LAX

PROJECT ID: 7016-00-05

WITH: N/A

COUNTY: MONROE

AUGUST 2018

ORDER OF SHEETS

TOTAL SHEETS = 42

STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

CITY OF SPARTA, MILWAUKEE AVENUE

(FARMERS VALLEY CREEK BRIDGE B-41-0299)

LOCAL STREET

MONROE COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
7016-00-05	———	—

STATE PROJECT NUMBER
7016-00-05

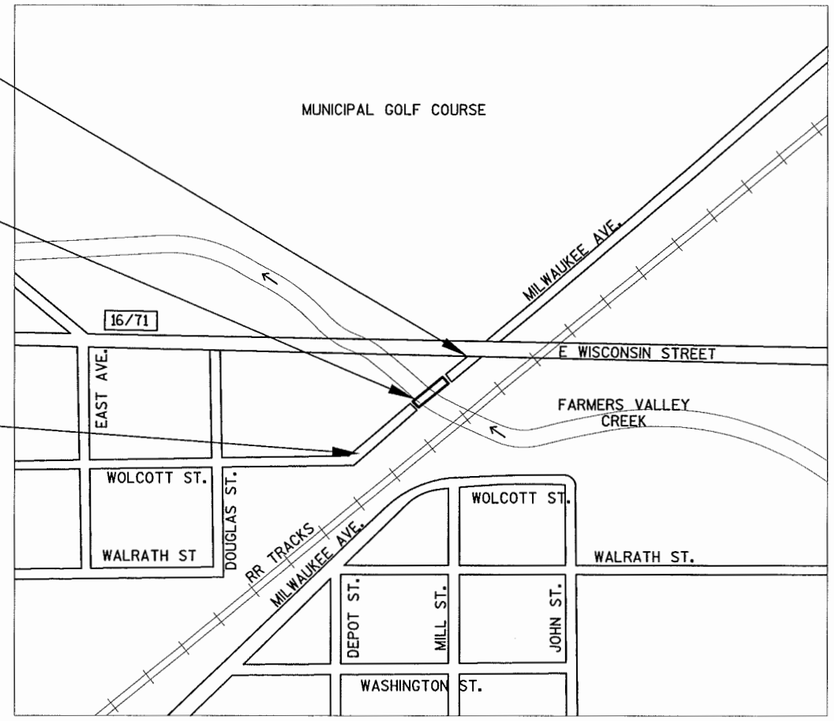
PROJECT LOCATION

N

END PROJECT
STA 12+00
Y = 378,267.54
X = 630,072.63

STRUCTURE
B-41-299

BEGIN PROJECT
STA 7+50
Y = 377,979.56
X = 629,727.23



T-17-N

R-4-W

DESIGN DESIGNATION

A.A.D.T.	2017	=	200
A.A.D.T.	2037	=	250
D.H.V.		=	2.6
D.D.		=	57/43
T.		=	3.3%
DESIGN SPEED		=	30
ESALS		=	7,300

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

SCALE 0 0.05 0.1 MILES LAYOUT

TOTAL NET LENGTH OF CENTERLINE = 0.085 MILES

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), MONROE COUNTY

ACCEPTED FOR
CITY OF SPARTA

DATE: 4/5/18 (SIGNATURE)

DIRECTOR PUBLIC WORKS
TITLE OF OFFICIAL

ORIGINAL PLANS PREPARED BY

MSA PROFESSIONAL SERVICES
TRANSPORTATION • MUNICIPAL DEVELOPMENT • ENVIRONMENTAL
1230 South Boulevard Baraboo, WI 53913
608-356-2771 1-800-362-4505 Fax: 608-356-2770

WISCONSIN JOSHUA R. SWENO E-44384 WAUNAKEE WI PROFESSIONAL ENGINEER

DATE: 4/9/18 (PROFESSIONAL ENGINEER)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY
Surveyor MSA PROFESSIONAL SERVICES, INC.
Designer MSA PROFESSIONAL SERVICES, INC.

Management Consultant KL ENGINEERING, INC.

APPROVED FOR THE DEPARTMENT
DATE: 4/12/2016 Mark Westervelt
Region Signature

E

STANDARD ABBREVIATIONS

AC	ACRE
AGG	AGGREGATE
<	ANGLE
ASPH	ASPHALTIC
AC	ASPHALT CEMENT
ADT	AVERAGE DAILY TRAFFIC
B & B	BALLED AND BURLAPPED
BM	BENCH MARK
CB	CATCH BASIN
' OR C/L	CENTER LINE
C–C	CENTER TO CENTER
CONC	CONCRETE
CO	COUNTY
CTH	COUNTY TRUNK HIGHWAY
CY	CUBIC YARD
CULV	CULVERT
CP	CULVERT PIPE
CPRC	CULVERT PIPE REINFORCED CONCRETE
C & G	CURB AND GUTTER
D	DEGREE OF CURVE
DHV	DESIGN HOUR VOLUME
DIA OR |	DIAMETER
DIST	DISTRICT
DWY	DRIVEWAY
E	EAST
X	EAST GRID COORDINATE
EB	EASTBOUND
ELEC	ELECTRIC
EL OR ELEV	ELEVATION
EMB	EMBANKMENT
EW	ENDWALL
ESALS	EQUIVALENT SINGLE AXLE LOADS
EXC	EXCAVATION
EBS	EXCAVATION BELOW SUBGRADE
EXIST	EXISTING
EXP	EXPANSION
F–F	FACE TO FACE
FERT	FERTILIZER
FE	FIELD ENTRANCE
F/L	FLOW LINE
FT	FOOT
GN	GRID NORTH
HR	HANDICAP RAMP
HT	HEIGHT
CWT	HUNDREDWEIGHT
HYD	HYDRANT
IN DIA	INCH DIAMETER
INL	INLET
ID	INSIDE DIAMETER
I	INTERSECTION ANGLE
IE	INVERT ELEVATION
IP	IRON PIPE OR PIN
JCT	JUNCTION
L	LENGTH OF CURVE
LF	LINEAR FOOT
LC	LONG CHORD OF CURVE
LCB	LONG CHORD BEARING
LS	LUMP SUM
MH	MANHOLE
N	NORTH
Y	NORTH GRID COORDINATE
OE	OUTLET ELEVATION
OL	OUT LOT
OD	OUTSIDE DIAMETER
OH	OVERHEAD LINES
PAVT	PAVEMENT
PLE	PERMANENT LIMITED EASEMENT
PC	POINT OF CURVATURE
PI	POINT OF INTERSECTION
PT	POINT OF TANGENCY
PCC	PORTLAND CEMENT CONCRETE
LB	POUND
PE	PRIVATE ENTRANCE
R OR RAD	RADIUS
RR	RAILROAD
R	RANGE
~ OR R/L	REFERENCE LINE
REQD	REQUIRED
RT	RIGHT
R/W	RIGHT–OF–WAY
RD	ROAD
SALV	SALVAGED
SAN	SANITARY SEWER
SECT	SECTION
SHLDR	SHOULDER
SW	SIDEWALK
S	SOUTH
SB	SOUTHBOUND
SPECS	SPECIFICATIONS
SQ	SQUARE
SF OR SQ FT	SQUARE FEET
SY	SQUARE YARD
SSPRC	STORM SEWER PIPE REINFORCED CONCRETE
STD	STANDARD
SDD	STANDARD DETAIL DRAWINGS
STH	STATE TRUNK HIGHWAYS
STA	STATION
SS	STORM SEWER
T	TANGENT
TEL	TELEPHONE
TEMP	TEMPORARY
TLE	TEMPORARY LIMITED EASEMENT
T	TON
TC	TOP OF CURB
TN	TOWN
TRANS	TRANSITION
T	TRUCKS (percent of)
TYP	TYPICAL
UNCL	UNCLASSIFIED
USH	UNITED STATES HIGHWAY
VAR	VARIABLE
VERT	VERTICAL
VC	VERTICAL CURVE
VOL	VOLUME
WM	WATER MAIN
WV	WATER VALVE
W	WEST
WB	WESTBOUND
YD	YARD

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 = 0.47 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.47 ACRES

MSA DESIGN CONTACT

MSA PROFESSIONAL SERVICES, INC.
ATTN: JOSH SWENO, PE
1230 SOUTH BOULEVARD
BARABOO, WI 53919
608–355–8852
JSWENO@MSA–PS.COM

CITY OF SPARTA

ATTN: MARK VAN WORMER, DPW
201 W. OAK STREET
SPARTA, WI 54656
608–269–4340 EXT. 228
DPW@SPARTAWISCONSIN.ORG

DNR LIAISON

WISCONSIN DEPARTMENT OF
NATURAL RESOURCES
ATTN: KAREN KALVELAGE
DNR SERVICE CENTER
3550 MORMON COULEE ROAD
LA CROSSE, WI 54601
608–785–9115
KAREN.KALVELAGE@WISCONSIN.GOV

UTILITIES

COMMUNICATION:
CENTURYLINK
ATTN: BRET CLARK
311 S. COURT STREET
SPARTA, WI 54656
608–269–0819
BRET.CLARK@CENTURYLINK.COM

ELECTRIC:
XCEL ENERGY INC.
ATTN: LAURIE FREEMAN
3215 COMMERCE STREET
LA CROSSE, WI 54603
789–789–3714
LAURIE.A.FREEMAN@XCELENERGY.COM

ELECTRIC TRANSMISSION
XCEL ENERGY INC.
ATTN: BRUCE ZEMKE
414 NICOLLET MALL
MINNEAPOLIS, MN 55401
612–330–7815
BRUCE.M.ZEMKE@XCELENERGY.COM

WATER:
CITY OF SPARTA
ATTN: MARK VAN WORMER, DPW
201 W. OAK STREET
SPARTA, WI 54656
608–269–4340 EXT. 228
DPW@SPARTAWISCONSIN.ORG

* NOT A MEMBER OF DIGGERS HOTLINE

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

GENERAL NOTES

DISTURBED AREAS WITHIN THE RIGHT–OF–WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, SHALL BE FERTILIZED, SEEDED AND MULCHED AS DIRECTED BY THE ENGINEER. OVERSOW PERMANENT SEEDING AREAS WITH TEMPORARY SEED AT 1.5 LBS. PER 1000 SQUARE FEET.

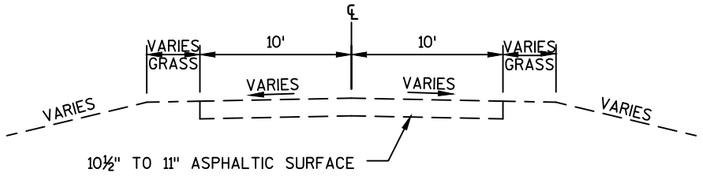
THE LOCATIONS OF EXISTING INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE AREA THAT ARE NOT SHOWN.

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

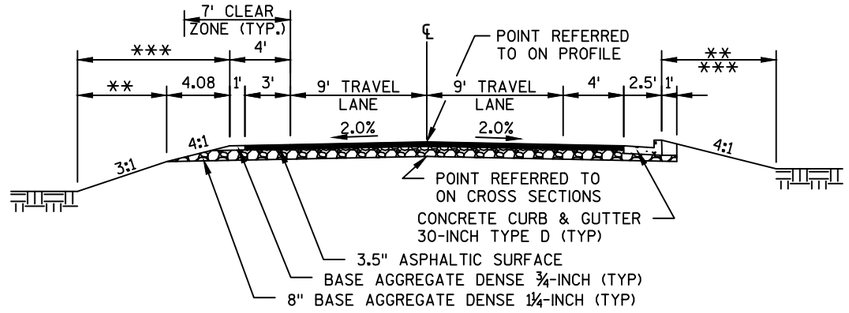
ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO USGS NAVD 88. BENCHMARKS WERE LOCATED IN THE FIELD USING GPS TECHNOLOGY.

THE 3½" ASPHALTIC SURFACE SHALL CONSIST OF A 1¾" UPPER LAYER AND A 1¾" LOWER LAYER. USE 12.5MM NOMINAL AGGREGATE.

SILT FENCE AND TURBIDITY BARRIER TO BE PLACED AS SHOWN ON THE PLAN OR AS DIRECTED BY THE ENGINEER AND IN PLACE PRIOR TO CONSTRUCTION OR BRIDGE REMOVAL.

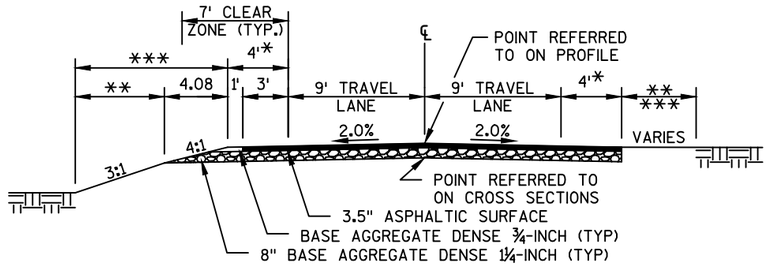


TYPICAL EXISTING SECTION



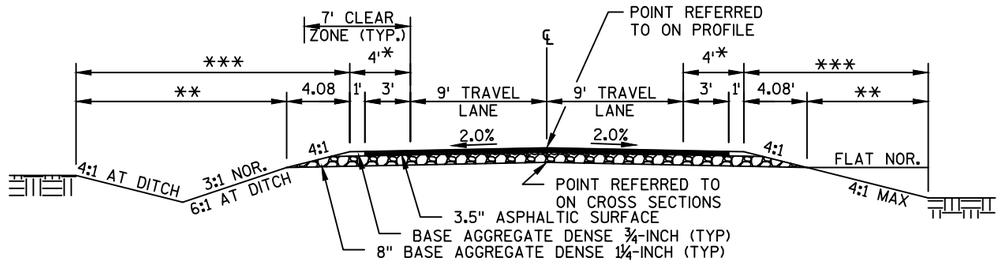
TYPICAL FINISHED SECTION

STA 8+50.00 - STA 9+56.53
STA 10+70.00 - STA 11+50.00 (REVERSED)



TYPICAL FINISHED SECTION

STA 7+50.00 - STA 8+50.00



TYPICAL FINISHED SECTION

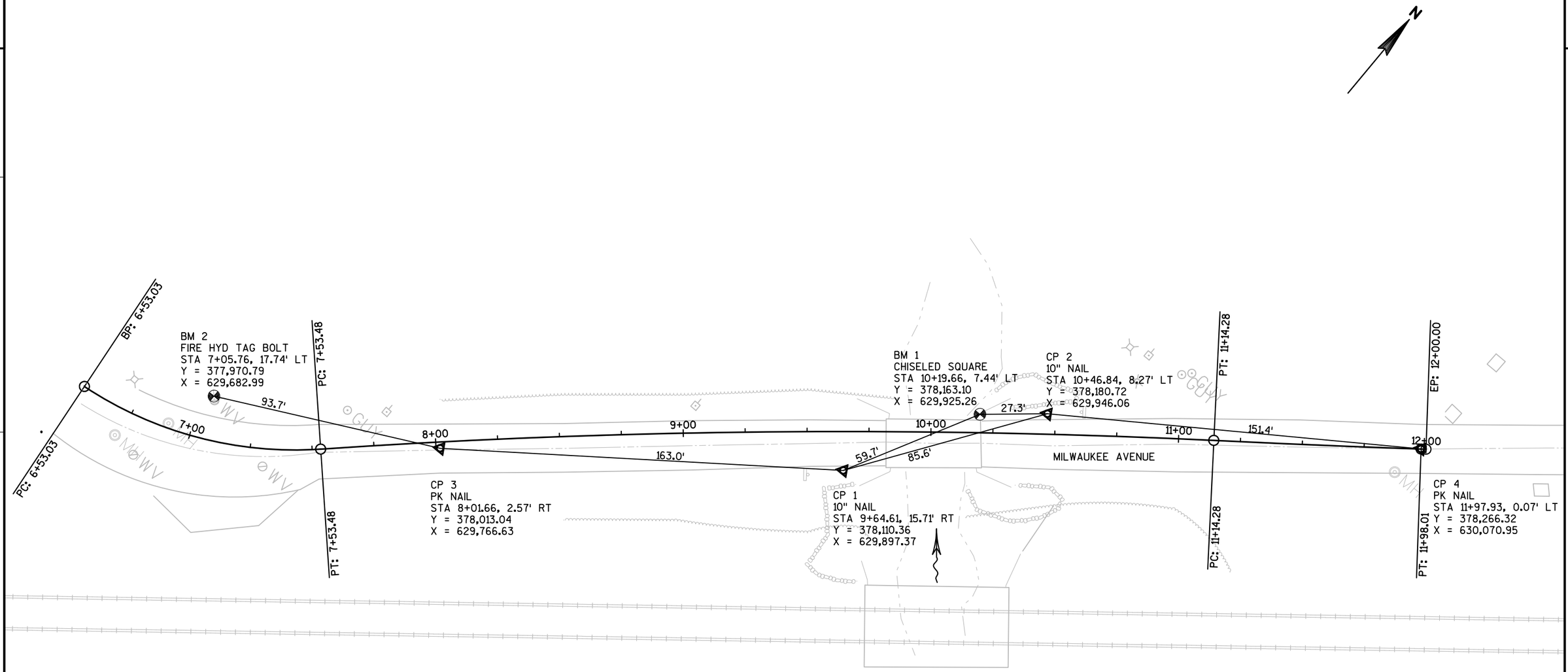
STA 9+56.53 - STA 9+76.75
STA 10+23.25 - STA 10+70.00
STA 11+50.00 - STA 12+00.00

NOTES:

* VARIES 1' AT STA 7+50 TO 4' AT STA 8+50, AND VARIES 4' AT STA 11+50 TO 1' AT STA 12+00
** SALVAGED TOPSOIL AND MULCHING LIMITS
*** SEEDING MIXTURE #20, SEEDING TEMPORARY, & FERTILIZER TYPE B LIMITS

PROJECT NO: 7016-00-05	HWY: LOCAL STREET	COUNTY: MONROE	TYPICAL SECTIONS	SHEET 3	E

2



PROJECT TIES

ALL DISTANCES ARE SLOPE DISTANCES

PROJECT NO: 7016-00-05	HWY: LOCAL STREET	COUNTY: MONROE	PROJECT CONTROL POINTS, TIES, & COORDINATES	SHEET 4	E

7016-00-05

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	203.0600.S	Removing Old Structure Over Waterway With Minimal Debris (station) 01. 10+00	LS	1.000	1.000
0008	205.0100	Excavation Common	CY	438.000	438.000
0010	206.1000	Excavation for Structures Bridges (structure) 01. B-41-299	LS	1.000	1.000
0012	208.0100	Borrow	CY	342.000	342.000
0014	210.1500	Backfill Structure Type A	TON	300.000	300.000
0016	213.0100	Finishing Roadway (project) 01. 7016-00-05	EACH	1.000	1.000
0018	305.0110	Base Aggregate Dense 3/4-Inch	TON	15.000	15.000
0020	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	568.000	568.000
0022	455.0605	Tack Coat	GAL	55.000	55.000
0024	465.0105	Asphaltic Surface	TON	210.000	210.000
0026	465.0315	Asphaltic Flumes	SY	14.000	14.000
0028	502.0100	Concrete Masonry Bridges	CY	197.000	197.000
0030	502.3200	Protective Surface Treatment	SY	136.000	136.000
0032	502.3210	Pigmented Surface Sealer	SY	71.000	71.000
0034	505.0400	Bar Steel Reinforcement HS Structures	LB	3,520.000	3,520.000
0036	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	24,950.000	24,950.000
0038	516.0500	Rubberized Membrane Waterproofing	SY	20.000	20.000
0040	550.1100	Piling Steel HP 10-Inch X 42 Lb	LF	875.000	875.000
0042	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	186.000	186.000
0044	606.0300	Riprap Heavy	CY	190.000	190.000
0046	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	190.000	190.000
0048	614.0150	Anchor Assemblies for Steel Plate Beam Guard	EACH	4.000	4.000
0050	618.0100	Maintenance And Repair of Haul Roads (project) 01. 7016-00-05	EACH	1.000	1.000
0052	619.1000	Mobilization	EACH	1.000	1.000
0054	624.0100	Water	MGAL	35.000	35.000
0056	625.0500	Salvaged Topsoil	SY	525.000	525.000
0058	627.0200	Mulching	SY	525.000	525.000
0060	628.1504	Silt Fence	LF	780.000	780.000
0062	628.1520	Silt Fence Maintenance	LF	780.000	780.000
0064	628.1905	Mobilizations Erosion Control	EACH	2.000	2.000
0066	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0068	628.6005	Turbidity Barriers	SY	155.000	155.000
0070	629.0210	Fertilizer Type B	CWT	0.550	0.550
0072	630.0120	Seeding Mixture No. 20	LB	20.000	20.000
0074	630.0200	Seeding Temporary	LB	10.000	10.000

7016-00-05

Line	Item	Item Description	Unit	Total	Qty
0076	634.0612	Posts Wood 4x6-Inch X 12-FT	EACH	4.000	4.000
0078	637.2230	Signs Type II Reflective F	SF	12.000	12.000
0080	638.2602	Removing Signs Type II	EACH	4.000	4.000
0082	638.3000	Removing Small Sign Supports	EACH	4.000	4.000
0084	642.5001	Field Office Type B	EACH	1.000	1.000
0086	643.0420	Traffic Control Barricades Type III	DAY	1,620.000	1,620.000
0088	643.0705	Traffic Control Warning Lights Type A	DAY	2,430.000	2,430.000
0090	643.0900	Traffic Control Signs	DAY	1,215.000	1,215.000
0092	643.5000	Traffic Control	EACH	1.000	1.000
0094	645.0111	Geotextile Type DF Schedule A	SY	60.000	60.000
0096	645.0120	Geotextile Type HR	SY	365.000	365.000
0098	650.4500	Construction Staking Subgrade	LF	400.000	400.000
0100	650.5000	Construction Staking Base	LF	400.000	400.000
0102	650.6500	Construction Staking Structure Layout (structure) 01. B-41-299	LS	1.000	1.000
0104	650.9910	Construction Staking Supplemental Control (project) 01. 7016-00-05	LS	1.000	1.000
0106	650.9920	Construction Staking Slope Stakes	LF	400.000	400.000
0108	690.0150	Sawing Asphalt	LF	40.000	40.000
0110	715.0502	Incentive Strength Concrete Structures	DOL	1,182.000	1,182.000
0112	801.0117	Railroad Flagging Reimbursment	DOL	24,000.000	24,000.000

3

CLEARING & GRUBBING

STATION - STATION	LOCATION	201.0105 CLEARING STA	201.0205 GRUBBING STA
8+00 - 10+00	LT	2	2
	TOTALS:	2	2

EARTHWORK

STATION - STATION	205.0100 EXCAVATION COMMON CY	FILL CY (1)	EXPANDED FILL CY (2)	208.0100 BORROW CY
7+50.00 - 9+76.75	161	313	407	342
10+23.25 - 12+00.00	277	77	100	---
TOTALS:	438	390	507	342

(1) - NOT A BID ITEM - FOR INFORMATIONAL PURPOSES ONLY.
(2) - FILL EXPANSION 30%

BASE AGGREGATE ITEMS

STATION - STATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	624.0100 WATER (1) MGAL
7+50.00 - 9+76.75	8	317	10.0
10+23.25 - 12+00.00	7	251	8.0
TOTALS:	15	568	18.0

(1) - ADDITIONAL QUANTITIES LISTED ELSEWHERE

ASPHALT PAVEMENT ITEMS

STATION - STATION	455.0605 TACK COAT GAL	465.0105 ASPHALTIC SURFACE TON
7+50.00 - 9+76.75	31	117
10+23.25 - 12+00.00	24	93
TOTALS:	55	210

ASPHALT FLUMES

STATION	LOCATION	465.0315 ASPHALTIC FLUMES SY
9+60	RT	4
10+37	LT	2
10+37	RT	4
10+65	LT	4
	TOTALS:	14

CURB & GUTTER

STATION - STATION	LOCATION	601.0411 CONCRETE CURB & GUTTER 30-INCH TYPE D LF
8+50.00 - 9+56.53	RT	106
10+70.00 - 11+50.00	LT	80
	TOTALS:	186

RESTORATION ITEMS

STATION - STATION	LOCATION	625.0500 SALVAGED TOPSOIL SY	627.0200 MULCHING SY	629.0210 FERTILIZER TYPE B CWT	630.0120 SEEDING MIXTURE NO. 20 LB	630.0200 SEEDING TEMPORARY LB	624.0100 WATER (1) MGAL
7+50 - 9+75	LT	375	375	0.30	13	6	10.6
8+50 - 9+64	RT	35	35	0.05	1	1	0.8
10+35 - 12+00	LT	55	55	0.05	2	1	1.9
10+35 - 12+00	RT	25	25	0.05	2	1	2.0
UNDISTRIBUTED	---	35	35	0.10	2	1	1.7
	TOTALS:	525	525	0.55	20	10	17

(1) - ADDITIONAL QUANTITIES LISTED ELSEWHERE

SILT FENCE

STATION - STATION	LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.6005 TURBIDITY BARRIERS SY
7+50 - 9+95	LT & RT	400	400	65
10+10 - 12+00	LT & RT	360	360	75
UNDISTRIBUTED	---	20	20	15
	TOTALS:	780	780	155

SIGNING ITEMS

STATION	LOCATION	SIGN CODE	SIZE	634.0612 WOOD POSTS EACH	637.2230 SIGNS TYPE II REFLECTIVE F SF	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	COMMENTS
9+50	RT	---	---	---	---	---	---	WEIGHT LIMIT POSTING (REMOVED BY CITY)
9+65	RT	W5-52R	12"x36"	1	3	---	---	OBJECT MARKER
9+82	RT	---	---	---	---	1	1	EXISTING OBJECT MARKER
9+65	LT	W5-52L	12"x36"	1	3	---	---	OBJECT MARKER
9+82	LT	---	---	---	---	1	1	EXISTING OBJECT MARKER
10+35	RT	W5-52L	12"x36"	1	3	---	---	OBJECT MARKER
10+20	RT	---	---	---	---	1	1	EXISTING OBJECT MARKER
10+35	LT	W5-52R	12"x36"	1	3	---	---	OBJECT MARKER
10+20	LT	---	---	---	---	1	1	EXISTING OBJECT MARKER
10+60	LT	---	---	---	---	---	---	WEIGHT LIMIT POSTING (REMOVED BY CITY)
	TOTALS:			4	12	4	4	

MOBILIZATION EROSION CONTROL

DESCRIPTION	628.1905 MOBILIZATION EROSION CONTROL EACH	628.1910 MOBILIZATION EMERGENCY EROSION CONTROL EACH
PROJECT 7016-00-05	2	2
TOTALS:	2	2

TRAFFIC CONTROL ITEMS

LOCATION	DAYS	TRAFFIC CONTROL BARRICADES TYPE III EACH	643.0420 TRAFFIC CONTROL BARRICADES TYPE III DAYS	TRAFFIC CONTROL WARNING LIGHTS TYPE A EACH	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A DAYS	TRAFFIC CONTROL SIGNS EACH	643.0900 TRAFFIC CONTROL SIGNS DAYS
WOLCOTT ST & DOUGLAS ST INTERSECTION	81	2	162	4	324	3	243
BEGINNING OF PROJECT	81	7	567	10	810	3	243
END OF PROJECT	81	7	567	10	810	4	324
HAELWOOD AVE & HARDWOOD RD INTERSECTION	81	2	162	4	324	3	243
UNDISTRUBUTED	81	2	162	2	162	2	162
TOTALS:			1,620		2,430		1,215

CONSTRUCTION STAKING

STATION - STATION	650.4500 CONSTRUCTION STAKING SUBGRADE LF	650.5000 CONSTRUCTION STAKING BASE LF	650.9920 CONSTRUCTION STAKING SLOPE STAKES LF	650.9910 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL 7016-00-05 LS
7+50 - 9+75	225	225	225	---
10+25 - 12+00	175	175	175	---
7016-00-05	---	---	---	1
TOTALS:	400	400	400	1

SAWING PAVEMENT ITEMS

STATION	690.0150 SAWING ASPHALT LF
7+50	20
12+00	20
TOTAL:	40

CONVENTIONAL SYMBOLS

SECTION LINE
QUARTER LINE
SIXTEENTH LINE
NEW REFERENCE LINE
NEW R/W LINE
EXISTING R/W OR HE LINE
PROPERTY LINE
LOT, TIE & OTHER MINOR LINES
SLOPE INTERCEPT
CORPORATE LIMITS
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC)
NEW R/W (FEE OR HE) (HATCHING VARIES BY OWNER)
TEMPORARY LIMITED EASEMENT AREA
EASEMENT AREA (PERMANENT LIMITED OR RESTRICTED DEVELOPMENT)
TRANSMISSION STRUCTURES
BUILDING
TO BE REMOVED
BRIDGE

SECTION CORNER SYMBOL
SECTION CORNER MONUMENT
GEODETIC SURVEY MONUMENT
SIXTEENTH CORNER MONUMENT
SIGN
OFF-PREMISE SIGN
R/W MONUMENT (TO BE SET)
NON-MONUMENTED R/W POINT
FOUND IRON PIN (1-INCH UNLESS NOTED)

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

ACCESS RESTRICTED BY ACQUISITION
NO ACCESS (BY STATUTORY AUTHORITY)
ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)
NO ACCESS (NEW HIGHWAY)
PARCEL NUMBER 25
UTILITY NUMBER 40
PARALLEL OFFSETS

CONVENTIONAL ABBREVIATIONS

ACCESS RIGHTS	AR	POINT OF INTERSECTION	PI
ACRES	AC	PROPERTY LINE	PL
AHEAD	AH	RECORDED AS	(100')
ALUMINUM	ALUM	REEL / IMAGE	R/I
AND OTHERS	ET AL	REFERENCE LINE	R/L
BACK	BK	REMAINING	REM
BLOCK	BLK	RESTICTIVE DEVELOPMENT EASEMENT	RDE
CENTERLINE	C/L	RIGHT	RT
CERTIFIED SURVEY MAP	CSM	RIGHT OF WAY	R/W
CONCRETE	CONC	SECTION	SEC
COUNTY	CO	SEPTIC VENT	SEPV
COUNTY TRUNK HIGHWAY	CTH	SQUARE FEET	SF
DISTANCE	DIST	STATE TRUNK HIGHWAY	STH
CORNER	COR	STATION	STA
DOCUMENT NUMBER	DOC	TELEPHONE PEDESTAL	TP
EASEMENT	EASE	TEMPORARY LIMITED EASEMENT	TLE
EXISTING	EX	TRANSPORTATION PROJECT PLAT	TPP
GAS VALVE	GV	UNITED STATES HIGHWAY	USH
GRID NORTH	GN	VOLUME	V
HIGHWAY EASEMENT	HE		
IDENTIFICATION	ID		
LAND CONTRACT	LC		
LEFT	LT		
MONUMENT	MON		
NATIONAL GEODETIC SURVEY	NGS		
NUMBER	NO		
OUTLOT	OL		
PAGE	P		
POINT OF TANGENCY	PT		
PERMANENT LIMITED EASEMENT	PLE		
POINT OF BEGINNING	POB		
POINT OF CURVATURE	PC		
POINT OF COMPOUND CURVE	PCC		

CURVE DATA

LONG CHORD	LCH
LONG CHORD BEARING	LCB
RADIUS	R
DEGREE OF CURVE	D
CENTRAL ANGLE	Δ/DELTA
LENGTH OF CURVE	L
TANGENT	T
DIRECTION AHEAD	DA
DIRECTION BACK	DB

NOTES:

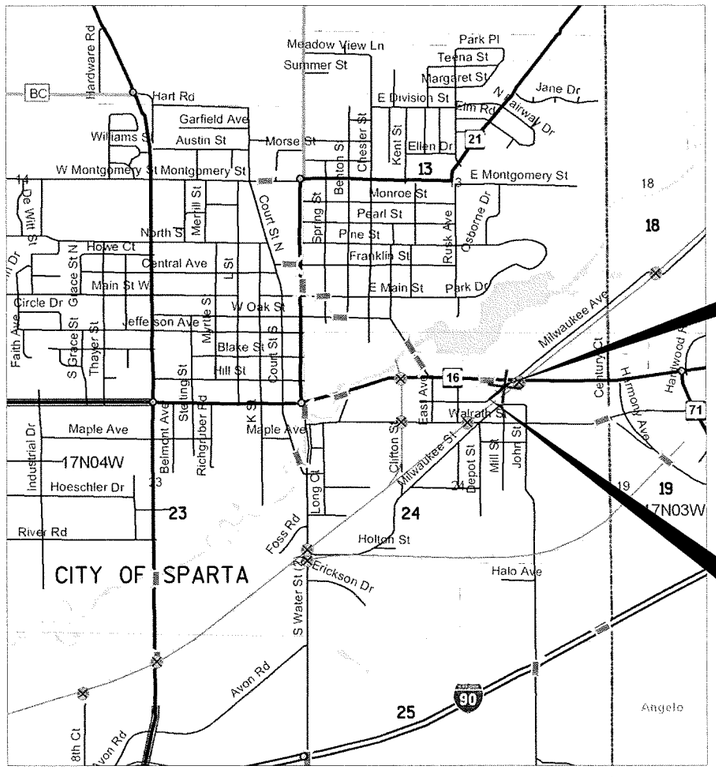
POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, MONROE COUNTY, NAD 83 (2011) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

RIGHT OF WAY MONUMENTS ARE TYPE 2 MONUMENTS (TYPICALLY 3/4" X 24" REBAR AND ARE PLACED PRIOR TO THE COMPLETION OF THE CONSTRUCTION PROJECT.

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

N

CAUTION
THIS PLAT IS FOR ILLUSTRATIVE PURPOSES ONLY. DEEDS MUST BE CHECKED TO DETERMINE PROPERTY BOUNDARIES.



LAYOUT
SCALE 0 1/2 MILE

TOTAL NET LENGTH OF CENTERLINE = 0.068 MILES

CONVENTIONAL UTILITY SYMBOLS

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

END RELOCATION
ORDER STA. 11+14.28
Y = 378,215.44
X = 630,004.56
884.65 FEET SOUTH OF AND 1,742.67 FEET WEST OF THE NORTHEAST CORNER OF SECTION 24, T-17-N, R-4-W, CITY OF SPARTA, MONROE COUNTY, WI

BEGIN RELOCATION
ORDER STA. 7+53.48
Y = 377,981.94
X = 629,729.77
1,118.15 FEET SOUTH OF AND 2,017.46 FEET WEST OF THE NORTHEAST CORNER OF SECTION 24, T-17-N, R-4-W, CITY OF SPARTA, MONROE COUNTY, WI

R/W PROJECT NUMBER	SHEET NUMBER	TOTAL SHEETS
7016-00-01		
FED R/W PROJECT NUMBER	4.01	2

PLAT OF RIGHT OF WAY REQUIRED FOR

CITY OF SPARTA, MILWAUKEE AVE. FARMERS VALLEY CR. BRIDGE B-41-0299

LOCAL STREET — MONROE COUNTY

CONSTRUCTION PROJECT NUMBER: 7016-00-05

ORIGINAL PLAT PREPARED BY

MSA PROFESSIONAL SERVICES
TRANSPORTATION • MUNICIPAL DEVELOPMENT • ENVIRONMENTAL
1230 South Boulevard Baraboo, WI 53913
608-356-2771 1-800-362-4505 Fax: 608-356-2770
Web Address: www.msa-ps.com

WISCONSIN
GREGORY P. RHINEHART
S-1478
FRIENDSHIP, WI
LAND SURVEYOR

5/17/2016 (Date)
Gregory P. Rhinehart (Professional Land Surveyor)

REVISION DATE

APPROVED FOR THE CITY OF SPARTA
DATE 5-18-16 (Signature)

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 INTERESTS TO THE CITY.

PARCEL NO.	OWNER(S)	INTEREST REQUIRED	R/W ACRES REQUIRED		
			NEW	EXISTING	TOTAL
1	AMBER PASCH	FEE	0.073	---	0.073
100	CENTURYLINK	RELEASE OF RIGHTS	---	---	---

PT.	STATION	OFFSET	Y	X
* 10	7+53.48	0.00' CL	377,981.94	629,729.77
* 11	11+14.28	0.00' CL	378,215.44	630,004.56
100	7+53.48	37.48' LT.	378,009.31	629,703.65
101	8+50.00	45.00' LT.	378,080.98	629,770.57
* 102	10+11.39	44.00' LT.	378,186.32	629,895.83
201	11+14.28	20.68' RT.	378,198.94	630,017.02
200	7+53.48	11.83' RT.	377,973.38	629,737.94

* - NON-MONUMENTED POINT

EXISTING HIGHWAY RIGHT OF WAY SHOWN IS BASED ON THE ASSESSOR'S SUBDIVISION OF LANDS OF THE CITY OF SPARTA, CERTIFIED SURVEY MAPS OF RECORD AND EXISTING IRONS LOCATED IN THE FIELD.

ALIGNMENT DATA
PI = 9+33.88
Y = 378,106.62
X = 629,860.43
Δ = 06°36'17" R
D = 01°49'50"
T = 180.60'
LCB = N49°38'35"E
LCH = 360.60'
L = 360.80'
R = 3,130.00'
PC = 7+53.48
PT = 11+14.28

END RELOCATION ORDER STA. 11+14.28
Y = 378,215.44
X = 630,004.56

BEGIN RELOCATION ORDER STA. 7+53.48
Y = 377,981.94
X = 629,729.77

USH 16 - STH 71
EXISTING R/W USH 16 - STH 71
XCEL ENERGY ELECTRIC UTILITY EASEMENT DOC#420879 V.152, P.385
AMBER PASCH (1)
ASSESSOR'S SUBDIVISION OF LANDS OF THE CITY OF SPARTA OUTLOT #46
CENTURYLINK BURIED TELEPHONE NO RECORDED EASEMENT
SLOPE INTERCEPTS (TYP.)
OVERHEAD ELECTRIC (XCEL ENERGY)
MILWAUKEE AVENUE
FARMERS VALLEY CREEK
CANADIAN PACIFIC RAILROAD
EXISTING RAILROAD R/W
WOLCOTT STREET
EXISTING R/W
PC: 11+14.28
PT: 11+14.28
PC: 6+53.03
BP: 6+53.03
PT: 7+53.48
PC: 7+53.48
N63° 05' 09"E 1,954.36'
N75° 00' 37"E 112.56'
S37° 03' 12"E 20.68'
N49° 56' 05"E 163.67'
N43° 02' 08"E 98.06'
N43° 39' 35"W 358.84'
S51° 03' 14"W 100'
N43° 39' 35"W 11.83'
N52° 49' 31"W 2,589.65'
S00° 58' 54"E 2,683.34'
NE CORNER SECTION 24 HARRISON MON. Y = 379100.09 X = 631747.23 (OBSERVED)
E ¼ CORNER SECTION 24 x IN STONE Y = 376417.14 X = 631793.20 (OBSERVED)
NW-NE 24-17-4
PL
CITY OF SPARTA
GN
4

REVISION DATE	DATE	SCALE, FEET	HWY: LOCAL STREET	STATE R/W PROJECT NUMBER 7016-00-01	PLAT SHEET 4.02	
	GRID FACTOR	0 20 40	COUNTY: MONROE	CONSTRUCTION PROJECT NUMBER 7016-00-05	PS&E SHEET 9	E

FILE NAME : PRWAY.DWG
LAYOUT NAME - 4.02
PLOT DATE : 4/28/2016 2:27 PM
PLOT BY : BARB HALLEY
PLOT NAME :
PLOT SCALE : 1 IN:40 FT

LEGEND
SILT FENCE
RIP RAP
TURBIDITY BARRIER
SURFACE WATER FLOW

AMBER PASCH

BENCH MARKS			
NO.	STATION	DESCRIPTION	ELEV.
1	10+19.66, 7.44' LT	CHIS SQ ON NW CORNER BRIDGE WING	781.61
2	7+05.76, 17.74' LT	CHIS + ON TAG BOLT FIRE HYD	791.51
3	14+97.60, 34.50' LT	RR SPIKE IN POWER POLE	790.03

BEGIN PROJECT
STATION 7+50
Y = 377,979.56
X = 629,727.23

END PROJECT
STATION 12+00
Y = 378,267.54
X = 630,072.63

BP: 6+53.03
PC: 7+53.48
PT: 7+53.48
PC: 11+14.28
PT: 11+14.28
PT: 11+98.01
EP: 12+00.00
BM 1
BM 2
49.5'
SAWCUT
TAPER TO STA 7+50
TAPER TO STA 12+00
MILWAUKEE AVENUE (ASPHALT)
EXISTING R/W
R/W
SLOPE INTERCEPT (TYP)
BURIED TELEPHONE (CENTURYLINK) (TO REMAIN IN PLACE)
OVERHEAD ELECTRIC (XCEL ENERGY) (TO BE RELOCATED)
OVERHEAD ELECTRIC (XCEL ENERGY) (TO REMAIN IN PLACE)
ASPHALTIC FLUME
EXISTING BRIDGE PIERS (B-41-389)
EXISTING RAILROAD R/W
WATERMAIN (CITY OF SPARTA) (TO REMAIN IN PLACE)
EXISTING STRUCTURE P-41-711 (TO BE REMOVED)
EXISTING RIPRAP
FARMERS VALLEY CREEK
STRUCTURE B-41-299
CANADIAN PACIFIC RAILROAD
EXISTING UPSTREAM RAILROAD BRIDGE (TO REMAIN)

REMOVE EXISTING BRIDGE P-41-711
STA 10+00
SINGLE SPAN CONCRETE DECK GIRDER
19.5 FT CLEAR ROADWAY WIDTH
38.2 FT OVERALL LENGTH
0° SKEW

STA 10+00, STRUCTURE B-41-299
SINGLE SPAN CONCRETE FLAT SLAB BRIDGE
26.25 FT CLEAR ROADWAY WIDTH
46.5 FT OVERALL LENGTH
0° SKEW

-4.84%
-1.13%
2.75%
EXISTING ℄ PROFILE
FINISHED ℄ PROFILE
HIGH WATER 100
ELEV 777.93 ±

STA 7+50.00
EL 787.45
VPC STA 7+90.29
VPC EL 785.50
VPI STA = 8+47.43
VPI EL = 782.74
CURVE LEN = 114.28
K = 30.84
VPT STA 9+04.57
VPT EL 782.09
VPC STA 9+89.80
VPC EL 781.13
VPI STA = 10+89.80
VPI EL = 780.00
CURVE LEN = 200.00
K = 51.59
VPT STA 11+89.80
VPT EL 782.75
STA 12+00.00
EL 783.03

780.00
772.00
6+53
7+00
8+00
9+00
10+00
11+00
12+00
12+25

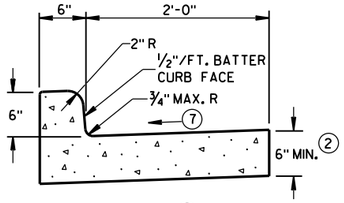
789.26
787.45 787.45
784.48 785.05
782.70 783.19
781.96 782.15
781.67 781.58
768.78 781.03
781.79 780.80
781.87 781.06
782.15 781.81
783.03 783.03

EARTHWORK SUMMARY
STA 7+50 - STA 12+00
EXC COMMON 438 CY
FILL 390 CY
FILL EXPANSION 30%
BORROW 342 CY

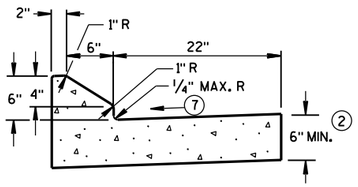
PROJECT NO: 7016-00-05	HWY: LOCAL STREET	COUNTY: MONROE	PLAN AND PROFILE: MILWAUKEE AVENUE	SHEET 10	E

Standard Detail Drawing List

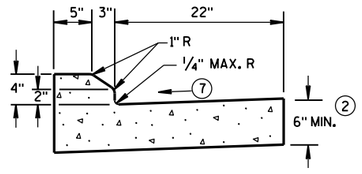
08D01-20A	CONCRETE CURB & GUTTER
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08E09-06	SILT FENCE
08E11-02	TURBIDITY BARRIER
12A03-10	NAME PLATE (STRUCTURES)
15C02-06A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C06-09	SIGNING & MARKING FOR TWO LANE BRIDGES
15C11-07B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS



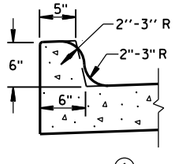
TYPES A (1) & D



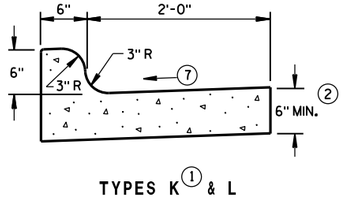
6" SLOPED CURB TYPES G (1) & J



4" SLOPED CURB TYPES G (1) & J

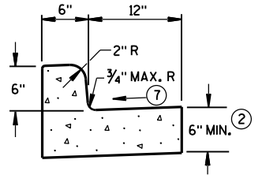


TYPES K (1) & L
(OPTIONAL CURB SHAPE)



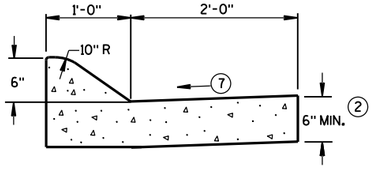
TYPES K (1) & L

CONCRETE CURB & GUTTER 30"

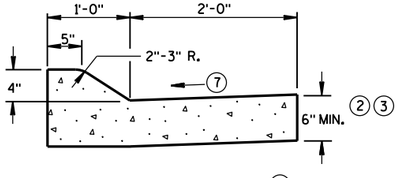


TYPES A (1) & D

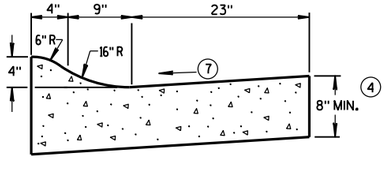
CONCRETE CURB & GUTTER 18"



6" SLOPED CURB TYPES A (1) & D

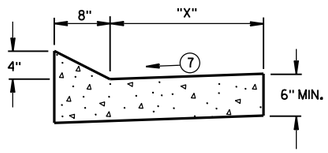


4" SLOPED CURB TYPES A (1) & D



4" SLOPED CURB TYPES R (1) & T (5)

CONCRETE CURB & GUTTER 36"



TYPES TBT & TBTT (1)

CONCRETE CURB & GUTTER

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

GENERAL NOTES

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

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

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

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

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

(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K, R AND TBTT.

(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(3) USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH AN ADJACENT CONCRETE TRUCK APRON PLACED BEHIND BACK OF CURB.

(4) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(5) THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

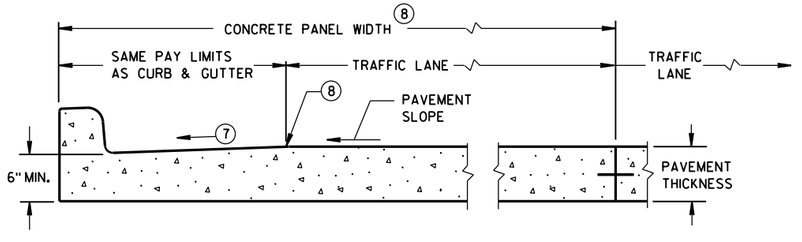
(6) WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.

(7) USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.

(8) INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.

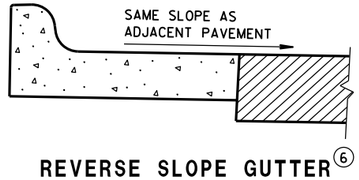
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

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



PARTIAL SECTION OF PAVEMENT * WITH INTEGRAL CURB & GUTTER

* BIKE LANE IS NOT SHOWN.



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

CONCRETE CURB & GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO...

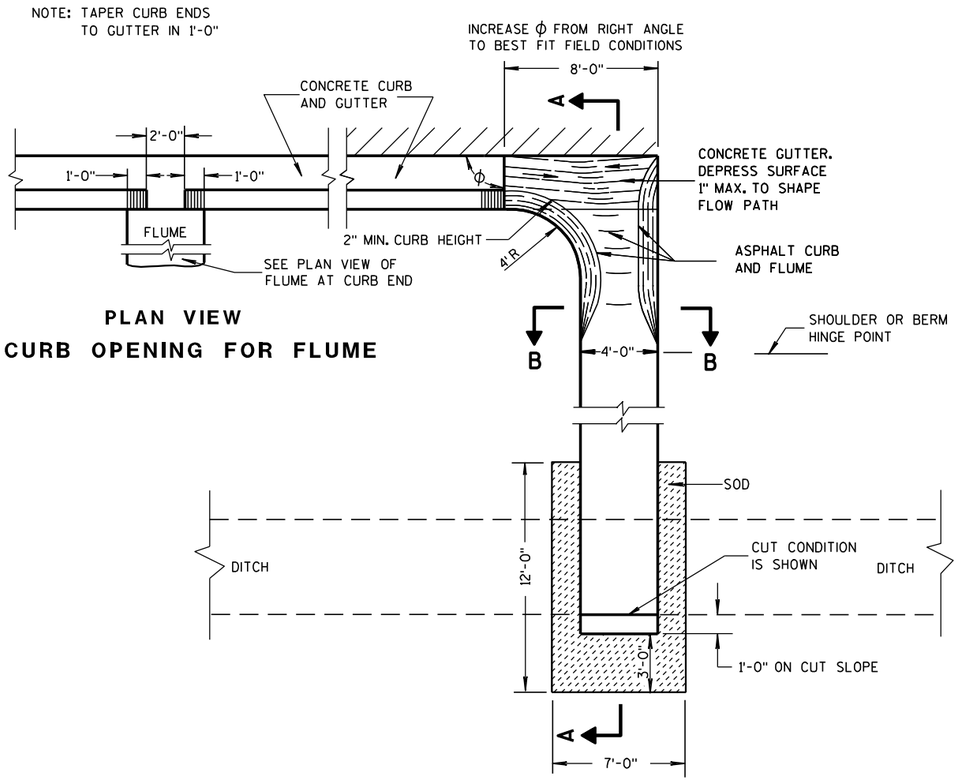
6

S.D.D. 8 D 1-20a

6

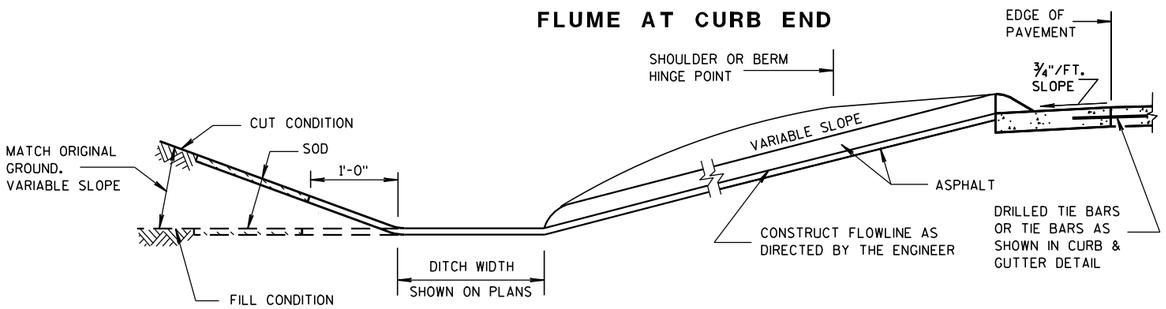
S.D.D. 8 D 1-20a

ASPHALTIC FLUME

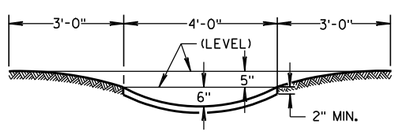


PLAN VIEW
CURB OPENING FOR FLUME

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.

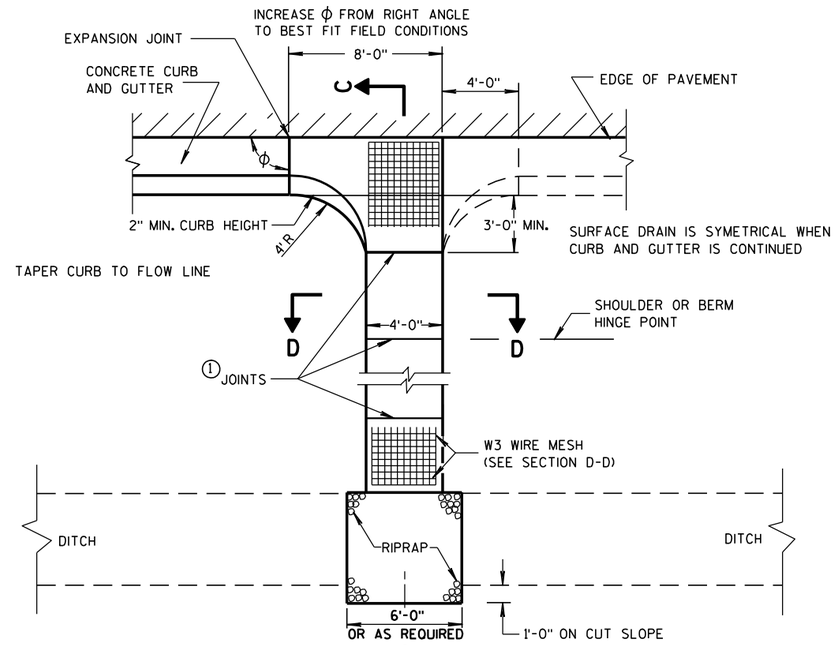
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

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.

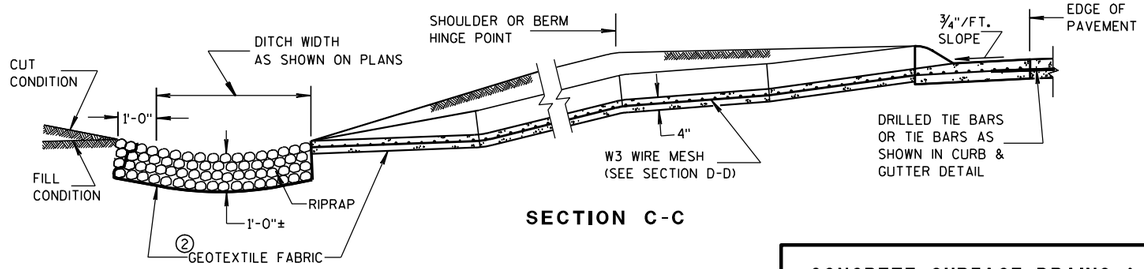
② GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.

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

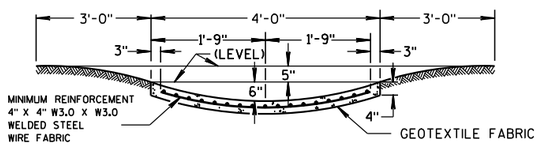
③ CONCRETE SURFACE DRAIN



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
13
MENT
FHWA

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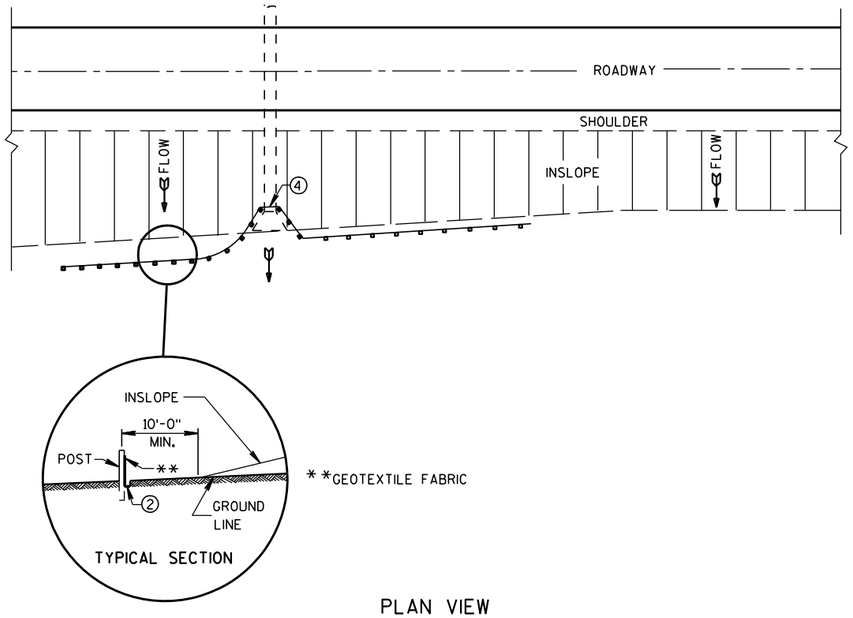
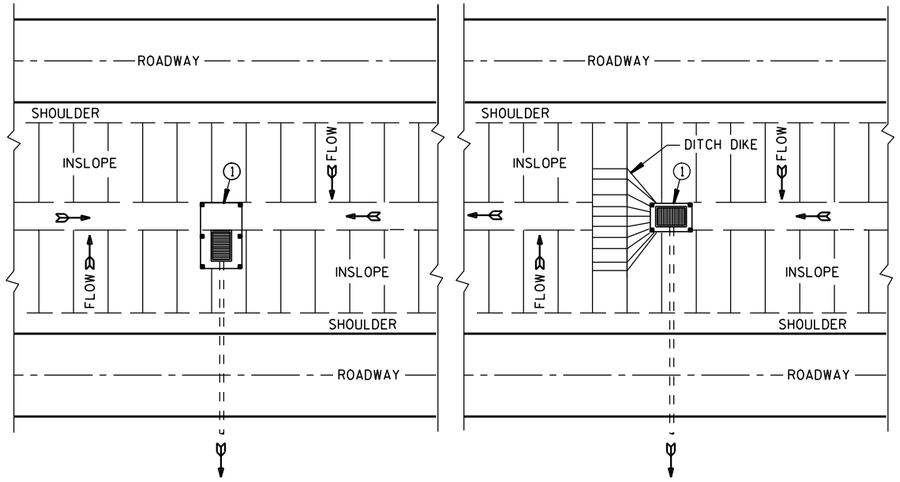


PLAN VIEW

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.

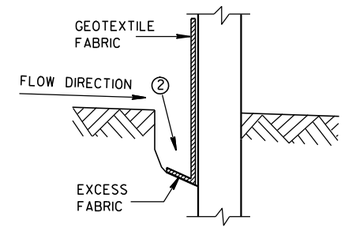
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

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.

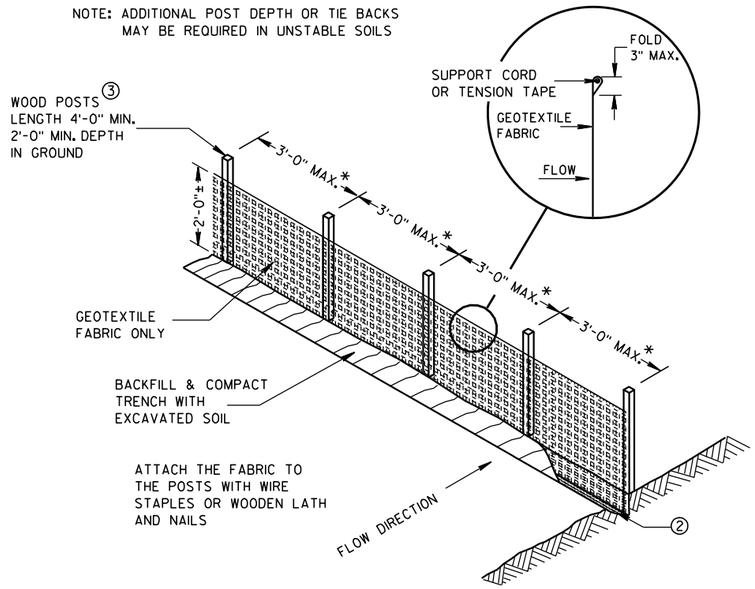
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.

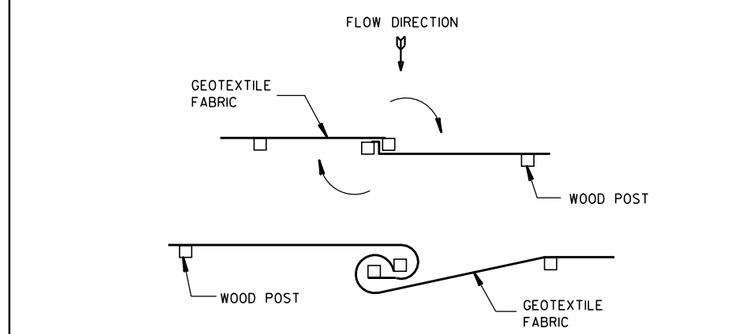
⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



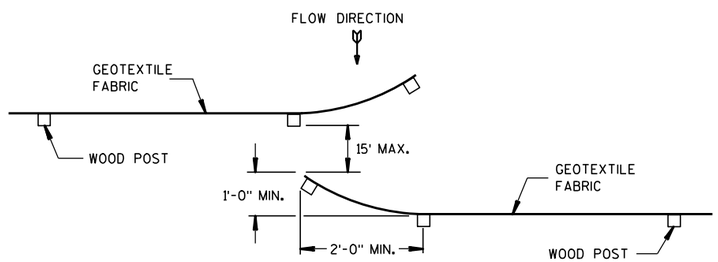
TRENCH DETAIL



SILT FENCE

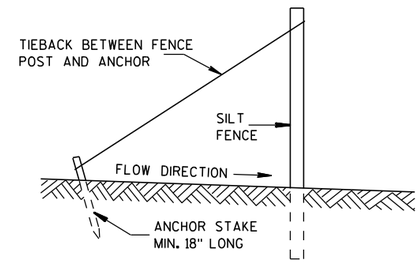


TWIST METHOD



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

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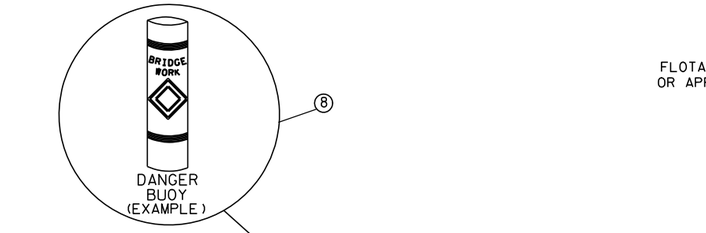
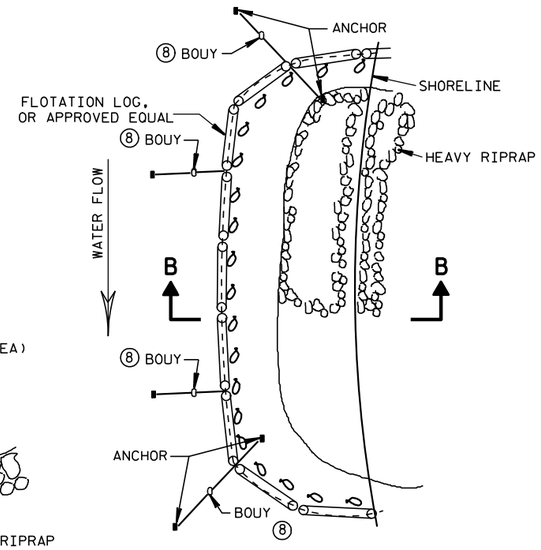
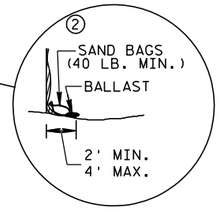
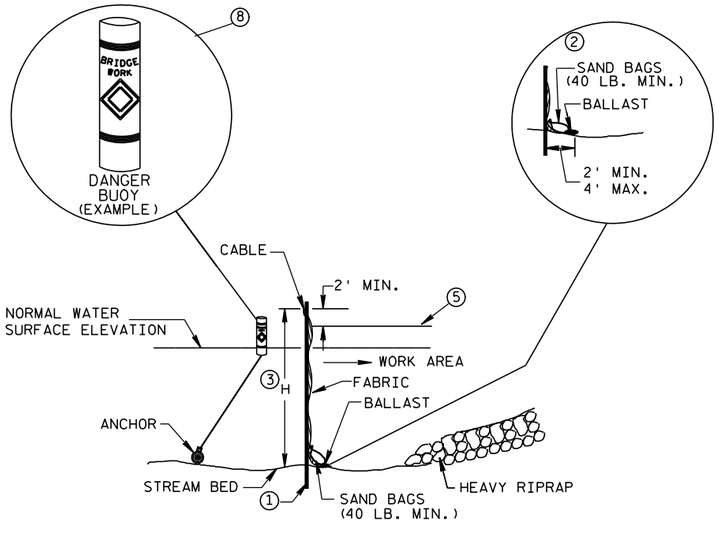


SECTION B-B

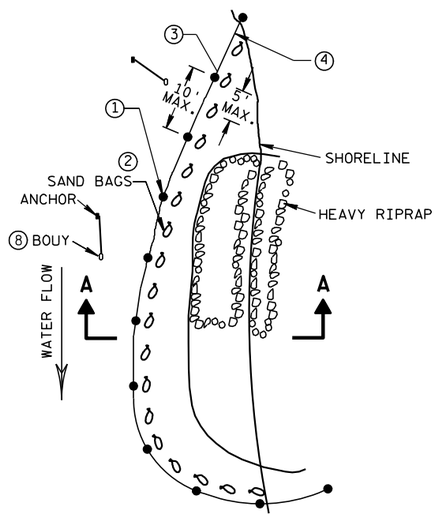




TURBIDITY BARRIER FLOAT ALTERNATIVE
CAUTION - SEE NOTE 6



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.

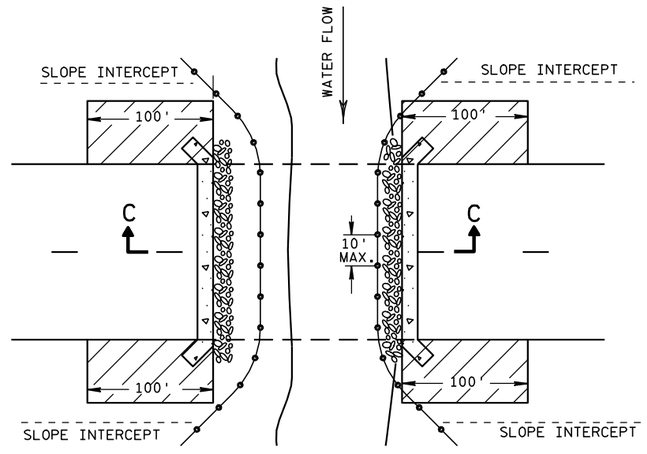
④ IN WATERWAYS SUBJECT TO FLUCTUATING WATER ELEVATIONS, PROVISIONS SHOULD BE MADE TO ALLOW THE WATER TO EQUALIZE ON EACH SIDE OF THE BARRIER. THIS MAY BE ACCOMPLISHED BY LEAVING A PORTION OF THE BARRIER OPEN ON THE UPSTREAM END.

⑤ ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION PERIOD. MIMIMUM BARRIER HEIGHT SHALL BE 2'GREATER THAN EITHER THE 02 ELEVATION OR THE ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION, WICHEVER IS GREATER.

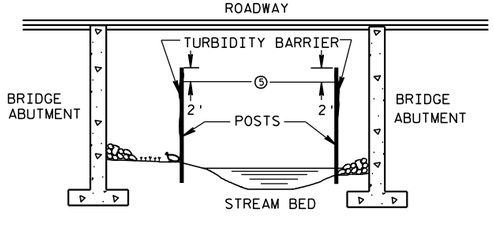
⑥ FLOAT ALTERNATIVE WILL ONLY BE ALLOWED WITH WRITTEN APPROVAL OF THE ENGINEER, AND IS MEANT FOR LOCATIONS WHERE BED ROCK PREVENTS THE INSTALLATION OF POSTS.

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

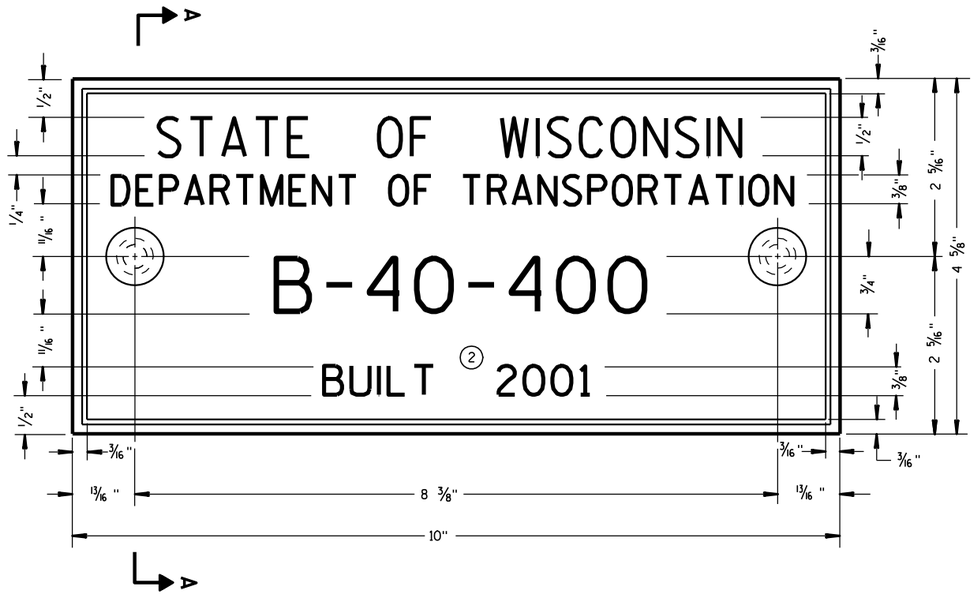
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

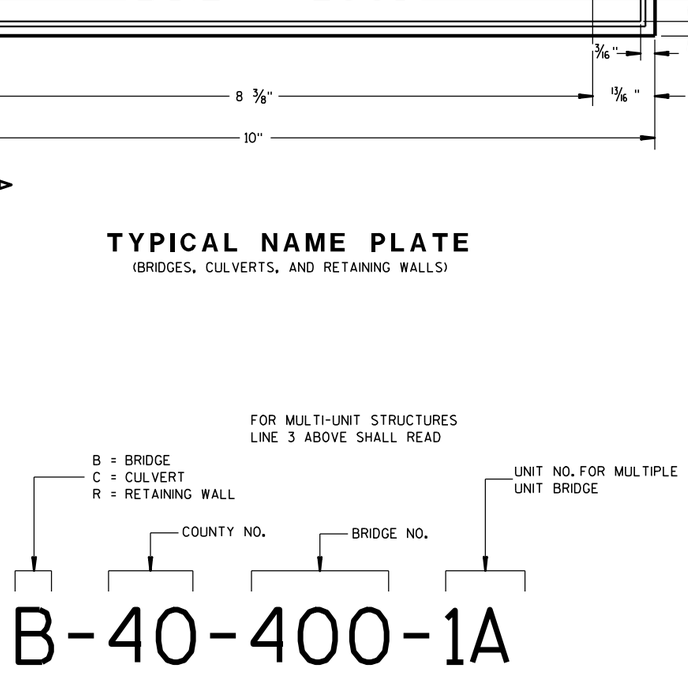
6

S.D.D. 8 E 11-2

S.D.D. 8 E 11-2



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



NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES

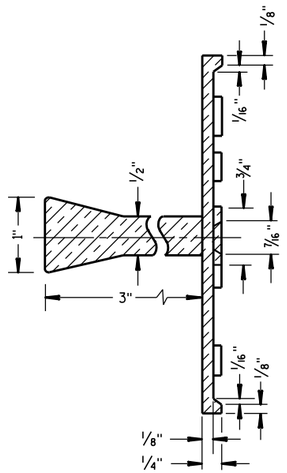
GENERAL NOTES

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.

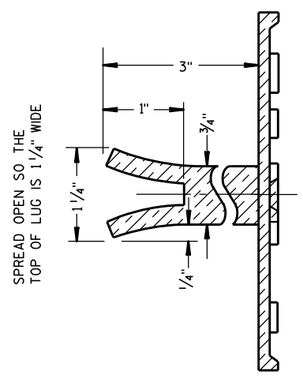
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

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

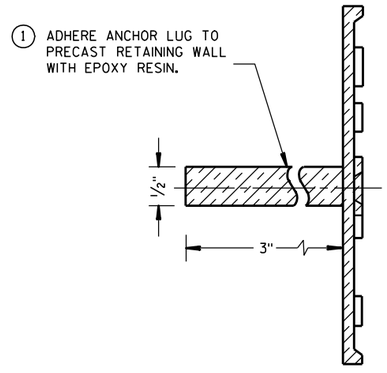
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



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

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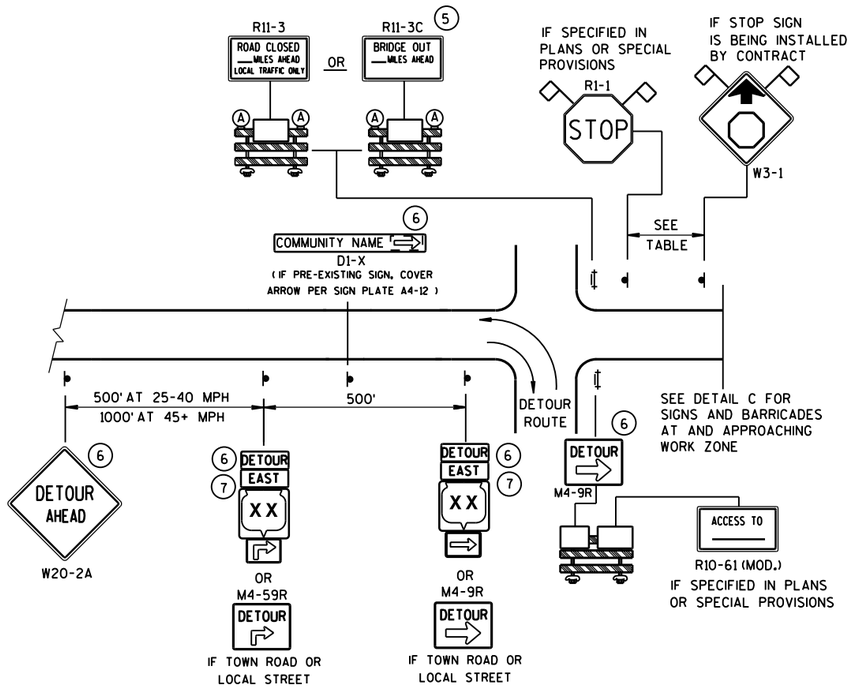
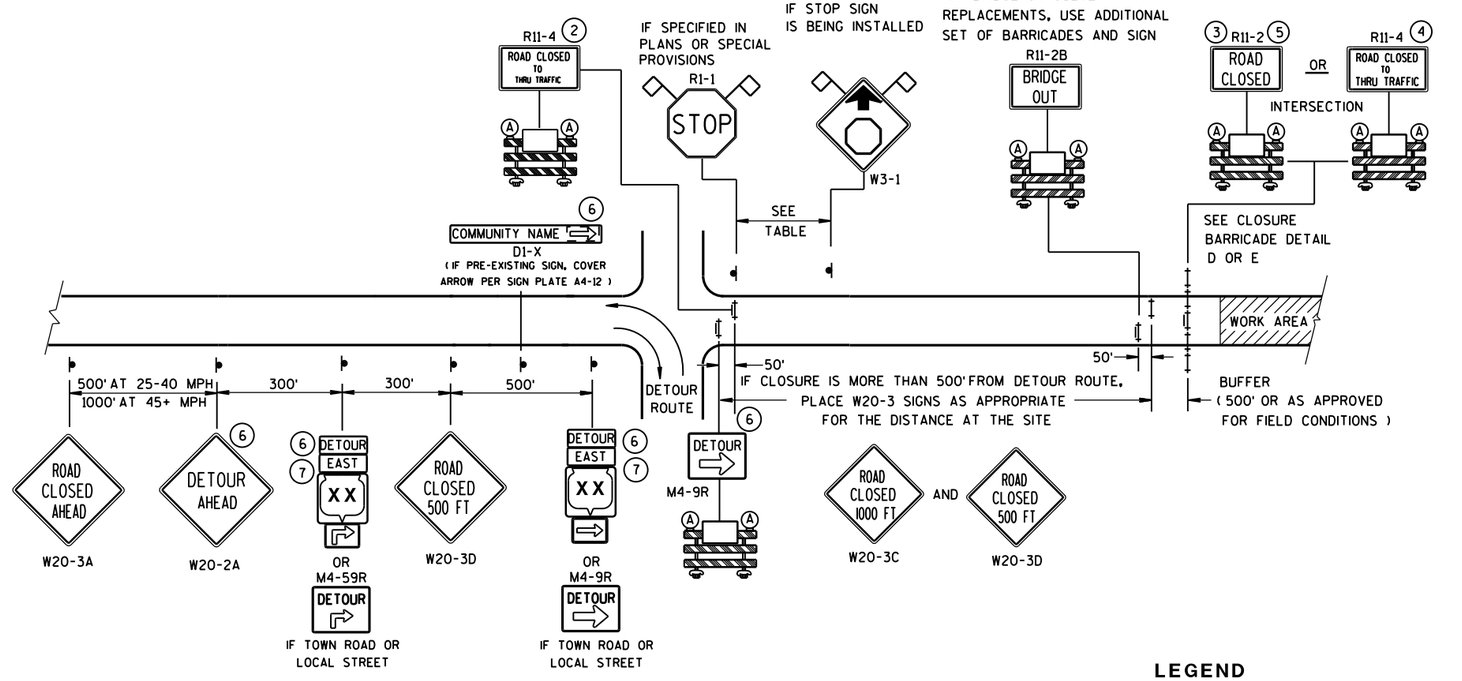
S.D.D. 12 A 3-10



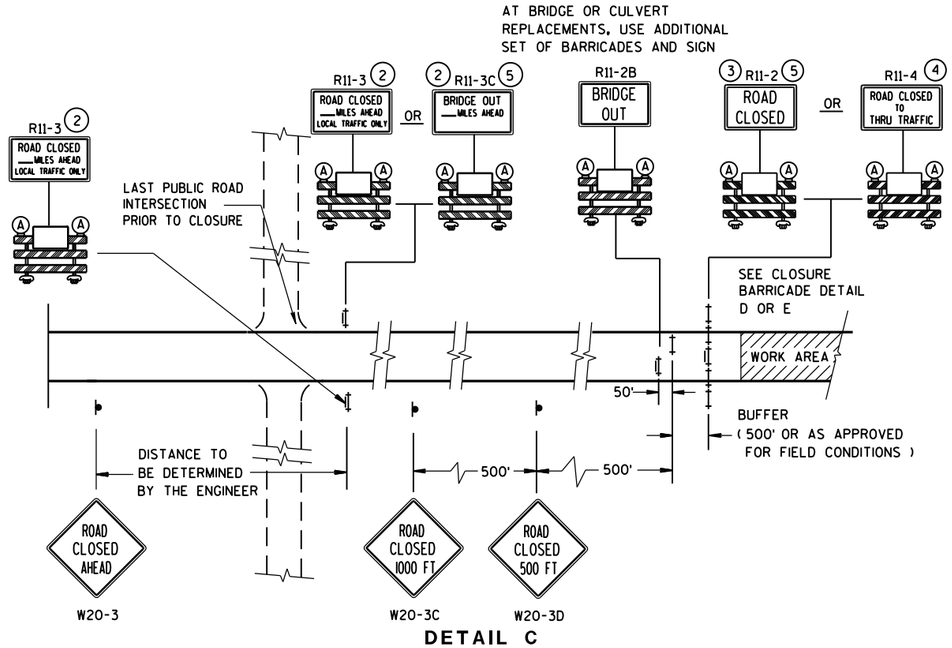
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER 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
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- DETOUR / EAST — M4-8 / M3-X
- XX — M1-4; COUNTY XX — M1-5A; XX — M1-6
- M05-1 OR M06-1
- FLAGS, 16" X 16" MIN., (ORANGE)

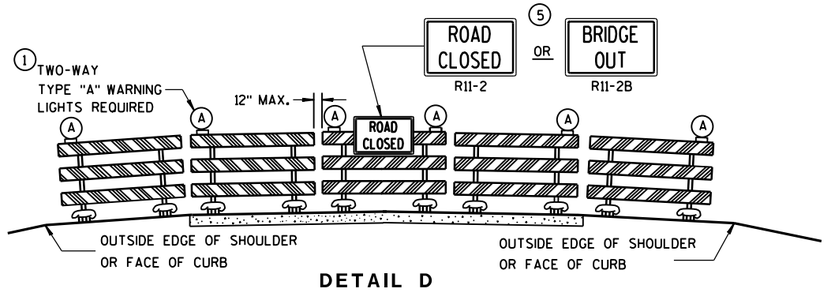
BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

Sept. 2015 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA

S.D.D. 15 C 2-6a

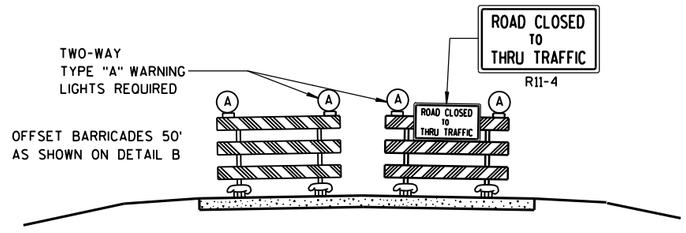
S.D.D. 15 C 2-6a



DETAIL D

ROAD CLOSURE BARRICADE DETAIL

APPROACH VIEW



DETAIL E

LANE CLOSURE BARRICADE DETAIL

APPROACH VIEW

SEE SDD 15C2-SHEET "**a**" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

THE R11-2, R11-3, M4-9, R11-4 AND R10-61 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE 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, 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". (30" 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.)
- M05-1 AND M06-1 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 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 LANE CLOSURE BARRICADE DETAIL E.

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11-2 AND R11-3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

Sept. 2015	/S/ Peter Amakobe Atepe	
DATE	STATEWIDE WORK ZO SAFETY ENGI	FIC
FHWA		

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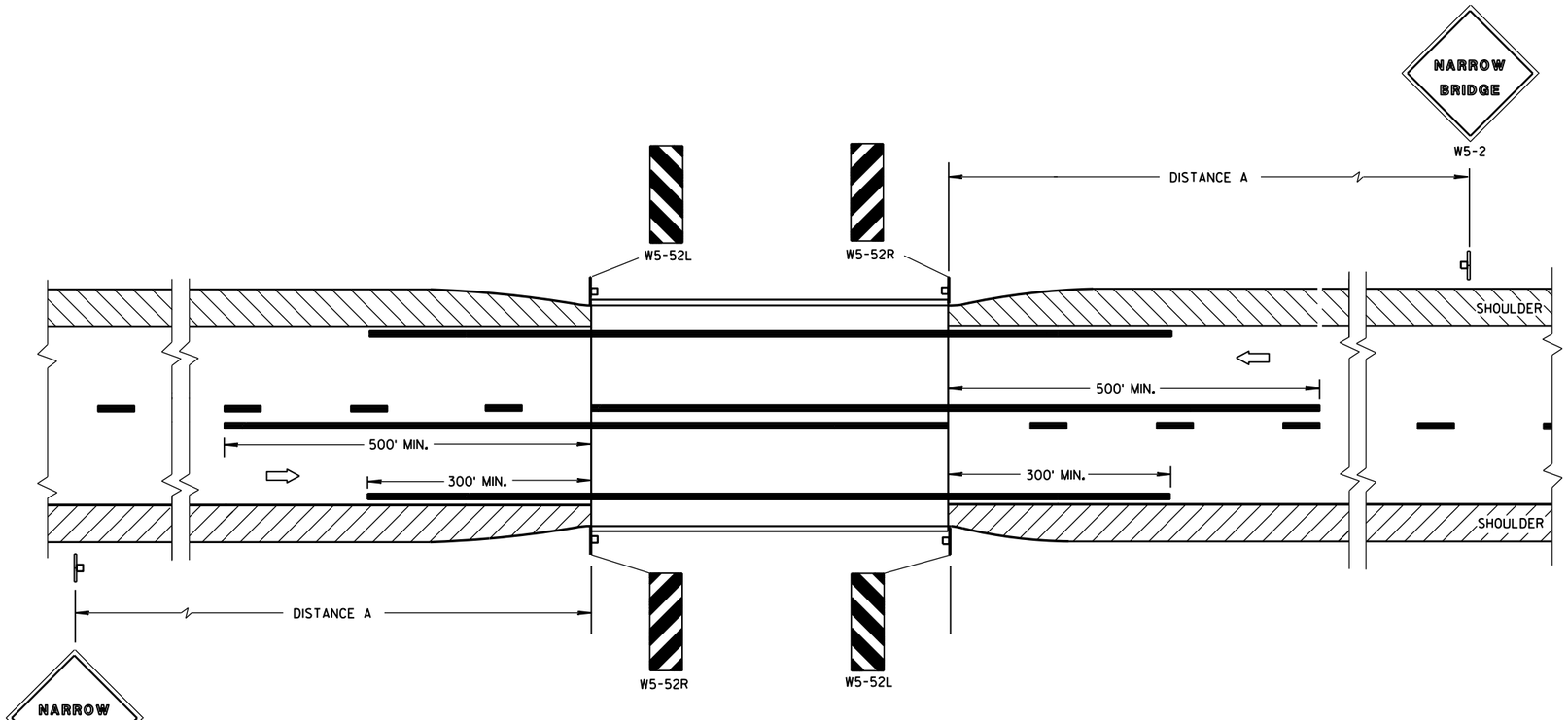
S.D.D. 15 C 2-6b



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

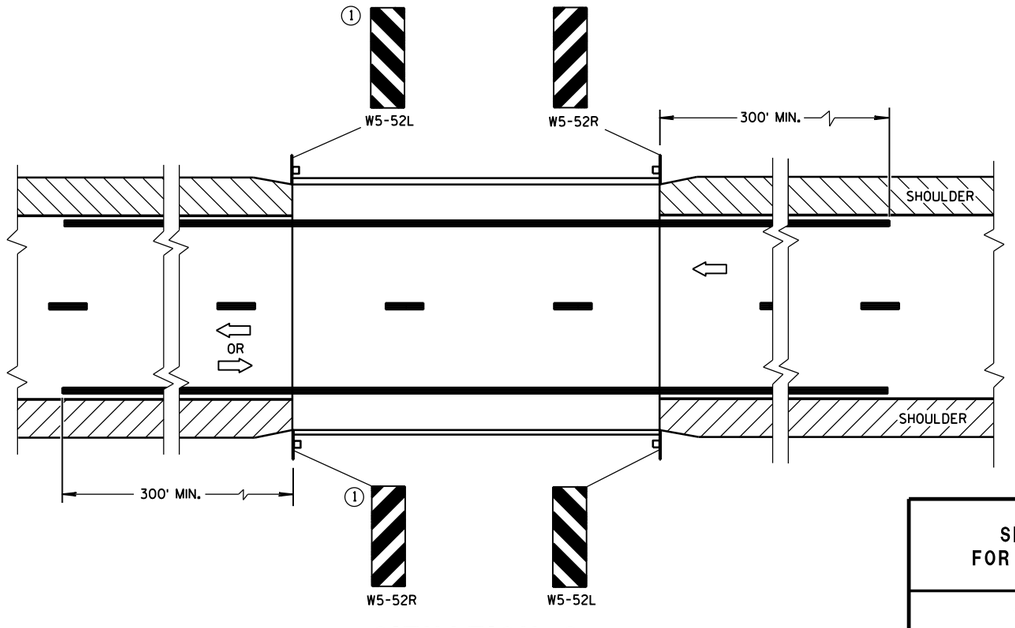
DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

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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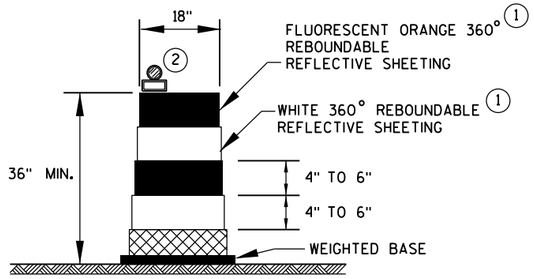
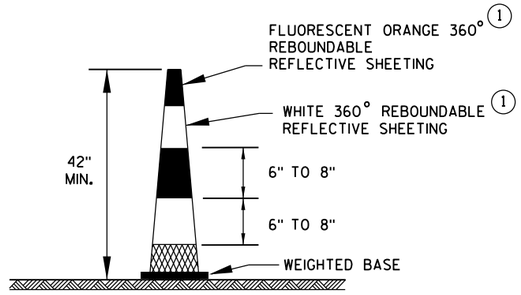
S.D.D. 15 C 6-9



DRUM

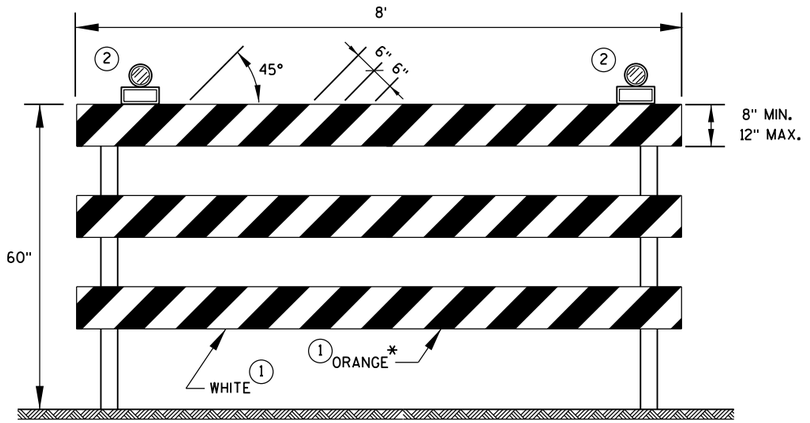


42" CONE

DO NOT USE IN TAPERS
1/2 SPACING OF DRUMS

GENERAL NOTES

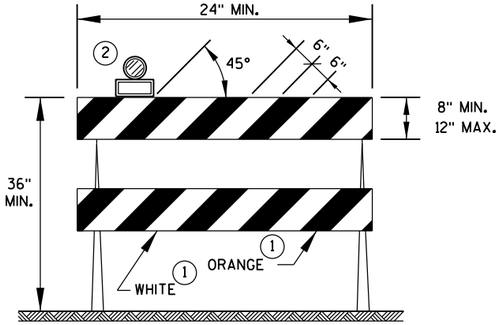
1. REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
2. LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.



TYPE 3 BARRICADE

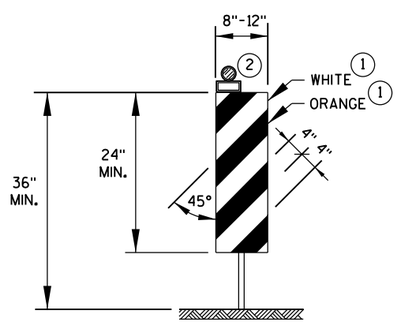
IF SIGN MOUNTED, DO NOT COVER MORE THAN 50% OF THE TOP TWO RAILS OR 33% OF THE TOTAL AREA OF THE THREE RAILS.

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



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.

CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

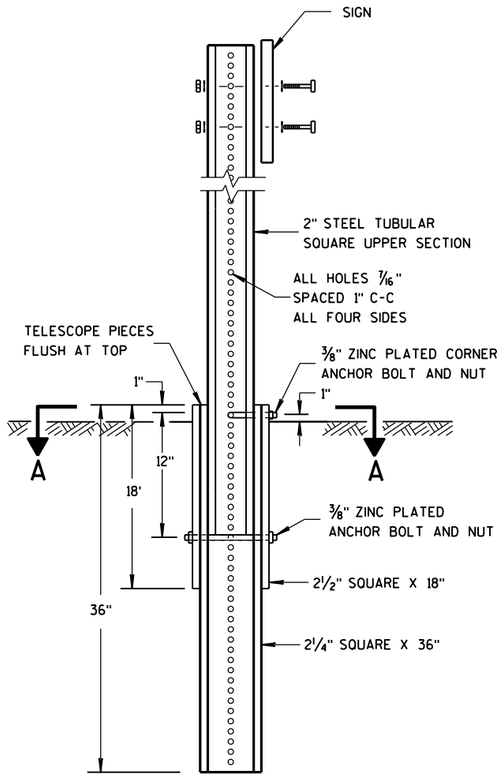
June 2017 — DATE

/S/ Andrew Heidtke — WORK ZONE ENG

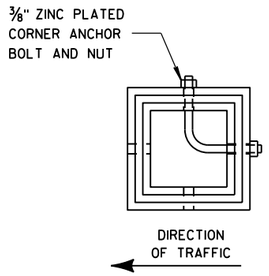
FHWA

6

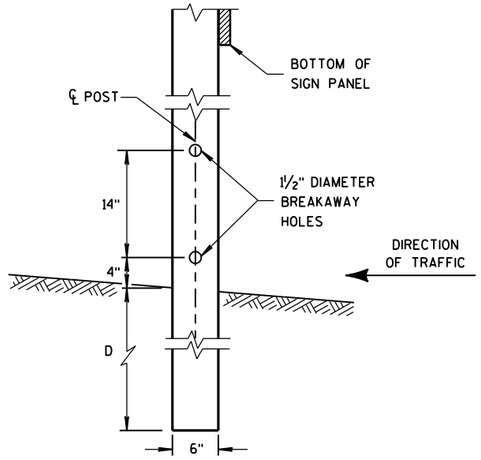
S.D.D. 15 C 11-7b



DETAIL OF TUBULAR STEEL SIGN POST



SECTION A-A



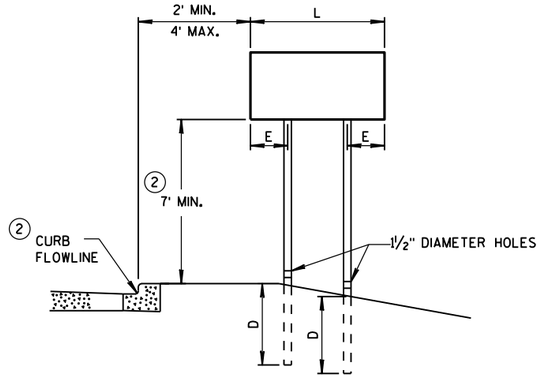
4"x6" WOOD POST MODIFICATION

GENERAL NOTES

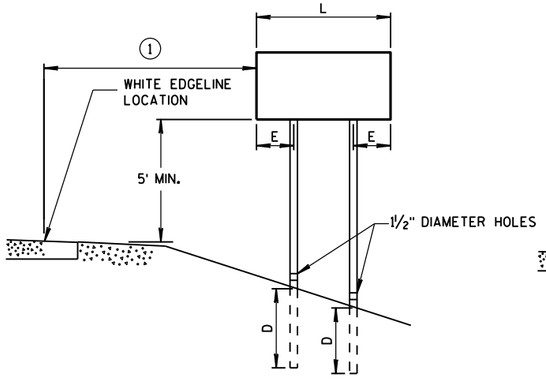
(1) 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.

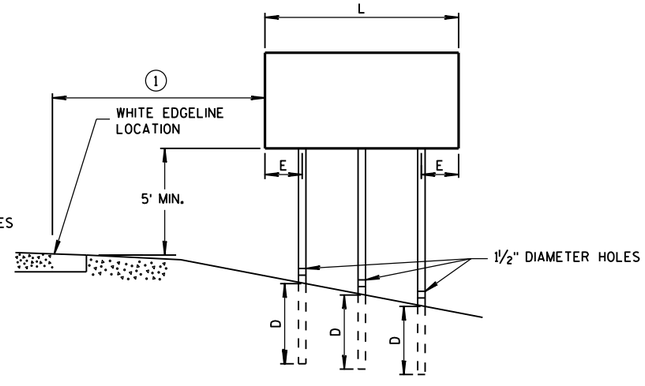
(2) THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK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

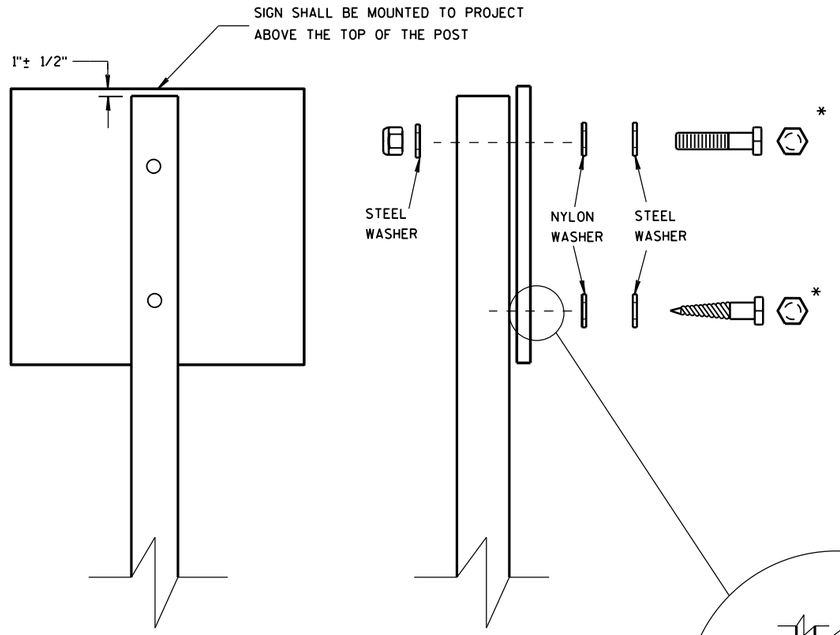
SEE NOTE (3)

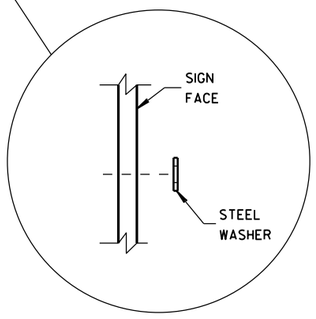
TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

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

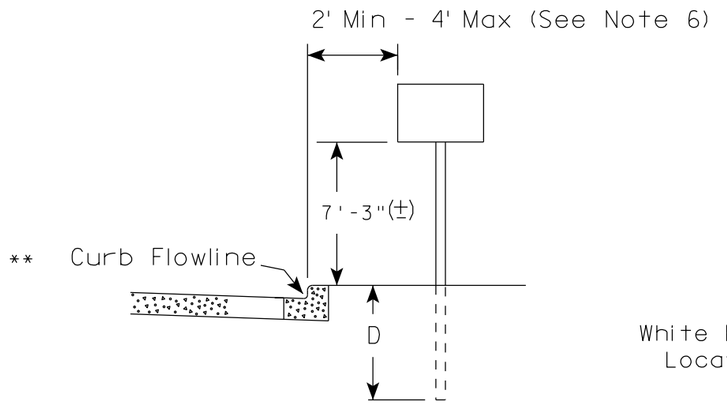
APPROVED

June 2017
DATE

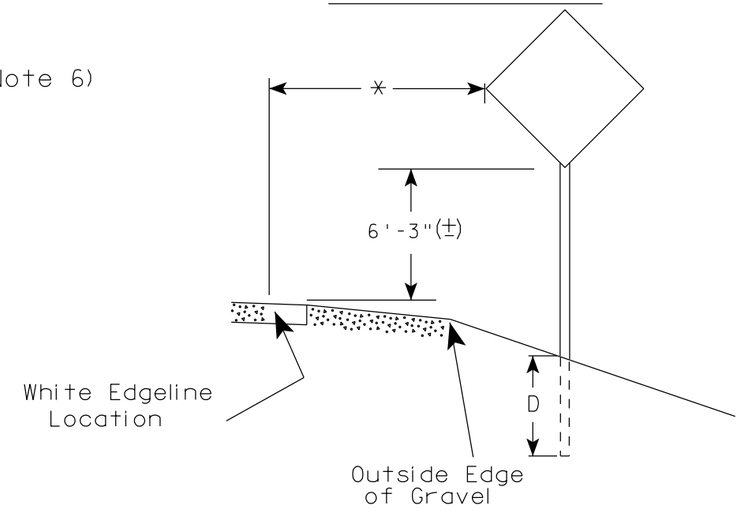
/S/ Andrew Heldtke
WORK ZONE ENG

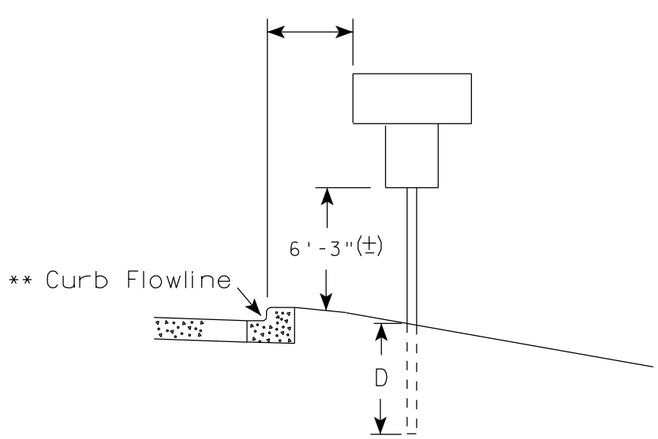
FHWA

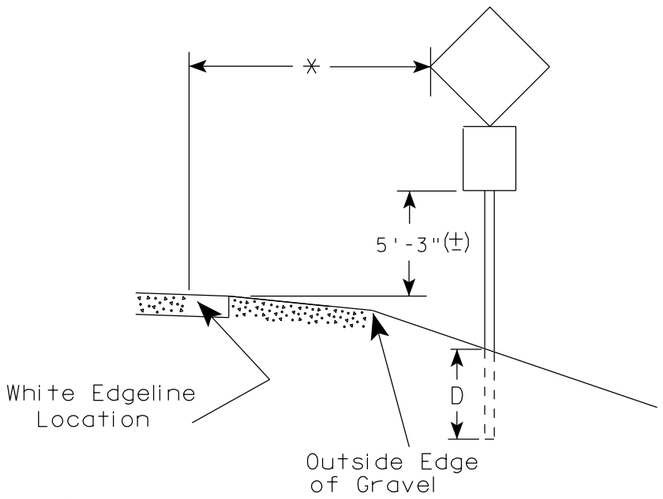
URBAN AREA



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. Minimum mounting height for J assemblies (A2-1S) 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 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" (±).

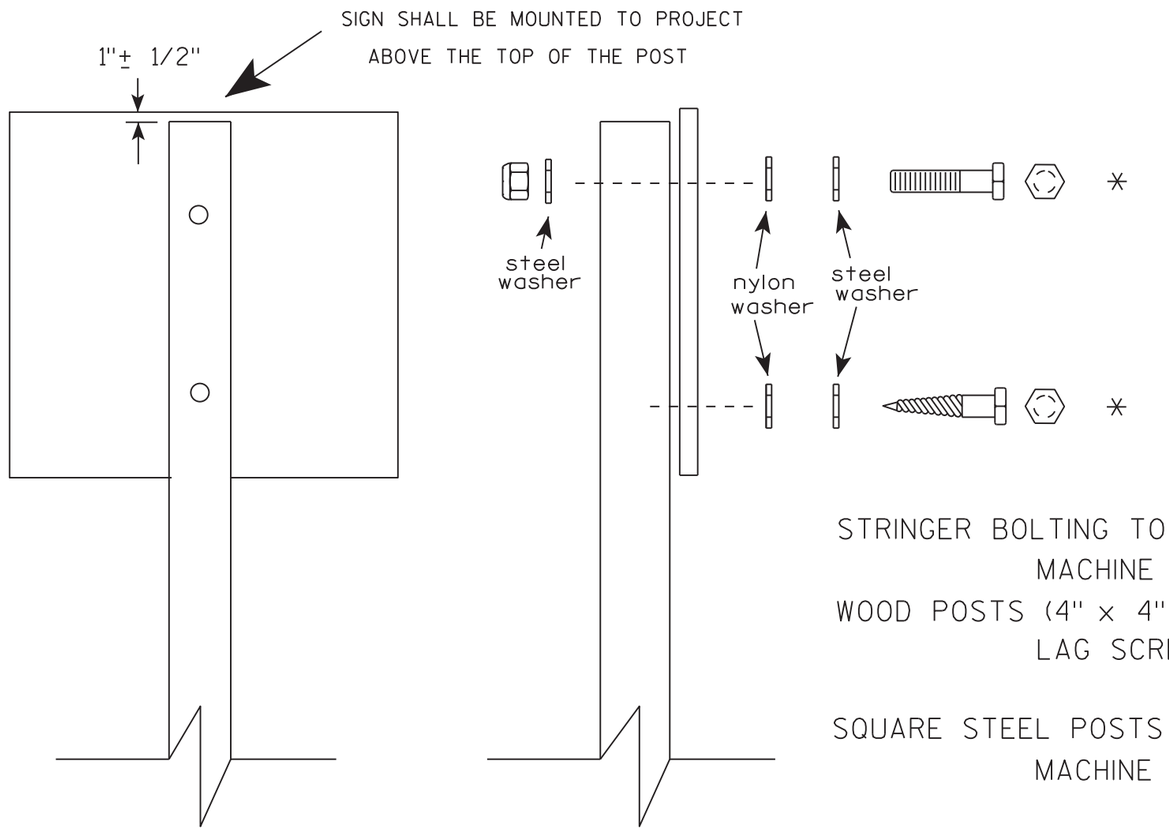
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/23/15 PLATE NO. A4-3.20

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	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.

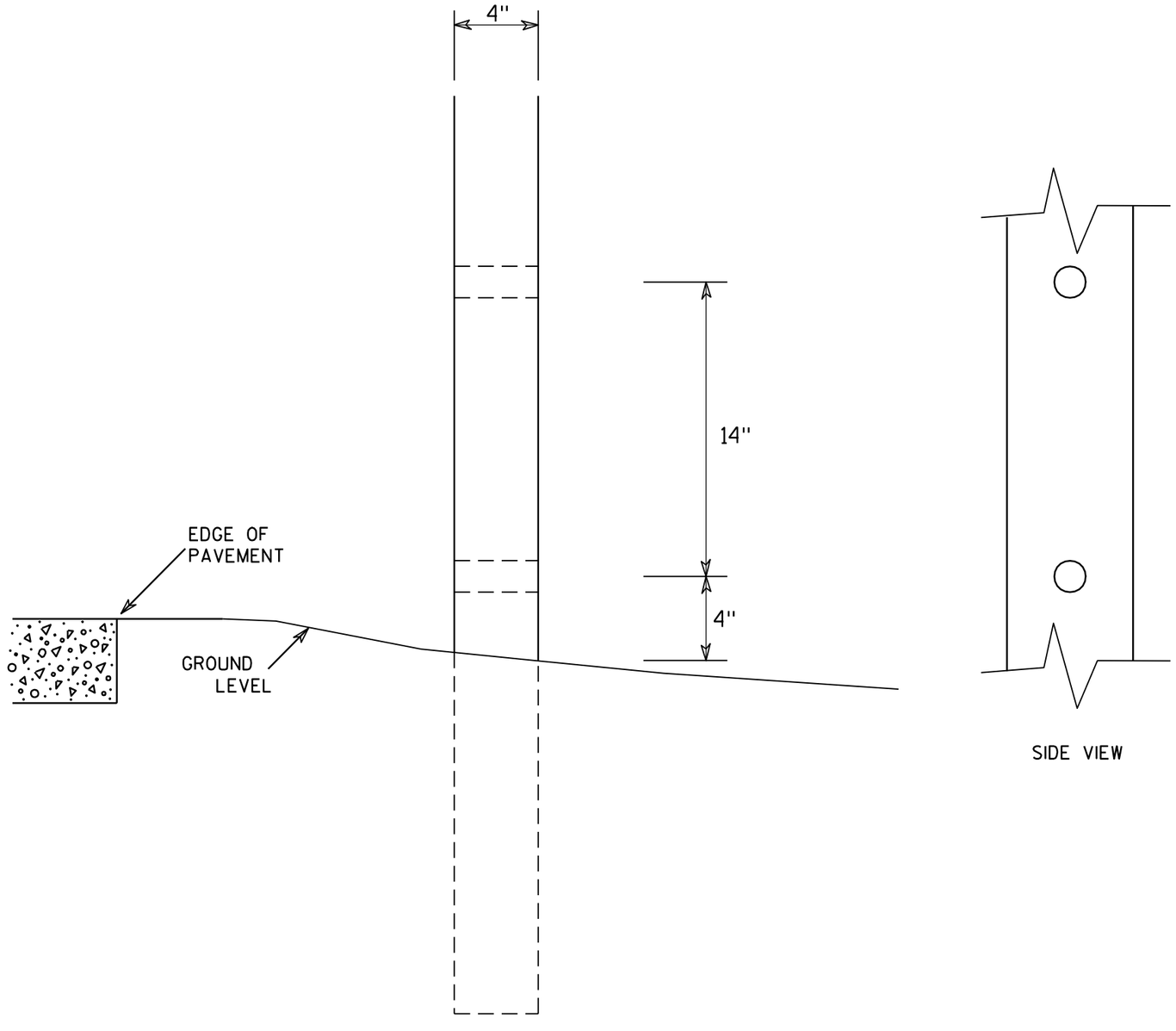
ATTACHMENT OF SIGNS TO POSTS

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.

7

7

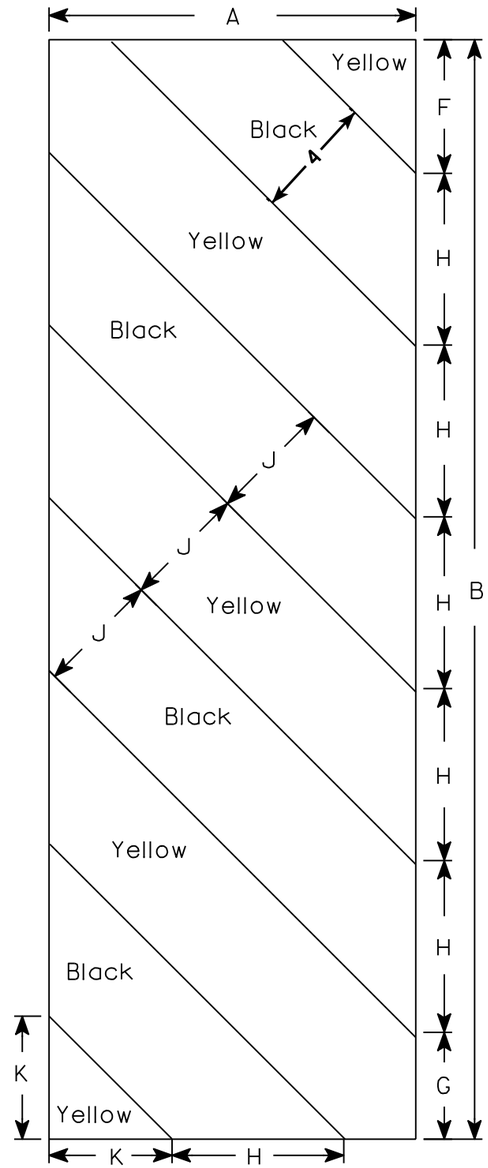
4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

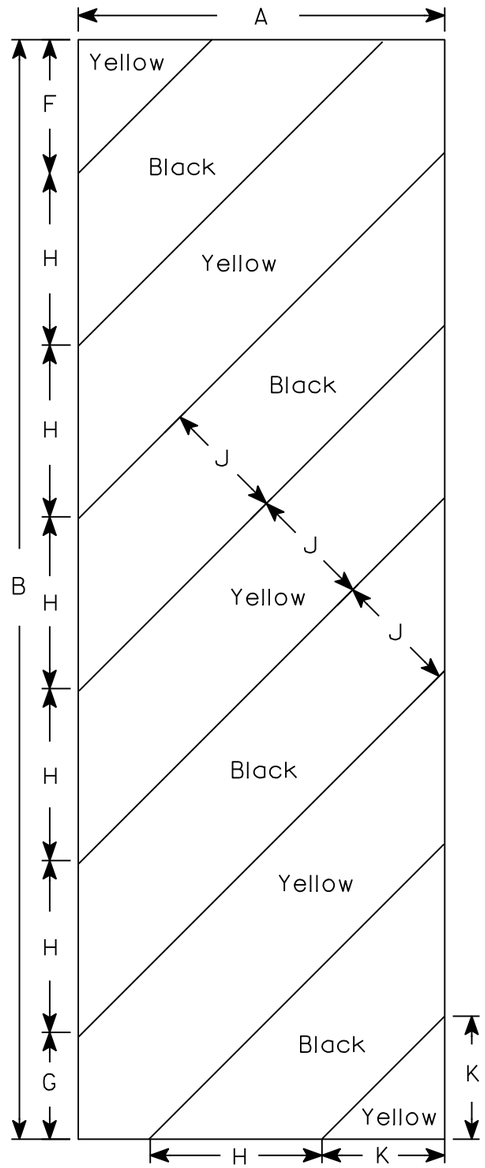
APPROVED Chester J Spang
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 25	E



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: 26	E

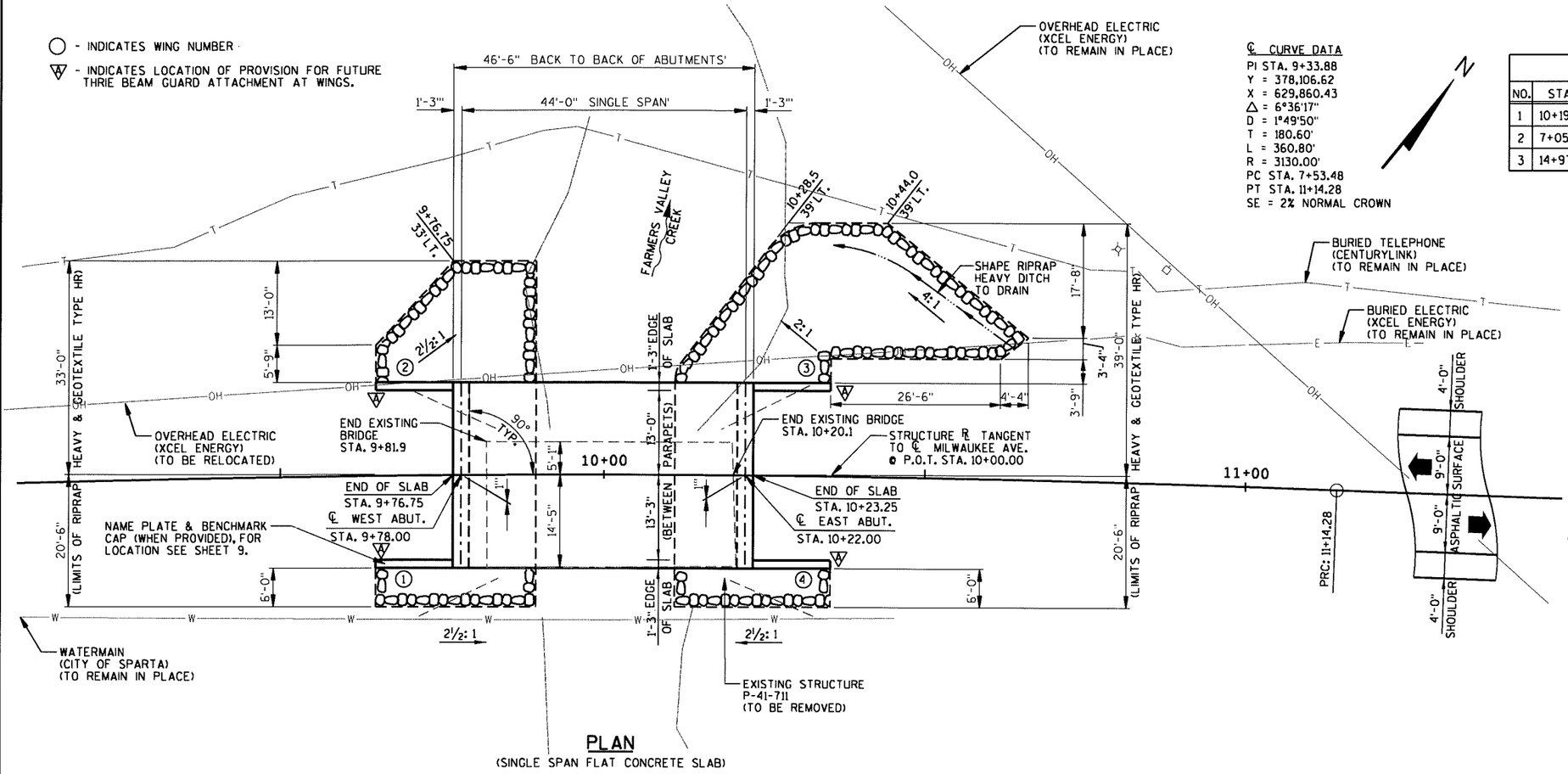
STATE PROJECT NUMBER
7016-00-05

BENCHMARKS

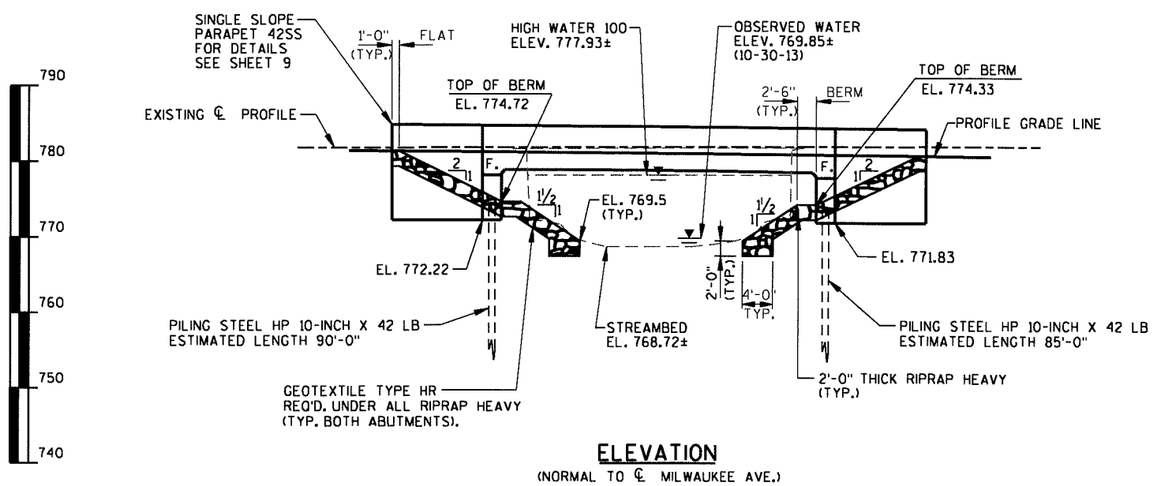
NO.	STA./OFFSET	DESCRIPTION	ELEV.
1	10+19.66, 7.44' LT.	CHISELED SQUARE ON NW CORNER BRIDGE WING	781.61
2	7+05.76, 17.74' LT.	CHISELED + ON TAG BOLT FIRE HYDRANT	791.51
3	14+97.60, 34.5' LT.	RR SPIKE IN POWER POLE	790.03

○ - INDICATES WING NUMBER

▽ - INDICATES LOCATION OF PROVISION FOR FUTURE THRIE BEAM GUARD ATTACHMENT AT WINGS.



PLAN
(SINGLE SPAN FLAT CONCRETE SLAB)



ELEVATION
(NORMAL TO ℄ MILWAUKEE AVE.)

DESIGN DATA

LIVE LOAD:

DESIGN LOADING : HL-93
INVENTORY RATING FACTOR : 1.09
OPERATIONAL RATING FACTOR : 1.41

TRAFFIC DATA:

A.A.D.T. (2017) = 200
A.A.D.T. (2037) = 250
R.D.S. = 30 MPH

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, SLAB & PARAPETS — $f'c$ = 4,000 P.S.I.
ALL OTHER — $f'c$ = 3,500 P.S.I.

HIGH-STRENGTH BAR STEEL REINFORCEMENT, GRADE 60 — fy = 60,000 P.S.I.

PILING STEEL HP — fy = 50,000 P.S.I.

FOUNDATION DATA:

ABUTMENTS TO BE SUPPORTED ON PILING STEEL HP 10-INCH X 42 LB. DRIVE PILES TO A REQUIRED DRIVING RESISTANCE OF 180 TONS * PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED PILE LENGTHS ARE 90'-0" AT THE WEST ABUTMENT AND 85'-0" AT THE EAST ABUTMENT.

* 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.

HYDRAULIC DATA:

100 YEAR FREQUENCY

DRAINAGE AREA	23.4 SQ. MI.
Q100	2600 C.F.S.
VELOCITY	10.30 FT./SEC.
WATERWAY AREA	252 SQ. FT.
HIGH WATER 100 ELEVATION	777.93 ±.
ROADWAY OVERFLOW DESIGN FREQUENCY	N/A
SCOUR CRITICAL CODE	8
Q^2 ELEVATION (530 C.F.S.)	773.08 ±
$VELOCITY_2$	6.41 FPS

LIST OF DRAWINGS

NO.	DATE	REVISION	BY

MSA PROFESSIONAL SERVICES
TRANSPORTATION • MUNICIPAL DEVELOPMENT • ENVIRONMENTAL
1230 South Boulevard Baraboo, WI 53913
608-356-2771 1-800-362-4505 Fax: 608-356-2770

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
ACCEPTED William C. Dreher SDR 05/04/18
CHIEF STRUCTURES DESIGN ENGINEER DATE

WISCONSIN
JOSHUA R. SWENO
E-44384
WAUNAKEE
WI
PROFESSIONAL ENGINEER
Joshua R. Sweno
2/23/18

CONSULTANT DESIGN CONTACT:
JOSHUA SWENO
(608) 355-8852

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

STRUCTURE B-41-299

MILWAUKEE AVE. OVER FARMERS VALLEY CREEK

COUNTY	TOWN/CITY/~~VILLAGE~~
MONROE	SPARTA

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATION

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
JAS	JRS	RLR	JRS

GENERAL PLAN

SHEET 27 9

8

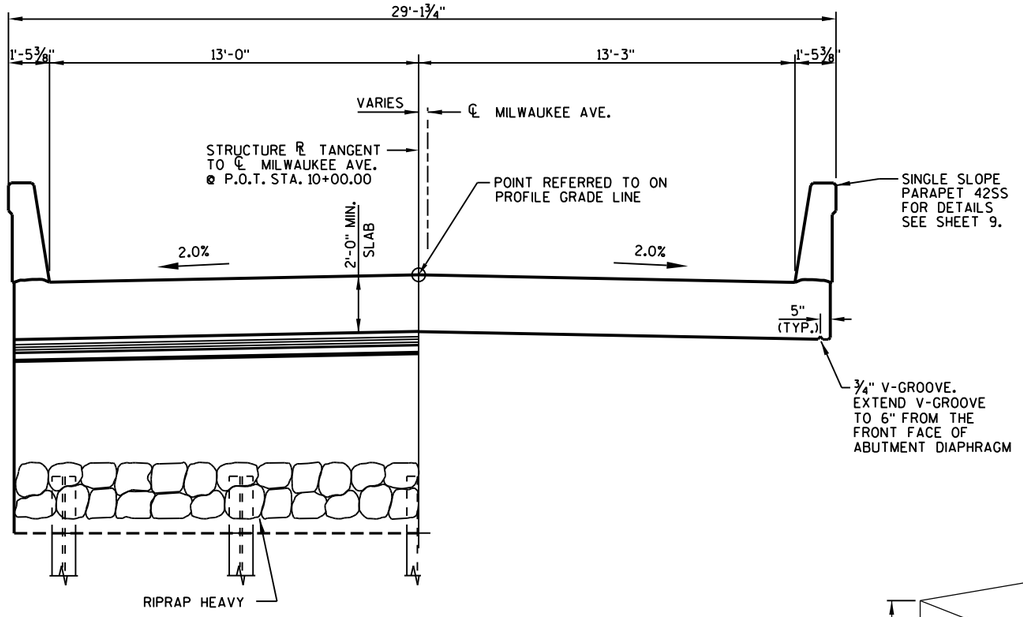
8

FILE= 51014_01.DGN
DATE= 1/25/2018

S1014_01.dgn 1/25/2018 4:29:01 PM jsweno

STATE PROJECT NUMBER

7016-00-05



AT ABUTMENTS IN SPAN

CROSS SECTION THRU BRIDGE

(LOOKING EAST)

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 MARK AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH RIPRAP HEAVY AND GEOTEXTILE TYPE HR TO THE LIMITS SHOWN ON SHEET 1 AND ON THE ABUTMENT SHEETS OR AS DIRECTED BY THE ENGINEER.

THE EXISTING GROUNDLINE SHALL BE THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES" AT THE ABUTMENTS.

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

THIS STRUCTURE WILL REPLACE EXISTING BRIDGE, P-41-711, A 38.2 FT. LONG, SINGLE SPAN, CONCRETE DECK GIRDER BRIDGE ON FULL RETAINING CONCRETE ABUTMENTS.

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

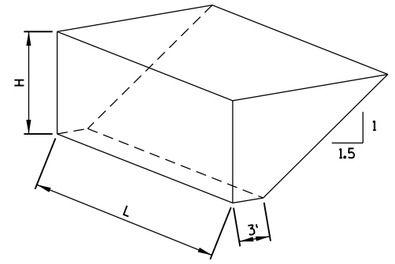
THE BACKFILL QUANTITIES ARE BASED ON THE PAY LIMITS SHOWN ON THE PLANS AND MAY NOT REFLECT ACTUAL PLACED QUANTITIES. "BACKFILL STRUCTURE TYPE A" REQUIRED DIRECTLY BEHIND ABUTMENTS AND ABUTMENT WINGS FOR 3 FEET. BACKFILL PLACED BEYOND PAY LIMITS OR EXCEEDING PLAN QUANTITIES SHALL BE INCIDENTAL TO EXCAVATION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

PROTECTIVE SURFACE TREATMENT SHALL BE APPLIED TO THE TOP OF SLAB.

PIGMENTED SURFACE SEALER SHALL BE APPLIED TO THE INSIDE FACES, THE TOP FACES, AND THE VERTICAL ENDS OF THE PARAPETS.

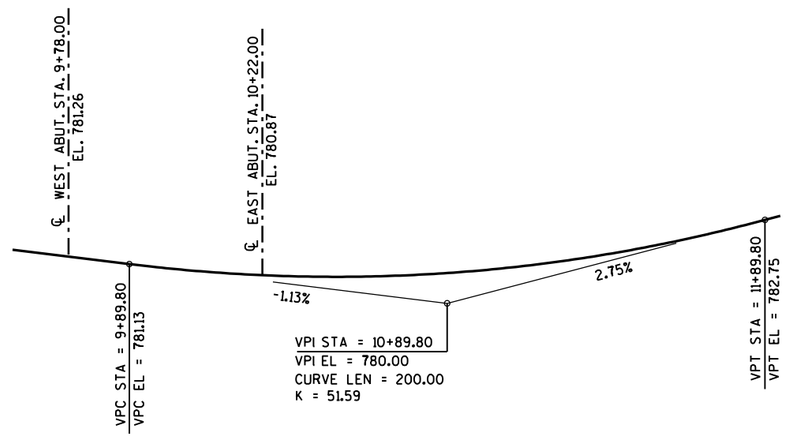
ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO NAVD 88 DATUM, AND WERE ESTABLISHED AT THE SITE USING GPS TECHNOLOGY.

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 THE BOTTOM OF ABUTMENT.



ABUTMENT BACKFILL DIAGRAM

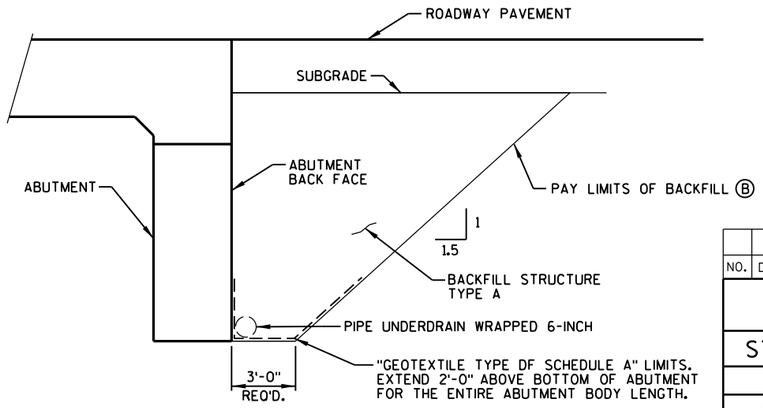
L = OUT-TO-OUT OF ABUTMENT, INCLUDING WINGS
H = AVERAGE ABUTMENT FILL HEIGHT



PROFILE GRADE LINE - MILWAUKEE AVE.

TOTAL ESTIMATED QUANTITIES

ITEM NUMBER	BID ITEM	UNIT	WEST ABUT.	EAST ABUT.	SUPER	TOTAL
203.0600.S.01	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS STATION 10+00	LS	-	-	-	1
206.1000.01	EXCAVATION FOR STRUCTURES BRIDGES B-41-299	LS	-	-	-	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	150	150	-	300
502.0100	CONCRETE MASONRY BRIDGES	CY	37	37	123	197
502.3200	PROTECTIVE SURFACE TREATMENT	SY	-	-	136	136
502.3210	PIGMENTED SURFACE SEALER	SY	-	-	71	71
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	1760	1760	-	3520
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1950	1950	21050	24950
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	10	10	-	20
550.1100	PILING STEEL HP 10-INCH x 42 LB	LF	450	425	-	875
606.0300	RIPRAP HEAVY	CY	80	110	-	190
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	95	95	-	190
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	-	-	4	4
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	30	30	-	60
645.0120	GEOTEXTILE TYPE HR	SY	150	215	-	365
	NON-BID ITEMS					
	PREFORMED FILLER	SIZE				½" & ¾"



STRUCTURE BACKFILL DETAIL

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-41-299

DRAWN BY RLR | PLANS CK'D. JRS

CROSS SECTION, QUANTITIES & NOTES

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28

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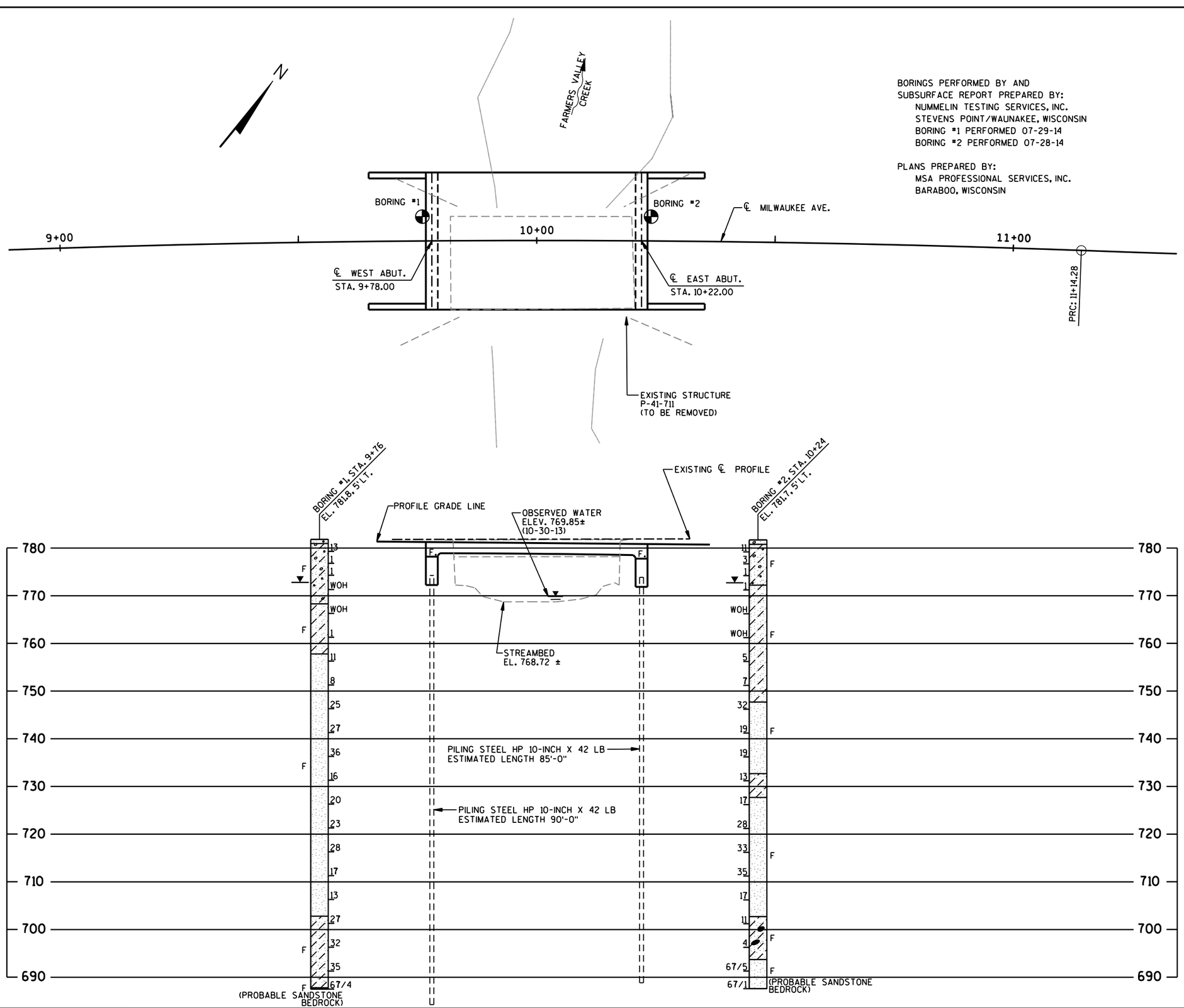


BORINGS PERFORMED BY AND
SUBSURFACE REPORT PREPARED BY:
NUMMELIN TESTING SERVICES, INC.
STEVENS POINT/WAUNAKEE, WISCONSIN
BORING #1 PERFORMED 07-29-14
BORING #2 PERFORMED 07-28-14

PLANS PREPARED BY:
MSA PROFESSIONAL SERVICES, INC.
BARABOO, WISCONSIN

STATE PROJECT NUMBER

7016-00-05

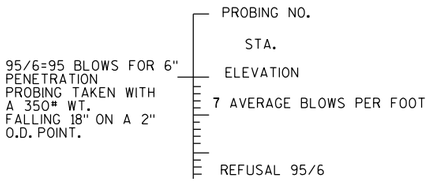
ABBREVIATIONS

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

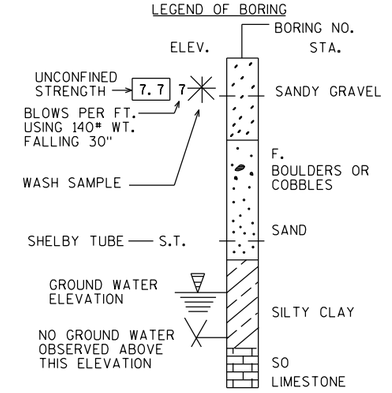
MATERIAL SYMBOLS

TOPSOIL, 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-41-299

DRAWN BY RLR PLANS CK'D. JRS

SUBSURFACE EXPLORATION

SHEET 3 OF 9
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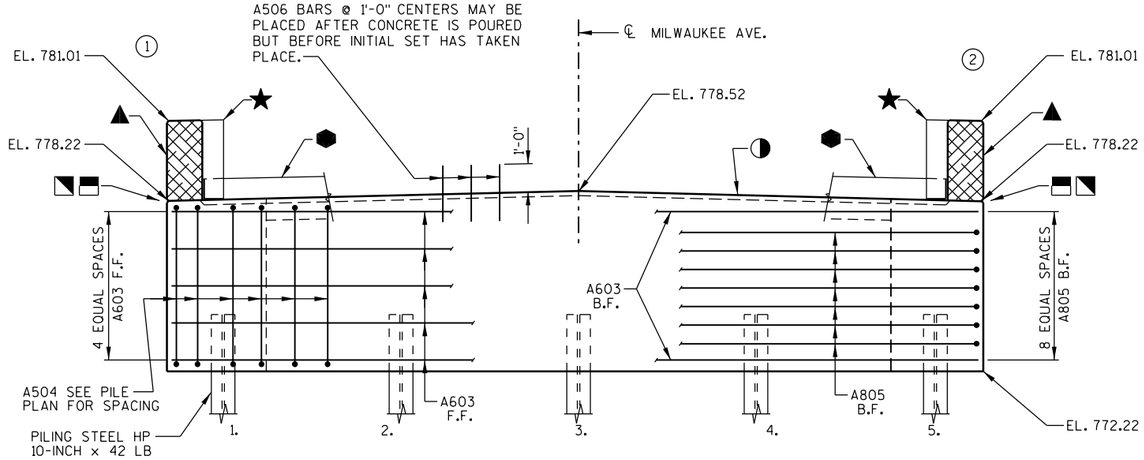
STATE PROJECT NUMBER

7016-00-05

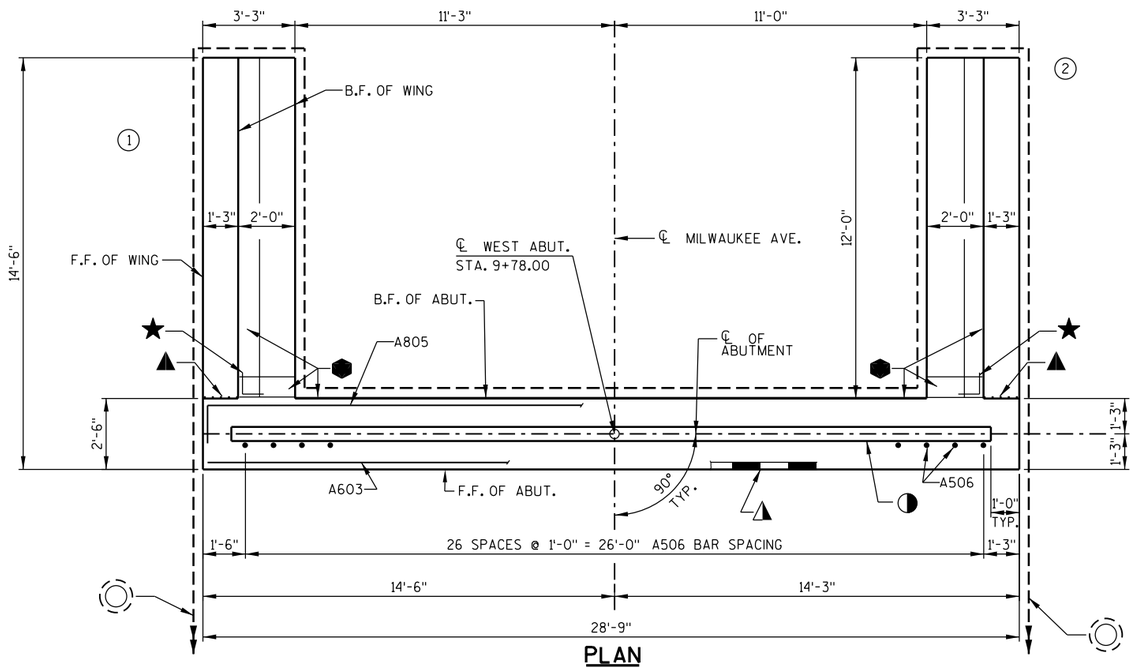


FRONT FACE BAR STEEL REINF.

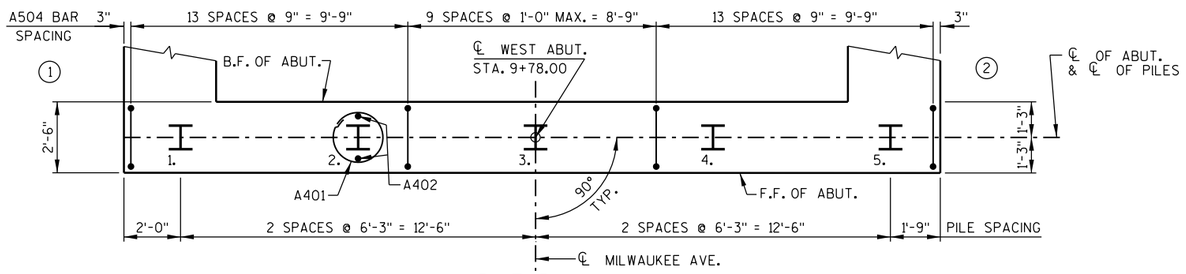
ELEVATION

(LOOKING WEST)

BACK FACE BAR STEEL REINF.

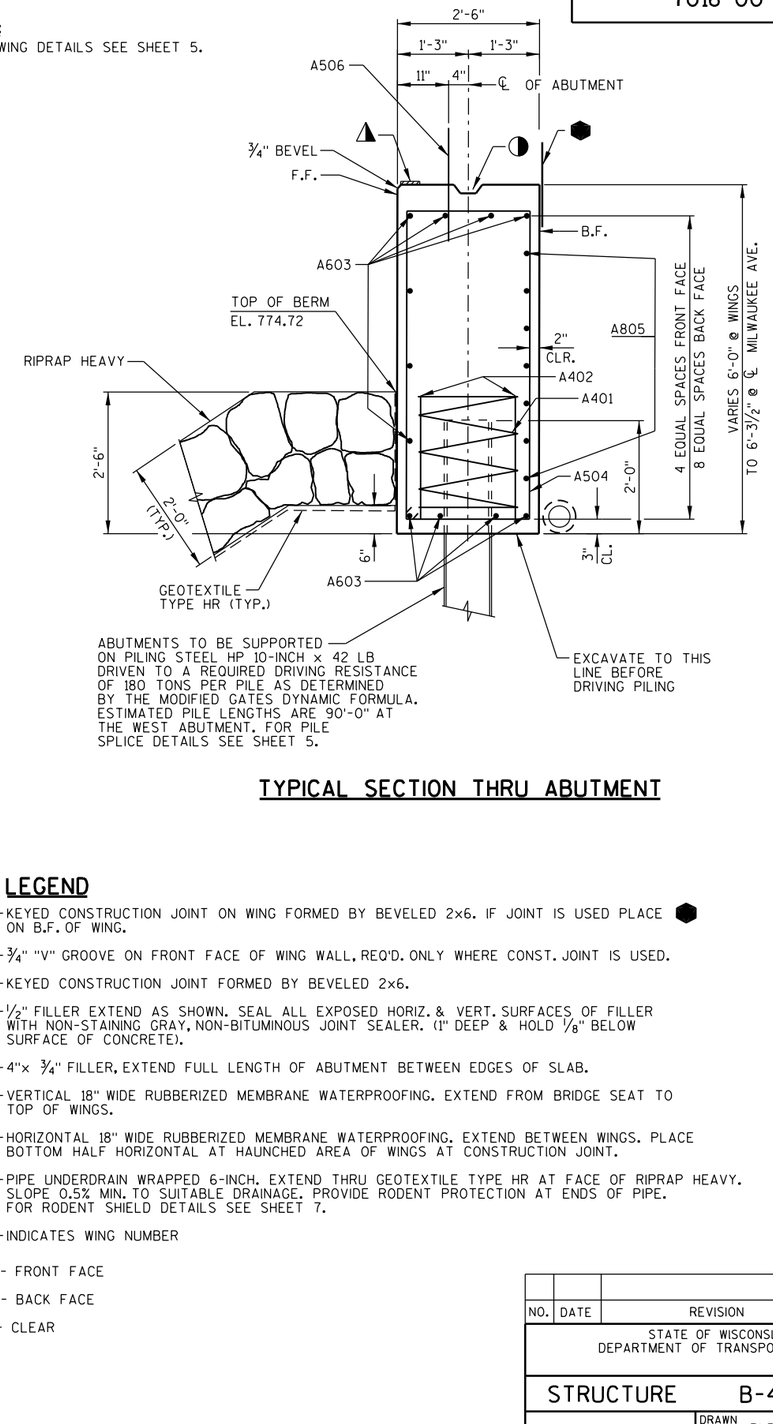


PLAN



PILE PLAN

NOTE:
FOR WING DETAILS SEE SHEET 5.



TYPICAL SECTION THRU ABUTMENT

LEGEND

- KEYED CONSTRUCTION JOINT ON WING FORMED BY BEVELED 2x6. IF JOINT IS USED PLACE ⬢ ON B.F. OF WING.
- ¾" "V" GROOVE ON FRONT FACE OF WING WALL, REQ'D. ONLY WHERE CONST. JOINT IS USED.
- KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2x6.
- ½" FILLER EXTEND AS SHOWN. SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING GRAY, NON-BITUMINOUS JOINT SEALER. (1" DEEP & HOLD ⅛" BELOW SURFACE OF CONCRETE).
- 4"× ¾" FILLER, EXTEND FULL LENGTH OF ABUTMENT BETWEEN EDGES OF SLAB.
- ★ VERTICAL 18" WIDE RUBBERIZED MEMBRANE WATERPROOFING. EXTEND FROM BRIDGE SEAT TO TOP OF WINGS.
- ⬢ HORIZONTAL 18" WIDE RUBBERIZED MEMBRANE WATERPROOFING. EXTEND BETWEEN WINGS. PLACE BOTTOM HALF HORIZONTAL AT HAUNCHED AREA OF WINGS AT CONSTRUCTION JOINT.
- ◎ PIPE UNDERDRAIN WRAPPED 6-INCH. EXTEND THRU GEOTEXTILE TYPE HR AT FACE OF RIPRAP HEAVY. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. PROVIDE RODENT PROTECTION AT ENDS OF PIPE. FOR RODENT SHIELD DETAILS SEE SHEET 7.
- ◯ INDICATES WING NUMBER

F.F. - FRONT FACE

B.F. - BACK FACE

CL. - CLEAR

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-41-299

DRAWN BY RLR | PLANS CK'D. JRS

WEST ABUTMENT

SHEET 4 OF 9
30

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DATE=1/19/2018

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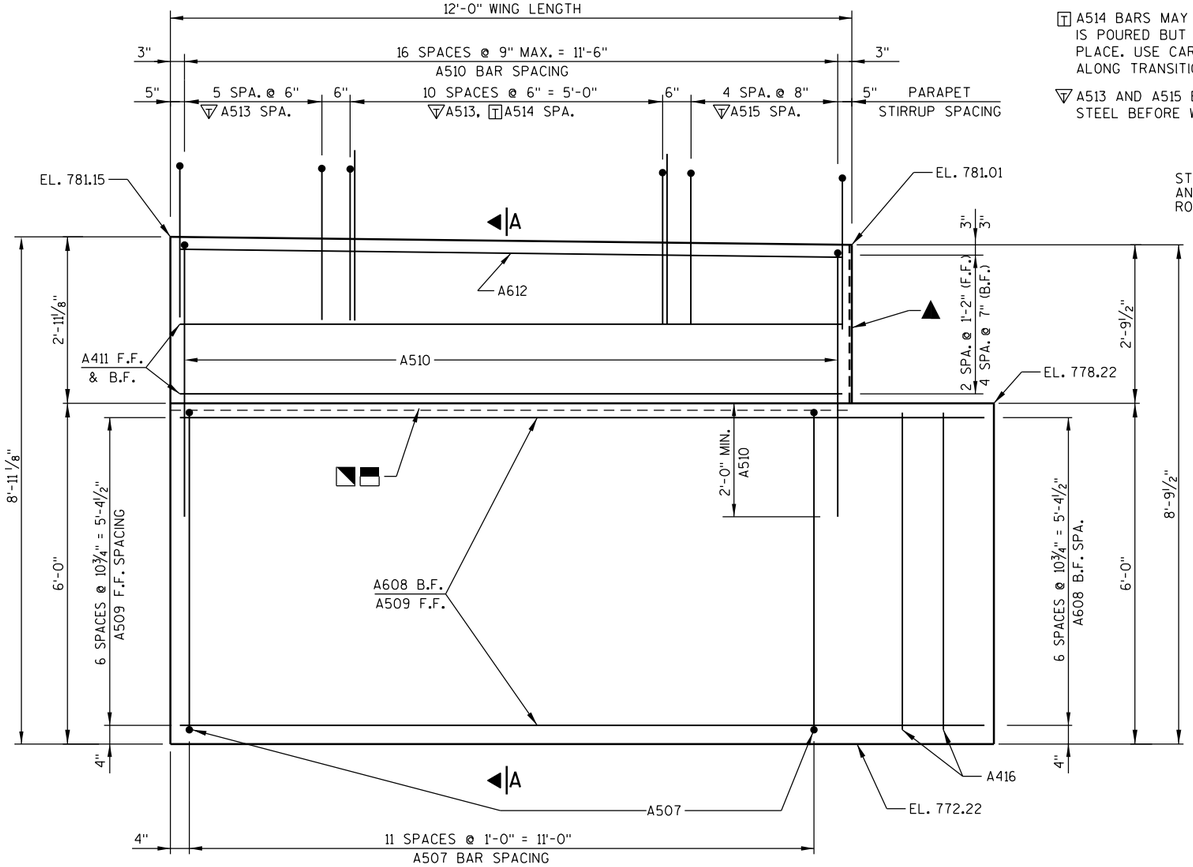
STATE PROJECT NUMBER

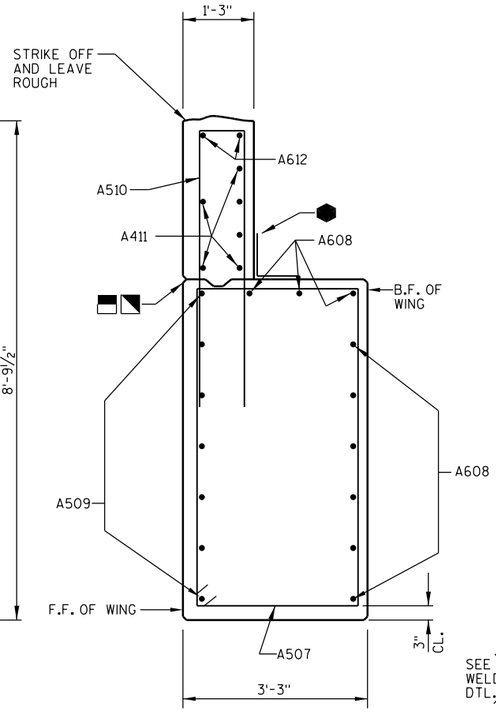
7016-00-05

T A514 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. USE CARE TO PLACE A514 BARS CORRECTLY ALONG TRANSITION OF PARAPET.

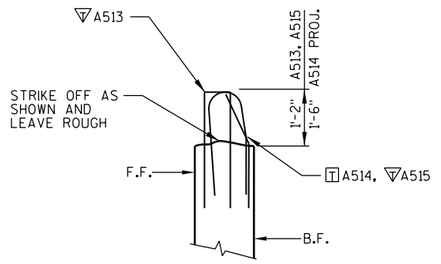
▽ A513 AND A515 BARS TO BE TIED TO WING STEEL BEFORE WING IS POURED.



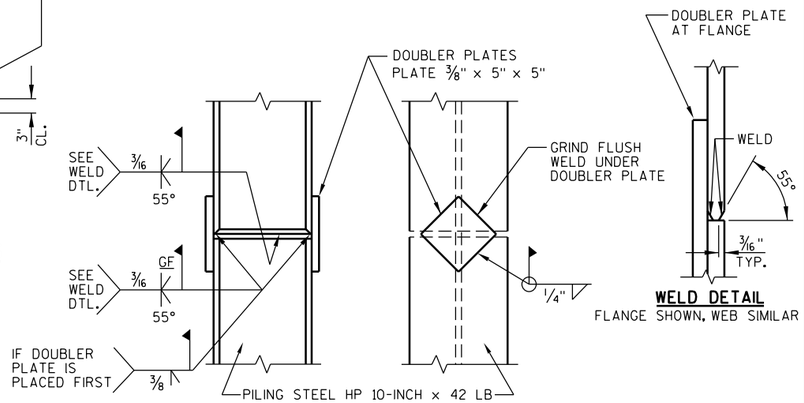
ELEVATION - WING



SECTION A-A THRU WING

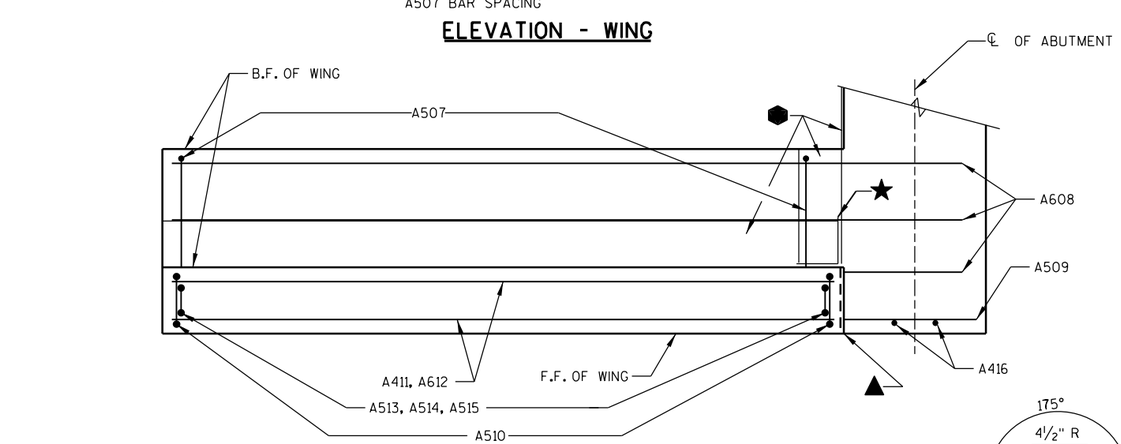


PARAPET STIRRUP PROJECTION DETAIL



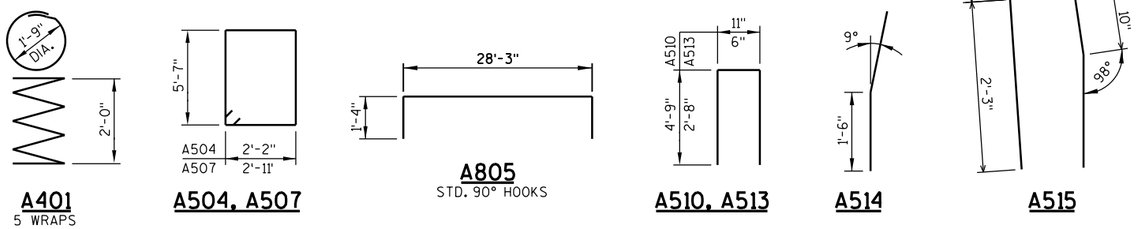
WELD DETAIL
FLANGE SHOWN, WEB SIMILAR

PILE SPLICE DETAILS



PLAN - WING

WING 1 SHOWN
WING 2 SIMILAR



BILL OF BARS (WEST ABUT.)

(COATED) 1950 LBS.
(UNCOATED) 1760 LBS.

MARK	NUMBER REQUIRED COATED	NUMBER REQUIRED UNCOATED	LENGTH	BENT	LOCATION
A401	-	5	28'-0"	X	ABUTMENT BODY - 1 SPIRAL WRAP @ EACH PILE
A402	-	10	2'-3"		ABUTMENT BODY - 2 @ EACH PILE - VERT.
A603	-	11	28'-5"		ABUTMENT BODY - F.F., TOP & BOTTOM - HORIZ.
A504	-	36	16'-2"	X	ABUTMENT BODY - STIRRUP - VERT.
A805	-	7	30'-6"	X	ABUTMENT BODY - B.F. @ WINGS - HORIZ.
A506	27	-	2'-0"		ABUTMENT BODY - TOP - DOWELS - VERT.
A507	24	-	17'-8"	X	WINGS 1 & 2 - BASE - STIRRUP - VERT.
A608	18	-	13'-11"		WINGS 1 & 2 - BASE - B.F. & TOP - HORIZ.
A509	14	-	14'-2"		WINGS 1 & 2 - BASE - F.F. - HORIZ.
A510	34	-	10'-2"	X	WINGS 1 & 2 - TOP - STIRRUP - VERT.
A411	12	-	11'-7"		WINGS 1 & 2 - TOP - F.F. & B.F. - HORIZ.
A612	4	-	11'-7"		WINGS 1 & 2 - TOP - F.F. & B.F. - HORIZ.
A513	34	-	5'-7"	X	WINGS 1 & 2 - TOP - PARAPET STIRRUP - VERT.
A514	22	-	3'-0"	X	WINGS 1 & 2 - TOP - PARAPET STIRRUP - VERT.
A515	10	-	5'-10"	X	WINGS 1 & 2 - TOP - PARAPET STIRRUP - VERT.
A416	4	-	5'-7"		ABUTMENT BODY - WINGS 1 & 2 - END - VERT.

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

SEE SHEET 4 LEGEND FOR DESCRIPTION OF ⬢ ▬ ◥ ★ ▲

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-41-299

DRAWN BY RLR | PLANS CK'D. JRS

WEST ABUTMENT DETAILS

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STATE PROJECT NUMBER

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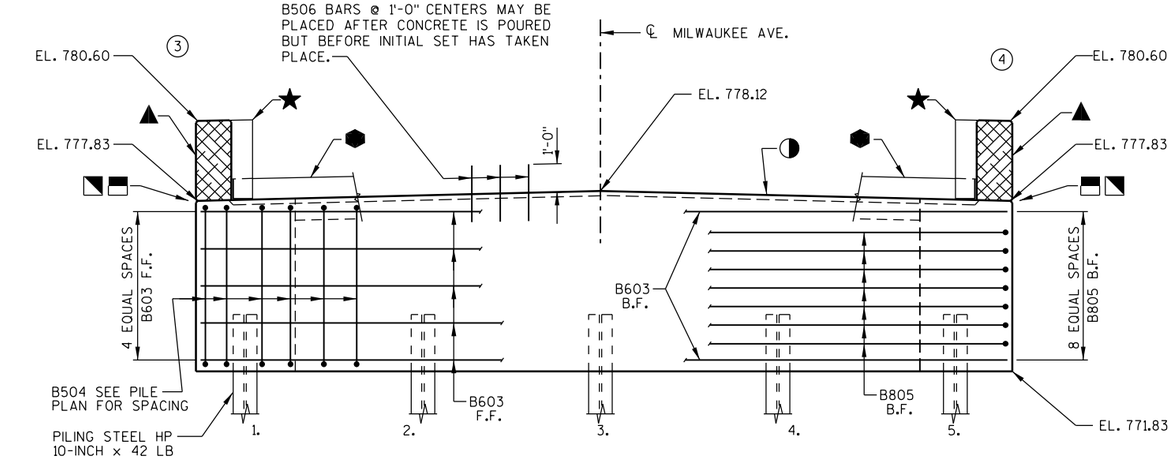
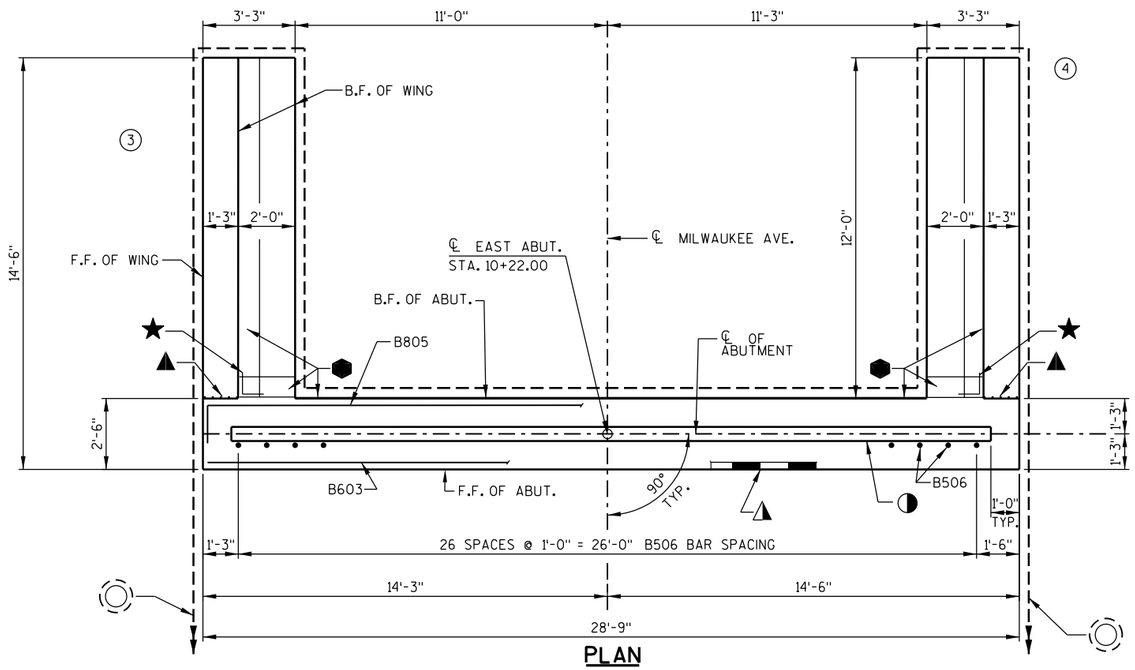


FRONT FACE BAR STEEL REINF.

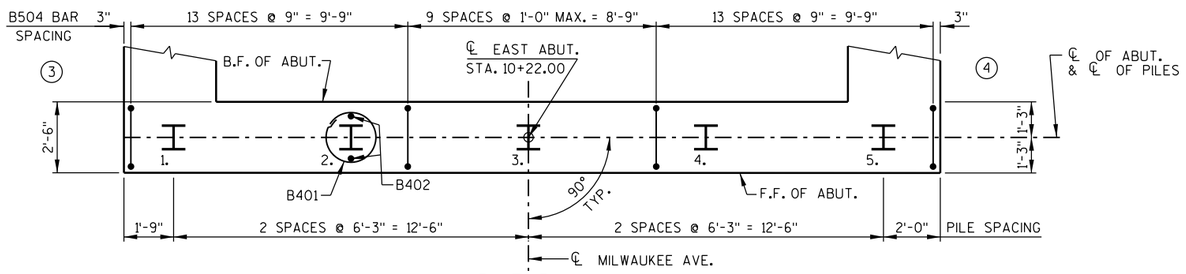
ELEVATION

(LOOKING EAST)

BACK FACE BAR STEEL REINF.

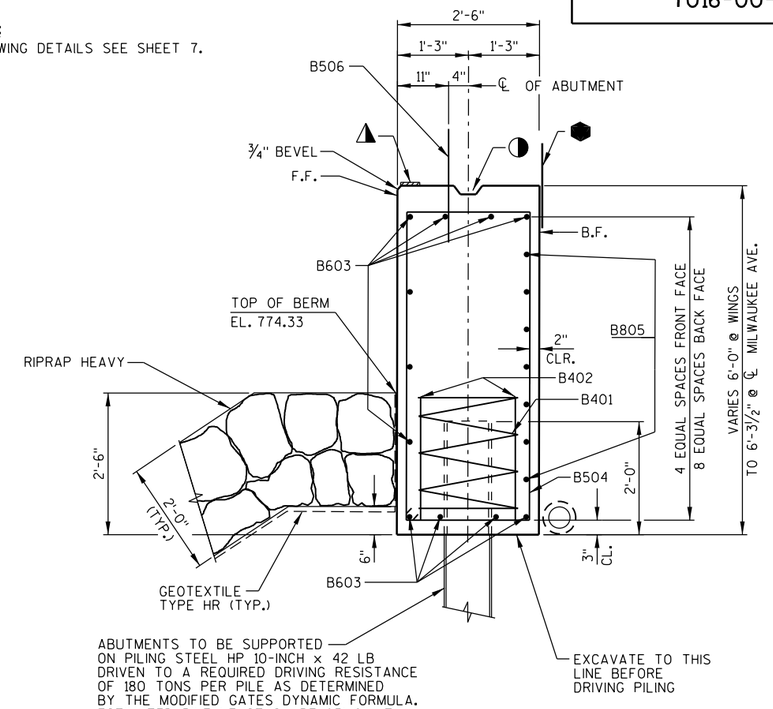


PLAN



PILE PLAN

NOTE:
FOR WING DETAILS SEE SHEET 7.



TYPICAL SECTION THRU ABUTMENT

LEGEND

- KEYED CONSTRUCTION JOINT ON WING FORMED BY BEVELED 2x6. IF JOINT IS USED PLACE ⬢ ON B.F. OF WING.
- ¾" "V" GROOVE ON FRONT FACE OF WING WALL, REQ'D. ONLY WHERE CONST. JOINT IS USED.
- KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2x6.
- ½" FILLER EXTEND AS SHOWN. SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING GRAY, NON-BITUMINOUS JOINT SEALER. (1" DEEP & HOLD ⅛" BELOW SURFACE OF CONCRETE).
- 4"× ¾" FILLER, EXTEND FULL LENGTH OF ABUTMENT BETWEEN EDGES OF SLAB.
- ★ VERTICAL 18" WIDE RUBBERIZED MEMBRANE WATERPROOFING. EXTEND FROM BRIDGE SEAT TO TOP OF WINGS.
- ⬢ HORIZONTAL 18" WIDE RUBBERIZED MEMBRANE WATERPROOFING. EXTEND BETWEEN WINGS. PLACE BOTTOM HALF HORIZONTAL AT HAUNCHED AREA OF WINGS AT CONSTRUCTION JOINT.
- ◎ PIPE UNDERDRAIN WRAPPED 6-INCH. EXTEND THRU GEOTEXTILE TYPE HR AT FACE OF RIPRAP HEAVY. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. PROVIDE RODENT PROTECTION AT ENDS OF PIPE. FOR RODENT SHIELD DETAILS SEE SHEET 7.
- ◯ INDICATES WING NUMBER

F.F. - FRONT FACE

B.F. - BACK FACE

CL. - CLEAR

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-41-299

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EAST ABUTMENT

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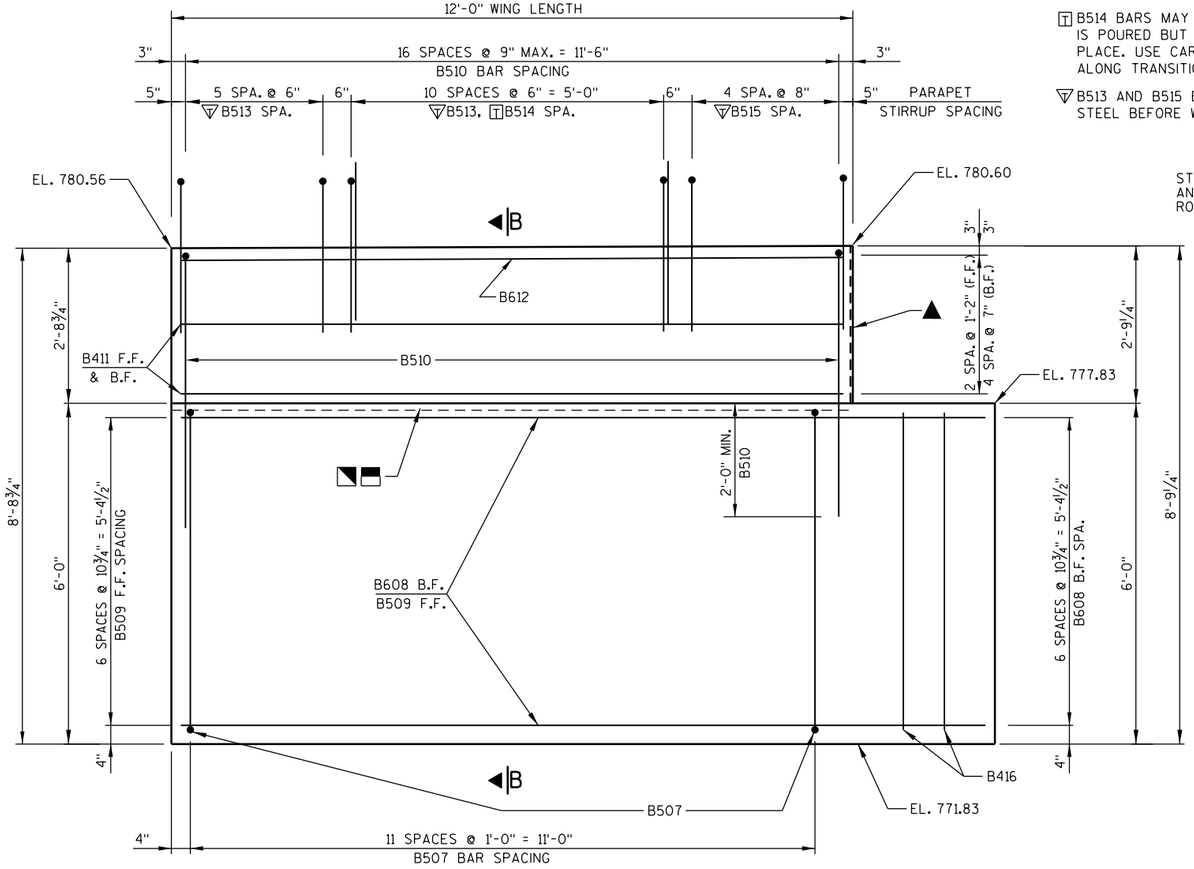
STATE PROJECT NUMBER

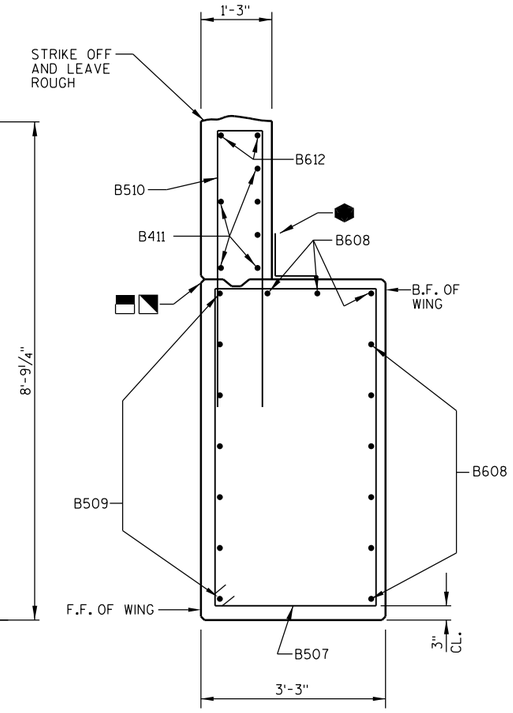
7016-00-05

T B514 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. USE CARE TO PLACE B514 BARS CORRECTLY ALONG TRANSITION OF PARAPET.

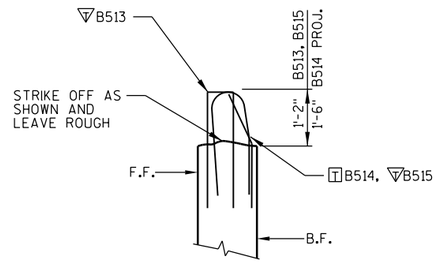
▽ B513 AND B515 BARS TO BE TIED TO WING STEEL BEFORE WING IS POURED.



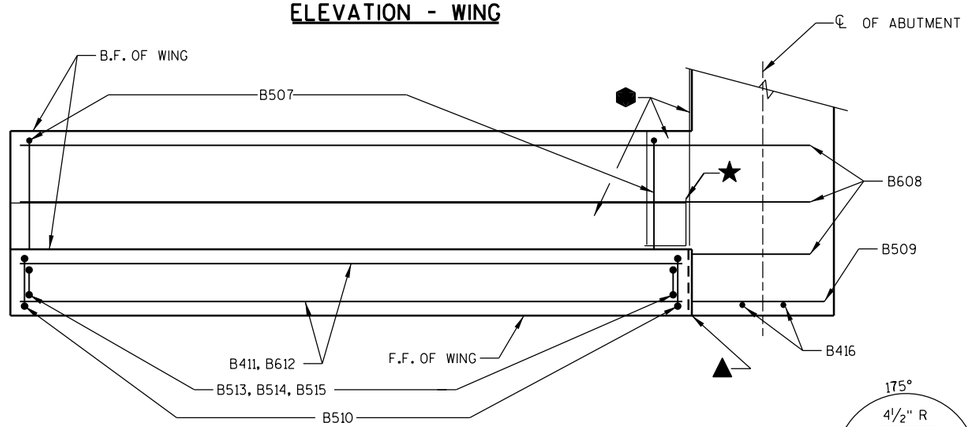
ELEVATION - WING



SECTION B-B THRU WING



PARAPET STIRRUP PROJECTION DETAIL



PLAN - WING

WING 3 SHOWN
WING 4 SIMILAR

ROUNDED TO NEAREST 10 LBS.

(COATED) 1950 LBS.
(UNCOATED) 1760 LBS.

BILL OF BARS (EAST ABUT.)

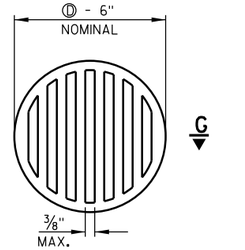
MARK	NUMBER REQUIRED COATED	NUMBER REQUIRED UNCOATED	LENGTH	BENT	LOCATION
B401	-	5	28'-0"	X	ABUTMENT BODY - 1 SPIRAL WRAP @ EACH PILE
B402	-	10	2'-3"		ABUTMENT BODY - 2 @ EACH PILE - VERT.
B603	-	11	28'-5"		ABUTMENT BODY - F.F., TOP & BOTTOM - HORIZ.
B504	-	36	16'-2"	X	ABUTMENT BODY - STIRRUP - VERT.
B805	-	7	30'-6"	X	ABUTMENT BODY - B.F. @ WINGS - HORIZ.
B506	27	-	2'-0"		ABUTMENT BODY - TOP - DOWELS - VERT.
B507	24	-	17'-8"	X	WINGS 3 & 4 - BASE - STIRRUP - VERT.
B608	18	-	13'-11"		WINGS 3 & 4 - BASE - B.F. & TOP - HORIZ.
B509	14	-	14'-2"		WINGS 3 & 4 - BASE - F.F. - HORIZ.
B510	34	-	10'-2"	X	WINGS 3 & 4 - TOP - STIRRUP - VERT.
B411	12	-	11'-7"		WINGS 3 & 4 - TOP - F.F. & B.F. - HORIZ.
B612	4	-	11'-7"		WINGS 3 & 4 - TOP - F.F. & B.F. - HORIZ.
B513	34	-	5'-7"	X	WINGS 3 & 4 - TOP - PARAPET STIRRUP - VERT.
B514	22	-	3'-0"	X	WINGS 3 & 4 - TOP - PARAPET STIRRUP - VERT.
B515	10	-	5'-10"	X	WINGS 3 & 4 - TOP - PARAPET STIRRUP - VERT.
B416	4	-	5'-7"		ABUTMENT BODY - WINGS 3 & 4 - END - VERT.

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

RODENT SHIELD NOTES:

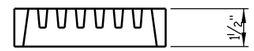
ORIENT SHIELD SO SLOTS ARE VERTICAL.

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 ATTACHEMENT 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. THE RODENT SHIELD, PIPE COUPLING AND SCREWS, SHALL BE INCLUDED IN THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

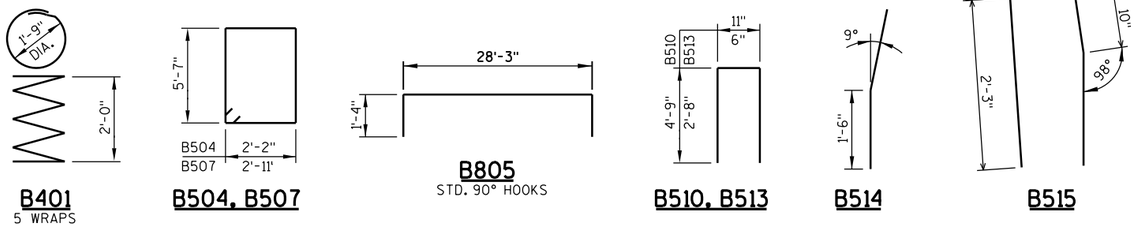


RODENT SHIELD

Ⓓ - DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING.



SECTION G-G



SEE SHEET 6 LEGEND FOR DESCRIPTION OF ⬢ ▬ ◥ ★ ▲

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-41-299

DRAWN BY RLR | PLANS CK'D. JRS

EAST ABUTMENT DETAILS

SHEET 7 OF 9
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DATE= 2/12/2018

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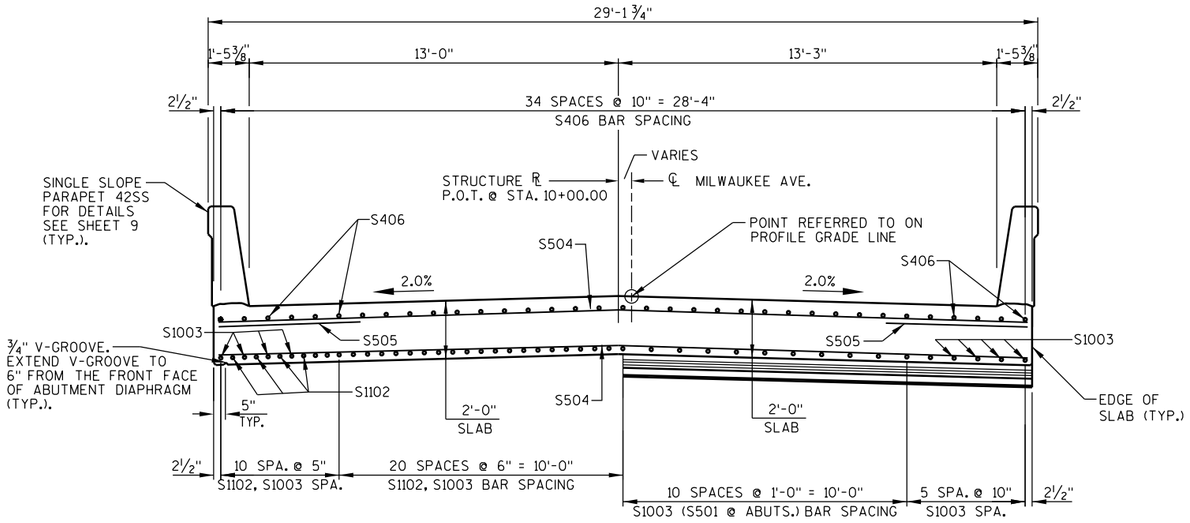
51014_07.dgn 2/12/2018 8:46:59 AM jsweno

STATE PROJECT NUMBER

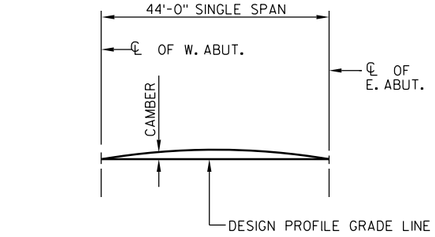
7016-00-05



IN SPAN AT ABUTMENTS

CROSS SECTION THRU BRIDGE

(LOOKING EAST)



CAMBER DIAGRAM

CAMBER SPANS AS SHOWN ABOVE AND IN THE TABLE OF VALUES TO PROVIDE FOR DEAD LOAD DEFLECTION AND FUTURE CREEP. CAMBER DOES NOT INCLUDE ALLOWANCE FOR FORM SETTLEMENT. DEAD LOAD DEFLECTION APPROXIMATES 1/3 OF CAMBER VALUES SHOWN.

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

TOP OF SLAB ELEVATION AT FINAL GRADE

\- SLAB THICKNESS

\+ CAMBER

\+ FORM SETTLEMENT/DEFLECTION DUE TO PLACEMENT OF SLAB CONCRETE (TO BE COMPUTED BY THE CONTRACTOR)

= TOP OF SLAB FALSEWORK ELEVATION

GENERAL NOTES

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

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.

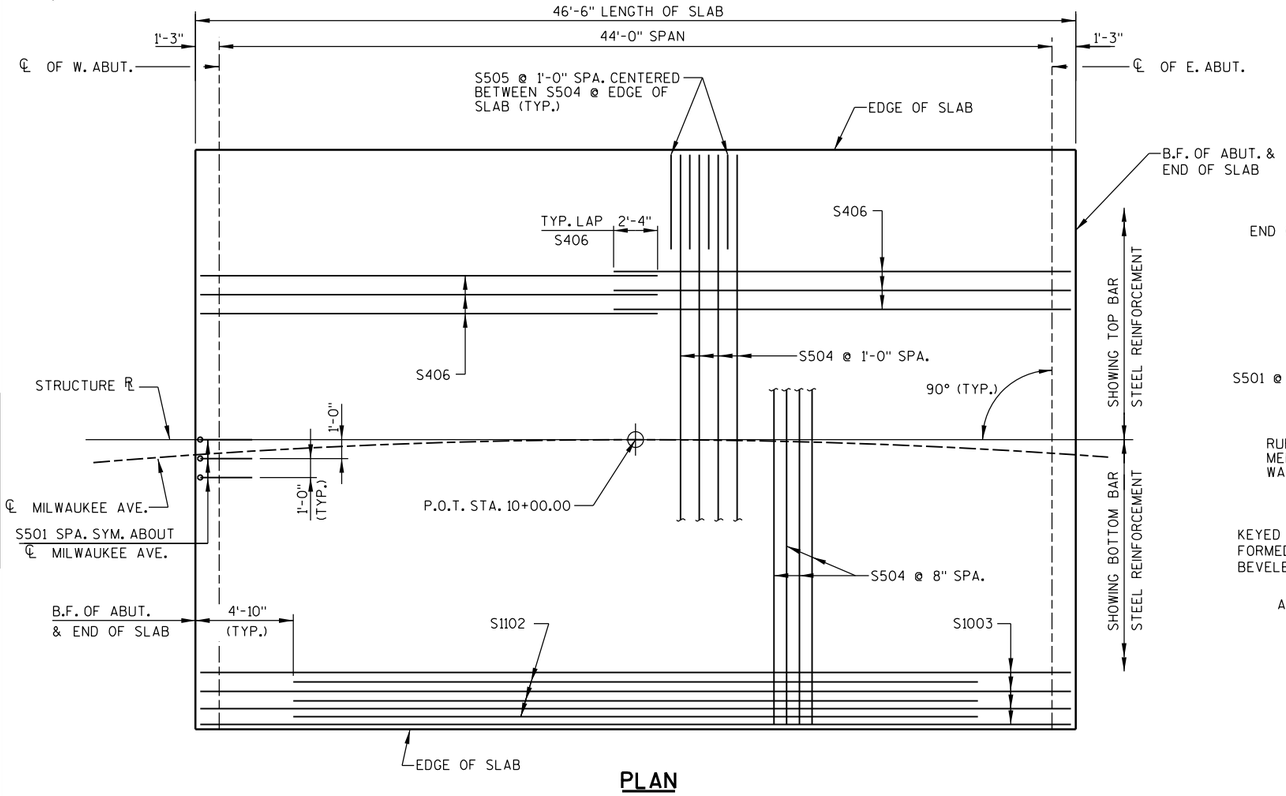
SURVEY TOP OF SLAB ELEVATIONS

LOCATION	SPAN POINT	NORTH SLAB EDGE	C/L MILWAUKEE AVENUE	SOUTH SLAB EDGE
WEST ABUT.	1.0			
	1.5			
EAST ABUT.	2.0			

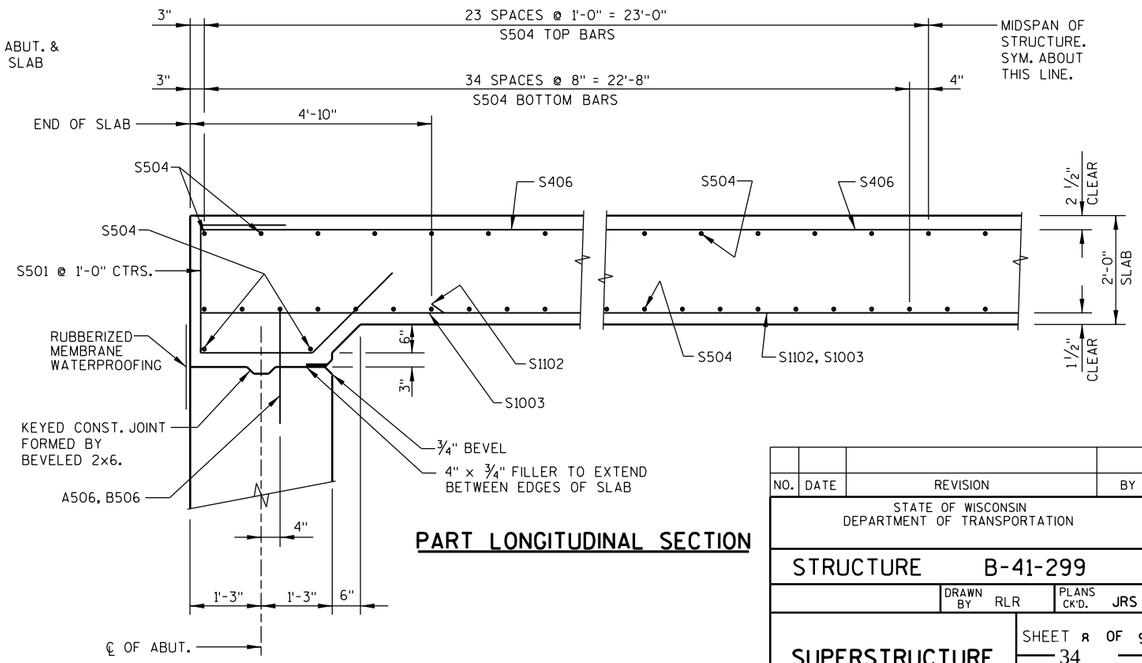
PRIOR TO RELEASING SLAB FALSEWORK, TAKE TOP OF SLAB ELEVATIONS AT THE ℄ OF ABUTMENTS AND AT THE 0.5 PTS. TO VERIFY CAMBER. TAKE ELEVATIONS ALONG EDGE OF SLAB AND CROWN OR ℄. RECORD THE ELEVATIONS IN THE ABOVE TABLE FOR THE "AS BUILT" PLANS.

TOP OF SLAB ELEVATIONS AND CAMBER VALUES

LOCATION	SPAN POINT	SOUTH SLAB EDGE	C/L MILWAUKEE AVENUE	NORTH SLAB EDGE	CAMBER VALUE (INCHES)
WEST ABUT.	1.0	781.00	781.26	781.00	0.0
	1.1	780.95	781.21	780.95	0.5
	1.2	780.90	781.16	780.90	1.0
	1.3	780.85	781.11	780.85	1.4
	1.4	780.80	781.07	780.81	1.6
	1.5	780.76	781.02	780.76	1.7
	1.6	780.72	780.99	780.73	1.6
	1.7	780.69	780.95	780.69	1.4
	1.8	780.65	780.92	780.66	1.0
	1.9	780.63	780.89	780.63	0.5
EAST ABUT.	2.0	780.60	780.87	780.61	0.0



PLAN



PART LONGITUDINAL SECTION

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-41-299

DRAWN BY RLR | PLANS CK'D. JRS

SUPERSTRUCTURE

SHEET 8 OF 9
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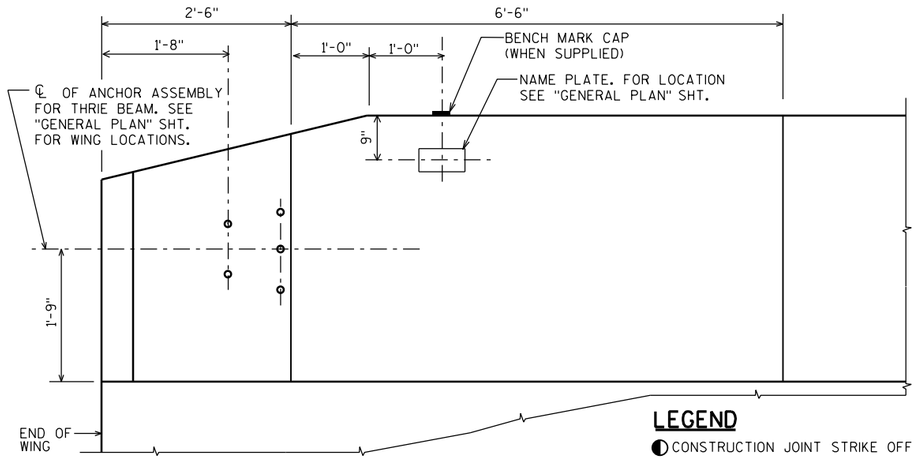
FILE= 51014_08.DGN
DATE= 1/19/2018

STATE PROJECT NUMBER

7016-00-05



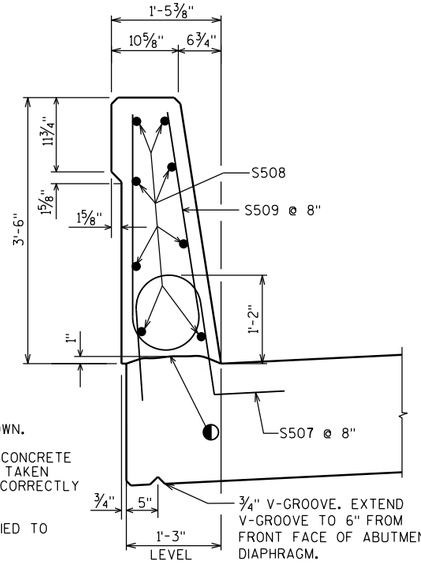
INSIDE ELEVATION

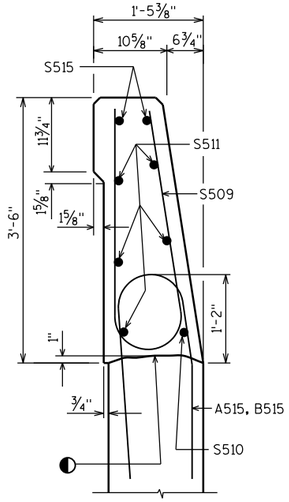
LEGEND

◐ CONSTRUCTION JOINT STRIKE OFF AS SHOWN.

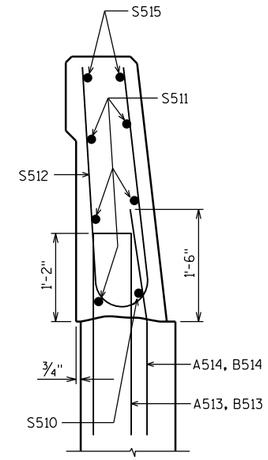
Ⓣ A514, B514 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. USE CARE TO PLACE A514 BARS CORRECTLY ALONG TRANSITION OF PARAPET.

▽ A513, B513 AND A515, B515 BARS TO BE TIED TO WING STEEL BEFORE WING IS POURED.

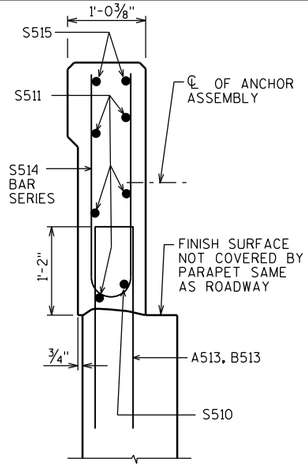




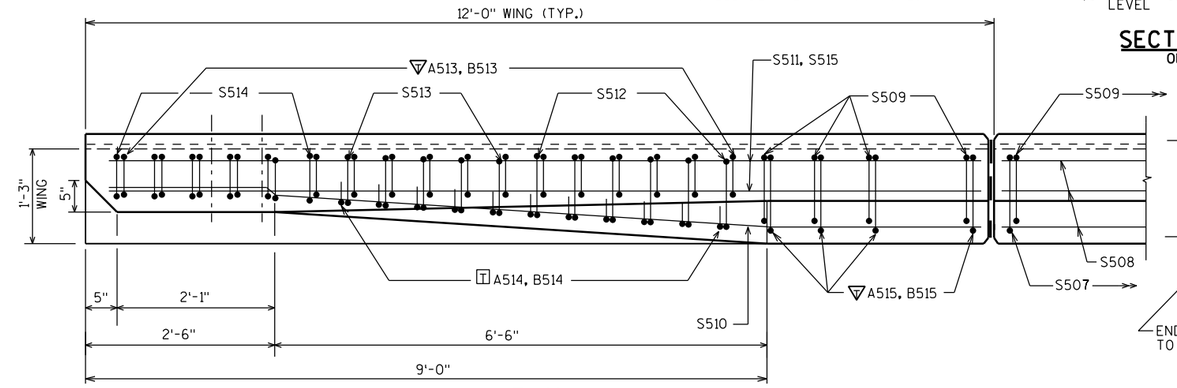
SECTION C-C
ON WING



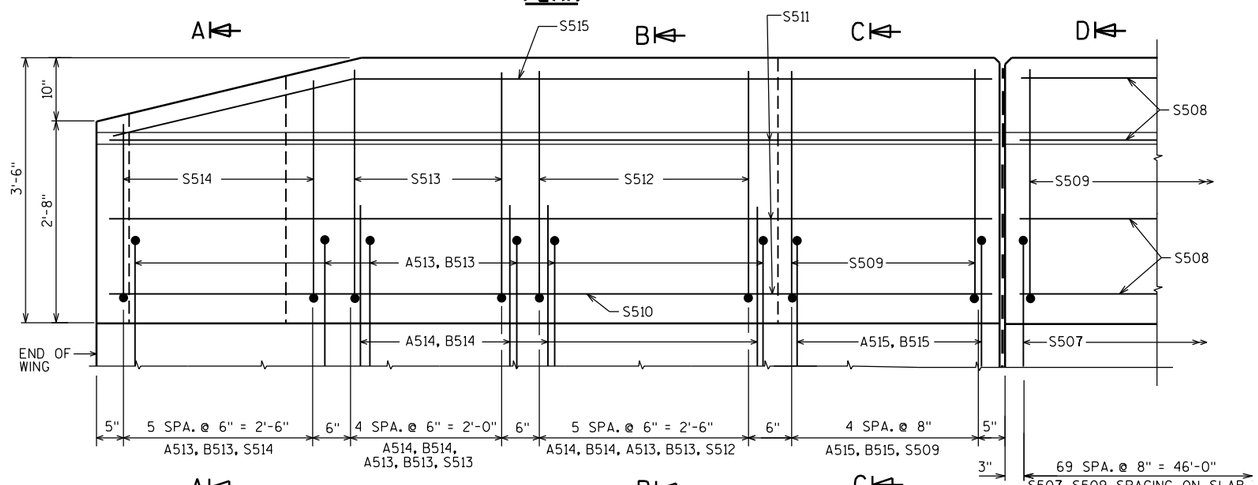
SECTION B-B
ON WING



SECTION A-A
AT END OF WING

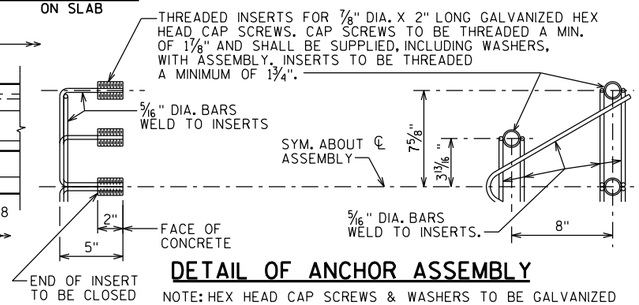


PLAN



OUTSIDE ELEVATION

SECTION D-D
ON SLAB



DETAIL OF ANCHOR ASSEMBLY

NOTE: HEX HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C.

ASSEMBLY BID ITEM SHALL BE "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD", EACH.

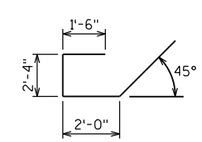
BILL OF BARS (COATED) 21,050 LBS.

MARK	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
S501	60	7'-6"	X		DIAPHRAGM @ ABUTS. - LONGIT.
S1102	30	36'-10"			SLAB BOTTOM - LONGIT.
S1003	31	46'-2"			SLAB BOTTOM - LONGIT.
S504	121	28'-5"			SLAB TOP & BOTTOM - TRANS.
S505	92	5'-0"			SLAB TOP @ EDGE OF SLAB - TRANS.
S406	70	24'-3"			SLAB TOP - LONGIT.
S507	140	4'-5"	X		PARAPET ON SLAB - STIRRUP - VERT.
S508	16	46'-2"			PARAPET ON SLAB - LONGIT.
S509	160	6'-8"	X		PARAPET - STIRRUP - VERT.
S510	4	11'-7"	X		PARAPET ON WING - BOTTOM - LONGIT.
S511	20	11'-7"			PARAPET ON WING - LONGIT.
S512	24	6'-6"	X		PARAPET ON WING - STIRRUP - VERT.
S513	20	6'-5"	X		PARAPET ON WING - STIRRUP - VERT.
S514	24	5'-5"	X	Ⓢ	PARAPET ON WING - END - STIRRUP - VERT.
S515	8	11'-8"	X		PARAPET PARAPET ON WING - TOP - LONGIT.

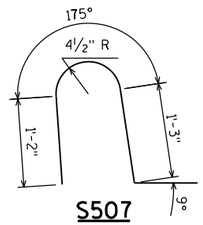
DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

EPOXY COAT ALL SUPERSTRUCTURE BAR STEEL REINFORCEMENT.

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



S501



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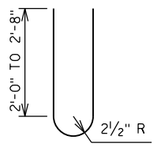
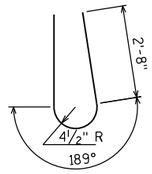


S514

BAR SERIES TABLE

MARK	NO. REQD.	LENGTH
S514	4 SERIES OF 6	4'-9" TO 6'-1"

BUNDLE AND TAG EACH SERIES SEPARATELY.



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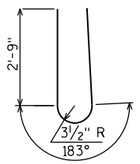

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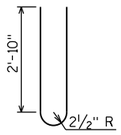

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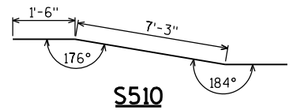

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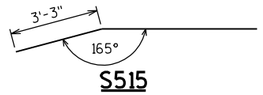

S515

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-41-299

DRAWN BY RLR | PLANS CK'D. JRS

SINGLE SLOPE PARAPET 42SS

SHEET 9 OF 9
35

FILE= S1014_09.DGN
DATE= 1/19/2018

8

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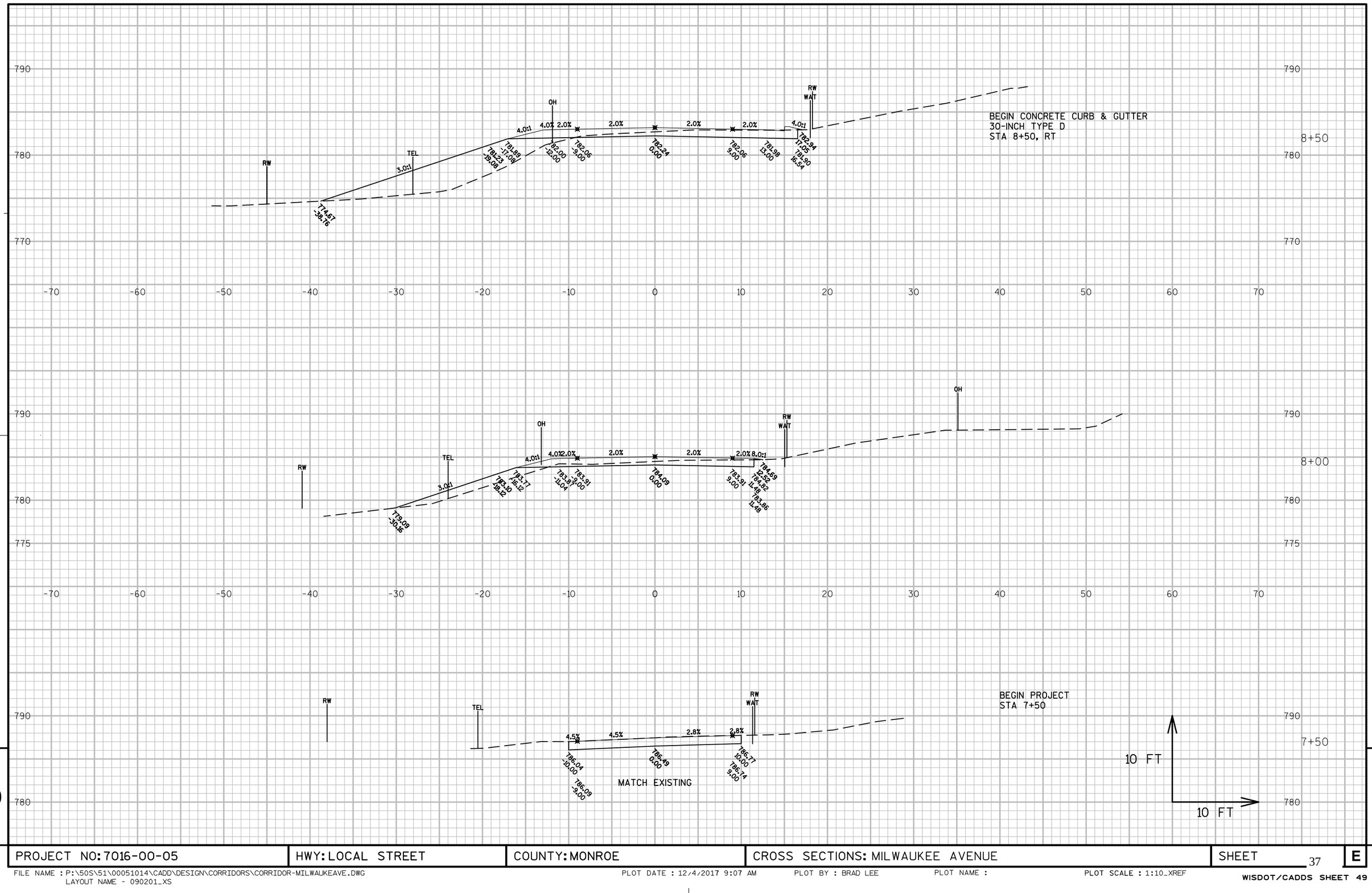
PROJECT I.D. 7016-00-05 EARTHWORK SUMMARY

STA	EXCAVATION COMMON CY	EXCAVATION ROCK CY	FILL (1) CY	EXPANDED FILL (2) CY	WASTE CY	BORROW CY
7+50.00						
	28	0	13	17	11	-11
8+00.00						
	25	0	71	92	-67	67
8+50.00						
	36	0	110	143	-107	107
9+00.00						
	46	0	96	125	-79	79
9+50.00						
	26	0	23	30	-4	4
9+76.75						
STRUCTURE B41-299						
10+23.25						
	38	0	27	35	3	-3
10+50.00						
	98	0	50	65	33	-33
11+00.00						
	86	0	0	0	86	-86
11+50.00						
	55	0	0	0	55	-55
12+00.00						
SUBTOTALS						
WEST APPROACH	161	0	313	407	-246	246
EAST APPROACH	277	0	77	100	177	-177
UNUSABLE PAVEMENT (3)						273
TOTALS	**438**	**0**	**390**	**507**	**-69**	**342**

(1) - NOT A BID ITEM - FOR INFORMATIONAL PURPOSES ONLY.
(2) - FILL EXPANSION 30%
(3) - EXISTING PAVEMENT BASED ON AVE THK OF 10.5 AND 11 INCHES PER BORING LOGS.



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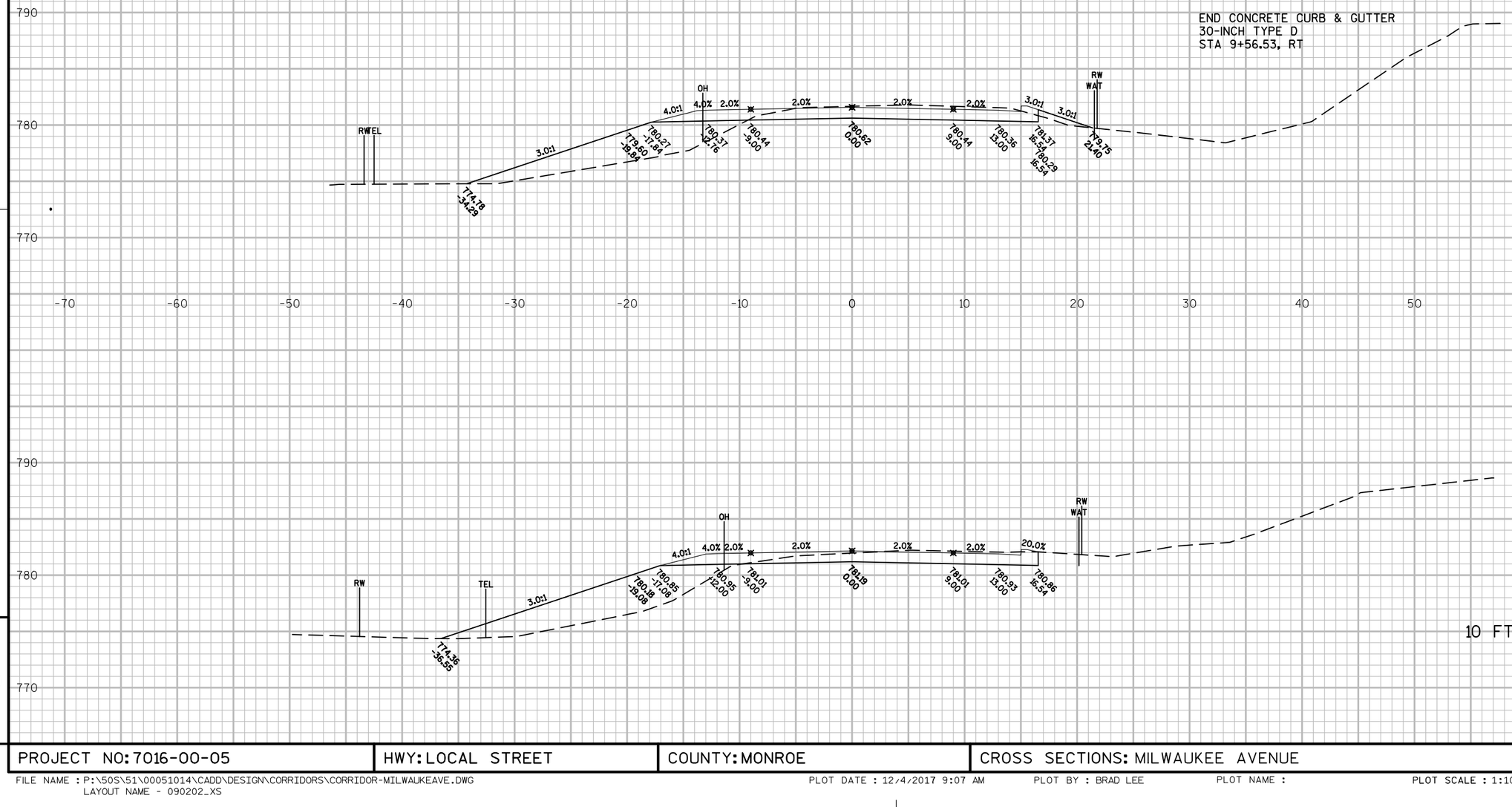
WISDOT/CADDS SHEET 49

STRUCTURE B-41-299



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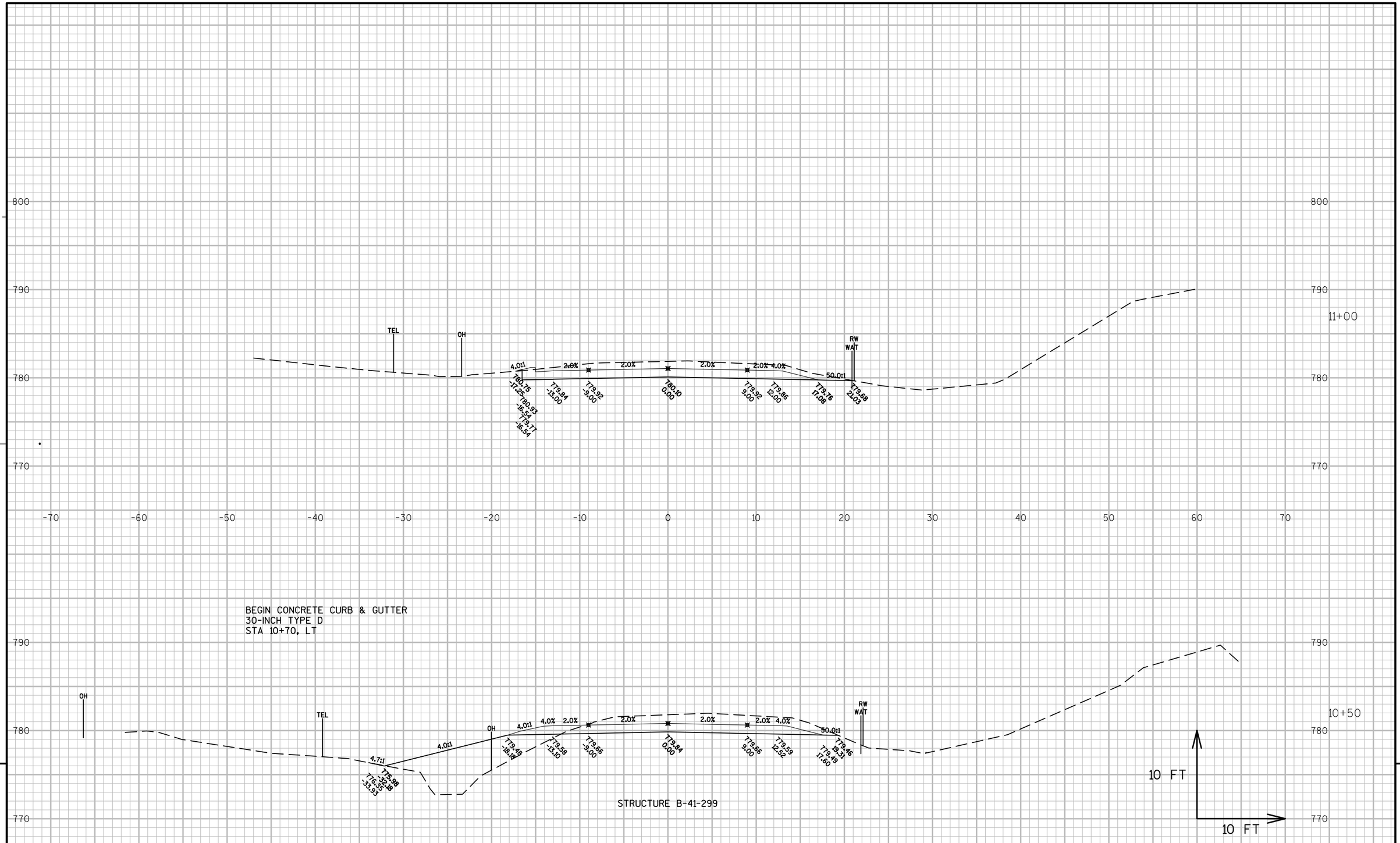

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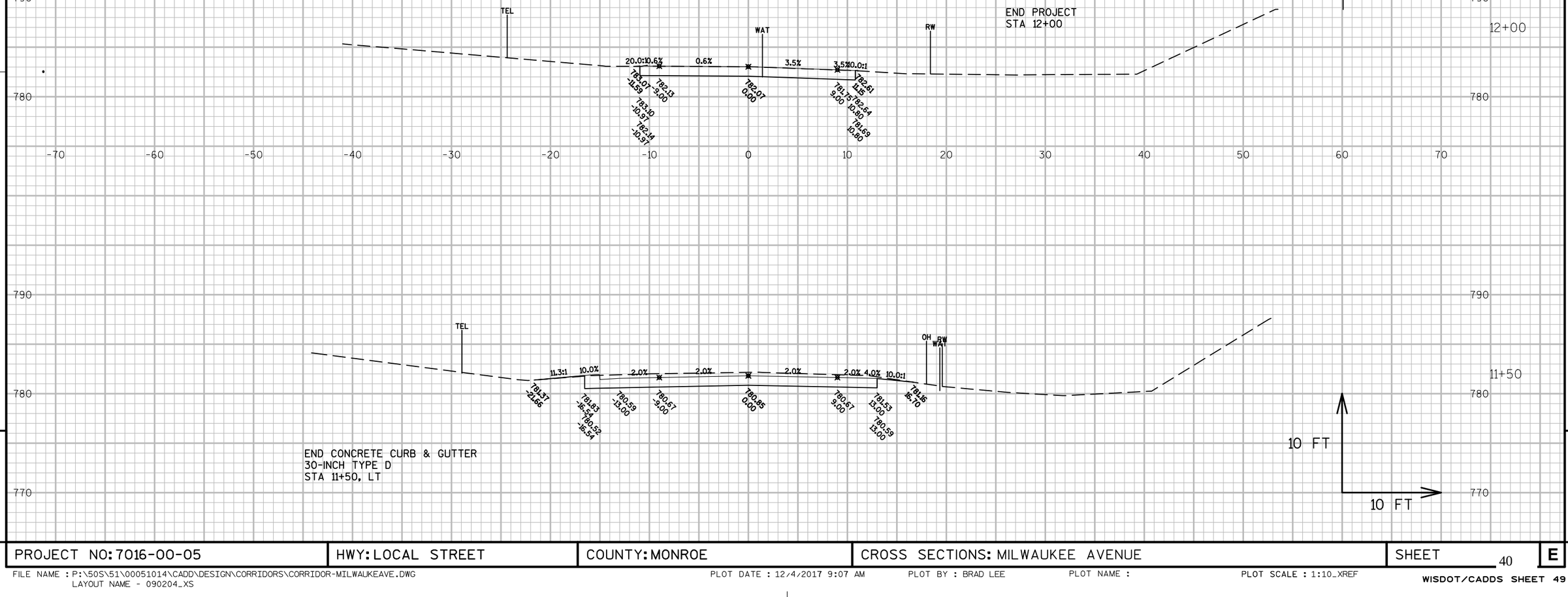
LAYOUT NAME - 090203_XS

PLOT DATE : 12/4/2017 9:07 AM PLOT BY : BRAD LEE PLOT NAME : PLOT SCALE : 1:10_XREF

MATCH EXISTING

END PROJECT
STA 12+00

END CONCRETE CURB & GUTTER
30-INCH TYPE D
STA 11+50, LT



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LAYOUT NAME - 090204_XS

PLOT DATE : 12/4/2017 9:07 AM PLOT BY : BRAD LEE PLOT NAME : PLOT SCALE : 1:10_XREF

Notes

Wisconsin Department of Transportation

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