

GRE

PROJECT ID: 9269-00-12

COUNTY: BROWN

FEBRUARY 2019
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 = 114



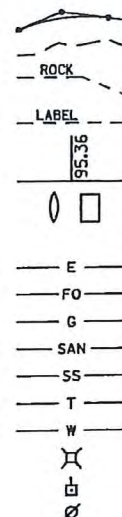
DESIGN DESIGNATION

A.A.D.T. (2018)	= 2650
A.A.D.T. (2038)	= 8000
D.H.V.	= 744 (2038)
D.D.	= 59/41
T.	= 3.3%
DESIGN SPEED	= 35 MPH
ESALS	= 503,700

CONVENTIONAL SYMBOLS

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

PROFILE	
GRADE LINE	---
ORIGINAL GROUND	---
MARSH OR ROCK PROFILE (To be noted as such)	---
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

V HOWARD, VINCENT RD

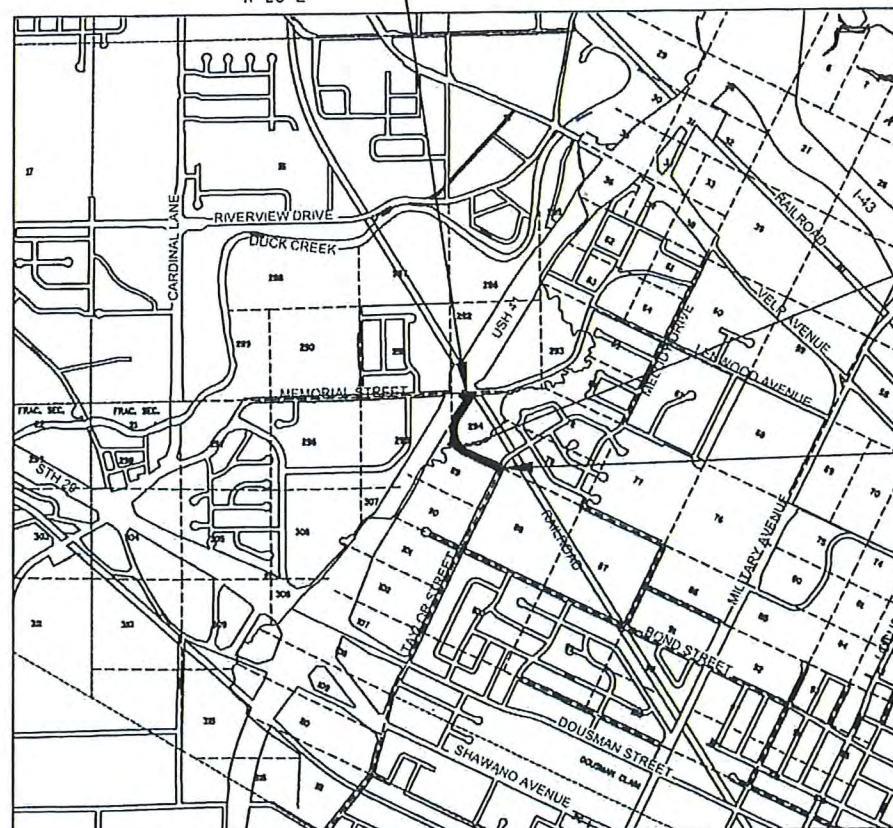
N TAYLOR TO MEMORIAL DR

LOCAL STREET
BROWN COUNTY

STATE PROJECT NUMBER
9269-00-12

END PROJECT
STA. 15+23.38

R 20 E



STR. B-05-462

BEGIN PROJECT
STA. 0+16.53
Y = 578,220.06
X = 86,239.23

LAYOUT
SCALE 0 1/2 MILE

TOTAL NET LENGTH OF CENTERLINE = 0.285 MILES

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, BROWN COUNTY, NAD88 (1988), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
9269-00-12	WISC 2019124	1

ACCEPTED FOR VILLAGE OF HOWARD

7/31/18 *Dir. P. B. Worek*
(Date) (Signature & Title of Official)

ORIGINAL PLANS PREPARED BY

Gräef
1150 Springhurst Drive,
Suite 201
Green Bay, WI 54304-5950
920 / 592 9440
920 / 592 9445 fax
www.graef-usa.com



7/30/18 *Patrick J. Skalecki*
(Date) (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY
Surveyor MAU & Associates
Designer GRAEF
Management Consultant SHORT ELLIOTT HENDRICKSON

APPROVED FOR THE DEPARTMENT
DATE: 7/31/18 *Alger*
(Signature)

E

GENERAL NOTES

NO TREES OR SHRUBS ARE TO BE REMOVED UNLESS INDICATED FOR REMOVAL BY THE ENGINEER.

ALL HOLES OR OPENINGS BELOW SUBGRADE RESULTING FROM THE ABANDONMENT OR REMOVAL OF EXISTING STRUCTURES OR FROM GRUBBING OF TREES OR STUMPS SHALL BE BACKFILLED WITH GRANULAR BACKFILL. BACKFILL GRANULAR MATERIAL IS INCIDENTAL TO THE REMOVAL ITEM.

ALL RADIUS DIMENSIONS FOR CURB & GUTTER ARE GIVEN TO THE FACE. ALL ELEVATIONS ALONG CURB & GUTTER ARE GIVEN TO THE FLANGE. OFFSETS NOTED ARE TO THE FLANGE OR EDGE OF LANE IF NO CURB, UNLESS OTHERWISE NOTED.

THE LOCATION OF KNOWN EXISTING UTILITIES IN THE VICINITY OF THE PROJECT ON THE PLANS IS APPROXIMATE. THERE MAY BE OTHER UTILITIES IN THE AREA THAT ARE NOT SHOWN.

SILT FENCE SHALL BE INSTALLED IN THE LOCATIONS SHOWN ON THE PLANS, OR AS DIRECTED BY THE ENGINEER.

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

INLET PROTECTION IS REQUIRED AT ALL INLETS AS PER DETAIL OR AS DIRECTED BY THE ENGINEER.

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

CONCRETE JOINTS SHALL MATCH ABUTTING PAVEMENT AND CURB AND GUTTER JOINTS UNLESS OTHERWISE DESIGNATED BY THE ENGINEER.

ANY MESH FOUND IN THE EXISTING CONCRETE PAVEMENT SHALL BE CONSIDERED INCIDENTAL TO THE REMOVING PAVEMENT ITEM.

ALL TIE OR DOWEL BARS INSERTED INTO A HOLE DRILLED IN THE EXISTING CONCRETE SHALL BE PAID FOR UNDER THE ITEM "DRILLED TIE BARS" AND "DRILLED DOWEL BARS." ALL OTHER TIE OR DOWEL BARS INCORPORATED INTO NEW POURED CONCRETE SHALL BE INCIDENTAL TO THE APPROPRIATE ITEM.

RE-TOPSOIL OF GRADED AREAS, AS DESIGNATED BY THE ENGINEER, IMMEDIATELY AFTER GRADING IS COMPLETED WITHIN THOSE AREAS. SEED, FERTILIZE, AND MULCH/EROSION MAT TOP-SOILED AREAS, AS DESIGNATED BY THE ENGINEER, WITHIN FIVE (5) CALENDAR DAYS AFTER PLACEMENT OF TOPSOIL. IF GRADED AREAS ARE LEFT EXPOSED FOR MORE THAN (14) CALENDAR DAYS, SEED THOSE AREAS WITH TEMPORARY SEED.

STOCKPILE EXCESS MATERIAL OR SPOILS ON UPLAND AREAS AWAY FROM WETLANDS, FLOODPLAINS AND WATERWAYS. STOCKPILED SOIL SHALL BE PROTECTED AGAINST EROSION. IF STOCKPILED MATERIAL IS LEFT FOR MORE THAN FOURTEEN (14) CALENDAR DAYS, SEED THE STOCKPILE WITH TEMPORARY SEED.

EROSION CONTROL MEASURES ARE AT SUGGESTED LOCATIONS. THE ACTUAL LOCATIONS WILL BE DETERMINED BY THE CONTRACTORS EROSION CONTROL IMPLEMENTATION PLAN (ECIP) AND BY THE ENGINEER. EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED OR UNTIL THE ENGINEER DETERMINES THAT THE EROSION CONTROL MEASURE IS NO LONGER REQUIRED.

ELEVATIONS SHOWN ON THE PLAN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).

STANDARD ABBREVIATIONS

AEW	APRON END WALL
AGG	AGGREGATE
BAD	BASE AGGREGATE DENSE
BM	BENCH MARK
C&G	CURB AND GUTTER
C/L	CENTER OR CONSTRUCTION LINE
CONC	CONCRETE
CP	CULVERT PIPE
CPCM	CULVERT PIPE CORRUGATED METAL
CPRC	CULVERT PIPE REINFORCED CONCRETE
CPRCHE	CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL
CSCP	CORRUGATED STEEL CULVERT PIPE
CSPA	CORRUGATED STEEL PIPE ARCH
CSD	CONCRETE SURFACE DRAIN
CY	CUBIC-YARD
D	DEGREE OF CURVE
	DELTA
DISCH	DISCHARGE
EB	EASTBOUND
FE	FIELD ENTRANCE
HERCP	HORIZONTAL ELLIPTICAL REINFORCED CONCRETE PIPE
HMA	HOT MIX ASPHALT
INV	INVERT
L	LENGTH OF CURVE
LHF	LEFT HAND FORWARD
LT	LEFT
MIN	MINIMUM
M/L	MATCHLINE
NB	NORTHBOUND
NC	NORMAL CROWN
NTS	NOT TO SCALE
PAVT	PAVEMENT
PB	PULL BOX
PC	POINT-OF-CURVE
PCC	POINT OF COMPOUND CURVE
PE	PRIVATE ENTRANCE
PI	POINT OF INTERSECTION
PLE	PERMANENT LIMITED EASEMENT
PT	POINT OF TANGENT
PVC	POINT OF VERTICAL CURVE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENT
R	RADIUS OF CURVE
R/L	REFERENCE LINE
R/W	RIGHT OF WAY
RAD	RADIUS
RC	REVERSE CROWN
RCAEW	APRON ENDWALL FOR CULVERT PIPE REINFORCED CONCRETE
RCHES	REINFORCED CONCRETE HORIZONTAL ELLIPTICAL STORM SEWER
RCPSS	REINFORCED CONCRETE PIPE - STORM SEWER
REQD	REQUIRED
RHF	RIGHT HAND FORWARD
RO	RUN OFF LENGTH
RT	RIGHT
SALV	SALVAGED
SB	SIGNAL BASE
SDD	STANDARD DETAIL DRAWING
SE	SUPER ELEVATION
SF	SQUARE FOOT
STA	STATION
SY	SQUARE YARD
T	TANGENT LENGTH
TC	TOP OF CURB
TLE	TEMPORARY LIMITED EASEMENT
WIS	WISCONSIN
WB	WESTBOUND

UTILITIES

WISCONSIN PUBLIC SERVICE CORP. (ELECTRIC) 2850 S. ASHLAND AVE. GREEN BAY, WI. 54307-9002 ATTENTION: LORI BUTRY (920) 617-5279 (920) 272-4032 FAX EMAIL: lbutry@wisconsinpublicservice.com	AT&T P.O. BOX 10 205 S. JEFFERSON STREET GREEN BAY, WI 54301 ATTENTION: JOSEPH KASSAB (920) 735-3206 EMAIL: jk572k@att.com
WISCONSIN PUBLIC SERVICE CORP. (GAS) 2850 S. ASHLAND AVE. GREEN BAY, WI. 54307-9002 ATTENTION: LORI BUTRY (920) 617-5167 (920) 617-5201 FAX EMAIL: lbutry@wisconsinpublicservice.com	CHARTER COMMUNICATIONS 3545 PLANK ROAD APPLETON, WI 54915 ATTENTION: VINCE ALBIN (920) 831-9249 OR 1-800-236-1704 (CUSTOMER SERVICE) EMAIL: vince.albin@charter.com
VILLAGE OF HOWARD ENGINEERING/WATER & SEWER DEPT. 1336 CORNELL ROAD GREEN BAY, WI. 54313 ATTENTION: GEOFF FARR (920) 434-4060 EMAIL: GFarr@villageofhoward.com	WINDSTREAM ENTERPRISE 1858 WRIGHT STREET MADISON, WI. 53704 ATTENTION: DENNIS RUESS (608) 512-5587 MOBILE EMAIL: dennis.ruess@windstream.com
	CENTURY LINK 3235 INTERTECH DR. SUITE 600 BROOKFIELD, WI. 53045 ATTENTION: SASHA DEMIAN (414) 908-1042 EMAIL: sasha.demian@centurylink.com ATTENTION: CHRIS KRAUS (920) 924-3690 EMAIL: ckrauseml-tech.us

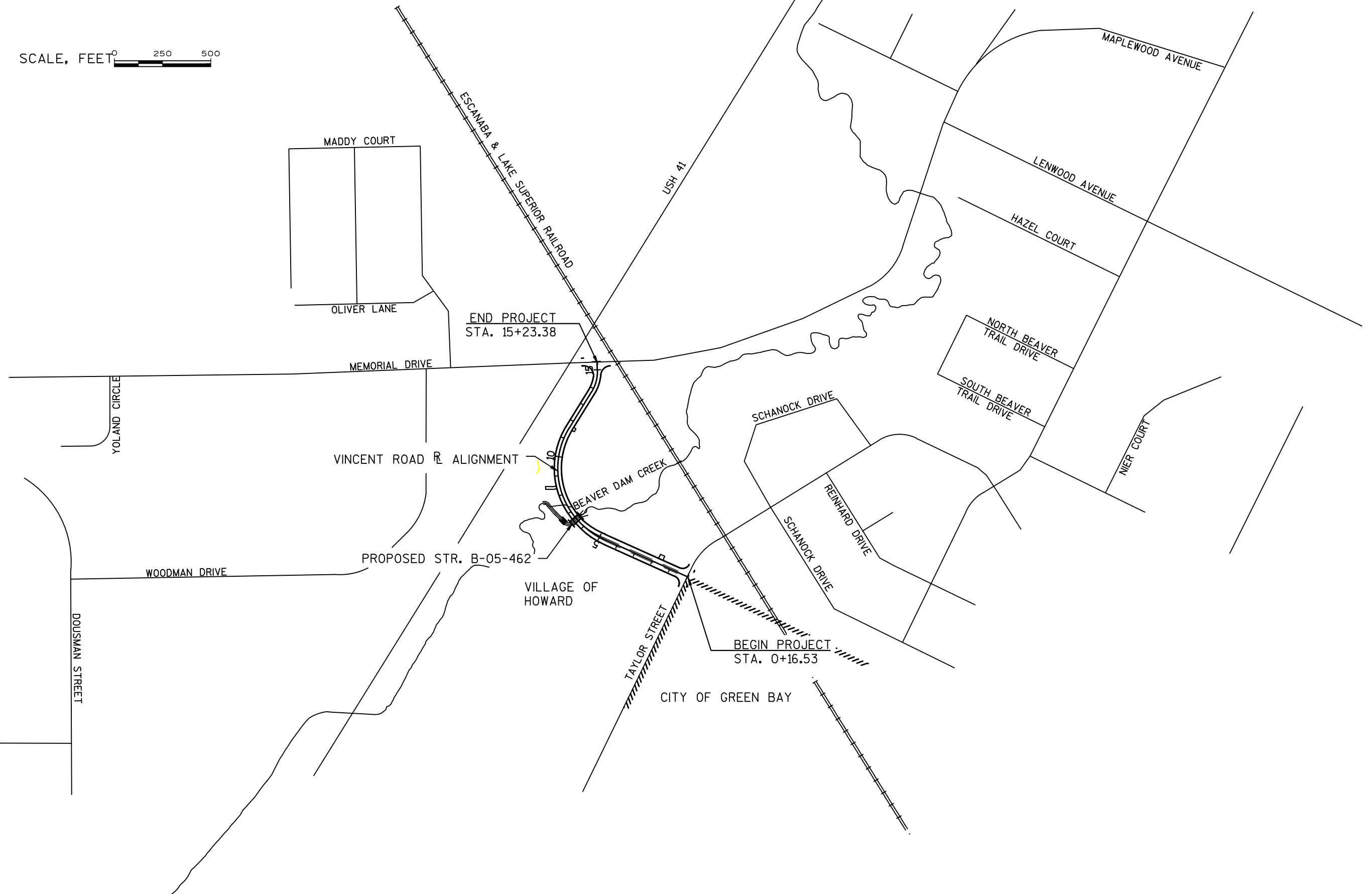
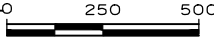
DEPT. OF NATURAL RESOURCES

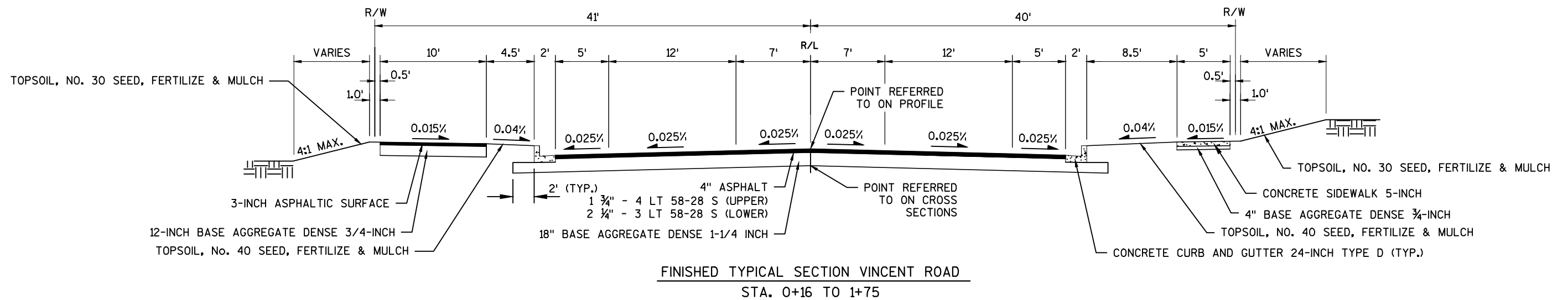
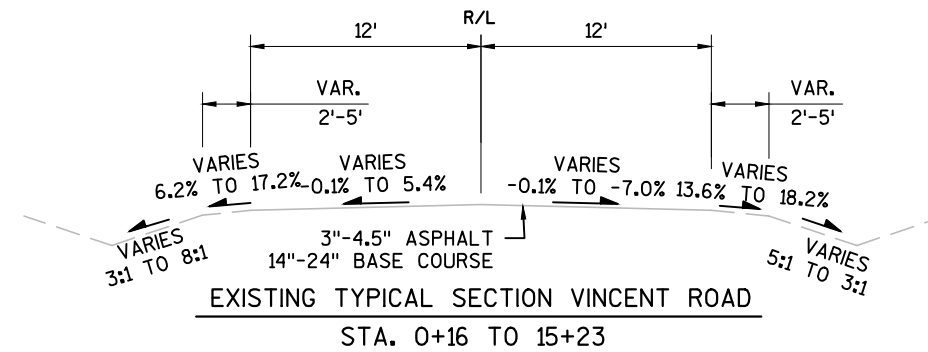
WISCONSIN DEPT. OF NATURAL RESOURCES
JIM DOPERALSKI
2984 SHAWANO AVENUE
GREEN BAY, WI 54313
(920) 662-5119
EMAIL: james.doperalski@wisconsin.gov





SCALE, FEET

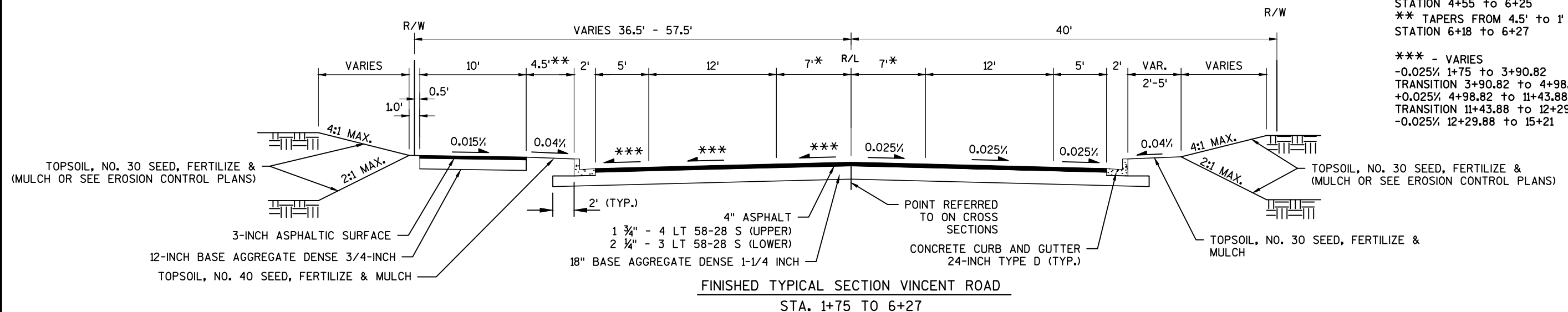


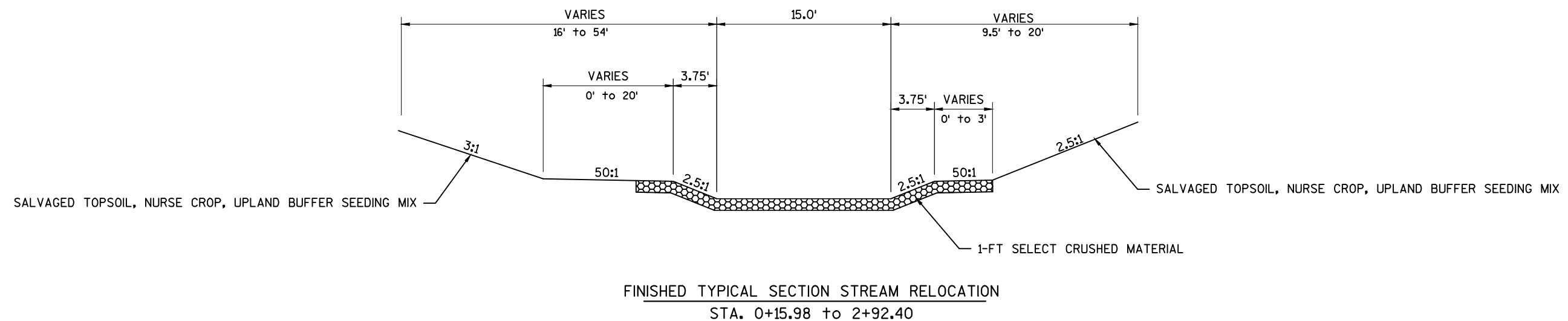


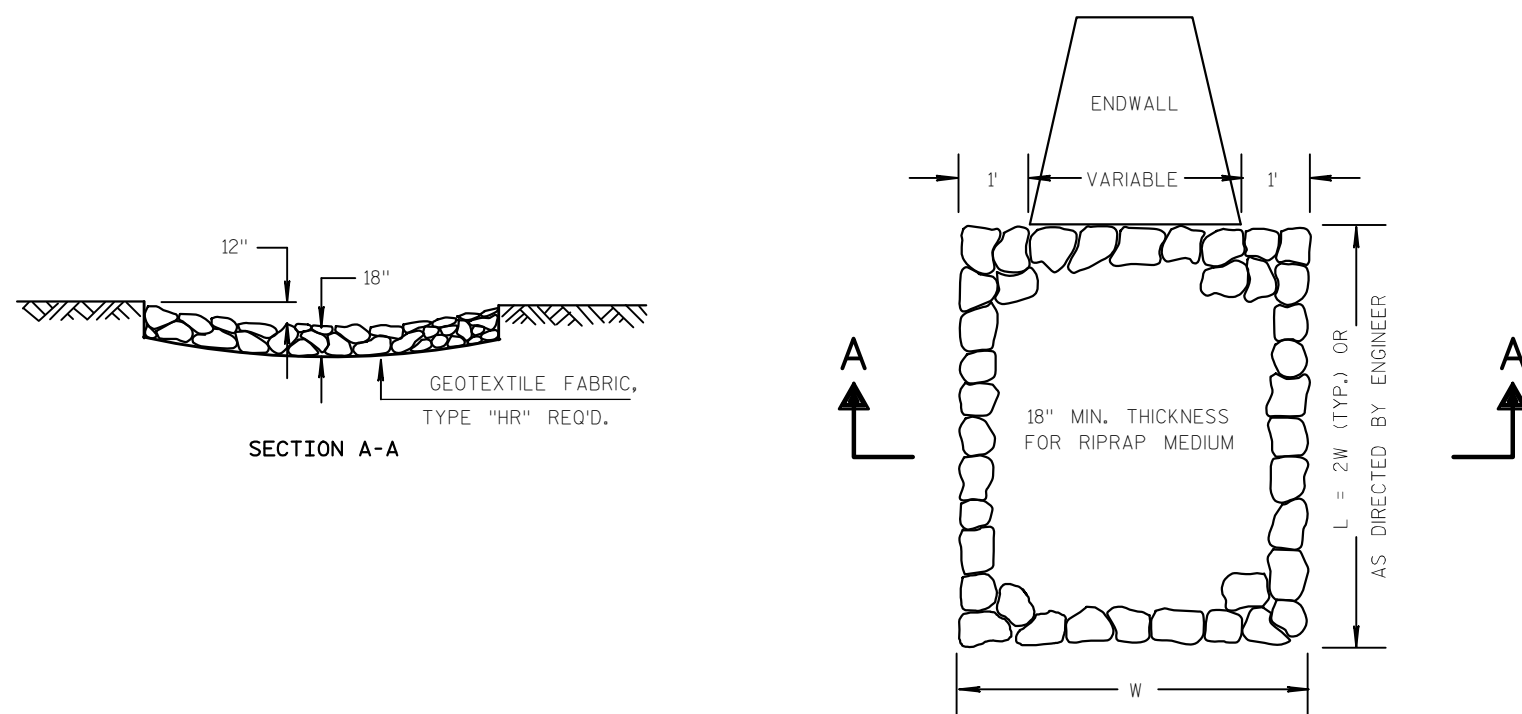
ORIGINAL GROUND

* TAPERS FROM 7' TO 0'
STATION 4+55 to 6+25
** TAPERS FROM 4.5' to 1'
STATION 6+18 to 6+27

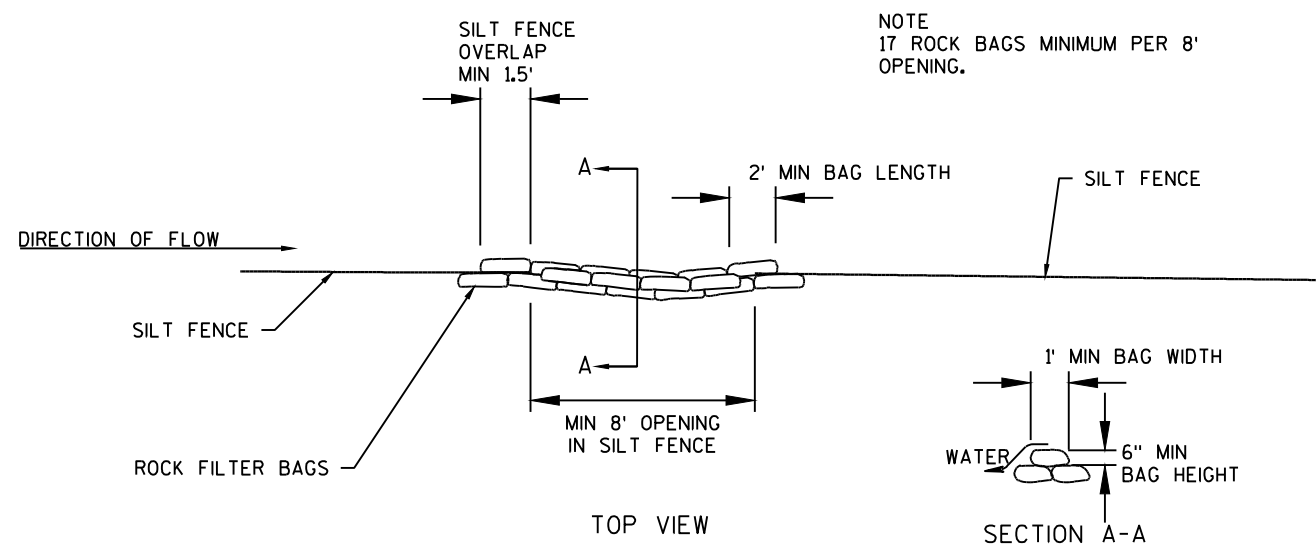
*** - VARIES
-0.025% 1+75 to 3+90.82
TRANSITION 3+90.82 to 4+98.82
+0.025% 4+98.82 to 11+43.88
TRANSITION 11+43.88 to 12+29.88
-0.025% 12+29.88 to 15+21





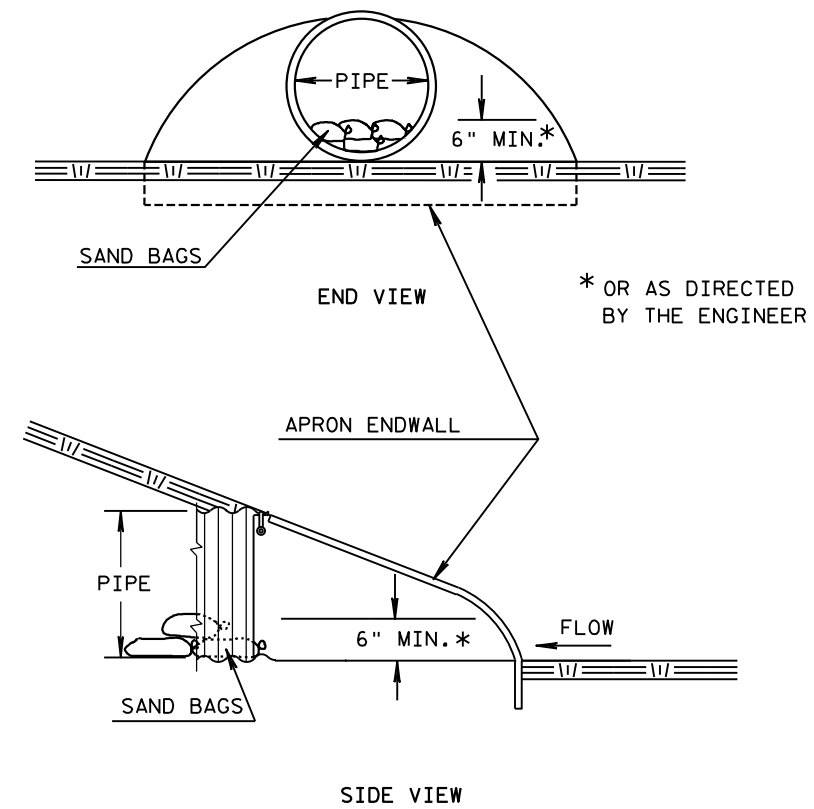


RIPRAP MEDIUM TREATMENT AT CULVERTS

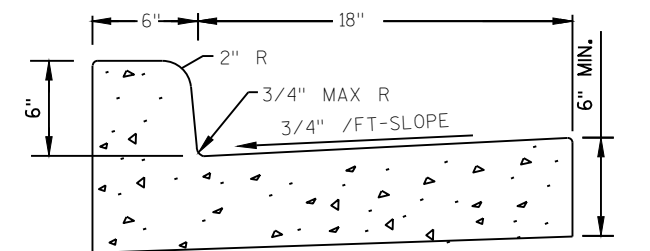


ROCK BAGS USED FOR SILT FENCE RELIEF

NOTE
17 ROCK BAGS MINIMUM PER 8'
OPENING.

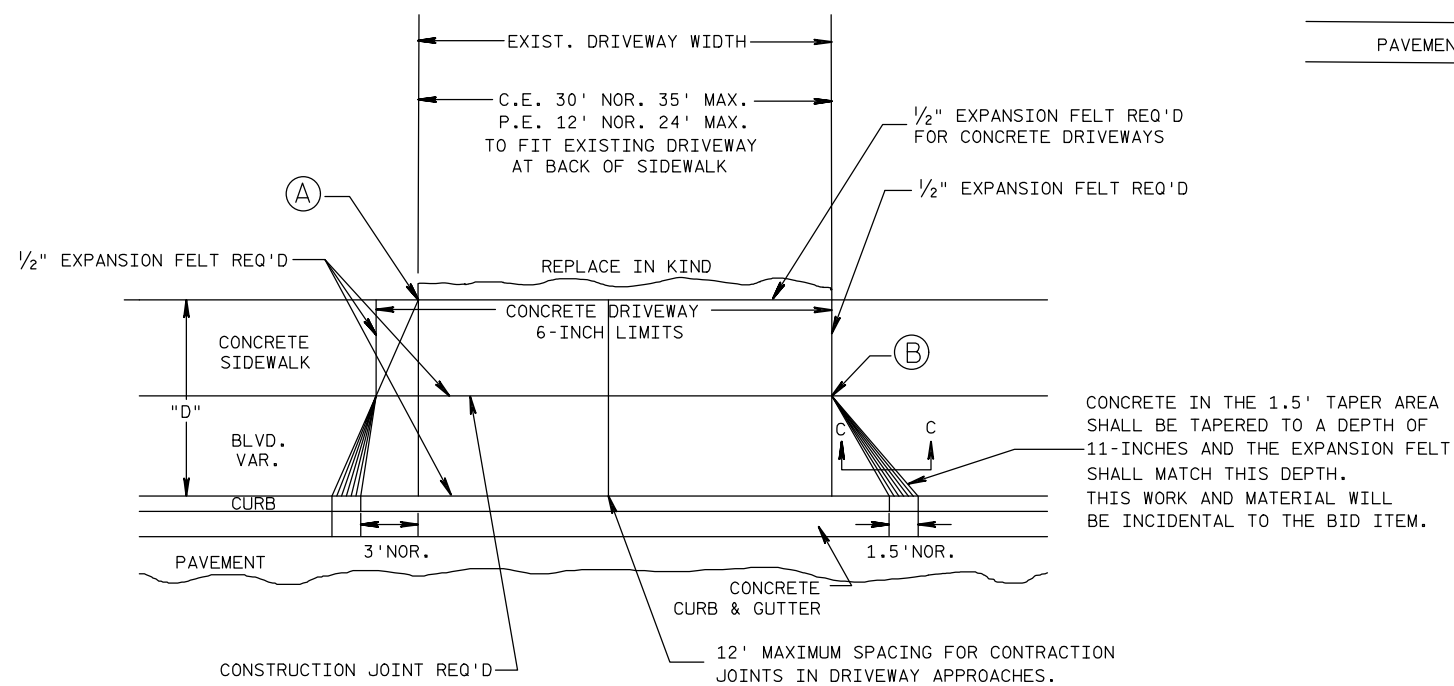


CULVERT PIPE CHECK



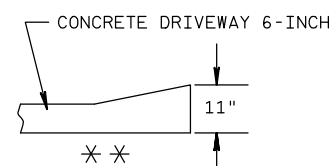
CONCRETE CURB AND GUTTER 24" TYPE D

DRIVEWAY ENTRANCE DETAIL WITH SIDEWALK, CURB & GUTTER

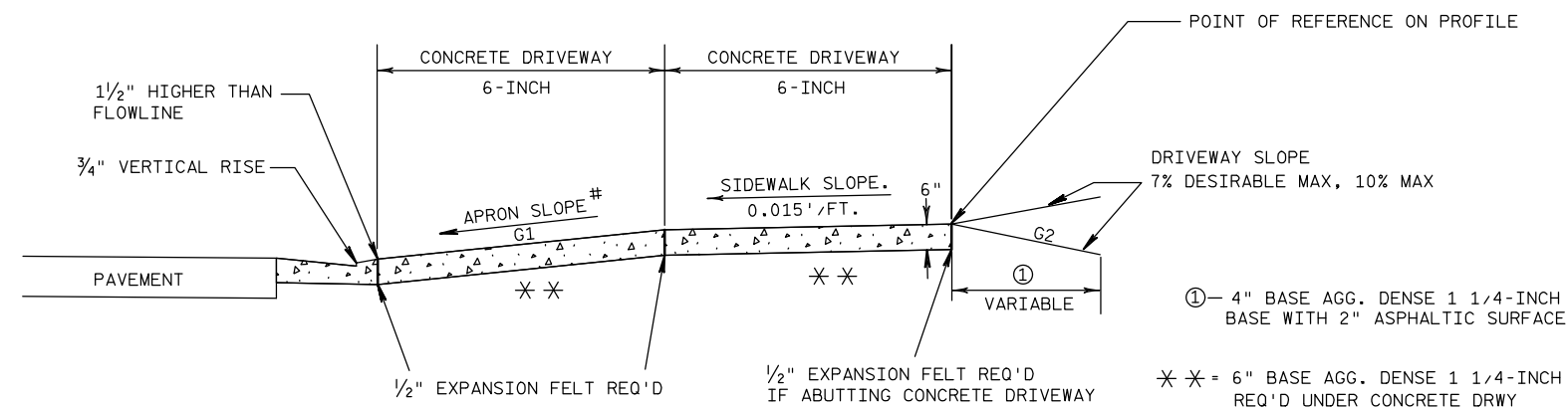


PLAN VIEW

- (A) WHEN "D" IS 13' OR LESS, ALIGN TAPER WITH BACK OF SIDEWALK
- (B) WHEN "D" IS GREATER THAN 13', ALIGN TAPER WITH FRONT OF SIDEWALK



SECTION C-C

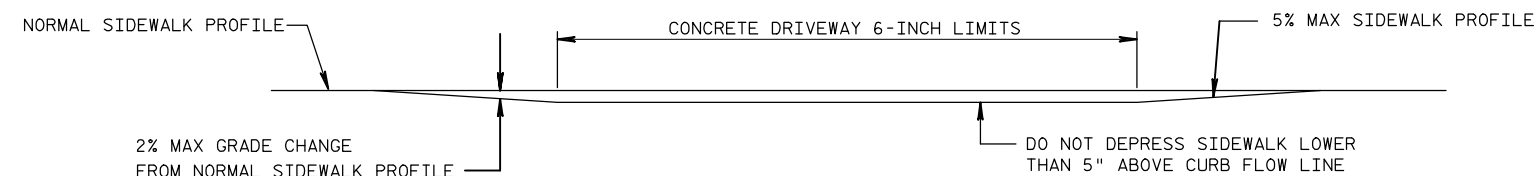


TYPICAL DRIVEWAY SECTION

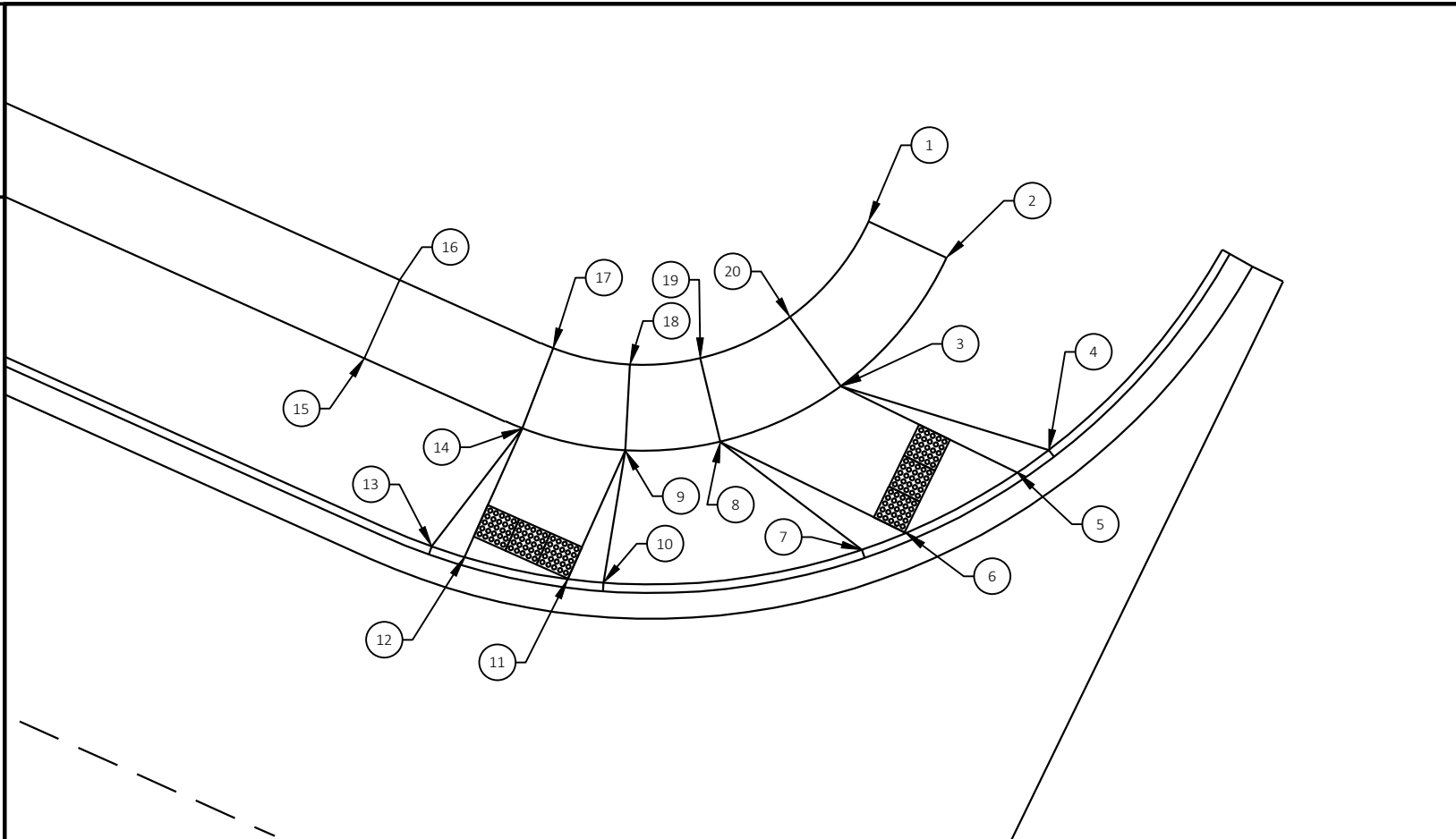
TERRACE WIDTH	APRON SLOPE (G1)		
	MIN %	DESIRABLE %	MAX %
3 FT	7.0	8.5	9.0
4 FT	5.0	7.0	9.0
5 FT	4.0	7.0	9.0
6 FT	4.0	7.0	9.0
7 FT	3.5	7.0	9.0
8 FT	3.0	7.0	9.0

NOTE: ALGEBRAIC DIFFERENCE BETWEEN TANGENT GRADES G1 & G2 TO NOT EXCEED 15%

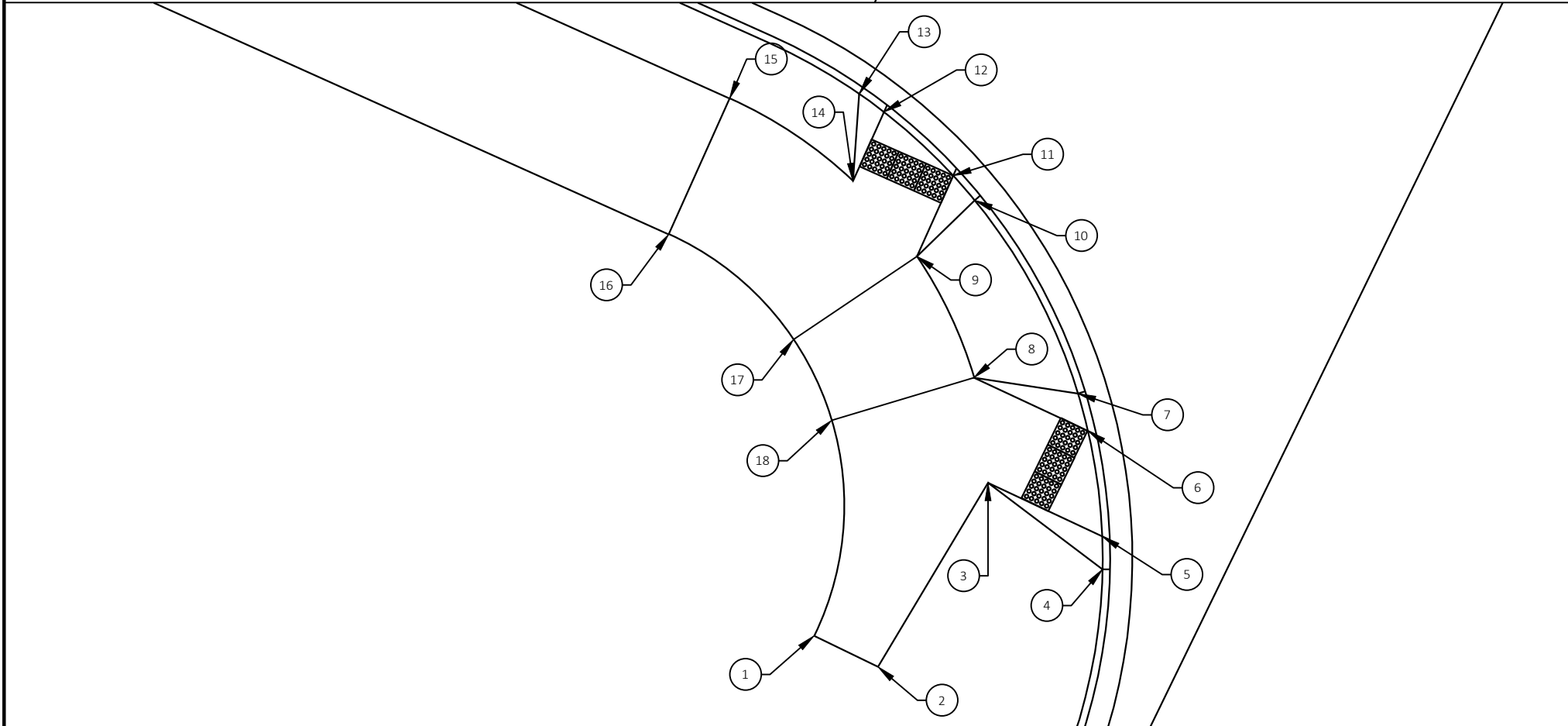
DEPRESS SIDEWALK PROFILE IF DRIVEWAY APRON EXCEEDS MAX SLOPE



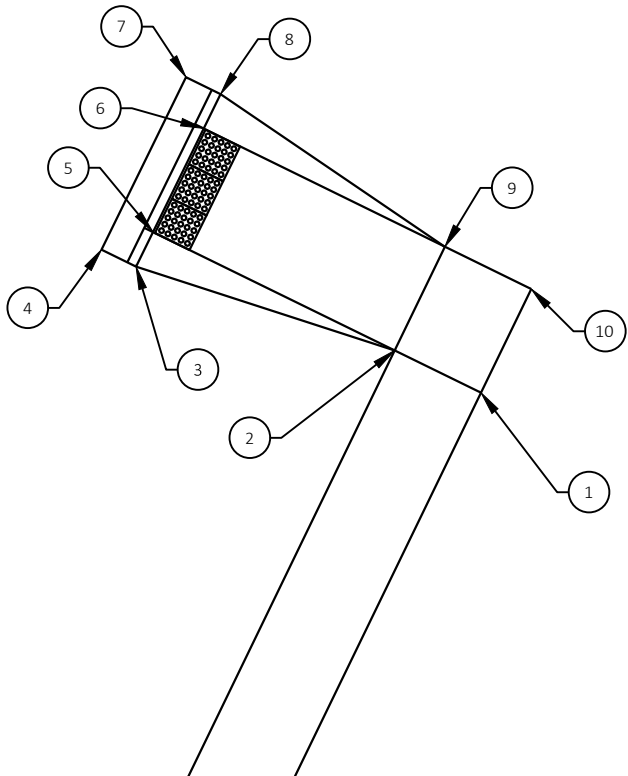
DEPRESSED SIDEWALK PROFILE DETAIL



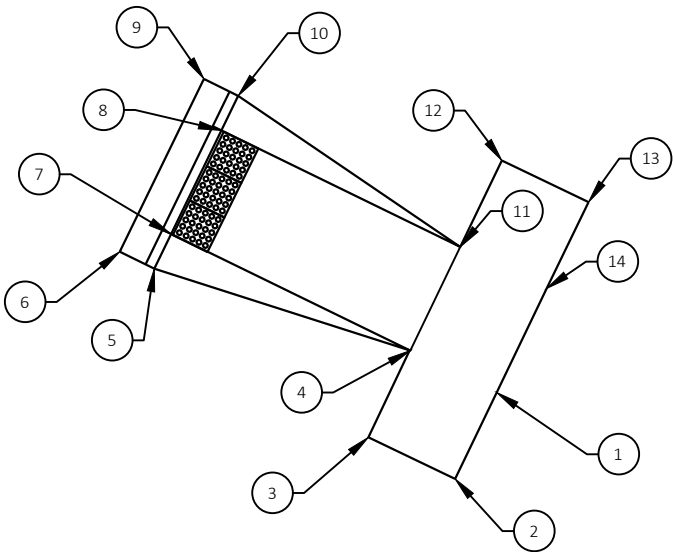
POINT NUMBER	STATION	ALIGNMENT	OFFSET	ELEVATION	COMMENT
1	202+21.19	TAYLOR	39.87' LT	595.78	BACK OF SIDEWALK
2	202+21.27	TAYLOR	34.87' LT	595.71	FACE OF SIDEWALK
3	202+11.85	TAYLOR	37.10' LT	595.48	TOP OF CURB RAMP
4	202+13.84	TAYLOR	24.60' LT	595.47	TOP BACK OF CURB
5	202+11.84	TAYLOR	25.67' LT	594.97	END CURB RAMP
6	202+05.85	TAYLOR	29.95' LT	594.96	END CURB RAMP
7	202+03.85	TAYLOR	31.82' LT	595.45	TOP BACK OF CURB
8	202+05.85	TAYLOR	41.87' LT	595.50	TOP OF CURB RAMP
9	0+45.57	VINCENT	35.82' RT	595.30	TOP OF CURB RAMP
10	0+43.57	VINCENT	28.30' RT	595.43	TOP BACK OF CURB
11	0+45.57	VINCENT	27.63' RT	594.93	END CURB RAMP
12	0+51.57	VINCENT	26.33' RT	594.92	END CURB RAMP
13	0+53.57	VINCENT	26.12' RT	595.42	TOP BACK OF CURB
14	0+51.57	VINCENT	34.53' RT	595.30	TOP OF CURB RAMP
15	0+61.53	VINCENT	34.50' RT	595.63	FACE OF SIDEWALK
16	0+61.63	VINCENT	39.50' RT	595.70	BACK OF SIDEWALK
17	0+51.85	VINCENT	39.52' RT	595.37	BACK OF SIDEWALK
18	0+47.38	VINCENT	40.48' RT	595.37	BACK OF SIDEWALK
19	202+09.71	TAYLOR	45.15' LT	595.57	BACK OF SIDEWALK
20	202+14.17	TAYLOR	41.53' LT	595.55	BACK OF SIDEWALK



POINT NUMBER	STATION	ALIGNMENT	OFFSET	ELEVATION	COMMENT
1	201+06.23	TAYLOR	39.40' LT	596.58	MATCH EXISTING
2	201+06.25	TAYLOR	34.62' LT	596.53	MATCH EXISTING
3	201+20.61	TAYLOR	33.42' LT	595.85	TOP OF CURB RAMP
4	201+18.77	TAYLOR	23.94' LT	595.99	TOP BACK OF CURB
5	201+20.76	TAYLOR	24.91' LT	595.47	END CURB RAMP
6	201+26.69	TAYLOR	28.90' LT	595.38	END CURB RAMP
7	201+28.66	TAYLOR	30.62' LT	595.83	TOP BACK OF CURB
8	201+26.55	TAYLOR	37.37' LT	595.76	TOP OF CURB RAMP
9	0+45.57	VINCENT	35.02' LT	595.38	TOP OF CURB RAMP
10	0+43.57	VINCENT	29.98' LT	595.64	TOP BACK OF CURB
11	0+45.57	VINCENT	29.06' LT	595.11	END CURB RAMP
12	0+51.57	VINCENT	27.06' LT	595.04	END CURB RAMP
13	0+53.59	VINCENT	26.63' LT	595.51	TOP BACK OF CURB
14	0+51.57	VINCENT	32.16' LT	595.27	TOP OF CURB RAMP
15	0+61.41	VINCENT	30.50' LT	595.59	FACE OF SIDEWALK
16	0+61.41	VINCENT	40.50' LT	595.74	BACK OF SIDEWALK
17	0+50.85	VINCENT	43.51' LT	595.53	BACK OF SIDEWALK
18	201+19.76	TAYLOR	44.71' LT	595.91	BACK OF SIDEWALK

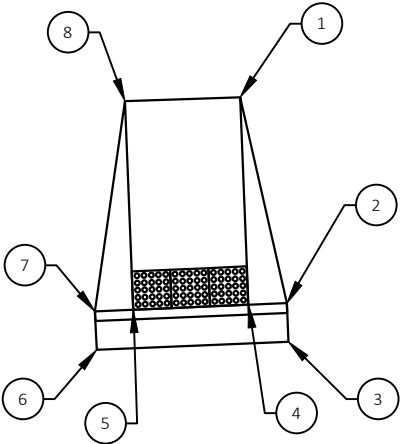


POINT NUMBER	STATION	OFFSET	ELEVATION	COMMENT
1	202+05.81	39.39' RT	595.90	BACK OF SIDEWALK
2	202+05.81	34.39' RT	595.83	TOP OF CURB RAMP
3	202+03.82	20.37' RT	595.52	MATCH EXISTING
4	202+03.82	18.37' RT	595.28	MATCH EXISTING
5	202+05.82	20.37' RT	595.21	END CURB RAMP
6	202+11.82	20.37' RT	595.17	END CURB RAMP
7	202+13.82	18.37' RT	595.22	MATCH EXISTING
8	202+13.82	20.37' RT	595.41	MATCH EXISTING
9	202+11.81	34.37' RT	595.79	TOP OF CURB RAMP
10	202+11.81	39.37' RT	595.86	BACK OF SIDEWALK

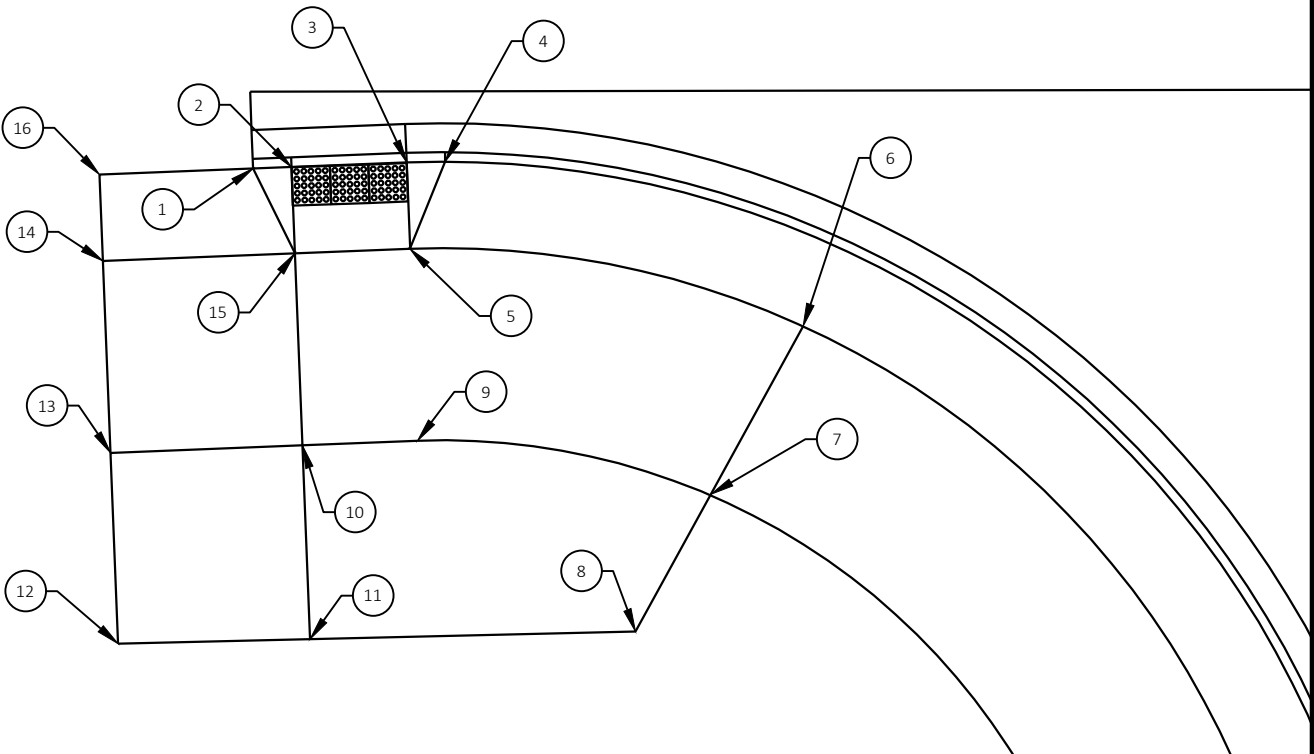


POINT NUMBER	STATION	OFFSET	ELEVATION	COMMENT
1	201+20.74	39.23' RT	596.47	BACK OF SIDEWALK
2	201+15.74	39.26' RT	596.63	MATCH EXISTING
3	201+15.71	34.26' RT	596.51	MATCH EXISTING
4	201+20.70	34.23' RT	596.40	TOP OF CURB RAMP
5	201+18.69	20.37' RT	596.04	MATCH EXISTING
6	201+18.68	18.37' RT	595.86	MATCH EXISTING
7	201+20.69	20.37' RT	595.78	END CURB RAMP
8	201+26.69	20.36' RT	595.72	END CURB RAMP
9	201+28.68	18.35' RT	595.76	MATCH EXISTING
10	201+28.69	20.35' RT	596.08	MATCH EXISTING
11	201+26.71	34.19' RT	596.34	TOP OF CURB RAMP
12	201+31.71	34.16' RT	596.36	MATCH EXISTING
13	201+31.74	39.16' RT	596.51	MATCH EXISTING
14	201+26.74	39.19' RT	596.41	BACK OF SIDEWALK

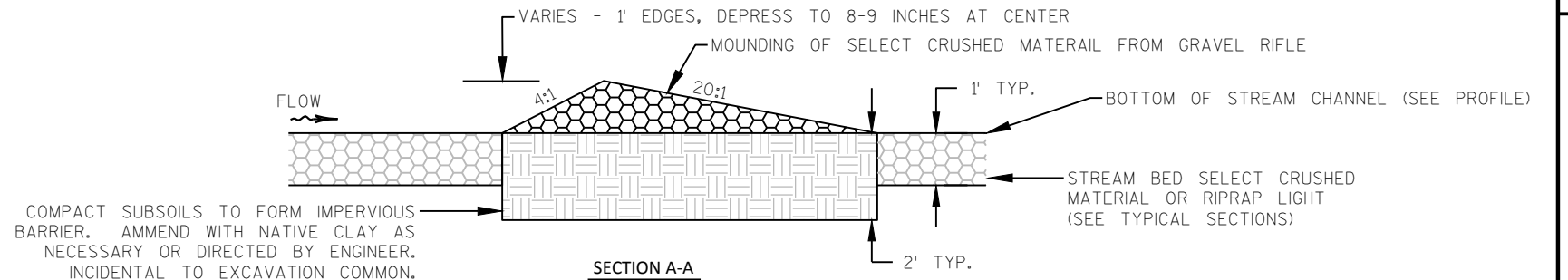
POINT NUMBER	STATION	OFFSET	ELEVATION	COMMENT
1	100+72.74	33.50' LT	597.50	MATCH EXISTING
2	100+74.84	22.70' LT	597.55	MATCH EXISTING
3	100+74.87	20.70' LT	597.06	MATCH EXISTING
4	100+72.83	22.70' LT	597.02	END CURB RAMP
5	100+66.84	22.70' LT	597.10	END CURB RAMP
6	100+64.87	20.70' LT	597.18	MATCH EXISTING
7	100+64.84	22.70' LT	597.67	MATCH EXISTING
8	100+66.74	33.50' LT	597.59	MATCH EXISTING

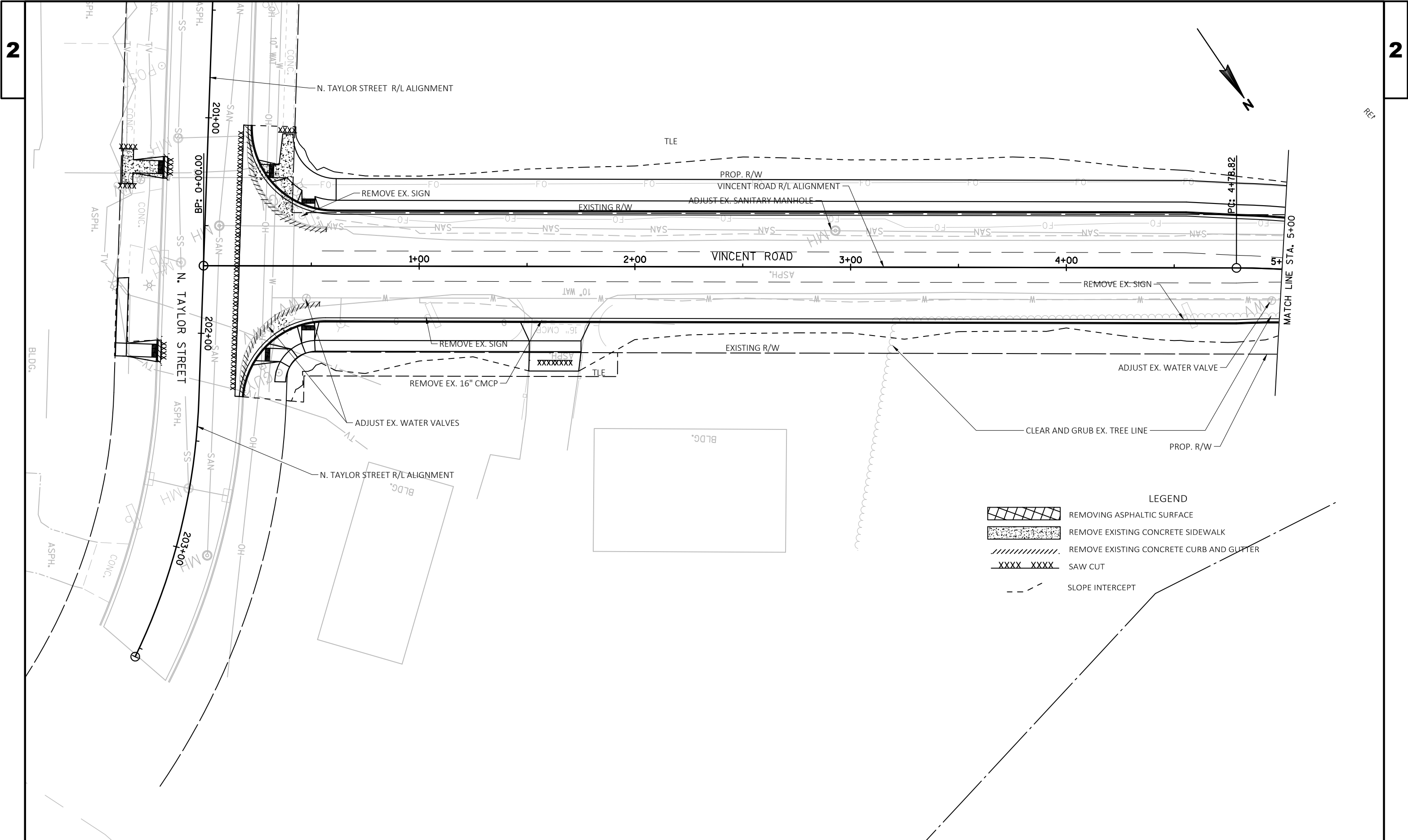


POINT NUMBER	STATION	OFFSET	ELEVATION	COMMENT	POINT NUMBER	STATION	OFFSET	ELEVATION	COMMENT
1	100+65.23	19.32' RT	597.82	MATCH EXISTING	9	100+73.36	33.75' RT	597.84	BACK OF SIDEWALK
2	100+67.23	19.31' RT	597.40	END CURB RAMP	10	100+67.36	33.80' RT	597.75	BACK OF SIDEWALK
3	100+73.23	19.25' RT	597.63	END CURB RAMP	11	100+67.45	43.90' RT	598.43	FACE OF WALL
4	100+75.29	19.27' RT	598.10	TOP BACK OF CURB	12	100+57.45	43.84' RT	598.52	FACE OF WALL
5	100+73.27	23.74' RT	597.69	TOP OF CURB RAMP	13	100+57.36	33.90' RT	598.25	MATCH EXISTING
6	100+93.61	28.40' RT	597.83	FACE OF SIDEWALK	14	100+57.27	23.89' RT	598.01	MATCH EXISTING
7	100+88.51	37.05' RT	598.01	BACK OF SIDEWALK	15	100+67.27	23.80' RT	597.60	TOP OF CURB RAMP
8	100+84.39	44.02' RT	598.28	FACE OF WALL	16	100+57.23	19.40' RT	597.91	MATCH EXISTING



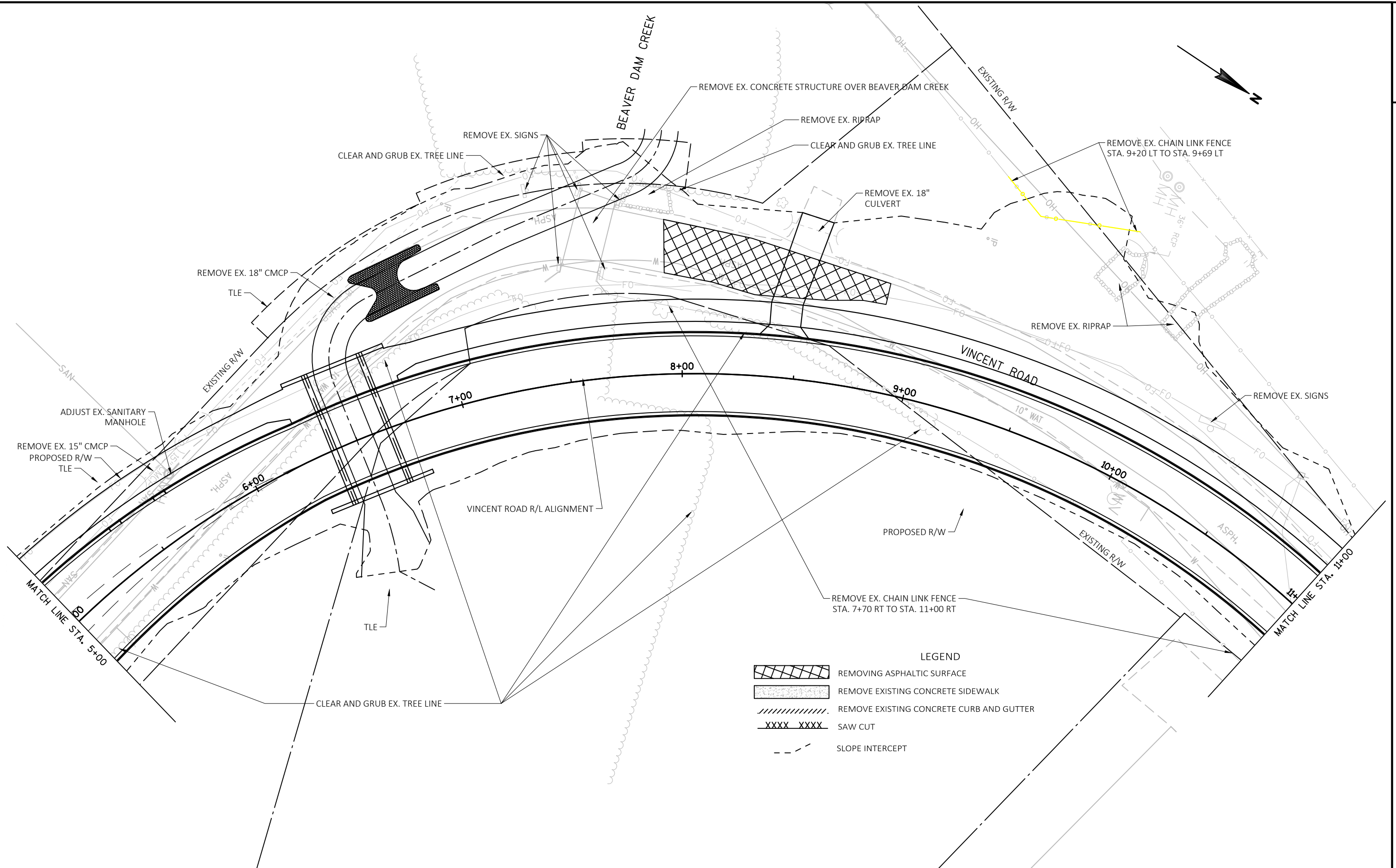
COMPACT SUBSOILS TO FORM IMPERVIOUS
BARRIER. AMMEND WITH NATIVE CLAY AS
NECESSARY OR DIRECTED BY ENGINEER.
INCIDENTAL TO EXCAVATION COMMON.





2

2



PROJECT NO: 9269-00-12

HWY: VINCENT ROAD

COUNTY: BROWN

REMOVAL PLAN

SHEET

3

FILE NAME : J:\JOBS2014\20142014-04\CAD\SITE\DWG\00\021101_RM.DWG
LAYOUT NAME - 021102

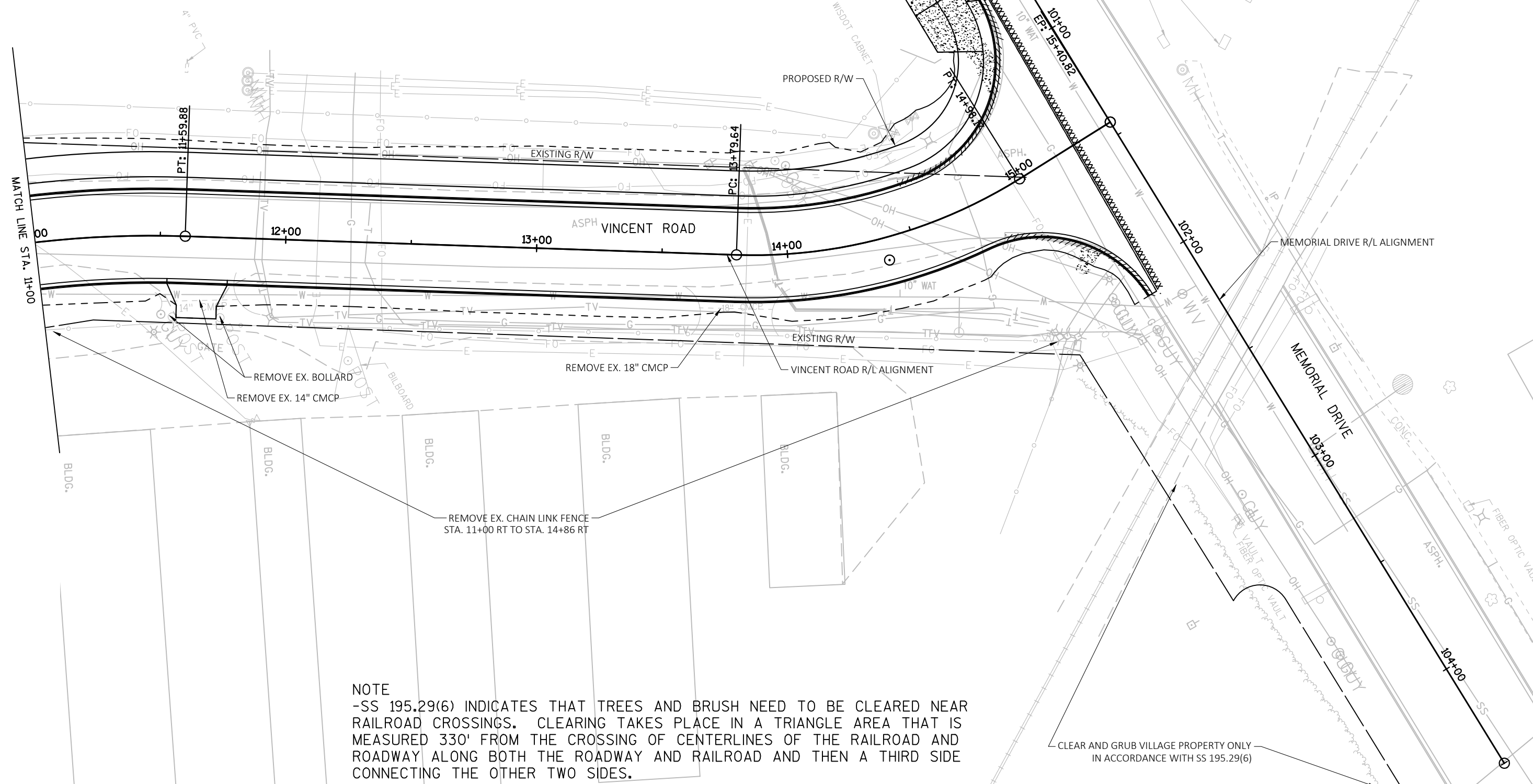
PLOT DATE : 11/28/2018 10:13 AM

PLOT BY : SCHULTZ, ANDREW K. PLOT NAME :

PLOT SCALE : 1 IN:40 FT

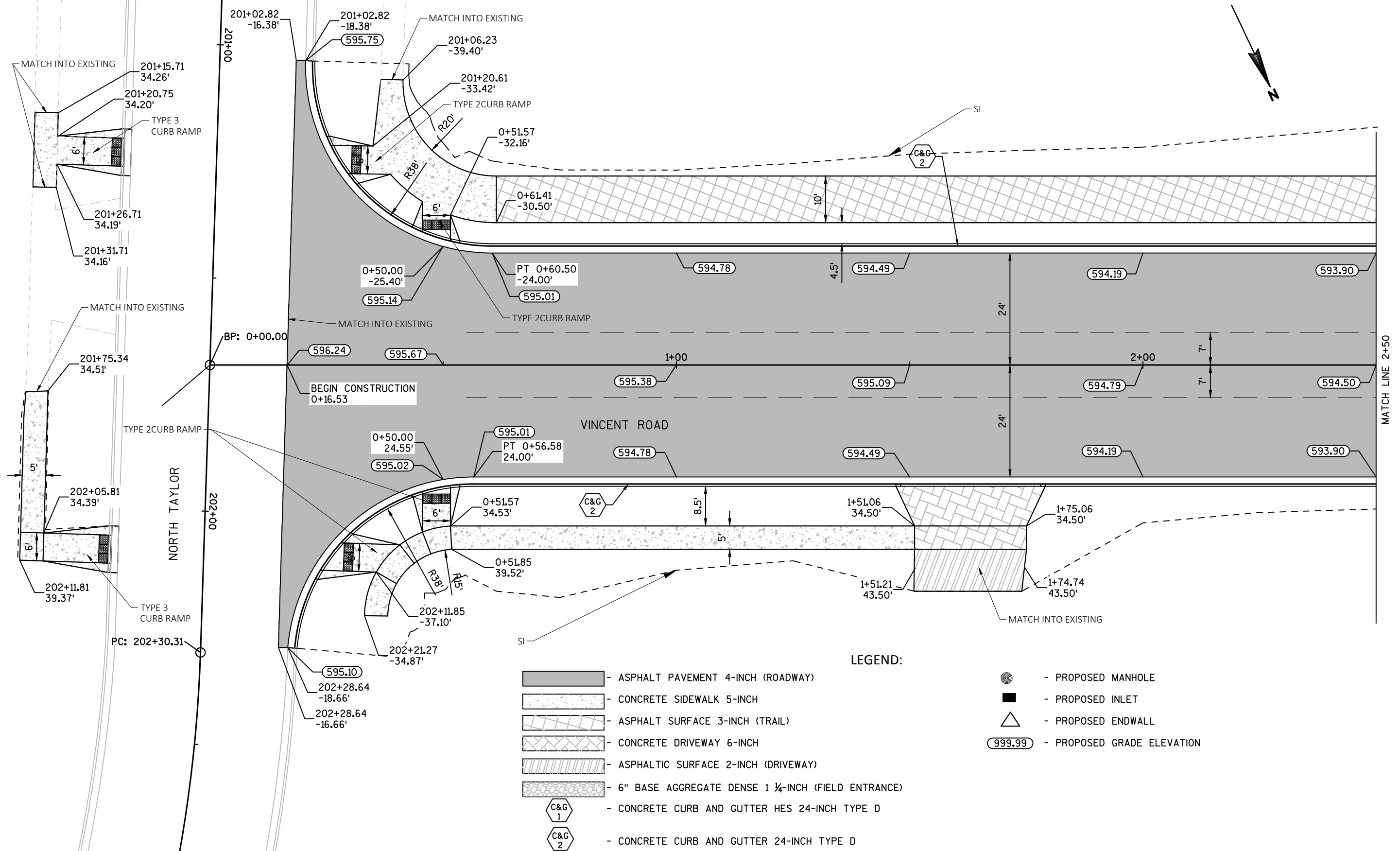
WISDOT/CADDS SHEET 42

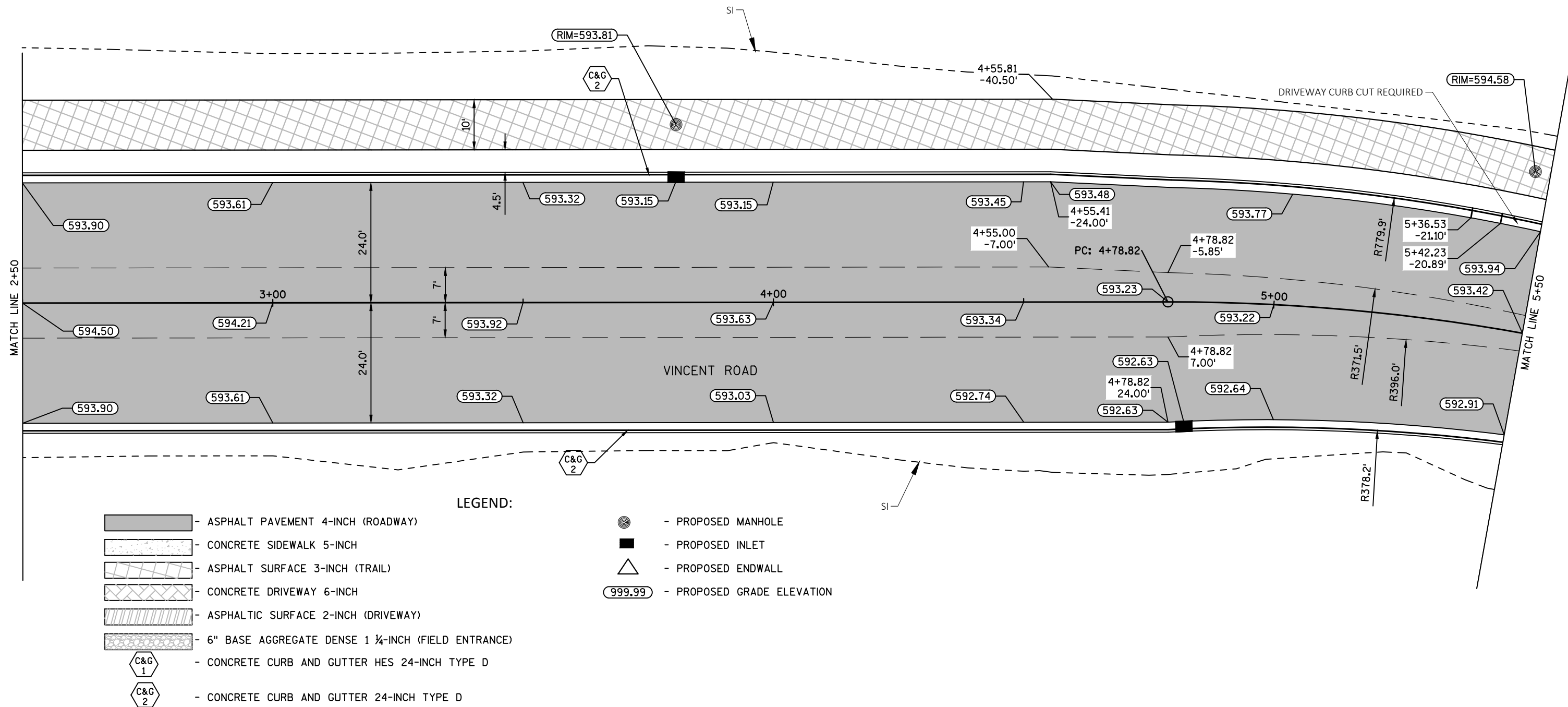
	LEGEND
	REMOVING ASPHALTIC SURFACE
	REMOVE EXISTING CONCRETE SIDEWALK
	REMOVE EXISTING CONCRETE CURB AND GUTTER
	SAW CUT
	SLOPE INTERCEPT

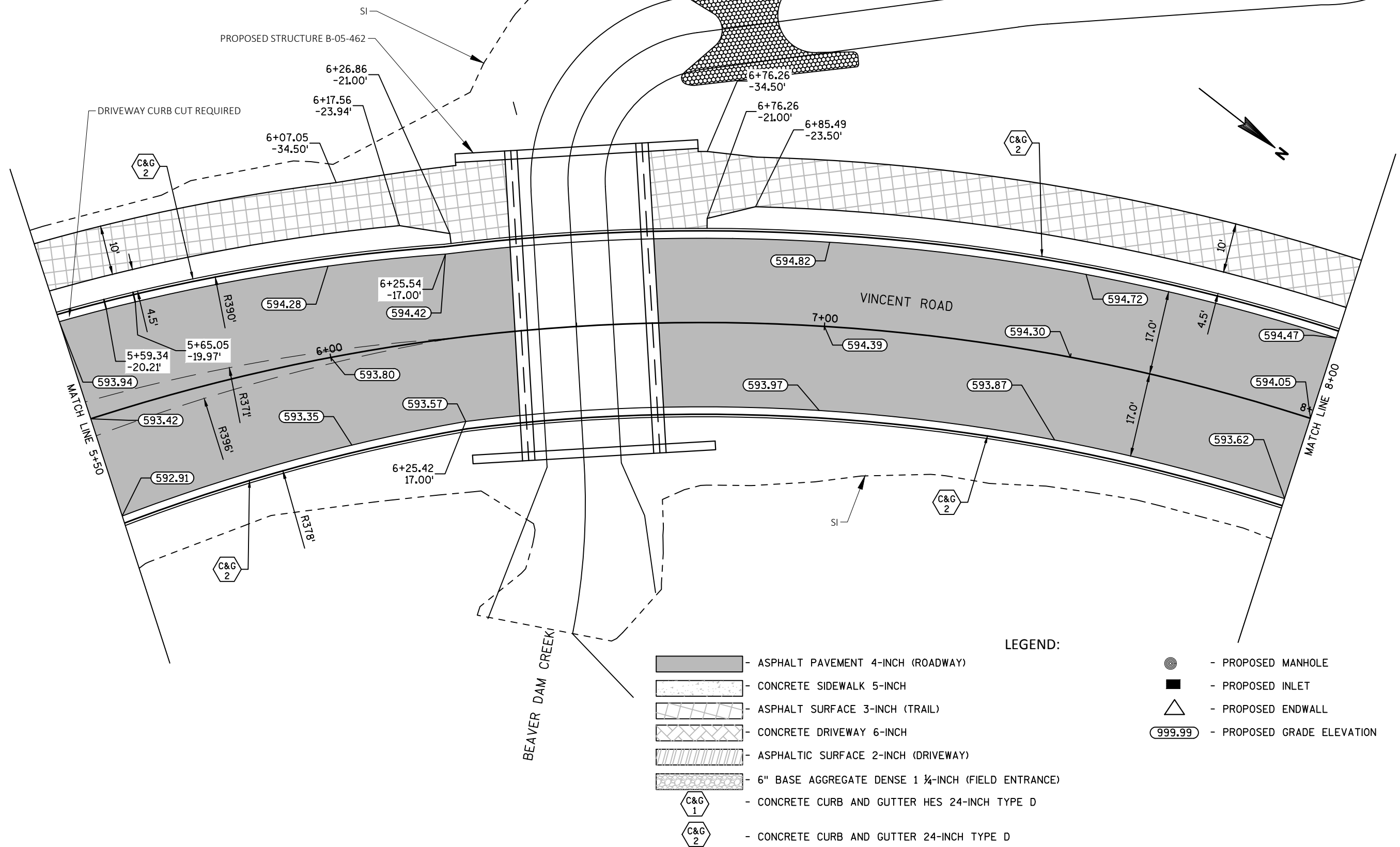


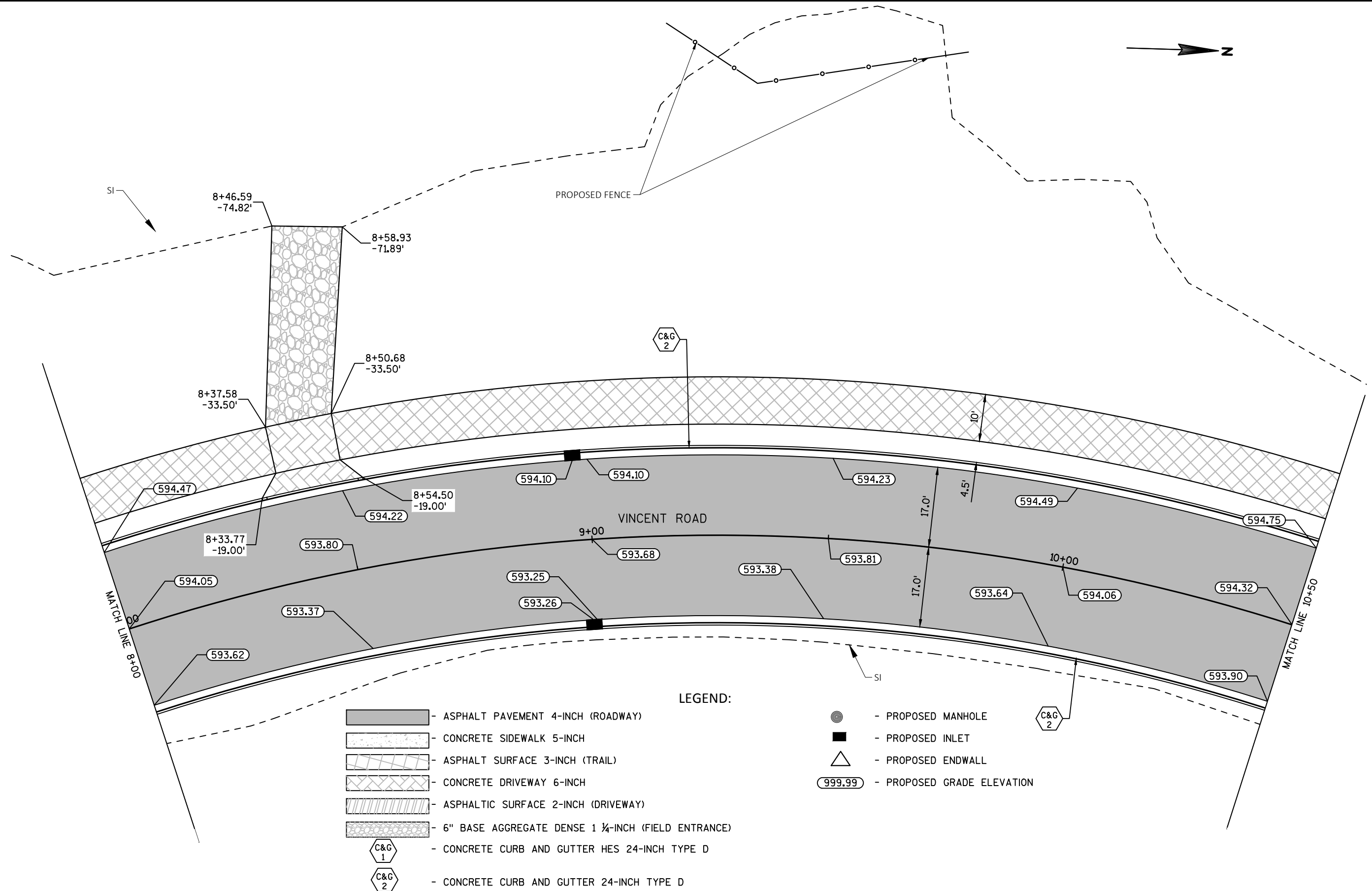
NOTE
 -SS 195.29(6) INDICATES THAT TREES AND BRUSH NEED TO BE CLEARED NEAR RAILROAD CROSSINGS. CLEARING TAKES PLACE IN A TRIANGLE AREA THAT IS MEASURED 330' FROM THE CROSSING OF CENTERLINES OF THE RAILROAD AND ROADWAY ALONG BOTH THE ROADWAY AND RAILROAD AND THEN A THIRD SIDE CONNECTING THE OTHER TWO SIDES.

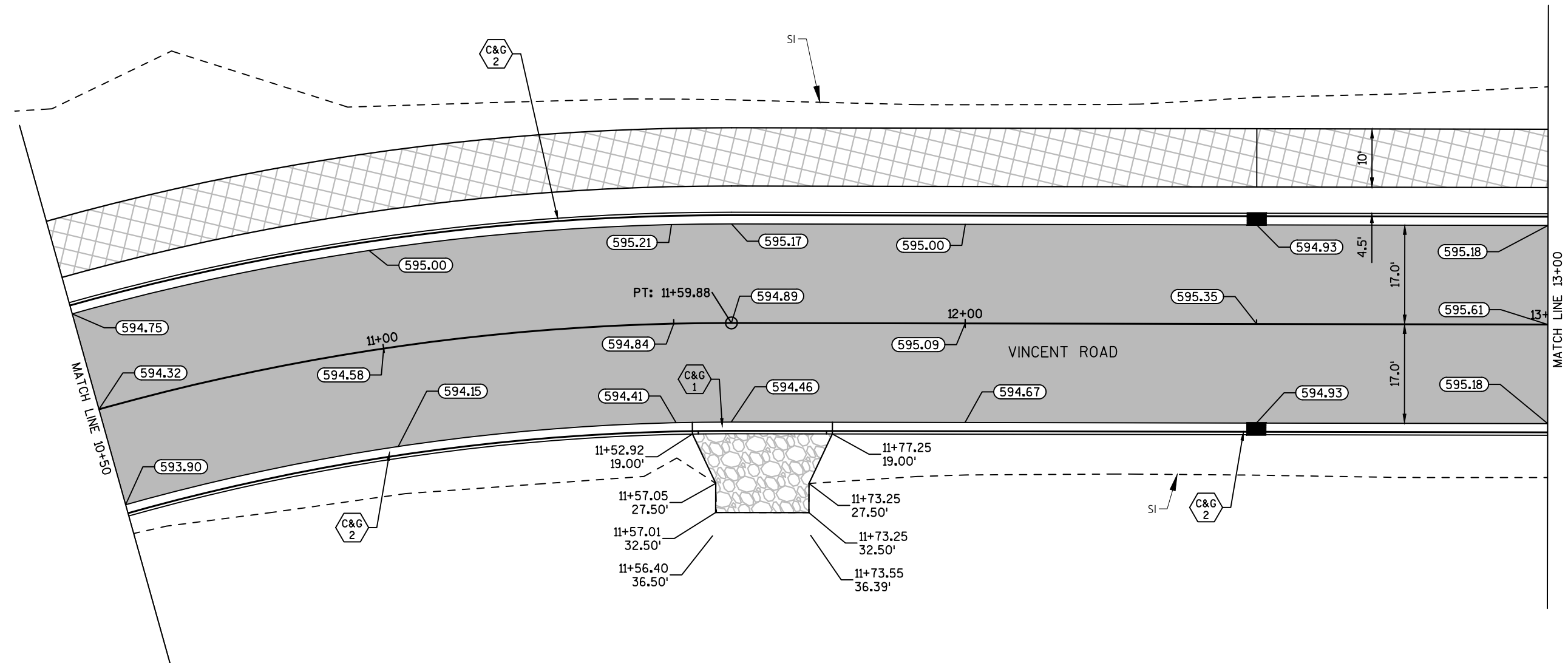
CLEAR AND GRUB VILLAGE PROPERTY ONLY
 IN ACCORDANCE WITH SS 195.29(6)





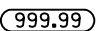






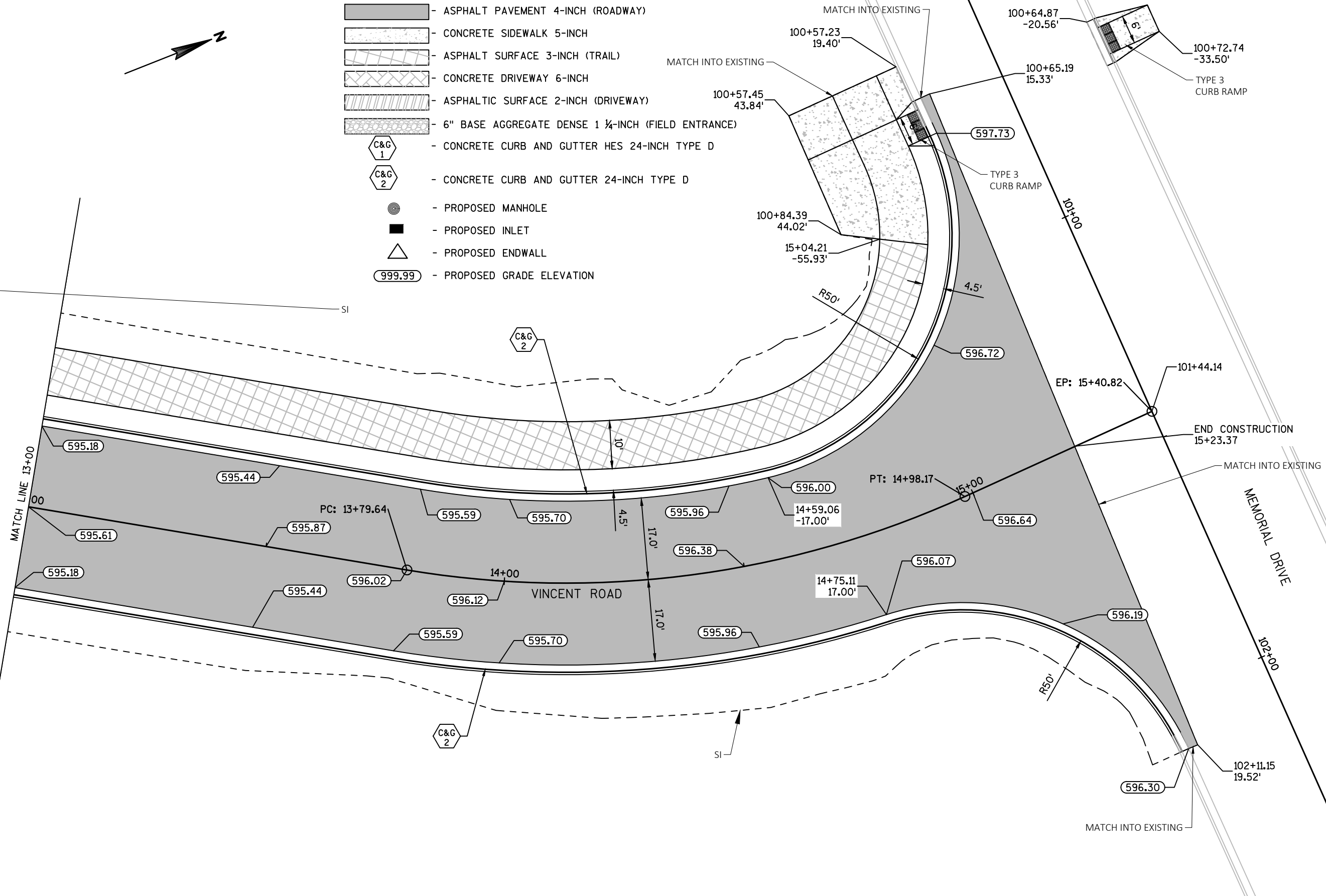
LEGEND:

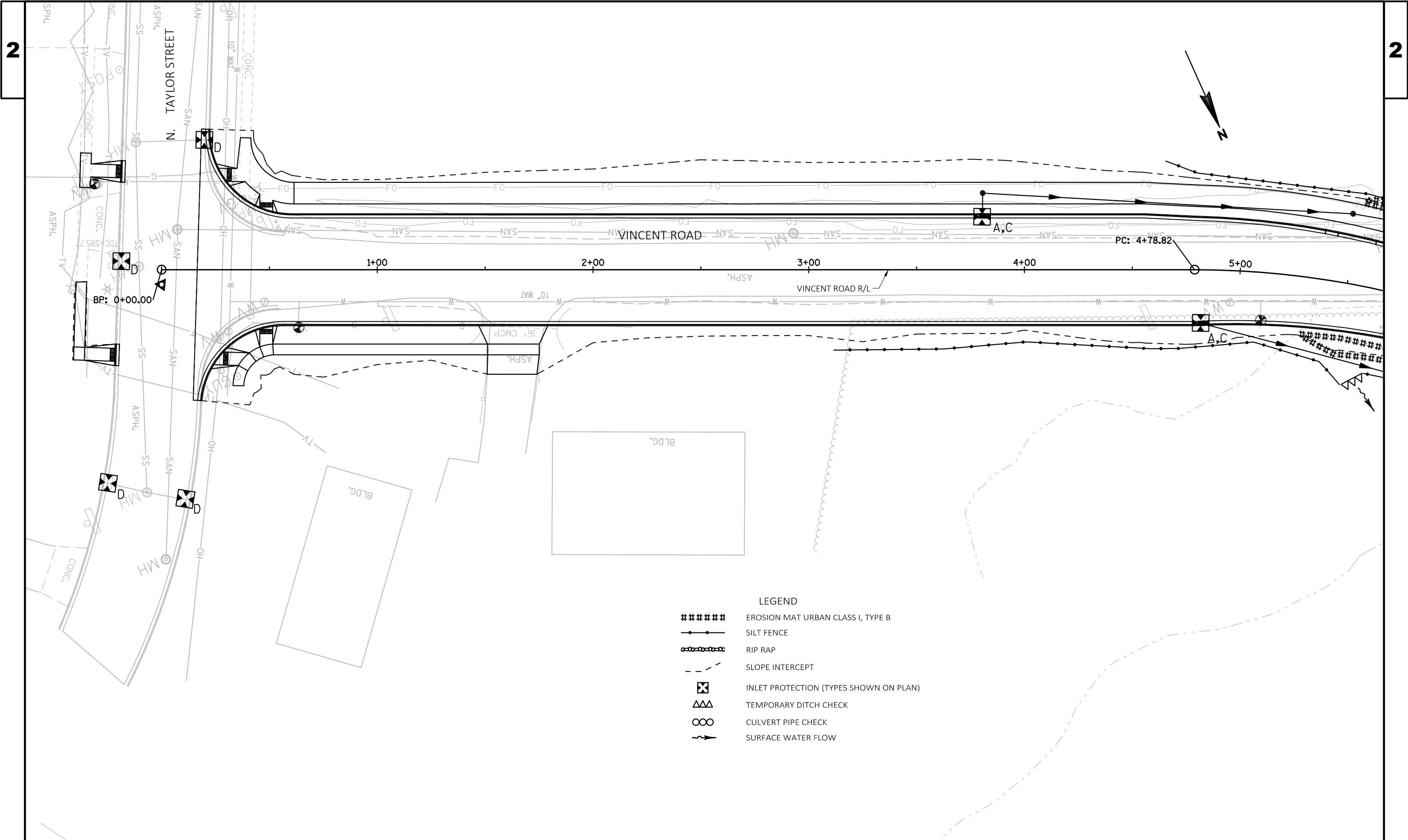
-  - ASPHALT PAVEMENT 4-INCH (ROADWAY)
-  - CONCRETE SIDEWALK 5-INCH
-  - ASPHALT SURFACE 3-INCH (TRAIL)
-  - CONCRETE DRIVEWAY 6-INCH
-  - ASPHALTIC SURFACE 2-INCH (DRIVEWAY)
-  - 6" BASE AGGREGATE DENSE 1 1/4-INCH (FIELD ENTRANCE)
-  - CONCRETE CURB AND GUTTER 24-INCH TYPE D
-  - CONCRETE CURB AND GUTTER 24-INCH TYPE D

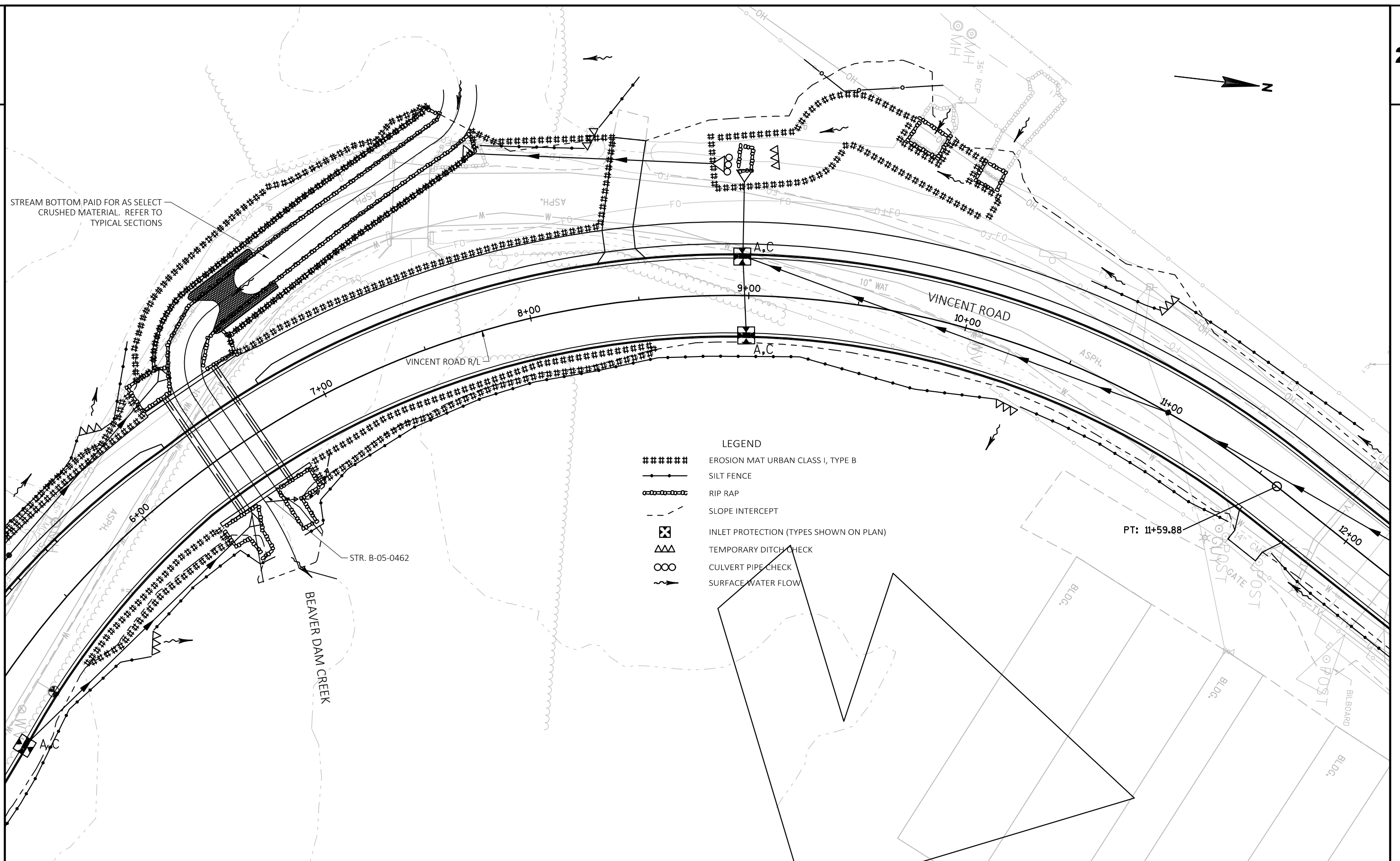
-  - PROPOSED MANHOLE
-  - PROPOSED INLET
-  - PROPOSED ENDWALL
-  - PROPOSED GRADE ELEVATION

LEGEND:

-  - ASPHALT PAVEMENT 4-INCH (ROADWAY)
-  - CONCRETE SIDEWALK 5-INCH
-  - ASPHALT SURFACE 3-INCH (TRAIL)
-  - CONCRETE DRIVEWAY 6-INCH
-  - ASPHALTIC SURFACE 2-INCH (DRIVEWAY)
-  - 6" BASE AGGREGATE DENSE 1 1/4-INCH (FIELD ENTRANCE)
-  - CONCRETE CURB AND GUTTER HES 24-INCH TYPE D
-  - CONCRETE CURB AND GUTTER 24-INCH TYPE D
-  - PROPOSED MANHOLE
-  - PROPOSED INLET
-  - PROPOSED ENDWALL
-  - PROPOSED GRADE ELEVATION

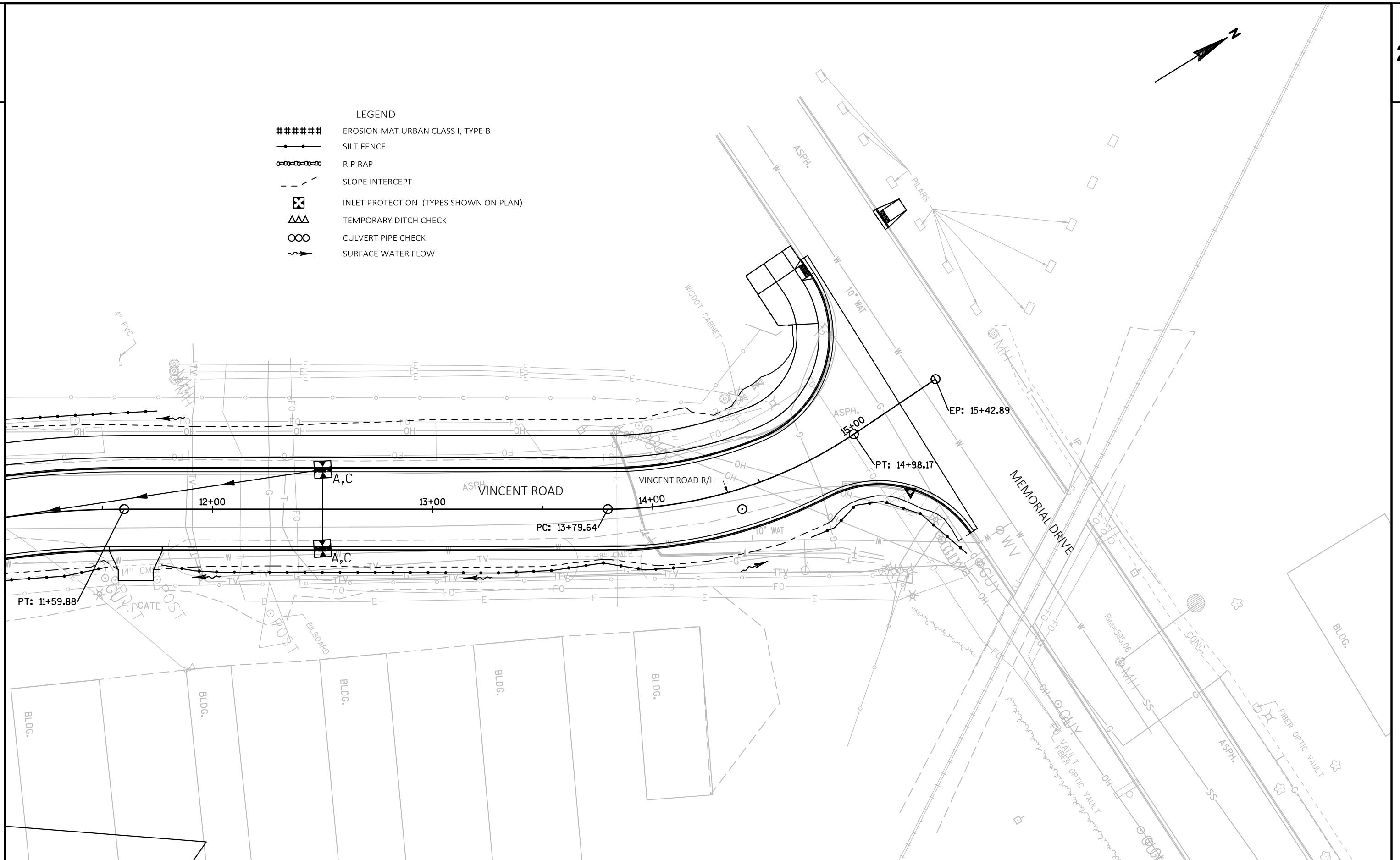


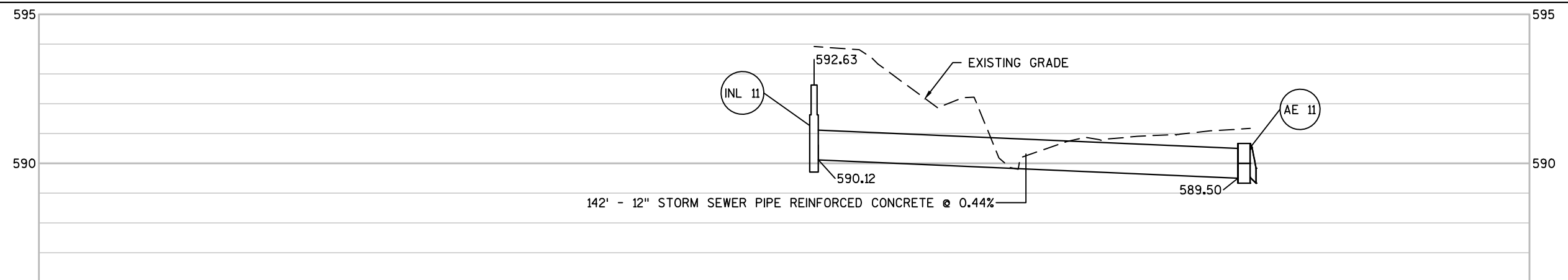
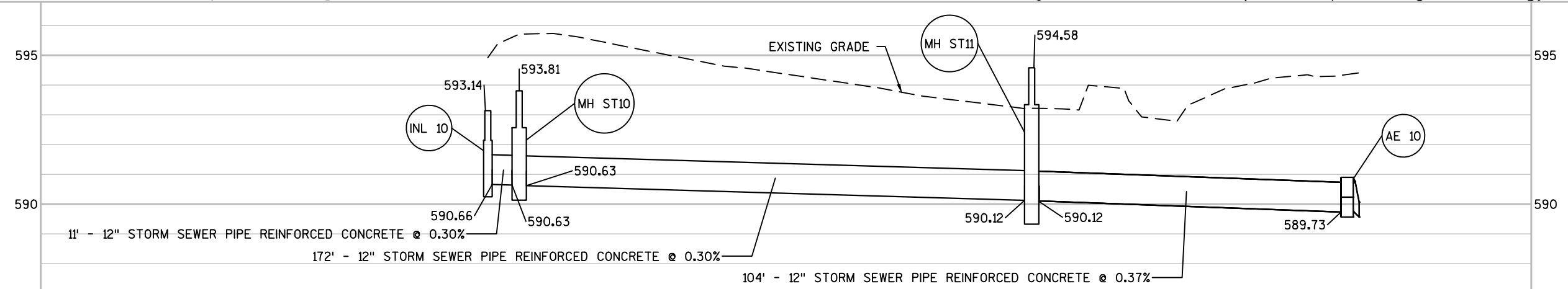
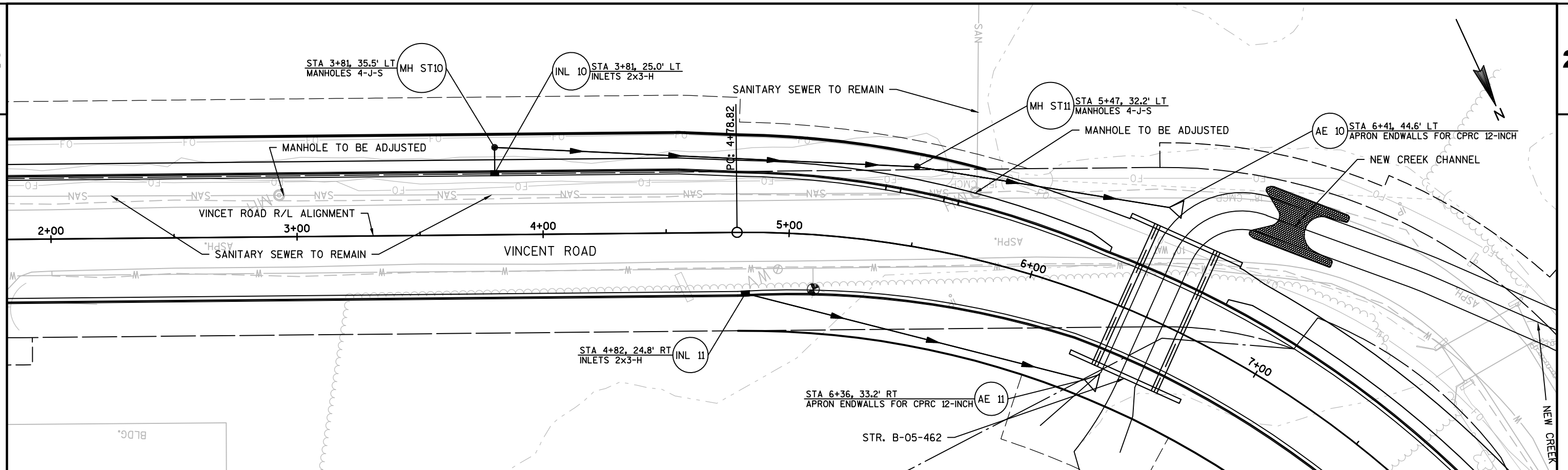


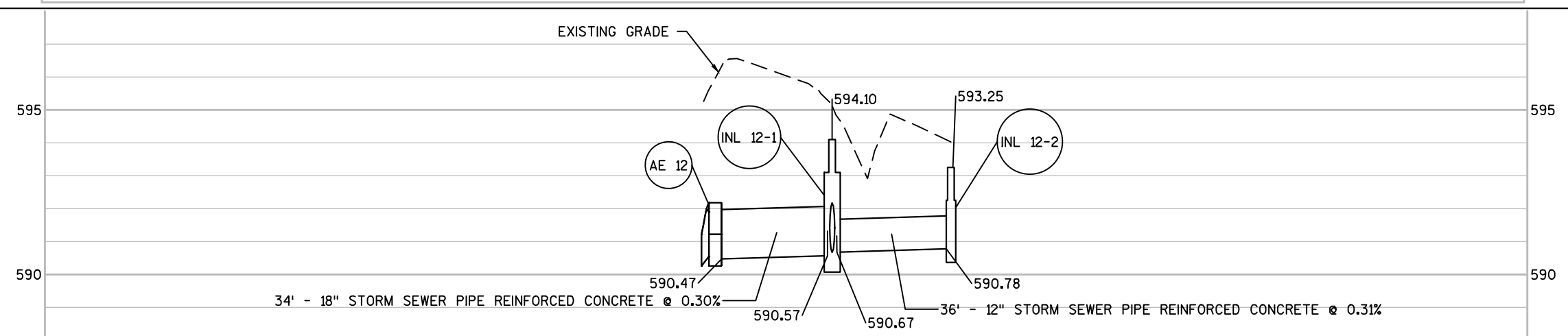
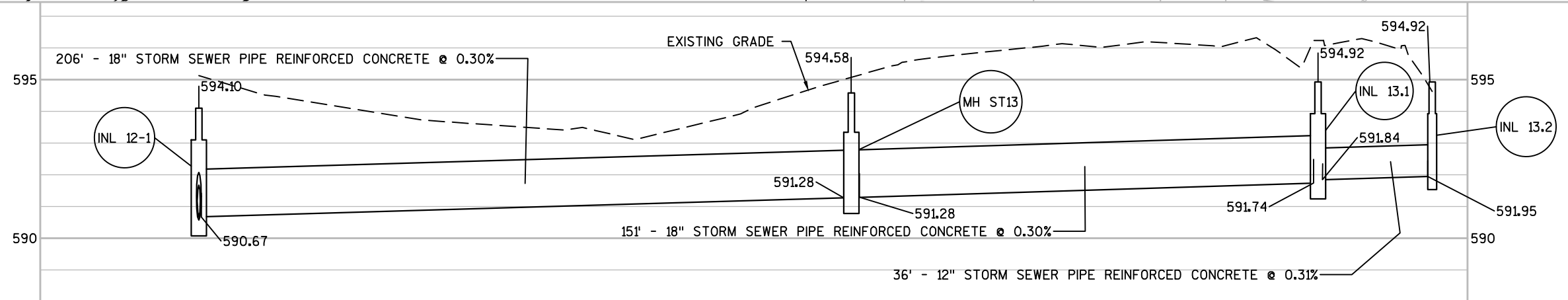
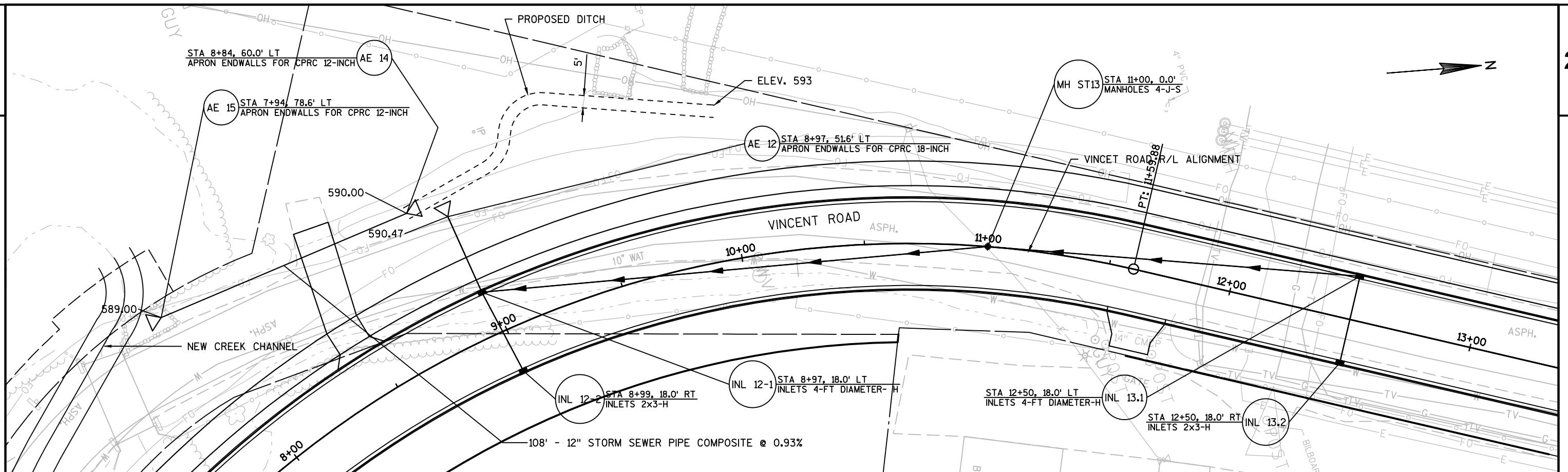


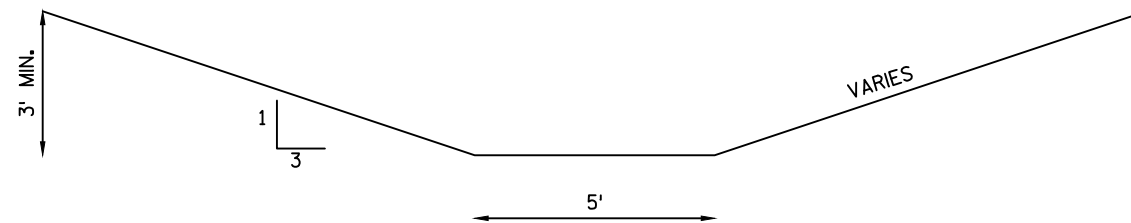
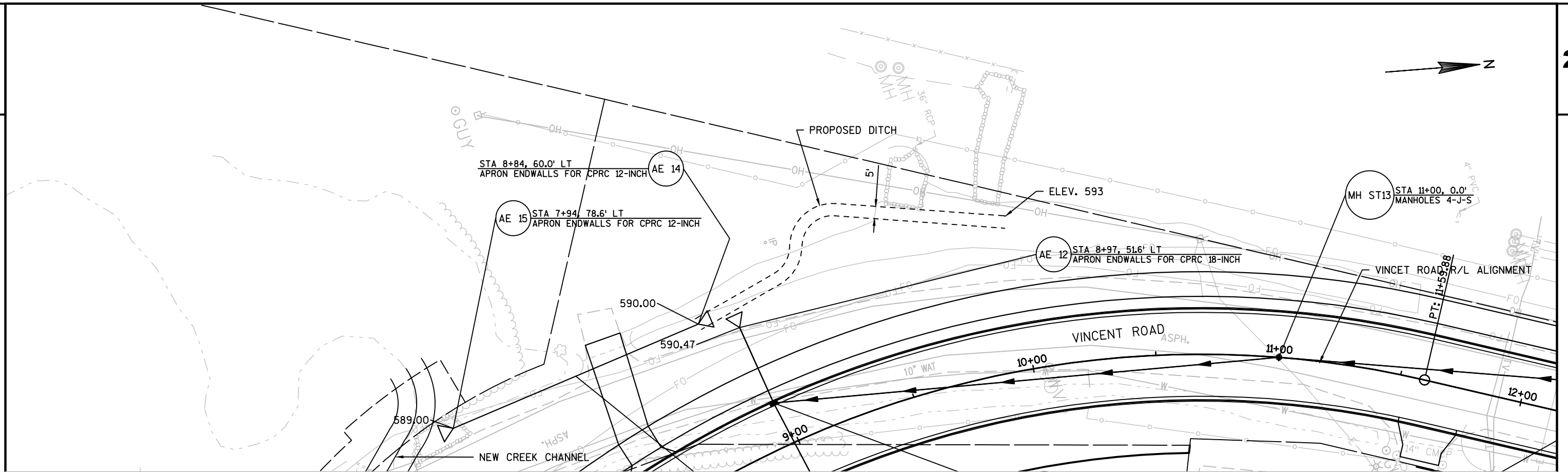
PROJECT NO:9269-00-12	HWY:VINCENT ROAD	COUNTY:BROWN	EROSION CONTROL	SHEET	E
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- LEGEND
- ##### EROSION MAT URBAN CLASS I, TYPE B
 - SILT FENCE
 - RIP RAP
 - - - SLOPE INTERCEPT
 - ⊠ INLET PROTECTION (TYPES SHOWN ON PLAN)
 - △△ TEMPORARY DITCH CHECK
 - ∞∞ CULVERT PIPE CHECK
 - ~> SURFACE WATER FLOW

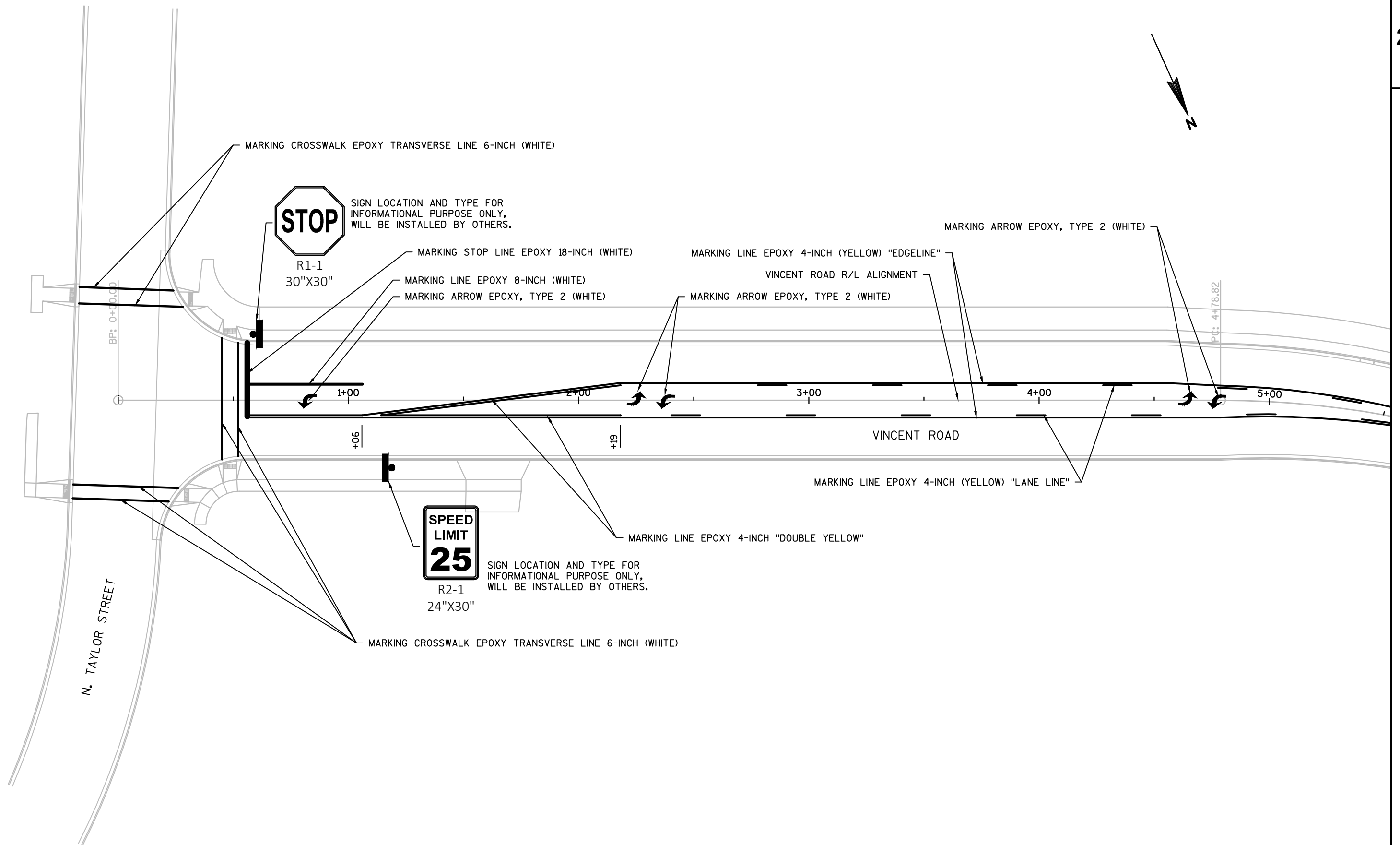


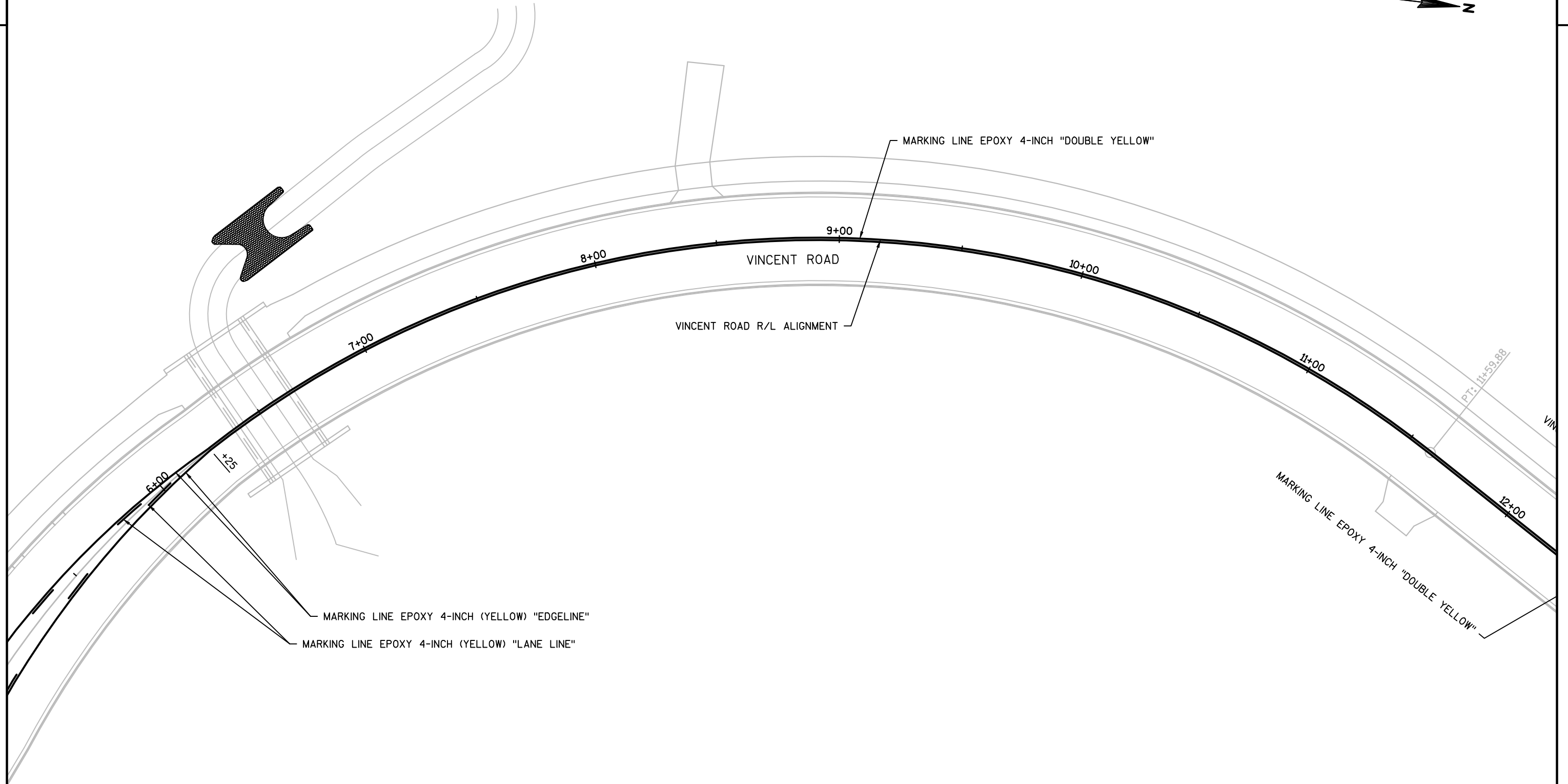


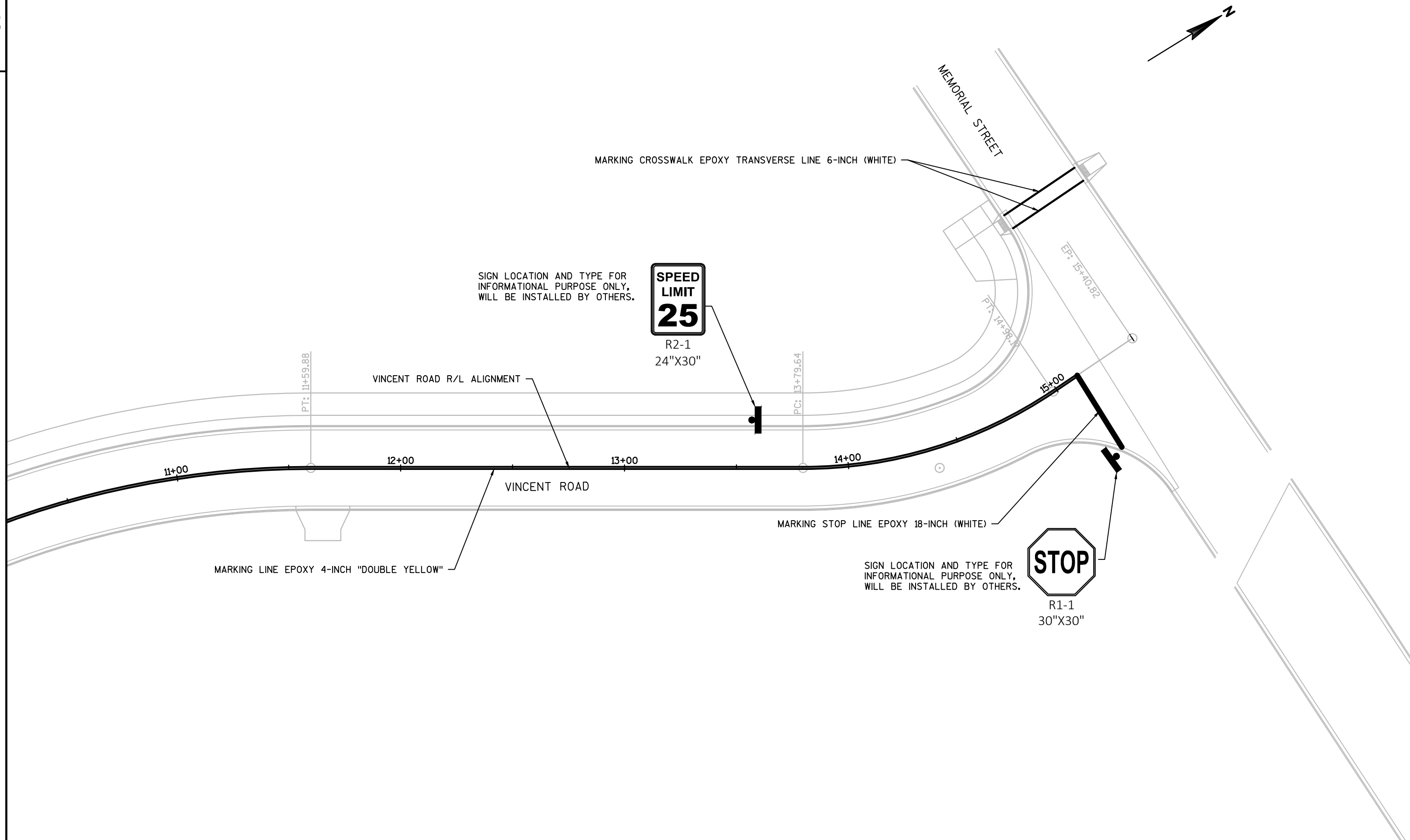


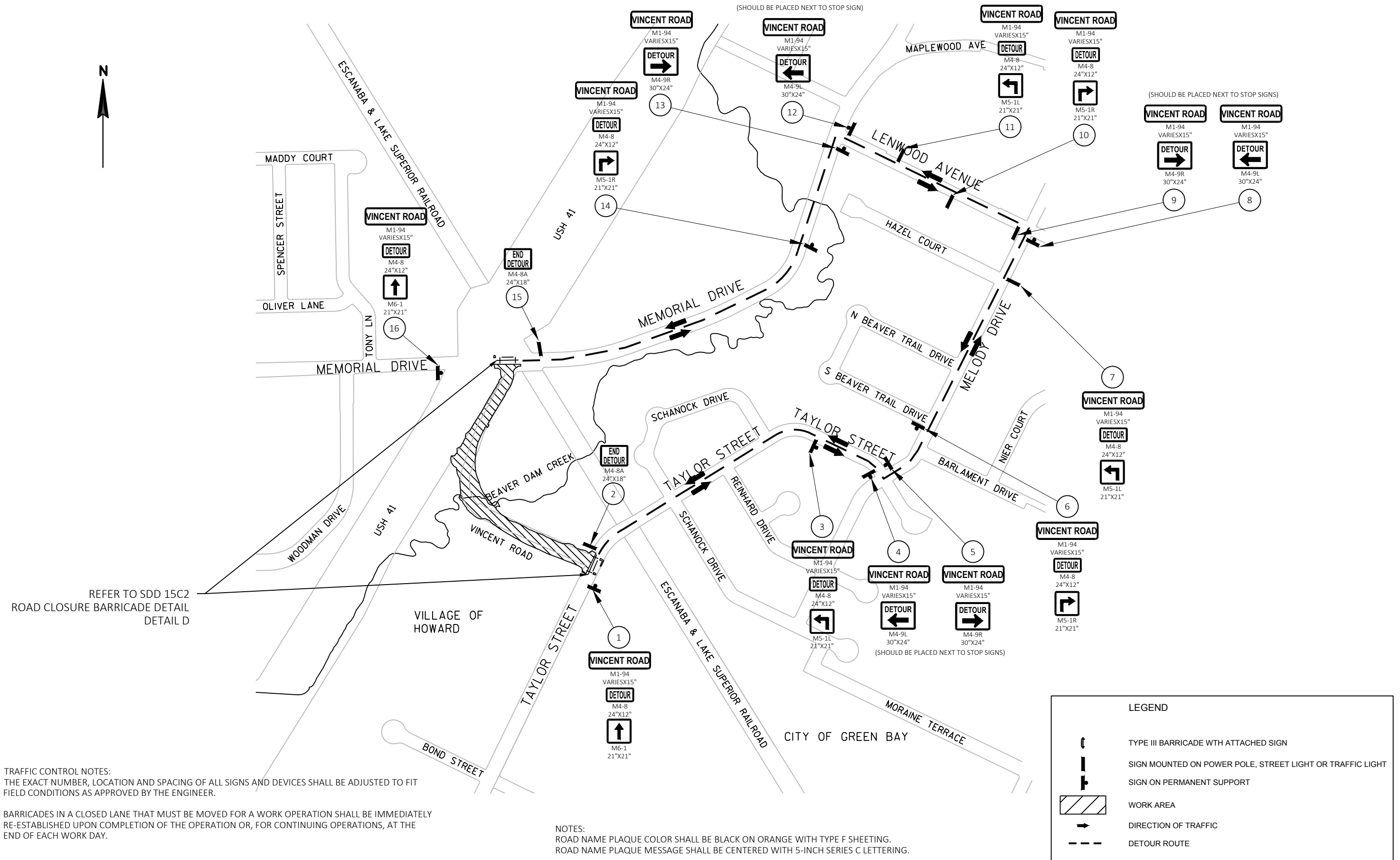


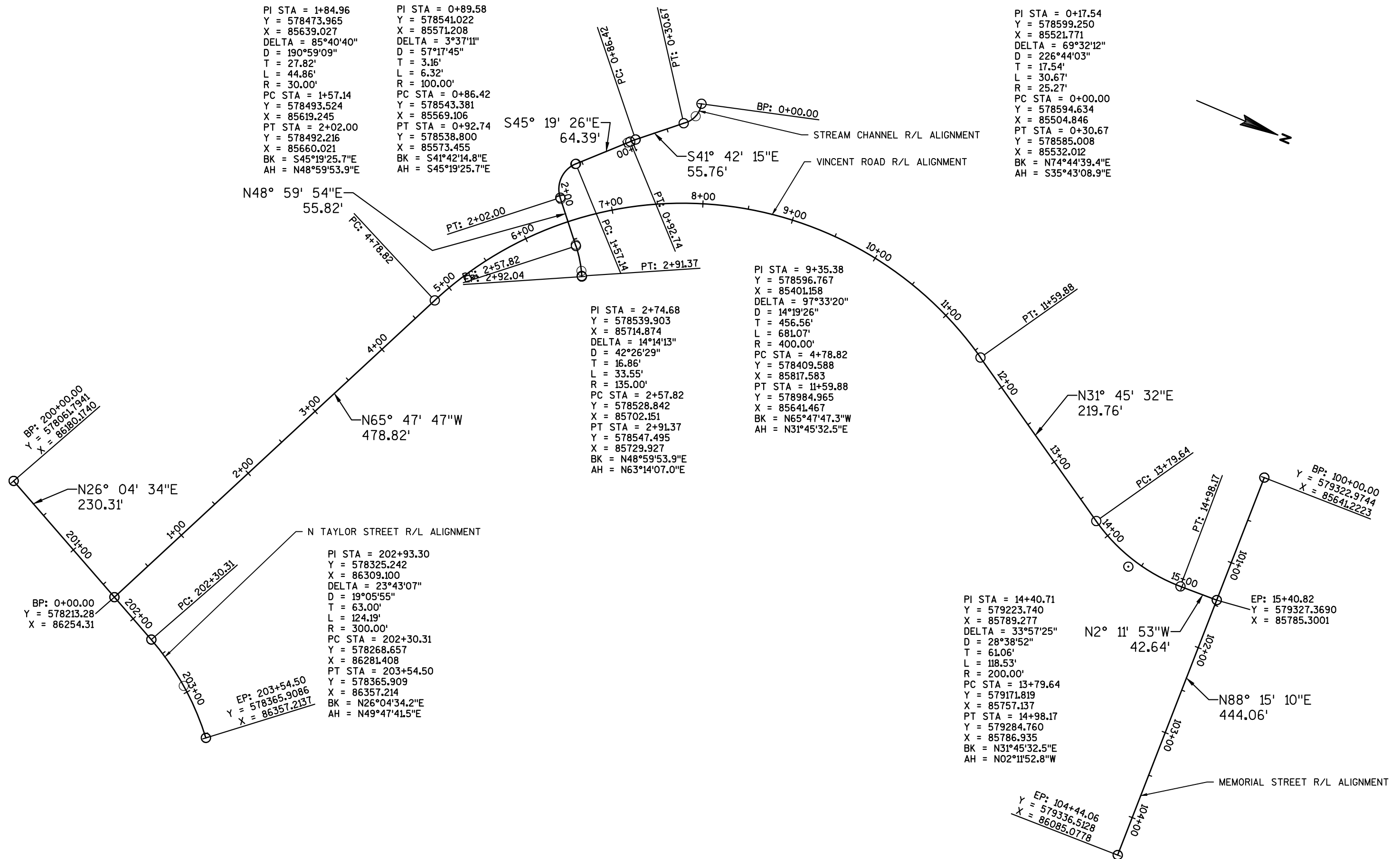
PROPOSED DITCH TYPICAL SECTION











Estimate Of Quantities

9269-00-12

Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	7.000	7.000
0004	201.0115	Clearing	ACRE	0.750	0.750
0006	201.0205	Grubbing	STA	7.000	7.000
0008	201.0215	Grubbing	ACRE	0.750	0.750
0010	203.0100	Removing Small Pipe Culverts	EACH	6.000	6.000
0012	203.0600.S	Removing Old Structure Over Waterway With Minimal Debris (station) 01. 7+64.00, 62.8' LT	LS	1.000	1.000
0014	204.0110	Removing Asphaltic Surface	SY	224.000	224.000
0016	204.0150	Removing Curb & Gutter	LF	334.000	334.000
0018	204.0155	Removing Concrete Sidewalk	SY	174.000	174.000
0020	204.0170	Removing Fence	LF	802.000	802.000
0022	204.0180	Removing Delineators and Markers	EACH	2.000	2.000
0024	204.9060.S	Removing (item description) 01. Bollards	EACH	2.000	2.000
0026	205.0100	Excavation Common	CY	12,290.000	12,290.000
0028	206.1000	Excavation for Structures Bridges (structure) 01. B-05-0462	LS	1.000	1.000
0030	208.1100	Select Borrow	CY	3,021.000	3,021.000
0032	210.1500	Backfill Structure Type A	TON	438.000	438.000
0034	213.0100	Finishing Roadway (project) 01. 9269-00-12	EACH	1.000	1.000
0036	305.0110	Base Aggregate Dense 3/4-Inch	TON	1,174.000	1,174.000
0038	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	7,593.000	7,593.000
0040	312.0110	Select Crushed Material	TON	500.000	500.000
0042	416.0160	Concrete Driveway 6-Inch	SY	64.000	64.000
0044	416.0610	Drilled Tie Bars	EACH	20.000	20.000
0046	455.0605	Tack Coat	GAL	333.000	333.000
0048	460.2000	Incentive Density HMA Pavement	DOL	970.000	970.000
0050	460.5223	HMA Pavement 3 LT 58-28 S	TON	861.000	861.000
0052	460.5224	HMA Pavement 4 LT 58-28 S	TON	641.000	641.000
0054	465.0105	Asphaltic Surface	TON	280.000	280.000
0056	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	3.000	3.000
0058	502.0100	Concrete Masonry Bridges	CY	222.000	222.000
0060	502.3200	Protective Surface Treatment	SY	225.000	225.000
0062	505.0400	Bar Steel Reinforcement HS Structures	LB	7,260.000	7,260.000
0064	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	26,150.000	26,150.000
0066	513.7084	Railing Steel Type NY4	LF	111.000	111.000
0068	516.0500	Rubberized Membrane Waterproofing	SY	32.000	32.000
0070	522.0112	Culvert Pipe Reinforced Concrete Class III 12-Inch	LF	108.000	108.000
0072	522.1012	Apron Endwalls for Culvert Pipe Reinforced Concrete 12-Inch	EACH	4.000	4.000
0074	522.1018	Apron Endwalls for Culvert Pipe Reinforced Concrete 18-Inch	EACH	1.000	1.000

Estimate Of Quantities

9269-00-12

Line	Item	Item Description	Unit	Total	Qty
0076	550.0500	Pile Points	EACH	22.000	22.000
0078	550.1100	Piling Steel HP 10-Inch X 42 Lb	LF	660.000	660.000
0080	602.0410	Concrete Sidewalk 5-Inch	SF	2,469.000	2,469.000
0082	602.0505	Curb Ramp Detectable Warning Field Yellow	SF	102.000	102.000
0084	606.0200	Riprap Medium	CY	23.000	23.000
0086	606.0300	Riprap Heavy	CY	182.000	182.000
0088	608.0512	Storm Sewer Pipe Reinforced Concrete Class V 12-Inch	LF	501.000	501.000
0090	608.0518	Storm Sewer Pipe Reinforced Concrete Class V 18-Inch	LF	392.000	392.000
0092	611.0535	Manhole Covers Type J-Special	EACH	3.000	3.000
0094	611.0624	Inlet Covers Type H	EACH	6.000	6.000
0096	611.2004	Manholes 4-FT Diameter	EACH	3.000	3.000
0098	611.3004	Inlets 4-FT Diameter	EACH	2.000	2.000
0100	611.3230	Inlets 2x3-FT	EACH	4.000	4.000
0102	611.8115	Adjusting Inlet Covers	EACH	1.000	1.000
0104	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	194.000	194.000
0106	616.0205	Fence Chain Link 5-FT	LF	68.000	68.000
0108	619.1000	Mobilization	EACH	1.000	1.000
0110	624.0100	Water	MGAL	87.000	87.000
0112	625.0500	Salvaged Topsoil	SY	5,860.000	5,860.000
0114	627.0200	Mulching	SY	4,205.000	4,205.000
0116	628.1504	Silt Fence	LF	2,010.000	2,010.000
0118	628.1520	Silt Fence Maintenance	LF	2,010.000	2,010.000
0120	628.1905	Mobilizations Erosion Control	EACH	4.000	4.000
0122	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0124	628.2008	Erosion Mat Urban Class I Type B	SY	1,660.000	1,660.000
0126	628.6005	Turbidity Barriers	SY	20.000	20.000
0128	628.7005	Inlet Protection Type A	EACH	8.000	8.000
0130	628.7015	Inlet Protection Type C	EACH	8.000	8.000
0132	628.7020	Inlet Protection Type D	EACH	5.000	5.000
0134	628.7504	Temporary Ditch Checks	LF	90.000	90.000
0136	628.7555	Culvert Pipe Checks	EACH	6.000	6.000
0138	628.7570	Rock Bags	EACH	130.000	130.000
0140	629.0210	Fertilizer Type B	CWT	3.500	3.500
0142	630.0130	Seeding Mixture No. 30	LB	65.000	65.000
0144	630.0140	Seeding Mixture No. 40	LB	40.000	40.000
0146	630.0200	Seeding Temporary	LB	160.000	160.000
0148	633.5200	Markers Culvert End	EACH	5.000	5.000
0150	642.5001	Field Office Type B	EACH	1.000	1.000
0152	643.0420	Traffic Control Barricades Type III	DAY	730.000	730.000
0154	643.0705	Traffic Control Warning Lights Type A	DAY	876.000	876.000

Estimate Of Quantities

9269-00-12

Line	Item	Item Description	Unit	Total	Qty
0156	643.0900	Traffic Control Signs	DAY	1,898.000	1,898.000
0158	643.1000	Traffic Control Signs Fixed Message	SF	42.000	42.000
0160	643.5000	Traffic Control	EACH	1.000	1.000
0162	645.0111	Geotextile Type DF Schedule A	SY	108.000	108.000
0164	645.0120	Geotextile Type HR	SY	281.000	281.000
0166	646.1020	Marking Line Epoxy 4-Inch	LF	3,321.000	3,321.000
0168	646.3020	Marking Line Epoxy 8-Inch	LF	50.000	50.000
0170	646.5020	Marking Arrow Epoxy	EACH	5.000	5.000
0172	646.6020	Marking Stop Line Epoxy 12-Inch	LF	70.000	70.000
0174	646.7420	Marking Crosswalk Epoxy Transverse Line 6-Inch	LF	353.000	353.000
0176	646.9000	Marking Removal Line 4-Inch	LF	76.000	76.000
0178	650.4000	Construction Staking Storm Sewer	EACH	12.000	12.000
0180	650.4500	Construction Staking Subgrade	LF	1,477.000	1,477.000
0182	650.5000	Construction Staking Base	LF	1,477.000	1,477.000
0184	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	3,081.000	3,081.000
0186	650.6000	Construction Staking Pipe Culverts	EACH	1.000	1.000
0188	650.9000	Construction Staking Curb Ramps	EACH	8.000	8.000
0190	650.9910	Construction Staking Supplemental Control (project) 01. 9269-00-12	LS	1.000	1.000
0192	650.9920	Construction Staking Slope Stakes	LF	1,477.000	1,477.000
0194	690.0150	Sawing Asphalt	LF	346.000	346.000
0196	690.0250	Sawing Concrete	LF	85.000	85.000
0198	715.0502	Incentive Strength Concrete Structures	DOL	1,332.000	1,332.000
0200	740.0440	Incentive IRI Ride	DOL	1,140.000	1,140.000
0202	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	300.000	300.000
0204	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	600.000	600.000
0206	SPV.0060	Special 01. Adjusting Sanitary Sewer Manhole Covers	EACH	2.000	2.000
0208	SPV.0060	Special 02. Adjusting Water Valve Box	EACH	3.000	3.000
0210	SPV.0090	Special 01. Concrete Curb and Gutter 24-Inch Type D	LF	3,057.000	3,057.000
0212	SPV.0090	Special 02. Concrete Curb and Gutter HES 24-Inch Type D	LF	24.000	24.000
0214	SPV.0120	Special 01. Water for Seeded Areas	MGAL	92.000	92.000

NOTE: ALL ITEMS ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED.

CLEARING AND GRUBBING

CATEGORY	STATION - STATION	LOCATION	201.0105 (STA)	201.0115 (ACRE)	201.0205 (STA)	201.0215 (ACRE)
0010	3+00 - 10+00	VINCENT ROAD	7	-	7	-
0030		MEMORIAL DRIVE	-	0.75	-	0.75
PROJECT TOTAL			7	0.75	7	0.75

REMOVING SMALL PIPE CULVERTS

STATION	LOCATION	203.0100 (EA)	NOTES
VINCENT ROAD			
1+66	RT	1	16" CMCP
5+70	LT	1	15" CMCP
6+64	LT	1	18" CMCP
8+52	LT	1	18" CMCP
11+67	RT	1	14" CMCP
13+75	RT	1	18" CMCP
PROJECT TOTAL		6	

REMOVING ASPHALTIC SURFACE

STATION - STATION	LOCATION	204.0110 (SY)
8+00 - 9+00	VINCENT ROAD LT	224
PROJECT TOTAL		224

REMOVING CURB AND GUTTER

STATION - STATION	LOCATION	204.0150 (LF)
201+19 - 202+14	NORTH TAYLOR STREET RT	20
0+22 - 0+57	VINCENT ROAD LT	67
0+17 - 0+54	VINCENT ROAD RT	65
14+51 - 15+23	VINCENT ROAD LT	104
14+83 - 15+19	VINCENT ROAD RT	68
100+65 - 100+75	MEMORIAL DRIVE LT	10
PROJECT TOTAL		334

REMOVING CONCRETE SIDEWALK

STATION - STATION	LOCATION	204.0155 (SY)
201+19 - 202+14	NORTH TAYLOR STREET RT	21
0+22 - 0+57	VINCENT ROAD LT	35
0+17 - 0+54	VINCENT ROAD RT	5
14+51 - 15+23	VINCENT ROAD LT	96
14+83 - 15+19	VINCENT ROAD RT	7
100+65 - 100+75	MEMORIAL DRIVE LT	10
PROJECT TOTAL		174

REMOVING FENCE

STATION - STATION	LOCATION	204.0170 (LF)
7+70 - 11+56	VINCENT ROAD LT & RT	392
9+18 - 9+69	VINCENT ROAD LT	68
11+74 - 14+86	VINCENT ROAD RT	342
PROJECT TOTAL		802

REMOVING DELINEATORS AND MARKERS

STATION	LOCATION	204.0180 (EA)
9+60	VINCENT ROAD LT	1
14+20	VINCENT ROAD LT	1
PROJECT TOTAL		2

REMOVING BOLLARDS

STATION	LOCATION	204.9060.S (EACH)
11+55	VINCENT ROAD RT	1
11+75	VINCENT ROAD RT	1
PROJECT TOTAL		2

NOTE: ALL ITEMS ON THIS
SHEET ARE CATEGORY 0010
UNLESS OTHERWISE NOTED.

EARTHWORK

STATION TO STATION	LOCATION	COMMON EXCAVATION (item # 205.0100)		SALVAGED/UNUSABLE MATERIAL (3)	AVAILABLE MATERIAL (4)	UNEXPANDED FILL	EXPANDED FILL (5)	MASS ORDINATE +/- (6) (7)	WASTE	SELECT BORROW (item #208.1100)	COMMENT:
		Cut (1) (item # 205.0100)	EBS Excavation (2)				FACTOR 1.25				
0+18 to 6+30	VINCENT ROAD SOUTH OF STR. B-5-462	3501	545	557	2944	166	208	3293	3850	545	
6+75 to 15+21	VINCENT ROAD NORTH OF STR. B-5-462	3868	2476	2489	1380	1109	1386	2483	4972	2476	
ROADWAY SUBTOTAL		7369	3021	3046	4324	1275	1593	5776	8822	3021	
0+16 to 2+92	CHANNEL REALIGNMENT	1900	0	0	1900	0	0	1900	1900	0	
CHANNEL SUBTOTAL		1900	0	0	1900	0	0	1900	1900	0	
GRAND TOTAL		9269	3021	3046	6224	1275	1593	7676	10722	3021	
Total Common Exc		12290									

- 1) Salvaged/Unsuable Pavement Material is included in Cut.
2) EBS Excavation to be backfilled with Select Borrow material.
3) Salvaged/Unusable Pavement Material
4) Available Material = Cut - Salvaged/Unusuable Pavement Material
5) Expanded Fill. Factor = 1.25
6) 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.
7) Excavation for Structures is not included on this table.

BASE AGGREGATE DENSE AND WATER

STATION - STATION	LOCATION	305.0110	305.0120	312.0110	624.0100
		BASE AGGREGATE DENSE 3/4-INCH (TON)	BASE AGGREGATE DENSE 1 1/4-INCH (TON)	SELECT CRUSHED MATERIAL (TON)	WATER (MGAL)
201+19 - 202+14	NORTH TAYLOR STREET RT	9	6	-	-
0+17 - 0+61	VINCENT RD/N TAYLOR ST INTERSECTION	18	369	-	4
0+61 - 1+79	VINCENT ROAD	98	714	-	8
1+79 - 6+38	VINCENT ROAD SOUTH OF STR. B-5-462	355	2,579	-	29
6+67 - 15+04	VINCENT ROAD NORTH OF STR. B-5-462	671	3,702	-	44
15+04 - 15+23	VINCENT RD/MEMORIAL DR INTERSECTION	7	220	-	2
100+65 - 100+75	MEMORIAL DRIVE LT	2	3	-	-
	BEAVER DAM CREEK	-	-	470	-
	BEAVER DAM CREEK RIFFLE	-	-	30	-
PROJECT TOTALS		1,159	7,593	500	87

NOTE: ALL ITEMS ON THIS
SHEET ARE CATEGORY 0010
UNLESS OTHERWISE NOTED.

CONCRETE DRIVEWAY

416.0160 DRIVEWAY 6-INCH (SY)			
STATION	LOCATION	6-INCH (SY)	NOTES
<u>VINCENT ROAD</u>			
1+47 - 1+79	RT	40	PRIVATE ENTRANCE TO APARTMENTS
8+34 - 8+55	LT	24	PRIVATE FIELD ENTRANCE
PROJECT TOTAL		64	

DRILLED TIE BARS

416.0610 (EA)			
STATION	LOCATION	416.0610 (EA)	NOTES
<u>NORTH TAYLOR STREET</u>			
201+03	LT	2	TIE INTO EX CURB & GUTTER
201+19 - 201+29	RT	4	TIE INTO EX CURB & GUTTER
202+04 - 202+14	RT	4	TIE INTO EX CURB & GUTTER
202+29	LT	2	TIE INTO EX CURB & GUTTER
<u>MEMORIAL DRIVE</u>			
100+65 - 100+75	LT	4	TIE INTO EX CURB & GUTTER
100+65	RT	2	TIE INTO EX CURB & GUTTER
102+11	RT	2	TIE INTO EX CURB & GUTTER
PROJECT TOTAL		20	

HMA PAVEMENT & ASPHALTIC SURFACE MATERIALS

		455.0605	460.5223	460.5224	465.0105	465.0120
		TACK COAT (GAL)	HMA PAVEMENT 3 LT 58-28 S (TON)	HMA PAVEMENT 4 LT 58-28 S (TON)	ASPHALTIC SURFACE (TON)	DRIVEWAYS AND FIELD ENTRANCES (TON)
STATION - STATION	LOCATION					
0+17 - 0+61	VINCENT RD/N TAYLOR ST INTERSECTION	17	43	32	-	-
0+61 - 1+79	VINCENT ROAD	31	81	60	23	-
1+79 - 6+38	VINCENT ROAD SOUTH OF STR. B-5-462	115	299	222	92	3
6+67 - 15+04	VINCENT ROAD NORTH OF STR. B-5-462	160	414	308	166	-
15+04 - 15+23	VINCENT RD/MEMORIAL DR INTERSECTION	10	25	19	-	-
PROJECT TOTALS		333	861	641	280	3

NOTE: ALL ITEMS ON THIS
SHEET ARE CATEGORY 0010
UNLESS OTHERWISE NOTED.

3

CULVERT PIPE ITEMS

	FROM STRUCTURE NO.	TO STRUCTURE NO.	INLET ELEV	OUTLET ELEV	SLOPE %	522.0112	522.1012 (A)	633.5200 (A)
						CULVERT PIPE REINFORCED CONCRETE CLASS III 12-INCH (LF)	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 12-INCH (EA)	MARKERS CULVERT END (EA)
VINCENT ROAD								
	AE 14	AE 15	590.00	589.00	0.93%	108	2	2
PROJECT TOTALS						108	2	2

(A) ADDITIONAL QUANTITIES SHOWN ON STORM SEWER STRUCTRUE SCHEDULE

3

CONCRETE SIDEWALK

STATION - STATION	LOCATION	602.0410	602.0505
		CONCRETE SIDEWALK 5-INCH (SF)	CURB RAMP DETECTABLE WARNING FIELD YELLOW (SF)
201+19 - 202+14	NORTH TAYLOR STREET RT	457	24
0+17 - 0+61	VINCENT RD/N TAYLOR ST INTERSECTION	796	54
0+61 - 1+79	VINCENT ROAD	448	-
1+79 - 6+38	VINCENT ROAD SOUTH OF STR. B-5-462	-	-
6+67 - 15+04	VINCENT ROAD NORTH OF STR. B-5-462	-	-
15+04 - 15+23	VINCENT RD/MEMORIAL DR INTERSECTION	693	12
100+65 - 100+75	MEMORIAL DRIVE LT	75	12
PROJECT TOTALS		2,469	102

RIPRAP SUMMARY

	606.0200 RIPRAP MEDIUM (CY)
LOCATION	
VINCENT ROAD NORTH OF STR. B-5-462	19
UNDISTRIBUTED	5
PROJECT TOTALS	23

NOTE: ALL ITEMS ON THIS
SHEET ARE CATEGORY 0010
UNLESS OTHERWISE NOTED.

STORM SEWER PIPE SCHEDULE

						608.0512	608.0518
						STORM SEWER PIPE REINFORCED CONCRETE	STORM SEWER PIPE REINFORCED CONCRETE
FROM STRUCTURE NO.	TO STRUCTURE NO.	INLET ELEV	OUTLET ELEV	SLOPE %	CLASS V 12-INCH (LF)	CLASS V 18-INCH (LF)	
VINCENT ROAD							
INL 10	MH ST10	590.66	590.63	0.30%	11	-	
MH ST10	MH ST11	590.63	590.12	0.30%	172	-	
MH ST11	AE 10	590.12	589.73	0.37%	104	-	
INL 11	AE 11	590.12	589.50	0.44%	142	-	
INL 13-2	INL 13-1	591.95	591.84	0.31%	36	-	
INL 13-1	MH ST13	591.74	591.28	0.30%	-	152	
MH ST13	INL 12-1	591.28	590.67	0.30%	-	206	
INL 12-2	INL 12-1	590.78	590.67	0.31%	36	-	
INL 12-1	AE 12	590.57	590.47	0.30%	-	34	
PROJECT TOTALS					501	392	

STORM SEWER STRUCTURE SCHEDULE

					522.1012 (A)	522.1018	611.0535	611.0624	611.2004	611.3004	611.3230	611.8115	633.5200 (A)
					APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 12-INCH (EA)	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH (EA)	MANHOLE COVERS TYPE J SPECIAL (EA)	INLET COVERS TYPE H (EA)	MANHOLES 4-FT DIAMETER (EA)	INLETS 4-FT DIAMETER (EA)	INLETS 2X3-FT (EA)	ADJUSTING INLET COVERS (EA)	MARKERS CULVERT END (EA)
STRUCTURE NO.	STATION	OFFSET	RIM ELEVATION										
NORTH TAYLOR STREET													
EX INL	201+05	19' LT	595.75		-	-	-	-	-	-	-	1	-
VINCENT ROAD													
INL 10	3+81	25.0' LT	593.14		-	-	-	1	-	-	1	-	-
MH ST10	3+81	35.5' LT	593.81		-	-	1	-	1	-	-	-	-
MH ST11	5+47	32.2' LT	594.58		-	-	1	-	1	-	-	-	-
AE 10	6+41	44.6' LT	590.90		1	-	-	-	-	-	-	-	1
INL 11	4+82	24.8' RT	592.63		-	-	-	1	-	-	1	-	-
AE 11	6+36	33.2' RT	590.67		1	-	-	-	-	-	-	-	1
INL 13-2	12+50	18.0' RT	594.92		-	-	-	1	-	-	1	-	-
INL 13-1	12+50	18.0' LT	594.92		-	-	-	1	-	1	-	-	-
MH ST13	11+0	0.0' RT	594.58		-	-	1	-	1	-	-	-	-
INL 12-2	8+99	18.0' RT	593.25		-	-	-	1	-	-	1	-	-
INL 12-1	8+97	18.0' LT	594.10		-	-	-	1	-	1	-	-	-
AE 12	8+97	51.6' LT	592.18		-	1	-	-	-	-	-	-	1
PROJECT TOTALS					2	1	3	6	3	2	4	1	3

(A) ADDITIONAL QUANTITIES SHOWN ON CULVERT PIPE ITEMS

NOTE: ALL ITEMS ON THIS
SHEET ARE CATEGORY 0010
UNLESS OTHERWISE NOTED.

FENCE CHAIN LINK 5-FT

STATION - STATION		LOCATION	616.0205 (LF)
9+18 - 9+69		VINCENT ROAD LT	68
		PROJECT TOTAL	68

TRAFFIC CONTROL SUMMARY

LOCATION	DAYS IN PHASE	643.0420 BARRICADES TYPE III		643.0705 WARNING LIGHTS TYPE A		643.0900 (B) TRAFFIC CONTROL SIGNS	
		(NO.)	(DAYS)	(NO.)	(DAYS)	(NO.)	(DAYS)
TAYLOR STREET INTERSECTION	73	5	365	6	438	1	73
MEMORIAL DRIVE INTERSECTION	73	5	365	6	438	1	73
PROJECT TOTALS		10	730	12	876	2	146

(B)ADDITIONAL QUANTITIES LISTED IN DETOUR SIGN SUMMARY

LANDSCAPING SUMMARY

STATION TO STATION	LOCATION	625.0500	627.0200	628.2008	629.0210	630.0130	630.0140	630.0200
		SALVAGED TOPSOIL	MULCHING	EROSION MAT URBAN CLASS I TYPE B	FERTILIZER TYPE B	SEEDING MIXTURE NO. 30	SEEDING MIXTURE NO. 40	SEEDING TEMPORARY
		(SY)	(SY)	(SY)	(CWT)	(LB)	(LB)	(LB)
201+19 - 202+14	NORTH TAYLOR STREET RT	29	29	-	0.0	-	1	1
0+17 - 0+61	VINCENT RD/N TAYLOR ST INTERSECTION	101	101	-	0.1	-	2	3
0+61 - 1+79	VINCENT ROAD	259	259	-	0.2	1	4	7
1+79 - 6+38	VINCENT ROAD SOUTH OF STR. B-5-462	932	833	100	0.6	7	10	25
6+67 - 15+04	VINCENT ROAD NORTH OF STR. B-5-462	3,325	2,098	1,227	2.1	45	15	90
15+04 - 15+23	VINCENT RD/MEMORIAL DR INTERSECTION	44	44	-	0.0	-	1	1
SUBTOTALS		4,689	3,363	1,327	3.0	53	32	127
UNDISTRIBUTED		1,171	842	333	0.5	12	8	33
PROJECT TOTALS		5,860	4,205	1,660	3.5	65	40	160

EROSION CONTROL ITEMS

LOCATION	628.1504	628.1520	628.1905	628.1910	628.6005	628.7005	628.7015	628.7020	628.7504	628.7555	628.7570
	SILT FENCE	SILT FENCE MAINTENANCE	MOBILIZATIONS EROSION CONTROL	MOBILIZATIONS EMERGENCY EROSION CONTROL	TURBIDITY BARRIERS	INLET PROTECTION TYPE A	INLET PROTECTION TYPE C	INLET PROTECTION TYPE D	TEMPORARY DITCH CHECKS	CULVERT PIPE CHECKS	ROCK BAGS
	(LF)	(LF)	(EACH)	(EACH)	(SY)	(EA)	(EA)	(EA)	(LF)	(EA)	(EA)
VINCENT RD/N TAYLOR ST INTERSECTION	-	-	1	-	-	-	-	4	-	-	-
VINCENT ROAD SOUTH OF STR. B-5-462	619	619	1	1	-	2	2	-	30	-	51
VINCENT ROAD NORTH OF STR. B-5-462	990	990	1	1	15	4	4	-	40	5	51
VINCENT RD/MEMORIAL DR INTERSECTION	-	-	1	-	-	-	-	-	-	-	-
SUBTOTALS	1,609	1,609	4	2	15	6	6	4	70	5	102
UNDISTRIBUTED	401	401	-	-	5	2	2	1	20	1	28
PROJECT TOTALS	2,010	2,010	4	2	20	8	8	5	90	6	130

PROJECT NO: 9269-00-12

HWY: VINCENT ROAD

COUNTY: BROWN

MISCELLANEOUS QUANTITIES

SHEET

E

3

NOTE: ALL ITEMS ON THIS
SHEET ARE CATEGORY 0010
UNLESS OTHERWISE NOTED.

TRAFFIC CONTROL DETOUR SIGN SUMMARY							
SIGN NO.	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 73 (DAYS)	643.0900 TRAFFIC CONTROL SIGNS (B) (DAYS)	643.1000 TRAFFIC CONTROL SIGNS FIXED MESSAGE (SF)	REMARKS
1		36"x12"	1	73		3	VINCENT ROAD
	M4-8	24"x12"	1	73	73		
	M6-1	21"x21"	1	73	73		
2	M4-8A	24"x18"	1	73	73		
3		36"x12"	1	73		3	VINCENT ROAD
	M4-8	24"x12"	1	73	73		
	M5-1L	24"x24"	1	73	73		
4		36"x12"	1	73		3	VINCENT ROAD
	M4-9L	30"x24"	1	73	73		
5		36"x12"	1	73		3	VINCENT ROAD
	M4-9R	30"x24"	1	73	73		
6		36"x12"	1	73		3	VINCENT ROAD
	M4-8	24"x12"	1	73	73		
	M5-1R	24"x24"	1	73	73		
7		36"x12"	1	73		3	VINCENT ROAD
	M4-8	24"x12"	1	73	73		
	M5-1L	24"x24"	1	73	73		
8		36"x12"	1	73		3	VINCENT ROAD
	M4-9L	30"x24"	1	73	73		
9		36"x12"	1	73		3	VINCENT ROAD
	M4-9R	30"x24"	1	73	73		
10		36"x12"	1	73		3	VINCENT ROAD
	M4-8	24"x12"	1	73	73		
	M5-1R	24"x24"	1	73	73		
11		36"x12"	1	73		3	VINCENT ROAD
	M4-8	24"x12"	1	73	73		
	M5-1L	24"x24"	1	73	73		
12		36"x12"	1	73		3	VINCENT ROAD
	M4-9L	30"x24"	1	73	73		
13		36"x12"	1	73		3	VINCENT ROAD
	M4-9R	30"x24"	1	73	73		
14		36"x12"	1	73		3	VINCENT ROAD
	M4-8	24"x12"	1	73	73		
	M5-1R	24"x24"	1	73	73		
15	M4-8A	24"x18"	1	73	73		
16		36"x12"	1	73		3	VINCENT ROAD
	M4-8	24"x12"	1	73	73		
	M6-1	21"x21"	1	73	73		
PROJECT TOTALS			38		1,752	42	

(B)ADDITIONAL QUANTITIES LISTED IN TRAFFIC CONTROL SUMMARY

3

NOTE: ALL ITEMS ON THIS
SHEET ARE CATEGORY 0010
UNLESS OTHERWISE NOTED.

PAVEMENT MARKING

LOCATION	646.1020		646.3020	646.5020	646.6020	646.7420	646.9000
	MARKING LINE		MARKING LINE	MARKING	MARKING STOP	MARKING CROSSWALK	MARKING
	EPOXY		EPOXY	ARROW	LINE EPOXY	EPOXY TRANSVERSE LINE	LINE REMOVAL
	4-INCH		8-INCH	EPOXY	12-INCH	6-INCH	4-INCH
	YELLOW SOLID (LF)	YELLOW DASHED (LF)	WHITE SOLID (LF)	WHITE (EACH)	WHITE (LF)	WHITE (LF)	WHITE (LF)
NORTH TAYLOR STREET	-	-	-		-	175	76
VINCENT RD/N TAYLOR ST INTERSECTION	-	-	50	1	32	102	-
VINCENT ROAD SOUTH OF STR. B-5-462	1,349	199	-	4	-	-	-
VINCENT ROAD NORTH OF STR. B-5-462	1,773	-	-		-	-	-
VINCENT RD/MEMORIAL DR INTERSECTION	-	-	-		38	-	-
MEMORIAL DRIVE	-	-	-		-	76	-
PROJECT TOTALS	3,321		50	5	70	353	76

CONSTRUCTION STAKING

STATION - STATION	LOCATION	650.4000	650.4500	650.5000	650.5500	650.6000	650.9000	650.9910	650.9920
		STORM	SUBGRADE	BASE	CURB AND	PIPE	CURB	SUPPLEMENTAL	SLOPE
		SEWER (EA)	(LF)	(LF)	GUTTER (LF)	CULVERTS (EA)	RAMPS (EA)	CONTROL (LS)	STAKES (LF)
PROJECT		-	-	-	-	-	-	1	-
201+03 - 202+29	NORTH TAYLOR STREET RT	-	-	-	20	-	2	-	-
0+17 - 0+61	VINCENT RD/N TAYLOR ST INTERSECTION	-	44	44	125	-	4	-	44
0+61 - 1+79	VINCENT ROAD	-	118	118	236	-	-	-	118
1+79 - 6+38	VINCENT ROAD SOUTH OF STR. B-5-462	6	459	459	917	-	-	-	459
6+67 - 15+04	VINCENT ROAD NORTH OF STR. B-5-462	6	837	837	1,682	1	-	-	837
15+04 - 15+23	VINCENT RD/MEMORIAL DR INTERSECTION	-	19	19	91	-	1	-	19
100+65 - 100+75	MEMORIAL DRIVE LT	-	-	-	10	-	1	-	-
PROJECT TOTALS		12	1,477	1,477	3,081	1	8	1	1,477

SAWING

STATION TO STATION	LOCATION	690.0150	690.0250
		ASPHALT (LF)	CONCRETE (LF)
201+19 - 202+14	NORTH TAYLOR STREET RT	28	20
0+17	VINCENT RD/N TAYLOR ST INTERSECTION	130	9
1+63	VINCENT ROAD RT	24	-
15+23	VINCENT RD/MEMORIAL DR INTERSECTION	150	24
100+65 - 100+75	MEMORIAL DRIVE LT	14	32
PROJECT TOTALS		346	85

NOTE: ALL ITEMS ON THIS
SHEET ARE CATEGORY 0010
UNLESS OTHERWISE NOTED.

3

ADJUSTING SANITARY SEWER MANHOLE COVERS
CATEGORY 0030

STATION	LOCATION	SPV.0060.01 (EACH)
2+93	VINCENT ROAD LT	1
5+71	VINCENT ROAD LT	1
PROJECT TOTAL		2

ADJUSTING WATER VALVE BOX
CATEGORY 0030

STATION	LOCATION	SPV.0060.02 (EACH)
0+31	VINCENT ROAD RT	1
0+48	VINCENT ROAD RT	1
4+96	VINCENT ROAD RT	1
PROJECT TOTAL		3

3

CONCRETE CURB & GUTTER 24-INCH TYPE D

		SPV.0090.01 (LF)	SPV.0090.02 HES (LF)
STATION - STATION	LOCATION		
201+17 - 202+15	NORTH TAYLOR STREET RT	20	-
0+17 - 0+61	VINCENT RD/N TAYLOR ST INTERSECTION	125	-
0+61 - 1+79	VINCENT ROAD	236	-
1+79 - 6+38	VINCENT ROAD SOUTH OF STR. B-5-462	917	-
6+67 - 15+04	VINCENT ROAD NORTH OF STR. B-5-462	1,658	24
15+04 - 15+23	VINCENT RD/MEMORIAL DR INTERSECTION	91	-
100+65 - 100+75	MEMORIAL DRIVE LT	10	-
PROJECT TOTAL		3,057	24

WATER FOR SEEDED AREAS

STATION TO STATION	LOCATION	SPV.0120.01 (MGAL)
201+19 - 202+14	NORTH TAYLOR STREET RT	1
0+17 - 0+61	VINCENT RD/N TAYLOR ST INTERSECTION	3
0+61 - 1+79	VINCENT ROAD	6
1+79 - 6+38	VINCENT ROAD SOUTH OF STR. B-5-462	18
6+67 - 15+04	VINCENT ROAD NORTH OF STR. B-5-462	46
15+04 - 15+23	VINCENT RD/MEMORIAL DR INTERSECTION	1
SUBTOTALS		74
UNDISTRIBUTED		18
PROJECT TOTALS		92

PROJECT NO: 9269-00-12

HWY: VINCENT ROAD

COUNTY: BROWN

MISCELLANEOUS QUANTITIES

SHEET

E

TRANSPORTATION PROJECT PLAT
PROJECT NO. 05-136-016.2-4.01
VILLAGE OF HOWARD-VINCENT ROAD
NORTH TAYLOR STREET TO
MEMORIAL DRIVE
BROWN COUNTY



Brown County

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE ORIENTED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, BROWN COUNTY ZONE, NAD 83 (1991) ADJUSTMENT, IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 MONUMENTS (TYPICALLY 1"X24" IRON PIPE) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

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

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

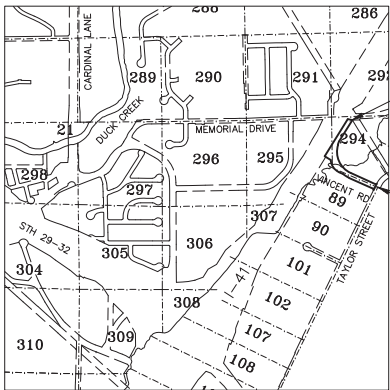
DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO THE REFERENCE LINES.

A TEMPORARY LIMITED EASEMENT (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON, THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE. ALL (TLEs) ON THIS PLAT EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

FOR THE LATEST ACCESS, DRIVEWAY INFORMATION, CONTACT THE VILLAGE OF HOWARD ENGINEERING DIRECTOR.

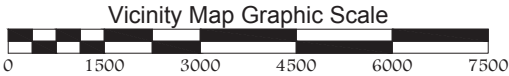
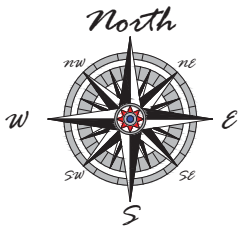
EXISTING RIGHT OF WAY ACQUIRED FROM DEDICATIONS LOTS 79, 89, 294 AND 295 OF FORT HOWARD MILITARY RESERVE, DATED MAY 1956, AND CERTIFIED SURVEY MAP, VOLUME 28, CERTIFIED SURVEY MAPS, PAGE 165, MAP NO. 4426, DOC. NO. 1321320, BROWN COUNTY RECORDS, DATED DECEMBER 1992.

Vicinity Map
T24N-R20E



End Project
Location
15+42.89

Beginning
Project
Location
0+00.00



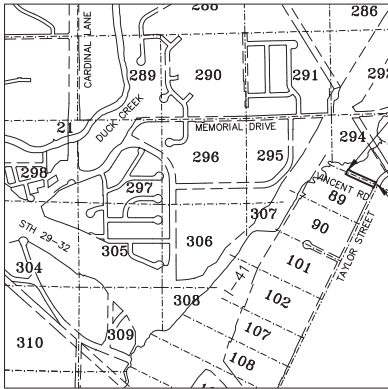
Legend

- 1.32" (o.d.) x 24" iron pipe with cap weighing 1.68 lbs/lin ft set
- computed point nothing set
- 1" iron pipe found
- R/L Reference Line
- S/L Section Line
- P/L Property Line
- Brown County monument - type noted
- round catch basin
- storm sewer manhole
- curb inlet
- storm sewer line
- sanitary sewer manhole
- sanitary sewer line
- hydrant
- watermain
- valve
- underground gas line
- telephone pedestal
- underground electric line
- electrical pedestal
- underground cable tv line
- cable tv pedestal
- underground fiber optic line
- fiber optic manhole
- light pole
- power pole
- anchor wire
- overhead wires
- concrete curb & gutter line
- blacktop
- existing building
- fence line
- floodplain limits
- floodway limits
- electric manhole
- Area for Road Right of Way
- Area for Temporary Limited Easement (T.L.E.)

TRANSPORTATION PROJECT PLAT

PROJECT NO. 05-136-016.2-4.01

PART OF LOT 1, VOLUME 28, CERTIFIED SURVEY MAPS, PAGE 165, MAP NO. 4426, DOC. NO. 1321320, AND PART OF LOT 1, VOLUME 50, CERTIFIED SURVEY MAPS, PAGE 183, MAP NO. 7378, DOC. NO. 2216490, ALL BROWN COUNTY RECORDS, BEING IN PART OF LOTS 79 AND 89, OF FORT HOWARD MILITARY RESERVE, IN THE VILLAGE OF HOWARD, BROWN COUNTY, WISCONSIN.



Vicinity Map Graphic Scale



Vicinity Map
T24N-R20E

Mau & Associates, LLP

I, STEVEN M. BIEDA, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE VILLAGE OF HOWARD, BROWN COUNTY, WISCONSIN, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT 05-136-016.2-4.01 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.



SIGNATURE: _____ DATE: APRIL 10, 2018
PRINT NAME: STEVEN M. BIEDA
REGISTRATION NUMBER: PLS-2275

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE VILLAGE OF HOWARD
SIGNATURE: _____ DATE: _____
PRINT NAME: _____

Curve Data

CURVE	ARC LENGTH	RADIUS	CHORD LENGTH	CHORD BEARING	CENTRAL ANGLE	TANGENT BEARING
A-B	28.46	19.49	25.99	S23°59'28"E	83°38'40"	S65°48'48"E, S17°49'52"W
C-D	101.43	405.57	101.17	S57°13'25"E	14°19'46"	S64°23'18"E, N50°03'32"W
C-L	117.28	360.00	116.76	S56°27'49"E	18°39'57"	
M-N	18.49	12.00	16.71	N70°04'01"E	88°16'20"	
O-P	1.08	340.00	1.08	N26°01'15"E	00°0'54"	N26°06'42"E
AE-AD	23.22	14.49	20.81	N19°56'04"W	91°47'18"	S65°49'43"E, S25°57'35"W
AB-AC	119.19	410.57	118.77	N56°03'51"W	16°38'00"	N64°22'51"W, S47°44'51"E

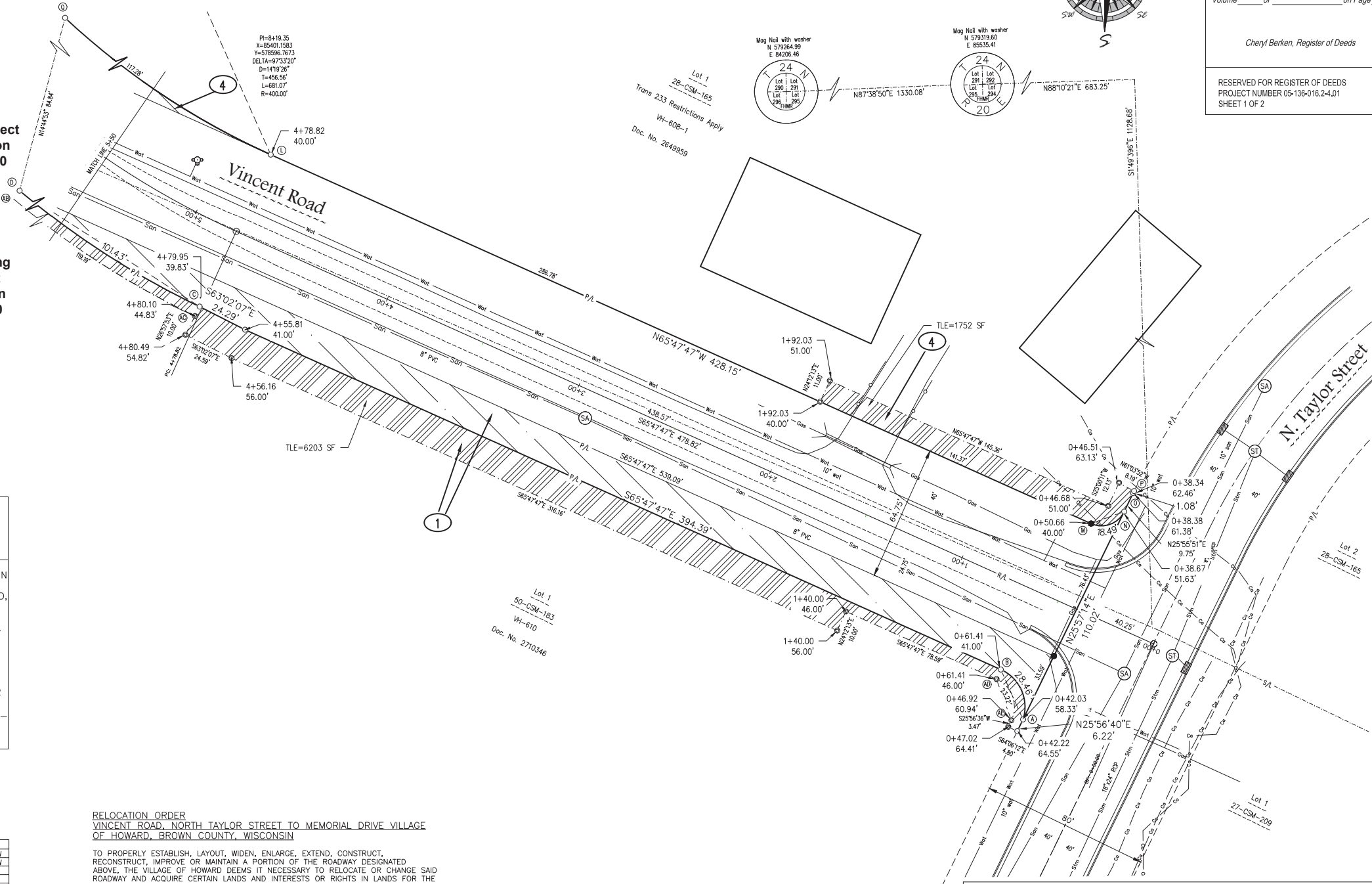
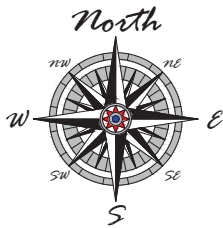
NOTES:

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

Parcel	Tax	Owner(s)	Mailing Address	Interest Required	NEW R/W S.F.	TLE S.F.	REMNANT PARCEL S.F.
1	VH-610	DAVID C DEBAUCHE ETAL, 101 N SCHOENBECK RD, PROSPECT HEIGHTS, IL	60070	FEE & TLE	8,168	6,037	
4	VH-608-1	KELLY BIGELOW, P.O. BOX 5854, DE PERE, WI	54115	FEE & TLE	123	1,752	

VILLAGE OF HOWARD

ROAD NAME	BASIS OF EXISTING RIGHT OF WAY	WIDTH	YEAR
VINCENT ROAD	28-CSM-165	40'	1992
	50-CSM-183	24.75'	2005
NORTH TAYLOR STREET	28-CSM-165	80'	1992
	27-CSM-209	80'	1992



CERTIFICATE FOR THE VILLAGE OF HOWARD

RESOLVED THAT THE TRANSPORTATION PROJECT PLAT FOR "VINCENT ROAD - NORTH TAYLOR STREET TO MEMORIAL DRIVE" LOCATED IN THE VILLAGE OF HOWARD, BROWN COUNTY, WISCONSIN IS HEREBY AUTHORIZED AND APPROVED THIS ____ DAY OF _____, 2018, BY THE VILLAGE BOARD.

SIGNED FOR THE VILLAGE OF HOWARD THIS ____ DAY OF _____, 2018.

PAUL EVERT
VILLAGE ADMINISTRATOR

MICHAEL J. KASTER
DIRECTOR OF ENGINEERING

Graphic Scale



PROJECT: H-1315
DRAWING NO: P-2335

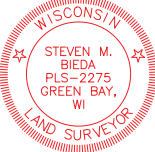
TRANSPORTATION PROJECT PLAT

PROJECT NO. 05-136-016.2-4.02

PART OF LOT 1, VOLUME 28, CERTIFIED SURVEY MAPS, PAGE 165, MAP NO. 4426, DOC. NO. 1321329, AND PART OF LOT 1, VOLUME 50, CERTIFIED SURVEY MAPS, PAGE 183, MAP NO. 7378, DOC. NO. 2216490, ALL BROWN COUNTY RECORDS, AND PART OF LOTS 294 AND 295 OF FORT HOWARD MILITARY RESERVE, ALL BEING IN PART OF LOTS 79, 89, 294 & 295 OF FORT HOWARD MILITARY RESERVE, IN THE VILLAGE OF HOWARD, BROWN COUNTY, WISCONSIN.

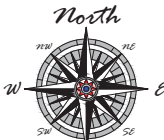
Mau & Associates, LLP

I, STEVEN M. BIEDA, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE VILLAGE OF HOWARD, BROWN COUNTY, WISCONSIN, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT 05-136-016.2-4.02 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

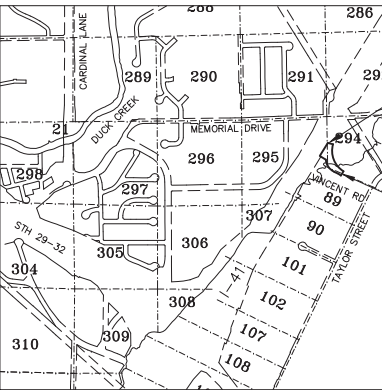


SIGNATURE: _____ DATE: APRIL 10, 2018
PRINT NAME: STEVEN M. BIEDA
REGISTRATION NUMBER: PLS-2275

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE VILLAGE OF HOWARD
SIGNATURE: _____ DATE: _____
PRINT NAME: _____



Vicinity Map
T24N-R20E



End Project
Location
10+62.52

Beginning
Project
Location
5+50.00

Vicinity Map Graphic Scale



Curve Data

CURVE	ARC LENGTH	RADIUS	CHORD LENGTH	CHORD BEARING	CENTRAL ANGLE	TANGENT BEARING
AG-X	41.11	234.75	41.06	N28°30'57"W	10°02'02"	-
Y-AG	36.51	234.75	36.48	N37°59'20"W	8°54'44"	-
X-Y	77.62	234.75	77.27	S32°58'18"E	18°56'46"	N23°29'55"W, S42°26'41"E
W-V	48.94	239.75	48.85	N17°39'04"W	11°41'44"	N23°29'56"W, S11°48'12"E
K-U	54.87	155.00	54.58	N50°39'19"W	20°16'52"	N45°30'53"W
AB-AC	119.19	410.57	118.77	N56°03'51"W	16°38'00"	N64°22'51"W, S47°44'51"E
C-D	101.43	405.57	101.17	S57°13'25"E	14°19'46"	S64°23'18"E, N50°03'32"W
G-T	64.92	360.00	64.83	N41°57'52"W	10°19'56"	-
U-L	525.68	360.00	480.20	S23°57'42"E	83°39'50"	N12°52'03"W
F-F	207.08	219.75	199.50	N38°48'00"W	53°59'34"	-
AF-E	98.36	219.75	97.54	S52°58'23"E	26°38'48"	-
G-E	242.60	219.75	230.46	S34°10'11"E	63°15'12"	S9°32'35"E
AA-Z	93.64	228.75	92.99	N54°07'14"W	23°21'06"	N85°47'47"W, S42°26'41"E
H-I	94.85	170.25	93.63	S27°54'55"E	31°55'14"	N43°52'32"W, S11°57'18"E
F-G	35.52	219.75	35.48	S71°0'23"E	9°15'38"	-
U-T	343.48	360.00	330.59	S92°27'55"E	54°39'56"	-
Q-L	117.28	360.00	116.76	S56°27'49"E	18°39'57"	-

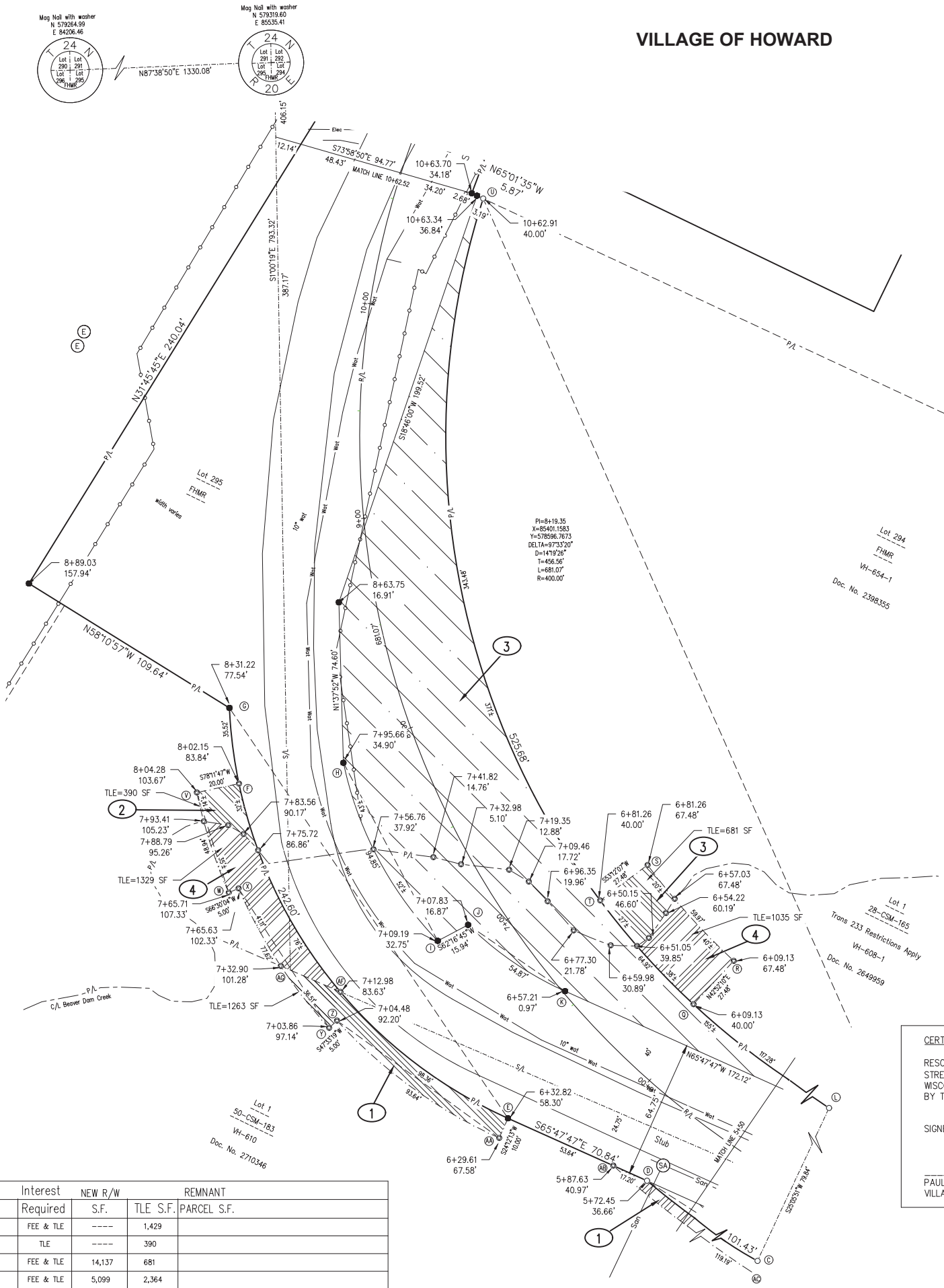
NOTES:

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

REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2, IN VOLUME _____ OF TRANSPORTATION PROJECT PLATS, PAGE _____, AS DOCUMENT NO. _____ FOR ADDITION INFORMATION.

Tax		Interest	NEW R/W		REMNANT	
Parcel	Parcel		Owner(s)	Mailing Address	Required	Parcel S.F.
1	VH-610	FEE & TLE	DAVID C DEBAUCHE ETAL, 101 N SCHOEENBECK RD, PROSPECT HEIGHTS, IL 60070		-----	1,429
2	VH-655-1	TLE	WILLIAMS MARITAL TRUST, 2259 MEMORIAL DR, GREEN BAY, WI 54313		-----	390
3	VH-654-1	FEE & TLE	PHILLIP F & PETER S LEE, 2247 UNIVERSITY AV, GREEN BAY, WI 54302		14,137	681
4	VH-608-1	FEE & TLE	KELLY BIGELOW, P.O. BOX 5854, DE PERE, WI 54115		5,099	2,364

VILLAGE OF HOWARD

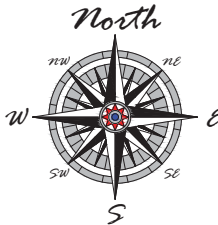


Office of the Register of Deeds
Brown County, Wisconsin

Received for Record _____, 20____,
at _____ o'clock _____ M and recorded as
Document # _____ in
Volume _____ of _____ on Page _____.

Cheryl Berken, Register of Deeds

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 05-136-016.2-4.02



ROAD NAME	BASIS OF EXISTING RIGHT OF WAY	WIDTH	YEAR
VINCENT ROAD	28-CSM-165	40'	1992
	50-CSM-183	24.75'	2005

RELOCATION ORDER
VINCENT ROAD, NORTH TAYLOR STREET TO MEMORIAL DRIVE VILLAGE
OF HOWARD, BROWN COUNTY, WISCONSIN

TO PROPERLY ESTABLISH, LAYOUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE OR MAINTAIN A PORTION OF THE ROADWAY DESIGNATED ABOVE, THE VILLAGE OF HOWARD DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID ROADWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS IN LANDS FOR THE ABOVE NAMED PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SUBSECTION 61.34 (3), (3M) AND SECTION 61.36, WISCONSIN STATUTES, THE VILLAGE OF HOWARD HEREBY ORDERS THAT:
1.) THAT PORTION OF SAID ROADWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE NAMED PROJECT.
2.) THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE VILLAGE FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE VILLAGE, PURSUANT TO THE PROVISIONS OF SUBSECTION 61.34 (3), (3M) AND SECTION 61.36, WISCONSIN STATUTES.

Graphic Scale



CERTIFICATE FOR THE VILLAGE OF HOWARD

RESOLVED THAT THE TRANSPORTATION PROJECT PLAT FOR "VINCENT ROAD - NORTH TAYLOR STREET TO MEMORIAL DRIVE" LOCATED IN THE VILLAGE OF HOWARD, BROWN COUNTY, WISCONSIN IS HEREBY AUTHORIZED AND APPROVED THIS _____ DAY OF _____, 2018, BY THE VILLAGE BOARD.

SIGNED FOR THE VILLAGE OF HOWARD THIS _____ DAY OF _____, 2018.

PAUL EVERT
VILLAGE ADMINISTRATOR

MICHAEL J. KASTER
DIRECTOR OF ENGINEERING

PROJECT: H-1315
DRAWING NO: P-2335

TRANSPORTATION PROJECT PLAT

PROJECT NO. 05-136-016.2-4.03

PART OF LOTS 294 AND 295 FORT HOWARD MILITARY RESERVE, IN THE VILLAGE OF HOWARD, BROWN COUNTY, WISCONSIN.

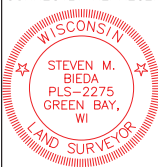


VILLAGE OF HOWARD



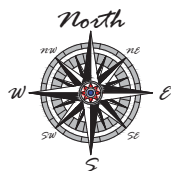
Mau & Associates, LLP

I, STEVEN M. BIEDA, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE VILLAGE OF HOWARD, BROWN COUNTY, WISCONSIN, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT 05-136-016.2-4.03 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

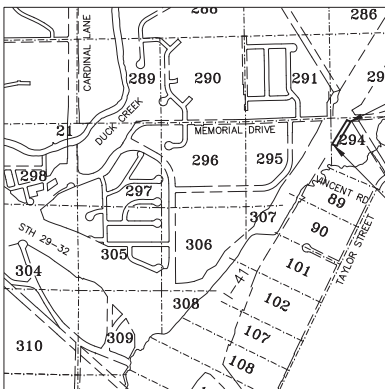


SIGNATURE: _____ DATE: APRIL 10, 2018
PRINT NAME: STEVEN M. BIEDA
REGISTRATION NUMBER: PLS-2275

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE VILLAGE OF HOWARD
SIGNATURE: _____ DATE: _____
PRINT NAME: _____



Vicinity Map
T24N-R20E



End Project
Location
15+42.89

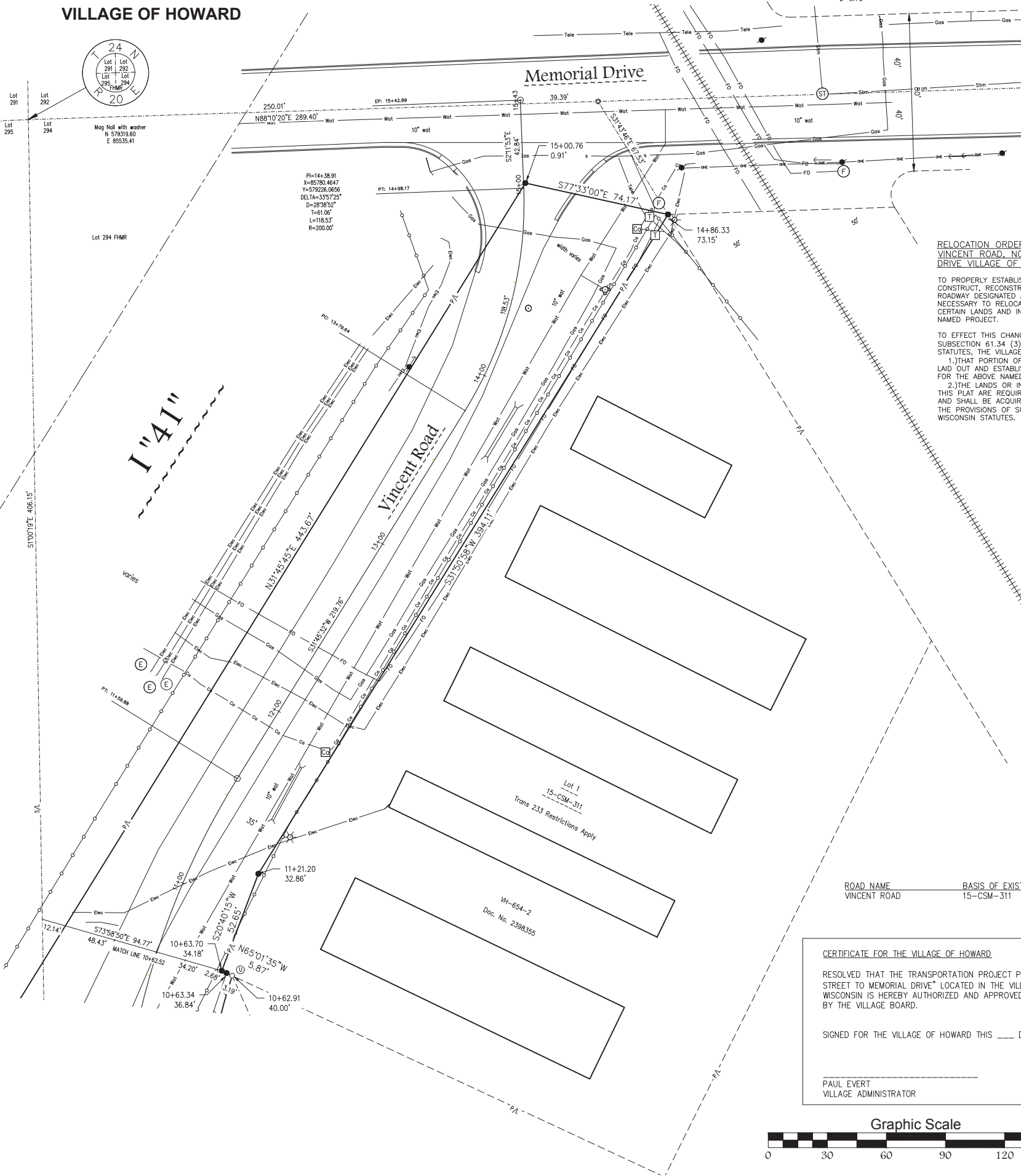
Beginning
Project
Location
10+62.52

Vicinity Map Graphic Scale



NOTES:

REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2, IN VOLUME _____ OF TRANSPORTATION PROJECT PLATS, PAGE _____, AS DOCUMENT No. _____ FOR ADDITION INFORMATION.



RELOCATION ORDER
VINCENT ROAD, NORTH TAYLOR STREET TO MEMORIAL
DRIVE VILLAGE OF HOWARD, BROWN COUNTY, WISCONSIN

TO PROPERLY ESTABLISH, LAYOUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE OR MAINTAIN A PORTION OF THE ROADWAY DESIGNATED ABOVE, THE VILLAGE OF HOWARD DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID ROADWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE NAMED PROJECT.

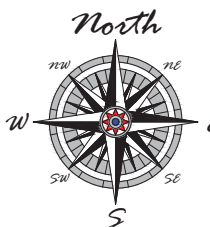
TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SUBSECTION 61.34 (3), (3M) AND SECTION 61.36, WISCONSIN STATUTES, THE VILLAGE OF HOWARD HEREBY ORDERS THAT:
1.) THAT PORTION OF SAID ROADWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE NAMED PROJECT.
2.) THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE VILLAGE FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE VILLAGE, PURSUANT TO THE PROVISIONS OF SUBSECTION 61.34 (3), (3M) AND SECTION 61.36, WISCONSIN STATUTES.

Office of the Register of Deeds
Brown County, Wisconsin

Received for Record _____, 20____,
at _____ o'clock _____ M and recorded as
Document # _____ in
Volume _____ of _____ on Page _____.

Cheryl Berken, Register of Deeds

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 05-136-016.2-4.03



ROAD NAME	BASIS OF EXISTING RIGHT OF WAY	WIDTH	YEAR
VINCENT ROAD	15-CSM-311	VARIES	1985

CERTIFICATE FOR THE VILLAGE OF HOWARD

RESOLVED THAT THE TRANSPORTATION PROJECT PLAT FOR "VINCENT ROAD - NORTH TAYLOR STREET TO MEMORIAL DRIVE" LOCATED IN THE VILLAGE OF HOWARD, BROWN COUNTY, WISCONSIN IS HEREBY AUTHORIZED AND APPROVED THIS ____ DAY OF _____, 2018, BY THE VILLAGE BOARD.

SIGNED FOR THE VILLAGE OF HOWARD THIS ____ DAY OF _____, 2018.

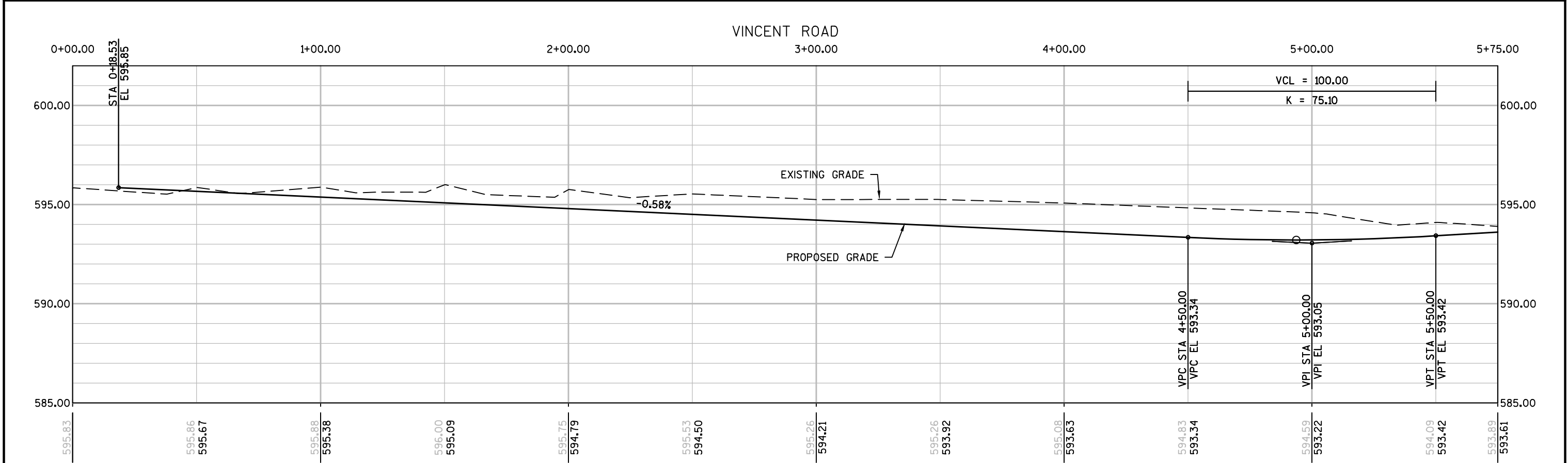
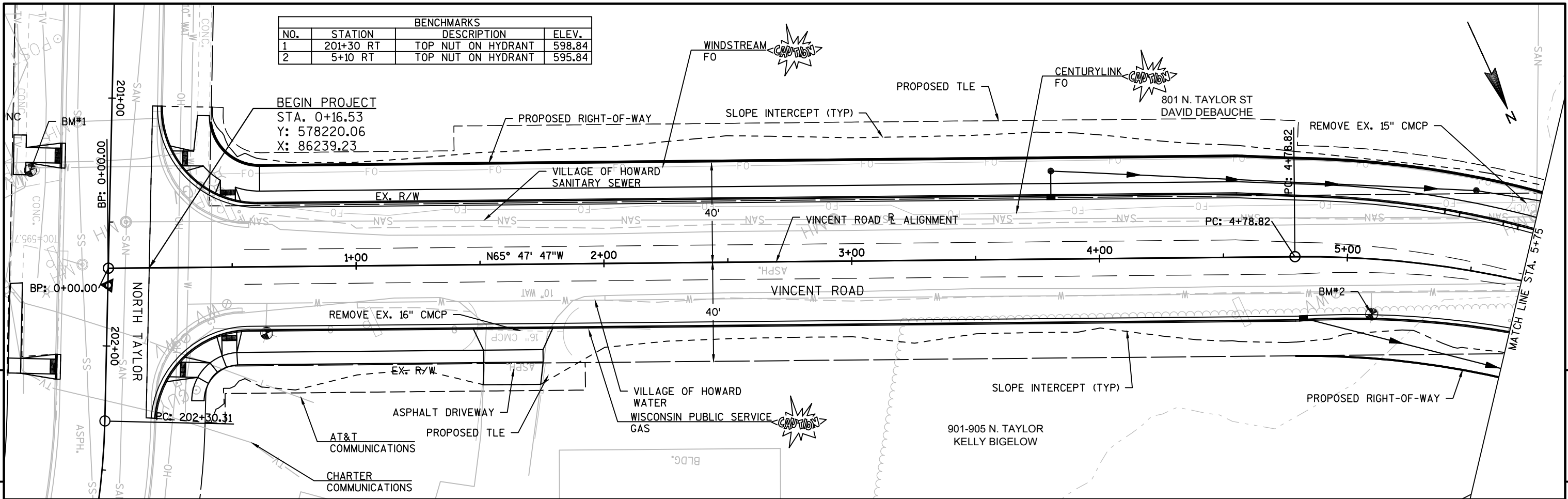
PAUL EVERT
VILLAGE ADMINISTRATOR

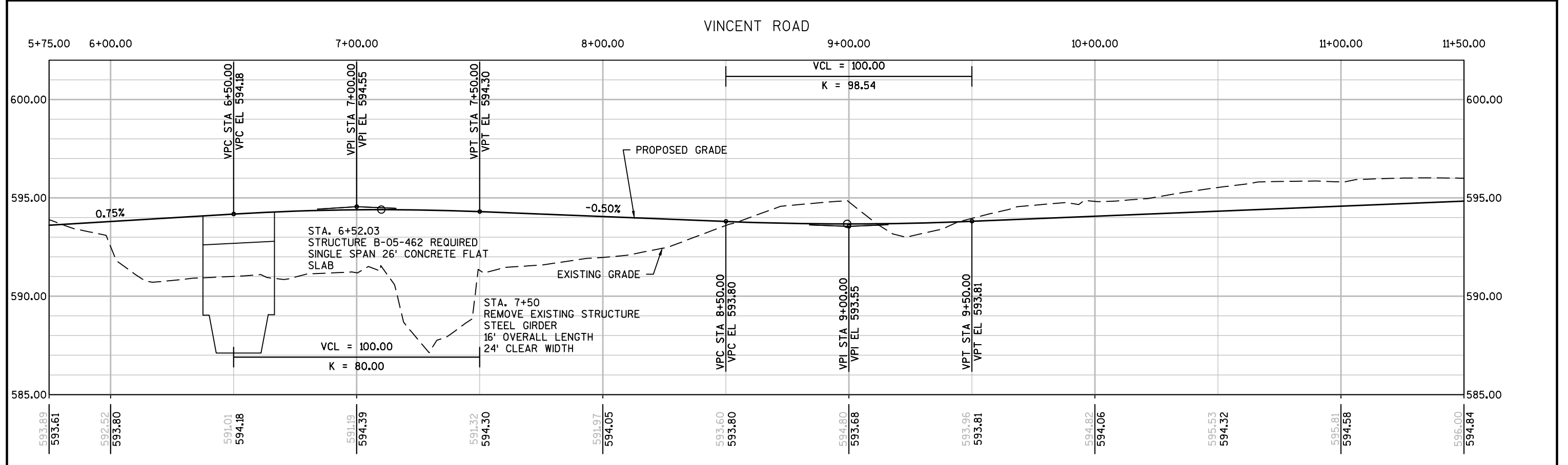
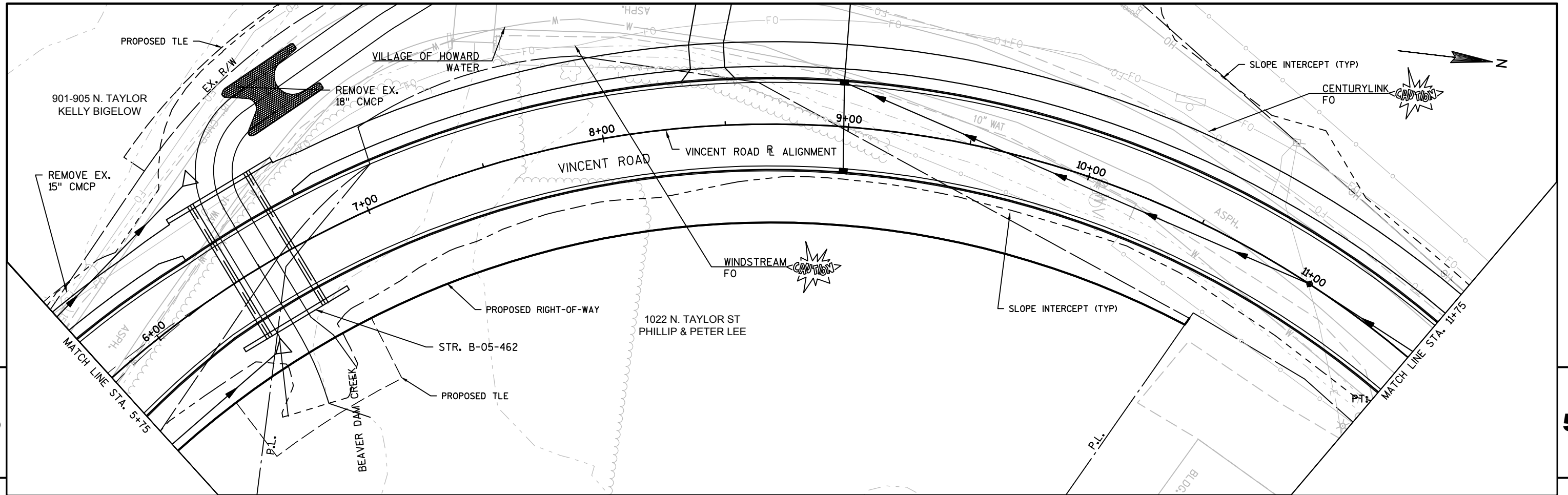
MICHAEL J. KASTER
DIRECTOR OF ENGINEERING

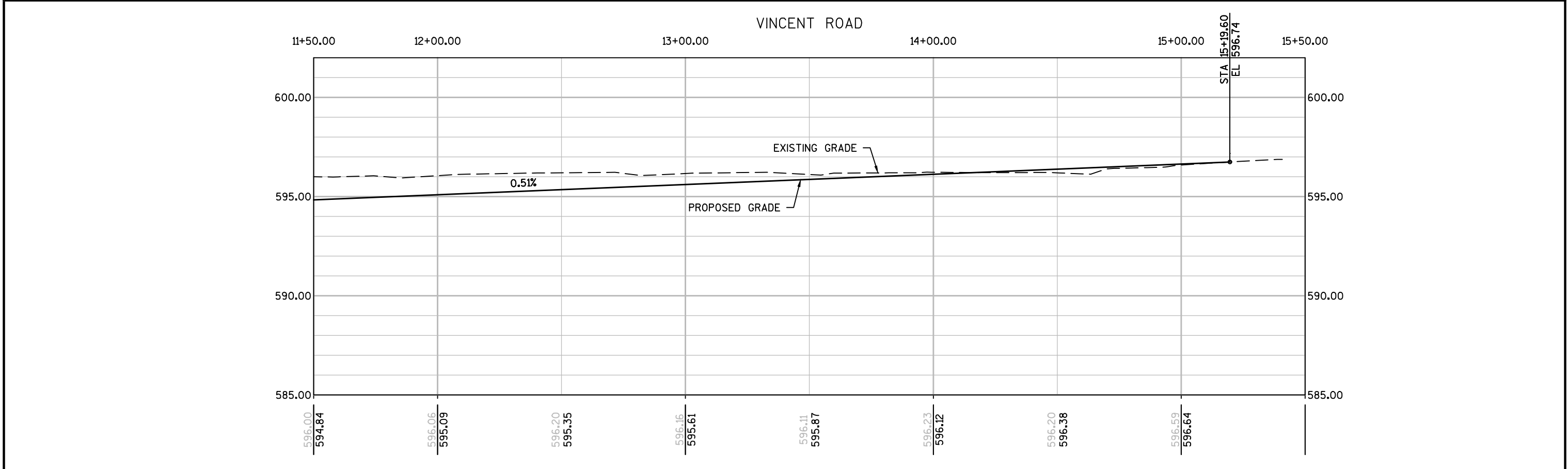
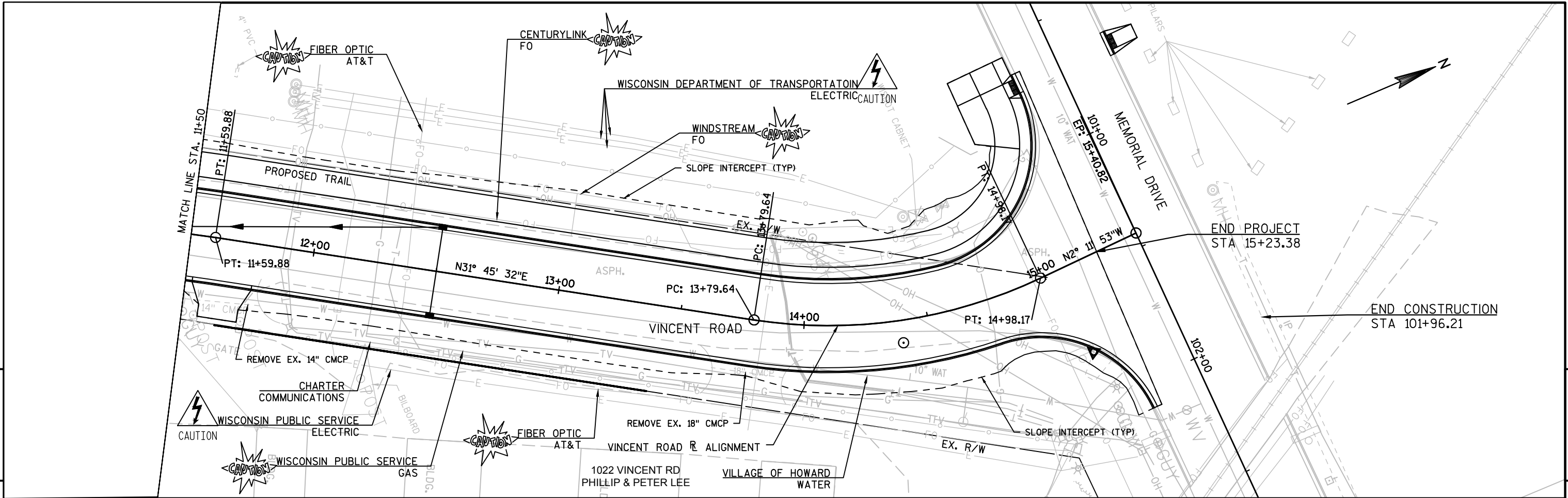
Graphic Scale

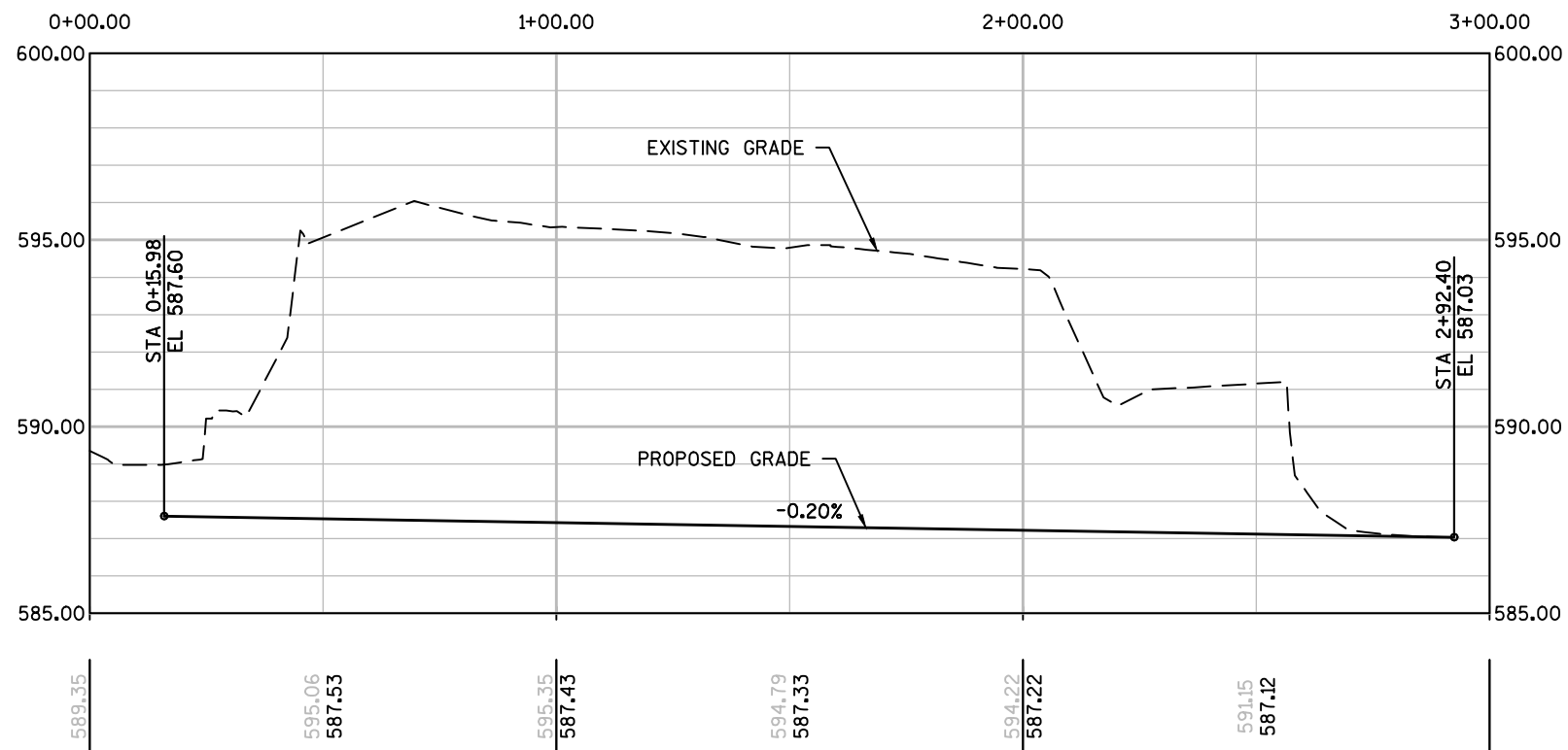
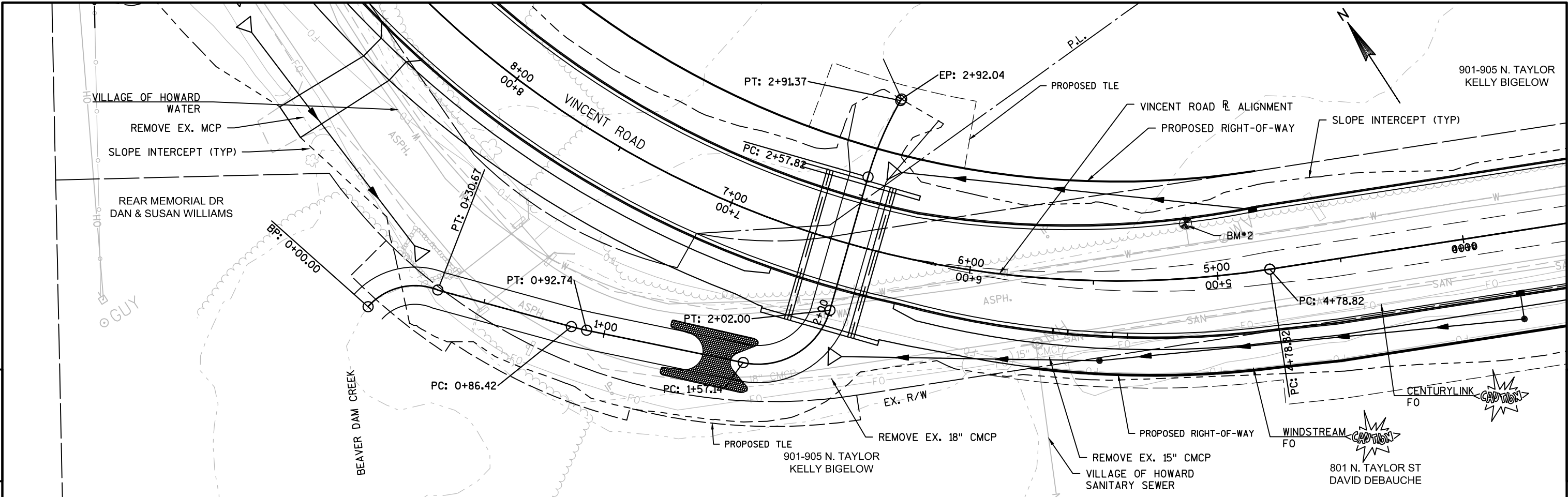


PROJECT: H-1315
DRAWING NO: P-2335



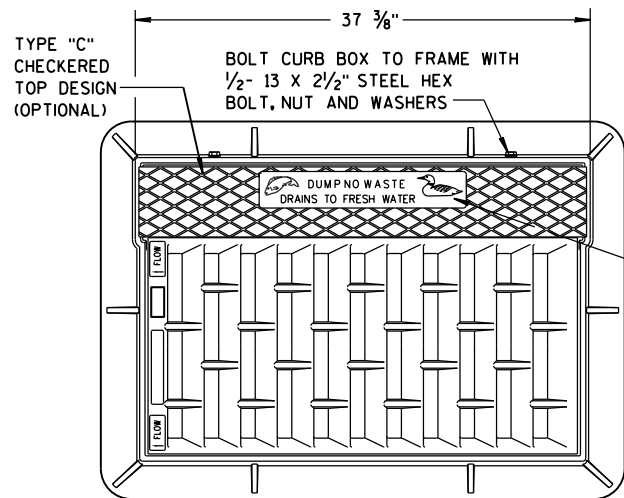




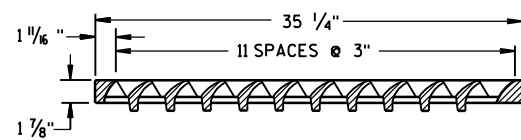
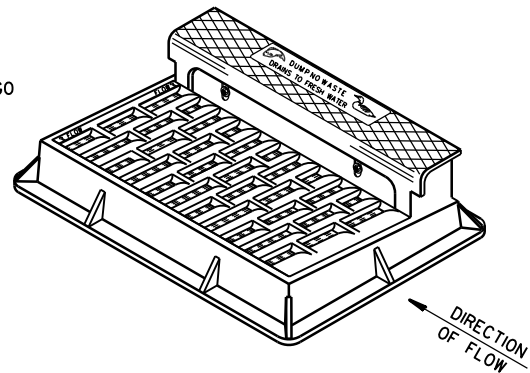


Standard Detail Drawing List

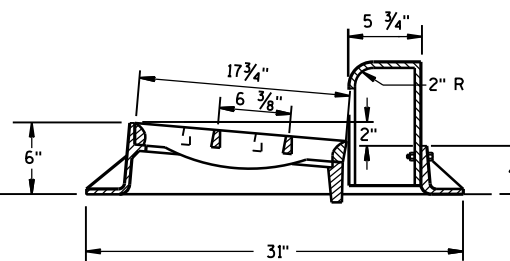
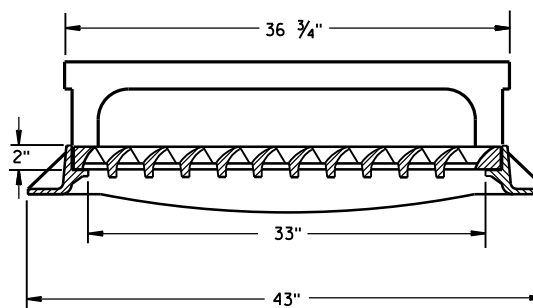
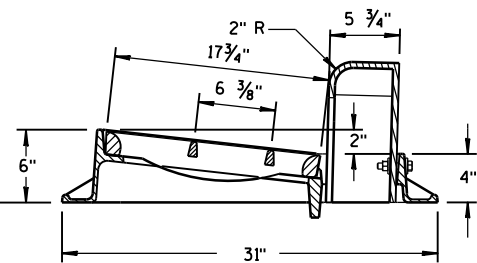
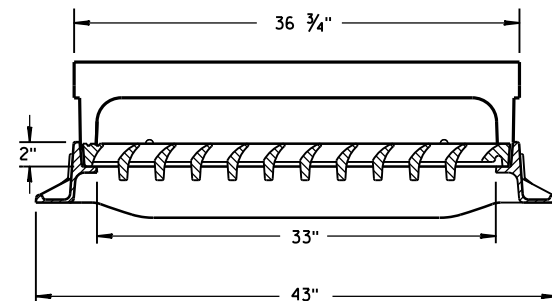
08A05-19A	INLET COVERS TYPE A, H, A-S, H-S & Z
08A05-19C	INLET COVERS TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S
08A05-19D	INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M
08B09-02	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
08C06-02	INLETS 3-FT AND 4-FT DIAMETER
08C07-02	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08D05-19A	CURB RAMPS TYPES 1 AND 1-A
08D05-19B	CURB RAMPS TYPES 2 AND 3
08D05-19C	CURB RAMPS TYPES 4A AND 4A1
08D05-19D	CURB RAMPS TYPE 4B AND 4B1
08D05-19E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D05-19F	CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS
08D05-19G	CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E11-02	TURBIDITY BARRIER
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
12A03-10	NAME PLATE (STRUCTURES)
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15B03-15A	FENCE CHAIN LINK
15B03-15B	FENCE CHAIN LINK
15C02-06A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C07-14A	PAVEMENT MARKING SYMBOLS
15C07-14B	PAVEMENT MARKING WORDS
15C07-14C	PAVEMENT MARKING ARROWS
15C08-18B	PAVEMENT MARKING (TURN LANES)
15C11-07B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C33-03	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS



NOTE:
GRATE IS REVERSIBLE.

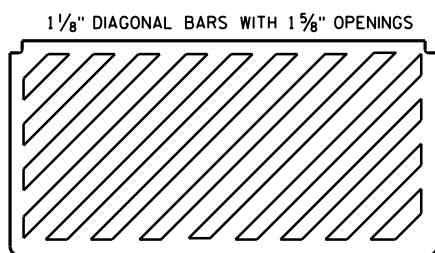


NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

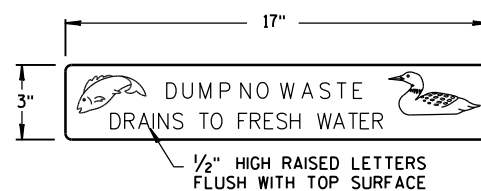


TYPE "H"

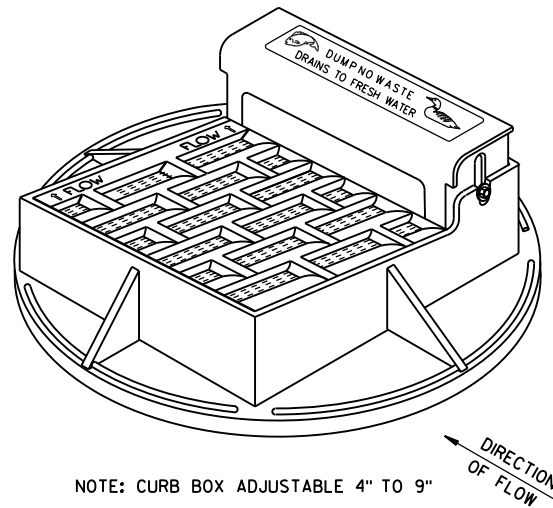
NOTE: EITHER CASTING IS ACCEPTABLE



SPECIAL GRATE FOR
TYPE "H" COVER
(MEASURES 35 1/4" X 17 3/4" X 2")
(NOTED AS TYPE H-S ON DRAINAGE TABLE)

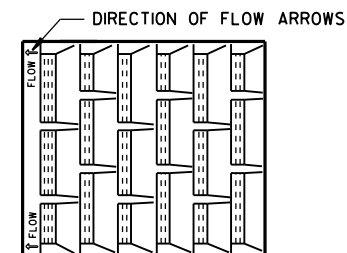


LOGO DETAIL

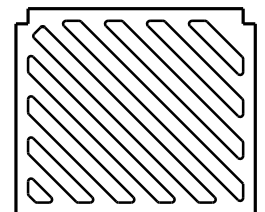


NOTE: CURB BOX ADJUSTABLE 4" TO 9"

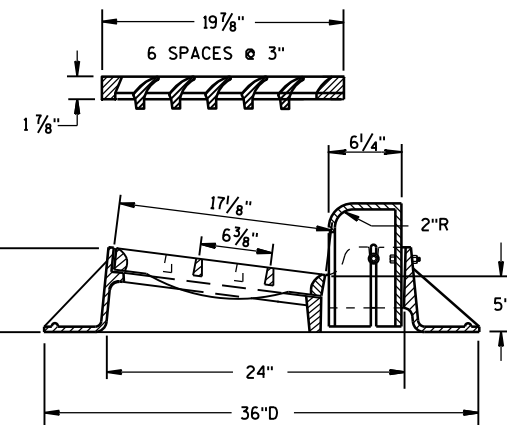
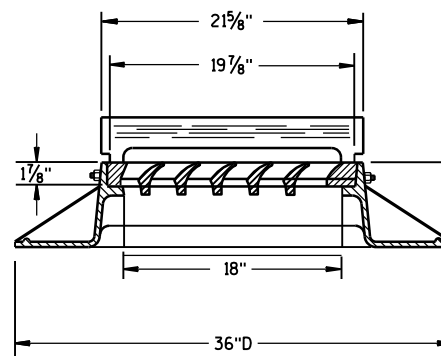
NOTE:
GRATE IS REVERSIBLE.



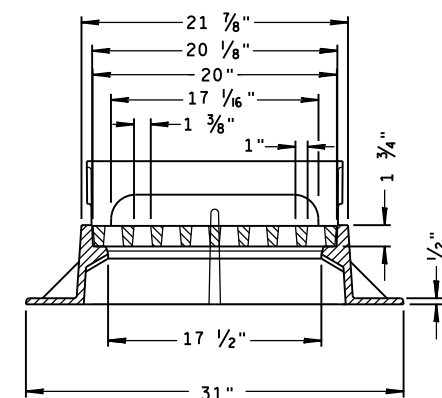
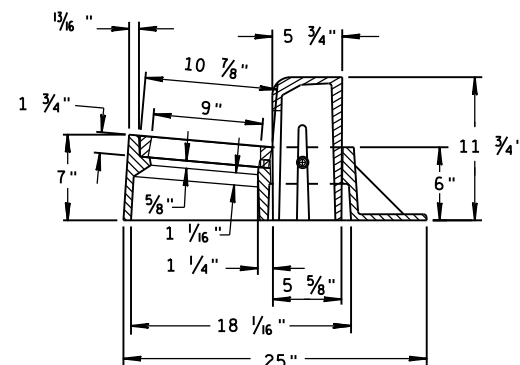
1" DIAGONAL BARS
WITH 1 1/2" OPENINGS



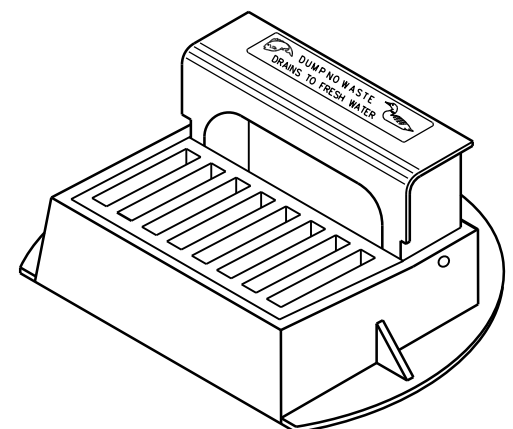
SPECIAL GRATE FOR
TYPE "A" COVER
(MEASURES 19 3/4" X 17" X 1 1/8")
(NOTED AS TYPE A-S ON DRAINAGE TABLE)



TYPE "A"



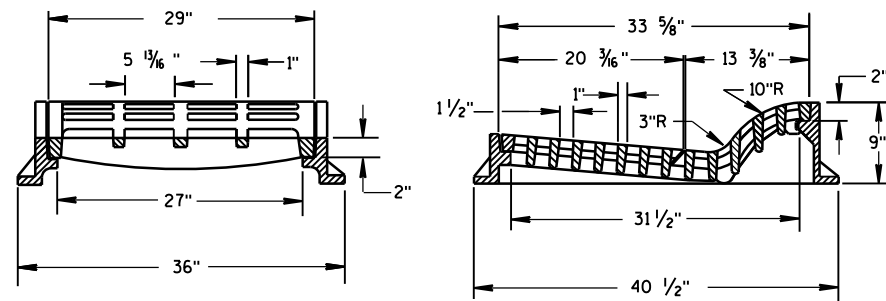
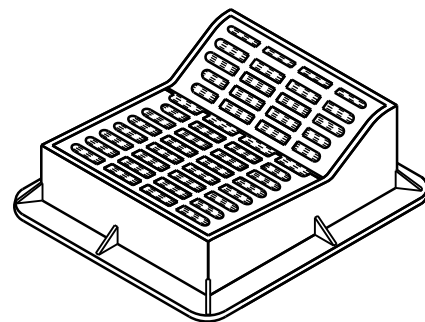
TYPE "Z"



INLET COVERS
TYPE A, H, A-S, H-S & Z

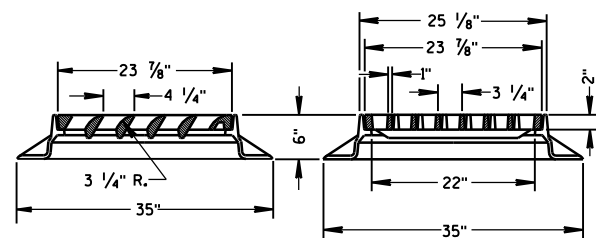
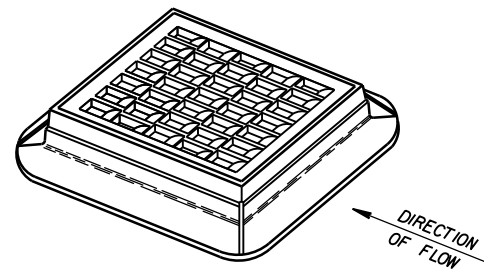
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11-27-13
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER
FHWA

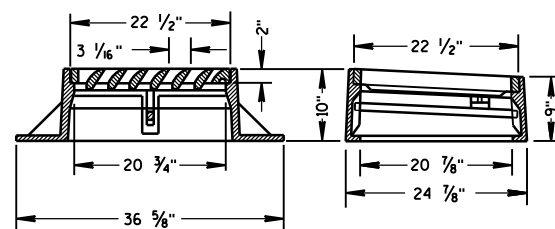
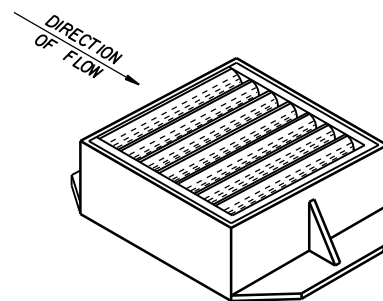


TYPE "F"

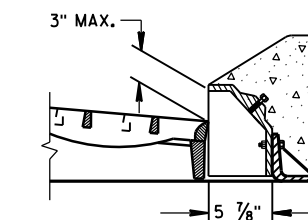
USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.



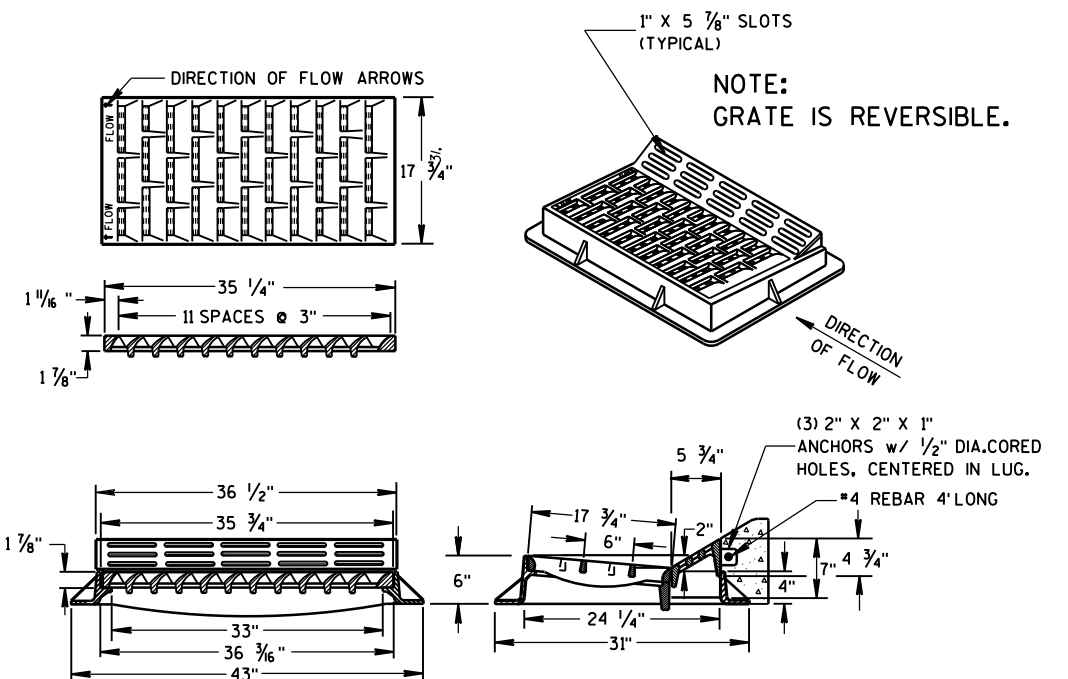
TYPE "S"



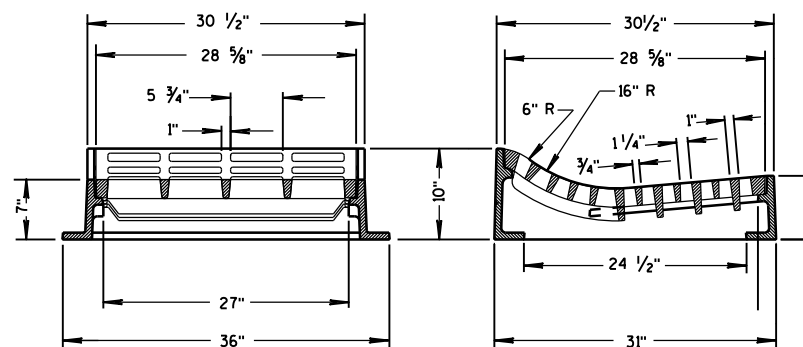
TYPE "V"

ALTERNATIVE CURB BOX
FOR TYPE "HM" COVERUSE WITH TYPES G & J CONCRETE CURB & GUTTER, 30 INCH
NOTED AS TYPE HM-GJ ON DRAINAGE TABLENOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM-GJ" COVER
NOTED AS TYPE HM-GJ-S ON DRAINAGE TABLE

GENERAL NOTES

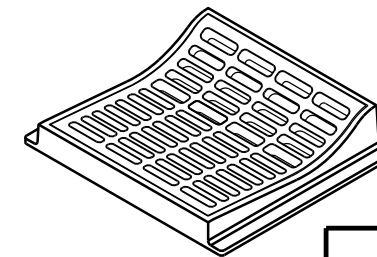
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING
SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND
THE APPLICABLE SPECIAL PROVISIONS.DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLET COVERS SHALL BE SUBMITTED
TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION
FOR EQUIVALENT CAPACITY AND STRENGTH.

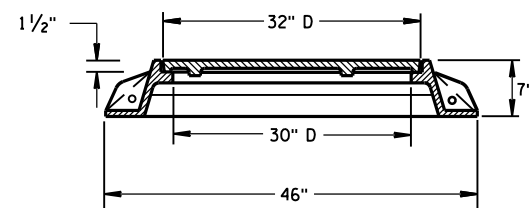
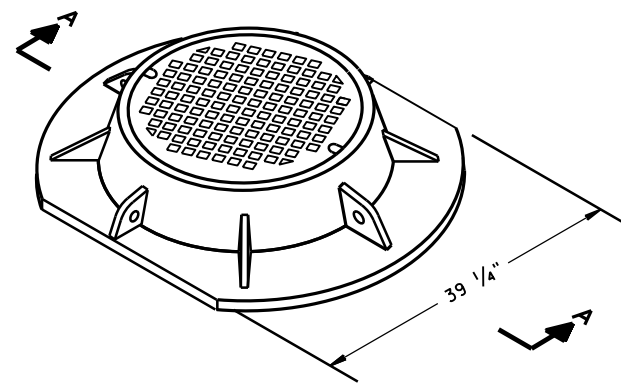
TYPE "HM"

USE WITH TYPES A & D CONCRETE
CURB & GUTTER, 36 INCH.NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM" COVER
NOTED AS TYPE HM-S ON DRAINAGE TABLE

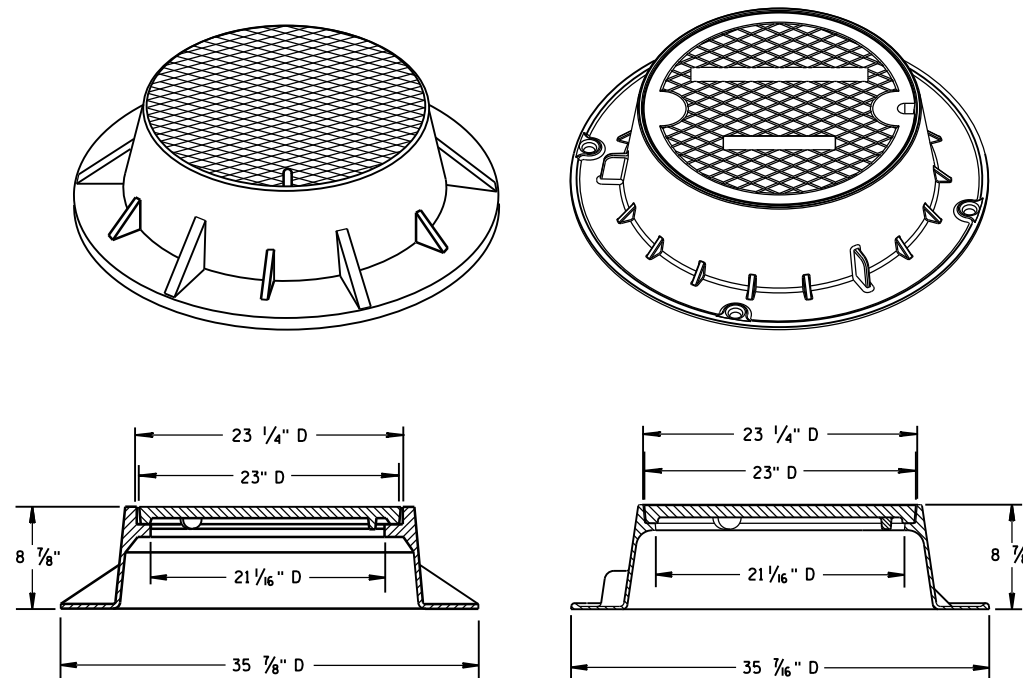
TYPE "T"

USE WITH TYPES R & T CONCRETE CURB & GUTTER, 36 INCH.

INLET COVERS
TYPE F, HM, HM-S, S, T, V,
HM-GJ, & HM-GJ-SSTATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATIONAPPROVED
11/27/2013
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER
FHWA

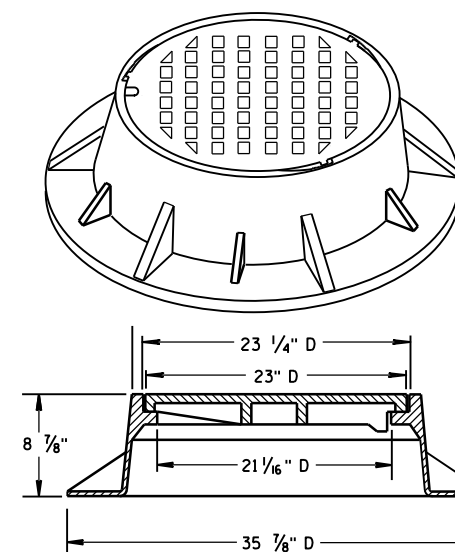
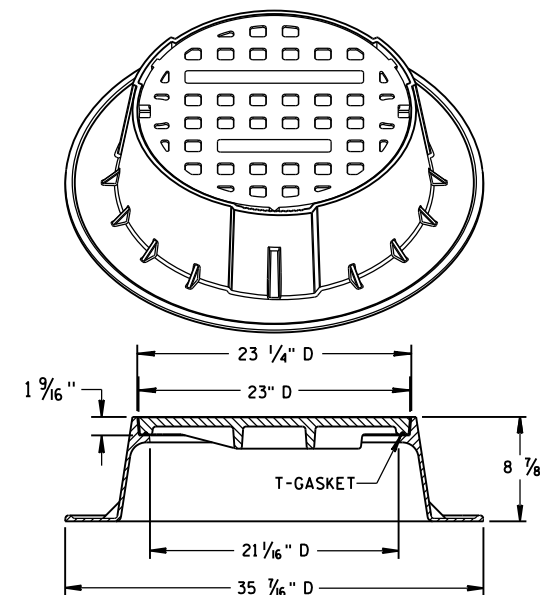


SECTION A-A
TYPE "K"



TYPE "J"

NOTE: EITHER CASTING IS ACCEPTABLE

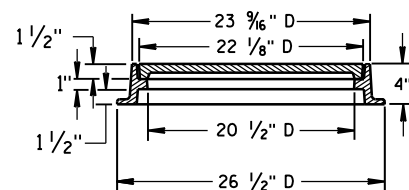
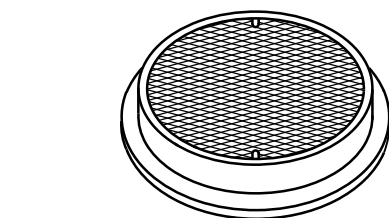


TYPE "J" SPECIAL

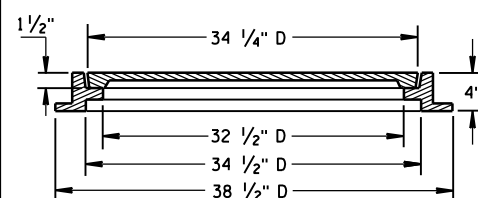
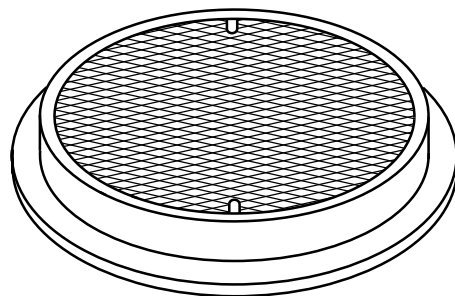
TYPE "B" NON-ROCKING SELF-SEAL LID

(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)

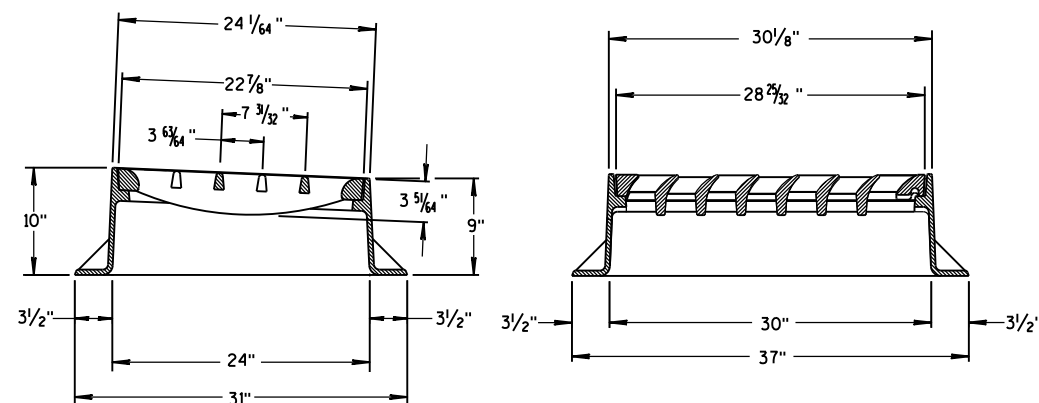
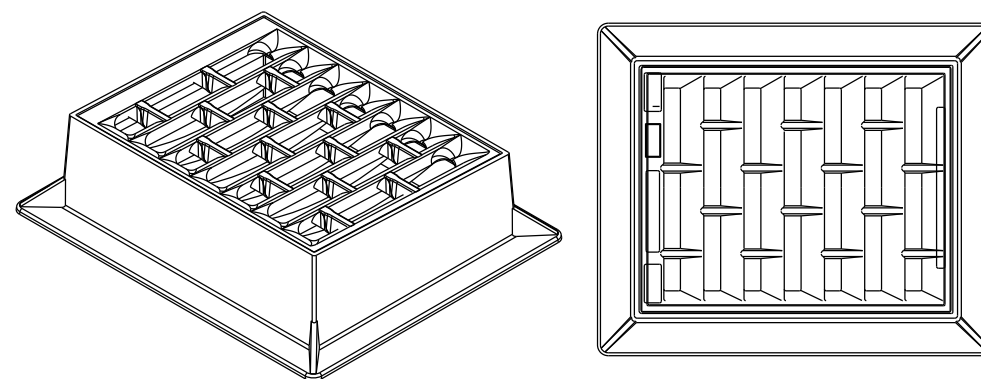
NOTE: EITHER CASTING IS ACCEPTABLE



TYPE "L"



TYPE "M"



INLET COVER TYPE "BW"

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.

DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

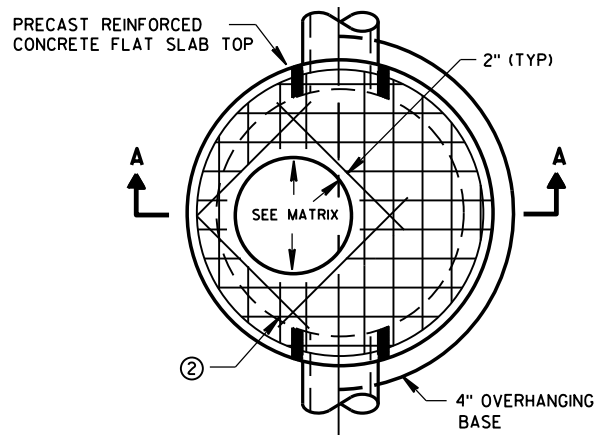
ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

INLET COVER TYPE BW
MANHOLE COVERS, TYPE K,
J, J-S, L & M

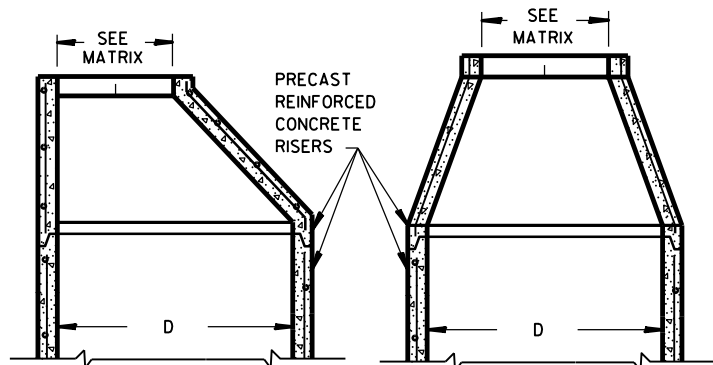
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/27/2013
DATE
FHWA

/s/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER

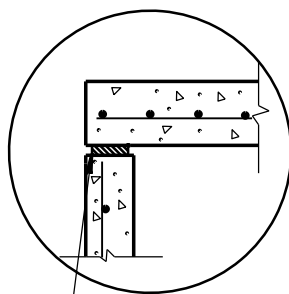


PLAN VIEW CIRCULAR OPENING

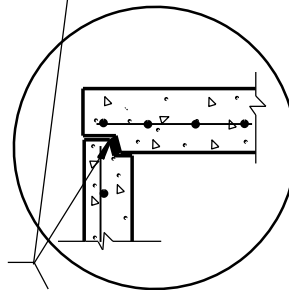


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

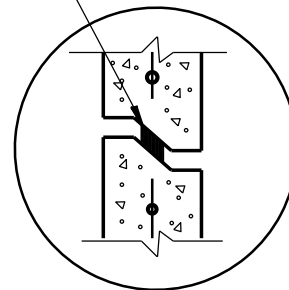
OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP



TOP WITH PLAIN END JOINT

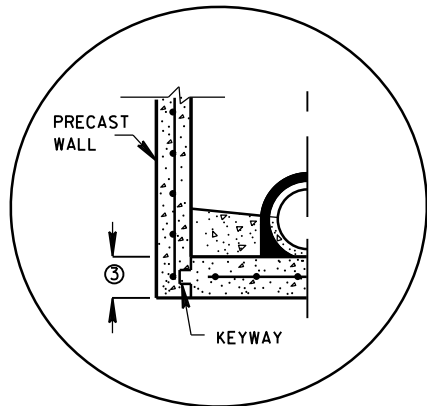


TOP WITH TONGUE AND GROOVE JOINT

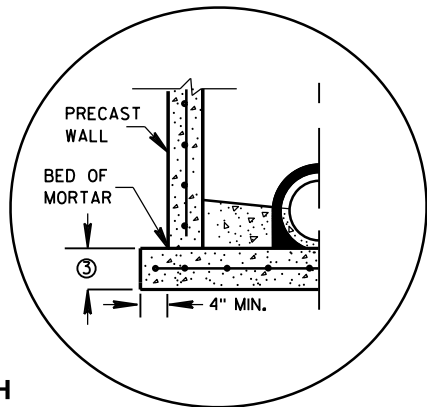


DETAIL "B"

JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C990 (TYP)

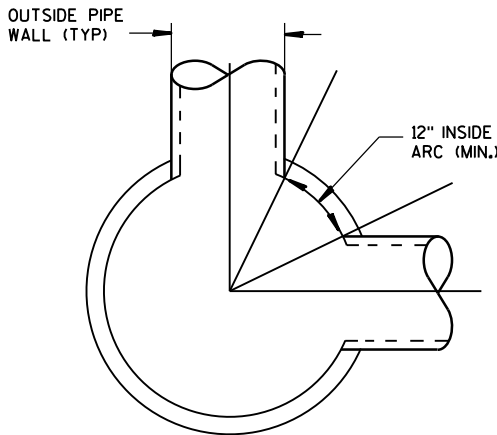


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

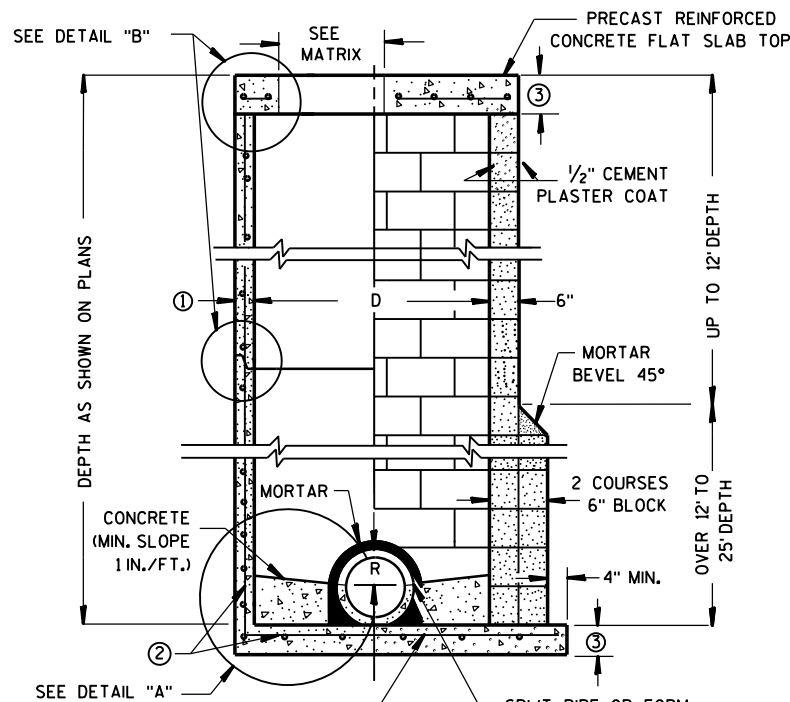


SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "C"



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

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

MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER

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 MANHOLE 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 CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED 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 1/2" 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.

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

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

ALL PRECAST MANHOLE UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M 199.

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, 7 INCHES FOR 6-FT, 8 INCHES FOR 7-FT AND 9 INCHES FOR 8-FT DIAMETER PRECAST MANHOLES.
- ② FOR PRECAST MANHOLES 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".

MANHOLE COVER OPENING MATRIX

MANHOLE COVER TYPE	C	ALL J'S	K	L	M
OPENING SIZE (FT)					
2 DIA.	X	X		X	
3 DIA.			X		X

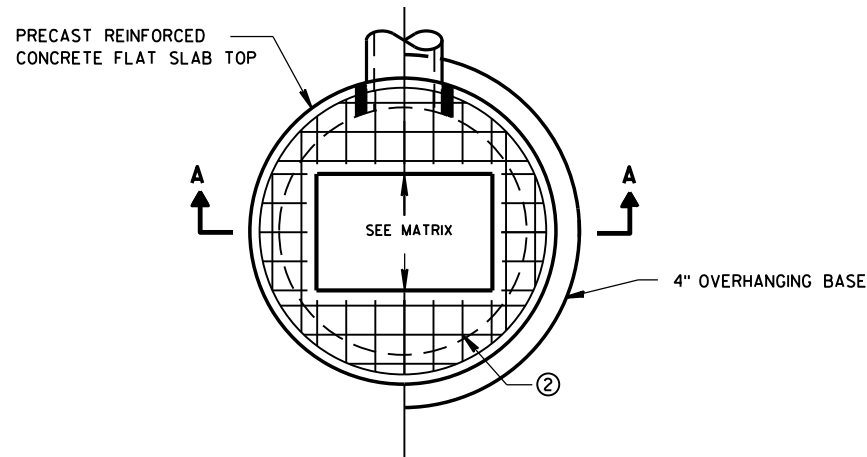
PIPE MATRIX

MANHOLE 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	36
7-FT	48	36
8-FT	60	42

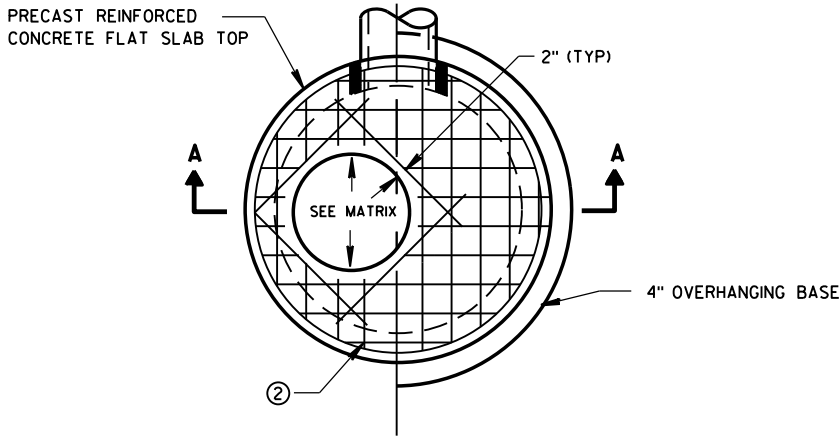
MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

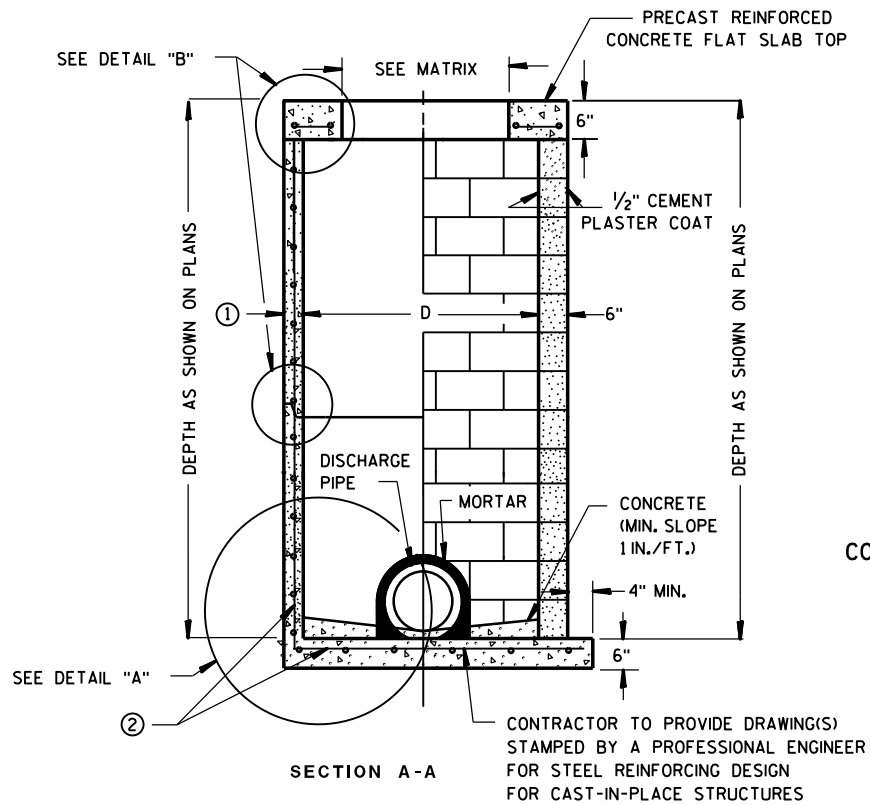
APPROVED
DATE Sept., 2016 /S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
FHWA



PLAN VIEW RECTANGULAR OPENING

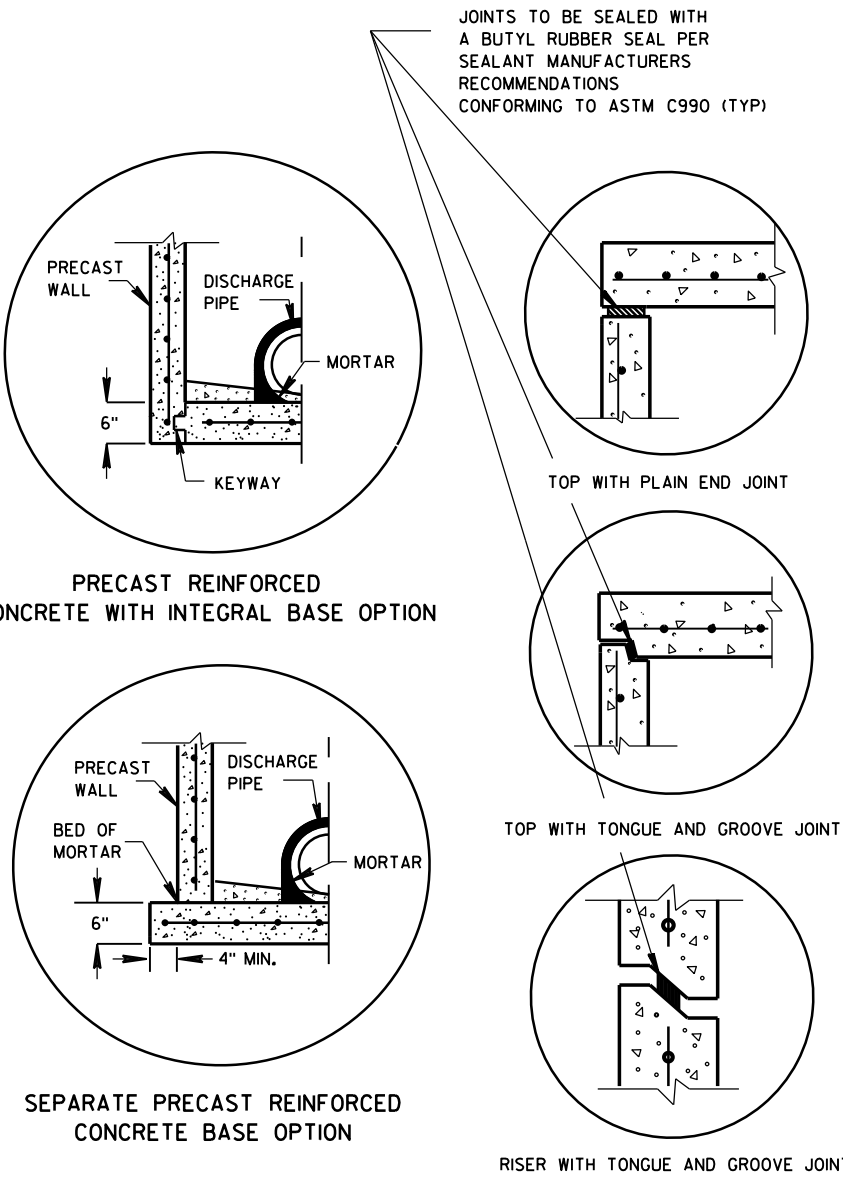


PLAN VIEW CIRCULAR OPENING



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

CIRCULAR INLETS W/ FLAT TOP



DETAIL "A"

DETAIL "B"

INLETS 3-FT AND 4-FT DIAMETER

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 INLET 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.

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.

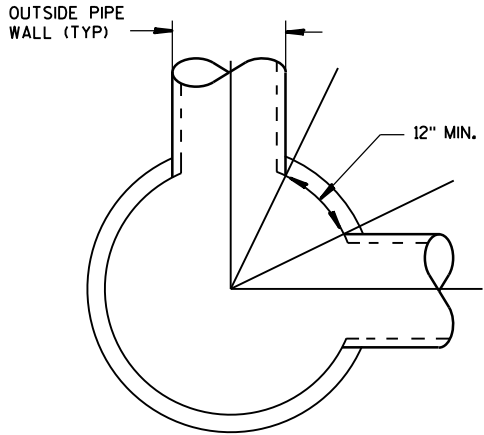
4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

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-IN FOR 3-FT DIAMETER AND 5-IN FOR 4-FT DIAMETER PRECAST INLETS.
- ② FOR PRECAST CATCH BASINS PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

INLET COVER OPENING MATRIX

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



DETAIL "C"

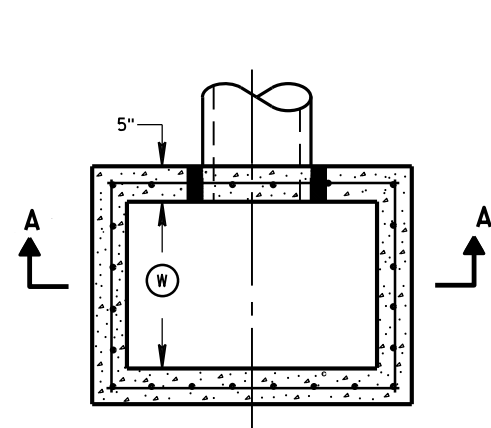
PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18

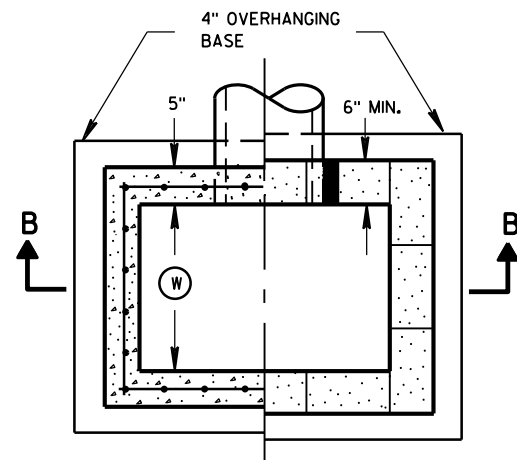
INLETS 3-FT AND 4-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

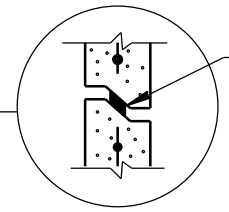
APPROVED
Sept., 2016 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA UNIT SUPERVISOR



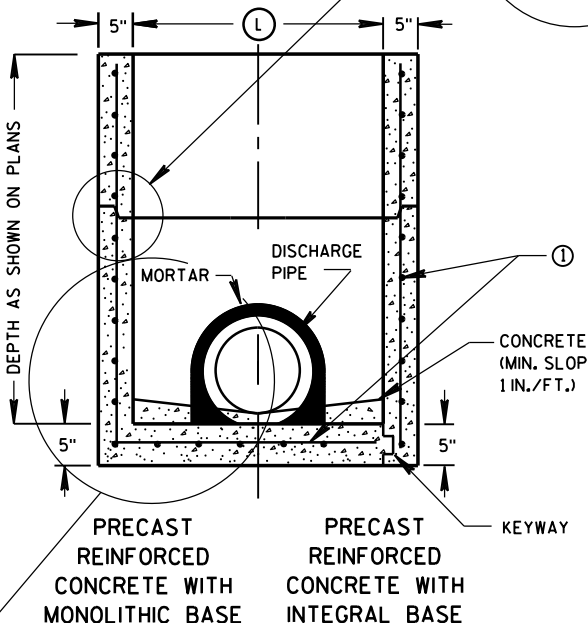
PLAN VIEW



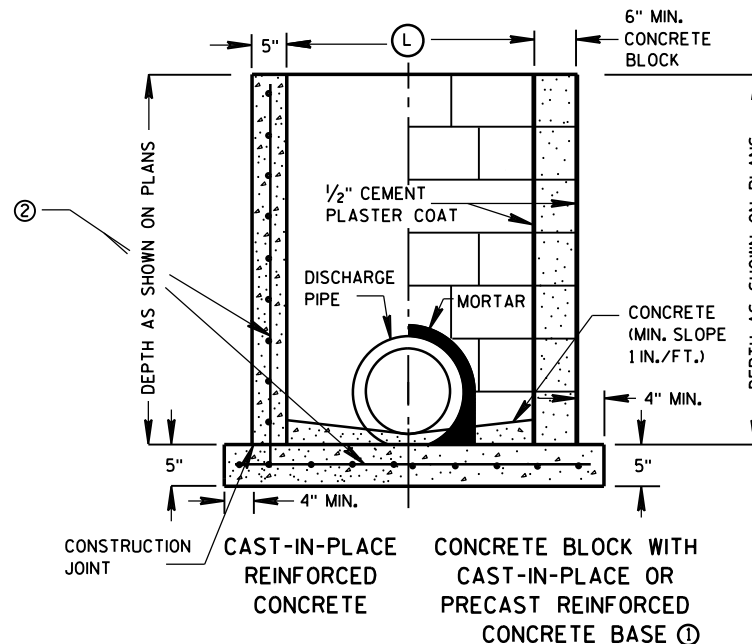
PLAN VIEW



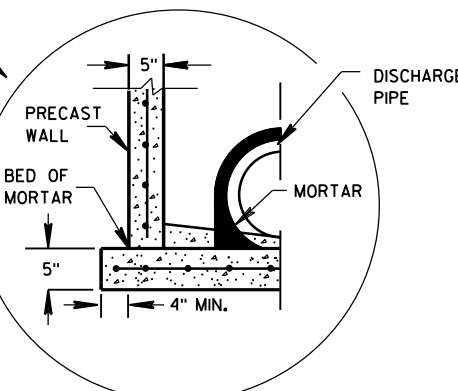
RISER JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)



SECTION A-A



SECTION B-B



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

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 INLET 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 PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATES 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.

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

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

4" OVERHANGING BASES ARE REQUIRED FOR CAST-IN-PLACE REINFORCED CONCRETE AND 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.

MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3 INCH CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

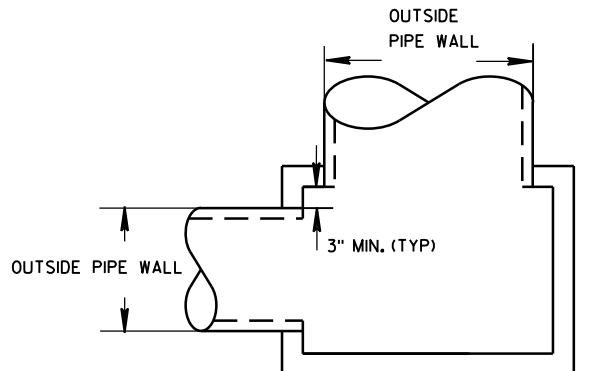
- ① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.
- ② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

INLET COVER MATRIX

INLET SIZE	WIDTH ① (FT)	INLET COVER TYPE	ALL A'S	ALL B'S	BW	F	ALL H'S	S	T	V	WM
		LENGTH ② (FT)									
2X2-FT	2	2	X	X				X		X	
2X2.5-FT	2	2.5			X			X	X	X	X
2X3-FT	2	3					X				
2.5X3-FT	2.5	3				X					

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (IN)	LENGTH (IN)
2X2-FT	12	12
2X2.5-FT	12	18
2X3-FT	12	24
2.5X3-FT	18	24



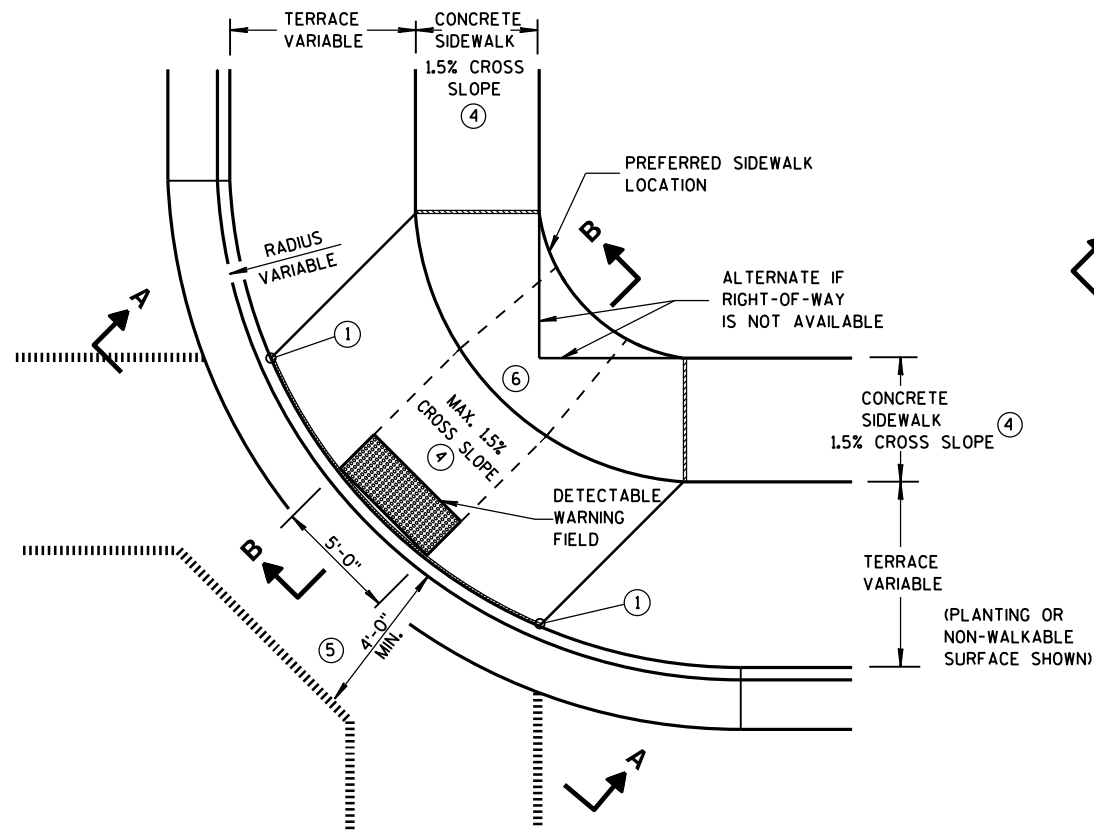
DETAIL "A"

INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

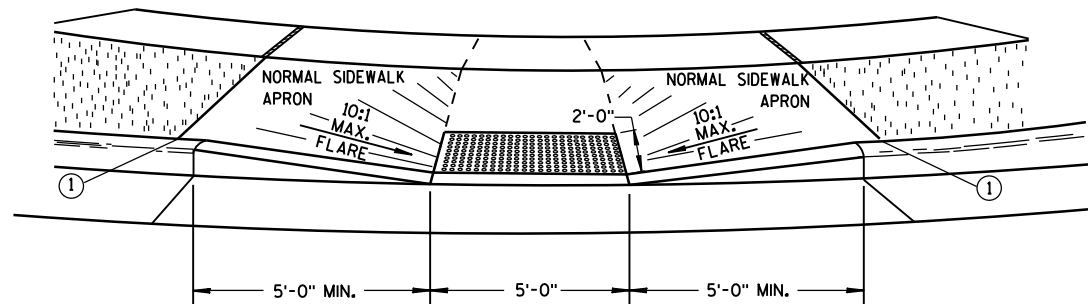
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

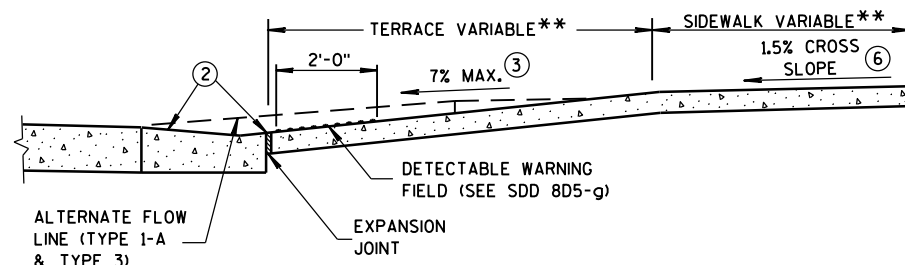


**PLAN VIEW
TYPE 1 RAMP**
(CENTER OF CORNER RADIUS)

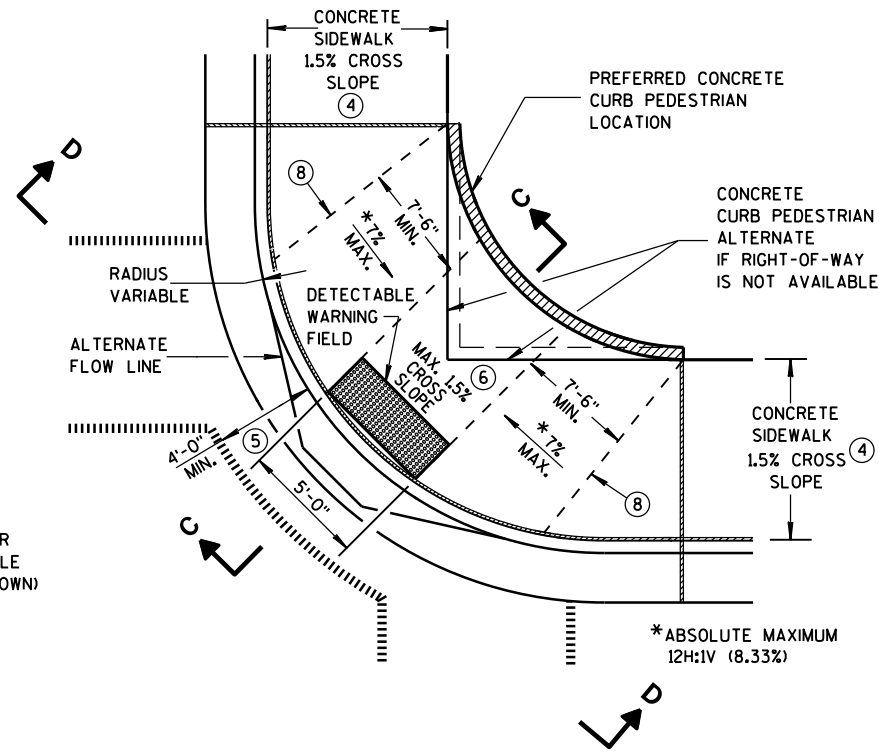


VIEW A-A

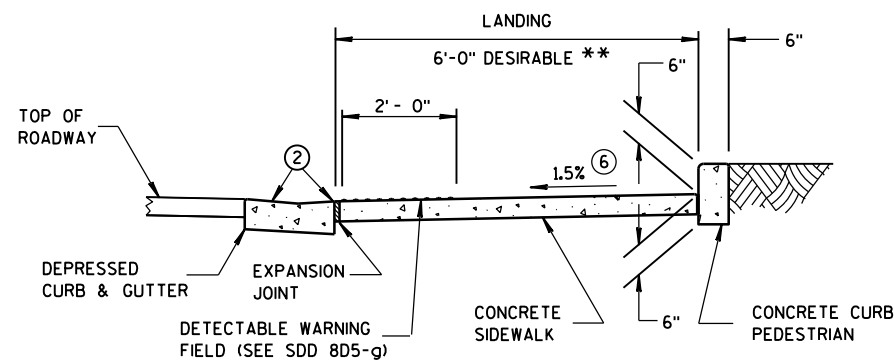
** WIDTH SHOWN ELSEWHERE
IN THE PLANS



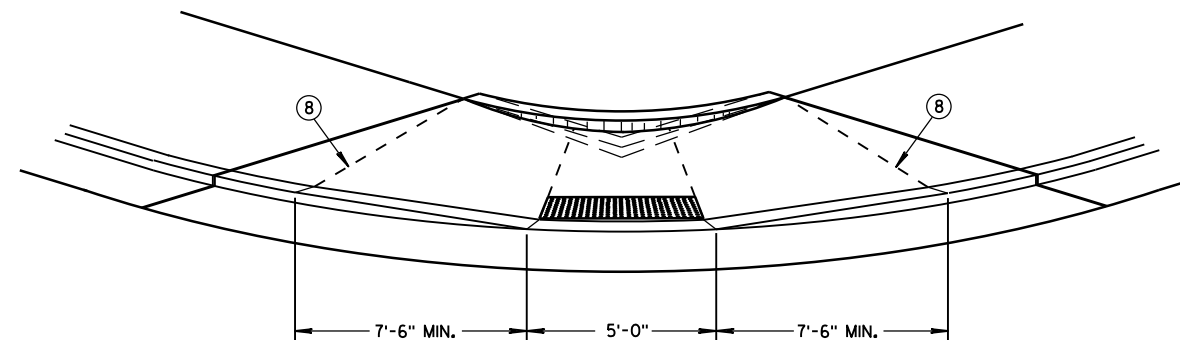
SECTION B-B



**PLAN VIEW
TYPE 1-A RAMP**
(NO TERRACE)



SECTION C-C



VIEW D-D

GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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.

WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.

TYPE 1 RAMPS SHALL HAVE A NORMAL SIDEWALK APRON AND CURB ON BOTH SIDES OF RAMP.

DETECTABLE WARNING FIELD SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS "CURB RAMP DETECTABLE WARNING FIELD". THE CONCRETE PEDESTRIAN CURB, IF NEEDED, SHALL BE MEASURED AND PAID BY THE LINEAL FOOT AS "CONCRETE CURB PEDESTRIAN". CONCRETE SIDEWALK IN THE CURB RAMP AREA SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS CONCRETE SIDEWALK, INCLUDING THE AREA UNDER THE DETECTABLE WARNING FIELD.

SELECT CURB RAMP DETECTABLE WARNING FIELD MATERIALS AND DEVICES FROM THE DEPARTMENT'S APPROVED MATERIALS LIST. THE COLOR OF THE DETECTABLE WARNING FIELD IS SPECIFIED ELSEWHERE AND IS INCIDENTAL TO THE BID ITEM OF "CURB RAMP DETECTABLE WARNING FIELD".

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP.

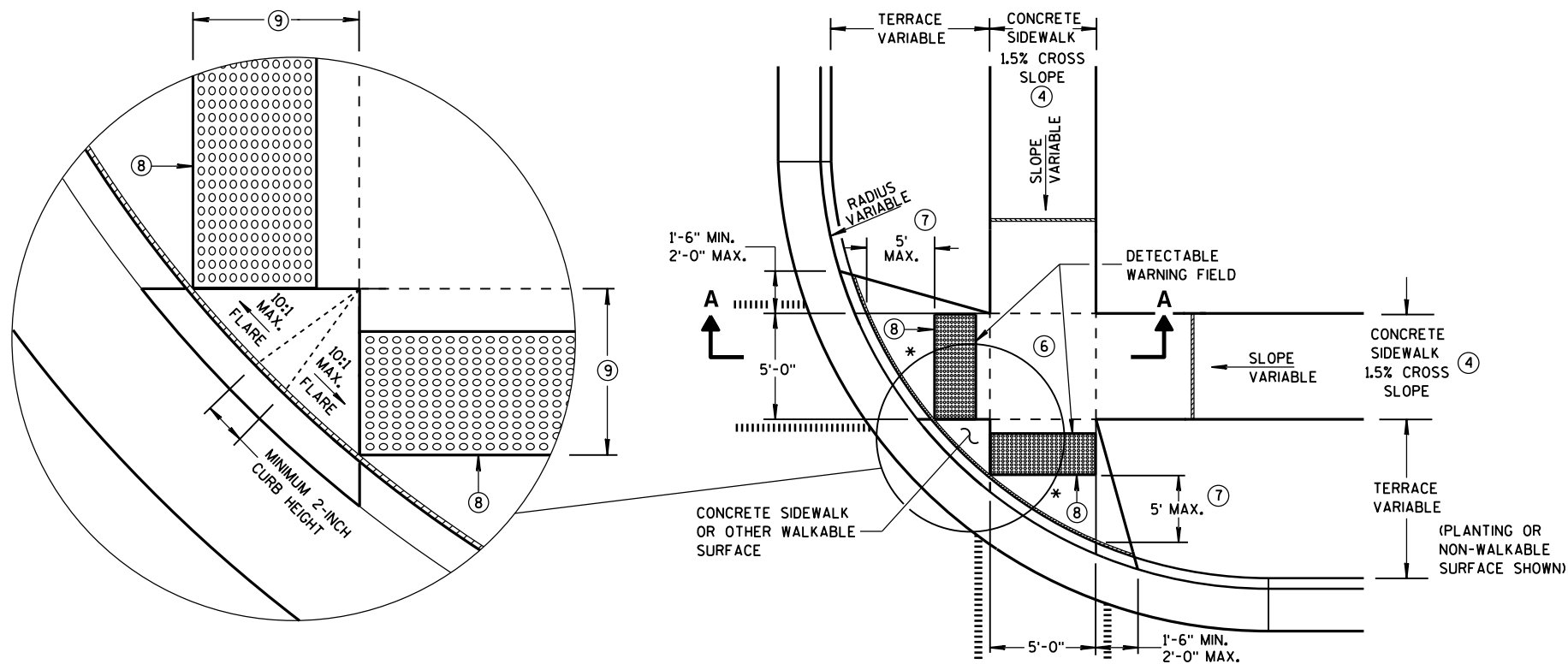
- ① THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB. POINT LOCATION MAY BE ADJUSTED TO ALIGN WITH BEGINNING OF FULL-HEIGHT CURB IF THIS DISTANCE IS SHORT.
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- ③ ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- ④ $\pm 0.5\%$ CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑤ PROVIDE A LEVEL LANDING IN THE STREET AND GUTTER AREA. (2% MAXIMUM SLOPE IN ANY DIRECTION). WHEN THE GUTTER SLOPE EXCEEDS 2%, CONSTRUCT THE LEVEL LANDING IN THE STREET AREA.
- ⑥ PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.
- ⑧ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

LEGEND

- 1/2" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT

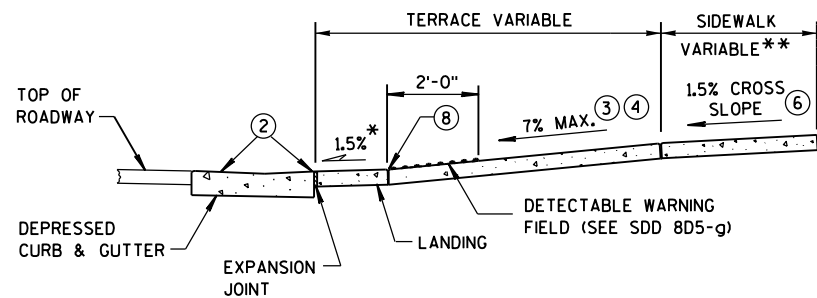
**CURB RAMPS
TYPES 1 AND 1-A**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



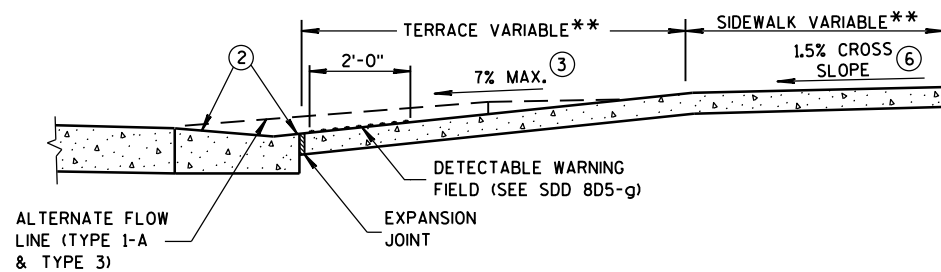
**PLAN VIEW
TYPE 2 RAMP**
(ON LINE WITH SIDEWALK)

* MAXIMUM 2.0% SLOPE
IN ALL DIRECTIONS IN
FRONT OF GRADE BREAK



SECTION A-A

** WIDTH SHOWN ELSEWHERE
IN THE PLANS



SECTION B-B

GENERAL NOTES

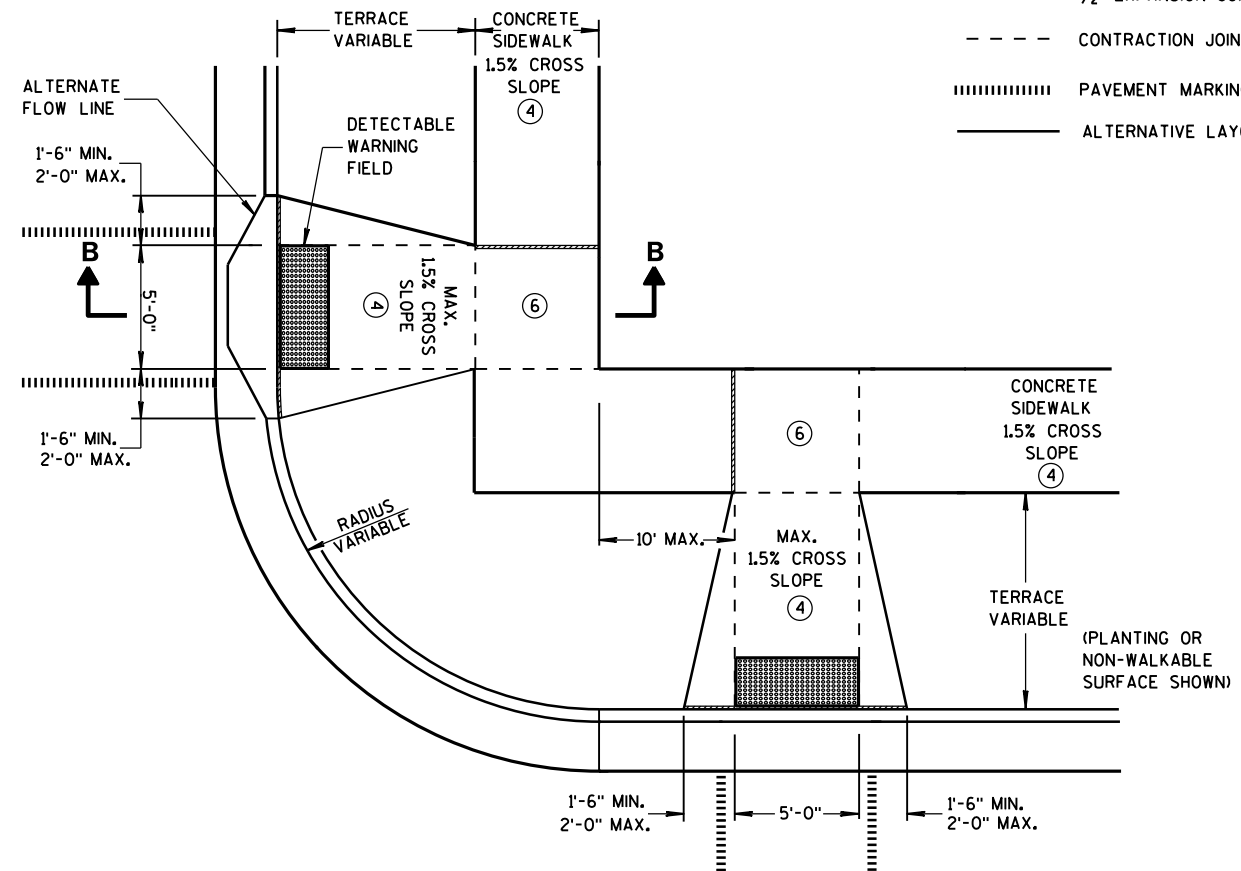
AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- ③ ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- ④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑥ PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.
- ⑦ WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.
- ⑧ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- ⑨ WHEN THIS DISTANCE IS LESS THAN 6'-0", IT MAY BE DIFFICULT TO ACHIEVE A 7% SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% SLOPE OR FLATTER ON RAMP. CONSTRUCT 2-INCH MINIMUM CURB HEIGHT BETWEEN 10:1 FLARES.

LEGEND

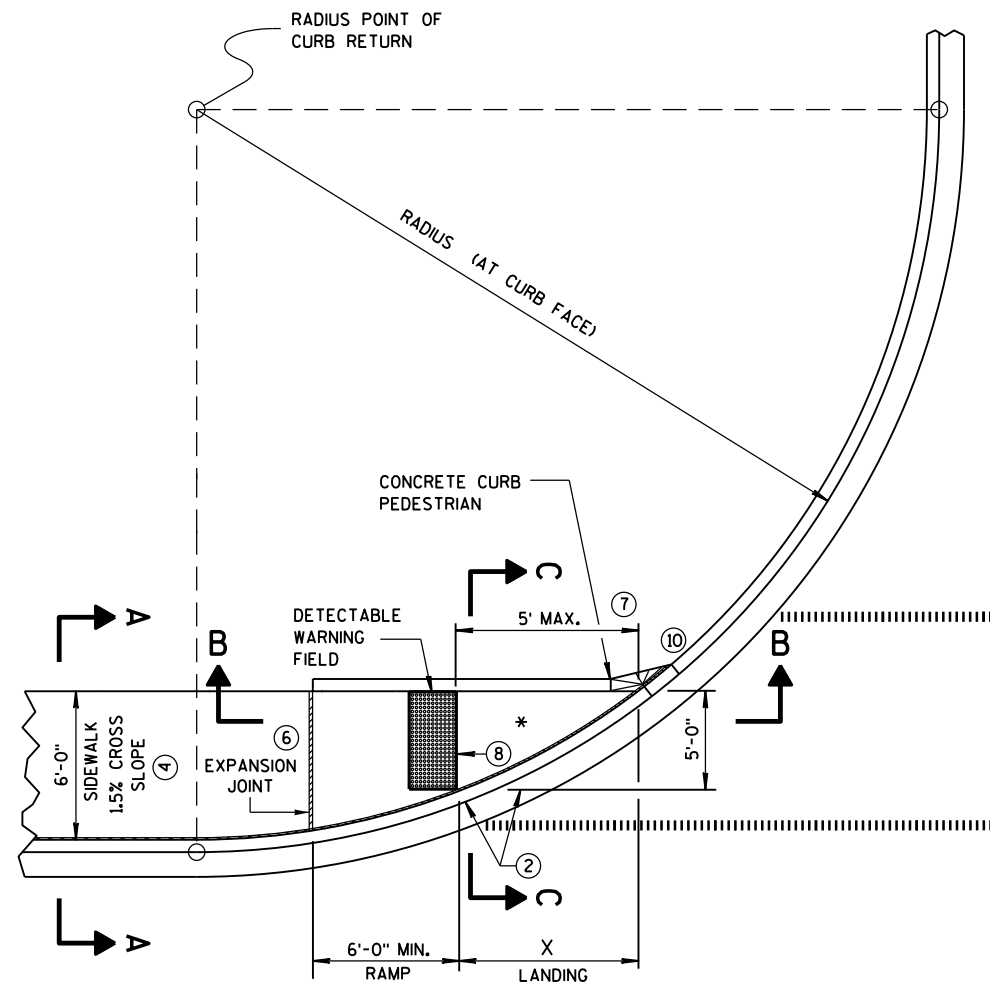
- ===== 1/2" EXPANSION JOINT-SIDEWALK
- - - - - CONTRACTION JOINT FIELD LOCATED
- ||||| PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



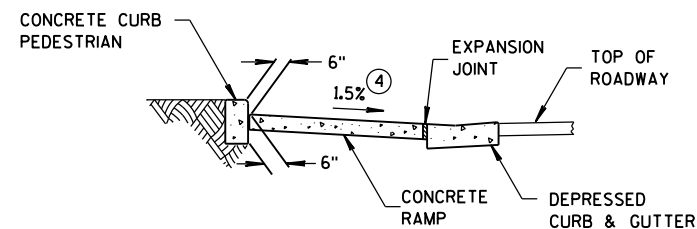
**PLAN VIEW
TYPE 3 RAMP**
(OUTSIDE OF CROSSWALK AREA)

**CURB RAMPS
TYPES 2 AND 3**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

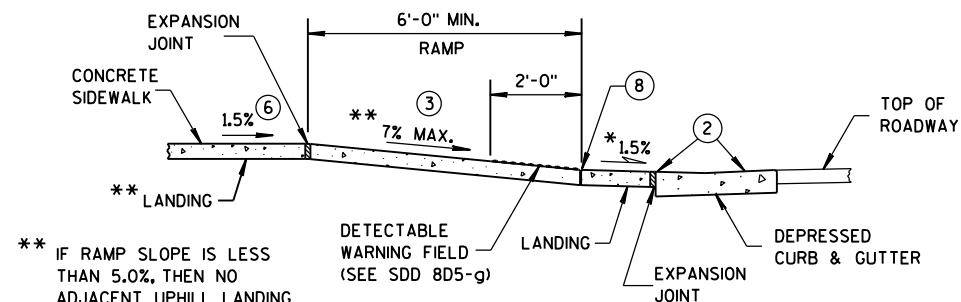


CURB RAMP TYPE 4A
PLAN VIEW



SECTION C-C FOR TYPE 4A

* MAXIMUM 2.0% SLOPE
IN ALL DIRECTIONS IN
FRONT OF GRADE BREAK

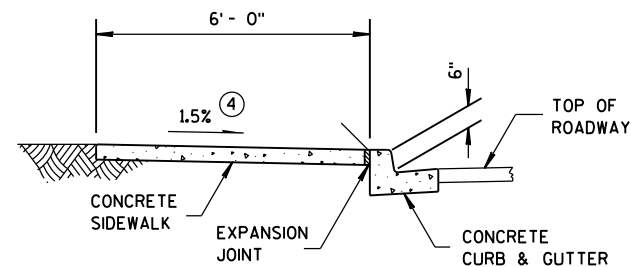


SECTION B-B FOR TYPE 4A

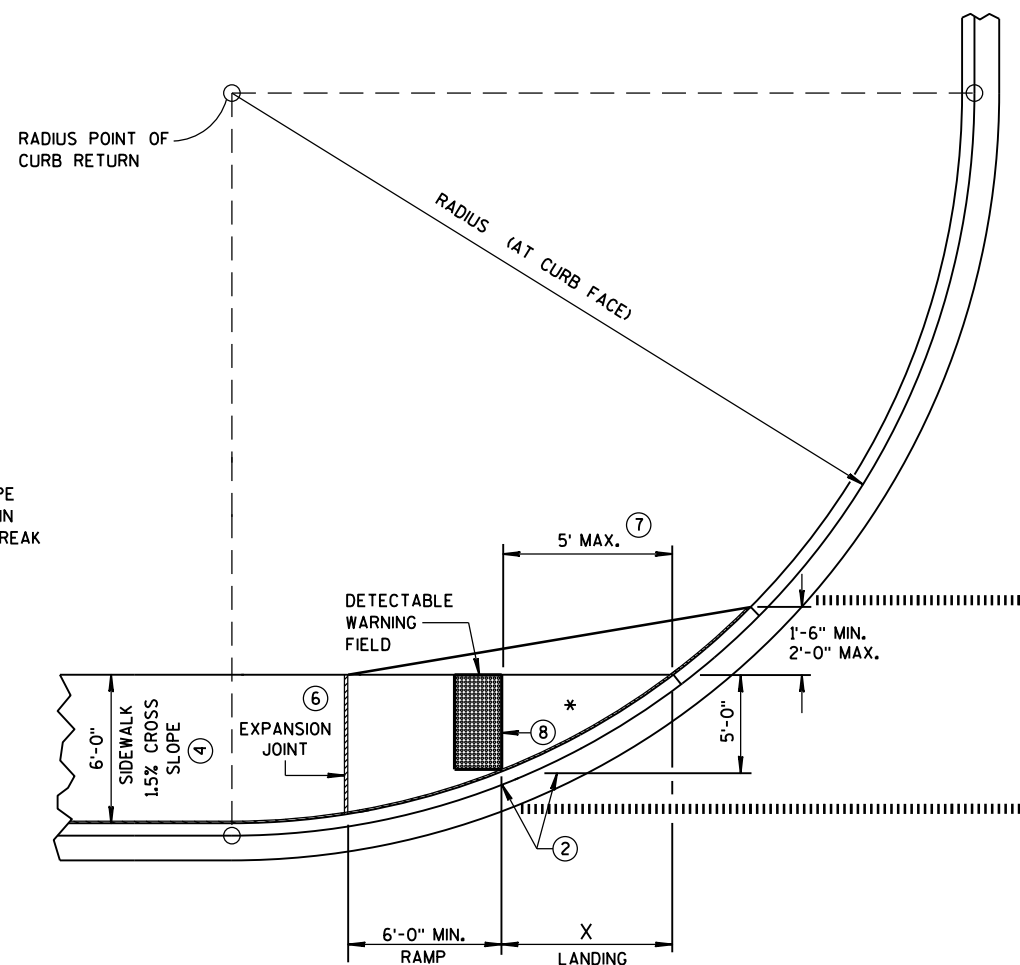
** IF RAMP SLOPE IS LESS
THAN 5.0%, THEN NO
ADJACENT UPHILL LANDING
IS REQUIRED

RADIUS (AT CURB FACE)	X
10 FEET	4'-7"
15 FEET	6'-5½"

INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION A-A FOR TYPE 4A



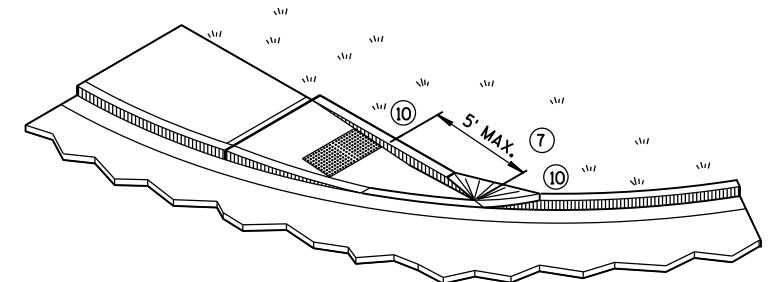
CURB RAMP TYPE 4A1
PLAN VIEW

GENERAL NOTES

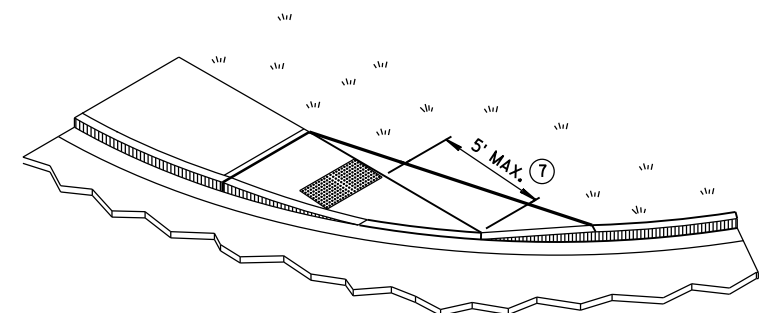
AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- ③ ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- ④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑥ PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.
- ⑦ WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.
- ⑧ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- ⑩ INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



ISOMETRIC VIEW FOR TYPE 4A



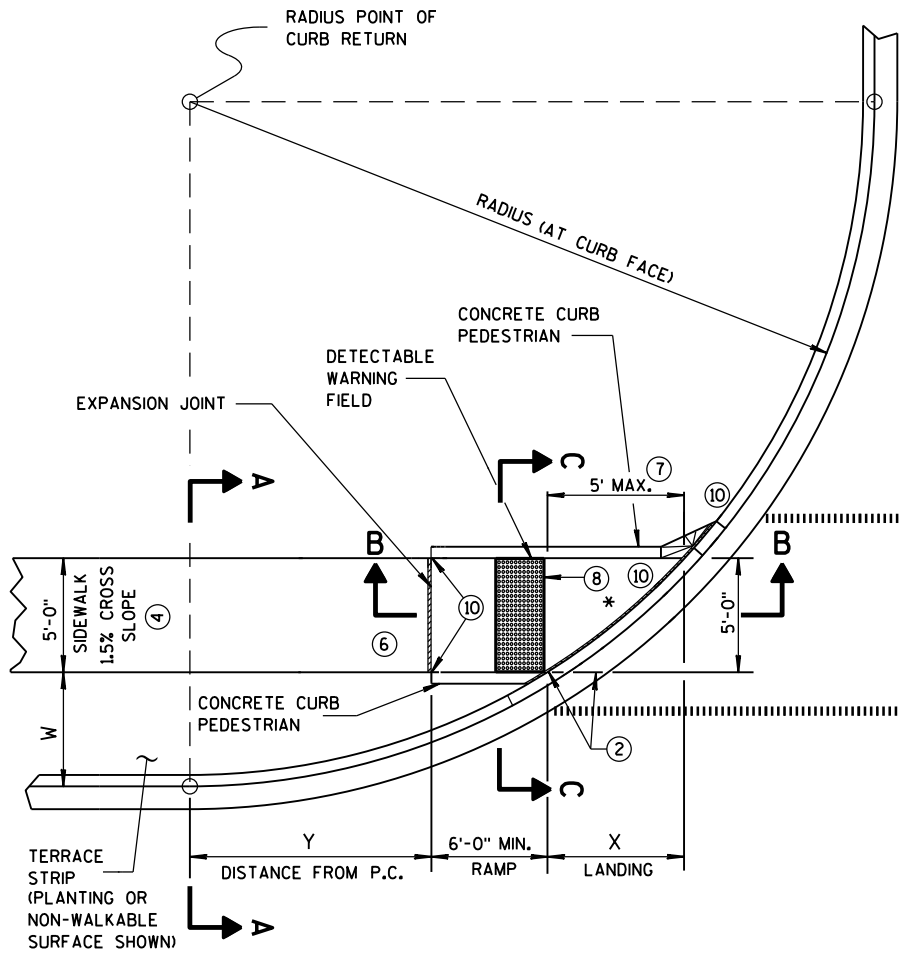
ISOMETRIC VIEW FOR TYPE 4A1

LEGEND

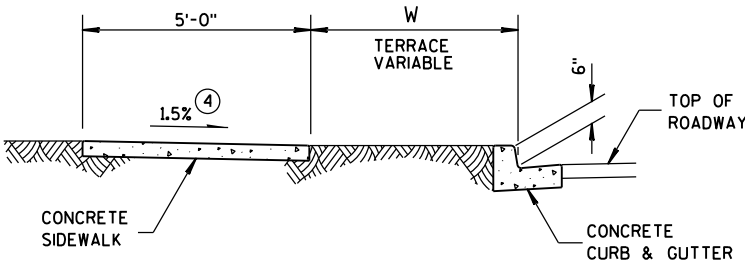
- ½" EXPANSION JOINT-SIDEWALK
- - - CONTRACTION JOINT FIELD LOCATED
- ||||| PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPES 4A AND 4A1

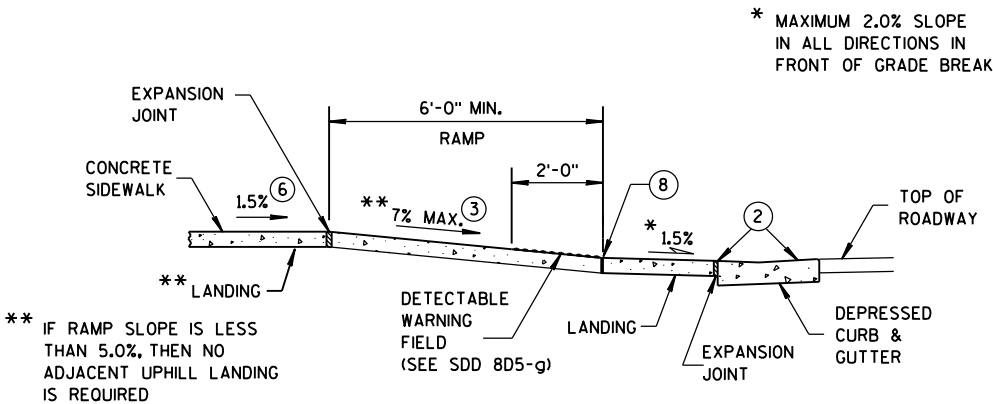
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



**CURB RAMP TYPE 4B
PLAN VIEW**



SECTION A-A FOR TYPE 4B



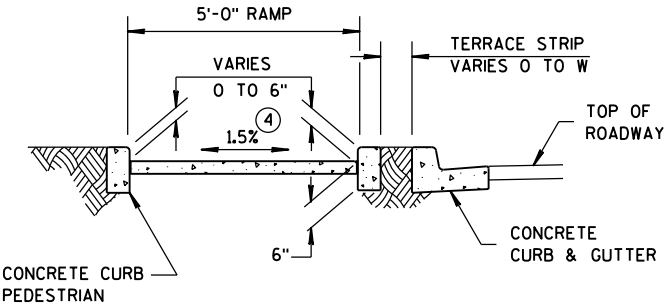
SECTION B-B FOR TYPE 4B

RADIUS (AT CURB FACE)	W = 3' - 0"		W = 4' - 0"		W = 5' - 0"		W = 6' - 0"		W = 7' - 0"		W = 8' - 0"		W = 9' - 0"		W = 10' - 0"	
	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
10 FEET	2'-10 1/4"	0'-5"	2'-1"	1'-4 1/2"	1'-5"	2'-1"	0'-10"	2'-7 1/2"	0'-3 1/4"	3'-0 1/4"						
15 FEET	4'-6 3/4"	2'-1 3/4"	3'-9"	3'-5 1/4"	3'-1 1/4"	4'-6"	2'-6 3/4"	5'-4 1/2"	2'-1"	6'-1"	1'-8"	6'-8 1/2"	1'-3 1/4"	7'-2 1/2"	0'-10 3/4"	7'-7 1/4"
20 FEET	5'-9 3/4"	3'-6 1/2"	4'-11 1/2"	5'-1 3/4"	4'-3 1/4"	6'-5 1/2"	3'-8 3/4"	7'-7"	3'-3"	8'-6 1/2"	2'-10"	9'-4 1/2"	2'-5 1/2"	10'-1 1/4"	2'-1 1/4"	10'-9"
30 FEET			6'-9 1/4"	7'-11 1/4"	6'-0 1/4"	9'-8"	5'-5"	11'-1 3/4"	4'-10 3/4"	12'-5 3/4"	4'-5 1/2"	13'-7 3/4"	4'-0 3/4"	14'-8 1/2"	3'-8 1/2"	15'-8 1/4"
40 FEET									6'-1 3/4"	15'-8 1/2"	5'-8"	17'-2"	5'-3"	18'-5 3/4"	4'-10 3/4"	19'-8 1/4"
50 FEET															5'-10 1/4"	23'-2"

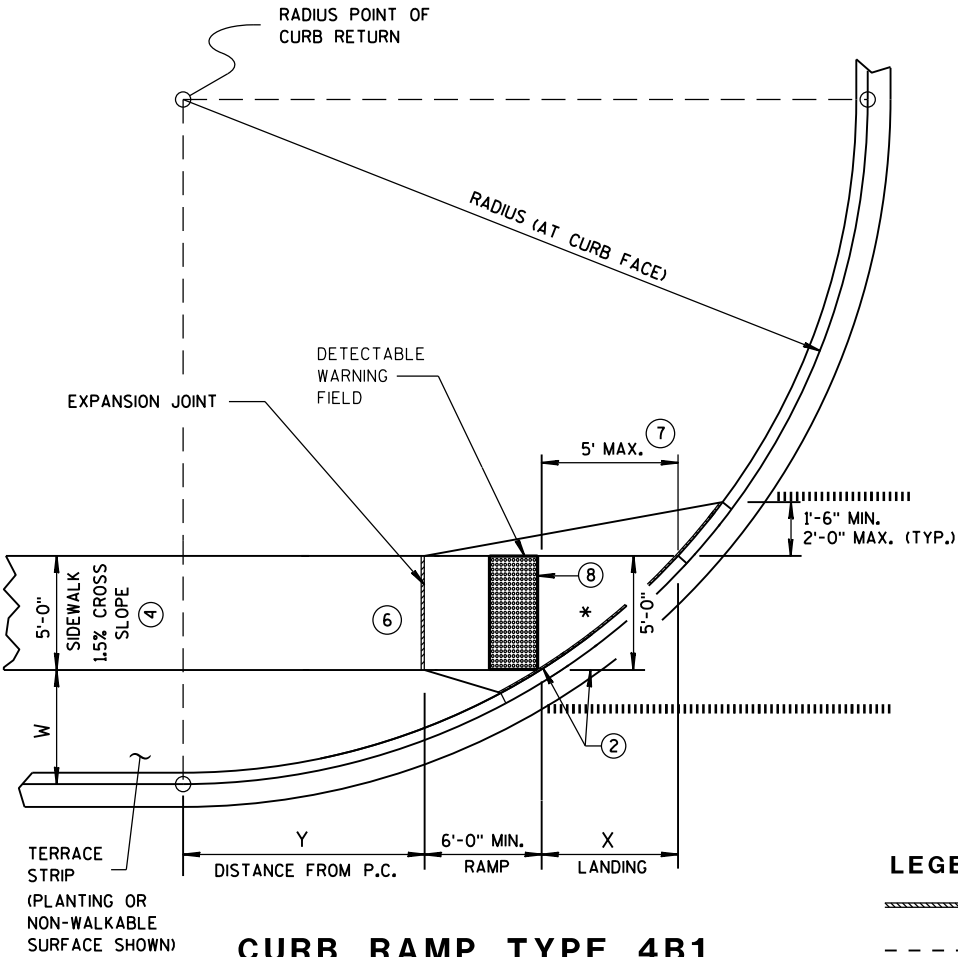
INTERMEDIATE RADII CAN BE INTERPOLATED
DIMENSION "Y" IS CALCULATED BASED ON 6'-0" RAMP LENGTH
DIMENSION "X" IS CALCULATED BASED ON 5'-0" SIDEWALK WIDTH

GENERAL NOTES

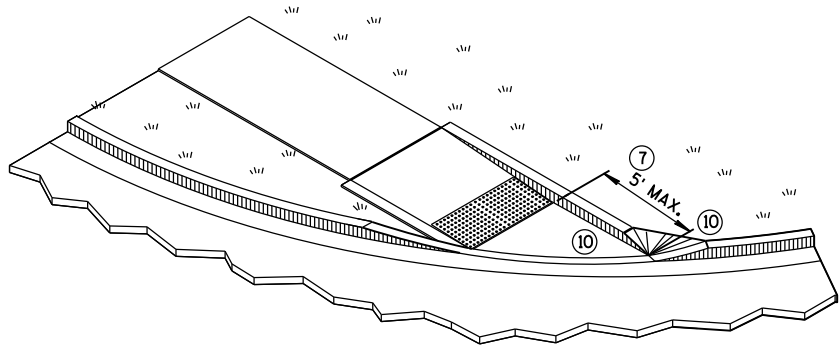
- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS. DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.
- GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.
- WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.
- PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



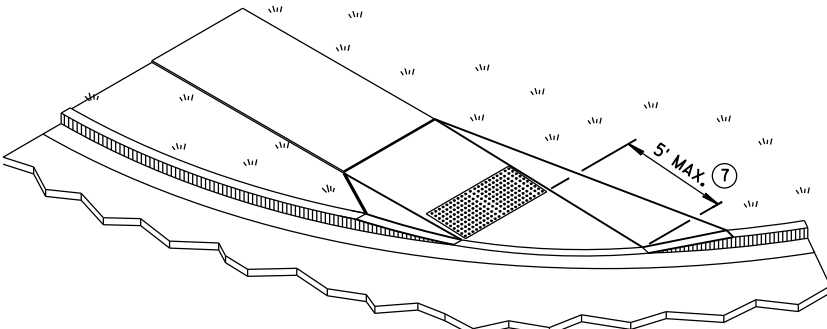
SECTION C-C FOR TYPE 4B



**CURB RAMP TYPE 4B1
PLAN VIEW**



ISOMETRIC VIEW FOR TYPE 4B



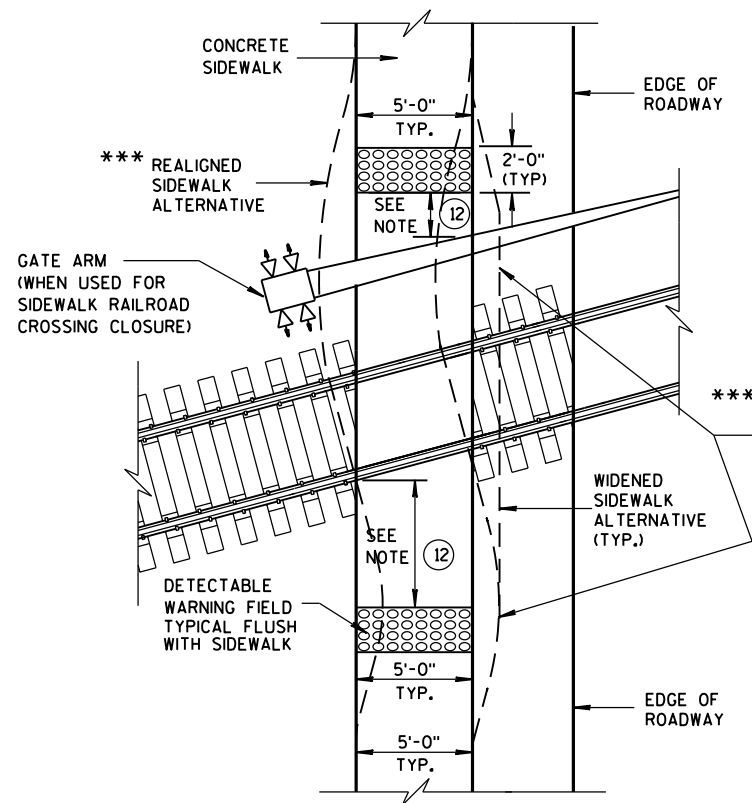
ISOMETRIC VIEW FOR TYPE 4B1

LEGEND

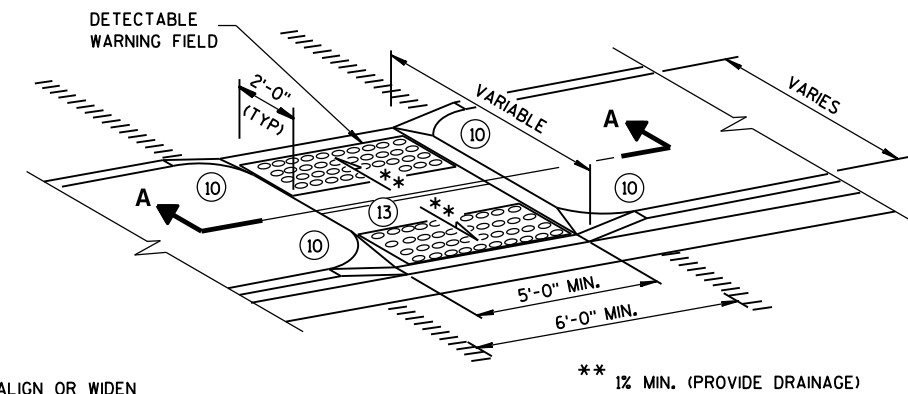
- 1/2" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

**CURB RAMPS
TYPE 4B AND 4B1**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



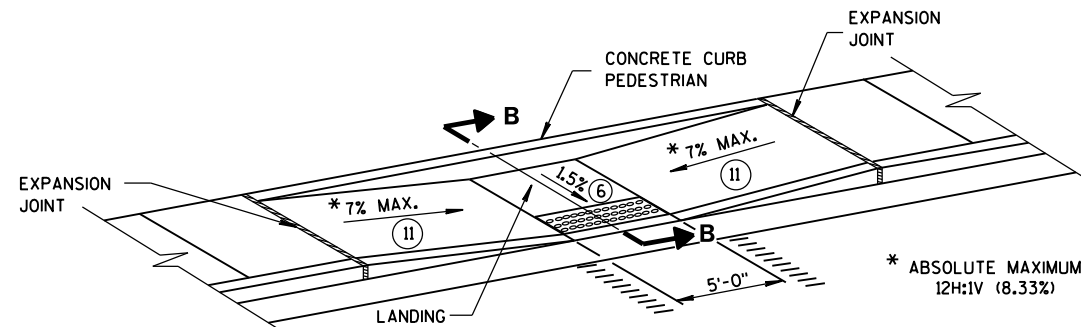
TYPE 8
DETECTABLE WARNINGS
AT RAILROAD CROSSING



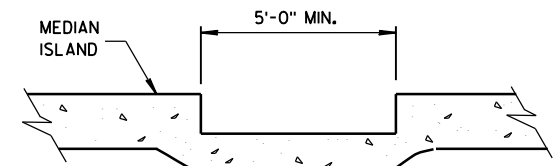
MEDIAN ISLAND
NON-ELEVATED PEDESTRIAN CROSSING
TYPE 5

GENERAL NOTES

- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.
- SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.
- DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- ③ ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- ④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑥ PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.
- ⑩ INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.
- ⑪ SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.
- ⑫ THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 15 FEET ± 0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD CROSSING SHALL BE 15 FEET FROM THE NEAREST RAIL.
- ⑬ DO NOT INSTALL DETECTABLE WARNING FIELDS AT THE EDGES OF STREET-LEVEL PEDESTRIAN REFUGE ISLANDS IF A MINIMUM 2-FOOT CONCRETE SURFACE WITHOUT DETECTABLE WARNINGS (MEASURED IN THE DIRECTION OF PEDESTRIAN TRAVEL) CANNOT BE ACHIEVED.

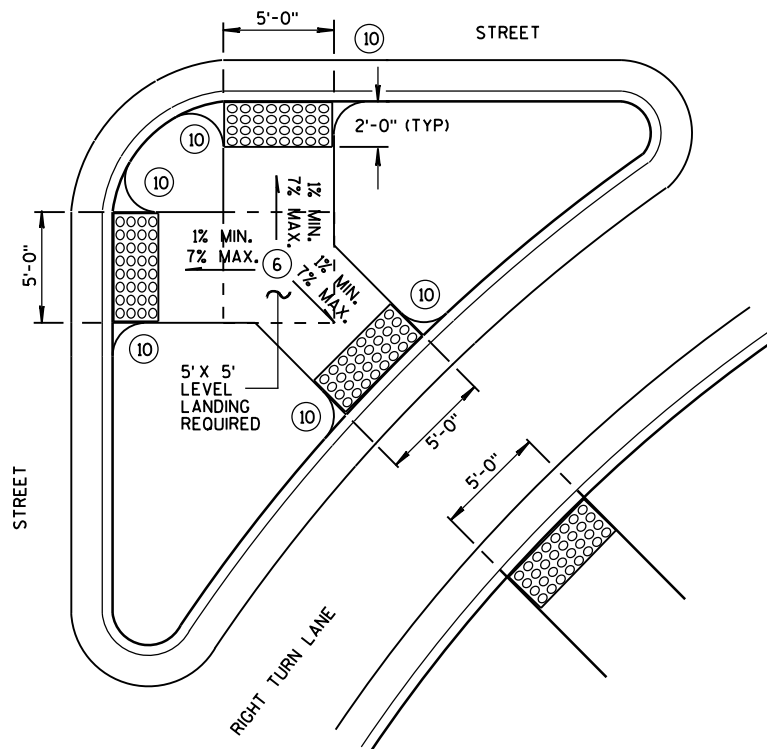


MID-BLOCK CROSSING
TYPE 7A

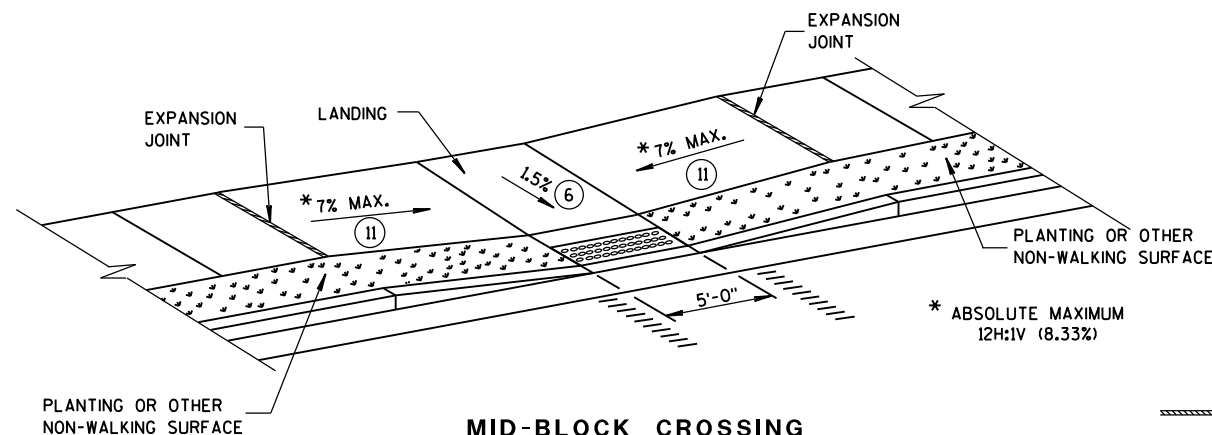


SECTION A-A

REFER TO GENERAL NOTES ② AND ③
FOR ALL ISLAND CURB RAMPS

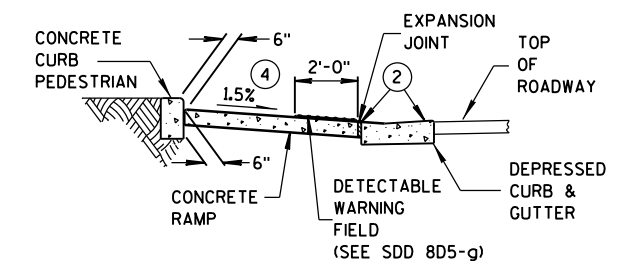


TYPE 6
DETECTABLE WARNING AT ISLANDS



MID-BLOCK CROSSING
TYPE 7B

NOTE: THESE PARALLEL AND PARALLEL/PERPENDICULAR CURB RAMPS
MAY BE USED AT INTERSECTIONS AND MID BLOCK LOCATIONS.



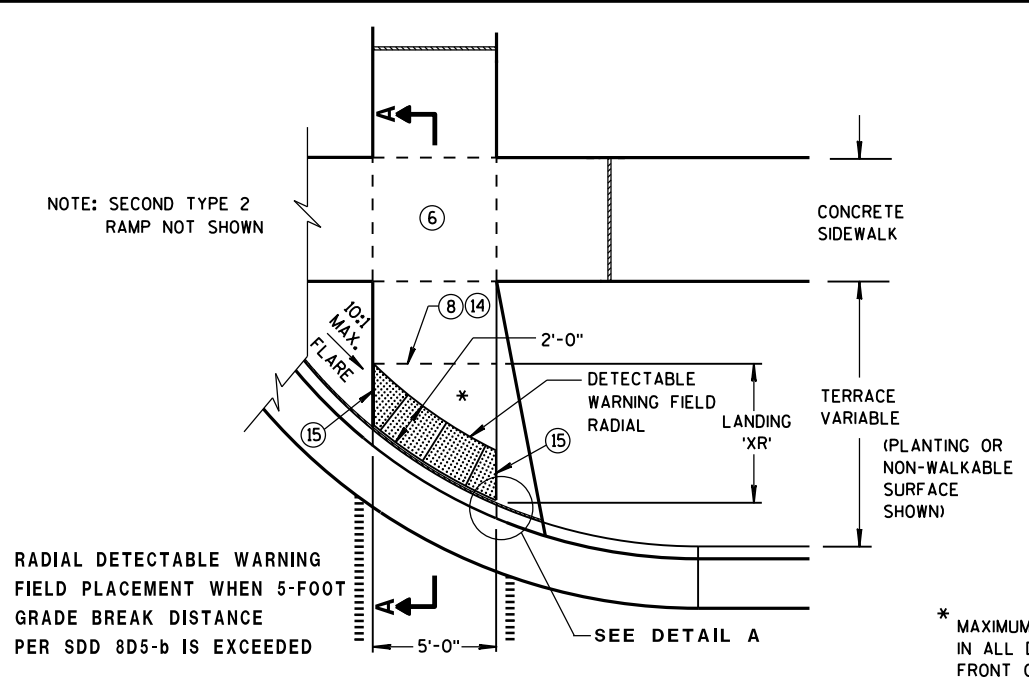
SECTION B-B

LEGEND

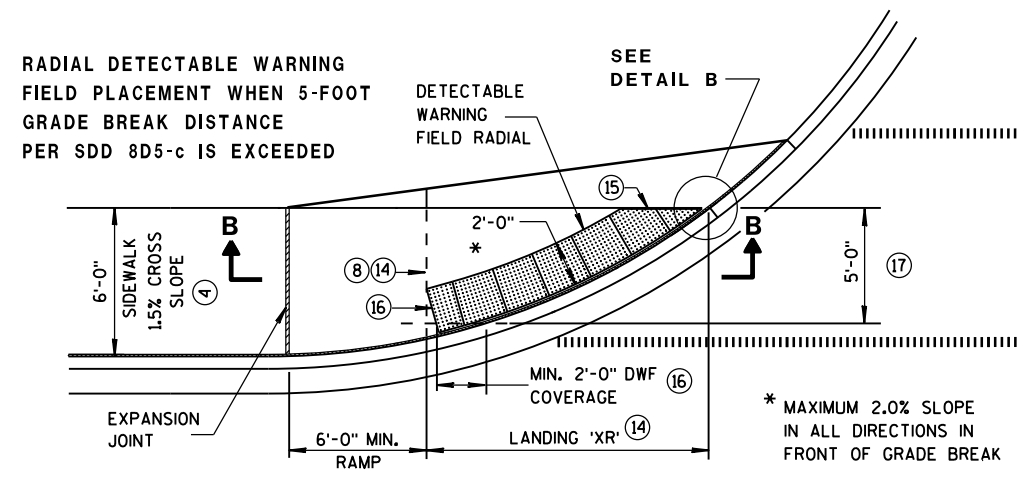
- 1/2" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPES 5, 6, 7A, 7B & 8

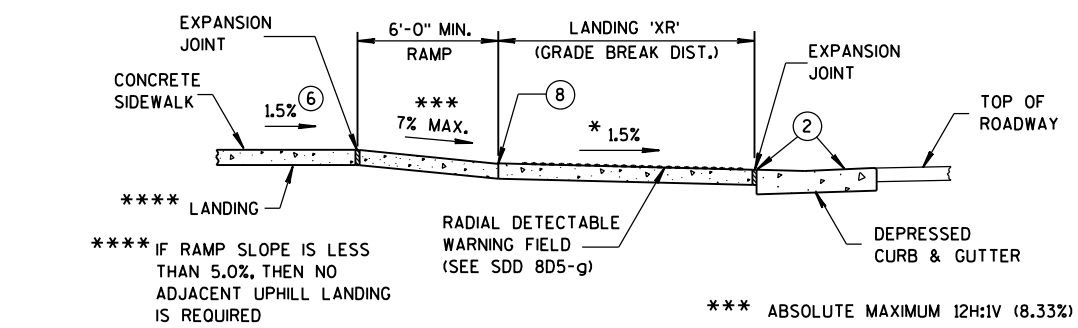
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



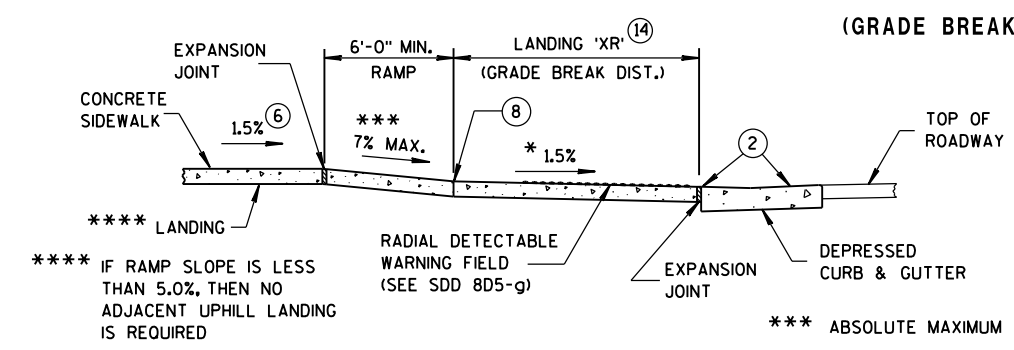
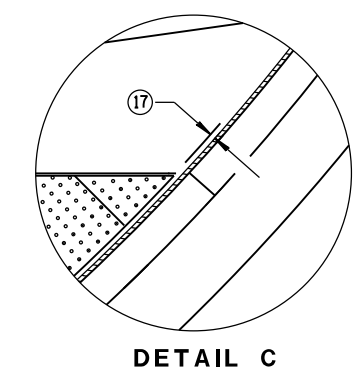
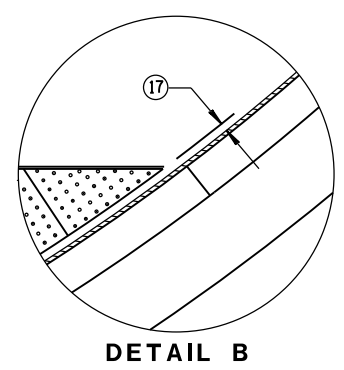
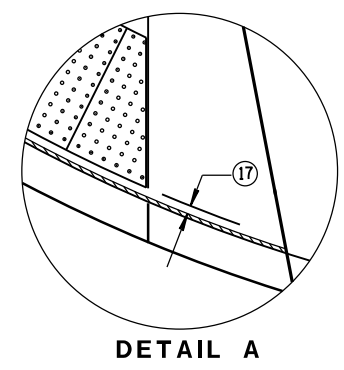
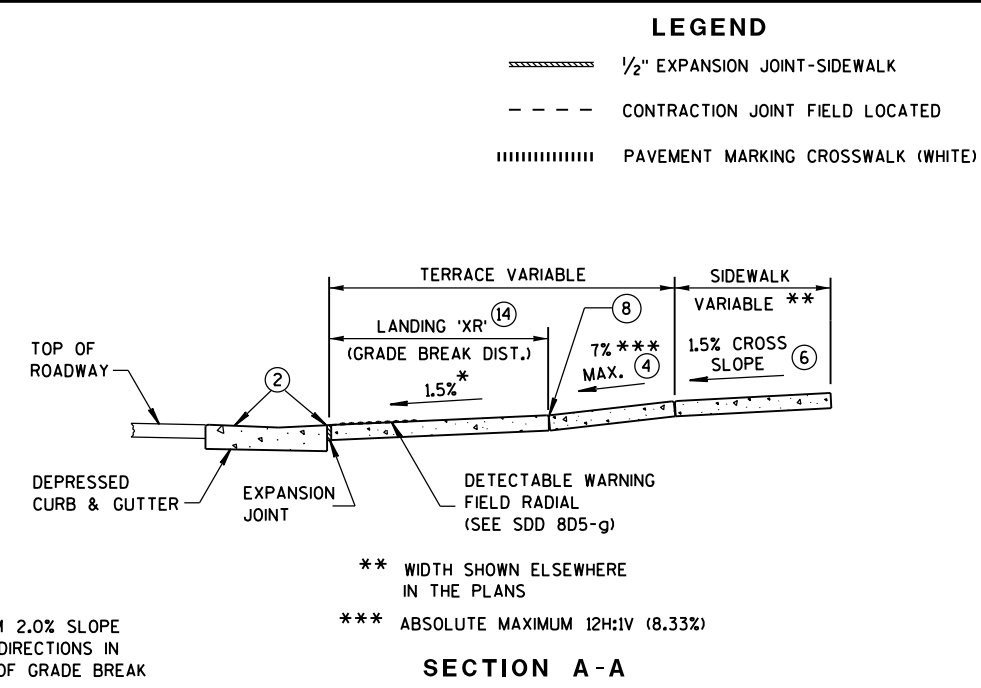
TYPE 2 RAMP
PLAN VIEW
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)
(ON LINE WITH SIDEWALK)



CURB RAMP TYPE 4A1
PLAN VIEW
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)

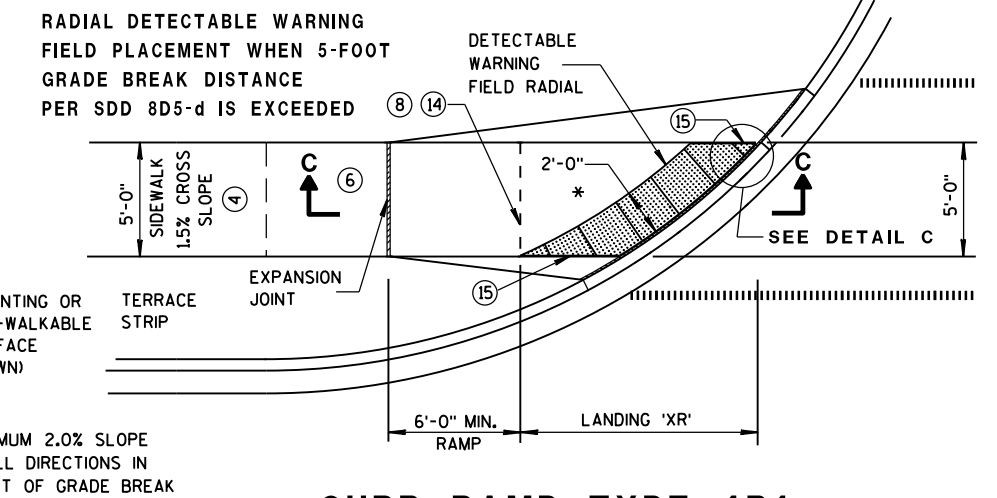


SECTION B-B FOR TYPE 4A1



SECTION C-C FOR TYPE 4B1

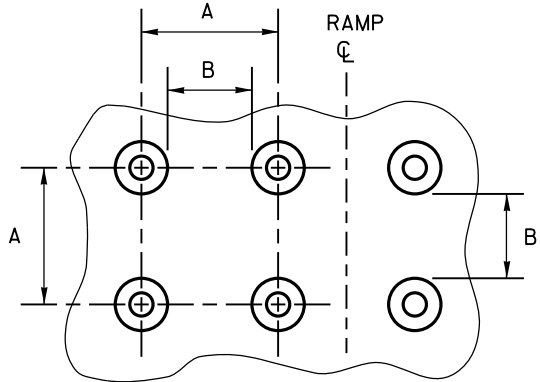
- GENERAL NOTES**
- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.
- DETECTABLE WARNING FIELDS (DWFs) THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.
- APPLY RADIAL DETECTABLE WARNING PLACEMENT SIMILARLY FOR TYPE 4A AND 4A1 CURB RAMPS AND SIMILARLY FOR TYPE 4B AND 4B1 CURB RAMPS. TYPE 4A AND 4B CURB RAMPS ARE NOT SHOWN.
- REFER TO SDD 8D5-g FOR ADDITIONAL RADIAL PLATE REQUIREMENTS.
- FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FIELD ARE PROHIBITED.
- DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.
- 2 GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
 - 3 ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
 - 4 ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
 - 6 PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET.
 - 8 PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
 - 14 CONSULT ENGINEER IF GRADE BREAK LOCATION (END OF LANDING DIMENSION 'XR') REQUIRES FIELD ADJUSTMENT WHEN ESTABLISHING FINAL RADIAL DETECTABLE WARNING FIELD LOCATION.
 - 15 FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN 1/8" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.
 - 16 USE 1'X 2' RECTANGULAR END PLATE AT END OF TYPE 4A1 RAMP AND PROVIDE MINIMUM 2'-0" DETECTABLE WARNING FIELD COVERAGE (IN DIRECTION OF PEDESTRIAN TRAVEL) ALONG THE ENTIRE CURB RAMP WIDTH.
 - 17 A MAXIMUM 3-INCH CONCRETE BORDER WIDTH IS ALLOWABLE IN FRONT OF RADIAL DETECTABLE WARNING FIELD FOR CONSTRUCTABILITY PURPOSES. CONCRETE BORDER WIDTH MAY VARY UP TO 1 INCH.



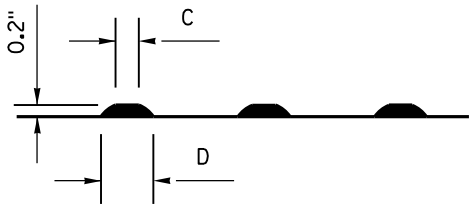
CURB RAMP TYPE 4B1
PLAN VIEW
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)

	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	*	*
D	0.9"	1.4"

* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.

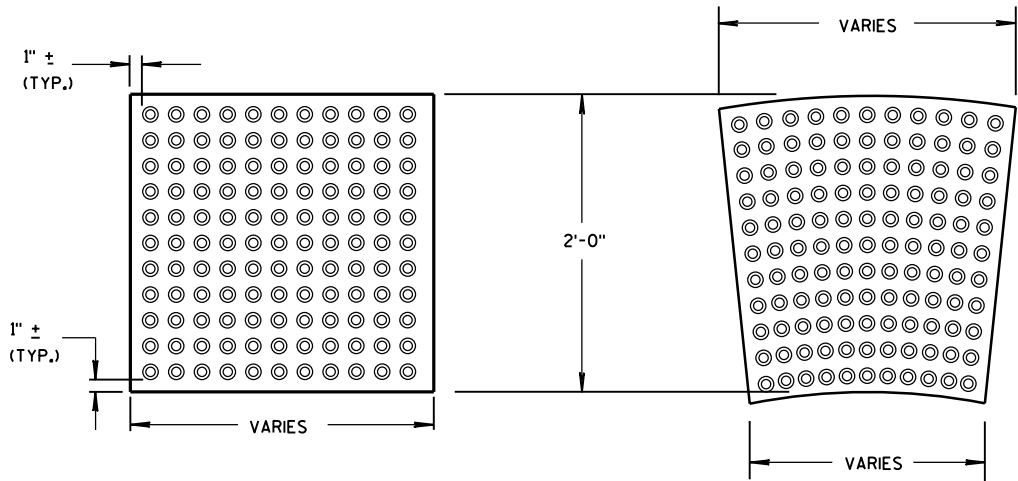


PLAN VIEW



ELEVATION VIEW

TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL



RECTANGULAR PLATES
RADIAL PLATES
DETECTABLE WARNING FIELDS (TYPICAL)

PLAN VIEW

GENERAL NOTES

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

PLACE ALL DETECTABLE WARNING FIELD SYSTEMS IN ACCORDANCE TO THE MANUFACTURER'S RECOMMENDATION.

FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FIELD ARE PROHIBITED.

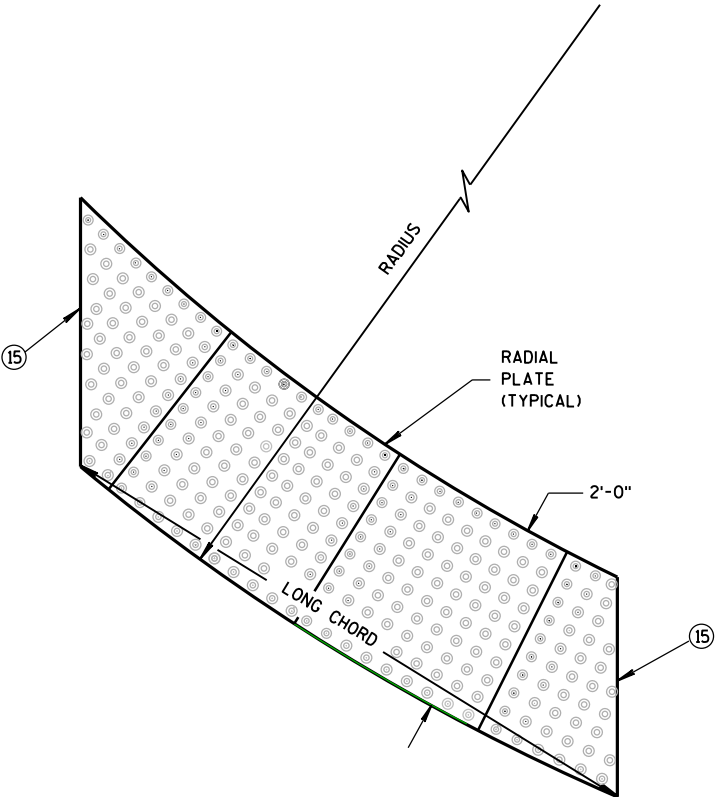
DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

FOR RADIAL DETECTABLE WARNING FIELD APPLICATIONS WHERE STANDARD RADIAL PLATES ARE NOT AVAILABLE AT AN INTERSECTION CURB RADIUS, A COMBINATION OF SQUARE OR RECTANGULAR PLATES AND RADIAL PLATES MAY BE USED TO FORM RADIAL CONFIGURATION. RADIAL WEDGES IN COMBINATION WITH SQUARE PANELS ARE ALSO ACCEPTABLE. FOLLOW MANUFACTURER'S RECOMMENDATIONS.

REFER TO CONTRACT AND STANDARD SPECIFICATIONS FOR FIELD CUTTING REQUIREMENTS.

DO NOT EMBED IN CONCRETE ANY FIELD-CUT PLATES WITH CUT EDGES SHORTER THAN 6 INCHES. CONSULT WITH MANUFACTURER FOR RE-DRILLING AND ANCHORING REQUIREMENTS OF FIELD-CUT PLATES.

15 FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN 1/8" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.

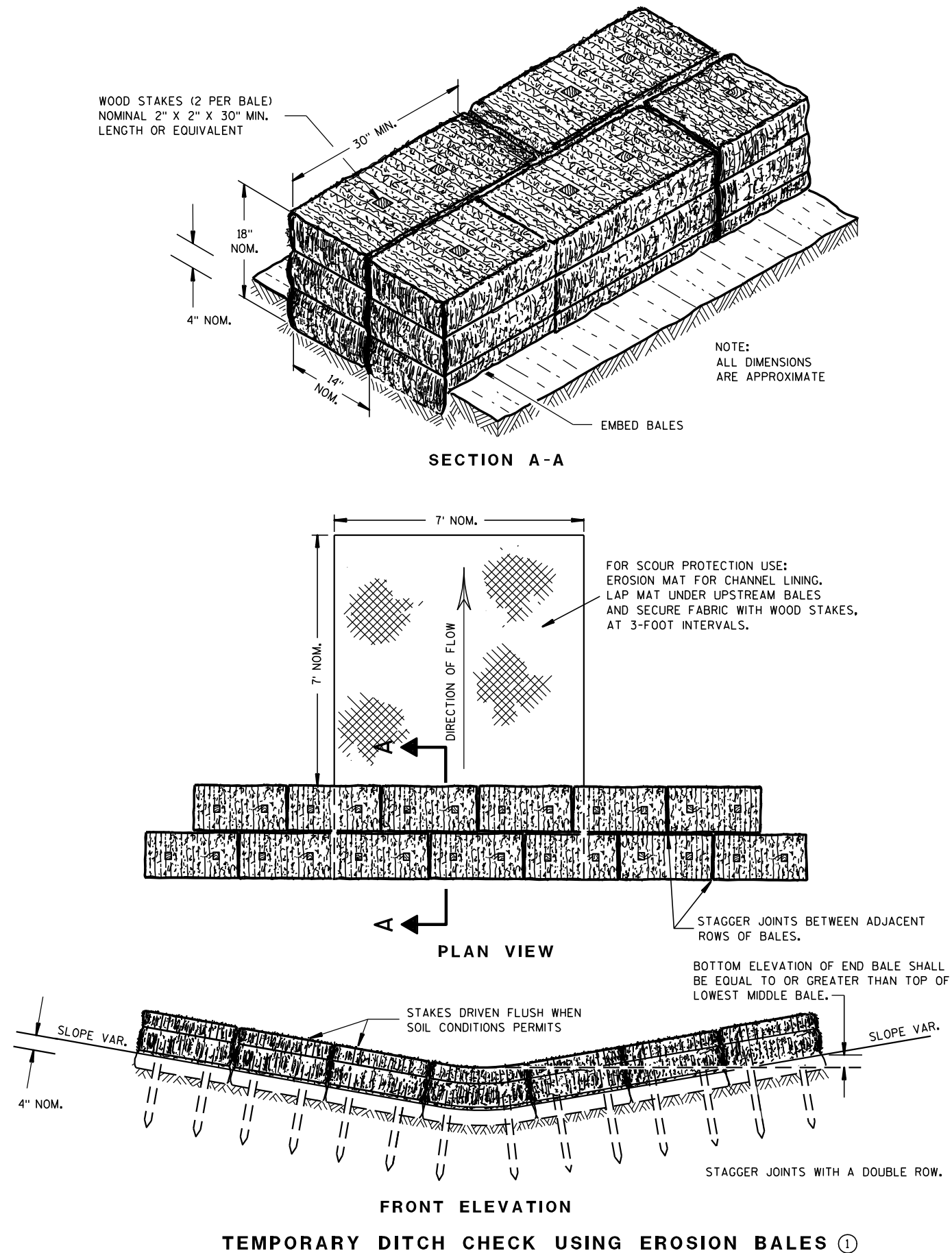


RADIAL DETECTABLE
WARNING FIELD ATTRIBUTES

CURB RAMPS
RECTANGULAR AND RADIAL
DETECTABLE WARNING PLATES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

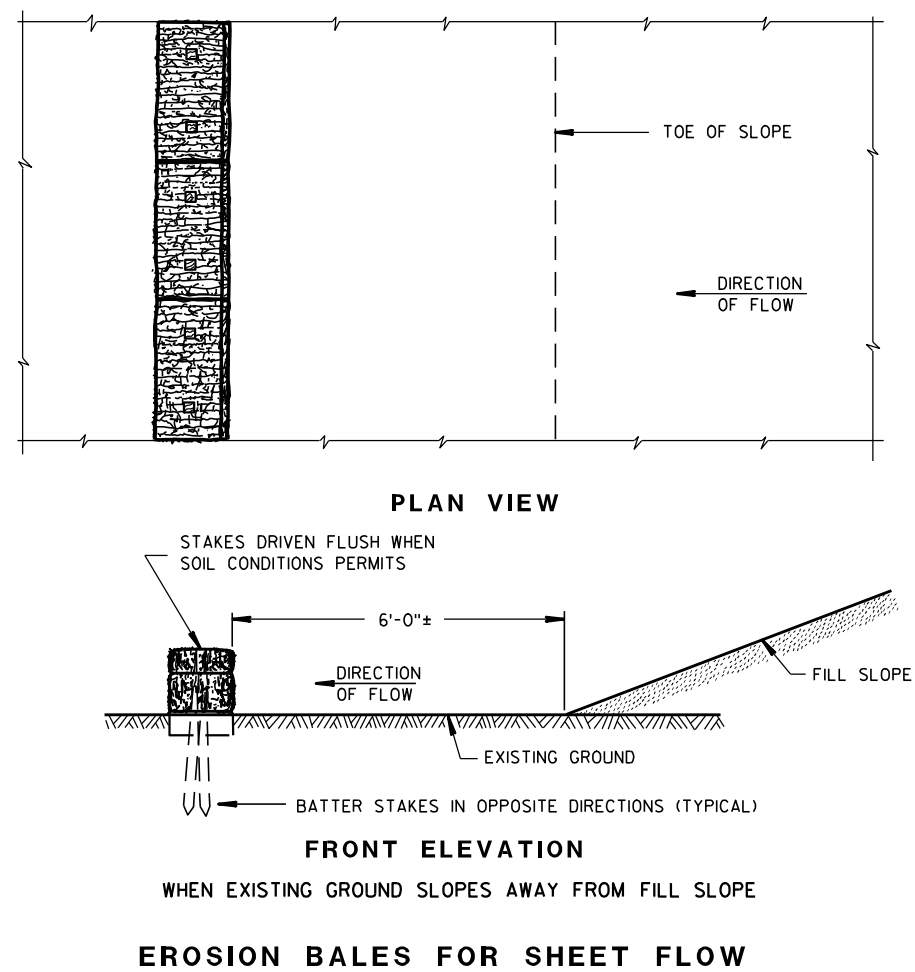
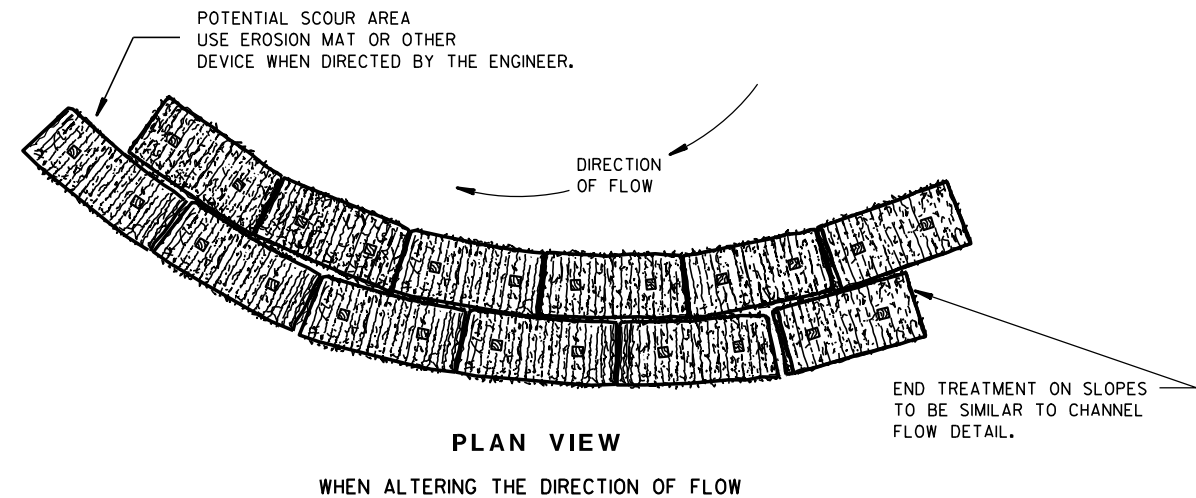
APPROVED
June, 2017 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA UNIT SUPERVISOR



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.

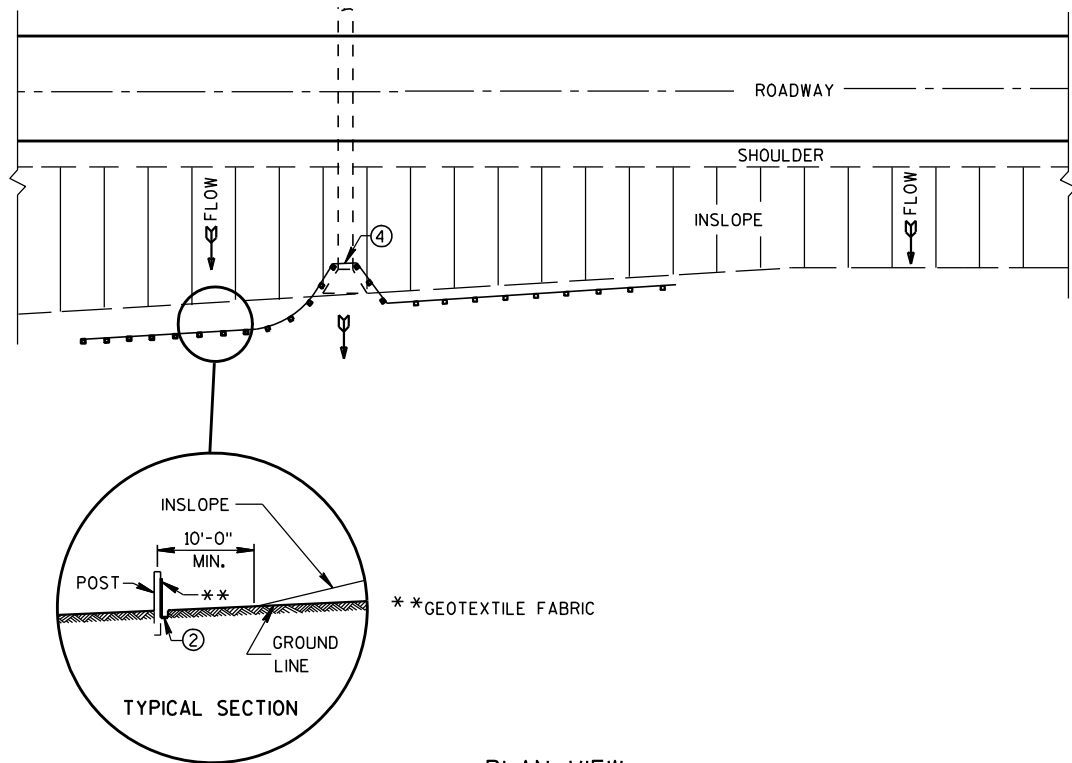
TYPICAL INSTALLATIONS OF
EROSION BALES / TEMPORARY
DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

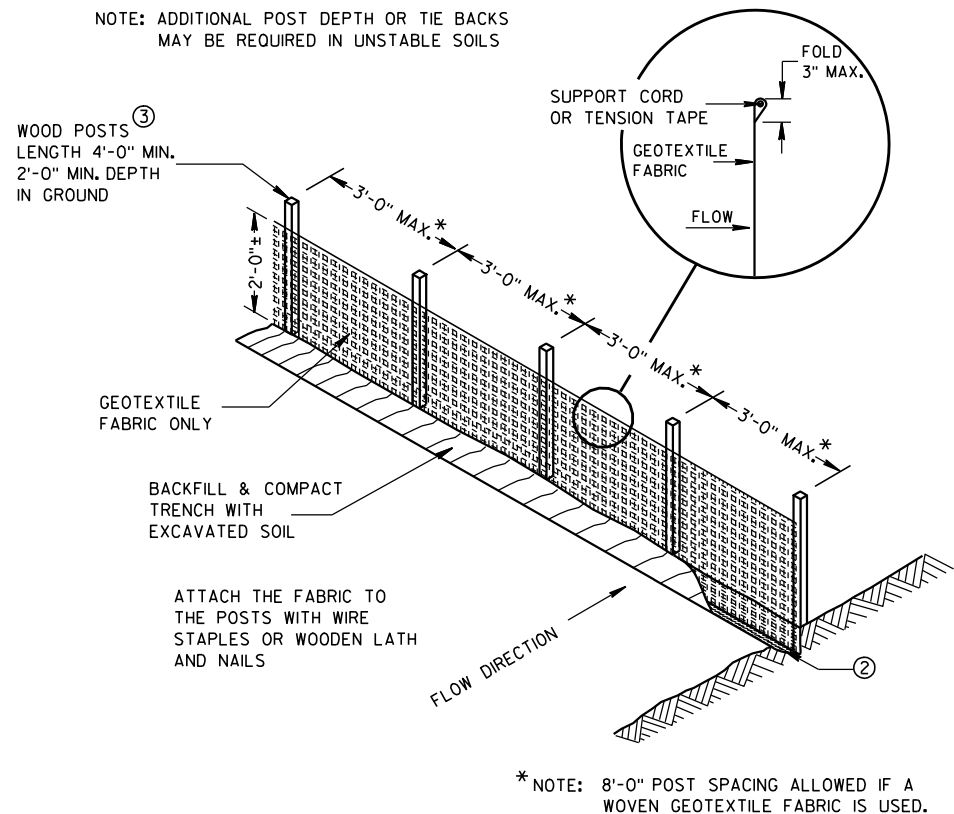
APPROVED

6/04/02
DATE/S/ Beth Canestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

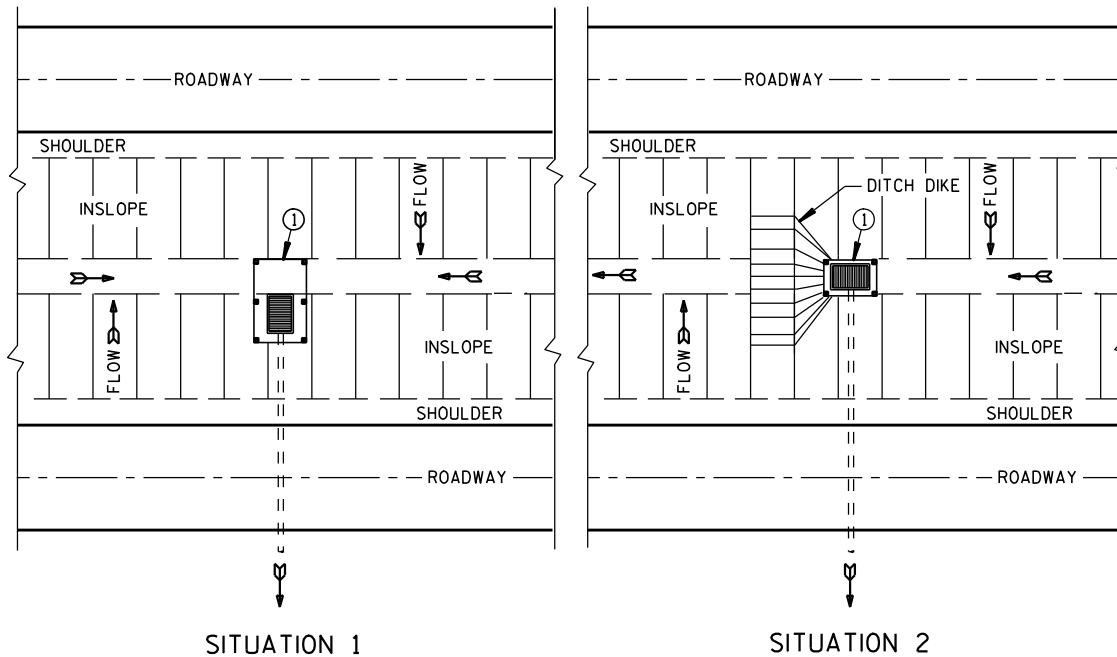
FHWA



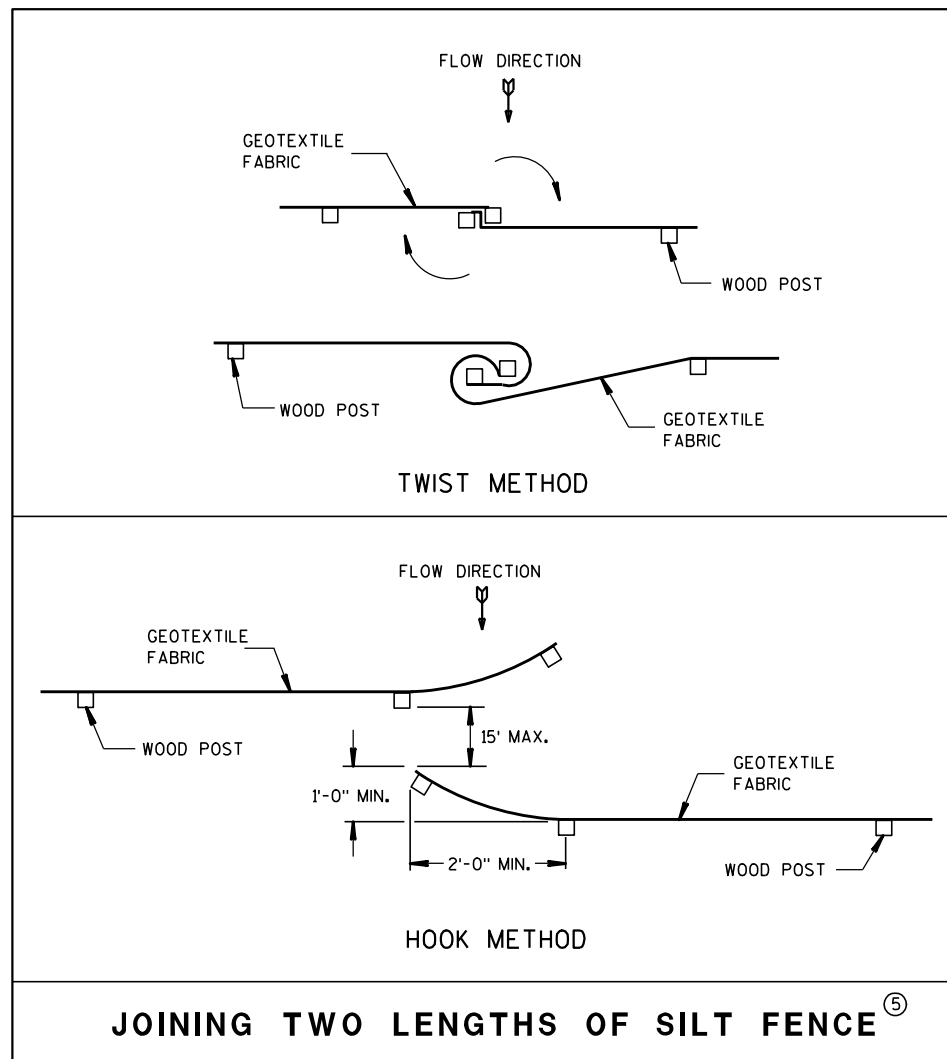
PLAN VIEW
TYPICAL APPLICATION OF SILT FENCE



SILT FENCE



SITUATION 1
SITUATION 2
PLAN VIEW
SILT FENCE AT MEDIAN SURFACE DRAINS

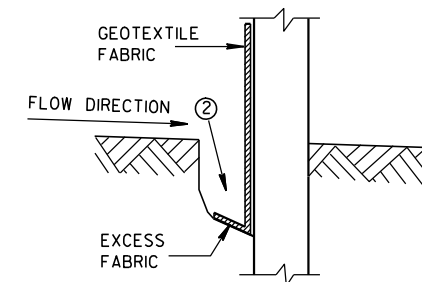


JOINING TWO LENGTHS OF SILT FENCE ⑤

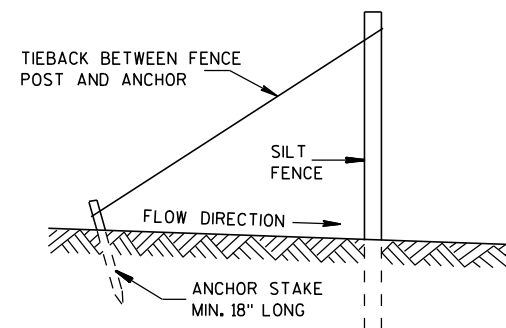
GENERAL NOTES

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 1 1/8" X 1 1/8" 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.

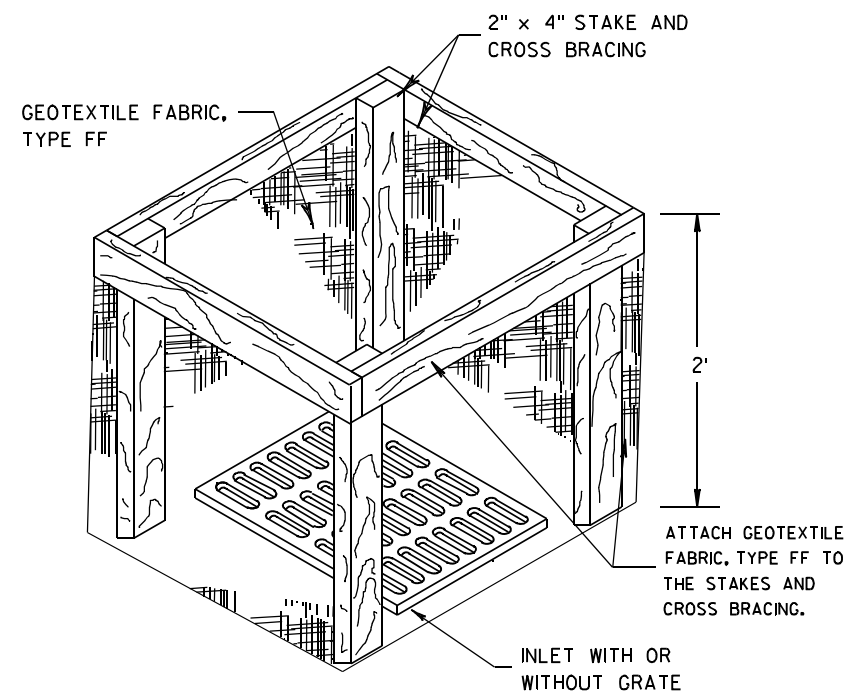
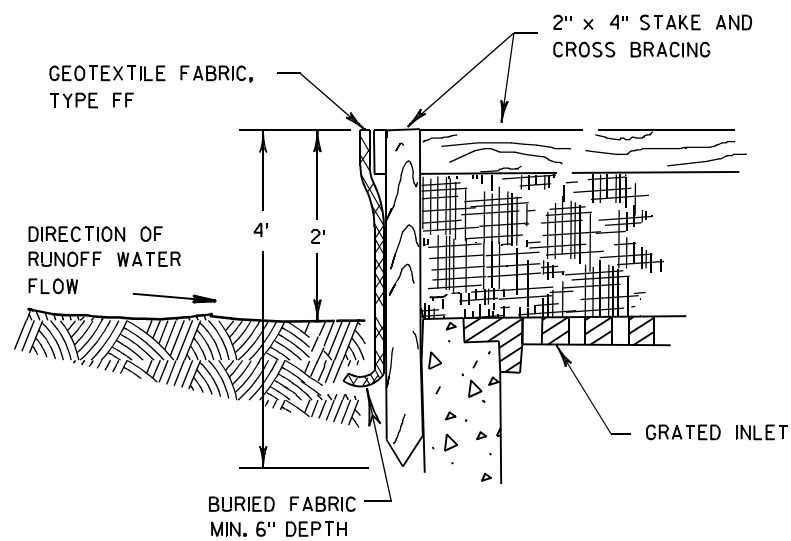


TRENCH DETAIL



SILT FENCE TIE BACK
(WHEN REQUIRED BY THE ENGINEER)

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



INLET PROTECTION, TYPE A

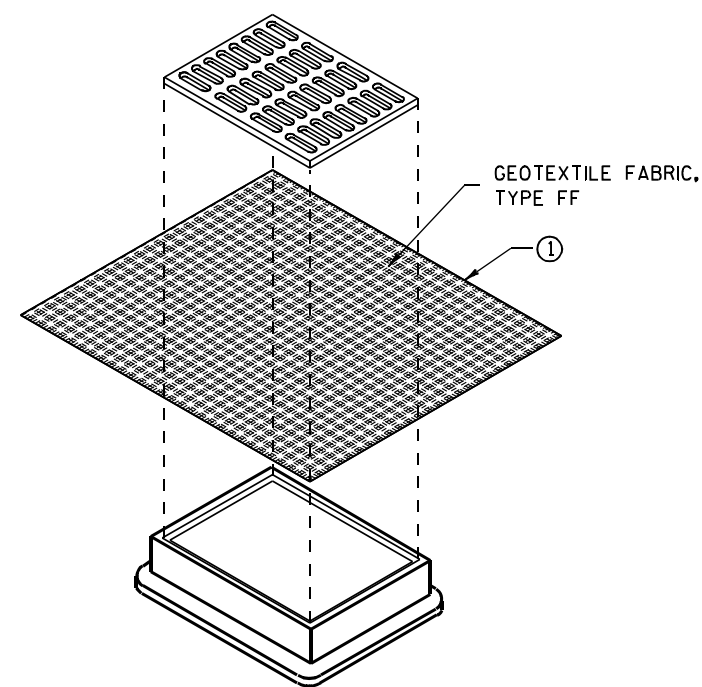
GENERAL NOTES

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.

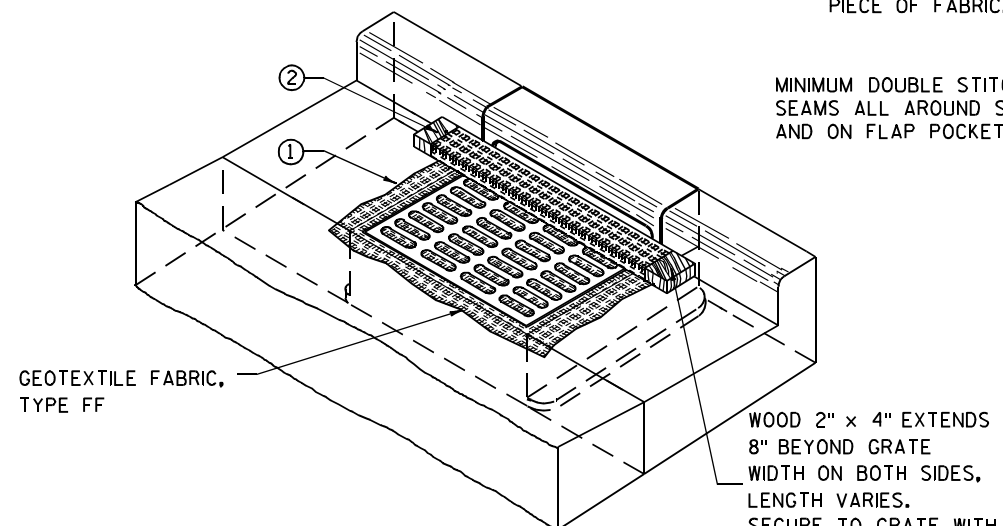
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- 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.

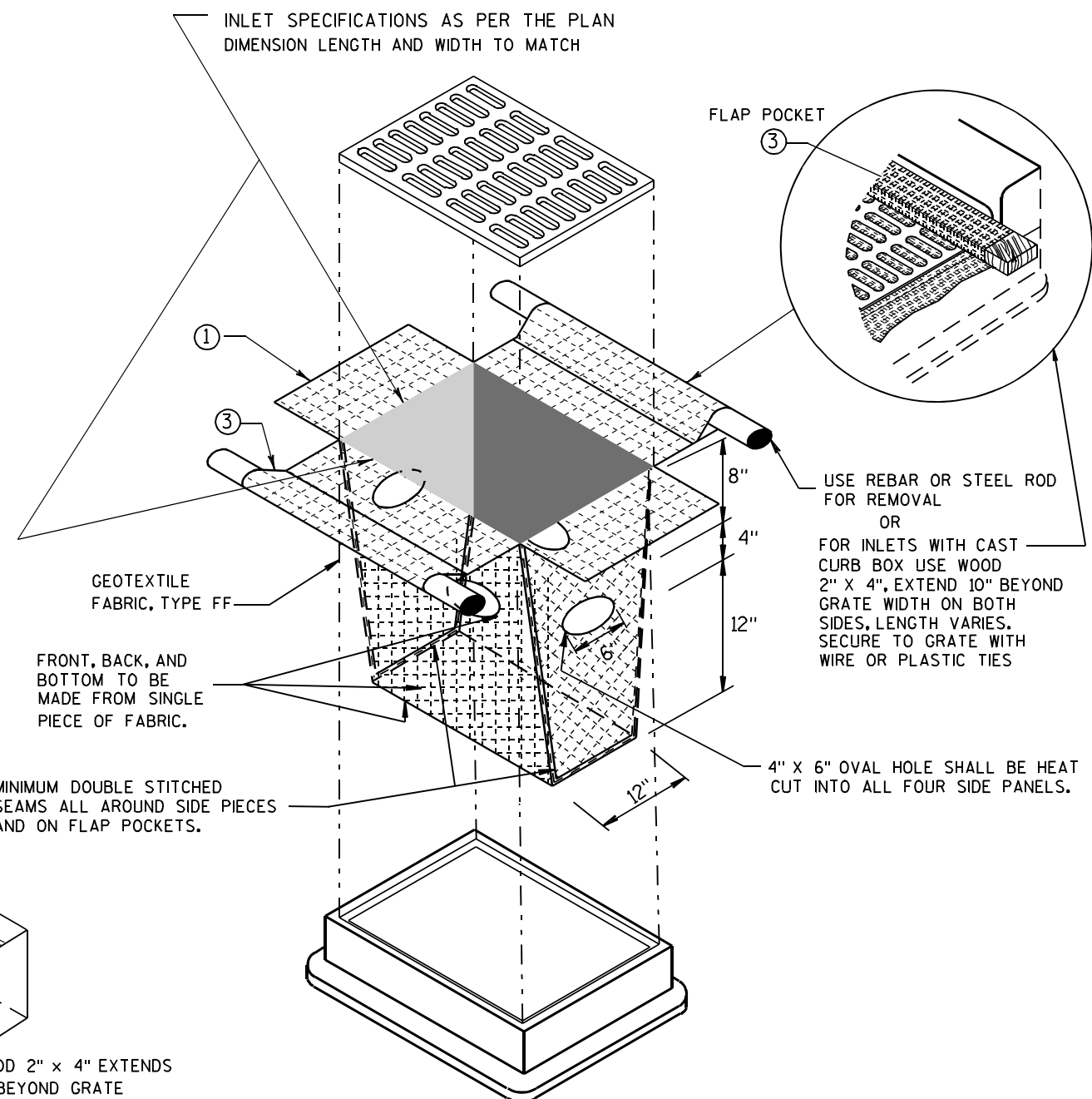
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

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.



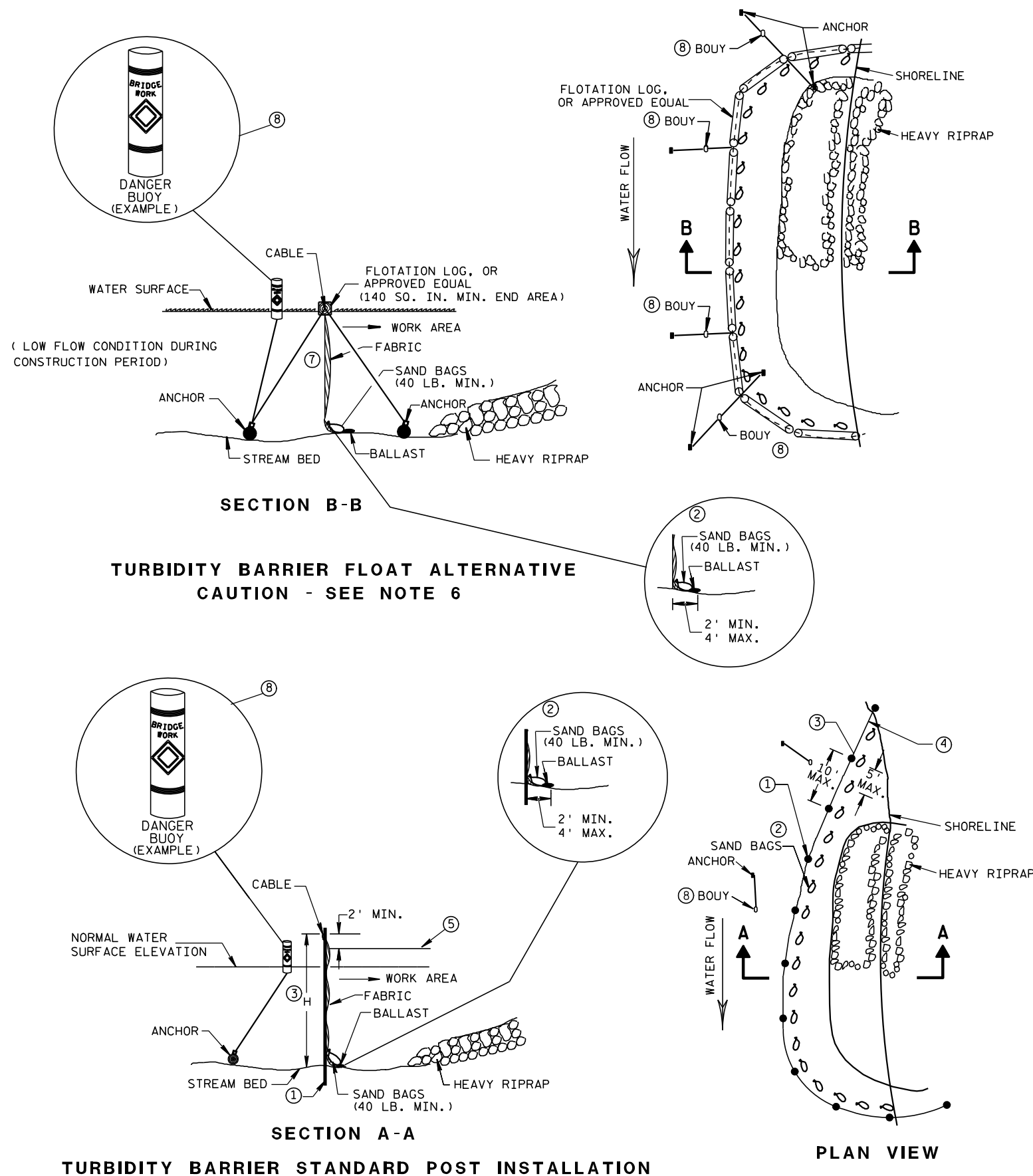
INLET PROTECTION, TYPE D

(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

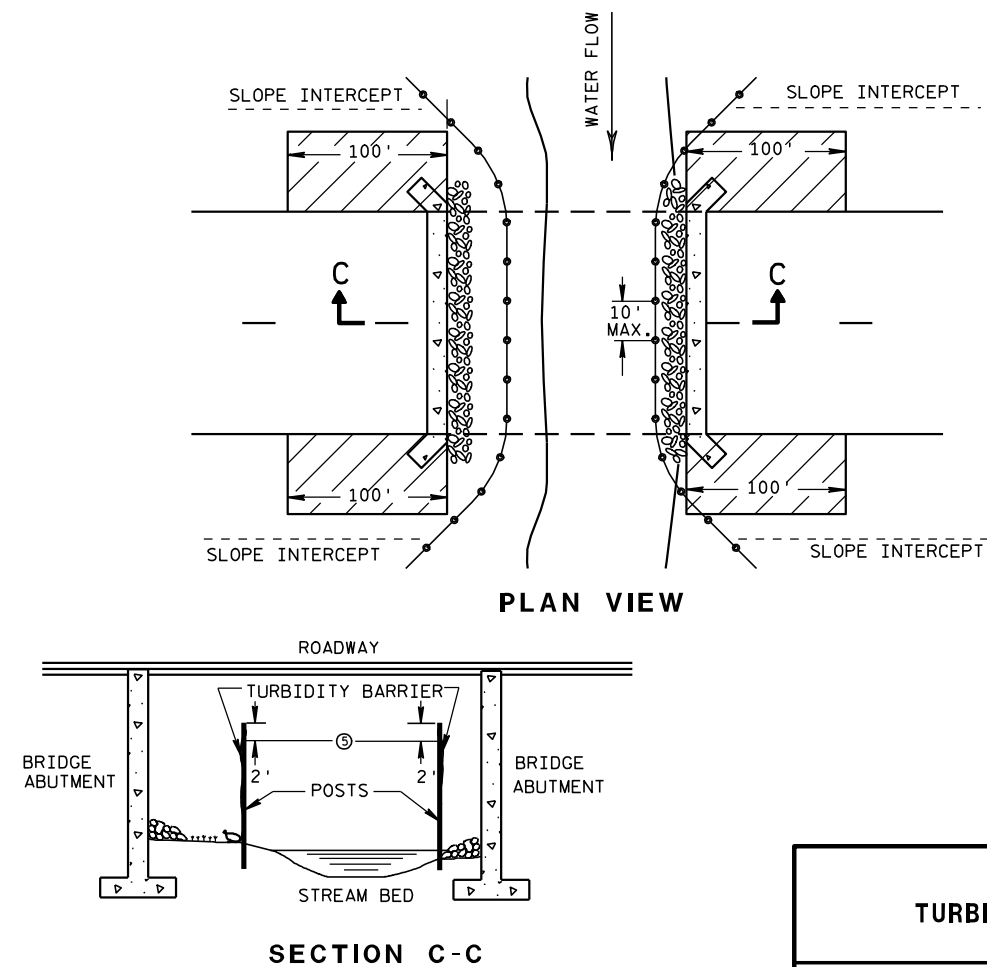


GENERAL NOTES

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

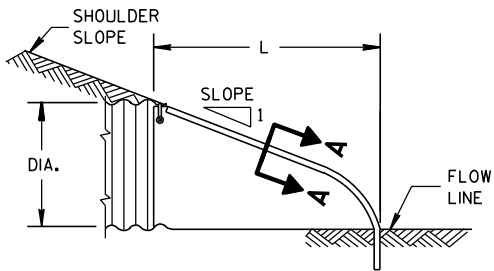
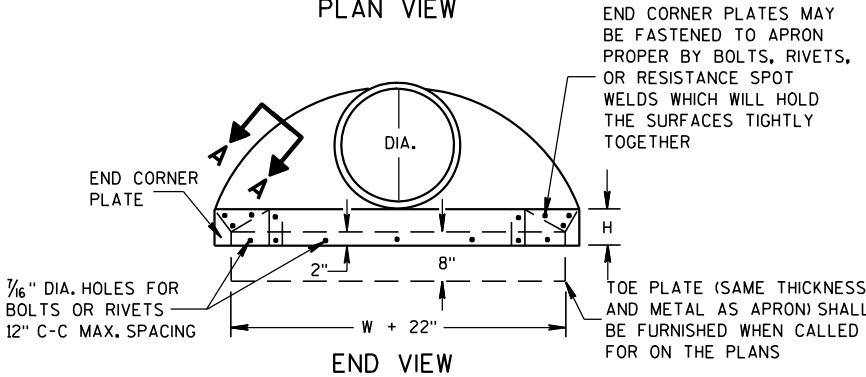
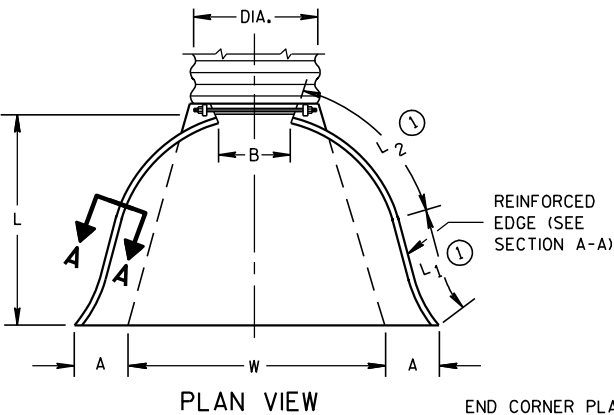
DATE

FHWA

/S/ Beth Canestra
CHIEF ROADWAY 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.

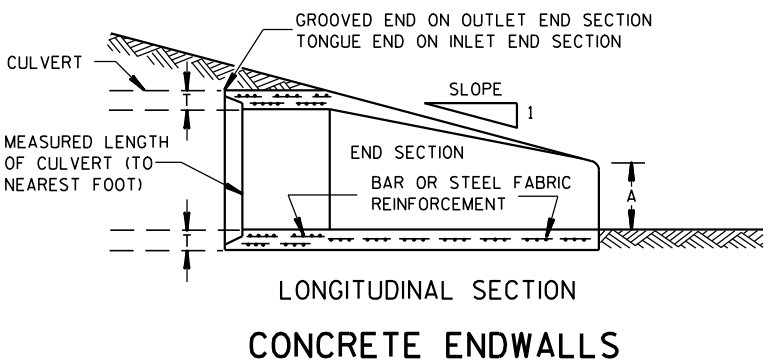
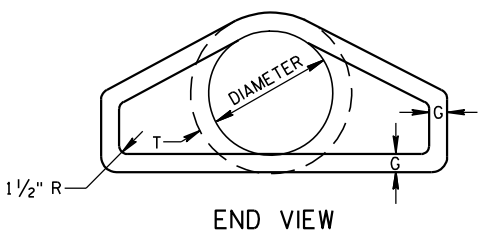
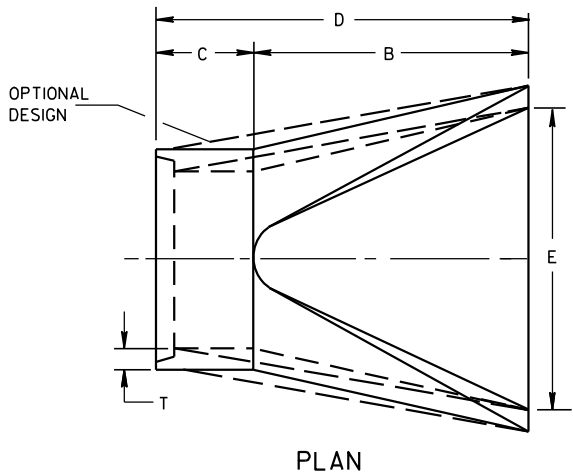
* EXCEPT CENTER PANEL
SEE GENERAL NOTES



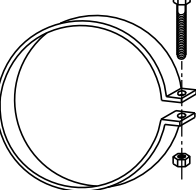
METAL ENDWALLS

REINFORCED CONCRETE APRON ENDWALLS											
PIPE DIA. (IN.)	DIMENSIONS (Inches)							APPROX. SLOPE			
	T	A	B	C	D	E	G				
12	2	4	24	48 1/8	72 1/8	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 1/2 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			

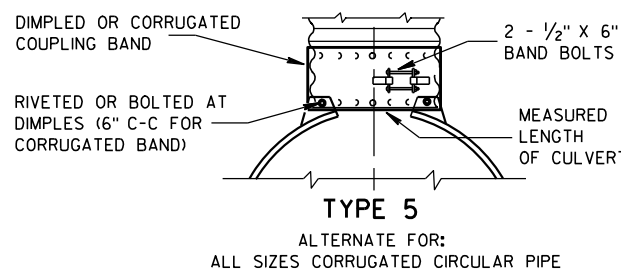
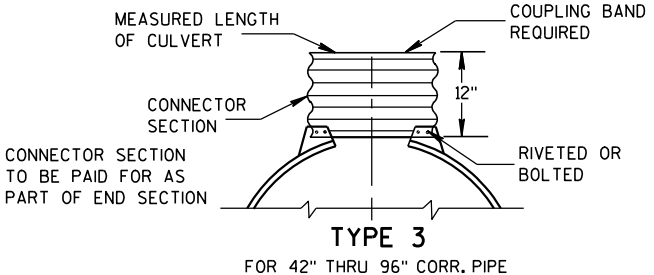
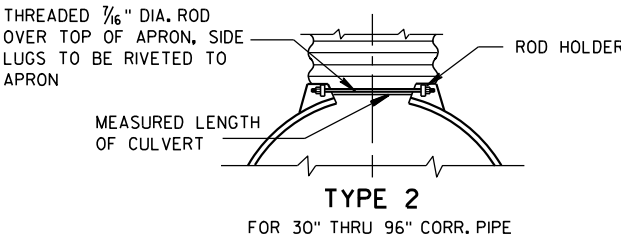
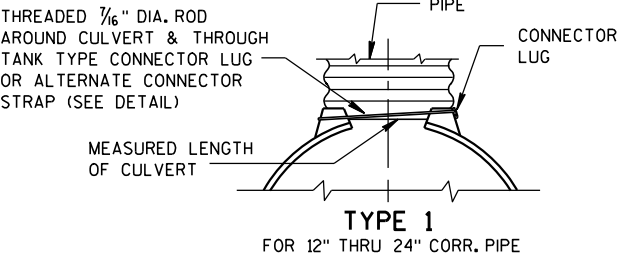
* MINIMUM
** MAXIMUM



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



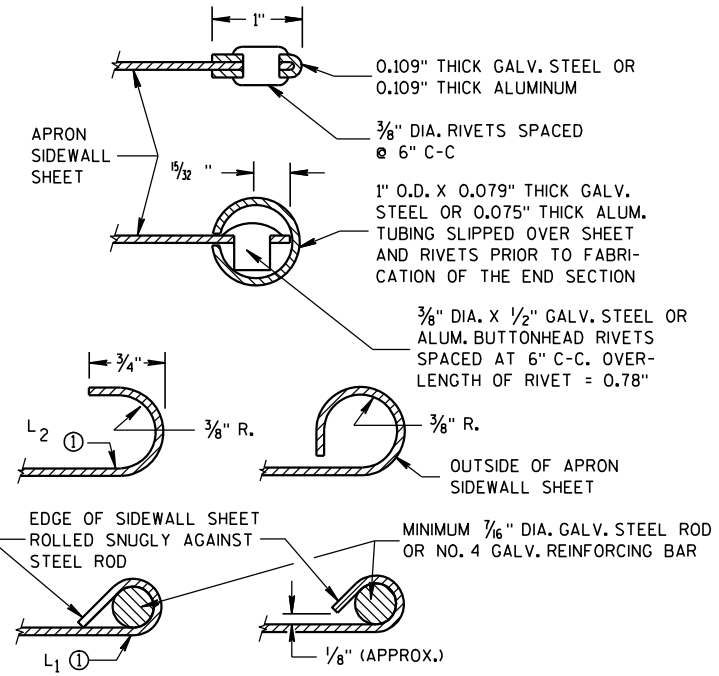
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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.

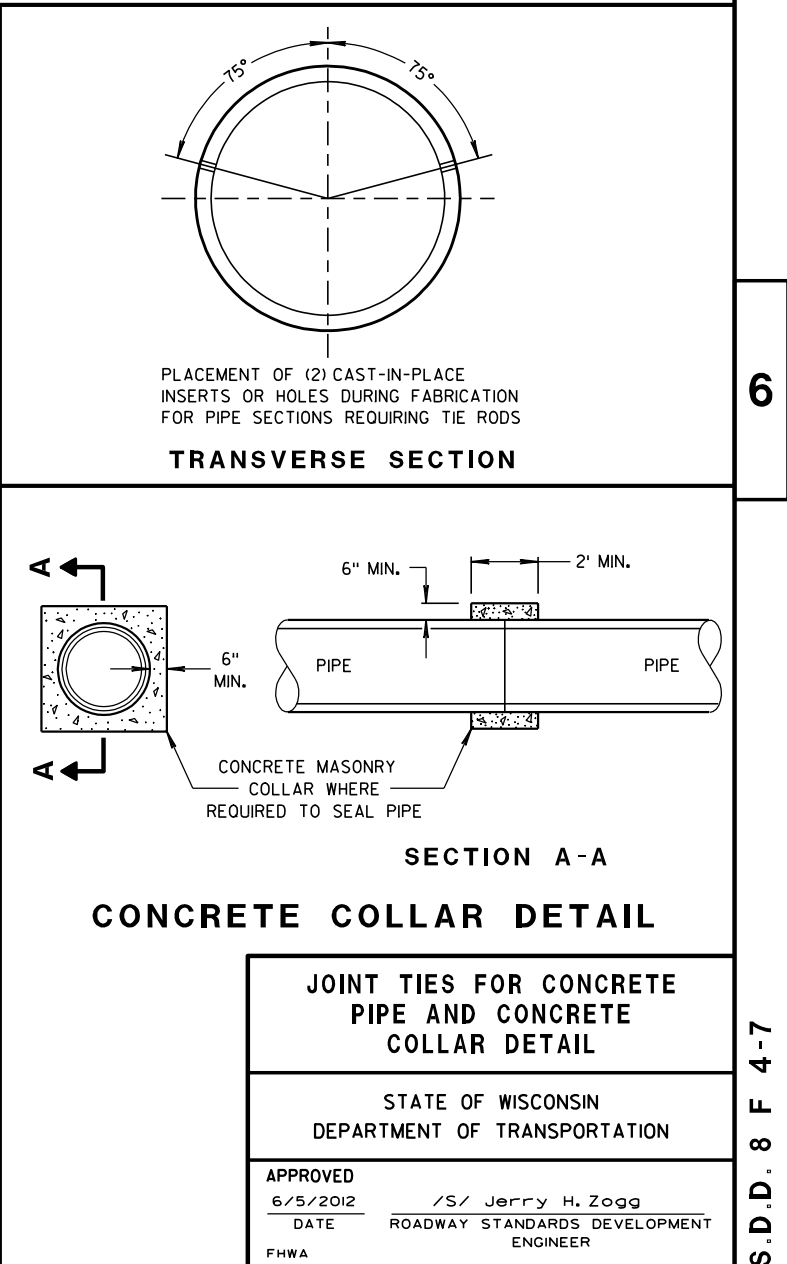
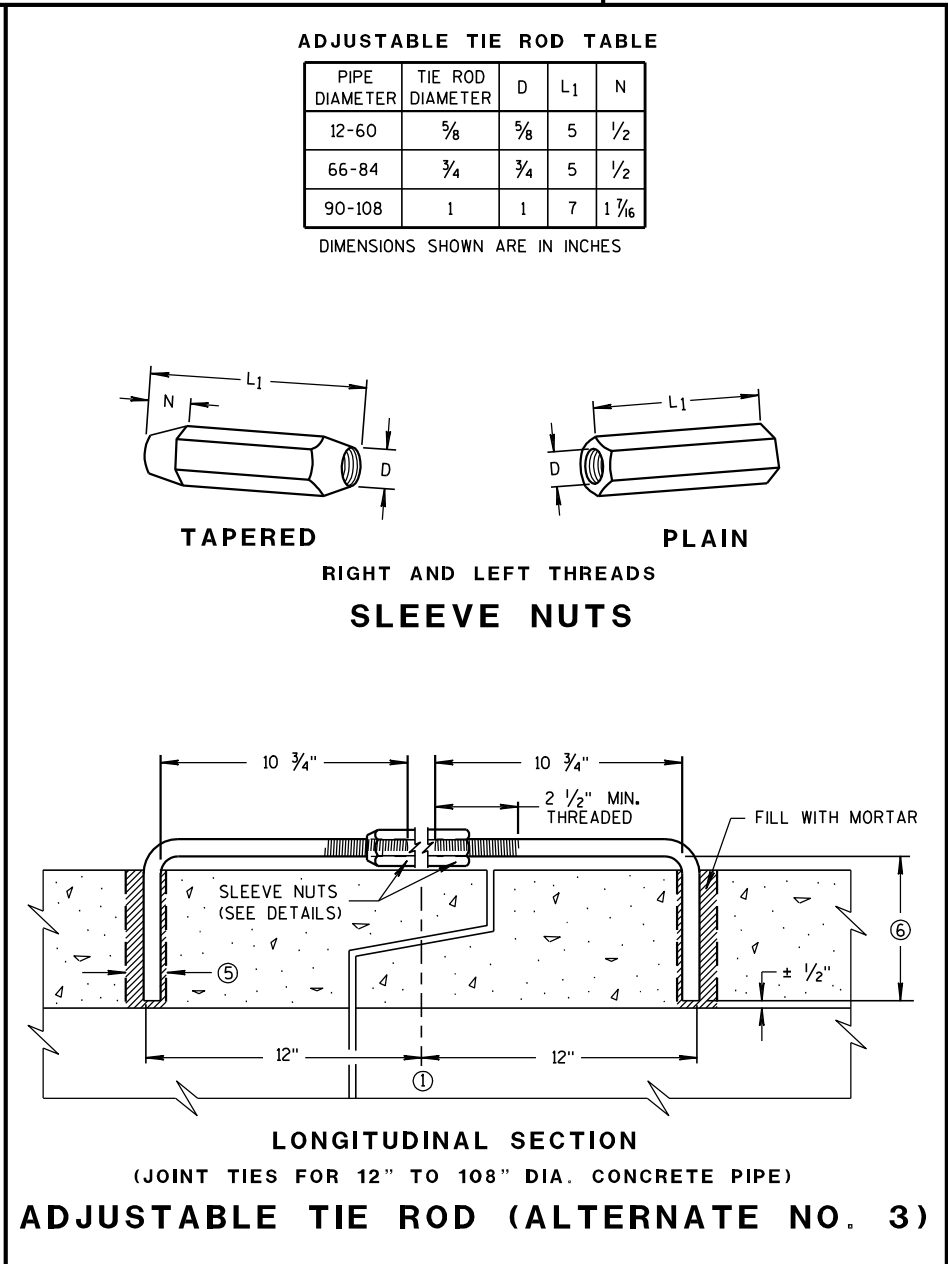
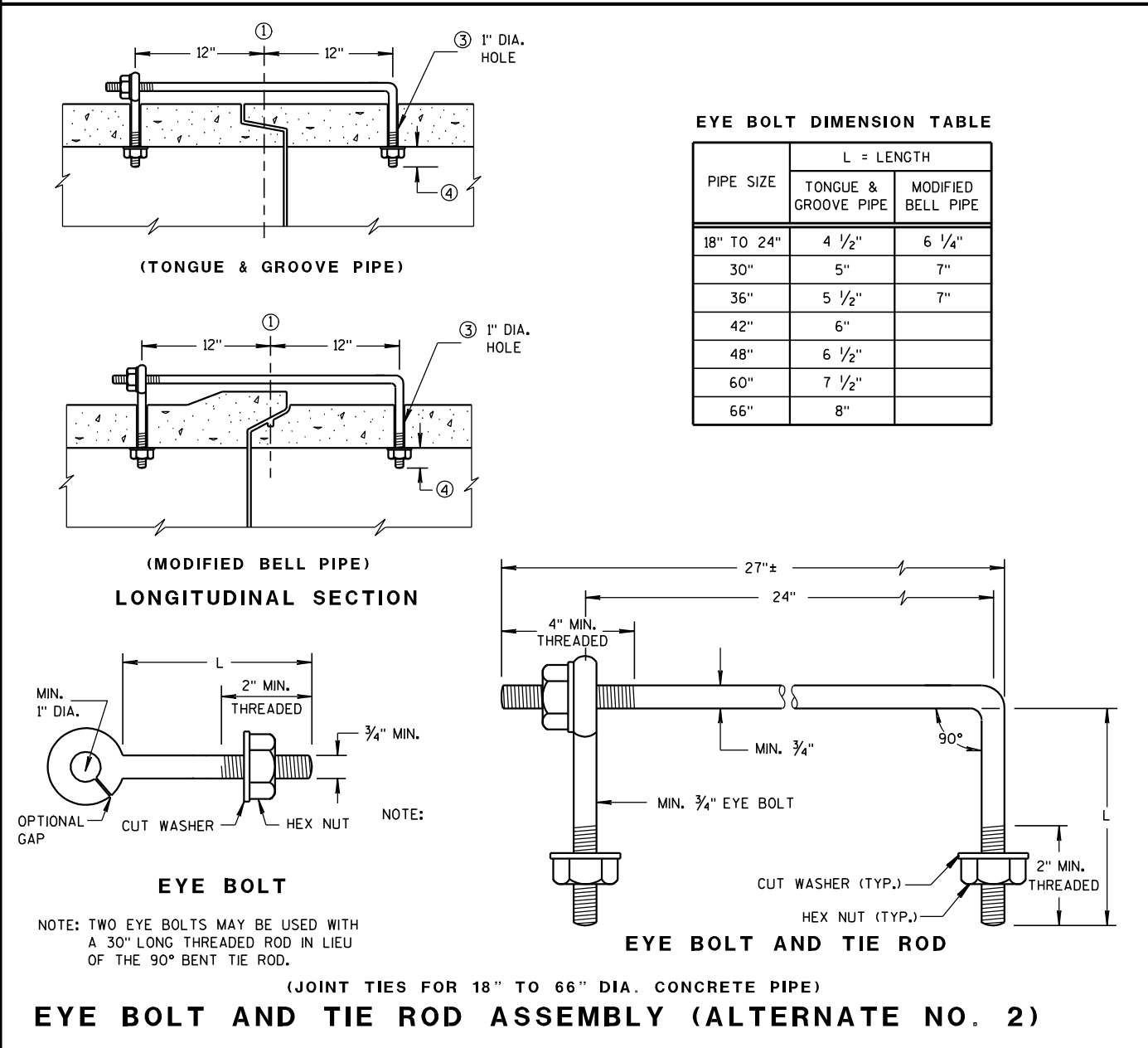
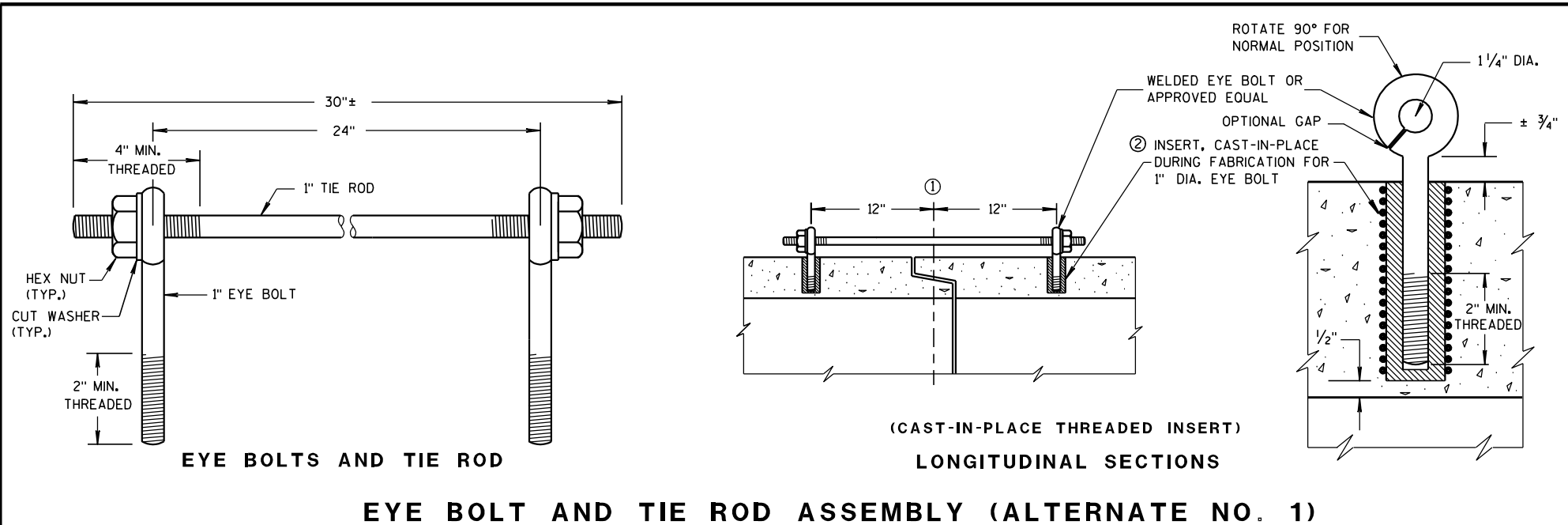
ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT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

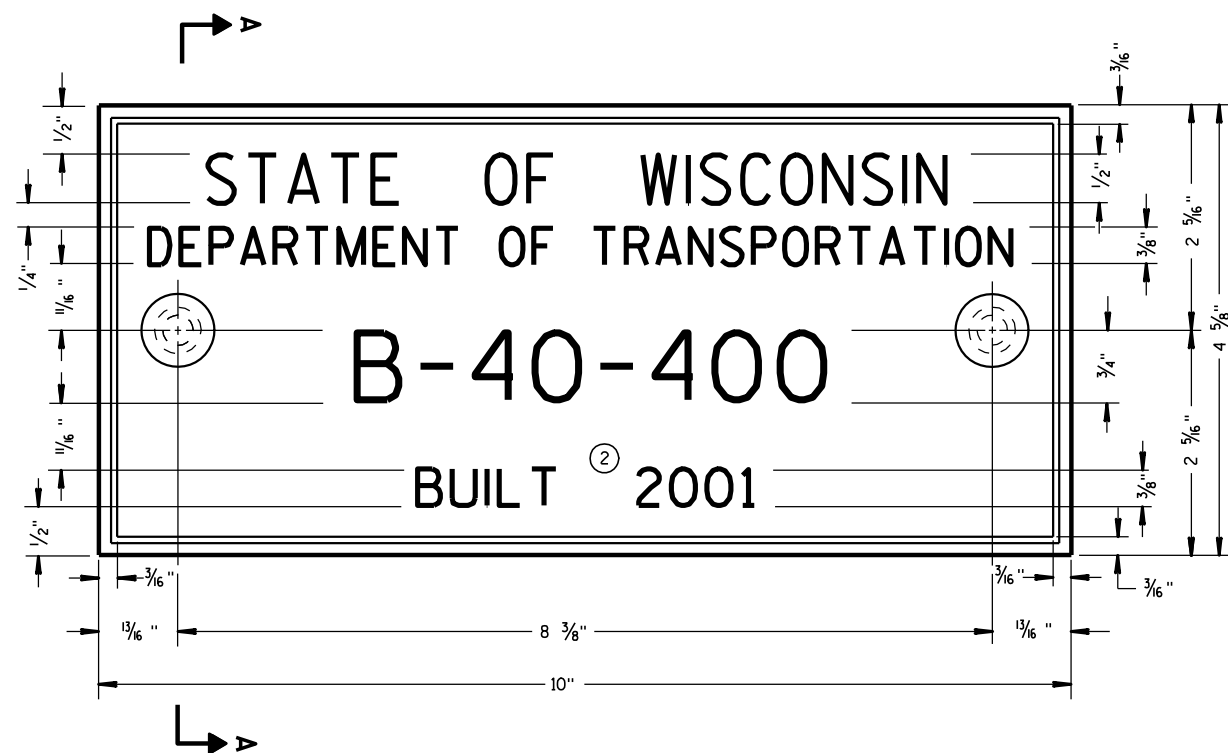
LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 60" THROUGH 96" DIAMETER APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES.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

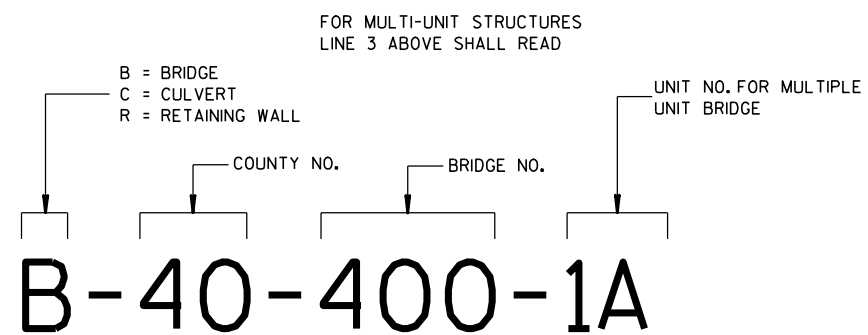
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

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)



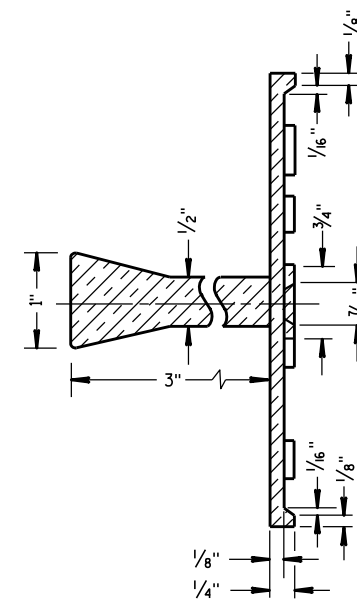
**NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES**

GENERAL NOTES

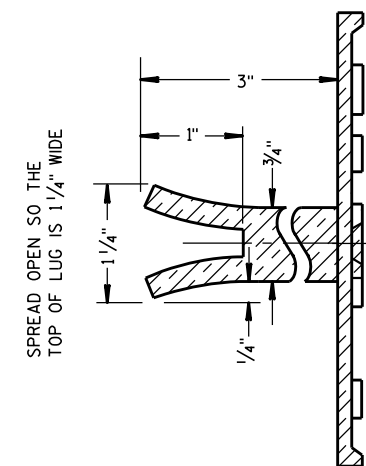
NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

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.

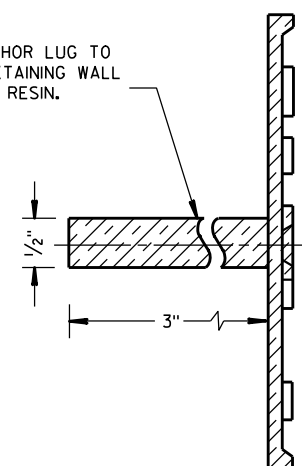


SECTION A-A



ALTERNATE LUG

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



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

**NAME PLATE
(STRUCTURES)**

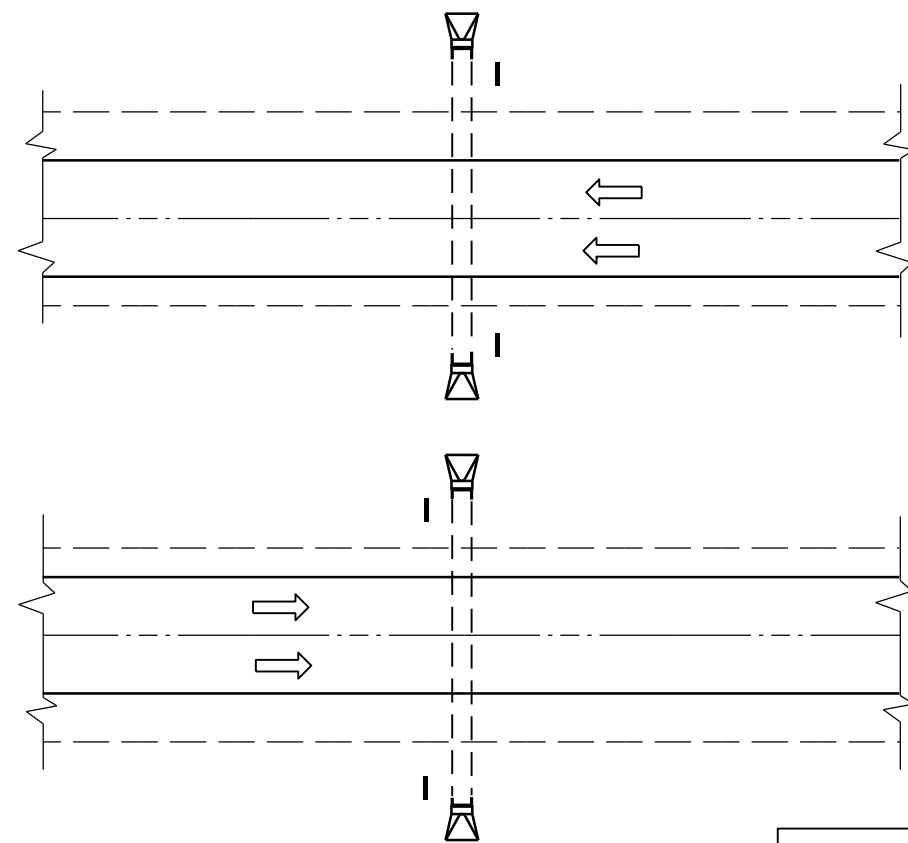
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

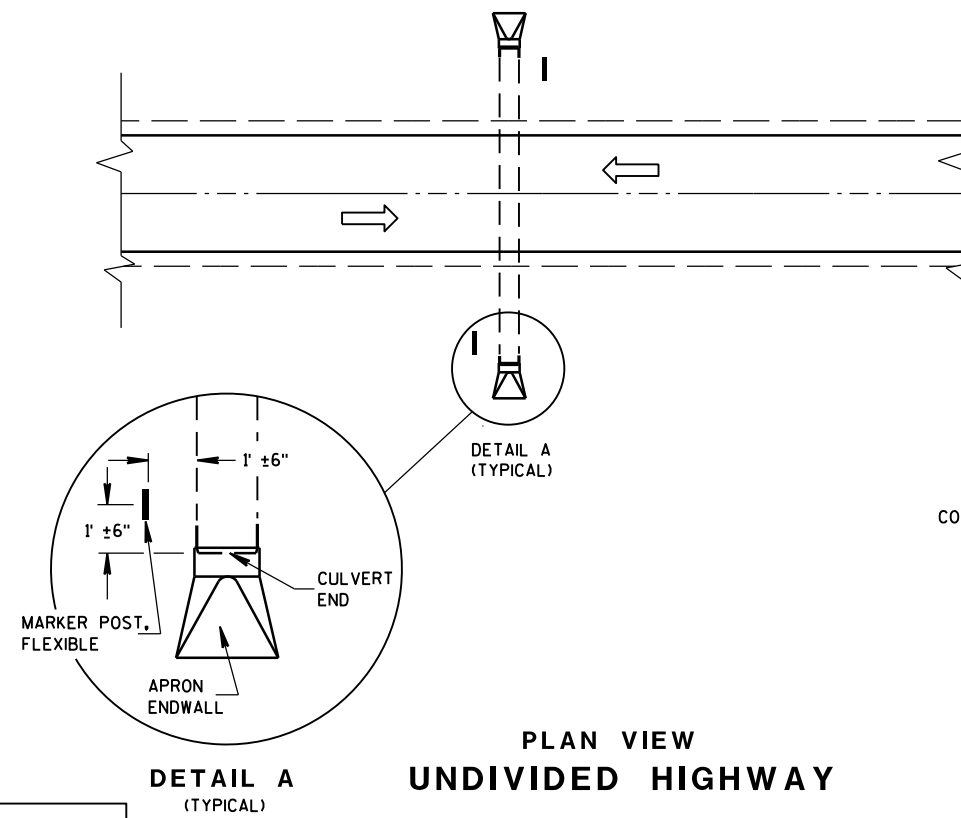
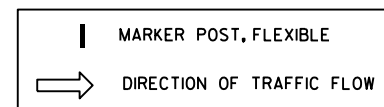
3/26/10
DATE

FHWA

/S/ Scot Becker
CHIEF STRUCTURAL DEVELOPMENT ENGINEER



PLAN VIEW
DIVIDED HIGHWAY

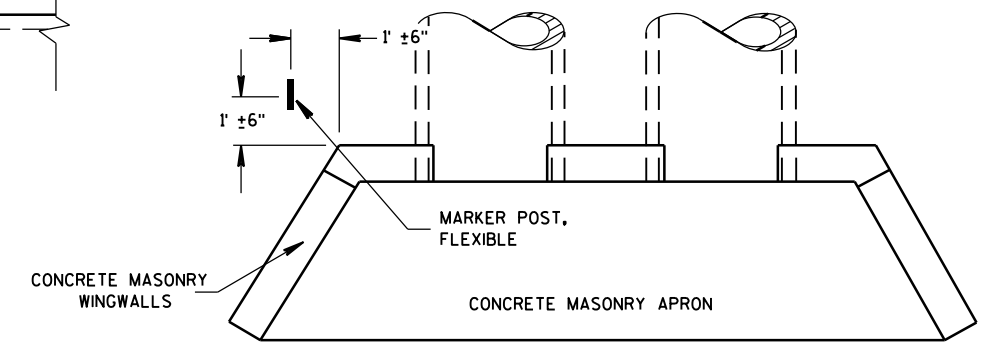


PLAN VIEW
UNDIVIDED HIGHWAY

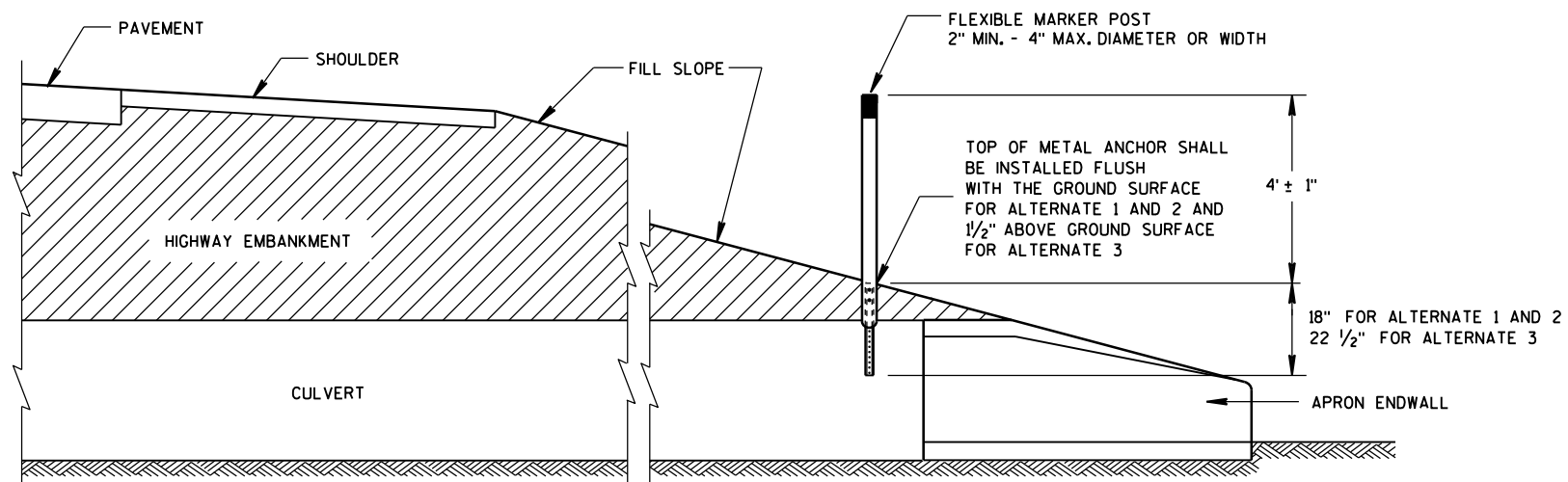
FLEXIBLE MARKER POST LOCATION

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.



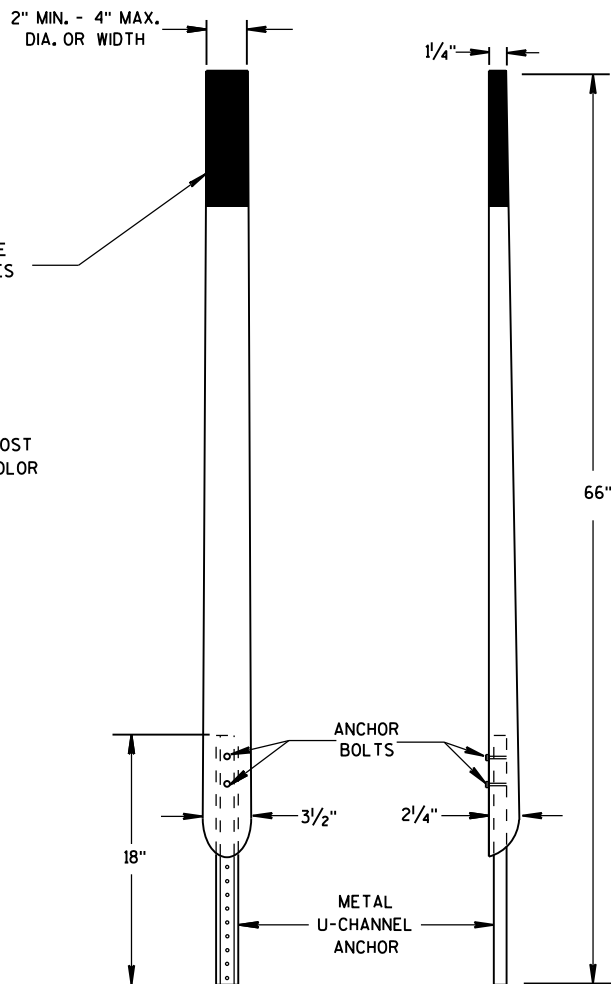
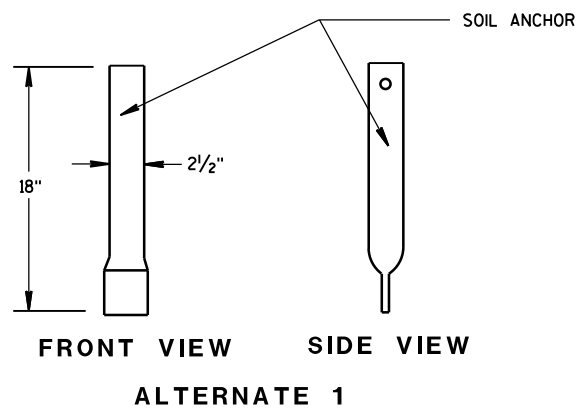
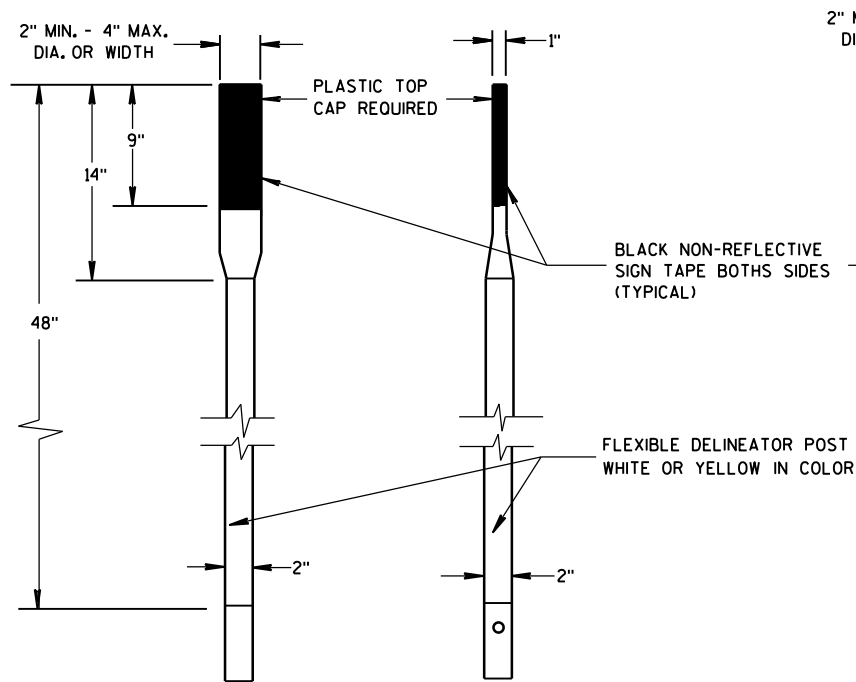
PLAN VIEW
CONCRETE MASONRY ENDWALLS FOR
CULVERT PIPE AND PIPE ARCH



CROSS SECTION
FLEXIBLE MARKER POST

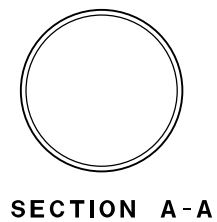
FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

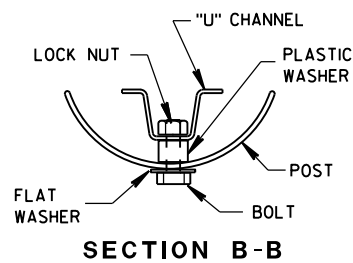
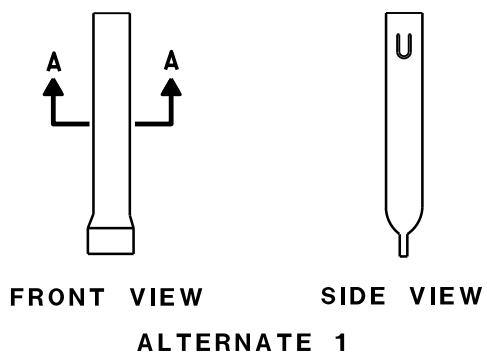


FRONT VIEW SIDE VIEW
ALTERNATE 2

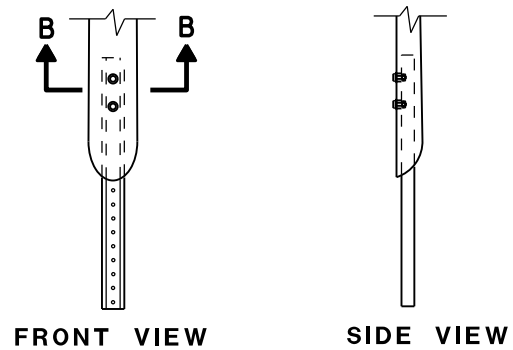
FLEXIBLE MARKER POSTS



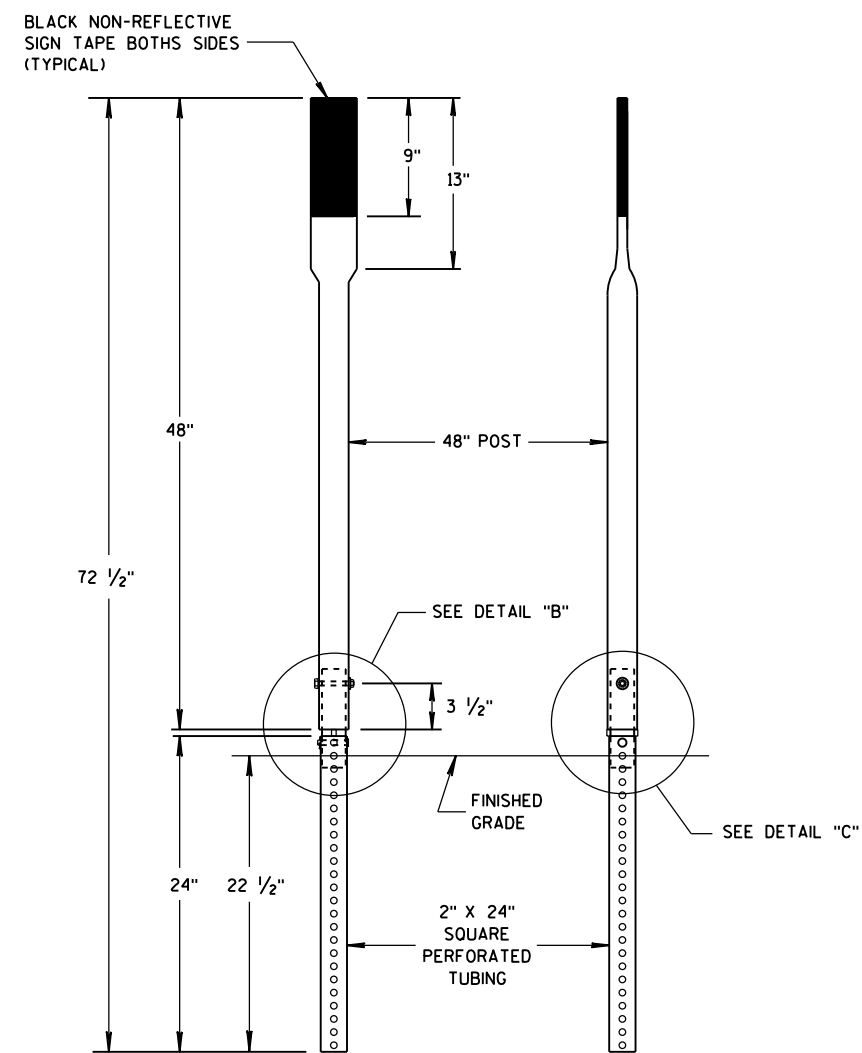
SECTION A-A



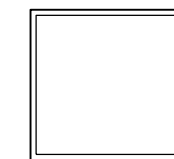
SECTION B-B



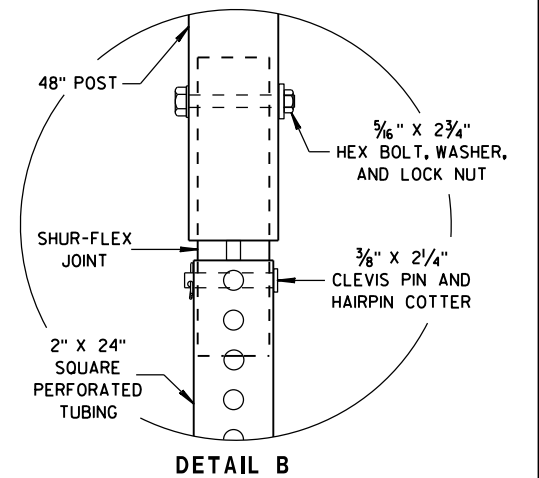
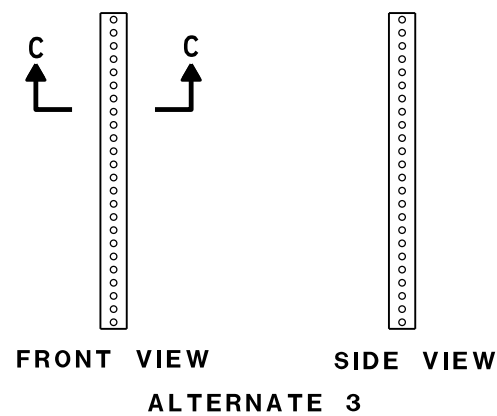
FRONT VIEW SIDE VIEW
ALTERNATE 2
FLEXIBLE MARKER POST ANCHORS



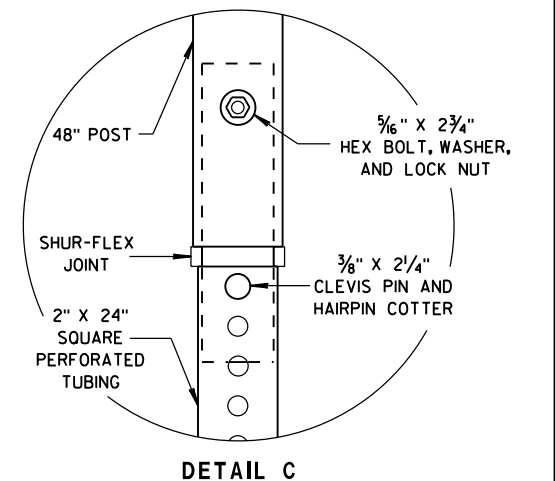
FRONT VIEW SIDE VIEW
ALTERNATE 3



SECTION C-C



DETAIL B



DETAIL C

FLEXIBLE MARKER POST FOR CULVERT END

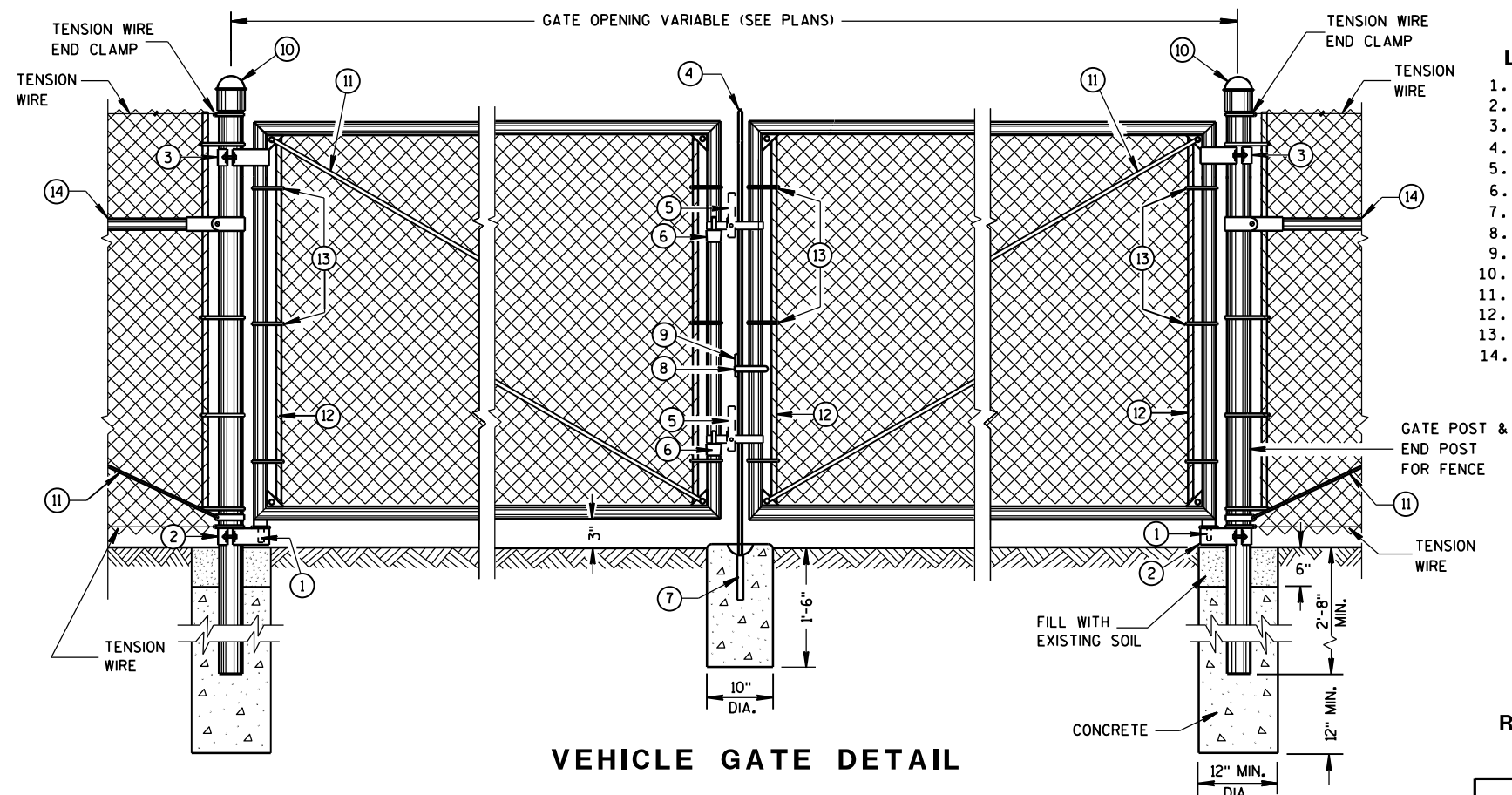
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

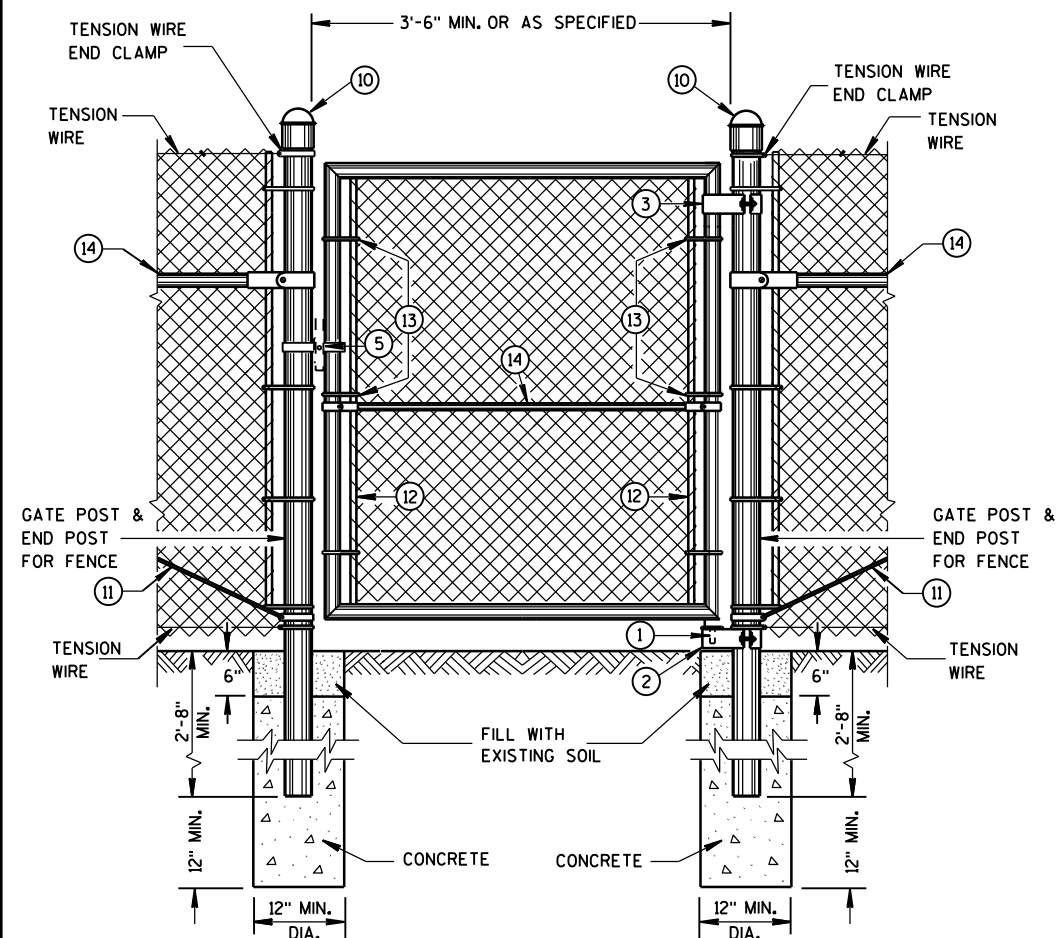
10/1/2012
DATE

FHWA

/S/ Travis Feltes
STATE TRAFFIC ENGINEER OF DESIGN



VEHICLE GATE DETAIL



PEDESTRIAN GATE DETAIL

- ## LEGEND

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

*NOT REQUIRED ON SINGLE SWING PEDESTRIAN GATE

GENERAL NOTES

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

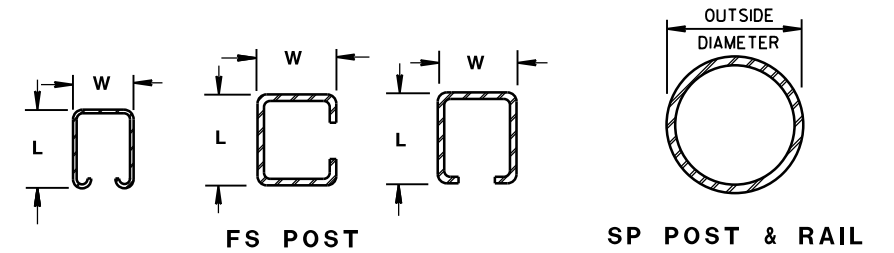
USE FENCE FABRIC KNUCKLED AT BOTH SELVAGES.

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

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

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

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



CROSS SECTIONS OF POSTS AND RAILS

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

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

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

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

REQUIRED POST SIZE FOR GATES

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

REQUIRED FENCE POST SIZES

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

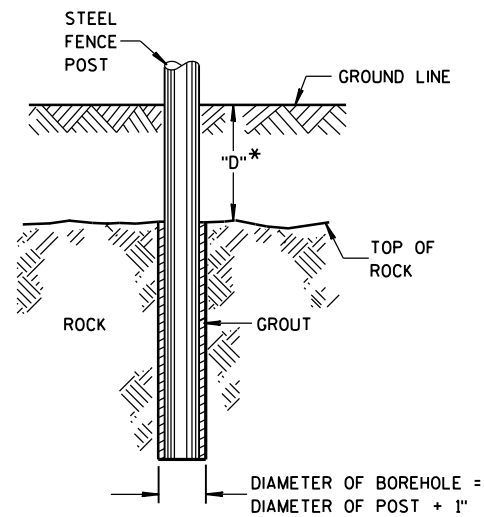
BRACE RAIL TYPES

USE		TYPE
BRACE RAIL	X	SP1 OR FS1

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

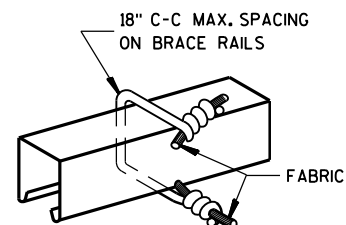
FENCE CHAIN LINK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



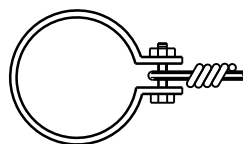
* IF "D" IS LESS THAN 2'-6",
DRILL ROCK AND INSTALL GROUT

ROCK INSTALLATION OF LINE POST

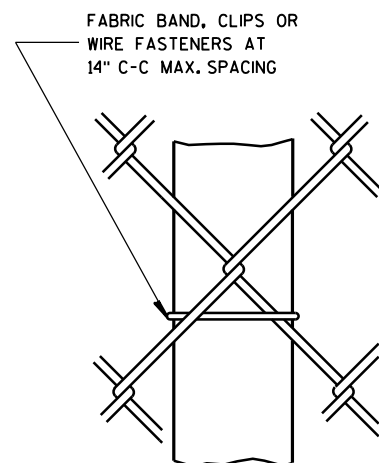


BRACE RAIL FABRIC FASTENER

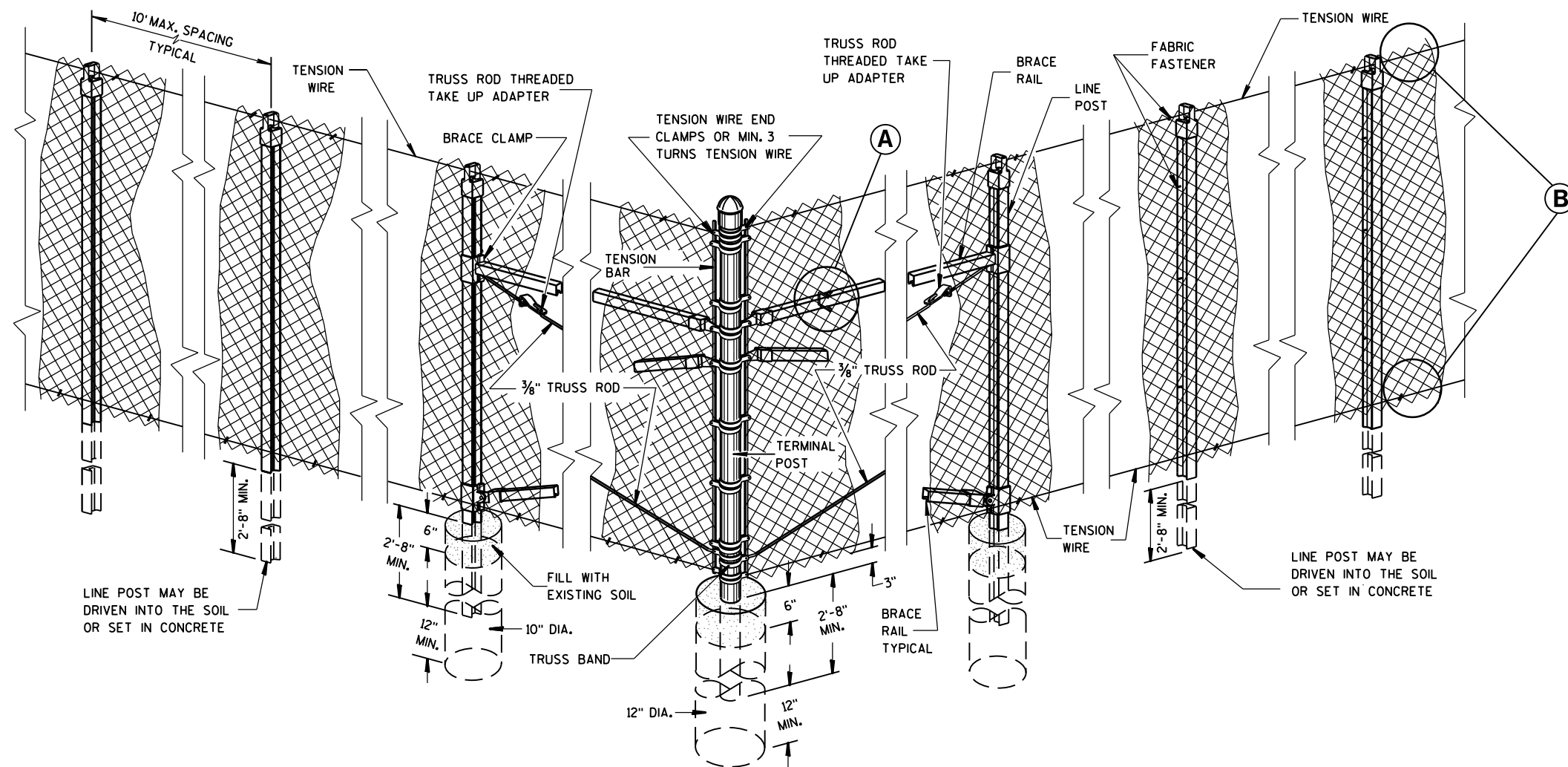
(A)



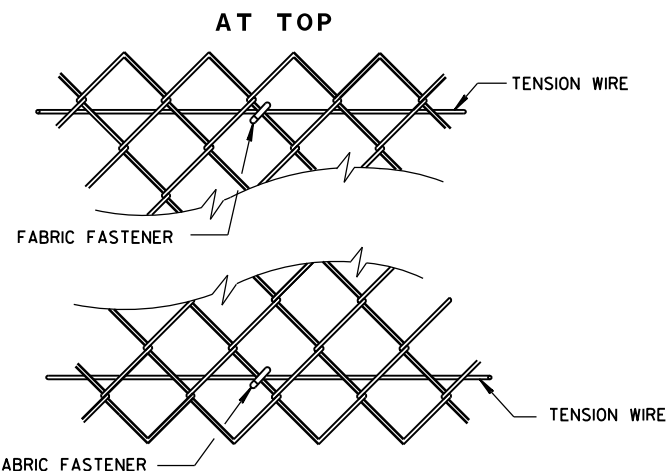
TENSION WIRE END CLAMP



LINE POST FABRIC FASTENER



END, CORNER, ANGLE INTERSECTION & INTERMEDIATE BRACED POSTS

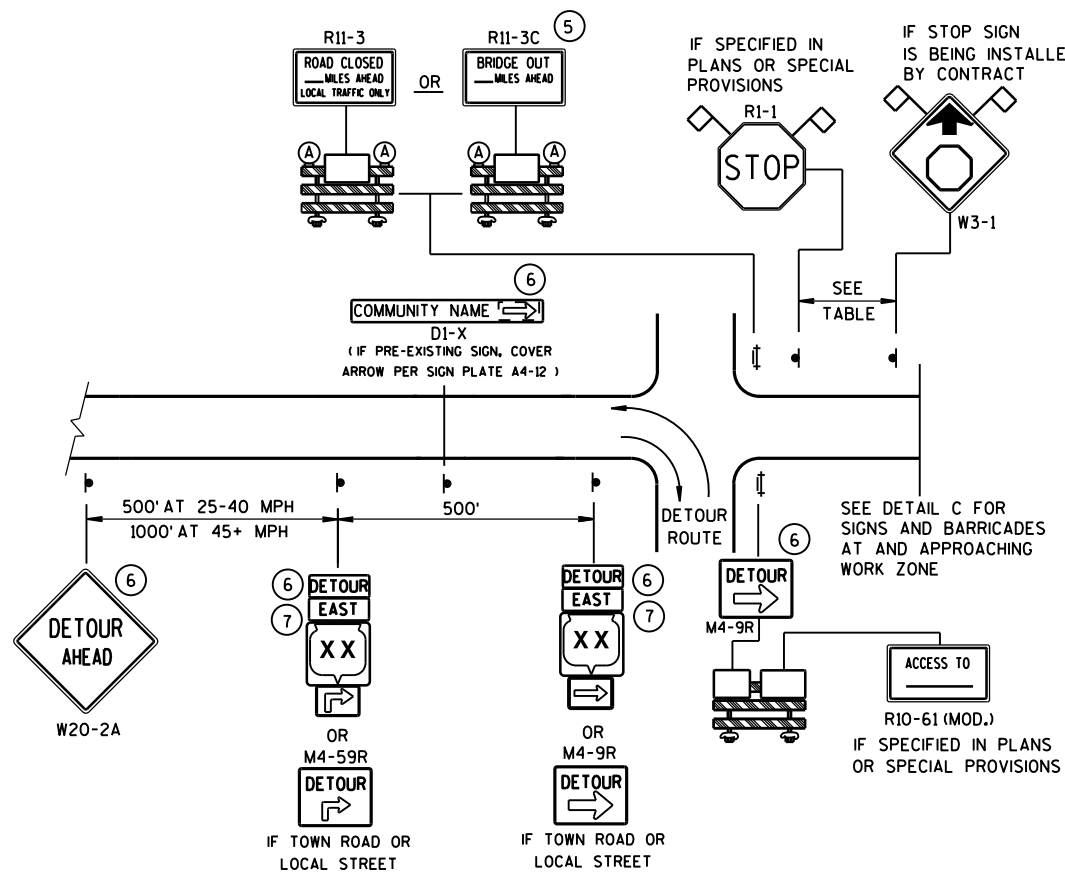


(B)

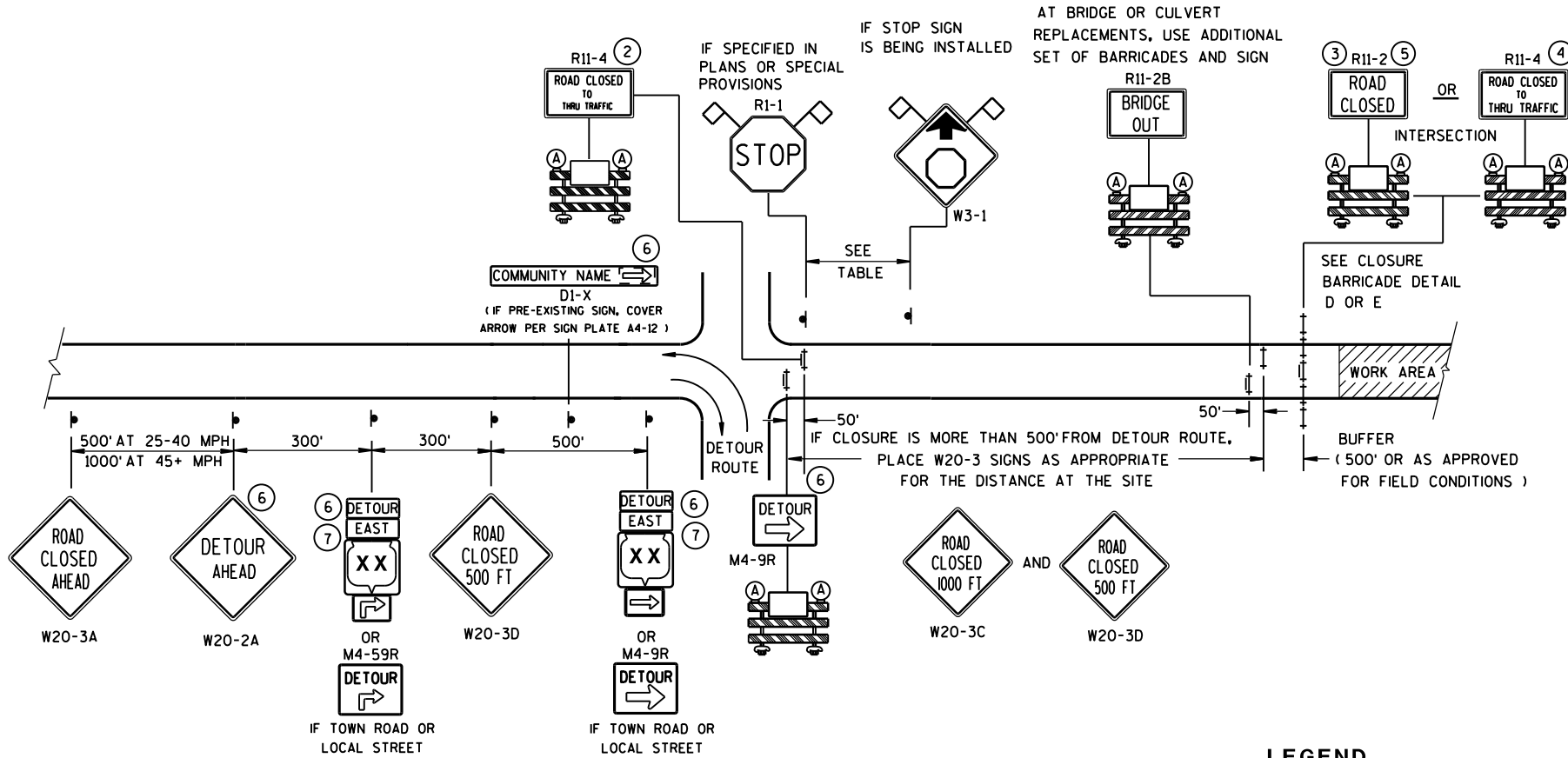
FENCE CHAIN LINK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

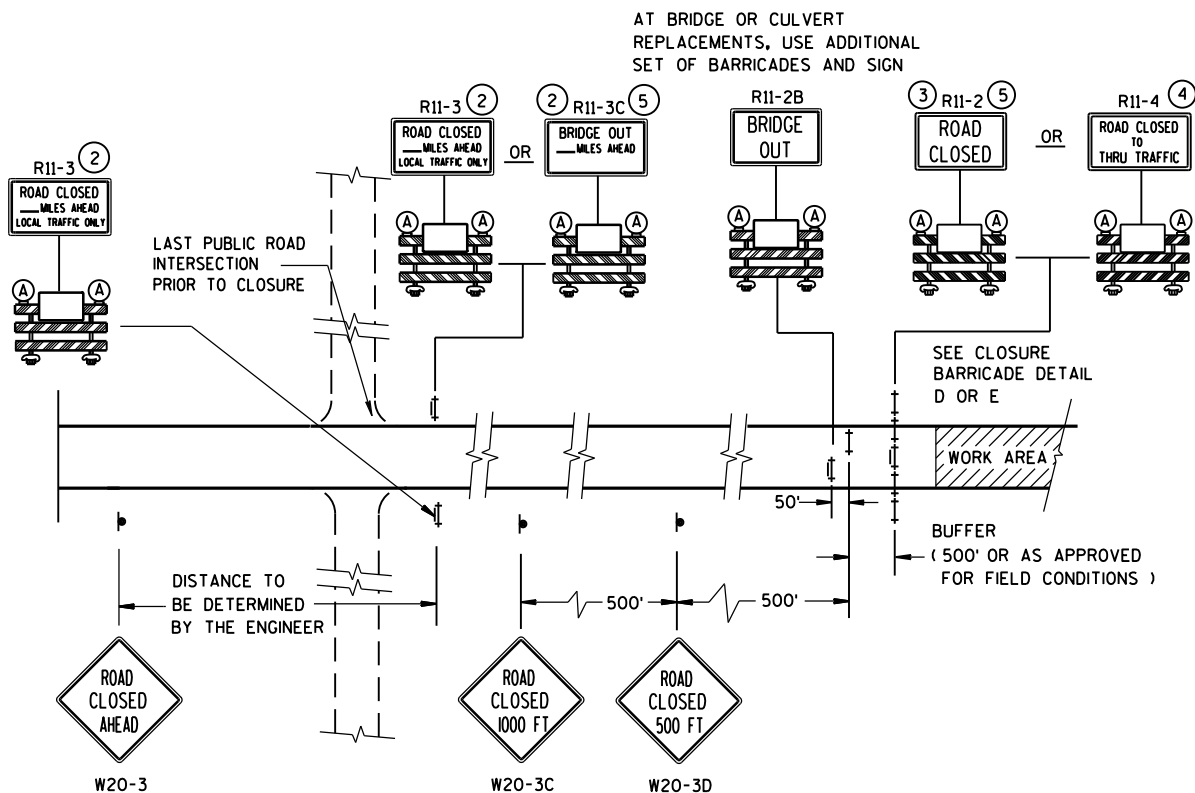
APPROVED
FEB. 2015
DATE /S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER
FHWA



DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR
WORK ZONE GREATER THAN 1/2 MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR
WORK ZONE LESS THAN 1/2 MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

LEGEND

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

WORK AREA

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

M05-1 OR M06-1

FLAGS, 16" X 16" MIN., (ORANGE)

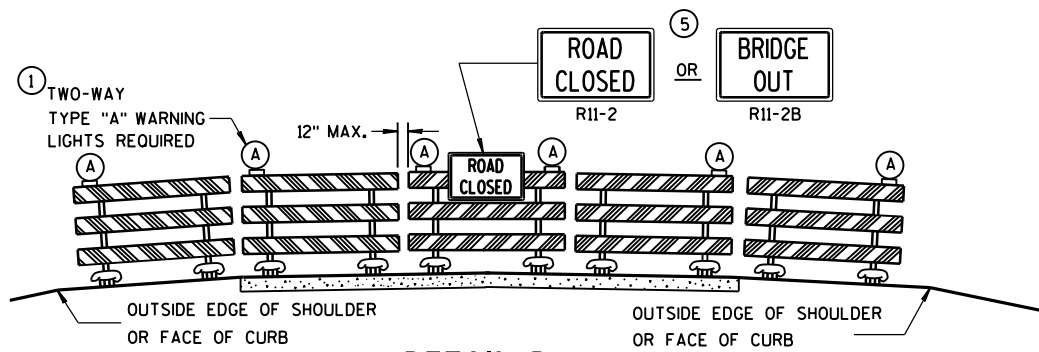
SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

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

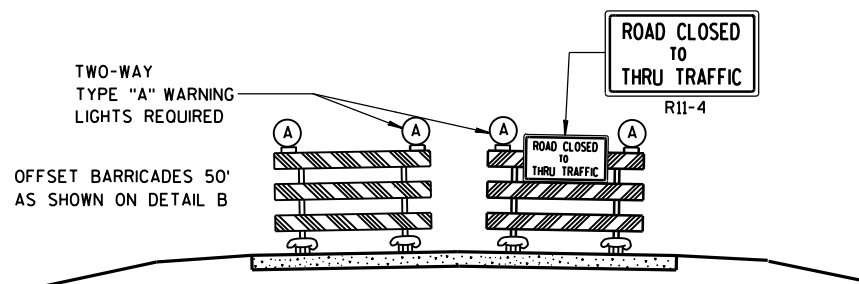
BARRICADES AND SIGNS
FOR
MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2-SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

THE R11-2, R11-3, M4-9, R11-4 AND R10-61 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

"WO AND "MO" SIGNS ARE THE SAME AS "W" AND "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:

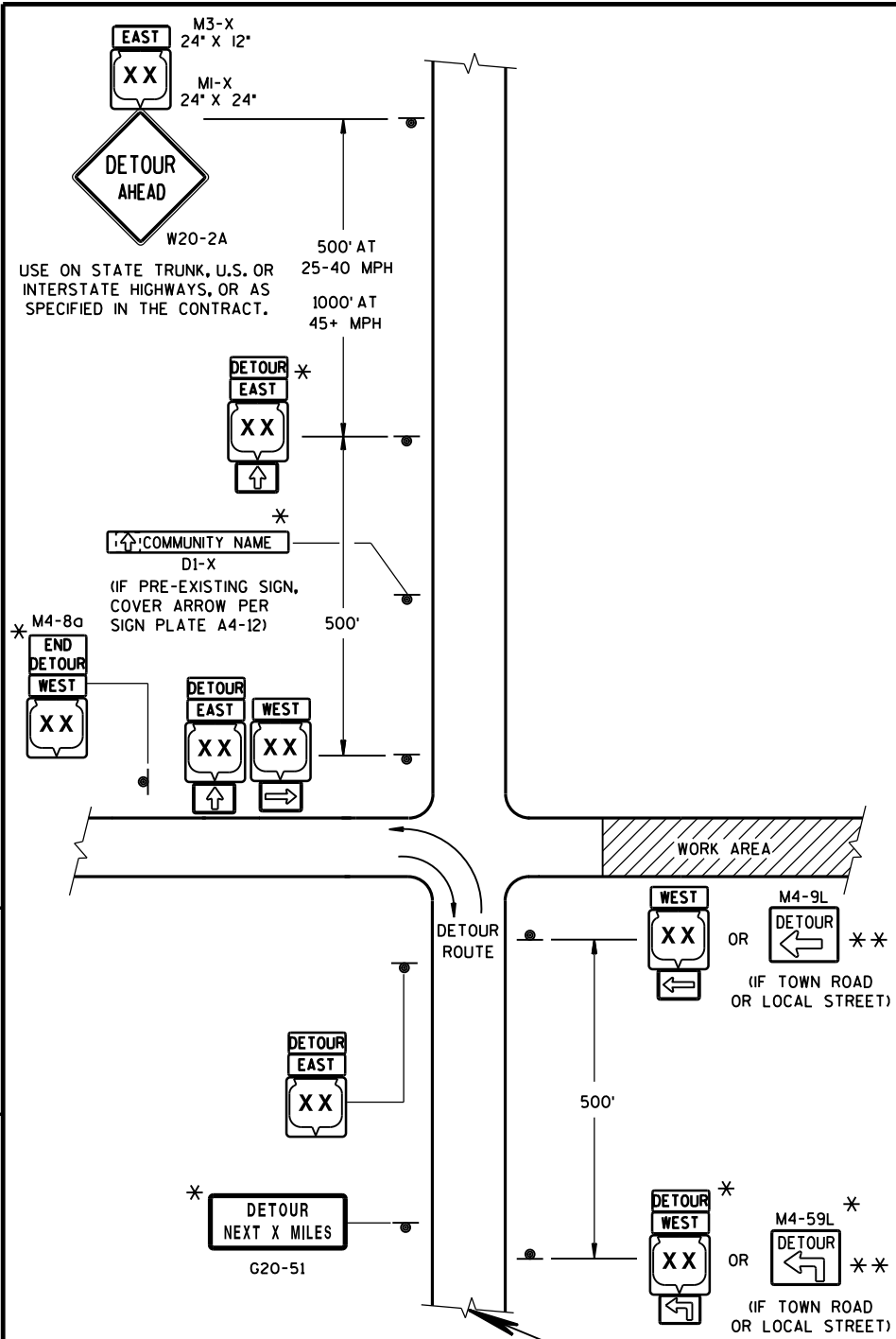
- R11-2 SHALL BE 48" X 30".
- R11-3, R11-4 AND R10-61 SHALL BE 60" X 30".
- M4-9 SHALL BE 30" X 24".
- M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1-1 SHALL BE 36" X 36".

- 1 TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8-FOOT LIGHT SPACING).
- 2 THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT INTERSECTION.
- 3 FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL D.
- 4 FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE LANE CLOSURE BARRICADE DETAIL E.
- 5 FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11-2 AND R11-3 SIGNS.
- 6 INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.
- 7 "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS
FOR
MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



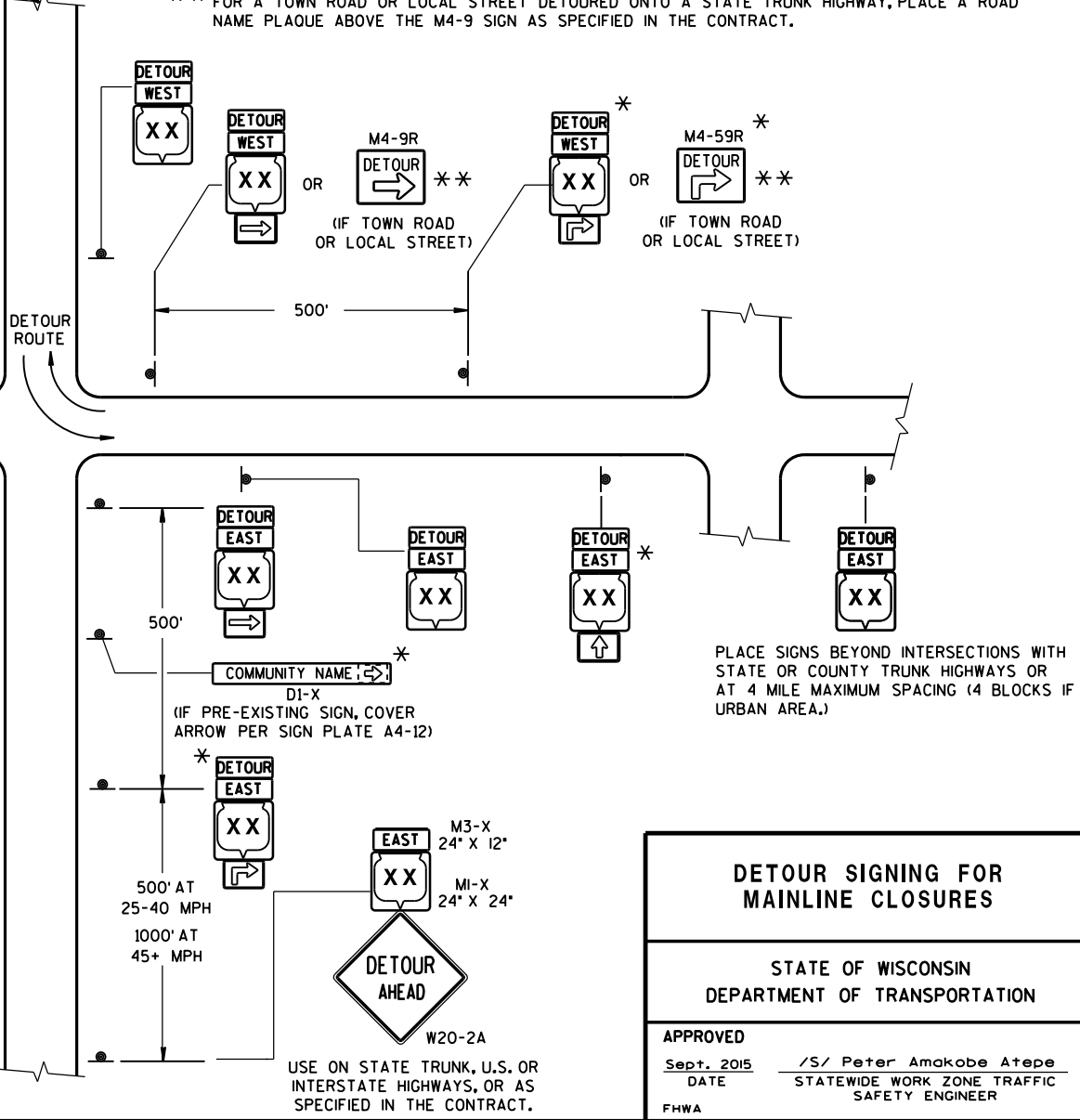
THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL DETOUR SIGN LAYOUT AND SPACING. SEE PROJECT DETOUR SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.

MATCH POINT

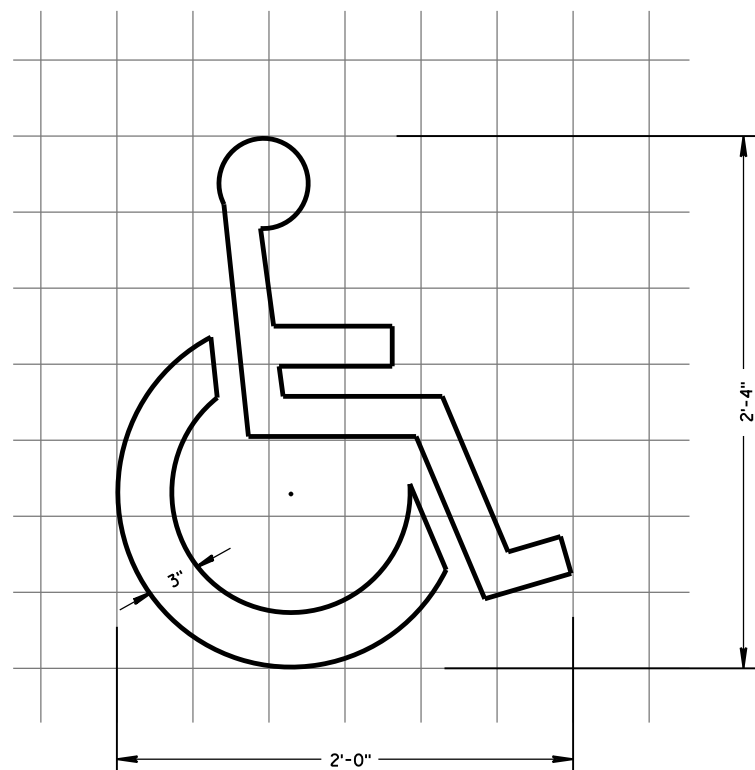
DETAIL F
DETOUR SIGNING

GENERAL NOTES

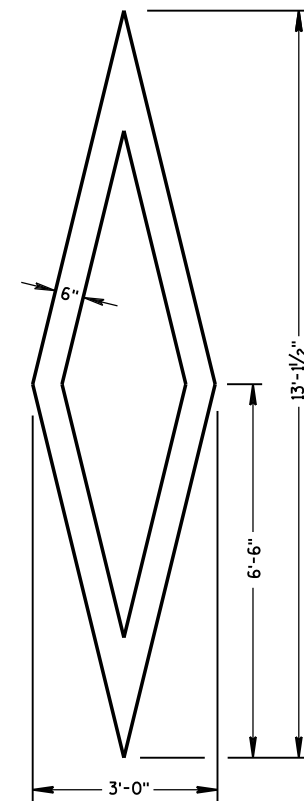
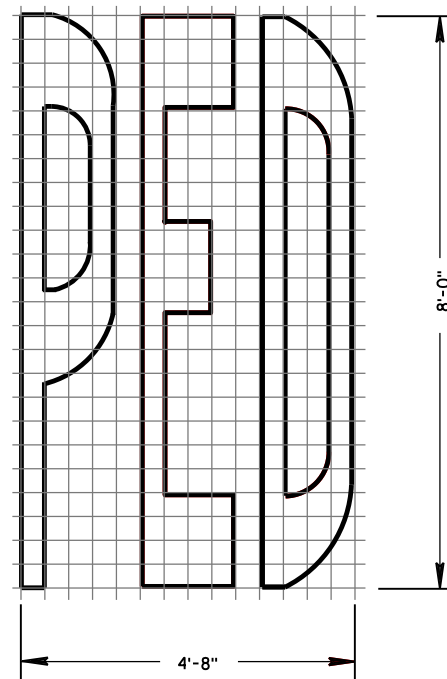
- THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
- IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS, MODIFY EXISTING SIGNS WHERE POSSIBLE.
- THE SPACING BETWEEN TRAFFIC CONTROL AND DETOUR SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.
- ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE", SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.
- SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.
- "MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.
- SIGN SIZES SHALL BE AS FOLLOWS:
 - M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
 - M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
 - M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
 - M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
 - M4-9 SHALL BE 30" X 24".
 - M4-8a SHALL BE 24" X 18".
 - G20-51 SHALL BE 60" X 24".
 - W20-2 SHALL BE 48" X 48".
 - D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- * OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.
- ** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.



DETOUR SIGNING FOR MAINLINE CLOSURES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED DATE FWHA	/S/ Peter Amakobe Atepe STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER



HANDICAP SYMBOL

PREFERENTIAL
LANE SYMBOL**GENERAL NOTES**

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

PAVEMENT MARKING SYMBOLS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

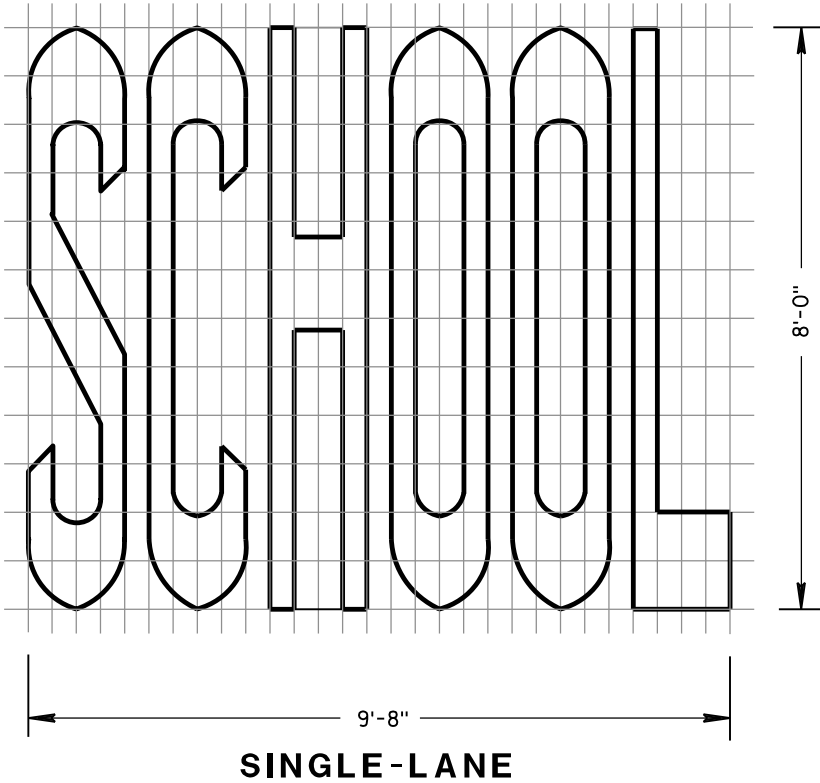
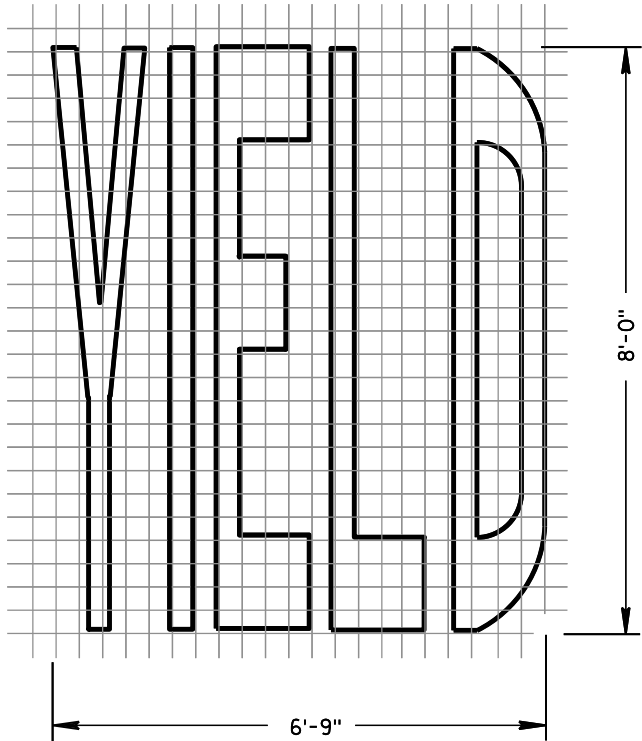
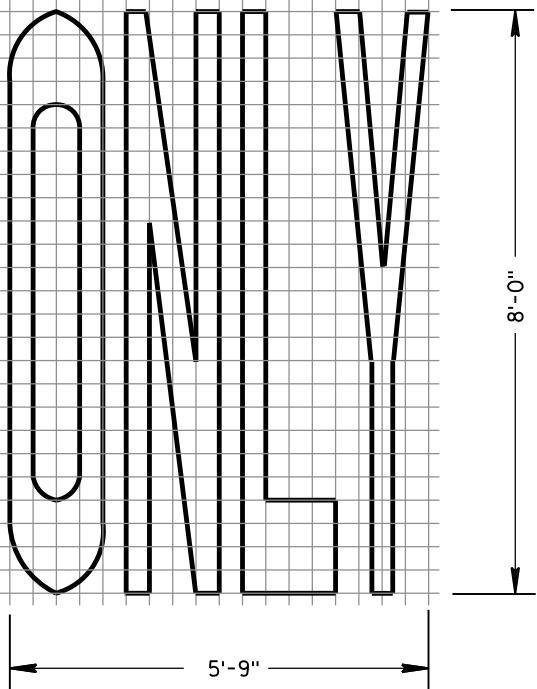
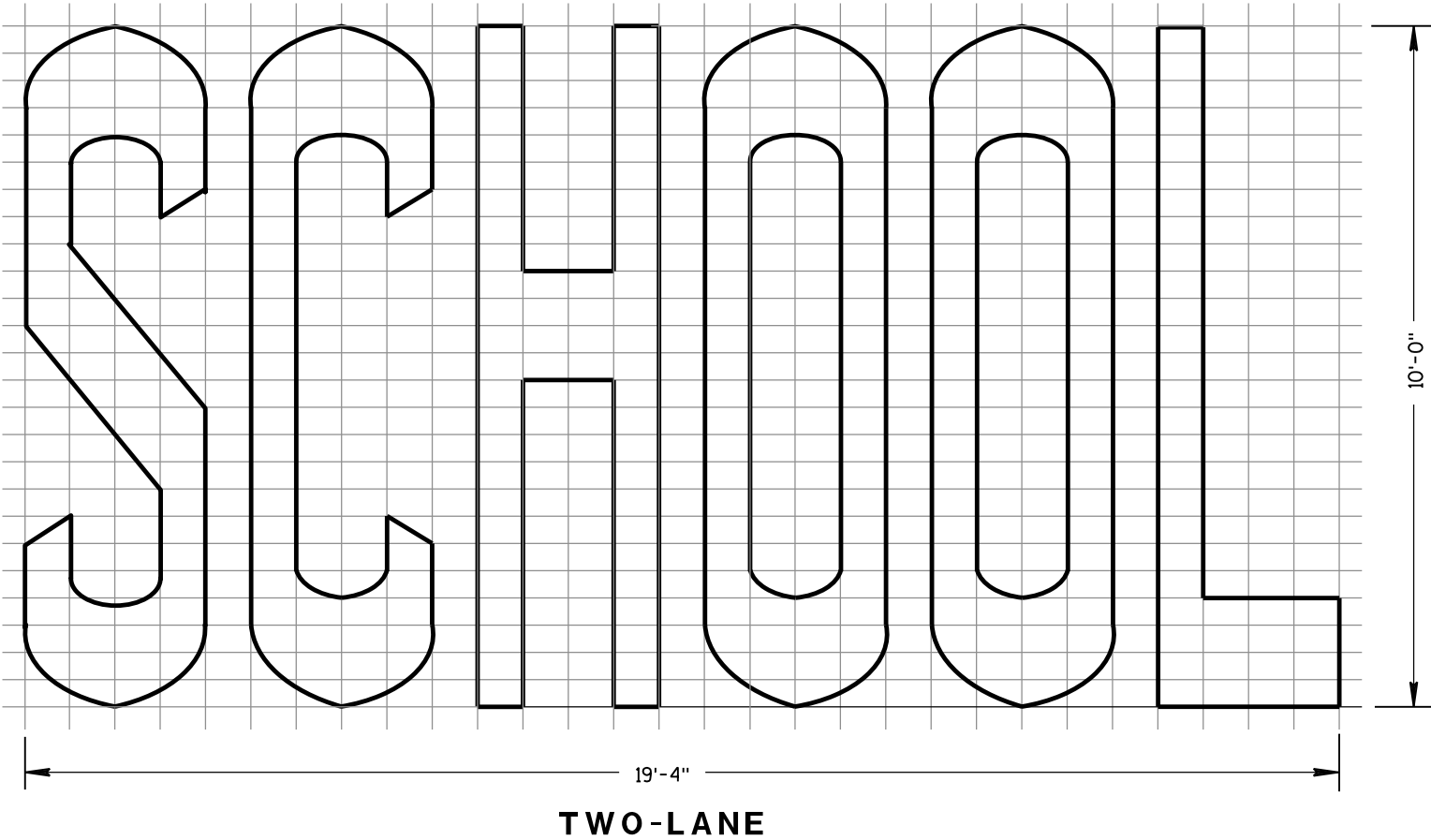
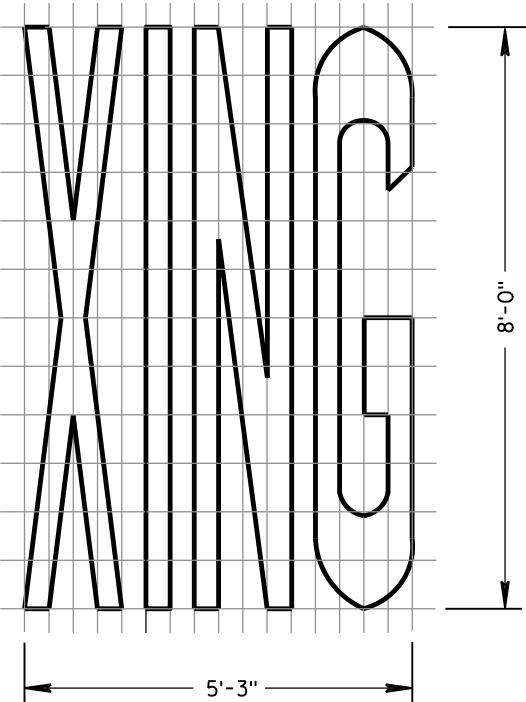
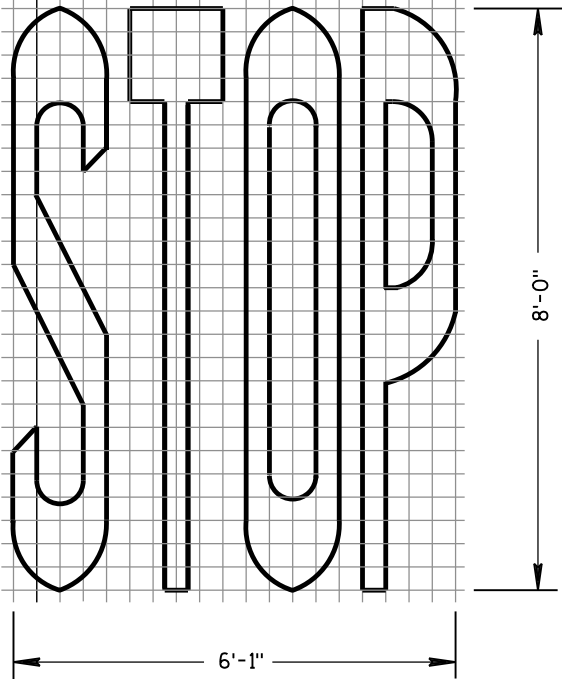
APPROVED

June 2017
DATE/S/ Matthew R. Rauch
STATE SIGNING AND MARKING ENGINEER

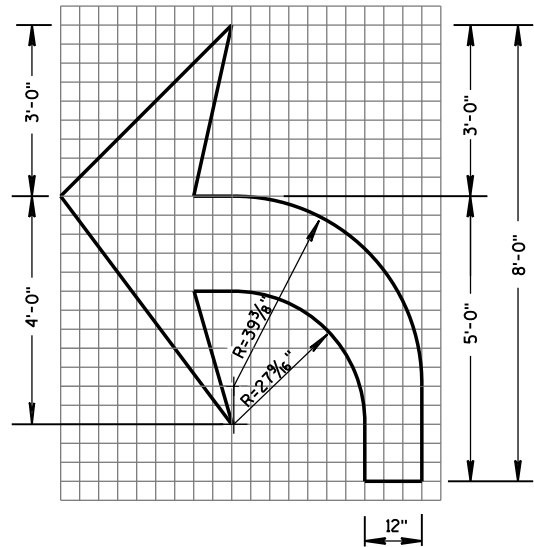
FHWA

GENERAL NOTES

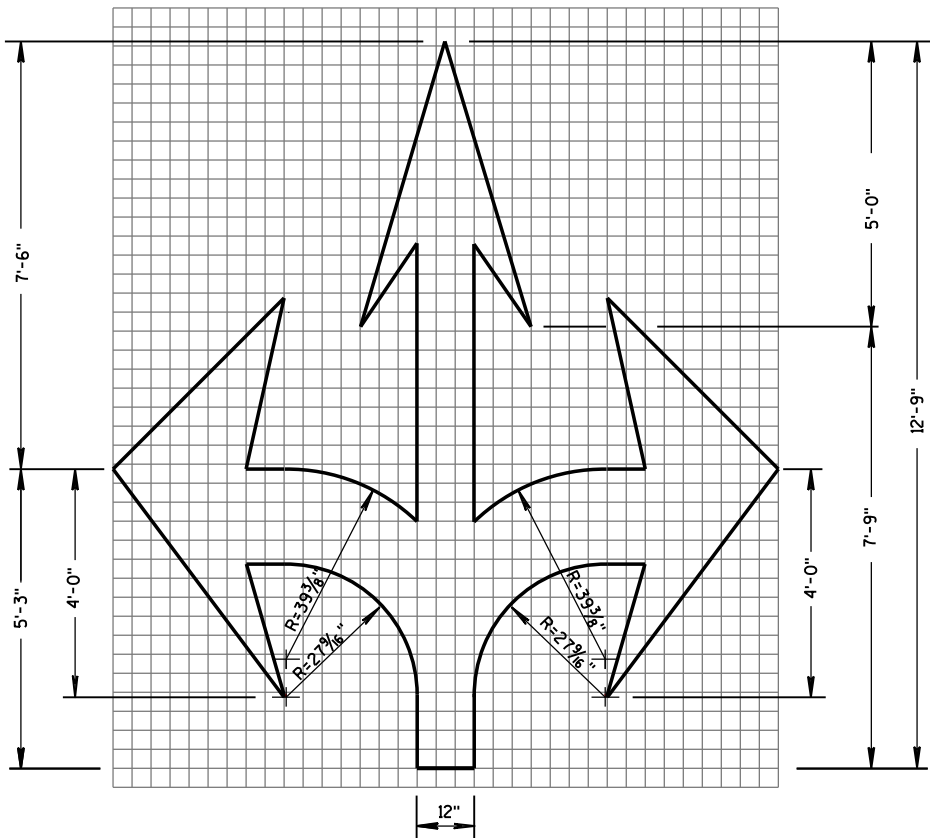
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



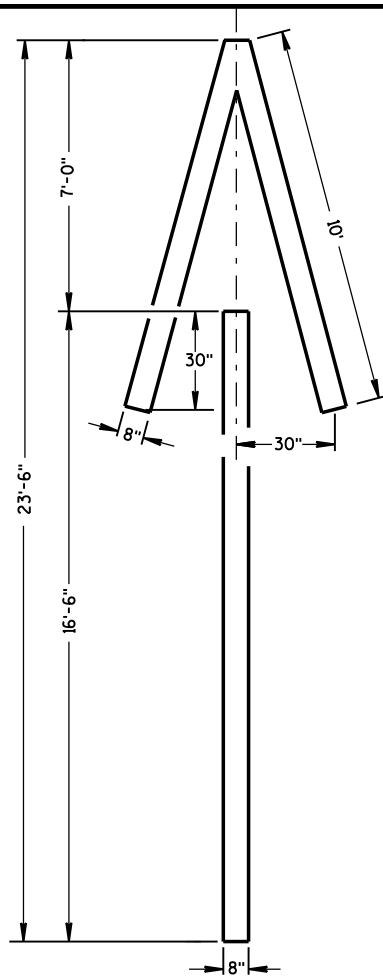
PAVEMENT MARKING WORDS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2017 DATE	/S/ Matthew R. Rauch STATE SIGNING AND MARKING ENGINEER
FHWA	



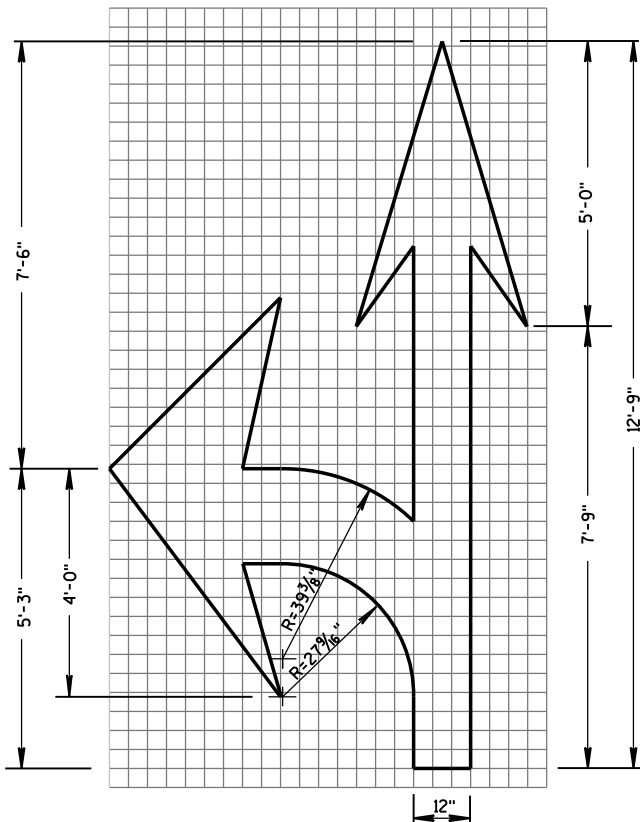
TYPE 2



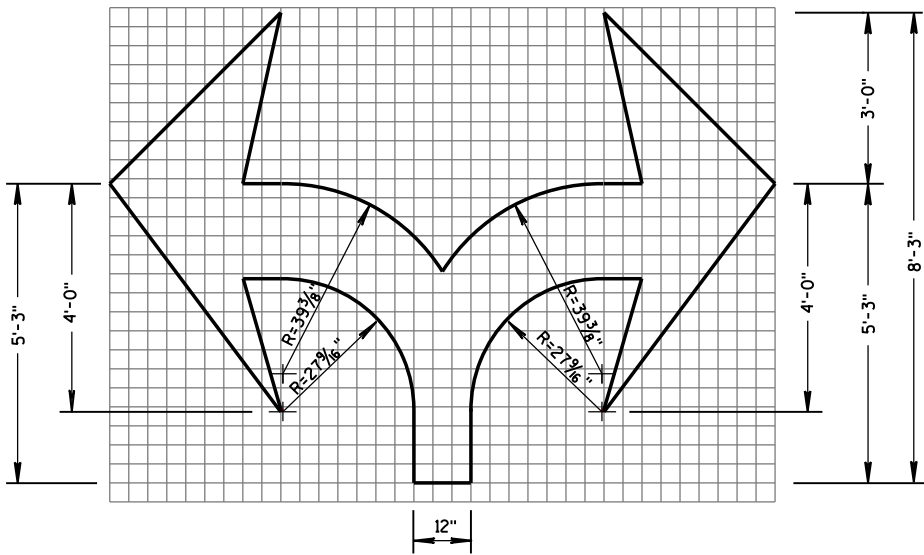
TYPE 6



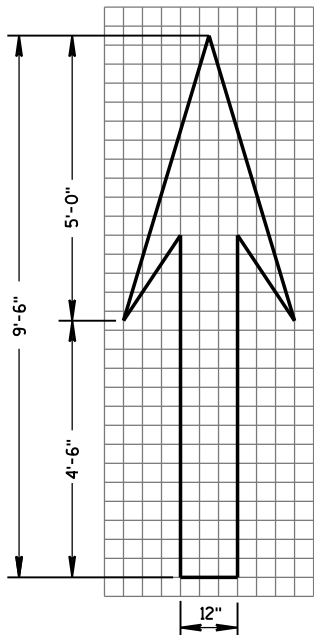
TYPE 4



TYPE 3



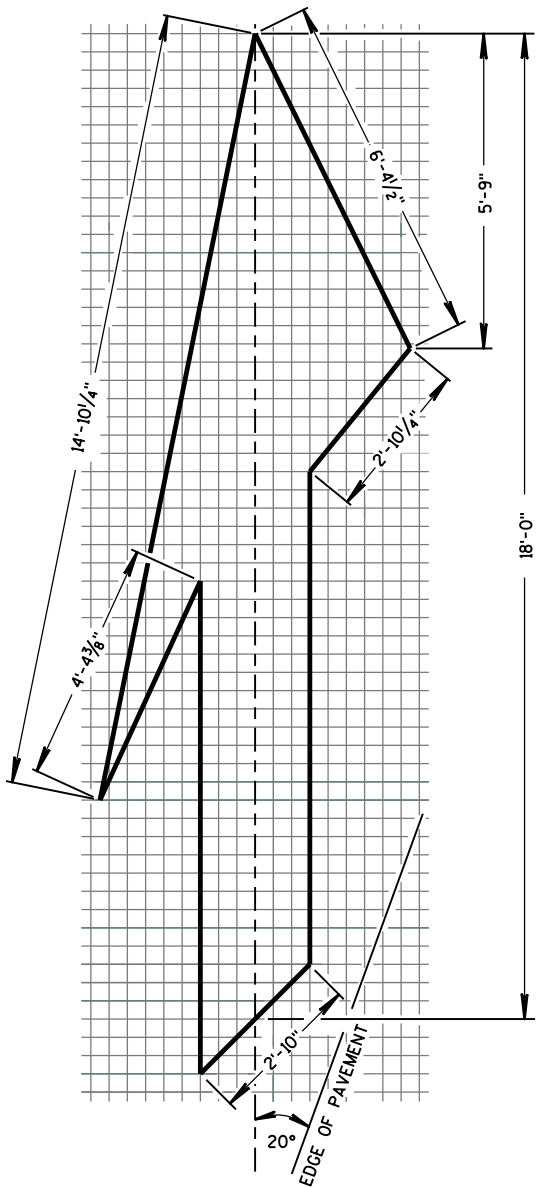
TYPE 7



TYPE 1

GENERAL NOTES

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

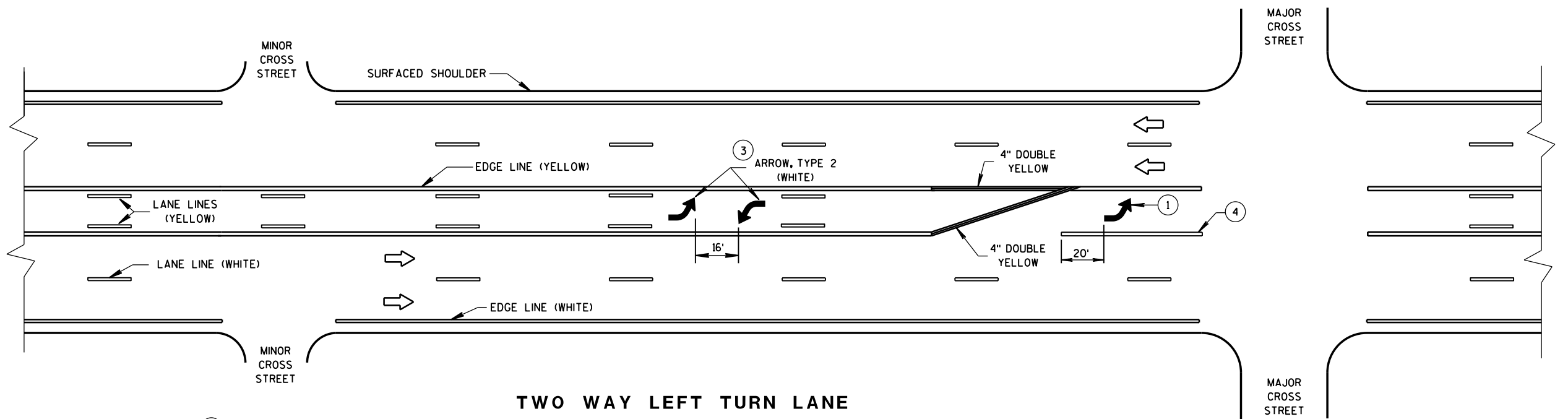
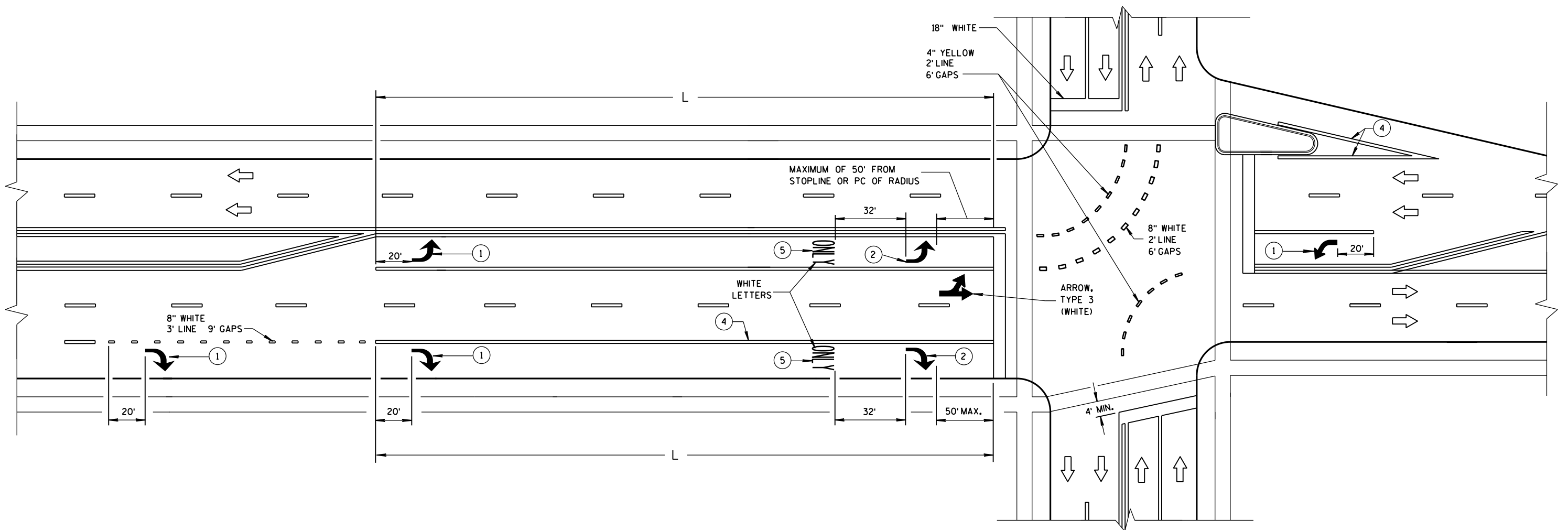


TYPE 5 LANE DROP ARROW

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 /S/ Matthew R. Rauch
DATE STATE SIGNING AND MARKING ENGINEER
FHWA



GENERAL NOTES

- ① REQUIRED ARROW, TYPE 2 (WHITE).
- ② REQUIRED ARROW, TYPE 2 (WHITE) WHEN L IS GREATER THAN 78 FEET AND LESS THAN OR EQUAL TO 166 FEET.
- ③ A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
- ④ 8" WHITE
- ⑤ REQUIRED WORD ONLY WHEN L IS GREATER THAN 166 FEET.

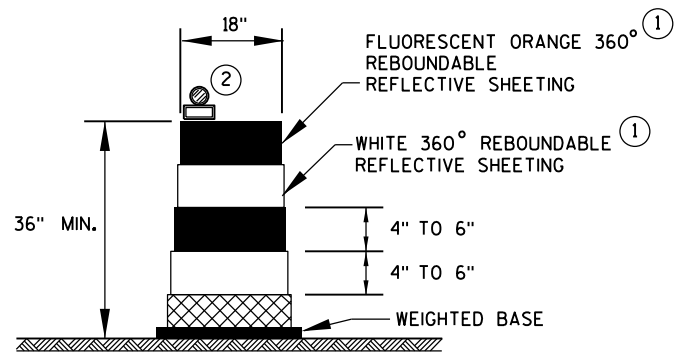
TWO WAY LEFT TURN LANE

NOTE:
ARROW SYMBOL ()
SHOWS DIRECTION OF TRAVEL

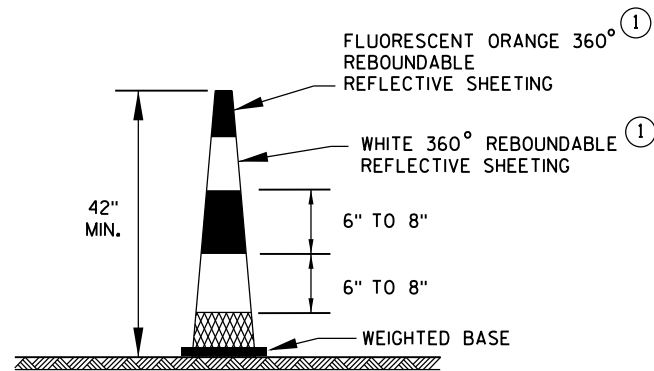
L = LENGTH OF TURN BAY

PAVEMENT MARKING
(TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



DRUM

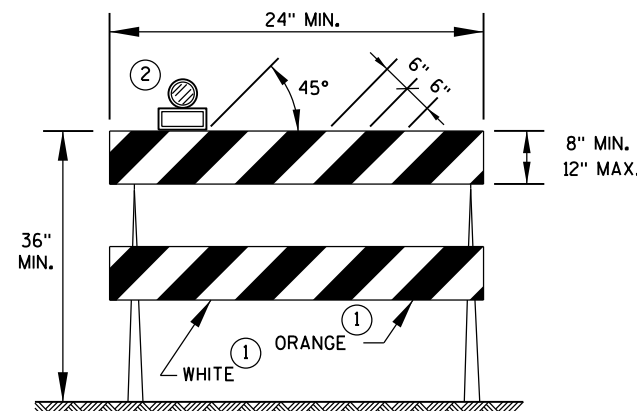


42" CONE

DO NOT USE IN TAPERS
1/2 SPACING OF DRUMS

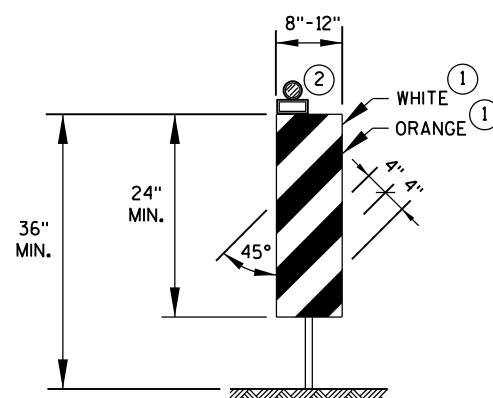
GENERAL NOTES

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



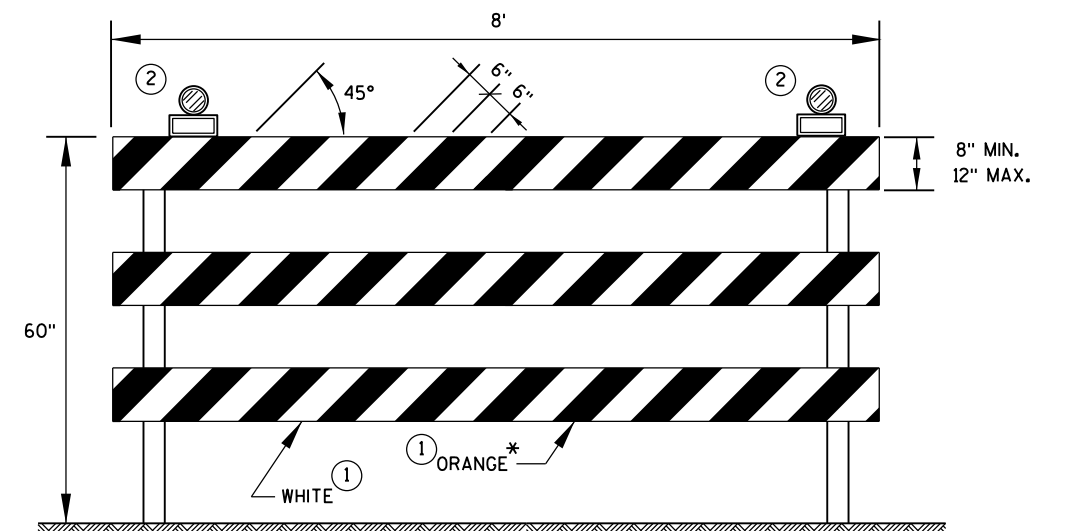
TYPE 2 BARRICADE

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



VERTICAL PANEL

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



TYPE 3 BARRICADE

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

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

CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS

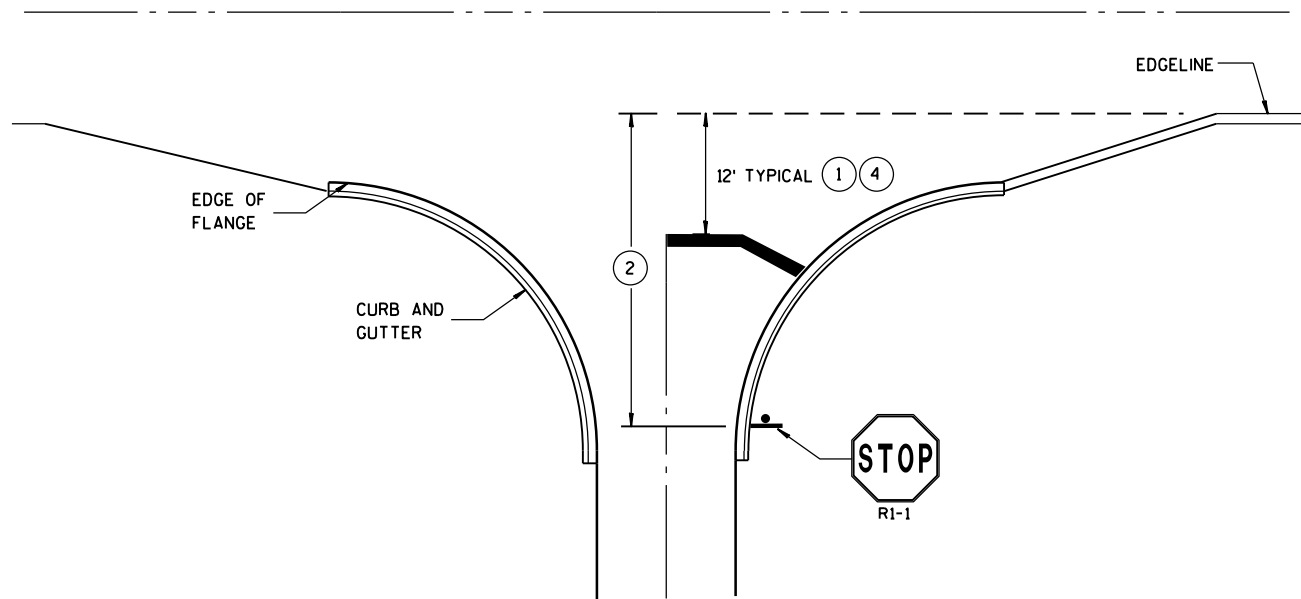
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

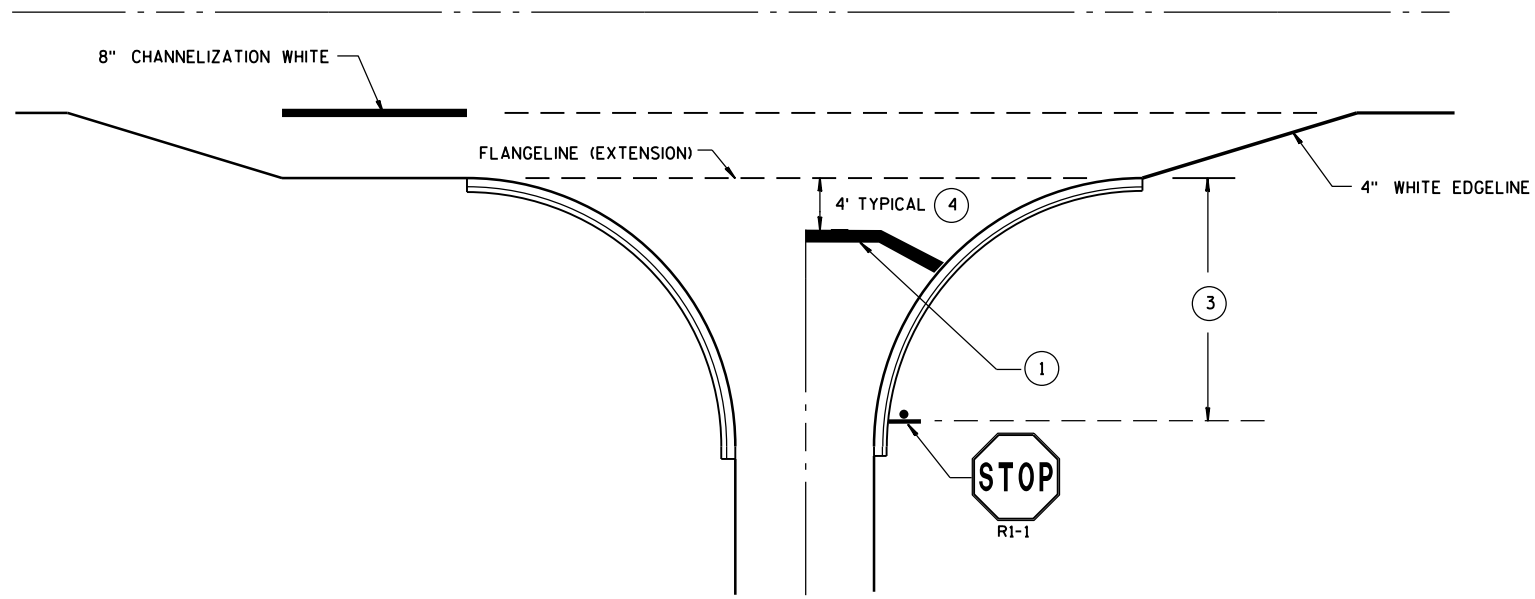
June 2017
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

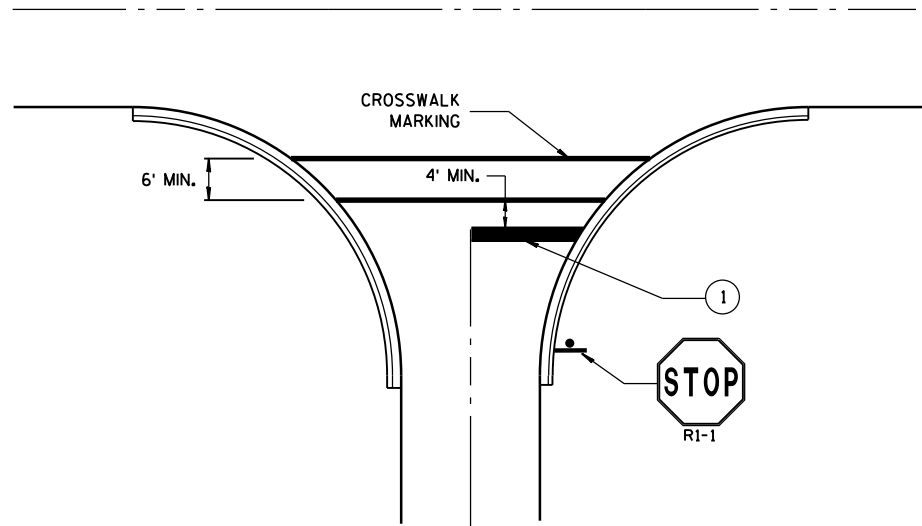
FHWA



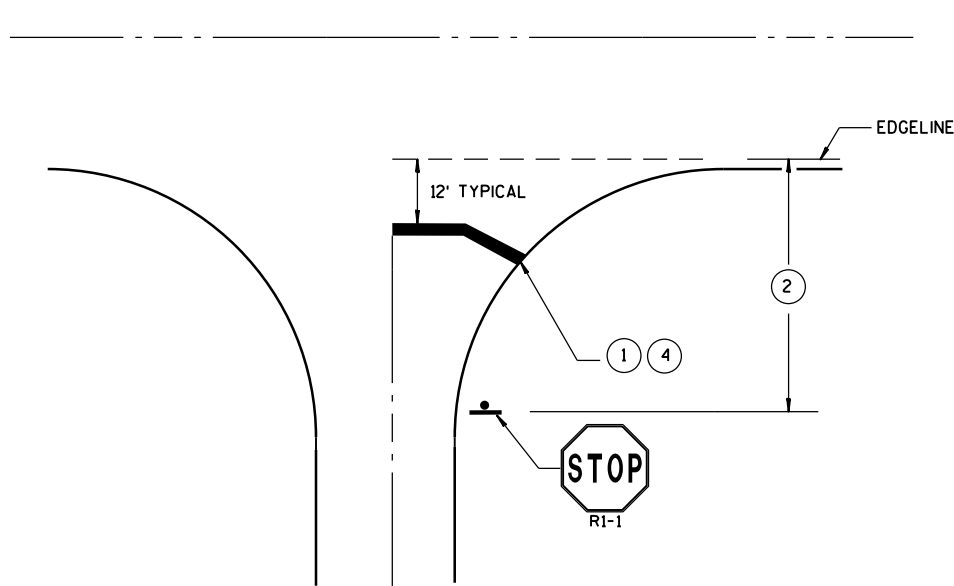
TYPICAL STOP LINE PAVEMENT MARKING
WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING
FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING
FOR SIDEROADS WITH CROSSWALK MARKING



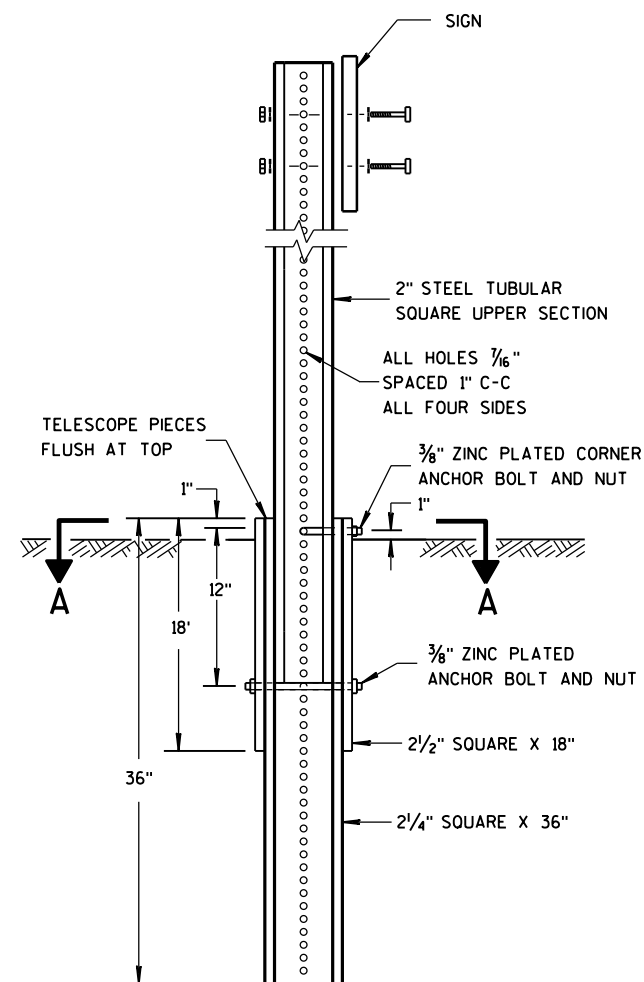
TYPICAL STOP LINE PAVEMENT MARKING
WITHOUT CURB AND GUTTER

GENERAL NOTES

STOP SIGN SHALL BE PLACED A MINIMUM OF 6 FEET TO A MAXIMUM OF 50 FEET FROM THE EDGE LINE LOCATION.

- 1 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE PROJECT ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
- 2 IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGE LINE THAN NO STOP LINE IS REQUIRED.
- 3 IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION THAN NO STOP LINE IS REQUIRED.
- 4 MOVE CLOSER TO EDGE OF TRAVEL LANE AS NEEDED FOR VISIBILITY AND SIGHT LINES. (NO CLOSER THAN 4 FEET).

STOP LINE AND CROSSWALK PAVEMENT MARKING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED DATE Sept., 2017	/S/ Matthew R. Rauch STATE SIGNING AND MARKING ENGINEER
FHWA	

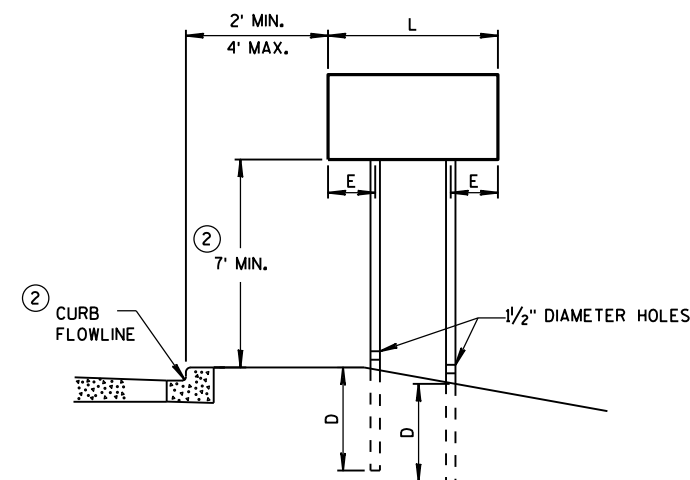
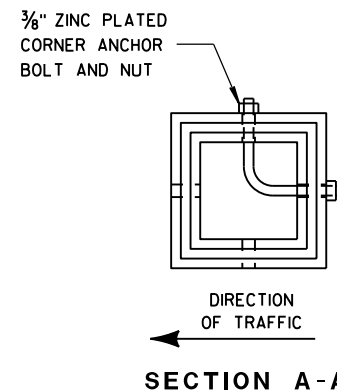


DETAIL OF TUBULAR
STEEL SIGN POST

TUBULAR STEEL POSTS

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

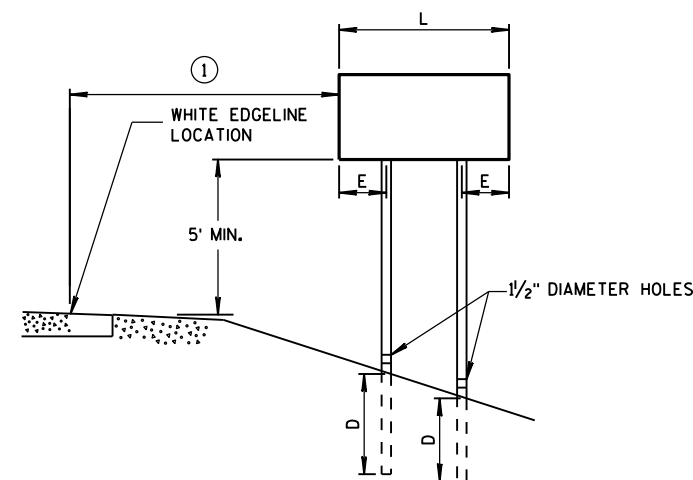
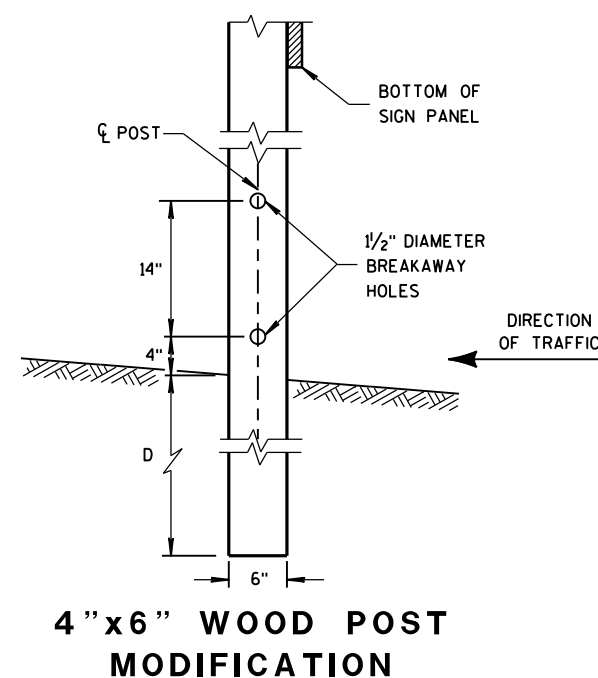
SIGNS WIDER THAN 3 FEET OR LARGER THAN 9 SQ. FT. SHALL BE MOUNTED ON MULTIPLE POSTS (SEE ABOVE TABLE).
SIGNS LARGER THAN 27 SQ. FT. SHALL NOT BE MOUNTED ON TUBULAR STEEL POSTS.



URBAN AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

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



RURAL AREA

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

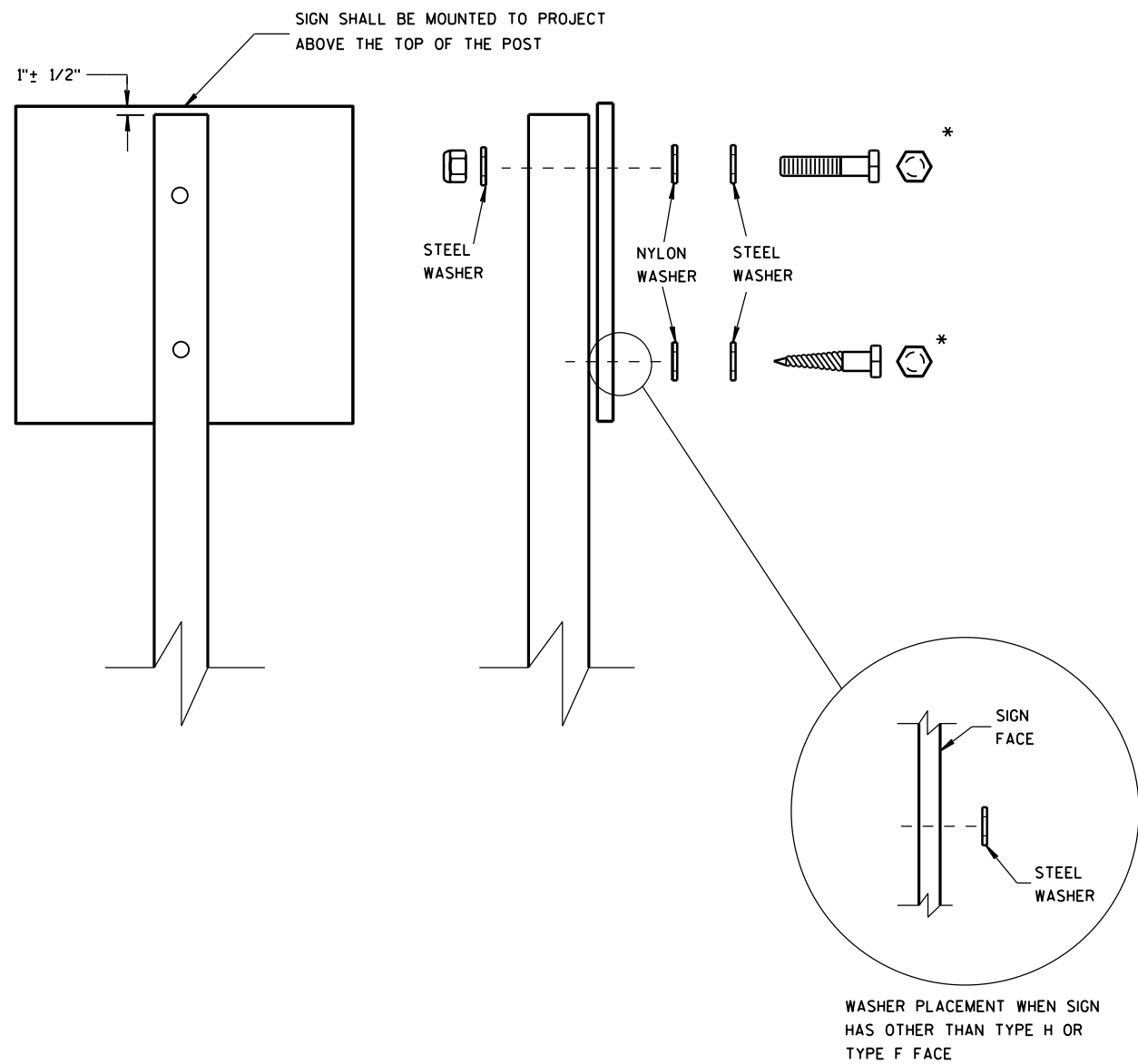
SEE NOTE ③

GENERAL NOTES

- ① 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.
- ② THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.
- ③ FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.

TEMPORARY TRAFFIC CONTROL
SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



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

- A. HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: A 153, CLASS D, OR SC 3
- B. ELECTRO-GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: B 633, TYPE III, SC 3

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

- WOOD POSTS (4" x 4" or 4" x 6")
- LAG SCREWS - 3/8" X 3"
 - MACHINE BOLTS - 5/16" X 6-1/2" OR 7" LENGTH W/ NUTS

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

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

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

ATTACHMENT OF SIGNS TO POSTS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2017 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

LEGEND

⊗ INDICATES WING NUMBER

STATE PROJECT NUMBER

9269-00-12

DESIGN DATA

DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: RF=1.39
OPERATING RATING FACTOR: RF=1.80
WISCONSIN STANDARD PERMIT VEHICLE (WIS.-SPV): 250 KIPS

STRUCTURE IS DESIGNED FOR A 1/2" SACRIFICIAL WEARING SURFACE, PLACED AT INITIAL CONSTRUCTION INTEGRAL WITH THE DECK. THE DESIGN PROVIDES FOR ADDITIONAL LOADS DUE TO A FUTURE WEARING SURFACE = 20 PSF.

MATERIAL PROPERTIES:

CONCRETE SUPERSTRUCTURE..... f'c = 4,000 P.S.I.
CONCRETE SUBSTRUCTURE..... f'c = 3,500 P.S.I.

BAR STEEL REINFORCEMENT, GRADE 60..... fy = 60,000 P.S.I.

FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON HP10x42 STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 110 TONS* PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATE 30'-0" LONG SOUTH ABUTMENT AND 30'-0" LONG NORTH ABUTMENT.

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

TRAFFIC VOLUME

VINCENT ROAD
A.D.T. = 2650 (2016)
A.D.T. = 8000 (2038)
R.D.S. 30 M.P.H.

HYDRAULIC DATA

Q₁₀₀ 840 CFS
V₁₀₀ 9.91 FPS
HW₁₀₀ EL. 592.69
WATERWAY AREA..... 94.71 SF
DRAINAGE AREA..... 4.9 SQ MILES
SCOUR CODE..... 5
OVERTOPPING FREQUENCY..... N/A
OVERTOPPING ELEVATION..... N/A
OVERTOPPING DISCHARGE..... N/A

2 YEAR FREQUENCY

O₂ 156 CFS
V₂ 4.73 FPS
HW₂ EL. 590.30

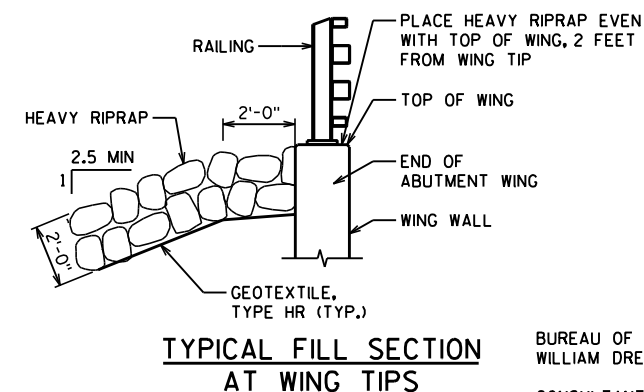
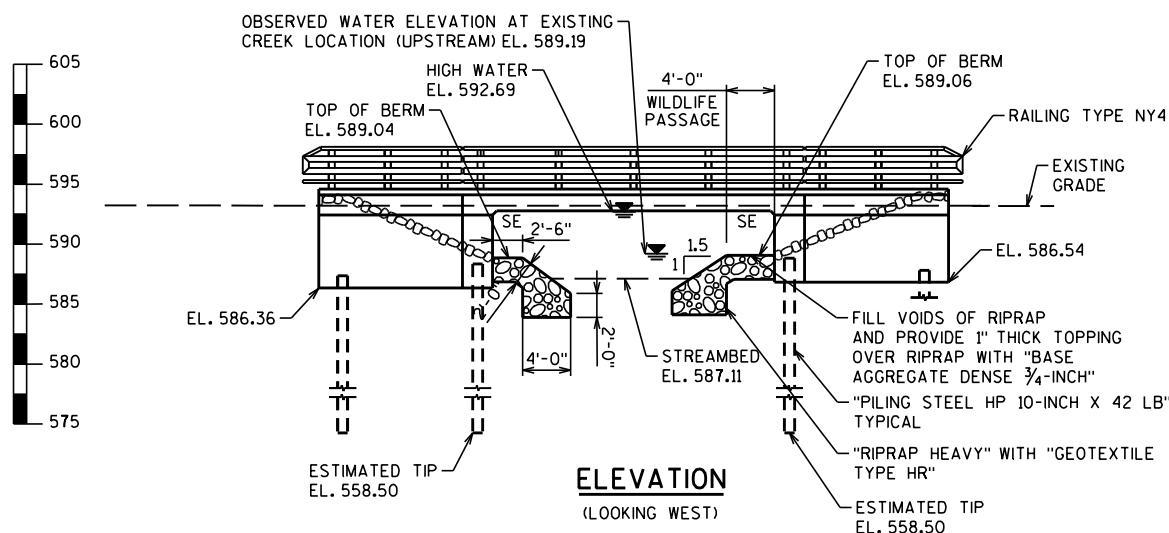
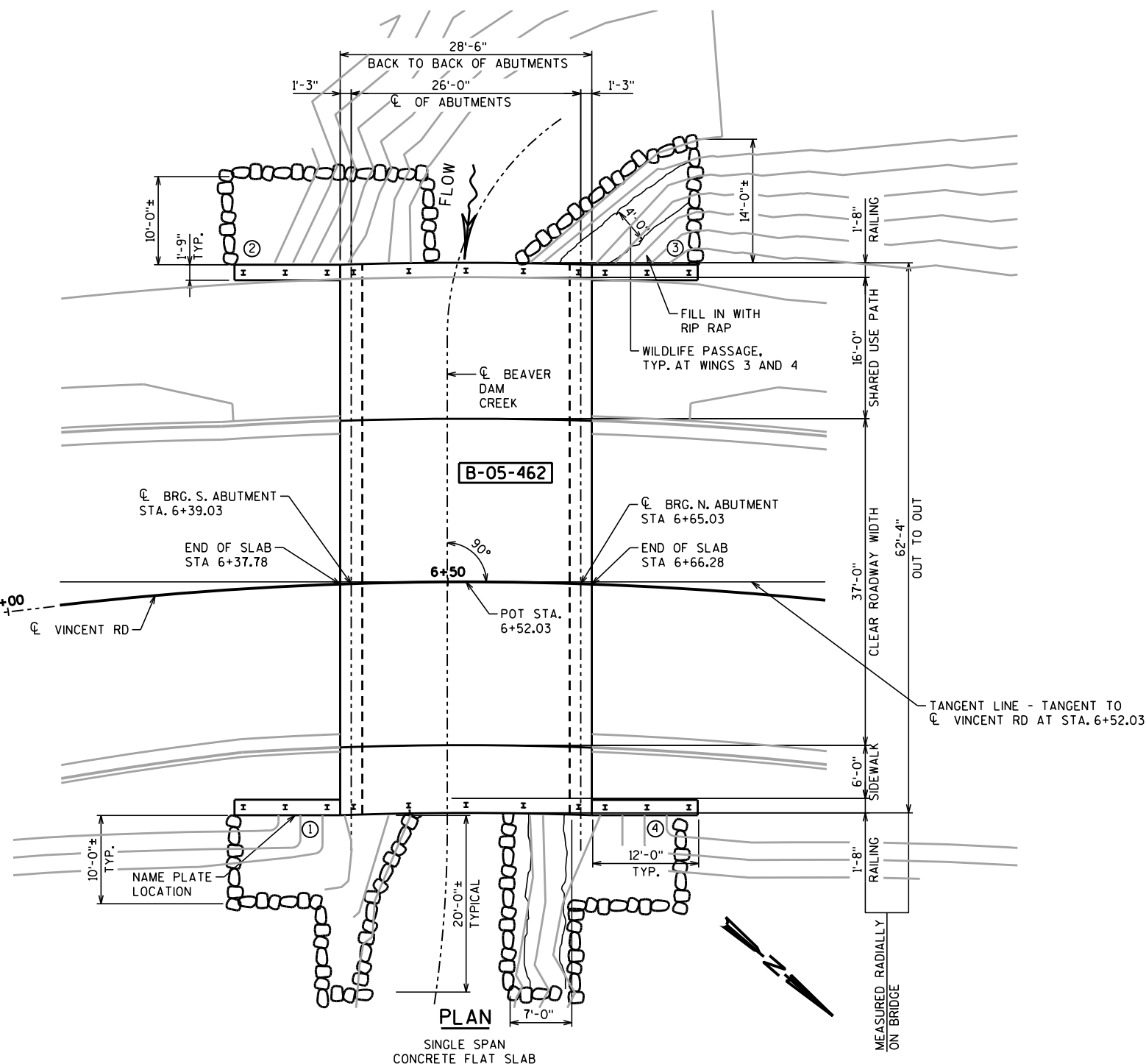
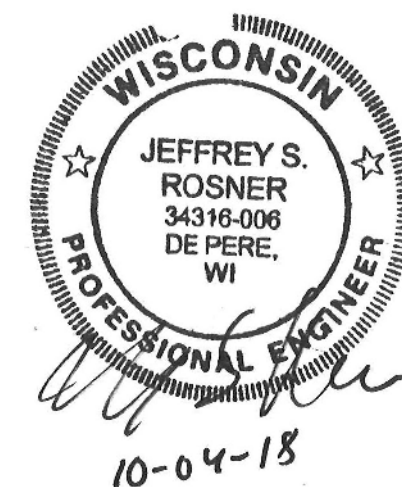
HORIZONTAL CURVE DATA

VINCENT ROAD

PI STA. 9+35.28 DELTA = 97°33'20.0" (RT)
N 57°59'6.77" T = 456.56'
E 85°40'1.16" R = 400.00
PC STA. 4+78.82 L = 681.07
PT STA. 11+59.88 D = 14°19'26.04"

LIST OF DRAWINGS

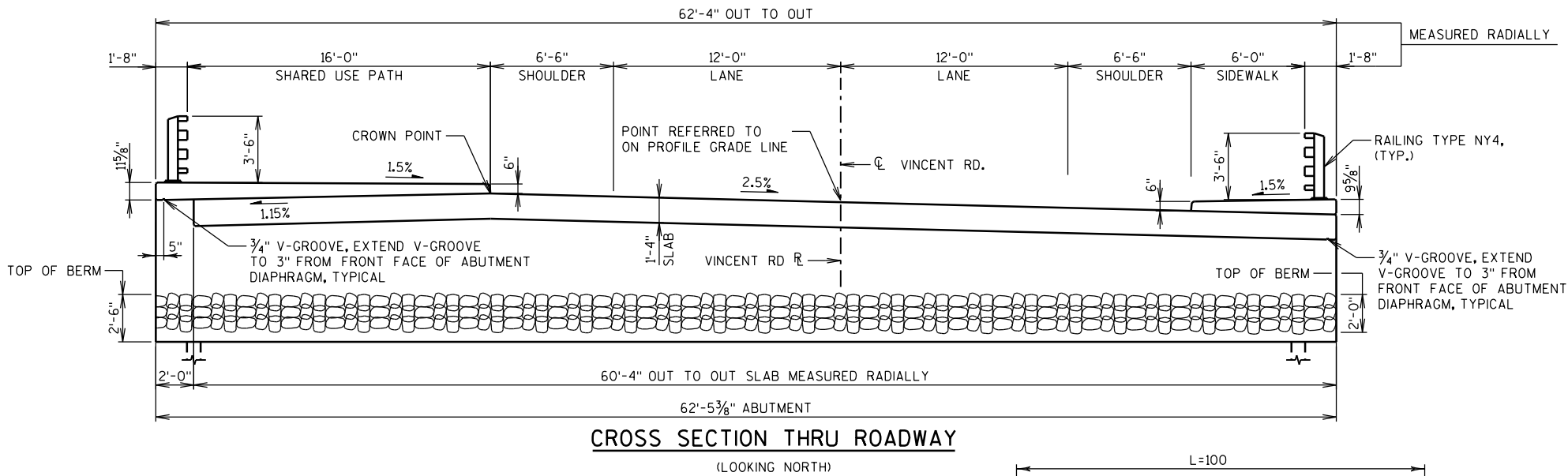
1. GENERAL PLAN
2. CROSS SECTION, GENERAL NOTES & QUANTITIES
3. SUBSURFACE EXPLORATION
4. SOUTH ABUTMENT
5. WINGWALLS 1 & 2 DETAILS
6. NORTH ABUTMENT
7. WINGWALLS 3 & 4 DETAILS
8. SUPERSTRUCTURE
9. SUPERSTRUCTURE DETAILS
10. SIDEWALK DETAILS FOR RAILING TYPE NY4
11. TUBULAR STEEL RAILING TYPE NY4
12. END POST DETAILS FOR RAILING TYPE NY4



BUREAU OF STRUCTURES CONTACT:
WILLIAM DREHER, P.E. 608-266-8489

CONSULTANT CONTACT:
JEFFREY S. ROSNER, P.E. 920-592-9440

NO.	DATE	REVISION	BY
1	10/4/18	1	W.D.
GRÄEF			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED <i>William C. Dreher</i> SDR 10/4/18 CHIEF STRUCTURES DESIGN ENGINEER DATE			
STRUCTURE B-05-462			
VINCENT RD OVER BEAVER DAM CREEK			
COUNTY	BROWN	VILLAGE	HOWARD
DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPEC.			
DESIGNED BY	JSR	DESIGN CK'D.	NDR
DRAWN BY	AMZ	PLANS CK'D.	JSR
GENERAL PLAN			SHEET 1 OF 12

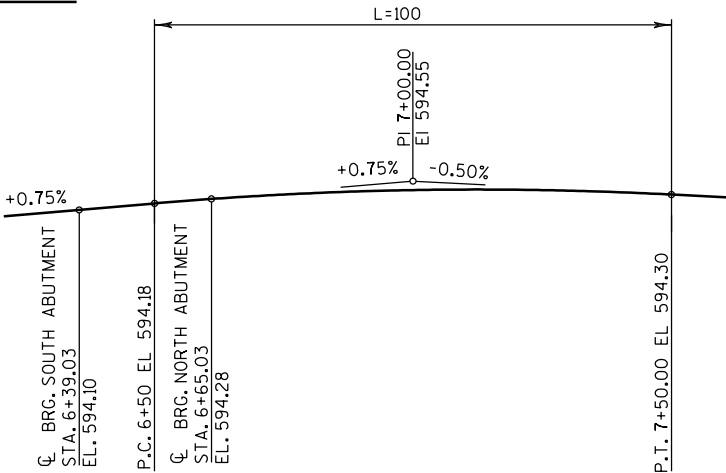


GENERAL NOTES

- DRAWINGS SHALL NOT BE SCALED.
- BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS SHOWN OR NOTED OTHERWISE.
- SLAB FALSEWORK SHALL BE SUPPORTED ON PILES OR THE SUBSTRUCTURE UNLESS AN ALTERNATE METHOD IS APPROVED BY THE ENGINEER.
- THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.
- THE STREAM BED IN FRONT OF THE ABUTMENT SHALL BE COVERED WITH RIPRAP AS SHOWN ON THIS SHEET AND IN THE ABUTMENT DETAILS.
- AT THE BACKFACE OF ABUTMENT ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL.
- THE EXISTING STRUCTURE IS A SINGLE SPAN FLAT SLAB STRUCTURE WITH AN OVERALL WIDTH OF 6'-0" AND APPROXIMATE LENGTH OF 30'-0". EXISTING STRUCTURE TO BE REMOVED.
- ALL STATIONS AND ELEVATIONS ARE IN FEET.
- PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE ENTIRE TOP OF SLAB, SIDEWALKS, CURB VERTICAL FACE, TOP OF EXPOSED PORTIONS OF WINGWALLS, AND 1'-0" RETURN UNDER SLAB.
- BEVEL EXPOSED EDGES OF CONCRETE 3/4" UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL SUPPLY A NEW NAME PLATE IN ACCORDANCE WITH SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS AND THE STANDARD DETAIL DRAWINGS.
- THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES BRIDGES B-05-462" SHALL BE THE EXISTING GROUNDLINE.
- THE BACKFILL QUANTITIES ARE BASED ON THE PAY LIMITS SHOWN ON THE PLANS AND MAY NOT REFLECT ACTUAL PLACED QUANTITIES. "BACKFILL STRUCTURE TYPE A" REQUIRED DIRECTLY BEHIND ABUTMENTS AND ABUTMENT WINGS FOR 3 FEET. BACKFILL PLACED BEYOND PAY LIMITS OR EXCEEDING PLAN QUANTITIES SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES.
- EXCAVATION BELOW THE ABUTMENT AND ABUTMENT BEDDING MATERIALS REQUIRED ENGINEER APPROVAL. GEOTEXTILE SHALL BE SET AT THE BOTTOM OF EXCAVATION AND EXTEND 2'-0" ABOVE BOTTOM OF ABUTMENT.

BENCH MARKS

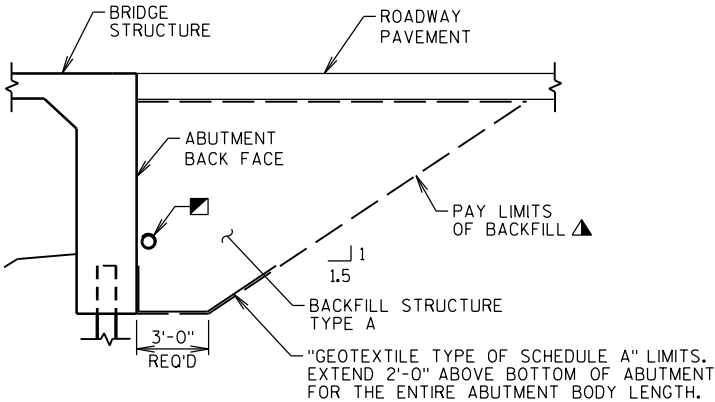
NO.	STATION	DESCRIPTION	ELEV.
1	201+30.00 RT	TOP NUT ON HYDRANT	598.84
2	5+10.00 RT	TOP NUT ON HYDRANT	595.84



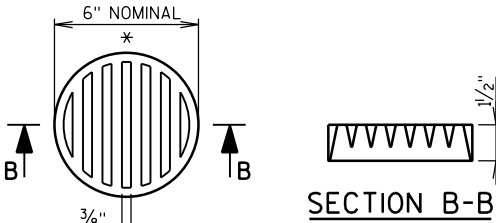
ESTIMATED QUANTITIES

ITEM NO.	BID ITEMS	UNIT	S ABUT	N ABUT	SUPER	TOTALS
203.0600.S	REMOVING OLD STRUCTURE OVER WATERWAY WITH MINIMAL DEBRIS STA. 7+64.00, 62.8' LT	LS	--	--	--	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-05-462	LS	--	--	--	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	219	219	--	438
305.0110	BASE AGGREGATE DENSE 3/4-INCH	TON	--	15	--	15
502.0100	CONCRETE MASONRY BRIDGES	CY	55	55	112	222
502.3200	PROTECTIVE SURFACE TREATMENT	SY	5	5	215	225
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	3,630	3,630	--	7,260
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1,670	1,670	22,810	26,150
513.7084	RAILING STEEL TYPE NY4 B-05-462	LF	--	--	--	111
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	16	16	--	32
550.0500	PILE POINTS	EACH	11	11	--	22
550.1100	PILING STEEL HP 10-INCH X 42 LB	LF	330	330	--	660
606.0300	RIPRAP HEAVY	CY	89	93	--	182
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	97	97	--	194
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	54	54	--	108
645.0120	GEOTEXTILE TYPE HR	SY	137	144	--	281
	NON-BID ITEMS					
	PREFORMED JOINT FILLER	SIZE				1/2", 3/4"
	NAME PLATE	EACH				1

PROFILE VINCENT RD



TYPICAL SECTION THRU ABUTMENT



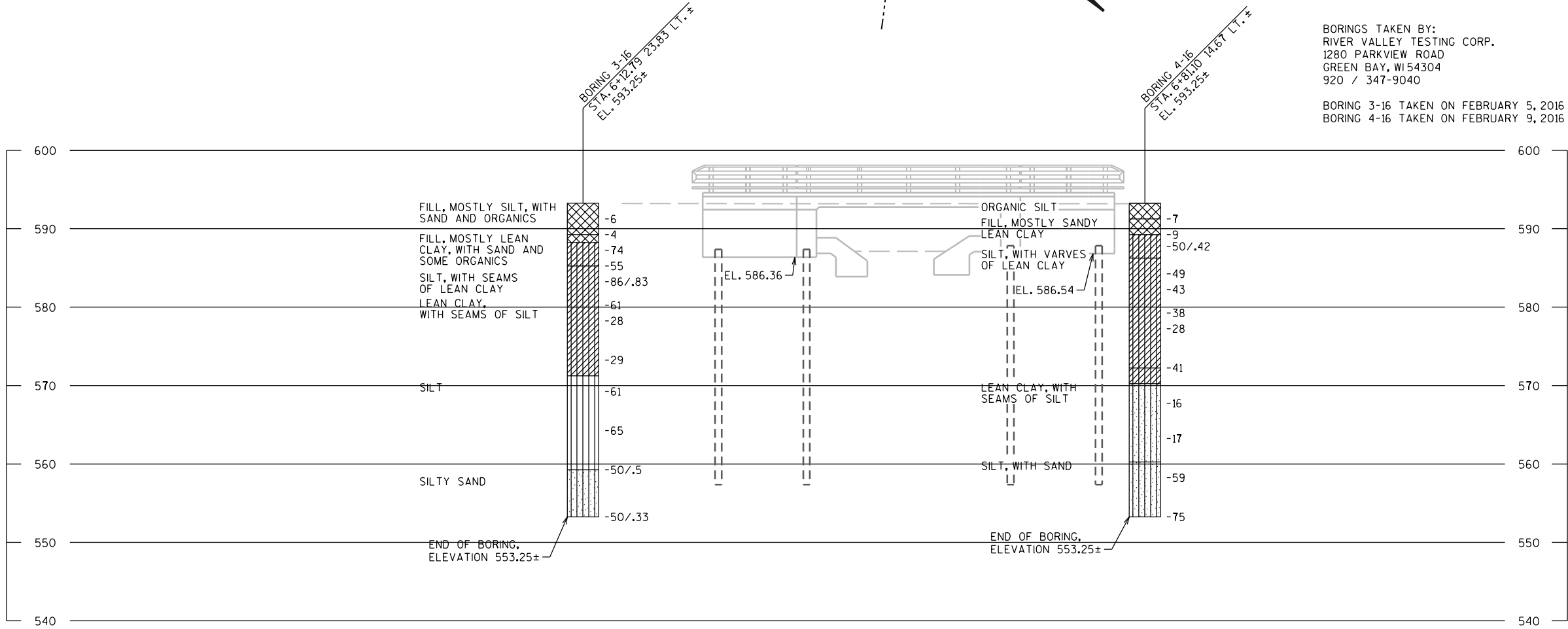
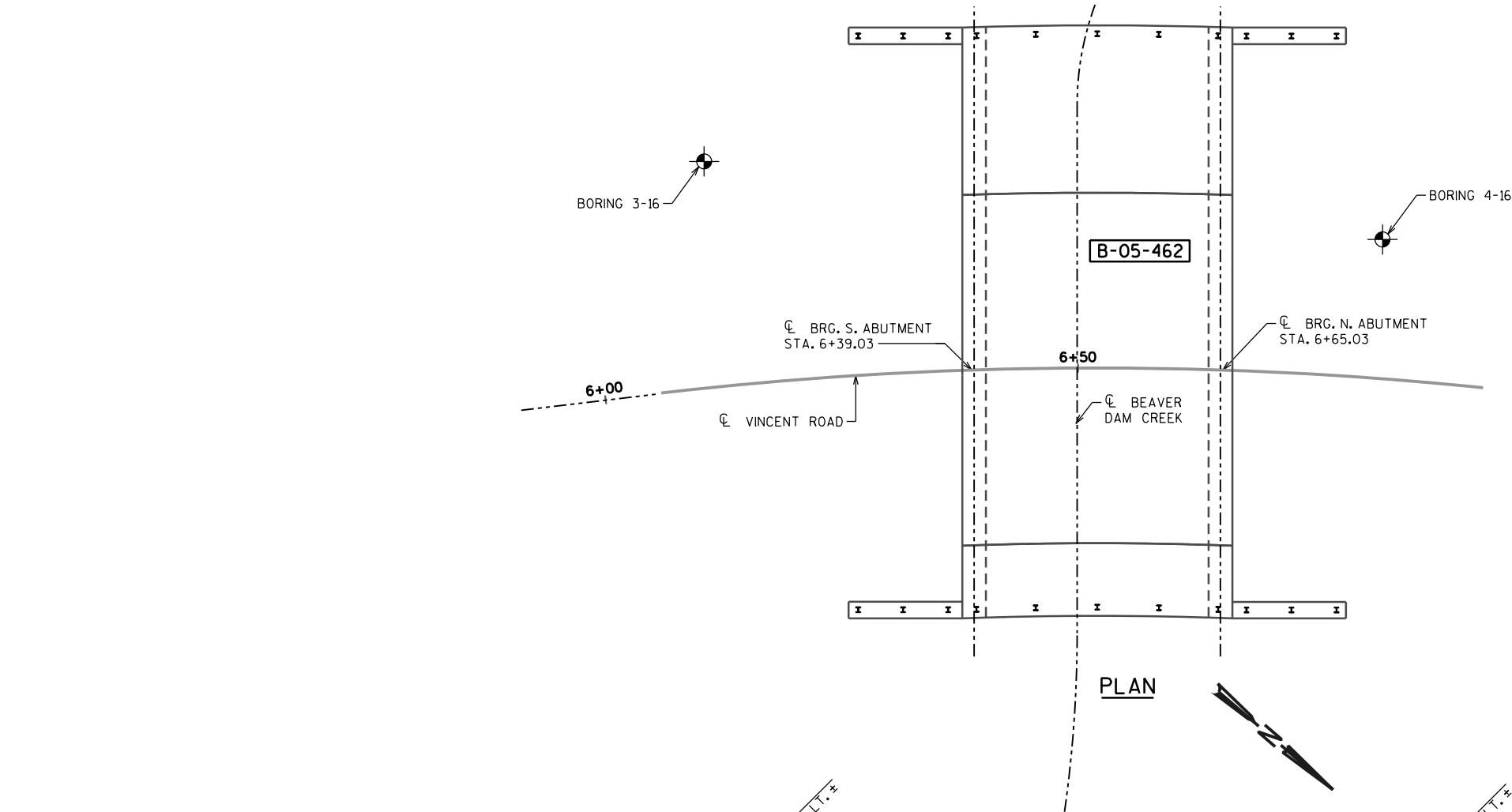
RODENT SHIELD DETAIL

- * DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.
- THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".
- THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

LEGEND

- ▲ BACKFILL PAY LIMITS. BACKFILL BEYOND PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.
- PIPE UNDERDRAIN WRAPPED (6-INCH), SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN.

NO.	DATE	REVISION	BY
		STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
		STRUCTURE B-05-462	
		DRAWN BY: AMZ PLANS CK'D: JSR	
		CROSS SECTION, GENERAL NOTES & QUANTITIES	SHEET 2 OF 12



BORINGS TAKEN BY:
RIVER VALLEY TESTING CORP.
1280 PARKVIEW ROAD
GREEN BAY, WI 54304
920 / 347-9040

BORING 3-16 TAKEN ON FEBRUARY 5, 2016
BORING 4-16 TAKEN ON FEBRUARY 9, 2016

STATE PROJECT NUMBER

9269-00-12

MATERIAL SYMBOLS

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

LEGEND OF BORING

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

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

GROUND WATER ELEVATION

AT TIME OF DRILLING

END OF DRILLING

AFTER DRILLING

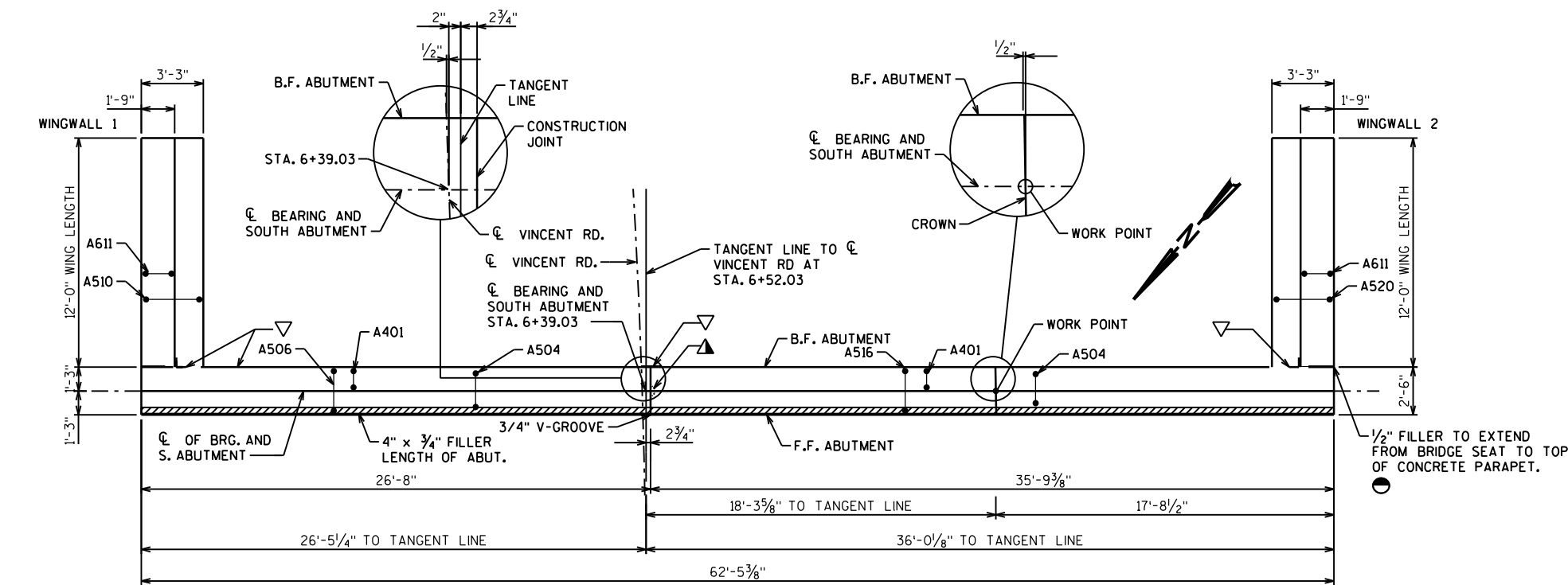
ABBREVIATIONS

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

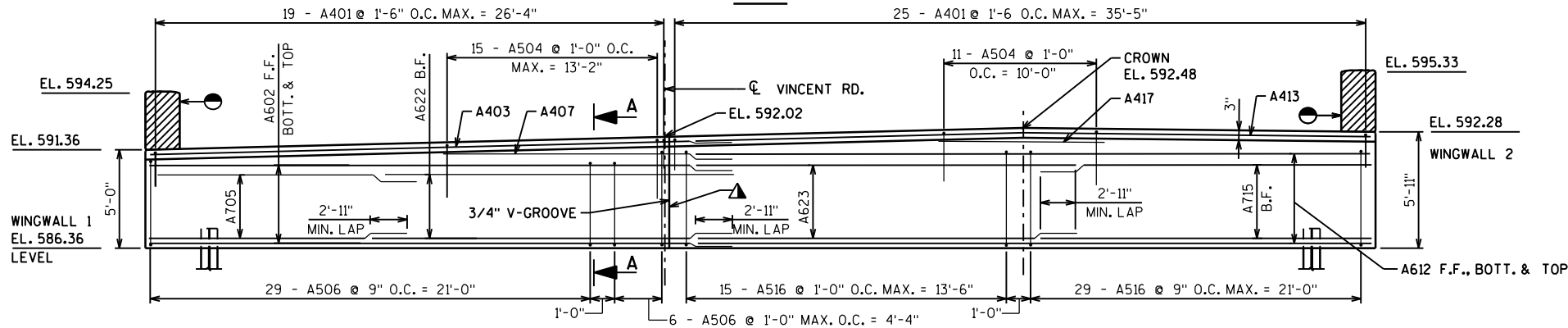
SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

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

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION			
STRUCTURE B-05-462			
DRAWN BY		AMZ	PLANS CK'D. JSR
SUBSURFACE EXPLORATION		SHEET 3 OF 12	

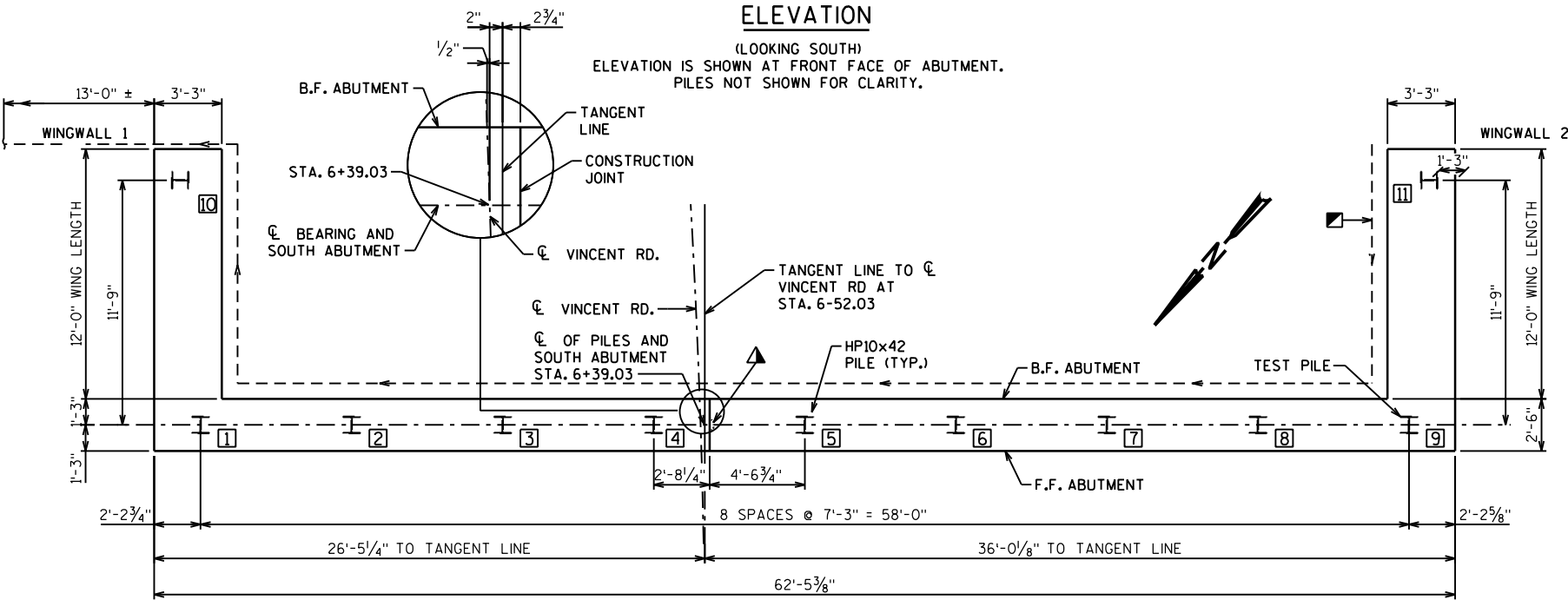


PLAN

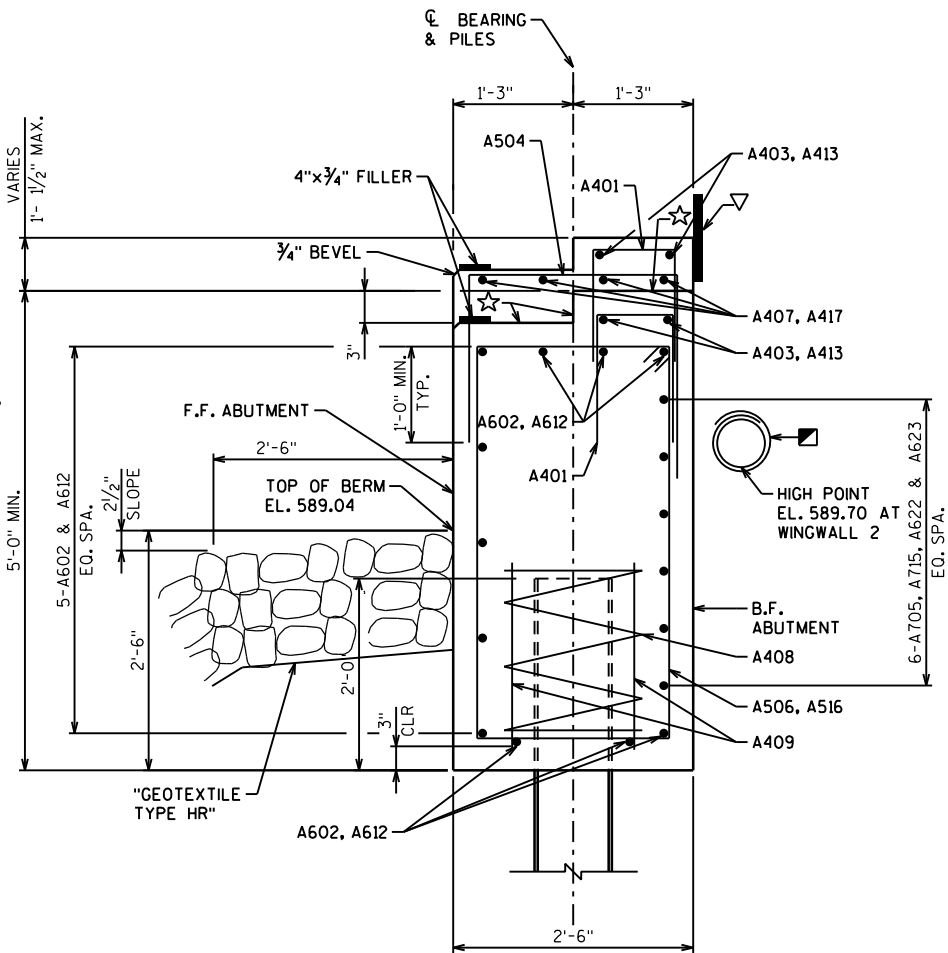


ELEVATION

(LOOKING SOUTH)
ELEVATION IS SHOWN AT FRONT FACE OF ABUTMENT.
PILES NOT SHOWN FOR CLARITY.



PILE PLAN



SECTION A-A
THROUGH SOUTH ABUTMENT

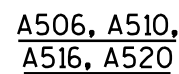
LEGEND

- ▽ 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.
- ▲ VERTICAL CONSTRUCTION JOINT KEYWAY FORMED BY BEVELED 2"x8". SEE SHEET 5 FOR ALTERNATE CONSTRUCTION JOINT.
- PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN. SEE SHEET 2.
- ☒ = PILE NUMBER
- ★ STEEL TROWEL TOP SURFACE OF ABUTMENT, PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING SUPERSTRUCTURE. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".
- 1/2" FILLER (INCLUDED IN WING LENGTH); SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF 1/2" FILLER WITH NON-STAINING AND NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW SIDEWALK TOP OF INSIDE FACE.

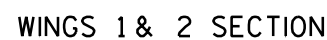
ABUTMENT NOTES

ABUTMENT TO BE SUPPORTED ON HP10x42 STEEL PILING WITH A REQUIRED DRIVING RESISTANCE OF 110 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC EQUATION. ESTIMATED 30'-0" LONG. PROVIDE ONE TEST PILE AS SHOWN. SEE SHEET 6 FOR PILE SPLICE DETAILS.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-05-462			
DRAWN BY AMZ		PLANS CK'D. JSR	
SOUTH ABUTMENT		SHEET 4 OF 12	



THE FIRST DIGIT OF A THREE DIGIT BAR MARK INDICATES BAR SIZE.
ALL DIMENSIONS IN THE BAR BENDS ARE OUT TO OUT.



PARTIAL ZINC OR PLASTIC BULKHEAD MAY BE USED AS ALTERNATE CONSTRUCTION JOINT, WITH THE PERMISSION OF THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.

VERTICAL CONSTRUCTION JOINT KEYWAY IS NOT
REQUIRED WHEN USING ALTERNATE CONSTRUCTION
JOINT.

CARE IS TO BE USED IN CASTING CONCRETE AROUND BULKHEAD TO PREVENT DISLOCATION OR MISALIGNMENT OF THE BULKHEAD.

SAW CUTTING JOINT IS NOT ALLOWED.

☆ USE A JOINT TOOL TO CONSTRUCT A CONTRACTION JOINT APPROXIMATELY 1/2" DEEP.

* BENT ZING OR PLASTIC STRIP.

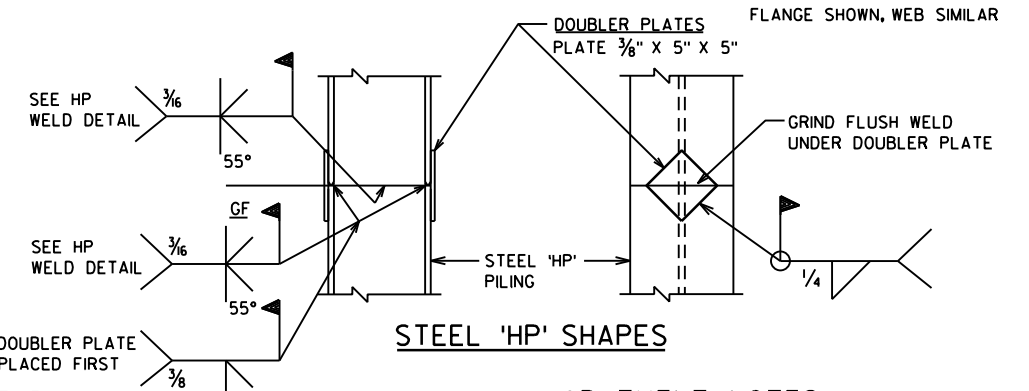


- OPTIONAL CONSTRUCTION JOINT FORMED BY BEVELED 2"x6" KEYWAY WITH MEMBRANE ON BACKFACE
- ▽ 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.
- PIPE UNDERDRAIN WRAPPED (6-INCH), SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN. SEE SHEET 2.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-05-462			
		DRAWN BY AMZ	PLANS CK'D. JSR
WINGWALLS 1 & 2 DETAILS		SHEET 5 OF 12	



PILE PLAN



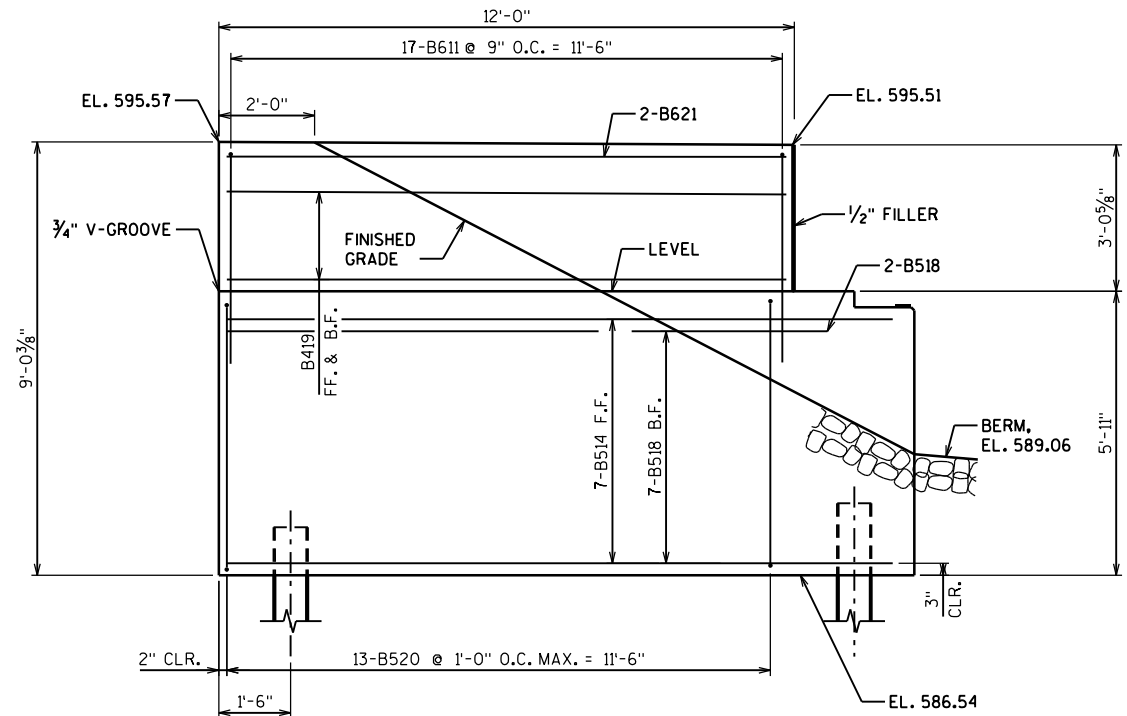
LEGEND

- ▽ 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.
- ▲ VERTICAL CONSTRUCTION JOINT KEYWAY FORMED BY BEVELED 2"x8". SEE SHEET 5 FOR ALTERNATE CONSTRUCTION JOINT.
- PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN. SEE SHEET 2.
- ☒ = PILE NUMBER
- ☆ STEEL TROWEL TOP SURFACE OF ABUTMENT, PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING SUPERSTRUCTURE. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".
- 1/2" FILLER (INCLUDED IN WING LENGTH); SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF 1/2" FILLER WITH NON-STAINING AND NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW SIDEWALK TOP OF INSIDE FACE.

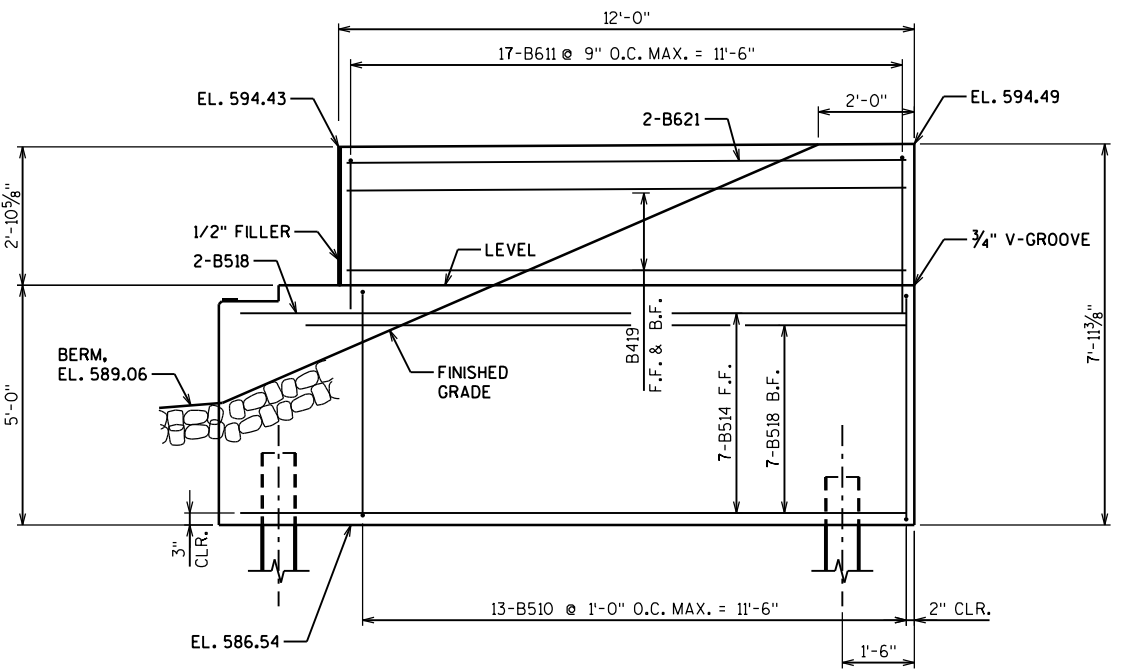
ABUTMENT NOTES

ABUTMENT TO BE SUPPORTED ON HP10x42 STEEL
PILING WITH A REQUIRED DRIVING RESISTANCE OF
110 TONS PER PILE AS DETERMINED BY THE
MODIFIED GATES DYNAMIC EQUATION, ESTIMATED
30'-0" LONG. PROVIDE ONE TEST PILE AS SHOWN.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-05-462			
		DRAWN BY AMZ	PLANS CK'D. JSR
NORTH ABUTMENT		SHEET 6 OF 12	



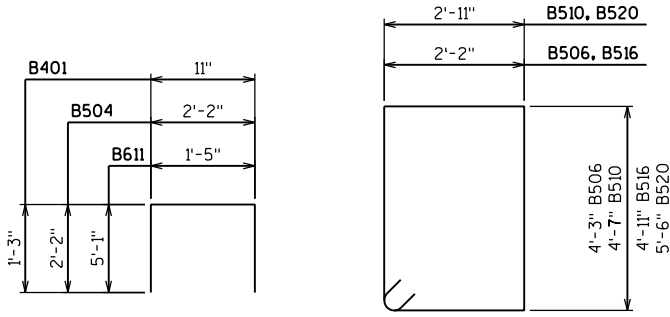
WINGWALL 3 ELEVATION



WINGWALL 4 ELEVATION

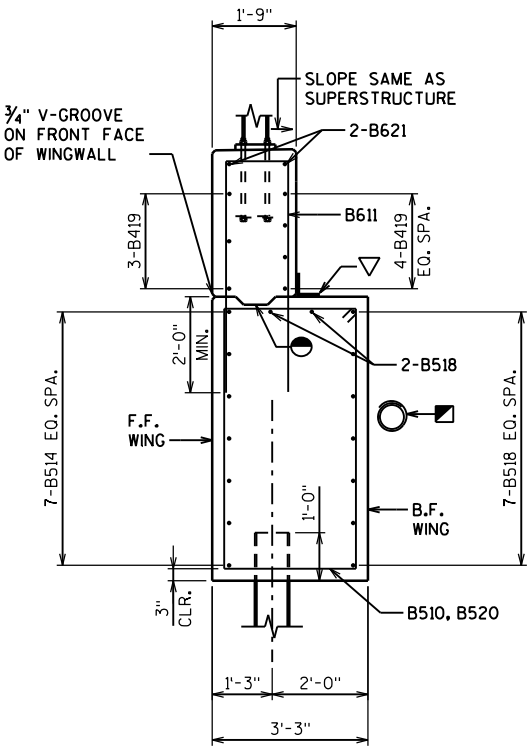
- BILL OF BARS					
MARK	COATED	NO. REQ'D	LENGTH	BAR SERIES	BENT
B401		44	3'-3"		X
B602		11	29'-8"		
B403		2	29'-8"		
B504		26	6'-3"		X
B705		6	12'-0"		
B506		35	13'-6"		X
B407		4	16'-6"		
B408		11	28'-0"		X
B409		22	2'-3"		
B510	X	13	15'-8"		X
B611	X	34	11'-3"		X
B612		11	35'-6"		
B413		2	35'-6"		
B514	X	14	14'-2"		
B715		6	12'-0"		
B516		44	14'-10"		X
B417		4	10'-0"		
B518	X	18	13'-9"		
B419	X	14	11'-7"		
B520	X	13	17'-6"		X
B621	X	4	11'-7"		
B622		6	20'-7"		
B623		6	26'-6"		

THE FIRST DIGIT OF A THREE DIGIT BAR MARK INDICATES BAR SIZE.
ALL DIMENSIONS IN THE BAR BENDS ARE OUT TO OUT.



B410, B504, B611

B506, B510, B516, B520

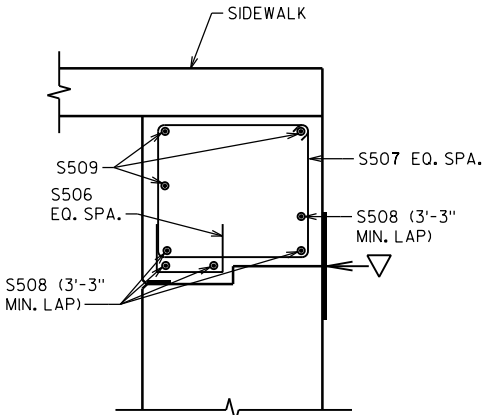
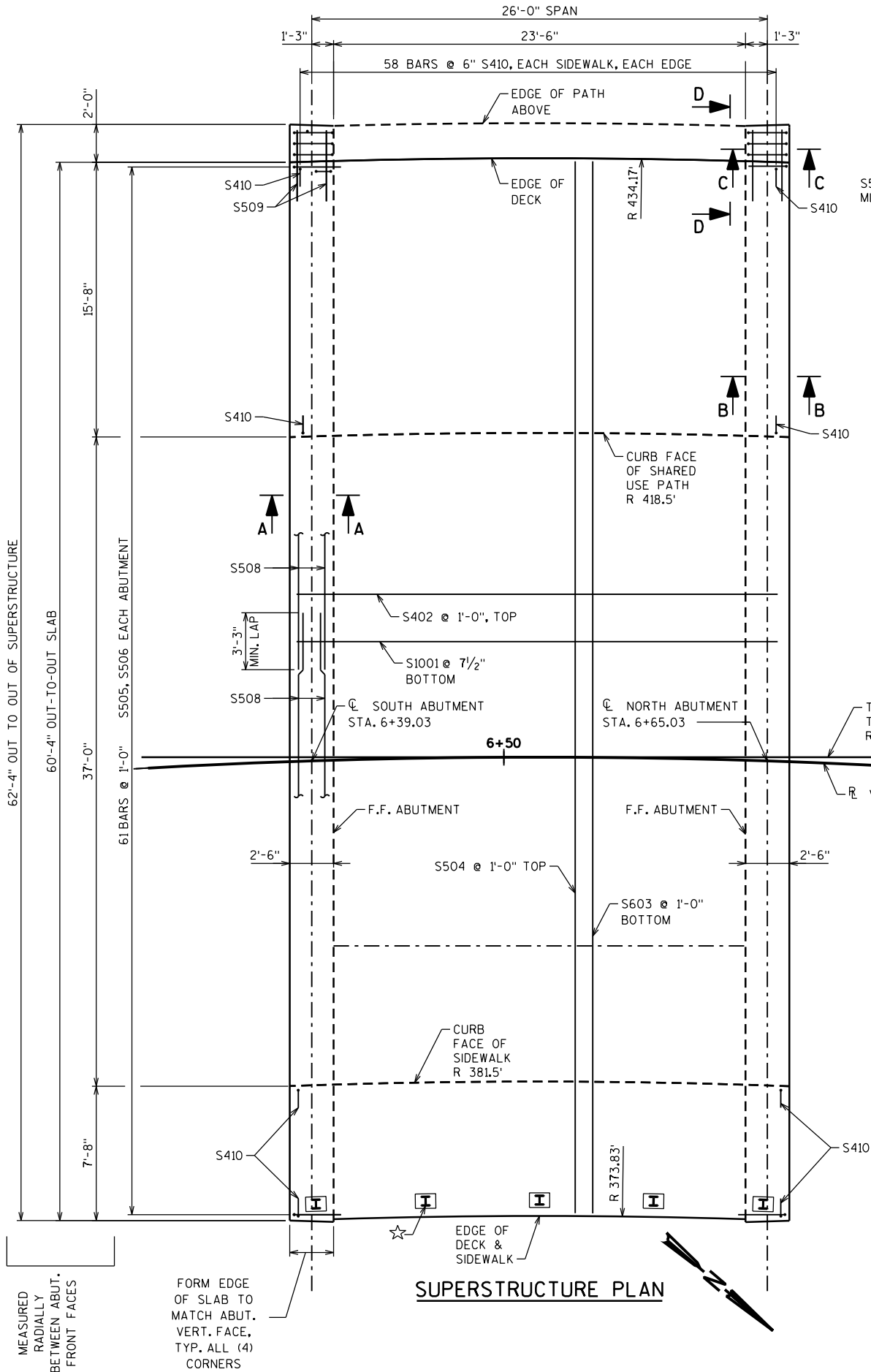


WINGS 3 & 4 SECTION

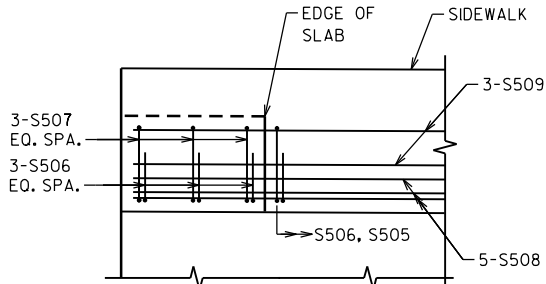
LEGEND

- OPTIONAL CONSTRUCTION JOINT FORMED BY BEVELED 2"x6" KEYWAY WITH MEMBRANE ON BACKFACE
- 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.
- PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN. SEE SHEET 2.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-05-462			
DRAWN BY AMZ		PLANS CK'D. JSR	
WINGWALLS 3 & 4 DETAILS			SHEET 7 OF 12



SECTION C-C
THRU SIDEWALK
OVERHANG



SECTION D-D

SURVEY TOP OF SLAB ELEVATIONS

	S. ABUTMENT	5/10 PT.	N. ABUTMENT
W. GUTTER LINE			
R VINCENT ROAD			
E. GUTTER LINE			

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

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

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

TOP OF SLAB ELEVATIONS

SPAN POINT	CL. S. ABUT.	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	CL. N. ABUT.
STATION	6+39.03	6+41.63	6+44.23	6+46.83	6+49.43	6+52.03	6+54.63	6+57.23	6+59.83	6+62.43	6+65.03
W. EDGE OF DECK	594.38	594.40	594.42	594.44	594.46	594.47	594.49	594.51	594.53	594.54	594.56
CROWN	594.56	594.58	594.60	594.62	594.64	594.65	594.67	594.69	594.71	594.72	594.74
REF. LINE VINCENT RD	594.10	594.12	594.14	594.16	594.18	594.19	594.21	594.23	594.25	594.26	594.28
E. EDGE OF DECK	593.44	593.46	593.48	593.50	593.52	593.54	593.56	593.58	593.60	593.61	593.63

SUPERSTRUCTURE NOTES

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

TRANSVERSE BARS SHALL BE PLACED PARALLEL TO THE CENTERLINE OF SUBSTRUCTURE UNITS.

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

CAMBER SPAN AS SHOWN TO PROVIDE FOR DEAD LOAD DEFLECTION AND FUTURE CREEP. CAMBER DOES NOT INCLUDE ALLOWANCE FOR FORM SETTLEMENT.

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

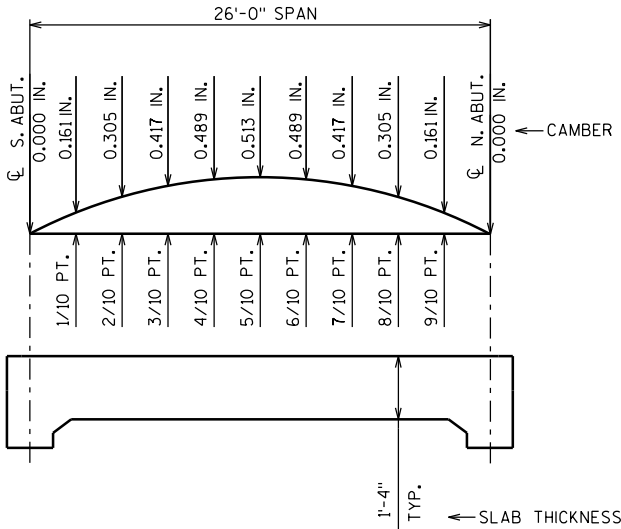
PRIOR TO RELEASING THE SLAB FALSEWORK, TAKE TOP OF SLAB ELEVATIONS AT THE CL OF ABUTMENTS AND THE 5/10 PTS., TO VERIFY CAMBER. TAKE ELEVATIONS ALONG GUTTER LINES AND CROWN OR CL.

SEE SHEET 9 FOR SECTIONS A-A, AND B-B.

SIDEWALK REINFORCEMENT THAT IS NOT EMBEDDED INTO THE SLAB IS NOT SHOWN FOR CLARITY.

SEE SHEET 10 FOR SECTIONS THRU SIDEWALK AND MIXED USE PATH.

SEE SHEET 10 FOR RAILING POST LAYOUT PLAN



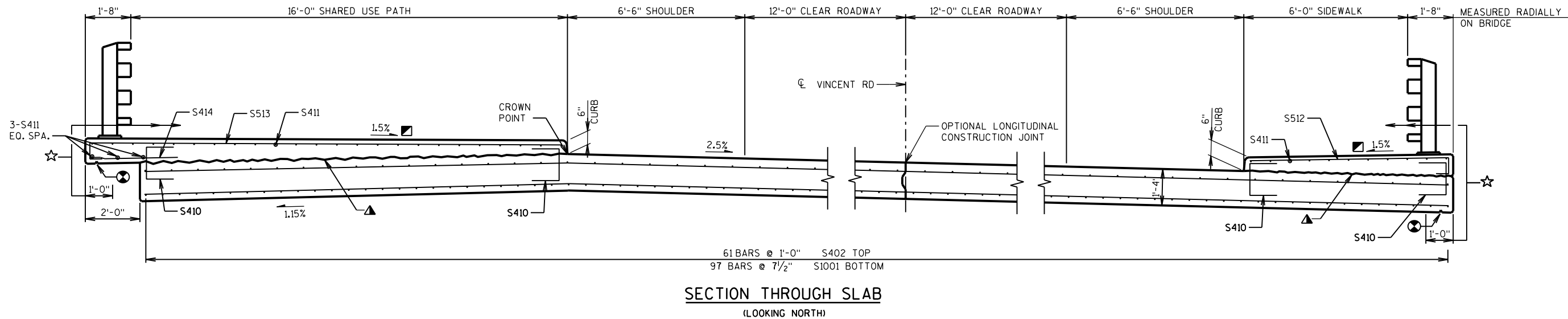
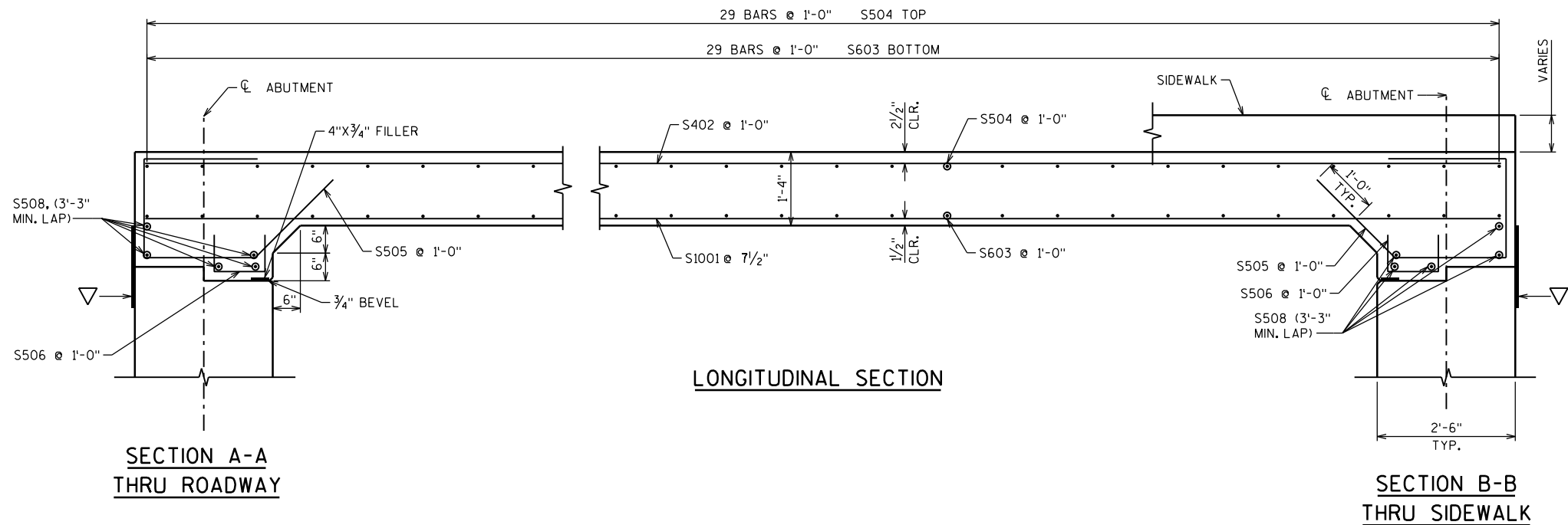
CAMBER AND SLAB THICKNESS DIAGRAM

CAMBER SHOWN IS BASED ON 3 TIMES DEAD LOAD DEFLECTIONS. CAMBER SPANS AS SHOWN TO PROVIDE FOR DEAD LOAD DEFLECTION AND FUTURE CREEP. CAMBER DOES NOT INCLUDE ALLOWANCE FOR FORM SETTLEMENT. SIDEWALKS PLACED ON TOP OF THE SLAB SHALL BE POURED AFTER FALSEWORK HAS BEEN RELEASED.

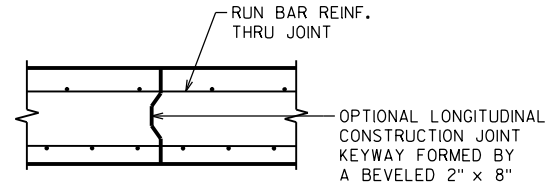
LEGEND

☆ ONLY RAIL POSTS WITH ANCHORAGES INTO SLAB SHOWN FOR CLARITY

NO.	DATE	REVISION	BY
		STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
		STRUCTURE B-05-462	
		DRAWN BY: AMZ	PLANS CK'D: JSR
		SUPERSTRUCTURE PLAN	SHEET 8 OF 12



BILL OF BARS						
MARK	COATED	NO. REQ'D	LENGTH	BAR SERIES	BENT	LOCATION
S1001	X	97	28'-1"			SLAB LONG. BTM.
S402	X	61	28'-1"			SLAB LONG. TOP
S603	X	29	60'-0"			SLAB TRANS. BTM.
S504	X	29	60'-0"			SLAB TRANS. TOP
S505	X	122	7'-9"		X	DIAPH. VERT.
S506	X	128	2'-0"		X	DIAPH. VERT. BTM. U SHAPED
S507	X	6	8'-0"		X	DIAPH. STIRRUP @ PATH OVERHANG
S508	X	20	32'-9"			DIAPH. LONG.
S509	X	6	4'-0"		X	DIAPH. LONG. @ PATH OVERHANG
S410	X	232	3'-0"		X	SIDEWALK/PATH DOWELS
S411	X	38	28'-1"			SIDEWALK/PATH LONG.
S512	X	58	7'-11"		X	SIDEWALK TRANS. TOP
S513	X	58	17'-11"		X	PATH TRANS. TOP
S414	X	20	3'-0"			PATH TRANS. BTM. @ OVERHANG
S615	X	20	12'-0"		X	SIDEWALK/PATH TRANS. TOP @ RAIL POST
S616	X	40	6'-0"			SIDEWALK/PATH LONG. TOP @ RAIL POST



LEGEND

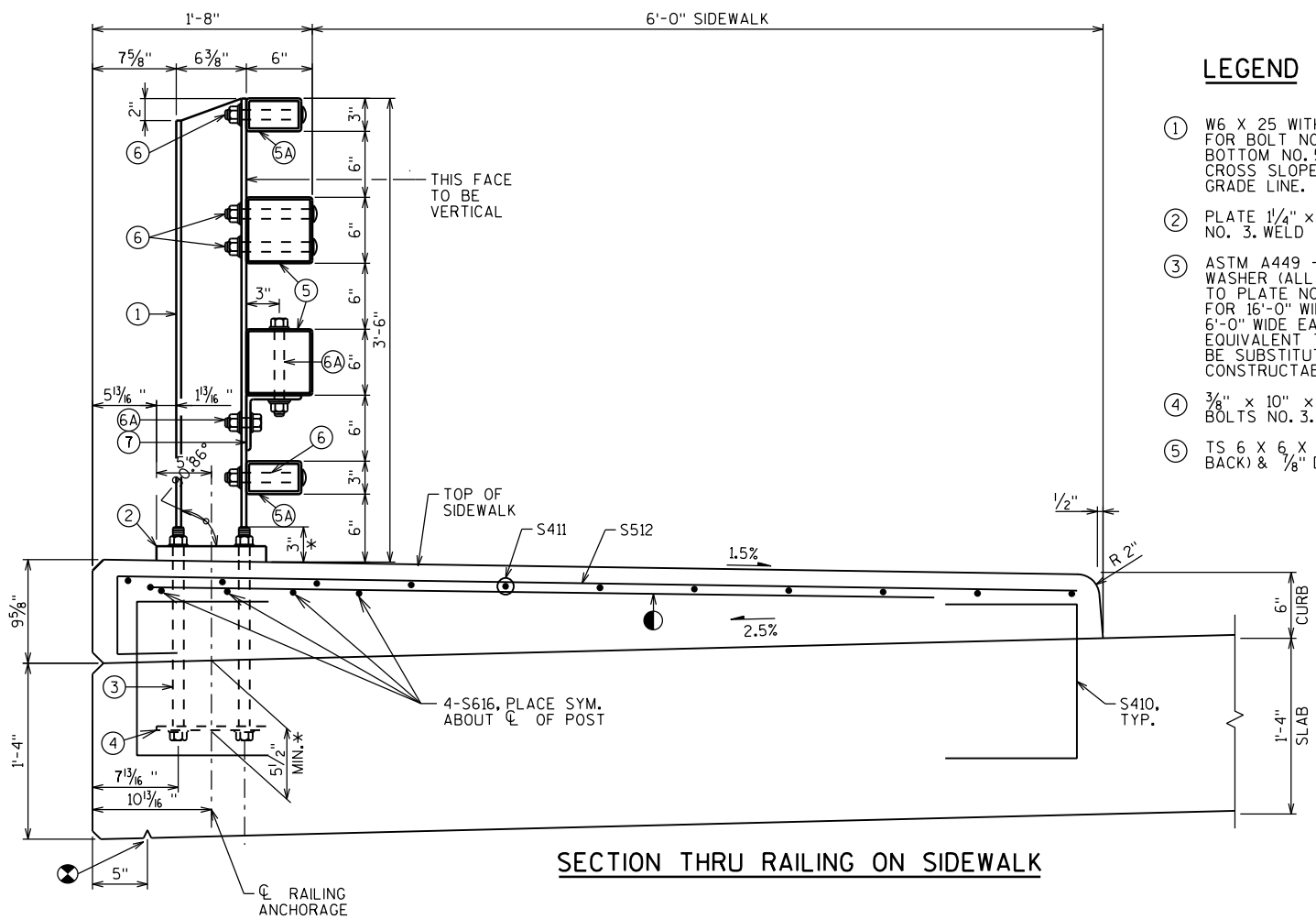
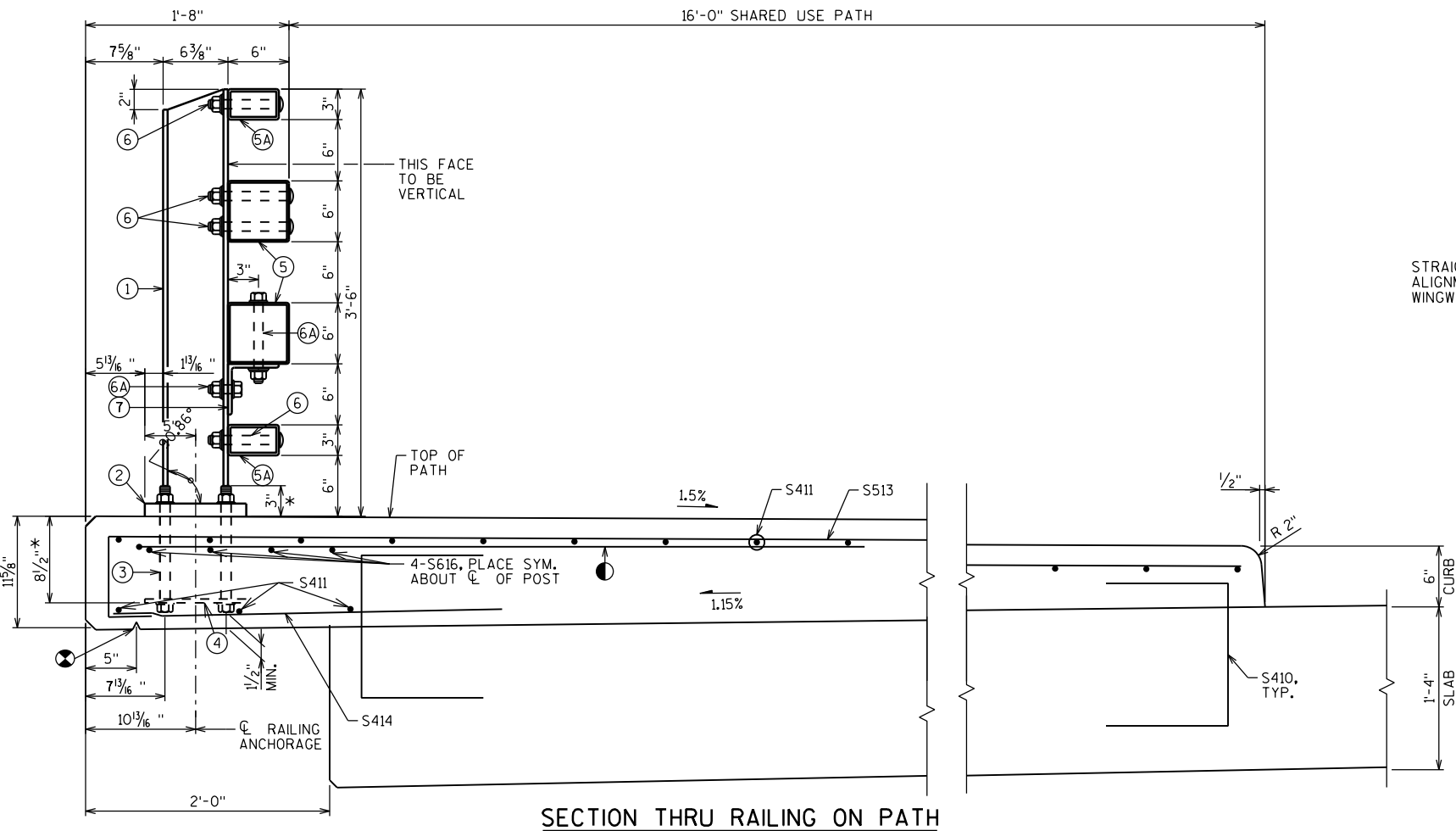
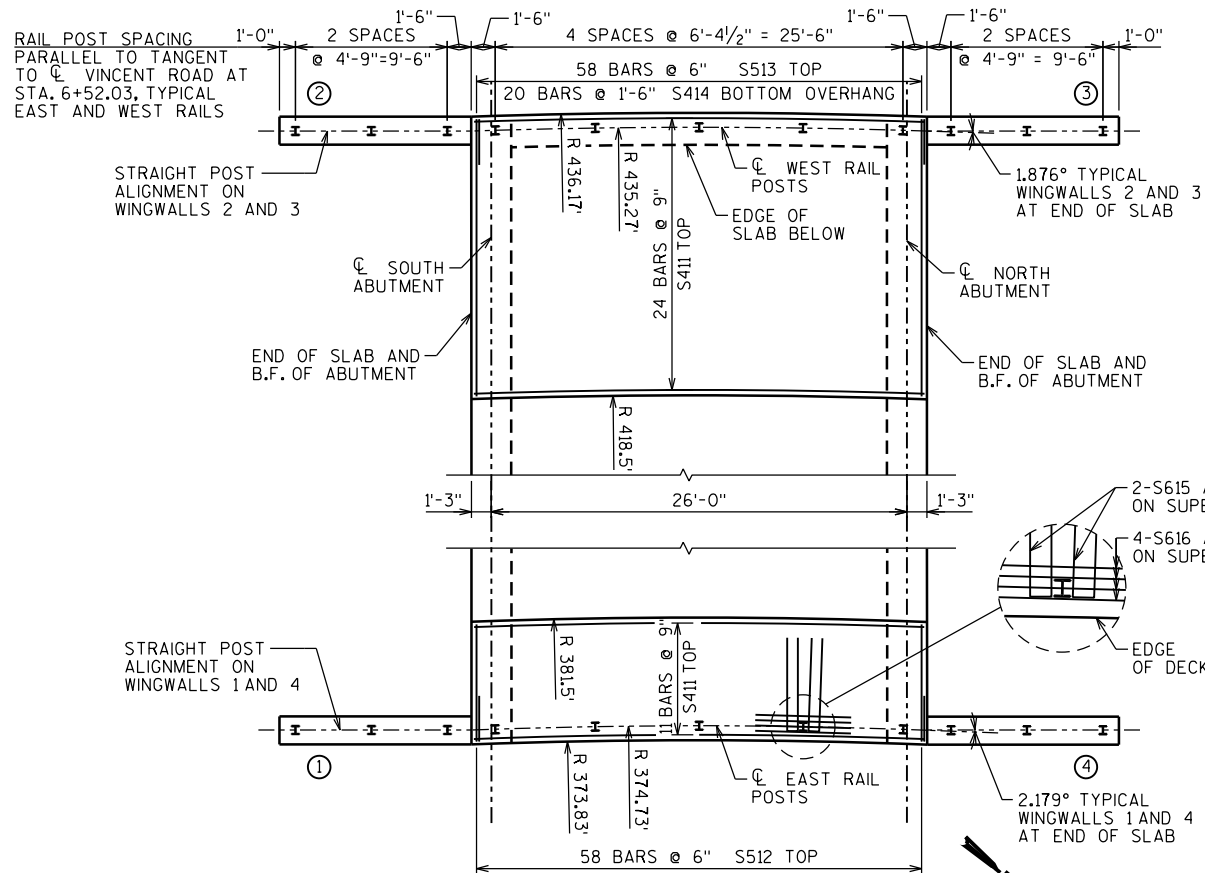
- ▲ CONSTRUCTION JOINT - STRIKE OFF AS SHOWN AND LEAVE ROUGH FOR DECK POUR, MATCH BRIDGE X-SLOPE.
 - ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
 - ⊗ 3/4" V-GROOVE REQUIRED. EXTEND TO 6" FROM FRONT FACE OF ABUTMENT DIAPHRAGM.
 - ☆ COAT WITH "PROTECTIVE SURFACE TREATMENT" AS PER THE STANDARD SPECIFICATIONS.
 - ▽ 18" RUBBERIZED MEMBRANE WATERPROOFING
- SEE SHEET 10 FOR SIDEWALK REINFORCEMENT DETAILS.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-05-462			
DRAWN BY AMZ		PLANS CK'D. JSR	
SUPERSTRUCTURE DETAILS		SHEET 9 OF 12	

LEGEND

- ① W6 X 25 WITH $1\frac{1}{8}"$ X $1\frac{3}{8}"$ HORIZONTAL SLOTTED HOLES ON EACH SIDE OF POST FOR BOLT NO. 6 AT TOP TWO RAILS. USE 1" DIA. HOLES FOR BOLTS NO. 6 AT BOTTOM NO. 5A & FOR BOLT NO. 6A AT NO. 7. CUT BOTTOM OF POST TO MATCH CROSS SLOPE OF SIDEWALK. PLACE POST VERTICAL. PLACE POSTS NORMAL TO GRADE LINE.
- ② PLATE $1\frac{1}{4}"$ X $10"$ X $1'-2"$ WITH $1\frac{1}{8}"$ X $1\frac{1}{6}"$ SLOTTED HOLES FOR ANCHOR BOLTS NO. 3. WELD TO NO. 1 AS SHOWN. SLOTS PARALLEL TO SHORT SIDE OF PLATE.
- ③ ASTM A449 - 1" DIA. ANCHOR BOLTS WITH HEAVY HEX NUT AND 2" O.D. HARDENED WASHER (ALL GALVANIZED). 4 REQUIRED PER POST. THREAD 3" AND PLACE NORMAL TO PLATE NO. 2. CHAMFER TOP OF BOLTS BEFORE THREADING. USE $11\frac{1}{2}"$ LONG BOLT FOR 16'-0" WIDE WEST CONCRETE SHARED USE PATH AND $17\frac{1}{2}"$ LONG BOLT FOR 6'-0" WIDE EAST CONCRETE SIDEWALK. USE 1'-9" LONG IN ABUTMENT WINGS. (AN EQUIVALENT THREADED ROD WITH HEAVY HEX NUTS AND HARDENED WASHERS MAY BE SUBSTITUTED FOR ANCHOR BOLTS IN WINGS IF REQUIRED FOR CONSTRUCTABILITY.)
- ④ $\frac{3}{8}"$ X $10"$ X $1'-2"$ ANCHOR PLATE (GALVANIZED) WITH $1\frac{1}{8}"$ DIA. HOLES FOR ANCHOR BOLTS NO. 3.
- ⑤ TS 6 X 6 X $\frac{3}{16}"$ STRUCTURAL TUBING. USE 1" DIA. HOLES FOR BOLT NO. 6 (FRONT & BACK) & $\frac{1}{8}"$ DIA. HOLES FOR BOLT NO. 6A (TOP & BOTTOM).

- ⑤A TS 5 X 3 X $\frac{1}{4}"$ STRUCTURAL TUBING. USE 1" DIA. HOLES FOR BOLT NO. 6. IN TOP RAIL (FRONT & BACK). USE $1\frac{1}{8}"$ X $1\frac{3}{8}"$ HORIZONTAL SLOTTED HOLES FOR BOLT NO. 6 IN BOTTOM RAIL (FRONT & BACK) AND A 2" O.D. WASHER UNDER BOLT HEAD.
- ⑥ $\frac{7}{8}"$ DIA. A325 SLOTTED ROUND HEAD BOLT WITH HEX NUT, $\frac{3}{8}"$ X $1\frac{3}{4}"$ X $1\frac{3}{4}"$ WASHER, AND SPRING LOCK WASHER (2 REQUIRED AT RAIL TO POST LOCATIONS SHOWN).
- ⑥A $\frac{3}{4}"$ DIA. A325 BOLT WITH HEX NUT AND SPRING LOCK WASHER (1 REQUIRED AT RAIL TO ANGLE AND 2 REQUIRED AT ANGLE TO POST LOCATIONS SHOWN WITH $\frac{3}{8}"$ X $1\frac{3}{4}"$ X $1\frac{3}{4}"$ WASHER).
- ⑦ L 5 X 5 X $\frac{5}{8}"$ STRUCTURAL ANGLE. ATTACH TO NO. 1 AND NO. 5 AS SHOWN.
- S615. BEND AS SHOWN. TIE TO TOP MAT OF STEEL.
- ⊗ $\frac{3}{4}"$ V-GROOVE REQUIRED. EXTEND TO 6" FROM F.F. OF ABUTMENT DIAPHRAGM.
- * NORMAL TO BASE PLATE

**SECTION THRU RAILING ON SIDEWALK****SECTION THRU RAILING ON PATH****RAIL POST LAYOUT PLAN**

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-05-462			
DRAWN BY AMZ		PLANS CK'D. JSR	
SIDEWALK DETAILS FOR RAILING TYPE NY4		SHEET 10 OF 12	

LEGEND

- ① W6 X 25 WITH 1/8" X 13/8" HORIZONTAL SLOTTED HOLES ON EACH SIDE OF POST FOR BOLT NO. 6 AT TOP TWO RAILS. USE 1" DIA. HOLES FOR BOLTS NO. 6 AT BOTTOM NO. 5A & FOR BOLT NO. 6A AT NO. 7. CUT BOTTOM OF POST TO MATCH CROSS SLOPE OF SIDEWALK. PLACE POST VERTICAL. PLACE POSTS NORMAL TO GRADE LINE.
- ② PLATE 1/4" X 10" X 1'-2" WITH 1/8" X 17/16" SLOTTED HOLES FOR ANCHOR BOLTS NO. 3. WELD TO NO. 1 AS SHOWN. SLOTS PARALLEL TO SHORT SIDE OF PLATE.
- ③ ASTM A449 - 1" DIA. ANCHOR BOLTS WITH HEAVY HEX NUT AND 2" O.D. HARDENED WASHER (ALL GALVANIZED). 4 REQUIRED PER POST. THREAD 3" AND PLACE NORMAL TO PLATE NO. 2. CHAMFER TOP OF BOLTS BEFORE THREADING. USE 11/2" LONG BOLT FOR 16'-0" WIDE WEST CONCRETE SHARED USE PATH AND 17/2" LONG BOLT FOR 6'-0" WIDE EAST CONCRETE SIDEWALK. USE 1'-9" LONG IN ABUTMENT WINGS. (AN EQUIVALENT THREADED ROD WITH HEAVY HEX NUTS AND HARDENED WASHERS MAY BE SUBSTITUTED FOR ANCHOR BOLTS IN WINGS IF REQUIRED FOR CONSTRUCTABILITY.)
- ④ 3/8" X 10" X 1'-2" ANCHOR PLATE (GALVANIZED) WITH 1/16" DIA. HOLES FOR ANCHOR BOLTS NO. 3.
- ⑤ TS 6 X 6 X 3/16" STRUCTURAL TUBING. USE 1" DIA. HOLES FOR BOLT NO. 6 (FRONT & BACK) & 7/8" DIA. HOLES FOR BOLT NO. 6A (TOP & BOTTOM).
- ⑤A TS 5 X 3 X 1/4" STRUCTURAL TUBING. USE 1" DIA. HOLES FOR BOLT NO. 6. IN TOP RAIL (FRONT & BACK). USE 1/8" X 13/8" HORIZONTAL SLOTTED HOLES FOR BOLT NO. 6 IN BOTTOM RAIL (FRONT & BACK) AND A 2" O.D. WASHER UNDER BOLT HEAD.
- ⑥ 7/8" DIA. A325 SLOTTED ROUND HEAD BOLT WITH HEX NUT, 3/16" X 13/4" X 13/4" WASHER, AND SPRING LOCK WASHER (2 REQUIRED AT RAIL TO POST LOCATIONS SHOWN).
- ⑥A 3/4" DIA. A325 BOLT WITH HEX NUT AND SPRING LOCK WASHER (1 REQUIRED AT RAIL TO ANGLE AND 2 REQUIRED AT ANGLE TO POST LOCATIONS SHOWN WITH 3/16" X 13/4" X 13/4" WASHER).
- ⑦ L 5 X 5 X 5/8" STRUCTURAL ANGLE. ATTACH TO NO. 1 AND NO. 5 AS SHOWN.
- ⑧ TS 5 X 5 X 5/16" X 2'-4" LONG SPLICE TUBE (MODIFIED). 1 PER RAIL. USED IN NO. 5.
- ⑧A 4/4" X 2/8" X 2'-4" LONG SPLICE BAR (MODIFIED). 1 PER RAIL. USED IN NO. 5A.
- ⑨ 3/4" DIA. A325 FULLY THREADED BOLTS, 7 1/2" LONG, WITH 2 WASHERS AND HEAVY HEX NUT ON EACH BOLT. NUT TO BE FINGER TIGHT. (4 REQUIRED PER SPLICE). USE 1" X 4" SLOTTED HOLES IN TOP AND BOTTOM OF NO. 5.
- ⑨A 3/4" DIA. A325 FULLY THREADED BOLTS, 4 1/2" LONG, WITH 2 WASHERS AND HEAVY HEX NUT ON EACH BOLT. NUT TO BE FINGER TIGHT. (4 REQUIRED PER SPLICE). USE 1" X 4" SLOTTED HOLES IN TOP AND BOTTOM OF NO. 5A.
- ⑩ SPLICE SLEEVE FABRICATED FROM 1/4" PLATE. PROVIDE "SLIDING FIT".
- ▲ PROTRUSIONS CAUSED BY WELDING OR GALVANIZING ARE NOT PERMITTED ON THE ADJOINING SURFACES OF THE RAILS, SPLICE TUBES AND FILL PLATES.
- S615 BARS. TIE TO TOP MAT OF STEEL.

NOTES

BID ITEM SHALL BE "RAILING STEEL TYPE NY4 B-05-462", WHICH INCLUDES ALL ITEMS SHOWN.

RAILING SHALL BE CONTINUOUS OVER A MINIMUM OF THREE (3) POSTS WITHOUT SPLICES WHERE POSSIBLE.

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT, AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.

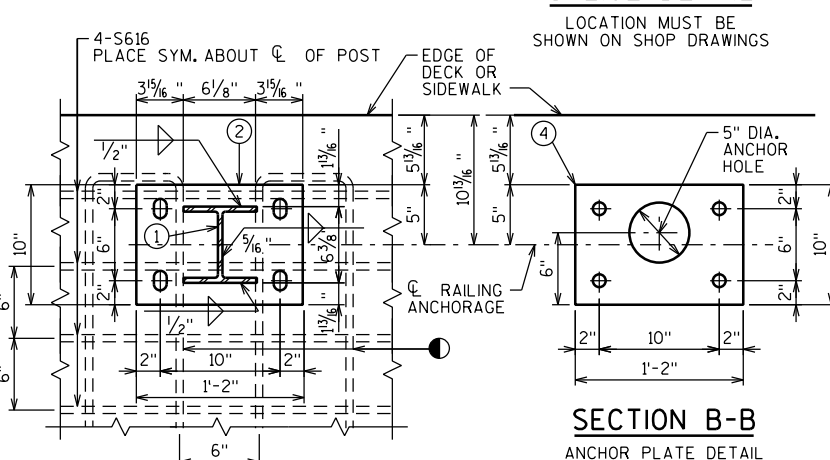
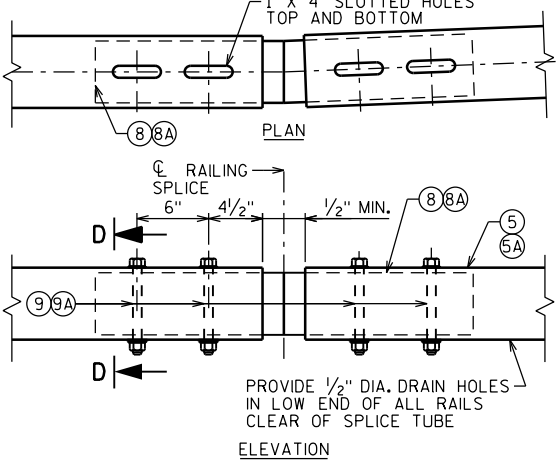
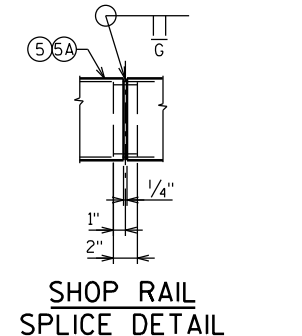
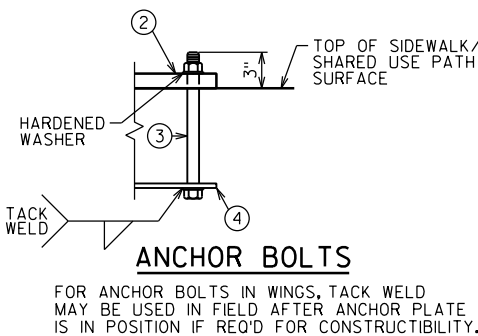
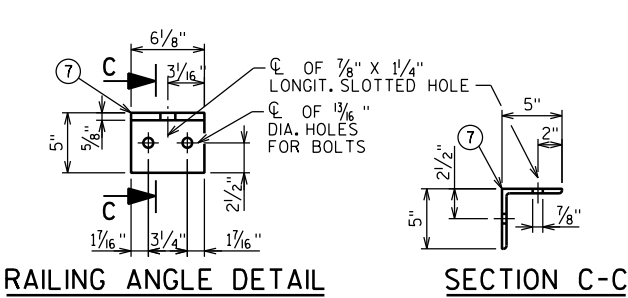
ALL MATERIAL SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING, ALL STEEL RAILING POSTS, ANGLES, SPLICE TUBES, SPLICE BARS AND STEEL TUBING SHALL BE GIVEN A NO. 6 BLAST CLEANING PER SSPC SPECIFICATIONS.

RAIL POST, BASE PLATES, SPLICE BAR, ANGLES AND SPLICE PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A709 GRADE 50. STRUCTURAL TUBING SHALL CONFORM TO THE REQUIREMENTS OF ASTM A500 GRADE B OR C WITH A CERTIFIED $f_y=50$ KSI. ANCHOR PLATES & SHIMS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A709 GRADE 36.

THE NUT SECURING THE POST BASE PLATE TO THE CONCRETE SHALL BE TIGHTENED TO A SNUG FIT AND GIVEN AN ADDITIONAL 1/8" TURN.

FILL BOLT SLOT OPENINGS IN POST SHIMS AND PLATE NO. 2 WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. CAULK AROUND PERIMETER OF NO. 2 WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

STEEL SHIMS SHALL BE PROVIDED & USED UNDER PLATE NO. 2 WHERE REQUIRED FOR ALIGNMENT, AND SHALL BE GALVANIZED.



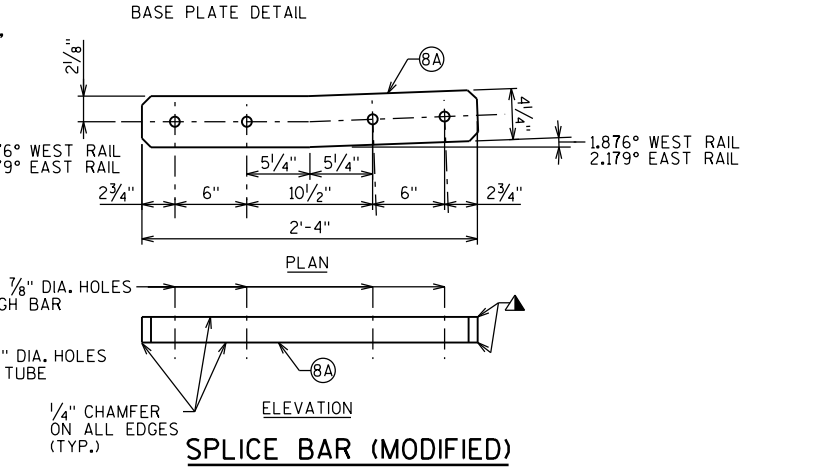
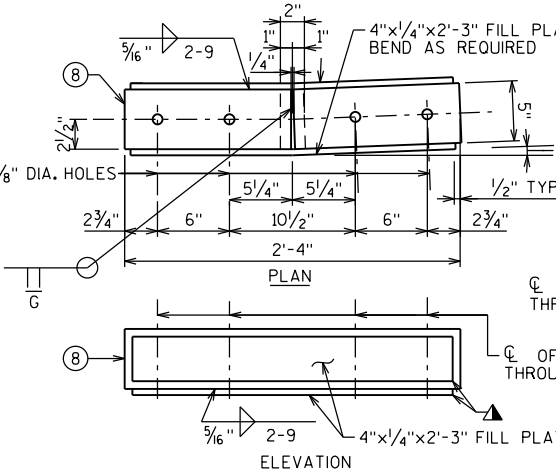
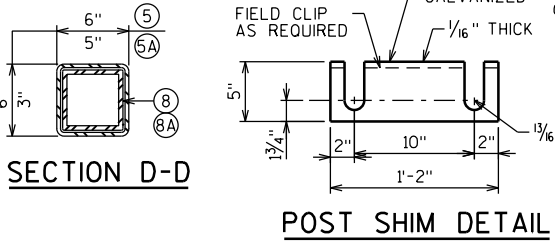
FIELD ERECTION JOINT DETAIL

SECTION A-A

BASE PLATE DETAIL

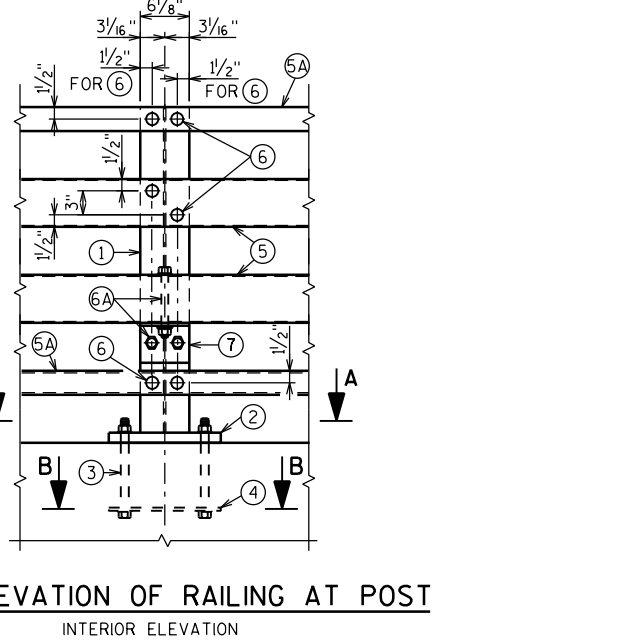
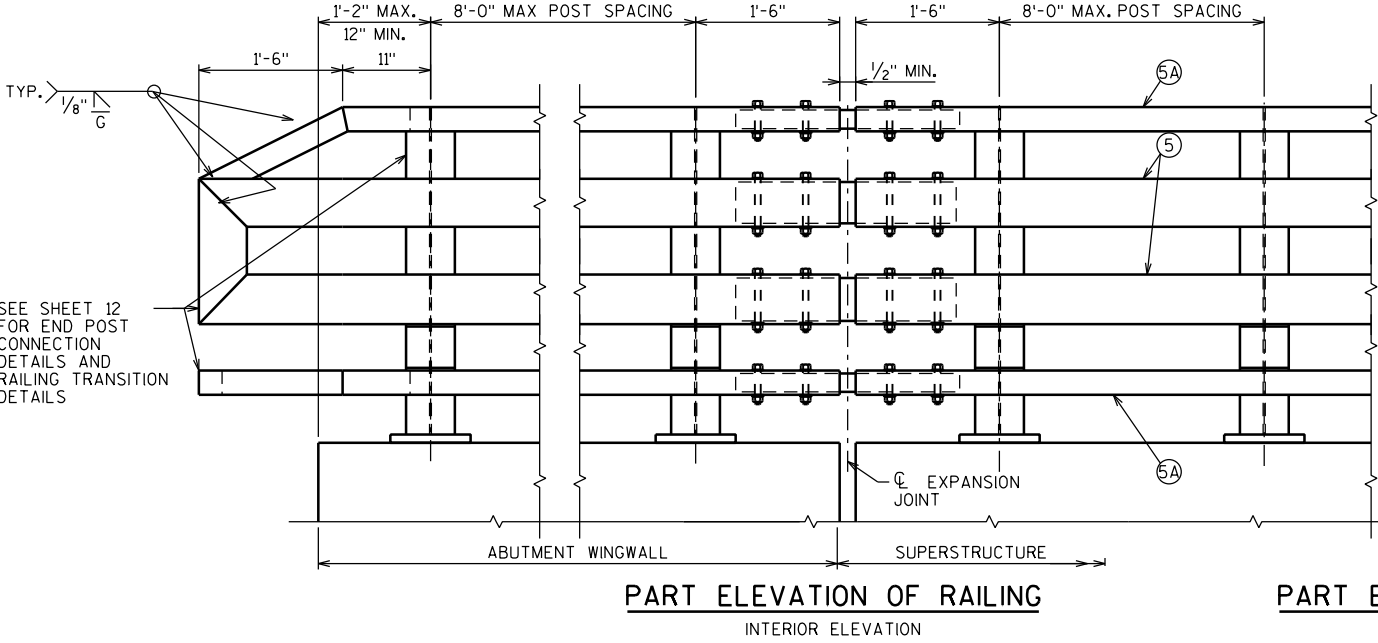
SECTION B-B

ANCHOR PLATE DETAIL



SPLICE TUBE (MODIFIED)

SPLICE BAR (MODIFIED)



PART ELEVATION OF RAILING

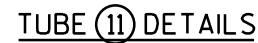
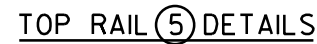
PART ELEVATION OF RAILING AT POST

INTERIOR ELEVATION

INTERIOR ELEVATION

SEE SHEET 12 FOR END POST CONNECTION DETAILS AND RAILING TRANSITION DETAILS

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-05-462			
DRAWN BY AMZ		PLANS CK'D. JSR	
TUBULAR STEEL RAILING TYPE NY4			SHEET 11 OF 12



- (1) W6 X 25 WITH 1" DIA. X 1 3/8" HORIZONTAL SLOTTED HOLES ON SIDE OF POST FOR BOLT NO. 6 AT NO. 5 AND TOP RAIL. USE 1" DIA. HOLES FOR BOLT NO. 6 AT BOTTOM NO. 5A (BOTTOM RAIL). CUT BOTTOM OF POST TO MATCH CROSS SLOPE OF ROADWAY. PLACE POST VERTICAL. PLACE POSTS NORMAL TO GRADE LINE.
- (2) PLATE 1 1/4" X 10" X 1'-2". SEE SHEETS 10 AND 11 FOR MORE INFORMATION.
- (5) TS 6 X 6 X 3/8" STRUCTURAL TUBING. USE 7/8" DIA. HOLES IN TOP AND BOTTOM OF RAILS FOR BOLT NO. 13 AS SHOWN IN PLAN DETAILS. USE 1" DIA. HOLES IN FRONT AND BACK OF RAILS FOR BOLTS NO. 6 & NO. 14 AS SHOWN IN ELEVATION DETAILS.
- (5A) TS 5 X 3 X 1/4" STRUCTURAL TUBING. USE 1" DIA. HOLES FOR BOLT NO. 6. IN TOP RAIL (FRONT & BACK). USE 1 1/8" X 1 3/8" HORIZONTAL SLOTTED HOLES FOR BOLT NO. 6 IN BOTTOM RAIL (FRONT & BACK) AND A 2" O.D. WASHER UNDER BOLT HEAD.
- (6) 7/8" DIA. A325 SLOTTED ROUND HEAD BOLT WITH HEX NUT, 3/8" X 1 3/4" X 1 3/4" WASHER, AND SPRING LOCK WASHER (1 REQUIRED AT RAIL NO. 5 TO POST NO. 1 CONNECTION LOCATIONS SHOWN. 2 REQUIRED AT RAIL NO. 5A TO POST NO. 1 CONNECTION LOCATION SHOWN).
- (11) TS 6 X 6 X 3/8" STRUCTURAL TUBING. USE 1" DIA. HOLES IN FRONT AND BACK FOR BOLT NO. 14 & 7/8" DIA. HOLES IN TOP & BOTTOM FOR BOLT NO. 13.
- (12) L 6 X 6 X 1/2" STRUCTURAL ANGLE. USE 7/8" DIA. HOLES IN TOP FLANGE FOR BOLT NO. 13.
- (13) 3/4" DIA. A325 FULLY THREADED BOLTS, 2 WASHERS AND A HEAVY HEX NUT, ON EACH BOLT. NUT TO BE FINGER TIGHT. 3 BOLTS AT EACH END POST.

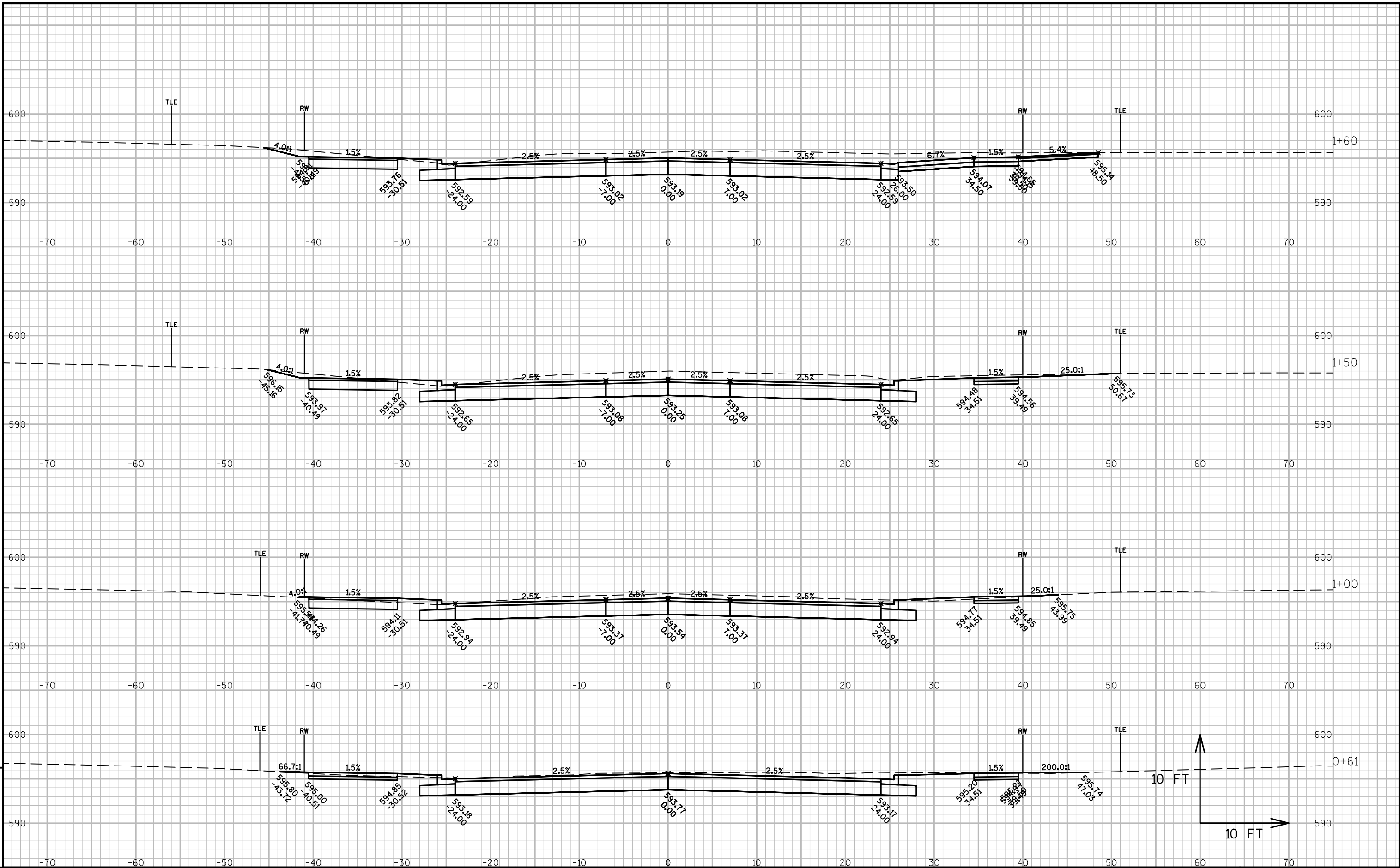
STRUCTURAL TUBING SHALL CONFORM TO THE REQUIREMENTS OF ASTM A500 GRADE B OR C WITH A CERTIFIED $f_y = 50$ KSI. STRUCTURAL ANGLE SHALL CONFORM TO THE REQUIREMENTS OF ASTM A709 GRADE 50.

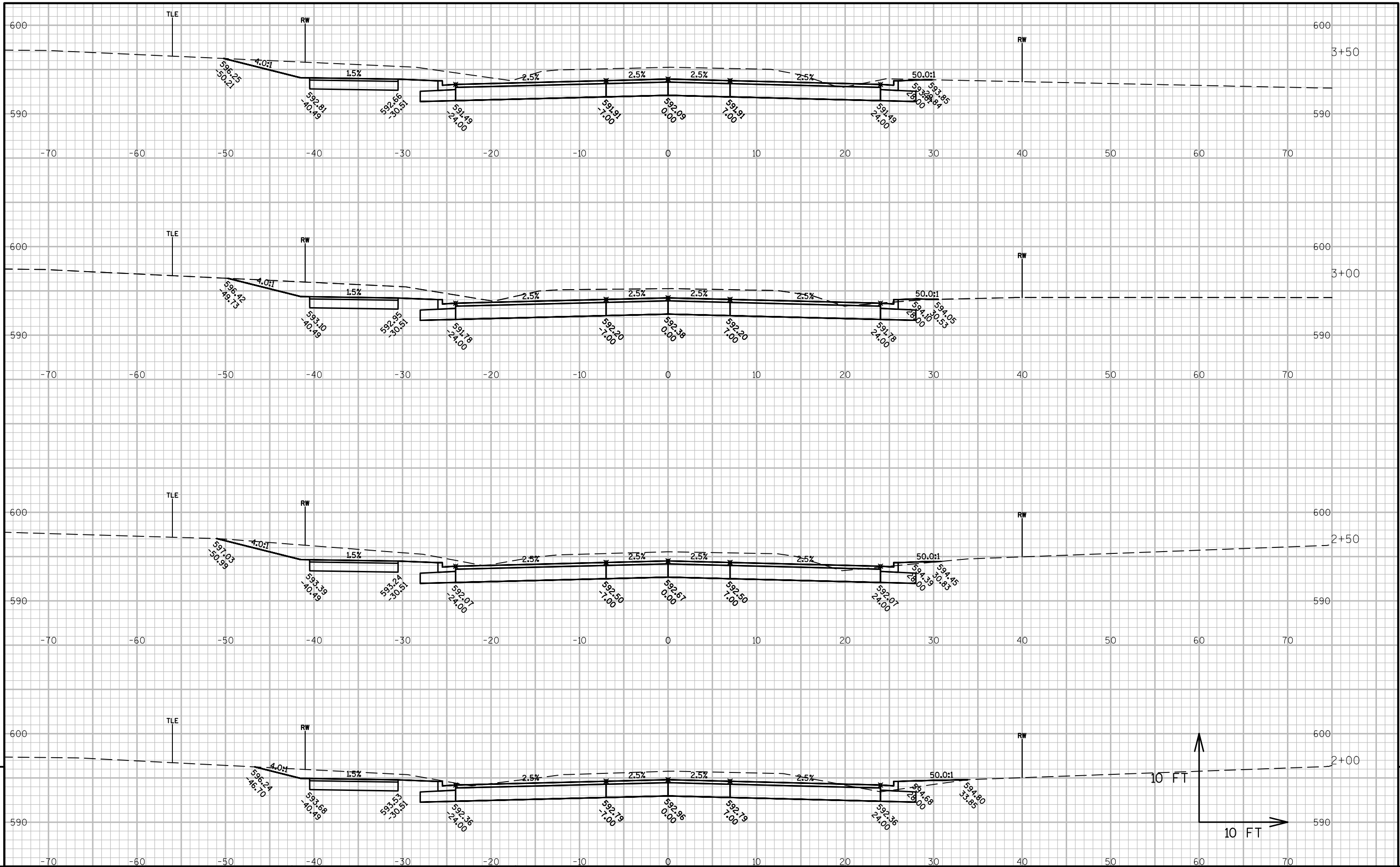
NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-05-462			
		DRAWN BY AMZ	PLANS CK'D. JSR
END POST DETAILS FOR RAILING TYPE NY4		SHEET 12 OF 12	

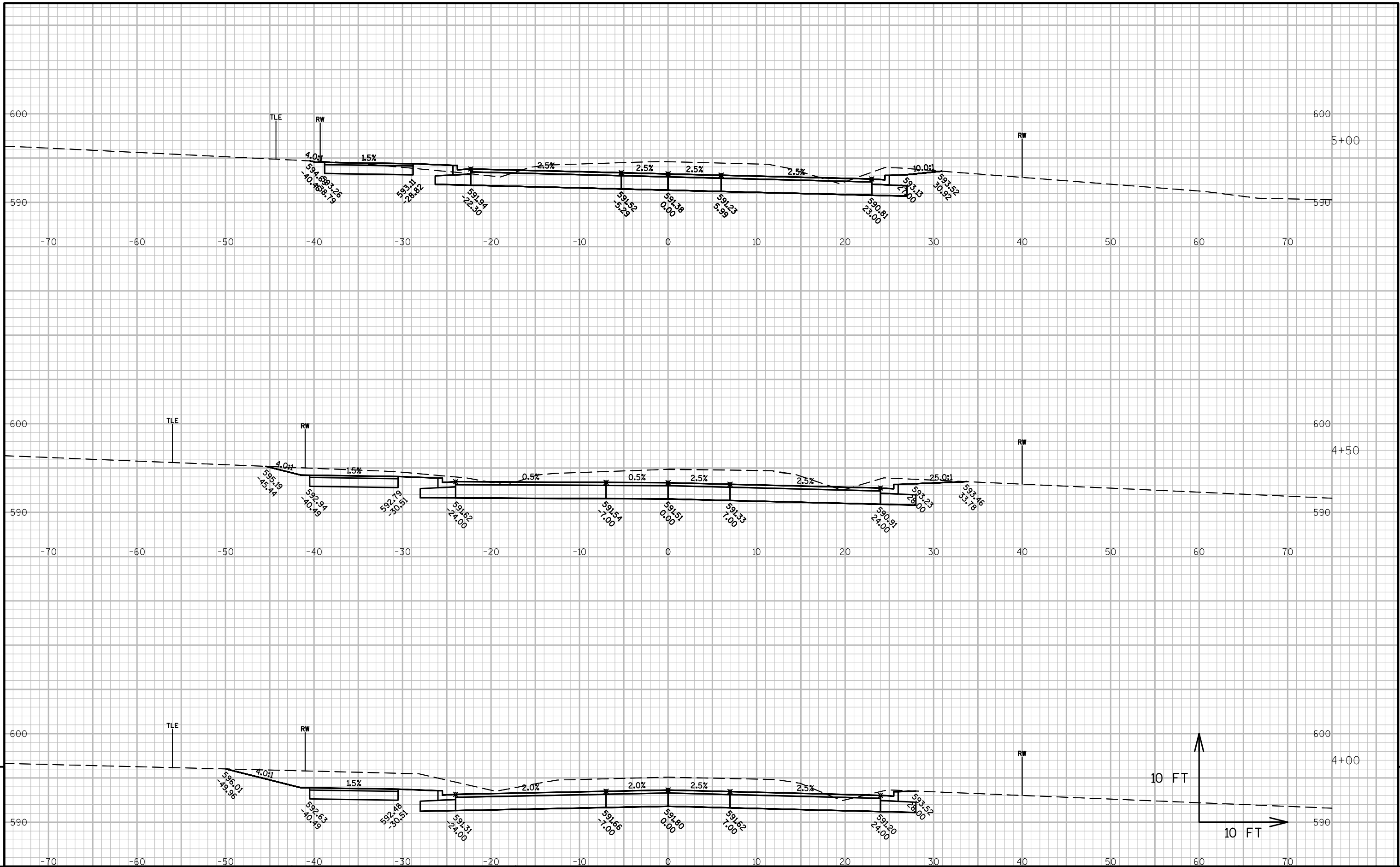
VINCENT ROAD										
STATION LENGTH		END-AREA		VOLUME INCREMENTAL		VOLUME CUMULATIVE				MASS HAUL
		CUT	FILL	CUT	FILL	CUT	FAC	FILL	FAC	
		SQ FT		CU YD		CU YD		CU YD		CU YD
00+50.00		151.2	0.0							
	50.00			267	2.9	267.0	1.0	3.6	1.25	263.4
01+00.00		137.1	3.1							
	50.00			280	3.8	547.0	1.0	8.4	1.25	538.6
01+50.00		165.2	1.0							
	50.00			299.5	2.8	846.5	1.0	11.9	1.25	834.6
01+60.00		185.2	0.5							
	40.00			254.4	1.9	1100.9	1.0	14.3	1.25	1086.7
02+00.00		158.2	2.0							
	50.00			311.1	2.2	1412.0	1.0	17.0	1.25	1395.0
02+50.00		177.7	0.3							
	50.00			336.9	0.4	1748.9	1.0	17.5	1.25	1731.4
03+00.00		186.2	0.2							
	50.00			357.9	0.1	2106.8	1.0	17.6	1.25	2089.2
03+50.00		200.4	0.0							
	50.00			377.1	0.0	2483.9	1.0	17.6	1.25	2466.3
04+00.00		206.9	0.0							
	50.00			358	0.0	2841.9	1.0	17.6	1.25	2824.3
04+50.00		179.7	0.0							
	50.00			299.7	1.4	3141.6	1.0	19.4	1.25	3122.2
05+00.00		144.0	1.5							
	50.00			211.3	23.3	3352.9	1.0	48.5	1.25	3304.4
05+50.00		84.2	23.7							
	50.00			118.8	54.1	3471.7	1.0	116.1	1.25	3355.6
06+00.00		44.1	34.7							
	29.58			29.2	73.1	3500.9	1.0	207.5	1.25	3293.4
06+29.58		9.3	98.8							
Bridge										
06+74.47		9.3	98.8							
	25.53			15.7	149.7	3516.6	1.0	394.6	1.25	3122.0
07+00.00		23.9	217.8							
	50.00			36.6	444.4	3553.2	1.0	950.1	1.25	2603.1
07+50.00		15.6	262.2							
	50.00			16.6	304.3	3569.8	1.0	1330.5	1.25	2239.3
08+00.00		2.4	66.4							
	50.00			81.5	67.0	3651.3	1.0	1414.3	1.25	2237.1
08+50.00		85.7	5.9							
	50.00			333.1	5.5	3984.4	1.0	1421.1	1.25	2563.3
09+00.00		274.1	0.0							
	50.00			558.4	0.1	4542.8	1.0	1421.3	1.25	3121.6

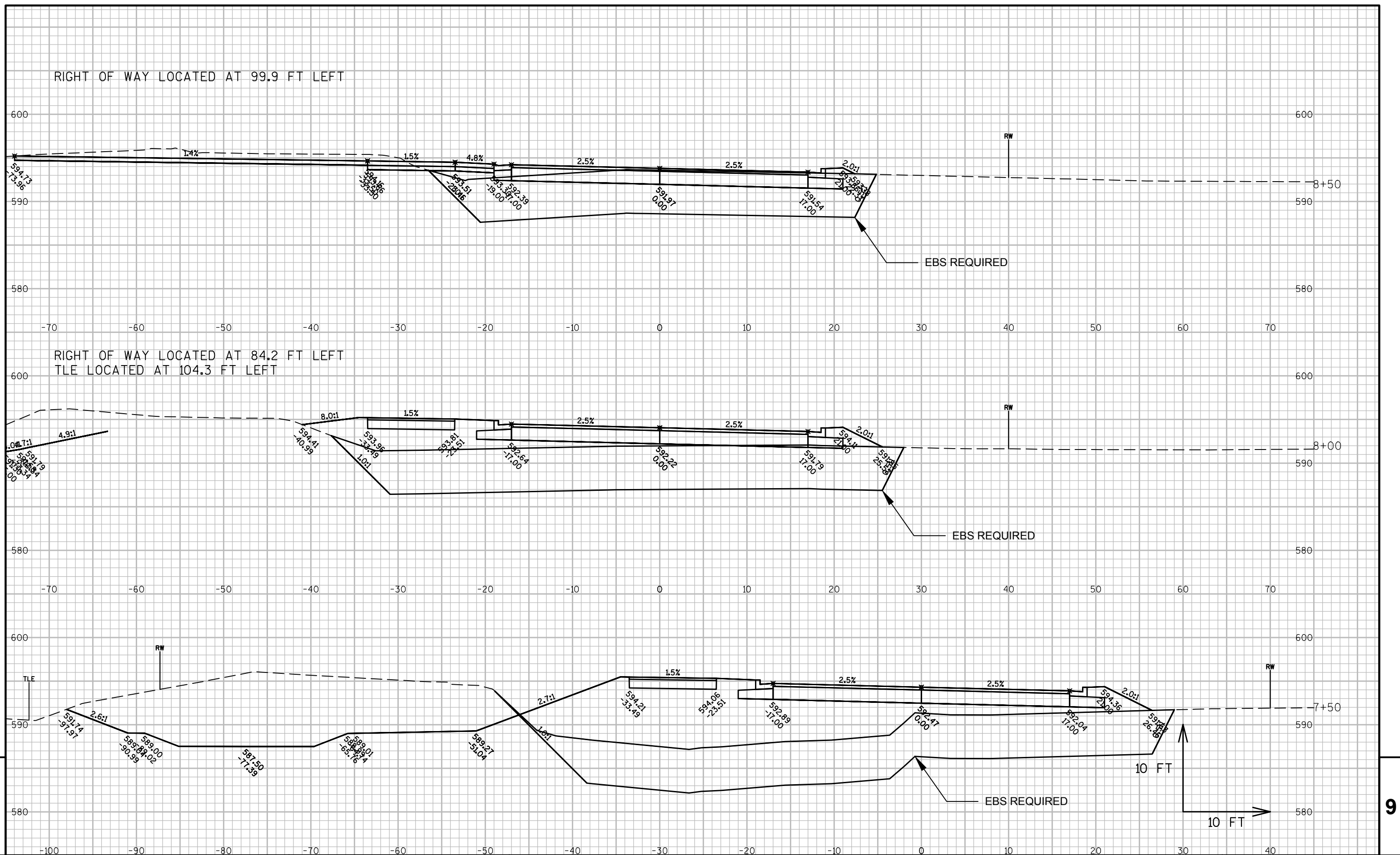
STATION	LENGTH	END-AREA		VOLUME INCREMENTAL		VOLUME CUMULATIVE				MASS HAUL
		CUT	FILL	CUT	FILL	CUT	FAC	FILL	FAC	
		SQ	FT	CU	YD	CU	YD	CU	YD	
09+50.00		329.0	0.1							
	50.00			502	0.1	5044.8	1.0	1421.4	1.25	3623.4
10+00.00		213.2	0.0							
	50.00			328.2	0.6	5373.0	1.0	1422.1	1.25	3950.9
10+50.00		141.3	0.6							
	50.00			253	6.9	5626.0	1.0	1430.8	1.25	4195.3
11+00.00		132.0	6.9							
	50.00			238.7	11.6	5864.7	1.0	1445.3	1.25	4419.5
11+50.00		125.8	5.7							
	50.00			226	11.7	6090.7	1.0	1459.9	1.25	4630.8
11+65.00		128.6	4.9							
	35.00			160	7.7	6250.7	1.0	1469.5	1.25	4781.2
12+00.00		118.3	7.0							
	50.00			218.4	13.4	6469.1	1.0	1486.3	1.25	4982.9
12+50.00		117.6	7.5							
	50.00			203.3	16.6	6672.4	1.0	1507.0	1.25	5165.4
13+00.00		102.0	10.4							
	50.00			175.7	19.4	6848.1	1.0	1531.3	1.25	5316.9
13+50.00		87.8	10.6							
	50.00			162.2	19.7	7010.3	1.0	1555.9	1.25	5454.4
14+00.00		87.5	10.7							
	50.00			155.8	19.1	7166.1	1.0	1579.8	1.25	5586.4
14+50.00		80.8	9.9							
	50.00			203	10.7	7369.1	1.0	1593.1	1.25	5776.0
15+00.00		138.5	1.6							

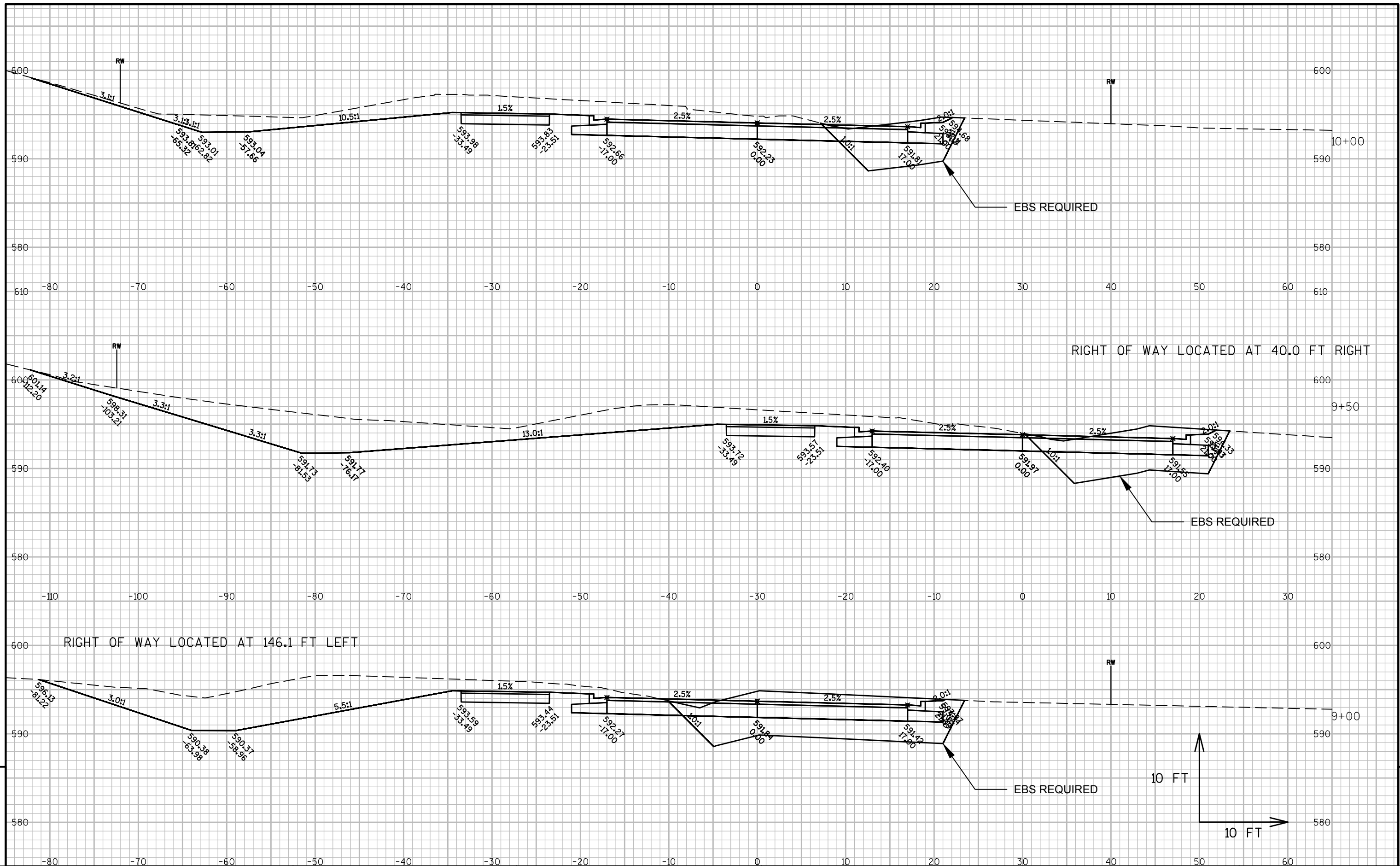
CHANNEL REALIGNMENT											
STATION	LENGTH	END-AREA		VOLUME INCREMENTAL		VOLUME CUMULATIVE				MASS HAUL	
		CUT	FILL	CUT	FILL	CUT	FAC	FILL	FAC		
		SQ	FT	CU	YD	CU	YD	CU	YD	CU	YD
00+15.99		53.2	0.0								
	34.01			218.8	0.0	218.8	1.0	0.0	1.25	218.8	
00+50.00		294.2	0.0								
	50.00			524.6	0.0	743.4	1.0	0.0	1.25	743.4	
01+00.00		272.4	0.0								
	50.00			447.2	0.0	1190.6	1.0	0.0	1.25	1190.6	
01+50.00		210.6	0.0								
	40.00			309.8	0.0	1500.4	1.0	0.0	1.25	1500.4	
01+90.00		207.6	0.0								
	10.00			74.7	0.0	1575.1	1.0	0.0	1.25	1575.1	
02+00.00		195.9	0.0								
	50.00			258	0.0	1833.1	1.0	0.0	1.25	1833.1	
02+50.00		82.8	0.0								
	7.82			19.7	0.0	1852.8	1.0	0.0	1.25	1852.8	
02+57.82		53.3	0.0								
	34.16			47.4	0.0	1900.2	1.0	0.0	1.25	1900.2	
02+91.98		21.6	0.0								

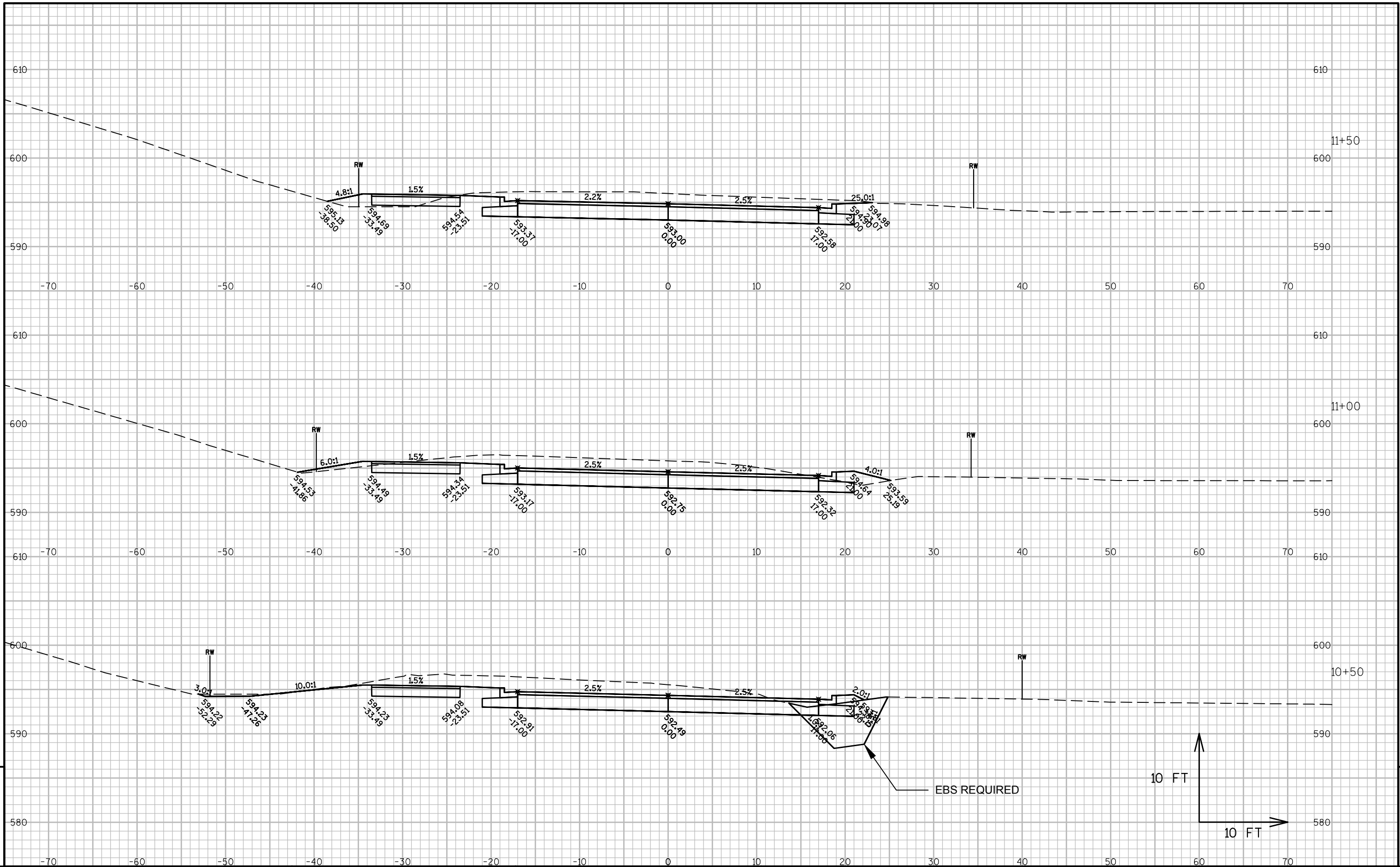


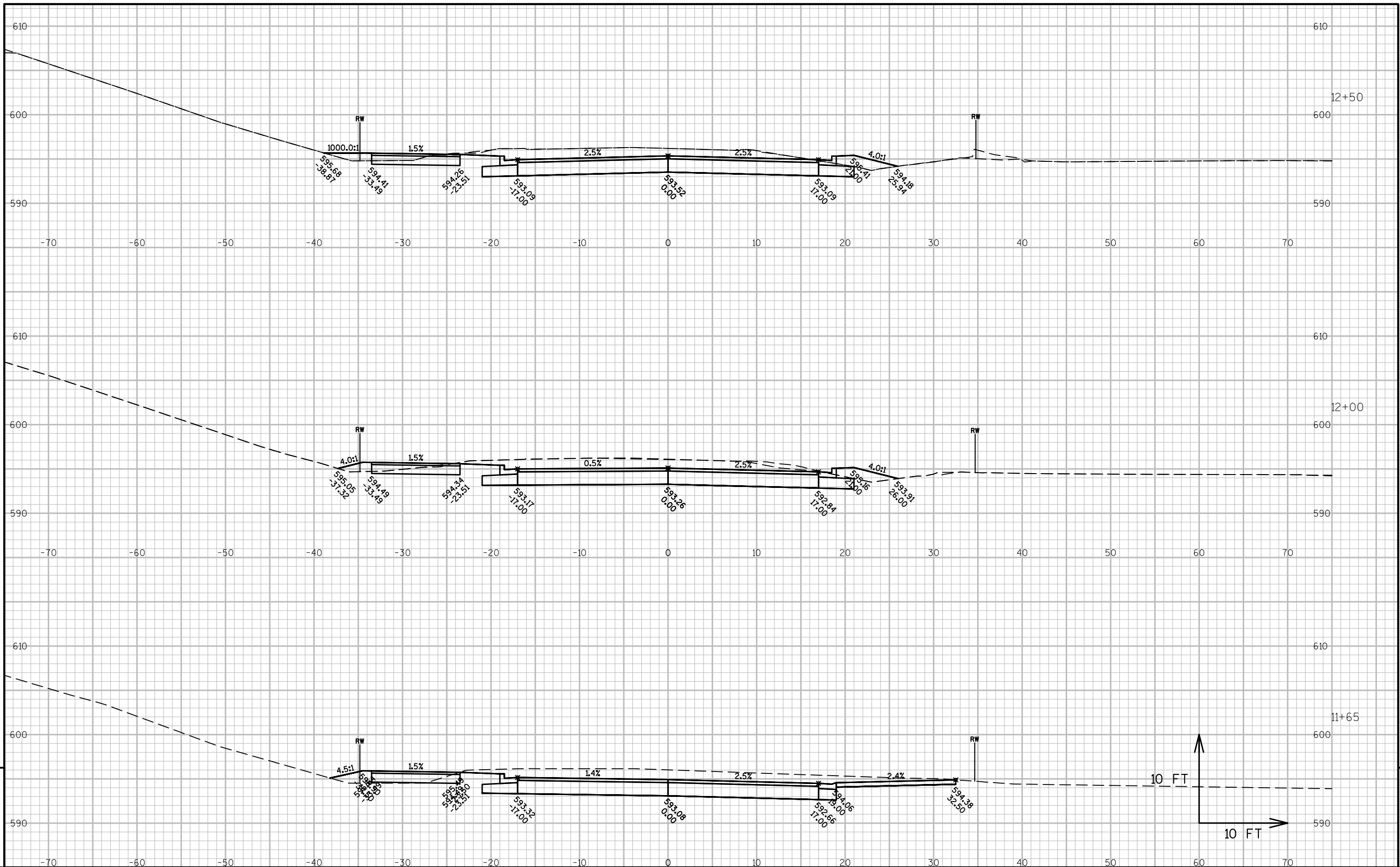


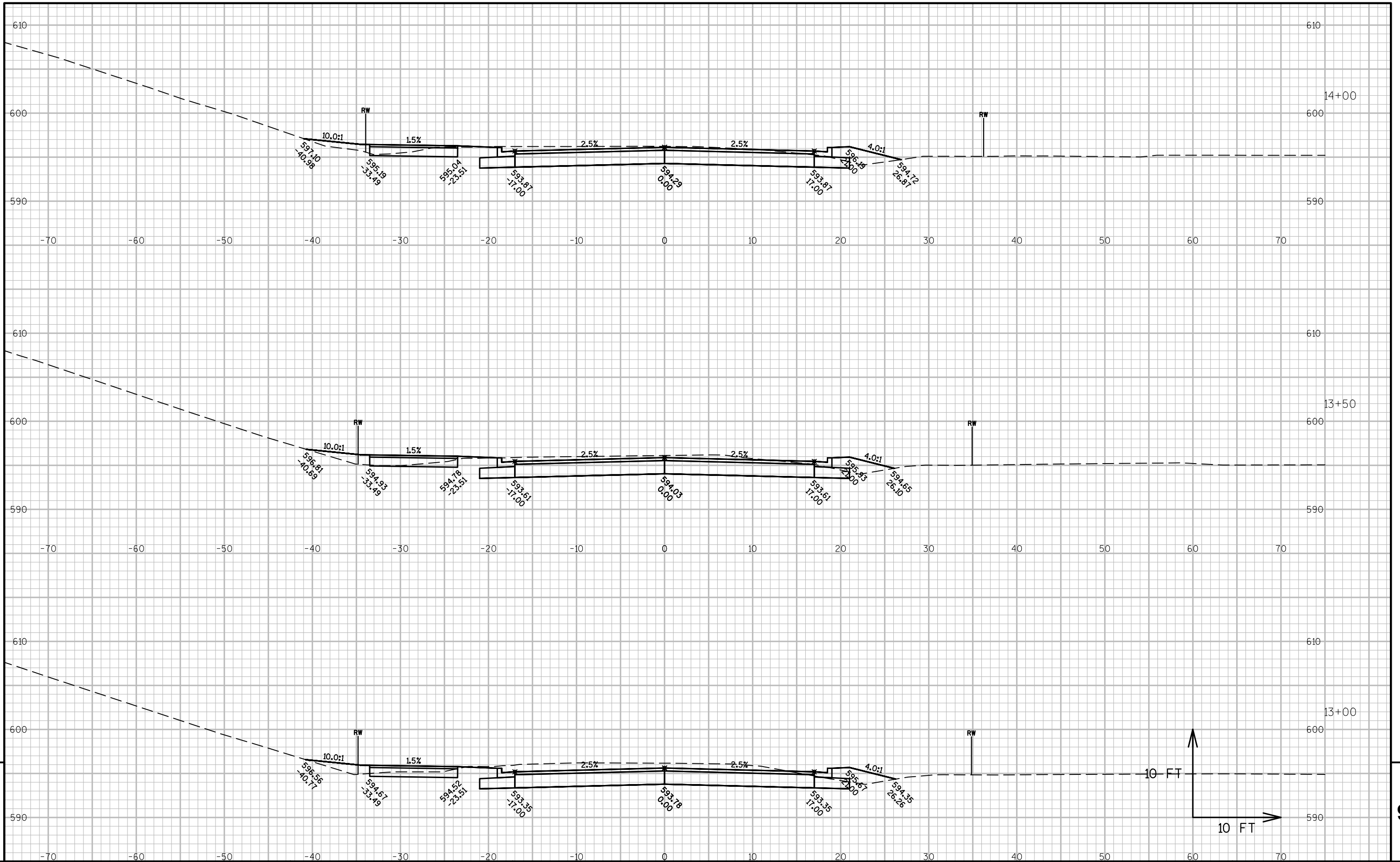


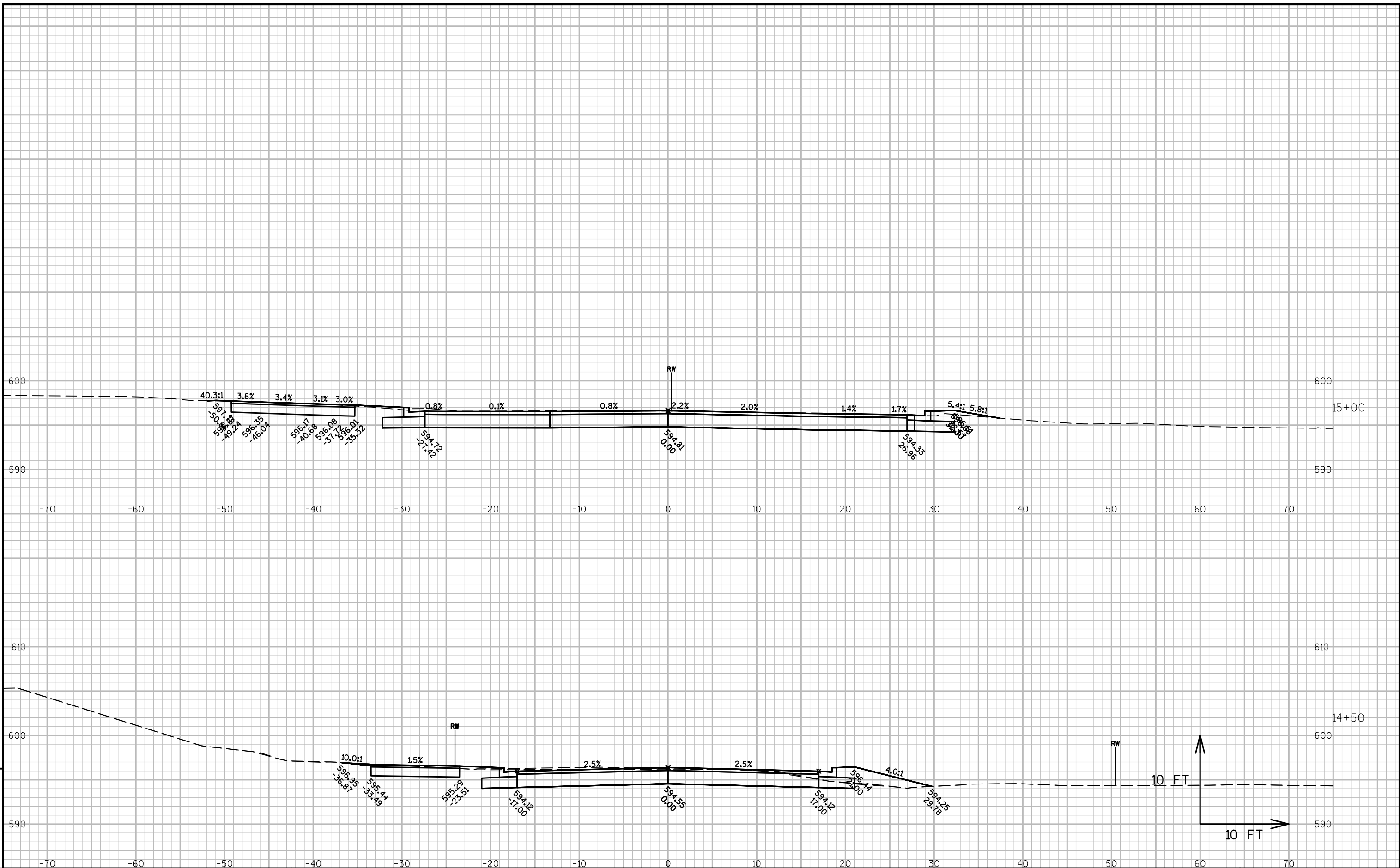


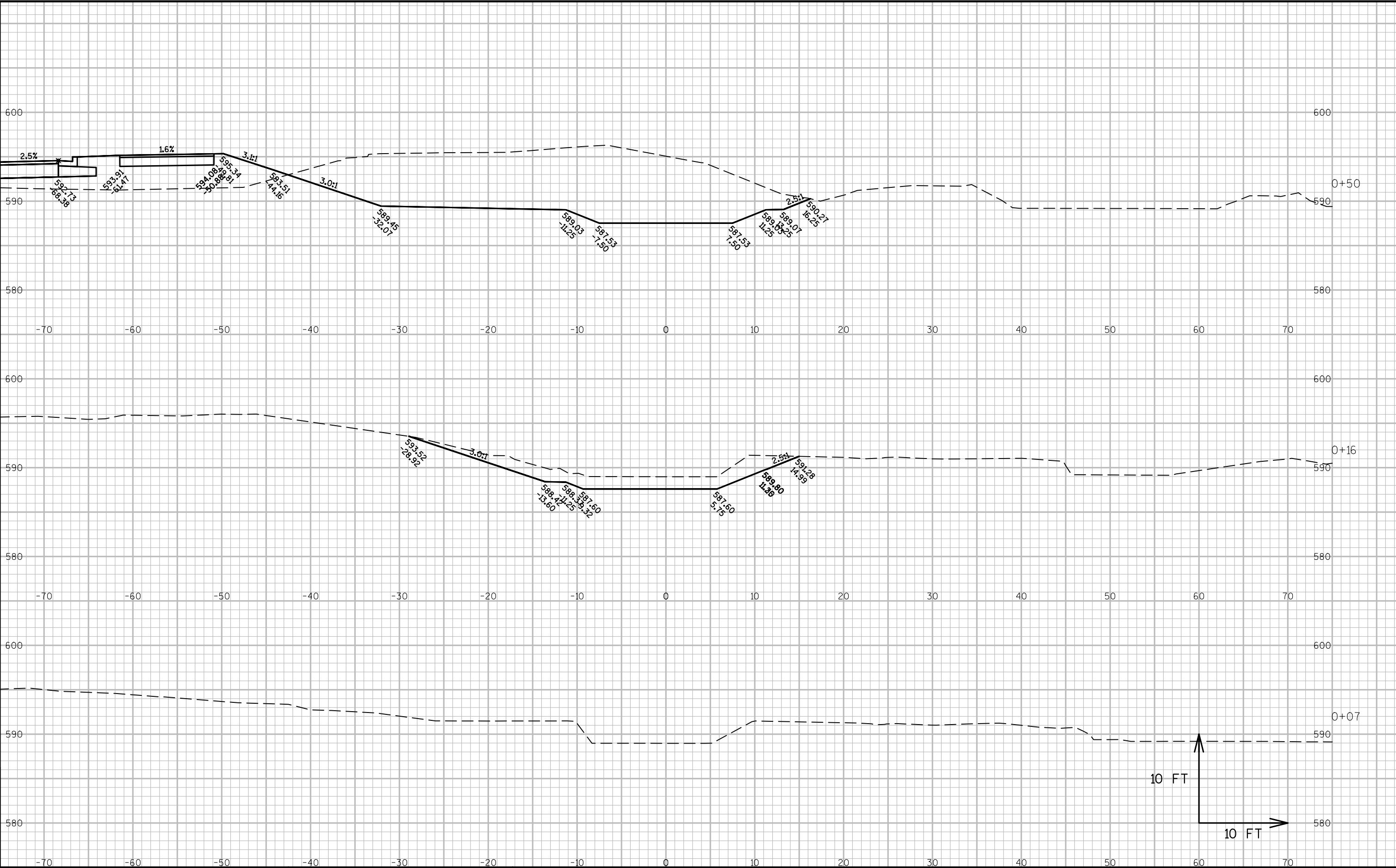


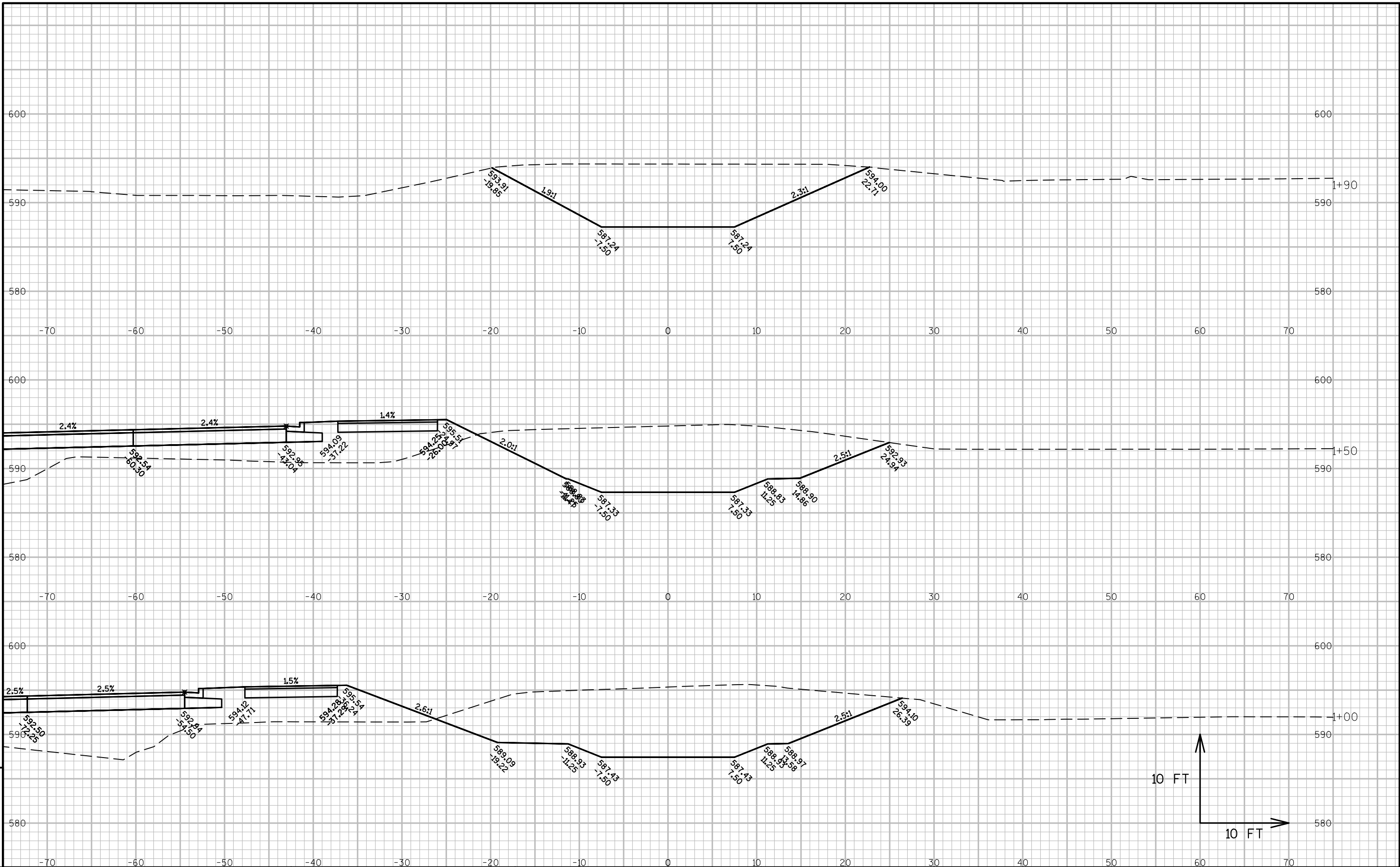


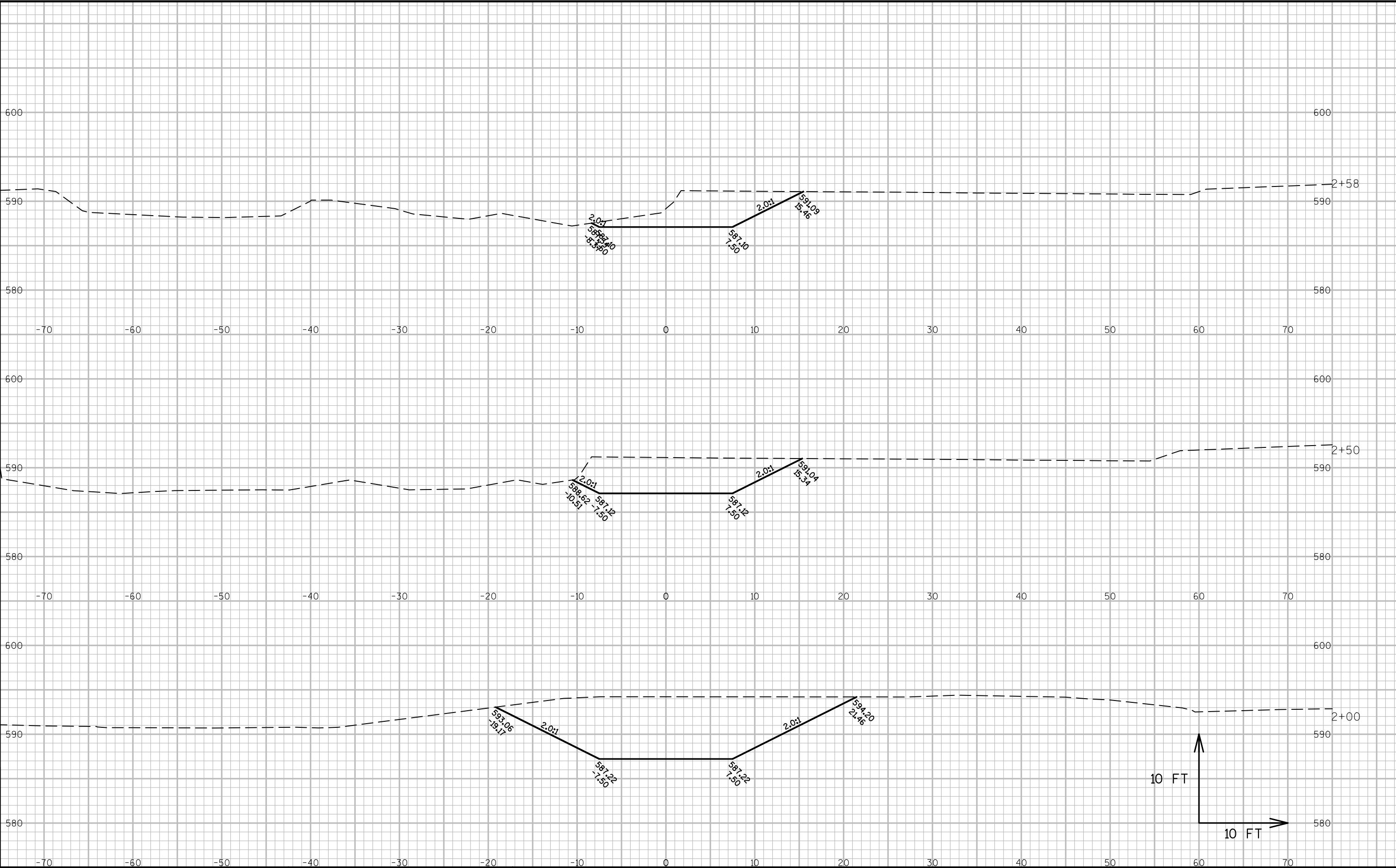






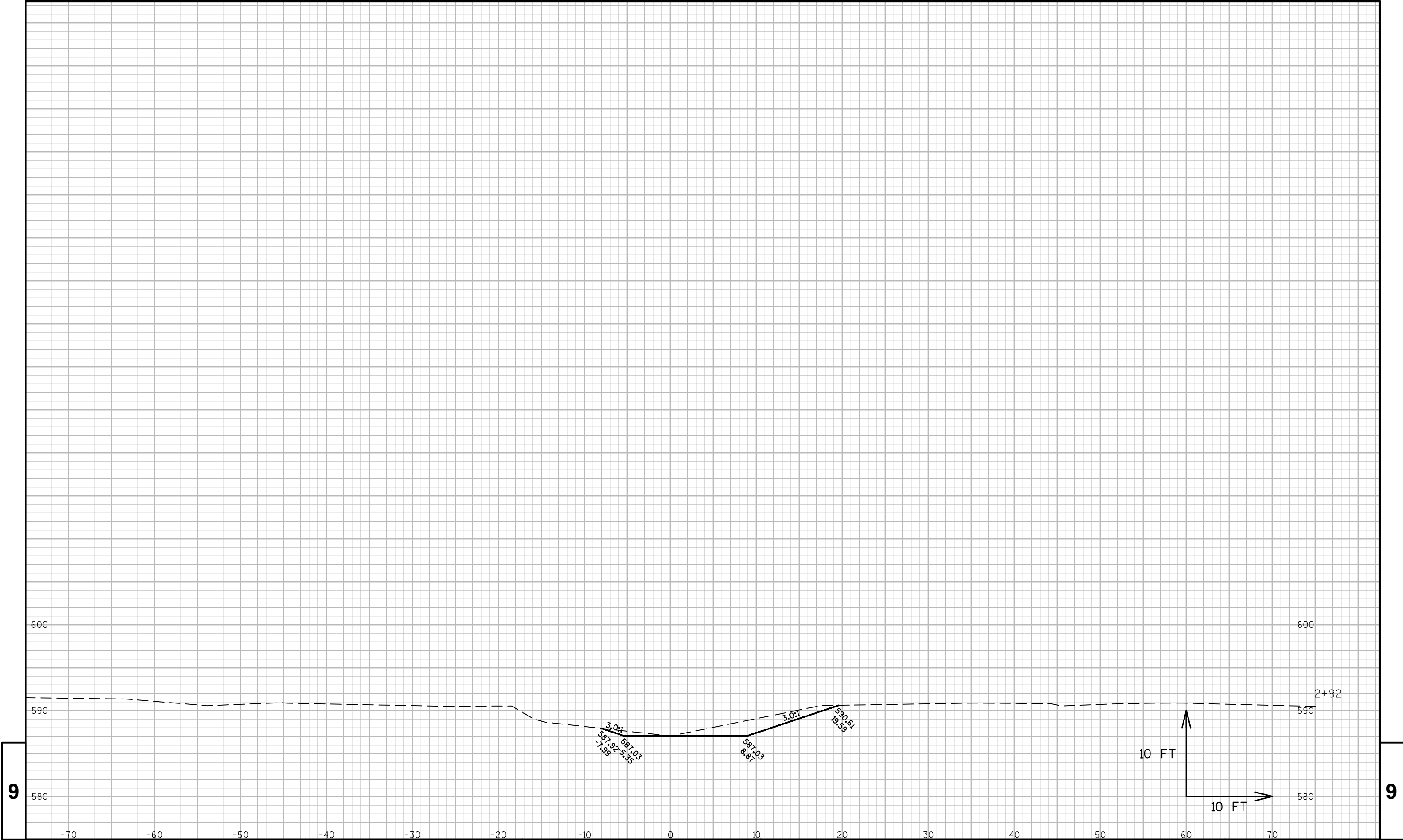


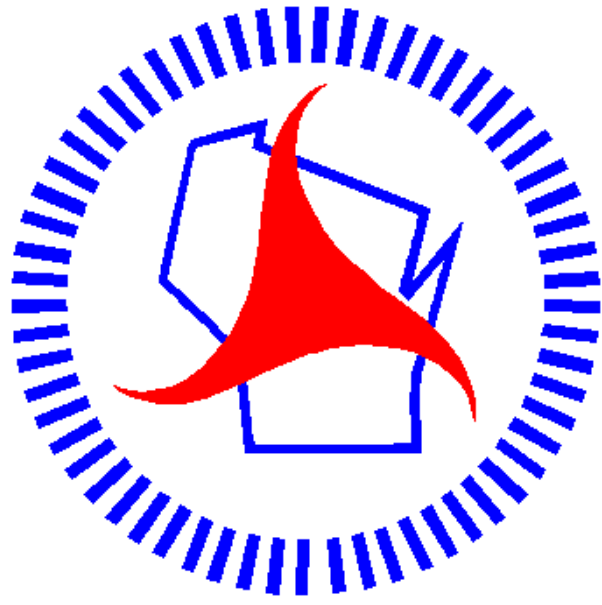




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