

MAD

AUGUST 2014

PROJECT ID: 1009-13-03

WITH: N/A

COUNTY: DANE

ORDER OF SHEETS

Section No. 1

Title

Section No. 2

Typical Sections and Details

Section No. 3

Estimate of Quantities

Section No. 3

Miscellaneous Quantities

Section No. 4

Right of Way Plat

Section No. 5

Plan and Profile

Section No. 6

Standard Detail Drawings

Section No. 7

Sign Plates

Section No. 8

Structure Plans

Section No. 9

Computer Earthwork Data

Section No. 9

Cross Sections

TOTAL SHEETS = 26

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

CORPORATE LIMITS

PROPERTY LINE

LOT LINE

LIMITED HIGHWAY EASEMENT

EXISTING RIGHT OF WAY

PROPOSED OR NEW R/W LINE

SLOPE INTERCEPT

REFERENCE LINE

EXISTING CULVERT

PROPOSED CULVERT (Box or Pipe)

COMBUSTIBLE FLUIDS

MARSH AREA

WOODED OR SHRUB AREA

PROFILE

GRADE LINE

ORIGINAL GROUND

MARSH OR ROCK PROFILE (To be noted as such)

SPECIAL DITCH

GRADE ELEVATION

CULVERT (Profile View)

UTILITIES

ELECTRIC

FIBER OPTIC

GAS

SANITARY SEWER

STORM SEWER

TELEPHONE

WATER

UTILITY PEDESTAL

POWER POLE

TELEPHONE POLE

STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

WORLD DAIRY WETLAND MITIGATION BANK SITE

CITY OF MADISON OUTLOT 9 & 10

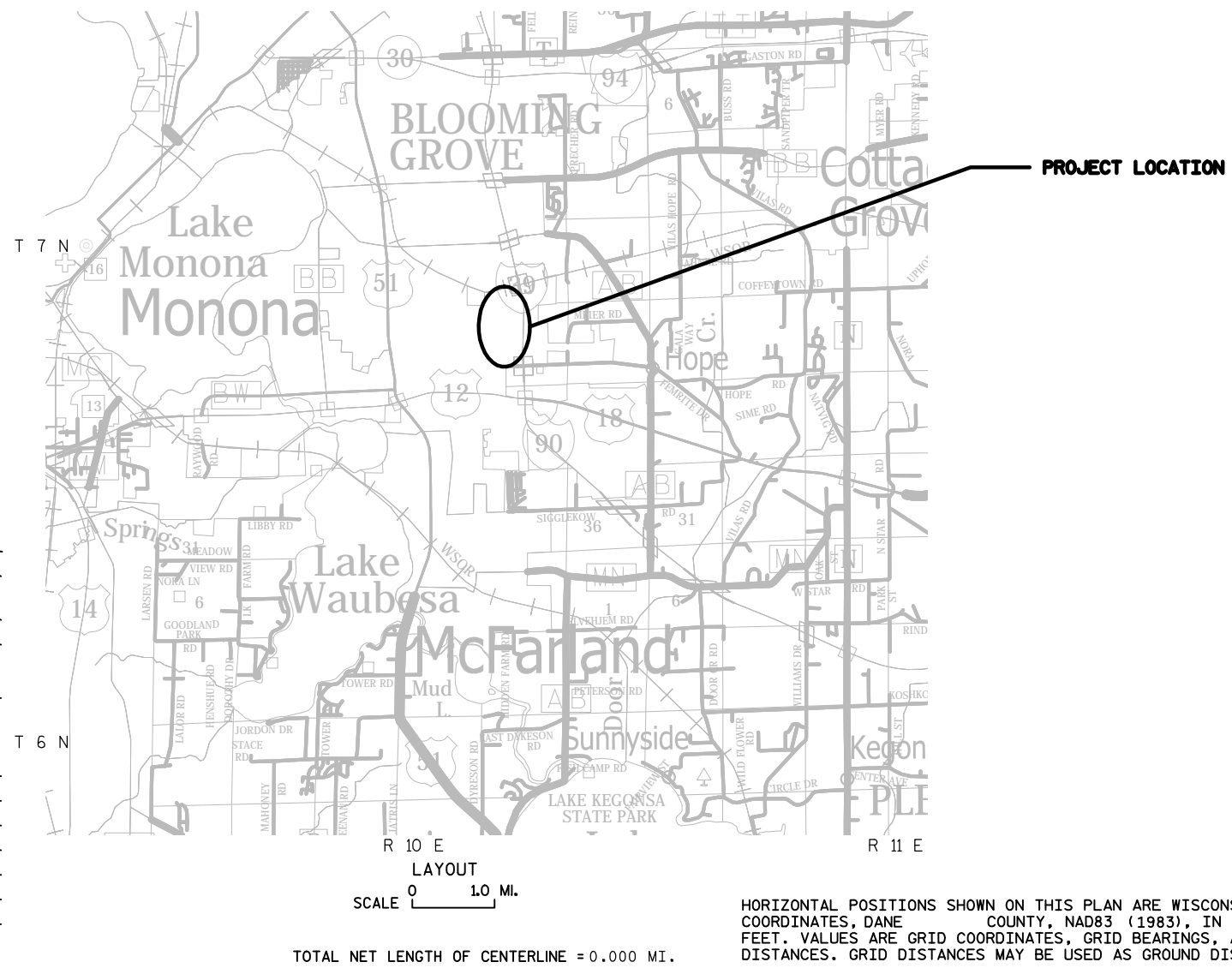
NON-HIGHWAY

DANE COUNTY

STATE PROJECT NUMBER

1009-13-03

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1009-13-03		



ORIGINAL PLANS PREPARED BY

4-29-14

Eric J. Maki

DATE

SIGNATURE

STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor

Designer

Project Manager

Regional Examiner

Regional Supervisor

STANTEC

JENNIFER GRIMES

JOHN STEINER

APPROVED FOR THE DEPARTMENT

DATE: 4/30/14

John J. Steiner

(Signature)

E

GENERAL NOTES

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

ALL TRENCHING LOCATIONS AND OUTFALL END PLUG INSTALLATION LOCATIONS WILL BE STAKED WITH LATHE BY OTHERS PRIOR TO THE START OF CONSTRUCTION.

ALL MATERIALS FOR VALVES, PLUGS, AND CAPS WILL BE PROVIDED TO THE CONTRACTOR.

ALL DISTURBED AREAS WITHIN THE PROJECT LIMITS WILL HAVE A TEMPORARY COVER CROP PLACED BY OTHERS IMMEDIATELY FOLLOWING COMPLETION OF SOIL PLACEMENT.

TEMPORARY STORAGE OF EQUIPMENT AND MATERIALS IN EXISTING WETLANDS IS NOT PERMITTED UNLESS AUTHORIZED BY THE ENGINEER.

ACCESS TO THE SITE IS PERMITTED ONLY AT THE SITE ACCESS POINTS SHOWN ON THE PLANS. EXACT LOCATION OF THE SITE ACCESS POINTS TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

UTILITIES EXIST WITHIN AND ADJACENT TO THE PROJECT AND NOT ANTICIPATED TO BE AFFECTED BY THE PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING DIGGER'S HOTLINE AND ANY UTILITIES IN THE AREA THAT ARE NOT MEMBERS OF DIGGER'S HOTLINE TO HAVE ALL FACILITIES LOCATED IN THE FIELD PRIOR TO THE START OF CONSTRUCTION.

ALL EROSION CONTROL MEASURES ARE TO BE ADJUSTED TO MEET FIELD CONDITIONS AT THE TIME OF CONSTRUCTION AND ARE TO BE INSTALLED PRIOR TO ANY GRADING OR DISTURBANCE OF EXISTING SURFACE MATERIAL ON THE SITE.



WISDOT CONTACT

WISCONSIN DEPARTMENT OF TRANSPORTATION
MS. JENNIFER GRIMES
PROJECT MANAGER
SW REGION - EDGERTON
111 INTERSTATE BLVD.
EDGERTON, WI 53534
PHONE: (608) 884-1147
JENNIFER.GRIMES@DOT.WI.GOV

RAILROAD CONTACT

WISCONSIN & SOUTHERN RAILROAD LLC (WSOR)
MR. CHRIS JACOBSON
1890 E JOHNSON ST.
MADISON, WI 53704
PHONE: (414) 750-6427

UTILITY CONTACTS

AMERICAN TRANSMISSION COMPANY LLC (ATC)
MR. MATT ERNST
SR. REAL ESTATE REPRESENTATIVE
P.O. BOX 6113
DE PERE, WI 54115
PHONE: (920) 338-6573
MERNST@ATCLLC.COM

ATC FIELD CONTACT
MR. DOUG VOSBERG
2489 RINDER ROAD
COTTAGE GROVE, WI 53527
PHONE: (608) 877-7560
CELL: (608) 438-7650
DVOSBERG@ATCLLC.COM

MADISON METROPOLITAN SEWAGE DISTRICT (MMSD)
MR. BRUCE BORELLI
1610 MOORLAND ROAD
MADISON, WI 53713
PHONE: (608) 222-1201

MMSD FIELD CONTACT
MR. RAY SCHNEIDER
1610 MOORLAND ROAD
MADISON, WI 53713
PHONE: (608) 222-1201 EXT. 259
CELL: (608) 347-3628
RAYS@MADSEWER.ORG

DNR CONTACT

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
MR. ERIC HEGGELUND
3911 FISH HATCHERY ROAD
FITCHBURG, WI 53711
PHONE: (608) 275-3301
ERIC.HEGGELUND@WISCONSIN.GOV

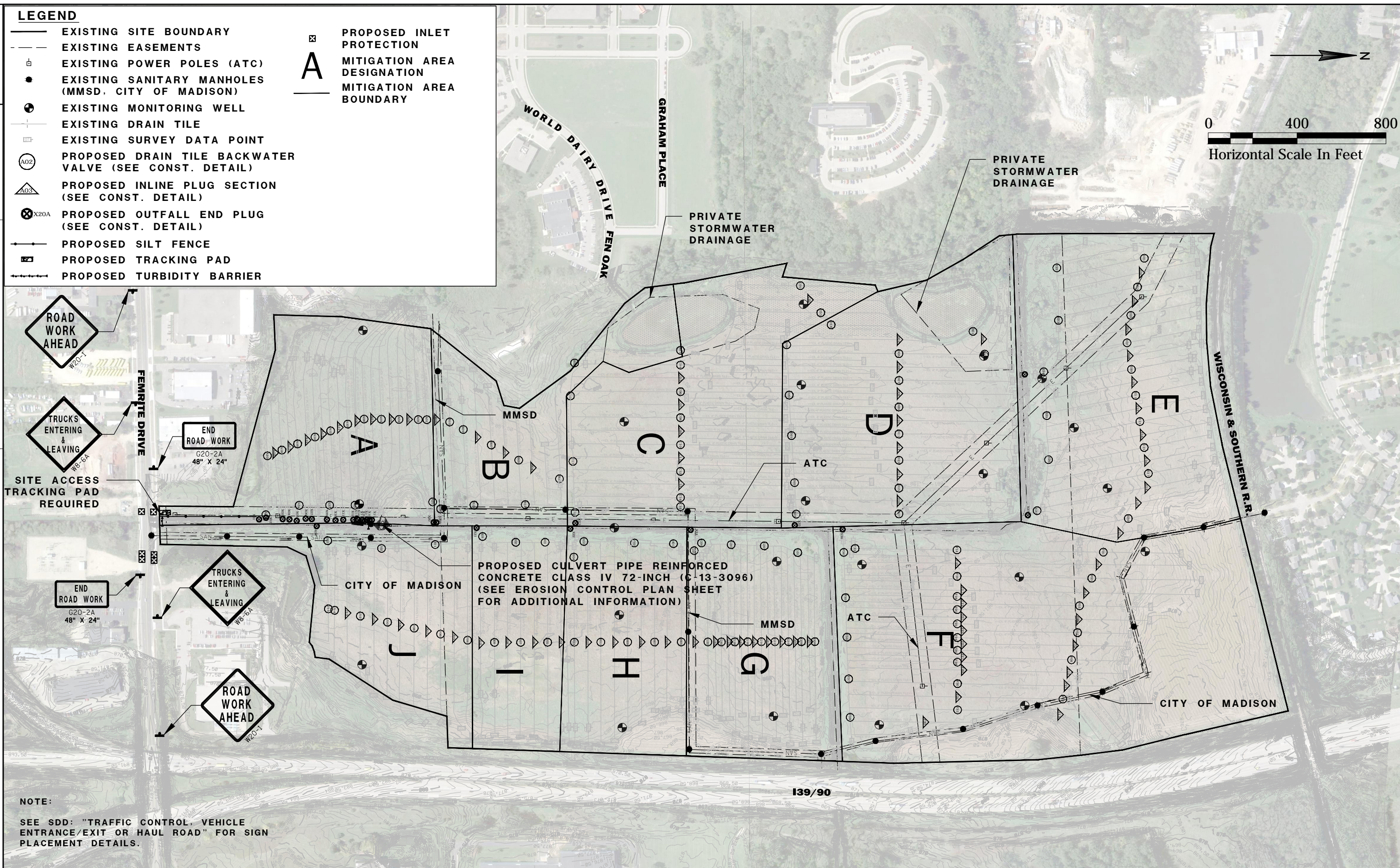
CONSULTANT CONTACT

STANTEC CONSULTING SERVICES
MS. SARAH KRASZEWSKI
209 COMMERCE PARKWAY
P.O. BOX 128
COTTAGE GROVE, WI 53527
PHONE: (608) 839-2039
SARAH.KRASZEWSKI@STANTEC.COM

CITY OF MADISON DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION
MS. JANET DAILEY, PE
210 MARTIN LUTHER KING JR BLVD
ROOM 115
MADISON, WI 53703
PHONE: (608) 261-9688
JDAILEY@CITYOFMADISON.COM

	EXISTING SITE BOUNDARY
	EXISTING EASEMENTS
	EXISTING POWER POLES (ATC)
	EXISTING SANITARY MANHOLES (MMSD, CITY OF MADISON)
	EXISTING MONITORING WELL
	EXISTING DRAIN TILE
	EXISTING SURVEY DATA POINT
	PROPOSED DRAIN TILE BACKWATER VALVE (SEE CONST. DETAIL)
	PROPOSED INLINE PLUG SECTION (SEE CONST. DETAIL)
	PROPOSED OUTFALL END PLUG (SEE CONST. DETAIL)
	PROPOSED SILT FENCE
	PROPOSED TRACKING PAD
	PROPOSED TURBIDITY BARRIER

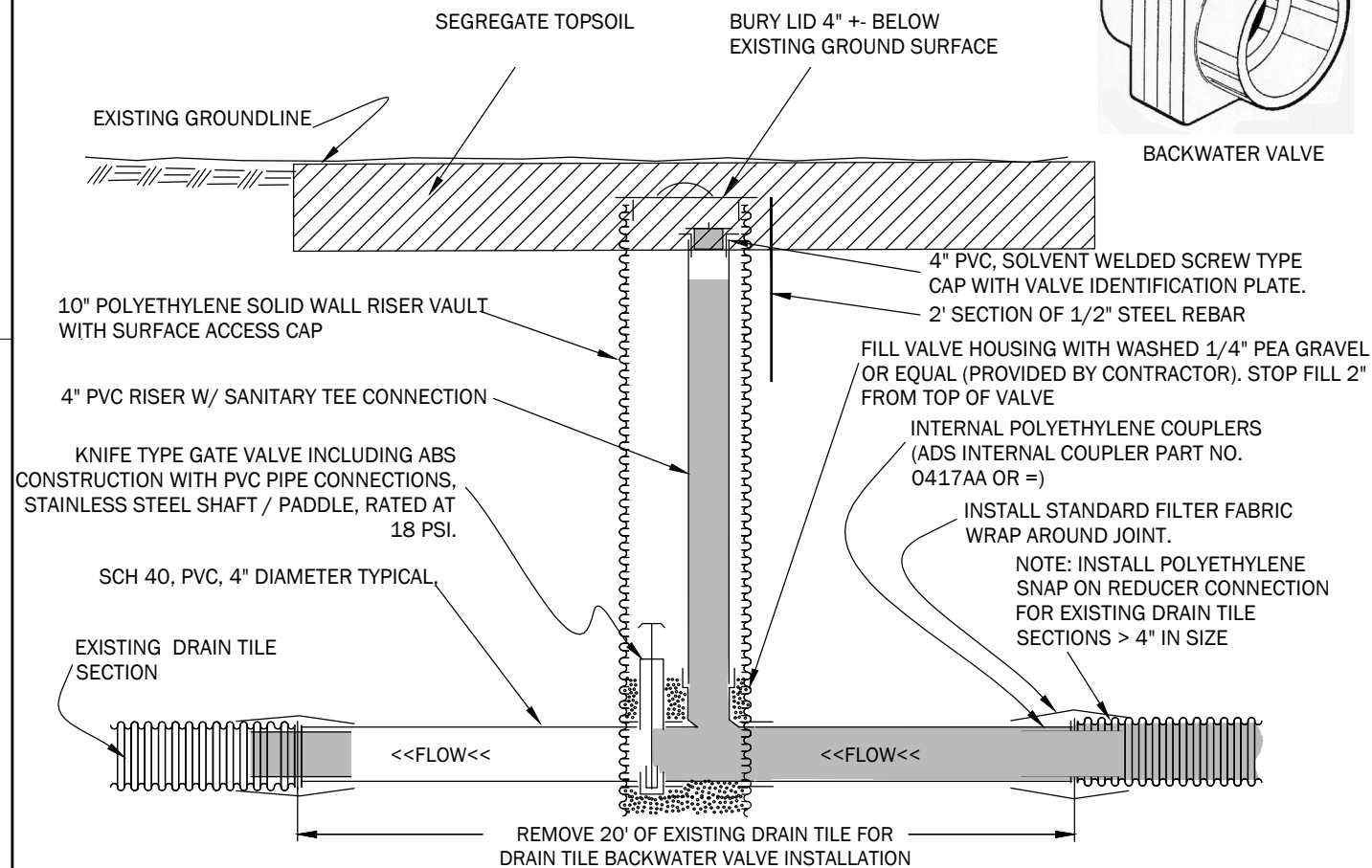
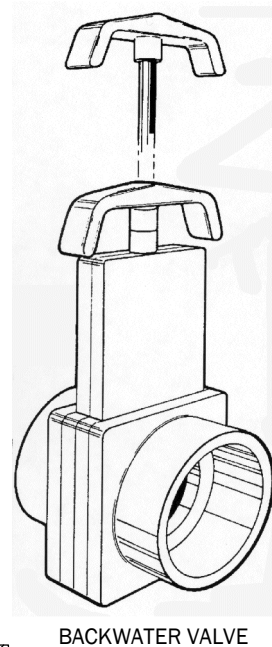
 PROPOSED INLET PROTECTION
 MITIGATION AREA DESIGNATION
 MITIGATION AREA BOUNDARY



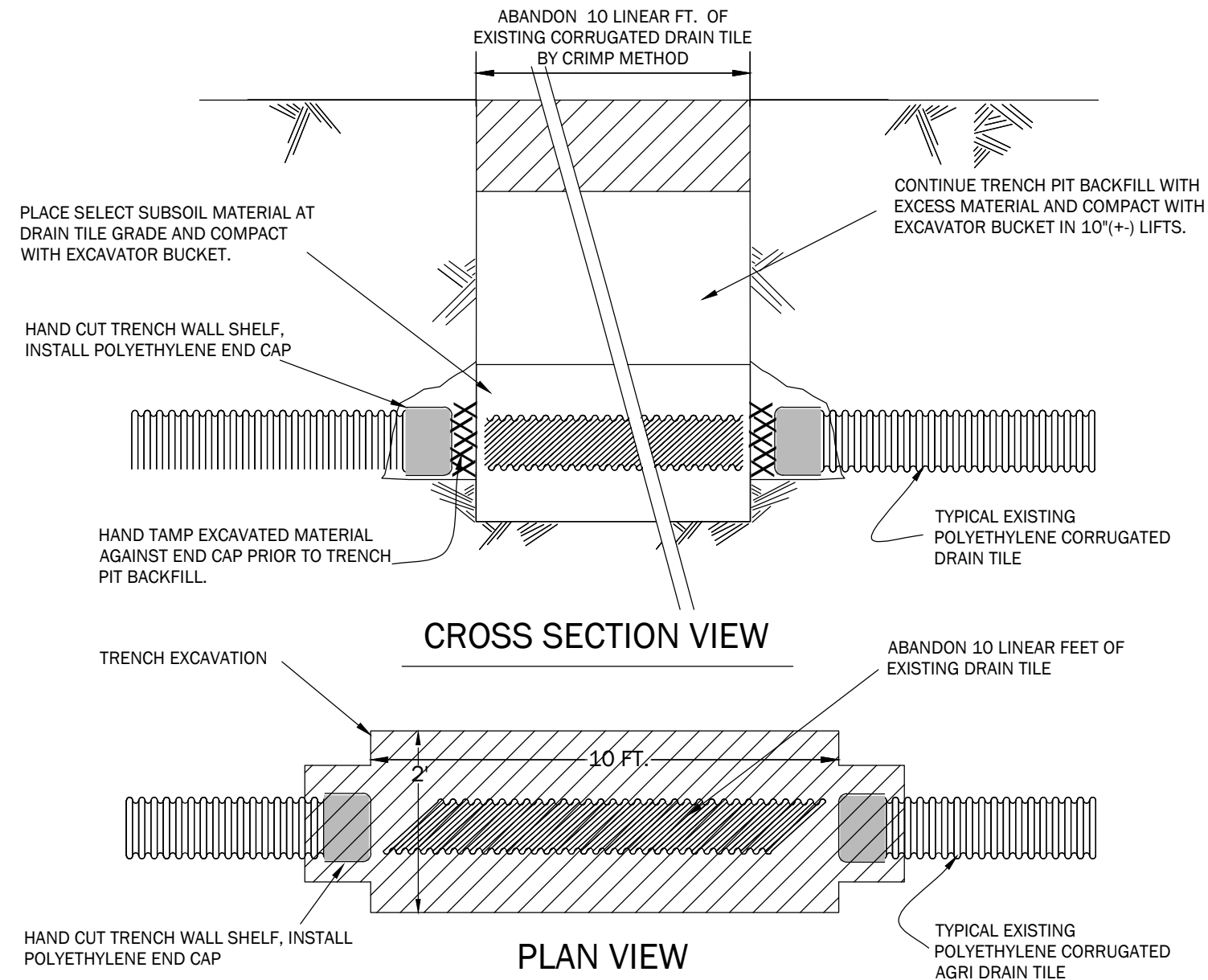
SEE SDD: "TRAFFIC CONTROL, VEHICLE ENTRANCE/EXIT OR HAUL ROAD" FOR SIGN PLACEMENT DETAILS.

CONSTRUCTION SEQUENCE:


1. 130 DRAIN TILE BACKWATER VALVES WILL BE MARKED IN THE FIELD BY ENGINEER IN LOCATIONS SPECIFIED AS G10 ON THE PLAN SHEETS.
2. SEGREGATE TOPSOIL (APPROXIMATELY UPPER 12") FROM SUBSOIL WHEN EXCAVATING TRENCH. EXCAVATE TRENCH AND REMOVE 20 FEET OF EXISTING DRAIN TILE.
3. INSTALL BACKWATER VALVE PACKAGE (PROVIDED TO CONTRACTOR).
4. OBTAIN ENGINEER APPROVAL PRIOR TO BACKFILL.
5. INSTALL REBAR (PROVIDED TO CONTRACTOR) FOR FUTURE LOCATION BY METAL DETECTOR.
6. BACKFILL AND COMPACT TRENCH WITH SUBSOIL, FOLLOWED BY TOPSOIL. SMOOTH TO GRADE (SEEDING BY OTHERS)

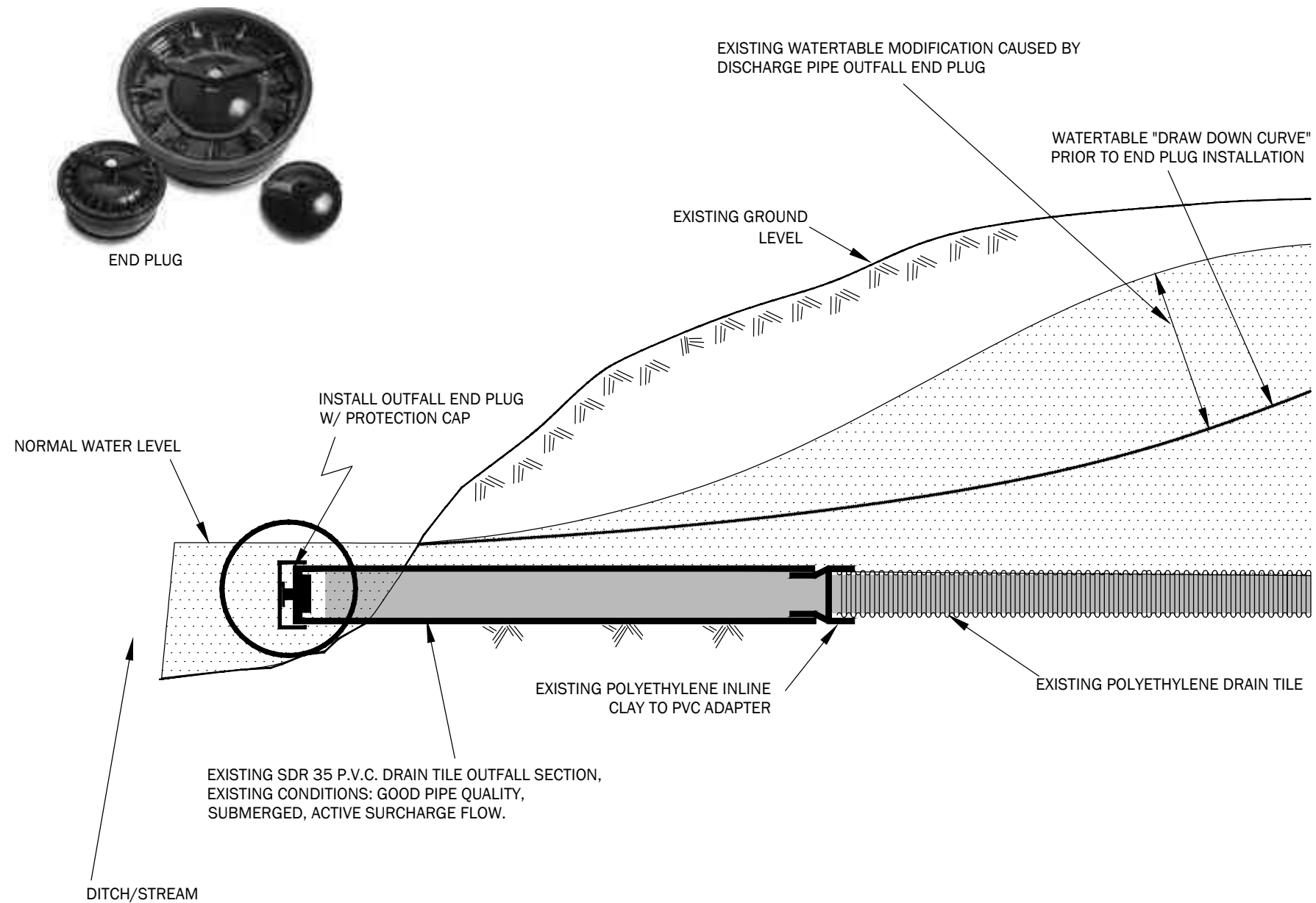
**DRAIN TILE BACKWATER VALVE INSTALLATION****CONSTRUCTION SEQUENCE:**

1. 77 INLINE PLUG SECTIONS WILL BE MARKED IN THE FIELD BY ENGINEER IN LOCATIONS SPECIFIED AS G07 ON THE PLAN SHEETS.
2. SEGREGATE TOPSOIL (APPROXIMATELY UPPER 12") FROM SUBSOIL WHEN EXCAVATING TRENCH.
3. EXCAVATE TRENCH AND ABANDON 10 LINEAR FEET OF EXISTING POLYETHYLENE DRAIN TILE BY PENETRATING COMPLETELY THROUGH THE TILE LINE WITH THE CUTTING EDGE OF AN EXCAVATOR AT A MINIMUM INTERVAL SPACING OF 24".
4. INSTALL 2 POLYETHYLENE END CAPS (PROVIDED TO CONTRACTOR) TO INTACT DRAIN TILE AS SHOWN ON DETAIL.
5. BACKFILL AND COMPACT TRENCH WITH SUBSOIL, FOLLOWED BY TOPSOIL. SMOOTH TO GRADE (SEEDING BY OTHERS).

**INLINE PLUG SECTION INSTALLATION**

CONSTRUCTION SEQUENCE:

1. INSTALL 29 OUTFALL END PLUGS WITH PROTECTION CAPS (PROVIDED TO CONTRACTOR) IN LOCATIONS SPECIFIED AS  ON THE PLAN SHEETS AND AS STAKED BY THE ENGINEER IN THE FIELD.



OUTFALL END PLUG INSTALLATION

2

LEGEND

- | | | | |
|---|---|---|-----------------------------|
|  | EXISTING SITE BOUNDARY |  | MITIGATION AREA DESIGNATION |
|  | EXISTING EASEMENTS |  | MITIGATION AREA BOUNDARY |
|  | EXISTING POWER POLES (ATC) |  | PROPOSED SILT FENCE |
|  | EXISTING SANITARY MANHOLES
(MMSD, CITY OF MADISON) |  | PROPOSED TRACKING PAD |
|  | EXISTING MONITORING WELL |  | PROPOSED TURBIDITY BARRIER |
| | |  | PROPOSED INLET PROTECTION |

EROSION CONTROL NOTES

ALL EROSION CONTROL MEASURES ARE TO BE ADJUSTED TO MEET FIELD CONDITIONS AT THE TIME OF CONSTRUCTION AND ARE TO BE INSTALLED PRIOR TO ANY GRADING OR DISTURBANCE OF EXISTING SURFACE MATERIAL ON SITE.

INSTALL ALL OUTFALL END PLUGS AND ANY DRAIN TILE BACKWATER VALVES AND INLINE PLUG SECTIONS WITHIN 100 FEET OF THE EXISTING CHANNEL FIRST. THEN TURBIDITY BARRIER CAN BE REMOVED. INSTALL REMAINING DRAIN TILE BACKWATER VALVES AND INLINE PLUG SECTIONS.

ALL DISTURBED AREAS WITHIN THE PROJECT LIMITS WILL HAVE A TEMPORARY COVER CROP PLACED BY OTHERS IMMEDIATELY FOLLOWING COMPLETION OF SOIL PLACEMENT/GRADING.


**HEAVY RIPRAP
UNDERLAIN WITH
GEOTEXTILE FABRIC
TYPE HB**

**APRON ENDWALL
FOR CULVERT PIPE
REINFORCED
CONCRETE 72-INCH**

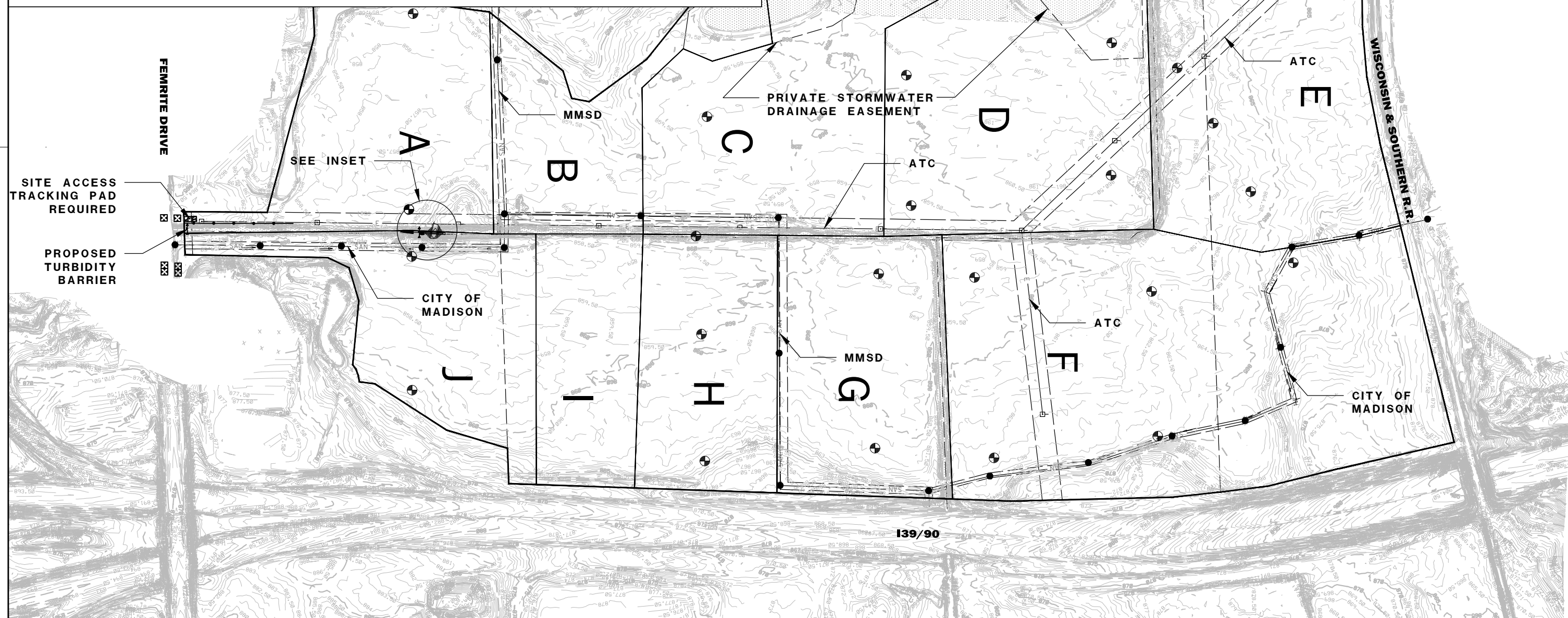
— INSTALL TURBIDITY BARRIER PRIOR TO CULVERT CONSTRUCTION.
 \ REMOVE AFTER CULVERT CONSTRUCTION.

PROPOSED CULVERT PIPE REINFORCED
CONCRETE CLASS IV 72-INCH (C-13-3096)
INLET INV. ELEV. = 854.00
OUTLET INV. ELEV. = 853.80
LENGTH = 70 FT

PROPOSED 20' WIDE
GRAVEL DRIVE WITH
24" OF COVER OVER
RCP. 3H:1V SIDE
SLOPES. (6" OF BASE
AGGREGATE DENSE
3/4-INCH UNDERLAIN
WITH GEOTEXTILE
FABRIC TYPE SAS)



A horizontal scale bar labeled "Horizontal Scale In Feet". The scale has markings at 0, 400, and 800 feet. The bar is divided into segments: a white segment from 0 to 200 feet, a black segment from 200 to 400 feet, a white segment from 400 to 600 feet, a black segment from 600 to 800 feet, and a white segment from 800 to 1000 feet.



PROJECT NO: 1009-13-03

HWY: NON-HIGHWAY

COUNTY: DANE

PLAN: WORLD DAIRY WETLAND MITIGATION EROSION CONTROL

SHEET _____ E

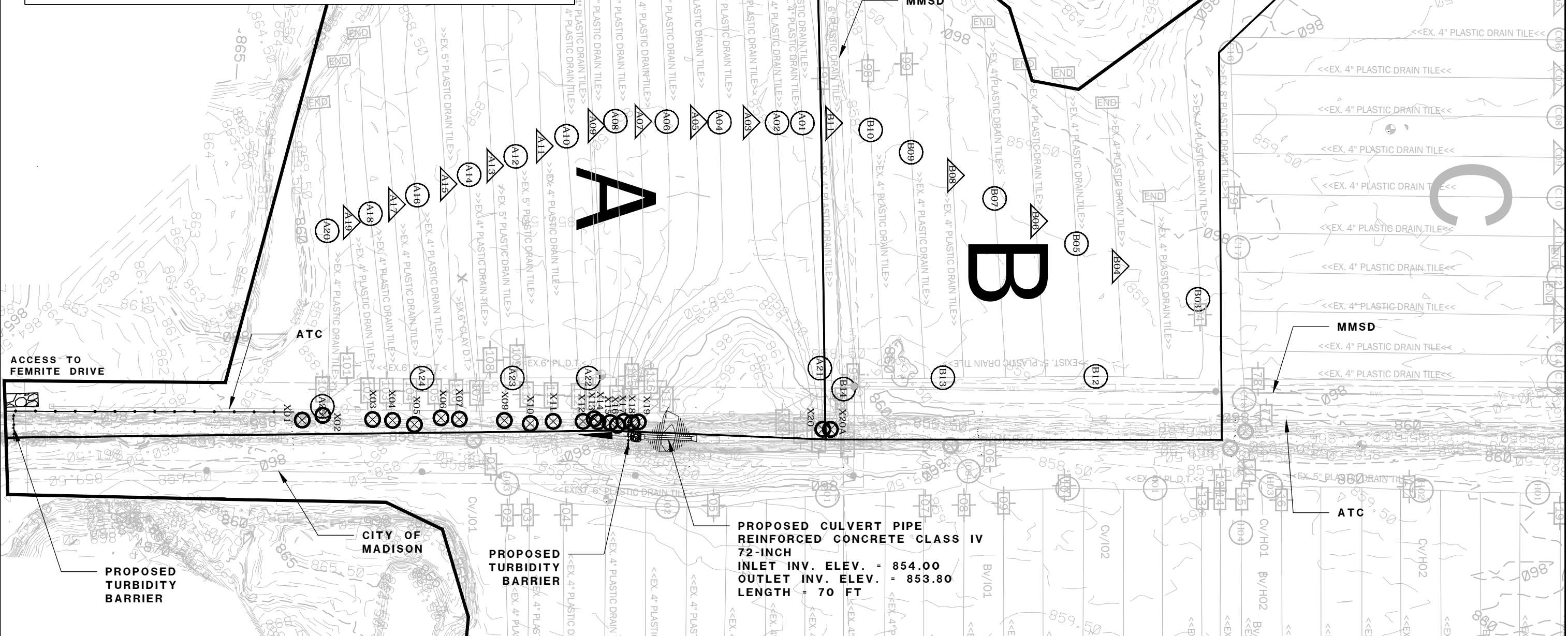
LEGEND

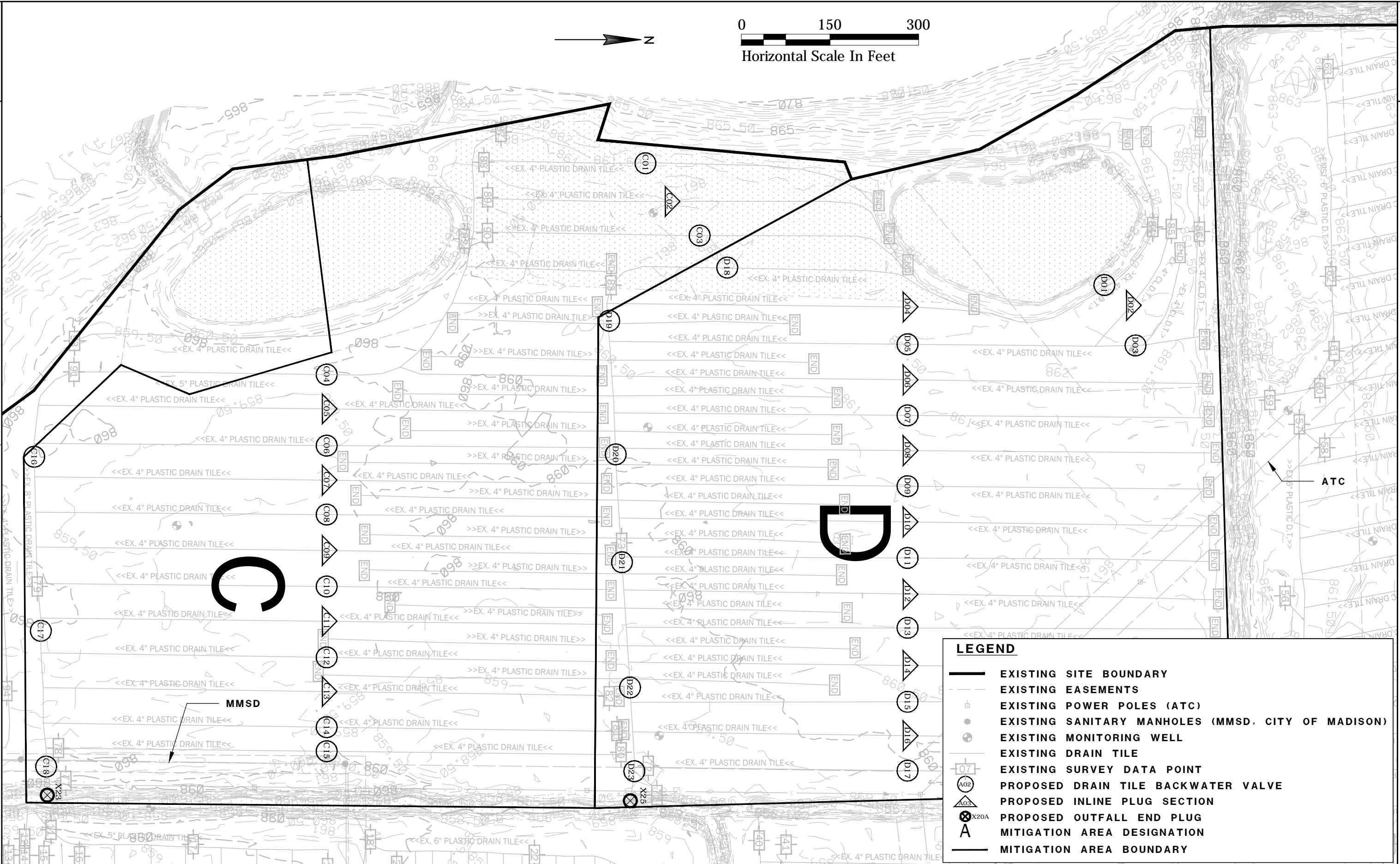
- EXISTING SITE BOUNDARY
- EXISTING EASEMENTS
- EXISTING POWER POLES (ATC)
- EXISTING SANITARY MANHOLES (MMSD, CITY OF MADISON)
- EXISTING MONITORING WELL
- EXISTING DRAIN TILE
- EXISTING SURVEY DATA POINT
- PROPOSED DRAIN TILE BACKWATER VALVE (SEE CONST. DETAIL)
- PROPOSED INLINE PLUG SECTION (SEE CONST. DETAIL)
- PROPOSED OUTFALL END PLUG (SEE CONST. DETAIL)
- PROPOSED SILT FENCE
- PROPOSED TRACKING PAD
- PROPOSED TURBIDITY BARRIER
- A

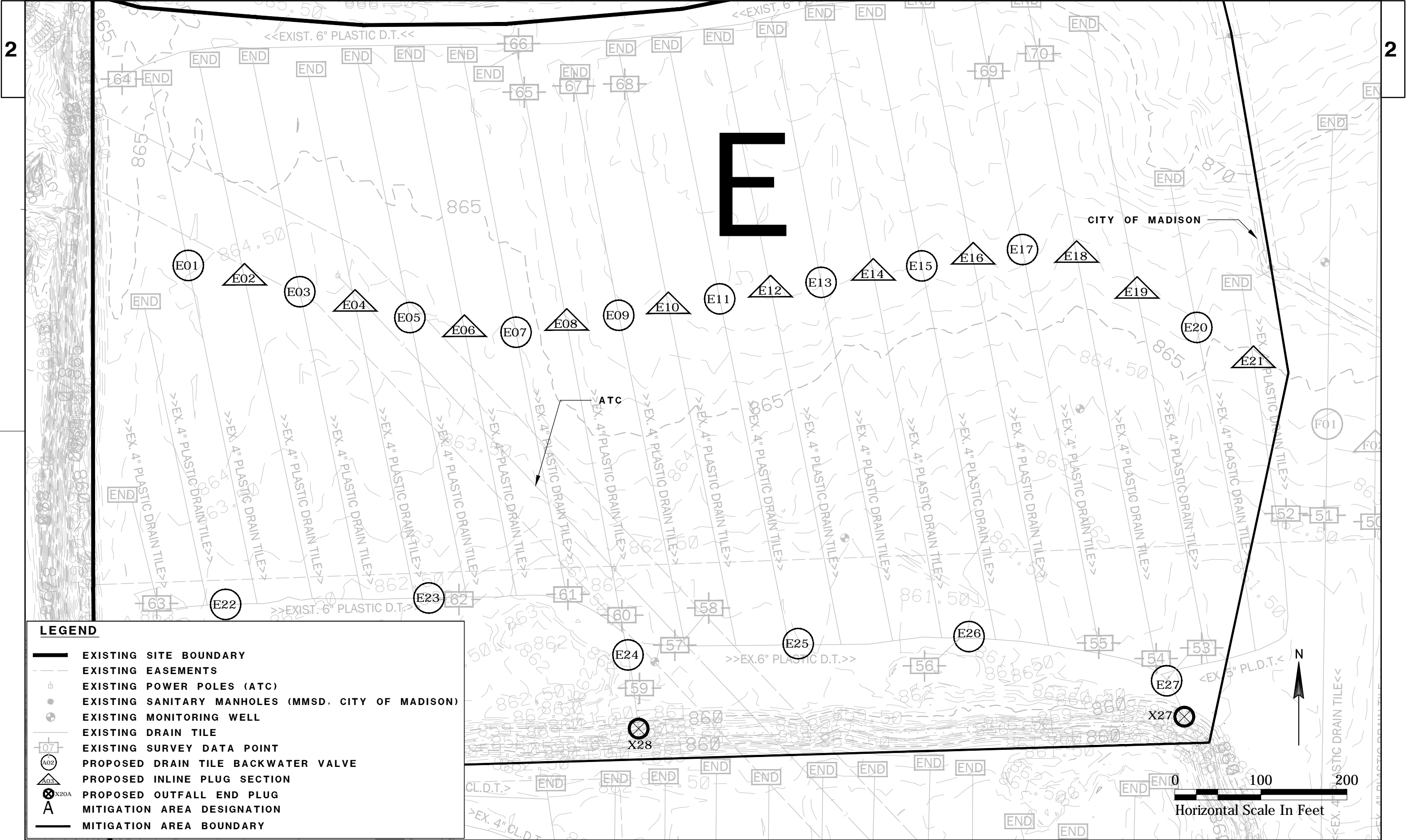
MITIGATION AREA DESIGNATION
- MITIGATION AREA BOUNDARY

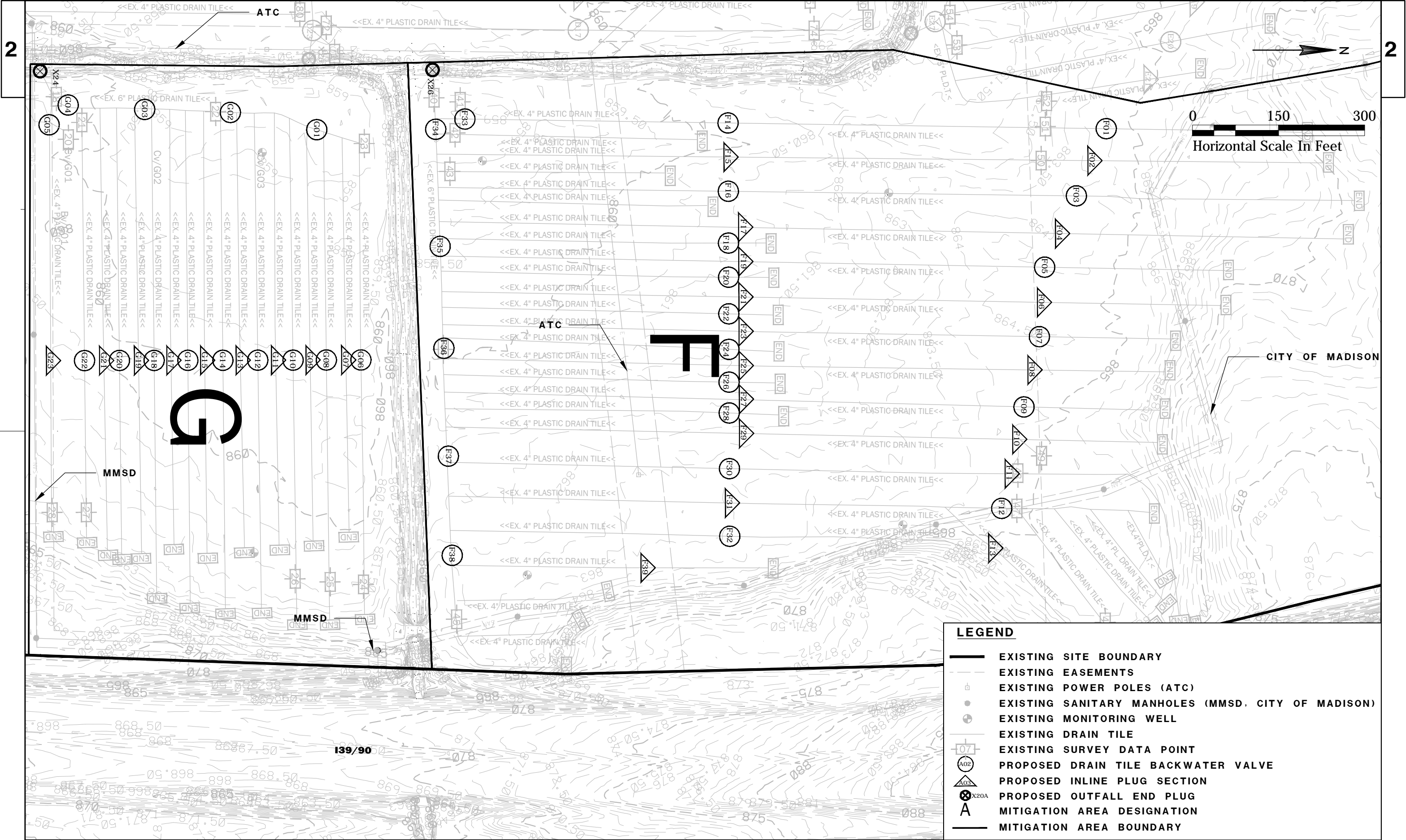


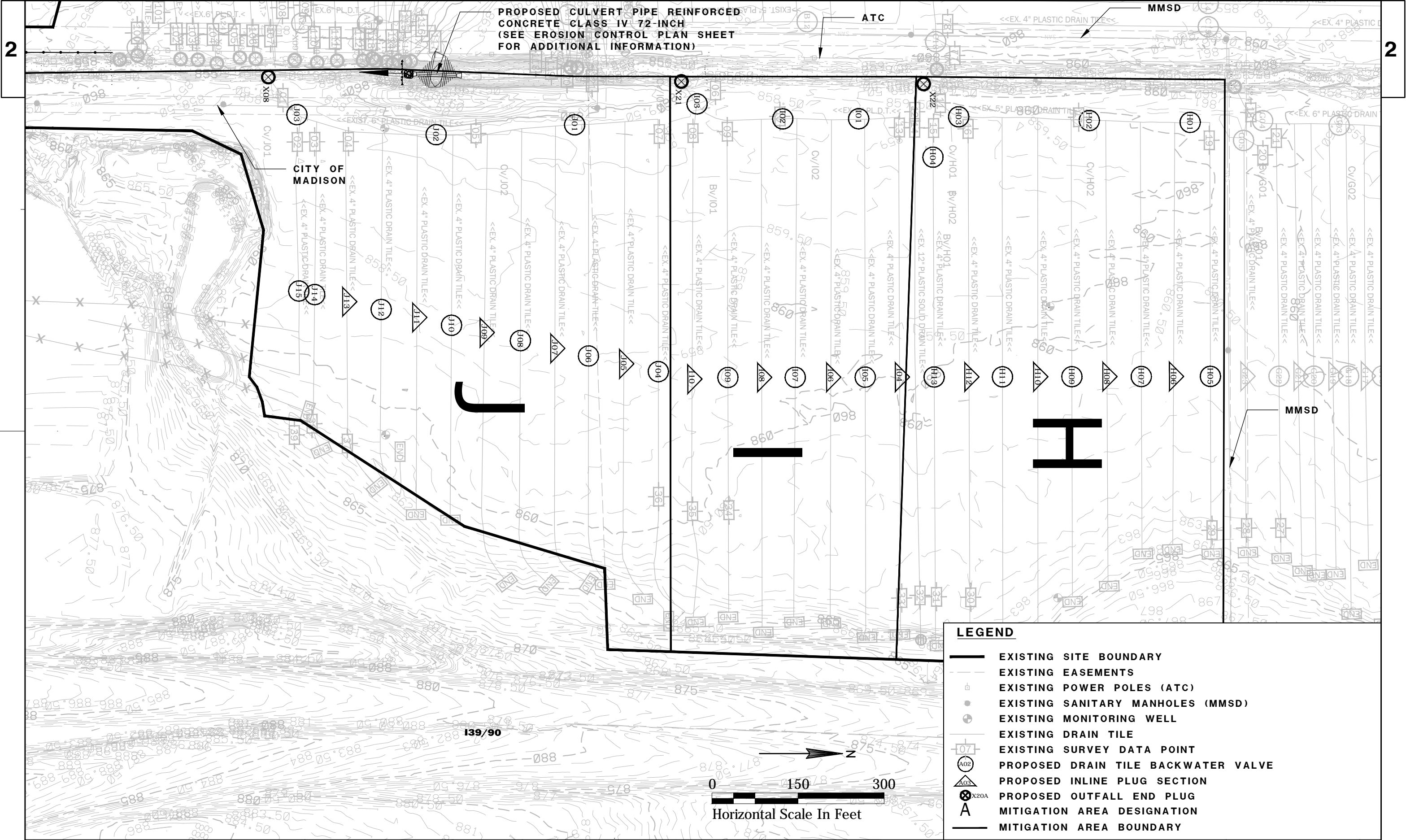
0 150 300
Horizontal Scale In Feet












DESCRIPTION CHART :  SURVEY DATA POINT LOCATIONS						
DATA POINT	SZ.	TYPE / QUALITY	GROUND ELEV.	DEPTH HUB/INV.	TILE INVERT ELEV.	FIELD NOTES:
1	6"	PLASTIC/GOOD	858.64-	50" / 4.16	854.48	ACTIVE FLOW AND CAPACITY
2	5"	PLASTIC/GOOD	858.17-	36" / 3.00	855.17	ACTIVE FLOW AND CAPACITY
3	4"	PLASTIC/GOOD	857.99-	35" / 2.91	855.08	ACTIVE FLOW AND CAPACITY
4	4"	PLASTIC/GOOD	857.98-	37" / 3.08	854.90	ACTIVE FLOW AND CAPACITY
5	6"	PLASTIC/GOOD	859.46-	52" / 4.33	855.13	ACTIVE FLOW AND CAPACITY
6	6"	PLASTIC/GOOD	858.63-	44" / 3.66	854.97	ACTIVE FLOW AND CAPACITY
7	4"	PLASTIC/GOOD	859.23-	38" / 3.16	856.07	ACTIVE FLOW AND CAPACITY
8	5"	PLASTIC/GOOD	858.65-	34" / 2.83	855.82	ACTIVE FLOW AND CAPACITY
9	4"	PLASTIC/GOOD	858.31-	33" / 2.75	855.56	ACTIVE FLOW AND CAPACITY
10	5"	PLASTIC/GOOD	858.56-	40" / 3.33	855.23	ACTIVE FLOW AND CAPACITY
11	12"	PL/N-12/GOOD	859.40-	52" / 4.33	855.07	ACTIVE FLOW AND CAPACITY
12	6"	PLASTIC/GOOD	859.95-	56" / 4.66	855.27	ACTIVE FLOW AND CAPACITY
13	4"	PLASTIC/GOOD	858.88-	33" / 2.75	856.13	ACTIVE FLOW AND CAPACITY
14	12"	PL/N-12/GOOD	858.97-	46" / 3.83	855.14	ACTIVE FLOW AND CAPACITY
15	4"	PLASTIC/GOOD	859.10-	37" / 3.08	856.02	ACTIVE FLOW AND CAPACITY
16	4"	PLASTIC/GOOD	859.34-	44" / 3.66	855.68	ACTIVE FLOW AND CAPACITY
17	5"	PLASTIC/GOOD	859.77-	49" / 4.08	855.69	ACTIVE FLOW AND CAPACITY
18	6"	PLASTIC/GOOD	860.60-	64" / 5.33	855.27	ACTIVE FLOW AND CAPACITY
19	4"	PLASTIC/GOOD	860.12-	46" / 3.83	856.29	ACTIVE FLOW AND CAPACITY
20	5"	PLASTIC/GOOD	860.31-	55" / 4.58	855.73	ACTIVE FLOW AND CAPACITY
21	4"	PLASTIC/GOOD	860.17-	52" / 4.33	855.84	ACTIVE FLOW AND CAPACITY
22	6"	PLASTIC/GOOD	858.96-	41" / 3.41	855.55	ACTIVE FLOW AND CAPACITY
23	6"	PLASTIC/GOOD	858.96-	41" / 3.41	855.55	ACTIVE FLOW AND CAPACITY
24	4"	PLASTIC/GOOD	861.05-	45" / 3.75	857.30	ACTIVE FLOW AND CAPACITY
25	4"	PLASTIC/GOOD	861.00-	43" / 3.58	857.42	ACTIVE FLOW AND CAPACITY
26	4"	PLASTIC/GOOD	860.84-	43" / 3.58	857.26	ACTIVE FLOW AND CAPACITY
27	4"	PLASTIC/GOOD	861.32-	49" / 4.08	857.24	ACTIVE FLOW AND CAPACITY
28	4"	PLASTIC/GOOD	862.45-	49" / 4.08	858.37	ACTIVE FLOW AND CAPACITY
29	4"	PLASTIC/GOOD	862.82-	49" / 4.08	858.74	ACTIVE FLOW AND CAPACITY
30	4"	PLASTIC/GOOD	861.89-	40" / 3.33	858.56	ACTIVE FLOW AND CAPACITY
31	4"	PLASTIC/GOOD	862.23-	44" / 3.66	858.57	ACTIVE FLOW AND CAPACITY
32	12"	PL/N-12/GOOD	862.18-	51" / 4.25	857.93	ACTIVE FLOW AND CAPACITY
33	4"	PLASTIC/GOOD	861.93-	48" / 4.00	857.93	ACTIVE FLOW AND CAPACITY
34	4"	PLASTIC/GOOD	860.84-	50" / 4.16	856.68	ACTIVE FLOW AND CAPACITY
35	4"	PLASTIC/GOOD	860.03-	37" / 3.08	856.95	ACTIVE FLOW AND CAPACITY
36	4"	PLASTIC/GOOD	859.42-	31" / 2.58	856.84	ACTIVE FLOW AND CAPACITY
37	4"	PLASTIC/GOOD	861.97-	46" / 3.83	858.14	ACTIVE FLOW AND CAPACITY
38	4"	PLASTIC/GOOD	862.33-	44" / 3.66	858.67	ACTIVE FLOW AND CAPACITY
39	4"	PLASTIC/GOOD	862.37-	50" / 4.16	858.21	ACTIVE FLOW AND CAPACITY
40	8"	PLASTIC/GOOD	858.74-	38" / 3.16	855.58	ACTIVE FLOW AND CAPACITY
41	5"	PLASTIC/GOOD	859.24-	39" / 3.25	855.99	ACTIVE FLOW AND CAPACITY
42	5"	PLASTIC/GOOD	859.11-	35" / 2.91	856.20	ACTIVE FLOW AND CAPACITY
43	4"	PLASTIC/GOOD	859.56-	34" / 2.83	856.73	ACTIVE FLOW AND CAPACITY
44	6"	PLASTIC/GOOD	860.17-	47" / 3.91	856.26	ACTIVE FLOW AND CAPACITY
45	6"	PLASTIC/GOOD	862.74-	49" / 4.08	858.66	ACTIVE FLOW AND CAPACITY
46	4"	PLASTIC/GOOD	865.24	44" / 3.66	861.58	ACTIVE FLOW AND CAPACITY
47	5"	PLASTIC/GOOD	864.52-	50" / 4.16	860.36	ACTIVE FLOW AND CAPACITY
48	5"	PLASTIC/GOOD	864.36-	50" / 4.16	860.20	ACTIVE FLOW AND CAPACITY
49	5"	PLASTIC/GOOD	864.27-	51" / 4.25	860.02	ACTIVE FLOW AND CAPACITY
50	4"	PLASTIC/GOOD	862.78-	37" / 3.08	859.70	ACTIVE FLOW AND CAPACITY
51	4"	PLASTIC/GOOD	863.02-	43" / 3.58	859.44	ACTIVE FLOW AND CAPACITY
52	5"	PLASTIC/GOOD	862.64-	47" / 3.91	858.73	ACTIVE FLOW AND CAPACITY
53	6"	PLASTIC/GOOD	861.38-	50" / 4.16	857.22	ACTIVE FLOW AND CAPACITY
54	4"	PLASTIC/GOOD	861.50-	46" / 3.83	857.67	ACTIVE FLOW AND CAPACITY
55	4"	PLASTIC/GOOD	861.78-	47" / 3.91	857.87	ACTIVE FLOW AND CAPACITY
56	6"	PLASTIC/GOOD	861.41-	47" / 3.91	857.50	ACTIVE FLOW AND CAPACITY
57	5"	PLASTIC/GOOD	861.77-	48" / 4.00	857.77	ACTIVE FLOW AND CAPACITY
58	5"	PLASTIC/GOOD	862.00-	47" / 3.91	858.09	ACTIVE FLOW AND CAPACITY
59	6"	PLASTIC/GOOD	861.72-	50" / 4.16	857.56	ACTIVE FLOW AND CAPACITY
60	4"	PLASTIC/GOOD	861.28-	41" / 3.41	857.87	ACTIVE FLOW AND CAPACITY
61	4"	PLASTIC/GOOD	861.27-	35" / 2.91	858.36	ACTIVE FLOW AND CAPACITY
62	6"	PLASTIC/GOOD	862.45-	54" / 4.50	857.95	ACTIVE FLOW AND CAPACITY
63	5"	PLASTIC/GOOD	863.20-	43" / 3.58	859.62	ACTIVE FLOW AND CAPACITY
64	6"	PLASTIC/GOOD	865-81-	58" / 4.83	861.01	ACTIVE FLOW AND CAPACITY
65	4"	PLASTIC/GOOD	865.50-	40" / 3.33	862.17	ACTIVE FLOW AND CAPACITY
66	6"	PLASTIC/GOOD	865.36-	46" / 3.83	861.57	ACTIVE FLOW AND CAPACITY
67	4"	PLASTIC/GOOD	865.96-	37" / 3.08	862.88	ACTIVE FLOW AND CAPACITY

PROJECT NO:1009-13-03


HWY: NON-HIGHWAY

COUNTY: DANE

PLAN: WORLD DAIRY WETLAND MITIGATION SURVEY POINTS

SHEET -----

E

DESCRIPTION CHART :  SURVEY DATA POINT LOCATIONS						
DATA POINT	SZ.	TYPE / QUALITY	GROUND ELEV.	DEPTH HUB/INV.	TILE INVERT ELEV.	FIELD NOTES:
68	4"	PLASTIC/GOOD	866.62-	40" / 3.33	863.29	ACTIVE FLOW AND CAPACITY
69	4"	PLASTIC/GOOD	868.24-	46" / 3.83	864.41	ACTIVE FLOW AND CAPACITY
70	4"	PLASTIC/GOOD	868.12-	59" / 4.91	863.21	ACTIVE FLOW AND CAPACITY
71	8"	PLASTIC/GOOD	858.73-	43" / 3.58	855.15	ACTIVE FLOW AND CAPACITY
72	4"	PLASTIC/GOOD	858.54-	33" / 2.75	855.76	ACTIVE FLOW AND CAPACITY
73	6"	PLASTIC/GOOD	859.41-	44" / 3.66	855.75	ACTIVE FLOW AND CAPACITY
74	4"	PLASTIC/GOOD	860.58-	39" / 3.25	857.33	ACTIVE FLOW AND CAPACITY
75	4"	PLASTIC/GOOD	860.67-	40" / 3.33	857.34	ACTIVE FLOW AND CAPACITY
76	4"	PLASTIC/GOOD	860.37-	34" / 2.83	857.54	ACTIVE FLOW AND CAPACITY
77	8"	PLASTIC/GOOD	859.81-	55" / 4.58	855.23	ACTIVE FLOW AND CAPACITY
78	4"	PLASTIC/GOOD	858.90-	39" / 3.25	855.65	ACTIVE FLOW AND CAPACITY
79	8"	PLASTIC/GOOD	860.23-	54" / 4.50	855.73	ACTIVE FLOW AND CAPACITY
80	4"	PLASTIC/GOOD	858.59-	24" / 2.00	856.59	ACTIVE FLOW AND CAPACITY
81	4"	PLASTIC/GOOD	858.90-	28" / 2.33	856.57	ACTIVE FLOW AND CAPACITY
82	4"	PLASTIC/GOOD	858.87-	27" / 2.25	856.62	ACTIVE FLOW AND CAPACITY
83	4"	PLASTIC/GOOD	860.66-	39" / 3.25	857.41	ACTIVE FLOW AND CAPACITY
84	4"	PLASTIC/GOOD	861.88-	39" / 3.25	858.63	ACTIVE FLOW AND CAPACITY
85	4"	PLASTIC/GOOD	861.13-	28" / 2.33	858.80	ACTIVE FLOW AND CAPACITY
86	4"	PLASTIC/GOOD	862.17-	38" / 3.16	859.01	ACTIVE FLOW AND CAPACITY
87	5"	PLASTIC/GOOD	861.75-	44" / 3.66	858.09	ACTIVE FLOW AND CAPACITY
88	5"	PLASTIC/GOOD	860.98-	35" / 2.91	858.07	ACTIVE FLOW AND CAPACITY
89	4"	PLASTIC/GOOD	860.53-	30" / 2.50	858.03	ACTIVE FLOW AND CAPACITY
90	4"	PLASTIC/GOOD	860.44-	32" / 2.66	857.78	ACTIVE FLOW AND CAPACITY
91	5"	PLASTIC/GOOD	860.05-	43" / 3.58	856.47	ACTIVE FLOW AND CAPACITY
92	4"	PLASTIC/GOOD	861.17-	41" / 3.41	857.76	ACTIVE FLOW AND CAPACITY
93	4"	PLASTIC/GOOD	860.04-	35" / 2.91	857.13	ACTIVE FLOW AND CAPACITY
94	4"	PLASTIC/GOOD	859.37-	34" / 2.83	856.54	ACTIVE FLOW AND CAPACITY
95	5"	PLASTIC/GOOD	859.27-	45" / 3.75	855.52	ACTIVE FLOW AND CAPACITY
96	6"	PLASTIC/GOOD	860.81-	67" / 5.58	855.23	ACTIVE FLOW AND CAPACITY
97	4"	PLASTIC/GOOD	858.66-	31" / 2.58	856.08	ACTIVE FLOW AND CAPACITY
98	4"	PLASTIC/GOOD	858.54-	31" / 2.58	855.96	ACTIVE FLOW AND CAPACITY
99	4"	PLASTIC/GOOD	859.24-	35" / 2.91	856.33	ACTIVE FLOW AND CAPACITY
100	4"	PLASTIC/GOOD	858.64-	46" / 3.83	854.81	ACTIVE FLOW AND CAPACITY
101	5"	PLASTIC/GOOD	858.62-	43" / 3.58	855.04	ACTIVE FLOW AND CAPACITY
102	4"	PLASTIC/GOOD	858.12-	40" / 3.33	854.79	ACTIVE FLOW AND CAPACITY
103	4"	PLASTIC/GOOD	857.80-	37" / 3.08	854.72	ACTIVE FLOW AND CAPACITY
104	4"	PLASTIC/GOOD	857.97-	39" / 3.25	854.72	ACTIVE FLOW AND CAPACITY
105	4"	PLASTIC/GOOD	858.29-	44" / 3.66	854.63	ACTIVE FLOW AND CAPACITY
106	4"	PLASTIC/GOOD	858.73-	49" / 4.08	854.65	ACTIVE FLOW AND CAPACITY
107	6"	CLAY / FAIR	858.58-	33" / 2.75	855.83	ACTIVE FLOW AND CAPACITY
108	4"	PLASTIC/GOOD	858.13-	42" / 3.50	854.63	ACTIVE FLOW AND CAPACITY
109	4"	PLASTIC/GOOD	858.46-	46" / 3.83	854.63	ACTIVE FLOW AND CAPACITY
110	4"	PLASTIC/GOOD	858.54-	46" / 3.83	854.71	ACTIVE FLOW AND CAPACITY
111	5"	PLASTIC/GOOD	858.18-	42" / 3.50	854.68	ACTIVE FLOW AND CAPACITY
112	5"	PLASTIC/GOOD	858.60-	47" / 3.91	854.69	ACTIVE FLOW AND CAPACITY
113	5"	PLASTIC/GOOD	859.28-	54" / 4.50	854.78	ACTIVE FLOW AND CAPACITY
114	5"	PLASTIC/GOOD	858.94-	53" / 4.41	854.53	ACTIVE FLOW AND CAPACITY
115	5"	PLASTIC/GOOD	858.98-	53" / 4.41	854.57	ACTIVE FLOW AND CAPACITY
116	4"	PLASTIC/GOOD	859.17-	54" / 4.50	854.67	ACTIVE FLOW AND CAPACITY
117	5"	PLASTIC/GOOD	859.81-	60" / 5.00	854.81	ACTIVE FLOW AND CAPACITY
118	5"	PLASTIC/GOOD	860.39-	65" / 5.41	854.98	ACTIVE FLOW AND CAPACITY
119	5"	PLASTIC/GOOD	860.22-	62" / 5.16	855.06	ACTIVE FLOW AND CAPACITY
120	5"	PLASTIC/GOOD	860.35-	64" / 5.33	855.02	ACTIVE FLOW AND CAPACITY
121	5"	PLASTIC/GOOD	860.37-	63" / 5.25	855.12	ACTIVE FLOW AND CAPACITY
122	4"	PLASTIC/GOOD	859.99-	26" / 2.16	857.83	ACTIVE FLOW AND CAPACITY
123	5"	PLASTIC/GOOD	858.94-	23" / 2.66	856.28	ACTIVE FLOW AND CAPACITY
124	5"	PLASTIC/GOOD	858.70-	31" / 2.58	856.12	ACTIVE FLOW AND CAPACITY
125	5"	PLASTIC/GOOD	858.60-	28" / 2.33	856.27	ACTIVE FLOW AND CAPACITY
126	4"	PLASTIC/GOOD	857.90-	32" / 2.66	855.24	ACTIVE FLOW AND CAPACITY
127	5"	PLASTIC/GOOD	858.24-	35" / 2.91	855.33	ACTIVE FLOW AND CAPACITY
128	5"	PLASTIC/GOOD	858.33-	37" / 3.08	855.25	ACTIVE FLOW AND CAPACITY
129	4"	PLASTIC/GOOD	858.28-	27" / 2.25	856.03	ACTIVE FLOW AND CAPACITY
130	5"	PLASTIC/GOOD	858.27-	34" / 2.83	855.44	ACTIVE FLOW AND CAPACITY

NOTE: THIS DATA IS FOR INFORMATIONAL PURPOSES ONLY.

DATE 17JUN14			E S T I M A T E O F Q U A N T I T I E S		
LINE					1009-13-03
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY
0010	208.0100	BORROW	CY	350.000	350.000
0020	305.0115	BASE AGGREGATE DENSE 3/4-INCH	CY	25.000	25.000
0030	522.0372	CULVERT PIPE REINFORCED CONCRETE CLASS IV 72-INCH	LF	70.000	70.000
0040	522.1072	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 72-INCH	EACH	2.000	2.000
0050	606.0300	RIPRAP HEAVY	CY	16.000	16.000
0060	619.1000	MOBILIZATION	EACH	1.000	1.000
0070	628.1504	SILT FENCE	LF	450.000	450.000
0080	628.1520	SILT FENCE MAINTENANCE	LF	450.000	450.000
0090	628.1905	MOBILIZATIONS EROSION CONTROL	EACH	1.000	1.000
0100	628.1910	MOBILIZATIONS EMERGENCY EROSION CONTROL	EACH	1.000	1.000
0110	628.6005	TURBIDITY BARRIERS	SY	120.000	120.000
0120	628.7015	INLET PROTECTION TYPE C	EACH	6.000	6.000
0130	628.7560	TRACKING PADS	EACH	1.000	1.000
0140	643.0100	TRAFFIC CONTROL (PROJECT) 01. 1009-13-03	EACH	1.000	1.000
0150	643.0900	TRAFFIC CONTROL SIGNS	DAY	426.000	426.000
0160	645.0120	GEOTEXTILE FABRIC TYPE HR	SY	40.000	40.000
0170	645.0140	GEOTEXTILE FABRIC TYPE SAS	SY	140.000	140.000
0180	SPV.0060	SPECIAL 01. DRAIN TILE BACKWATER VALVE INSTALLATION	EACH	130.000	130.000
0190	SPV.0060	SPECIAL 02. INLINE PLUG SECTION INSTALLATION	EACH	77.000	77.000
0200	SPV.0060	SPECIAL 03. OUTFALL END PLUG INSTALLATION	EACH	29.000	29.000

3

EARTHWORK			
		208.0100	
		BORROW	
CATEGORY	LOCATION	CY	
0010	PROJECT SITE - CULVERT INSTALLATION	350	
PROJECT TOTAL		350	

BASE AGGREGATE			
		305.0115	
		BASE AGGREGATE DENSE ¾-INCH	
CATEGORY	LOCATION	CY	
0010	PROJECT SITE - GRAVEL DRIVE OVER CULVERT	25	
PROJECT TOTAL		25	

CULVERT PIPE			
		522.0372	522.1072
		CULVERT PIPE REINFORCED	APRON ENDWALLS FOR CULVERT
		CONCRETE CLASS IV 72-INCH	PIPE REINFORCED CONCRETE 72-INCH
CATEGORY	LOCATION	LF	EACH
0010	PROJECT SITE	70	2
PROJECT TOTAL		70	2

RIPRAP			
		606.0300	
		RIPRAP HEAVY	
CATEGORY	LOCATION	CY	
0010	PROJECT SITE - CULVERT OUTLET	16	
PROJECT TOTAL		16	

TRAFFIC CONTROL			
		643.0100	643.0900
		TRAFFIC CONTROL (PROJECT)	SIGNS
CATEGORY	LOCATION	EACH	DAYS
0010	FEMRITE DRIVE	1	426
PROJECT TOTAL		1	426

GEOTEXTILE FABRIC			
		645.0120	645.0140
		GEOTEXTILE FABRIC TYPE HR	GEOTEXTILE FABRIC TYPE SAS
CATEGORY	LOCATION	SY	SY
0010	PROJECT SITE	40	140
PROJECT TOTAL		40	140

DRAIN TILE DISABLEMENT				
		SPV.0060.01	SPV.0060.02	SPV.0060.03
		DRAIN TILE BACKWATER	INLINE PLUG	OUTFALL END
		VALVE INSTALLATION	SECTION INSTALLATION	PLUG INSTALLATION
CATEGORY	LOCATION	EACH	EACH	EACH
0010	FIELD STAKED	130	77	29
PROJECT TOTAL		130	77	29

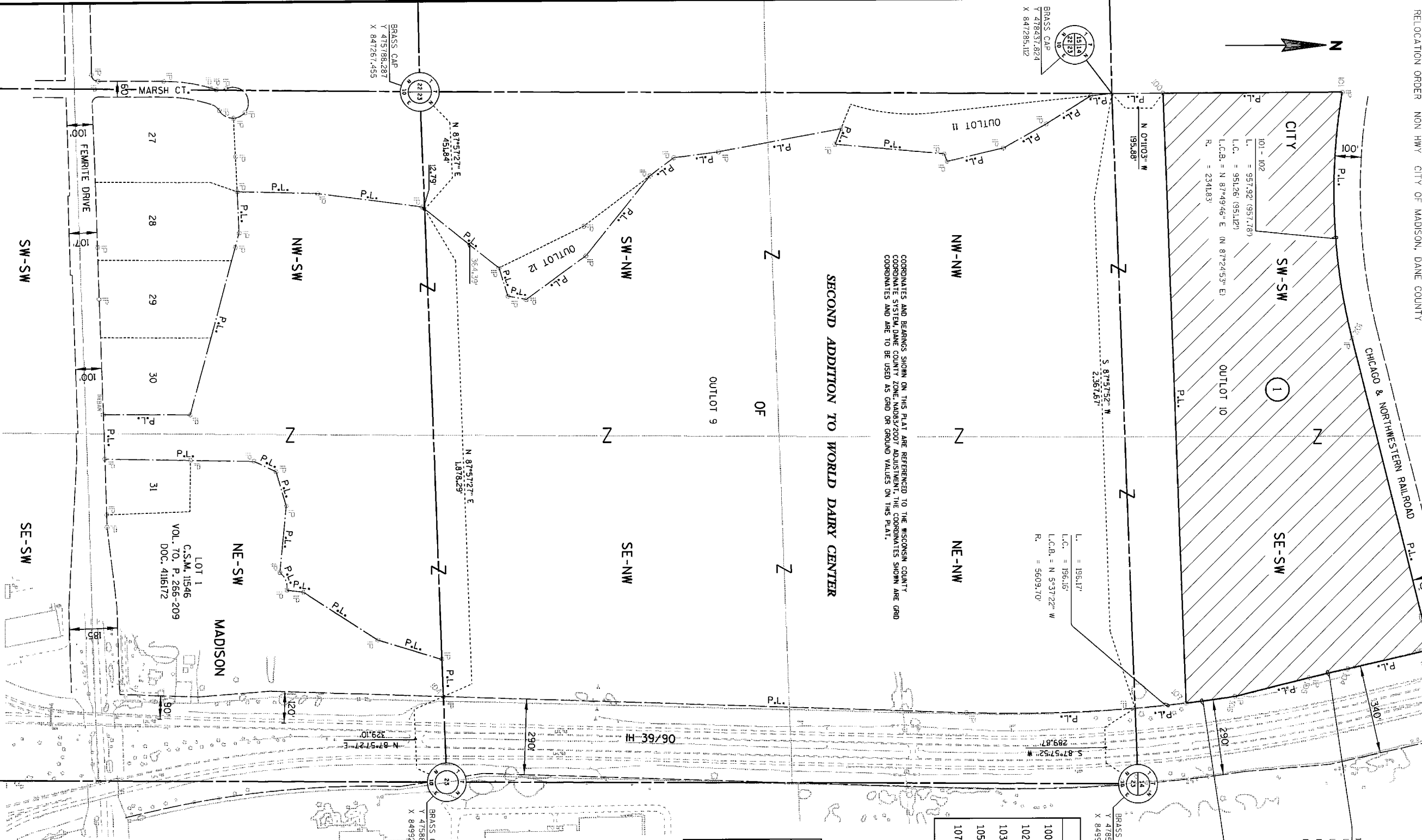
3

EROSION CONTROL								
		628.1504	628.1520	628.1905	628.1910	628.6005	628.7015	628.7560
		SILT FENCE	SILT FENCE	MOBILIZATIONS	MOBILIZATIONS	TURBIDITY	INLET PROTECTION	TRACKING PADS
			MAINTENANCE	EROSION CONTROL	EROSION CONTROL	BARRIERS	TYPE C	
CATEGORY	LOCATION	LF	LF	EACH	EACH	SY	EACH	EACH
0010	PROJECT SITE	450	450	1	1	120	6	1
PROJECT TOTAL		450	450	1	1	120	6	1

PROJECT NO:1009-13-03	HWY:NON-HIGHWAY	COUNTY:DANE	MISCELLANEOUS QUANTITIES	SHEET	E
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MITIGATION PROJECT PLAT - 1009-12-04 - 4.02

PART OF OUTLOT 10 OF THE SECOND ADDITION TO WORLD DAIRY CENTER,
LOCATED IN THE SW 1/4 OF THE SW 1/4 AND THE SE 1/4 OF THE SW 1/4
OF SECTION 14, T 7 N, R 10 E, CITY OF MADISON, DANE COUNTY, WISCONSIN.
WORLD DAIRY WETLAND MITIGATION
RELOCATION ORDER NON HWY CITY OF MADISON, DANE COUNTY



COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY
COORDINATE SYSTEM. COORDINATE ZONE 14N03/2007 ADJUSTMENT. THE COORDINATES SHOWN ARE GRID
COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

SECOND ADDITION TO WORLD DAIRY CENTER

OF

OUTLOT 9

OUTLOT 12

MARSH CT.

FEMRITE DRIVE

SW-SW

NW-SW

SW-NW

NW-NW

CITY

SW-SW

SE-SW

NE-SW

SE-NW

MADISON

SE-SW

LOT 1
C.S.M. 11546
VOL. 70, P. 266-209
DOC. 4116172

104 - 105
L. = 151.25' (150.92')
L.C. = 151.24' (150.92')
L.C.B. = S 12°50'37" E (S 12°43'10" E)
R. = 5589.70'

106 - 107
L. = 189.17' (188.95')
L.C. = 189.16' (188.95')
L.C.B. = S 7°35'26" E (S 7°58'54" E)
R. = 5609.70'

RW Course Table	
100-101	N 0°11'03" W 685.35' (N 0°36'14" E) (685.34')
102-103	N 76°04'14" E 1234.53' (N 75°41'53" E) (1234.94')
103-104	S 12°50'34" E 323.67' (S 13°29'35" E) (323.35')
105-106	S 13°54'10" E 293.17' (S 14°20'51" E) (293.85')
107-100	S 87°51'52" W 2349.07' (S 87°33'39" W) (2349.44')

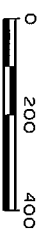
Coordinate Table	
Point	X
100	478633.702 847284.483
101	479319.048 847282.280
102	479355.078 848232.854
103	479652.261 849431.076
104	479336.686 849503.020
105	479189.228 849536.640
106	478904.647 849607.081
107	478717.143 849632.068

SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	OWNERS	INTEREST REQUIRED		R/W ACRES OR S.F. REQUIRED		P.L.E. ACRES OR S.F.		T.L.E. ACRES OR S.F.	
		NEW	TOTAL	EXISTING	TOTAL	---	---	---	---
1	FNB INVESTMENTS LLC.	38.98	38.98	---	38.98	---	---	---	---

OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE
SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND INTERESTS TO D.O.T.

SCALE: FEET



Standard Detail Drawing List

08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E11-02	TURBIDITY BARRIER
08E14-01	TRACKING PAD
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
12A03-10	NAME PLATE (STRUCTURES)
15D29-03	TRAFFIC CONTROL, VEHICLE ENTRANCE/EXIT OR HAUL ROAD



- 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.



<div style="text-align: center;">SILT FENCE</div>	
<div style="text-align: center;">STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION</div>	
<div>APPROVED</div> <div><u>4-29-05</u></div> <div><u>DATE</u></div>	<div><u>/S/ Beth Canestra</u></div> <div>CHIEF ROADWAY DEVELOPMENT ENGINEER</div>



INLET PROTECTION, TYPE A

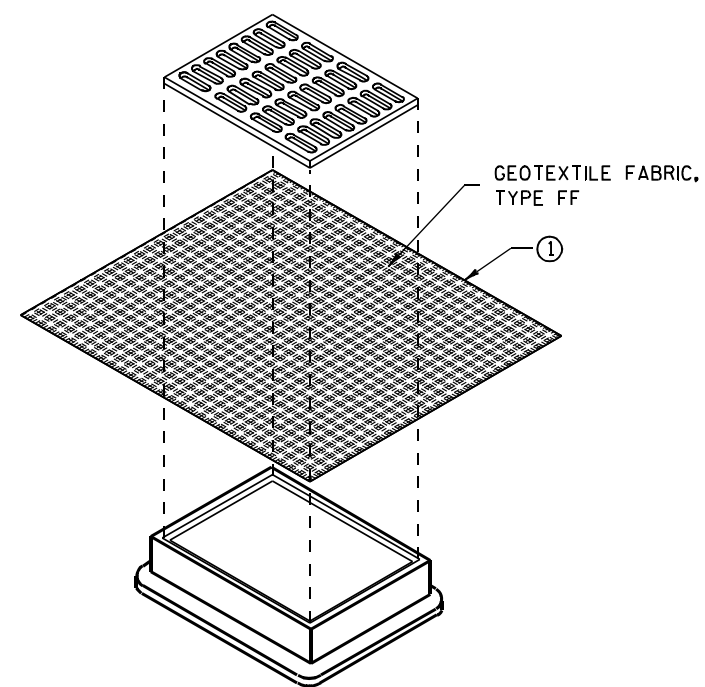
GENERAL NOTES

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.

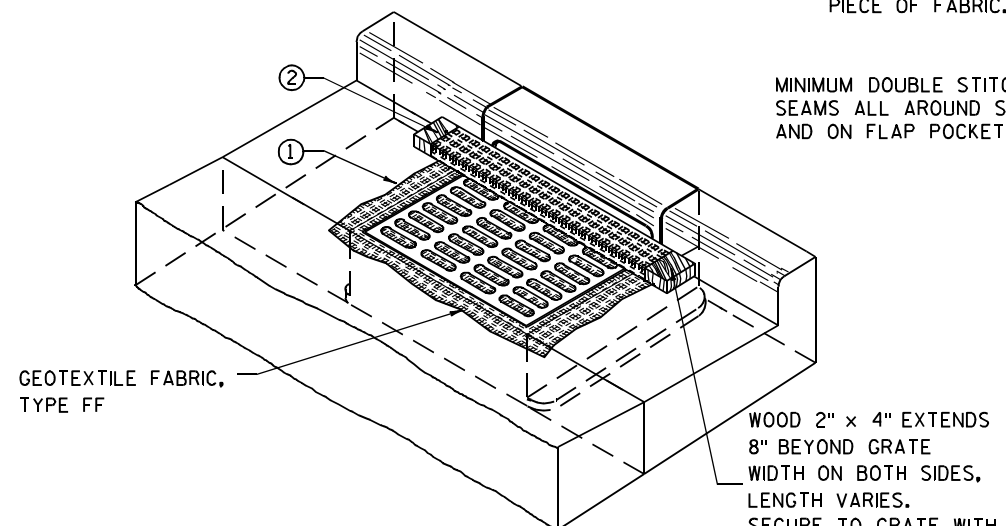
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- 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.



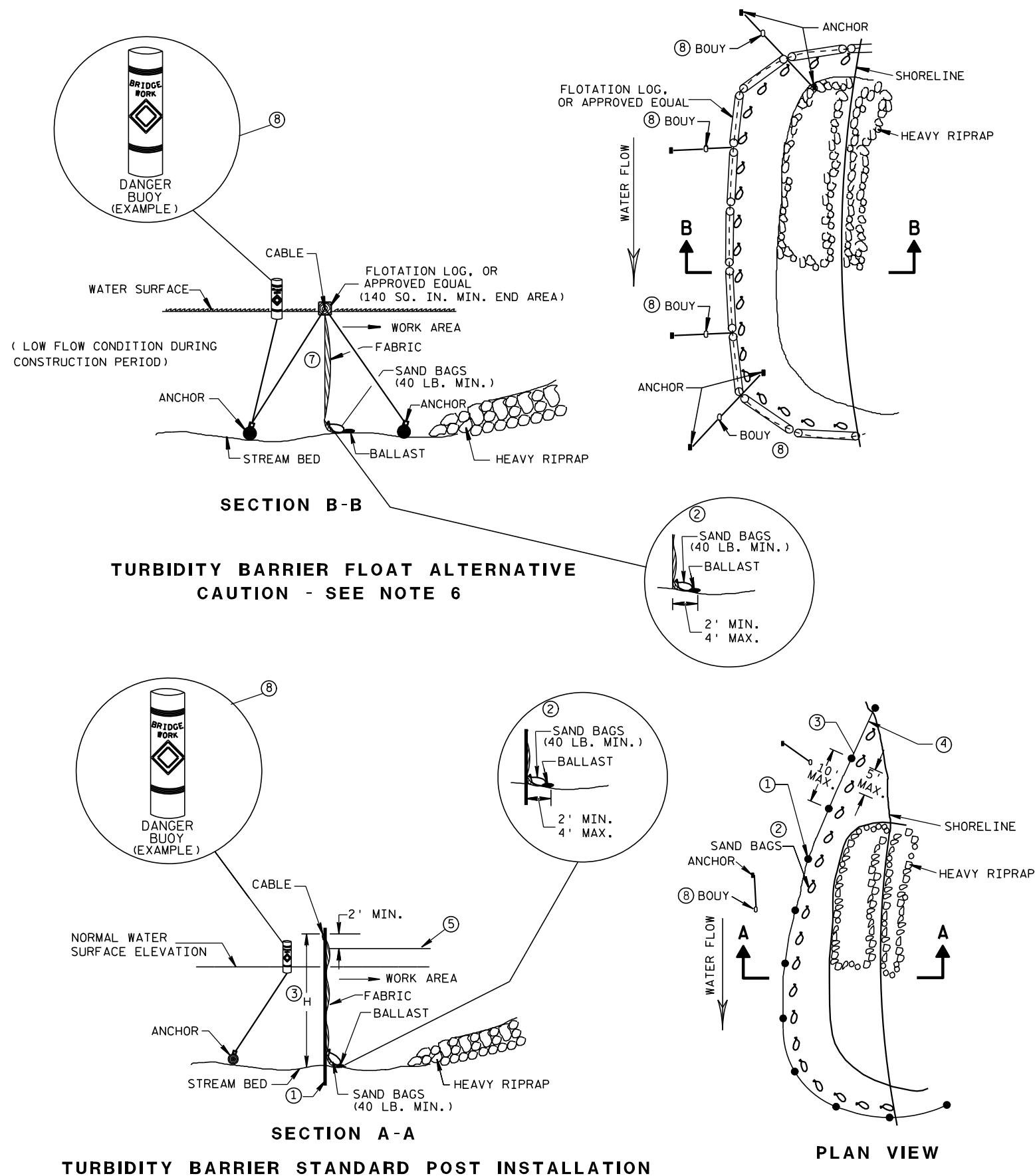
INLET PROTECTION, TYPE D

(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

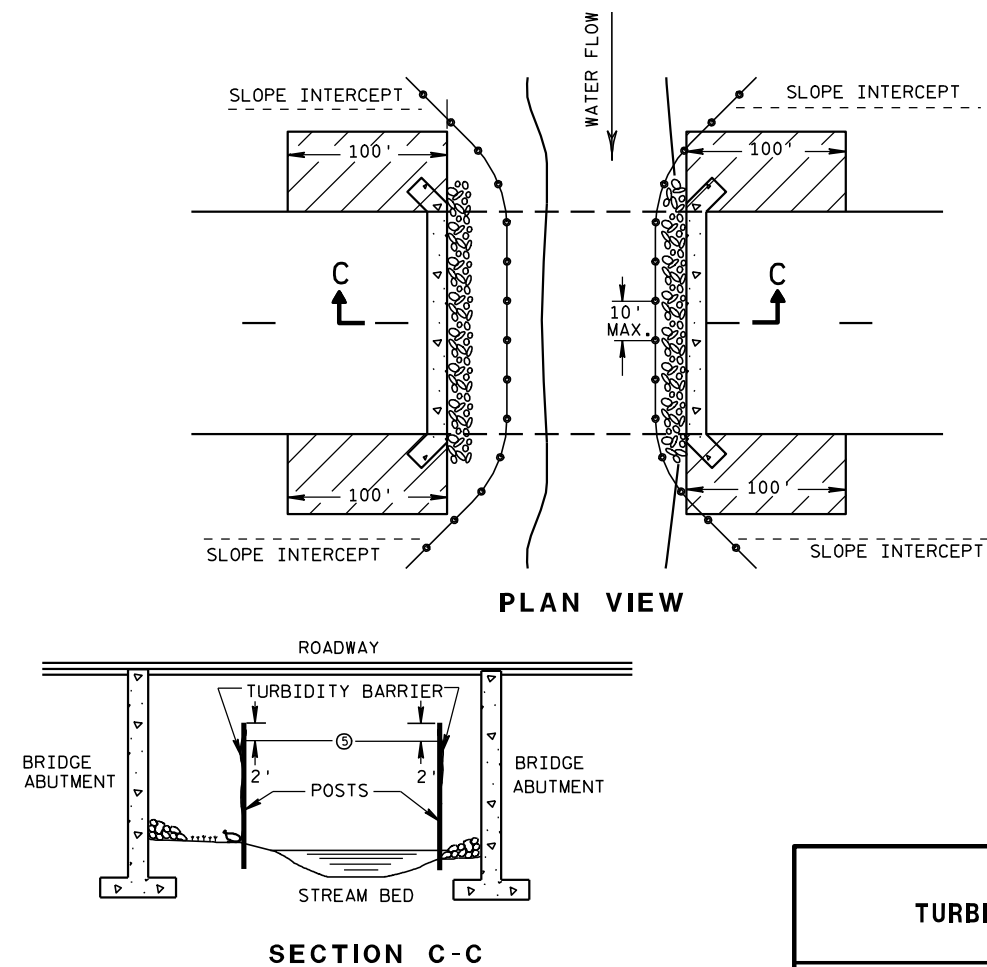


GENERAL NOTES

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

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

- ① DRIVEN STEEL POSTS, PIPES, OR CHANNELS. LENGTH SHALL BE SUFFICIENT TO SECURELY SUPPORT BARRIER AT HIGH WATER ELEVATIONS.
- ② SANDBAGS TO BE USED AS ADDITIONAL BALLAST WHEN ORDERED BY THE ENGINEER TO MEET ADVERSE FIELD CONDITIONS. SPACE AS APPROPRIATE FOR SITE CONDITIONS.
- ③ WHEN BARRIER HEIGHT, H, EXCEEDS 8 FT., POST SPACING MAY NEED TO BE DECREASED.
- ④ IN WATERWAYS SUBJECT TO FLUCTUATING WATER ELEVATIONS, PROVISIONS SHOULD BE MADE TO ALLOW THE WATER TO EQUALIZE ON EACH SIDE OF THE BARRIER. THIS MAY BE ACCOMPLISHED BY LEAVING A PORTION OF THE BARRIER OPEN ON THE UPSTREAM END.
- ⑤ ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION PERIOD. MINIMUM BARRIER HEIGHT SHALL BE 2' GREATER THAN EITHER THE 02 ELEVATION OR THE ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION, WHICHEVER IS GREATER.
- ⑥ FLOAT ALTERNATIVE WILL ONLY BE ALLOWED WITH WRITTEN APPROVAL OF THE ENGINEER, AND IS MEANT FOR LOCATIONS WHERE BED ROCK PREVENTS THE INSTALLATION OF POSTS.
- ⑦ ALLOW SUFFICIENT SLACK VERTICALLY AND HORIZONTALLY SO THAT SEDIMENT BUILD UP WILL NOT SEPARATE OR LOWER THE TURBIDITY BARRIER.
- ⑧ USE AS DIRECTED BY COAST GUARD OR DNR PERMIT WHEN WORKING IN NAVIGABLE WATERWAYS.



TURBIDITY BARRIER DETAIL SHOWING TYPICAL PLACEMENT AT STRUCTURES

TURBIDITY BARRIER

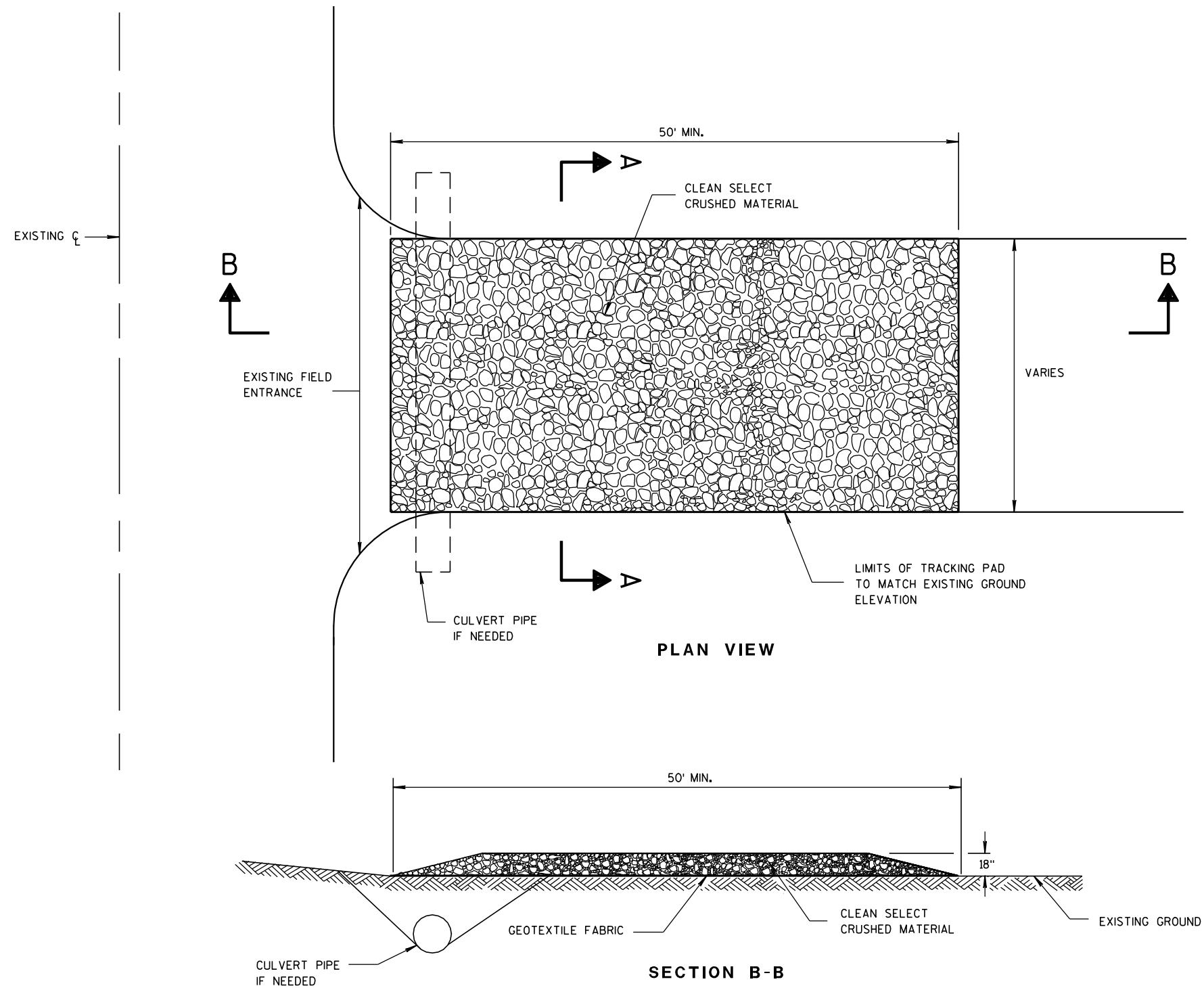
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/04/02
DATE

FWHA

/S/ Beth Connestra
CHIEF ROADWAY DEVELOPMENT ENGINEER



TRACKING PAD

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.

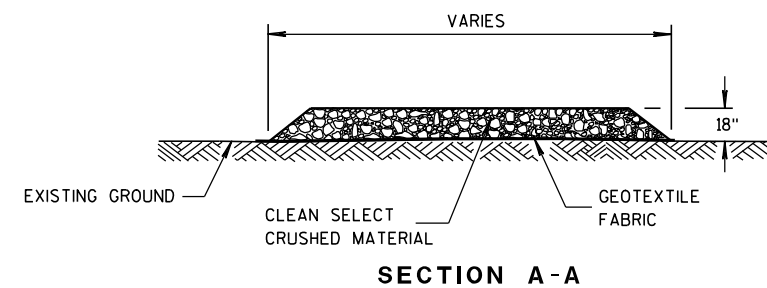
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

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.



TRACKING PAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/24/2011

DATE

FHWA

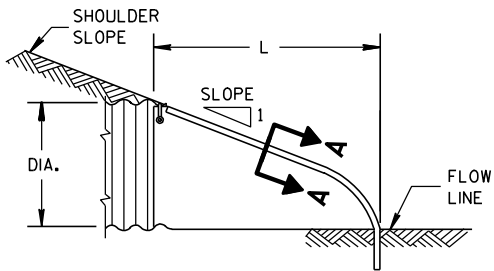
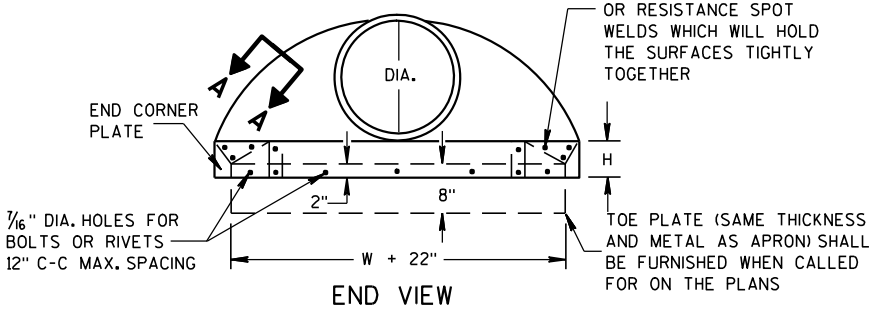
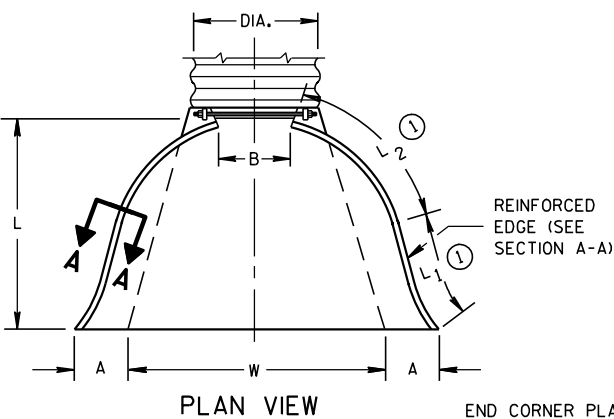
/S/ Jerry H. Zogg

ROADWAY STANDARDS DEVELOPMENT

ENGINEER

METAL APRON ENDWALLS											
PIPE DIA. (IN.)	MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY
	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")		
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 1	1 Pc.
21	.064	.060	9	12	6	36	18	29 5/8	42	2 1/2 to 1	1 Pc.
24	.064	.075	10	13	6	41	18	37 1/4	48	2 1/2 to 1	1 Pc.
30	.079	.075	12	16	8	51	18	52 1/4	60	2 1/2 to 1	1 Pc.
36	.079	.105	14	19	9	60	24	59 3/4	72	2 1/2 to 1	2 Pc.
42	.109	.105	16	22	11	69	24	75 5/8	84	2 1/2 to 1	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 1/4 to 1	3 Pc.
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/4 to 1	3 Pc.
60	.109x	.105x	18	33	12	87	—	—	114	2 to 1	3 Pc.
66	.109x	.105x	18	36	12	87	—	—	120	2 to 1	3 Pc.
72	.109x	.105x	18	39	12	87	—	—	126	2 to 1	3 Pc.
78	.109x	.105x	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.
84	.109x	.105x	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.
90	.109x	.105x	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.
96	.109x	.105x	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.

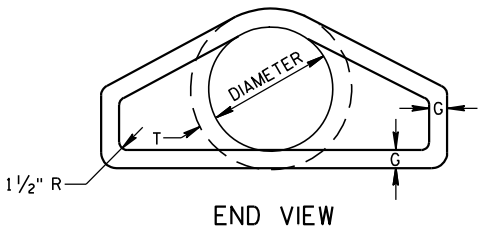
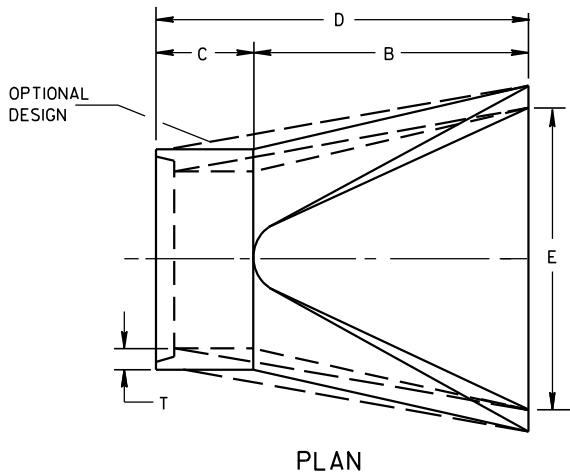
* EXCEPT CENTER PANEL
SEE GENERAL NOTES



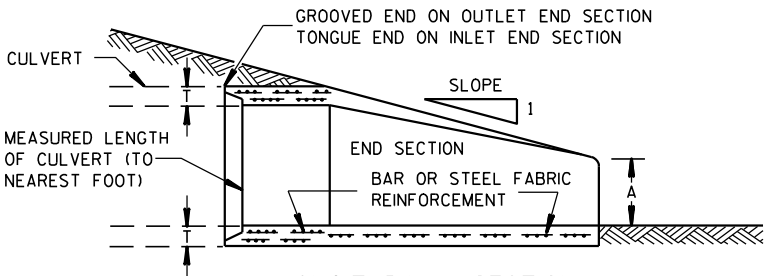
SIDE ELEVATION
METAL ENDWALLS

REINFORCED CONCRETE APRON ENDWALLS											
PIPE DIA. (IN.)	DIMENSIONS (Inches)							APPROX. SLOPE			
	T	A	B	C	D	E	G				
12	2	4	24	48 7/8	72 7/8	24	2	3 to 1			
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1			
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1			
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1			
24	3	9 1/2	43 1/2	30	73 1/2	48	3	3 to 1			
27	3 1/4	10 1/2	49 1/2	24	73 1/2	54	3 1/4	3 to 1			
30	3 1/2	12	54	19 3/4	73 1/2	60	3 1/2	3 to 1			
36	4	15	63	34 3/4	97 3/4	72	4	3 to 1			
42	4 1/2	21	63	35	98	78	4 1/2	3 to 1			
48	5	24	72	26	98	84	5	3 to 1			
54	5 1/2	27	65	33 1/4-35	98 1/4-100	90	5 1/2	2 2/5 to 1			
60	6	30-35	60	39	99	96	5	2 to 1			
66	6 1/2	24-30	72-78	21-27	99	102	5 1/2	2 to 1			
72	7	24-36	78	21	99	108	6	2 to 1			
78	7 1/2	24-36	78	21	99	114	6 1/2	2 to 1			
84	8	36	90 1/2	21	111 1/2	120	6 1/2	1 1/2 to 1			
90	8 1/2	41	87 1/2	24	111 1/2	132	6 1/2	1 1/2 to 1			

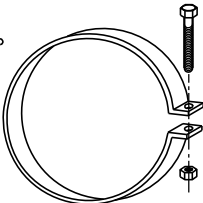
* MINIMUM
** MAXIMUM



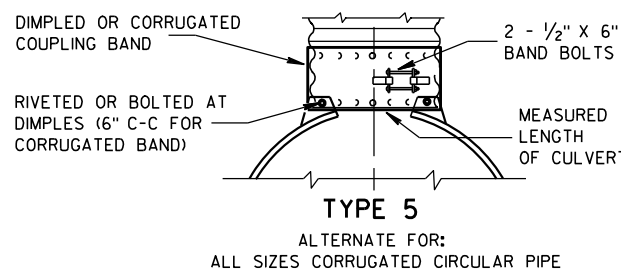
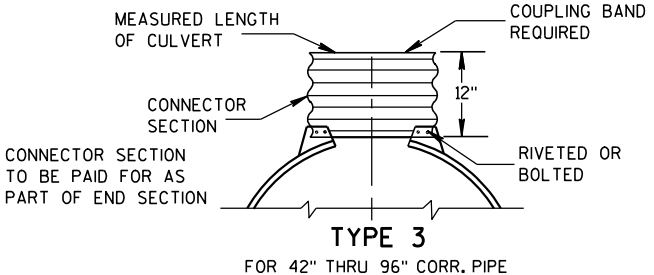
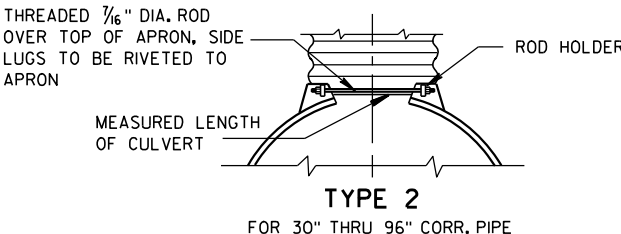
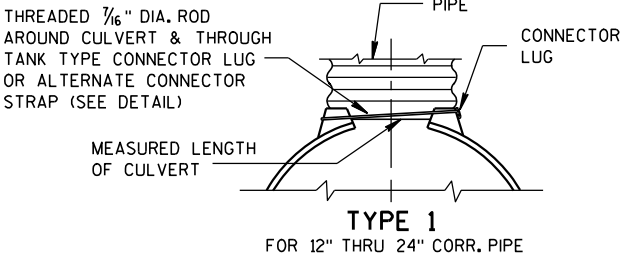
LONGITUDINAL SECTION
CONCRETE ENDWALLS



1" WIDE, 12 GA. (0.109" THICK) GALVANIZED STRAP WITH STANDARD 6" X 1/2" BAND BOLT AND NUT



ALTERNATE FOR TYPE 1 CONNECTION
END SECTION CONNECTOR STRAP



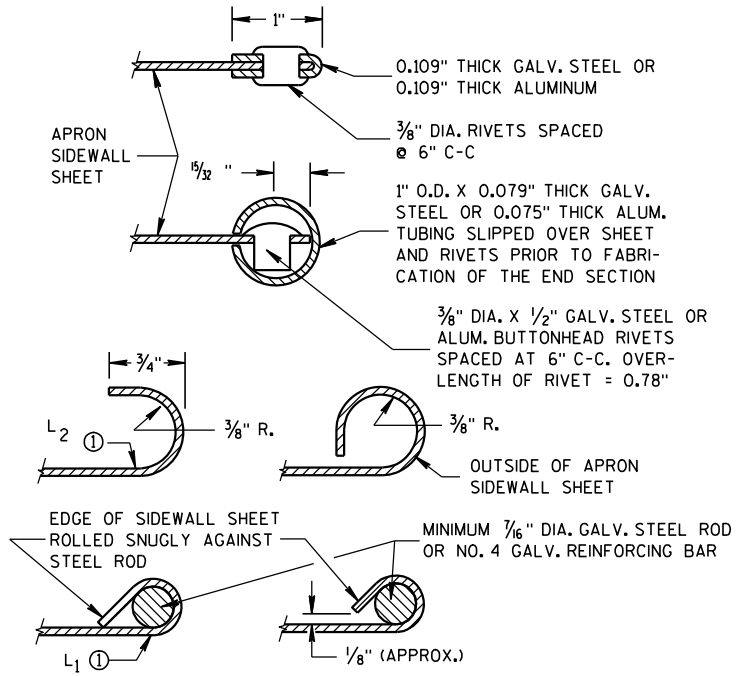
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

FOR CIRCUMFERENTIALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2, 3 OR 5 AS APPLICABLE.

FOR HELICALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2 OR 5.

FOR HELICALLY CORRUGATED PIPES WITH TWO CIRCUMFERENTIAL CORRUGATIONS AT EACH END USE ENDWALL CONNECTION DETAILS 1, 2 OR 3.

CONNECTION DETAILS



SECTION A-A

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.

CONCRETE CULVERT ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 60" THROUGH 96" DIAMETER APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

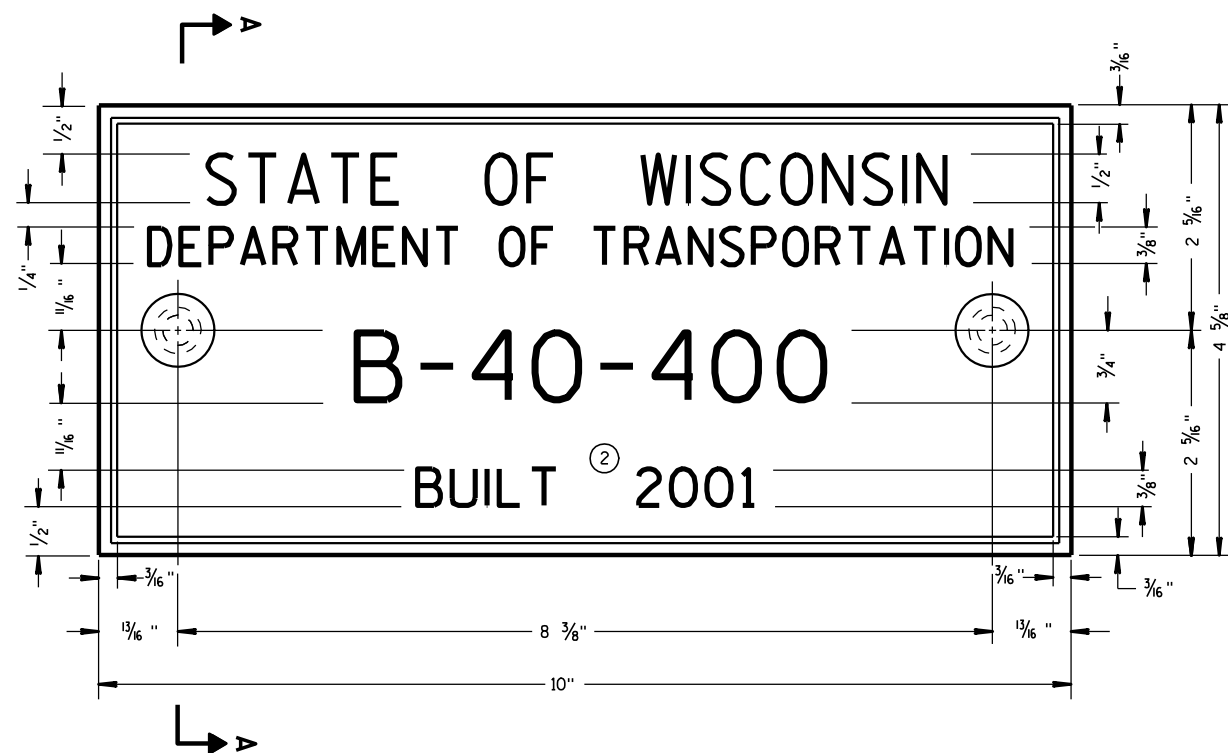
WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

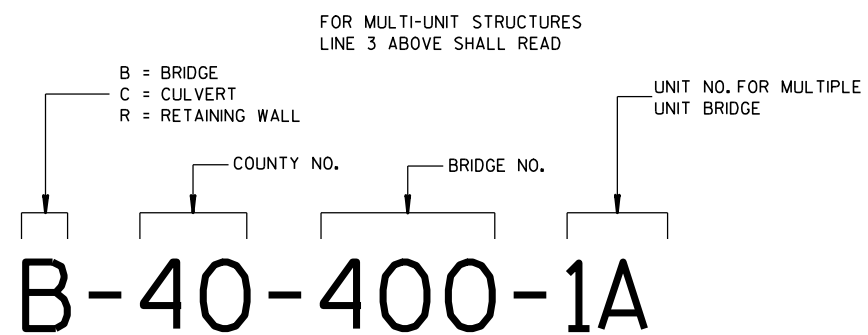
APRON ENDWALLS FOR
CULVERT PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/30/94
DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA



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



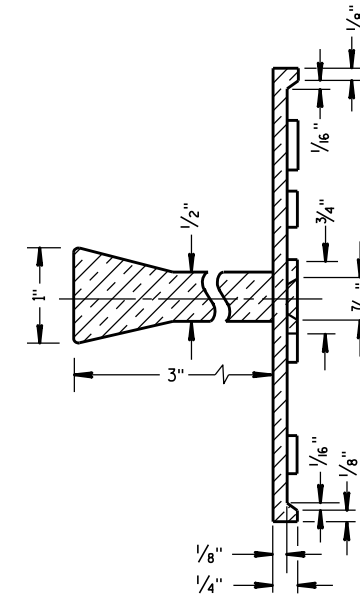
**NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES**

GENERAL NOTES

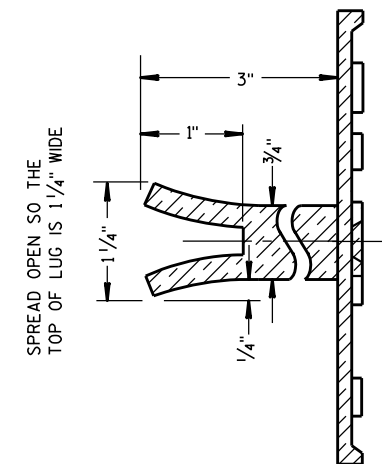
NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

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

- ① EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- ② REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.

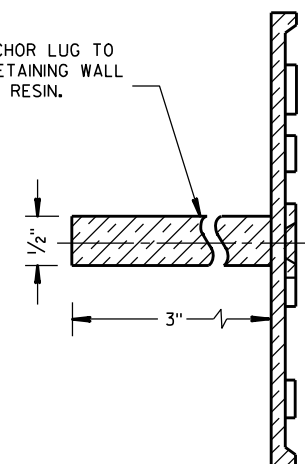


SECTION A-A



ALTERNATE LUG

- ① ADHERE ANCHOR LUG TO PRECAST RETAINING WALL WITH EPOXY RESIN.



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

**NAME PLATE
(STRUCTURES)**

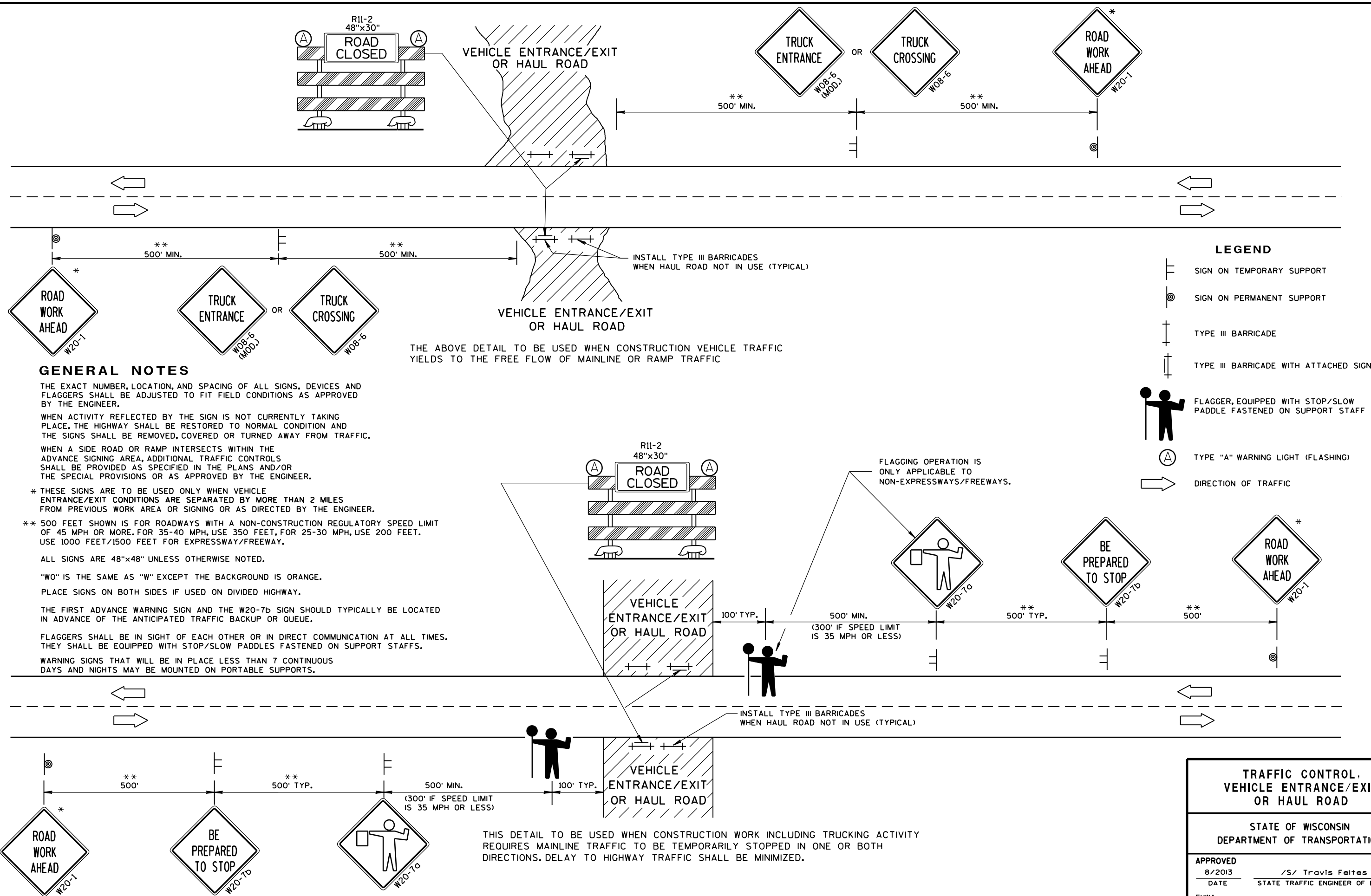
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/26/10
DATE

FHWA

/S/ Scot Becker
CHIEF STRUCTURAL DEVELOPMENT ENGINEER



TRAFFIC CONTROL,
VEHICLE ENTRANCE/EXIT
OR HAUL ROAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/2013

DATE

FHWA

/S/ Travis Feltes
STATE TRAFFIC ENGINEER OF DESIGN

Notes



Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

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