

PROJECT ID 2984-15-77
WITH: N/A

WKE December 2024

ORDER OF SHEETS

SECTION NO. 1	TITLE
SECTION NO. 2	TYPICAL SECTIONS AND DETAILS
SECTION NO. 3	ESTIMATE OF QUANTITIES
SECTION NO. 3	MISCELLANEOUS QUANTITIES
SECTION NO. 5	PLAN
SECTION NO. 6	STANDARD DETAIL DRAWINGS
SECTION NO. 7	SIGN PLATES
SECTION NO. 8	STRUCTURE PLANS

TOTAL SHEETS= 44



DESIGN DESIGNATION

A.D.T. (CURRENT)	= 456
A.D.T.	= N/A
D.H.V.	= N/A
D.	= N/A
T.	= N/A
DESIGN SPEED	= N/A
ESALS	= N/A

CONVENTIONAL SYMBOLS

PLAN

COUNTY LINE	---
TOWNSHIP OR RANGE LINE	---
SECTION LINE	---
CORPORATE OR CITY LIMITS	---
PROPERTY LINE	---
STANDARD BENCH MARK	●
EXISTING RIGHT OF WAY LINE	---
SLOPE INTERCEPT	---
PROPOSED SEWER LATERAL	---
REFERENCE LINE	---
COMBUSTIBLE FLUIDS	CAUTION
RAILROADS	+
FENCE	x (TYPE) x
CATCH BASIN OR INLET	□
EXISTING	□
PROPOSED	□

PROFILE

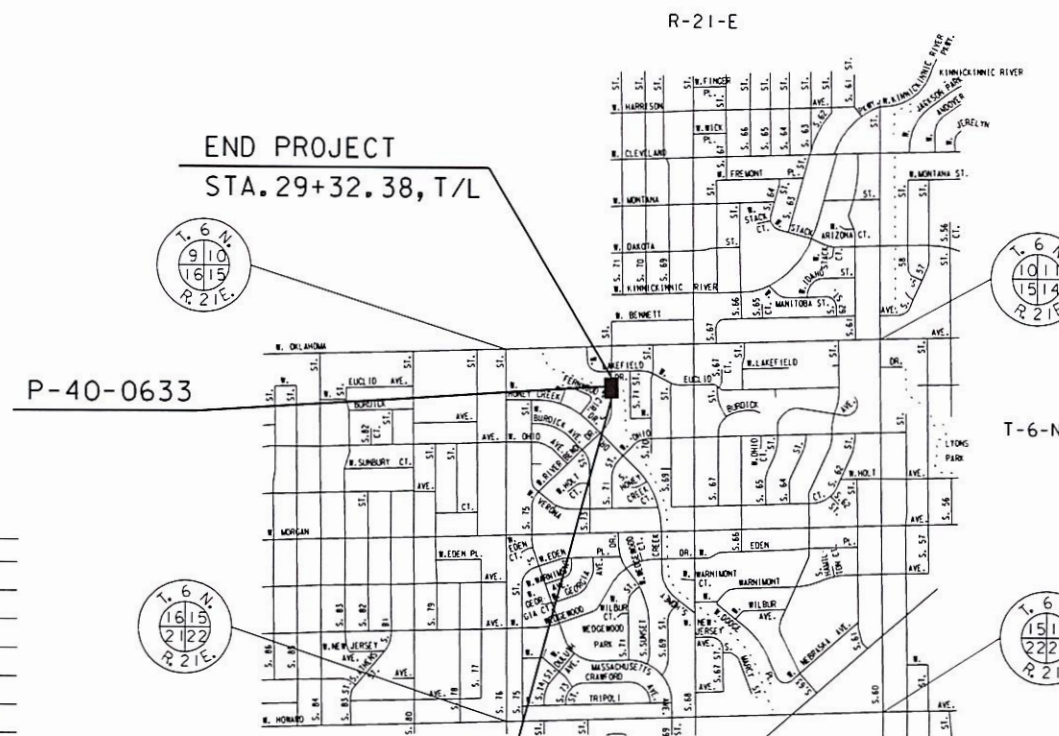
GRADE LINE	---
ORIGINAL GROUND	---
GRADE ELEVATION	95.36

UTILITIES

CITY UNDERGROUND CONDUIT	CUC
ELECTRIC	E
FIBER OPTIC	FO
GAS	G
SANITARY SEWER	SAN
STORM SEWER	STO
TELEPHONE	T
WATER	W
TRAFFIC & ELECTRICAL SERVICES	TE&ES
MILWAUKEE METRO SEWERAGE DIST	MMSD
FIRE & POLICE CALL BOX	●
LIGHT POLE	●
POWER POLE	●
TELEPHONE OR TELEGRAPH POLE	●
TRAFFIC SIGNAL	●
TRAFFIC SIGNAL CONTROL BOX	□
HYDRANT	●
GAS OR WATER GATE VALVE	●
MANHOLES - SEWER	○
MANHOLES - UTILITY (TYPE)	□
TREES - EXISTING	●
TREES - TO BE REMOVED	✕

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION PLAN OF PROPOSED IMPROVEMENT C MILWAUKEE-S 72ND STREET BRIDGE OVER HONEY CREEK P40-0633 LOCAL STREET MILWAUKEE COUNTY

STATE PROJECT NUMBER
2984-15-77



BEGIN PROJECT
STA. 28+99.38, T/L
Y. = 280,664.81
X. = 581,185.20

TOTAL NET LENGTH OF CENTERLINE = 0.006 MI. (URBAN)

LAYOUT
SCALE 1/4 MI.

POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), MILWAUKEE 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.

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE CITY OF MILWAUKEE DATUM.

TO CONVERT ELEVATIONS SHOWN ON THIS PLAN TO NATIONAL GEODESIC VERTICAL DATUM OF 1929, ADD 580.603 TO ELEVATIONS SHOWN ON THIS PLAN.

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
2984-15-77	WISC 2025103	I

Accepted For
City of Milwaukee

7/2/2024
(Date)

Commissioner of Public Works

Original Plans Prepared By



6/28/2024
(Date)

City Engineer

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	CITY OF MILWAUKEE
Designer	CITY OF MILWAUKEE
Project Manager	GREGORY HAFEMAN
Region Examiner	
Region Supervisor	BRIAN BOOTHBY

APPROVED FOR THE DEPARTMENT

DATE: 07/02/2024

(Signature)

E

UTILITY CONTACTS

CHARTER/ SPECTRUM

CHARLES BRASILE
1320 N. DR. MARTIN LUTHER KING JR. DR.
MILWAUKEE, WI 53212
EMAIL: CHARLES.BRASILE@CHARTER.COM

CITY OF MILWAUKEE - WATER

JOSHUA IWEN
841 N. BROADWAY, ROOM 409
MILWAUKEE, WI 53202
PHONE: 414-286-3640
EMAIL: JIWEN@MILWAUKEE.GOV

CITY OF MILWAUKEE - SEWERS

ZAFAR YOUSUF
841 N. BROADWAY
MILWAUKEE, WI 53202
PHONE: 414-286-2467
EMAIL: ZYOUSU@MILWAUKEE.GOV

WE ENERGIES - GAS, ELECTRIC

SYDNEY BATCHELOR
500 S 116TH ST WEST ALLIS 53214
PHONE: 414-221-2738
EMAIL: WE-UTILITY-RELOCATIONS@WE-ENERGIES.COM

OTHER CONTACTS

CITY OF MILWAUKEE - FORESTRY

JAMES KRINGER
841 N. BROADWAY
MILWAUKEE, WI 53202
PHONE: 414-708-2428
EMAIL: JAMES.KRINGER@MILWAUKEE.GOV

CITY OF MILWAUKEE - UTILITY COORDINATION

AHMAD BAYOUD
841 N. BROADWAY, ROOM 710
MILWAUKEE, WI 53202
PHONE: 414-708-0645
EMAIL: ABAYOU@MILWAUKEE.GOV

CITY OF MILWAUKEE - STREET LIGHTS

LISA HICKMAN
841 N. BROADWAY
MILWAUKEE, WI 53202
PHONE: 414-286-3270
EMAIL: LHICKM@MILWAUKEE.GOV

SEWRPC CONTACT

ROB MERRY
CHIEF SURVEYOR
P.O. BOX 1607
WAUKESHA, WI 53187-1607
OFFICE: 262-953-4289
EMAIL: RMERRY@SEWRPC.ORG

CITY OF MILWAUKEE- STRUCTURES SECTION

JONATHAN THOMAS, P.E.
841 N. BROADWAY, RM 902
MILWAUKEE, WI 53202
PHONE: 414-286-0463
EMAIL: JDTHOMA@MILWAUKEE.GOV

ANDY TRAEGER
CONSTRUCTION COORDINATOR
P.O. BOX 1607
WAUKESHA, WI 53187-1607
OFFICE: 262-953-4296
EMAIL: ATRAEGER@SEWRPC.ORG

WISDNR REGION

RYAN PAPPAS
DNR SOUTHEAST REGION
2300 N. DR. MARTIN LUTHER KING JR. DR.
MILWAUKEE, WI 53212
EMAIL: RYAN.PAPPAS@WISCONSIN.GOV



Dial 811 or (800) 242-8511

www.DiggersHotline.com

GENERAL NOTES

- ALL DISTURBED AREAS, NOT SURFACED, ARE TO BE COVERED WITH 4" TOPSOIL, SEEDED UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- NO TREES OR SHRUBS SHALL BE REMOVED UNLESS DESIGNATED FOR REMOVAL BY THE ENGINEER.
- THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLAN IS APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN.
- EROSION CONTROL BMP'S ARE AT SUGGESTED LOCATIONS. THE ACTUAL LOCATIONS WILL BE DETERMINED BY THE CONTRACTORS "ECIP" AND BY THE ENGINEER. EROSION CONTROL BMP'S SHALL BE MAINTAINED UNTIL PERMANENT VEGATATION IS ESTABLISHED OR UNTIL THE ENGINEER DETERMINES THAT THE BMP IS NO LONGER REQUIRED.
- THESE PLANS SHOW UTILITY FACILITIES EXISTING AT THE TIME OF THE ORIGINAL SURVEY IN JUNE OF 2023. CONTRACTOR IS ENCOURAGED TO CONTACT CITY OF MILWAUKEE PLANNING PERMIT SECTION AT (414) 286-2487 TO IDENTIFY ANY UTILITY FACILITIES INSTALLED AFTER THIS DATE.

STANDARD ABBREVIATIONS

ASPH.	- ASPHALT
B.M.	- BENCH MARK
CTR.	- CENTER
C/L	- CENTER LINE
COMB.	- COMBINED
CONC.	- CONCRETE
C.W.	- CONCRETE WALK
COR.	- CORNER
C	- CURB
EB	- EAST BOUND
ELEV.	- ELEVATION
ENT.	- ENTRANCE
EXIST.	- EXISTING
F	- FLANGE
G	- GUTTER, OR GAS
HYD.	- HYDRANT
LT.	- LEFT
MMSD	- MILWAUKEE METROPOLITAN SEWERAGE DISTRICT
PGL	- PROFILE GRADE LINE
P/L	- PROPERTY LINE
R OR RAD.	- RADIUS
RET.	- RETAINING
RT.	- RIGHT
R/W	- RIGHT OF WAY
TEL	- AMERITECH
TES	- TRAFFIC ENGINEERING, AND ELECTRICAL SERVICES
T/L	- TRANSIT LINE
WB	- WEST BOUND
WEP	- WISCONSIN ELECTRIC POWER

ORDER OF SECTION 2 SHEETS

GENERAL NOTES

UTILITY CONTACTS

PROJECT OVERVIEW

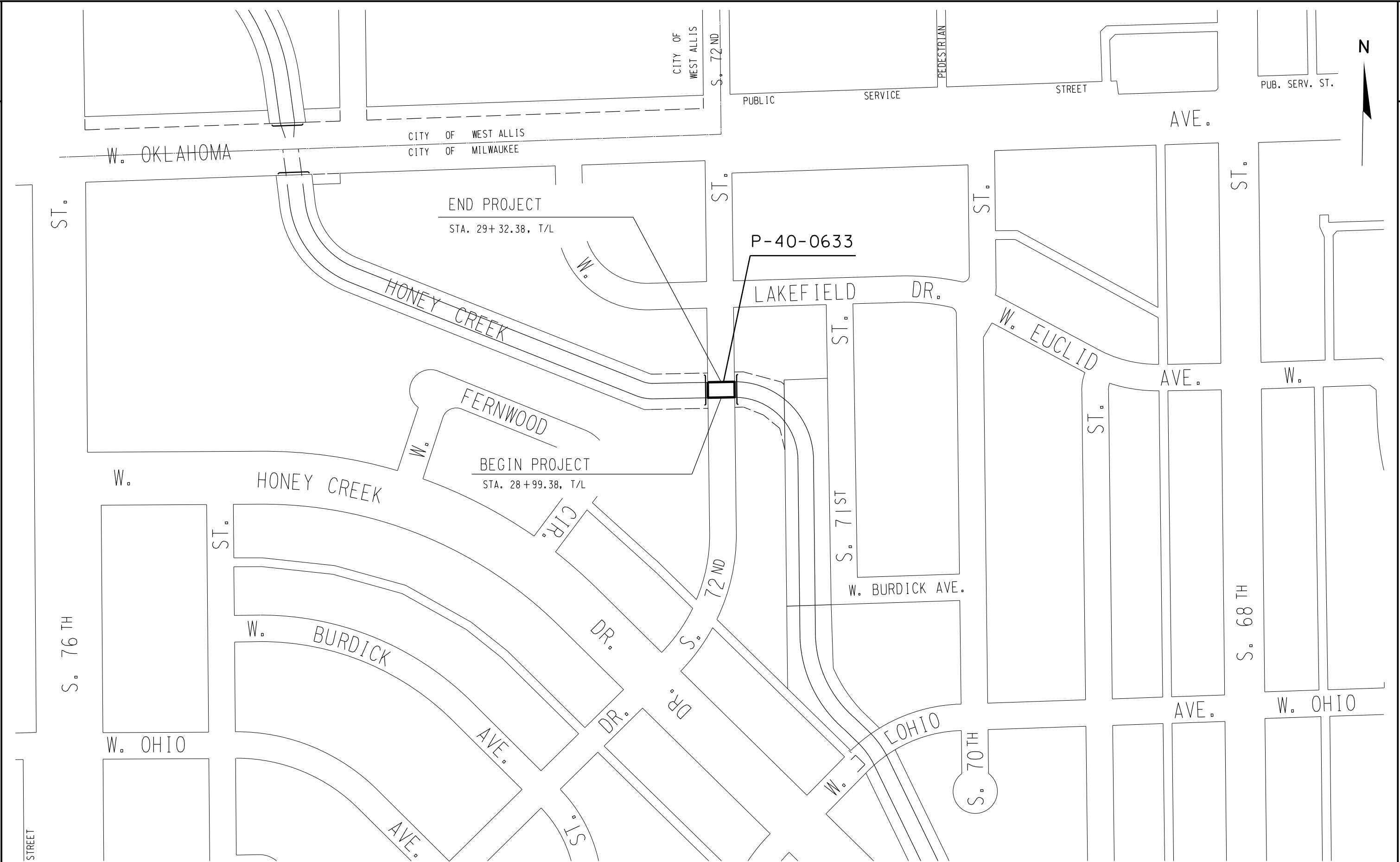
TYPICAL SECTIONS

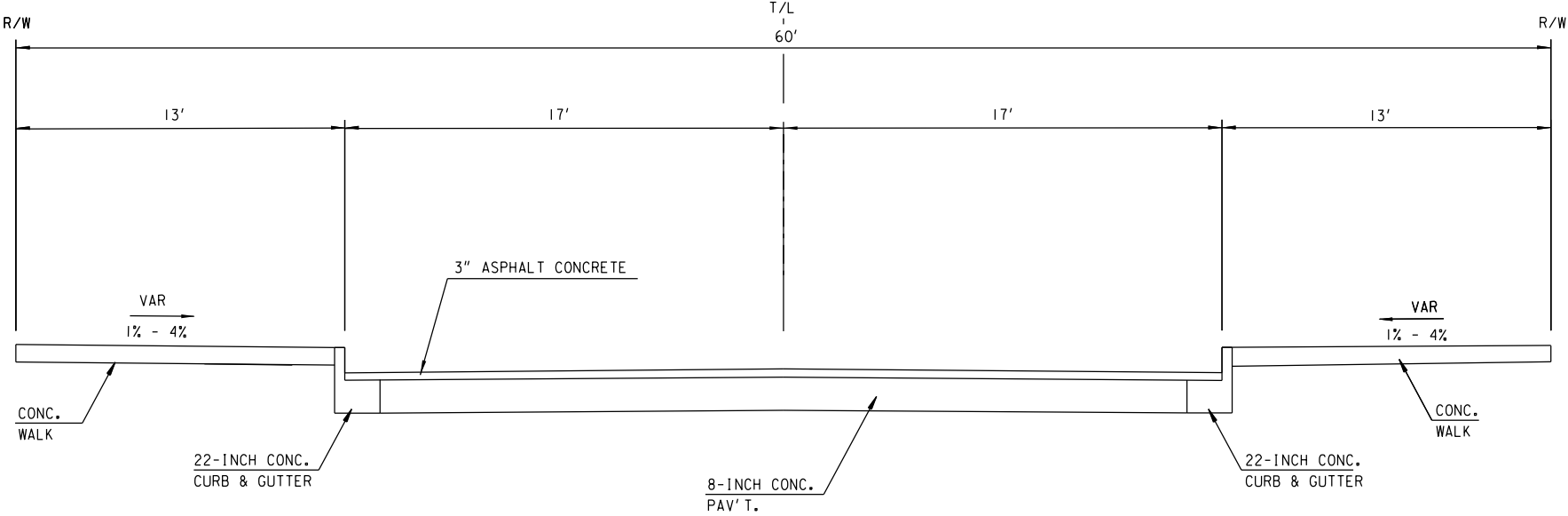
EROSION CONTROL

PAVMENT MARKING

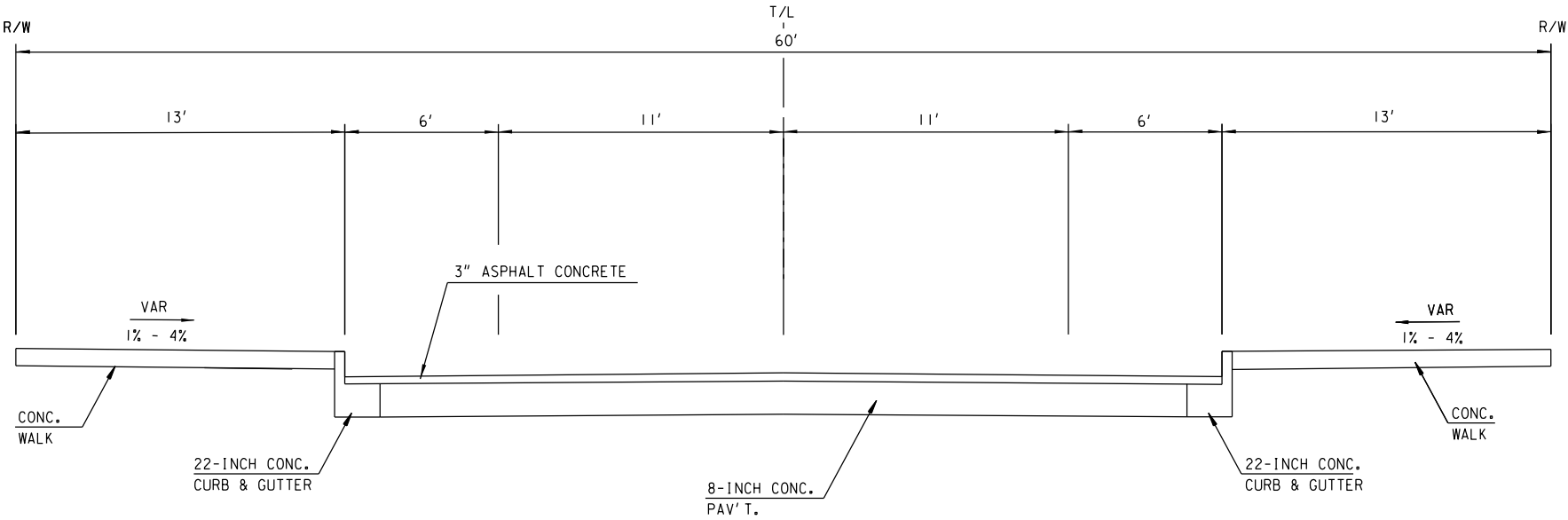
TRAFFIC CONTROL

ALIGNMENT PLAN

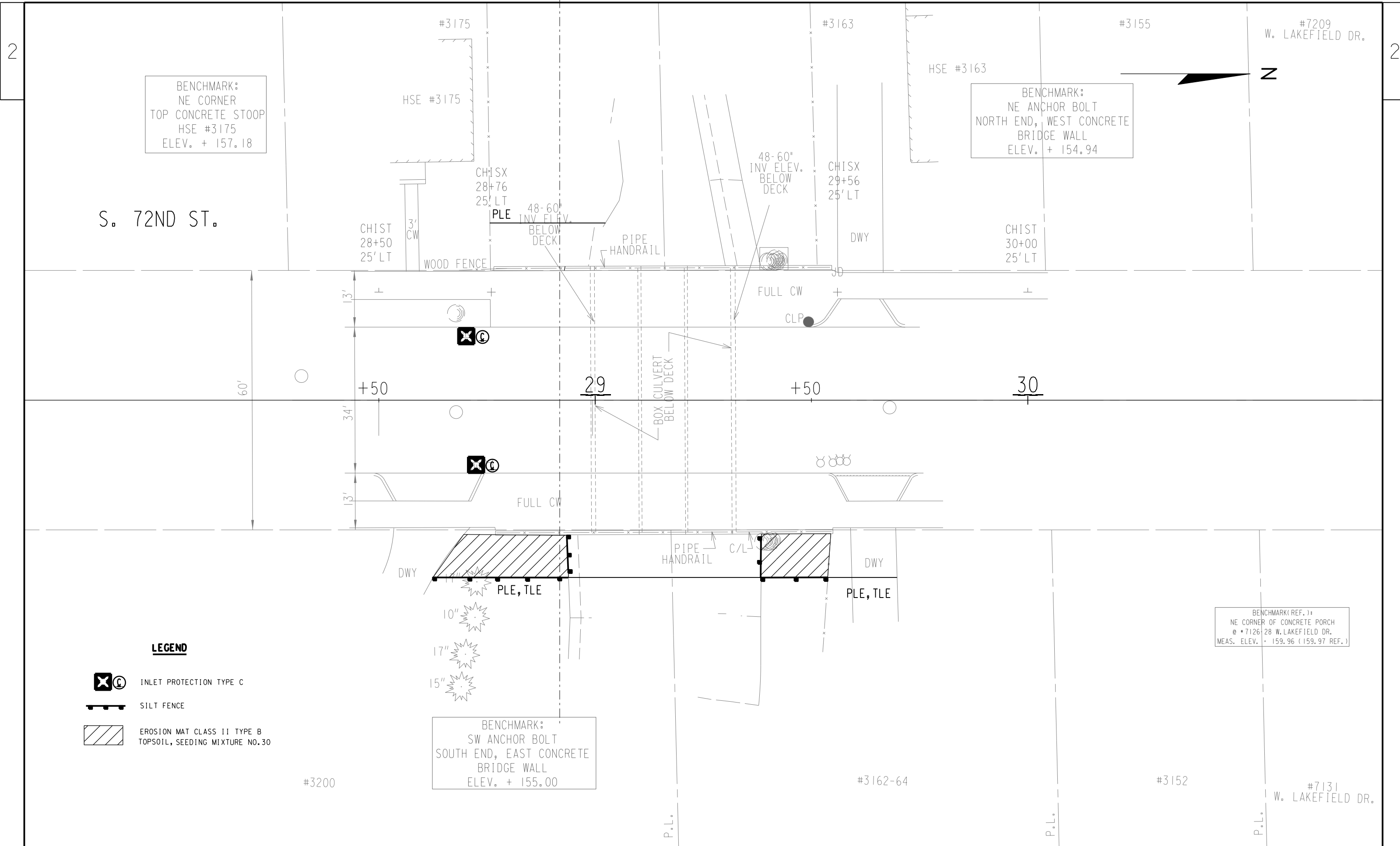




TYPICAL EXISTING SECTION
S 72ND STREET
(LOOKING NORTH)



TYPICAL PROPOSED SECTION
S 72ND STREET
(LOOKING NORTH)



LEGEND



INLET PROTECTION TYPE C



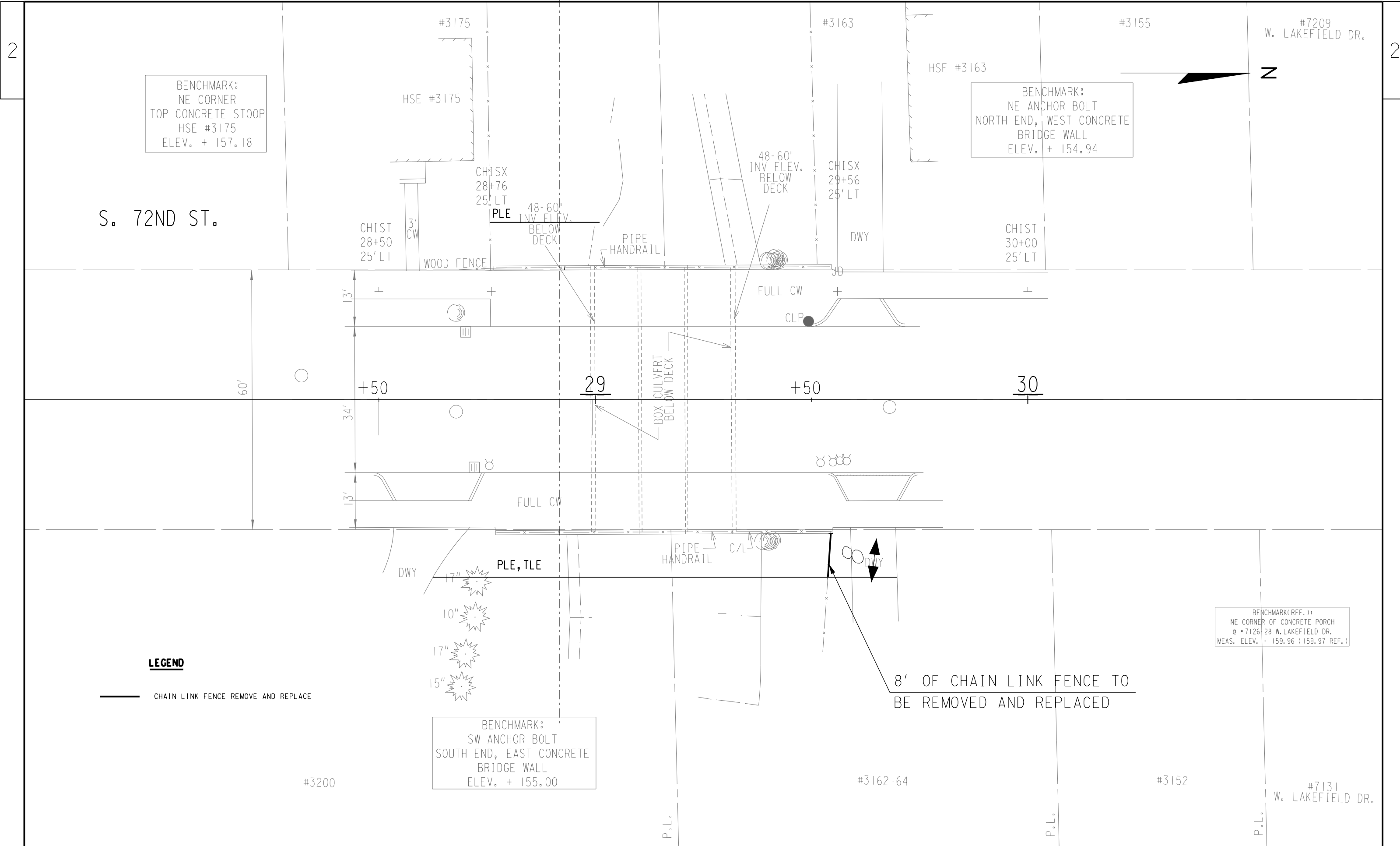
SILT FENCE



EROSION MAT CLASS II TYPE B
TOPSOIL, SEEDING MIXTURE NO.30

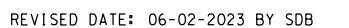
BENCHMARK (REF.):
NE CORNER OF CONCRETE PORCH
@ 7126 28 W. LAKEFIELD DR.
MEAS. ELEV. + 159.96 (159.97 REF.)

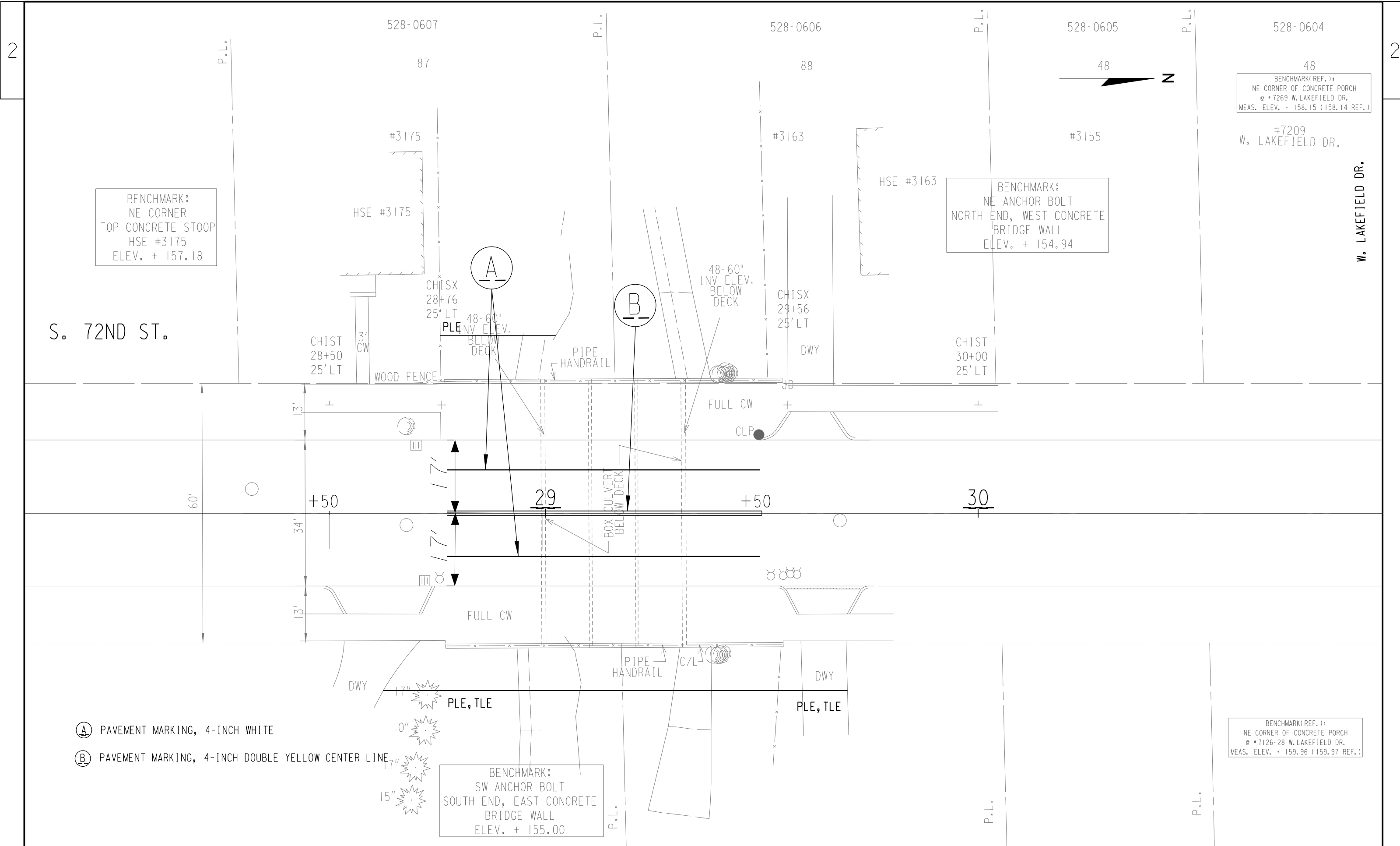
BENCHMARK:
SW ANCHOR BOLT
SOUTH END, EAST CONCRETE
BRIDGE WALL
ELEV. + 155.00



2

2





BENCHMARK:
NE CORNER
TOP CONCRETE STOOP
HSE #3175
ELEV. + 157.18

BENCHMARK:
NE ANCHOR BOLT
NORTH END, WEST CONCRETE
BRIDGE WALL
ELEV. + 154.94

BENCHMARK(REF.):
NE CORNER OF CONCRETE PORCH
@ 7269 W. LAKEFIELD DR.
MEAS. ELEV. + 158.15 (158.14 REF.)

#7209
W. LAKEFIELD DR.

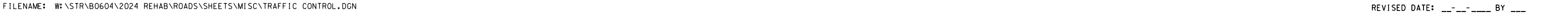
W. LAKEFIELD DR.

(A) PAVEMENT MARKING, 4-INCH WHITE

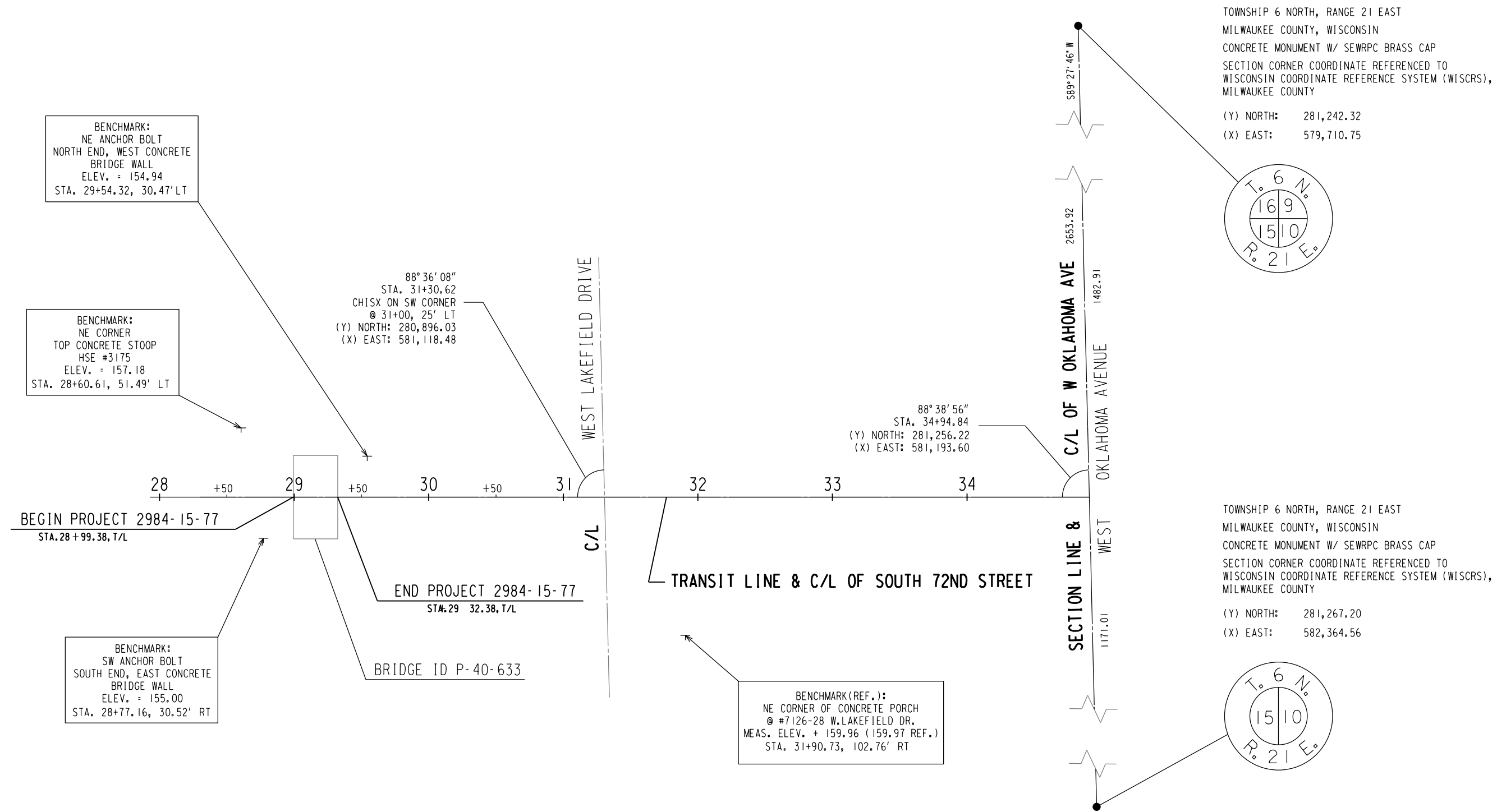
(B) PAVEMENT MARKING, 4-INCH DOUBLE YELLOW CENTER LINE

BENCHMARK:
SW ANCHOR BOLT
SOUTH END, EAST CONCRETE
BRIDGE WALL
ELEV. + 155.00

BENCHMARK(REF.):
NE CORNER OF CONCRETE PORCH
@ 7126-28 W. LAKEFIELD DR.
MEAS. ELEV. + 159.96 (159.97 REF.)







Estimate Of Quantities

2984-15-77

Line	Item	Item Description	Unit	Total	Qty
0002	201.0110	Clearing	SY	65.000	65.000
0004	201.0210	Grubbing	SY	65.000	65.000
0006	204.0170	Removing Fence	LF	8.000	8.000
0008	205.0100	Excavation Common	CY	50.000	50.000
0010	509.1500	Concrete Surface Repair	SF	163.000	163.000
0012	509.9025.S	Epoxy Injection Crack Repair	LF	260.000	260.000
0014	509.9026.S	Cored Holes 2-Inch Diameter	EACH	2.000	2.000
0016	616.0204	Fence Chain Link 4-FT	LF	8.000	8.000
0018	619.1000	Mobilization	EACH	1.000	1.000
0020	625.0100	Topsoil	SY	45.000	45.000
0022	628.1504	Silt Fence	LF	65.000	65.000
0024	628.1520	Silt Fence Maintenance	LF	65.000	65.000
0026	628.1905	Mobilizations Erosion Control	EACH	1.000	1.000
0028	628.1910	Mobilizations Emergency Erosion Control	EACH	1.000	1.000
0030	628.2023	Erosion Mat Class II Type B	SY	45.000	45.000
0032	628.6505	Soil Stabilizer Type A	ACRE	0.010	0.010
0034	628.7015	Inlet Protection Type C	EACH	2.000	2.000
0036	630.0130	Seeding Mixture No. 30	LB	1.000	1.000
0038	642.5201	Field Office Type C	EACH	1.000	1.000
0040	643.0300	Traffic Control Drums	DAY	1,800.000	1,800.000
0042	643.0420	Traffic Control Barricades Type III	DAY	576.000	576.000
0044	643.0500	Traffic Control Flexible Tubular Marker Posts	EACH	24.000	24.000
0046	643.0600	Traffic Control Flexible Tubular Marker Bases	EACH	24.000	24.000
0048	643.0715	Traffic Control Warning Lights Type C	DAY	1,800.000	1,800.000
0050	643.0900	Traffic Control Signs	DAY	1,728.000	1,728.000
0052	643.3150	Temporary Marking Line Removable Tape 4-Inch	LF	1,894.000	1,894.000
0054	643.3170	Temporary Marking Line Epoxy 6-Inch	LF	78.000	78.000
0056	643.5000	Traffic Control	EACH	1.000	1.000
0058	644.1410	Temporary Pedestrian Surface Asphalt	SF	90.000	90.000
0060	644.1430	Temporary Pedestrian Surface Plate	SF	90.000	90.000
0062	644.1601	Temporary Pedestrian Curb Ramp	DAY	144.000	144.000
0064	644.1605	Temporary Pedestrian Detectable Warning Field	SF	20.000	20.000
0066	644.1810	Temporary Pedestrian Barricade	LF	156.000	156.000
0068	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	900.000	900.000
0070	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	450.000	450.000
0072	SPV.0090	Special 506. Remove, Repaint, and Reinstall Existing Bridge Railing	LF	160.000	160.000
0074	SPV.0090	Special 570. Concrete Wall Repair	LF	26.000	26.000

EXCAVATION COMMON

CATEGORY 0020

LOCATION	205.0100 EXCAVATION COMMON CY
PROJECT 2984-15-77	50
TOTAL	50

CLEARING & GRUBBING

CATEGORY 0020

LOCATION	201.0110 CLEARING SY	201.0210 GRUBBING SY
	SY	SY
PROJECT 2984-15-77	65	65
TOTAL	65	65

CHAIN LINK FENCE

CATEGORY 0020

LOCATION	204.0170 REMOVING FENCE LF	616.0204 FENCE CHAIN LINK 4-FT LF
	LF	LF
PROJECT 2984-15-77	8	8
TOTAL	8	8

MOBILIZATION EROSION CONTROL

CATEGORY 0010

LOCATION	628.1905 MOBILIZATION EROSION CONTROL EACH	628.191 MOBILIZATION EMERGENCY EROSION CONTROL EACH
	EACH	EACH
PROJECT 2984-15-77	1	1
TOTAL	1	1

EROSION CONTROL

LOCATION	CAT. 0020 625.0100 TOPSOIL SY	CAT. 0020 628.1504 SILT FENCE LF	CAT. 0020 628.1520 SILT FENCE MAINTENANCE LF	CAT. 0020 628.2023 EROSION MAT CLASS II TYPE B SY	CAT. 0010 628.7005 INLET PROTECTION TYPE C EACH	CAT. 0020 628.6505 SOIL STABILIZER TYPE A ACRE	CAT. 0020 630.0130 SEEDING MIXTURE No. 30 LB
	SY	LF	LF	SY	EACH	ACRE	LB
PROJECT 2984-15-77	45	65	65	45	2	0.01	1
TOTAL	45	65	65	45	2	0.01	1

CONCRETE REPAIR

CATEGORY 0020					
	509.1500 CONCRETE SURFACE REPAIR DETERRENT SYSTEM P-40-0633	509.9025.S EPOXY INJECTION CRACK REPAIR P-40-0633	509.9026.S CORED HOLES 2-INCH DIAMETER	SPV.0090.570 CONCRETE WALL REPAIR	SPV.0090.506 REMOVE, REPAINT, AND REINSTALL EXISTING BRIDGE RAILING
LOCATION	SF	LF	EACH	LF	LF
S 72ND STREET	163	260	2	26	160
TOTAL	163	260	2	26	160

FIELD OFFICE

CATEGORY 0010	
	642.5201 FIELD OFFICE TYPE C EACH
LOCATION	
PROJECT 2984-15-77	1
TOTAL	1

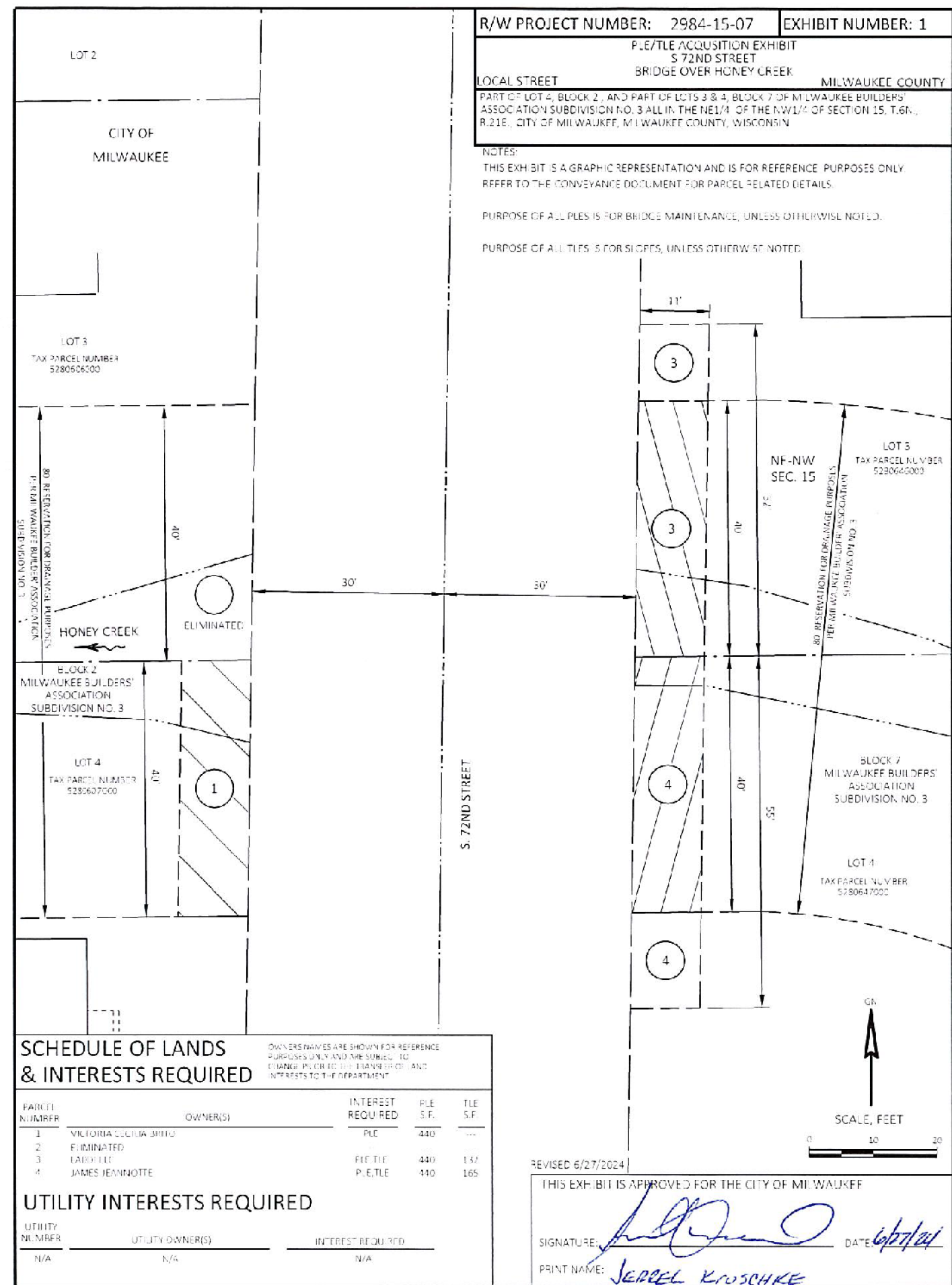
MOBILIZATION

CATEGORY 0010	
	619.1000 MOBILIZATION EACH
LOCATION	
PROJECT 2984-15-77	1
TOTAL	1

TRAFFIC CONTROL ITEMS																	
CATEGORY 0010																	
		643.0300		643.0420		643.0500		643.0600		643.0715		643.0900		643.3150		643.3170	
		TRAFFIC		TRAFFIC		TRAFFIC		TRAFFIC		TRAFFIC		TEMPORARY		TEMPORARY			
		CONTROL		CONTROL		CONTROL		CONTROL		CONTROL		MARKING LINE		MARKING LINE			
		DRUMS		BARRICADES		TUBULAR		TUBULAR		LIGHTS		CONTROL		REMOVABLE		EPOXY	
				TYPE III		MARKER POSTS		MARKER BASES		TYPE C		SIGNS		TAPE 4-INCH		6-INCH	
LOCATION	DAYS	EACH	DAY	EACH	DAY	EACH		EACH		EACH	DAY	EACH	DAY	(WHITE) LF	(YELLOW) LF	(WHITE) LF	
STAGE 1	37	25	925	8	296	12		12		25	925	24	888	317	630	78	
STAGE 2	35	25	875	8	280	12		12		25	875	24	840	317	630	0	
PROJECT TOTAL		1,800		576		24		24		1,800		1,728		1,894		78	

TRAFFIC CONTROL	
CATEGORY 0010	
LOCATION	643.5000 TRAFFIC CONTROL EACH
S 72nd Street	1
TOTAL	1

PEDESTRIAN ACCOMODATION							
CATEGORY 0010							
		644.1410	644.1430	644.1601		644.1605	644.1810
		TEMPORARY	TEMPORARY	TEMPORARY		TEMPORARY	TEMPORARY
		PEDESTRIAN	PEDESTRIAN	PEDESTRIAN		PEDESTRIAN	PEDESTRIAN
		SURFACE	SURFACE	CURB RAMP		DETECTABLE	BARRICADE
		ASPHALT	PLATE	WARNING FIELD			
LOCATION	DAYS	SF	SF	EACH	DAY	SF	LF
STAGE 1	37	90	90	2	74	20	156
STAGE 2	35	0	0	2	70	0	0
PROJECT TOTAL		90	90	144		20	156

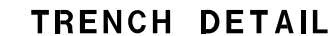


Standard Detail Drawing List

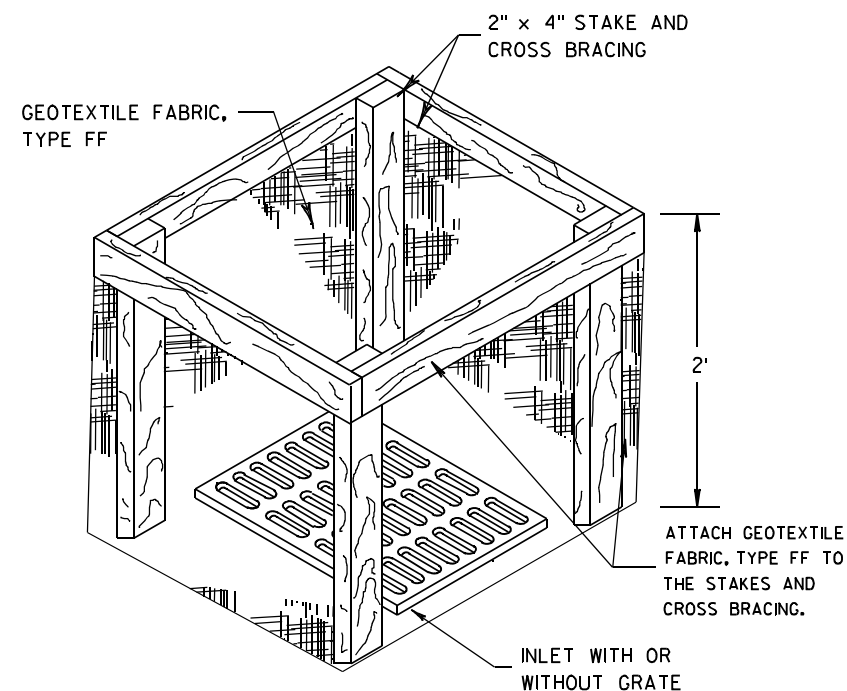
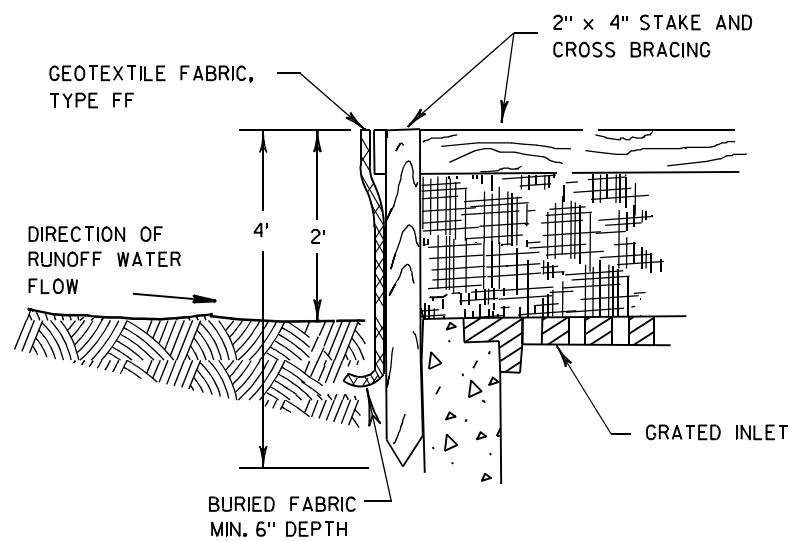
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
15B03-15A	FENCE CHAIN LINK
15B03-15B	FENCE CHAIN LINK
15C06-12	SIGNING & MARKING FOR TWO LANE BRIDGES
15C11-10A	CHANNELIZING DEVICES FLEXIBLE TUBULAR MARKER POST
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15D28-04	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D30-09K	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-09L	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION



- 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 1½" X 1½" 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.



SILT FENCE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED <u>4-29-05</u> DATE	<u>/S/ Beth Canestra</u> CHIEF ROADWAY DEVELOPMENT ENGINEER



INLET PROTECTION, TYPE A

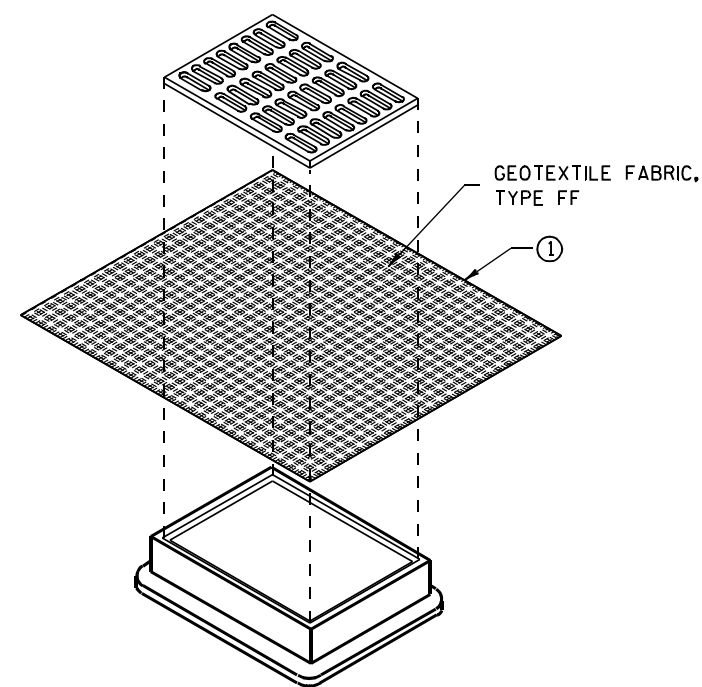
GENERAL NOTES

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

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

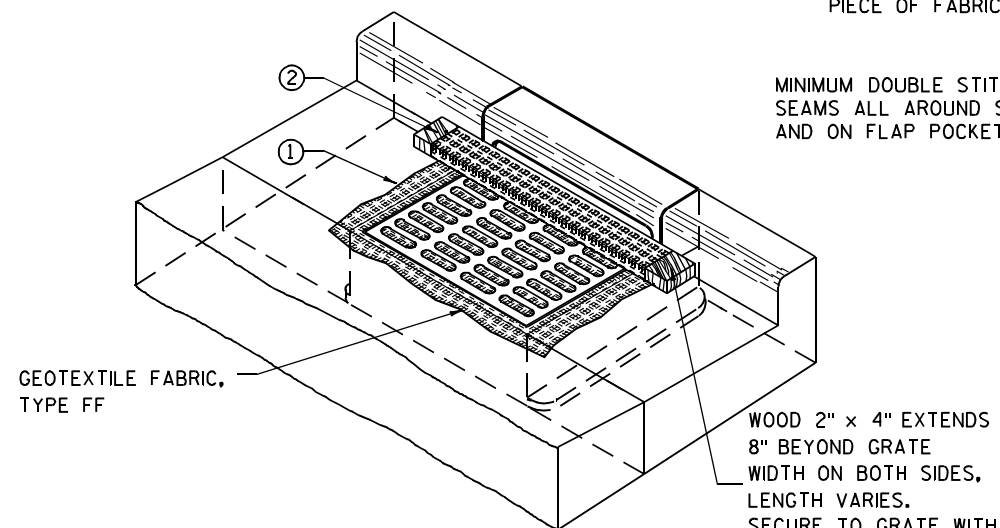
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

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



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

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



INLET PROTECTION, TYPE C (WITH CURB BOX)

INSTALLATION NOTES

TYPE B & C

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

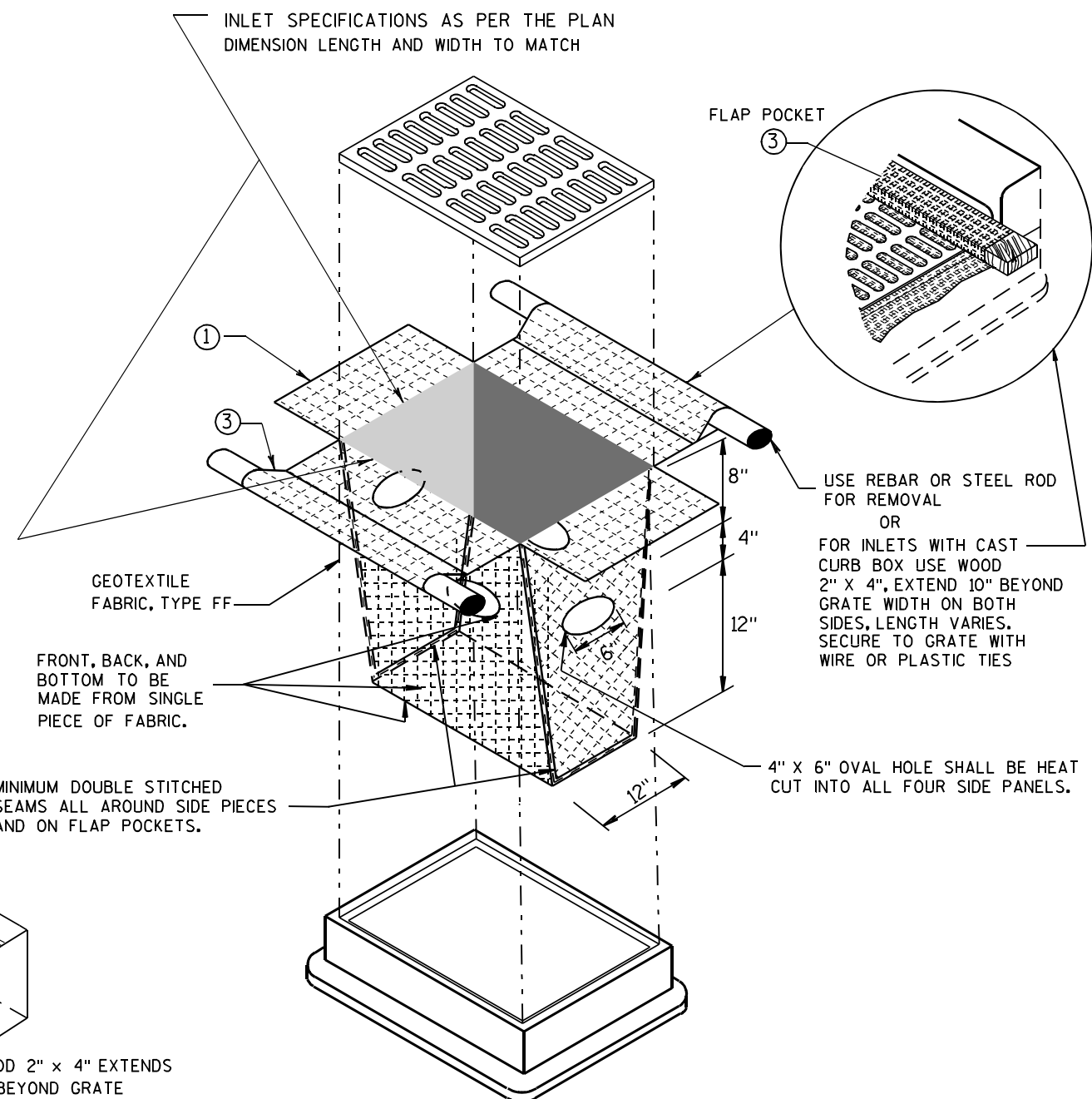
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

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

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

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



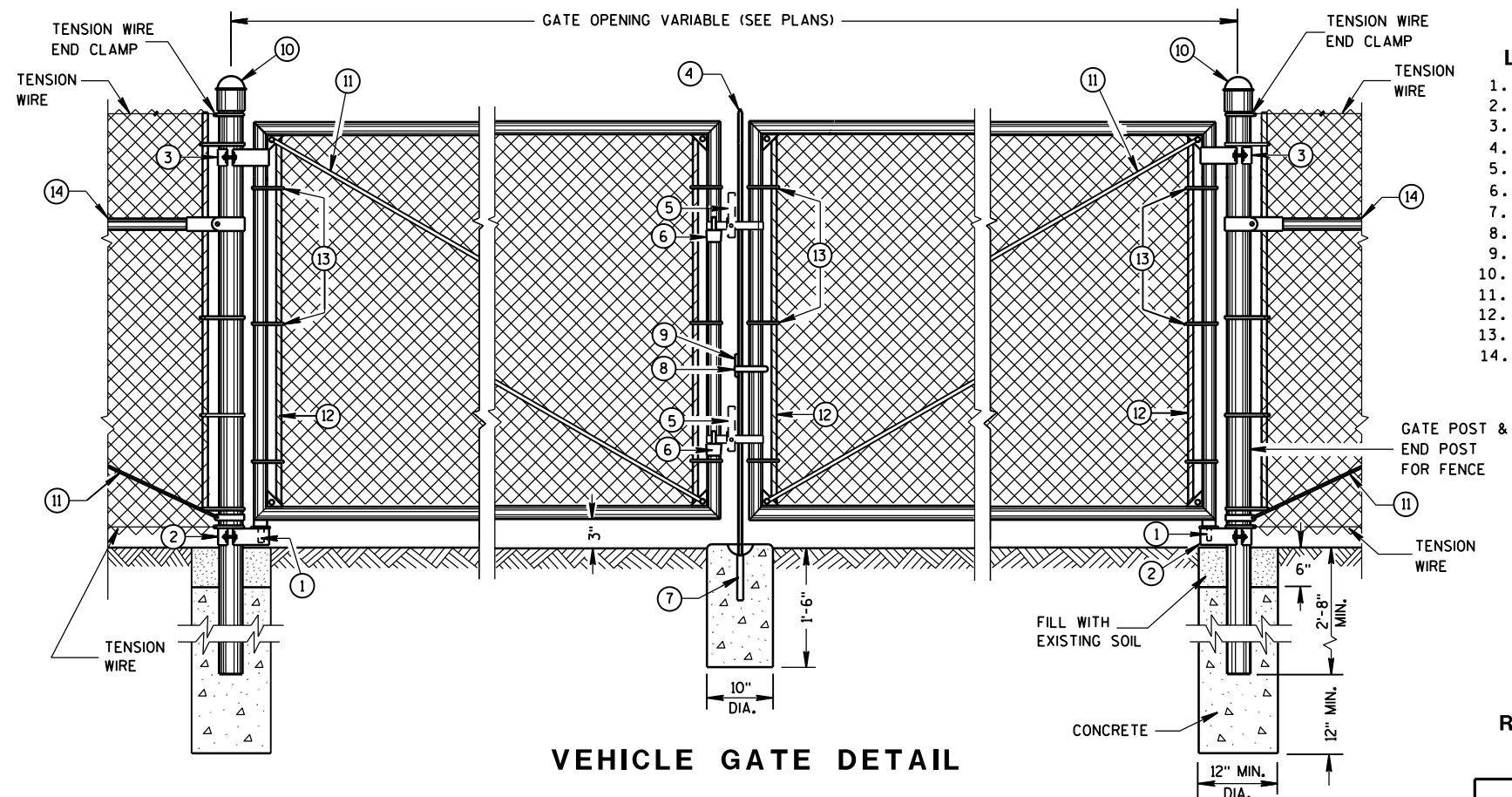
INLET PROTECTION, TYPE D

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

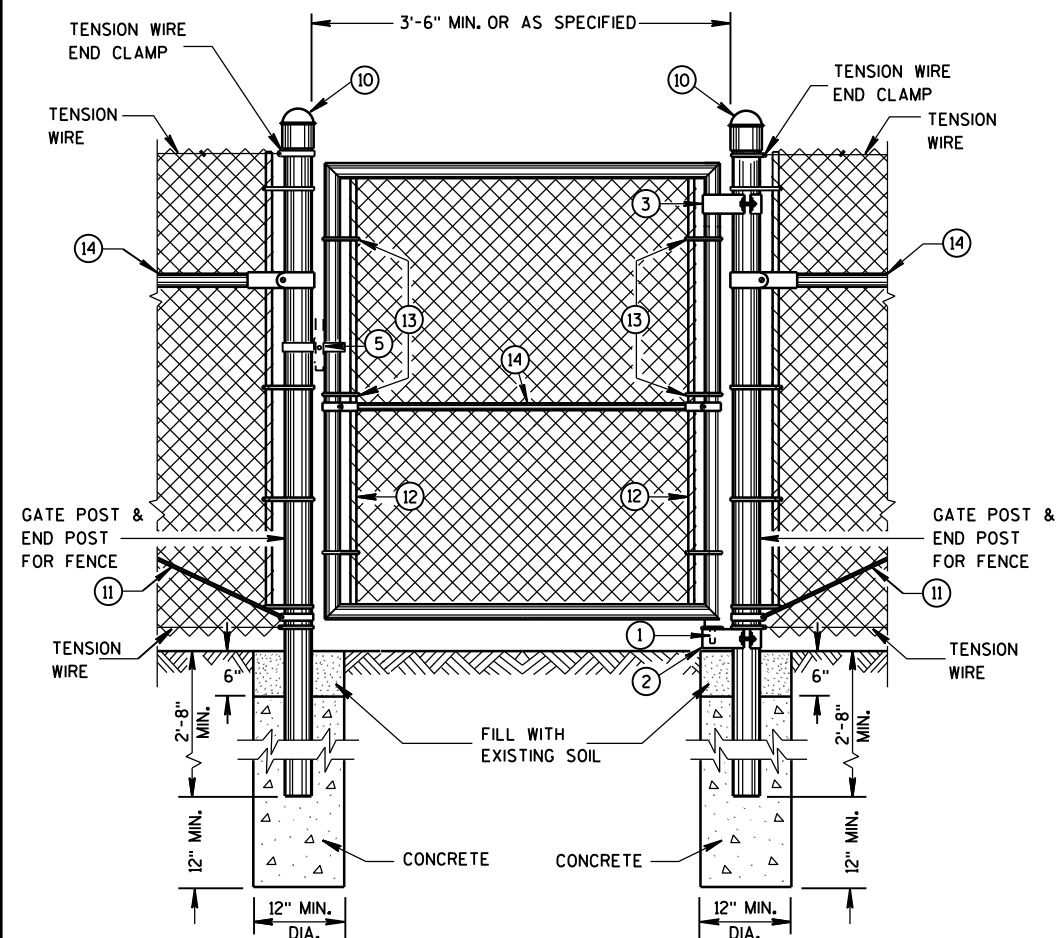
**INLET PROTECTION
TYPE A, B, C, AND D**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



VEHICLE GATE DETAIL



PEDESTRIAN GATE DETAIL

- ## LEGEND

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

*NOT REQUIRED ON SINGLE SWING PEDESTRIAN GATE

GENERAL NOTES

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

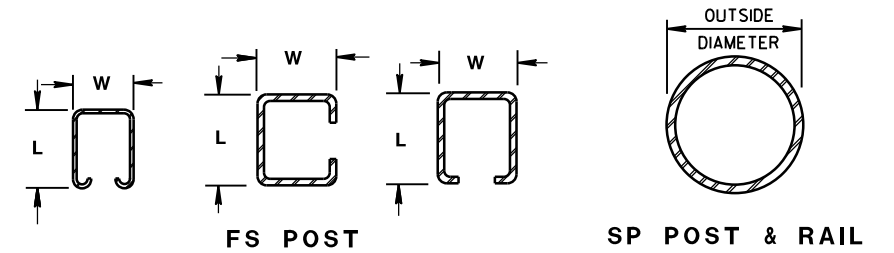
USE FENCE FABRIC KNUCKLED AT BOTH SELVAGES.

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

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

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

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



CROSS SECTIONS OF POSTS AND RAILS

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

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

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

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

REQUIRED POST SIZE FOR GATES

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

REQUIRED FENCE POST SIZES

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

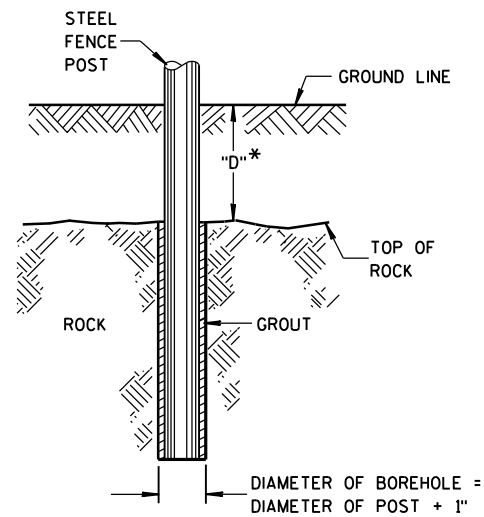
BRACE RAIL TYPES

USE		TYPE
BRACE RAIL		SP1 OR FS1

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

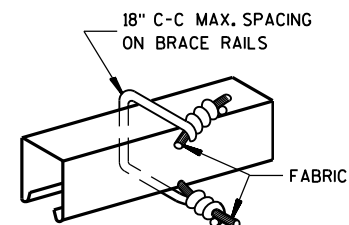
FENCE CHAIN LINK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



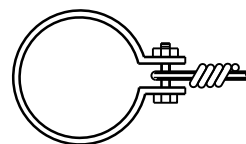
* IF "D" IS LESS THAN 2'-6",
DRILL ROCK AND INSTALL GROUT

ROCK INSTALLATION OF LINE POST

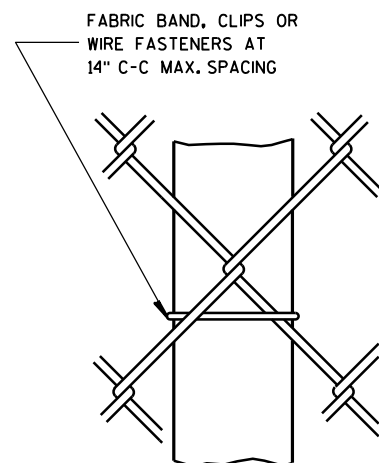


BRACE RAIL FABRIC FASTENER

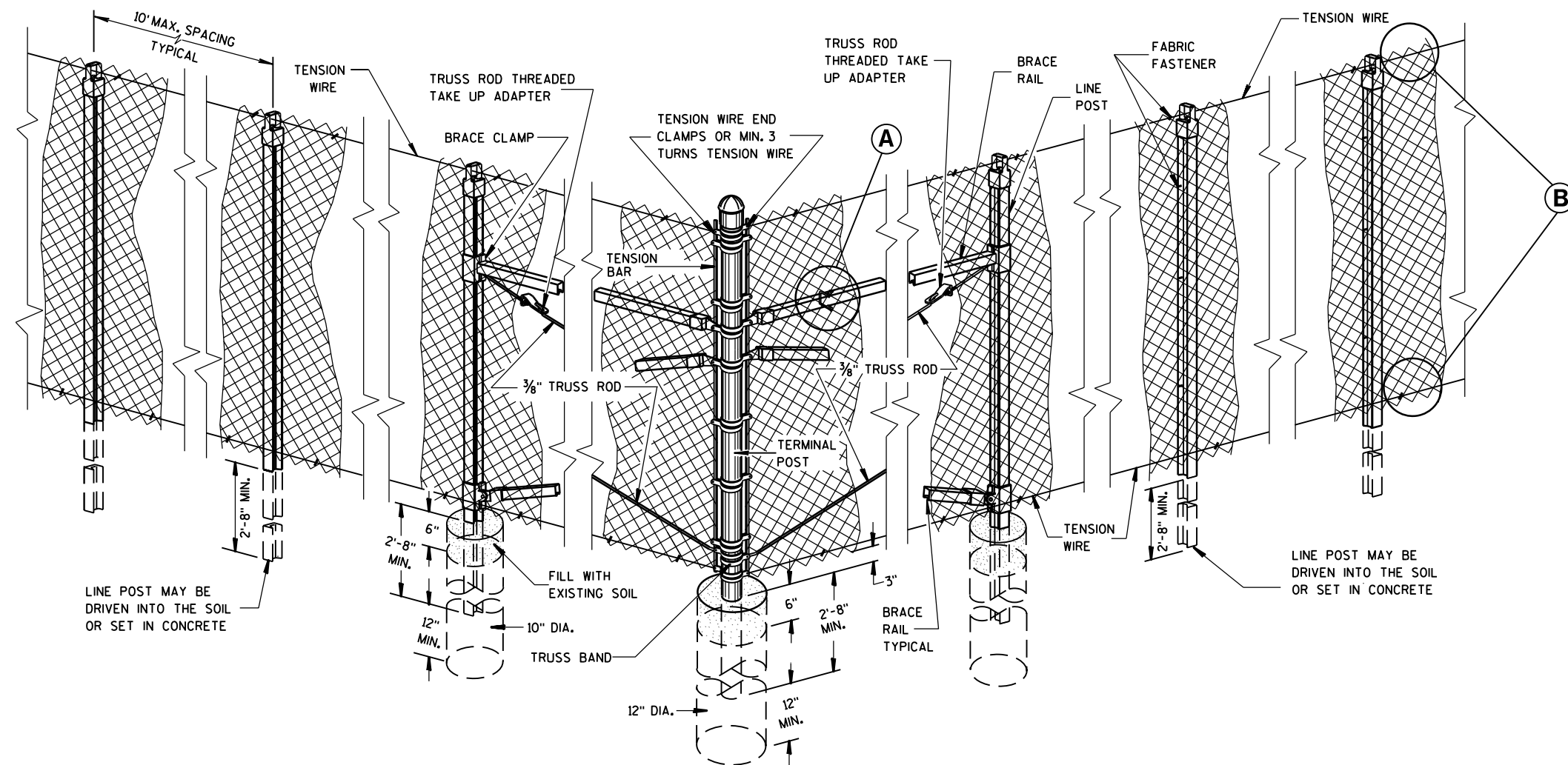
(A)



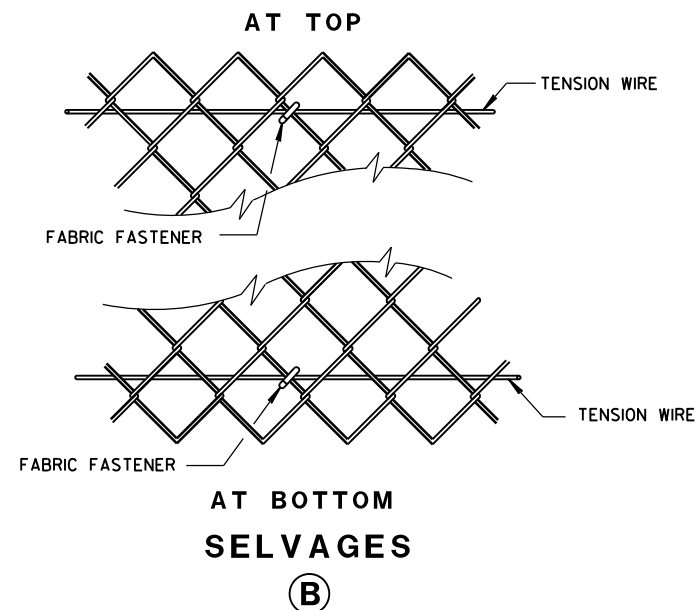
TENSION WIRE END CLAMP



LINE POST FABRIC FASTENER



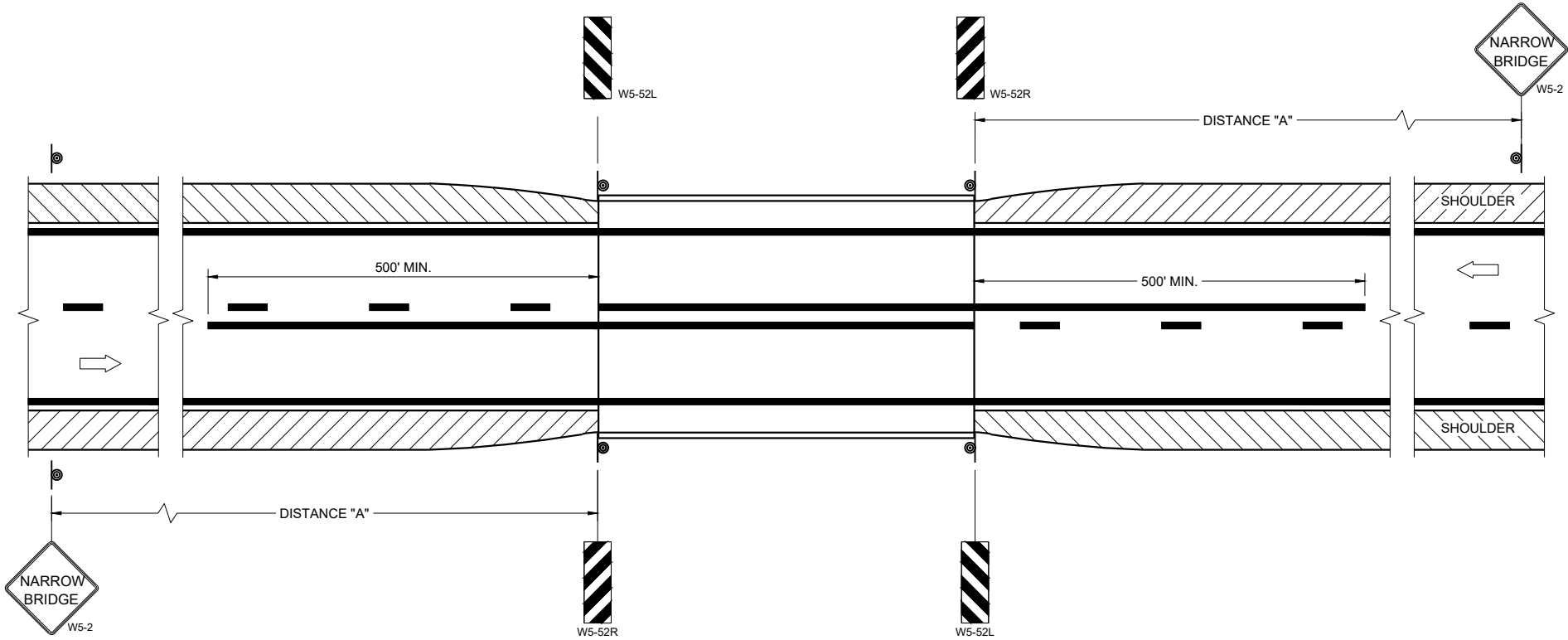
END, CORNER, ANGLE INTERSECTION & INTERMEDIATE BRACED POSTS



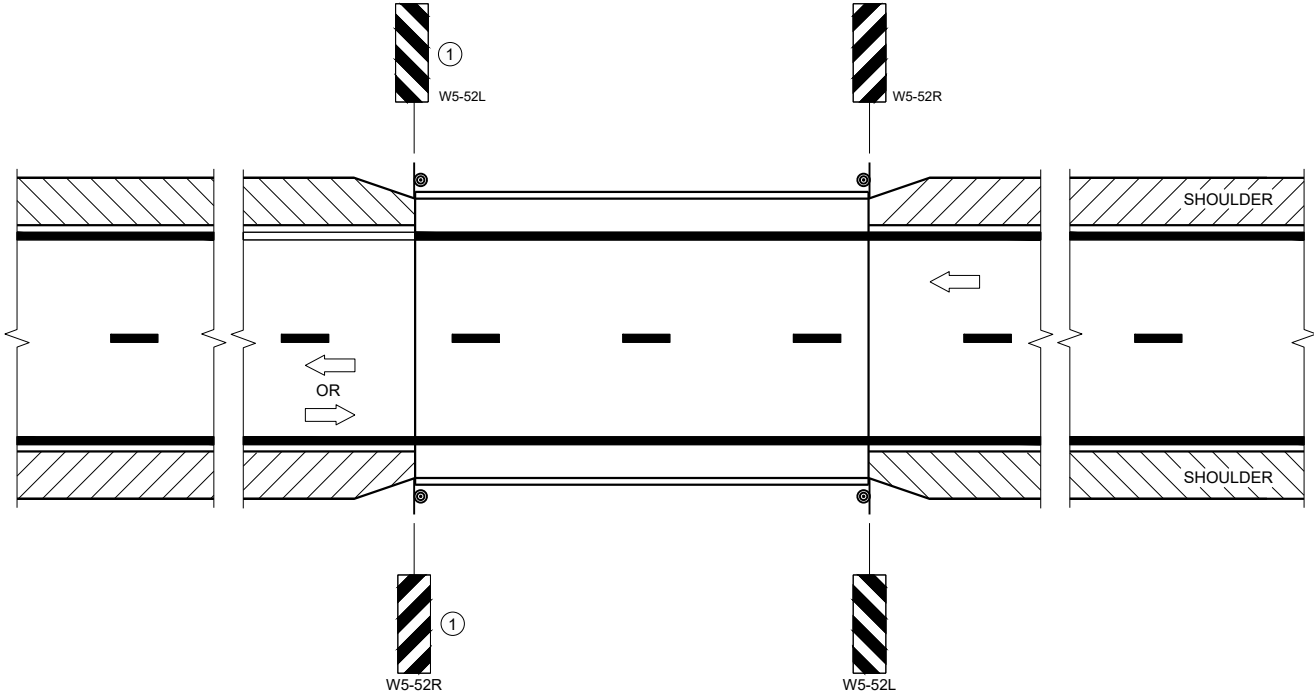
FENCE CHAIN LINK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



SITUATION 1
WARRANTING CRITERIA:
BRIDGE WIDTH IS AT LEAST 16 FEET BUT LESS THAN 24 FEET.



SITUATION 2
WARRANTING CRITERIA:
1. BRIDGE WIDTH IS AT LEAST 24 FEET AND
2. BRIDGE SHOULDER WIDTH IS LESS THAN 6 FEET

GENERAL NOTES

DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THE 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.

ON BRIDGE ONLY PROJECTS, PLACE 300 FEET OF EDGELINE.

OMIT EDGELINES ON ROADWAYS WITHOUT EXISTING EDGELINES.

① OMIT ON ONE-WAY TRAVELED WAYS.

LEGEND

⊙ SIGN ON PERMANENT SUPPORT

➡ DIRECTION OF TRAFFIC

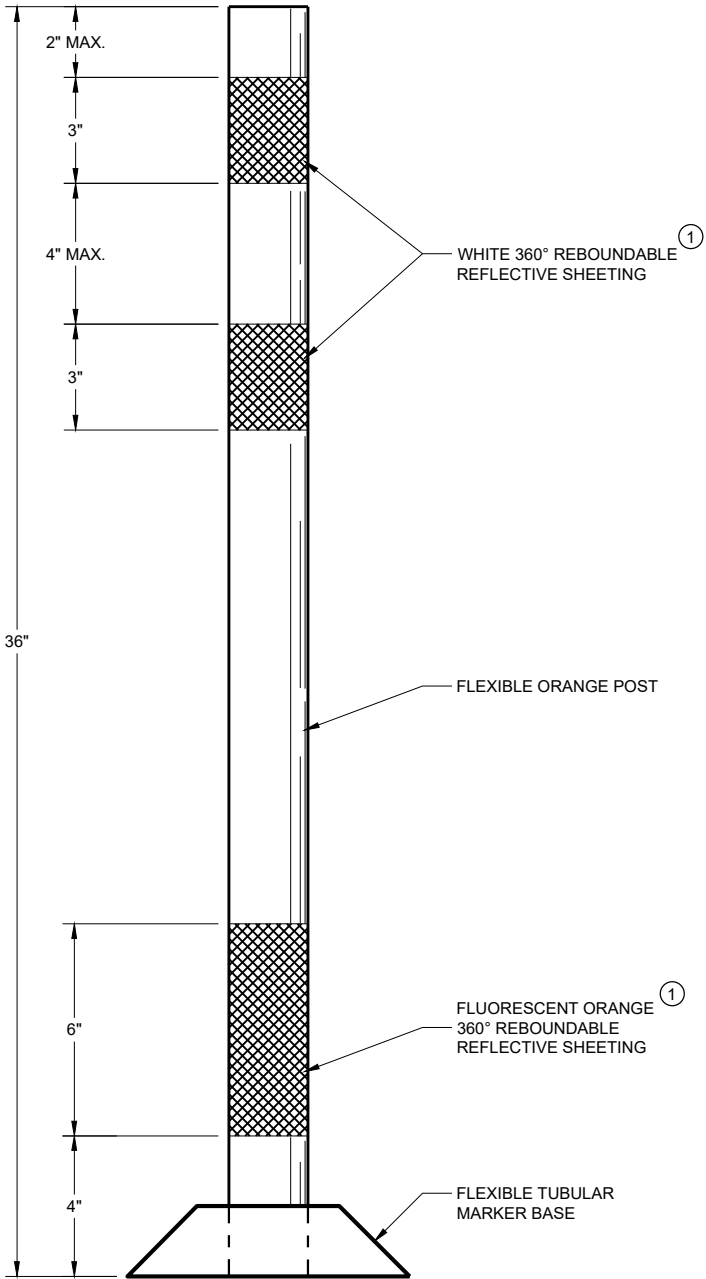
DISTANCE TABLE

POSTED OR 85TH PERCENTILE SPEED	DISTANCE "A"
25	150'
30	200'
35	250'
40	300'
45	400'
50	550'
55	700'

**SIGNING AND MARKING
FOR TWO LANE BRIDGES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Jeannie Silver
DATE Statewide Pavement Marking Engineer
FHWA



FLEXIBLE TUBULAR
MARKER POST
WORK ZONE

GENERAL NOTES

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

SURFACE MOUNTED BASES SHALL BE FURNISHED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS TO BE COMPATIBLE WITH FLEXIBLE TUBULAR MARKER POSTS TO A SIZE AND SHAPE THAT WILL PROVIDE A STABLE POST FOUNDATION WHEN SECURED TO THE PAVEMENT.

THE ASPHALTIC ADHESIVE OR BUTYL PAD FURNISHED SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS, UNLESS DIRECTED BY THE ENGINEER TO USE BOLTS.

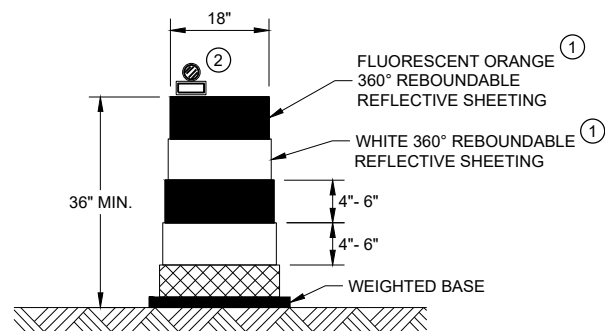
① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

CHANNELIZING DEVICES
FLEXIBLE TUBULAR
MARKER POST

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

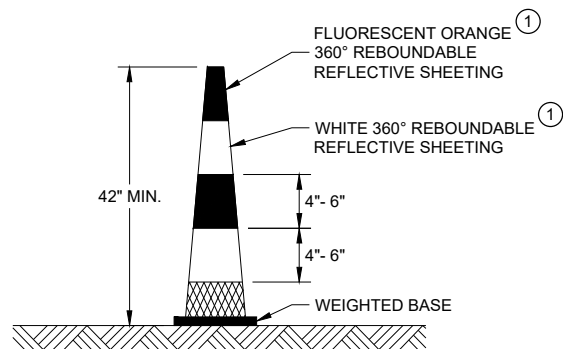
APPROVED
November 2022 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

FHWA



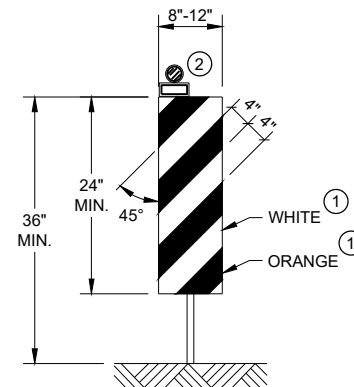
DRUM

BALLAST WIDTHS
RANGE FROM 24"-36"



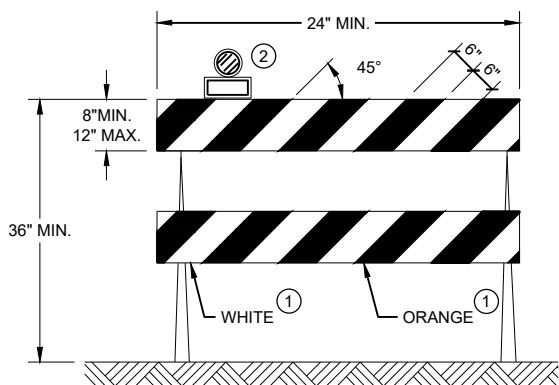
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS
BALLAST WIDTHS
RANGE FROM 14"-20"



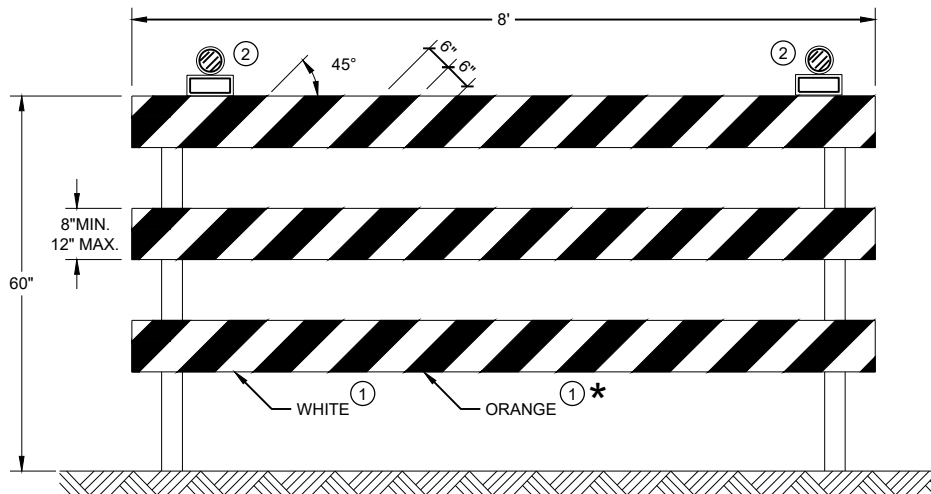
VERTICAL PANEL

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



TYPE II BARRICADE

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



TYPE III BARRICADE

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

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

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.





**CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

FHWA

LEGEND

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

GENERAL NOTES

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

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

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

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

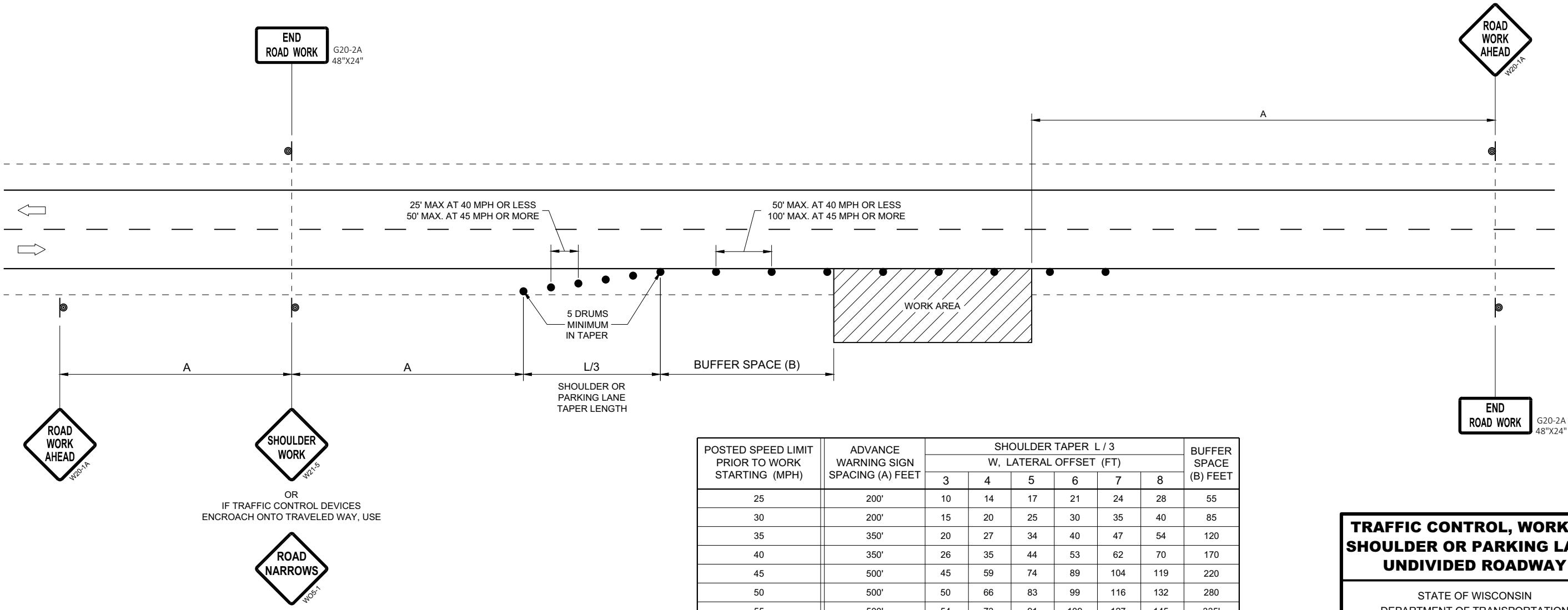
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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

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

6

6



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

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



STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

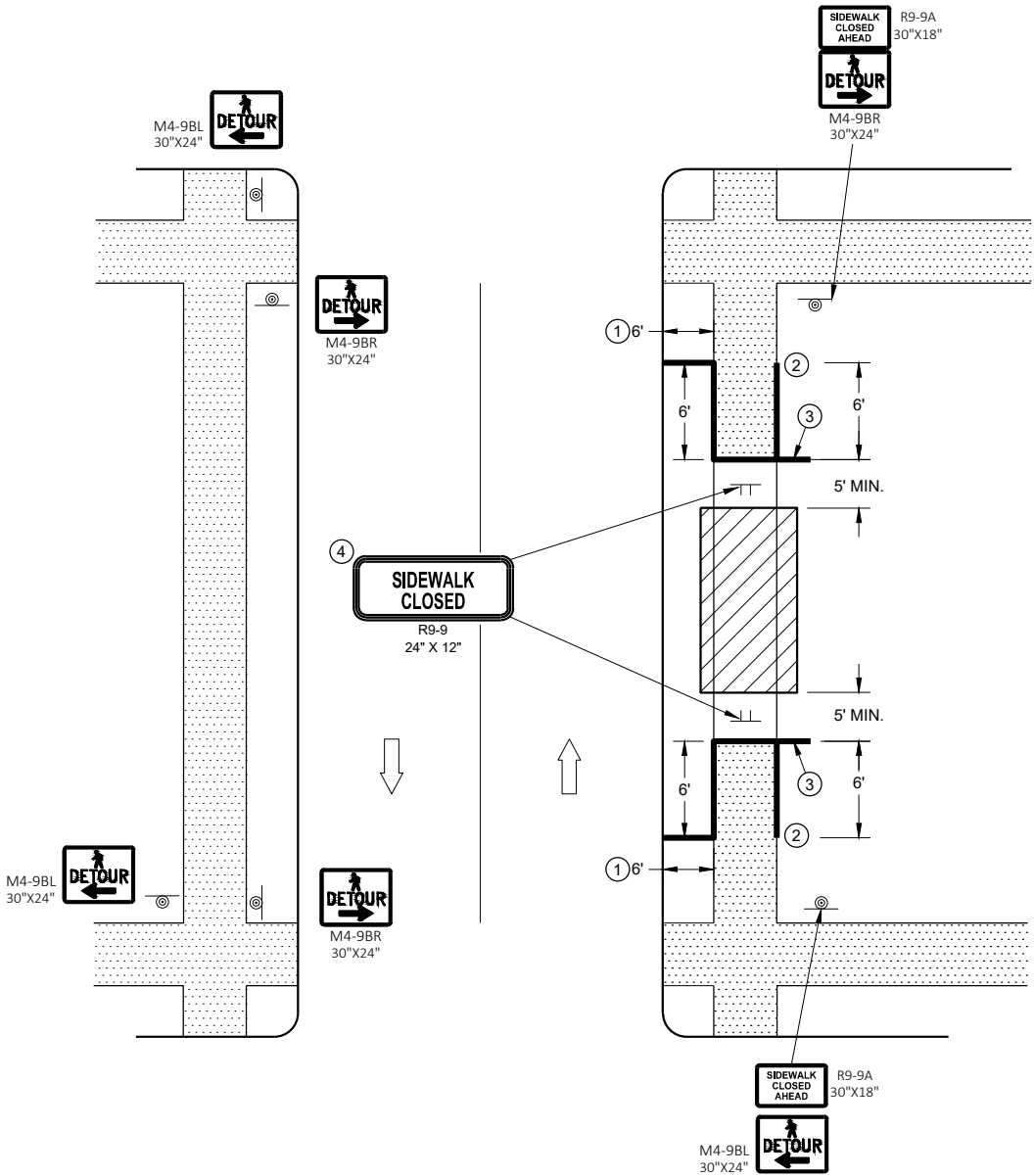
APPROVED
May 2020
DATE

/S/ Andrew Heidtke
STATEWIDE WORK ZONE TRAFFIC
SAFETY ENGINEER

FHWA

LEGEND

-  SIGN ON PERMANENT SUPPORT
-  SIGN ON TEMPORARY SUPPORT
-  UNDER PEDESTRIAN TRAFFIC
-  WORK AREA
-  TEMPORARY PEDESTRIAN BARRICADE
-  DIRECTION OF TRAFFIC



SIDEWALK DETOUR, SIDEWALK ON BOTH SIDES

GENERAL NOTES

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.

WHERE TEMPORARY BARRICADE RUNS PARALLEL ALONG SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

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

PLACE TEMPORARY PEDESTRIAN BARRICADE TO FIT FIELD CONDITIONS, AVOIDING CONFLICT WITH DRIVEWAYS AND OTHER EXISTING FEATURES.

- ① IF TERRACE IS LESS THAN 6 FEET WIDE, OMIT TEMPORARY PEDESTRIAN BARRICADE FROM THE SIDEWALK TO THE CURB.
- ② PLACE BARRICADE CLOSURE SO THAT THE TEMPORARY PEDESTRIAN BARRICADE END IS AT THE LAST OPEN SIDEWALK ACCESS TO RESIDENCES OR BUSINESSES BEFORE THE SIDEWALK CLOSURE.
- ③ IF TEMPORARY PEDESTRIAN BARRICADE PANEL IS WIDER THAN THE SIDEWALK WIDTH, THE PORTION OF EXCESS PANEL SHOULD EXTEND INTO THE TERRACE.
- ④ MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF SIGN.

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISCONSIN STANDARD SIGN PLATES.

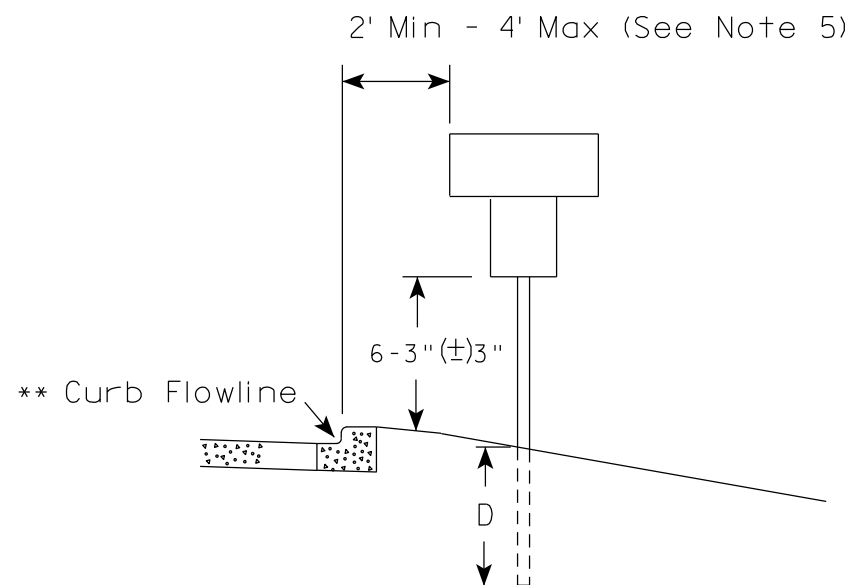
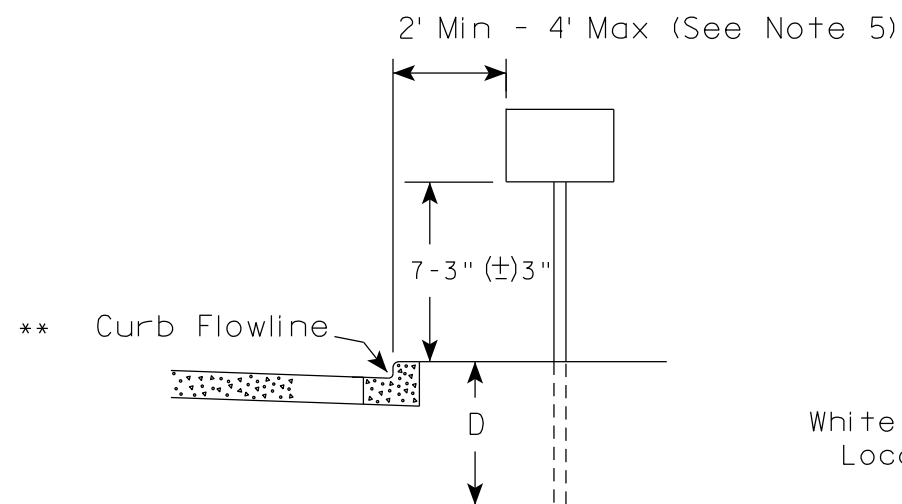
SEE OTHER PEDESTRIAN ACCOMMODATION DETAILS FOR SIGNING AND DEVICES FOR DIFFERENT PEDESTRIAN FACILITIES CLOSURES.

- ## LEGEND

- ## TEMPORARY PEDESTRIAN CROSSING

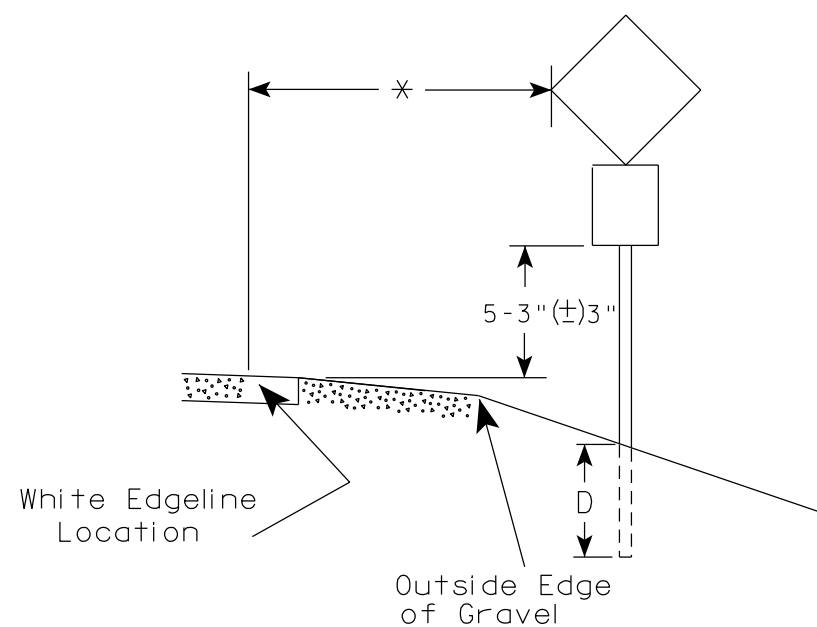
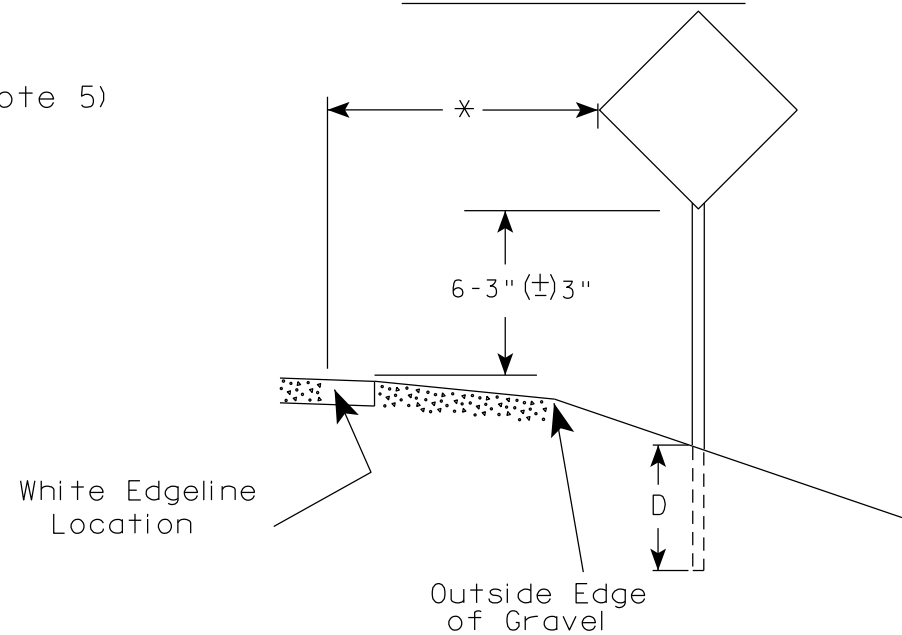
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

URBAN AREA



* * 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.

RURAL AREA (See Note 2)



* 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 or behind barrier wall, see A4-10 sign plate.
The Double Arrow sign (W12-1D) shall be mounted at a height of 2'-3" (±) 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" (±) 3".
3. For expressways and freeways, mounting height is 7'- 3" (±) 3" or 6'-3" (±) 3" depending upon existence of a sub-sign.
4. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±) 3".
5. Offset distance shall be consistent with existing signs or consistent throughout length of project.
6. Folding signs shall be mounted at a height of 5'-3" (±) 3" or as directed by the Engineer.

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch
for State Traffic Engineer

DATE 12/6/23

PLATE NO. A4-3.23

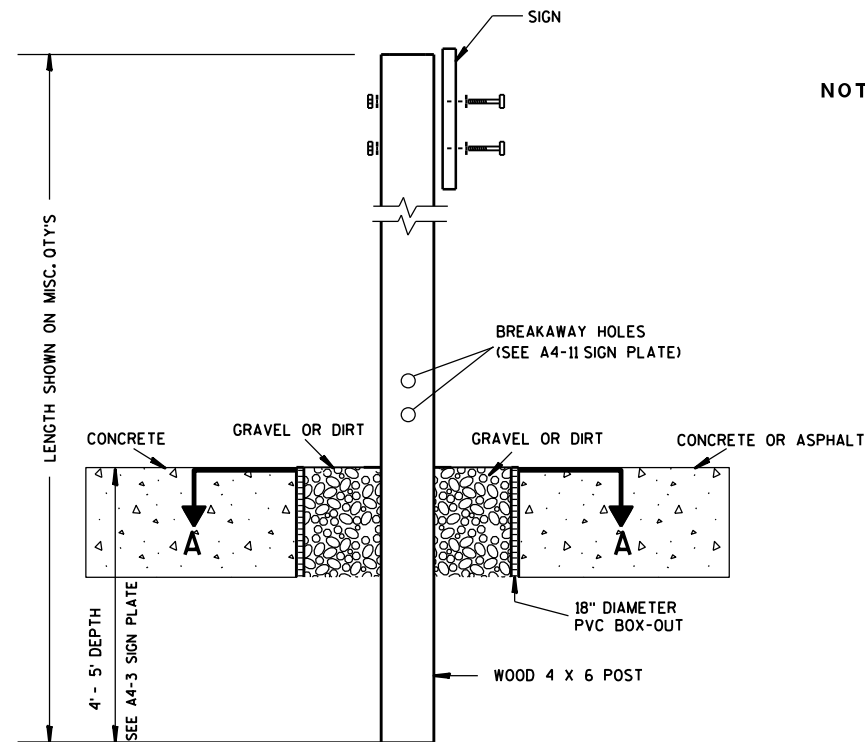
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

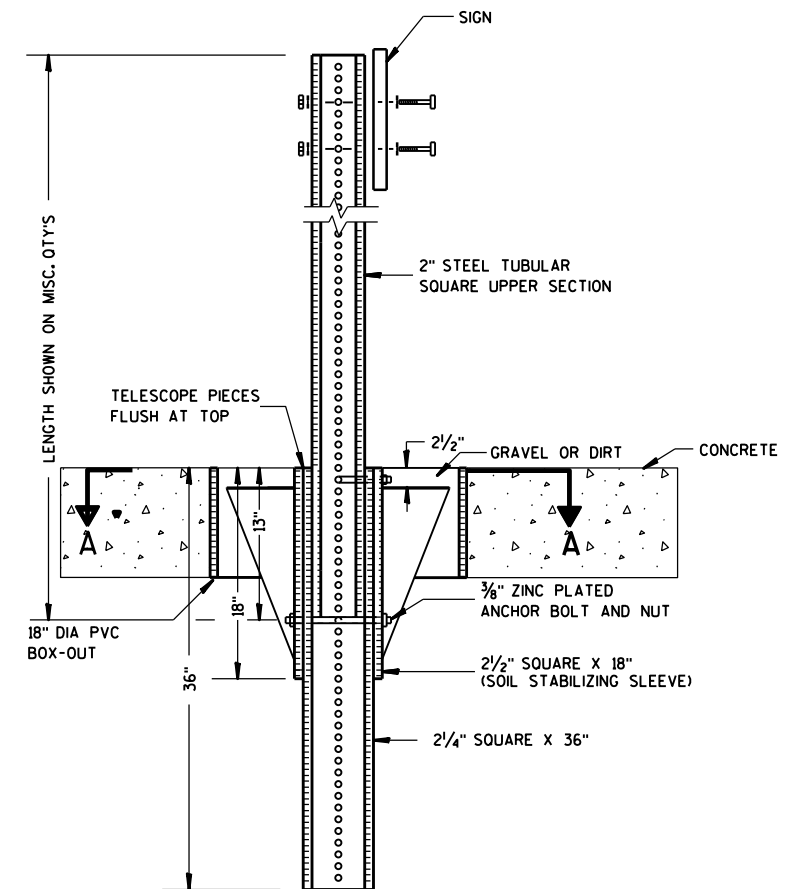
E



ELEVATION VIEW

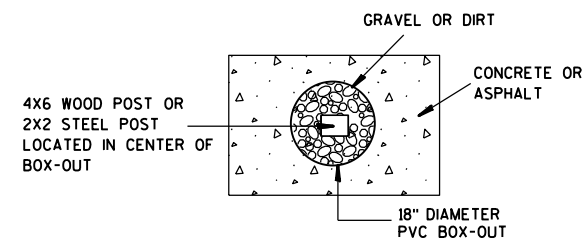
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

- NOTES: 1. ALL MATERIAL TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION
2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.



ELEVATION VIEW

DETAIL OF STEEL 2 X 2 SIGN POST IN BOX-OUT



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST
BOX-OUTS
A4-3B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 1/27/14 PLATE NO. A4-3B.1

PROJECT NO:

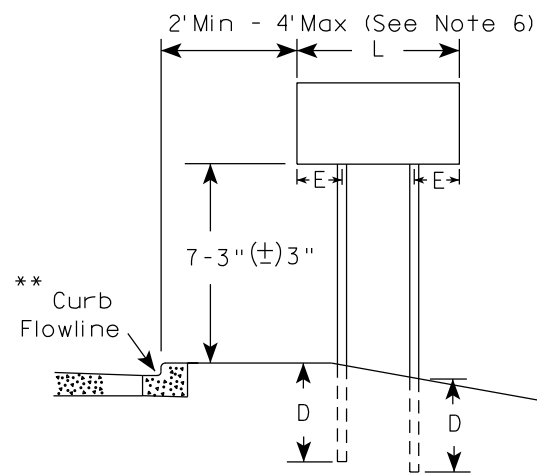
HWY:

COUNTY:

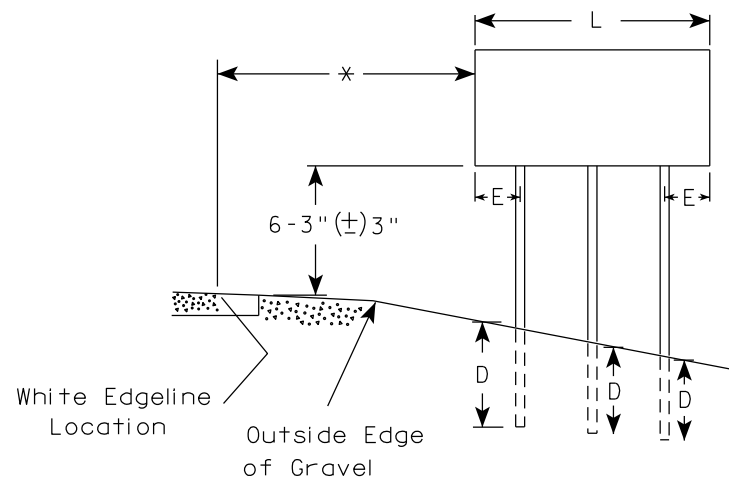
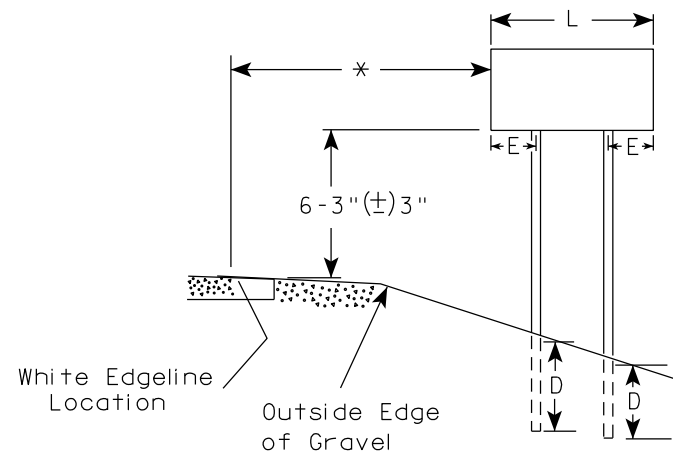
SHEET NO:

E

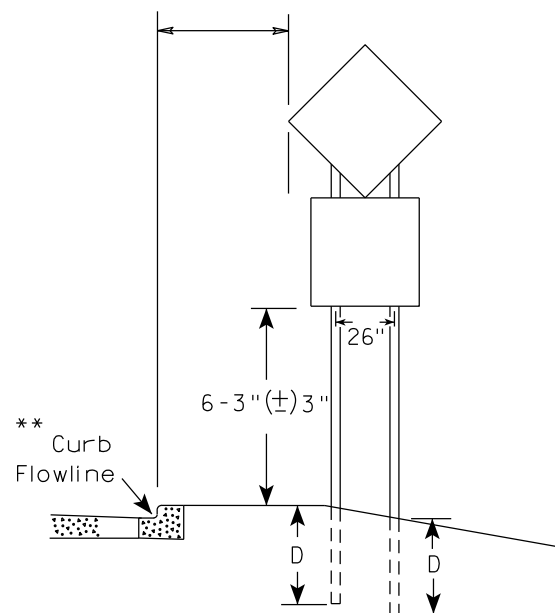
URBAN AREA



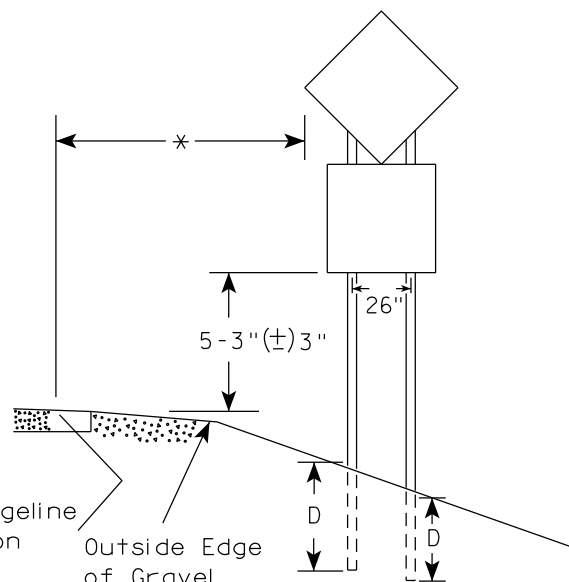
RURAL AREA (See Note 3)



2' Min - 4' Max (See Note 6)



48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) 3" or 6'-3" (±) 3" depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. J-Assemblies are considered to be one sign for mounting height.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs shall be mounted at a height of 5'-3" (±) 3" or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±) 3". The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), 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" (±) 3".

* 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.

** 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.

*** See A4-3 sign plate for signs 4' or less in width and less than 20 S.F. in area.

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
Greater than 48" Less than 60"	12"
60" to 108"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

POST EMBEDMENT DEPTH

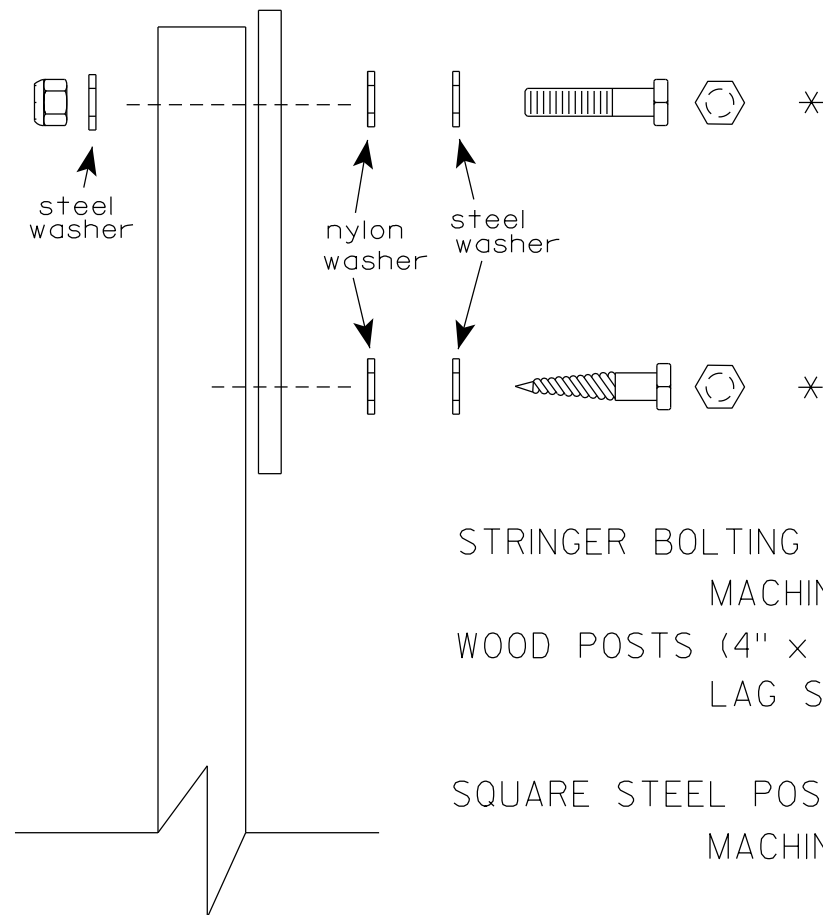
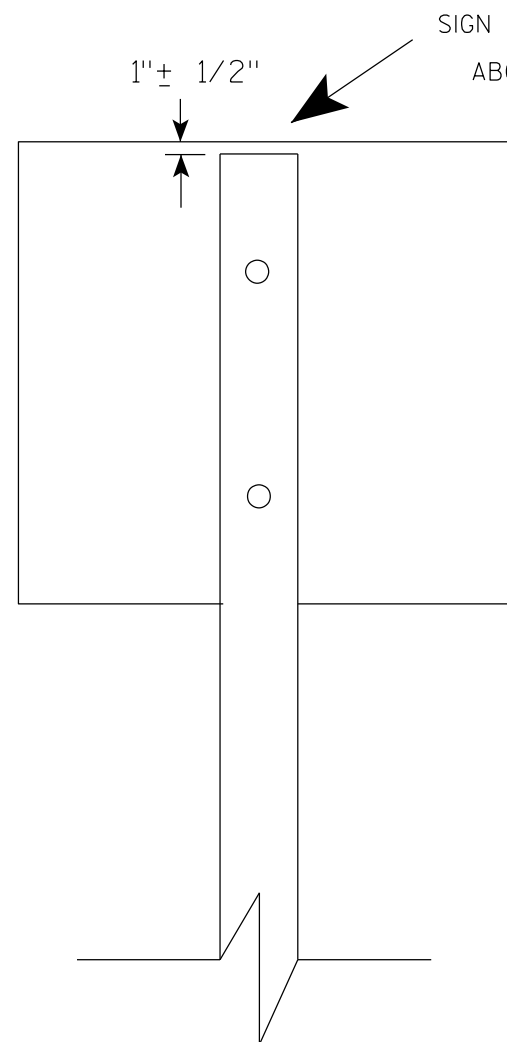
Area of Sign Installation (Sq.Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION
OF TYPE II SIGNS
ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 12/6/23 PLATE NO. A4-4.16



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.

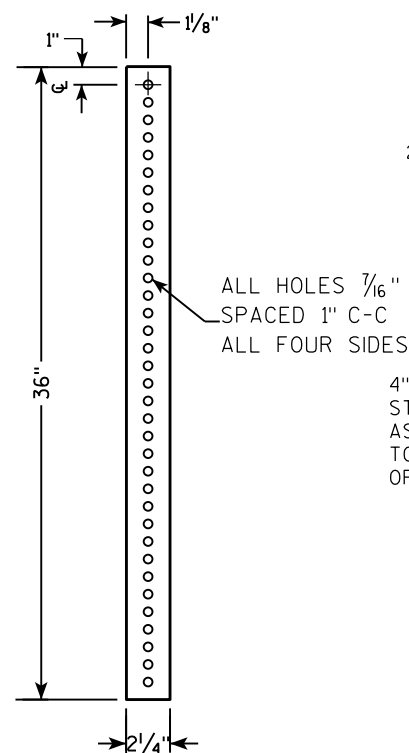
Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

- STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)
- MACHINE BOLTS - $\frac{5}{16}$ " X 1-3/4" Length w/ lock nuts
- WOOD POSTS (4" x 6")
- LAG SCREWS - $\frac{3}{8}$ " X 3" (NO STRINGERS ON BACK OF SIGN)
 $\frac{3}{8}$ " X 4" (STRINGERS ON BACK OF SIGN)
- SQUARE STEEL POSTS (2" x 2")
- MACHINE BOLTS - $\frac{3}{8}$ " X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
 $\frac{3}{8}$ " X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)
- RIVETS - $\frac{9}{32}$ " (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 $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ " STEEL
 - 1-1/4" O.D. X $\frac{3}{8}$ " I.D. X .080 NYLON

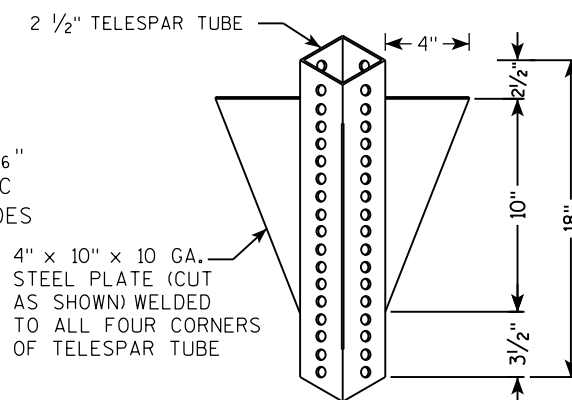
* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require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

ATTACHMENT OF SIGNS TO POSTS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 4/1/2020	PLATE NO. A4-8.9

**2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH**



**2 1/2" SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH**

[illegible]

TECHNICAL DRAWING OF A SIGNPOST ASSEMBLY.

Side View Dimensions:

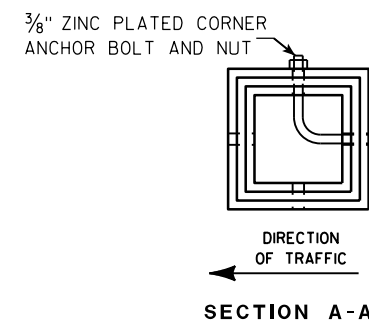
- Overall height: LENGTH SHOWN ON MISC. Q'TYS
- Section 1: 2" STEEL TUBULAR SQUARE UPPER SECTION
- Section 2: 2 1/2" SQUARE X 18" (SOIL STABILIZING SLEEVE)
- Section 3: 2 1/4" SQUARE X 36"
- Section 4: 36" (Total length of the bottom section)
- Section 5: 18"
- Section 6: 12"

Top View Dimensions:

- Overall width: 36"
- Section 1: 18"
- Section 2: 12"

Material and Assembly Details:

- ALL HOLES 7/16" SPACED 1" C-C ALL FOUR SIDES
- 3/8" ZINC PLATED CORNER ANCHOR BOLT AND NUT
- 3/8" ZINC PLATED ANCHOR BOLT AND NUT
- 2 1/2" SQUARE X 18" (SOIL STABILIZING SLEEVE)
- 2 1/4" SQUARE X 36"
- TELESCOPE PIECES FLUSH AT TOP
- SIGN
- SEE SIGN PLATE A4-8 FOR BOLT WASHER, & NUT MATERIAL



Area of Sign Installation (Sq. Ft.)	Number of Required 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).

TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthae R Rauch

for State Traffic Engineer

DATE 2/05/15 PLATE NO. A4-9.9

PROJECT NO:

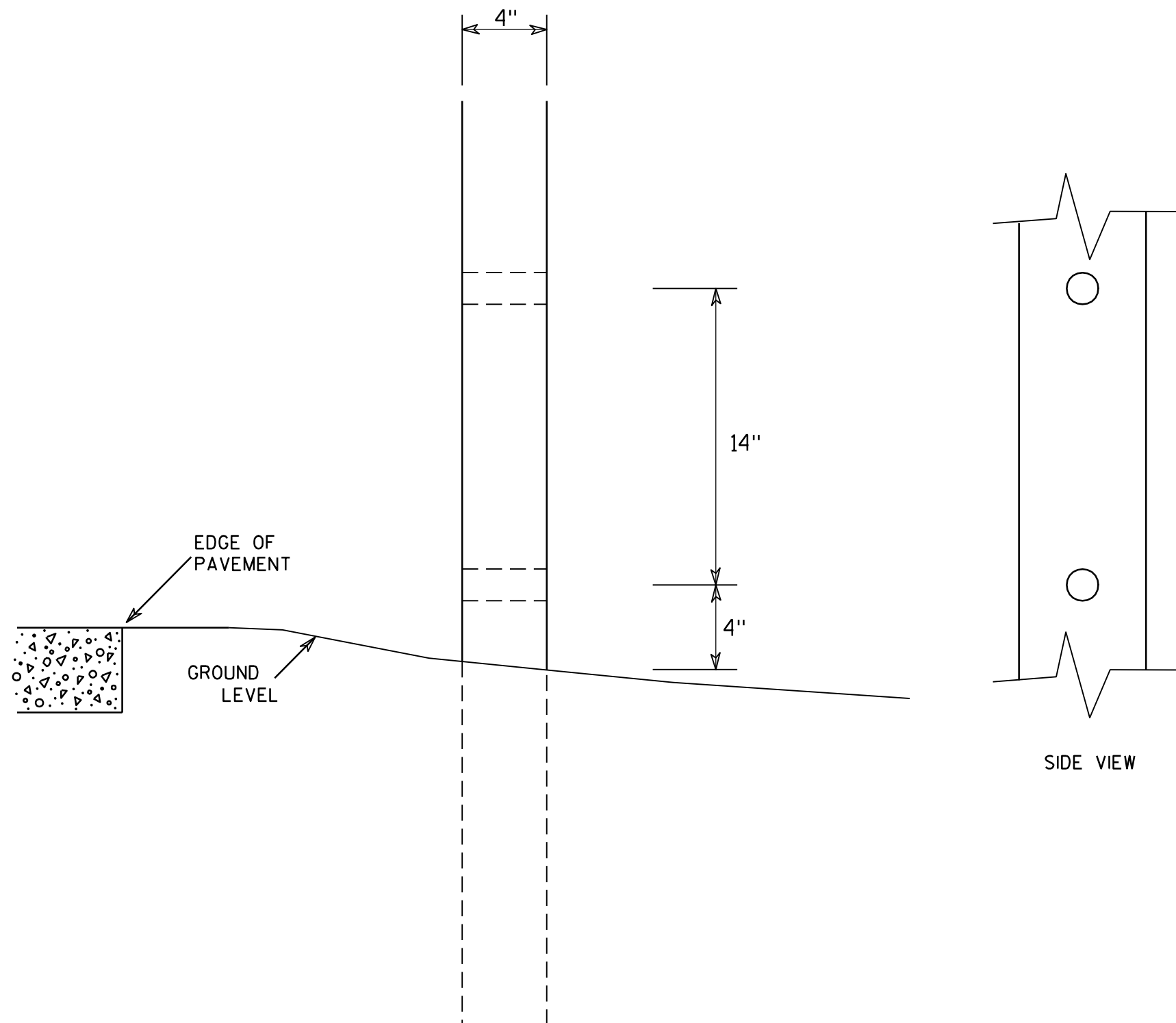
HWY:

COUNTY:

SHEET NO:

T

7



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

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:

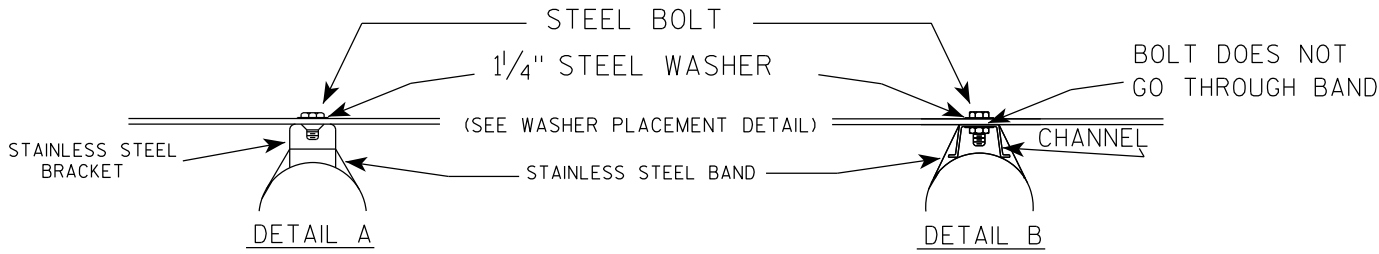
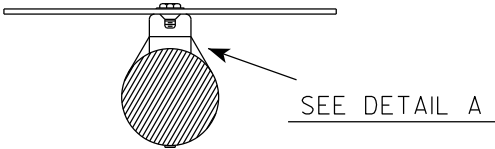
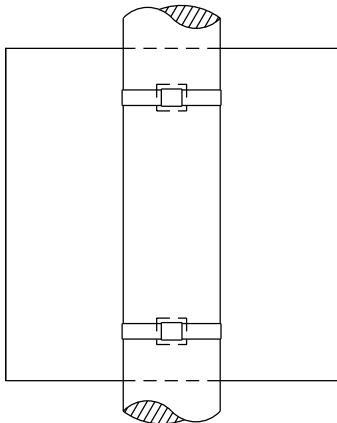
COUNTY:

SHEET NO:

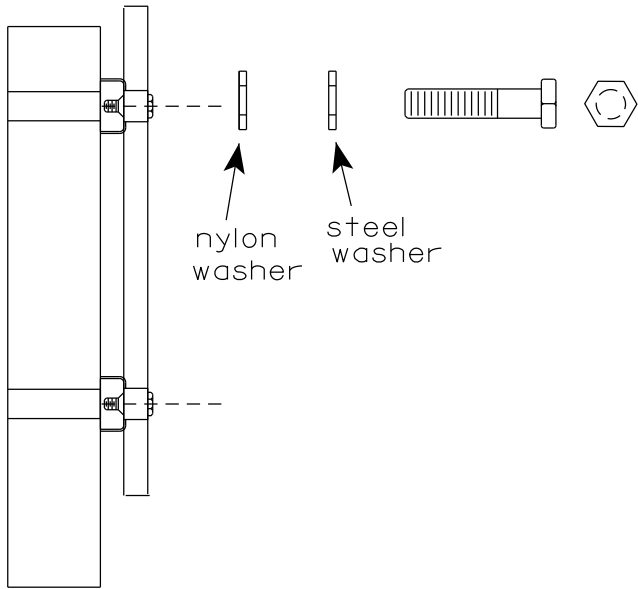
E

BANDING

SINGLE SIGN



WASHER PLACEMENT

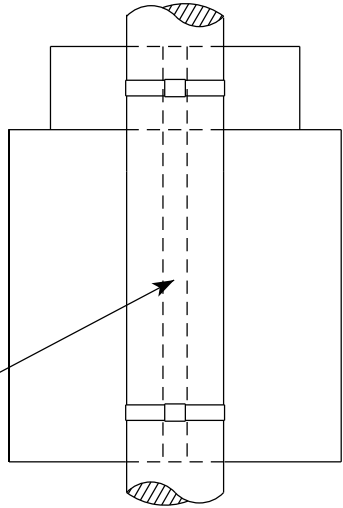


WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

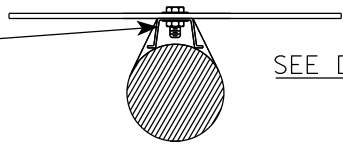
GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be 3/4" in width and 0.025" thickness.
4. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
 - a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
 - b. Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

"J" ASSEMBLY



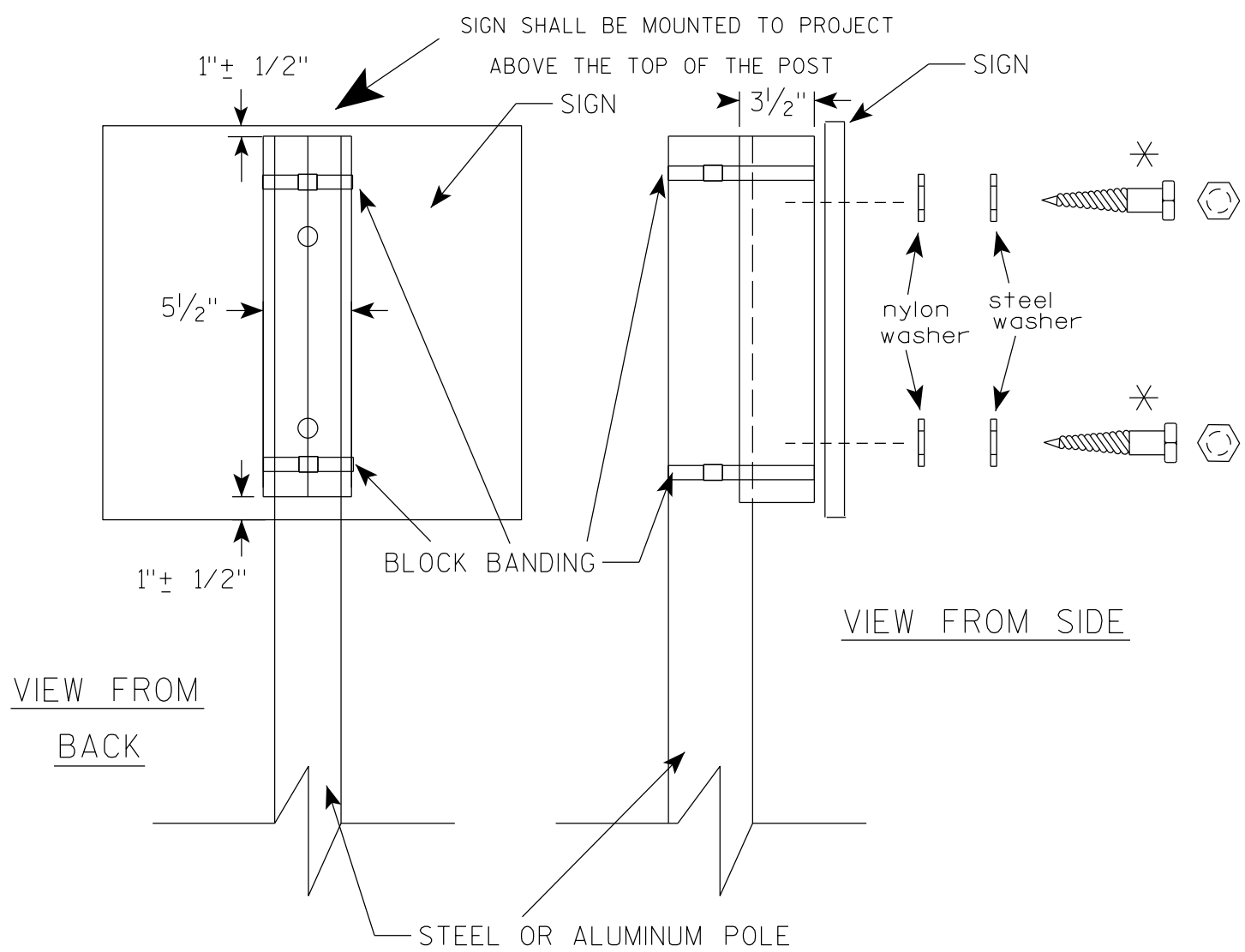
CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET



STANDARD SIGN
SIGN BANDING DETAILS

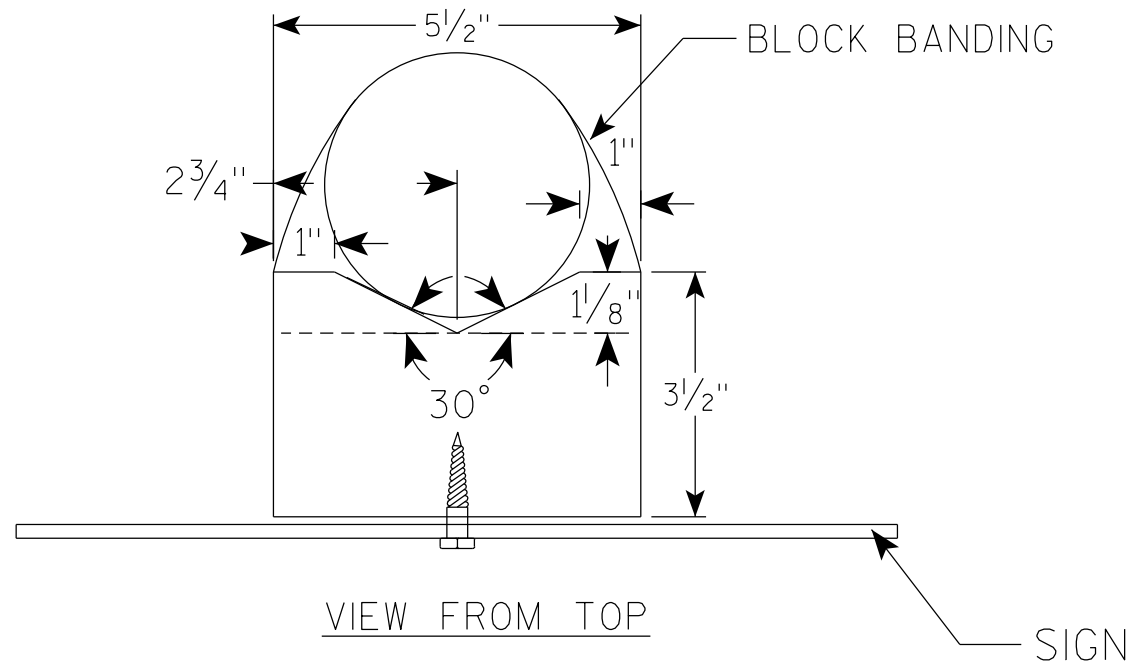
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 6/10/19 PLATE NO. A5-9.4



VIEW FROM
BACK

VIEW FROM SIDE



VIEW FROM TOP

GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WISDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, $\frac{3}{4}$ " WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORMALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
 - a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
 - b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE $\frac{1}{4}$ " O.D. X $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ "
8. NYLON WASHERS SHALL BE $\frac{1}{4}$ " O.D. X $\frac{3}{8}$ " I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✱ LAG BOLTS SHALL BE $\frac{3}{8}$ " X $2\frac{1}{2}$ "

BLOCK BANDING DETAIL
(V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

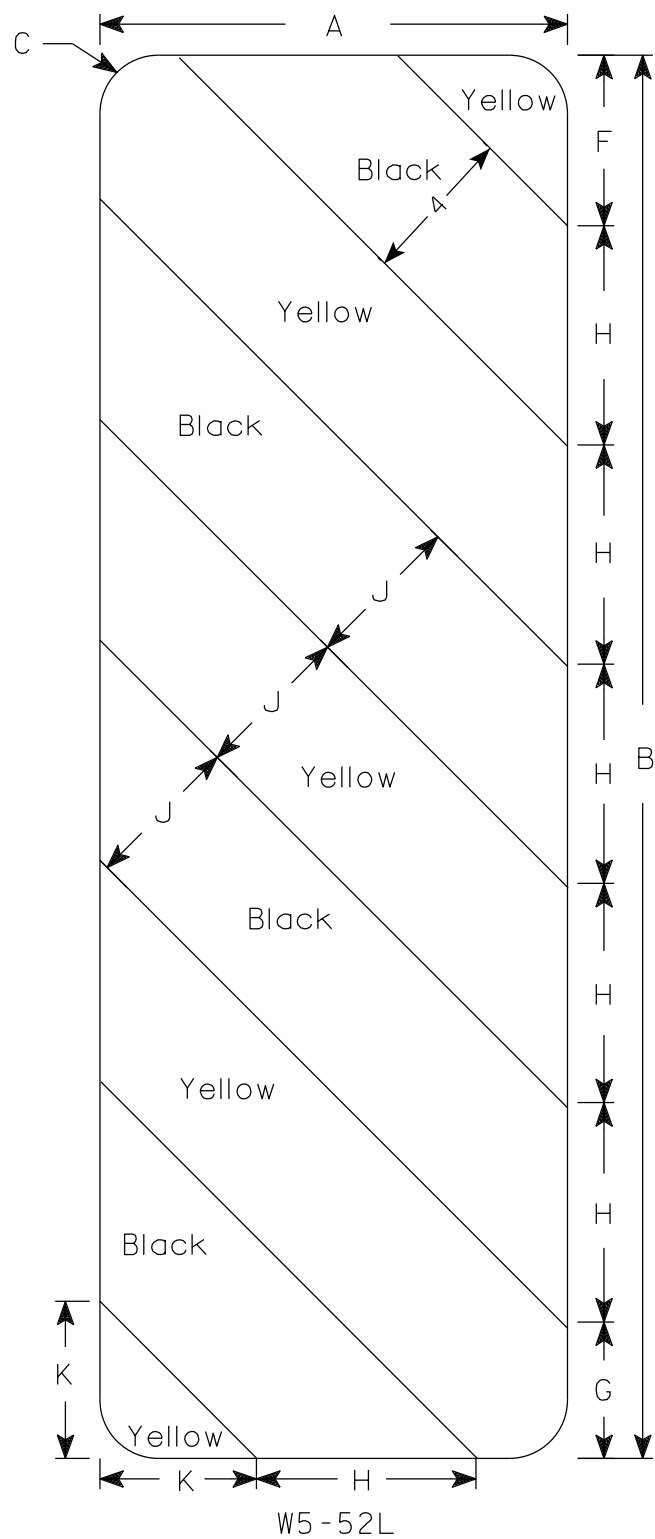
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 4/19/2022 PLATE NO. A5-10.3

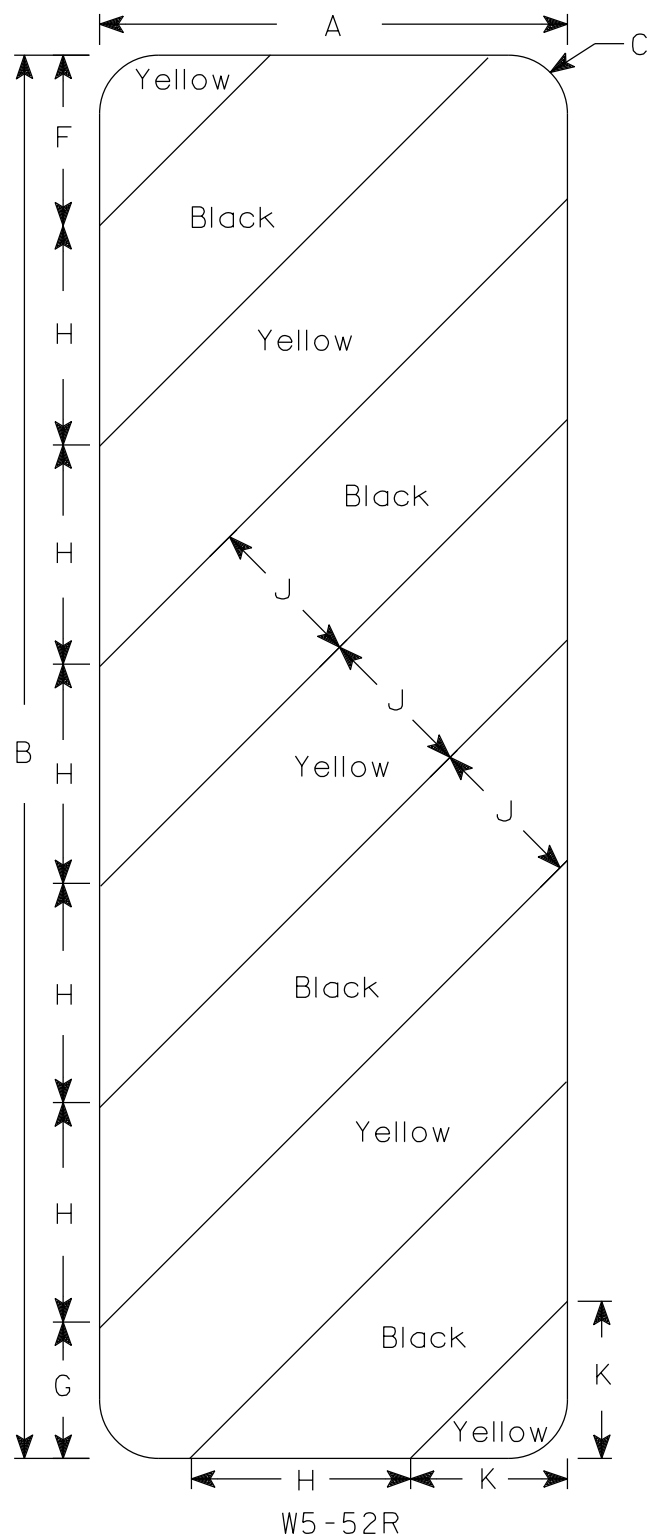
PROJECT NO:

SHEET NO:

E



W5-52L



W5-52R

NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:
 - Background - Yellow
 - Message - Black
- 3. 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	1 1/2			4 3/8	3 1/2	5 5/8	45°	4	4																3.0
2M	12	36	1 1/2			4 3/8	3 1/2	5 5/8	45°	4	4																3.0
3	18	54	1 1/2			6	5 1/2	8 1/2	45°	6	6 9/16																6.75
4																											
5																											

STANDARD SIGN

W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 3/4/2024 PLATE NO. W5-52.10

SOUTH 72ND STREET BRIDGE
OVER HONEY CREEK

HSE • 3175

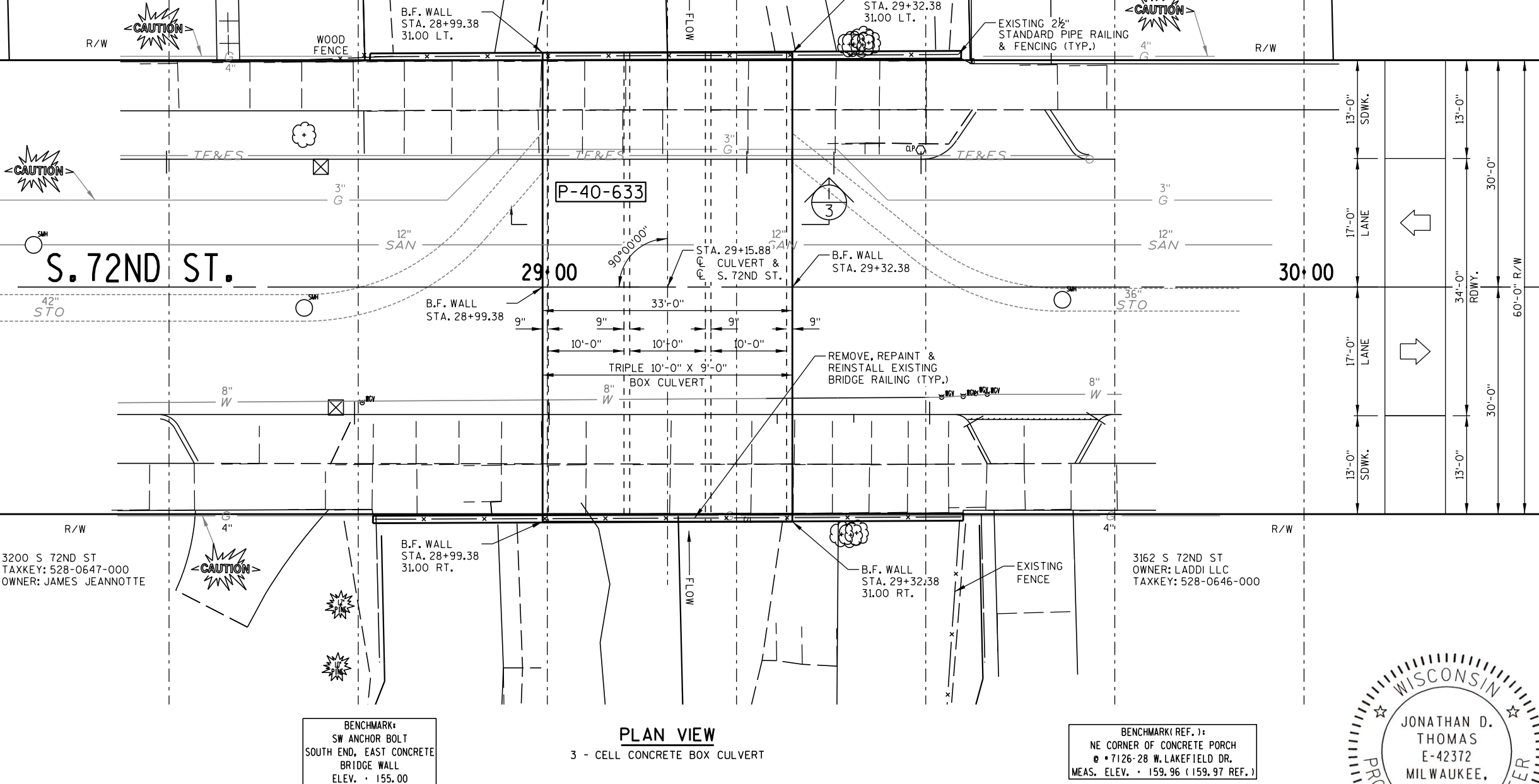
3175 S 72ND ST
OWNER: VICTORIA CECILIA BRITO
TAXKEY: 528-0607-000

BENCHMARK:
NE CORNER
TOP CONCRETE STOOP
HSE • 3175
ELEV. • 157.18

HSE • 3183

3163 S 72ND ST
OWNER: MARY ELLEN THIEDE
TAXKEY: 528-0606-000

BENCHMARK:
NE ANCHOR BOLT
NORTH END, WEST CONCRETE
BRIDGE WALL
ELEV. • 154.94



LIST OF DRAWINGS

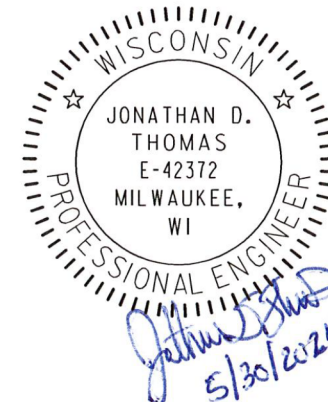
1. SITE PLAN
2. SUPERSTRUCTURE CROSS SECTION AND ELEVATION
3. ESTIMATE OF QUANTITIES AND TRANSVERSE SECTION
4. EXTERIOR CULVERT CONCRETE SURFACE REPAIR PLAN
5. INTERIOR CULVERT CONCRETE SURFACE REPAIR PLAN
6. RAILING DETAILS

STATE PROJECT NUMBER

2984-15-77

B.F. = BACK FACE

NO.	DATE	REVISION	BY
ORIGINAL PLANS PREPARED BY CITY OF MILWAUKEE DEPARTMENT OF PUBLIC WORKS INFRASTRUCTURE SERVICES DIVISION			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED		CHIEF STRUCTURES DESIGN ENGINEER	DATE
STRUCTURE P-40-633			
S. 72ND ST. OVER HONEY CREEK			
COUNTY		TOWN/CITY/VILLAGE	
MILWAUKEE		MILWAUKEE	
DESIGN SPEC.		REHABILITATION	
N/A		N/A	
DESIGNED BY	MV	DESIGN CK'D.	JDT
DRAWN BY	GJR	PLANS CK'D.	MV
SITE PLAN			SHEET 1 OF 6



BENCHMARK(REF.):
NE CORNER OF CONCRETE PORCH
• 7126-28 W. LAKEFIELD DR.
MEAS. ELEV. • 159.96 (159.97 REF.)

PLAN VIEW
3 - CELL CONCRETE BOX CULVERT

BENCHMARK:
SW ANCHOR BOLT
SOUTH END, EAST CONCRETE
BRIDGE WALL
ELEV. • 155.00

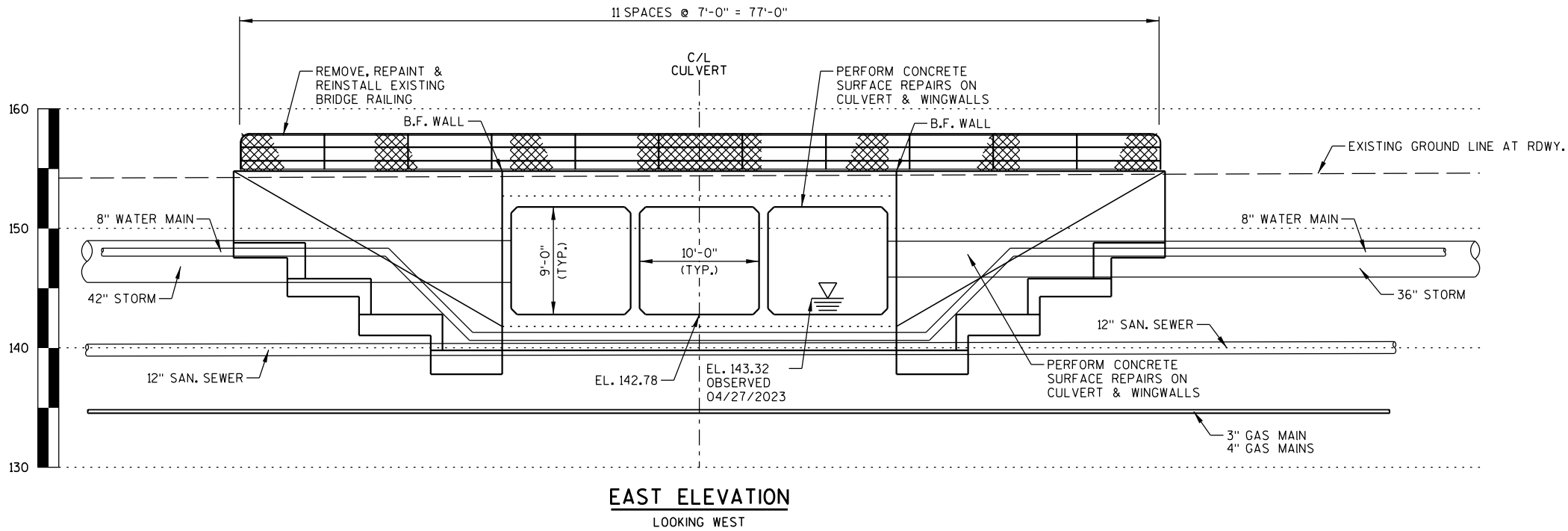
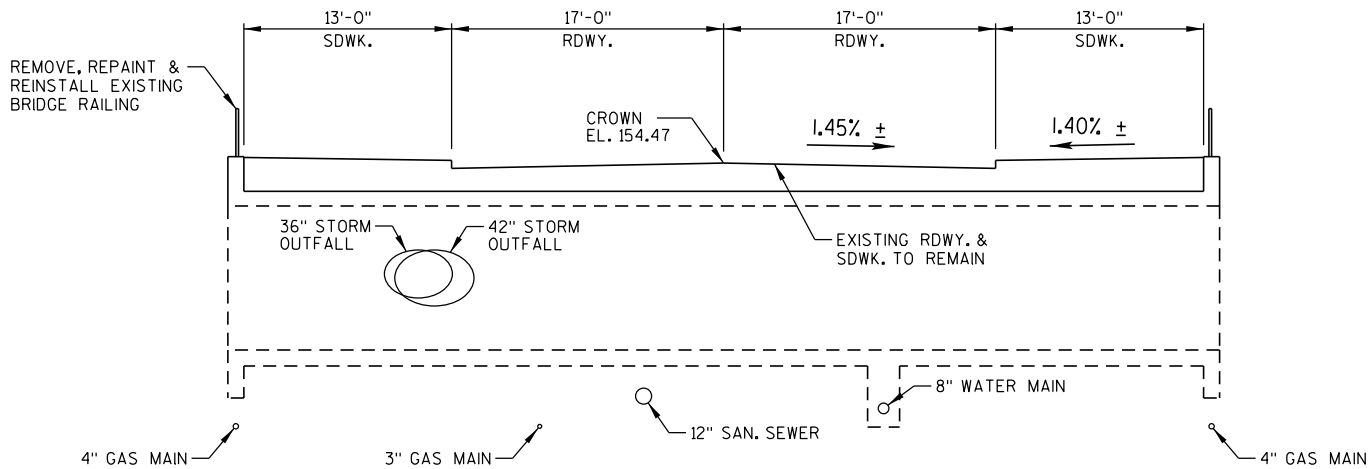
3200 S 72ND ST
TAXKEY: 528-0647-000
OWNER: JAMES JEANNOTTE

3162 S 72ND ST
OWNER: LADDI LLC
TAXKEY: 528-0646-000

REVISED: 05-29-2024 BY: GJR

8

8



NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE P-40-633			
DRAWN BY GJR		PLANS CK'D. MY JDT	
SUPERSTRUCTURE CROSS SECTION AND ELEVATION		SHEET 2 OF 6	

DESIGN DATA

DEAD LOAD

CONCRETE = 150 LB/CF
OVERBURDEN = 2'-0"

LIVE LOAD

TAKEN FROM HSI, 5/29/2024
INVENTORY RATING : HS-12
OPERATING RATING : HS-20
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 170 KIPS

MATERIAL PROPERTIES

CONCRETE MASONRY CULVERTS f'c = 3,500 PSI

TRAFFIC VOLUME

ADT (2023) = 747
ADT (2035) = 1,260
R.D.S. = 25 MPH

PROJECT IMPROVEMENTS

THE BRIDGE REHABILITATION PROJECT, AS PROPOSED, CONSISTS OF:
- SURFACE REPAIRS TO THE CULVERT UNDERSIDE OF DECK, CELL WALLS AND WINGWALLS.
- EPOXY INJECTION OF UNDERSIDE OF DECK AND CELL WALLS.
- REMOVAL, REPAINTING AND REINSTALLING EXISTING BRIDGE RAILING WITH NEW FENCE FABRIC.

GENERAL NOTES

ALL STATIONS & ELEVATIONS ARE IN FEET.

ELEVATIONS ARE REFERRED TO CITY OF MILWAUKEE DATUM.
CITY OF MILWAUKEE DATUM = 580.60 NGVD.

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

UTILIZE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND 24 BAR DIAMETERS INTO NEW WORK, UNLESS SPECIFIED OTHERWISE.

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

SEE ROADWAY PLANS FOR EXISTING AND PROPOSED UTILITY LOCATIONS.

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

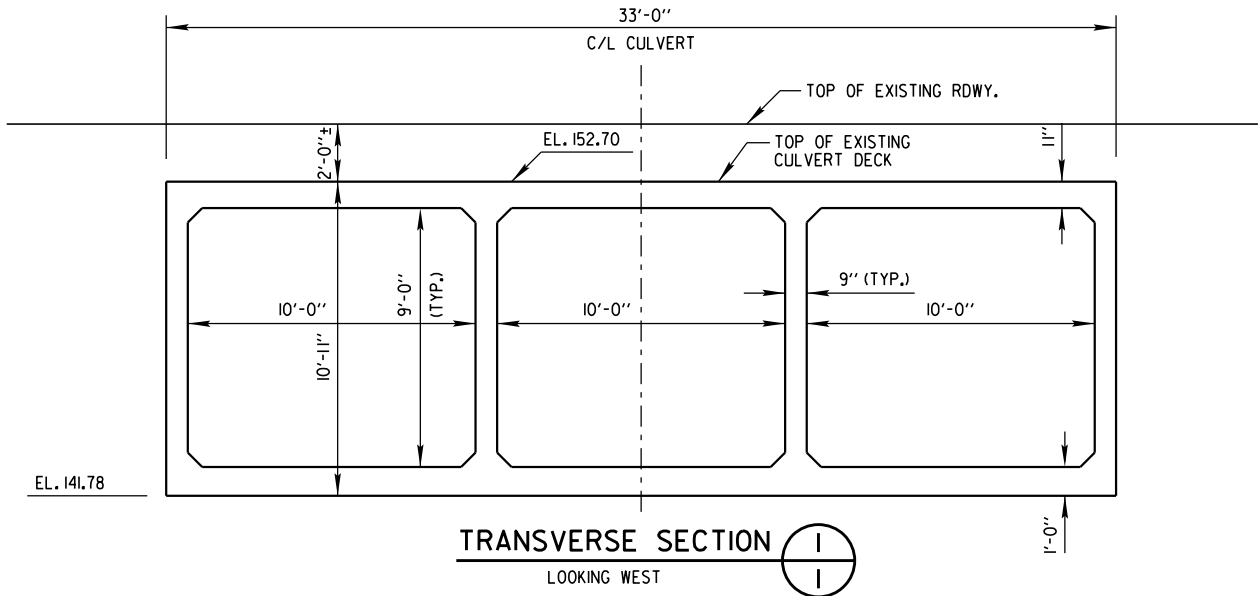
THE CONTRACTOR SHALL SUPPLY A NEW NAME PLATE IN ACCORDANCE WITH SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS AND THE STANDARD DETAIL DRAWINGS. NAME PLATE TO SHOW ORIGINAL CONSTRUCTION YEAR.

ALL CONCRETE REMOVAL SHALL BE DEFINED BY A 1-INCH DEEP SAWCUT, UNLESS SPECIFIED OTHERWISE.

PAINT FOR STEEL TO MATCH AMS STANDARD NO. 595A COLOR NO. 24062.

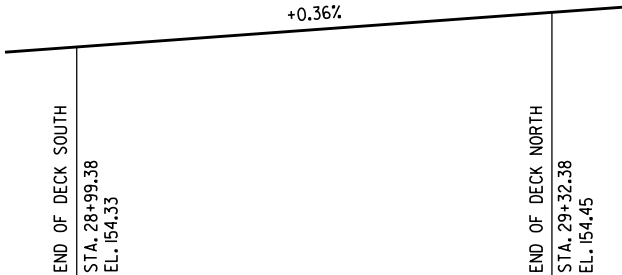
THE CONTRACTOR SHALL COORDINATE THE FIELD IDENTIFICATION AND DETERMINATION OF ALL CONCRETE SURFACE AND CRACK REPAIR LOCATIONS WITH THE ENGINEER.

DO NOT INJECT CRACKS LESS THAN 0.05' WIDE.



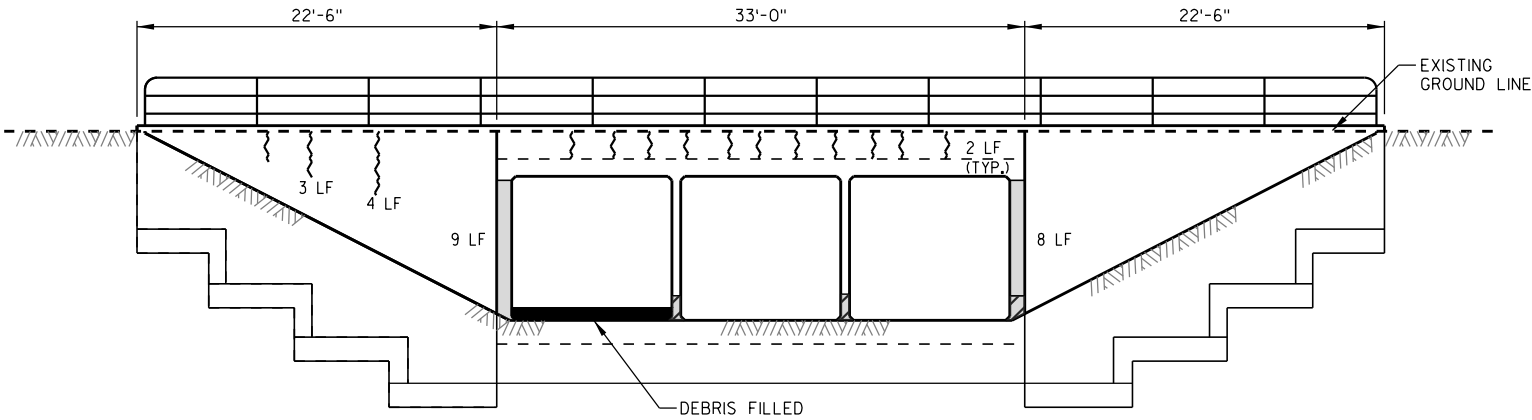
ESTIMATE OF QUANTITIES

ITEM NO.	BID ITEM	UNIT	CULVERT	TOTAL
205.0100	EXCAVATION COMMON	CY	50	50
509.1500	CONCRETE SURFACE REPAIR	SF	163	163
509.9025.S	EPOXY INJECTION CRACK REPAIR	LF	260	260
509.9026.S	CORED HOLES 2-INCH DIAMETER	EACH	2	2
SPV.0090.506	REMOVE, REPAINT, AND REINSTALL EXISTING BRIDGE RAILING	LF	160	160
SPV.0090.570	CONCRETE WALL REPAIR	LF	26	26
	NON-BID ITEMS			
	NAME PLATE			
	NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER			

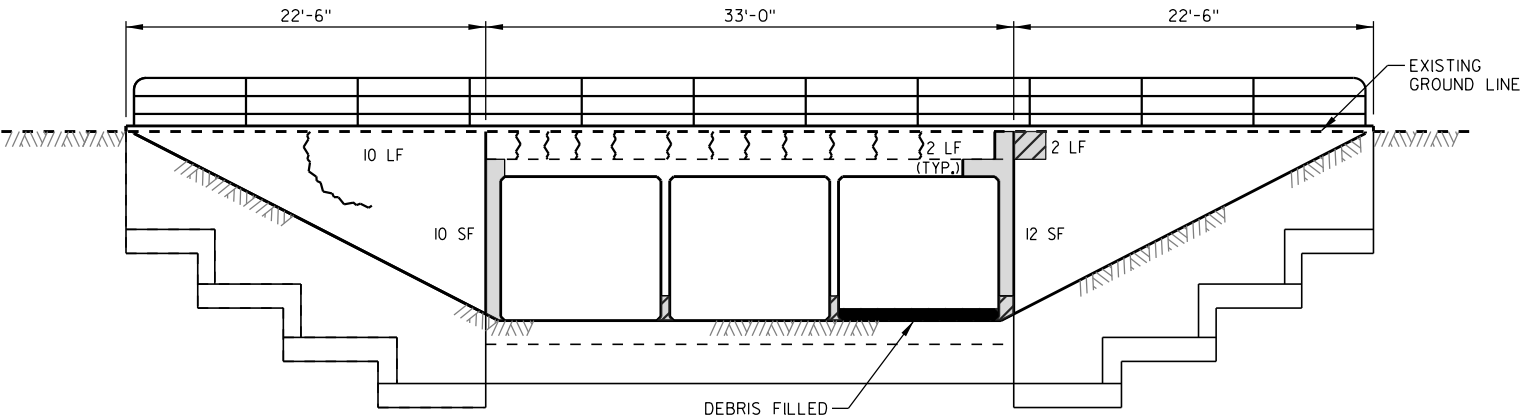


PROFILE GRADE LINE OF SOUTH 72ND STREET

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE P-40-633			
DRAWN BY GJR		PLANS CK'D. MY JDT	
ESTIMATE OF QUANTITIES AND TRANSVERSE SECTION		SHEET 3 OF 6	



EAST ELEVATION
LOOKING WEST

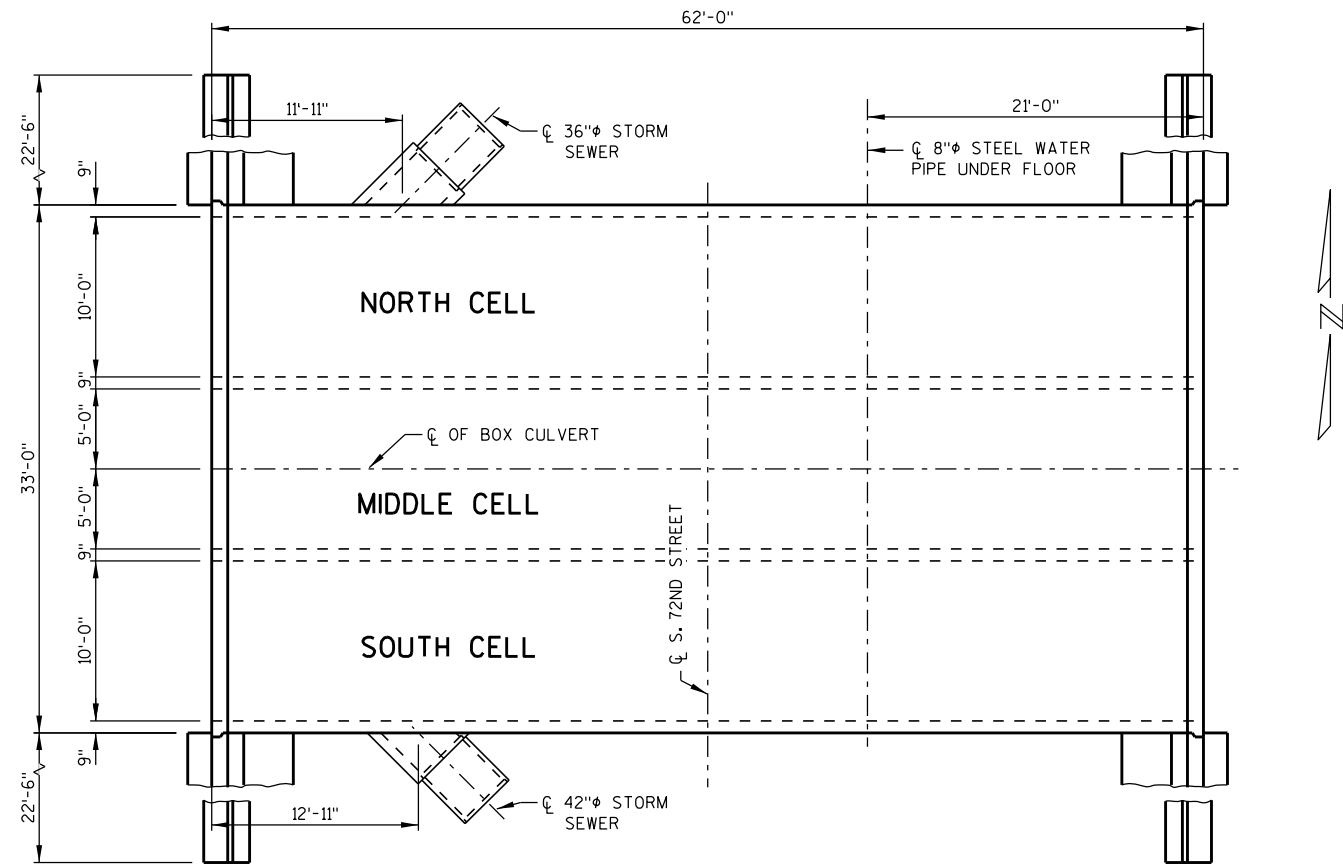


WEST ELEVATION
LOOKING EAST

- KEY:
- EPOXY INJECTION CRACK REPAIR (LF)
 - CONCRETE SURFACE REPAIR (SF)
 - CONCRETE WALL REPAIR (LF)

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE P-40-633			
DRAWN BY		JC	PLANS CK'D. MV JDT
EXTERIOR CULVERT CONCRETE SURFACE REPAIR PLAN		SHEET 4 OF 6	

REVISED: 05-28-2024 BY: GJR



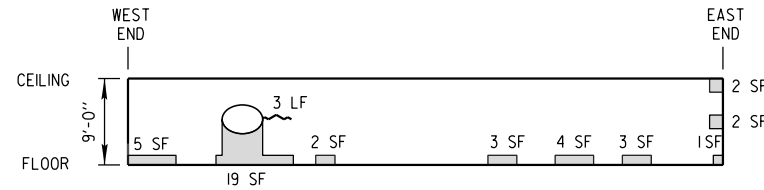
PLAN

KEY:

- EPOXY INJECTION CRACK REPAIR (LF)
- CONCRETE SURFACE REPAIR (SF)
- CONCRETE WALL REPAIR (LF)

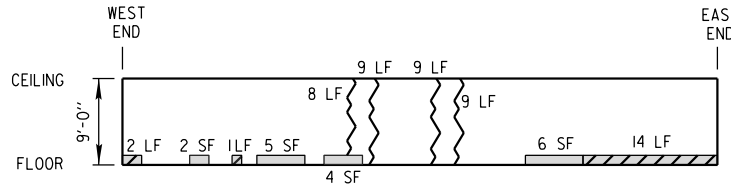
NOTE:

* BASE OF SOUTH CELL WALL NOT VISIBLE DUE TO DEBRIS. PLAN QUANTITIES ASSUME FIFTY PERCENT OF THE REPAIRS NOTED FOR THE NORTH CELL ARE NEEDED IN THE SOUTH CELL.



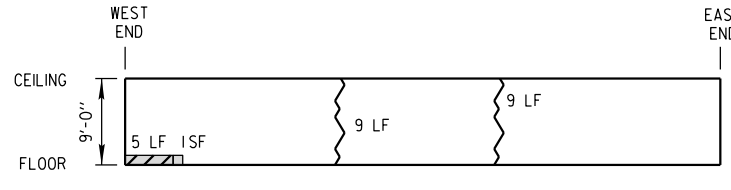
ELEVATION NORTH WALL-NORTH CELL

(LOOKING NORTH)



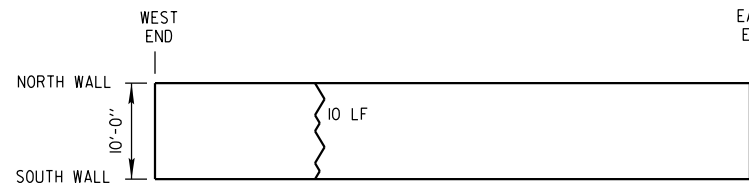
ELEVATION NORTH WALL-MIDDLE CELL

(LOOKING NORTH)



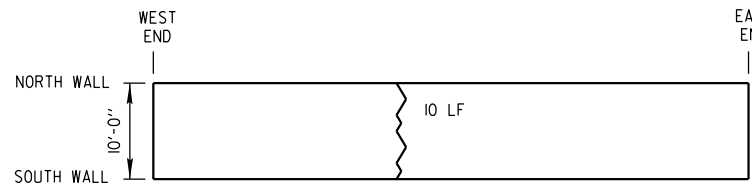
ELEVATION NORTH WALL-SOUTH CELL *

(LOOKING NORTH)



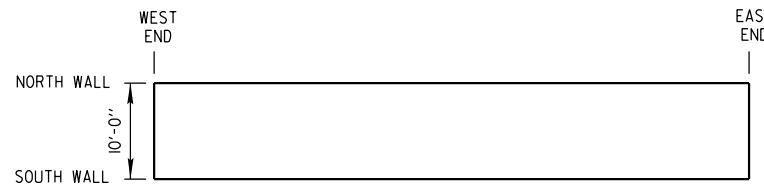
PLAN VIEW CEILING- NORTH CELL

(LOOKING UP)



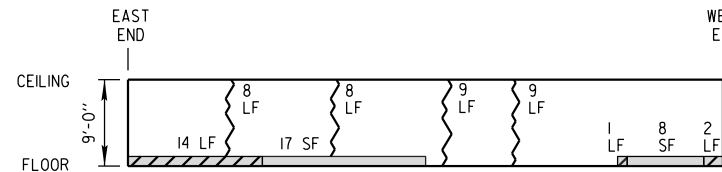
PLAN VIEW CEILING- MIDDLE CELL

(LOOKING UP)



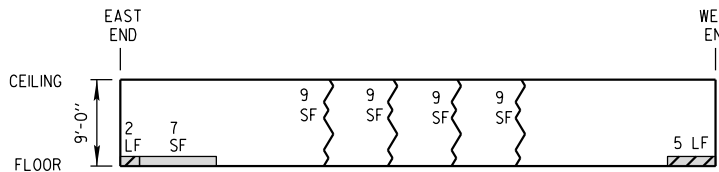
PLAN VIEW CEILING-SOUTH CELL

(LOOKING UP)



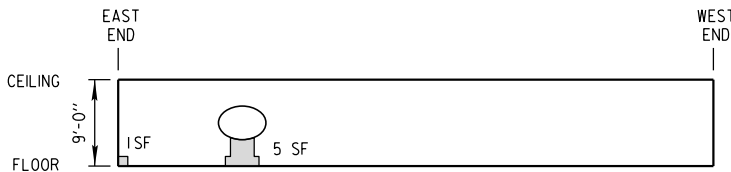
ELEVATION SOUTH WALL-NORTH CELL

(LOOKING SOUTH)



ELEVATION SOUTH WALL-MIDDLE CELL

(LOOKING SOUTH)



ELEVATION SOUTH WALL-SOUTH CELL *

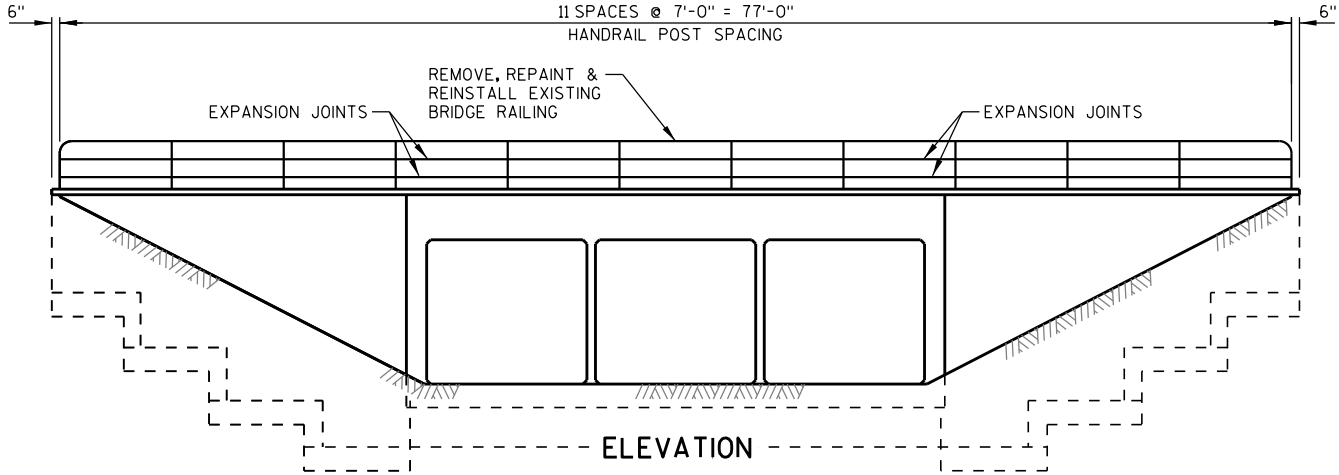
(LOOKING SOUTH)

CELL REPAIRS

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE P-40-633			
DRAWN BY JC		PLANS CK'D. MY	JDT
INTERIOR CULVERT CONCRETE SURFACE REPAIR PLAN		SHEET 5 OF 6	

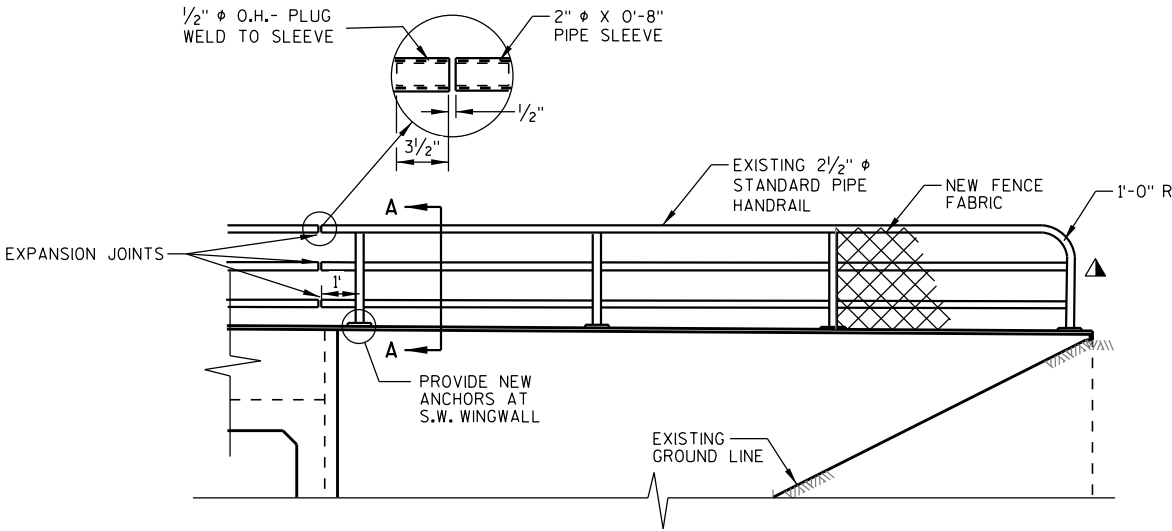
GENERAL NOTES

- POSTS ARE TO BE SET VERTICAL.
- ALL FENCE COMPONENTS SHALL BE GALVANIZED STEEL WITH A COLORED POLYMER COATING ON THE OUTSIDE.
- FABRIC SHALL CONFORM TO ASTM F668, CLASS 2B, STEEL RAILS, POSTS, AND POST SLEEVES SHALL CONFORM TO ASTM F1083, STANDARD WEIGHT PIPE (SCHEDULE 40). FITTING SHALL CONFORM TO ASTM F626. SEE THE SPECIAL PROVISIONS FOR ADDITIONAL DETAILS.
- PAINT FOR STEEL TO MATCH AMS STANDARD NO. 595A COLOR NO. 24062
- THE BID ITEM SHALL BE "REMOVE, REPAINT, REINSTALL EXISTING BRIDGE RAILING". LF.
- COMPLETE ANY REQUIRED WELDING OF COMPONENTS BEFORE GALVANIZING.
- ALL POST SPACINGS ARE MEASURED HORIZONTALLY ALONG THE C/L OF THE POST.
- CAULK AROUND PERIMETER OF BASE PLATE AND FILL PORTION OF SLOTTED HOLE AROUND ANCHOR BOLT IN SHIM WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.
- ▲ ATTACH FABRIC TO RAILS, AND TO POSTS WITHOUT TENSION BANDS, WITH TIE WIRES (ROUND, 9-GAGE) SPACED AT 1'-0".
- ANCHOR BOLTS, NUTS AND WASHERS SHALL BE EITHER STAINLESS STEEL OR ASTM 307. IF 307 IS USED, ANCHOR BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED.
- ALTERNATE ANCHORAGE: CONCRETE ADHESIVE ANCHORS 1/2-INCH, EMBED 7" IN CONCRETE. ADHESIVE ANCHORS SHALL CONFORM TO SECTIONS 502.2J2 AND 502.3J4 OF THE STANDARD SPECIFICATIONS.

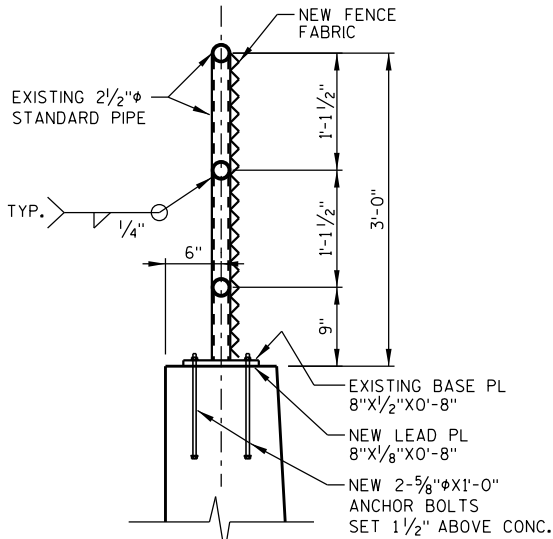


HANDRAIL DETAILS

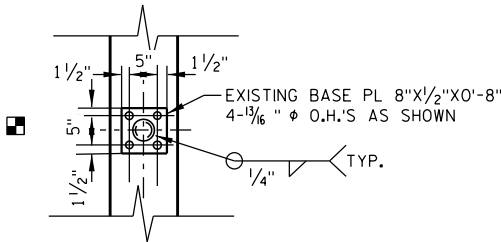
SEE ALSO "ELEVATION VIEW"



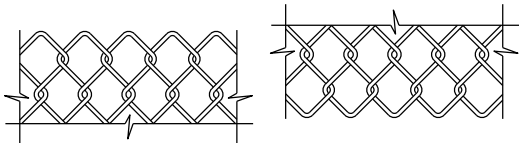
ELEVATION VIEW



SECTION A-A



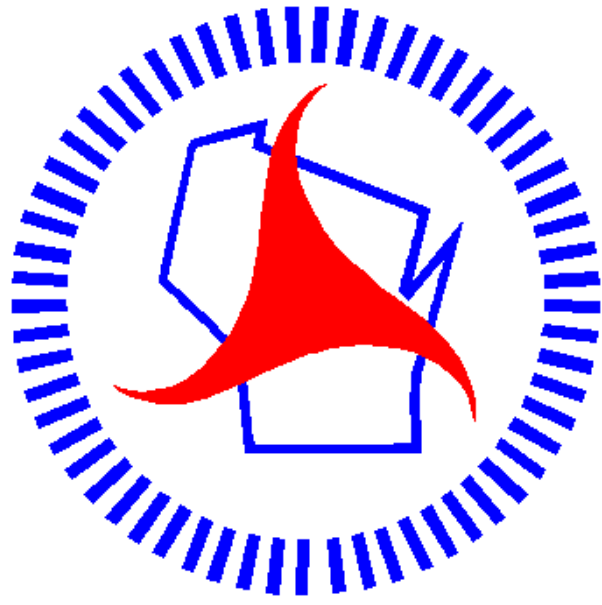
PLAN VIEW



FENCE FABRIC

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

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE P-40-633			
DRAWN BY		JC	PLANS CK'D. MY JDT
RAILING DETAILS			SHEET 6 OF 6



Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

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