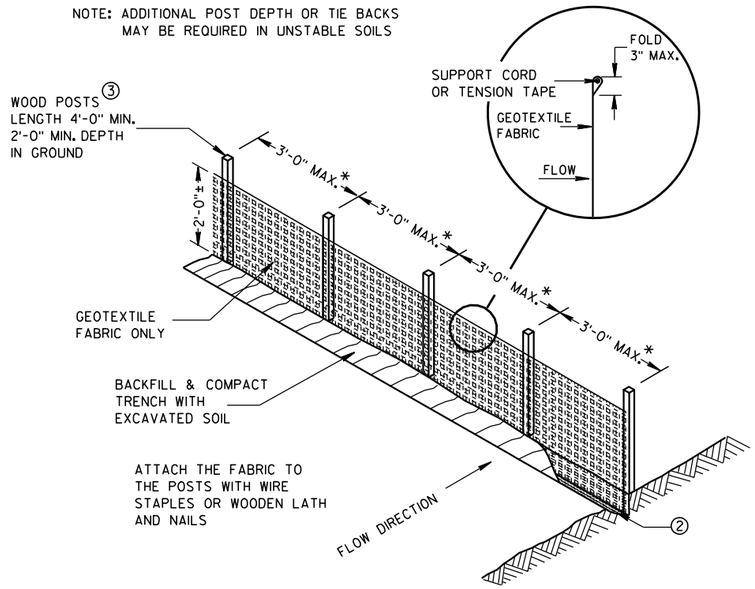
GENERAL NOTES

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

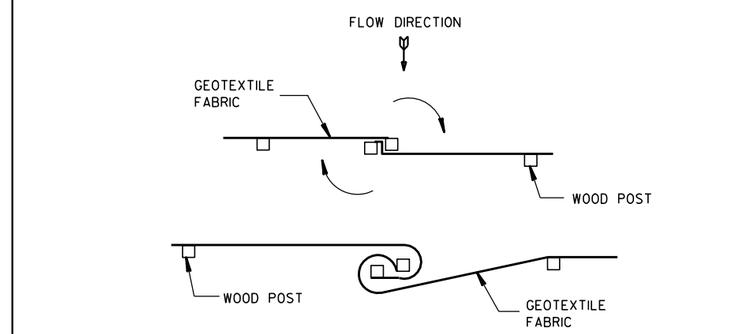
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.
4. SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
5. CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



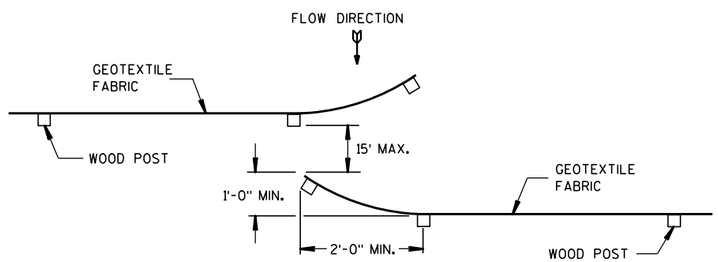
TRENCH DETAIL



SILT FENCE

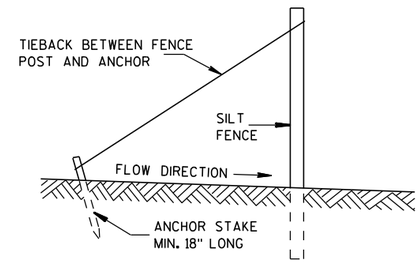


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE 5



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

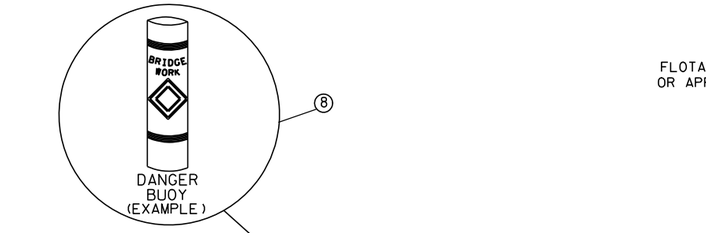
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

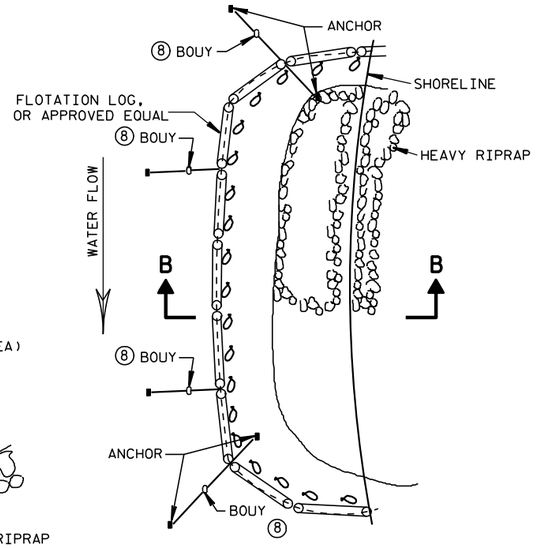
S.D.D. 8 E 9-6

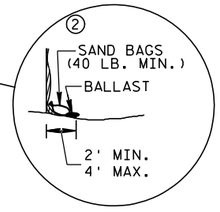
6

S.D.D. 8 E 9-6

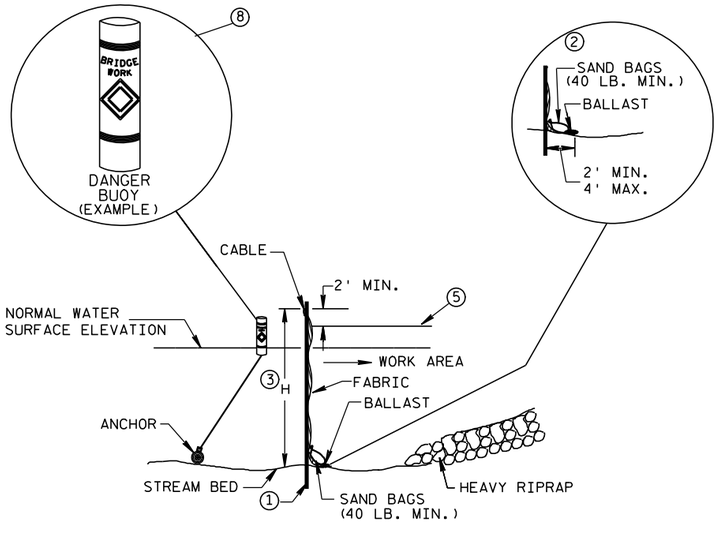


SECTION B-B

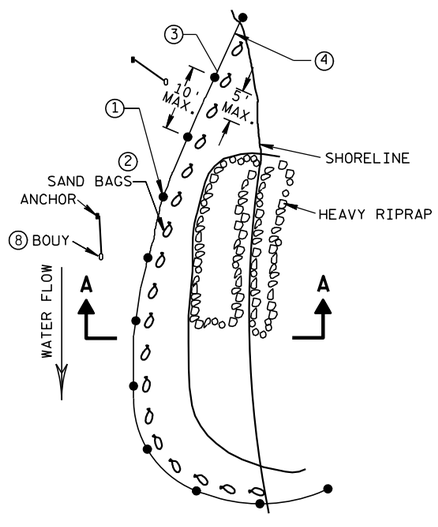




TURBIDITY BARRIER FLOAT ALTERNATIVE
CAUTION - SEE NOTE 6



SECTION A-A



PLAN VIEW

TURBIDITY BARRIER STANDARD POST INSTALLATION

TURBIDITY BARRIER PLACEMENT DETAILS

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.

TURBIDITY BARRIER MAY BE REMOVED AT THE ENGINEERS DISCRETION, WHEN PERMANENT EROSION CONTROL MEASURES HAVE BEEN ESTABLISHED.

① DRIVEN STEEL POSTS, PIPES, OR CHANNELS. LENGTH SHALL BE SUFFICIENT TO SECURELY SUPPORT BARRIER AT HIGH WATER ELEVATIONS.

② SANDBAGS TO BE USED AS ADDITIONAL BALLAST WHEN ORDERED BY THE ENGINEER TO MEET ADVERSE FIELD CONDITIONS. SPACE AS APPROPRIATE FOR SITE CONDITIONS.

③ WHEN BARRIER HEIGHT, H, EXCEEDS 8 FT., POST SPACING MAY NEED TO BE DECREASED.

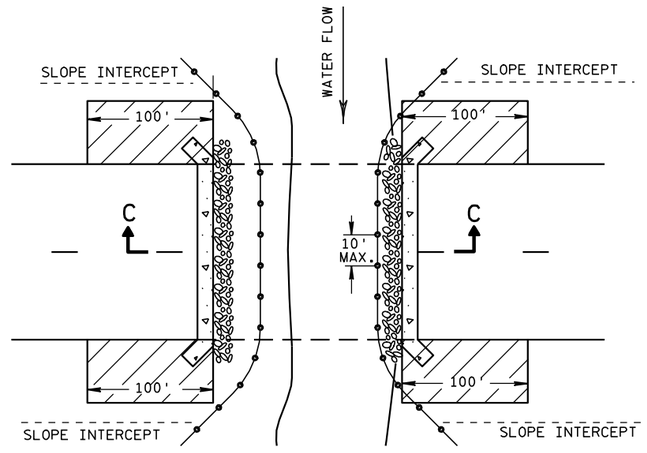
④ IN WATERWAYS SUBJECT TO FLUCTUATING WATER ELEVATIONS, PROVISIONS SHOULD BE MADE TO ALLOW THE WATER TO EQUALIZE ON EACH SIDE OF THE BARRIER. THIS MAY BE ACCOMPLISHED BY LEAVING A PORTION OF THE BARRIER OPEN ON THE UPSTREAM END.

⑤ ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION PERIOD. MIMIMUM BARRIER HEIGHT SHALL BE 2'GREATER THAN EITHER THE O2 ELEVATION OR THE ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION, WICHEVER IS GREATER.

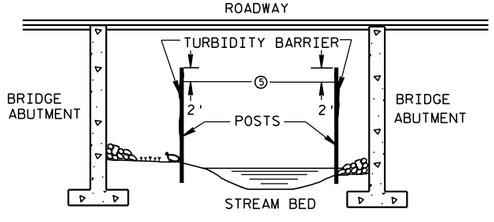
⑥ FLOAT ALTERNATIVE WILL ONLY BE ALLOWED WITH WRITTEN APPROVAL OF THE ENGINEER, AND IS MEANT FOR LOCATIONS WHERE BED ROCK PREVENTS THE INSTALLATION OF POSTS.

⑦ ALLOW SUFFICIENT SLACK VERTICALLY AND HORIZONTALLY SO THAT SEDIMENT BUILD UP WILL NOT SEPARATE OR LOWER THE TURBIDITY BARRIER.

⑧ USE AS DIRECTED BY COAST GUARD OR DNR PERMIT WHEN WORKING IN NAVIGABLE WATERWAYS.



PLAN VIEW



SECTION C-C

TURBIDITY BARRIER DETAIL SHOWING TYPICAL PLACEMENT AT STRUCTURES

TURBIDITY BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/04/02 — DATE
/S/ Beth Cannestra — CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

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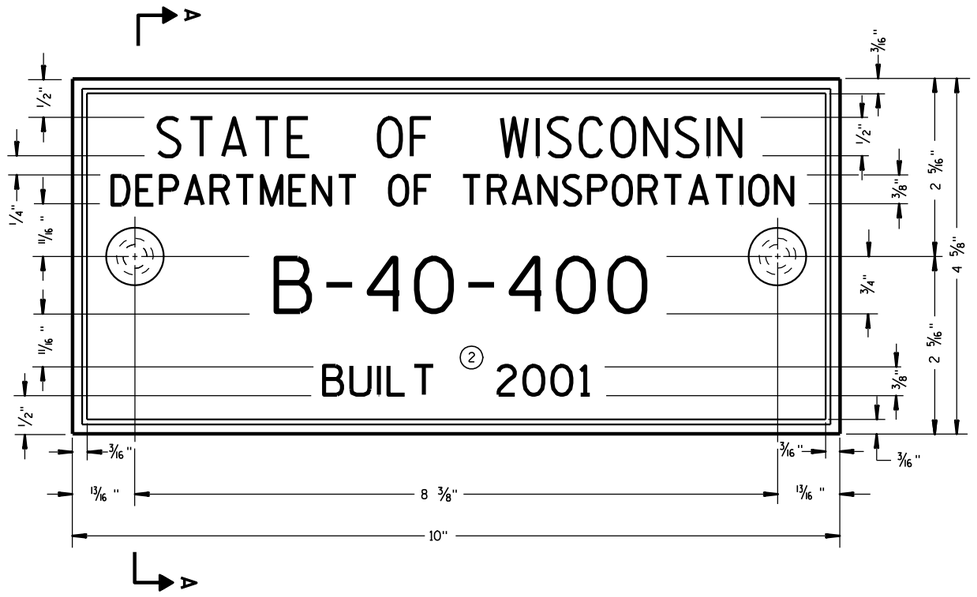
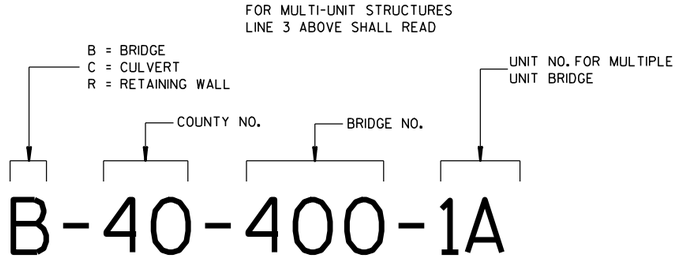
S.D.D. 8 E 11-2



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



NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES

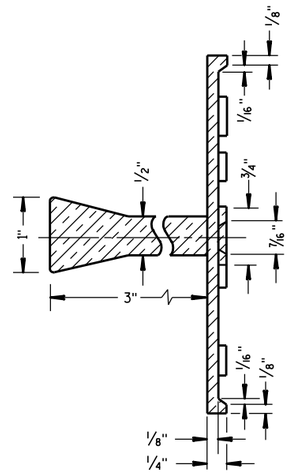
GENERAL NOTES

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

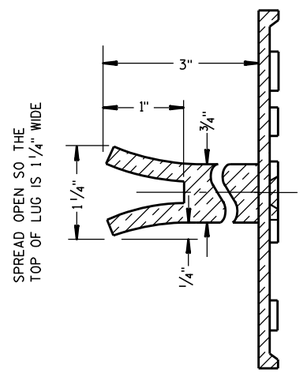
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

(1) EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

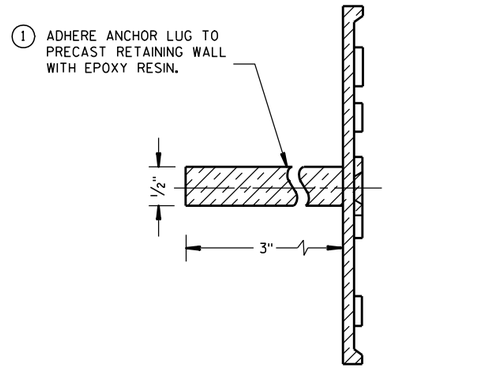
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/26/10 — DATE

/S/ Scot Beck — CHIEF STRUCTURAL DEVELOPMENT ENGINEER

FHWA

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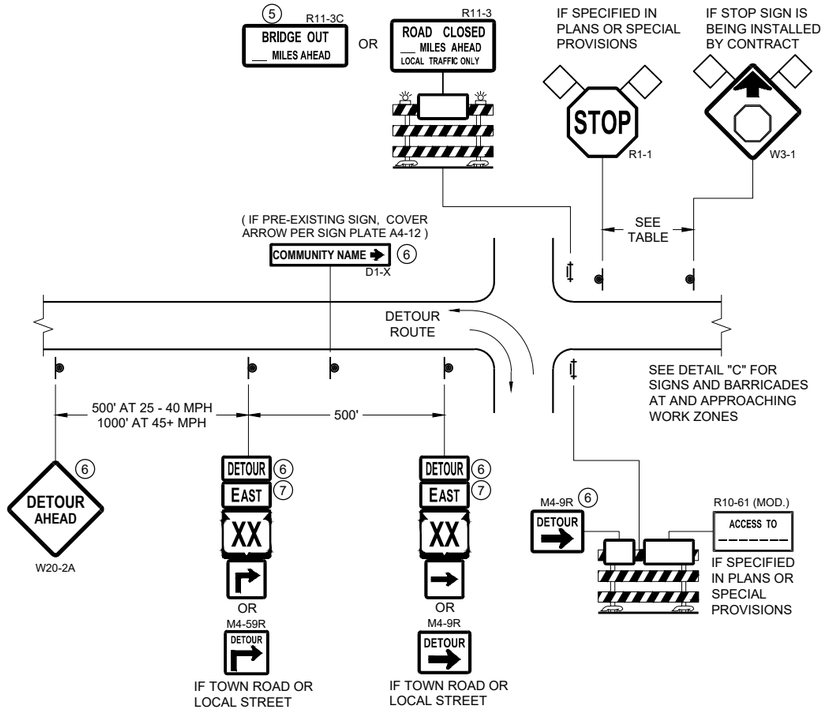
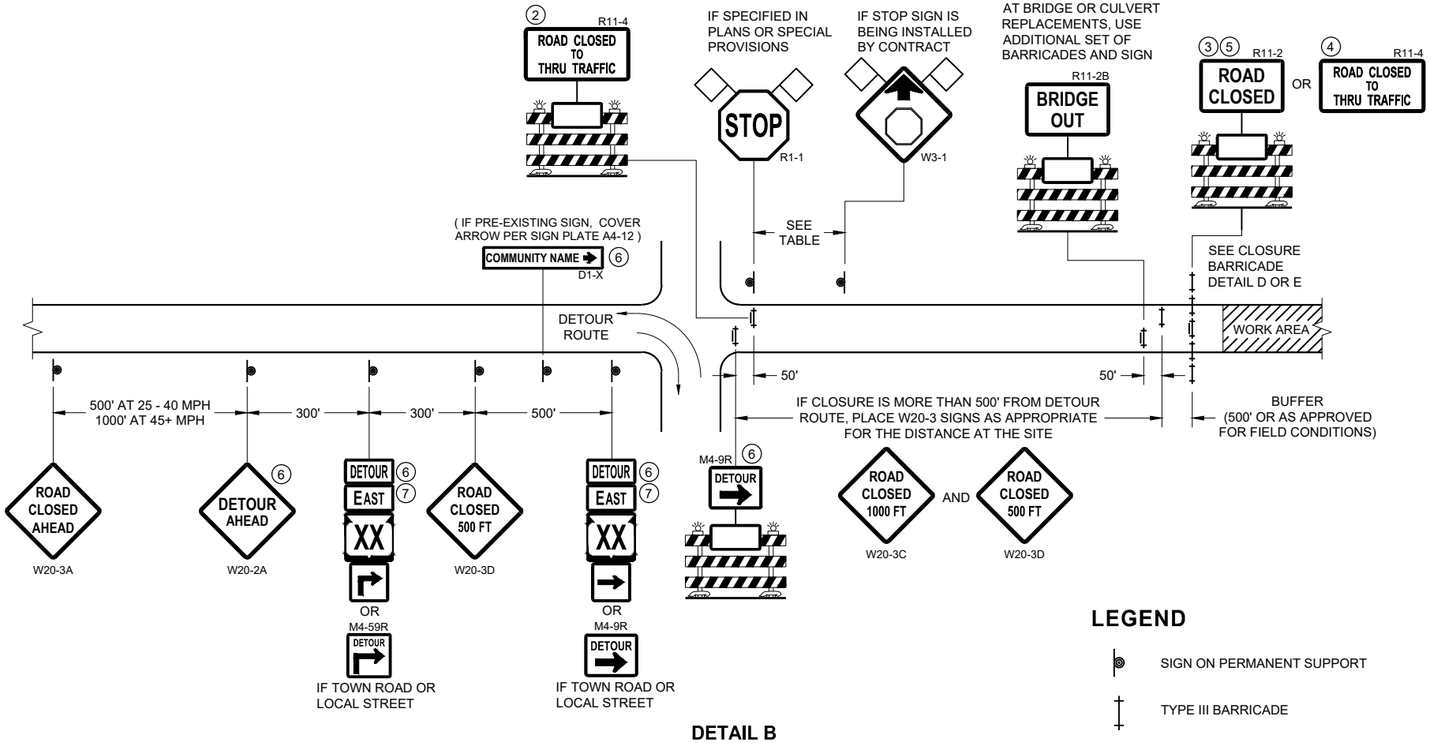
S.D.D. 12 A 3-10



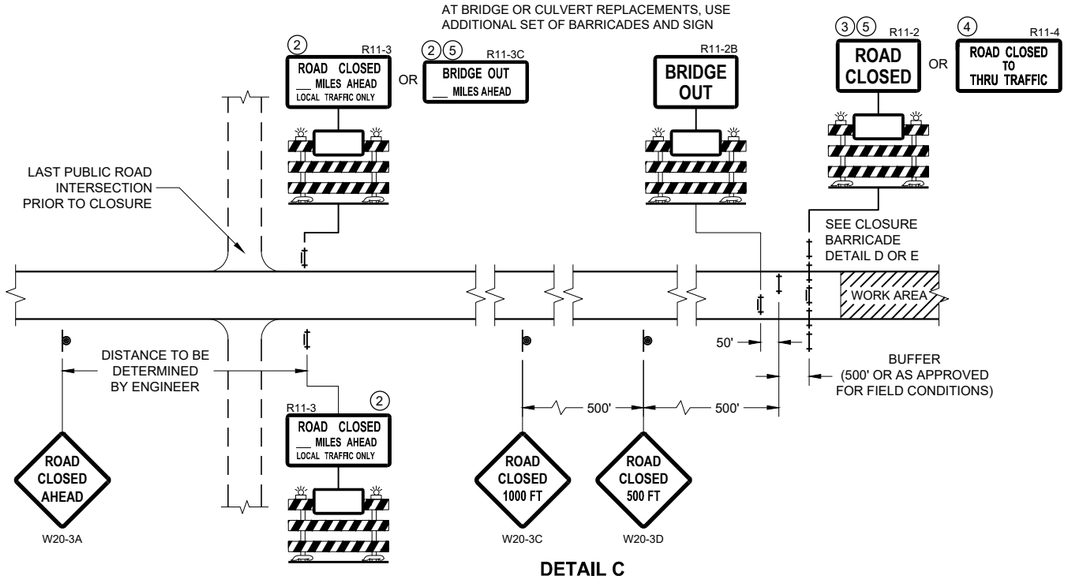


DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER LESS THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)

DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

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

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

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)

DETOUR M4 - 8
EAST M3 - X
XX M1 - 4 OR XX M1 - 6 OR COUNTY X M1 - 5A
M05 - 1 OR M06 - 1

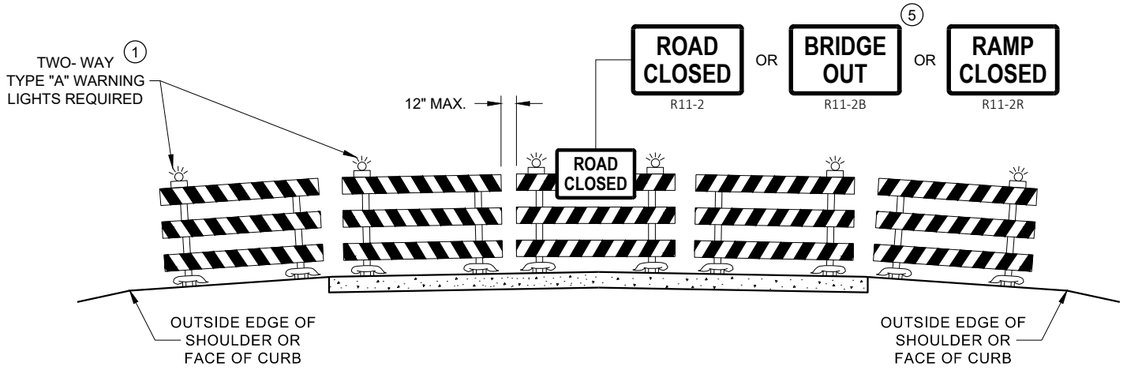
BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

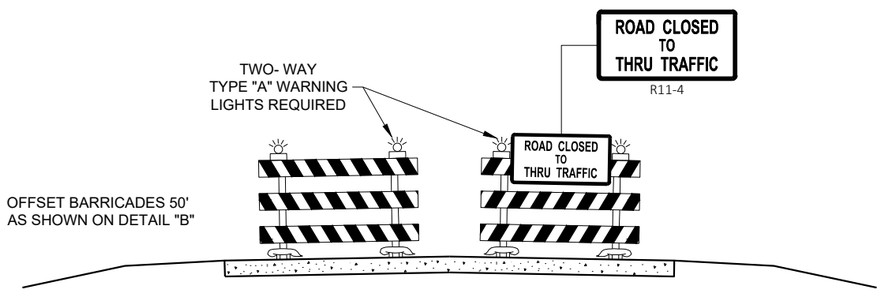
APPROVED
November 2018
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

SDD 15C02 - 07a



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 PORTABLBLE 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 15" IF NEEDED TO MATCH EXISTING SIGNS)
- M1 - 4, M1 - 5A AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- 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 CARDIANAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR VARIOUS CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE
FHWA

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SDD 15C02 - 07b

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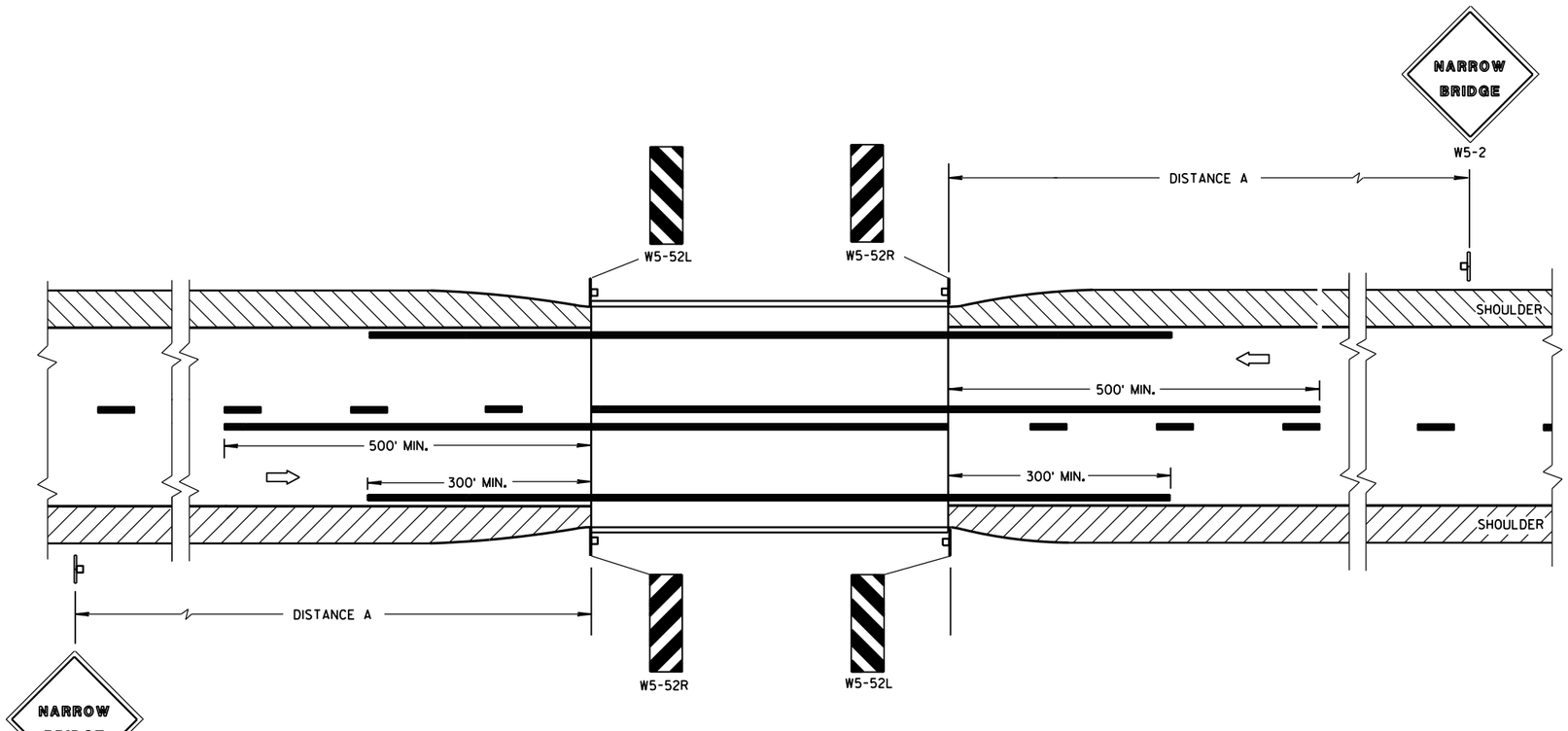
SDD 15C02 - 07b



SITUATION 1

WARRANTING CRITERIA:
BRIDGE WIDTH IS AT LEAST 16 FEET BUT LESS THAN 24 FEET.

DISTANCE TABLE

POSTED OR 85th PERCENTILE SPEED	DISTANCE "A"
25	150'
30	200'
35	250'
40	300'
45	400'
50	550'
55	750'

GENERAL NOTES

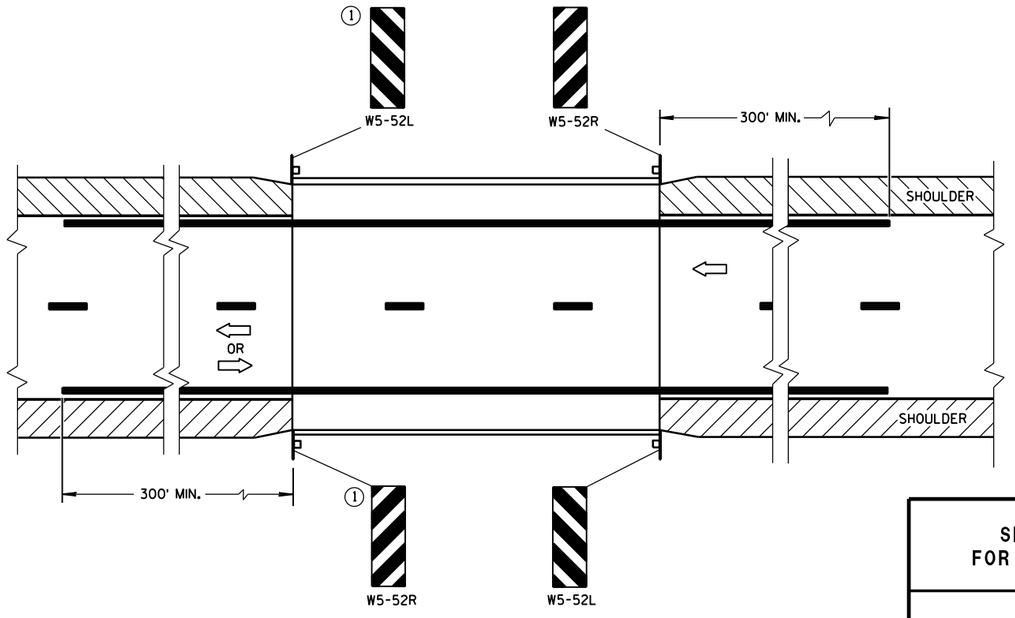
DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

LOCATE W5-52 SIGN POST(S) BEHIND GUARDRAIL WHEN PRESENT.

PLACE THE EDGE OF THE W5-52 SIGN IN LINE WITH FACE OF CURB OR PARAPET.

(1) OMIT ON ONE-WAY TRAVELLED WAYS.

⇨ DIRECTION OF TRAFFIC



SITUATION 2

WARRANTING CRITERIA:

1. BRIDGE WIDTH IS AT LEAST 24 FEET AND
2. BRIDGE SHOULDER WIDTH IS LESS THAN 6 FEET.

SIGNING & MARKING FOR TWO LANE BRIDGES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 — DATE
/S/ Matthew R. Rauch — STATE SIGNING AND MAR[illegible]EER
FHWA

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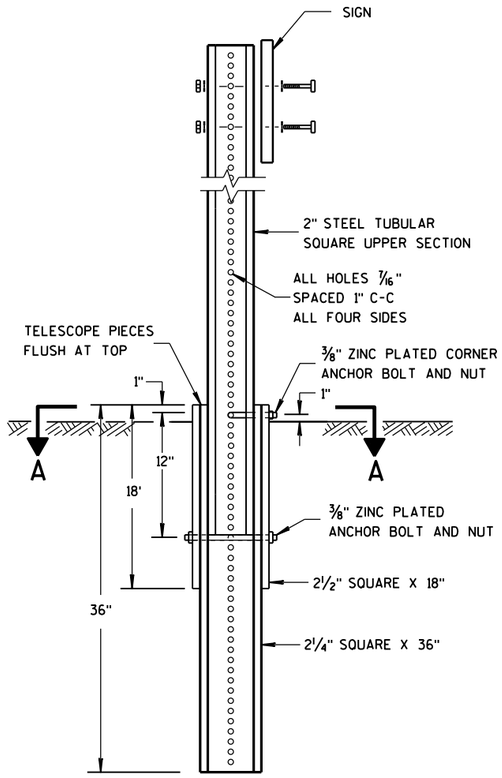
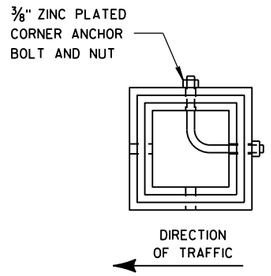
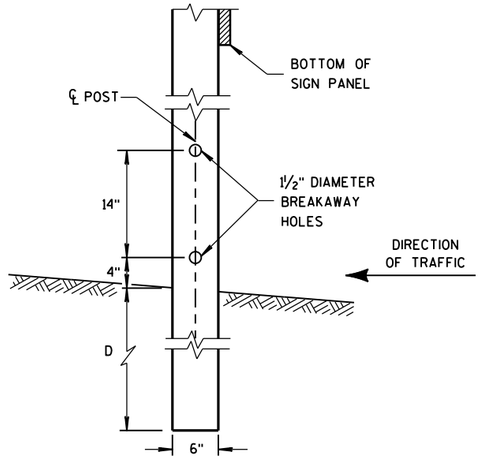
S.D.D. 15 C 6-9



DETAIL OF TUBULAR STEEL SIGN POST



SECTION A-A



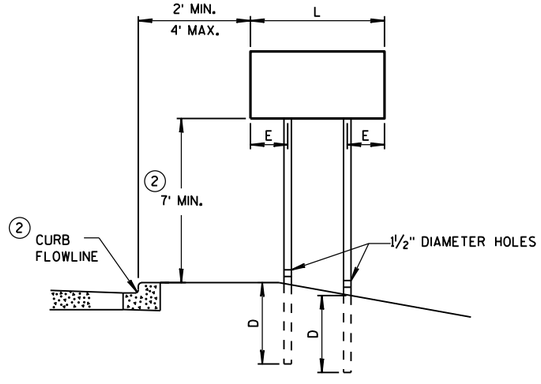
4"x6" WOOD POST MODIFICATION

GENERAL NOTES

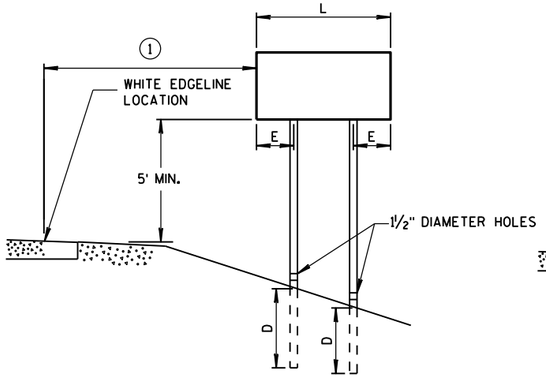
(1) 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.

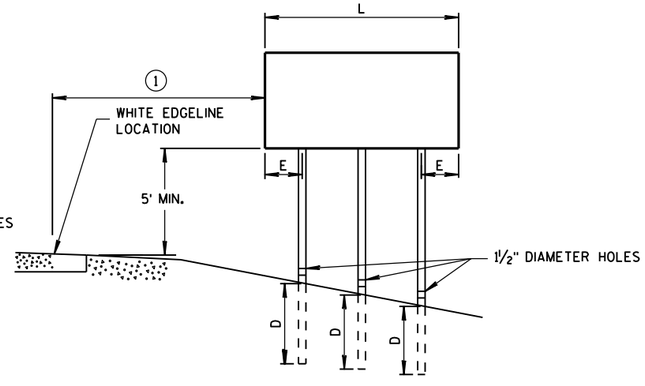
(2) THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.

(3) FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.



URBAN AREA





RURAL AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

TUBULAR STEEL POSTS

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

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

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

WOOD POST EMBEDMENT DEPTH

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

4" X 6" WOOD POST

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

SEE NOTE (3)

TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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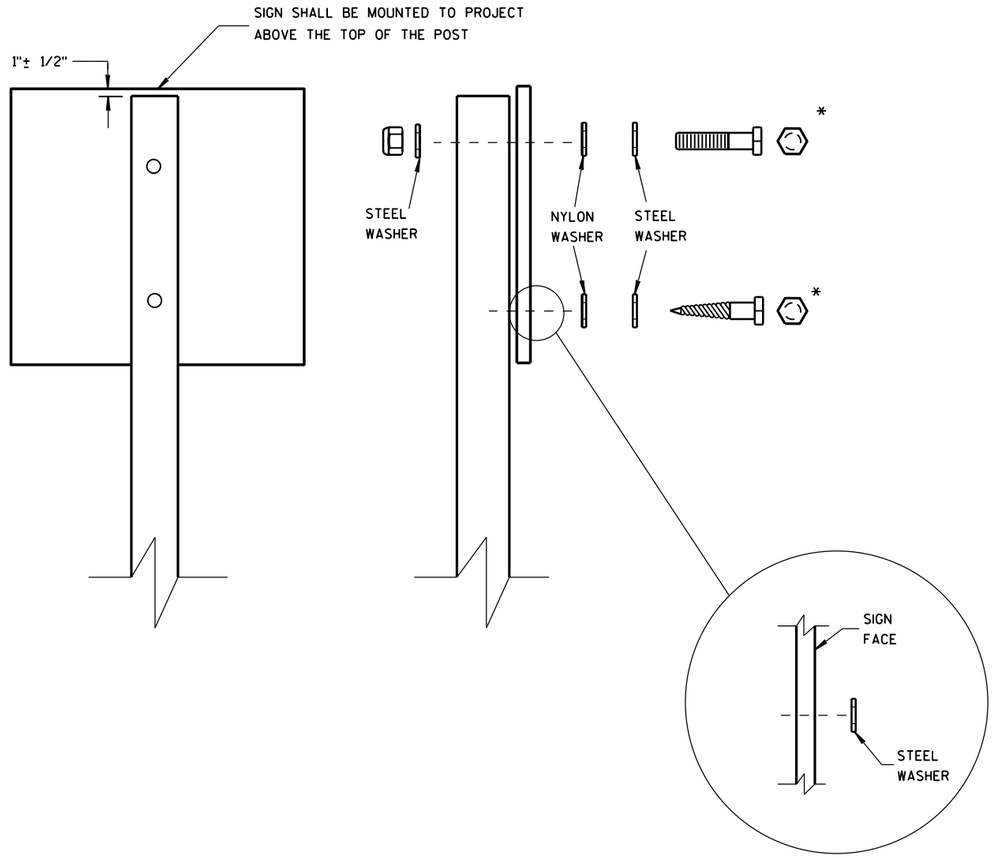
S.D.D. 15 D 38-2a



WASHER PLACEMENT WHEN SIGN HAS OTHER THAN TYPE H OR TYPE F FACE

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

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

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

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

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

LAG SCREWS - 3/8" X 3"

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

SQUARE STEEL POSTS (2" x 2")

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

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

WASHERS (ALL POSTS) -

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

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

* TWO DIFFERENT FASTENING SYSTEMS ARE SHOWN FOR ILLUSTRATION PURPOSES. ON ANY INDIVIDUAL SIGN, EITHER ONE OR THE OTHER SYSTEM SHALL BE USED. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

6

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S.D.D. 15 D 38-2b

ATTACHMENT OF SIGNS TO POSTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

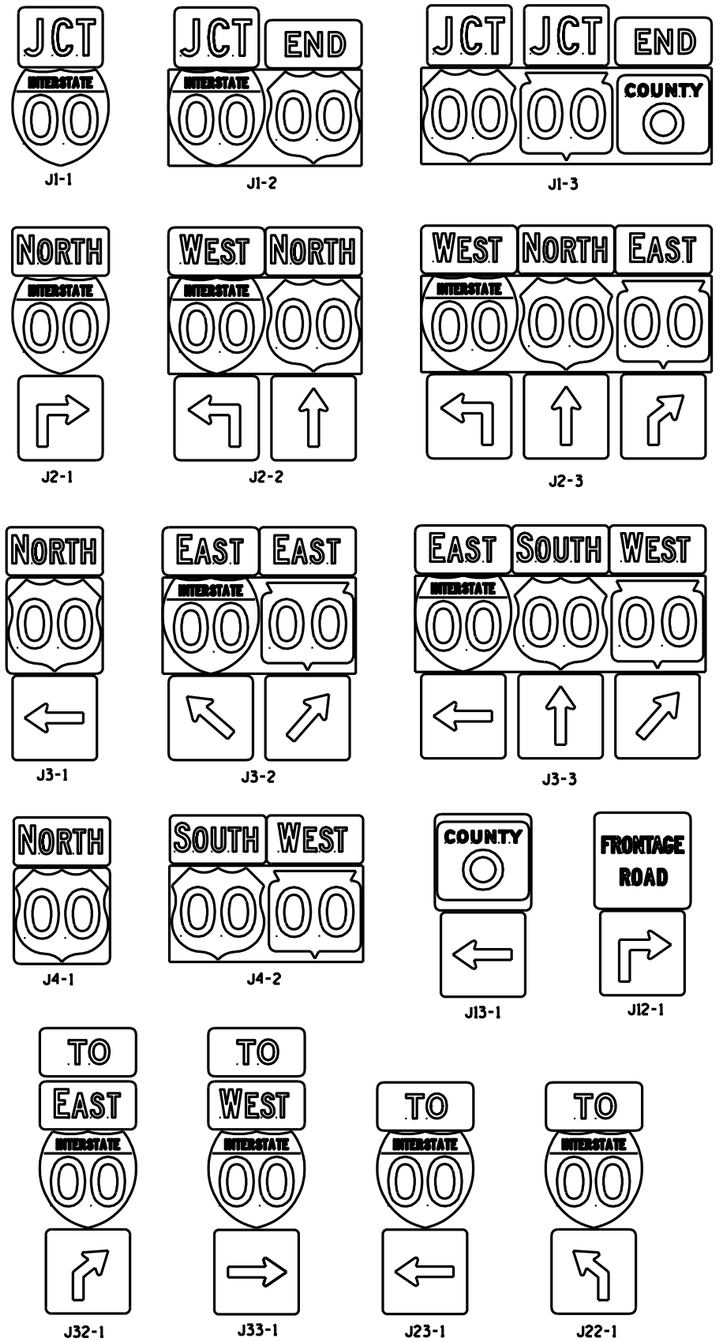
APPROVED

June 2017
DATE

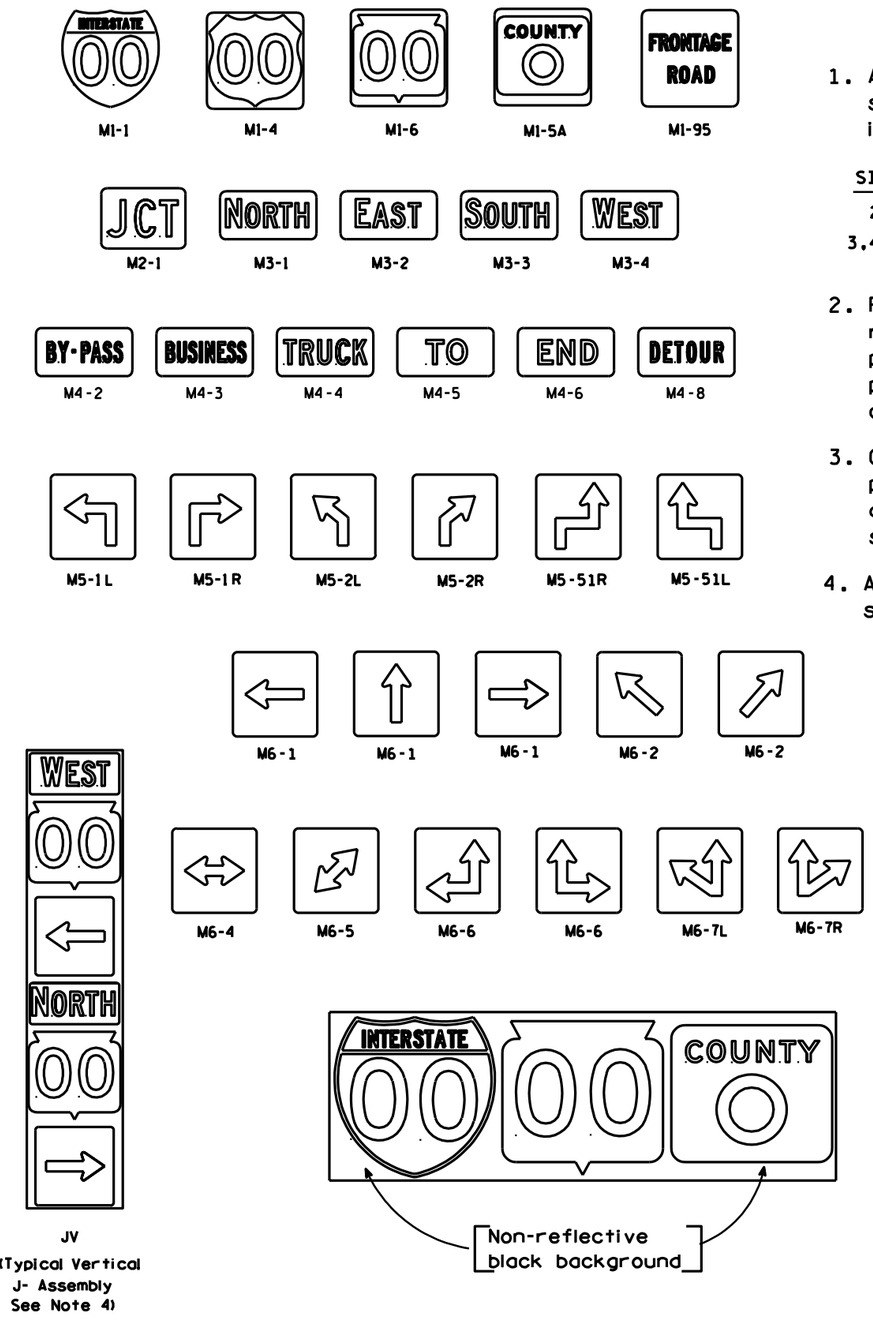
/S/ Andrew Heldtke
WORK ZONE ENG

FHWA

TYPICAL ASSEMBLIES



INDIVIDUAL COMPONENTS OF ASSEMBLIES



GENERAL NOTES

1. All components within any individual assembly shall be the same "size". The following table illustrates that situation:

SIZE	M1'S	M2	M3'S & M4'S	M5'S & M6'S
2	24 X 24	21 X 15	24 X 12	21 X 21
3,4-5	36 X 36	30 X 21	30 X 15	30 X 30

2. For any assembly containing two or more route markers, the route markers SHALL be placed on a single high density overlay PLYWOOD panel. All other materials within the assembly can be either plywood or aluminum.

3. Certain marker heads require the component pieces to be the same color. As an example, all the components used with an M1-1 marker shall be blue.

4. All vertical J assemblies are given a sign code of JV.

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

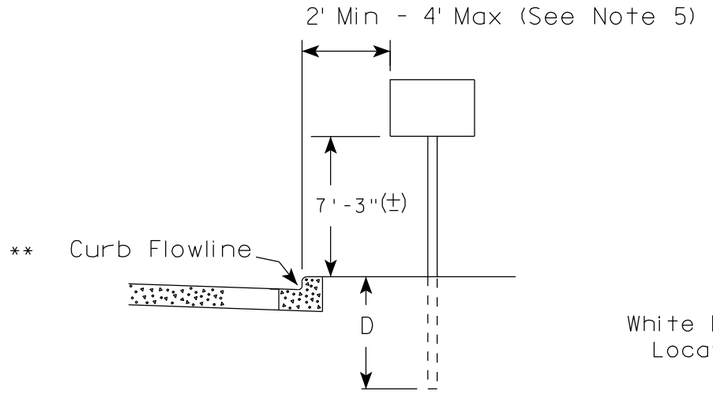
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Chester J Spang* for State Traffic Engineer

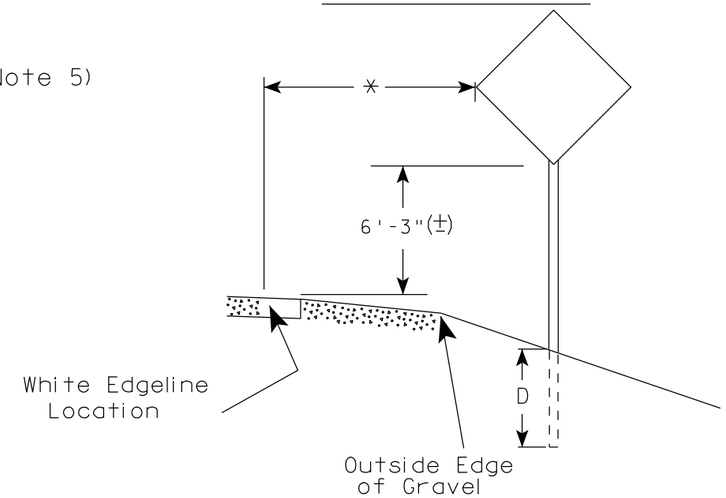
DATE 3/06/00 A2-1.6

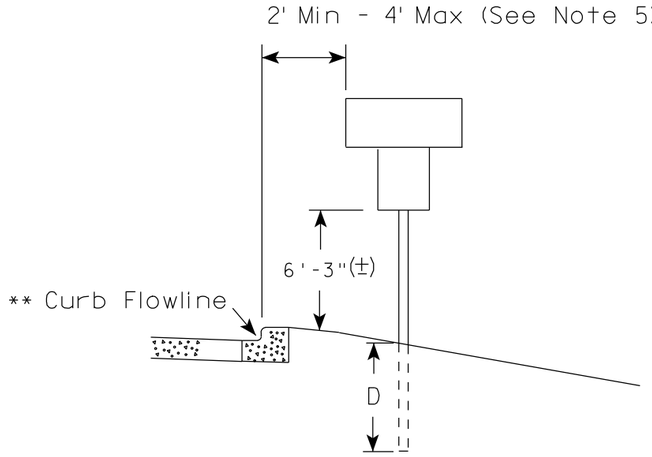
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 26	E

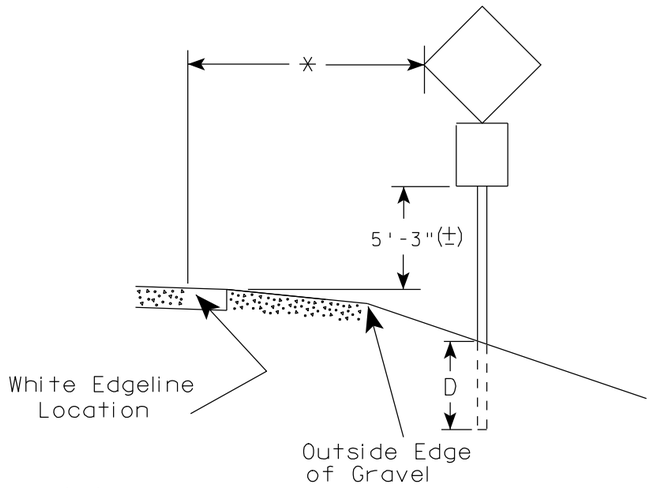
URBAN AREA



RURAL AREA (See Note 2)







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

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

GENERAL NOTES

1. Signs wider than 4 feet or larger than 20 sq. ft. shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for J assemblies (A4-5) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding stop signs (R1-1F) shall be mounted at a height of 5'-3" (±) or as directed by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series) & End of Road Markers (W5-56 & W5-56A) shall be mounted at a height of 4'-3" (±).

POST EMBEDMENT DEPTH

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

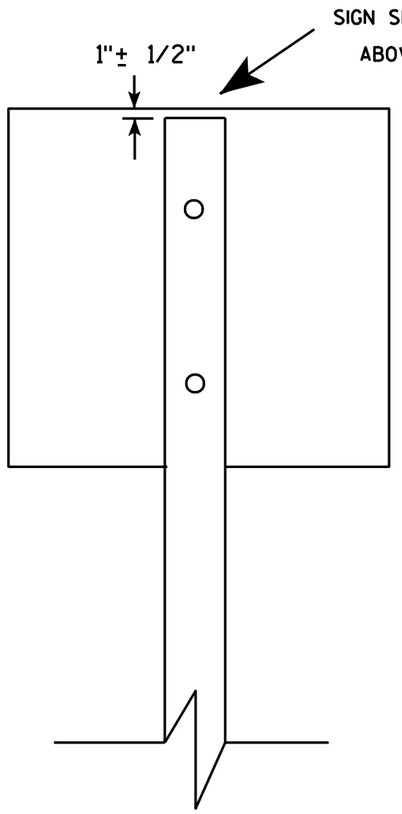
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

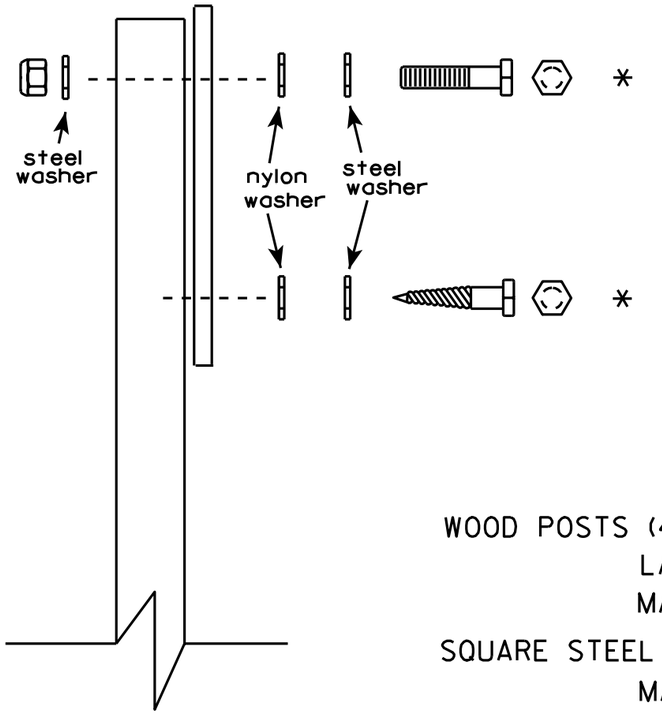
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 9/21/2011 PLATE NO. A4-3.16

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 27	E





Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

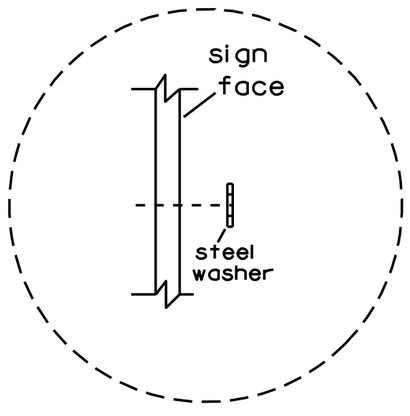
a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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

WOOD POSTS (4" x 4" or 4" x 6")
LAG SCREWS - 3/8" X 3"
MACHINE BOLTS - 5/16" X 6-1/2" or 7" Length w/ nuts

SQUARE STEEL POSTS (2" x 2")
MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts
RIVETS - 9/32 " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON for all Type H signs.



Washer Placement when Sign Has Other Than Type H or Type F Face

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

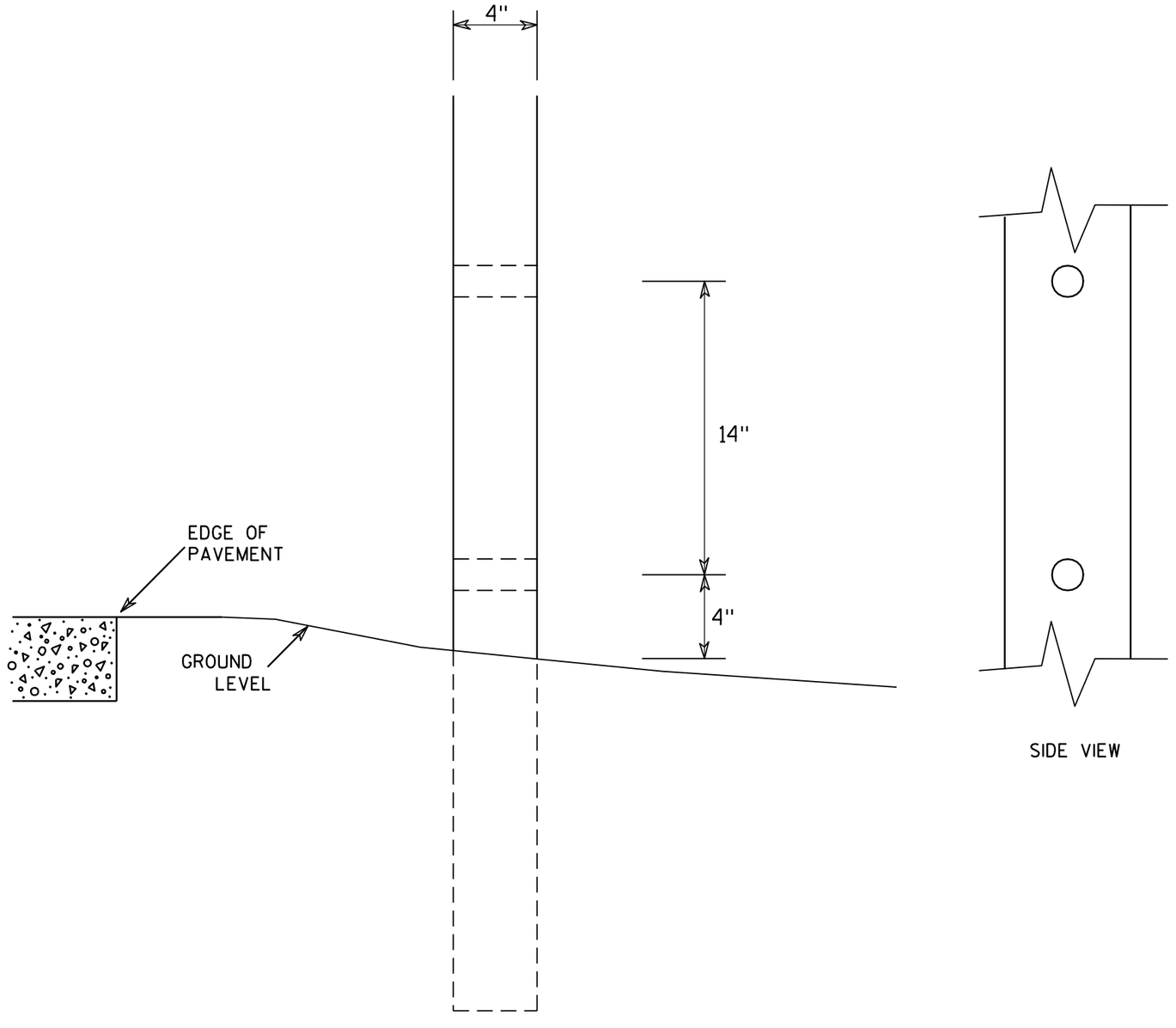
ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/23/10 PLATE NO. A4-8.7

PROJECT NO:				SHEET NO: 28	E



SIDE VIEW

GENERAL NOTES

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

7

7

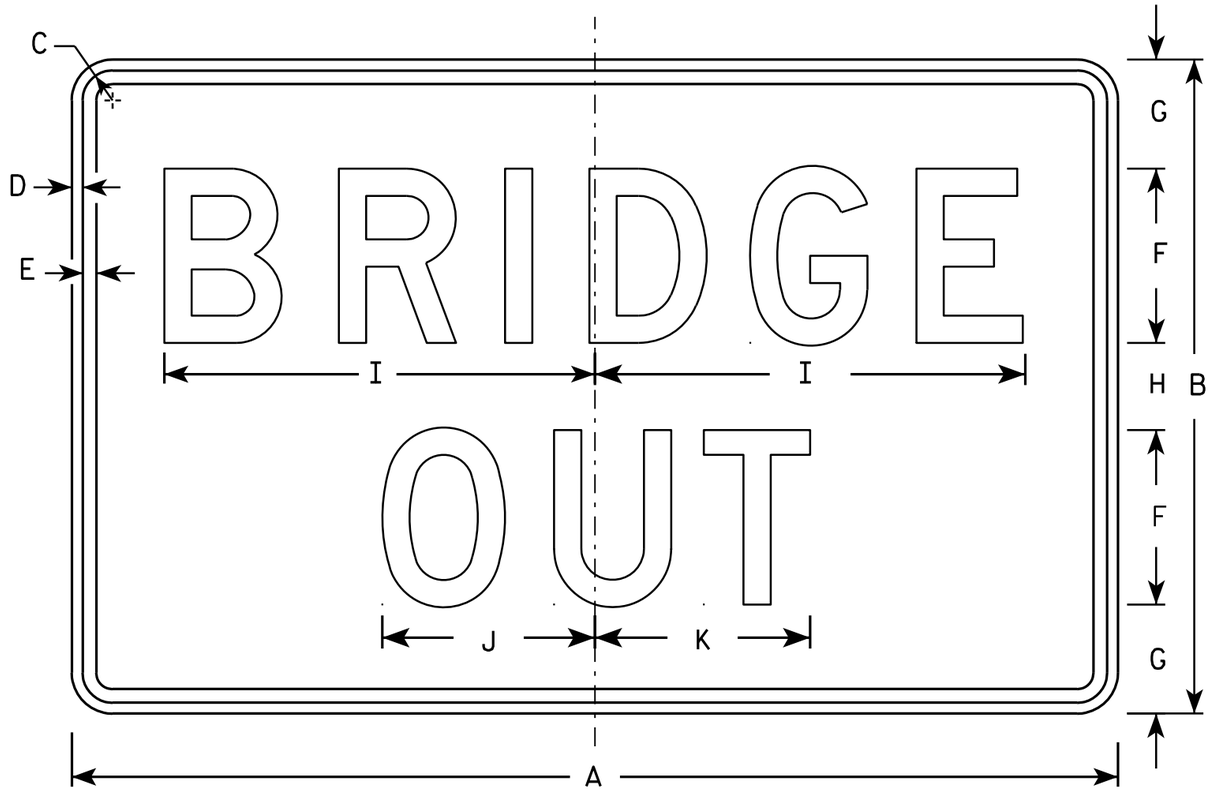
4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

DATE 3/27/97 PLATE NO. A4-11.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 29	E



R11-2B

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 3/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
2M	48	30	1 3/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
3	48	30	1 3/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
4	48	30	1 3/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
5	48	30	1 3/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0

STANDARD SIGN
R11-2B

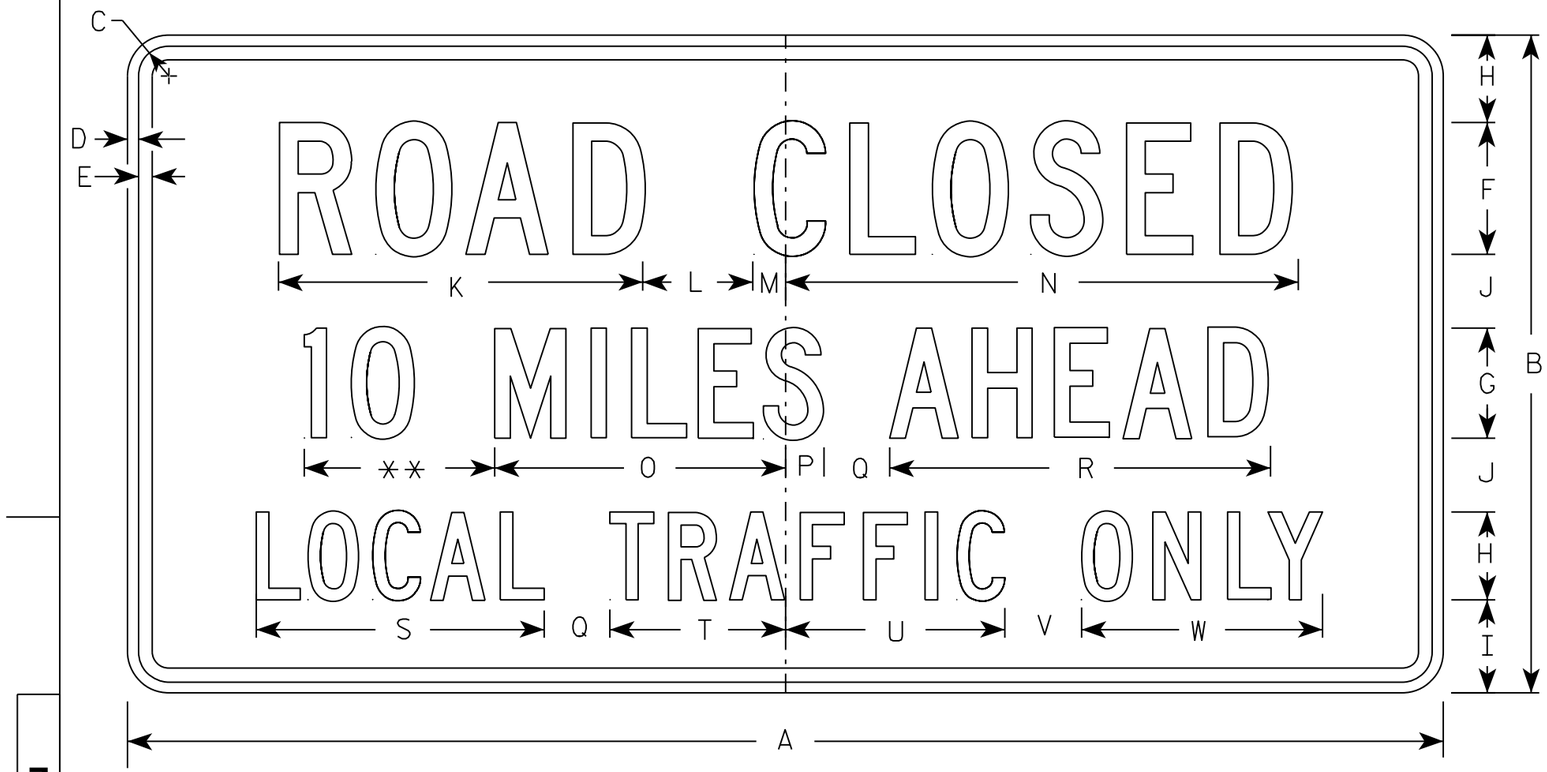
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-2B.2

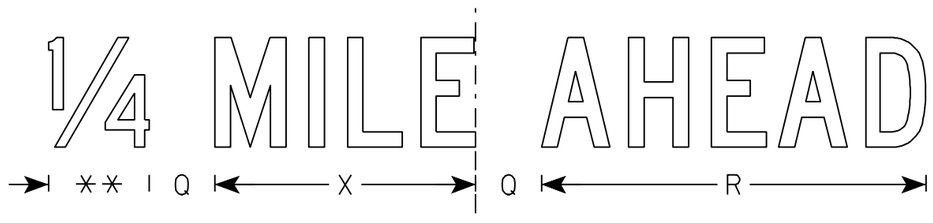
PROJECT NO:

SHEET NO: 30 E



R11-3

** See Note 5



NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals to nearest quarter mile and optically adjust spacing to achieve proper balance.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 3/8	1/2	5/8	4	3	2 1/2	2	2	11 1/8	3	1 1/8	15 1/4	8	1 1/2	2	10 3/4	8 3/8	4 3/4	6 1/2	2	6 3/4	7 1/8			4.5
2S	60	30	1 3/8	1/2	5/8	6	5	4	4 1/4	3 3/8	16 5/8	5	1 1/2	23	13 1/4	1 3/4	3	17 3/8	13 1/8	8	10	3 1/2	11	11 7/8			12.5
2M	60	30	1 3/8	1/2	5/8	6	5	4	4 1/4	3 3/8	16 5/8	5	1 1/2	23	13 1/4	1 3/4	3	17 3/8	13 1/8	8	10	3 1/2	11	11 7/8			12.5
3																											
4																											
5																											

STANDARD SIGN
R11-3

WISCONSIN DEPT OF TRANSPORTATION

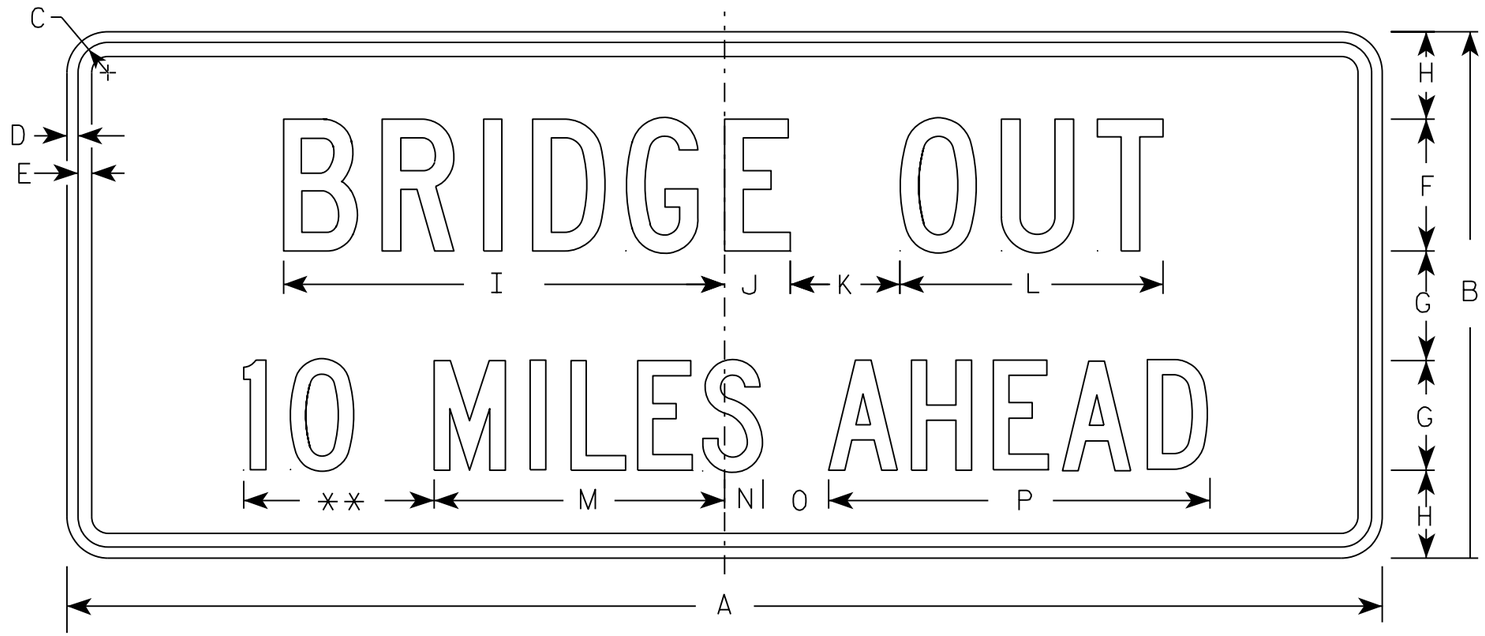
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/15/17 PLATE NO. R11-3.8

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 31 | E

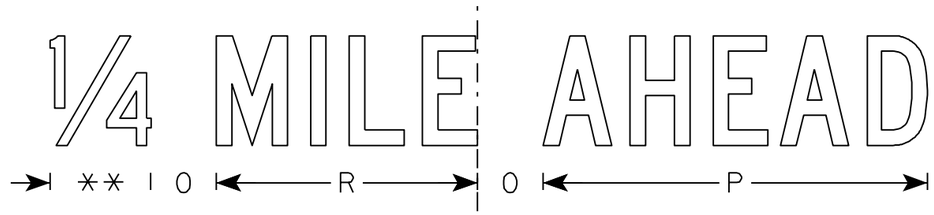
NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals to nearest quarter mile and optically adjust spacing to achieve proper balance.



R11-3C

** See Note 5



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	15	1 3/8	1/2	5/8	4	3	2 1/2	13 1/4	2 1/4	3	8	8	1 1/2	2	10 3/4		7 1/8									3.75
2S	60	24	1 3/8	1/2	5/8	6	5	4	20 1/8	3	5	12	13 1/4	1 3/4	3	17 3/8		11 7/8									10.0
2M	60	24	1 3/8	1/2	5/8	6	5	4	20 1/8	3	5	12	13 1/4	1 3/4	3	17 3/8		11 7/8									10.0
3																											
4																											
5																											

STANDARD SIGN
R11-3C

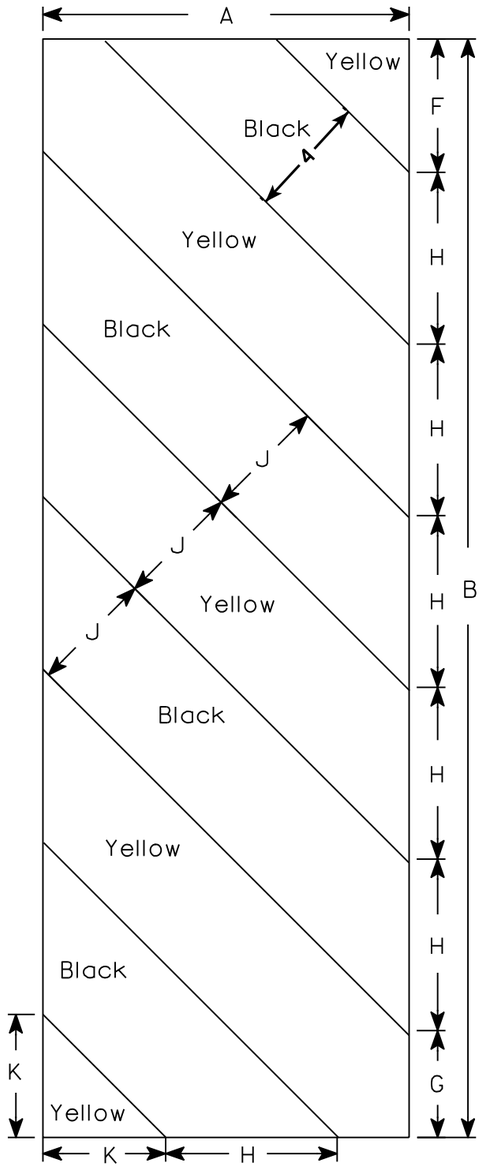
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

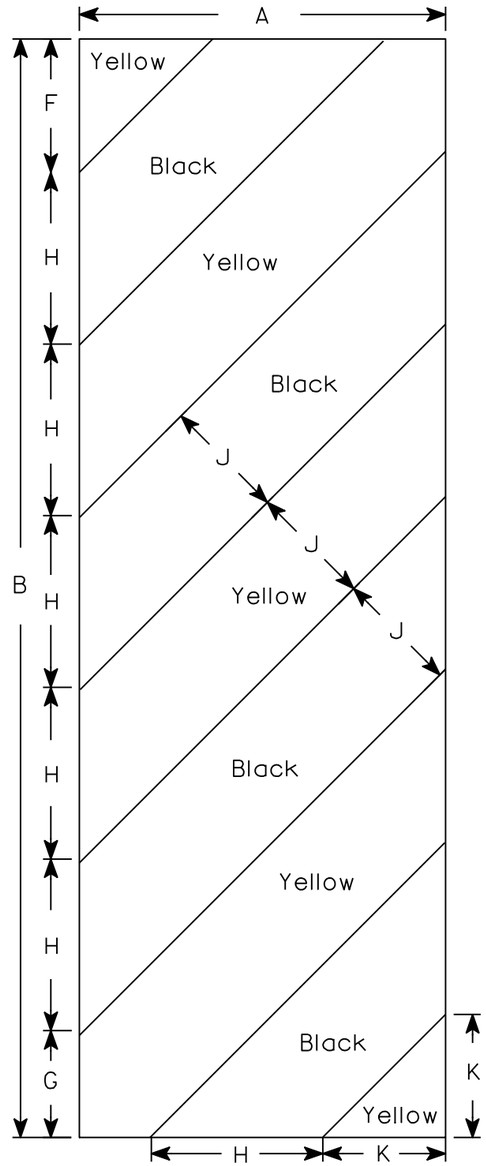
DATE 7/28/16 PLATE NO. R11-3C.3

PROJECT NO:

SHEET NO: 32 E



W5-52L



W5-52R

NOTES

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

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

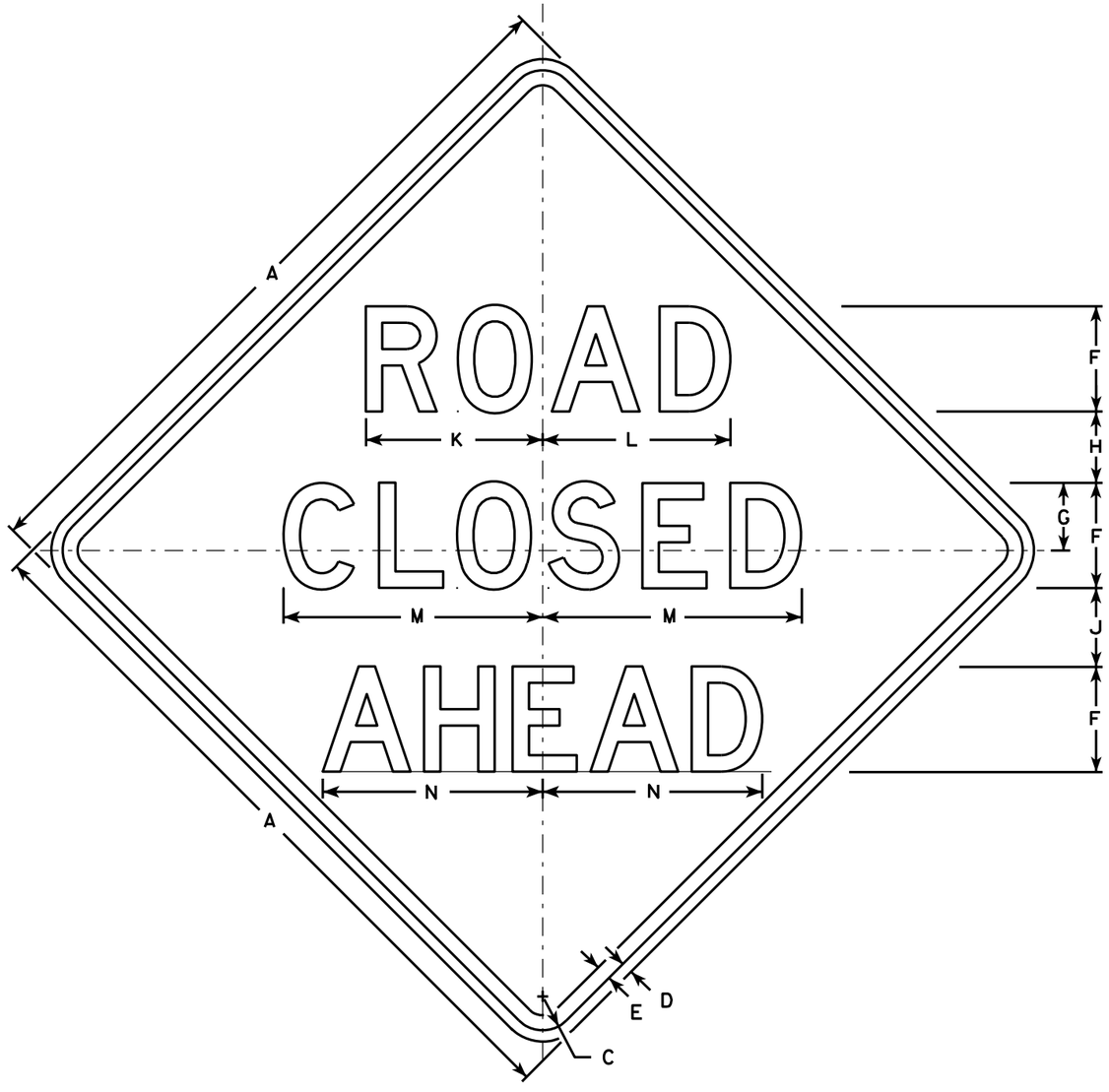
STANDARD SIGN
W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

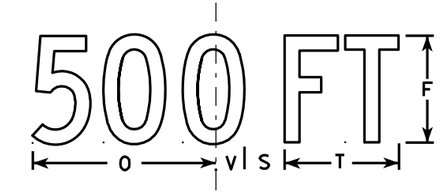
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/22/11 PLATE NO. W5-52.8

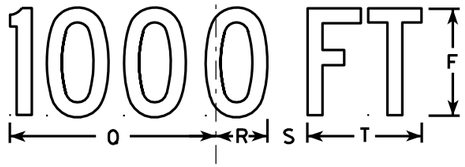
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 33 | E



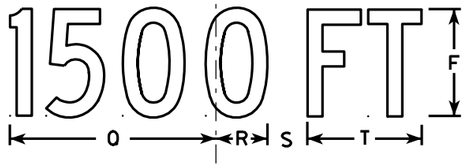
W20-3A



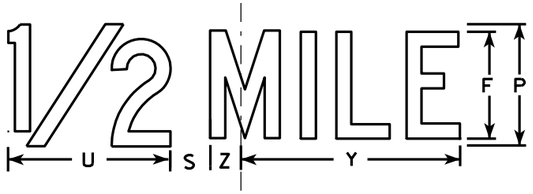
W20-3D



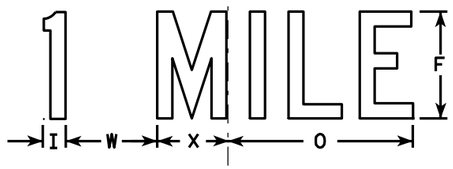
W20-3C



W20-3B



W20-3G



W20-3F

NOTES

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

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

STANDARD SIGN
W20-3A, B, C, D, F & G

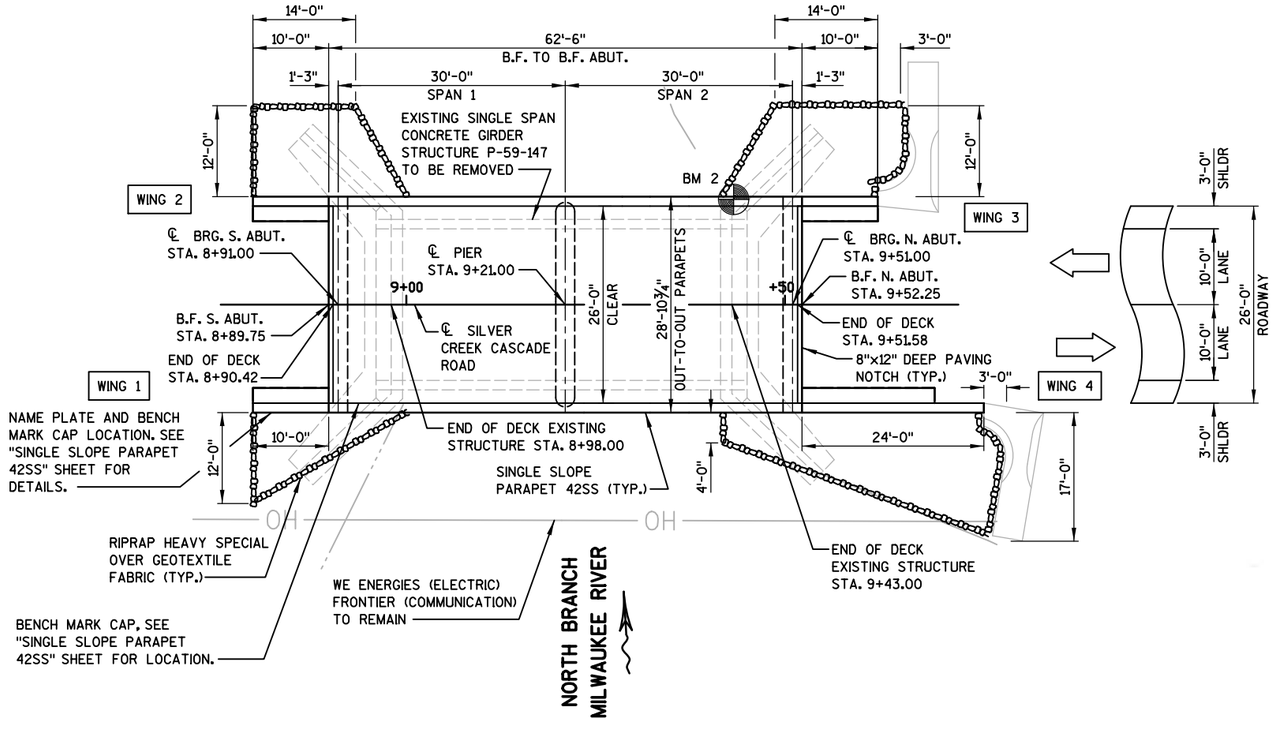
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer
DATE 3/18/11 PLATE NO. W20-3.7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 34 | E

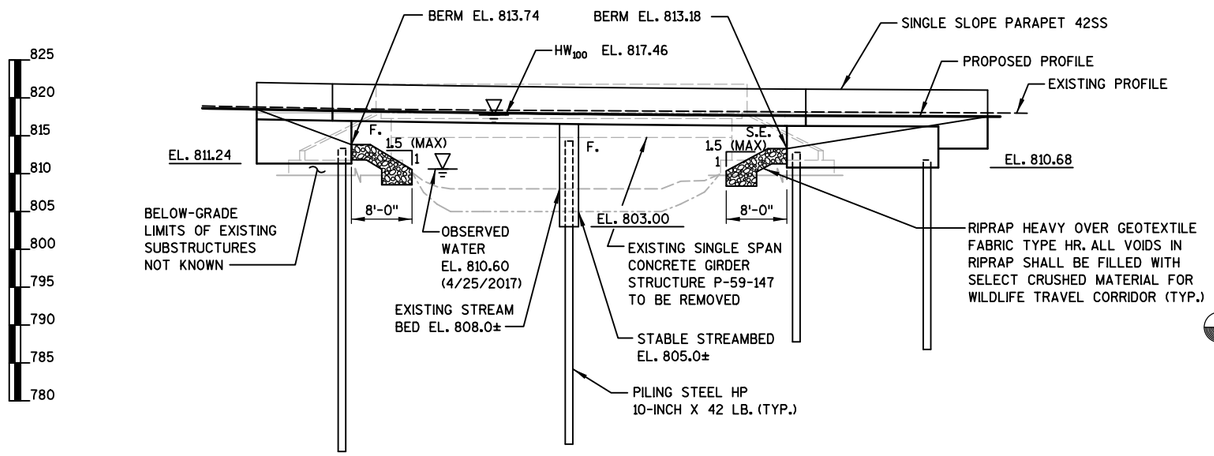
STATE PROJECT NUMBER

4202-05-71



PLAN
(2-SPAN CONCRETE FLAT SLAB)

N



ELEVATION
(LOOKING WEST)

HYDRAULIC DATA

100 YEAR FREQUENCY

Q_{100}	1,950 C.F.S.
VEL.	5.18 F.P.S.
HW_{100}	EL. 817.46
WATERWAY AREA (BRIDGE)	384.23 SQ. FT.
DRAINAGE AREA	40.9 SQ. MI.
ROADWAY OVERTOPPING FREQUENCY	N/A
SCOUR CODE	5

2 YEAR FREQUENCY

Q_2	595 C.F.S.
VEL.	2.77 F.P.S.
HW_2	EL. 813.76

LIST OF DRAWINGS

DESIGN DATA

STRUCTURE DESIGNED FOR A FUTURE WEARING SURFACE OF 20 PSF

LIVE LOAD:

DESIGN LOADING	HL-93
INVENTORY RATING FACTOR	RF = 1.29
OPERATING RATING FACTOR	RF = 1.68
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV)	250 KIPS

MATERIAL PROPERTIES:

CONCRETE SUPERSTRUCTURE	f'c = 4,000 psi
CONCRETE SUBSTRUCTURE	f'c = 3,500 psi
HIGH STRENGTH BAR STEEL REINFORCEMENT	fy = 60,000 psi

TRAFFIC DATA

A.D.T. (2019): 145
A.D.T. (2039): 159
DESIGN SPEED: 35 MPH

FOUNDATION DATA

ABUTMENTS AND PIER TO BE SUPPORTED ON HP 10x42 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 180 TONS* PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA.

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

ESTIMATED PILE LENGTHS:

SOUTH ABUTMENT	40 FEET EACH
PIER	40 FEET EACH
NORTH ABUTMENT	25 FEET EACH

STRUCTURE DESIGN CONTACTS

DESIGN CONSULTANT CONTACT:
KEITH BEHREND (608) 251-4843

BUREAU OF STRUCTURES CONTACT:
WILLIAM DREHER (608) 261-8205

WISCONSIN
DAVID D. RICE
E-24137
MADISON
WI
PROFESSIONAL ENGINEER
1/24/19

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
BM 1	7+71.20, 28.04' RT	RAILROAD SPIKE IN POWER POLE	821.02
BM 2	9+43.23, 13.88' LT	SAWED GROOVE ON NW WINGWALL OF EXISTING BRIDGE	818.46

NOTE: BM 1 IS OUTSIDE OF BRIDGE PLAN EXTENTS.
SEE ROADWAY PLAN FOR BENCHMARK LOCATION.

NO.	DATE	REVISION	BY

STRAND ASSOCIATES®
910 WEST WINGRA DRIVE
MADISON, WISCONSIN 53715
(608)-251-4843
(608) 251-8655 FAX
WWW.STRAND.COM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
ACCEPTED William C. Dreher SDR 02/05/19
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-59-202

SILVER CRK. CASCADE RD. OVER N. BR. MILWAUKEE RIVER

COUNTY	SHEBOYGAN
TOWN ~~CITY/VILLAGE~~	SHERMAN
DESIGN SPEC.	AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	EJC	DESIGN CK'D.	KRB	DRAWN BY	DTH	PLANS CK'D.	KRB

GENERAL PLAN

SHEET 1 OF 11
35

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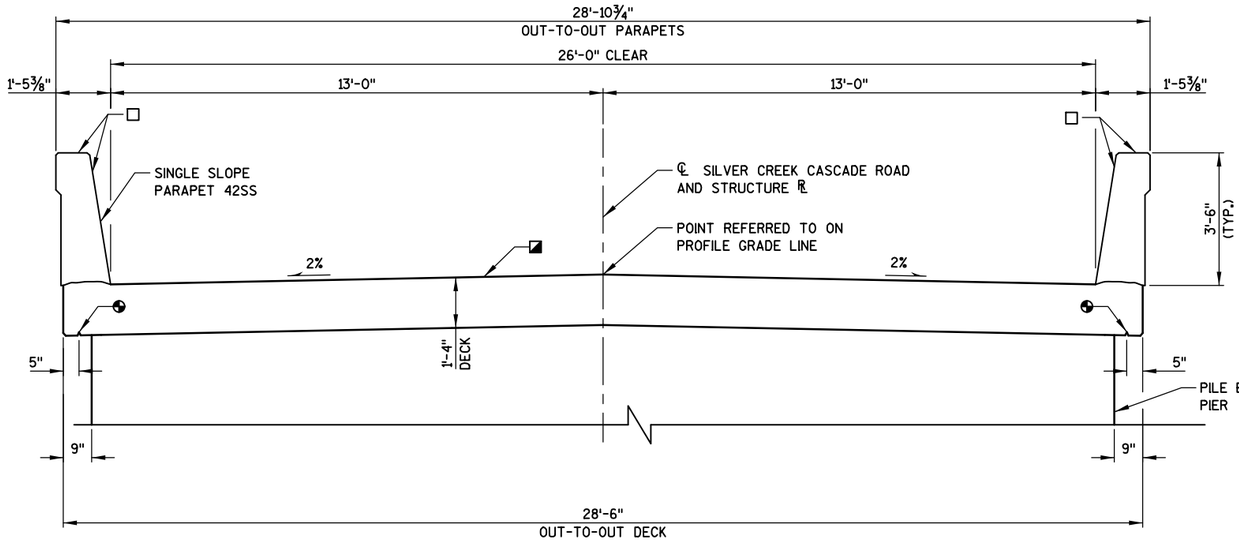
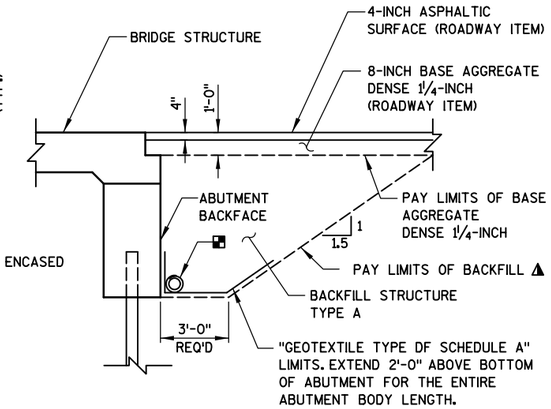


CROSS SECTION THRU SUPERSTRUCTURE

(LOOKING NORTH)

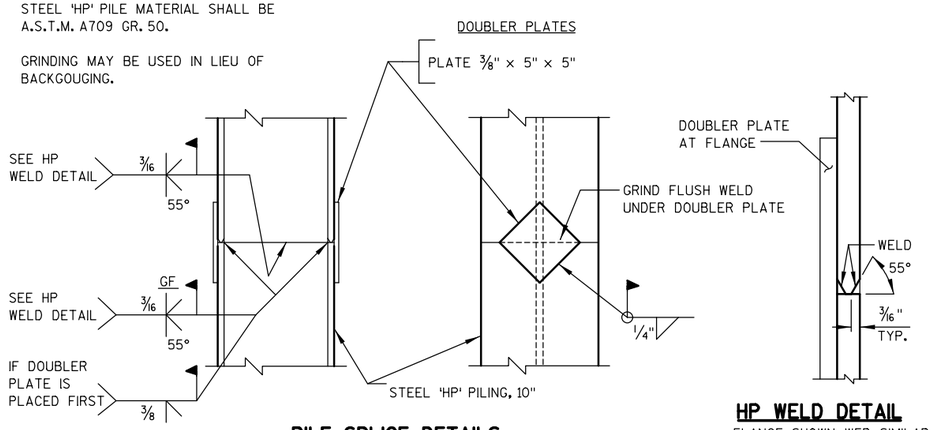


TYPICAL SECTION THRU ABUTMENT

PILE SPLICE NOTES

STEEL 'HP' PILE MATERIAL SHALL BE A.S.T.M. A709 GR. 50.

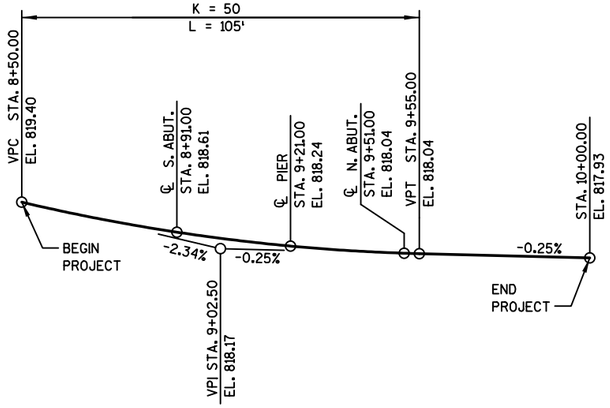
GRINDING MAY BE USED IN LIEU OF BACKGOUGING.



PILE SPLICE DETAILS

HP WELD DETAIL

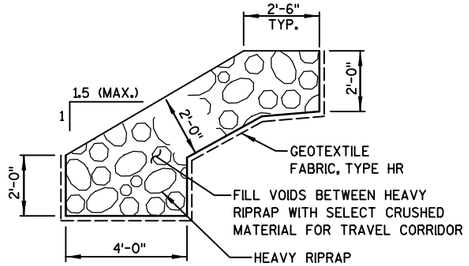
FLANGE SHOWN, WEB SIMILAR



PROFILE GRADE LINE

TOTAL ESTIMATED QUANTITIES

BID NUMBER	BID ITEM	UNIT	S. ABUT.	PIER	N. ABUT.	SUPER.	TOTAL
203.0500.S	REMOVING OLD STRUCTURE OVER WATERWAY STA. 9+21	LS	---	---	---	---	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGE B-59-202	LS	---	---	---	---	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	105	---	105	---	210
502.0100	CONCRETE MASONRY BRIDGES	CY	28	34	35	116	213
502.3200	PROTECTIVE SURFACE TREATMENT	SY	---	---	---	177	177
502.3210	PIGMENTED SURFACE SEALER	SY	---	---	---	89	89
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	1,620	1,570	2,120	---	5,310
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1,250	50	1,810	26,460	29,570
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	9	---	10	---	19
550.1100	PILING STEEL HP 10-INCH X 42 LB	LF	160	240	125	---	525
606.0300	RIPRAP HEAVY	CY	55	---	82	---	137
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	74	---	89	---	163
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	37	---	43	---	80
645.0120	GEOTEXTILE TYPE HR	SY	109	---	161	---	270
SPV.0195.01	SELECT CRUSHED MATERIAL FOR TRAVEL CORRIDOR	TON	21	---	32	---	53
	NON-BID ITEMS						
	FILLER	SIZE	1/2" & 3/4"	3/4"	1/2" & 3/4"	---	1/2" & 3/4"



RIPRAP HEAVY DETAIL

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALL STATIONS AND ELEVATIONS ARE IN FEET.

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.

BAR DIMENSIONS FOR BENDING ARE OUT-TO-OUT OF BARS.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES BRIDGES B-59-202" SHALL BE THE EXISTING GROUND LINE.

THE EXISTING STREAMBED SHALL BE USED AS THE UPPER LIMITS OF EXCAVATION AT THE PIERS.

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH HEAVY RIPRAP AND GEOTEXTILE TYPE 'HR' TO THE EXTENT SHOWN ON SHEET 1 AND IN THE ABUTMENT DETAILS.

ALL VOIDS IN RIPRAP HEAVY SHALL BE FILLED USING SELECT CRUSHED MATERIAL. WORK SHALL BE PAID FOR AS "SELECT CRUSHED MATERIAL FOR TRAVEL CORRIDOR".

AT THE BACK FACE OF ABUTMENTS ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL TYPE A.

THE BACKFILL QUANTITIES ARE BASED ON THE PAY LIMITS SHOWN ON THE PLANS AND MAY NOT REFLECT ACTUAL PLACED QUANTITIES. "BACKFILL STRUCTURE TYPE A" REQUIRED DIRECTLY BEHIND ABUTMENTS AND ABUTMENT WINGS FOR 3 FEET. BACKFILL PLACED BEYOND PAY LIMITS OR EXCEEDING PLAN QUANTITIES SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES.

EXCAVATION BELOW THE ABUTMENT AND ABUTMENT BEDDING MATERIALS REQUIRES ENGINEER APPROVAL. GEOTEXTILE SHALL BE SET AT THE BOTTOM OF EXCAVATION AND EXTEND 2'-0" ABOVE BOTTOM OF ABUTMENT.

SLAB FALSEWORK SHALL BE SUPPORED ON PILES OR THE SUBSTRUCTURE UNLESS AN ALTERNATE METHOD IS APPROVED BY THE ENGINEER.

THE EXISTING STRUCTURE P-59-147, A SINGLE-SPAN CONCRETE GIRDER BRIDGE, IS TO BE REMOVED.

FILLER SHALL CONFORM TO THE REQUIREMENTS OF AASHTO DESIGNATION M153 TYPES I, II, III OR AASHTO DESIGNATION M213.

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

LEGEND

- ◔ ¾" V-GROOVE REQ'D. EXTEND TO 6" FROM F.F. OF ABUT. DIAPHRAGMS.
- ◪ COAT WITH "PROTECTIVE SURFACE TREATMENT" AS PER THE STANDARD SPECIFICATIONS.
- ▲ BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.
- ◘ PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN. SEE DETAIL SHEET 4.
- □ COAT WITH "PIGMENTED SURFACE SEALER" AS PER THE STANDARD SPECIFICATIONS.

STATE PROJECT NUMBER

4202-05-71

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-59-202

DRAWN BY DTH | PLANS CK'D. KRB

CROSS SECTION, QUANTITIES, NOTES & DETAILS

SHEET 2 OF 11
36

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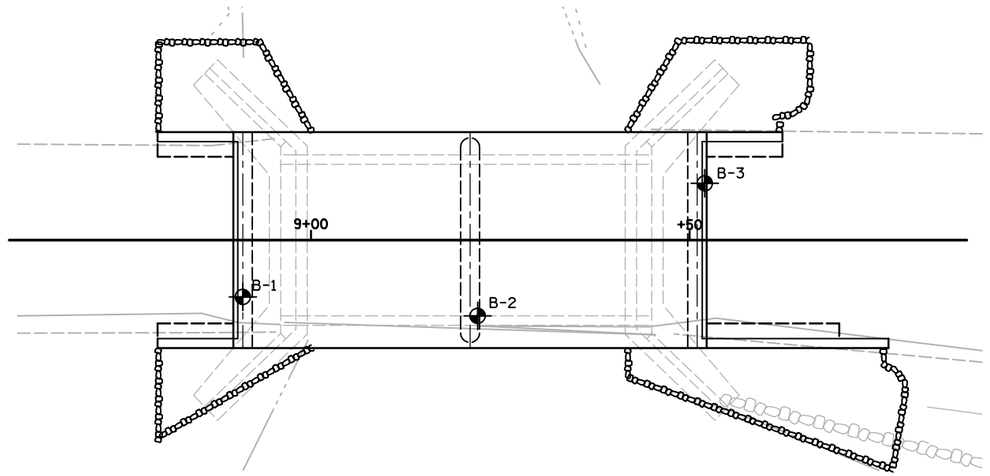
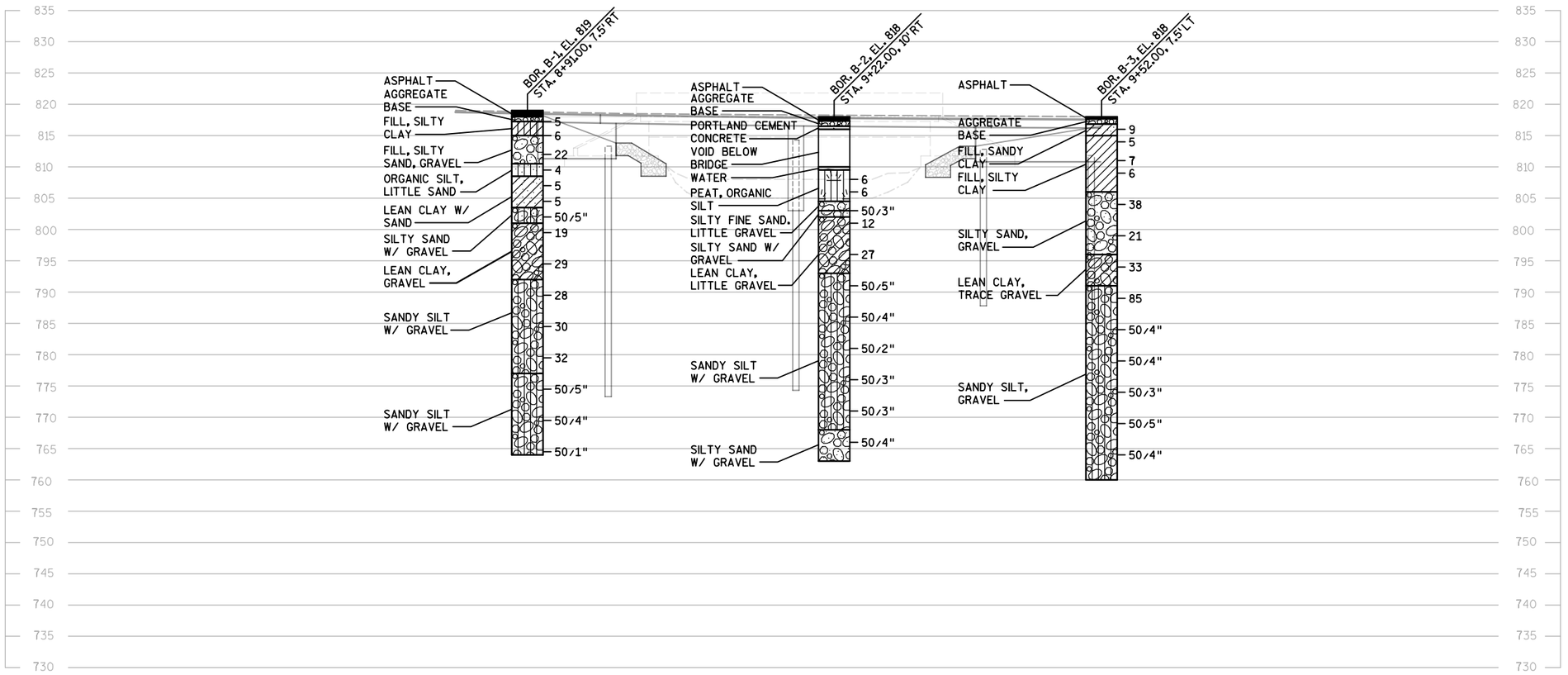
FILE NAME : S:\MAD\3700--3799\3774\004\Micros\PLAN\080102_cs.dgn

BORINGS PERFORMED AND REPORT COMPLETED BY:
PROFESSIONAL SERVICE INDUSTRIES (PSI)
821 CORPORATE COURT
WAUKESHA, WI 53189

BORINGS WERE PERFORMED ON 5/30/2017, 5/31/2017, AND 6/01/2017.

BORING	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	6/01/17	117,550.62	137,218.61
2	5/31/17	117,581.58	137,221.47
3	5/30/17	117,611.79	137,204.32
BORINGS COMPLETED BY: PSI			
REPORT COMPLETED BY: PSI			
ALL COORDINATES REFERENCED TO SHEBOYGAN COUNTY COORDINATE SYSTEM			





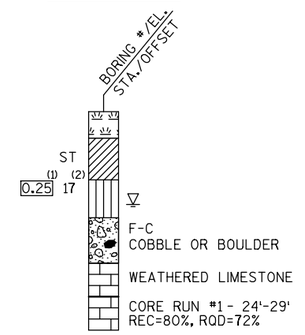
STATE PROJECT NUMBER

4202-05-71

MATERIAL SYMBOLS

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

LEGEND OF BORING



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

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

GROUND WATER ELEVATION

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

ABBREVIATIONS

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

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-59-202

DRAWN BY DTH | PLANS CK'D. KRB

SUBSURFACE EXPLORATION

SHEET 3 OF 11
37

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SCALE =

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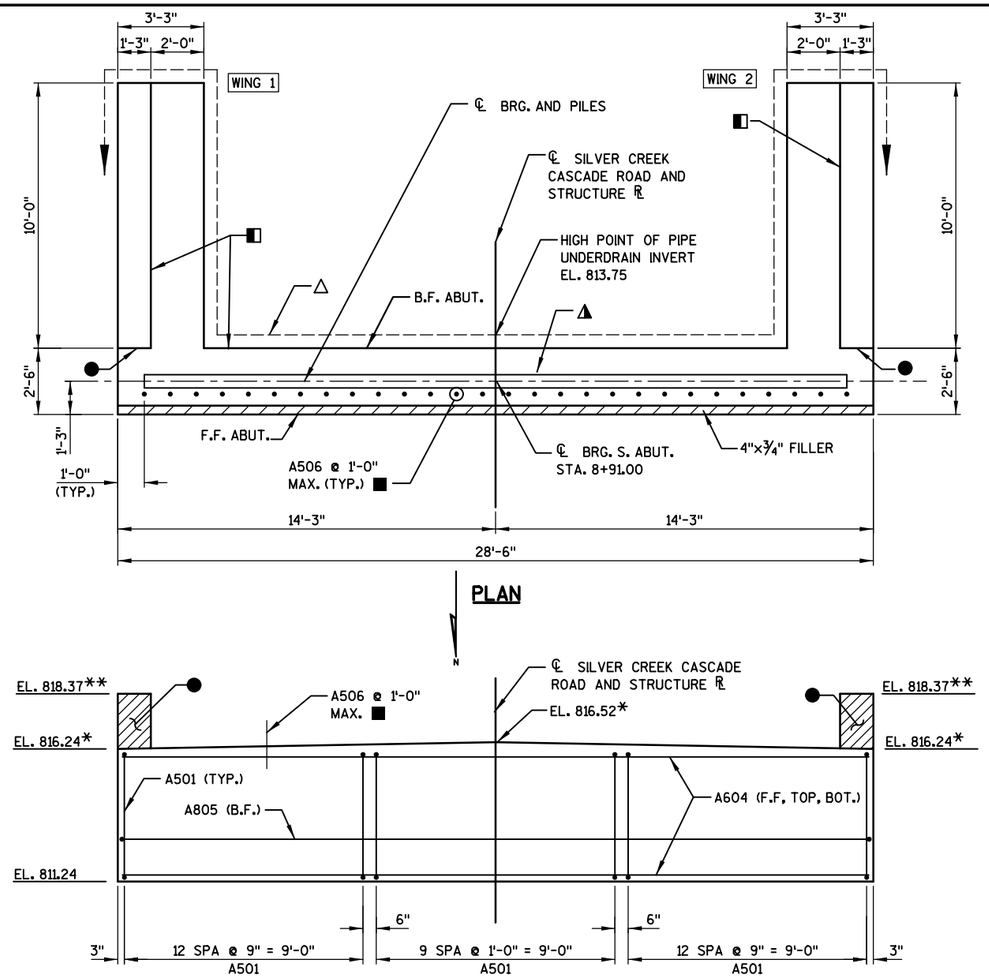
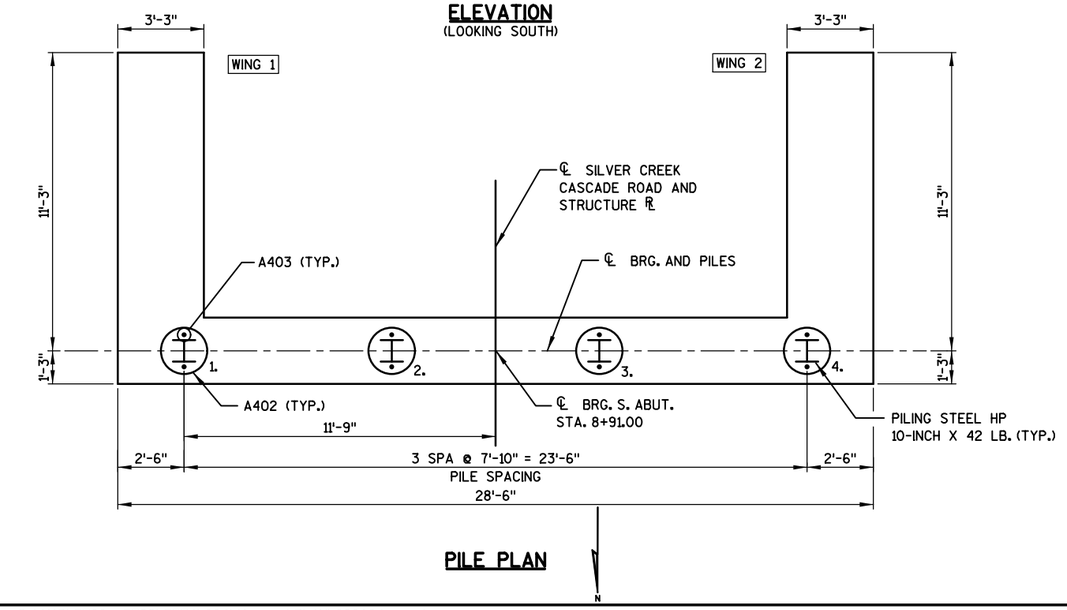
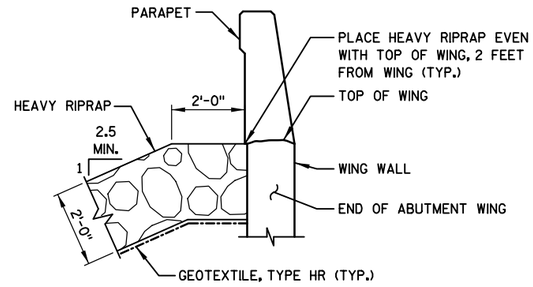


PLAN

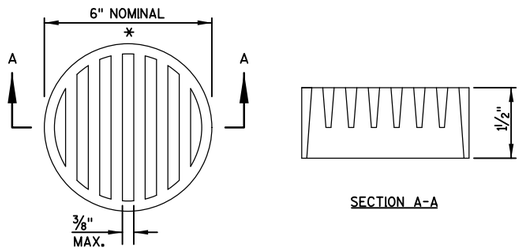
ELEVATION
(LOOKING SOUTH)



PILE PLAN



TYPICAL FILL SECTION AT WING TIPS



RODENT SHIELD DETAIL

NOTES:

* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SHIELD SO SLOTS ARE VERTICAL.

THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH."

THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 x 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

STATE PROJECT NUMBER

4202-05-71

NOTES

SEE "CROSS SECTION, QUANTITIES, NOTES & DETAILS" SHEET FOR PILE SPLICE DETAILS.

SEE "SOUTH ABUTMENT DETAILS" SHEET FOR REINFORCING DETAILS.

ADJUST A501 BARS INTERFERING WITH PILES.

SOUTH ABUTMENT TO BE SUPPORTED ON HP 10X42 STEEL PILING WITH A REQUIRED DRIVING RESISTANCE OF 180 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED 40 FEET LONG EACH.

SEE THIS SHEET FOR TYPICAL FILL SECTION AT WING TIPS.

LEGEND

● ½" FILLER TO EXTEND FROM ABUT. SEAT TO TOP OF CONCRETE PARAPET. FILLER INCLUDED IN WING LENGTH. SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW FINISHED ROADWAY SURFACE AT INNER FACE.

◧ 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

◭ KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2"X6".

△ PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN. SEE DETAIL THIS SHEET.

■ THESE BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE.

* THESE ELEVATIONS GIVEN AT ℄ BRG. ABUT.

** THESE ELEVATIONS GIVEN AT B.F. ABUT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-59-202

DRAWN BY DTH | PLANS CK'D. KRB

SOUTH ABUTMENT

SHEET 4 OF 11
38

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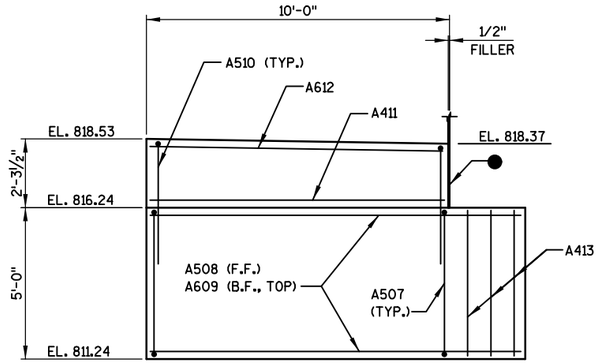
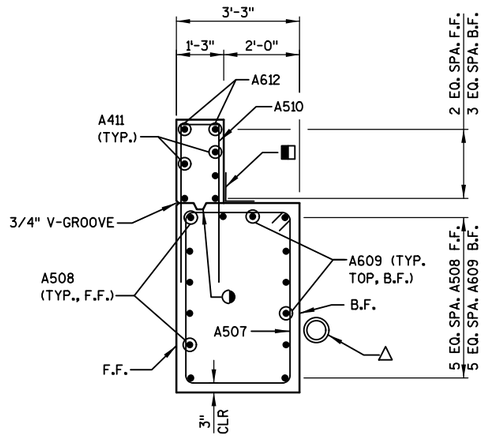
STATE PROJECT NUMBER

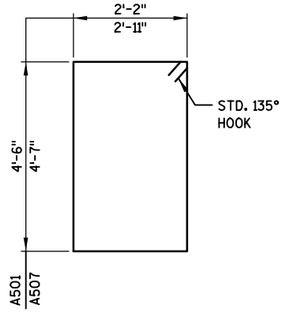
4202-05-71



WING 1 ELEVATION
(FRONT FACE)



TYPICAL WING SECTION
(WING 1 AND 2)



A501 , A507

LEGEND

◑ OPTIONAL CONSTRUCTION JOINT FORMED BY BEVELED 2"X6" KEYWAY WITH MEMBRANE ON BACKFACE.

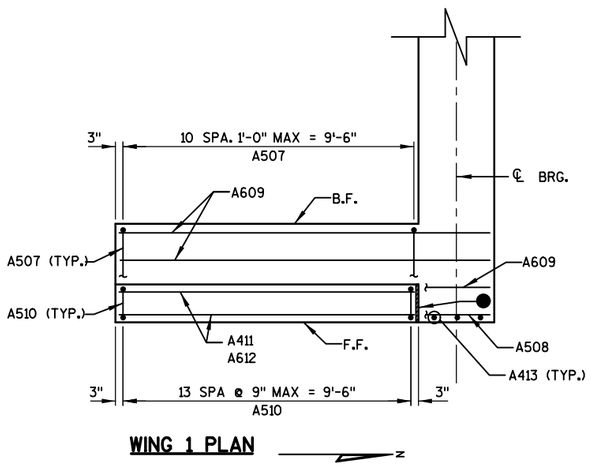
● ½" FILLER TO EXTEND FROM ABUT. SEAT TO TOP OF CONCRETE PARAPET. FILLER INCLUDED IN WING LENGTH. SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW FINISHED ROADWAY SURFACE AT INNER FACE.

◧ 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

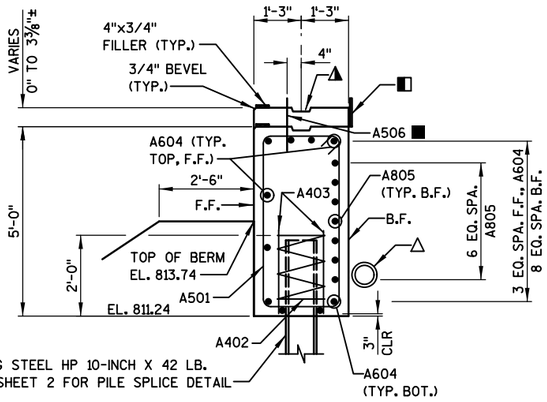
◭ KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2"X6".

△ PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. HIGH POINT EL. 813.75 AT ℄. ATTACH RODENT SHIELD AT END OF PIPE UNDERDRAIN PER DETAIL ON "SOUTH ABUTMENT" SHEET.

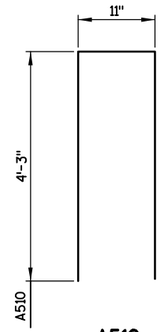
■ THESE BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE.



WING 1 PLAN



TYPICAL ABUTMENT SECTION



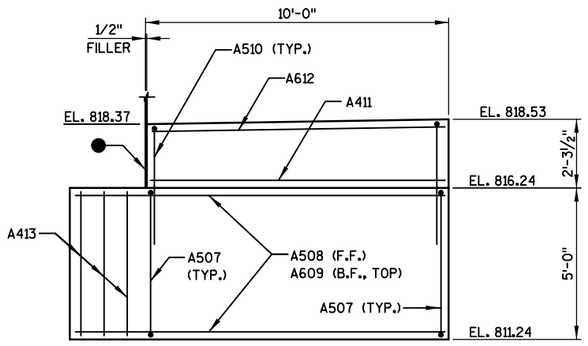
A510

A402

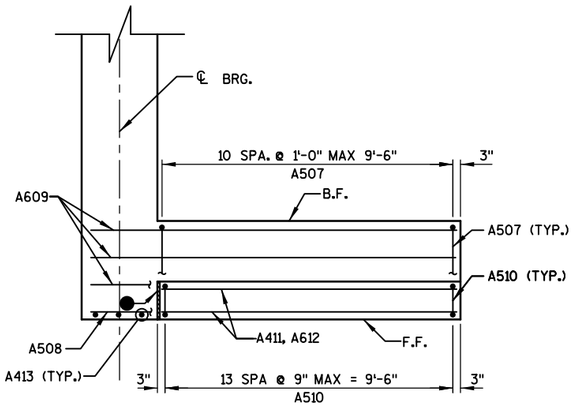
SOUTH ABUTMENT BILL OF BARS

UNCOATED: 1,620 LBS
COATED: 1,250 LBS

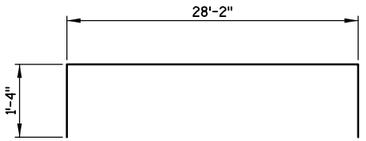
BAR MARK	NO. REQ'D	LENGTH	BENT	COAT	LOCATION
A501	36	14'-0"	X		LOWER BODY - VERT.
A402	4	28'-0"	X		LOWER BODY - PILES - SPIRAL
A403	8	2'-3"			LOWER BODY - PILES - VERT.
A604	10	28'-2"			LOWER BODY - TOP, BOT., & F.F. - HORIZ.
A805	7	30'-5"	X		LOWER BODY - B.F. - HORIZ.
A506	28	2'-0"		X	LOWER BODY - VERT.
A507	22	15'-8"	X	X	LOWER WING - VERT. - WING 1& 2
A508	12	12'-2"		X	LOWER WING - F.F. - HORIZ. - WING 1& 2
A609	16	12'-2"		X	LOWER WING - B.F. - HORIZ. - WING 1& 2
A510	28	9'-2"	X	X	UPPER WING - VERT. - WING 1& 2
A411	10	9'-7"		X	UPPER WING - HORIZ. - WING 1& 2
A612	4	9'-7"		X	UPPER WING - HORIZ. - WING 1& 2
A413	6	4'-7"			LOWER BODY - ENDS - VERT.



WING 2 ELEVATION
(FRONT FACE)



WING 2 PLAN



A805

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-59-202

DRAWN BY DTH | PLANS CK'D. KRB

SOUTH ABUTMENT DETAILS

SHEET 5 OF 11
39

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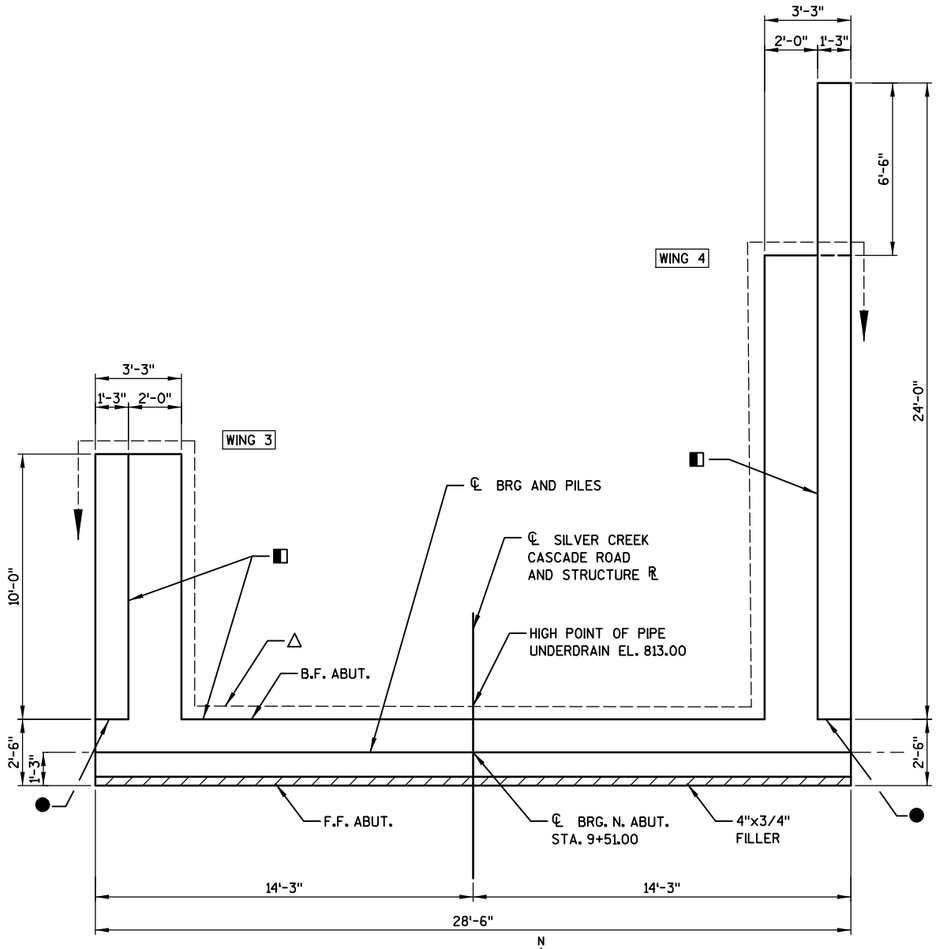

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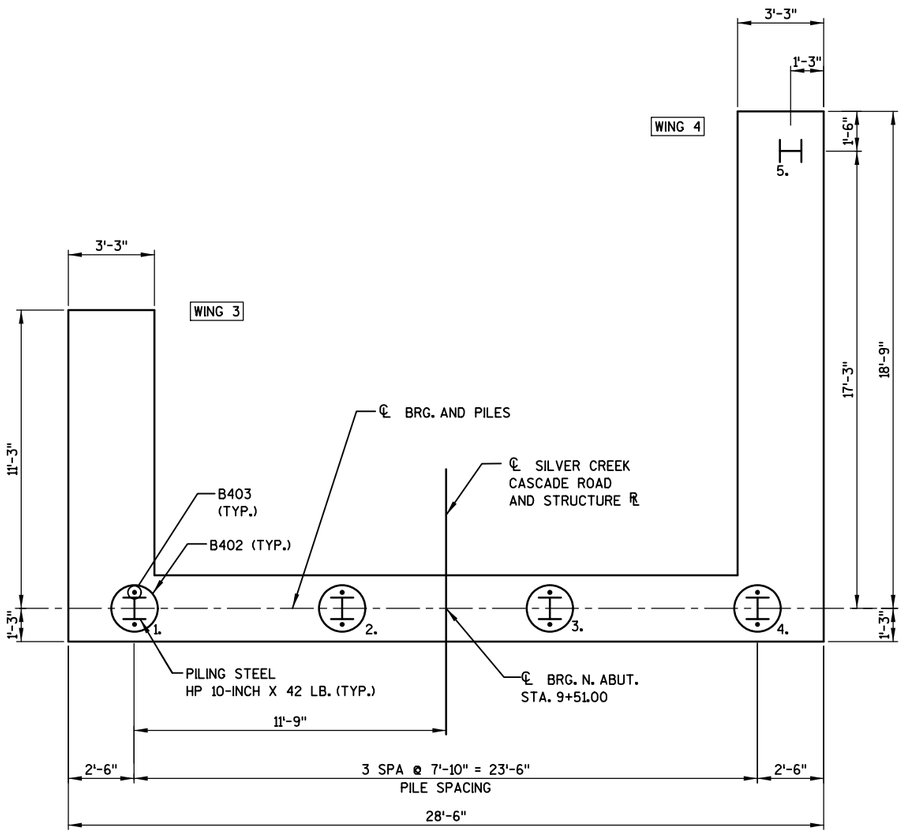
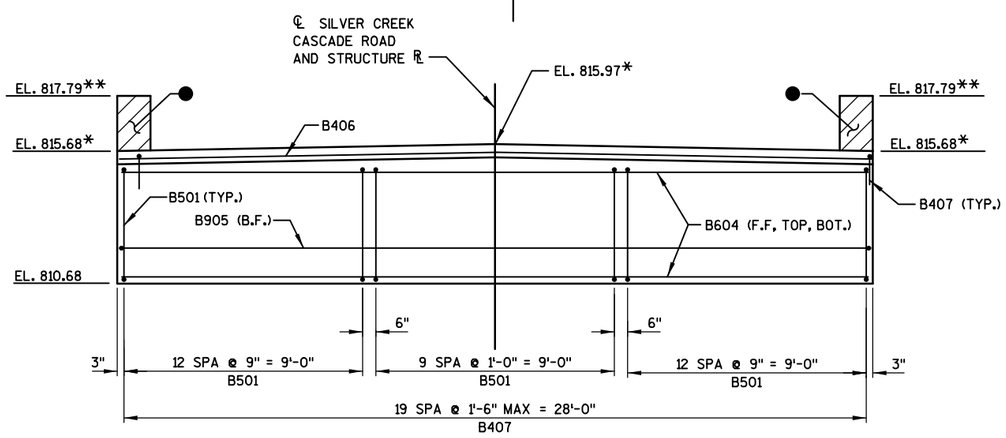


PILE PLAN



ELEVATION
(LOOKING NORTH)

STATE PROJECT NUMBER

4202-05-71

NOTES

SEE "CROSS SECTION, QUANTITIES, NOTES & DETAILS" SHEET FOR PILE SPLICE DETAILS.

SEE "NORTH ABUTMENT DETAILS" SHEET FOR REINFORCING DETAILS.

ADJUST B501 BARS INTERFERING WITH PILES.

NORTH ABUTMENT TO BE SUPPORTED ON HP 10X42 STEEL PILING WITH A REQUIRED DRIVING RESISTANCE OF 180 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED 25 FEET LONG EACH.

SEE "SOUTH ABUTMENT" SHEET FOR TYPICAL FILL SECTION AT WING TIPS DETAIL.

LEGEND

- ● ½" FILLER TO EXTEND FROM ABUT. SEAT TO TOP OF CONCRETE PARAPET. FILLER INCLUDED IN WING LENGTH. SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW FINISHED ROADWAY SURFACE AT INNER FACE.
- ◧ 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.
- △ PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN. SEE DETAIL ON "SOUTH ABUTMENT" SHEET.
- * THESE ELEVATIONS GIVEN AT ℄ BRG. ABUT.
- ** THESE ELEVATIONS GIVEN AT B.F. ABUT.
- ◪ STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHELENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING SUBSTRUCTURE. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-59-202

DRAWN BY DTH | PLANS CK'D. KRB

NORTH ABUTMENT

SHEET 6 OF 11
40

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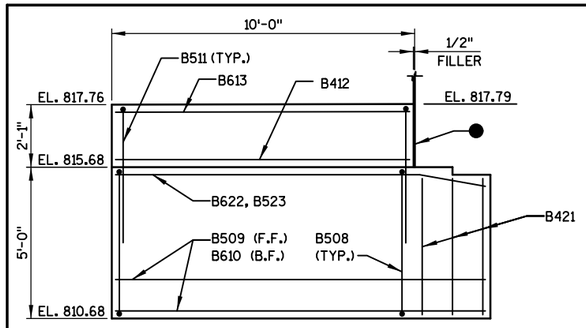
FILE NAME : S:\MAD\3700--3799\3774\004\Micros\PLAN\080106_na.dgn

STATE PROJECT NUMBER

4202-05-71



WING 3 ELEVATION
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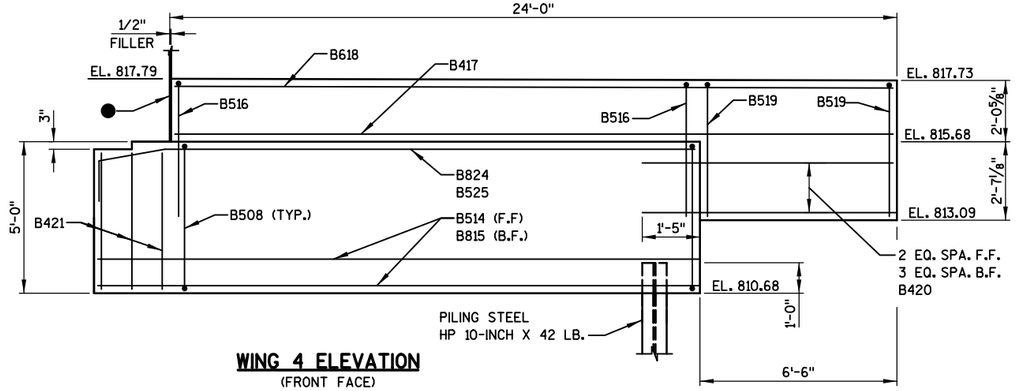

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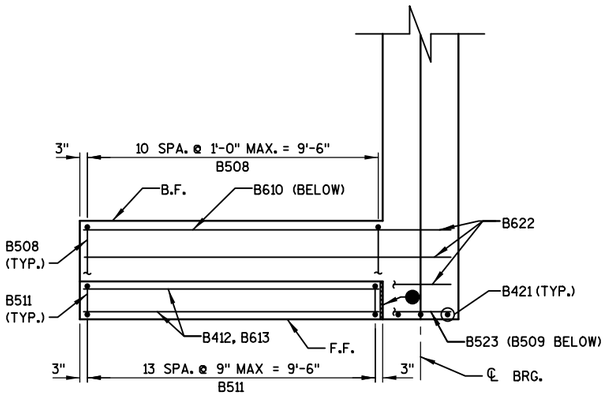
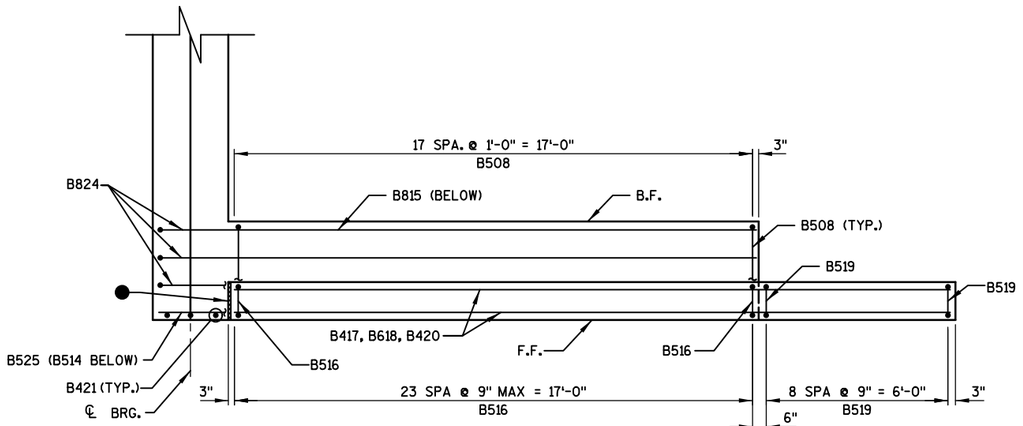


WING 3 PLAN



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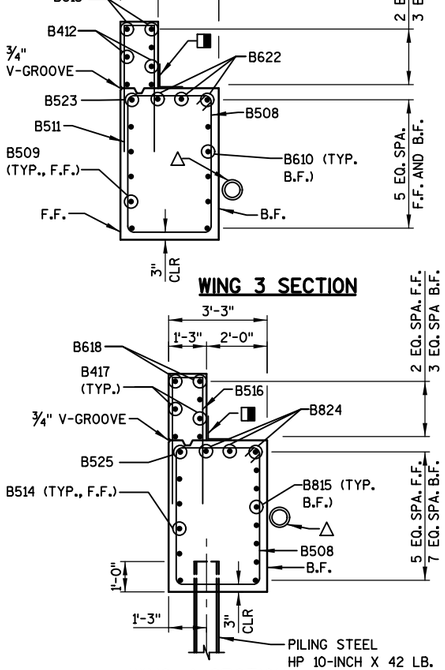
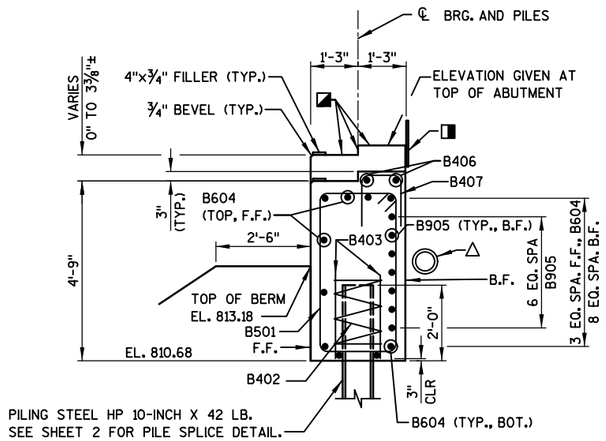
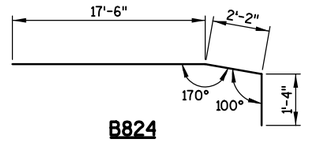


WING 3 SECTION

WING 4 SECTION



TYPICAL ABUTMENT SECTION



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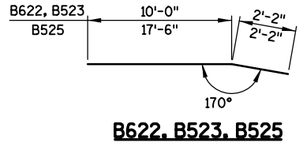
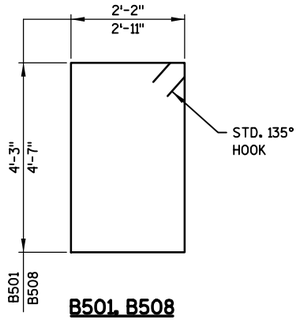


B622, B523, B525



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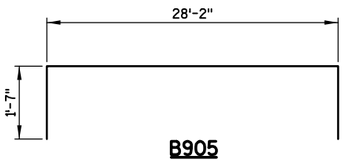

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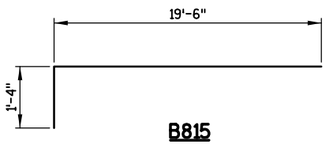

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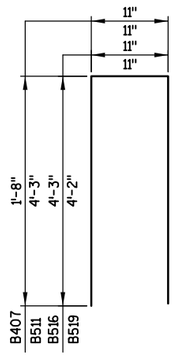
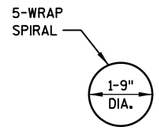


B407, B511, B516, B519



B402

LEGEND

◑ OPTIONAL CONSTRUCTION JOINT FORMED BY BEVELED 2"X6" KEYWAY WITH MEMBRANE ON BACKFACE.

● ½" FILLER TO EXTEND FROM ABUT. SEAT TO TOP OF CONCRETE PARAPET. FILLER INCLUDED IN WING LENGTH. SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW FINISHED ROADWAY SURFACE AT INNER FACE.

◧ 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

△ PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. HIGH POINT EL. 813.00 AT ℄. ATTACH RODENT SHIELD AT END OF PIPE UNDERDRAIN PER DETAIL ON "SOUTH ABUTMENT" SHEET.

◪ STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHELENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING SUBSTRUCTURE. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".

NORTH ABUTMENT BILL OF BARS

UNCOATED: 2,120 LBS
COATED: 1,810 LBS

BAR MARK	NO. REQ'D	LENGTH	BENT	COAT	LOCATION
B501	36	13'-6"	X		LOWER BODY - VERT.
B402	4	28'-0"	X		LOWER BODY - PILES - SPIRAL
B403	8	2'-3"			LOWER BODY - PILES - VERT.
B604	10	28'-2"			LOWER BODY - TOP, BOT., & F.F. - HORIZ.
B905	7	30'-10"	X		LOWER BODY - B.F. - HORIZ.
B406	2	28'-2"			LOWER BODY - TOP - HORIZ.
B407	20	4'-1"	X		LOWER BODY - TOP - VERT.
B508	29	15'-8"	X	X	LOWER WING - VERT. - WING 3 & 4
B509	5	12'-2"		X	LOWER WING - F.F. - HORIZ. - WING 3
B610	5	12'-2"		X	LOWER WING - B.F. - HORIZ. - WING 3
B511	14	9'-2"	X	X	UPPER WING - VERT. - WING 3
B412	5	9'-7"		X	UPPER WING - HORIZ. - WING 3
B613	2	9'-7"		X	UPPER WING - HORIZ. - WING 3
B514	5	19'-8"		X	LOWER WING - F.F. - HORIZ. - WING 4
B815	7	20'-8"	X	X	LOWER WING - B.F. - HORIZ. - WING 4
B516	24	9'-2"	X	X	UPPER WING - VERT. - WING 4
B417	5	23'-7"		X	UPPER WING - HORIZ. - WING 4
B618	2	23'-7"		X	UPPER WING - HORIZ. - WING 4
B519	9	9'-0"	X	X	UPPER WING - VERT - WING 4
B420	7	7'-9"		X	UPPER WING - HORIZ. - WING 4
B421	6	4'-7"			LOWER BODY - ENDS - VERT.
B622	3	12'-2"	X		LOWER BODY - TOP - HORIZ. - WING 3
B523	1	12'-2"	X		LOWER BODY - TOP - HORIZ. - WING 3
B824	3	20'-10"	X		LOWER BODY - TOP - HORIZ. - WING 4
B525	1	19'-8"	X		LOWER BODY - TOP - HORIZ. - WING 4

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-59-202

DRAWN BY DTH | PLANS CK'D. KRB

NORTH ABUTMENT DETAILS

SHEET 7 OF 11
41

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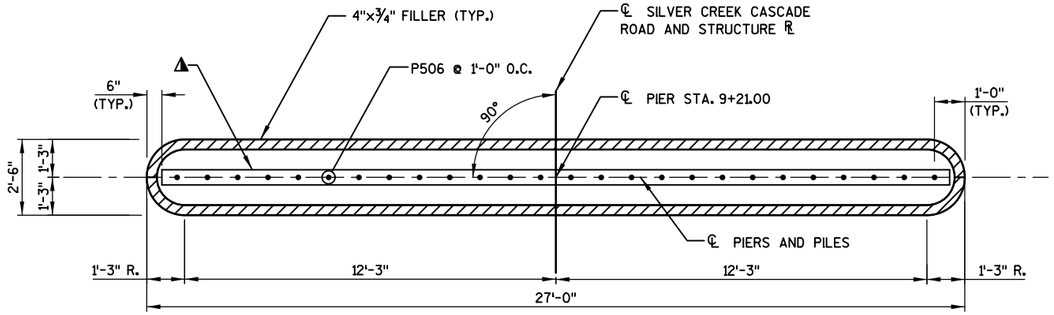
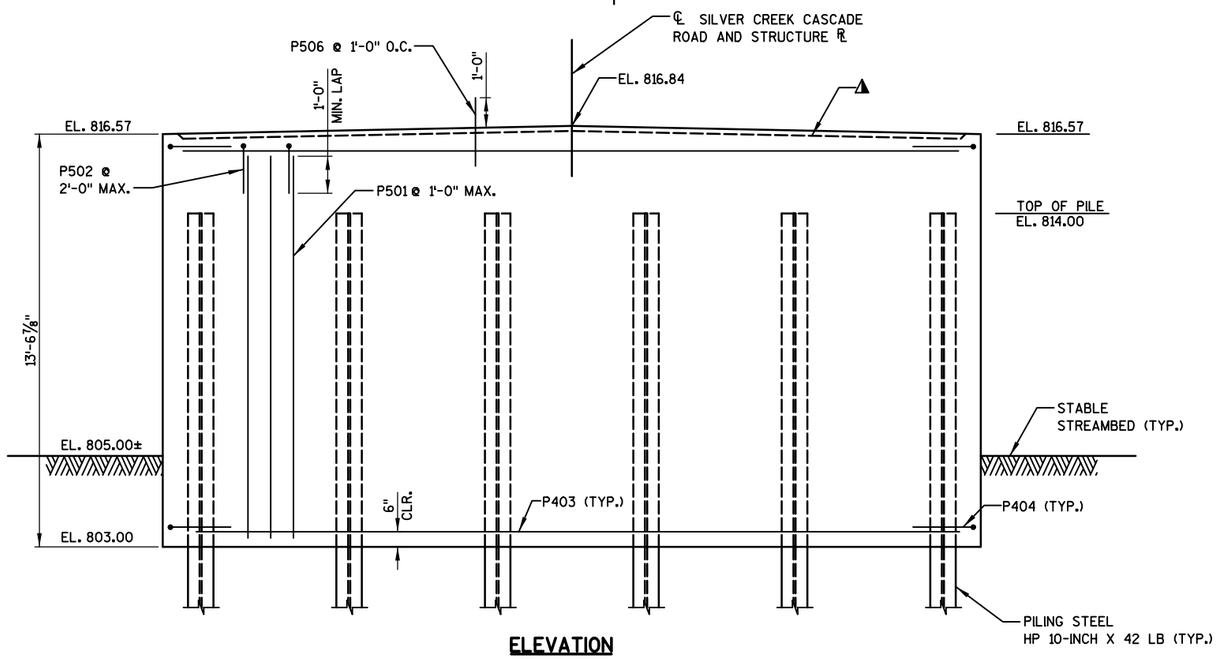
FILE NAME : S:\MAD\3700--3799\3774\004\Micros\PLAN\080107_na.dgn

STATE PROJECT NUMBER
4202-05-71



PLAN



ELEVATION
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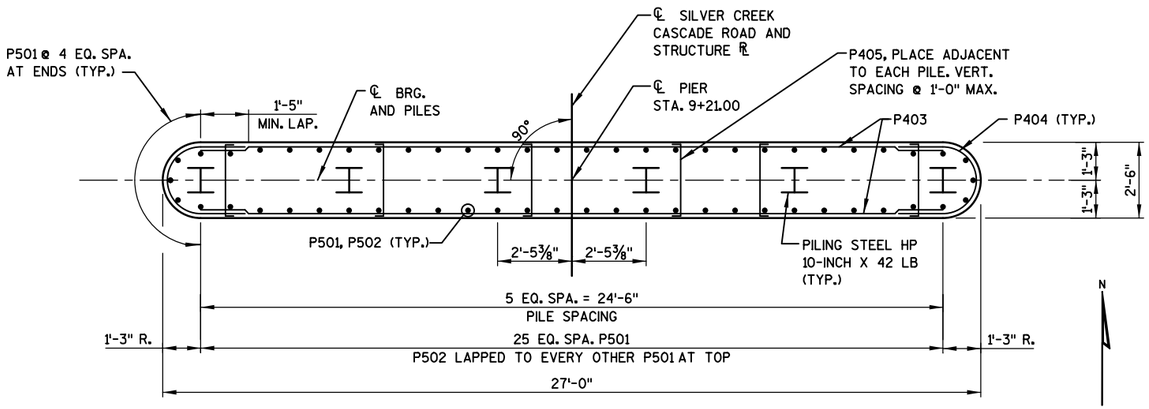
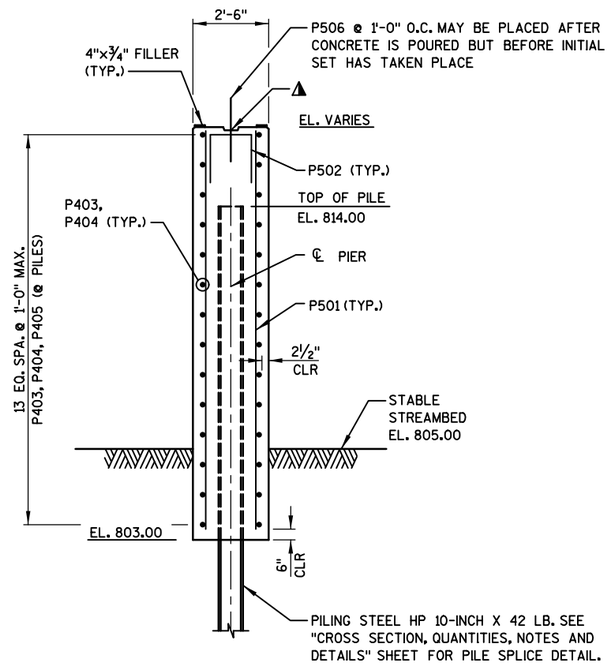
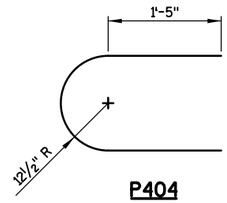


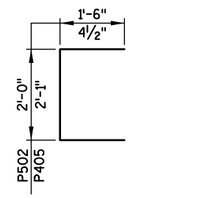
PILE AND REINFORCING PLAN



END VIEW



P404



P502, P405

PIER BILL OF BARS

UNCOATED: 1,570 LBS
COATED: 50 LBS

BAR MARK	NO. REQ'D	LENGTH	BENT	COAT	LOCATION
P501	58	12'-10"			PIER - VERT.
P502	14	4'-9"	X		PIER - STIRRUPS - TOP - VERT.
P403	28	24'-6"			PIER - SIDES - HORIZ.
P404	28	6'-1"	X		PIER - ENDS - HORIZ.
P405	84	2'-8"	X		PIER - TIES - HORIZ.
P506	26	2'-0"		X	PIER - DOWELS - VERT.

NOTES

PIER TO BE SUPPORTED ON HP 10 X 42 STEEL PILING WITH A REQUIRED DRIVING RESISTANCE OF 180 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED 40 FEET LONG EACH.

LEGEND

⚠ KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2"X6"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-59-202

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PIER DETAILS

SHEET 8 OF 11
42

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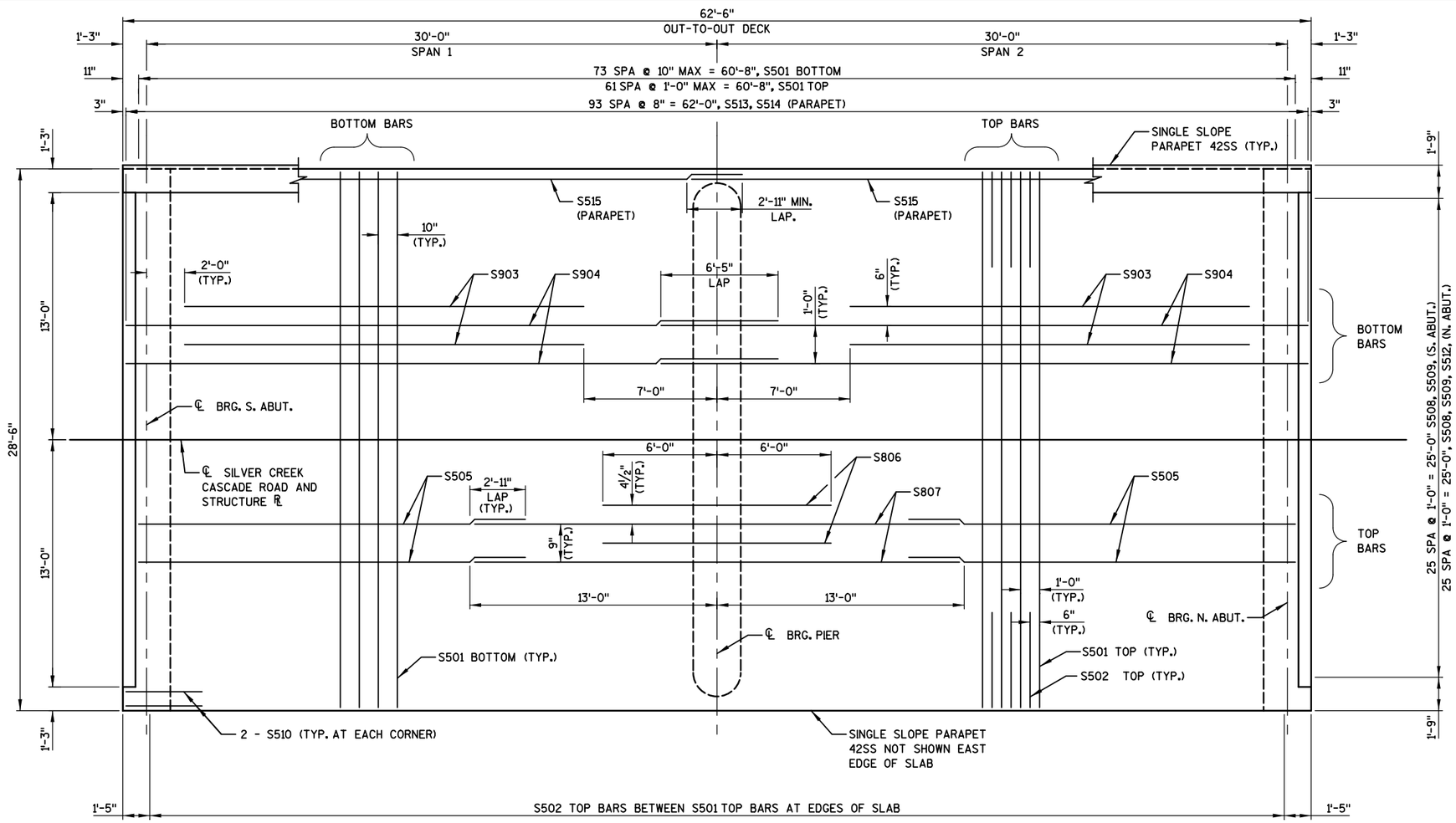
STATE PROJECT NUMBER

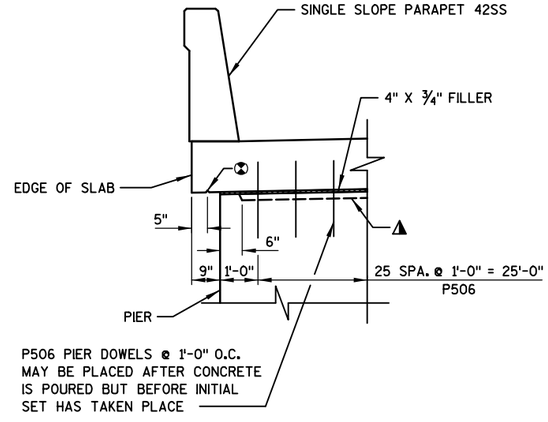
4202-05-71

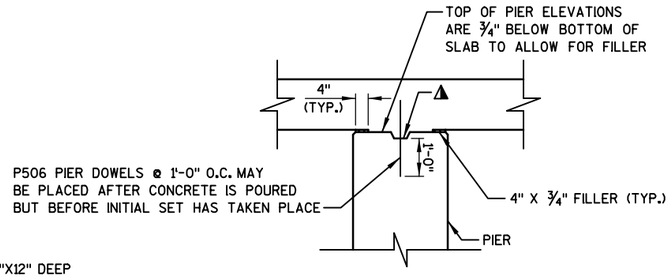


PLAN

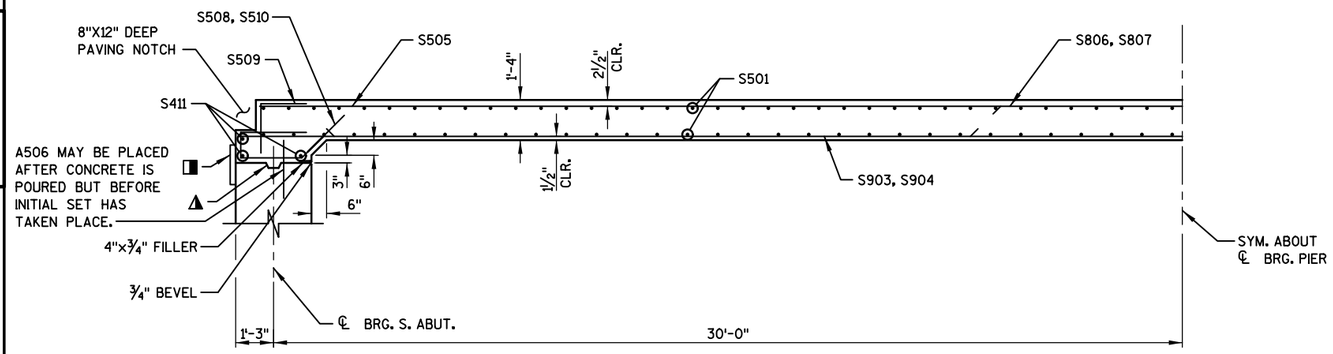
LEGEND

- ◧ 18" RUBBERIZED MEMBRANE WATERPROOFING.
- ◭ KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2"x6".
- ⊗ ¾" V-GROOVE REQ'D. EXTEND TO 6" FROM F.F. OF ABUT. DIAPHRAGMS.

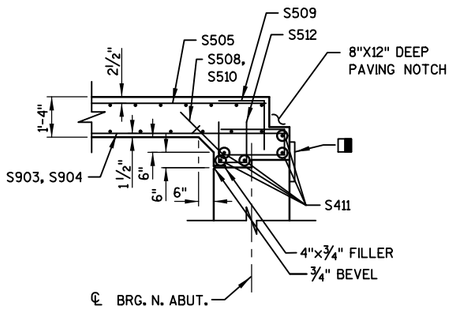




PIER DETAILS



HALF LONGITUDINAL SECTION AT SOUTH ABUTMENT



SECTION AT NORTH ABUTMENT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

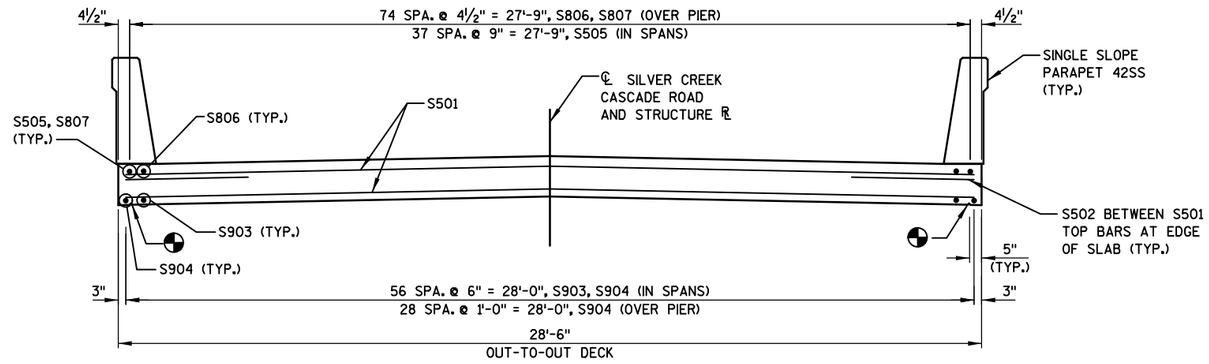
STRUCTURE B-59-202

DRAWN BY	DTH	PLANS CK'D.	KRB

SUPERSTRUCTURE PLAN, SECTION, AND DETAILS

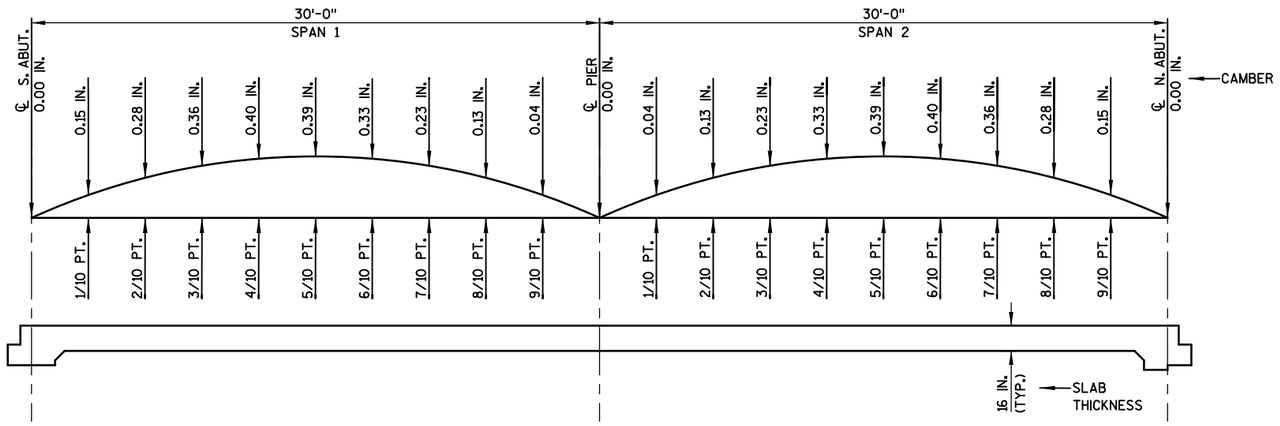
SHEET 9 OF 11
43

FILE NAME : S:\MAD\3700--3799\3774\004\Micros\PLAN\080109_sp.dgn



CROSS SECTION THRU SUPERSTRUCTURE

(LOOKING NORTH)



CAMBER AND SLAB THICKNESS DIAGRAM

CAMBER SHOWN IS BASED ON 3 TIMES DEAD LOAD DEFLECTIONS. CAMBER SPANS AS SHOWN TO PROVIDE FOR DEAD LOAD DEFLECTION AND FUTURE CREEP. CAMBER DOES NOT INCLUDE ALLOWANCE FOR FORM SETTLEMENT.

PARAPETS, SIDEWALKS AND MEDIANS PLACED ON TOP OF THE SLAB SHALL BE POURED AFTER FALSEWORK HAS BEEN RELEASED.

TO DETERMINE FALSEWORK ELEVATION AT EDGE OF SLAB, CROWN OR REFERENCE LINE FOLLOW THIS PROCEDURE:

	TOP OF SLAB ELEVATION AT FINAL GRADE
LESS	SLAB THICKNESS
PLUS	CAMBER
PLUS	FORM SETTLEMENT/DEFLECTION DUE TO PLACEMENT OF SLAB CONCRETE (TO BE COMPUTED BY THE CONTRACTOR)
EQUALS	TOP OF SLAB FALSEWORK ELEVATION.

SURVEY TOP OF SLAB ELEVATIONS

	S. ABUT	5/10 PT.	PIER	5/10 PT.	N. ABUT.
WEST EDGE OF SLAB					
CROWN ON R/L					
EAST EDGE OF SLAB					

PRIOR TO RELEASING SLAB FALSEWORK, TAKE TOP OF DECK ELEVATIONS AT THE ℄ OF ABUTMENTS, THE ℄ OF PIER, AND AT 5/10 PTS. TO VERIFY CAMBER. TAKE ELEVATIONS ALONG GUTTER LINES AND CROWN OR ℝ. RECORD THE ELEVATIONS IN THE ABOVE TABLE FOR THE "AS BUILT" PLANS.

SUPERSTRUCTURE BILL OF BARS

COATED: 24,920 LBS

BAR MARK	NO. REQ'D	LENGTH	BENT	COAT	LOCATION
S501	136	28'-2"		X	SLAB - TRANSVERSE - TOP & BOT.
S502	122	5'-0"		X	SLAB - TRANSVERSE - TOP
S903	56	21'-0"		X	SLAB - LONG. - BOTTOM
S904	58	34'-4"		X	SLAB - LONG. - BOTTOM
S505	76	20'-4"		X	SLAB - LONG. - TOP
S806	37	12'-0"		X	SLAB - LONG. - TOP
S807	38	26'-0"		X	SLAB - LONG. - TOP
S508	52	6'-6"	X	X	ABUT. DIAPHRAGM - VERT.
S509	52	3'-2"	X	X	ABUT. DIAPHRAGM - VERT.
S510	8	7'-6"	X	X	ABUT. DIAPHRAGM - VERT. - ENDS
S411	8	28'-2"		X	ABUT. DIAPHRAGM - HORIZ.
S512	26	3'-4"	X	X	ABUT. DIAPHRAGM - VERT. - N. ABUT.
S513	188	4'-5"	X	X	PARAPET - VERT.
S514	188	6'-8"	X	X	PARAPET - VERT.
S515	32	32'-7"		X	PARAPET - HORIZ.

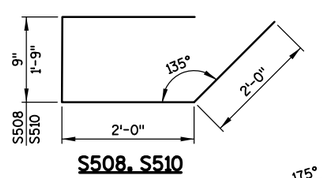
NOTES

TOP TRANSVERSE BARS IN SLAB SHALL BE SUPPORTED BY INDIVIDUAL BAR CHAIRS AT APPROXIMATELY 3'-0" CENTERS EACH WAY. BOTTOM LONGITUDINAL BARS SHALL BE SUPPORTED BY CONTINOUS BAR CHAIRS AT APPROXIMATELY 4'-0" CENTERS.

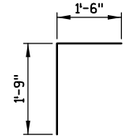
ALL SLAB THICKNESS DIMENSIONS ARE MINIMUM. ANY TOLERANCES NECESSARY TO CORRECT CONSTRUCTION DISCREPANCIES ARE TO BE PLUS (+).

LEGEND

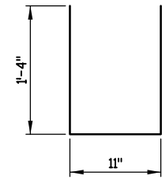
◔ ¾" V-GROOVE REQ'D. EXTEND TO 6" FROM F.F. OF ABUT. DIAPHRAGMS.



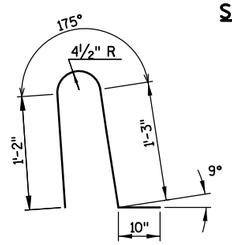
S508, S510



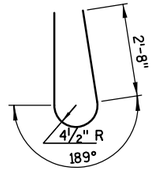
S509



S512



S513



S514

TOP OF DECK ELEVATIONS

LOCATION	WEST EDGE OF DECK 14.25'LT *		C/L BRIDGE -		EAST EDGE OF DECK 14.25'RT *	
	STATION	ELEV.	STATION	ELEV.	STATION	ELEV.
C/L S. ABUT.	8+91.00	818.35	8+91.00	818.61	8+91.00	818.35
0.1L POINT	8+94.00	818.30	8+94.00	818.56	8+94.00	818.30
0.2L POINT	8+97.00	818.26	8+97.00	818.52	8+97.00	818.26
0.3L POINT	9+00.00	818.22	9+00.00	818.48	9+00.00	818.22
0.4L POINT	9+03.00	818.18	9+03.00	818.44	9+03.00	818.18
0.5L POINT	9+06.00	818.14	9+06.00	818.40	9+06.00	818.14
0.6L POINT	9+09.00	818.11	9+09.00	818.37	9+09.00	818.11
0.7L POINT	9+12.00	818.07	9+12.00	818.33	9+12.00	818.07
0.8L POINT	9+15.00	818.04	9+15.00	818.30	9+15.00	818.04
0.9L POINT	9+18.00	818.01	9+18.00	818.27	9+18.00	818.01
C/L PIER	9+21.00	817.98	9+21.00	818.24	9+21.00	817.98
0.1L POINT	9+24.00	817.95	9+24.00	818.21	9+24.00	817.95
0.2L POINT	9+27.00	817.93	9+27.00	818.19	9+27.00	817.93
0.3L POINT	9+30.00	817.90	9+30.00	818.16	9+30.00	817.90
0.4L POINT	9+33.00	817.88	9+33.00	818.14	9+33.00	817.88
0.5L POINT	9+36.00	817.86	9+36.00	818.12	9+36.00	817.86
0.6L POINT	9+39.00	817.85	9+39.00	818.11	9+39.00	817.85
0.7L POINT	9+42.00	817.83	9+42.00	818.09	9+42.00	817.83
0.8L POINT	9+45.00	817.82	9+45.00	818.08	9+45.00	817.82
0.9L POINT	9+48.00	817.80	9+48.00	818.06	9+48.00	817.80
C/L N. ABUT.	9+51.00	817.79	9+51.00	818.05	9+51.00	817.79

ELEVATIONS SHOWN ARE FINISHED GRADE ELEVATIONS.

* DECK ELEVATIONS AT FACE OF PARAPET (13.00'LT & RT) ARE THE SAME AS AT EDGE OF DECK (DECK LEVEL UNDER PARAPET, SEE "SINGLE SLOPE PARAPET 42SS" SHEET FOR DETAIL).

STATE PROJECT NUMBER

4202-05-71

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-59-202

DRAWN BY DTH | PLANS CK'D. KRB

SUPERSTRUCTURE CROSS SECTION AND DETAILS

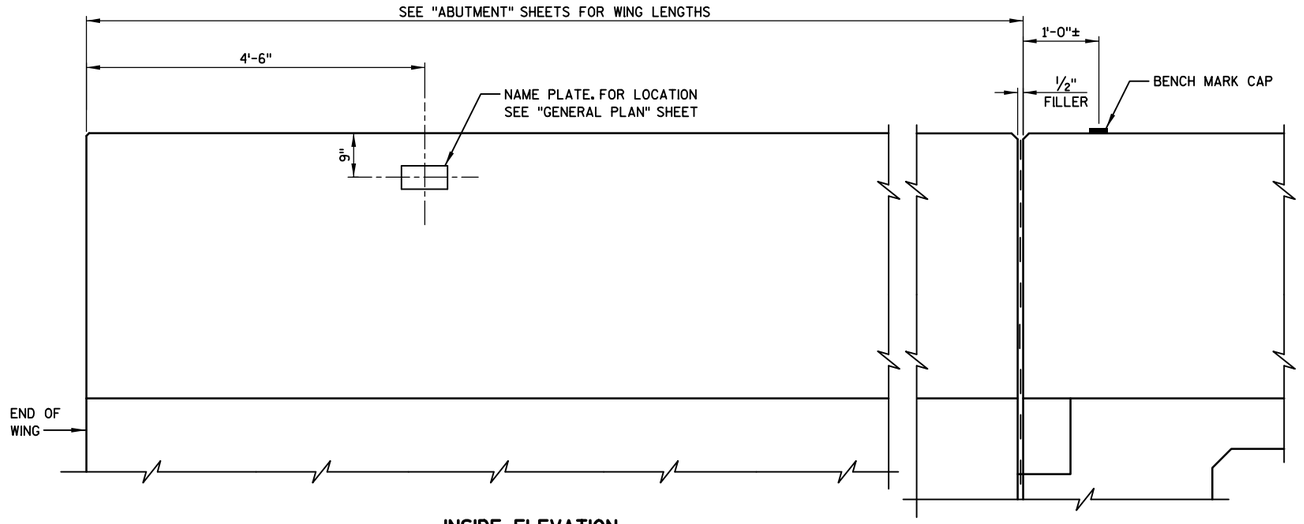
SHEET 10 OF 11
44

8

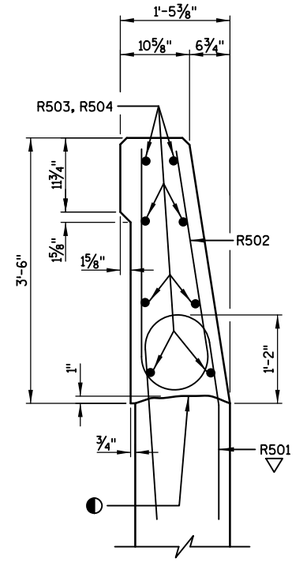
8

FILE NAME : S:\MAD\3700--3799\3774\004\Micros\PLAN\080110_ss.dgn

STATE PROJECT NUMBER
4202-05-71



INSIDE ELEVATION

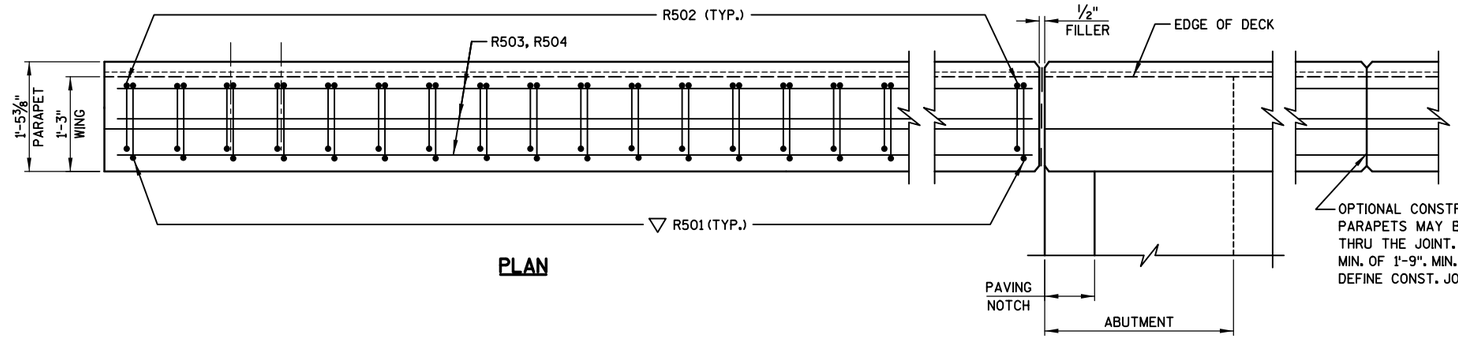


SECTION A-A

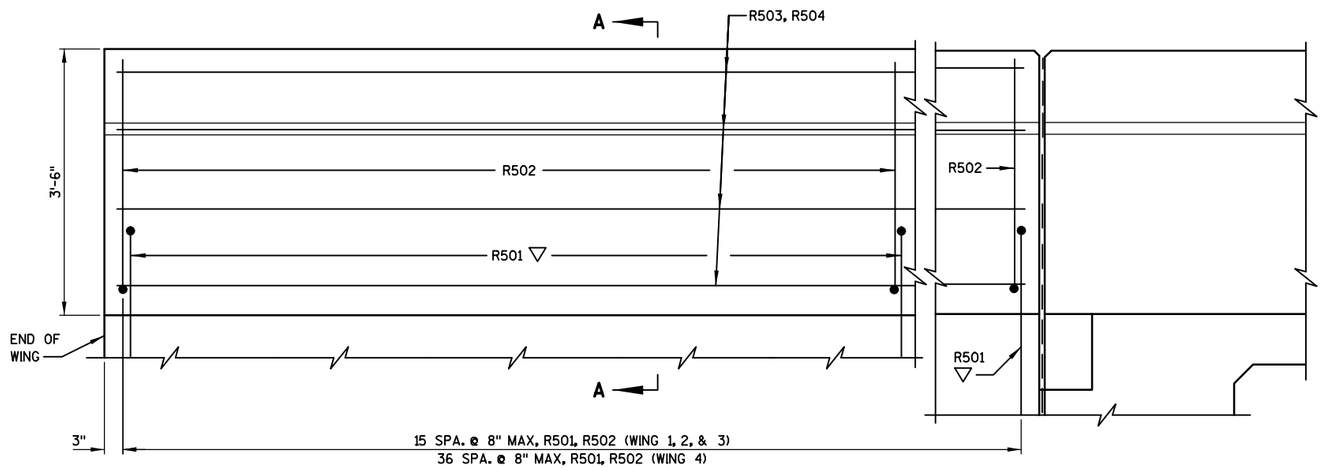
SINGLE SLOPE PARAPET 42SS
BILL OF BARS

COATED: 1,540 LBS

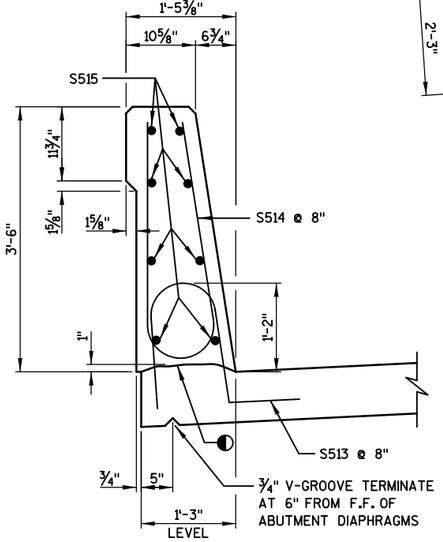
BAR MARK	NO. REQ'D	LENGTH	BENT	COAT	LOCATION
R501	85	5'-10"	X	X	PARAPET - VERT.
R502	85	6'-8"	X	X	PARAPET - VERT.
R503	24	9'-7"		X	PARAPET - HORIZ. - WING 1, 2, & 3
R504	8	23'-7"		X	PARAPET - HORIZ. - WING 4



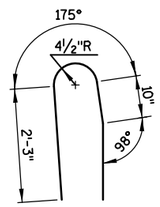
PLAN



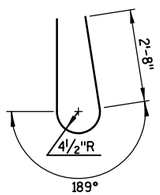
OUTSIDE ELEVATION



SECTION THRU PARAPET ON BRIDGE



R501



R502

LEGEND

◐ CONST. JOINT - STRIKE OFF AS SHOWN.

▽ R501 BARS TO BE TIED TO WING STEEL BEFORE WING IS POURED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-59-202

DRAWN BY DTH | PLANS CK'D. KRB

SINGLE SLOPE PARAPET 42SS

SHEET 11 OF 11
45

8

8

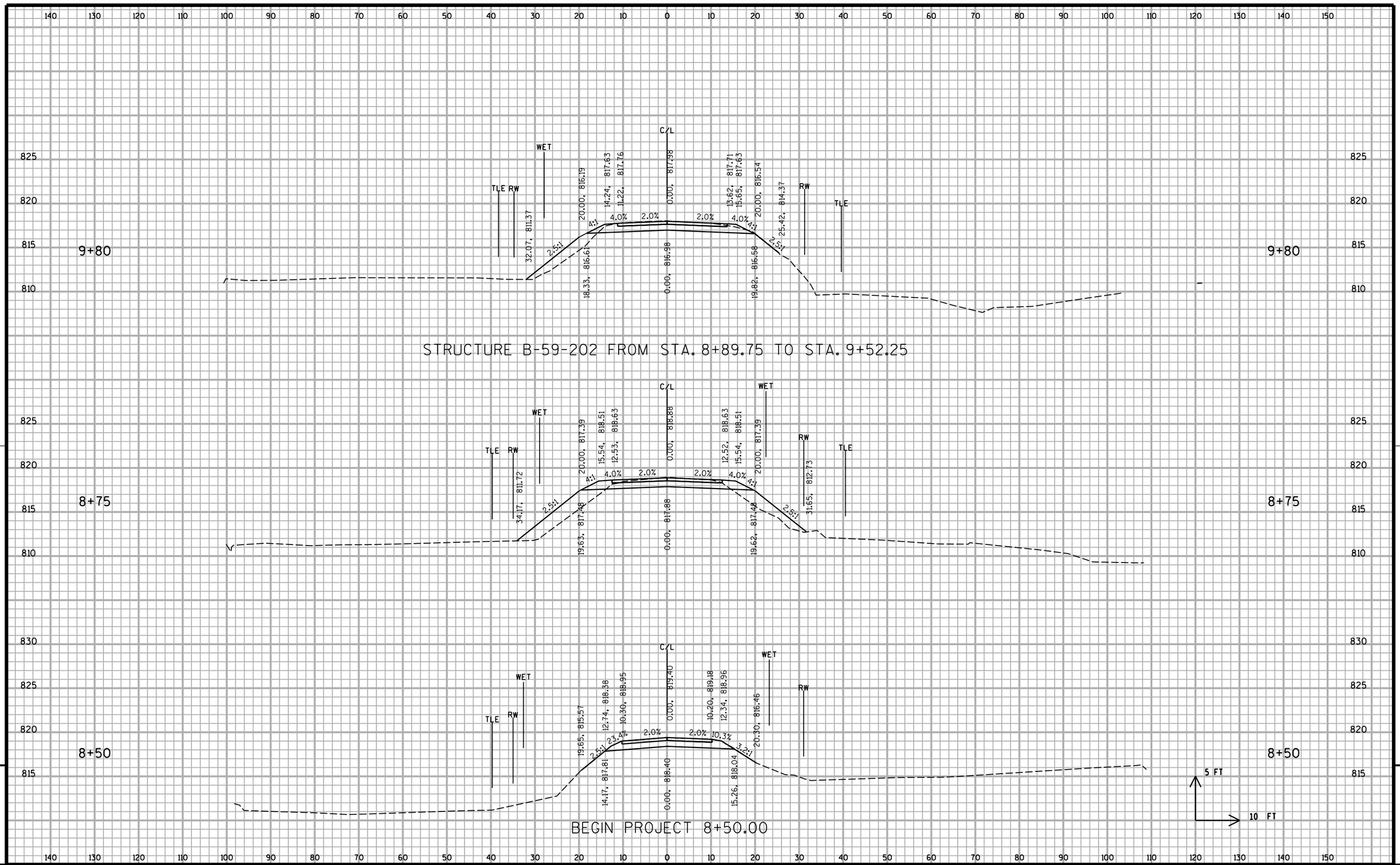
FILE NAME : S:\MAD\3700--3799\3774\004\Micros\PLAN\080111_ss.dgn

EARTHWORK SUMMARY											
			AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOLUME (CY)	
STATION	REAL STATION	DISTANCE	CUT	FILL	EBS	CUT	UNEXPANDED FILL	EBS	CUT 1.00	FILL 1.25
8+50.00	850.00		26	1	3					
8+75.00	875.00	25.00	24	47	2	23	22	2	25	28
8+89.75	889.75	14.75	24	47	2	13	25	1	39	59
B-59-202										
9+52.25	952.25		32	17	3					
9+80.00	980.00	27.75	32	17	3	32	17	3	74	80
9+90.00	990.00	10.00	31	17	3	12	6	1	87	88
10+00.00	1000.00	10.00	38	1	4	13	3	1	101	91

9

9

PROJECT NO: 4202-05-71 | HWY: LOCAL STREET | COUNTY: SHEBOYGAN | EARTHWORK | SHEET | E

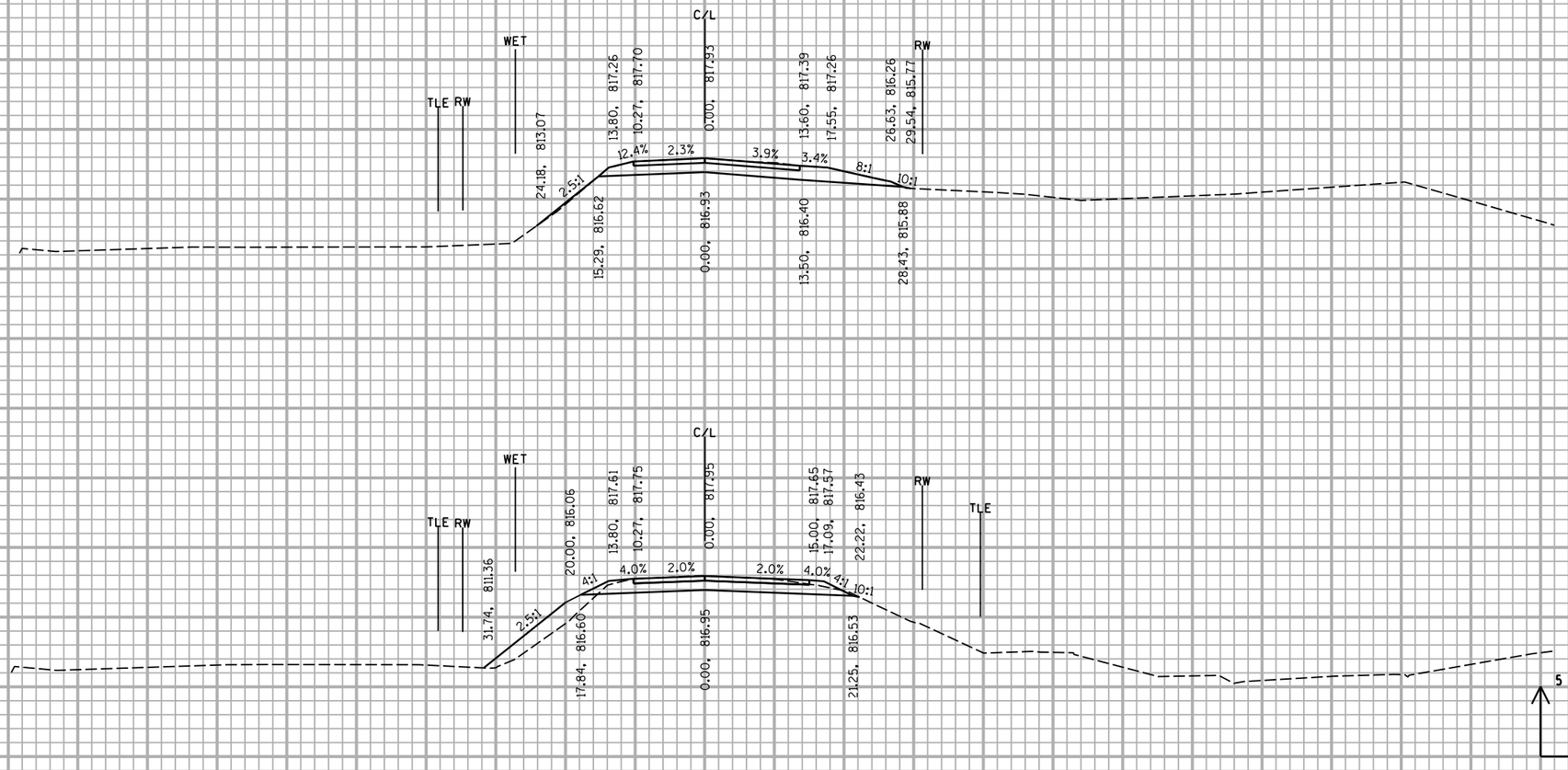


PROJECT NO: 4202-05-71	HWY: LOCAL STREET	COUNTY: SHEBOYGAN	CROSS SECTIONS	SHEET	E

FILE NAME : S:\MAD\3700--3799\3774\004\Micros\PLAN\090201_xs.dgn PLOT DATE : 10/24/2018 PLOT BY : _username_ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

WISDOT/CADDS SHEET 21

END PROJECT 10+00.00



PROJECT NO: 4202-05-71	HWY: LOCAL STREET	COUNTY: SHEBOYGAN	CROSS SECTIONS	SHEET	E

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Notes

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov

GRE JULY 2019

PROJECT ID: 4202-06-71

WITH: N/A

COUNTY: SHEBOYGAN

ORDER OF SHEETS

TOTAL SHEETS = 46

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
4202-06-71	———	———

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

T SHERMAN, CREEK ROAD

SILVER CREEK BRIDGE

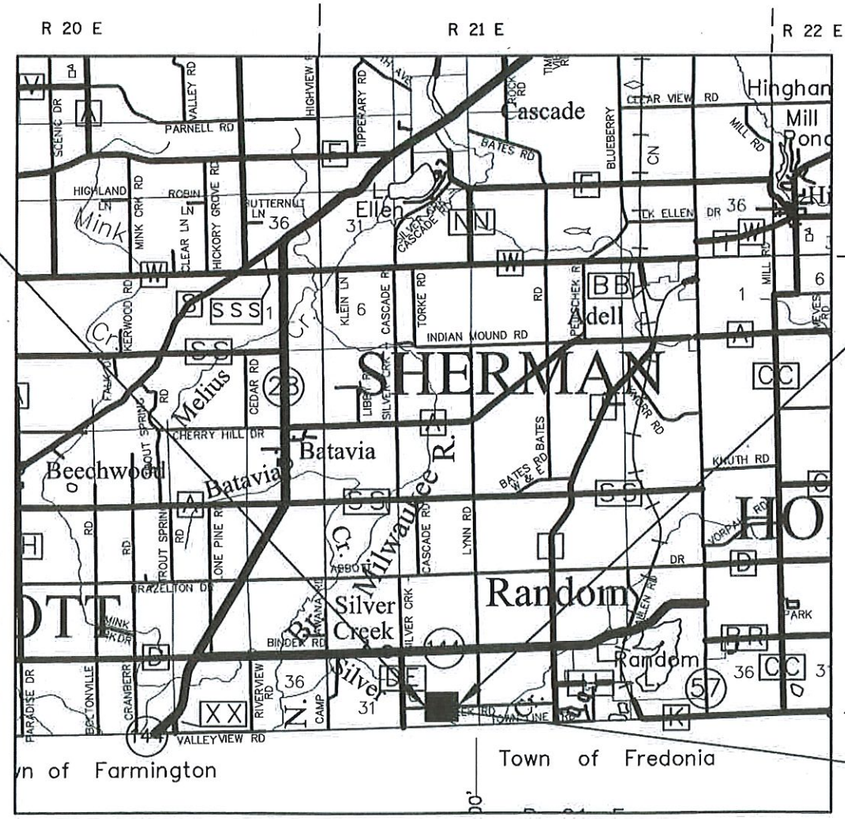
LOC STR

SHEBOYGAN COUNTY

STATE PROJECT NUMBER
4202-06-71

PROJECT LOCATION

N



BEGIN PROJECT
STA. 9+40
Y=102241.181
X=139157.327

END PROJECT
STA. 10+90

STRUCTURE B-59-0203

DESIGN DESIGNATION

A.A.D.T.	2019	=	153
A.A.D.T.	2039	=	168
D.H.V.	2039	=	148
D.D.		=	60/40
T.		=	5.8%
DESIGN SPEED		=	50 MPH
ESALS		=	15,000

CONVENTIONAL SYMBOLS

PLAN		PROFILE	
CORPORATE LIMITS		GRADE LINE	
PROPERTY LINE		ORIGINAL GROUND	
LOT LINE		MARSH OR ROCK PROFILE (To be noted as such)	ROCK
LIMITED HIGHWAY EASEMENT		SPECIAL DITCH	LABEL
EXISTING RIGHT OF WAY		GRADE ELEVATION	95.36
PROPOSED OR NEW R/W LINE		CULVERT (Profile View)	
SLOPE INTERCEPT		UTILITIES	
REFERENCE LINE		ELECTRIC	E
EXISTING CULVERT		FIBER OPTIC	FO
PROPOSED CULVERT (Box or Pipe)		GAS	G
COMBUSTIBLE FLUIDS	CAUTION	SANITARY SEWER	SAN
		STORM SEWER	SS
MARSH AREA		TELEPHONE	T
		WATER	W
		UTILITY PEDESTAL	
WOODED OR SHRUB AREA		POWER POLE	
		TELEPHONE POLE	

LAYOUT SCALE 0 2

TOTAL NET LENGTH OF CENTERLINE = 0.028

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE SHEBOYGAN COUNTY COORDINATES, IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ACCEPTED FOR SHEBOYGAN COUNTY

1/14/2019 (DATE) COUNTY HIGHWAY COMMISSIONER

ORIGINAL PLANS PREPARED BY AYRES ASSOCIATES

WISCONSIN RYAN D. SCHAITEL 44367 GREEN BAY PROFESSIONAL ENGINEER

1-8-2019 (Date)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	AYRES ASSOCIATES
Designer	AYRES ASSOCIATES
Project Manager	TIMOTHY VERHAGEN
Regional Examiner	REGIONAL EXAMINER
Regional Supervisor	JAMES THOMPSON

APPROVED FOR THE DEPARTMENT

DATE: 1/18/2019 Tim Verhagen (Signature)

E

GENERAL NOTES

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

FILL EXPANSION FACTOR IS 30%.

CONSTRUCT ASPHALTIC SURFACE WITH A 1 3/4" UPPER LAYER AND A 2 1/4" LOWER LAYER.

PROPERTY LINES AS SHOWN ARE APPROXIMATE.

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

BEARINGS SHOWN ON THIS PLAN ARE TRUE BEARINGS TO THE NEAREST SECOND.

ALL TIES ON THIS PLAN ARE HORIZONTAL UNLESS DESCRIBED OTHERWISE.

EROSION CONTROL LOCATIONS AS SHOWN ON THE EROSION CONTROL PLAN ARE APPROXIMATE. THE EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.

DISTURBED AREAS WITHIN THE RIGHT OF WAY, EXCEPT THE AREAS WITHIN THE FINISHED SUBGRADE SHOULDER POINTS ARE TO BE SEEDED AND EROSION MAT AS DIRECTED BY THE ENGINEER.

ALL ELEVATIONS ON THIS PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF NAVD 88 (2012).

WISDOT WILL FURNISH A BENCHMARK MONUMENT TO BE SET BY THE CONTRACTOR.

SAW CUT LOCATIONS SHOWN ON THE PLAN ARE SUBJECT TO ADJUSTMENT BY THE ENGINEER IN THE FIELD. THE LINE OF SUCH SAW CUTS WILL BE NEATLY DELINEATED THROUGH THE ASPHALT WITHOUT ANY DAMAGE TO THE REMAINING PORTION OF THE EXISTING PAVEMENT.

UTILITIES

*WE ENERGIES - GAS — TELEPHONE 262-502-6813
333 W. EVERETT, A299
MILWAUKEE, WISCONSIN 53203
ATTENTION: SEAN MEEHAN
E-MAIL:sean.meehan@we-energies.com

*FRONTIER COMMUNICATIONS — TELEPHONE 920-655-8748
1700 INDUSTRIAL DR
GREEN BAY, WI 54302
ATTENTION: JEREMIAH LUBEN
E-MAIL: jluben@mi-tech.com

*-MEMBER OF DIGGERS HOTLINE

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

RUNOFF COEFFICIENT TABLE

	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33 .50	.19 .34	.28 .41	.38 .56
MEDIAN STRIP-TURF	.19 .24	.20 .26	.24 .30	.19 .25	.22 .28	.26 .33	.20 .26	.23 .30	.30 .37	.20 .27	.25 .32	.30 .40
SIDE SLOPE-TURF			.25 .32			.27 .34			.28 .36			.30 .38
PAVEMENT:												
ASPHALT	.70 - .95											
CONCRETE	.80 - .95											
BRICK	.70 - .80											
DRIVES, WALKS	.75 - .85											
ROOFS	.75 - .95											
GRAVEL ROADS, SHOULDERS	.40 - .60											

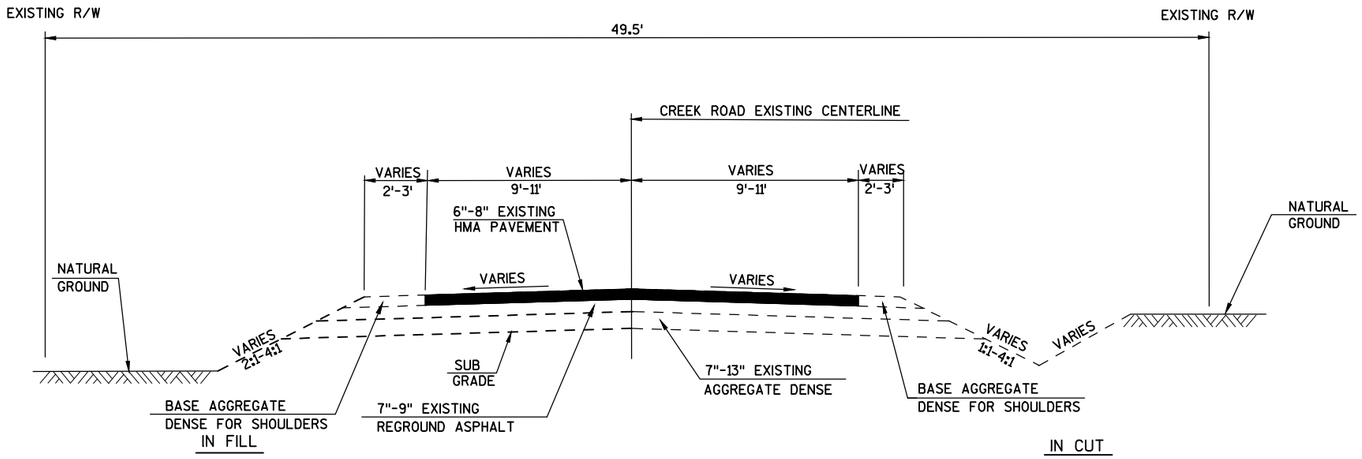
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.20 ACRES
SOIL GROUP D

STANDARD ABBREVIATIONS

ADT	AVERAGE DAILY TRAFFIC	NC	NORMAL CROWN
AC	ASPHALT CEMENT	PT	POINT OF TANGENCY
AGG	AGGREGATE	PC	POINT OF CURVATURE
ASPH	ASPHALT	PI	POINT OF INTERSECTION
BM	BENCH MARK	PE	PRIVATE ENTRANCE
C/L	CENTERLINE	R	RADIUS
CONC	CONCRETE	REM	REMOVE
CMP	CORRUGATED METAL PIPE	R/L OR RL	REFERENCE LINE
CR.	CREEK	RCCP	REINFORCED CONCRETE CULVERT PIPE
D	DEGREE OF CURVE	RCPSS	REINFORCED CONCRETE PIPE STORM SEWER
DHV	DESIGN HOUR VOLUME	R.O.	RUNOUT
ESALS	EQUIVALENT SINGLE AXIS LOADS	R/W	RIGHT-OF-WAY
EXIST	EXISTING	STA	STATION
FE	FIELD ENTRANCE	SE	SUPER ELEVATION
HYD	HYDRANT	SS	STORM SEWER
IP	IRON PIPE OR PIN	T	TANGENT
L	LENGTH OF CURVE	TEL	TELEPHONE
LC	LONG CHORD OF CURVE	TLE	TEMPORARY LIMITED EASEMENT
LR	LENGTH OF RUNOFF	T	TRUCKS
MH	MANHOLE	VC	VERTICAL CURVE
		W	WELL

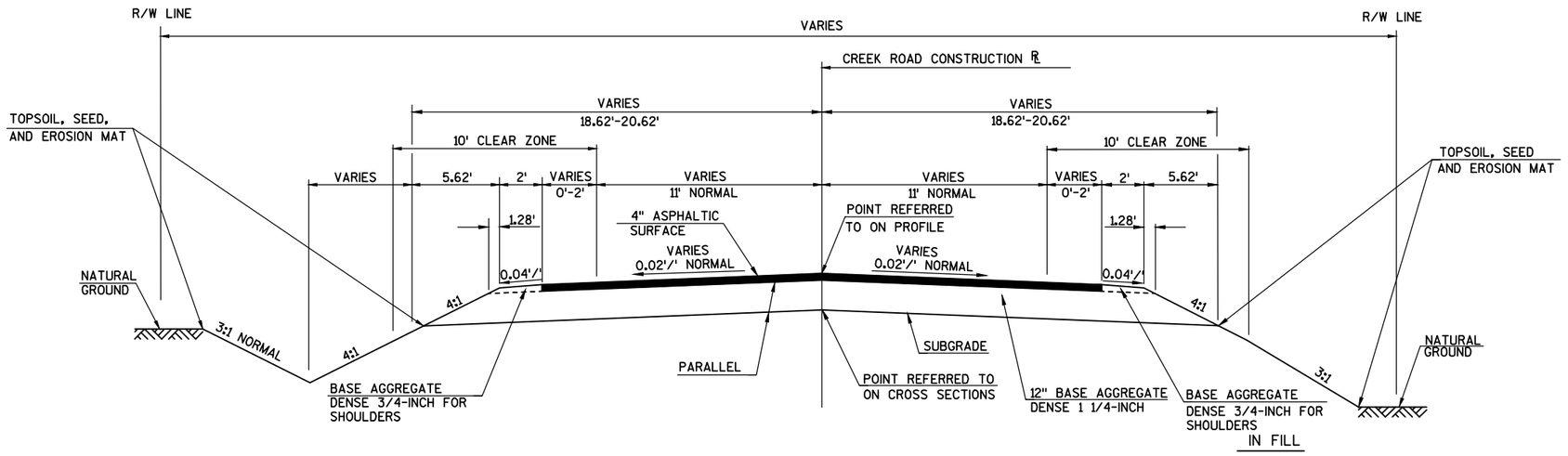
DEPARTMENT OF NATURAL RESOURCES

WDNR — TELEPHONE 920-360-3784
2984 SHAWANO AVE.
GREEN BAY, WISCONSIN 54313
ATTENTION: JAY SCHIEFELBEIN
E-MAIL: JEREMIAH.SCHIEFELBEIN@WISCONSIN.GOV



EXISTING TYPICAL SECTION FOR CREEK ROAD

STA. 9+40 - STA. 9+83
STA. 10+17 - STA. 10+90

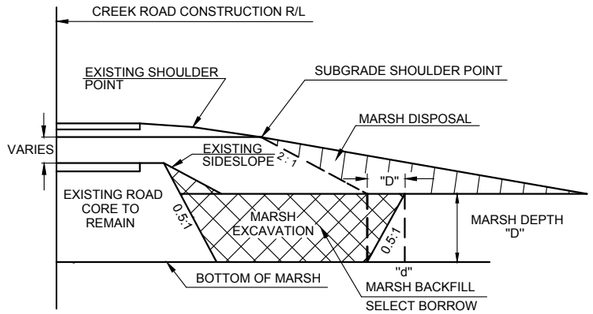


TYPICAL FINISHED SECTION FOR CREEK ROAD

STA. 9+40 - STA. 9+82.75
STA. 10+17.25 - STA. 10+90

PROJECT NO: 4202-06-71	HWY: CREEK ROAD	COUNTY: SHEBOYGAN	TYPICAL SECTIONS	SHEET 3	E

2



NOTE: BACKFILL QUANTITIES COMPUTED FROM POINT "d" TO COMPENSATE FOR PROBABLE DISPLACED MARSH AREA.

TYPICAL SECTION-MARSH EXCAVATION

PROJECT NO: 4202-06-71	HWY: CREEK ROAD	COUNTY: SHEBOYGAN	CONSTRUCTION DETAILS	SHEET 4	E

2

2

LEGEND

- TURBIDITY BARRIER
- EROSION MAT CLASS 1, TYPE B
- SILT FENCE
- SLOPE INTERCEPT
- SURFACE WATER FLOW

N

WETLANDS

SLOPE INTERCEPTS

LIMITS OF WETLANDS

R/W LINE

EXISTING R/W

WETLANDS

SLOPE INTERCEPTS

LIMITS OF WETLANDS

EXISTING R/W

CREEK ROAD

9

10

11

EXISTING R/W

LIMITS OF WETLANDS

BEGIN PROJECT
STA. 9+40

SLOPE INTERCEPTS

WETLANDS

SILVER CREEK

R/W LINE

SLOPE INTERCEPTS

WETLANDS

EXISTING R/W

LIMITS OF WETLANDS

END PROJECT
STA. 10+90

PROJECT NO: 4202-06-71	HWY: CREEK ROAD	COUNTY: SHEBOYGAN	EROSION CONTROL	SHEET 5	E

FILE NAME : V:\TRANS-GB\450440 CREEK ROAD\C3D\SHEETSPLAN\022001 EC.DWG
LAYOUT NAME - 022001 ec

PLOT DATE : 4/30/2019 10:12 AM PLOT BY : SCHAITEL, RYAN PLOT NAME : PLOT SCALE : 1 IN:20 FT

4202-06-71

Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	2.000	2.000
0004	201.0205	Grubbing	STA	2.000	2.000
0010	203.0600.S	Removing Old Structure Over Waterway With Minimal Debris (station) 01. 10+00	LS	1.000	1.000
0012	205.0100	Excavation Common	CY	145.000	145.000
0014	205.0400	Excavation Marsh	CY	153.000	153.000
0020	206.1000	Excavation for Structures Bridges (structure) 03. B-59-203	LS	1.000	1.000
0022	208.0100	Borrow	CY	36.000	36.000
0024	208.1100	Select Borrow	CY	230.000	230.000
0026	210.1500	Backfill Structure Type A	TON	210.000	210.000
0032	213.0100	Finishing Roadway (project) 03. 4202-06-71	EACH	1.000	1.000
0034	305.0110	Base Aggregate Dense 3/4-Inch	TON	18.000	18.000
0036	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	315.000	315.000
0040	450.4000	HMA Cold Weather Paving	TON	18.000	18.000
0042	455.0605	Tack Coat	GAL	4.100	4.100
0044	465.0105	Asphaltic Surface	TON	69.000	69.000
0048	502.0100	Concrete Masonry Bridges	CY	112.000	112.000
0050	502.3200	Protective Surface Treatment	SY	125.000	125.000
0056	505.0400	Bar Steel Reinforcement HS Structures	LB	4,500.000	4,500.000
0058	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	13,340.000	13,340.000
0064	513.4061	Railing Tubular Type M	LF	71.000	71.000
0066	516.0500	Rubberized Membrane Waterproofing	SY	12.000	12.000
0070	550.2108	Piling CIP Concrete 10 3/4 X 0.50-Inch	LF	490.000	490.000
0072	606.0300	Riprap Heavy	CY	105.000	105.000
0076	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	150.000	150.000
0082	618.0100	Maintenance And Repair of Haul Roads (project) 03. 4202-06-71	EACH	1.000	1.000
0084	619.1000	Mobilization	EACH	0.300	0.300
0086	624.0100	Water	MGAL	3.000	3.000
0088	625.0100	Topsoil	SY	250.000	250.000
0090	628.1504	Silt Fence	LF	185.000	185.000
0092	628.1520	Silt Fence Maintenance	LF	370.000	370.000
0094	628.1905	Mobilizations Erosion Control	EACH	5.000	5.000
0096	628.1910	Mobilizations Emergency Erosion Control	EACH	3.000	3.000
0100	628.2004	Erosion Mat Class I Type B	SY	250.000	250.000
0102	628.6005	Turbidity Barriers	SY	224.000	224.000
0106	630.0120	Seeding Mixture No. 20	LB	7.000	7.000
0108	630.0200	Seeding Temporary	LB	7.000	7.000
0110	634.0612	Posts Wood 4x6-Inch X 12-FT	EACH	4.000	4.000

4202-06-71

Line	Item	Item Description	Unit	Total	Qty
0112	637.2230	Signs Type II Reflective F	SF	12.000	12.000
0116	638.2602	Removing Signs Type II	EACH	8.000	8.000
0118	638.3000	Removing Small Sign Supports	EACH	6.000	6.000
0120	642.5201	Field Office Type C	EACH	0.300	0.300
0122	643.0420	Traffic Control Barricades Type III	DAY	1,540.000	1,540.000
0124	643.0705	Traffic Control Warning Lights Type A	DAY	2,520.000	2,520.000
0126	643.0900	Traffic Control Signs	DAY	1,120.000	1,120.000
0128	643.5000	Traffic Control	EACH	0.300	0.300
0130	645.0111	Geotextile Type DF Schedule A	SY	100.000	100.000
0132	645.0120	Geotextile Type HR	SY	220.000	220.000
0134	646.1020	Marking Line Epoxy 4-Inch	LF	38.000	38.000
0136	650.4500	Construction Staking Subgrade	LF	116.000	116.000
0138	650.5000	Construction Staking Base	LF	116.000	116.000
0144	650.6500	Construction Staking Structure Layout (structure) 03. B-59-203	LS	1.000	1.000
0150	650.9910	Construction Staking Supplemental Control (project) 03. 4202-06-71	LS	1.000	1.000
0152	650.9920	Construction Staking Slope Stakes	LF	116.000	116.000
0156	690.0150	Sawing Asphalt	LF	40.000	40.000
0158	715.0502	Incentive Strength Concrete Structures	DOL	672.000	672.000

3

CLEARING AND GRUBBING

STATION	TO	STATION	LOCATION	201.0105 CLEARING STA	201.0205 GRUBBING STA
9+00	-	11+00	CREEK ROAD	2	2
TOTALS				2	2

BASE AGGREGATE DENSE & WATER

STATION	TO	STATION	LOCATION	305.0110 BASE AGG. 3/4-INCH TON	305.0120 BASE AGG. 1 1/4-INCH TON	624.0100 WATER MGAL
9+40	-	9+83.4	CREEK ROAD	7	114	1
10+17	-	10+90	CREEK ROAD	11	201	2
TOTALS				18	315	3

ASPHALTIC SURFACE

STATION	TO	STATION	LOCATION	455.0605 TACK COAT GAL	465.0105 ASPHALTIC SURFACE TON	450.4000 COLD WEATHER PAVING TON
9+40	-	9+83.4	CREEK ROAD	1.5	25	7
10+17	-	10+90	CREEK ROAD	2.6	44	11
TOTALS				4.1	69	18

TOPSOIL AND SEED

STATION	TO	STATION	LOCATION	625.0100 TOPSOIL SY	630.0120 SEEDING MIXTURE NO. 20 LB	630.0200 SEEDING TEMPORARY LB
9+40	-	9+83.4	CREEK ROAD, LT	39	1	1
9+40	-	9+83.4	CREEK ROAD, RT	38	1	1
10+17	-	10+90	CREEK ROAD, LT	63	2	2
10+17	-	10+90	CREEK ROAD, RT	68	2	2
UNDISTRIBUTED			ENTIRE PROJECT	42	1	1
TOTALS				250	7	7

SILT FENCE

STATION	TO	STATION	LOCATION	628.1504 SILT FENCE LF	628.1520 MAINTENANCE LF
9+40	-	9+63	CREEK ROAD, LT	26	52
9+40	-	9+55	CREEK ROAD, RT	25	50
10+50	-	10+90	CREEK ROAD, LT	48	96
10+50	-	10+90	CREEK ROAD, RT	48	96
			UNDISTRIBUTED	38	76
TOTALS				185	370

EARTHWORK SUMMARY

Division	**From/To Station**	**Location**	Excavation Common (item #205.0100) **Cut (2)**	**Unusable Pavement Material (4)**	**Available Material (5)**	**Excavation Marsh (6)** (item #205.0400)	**Expanded Marsh Backfill (10)** (item #208.1100) **Factor 1.50**	**Unexpanded Fill**	**Expanded Fill (13)** **Factor 1.30**	**Mass Ordinate +/- (14)**
1	9+40 - 10+90	CREEK ROAD	145	43	102	153	230	106	138	-36
Division 1 Totals			145	43	102	153	230	106	138	-36

2) Unusable Pavement Material is included in Cut
4) Unusable Pavement Material = Existing Asphaltic Pavement. Backfill any areas below subgrade with borrow.
5) Available Material = Cut - Unusuable Pavement Material
6) Marsh Excavation. To be backfilled with Select Borrow Material as shown in cross sections.
10) Expanded Marsh Backfill - This is to be filled with Select Borrow material. Marsh Backfill Factor = 1.5. Item Number 208.1100
13) Expanded Fill Factor = 1.3 Expanded Fill = Unexpanded Fill * Fill Factor
14) The Mass Ordinate + or - Qty calculated for the Division. Plus quantity indicates an excess of material within the Division. Minus indicates a shortage of material within the Division.

ALL ITEMS ARE CATEGORY CODE 0010 UNLESS OTHERWISE STATED

3

MOBILIZATIONS EROSION CONTROL

LOCATION	628.1905 MOBILIZATIONS EROSION CONROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
CREEK ROAD	5	3
	5	3

EROSION MAT

STATION	TO	STATION	LOCATION	628.2004 CLASS I TYPE B SY
9+40	-	9+83.4	CREEK ROAD, LT	39
9+40	-	9+83.4	CREEK ROAD, RT	38
10+17	-	10+90	CREEK ROAD, LT	63
10+17	-	10+90	CREEK ROAD, RT	68
UNDISTRIBUTED			ENTIRE PROJECT	42
TOTAL				250

TURBIDITY BARRIERS

STATION	LOCATION	628.6005 SY
WEST ABUTMENT	CREEK ROAD	104
EAST ABUTMENT	CREEK ROAD	120
TOTAL		224

3

REMOVING SIGNS & SUPPORTS

STATION	LOCATION	638.2602 SIGNS TYPE II EACH	638.3000 SMALL SIGN SUPPORTS EACH	REMARKS
WEST AND EAST PROJECT LIMITS	CREEK ROAD	2	2	NARROW BRIDGE
9+83.4	CREEK ROAD, LT & RT	3	2	
10+17	CREEK ROAD, LT & RT	3	2	
TOTALS		8	6	

SIGNS TYPE II AND WOOD POSTS

STATION	LOCATION	634.0612 POSTS WOOD 4"x6"x12' EACH	637.2230 SIGNS TYPE II REFLECTIVE F W5-52L SF	637.2230 SIGNS TYPE II REFLECTIVE F W5-52R SF
NW QUADRANT	CREEK ROAD, LT	1	3	-
SW QUADRANT	CREEK ROAD, RT	1	-	3
NE QUADRANT	CREEK ROAD, LT	1	-	3
SE QUADRANT	CREEK ROAD, RT	1	3	-
SUBTOTALS		4	6	6
TOTALS		4	12	

TRAFFIC CONTROL SUMMARY

LOCATION	APPROXIMATE SERVICE DAYS	643.0420 BARRICADES TYPE III NO. IN SERVICE	643.0420 BARRICADES TYPE III DAYS	643.0705 WARNING LIGHTS TYPE A NO. IN SERVICE	643.0705 WARNING LIGHTS TYPE A DAYS	643.0900 SIGNS NO. IN SERVICE	643.0900 SIGNS DAYS	REMARKS
CREEK ROAD / CTH DE	70	2	140	4	280	2	140	BRIDGE OUT 0.4 MILES AHEAD - SEE BARRICADES AND SIGNS FOR MAINLINE CLOSURES DETAIL C
WEST OF WORK ZONE LIMITS	70	2	140	4	280	4	280	SEE BARRICADES AND SIGNS FOR MAINLINE CLOSURES DETAIL C
WEST WORK ZONE LIMITS	70	5	350	6	420	1	70	SEE BARRICADES AND SIGNS FOR VARIOUS MAINLINE CLOSURES DETAIL D
EAST WORK ZONE LIMITS	70	5	350	6	420	1	70	SEE BARRICADES AND SIGNS FOR VARIOUS MAINLINE CLOSURES DETAIL D
EAST OF WORK ZONE LIMITS	70	4	280	8	560	4	280	SEE BARRICADES AND SIGNS FOR MAINLINE CLOSURES DETAIL C
CREEK ROAD / LYNN ROAD	70	2	140	4	280	2	140	BRIDGE OUT 0.6 MILES AHEAD - SEE BARRICADES AND SIGNS FOR MAINLINE CLOSURES DETAIL C
CREEK ROAD / CTH I	70	2	140	4	280	2	140	BRIDGE OUT 1.5 MILES AHEAD - SEE BARRICADES AND SIGNS FOR MAINLINE CLOSURES DETAIL C
TOTALS			1,540		2,520		1,120	

ALL ITEMS ARE CATEGORY CODE 0010 UNLESS OTHERWISE STATED

3

MARKING LINE

STATION	TO	STATION	LOCATION	646.1020 EPOXY 4-INCH YELLOW LF	REMARKS
9+40	-	10+90	CREEK ROAD	38	CENTERLINE SKIPS
TOTAL				38	

SAWING ASPHALT

STATION	LOCATION	690.0150 LF
9+40	CREEK ROAD	20
10+90	CREEK ROAD	20
TOTAL		40

CONSTRUCTION STAKING

CATEGORY	STATION	TO	STATION	LOCATION	650.4500 SUBGRADE LF	650.5000 BASE LF	650.6500 STRUCTURE LAYOUT B-59-203 LS	650.9910 SUPPLEMENTAL CONTROL 4202-06-71 LS	650.9920 SLOPE STAKES LF
0010	9+40	-	9+83.4	CREEK ROAD	43	43	-	1	43
0010	10+17	-	10+90	CREEK ROAD	73	73	-	-	73
0010	SUBTOTALS				116	116	0	1	116
0020	10+00			B-59-203	-	-	1	-	-
0020	SUBTOTALS				0	0	1	0	0
TOTALS					116	116	1	1	116

ALL ITEMS ARE CATEGORY CODE 0010 UNLESS OTHERWISE STATED

R/W PROJECT NUMBER	SHEET NUMBER	TOTAL SHEETS
4202-06-00	4.01	1
FEDERAL PROJECT NUMBER		

PLAT OF RIGHT-OF-WAY REQUIRED FOR

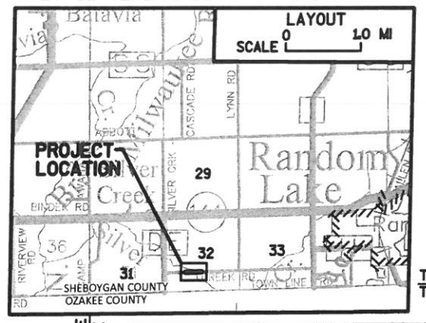
T SHERMAN, CREEK ROAD

(SILVER CREEK BRIDGE)

LOC STR — SHEBOYGAN COUNTY

CONSTRUCTION PROJECT NUMBER
4202-06-71

NET CENTERLINE LENGTH = 0.038 MILES



ACCEPTED FOR
TOWN OF SHERMAN

5/1/2018 (Date) — William Gosh (Town Chairman)

ORIGINAL PLAT PREPARED BY

AYRES ASSOCIATES

THIS SURVEY IS PREPARED AT THE REQUEST OF THE TOWN OF SHERMAN.

THE FIELD SURVEY WAS PERFORMED IN MARCH/APRIL 2017.

THIS SURVEY IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

WISCONSIN
James R. Cappeart
S-3044
Green Bay
Wis.
LAND SURVEYOR

(SIGNATURE) _____
DATE: ~~03/02/2018~~ 4/05/2018
(PRINTED NAME) JAMES R. CAPPEART
(REGISTRATION NUMBER) S-3044

REVISION DATE

11

CONVENTIONAL SYMBOLS

- FOUND IRON PIPE/PIN (1" UNLESS NOTED)
- R/W MONUMENT
- R/W STANDARD
- SIGN
- SECTION CORNER MONUMENT
- SECTION CORNER SYMBOL
- FEE (HATCH VARIES)
- TEMPORARY LIMITED EASEMENT
- ●(SET) PERMANENT LIMITED EASEMENT
- ▲(SET) R/W BOUNDARY POINT
- PARCEL NUMBER
- UTILITY PARCEL NUMBER
- SIGN NUMBER (OFF PREMISE)
- BUILDING
- SECTION LINE
- QUARTER LINE
- SIXTEENTH LINE
- NEW REFERENCE LINE
- NEW R/W LINE
- EXISTING R/W LINE
- PROPERTY LINE
- LOT & TIE
- CORPORATE LIMITS
- TEMPORARY LIMITED EASEMENT
- FENCE
- SLOPE INTERCEPTS
- PERMANENT LIMITED EASEMENT
- NO ACCESS (BY STATUTORY AUTHORITY)
- NO ACCESS (BY PREVIOUS ACQUISITION/CONTROL)
- ACCESS CONTROL BY ACQUISITION
- ACCESS RESTRICTED (BY PREVIOUS PROJECT/CONTROL)

CONVENTIONAL ABBREVIATIONS

ACCESS POINT/ DRIVEWAY CONNECTION	AP	BUILDING	BLDG
ACCESS RIGHTS	AR	REFERENCE LINE	R/L
ACRES	AC.	RELEASE OF RIGHTS	ROR
AND OTHERS	ET.AL.	REMAINING	REM.
CENTERLINE	C/L	RIGHT-OF-WAY	R/W
CERTIFIED SURVEY MAP	CSM	SECTION	SEC.
CORNER	COR.	STATION	STA.
DOCUMENT	DOC.	TEMPORARY LIMITED EASEMENT	TLE
EASEMENT	EASE.	VOLUME	V.
FIELD ENTRANCE	F.E.	**CURVE DATA**	
LAND CONTRACT	LC	LONG CHORD	LCH
MONUMENT	MON.	LONG CHORD BEARING	LCB
PAGE	P.	RADIUS	R
PERMANENT LIMITED EASEMENT	PLE	DEGREE OF CURVE	D
PROPERTY LINE	PL	CENTRAL ANGLE OR DELTA	DELTA
RECORDED AS	(100')	LENGTH OF CURVE	L
		TANGENT	TAN

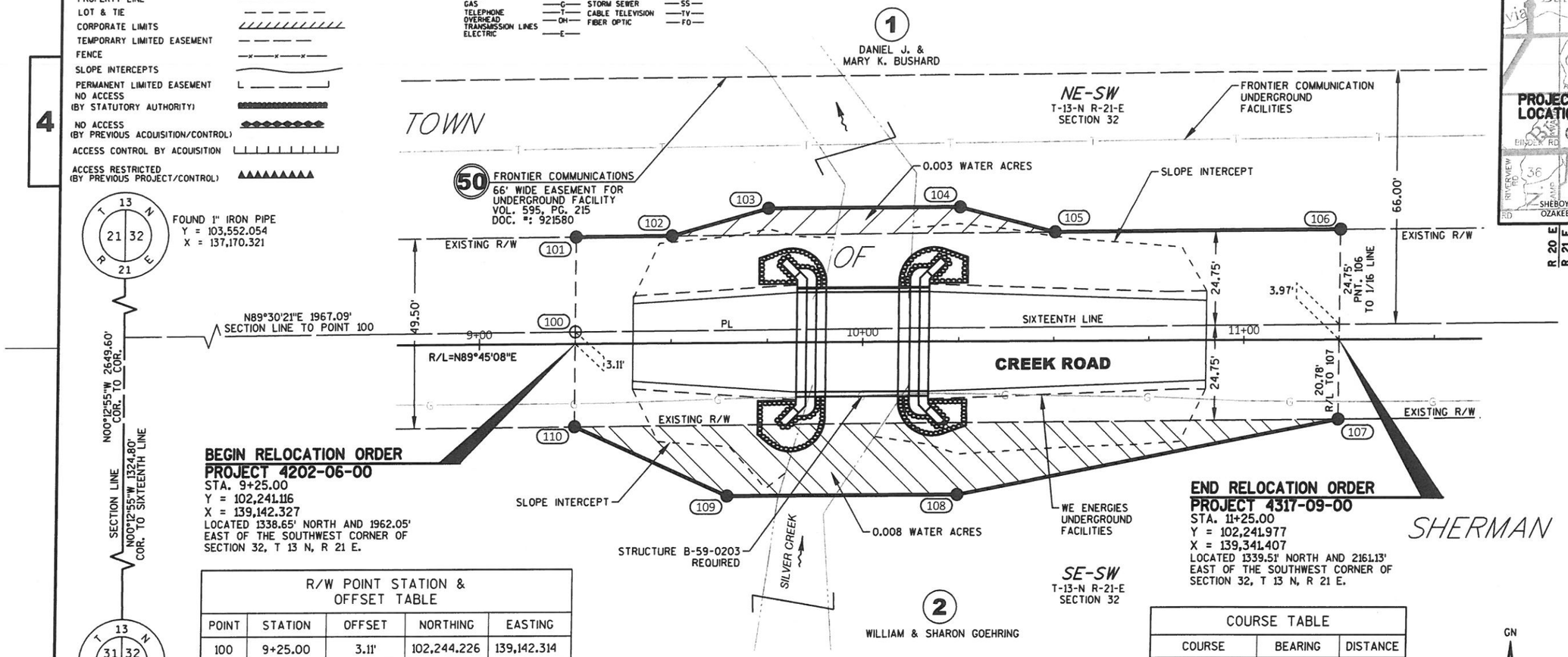
CONVENTIONAL UTILITY SYMBOLS

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

SCHEDULE OF LANDS AND INTERESTS REQUIRED

PARCEL NO.	OWNER(S)	INTEREST REQUIRED	R/W (ACRES) FEE	EXISTING	TOTAL
1	DANIEL J. & MARY K. BUSHARD	FEE	0.01	0.11	0.12
2	WILLIAM & SHARON GOEHRING	FEE	0.06	0.11	0.17
50	FRONTIER COMMUNICATIONS	RELEASE OF RIGHTS			

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



R/W POINT STATION & OFFSET TABLE				
POINT	STATION	OFFSET	NORTHING	EASTING
100	9+25.00	3.11'	102,244.226	139,142.314
101	9+25.00	27.86'	102,268.976	139,142.207
102	9+50.00	27.97'	102,269.192	139,167.206
103	9+75.00	35.00'	102,276.332	139,192.176
104	10+25.00	35.00'	102,276.548	139,242.175
105	10+50.00	28.40'	102,270.054	139,267.205
106	11+25.00	28.72'	102,270.701	139,342.201
107	11+25.00	20.78'	102,221.201	139,342.415
108	10+25.00	40.00'	102,201.549	139,242.500
109	9+65.00	40.00'	102,201.289	139,182.500
110	9+25.00	21.64'	102,219.476	139,142.421

COURSE TABLE		
COURSE	BEARING	DISTANCE
100-101	N00°14'52"W	24.75'
101-102	N89°30'21"E	25.00'
102-103	N74°02'30"E	25.97'
103-104	N89°45'08"E	50.00'
104-105	S75°27'18"E	25.86'
105-106	N89°30'21"E	75.00'
106-107	S00°14'52"E	49.50'
107-108	S78°52'22"W	101.83'
108-109	S89°45'08"W	60.00'
109-110	N65°35'34"W	44.01'
110-100	N00°14'52"W	24.75'

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, SHEBOYGAN ZONE, NAD83 (2011), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 3/4" X 24" CAPPED IRON BARS), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

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

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

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

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

EXISTING HIGHWAY RIGHT-OF-WAY FOR CREEK ROAD SHOWN HEREIN IS BASED ON PAGE 38 OF RECORDS IN THE TOWN OF SHERMAN FOLDER AT THE SHEBOYGAN COUNTY SURVEYORS OFFICE

BENCH MARKS

NO.	STATION	DESCRIPTION	ELEV.
200	3+12	CHIS. SQ. TOP OF CULVERT-25' RT.	847.66
201	9+85	CHIS. SQ. SW WINGWALL-11.3' RT.	845.87
202	15+72	CHIS. SQ. TOP OF CULVERT-23' RT.	848.80

DANIEL J. AND MARY K. BUSHARD

DANIEL J. AND MARY K. BUSHARD

BURIED TELEPHONE CABLE
(APPROXIMATE LOCATION)

LEGEND

XXXX XXXX SAW CUT

N

WOODS

WETLANDS

WETLANDS

LIMITS OF WETLANDS

SLOPE INTERCEPTS

R/W LINE

SLOPE INTERCEPTS

LIMITS OF WETLANDS

EXISTING R/W

EXISTING R/W

BORE

7 CREEK ROAD N89°45'08"E 8 9 10 11 12 13

EXISTING R/W

EXISTING R/W

CAUTION

BURIED GAS LINE
(APPROXIMATE LOCATION)

LIMITS OF WETLANDS

SLOPE INTERCEPTS

BM #201

R/W LINE

SLOPE INTERCEPTS

LIMITS OF WETLANDS

WOODS

WETLANDS

SILVER CREEK

WETLANDS

WOODS

BEGIN PROJECT
STA. 9+40
Y = 102241.181
X = 139157.327

END PROJECT
STA. 10+90

WILLIAM AND SHARON GOEHRING

WILLIAM AND SHARON GOEHRING

5

5

VCL = 150.00

K = 87.96

VPI STA 10+15.00
VPI EL 846.60

HIGH POINT STA 10+29.60
HIGH POINT EL 846.29

HIGH WATER 100 ELEVATION=846.7

1.02%

FINISHED GRADE

-0.69%

HIGH WATER 2 ELEVATION=844.5

WATER ELEVATION=842.3 (7-6-2017)

EXISTING PROFILE

VPC STA 9+40.00
VPC EL 845.84

VPT STA 10+90.00
VPT EL 846.08

STA. 10+00
REMOVE STRUCTURE P-59-151
SINGLE SPAN CONCRETE FLAT SLAB BRIDGE
32 FEET LONG
19.5 FOOT CLEAR ROADWAY

STA. 10+00
STRUCTURE B-59-0203 REQ'D.
SINGLE SPAN CONCRETE FLAT SLAB
34.5 FOOT OVERALL LENGTH
26 FOOT CLEAR ROADWAY

852 850 848 846 844 842 840 838

7 8 9 10 11 12 13

845.92 845.80 845.68 845.58 845.48 845.49 845.51 845.62 845.71 845.93 845.93 846.17 846.12 839.25 846.24 846.28 846.29 846.22 846.27 846.15 846.18 846.04 845.93 845.90 845.87 845.81 845.76 845.67 845.66

8+00 9+00 10+00 11+00 12+00

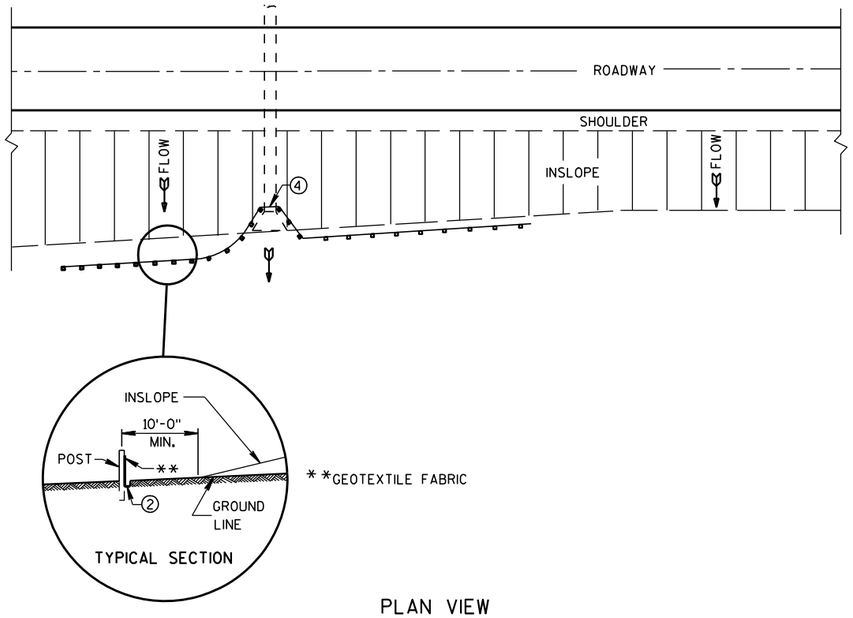
PROJECT NO: 4202-06-71	HWY: CREEK ROAD	COUNTY: SHEBOYGAN	PLAN AND PROFILE:	SHEET 12	E

FILE NAME : V:\TRANS-GB\450440 CREEK ROAD\C3D\SHEETSPLAN\050101 PP.DWG PLOT DATE : 1/14/2019 2:51 PM PLOT BY : PLOT NAME :

WISDOT/CADDS SHEET 44

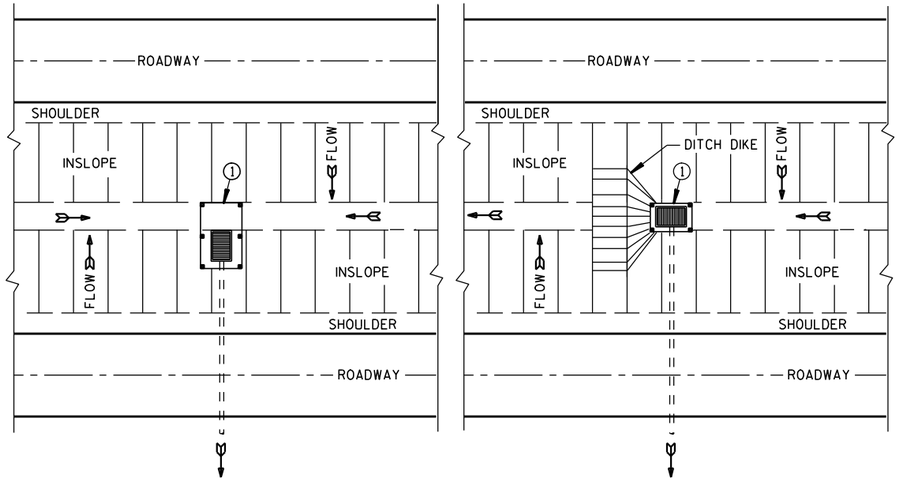
Standard Detail Drawing List

08E09-06	SILT FENCE
08E11-02	TURBIDITY BARRIER
12A03-10	NAME PLATE (STRUCTURES)
15C02-07A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-07B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C06-09	SIGNING & MARKING FOR TWO LANE BRIDGES
15C08-19A	LONGITUDINAL MARKING (MAINLINE)
15C11-07B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS



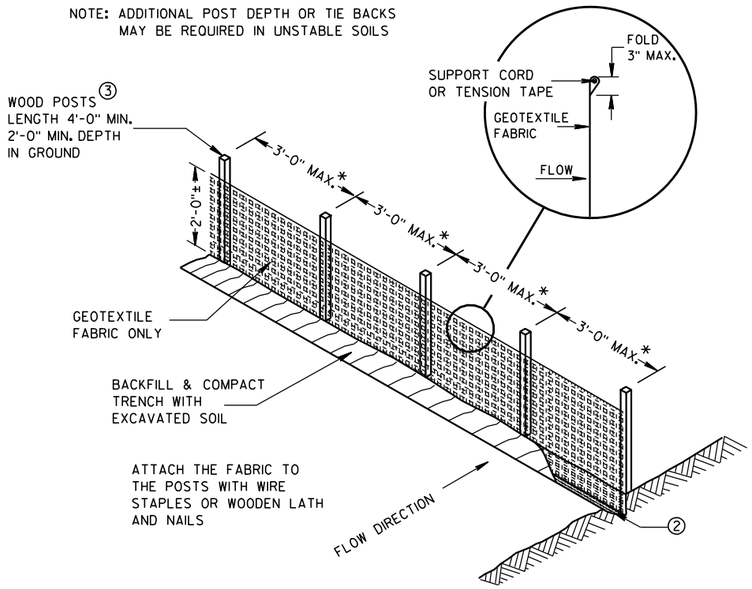
PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



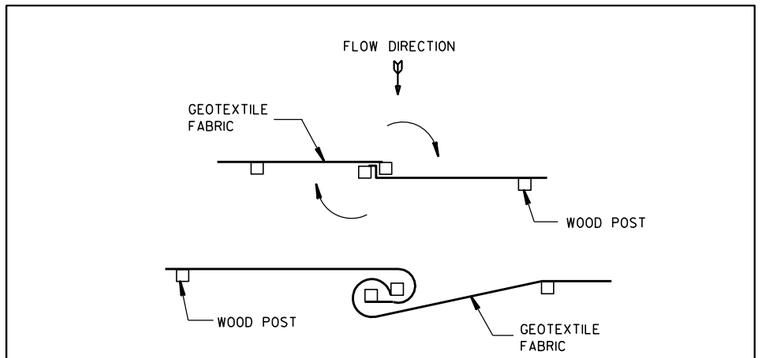
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS



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

SILT FENCE

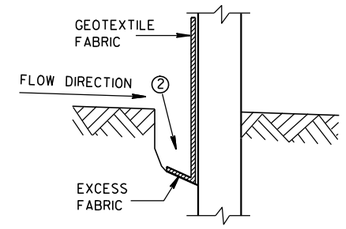


JOINING TWO LENGTHS OF SILT FENCE 5

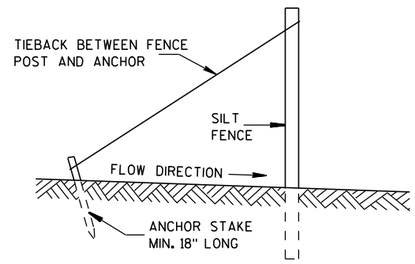
GENERAL NOTES

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

1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.
4. SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
5. CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



TRENCH DETAIL



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

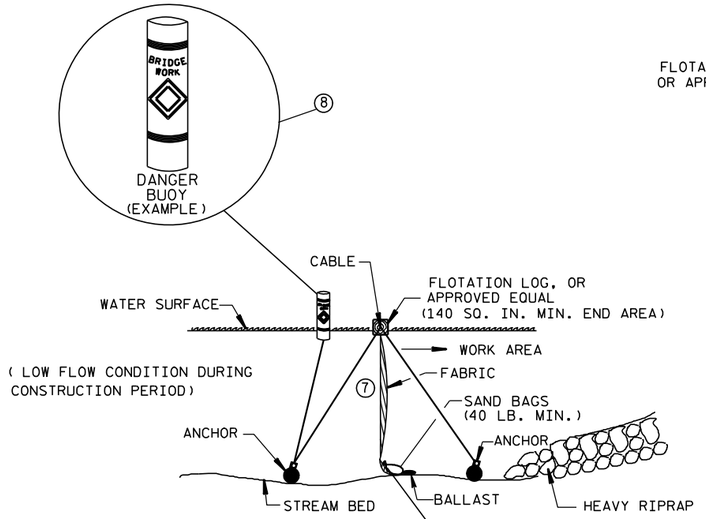
SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

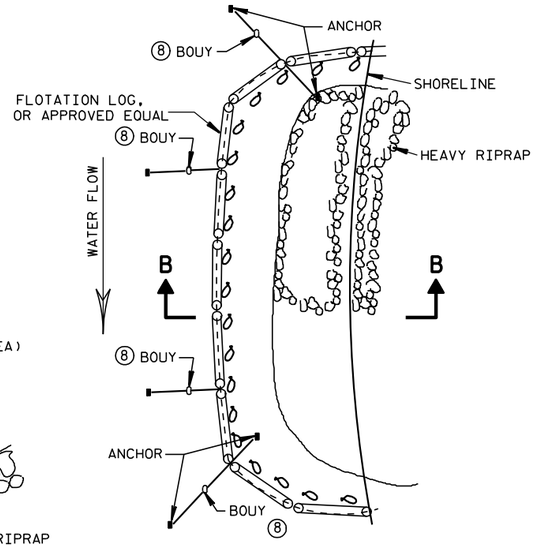
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

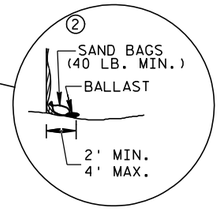
S.D.D. 8 E 9-6

S.D.D. 8 E 9-6

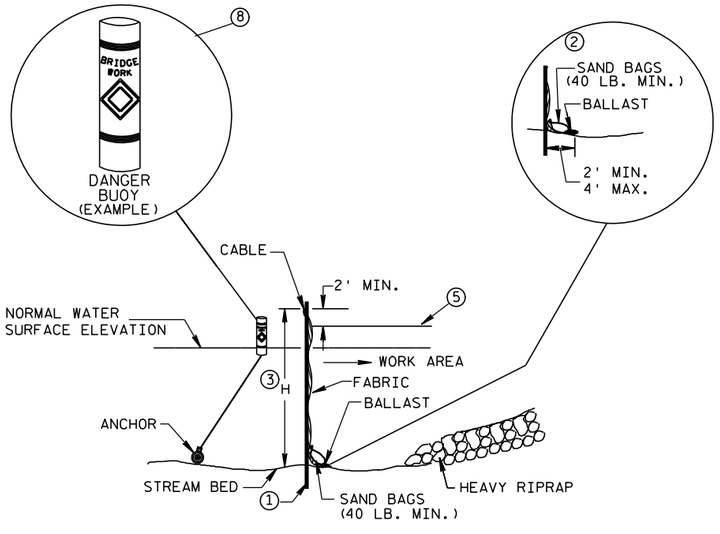


SECTION B-B

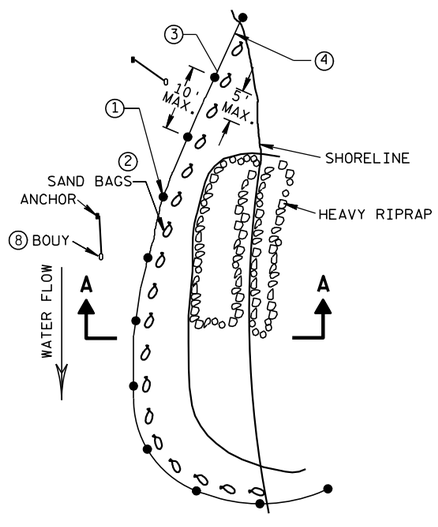




TURBIDITY BARRIER FLOAT ALTERNATIVE
CAUTION - SEE NOTE 6



SECTION A-A



PLAN VIEW

TURBIDITY BARRIER STANDARD POST INSTALLATION

TURBIDITY BARRIER PLACEMENT DETAILS

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.

TURBIDITY BARRIER MAY BE REMOVED AT THE ENGINEERS DISCRETION, WHEN PERMANENT EROSION CONTROL MEASURES HAVE BEEN ESTABLISHED.

① DRIVEN STEEL POSTS, PIPES, OR CHANNELS. LENGTH SHALL BE SUFFICIENT TO SECURELY SUPPORT BARRIER AT HIGH WATER ELEVATIONS.

② SANDBAGS TO BE USED AS ADDITIONAL BALLAST WHEN ORDERED BY THE ENGINEER TO MEET ADVERSE FIELD CONDITIONS. SPACE AS APPROPRIATE FOR SITE CONDITIONS.

③ WHEN BARRIER HEIGHT, H, EXCEEDS 8 FT., POST SPACING MAY NEED TO BE DECREASED.

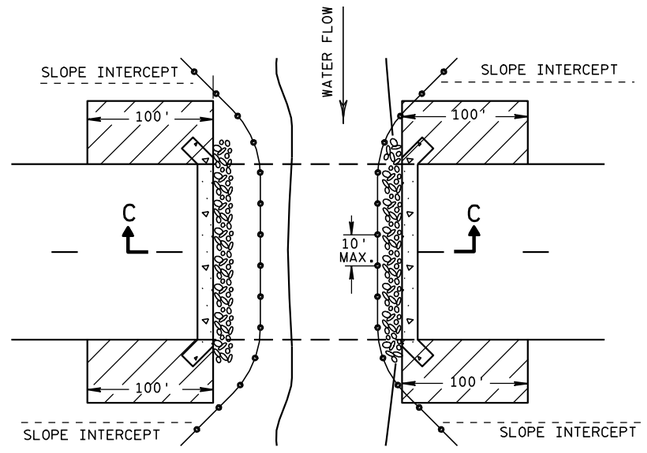
④ IN WATERWAYS SUBJECT TO FLUCTUATING WATER ELEVATIONS, PROVISIONS SHOULD BE MADE TO ALLOW THE WATER TO EQUALIZE ON EACH SIDE OF THE BARRIER. THIS MAY BE ACCOMPLISHED BY LEAVING A PORTION OF THE BARRIER OPEN ON THE UPSTREAM END.

⑤ ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION PERIOD. MIMIMUM BARRIER HEIGHT SHALL BE 2'GREATER THAN EITHER THE O2 ELEVATION OR THE ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION, WICHEVER IS GREATER.

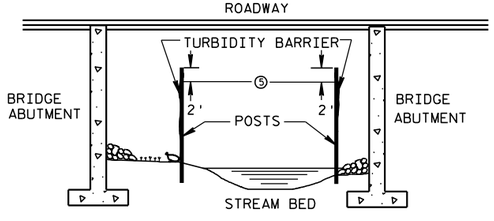
⑥ FLOAT ALTERNATIVE WILL ONLY BE ALLOWED WITH WRITTEN APPROVAL OF THE ENGINEER, AND IS MEANT FOR LOCATIONS WHERE BED ROCK PREVENTS THE INSTALLATION OF POSTS.

⑦ ALLOW SUFFICIENT SLACK VERTICALLY AND HORIZONTALLY SO THAT SEDIMENT BUILD UP WILL NOT SEPARATE OR LOWER THE TURBIDITY BARRIER.

⑧ USE AS DIRECTED BY COAST GUARD OR DNR PERMIT WHEN WORKING IN NAVIGABLE WATERWAYS.



PLAN VIEW



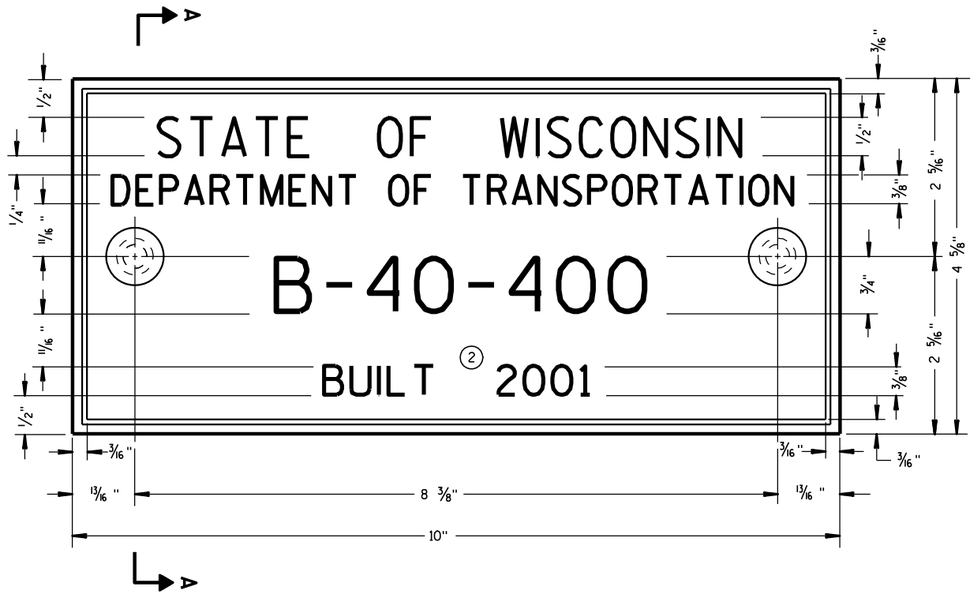
SECTION C-C

TURBIDITY BARRIER DETAIL SHOWING TYPICAL PLACEMENT AT STRUCTURES

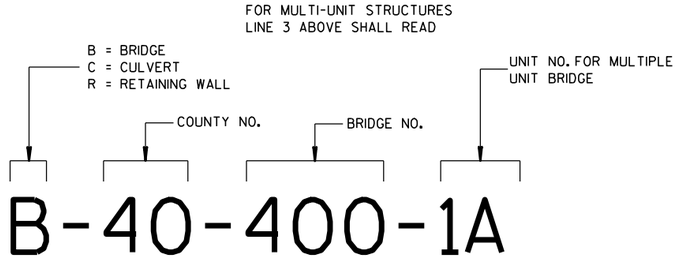
TURBIDITY BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/04/02 DATE
/S/ Beth Cannestra CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA



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



NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES

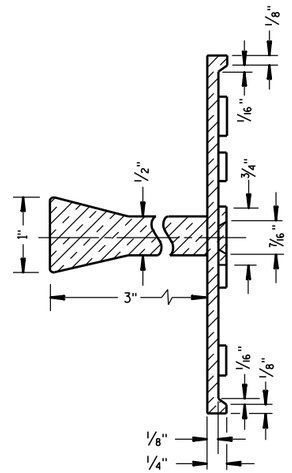
GENERAL NOTES

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

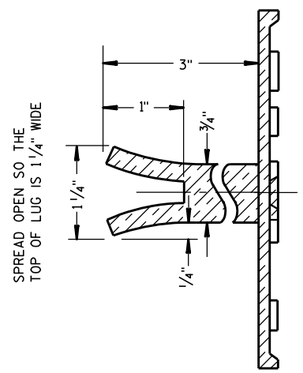
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

(1) EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

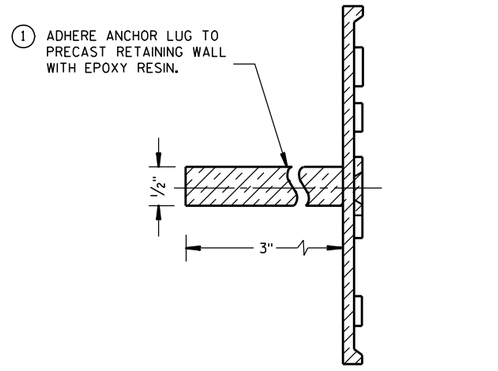
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/26/10 DATE

/S/ Scot Beck -- CHIEF STRUCTURAL DEVELOP ENGINEER

FHWA

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S.D.D. 12 A 3-10

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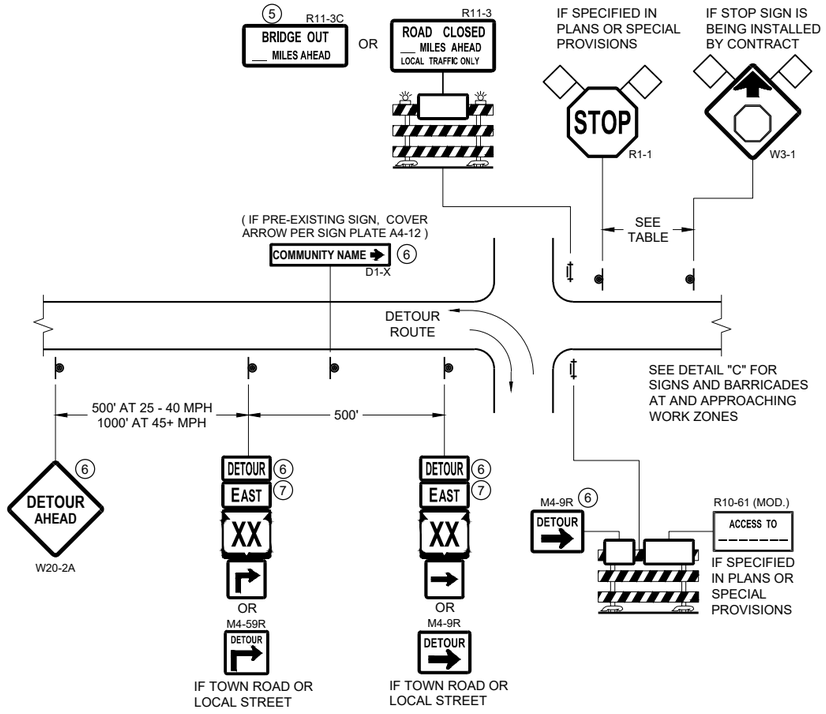
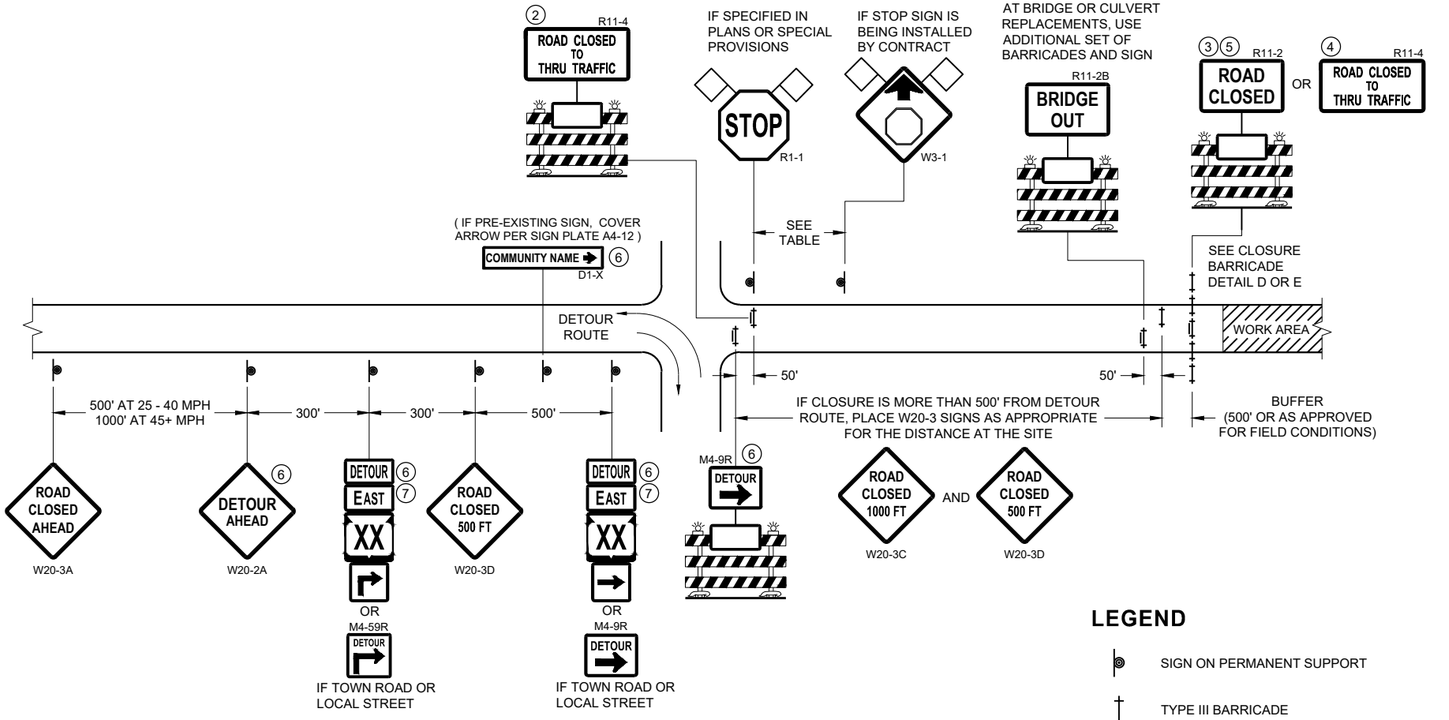
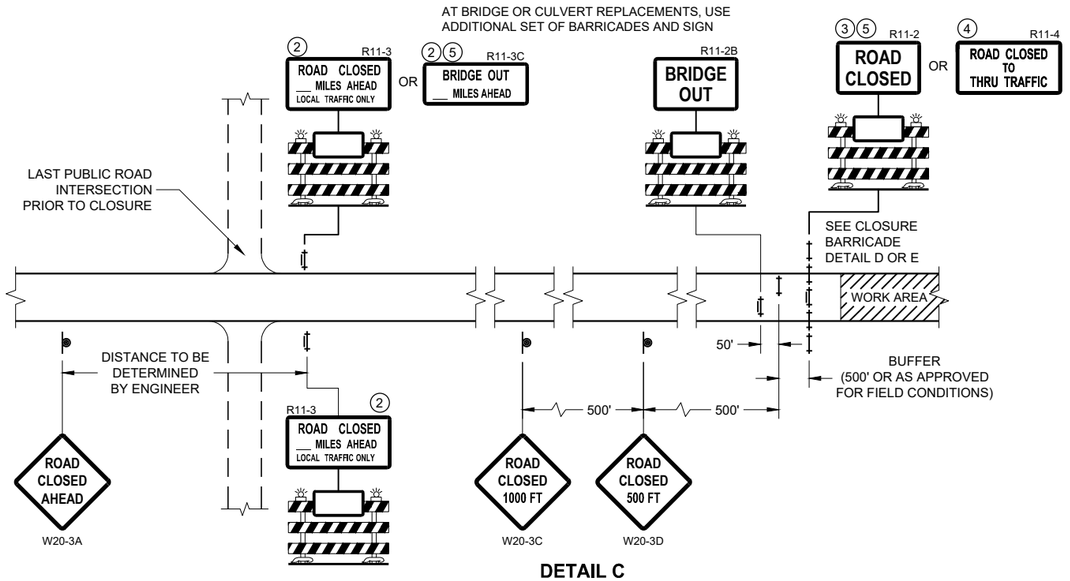
S.D.D. 12 A 3-10



DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR
WORK ZONE GREATER LESS THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR
WORK ZONE LESS THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

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

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

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)

DETOUR M4 - 8
EAST M3 - X
XX M1 - 4 OR XX M1 - 6 OR COUNTY X M1 - 5A
M05 - 1 OR M06 - 1

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

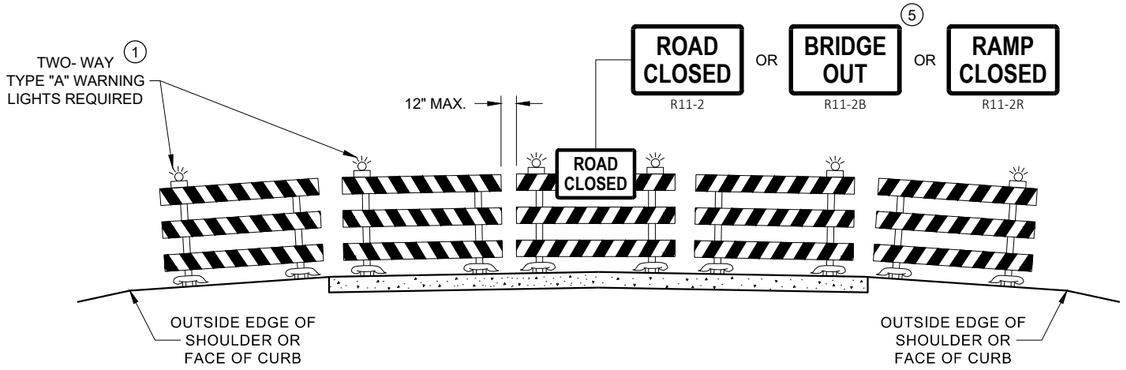
APPROVED
November 2018
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

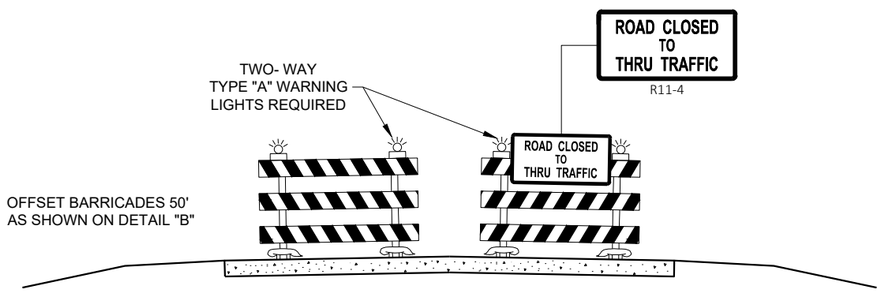
6

SDD 15C02 - 07a

SDD 15C02 - 07a



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 PORTABLBLE 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 15" IF NEEDED TO MATCH EXISTING SIGNS)
- M1 - 4, M1 - 5A AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- 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 CARDIANAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR VARIOUS CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

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SDD 15C02 - 07b

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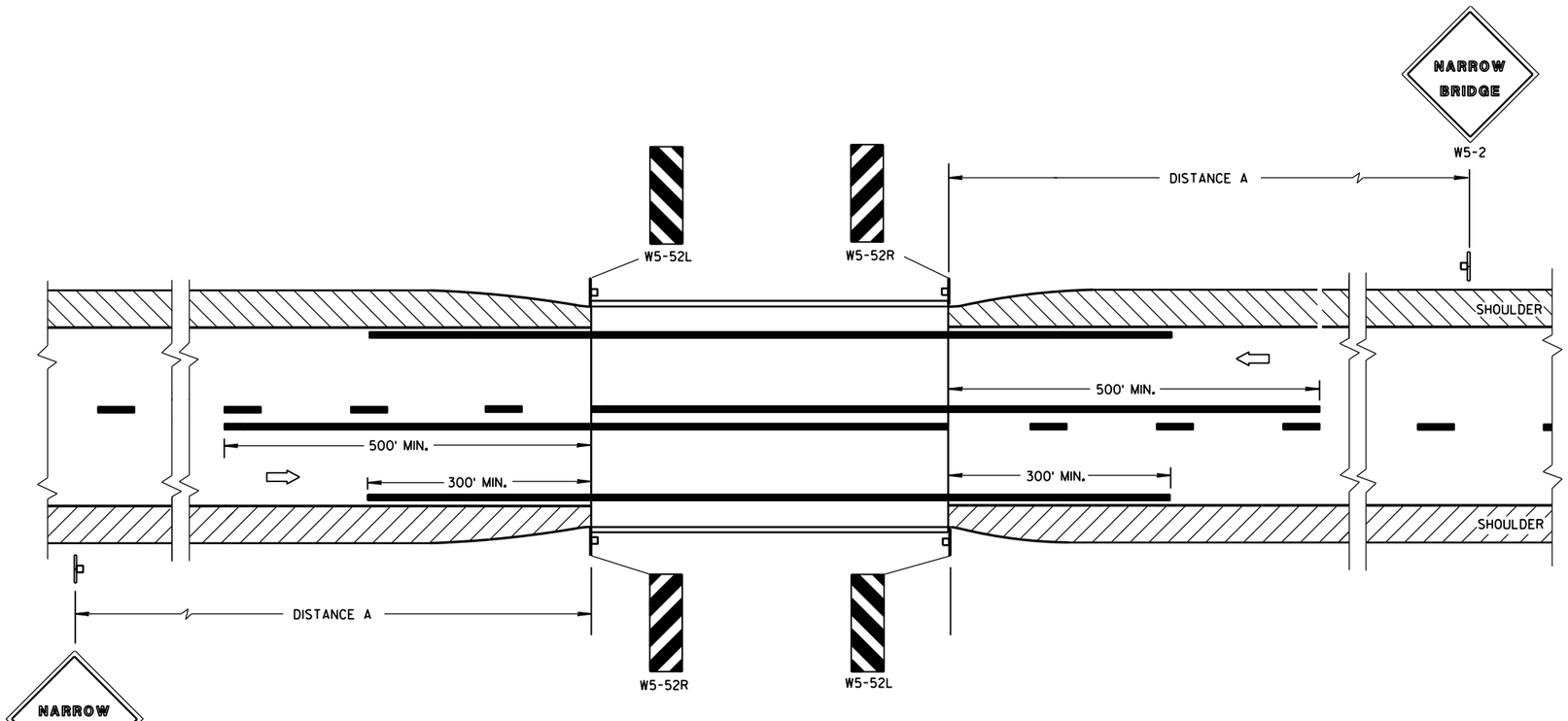
SDD 15C02 - 07b



SITUATION 1

WARRANTING CRITERIA:
BRIDGE WIDTH IS AT LEAST 16 FEET BUT LESS THAN 24 FEET.

DISTANCE TABLE

POSTED OR 85th PERCENTILE SPEED	DISTANCE "A"
25	150'
30	200'
35	250'
40	300'
45	400'
50	550'
55	750'

GENERAL NOTES

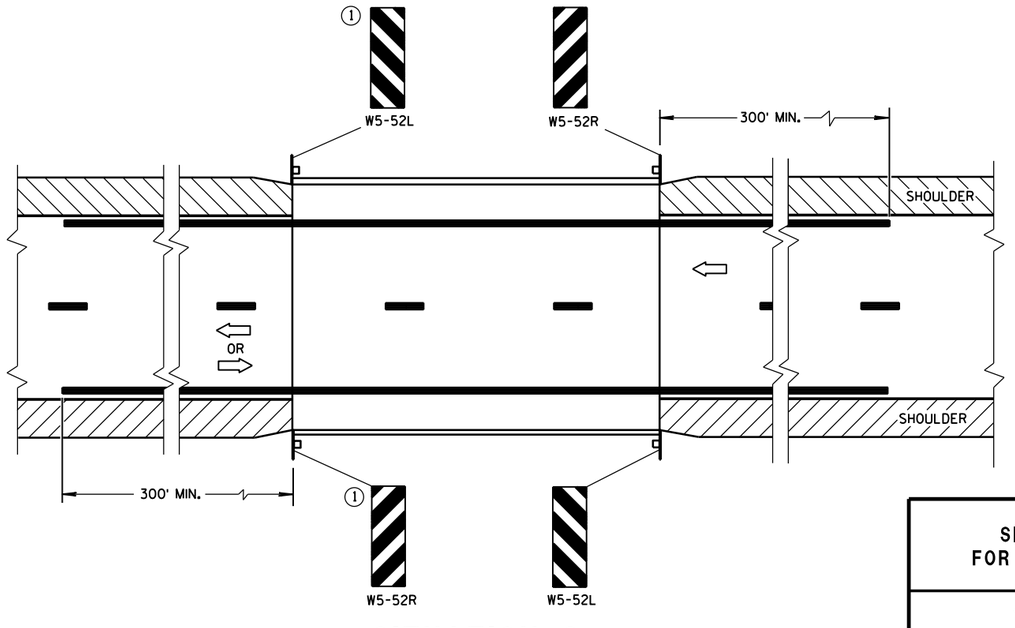
DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

LOCATE W5-52 SIGN POST(S) BEHIND GUARDRAIL WHEN PRESENT.

PLACE THE EDGE OF THE W5-52 SIGN IN LINE WITH FACE OF CURB OR PARAPET.

(1) OMIT ON ONE-WAY TRAVELLED WAYS.

⇨ DIRECTION OF TRAFFIC



SITUATION 2

WARRANTING CRITERIA:

1. BRIDGE WIDTH IS AT LEAST 24 FEET AND
2. BRIDGE SHOULDER WIDTH IS LESS THAN 6 FEET.

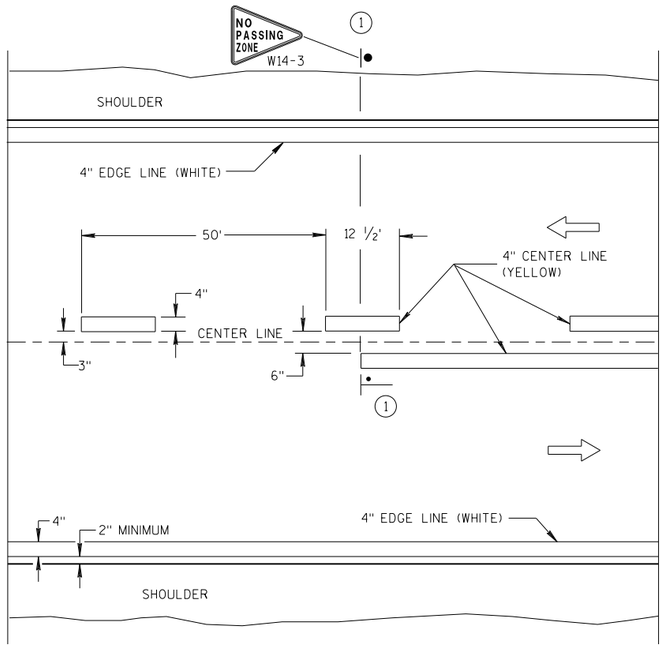
SIGNING & MARKING FOR TWO LANE BRIDGES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

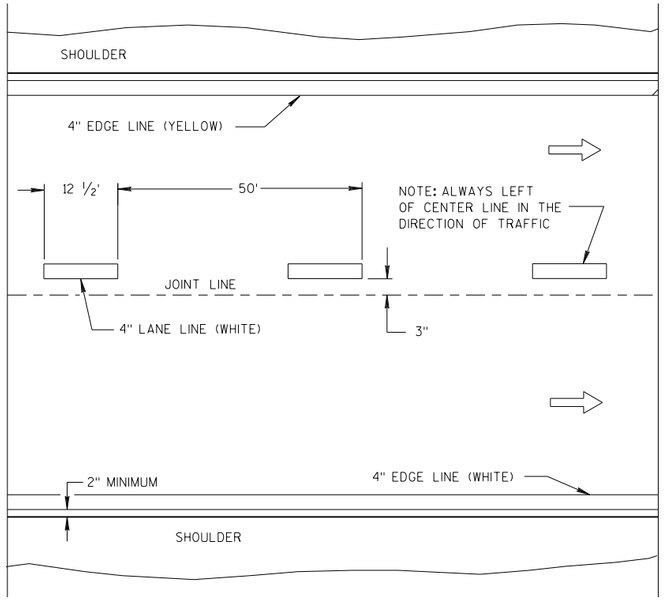
APPROVED
June 2017 — DATE
/S/ Matthew R. Rauch — STATE SIGNING AND MAR[illegible]EER
FHWA

6

S.D.D. 15 C 6-9



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

GENERAL NOTES

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

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

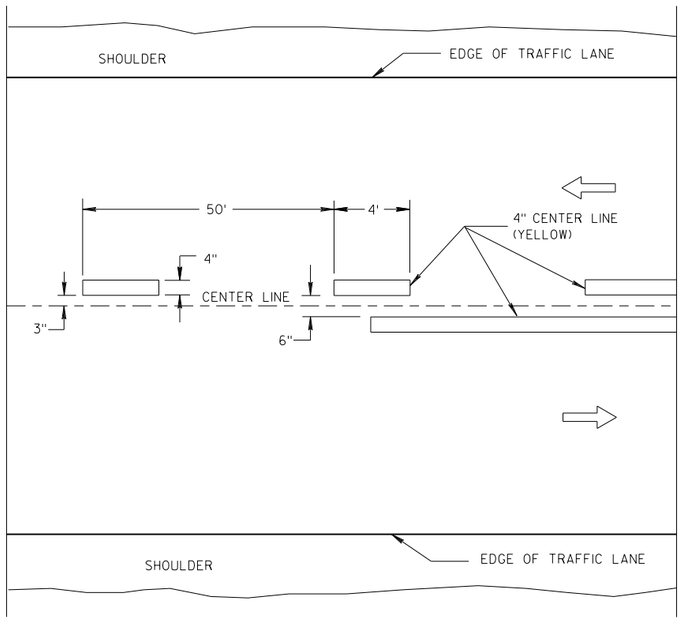
NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

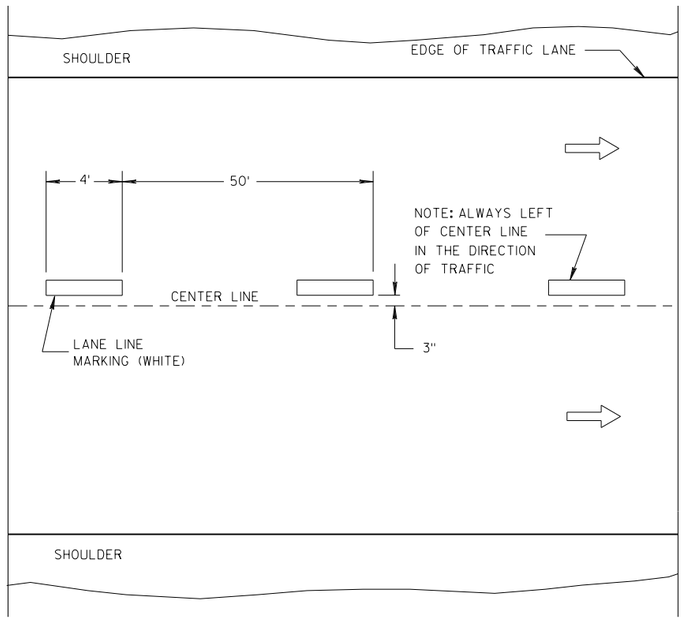
LEGEND

"T" MARKING

POST MOUNTED SIGN



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

LONGITUDINAL MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

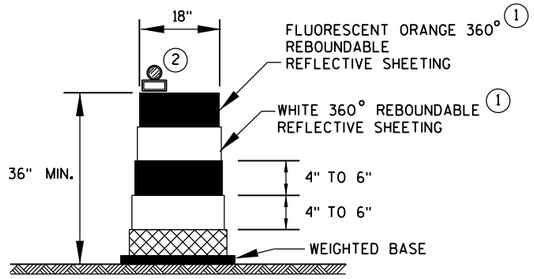
7/2018 — DATE

/S/ Matthew R. Rauch — STATE SIGNING AND MARKING ENGINEER

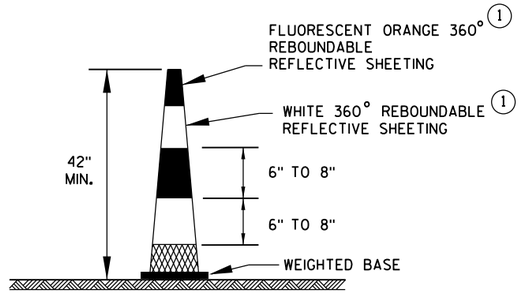
FHWA

6

S.D.D. 15 C 8-19a



DRUM

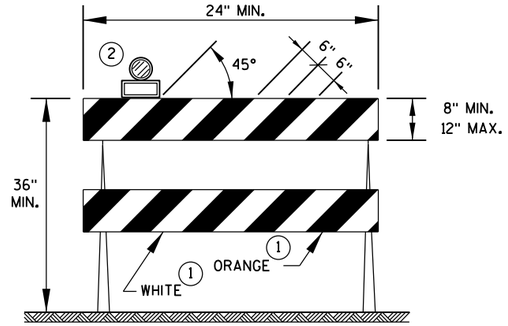


42" CONE

DO NOT USE IN TAPERS
1/2 SPACING OF DRUMS

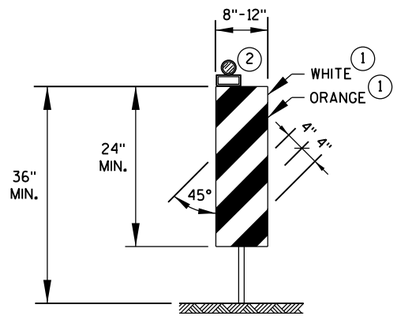
GENERAL NOTES

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.



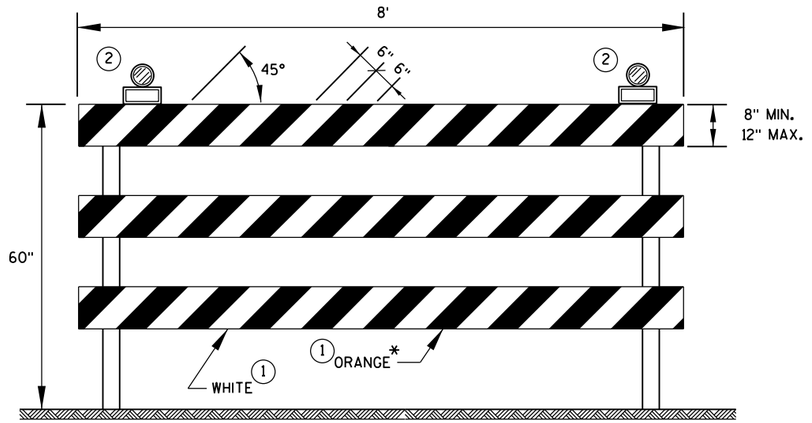
TYPE 2 BARRICADE

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



VERTICAL PANEL

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



TYPE 3 BARRICADE

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

* IF USED FOR A PERMANENT APPLICATION, USE RED SHEETING.

CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2017 — DATE

/S/ Andrew Heidtke — WORK ZONE ENG

FHWA

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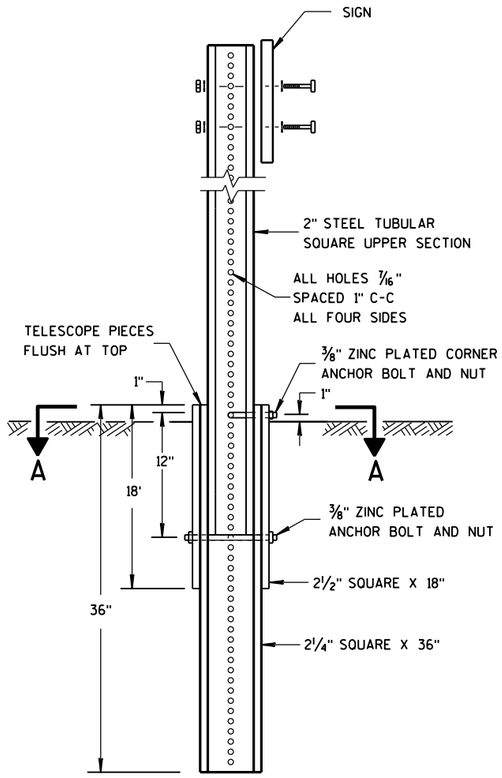
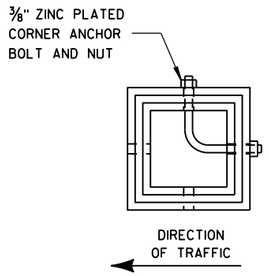
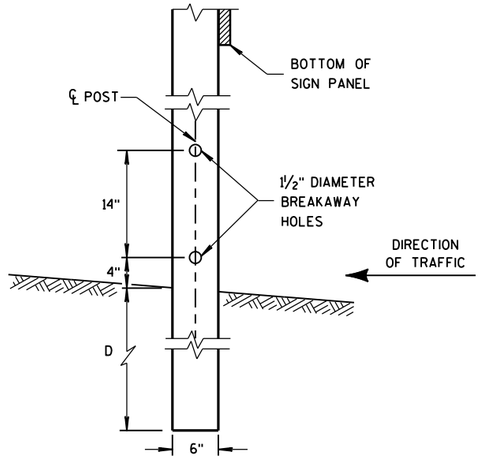
S.D.D. 15 C 11-7b



DETAIL OF TUBULAR STEEL SIGN POST



SECTION A-A



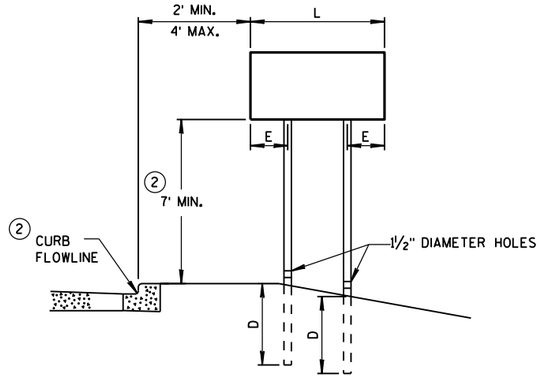
4"x6" WOOD POST MODIFICATION

GENERAL NOTES

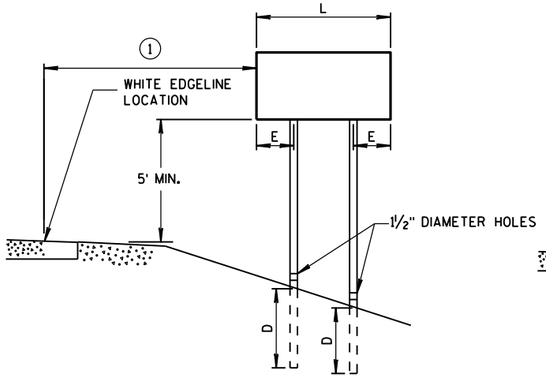
(1) 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.

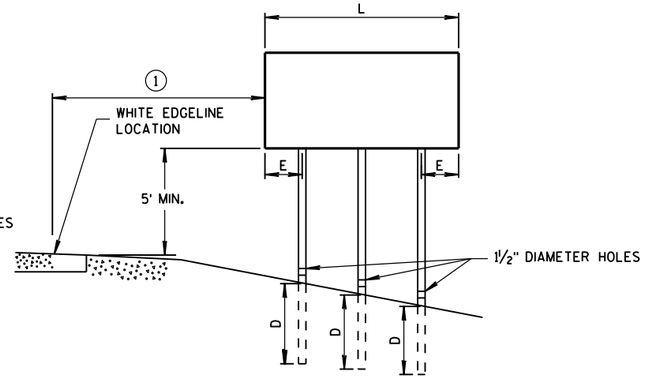
(2) THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.

(3) FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.



URBAN AREA





RURAL AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

TUBULAR STEEL POSTS

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

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

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

WOOD POST EMBEDMENT DEPTH

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

4" X 6" WOOD POST

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

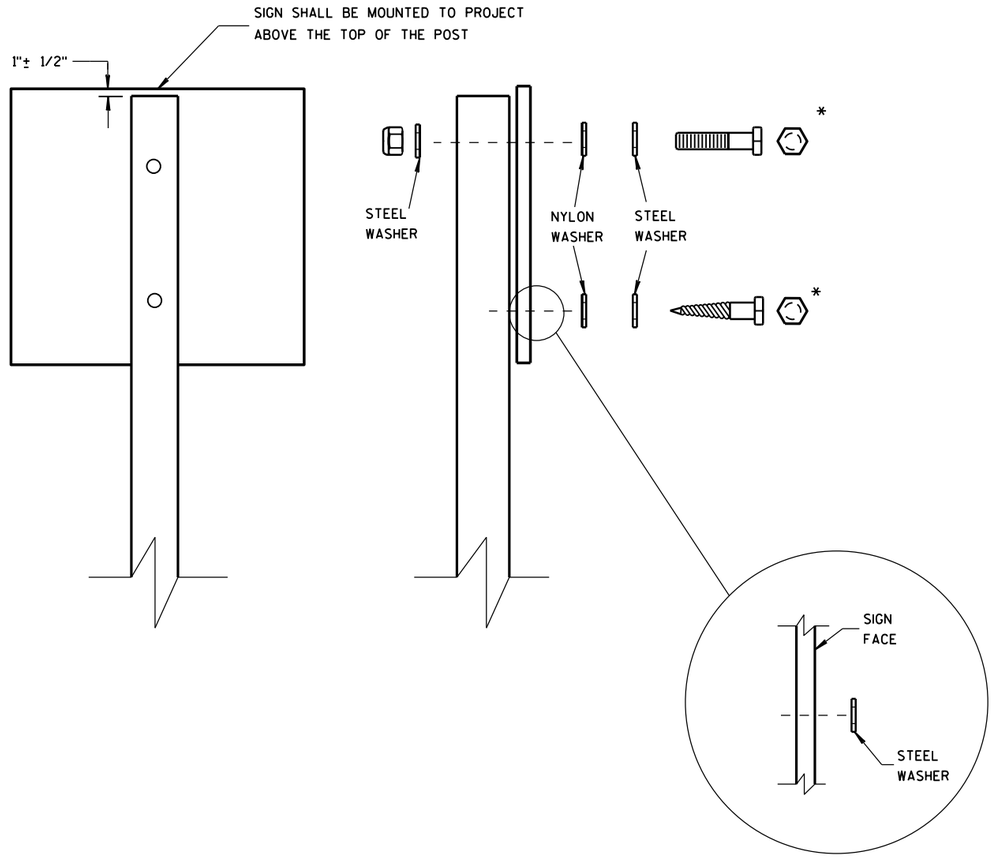
SEE NOTE (3)

TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 15 D 38-2a



WASHER PLACEMENT WHEN SIGN HAS OTHER THAN TYPE H OR TYPE F FACE

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

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

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

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

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

LAG SCREWS - 3/8" X 3"

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

SQUARE STEEL POSTS (2" x 2")

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

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

WASHERS (ALL POSTS) -

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

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

* TWO DIFFERENT FASTENING SYSTEMS ARE SHOWN FOR ILLUSTRATION PURPOSES. ON ANY INDIVIDUAL SIGN, EITHER ONE OR THE OTHER SYSTEM SHALL BE USED. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

6

6

S.D.D. 15 D 38-2b

S.D.D. 15 D 38-2b

ATTACHMENT OF SIGNS TO POSTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

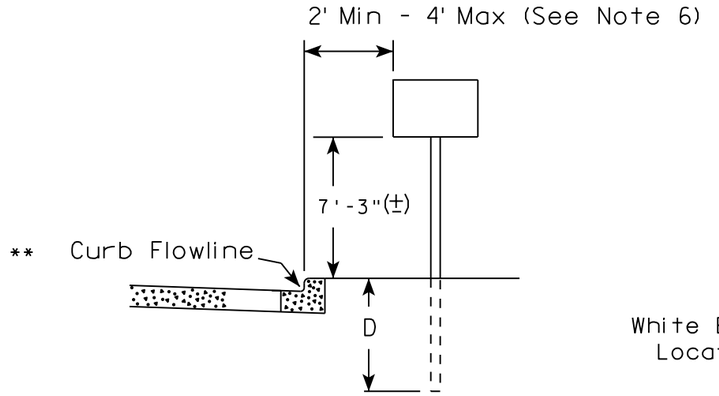
APPROVED

June 2017
DATE

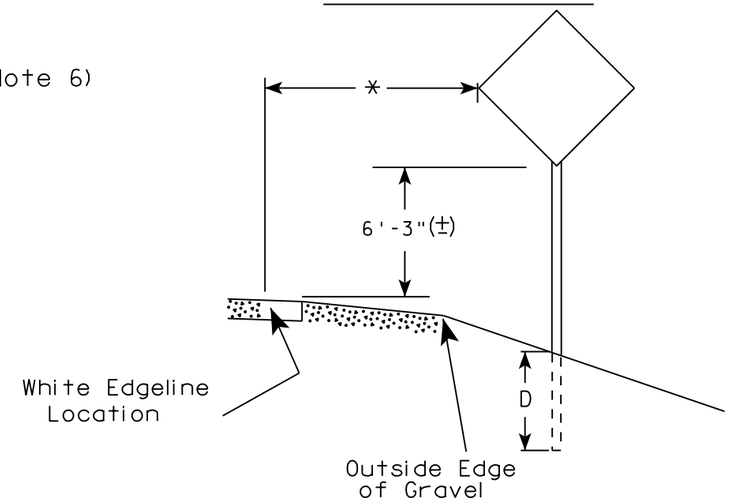
/S/ Andrew Heldtke
WORK ZONE ENG

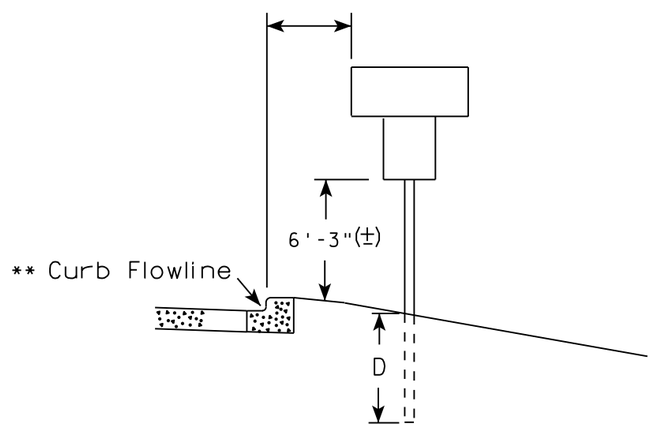
FHWA

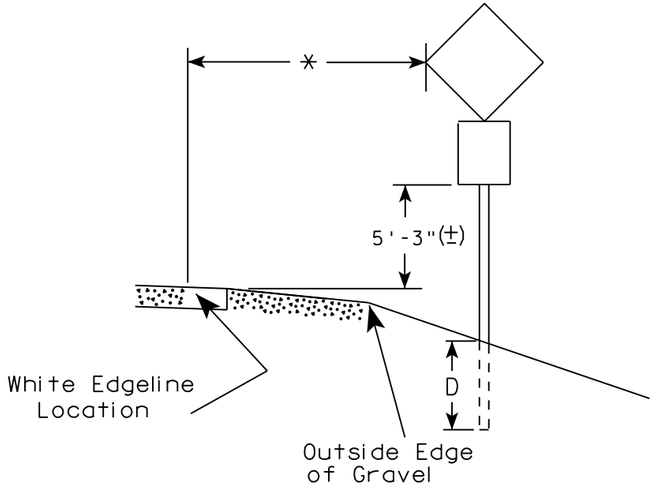
URBAN AREA



RURAL AREA (See Note 2)







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

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

POST EMBEDMENT DEPTH

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

GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. J-Assemblies are considered to be one sign for mounting height.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

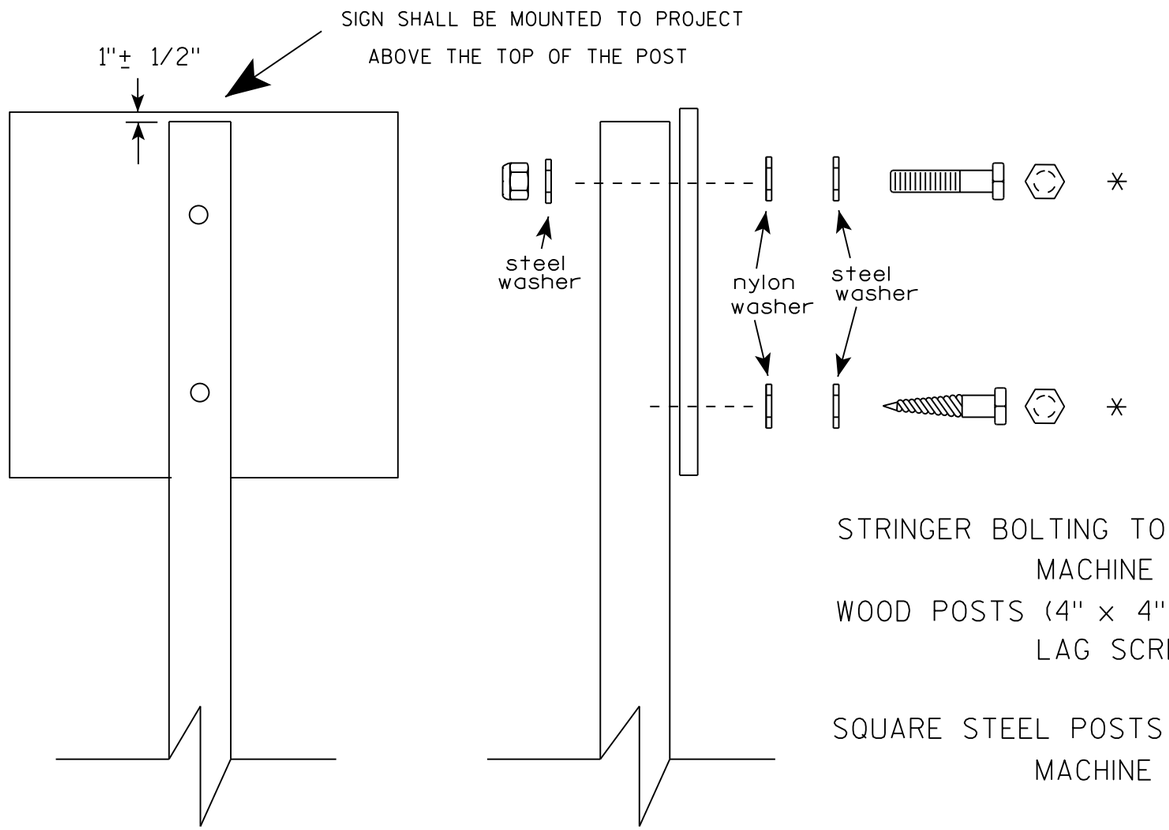
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 24	E



Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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

STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)
MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts
WOOD POSTS (4" x 4" or 4" x 6")
LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
3/8" X 4" (STRINGERS ON BACK OF SIGN)
SQUARE STEEL POSTS (2" x 2")
MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)
RIVETS - 9/32 " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH
WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON

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

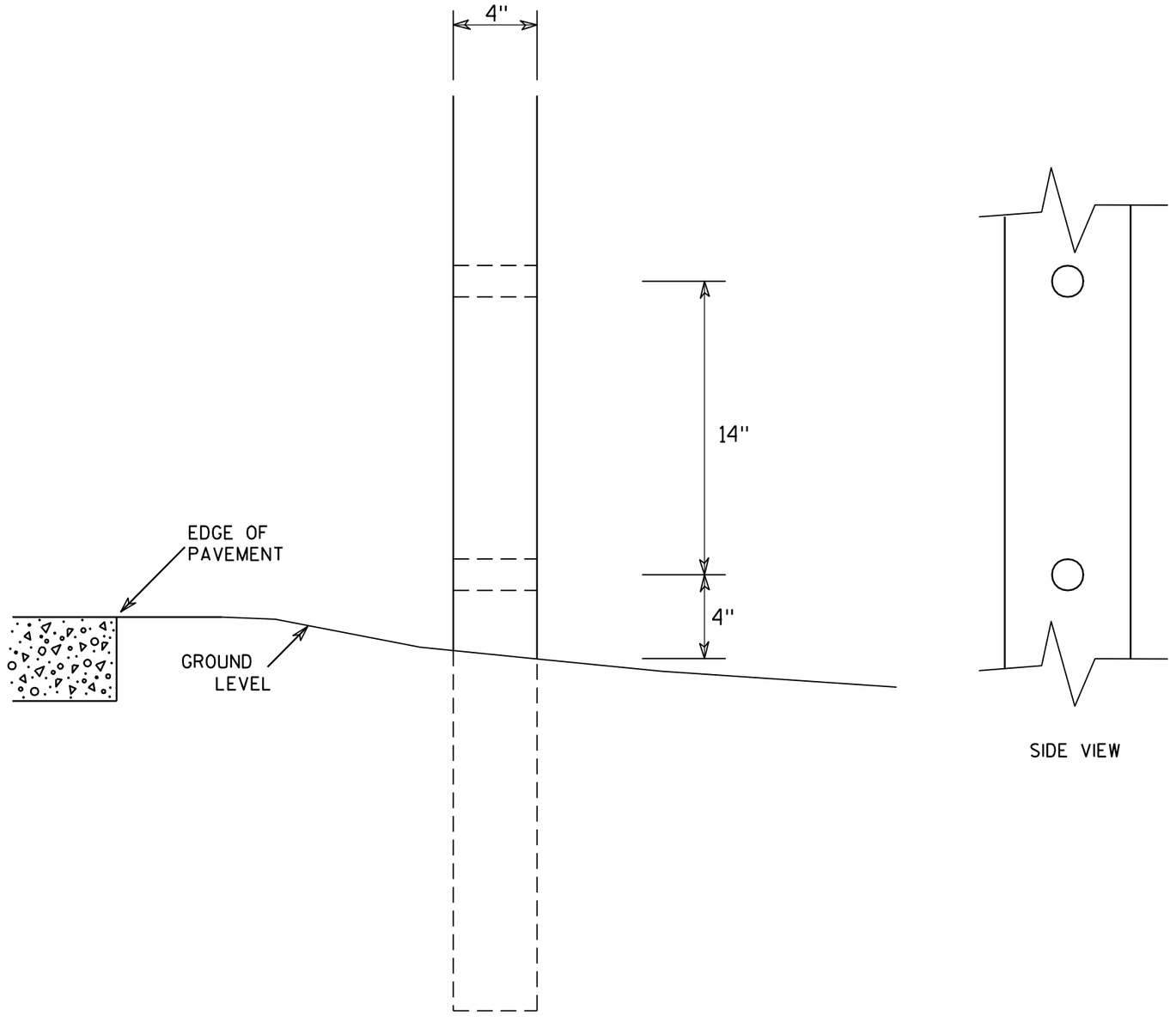
ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 8/11/16 PLATE NO. A4-8.8

PROJECT NO: SHEET NO: E



SIDE VIEW

GENERAL NOTES

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

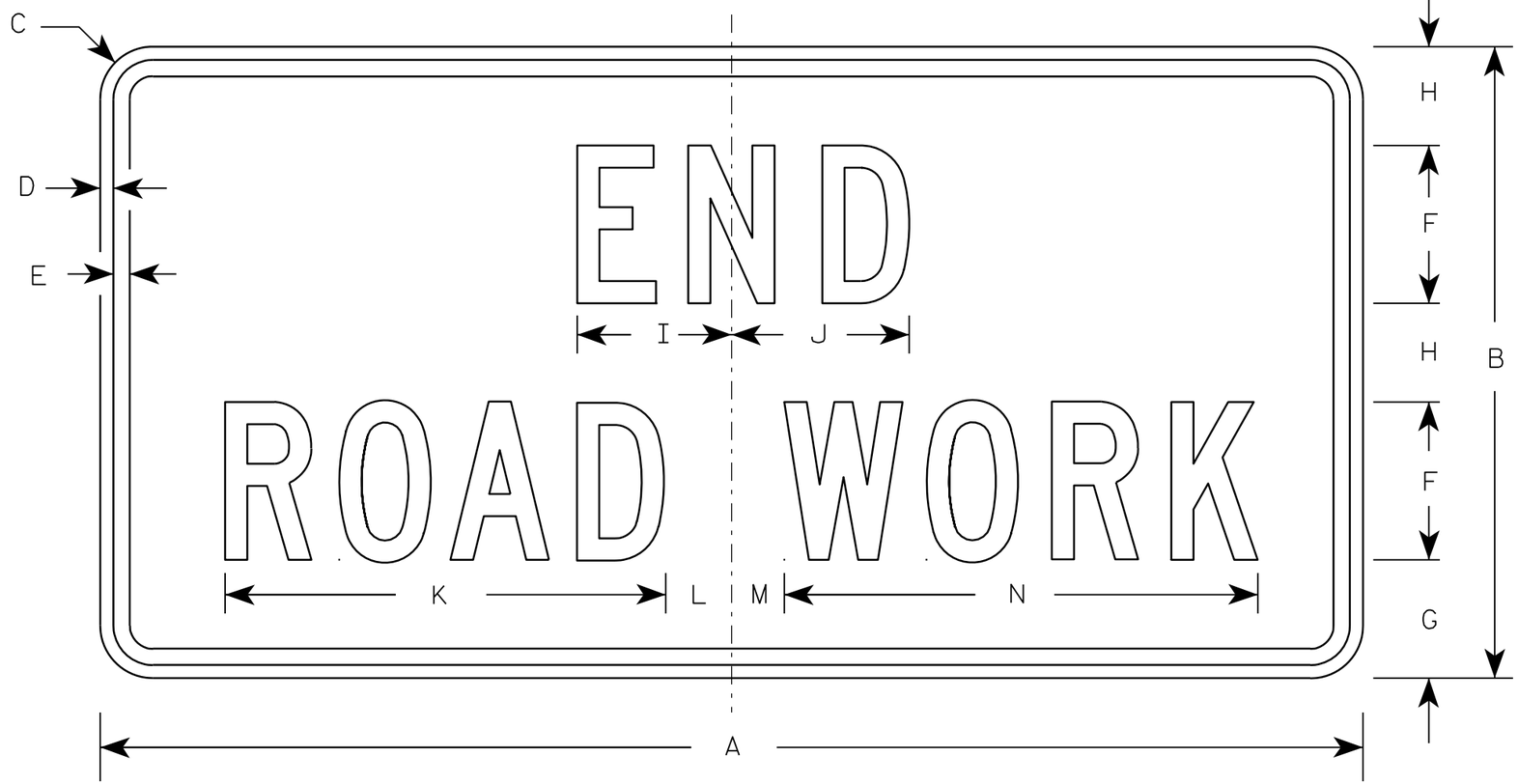
4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

DATE 3/27/97 PLATE NO. A4-11.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 26	E



G20-2A

NOTES

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

Metric equivalent for this sign is:

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1	36	18	1 1/8	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5	0.41
2	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
3	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
4	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
5	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72

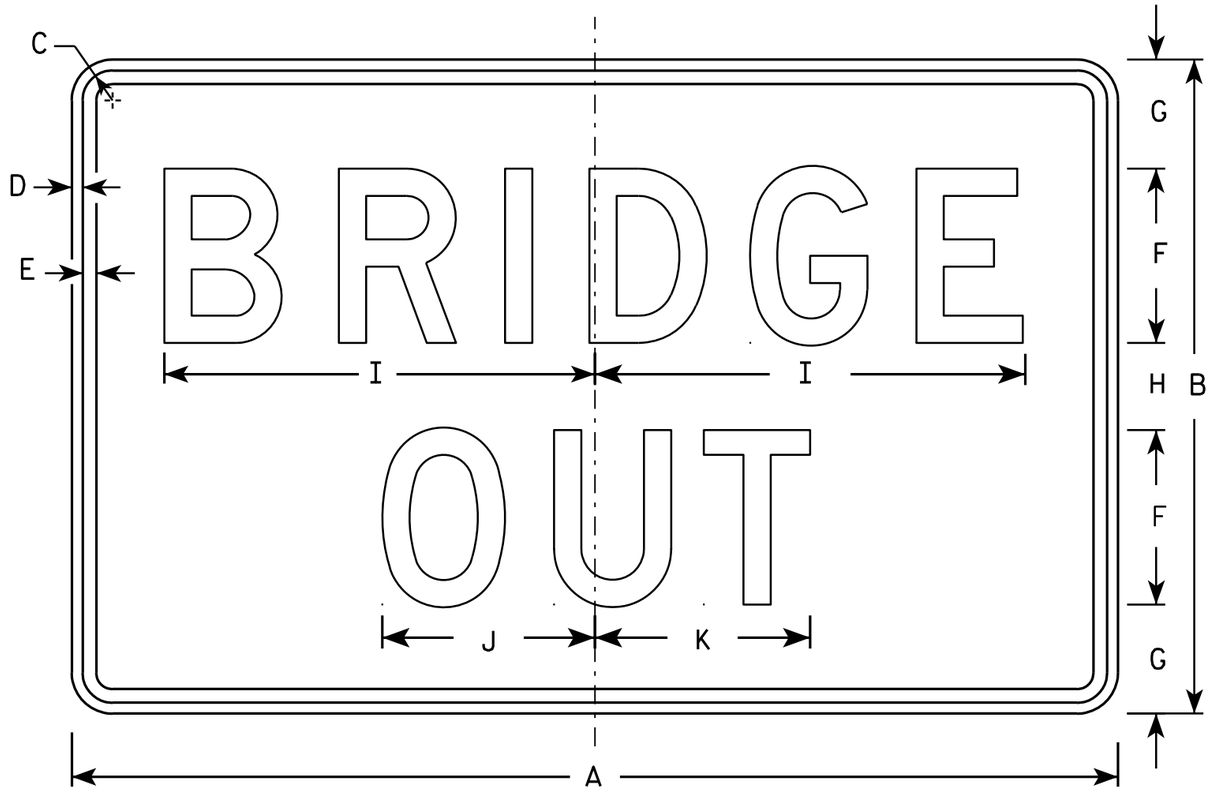
STANDARD SIGN
G20-2A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/30/09 PLATE NO. G20-2A.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 27	E



R11-2B

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 3/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
2M	48	30	1 3/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
3	48	30	1 3/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
4	48	30	1 3/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
5	48	30	1 3/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0

STANDARD SIGN
R11-2B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

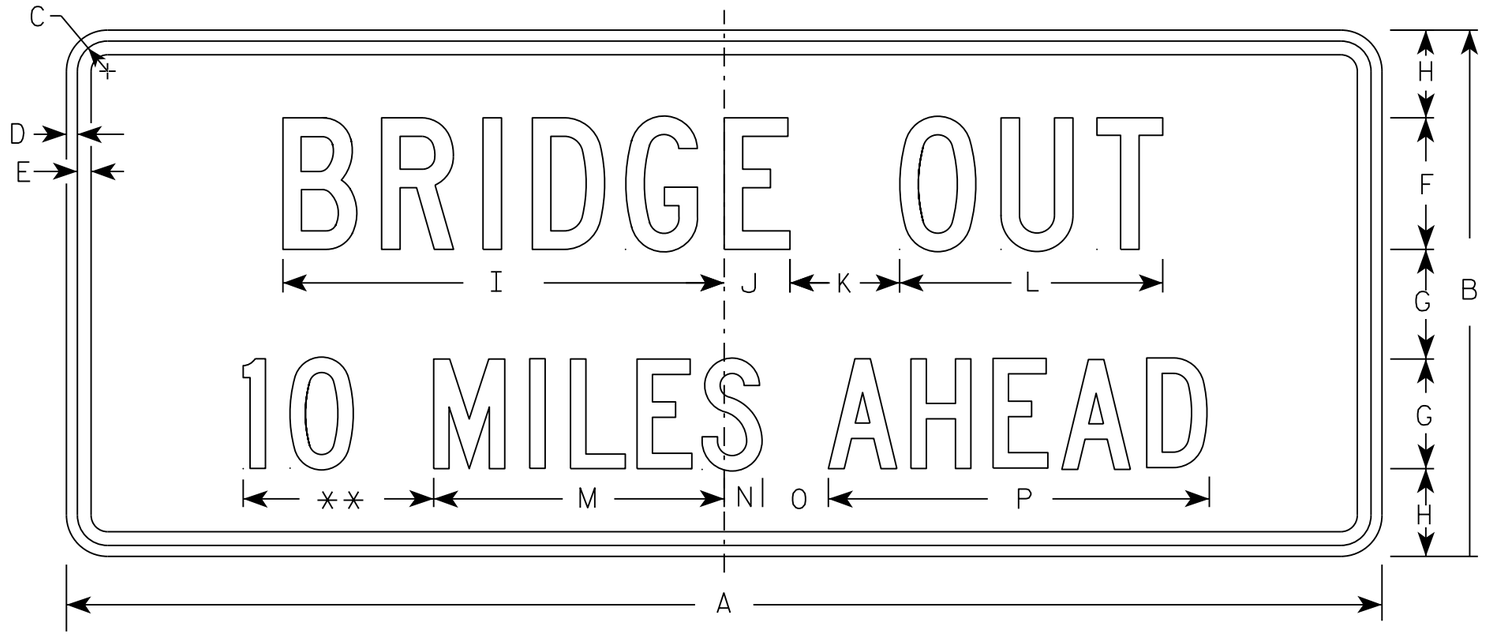
DATE 4/1/11 PLATE NO. R11-2B.2

PROJECT NO:

SHEET NO: 28 E

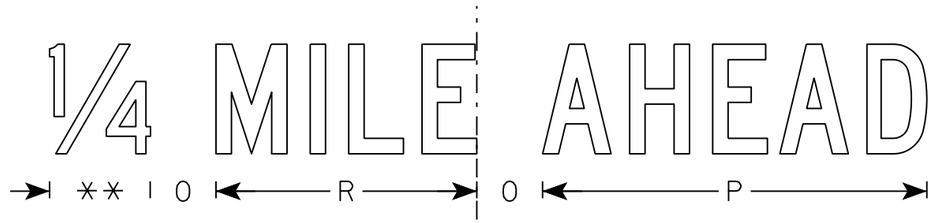
NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals to nearest quarter mile and optically adjust spacing to achieve proper balance.



R11-3C

** See Note 5



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	15	1 3/8	1/2	5/8	4	3	2 1/2	13 1/4	2 1/4	3	8	8	1 1/2	2	10 3/4		7 1/8									3.75
2S	60	24	1 3/8	1/2	5/8	6	5	4	20 1/8	3	5	12	13 1/4	1 3/4	3	17 3/8		11 7/8									10.0
2M	60	24	1 3/8	1/2	5/8	6	5	4	20 1/8	3	5	12	13 1/4	1 3/4	3	17 3/8		11 7/8									10.0
3																											
4																											
5																											

STANDARD SIGN
R11-3C

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/28/16 PLATE NO. R11-3C.3

PROJECT NO:

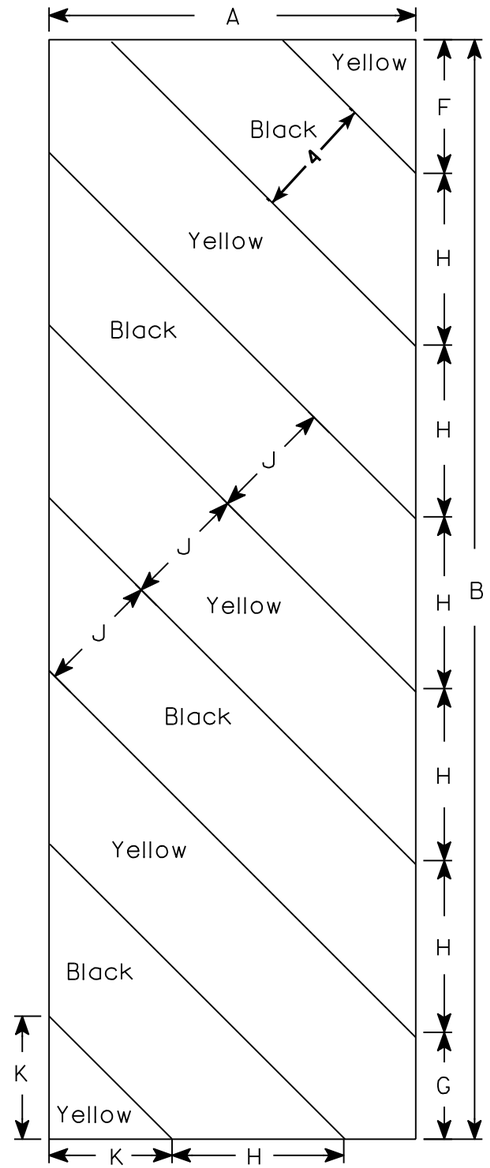
SHEET NO: 29 E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\R113C.DGN PLOT DATE : 15-MAR-2017 15:33 PLOT BY : $$...plotuser...$$

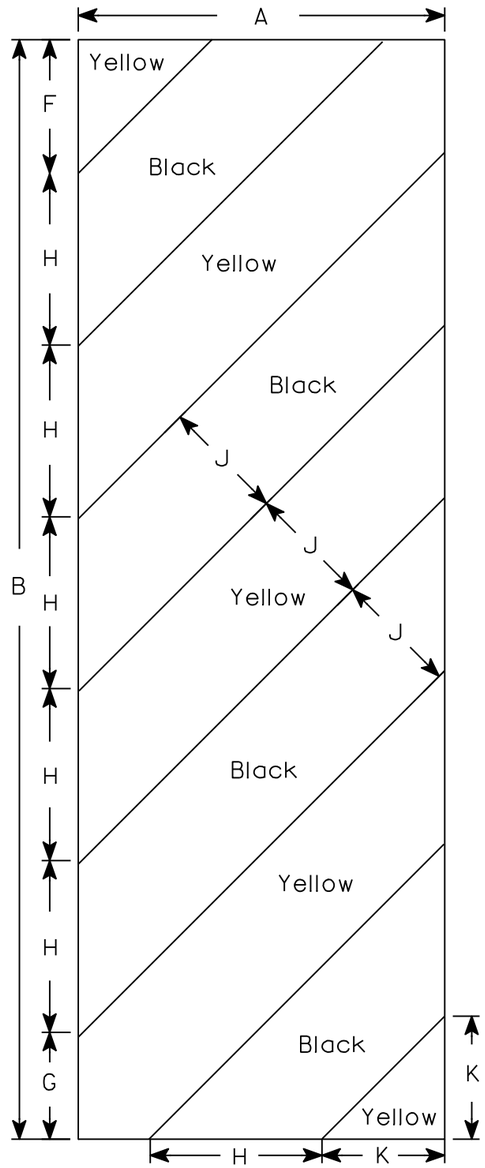
WISDOT/CADDS SHEET 42

7

7



W5-52L



W5-52R

NOTES

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

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

STANDARD SIGN

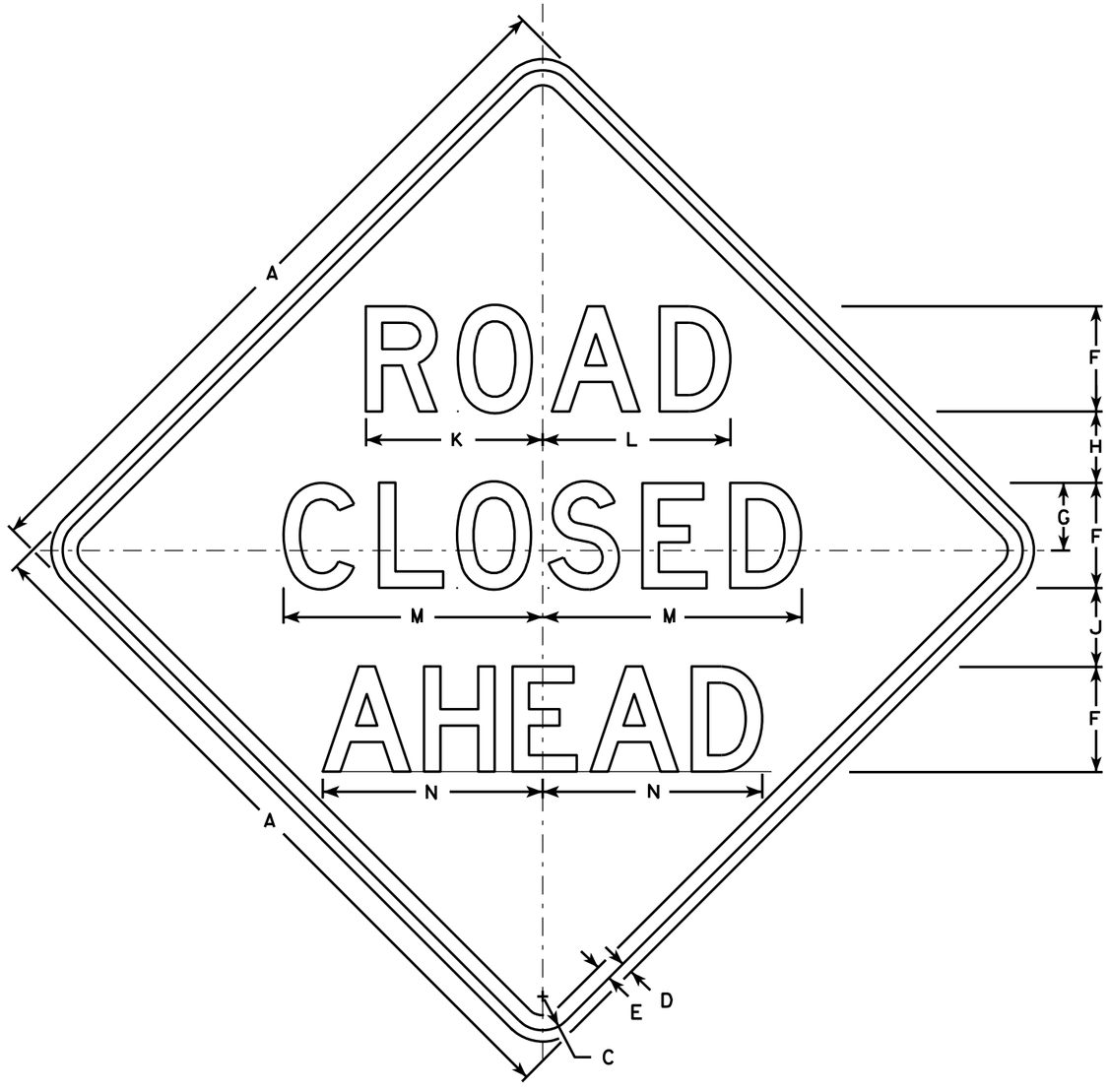
W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

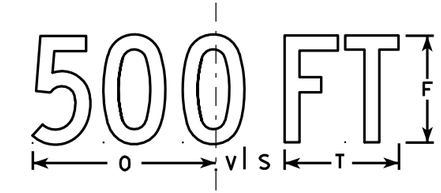
APPROVED Matthew R Rauch
for State Traffic Engineer

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

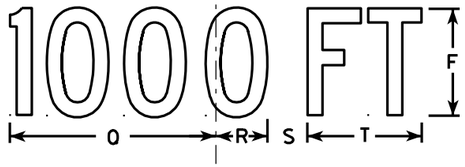
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 30 | E



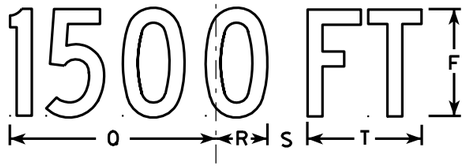
W20-3A



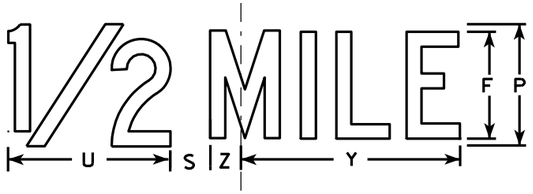
W20-3D



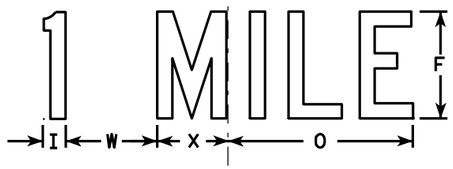
W20-3C



W20-3B



W20-3G



W20-3F

NOTES

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

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

STANDARD SIGN
W20-3A, B, C, D, F & G

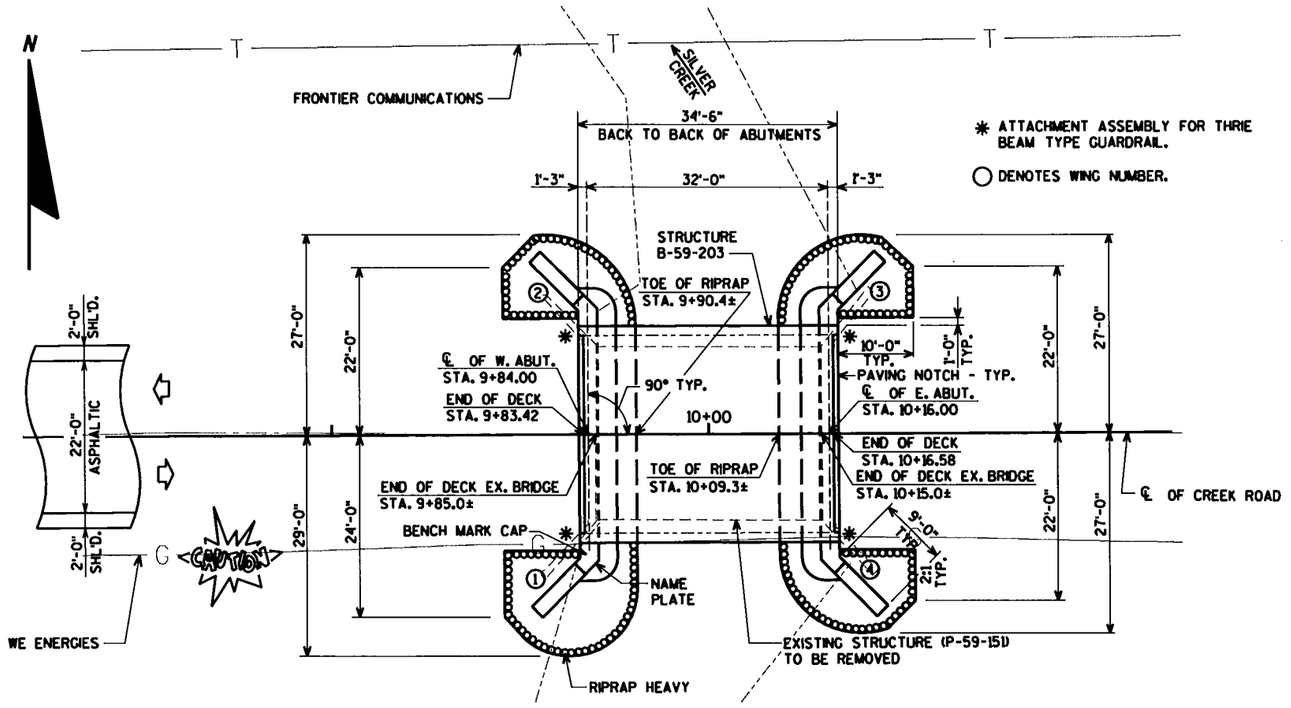
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer
DATE 3/18/11 PLATE NO. W20-3.7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 31 | E

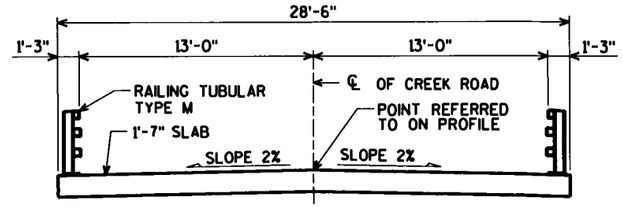
STATE PROJECT NUMBER

4202-06-71



PLAN

SINGLE SPAN CONCRETE FLAT SLAB



CROSS SECTION THRU BRIDGE

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: 1.06
OPERATING RATING FACTOR : 1.38
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 250 KIPS

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

MATERIAL PROPERTIES:

CONCRETE MASONRY { SUPERSTRUCTURE ——— f'_c = 4,000 p.s.i.
ALL OTHER ——— f'_c = 3,500 p.s.i.
HIGH STRENGTH BAR STEEL REINFORCEMENT (GRADE 60) ——— f_y = 60,000 p.s.i.

HYDRAULIC DATA:

100 YEAR FREQUENCY

Q_{100} = 770 c.f.s. { BRIDGE = 393 c.f.s. / OVERFLOW = 377 c.f.s.
VEL. = 3.1 f.p.s.
HW_{100} = EL. 846.7
WATERWAY AREA = 125 sq. ft.
DRAINAGE AREA = 15.6 sq. mi.
SCOUR CRITICAL CODE = 8
DATUM = NAVD88 (2012)

2 YEAR FREQUENCY

Q_2 = 380 c.f.s.
VEL. = 3.1 f.p.s.
HW_2 = EL. 844.5

ROAD OVERTOPPING FREQUENCY

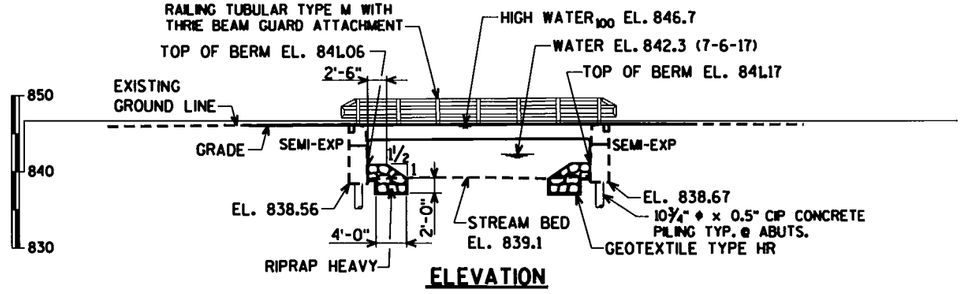
FREQUENCY = 19 YEARS
Q_{19} = 585 c.f.s.
HW = EL. 845.5

FOUNDATION DATA:

WEST ABUTMENT TO BE SUPPORTED ON 10¾" ϕ x 0.5" CIP CONCRETE PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 120 TONS * PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED LENGTH 35'-0".

EAST ABUTMENT TO BE SUPPORTED ON 10¾" ϕ x 0.5" CIP CONCRETE PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 120 TONS * PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED LENGTH 35'-0".

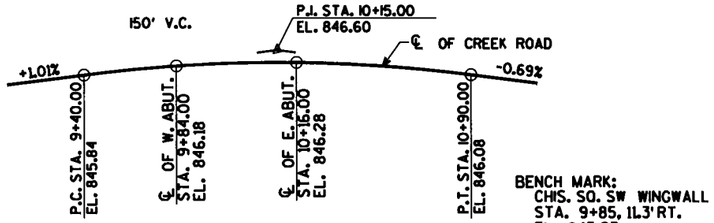
*THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.5 USING MODIFIED GATES TO DETERMINE DRIVEN PILE CAPACITY.



ELEVATION

TRAFFIC DATA:

A.A.D.T. = 153 (2019)
A.A.D.T. = 168 (2039)
R.D.S. = 50 M.P.H.

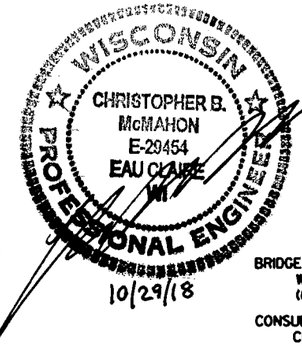


BENCH MARK:
CHIS. SQ. SW WINGWALL
STA. 9+85, 11.3'RT.
EL. 845.87

PROFILE GRADE LINE

(CREEK ROAD)

LIST OF DRAWINGS



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

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

NO.	DATE	REVISION	BY

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher SDR 02/06/19
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-59-203

CREEK ROAD OVER SILVER CREEK

COUNTY	TOWN/~~CITY/VILLAGE~~
SHEBOYGAN	SHERMAN

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
ZSS	CJM	CLS/ZSS	CBM

GENERAL PLAN

SHEET 32 OF 0

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	W. ABUT.	E. ABUT.	SUPER.	TOTAL
203.0600.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS STATION 10+00	LS	-----	-----	-----	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-59-203	LS	-----	-----	-----	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	105	105	-----	210
502.0100	CONCRETE MASONRY BRIDGES	CY	25	25	62	112
502.3200	PROTECTIVE SURFACE TREATMENT	SY	-----	-----	125	125
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	2,250	2,250	-----	4,500
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1,260	1,260	10,820	13,340
513.4061	RAILING TUBULAR TYPE M	LF	-----	-----	71	71
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	6	6	-----	12
550.2108	PILING CIP CONCRETE 10¾ x 0.5-INCH	LF	245	245	-----	490
606.0300	RIPRAP HEAVY	CY	55	50	-----	105
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	75	75	-----	150
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	50	50	-----	100
645.0120	GEOTEXTILE TYPE HR	SY	115	105	-----	220
	NON-BID ITEMS					
	FILLER	SIZE	-----	-----	-----	½" & ¾"

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

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

THE FIRST DIGIT OF A THREE DIGIT BAR NO. AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR NO. SIGNIFIES THE BAR SIZE.

JOINT FILLER SHALL CONFORM TO THE REQUIREMENTS OF A.A.S.H.T.O. DESIGNATION M 153, TYPE I, II OR III OR A.A.S.H.T.O. DESIGNATION M 213.

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH RIPRAP HEAVY AND GEOTEXTILE TYPE HR TO THE EXTENT SHOWN ON THE GENERAL PLAN SHEET AND IN THE ABUTMENT DETAILS.

SLAB FALSEWORK SHALL BE SUPPORTED ON PILES OR THE SUBSTRUCTURE UNLESS AN ALTERNATIVE METHOD IS APPROVED BY THE ENGINEER.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES BRIDGES B-59-203" SHALL BE THE EXISTING GROUNDLINE.

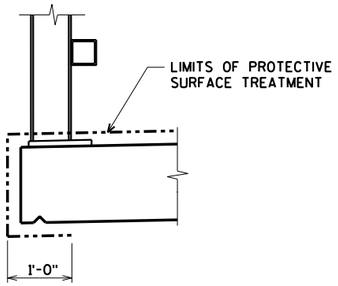
THE EXISTING STRUCTURE, P-59-151, TO BE REMOVED, IS A SINGLE SPAN CONCRETE DECK GIRDER BRIDGE ON CONCRETE ABUTMENTS, 34 FOOT LONG WITH A 20.48 FOOT CLEAR ROADWAY WIDTH.

AT THE BACK FACE OF ABUTMENTS, ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH BACKFILL STRUCTURE TYPE A.

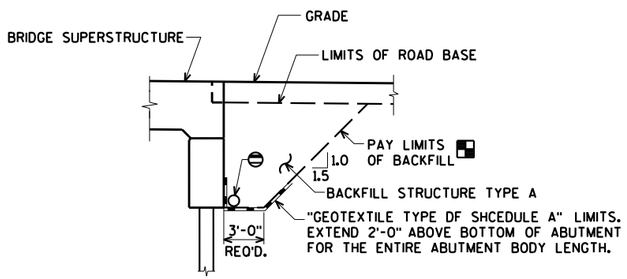
PROTECTIVE SURFACE TREATMENT IS TO BE APPLIED AS SHOWN IN DETAIL ON THIS SHEET.

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS NOTED OTHERWISE.

EXCAVATION BELOW THE ABUTMENT AND ABUTMENT BEDDING MATERIALS REQUIRES ENGINEER APPROVAL. GEOTEXTILE SHALL BE SET AT THE BOTTOM OF EXCAVATION AND EXTEND 2'-0" ABOVE BOTTOM OF ABUTMENT.



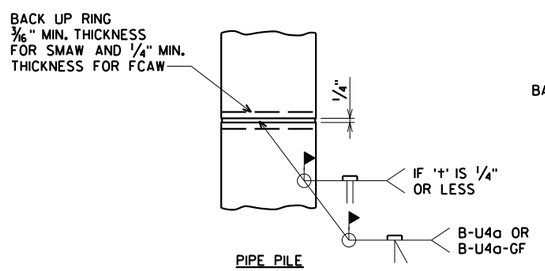
PROTECTIVE SURFACE TREATMENT DETAIL



BACKFILL STRUCTURE LIMITS THRU ABUTMENT

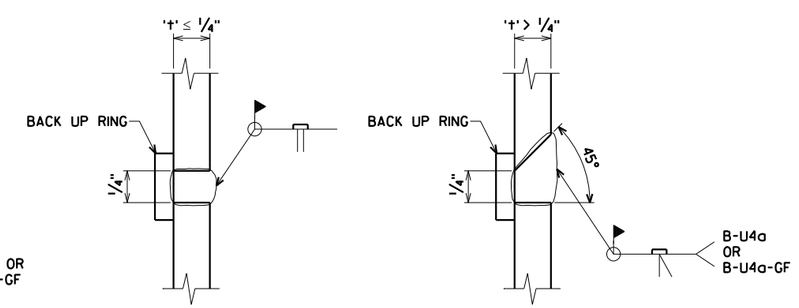
■ BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

⊖ PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON SHEET 5.



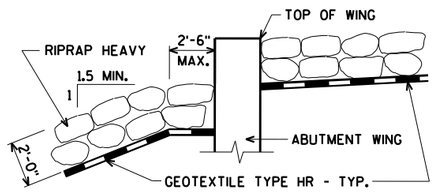
PILE SPLICE DETAIL

CAST-IN-PLACE PILE SHELL MATERIAL SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATION.

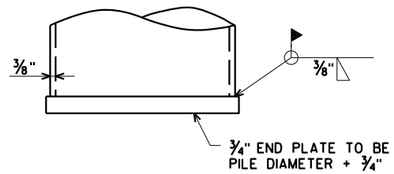


CIP PILE WELD DETAIL

NOTE: PLACE RIPRAP MEDIUM AS SHOWN ON GENERAL PLAN SHEET



TYPICAL FILL SECTION AT WING TIPS



END PLATE DETAIL FOR CIP PILING

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-59-203

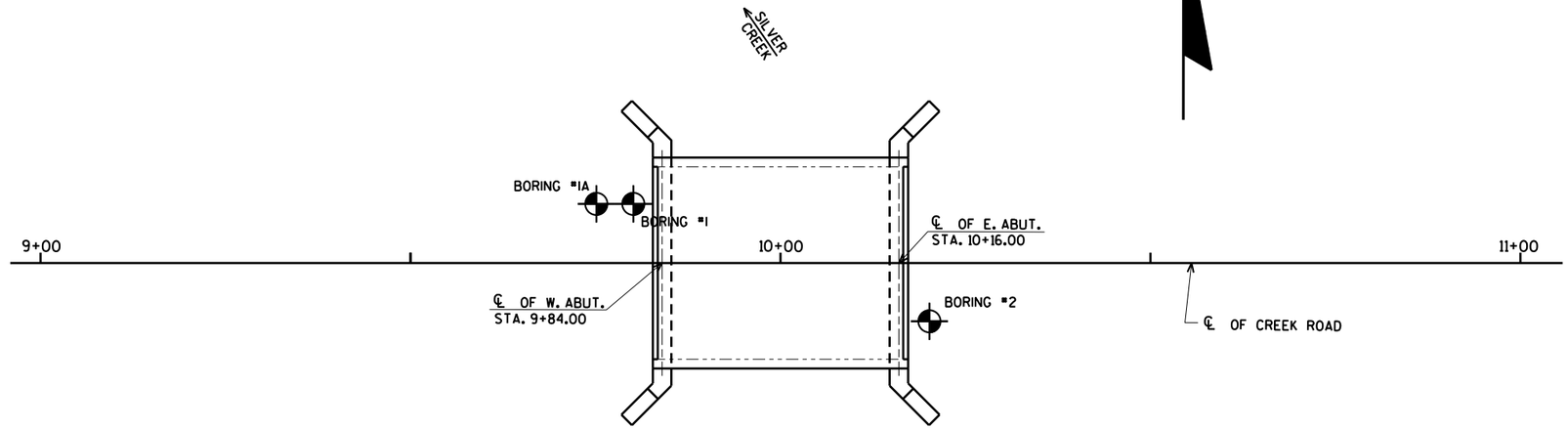
DRAWN BY CLS | PLANS CK'D. JLB

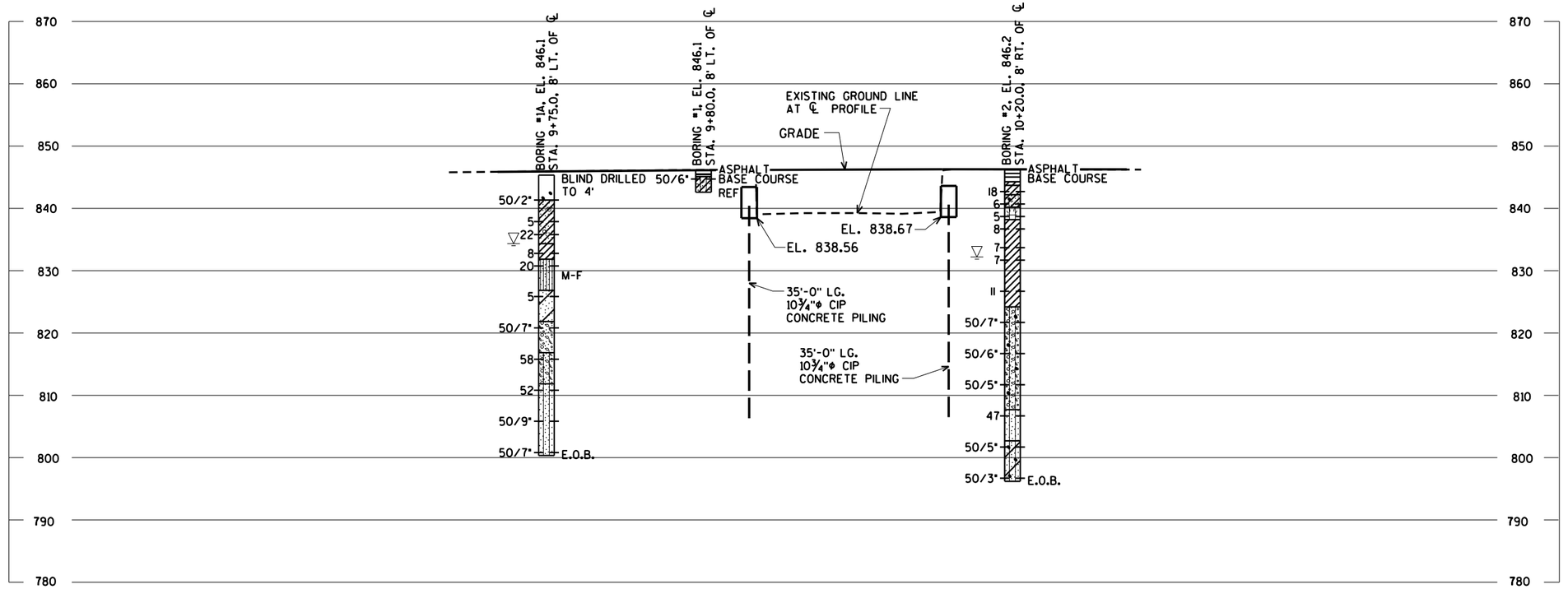
QUANTITIES AND NOTES

SHEET 2 OF 10
33

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

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	JULY 24, 2017	102249	139197
2	JULY 25, 2017	102234	139237
BORINGS COMPLETED BY: RIVER VALLEY TESTING CORP.			
REPORT COMPLETED BY: RIVER VALLEY TESTING CORP.			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) SHEBOYGAN COUNTY			





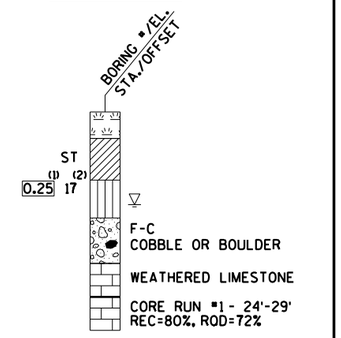
STATE PROJECT NUMBER

4202-06-71

MATERIAL SYMBOLS

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

LEGEND OF BORING



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

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

GROUND WATER ELEVATION

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

ABBREVIATIONS

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

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-59-203

DRAWN BY CLS | PLANS CK'D. JLB

SUBSURFACE EXPLORATION

SHEET 3 OF 10
34

8

8

$PRFNAME$
U:±45-0440.00 - Sheboygan Co. Creek Rd over Silver Creek±Structures±Final±450440 soils.dgn

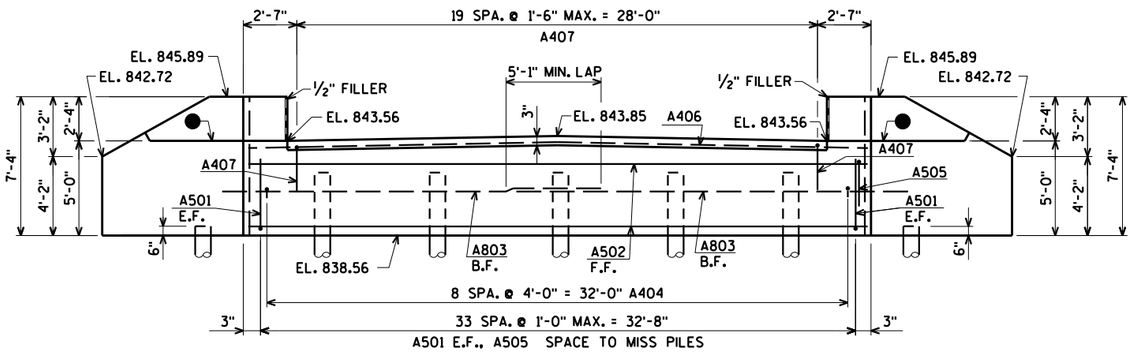
10/24/2018

PENTABLE:BReau_shd_util.tbl

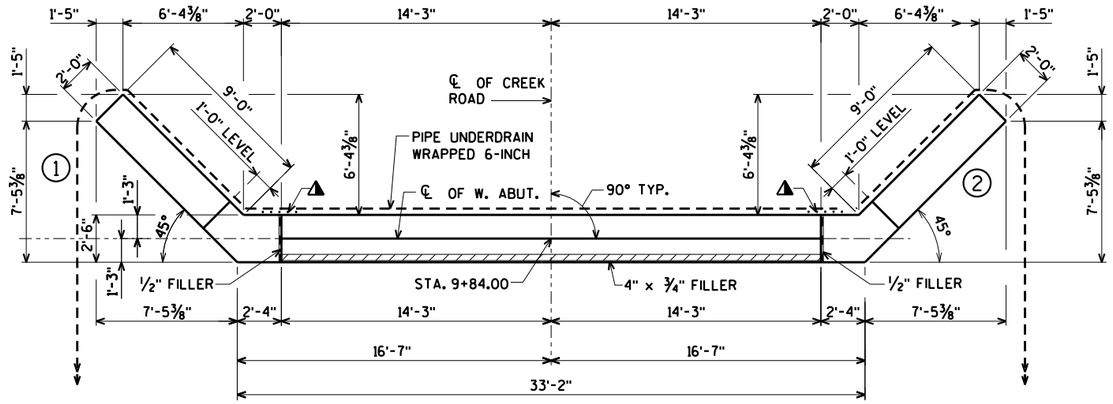
STATE PROJECT NUMBER

4202-06-71

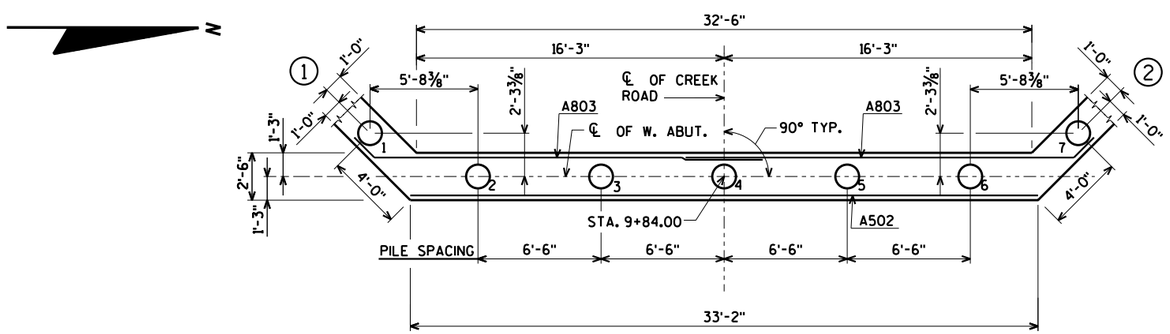
NOTE: SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE.)



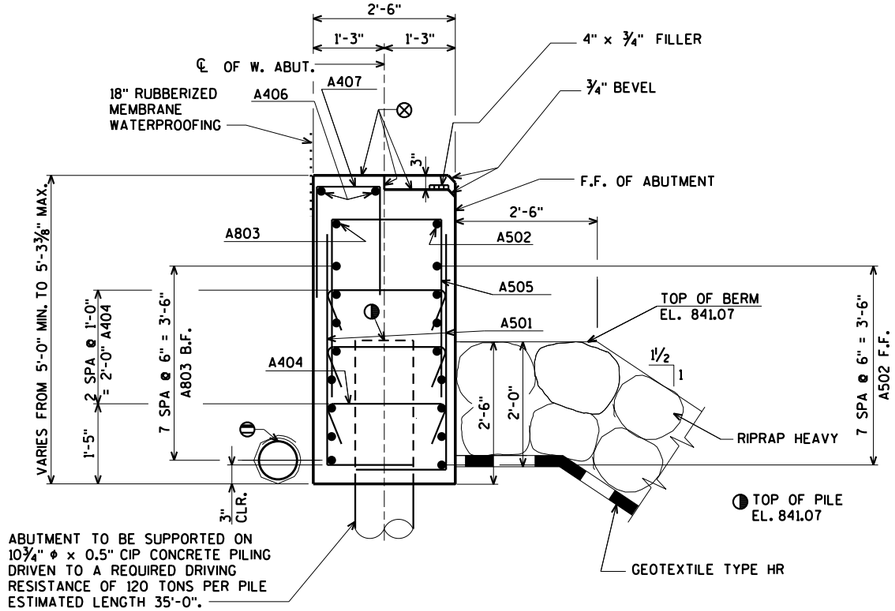
ELEVATION
(LOOKING WEST)



PLAN



PILE LAYOUT



TYPICAL SECTION THRU BODY

NOTE: DO NOT PLACE FILL ABOVE THREE FEET FROM BOTTOM OF ABUTMENT UNTIL SUPERSTRUCTURE IS IN PLACE.

EXCAVATE OR FILL TO BOTTOM OF ABUTMENT BEFORE DRIVING PILES.

⊗ STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING SUPERSTRUCTURE. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03"

⊖ PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE WNDER DRAIN. FOR RODENT SHIELD DETAIL SEE SHEET 5.

● OPT. KEYED CONST. JOINT - FORMED BY A BEVELED 2"x6" WITH RUBBERIZED MEMBRANE WATERPROOFING ON B.F.(RUBBERIZED MEMBRANE WATERPROOFING INCIDENTAL TO BID ITEM "CONCRETE MASONRY BRIDGES" IF CONST. JOINT IS USED).

⚠ 18" RUBBERIZED MEMBRANE WATERPROOFING TO EXTEND FROM BRIDGE SEAT TO TOP OF WINGWALL.

FOR PILE SPLICE DETAIL SEE SHEET 2.

B.F. DENOTES BACK FACE.

F.F. DENOTES FRONT FACE.

E.F. DENOTES EACH FACE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

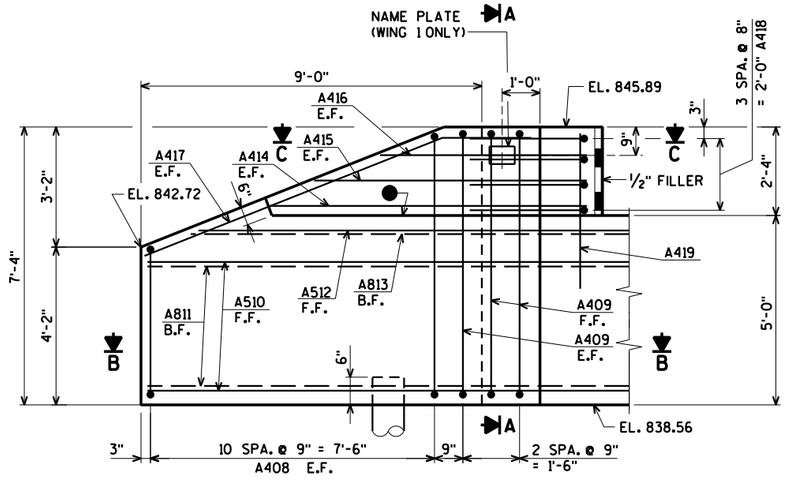
STRUCTURE B-59-203

DRAWN BY ZSS | PLANS CK'D. JLB

WEST ABUTMENT

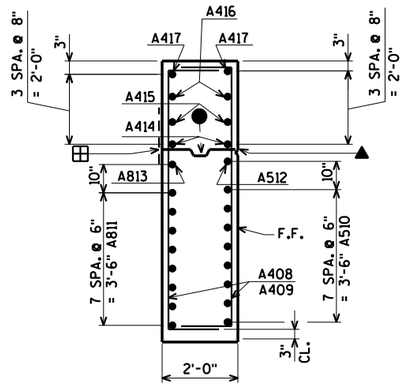
SHEET 4 OF 10
35

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

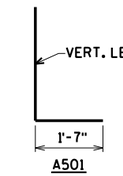


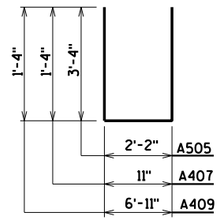
ELEVATION - WING 1

(WING 2 SIMILAR)



SECTION A





BILL OF BARS

BAR. NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR SERIES	2,250# UNCOATED 1,260# COATED LOCATION
A501		68	5-9	X		BODY VERT. E.F.
A502		9	32-10			BODY HORIZ. F.F.
A803		18	22-7	X		BODY HORIZ. B.F.
A404		27	2-9	X		BODY TIES
A505		34	8-8	X		BODY VERT. TOP
A406		2	32-10			BODY HORIZ. TOP NOTCH
A407		20	3-5	X		BODY VERT. TOP NOTCH
A408	X	44	7-9	X		⊗ WINGS 1 & 2 VERT. E.F.
A409	X	8	9-5	X		WINGS 1 & 2 VERT. E.F.
A510	X	16	11-7	X		WINGS 1 & 2 HORIZ. F.F.
A811	X	16	13-2	X		WINGS 1 & 2 HORIZ. B.F.
A512	X	2	9-10	X		WINGS 1 & 2 HORIZ. F.F.
A813	X	2	11-5	X		WINGS 1 & 2 HORIZ. B.F.
A414	X	4	7-7			WINGS 1 & 2 HORIZ. E.F.
A415	X	4	5-11			WING 1 & 2 HORIZ. E.F.
A416	X	4	4-3			WING 1 & 2 HORIZ. E.F.
A417	X	4	10-9	X		WINGS 1 & 2 DIAG. E.F.
A418	X	8	8-4	X		WINGS 1 & 2 HORIZ.
A419	X	8	3-9			WINGS 1 & 2 VERT.

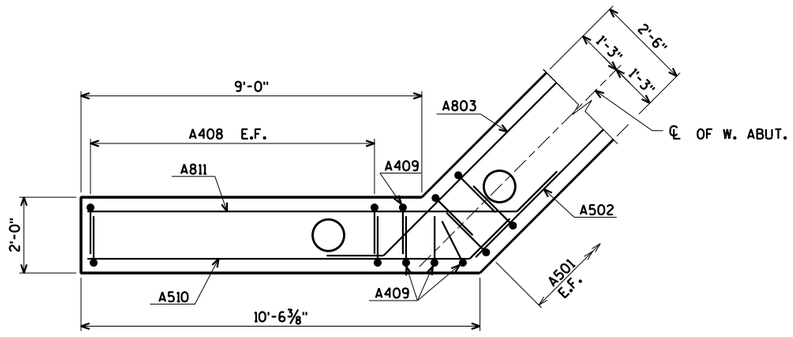
BENDING DIMENSIONS ARE OUT TO OUT OF BARS.

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

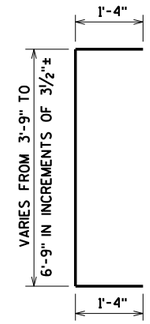
BAR SERIES TABLE

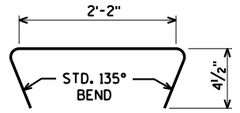
BAR MARK	NO REQ'D.	LENGTH
A408	4 SERIES OF 11	6'-3" TO 9'-3"

BUNDLE AND TAG EACH SERIES SEPARATELY.



SECTION B





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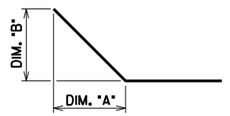
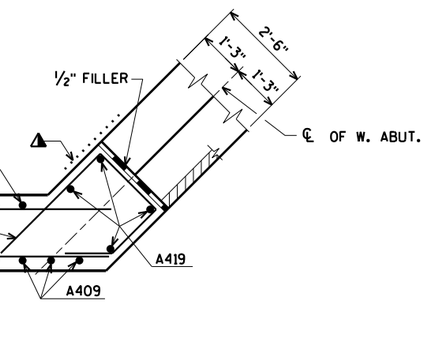


BAR NO.	DIM. "A"	DIM. "B"
A803	1'-0¾"	1'-0¾"
A510	1'-0¾"	1'-0¾"
A811	1'-0¾"	1'-0¾"
A512	1'-0¾"	1'-0¾"
A813	1'-0¾"	1'-0¾"
A417	8'-0"	3'-2"



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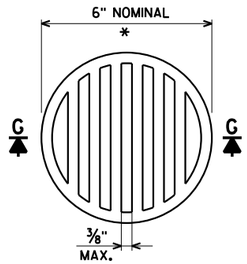
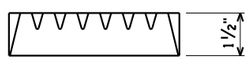




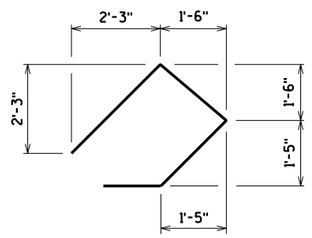
SECTION G-G

* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 x 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

RODENT SHIELD DETAIL



A418

FOR PILE SPLICE DETAIL SEE SHEET 2.

B.F. DENOTES BACK FACE.

F.F. DENOTES FRONT FACE.

E.F. DENOTES EACH FACE.

▲ ¾" 'V' GROOVE ON F.F. OF WINGWALL - NOT REQUIRED IF CONST. JT. IS NOT USED.

● OPT. KEYED CONST. JOINT - FORMED BY A BEVELED 2" x 6".

⚠ 18" RUBBERIZED MEMBRANE WATERPROOFING TO EXTEND FROM BRIDGE SEAT TO TOP OF WINGWALL.

⊞ 18" RUBBERIZED MEMBRANE WATERPROOFING IF CONST. JOINT IS USED (COST INCIDENTAL TO BID ITEM "CONCRETE MASONRY BRIDGES").

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-59-203

DRAWN BY ZSS | PLANS CK'D. JLB

WEST ABUTMENT WING DETAILS & BILL OF BARS

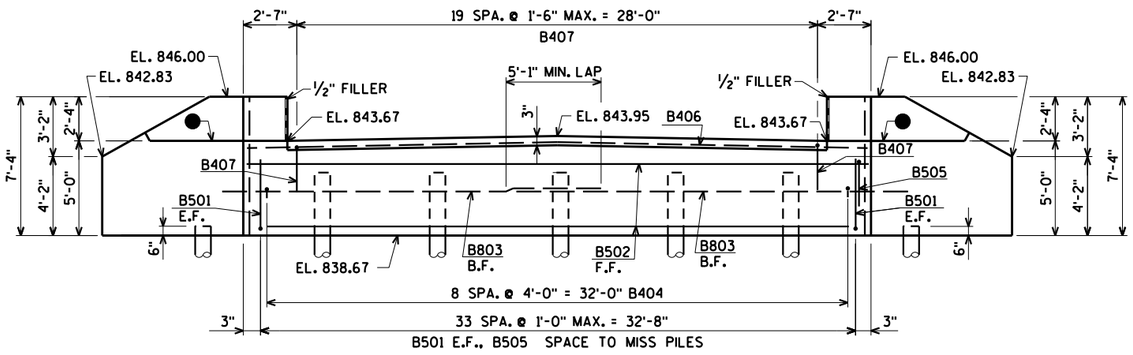
SHEET 5 OF 10
36

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

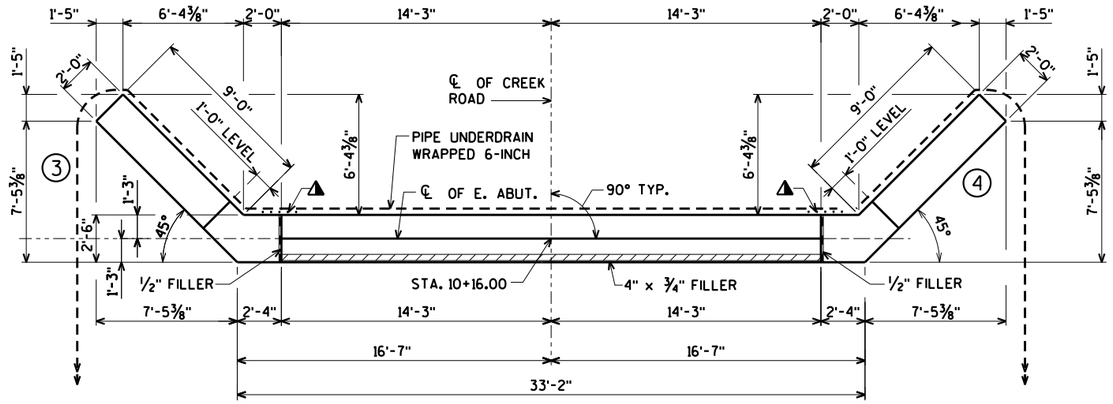
NOTE: SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE.)

STATE PROJECT NUMBER

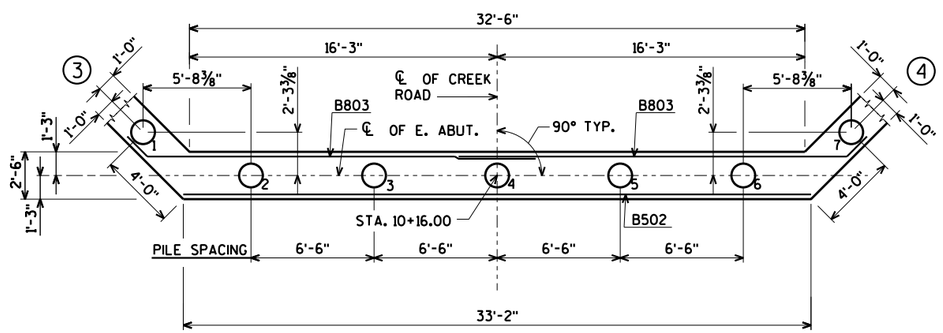
4202-06-71



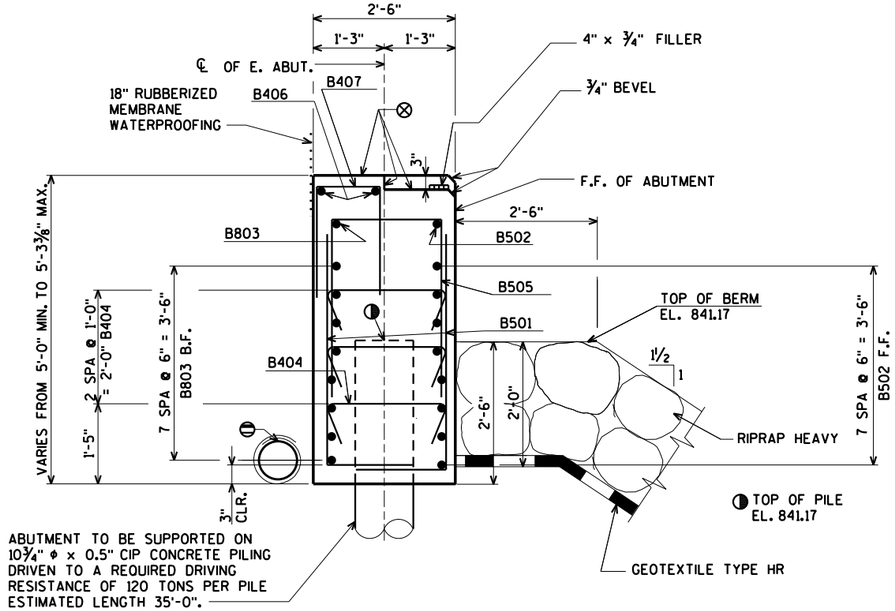
ELEVATION
(LOOKING EAST)



PLAN



PILE LAYOUT



TYPICAL SECTION THRU BODY

NOTE: DO NOT PLACE FILL ABOVE THREE FEET FROM BOTTOM OF ABUTMENT UNTIL SUPERSTRUCTURE IS IN PLACE.

EXCAVATE OR FILL TO BOTTOM OF ABUTMENT BEFORE DRIVING PILES.

⊗ STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING SUPERSTRUCTURE. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03"

⊖ PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE WNDER DRAIN. FOR RODENT SHIELD DETAIL SEE SHEET 5.

● OPT. KEYED CONST. JOINT - FORMED BY A BEVELED 2"x6" WITH RUBBERIZED MEMBRANE WATERPROOFING ON B.F.(RUBBERIZED MEMBRANE WATERPROOFING INCIDENTAL TO BID ITEM "CONCRETE MASONRY BRIDGES" IF CONST. JOINT IS USED).

⚠ 18" RUBBERIZED MEMBRANE WATERPROOFING TO EXTEND FROM BRIDGE SEAT TO TOP OF WINGWALL.

FOR PILE SPLICE DETAIL SEE SHEET 2.

B.F. DENOTES BACK FACE.

F.F. DENOTES FRONT FACE.

E.F. DENOTES EACH FACE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-59-203

DRAWN BY ZSS | PLANS CK'D. JLB

EAST ABUTMENT

SHEET 6 OF 10
37

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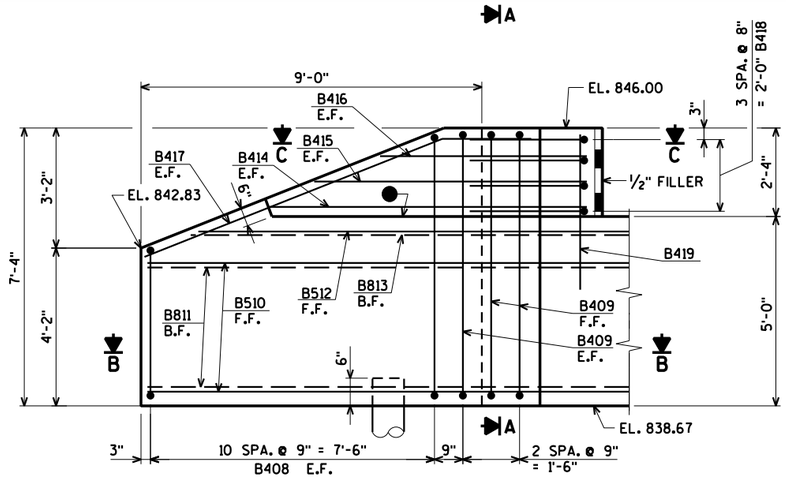
www.AyresAssociates.com

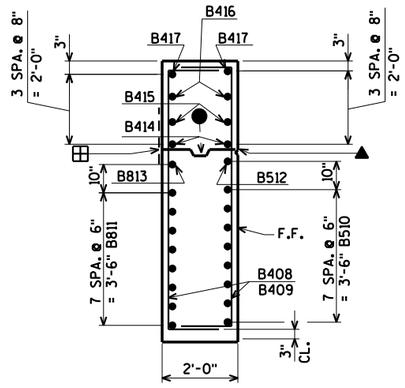
STATE PROJECT NUMBER

4202-06-71

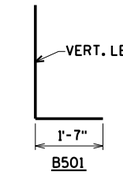


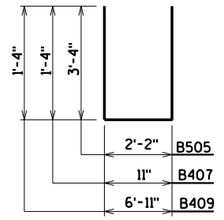
ELEVATION - WING 3

(WING 4 SIMILAR)



SECTION A





BILL OF BARS

BAR. NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR SERIES	2,250# UNCOATED 1,260# COATED LOCATION
B501		68	5-9	X		BODY VERT. E.F.
B502		9	32-10			BODY HORIZ. F.F.
B803		18	22-7	X		BODY HORIZ. B.F.
B404		27	2-9	X		BODY TIES
B505		34	8-8	X		BODY VERT. TOP
B406		2	32-10			BODY HORIZ. TOP NOTCH
B407		20	3-5	X		BODY VERT. TOP NOTCH
B408	X	44	7-9	X		⊗ WINGS 3 & 4 VERT. E.F.
B409	X	8	9-5	X		WINGS 3 & 4 VERT. E.F.
B510	X	16	11-7	X		WINGS 3 & 4 HORIZ. F.F.
B811	X	16	13-2	X		WINGS 3 & 4 HORIZ. B.F.
B512	X	2	9-10	X		WINGS 3 & 4 HORIZ. F.F.
B813	X	2	11-5	X		WINGS 3 & 4 HORIZ. B.F.
B414	X	4	7-7			WINGS 3 & 4 HORIZ. E.F.
B415	X	4	5-11			WING 3 & 4 HORIZ. E.F.
B416	X	4	4-3			WING 3 & 4 HORIZ. E.F.
B417	X	4	10-9	X		WINGS 3 & 4 DIAG. E.F.
B418	X	8	8-4	X		WINGS 3 & 4 HORIZ.
B419	X	8	3-9			WINGS 3 & 4 VERT.

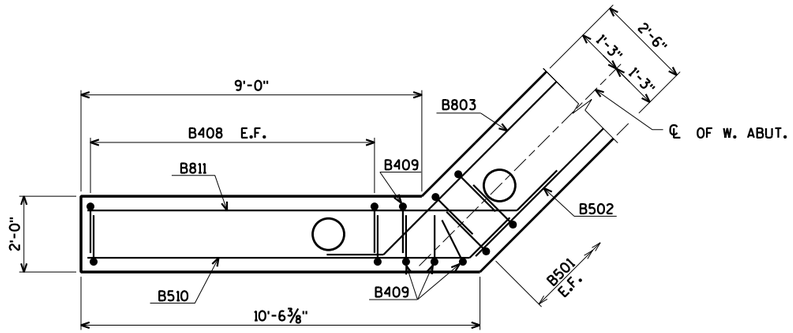
BENDING DIMENSIONS ARE OUT TO OUT OF BARS.

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

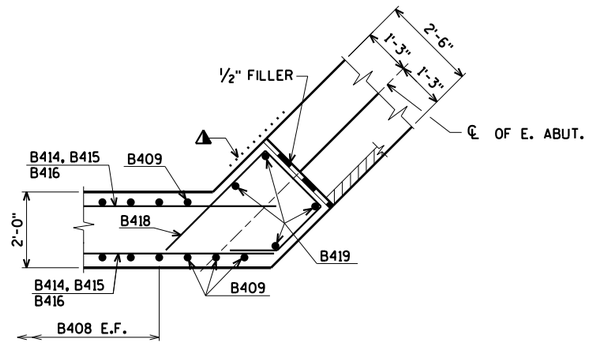
BAR SERIES TABLE

BAR MARK	NO REQ'D.	LENGTH
B408	4 SERIES OF 11	6'-3" TO 9'-3"

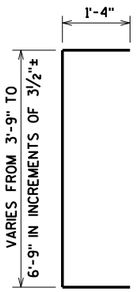
BUNDLE AND TAG EACH SERIES SEPARATELY.

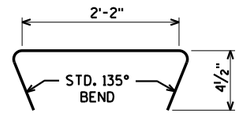


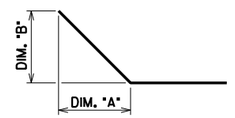
SECTION B



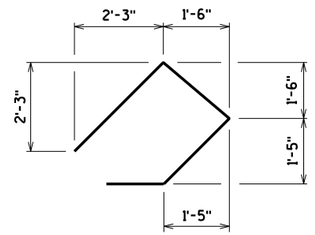
SECTION C







BAR NO.	DIM. "A"	DIM. "B"
B803	1'-0¾"	1'-0¾"
B510	1'-0¾"	1'-0¾"
B811	1'-0¾"	1'-0¾"
B512	1'-0¾"	1'-0¾"
B813	1'-0¾"	1'-0¾"
B417	8'-0"	3'-2"



FOR PILE SPLICE DETAIL SEE SHEET 2.

B.F. DENOTES BACK FACE.

F.F. DENOTES FRONT FACE.

E.F. DENOTES EACH FACE.

▲ ¾" 'V' GROOVE ON F.F. OF WINGWALL - NOT REQUIRED IF CONST. JT. IS NOT USED.

● OPT. KEYED CONST. JOINT - FORMED BY A BEVELED 2" x 6".

⚠ 18" RUBBERIZED MEMBRANE WATERPROOFING TO EXTEND FROM BRIDGE SEAT TO TOP OF WINGWALL.

⊞ 18" RUBBERIZED MEMBRANE WATERPROOFING IF CONST. JOINT IS USED (COST INCIDENTAL TO BID ITEM "CONCRETE MASONRY BRIDGES").

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-59-203

DRAWN BY ZSS | PLANS CK'D. JLB

EAST ABUTMENT WING DETAILS & BILL OF BARS

SHEET 7 OF 10
38

ORIGINAL PLANS PREPARED BY
AYRES ASSOCIATES
3433 Oakwood Hills Parkway
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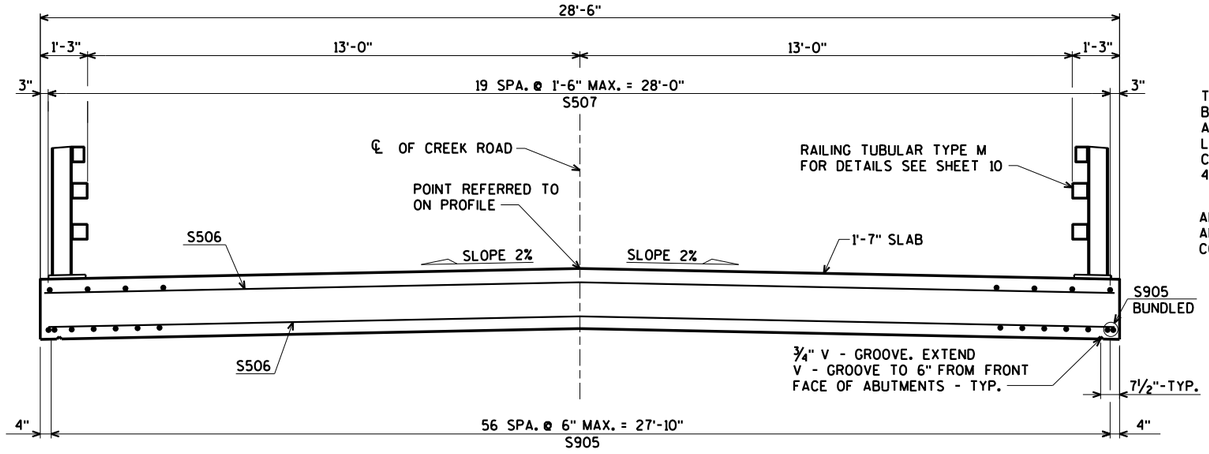
www.AyresAssociates.com

8

8

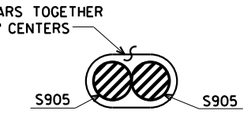


CROSS SECTION THRU BRIDGE

(LOOKING EAST)

TOP TRANSVERSE BARS IN SLAB SHALL BE SUPPORTED BY INDIVIDUAL BAR CHAIRS AT APPROXIMATELY 3'-0" CENTERS EACH WAY. BOTTOM LONGITUDINAL BARS SHALL BE SUPPORTED BY CONTINUOUS BAR CHAIRS AT APPROXIMATELY 4'-0" CENTERS.

ALL SLAB THICKNESS DIMENSIONS ARE MINIMUM. ANY TOLERANCES NECESSARY TO CORRECT CONSTRUCTION DISCREPANCIES ARE TO BE PLUS (+).

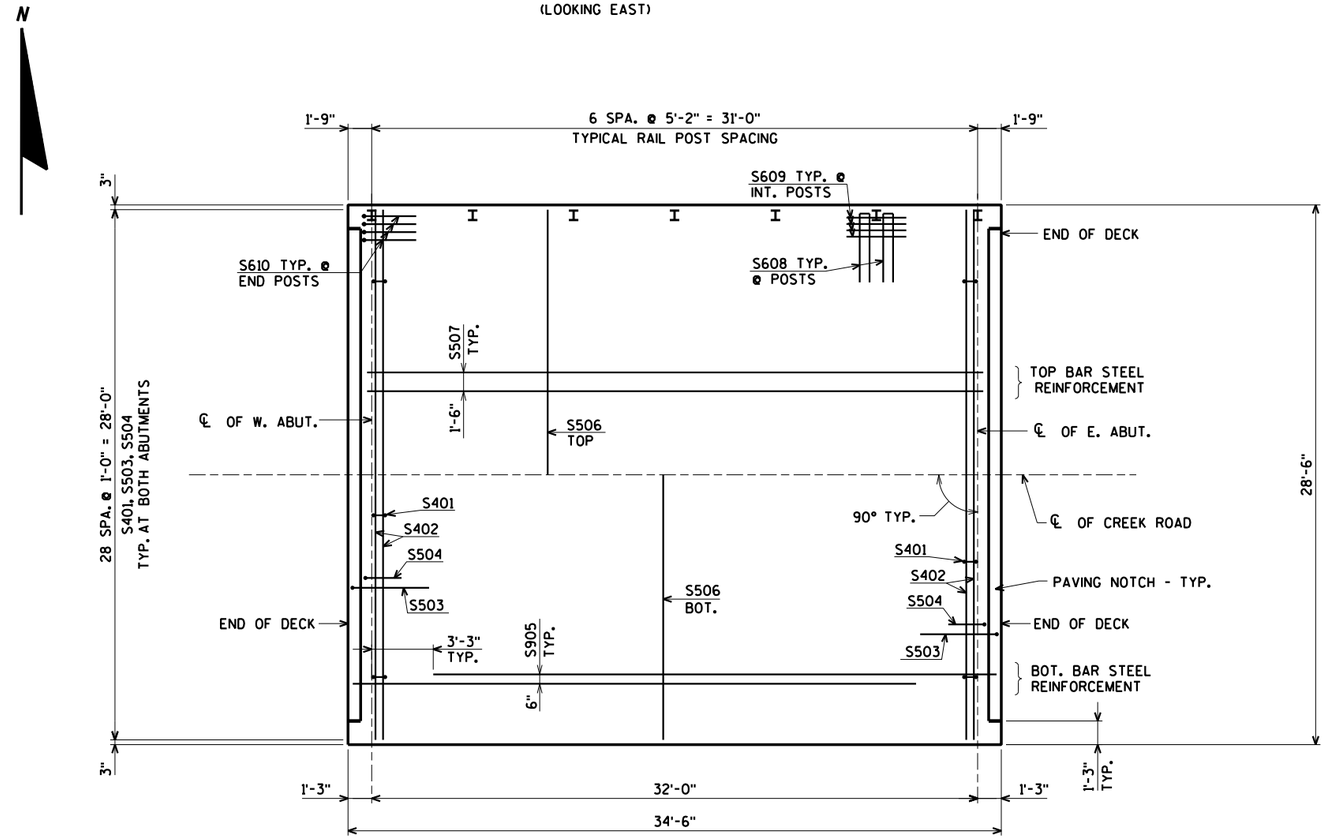


BUNDLING DETAIL

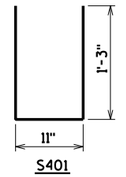
BILL OF BARS

BAR. NO.	COATED BAR	NO. REQ'D.	LENGTH	BENT BAR	BUNDLED BAR SERIES	10,820# COATED LOCATION
S401	X	58	3-3	X		SLAB VERT. @ ABUT. NOTCH
S402	X	4	28-2			SLAB TRANS. @ ABUT. NOTCH
S503	X	58	6-4	X		SLAB VERT. @ ABUT.
S504	X	58	3-5	X		SLAB VERT. @ ABUT.
S905	X	59	29-10		X	SLAB LONG. BOT.
S506	X	80	28-2			SLAB TRANS. BOT. & TOP
S507	X	20	32-10			SLAB LONG. TOP
S608	X	28	12-0	X		SLAB @ RAIL POSTS
S609	X	40	6-0			SLAB @ INT. RAIL POSTS
S610	X	16	6-0	X		SLAB @ END RAIL POSTS

BENDING DIMENSIONS ARE OUT TO OUT OF BARS.



PLAN



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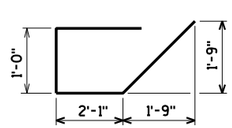

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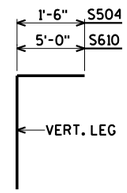

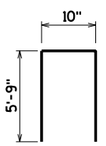

S608

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-59-203

DRAWN BY ZSS | PLANS CK'D. JLB

SUPERSTRUCTURE

SHEET 8 OF 10
39

ORIGINAL PLANS PREPARED BY
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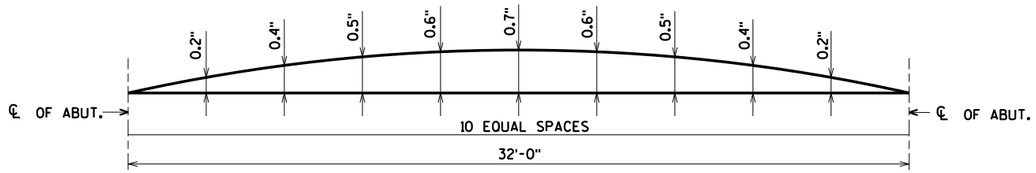
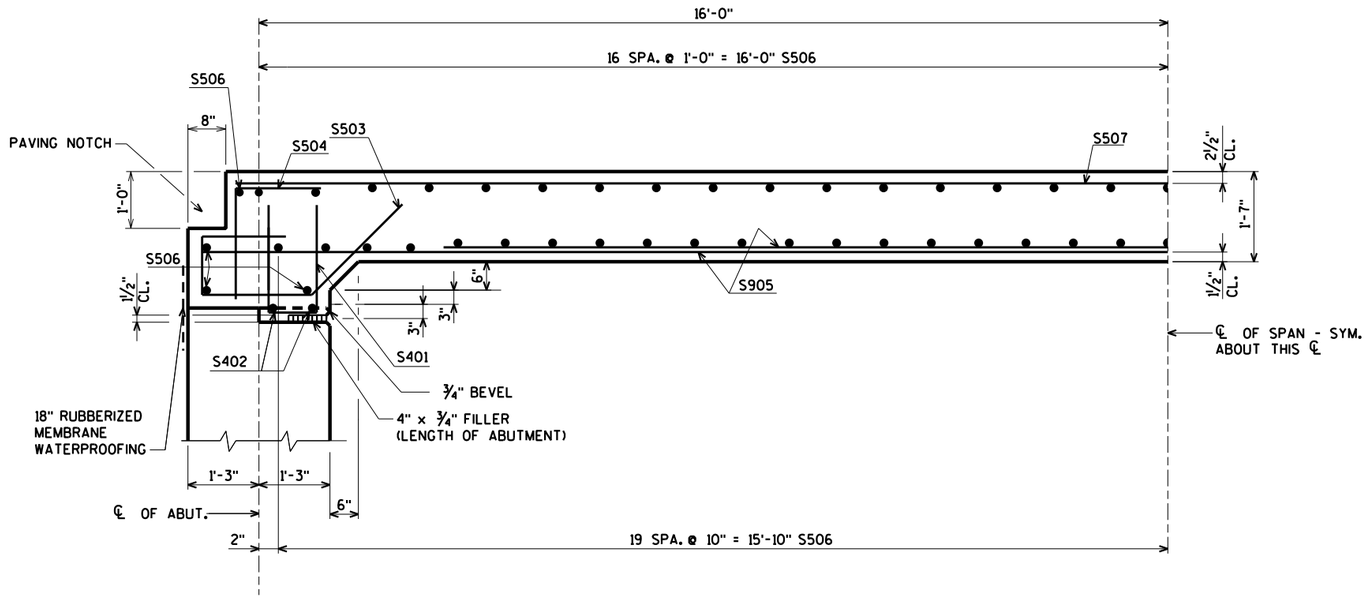


CAMBER DIAGRAM

CAMBER SPANS AS SHOWN TO PROVIDE FOR DEAD LOAD DEFLECTION & FUTURE CREEP. CAMBER DOES NOT INCLUDE ALLOWANCE FOR FORM SETTLEMENT.

PRIOR TO RELEASING SLAB FALSEWORK, TAKE TOP OF SLAB ELEVATIONS AT THE ℄ OF ABUTMENTS, AND AT ½ PT. TO VERIFY CAMBER. TAKE ELEVATIONS ALONG EDGE OF SLAB AND CROWN OR ℄.



PART LONGITUDINAL SECTION

TOP OF DECK ELEVATIONS

LOCATION	℄ OF W. ABUT.	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	℄ OF E. ABUT.
N. EDGE OF SLAB	845.89	845.91	845.92	845.93	945.95	945.96	945.97	845.98	845.98	845.99	846.00
℄ OF CREEK ROAD	846.18	846.19	846.21	846.22	846.23	846.24	846.25	846.26	846.27	846.28	846.28
S. EDGE OF SLAB	845.89	845.91	845.92	845.93	945.95	945.96	945.97	845.98	845.98	845.99	846.00

ELEVATIONS SHOWN ARE FINISHED DECK AND DO NOT INCLUDE ALLOWANCES OF DEAD LOAD DEFLECTION AND FUTURE CREEP.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-59-203

DRAWN BY ZSS | PLANS CK'D. JLB

SUPERSTRUCTURE DETAILS

SHEET 9 OF 10
40

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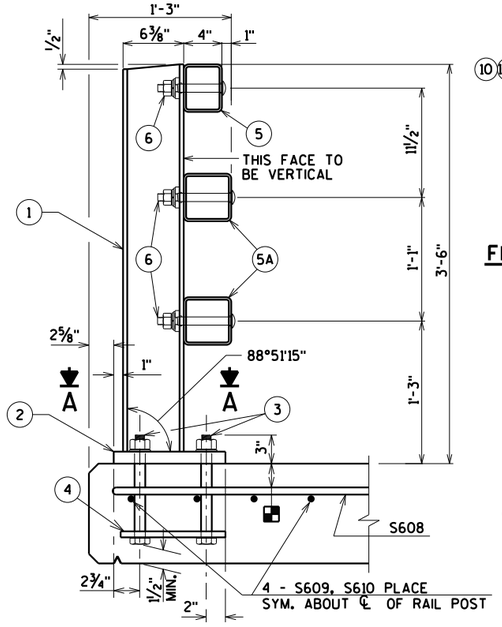
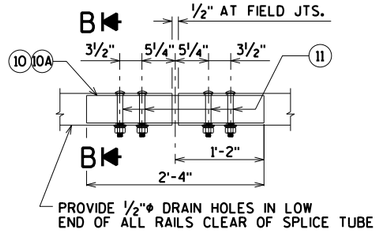
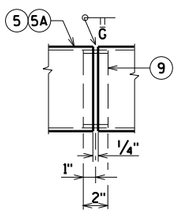


SECTION THRU RAILING ON DECK

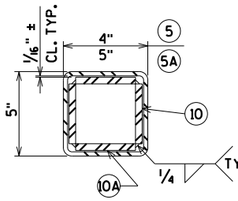


FIELD ERECTION JOINT DETAIL

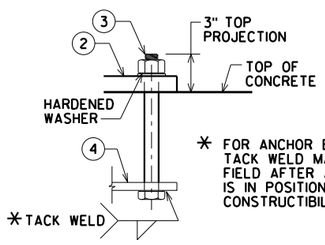


SHOP RAIL SPLICE DETAIL

(LOCATION MUST BE SHOWN ON THE SHOP DRAWINGS)

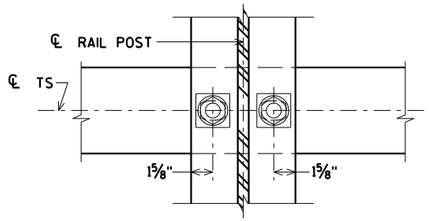


SECTION B

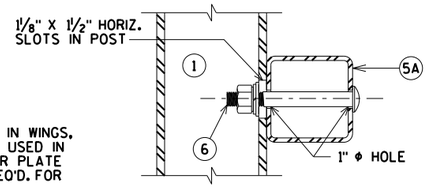


✳ FOR ANCHOR BOLTS IN WINGS, TACK WELD MAY BE USED IN FIELD AFTER ANCHOR PLATE IS IN POSITION IF REQ'D. FOR CONSTRUCTIBILITY.

ANCHOR BOLTS



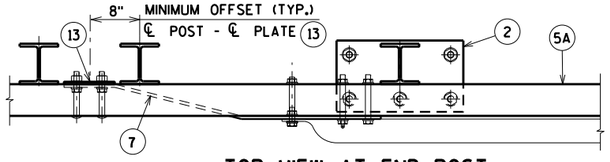
SECTION THRU POST WEB



SECTION THRU RAIL

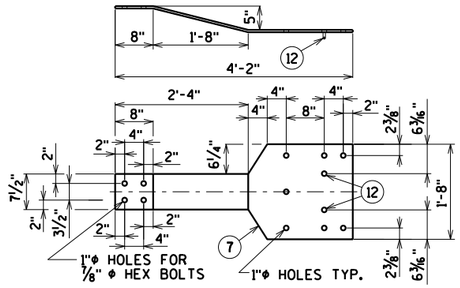
NOTE: CONNECTIONS AT LOWER RAILS SHOWN. CONNECTIONS AT TOP RAIL SIMILAR.

TYPICAL RAIL TO POST CONNECTIONS



TOP VIEW AT END POST

(THRIE BEAM RAIL ATTACHMENT)

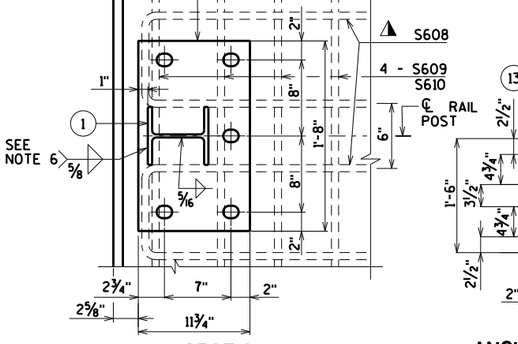


BACK-UP PLATE DETAIL

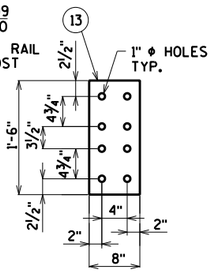
(AT BEAM GUARD ATTACHMENT)

PLACE BELOW TOP MAT SLAB REINFORCEMENT.

TIE TO TOP MAT OF STEEL.

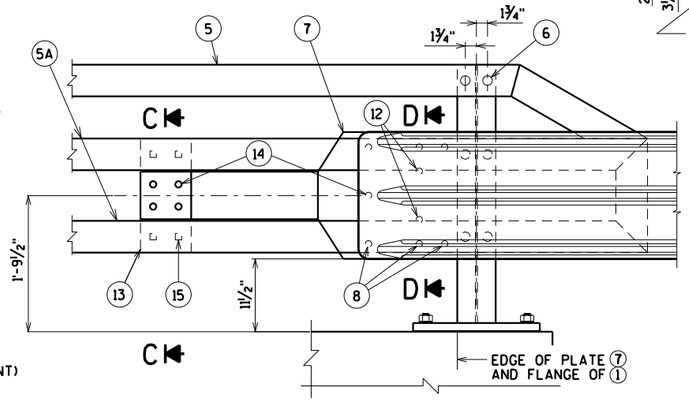


SECTION A



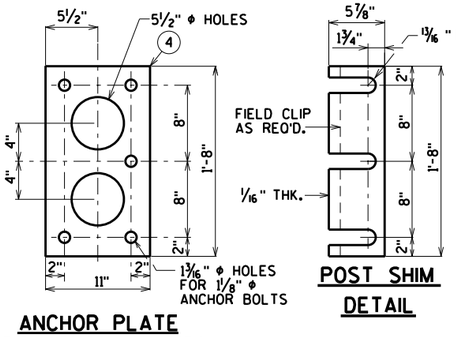
ANCHOR PLATE

(AT BEAM GUARD ATTACHMENT)



DETAIL AT END POST

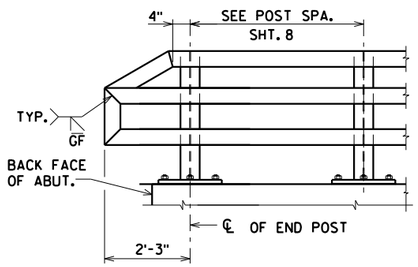
(THRIE BEAM RAIL ATTACHMENT)



ANCHOR PLATE

(AT RAIL TO DECK CONNECTION)

POST SHIM DETAIL



PART ELEVATION OF RAILING

LEGEND

① W6 x 25 WITH 1⅛" X 1½" HORIZ. SLOTS ON EACH SIDE OF POST FOR BOLT NO. 6. CUT BOTTOM OF POST TO MATCH CROSS SLOPE OF ROADWAY. PLACE POST VERTICAL. PLACE POSTS NORMAL TO GRADE LINE.

② PLATE 1¼" x 11¾" x 1'-8" WITH 1⅝" X 1⅝" SLOTTED HOLES FOR ANCHOR BOLTS NO. 3. WELD TO NO. 1 AS SHOWN. SLOTS PARALLEL TO SHORT SIDE OF PLATE.

③ ASTM A449 - 1⅛" DIA. ANCHOR BOLTS WITH NUT AND HARDENED WASHER (ALL GALVANIZED). 5 REQ'D. PER POST. THREAD 3" AND PLACE NORMAL TO PLATE NO. 2. CHAMFER TOP OF BOLTS BEFORE THREADING. ~~USE 1'-9" LONG IN ABUTMENT WINGS.~~ AT POSTS ON CONCRETE SLAB SUPERSTRUCTURES WHERE THE SLAB THICKNESS IS > 16" USE 1'-3" LONG. ~~USE 10¾" LONG AT ALL OTHER LOCATIONS.~~ (AN EQUIVALENT THREADED ROD WITH NUTS AND HARDENED WASHERS MAY BE SUBSTITUTED FOR ANCHOR BOLTS IN WINGS IF REQ'D. FOR CONSTRUCTIBILITY.)

④ ⅝" x 11" x 1'-8" ANCHOR PLATE (GALVANIZED) WITH 1¾6" DIA. HOLES FOR ANCHOR BOLTS NO. 3

⑤ TS 5 x 4 x 0.25 STRUCTURAL TUBING. ATTACH TO NO. 1 WITH NO. 6.

⑤A TS 5 x 5 x 0.25 STRUCTURAL TUBING. ATTACH TO NO. 1 WITH NO. 6.

⑥ ⅞" DIA. A325 SLOTTED ROUND HEAD BOLT WITH NUT, 3⁄16" X 1⅝" X 1⅝" WASHER, AND LOCK WASHER (2 REQ'D. AT EACH RAIL TO POST LOCATION.)

⑦ ½" THK. BACK-UP PLATE WITH 2 - ⅞" X 1½" THREADED SHOP WELDED STUDS (NO. 12). BOLT TO RAIL AS SHOWN IN DETAIL. REQUIRED AT THRIE BEAM GUARD RAIL ATTACHMENTS ONLY. PLACE SYMMETRICALLY ABOUT TUBES NO. 5A.

⑧ 1" DIA. HOLES IN PLATE NO. 7 & TUBES NO. 5A FOR ⅞" DIA. A325 BOLTS WITH HEX NUTS AND WASHERS. 6 HOLES IN TUBES AND PLATE NO. 7.

⑨ SPLICE SLEEVE FABRICATED FROM ¼" PLATE. PROVIDE "SLIDING FIT".

⑩ ⅜" X 3⅝" X 2'-4" PLATE. 2 PER RAIL. USED IN NO. 5 & 5A.

⑩A ⅜" X 2⅝" X 2'-4" PLATE USED IN NO. 5, ⅜" X 3⅝" X 2'-4" PLATE USED IN NO. 5A. 2 PER RAIL.

⑪ ⅞" Φ A325 ROUND HEAD BOLT WITH NUT, WASHER, AND LOCK WASHER. USE 15⁄16 " X 1¼" LONGIT. SLOTTED HOLES AT FIELD JOINTS ~~AND 15⁄16 " X 2¼" MIN. LONGIT. SLOTTED HOLES AT EXP. JOINTS~~ IN PLATE NO. 10A.

⑫ ⅞" DIA. X 1½" LONG THREADED SHOP WELDED STUDS (2 REQ'D).

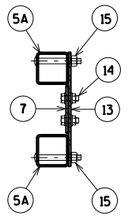
⑬ ⅜" X 8" X 1'-6" PLATE. BOLT TO RAIL AS SHOWN IN DETAIL. REQ'D. AT THRIE BEAM GUARD RAIL ATTACHMENTS ONLY. PLACE SYM. ABOUT TUBES NO. 5A.

⑭ ⅞" DIA. X 2" LONG A325 HEX BOLT WITH NUT AND WASHER (5 REQ'D.).

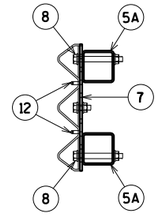
⑮ 1" Φ HOLES IN TUBES NO. 5A FOR ⅞" DIA. A325 ROUND HEAD BOLT WITH NUT, WASHER AND LOCK WASHER (4 REQ'D.). 4 HOLES IN TUBES.

GENERAL NOTES

1. BID ITEM SHALL BE "RAILING TUBULAR TYPE M" WHICH INCLUDES ALL ITEMS SHOWN.
2. RAIL POST AND BASE PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A709 GRADE 50. HOLLOW RAILING STRUCTURAL TUBING SHALL CONFORM TO THE REQUIREMENTS OF ASTM A500 GRADE B OR C WITH A CERTIFIED FY = 50 KSI. ANCHOR PLATES, AND SPLICE TUBE PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A709 GRADE 36.
3. THE NUT SECURING THE POST BASE PLATE TO THE CONCRETE SHALL BE TIGHTENED TO A SNUG FIT AND GIVEN AN ADDITIONAL ⅛ TURN.
4. RAILS SHALL BE CONTINUOUS OVER A MINIMUM OF THREE (3) POSTS WITHOUT SPLICES WHERE POSSIBLE. ~~RAILS SHALL BE SPLICED IN A PANEL OVER EXPANSION JOINTS.~~
5. ENDS OF TUBE SECTIONS SHALL BE SAWED. GRIND SMOOTH EXPOSED EDGES. ALL CUT ENDS SHALL BE TRUE AND SMOOTH.
6. WELD IS THE SAME ON BOTH FLANGES. FLANGE WELD DOES NOT REQUIRE MAGNETIC PARTICLE TESTING.
7. FILL BOLT SLOT OPENINGS IN POST SHIMS AND PLATE NO. 2 AND CAULK AROUND PERIMETER OF PLATE NO. 2 WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. STEEL POST SHIMS MAY BE USED UNDER POSTS WHERE REQ'D. FOR ALIGNMENT.
8. 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.
9. ALL MATERIAL SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING, ALL STEEL RAILING POSTS & STEEL TUBING SHALL BE GIVEN A NO. 6 BLAST CLEANING BY S.S.P.C. SPECIFICATIONS.
10. ~~WHEN PAINTING IS REQUIRED, ALL MATERIAL EXCEPT ANCHORAGE DETAIL (NO. 3 & 4) SHALL BE PAINTED OVER GALVANIZING WITH APPROVED TIE COAT AND TOP COAT.~~



SECTION C



SECTION D

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-59-203

DRAWN BY ZSS | PLANS CK'D. JLB

RAILING TUBULAR TYPE M

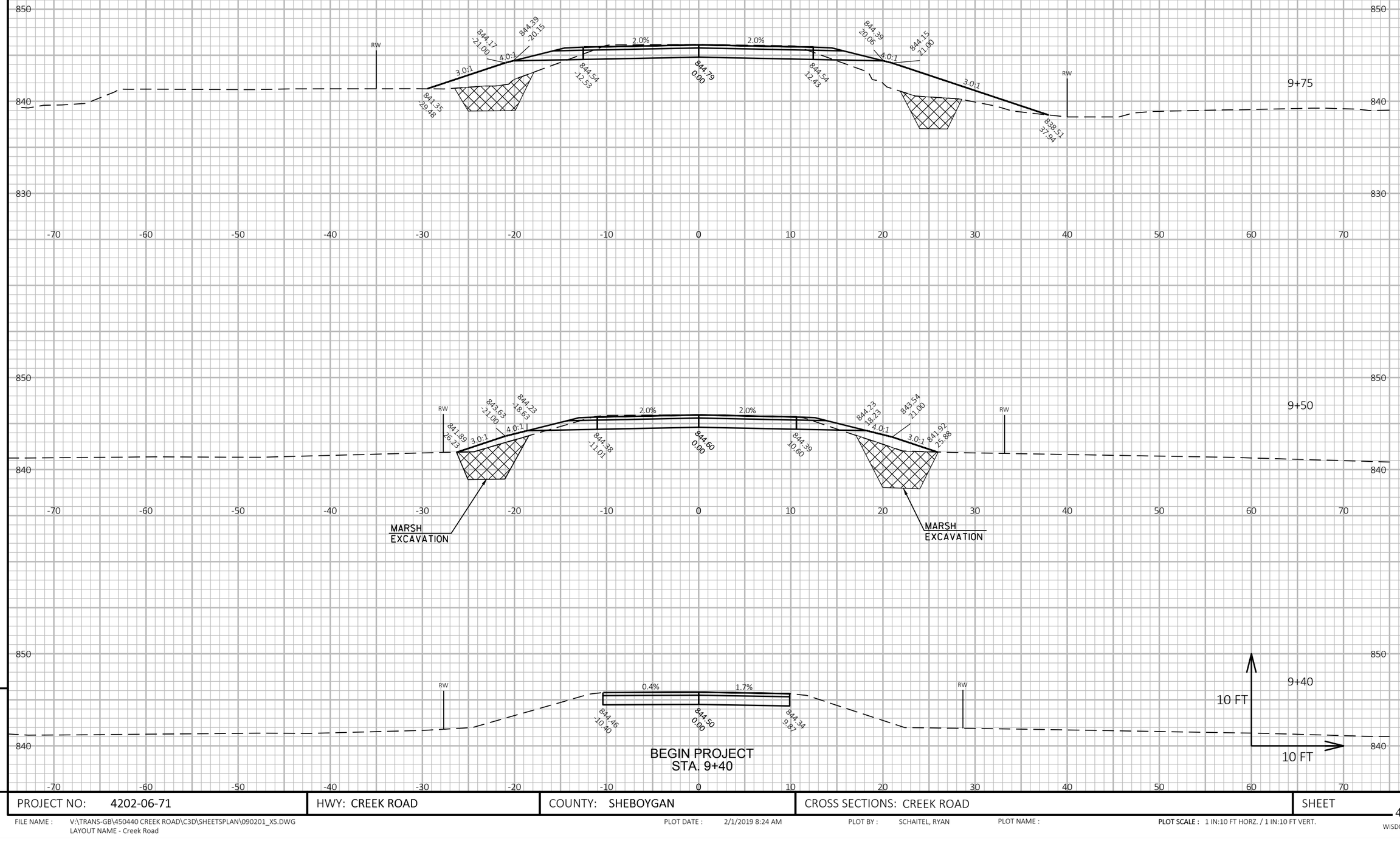
SHEET 10 OF 10
41

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

EARTHWORK - CREEK ROAD

STATION	AREA (SF)				Incremental Vol (CY) (Unadjusted)				Cumulative Vol (CY)			
	Cut	Unusable Pavement Material	Fill	Marsh Exc	Cut	Unusable Pavement Material	Fill	Marsh Exc	Cut	Expanded Fill	Expanded Marsh Backfill	Mass Ordinate
									1.00	1.30	1.50	
					Note 1	Note 2	Note 3		Note 1		Note 4	Note 8
9+40	27.08	10.00	0.00	0.00	0	0	0	0	0	0	0	0
9+50	37.40	10.00	12.40	48.51	12	4	2	9	12	3	13	5
9+75	34.08	10.00	53.73	35.86	33	9	31	39	45	43	72	-11
9+83.42	34.08	10.00	55.00	35.86	11	3	17	11	56	65	89	-25
B-59-203												-25
10+16.58	34.12	10.00	45.00	47.22	0	0	0	0	56	65	89	-25
10+25	34.12	10.00	41.63	47.22	11	3	14	15	66	82	111	-35
10+50	34.83	10.00	19.60	47.90	32	9	28	44	98	119	177	-49
10+90	27.86	10.00	0.00	0.00	46	15	15	35	145	138	230	-37
					145	43	106	153				

Notes:	
1 - Cut	Cut includes Salvaged/Unusable Pavement material
2 - Unusable Pavement Material	This does not show up in cross sections
3 - Fill	Does not include Unusable Pavement Exc volume
4 - Expanded Marsh Backfill	Will be backfilled with Granular Backfill
8 - Mass Ordinate	Cut - Unusable Pavement Material - (Fill * Fill Factor)

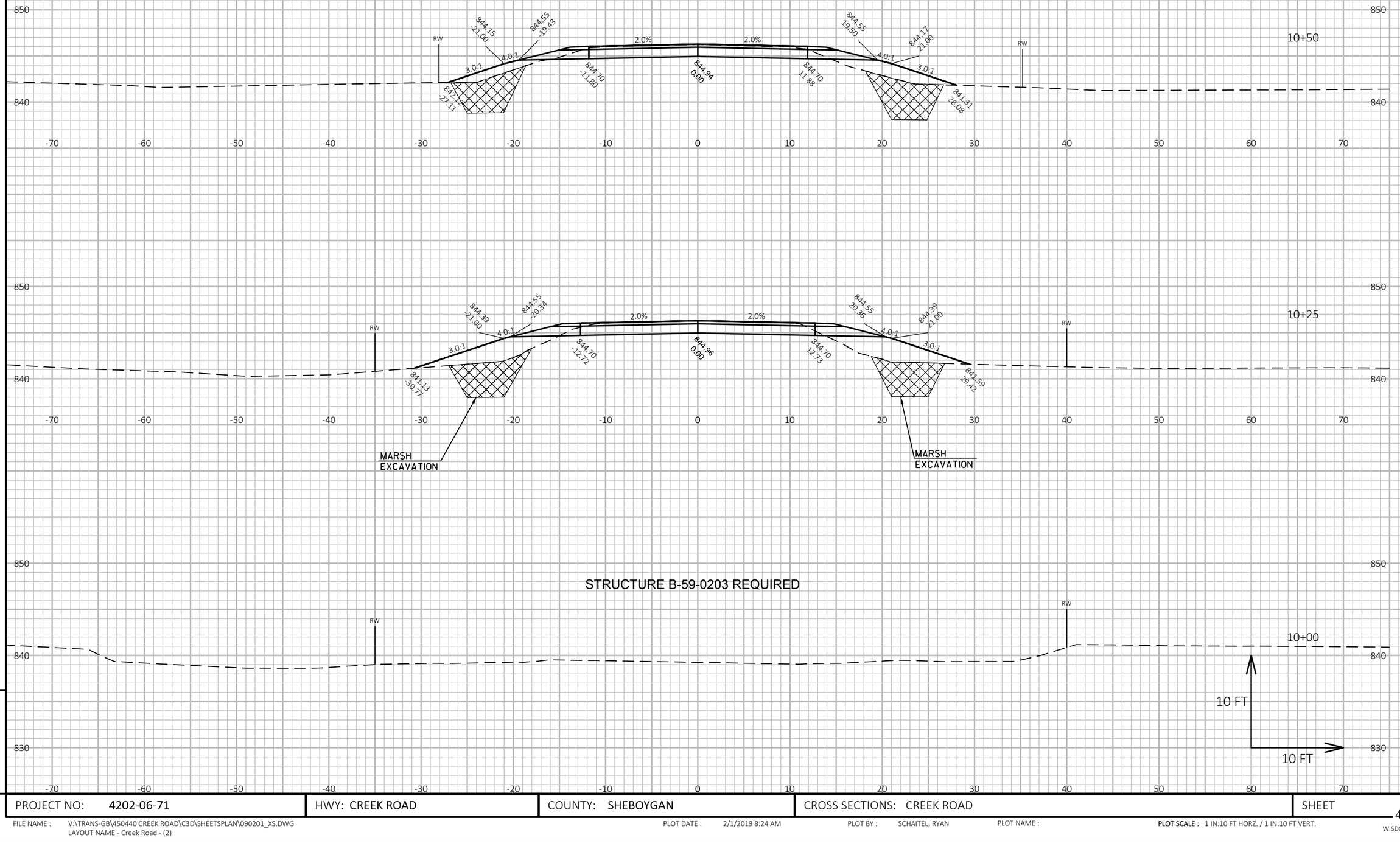


PROJECT NO: 4202-06-71	HWY: CREEK ROAD	COUNTY: SHEBOYGAN	CROSS SECTIONS: CREEK ROAD	SHEET 43 E

FILE NAME : V:\TRANS-GB\450440 CREEK ROAD\C3D\SHEETSPLAN\090201_XS.DWG
LAYOUT NAME - Creek Road

PLOT DATE : 2/1/2019 8:24 AM PLOT BY : SCHAITEL, RYAN PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



STRUCTURE B-59-0203 REQUIRED

9

9

PROJECT NO: 4202-06-71	HWY: CREEK ROAD	COUNTY: SHEBOYGAN	CROSS SECTIONS: CREEK ROAD	SHEET 44	E

FILE NAME : V:\TRANS-GB\450440 CREEK ROAD\C3D\SHEETSPLAN\090201_XS.DWG
LAYOUT NAME - Creek Road - (2)

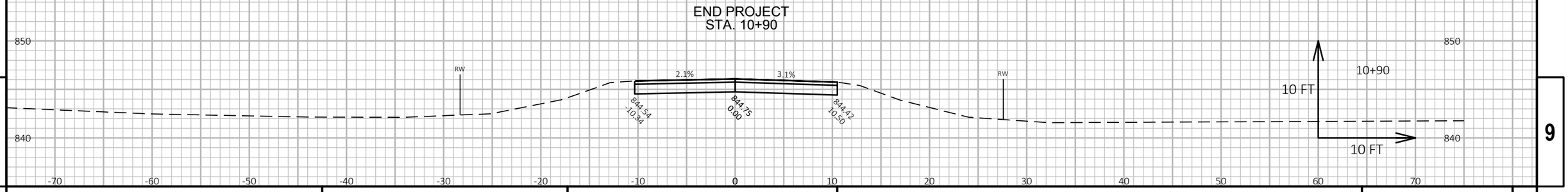
PLOT DATE : 2/1/2019 8:24 AM

PLOT BY : SCHAITEL, RYAN

PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

END PROJECT
STA. 10+90



9

9

PROJECT NO: 4202-06-71	HWY: CREEK ROAD	COUNTY: SHEBOYGAN	CROSS SECTIONS: CREEK ROAD	SHEET 45	E

FILE NAME : V:\TRANS-GB\450440 CREEK ROAD\C3D\SHEETSPLAN\090201_XS.DWG
LAYOUT NAME - Creek Road - (3)

PLOT DATE : 2/1/2019 8:24 AM PLOT BY : SCHAITEL, RYAN PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

Wisconsin Department of Transportation

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