

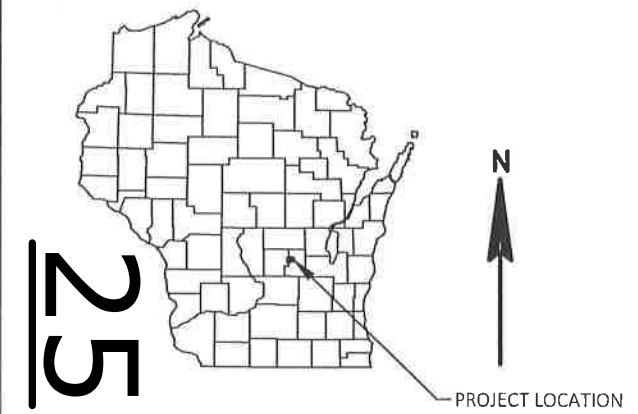
WIS
PROJECT ID: 6425-00-70
WITH: N/A
COUNTY: GREEN LAKE

FEBRUARY 2021

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 = 162



DESIGN DESIGNATION 6425-00-70

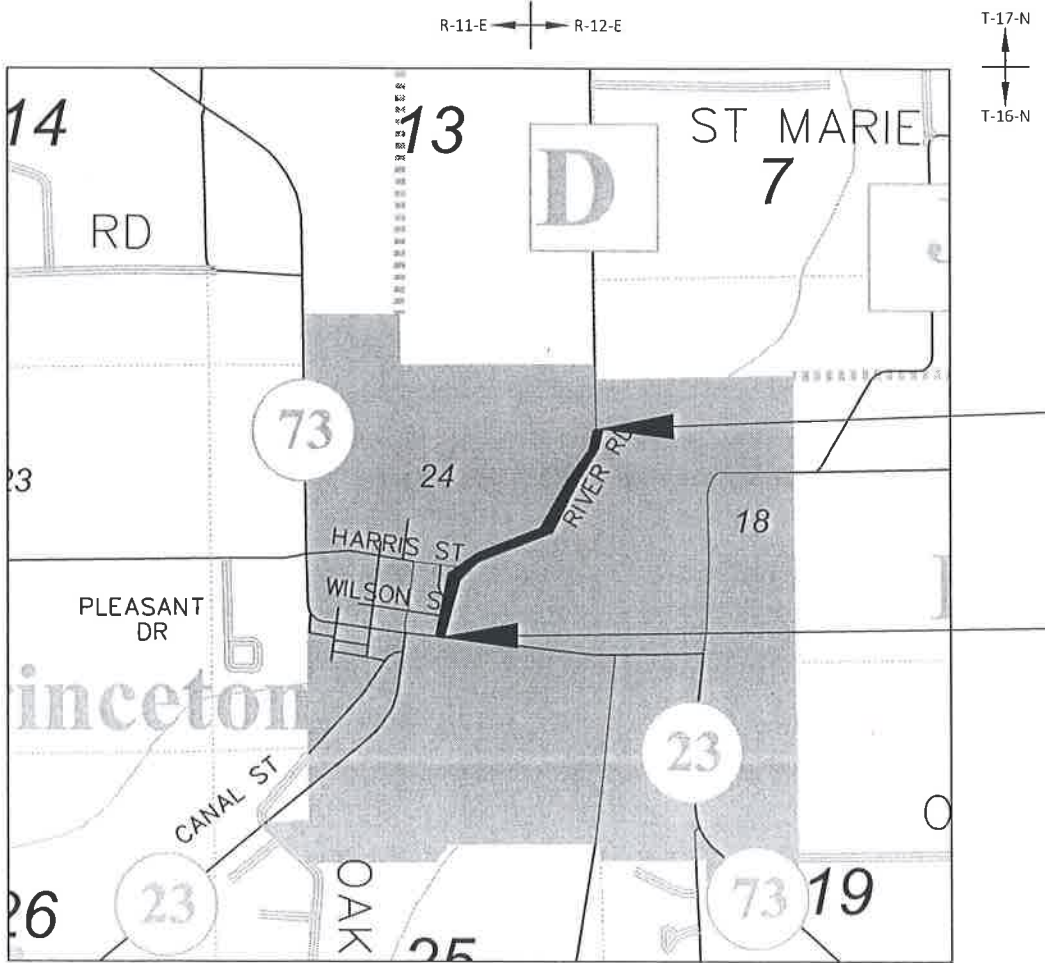
A.A.D.T.	2020	=	649
A.A.D.T.	2040	=	717
D.H.V.		=	105
D.D.		=	60/40
T.		=	10%
DESIGN SPEED		=	30 MPH
ESALS		=	140,000

CONVENTIONAL SYMBOLS

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
PLAN OF PROPOSED IMPROVEMENT
PRINCETON - BERLIN
STH 23 TO OLD SAINT MARIE ROAD
CTH D
GREEN LAKE COUNTY

STATE PROJECT NUMBER
6425-00-70



END PROJECT
STA 47+80
Y = 278,745.16
X = 525,029.38

BEGIN PROJECT
STA 10+48.46
Y = 276,105.79
X = 522,790.98

LAYOUT
SCALE 0 0.5 MI
TOTAL NET LENGTH OF CENTERLINE = 0.707 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), GREEN LAKE COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. POSITIONS SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES ARE THE SAME AS GROUND DISTANCES. ELEVATIONS ARE REFERENCED TO NAVD 88 (2012). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 12A.

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
6425-00-70	WISC 2021183	1

ACCEPTED FOR
COUNTY OF GREEN LAKE
Date 10-14-2020
Highway Commissioner
(Title of Official)

ORIGINAL PLANS PREPARED BY
MSA
ENGINEERING | ARCHITECTURE | SURVEYING
FUNDING | PLANNING | ENVIRONMENTAL
www.msa-ps.com
BOBBI L. MAXWELL
39012-006
BARABOO
WI
PROFESSIONAL ENGINEER
10-12-20

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
PREPARED BY
Surveyor MSA PROFESSIONAL SERVICES, INC.
Designer MSA PROFESSIONAL SERVICES, INC.
Regional Examiner JASON SCHAEFFER
Regional Supervisor DAN ERVA, P.E.

APPROVED FOR THE DEPARTMENT
DATE: 10/19/2020
E

MISCELLANEOUS

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

PIPE ELEVATIONS, LENGTHS AND LOCATIONS AS SHOWN ON THE PLANS MAY BE ADJUSTED TO FIT EXISTING FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

REMOVALS

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

GRADING AND EROSION CONTROL

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY ARE TO BE FERTILIZED, PERMANENT SEEDED, TEMPORARILY SEEDED AND MULCH OR EMAT PLACED AS DIRECTED BY THE ENGINEER.

THE EROSION CONTROL ITEMS SHOWN ON THE PLANS ARE AT SUGGESTED LOCATIONS. THE ENGINEER WILL DETERMINE THE EXACT LOCATION OF EROSION CONTROL ITEMS. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL SUCH TIME AS THE ENGINEER DETERMINES THE MEASURE IS NO LONGER NECESSARY. REMOVE ITEMS AT ENGINEER'S DIRECTION.

FILL EXPANSION IS ESTIMATED AT 1.25.

PAVING

CURVE DATA BASED ON ARC DEFINITION.

RADII DIMENSIONS FOR THE CURB AND GUTTER ARE TO THE FLAG LINE.

EXPANSION JOINTS SHALL BE CONSTRUCTED AT ALL RADII POINTS IN CURB AND GUTTER.

HMA WEIGHT CALCULATIONS BASED ON 112 LBS/SY/IN.

UNLESS OTHERWISE SHOWN ON THE PLAN, ALL MATCHING DRIVEWAYS AND STREETS SHALL BE SAWCUT. COST OF CUTTING IS TO BE PAID FOR UNDER "SAWING ASPHALT" FOR ASPHALT PAVEMENT OR "SAWING CONCRETE" FOR CONCRETE PAVEMENT.

STORM SEWER

INLET OFFSETS GIVEN TO THE CENTER OF THE STRUCTURE.

WHERE TYING INTO EXISTING STRUCTURES OR PIPES, VERIFY EXISTING ELEVATIONS AND DIMENSIONS PRIOR TO ORDERING MATERIALS.

GENERAL NOTES

SECTION 2 ORDER OF SHEETS

- 1. GENERAL NOTES
- 2. PROJECT OVERVIEW
- 3. EXISTING TYPICAL SECTIONS
- 4. FINISHED TYPICAL SECTIONS
- 5. CONSTRUCTION DETAILS
- 6. EROSION CONTROL
- 7. STORM SEWER
- 8. PEDESTRIAN DETAILS
- 9. ALIGNMENT DIAGRAMS/SUPERELEVATIONS

AC	ACRES
AC	ASPHALT CEMENT
AEW	APRON ENDWALL
ASP	ASPHALT
AVG	AVERAGE
ADT	AVERAGE DAILY TRAFFIC
BAD	BASE AGGREGATE DENSE
BM	BENCHMARK
CL	CENTERLINE
CC	CENTER TO CENTER
CMP	CORRUGATED METAL PIPE
CONC	CONCRETE
CPRC	CULVERT PIPE REINFORCED CONCRETE
CSCP	CORRUGATED STEEL CULVERT PIPE
CSM	CERTIFIED SURVEY MAP
CTH	COUNTY TRUNK HIGHWAY
CULV	CULVERT
CP	CULVERT PIPE
C&G	CURB & GUTTER
D	DEGREE OF CURVE
DHV	DESIGN HOURLY VOLUME
DIA	DIAMETER
DWY	DRIVEWAY
E	EAST
X	EAST GRID COORDINATE
ELEV	ELEVATION
EW	ENDWALL
ENT	ENTRANCE
ESALS	EQUIVALENT SINGLE AXLE LOADS
EXC	EXCAVATION
EBS	EXCAVATION BELOW SUBGRADE
EXIST	EXISTING
FF	FACE TO FACE
FERT	FERTILIZER
FE	FIELD ENTRANCE
FG	FINISHED GRADE
FT	FOOT

ABBREVIATIONS

G.V.	GAS VALVE
INV	INVERT
IP	IRON PIPE
JCT	JUNCTION
LHF	LEFT HAND FORWARD
L	LENGTH
LS	LUMP SUM
NC	NORMAL CROWN
N	NORTH
Y	NORTH GRID COORDINATE
PACS	PIPE ARCH CORRUGATED STEEL
PT	POINT
PC	POINT OF CURVATURE
PI	POINT OF INTERSECTION
PT	POINT OF TANGENCY
PL	PROPERTY LINE
PE	PRIVATE ENTRANCE
R	RADIUS
REQ'D	REQUIRED
R/W	RIGHT-OF-WAY
RHF	RIGHT HAND FORWARD
SALV	SALVAGED
SHLDR	SHOULDER
SDD	STANDARD DETAIL DRAWING
STA	STATION
SE	SUPERELEVATION
TAN	TANGENT
TLE	TEMPORARY LIMITED EASEMENT
T	TRUCKS
TYP	TYPICAL
VERT	VERTICAL
VC	VERTICAL CURVE
VOL	VOLUME
WV	WATER VALVE
W	WELL

UTILITIES

*WATER/SANITARY/ELECTRIC:
CITY OF PRINCETON
ATTN: LEE WILLIAMS
531 SOUTH FULTON STREET
PRINCETON, WI 54968
OFFICE: 920-299-6037
EMAIL: LWILLIAMS@CITYOFPRINCETONWI.COM

COMMUNICATION:
CHARTER COMMUNICATIONS
ATTN: NICK FRASE
1515 W. WASHINGTON STREET
WEST BEND, WI 53095
CELL: 920-304-6797
EMAIL: NICK.FRASE@CHARTER.COM

GAS:
WE ENERGIES
ATTN: TRAVIS KAHL
1921 8TH STREET SOUTH
WISCONSIN RAPIDS, WI 54494
OFFICE: 715-421-7256
CELL: 715-498-6180
EMAIL: TRAVIS.KAHL@WE-ENERGIES.COM

COMMUNICATION:
LUMEN
ATTN: STEVE BISHOP
130 4TH STREET
BARABOO, WI 53913
OFFICE: 608-355-7501
CELL: 608-963-8594
EMAIL: STEVEN.BISHOP@LUMEN.COM

ELECTRIC:
ALLIANT ENERGY
ATTN: MARY MONTGOMERY
200 FIRST STREET
CEDAR RAPIDS, IA 52401
OFFICE: 319-786-4768
EMAIL: MARYMONTGOMERY@ALLIANTENERGY.COM

*NOT A DIGGERS HOTLINE MEMBER

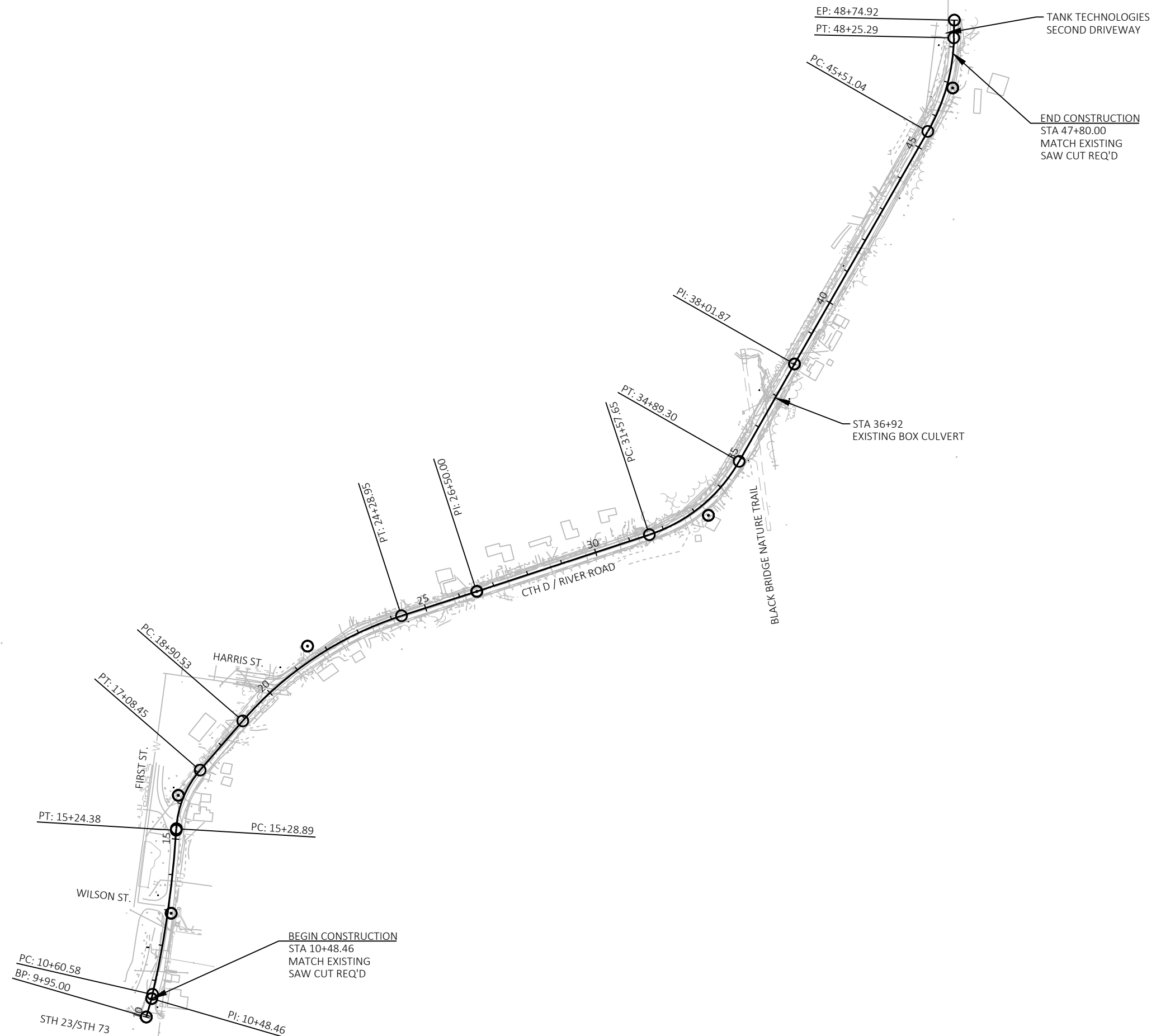
DNR LIAISON

WISCONSIN DEPARMENT OF NATURAL RESOURCES
ATTN: JAY SCHIEFELBEIN
ENVIRONMENTAL ANALYSIS & REVIEW SPECIALIST
DNR NORTHEAST REGIONAL HEADQUARTERS
2984 SHAWANO AVE.
GREEN BAY, WI 54313
OFFICE: 920-360-3784
EMAIL: JEREMIAH.SCHIEFELBEIN@WISCONSIN.GOV



Dial 811 or (800)242-8511

www.DiggersHotline.com



PROJECT NO: 6425-00-70

HWY: CTH D

COUNTY: GREEN LAKE

PROJECT OVERVIEW

SHEET

3

E

FILE NAME : P:\115005\115005\11507\11507006\CADD\SHEETS\PLAN\020201-PO.DWG
LAYOUT NAME - 01

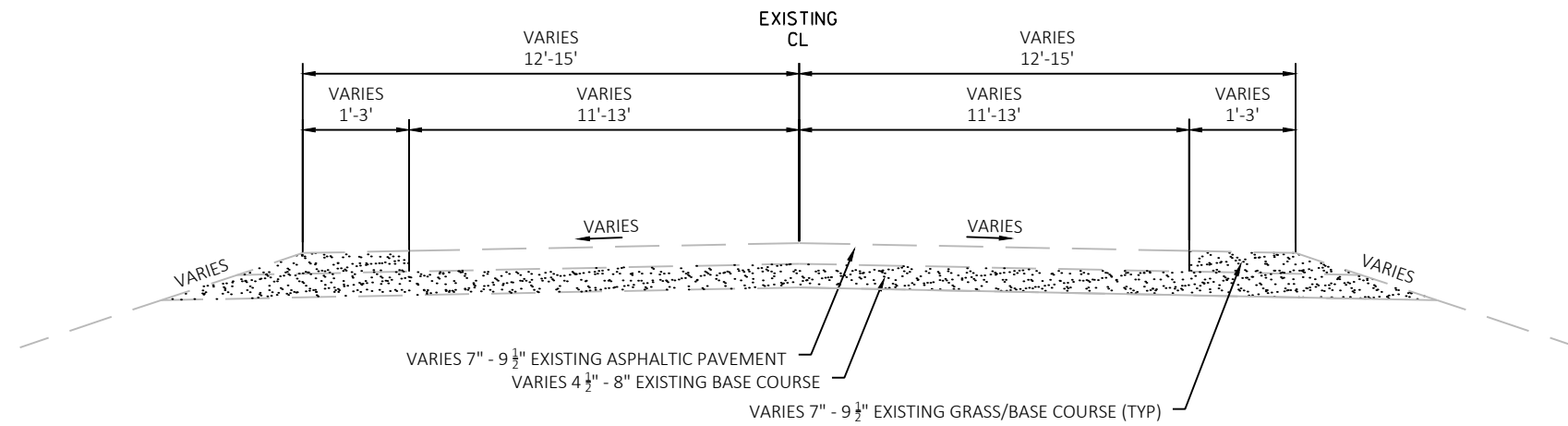
PLOT DATE : 10/22/2020 10:32 AM

PLOT BY : BOBBI MAXWELL

PLOT NAME :

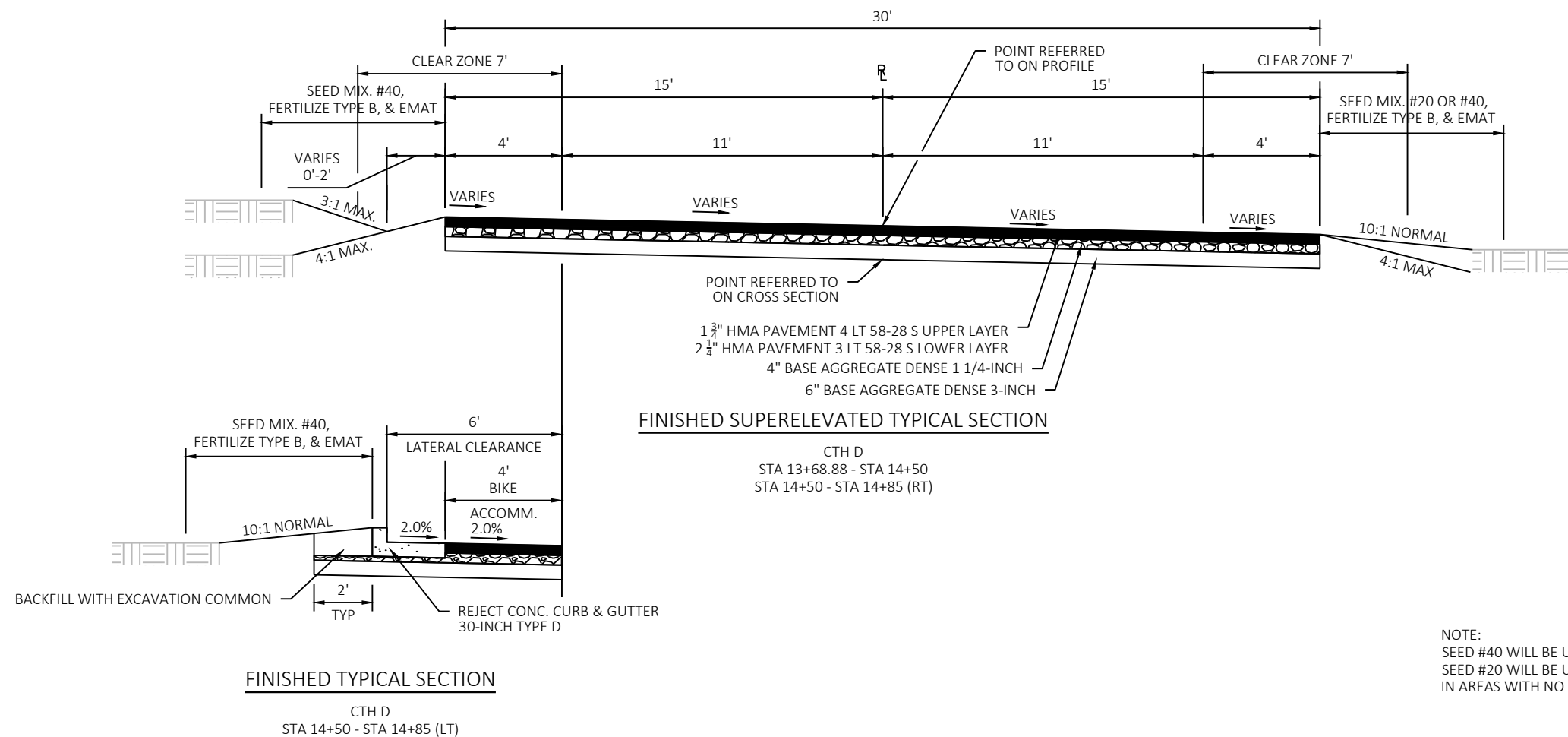
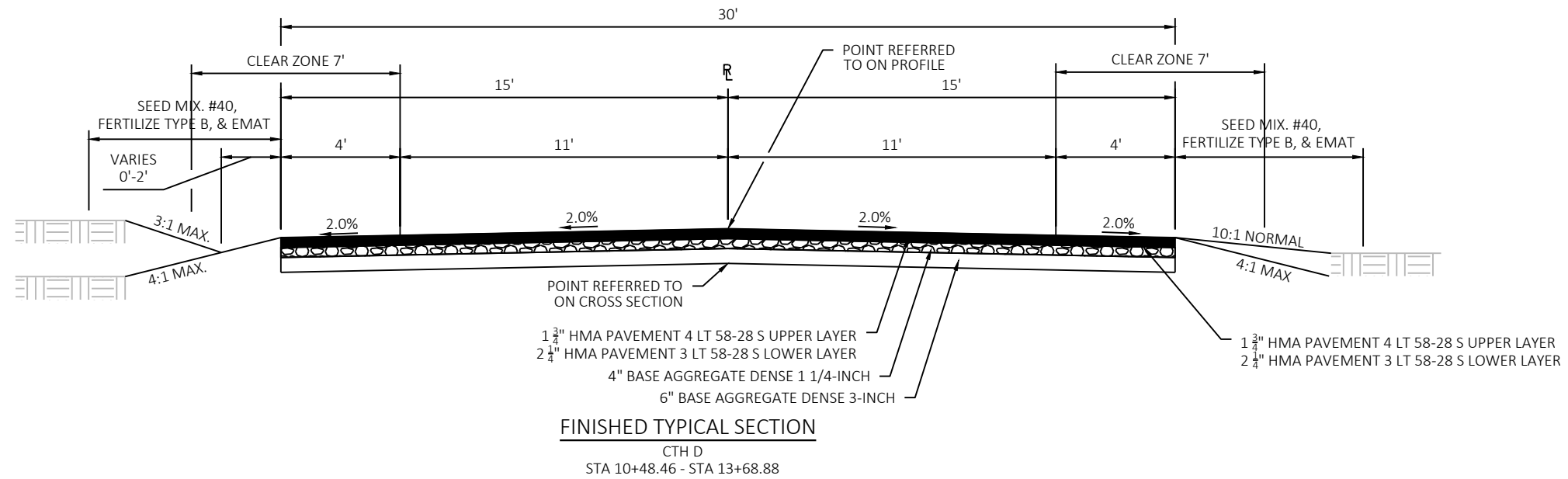
PLOT SCALE : 1 IN:300 FT

WISDOT/CADD SHEET 42

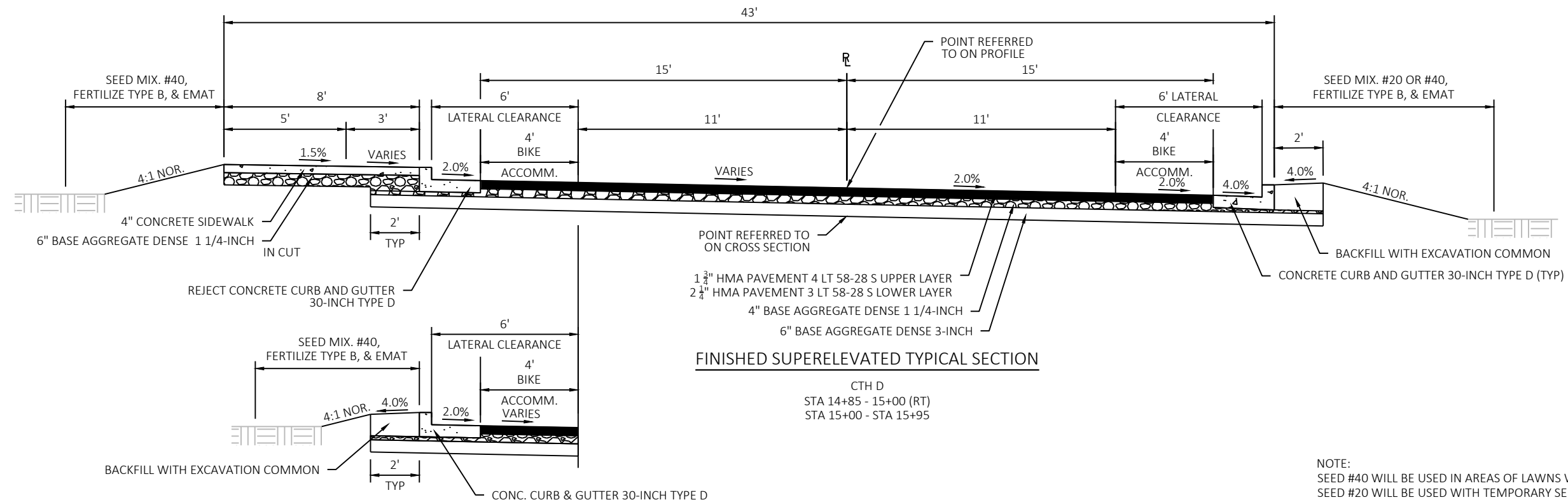


EXISTING TYPICAL SECTION

CTH D
STA 10+48.46 - STA 47+80

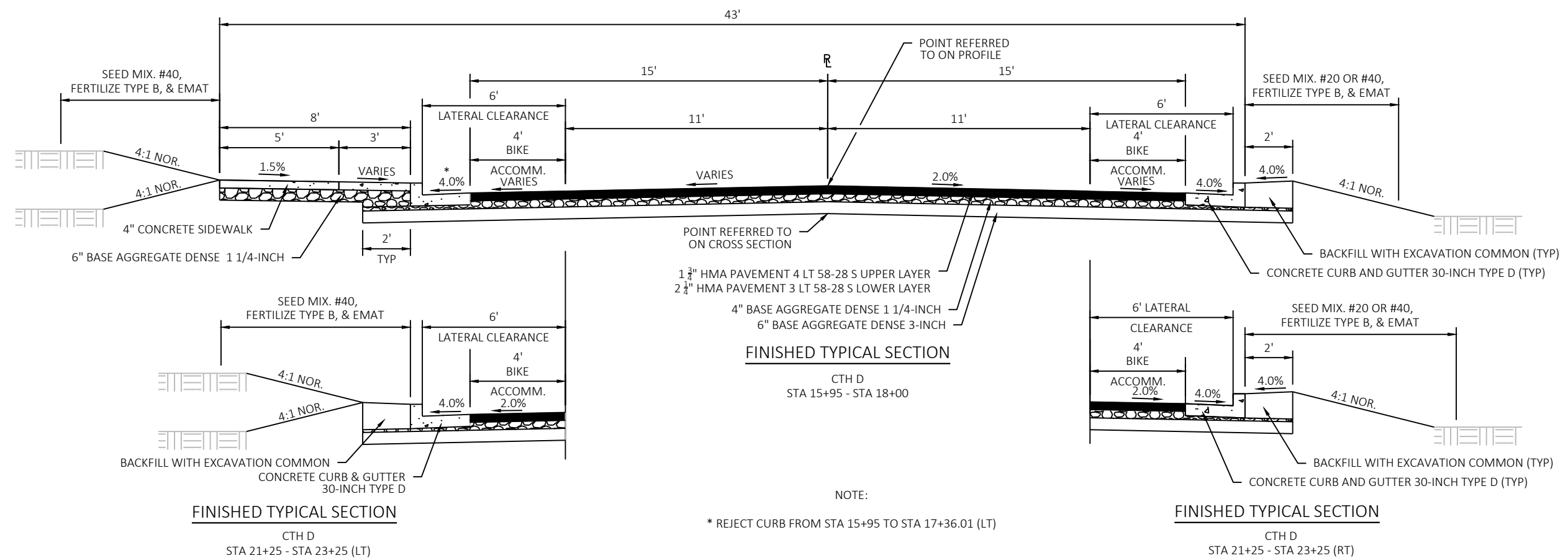


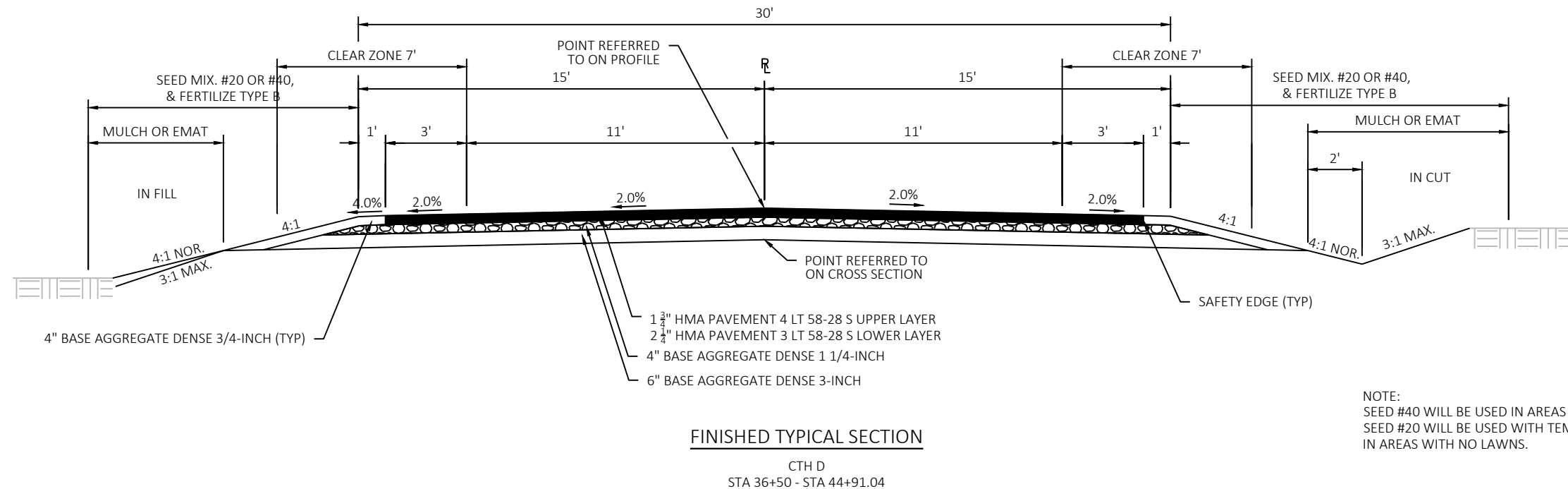
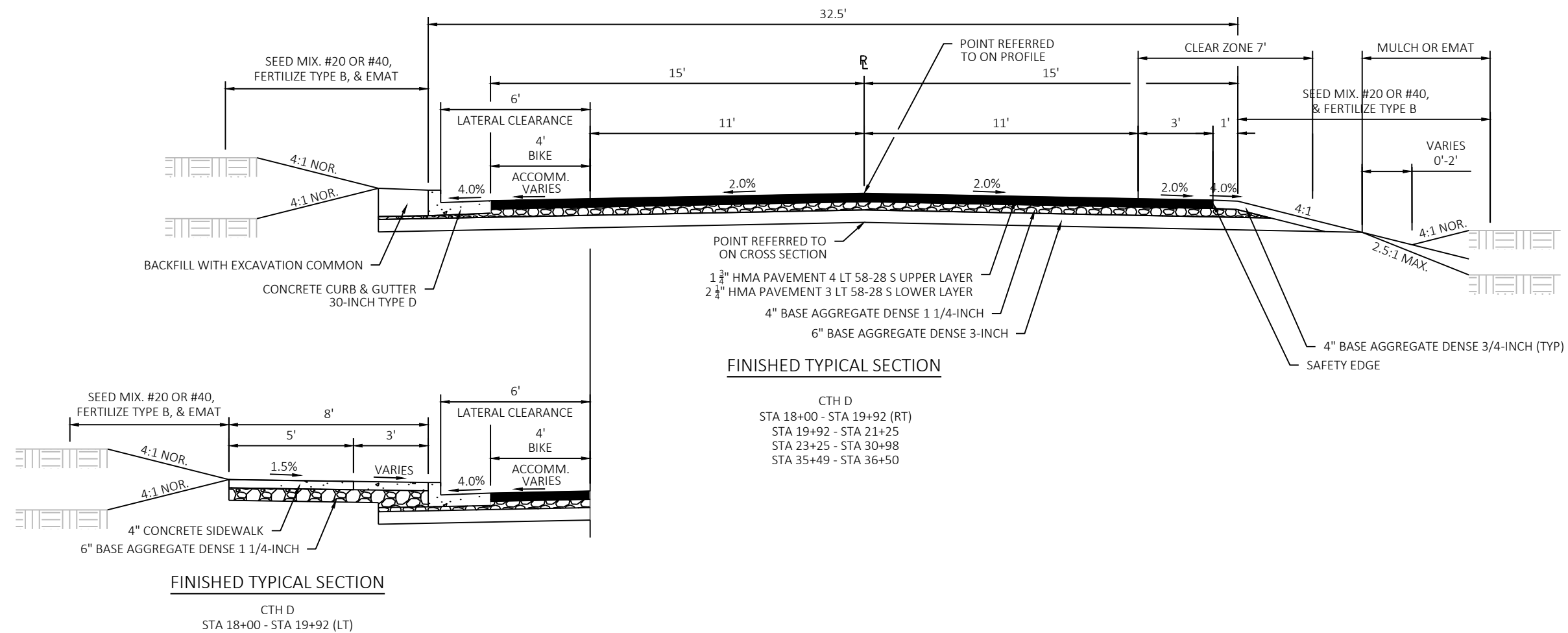
NOTE:
SEED #40 WILL BE USED IN AREAS OF LAWNS WITH EMAT.
SEED #20 WILL BE USED WITH TEMPORARY SEED & MULCH
IN AREAS WITH NO LAWNS.



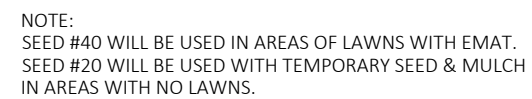
FINISHED TYPICAL SECTION

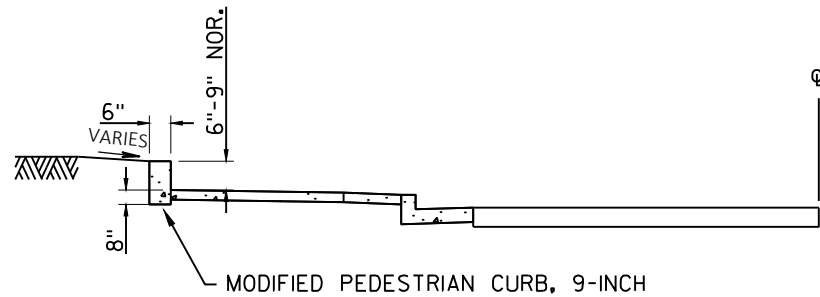
CTH D
STA 14+85 - STA 15+00 (LT)





2

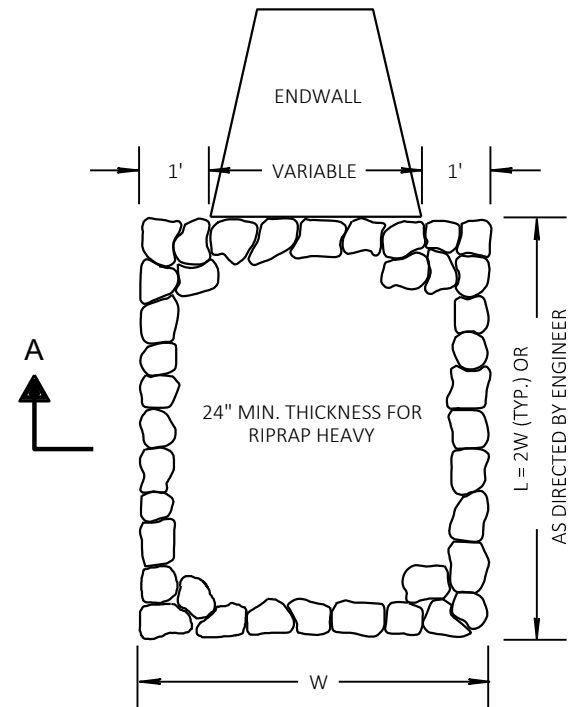
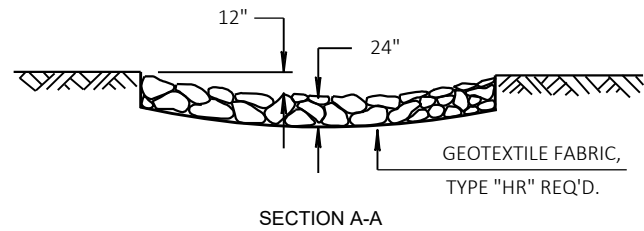




NOTE:
CURB HEIGHT MAY BE ADJUSTED TO MATCH EXISTING GROUND

MODIFIED PEDESTRIAN CURB, 9-INCH

STA 17+86 - STA 18+35 LT

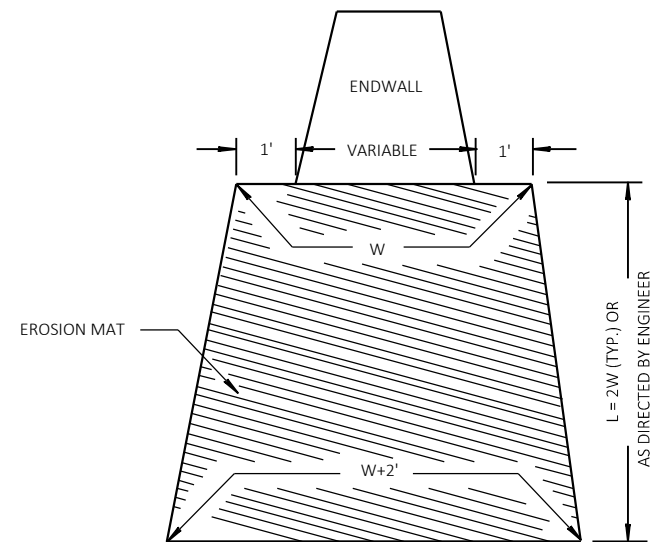


RIPRAP HEAVY TREATMENT AT CULVERTS

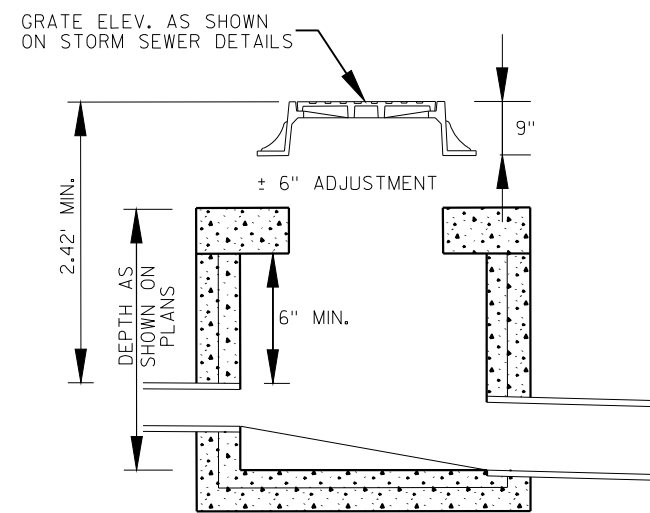
RUNOFF COEFFICIENT TABLE

A	HYDROLOGIC SOIL GROUP											
	B C									D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08	.16	.22	.12	.20	.27	.15	.24	.33	.19	.28	.38
	.22	.30	.38	.26	.34	.44	.30	.37	.50	.34	.41	.56
MEDIAN STRIP-TURF	.19	.20	.24	.19	.22	.26	.20	.23	.30	.20	.25	.30
	.24	.26	.30	.25	.28	.33	.26	.30	.37	.27	.32	.40
SIDE SLOPE: TURF			.25			.27			.28			.30
			.32			.34			.36			.38
PAVEMENT:												
ASPHALT	.70 - .95											
CONCRETE	.80 - .95											
BRICK	.70 - .80											
DRIVES, WALKS	.75 - .85											
ROOFS	.75 - .95											
GRAVEL ROADS, SHOULDERS	.40 - .60											

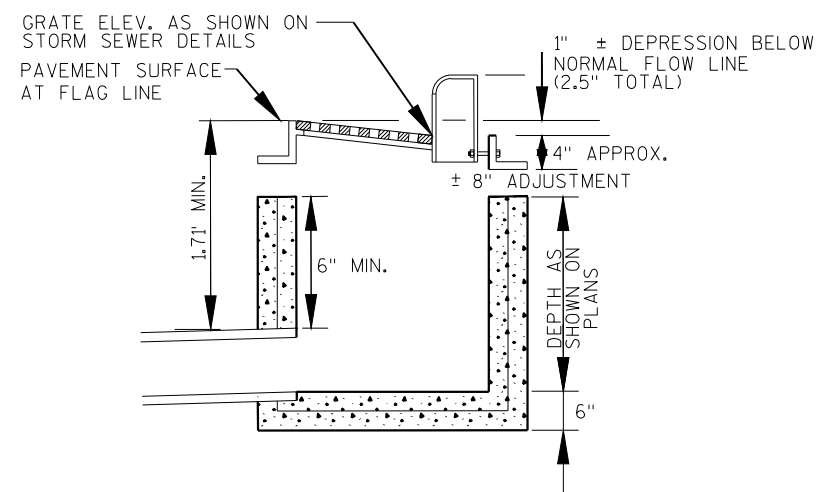
TOTAL PROJECT AREA = 4.50 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 4.39 ACRES



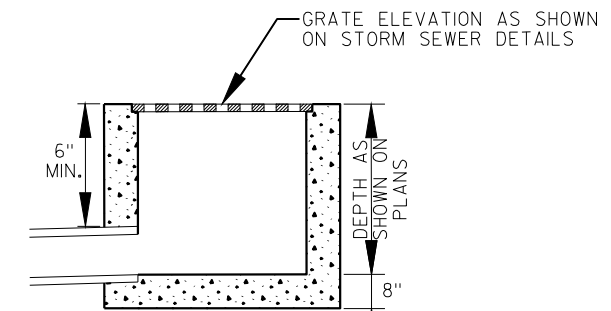
EROSION MAT TREATMENT AT CULVERTS



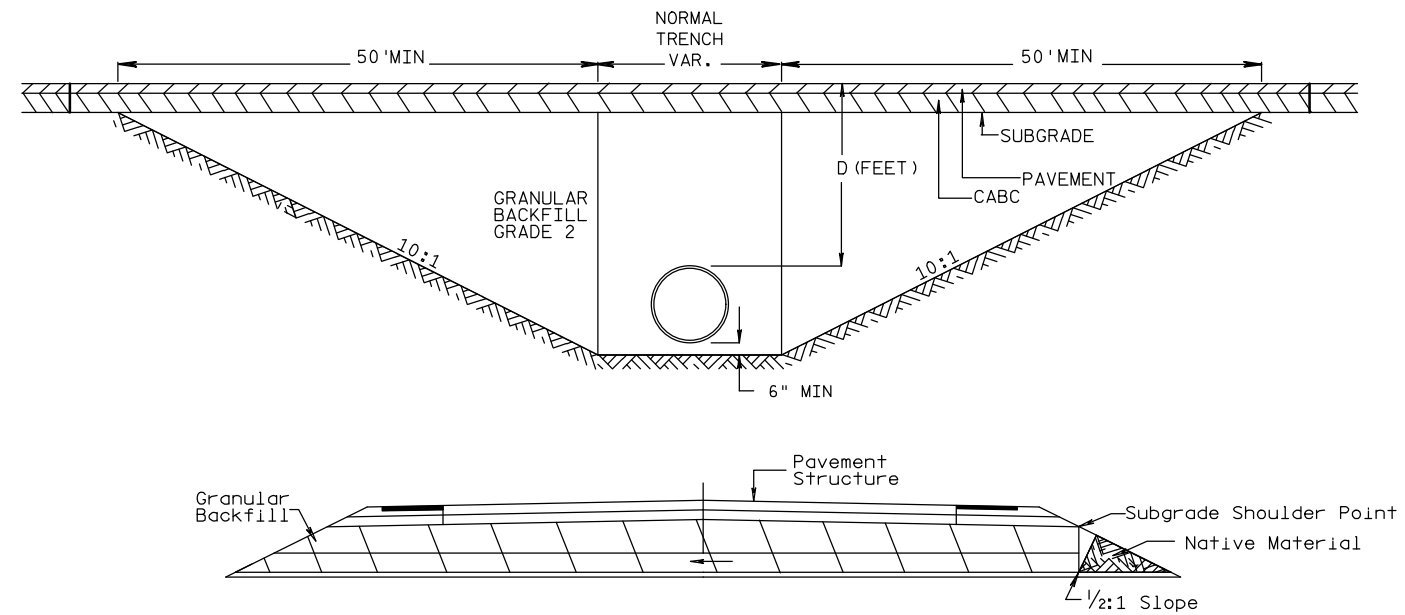
DETAIL FOR COMPUTING MANHOLE ELEVATIONS



DETAIL FOR COMPUTING INLET ELEVATIONS
INLET COVERS - H



INLETS MEDIAN 1 & 2 GRATES
DETAIL FOR COMPUTING INLET ELEVATIONS

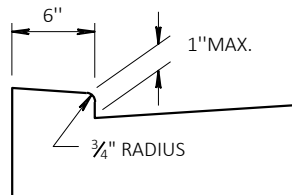
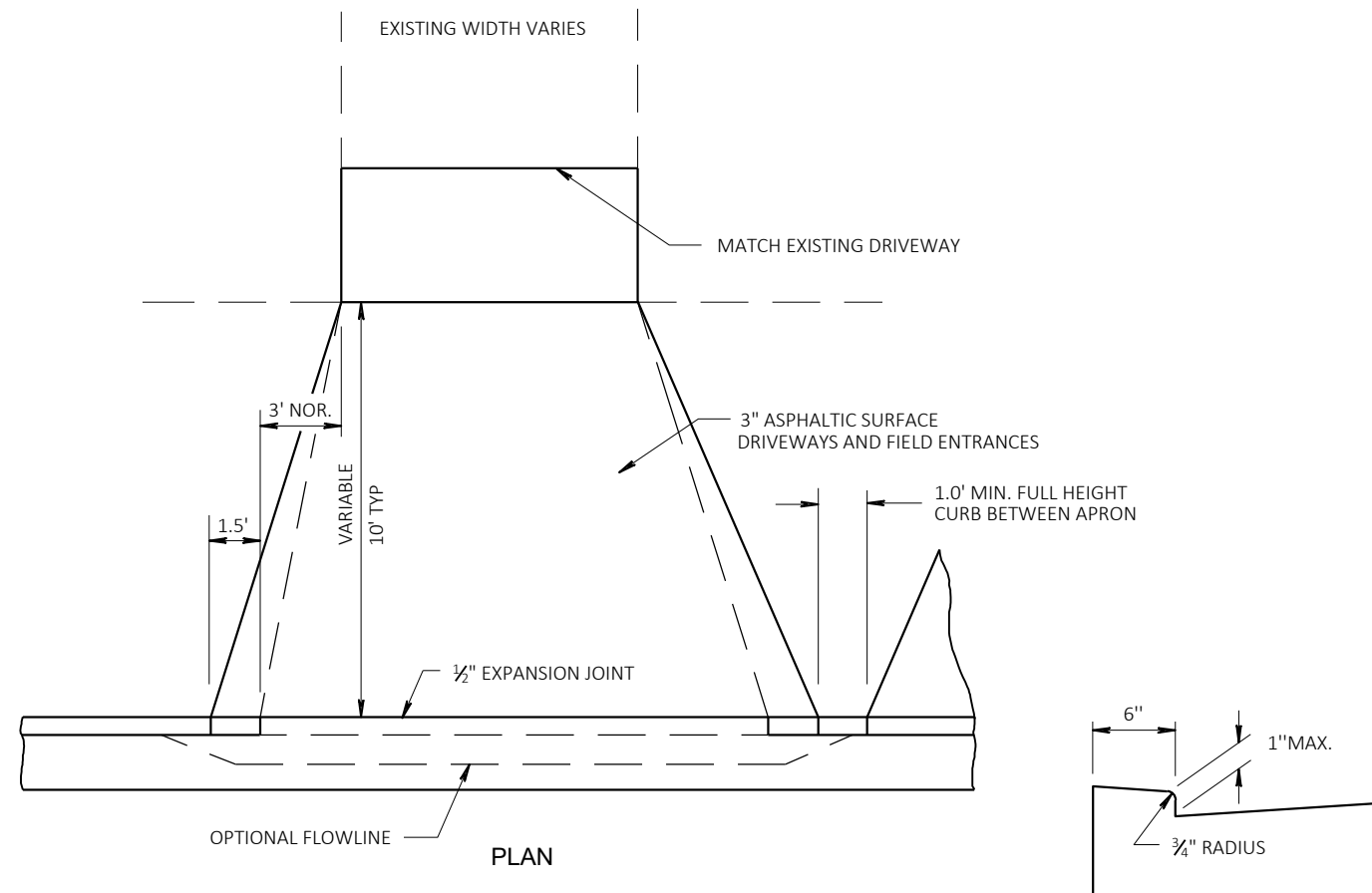


CROSS DRAIN INSTALLATION DETAIL

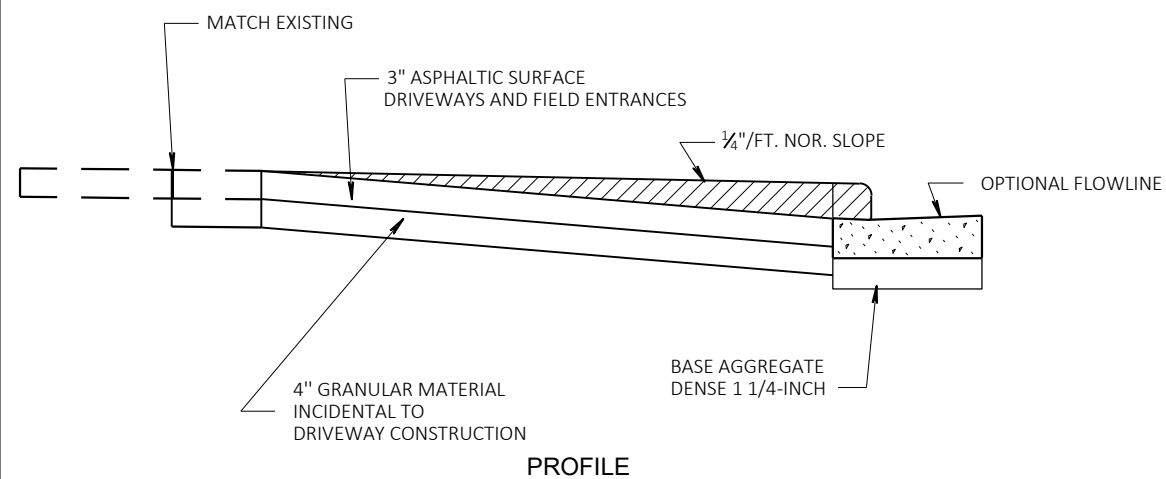
FOR $D \leq 5'$

STA 36+94

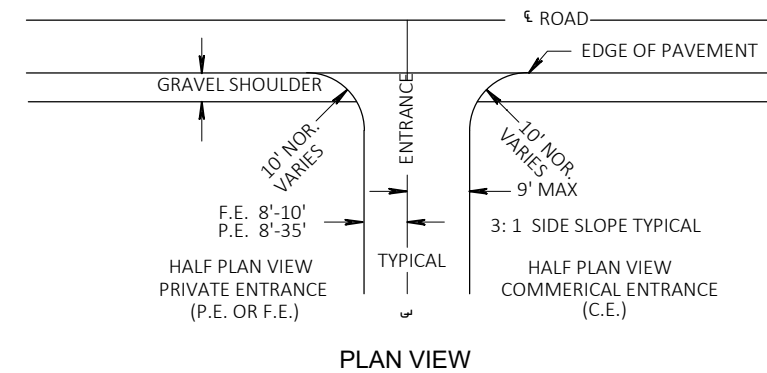
STA 43+94



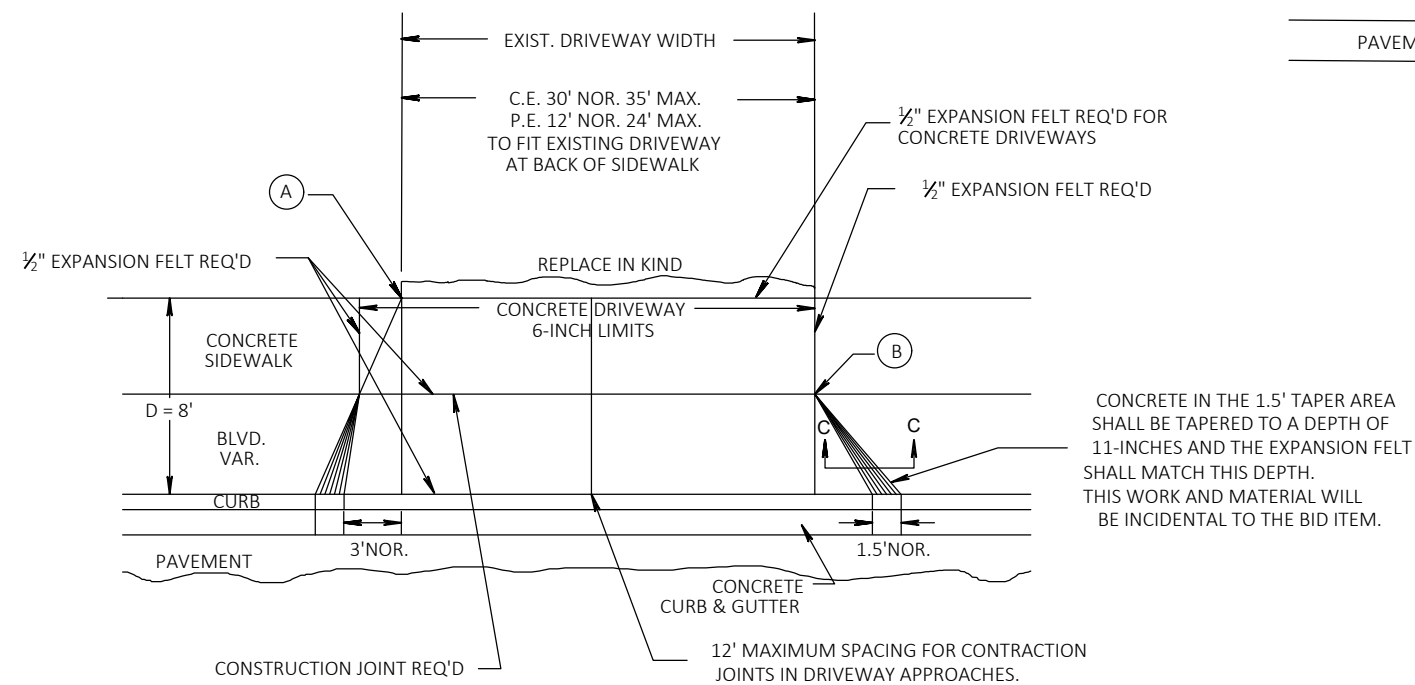
OPTIONAL METHOD
FOR
CONCRETE GUTTER



RURAL DRIVEWAY DETAIL WITH CURB AND GUTTER
(AREAS WITHOUT SIDEWALK)

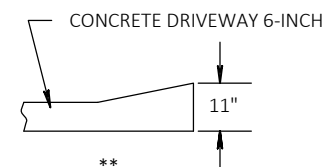


RURAL DRIVEWAY DETAIL



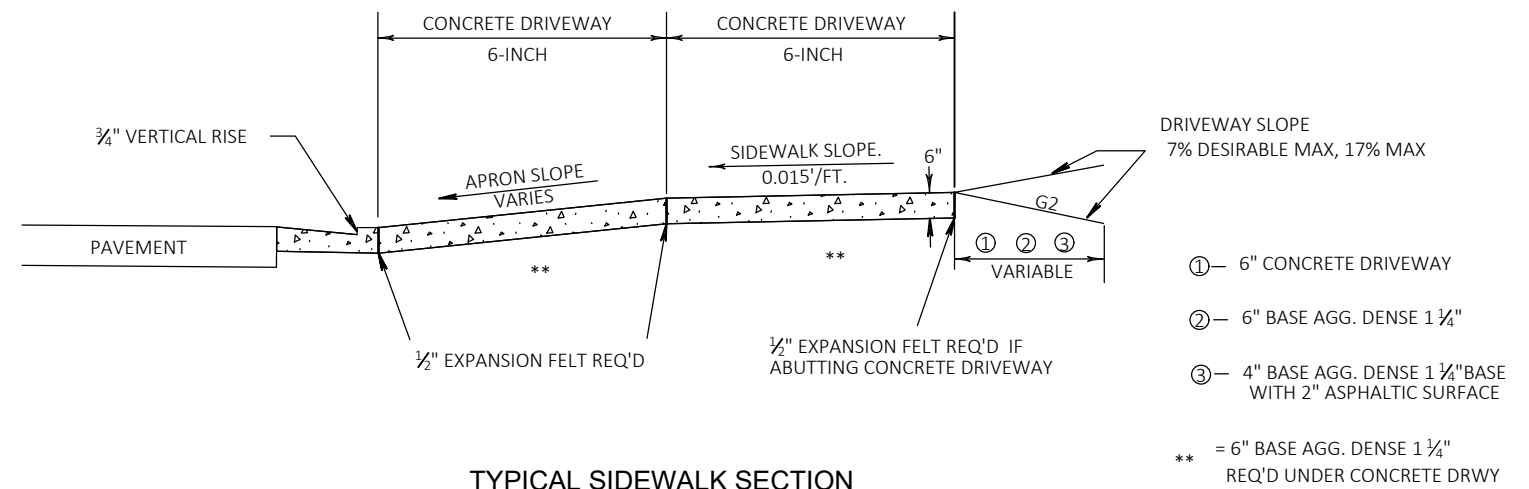
PLAN VIEW

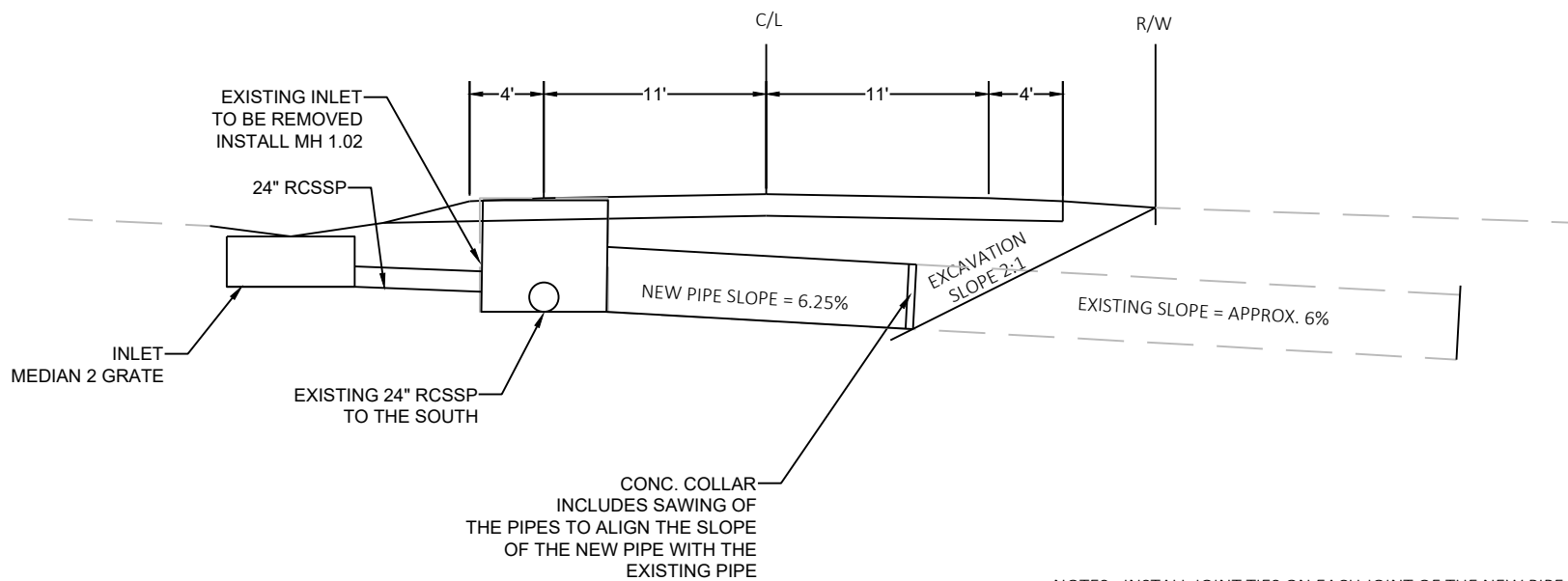
- (A) WHEN "D" IS 13' OR LESS, ALIGN
TAPER WITH BACK OF SIDEWALK
- (B) WHEN "D" IS GREATER THAN
13', ALIGN TAPER WITH FRONT
OF SIDEWALK



SECTION C-C

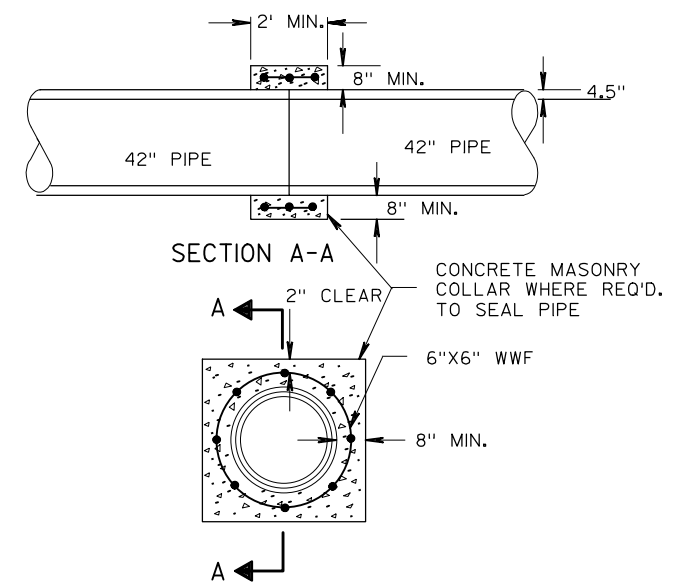
DRIVEWAY ENTRANCE DETAIL WITH SIDEWALK, CURB & GUTTER





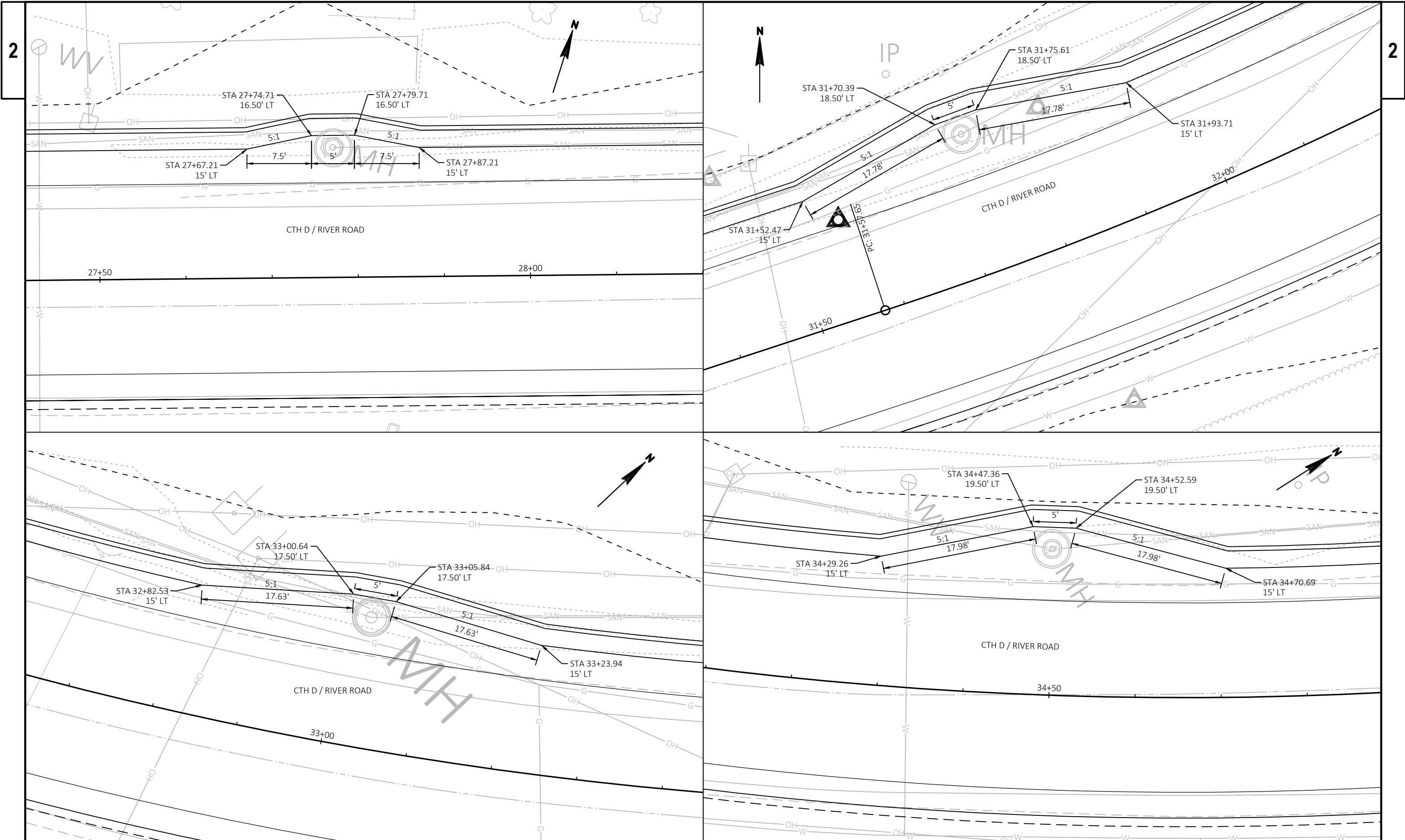
CONCRETE COLLAR DETAIL

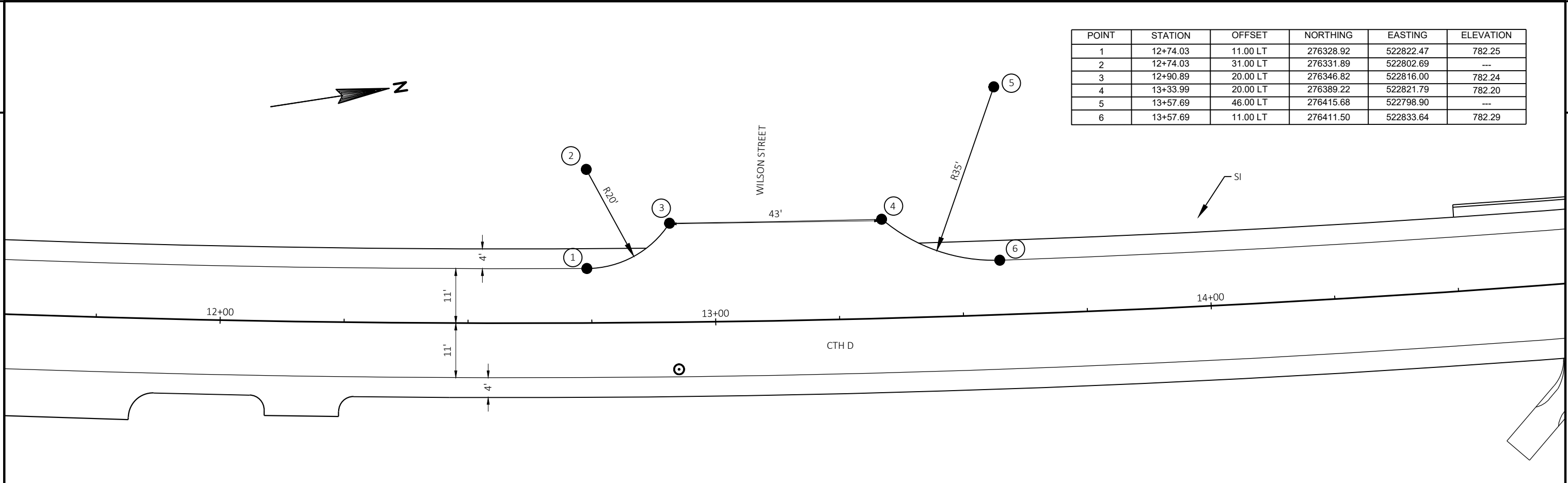
STA 11+67



CONCRETE COLLAR DETAIL

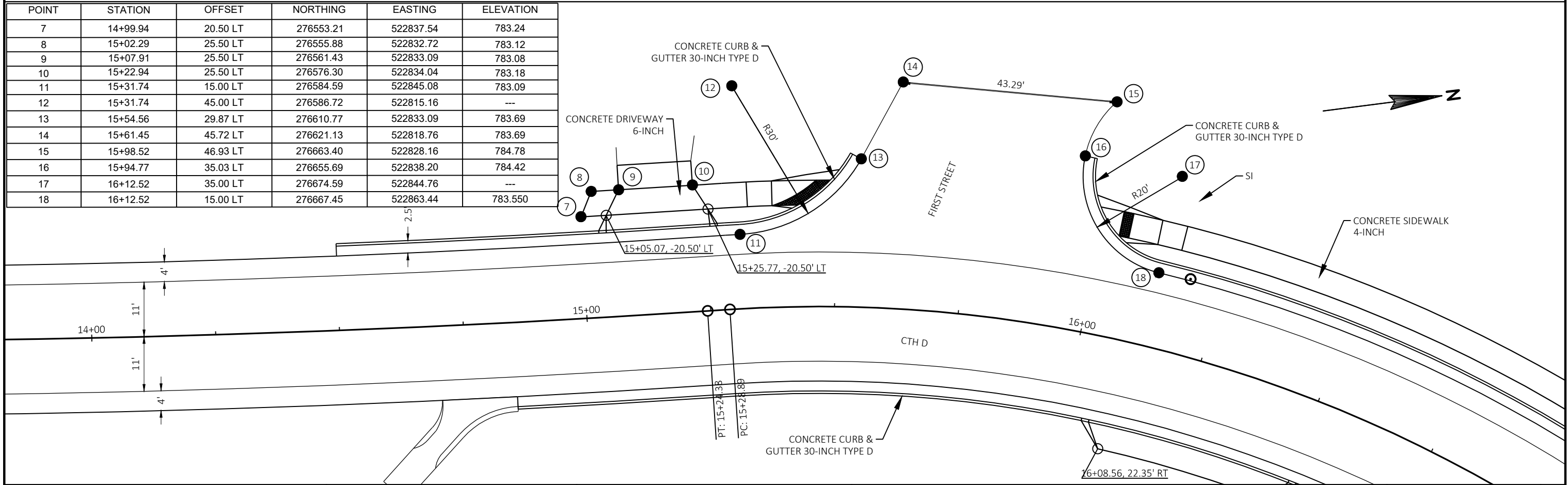
*WWF = WELDED WIRE FABRIC

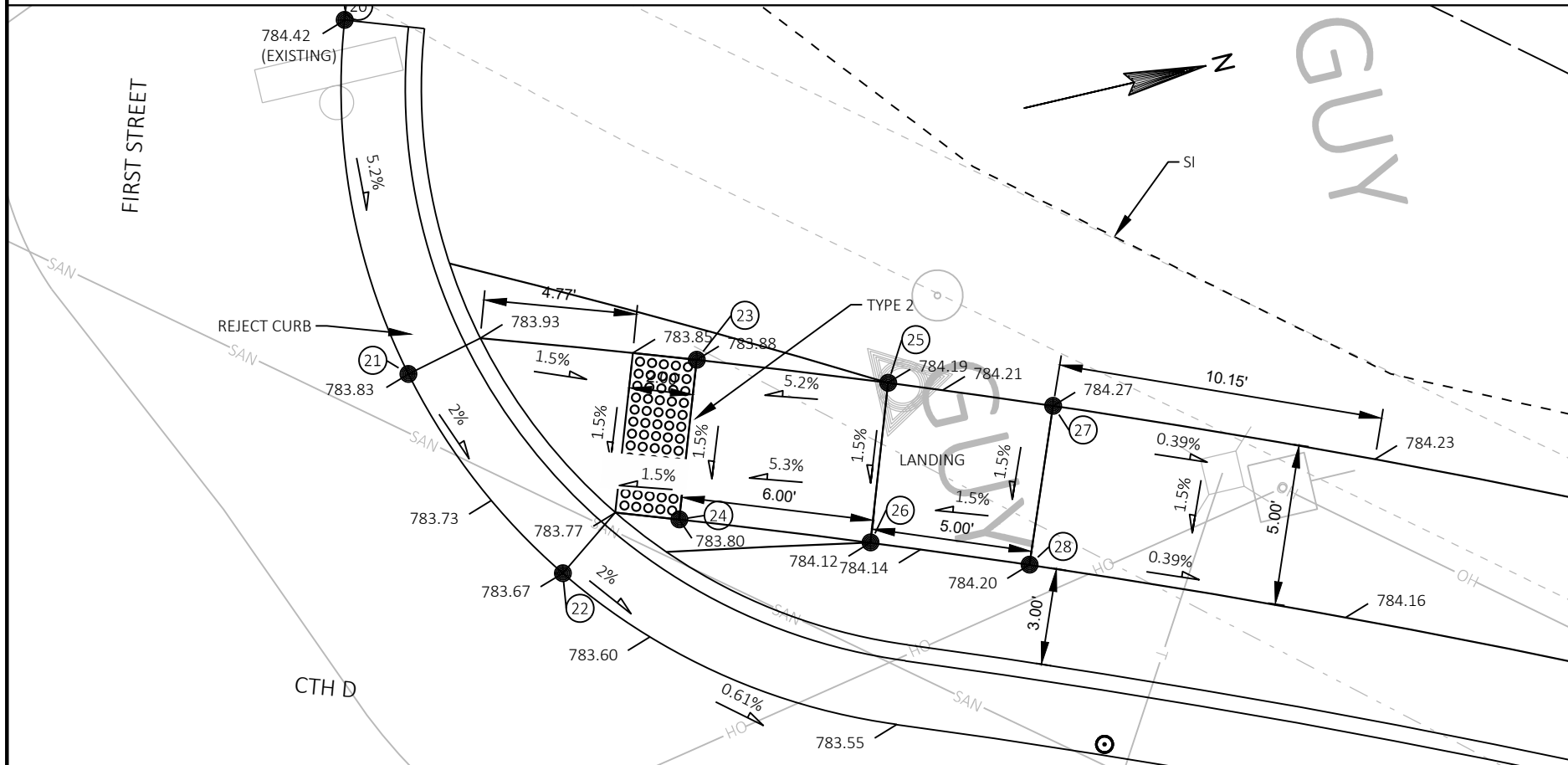
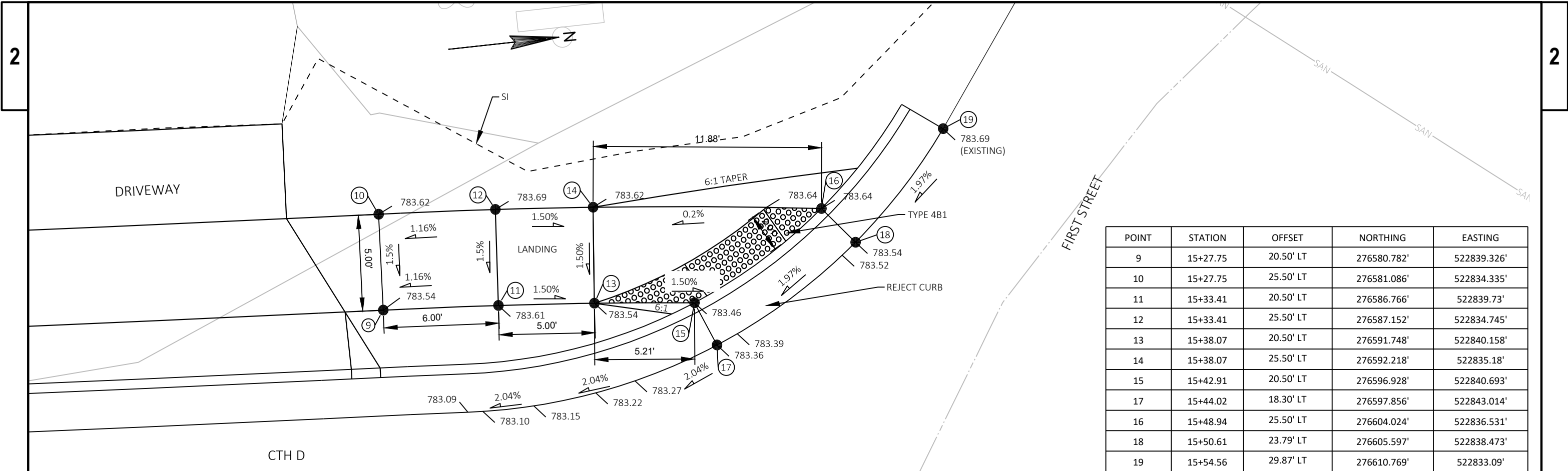


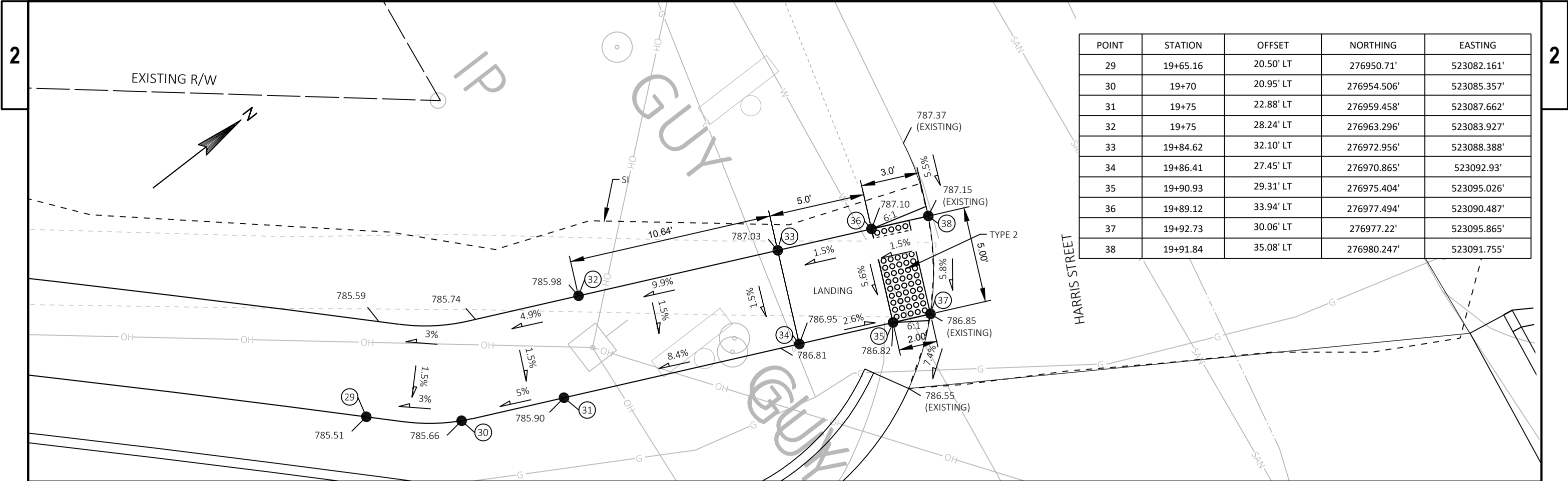


POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION
1	12+74.03	11.00 LT	276328.92	522822.47	782.25
2	12+74.03	31.00 LT	276331.89	522802.69	---
3	12+90.89	20.00 LT	276346.82	522816.00	782.24
4	13+33.99	20.00 LT	276389.22	522821.79	782.20
5	13+57.69	46.00 LT	276415.68	522798.90	---
6	13+57.69	11.00 LT	276411.50	522833.64	782.29

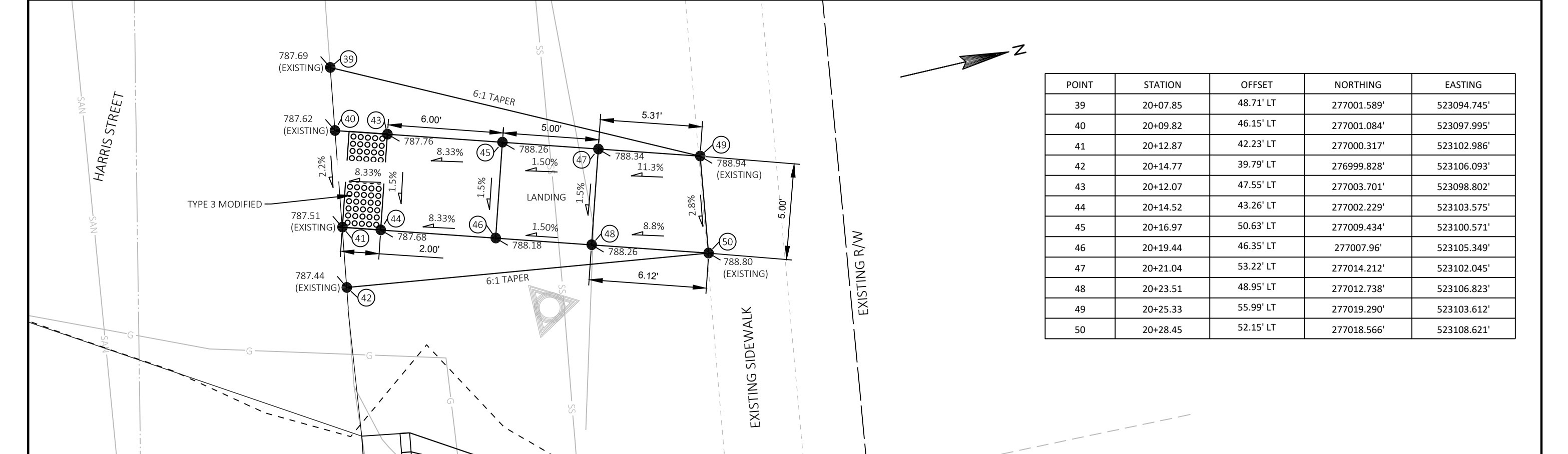
POINT	STATION	OFFSET	NORTHING	EASTING	ELEVATION
7	14+99.94	20.50 LT	276553.21	522837.54	783.24
8	15+02.29	25.50 LT	276555.88	522832.72	783.12
9	15+07.91	25.50 LT	276561.43	522833.09	783.08
10	15+22.94	25.50 LT	276576.30	522834.04	783.18
11	15+31.74	15.00 LT	276584.59	522845.08	783.09
12	15+31.74	45.00 LT	276586.72	522815.16	---
13	15+54.56	29.87 LT	276610.77	522833.09	783.69
14	15+61.45	45.72 LT	276621.13	522818.76	783.69
15	15+98.52	46.93 LT	276663.40	522828.16	784.78
16	15+94.77	35.03 LT	276655.69	522838.20	784.42
17	16+12.52	35.00 LT	276674.59	522844.76	---
18	16+12.52	15.00 LT	276667.45	522863.44	783.550



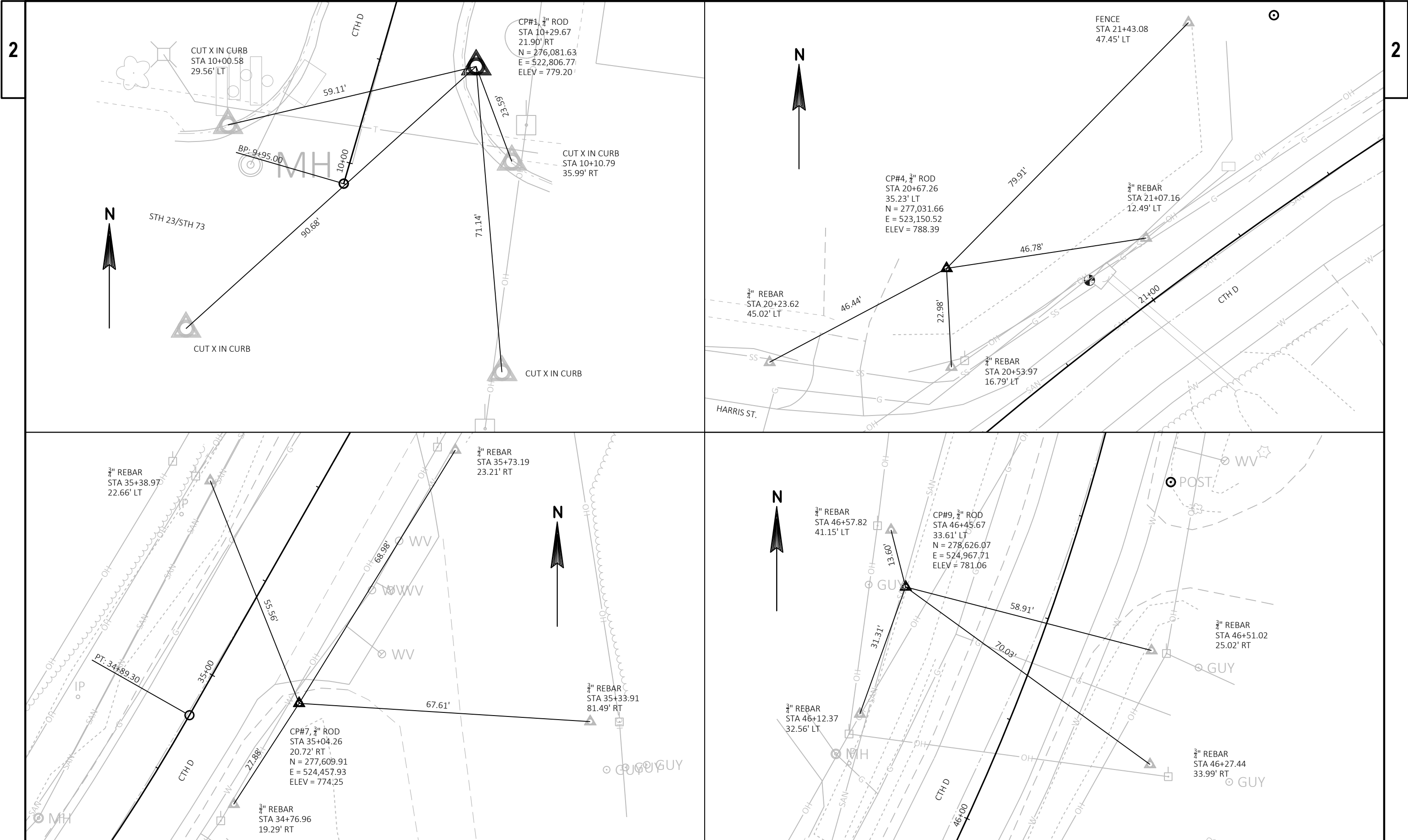


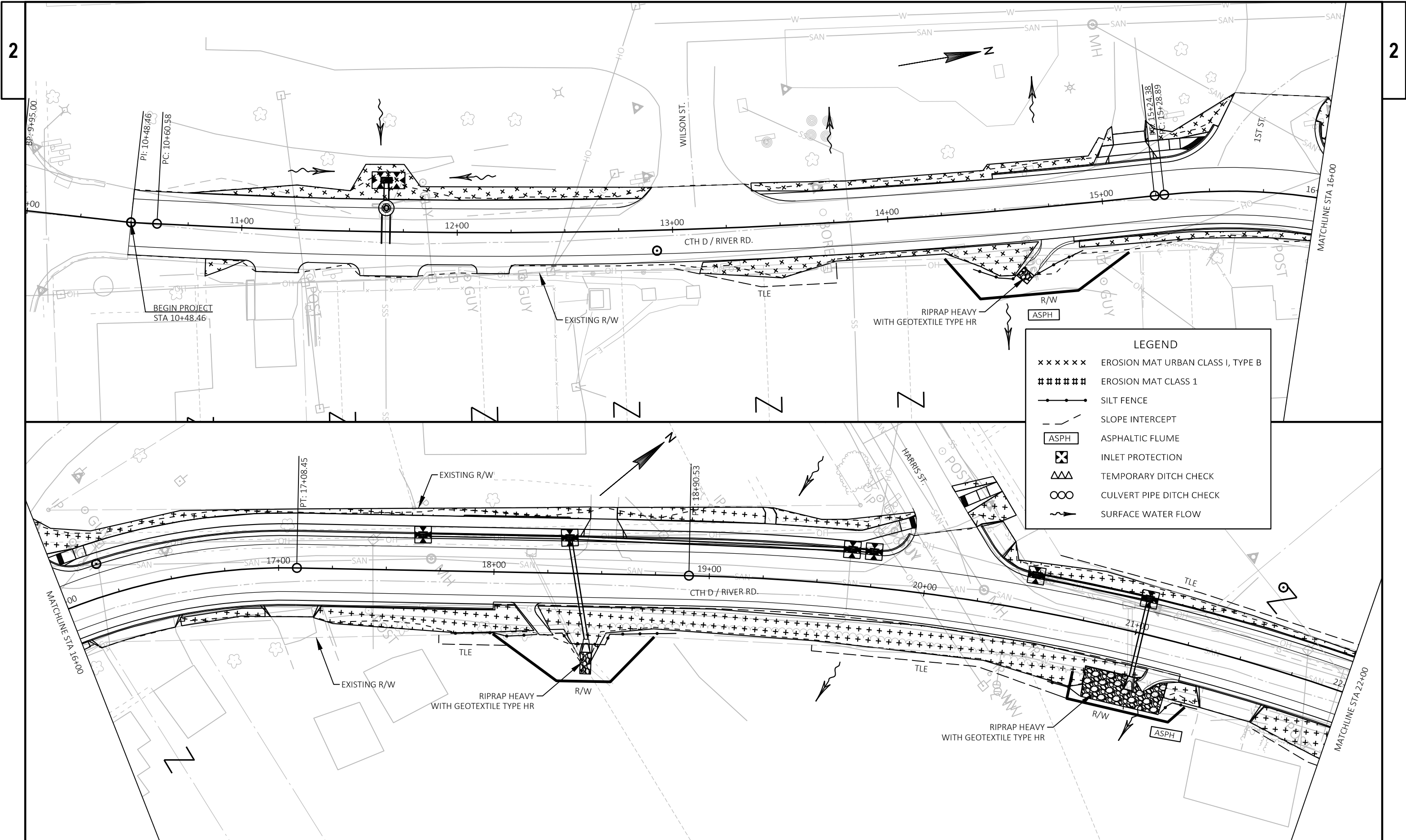


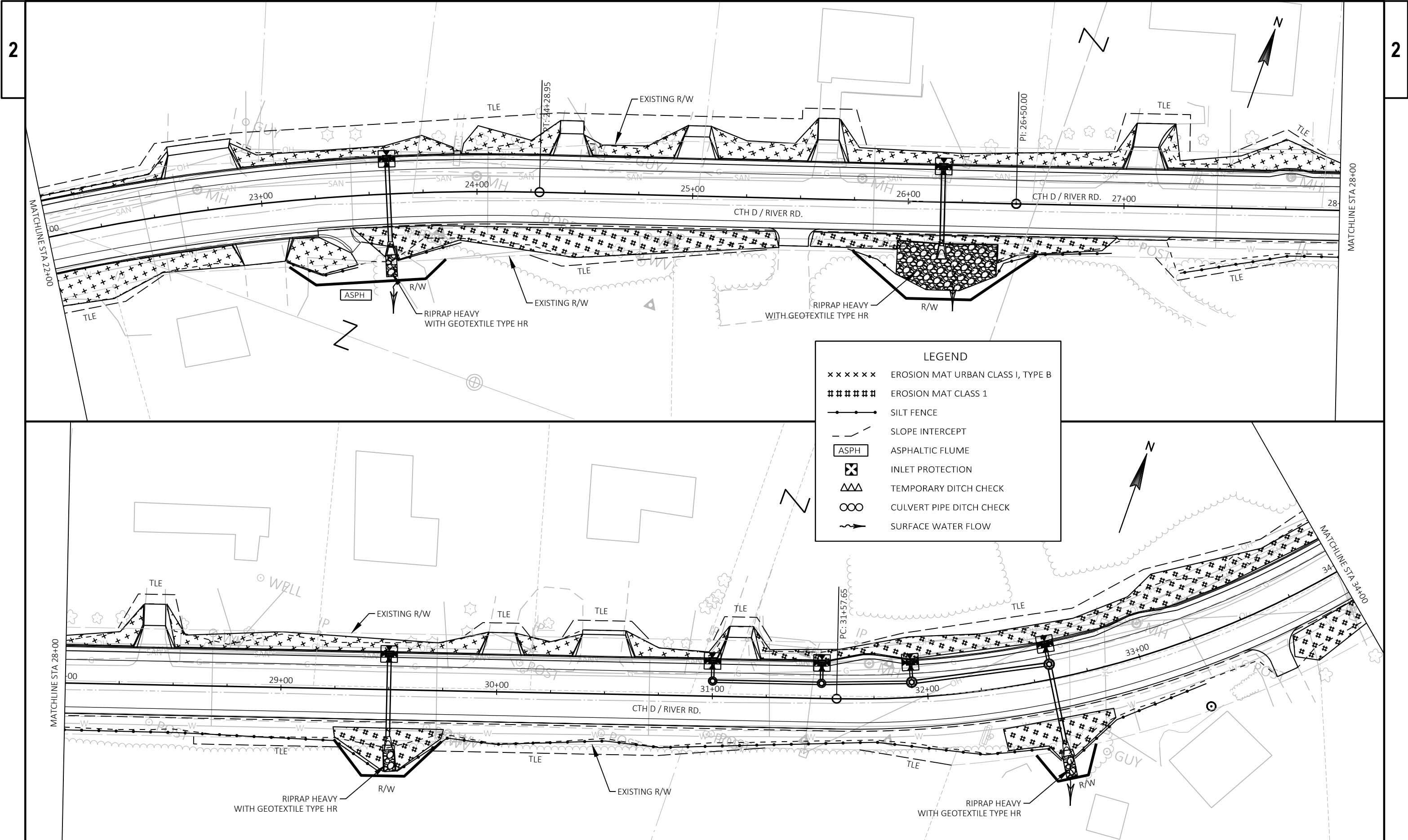
POINT	STATION	OFFSET	NORTHING	EASTING
29	19+65.16	20.50' LT	276950.71'	523082.161'
30	19+70	20.95' LT	276954.506'	523085.357'
31	19+75	22.88' LT	276959.458'	523087.662'
32	19+75	28.24' LT	276963.296'	523083.927'
33	19+84.62	32.10' LT	276972.956'	523088.388'
34	19+86.41	27.45' LT	276970.865'	523092.93'
35	19+90.93	29.31' LT	276975.404'	523095.026'
36	19+89.12	33.94' LT	276977.494'	523090.487'
37	19+92.73	30.06' LT	276977.22'	523095.865'
38	19+91.84	35.08' LT	276980.247'	523091.755'

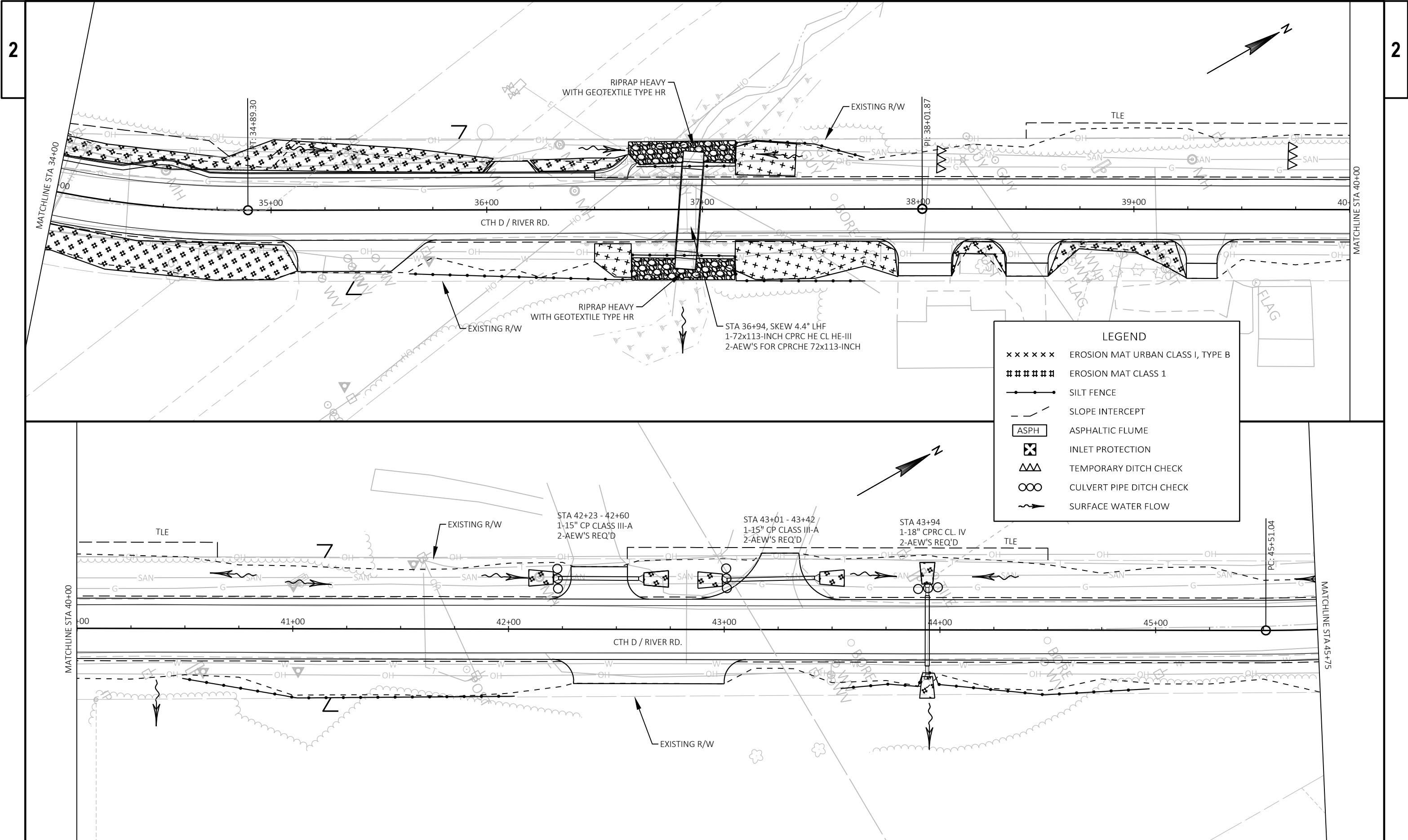


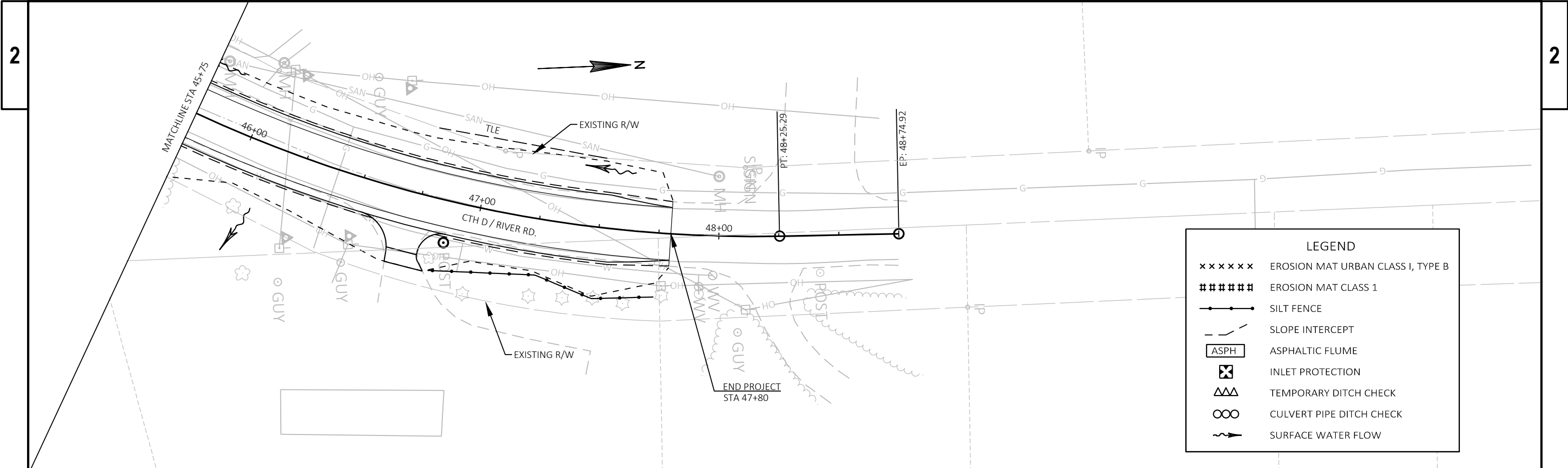
POINT	STATION	OFFSET	NORTHING	EASTING
39	20+07.85	48.71' LT	277001.589'	523094.745'
40	20+09.82	46.15' LT	277001.084'	523097.995'
41	20+12.87	42.23' LT	277000.317'	523102.986'
42	20+14.77	39.79' LT	276999.828'	523106.093'
43	20+12.07	47.55' LT	277003.701'	523098.802'
44	20+14.52	43.26' LT	277002.229'	523103.575'
45	20+16.97	50.63' LT	277009.434'	523100.571'
46	20+19.44	46.35' LT	277007.96'	523105.349'
47	20+21.04	53.22' LT	277014.212'	523102.045'
48	20+23.51	48.95' LT	277012.738'	523106.823'
49	20+25.33	55.99' LT	277019.290'	523103.612'
50	20+28.45	52.15' LT	277018.566'	523108.621'

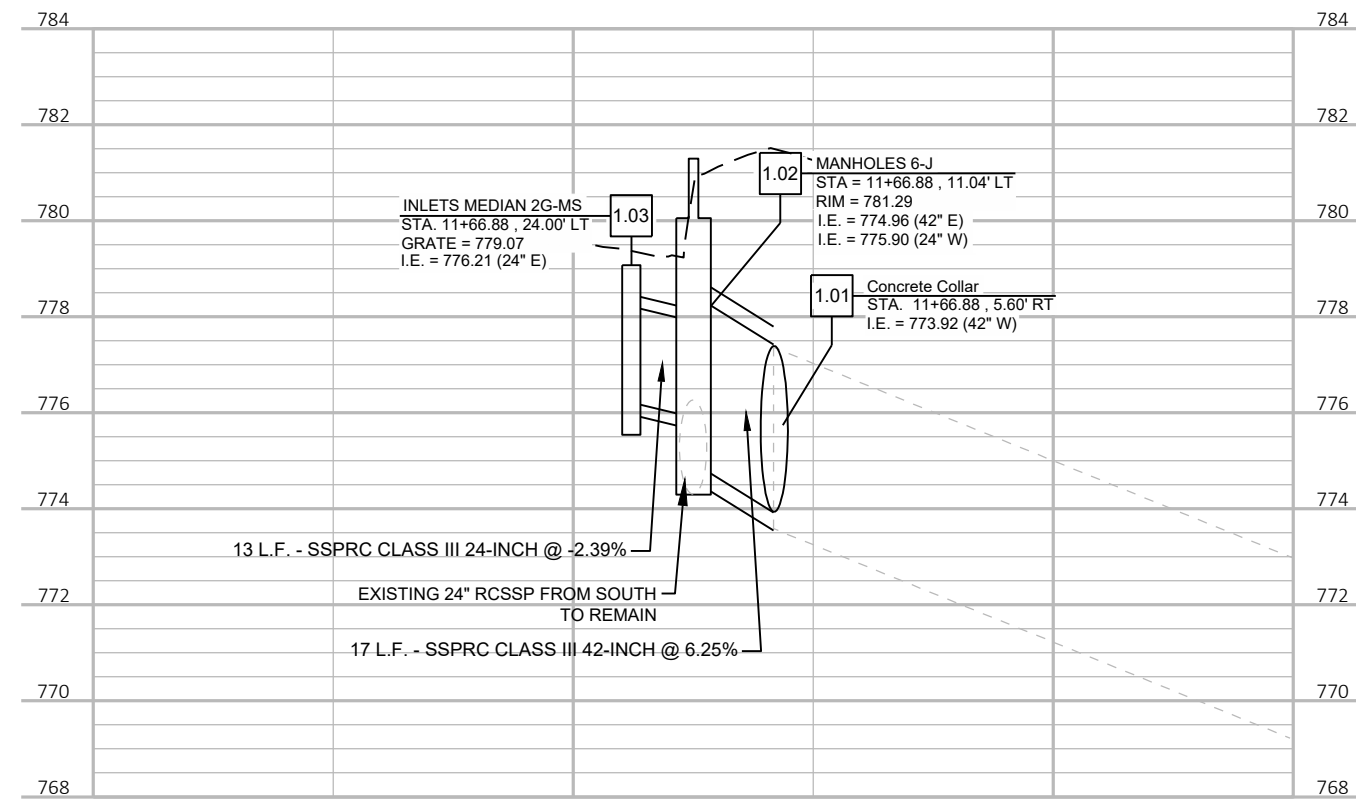
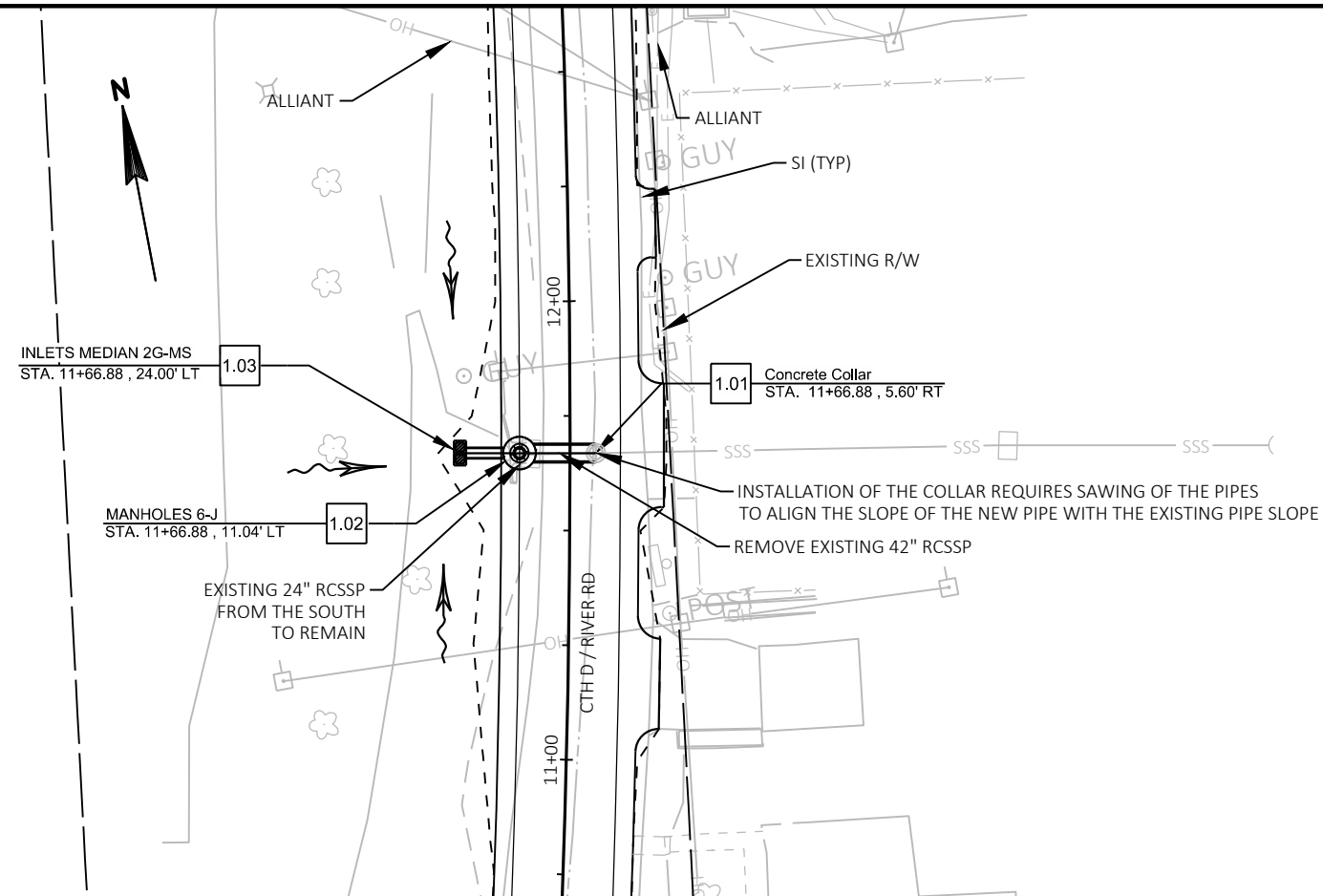


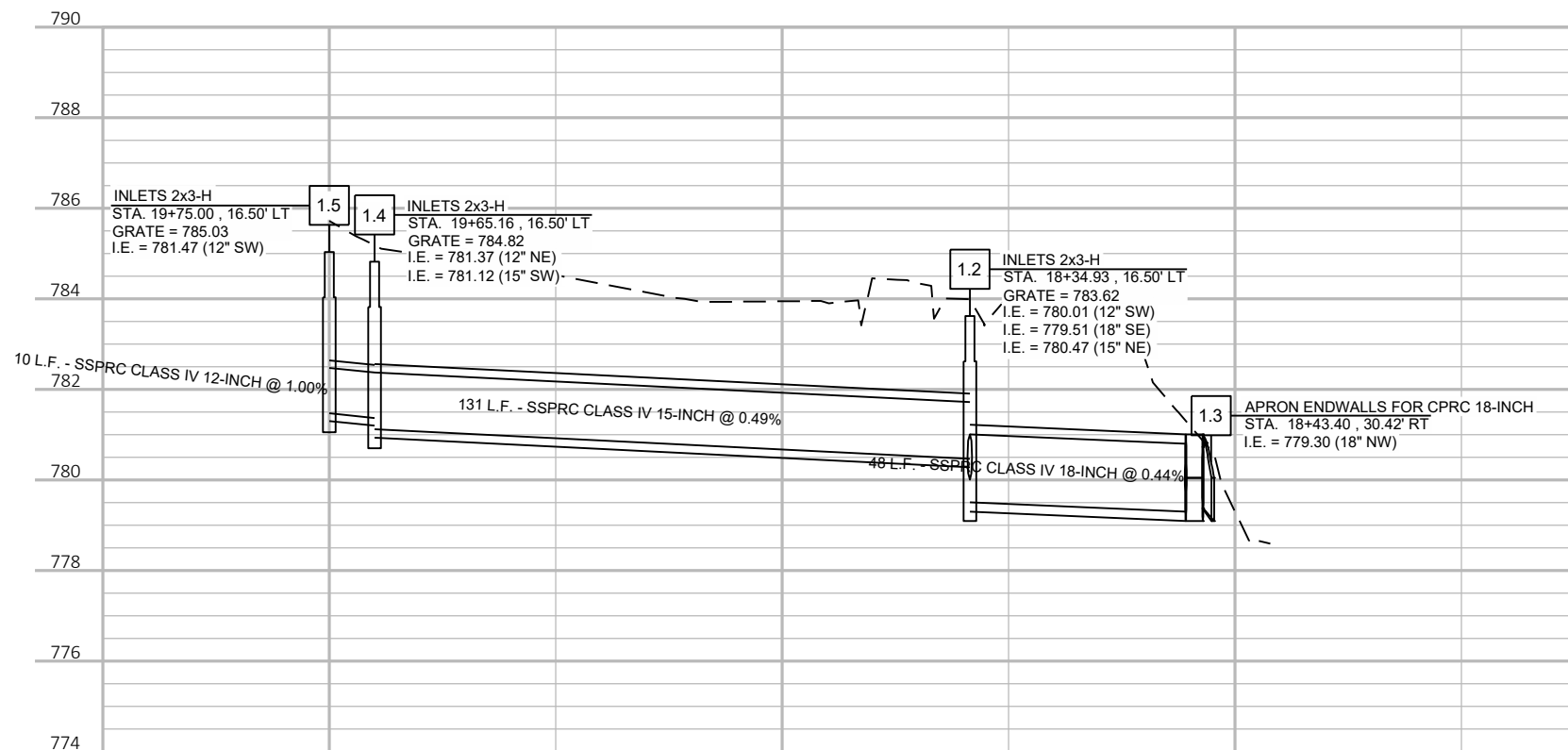
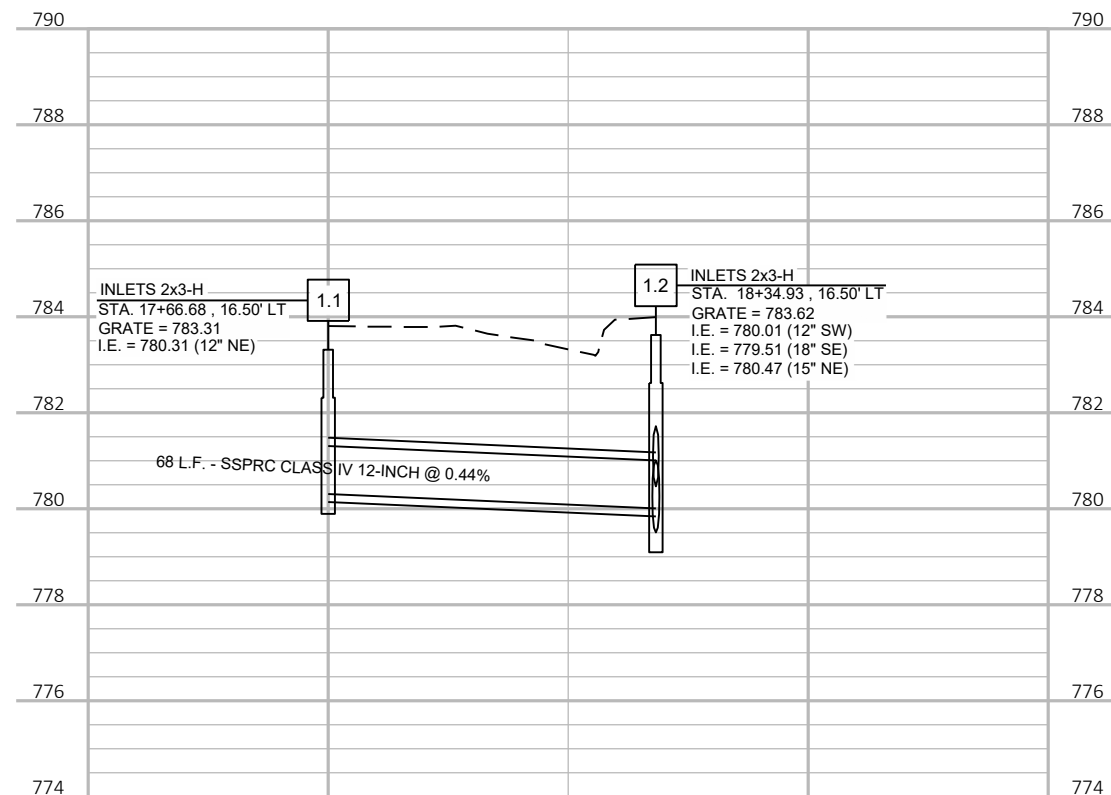
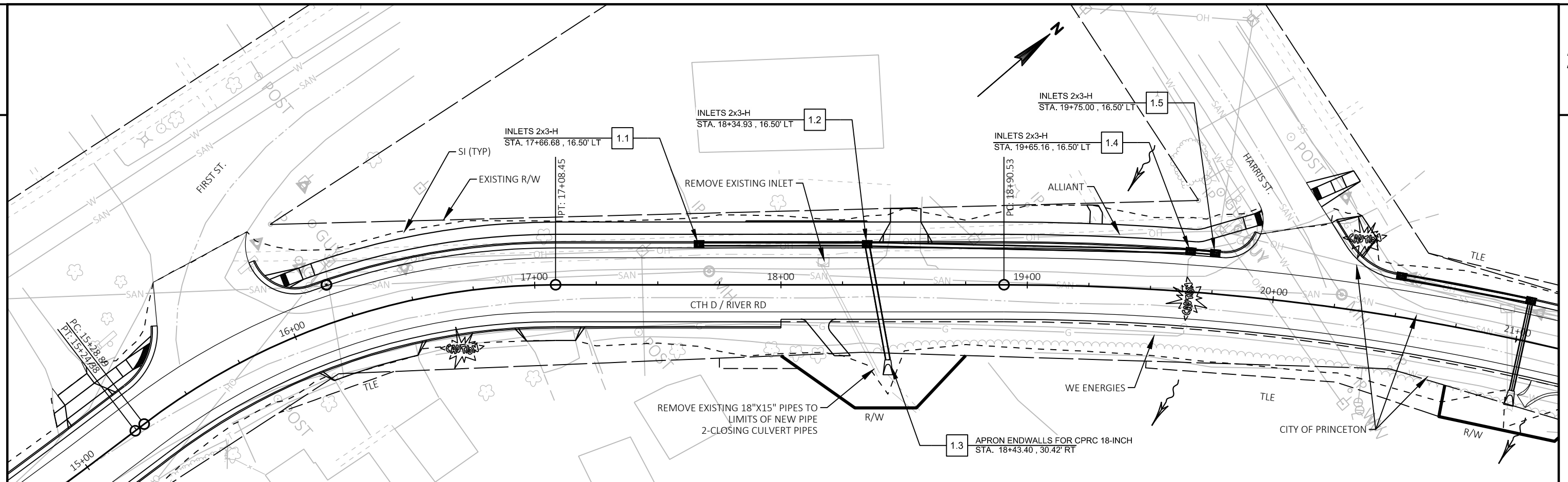


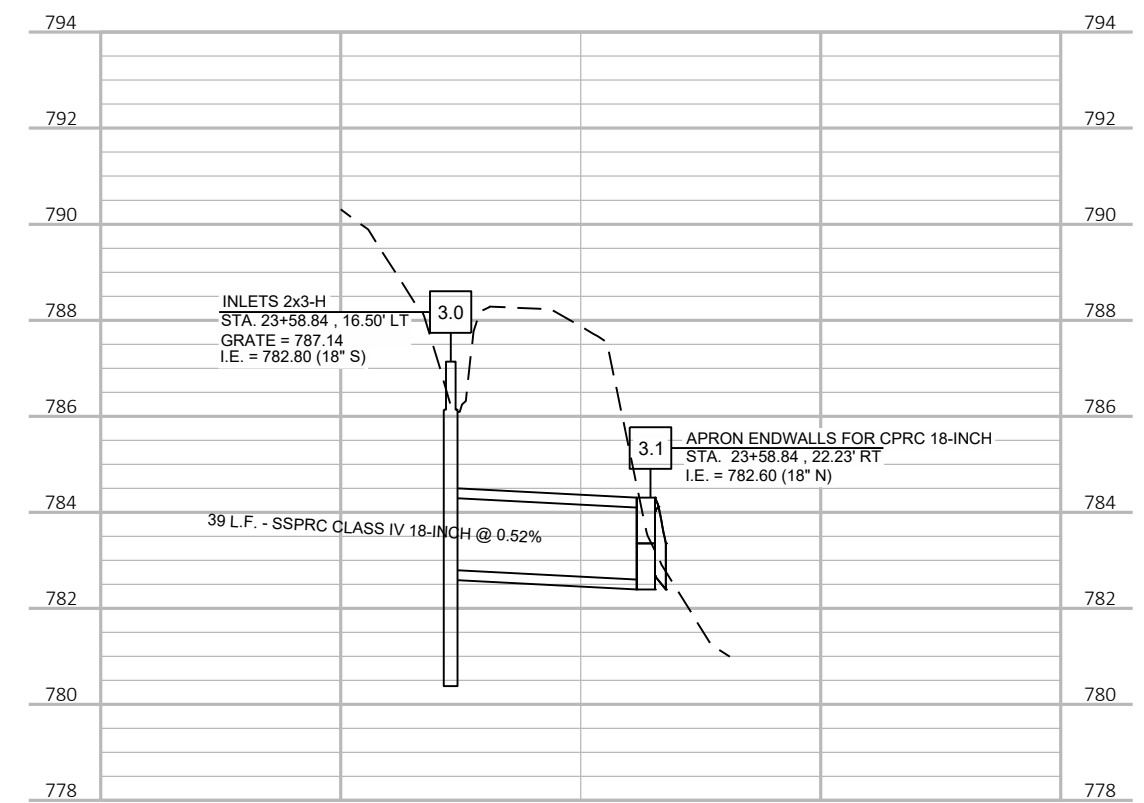
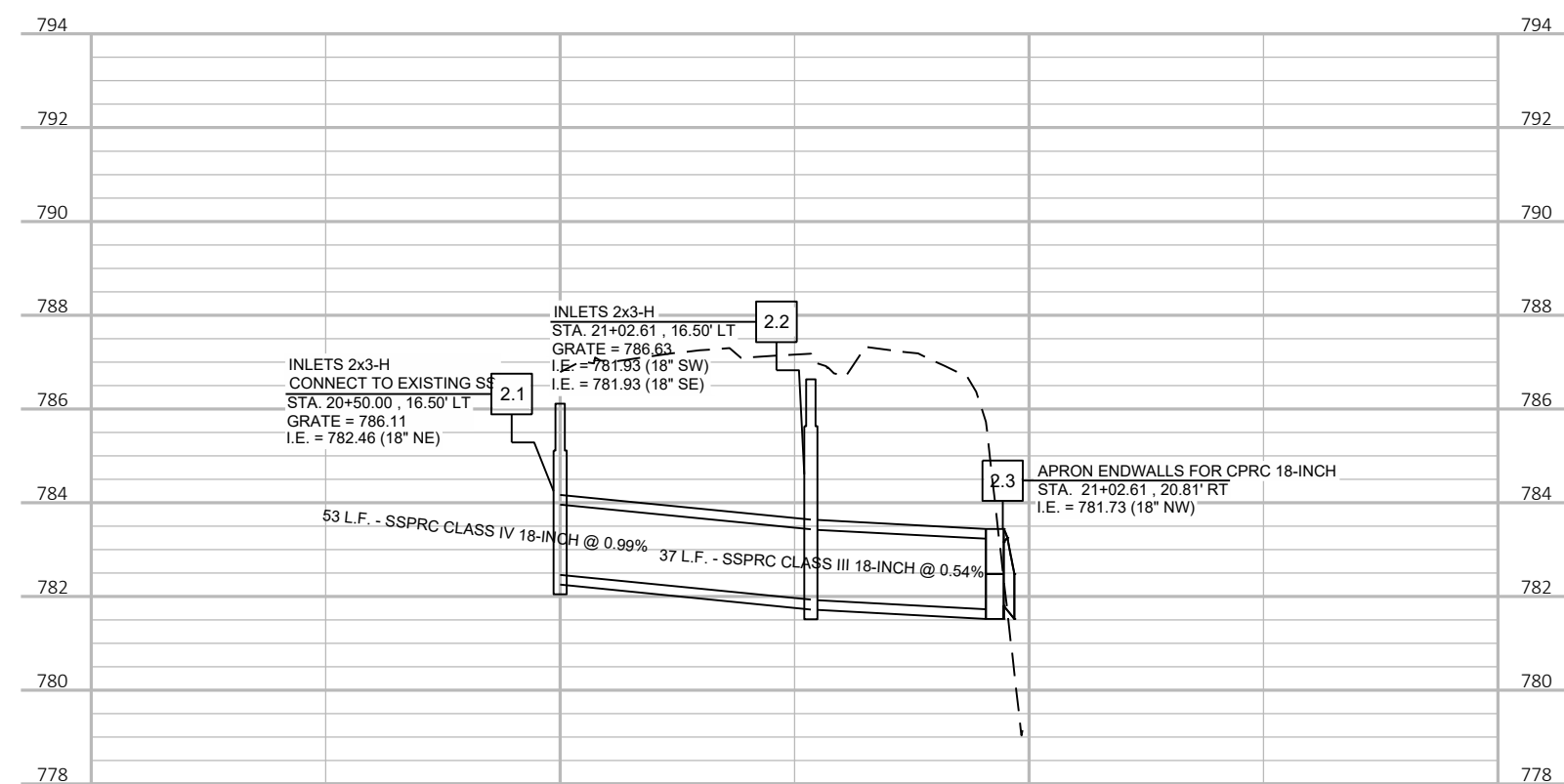
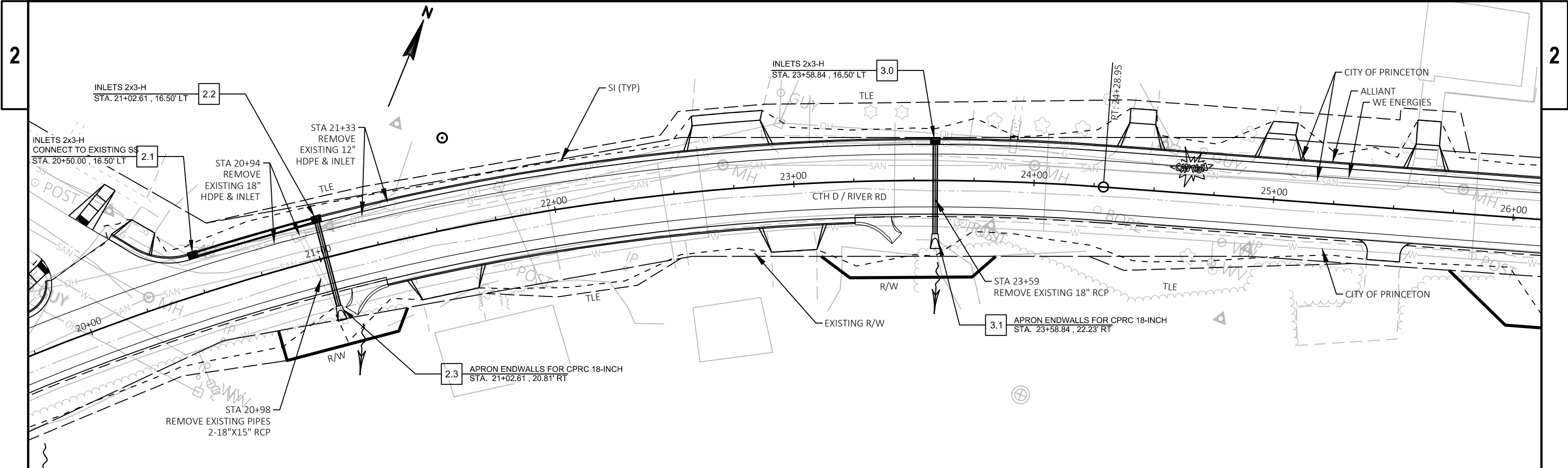


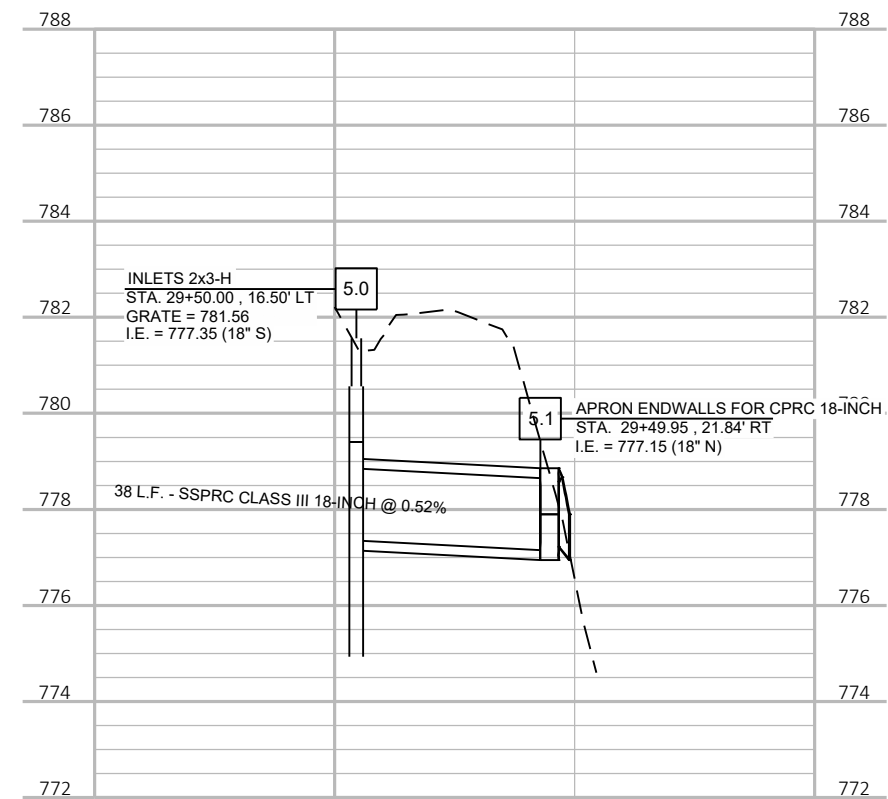
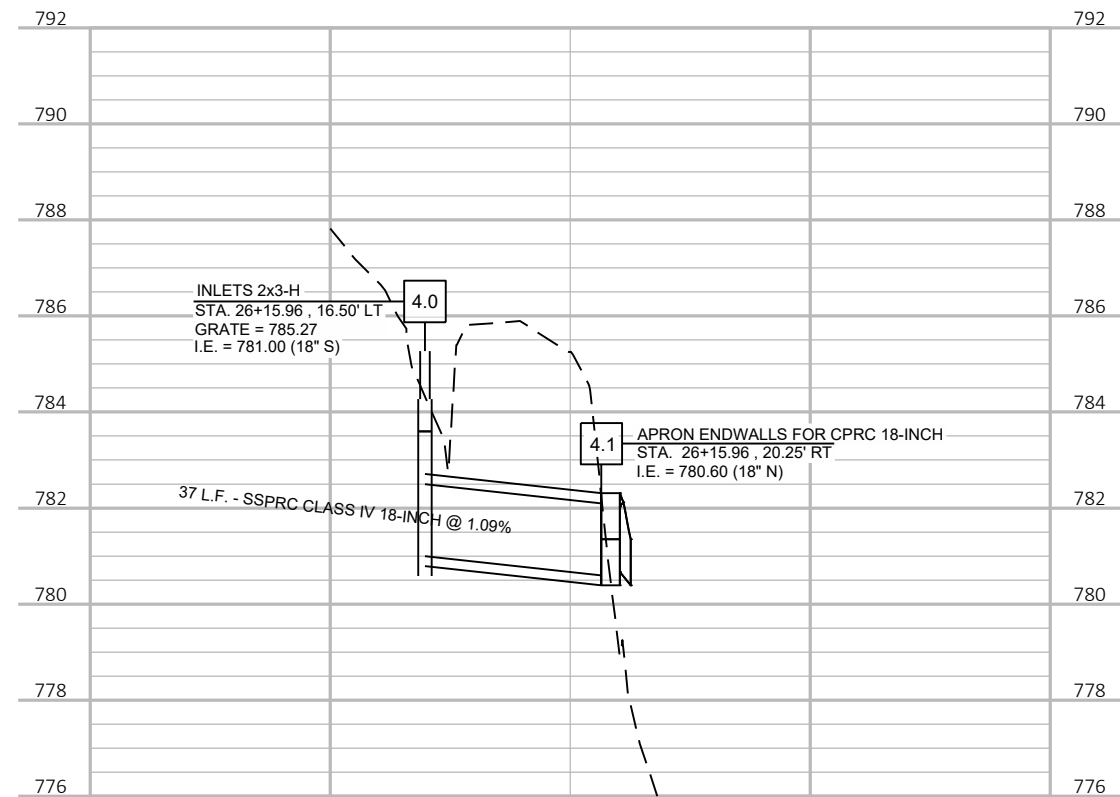
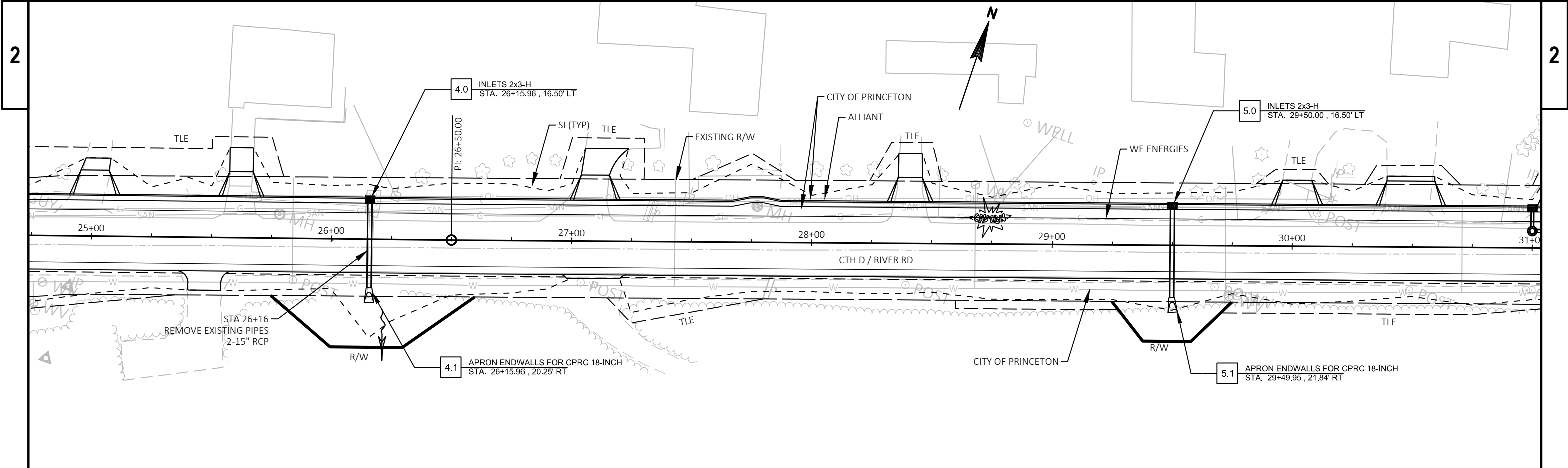


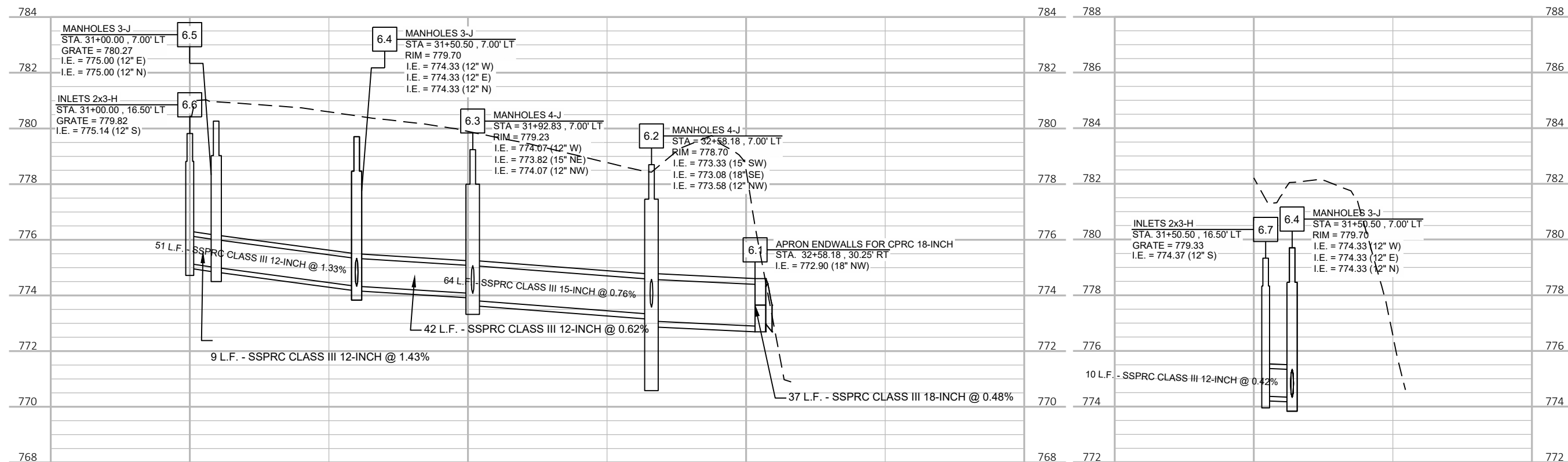
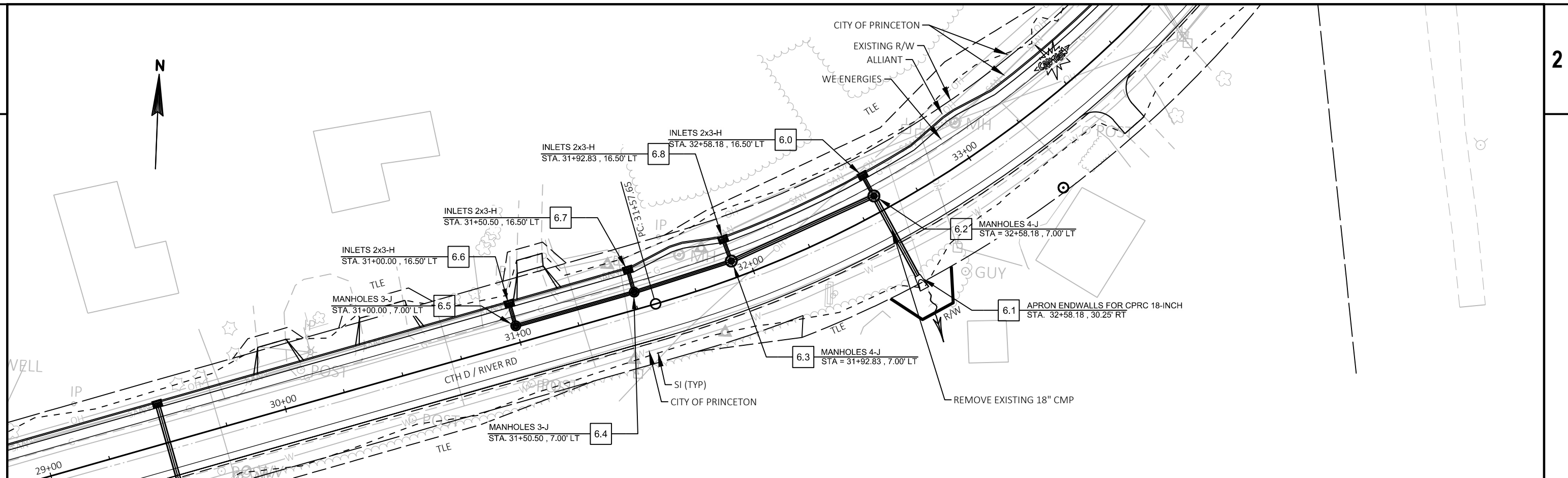


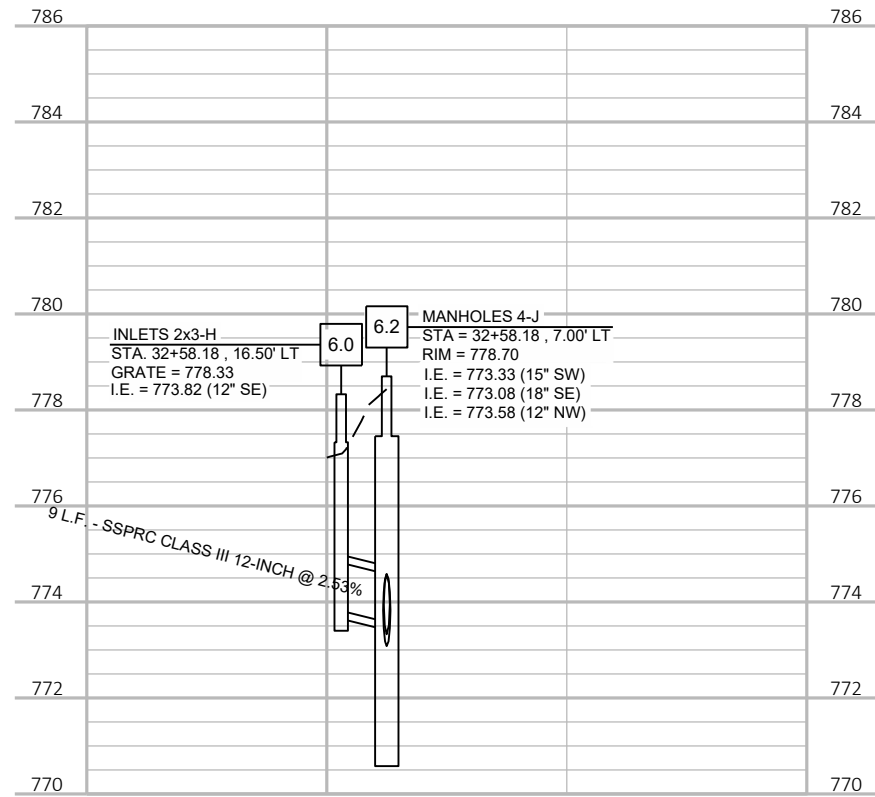
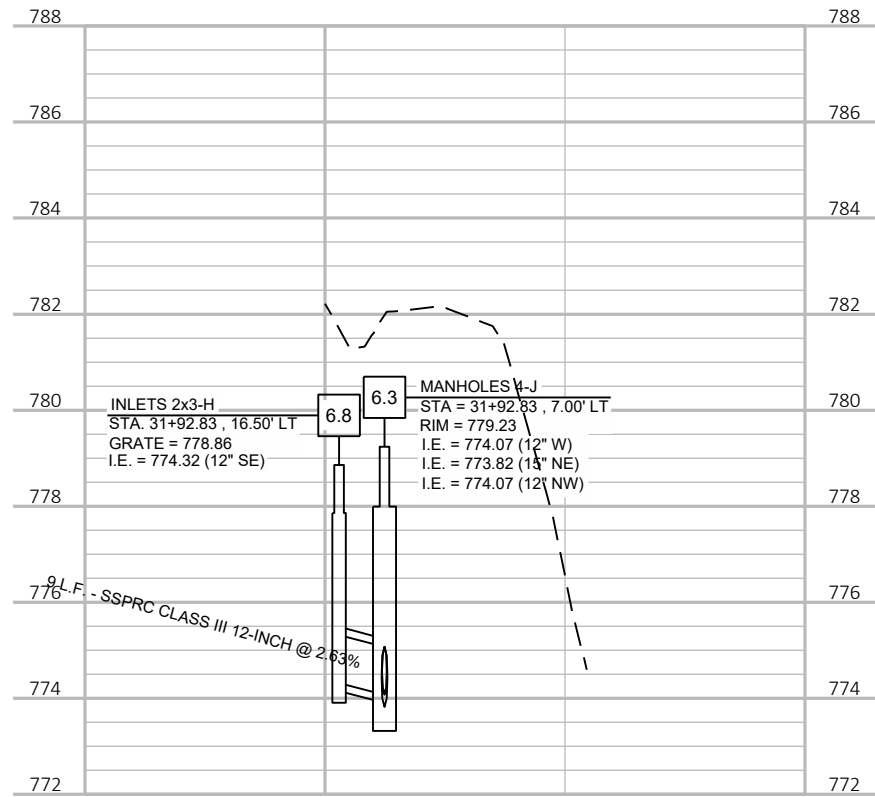
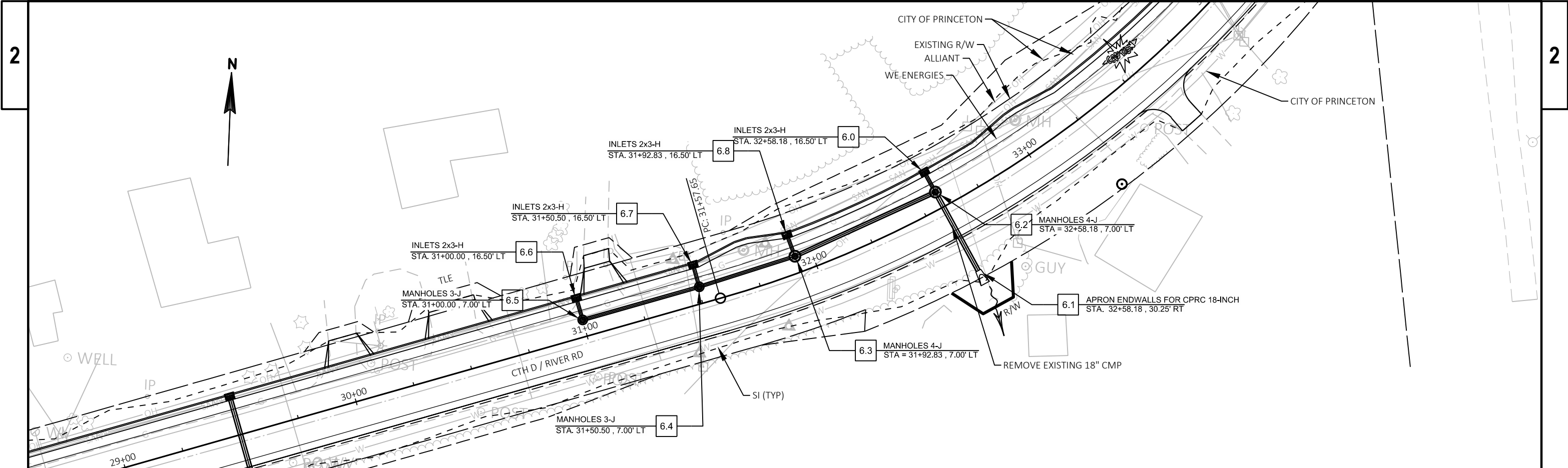












NOTES:
THE SIDEWALK ON CTH D FROM FIRST STREET TO HARRIS STREET WILL BE CLOSED TO PEDESTRIANS FOR CONSTRUCTION OF THE NEW SIDEWALK. PEDESTRIANS WILL USE FIRST STREET AND HARRIS STREET AS AN ALTERNATE ROUTE. ALL PROPERTIES ON CTH D FROM STA 16+00 LT TO STA 20+00 LT HAVE ACCESS DIRECTLY TO EITHER FIRST ST. OR HARRIS ST.

LEGEND

-  TYPE III BARRICADE
-  TYPE III BARRICADE WTH ATTACHED SIGN
-  TRAFFIC CONTROL DRUM
-  WORK AREA
-  DIRECTION OF ALTERNATE ROUTE

EXISTING SIDEWALK

FIRST ST.

SIDEWALK
CLOSED
R9-9
24"X12"

CTH D / RIVER RD.

HARRIS ST.

EXISTING SIDEWALK

SIDEWALK
CLOSED
R9-9
24"X12"

PROJECT NO: 6425-00-70

HWY: CTH D

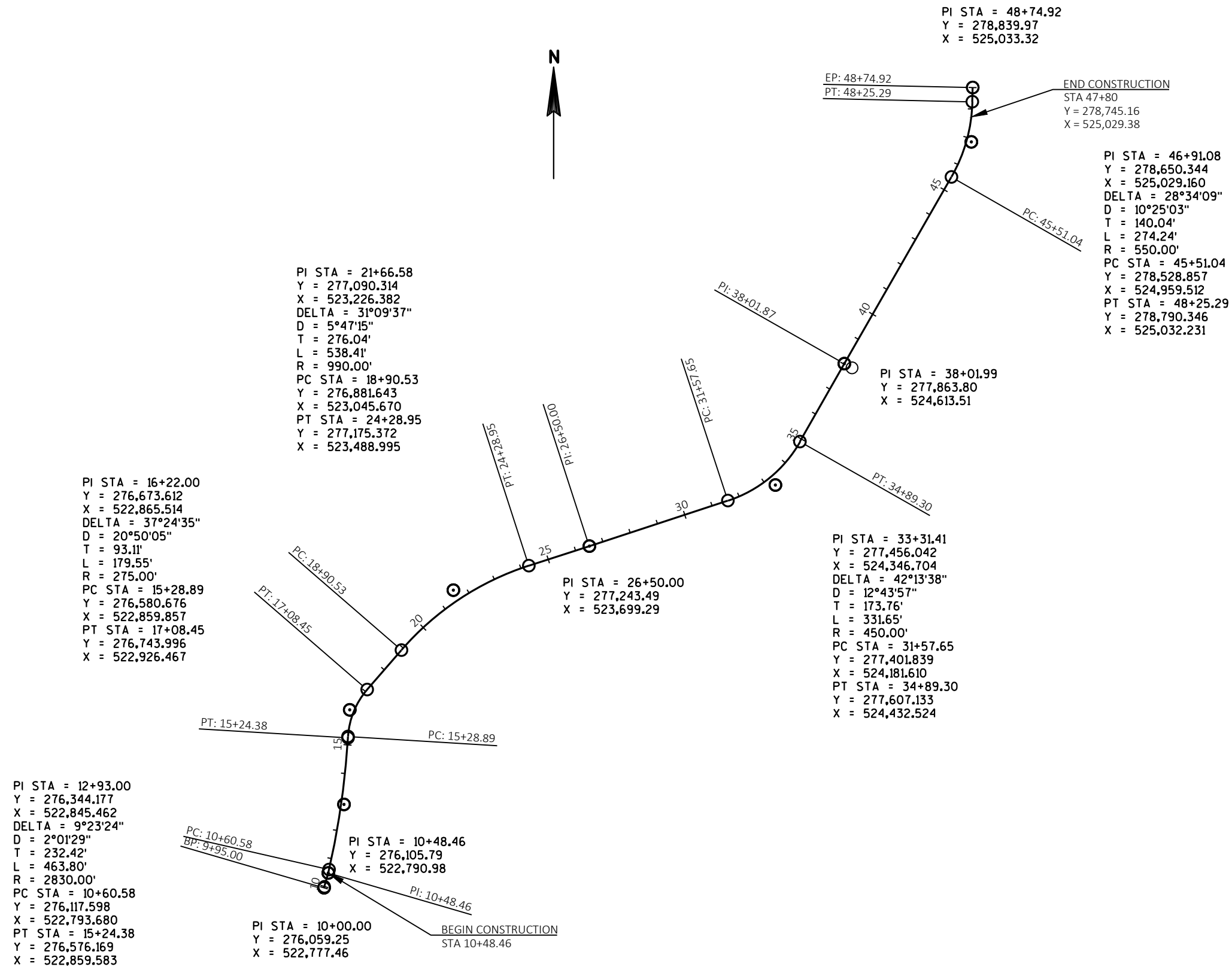
COUNTY: GREEN LAKE

PEDESTRIAN - ALTERNATE ROUTE

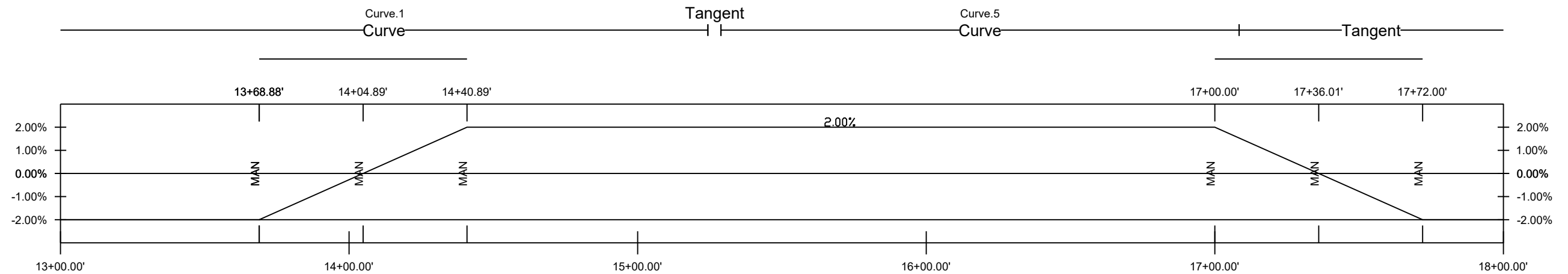
SHEET

31

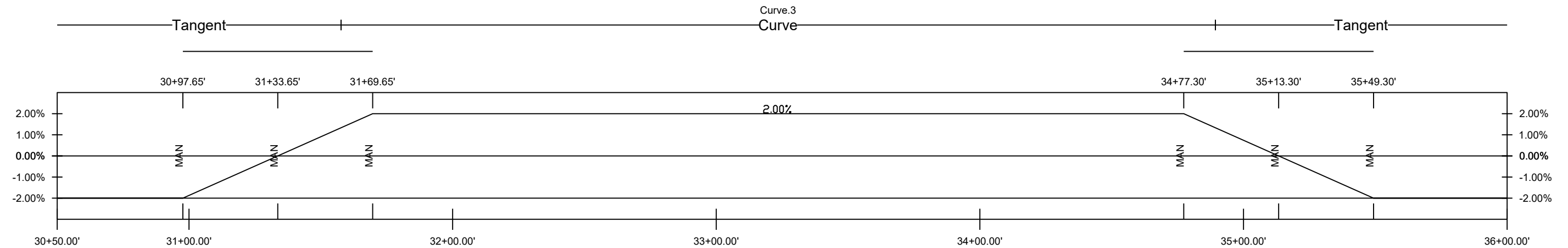
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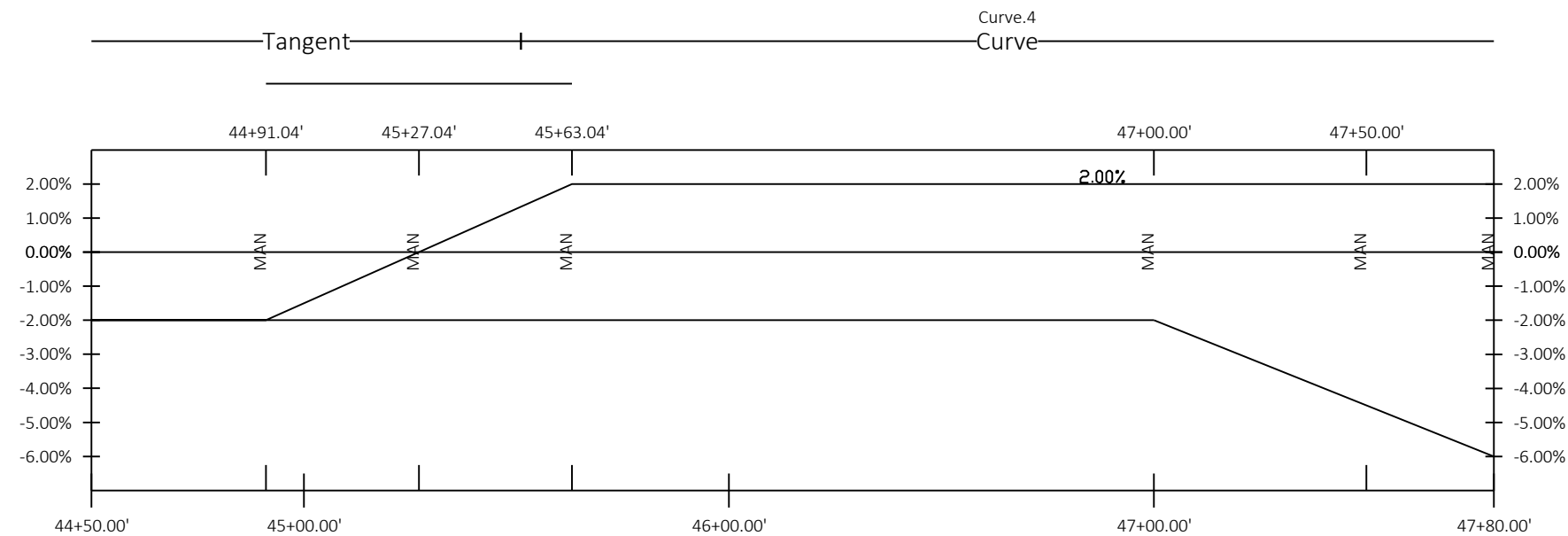
Superelevation



Superelevation



Superelevation



Estimate Of Quantities

6425-00-70

Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	26.000	26.000
0004	201.0205	Grubbing	STA	26.000	26.000
0006	203.0100	Removing Small Pipe Culverts	EACH	10.000	10.000
0008	203.0200	Removing Old Structure (station) 01. Station 36+92	LS	1.000	1.000
0010	204.0100	Removing Concrete Pavement	SY	4.000	4.000
0012	204.0110	Removing Asphaltic Surface	SY	10,473.000	10,473.000
0014	204.0155	Removing Concrete Sidewalk	SY	184.000	184.000
0016	204.0165	Removing Guardrail	LF	194.000	194.000
0018	204.0220	Removing Inlets	EACH	4.000	4.000
0020	204.0245	Removing Storm Sewer (size) 01. 12-Inch	LF	35.000	35.000
0022	204.0245	Removing Storm Sewer (size) 02. 18-Inch	LF	43.000	43.000
0024	204.0245	Removing Storm Sewer (size) 03. 18x15-Inch	LF	179.000	179.000
0026	204.0245	Removing Storm Sewer (size) 04. 42-Inch	LF	19.000	19.000
0028	204.0275	Closing Culvert Pipes	EACH	2.000	2.000
0030	204.9090.S	Removing (item description) 01. Railing	LF	12.000	12.000
0032	205.0100	Excavation Common	CY	7,460.000	7,460.000
0034	209.2500	Backfill Granular Grade 2	TON	2,750.000	2,750.000
0036	213.0100	Finishing Roadway (project) 01. 6425-00-70	EACH	1.000	1.000
0038	305.0110	Base Aggregate Dense 3/4-Inch	TON	627.000	627.000
0040	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	4,432.000	4,432.000
0042	305.0130	Base Aggregate Dense 3-Inch	TON	7,632.000	7,632.000
0044	416.0160	Concrete Driveway 6-Inch	SY	63.000	63.000
0046	455.0605	Tack Coat	GAL	1,712.000	1,712.000
0048	460.2000	Incentive Density HMA Pavement	DOL	1,760.000	1,760.000
0050	460.5223	HMA Pavement 3 LT 58-28 S	TON	1,540.000	1,540.000
0052	460.5224	HMA Pavement 4 LT 58-28 S	TON	1,198.000	1,198.000
0054	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	149.000	149.000
0056	465.0315	Asphaltic Flumes	SY	57.000	57.000
0058	520.1015	Apron Endwalls for Culvert Pipe 15-Inch	EACH	4.000	4.000
0060	520.3315	Culvert Pipe Class III-A 15-Inch	LF	80.000	80.000
0062	520.8000	Concrete Collars for Pipe	EACH	1.000	1.000
0064	522.0418	Culvert Pipe Reinforced Concrete Class IV 18-Inch	LF	34.000	34.000
0066	522.1018	Apron Endwalls for Culvert Pipe Reinforced Concrete 18-Inch	EACH	8.000	8.000
0068	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	2,670.000	2,670.000
0070	602.0405	Concrete Sidewalk 4-Inch	SF	3,530.000	3,530.000
0072	602.0505	Curb Ramp Detectable Warning Field Yellow	SF	40.000	40.000
0074	606.0300	Riprap Heavy	CY	185.000	185.000
0076	608.0312	Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	LF	130.000	130.000

Estimate Of Quantities

6425-00-70					
Line	Item	Item Description	Unit	Total	Qty
0078	608.0315	Storm Sewer Pipe Reinforced Concrete Class III 15-Inch	LF	64.000	64.000
0080	608.0318	Storm Sewer Pipe Reinforced Concrete Class III 18-Inch	LF	74.000	74.000
0082	608.0324	Storm Sewer Pipe Reinforced Concrete Class III 24-Inch	LF	13.000	13.000
0084	608.0342	Storm Sewer Pipe Reinforced Concrete Class III 42-Inch	LF	17.000	17.000
0086	608.0412	Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	LF	78.000	78.000
0088	608.0415	Storm Sewer Pipe Reinforced Concrete Class IV 15-Inch	LF	131.000	131.000
0090	608.0418	Storm Sewer Pipe Reinforced Concrete Class IV 18-Inch	LF	215.000	215.000
0092	611.0530	Manhole Covers Type J	EACH	5.000	5.000
0094	611.0624	Inlet Covers Type H	EACH	13.000	13.000
0096	611.0642	Inlet Covers Type MS	EACH	2.000	2.000
0098	611.2003	Manholes 3-FT Diameter	EACH	2.000	2.000
0100	611.2004	Manholes 4-FT Diameter	EACH	2.000	2.000
0102	611.2006	Manholes 6-FT Diameter	EACH	1.000	1.000
0104	611.3230	Inlets 2x3-FT	EACH	13.000	13.000
0106	611.3902	Inlets Median 2 Grate	EACH	1.000	1.000
0108	619.1000	Mobilization	EACH	1.000	1.000
0110	623.0200	Dust Control Surface Treatment	SY	14,928.000	14,928.000
0112	624.0100	Water	MGAL	198.000	198.000
0114	625.0500	Salvaged Topsoil	SY	7,822.000	7,822.000
0116	627.0200	Mulching	SY	3,560.000	3,560.000
0118	628.1504	Silt Fence	LF	1,723.000	1,723.000
0120	628.1520	Silt Fence Maintenance	LF	1,723.000	1,723.000
0122	628.1905	Mobilizations Erosion Control	EACH	2.000	2.000
0124	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0126	628.2004	Erosion Mat Class I Type B	SY	2,578.000	2,578.000
0128	628.2008	Erosion Mat Urban Class I Type B	SY	4,516.000	4,516.000
0130	628.7005	Inlet Protection Type A	EACH	1.000	1.000
0132	628.7015	Inlet Protection Type C	EACH	13.000	13.000
0134	628.7504	Temporary Ditch Checks	LF	40.000	40.000
0136	628.7555	Culvert Pipe Checks	EACH	8.000	8.000
0138	629.0210	Fertilizer Type B	CWT	5.000	5.000
0140	630.0120	Seeding Mixture No. 20	LB	143.510	143.510
0142	630.0140	Seeding Mixture No. 40	LB	44.740	44.740
0144	630.0200	Seeding Temporary	LB	73.600	73.600

Estimate Of Quantities

6425-00-70

Line	Item	Item Description	Unit	Total	Qty
0146	630.0500	Seed Water	MGAL	177.000	177.000
0148	633.5100	Markers Row	EACH	20.000	20.000
0150	633.5200	Markers Culvert End	EACH	14.000	14.000
0152	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	10.000	10.000
0154	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	1.000	1.000
0156	634.0618	Posts Wood 4x6-Inch X 18-FT	EACH	1.000	1.000
0158	637.2210	Signs Type II Reflective H	SF	38.540	38.540
0160	637.2230	Signs Type II Reflective F	SF	40.250	40.250
0162	638.2602	Removing Signs Type II	EACH	17.000	17.000
0164	638.3000	Removing Small Sign Supports	EACH	17.000	17.000
0166	642.5001	Field Office Type B	EACH	1.000	1.000
0168	643.0300	Traffic Control Drums	DAY	2,150.000	2,150.000
0170	643.0420	Traffic Control Barricades Type III	DAY	2,540.000	2,540.000
0172	643.0705	Traffic Control Warning Lights Type A	DAY	2,940.000	2,940.000
0174	643.0900	Traffic Control Signs	DAY	1,470.000	1,470.000
0176	643.5000	Traffic Control	EACH	1.000	1.000
0178	644.1420	Temporary Pedestrian Surface Plywood	SF	144.000	144.000
0180	644.1601	Temporary Pedestrian Curb Ramp	DAY	55.000	55.000
0182	645.0120	Geotextile Type HR	SY	426.000	426.000
0184	646.1020	Marking Line Epoxy 4-Inch	LF	14,715.000	14,715.000
0186	646.7420	Marking Crosswalk Epoxy Transverse Line 6-Inch	LF	170.000	170.000
0188	650.4000	Construction Staking Storm Sewer	EACH	19.000	19.000
0190	650.4500	Construction Staking Subgrade	LF	3,735.000	3,735.000
0192	650.5000	Construction Staking Base	LF	3,735.000	3,735.000
0194	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	2,720.000	2,720.000
0196	650.6000	Construction Staking Pipe Culverts	EACH	2.000	2.000
0198	650.9000	Construction Staking Curb Ramps	EACH	4.000	4.000
0200	650.9910	Construction Staking Supplemental Control (project) 01. 6425-00-70	LS	1.000	1.000
0202	650.9920	Construction Staking Slope Stakes	LF	3,735.000	3,735.000
0204	690.0150	Sawing Asphalt	LF	472.000	472.000
0206	690.0250	Sawing Concrete	LF	18.000	18.000
0208	740.0440	Incentive IRI Ride	DOL	2,828.000	2,828.000
0210	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	1,200.000	1,200.000
0212	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	600.000	600.000
0214	SPV.0035	Special 01. Excavation Waste	CY	4,907.000	4,907.000
0216	SPV.0060	Special 01. Apron Endwalls For Culvert Pipe Reinforced Concrete HE 72x113-Inch	EACH	2.000	2.000
0218	SPV.0060	Special 02. Adjust Ex. Sanitary Manhole	EACH	7.000	7.000
0220	SPV.0060	Special 03. Adjust Ex. Sanitary Manhole Cone	EACH	2.000	2.000

Estimate Of Quantities

6425-00-70					
Line	Item	Item Description	Unit	Total	Qty
0222	SPV.0060	Special 04. Reconstruct Ex. Sanitary Manhole	EACH	2.000	2.000
0224	SPV.0060	Special 05. Adjust Ex. Water Valve Box	EACH	9.000	9.000
0226	SPV.0060	Special 06. Adjust Ex. Water Curb Stop Box	EACH	7.000	7.000
0228	SPV.0090	Special 01. Culvert Pipe Reinforced Concrete HE Class HE-III 72x113-Inch	LF	40.000	40.000
0230	SPV.0090	Special 02. Joint Ties	LF	17.000	17.000
0232	SPV.0090	Special 03. Modified Pedestrian Curb, 9-Inch	LF	50.000	50.000
0234	SPV.0105	Special 01. Administration of CDBG Requirements	LS	1.000	1.000

CLEARING AND GRUBBING

CATEGORY	STATION	TO	STATION	LOCATION	201.0105 CLEARING STA	201.0205 GRUBBING STA	REMARKS
0010	17+00	-	18+00	LT	1	1	SAVE TREE AT 23+32 LT
0010	17+00	-	22+00	RT	5	5	
0010	23+00	-	25+00	RT	2	2	
0010	23+00	-	26+00	LT	3	3	
0010	26+00	-	28+00	RT	2	2	
0010	27+00	-	31+00	LT	4	4	
0010	29+00	-	30+00	RT	1	1	
0010	32+00	-	33+00	RT	1	1	
0010	35+00	-	36+00	LT	1	1	
0010	37+00	-	38+00	RT	1	1	
0010	38+00	-	42+00	LT	3	3	
0010	41+00	-	42+00	RT	1	1	
0010	45+00	-	46+00	RT	1	1	
TOTAL 0010					26	26	

REMOVING CULVERTS

CATEGORY	STATION	TO	STATION	LOCATION	203.0100 REMOVING SMALL PIPE CULVERTS EACH	REMARKS
0010	18+42	-	18+61	LT	1	12" CMP
0010	23+59	-	23+59	LT & RT	1	18" CMP
0010	26+16	-	26+16	LT & RT	1	15" CMP
0010	26+17	-	26+17	LT & RT	1	15" CMP
0010	26+19	-	26+62	LT	1	12" CMP
0010	29+88	-	30+11	LT	1	12" CMP
0010	30+34	-	30+62	LT	1	12" CMP
0010	30+99	-	31+19	LT	1	12" CMP
0010	32+58	-	32+70	LT & RT	1	18" CMP
0010	43+94	-	43+94	LT & RT	1	18" CMP
TOTAL 0010					10	

REMOVING STRUCTURE

CATEGORY	STATION	LOCATION	203.0200.01 REMOVING OLD STRUCTURE (STATION) (01. STA 36+92) LS	REMARKS
0010	36+92	BOX CULVERT	1	7.9'X5.9' BOX CULVERT
TOTAL 0010				1

REMOVING PAVEMENT

CATEGORY	STATION	TO	STATION	LOCATION	204.0100 REMOVING CONCRETE PAVEMENT SY	204.0110 REMOVING ASPHALTIC SURFACE SY
0010	23+36	-	23+49	LT	4	---
0010	10+48	-	47+80	ROADWAY	---	10,473
TOTAL 0010					4	10,473

REMOVING SIDEWALK

CATEGORY	STATION	TO	STATION	LOCATION	204.0155 REMOVING CONCRETE SIDEWALK SY	204.9090.S.01 REMOVING (01. RAILING) LF
0010	15+90	-	18+44	LT	119	---
0010	18+56	-	19+93	LT	61	---
0010	19+23	-	19+31	LT	4	---
0010	18+11	-	18+23	LT	---	12
0010	33+48	-	--	RT	---	---
0010	33+76	-	--	RT	---	---
TOTAL 0010					184	12

REMOVING GUARDRAIL

CATEGORY	STATION	TO	STATION	LOCATION	204.0165 REMOVING GUARDRAIL LF
0010	36+48	-	37+44	LT	96
0010	36+43	-	37+41	RT	98
TOTAL 0010					194

REMOVING STORM SEWER

CATEGORY	STATION	TO	STATION	LOCATION	204.0220 REMOVING INLETS EACH	204.0245.01 REMOVING STORM SEWER (SIZE) (01. 12- INCH) LF	204.0245.02 REMOVING STORM SEWER (SIZE) (02. 18- INCH) LF	204.0245.03 REMOVING STORM SEWER (SIZE) (03. 18X15- INCH) LF	204.0245.04 REMOVING STORM SEWER (SIZE) (04. 42- INCH) LF	204.0275 CLOSING CULVERT PIPES EACH	REMARKS
0010	11+67	-	11+67	LT & RT	1	---	---	---	19	---	42" SSPRC
0010	18+17	-	18+17	LT	1	---	---	---	---	---	
0010	18+16	-	18+39	LT & RT	---	---	---	51	---	---	18"X15" SSPRC
0010	18+18	-	18+40	LT & RT	---	---	---	49	---	---	18"X15" SSPRC
0010	18+39	-	18+39	RT	---	---	---	---	---	1	*AT END OF R/W
0010	18+40	-	18+40	RT	---	---	---	---	---	1	*AT END OF R/W
0010	20+50	-	20+91	LT	---	---	43	---	---	---	18" HDPE
0010	20+94	-	20+94	LT	1	---	---	---	---	---	
0010	20+94	-	21+03	LT & RT	---	---	---	39	---	---	18"X15" SSPRC
0010	20+96	-	21+05	LT & RT	---	---	---	40	---	---	18"X15" SSPRC
0010	20+97	-	21+31	LT	---	35	---	---	---	---	12" HDPE
0010	21+33	-	21+33	LT	1	---	---	---	---	---	
TOTAL 0010					4	35	43	179	19	2	

* EXISTING OUTFALL NOT FOUND. UTILIZE THIS ITEM IF EXISTING PIPE END GOES PAST R/W.

Division	From/To Station	Location	205.0100 Common Excavation (1)		Salvaged/Unusable Pavement Material (4)	Available Material (5)	Unexpanded Fill	Expanded Fill (13)	Mass Ordinate +/- (14)	Waste	SPV.0035.01 Excavation Waste
			Cut (2)	EBS Excavation				Factor 1.25			
Division 1											
EWKDetail-CtyD2.xml	10+50/47+80	ROADWAY	7,460	0	2,037	5,423	412	515	4,907	4,907	4,907
Division 1 Subtotal			7,460	0	2,037	5,423	412	515	4,907	4,907	4,907
Grand Total			7,460	0	2,037	5,423	412	515	4,907	4,907	4,907
Total Common Exc			7,460								

Notes:
(1) Common Excavation is the sum of the Cut and EBS Excavation columns. Item number 205.0100
(2) Salvaged/Unsuable Pavement Material is included in Cut.
(4) Salvaged/Unusable Pavement Material
5) Available Material = Cut - Salvaged/Unusuable Pavement Material
(13) Expanded Fill Factor = 1.25
Formula: **Expanded Fill = Unexpanded Fill * Fill Factor**
(14) 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.

BASE AGGREGATE

						209.2500	305.0110	305.0120	305.0130	623.0200	624.0100	650.5000
						BACKFILL	BASE	BASE	BASE	DUST CONTROL		
						GRANULAR	AGGREGATE	AGGREGATE	AGGREGATE	SURFACE	WATER	CONSTRUCTION
						GRADE 2	DENSE 3/4-INCH	DENSE 1 1/4-INCH	DENSE 3-INCH	TREATMENT	MGAL	STAKING BASE
CATEGORY	STATION	TO	STATION	LOCATION		TON	TON	TON	TON	SY		LF
0010	10+48	-	47+80	ROADWAY, DRIVEWAYS	--		522	3,545	6,360	12,440	165	3,735
	36+94	-	--	CROSSDRAIN	2,361	--	--	--	--	--	--	--
	43+94	-	--	CROSSDRAIN	389	--	--	--	--	--	--	--
0010	UNDISTRIBUTED	-	--	--	--		105	887	1,272	2,488	33	--
TOTAL 0010						2,750	627	4,432	7,632	14,928	198	3,735

ASPHALT FLUMES

						465.0315 ASPHALTIC FLUMES
CATEGORY	STATION	TO	STATION	LOCATION		SY
0010	14+58	-	14+85	RT		20
0010	21+05	-	21+25	RT		12
0010	23+25	-	23+45	RT		12
0010	36+50		36+70	LT		13
TOTAL 0010						57

ASPHALT PAVEMENT ITEMS

						455.0605	460.5223	460.5224
						HMA PAVEMENT 3 LT 58-28 S	HMA PAVEMENT 4 LT 58-28 S	
CATEGORY	STATION	TO	STATION	LOCATION	THICKNESS INCHES	TACK COAT GAL	TON	TON
0010	10+48	-	47+80	LOWER LAYER	2.25	856	1,540	---
0010	10+48	-	47+80	UPPER LAYER	1.75	856	---	1,198
TOTAL 0010						1,712	1,540	1,198

NOTE: TACK COAT CALCULATED AT 0.07 GALLONS PER SQUARE YARD FOR BOTH LAYERS

DRIVEWAYS

			416.0160	465.0120
				ASPHALTIC
				SURFACE
			CONCRETE	DRIVEWAYS AND
			DRIVEWAY 6-	FIELD
			INCH	ENTRANCES
CATEGORY	STATION	LOCATION	SY	TON
0010	11+15	RT	---	2
0010	11+69	RT	---	3
0010	12+17	RT	---	2
0010	15+17	LT	19	2
0010	16+25	RT	---	4
0010	17+00	RT	---	3
0010	18+20	RT	---	---
0010	18+50	LT	17	2
0010	20+25	LT	---	3
0010	21+50	RT	---	5
0010	22+75	LT	---	6
0010	23+00	RT	---	5
0010	24+43	LT	---	3
0010	25+00	LT	---	3
0010	25+50	RT	---	3
0010	25+62	LT	27	---
0010	27+10	RT	---	1
0010	27+10	LT	---	6
0010	28+41	LT	---	5
0010	30+00	LT	---	4
0010	30+50	LT	---	5
0010	31+12	LT	---	3
0010	33+60	RT	---	4
0010	35+25	RT	---	15
0010	36+13	LT	---	2
0010	38+00	RT	---	9
0010	38+50	RT	---	5
0010	39+39	RT	---	4
0010	42+41	LT	---	8
0010	42+65	RT	---	16
0010	43+25	LT	---	12
0010	46+72	RT	---	4
TOTAL 0010			63	149

* ADDITIONAL QUANTITIES LISTED ELSEWHERE
BASE AGGREGATE DRIVEWAYS AND BASE AGGREGATE UNDER ASPHALT DRIVEWAYS ARE I
UNDER THE BASE AGGREGATE TABLE.

CURB & GUTTER

					601.0411	650.5500	SPV.0090.03
					CONCRETE CURB	CONSTRUCTION	SPECIAL (03.
					& GUTTER 30-	STAKING CURB	MODIFIED
					INCH TYPE D	GUTTER AND	PEDESTRIAN
					LF	CURB & GUTTER	CURB, 9-INCH)
CATEGORY	STATION	TO	STATION	LOCATION	LF	LF	LF
0010	14+50	-	15+55	LT	110	110	---
0010	14+85	-	18+00	RT	305	305	---
0010	15+95	-	19+92	LT	420	420	---
0010	20+21	-	36+50	LT	1,635	1,635	---
0010	21+25	-	23+25	RT	200	200	---
0010	17+86	-	18+35	LT	---	50	50
TOTAL 0010					2,670	2,720	50

CULVERTS

					520.1015	520.3315	522.0418	*	*	650.6000	SPV.0060.01	SPV.0090.01
					APRON	CULVERT PIPE	CULVERT PIPE	ENDWALLS FOR	ENDWALLS FOR	CONSTRUCTION	ENDWALLS FOR	CULVERT PIPE
					ENDWALLS FOR	CLASS III-A 15-	REINFORCED	CULVERT PIPE	CULVERT PIPE	STAKING PIPE	CULVERT PIPE	REINFORCED
					CULVERT PIPE 15-	INCH	CONCRETE CLASS	REINFORCED	CONCRETE 18-	MARKERS	REINFORCED	CONCRETE HE
					INCH	THICKNESS	IV 18-INCH	CONCRETE 18-	INCH	CULVERT END	72x113-INCH	72x113-INCH
					EACH	STEEL	ALUMINUM	CONCRETE 18-	EACH	EACH	EACH	CLASS HE-III
CATEGORY	STATION	LOCATION										LF
0010	36+94	ROADWAY	---	---	---	---	---	---	---	---	---	40
0010	36+93	19.5' RT	---	---	---	---	---	---	1	---	1	---
0010	36+95	18.8' LT	---	---	---	---	---	---	1	---	1	---
0010	42+41	LT	0.064	0.060	---	38	---	---	---	---	---	---
0010	42+23	23.7' LT	---	---	1	---	---	---	1	---	---	---
0010	42+60	23.5' LT	---	---	1	---	---	---	1	---	---	---
0010	43+25	LT	0.064	0.060	---	42	---	---	---	---	---	---
0010	43+01	23.0' LT	---	---	1	---	---	---	1	---	---	---
0010	43+42	24.0' LT	---	---	1	---	---	---	1	---	---	---
0010	43+94	ROADWAY	---	---	---	34	---	---	---	1	---	---
0010	43+94	15.8' LT	---	---	---	---	---	1	1	---	---	---
0010	43+94	16.8' RT	---	---	---	---	---	1	1	---	---	---
TOTAL 0010					4	80	34	2	8	2	2	40

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

STORM SEWER ENDWALLS

					520.8000	*	*
					CONCRETE	ENDWALLS FOR	ENDWALLS FOR
					COLLARS FOR	CULVERT PIPE	CULVERT PIPE
					PIPE	REINFORCED	REINFORCED
					EACH	CONCRETE 18-	CONCRETE 18-
						INCH	INCH
						MARKERS	MARKERS
						CULVERT END	CULVERT END
CATEGORY	STATION	LOCATION					
0010	11+67	5.60' RT	1	---	---	42-INCH (STRUCTURE 1.01)	
0010	18+43	30.4' RT	---	1	1		
0010	21+03	20.8' RT	---	1	1		
0010	23+59	22.2' RT	---	1	1		
0010	26+16	20.3' RT	---	1	1		
0010	29+50	21.8' RT	---	1	1		
0010	32+58	30.3' RT	---	1	1		
TOTAL 0010					1	6	6

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

SIDEWALK

					602.0405	602.0505	650.9000
					CONCRETE	CURB RAMP	CONSTRUCTION
					SIDEWALK 4-	DETECTABLE	STAKING CURB
					INCH	WARNING FIELD	RAMPS
CATEGORY	STATION	TO	STATION	LOCATION	SF	YELLOW	EACH
0010	15+00	-	15+05	LT	32	---	---
0010	15+26	-	15+49	LT	162	10	1
0010	15+99	-	18+42	LT	1,985	10	1
0010	18+60	-	19+93	LT	1,190	10	1
0010	20+08	-	20+28	LT	156	10	1
0010	23+90	-	23+93	LT	5	---	---
TOTAL 0010					3,530	40	4

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

RIPRAP

					606.0300	645.0120
					RIPRAP HEAVY	GEOTEXTILE TYPE
CATEGORY	STATION	TO	STATION	LOCATION	CY	HR SY
0010	14+58	-	14+65	RT	3	9
0010	18+40	-	18+46	RT	4	13
0010	20+79	-	21+21	RT	36	83
0010	23+56	-	23+61	RT	4	13
0010	25+96	-	26+42	RT	65	128
0010	29+48	-	29+54	RT	4	13
0010	32+56	-	32+62	RT	4	13
0010	36+67	-	37+16	RT	32	76
0010	36+67	-	37+16	LT	33	78
TOTAL 0010					185	426

STORM SEWER PIPES

					608.0312	608.0315	608.0318	608.0324	608.0342	608.0412	608.0415	608.0418	SPV.0090.02
					STORM SEWER	STORM SEWER	STORM SEWER	STORM SEWER	STORM SEWER	STORM SEWER	STORM SEWER	STORM SEWER	
					PIPE	PIPE	PIPE	PIPE	PIPE	PIPE	PIPE	PIPE	
					REINFORCED	REINFORCED	REINFORCED	REINFORCED	REINFORCED	REINFORCED	REINFORCED	REINFORCED	
					CONCRETE CLASS	CONCRETE CLASS	CONCRETE CLASS	CONCRETE CLASS	CONCRETE CLASS	CONCRETE CLASS	CONCRETE CLASS	CONCRETE CLASS	SPECIAL (02.
CATEGORY	STRUCTURE	TO	STRUCTURE	STATION	III 12-INCH	III 15-INCH	III 18-INCH	III 24-INCH	III 42-INCH	IV 12-INCH	IV 15-INCH	IV 18-INCH	JOINT TIES)
0010	1.03	-	1.02	11+67	---	---	---	13	---	---	---	---	---
0010	1.02	-	1.01	11+67	---	---	---	---	17	---	---	---	17
0010	1.1	-	1.2	18+00	---	---	---	---	---	68	---	---	---
0010	1.2	-	1.3	18+40	---	---	---	---	---	---	---	48	---
0010	1.2	-	1.4	19+00	---	---	---	---	---	---	131	---	---
0010	1.4	-	1.5	19+70	---	---	---	---	---	10	---	---	---
0010	2.1	-	2.2	20+75	---	---	---	---	---	---	---	53	---
0010	2.2	-	2.3	21+03	---	---	37	---	---	---	---	---	---
0010	3.0	-	3.1	23+59	---	---	---	---	---	---	---	39	---
0010	4.0	-	4.1	26+16	---	---	---	---	---	---	---	37	---
0010	5.0	-	5.1	29+50	---	---	---	---	---	---	---	38	---
0010	6.6	-	6.5	31+00	9	---	---	---	---	---	---	---	---
0010	6.5	-	6.4	31+25	51	---	---	---	---	---	---	---	---
0010	6.7	-	6.4	31+51	10	---	---	---	---	---	---	---	---
0010	6.4	-	6.3	31+75	42	---	---	---	---	---	---	---	---
0010	6.8	-	6.3	31+93	9	---	---	---	---	---	---	---	---
0010	6.3	-	6.2	32+25	---	64	---	---	---	---	---	---	---
0010	6.0	-	6.2	32+58	9	---	---	---	---	---	---	---	---
0010	6.2	-	6.1	32+58	---	---	37	---	---	---	---	---	---
TOTAL 0010					130	64	74	13	17	78	131	215	17

NOTE: TIE ALL SECTIONS OF PIPE AT STA 11+67

STORM SEWER STRUCTURES																
								611.0530	611.0624	611.0642	611.2003	611.2004	611.2006	611.3230	611.3902	650.4000
								MANHOLE COVERS TYPE J	INLET COVERS TYPE H	INLET COVERS TYPE MS	MANHOLES 3-FT DIAMETER	MANHOLES 4-FT DIAMETER	MANHOLES 6-FT DIAMETER	INLETS 2X3-FT	INLETS MEDIAN 2 GRATE	CONSTRUCTION STAKING STORM SEWER
CATEGORY	STRUCTURE	STATION	LOCATION	GRATE / RIM ELEV.	TOP OF STRUCTURE ELEV.	INVERT ELEV.	STRUCTURE DEPTH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH
0010	1.02	11+67	11.04' LT	781.29	780.04	774.96	5.08	1	---	---	---	---	1	---	---	1
0010	1.03	11+67	24.0' LT	779.07	779.07	776.21	2.86	---	---	2	---	---	---	---	1	1
0010	1.1	17+67	16.5' LT	783.31	782.31	780.31	2.00	---	1	---	---	---	---	1	---	1
0010	1.2	18+35	16.5' LT	783.62	782.62	779.51	3.11	---	1	---	---	---	---	1	---	1
0010	1.4	19+65	16.5' LT	784.82	783.82	781.12	2.70	---	1	---	---	---	---	1	---	1
0010	1.5	19+75	16.5' LT	785.03	784.03	781.47	2.56	---	1	---	---	---	---	1	---	1
0010	2.1	20+50	16.5' LT	786.11	785.11	782.46	2.65	---	1	---	---	---	---	1	---	1
0010	2.2	21+03	16.5' LT	786.63	785.63	781.93	3.70	---	1	---	---	---	---	1	---	1
0010	3.0	23+59	16.5' LT	787.14	786.14	782.80	3.34	---	1	---	---	---	---	1	---	1
0010	4.0	26+16	16.5' LT	785.27	784.27	781.00	3.27	---	1	---	---	---	---	1	---	1
0010	5.0	29+50	16.5' LT	781.56	780.56	777.35	3.21	---	1	---	---	---	---	1	---	1
0010	6.6	31+00	16.5' LT	779.82	778.82	775.14	3.68	---	1	---	---	---	---	1	---	1
0010	6.5	31+00	7.0' LT	780.27	779.02	775.00	4.02	1	---	---	1	---	---	---	---	1
0010	6.4	31+51	7.0' LT	779.70	778.45	774.33	4.12	1	---	---	1	---	---	---	---	1
0010	6.7	31+51	16.5' LT	779.33	778.33	774.37	3.96	---	1	---	---	---	---	1	---	1
0010	6.3	31+93	7.0' LT	779.23	777.98	773.82	4.16	1	---	---	---	1	---	---	---	1
0010	6.8	31+93	16.5' LT	778.86	777.86	774.32	3.54	---	1	---	---	---	---	1	---	1
0010	6.2	32+58	7.0' LT	778.70	777.45	773.08	4.37	1	---	---	---	1	---	---	---	1
0010	6.0	32+58	16.5' LT	778.33	777.33	773.82	3.51	---	1	---	---	---	---	1	---	1
TOTAL 0010								5	13	2	2	2	1	13	1	19

RESTORATION ITEMS											
CATEGORY	STATION	TO	STATION	LOCATION	625.0500	627.0200	629.0210	630.0120	630.0140	630.0200	630.0500
					SALVAGED TOPSOIL SY	MULCHING SY	FERTILIZER TYPE B CWT	SEEDING MIXTURE NO. 20 LB	SEEDING MIXTURE NO. 40 LB	SEEDING TEMPORARY LB	SEED WATER MGAL
0010	10+75	-	12+91	LT	145	0	0.10	0.00	2.61	0.0	3.3
0010	10+84	-	11+02	RT	9	0	0.01	0.00	0.16	0.0	0.2
0010	11+25	-	11+50	RT	6	6	0.01	0.16	0.00	0.1	0.2
0010	11+81	-	12+10	RT	12	12	0.01	0.32	0.00	0.2	0.3
0010	12+26	-	13+13	RT	8	8	0.01	0.22	0.00	0.2	0.2
0010	13+10	-	14+69	RT	152	0	0.10	0.00	2.74	0.0	3.4
0010	13+37	-	15+08	LT	81	0	0.06	0.00	1.45	0.0	1.8
0010	14+67	-	15+38	RT	38	38	0.03	1.03	0.00	0.6	0.9
0010	14+85	-	16+03	RT	52	0	0.04	0.00	0.92	0.0	1.2
0010	15+23	-	15+61	LT	32	0	0.02	0.00	0.56	0.0	0.7
0010	15+94	-	18+44	LT	128	0	0.09	0.00	2.29	0.0	2.9
0010	16+47	-	16+96	RT	19	0	0.02	0.00	0.33	0.0	0.5
0010	17+16	-	21+09	RT	488	0	0.31	0.00	8.78	0.0	10.9
0010	18+57	-	19+25	LT	50	0	0.04	0.00	0.90	0.0	1.2
0010	19+29	-	19+92	LT	34	0	0.03	0.00	0.60	0.0	0.8
0010	20+09	-	20+36	LT	23	0	0.02	0.00	0.40	0.0	0.5
0010	20+34	-	22+60	LT	104	0	0.07	0.00	1.87	0.0	2.4
0010	21+12	-	21+38	RT	19	0	0.02	0.00	0.33	0.0	0.5
0010	21+62	-	22+89	RT	162	0	0.11	0.00	2.91	0.0	3.7
0010	22+88	-	23+90	LT	61	0	0.04	0.00	1.09	0.0	1.4
0010	23+09	-	23+42	RT	34	0	0.03	0.00	0.61	0.0	0.8
0010	23+40	-	25+41	RT	225	0	0.15	6.07	0.00	3.1	5.1
0010	23+93	-	24+38	LT	47	0	0.03	0.00	0.85	0.0	1.1
0010	24+49	-	24+98	LT	32	0	0.02	0.00	0.57	0.0	0.8
0010	25+08	-	25+58	LT	52	0	0.04	0.00	0.94	0.0	1.2
0010	25+54	-	26+98	RT	93	0	0.06	2.51	0.00	1.3	2.1
0010	25+68	-	27+05	LT	100	0	0.07	0.00	1.79	0.0	2.3
0010	27+16	-	28+35	LT	70	0	0.05	0.00	1.25	0.0	1.6
0010	28+46	-	29+96	LT	114	0	0.08	0.00	2.05	0.0	2.6
0010	29+25	-	29+75	RT	66	0	0.05	1.77	0.00	0.9	1.5
0010	29+75	-	32+30	RT	198	198	0.13	5.33	0.00	2.7	4.5
0010	30+08	-	30+39	LT	23	0	0.02	0.00	0.41	0.0	0.6
0010	30+59	-	31+08	LT	25	0	0.02	0.00	0.45	0.0	0.6
0010	31+19	-	36+04	LT	474	0	0.30	12.80	0.00	6.4	10.6
0010	32+32	-	32+82	RT	70	0	0.05	1.88	0.00	1.0	1.6
0010	32+83	-	33+53	RT	53	53	0.04	1.41	0.00	0.8	1.2
0010	33+65	-	35+12	RT	249	0	0.16	6.71	0.00	3.4	5.6
0010	35+56	-	36+50	RT	116	116	0.08	3.13	0.00	1.6	2.6
0010	36+19	-	36+65	LT	23	0	0.02	0.00	0.42	0.0	0.6
0010	36+50	-	36+67	RT	26	0	0.02	0.70	0.00	0.4	0.6
0010	37+15	-	37+43	LT	47	0	0.03	1.26	0.00	0.7	1.1
0010	37+15	-	37+90	RT	129	0	0.09	3.48	0.00	1.8	2.9
0010	37+43	-	42+30	LT	893	893	0.57	24.09	0.00	12.1	20.0
0010	38+15	-	38+41	RT	17	0	0.02	0.44	0.00	0.3	0.4
0010	38+60	-	39+24	RT	45	0	0.03	1.21	0.00	0.7	1.0
0010	39+39	-	42+30	RT	423	423	0.27	11.40	0.00	5.7	9.5
0010	42+55	-	43+16	LT	90	90	0.06	2.42	0.00	1.3	2.0
0010	42+62	-	42+75	LT	9	0	0.01	0.23	0.00	0.2	0.2
0010	43+00	-	46+67	RT	389	389	0.25	10.48	0.00	5.3	8.7
0010	43+33	-	47+80	LT	627	627	0.40	16.91	0.00	8.5	14.0
0010	43+45	-	43+55	LT	9	0	0.01	0.23	0.00	0.2	0.2
0010	43+94	-	43+99	RT & LT	14	0	0.01	0.36	0.00	0.2	0.3
0010	46+78	-	47+80	RT	113	113	0.08	3.04	0.00	1.6	2.6
0010	UNDISTRIBUTED	-	--	--	1,304	594	0.88	23.92	7.46	12.3	29.5
TOTAL 0010					7,822	3,560	5	143.51	44.74	73.60	177

SILT FENCE						
CATEGORY	STATION	TO	STATION	LOCATION	628.1504	628.1520
					SILT FENCE LF	SILT FENCE MAINTENANCE LF
0010	14+37	-	14+96	RT	59	59
0010	17+80	-	18+85	RT	105	105
0010	20+63	-	21+37	RT	75	75
0010	23+09	-	23+41	RT	35	35
0010	23+42	-	23+93	RT	50	50
0010	25+72	-	25+95	RT	26	26
0010	26+42	-	26+95	RT	58	58
0010	27+25	-	29+47	RT	225	225
0010	29+56	-	32+55	RT	300	300
0010	32+62	-	33+26	RT	65	65
0010	35+64	-	37+76	RT	215	215
0010	36+69	-	37+76	LT	110	110
0010	40+49	-	42+05	RT	160	160
0010	43+53	-	44+96	RT	145	145
0010	46+82	-	47+74	RT	95	95
TOTAL 0010					1,723	1,723

MOBILIZATIONS EROSION CONTROL						
CATEGORY	STATION	TO	STATION	LOCATION	628.1905	628.1910
					MOBILIZATIONS EROSION CONTROL EACH	MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
0010	10+48	-	47+80	PROJECT	2	2
TOTAL 0010					2	2

3

EROSION CONTROL								
					628.2004	628.2008	628.7504	628.7555
					EROSION MAT	EROSION MAT		
					CLASS I TYPE B	URBAN CLASS I	TEMPORARY	CULVERT PIPE
CATEGORY	STATION	TO	STATION	LOCATION	SY	SY	DITCH CHECKS	CHECKS
							LF	EACH
0010	10+75	-	12+91	LT	---	145	---	---
0010	10+84	-	11+02	RT	---	9	---	---
0010	13+10	-	14+69	RT	---	152	---	---
0010	13+37	-	15+08	LT	---	81	---	---
0010	14+85	-	16+03	RT	---	52	---	---
0010	15+23	-	15+61	LT	---	32	---	---
0010	15+94	-	18+44	LT	---	128	---	---
0010	16+47	-	16+96	RT	---	19	---	---
0010	17+16	-	21+09	RT	---	488	---	---
0010	18+57	-	19+25	LT	---	50	---	---
0010	19+29	-	19+92	LT	---	34	---	---
0010	20+09	-	20+36	LT	---	23	---	---
0010	20+34	-	22+60	LT	---	104	---	---
0010	21+12	-	21+38	RT	---	19	---	---
0010	21+62	-	22+89	RT	---	162	---	---
0010	22+88	-	23+90	LT	---	61	---	---
0010	23+09	-	23+42	RT	---	34	---	---
0010	23+40	-	25+41	RT	225	---	---	---
0010	23+93	-	24+38	LT	---	47	---	---
0010	24+49	-	24+98	LT	---	32	---	---
0010	25+08	-	25+58	LT	---	52	---	---
0010	25+54	-	26+98	RT	93	---	---	---
0010	25+68	-	27+05	LT	---	100	---	---
0010	27+16	-	28+35	LT	---	70	---	---
0010	28+46	-	29+96	LT	---	114	---	---
0010	29+25	-	29+75	RT	66	---	---	---
0010	30+08	-	30+39	LT	---	23	---	---
0010	30+59	-	31+08	LT	---	25	---	---
0010	31+19	-	36+04	LT	474	---	---	---
0010	32+32	-	32+82	RT	70	---	---	---
0010	33+65	-	35+12	RT	249	---	---	---
0010	36+19	-	36+65	LT	---	---	---	---
0010	36+50	-	36+67	RT	---	26	---	---
0010	37+15	-	37+43	LT	---	47	---	---
0010	37+15	-	37+90	RT	---	129	---	---
0010	38+15	-	38+41	RT	17	---	---	---
0010	38+60	-	39+24	RT	45	---	---	---
0010	42+62	-	---	LT	9	---	---	---
0010	43+45	-	---	LT	9	---	---	---
0010	43+94	-	---	RT & LT	14	---	---	2
0010	42+22	-	---	LT	9	---	---	2
0010	43+01	-	---	LT	9	---	---	2
0010	38+10	-	---	LT	---	---	10	---
0010	39+72	-	---	LT	---	---	10	---
UNDISTRIBUTED	-	---			1,289	2,258	20	2
TOTAL 0010					2,578	4,516	40	8

INLET PROTECTION

CATEGORY	STATION	LOCATION	628.7005	628.7015
			INLET	INLET
			PROTECTION TYPE A EACH	PROTECTION TYPE C EACH
0010	11+67	LT	1	---
0010	17+67	LT	---	1
0010	18+35	LT	---	1
0010	19+65	LT	---	1
0010	19+75	LT	---	1
0010	20+50	LT	---	1
0010	21+03	LT	---	1
0010	23+59	LT	---	1
0010	26+16	LT	---	1
0010	29+50	LT	---	1
0010	31+00	LT	---	1
0010	31+51	LT	---	1
0010	31+93	LT	---	1
0010	32+58	LT	---	1
TOTAL 0010			1	13

MARKERS ROW

				633.5100
				MARKERS ROW
CATEGORY	POINT	STATION	LOCATION	EACH
0010	106	18+00	28.77' RT	1
0010	107	18+30	50.00' RT	1
0010	108	18+55	50.00' RT	1
0010	109	18+75	28.72' RT	1
0010	111	20+75	24.08' RT	1
0010	112	20+75	37.00' RT	1
0010	113	21+25	37.00' RT	1
0010	114	21+31	28.28' RT	1
0010	122	25+75	23.92' RT	1
0010	123	26+00	45.00' RT	1
0010	124	26+30	45.00' RT	1
0010	125	26+60	23.60' RT	1
0010	126	29+25	23.51' RT	1
0010	127	29+38	40.00' RT	1
0010	128	29+58	40.00' RT	1
0010	129	29+75	23.50' RT	1
0010	133	32+44.92	33.32' RT	1
0010	134	32+52	47.00' RT	1
0010	135	32+65	47.00' RT	1
0010	136	32+71.19	33.65' RT	1
TOTAL 0010				20

NOTE: INSTALL AS DIRECTED BY THE ENGINEER.

PERMANENT SIGNING												
CATEGORY	STATION	LOCATION	SIGN CODE	IN	IN	634.0614	634.0616	634.0618	637.2210	637.2230	REMARKS	
						POSTS WOOD	POSTS WOOD	POSTS WOOD	SIGNS TYPE II	SIGNS TYPE II		
						4X6-INCH X 14- FT EACH	4X6-INCH X 16- FT EACH	4X6-INCH X 18- FT EACH	REFLECTIVE H SF	REFLECTIVE F SF		
0010	11+43	RT	W11-55	30	X	30	1	--	--	6.25	PLAYGROUND	
0010	12+88	LT	R1-1	30	X	30	1	--	5.18	--	STOP	
0010	13+26	RT	R2-1	24	X	30	1	--	5.00	--	SPEED LIMIT 25 MPH	
0010	13+70	LT	J1-2	48	X	39	--	1	13.00	--	--	
0010	---	LT	M2-1	21	X	15	--	--	--	--	2-JCT	
0010	---	LT	M1-6	24	X	24	--	--	--	--	STH 23, STH 73	
0010	14+65	LT	W3-1	36	X	36	--	1	--	9.00	STOP AHEAD	
0010	15+47	LT	R1-1	30	X	30	1	--	5.18	--	STOP	
0010	16+52	LT	W11-55	30	X	30	1	--	--	6.25	PLAYGROUND	
0010	19+82	LT	R1-1	30	X	30	1	--	5.18	--	STOP	
0010	27+35	LT	R2-1	24	X	30	1	--	5.00	--	SPEED LIMIT 25 MPH	
0010	27+84	RT	W1-2L	30	X	30	1	--	--	6.25	CURVE LEFT	
0010	40+55	RT	W1-2L	30	X	30	1	--	--	6.25	CURVE LEFT	
0010	43+90	LT	W1-2R	30	X	30	1	--	--	6.25	CURVE RIGHT	
TOTAL 0010						10	1	1	38.54	40.25		

REMOVING SIGNS					
CATEGORY	STATION	LOCATION	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
0010	11+43	RT	1	1	PLAYGROUND
0010	12+88	LT	1	1	STOP
0010	13+26	RT	1	1	SPEED LIMIT 25 MPH
0010	13+70	LT	1	1	JCT STH 23, STH 73
0010	14+30	RT	1	1	NARROW SHOULDER
0010	14+65	LT	1	1	STOP AHEAD
0010	15+37	LT	1	1	STOP
0010	16+52	LT	1	1	PLAYGROUND
0010	19+82	LT	1	1	STOP
0010	27+35	LT	1	1	SPEED LIMIT 25 MPH
0010	27+84	RT	1	1	CURVE LEFT
0010	36+80	LT & RT	1	1	OBJECT MARKER
0010	37+05	RT	1	1	OBJECT MARKER
0010	37+06	LT	1	1	OBJECT MARKER
0010	38+86	LT	1	1	NARROW SHOULDER
0010	40+55	RT	1	1	CURVE LEFT
0010	43+90	LT	1	1	CURVE RIGHT
TOTAL 0010			17	17	

TRAFFIC CONTROL														
CATEGORY	STATION	TO	STATION	LOCATION	DAYS	EACH	643.0300	EACH	643.0420	EACH	643.0705	EACH	643.0900	REMARKS
							TRAFFIC CONTROL DRUMS		TRAFFIC CONTROL BARRICADES TYPE III		TRAFFIC CONTROL WARNING LIGHTS TYPE A		TRAFFIC CONTROL SIGNS	
0010	--		--	STH 23/STH 73	80	---	---	---	---	---	---	4	320	W20-1A, G20-3A
0010	10+25	-	10+25	BEGINNING OF PROJECT	80	---	---	5	400	6	480	1	80	R11-4
0010	13+10	-	--	WILSON ST.	80	---	---	5	400	6	480	2	160	W20-3A, R11-4
0010	15+75	-	--	FIRST ST.	80	---	---	5	400	6	480	2	160	W20-3A, R11-4
0010	20+10	-	--	HARRIS ST.	80	---	---	5	400	6	480	2	160	W20-3A, R11-4
0010	47+80	-	47+80	END OF PROJECT	80	---	---	9	720	10	800	6	480	W20-3A, R11-3, W20-3C, W20-3D, R11-4
0010	16+00	-	--	FIRST ST. (PEDESTRIANS)	55	5	275	2	110	2	110	1	55	R9-9
0010	20+00	-	--	HARRIS ST. (PEDESTRIANS)	55	5	275	2	110	2	110	1	55	R9-9
0010	--	-	--	UNDISTRIBUTED	80	20	1,600	---	---	---	---	---	---	
TOTAL 0010							2,150		2,540		2,940		1,470	

SEE SDD"BARRICADES AND SIGNS FOR MAINLINE CLOSURES", DETAIL C
SEE SDD"BARRICADES AND SIGNS FOR SIDEROAD CLOSURES"
SEE SDD"TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION"

3

NOTE: SEE "TRAFFIC" SPECIAL PROVISIONS.

LOCATION	650.4500 CONSTRUCTION STAKING SUBGRADE LF	650.9910.01 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (6425- 00-70) LS	650.9920 CONSTRUCTION STAKING SLOPE STAKES LF
CTH D	3,735	1	3,735
TOTAL 0010	3,735	1	3,735

3

SEE SDD "LONGITUDINAL MARKING (MAINLINE)"

ISCELLANEOUS QUANTITIES

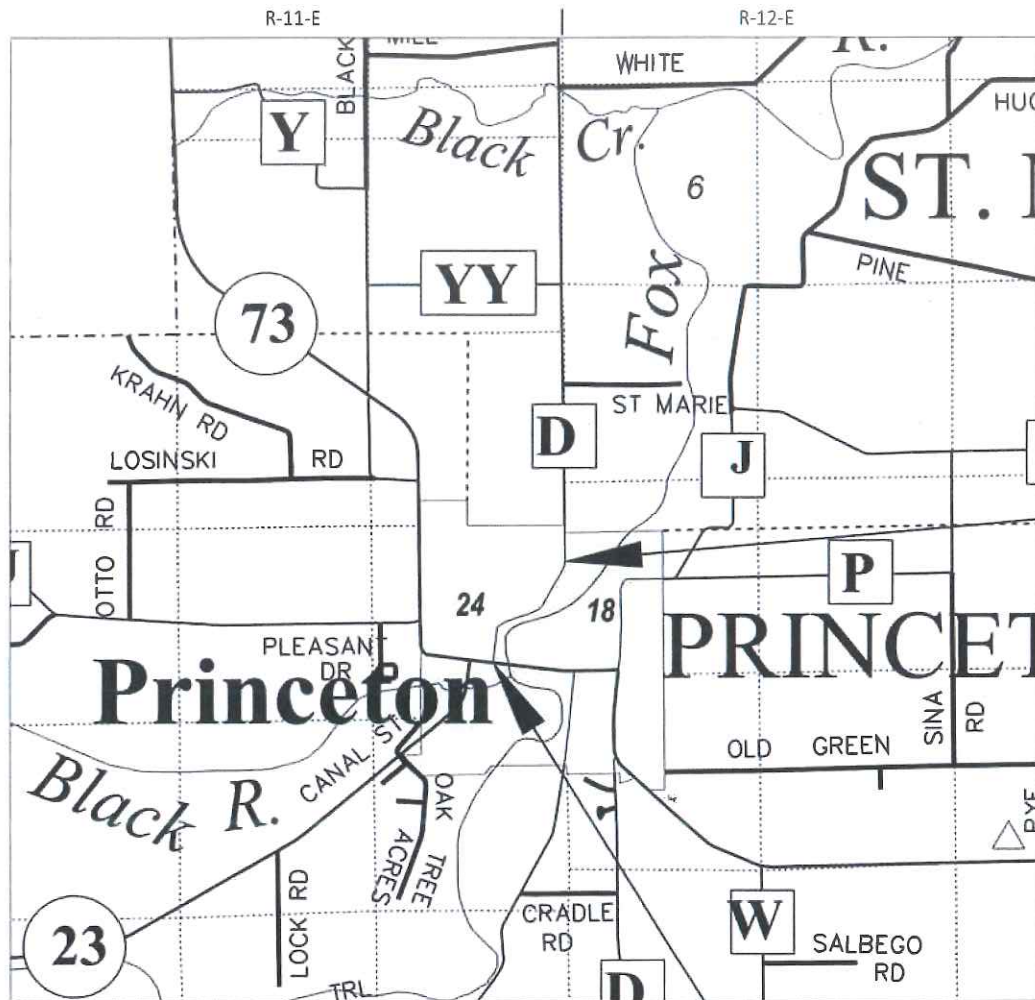
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ADJUST EXISTING SANITARY STRUCTURE						
CATEGORY	STATION	LOCATION	SPV 0060.02	SPV 0060.03	SPV 0060.04	COMMENTS
			ADJUST EX. SANITARY MANHOLE EACH	ADJUST EX. SANITARY MANHOLE CONE EACH	RECONSTRUCT EX. SANITARY MANHOLE EACH	
0020	17+70.5	5.50 LT	1	-	-	
	20+27.3	5.50 LT	1	-	-	
	22+71.2	10.00 LT	1	-	-	
	25+78.4	10.00 LT	1	-	-	
	27+77.2	15.09 LT	1	-	-	
	31+72.9	16.43 LT	-	-	1	1.5' BARREL EXTENSION NEEDED (FIELD VERIFY)
	33+03.2	15.20 LT	-	-	1	2.0' BARREL EXTENSION NEEDED (FIELD VERIFY)
	34+49.8	16.98 LT	1	-	-	
	36+40.8	8.65 LT	1	-	-	
	39+27.0	23.11 LT	-	1	-	
	42+14.2	24.16 LT	-	1	-	
TOTAL PROJECT 6425-00-70			7	2	2	

3

ADJUST EXISTING WATER STRUCTURE						
CATEGORY	STATION	OFFSET DIST.	OFFSET DIR.	SPV 0060.05	SPV 0060.06	
				ADJUST EX. WATER VALVE BOX EACH	ADJUST EX. WATER CURB STOP BOX EACH	
0020	21+87.3	29.1	RT.	-	1	
	22+61.1	18.8	LT.	-	1	
	24+79.8	19.4	RT.	1	-	
	29+77.8	19.6	RT.	1	-	
	30+70.7	19.6	LT.	-	1	
	34+67.5	28.0	RT.	-	1	
	35+35.4	22.4	RT.	1	-	
	35+37.5	26.3	RT.	1	-	
	35+48.5	22.3	RT.	1	-	
	37+82.6	24.3	RT.	-	1	
	38+76.2	16.3	RT.	1	-	
	39+21.4	26.2	RT.	-	1	
	42+82.5	27.6	LT.	-	1	
	43+49.6	21.0	RT.	1	-	
	43+51.8	15.7	RT.	1	-	
	47+98.0	16.5	RT.	1	-	
TOTAL PROJECT 6425-00-70				9	7	

CONVENTIONAL SYMBOLS			
SECTION LINE		PARCEL NUMBER	UTILITY NUMBER
QUARTER LINE		SECTION CORNER	R/W MONUMENT
SIXTEENTH LINE		NOTATION FOR COMBUSTIBLE FLUIDS	NON-MONUMENTED R/W POINT
NEW REFERENCE LINE		NOTATION FOR HIGH VOLTAGE TRANSMISSION LINES	FOUND IRON PIN
NEW R/W LINE			VALVE (GAS, WATER, ETC.)
EXISTING R/W LINE			SIGN
PROPERTY LINE			OFF-PREMISE SIGN
LOT, TIE, AND OTHER MINOR LINES			
SLOPE INTERCEPT			
CORPORATE LIMITS			
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC.)			
FEE ACQUISITION AREA (HATCHING VARIES BY OWNER)			
TEMP. LIMITED EASEMENT AREA		ACCESS CONTROLLED BY ACQUISITION	
EASEMENT AREA (HIGHWAY, PERMANENT LIMITED, OR RESTRICTED DEVELOPMENT)		NO ACCESS (BY STATUTORY AUTHORITY)	
TRANSMISSION STRUCTURES		ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)	
BUILDING		NO ACCESS (NEW HIGHWAY)	
BUILDING (TO BE REMOVED)		NATIONAL GEODETIC SURVEY MONUMENT	
BRIDGE		SIXTEENTH CORNER MONUMENT	
		PARALLEL OFFSETS	
CONVENTIONAL UTILITY SYMBOLS			
WATER			
GAS			
TELEPHONE			
OVERHEAD TRANSMISSION LINES			
ELECTRIC			
CABLE TELEVISION			
FIBER OPTIC			
SANITARY SEWER			
STORM SEWER			
ELECTRIC TOWER			
POWER POLE			
TELEPHONE POLE			
TELEPHONE PEDESTAL			
CURVE DATA ABBREVIATIONS			
LONG CHORD	LCH		
LONG CHORD BEARING	LCB		
RADIUS	R		
DEGREE OF CURVE	D		
CENTRAL ANGLE	Δ/DELTA		
LENGTH OF CURVE	L		
TANGENT	T		
DIRECTION AHEAD	DA		
DIRECTION BACK	DB		
CONVENTIONAL ABBREVIATIONS			
ACCESS RIGHTS	AR	NUMBER	NO
ACRES	AC	OUTLOT	OL
AHEAD	AH	PAGE	P
ALUMINUM	ALUM	POINT OF TANGENCY	PT
AND OTHERS	ET AL	PROPERTY LINE	PL
BACK	BK	RECORDED AS	(100')
BLOCK	BLK	REEL / IMAGE	R/I
BUILDING	BLD	REFERENCE LINE	R/L
CENTERLINE	C/L	PERMANENT LIMITED EASEMENT	PLE
CERTIFIED SURVEY MAP	CSM	POINT OF BEGINNING	POB
CONCRETE	CONC	POINT OF CURVATURE	PC
COUNTY	CO	POINT OF COMPOUND CURVE	PCC
COUNTY TRUNK HIGHWAY	CTH	POINT OF INTERSECTION	PI
DISTANCE	DIST	REMAINING	REM
CORNER	COR	RESTRICTIVE DEVELOPMENT EASEMENT	RDE
DOCUMENT NUMBER	DOC	RIGHT	R/W
EASEMENT	EASE	RIGHT OF WAY	SEC
EXISTING	EX	SECTION	SEP
GARAGE	GRG	SEPTIC VENT	SF
GAS VALVE	GV	SQUARE FEET	STH
GRID NORTH	GN	STATE TRUNK HIGHWAY	STA
HIGHWAY EASEMENT	HE	STATION	TP
HOUSE	HSE	TELEPHONE PEDESTAL	TLE
IDENTIFICATION	ID	TEMPORARY LIMITED EASEMENT	TPP
LAND CONTRACT	LC	TRANSPORTATION PROJECT PLAT	USH
LEFT	LT	UNITED STATES HIGHWAY	V
MONUMENT	MON	VOLUME	
NATIONAL GEODETIC SURVEY	NGS		



COPY

R/W PROJECT NUMBER 6425-00-00	SHEET NUMBER	TOTAL SHEETS
R/W PROJECT NUMBER 6425-00-00	4.01	8
PLAT OF RIGHT OF WAY REQUIRED FOR CITY OF PRINCETON, CTH D STH 23 - SAINT MARIE ROAD		
CTH D	GREEN LAKE COUNTY	

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

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), GREEN LAKE COUNTY, NAD83 (2011) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 AND ARE PLACED PRIOR TO OR AT THE TIME OF LAND TITLE TRANSFER.

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.

EXISTING HIGHWAY RIGHT-OF-WAY ESTABLISHED FROM FLINT & TREAT ADDITION PLAT, CERTIFIED SURVEY MAPS, AND PREVIOUS ROADWAY RECORDS.

DIMENSIONS FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO THE NEW 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.

END RELOCATION ORDER
STA 47+80.00
1,025.93' SOUTH OF AND 0.48' WEST OF THE
NORTHEAST CORNER OF SEC. 24, T-16-N, R-11-E
T-16-N

BEGIN RELOCATION ORDER
STA 10+11.22
1,029.07' SOUTH OF AND 408.76' EAST OF THE
CENTER MON. OF SEC. 24, T-16-N, R-11-E

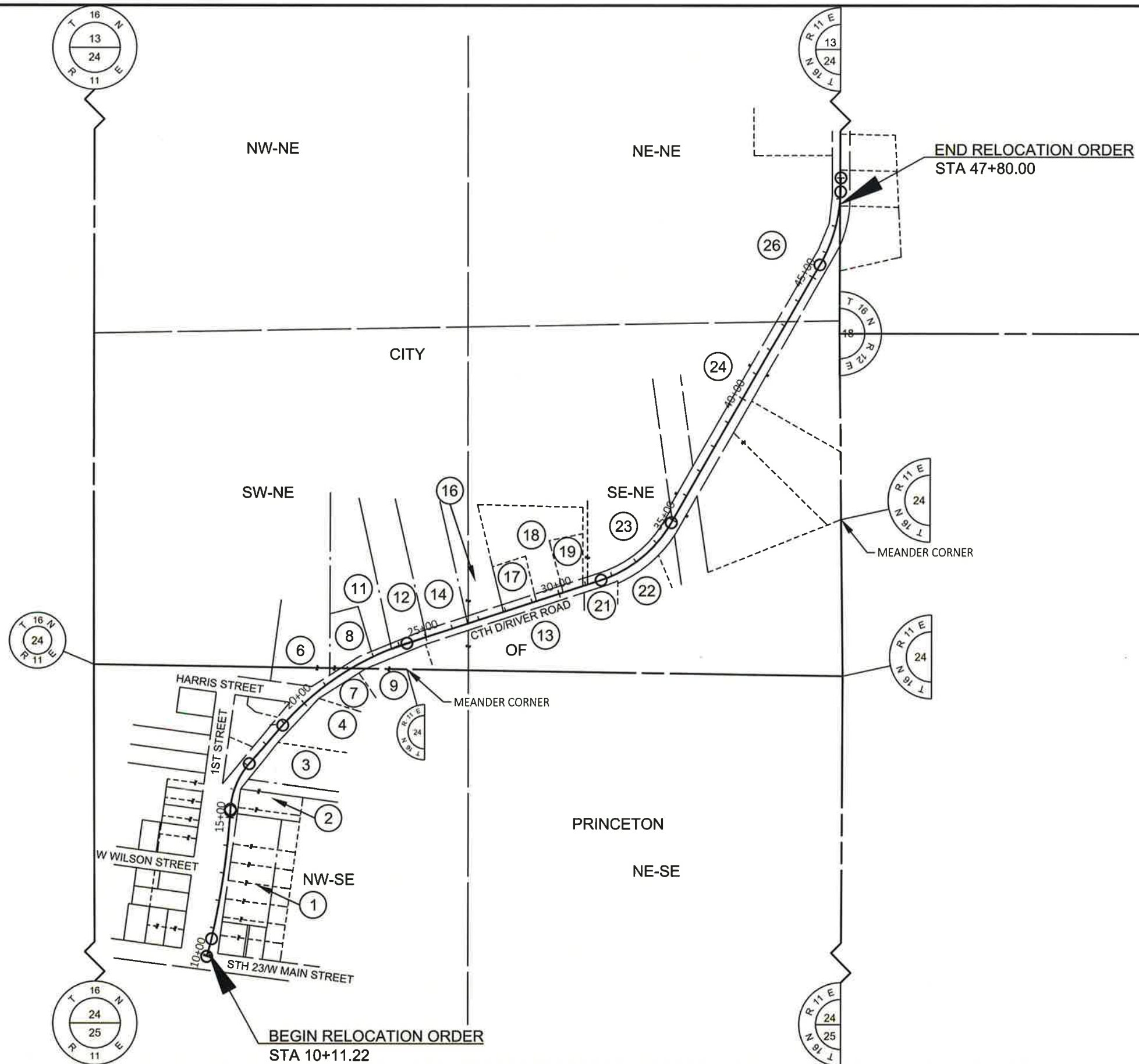


ACCEPTED FOR CITY OF PRINCETON
DATE: 12/27/19
ACCEPTED FOR GREEN LAKE COUNTY
DATE: 12/16/19
ORIGINAL PLAT PREPARED BY ENGINEERING ARCHITECTURE SURVEYING FUNDING PLANNING ENVIRONMENTAL 1230 SOUTH BOULEVARD, BARABOO, WI 53913 (608) 356-2771 www.msa-ps.com © MSA Professional Services, Inc.
DATE: 12-5-19
(Registered L)

SCHEDULE OF LANDS AND INTEREST								
PARCEL NUMBER	SHEET NUMBER	OWNER (S)	INTEREST REQUIRED	R/W NEW SF	R/W EXISTING SF	R/W TOTAL SF	TLE SF	
1	4.04	WISCONSIN POWER & LIGHT	FEE & TLE	1,180 SF	---	1,180 SF	542 SF	
2	4.04	MICHAEL K & MARIE I GATES	TLE	---	---	---	168 SF	
3	4.05	RICHARD LABUMBARD III	FEE & TLE	571 SF	---	571 SF	137 SF	
4	4.05	MANWEILER LIVING TRUST	FEE & TLE	542 SF	---	542 SF	587 SF	
6	4.05	STEVEN D & ANITA L ROEHL	TLE	---	---	---	147 SF	
7	4.05	KAREN BASS	FEE & TLE	557 SF	---	557 SF	549 SF	
8	4.05	JANE MARIE VINING	TLE	---	---	---	1,006 SF	
9	4.05	JUSTIN J POWER	FEE & TLE	541 SF	---	541 SF	414 SF	
11	4.05	ANDREW SHURPIT	TLE	---	---	---	1,080 SF	
12	4.05 & 4.06	JOSEPH T KURUC	FEE & TLE	---	3,170 SF	3,170 SF	1,890 SF	
13	4.05 & 4.06	KENNETH R UHL	FEE & TLE	1,800 SF	---	1,800 SF	1,165 SF	
14	4.06	KEVIN J LASHOCK	FEE & TLE	---	4,010 SF	4,010 SF	975 SF	
16	4.06	LAURA MILFORD	FEE & TLE	---	3,331 SF	3,331 SF	793 SF	
17	4.06	RICHARD TIDYMAN	FEE & TLE	---	3,054 SF	3,054 SF	377 SF	
18	4.06	JEFFERY C SCHEUERS, LINDA M SCHILLING, & LORI K KIES	FEE & TLE	---	2,480 SF	2,480 SF	141 SF	
19	4.06	DANIEL D & LINDA M SCHILLING	FEE & TLE	---	1,924 SF	1,924 SF	267 SF	
21	4.06	PAUL D & CYNTHIA L GUNDERSON	TLE	---	---	---	242 SF	
22	4.06	BRUCE & CAROL DREYMILLER	FEE	287 SF	---	287 SF	---	
23	4.06 & 4.07	RONALD J DISTERHAFT	FEE & TLE	---	9,735 SF	9,735 SF	2,845 SF	
24	4.07 & 4.08	SUSAN WOLLITZ	TLE	---	---	---	1,763 SF	
26	4.08	TANK TECHNOLOGY INC	TLE	---	---	---	1,017 SF	
50	4.04, 4.05, 4.07, & 4.08	ALLIANT ENERGY - ELECTRIC	RELEASE OF RIGHTS	---	---	---	---	
51	4.04 & 4.08	CENTURYLINK	RELEASE OF RIGHTS	---	---	---	---	
52	4.04	WE ENERGIES	RELEASE OF RIGHTS	---	---	---	---	
53	4.05	CITY OF PRINCETON - WATER	RELEASE OF RIGHTS	---	---	---	---	
54	4.07	CITY OF PRINCETON - SANITARY	RELEASE OF RIGHTS	---	---	---	---	

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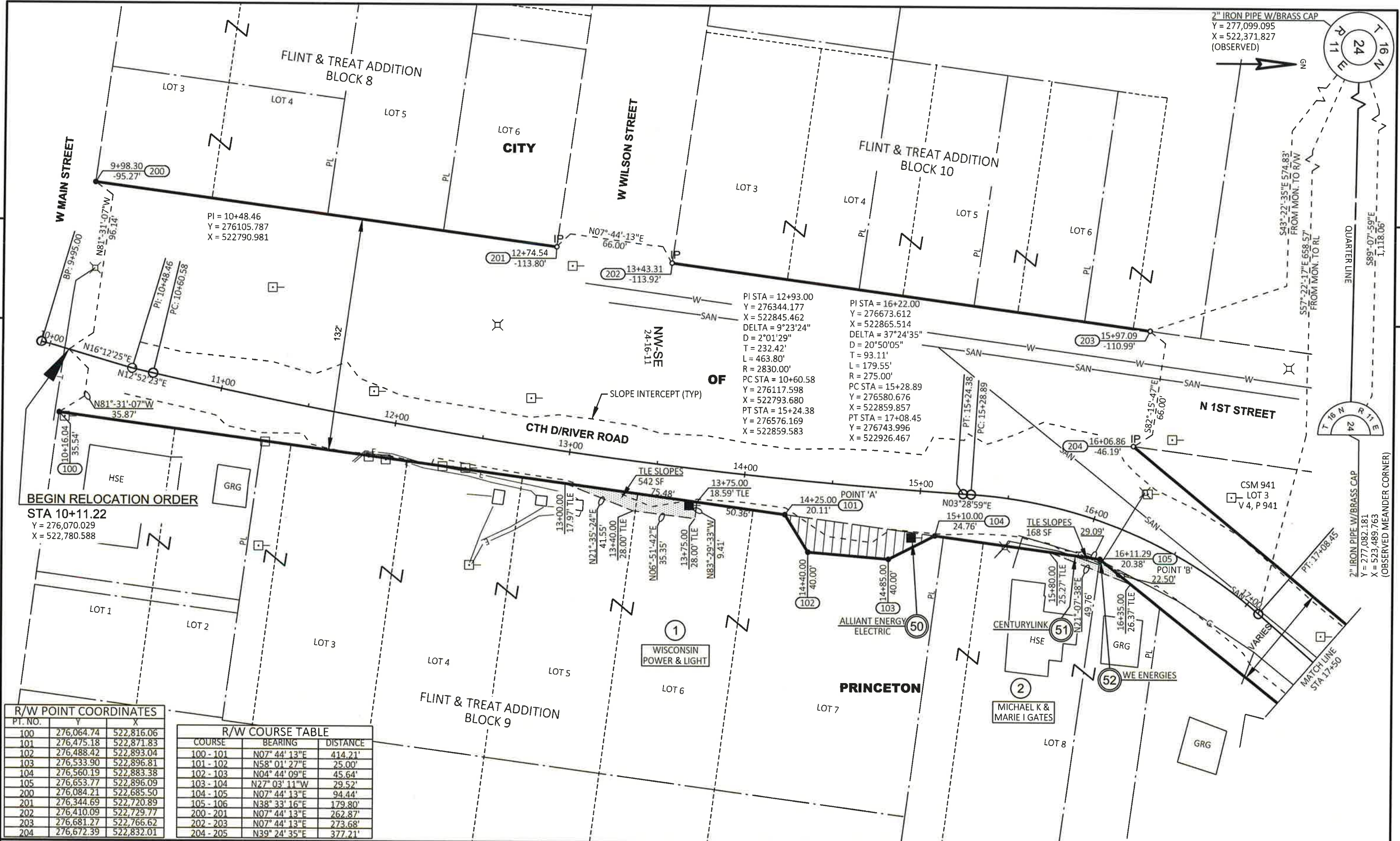
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REVISION DATE				DATE October 4, 2019		SCALE, FEET		HWY: CTH D		STATE R/W PROJECT NUMBER 6425-00-00		PLAT SHEET 4.03	
						0 200 400		COUNTY: GREEN LAKE		CONSTRUCTION PROJECT NUMBER 6425-00-70		PS&E SHEET 51	
FILE NAME: 040101-RP.DWG				PLOT DATE: 10/30/2019 7:52 AM		PLOT BY: BRAD LEE		PLOT NAME:		PLOT SCALE: 1 IN:400 FT		WISDOT/CADD SHEET 75	
LAYOUT NAME - 040103-rp												E	

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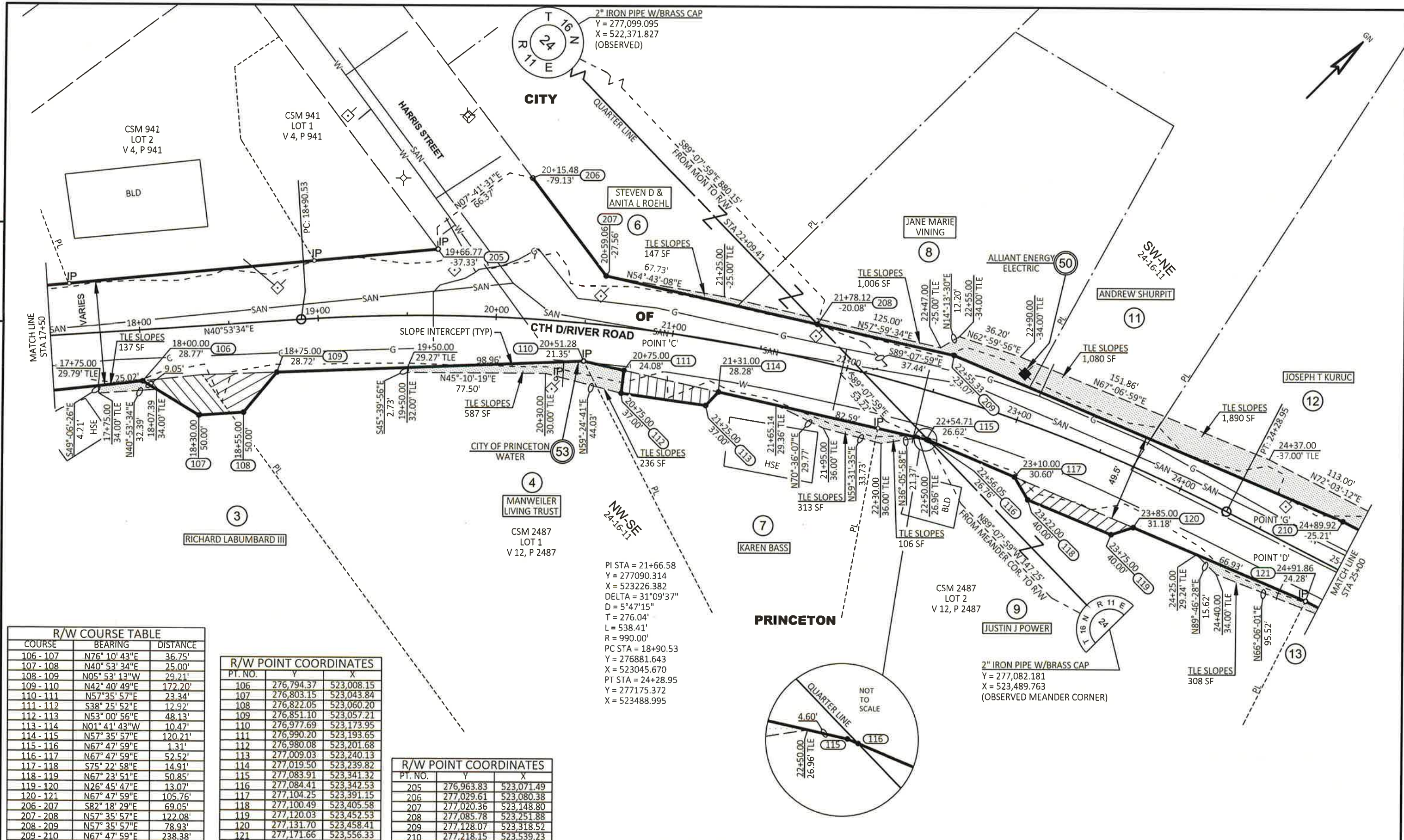
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R/W POINT COORDINATES		
PT. NO.	Y	X
100	276,064.74	522,816.06
101	276,475.18	522,871.83
102	276,488.42	522,893.04
103	276,533.90	522,896.81
104	276,560.19	522,883.38
105	276,653.77	522,896.09
200	276,084.21	522,685.50
201	276,344.69	522,720.89
202	276,410.09	522,729.77
203	276,681.27	522,766.62
204	276,672.39	522,832.01

R/W COURSE TABLE		
COURSE	BEARING	DISTANCE
100 - 101	N07° 44' 13"E	414.21'
101 - 102	N58° 01' 27"E	25.00'
102 - 103	N04° 44' 09"E	45.64'
103 - 104	N27° 03' 11"W	29.52'
104 - 105	N07° 44' 13"E	94.44'
105 - 106	N38° 33' 16"E	179.80'
200 - 201	N07° 44' 13"E	262.87'
202 - 203	N07° 44' 13"E	273.68'
204 - 205	N39° 24' 35"E	377.21'

REVISION DATE	DATE October 4, 2019	SCALE, FEET	HWY: CTH D	STATE R/W PROJECT NUMBER	6425-00-00	PLAT SHEET	4.04
		0 25 50	COUNTY: GREEN LAKE	CONSTRUCTION PROJECT NUMBER	6425-00-70	PS&E SHEET	52
FILE NAME : 040101-RP.DWG	PLOT DATE : 10/30/2019 7:52 AM	PLOT BY : BRAD LEE	PLOT NAME :	PLOT SCALE : 1 IN=50 FT	WISDOT/CADD SHEET 75		
LAYOUT NAME : 040104-rp							

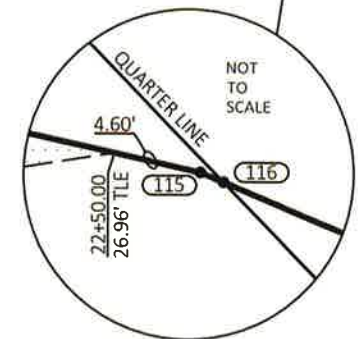


R/W COURSE TABLE		
COURSE	BEARING	DISTANCE
106 - 107	N76° 10' 43"E	36.75'
107 - 108	N40° 53' 34"E	25.00'
108 - 109	N05° 53' 13"W	29.21'
109 - 110	N42° 40' 49"E	172.20'
110 - 111	N57° 35' 57"E	23.34'
111 - 112	S38° 25' 52"E	12.92'
112 - 113	N53° 00' 56"E	48.13'
113 - 114	N01° 41' 43"W	10.47'
114 - 115	N57° 35' 57"E	120.21'
115 - 116	N67° 47' 59"E	1.31'
116 - 117	N67° 47' 59"E	52.52'
117 - 118	S75° 22' 58"E	14.91'
118 - 119	N67° 23' 51"E	50.85'
119 - 120	N26° 45' 47"E	13.07'
120 - 121	N67° 47' 59"E	105.76'
206 - 207	S82° 18' 29"E	69.05'
207 - 208	N57° 35' 57"E	122.08'
208 - 209	N57° 35' 57"E	78.93'
209 - 210	N67° 47' 59"E	238.38'

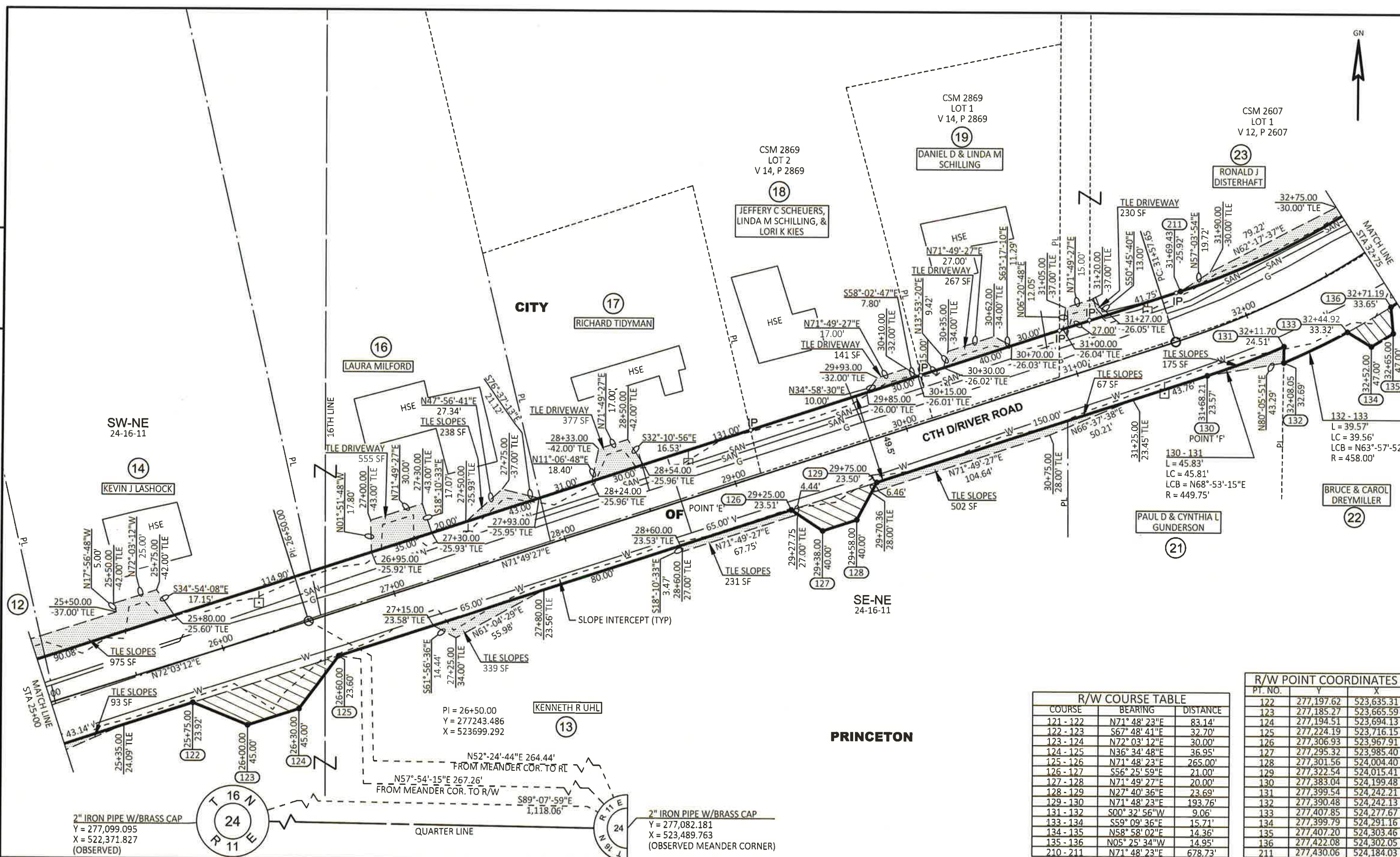
R/W POINT COORDINATES		
PT. NO.	Y	X
106	276,794.37	523,008.15
107	276,803.15	523,043.84
108	276,822.05	523,060.20
109	276,851.10	523,057.21
110	276,977.69	523,173.95
111	276,990.20	523,193.65
112	276,980.08	523,201.68
113	277,009.03	523,240.13
114	277,019.50	523,239.82
115	277,083.91	523,341.32
116	277,084.41	523,342.53
117	277,104.25	523,391.15
118	277,100.49	523,405.58
119	277,120.03	523,452.53
120	277,131.70	523,458.41
121	277,171.66	523,556.33

R/W POINT COORDINATES		
PT. NO.	Y	X
205	276,963.83	523,071.49
206	277,029.61	523,080.38
207	277,020.36	523,148.80
208	277,085.78	523,251.88
209	277,128.07	523,318.52
210	277,218.15	523,539.23

PI STA = 21+66.58
Y = 277090.314
X = 523226.382
DELTA = 31°09'37"
D = 5°47'15"
T = 276.04'
L = 538.41'
R = 990.00'
PC STA = 18+90.53
Y = 276881.643
X = 523045.670
PT STA = 24+28.95
Y = 277175.372
X = 523488.995



REVISION DATE	DATE October 4, 2019	SCALE, FEET	HWY: CTH D	STATE R/W PROJECT NUMBER 6425-00-00	PLAT SHEET 4.05
		0 25 50	COUNTY: GREEN LAKE	CONSTRUCTION PROJECT NUMBER 6425-00-70	PS&E SHEET 53
FILE NAME : 040101-RP.DWG	PLOT DATE : 10/30/2019 7:52 AM	PLOT BY : BRAD LEE	PLOT NAME :	PLOT SCALE : 1 IN=50 FT	WISDOT/CADD'S SHEET 75
LAYOUT NAME - 040105-rp					E



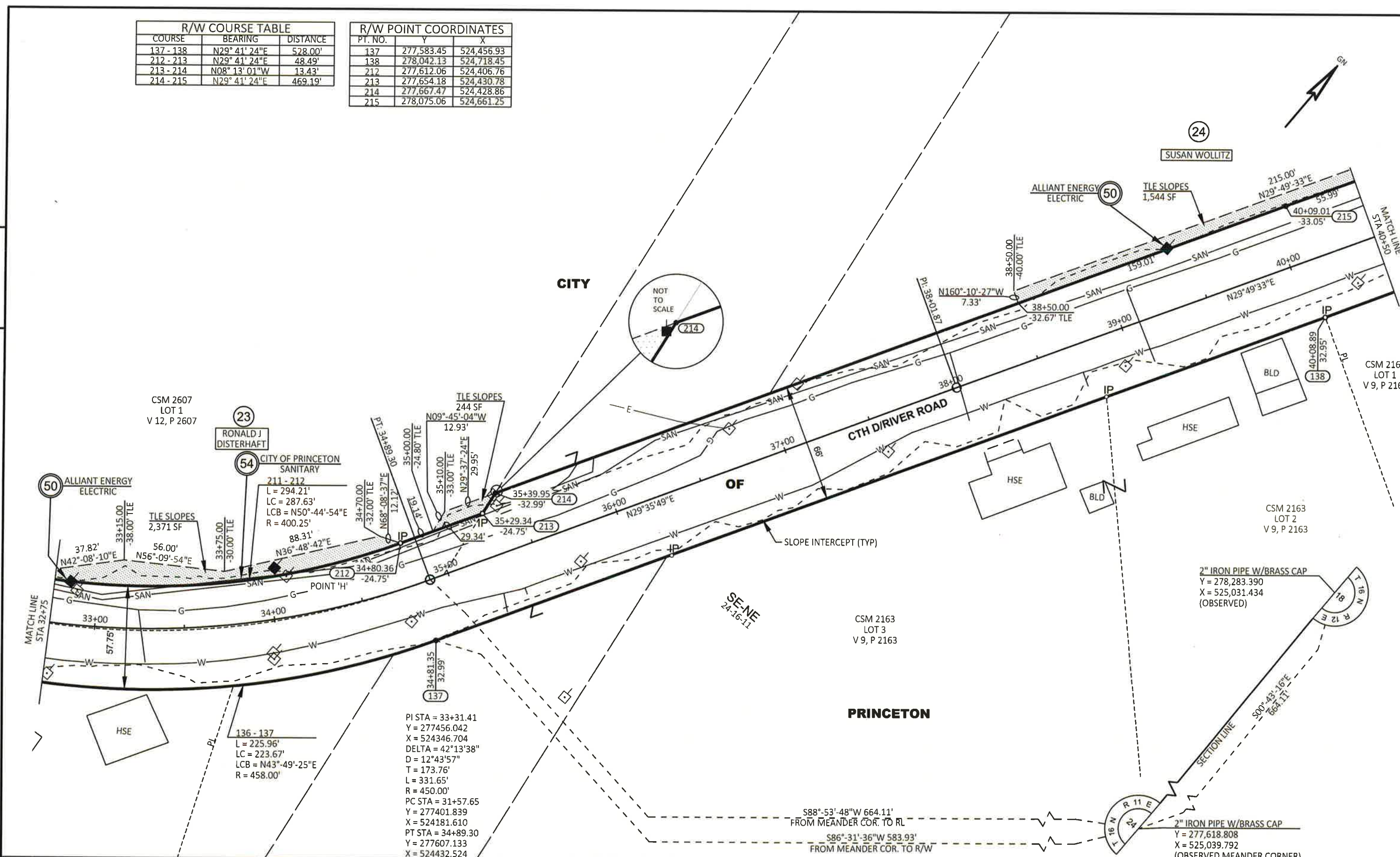
R/W COURSE TABLE		
COURSE	BEARING	DISTANCE
121 - 122	N71° 48' 23"E	83.14'
122 - 123	S67° 48' 41"E	32.70'
123 - 124	N72° 03' 12"E	30.00'
124 - 125	N36° 34' 48"E	36.95'
125 - 126	N71° 48' 23"E	265.00'
126 - 127	S56° 25' 59"E	21.00'
127 - 128	N71° 49' 27"E	20.00'
128 - 129	N27° 40' 36"E	23.69'
129 - 130	N71° 48' 23"E	193.76'
131 - 132	S00° 32' 56"W	9.06'
133 - 134	S59° 09' 36"E	15.71'
134 - 135	N58° 58' 02"E	14.36'
135 - 136	N05° 25' 34"W	14.95'
210 - 211	N71° 48' 23"E	678.73'

R/W POINT COORDINATES		
PT. NO.	Y	X
122	277,197.62	523,635.31
123	277,185.27	523,665.59
124	277,194.51	523,694.13
125	277,224.19	523,716.15
126	277,306.93	523,967.91
127	277,295.32	523,985.40
128	277,301.56	524,004.40
129	277,322.54	524,015.41
130	277,383.04	524,199.48
131	277,399.54	524,242.21
132	277,390.48	524,242.13
133	277,407.85	524,277.67
134	277,399.79	524,291.16
135	277,407.20	524,303.46
136	277,422.08	524,302.05
211	277,430.06	524,184.03

R/W COURSE TABLE		
COURSE	BEARING	DISTANCE
137 - 138	N29° 41' 24"E	528.00'
212 - 213	N29° 41' 24"E	48.49'
213 - 214	N08° 13' 01"W	13.43'
214 - 215	N29° 41' 24"E	469.19'

R/W POINT COORDINATES		
PT. NO.	Y	X
137	277,583.45	524,456.93
138	278,042.13	524,718.45
212	277,612.06	524,406.76
213	277,654.18	524,430.78
214	277,667.47	524,428.86
215	278,075.06	524,661.25

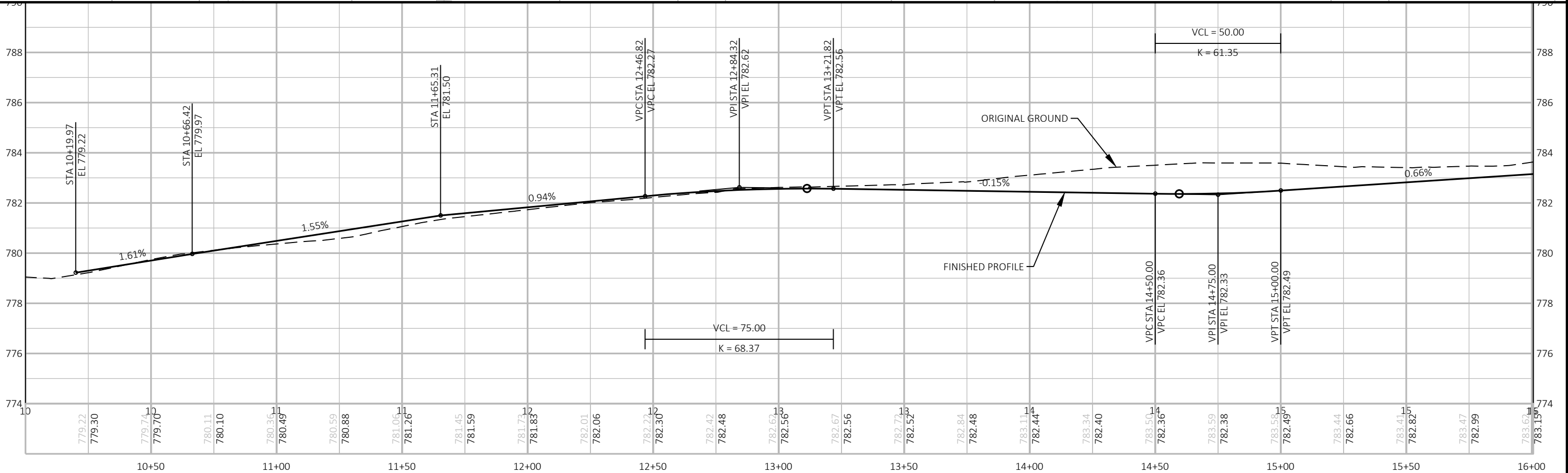
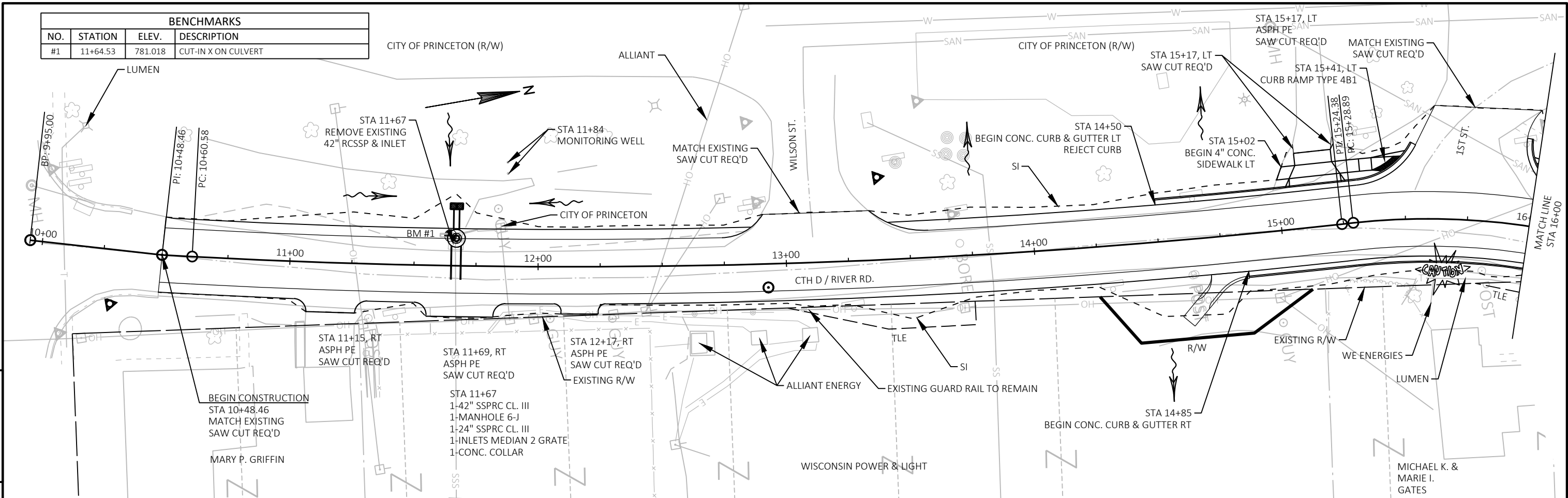
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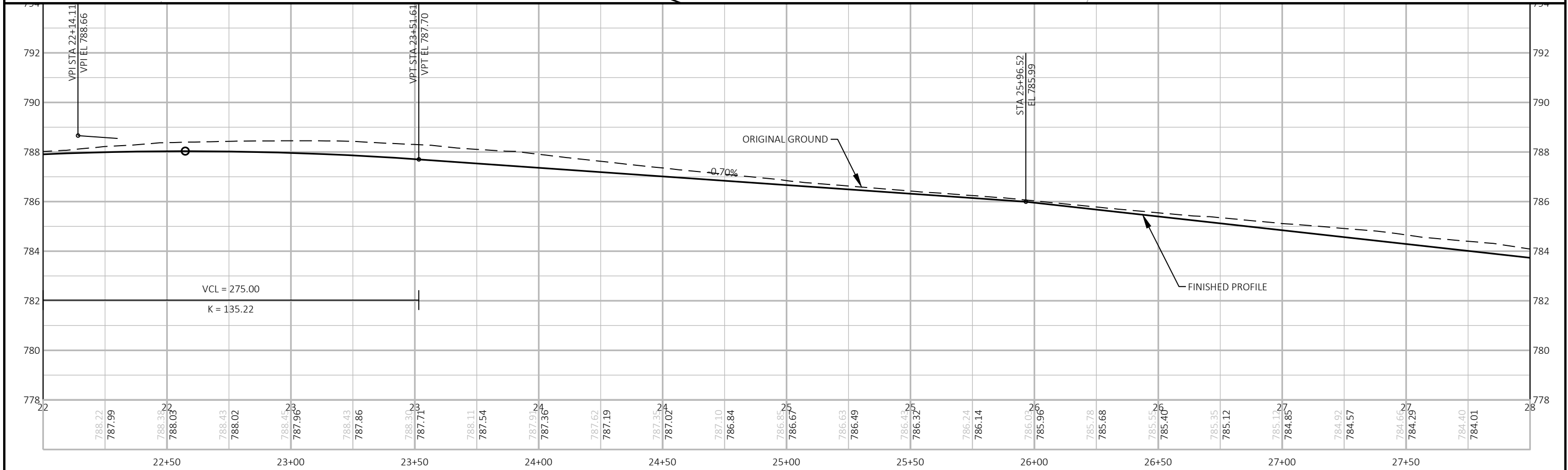
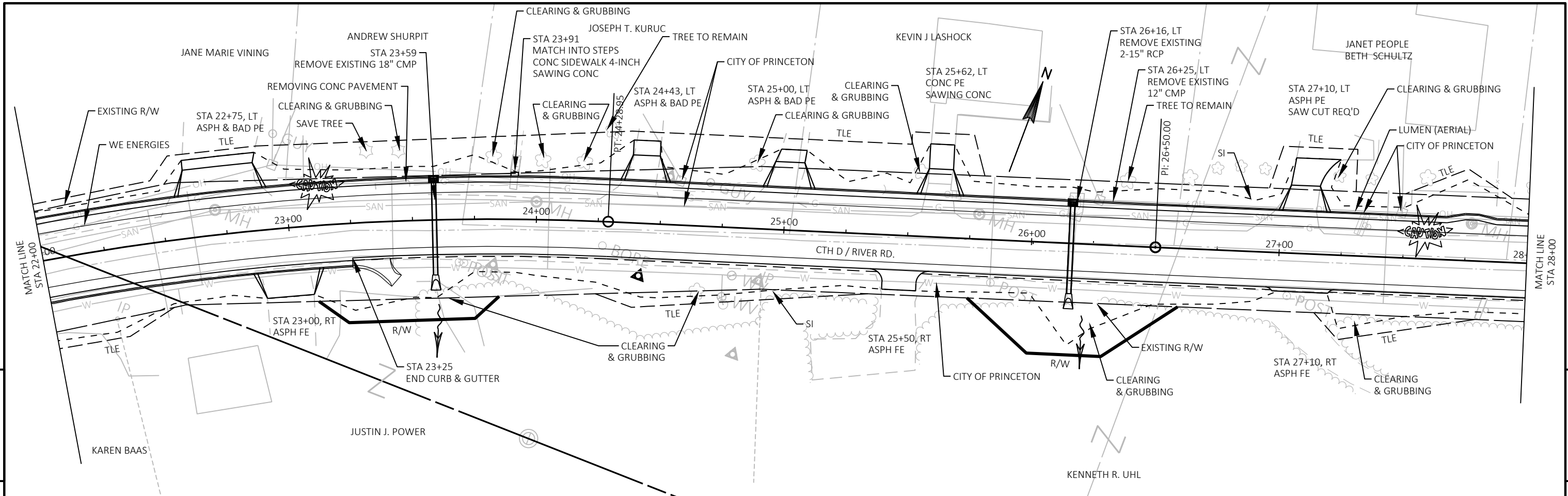


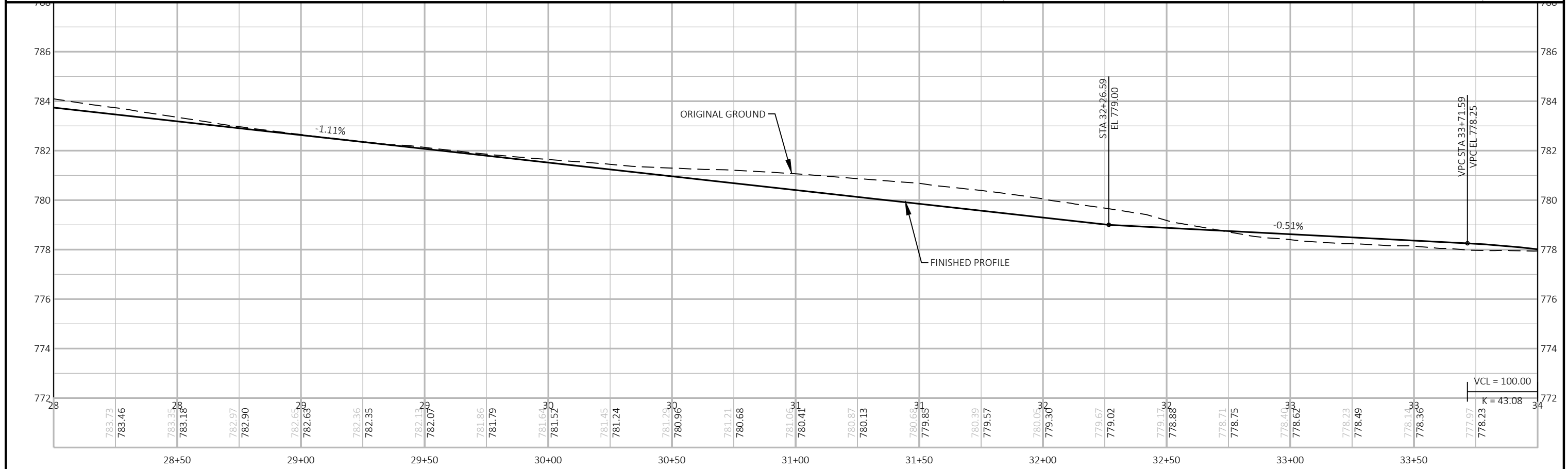
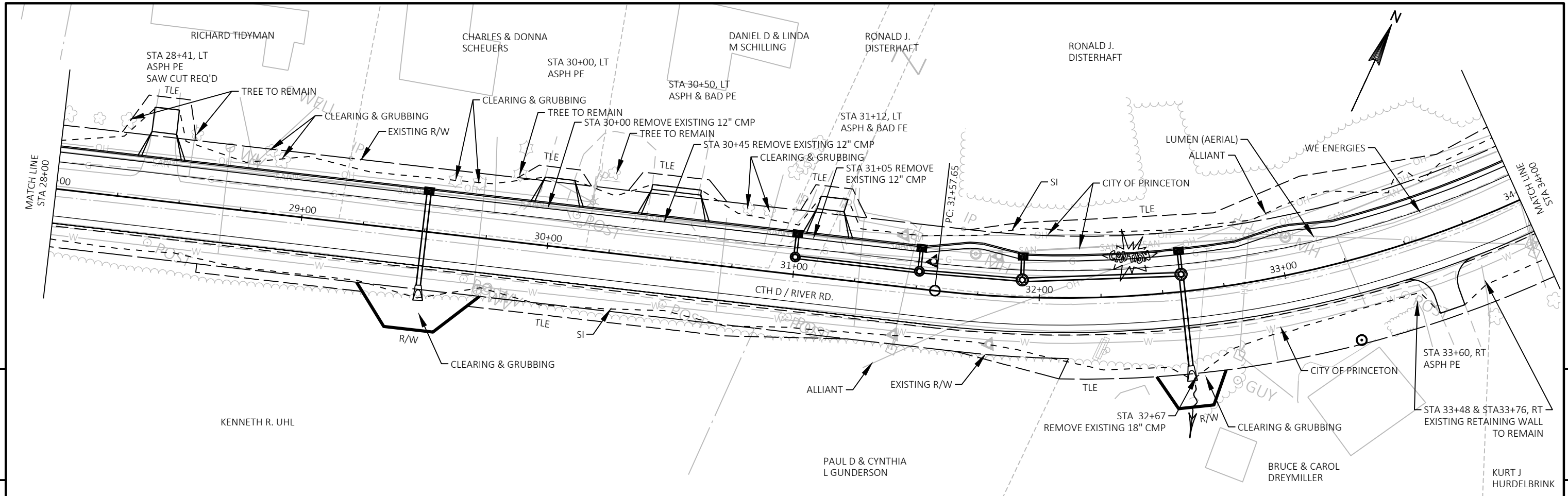
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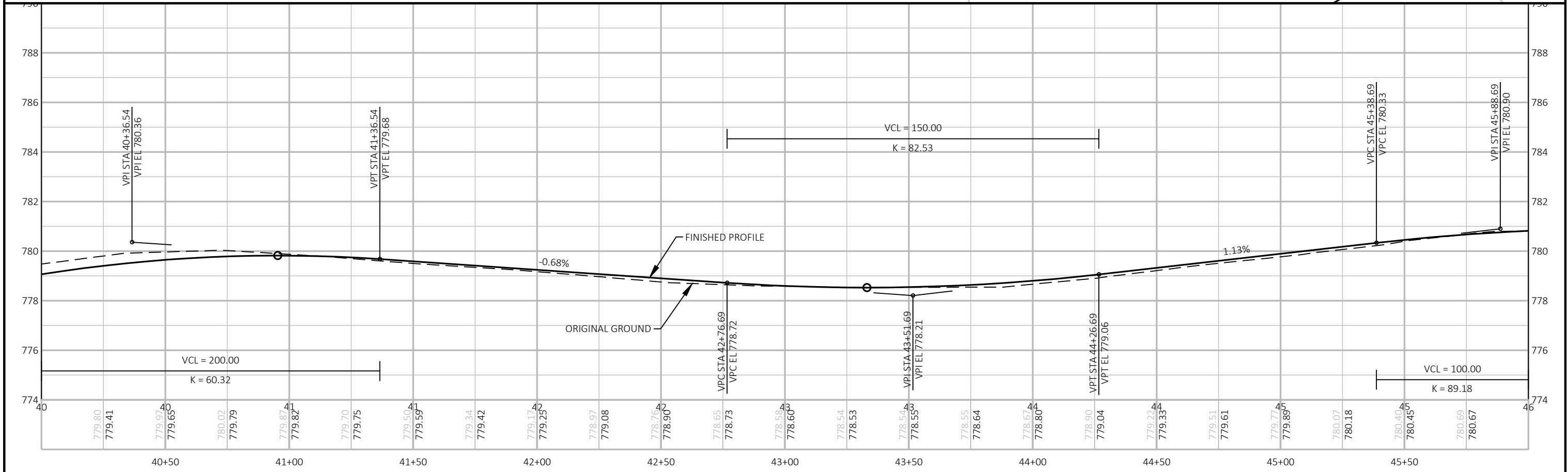
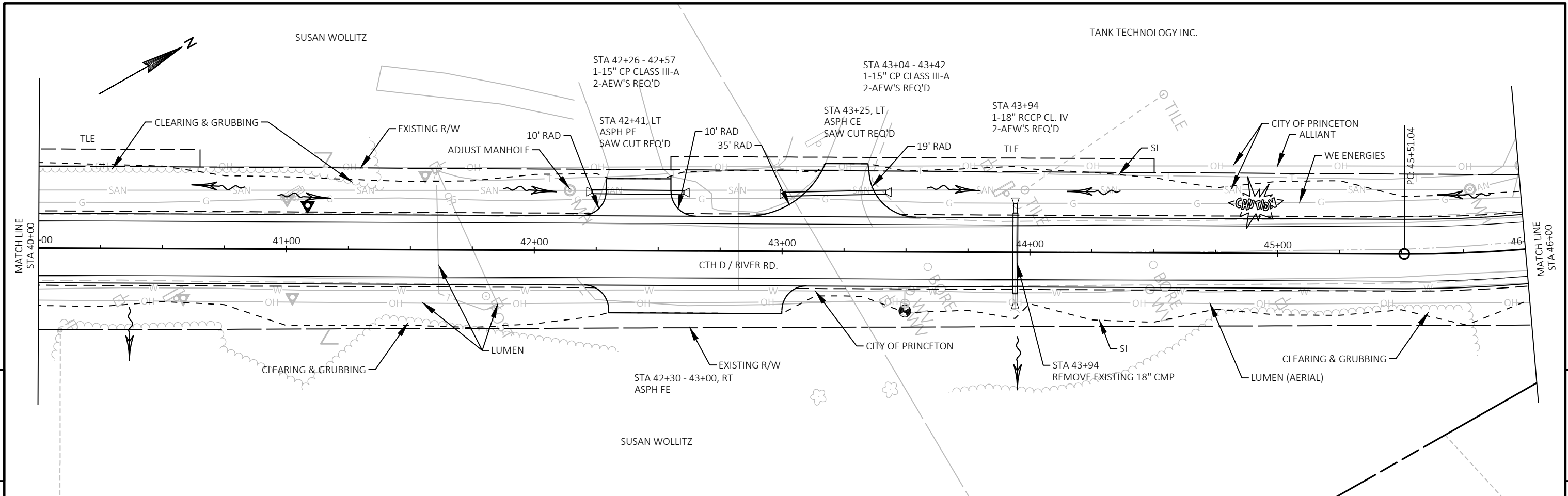
REVISION DATE _____ _____ _____ _____	DATE October 4, 2019	SCALE, FEET 	HWY: CTH D	STATE R/W PROJECT NUMBER 6425-00-00	PLAT SHEET 4.07
COUNTY: GREEN LAKE	CONSTRUCTION PROJECT NUMBER 6425-00-70	PS&E SHEET 55	E		

BENCHMARKS			
NO.	STATION	ELEV.	DESCRIPTION
#1	11+64.53	781.018	CUT-IN X ON CULVERT





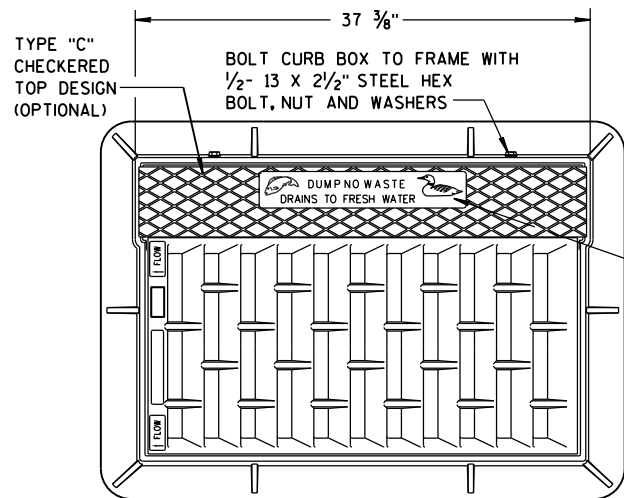




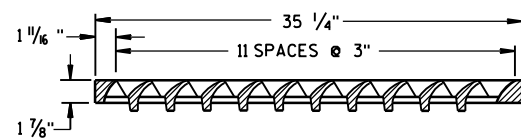
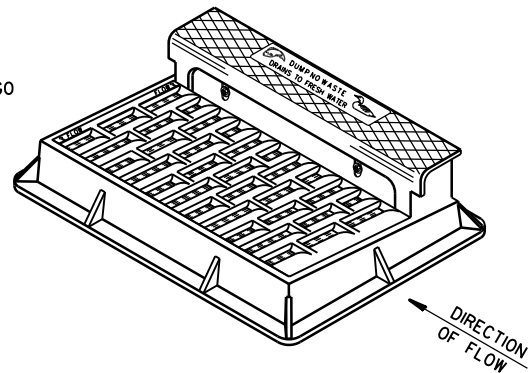
PROJECT NO: 6425-00-70	HWY: CTH D	COUNTY: GREEN LAKE	PLAN AND PROFILE: CTH D	SHEET 62
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Standard Detail Drawing List

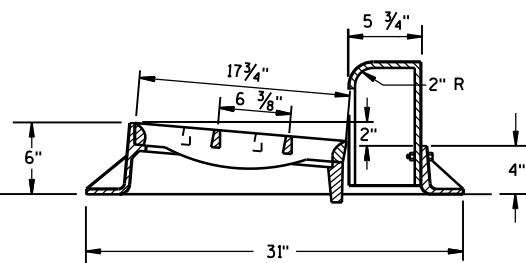
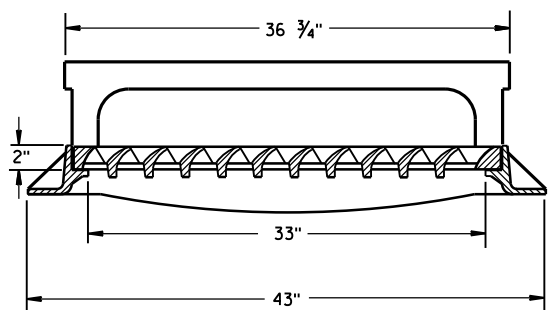
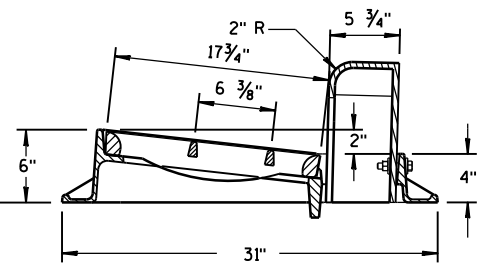
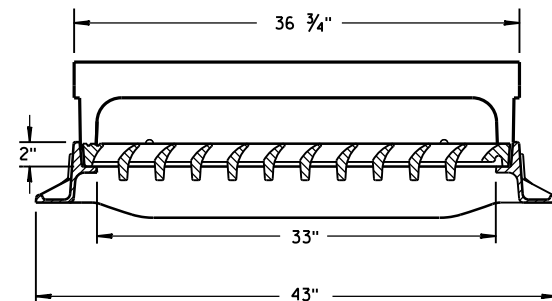
08A05-19A	INLET COVERS TYPE A, H, A-S, H-S & Z
08A05-19B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08A05-19D	INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M
08B09-02	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
08C07-02	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08C08-02	INLETS MEDIAN 1 AND 2 GRATE
08D01-21A	CONCRETE CURB & GUTTER
08D01-21B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D05-20A	CURB RAMPS TYPES 1 AND 1-A
08D05-20B	CURB RAMPS TYPES 2 AND 3
08D05-20C	CURB RAMPS TYPES 4A AND 4A1
08D05-20D	CURB RAMPS TYPE 4B AND 4B1
08D05-20E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D05-20F	CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS
08D05-20G	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
08E15-01	CULVERT PIPE CHECK
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F02-01	APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
13C19-02	HMA LONGITUDINAL JOINTS
14B29-01	SAFETY EDGE
15A01-13A	MARKER POST FOR RIGHT-OF-WAY
15A01-13B	FLEXIBLE MARKER POST FOR RIGHT-OF-WAY
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C02-08A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-08B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C08-20A	LONGITUDINAL MARKING (MAINLINE)
15C11-07B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C33-04	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D30-06A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-06B	TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION
15D30-06C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS



NOTE:
GRATE IS REVERSIBLE.

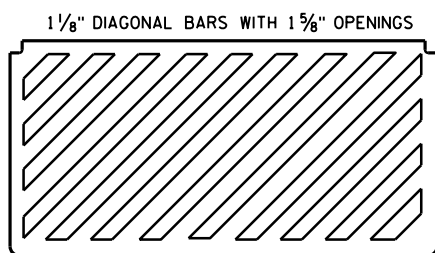


NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

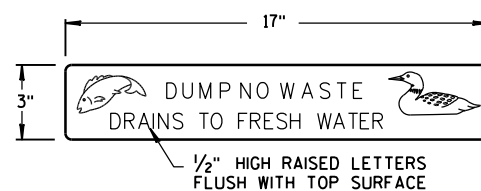


TYPE "H"

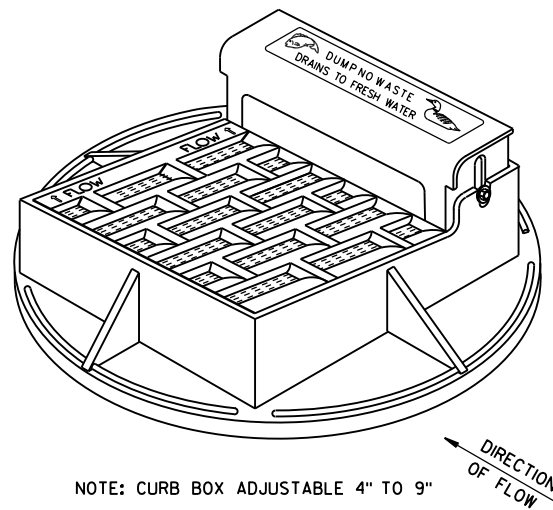
NOTE: EITHER CASTING IS ACCEPTABLE



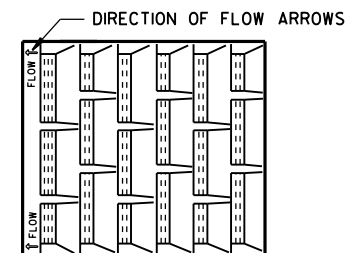
**SPECIAL GRATE FOR
TYPE "H" COVER**
(MEASURES 35 1/4" X 17 3/4" X 2")
(NOTED AS TYPE H-S ON DRAINAGE TABLE)



LOGO DETAIL

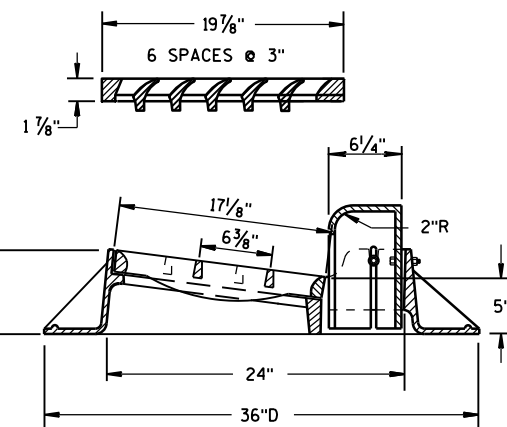
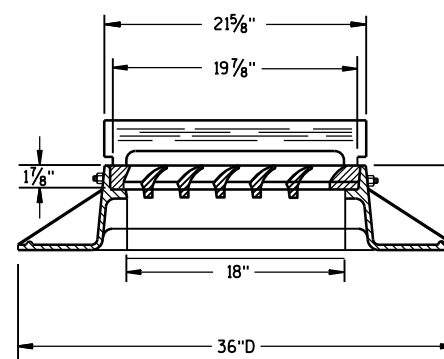


NOTE:
GRATE IS REVERSIBLE.

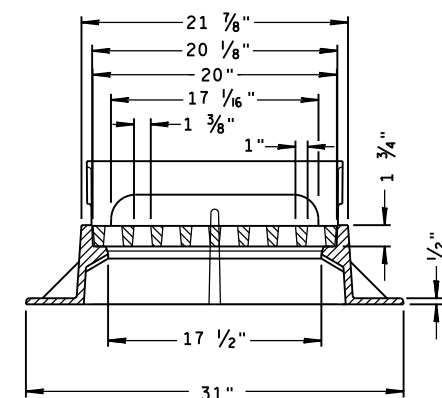
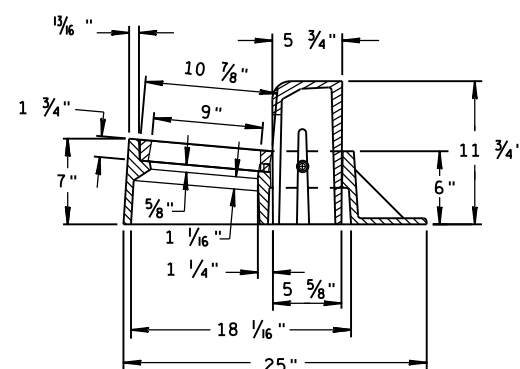


1" DIAGONAL BARS
WITH 1 1/2" OPENINGS

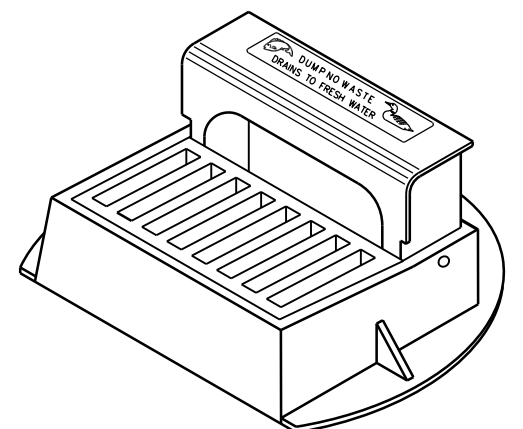
**SPECIAL GRATE FOR
TYPE "A" COVER**
(MEASURES 19 3/4" X 17" X 1 1/8")
(NOTED AS TYPE A-S ON DRAINAGE TABLE)



TYPE "A"



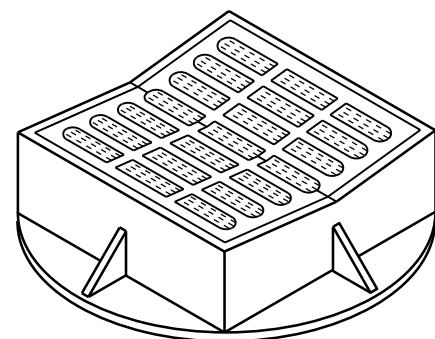
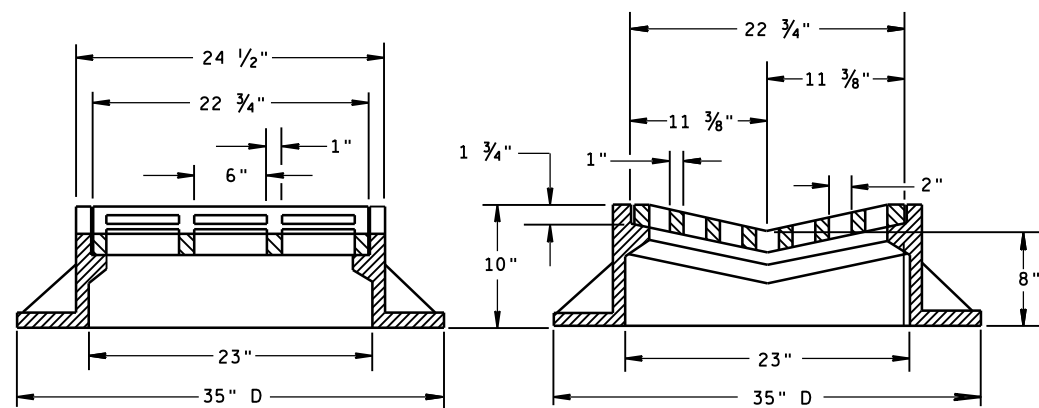
TYPE "Z"



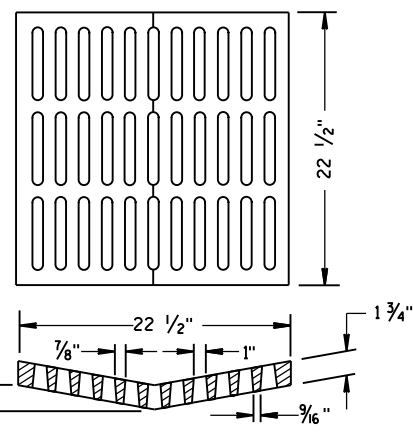
**INLET COVERS
TYPE A, H, A-S, H-S & Z**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

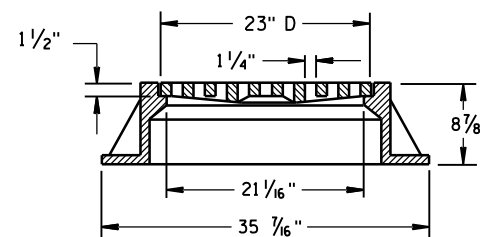
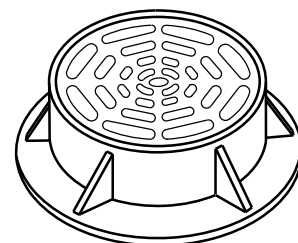
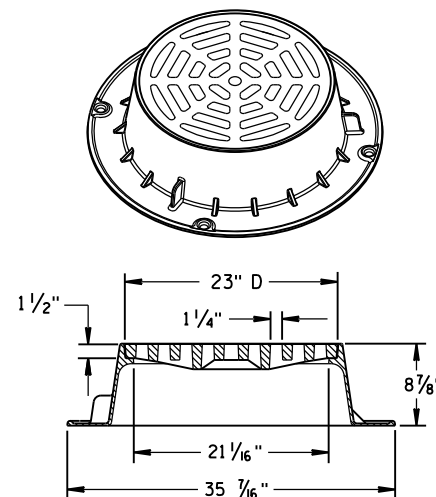
APPROVED
11-27-13 /S/ Jerry H. Zogg
DATE ROADWAY STANDARDS 165 ENT
FHWA ENGINEER



TYPE "B"

ALTERNATIVE GRATE FOR
TYPE "B" COVER

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS POSSIBLE.
 NOTED AS TYPE B-A ON THE DRAINAGE TABLE



TYPE "C"

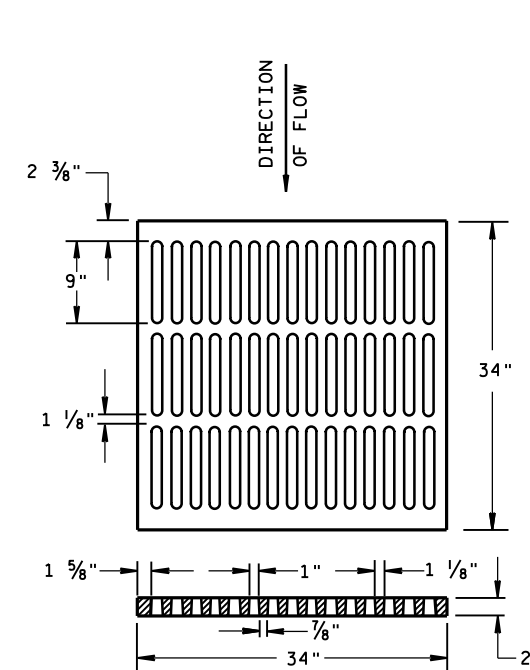
NOTE: EITHER CASTING IS ACCEPTABLE

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.

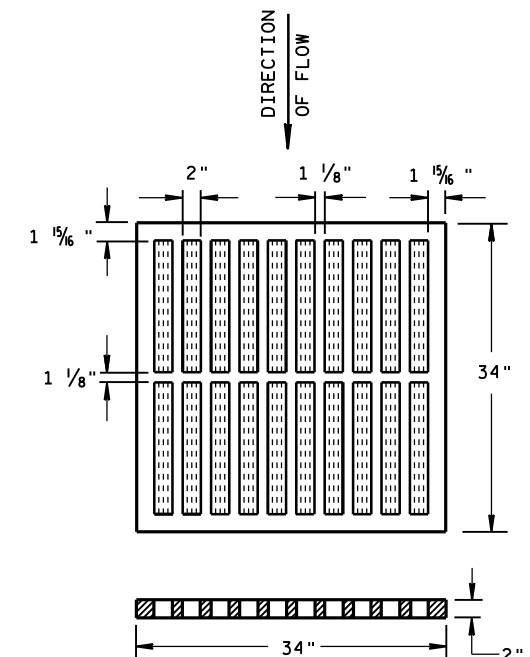
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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



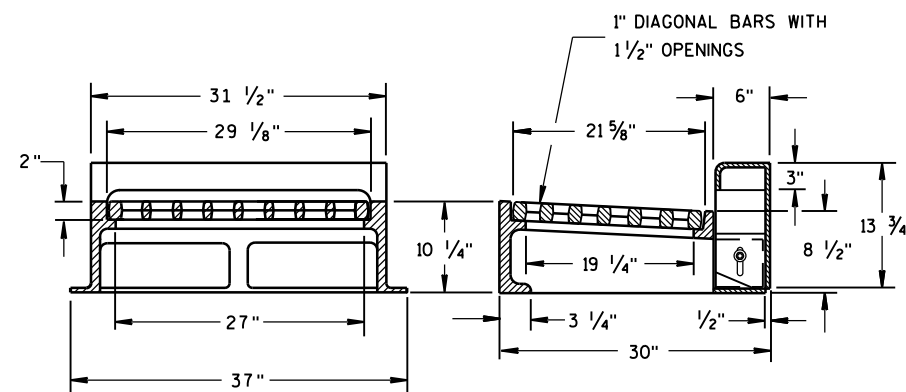
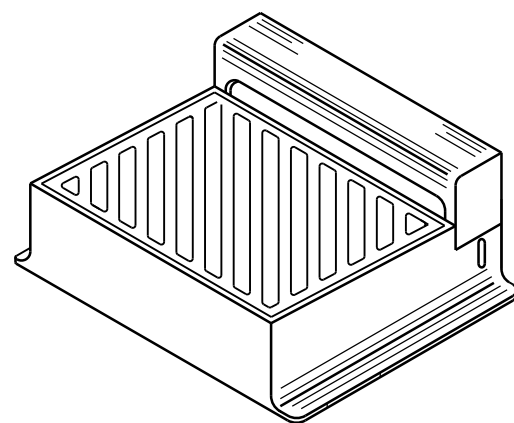
ALTERNATIVE TYPE "MS"

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS PERMITTED
 NOTED AS TYPE MS-A ON THE DRAINAGE TABLE



TYPE "MS"

USE ON FREEWAYS AND EXPRESSWAYS
 NOTED AS TYPE MS ON DRAINAGE TABLE



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

TYPE "WM"

DIAGONAL SLOTS, SHALL BE ORIENTED
 TO THE DIRECTION OF FLOW AS ILLUSTRATED.
 GRATES ARE MANUFACTURED TO BE REVERSIBLE.

DIRECTION
OF FLOW

INLET COVERS
 TYPE B, B-A, C,
 MS, MS-A, & WM

STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION

APPROVED

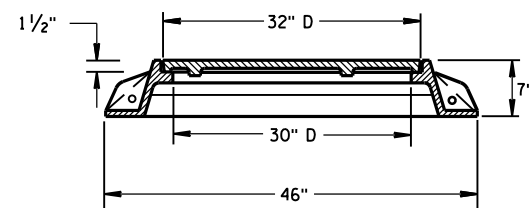
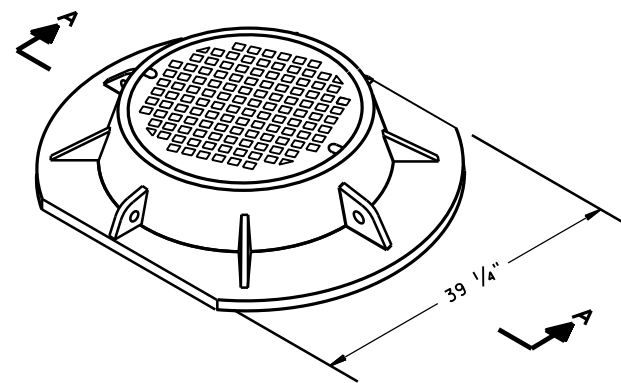
DATE 11/27/2013

FHWA

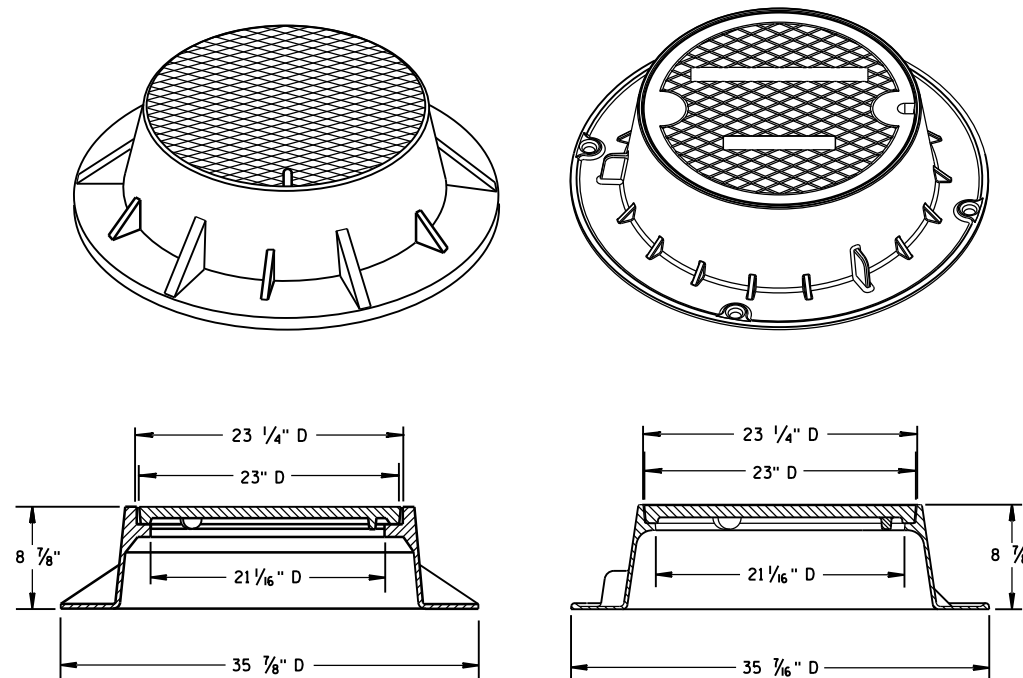
/S/ Jerry H. Zogg

ROADWAY STANDARDS ENGINEER

NT

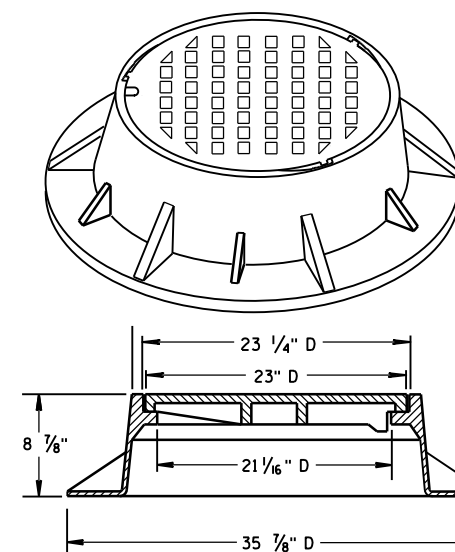
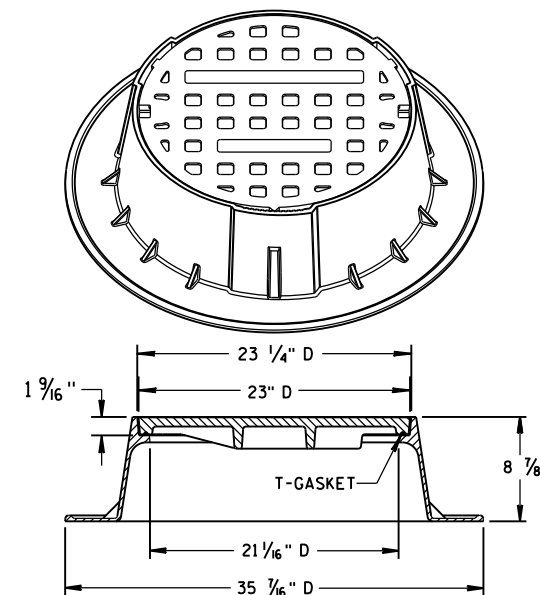


SECTION A-A
TYPE "K"



TYPE "J"

NOTE: EITHER CASTING IS ACCEPTABLE

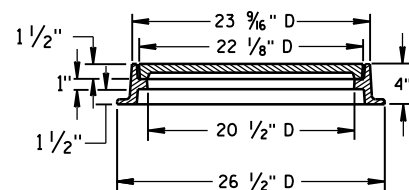
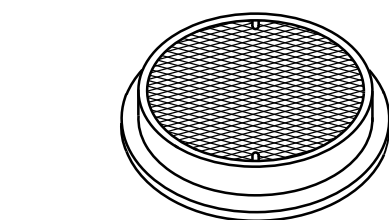


TYPE "J" SPECIAL

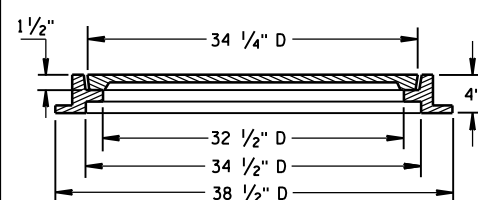
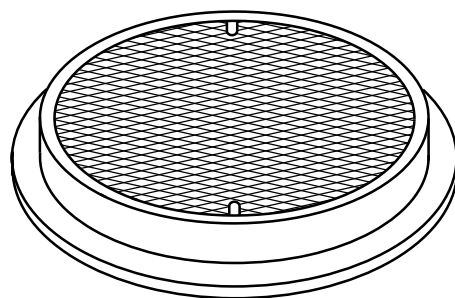
TYPE "B" NON-ROCKING SELF-SEAL LID

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

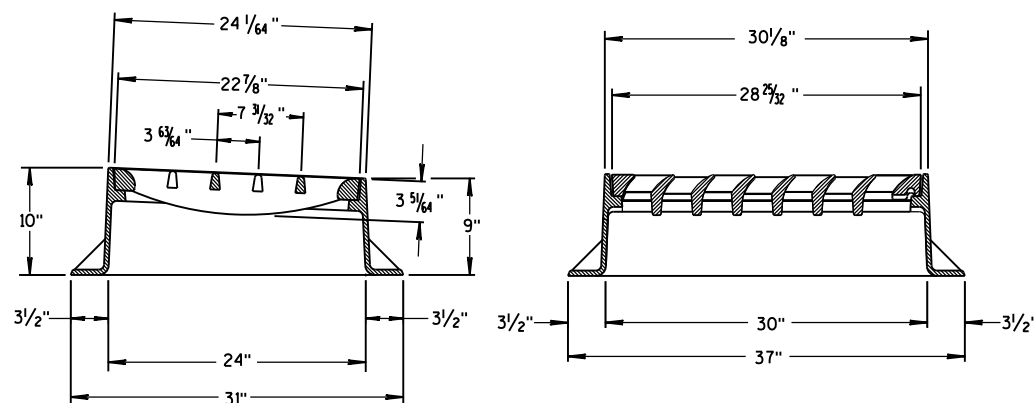
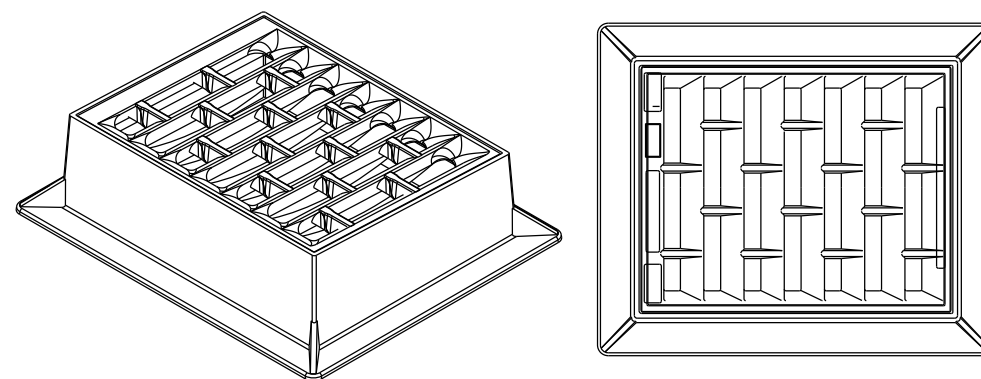
NOTE: EITHER CASTING IS ACCEPTABLE



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

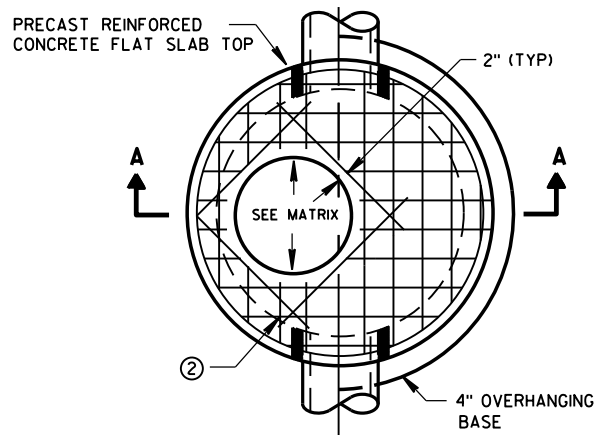
FHWA

/S/ Jerry H. Zogg

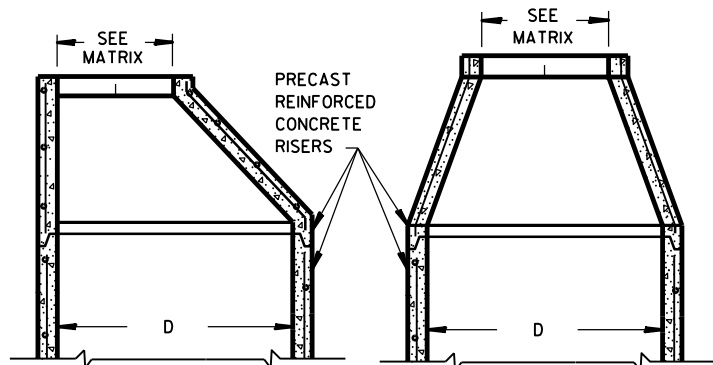
ROADWAY STANDARDS 67

ENGINEER

VT

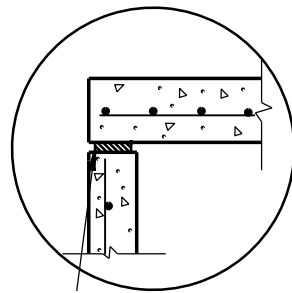


PLAN VIEW CIRCULAR OPENING

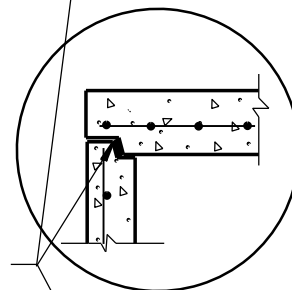


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

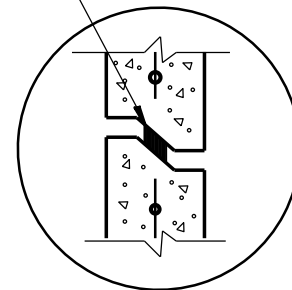
OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP



TOP WITH PLAIN END JOINT

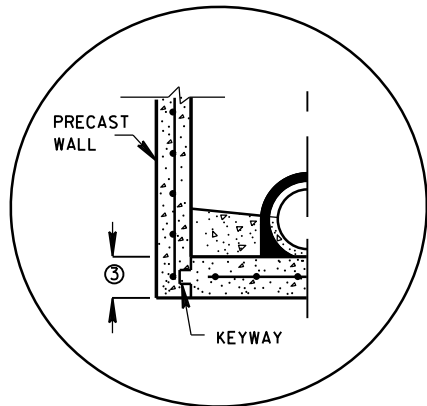


TOP WITH TONGUE AND GROOVE JOINT

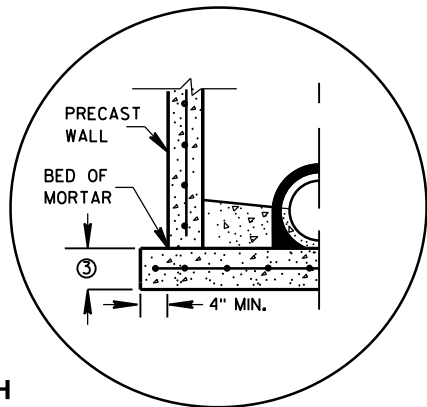


DETAIL "B"

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

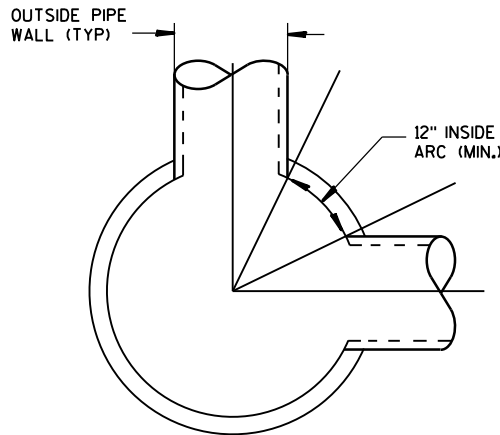


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

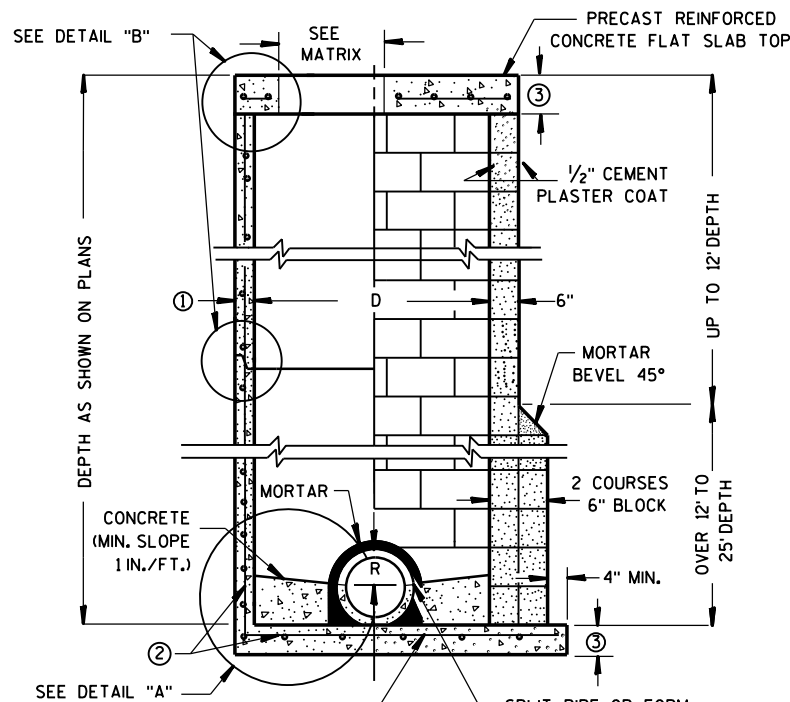


SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

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

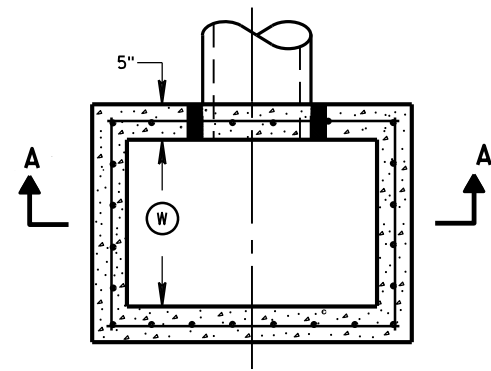
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

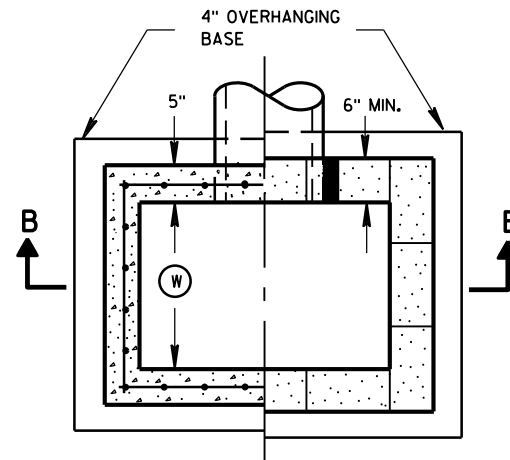
Sept., 2016
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERV 68

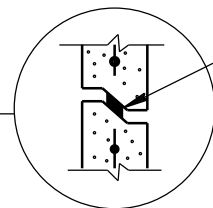
FHWA



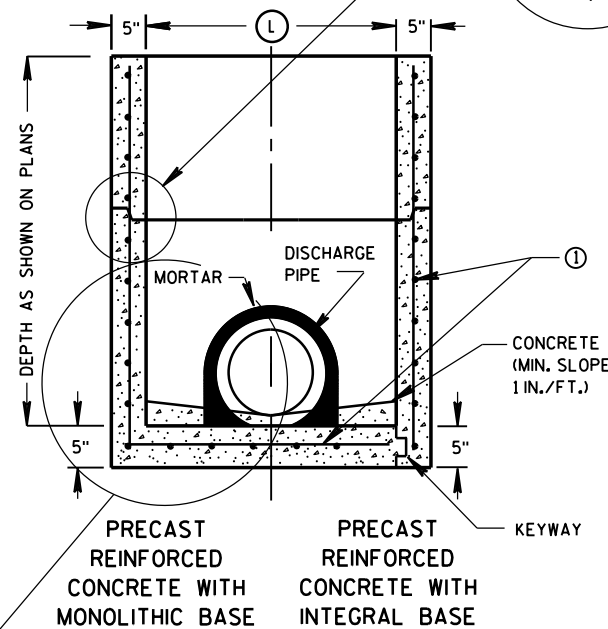
PLAN VIEW



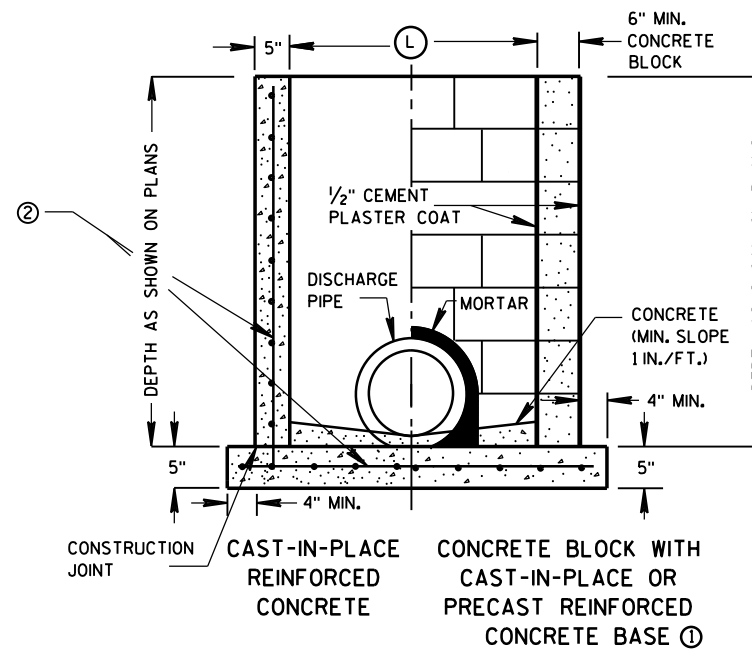
PLAN VIEW



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

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.

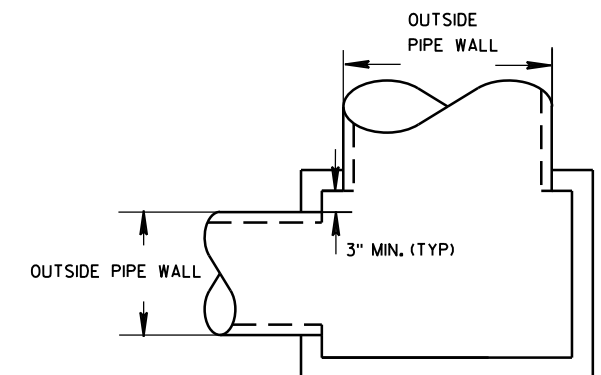
- FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.
- CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

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"

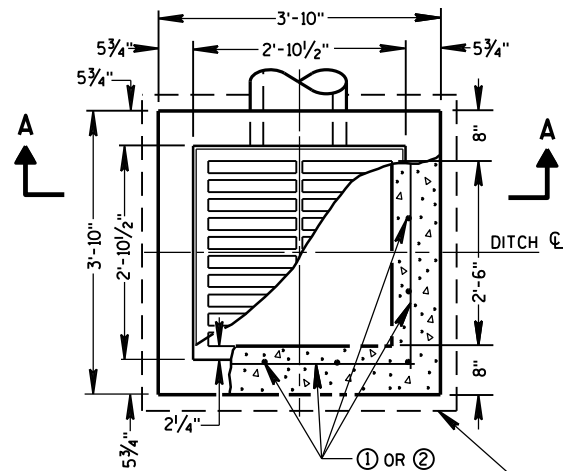
INLETS 2X2-FT, 2X2.5-FT,
2X3-FT AND 2.5X3-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept., 2016 /S/ Rodney Taylor
DATE ROADWAY STANDARDS D 69 IT
FHWA UNIT SUPERVIS

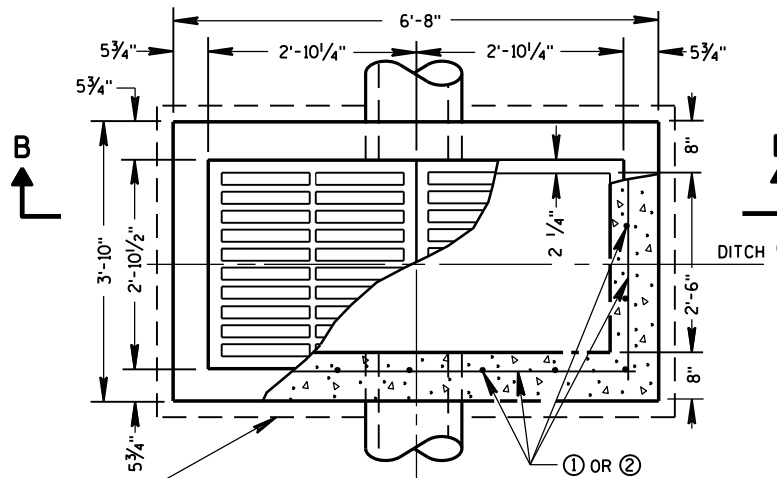
SEPARATE PRECAST REINFORCED
CONCRETE BASE OPTION

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

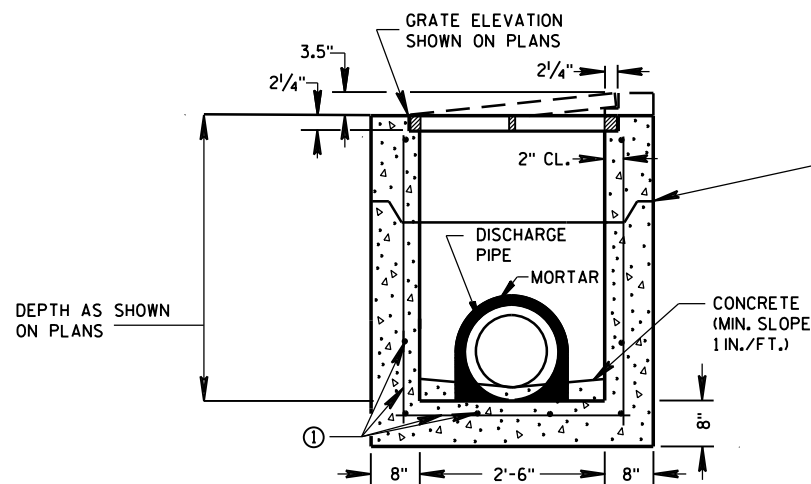


PLAN VIEW

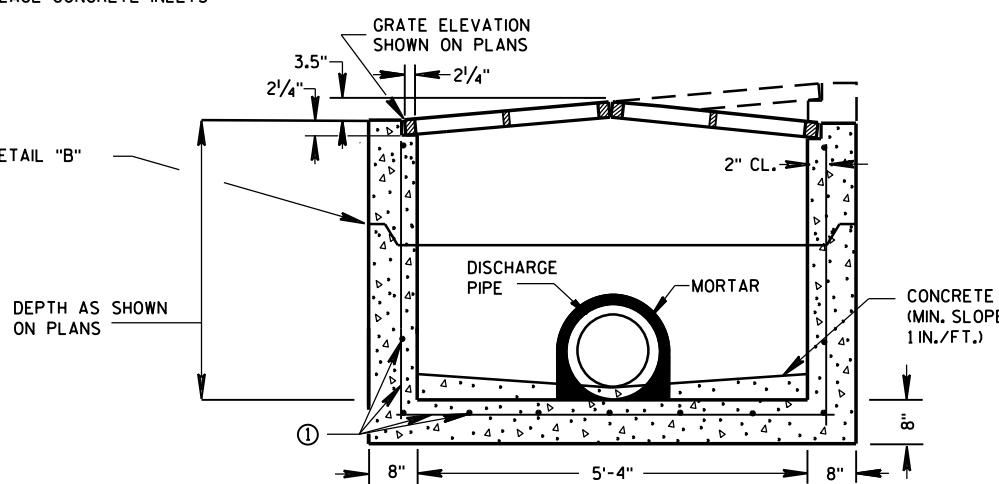
4" OVERHANGING BASE ON REINFORCED
CAST-IN-PLACE CONCRETE INLETS



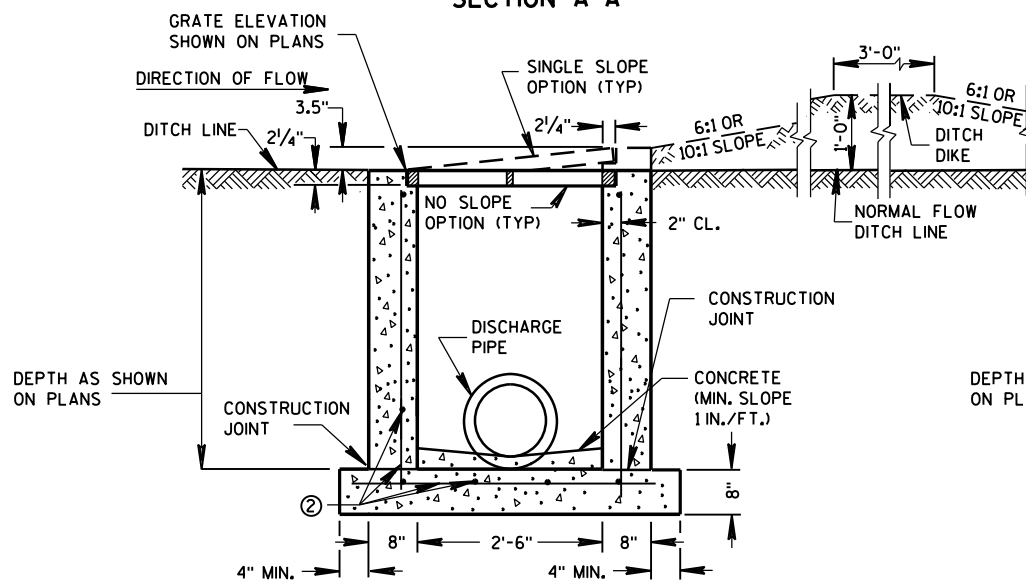
PLAN VIEW



PRECAST REINFORCED CONCRETE
SECTION A-A

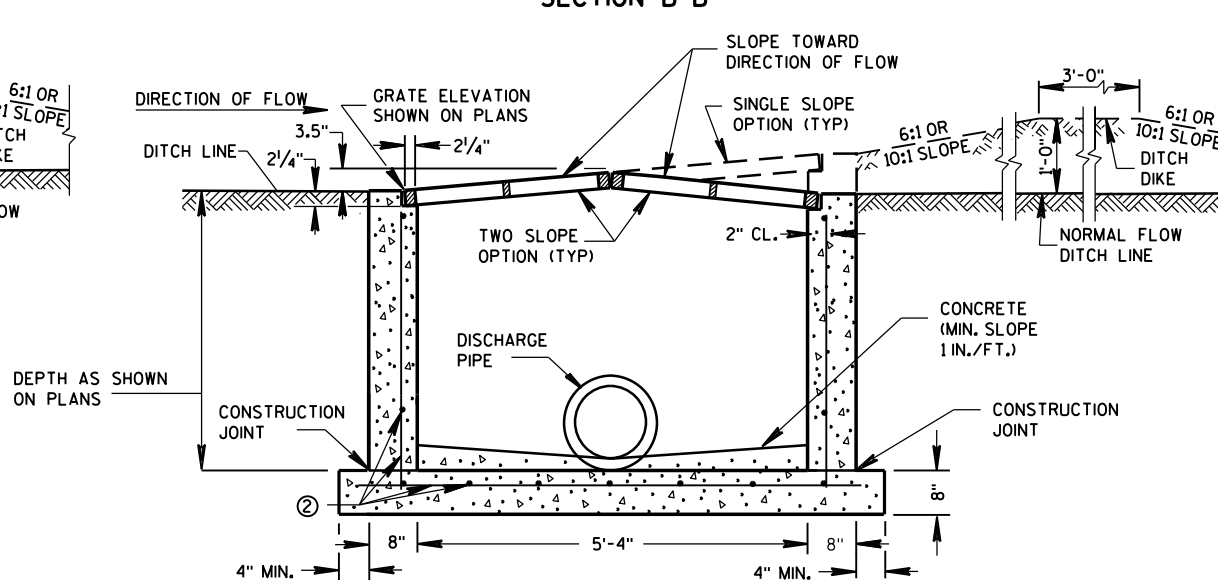


PRECAST REINFORCED CONCRETE
SECTION B-B



REINFORCED CAST-IN-PLACE CONCRETE
SECTION A-A

INLETS MEDIAN 1 GRATE



REINFORCED CAST-IN-PLACE CONCRETE
SECTION B-B

INLETS MEDIAN 2 GRATE

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 INLETS WHICH MAY INCLUDE PRECAST REINFORCED CONCRETE INLETS, SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL MEDIAN INLETS ARE DESIGNATED ON THE PLANS AS "INLETS, IG-MS", ETC. THE FIRST NUMBER AND LETTER DESIGNATE THE TYPE OF STRUCTURE, AND THE FOLLOWING LETTERS DESIGNATE 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.

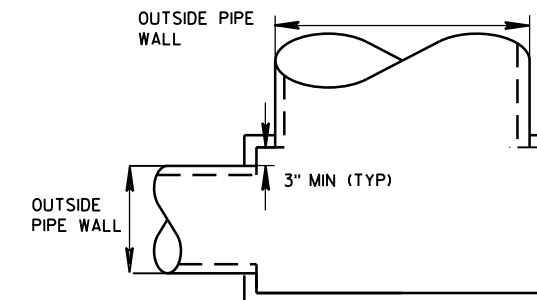
ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" 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.

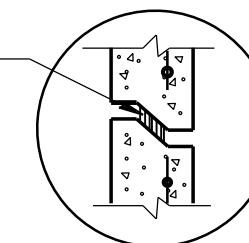
PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (IN)	LENGTH (IN)
1 GRATE	18	18
2 GRATE	18	42



DETAIL "A"

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

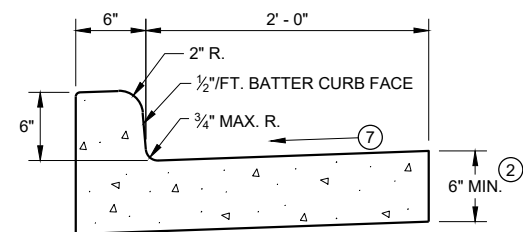


DETAIL "B"

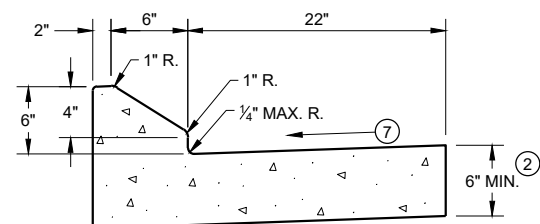
INLETS MEDIAN 1 AND 2 GRATE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

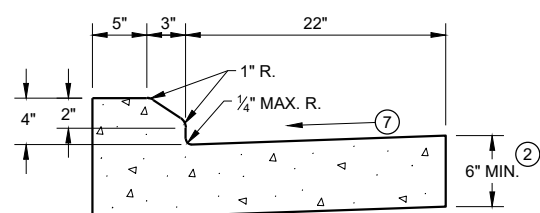
APPROVED
Sept., 2016 /S/ Rodney Taylor
DATE ROADWAY STANDARDS UNIT SUPERVISOR
FHWA 70 ENT



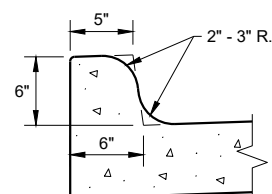
TYPES A^① & D



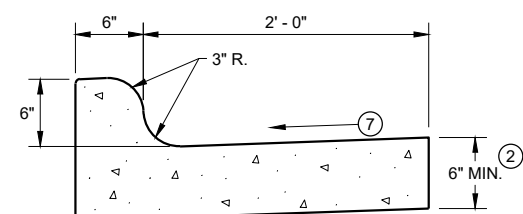
6" SLOPED CURB TYPES G^① & J



4" SLOPED CURB TYPES G^① & J

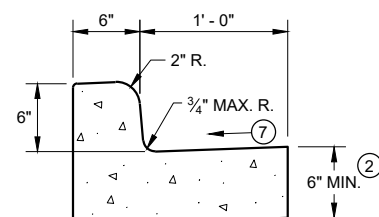


TYPES K^① & L
(OPTIONAL CURB SHAPE)



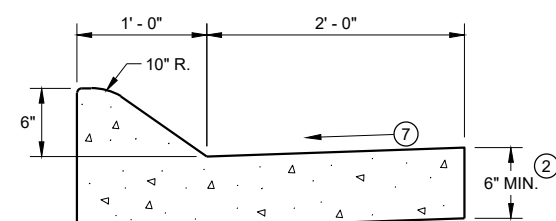
TYPES K^① & L

CONCRETE CURB AND GUTTER 30"

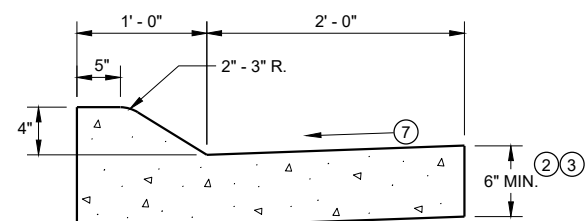


TYPES A^① & D

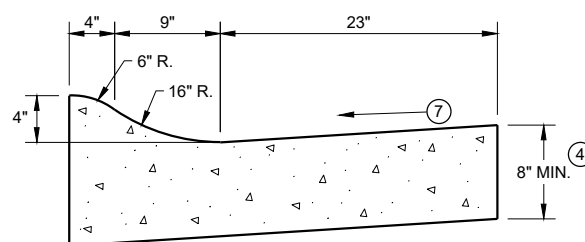
CONCRETE CURB AND GUTTER 18"



6" SLOPED CURB TYPES A^① & D



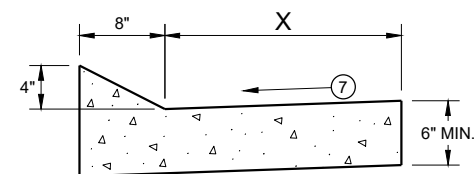
4" SLOPED CURB TYPES A^① & D



4" SLOPED CURB TYPES R⁽¹⁾ & T⁽⁵⁾

CONCRETE CURB AND GUTTER 36"

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

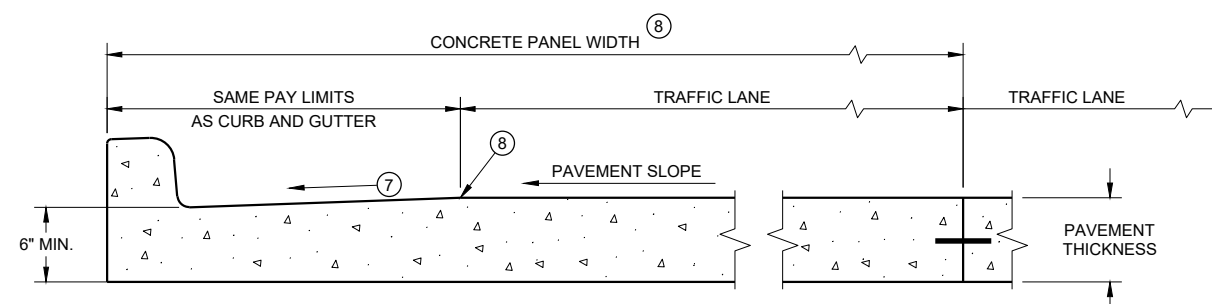


TYPES TBT & TBTT^①

CONCRETE CURB AND GUTTER

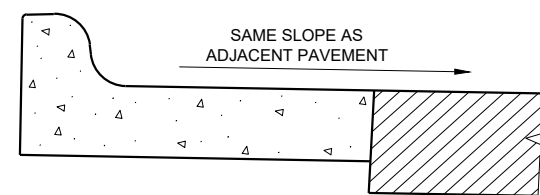
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

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



**PARTIAL SECTION OF PAVEMENT *
WITH INTEGRAL CURB AND GUTTER**

* BIKE LANE IS NOT SHOWN



REVERSE SLOPE GUTTER⁶

(TYPICAL FOR ALL CURB & GUTTER TYPES)

GENERAL NOTES

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

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

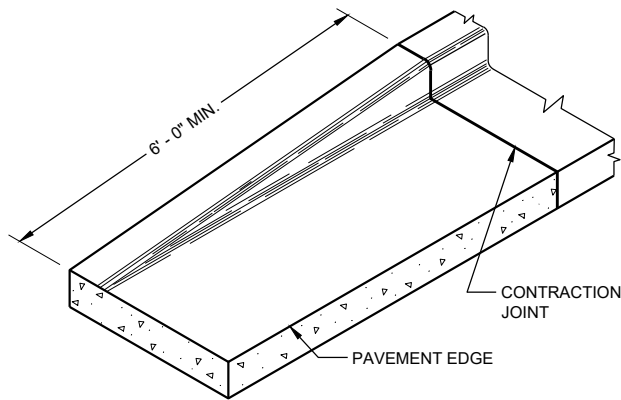
INTEGRAL CURB AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE.

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

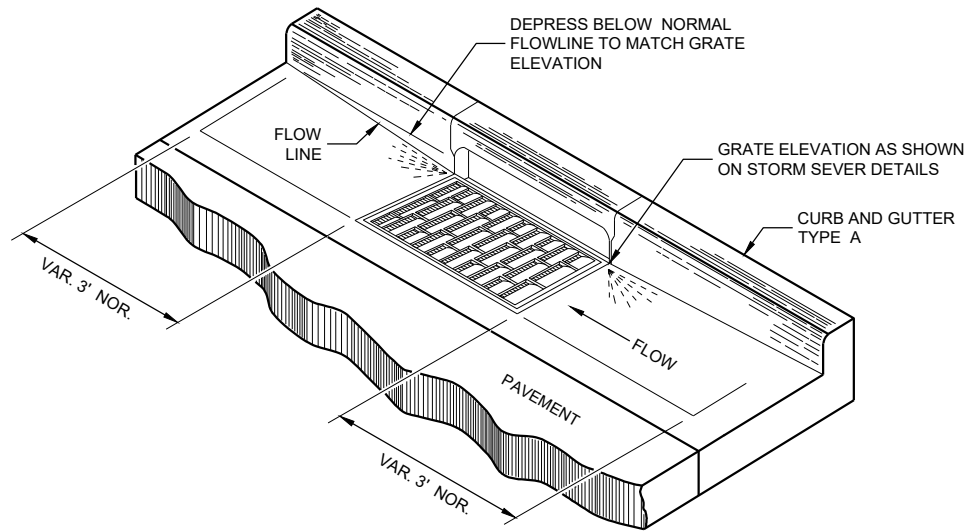
- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ③ USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH AN ADJACENT CONCRETE TRUCK APRON PLACED BEHIND BACK OF CURB.
- ④ THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ⑤ THE FACE OF CURB IS 6" FROM THE BACK OF CURB.
- ⑥ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.
- ⑦ USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.
- ⑧ INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.

CONCRETE CURB AND GUTTER

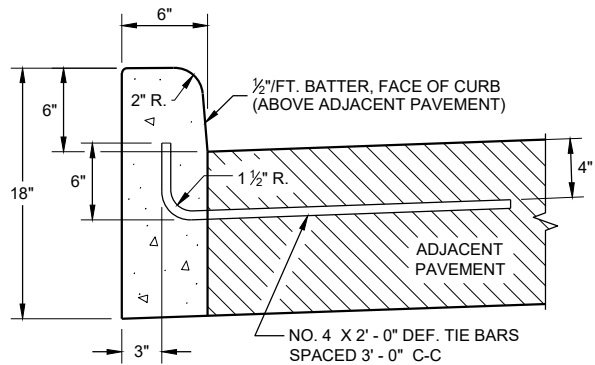
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 71



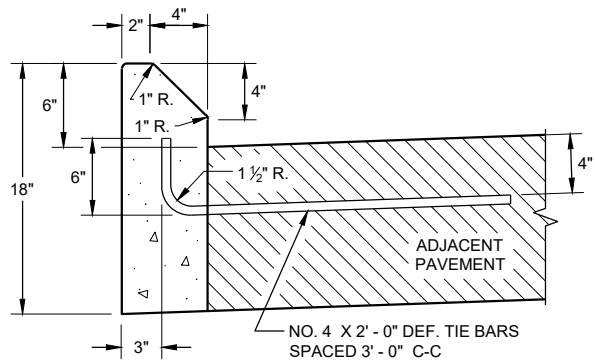
END SECTION CURB AND GUTTER



DETAIL OF CURB AND GUTTER AT INLETS
(TYPICAL H INLET COVER SHOWN)

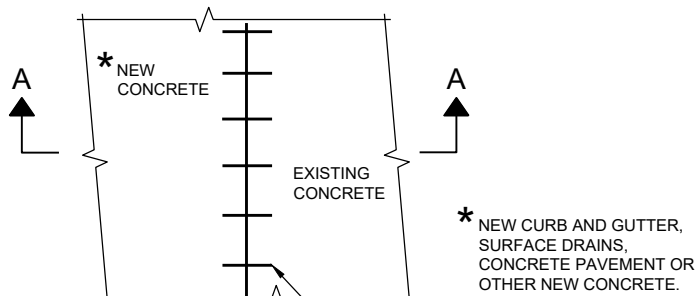


TYPES A^① & D

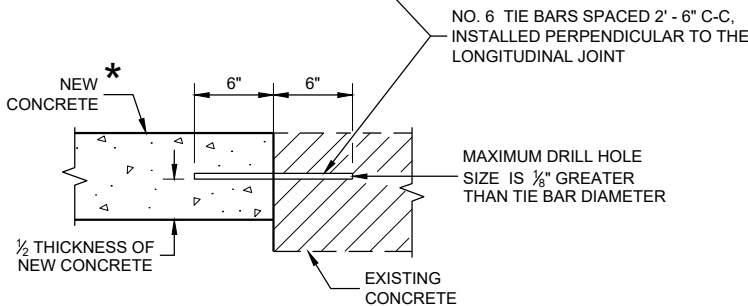


TYPES G^① & J

CONCRETE CURB



PLAN VIEW



SECTION A - A

TIE BARS DRILLED
INTO EXISTING PAVEMENT

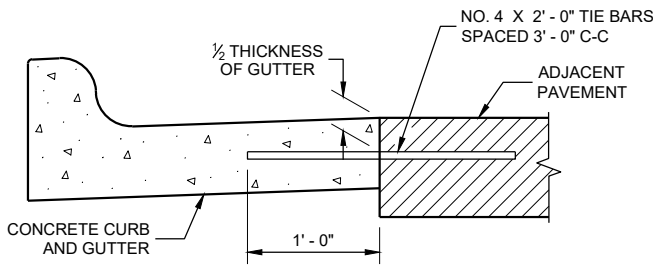
GENERAL NOTES

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

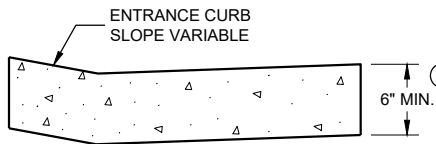
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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

- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ⑨ REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.



TYPICAL TIE BAR LOCATION^①



DRIVEWAY ENTRANCE CURB^⑨
(WHEN DIRECTED BY THE ENGINEER)

CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

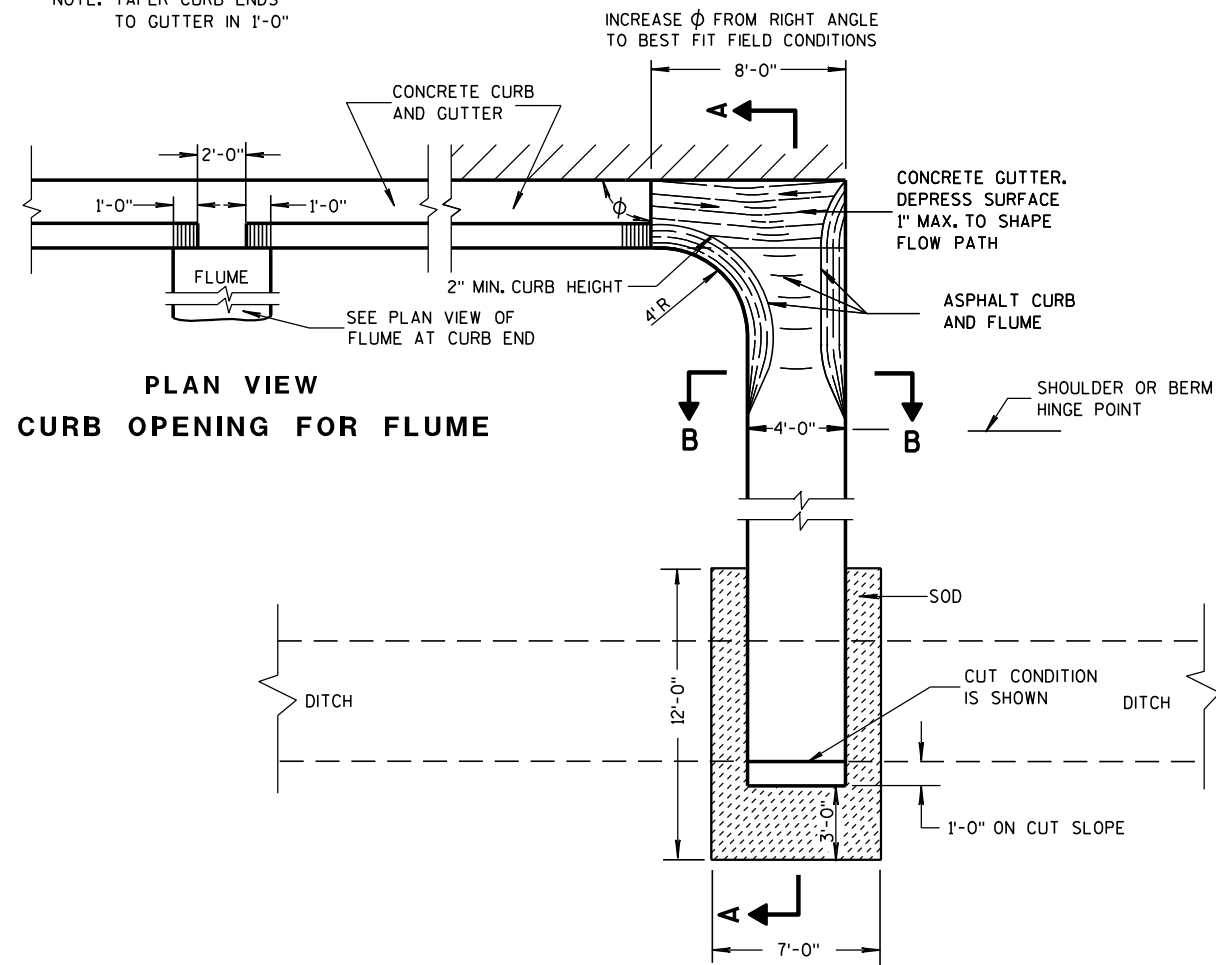
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE /S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT ENGINEER 72

FHWA

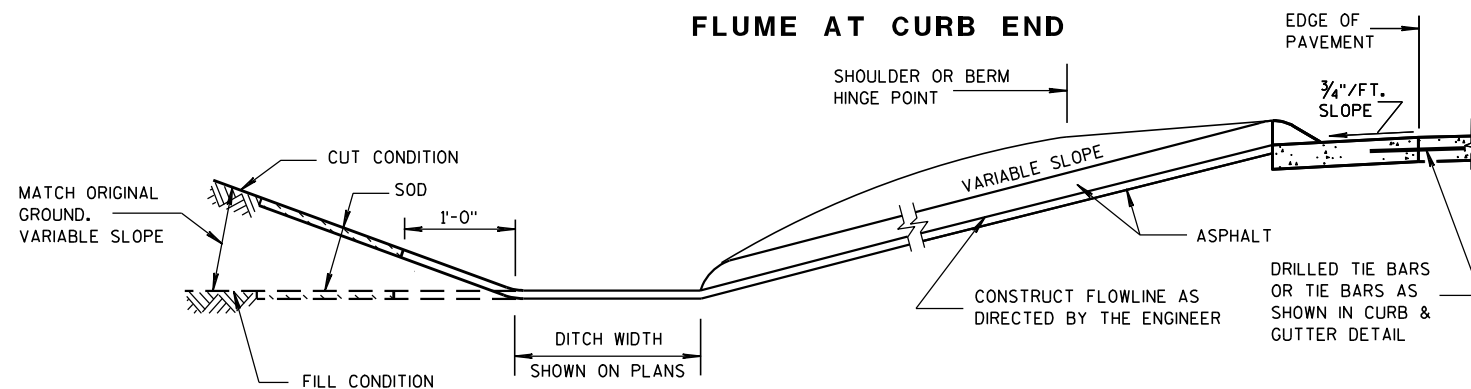
ASPHALTIC FLUME

NOTE: TAPER CURB ENDS
TO GUTTER IN 1'-0"

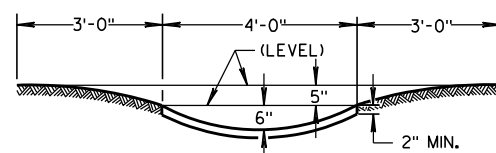


PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END



SECTION A-A



SECTION B-B

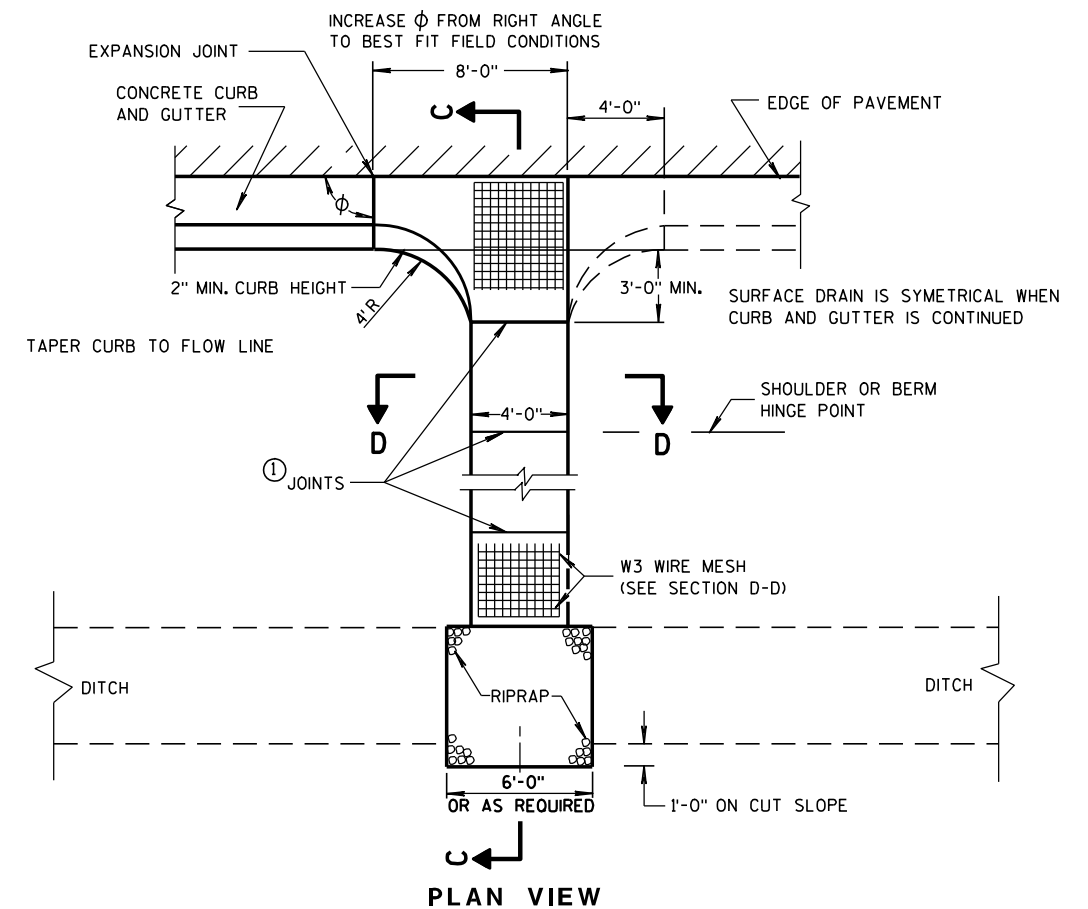
GENERAL NOTES

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

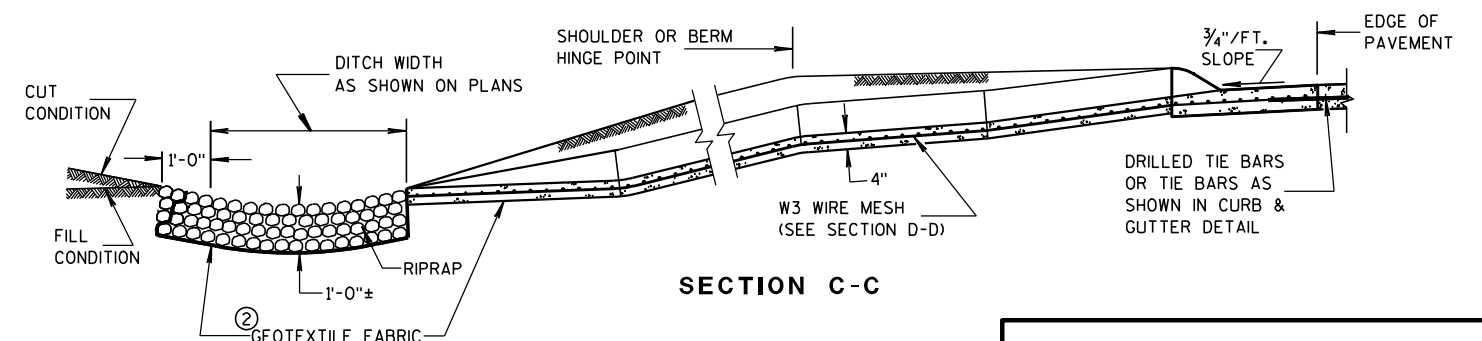
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

- ① JOINTS SHALL BE 1/8" TO 1/4" INCH WIDE BY 1 1/2" INCHES DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.
- ② GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.
- ③ CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED

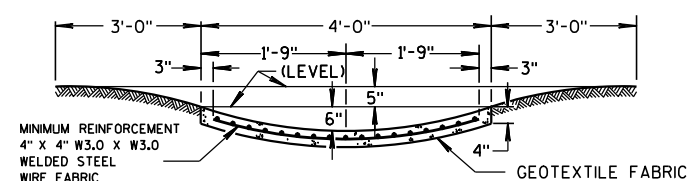
③ CONCRETE SURFACE DRAIN



PLAN VIEW



SECTION C-C



SECTION D-D

CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

9-4-08

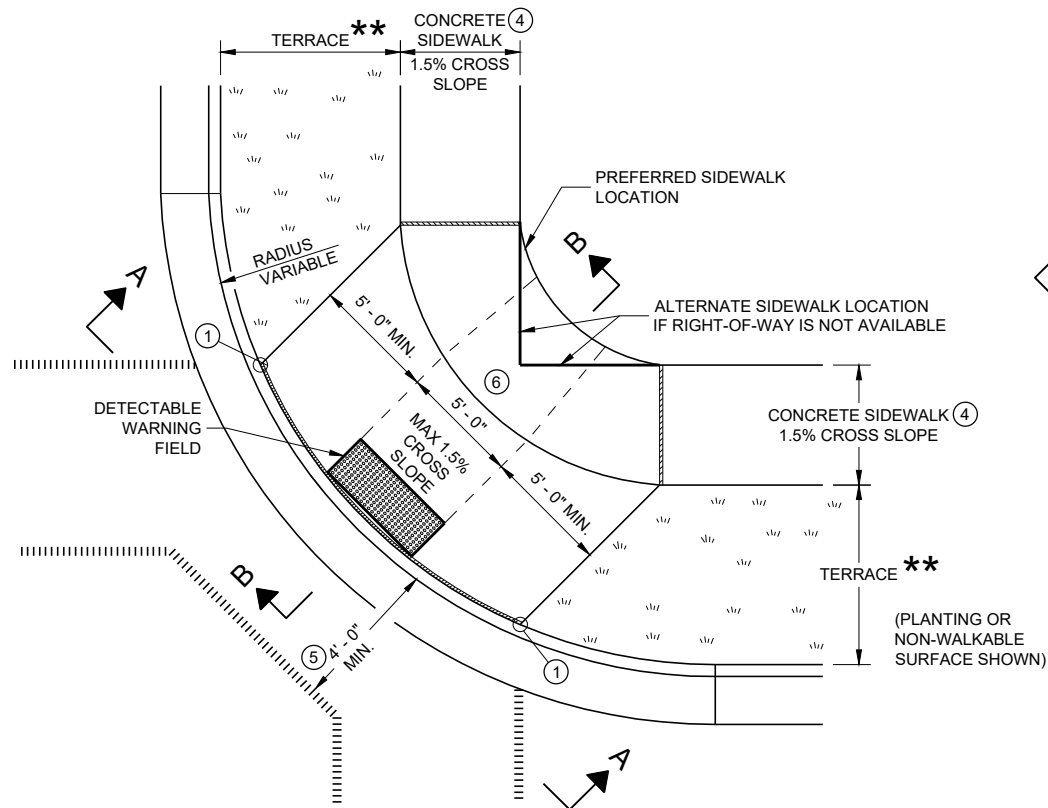
DATE

/S/ Jerry H. 7000

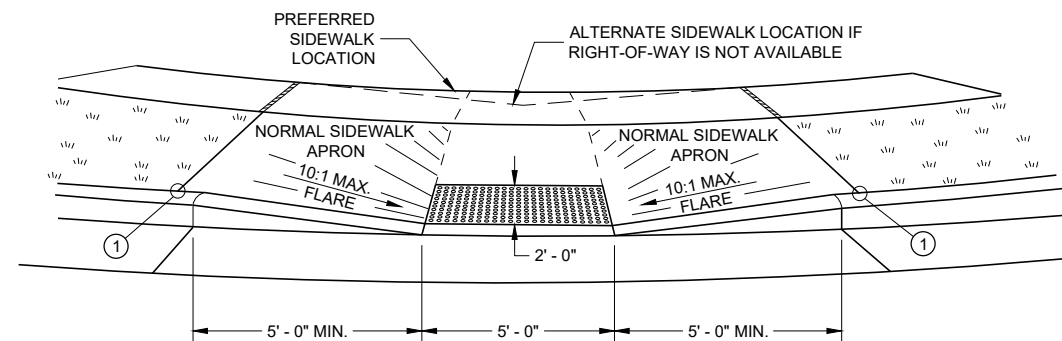
ROADWAY STANDARDS 73

ENGINEER

FHWA

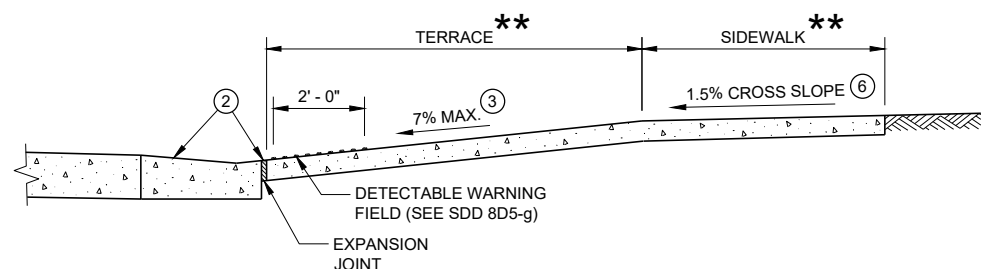


PLAN VIEW
CURB RAMP TYPE 1
(CENTER OF CORNER RADIUS)

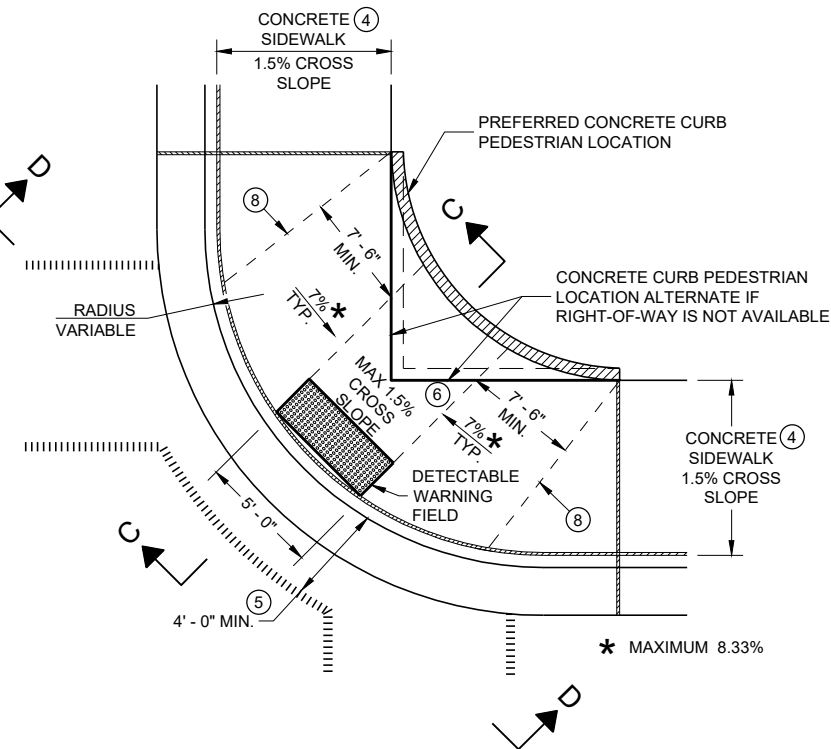


VIEW A - A FOR TYPE 1

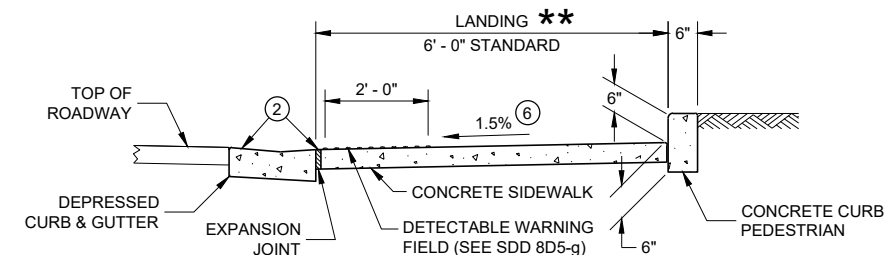
** WIDTH SHOWN ELSEWHERE
IN THE PLANS



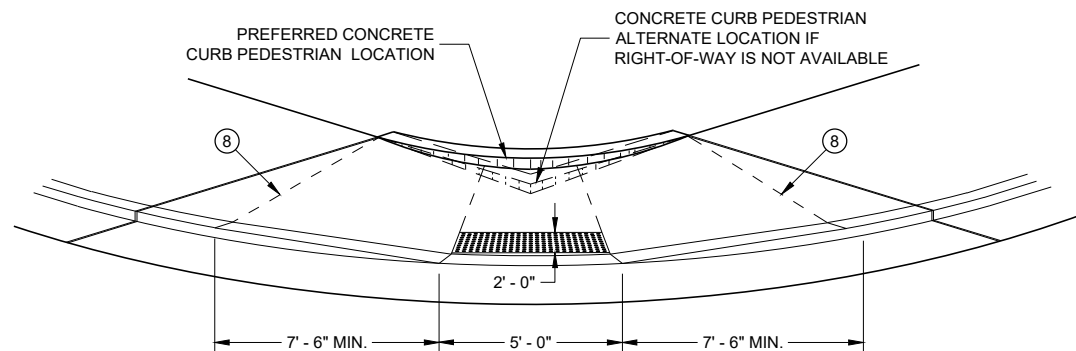
SECTION B - B FOR TYPE 1



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



SECTION C - C FOR TYPE 1 - A



VIEW D - D FOR TYPE 1 - A

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 CURB 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 LINEAR 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.

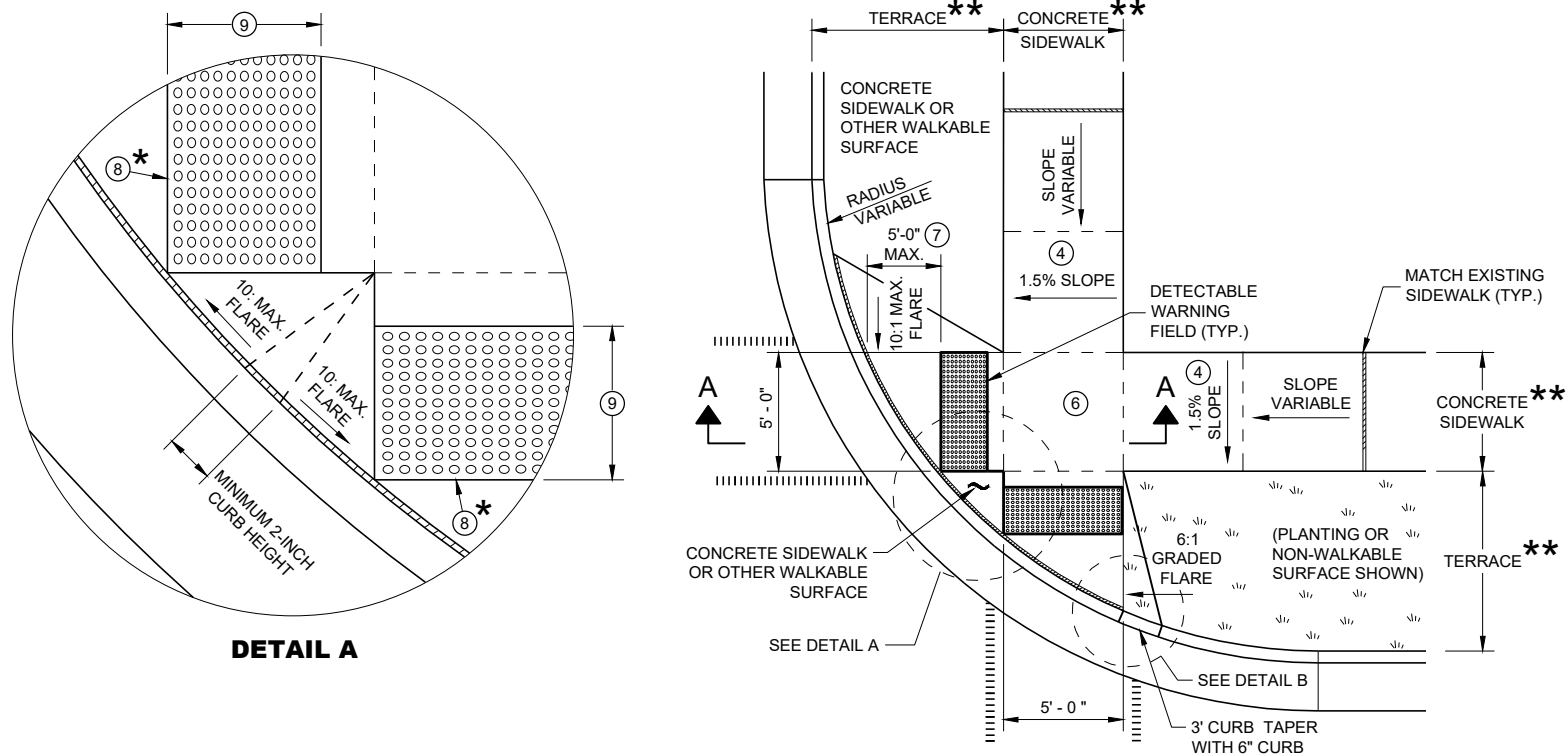
- 1 THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB. POINT LOCATION MAY BE ADJUSTED TO ALIGN WITH BEGINNING OF FULL-HEIGHT CURB IF THIS DISTANCE IS SHORT.
- 2 GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. 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 MAXIMUM 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.
- 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 LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.
- 8 PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

LEGEND

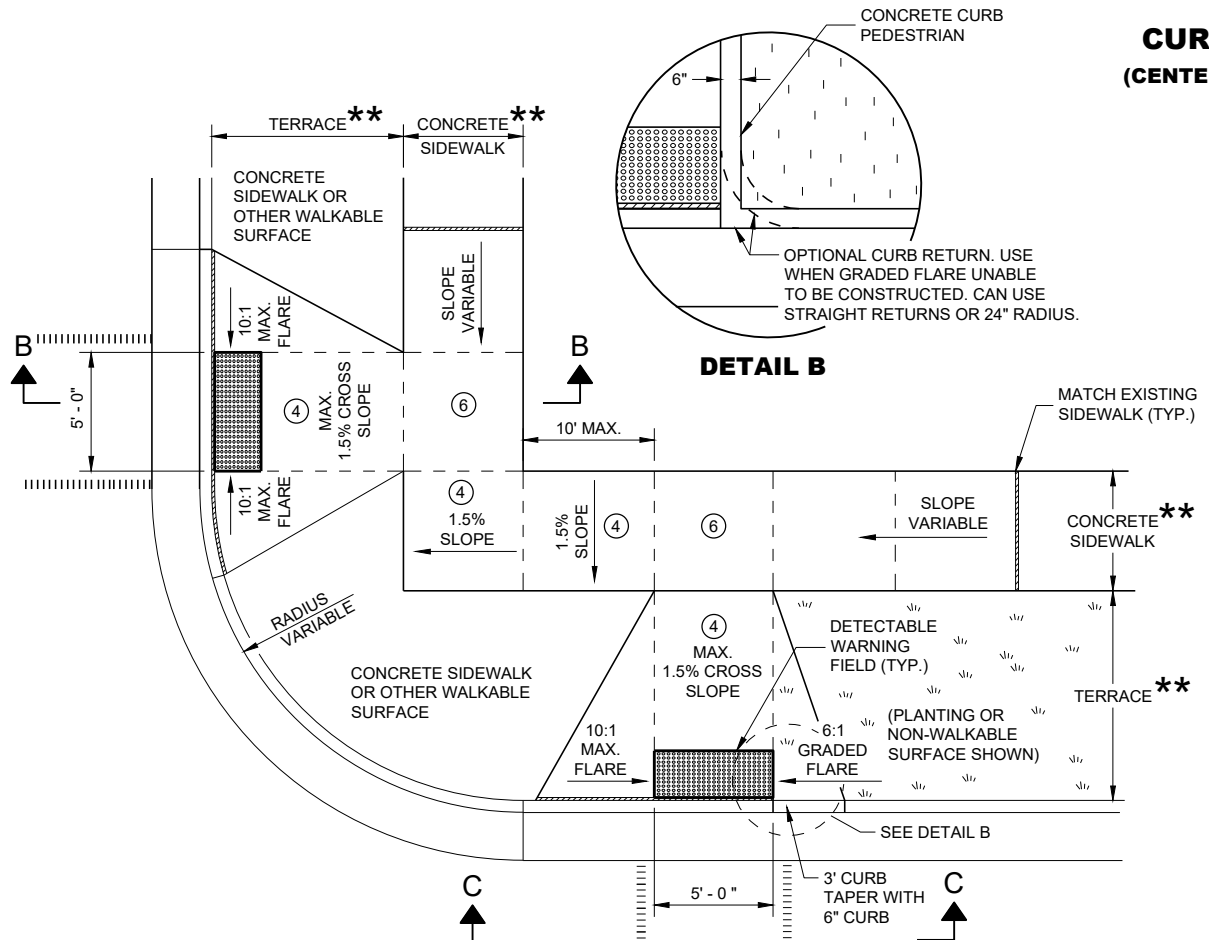
- 1/2" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS TYPE 1 AND 1-A

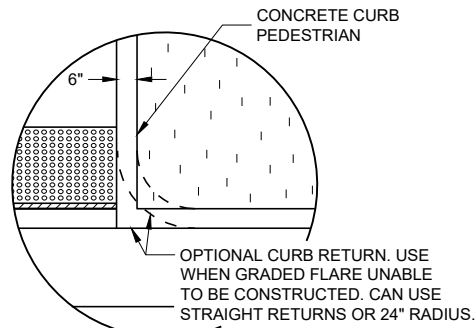
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 74



PLAN VIEW
CURB RAMP TYPE 2
(CENTER OF CORNER RADIUS)



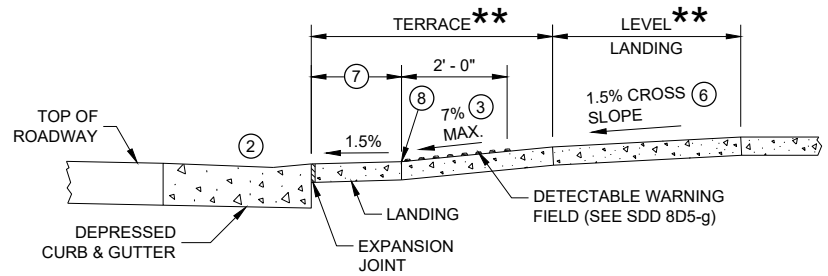
PLAN VIEW
CURB RAMP TYPE 3
(OUTSIDE OF CROSSWALK AREA)



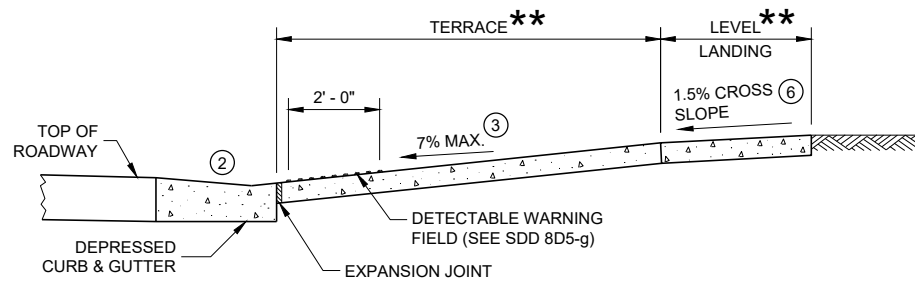
DETAIL B

GENERAL NOTES

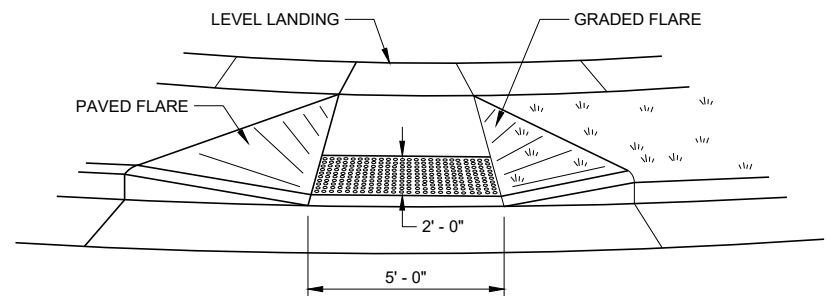
- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.
- DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.
- DETECTABLE 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 1/2 - 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 AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE (2.67% OR LESS) 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 LEVEL LANDING SIZE IS 5 FEET X 5 FEET.
 - ⑦ WHEN 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 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.



SECTION A - A FOR TYPE 2



SECTION B - B FOR TYPE 3



VIEW C - C FOR TYPE 3

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

** WIDTH SHOWN ELSEWHERE
IN THE PLANS

LEGEND

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

CURB RAMPS
TYPE 2 AND 3

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

6



6



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- 6

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- 6



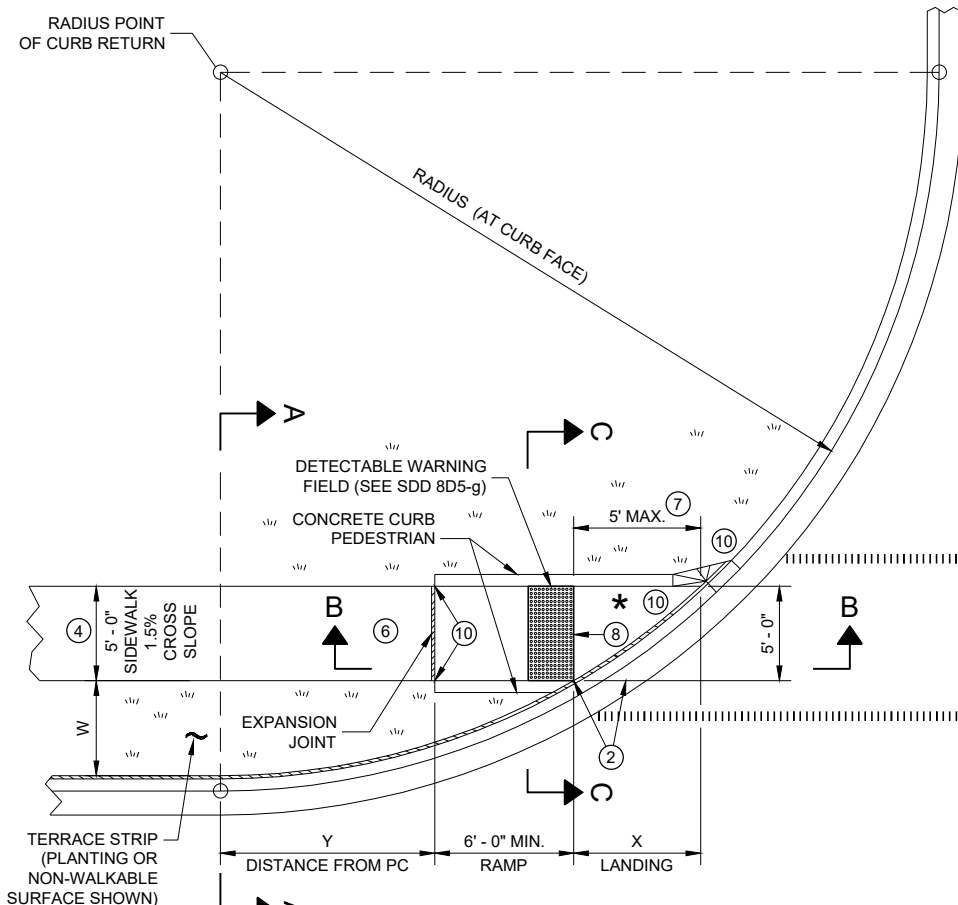
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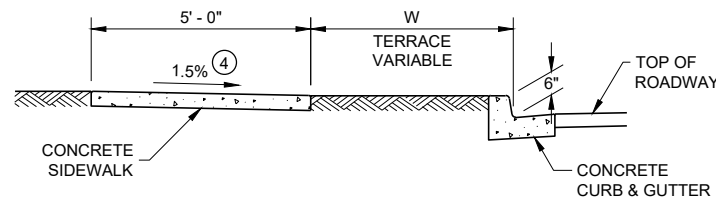
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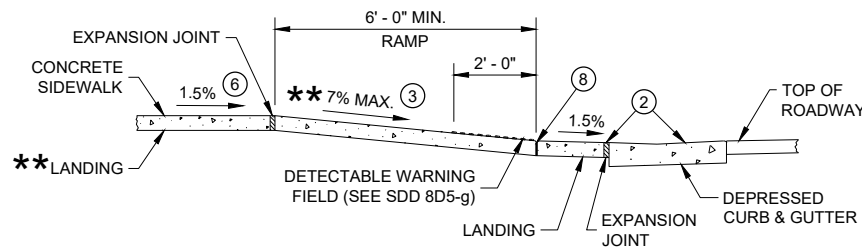
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PLAN VIEW
CURB RAMP TYPE 4B



SECTION A - A FOR TYPE 4B

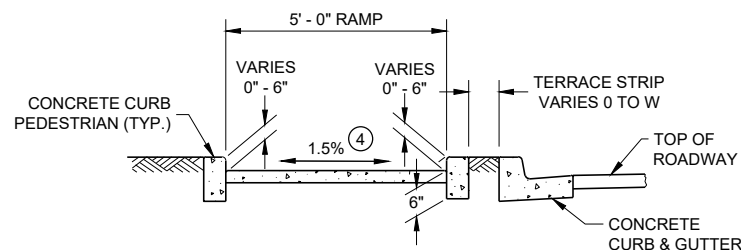


SECTION B - B FOR
TYPE 4B AND TYPE 4B1

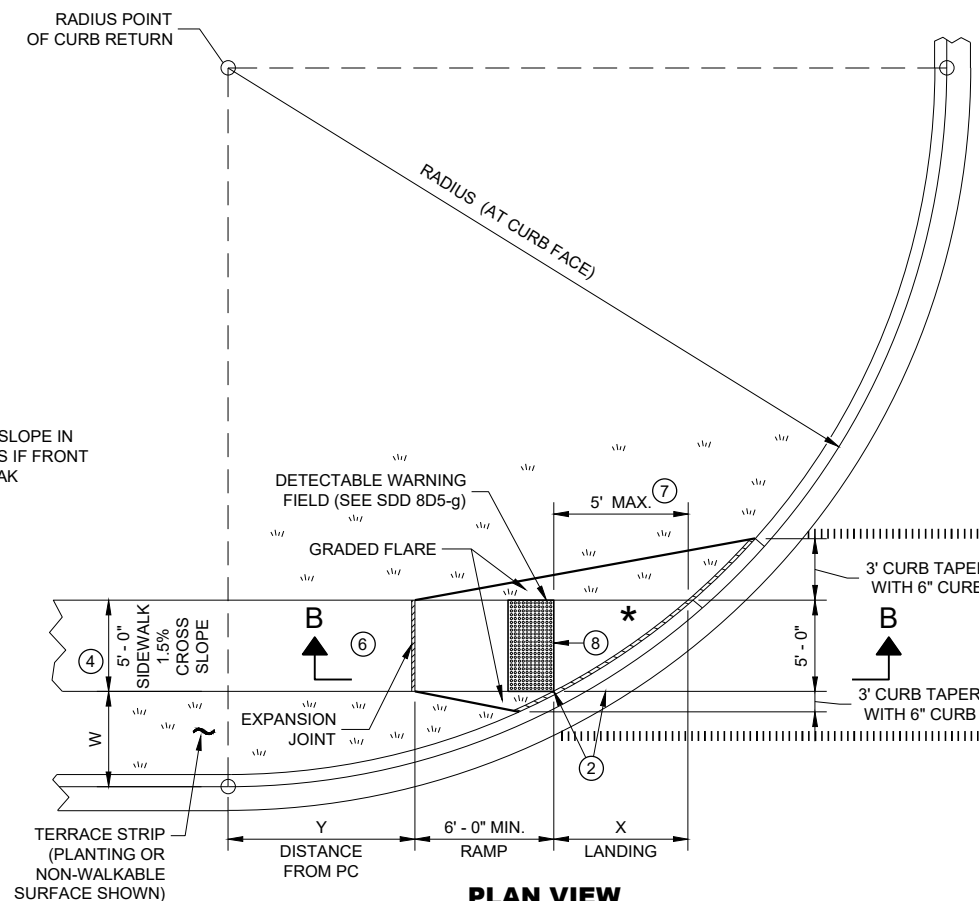
* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK

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 3/4"	3' - 0 1/4"						
15 FEET	4' - 6 3/4"	2' - 1 3/4"	3' - 9"	3' - 5 3/4"	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"

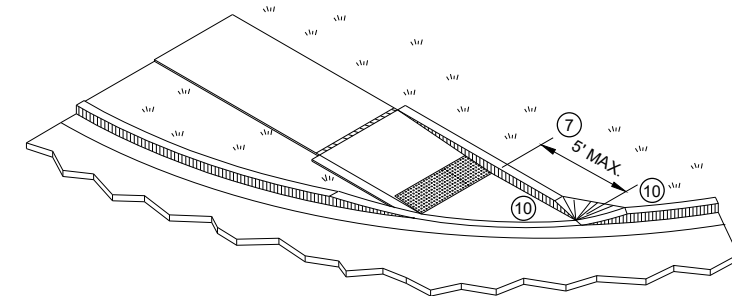
INTERMEDIATE RADII CAN BE INTERPOLATED
DIMENSION "Y" IS CALCULATED BASED ON 6'-0" RAMP LENGTH
DIMENSION "X" IS CALCULATED BASED ON 5'-0" SIDEWALK WIDTH



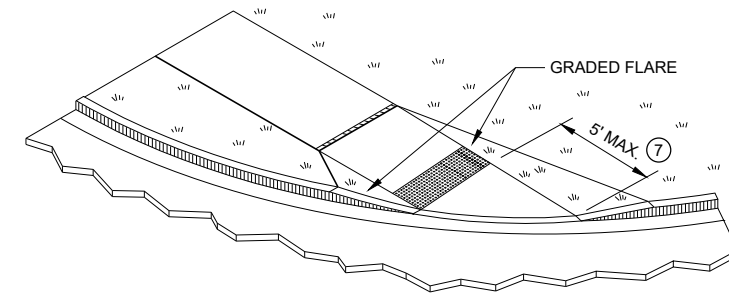
SECTION C - C FOR TYPE 4B



PLAN VIEW
CURB RAMP TYPE 4B1



ISOMETRIC VIEW FOR TYPE 4B



ISOMETRIC VIEW FOR TYPE 4B1

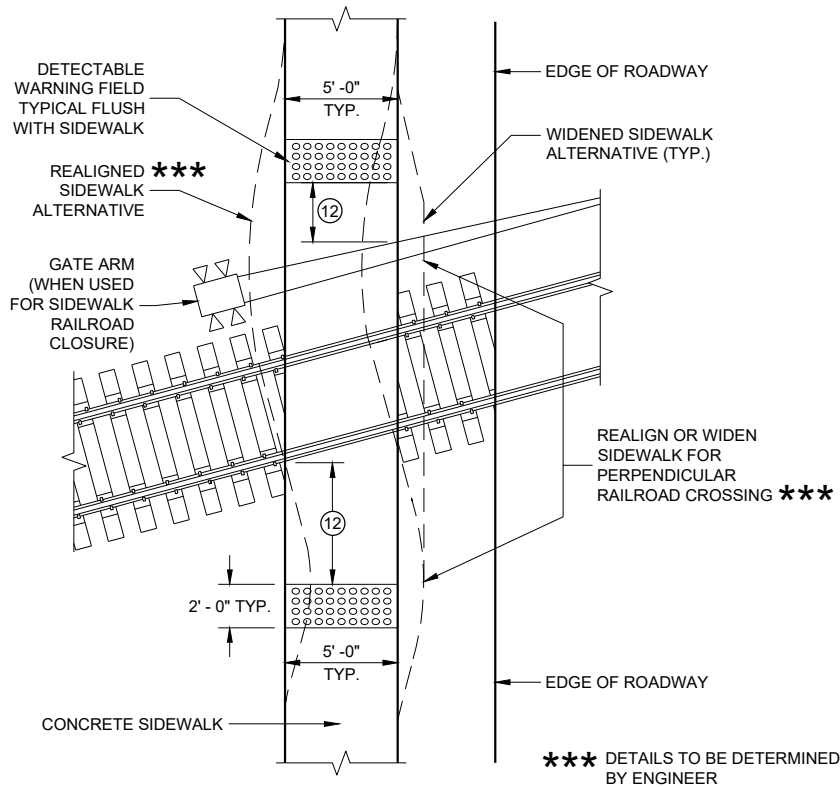
- LEGEND**
- 1/2" EXPANSION JOINT SIDEWALK
 - CONTRACTION JOINT SIDEWALK
 - PAVEMENT MARKING CROSSWALK (WHITE)

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.
- 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 AN 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 LEVEL LANDING SIZE IS 5 FEET BY 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.

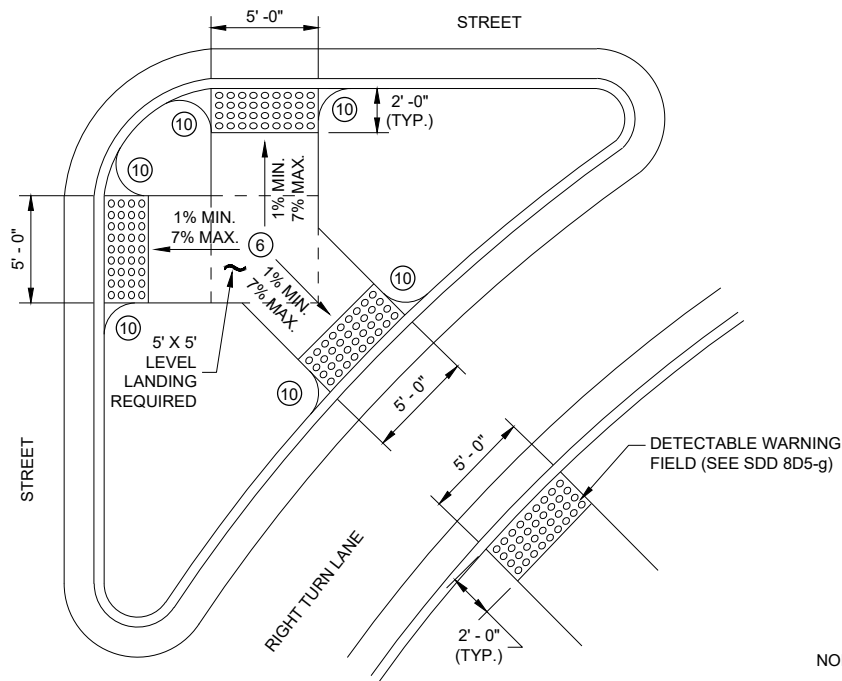
**CURB RAMPS
TYPE 4B AND 4B1**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



CURB RAMP TYPE 8

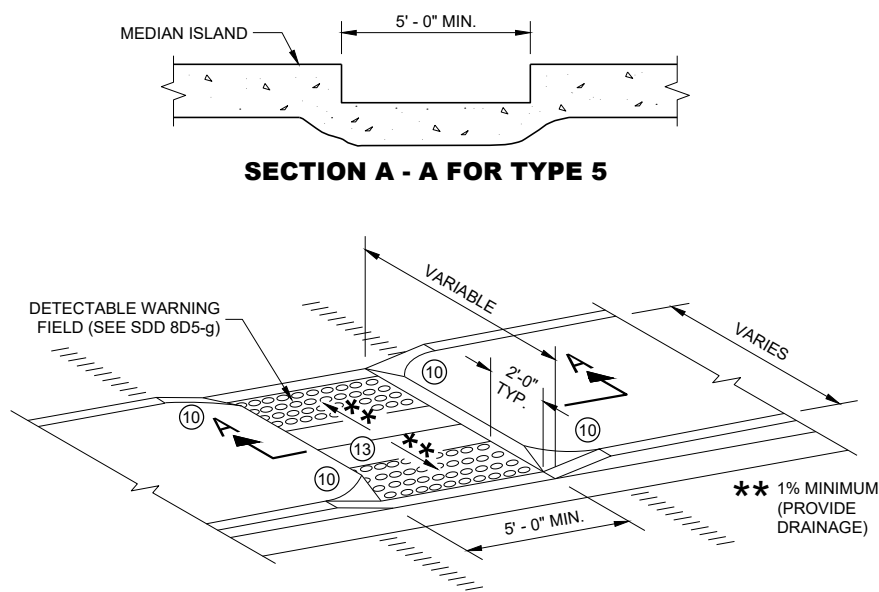
**DETECTABLE WARNINGS
AT RAILROAD CROSSING**



CURB RAMP TYPE 6

DETECTABLE WARNING AT ISLANDS

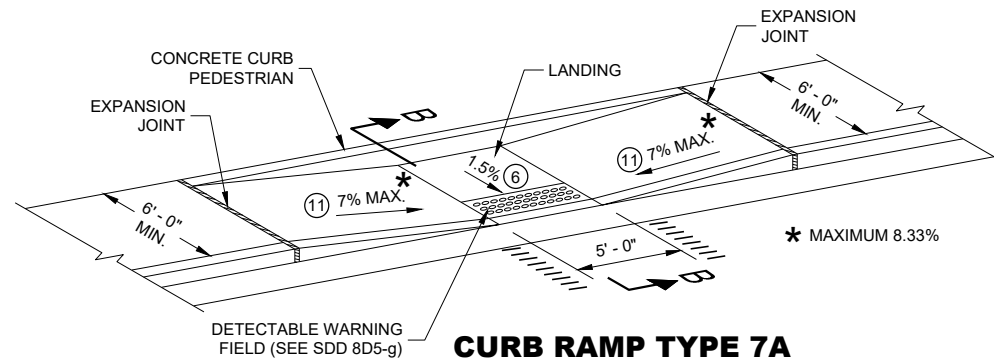
REFER TO GENERAL NOTES (2) AND (3)
FOR ALL ISLAND CURB RAMPS



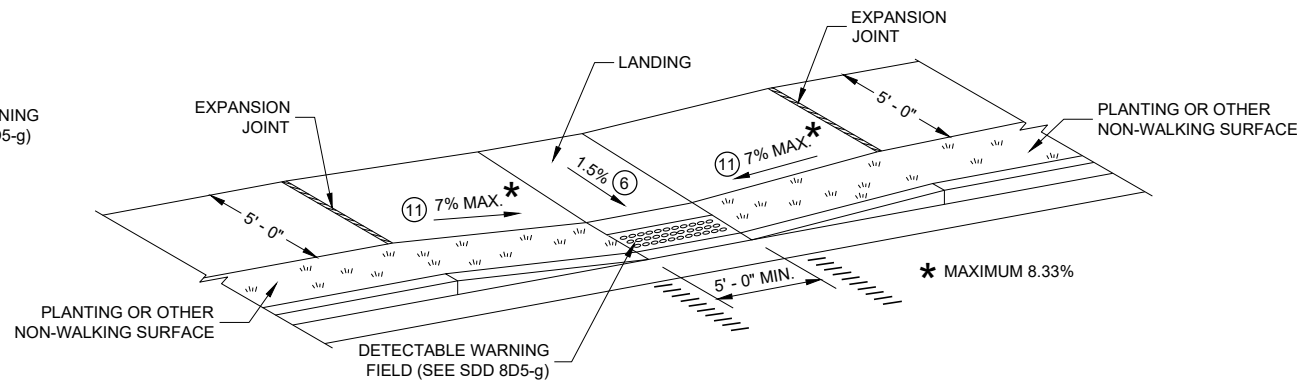
SECTION A - A FOR TYPE 5

CURB RAMP TYPE 5

**MEDIAN ISLAND
NON-ELEVATED PEDESTRIAN CROSSING**



**CURB RAMP TYPE 7A
MID BLOCK CROSSING**



**CURB RAMP TYPE 7B
MID BLOCK CROSSING**

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

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.

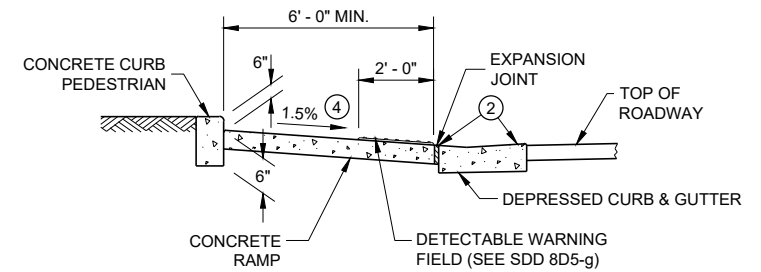
SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

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) AN 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 LEVEL LANDING SIZE IS 5 FEET BY 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 1.5 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 STEET-LEVEL PEDESTRIAN REFUGE ISLANDS IF A MINIMUM 2 FOOT CONCRETE SURFACE WITHOUT DETECTABLE WARNINGS (MEASURED IN THE DIRECTION OF PEDESTRIAN TRAVEL) CANNOT BE ACHIEVED.

LEGEND

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

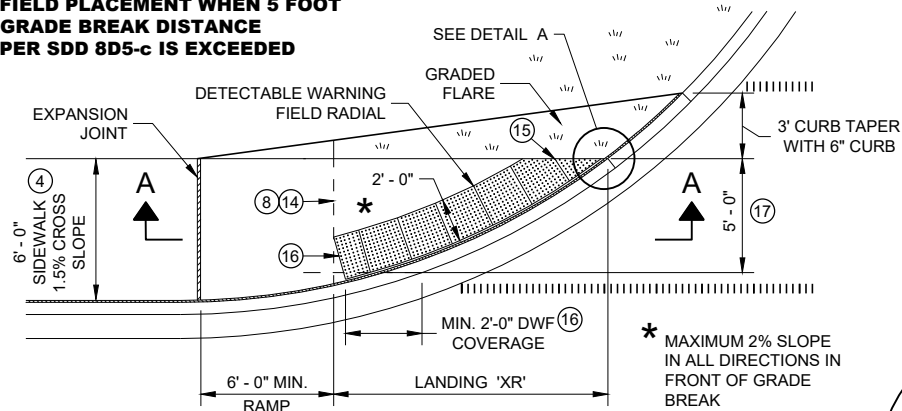


SECTION B - B FOR TYPE 7A

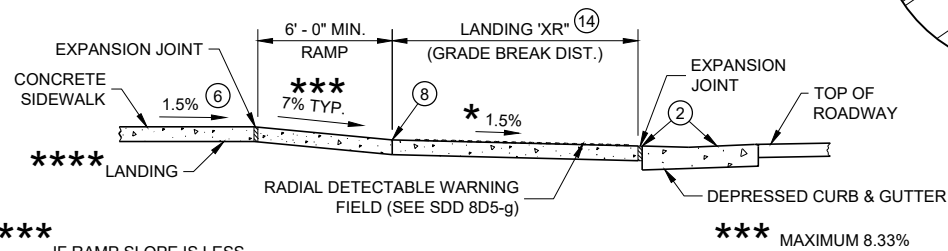
**CURB RAMPS
TYPE 5, 6, 7A, 7B & 8**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

**RADIAL DETECTABLE WARNING
FIELD PLACEMENT WHEN 5 FOOT
GRADE BREAK DISTANCE
PER SDD 8D5-c IS EXCEEDED**

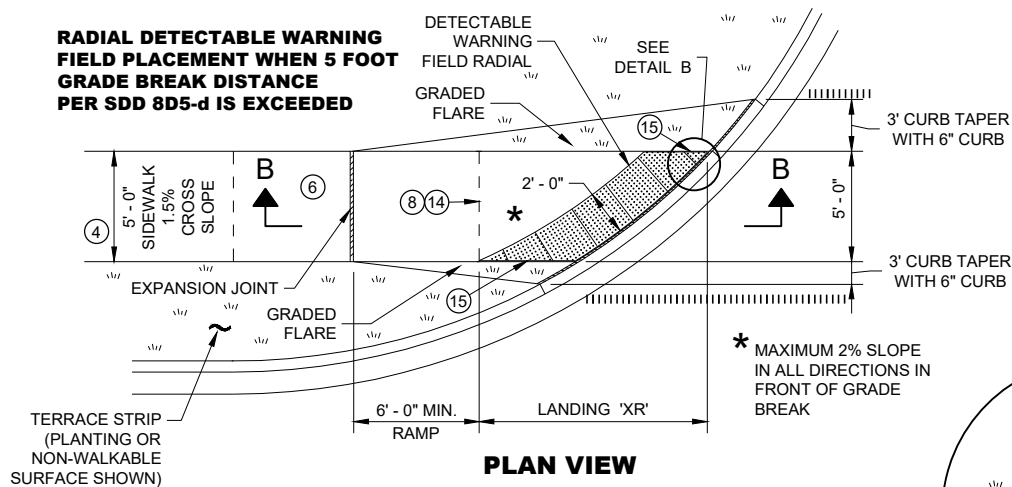


**PLAN VIEW
CURB RAMP TYPE 4A1
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)**

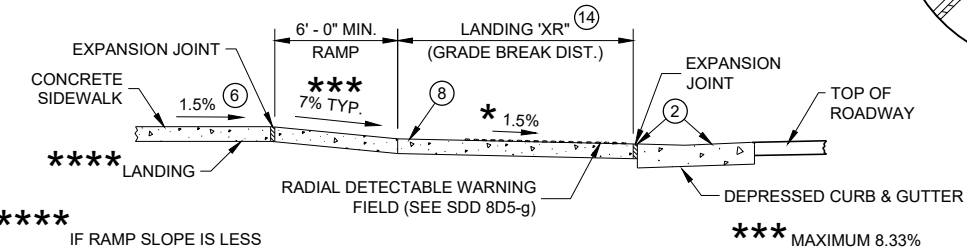


SECTION A - A FOR TYPE 4A1

**RADIAL DETECTABLE WARNING
FIELD PLACEMENT WHEN 5 FOOT
GRADE BREAK DISTANCE
PER SDD 8D5-d IS EXCEEDED**



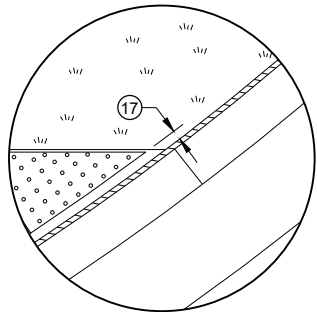
**PLAN VIEW
CURB RAMP TYPE 4B1
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)**



SECTION B - B FOR TYPE 4B1

LEGEND

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



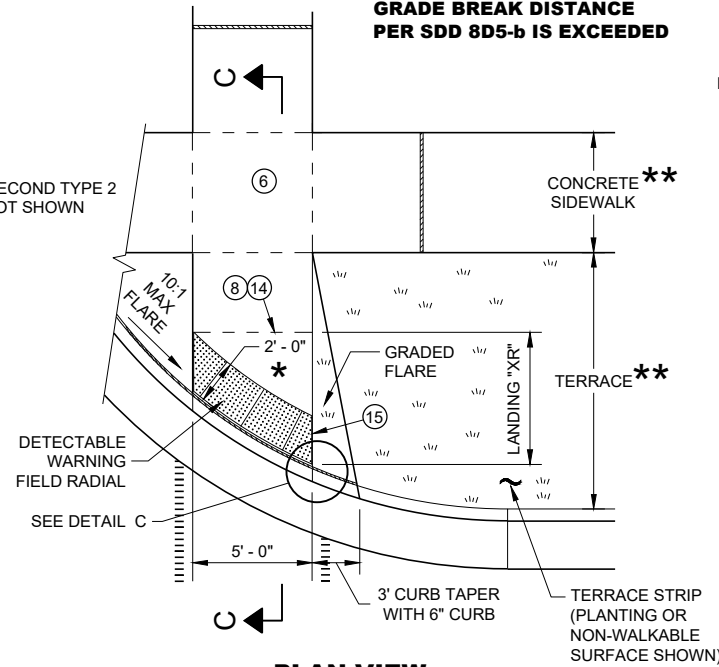
DETAIL A

GENERAL NOTES

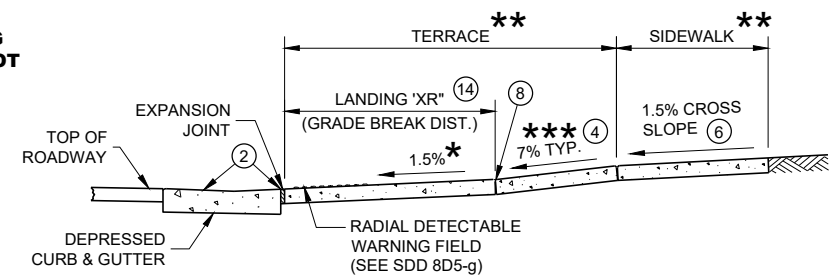
- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.
- DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.
- DETECTABLE WARNING FIELDS 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) AN 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 BY 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 WITH IS ALLOWABLE IN FROM OF RADIAL DETECTABLE WARNING FIELD FOR CONSTRUCTABILITY PURPOSES. CONCRETE BORDER WIDTH MAY VARY UP TO 1 INCH.

**RADIAL DETECTABLE WARNING
FIELD PLACEMENT WHEN 5 FOOT
GRADE BREAK DISTANCE
PER SDD 8D5-b IS EXCEEDED**

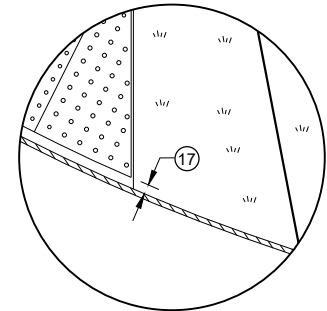
NOTE: SECOND TYPE 2 RAMP NOT SHOWN



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



SECTION C - C FOR TYPE 2



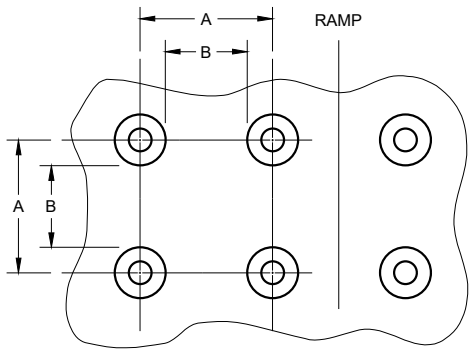
DETAIL C

**CURB RAMPS
RADIAL DETECTABLE WARNING
FIELD APPLICATIONS**

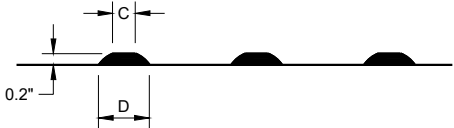
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 79

	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.

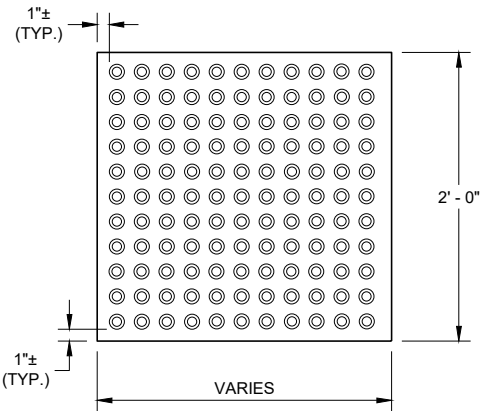


PLAN VIEW

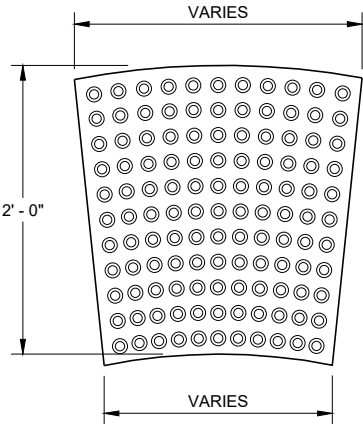


ELEVATION VIEW

TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL

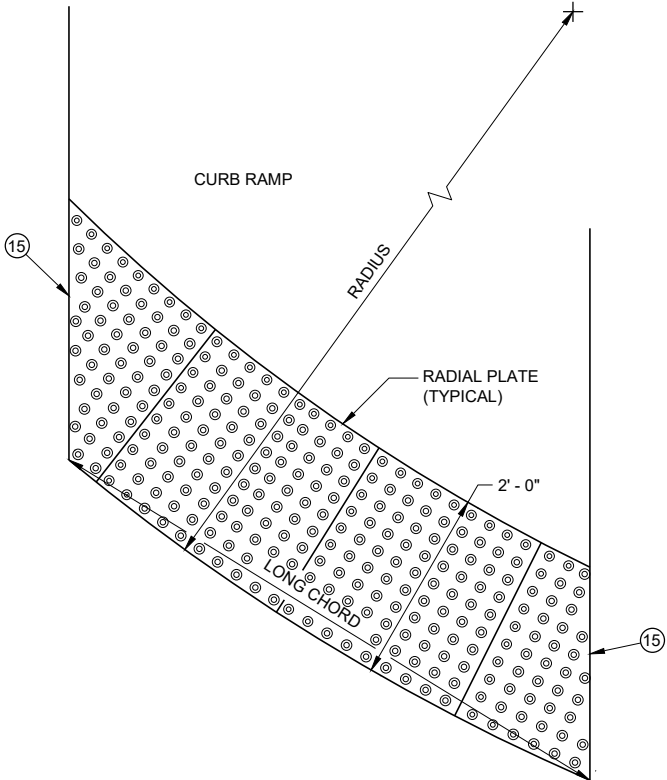


RECTANGULAR
PLATES



RADIAL
PLATES

PLAN VIEW
DETECTABLE WARNING FIELDS (TYPICAL)



PLAN VIEW
RADIAL DETECTABLE
WARNING FIELD ATTRIBUTES

GENERAL NOTES

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AT A CURB RAMP 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 FILED ARE PROHIBITED.

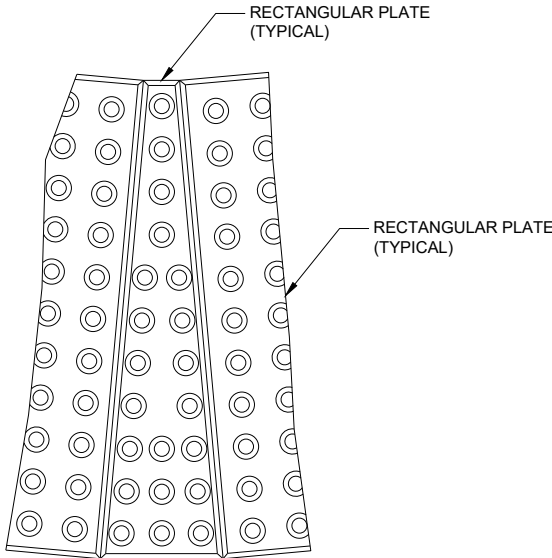
DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

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 WEDGE PLATES IN COMBINATION WITH SQUARE PLATES 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.



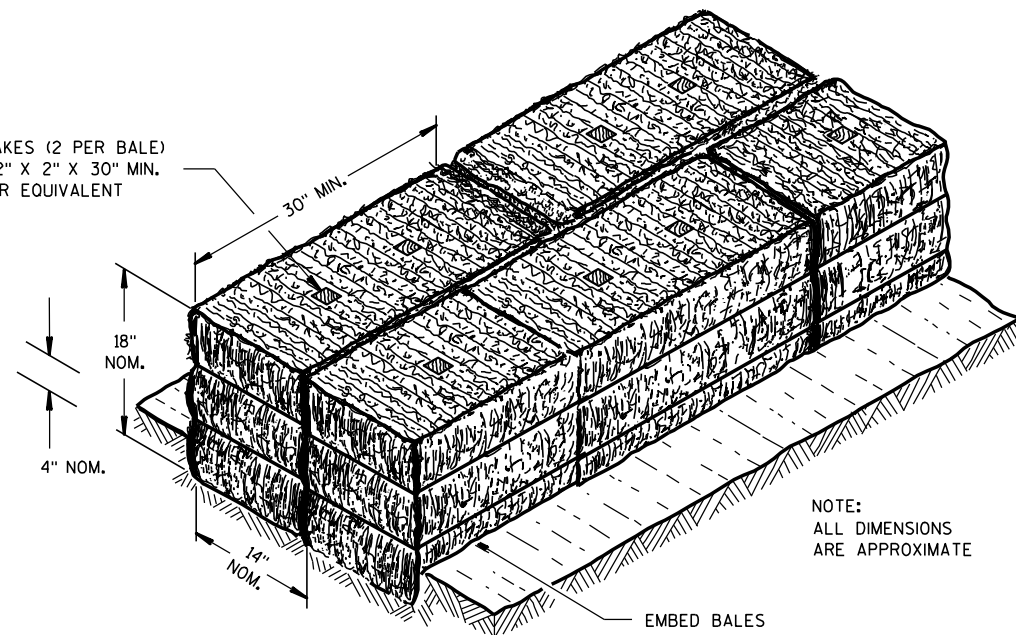
PLAN VIEW
RADIAL WEDGE PLATE
CONNECTION DETAIL

CURB RAMPS
RECTANGULAR AND RADIAL
DETECTABLE WARNING PLATES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

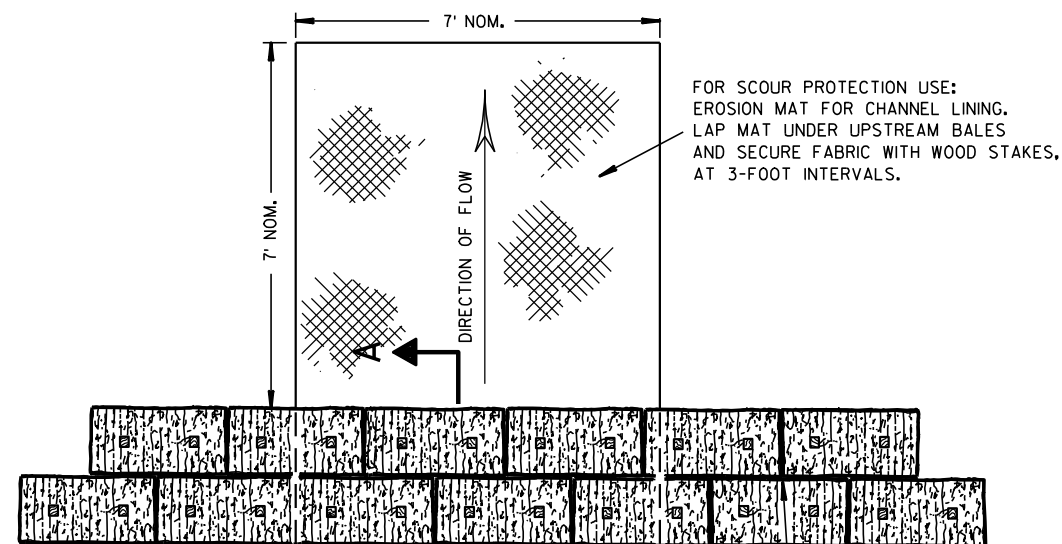
APPROVED
May 2019 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
FHWA 80

WOOD STAKES (2 PER BALE)
NOMINAL 2" X 2" X 30" MIN.
LENGTH OR EQUIVALENT

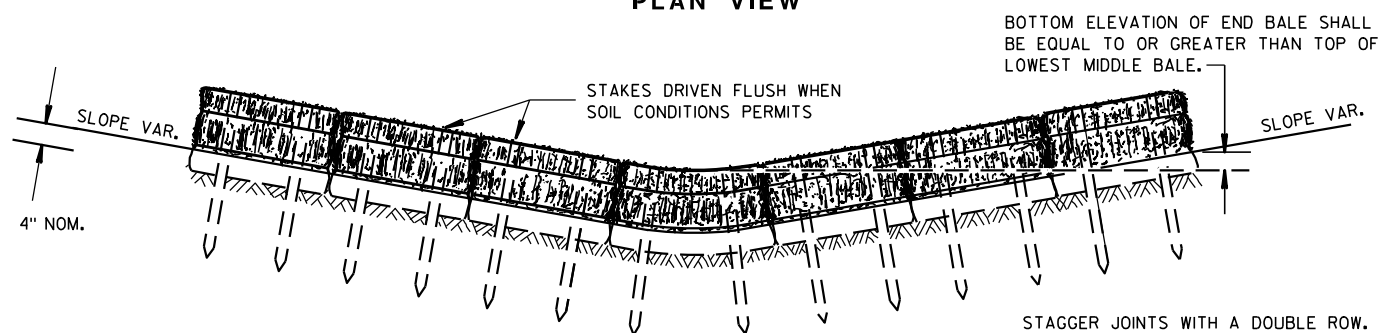


NOTE:
ALL DIMENSIONS
ARE APPROXIMATE

SECTION A-A



PLAN VIEW



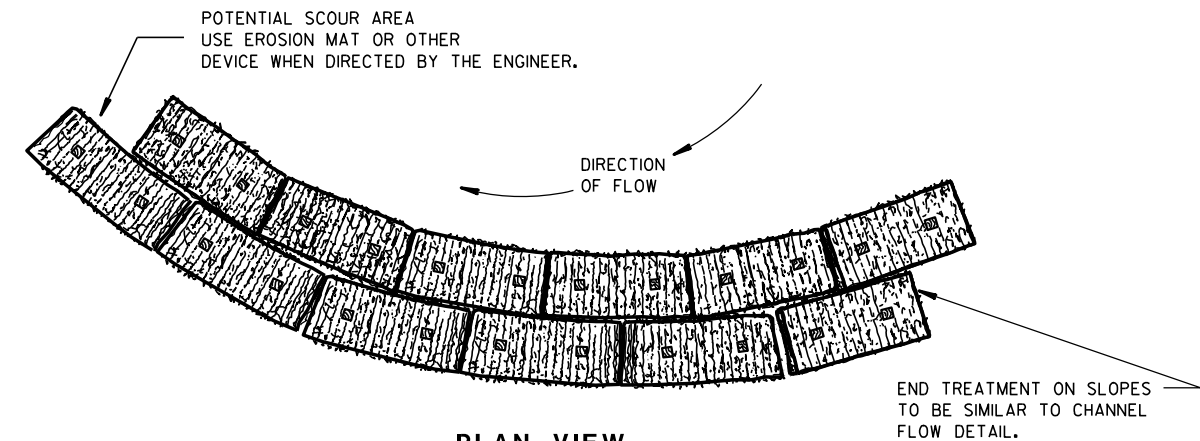
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

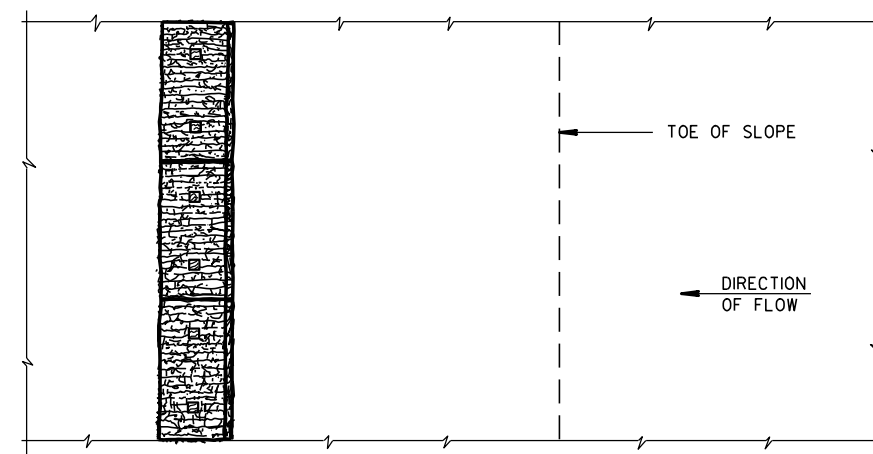
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

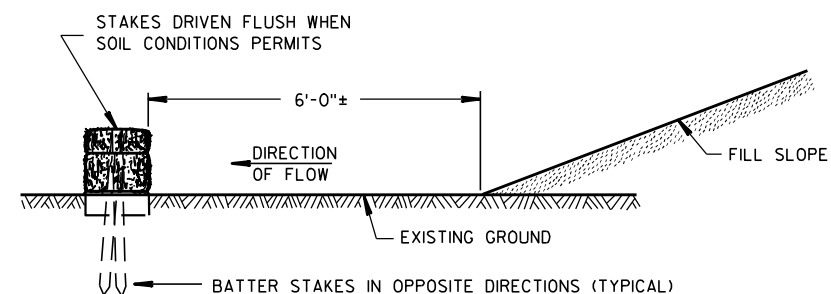


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

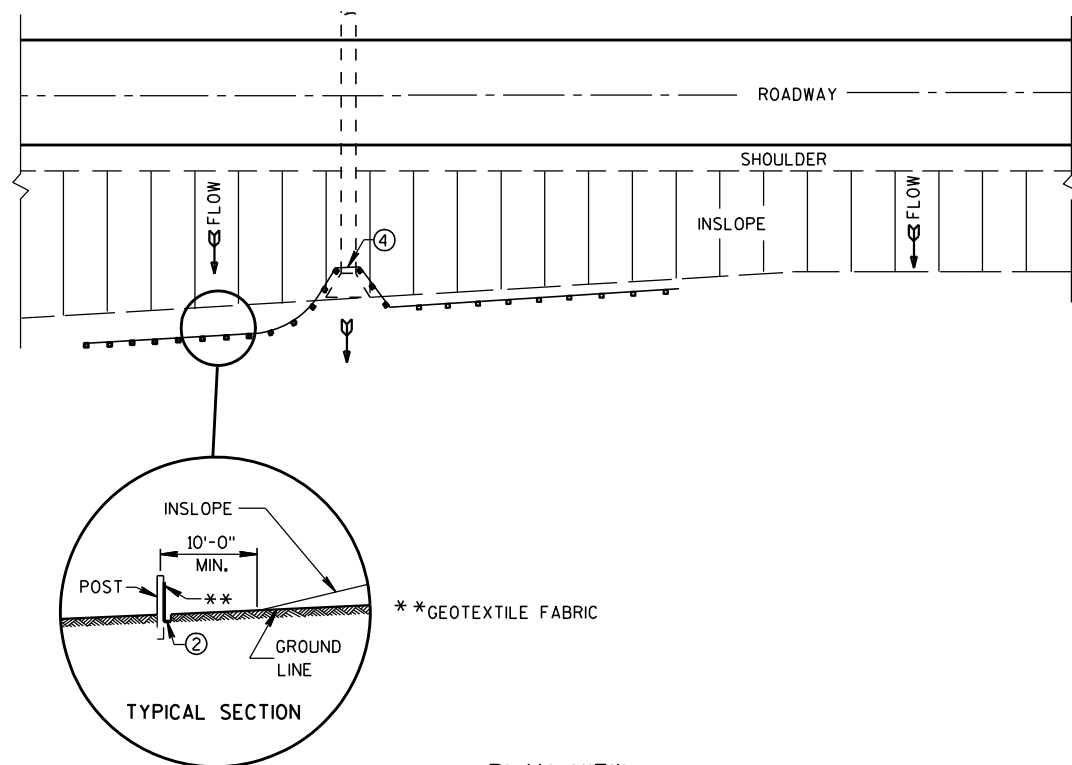
APPROVED

6/04/02
DATE

/S/ Beth Conn
CHIEF ROADWAY DEVELOPER

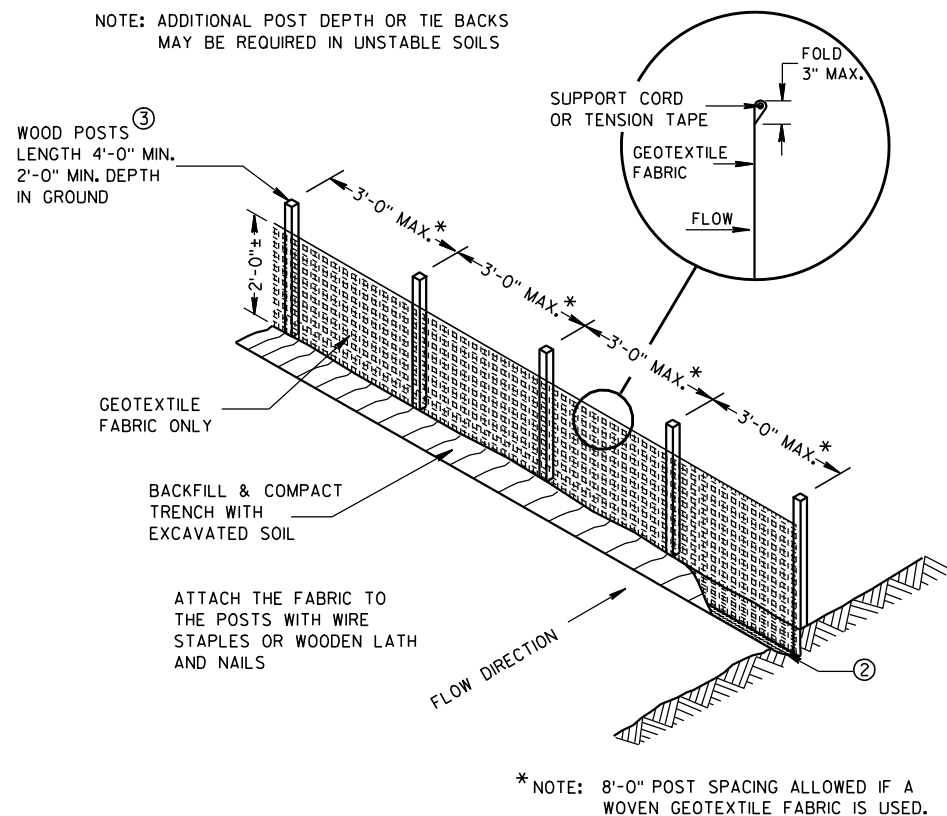
FWHA

ENGINEER

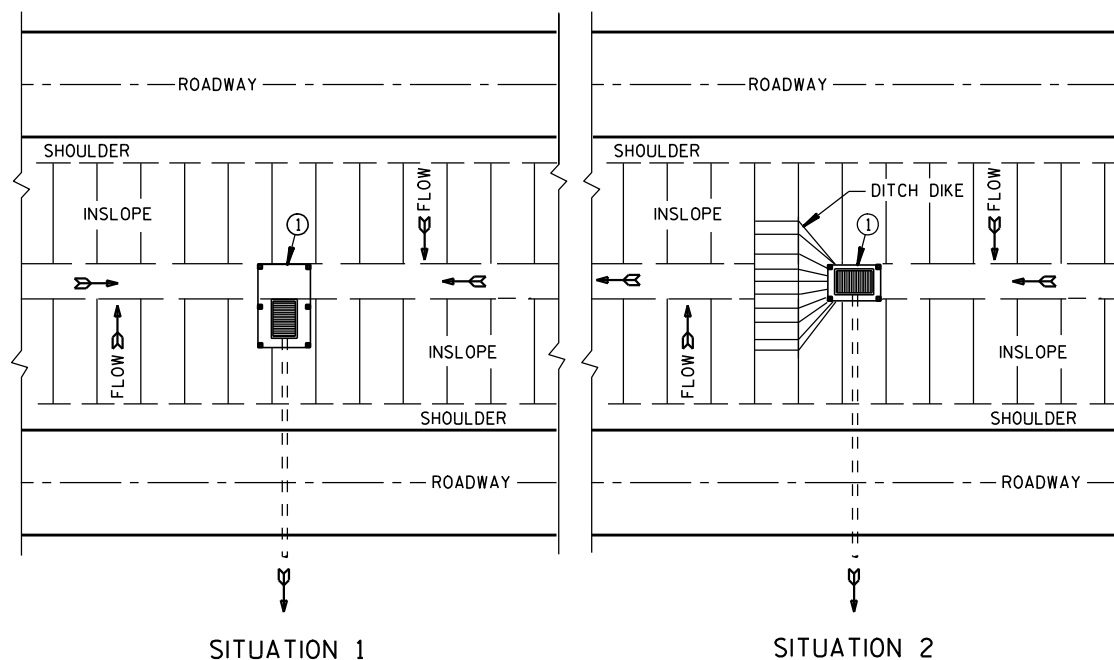


TYPICAL APPLICATION OF SILT FENCE

NOTE: ADDITIONAL POST DEPTH OR TIE BACKS MAY BE REQUIRED IN UNSTABLE SOILS

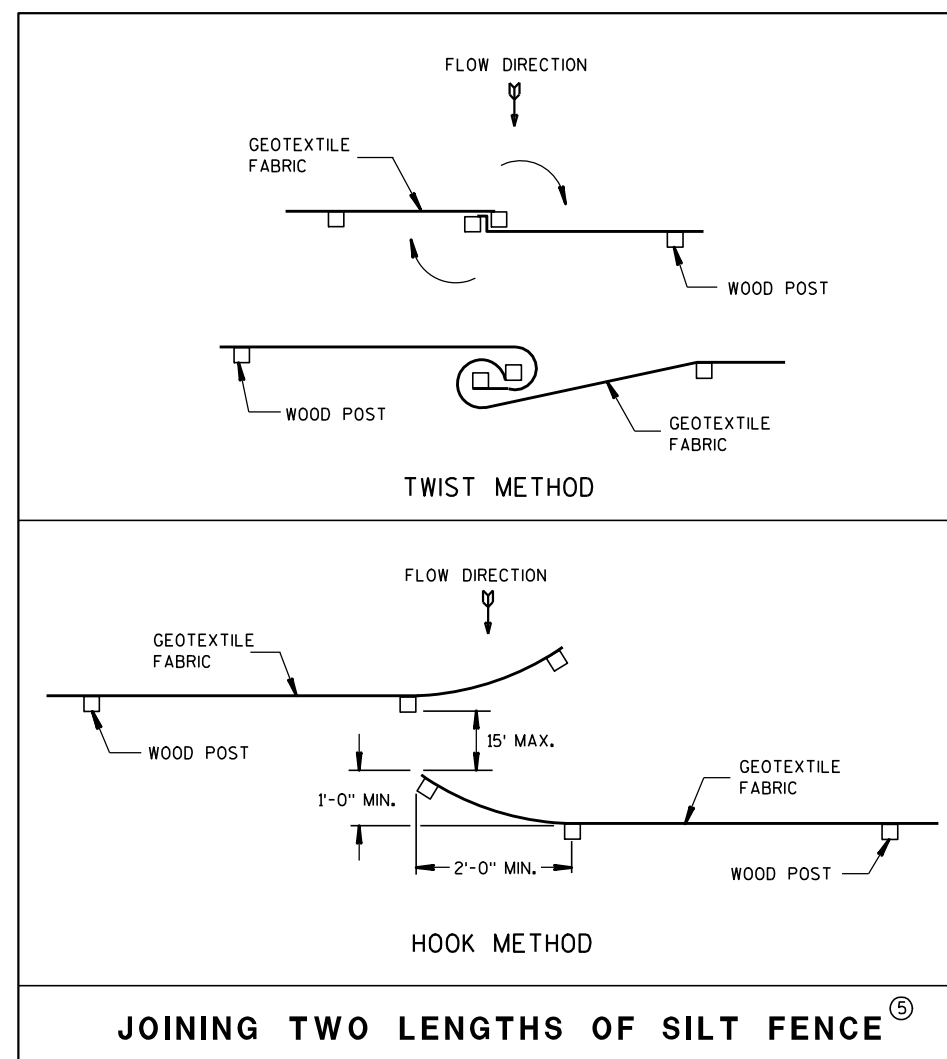


SILT FENCE



PLAN VIEW

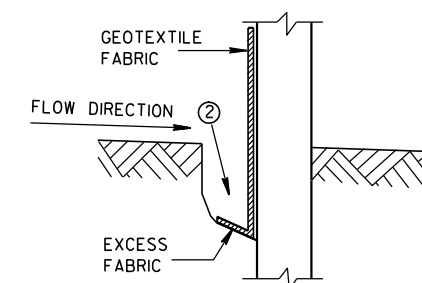
SILT FENCE AT MEDIAN SURFACE DRAINS



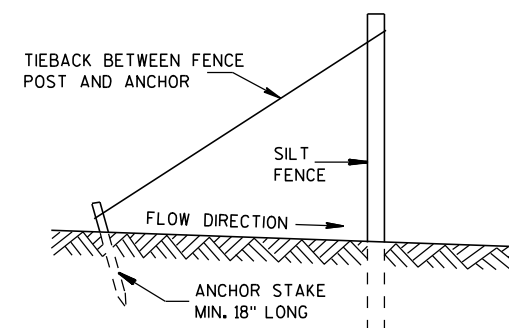
GENERAL NOTES

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

- ① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
- ② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
- ③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 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

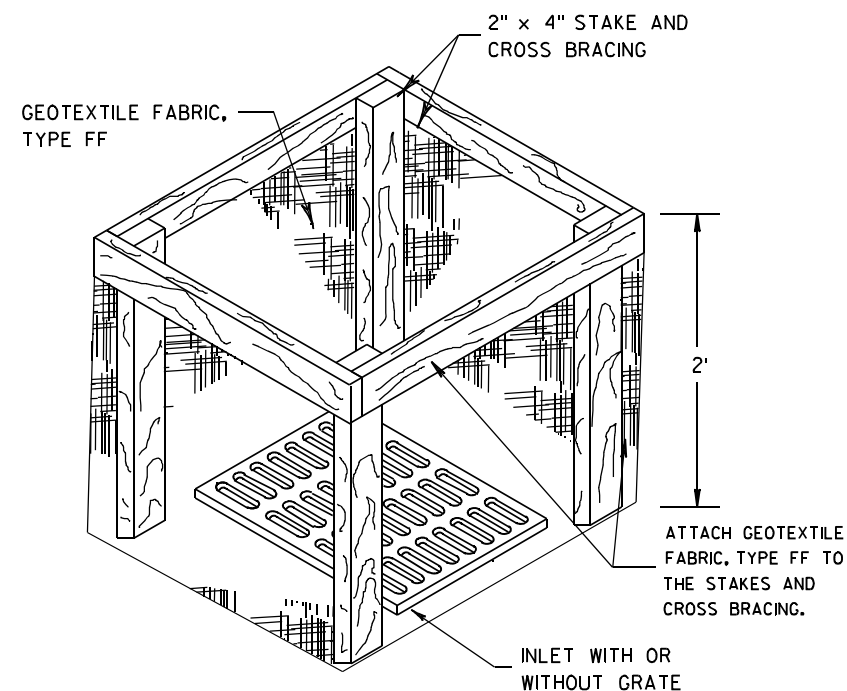
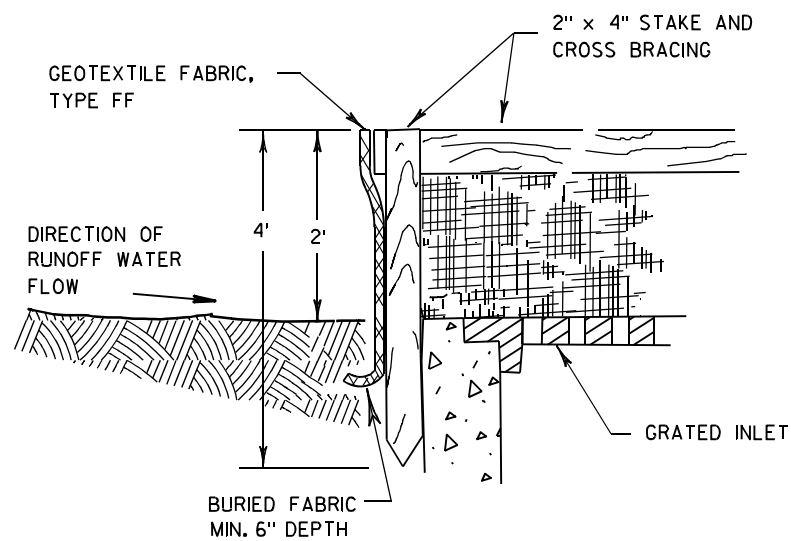
DATE

/S/ Beth Conn

CHIEF ROADWAY DEVELOPER

FHWA

ENGINEER



INLET PROTECTION, TYPE A

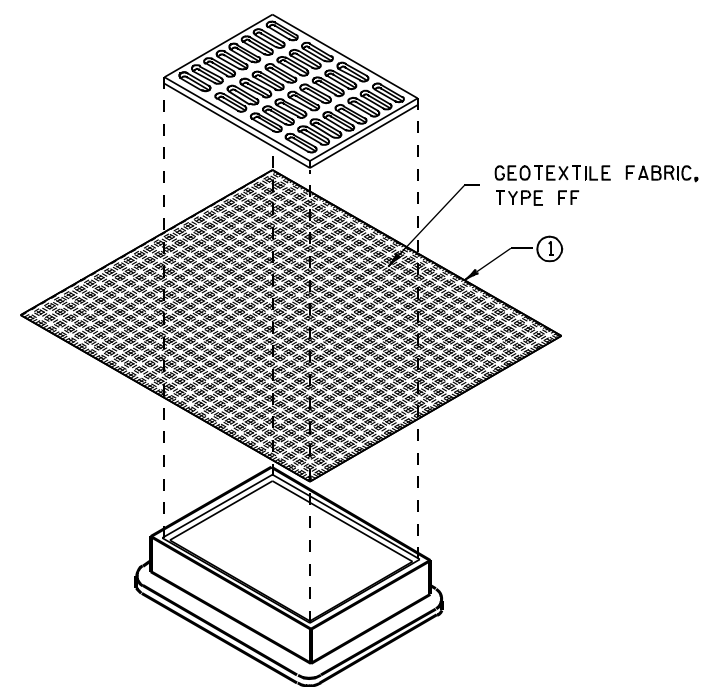
GENERAL NOTES

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

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

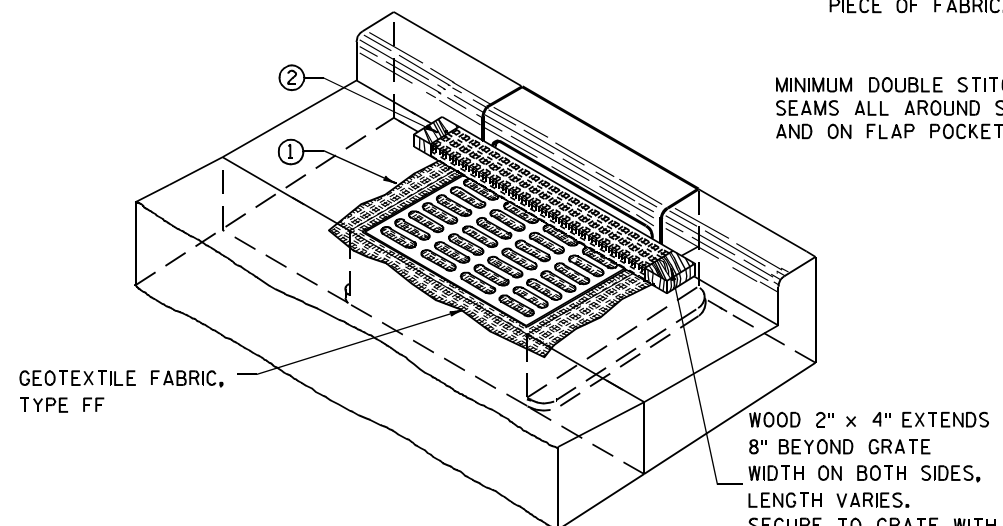
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

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



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

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



INLET PROTECTION, TYPE C (WITH CURB BOX)

INSTALLATION NOTES

TYPE B & C

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

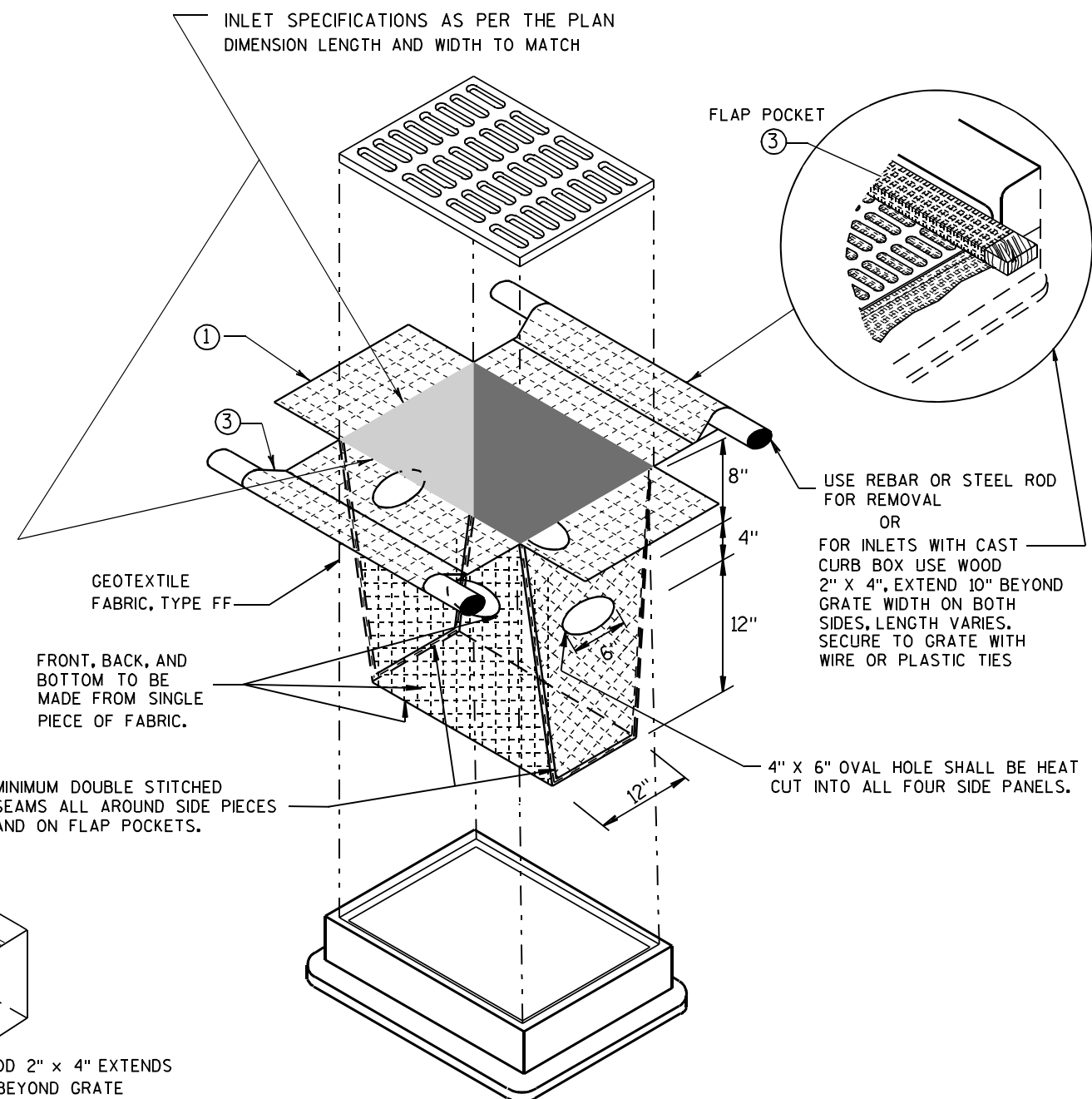
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

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

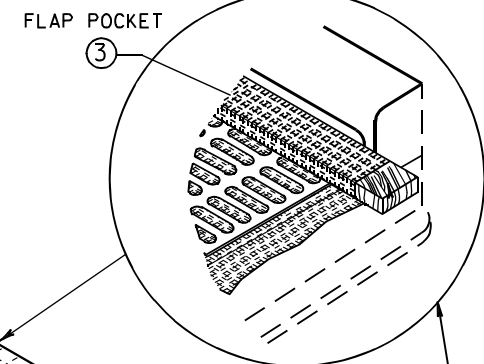
TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

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



INLET PROTECTION, TYPE D

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



USE REBAR OR STEEL ROD FOR REMOVAL OR
FOR INLETS WITH CAST CURB BOX USE WOOD 2" X 4", EXTEND 10" BEYOND GRATE WIDTH ON BOTH SIDES, LENGTH VARIES. SECURE TO GRATE WITH WIRE OR PLASTIC TIES

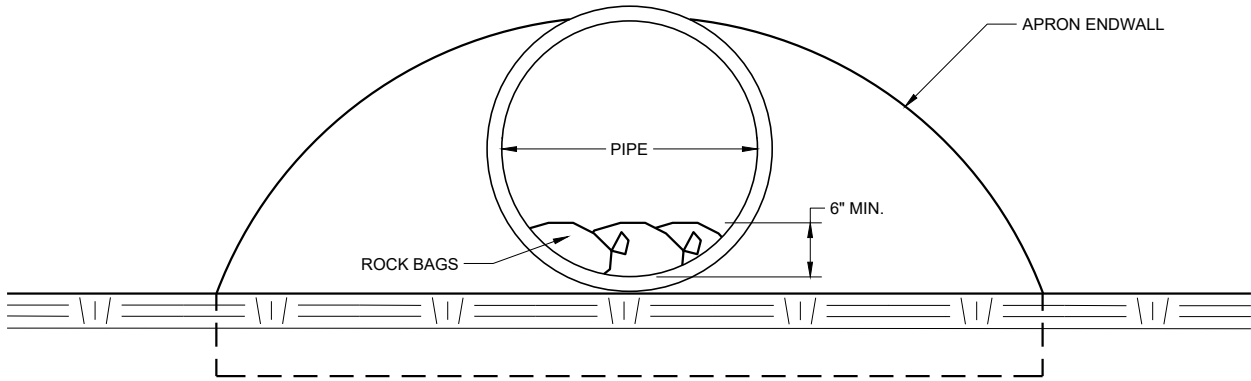
MINIMUM DOUBLE STITCHED SEAMS ALL AROUND SIDE PIECES AND ON FLAP POCKETS.

4" X 6" OVAL HOLE SHALL BE HEAT CUT INTO ALL FOUR SIDE PANELS.

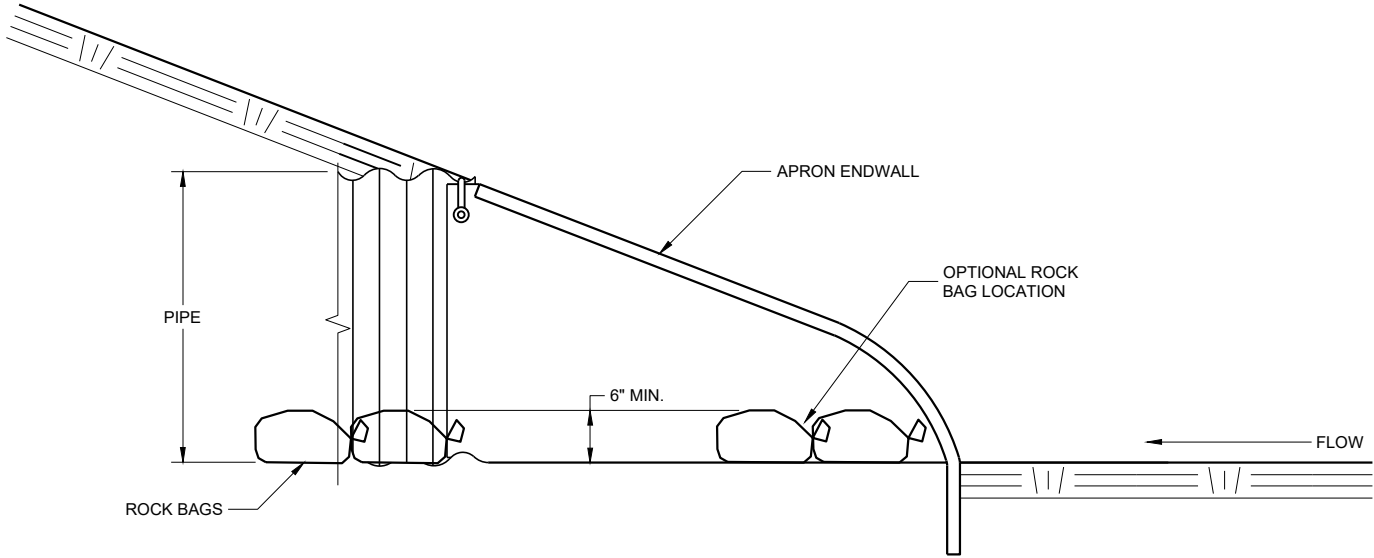
**INLET PROTECTION
TYPE A, B, C, AND D**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/16/02 /S/ Beth Connolly
DATE 83
FHWA CHIEF ROADWAY DEVELOPMENT ENGINEER



END VIEW



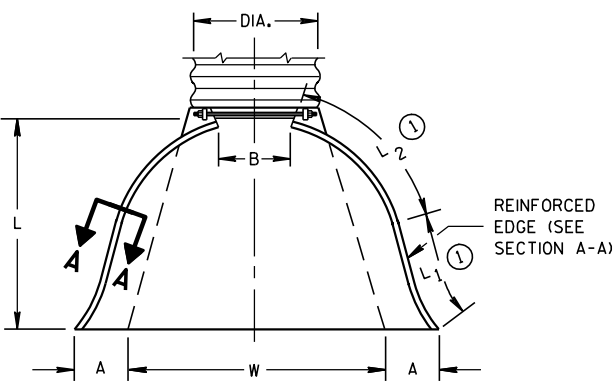
SIDE VIEW

CULVERT PIPE CHECK
(INSTALL ON INLET END ONLY)

CULVERT PIPE CHECK			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
APPROVED			
May 2019	/S/ Daniel Schave		
DATE	EROSION CONTROL ENGI	84	
FHWA			

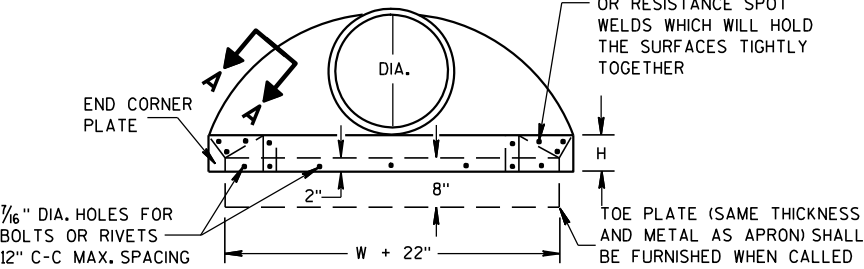
METAL APRON ENDWALLS											
PIPE DIA. (IN.)	MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY
	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")		
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	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



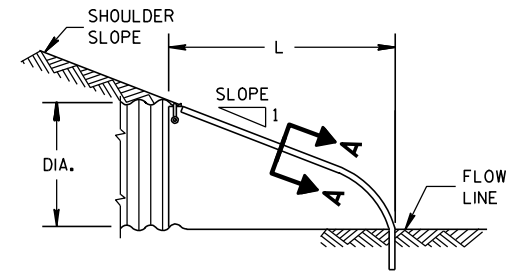
PLAN VIEW

END CORNER PLATES MAY BE FASTENED TO APRON PROPER BY BOLTS, RIVETS, OR RESISTANCE SPOT WELDS WHICH WILL HOLD THE SURFACES TIGHTLY TOGETHER



END VIEW

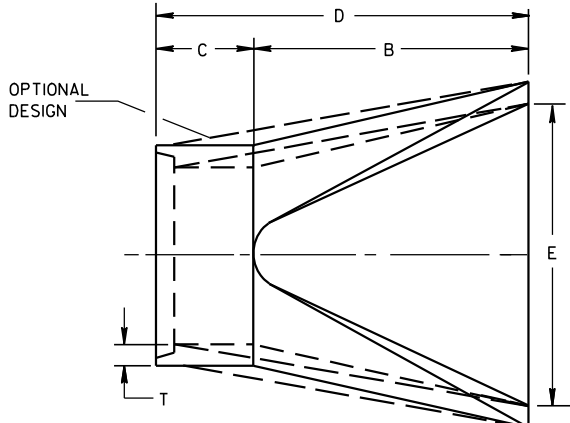
TOE PLATE (SAME THICKNESS AND METAL AS APRON) SHALL BE FURNISHED WHEN CALLED FOR ON THE PLANS



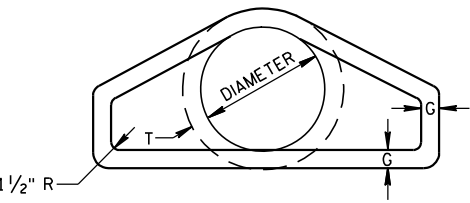
SIDE ELEVATION
METAL ENDWALLS

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

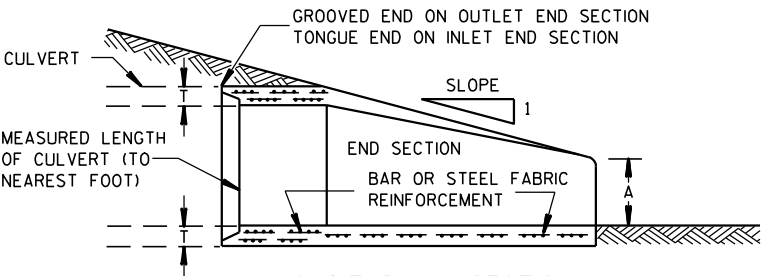
* MINIMUM
** MAXIMUM



PLAN

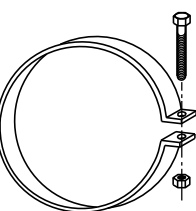


END VIEW

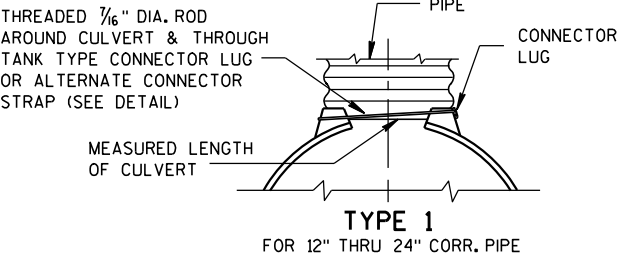


LONGITUDINAL SECTION
CONCRETE ENDWALLS

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

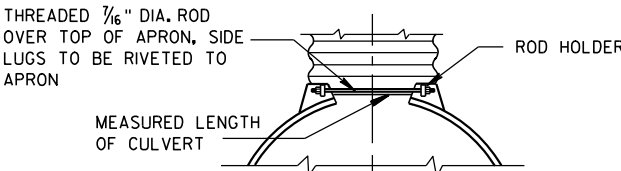


ALTERNATE FOR TYPE 1 CONNECTION
END SECTION CONNECTOR STRAP



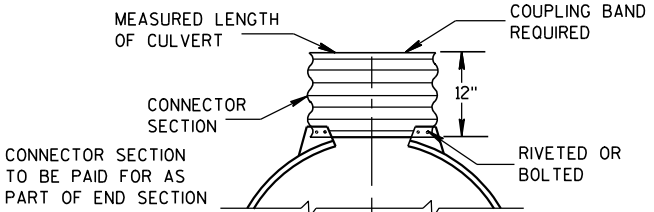
TYPE 1

FOR 12" THRU 24" CORR. PIPE



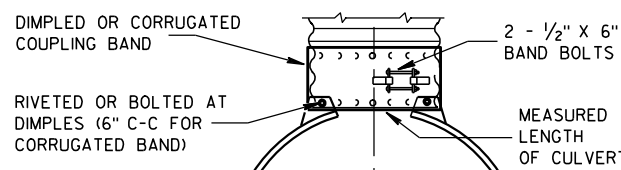
TYPE 2

FOR 30" THRU 96" CORR. PIPE



TYPE 3

FOR 42" THRU 96" CORR. PIPE



TYPE 5

ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

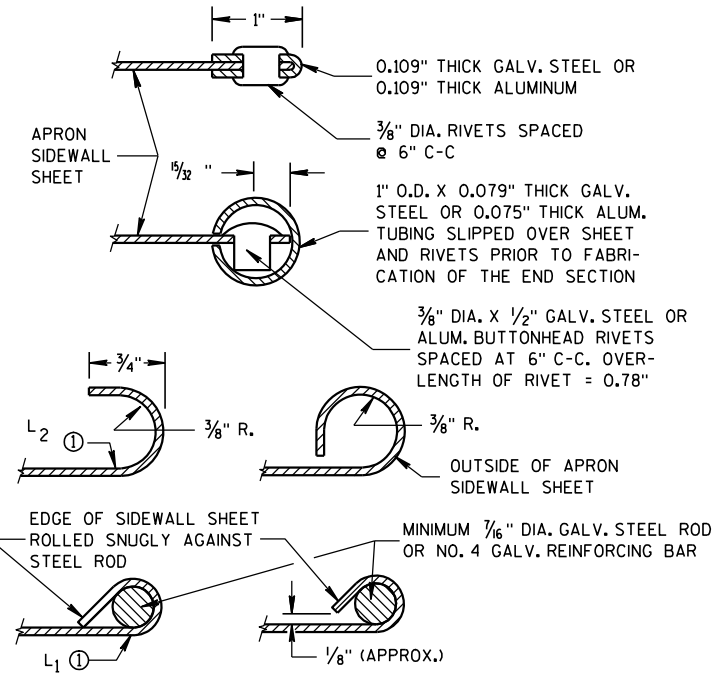
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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.

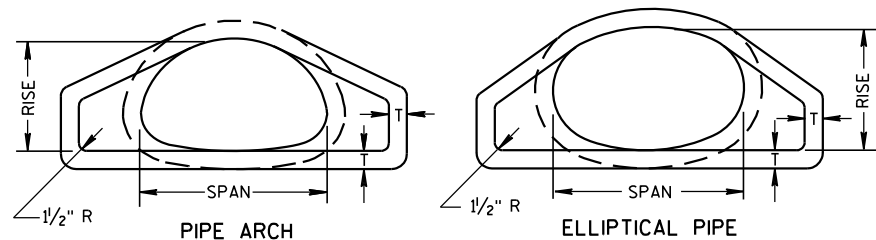
WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

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

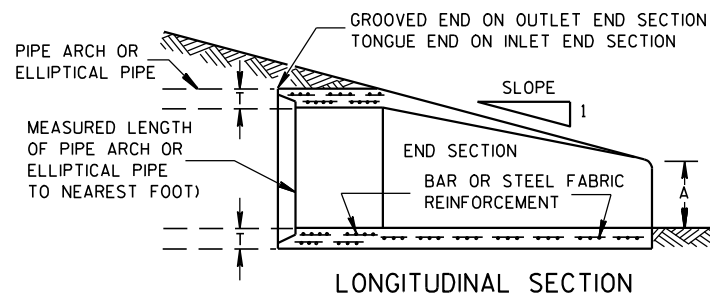
APRON ENDWALLS FOR CULVERT PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/30/94
DATE
/S/ Rory L. Rhinehart
CHIEF ROADWAY DEVELOP 85
NEER
FHWA

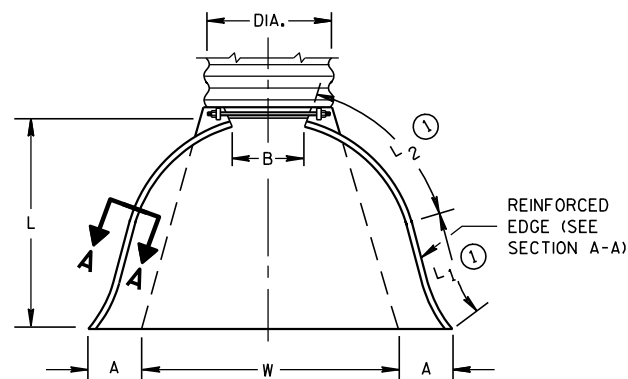


END VIEW



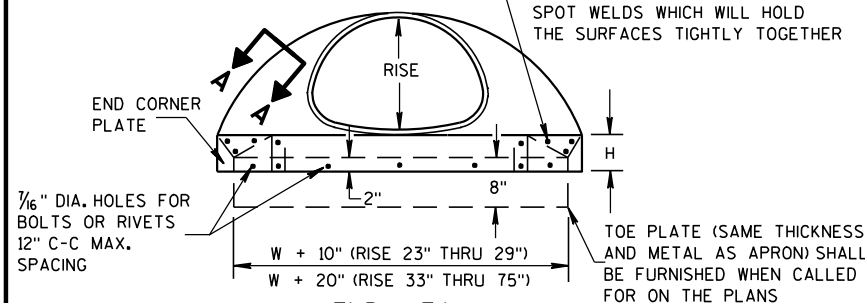
LONGITUDINAL SECTION

CONCRETE ENDWALLS

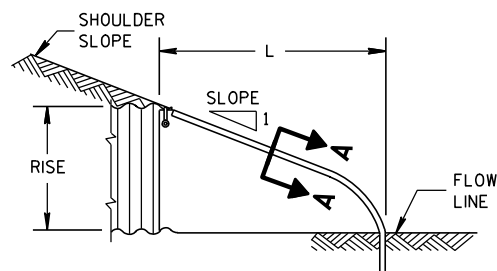
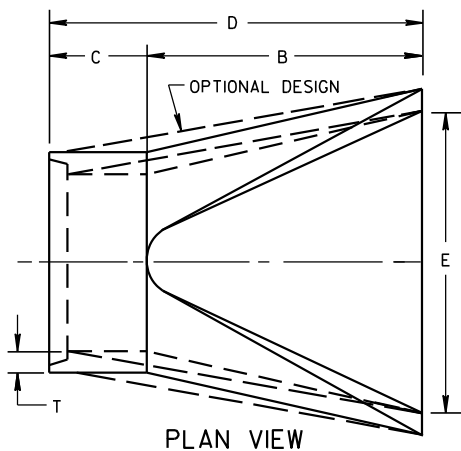


PLAN VIEW

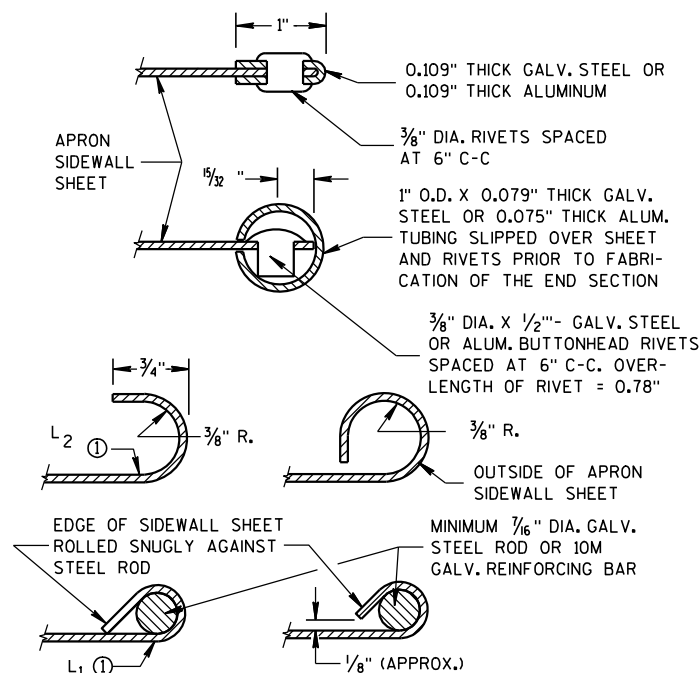
END CORNER PLATES MAY BE FASTENED TO APRON PROPER BY BOLTS, RIVETS, OR RESISTANCE SPOT WELDS WHICH WILL HOLD THE SURFACES TIGHTLY TOGETHER



END VIEW

SIDE ELEVATION
METAL ENDWALLS

PLAN VIEW



SECTION A-A

2- 2 ² / ₃ " x 1 ¹ / ₂ " CORRUGATIONS													
EQUIV. DIA. (Inches)	(Inches)		MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY
	SPAN	RISE	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1 ¹ / ₂ ")	L1 ①	L2 ①	W (±2")		
15	17	13	.064	.060	7	9	6	19	14	16	30	2 ¹ / ₂ to 1	1 Pc.
18	21	15	.064	.060	7	10	6	23	14	19 ³ / ₈	36	2 ¹ / ₂ to 1	1 Pc.
21	24	18	.064	.060	8	12	6	28	18	21 ³ / ₄	42	2 ¹ / ₂ to 1	1 Pc.
24	28	20	.064	.060	9	14	6	32	18	27 ¹ / ₂	48	2 ¹ / ₂ to 1	1 Pc.
30	35	24	.079	.075	10	16	6	39	18	37 ⁵ / ₈	60	2 ¹ / ₂ to 1	1 Pc.
36	42	29	.079	.075	12	18	8	46	24	45 ³ / ₈	75	2 ¹ / ₂ to 1	1 Pc.
42	49	33	.109	.105	13	21	9	53	24	54 ³ / ₄	85	2 ¹ / ₂ to 1	2 Pc.
48	57	38	.109	.105	18	26	12	63	24	68	90	2 ¹ / ₂ to 1	3 Pc.
54	64	43	.109	.105	18	30	12	70	24	72 ³ / ₄	102	2 ¹ / ₄ to 1	3 Pc.
60	71	47	.109*	.105*	18	33	12	77	30	82 ¹ / ₄	114	2 ¹ / ₄ to 1	3 Pc.
66	77	52	.109*	.105*	18	36	12	77	—	—	126	2 to 1	3 Pc.
72	83	57	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.

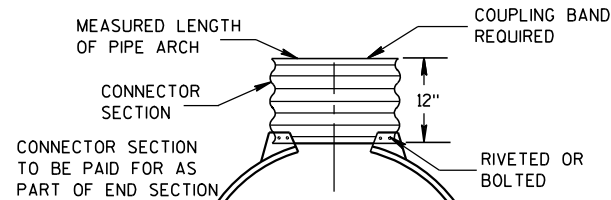
3" X 1" CORRUGATIONS													
EQUIV. DIA. (Inches)	(Inches)		MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY
	SPAN	RISE	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ⓪	L2 ⓪	W (±2")		
48	53	41	.109	.105	18	26	12	63	24	72¾	90	2½ to 1	2 Pc.
54	60	46	.109	.105	18	30	12	70	30	82¼	102	2 to 1	2 Pc.
60	66	51	.109*	.105*	18	33	12	77	—	—	114	1½ to 1	3 Pc.
66	73	55	.109*	.105*	18	36	12	77	—	—	126	1½ to 1	3 Pc.
72	81	59	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.
78	87	63	.109*	.105*	22	38	12	77	—	—	148	1½ to 1	3 Pc.
84	95	67	.109*	.105*	22	34	12	77	—	—	162	1½ to 1	3 Pc.
90	103	71	.109*	.105*	22	38	12	77	—	—	174	1½ to 1	3 Pc.
96	112	75	.109*	.105*	24	40	12	77	—	—	174	1½ to 1	3 Pc.

NOTE: ALL SPLICES TO BE LAP RIVETED OR BOLTED.

* EXCEPT CENTER PANEL
SEE GENERAL NOTES

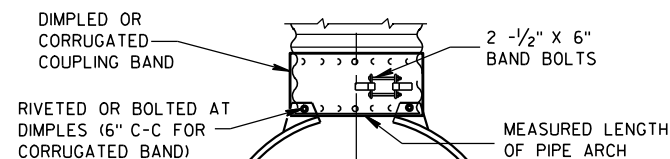
TYPE 2

FOR 17" X 13" THRU 112" X 75" PIPE ARCH



TYPE 3

FOR 64" X 43" THRU 112" X 75" PIPE ARCH



TYPE 5

ALTERNATE FOR:
ALL SIZES CORRUGATED PIPE ARCHESNOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL,
AND CORRUGATED BAND FITS INSIDE ENDWALL.

CONNECTION DETAILS

REINFORCED CONCRETE PIPE ARCH

EQUIV. DIA. (Inches)	DIMENSIONS (Inches)								APPROX. SLOPE
	** SPAN	** RISE	T	A	B	C	D	E	
24	29	18	3	8 1/2	39	33	72	48	3 to 1
30	36	22	3 1/2	9 1/2	50	46	96	60	3 to 1
36	44	27	4	11 1/8	60	36	96	72	3 to 1
42	51	31	4 1/2	15 1/16	60	36	96	78	3 to 1
48	58	36	5	21	60	36	96	84	3 to 1
54	65	40	5 1/2	25 1/2	60	36	96	90	3 to 1
60	73	45	6	31	60	36	96	96	3 to 1
72	88	54	7	31	60	39	99	120	2 to 1
84	102	62	8	28 1/2	83	19	102	144	2 to 1

REINFORCED CONCRETE ELLIPTICAL PIPE

EQUIV. DIA. (Inches)	DIMENSIONS (Inches)								APPROX. SLOPE
	** SPAN	** RISE	T	A	B	C	D	E	
24	30	19	3 1/4	8 1/2	39	33	72	48	3 to 1
30	38	24	3 3/4	9 1/2	54	18	72	60	3 to 1
36	45	29	4 1/2	11 1/8	60	24	84	72	2 1/2 to 1
42	53	34	5	15 1/4	60	36	96	78	2 1/2 to 1
48	60	38	5 1/2	21	60	36	96	84	2 1/2 to 1
54	68	43	6	25 1/2	60	36	96	90	2 1/2 to 1
60	76	48	6 1/2	30	60	36	96	96	2 1/2 to 1

**NOMINAL SIZE

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

ALL THREE PIECE STEEL APRON ENDWALLS FOR 66" X 51" PIPE ARCH AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 66" X 51" PIPE ARCH 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 ARCH 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 77" X 52" THROUGH 112" X 75" 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 ARCH SIZES UP TO 73" X 55" A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR
PIPE ARCH AND
ELLIPTICAL PIPESTATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/30/94

DATE

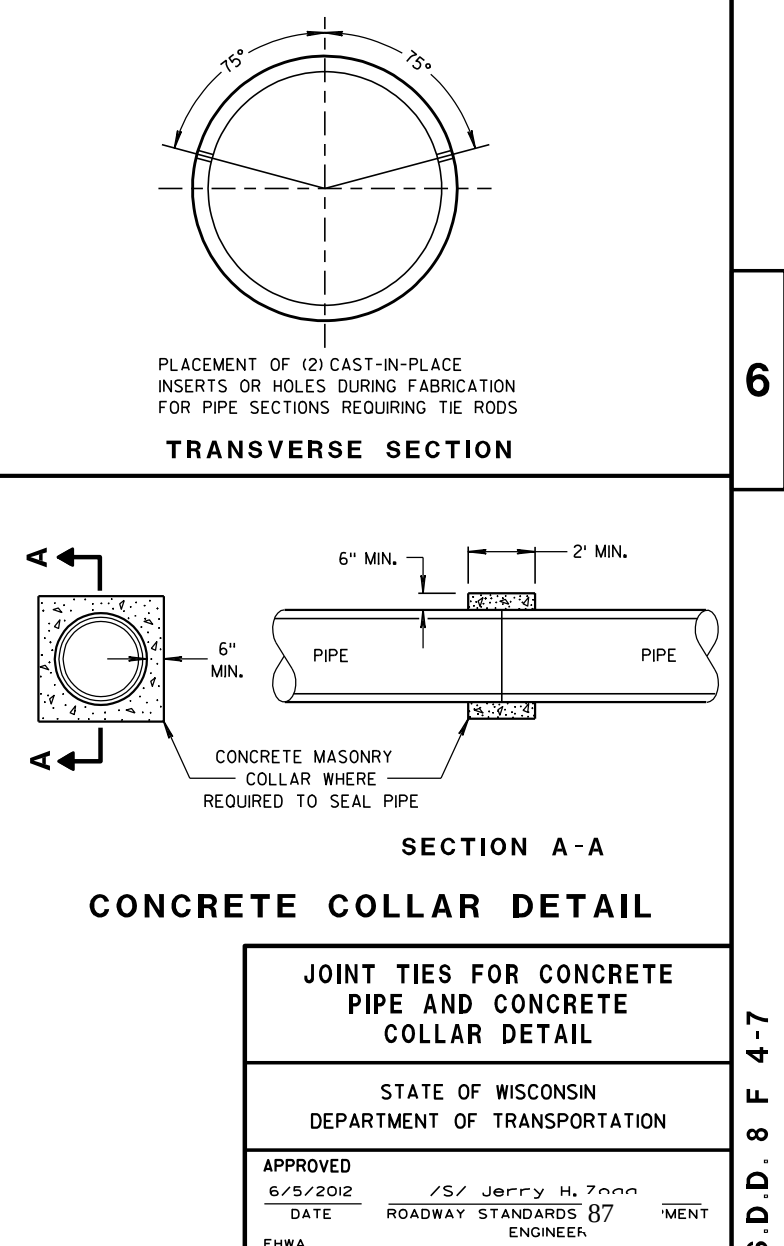
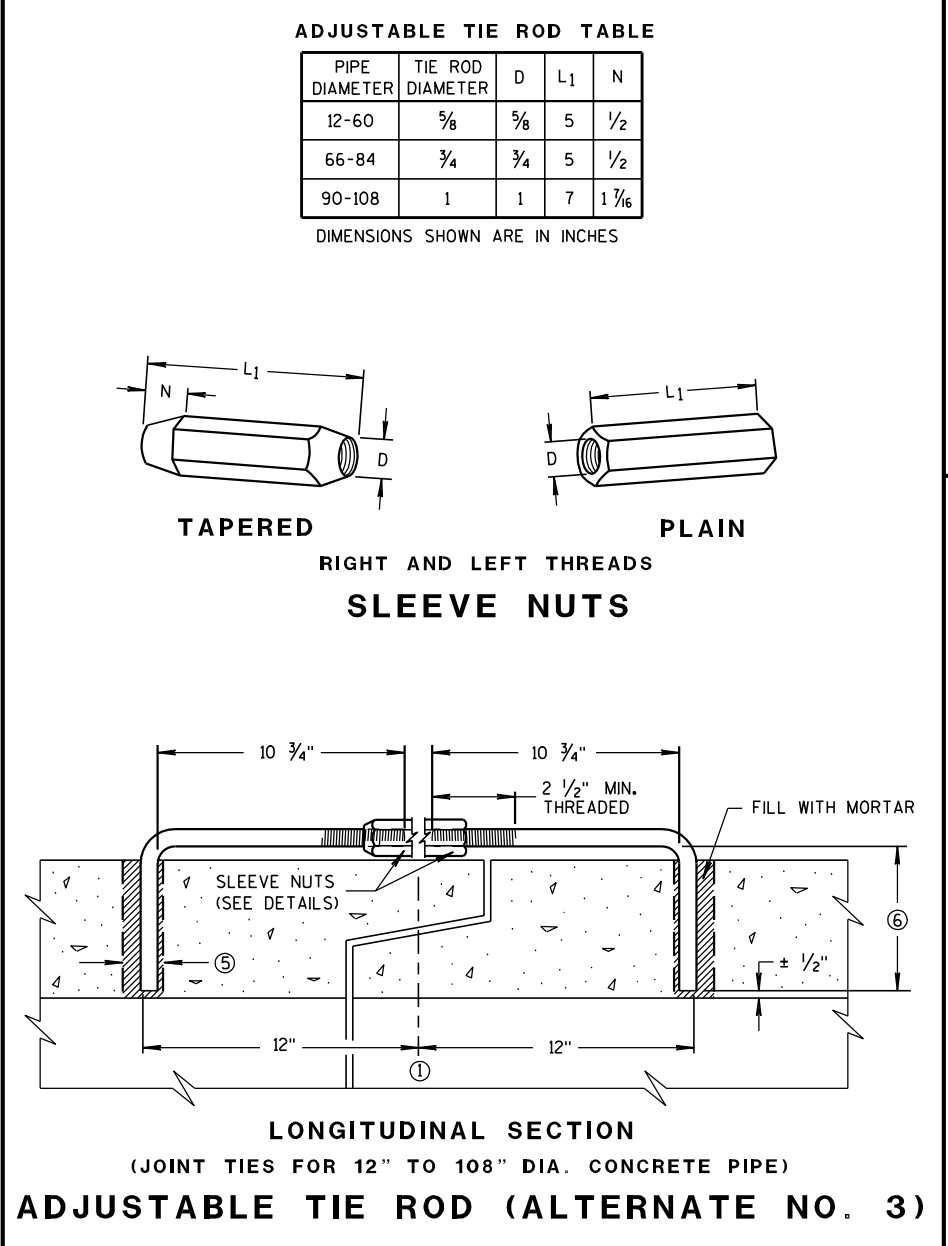
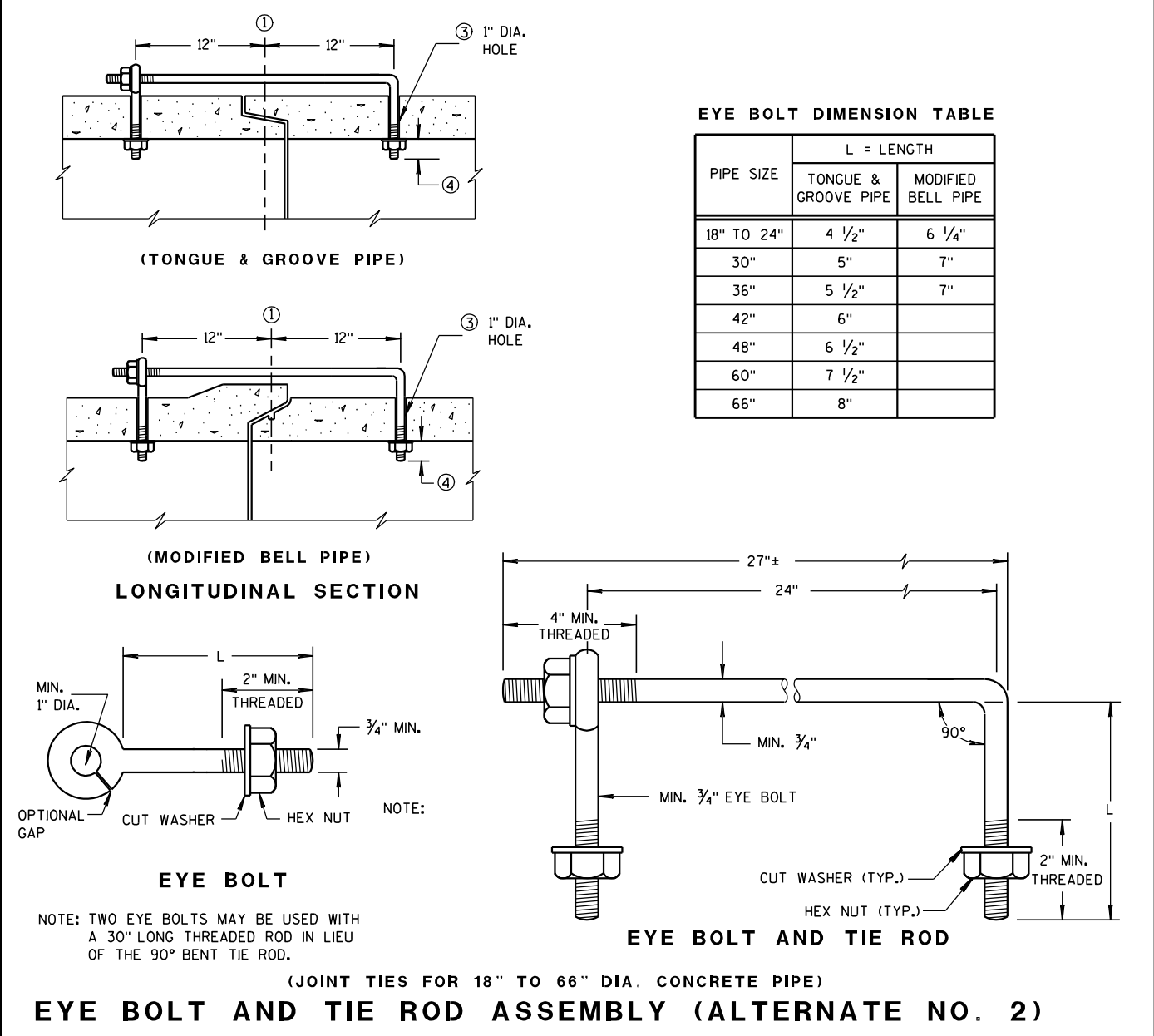
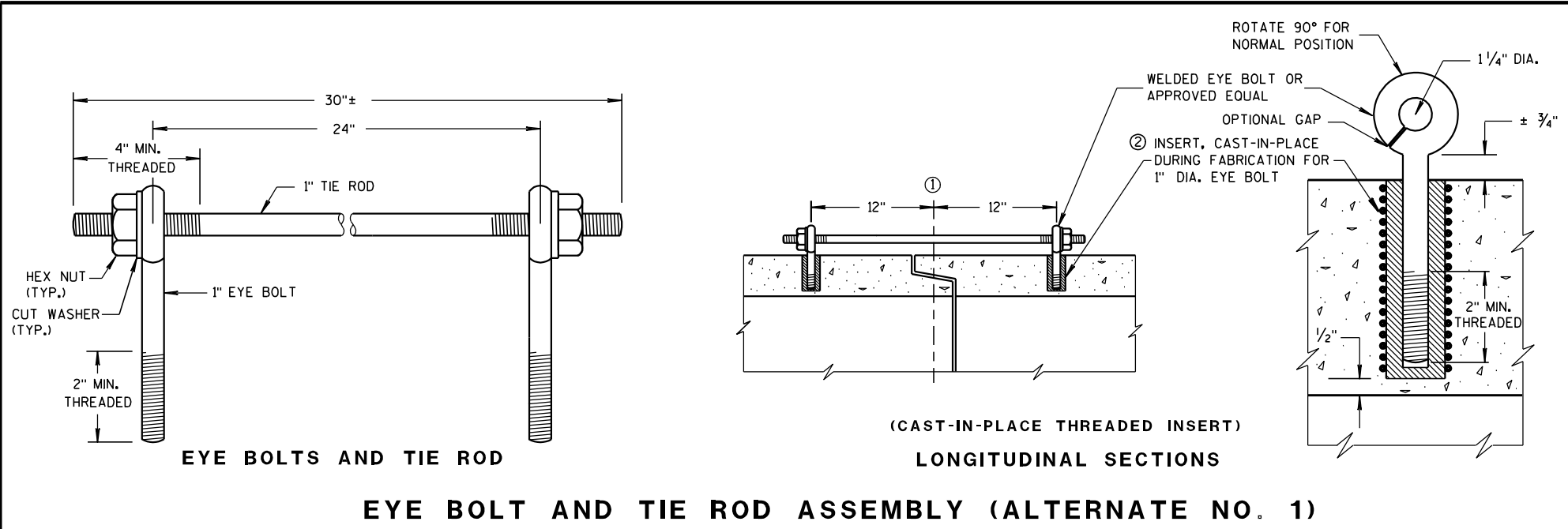
FHWA

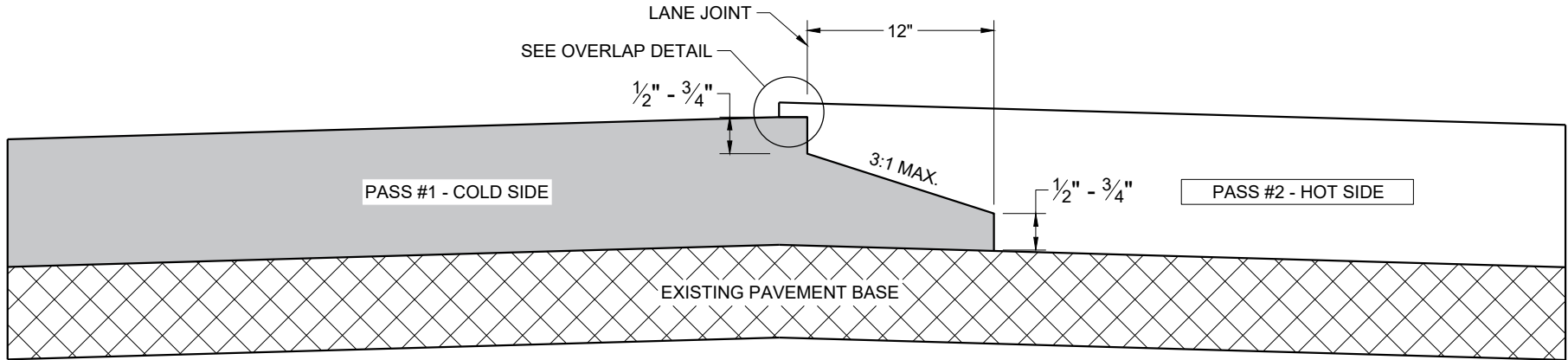
/S/ Rory L. Rhinehart

CHIEF ROADWAY DEVELOPER

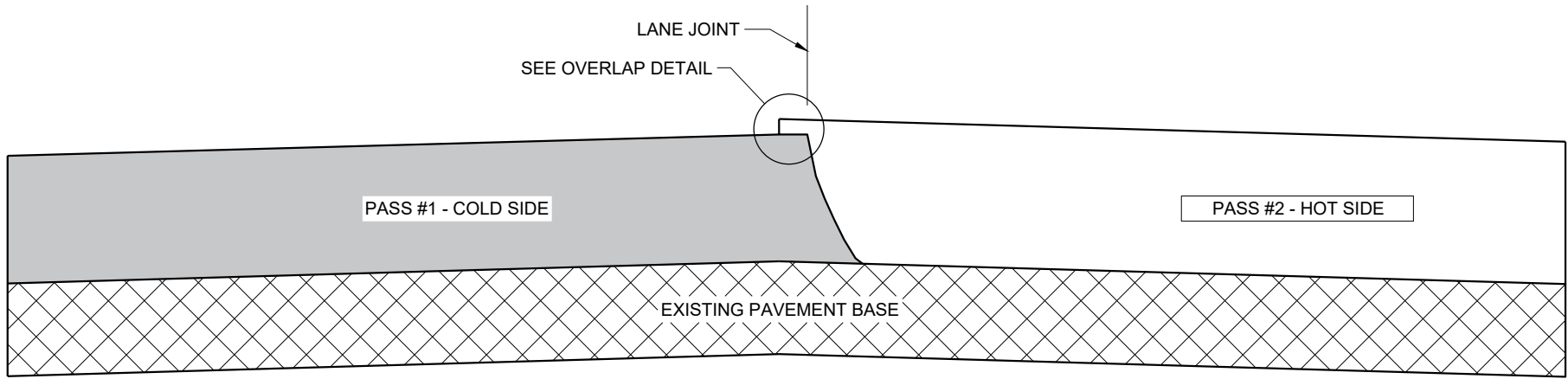
86

ENGINEER

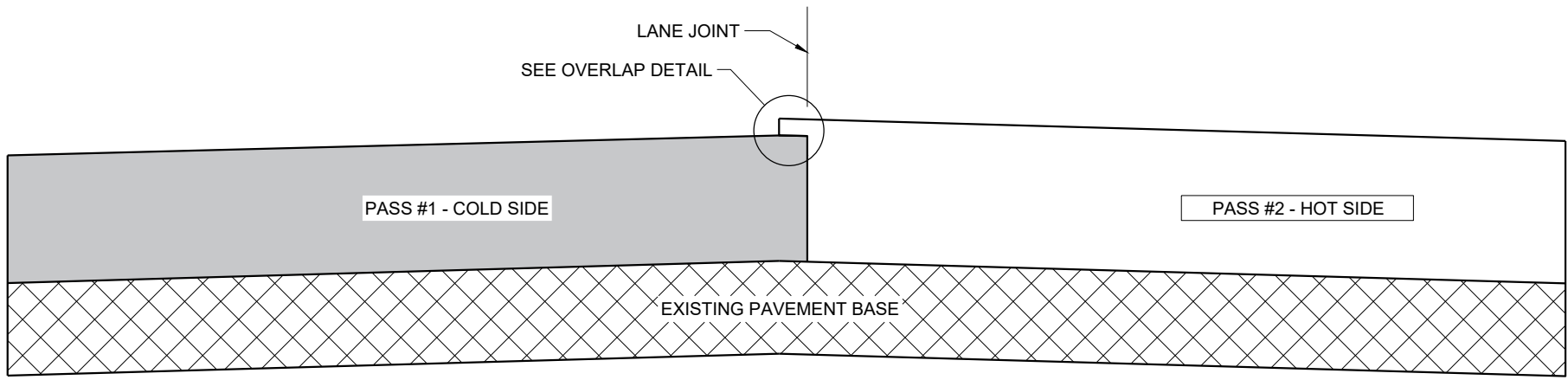




**TYPICAL PAVEMENT CROSS SECTION
OF NOTCHED WEDGE LONGITUDINAL JOINT**



**TYPICAL PAVEMENT CROSS SECTION
VERTICAL LONGITUDINAL JOINT**



**TYPICAL PAVEMENT CROSS SECTION
OF MILLED LONGITUDINAL JOINT**

GENERAL NOTES

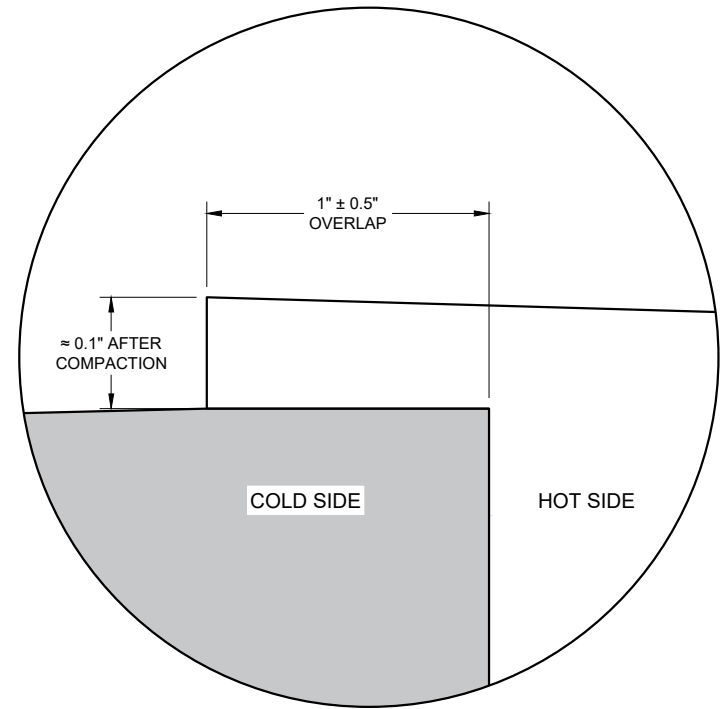
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

FOR ALL LONGITUDINAL JOINTS, ENSURE THE PAVER SCREED OVERLAPS THE PREVIOUSLY PLACED PAVEMENT BY 1" ± 0.5" AND THE HOT SIDE OF THE JOINT REMAINS HIGHER THAN THE COLD SIDE BY APPROXIMATELY 0.1" AFTER FINAL COMPACTION.

ONLY REMOVE THE LONGITUDINAL NOTCHED WEDGE JOINT FOR SMA PAVEMENT OR AS DIRECTED BY THE ENGINEER TO ADDRESS SPECIFIC LENGTHS OF JOINT DAMAGED BY TRAFFIC.

WHEN MILLING BACK OR REMOVING ANY LONGITUDINAL JOINT, LIMIT THE MATERIAL REMOVED TO 2" FROM THE TOP NOTCH OR FROM THE VERTICAL JOINT EDGE ON THE COLD SIDE OF THE JOINT.

USE LONGITUDINAL MILLED JOINT AS PLANS SHOW OR THE AS THE ENGINEER DIRECTS.

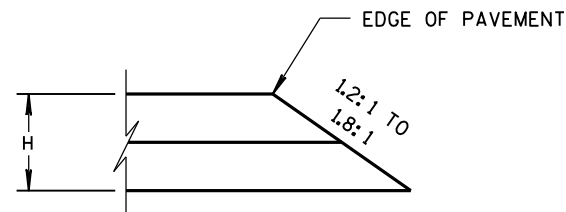


OVERLAP DETAIL (TYPICAL)

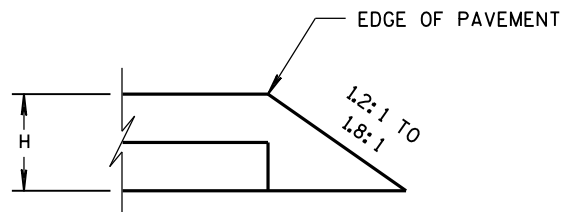
HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

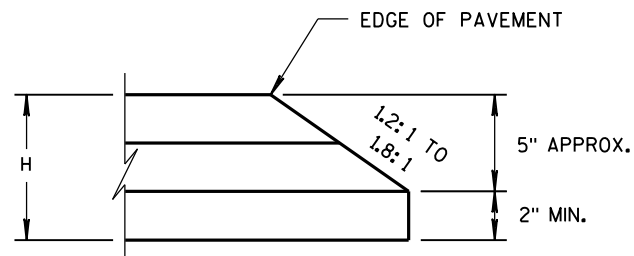
APPROVED
February 2020 /S/ Steven Hefel
DATE HMA PAVEMENT ENGIN 88
FHWA



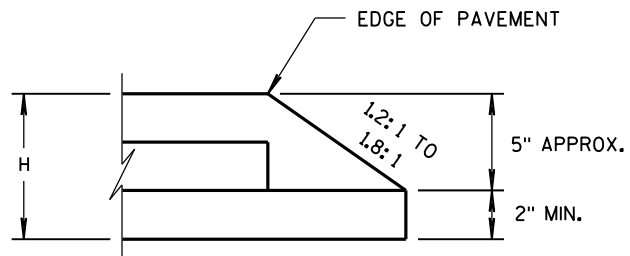
CONSTRUCTED WITH FINAL TWO LAYERS
FOR H 5" OR LESS



CONSTRUCTED WITH FINAL LAYER
FOR H 5" OR LESS

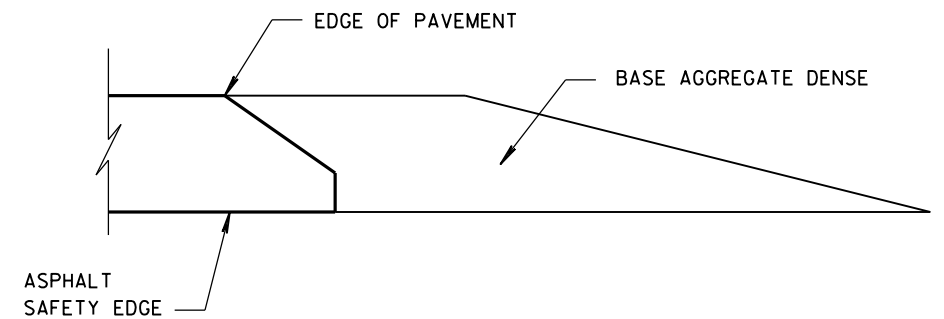


CONSTRUCTED WITH FINAL TWO LAYERS
FOR H GREATER THAN 5"



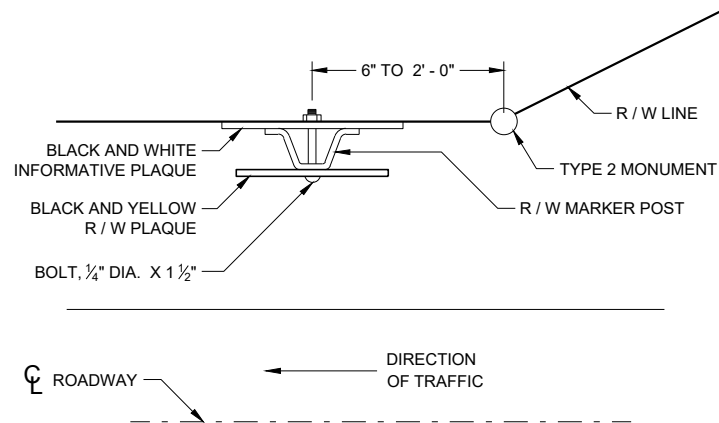
CONSTRUCTED WITH FINAL LAYER
FOR H GREATER THAN 5"

HMA PAVEMENT AND HMA OVERLAYS

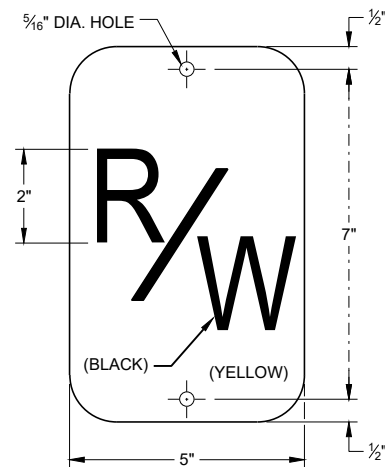


FINISHED SHOULDER AGGREGATE PLACEMENT

SAFETY EDGE _{SM}		
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION		
APPROVED DATE 11/30/2012	/S/ Jerry H. Zoaga ROADWAY STANDARDS ENGINEER	ENT 89
FHWA		

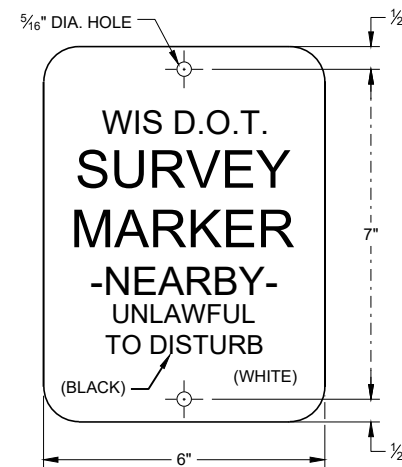


**PLAN VIEW
STEEL MARKER POST**



R / W PLAQUE

THE RIGHT-OF-WAY PLAQUE AND INFORMATIVE PLAQUE WILL BE FURNISHED BY THE WISCONSIN DEPARTMENT OF TRANSPORTATION.



INFORMATIVE PLAQUE

GENERAL NOTES

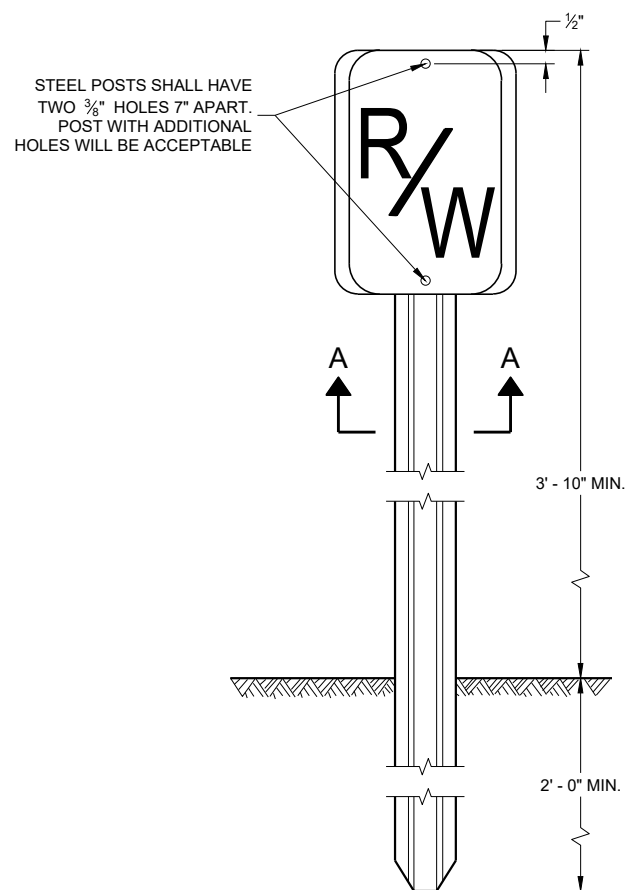
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

A STEEL MARKER POST FOR RIGHT -OF-WAY SHALL BE PLACED IN THE RIGHT-OF-WAY WITH THE BACK OF THE POST ON THE LONGER RIGHT-OF-WAY TANGENT, 6 INCHES TO 24 INCHES FROM EACH TYPE 2 MONUMENT TO SERVE AS A GUARD POST, AND AT OTHER LOCATIONS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

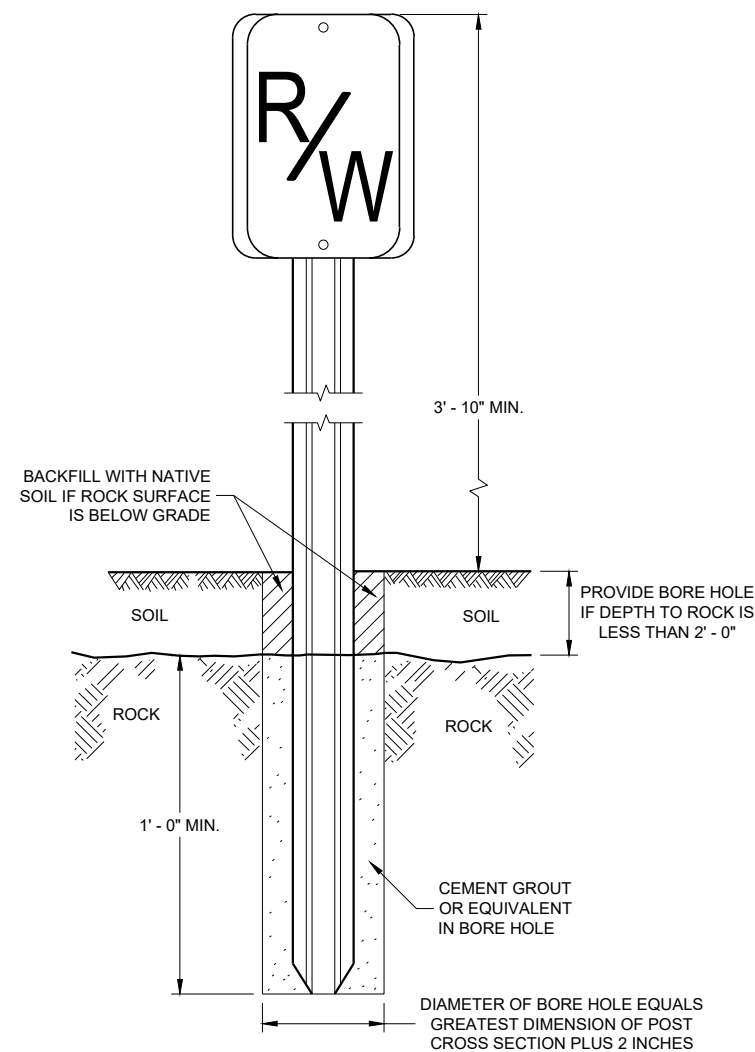
THE "R/W" PLAQUE SHALL FACE THE ROADWAY AND THE INFORMATIVE PLAQUE SHALL FACE AWAY FROM THE ROADWAY. "R/W" AND INFORMATIVE PLAQUES WILL BE FURNISHED BY THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

STEEL MARKER POSTS SHALL MEET THE MINIMUM MATERIAL REQUIREMENTS FOR STEEL DELINEATOR POSTS; EXCEPT POSTS PAINTED WITH FEDERAL YELLOW ENAMEL NEED NOT BE ZINC COATED.

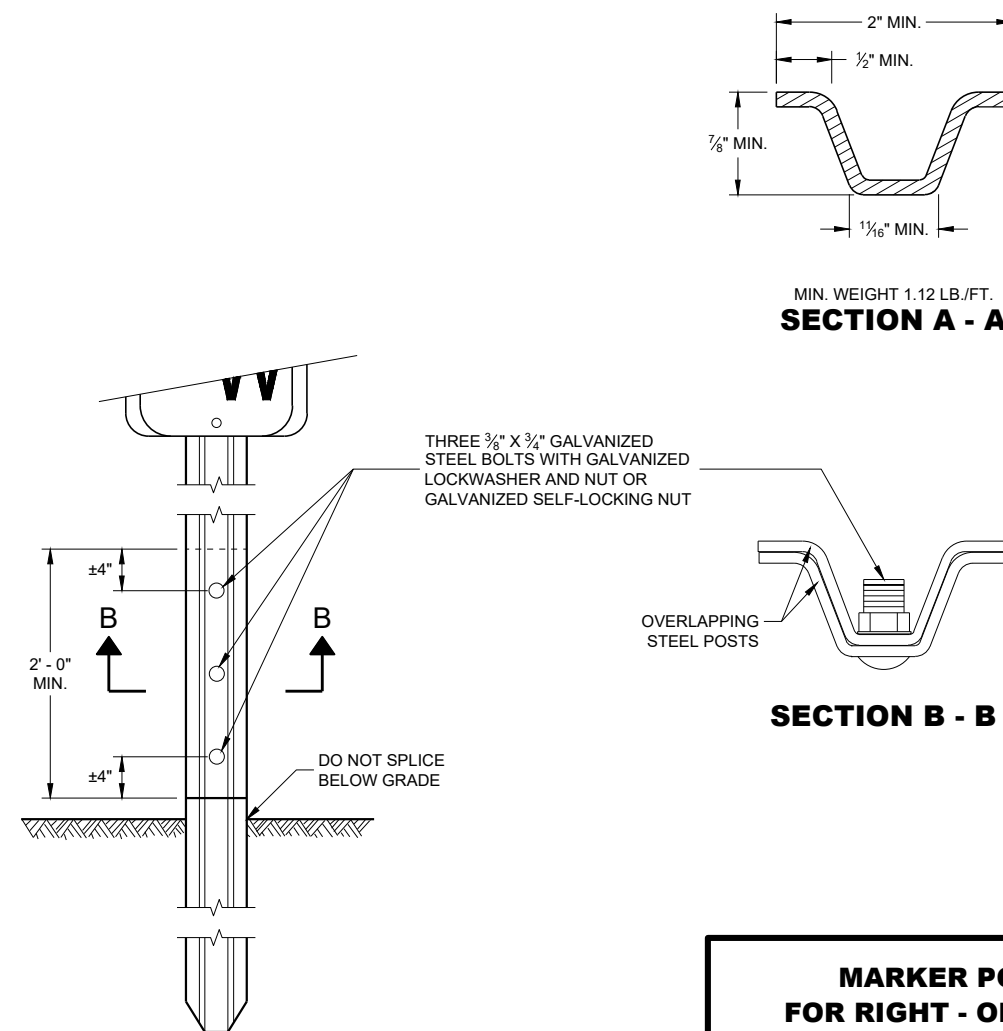
- ① IN AREAS OF SOLID ROCK, DRILL A BORE HOLE 2" GREATER THAN THE WIDEST DIMENSION OF THE POST CROSS SECTION INTO THE ROCK A MINIMUM DEPTH OF 12 INCHES. CUT OR SPLICE THE POST SO THAT A MINIMUM LENGTH OF 3' - 10" PROTRUDES ABOVE THE GROUND. BLOW OUT THE BORE HOLE IN THE ROCK USING COMPRESSED AIR. FILL THE BORE HOLE WITH CEMENT GROUT OR EQUIVALENT, DEPENDING ON THE STABILITY OF THE ROCK.



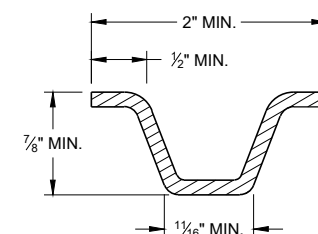
**FRONT VIEW
STEEL MARKER POST**



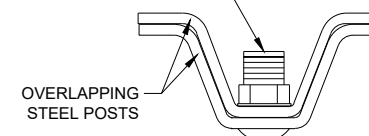
**FRONT VIEW
ROCK INSTALLATION** ①



**FRONT VIEW
SPLICE DETAIL**



MIN. WEIGHT 1.12 LB./FT.
SECTION A - A



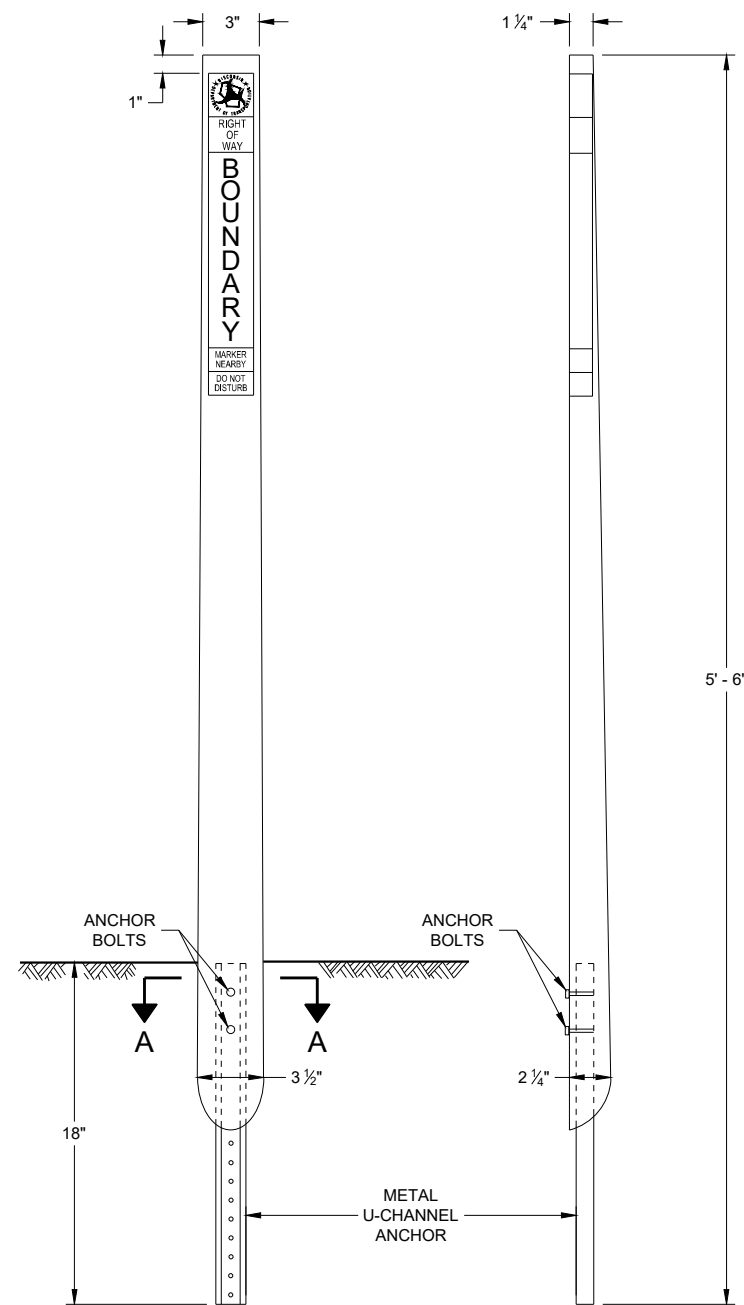
SECTION B - B

MARKER POST FOR RIGHT - OF - WAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
2/18/2016
DATE
/S/ Ray Kumapayi
CHIEF SURVEYING AND MAPPING ENGINEER
90

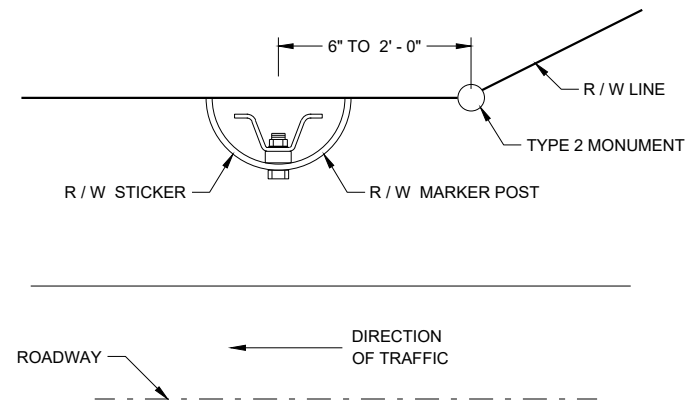
FHWA



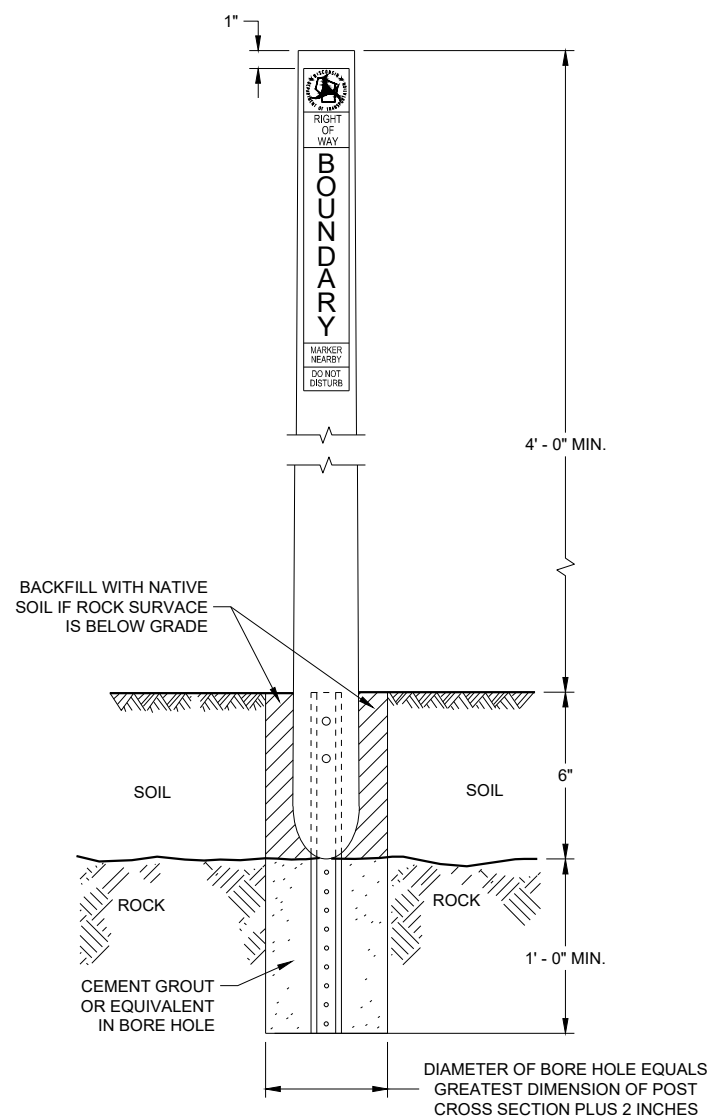
FRONT VIEW **SIDE VIEW**

FLEXIBLE MARKER POST FOR ^①

RIGHT-OF-WAY



PLAN VIEW



FRONT VIEW (1) (2) ROCK INSTALLATION

RIGHT-OF-WAY STICKER

THE RIGHT-OF-WAY STICKER SHALL BE ATTACHED
1" FROM THE TOP OF THE RIGHT-OF-WAY POST PRIOR TO DELIVERY.

GENERAL NOTES

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

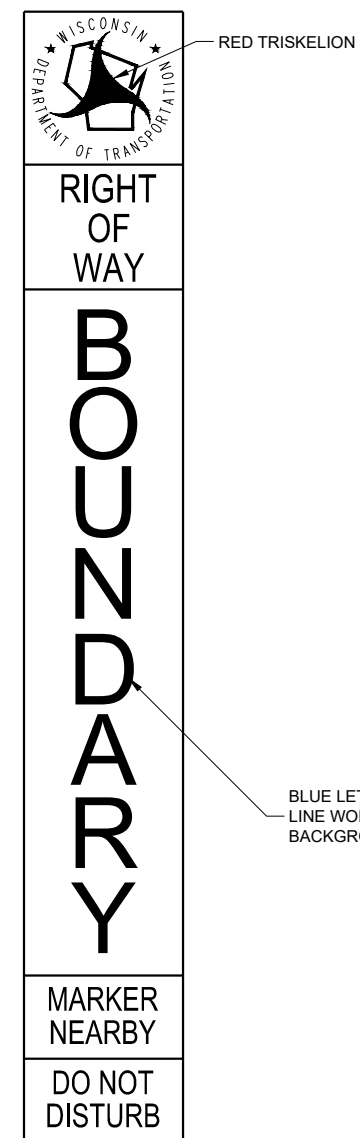
A FLEXIBLE MARKER POST FOR RIGHT -OF-WAY SHALL BE PLACED IN THE RIGHT-OF-WAY WITH THE BACK OF THE POST ON THE LONGER RIGHT-OF-WAY TANGENT, 6 INCHES TO 24 INCHES FROM EACH TYPE 2 MONUMENT TO SERVE AS A GUARD POST, AND AT OTHER LOCATIONS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

THE RIGHT-OF-WAY STICKER DIMENSIONS SHALL BE 2 1/4" X 17" AND THE STICKER SHALL BE MADE OF A NON-RELECTIVE VINYL MATERIAL. THE RIGHT-OF-WAY STICKER SHALL FACE THE ROADWAY.

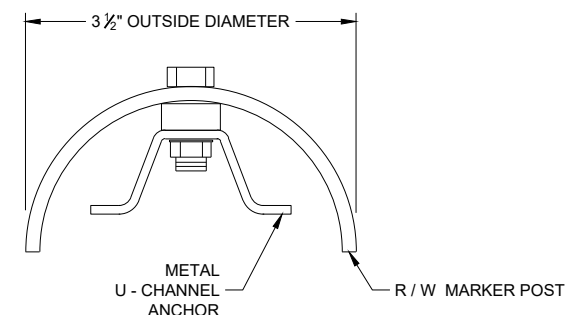
INSTALL PER DEPTH OF MANUFACTURER'S RECOMMENDATION BUT NOT LESS THAN 18 INCHES BELOW GRADE FROM THE BOTTOM OF THE METAL U-CHANNEL ANCHOR.

- ① FLEXIBLE MARKER POSTS SHALL BE INCLUDED IN THE APPROVED PRODUCTS LIST FOR MARKER POSTS AND SHALL BE FEDERAL YELLOW IN COLOR.
- ② IN AREAS OF SOLID ROCK, DRILL A BORE HOLE 2" GREATER THAN THE WIDEST DIMENSION OF THE POST CROSS SECTION INTO THE ROCK A MINIMUM DEPTH OF 12 INCHES. CUT OR SPLICE THE POST SO THAT A MINIMUM LENGTH OF 4' - 0" PROTRUDES ABOVE THE GROUND. BLOW OUT THE BORE HOLE IN THE ROCK USING COMPRESSED AIR.

FILL THE BORE HOLE WITH CEMENT GROUT OR EQUIVALENT, DEPENDING ON THE STABILITY OF THE ROCK.



BLUE LETTERING AND
— LINE WORK ON WHITE
BACKGROUND



SECTION A - A

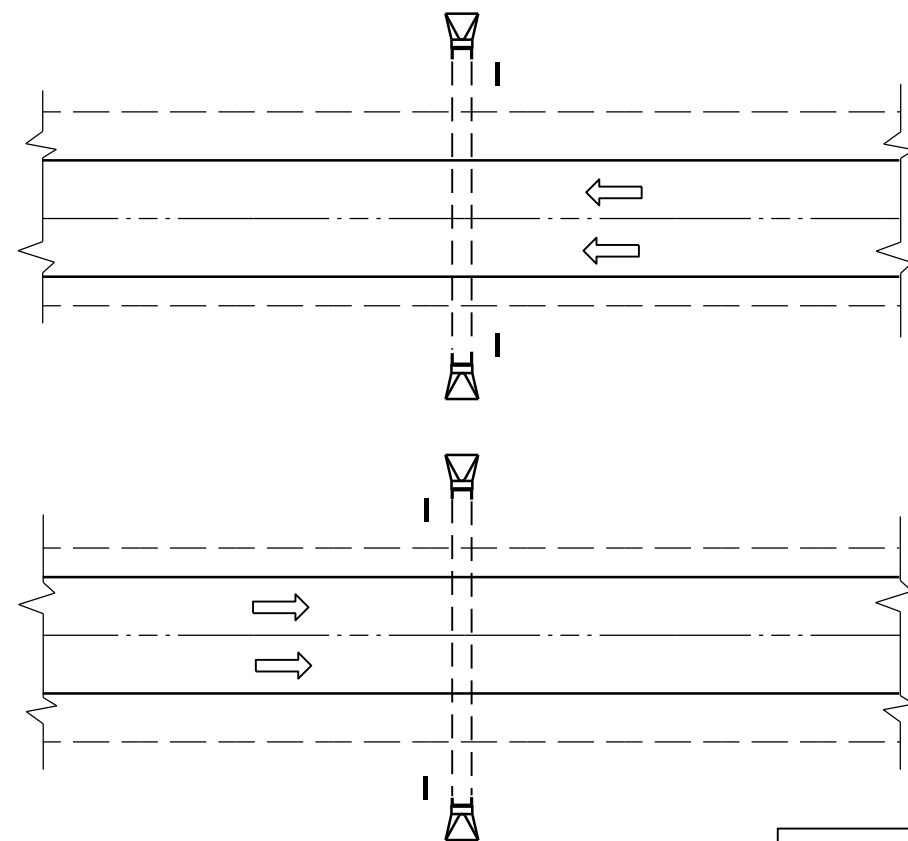
FLEXIBLE MARKER POST FOR RIGHT - OF -WAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

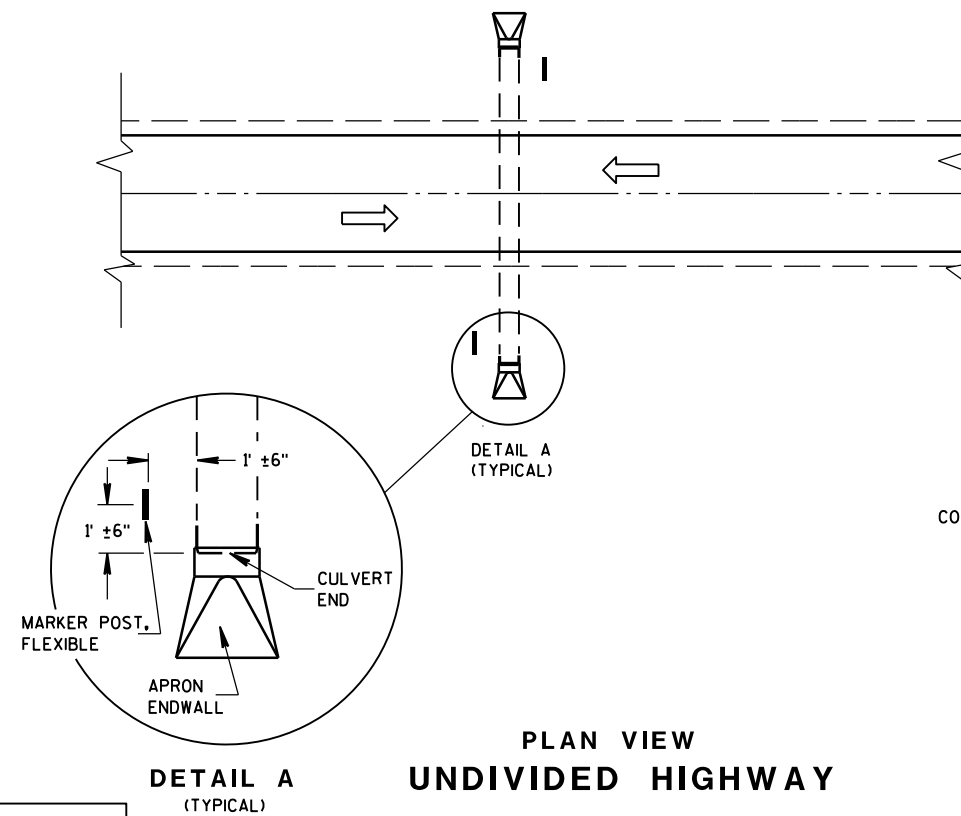
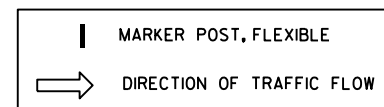
APPROVED
00-00-00
DATE

/S/ <AUTHOR>
CHIEF SURVEYING AND MAPPING ENGINEER

91



PLAN VIEW
DIVIDED HIGHWAY

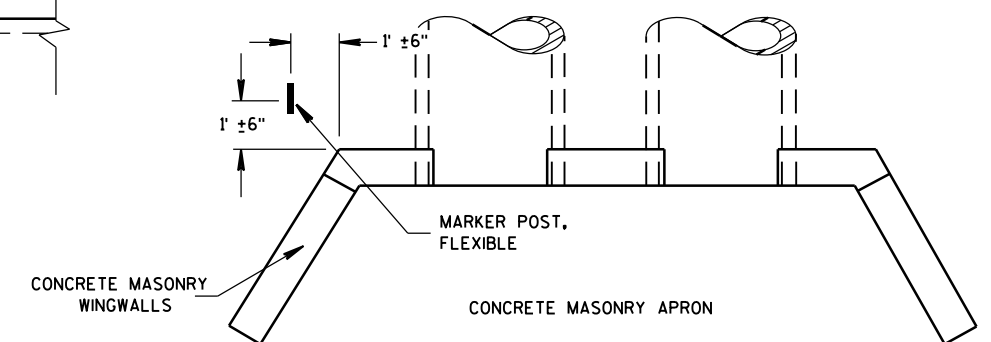


PLAN VIEW
UNDIVIDED HIGHWAY

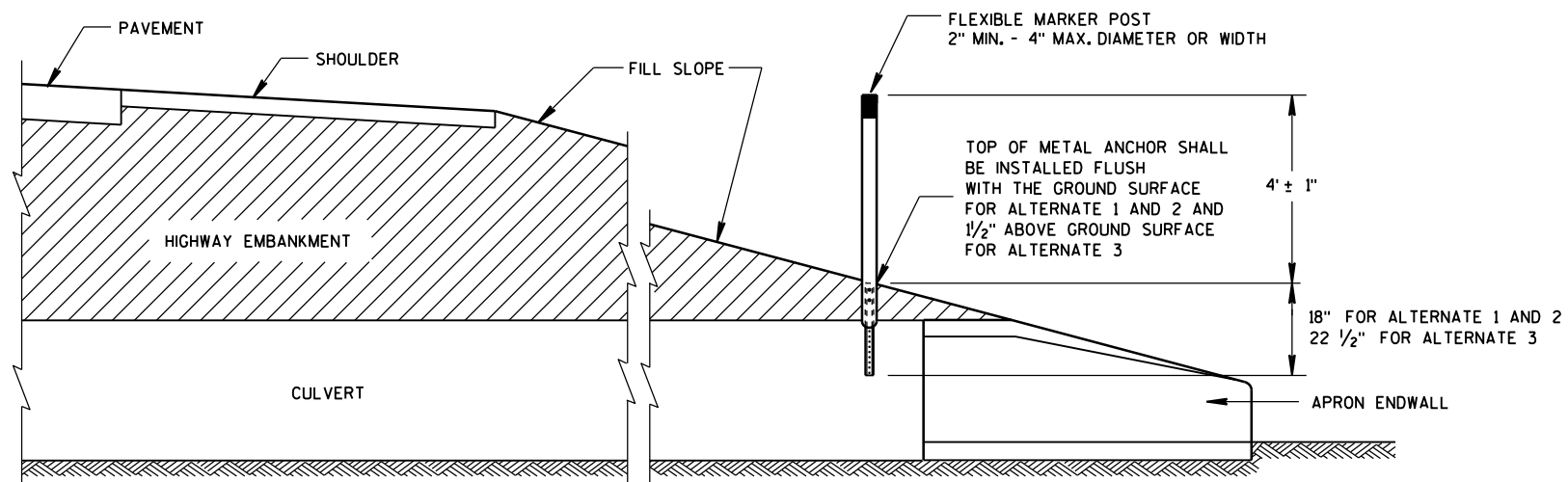
FLEXIBLE MARKER POST LOCATION

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.



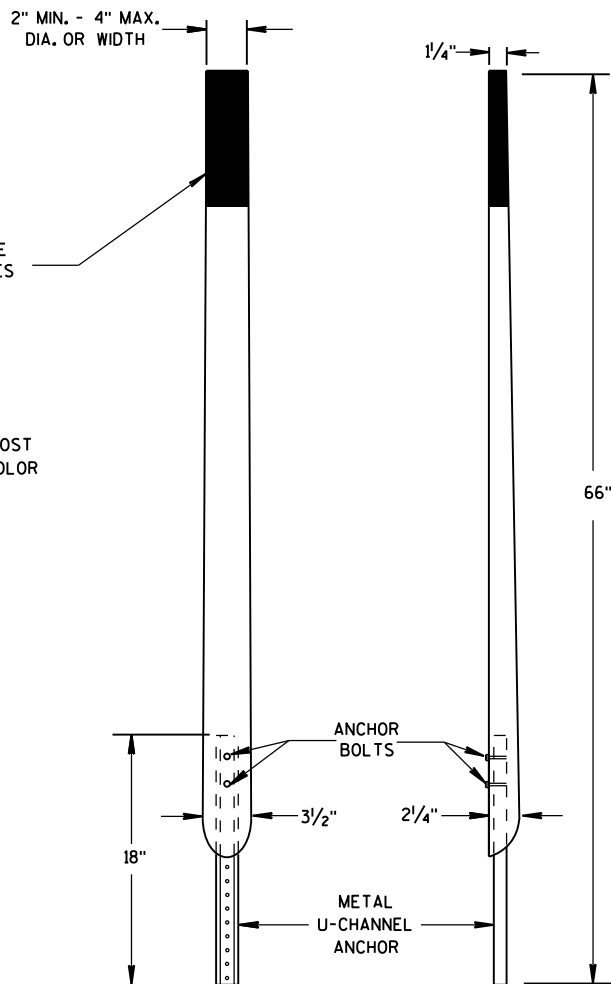
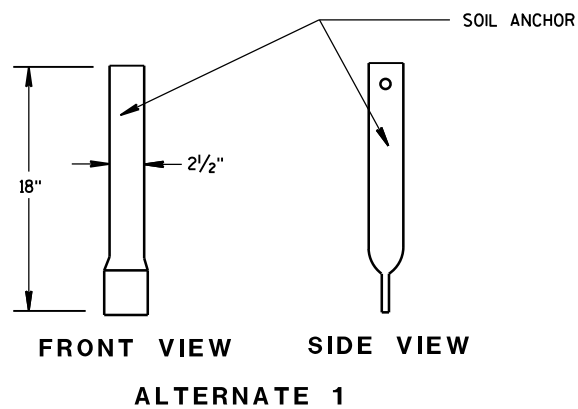
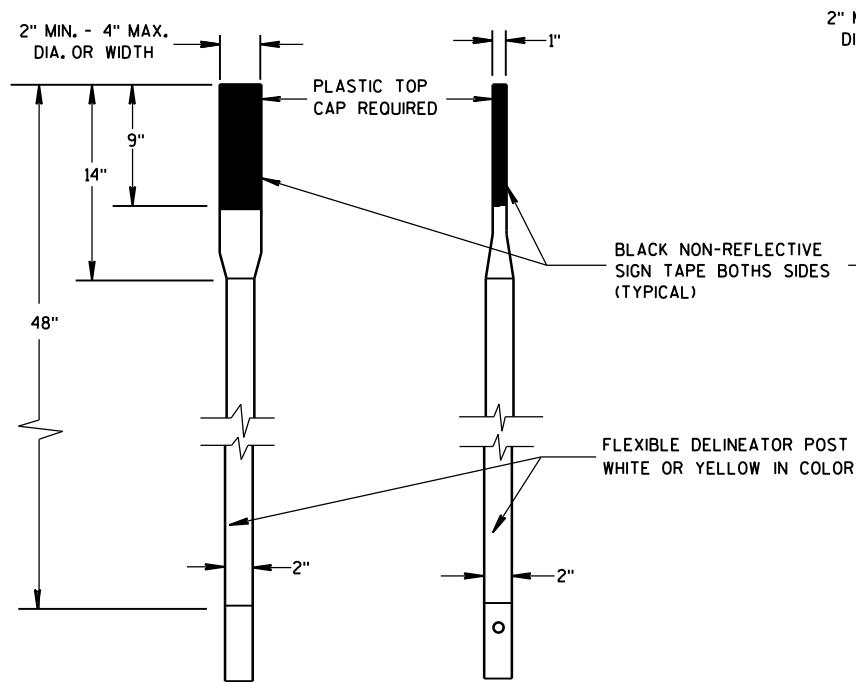
PLAN VIEW
CONCRETE MASONRY ENDWALLS FOR
CULVERT PIPE AND PIPE ARCH



CROSS SECTION
FLEXIBLE MARKER POST

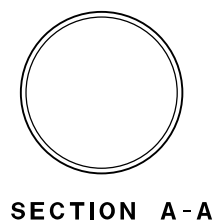
FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

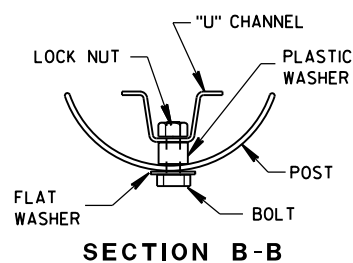
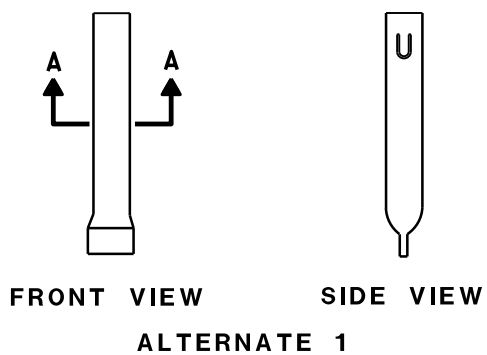


FRONT VIEW SIDE VIEW
ALTERNATE 2

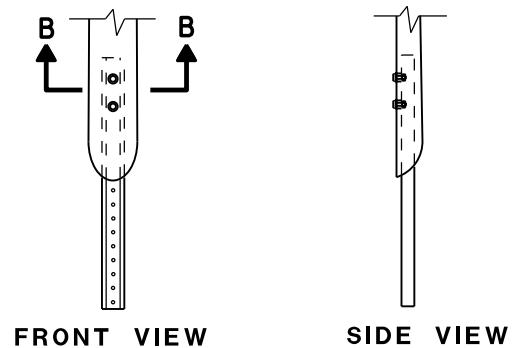
FLEXIBLE MARKER POSTS



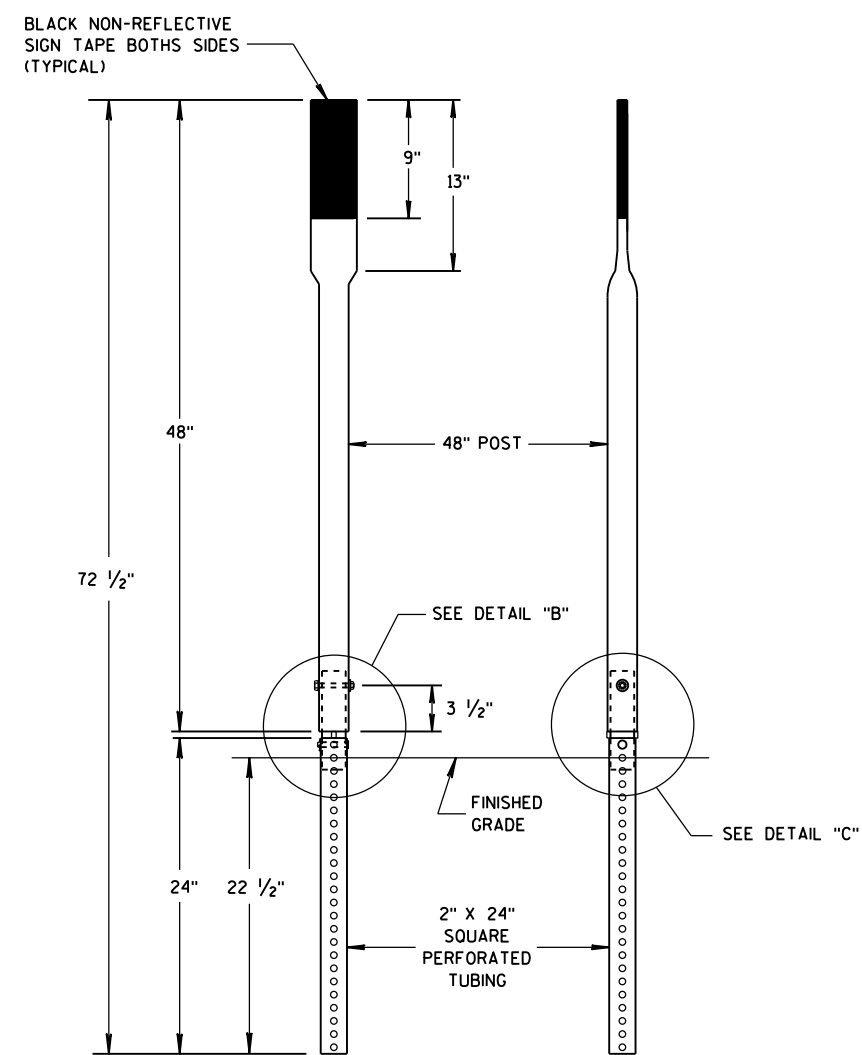
SECTION A-A



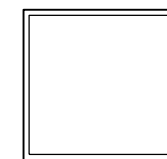
SECTION B-B



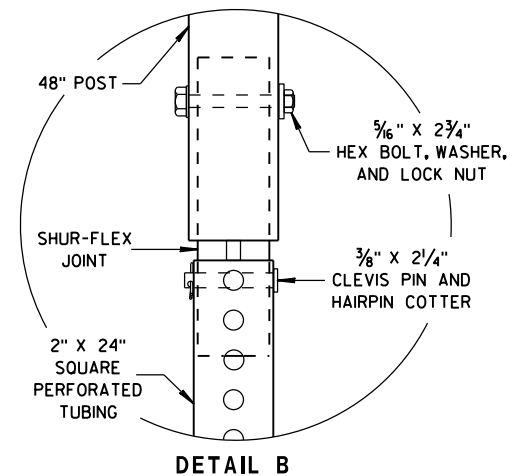
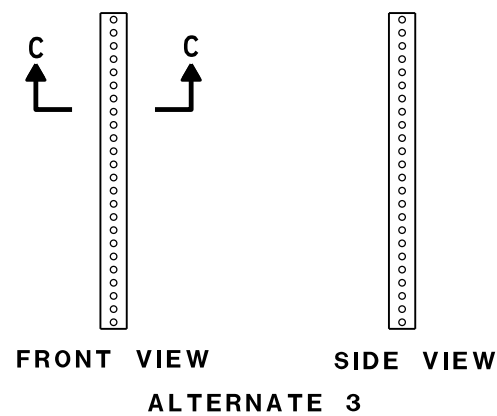
FRONT VIEW SIDE VIEW
ALTERNATE 2
FLEXIBLE MARKER POST ANCHORS



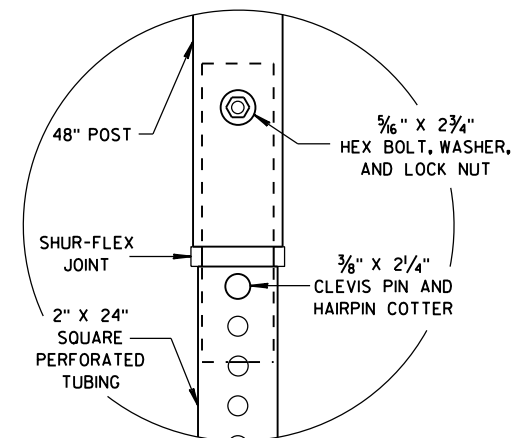
FRONT VIEW SIDE VIEW
ALTERNATE 3



SECTION C-C



DETAIL B



DETAIL C

FLEXIBLE MARKER POST FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

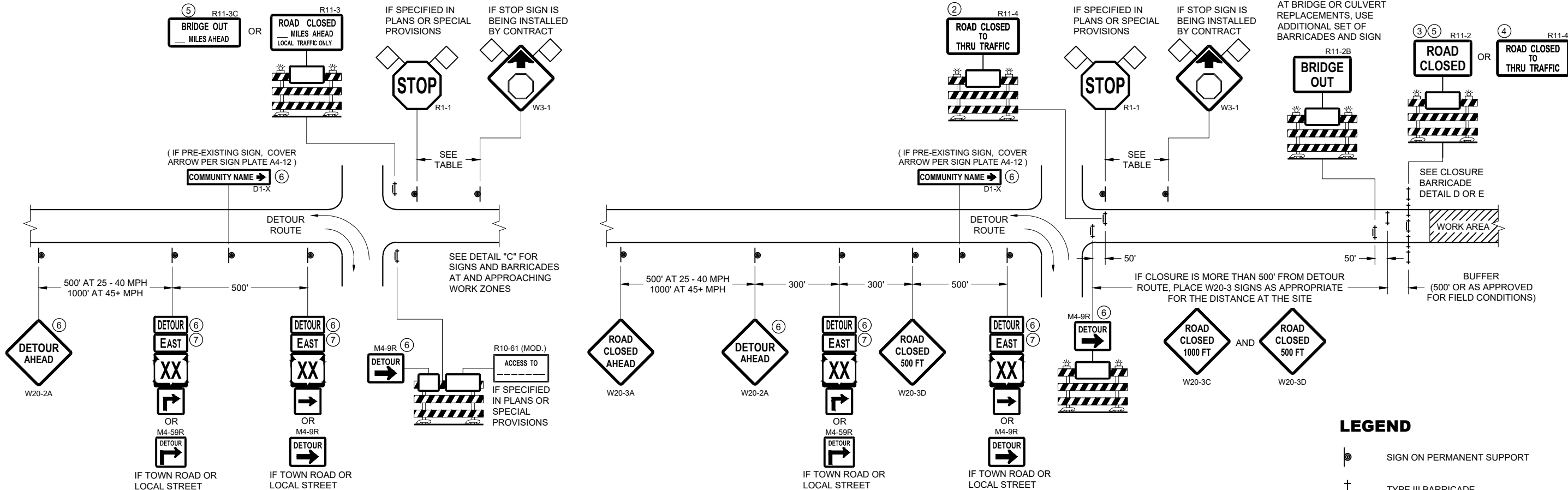
10/1/2012

DATE

FHWA

/S/ Travis Feltes
STATE TRAFFIC ENGINEER

IGN



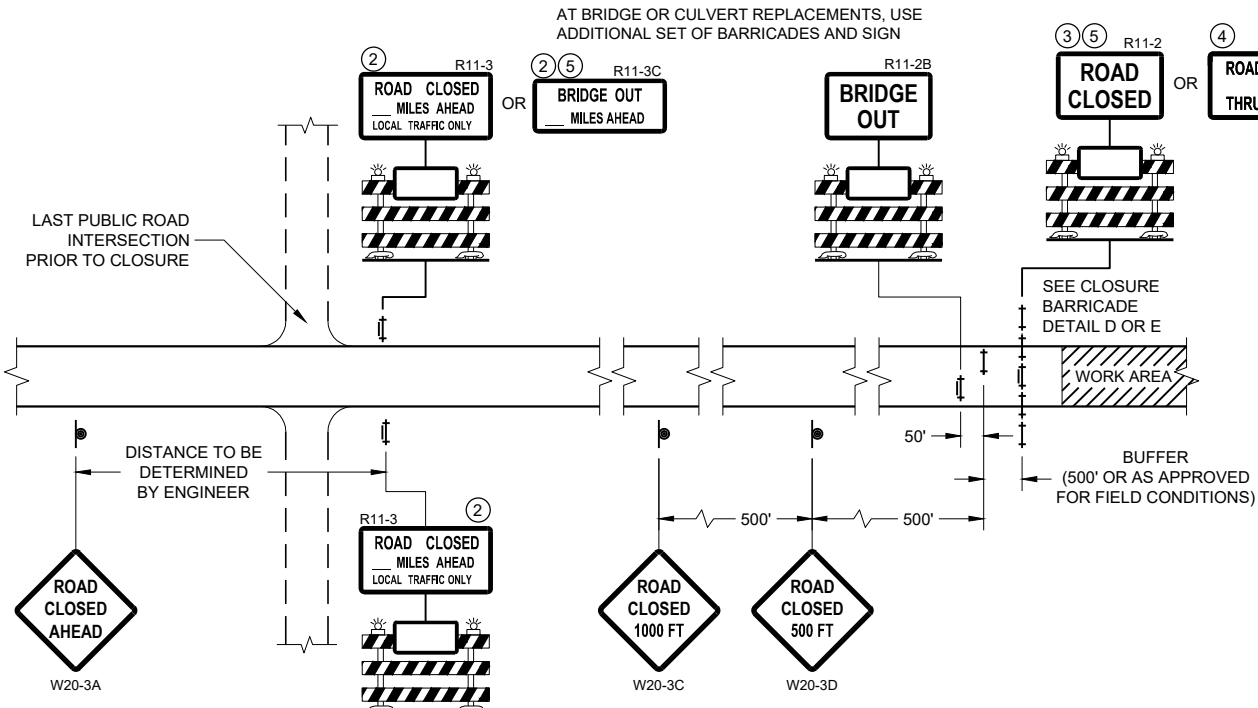
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR
WORK ZONE GREATER THAN OR EQUAL TO 1/2 MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)

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

- LEGEND**
- SIGN ON PERMANENT SUPPORT
 - TYPE III BARRICADE
 - TYPE III BARRICADE WITH ATTACHED SIGN
 - TYPE "A" WARNING LIGHT (FLASHING)
 - WORK AREA
 - 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

- DETOUR M4 - 8
- EAST M3 - X
- XX M1 - 4 OR XX M1 - 6 OR COUNTY M1 - 5A
- M05 - 1 OR M06 - 1



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

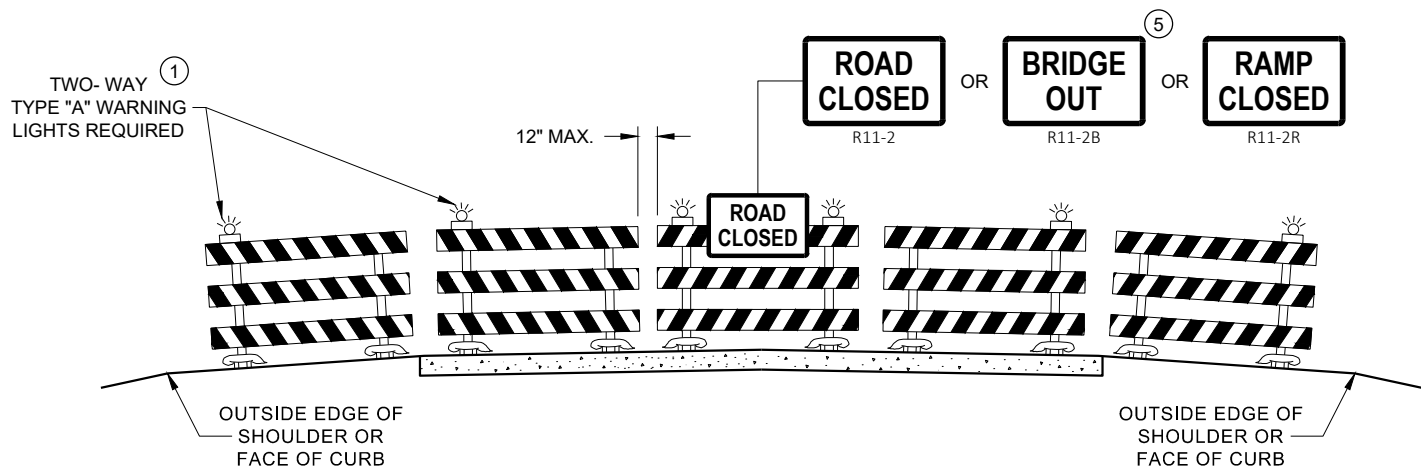
SEE SDD 15C2-SHEET "b"
FOR GENERAL NOTES
AND FOOTNOTES ① THROUGH ⑦

**BARRICADES AND SIGNS
FOR MAINLINE CLOSURES**

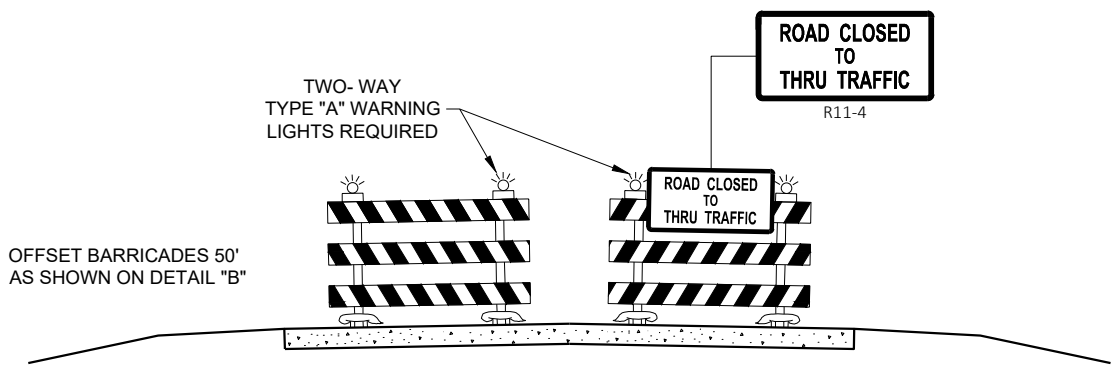
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 94

FHWA



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 THE BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE RAIL 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 SHALL, 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" (36" X 18" 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)
- MO5 - 1 AND MO6 - 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"

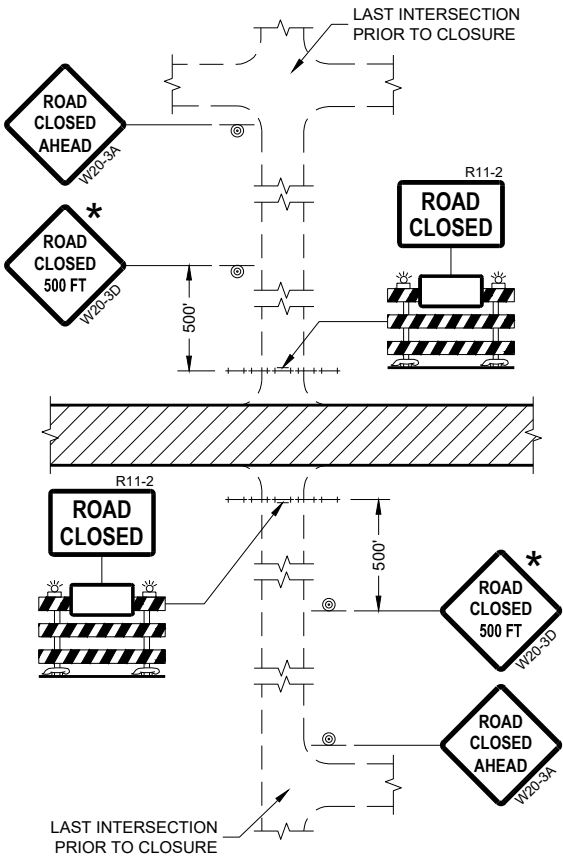
- ① TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING).
- ② THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT AN 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 ROAD 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
VARIOUS CLOSURES

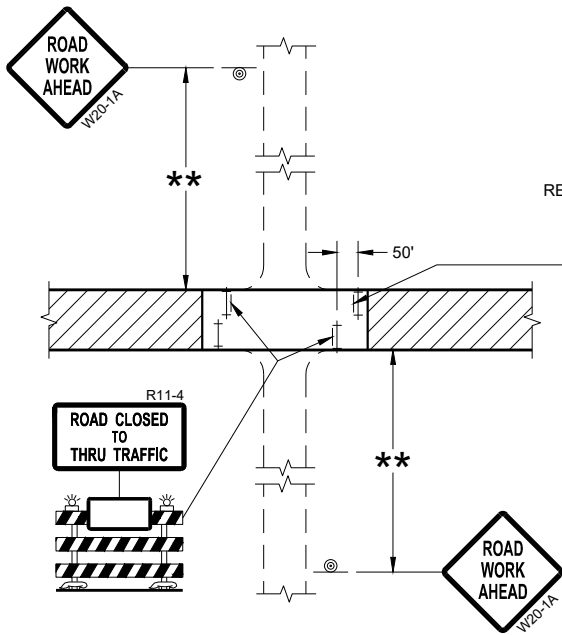
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 95

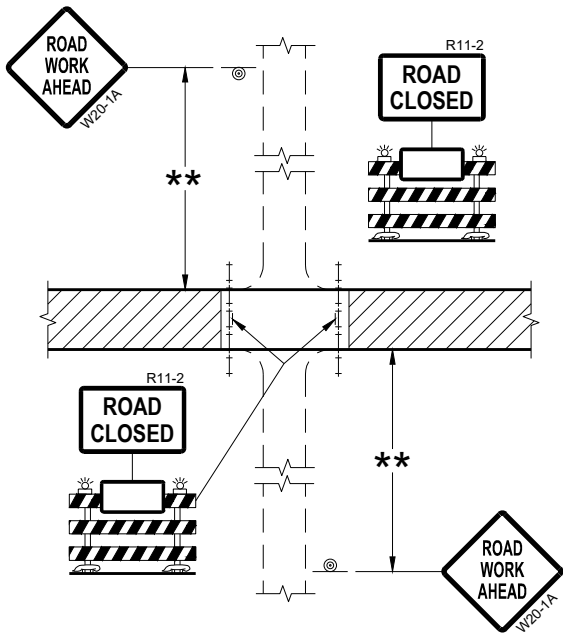
FHWA



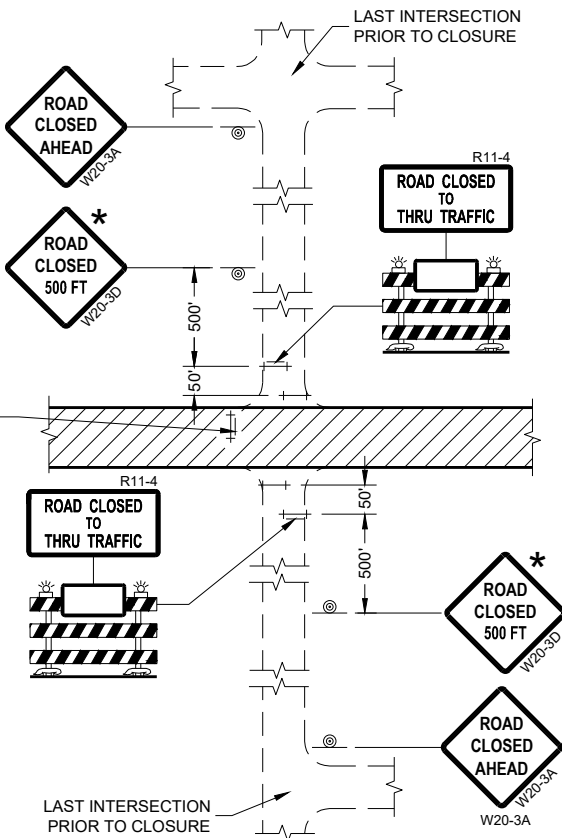
DETAIL 1
(NO ACCESS TO PROJECT)



DETAIL 3
(PUBLIC CROSS-TRAFFIC MAINTAINED.
CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)



DETAIL 2
(PUBLIC CROSS-TRAFFIC MAINTAINED.
NO ACCESS TO PROJECT)



DETAIL 4
(CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)

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 (500 FEET DESIRABLE) TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS REESTABLISHED.

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

SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN 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, AND R11-4 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.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
R11-2 SHALL BE 48" X 30".
R11-4 AND R11-3 SHALL BE 60" X 30".

- * OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FEET OR LESS FROM THE WORK ZONE.
- ** 500' MAX. OR AT LAST INTERSECTION, WHICHEVER IS CLOSEST.

LEGEND

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

**BARRICADES AND SIGNS
FOR
SIDEROAD CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 96
FHWA

GENERAL NOTES

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

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

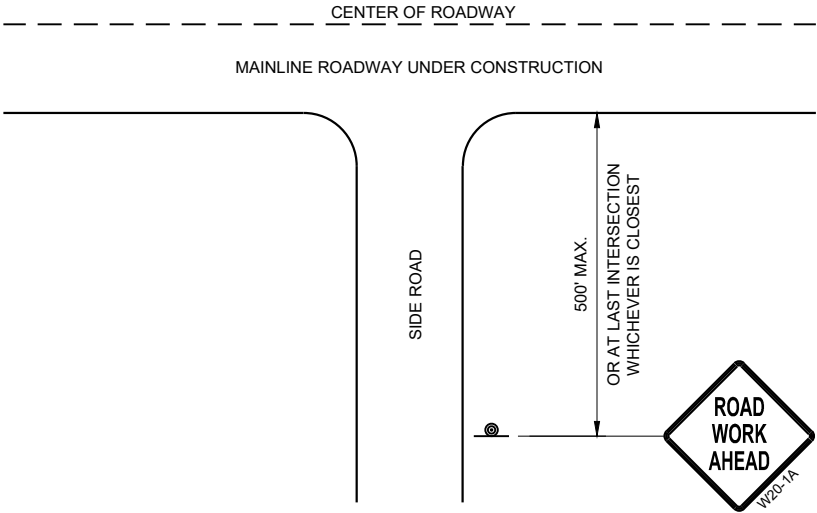
SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS REESTABLISHED.

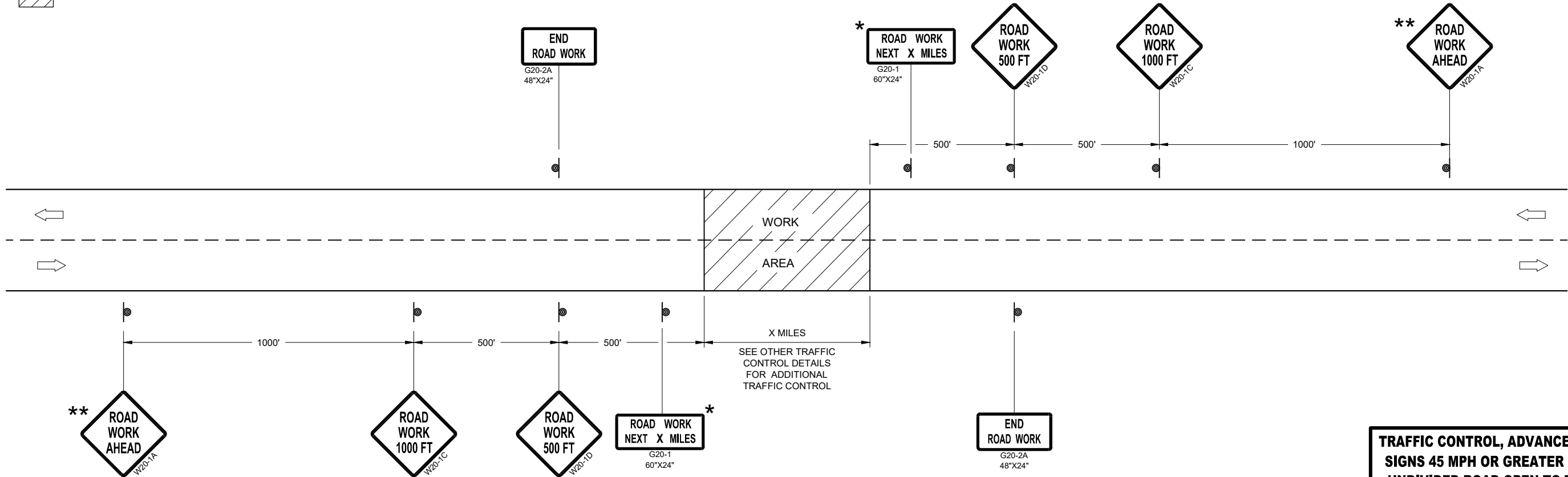
- * OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS
- ** PLACE AN ADDITIONAL W20-1A "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.

LEGEND

-  SIGN ON PERMANENT SUPPORT
-  DIRECTION OF TRAFFIC
-  WORK AREA



TYPICAL SIDE ROAD APPROACH
WARNING SIGN DETAIL



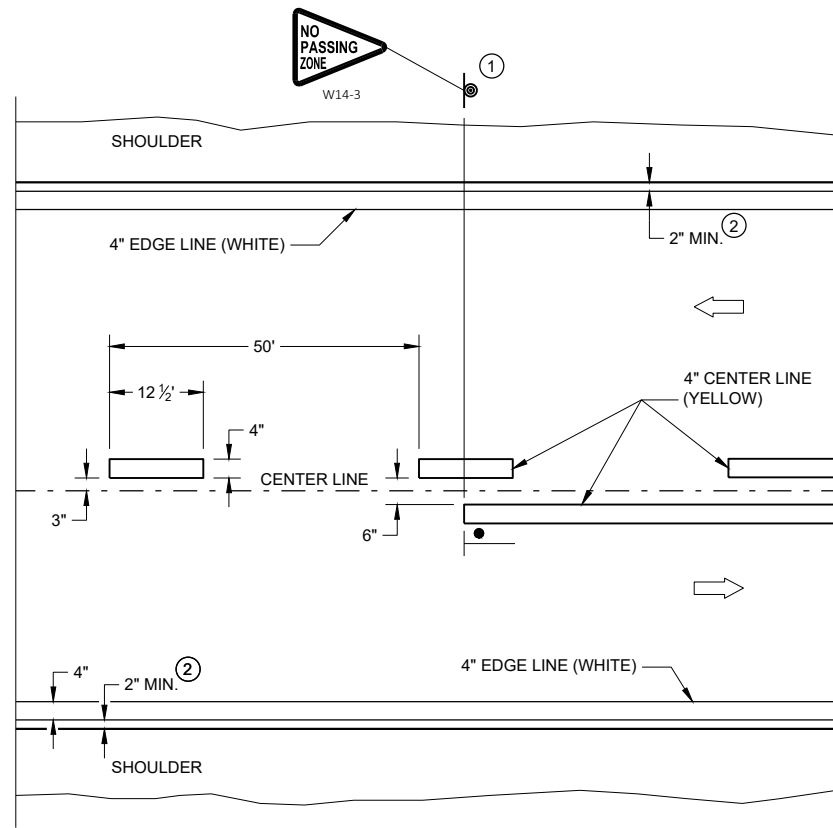
TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45MPH OR GREATER

TRAFFIC CONTROL, ADVANCE WARNING
SIGNS 45 MPH OR GREATER TWO-WAY
UNDIVIDED ROAD OPEN TO TRAFFICE

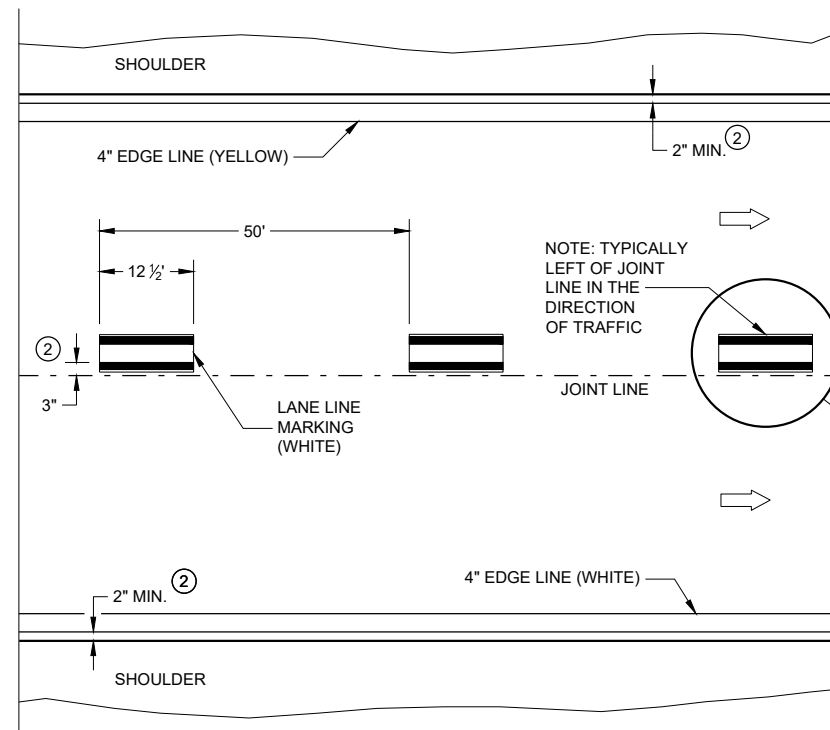
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 97

FHWA

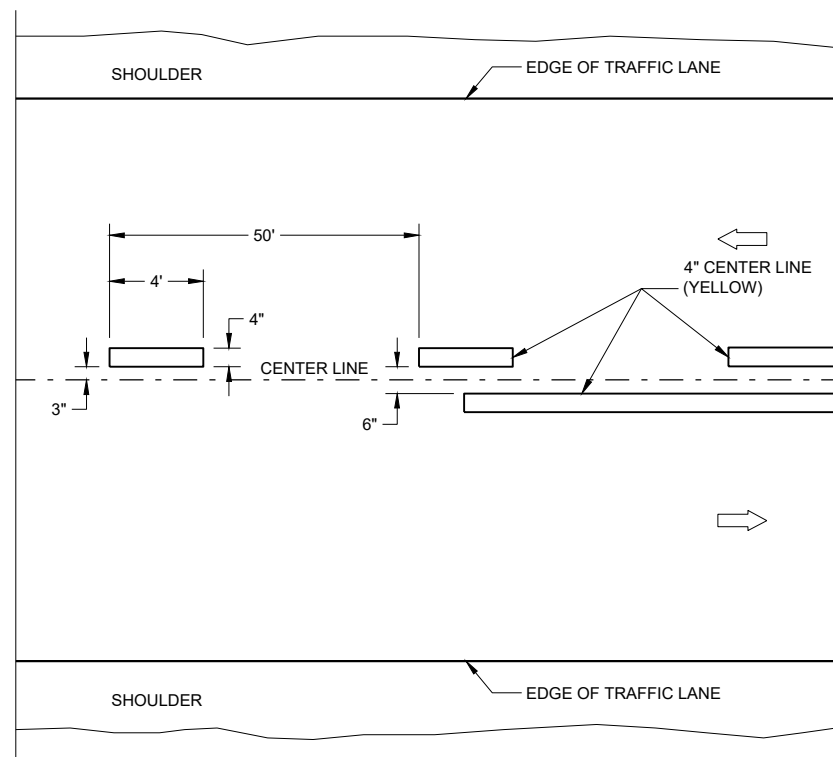


TWO WAY TRAFFIC

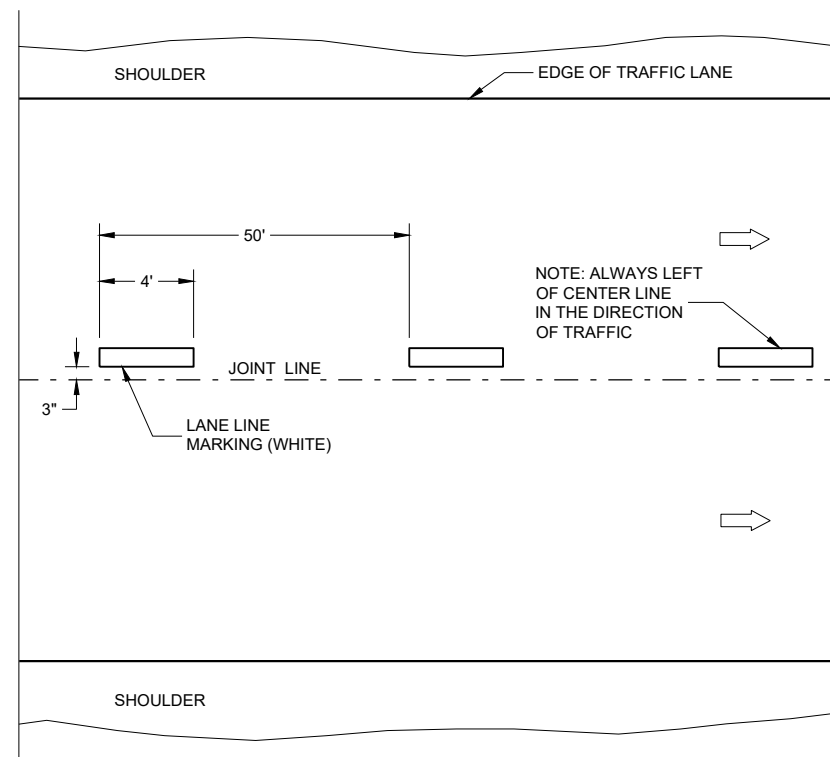


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

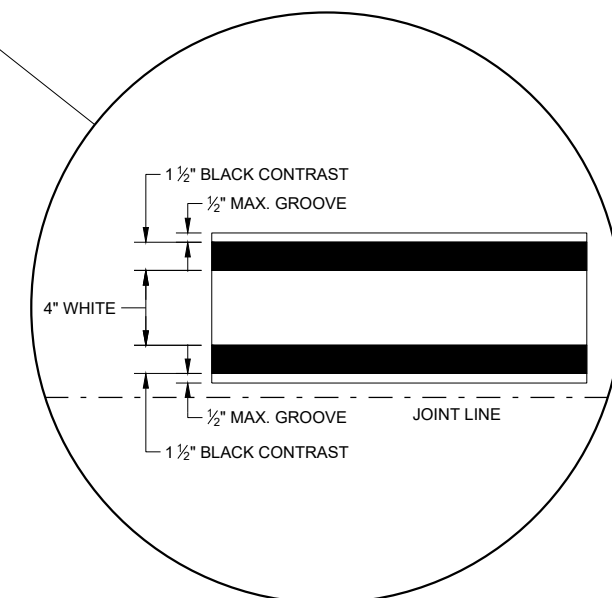
GENERAL NOTES

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

- ① LOCATE THE NO PASSING ZONE W14-3 SIGN WITH 50 FEET OF THE "T" MARKING
- ② MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

LEGEND

-  "T" MARKING
 SIGN ON PERMANENT SUPPORT
 DIRECTION OF TRAFFIC



LONGITUDINAL MARKING (MAINLINE)

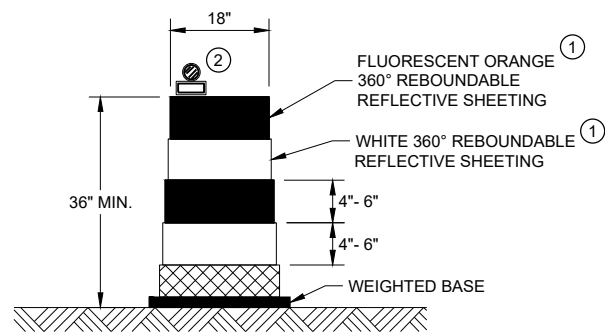
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE

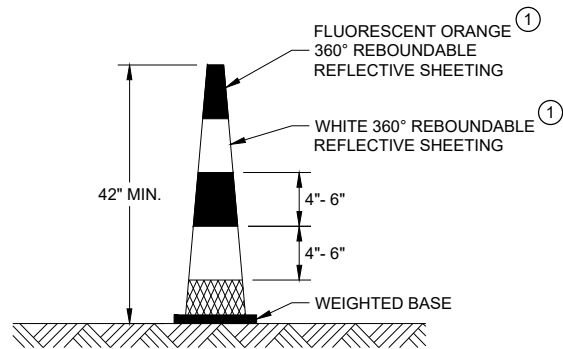
/S/ Matthew Rauch
STATEWIDE SIGNING AND N
ENGINEER

98

FHWA

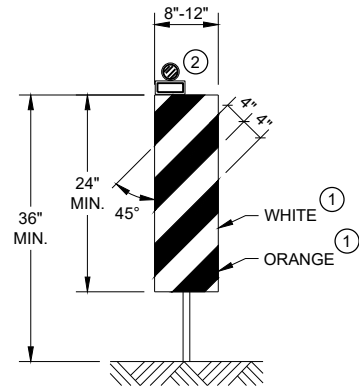


DRUM



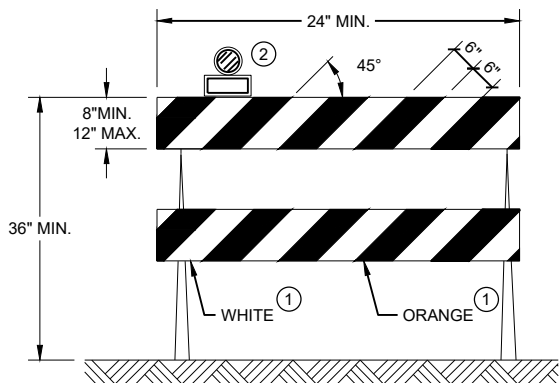
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS



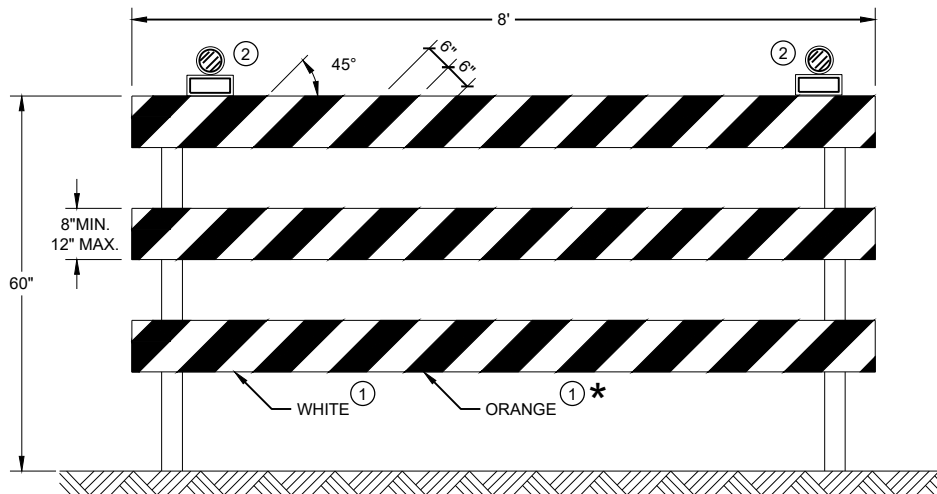
VERTICAL PANEL

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



TYPE II BARRICADE

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



TYPE III BARRICADE

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

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

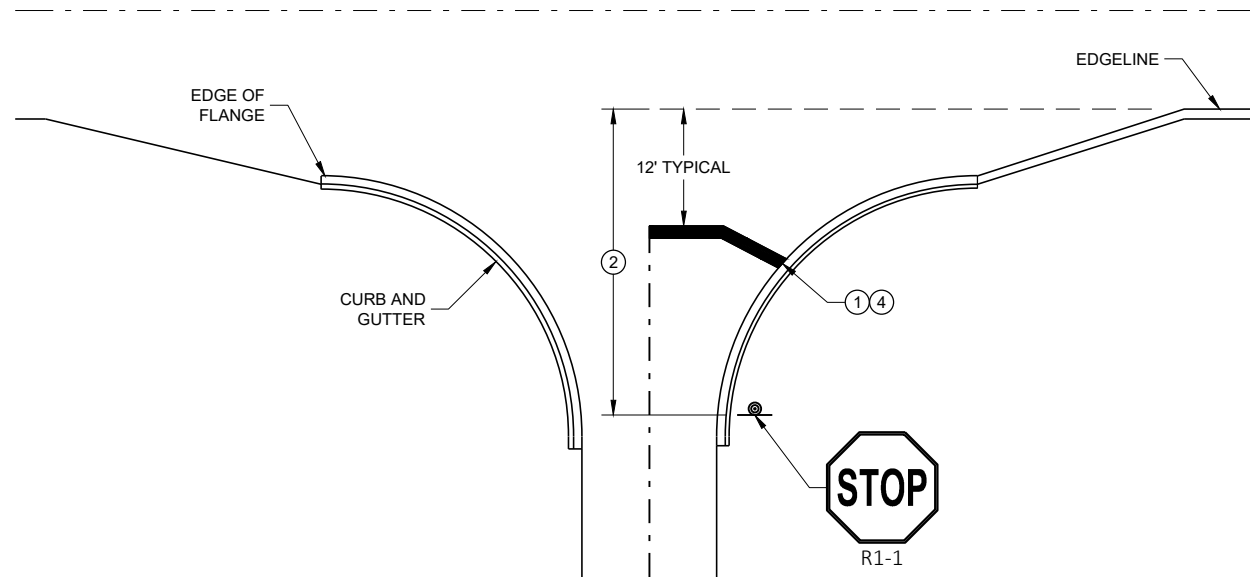
GENERAL NOTES

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

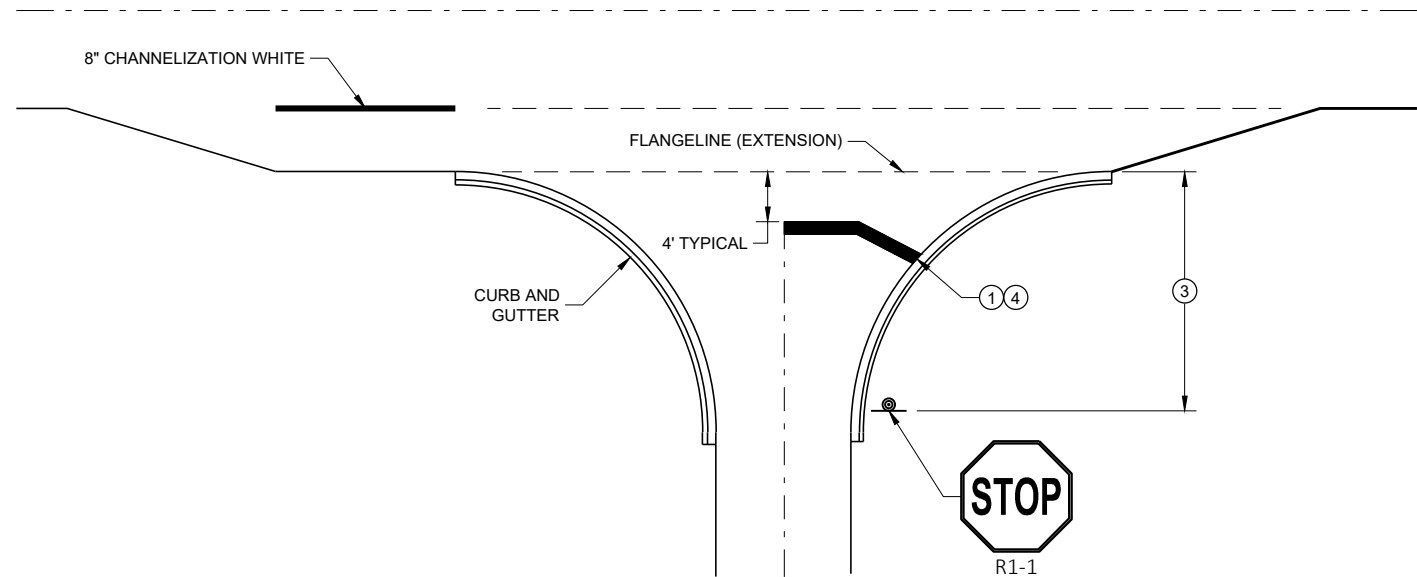
CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

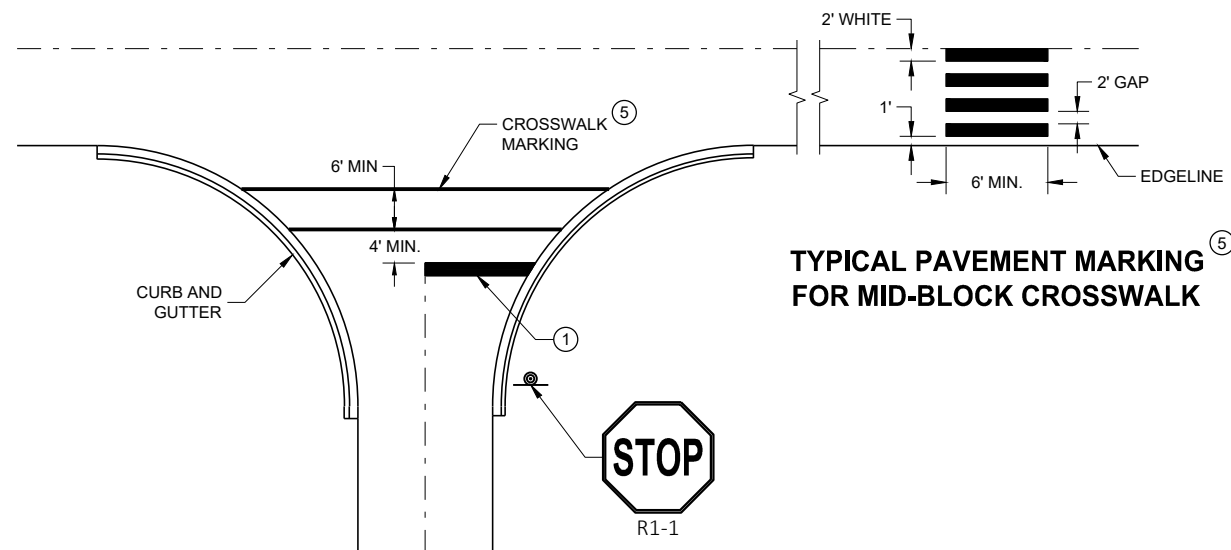
APPROVED
June 2017 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 99
FHWA



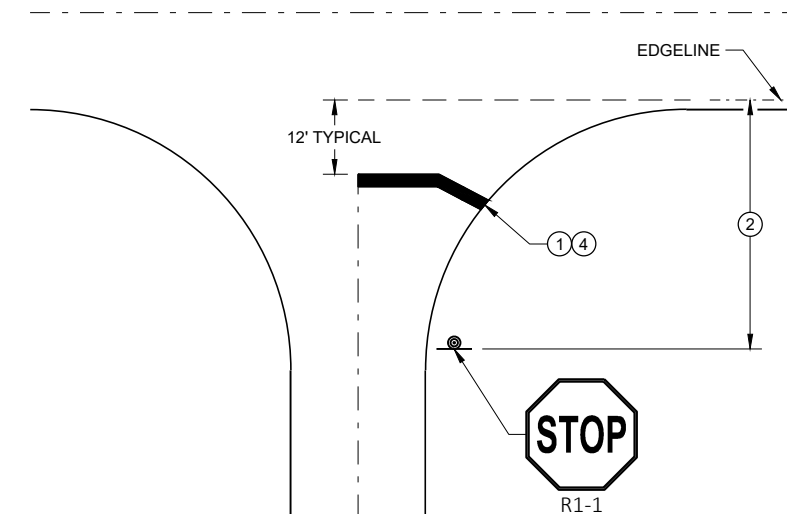
TYPICAL STOP LINE PAVEMENT MARKING
WITH CURB AND GUTTER



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.

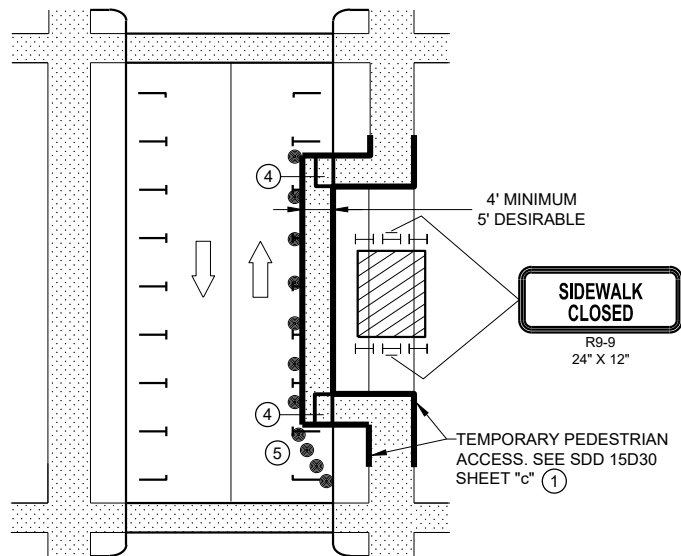
- ① 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
- ② NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGE LINE.
- ③ NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION.
- ④ MOVE CLOSER TO THE EDGE OF TRAVEL LINE AS NEEDED FOR VISIBILITY AND SIGHT LINES (NO CLOSER THAN 4 FEET).
- ⑤ LADDER BAR CROSSWALKS SHOULD ONLY BE USED FOR MID BLOCK CROSSINGS. USE 2 - 6" TRANSVERSE LINES INSTEAD.

STOP LINE AND CROSSWALK
PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

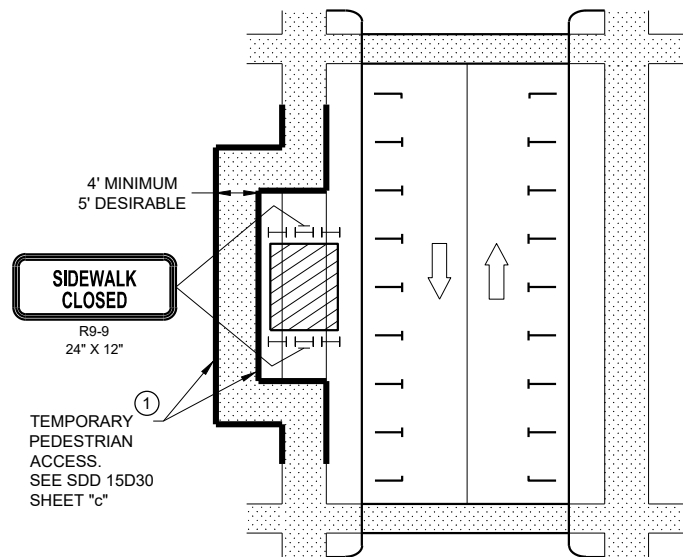
APPROVED
November 2019 /S/ Matthew Rauch
DATE STATE SIGNING AND MAP ENGINEER 100
FHWA

NOTE: MAY BE USED ON ROADWAY WITH POSTED SPEED OF LESS THAN 40 MPH.

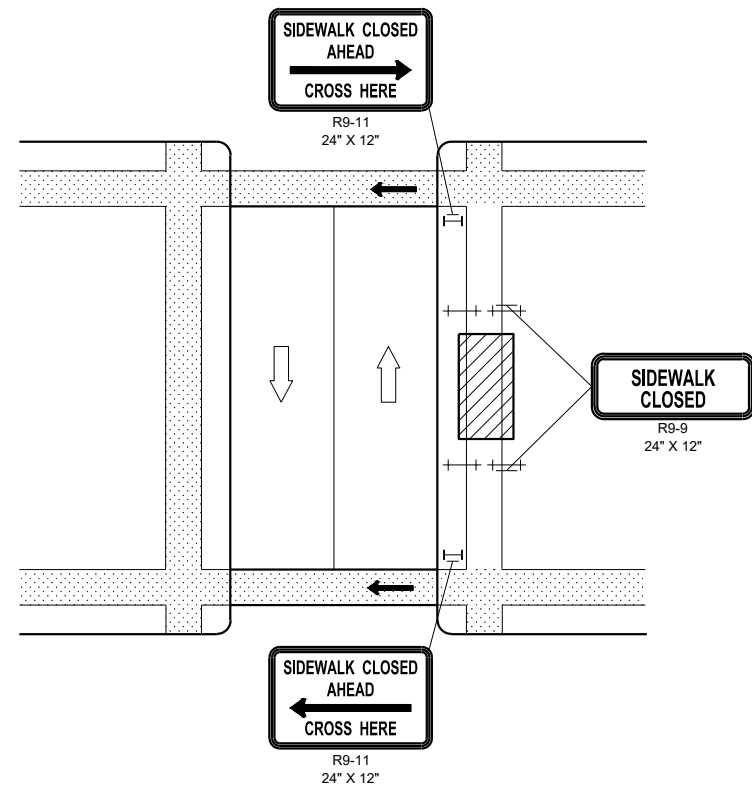


MID-BLOCK SIDEWALK CLOSURE
IN PARKING LANE

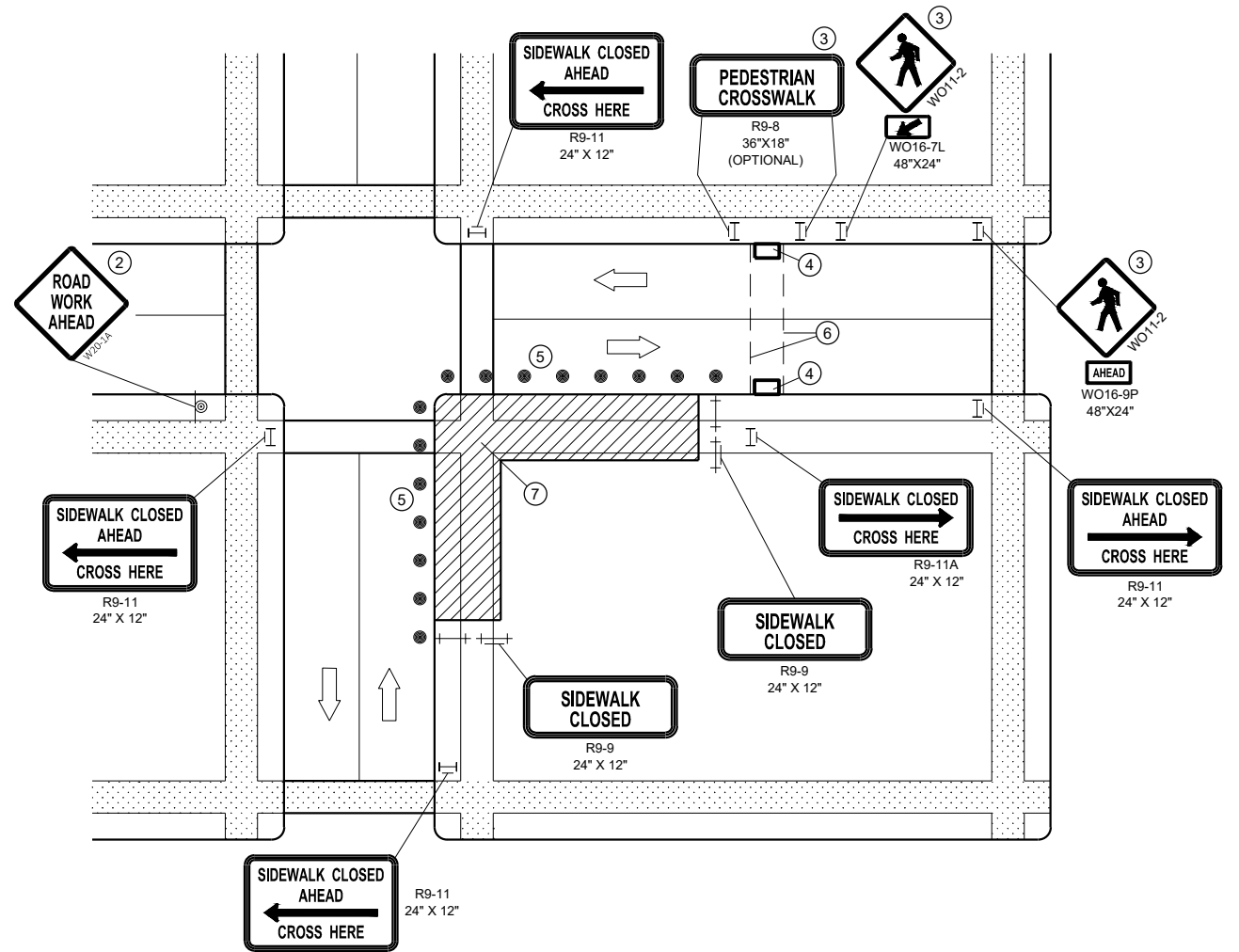
NOTE: LAYOUT SAME AS ABOVE.



SIDEWALK DIVERSION



MID-BLOCK SIDEWALK
CLOSURE



CORNER SIDEWALK CLOSURE WITH TEMPORARY CROSSWALK

GENERAL NOTES

WHEN CLOSING OR RELOCATING CROSSWALKS OR SIDEWALKS, PROVIDE DETECABLE TEMPORARY FACILITIES AND INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH EXISTING PEDESTRIAN FACILITIES.

TEMPORARY TRAFFIC CONTROL DEVICES FOR PEDESTRIANS ARE SHOWN. OTHER DEVICES MAY BE NECESSARY TO CONTROL VEHICULAR TRAFFIC. STAGE WORK AS NECESSARY, TO PROVIDE A TEMPORARY PEDESTRIAN ACCESS ROUTE AT ALL TIMES. FOR ROADWAYS WITH NO AVAILABLE DETOURS, MAINTAIN ONE OPEN SIDEWALK AT ALL TIMES.

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

FOR NIGHTTIME CLOSURE, USE TYPE "A" FLASHING WARNING LIGHTS ON BARRICADES, SUPPORTING SIGNS AND CLOSING SIDEWALK. USE TYPE "C" STEADY BURN LIGHTS ON CHANNELIZING DEVICES SEPARATING THE WORK AREA FROM VEHICULAR TRAFFIC.

PEDESTRIAN TRAFFIC SIGNAL DISPLAY CONTROLLING CLOSED CROSSWALK SHALL BE COVERED OR DEACTIVATED.

POST MOUNTED SIGNS LOCATED ADJACENT TO A SIDEWALK SHALL HAVE A 7 FOOT MINIMUM CLEARANCE FROM THE BOTTOM OF THE SIGN TO THE SIDEWALK SURFACE.

ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

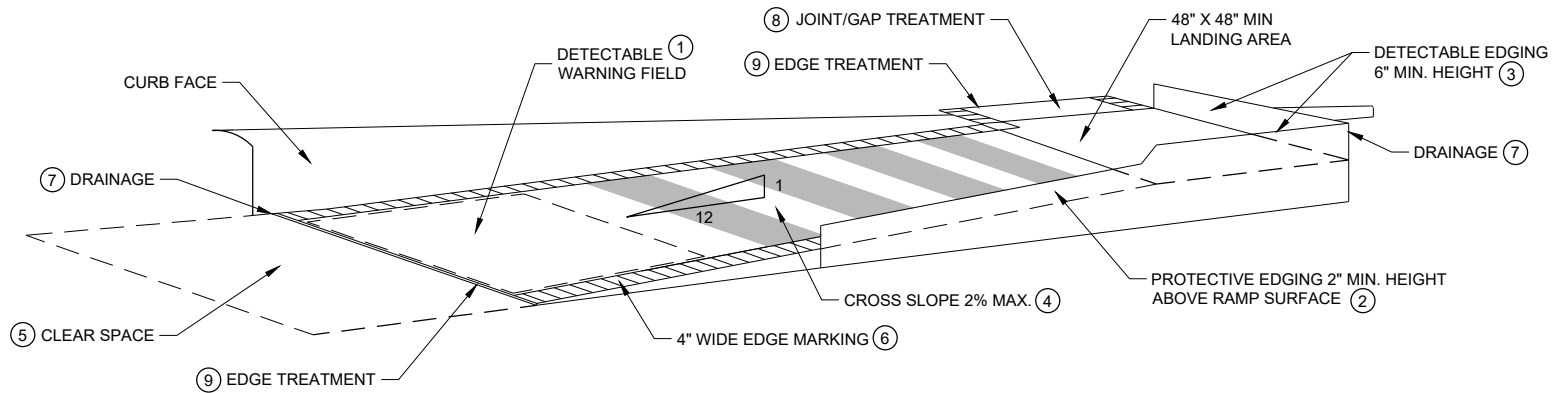
- ① IF SIDEWALK CLOSURE AFFECTS AN ACCESSIBLE AND DETECTABLE FACILITY, MAINTAIN ACCESSIBILITY AND DETECTABILITY ALONG THE ALTERNATE PEDESTRIAN ROUTE
- ② "ROAD WORK AHEAD" SIGNS ARE NOT REQUIRED IF THE SIDEWALK CLOSURE OCCURS WITHIN A LARGER WORK ZONE WHERE ADVANCE WARNING SIGNS ARE ALREADY PRESENT, OR IF THE WORK AREA AND EQUIPMENT ARE MORE THAN 2 FEET BEHIND THE CURB.
- ③ IF TEMPORARY PEDESTRIAN CROSSWALK IS NOT PROVIDED, OMIT R9-8 AND WO11-2 SIGN ASSEMBLIES. IF PROVIDED INCLUDE ON BOTH SIDES OF THE CROSSWALK.
- ④ TEMPORARY CURB RAMPS. SEE SDD 15D30 SHEET "b'.
- ⑤ DRUMS OR BARRICADES AT 25 FOOT SPACING. STREET PARKING SHALL BE PROHIBITED FOR AT LEAST 50 FEET IN ADVANCE OF THE MID-BLOCK CROSSWALK.
- ⑥ TEMPORARY PAVEMENT MARKING FOR CROSSWALK LINES.
- ⑦ LIMIT WORK TO ONE QUADRANT AT A TIME TO MINIMIZE PEDESTRIAN DISRUPTION.

LEGEND

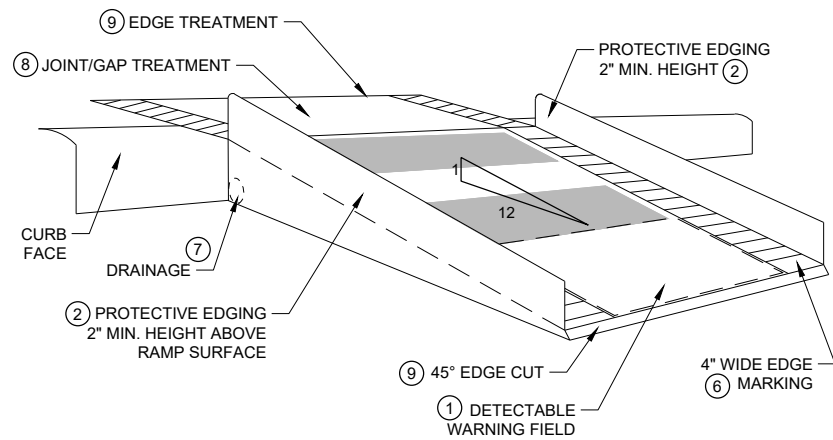
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW INTENSITY FLASHING)
- TYPE III BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW INTENSITY FLASHING)
- UNDER PEDESTRIAN TRAFFIC
- WORK AREA
- PEDESTRIAN CHANNELIZATION DEVICE
- DIRECTION OF TRAFFIC

**TRAFFIC CONTROL,
PEDESTRIAN ACCOMMODATION**

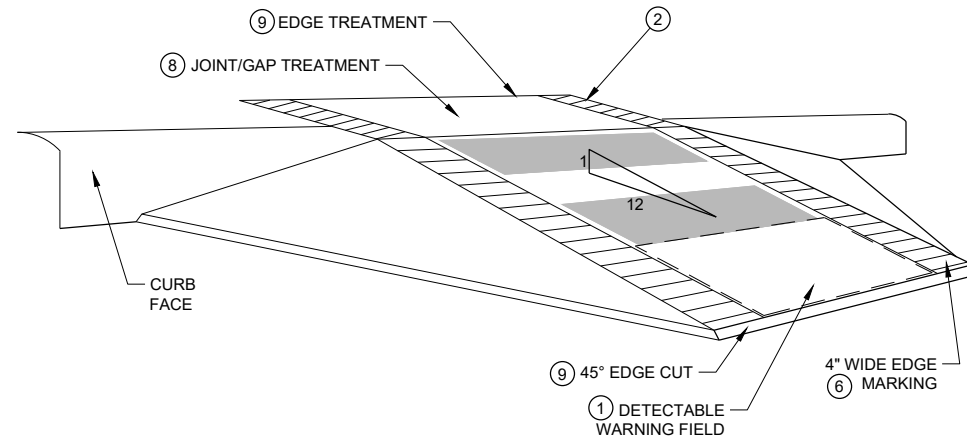
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 101



TEMPORARY CURB RAMP PARALLEL TO CURB



WITH PROTECTIVE EDGE



WITH SIDE APRON

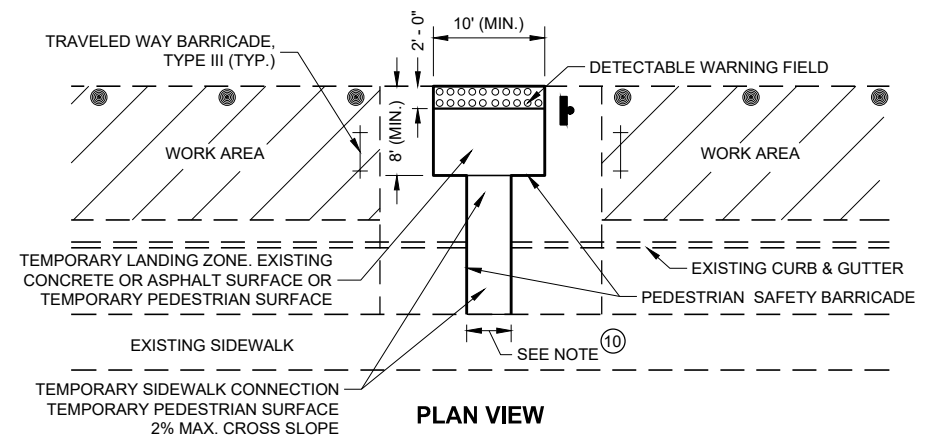
TEMPORARY CURB RAMP PERPENDICULAR TO CURB

GENERAL NOTES

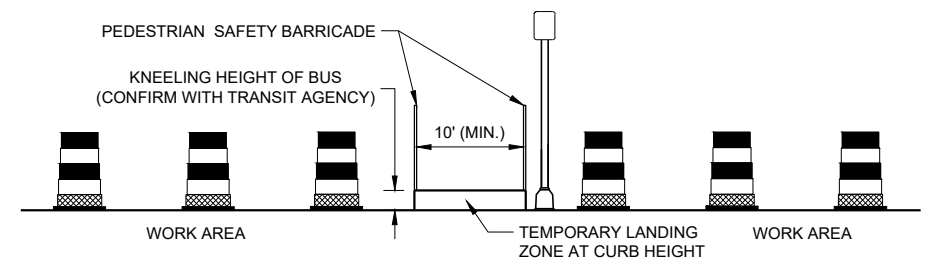
NOTIFY THE BUS COMPANY 7 DAYS IN ADVANCE OF THE BUS STOP RELOCATION.

ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

- 1 CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE. INSTALL CONTRASTING DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS. REFER TO SDD 08D05, SHEET "e".
- 2 PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.
- 3 DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
- 4 CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.
- 5 CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.
- 6 THE CURB RAMP WALKWAY EDGE SHALL BE MARKED WITH A YELLOW COLOR, 4" WIDE MARKING, UNLESS A CONTRASTING DETECTABLE WARNING FIELD IS PROVIDED.
- 7 DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.
- 8 LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 1/2" WIDTH.
- 9 CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED 1/2". LATERAL EDGES SHALL BE VERTICAL UP TO 1/4" HIGH AND BEVELED AT 1:2 BETWEEN 1/4" AND 1/2".
- 10 5" WIDE MIN. WITH PEDESTRIAN SAFETY BARRICADE, 10' WIDE MIN. WITHOUT PEDESTRIAN SAFETY BARRICADE.



PLAN VIEW



PROFILE VIEW

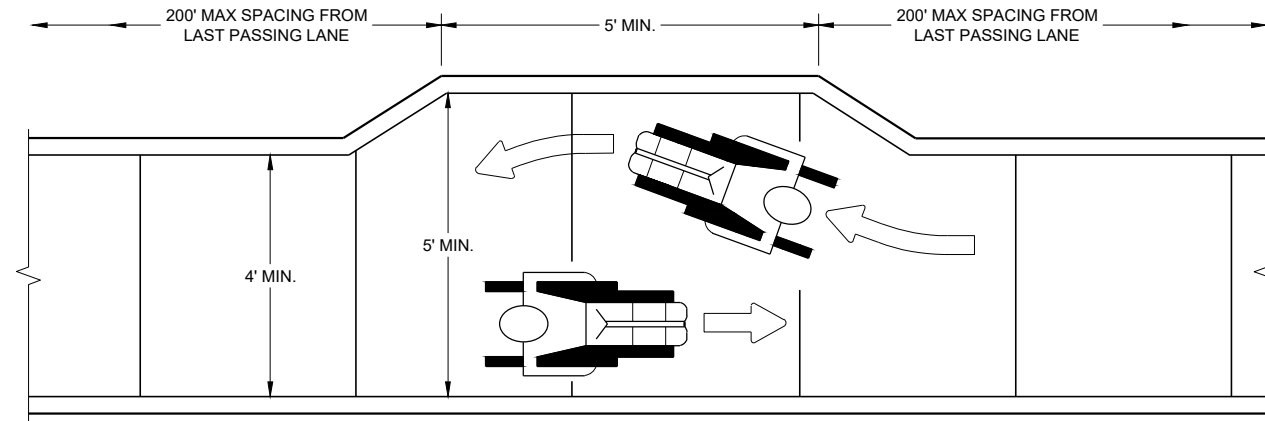
TEMPORARY BUS STOP PAD

LEGEND

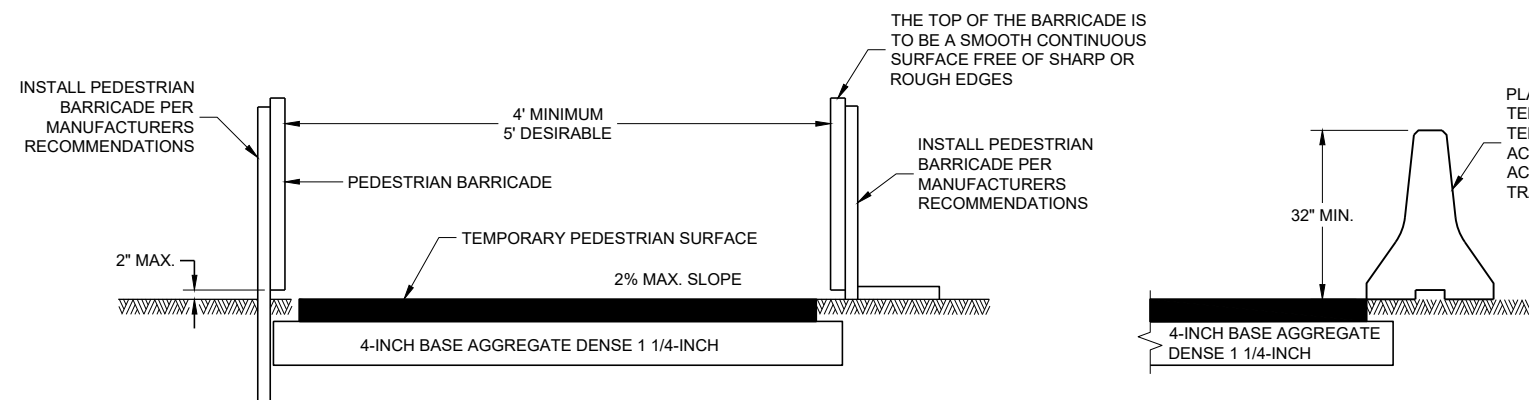
- TRAFFIC CONTROL DRUM
- ⊥ TYPE III BARRICADE
- ▨ WORK AREA

TRAFFIC CONTROL,
PEDESTRIAN ACCOMMODATION

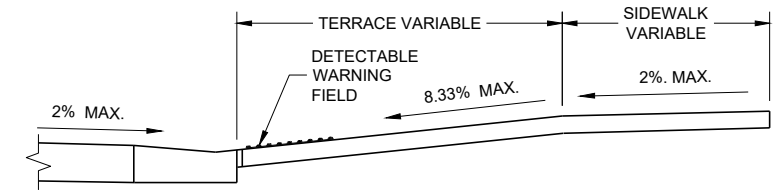
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



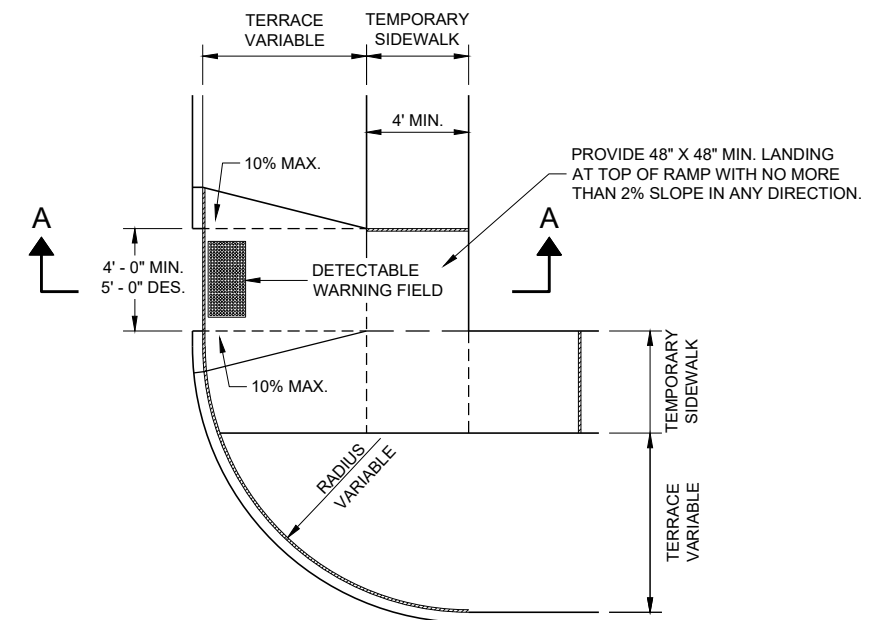
NARROW SIDEWALK PASSING DETAIL



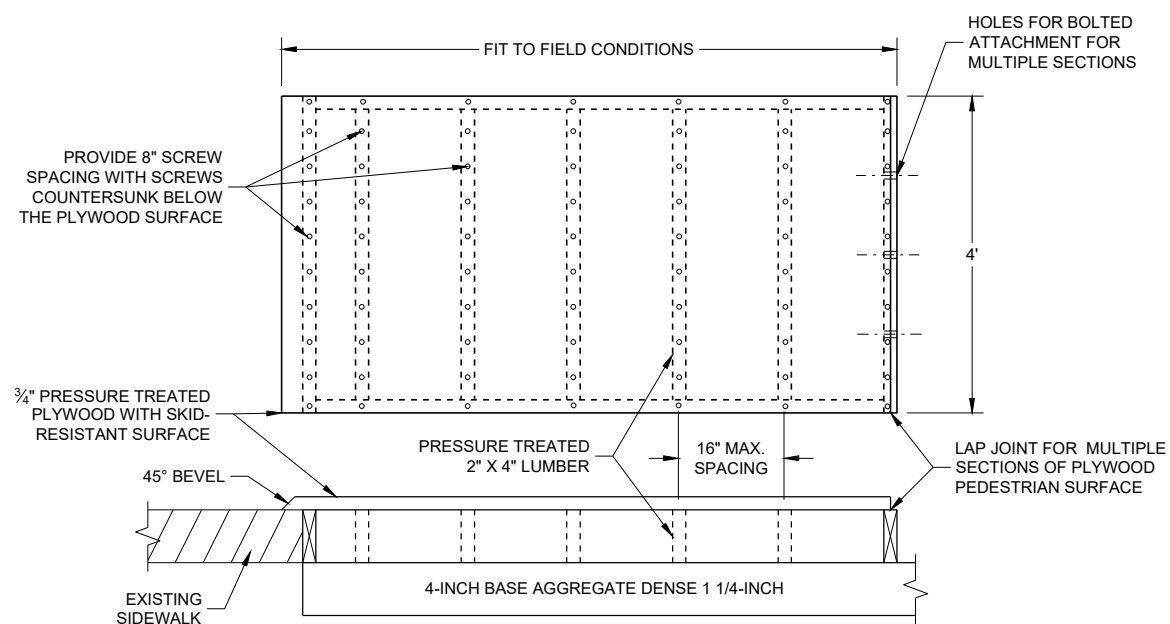
TEMPORARY PEDESTRIAN ACCESS



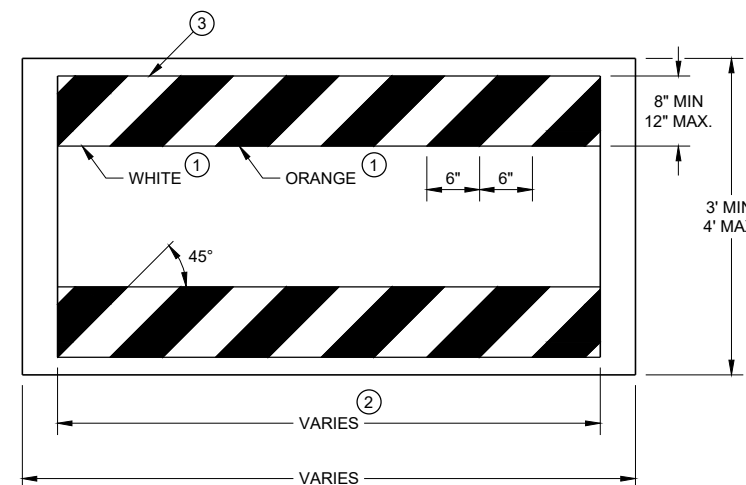
SECTION A - A



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



TEMPORARY PEDESTRIAN SURFACE PLYWOOD



TEMPORARY PEDESTRIAN BARRICADE *

GENERAL NOTES

BARRICADE DEVICE SELECTED FROM APPROVED PRODUCT LIST

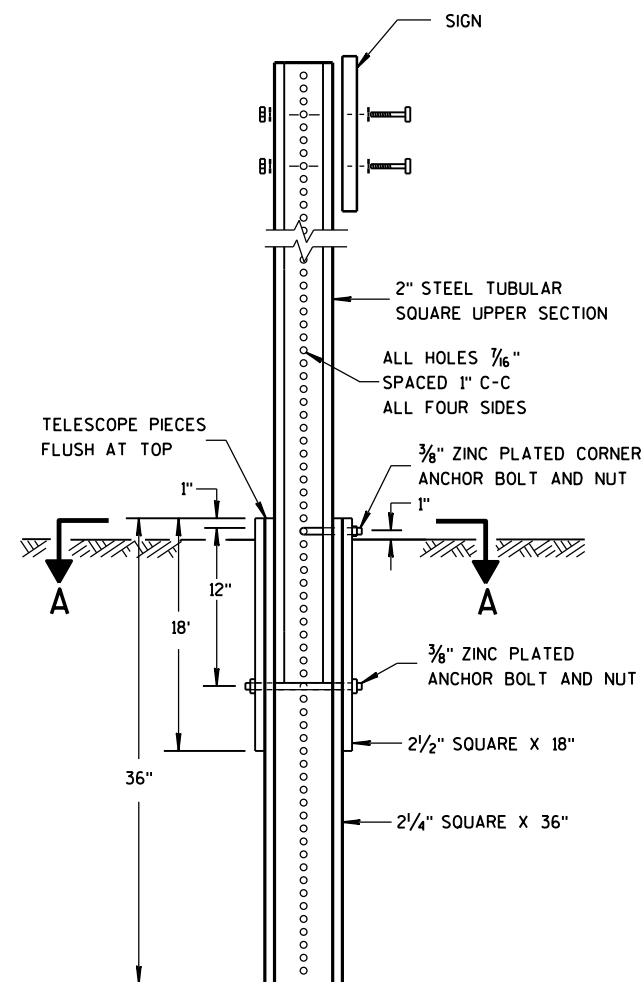
- ① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
- ② SHEETING REQUIRED ON MORE THAN 50% OF BARRICADE WIDTH.
- ③ PLACE SHEETING ON BOTH SIDES OF THE BARRICADE.

* USE THIS DETAIL FOR SHEETING PLACEMENT REFERENCE.

**TRAFFIC CONTROL,
PEDESTRIAN ACCOMMODATION**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 103
FHWA



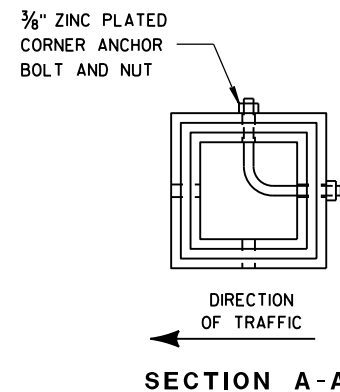
DETAIL OF TUBULAR
STEEL SIGN POST

TUBULAR STEEL POSTS

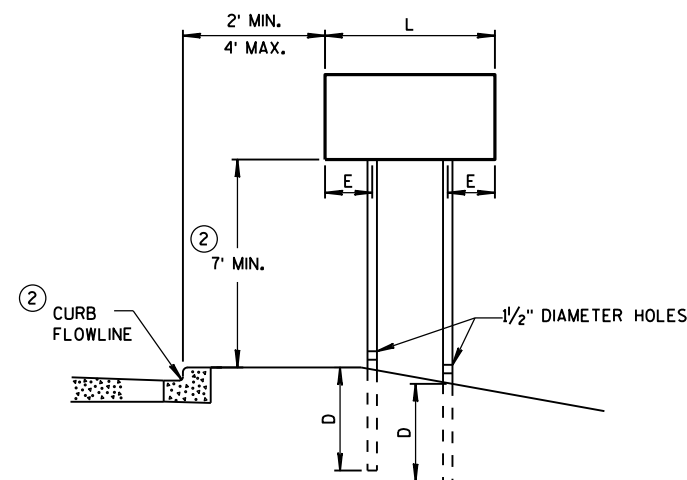
AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL POSTS
9 OR LESS	1
GREATER THAN 9 LESS THAN OR EQUAL TO 18	2
GREATER THAN 18 LESS THAN OR EQUAL TO 27	3

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.



SECTION A-A

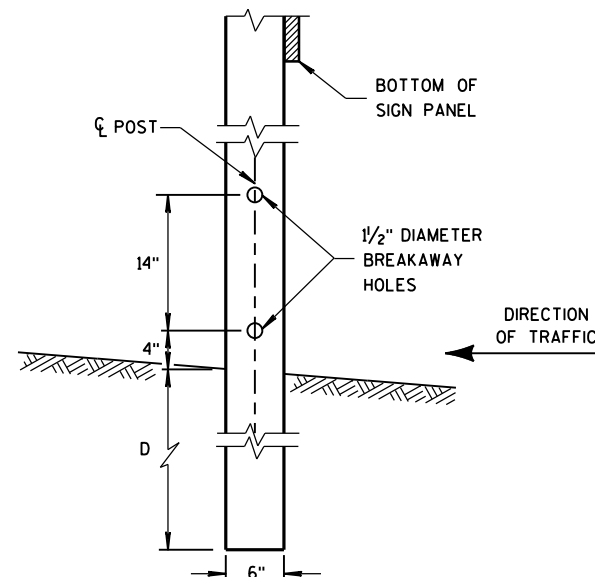


URBAN AREA

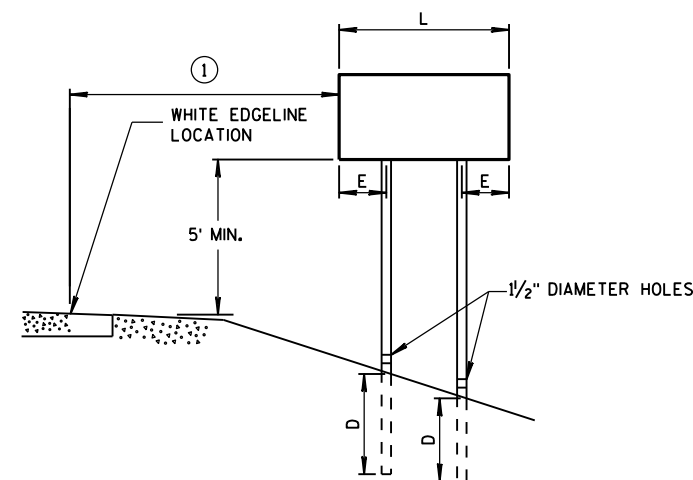
POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

WOOD POST
EMBEDMENT DEPTH

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



4 "x6 " WOOD POST
MODIFICATION



RURAL AREA

4 " X 6 " WOOD POST

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

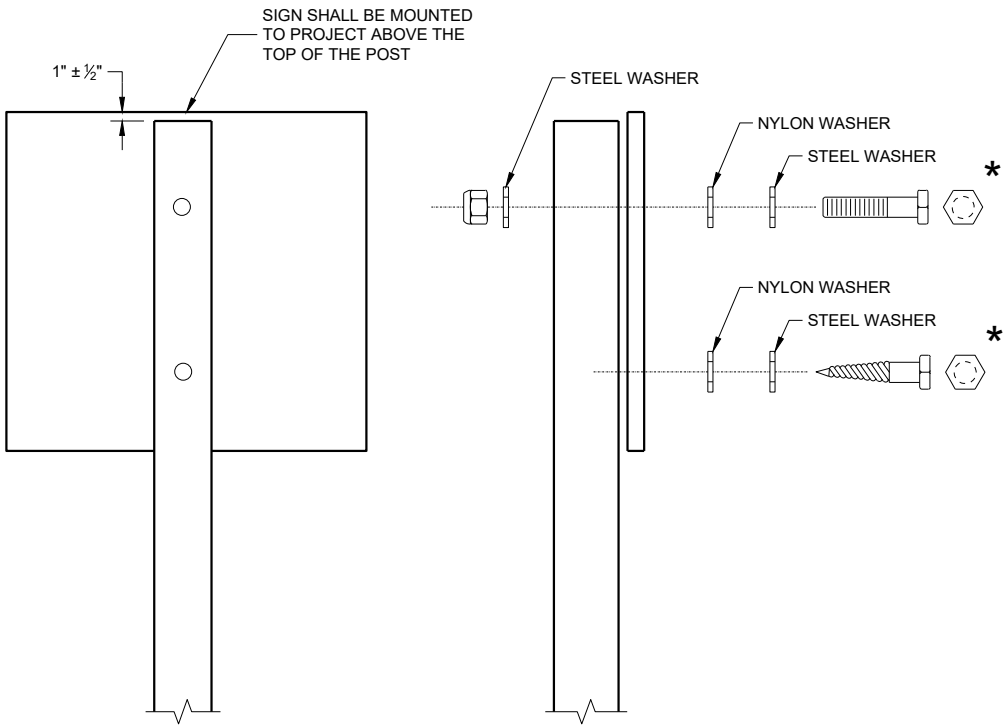
SEE NOTE ③

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 POST (4" x 6")
LAG SCREWS - ¾" x 3"
MACHINE BOLTS - ⅝" x 6 ½" OR 7" LENGTH W/NUTS

SQUARE STEEL POST (2" x 2")
MACHINE BOLTS - ¾" x 3 ¼" LENGTH W/NUTS
RIVETS - ⅝" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM
BODY/MANDREL O.D. FLANGE 0.720 - 0.765 INCH,
GRIP RANGE 0.042 - 0.375 INCH

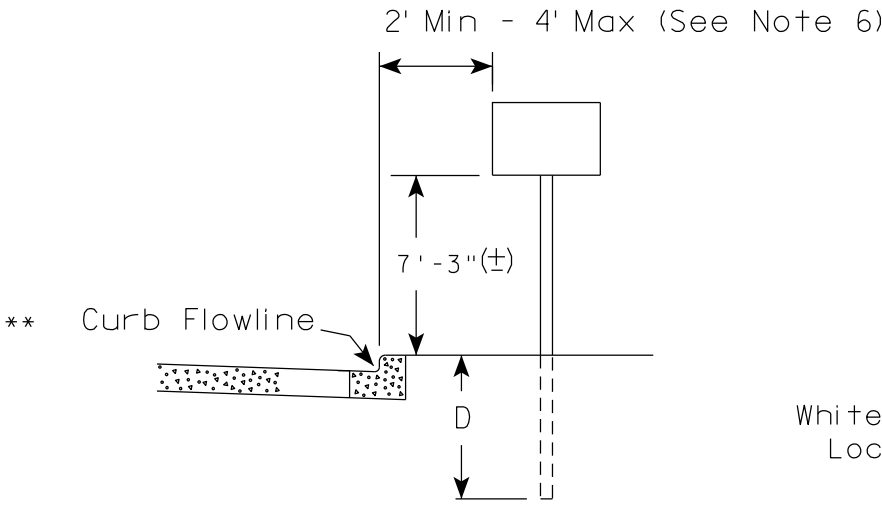
WASHERS (ALL POSTS) -
1 ¼" O.D. x ⅜" I.D. x ⅛" STEEL
1 ¼" O.D. x ⅜" I.D. x 0.080 NYLON

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

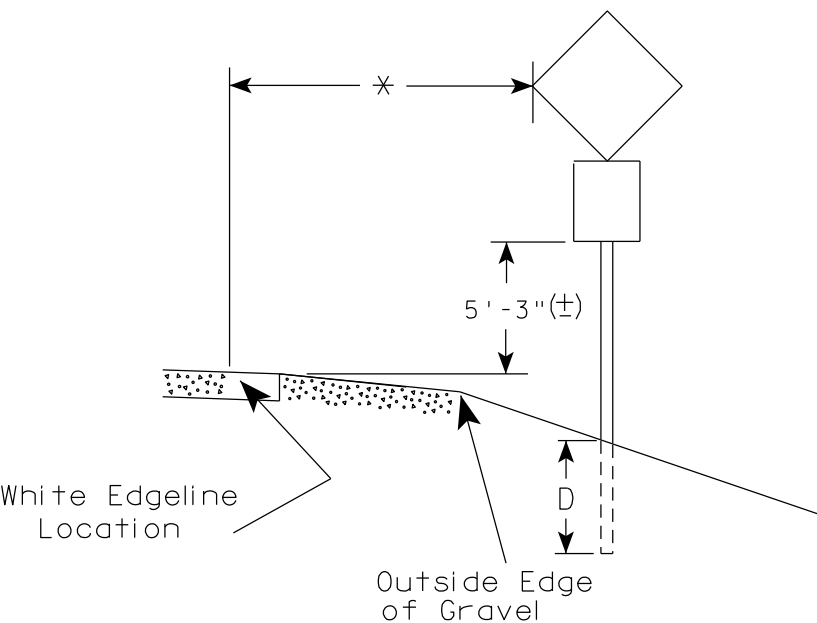
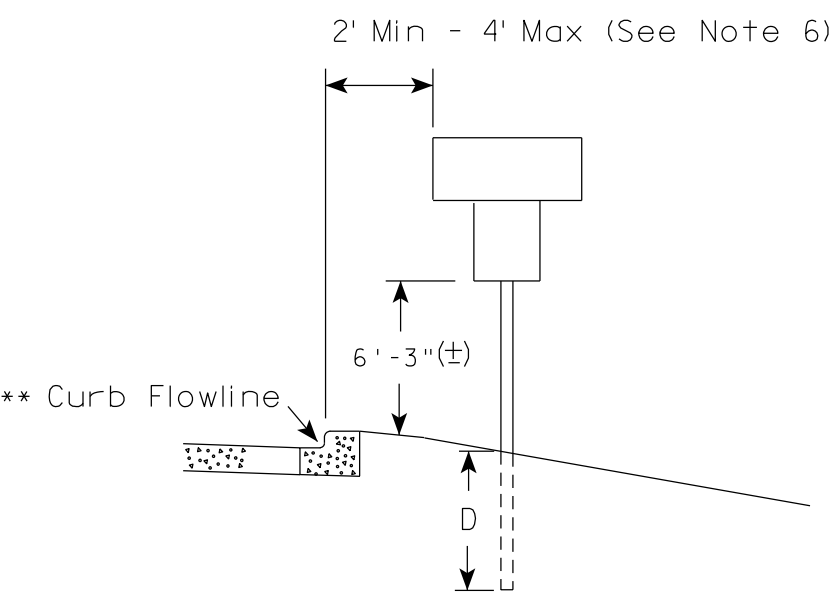
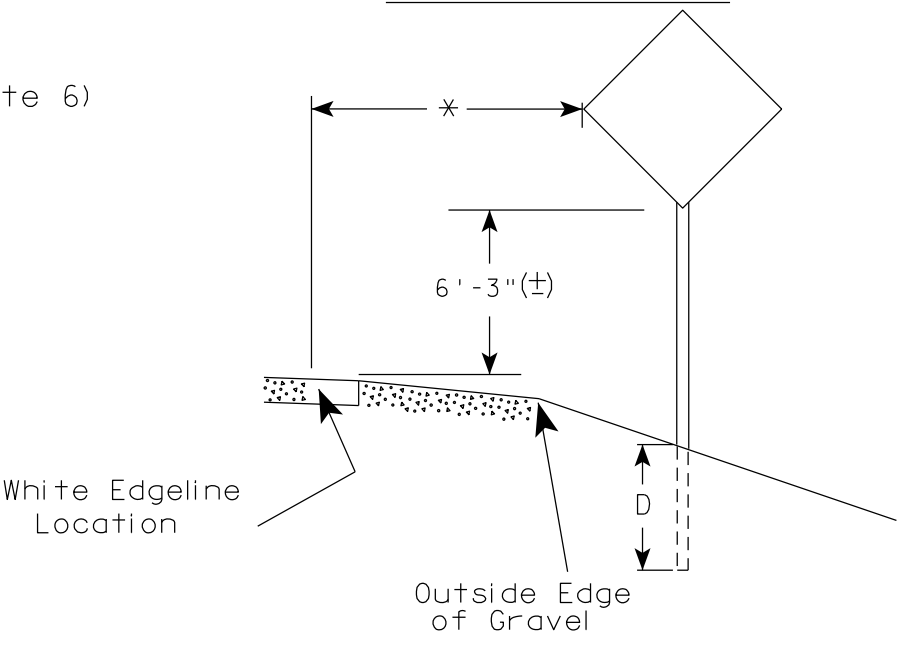
ATTACHMENT OF SIGNS TO POSTS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2017 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER 105

FHWA

URBAN AREA



RURAL AREA (See Note 2)



GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on or behind barrier wall, see A4-10 sign plate.
The Double Arrow sign (W12-1D) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
5. Offset distance shall be consistent with existing signs or consistent throughout length of project.
6. The (±) tolerance for mounting height is 3 inches.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the Engineer.

✱✱ The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs is measured from the flow line.

✱ 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

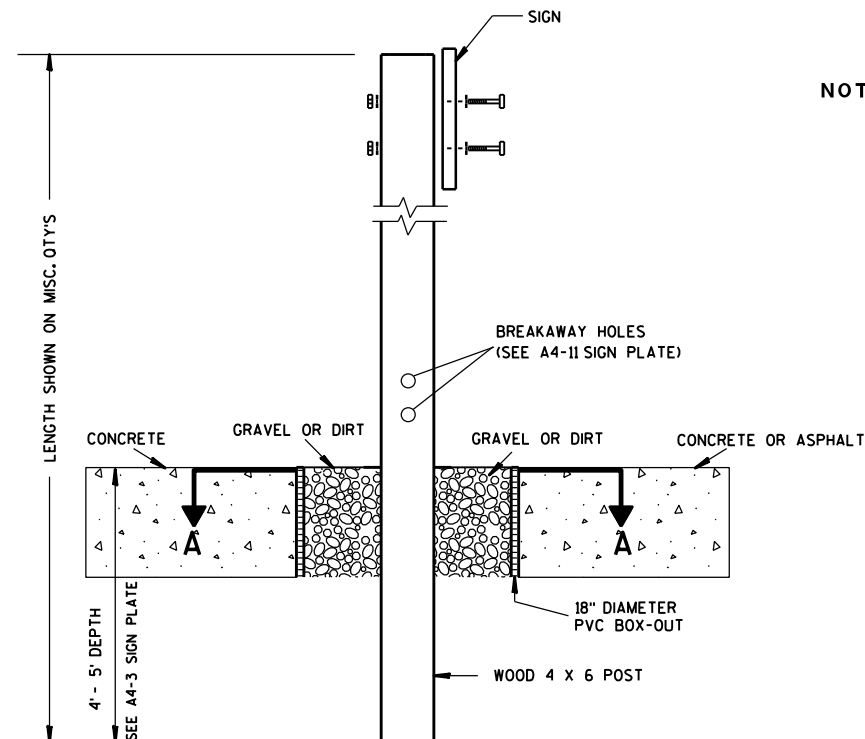
POST EMBEDMENT DEPTH	
Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

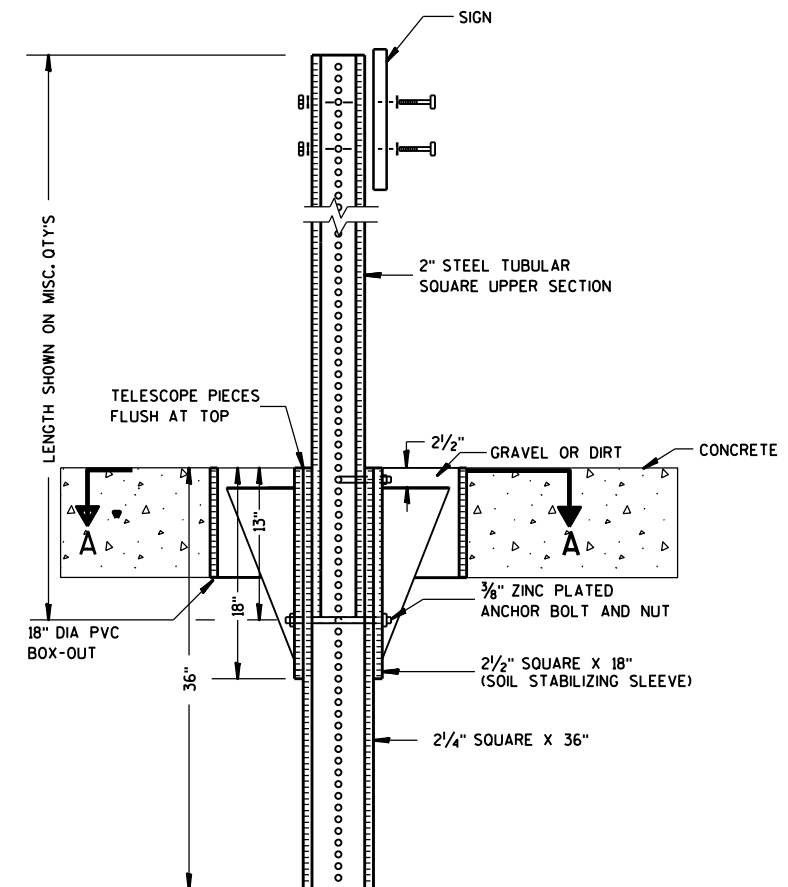
DATE 5/13/2020 PLATE NO. A4-3.22



ELEVATION VIEW

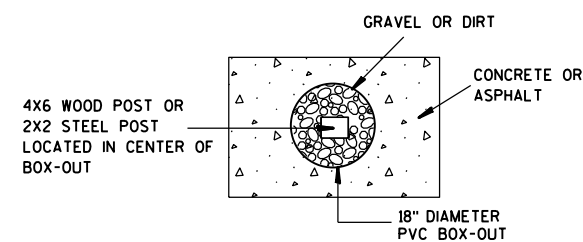
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST
BOX-OUTS
A4-3B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 1/27/14 PLAT 107 A4-3B.1

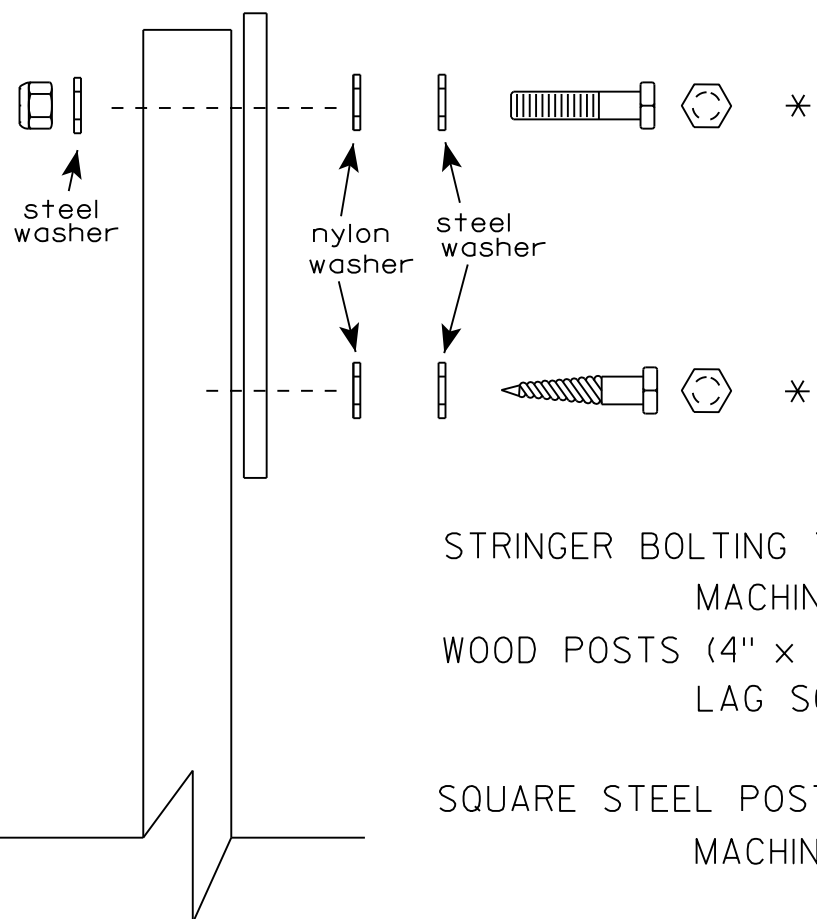
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



- a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3
- b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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

STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)

MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts

WOOD POSTS (4" x 4" or 4" x 6")

LAG SCREWS - $\frac{3}{8}$ " X 3" (NO STRINGERS ON BACK OF SIGN)
 $\frac{3}{8}$ " X 4" (STRINGERS ON BACK OF SIGN)

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - $\frac{3}{8}$ " X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
 $\frac{3}{8}$ " X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)

RIVETS - 9/32 " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL

O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -

1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL

1-1/4" O.D. X 3/8" I.D. X .080 NYLON

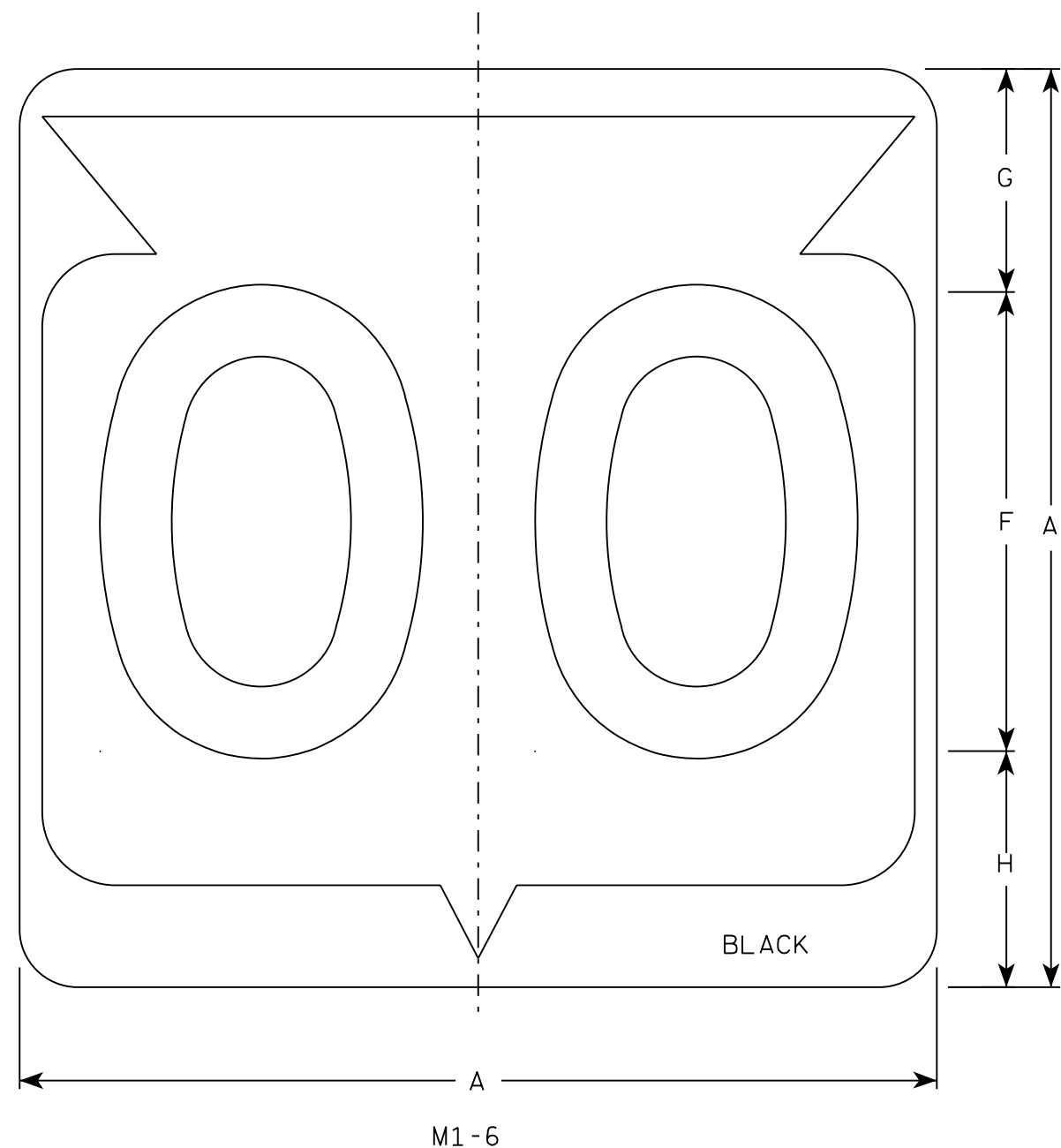
* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require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

ATTACHMENT OF SIGNS
TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

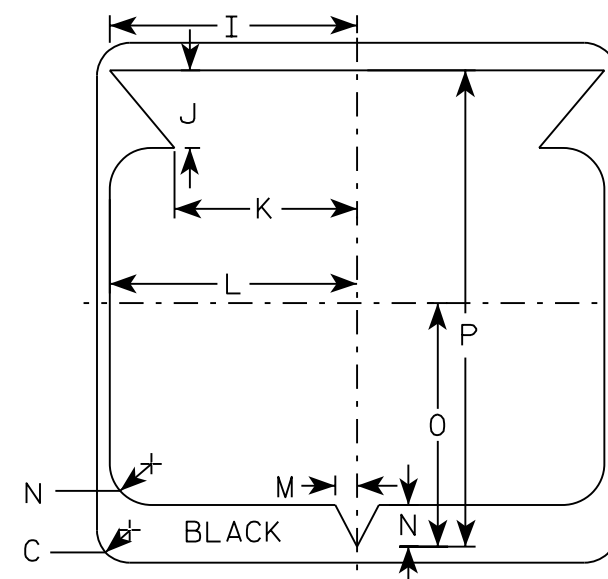
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/11/16 PLATE NO. A4-8.8
108



NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - White
Message - Black
3. Message Series - D except 3 number signs Series C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0
3	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0
4	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0
5	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0

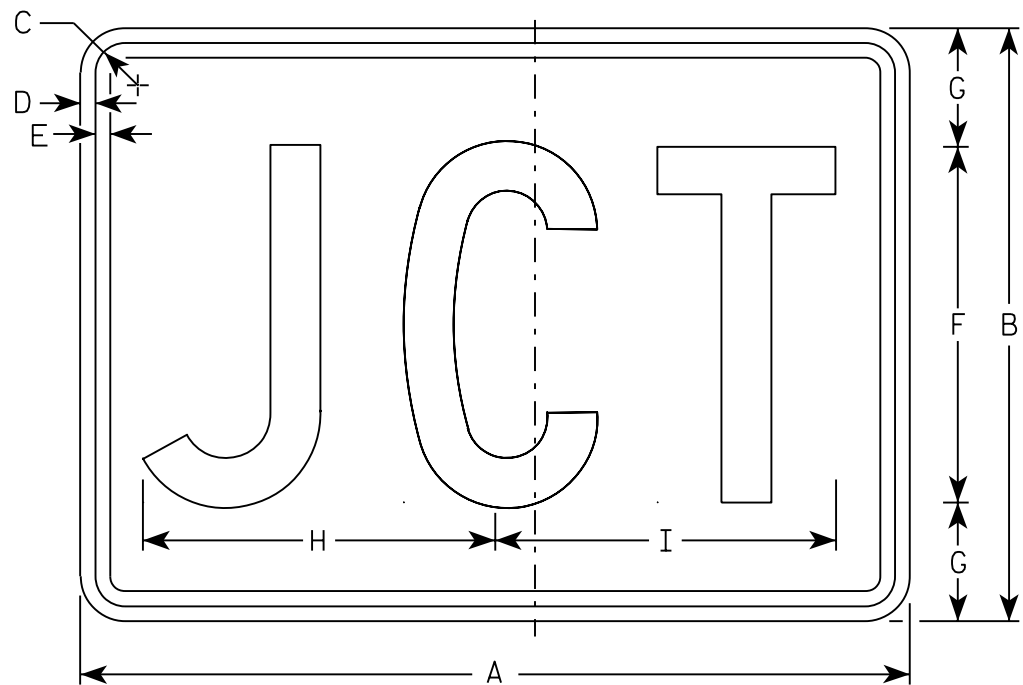
PROJECT NO:	HWY:	COUNTY:	SHEET NO: 109	E
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STATE ROUTE MARKER
M1-6 FOR ASSEMBLIES

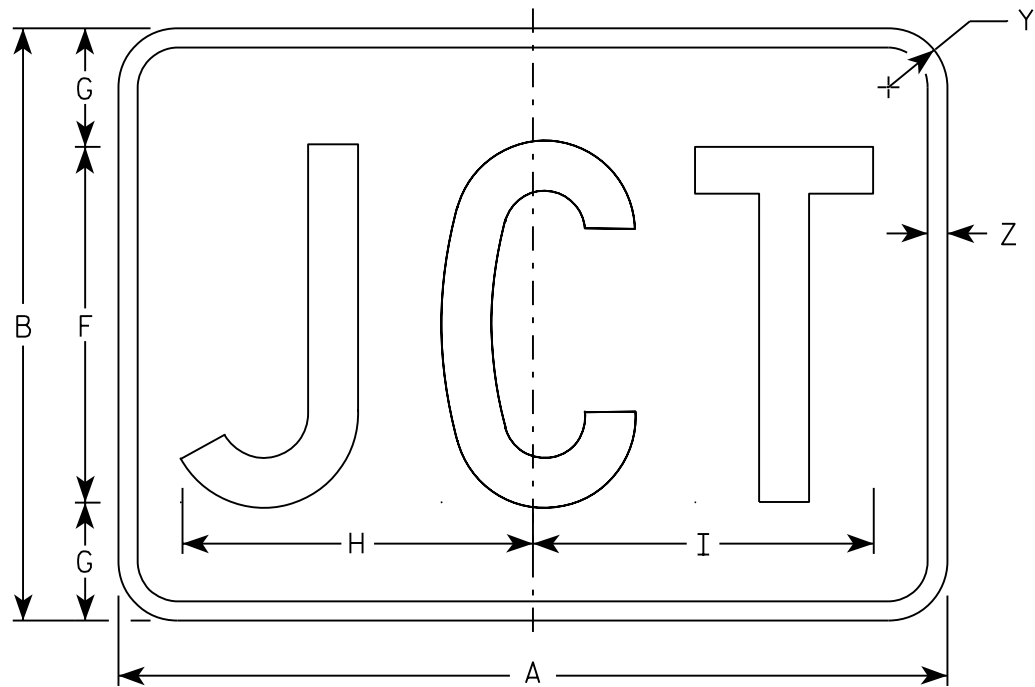
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/16/18 PLATE NO. M1-6.10



M2-1
MM2-1
MP2-1



MB2-1
MK2-1
MN2-1
MR2-1

NOTES

- 1. Sign is Type II - Type H
- 2. Color:
 - Background - See note 5
 - Message - See note 5
- 3. Message Series - C
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 5. M2-1 Background - White
 Message - Black
 MB2-1 Background - Blue
 Message - White
 MK2-1 Background - Green
 Message - White
 MM2-1 Background - White
 Message - Green
 MN2-1 Background - Brown
 Message - White
 MP2-1 Background - White
 Message - Blue
 MR2-1 Background - Brown
 Message - Yellow

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21	15	1 1/8	3/8	3/8	9	3	8 7/8	8 5/8																1 1/2	1/2	2.20
3	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40
4	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40
5	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

STANDARD SIGN

M2 - 1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

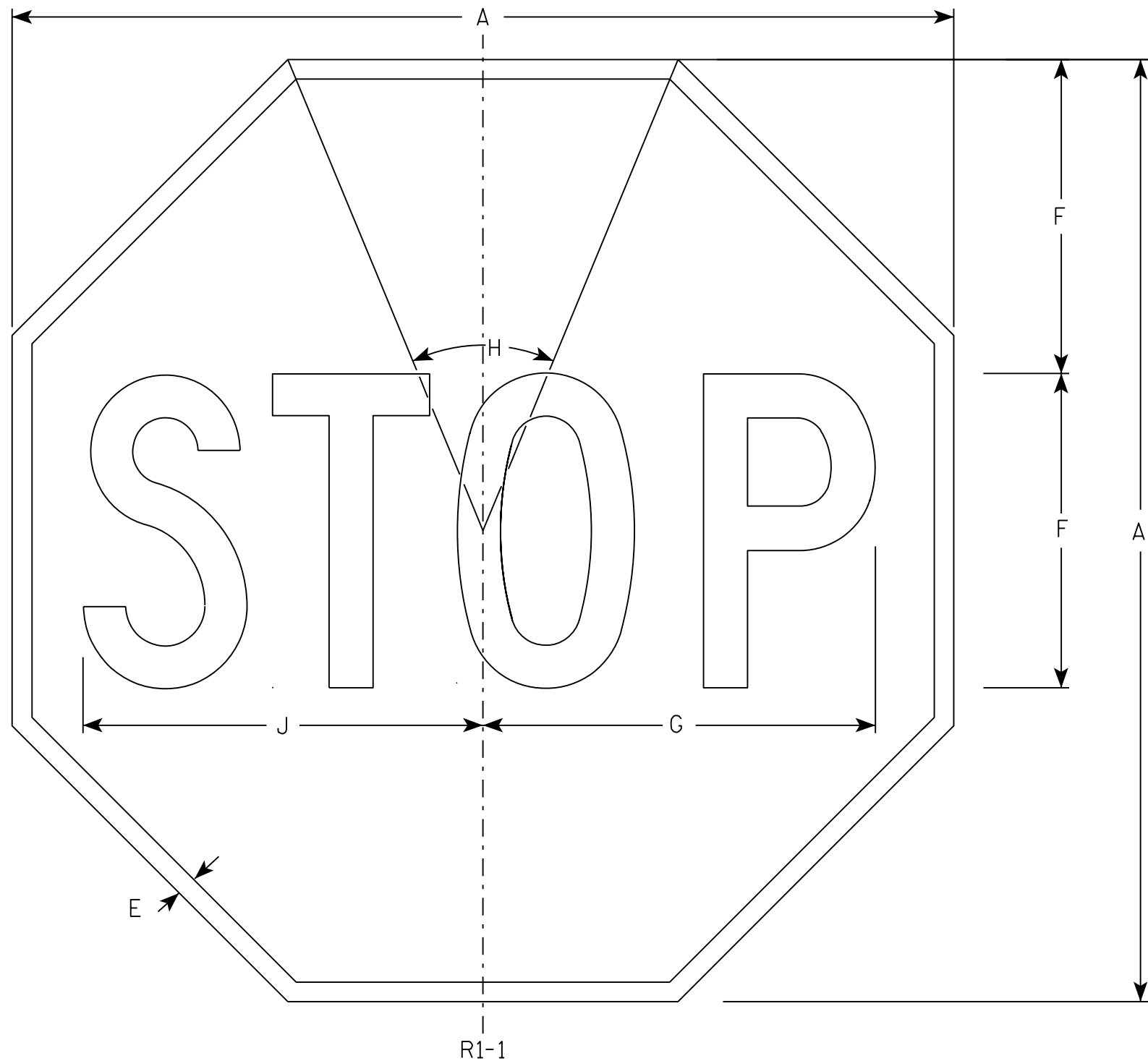
Matthew R. Rauch
for State Traffic Engineer

DATE 10/15/15

PLATE 110

'2-1.12

7



NOTES

- 1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
Background - Red
Message - White
- 3. Message Series - C

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2S	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2M	36				3/4	12	15	45°		15 3/8																	7.46
3	36				3/4	12	15	45°		15 3/8																	7.46
4	48				1	16	20	45°		20 1/2																	13.25
5	48				1	16	20	45°		20 1/2																	13.25
6	18				3/8	6	7 3/4	45°		7 3/4																	1.86
7	12				1/4	4	5	45°		5 1/8																	0.78

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 111

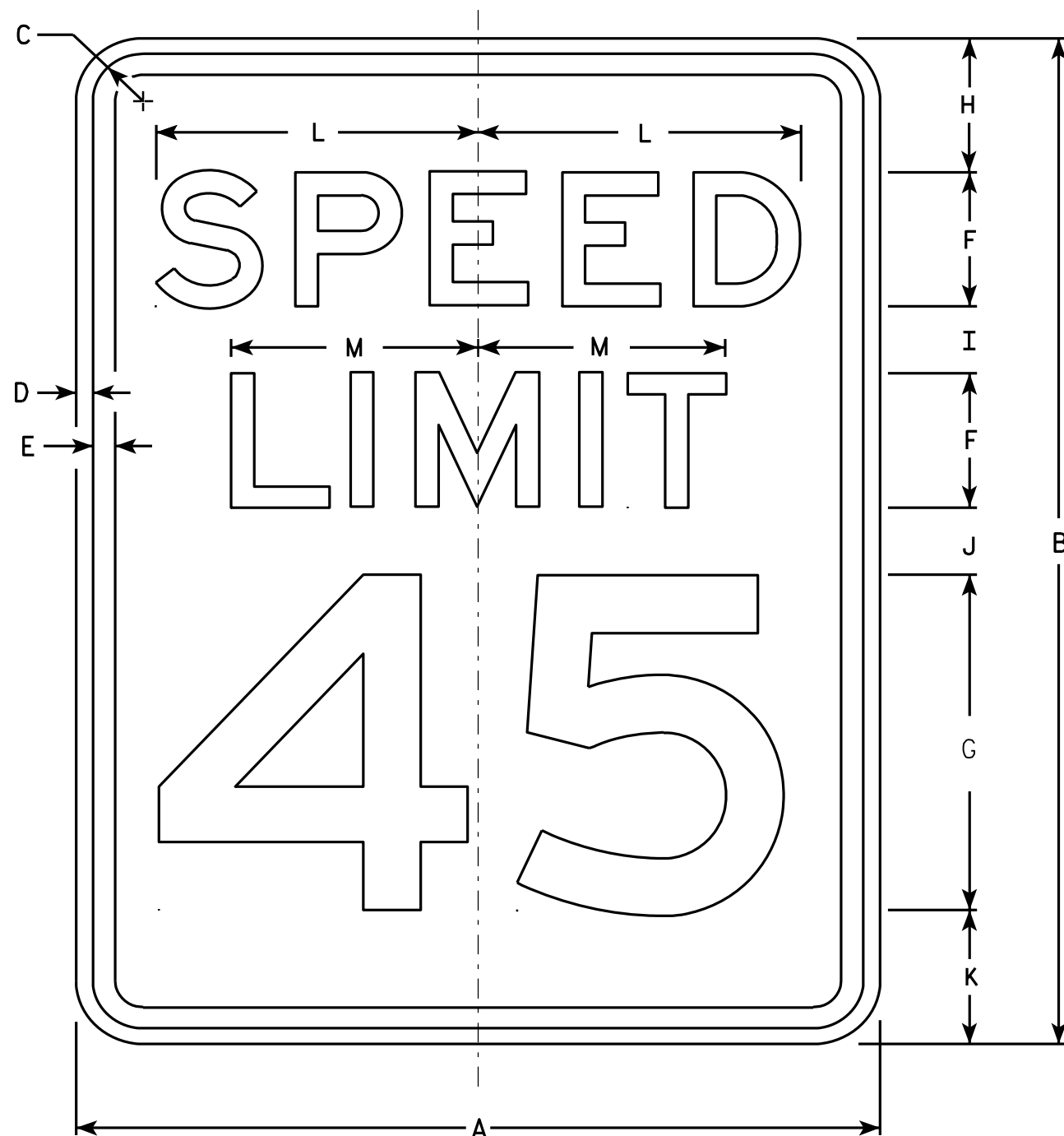
E

STANDARD SIGN
R1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 11/12/15 PLATE NO. R1-1.13



R2-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/8	3/8	1/2	4	10	3	2 1/4	3 3/8	3 3/8	9 5/8	7 3/8														5.0
2M	30	36	1 3/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
4	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
5	48	60	2 1/4	3/4	1	8	20	6	4 1/2	6 3/4	6 3/4	19 1/4	14 5/8														20.0

STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION
APPROVED *Matthew R. Rauch*
For State Traffic Engineer
DATE 5/26/10 PLATE NO. R2-1.13

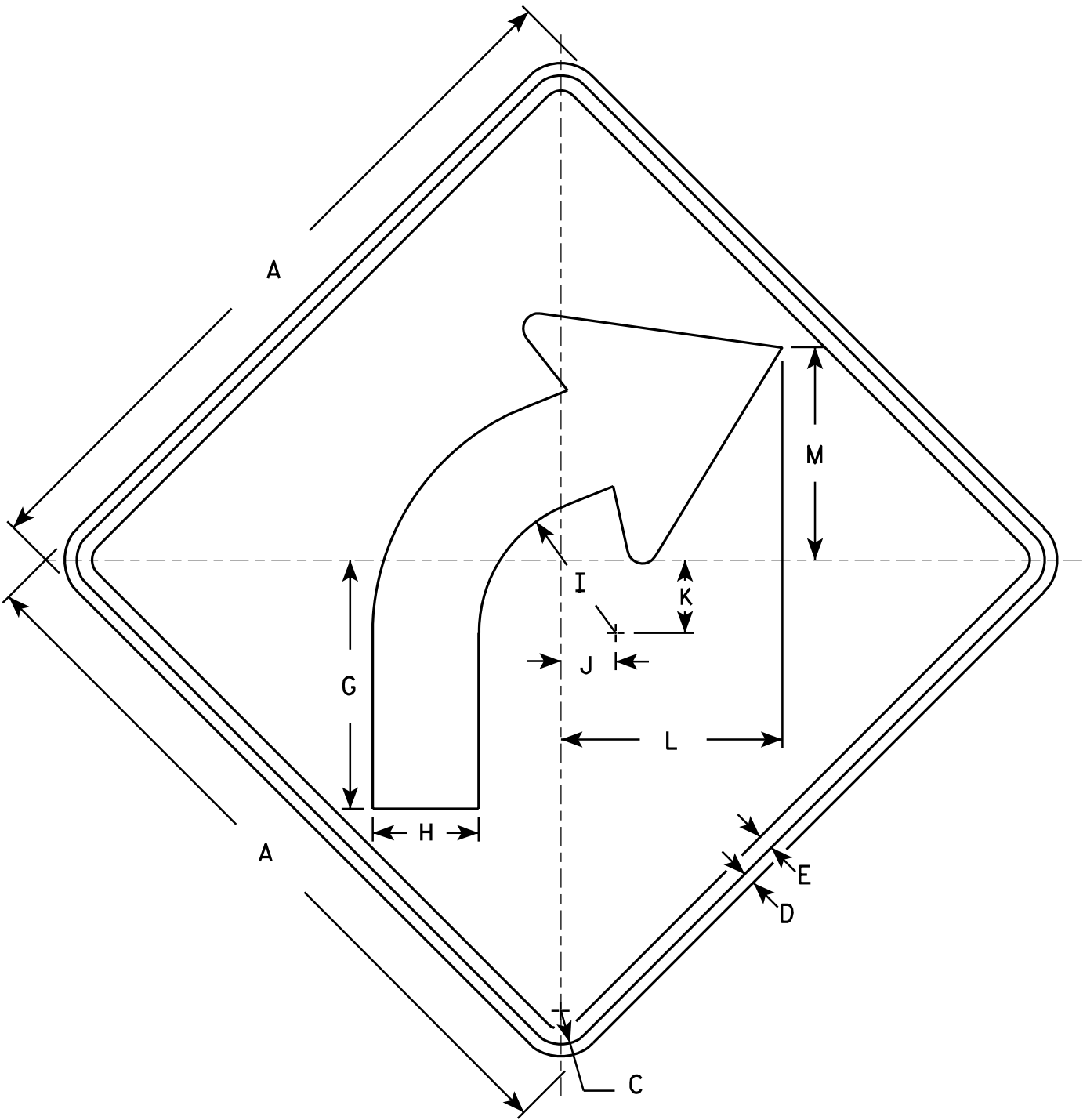
PROJECT NO: HWY: COUNTY: SHEET NO: 112 E

NOTES

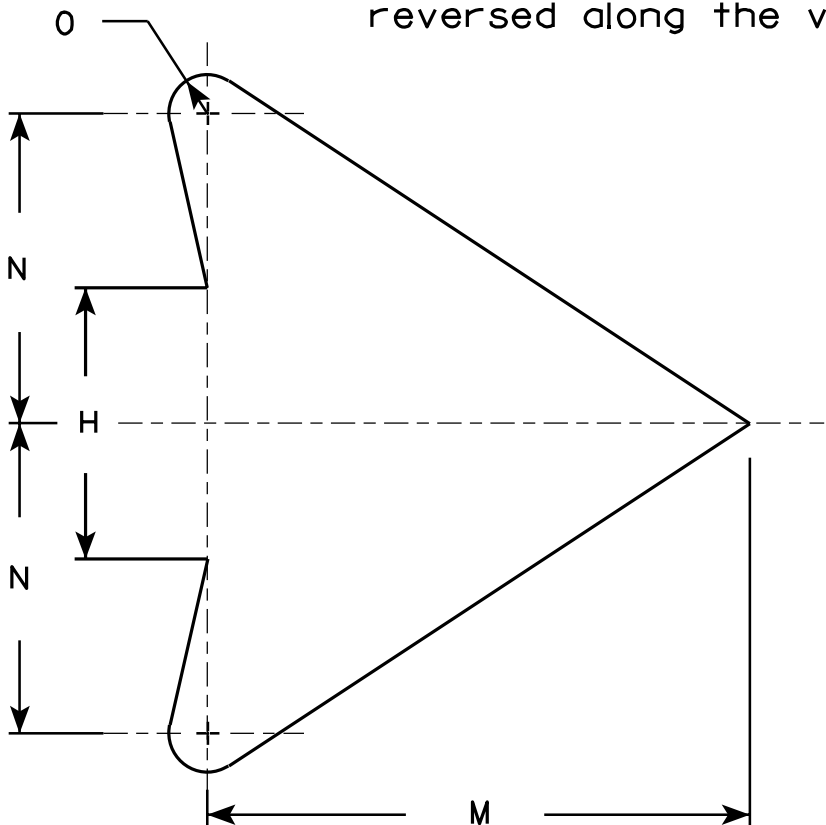
1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:

Background - Yellow

Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W1-2L is the same as W1-2R except the arrow is reversed along the vertical centerline.



W1-2R



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2		8 1/4	3 1/2	4 1/2	1 3/4	2 3/8	7 1/4	7	4	1/2												4.0
2S	30		1 3/8	1/2	5/8		10 1/4	4 3/8	5 5/8	2 1/4	3	9 1/8	8 3/4	5	5/8												6.25
2M	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
3	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
4	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
5	48		2 1/4	3/4	1		16 1/2	7	9	3 1/2	4 5/8	14 1/2	14	8	1												16.0

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 113

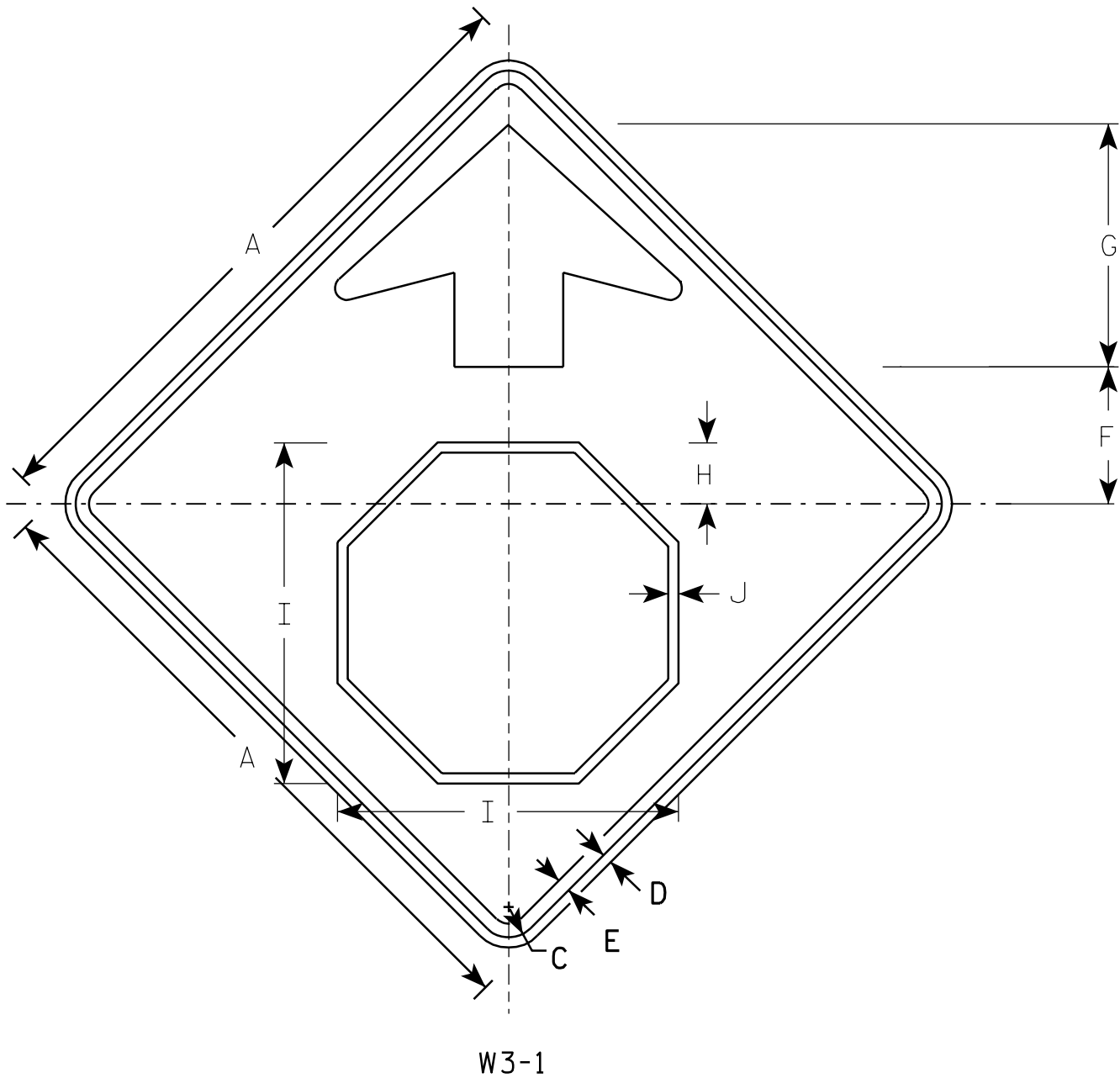
E

STANDARD SIGN
W1-2

WISCONSIN DEPT OF TRANSPORTATION

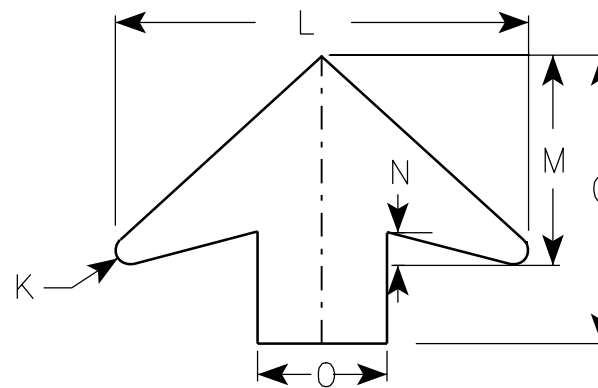
APPROVED
Matthew R. Rauch
for State Traffic Engineer

DATE 5/15/12 PLATE NO. W1-2.10



NOTES

1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - YELLOW
Arrow & Border - BLACK
Stop Symbol - WHITE BORDER ON RED BACKGROUND



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3⁄8	1⁄2	5⁄8	6 1⁄4	11 1⁄4	2 7⁄8	15 3⁄4	1⁄2	1⁄2	16	8	1 1⁄4	5												6.25
2S	36		1 5⁄8	5⁄8	3⁄4	7 1⁄2	13 1⁄2	3 1⁄2	19	5⁄8	5⁄8	19 1⁄4	9 3⁄4	1 5⁄8	6												9.0
2M	36		1 5⁄8	5⁄8	3⁄4	7 1⁄2	13 1⁄2	3 1⁄2	19	5⁄8	5⁄8	19 1⁄4	9 3⁄4	1 5⁄8	6												9.0
3	36		1 5⁄8	5⁄8	3⁄4	7 1⁄2	13 1⁄2	3 1⁄2	19	5⁄8	5⁄8	19 1⁄4	9 3⁄4	1 5⁄8	6												9.0
4	48		2 1⁄4	3⁄4	1	10	17 7⁄8	4 1⁄2	25 1⁄8	3⁄4	7⁄8	25 5⁄8	13	2	8												16.0
5	48		2 1⁄4	3⁄4	1	10	17 7⁄8	4 1⁄2	25 1⁄8	3⁄4	7⁄8	25 5⁄8	13	2	8												16.0

STANDARD SIGN W3-1

WISCONSIN DEPT OF TRANSPORTATION

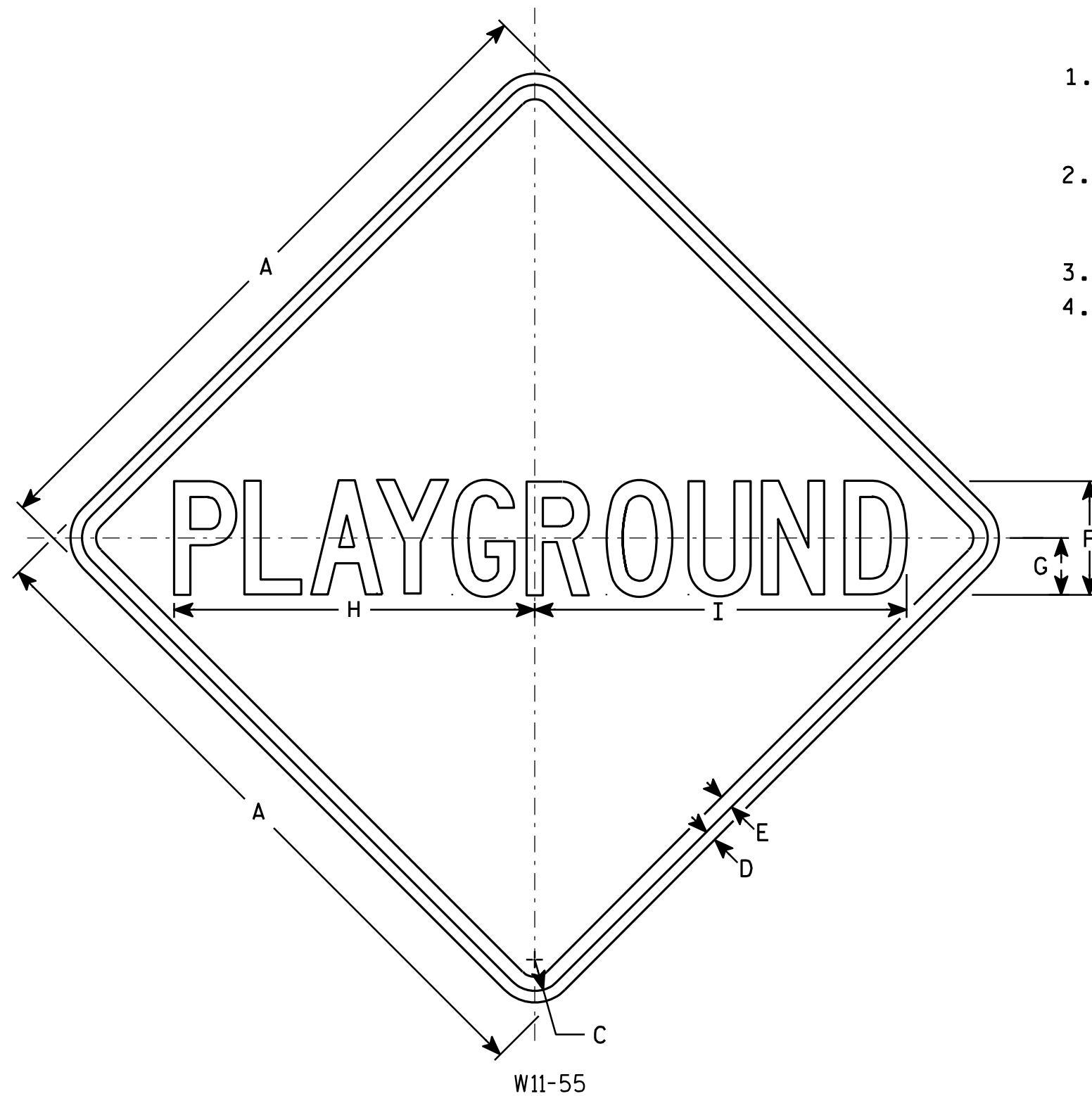
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W3-1.12

PROJECT NO:

SHEET NO: 114

E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Yellow
Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	5	2 1/2	15 7/8	16 3/8																		6.25
2S	30		1 3/8	1/2	5/8	5	2 1/2	15 7/8	16 3/8																		6.25
2M	30		1 3/8	1/2	5/8	5	2 1/2	15 7/8	16 3/8																		6.25
3																											
4																											
5																											

STANDARD SIGN W11-55

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 3/13/13 PLATE NO. W11-55.7

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 115

E

Notes:										
		Cut Includes Salvaged/Unusable Pavement material								
1 - Cut		This does not show up in cross sections								
2 - Salvaged/Unusable Pavement Material		Does not include Unusable Pavement Exc volume								
3 - Fill										
Division 1 - Cty-D										
STATION	Real Station	Distance	AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		Mass Ordinate	
			Cut	Salvaged/Unusable Pavement Material	Fill	Cut	Salvaged/Unusable Pavement Material	Fill		Cut
						Note 1	Note 2	Note 3	Note 1	1.25
10+50	1050.00	0.00	35.65	16.92	0.00	0	0	0	0	0
10+75	1075.00	25.00	35.30	16.92	0.00	33	16	0	33	0
10+81.88	1081.88	6.88	34.45	16.33	0.05	9	4	0	42	0
11+00	1100.00	18.12	31.67	15.17	0.39	22	11	0	64	0
11+25	1125.00	25.00	30.18	14.00	1.00	29	14	1	93	0
11+50	1150.00	25.00	29.73	13.42	1.23	28	13	1	120	2
11+66.17	1166.17	16.17	36.74	13.42	9.56	20	8	3	140	6
11+66.88	1166.88	0.71	36.52	13.42	9.46	1	0	0	141	7
11+75	1175.00	8.12	39.61	13.42	3.90	11	4	2	153	9
12+00	1200.00	25.00	33.89	13.42	0.11	34	12	2	187	11
12+16.67	1216.67	16.67	39.21	13.42	0.08	23	8	0	209	12
12+25	1225.00	8.33	33.98	13.42	0.19	11	4	0	220	12
12+50	1250.00	25.00	32.40	13.42	0.28	31	12	0	251	12
12+75	1275.00	25.00	33.25	13.42	0.16	30	12	0	282	12
13+00	1300.00	25.00	43.94	19.83	0.11	36	15	0	317	12
13+09.71	1309.71	9.71	43.28	19.83	0.39	16	7	0	333	12
13+25	1325.00	15.29	44.46	19.83	0.27	25	11	0	358	13
13+50	1350.00	25.00	38.04	12.83	1.78	38	15	1	396	14
13+75	1375.00	25.00	45.59	12.83	0.28	39	12	1	435	15
14+00	1400.00	25.00	48.96	12.83	0.03	44	12	0	479	15
14+25	1425.00	25.00	56.31	12.83	0.00	49	12	0	527	15
14+50	1450.00	25.00	72.81	12.83	0.01	60	12	0	587	15
14+50.01	1450.01	0.01	74.33	12.83	0.01	0	0	0	587	15
14+75	1475.00	24.99	88.15	12.83	0.19	75	12	0	662	15
14+85.16	1485.16	10.16	82.81	15.75	0.04	32	5	0	694	15
14+85.17	1485.17	0.01	82.81	15.75	0.16	0	0	0	694	15
15+00	1500.00	14.83	77.29	15.75	2.06	44	9	1	738	16
15+05	1505.00	5.00	79.35	20.42	3.14	15	3	0	753	17
15+07.91	1507.91	2.91	85.07	20.42	2.56	9	2	0	762	17
15+16.71	1516.71	8.80	79.82	20.42	1.88	27	7	1	789	18
15+25	1525.00	8.29	73.63	20.42	1.82	24	6	1	812	19
15+35	1535.00	10.00	74.03	24.50	1.50	27	8	1	840	20
15+40	1540.00	5.00	74.69	28.00	1.53	14	5	0	853	20
15+45	1545.00	5.00	76.77	29.17	0.88	14	5	0	867	20
15+50	1550.00	5.00	81.25	30.33	0.36	15	6	0	882	20
15+54.56	1554.56	4.56	83.63	31.50	0.21	14	5	0	896	20
15+54.57	1554.57	0.01	83.66	31.50	0.22	0	0	0	896	20
15+55	1555.00	0.43	85.22	31.50	0.16	1	1	0	897	20
15+60	1560.00	5.00	98.72	33.25	0.08	17	6	0	914	20
15+65	1565.00	5.00	101.76	33.25	0.19	19	6	0	933	20
15+70	1570.00	5.00	101.99	34.42	0.15	19	6	0	952	20
15+75	1575.00	5.00	96.09	35.00	0.12	18	6	0	970	20
15+80	1580.00	5.00	92.04	35.00	0.12	17	6	0	988	21
15+85	1585.00	5.00	89.83	35.00	0.56	17	6	0	1,004	21
15+90	1590.00	5.00	90.71	35.58	0.46	17	7	0	1,021	21
15+94.77	1594.77	4.77	86.18	18.08	0.45	16	5	0	1,037	21
15+94.78	1594.78	0.01	86.32	17.50	0.42	0	0	0	1,037	21
16+00	1600.00	5.22	75.17	16.92	0.02	16	3	0	1,052	21
16+05	1605.00	5.00	68.10	15.17	0.74	13	3	0	1,066	21
16+12.52	1612.52	7.52	64.48	15.75	1.68	18	4	0	1,084	21
16+25	1625.00	12.48	67.08	15.17	1.27	30	7	1	1,114	22
16+50	1650.00	25.00	60.34	15.17	1.32	59	14	1	1,173	24
16+75	1675.00	25.00	55.41	15.17	2.95	54	14	2	1,227	26
17+00	1700.00	25.00	60.60	12.83	1.10	54	13	2	1,281	29
17+25	1725.00	25.00	59.50	12.83	1.59	56	12	1	1,336	30
17+50	1750.00	25.00	62.50	12.83	1.59	56	12	1	1,393	32
17+66.68	1766.68	16.68	63.38	12.83	3.05	39	8	1	1,432	34
17+75	1775.00	8.32	63.53	12.83	4.73	20	4	1	1,451	35
17+85.71	1785.71	10.71	60.69	12.83	7.63	25	5	2	1,476	38
18+00	1800.00	14.29	61.07	12.83	2.30	32	7	3	1,508	42
18+00.01	1800.01	0.01	61.18	12.83	2.30	0	0	0	1,508	42
18+17.07	1817.07	17.06	51.30	12.83	12.85	36	8	5	1,544	48
18+25	1825.00	7.93	55.93	12.83	0.97	16	4	2	1,559	50
18+34.93	1834.93	9.93	63.55	12.83	3.46	22	5	1	1,581	51
18+43.4	1843.40	8.47	66.74	27.42	5.62	20	6	1	1,602	53
18+50	1850.00	6.60	83.84	27.42	3.00	18	7	1	1,620	54
18+75	1875.00	25.00	71.28	12.83	0.47	72	19	2	1,692	56
19+00	1900.00	25.00	73.10	12.83	0.72	67	12	0	1,759	57
19+25	1925.00	25.00	80.10	12.83	0.00	71	12	0	1,830	57
19+50	1950.00	25.00	75.97	13.42	1.81	72	12	1	1,902	58
19+65.16	1965.16	15.16	75.31	14.00	0.56	42	8	1	1,945	59
19+70.53	1970.53	5.37	79.06	14.00	0.40	15	3	0	1,960	59
19+75	1975.00	4.47	82.58	15.17	0.20	13	2	0	1,973	59
19+85	1985.00	10.00	97.28	21.58	0.35	33	7	0	2,007	60
19+92.24	1992.24	7.24	94.93	25.67	0.00	26	6	0	2,032	60
19+92.25	1992.25	0.01	93.30	25.67	0.00	0	0	0	2,032	60
19+95	1995.00	2.75	95.39	26.25	0.03	10	3	0	2,042	60
20+00	2000.00	5.00	97.02	26.25	0.02	18	5	0	2,060	60
20+05	2005.00	5.00	96.75	26.83	0.00	18	5	0	2,078	60
20+10	2010.00	5.00	94.55	27.42	0.00	18	5	0	2,096	60
20+15	2015.00	5.00	100.73	29.17	0.01	18	5	0	2,114	60
20+19.24	2019.24	4.24	76.46	29.17	0.21	14	5	0	2,127	60
20+19.69	2019.69	0.45	112.37	29.75	0.27	2	0	0	2,129	60
20+25	2025.00	5.31	111.87	30.92	0.11	22	6	0	2,151	60
20+30	2030.00	5.00	107.84	30.92	0.02	20	6	0	2,171	60
20+40	2040.00	10.00	78.							

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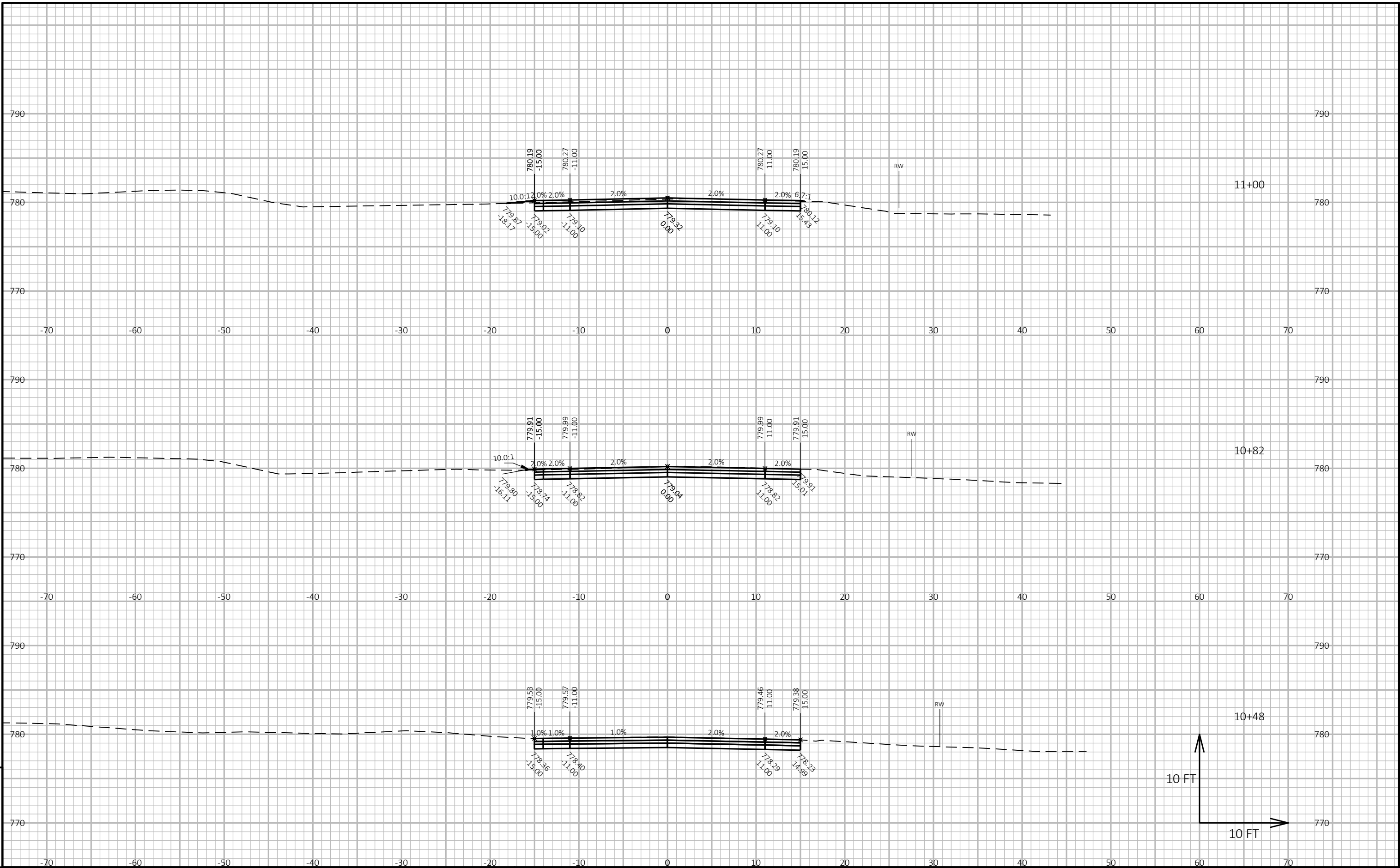
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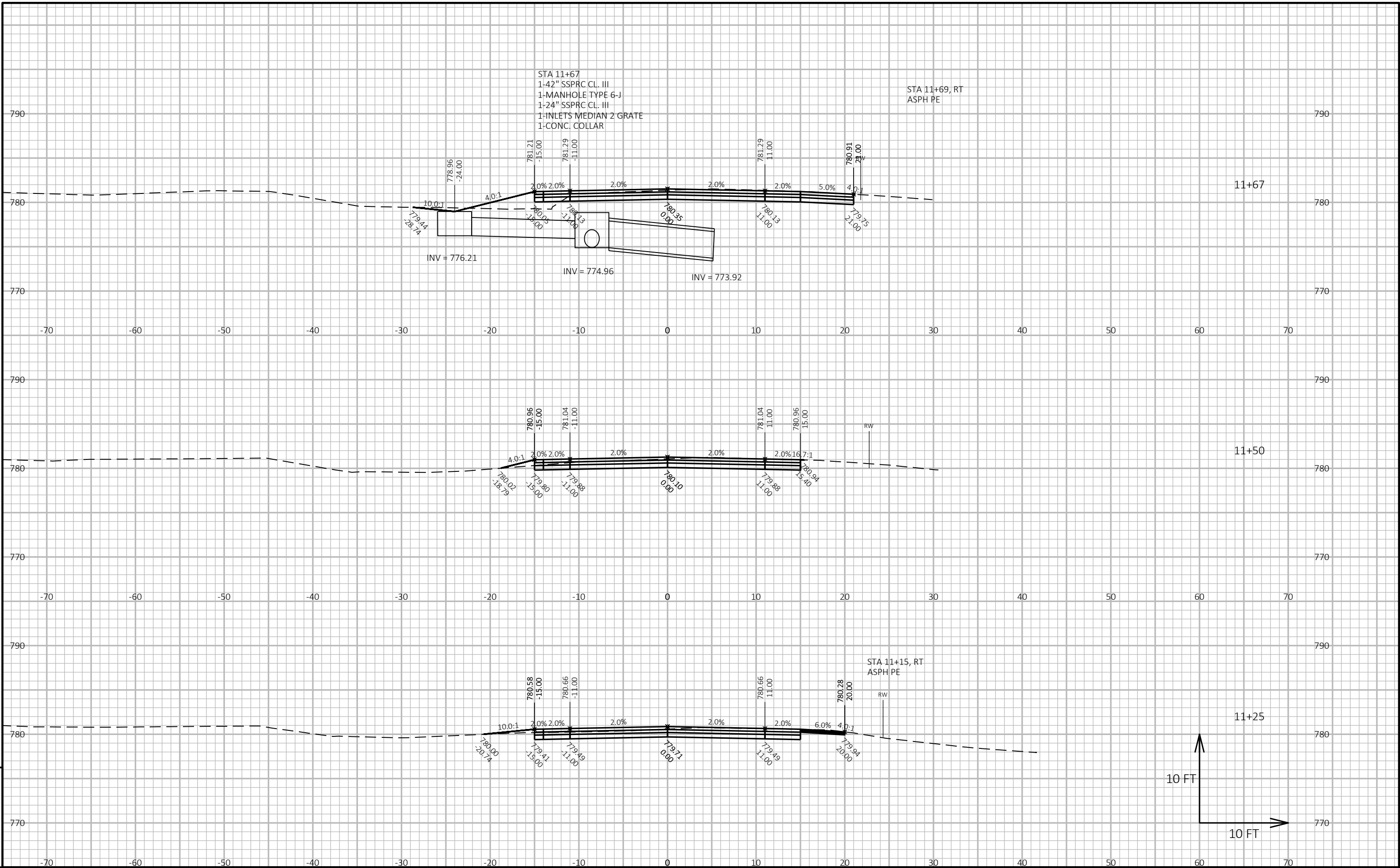
Division 1 - City-D			AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)				
STATION	Real Station	Distance	Cut	Salvaged/Unusable Pavement Material	Fill	Cut	Salvaged/Unusable Pavement Material	Fill	Cut	Expanded Fill	Mass Ordinate
						Note 1	Note 2	Note 3	Note 1		
23+58.84	2358.84	8.84	53.73	12.83	8.36	19	4	2	2,934	120	2,056
23+75	2375.00	16.16	62.67	12.83	0.00	35	8	3	2,968	124	2,080
23+92.02	2392.02	17.02	64.08	12.83	0.00	40	8	0	3,008	124	2,112
24+00	2400.00	7.98	66.34	12.83	0.00	19	4	0	3,028	124	2,127
24+25	2425.00	25.00	64.02	12.83	0.04	60	12	0	3,088	124	2,176
24+43.35	2443.35	18.35	90.40	12.83	0.00	52	9	0	3,140	124	2,219
24+50	2450.00	6.65	69.43	12.83	0.00	20	3	0	3,160	124	2,236
24+75	2475.00	25.00	64.33	12.83	0.00	62	12	0	3,222	124	2,286
25+00	2500.00	25.00	78.50	12.83	0.00	66	12	0	3,288	124	2,340
25+25	2525.00	25.00	50.80	12.83	0.37	60	12	0	3,348	124	2,388
25+40.46	2540.46	15.46	44.41	12.83	2.13	27	7	1	3,375	125	2,407
25+50	2550.00	9.54	49.82	12.83	0.49	17	5	0	3,392	125	2,418
25+62.39	2562.39	12.39	78.36	23.92	0.00	29	8	0	3,421	125	2,439
25+75	2575.00	12.61	57.50	12.83	0.00	32	9	0	3,453	125	2,462
26+00	2600.00	25.00	56.50	12.83	0.03	53	12	0	3,506	125	2,503
26+15.96	2615.96	15.96	32.85	12.83	51.13	26	8	15	3,532	144	2,503
26+25	2625.00	9.04	51.55	12.83	10.24	14	4	10	3,546	157	2,500
26+50	2650.00	25.00	55.60	12.83	0.67	50	12	5	3,596	164	2,532
26+75	2675.00	25.00	50.73	12.83	2.59	49	12	2	3,645	165	2,567
26+90	2690.00	15.00	50.61	12.83	0.42	28	7	1	3,673	166	2,587
27+00	2700.00	10.00	59.58	19.83	0.00	20	6	0	3,694	167	2,601
27+09.53	2709.53	9.53	84.98	30.33	0.02	26	9	0	3,719	167	2,618
27+19.96	2719.96	10.43	59.46	12.83	0.76	28	8	0	3,747	167	2,637
27+25	2725.00	5.04	54.71	12.83	3.99	11	2	0	3,758	167	2,645
27+50	2750.00	25.00	56.36	12.83	1.26	51	12	2	3,809	170	2,681
27+75	2775.00	25.00	53.33	12.83	0.00	51	12	1	3,860	171	2,720
28+00	2800.00	25.00	53.54	12.83	0.00	49	12	0	3,910	171	2,757
28+25	2825.00	25.00	53.20	12.83	0.01	49	12	0	3,959	171	2,795
28+40.91	2840.91	15.91	87.24	29.75	0.00	41	13	0	4,000	171	2,824
28+50	2850.00	9.09	53.89	12.83	0.40	24	7	0	4,024	171	2,840
28+75	2875.00	25.00	46.40	12.83	0.50	46	12	0	4,071	172	2,874
29+00	2900.00	25.00	46.75	12.83	0.50	43	12	0	4,114	172	2,905
29+25	2925.00	25.00	44.86	12.83	0.52	42	12	0	4,156	173	2,935
29+50	2950.00	25.00	41.97	12.83	4.96	40	12	3	4,196	176	2,960
29+75	2975.00	25.00	42.90	12.83	0.95	39	12	3	4,236	179	2,984
30+00	3000.00	25.00	62.22	12.83	1.72	49	12	1	4,284	181	3,019
30+25	3025.00	25.00	46.41	12.83	0.57	50	12	1	4,335	182	3,056
30+50	3050.00	25.00	69.28	12.83	0.00	54	12	0	4,388	183	3,098
30+75	3075.00	25.00	57.54	12.83	1.45	59	12	0	4,447	183	3,144
31+00	3100.00	25.00	69.43	12.83	0.41	59	12	1	4,506	185	3,189
31+12.06	3112.06	12.06	94.33	12.83	0.00	37	6	0	4,542	185	3,220
31+25	3125.00	12.94	67.55	12.83	0.00	39	6	0	4,581	185	3,253
31+50	3150.00	25.00	60.09	12.83	0.55	59	12	0	4,640	185	3,300
31+75	3175.00	25.00	59.97	12.83	0.30	56	12	0	4,696	185	3,343
31+92.83	3192.83	17.83	58.41	12.83	5.35	39	8	2	4,735	188	3,371
32+00	3200.00	7.17	62.52	12.83	5.96	16	3	2	4,751	190	3,382
32+25	3225.00	25.00	71.82	12.83	5.84	62	12	5	4,813	197	3,425
32+50	3250.00	25.00	62.40	12.83	6.06	62	12	6	4,875	203	3,469
32+58.18	3258.18	8.18	67.59	12.83	7.33	20	4	2	4,895	206	3,482
32+75	3275.00	16.82	43.03	12.83	13.57	34	8	7	4,929	214	3,500
32+90.59	3290.59	15.59	38.60	12.83	1.94	24	7	4	4,953	220	3,511
33+00	3300.00	9.41	37.76	12.83	2.46	13	4	1	4,966	221	3,519
33+15.87	3315.87	15.87	29.89	12.83	4.52	20	8	2	4,986	223	3,529
33+25	3325.00	9.13	27.62	12.83	5.70	10	4	2	4,996	225	3,532
33+50	3350.00	25.00	28.73	12.83	3.33	26	12	2	5,022	231	3,541
33+54.87	3354.87	4.87	34.65	12.83	3.40	6	2	1	5,028	231	3,543
33+59.73	3359.73	4.86	30.86	12.83	3.62	6	2	1	5,033	232	3,546
33+64.68	3364.68	4.95	33.27	12.83	1.75	6	2	0	5,039	233	3,549
33+75	3375.00	10.32	33.96	12.83	3.72	13	5	1	5,052	234	3,556
34+00	3400.00	25.00	39.97	12.83	3.72	34	12	3	5,086	238	3,574
34+25	3425.00	25.00	46.57	12.83	0.26	40	12	2	5,126	241	3,600
34+50	3450.00	25.00	37.97	12.83	0.79	39	12	0	5,166	241</	

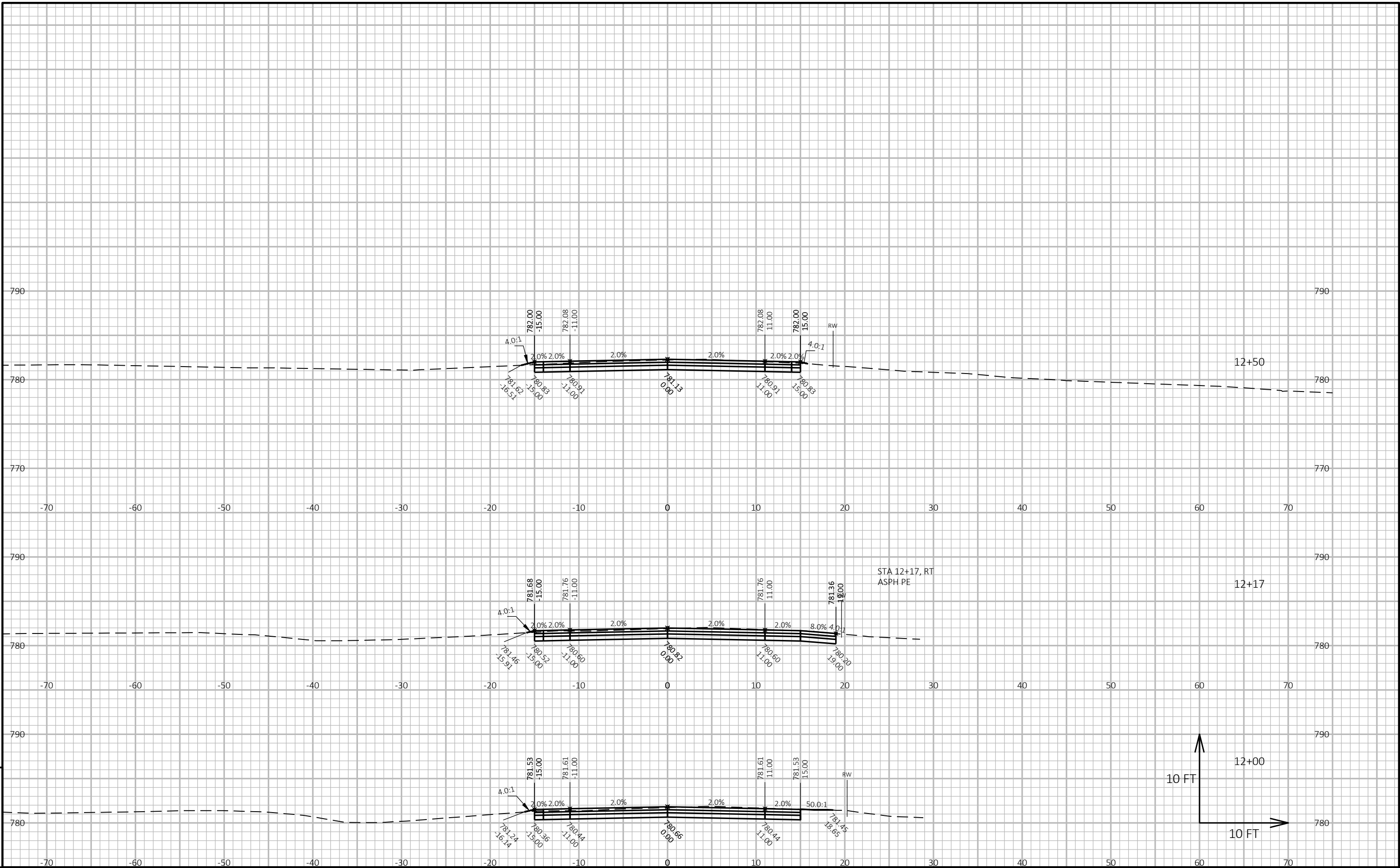
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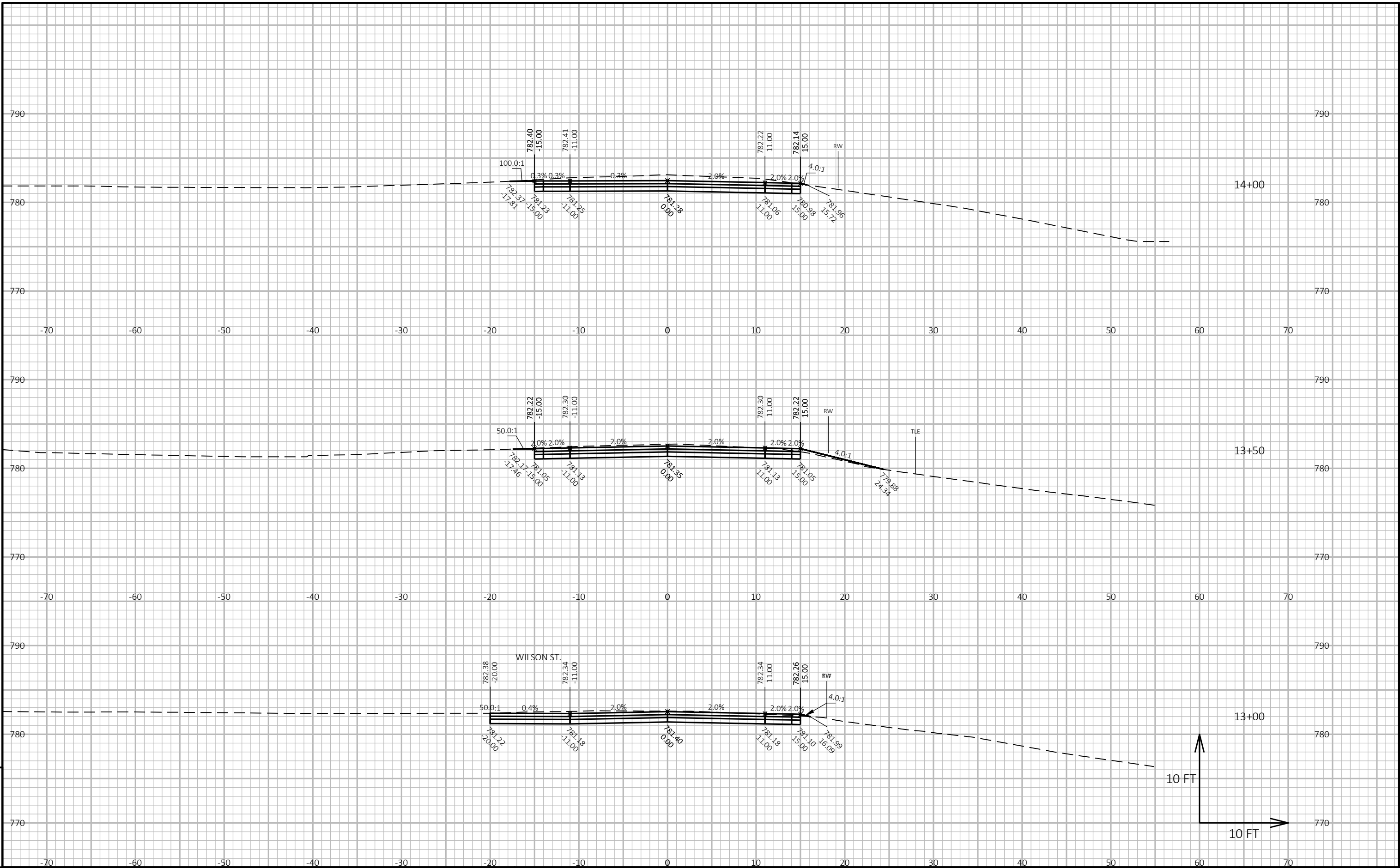
Division 1 - City-D

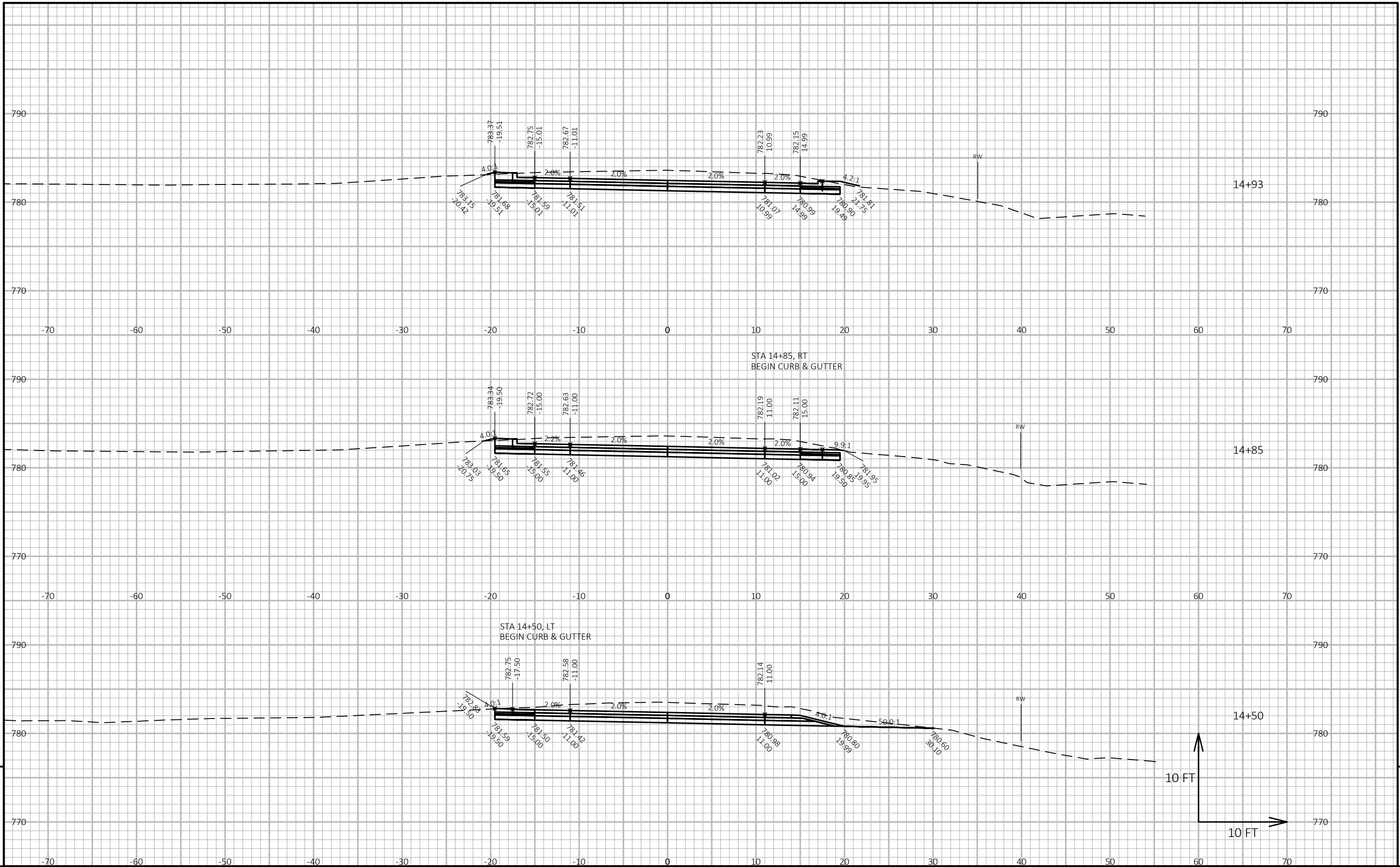
STATION	Real Station	Distance	AREA (SF)		Incremental Vol (CY) (Unadjusted)		Salvaged/Unusable Pavement Material		Cumulative Vol (CY)	
			Cut	Salvaged/Unusable Pavement Material	Fill	Cut	Salvaged/Unusable Pavement Material	Fill	Cut	Expanded Fill
43+25	4325.00	11.47	56.97	32.67	1.44	23	13	1	6,812	493
43+32.57	4332.57	7.57	56.06	15.75	1.09	16	7	0	6,828	493
43+50	4350.00	17.43	58.46	12.83	0.55	37	9	1	6,865	494
43+75	4375.00	25.00	48.35	12.83	0.03	49	12	0	6,914	494
43+94.11	4394.11	19.11	36.49	12.83	3.66	30	9	1	6,944	496
44+00	4400.00	5.89	32.66	12.83	1.03	8	3	1	6,952	497
44+25	4425.00	25.00	33.93	12.83	0.74	31	12	1	6,983	498
44+50	4450.00	25.00	35.29	12.83	2.06	32	12	1	7,015	499
44+75	4475.00	25.00	34.46	12.83	0.59	32	12	1	7,047	501
45+00	4500.00	25.00	34.52	12.83	2.20	32	12	1	7,079	502
45+25	4525.00	25.00	33.03	14.67	3.50	31	13	3	7,110	506
45+50	4550.00	25.00	37.62	14.67	0.36	33	14	2	7,143	508
45+75	4575.00	25.00	43.22	14.67	0.20	37	14	0	7,181	508
46+00	4600.00	25.00	39.69	14.67	0.69	38	14	0	7,219	509
46+25	4625.00	25.00	37.55	14.67	1.02	36	14	1	7,255	510
46+50	4650.00	25.00	33.10	14.67	0.88	33	14	1	7,287	511
46+64.26	4664.26	14.26	46.27	14.67	0.03	21	8	0	7,308	511
46+75	4675.00	10.74	43.56	14.67	0.56	18	6	0	7,326	511
46+78.81	4678.81	3.81	32.72	14.67	0.00	5	2	0	7,332	511
47+00	4700.00	21.19	31.35	14.67	0.05	25	12	0	7,357	511
47+25	4725.00	25.00	36.56	14.67	0.00	31	14	0	7,388	511
47+50	4750.00	25.00	37.26	14.67	3.05	34	14	1	7,422	513
47+75	4775.00	25.00	32.06	14.67	0.51	32	14	2	7,454	515
47+79	4779.00	4.00	31.37	14.67	0.00	5	2	0	7,459	515
47+80	4780.00	1.00	31.37	14.67	0.00	1	1	0	7,460	515
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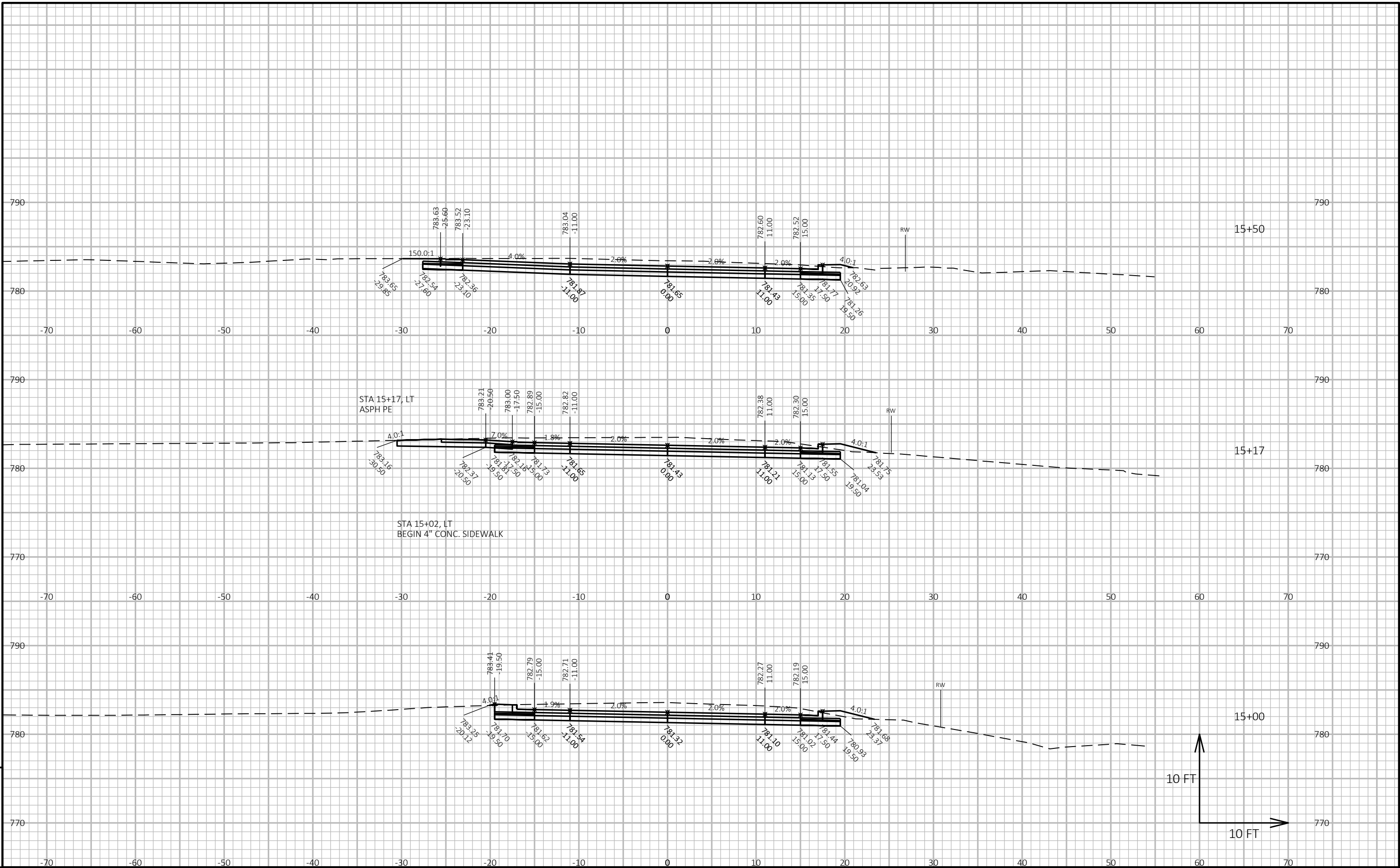


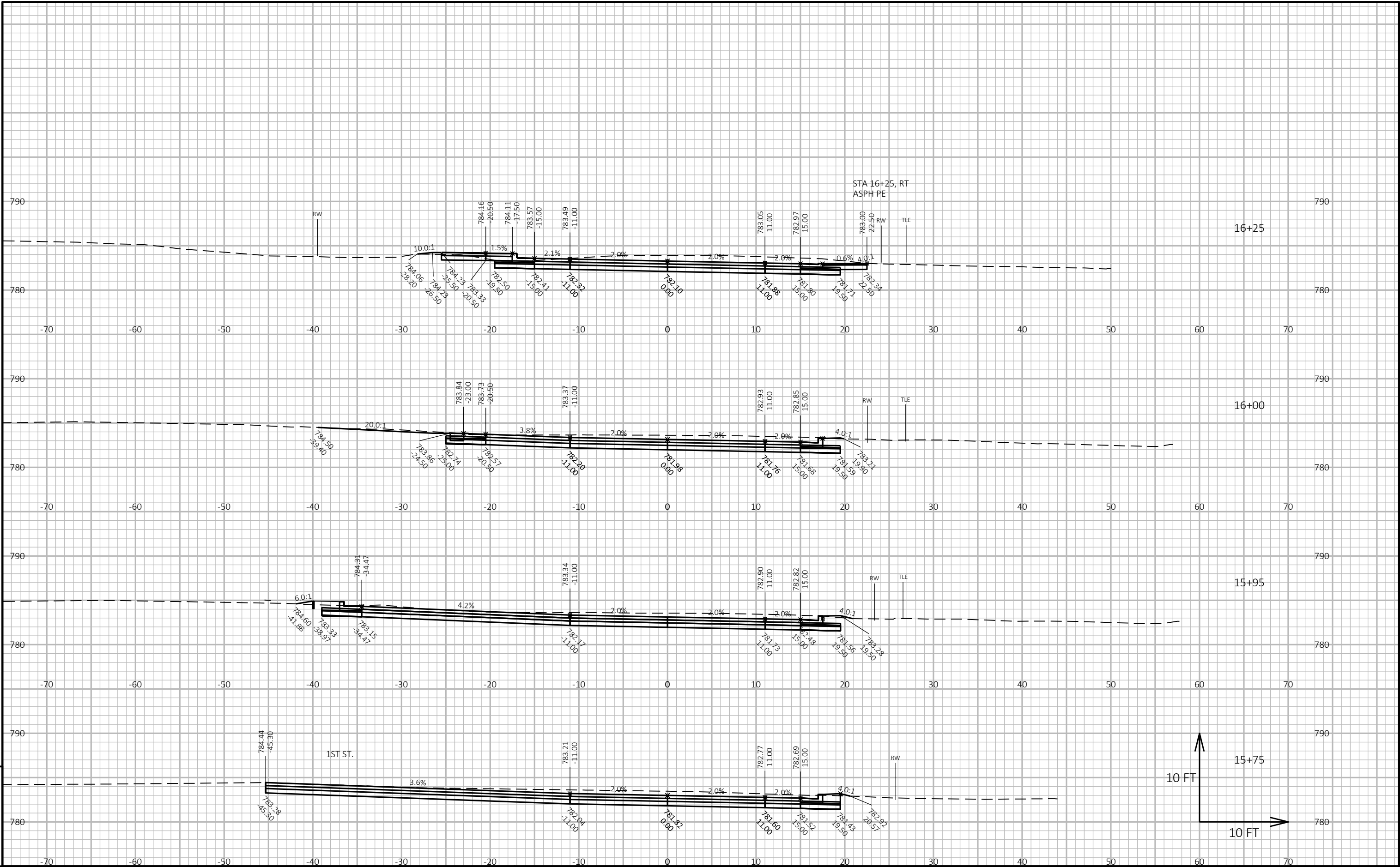


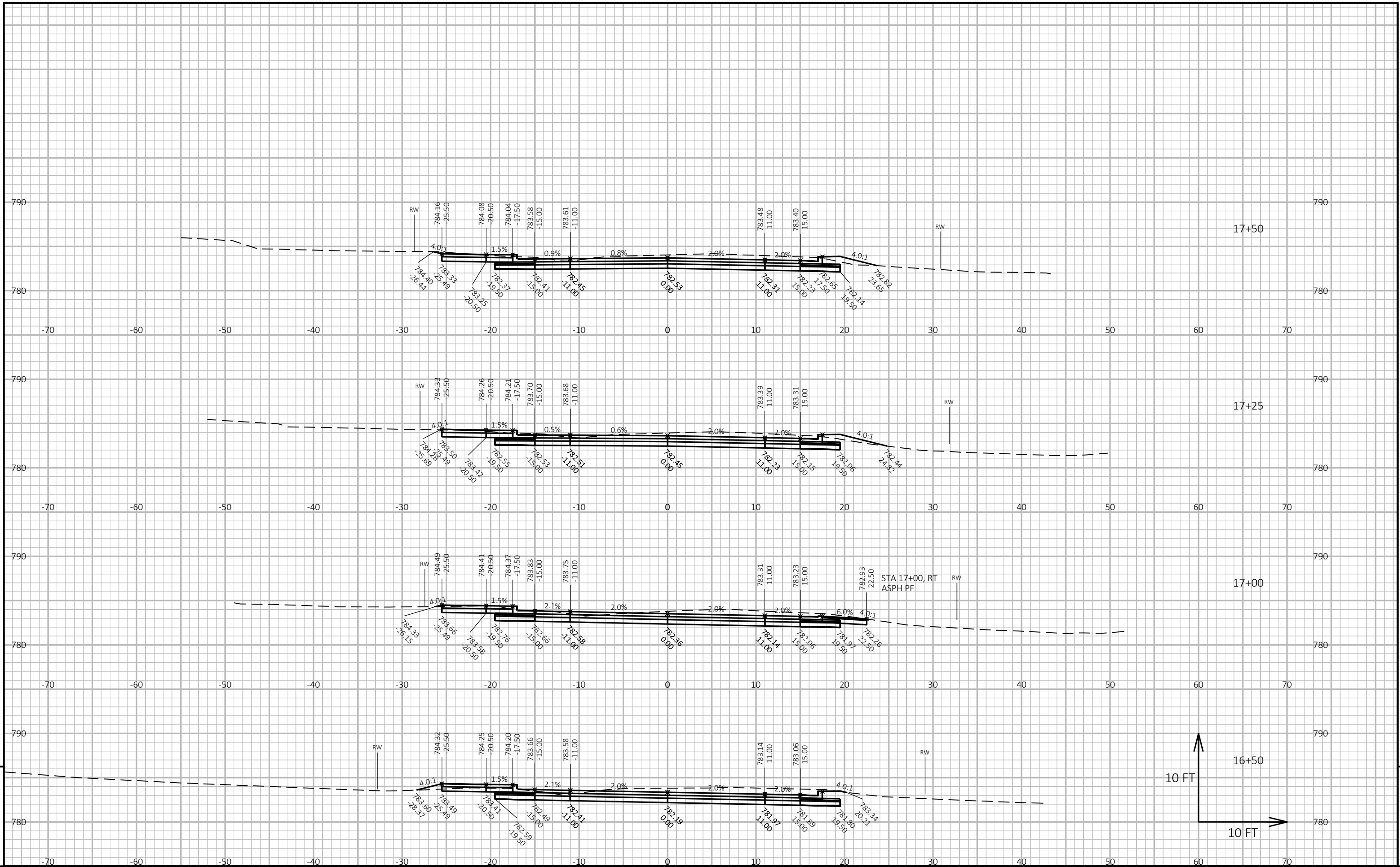


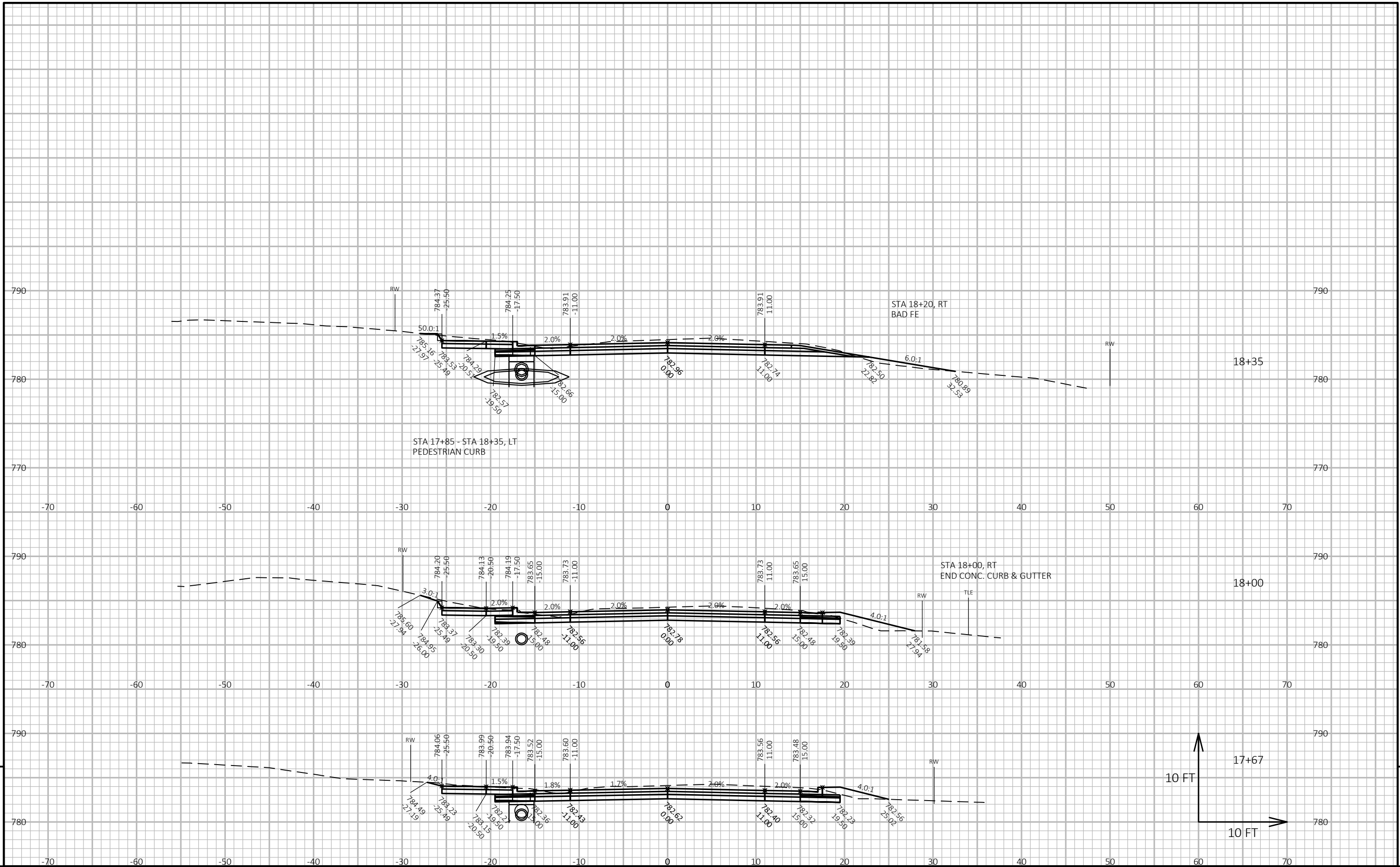


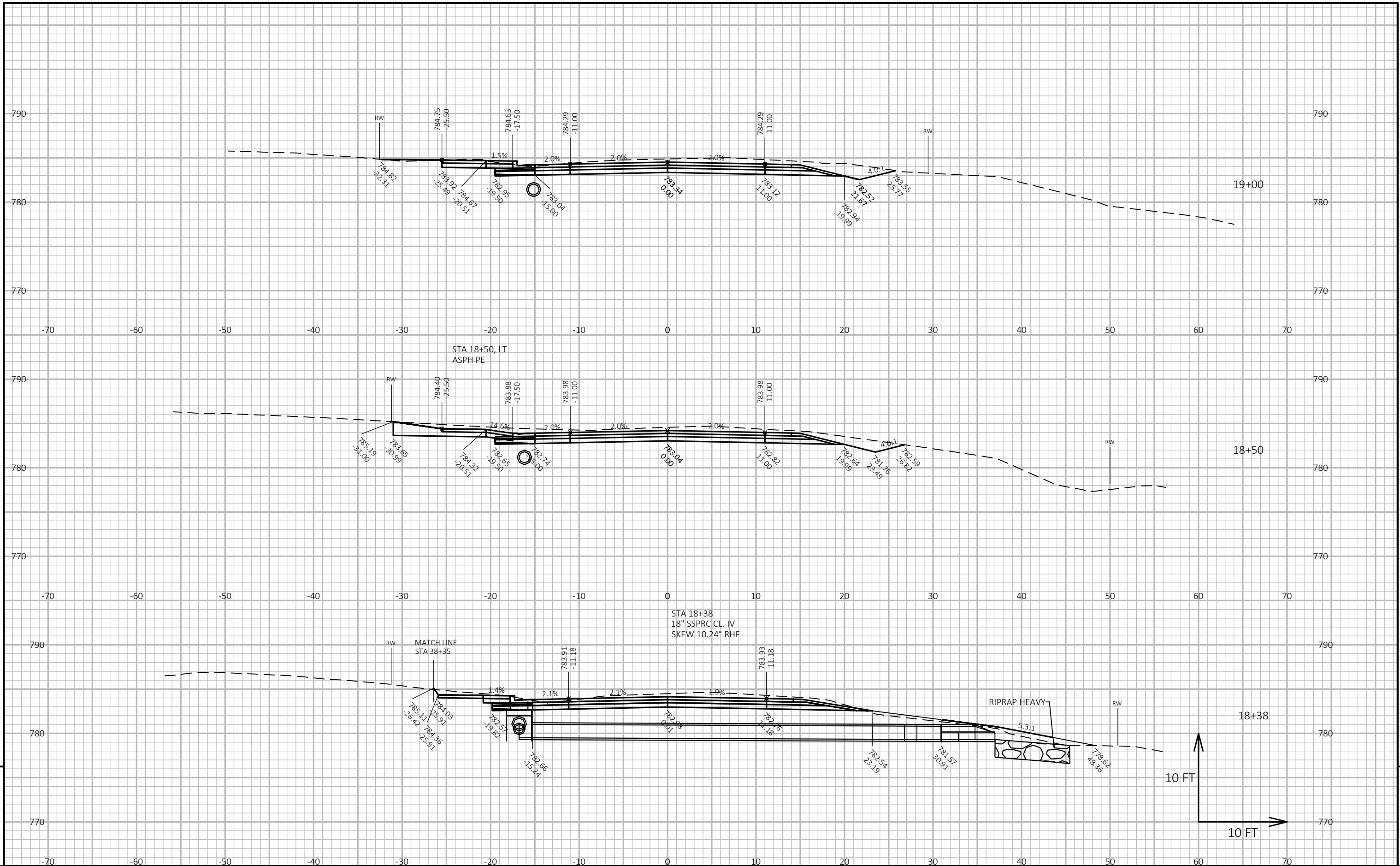












PROJECT NO: 6425-00-70

HWY: CTH D

COUNTY: GREEN LAKE

CROSS SECTIONS: CTH D

SHEET 128

E

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LAYOUT NAME - 10

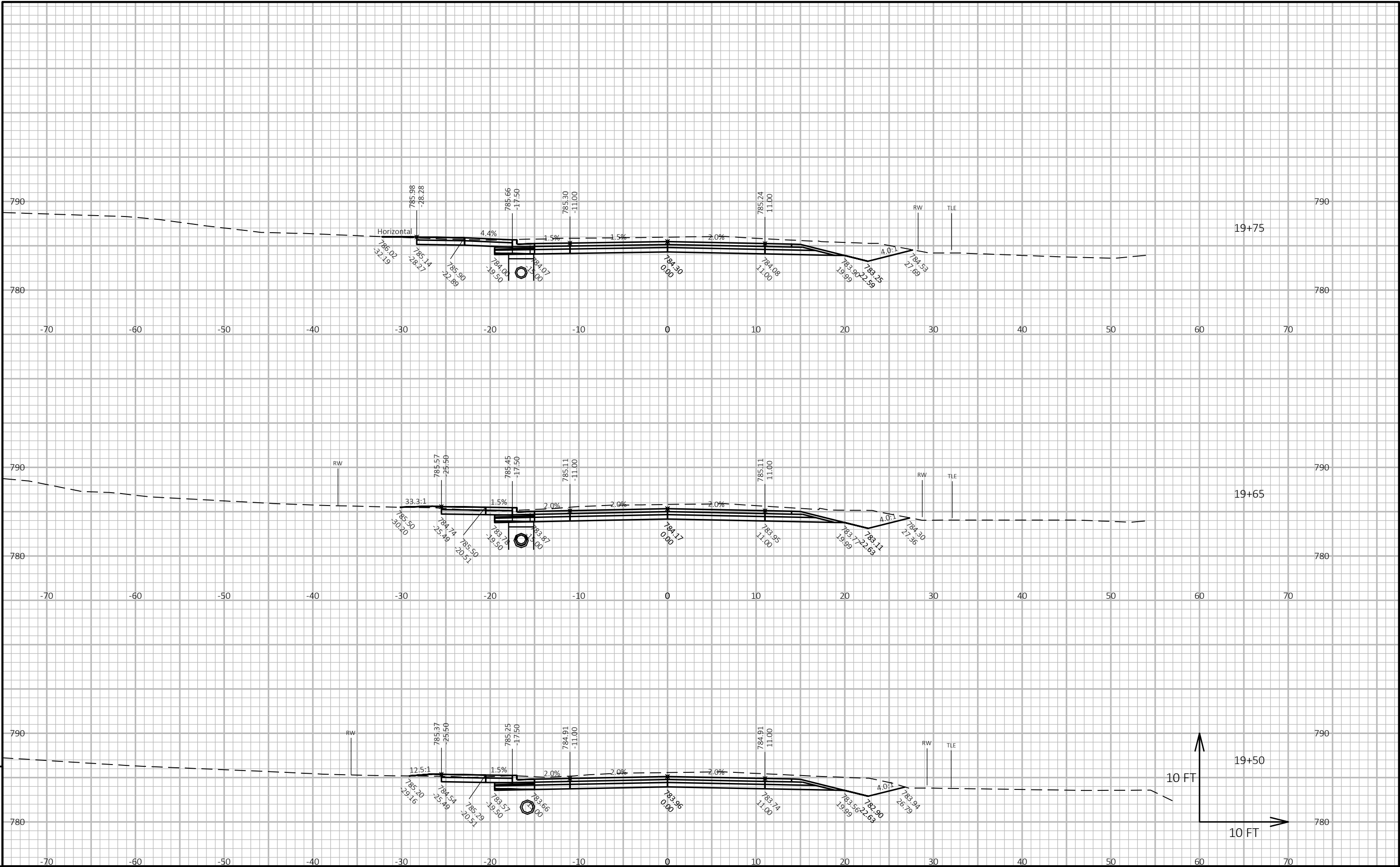
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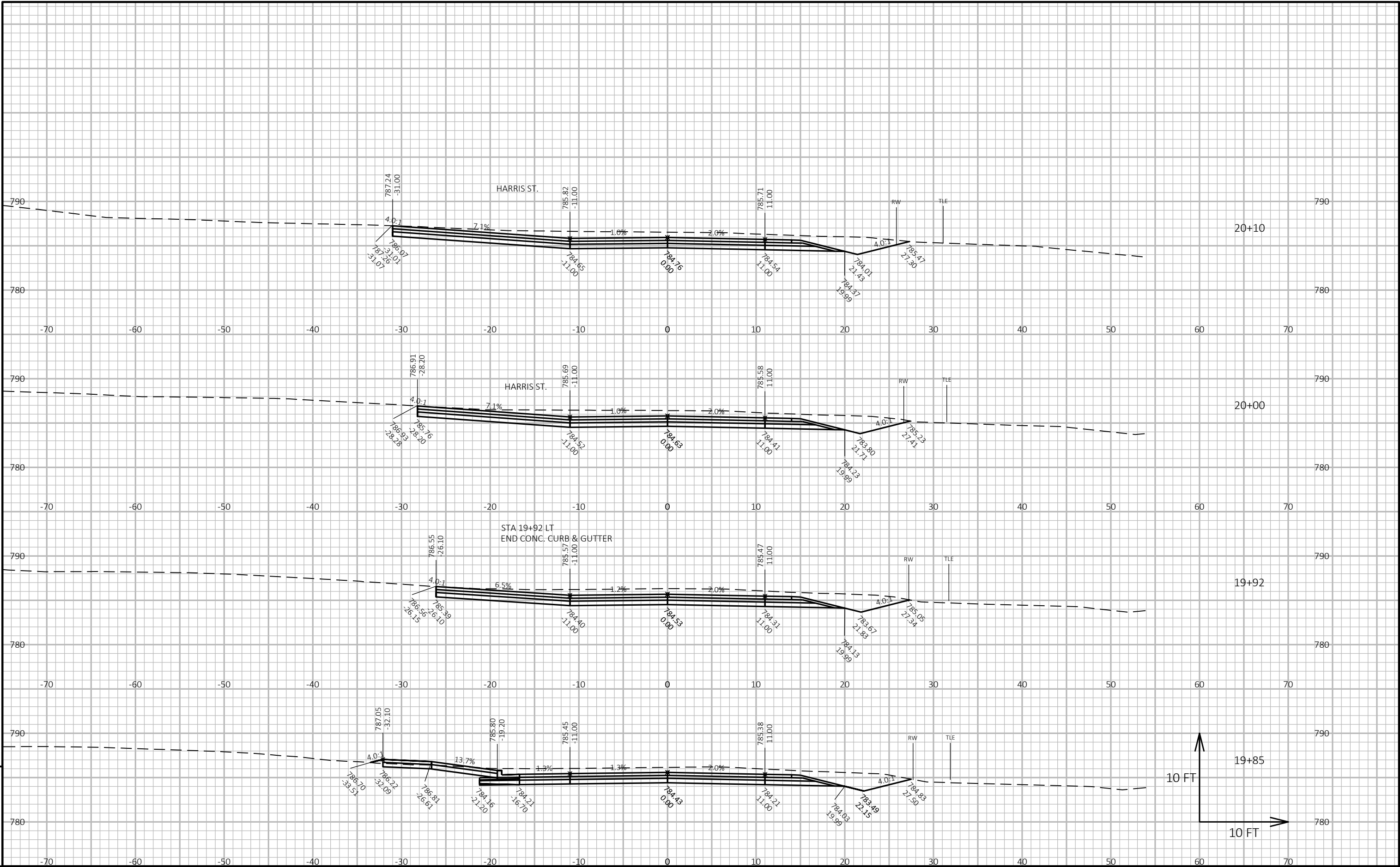
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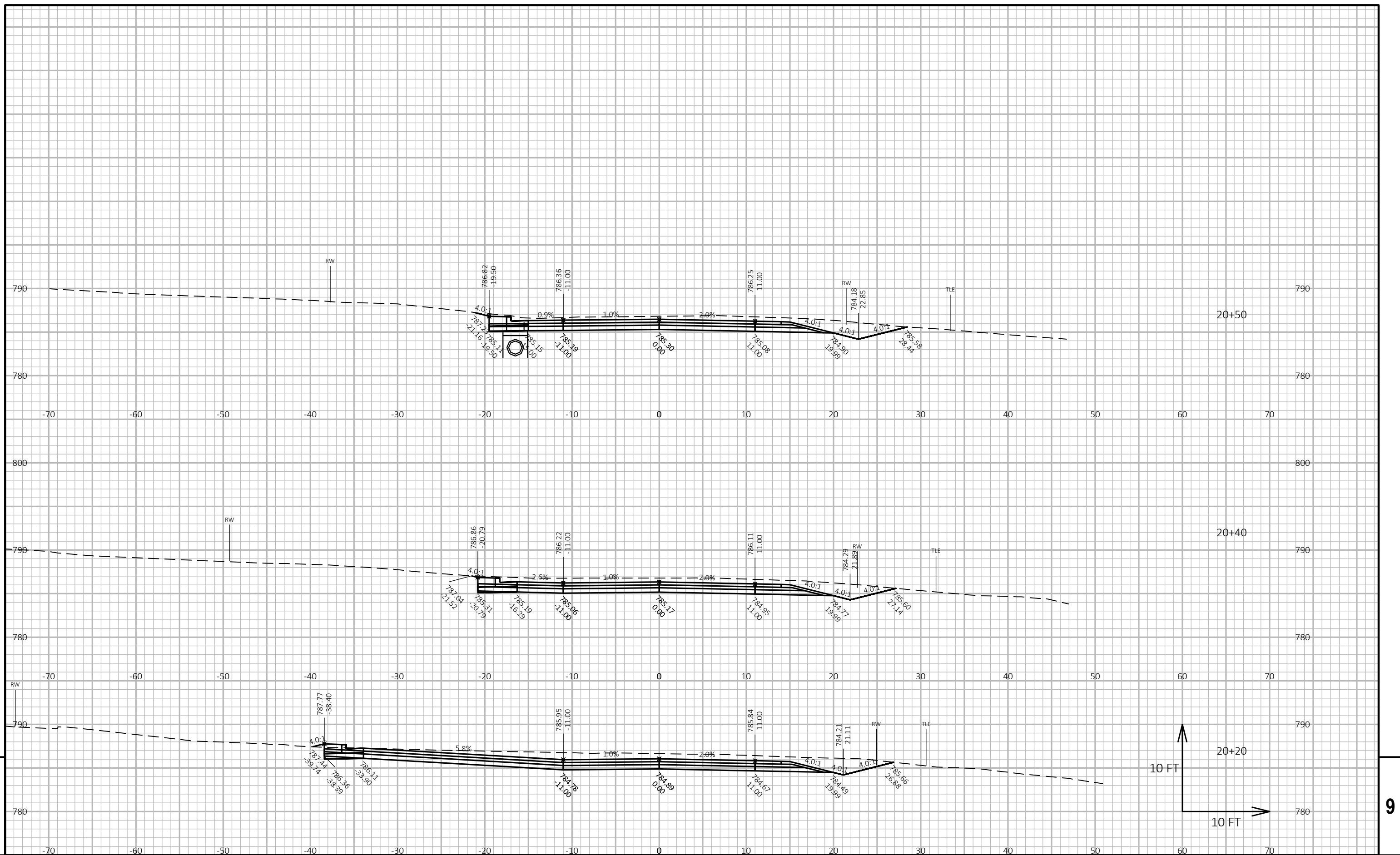
PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADD SHEET 49







PROJECT NO:	6425-00-70
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HWY: CTH D

COUNTY: GREEN LAKE

CROSS SECTIONS: CTH D

PLOT NAME :

SHEET	131
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E

FILE NAME : P:\11500S\11500S\11507\11507006\CADD\SHEETSPLAN\090201-XS.DWG
LAYOUT NAME - 13

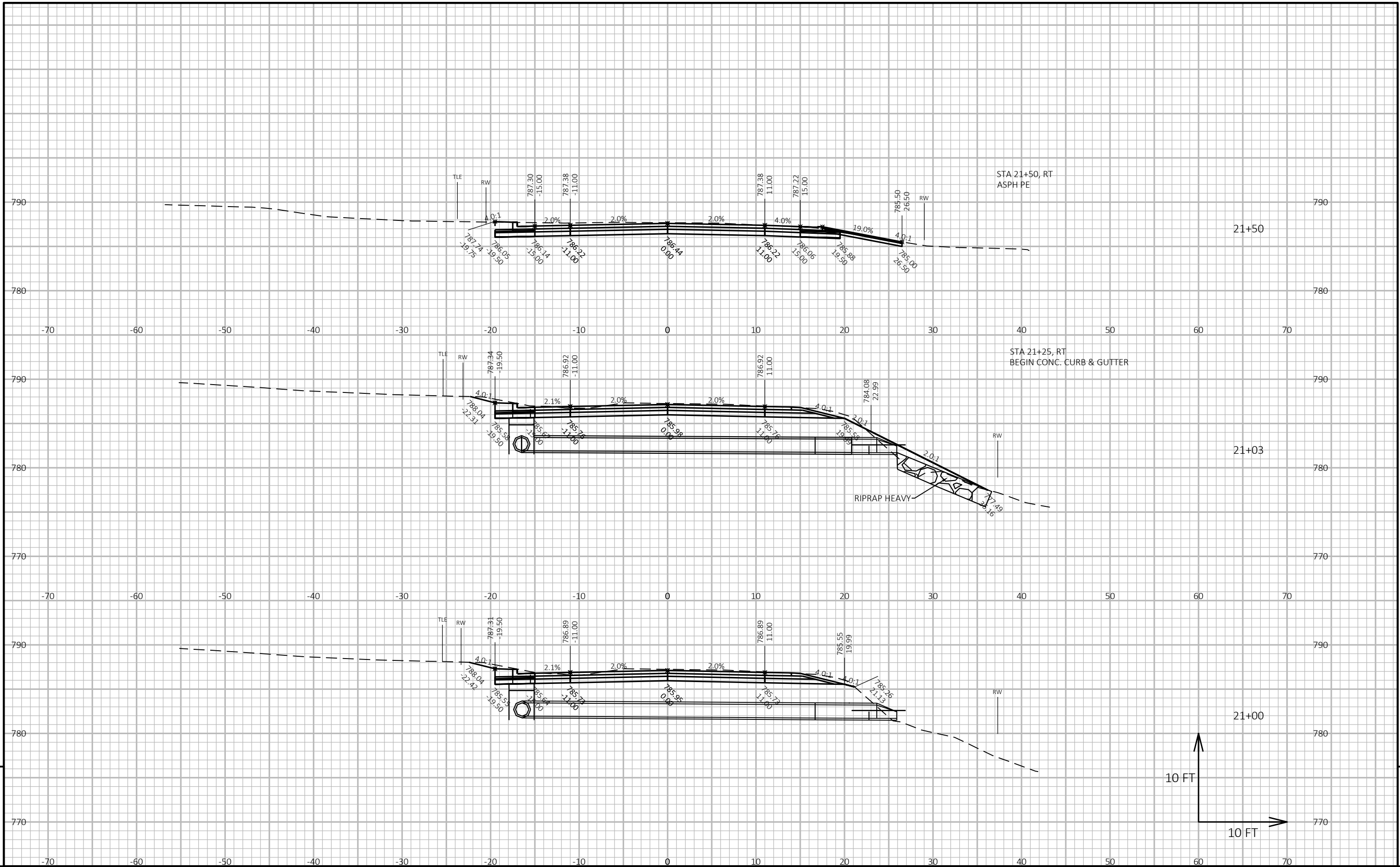
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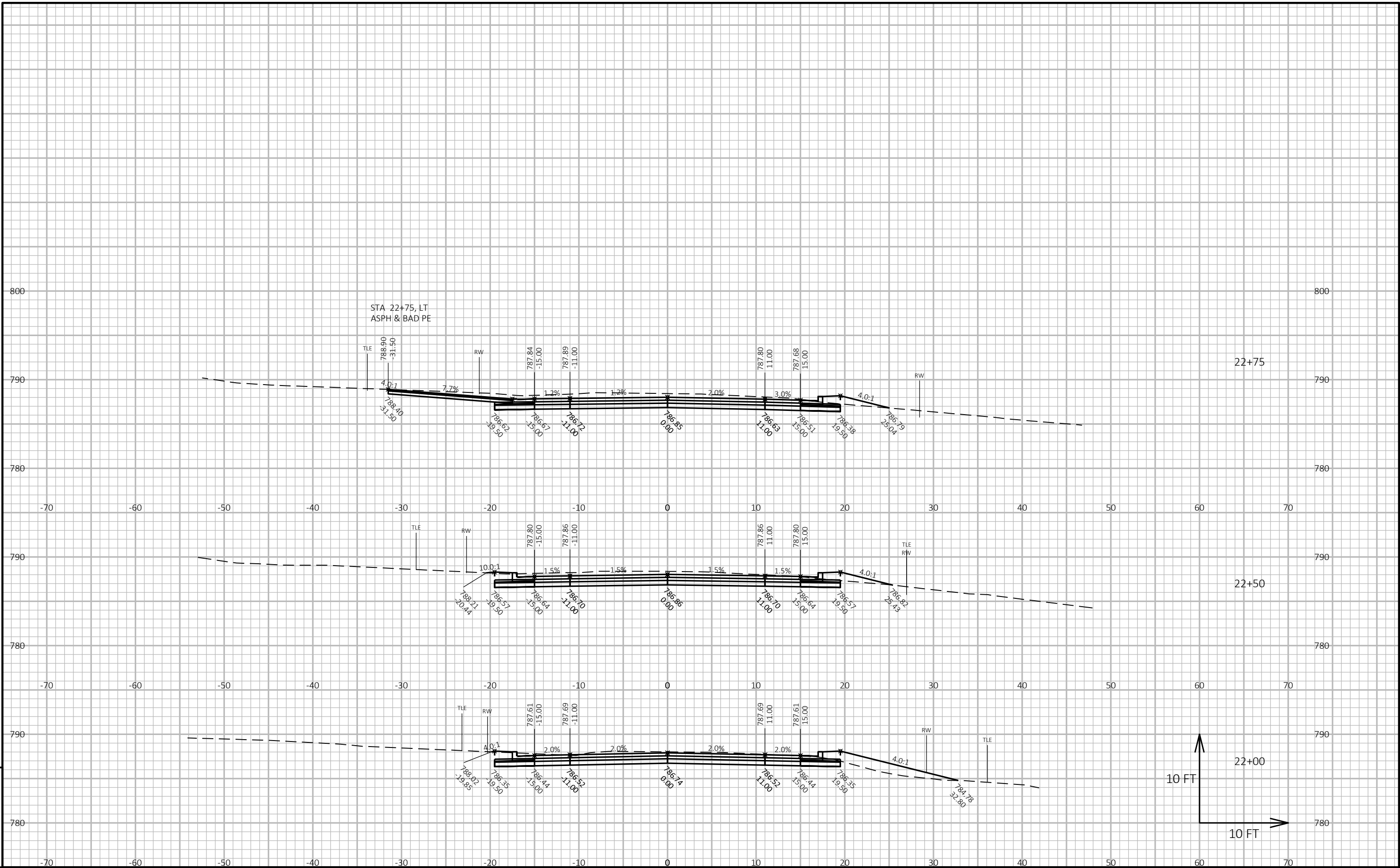
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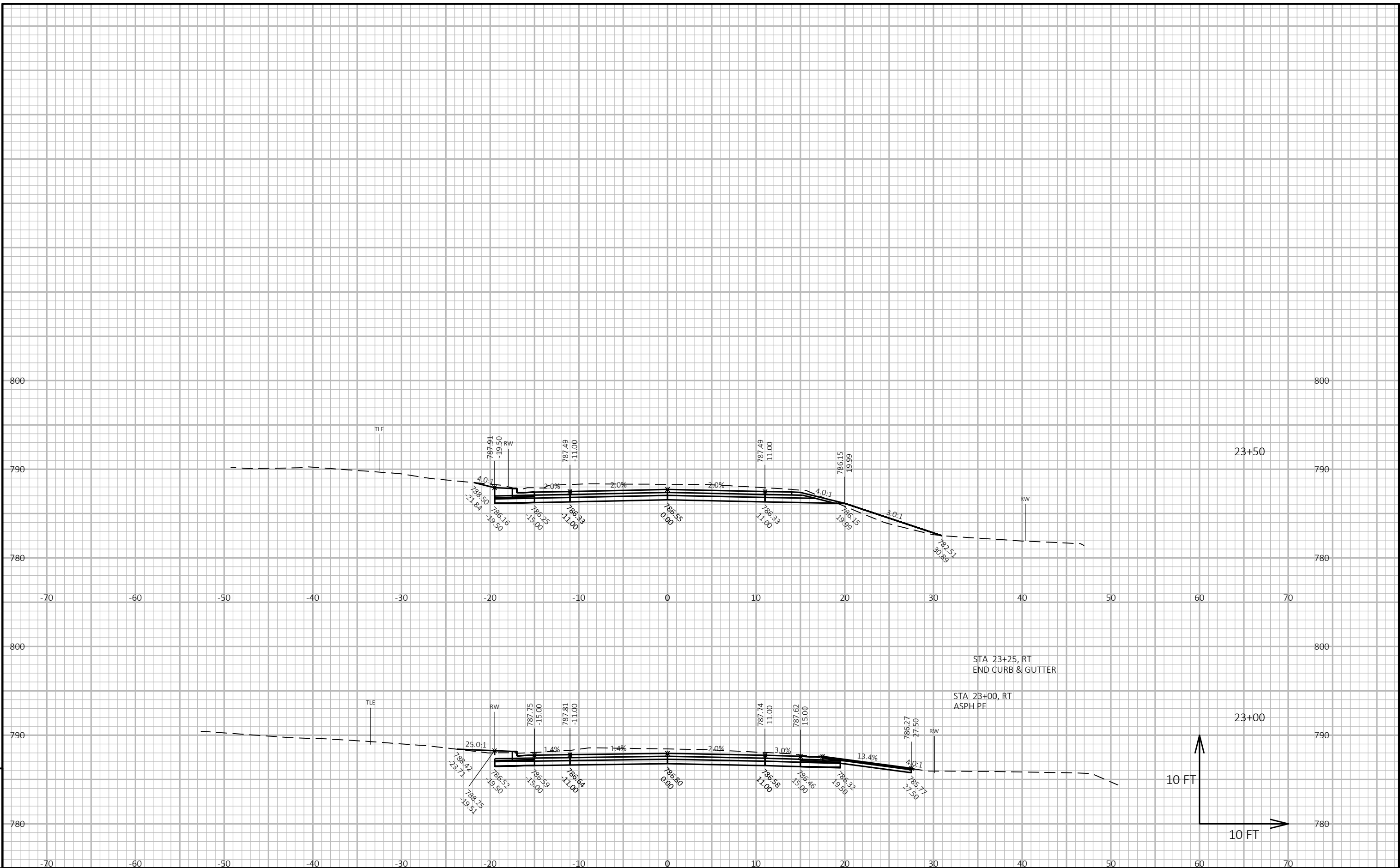
PLOT NAME :

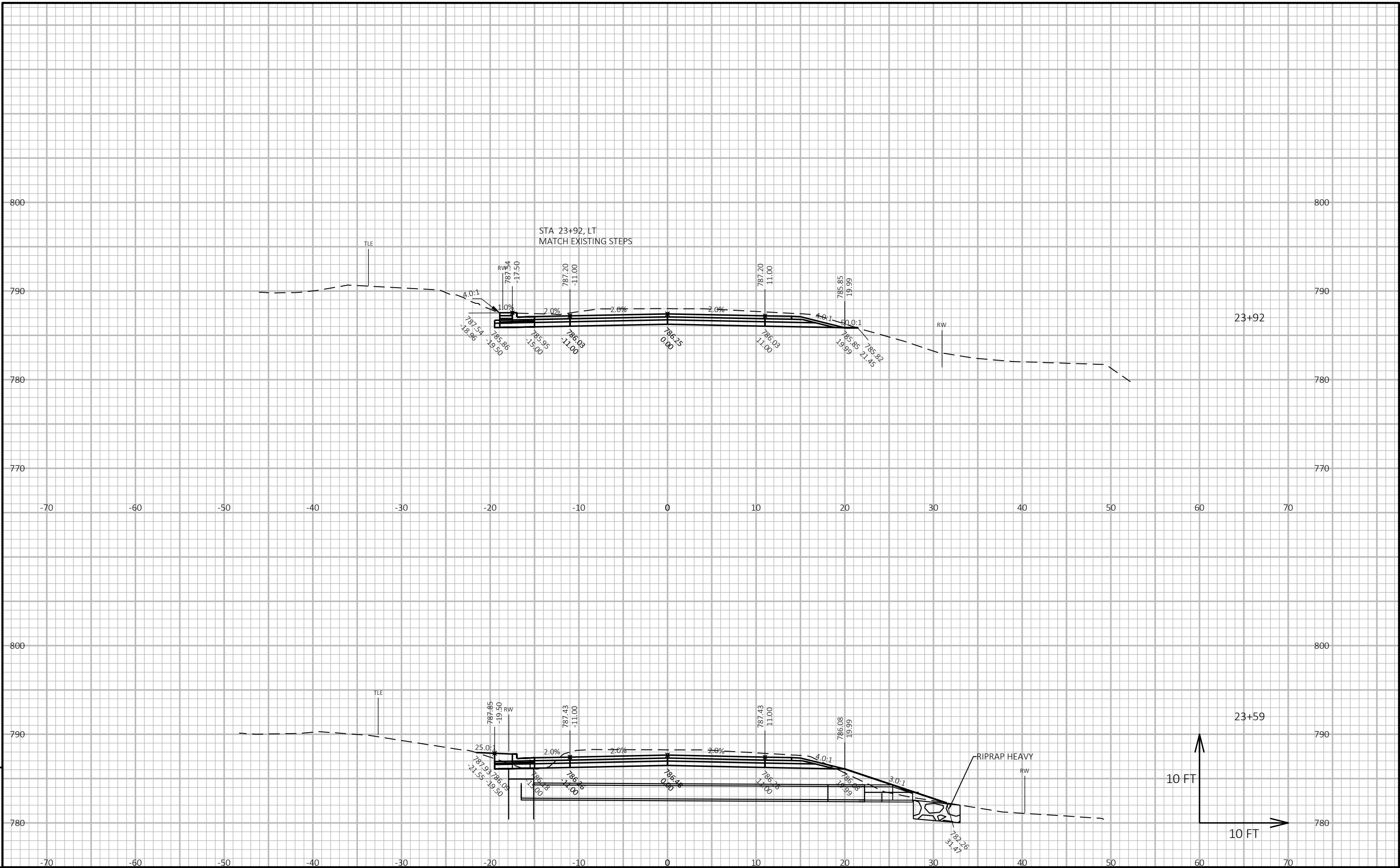
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

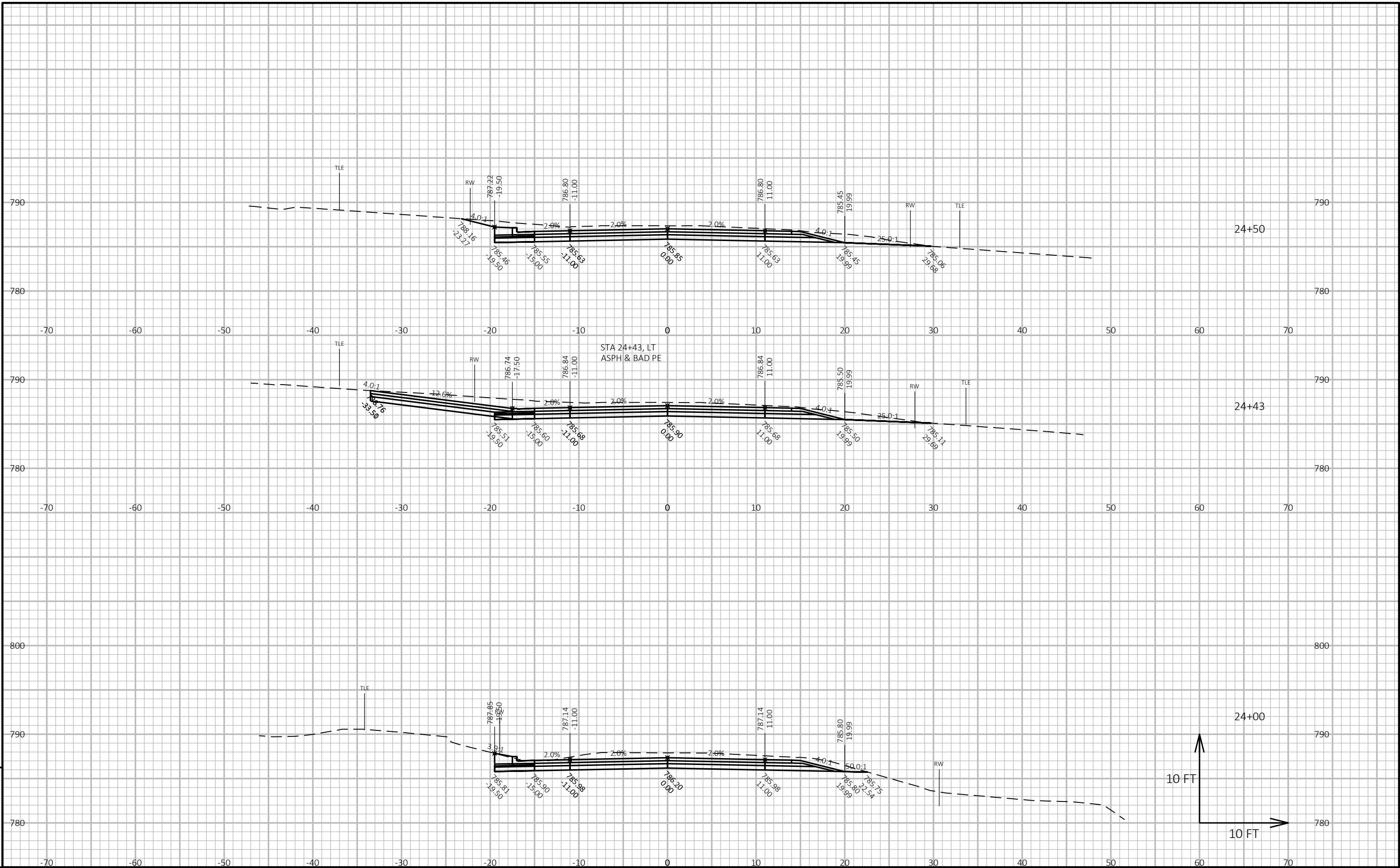
WISDOT/CADDS SHEET 49

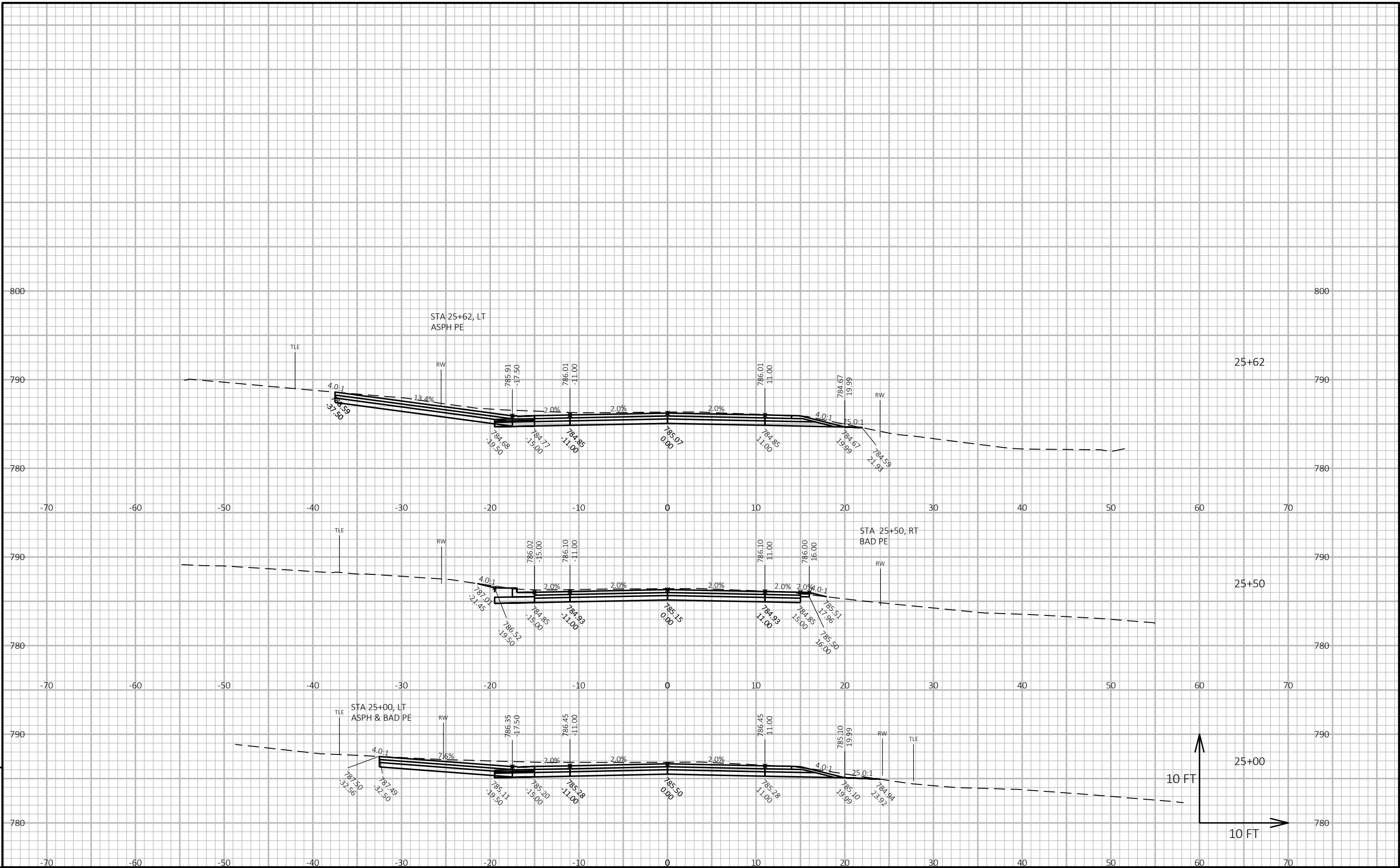


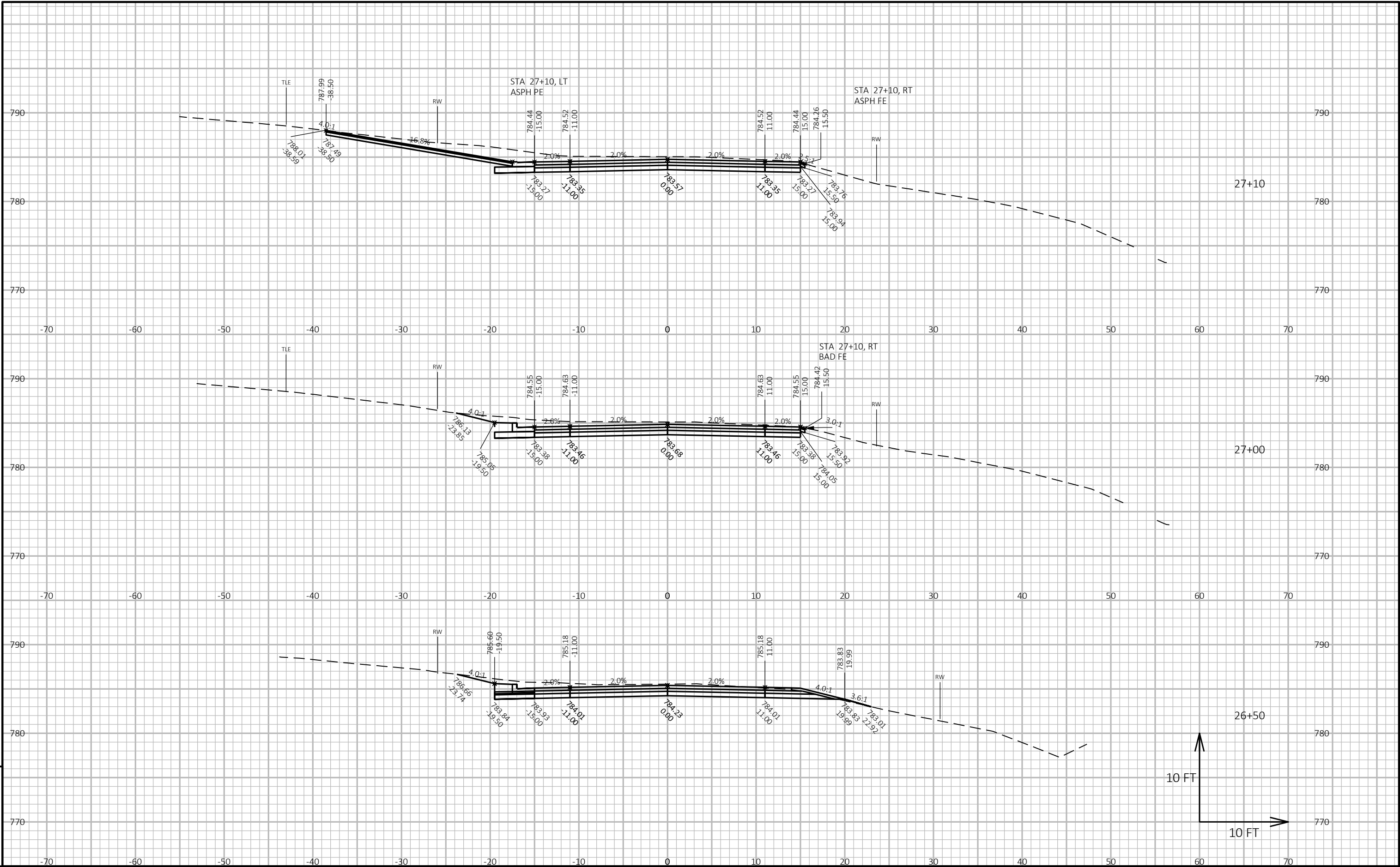


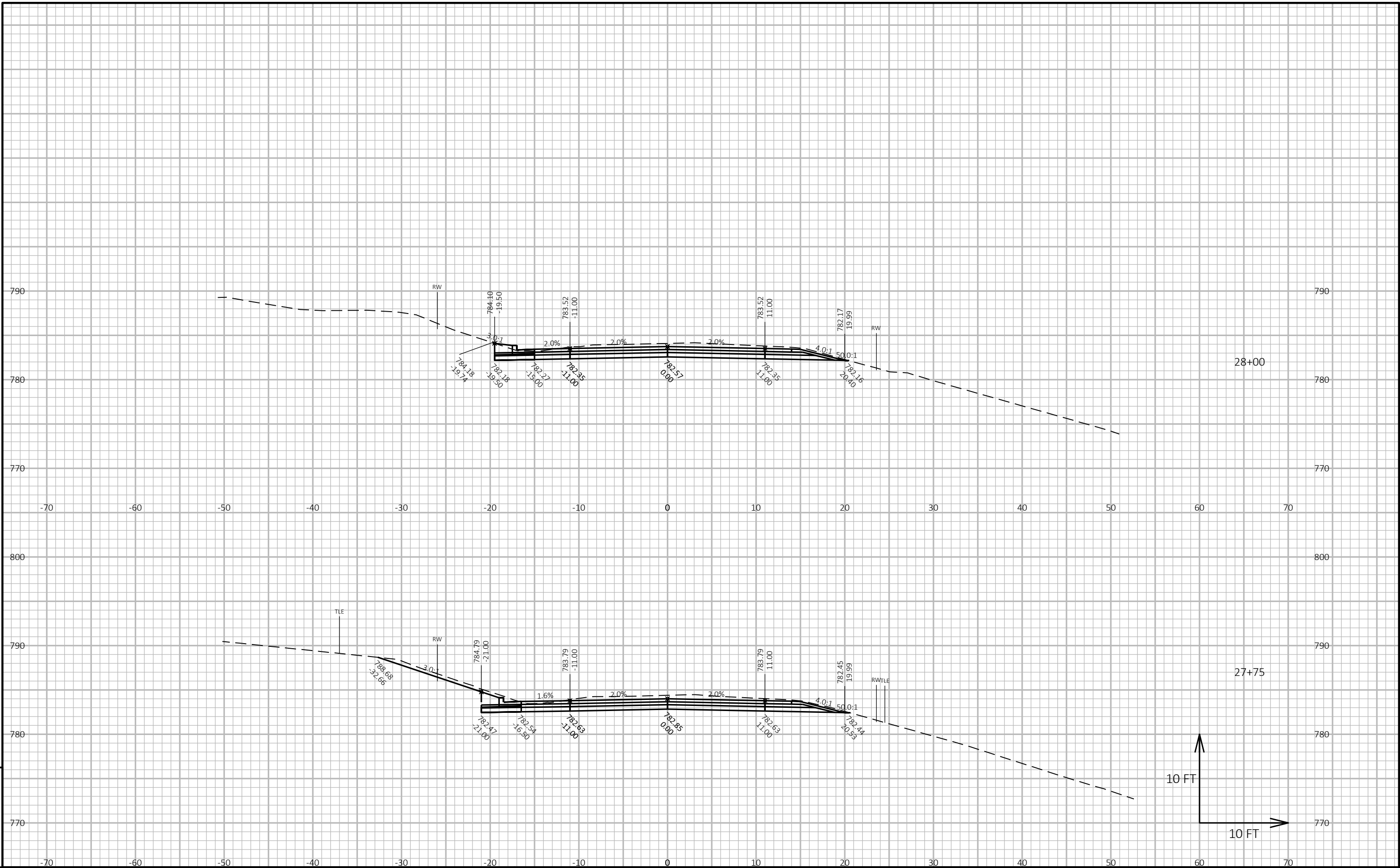


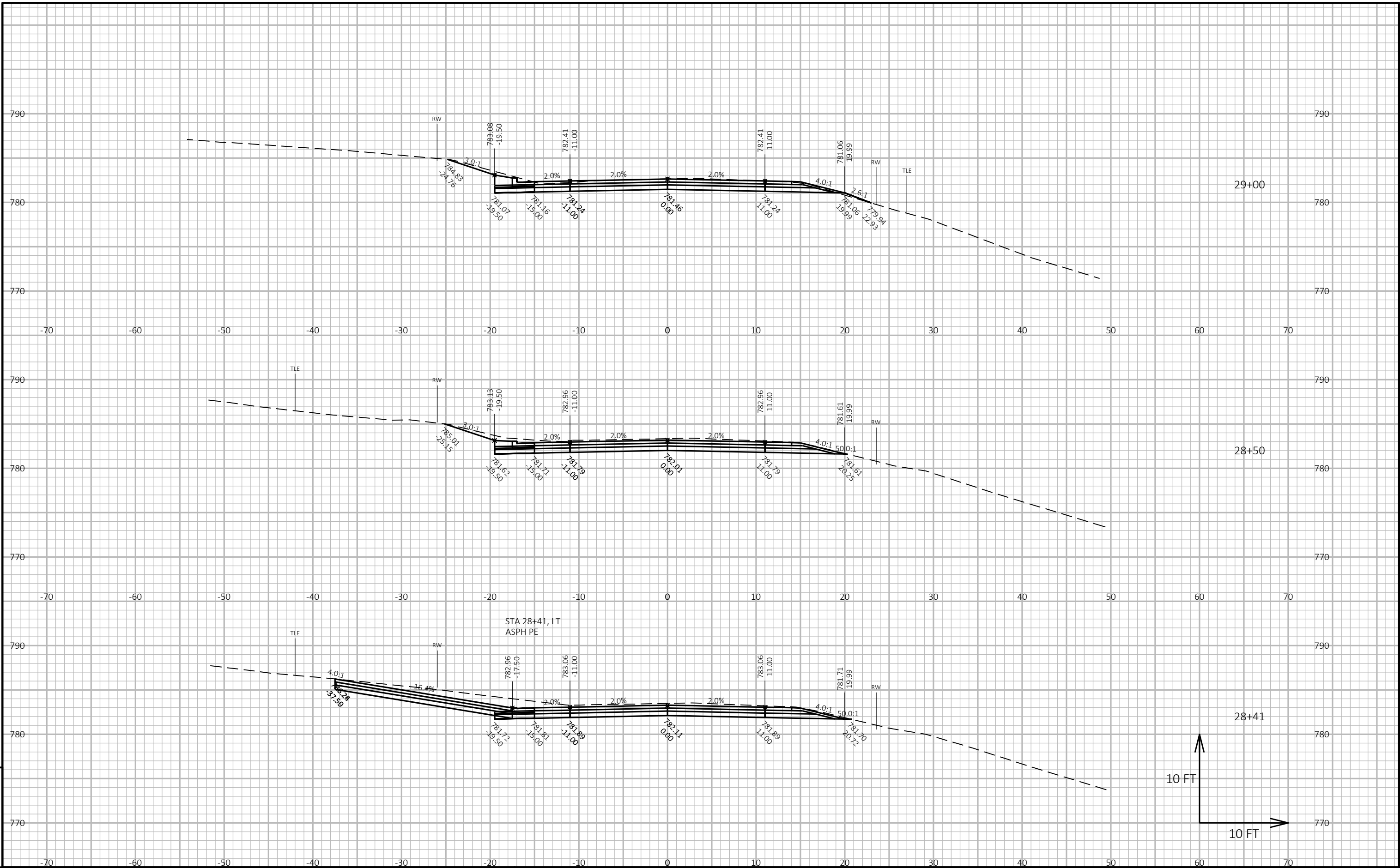


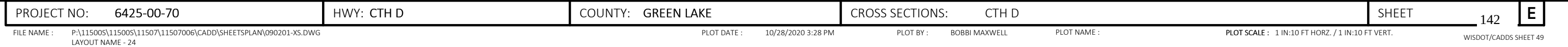
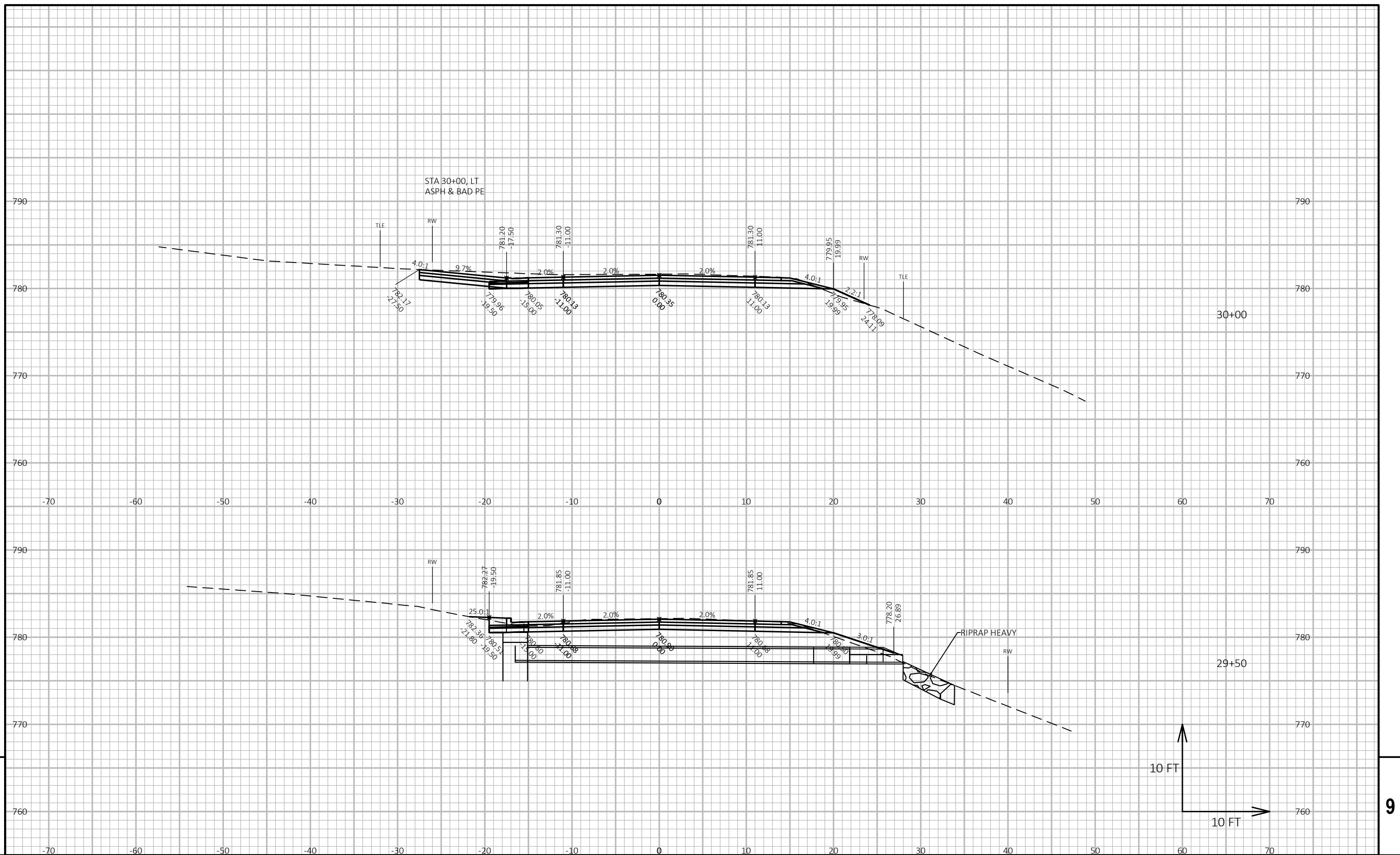


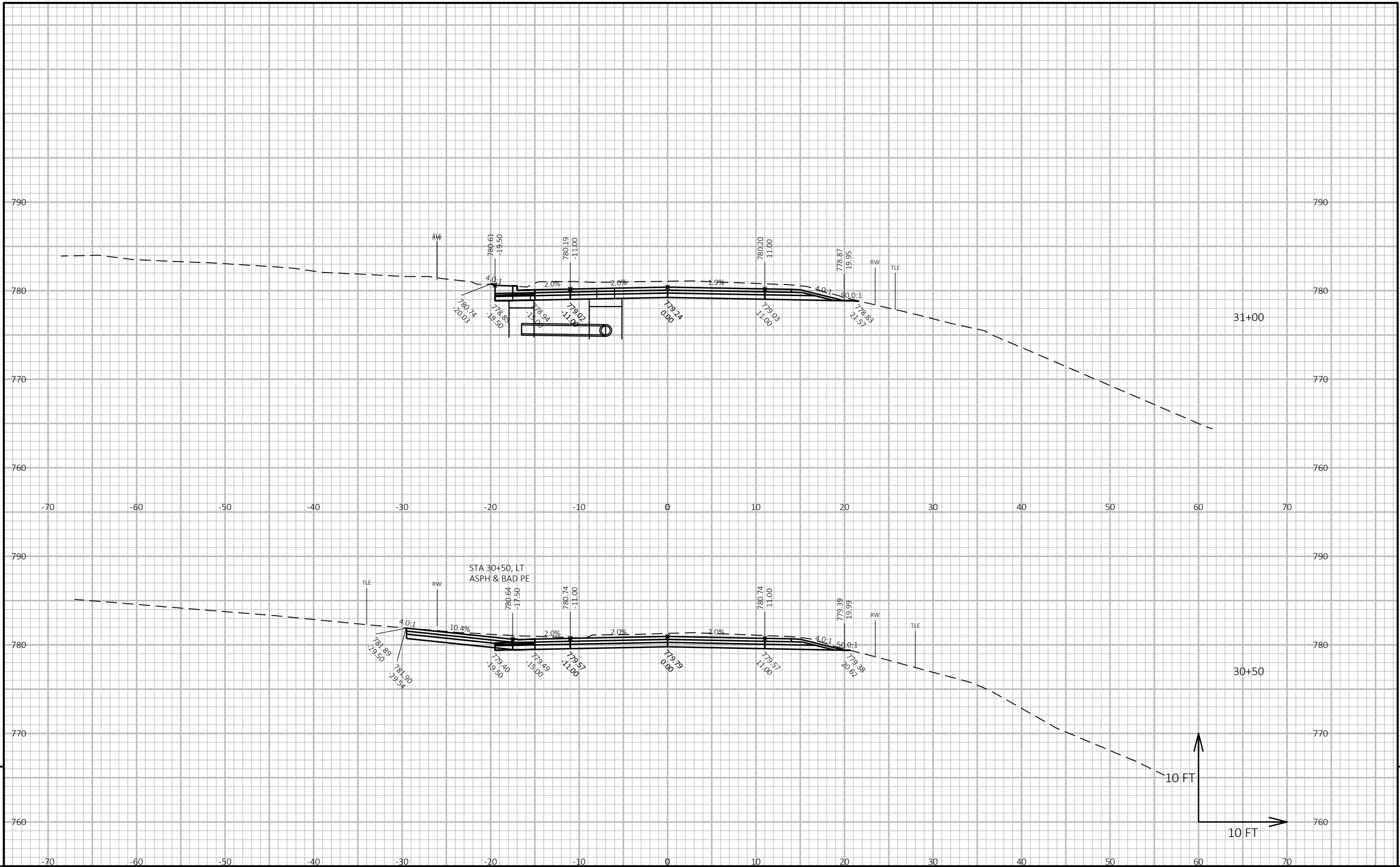


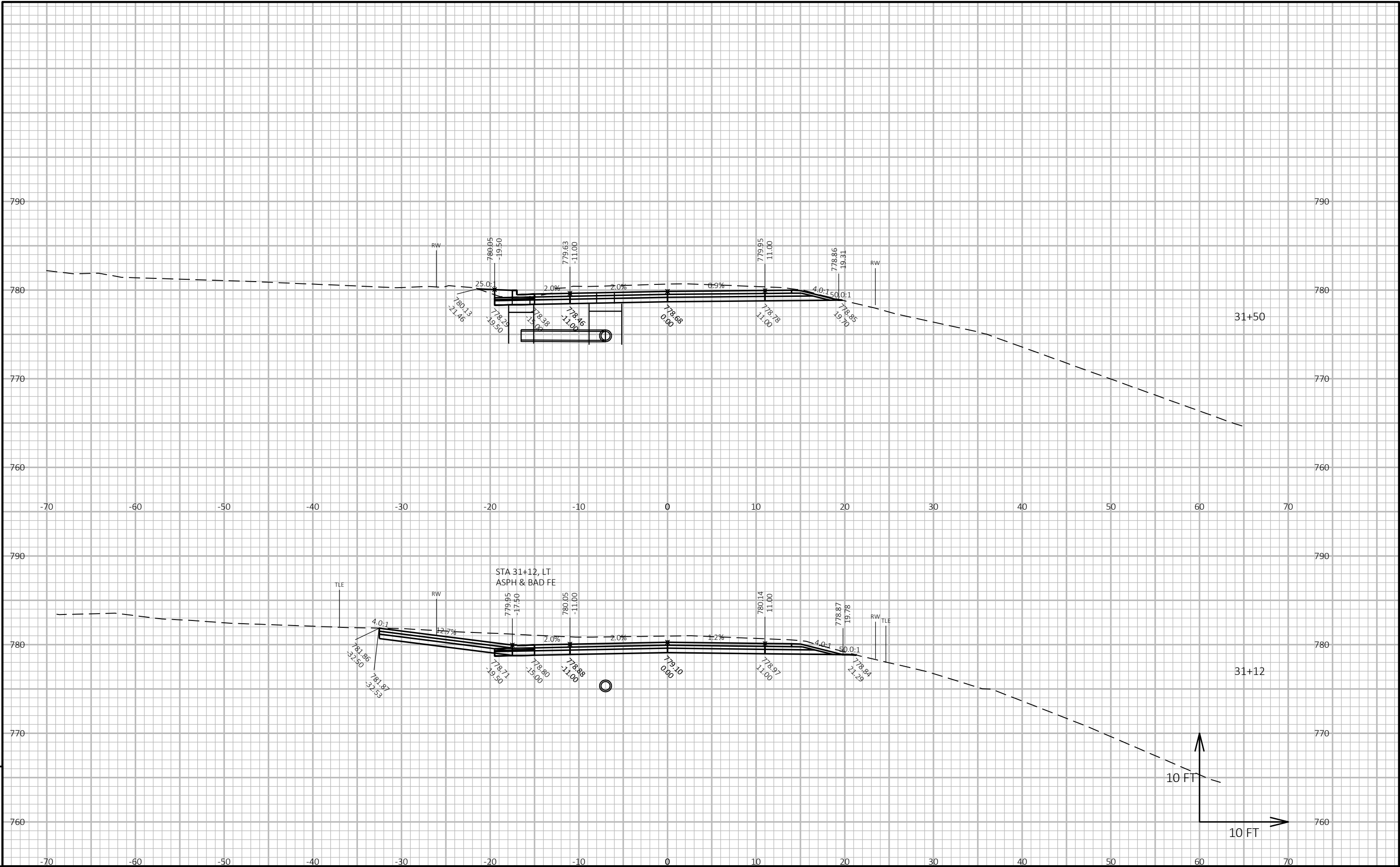


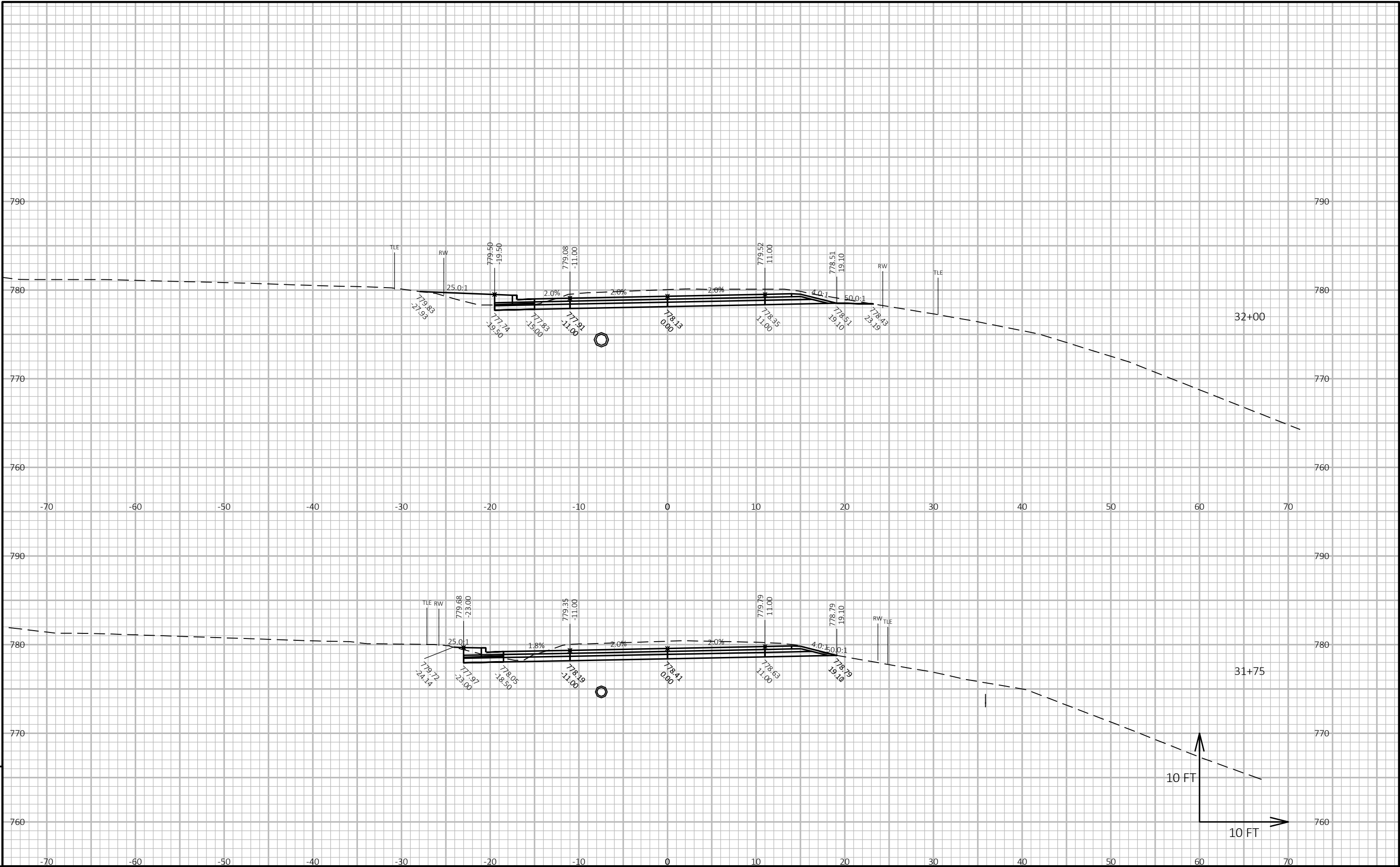


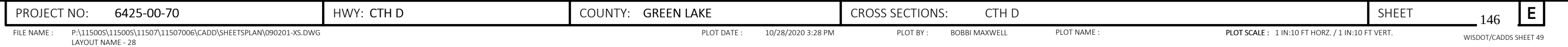
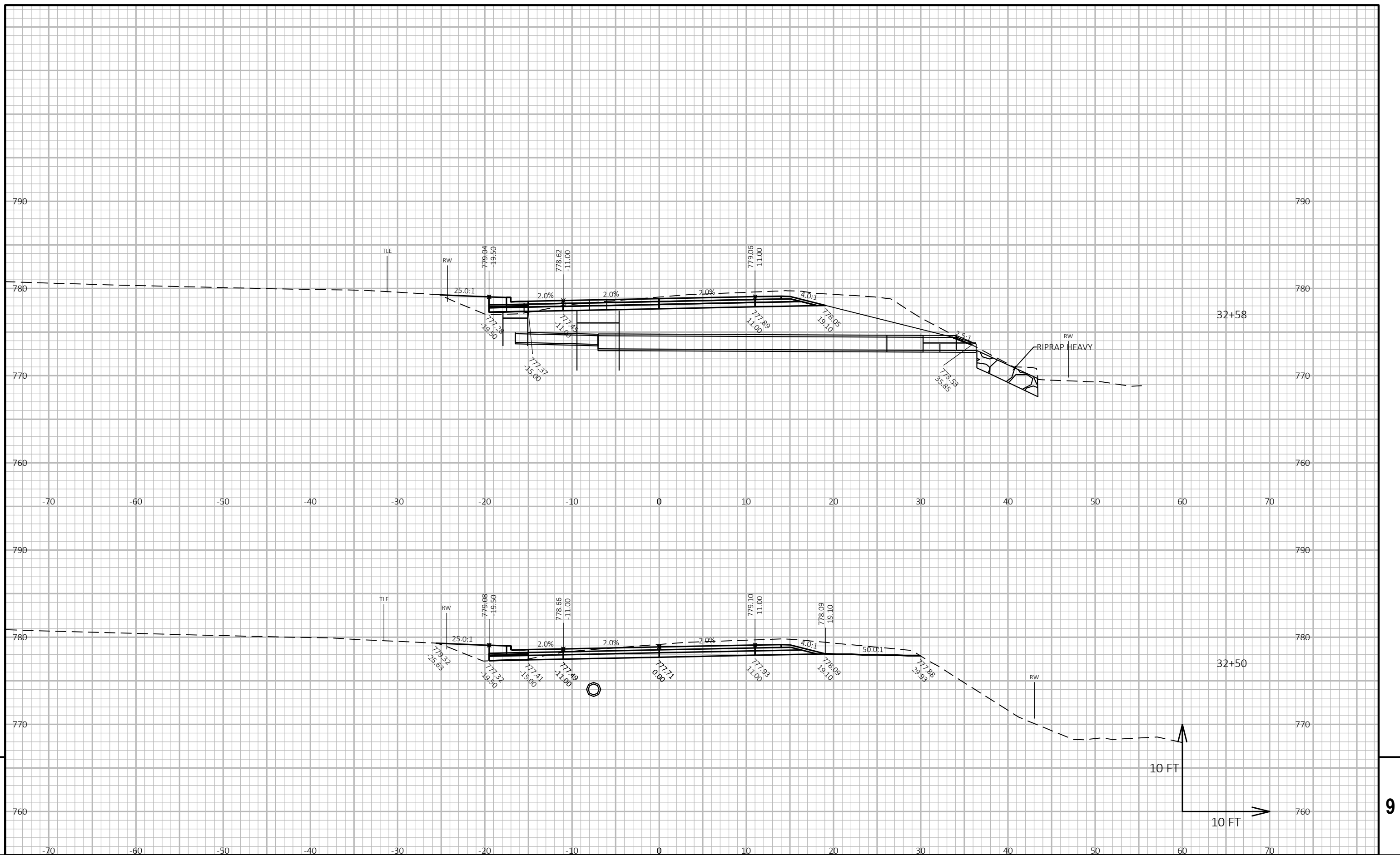


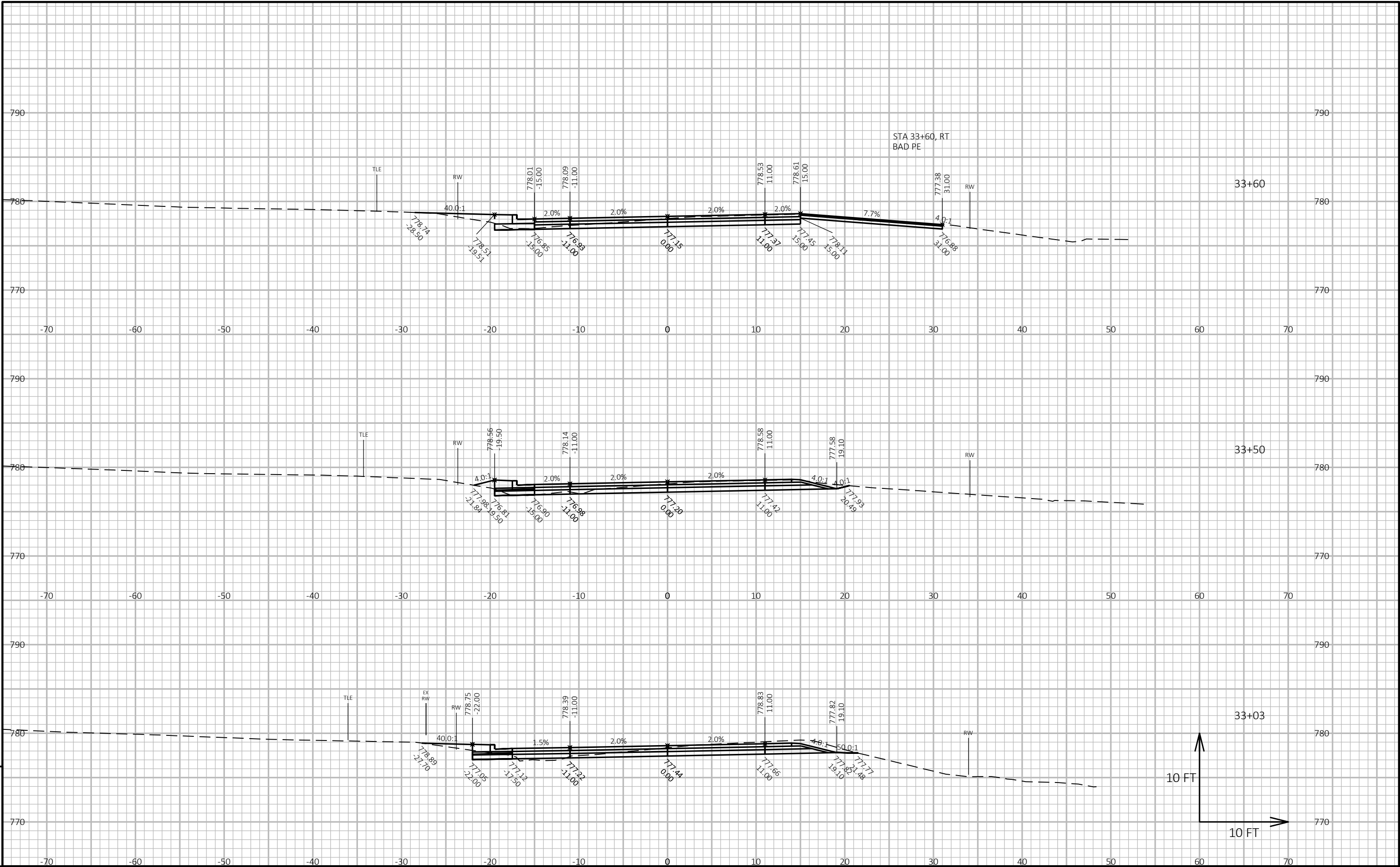


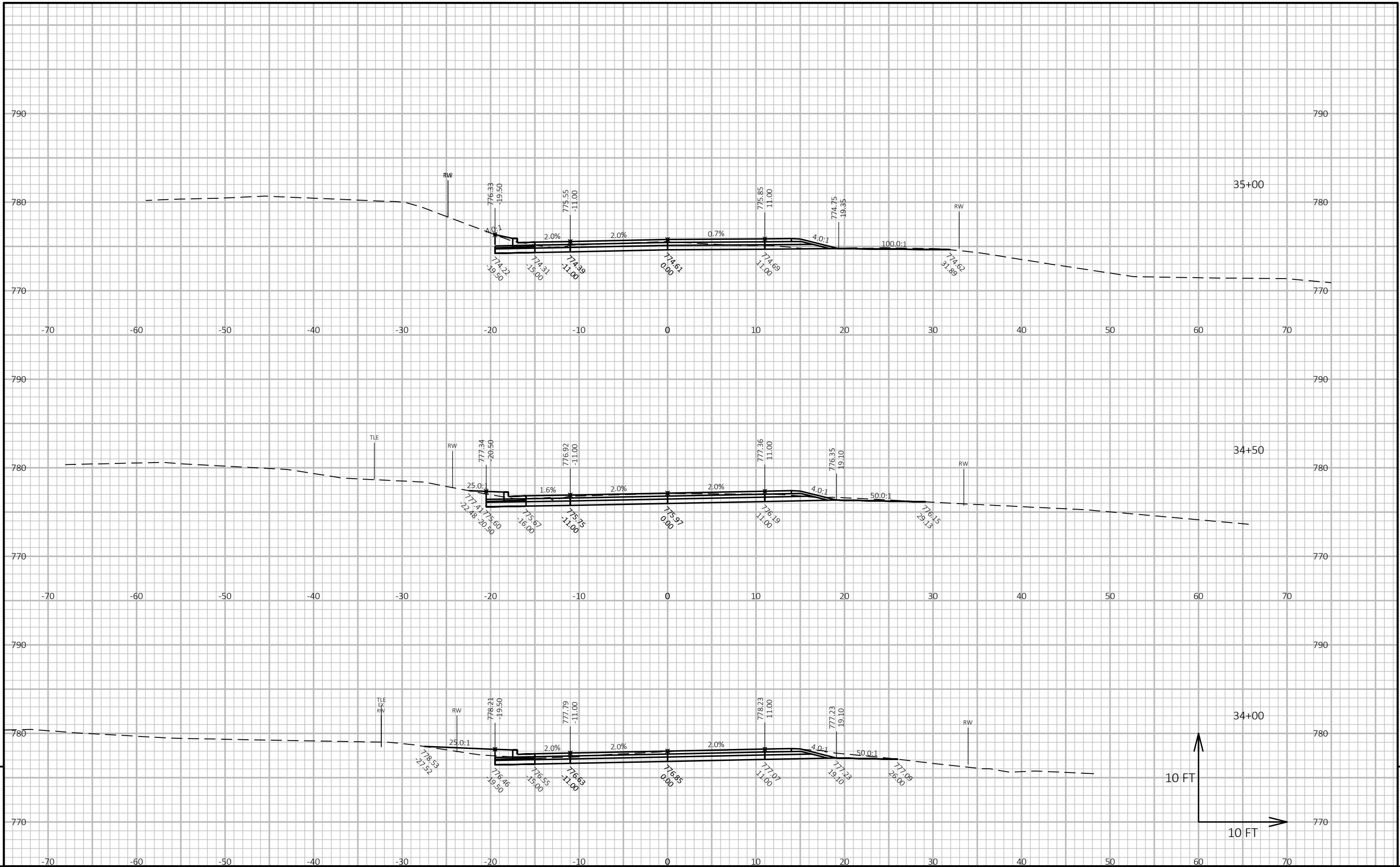


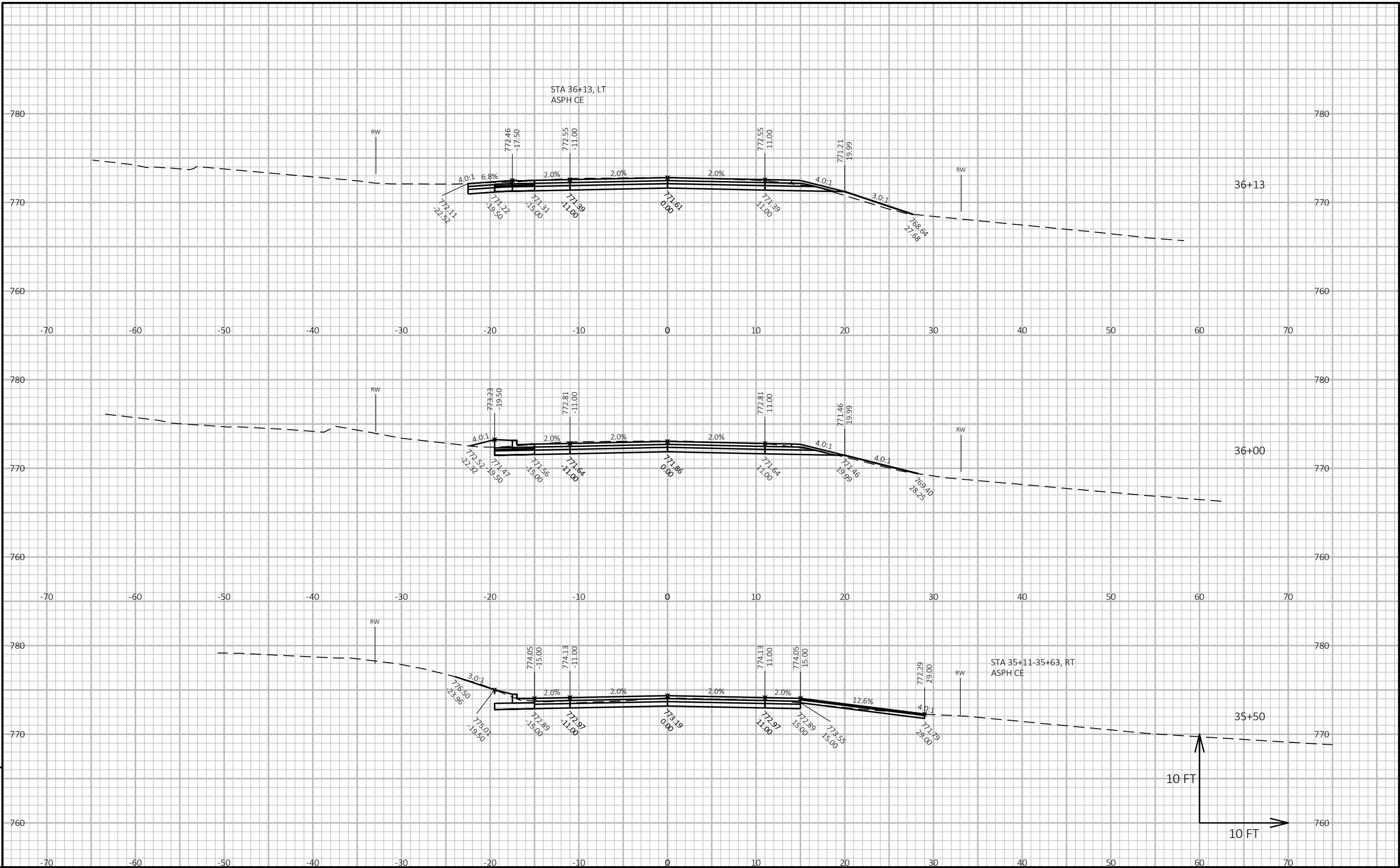




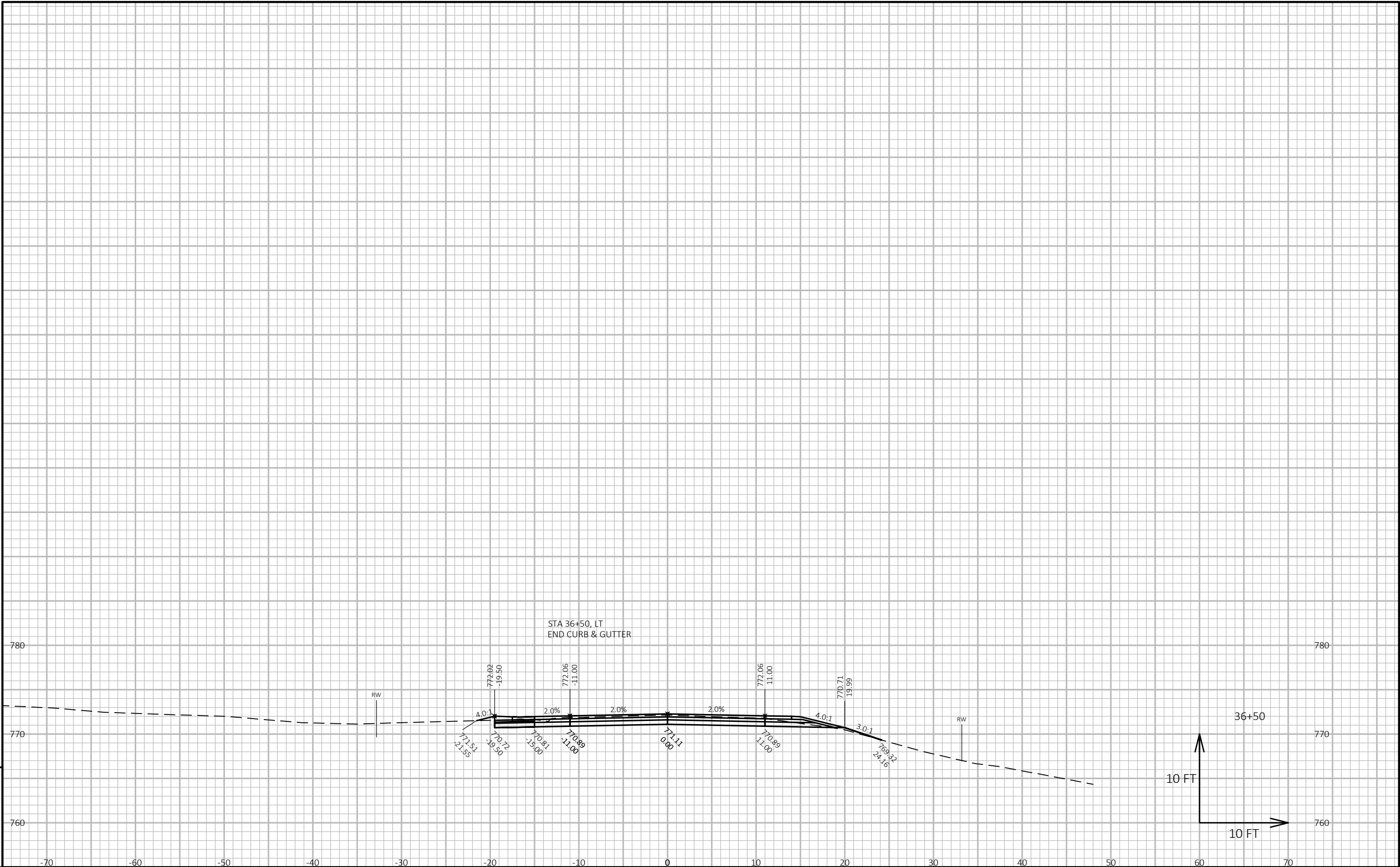




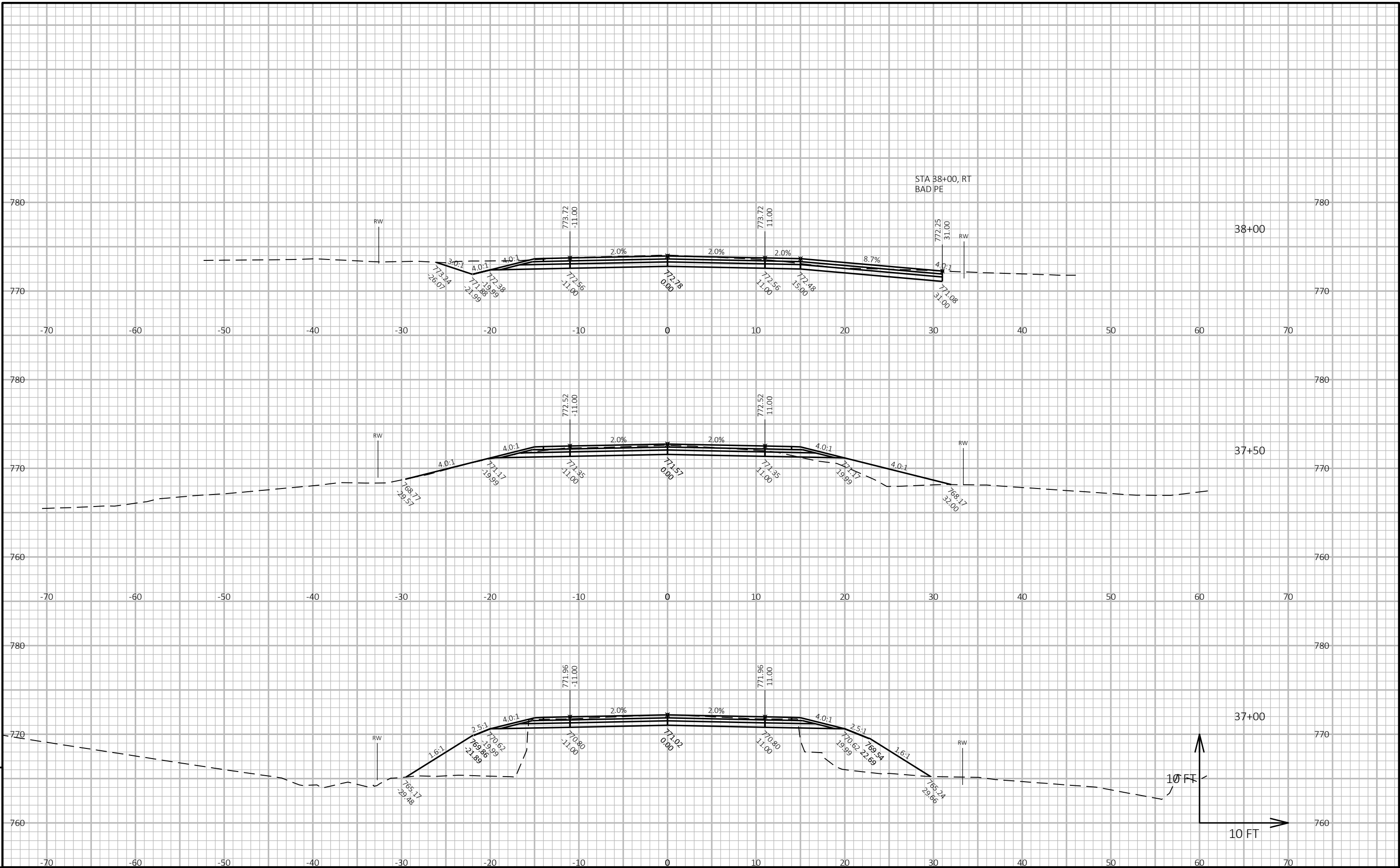


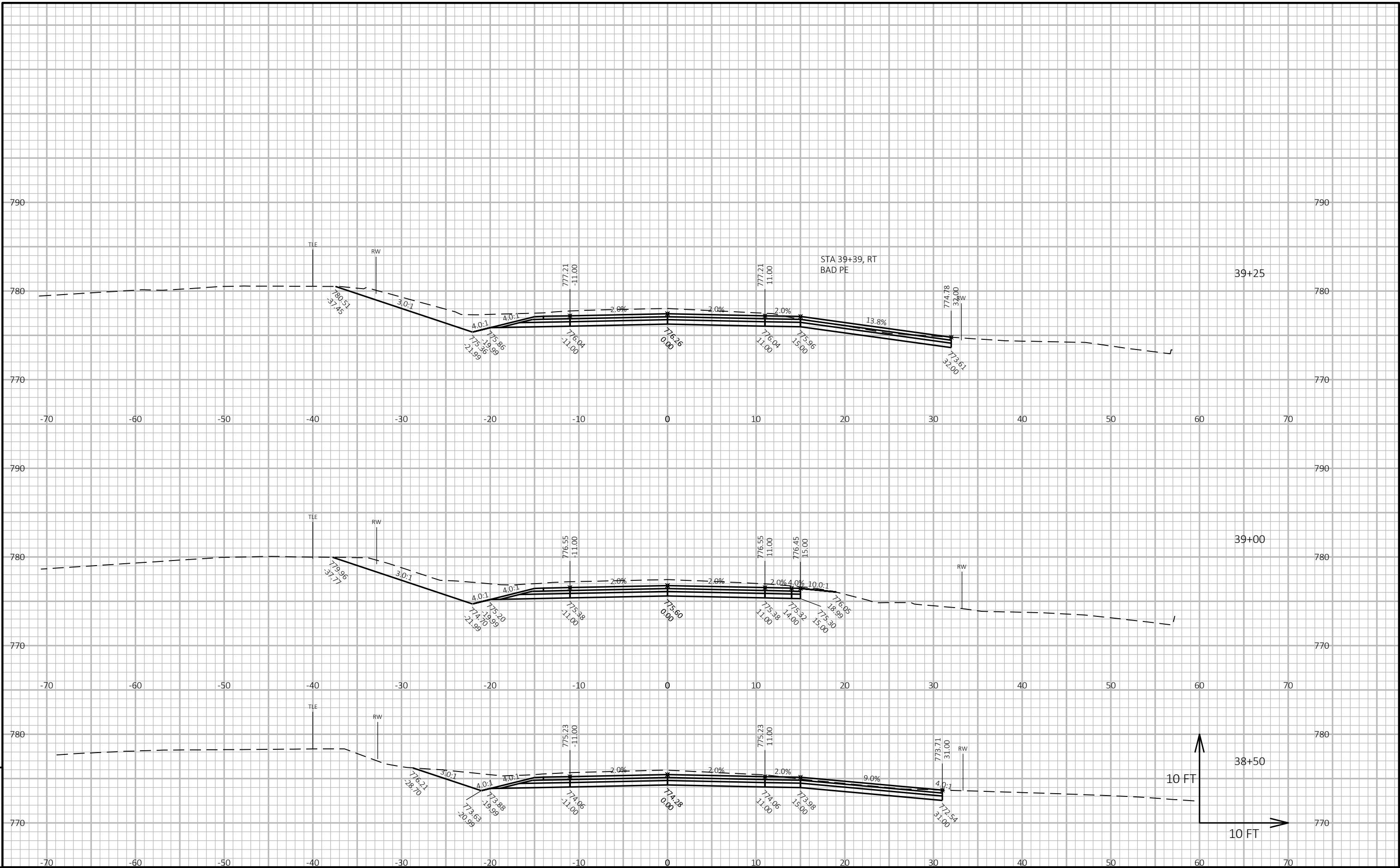


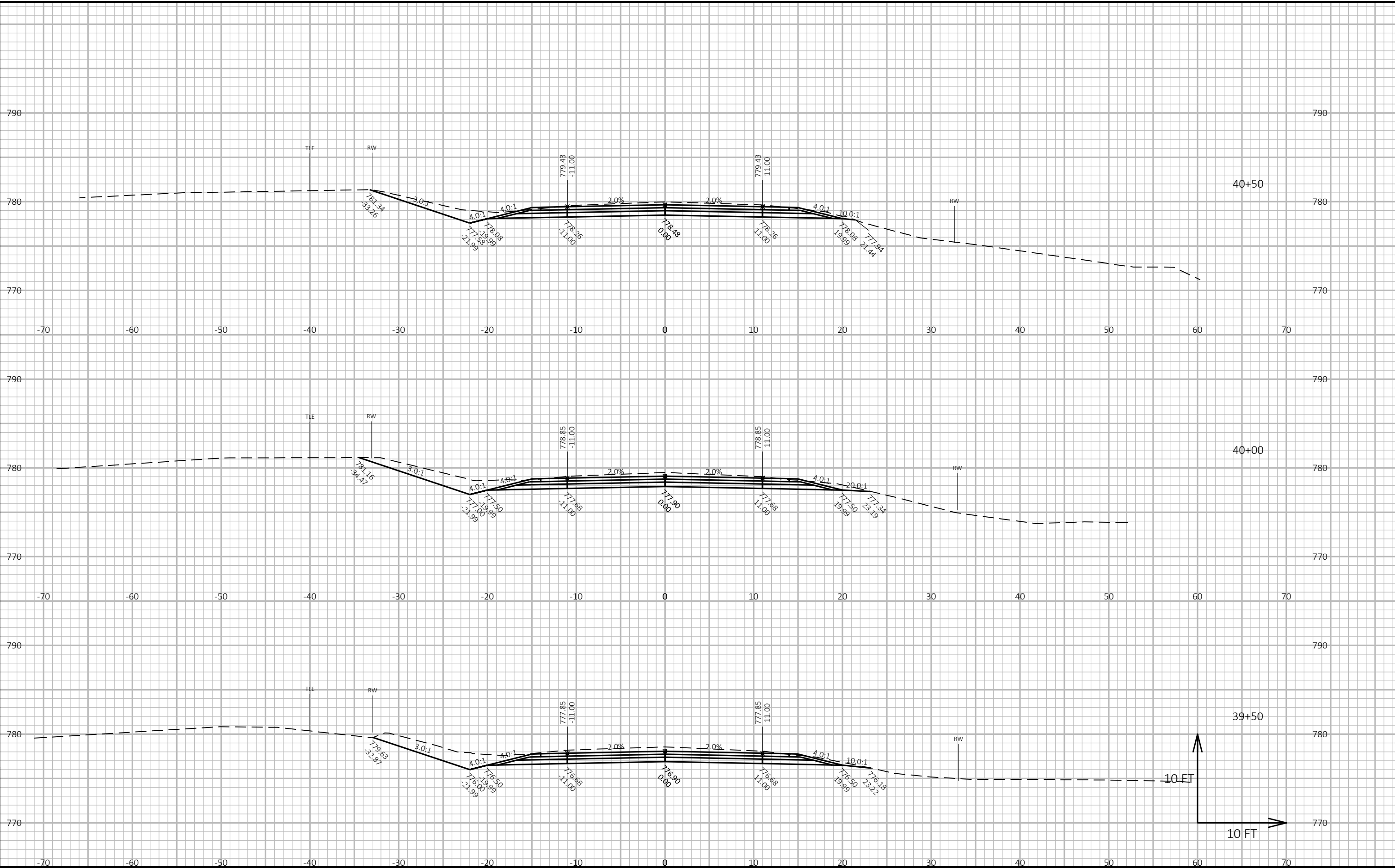
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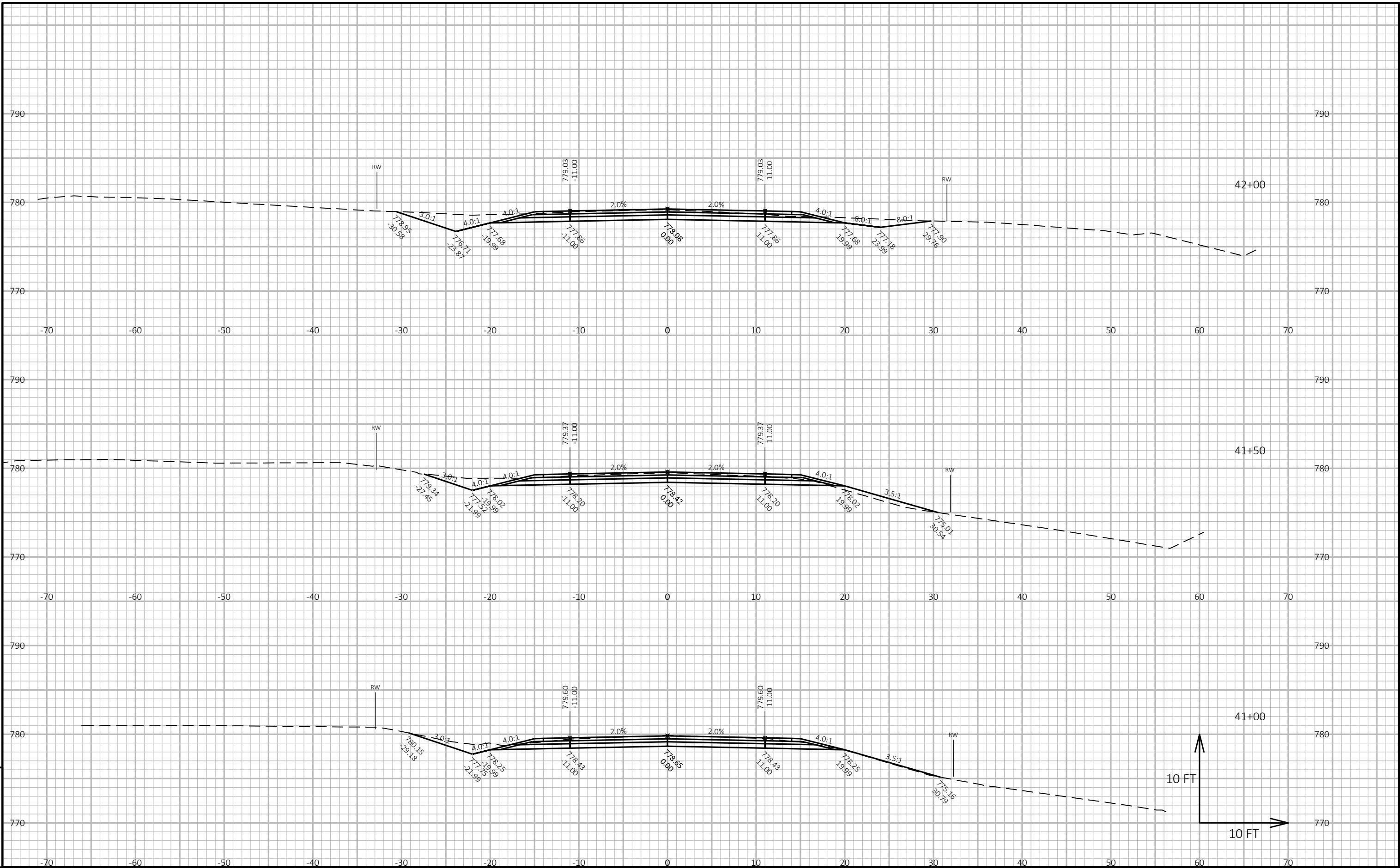


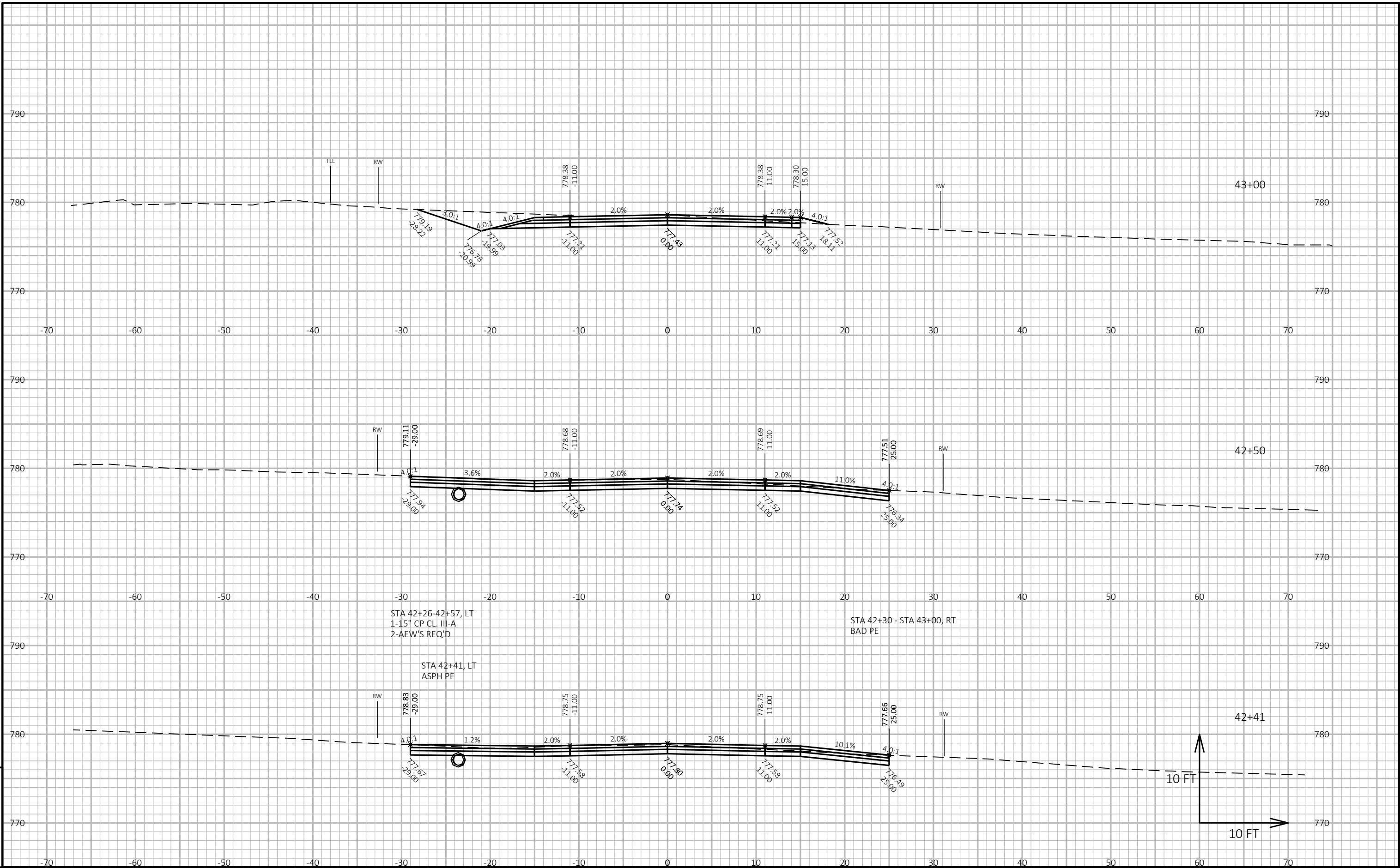
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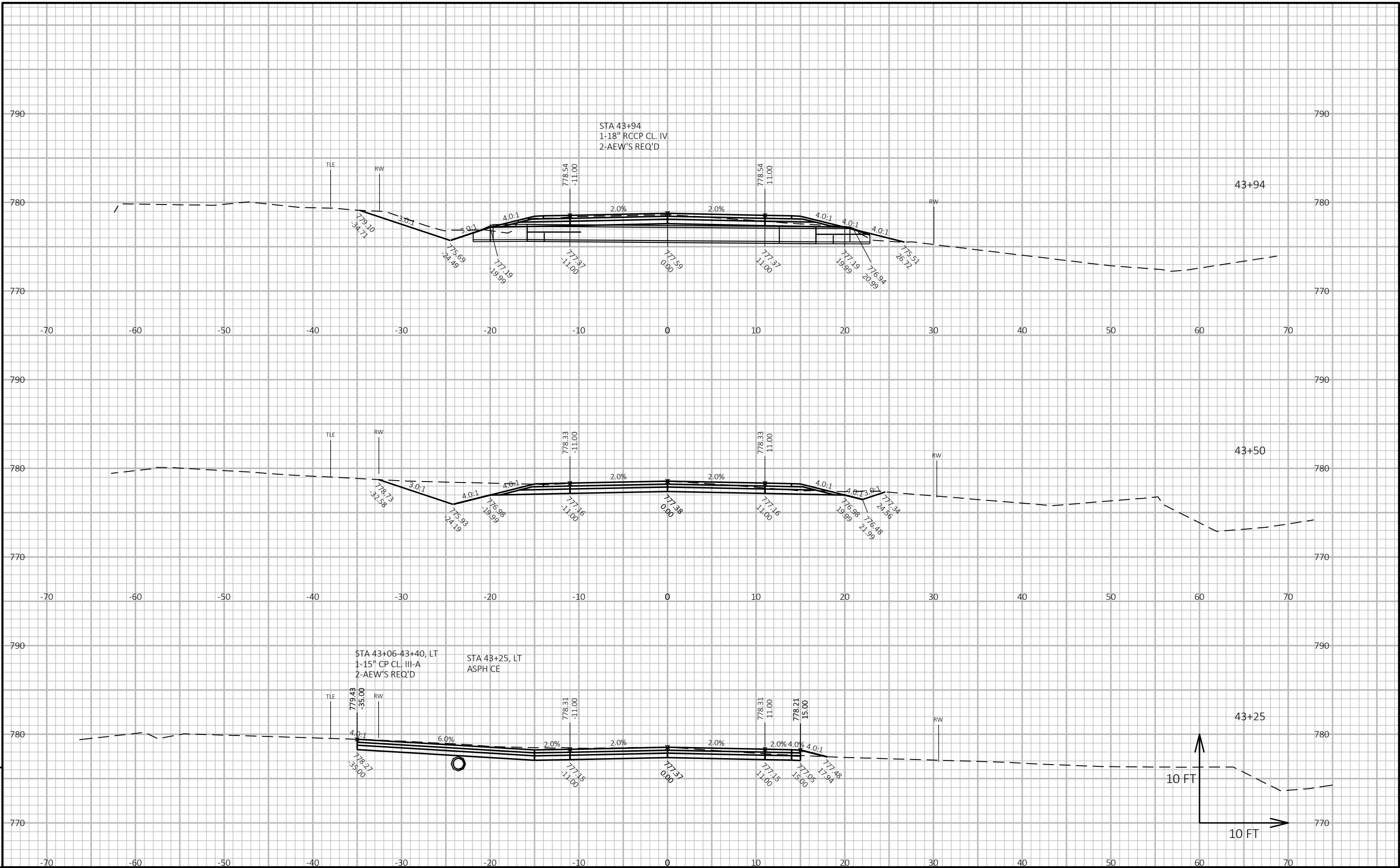


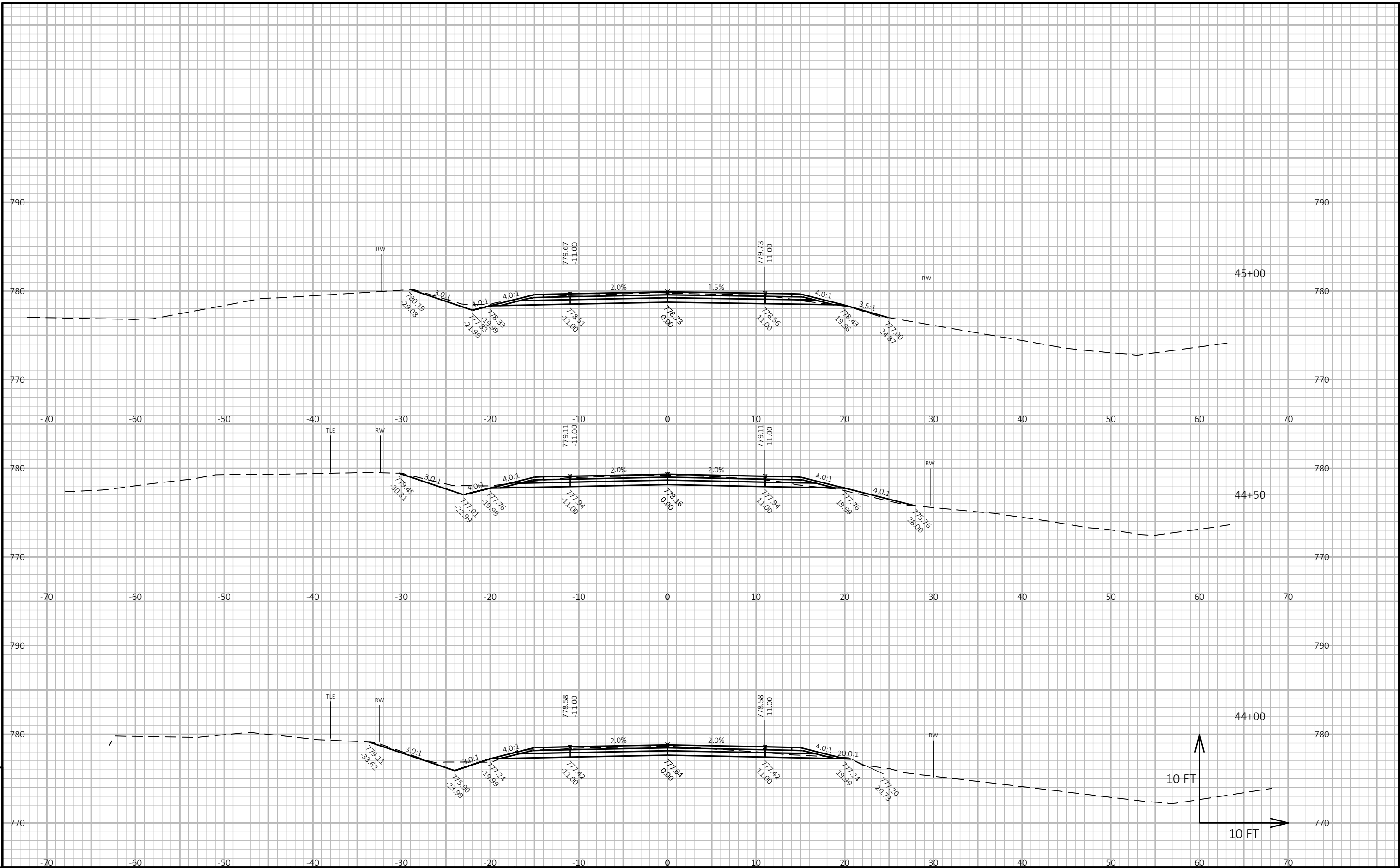


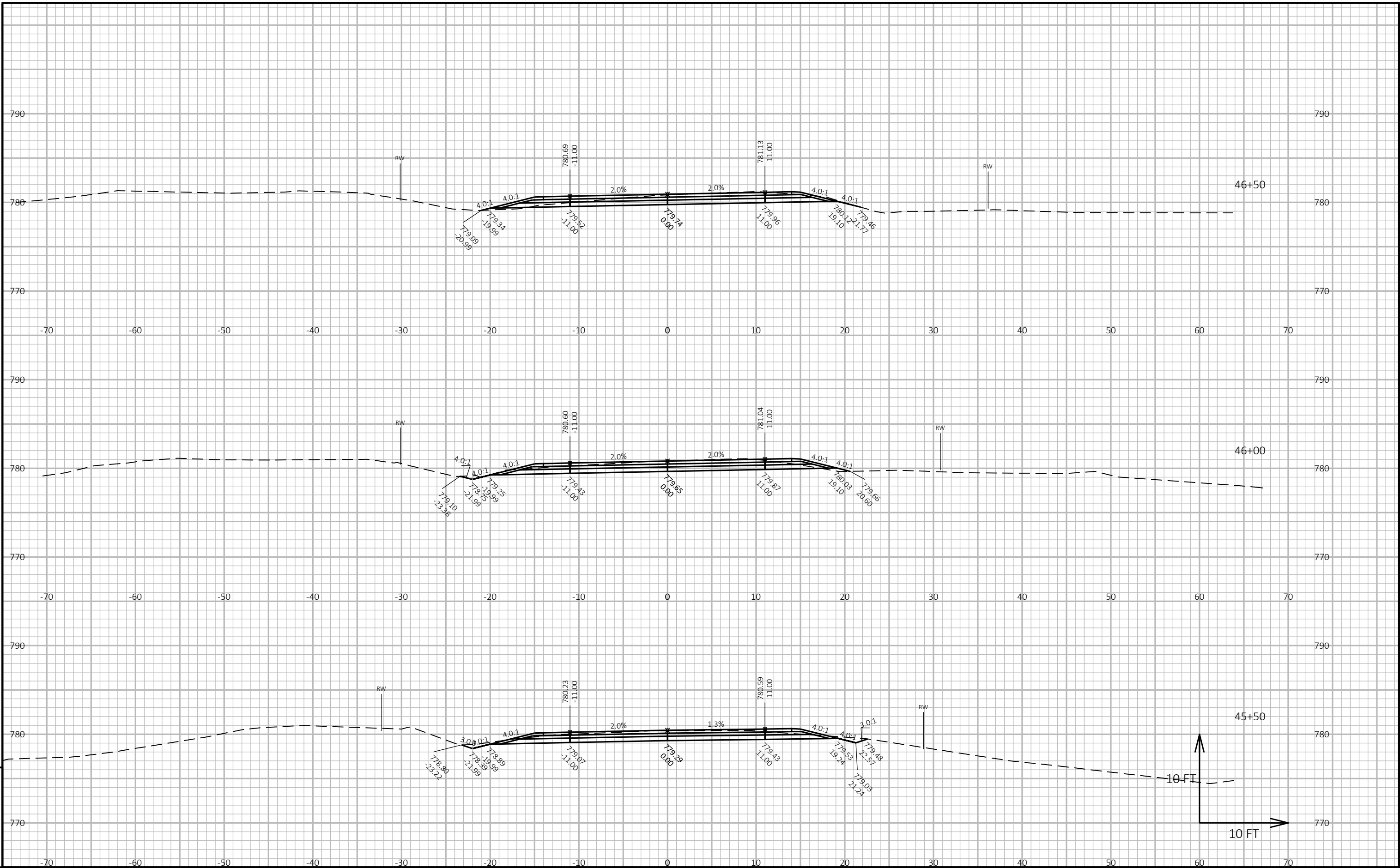


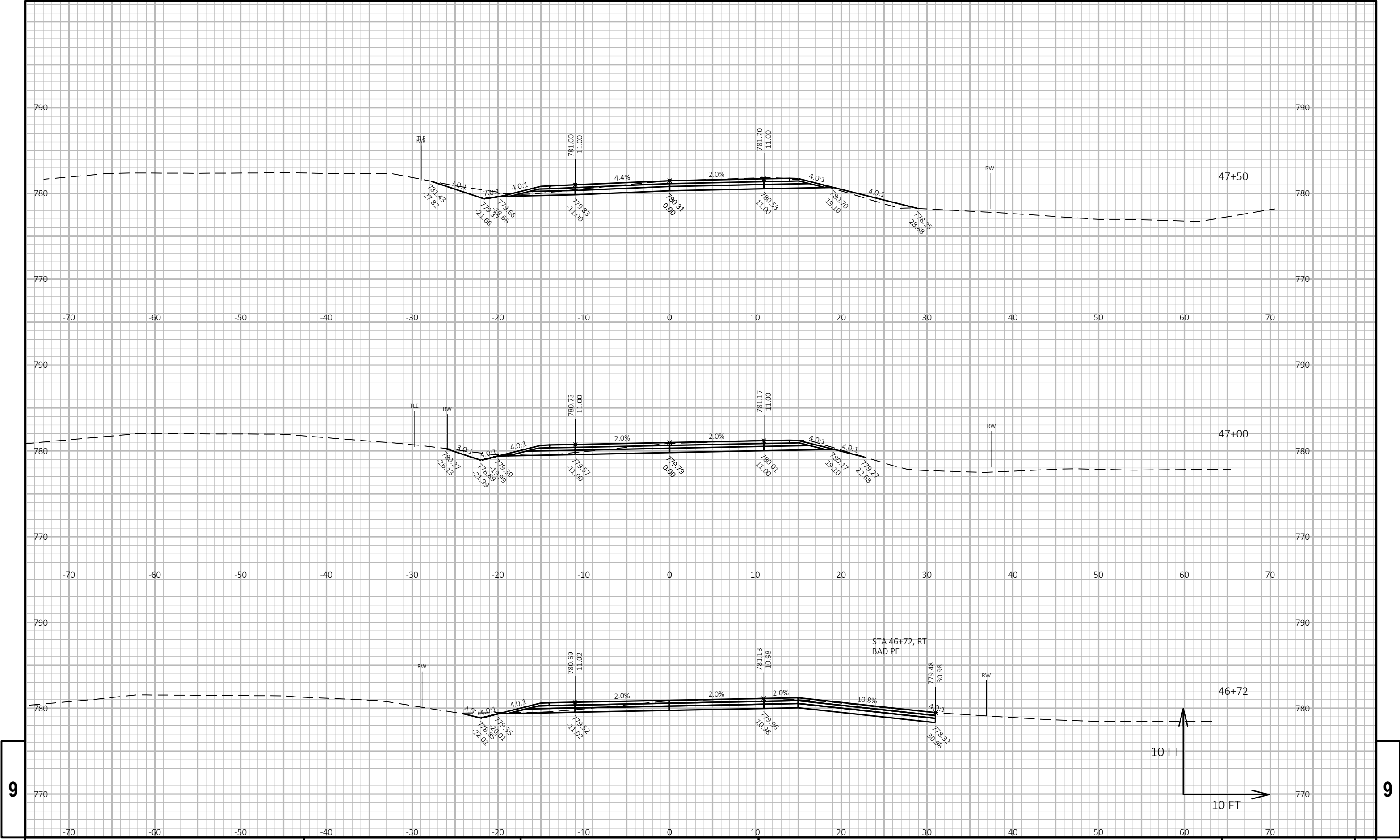


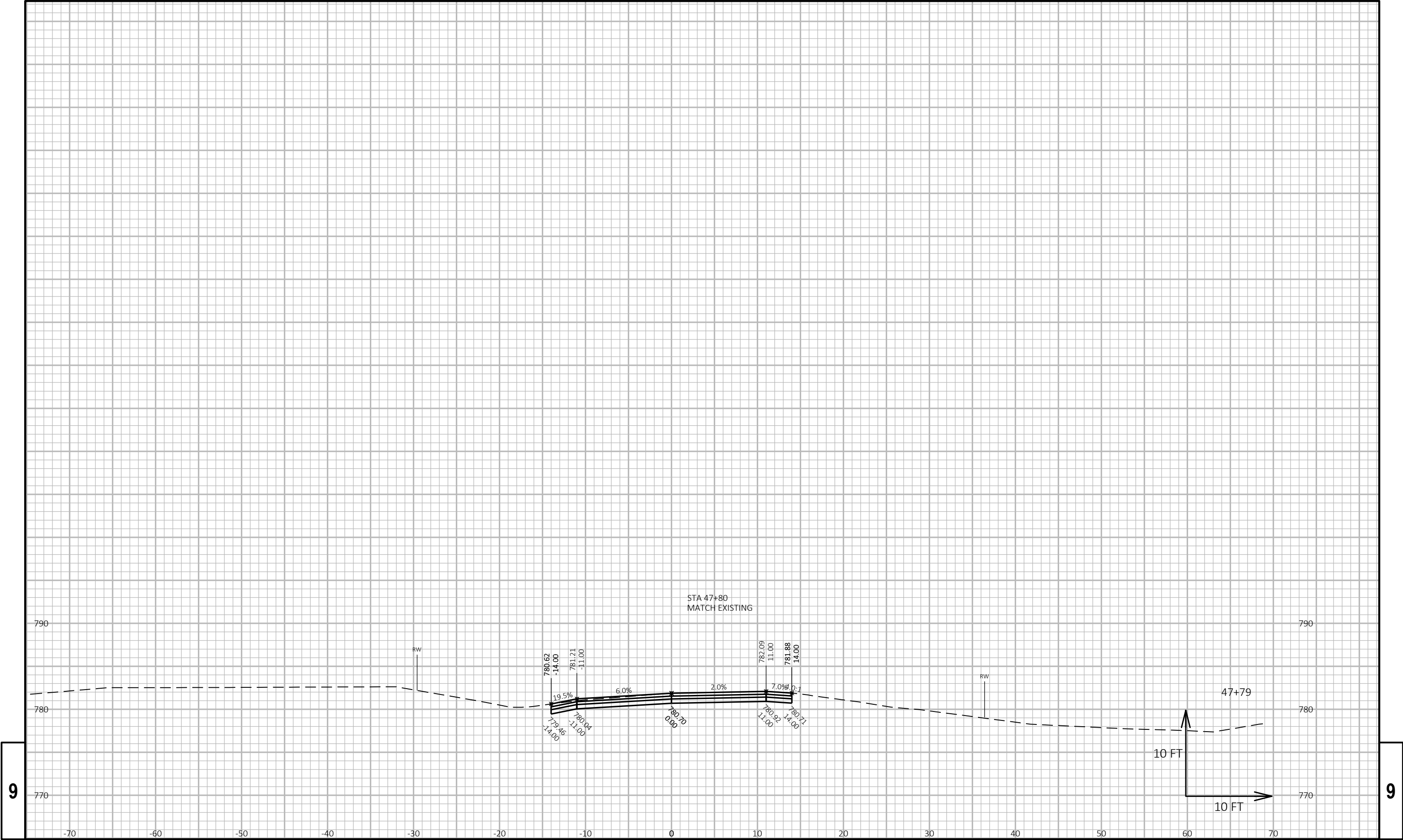






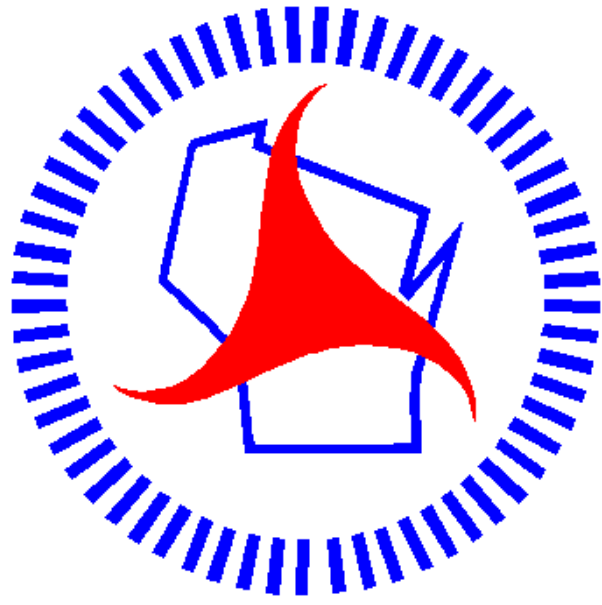






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