MAD

PROJECT ID: 1010-02-89

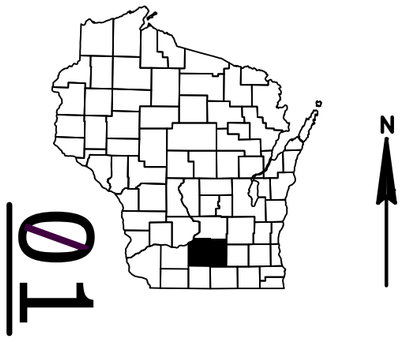
WITH: N/A

COUNTY: DANE

JULY 2018

ORDER OF SHEETS

TOTAL SHEETS = 44



01

DESIGN DESIGNATION

A.A.D.T.	=	N/A
A.A.D.T.	=	N/A
D.H.V.	=	N/A
D.D.	=	N/A
T.	=	N/A
DESIGN SPEED	=	N/A
ESALS	=	N/A

CONVENTIONAL SYMBOLS

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

MADISON - PORTAGE

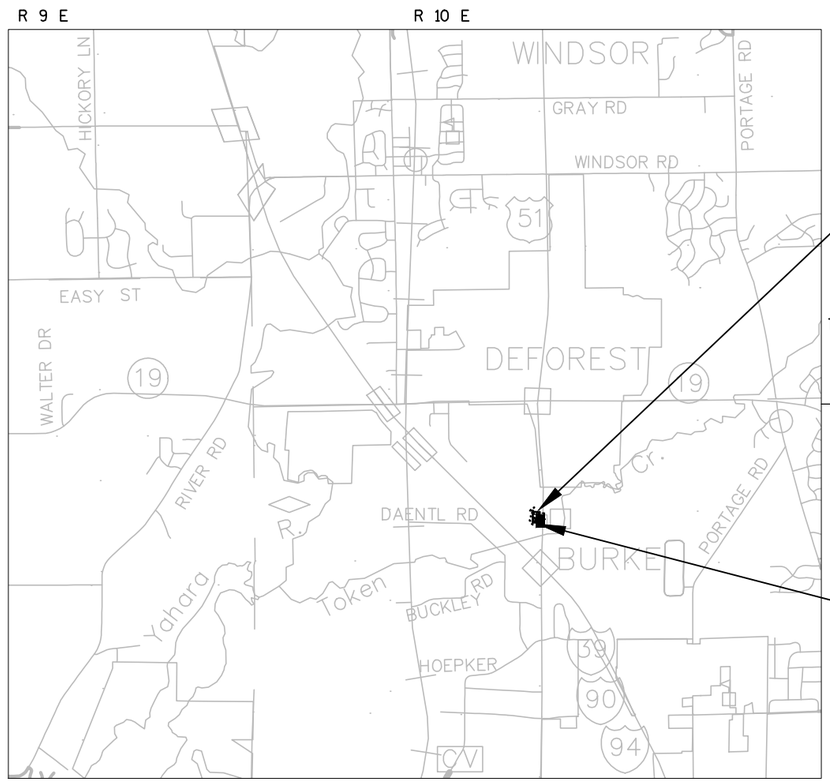
DANE COUNTY SALT STORAGE FACILITY

IH 39

DANE COUNTY

STATE PROJECT NUMBER
1010-02-89

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1010-02-89	———	—



LAYOUT

SCALE 0 1 MILE

TOTAL NET LENGTH OF CENTERLINE = 0.000 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, DANE COUNTY, NAD88 (2007), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ORIGINAL PLANS PREPARED BY

Michael Baker INTERNATIONAL

WISCONSIN SUSAN C. BARKER E-27128 MADISON, WI PROFESSIONAL ENGINEER

1/18/2017 (Date) Susan C Barker (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	JT ENGINEERING, INC
Designer	MICHAEL BAKER INTERNATIONAL
Project Manager	BOB LEX
Regional Examiner	
Regional Supervisor	KURT JOHNSON

APPROVED FOR THE DEPARTMENT

DATE: 1-18-17 (Signature)

E

2

GENERAL NOTES

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

NO TREES OR SHRUBS ARE TO BE REMOVED WITHOUT APPROVAL OF THE ENGINEER. DISTURBED AREAS SHALL BE FERTILIZED, SEEDED, AND MULCHED.

EXCAVATION BELOW SUBGRADE (EBS) FOR REMOVAL OF UNSUITABLE MATERIAL, AS SHOWN ON THE PLANS, IS NOT USED TO BALANCE YARDAGE, BUT IS MEASURED AND PAID FOR AS EXCAVATION COMMON, EXACT LOCATIONS FOR REMOVING UNSUITABLE MATERIAL WILL BE DETERMINED BY THE ENGINEER.

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

THE HMA PAVEMENT WEIGHT CALCULATIONS ARE BASED ON A UNIT WEIGHT OF 110 LBS/SY/IN.

SUBSURFACE EXPLORATION REPORT, INCLUDING PAVEMENT CORE AND BORING INFORMATION, IS AVAILABLE FROM WISDOT SW REGION PROJECTS SECTION.

STORM SEWER PIPE ELEVATIONS, LENGTHS, AND LOCATIONS AS SHOWN ON THE PLANS, SHALL BE ADJUSTED TO FIT THE EXISTING FIELD CONDITIONS, AS DIRECTED BY THE ENGINEER.

PLACE 2 INCH HMA IN ONE LAYER.

PLACE 2 ½ INCH HMA IN ONE LAYER.

CONCRETE DRIVEWAY JOINTS SHALL BE PLACED IN ACCORDANCE TO STANDARD DETAIL DRAWING FOR URBAN NON-DOWELED CONCRETE PAVEMENT.

TACK COAT CALCULATIONS ARE BASED ON AN APPLICATION RATE OF 0.7 GAL/SY.

PARKING GRADES ALLOW FOR FUTURE 2' HMA OVERLAY

UTILITIES

ALLIANT ENERGY - ELECTRIC
JASON HOGAN
4902 N BILTMORE LANE, STE 1000
MADISON, WI 53719
608-458-4871
JASONHOGAN@ALLIANTENERGY.COM

MADISON GAS AND ELECTRIC CO - GAS
STEVE BEVERSDORF
PO BOX 1231
MADISON, WI 53701
608-252-1552
SBEVERSDORFE@MGE.COM

VILLAGE OF DEFOREST - SEWER AND WATER
GREG HALL
205 DEFOREST ST
DEFOREST, WI 53532
608-807-7023
HALLG@VI.DEFOREST.WI.US

REGION CONTACT

JIM SIMPSON
2101 WRIGHT STREET
MADISON, WI 53704
608-246-5628
JIM.SIMPSON@DOT.WI.GOV

DESIGN CONSULTANT

Michael Baker INTERNATIONAL

MICHAEL BAKER INTERNATIONAL
7633 GANSER WAY, STE 206
MADISON, WI 53719

SUSAN BARKER
608-821-8712
SUSAN.BARKER@MBAKERINTL.COM

DNR CONTACT

ERIC HEGGELUND
3911 FISH HATCHERY ROAD
FITCHBURG, WI 53711
608-275-3301

ORDER OF SECTION 2 SHEETS

2

2

EAST METRO BLVD

EAST METRO DRIVE

USH 51

N

END PROJECT 1010-02-89
STA. 14+80.00

EP: 14+80.00

BEGIN PROJECT 1010-02-89
STA. 10+00.00
Y = 522,285.255
X = 836,930.940

BP: 10+00.00

N AMERICAN LANE

IH 39/90/94

TOKEN CREEK

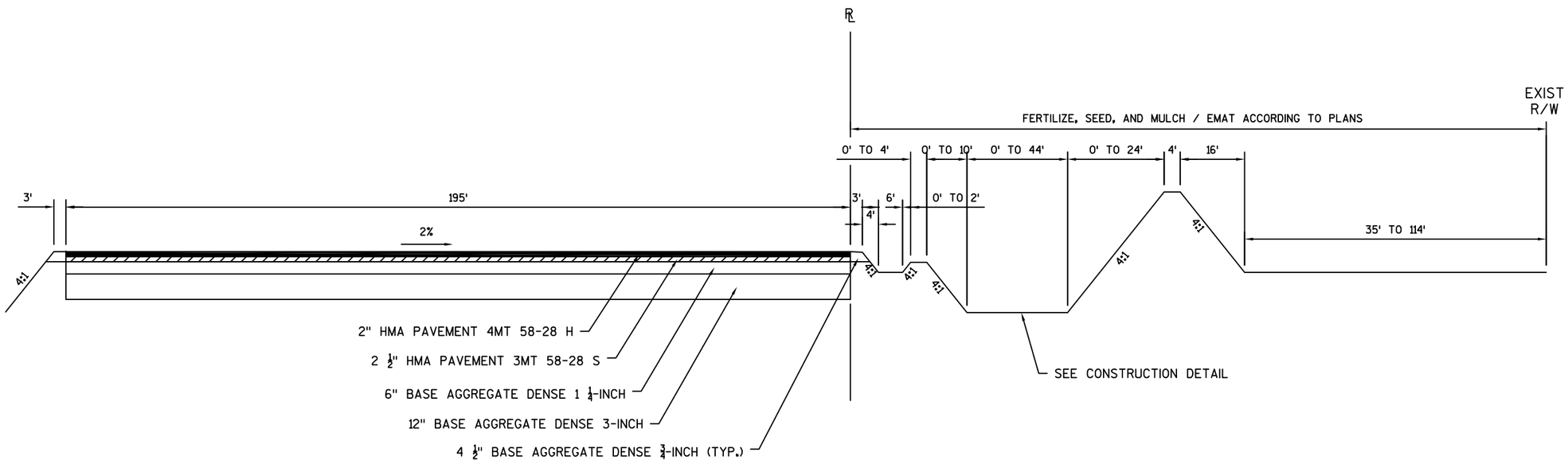
PROJECT NO: 1010-02-89	HWY: IH 39	COUNTY: DANE	PROJECT OVERVIEW	SHEET 3	E

FILE NAME : C:\PWV8I-LOCAL\BAKER_PROJECTS\ALICIA.MCCONNELL\D0457163\020201_PO_SALT STORAGE SHED.DWG
PROJECTSHEETDATA - 020201_PO_SALT STORAGE SHED - PLAN 1 IN 1000 FT

PLOT DATE : 12/1/2016 5:16 PM PLOT BY : MCCONNELL, ALICIA PLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 42

2

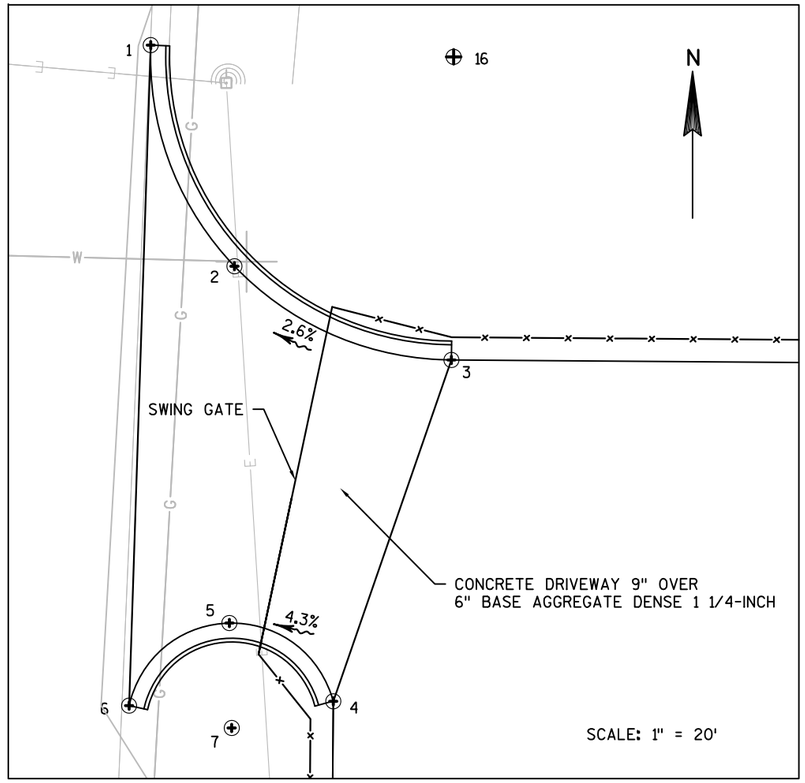


TYPICAL FINISHED SECTION

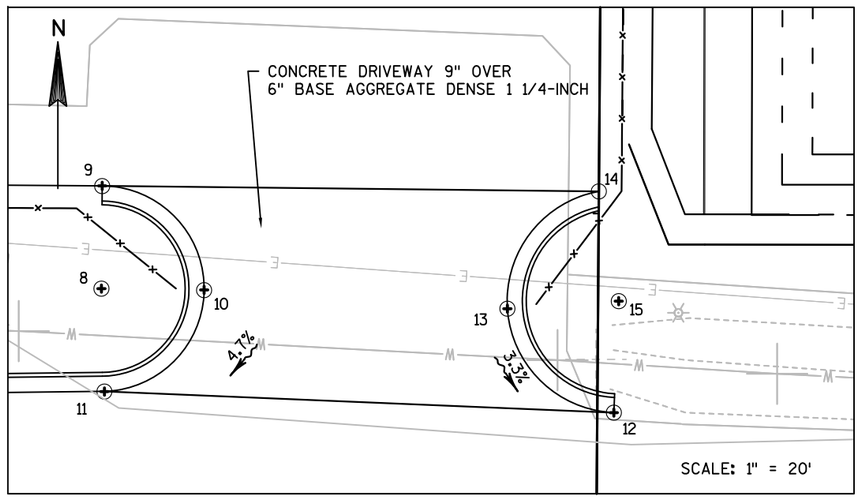
STA. 10+53.00 TO STA. 14+23.00

PROJECT NO: 1010-02-89	HWY: IH 39	COUNTY: DANE	CONSTRUCTION DETAIL - TYPICAL SECTION	SHEET 4	E

DRIVEWAY STATION & OFFSET TABLE				
POINT	STATION	OFFSET	ELEVATION	DESC
1	14+64.43	-219.71	870.40	MATCH EXISTING
2	14+35.34	-208.46	871.20	FLAG
3	14+23.18	-179.73	872.03	FLAG
4	13+78.03	-195.00	872.50	FLAG
5	13+88.26	-208.78	871.70	FLAG
6	13+77.26	-221.94	870.92	MATCH EXISTING
7	13+74.41	-208.37	——	13.9' RAD.
8	10+39.62	-65.56	——	13.6' RAD.
9	10+53.14	-65.56	871.47	FLAG
10	10+39.51	-52.00	870.54	FLAG
11	10+26.04	-65.06	869.46	MATCH EXISTING
12	10+23.75	2.18	868.60	MATCH EXISTING
13	10+37.36	-11.96	869.48	FLAG
14	10+52.92	0.00	870.00	FLAG
15	10+38.46	2.73	——	14.7' RAD.
16	14+63.18	-179.73	——	40.0' RAD.

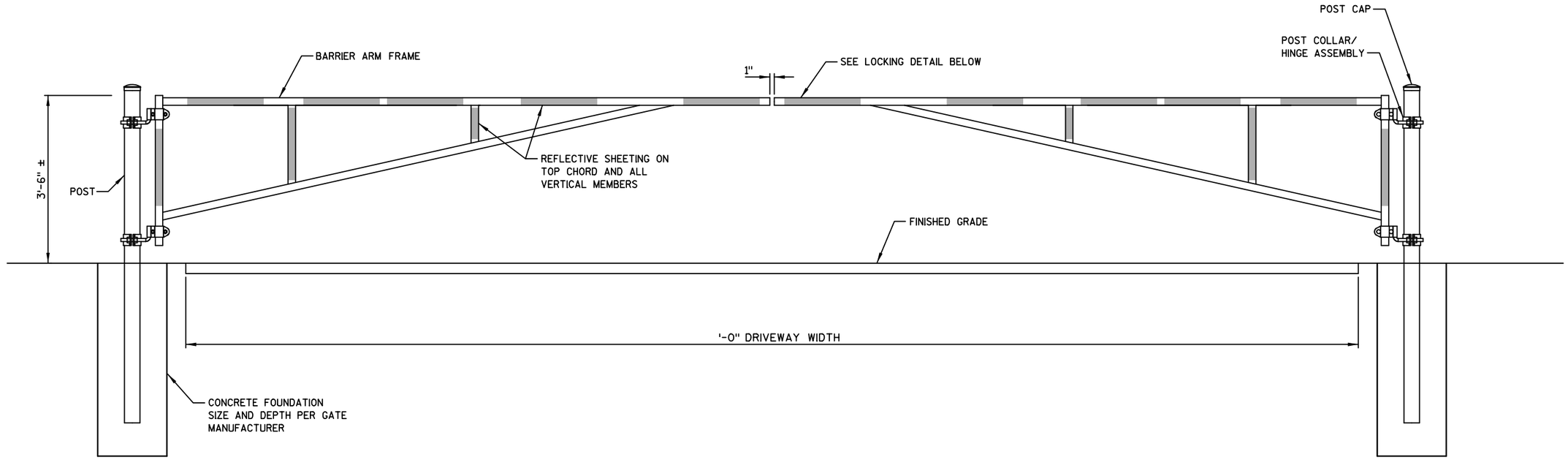


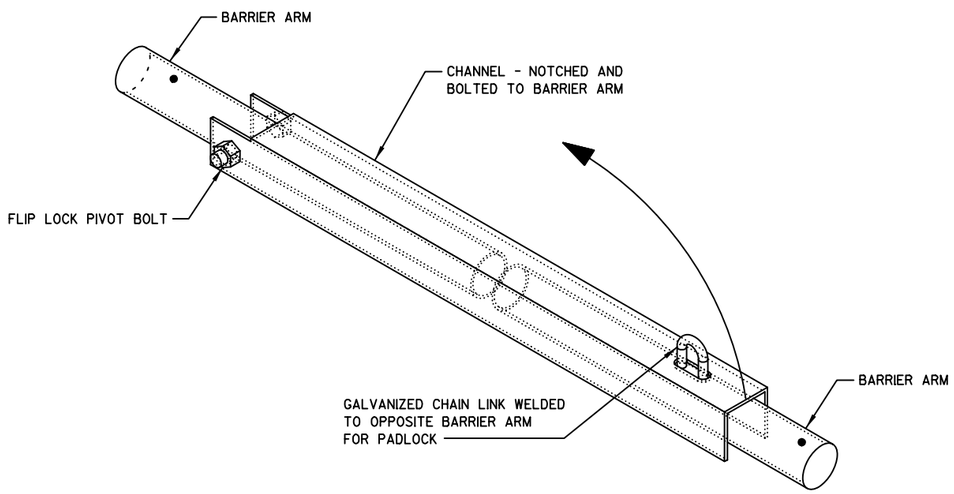
NORTH DRIVEWAY



SOUTH DRIVEWAY

PROJECT NO: 1010-02-89	HWY: IH 39	COUNTY: DANE	CONSTRUCTION DETAIL - DRIVEWAY DETAILS	SHEET 5	E





LOCKING DETAIL

GENERAL NOTES

1. SEE SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION.
2. LOCKING DETAIL PROVIDED FOR REFERENCE ONLY. ALTERNATE LOCKING DETAIL MAY BE USED WITH ENGINEER'S APPROVAL.
3. PROVIDE GATE RESTRAINT POST FOR EACH GATE LEAF. PROVIDE LOCKING MECHANISM ON EACH RESTRAINT POST TO HOLD GATE IN OPEN POSITION.

PROJECT NO: 1010-02-89	HWY: IH 39	COUNTY: DANE	CONSTRUCTION DETAIL - SWING GATE	SHEET 6	E

EP: 14+80.00

CONCRETE CURB & GUTTER 30-INCH TYPE A

CONCRETE DRIVEWAY 9-INCH

FUTURE BUILDING PAVEMENT STRUCTURE
10 ½" BASE AGGREGATE DENSE 1 ¼-INCH
12" BASE AGGREGATE DENSE 3-INCH
GEOGRID TYPE SR

SHREDDED HARDWOOD BARK MULCH (TYP. ALL TREES)

SPRUCE, GREEN COLORADO - NO BLUE COLOR 6 FT, B&B AT 100' SPACING, TYP.

RESERVE 20' FOR FUTURE USH 51 R/W (ESTIMATED)

N

NOTE: SEWER, WATER, GAS, AND UNDERGROUND ELECTRICAL SERVICE TO FUTURE STORAGE BUILDING TO BE PROVIDED BY OTHERS.

NORTH AMERICAN LN

T13.10
871.240

14+00

120'

205'

HAZ MAT AREA 2 - ESTIMATED 5' DEPTH. ACTUAL LOCATION TO BE VERIFIED BY HAZ MAT CONSULTANT.

REMOVING CURB & GUTTER

FENCE CHAIN LINK 6-FT

CONCRETE SIDEWALK 5-INCH
6" BASE AGGREGATE DENSE 1 ¼-INCH

CONCRETE DRIVEWAY 9-INCH FOR BRINE TANKS, 12'X12'

60'

13+00

HONEYLOCUST, SKYLINE, 2 ½-IN, B&B AT 100' SPACING, TYP.

HAZ MAT AREA 1 WITH OVERBURDEN ESTIMATED 4' OF OVERBURDEN. ACTUAL LOCATION TO BE VERIFIED BY HAZ MAT CONSULTANT.

SPRUCE, GREEN COLORADO - NO BLUE COLOR 6 FT, B&B (SPACED APPROX 20' APART)

12+00

REMOVING LIGHTING UNIT (SEE GRADING PLAN FOR ADDITIONAL LIGHTING UNIT REMOVALS)

3' (TYP.)

25'

60'

110'

CLEARING AND GRUBBING

SALT STORAGE BUILDING FF 873.17'

140'

30'

LOADER STORAGE

40'

BUILDING PAVEMENT STRUCTURE
2" HMA PAVEMENT 4 MT 58-28 H
2 ½" HMA PAVEMENT 3 MT 58-28 S
6" BASE AGGREGATE DENSE 1 ¼-INCH
12" BASE AGGREGATE DENSE 3-INCH
GEOGRID TYPE SR

SPRUCE, GREEN COLORADO - NO BLUE COLOR 6 FT, B&B

11+00

N0° 25' 01"E

25'

USH 51

APPROXIMATE R/W

REMOVING GUARDRAIL

REMOVING PRIVATE SIGN AND REMOVING LIGHTING UNIT

CONCRETE DRIVEWAY 9-INCH

CONCRETE CURB & GUTTER 30-INCH TYPE A

REMOVING PAVEMENT

SAWING CONCRETE

BP: 10+00.00

T330

PROJECT NO: 1010-02-89	HWY: IH 39	COUNTY: DANE	PLAN DETAIL - SITE PLAN	SHEET 7	E

NORTH AMERICAN LN

APPROXIMATE R/W

SALT STORAGE BUILDING FF 873.17'

LOADER STORAGE

BP: 10+00.00

N0° 25' 01"E 11+00

12+00

13+00

14+00

EP: 14+80.00

MATCH EXISTING

869.5

73'

CONCRETE DRIVEWAY TO REMAIN IN PLACE

12'

MATCH EXISTING

869.2

NOTE: EXCAVATE 18" TO REMOVE PAVED SURFACE THEN REPLACE WITH FILL MATERIAL AND 4" TOPSOIL.

84'

SITE CLEARANCE (PARCEL 1)

APPROXIMATE R/W

REMOVE LIGHTING UNIT

TREE TO REMAIN IN PLACE

112'

110'

31'

33'

49'

71'

30'

107'

150'

REMOVE LIGHTING UNIT

MATCH EXISTING

868.8

27'

MATCH EXISTING

867.4

114'

MATCH EXISTING

867.5

65'

MATCH EXISTING

867.8

31'

REMOVE LIGHTING UNIT

REMOVE LIGHTING UNIT

APPROXIMATE R/W

USH 51

PROJECT NO: 1010-02-89	HWY: IH 39	COUNTY: DANE	PLAN DETAIL - GRADING PLAN	SHEET 8	E

FILE NAME : C:\PWV8I-LOCAL\BAKER_PROJECTS\ALICIA.MCCONNELL\D0457163\021201_PD_GRADING PLAN.DWG PLOT DATE : 1/21/2018 5:05 PM PLOT BY : MCCONNELL, ALICIA PLOT NAME : PLOT SCALE : **********

WISDOT/CADDS SHEET 42

NORTH AMERICAN LN

TRACKING PADS (LOCATION TO BE DETERMINED IN THE FIELD)

TRACKING PADS (LOCATION TO BE DETERMINED IN THE FIELD)

N

LEGEND

- EROSION MAT CLASS I, TYPE A
- SILT FENCE
- SLOPE INTERCEPT
- INLET PROTECTION
- TEMPORARY DITCH CHECK
- SURFACE WATER FLOW
- SEEDING MIXTURE NO. 70A

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 = 5.7 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 5.7 ACRES

NOTES:

- PLACE TOPSOIL, SEED AND FERTILIZER ON ALL DISTURBED AREAS.
- PLACE MULCH ON ALL DISTURBED AREAS NOT COVERED BY EROSION MAT.

BP: 10+00.00

EP: 14+80.00

11+00 12+00 13+00 14+00

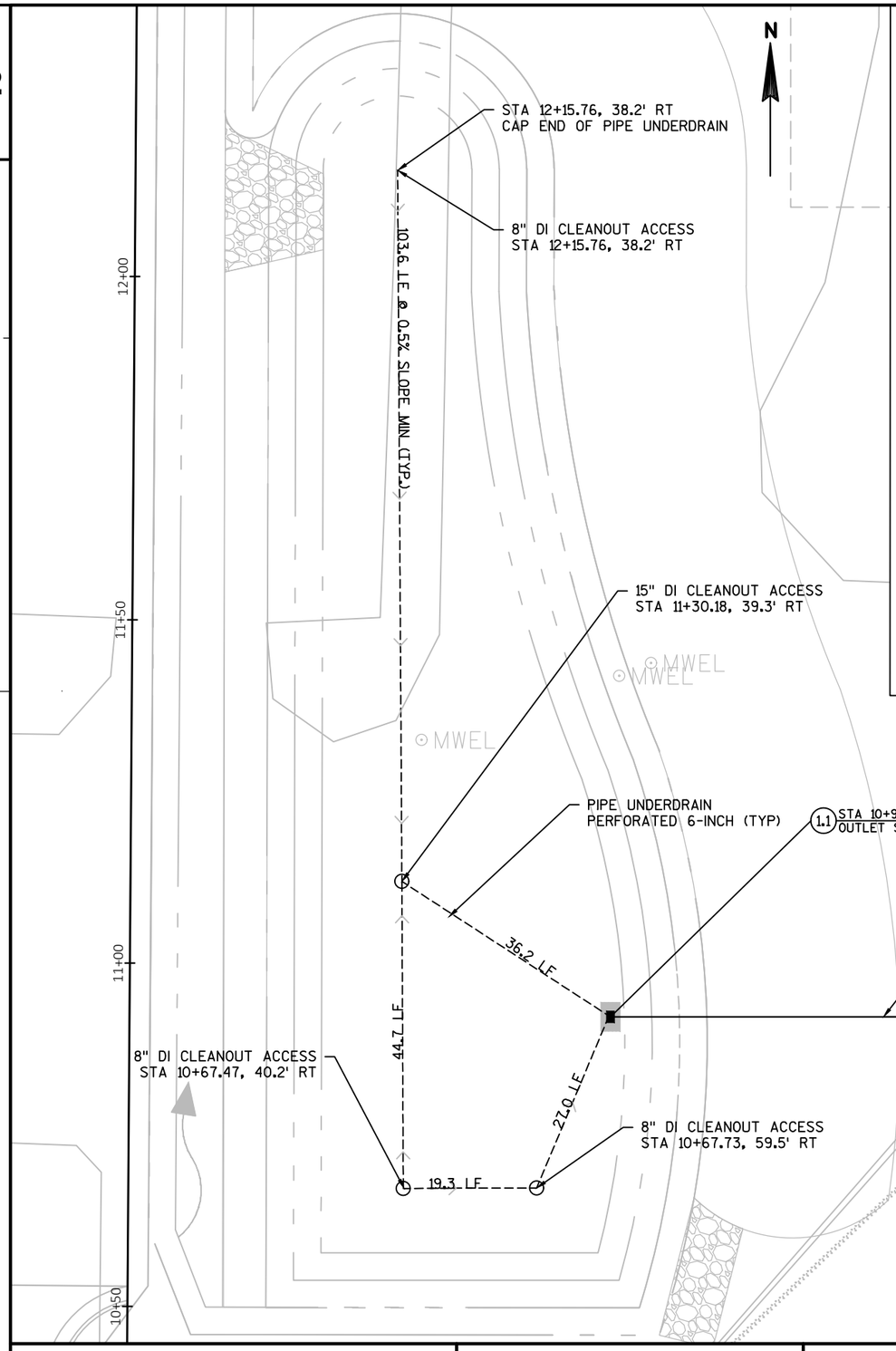
POND BASIN, DITCH, AND BERM USE SEEDING MIX NO. 80

APPROXIMATE R/W

USH 51

PROJECT NO: 1010-02-89	HWY: IH 39	COUNTY: DANE	EROSION CONTROL	SHEET 9	E

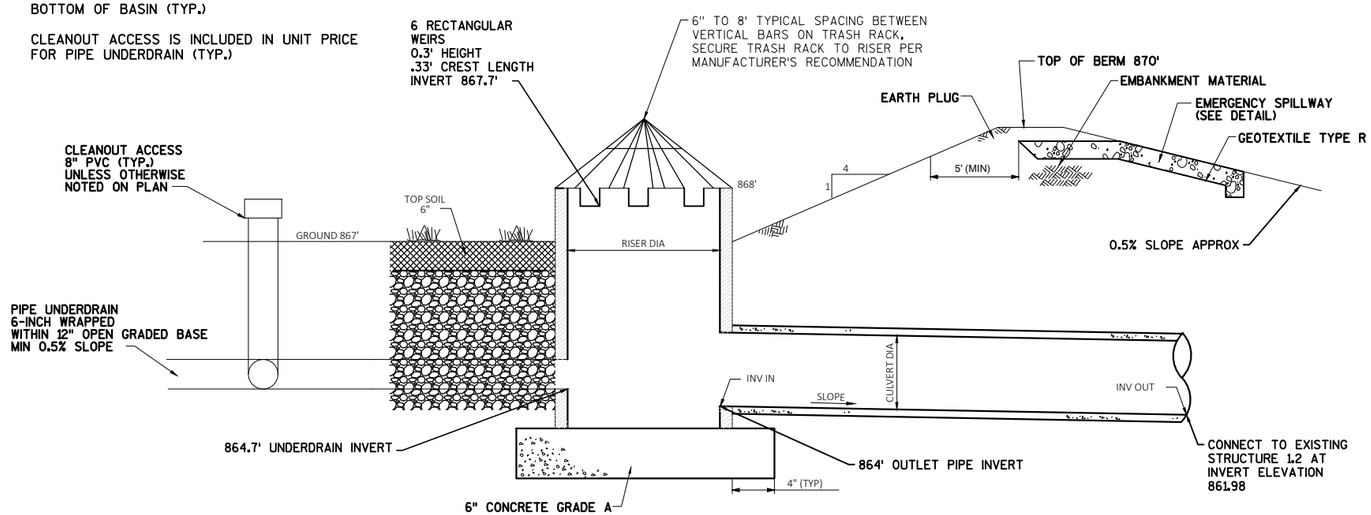
2



NOTE:

SET TOP OF CLEANOUT ACCESS 0.3 FEET ABOVE BOTTOM OF BASIN (TYP.)

CLEANOUT ACCESS IS INCLUDED IN UNIT PRICE FOR PIPE UNDERDRAIN (TYP.)



DRY BASIN SITE OUTLET DETAIL

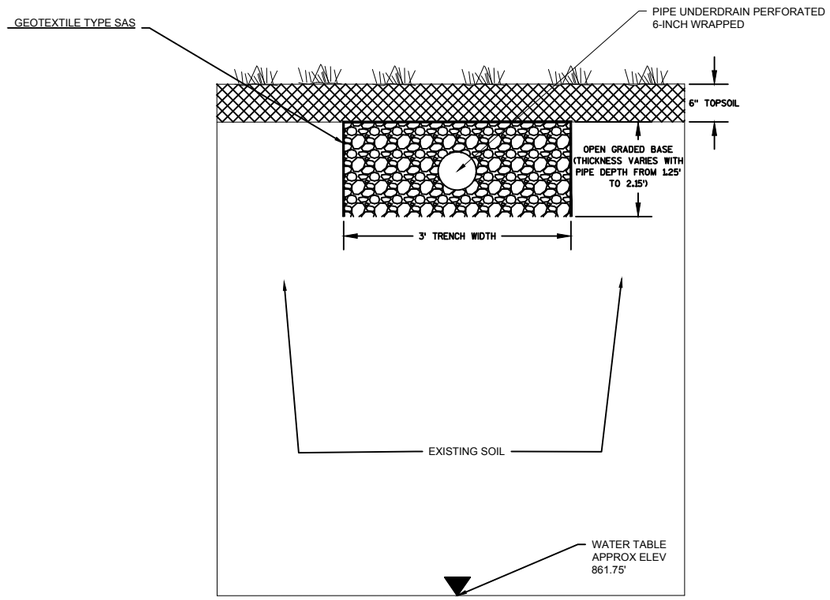
NOT TO SCALE

SCHEDULE - 1 OUTLET STRUCTURE AND OUTLET CULVERT

OUTLET STRUCTURE				OUTLET CULVERT					
RISER		RECTANGULAR WEIR		DIA	LENGTH	SLOPE	INV. IN	INV.OUT	MATERIAL
DIA	INV. IN	CREST LENGTH	INV. IN	INCH	FT	%	FT	FT	
36"	868.0	2.0	867.7	15"	101'	2.0	864	861.98	RCP

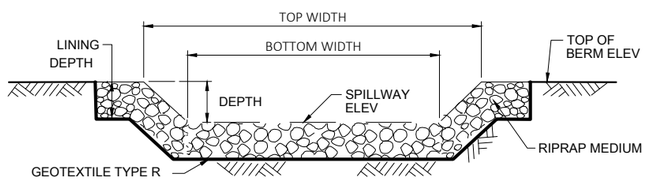
2

PROJECT NO:1010-02-89	HWY: IH 39	COUNTY: DANE COUNTY	STORM SEWER	SHEET 10	E



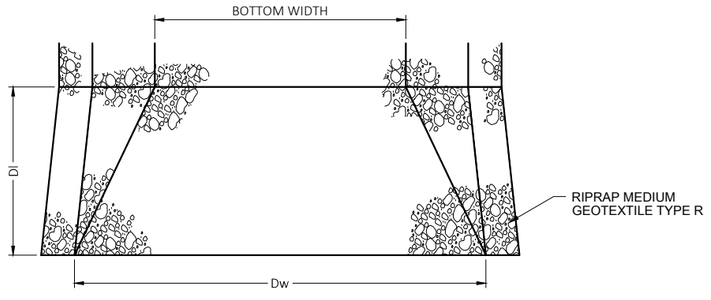
PARTIAL SECTION OF DRY BASIN

NOT TO SCALE



EMERGENCY SPILLWAY DETAIL

NOT TO SCALE
(SEE SCHEDULE 3)



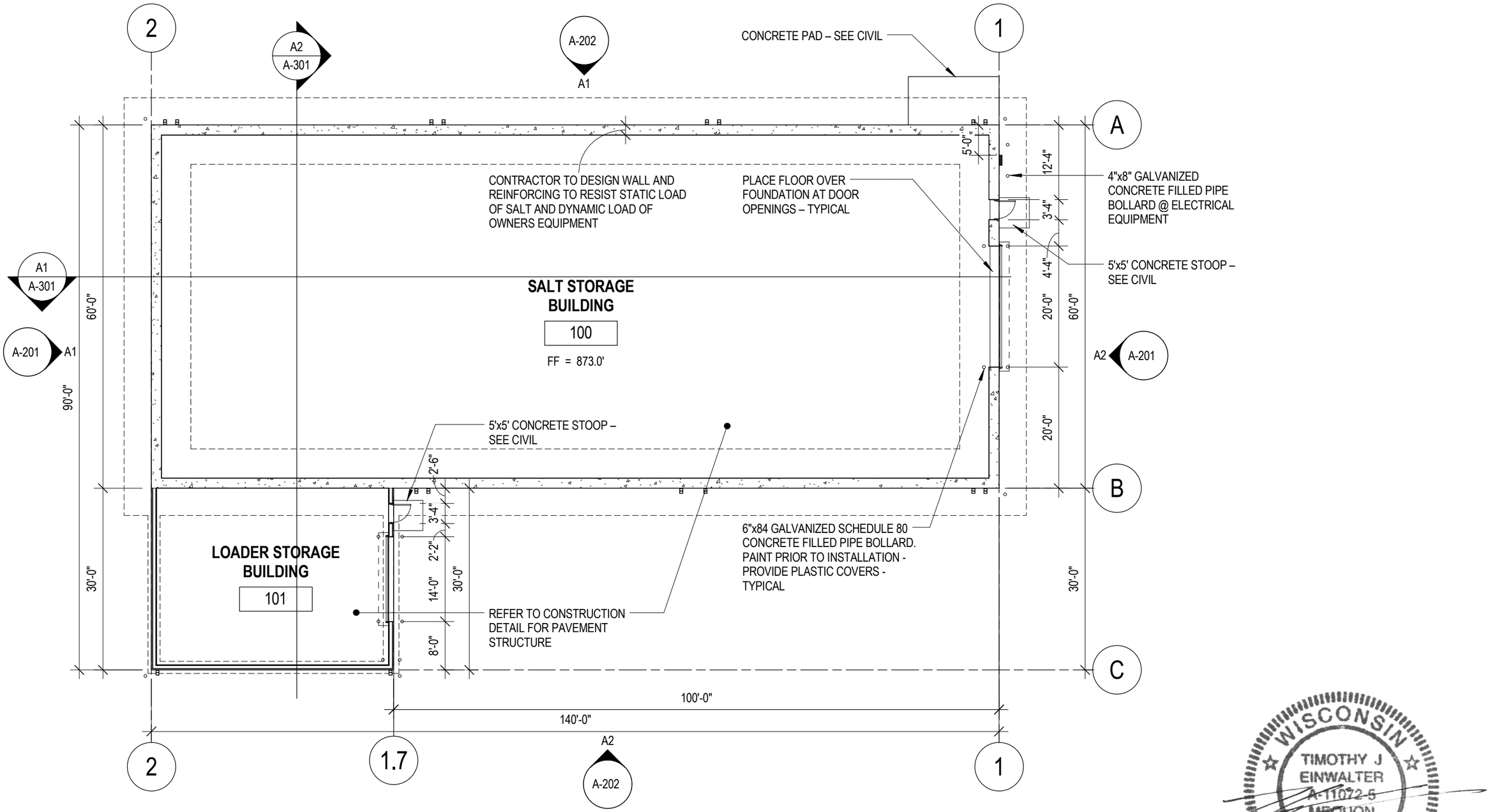
RIPRAP OUTLET DISSIPATER DETAIL

PLAN VIEW

NOT TO SCALE
(SEE SCHEDULE 5)

SCHEDULE 3- EMERGENCY SPILLWAY									
TOP OF BERM ELEV (FT)	BERM WIDTH (FT)	SPILLWAY ELEV (FT)	SPILLWAY DEPTH (FT)	TOP WIDTH (FT)	BOTTOM WIDTH (FT)	LINING DEPTH (FT)	SURFACE LINING	100 YR WSE (FT)	Q100 (CFS)
870.00	4	869.7	0.30	17.4	15	1.5	TYPE R	869.24	15.73

SCHEDULE 5- DISSIPATER			
DISSIPATER			
LENGTH DI (FT)	WIDTH Dw (FT)	BOTTOM WIDTH (FT)	RIPRAP THICK. (FT)
8	17.4	11.0	1.5



A4 FLOOR PLAN

1/16" = 1'-0"

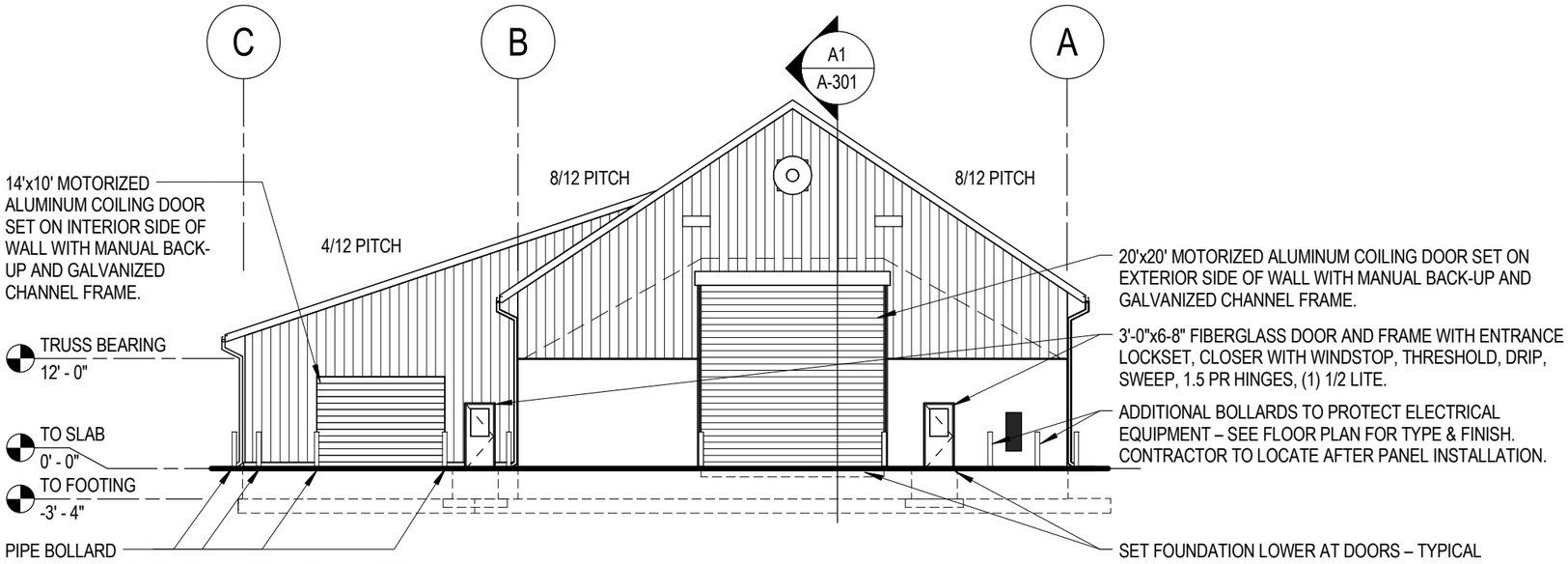
WISCONSIN
TIMOTHY J EINWALTER
A-11072-5
MEQUON WI
ARCHITECT
1-31-17

PROJECT NO: 1010-02-89	HWY: SALT STORAGE SHED	COUNTY: DANE COUNTY	FLOOR PLAN A-200	SHEET 12	E

FILE NAME :L:\Jobs2013\20130196\BIM\Central\20130196.00_A16.rvt PLOT DATE : 1/5/2018 11:09:22 AM PLOT BY : MAB PLOT NAME :

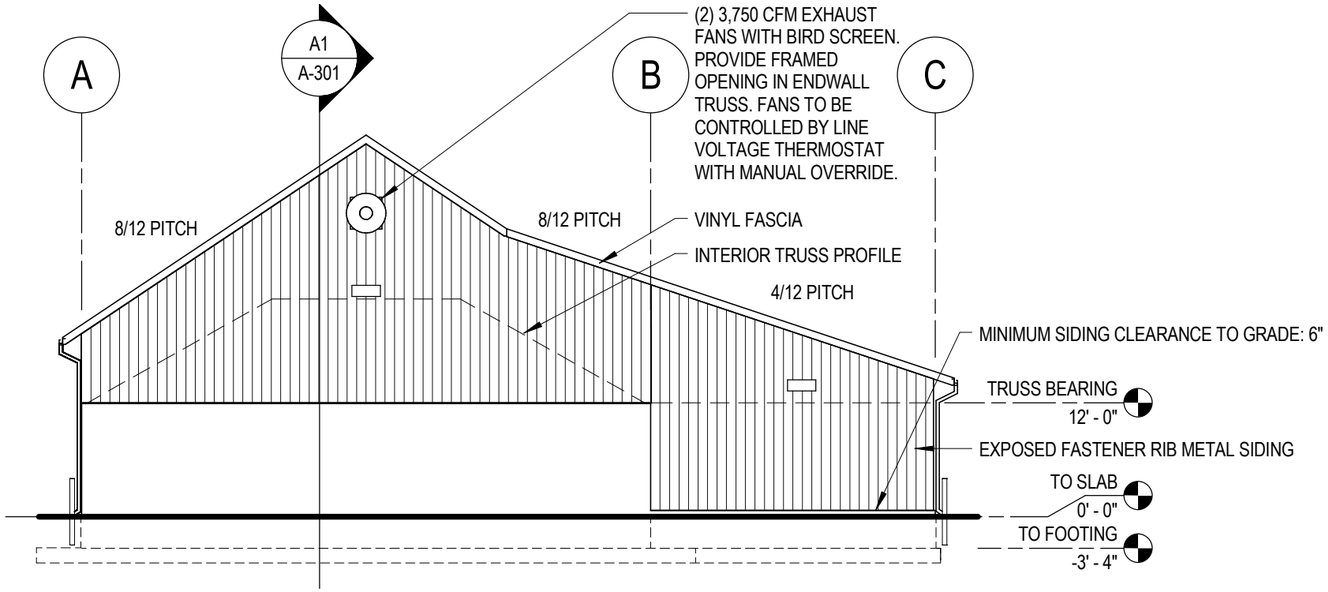
WISDOT/CADDS SHEET 42

2



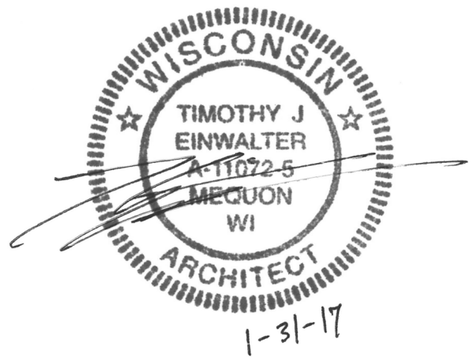
A2 NORTH ELEVATION

1/16" = 1'-0"



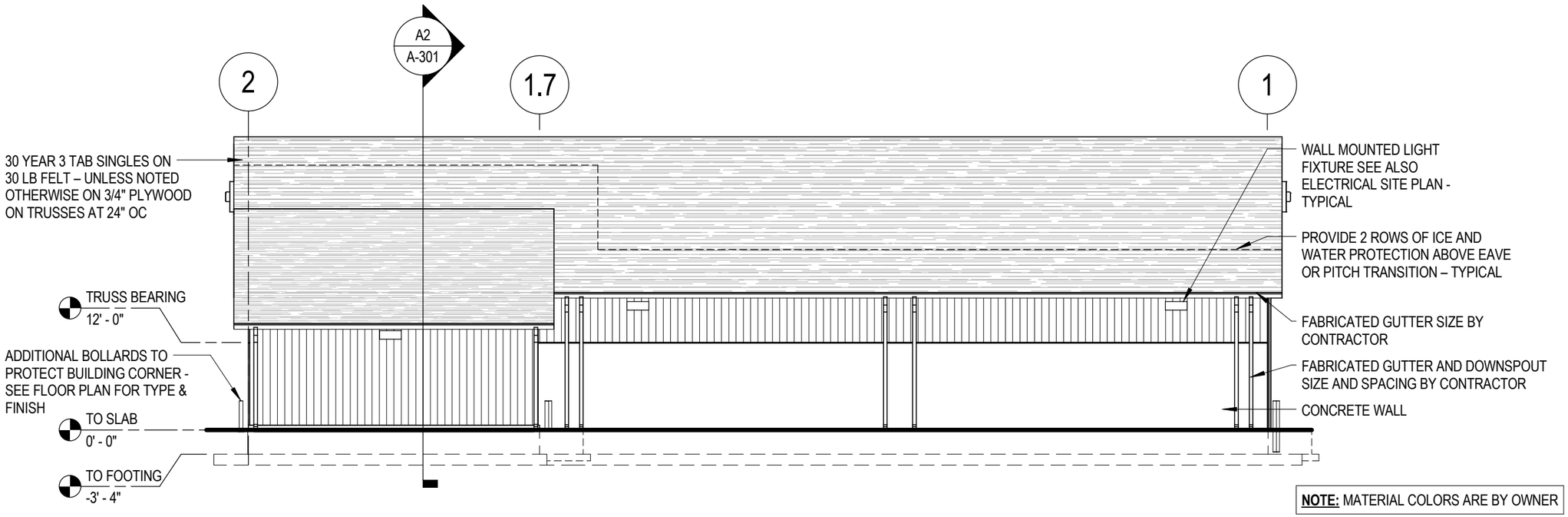
A1 SOUTH ELEVATION

1/16" = 1'-0"



PROJECT NO: 1010-02-89	HWY: SALT STORAGE SHED	COUNTY: DANE COUNTY	ELEVATIONS A-201	SHEET 13	E

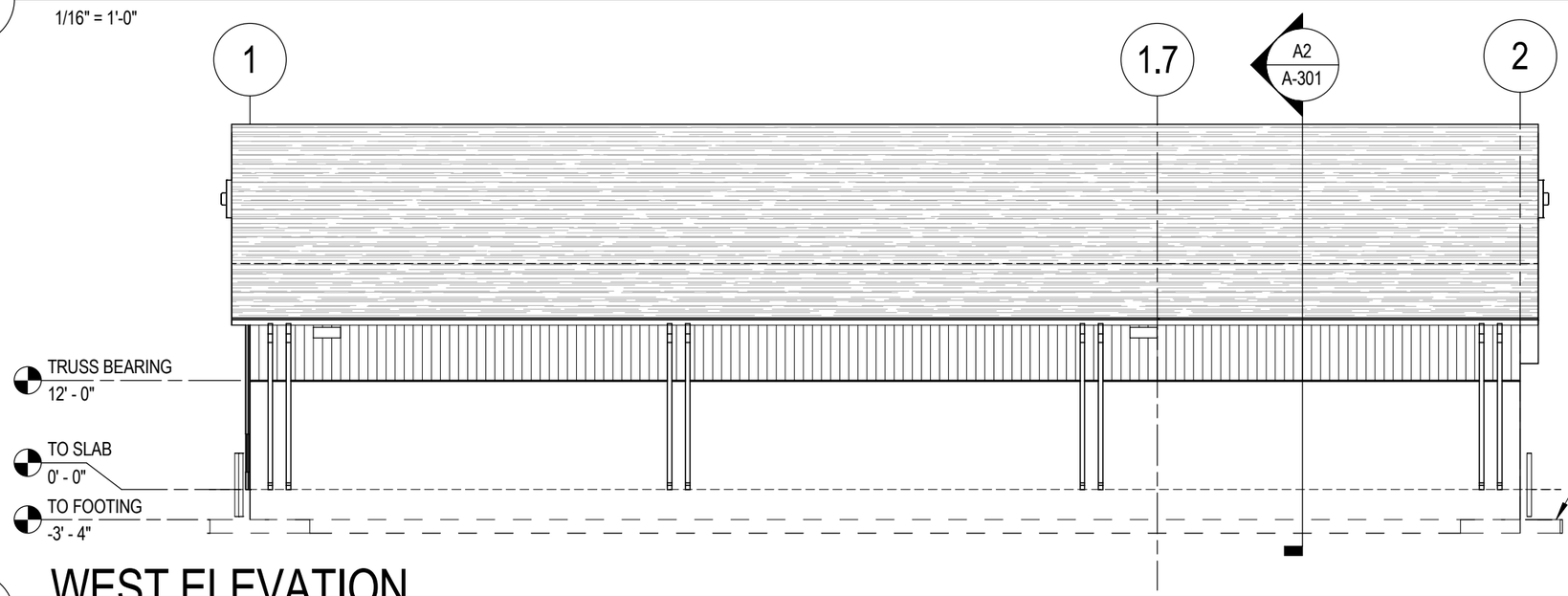
FILE NAME :L:\Jobs2013\20130196\BIM\Central\20130196.00_A16.rvt PLOT DATE : 1/5/2018 11:09:22 AM PLOT BY : MAB PLOT NAME :



NOTE: MATERIAL COLORS ARE BY OWNER

A2 EAST ELEVATION

1/16" = 1'-0"



A1 WEST ELEVATION

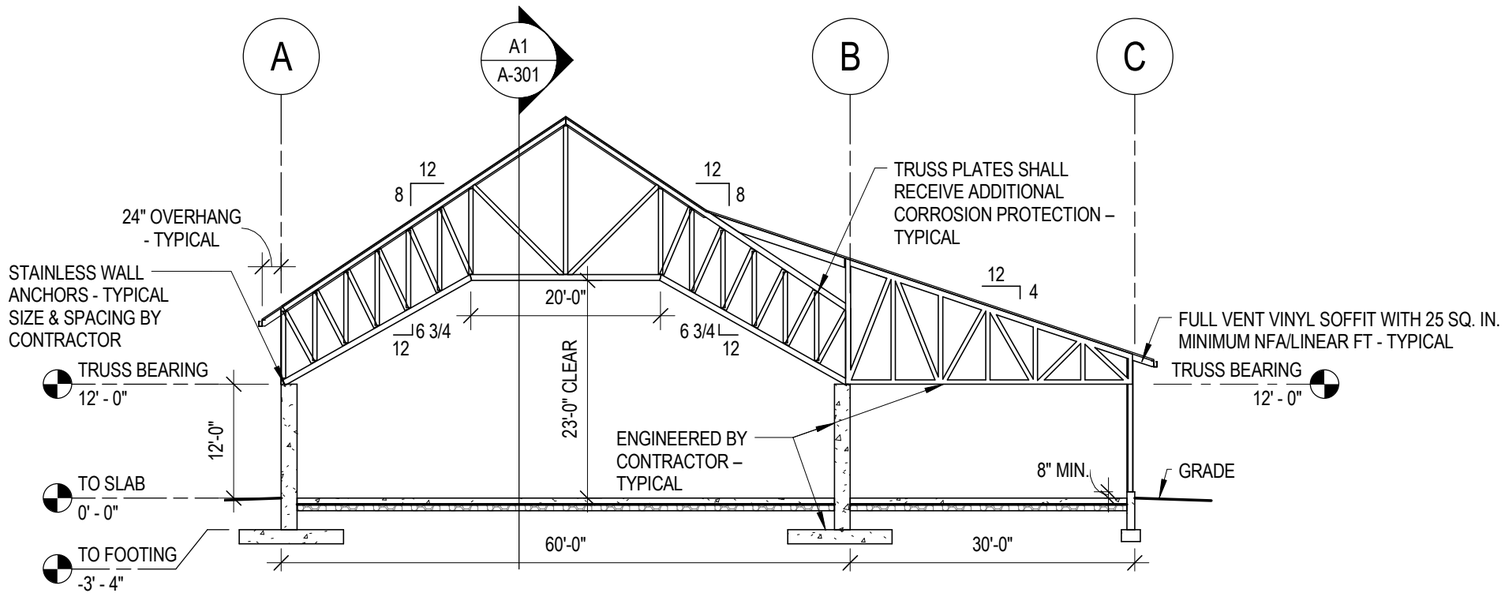
1/16" = 1'-0"

WISCONSIN
TIMOTHY J EINWALTER
A-11072-5
MEQUON WI
ARCHITECT
1-31-17

PROJECT NO: 1010-02-89	HWY: SALT STORAGE SHED	COUNTY: DANE COUNTY	ELEVATIONS A-202	SHEET 14	E

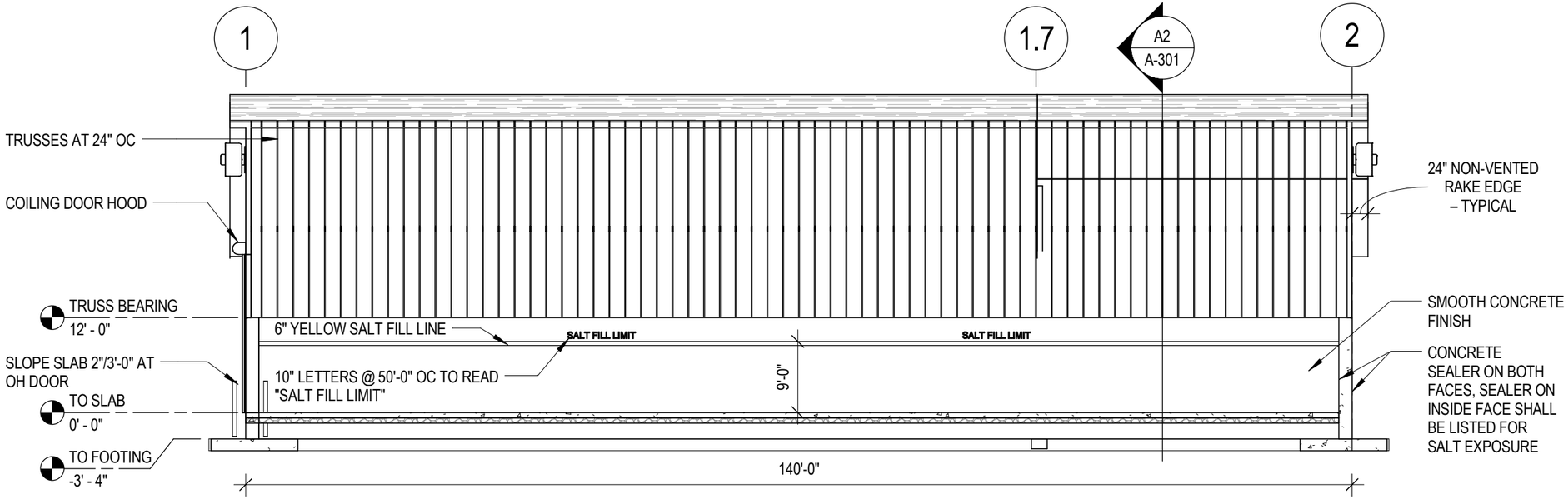
FILE NAME : L:\Jobs2013\20130196\BIM\Central\20130196.00_A16.rvt PLOT DATE : 1/5/2018 11:09:23 AM PLOT BY : Author PLOT NAME :

WISDOT/CADDS SHEET 42



A2 SALT STORAGE SHED BUILDING SECTION

1/16" = 1'-0"

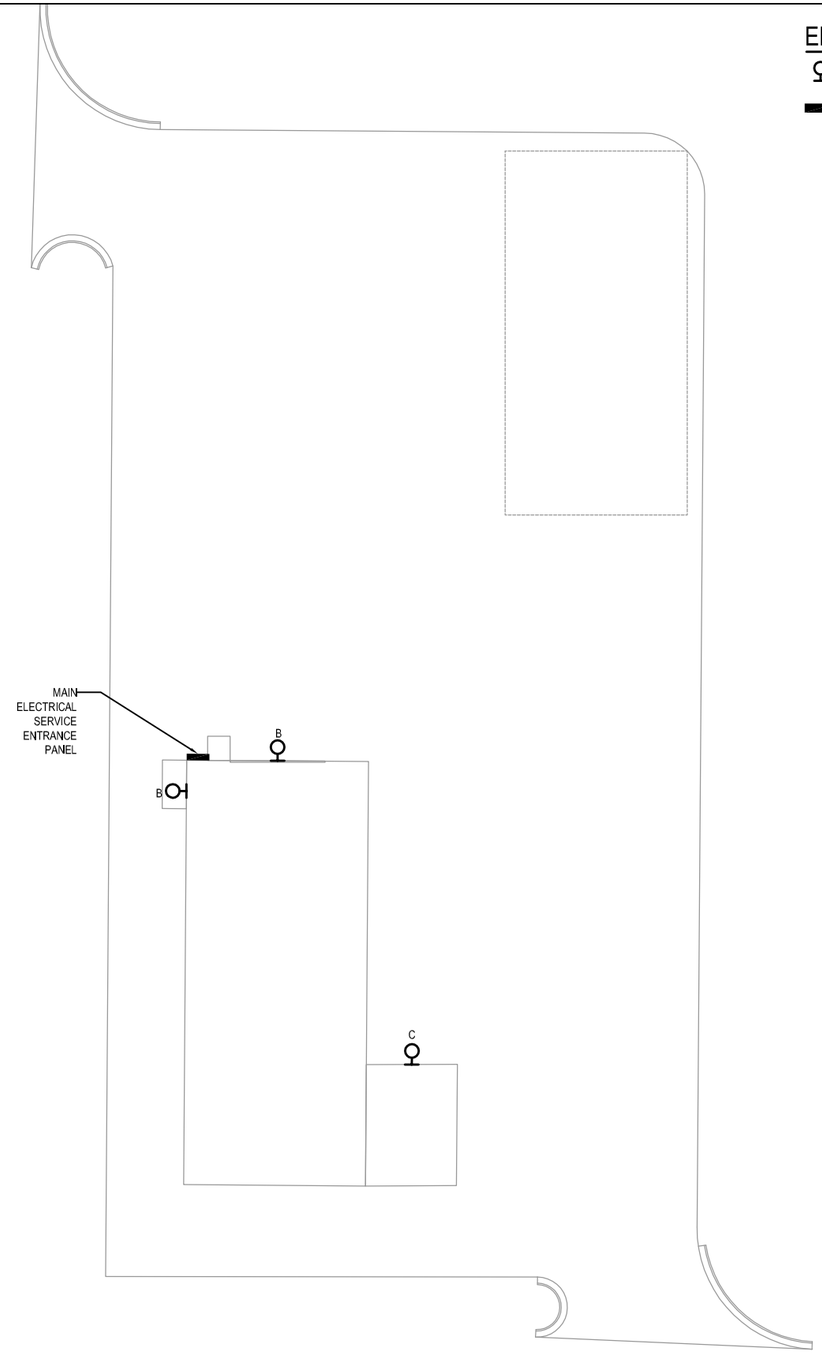


A1 SALT STORAGE SHED BUILDING SECTION

1/16" = 1'-0"

WISCONSIN
TIMOTHY J
EINWALTER
A-11072-5
MEQUON
WI
ARCHITECT
1-31-17

PROJECT NO: 1010-02-89	HWY: SALT STORAGE SHED	COUNTY: DANE COUNTY	BUILDING SECTION A-301	SHEET 15	E



A1 ELECTRICAL SITE PLAN
SCALE: 1"=50'-0"

PLAN NORTH

ELECTRICAL SYMBOLS

WALL MOUNTED

BRANCH PANELBOARD
- SURFACE MOUNTED

GENERAL NOTES

1. EC SHALL PROVIDE A CONTACTOR WITH HAND-OFF-AUTO AND PHOTOCELL. ALL LIGHTING SHALL BE CONTROLLED BY PHOTO-ON/PHOTO-OFF.

LIGHTING FIXTURE SCHEDULE

NOTE: SEE SPECIFICATIONS SECTIONS FOR ADDITIONAL INFORMATION REGARDING LIGHTING FIXTURE AND INSTALLATION REQUIREMENTS. PROVIDE OPTIONS AND ACCESSORIES REFERENCED BY THE COLUMN TITLED "OPTIONS/ACCESSORIES". MANUFACTURERS LISTED AS ACCEPTABLE SHALL MEET ALL REQUIREMENTS AND FEATURES INDICATED. ACCEPTABLE MANUFACTURERS MUST MEET THE PHOTOMETRIC PERFORMANCE OF THE LISTED UNIT.

ABBREVIATIONS: DW = DRY WALL; ES = EXPOSED STRUCTURE; LG = LAY-IN GRID; P = PENDANT; PL = PLASTER; PO = POLE; R = RECESS; S = SURFACE; W = WALL MOUNTED; V = VARIES

DES	LAMP DATA		DESCRIPTION	LIGHTING FIXTURE		VOLT	MOUNT	CEILING TYPE	FIXTURE DEPTH	OPTIONS/ ACCESSORIES	ACCEPTABLE MANUFACTURERS	SEE NOTE
	#	TYPE		MANUFACTURER	CATALOG SERIES							
A	-	-	NOT USED	-	-	-	-	-	-	-	-	1,2
B	-	10,842 LED LUMENS	AREA LIGHT - WALL MOUNT	CREE	SEC-EDG-4M-WM-06-E-UL-BK-700-40K	208	W	-	0'-4.1"	-	-	3
C	-	7,311 LED LUMENS	AREA LIGHT - WALL MOUNT	CREE	SEC-EDG-4M-WM-04-E-UL-BK-700-40K	208	W	-	0'-4.1"	-	-	4
D	-	-	NOT USED	-	-	-	-	-	-	-	-	5

LIGHT FIXTURE SCHEDULE NOTES:

1. NOT USED.
2. NOT USED
3. FIXTURE SHALL BE MOUNTED AT 16'-0" ELEVATION.
4. FIXTURE SHALL BE MOUNTED AT 12'-0" ELEVATION.
5. NOT USED

1010-02-89

Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	4.000	4.000
0004	201.0205	Grubbing	STA	4.000	4.000
0006	204.0100	Removing Pavement	SY	415.000	415.000
0008	204.0150	Removing Curb & Gutter	LF	2,044.000	2,044.000
0010	204.0165	Removing Guardrail	LF	205.000	205.000
0012	204.0240	Site Clearance (parcel) 01. Parcel 1	LS	1.000	1.000
0014	204.9060.S	Removing (item description) 01. Private Sign	EACH	1.000	1.000
0016	204.9060.S	Removing (item description) 02. Lighting Unit	EACH	13.000	13.000
0018	205.0100	Excavation Common	CY	7,591.000	7,591.000
0020	205.0501.S	Excavation, Hauling, and Disposal of Petroleum Contaminated Soil	TON	720.000	720.000
0022	208.0100	Borrow	CY	7,048.000	7,048.000
0024	305.0110	Base Aggregate Dense 3/4-Inch	TON	94.000	94.000
0026	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	2,860.000	2,860.000
0028	305.0130	Base Aggregate Dense 3-Inch	TON	5,319.000	5,319.000
0030	310.0110	Base Aggregate Open-Graded	TON	128.000	128.000
0032	416.0190	Concrete Driveway 9-Inch	SY	353.000	353.000
0034	455.0605	Tack Coat	GAL	5,025.000	5,025.000
0036	460.2000	Incentive Density HMA Pavement	DOL	1,140.000	1,140.000
0038	460.6223	HMA Pavement 3 MT 58-28 S	TON	987.000	987.000
0040	460.6424	HMA Pavement 4 MT 58-28 H	TON	790.000	790.000
0042	601.0409	Concrete Curb & Gutter 30-Inch Type A	LF	187.000	187.000
0044	602.0410	Concrete Sidewalk 5-Inch	SF	64.000	64.000
0046	606.0200	Riprap Medium	CY	15.000	15.000
0048	608.0315	Storm Sewer Pipe Reinforced Concrete Class III 15-Inch	LF	86.000	86.000
0050	611.1003	Catch Basins 3-FT Diameter	EACH	1.000	1.000
0052	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	231.000	231.000
0054	616.0206	Fence Chain Link 6-FT	LF	1,048.000	1,048.000
0056	619.1000	Mobilization	EACH	1.000	1.000
0058	624.0100	Water	MGAL	395.000	395.000
0060	625.0100	Topsoil	SY	17,572.000	17,572.000
0062	627.0200	Mulching	SY	15,014.000	15,014.000
0064	628.1504	Silt Fence	LF	1,370.000	1,370.000
0066	628.1520	Silt Fence Maintenance	LF	1,370.000	1,370.000
0068	628.1905	Mobilizations Erosion Control	EACH	5.000	5.000
0070	628.1910	Mobilizations Emergency Erosion Control	EACH	5.000	5.000
0072	628.2002	Erosion Mat Class I Type A	SY	4,067.000	4,067.000
0074	628.6510	Soil Stabilizer Type B	ACRE	0.300	0.300
0076	628.7005	Inlet Protection Type A	EACH	1.000	1.000

1010-02-89

Line	Item	Item Description	Unit	Total	Qty
0078	628.7504	Temporary Ditch Checks	LF	62.000	62.000
0080	628.7560	Tracking Pads	EACH	2.000	2.000
0082	629.0205	Fertilizer Type A	CWT	11.100	11.100
0084	630.0130	Seeding Mixture No. 30	LB	98.000	98.000
0086	630.0171	Seeding Mixture No. 70A	LB	81.000	81.000
0088	630.0180	Seeding Mixture No. 80	LB	22.300	22.300
0090	630.0200	Seeding Temporary	LB	570.000	570.000
0092	630.0400	Seeding Nurse Crop	LB	103.300	103.300
0094	632.0101	Trees (species) (size) (root) 01. Spruce, Green Colorado - No Blue Color, 6-FT, B&B	EACH	10.000	10.000
0096	632.0101	Trees (species) (size) (root) 02. Honeylocust, Skyline, 2 1/2-IN, B&B	EACH	4.000	4.000
0098	632.9101	Landscape Planting Surveillance and Care Cycles	EACH	2.000	2.000
0100	642.5001	Field Office Type B	EACH	1.000	1.000
0102	645.0130	Geotextile Type R	SY	18.000	18.000
0104	645.0140	Geotextile Type SAS	SY	192.000	192.000
0106	645.0220	Geogrid Type SR	SY	2,241.000	2,241.000
0108	650.4000	Construction Staking Storm Sewer	EACH	6.000	6.000
0110	650.4500	Construction Staking Subgrade	LF	370.000	370.000
0112	650.5000	Construction Staking Base	LF	370.000	370.000
0114	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	187.000	187.000
0116	650.7000	Construction Staking Concrete Pavement	LF	150.000	150.000
0118	650.9910	Construction Staking Supplemental Control (project) 01. 1010-02-89	LS	1.000	1.000
0120	650.9920	Construction Staking Slope Stakes	LF	370.000	370.000
0122	690.0250	Sawing Concrete	LF	68.000	68.000
0124	SPV.0060	Special 01. Brine Tank	EACH	1.000	1.000
0126	SPV.0060	Special 02. Abandon Sanitary Sewer Service	EACH	1.000	1.000
0128	SPV.0060	Special 03. Trash Rack	EACH	1.000	1.000
0130	SPV.0105	Special 01. Salt Storage Building	LS	1.000	1.000
0132	SPV.0105	Special 02. Survey Salt Storage Building	LS	1.000	1.000
0134	SPV.0105	Special 03. Swing Gate	LS	1.000	1.000
0136	SPV.0180	Special 01. Shredded Hardwood Bark Mulch	SY	19.600	19.600

CATEGORY	STATION	TO	STATION	201.0105 CLEARING STA	201.0205 GRUBBING STA	204.0100 REMOVING PAVEMENT SY	204.0150 REMOVING CURB & GUTTER LF	204.0165 REMOVING GUARDRAIL LF	204.9060.S.01 REMOVING PRIVATE SIGN EACH	204.9060.S.02 REMOVING LIGHTING UNIT EACH
10	10+42.38		10+97.91					143		
	10+44.69	TO	10+44.69							1
	10+47.99	TO	10+47.99							1
	10+52.24	TO	10+94.48					62		
	10+53.27	TO	10+53.27							1
	10+58.32	TO	10+58.32							1
	10+71.24	TO	10+71.24						1	
	10+80.60	TO	10+80.60							1
	10+85.66	TO	10+85.66							1
	10+90.28	TO	10+90.28							1
	10+25.08	TO	14+59.46				2,044			
	10+39.22	TO	10+39.22							1
	13+79.53	TO	13+79.53							1
	10+50.18	TO	14+26.18	4	4					
	10+22.96	TO	10+75.23			415				
	NORTH HALF OF SITE									4
PROJECT TOTAL				**4**	**4**	**415**	**2,044**	**205**	**1**	**13**

CATEGORY	STATION	TO	STATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	305.0130 BASE AGGREGATE DENSE 3-INCH TON	310.0115 BASE AGGREGATE OPEN GRADED TON	645.0220 GEOGRID TYPE SR SY
10	10+53.18	TO	14+23.18		2,393	4,786		
	13+03.18	TO	14+23.18		467	533		800
	10+78.18	TO	12+18.18					1,067
	10+65.96	TO	12+17.78				84	
	10+66.19	TO	10+92.93				15	
	10+65.99	TO	10+69.17				10	
	UNDISTRIBUTED							374
	10+50.18	TO	14+26.18	94				
	10+92.37	TO	11+13.00				19	
PROJECT TOTAL				**94**	**2,860**	**5,319**	**128**	**2,241**

3

CATEGORY	STATION	TO	STATION	455.0605 TACK COAT GAL	460.6223 HMA PAVEMENT 3 MT 58-28 S TON	460.6424 HMA PAVEMENT 4 MT 58-28 H TON
10	10+52.92	TO	14+23.18		987	790
	10+53.18	TO	14+23.18	5,025		
PROJECT TOTAL				**5,025**	**987**	**790**

CATEGORY	STATION	TO	STATION	416.0190 CONCRETE DRIVEWAY 9-INCH SY	601.0409 CONCRETE CURB & GUTTER 30-INCH TYPE A LF	602.0410 CONCRETE SIDEWALK 5-INCH SF
10	10+23.75	TO	10+53.18	149		
	10+25.74	TO	10+50.88		37	
	12+02.18	TO	12+18.18	16		
	13+76.84	TO	13+86.27		32	
	13+77.26	TO	14+64.43	188		
	14+25.18	TO	14+64.37		61	
	10+28.06	TO	10+51.18		58	
	12+18.18	TO	12+26.18			64
PROJECT TOTAL				**353**	**187**	**64**

3

CATEGORY	STATION	TO	STATION	690.0250 SAWING CONCRETE LF
10	10+23.75	TO	10+26.07	68
PROJECT TOTAL				**68**

CATEGORY	STATION	TO	STATION	616.0206 FENCE CHAIN LINK 6-FT LF	SPV.0105.03 SWING GATE LS
10	10+38.04	TO	14+26.18	574	
	10+39.47	TO	13+76.19	475	
	13+85.00	TO	14+30.00		1
PROJECT TOTAL				**1,048**	**1**

CATEGORY	STATION	TO	STATION	608.0315 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 15-INCH LF	611.1003 CATCH BASINS 3-FT DIAMETER EACH	612.0406 PIPE UNDERDRAIN WRAPPED 6-INCH LF	645.0140 GEOTEXTILE FABRIC TYPE SAS SY	SPV.0060.02 ABANDON SANITARY SEWER SERVICE EACH	SPV.0060.03 TRASH RACK EACH
10	10+29.36	TO	10+64.33					1	
	10+67.47	TO	12+15.76			195			
	10+92.67	TO	10+92.67		1				1
			10+93.30	86					
			11+12.19			36			
	10+63.67	TO	11+14.24				65		
			12+19.56				127		
PROJECT TOTAL				**86**	**1**	**231**	**192**	**1**	**1**

CATEGORY	STATION	TO	STATION	632.0101.01 SPRUCE, GREEN COLORADO - NO BLUE COLOR, 6-FT, B&B EACH	632.0101.02 HONEYLOCUST, SKYLINE, 2 1/2-IN, B&B EACH	632.9101 LANDSCAPE PLANTING SURVEILLANCE AND CARE CYCLES EACH	SPV.0180.01 SHREDDED HARDWOOD BARK MULCH SY
10	10+74.17	TO	10+74.17	1			1.4
	10+77.05	TO	10+77.05	1			1.4
	11+19.15	TO	11+19.15		1		1.4
	11+33.56	TO	11+33.56			1	
	11+42.47	TO	11+42.47			1	
	11+56.84	TO	11+56.84	1			1.4
	11+94.51	TO	11+94.51		1		1.4
	11+99.03	TO	11+99.03	1			1.4
	12+51.69	TO	12+51.69		1		1.4
	13+00.66	TO	13+00.66	1			1.4
	13+49.69	TO	13+49.69		1		1.4
	14+03.18	TO	14+03.18	1			1.4
	12+45.00	TO	12+45.00	1			1.4
	12+20.00	TO	12+20.00	1			1.4
	11+95.00	TO	11+95.00	1			1.4
	11+70.00	TO	11+70.00	1			1.4
PROJECT TOTAL				**10**	**4**	**2**	**19.6**

CATEGORY	STATION	TO	STATION	630.0400 SEEDING NURSE CROP LB
10	10+58.02	TO	NORTH	103.3
PROJECT TOTAL				**103.3**

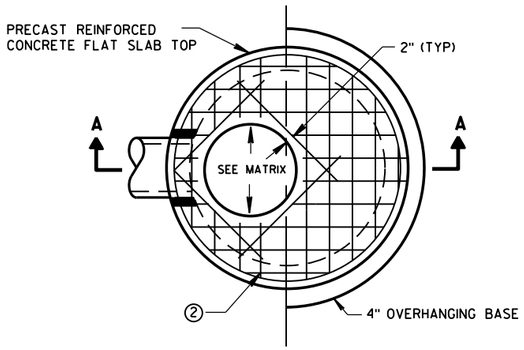
CATEGORY	STATION	TO	STATION	606.0200 RIPRAP MEDIUM CY	624.0100 WATER MGAL	625.0100 TOPSOIL SY	627.0200 MULCHING SY	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.2002 EROSION MAT CLASS I TYPE A SY	628.6510 SOIL STABILIZER TYPE B ACRE	628.7005 INLET PROTECTION TYPE A EACH	628.7504 TEMPORARY DITCH CHECKS LF	628.7560 TRACKING PADS EACH	629.0205 FERTILIZER TYPE A CWT	630.0130 SEEDING MIXTURE NO. 30 LB	630.0171 SEEDING MIXTURE NO. 70A LB	630.0180 SEEDING MIXTURE NO. 80 LB	630.0200 SEEDING TEMPORARY LB	645.0130 GEOTEXTILE FABRIC TYPE R SY
10	10+24.91	TO	10+24.91											1						
	10+36.91	TO	10+47.10										10.2							
	10+37.37	TO	10+47.56										10.2							
	10+37.73	TO	14+64.36					823	823											
	10+37.74	TO	13+78.03		9	382				382					0.2	7			10	
	10+45.97	TO	14+64.36		174	7,745									4.9	90			209	
			14+24.40							3,007										
			10+58.31													1				
	10+58.02	TO	12+26.59															22.3		
	10+66.76	TO	14+64.36				4,640													
	10+90.09	TO	10+90.17										10.2							
	12+00.76	TO	12+24.32	9																
	12+53.00	TO	12+53.19										10.2							
	13+40.78	TO	13+40.97										10.2							
	14+20.84	TO	14+20.84											1						
	UNDISTRIBUTED						929	300	300	678			11.0						95	
	10+60.68	TO	14+24.40								0.3									
	10+44.90	TO	10+64.57	6																18
	14+80.00	TO	NORTH		212	9,444	9,444	247	247						6		81		255	
	10+94	TO	10+94									1								
PROJECT TOTAL				**15**	**395**	**17,572**	**15,014**	**1,370**	**1,370**	**4,067**	**0.3**	**1**	**62**	**2**	**11.1**	**98**	**81**	**22.3**	**570**	**18**

PROJECT NO: 1010-02-89	HWY: IH 39	COUNTY: DANE	MISCELLANEOUS QUANTITIES	SHEET: 21	E

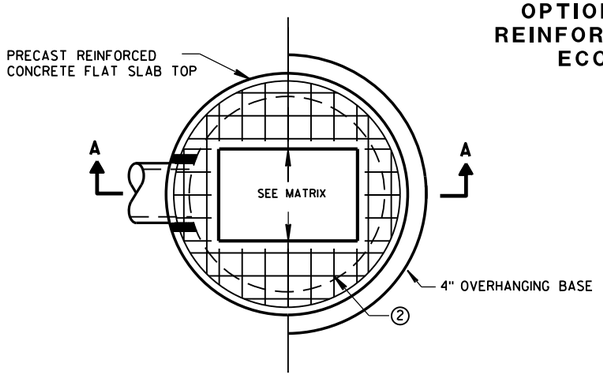
CATEGORY	ITEM #	DESCRIPTION	UNIT	PROJECT TOTAL
10	204.0240	SITE CLEARANCE (PARCEL 1)	LS	1
	619.1000	MOBILIZATION	EACH	1
	628.1905	MOBILIZATIONS EROSION CONTROL	EACH	5
	628.1910	MOBILIZATIONS EMERGENCY EROSION CONTROL	EACH	5
	642.5001	FIELD OFFICE TYPE B	EACH	1
	650.4000	CONSTRUCTION STAKING STORM SEWER	EACH	6
	650.4500	CONSTRUCTION STAKING SUBGRADE	LF	370
	650.5000	CONSTRUCTION STAKING BASE	LF	370
	650.5500	CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER	LF	187
	650.7000	CONSTRUCTION STAKING CONCRETE PAVEMENT	LF	150
	650.9910	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL 1010-02-89	LS	1
	650.9920	CONSTRUCTION STAKING SLOPE STAKES	LF	370
	SPV.0060.01	BRINE TANK	EACH	1
	SPV.0105.01	SALT STORAGE BUILDING	LS	1
	SPV.0105.02	SURVEY SALT STORAGE BUILDING	LS	1

Standard Detail Drawing List

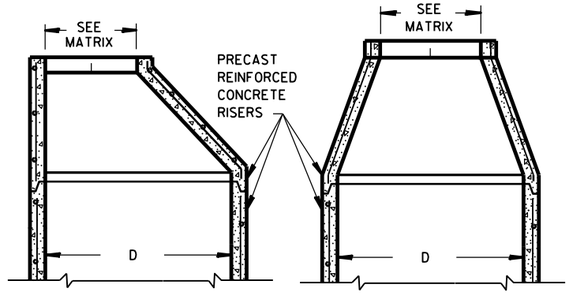
08A08-02	CATCH BASINS 3-FT, 4-FT, 5-FT AND 6-FT DIAMETER
08D01-20A	CONCRETE CURB & GUTTER
08D01-20B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E14-01	TRACKING PAD
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09C02-07	CONCRETE BASES, TYPES 1, 2, 5, & 6
15B03-15A	FENCE CHAIN LINK
15B03-15B	FENCE CHAIN LINK



PLAN VIEW CIRCULAR OPENING

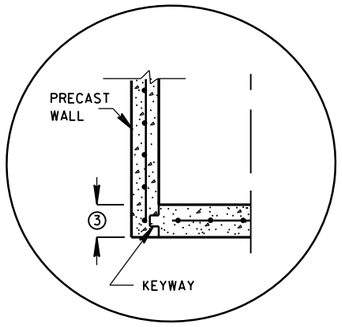


PLAN VIEW RECTANGULAR OPENING

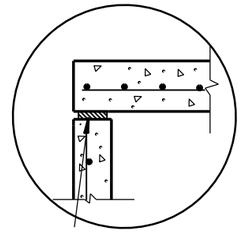


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

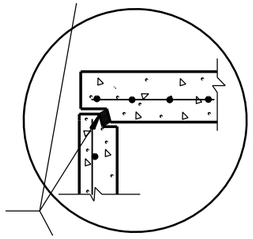
OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP



PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

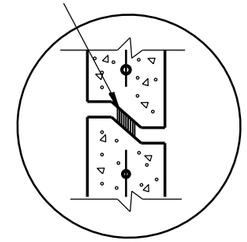


TOP WITH PLAIN END JOINT



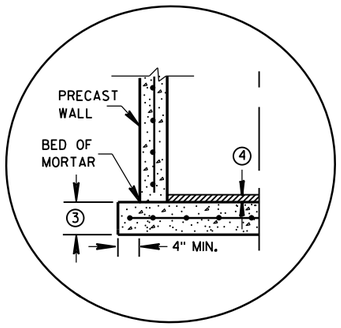
JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)

TOP WITH TONGUE AND GROOVE JOINT



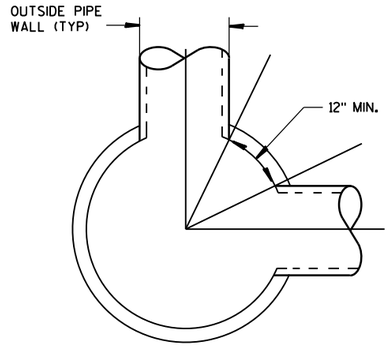
RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

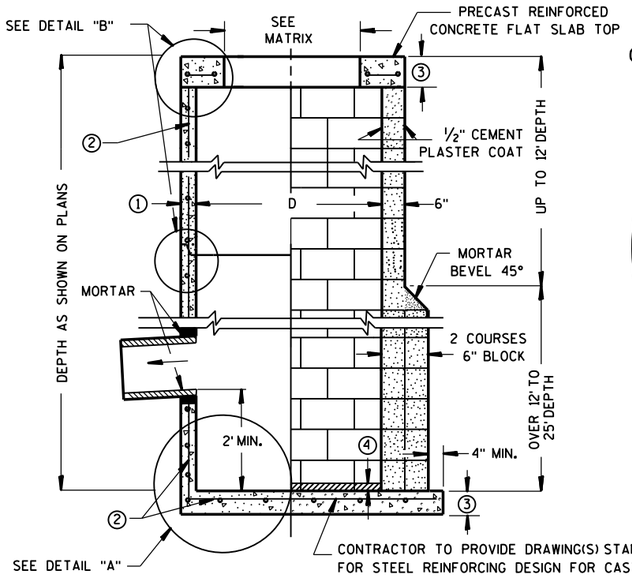


SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "C"



CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES

SECTION A-A

PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

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.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST CATCH BASIN UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

PRECAST REINFORCED CONCRETE CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED CONCRETE FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES, AND CONCENTRIC CONE TOPS SHALL BE USED ONLY ON STRUCTURES 5 FEET OR LESS IN DEPTH, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF ½ INCH AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

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

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

CONCRETE BLOCK WILL NOT BE PERMITED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

① MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT, 5 INCHES FOR 4-FT, 6 INCHES FOR 5-FT AND 7 INCHES FOR 6-FT DIAMETER PRECAST CATCH BASINS.

② FOR PRECAST CATCH BASINS PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

③ PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER OF 48" AND LESS SHALL HAVE A MINIMUM THICKNESS OF 6". PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER LARGER THAN 48" SHALL HAVE A MINIMUM THICKNESS OF 8".

④ 1" CONCRETE KEY POURED AFTER INSTALLATION. 2' SUMP MEASURED FROM TOP OF KEY.

CATCH BASIN COVER OPENING MATRIX

CATCH BASIN SIZE	INLET COVER TYPE	ALL A'S	ALL B'S	BW	C	F	ALL H'S	S	T	V	WM	Z
	OPENING SIZE (FT)											
3-FT	2X2	X	X					X		X		
	2 DIA.				X							X
4-FT-6-FT	2X2	X	X					X		X		
	2X2.5			X				X	X	X	X	
	2 DIA.				X							X
	2X3						X					
	2.5X3					X						

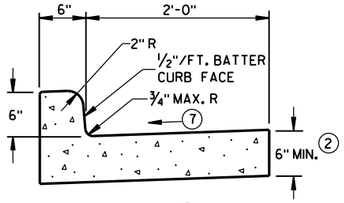
PIPE MATRIX

CATCH BASIN SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18
5-FT	36	24
6-FT	42	30

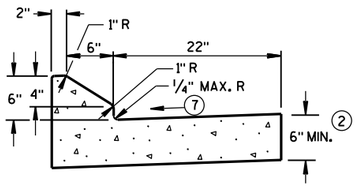
CATCH BASINS 3-FT, 4-FT, 5-FT AND 6-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

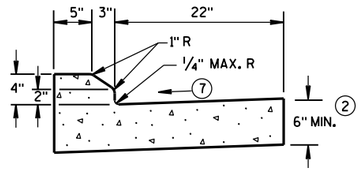
APPROVED
Sept., 2016 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS UNIT SUPERVISOR
FHWA



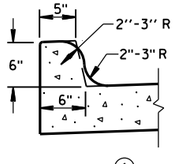
TYPES A (1) & D



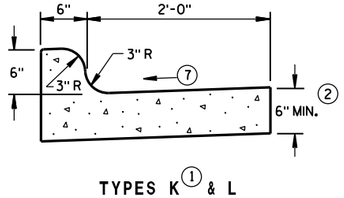
6" SLOPED CURB TYPES G (1) & J



4" SLOPED CURB TYPES G (1) & J

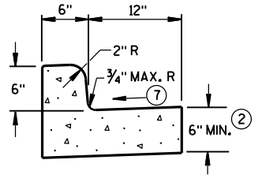


TYPES K (1) & L
(OPTIONAL CURB SHAPE)



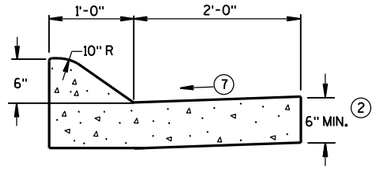
TYPES K (1) & L

CONCRETE CURB & GUTTER 30"

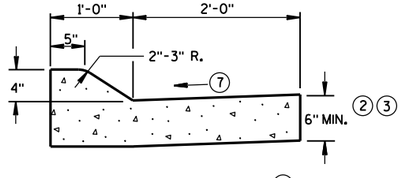


TYPES A (1) & D

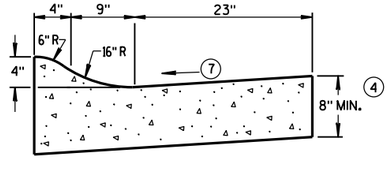
CONCRETE CURB & GUTTER 18"



6" SLOPED CURB TYPES A (1) & D

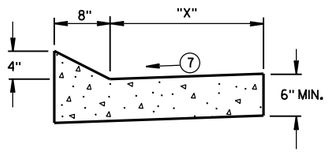


4" SLOPED CURB TYPES A (1) & D



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

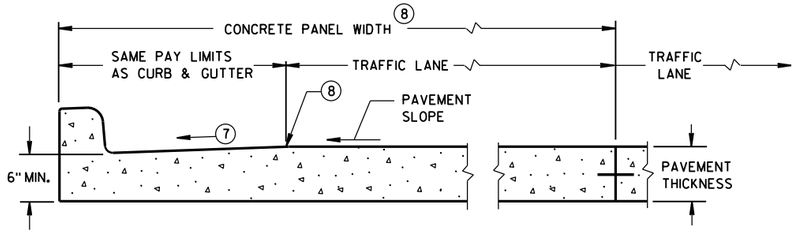
CONCRETE CURB & GUTTER 36"



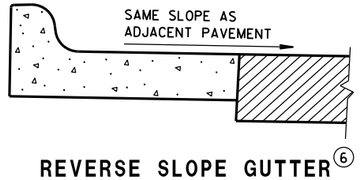
TYPES TBT & TBTT (1)

CONCRETE CURB & GUTTER

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



PARTIAL SECTION OF PAVEMENT *
WITH INTEGRAL CURB & GUTTER



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

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'

* BIKE LANE IS NOT SHOWN.

CONCRETE CURB & GUTTER

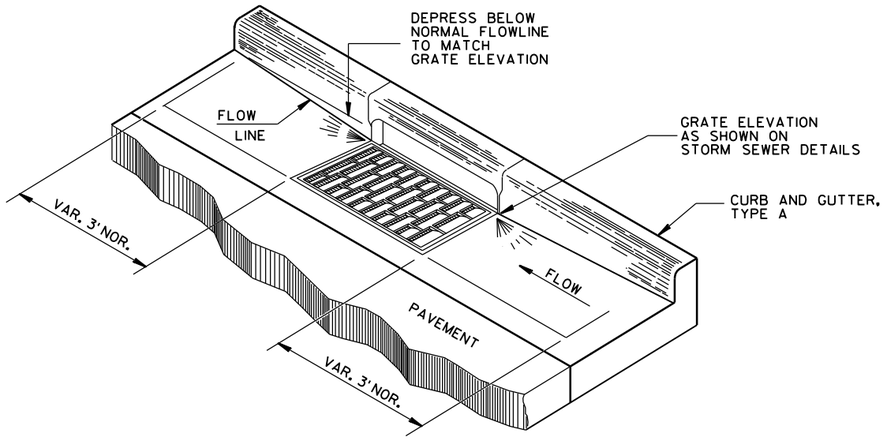
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

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

6

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



DETAIL OF CURB AND GUTTER AT INLETS

(TYPE H INLET COVER SHOWN)

GENERAL NOTES

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

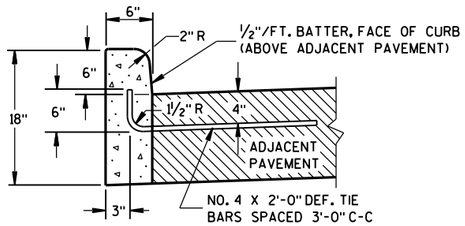
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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

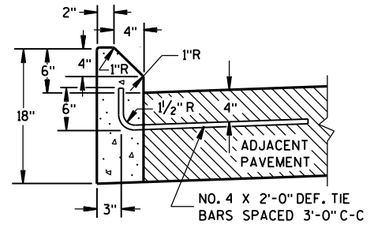
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K, R AND TBTT.

(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.

(9) REFER TO SDD 8D18 AND SDD 8D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.

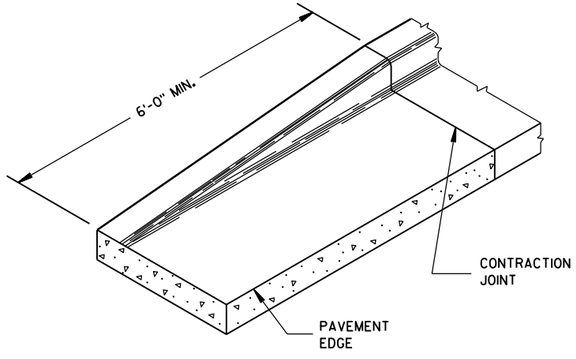


TYPES A(1) & D

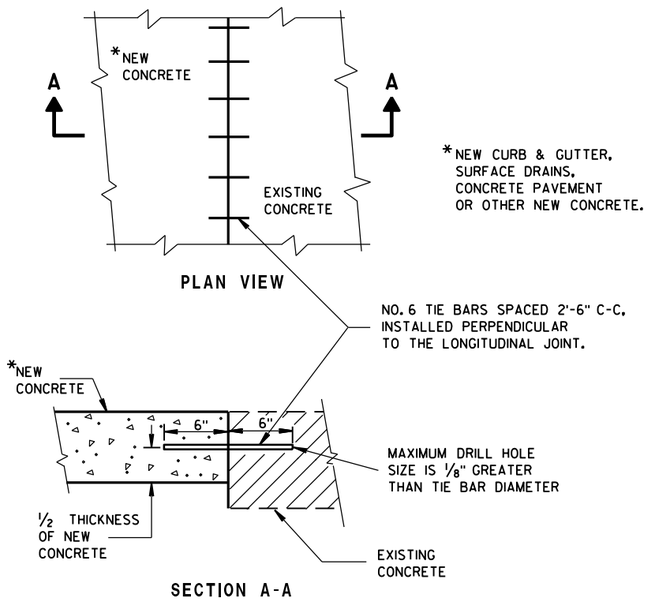


TYPES G(1) & J

CONCRETE CURB



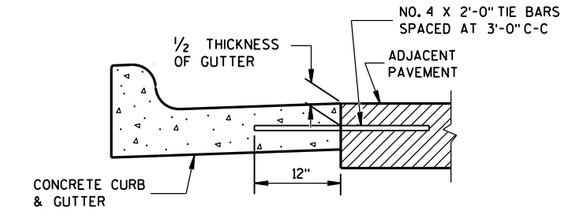
END SECTION CURB & GUTTER



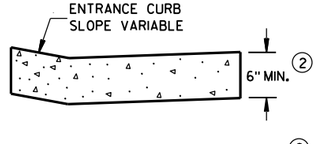
PLAN VIEW

SECTION A-A

TIE BARS DRILLED INTO EXISTING PAVEMENT



TYPICAL TIE BAR LOCATION (1)



DRIVEWAY ENTRANCE CURB (9)

(WHEN DIRECTED BY THE ENGINEER)

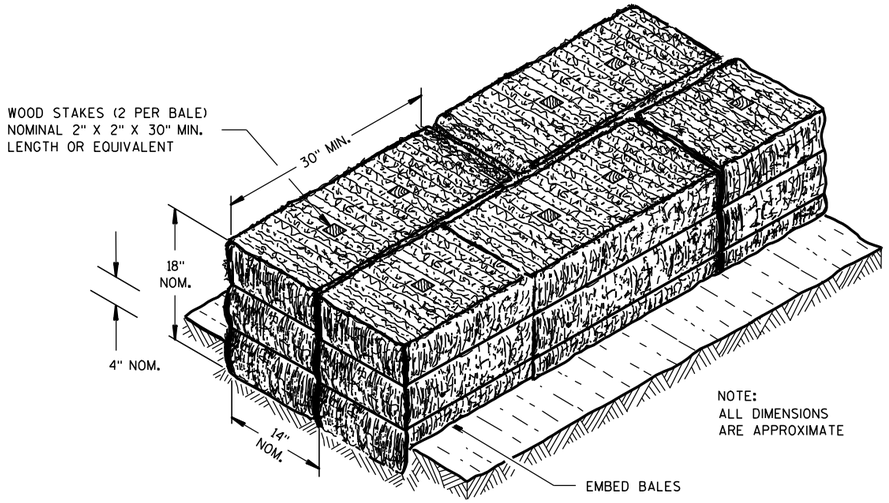
CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

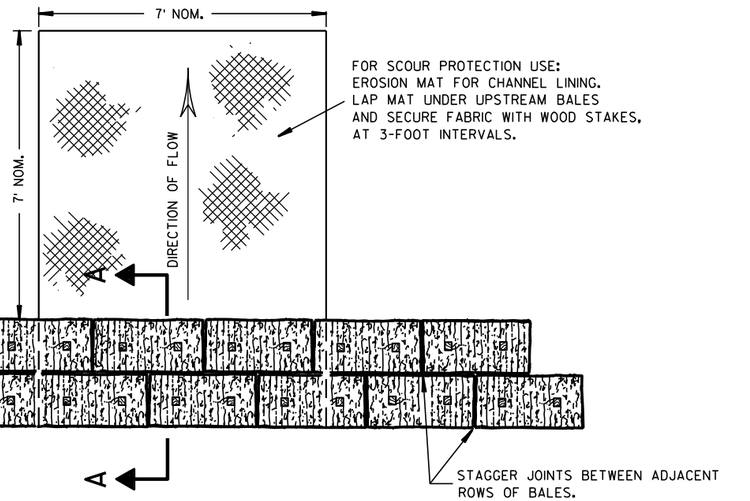
APPROVED
June, 2017 — DATE
/S/ Rodney Taylor
ROADWAY STANDARDS UNIT SUPERVISOR
FHWA

6

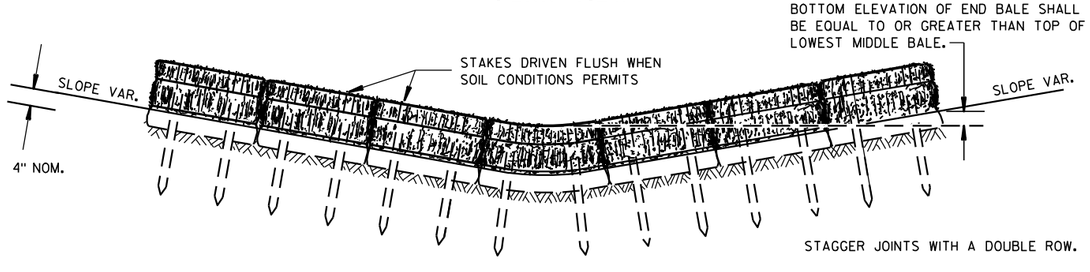
S.D.D. 8 D 1-20b



SECTION A-A



PLAN VIEW



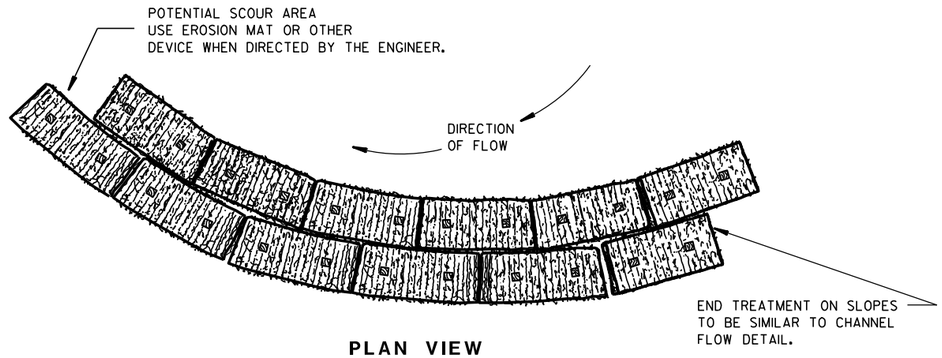
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

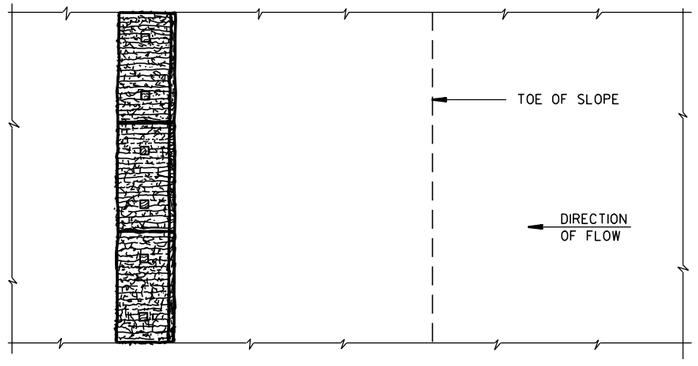
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

① TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.

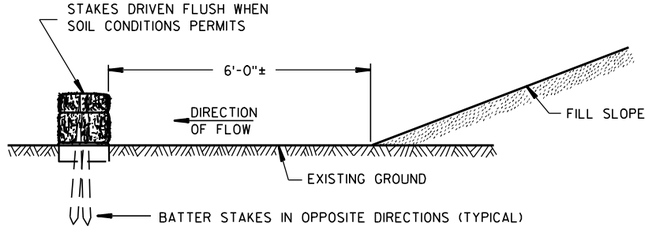


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

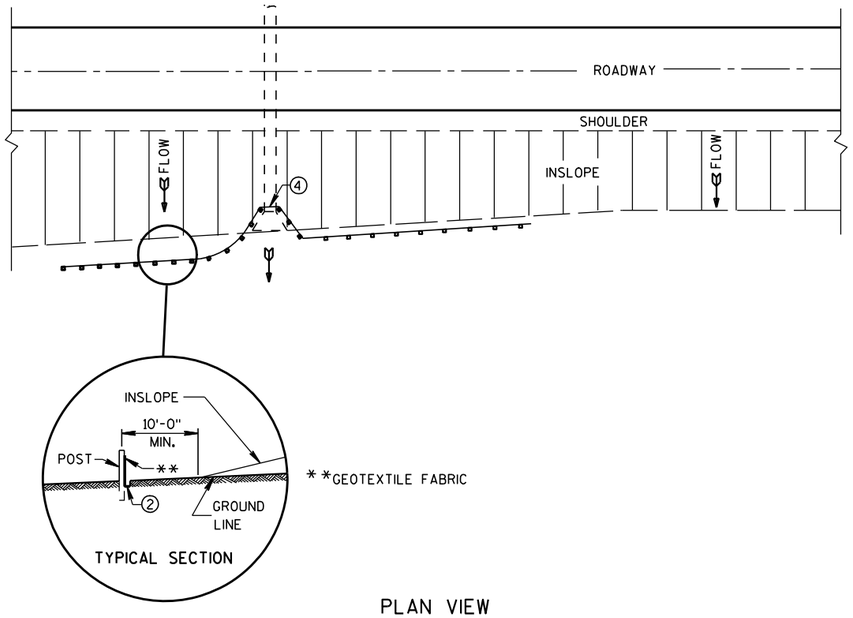
WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

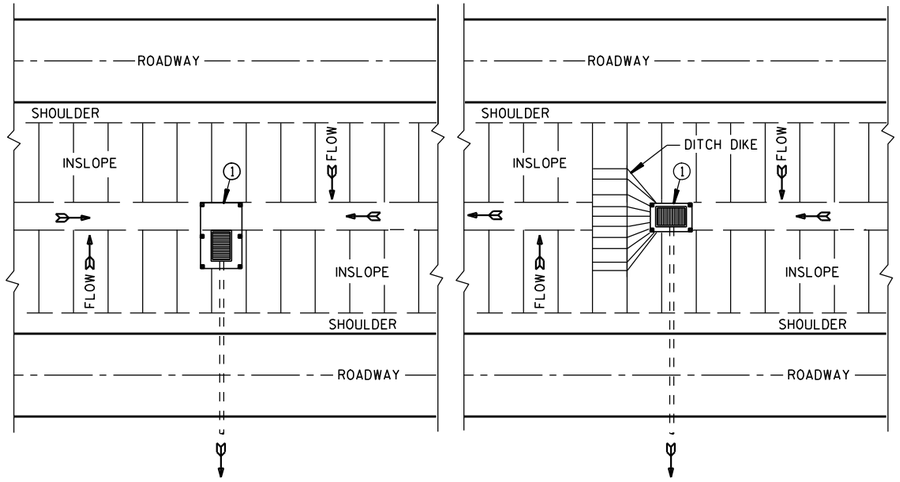
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



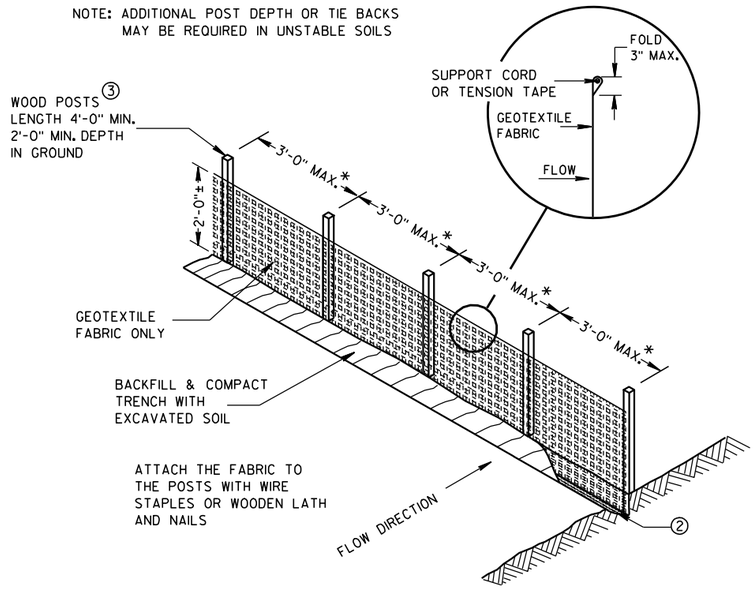
PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



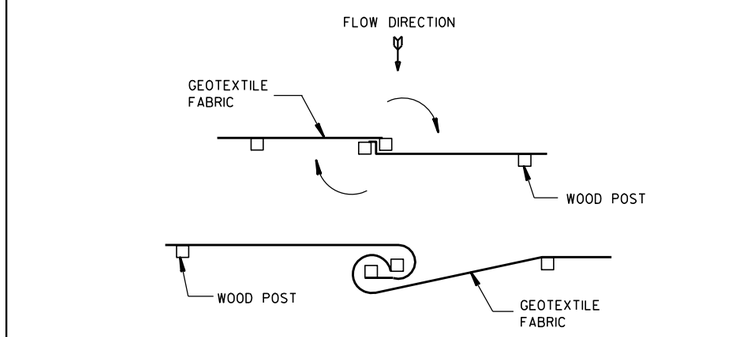
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

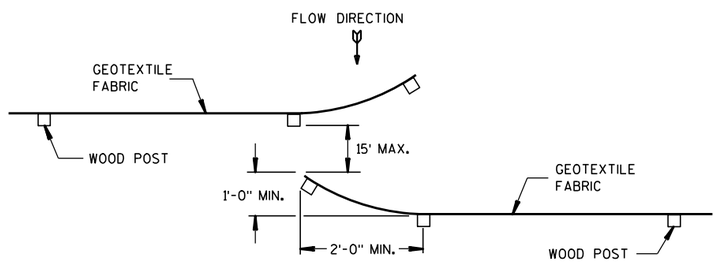


*NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.

SILT FENCE



TWIST METHOD



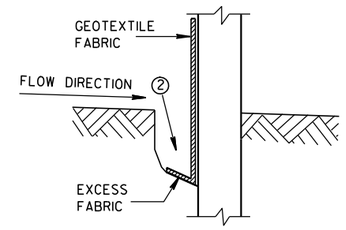
HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE 5

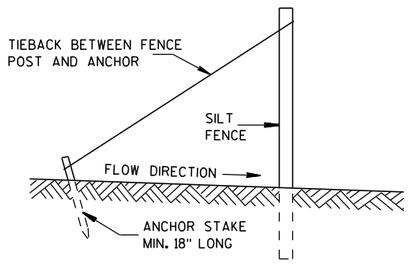
GENERAL NOTES

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

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



TRENCH DETAIL



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

S.D.D. 8 E 9-6

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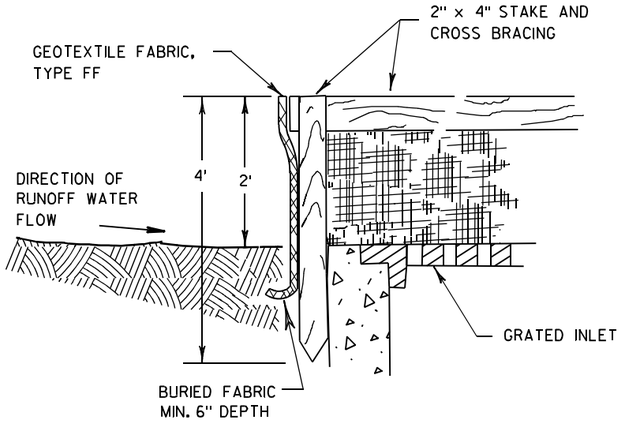
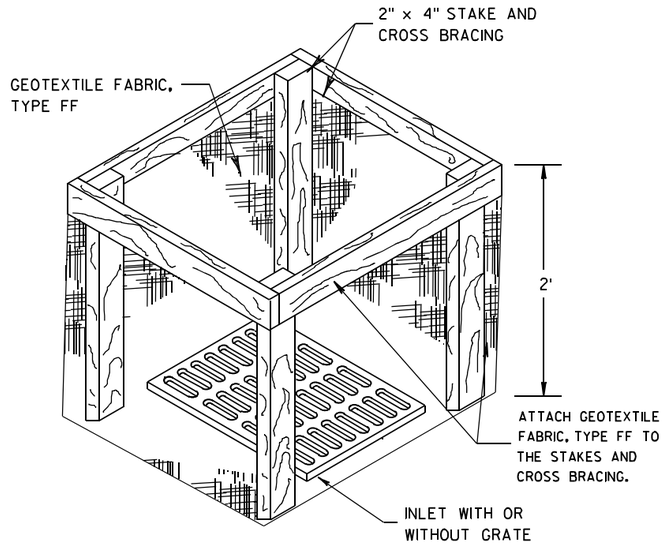
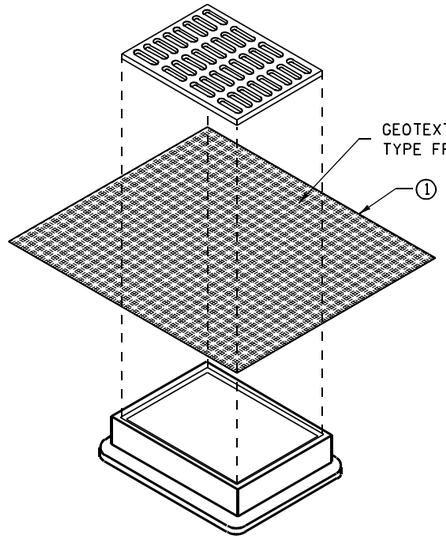


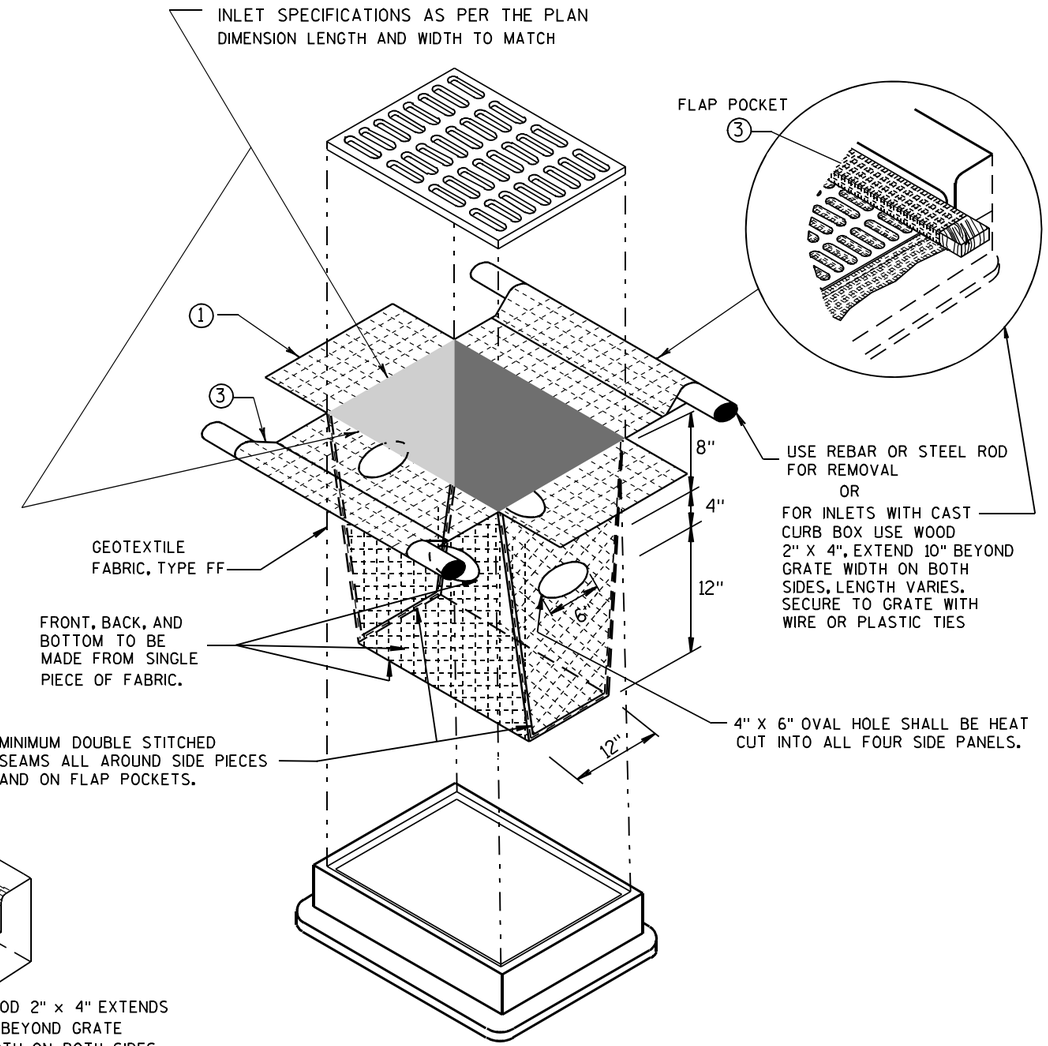


INLET PROTECTION, TYPE A



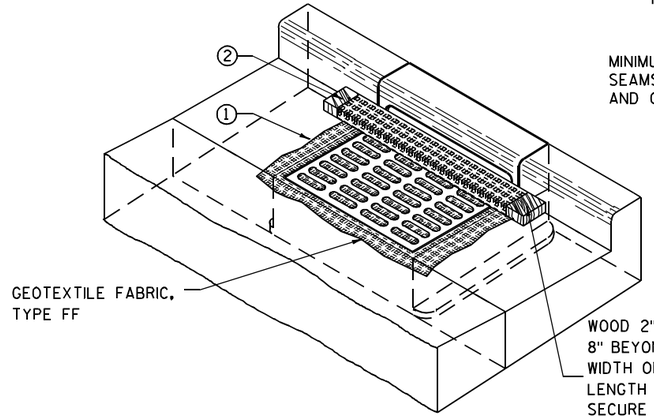
INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

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



INLET PROTECTION, TYPE D

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



INLET PROTECTION, TYPE C (WITH CURB BOX)

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.

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.

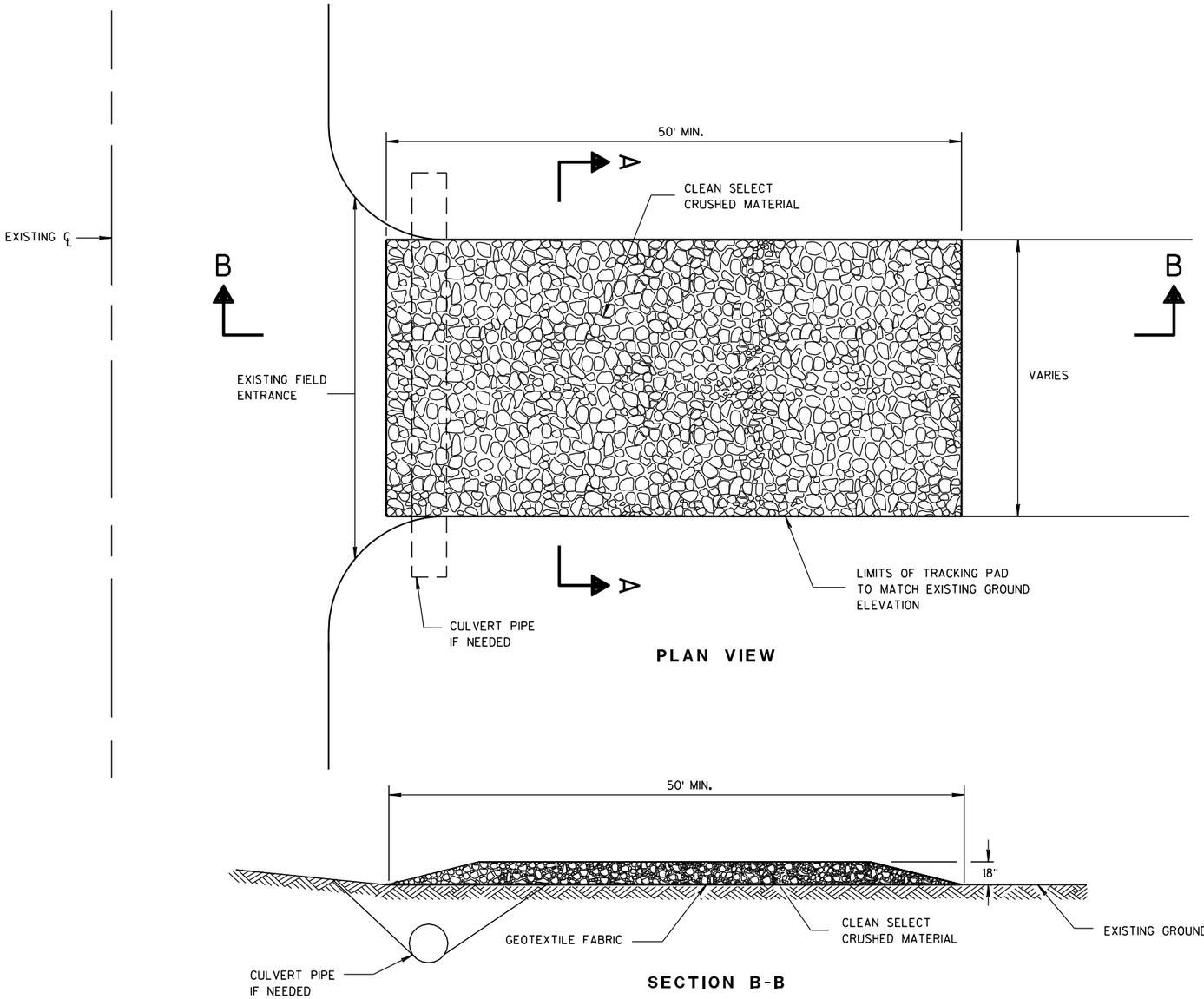
THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE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

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6
S.D.D. 8 E 10-2



PLAN VIEW

SECTION B-B

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.

TRACKING PAD SHALL BE INSPECTED DAILY. DEFICIENT AREAS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

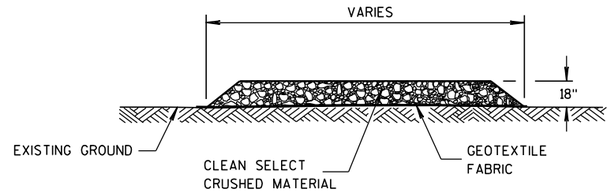
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT.

SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. FLOWS SHALL BE DIVERTED AWAY, AROUND OR CONVEYED UNDER THE TRACKING PAD.

CULVERT PIPE OR OTHER BMP USED TO DIVERT WATER AWAY, AROUND OR UNDER THE TRACKING PAD SHALL BE DESIGNED TO CONVEY THE 2 YEAR - 24 HOUR EVENT.

THE COST OF ADDITIONAL BMP TO DIVERT WATER ARE INCIDENTAL TO THE TRACKING PAD BID ITEM.



SECTION A-A

TRACKING PAD

TRACKING PAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/24/2011 — DATE
/S/ Jerry H. Zoda — ROADWAY STANDARDS ENGINEER
ENT
FHWA

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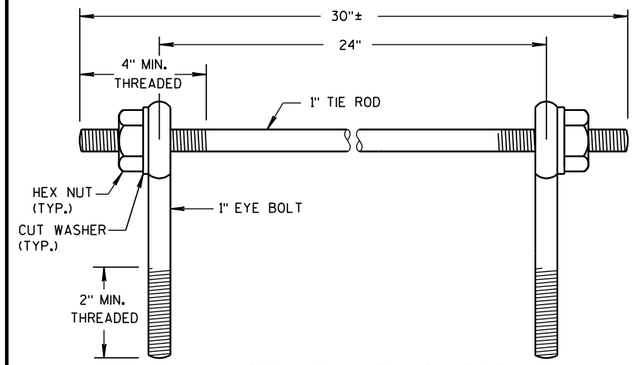
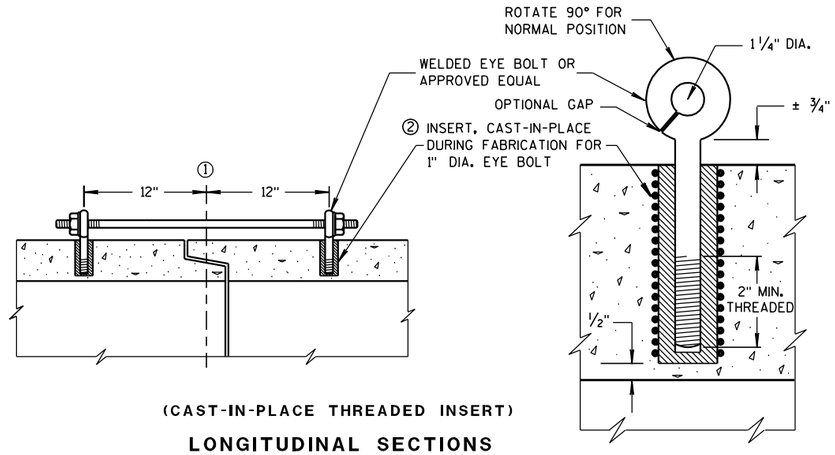


EYE BOLTS AND TIE ROD



(CAST-IN-PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 1)

GENERAL NOTES

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

CONCRETE CULVERT AND STORM SEWER PIPE SHALL BE TIED TOGETHER IN THE MANNER ILLUSTRATED BY THIS DETAIL AT LOCATIONS DESIGNATED IN THE STANDARD SPECIFICATIONS AND THE PLAN. THE CONTRACTOR MAY USE EITHER ALTERNATE 1, 2 OR 3 FOR DRAINAGE STRUCTURES. ONLY ALTERNATE 1 AND 3 MAY BE USED FOR CATTLE PASSES, UNLESS OTHERWISE STATED IN THE CONTRACT. THE MATERIALS, FABRICATION AND WORK NECESSARY TO TIE THE PIPE BY THIS DETAIL WILL BE CONSIDERED INCIDENTAL TO THE PIPE AND APRON ENDWALLS IF REQUIRED.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

① ℄ OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.

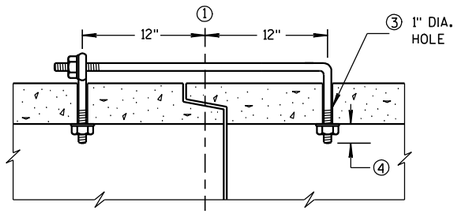
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12 INCHES FROM ℄ OF TONGUE AND GROOVE.

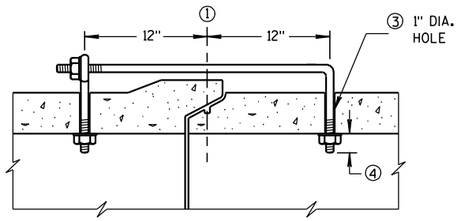
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.

⑥ LENGTH ADEQUATE TO EXTEND TO WITHIN 1/2 INCH OF THE INNER SURFACE OF THE PIPE.



(TONGUE & GROOVE PIPE)

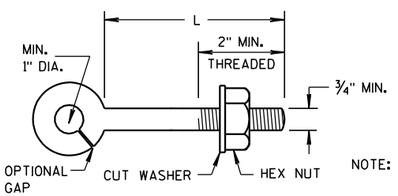


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

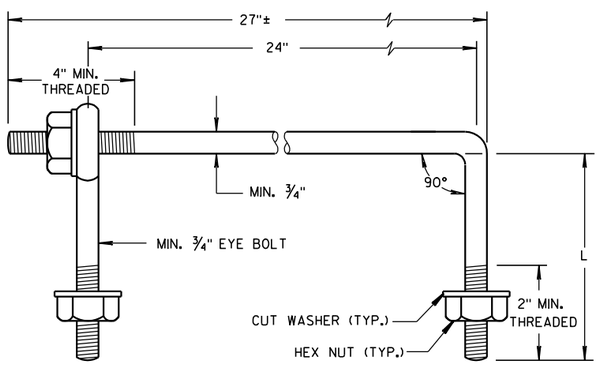
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



NOTE:

EYE BOLT

NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD

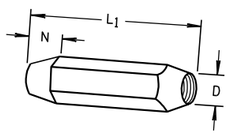
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)

ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12-60	5/8	5/8	5	1/2
66-84	3/4	3/4	5	1/2
90-108	1	1	7	1 1/16

DIMENSIONS SHOWN ARE IN INCHES



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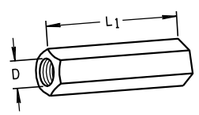
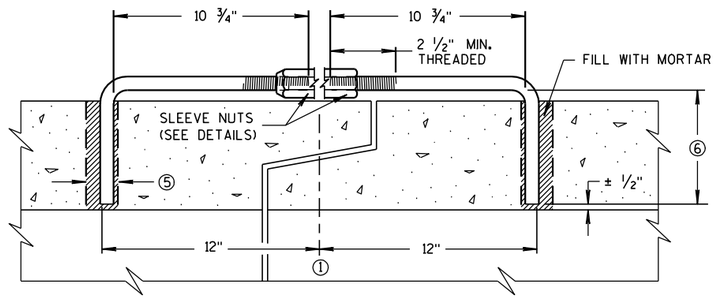


PLAIN

RIGHT AND LEFT THREADS

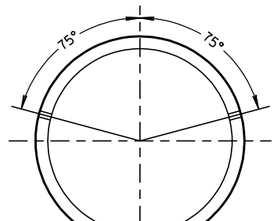
SLEEVE NUTS



LONGITUDINAL SECTION

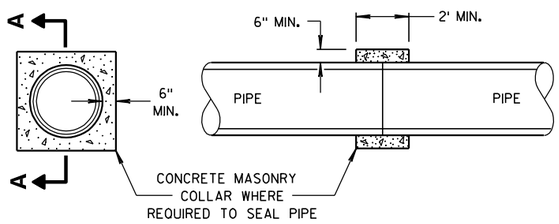
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



PLACEMENT OF (2) CAST-IN-PLACE INSERTS OR HOLES DURING FABRICATION FOR PIPE SECTIONS REQUIRING TIE RODS

TRANSVERSE SECTION



SECTION A-A

CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

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S.D.D. 8 F 4-7

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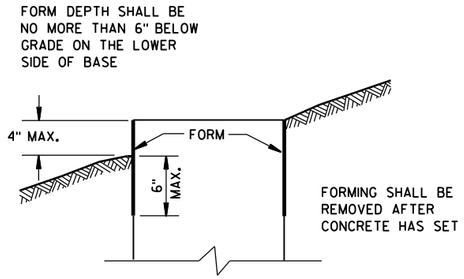
S.D.D. 8 F 4-7



FORMING DETAIL

QUANTITY REQUIREMENTS	CONCRETE BASE TYPE		
	1	2	5 & 6
APPROX. CUBIC YARDS OF CONCRETE	0.40	0.57	0.40
LBS. OF HOOP BAR STEEL	NONE	23	16
LBS. OF VERTICAL BAR STEEL	NONE	60	18

GENERAL NOTES

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

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

TOP SURFACES OF CONCRETE BASES SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN AT THE ENTRANCE OF THE BASE.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 1 INCH. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

GENERAL NOTES (CONTINUED)

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

ENDS OF CONDUIT INSTALLED BELOW GRADE FOR FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD) FOR TYPE 1, TYPE 2, TYPE 5, AND TYPE 6 BASES.

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE OF THE TYPE 2 AND TYPE 5 BASES THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD. ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 OF THE STANDARD SPECIFICATIONS.

WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4" "L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND END SHALL NOT BE THREADED.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TIE WIRES SHALL BE USED.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).

(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN APPROVAL BY THE ENGINEER.

(2) (4) 1" DIA. X 3'-6" ANCHOR RODS.

(3) (4) 1" DIA. X 5'-0" ANCHOR RODS.

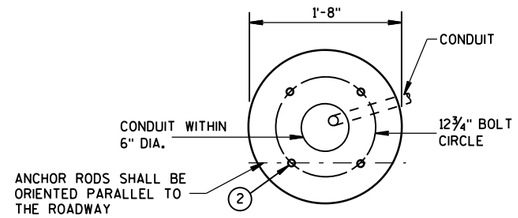
(4) (6) NO. 6 X 6'-8" BAR STEEL REINFORCEMENT.

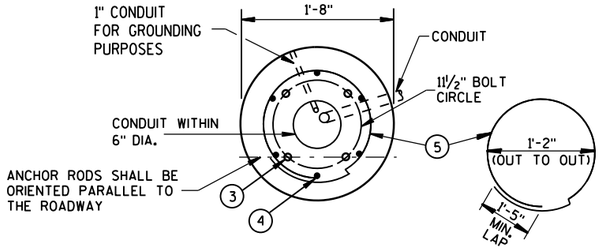
(5) (7) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

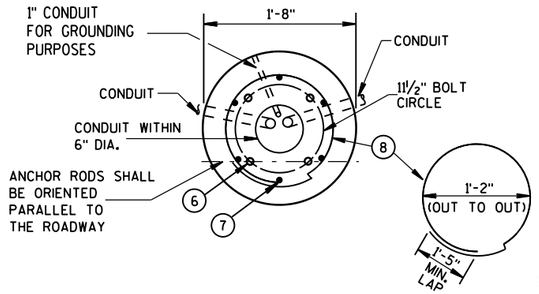
(6) (4) 1" DIA. X 3'-6" ANCHOR RODS.

(7) (6) NO.4 X 4'-8" BAR STEEL REINFORCEMENT.

(8) (5) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

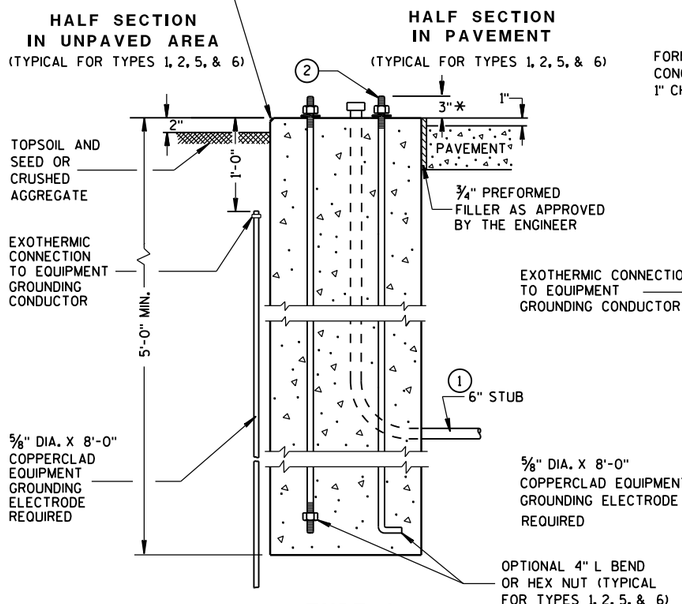




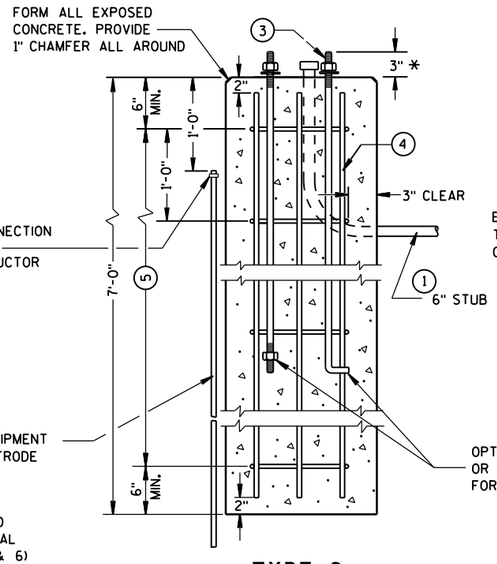


HALF SECTION IN UNPAVED AREA
(TYPICAL FOR TYPES 1, 2, 5, & 6)

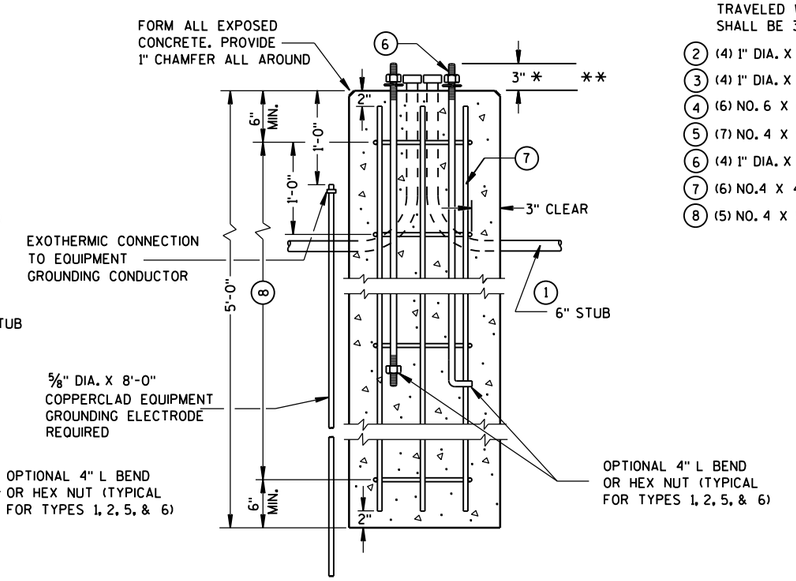
HALF SECTION IN PAVEMENT
(TYPICAL FOR TYPES 1, 2, 5, & 6)



TYPE 1



TYPE 2



TYPE 5 & 6

CONCRETE BASES

* ANY ANCHOR ROD PROJECTION SHORTER THAN 2¾" OR LONGER THAN 3¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

** FOR NONBREAKAWAY INSTALLATIONS, 4½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

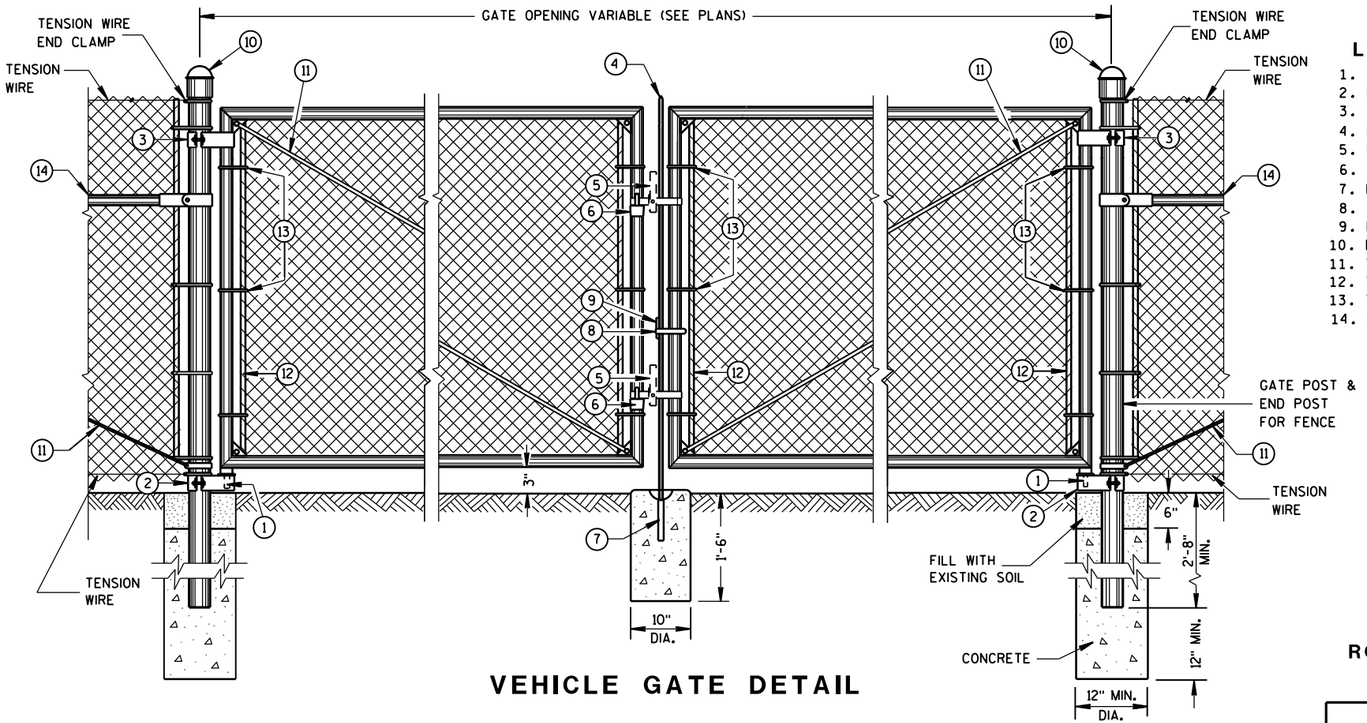
CONCRETE BASES, TYPES 1, 2, 5, & 6

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

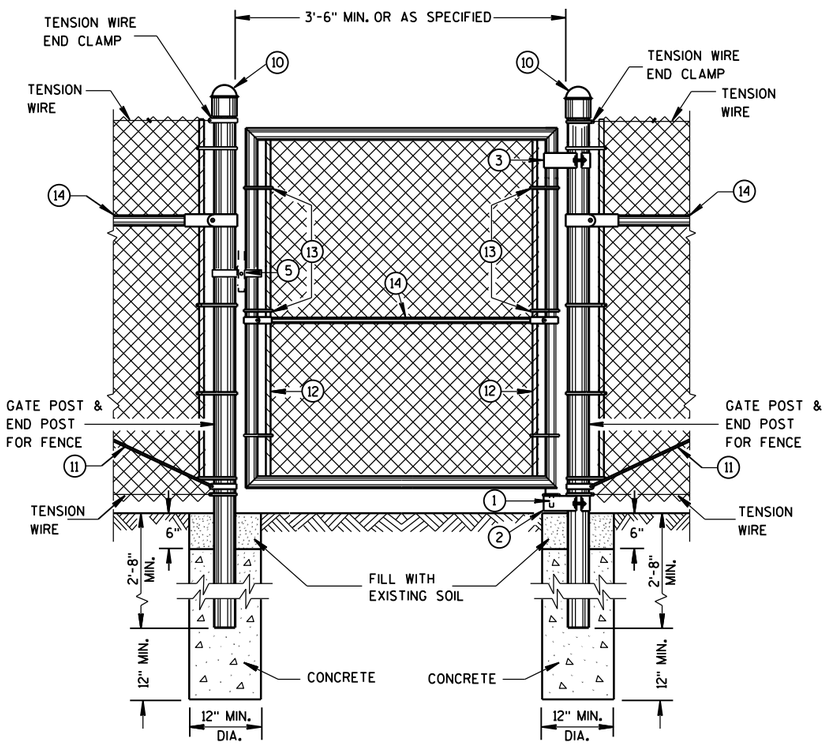
APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6

S.D.D. 9 C 2-7



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.

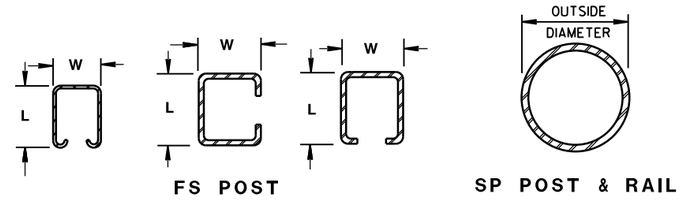
USE FENCE FABRIC KNUCKLED AT BOTH SELVAGES.

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

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

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

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

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

FENCE CHAIN LINK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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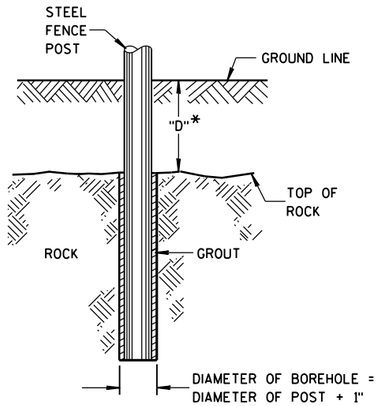
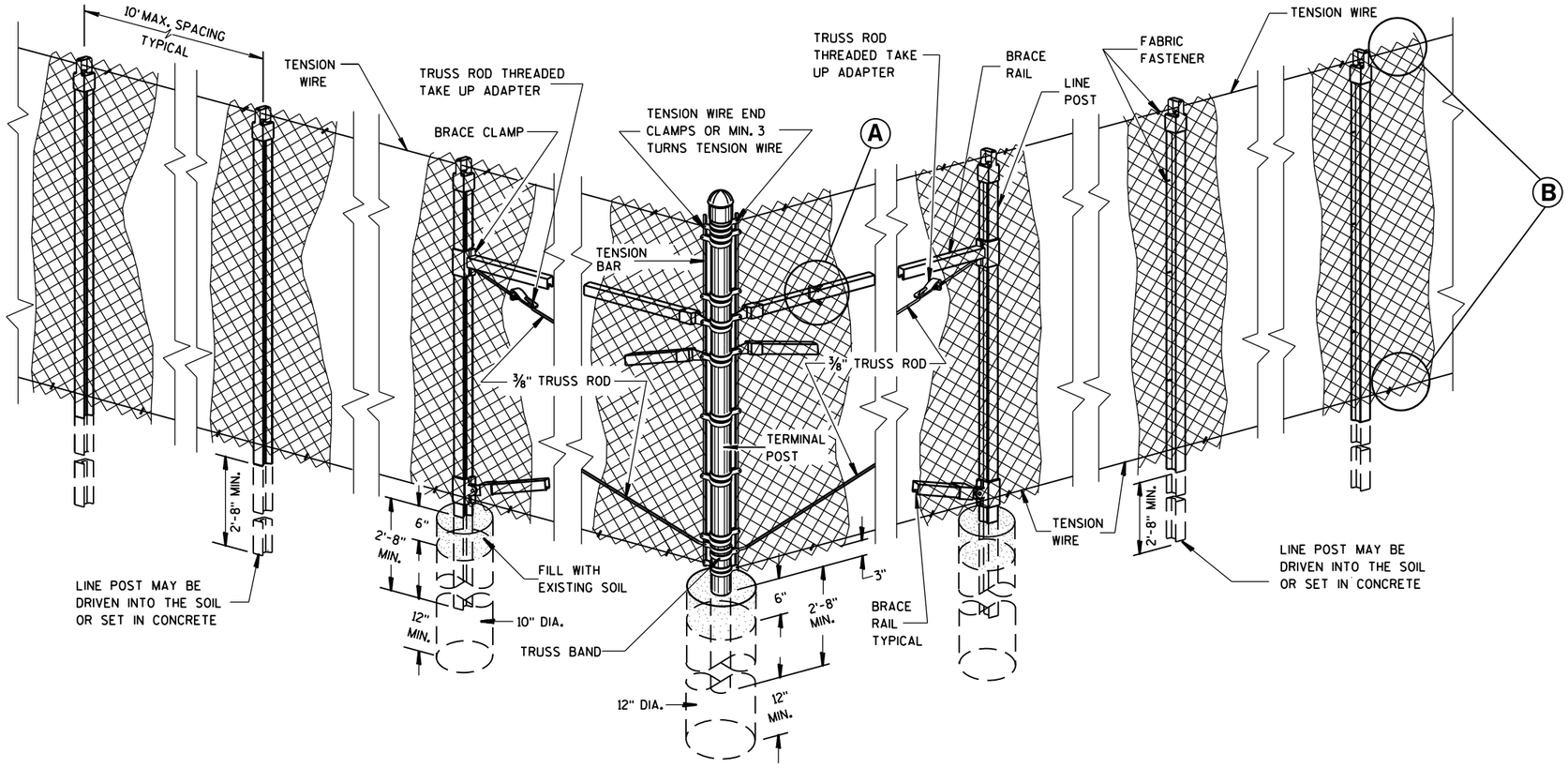
S.D.D. 15 B 3-15a

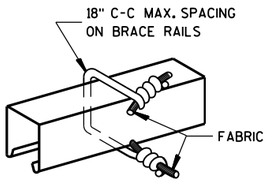


*IF "D" IS LESS THAN 2'-6", DRILL ROCK AND INSTALL GROUT

ROCK INSTALLATION OF LINE POST



END, CORNER, ANGLE INTERSECTION & INTERMEDIATE BRACED POSTS



BRACE RAIL

FABRIC FASTENER

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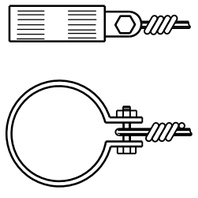
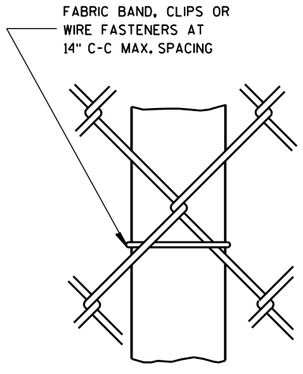


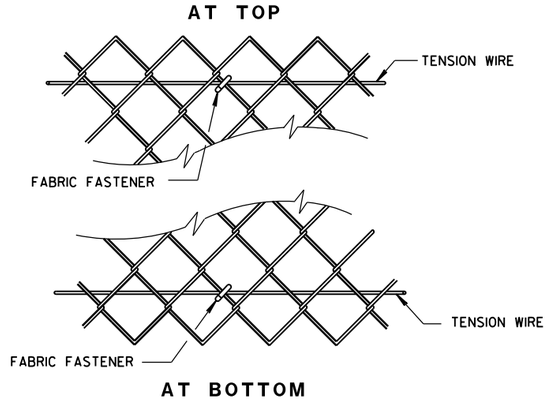
TENSION WIRE END CLAMP



LINE POST

FABRIC FASTENER

AT TOP



AT BOTTOM

SELVAGES

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FENCE CHAIN LINK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

S.D.D. 15 B 3-15b

6

S.D.D. 15 B 3-15b

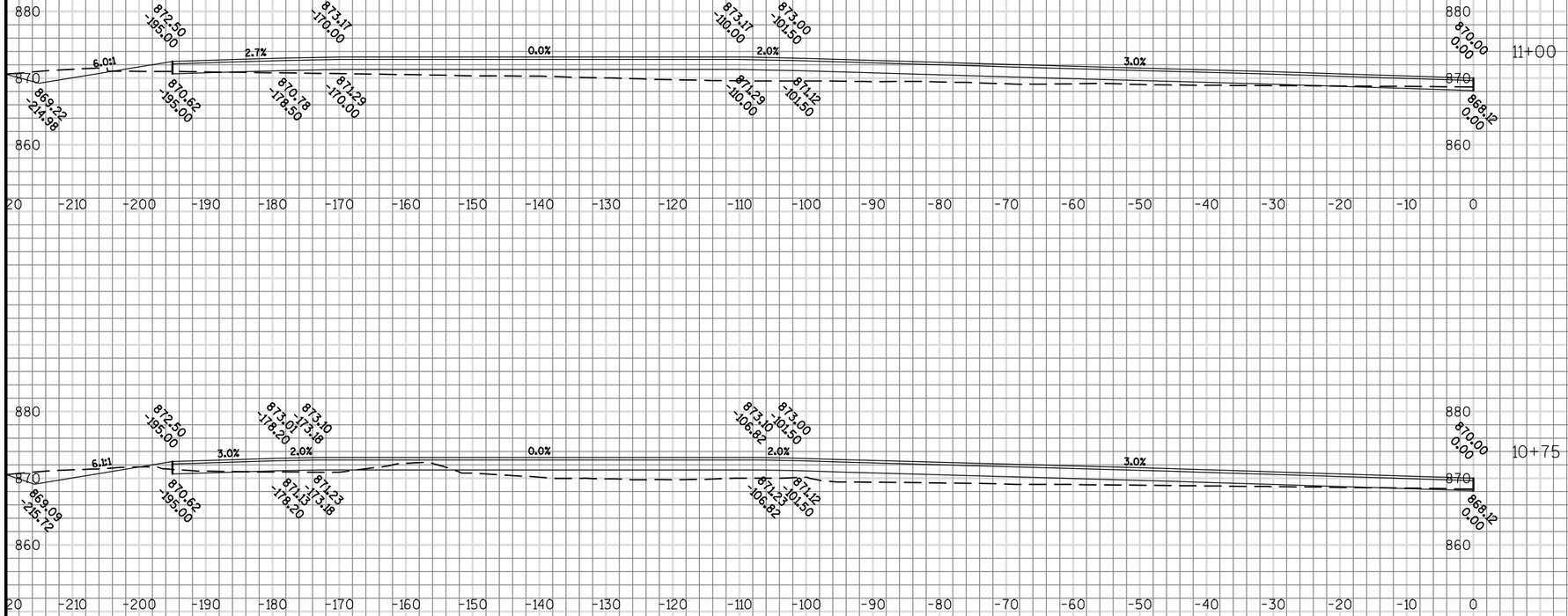
EARTHWORK

CATEGORY	STAGE	DIVISION	LOCATION	STATION TO STATION	205.0100 Common Excavation (1) Cut (2) (CY)	205.0100 Common Excavation (1) EBS Excavation (3) (CY)	Salvaged/ Unusable Pavement Material (4)	Available Material (5)	Marsh Excavation (6) (CY)	Reduced Marsh in Fill (7) Factor 0.60	Reduced EBS in Fill (8) Factor 0.80	Expanded Marsh Backfill (9) Factor 1.50	Unexpanded Fill	Expanded Fill (10) Factor 1.25	Mass Ordinate +/- (11)	Waste	208.0100 Borrow (12) (CY)	Comment:
0010			STORMWATER AREA	10+00 - 14+80	807	0	612	195	0	0	0	0	1474	1,843	-1,648	0	0	
			PAVED AREA	10+00 - 14+80	1,691	0	612	1,079	0	0	0	0	2052	2,565	-1,486	0	0	
			NORTH HALF OF SITE	14+80 - NORTH	4,723	0	1,574	3,149	0	0	0	0	5247	6,559	-3,410	0	6,559	
			HAZ MAT AREA 1 WITH OVERBURDEN	12+11 - 12+41	133	0	0	133	0	0	0	0	0	455	-322	0	307	
			HAZ MAT AREA 2	13+25 - 13+65	0	0	0	0	0	0	0	0	0	182	-182	0	182	
			UNDISTRIBUTED		100	137												
GRAND TOTALS					7,454	137	2,798	4,556	0	0	0	0	8,773	11,603	-7,048	0	7,048	
TOTAL COMMON EXCAVATION					7,591													

1) COMMON EXCAVATION IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS
2) SALVAGED/UNSUABLE PAVEMENT MATERIAL IS INCLUDED IN CUT
3) EBS EXCAVATION TO BE BACKFILLED WITH SELECT CRUSHED MATERIAL
4) SALVAGED/UNUSABLE PAVEMENT MATERIAL
5) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSUABLE PAVEMENT MATERIAL
6) MARSH EXCAVATION - TO BE BACKFILLED WITH BORROW MATERIAL
7) REDUCED MARSH IN FILL - EXCAVATED MARSH MATERIAL IS USUABLE IN FILLS OUTSIDE THE 1:1 SLOPE. MARSH IN FILL REDUCTION FACTOR = 0.6
8) REDUCED EBS IN FILL - EXCAVATED EBS MATERIAL IS USUABLE IN FILLS OUTSIDE THE 1:1 SLOPE. EBS IN FILL REDUCTION FACTOR = 0.8
9) EXPANDED MARSH BACKFILL - THIS IS TO BE FILLED WITH BORROW MATERIAL. MARSH BACKFILL FACTOR = 1.5
10) EXPANDED FILL/SELECT FILL FACTOR = 1.25
11) THE MASS ORDINATE + OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.
12) USE BASE MATERIAL FROM NORTH HALF OF SITE TO CONSTRUCT BERM AND/OR BACKFILL HAZ MAT AREAS

EARTHWORK

CATEGORY	LOCATION	STATION TO STATION	205.0501.S EXCAVATION, HAULING, AND DISPOSAL OF PETROLEUM CONTAMINATED SOIL (TON)	Comment:
0010	HAZ MAT AREA 1 WITH OVERBURDEN	12+11 - 12+41	500	
	HAZ MAT AREA 2	13+25 - 13+65	200	
	UNDISTRIBUTED		20	
		TOTAL	720	



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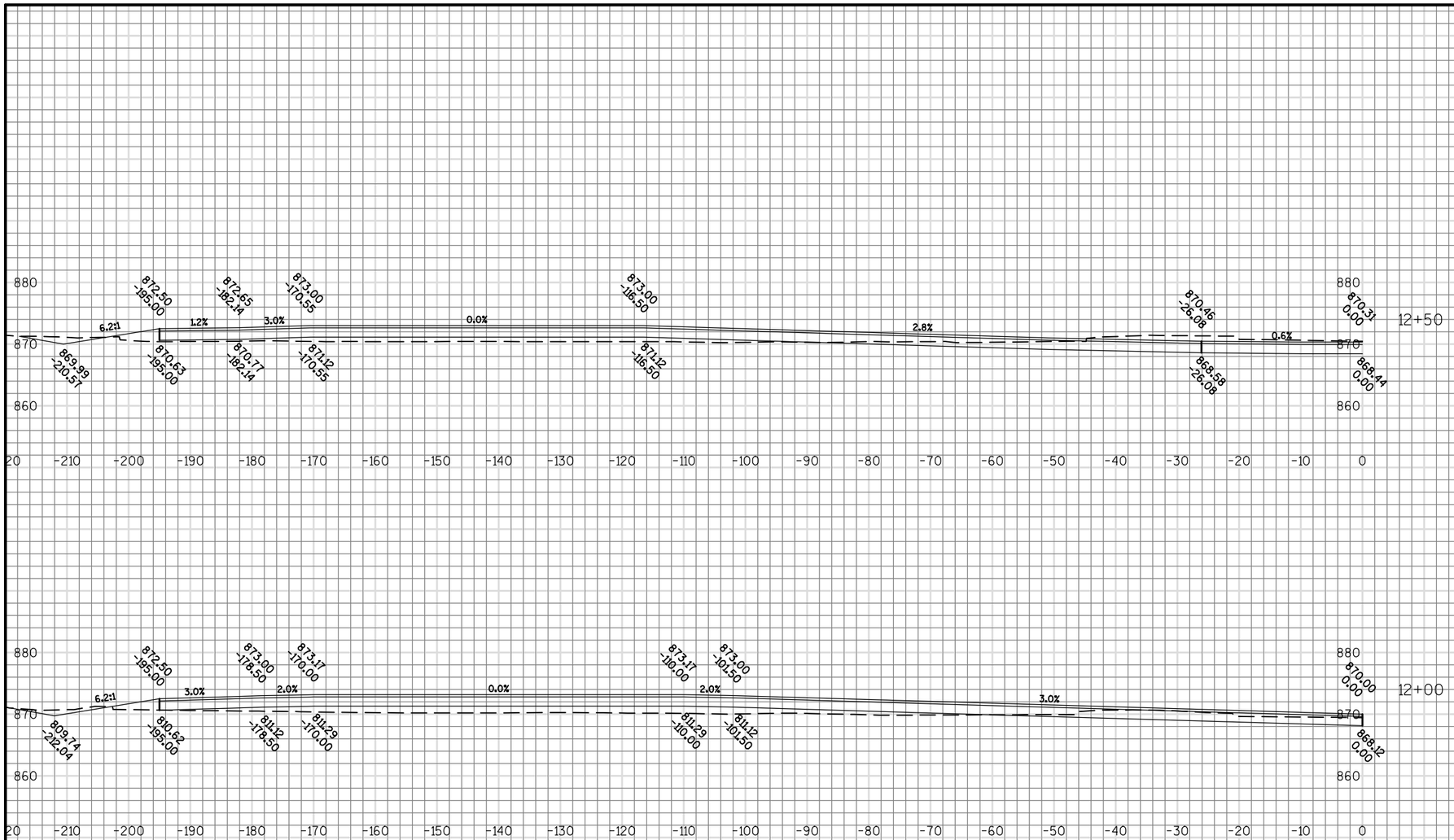
9

PROJECT NO: 1010-02-89	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: SALT STORAGE PAVED AREA	SHEET 36	E

FILE NAME : C:\PWV8I-LOCAL\BAKER_PROJECTS\ALICIA.MCCONNELL\D0457148\CORRIDOR_SALT STORAGE.DWG
LAYOUT NAME - XS - paved area 1

PLOT DATE : 1/25/2017 1:23 AM PLOT BY : MCCONNELL, ALICIA PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



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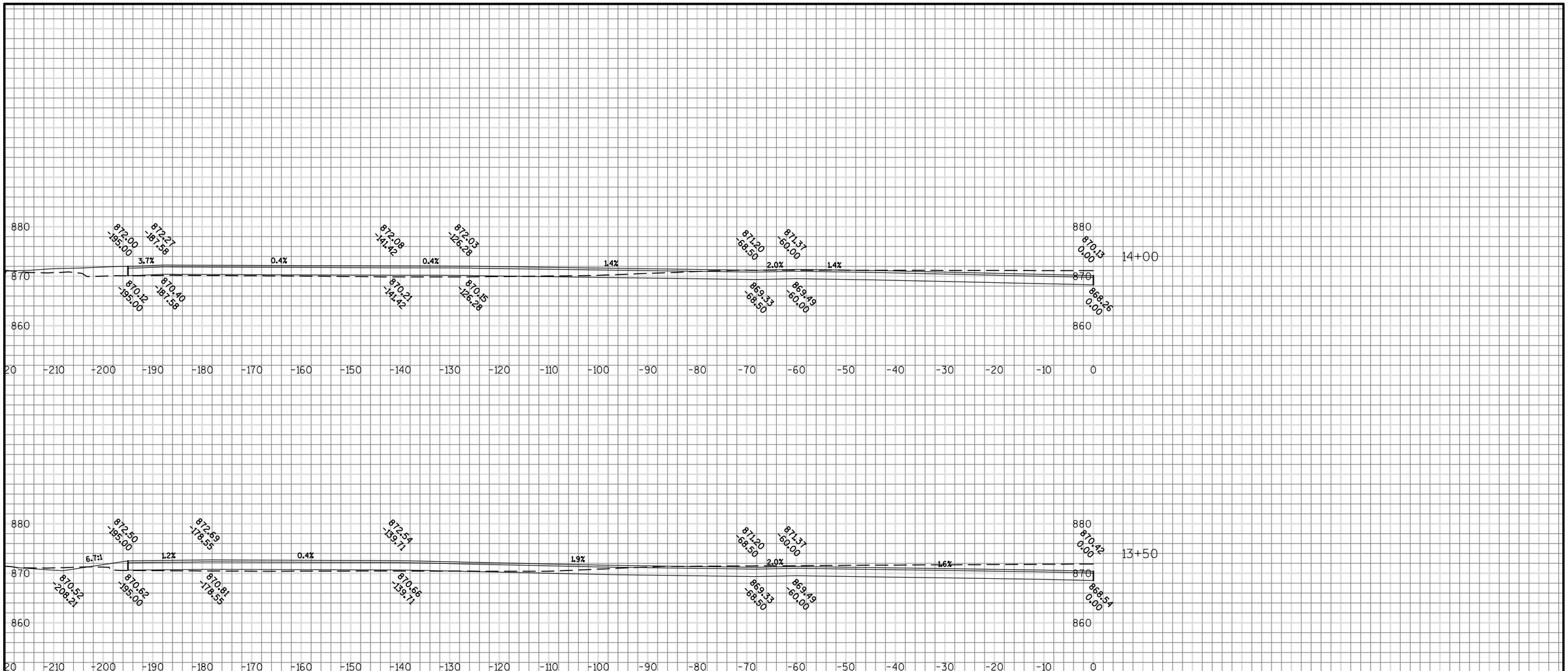
PROJECT NO: 1010-02-89	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: SALT STORAGE PAVED AREA	SHEET 37	E

FILE NAME : C:\PWV8I-LOCAL\BAKER_PROJECTS\ALICIA.MCCONNELL\D0457148\CORRIDOR_SALT STORAGE.DWG
LAYOUT NAME - XS - paved area 2

PLOT DATE : 1/25/2017 1:24 AM PLOT BY : MCCONNELL, ALICIA PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



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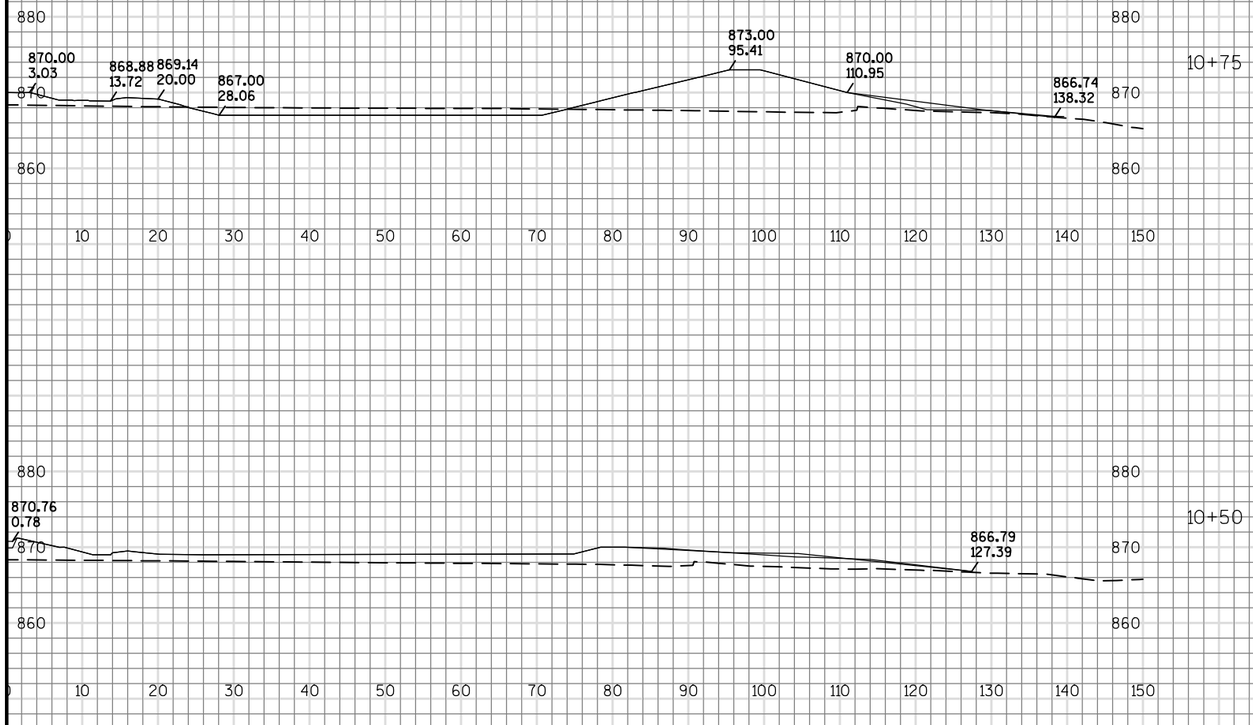
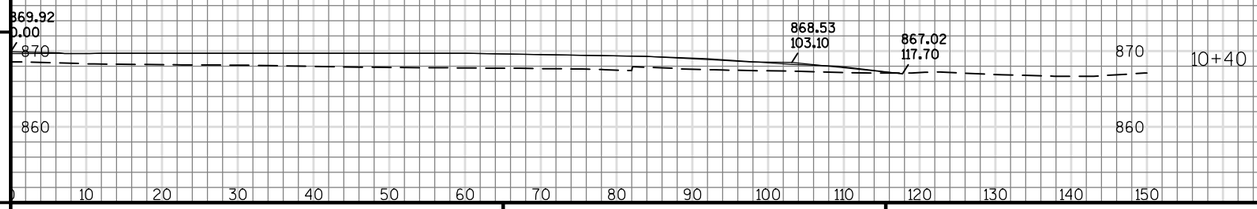
PROJECT NO: 1010-02-89	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: SALT STORAGE PAVED AREA	SHEET 38	E

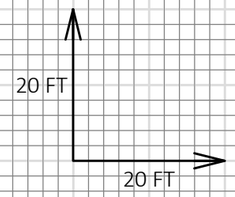
FILE NAME : C:\PWV8I-LOCAL\BAKER_PROJECTS\ALICIA.MCCONNELL\D0457148\CORRIDOR_SALT STORAGE.DWG
LAYOUT NAME - XS - paved area 3

PLOT DATE : 1/25/2017 1:24 AM PLOT BY : MCCONNELL, ALICIA PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49







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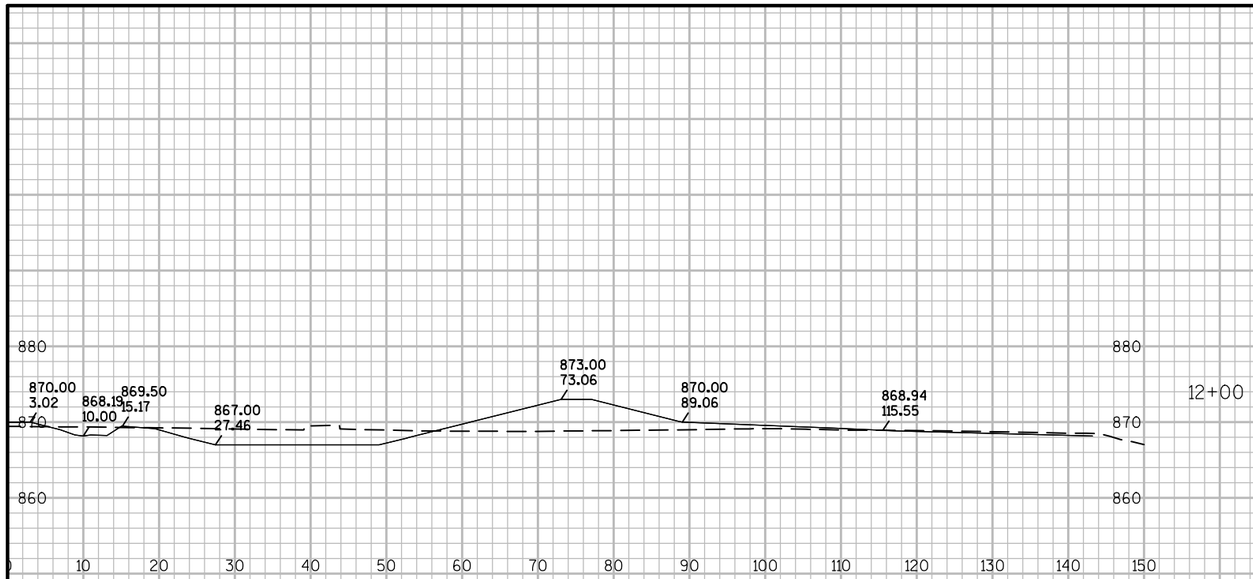
PROJECT NO: 1010-02-89	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: STORMWATER BASIN AND BERM	SHEET 39	E

FILE NAME : C:\PWV8I-LOCAL\BAKER_PROJECTS\ALICIA.MCCONNELL\D0457148\CORRIDOR_SALT STORAGE.DWG
LAYOUT NAME - XS - stormwater 1

PLOT DATE : 1/25/2017 12:38 AM PLOT BY : MCCONNELL, ALICIA PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



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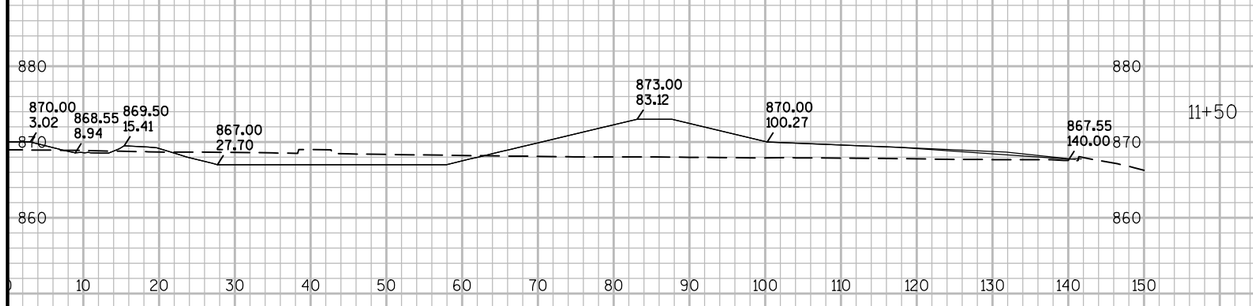

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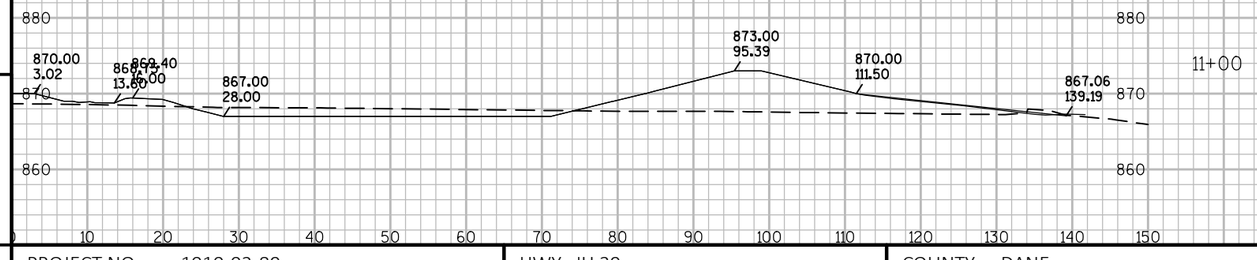

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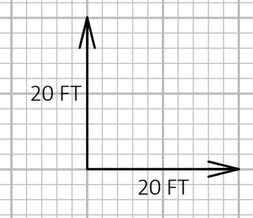

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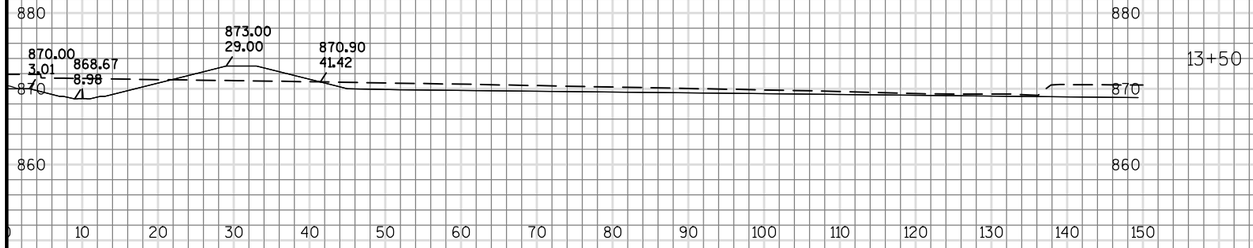
PROJECT NO: 1010-02-89	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: STORMWATER BASIN AND BERM	SHEET 40	E

FILE NAME : C:\PWV8I-LOCAL\BAKER_PROJECTS\ALICIA.MCCONNELL\D0457148\CORRIDOR_SALT STORAGE.DWG
LAYOUT NAME - XS - stormwater 2
PLOT DATE : 1/25/2017 12:38 AM
PLOT BY : MCCONNELL, ALICIA
PLOT NAME :
PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.
WISDOT/CADDS SHEET 49



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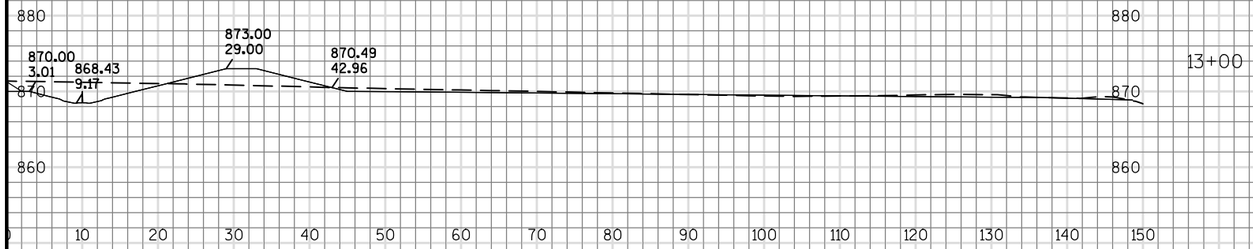

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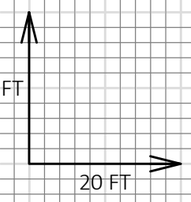
12+50



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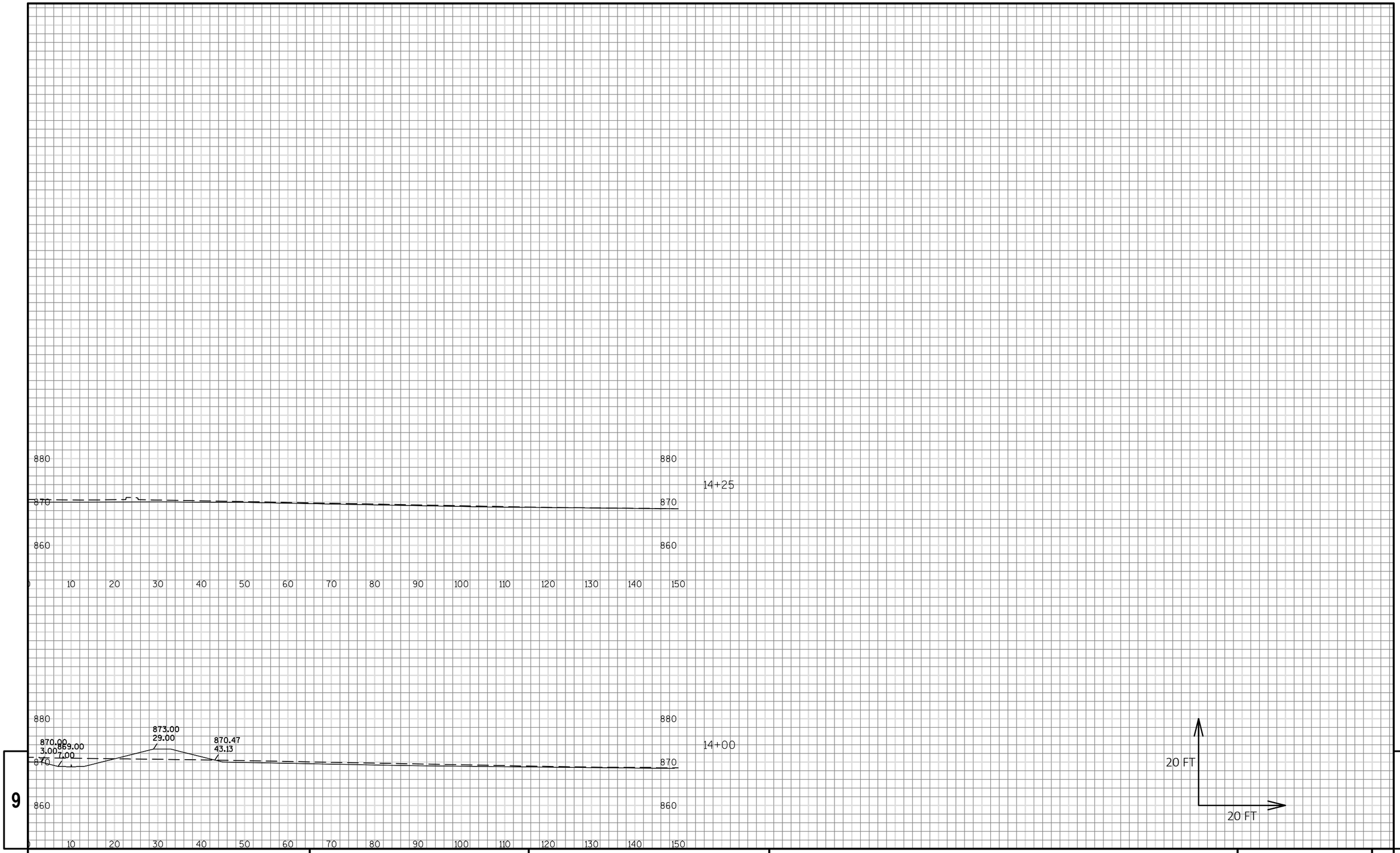
PROJECT NO: 1010-02-89	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: STORMWATER BASIN AND BERM	SHEET 41	E

FILE NAME : C:\PWV8I-LOCAL\BAKER_PROJECTS\ALICIA.MCCONNELL\D0457148\CORRIDOR_SALT STORAGE.DWG
LAYOUT NAME - XS - stormwater 3

PLOT DATE : 1/25/2017 12:38 AM PLOT BY : MCCONNELL, ALICIA PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 1010-02-89	HWY: IH 39	COUNTY: DANE	CROSS SECTIONS: STORMWATER BASIN AND BERM	SHEET 42	E

FILE NAME : C:\PWV8I-LOCAL\BAKER_PROJECTS\ALICIA.MCCONNELL\D0457148\CORRIDOR_SALT STORAGE.DWG
LAYOUT NAME - XS - stormwater 4

PLOT DATE : 1/25/2017 12:38 AM PLOT BY : MCCONNELL, ALICIA PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49

Notes

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov