

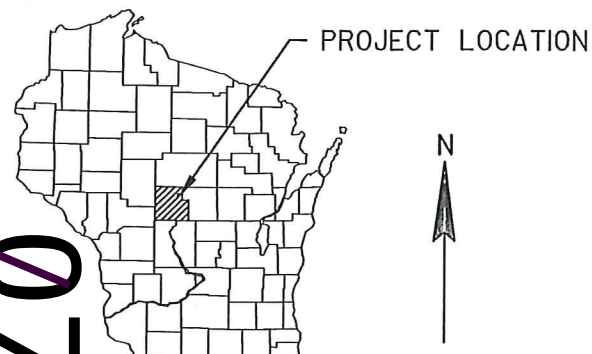
WIS JAN 13

PROJECT ID: 6350-07-78
WITH: 6350-07-79

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 = 130



DESIGN DESIGNATION

- | | | |
|-----------------|---|--------|
| A.A.D.T. (2013) | = | 900 |
| A.A.D.T. (2033) | = | 1100 |
| D.H.V. | = | 112 |
| D.D. | = | 60/40 |
| T. | = | 3.7% |
| DESIGN SPEED | = | 45-60 |
| ESALS | = | 80,300 |

CONVENTIONAL SYMBOLS

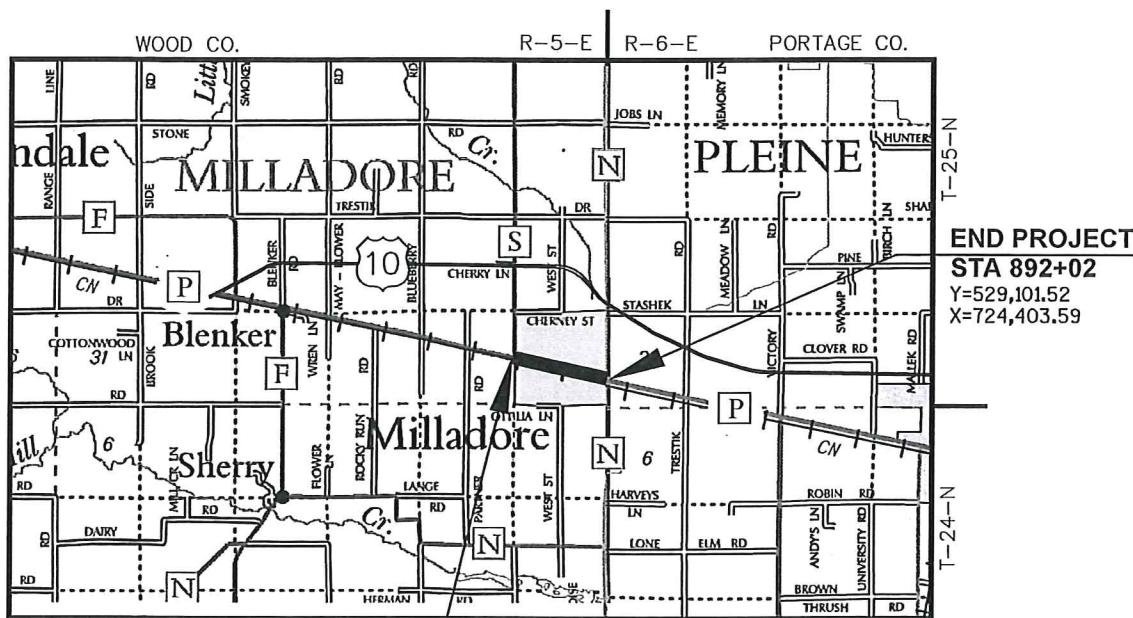
- | | |
|--------------------------------|---------|
| PLAN | |
| CORPORATE LIMITS | //// |
| PROPERTY LINE | --- |
| LOT LINE | --- |
| LIMITED HIGHWAY EASEMENT | --- |
| EXISTING RIGHT OF WAY | --- |
| PROPOSED OR NEW R/W LINE | --- |
| SLOPE INTERCEPT | --- |
| REFERENCE LINE | --- |
| EXISTING CULVERT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

- | | |
|---|-----|
| PROFILE | |
| GRADE LINE | --- |
| ORIGINAL GROUND | --- |
| MARSH OR ROCK PROFILE (To be noted as such) | --- |
| SPECIAL DITCH | --- |
| GRADE ELEVATION | --- |
| CULVERT (Profile View) | --- |
| UTILITIES | |
| ELECTRIC | --- |
| FIBER OPTIC | --- |
| GAS | --- |
| SANITARY SEWER | --- |
| STORM SEWER | --- |
| TELEPHONE | --- |
| WATER | --- |
| UTILITY PEDESTAL | --- |
| POWER POLE | --- |
| TELEPHONE POLE | --- |

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
PLAN OF PROPOSED IMPROVEMENT
MARSHFIELD - STEVENS POINT
WEST ST - CTH N, VILL OF MILLADORE
USH 10
WOOD COUNTY

STATE PROJECT NUMBER
6350-07-78

STATE PROJECT NUMBER
6350-07-79



BEGIN PROJECT 6350-07-78
STA 835+99
Y=530,244.85
X=718,918.26

END PROJECT
STA 892+02
Y=529,101.52
X=724,403.59

LAYOUT
SCALE 0 1 MI.

TOTAL NET LENGTH OF CENTERLINE = 1.072 MI.

"Coordinates on this plan are referenced to the Wisconsin County Coordinate System (WCCS), Wood County, NAD 1983 (91). Elevations on this plan are referenced to the North American Vertical Datum of 1988 NAVD 88 (91)."

STATE PROJECT

6350-07-78

6350-07-79

FEDERAL PROJECT

PROJECT

CONTRACT

ACCEPTED FOR
VILLAGE OF MILLADORE

7-31-12 *Bernard K. Kucharski*
(Date) (Signature & Title of Official)

ACCEPTED FOR
COUNTY OF WOOD

7-31-12 *Dan R. Hoppe*
(Date) (Signature & Title of Official)

ORIGINAL PLAN PREPARED BY

BECHER HOPPE

330 Fourth Street • PO Box 6000
Wausau, WI • 54402-8000
715.845.8000 • Fax 715.845.8008
becherhoppe.com



8/1/2012 *[Signature]*
(Date) (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	BECHER-HOPPE ASSOCIATES, INC.
Designer	BECHER-HOPPE ASSOCIATES, INC.
Project Manager	JEFF STEWART, PE
Regional Examiner	CHERYL SIMON, PE
Regional Supervisor	MIKE KRETSCHMER, PE
C.O. Examiner	Cyle Haag

APPROVED FOR THE DEPARTMENT

DATE: 11/7/12 *[Signature]*
(Date) (Signature)

E

GENERAL NOTES

PURSUANT TO CHAPTER 59 OF THE WISCONSIN STATUTES. THE CONTRACTOR SHALL CAREFULLY MAKE A SEARCH FOR EVIDENCE OF A LANDMARK IN ALL AREAS WHERE SUCH A LANDMARK MAY EXIST.

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

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

DISTURBED AREAS WITHIN THE RIGHT OF WAY ARE TO BE FERTILIZED, SEEDED OR TEMPORARY SEEDED AS DIRECTED BY THE ENGINEER.

THE LOCATION OF THE 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.

CONSTRUCTION LIMITS ON PRIVATE ENTRANCES, CONSTRUCTION ENTRANCES, AND SIDE ROADS SHALL BE DETERMINED BY THE ENGINEER.

WHEN THE QUANTITY OF THE ITEM OF BASE OR HMA PAVEMENT IS MEASURED FOR THE PAYMENT BY THE TON. THE DEPTH OR THICKNESS OF THE LAYER SHOWN ON THE PLANS IS APPROXIMATE AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER.

CROSS SECTIONS SHOWN INCLUDE THE THICKNESS OF TOPSOIL WHERE REQUIRED.

CTH P IS FORMER USH 10. ANY REFERENCE TO USH 10 SHOULD BE CONSIDERED CTH P UNLESS EXPLICITLY STATED OTHERWISE.

INLET AND DISCHARGE ELEVATIONS FOR DRAINAGE STRUCTURES SHOWN ON THE PLAN MY BE ADJUSTED BY THE ENGINEER TO FIT FIELD CONDITIONS.

PROJECT 6350-07-79 IS FOR WATER AND SANITARY SEWER UTILITY ADJUSTMENTS FOR THE VILLAGE OF MILLADORE.

TEMPORARY STORAGE OF ASPHALT MILLING MAY BE ALLOWED IN THE VILLAGE OF MILLADORE PARKING LOT OFF OF CTH N.

PAVEMENT CORE LOG

CORE NO.	STATION	OFFSET FROM C/L	ASPHALT DEPTH IN INCHES	UNDERLYING MATERIAL
1	840+00	8' LT	6.5"	7" CONCRETE/SUBBASE
2	845+00	12' RT	12"	SUBBASE
3	850+00	12' LT	10.5"	SUBBASE
4	856+00	12' RT	11"	SUBBASE
5	861+00	10' LT	6"	8" CONCRETE/SUBBASE
6	865+00	12' RT	12"	SUBBASE
7	868+00	6' RT	12"	6" CONCRETE/SUBBASE
8	870+70	12' LT	12"	SUBBASE
9	872+00	8' RT	10"	7" CONCRETE/SUBBASE
10	876+00	8' LT	15"	SUBBASE
11	879+00	8' LT	10"	SUBBASE
12	884+00	10' LT	6.5"	8.5" CONCRETE/SUBBASE
13	888+00	10' LT	5.75"	9.25" CONCRETE/SUBBASE
14	890+50	12' RT	12"	SUBBASE

UTILITIES

ELECTRIC
ALLIANT ENERGY
2710 JEFFERSON ST
WISCONSIN RAPIDS, WI 54495-1942
PATRICK MUELLER
PHONE: (715) 424-7049
MOBILE: (920) 948-3527
PotMueller@alliantenergy.com

WATER & SANITARY SEWER
MILLADORE VILLAGE OF WATER UTILITY
815 CTH S & N
MILLADORE, WI 54454
GARY DICKRELL
PHONE: (715) 457-6375
gdickrell@tznnet.com

COMMUNICATION
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1130 HILLCREST LANE
SEYMOUR, WI 54165
JEREMIAH LUBEN
MOBILE: (920) 655-8748
jeremiah.luben@tdstelecom.com

COMMUNICATION
WINDSTREAM KDL INC
8531 CTH FF
WISCONSIN RAPIDS, WI 54494
DENNIS RUESS
PHONE: (608) 512-5587
dennis.ruess@windstream.com

COMMUNICATION
CCI SYSTEMS
4709 BASIL LANE
RHINELANDER, WI 54501
RANDY SIMMS
PHONE: (906) 282-3802
randy.simms@ccisystems.com

GAS/PETROLEUM
WE ENERGIES
1921 EIGHT STREET SOUTH
WISCONSIN RAPIDS, WI 54494-0789
THOMAS KROSTAG
PHONE: (715) 421-7268
MOBILE: (715) 459-1772
thomas.krostag@we-energies.com

** CN RAILROAD
1625 DEPOT STREET
STEVENS POINT, WI 54481
JACQUELINE MACEWICZ
PHONE: (715) 345-2503
jackie.macewicz@cn.ca



Call 811 3 Work Days Before You Dig
or Toll Free (800) 242-8511
Milwaukee Area (414) 259-1181
Hearing Impaired TDD (800) 542-2289
www.DiggersHotline.com

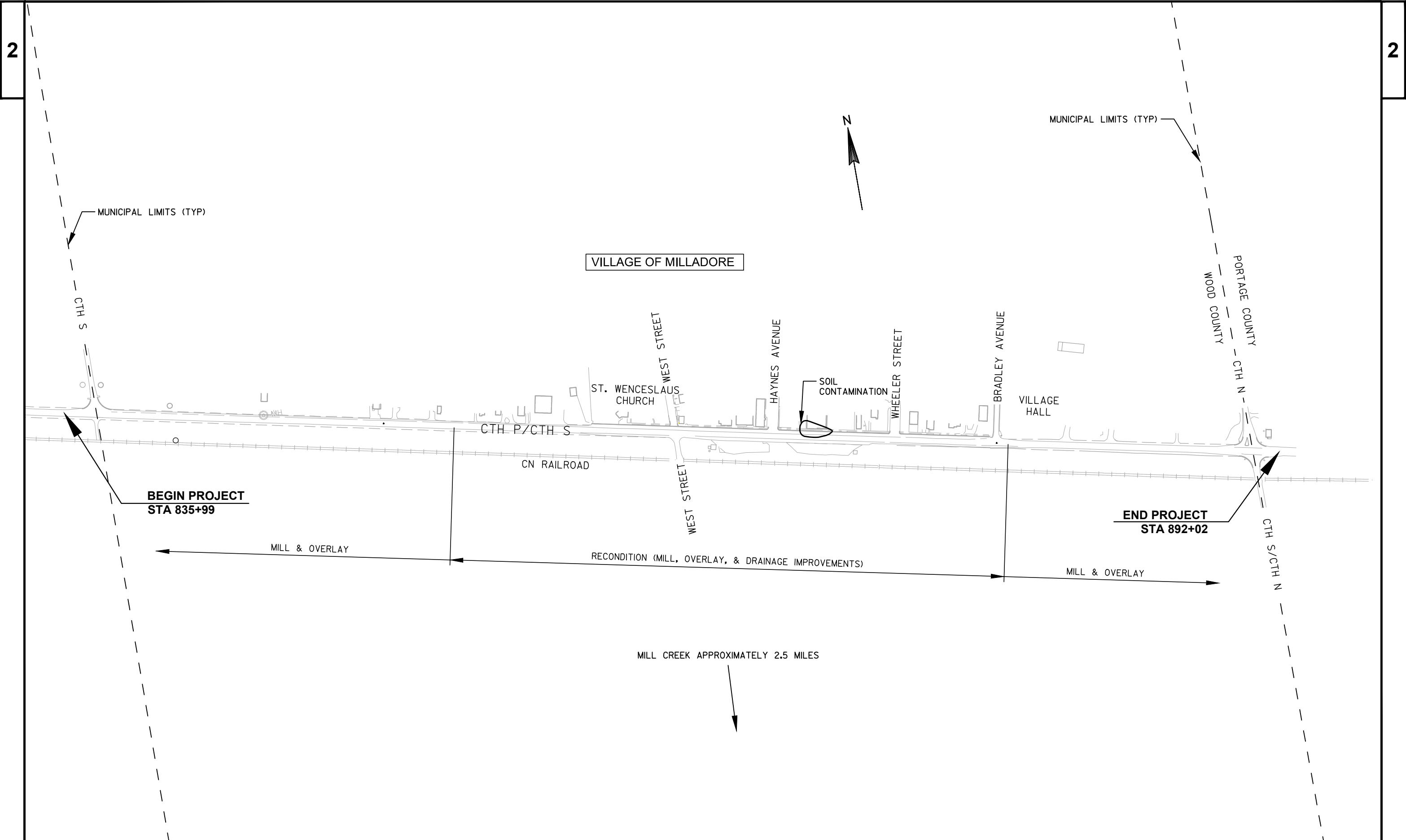
** DENOTES UTILITIES THAT ARE NOT
DIGGERS HOTLINE MEMBERS

SECTION 2 ORDER

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
INTERSECTION DETAIL
EROSION CONTROL
STORM SEWER PLAN
UTILITY PLAN
PERMANENT SIGNING
PAVEMENT MARKING
TRAFFIC CONTROL
CONTROL TIES

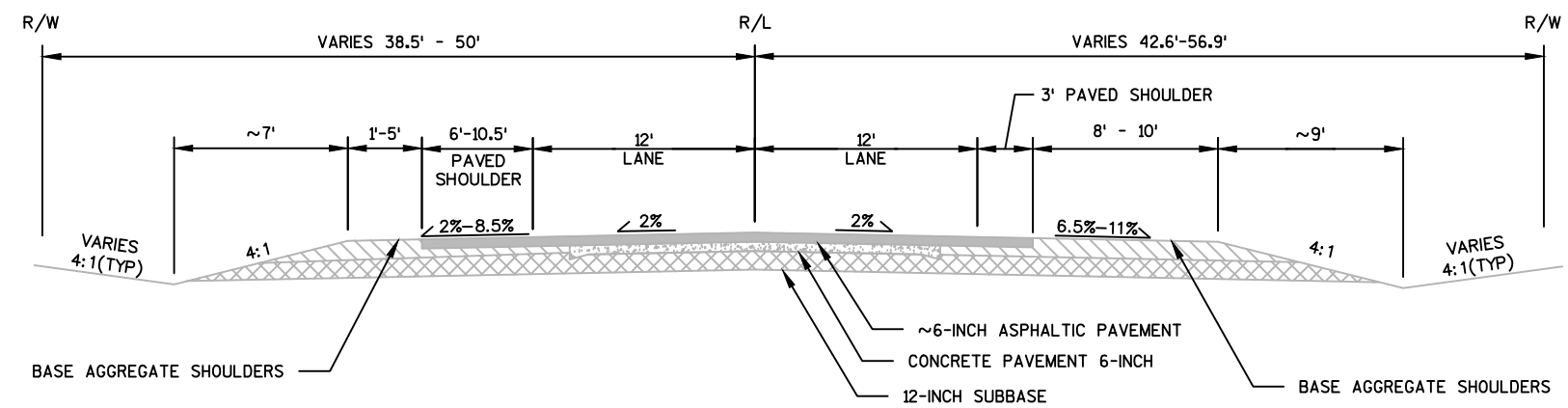
DNR CONTACT

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
473 GRIFFITH AVENUE
WISCONSIN RAPIDS, WI 54494-7859
MARC HERSHFIELD
PHONE: (715) 421-7867
Marc.Hershfield@wisconsin.gov

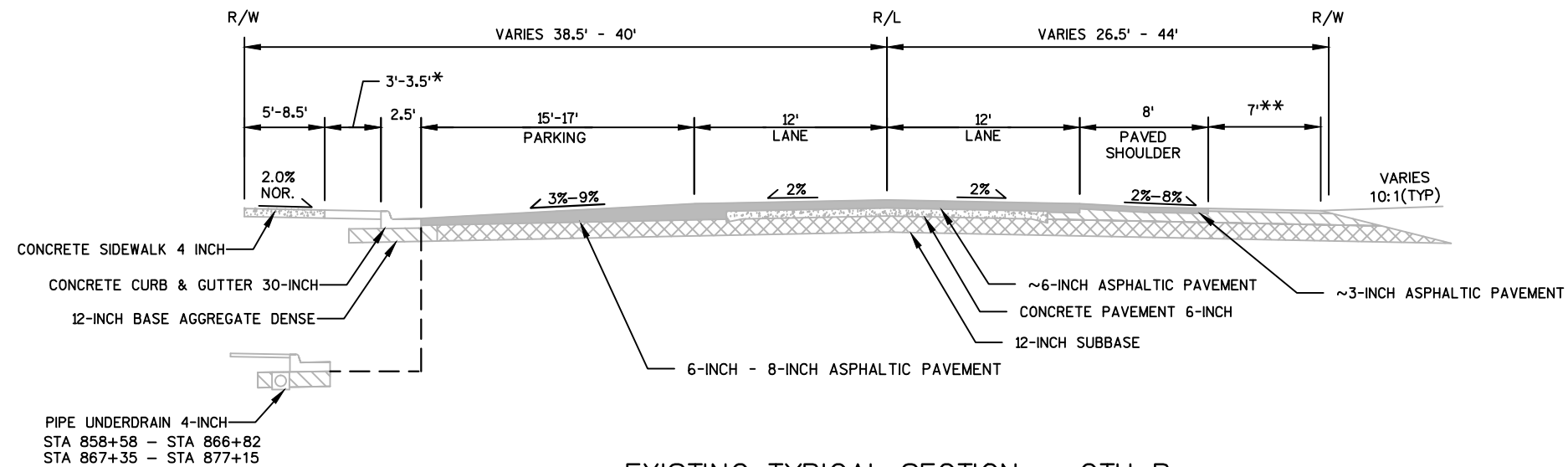


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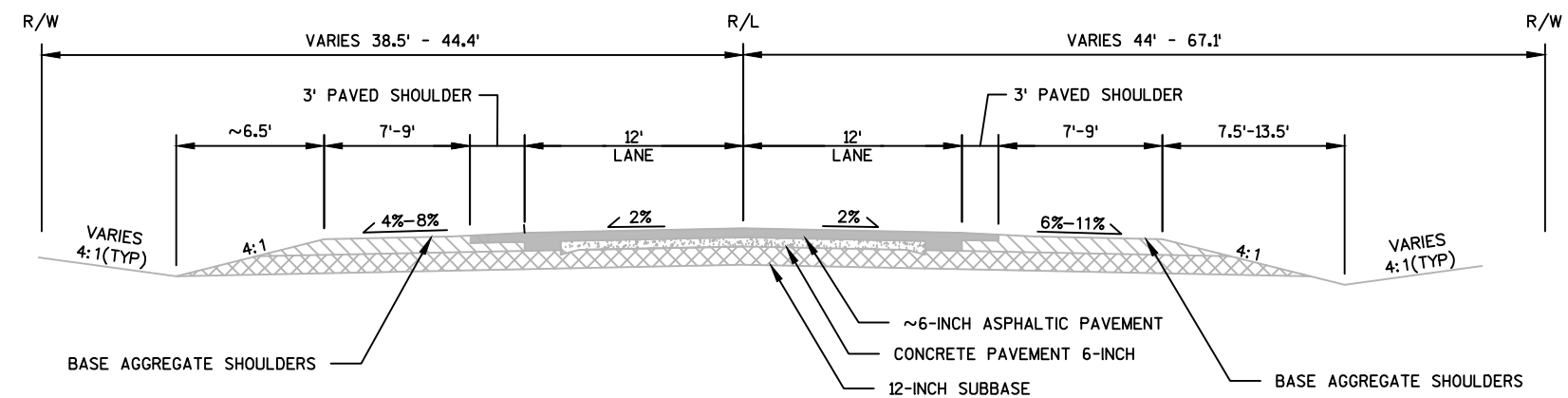
EXISTING TYPICAL SECTION - CTH P
STA 835+99 - STA 860+68



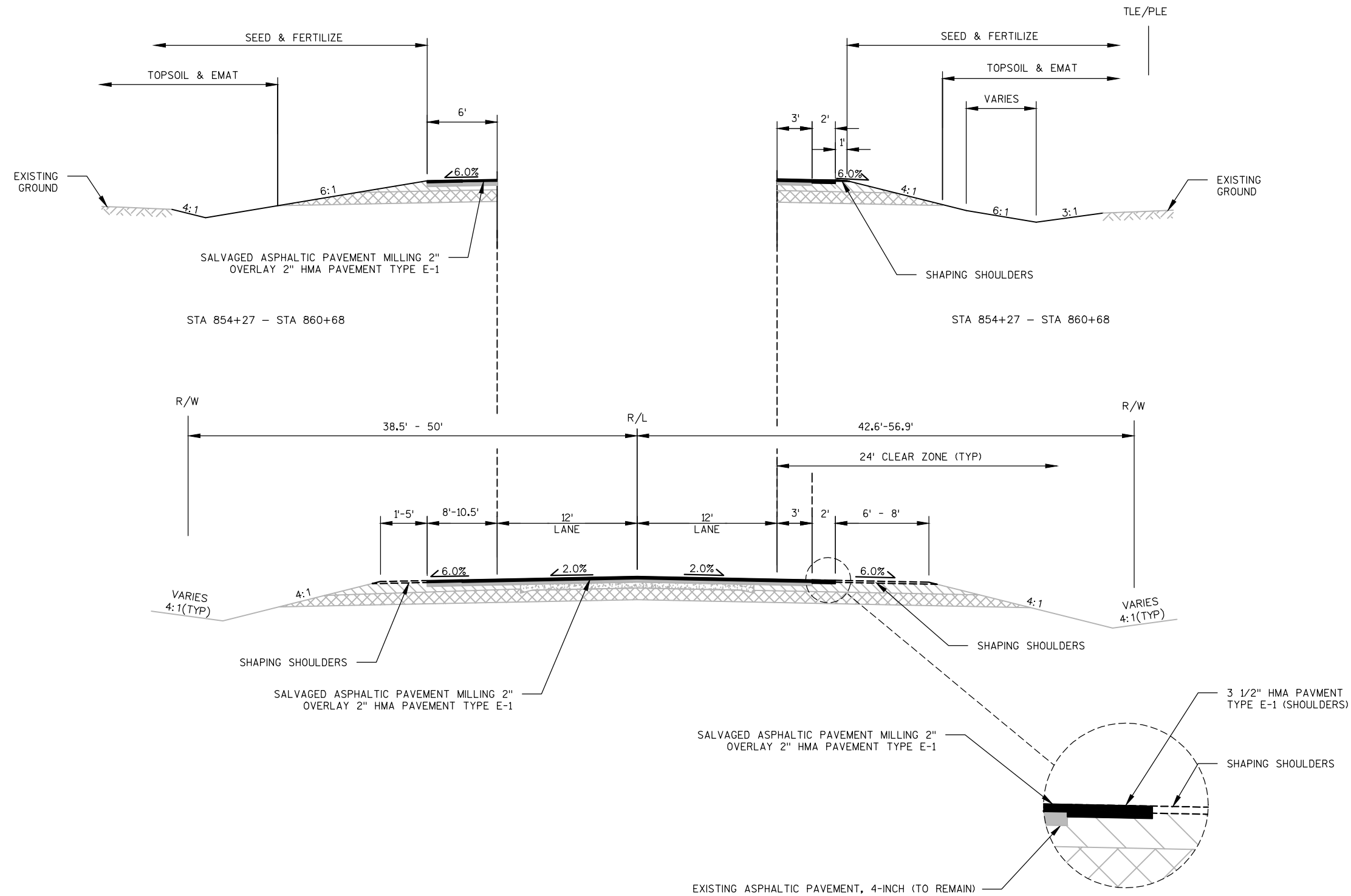
*CONCRETE PAVEMENT 4-INCH TERRACE (TYP)
GRASS STA 860+68 - 864+27
ASPHALT STA 865+31 - 867+71 & STA 872+50 - 879+12

**BASE AGGREGATE SHOULDER STA 860+68 - 866+00
~2" ASPHALTIC PAVEMENT STA 866+00 - 879+12

EXISTING TYPICAL SECTION – CTH P
STA 860+68 – STA 879+12



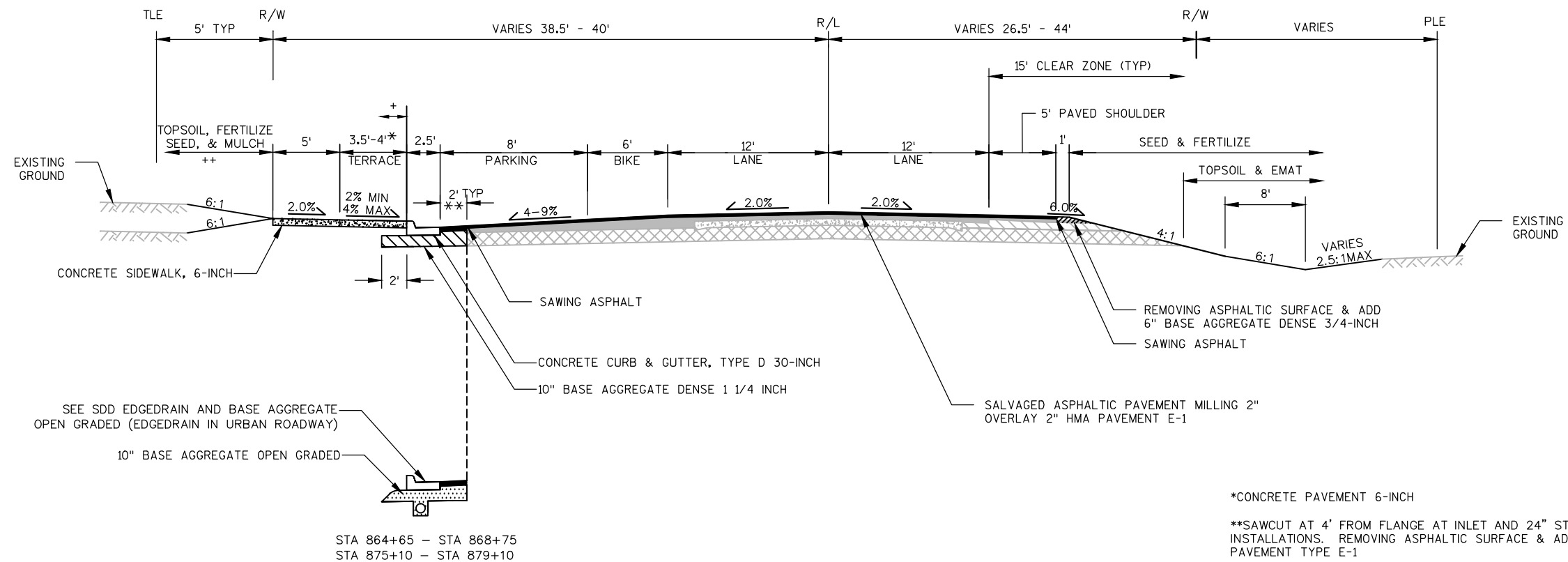
EXISTING TYPICAL SECTION - CTH P
STA 879+12 - STA 892+02



NOTE:
DURING SHAPING SHOULDERS OPERATION ADD
NEW BASE AGGREGATE DENSE 3/4-INCH AS NEEDED.
QUANTITY OF MATERIAL INCLUDED IN THE CONTRACT.

FINISHED TYPICAL SECTION - CTH P

STA 835+99 - STA 860+68



FINISHED TYPICAL SECTION - CTH P
STA 860+68 - STA 880+00

*CONCRETE PAVEMENT 6-INCH

**SAWCUT AT 4' FROM FLANGE AT INLET AND 24" STORM SEWER INSTALLATIONS. REMOVING ASPHALTIC SURFACE & ADD 6" HMA PAVEMENT TYPE E-1

+2' LATERAL CLEARANCE TO FACE OF UTILITY POLE

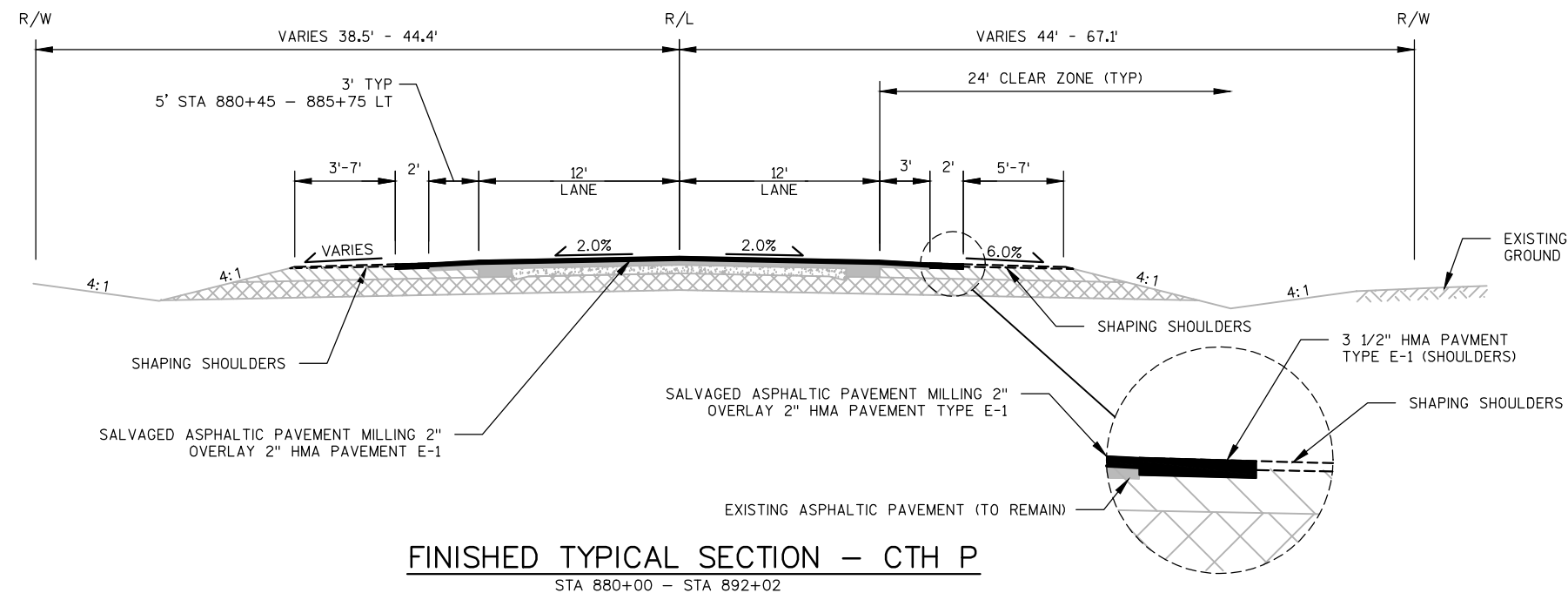
++SEE CONCRETE SIDEWALK AT BUILDING FACE DETAIL

NOTE:
DURING SHAPING SHOULDERS OPERATION ADD NEW BASE AGGREGATE DENSE 3/4-INCH AS NEEDED. QUANTITY OF MATERIAL INCLUDED IN THE CONTRACT.

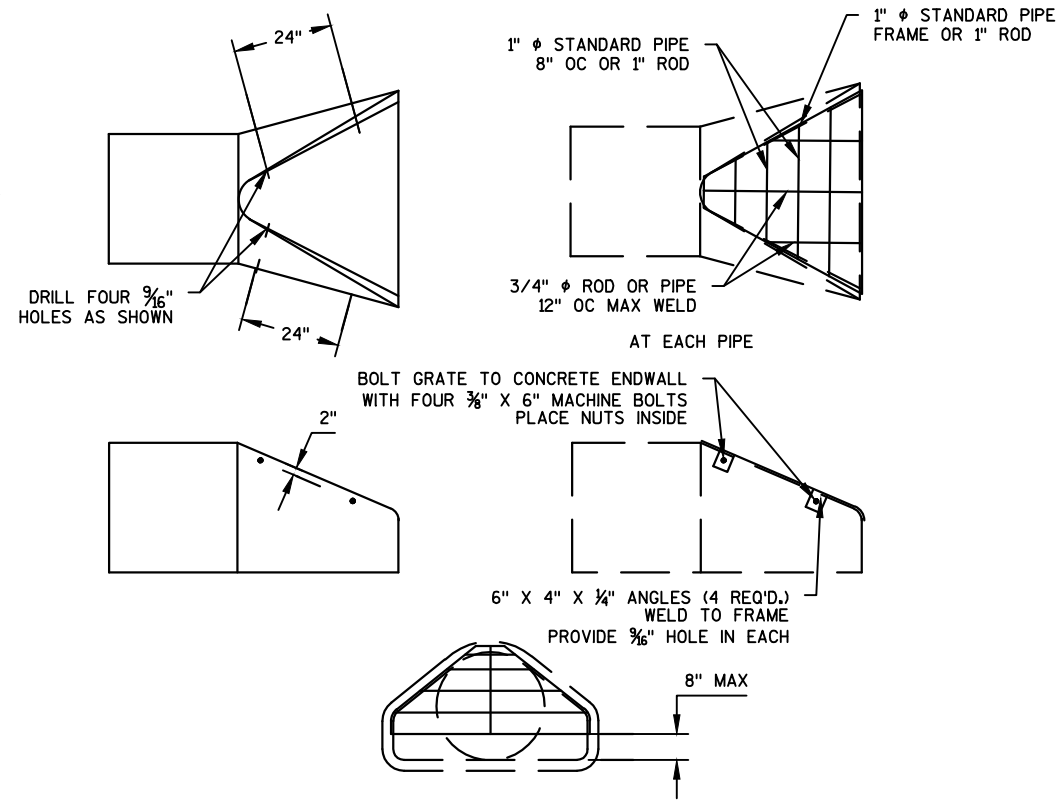
SEE CONSTRUCTION DETAIL FOR TYPICAL SECTION AT CULVERT REPLACEMENT AREAS.

TIE UNDERDRAIN PIPE INTO PROPOSED STORM INLETS AS SHOWN IN THE PLANS (INCIDENTAL TO PIPE UNDERDRAIN BID ITEM). INCREASE DEPTH OF UNDERDRAIN AS REQUIRED TO MAINTAIN DRAINAGE.

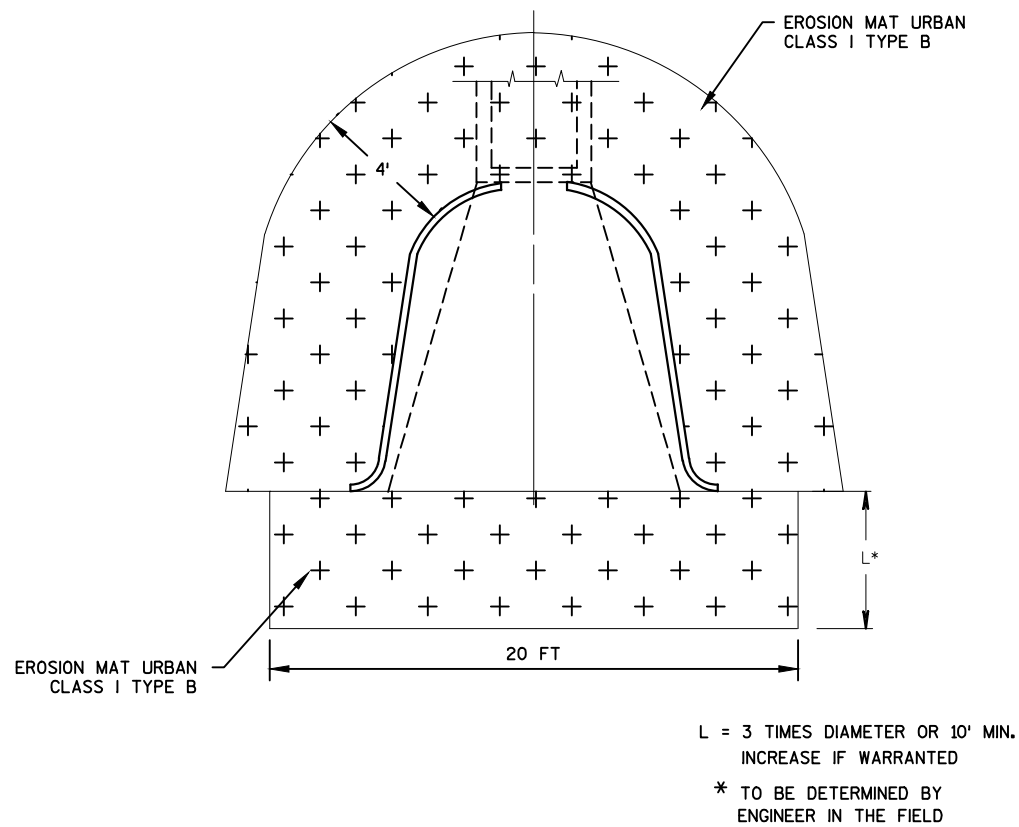
REMOVING EXISTING PIPE UNDERDRAIN INCIDENTAL TO OTHER REMOVAL ITEMS OF WORK.



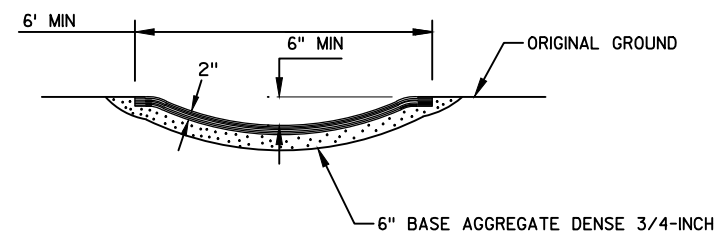
FINISHED TYPICAL SECTION - CTH P
STA 880+00 - STA 892+02



PIPE GRATE DETAIL

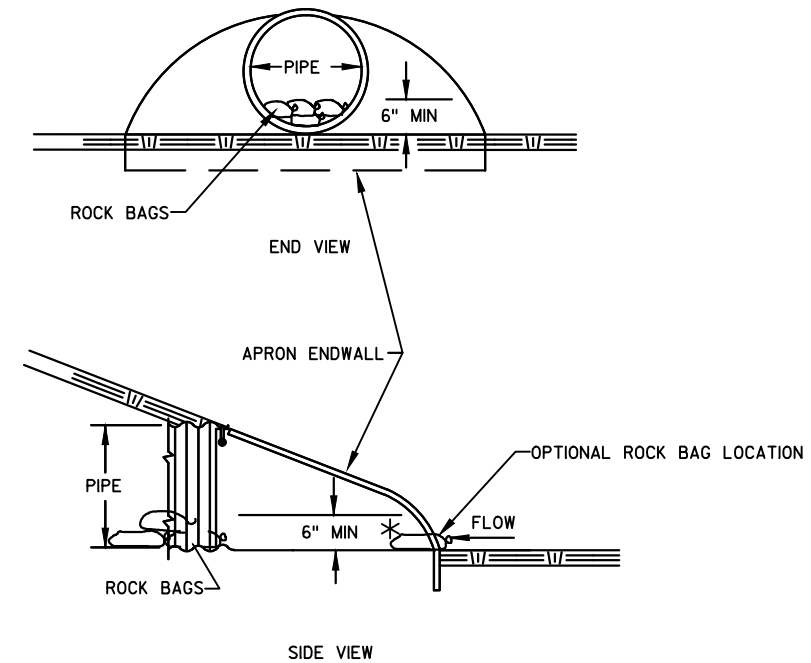


EROSION CONTROL AT PIPE ENDS

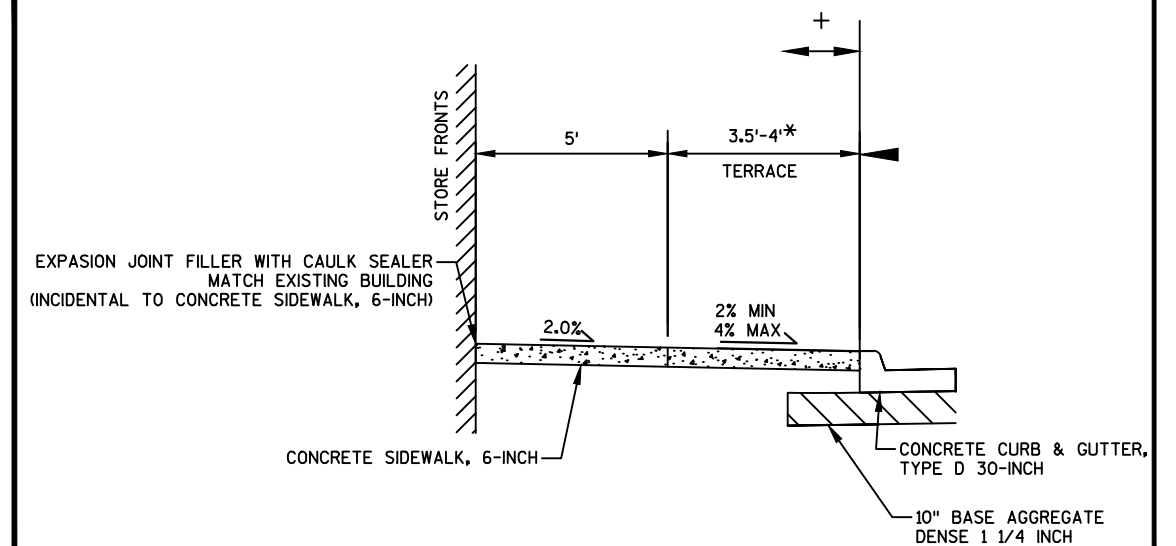


ASPHALTIC FLUME DETAIL

ESTIMATED BAG SIZE= 24" X 12" X 6"	
PIPE SIZE	ESTIMATED NO OF BAGS
18"	2
24"	3
30"	5
48"	10
54"	10
60"	13
72"	16



CULVERT PIPE CHECKS



CONCRETE SIDEWALK AT BUILDING FACE DETAIL

FOR $D \leq 5'$

IF EXISTING MATERIAL IS DETERMINED
UNSUITABLE FOR USE, PLACE BACKFILL
GRANULAR AS SHOWN.



FOR $D > 3'$



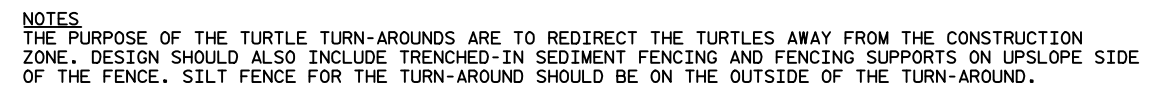
- BUTT JOINT DETAIL ON MAINLINE, AT INTERSECTIONS, PAVED DRIVEWAYS,
& RAILROAD CROSSINGS

The diagram illustrates a road cross-section with the following components and labels:

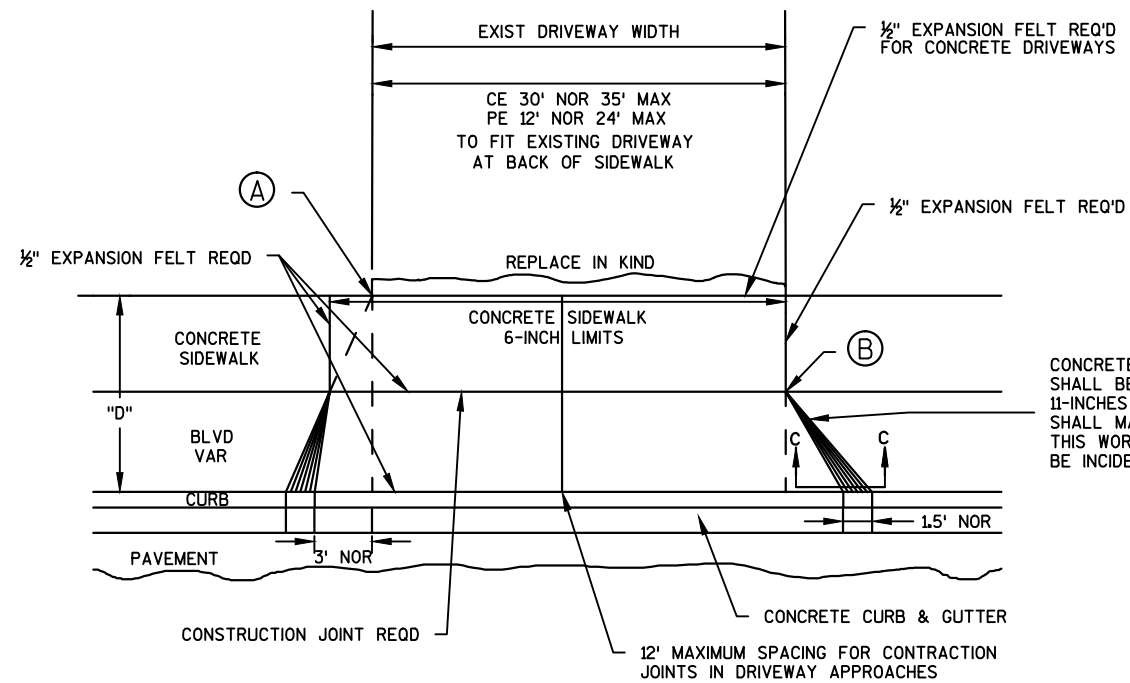
- EDGE OF TRAVEL LANE**: Points to the top solid line on the left side.
- EDGE PAVED SHOULDER**: Points to the second solid line from the top on the left side.
- EDGE BASE AGGREGATE SHOULDER**: Points to the third solid line from the top on the left side.
- ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES**: Points to the vertical line on the left side.
- MATCH EXISTING (TYP)**: Points to the vertical line on the right side.
- BUTT JOINT, SEE PLANS AND GENERAL NOTES FOR LIMITS AT SIDE ROADS AND DRIVEWAYS**: Points to the vertical line on the right side.

The cross-section shows a central road with a dashed centerline, flanked by solid lines representing the travel lane edges. Below these are additional solid lines representing the paved shoulder and base aggregate shoulder. A dashed line is shown below the base aggregate shoulder. The road is flanked by asphaltic surface driveways and field entrances, which are indicated by vertical lines. The right side of the road is labeled "MATCH EXISTING (TYP)" and "BUTT JOINT, SEE PLANS AND GENERAL NOTES FOR LIMITS AT SIDE ROADS AND DRIVEWAYS".

PLAN VIEW



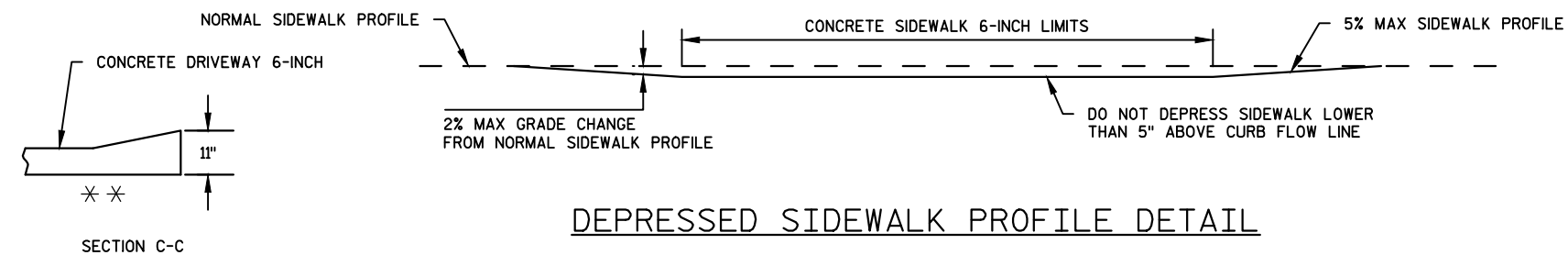
PLAN VIEW



PLAN VIEW

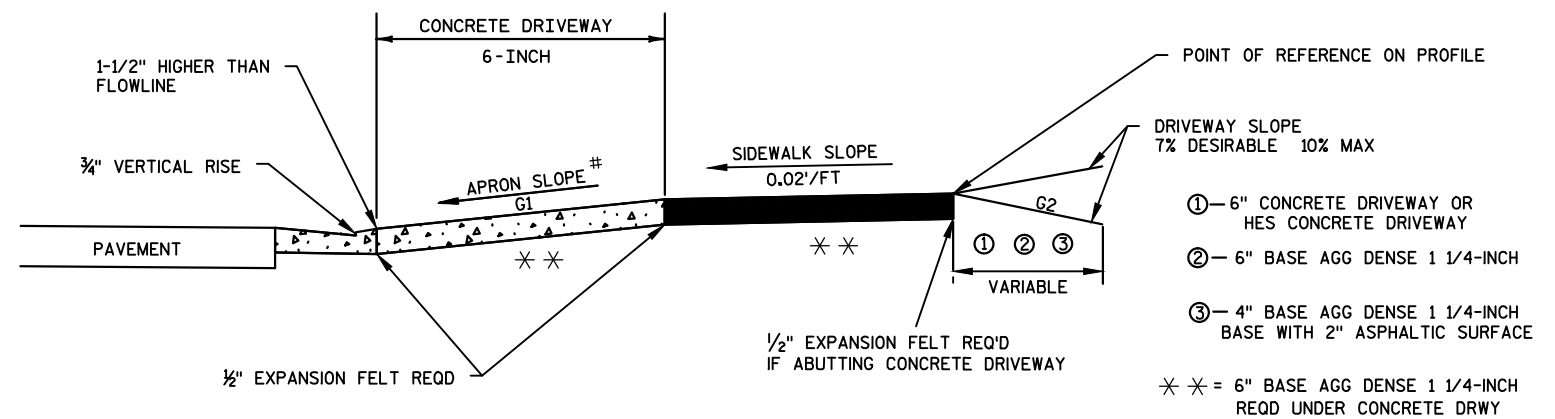
Ⓐ WHEN "D" IS 13' OR LESS, ALIGN TAPER WITH BACK OF SIDEWALK

Ⓑ WHEN "D" IS GREATER THAN 13', ALIGN TAPER WITH FRONT OF SIDEWALK



DEPRESSED SIDEWALK PROFILE DETAIL

DRIVEWAY ENTRANCE DETAIL WITH SIDEWALK, CURB & GUTTER



TYPICAL SIDEWALK SECTION

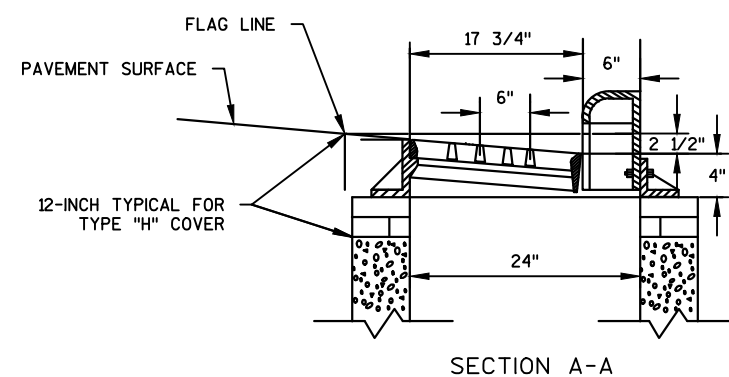
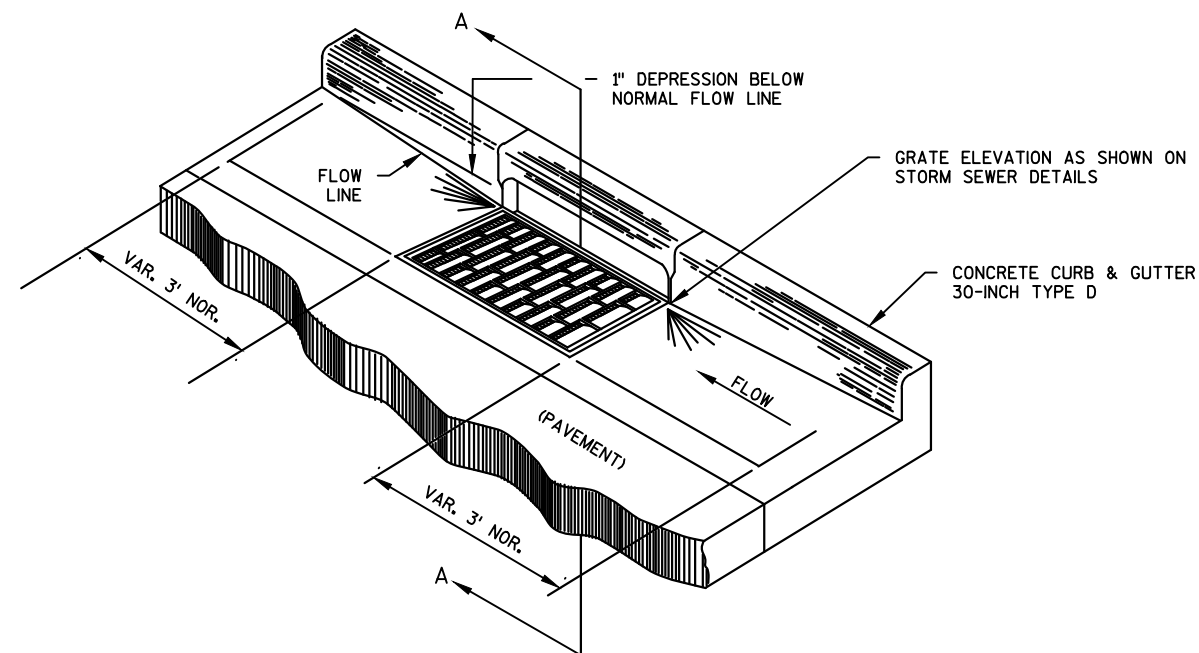
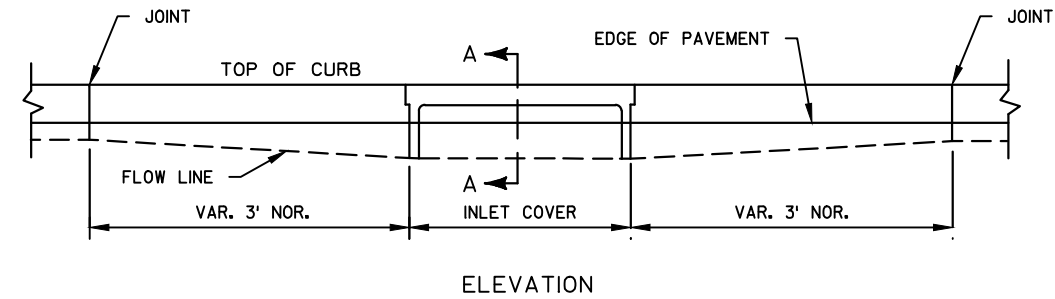
- ①— 6" CONCRETE DRIVEWAY OR HES CONCRETE DRIVEWAY
- ②— 6" BASE AGG DENSE 1 1/4-INCH
- ③— 4" BASE AGG DENSE 1 1/4-INCH BASE WITH 2" ASPHALTIC SURFACE

* * = 6" BASE AGG DENSE 1 1/4-INCH REQ'D UNDER CONCRETE DRWY

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

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

DEPRESS SIDEWALK PROFILE IF DRIVEWAY APRON EXCEEDS MAX SLOPE

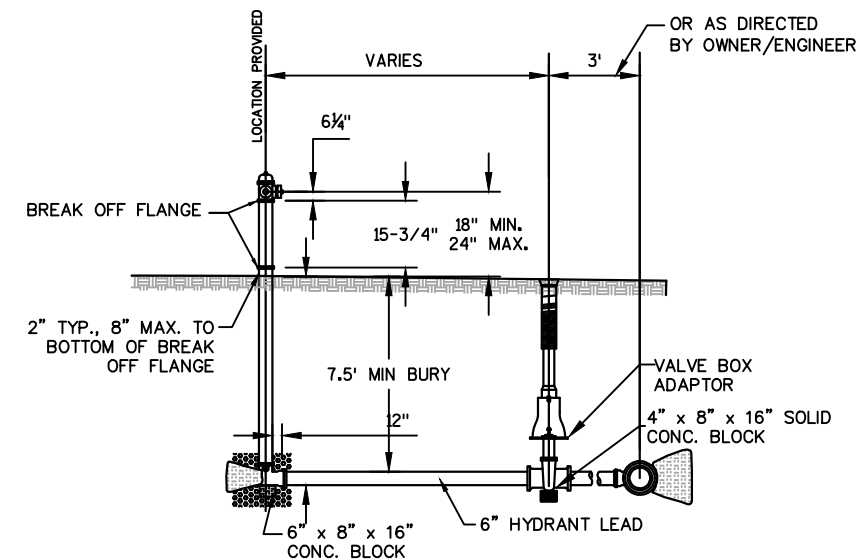


DETAIL OF CURB AND GUTTER AT INLETS

NOTE:
INSTALL MECHANICAL JOINT RESTRAINT AT EACH FITTING.

ADJUST HYDRANT TO FINISH GRADE AND SUPPLY HYDRANT BARREL EXTENSIONS IF NECESSARY.

DRAIN PORTS TO BE LEFT OPEN AND CLEAR OF ANY OBSTRUCTIONS UNLESS DIRECTED BY THE ENGINEER.



PROFILE VIEW

TYPICAL HYDRANT INSTALLATION

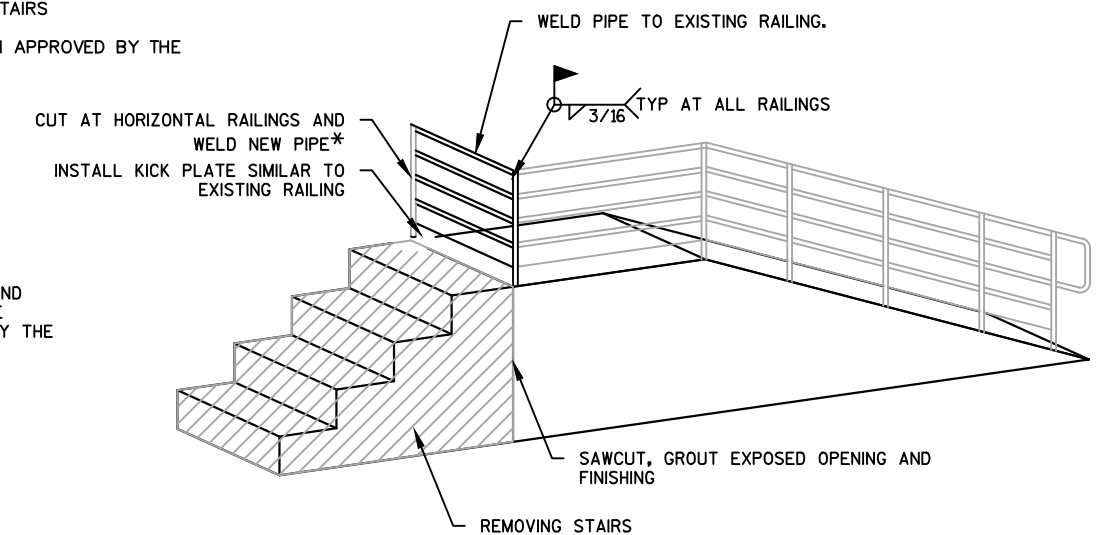
STA 863+45

NOTE:
GRIND SMOOTH ALL WELDS.

PAINT ALL RAILING NEW AND EXISTING. USE SIMILAR COLOR TO WHAT EXISTS.

ALL ITEMS INCIDENTAL TO REMOVING STAIRS

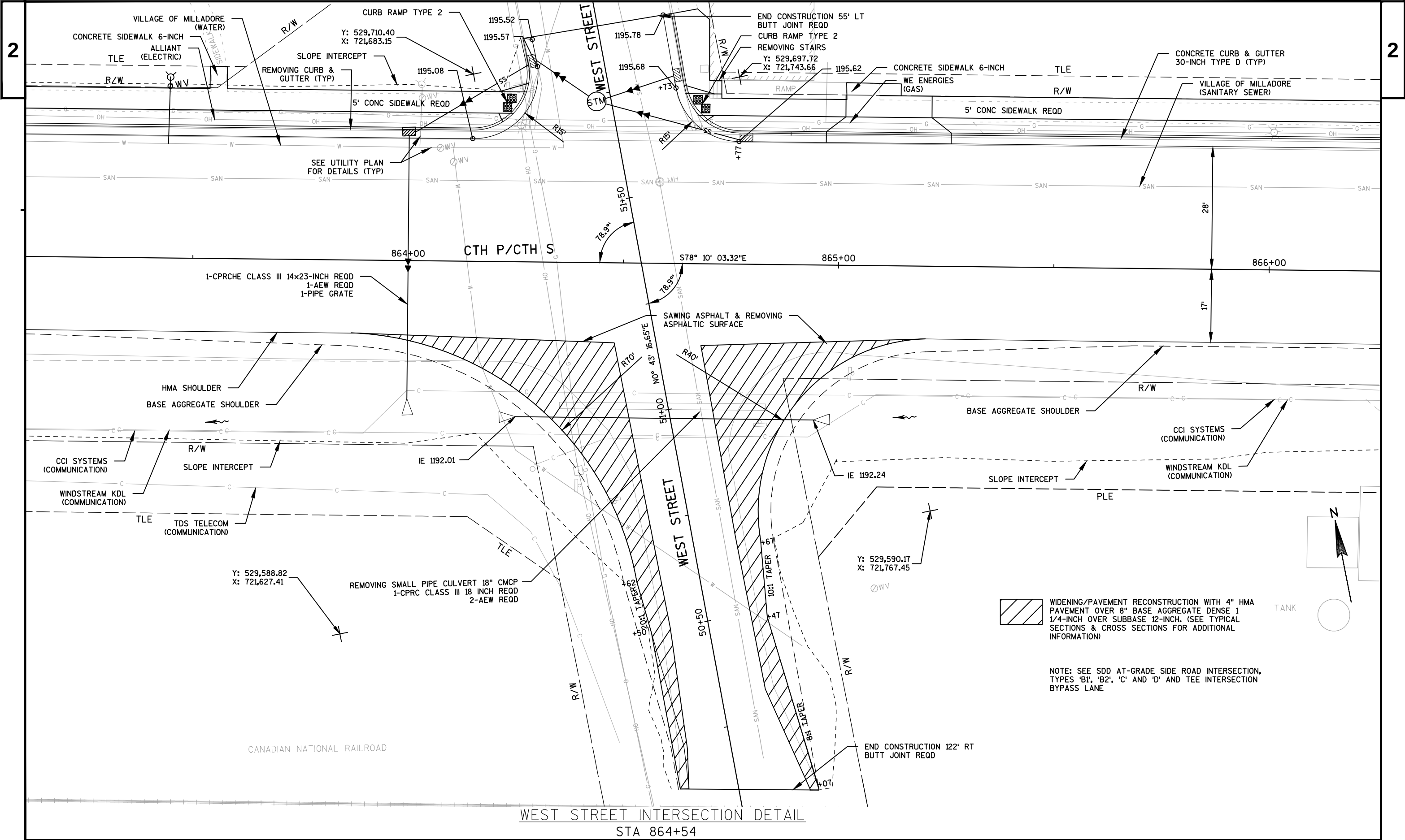
PROVIDE TEMPORARY FALL PROTECTION APPROVED BY THE ENGINEER WHILE RAILING IS REMOVED



*VERTICAL PIPE MAY BE REMOVED AND NEW PIPE MAY BE ANCHORED TO THE CONCRETE BY A MEANS APPROVED BY THE ENGINEER (INCIDENTAL)

REMOVING STAIRS DETAIL

STA 864+60



PROJECT NO:6350-07-78

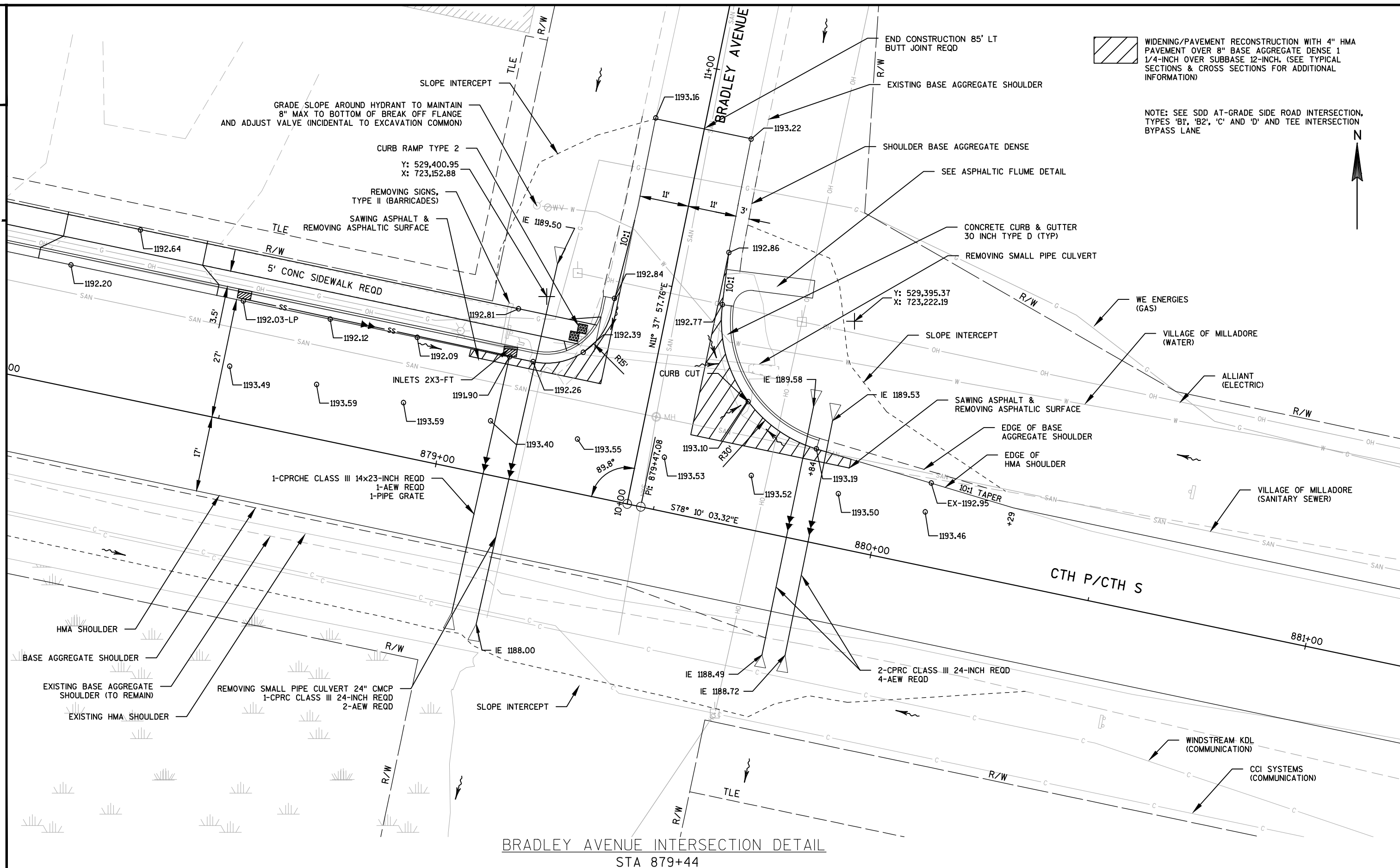
HWY:CTH P

COUNTY:WOOD

INTERSECTION DETAIL WEST STREET

SHEET

E



RUNOFF COEFFICIENT TABLE

	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08	.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 = 16.01 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 6.37 ACRES

LEGEND

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CULVERT PIPE CHECKS

///

TEMPORARY DITCH CHECKS

⊠

INLET PROTECTION

—●—

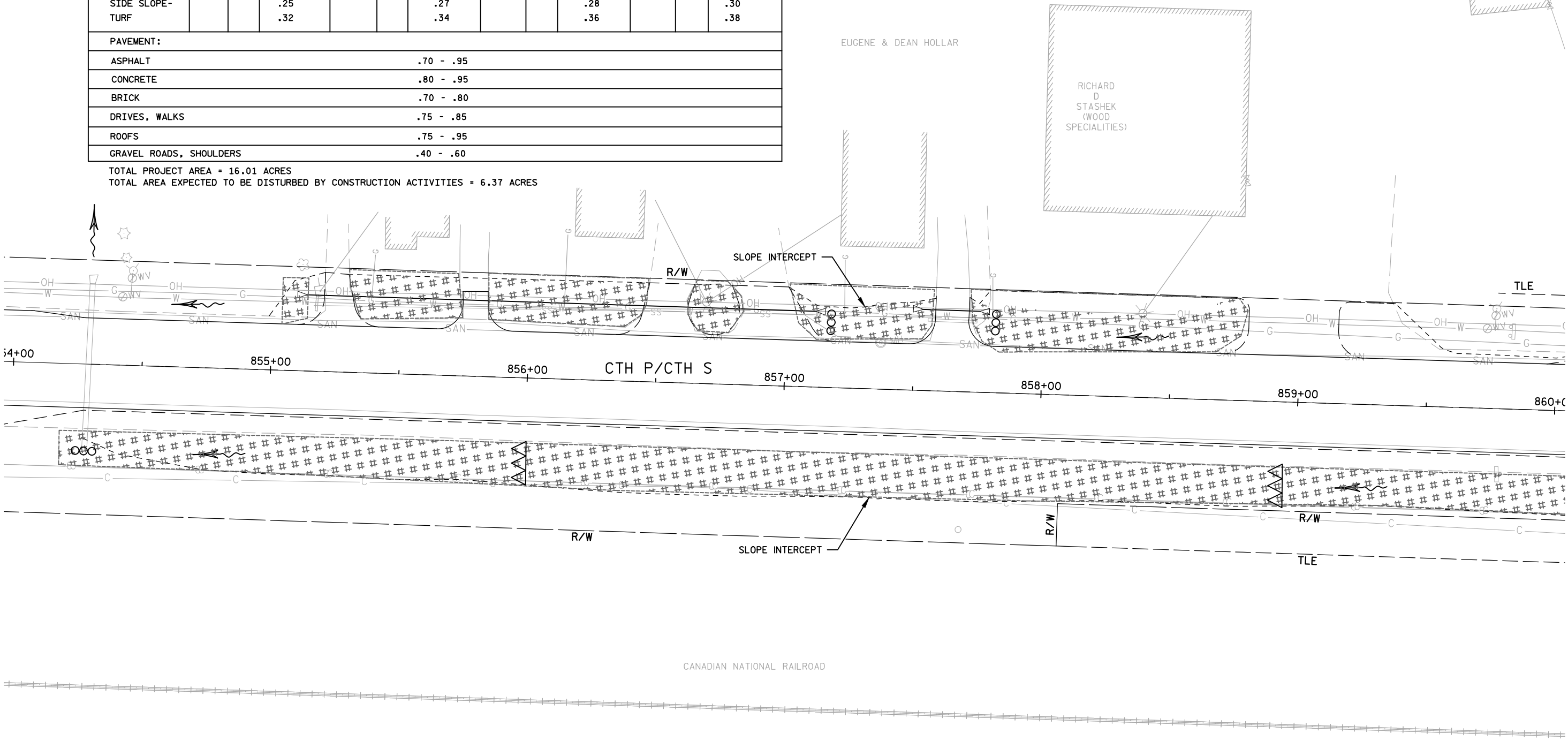
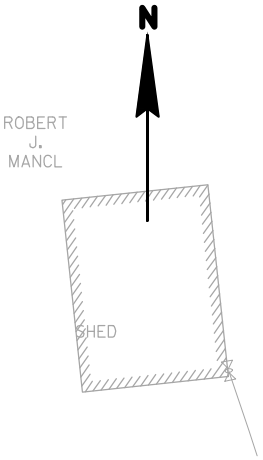
SILT FENCE

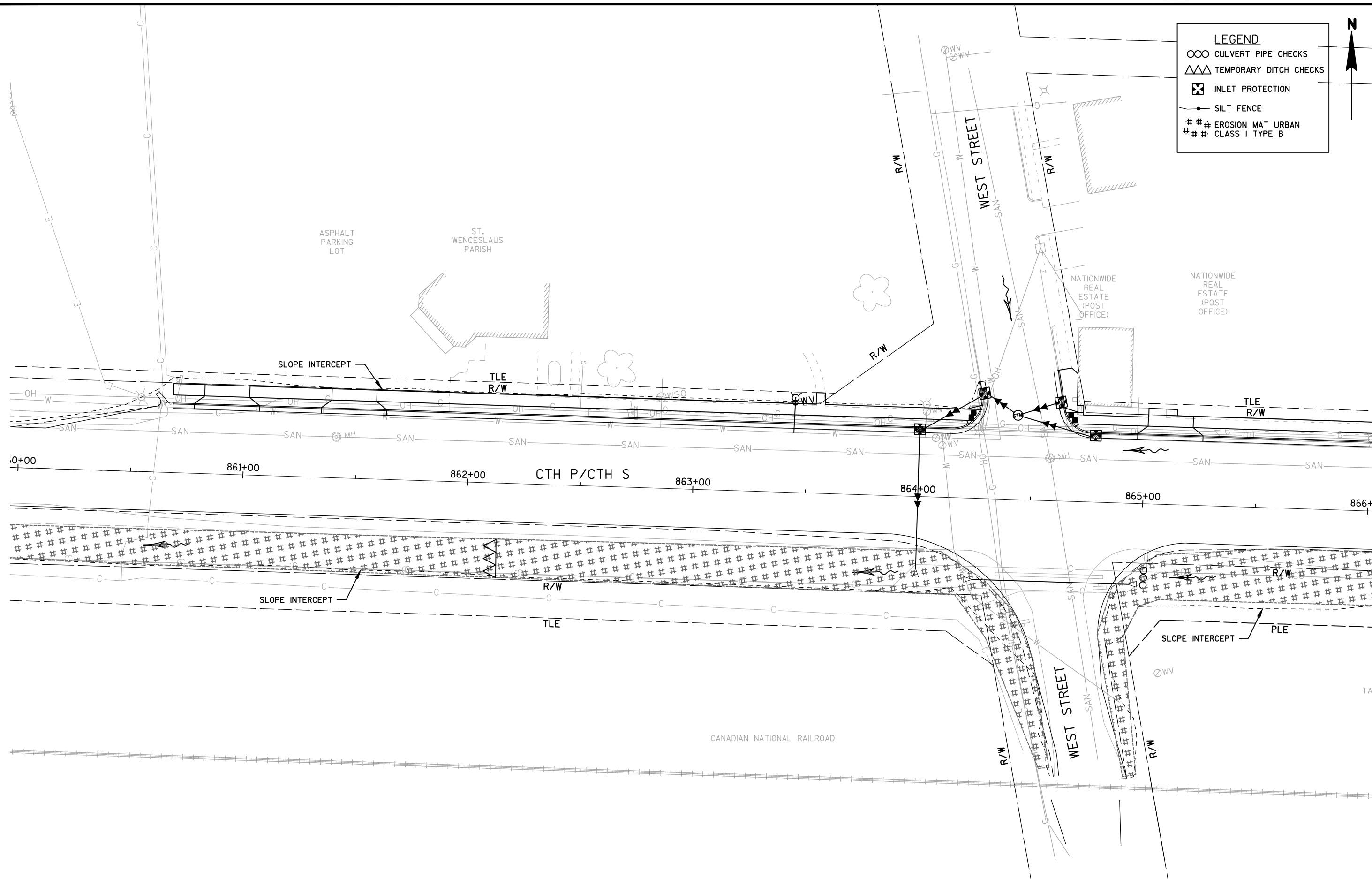
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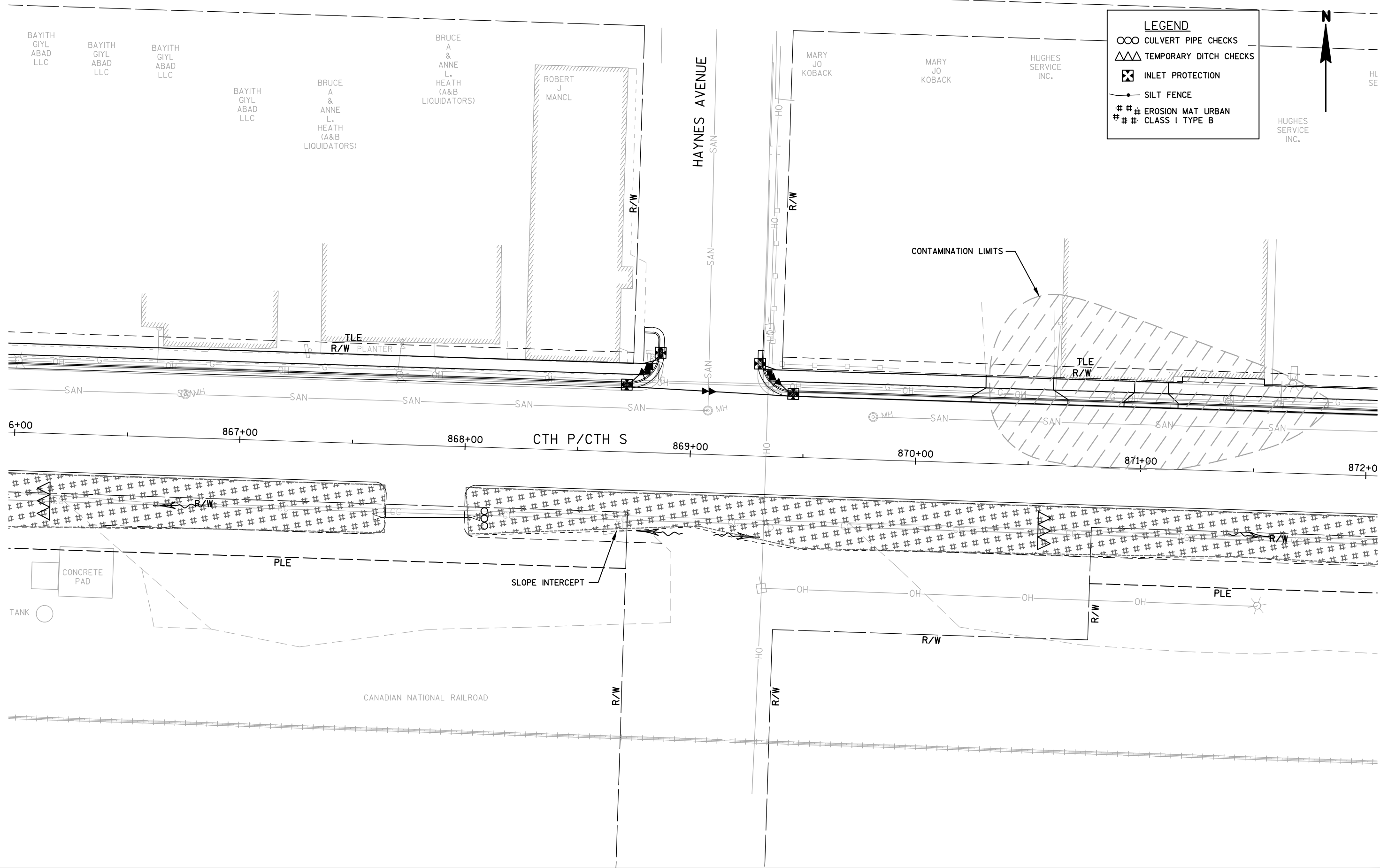
EROSION MAT URBAN

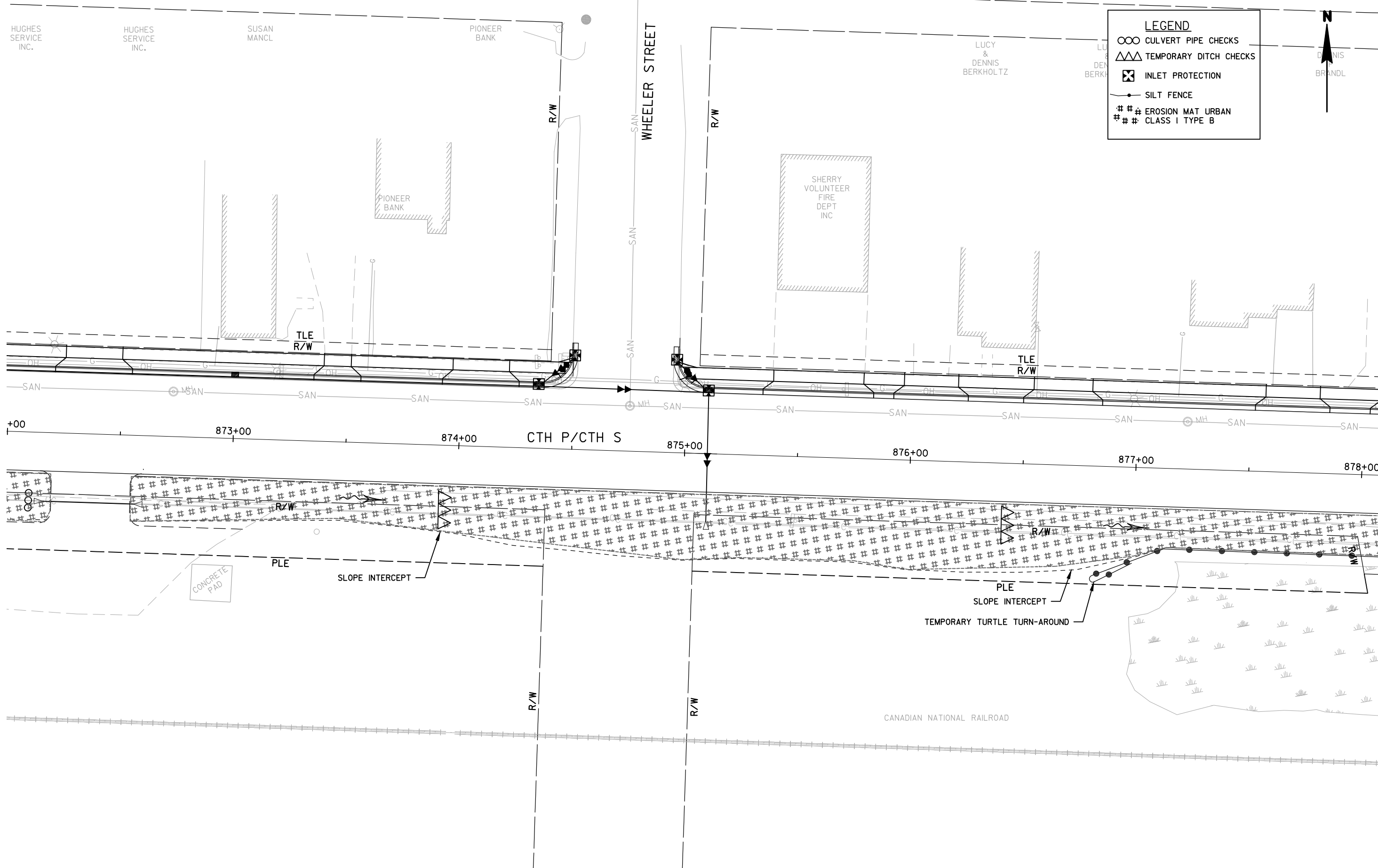
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CLASS I TYPE B









DUSTIN
&
CHRISTINA
ALBERT

LEGEND

ooo

CULVERT PIPE CHECKS

△△△

TEMPORARY DITCH CHECKS

⊠

INLET PROTECTION

—●—

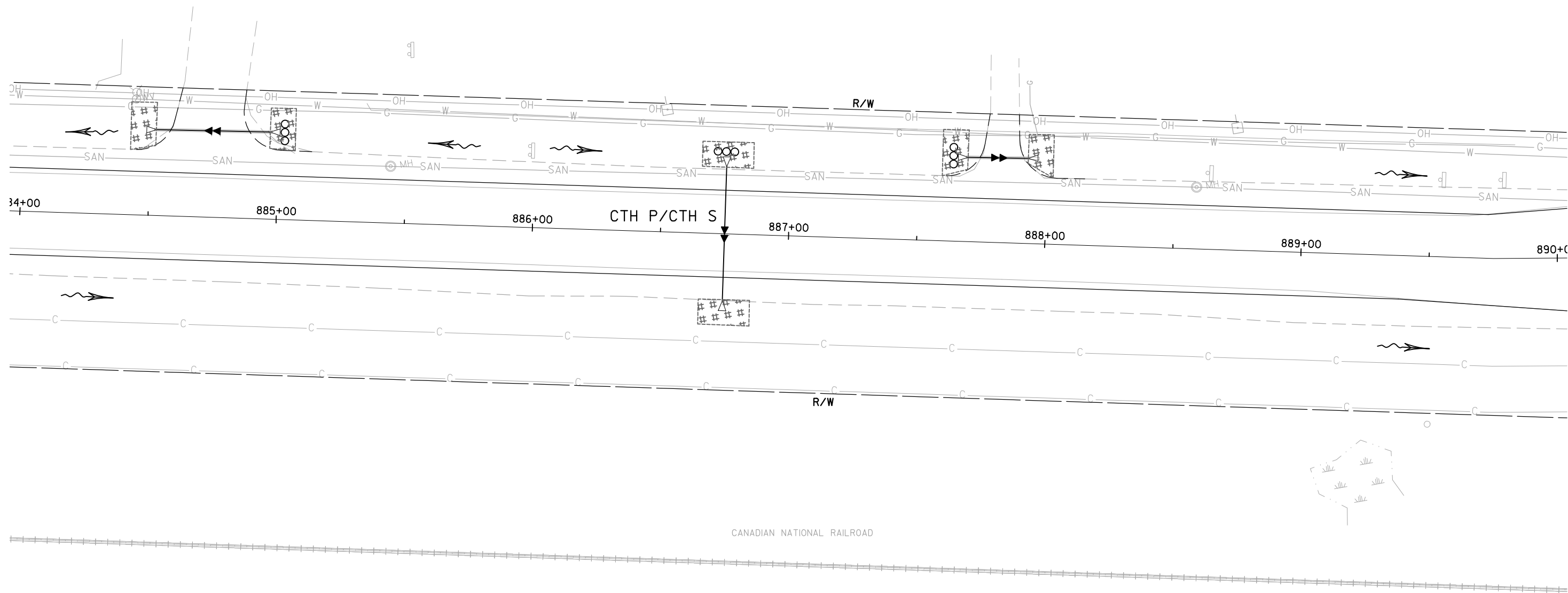
SILT FENCE

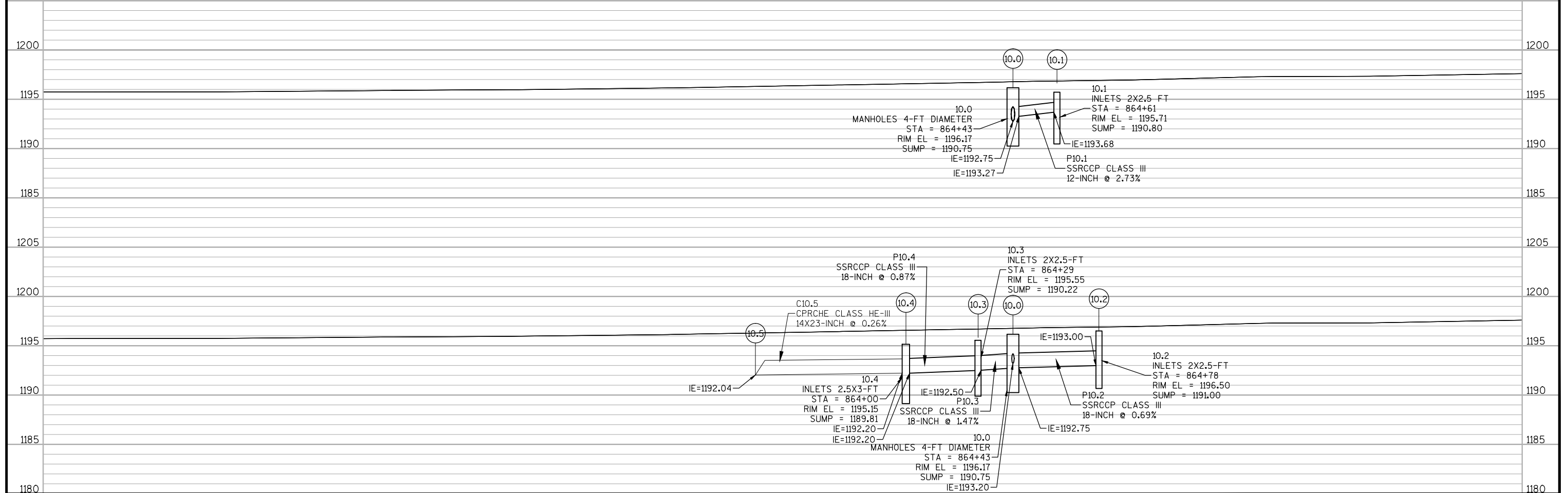
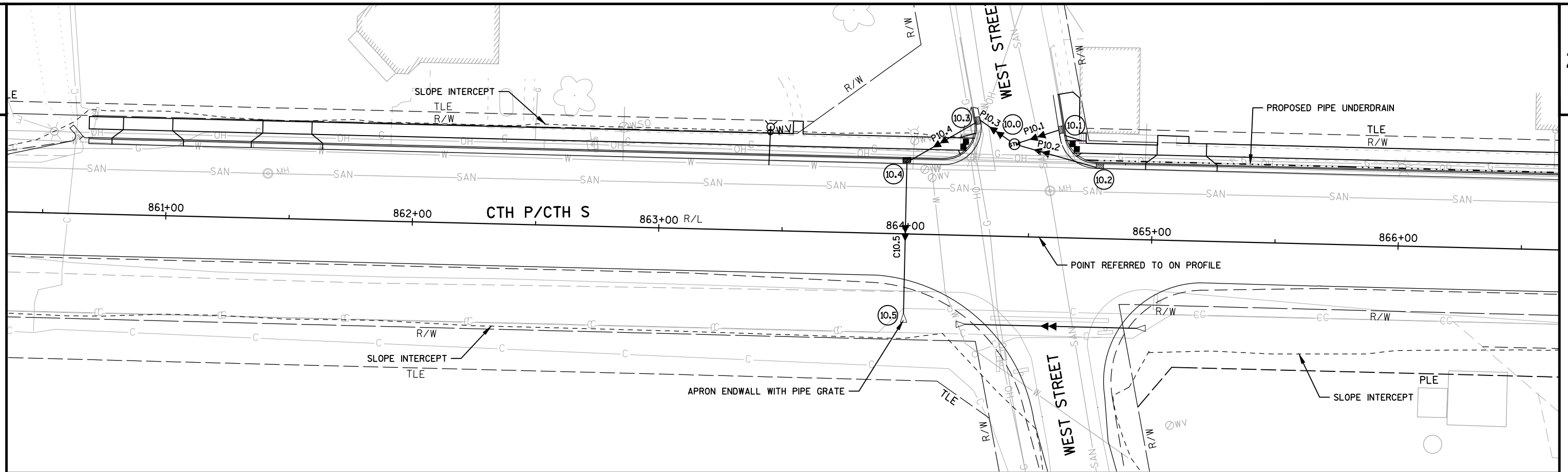
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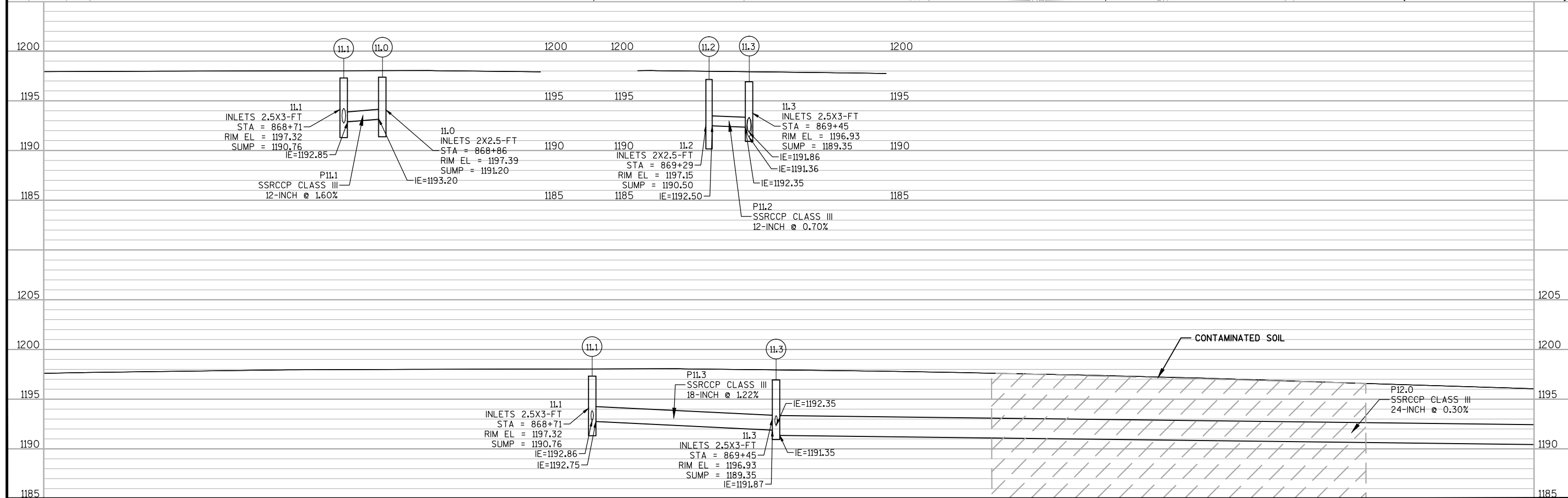
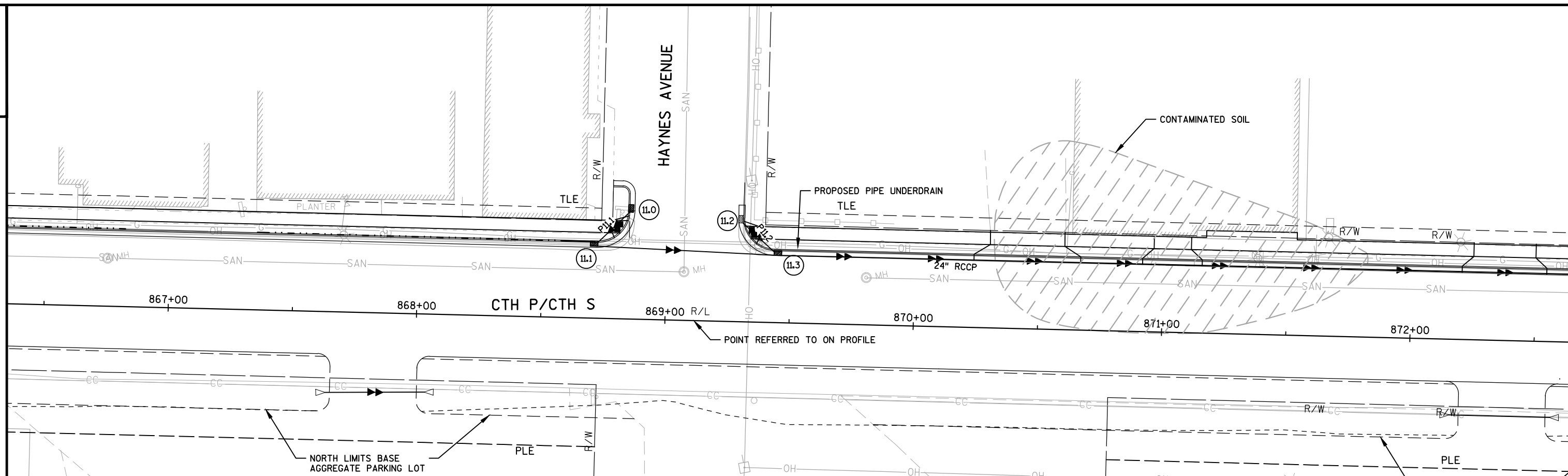
EROSION MAT URBAN

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CLASS I TYPE B







PROJECT NO:6350-07-78

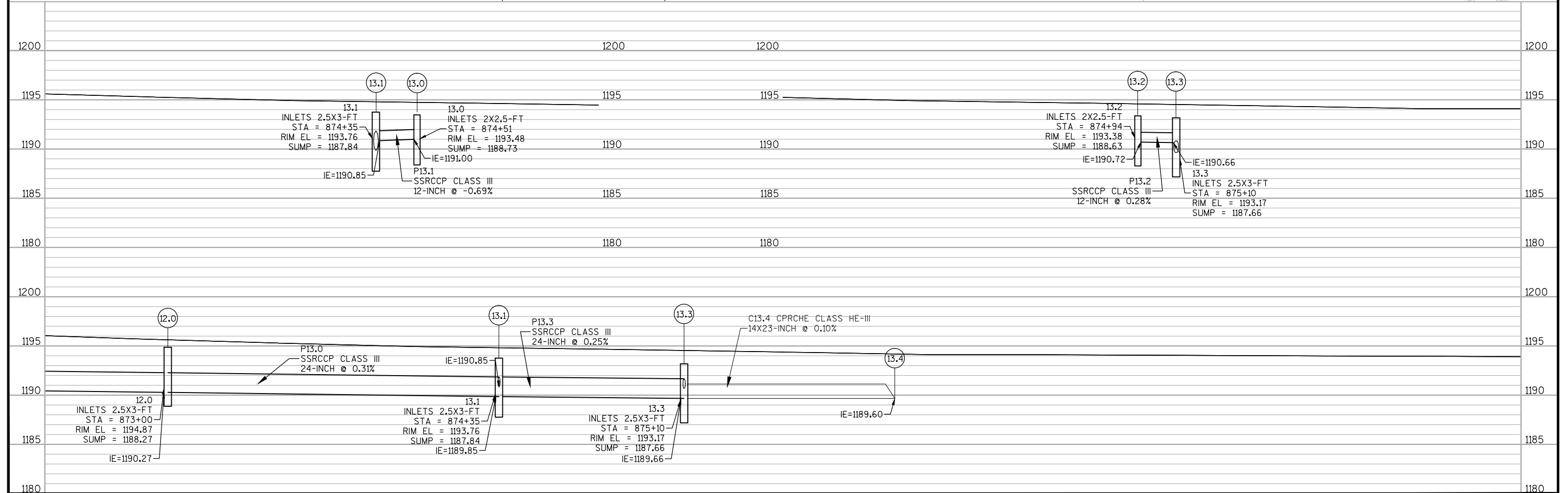
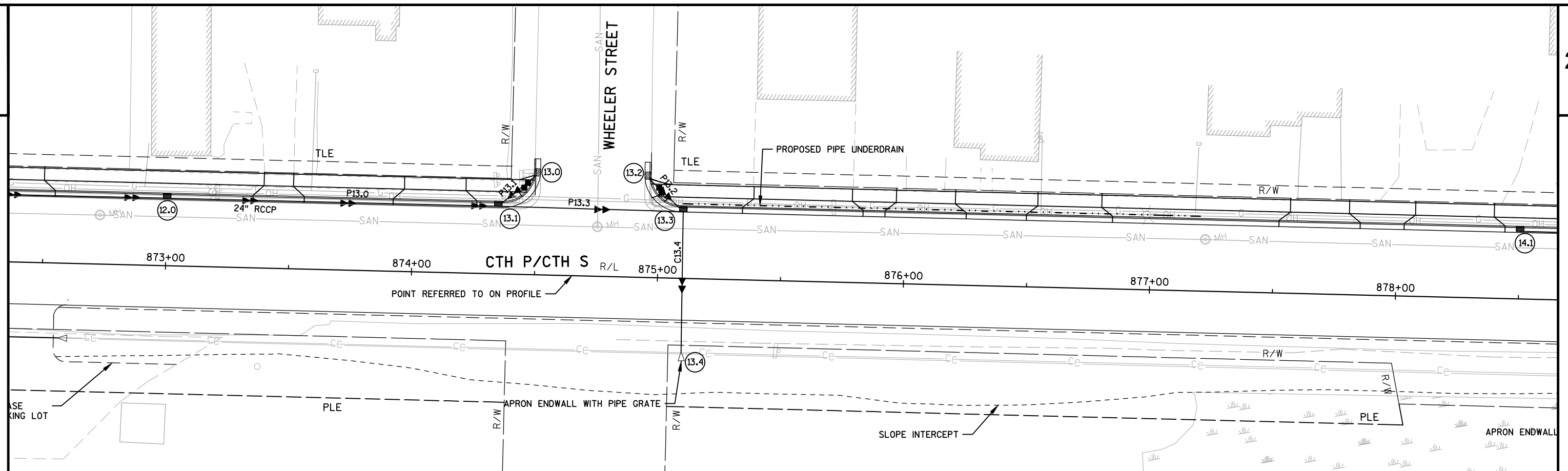
HWY:CTH P

COUNTY:WOOD

STORM SEWER PLAN

SHEET

E



PROJECT NO:6350-07-78

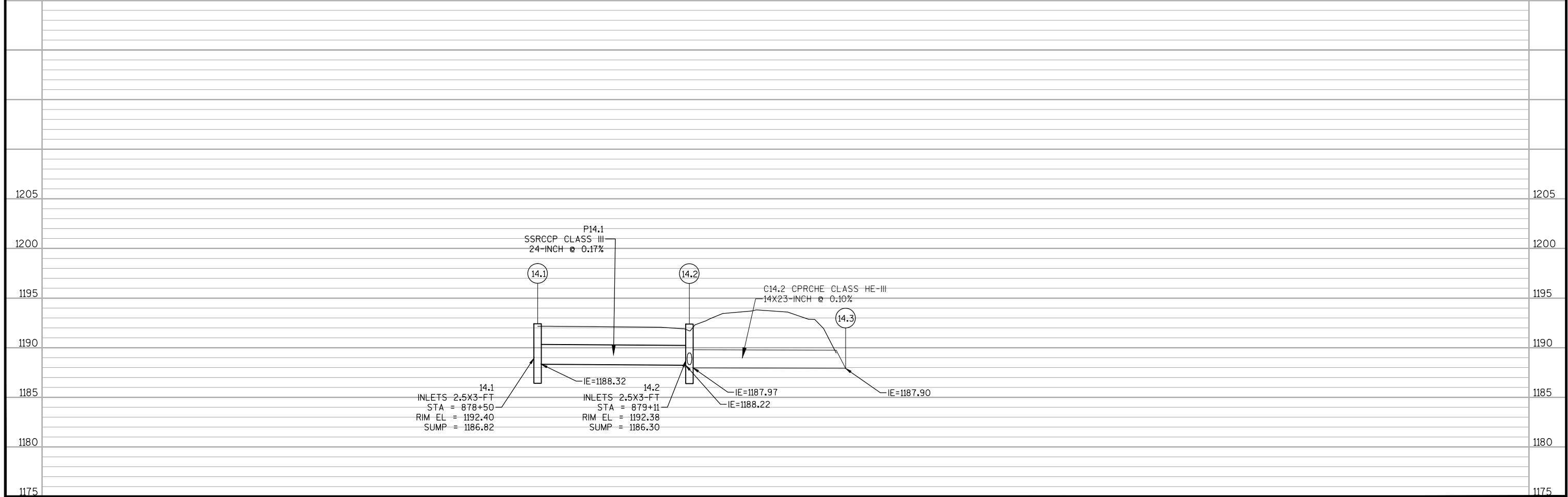
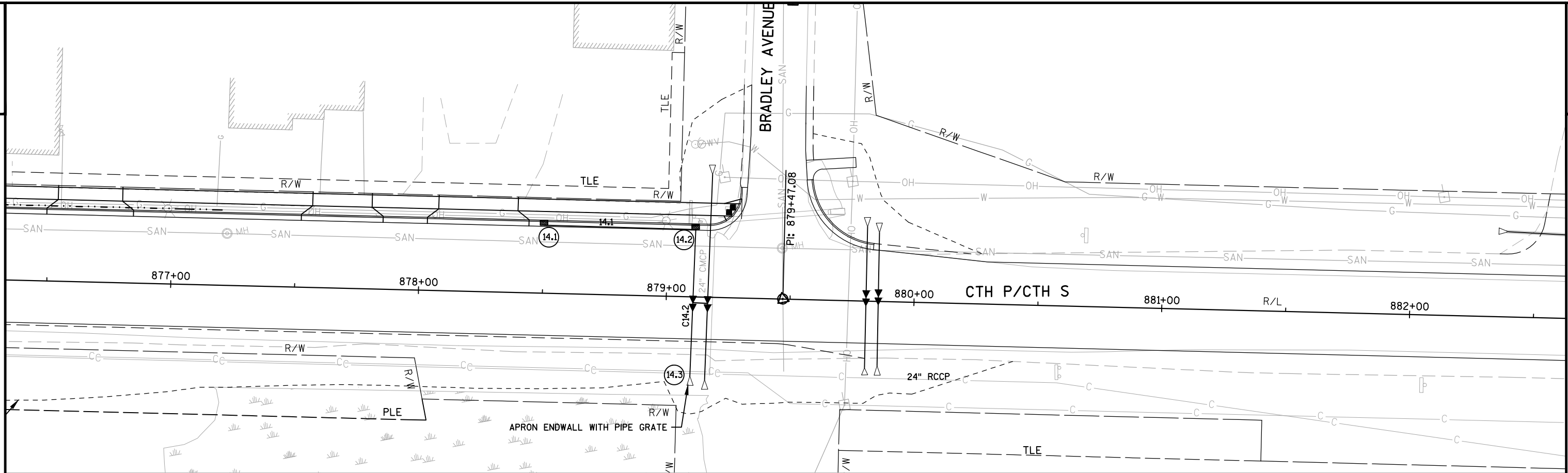
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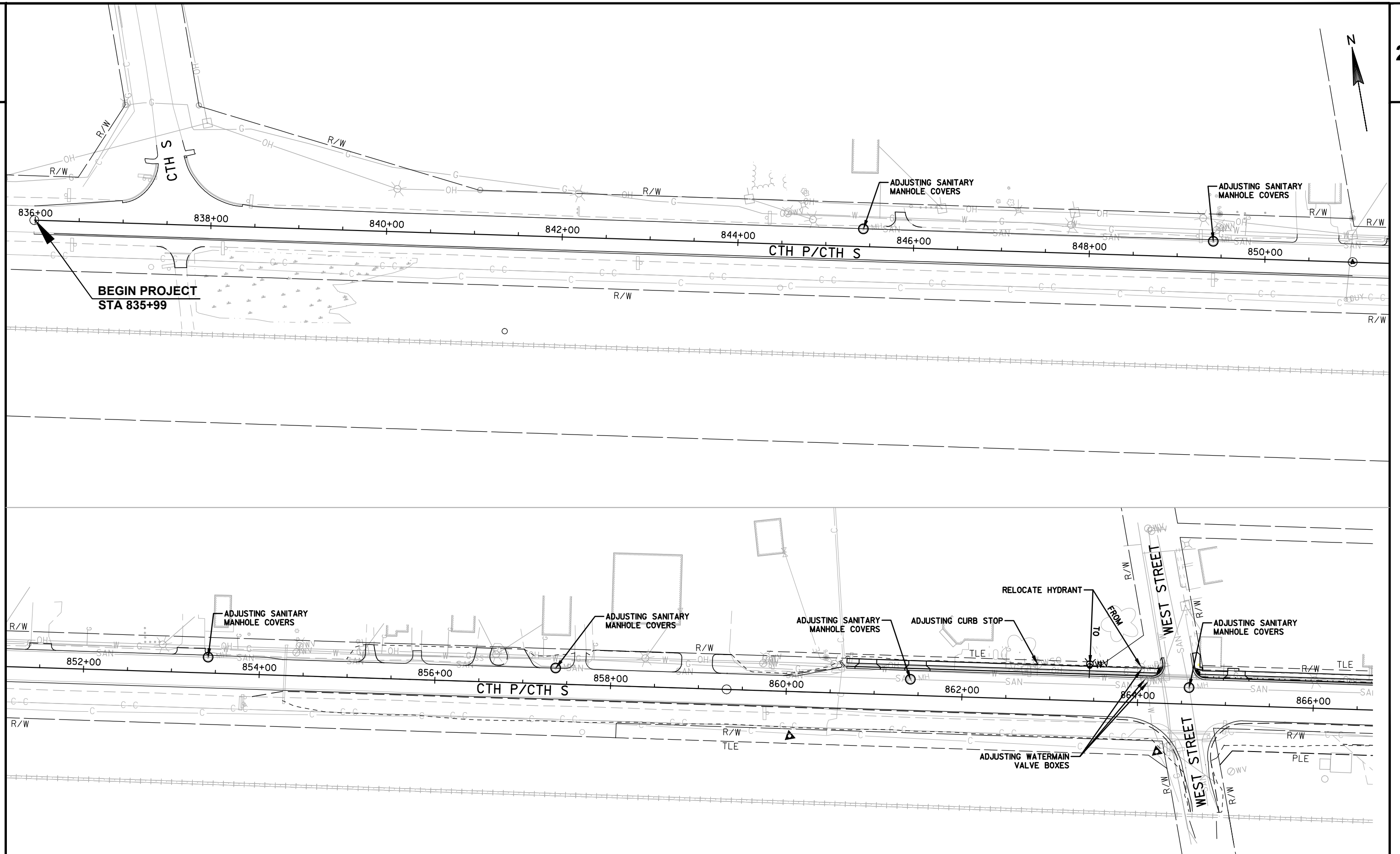
COUNTY:WOOD

STORM SEWER PLAN

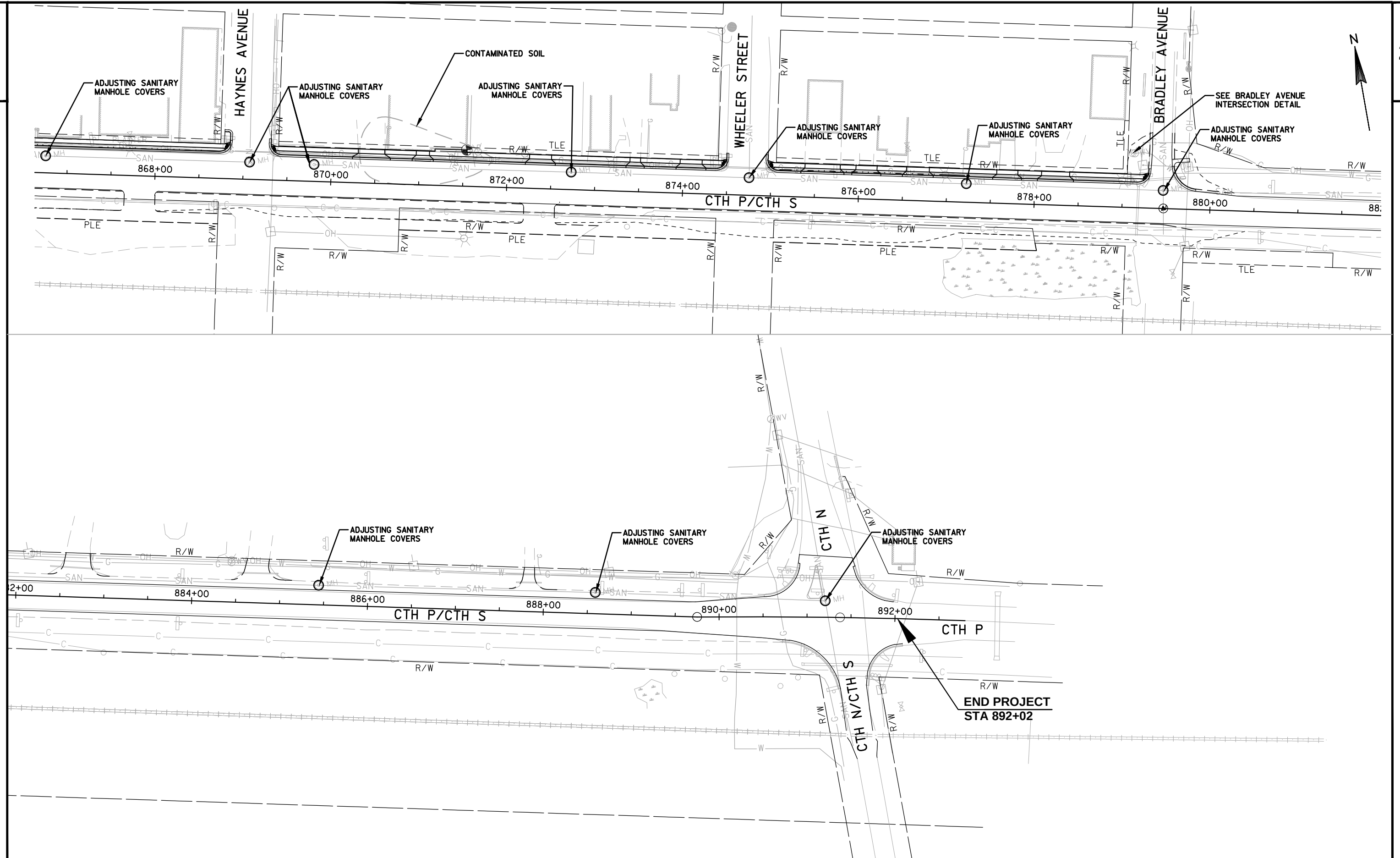
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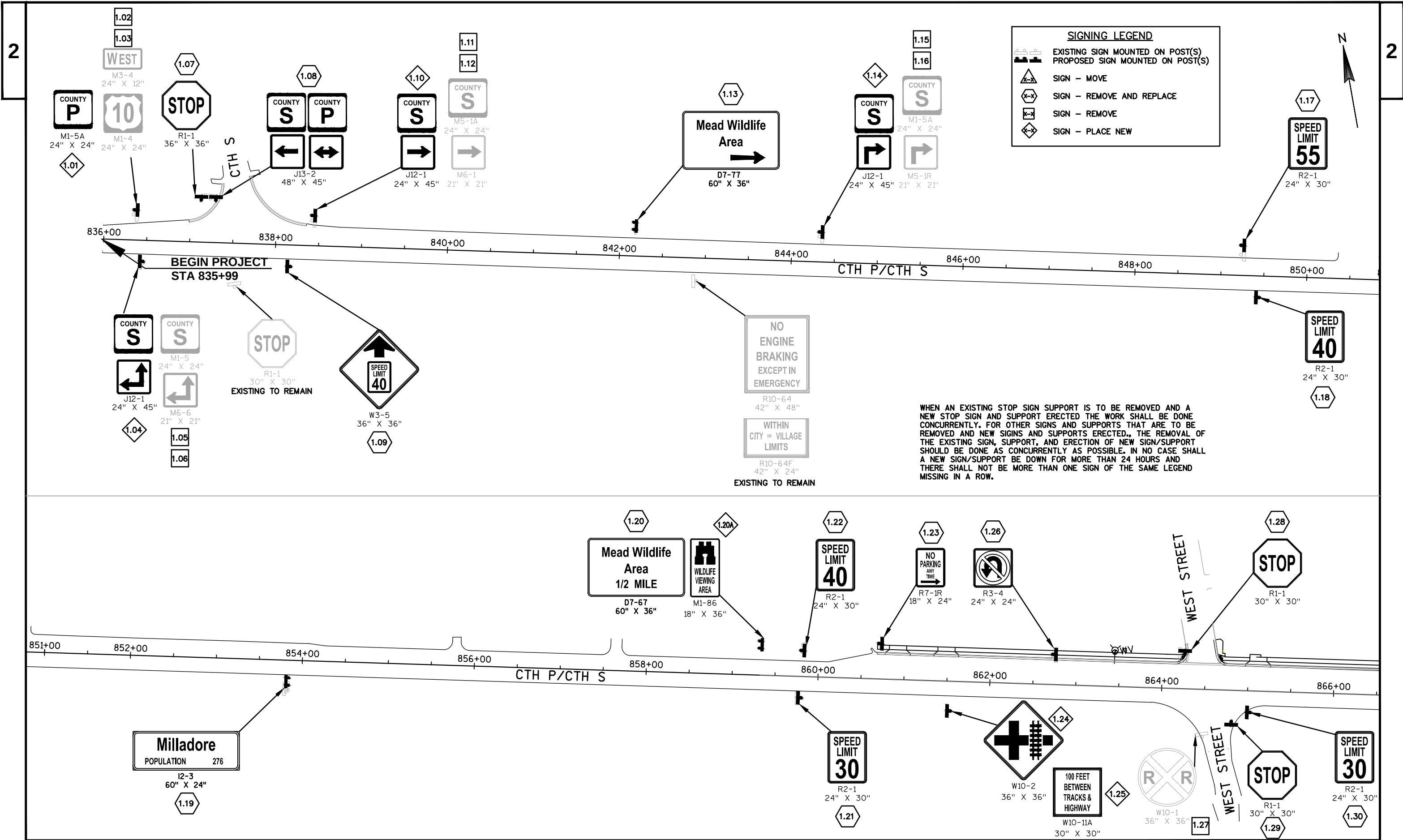
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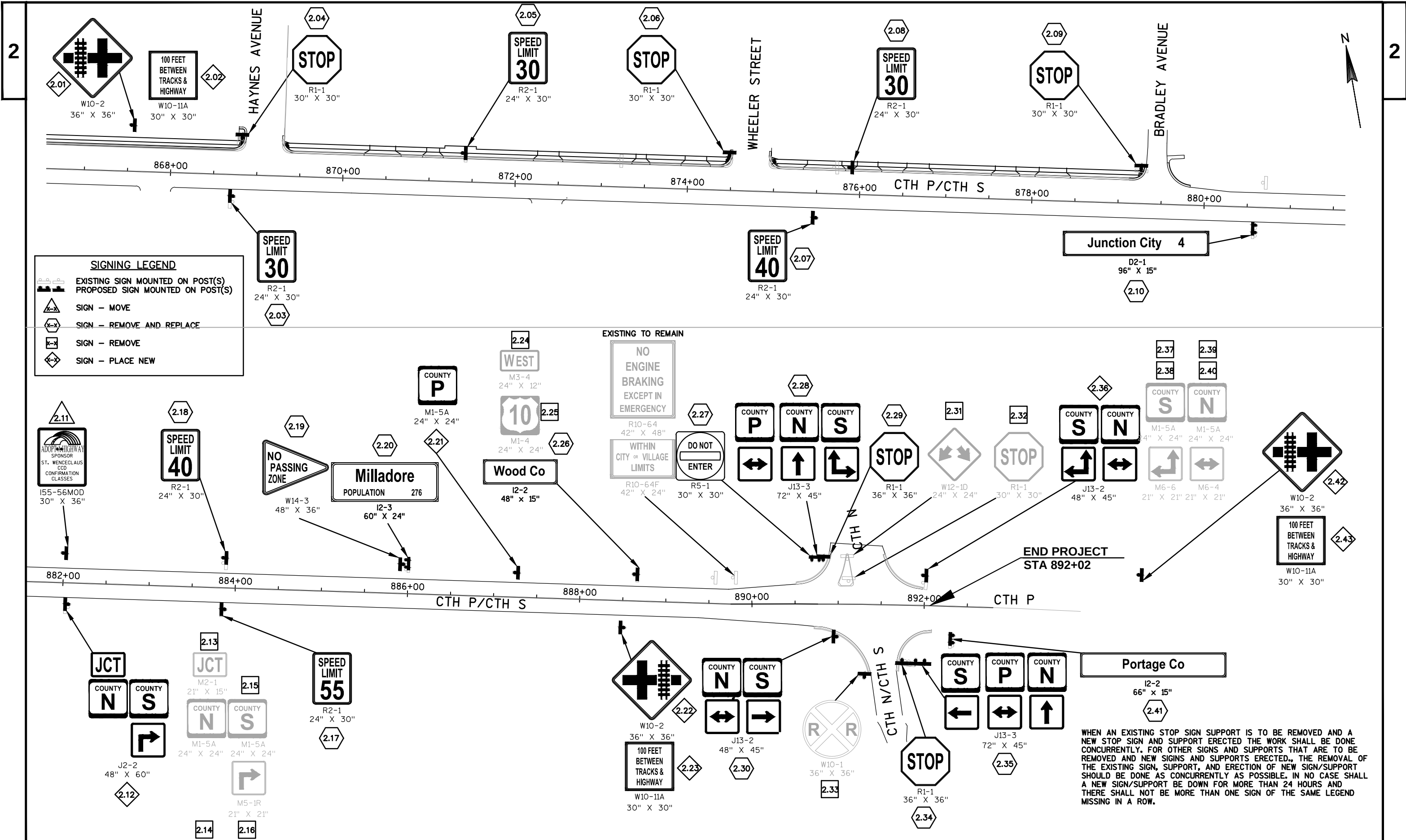




PROJECT NO:6350-07-79	HWY:CTH P	COUNTY:WOOD	UTILITY PLAN	SHEET	E
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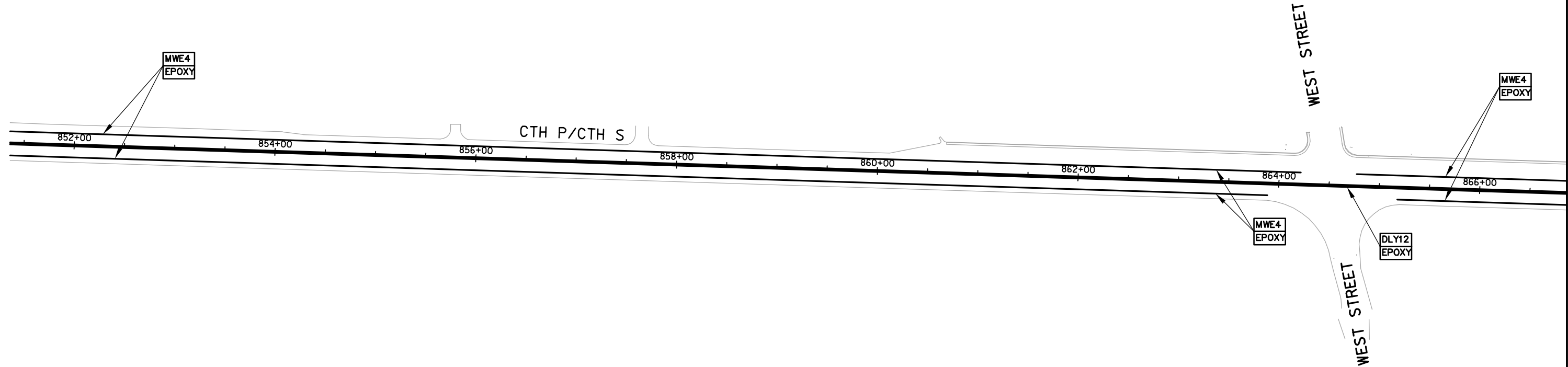
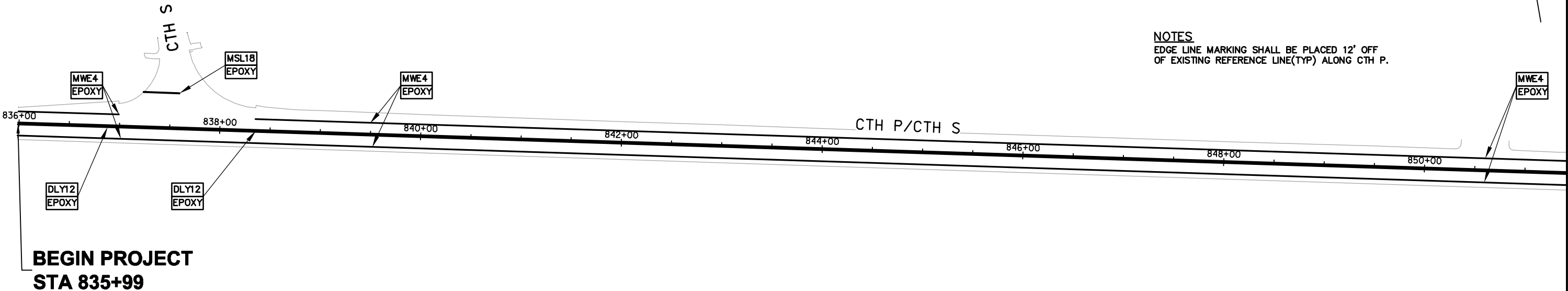




PAVEMENT MARKINGS LEGEND

- [DLY12] PAVEMENT MARKING EPOXY 4-INCH (YELLOW, NO PASSING)
- [MWE4] PAVEMENT MARKING EPOXY 4-INCH (WHITE)
- [MSL18] PAVEMENT MARKING STOP LINE EPOXY 18-INCH (WHITE)
- [EPOXY] EPOXY

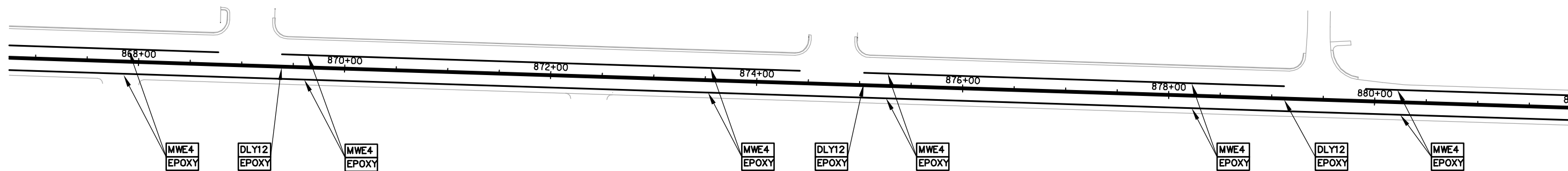
NOTES
EDGE LINE MARKING SHALL BE PLACED 12' OFF
OF EXISTING REFERENCE LINE(TYP) ALONG CTH P.



HAYNES AVENUE

WHEELER STREET

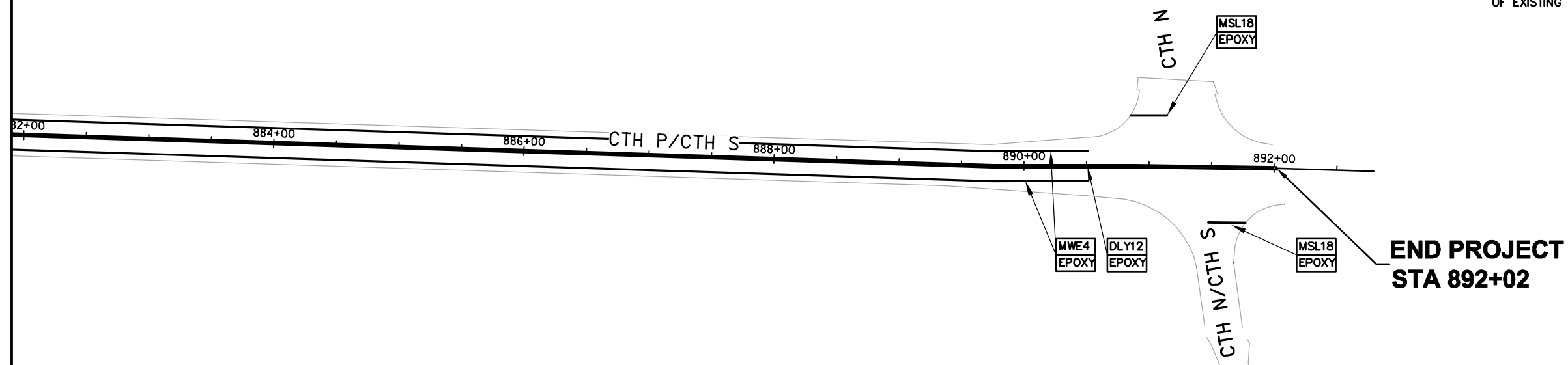
BRADLEY AVENUE

**PAVEMENT MARKINGS LEGEND**

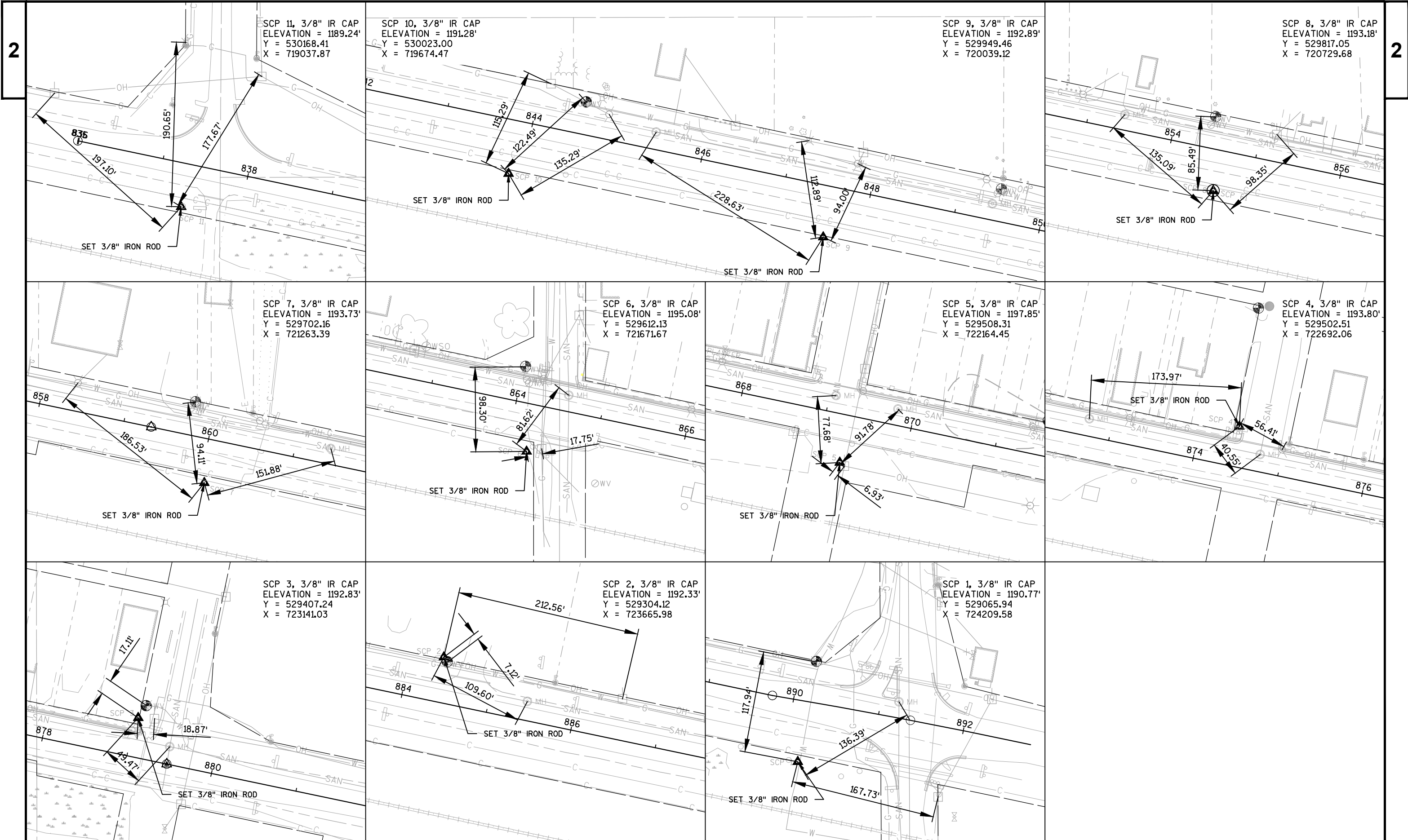
DLY12	PAVEMENT MARKING EPOXY 4-INCH (YELLOW, NO PASSING)
MWE4	PAVEMENT MARKING EPOXY 4-INCH (WHITE)
MSL18	PAVEMENT MARKING STOP LINE EPOXY 18-INCH (WHITE)
EPOXY	EPOXY

NOTES

EDGE LINE MARKING SHALL BE PLACED 12' OFF
OF EXISTING REFERENCE LINE(TYP) ALONG CTH P.







DATE 08NOV12		E S T I M A T E O F Q U A N T I T I E S				6350-07-79 QUANTITY
LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	6350-07-78 QUANTITY	
0010	203.0100	REMOVING SMALL PIPE CULVERTS	EACH	9.000	9.000	
0020	204.0100	REMOVING PAVEMENT	SY	290.000	290.000	
0030	204.0110	REMOVING ASPHALTIC SURFACE	SY	4,920.000	4,920.000	
0040	204.0115	REMOVING ASPHALTIC SURFACE BUTT JOINTS	SY	113.000	113.000	
0050	204.0150	REMOVING CURB & GUTTER	LF	1,900.000	1,900.000	
0060	204.0155	REMOVING CONCRETE SIDEWALK	SY	765.000	765.000	
0070	205.0100	EXCAVATION COMMON	CY	10,225.000	10,225.000	
0080	205.0501.S	EXCAVATION, HAULING, AND DISPOSAL OF PETROLEUM CONTAMINATED SOIL	TON	250.000	250.000	
0090	209.0100	BACKFILL GRANULAR	CY	4,955.000	4,955.000	
0100	213.0100	FINISHING ROADWAY (PROJECT) 01. 6350-07-78	EACH	1.000	1.000	
0110	305.0110	BASE AGGREGATE DENSE 3/4-INCH	TON	530.000	530.000	
0120	305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	1,690.000	1,690.000	
0130	305.0500	SHAPING SHOULDERS	STA	67.000	67.000	
0140	310.0110	BASE AGGREGATE OPEN GRADED	TON	340.000	340.000	
0150	350.0145	SUBBASE 12-INCH	SY	2,465.000	2,465.000	
0160	415.0060	CONCRETE PAVEMENT 6-INCH	SY	560.000	560.000	
0170	416.0160	CONCRETE DRIVEWAY 6-INCH	SY	320.000	320.000	
0180	455.0105	ASPHALTIC MATERIAL PG58-28	TON	204.000	204.000	
0190	455.0605	TACK COAT	GAL	775.000	775.000	
0200	460.1101	HMA PAVEMENT TYPE E-1	TON	3,730.000	3,730.000	
0210	460.2000	INCENTIVE DENSITY HMA PAVEMENT	DOL	2,390.000	2,390.000	
0220	465.0110	ASPHALTIC SURFACE PATCHING	TON	10.000	10.000	
0230	465.0120	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES	TON	50.000	50.000	
0240	465.0315	ASPHALTIC FLUMES	SY	27.000	27.000	
0250	490.0205	SALVAGED ASPHALTIC PAVEMENT MILLING	TON	2,395.000	2,395.000	
0260	520.7000	CLEANING CULVERT PIPES	EACH	1.000	1.000	
0270	522.0118	CULVERT PIPE REINFORCED CONCRETE CLASS III 18-INCH	LF	556.000	556.000	
0280	522.0124	CULVERT PIPE REINFORCED CONCRETE CLASS III 24-INCH	LF	301.000	301.000	
0290	522.1018	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH	EACH	20.000	20.000	
0300	522.1024	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH	EACH	10.000	10.000	
0310	523.0114	CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III 14X23-INCH	LF	183.000	183.000	
0320	523.0514	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 14X23-INCH	EACH	3.000	3.000	
0330	601.0411	CONCRETE CURB & GUTTER 30-INCH TYPE D	LF	1,945.000	1,945.000	
0340	602.0415	CONCRETE SIDEWALK 6-INCH	SF	7,160.000	7,160.000	
0350	602.0505	CURB RAMP DETECTABLE WARNING FIELD YELLOW	SF	56.000	56.000	
0360	608.0312	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 12-INCH	LF	99.000	99.000	
0370	608.0318	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 18-INCH	LF	160.000	160.000	
0380	608.0324	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 24-INCH	LF	627.000	627.000	
0390	611.0535	MANHOLE COVERS TYPE J-SPECIAL	EACH	1.000	1.000	
0400	611.0615	INLET COVERS TYPE F	EACH	15.000	15.000	
0410	611.2004	MANHOLES 4-FT DIAMETER	EACH	1.000	1.000	

DATE 08NOV12		E S T I M A T E O F Q U A N T I T I E S				
LINE					6350-07-78	6350-07-79
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY	QUANTITY
0420	611.3225	INLETS 2X2.5-FT	EACH	7.000	7.000	
0430	611.3253	INLETS 2.5X3-FT	EACH	8.000	8.000	
0440	611.8120.S	COVER PLATES TEMPORARY	EACH	32.000	16.000	16.000
0450	611.9800.S	PIPE GRATES	EACH	3.000	3.000	
0460	612.0106	PIPE UNDERDRAIN 6-INCH	LF	810.000	810.000	
0470	619.1000	MOBILIZATION	EACH	1.000	1.000	
0480	624.0100	WATER	MGAL	32.000	32.000	
0490	625.0100	TOPSOIL	SY	8,155.000	8,155.000	
0500	627.0200	MULCHING	SY	2,000.000	2,000.000	
0510	628.1104	EROSION BALES	EACH	20.000	20.000	
0520	628.1504	SILT FENCE	LF	390.000	390.000	
0530	628.1520	SILT FENCE MAINTENANCE	LF	390.000	390.000	
0540	628.1905	MOBILIZATIONS EROSION CONTROL	EACH	5.000	5.000	
0550	628.1910	MOBILIZATIONS EMERGENCY EROSION CONTROL	EACH	5.000	5.000	
0560	628.2008	EROSION MAT URBAN CLASS I TYPE B	SY	8,155.000	8,155.000	
0570	628.7020	INLET PROTECTION TYPE D	EACH	10.000	10.000	
0580	628.7504	TEMPORARY DITCH CHECKS	LF	144.000	144.000	
0590	628.7555	CULVERT PIPE CHECKS	EACH	34.000	34.000	
0600	629.0210	FERTILIZER TYPE B	CWT	6.500	6.500	
0610	630.0140	SEEDING MIXTURE NO. 40	LB	150.000	150.000	
0620	633.5200	MARKERS CULVERT END	EACH	15.000	15.000	
0630	634.0416	POSTS WOOD 4X4-INCH X 16-FT	EACH	53.000	53.000	
0640	637.0202	SIGNS REFLECTIVE TYPE II	SF	419.350	419.350	
0650	638.2102	MOVING SIGNS TYPE II	EACH	1.000	1.000	
0660	638.2602	REMOVING SIGNS TYPE II	EACH	58.000	58.000	
0670	638.3000	REMOVING SMALL SIGN SUPPORTS	EACH	54.000	54.000	
0680	642.5001	FIELD OFFICE TYPE B	EACH	1.000	1.000	
0690	643.0100	TRAFFIC CONTROL (PROJECT) 01. 6350-07-78	EACH	1.000	1.000	
0700	643.0300	TRAFFIC CONTROL DRUMS	DAY	8,450.000	8,450.000	
0710	643.0420	TRAFFIC CONTROL BARRICADES TYPE III	DAY	260.000	260.000	
0720	643.0705	TRAFFIC CONTROL WARNING LIGHTS TYPE A	DAY	260.000	260.000	
0730	643.0900	TRAFFIC CONTROL SIGNS	DAY	1,755.000	1,755.000	
0740	645.0111	GEOTEXTILE FABRIC TYPE DF SCHEDULE A	SY	365.000	365.000	
0750	646.0106	PAVEMENT MARKING EPOXY 4-INCH	LF	21,600.000	21,600.000	
0760	647.0566	PAVEMENT MARKING STOP LINE EPOXY 18-INCH	LF	95.000	95.000	
0770	649.0100	TEMPORARY PAVEMENT MARKING 4-INCH	LF	11,210.000	11,210.000	
0780	650.4000	CONSTRUCTION STAKING STORM SEWER	EACH	16.000	16.000	
0790	650.5000	CONSTRUCTION STAKING BASE	LF	5,600.000	5,600.000	
0800	650.5500	CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER	LF	1,945.000	1,945.000	
0810	650.6000	CONSTRUCTION STAKING PIPE CULVERTS	EACH	11.000	11.000	
0820	650.8000	CONSTRUCTION STAKING RESURFACING REFERENCE	LF	5,600.000	5,600.000	
0830	650.9910	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) 01. 6350-07-78	LS	1.000	1.000	
0840	650.9920	CONSTRUCTION STAKING SLOPE STAKES	LF	2,275.000	2,275.000	
0850	690.0150	SAWING ASPHALT	LF	4,620.000	4,620.000	
0860	690.0250	SAWING CONCRETE	LF	110.000	110.000	
0870	715.0415	INCENTIVE STRENGTH CONCRETE PAVEMENT	DOL	500.000	500.000	
0880	SPV.0060	SPECIAL 01. RELOCATE HYDRANT	EACH	1.000		1.000
0890	SPV.0060	SPECIAL 02. ADJUSTING WATERMAIN VALVE BOXES	EACH	3.000		3.000
0900	SPV.0060	SPECIAL 03. ADJUSTING SANITARY MANHOLE COVERS	EACH	16.000		16.000

DATE 08NOV12			E S T I M A T E O F Q U A N T I T I E S			
LINE					6350-07-78	6350-07-79
NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	QUANTITY	QUANTITY
0910	SPV.0060	SPECIAL 04. ADJUSTING CURB STOP	EACH	1.000		1.000
0920	SPV.0105	SPECIAL 01. REMOVING STAIRS	LS	1.000	1.000	
0930	SPV.0120	SPECIAL 01. WATER FOR SEEDED AREAS	MGAL	185.000	185.000	

3

203.0100 REMOVING SMALL PIPE CULVERTS			
STATION	LOCATION	EACH	COMMENT
837+65	RT	1	12-INCH
845+85	RT	1	18-INCH
856+20	LT	1	12-INCH
857+65	LT	1	12-INCH
864+50	RT	1	18-INCH
879+15	LT, RT	1	24-INCH
882+71	LT	1	12-INCH
884+77	LT	1	12-INCH
887+82	LT	1	12-INCH
TOTAL		9	

204.0100 REMOVING PAVEMENT					
STATION	TO	STATION	LOCATION	SY	COMMENT
864+68	-	865+00	LT	12	TERRACE
867+71	-	868+81	LT	37	TERRACE
869+40	-	872+50	LT	115	TERRACE
872+40	-	-	LT	26	DRIVEWAY
876+05	-	-	LT	23	DRIVEWAY
876+60	-	-	LT	25	DRIVEWAY
877+70	-	-	LT	22	DRIVEWAY
878+50	-	-	LT	30	DRIVEWAY
TOTAL				290	

204.0110 REMOVING ASPHALTIC SURFACE					
STATION	TO	STATION	LOCATION	SY	COMMENT
860+30	-	864+25	RT	210	MAINLINE SHOULDER
860+65	-	879+15	LT	535	MAINLINE SHOULDER
863+47	-	864+50	LT, RT	505	CULVERT CROSSING
864+00	-	865+00	RT	120	WEST STREET
865+00	-	881+75	RT	1,255	MAINLINE SHOULDER
865+31	-	867+71	LT	75	TERRACE
872+50	-	879+12	LT	165	TERRACE
874+60	-	875+60	LT, RT	485	CULVERT CROSSING
878+60	-	880+40	LT, RT	800	CULVERT CROSSING
883+25	-	884+25	LT, RT	350	CULVERT CROSSING
886+20	-	887+20	LT, RT	350	CULVERT CROSSING
891+10	-	-	LT	70	CTH N ISLAND
TOTAL				4,920	

204.0150 REMOVING CURB & GUTTER					
STATION	TO	STATION	LOCATION	LF	COMMENT
860+68	-	868+80	LT	830	MAINLINE
869+31	-	874+50	LT	545	MAINLINE
874+96	-	879+12	LT	430	MAINLINE
891+10	-	-	LT	95	CTH N ISLAND
TOTAL				1,900	
NOTE: ALL ITEMS AND QUANTITIES ON THIS SHEET ARE CATEGORY 0010 UNLESS OTHERWISE NOTED					

PROJECT NO:6350-07-78	HWY:CTH P	COUNTY:WOOD	MISCELLANEOUS QUANTITIES	SHEET	E
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204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS			
STATION	LOCATION	SY	COMMENT
835+99	C/L	7	MAINLINE
837+67	LT	7	CTH S
864+51	LT	7	WEST STREET
864+51	RT	20	WEST STREET
869+08	LT	12	HAYNES AVENUE
874+73	LT	11	WHEELER AVENUE
879+44	LT	5	BRADLEY AVENUE
891+36	LT	14	CTH N
891+36	RT	19	CTH N/CTH S
892+02	C/L	11	MAINLINE
TOTAL		113	

204.0155 REMOVING CONCRETE SIDEWALK				
STATION	TO	STATION	LOCATION	SY
862+50	-	864+28	LT	100
864+51	-	868+84	LT	235
869+31	-	872+30	LT	165
872+50	-	874+50	LT	115
875+00	-	876+00	LT	55
876+80	-	877+57	LT	44
877+80	-	878+08	LT	16
878+39	-	879+09	LT	35
TOTAL				765

EARTHWORK SUMMARY TABLE											
Division	From/To Station	Location	205.0100 Excavation Common (1)		Salvaged/Unusable Pavement Material (4)	Available Material (5)	Unexpanded Fill	Expanded Fill (6)	Mass Ordinate (7)	209.0100 Backfill Granular (8)	Comment:
			Cut (2)	EBS Excavation (3)							
			CY	CY				CY			
1	837+58 - 879+85	CTH P	5,115	0	0	5,115	244	305	4,810	0	Intersection
2	10+45 - 10+99	Bradley Avenue	20	0	0	20	0.8	1	19	0	Intersection
3	50+20 - 50+98	West Street	135	0	0	135	10	13	122	0	Intersection
A	864+00	Mainline Culverts	700	0	0	700	700	875	-175	700	Culvert Crossing
B	875+10	Mainline Culverts	680	0	0	680	680	850	-170	680	Culvert Crossing
C	879+11, 879+17, 879+81, 879+85	Mainline Culverts	2,275	0	0	2,275	2,275	2,844	-569	2,275	Culvert Crossing
D	883+75	Mainline Culverts	700	0	0	700	700	875	-175	700	Culvert Crossing
E	886+75	Mainline Culverts	600	0	0	600	600	750	-150	600	Culvert Crossing
Subtotal			10,225	0	4,955						

- 1) Excavation Common is the sum of the Cut and EBS Excavation columns. Item No. 205.0100
- 2) Salvaged/Unsuable Pavement Material is included in Cut.
- 3) EBS Excavation to be backfilled with Select Borrow material. Note: this is designers choice, can be backfilled with Borrow, or Cut as well.
- 4) Salvaged/Unusable Pavement Material
- 5) Available Material = Cut - Salvaged/Unusuable Pavement Material
- 6) Expanded Fill. Factor = 1.25
- 7) 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.
- 8) If existing material is determined unsuitable by the engineer, place backfill granular as shown in the plans.

205.0501.S EXCAVATION, HAULING, AND DISPOSAL OF PETROLEUM CONTAMINATED SOIL

STATION	TO	STATION	LOCATION	TON
874+97	-	879+09	LT	250
TOTAL				250

BASE AGGREGATE								
			305.0110	305.0120	310.0110	350.0145		
			DENSE 3/4-INCH	DENSE 1 1/4-INCH	OPEN GRADED	SUBBASE 12-INCH		
STATION	TO	STATON	LOCATION	TON	TON	TON	SY	COMMENT
835+99	-	860+68	RT	125	-	-	-	SHAPING SHOULDERS
835+99	-	854+27	LT	35	-	-	-	SHAPING SHOULDERS
880+00	-	892+02	RT	55	-	-	-	SHAPING SHOULDERS
880+00	-	892+02	LT	55	-	-	-	SHAPING SHOULDERS
860+68	-	86465	LT	-	175	-	-	CURB & GUTTER
868+75	-	875+10	LT	-	400	-	-	CURB & GUTTER
864+00	-	-	LT, RT	-	225	-	505	CULVERT CROSSING
875+10	-	-	LT, RT	-	215	-	460	CULVERT CROSSING
879+10	-	-	LT, RT	-	355	-	800	CULVERT CROSSING
883+75	-	-	LT, RT	-	160	-	350	CULVERT CROSSING
886+75	-	-	LT, RT	-	160	-	350	CULVERT CROSSING
864+65	-	868+75	LT	-	-	170	-	EDGEDRAIN
875+10	-	879+10	LT	-	-	170	-	EDGEDRAIN
DRIVEWAYS			LT,RT	260	-	-	-	-
TOTAL				530	1,690	340	2,465	

305.0500 SHAPING SHOULDERS				
STATION	TO	STATION	LOCATION	STA
835+99	-	854+27	LT	18
835+99	-	860+68	RT	25
880+00	-	892+02	LT	12
880+00	-	892+02	RT	12
TOTAL				67

415.0060 CONCRETE PAVEMENT 6-INCH					
STATION	TO	STATION	LOCATION	SY *	COMMENT
860+68	-	864+21	LT	120	CATEGORY 0030
864+69	-	868+79	LT	150	CATEGORY 0030
869+36	-	874+44	LT	190	CATEGORY 0030
875+02	-	879+23	LT	100	CATEGORY 0030
* TERRACE AREA			TOTAL	560	

416.0160 CONCRETE DRIVEWAY 6-INCH			
STATION	LOCATION	SY	COMMENT
860+92	LT	22	COMMERCIAL
861+45	LT	22	COMMERCIAL
865+10	LT	25	COMMERCIAL
870+45	LT	35	COMMERCIAL
872+40	LT	27	PRIVATE
873+45	LT	14	PRIVATE
874+10	LT	27	PRIVATE
875+60	LT	40	COMMERCIAL
876+08	LT	25	PRIVATE
876+67	LT	26	PRIVATE
877+65	LT	25	PRIVATE
878+20	LT	32	PRIVATE
TOTAL		320	

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

ASPHALTIC MATERIAL AND HMA PAVEMENT											
455.0105 ASPHALTIC MATERIAL PG58-28				455.0605 TACK COAT	460.1101 HMA PAVEMENT TYPE E-1	465.0110 ASPHALTIC SURFACE PATCHING	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES	465.0315 ASPHALTIC FLUMES			
STATION	TO	STATION	LOCATION	TON	GAL	TON	TON	TON	SY	COMMENT	
835+99	-	860+68	LT	6	15	110	-	-	-	SHOULDER PAVEMENT	
835+99	-	863+47	C/L	75	290	1,370	-	-	-	MAINLINE	
864+50	-	874+60	C/L	35	130	625	-	-	-	MAINLINE	
875+60	-	878+60	C/L	11	40	190	-	-	-	MAINLINE	
880+40	-	883+25	C/L	7	30	130	-	-	-	MAINLINE	
884+25	-	886+20	C/L	5	20	90	-	-	-	MAINLINE	
887+20	-	892+02	C/L	20	80	370	-	-	-	MAINLINE	
860+68	-	879+15	LT	10	30	185	-	-	-	CURB & GUTTER IMPROVEMENTS	
863+47	-	865+00	RT	9	35	170	-	-	-	CULVERT & WEST STREET	
874+60	-	875+60	C/L	6	25	115	-	-	-	CULVERT CROSSING	
878+60	-	880+40	C/L	10	40	185	-	-	-	CULVERT CROSSING	
883+25	-	884+25	C/L	5	20	95	-	-	-	CULVERT CROSSING	
886+20	-	887+20	C/L	5	20	95	-	-	-	CULVERT CROSSING	
837+23	-	-	LT	-	-	-	-	-	7	CTH S	
837+79	-	-	LT	-	-	-	-	-	7	CTH S	
860+60	-	-	LT	-	-	-	-	-	2	AT DRAINAGE SWALE	
876+60	-	-	LT	-	-	-	-	-	11	BRADLEY AVENUE	
PROJECT: 6350-07-78 (UNDISTRIBUTED)				-	-	-	10	50	-	-	
TOTAL				204	775	3,730	10	50	27		

490.0205 SALVAGED ASPHALTIC PAVEMENT MILLING					
STATION	TO	STATION	LOCATION	TON	COMMENT
835+99	-	863+47	LT, RT	1,140	MAINLINE
864+50	-	874+60	LT, RT	590	MAINLINE
875+60	-	878+60	LT, RT	160	MAINLINE
880+40	-	883+25	LT, RT	110	MAINLINE
884+25	-	886+20	LT, RT	75	MAINLINE
887+20	-	892+02	LT, RT	320	MAINLINE
TOTAL				2,395	

602.0415 CONCRETE SIDEWALK 6-INCH				
STATION	TO	STATION	LOCATION	SF
862+50	-	879+40	LT	6,420
860+68	-	862+50	LT	740
TOTAL				7,160

PIPE UNDERDRAIN AND GEOTEXTILE FABRIC					
			612.0106	645.0111	
			PIPE UNDERDRAIN	GEOTEXTILE FABRIC	
			6-INCH	TYPE DF	
				SCHEDULE A	
STATION	TO	STATION	LOCATION	LF	SY
864+65	-	86875	LT	410	185
875+10	-	87910	LT	400	180
TOTAL				810	365

601.0411 CONCRETE CURB & GUTTER 30-INCH TYPE D				
STATION	TO	STATION	LOCATION	LF
860+68	-	864+26	LT	380
864+61	-	868+85	LT	460
869+31	-	874+50	LT	550
874+96	-	879+30	LT	490
879+56	-	879+83	LT	65
TOTAL				1,945

602.0505 CURB RAMP DETECTABLE WARNING FIELD YELLOW			
STATION	LOCATION	SF	COMMENT
864+27	LT	8	WEST STREET
864+67	LT	8	WEST STREET
868+82	LT	8	HAYNES AVENUE
869+32	LT	8	HAYNES AVENUE
874+47	LT	8	WHEELER STREET
874+98	LT	8	WHEELER STREET
879+26	LT	8	BRADLEY AVENUE
TOTAL		56	

WATER		
624.0100		SPV.0120.01
WATER		WATER FOR
		SEEDED AREAS
LOCATION	MGAL	MGAL
PROJECT	32	185
TOTAL	32	185

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

3

3

STORM SEWER																		
FROM STRUCTURE	FROM STRUCTURE STA/OFF	TO STRUCTURE	TO STRUCTURE STA/OFF	PIPE NO.	INLET ELEVATION	DISCHARGE ELEVATION	SUMP ELEVATION	SLOPE FT./FT.	RIM/GRATE ELEVATION	STORM SEWER PIPE REINFORCED			611.0535	611.0615	611.2004	611.3225	611.3253	611.8120.S
										CONCRETE CLASS III			MANHOLE	INLET	MANHOLES	INLETS	INLETS	COVER
										608.0312	608.0318	608.0324	COVERS	COVERS	4-FT DIAMETER	2X2.5-FT	2.5X3-FT	PLATES
										12-INCH	18-INCH	24-INCH	TYPE J-SPECIAL	TYPE F				TEMPORARY
										LF	LF	LF	EACH	EACH	EACH	EACG	EACG	EACH
10.4	864+00, 29' LT	10.5	864+00, 32' RT	C10.5	1192.20	1192.04	1190.20	0.0026	1195.53	-	-	-	-	1	-	-	1	1
10.3	864+29, 47' LT	10.4	864+00, 29' LT	P10.4	1192.50	1192.20	1190.50	0.0087	1195.83	-	33	-	-	1	-	1	-	1
10.0	864+43, 37' LT	10.3	864+30, 43' LT	P10.3	1192.75	1192.50	1190.75	0.0147	1196.17	-	17	-	1	-	1	-	-	1
10.1	864+61, 44' LT	10.0	864+43, 37' LT	P10.1	1193.68	1193.27	1191.71	0.0273	1196.63	19	-	-	-	1	-	1	-	1
10.2	864+78, 28' LT	10.0	864+43, 37' LT	P10.2	1193.00	1192.75	1191.00	0.0069	1196.5	-	36	-	-	1	-	1	-	1
11.1	868+71, 29' LT	11.3	869+45, 27' LT	P11.3	1192.75	1191.87	1190.76	0.0122	1197.32	-	74	-	-	1	-	-	1	1
11.0	868+86, 44' LT	11.1	868+71, 29' LT	P11.1	1193.20	1192.85	1191.20	0.0160	1197.39	20	-	-	-	1	-	1	-	1
11.2	869+29, 41' LT	11.3	869+45, 27' LT	P11.2	1192.50	1192.35	1190.50	0.0070	1197.15	20	-	-	-	1	-	1	-	1
11.3	869+45, 27' LT	12.0	873+00, 27' LT	P12.0	1191.35	1190.27	1189.35	0.0030	1196.93	-	-	355	-	1	-	-	1	1
12.0	873+00, 27' LT	13.1	874+35, 27' LT	P13.0	1190.27	1189.85	1188.27	0.0031	1194.87	-	-	135	-	1	-	-	1	1
13.1	874+35, 27' LT	13.3	875+10, 27' LT	P13.3	1189.85	1189.66	1187.85	0.0025	1193.77	-	-	75	-	1	-	-	1	1
13.0	874+21, 42' LT	13.1	874+35, 27' LT	P13.1	1191.00	1190.85	1189.00	0.0069	1193.75	20	-	-	-	1	-	1	-	1
13.2	874+94, 41' LT	13.3	875+10, 27' LT	P13.2	1190.72	1190.66	1188.72	0.0028	1193.47	20	-	-	-	1	-	1	-	1
13.3	875+10, 27' LT	13.4	875+10, 32' LT	P13.4	1189.66	1189.60	1187.66	0.0010	1193.17	-	-	-	-	1	-	-	1	1
14.1	878+50, 27' LT	14.2	879+11, 27' LT	P14.1	1188.32	1188.30	1186.82	0.0030	1182.4	-	-	62	-	1	-	-	1	1
14.2	879+11, 27' LT	14.3	879+11, 33' RT	P14.2	1187.97	1187.90	1186.30	0.0010	1192.38	-	-	-	-	1	-	-	1	1
TOTAL										99	160	627	1	15	1	7	8	16

CULVERTS

		520.7000	522.0118	522.0124	522.1018	522.1024	523.0114	523.0514	633.5200	611.9800.S
		CLEANING	CULVERT PIPE	CULVERT PIPE	APRON ENDWALL FOR	APRON ENDWALL FOR	CULVERT PIPE	APRON ENDWALLS	MARKERS	PIPE
		CULVERT PIPES	REINFORCED CONCRETE	REINFORCED CONCRETE	CULVERT PIPE	CULVERT PIPE	REINFORCED CONCRETE	FOR CULVERT PIPE	CULVERT END	GRATES
			CLASS III 18-INCH	CLASS III 24-INCH	REINFORCED CONCRETE	REINFORCED CONCRETE	HORIZONTAL ELLIPTICAL	REINFORCED CONCRETE		
					18-INCH	24-INCH	CLASS HE-III	HORIZONTAL ELLIPTICAL		
							14X23-INCH	14X23-INCH		
STATION	LOCATION	EACH	LF	LF	EACH	EACH	LF	EACH	EACH	EACH
837+65	RT	-	32	-	2	-	-	-	-	-
845+85	LT	-	21	-	2	-	-	-	-	-
856+50	LT	-	199	-	2	-	-	-	-	-
857+65	LT	-	23	-	2	-	-	-	-	-
864+50	RT	-	75	-	2	-	-	-	-	-
867+83	RT	-	40	-	2	-	-	-	-	-
872+38	RT	-	41	-	2	-	-	-	-	-
882+71	LT	-	56	-	2	-	-	-	-	-
884+77	LT	-	45	-	2	-	-	-	-	-
887+82	LT	-	24	-	2	-	-	-	-	-
879+15	LT, RT	-	-	84	-	2	-	-	2	-
879+80	LT, RT	-	-	57	-	2	-	-	2	-
879+85	LT, RT	-	-	54	-	2	-	-	2	-
883+75	LT, RT	-	-	53	-	2	-	-	2	-
886+75	LT, RT	-	-	53	-	2	-	-	2	-
864+00	LT, RT	-	-	-	-	-	63	1	1	1
875+10	LT, RT	-	-	-	-	-	60	1	1	1
879+10	LT, RT	-	-	-	-	-	60	1	1	1
854+30	LT, RT	1	-	-	-	-	-	-	2	-
		1	556	301	20	10	183	3	15	3

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

PROJECT NO:6350-07-78

HWY:CTH P

COUNTY:WOOD

MISCELLANEOUS QUANTITIES

SHEET

E

3

3

EROSION CONTROL																	
		625.0100	627.0200	628.1104	628.1504	628.1520	628.1905	628.1910	628.2008	628.7020	628.7504	628.7555	629.0210	630.0140			
		TOPSOIL	MULCHING	EROSION BALES	SILT FENCE	SILT FENCE MAINTENANCE	MOBILIZATIONS	MOBILIZATIONS EMERGENCY	EROSION MAT URBAN CLASS I	INLET PROTECTION	TEMPORARY DITCH CHECKS	CULVERT PIPE CHECKS	FERTILIZER TYPE B	SEEDING MIXTURE NO. 40			
									TYPE B	TYPE D							
STATION	TO	STATION	LOCATION	SY	SY	EACH	LF	LF	EACH	EACH	SY	EA	LF	EACH	CWT	LB	
854+17	-	864+50	RT	1,930	-	-	-	-	-	-	1,930	-	-	-	1.3	35.0	
855+10	-	-	LT	20	-	-	-	-	-	-	20	-	-	-	0.1	0.5	
855+50	-	-	LT	80	-	-	-	-	-	-	80	-	-	-	0.1	1.5	
856+00	-	-	LT	115	-	-	-	-	-	-	115	-	-	-	0.1	2.0	
856+70	-	-	LT	40	-	-	-	-	-	-	40	-	-	-	0.1	1.0	
857+30	-	-	LT	80	-	-	-	-	-	-	80	-	-	-	0.1	1.5	
858+25	-	-	LT	185	-	-	-	-	-	-	185	-	-	-	0.2	3.5	
864+80	-	867+65	RT	760	-	-	-	-	-	-	760	-	-	-	0.5	14.0	
868+00	-	872+20	RT	1,005	-	-	-	-	-	-	1,005	-	-	-	0.6	18.0	
872+50	-	880+00	RT	1,855	-	-	-	-	-	-	1,855	-	-	-	1.2	33.5	
879+10	-	-	LT	130	-	-	-	-	-	-	130	-	-	-	0.1	2.5	
879+80	-	-	LT	110	-	-	-	-	-	-	110	-	-	-	0.1	2.0	
882+35	-	-	LT	25	-	-	-	-	-	-	25	-	-	-	0.1	0.5	
883+00	-	-	LT	20	-	-	-	-	-	-	20	-	-	-	0.1	0.5	
883+75	-	-	LT, RT	45	-	-	-	-	-	-	45	-	-	-	0.1	1.0	
884+50	-	-	LT	20	-	-	-	-	-	-	20	-	-	-	0.1	0.5	
885+00	-	-	LT	20	-	-	-	-	-	-	20	-	-	-	0.1	0.5	
886+75	-	-	LT, RT	45	-	-	-	-	-	-	45	-	-	-	0.1	1.0	
887+65	-	-	LT	20	-	-	-	-	-	-	20	-	-	-	0.1	0.5	
887+90	-	-	LT	20	-	-	-	-	-	-	20	-	-	-	0.1	0.5	
876+70	-	879+15	RT	-	-	-	-	-	-	-	-	-	-	-	-	-	
854+30	-	-	RT	-	-	-	-	-	-	-	-	-	-	3	-	-	
857+17	-	-	LT	-	-	-	-	-	-	-	-	-	-	2	-	-	
857+80	-	-	LT	-	-	-	-	-	-	-	-	-	-	2	-	-	
865+00	-	-	RT	-	-	-	-	-	-	-	-	-	-	2	-	-	
868+10	-	-	RT	-	-	-	-	-	-	-	-	-	-	2	-	-	
872+10	-	-	RT	-	-	-	-	-	-	-	-	-	-	2	-	-	
879+15	-	-	LT	-	-	-	-	-	-	-	-	-	-	3	-	-	
879+83	-	-	LT	-	-	-	-	-	-	-	-	-	-	6	-	-	
883+00	-	-	LT	-	-	-	-	-	-	-	-	-	-	2	-	-	
883+75	-	-	LT	-	-	-	-	-	-	-	-	-	-	3	-	-	
885+00	-	-	LT	-	-	-	-	-	-	-	-	-	-	2	-	-	
886+75	-	-	LT	-	-	-	-	-	-	-	-	-	-	3	-	-	
887+63	-	-	LT	-	-	-	-	-	-	-	-	-	-	2	-	-	
856+00	-	-	RT	-	-	-	-	-	-	-	-	-	18	-	-	-	
858+92	-	-	RT	-	-	-	-	-	-	-	-	-	18	-	-	-	
862+08	-	-	RT	-	-	-	-	-	-	-	-	-	18	-	-	-	
866+15	-	-	RT	-	-	-	-	-	-	-	-	-	18	-	-	-	
870+55	-	-	RT	-	-	-	-	-	-	-	-	-	18	-	-	-	
873+93	-	-	RT	-	-	-	-	-	-	-	-	-	18	-	-	-	
876+42	-	-	RT	-	-	-	-	-	-	-	-	-	18	-	-	-	
880+40	-	-	LT	-	-	-	-	-	-	-	-	-	18	-	-	-	
876+70	-	879+15	RT	-	-	-	310	310	-	-	-	-	-	-	-	-	
UNDISTRIBUTED*				1,630	2,000	20	80	80	5	5	1,630	10	-	-	1.2	29.5	
TOTAL				8,155	2,000	20	390	390	5	5	8,155	10	144	34	6.5	150	

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

PROJECT NO:6350-07-78

HWY:CTH P

COUNTY:WOOD

MISCELLANEOUS QUANTITIES

SHEET

E

SIGNING SCHEDULE (EAST BOUND)

										634.0416	637.0202	638.2102	638.2602	638.3000	
										POSTS WOOD	SIGNS	MOVING SIGNS	REMOVING	REMOVING	
										4X4-INCH	REFLECTIVE	TYPE II	SIGNS	SMALL SIGN	
										16-FT	TYPE II		TYPE II	SUPPORTS	
STATION	OFFSET	SIGN NO.	CODE NO.	DESCRIPTION	MESSAGE LINE 1	MESSAGE LINE 2	MESSAGE LINE 3	IN	X	IN	EACH*	SF	EACH	EACH	EACH
836+46	RT	1.04	J12-1	Route Turn WO Cardinal	County	S		24	X	45	1	7.50	-	-	-
836+46	RT	1.05	M1-5A	County Marker	S			24	X	24	-	-	-	1	1
836+46	RT	1.06	M6-6	Directional Arrow LAUA				21	X	21	-	-	-	1	-
838+18	RT	1.09	W3-5	Speed Limit Arrow	Speed	Limit	40	36	X	36	1	9.00	-	1	1
849+45	RT	1.18	R2-1	Speed Limit XX MPH	40			24	X	30	1	5.00	-	1	1
853+84	RT	1.19	I2-3	City Population	Milladore	Population 276		60	X	24	2	10.00	-	1	2
859+79	RT	1.21	R2-1	Speed Limit XX MPH	30			24	X	30	1	5.00	-	1	1
861+50	RT	1.24	W10-2	RR at Intersection Left/Right symbol				36	X	36	1	9.00	-	-	-
861+50	RT	1.25	W10-11A	XX Feet Between Tracks & Highway	100			30	X	30	-	6.25	-	-	-
864+49	RT	1.27	W10-1	Railroad Crossing				36	X	36	-	-	-	1	1
864+83	RT	1.29	R1-1	Stop				30	X	30	1	5.18	-	1	1
865+03	RT	1.30	R2-1	Speed Limit XX MPH	30			24	X	30	1	5.00	-	1	1
868+73	RT	2.03	R2-1	Speed Limit XX MPH	30			24	X	30	1	5.00	-	1	1
875+50	RT	2.07	R2-1	Speed Limit XX MPH	40			24	X	30	1	5.00	-	1	1
880+59	RT	2.10	D2-1	Destination/Distance	Junction City	4		96	X	15	2	10.00	-	1	2
882+07	RT	2.12	J2-2	Route Turn Assembly				48	X	57	1	19.00	-	-	-
882+07	RT	2.13	M2-1	Junction				21	X	15	-	-	-	1	-
882+07	RT	2.15	M1-5A	County Marker	N			24	X	24	-	-	-	1	1
882+07	RT	2.15	M1-5A	County Marker	S			24	X	24	-	-	-	1	-
882+07	RT	2.16	M5-1R	Advance Arrow RT Turn				21	X	21	-	-	-	1	-
883+88	RT	2.17	R2-1	Speed Limit XX MPH	55			24	X	30	1	5.00	-	1	1
888+50	RT	2.22	W10-2	RR at Intersection Left/Right symbol				36	X	36	1	9.00	-	-	-
888+50	RT	2.23	W10-11A	XX Feet Between Tracks & Highway	100			30	X	30	-	6.25	-	-	-
890+99	RT	2.30	J13-2	Directional WO Cardinal				48	X	45	1	15.00	-	1	1
891+30	RT	2.33	W10-1	Railroad Crossing				36	X	36	-	-	-	1	1
891+75	RT	2.34	R1-1	Stop				30	X	30	1	5.18	-	1	1
892+00	RT	2.35	J13-3	Directional WO Cardinal				72	X	45	2	22.50	-	1	2
892+33	RT	2.41	I2-2	County Line Name	Portage Co			66	X	15	2	6.88	-	1	2
SUBTOTAL EAST BOUND											22	170.74	0	22	22

SIGNING SCHEDULE (WEST BOUND)

										634.0416	637.0202	638.2102	638.2602	638.3000	
										POSTS WOOD	SIGNS	MOVING SIGNS	REMOVING	REMOVING	
										4X4-INCH	REFLECTIVE	TYPE II	SIGNS	SMALL SIGN	
										16-FT	TYPE II		TYPE II	SUPPORTS	
STATION	OFFSET	SIGN NO.	CODE NO.	DESCRIPTION	MESSAGE	MESSAGE	MESSAGE	SIZE			EACH*	SF	EACH	EACH	EACH
894+50	LT	2.42	W10-2	RR at Intersection Left/Right symbol				36	X	36	1	9.00	-	-	-
894+50	LT	2.43	W10-11A	XX Feet Between Tracks & Highway	100			30	X	30	-	6.25	-	-	-
891+98	LT	2.36	J13-2	Directional WO Cardinal				48	X	45	1	15.00	-	-	-
891+98	LT	2.37	M1-5A	County Marker	S			24	X	24	-	-	-	1	1
891+98	LT	2.38	M6-6	Directional Arrow [LA]				21	X	21	-	-	-	1	-
891+98	LT	2.39	M1-5A	County Marker	N			24	X	24	-	-	-	1	-
891+98	LT	2.40	M6-4	Directional Arrow [LT or RT]				21	X	21	-	-	-	1	-
891+12	LT	2.32	R1-1	Stop				30	X	30	-	-	-	1	1
891+10	LT	2.31	W12-1D	Double Arrow Down				24	X	24	-	-	-	1	1
890+74	LT	2.29	R1-1	Stop				30	X	30	1	5.18	-	1	1
890+74	LT	2.28	J13-3	Directional WO Cardinal				72	X	45	2	22.50	-	1	2
890+74	LT	2.27	R5-1	Do Not Enter				30	X	30	1	6.25	-	1	1

SIGNING SCHEDULE (WEST BOUND) IS CONTINUED ON THE NEXT PAGE

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

SIGNING SCHEDULE (WEST BOUND) CONTINUED

										634.0416	637.0202	638.2102	638.2602	638.3000
										POSTS WOOD	SIGNS	MOVING SIGNS	REMOVING	REMOVING
										4X4-INCH	REFLECTIVE	TYPE II	SIGNS	SMALL SIGN
										16-FT	TYPE II		TYPE II	SUPPORTS
STATION	OFFSET	SIGN NO.	CODE NO.	DESCRIPTION	MESSAGE	MESSAGE	MESSAGE	SIZE		EACH*	SF	EACH	EACH	EACH
888+63	LT	2.26	I2-2	County Line Name	Wood Co			48 X 15		1	5.00	-	1	1
888+63	LT	2.25	M1-4	State Route Marker	10			24 X 24		-	-	-	1	-
888+63	LT	2.24	M3-4	West				24 X 12		-	-	-	1	1
887+25	LT	2.21	M1-5A	County Marker	P			24 X 24		1	4.00	-	-	-
885+99	LT	2.20	I2-3	City Name Population	Milladore	276		60 X 24		2	10.00	-	1	2
885+99	LT	2.19	W14-3	No Passing Zone				48 X 36		-	12.00	-	1	-
883+85	LT	2.18	R2-1	Speed Limit MPH	40			24 X 30		1	5.00	-	1	1
882+00	LT	2.11	I55-56MOD	Adopt A Highway	St. Wenceclaus	CCD Confirmation	Classes	30 X 36		1	7.50	1.00	-	1
879+26	LT	2.09	R1-1	Stop				30 X 30		1	5.18	-	1	1
879+05	LT	-	-	Sidewalk Barricade				- X -		-	-	-	1	-
875+90	LT	2.08	R2-1	Speed Limit MPH	30			24 X 30		1	5.00	-	1	1
874+48	LT	2.06	R1-1	Stop				30 X 30		1	5.18	-	1	1
871+38	LT	2.05	R2-1	Speed Limit MPH	30			24 X 30		1	5.00	-	1	1
868+82	LT	2.04	R1-1	Stop				30 X 30		1	5.18	-	1	1
867+50	LT	2.02	W10-11A	XX Feet Between Tracks & Highway	100			30 X 30		-	6.25	-	-	-
867+50	LT	2.01	W10-2	RR at Intersection Left/Right symbol				36 X 36		1	9.00	-	-	-
864+26	LT	1.28	R1-1	Stop				30 X 30		1	5.18	-	1	1
862+72	LT	1.26	R3-4	No U Turn Symbol				24 X 24		1	4.00	-	1	1
860+75	LT	1.23	R7-1R	No Parking Any Time				18 X 24		1	3.00	-	1	1
859+81	LT	1.22	R2-1	Speed Limit MPH	40			24 X 30		-	5.00	-	1	1
859+30	LT	1.20	D7-67	Park Name County Park	Mead Wildlife	Area	1/2 Mile	60 X 36		2	15.00	-	1	2
859+31	LT	1.20A	M1-86	(Binoculars) Wildlife Viewing Area				18 X 36		-	4.50	-	-	-
849+23	LT	1.17	R2-1	Speed Limit MPH	55			24 X 30		1	5.00	-	1	1
844+32	LT	1.14	J12-1	Directional WO Cardinal	County	S		24 X 45		1	7.50	-	-	-
844+32	LT	1.15	M1-5A	County Marker	S			24 X 24		-	-	-	1	1
844+32	LT	1.16	M5-1R	Advance Arrow RT Turn				21 X 21		-	-	-	1	-
842+17	LT	1.13	D7-77	Park Name CO Park RT A	Mead Wildlife	Area		60 X 36		2	15.00	-	1	2
838+42	LT	1.10	J12-1	Directional WO Cardinal	County	S		24 X 45		1	7.50	-	-	-
838+42	LT	1.11	M1-5A	County Marker	S			24 X 24		-	-	-	1	1
838+42	LT	1.12	M6-1	Arrow RT				21 X 21		-	-	-	1	
837+29	LT	1.08	J13-2	Directional WO Cardinal				48 X 45		1	15.00	-	1	1
837+23	LT	1.07	R1-1	Stop				36 X 36		1	7.46	-	1	1
836+35	LT	1.01	M1-5A	Reassurance Assembly	West	County	J	24 X 36		1	6.00	-	-	-
836+35	LT	1.02	M3-4	West				24 X 12		-	-	-	1	1
836+35	LT	1.03	M1-4	State Route Marker	10			24 X 24		-	-	-	1	-
SUBTOTAL WEST BOUND										31	248.61	1	36	32

* NOTE: WOOD POST SIZES FOR TYPE II SIGNING ARE ESTIMATED LENGTHS AND THE ACTUAL LENGTH WILL BE DETERMINED IN THE FIELD.

SIGNING SCHEDULE PROJECT TOTALS (EAST AND WEST BOUND)

634.0416	637.0202	638.2102	638.2602	638.3000
POSTS WOOD	SIGNS	MOVING SIGNS	REMOVING	REMOVING
4X4-INCH	REFLECTIVE	TYPE II	SIGNS	SMALL SIGN
16-FT	TYPE II		TYPE II	SUPPORTS
EACH*	SF	EACH	EACH	EACH
PROJECT TOTALS	53	419.35	1	58
				54

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

PROJECT NO:6350-07-78

HWY:CTH P

COUNTY:WOOD

MISCELLANEOUS QUANTITIES

SHEET

E

TRAFFIC CONTROL									
643.0100.01		643.0300		643.0420		643.0705		643.0900	
TRAFFIC CONTROL		TRAFFIC CONTROL		TRAFFIC CONTROL		TRAFFIC CONTROL		TRAFFIC CONTROL	
(PROJECT)		DRUMS		BARRICADES TYPE III		WARNING LIGHTS TYPE A		SIGNS	
LOCATION	EACH	EACH	DAYS	EACH	DAYS	EACH	DAYS	EACH	DAYS
6350-07-78	1	130	8,450	4	260	4	260	27	1,755
TOTAL	1		8,450		260		260		1,755

CONSTRUCTION STAKING										
				650.4000	650.5000	655.5500	650.6000	650.8000	650.9910.01	650.9920
				STORM SEWER	BASE	CURB GUTTER AND	PIPE CULVERTS	RESURFACING	SUPPLEMENTAL	SLOPE
						CURB & GUTTER		REFERENCE	CONTROL	STAKES
STATION	TO	STATION	LOCATION	EACH	LF	LF	EACH	LF	LS	LF
864+00	-	-	LT & RT	-	-	-	1	-	-	-
864+20	-	-	RT	-	-	-	1	-	-	-
867+83	-	-	RT	-	-	-	1	-	-	-
872+10	-	-	RT	-	-	-	1	-	-	-
875+10	-	-	LT & RT	-	-	-	1	-	-	-
879+10	-	-	LT & RT	-	-	-	1	-	-	-
879+17	-	-	LT & RT	-	-	-	1	-	-	-
879+81	-	-	LT & RT	-	-	-	1	-	-	-
879+83	-	-	LT & RT	-	-	-	1	-	-	-
883+75	-	-	LT & RT	-	-	-	1	-	-	-
886+75	-	-	LT & RT	-	-	-	1	-	-	-
864+00	-	-	29' LT	1	-	-	-	-	-	-
864+29	-	-	47' LT	1	-	-	-	-	-	-
864+43	-	-	37' LT	1	-	-	-	-	-	-
864+61	-	-	44' LT	1	-	-	-	-	-	-
864+78	-	-	28' LT	1	-	-	-	-	-	-
868+71	-	-	29' LT	1	-	-	-	-	-	-
868+86	-	-	44' LT	1	-	-	-	-	-	-
869+29	-	-	41' LT	1	-	-	-	-	-	-
869+45	-	-	27' LT	1	-	-	-	-	-	-
873+00	-	-	27' LT	1	-	-	-	-	-	-
874+35	-	-	27' LT	1	-	-	-	-	-	-
874+21	-	-	42' LT	1	-	-	-	-	-	-
874+94	-	-	41' LT	1	-	-	-	-	-	-
875+10	-	-	27' LT	1	-	-	-	-	-	-
878+50	-	-	27' LT	1	-	-	-	-	-	-
879+10	-	-	27' LT	1	-	-	-	-	-	-
860+68	-	864+26	LT	-	-	380	-	-	-	-
864+61	-	868+85	LT	-	-	460	-	-	-	-
869+31	-	874+50	LT	-	-	550	-	-	-	-
874+96	-	879+30	LT	-	-	490	-	-	-	-
879+56	-	879+83	LT	-	-	65	-	-	-	-
6350-07-78				-	5,600	-	-	5,600	1	2,275
TOTAL				16	5,600	1,945	11	5,600	1	2,275

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

PAVEMENT MARKING								
		646.0106		647.0566		649.0100		
		EPOXY 4-INCH		STOP LINE		TEMPORARY PAVEMENT		
		YELLOW	WHITE	EPOXY		MARKING 4-INCH		
		(CENTERLINE)	(EDGE LINE)	18-INCH				
STATION	TO	STATION	LOCATION	LF	LF	LF	LF	COMMENT
835+99	-	892+02	C/L	11,210	-	-	11,210	DOUBLE CENTERLINE
835+99	-	863+99	RT	-	2,790	-	-	SINGLE EDGE LINE
835+99	-	836+99	LT	-	100	-	-	SINGLE EDGE LINE
838+35	-	864+21	LT	-	2,590	-	-	SINGLE EDGE LINE
864+77	-	898+77	LT	-	400	-	-	SINGLE EDGE LINE
865+18	-	890+51	RT	-	2,535	-	-	SINGLE EDGE LINE
869+39	-	874+42	LT	-	505	-	-	SINGLE EDGE LINE
875+04	-	879+12	LT	-	410	-	-	SINGLE EDGE LINE
879+91	-	890+51	LT	-	1,060	-	-	SINGLE EDGE LINE
837+40	-	-	LT	-	-	36	-	CTH S
891+00	-	-	LT	-	-	29	-	CTH N
891+65	-	-	RT	-	-	30	-	CTH N / CTH S
SUBTOTAL				11,210	10,390	95	11,210	
TOTAL				21,600		95	11,210	

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

SAWING				
		690.0150	690.0250	
		ASPHALT	CONCRETE	
STATION	LOCATION	LF	LF	COMMENT
835+99	C/L	30	-	MAINLINE
837+67	LT	30	-	CTH S
864+51	LT	35	-	WEST STREET
864+51	RT	87	-	WEST STREET
869+08	LT	53	-	HAYNES AVENUE
874+73	LT	47	-	WHEELER AVENUE
879+44	LT	22	-	BRADLEY AVENUE
891+36	LT	60	-	CTH N
891+36	RT	32	-	CTH N/CTH S
892+02	C/L	84	-	MAINLINE
SHOULDERS	LT, RT	3,800	-	MAINLINE SHOULDERS
DRIVEWAYS	LT & RT	340	110	ENTRANCES
TOTAL		4,620	110	

SPV.0105.01 REMOVING STAIRS		
STATION	LOCATION	LS
864+72	LT	1
TOTAL		1

SANITARY & WATER ADJUSTMENTS - PROJECT ID: 6350-07-79

		611.8120.S	SPV.0060.01	SPV.0060.02	SPV.0060.03	SPV.0060.04
		COVER PLATES	RELOCATE	ADJUSTING WATERMAIN	ADJUSTING SANITARY	ADJUSTING
		TEMPORARY	HYDRANT	VALVE BOXES	MANHOLE COVERS	CURB STOP
STATION	LOCATION	EACH	EACH	EACH	EACH	EACH
845+40	LT	1	-	-	1	-
849+40	LT	1	-	-	1	-
853+40	LT	1	-	-	1	-
857+40	LT	1	-	-	1	-
861+40	LT	1	-	-	1	-
864+60	LT	1	-	-	1	-
866+75	LT	1	-	-	1	-
869+05	LT	1	-	-	1	-
869+80	LT	1	-	-	1	-
872+70	LT	1	-	-	1	-
874+75	LT	1	-	-	1	-
877+20	LT	1	-	-	1	-
879+45	LT	1	-	-	1	-
885+45	LT	1	-	-	1	-
888+55	LT	1	-	-	1	-
891+20	LT	1	-	-	1	-
862+85	LT	-	-	-	-	1
864+00	LT	-	1	1	-	-
864+05	LT	-	-	2	-	-
TOTAL		16	1	3	16	1

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

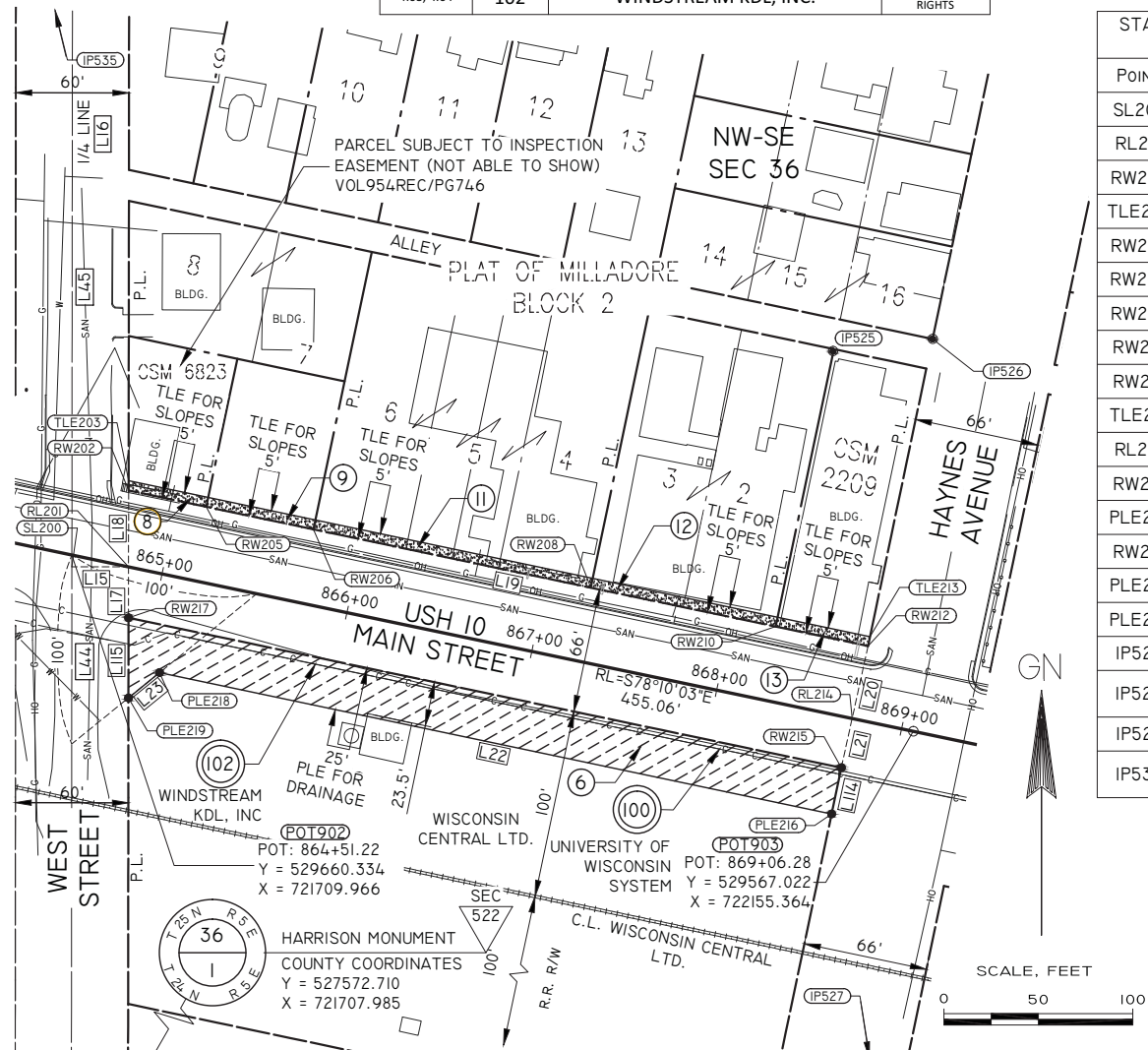
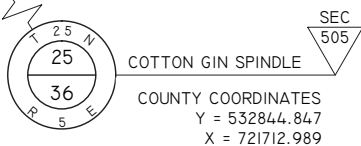
SCHEDULE OF LANDS & INTERESTS REQUIRED

SEE ALSO SHEET	PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	R/W ACRES OR SF REQUIRED			PLE, TLE ACRES OR SF
				NEW	EXISTING	TOTAL	
4.01, 4.03, 4.04	6	WISCONSIN CENTRAL LTD.	PLE	-	-	-	9715SF
-	8	NATIONWIDE REAL ESTATE, INC.	TLE	-	-	-	213SF
-	9	VILLAGE OF MILLADORE	TLE	-	-	-	290SF
-	11	THOMAS F. BREMMER	TLE	-	-	-	667SF
-	12	THOMAS A. WRIGHT & ROBIN L. WRIGHT	TLE	-	-	-	501SF
-	13	ROBERT J. MANCL & MARY JO K. KOBACK	TLE	-	-	-	250SF

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

UTILITY INTERESTS REQUIRED

SEE ALSO SHEET	UTILITY NUMBER	OWNER(S)	INTEREST REQUIRED
4.03, 4.04	100	UNIVERSITY OF WISCONSIN SYSTEM	RELEASE OF RIGHTS
4.03, 4.04	102	WINDSTREAM KDL, INC.	RELEASE OF RIGHTS



CONVENTIONAL ABBREVIATIONS

ACRES
AND OTHERS
CENTERLINE
CERTIFIED SURVEY MAP
PERMANENT LIMITED EASEMENT
PROPERTY LINE
REFERENCE LINE
SECTION
STATION
TEMPORARY LIMITED EASEMENT

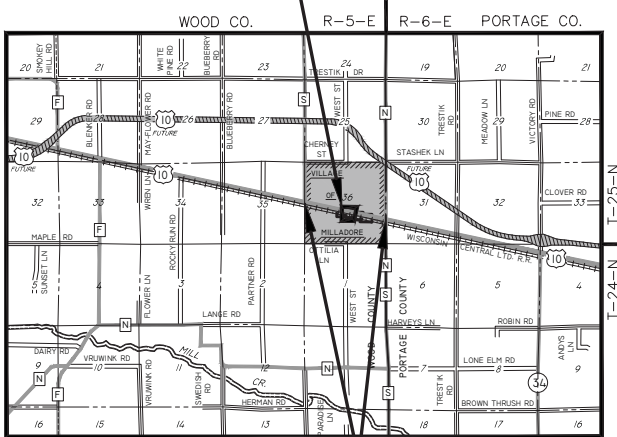
CONVENTIONAL SYMBOLS

SECTION CORNER SYMBOL
TEMPORARY LIMITED EASEMENT
PERMANENT LIMITED EASEMENT
R/W BOUNDARY POINT
TLE BOUNDARY POINT
POINT ON SEC. LINE
POINT ON REF. LINE
R/W MONUMENT
ACCESS RESTRICTED (BY ACQUISITION)

CONVENTIONAL UTILITY SYMBOLS

WATER
GAS
COMMUNICATION
OVERHEAD
TRANSMISSION LINES
ELECTRIC
CABLE TELEVISION
FIBER OPTIC
SANITARY SEWER
STORM SEWER
NON COMPENSABLE
POWER POLE
TELEPHONE POLE
TELEPHONE PEDESTAL

SHEET LOCATION



PROJECT LOCATION

TRANSPORTATION PROJECT PLAT

NO: 6350-07-28-4.02

MARSHFIELD - STEVENS POINT
(WEST ST - CTH N, VILL OF MILLADORE)

PART OF WOOD COUNTY CERTIFIED SURVEY MAP NO. 6823, PART OF WOOD COUNTY CERTIFIED SURVEY MAP NO. 2209 AS RECORDED IN VOLUME 8 OF CSM'S ON PAGE 109, PARTS OF LOTS 2 THROUGH 7, BLOCK 2 OF THE PLAT OF MILLADORE, AND PART OF THE NORTHWEST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 36, TOWNSHIP 25 NORTH, RANGE 5 EAST, IN THE VILLAGE OF MILLADORE, WOOD COUNTY, WISCONSIN

RELOCATION ORDER USH 10 WOOD COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:

1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

NOTES:

COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, WOOD COUNTY ZONE, NAD83 (2007) ADJUSTMENT. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT. ALL BEARINGS AND COORDINATES ARE BASED ON GPS MEASUREMENTS TO THE SECTION CORNERS AS NOTED ON THE PLAT. COORDINATES WERE OBTAINED FROM TPP6350-06-20 AND WERE VERIFIED AND THEN HELD DURING THE FIELD SURVEY CONDUCTED BEGINNING IN JUNE, 2010.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT (TYPICALLY 3/4"x24" RE-BAR).

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

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

A TEMPORARY LIMITED EASEMENT (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREON, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND 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 NECESSARY OR DESIRABLE. ALL TLES EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

A PERMANENT LIMITED EASEMENT (PLE) IS A RIGHT FOR CONSTRUCTION AND MAINTENANCE PURPOSES, AS DEFINED HEREON, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND 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 NECESSARY OR DESIRABLE. BUT WITHOUT PREJUDICE TO THE OWNER'S RIGHT TO MAKE OR CONSTRUCT IMPROVEMENT ON SAID LANDS OR TO FLATTEN THE SLOPES, PROVIDING SAID ACTIVITIES WILL NOT IMPAIR OR OTHERWISE ADVERSELY AFFECT THE HIGHWAY FACILITIES.

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

DISTANCES SHOWN TO BUILDINGS ARE APPROXIMATE.

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION CONTACT THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WISCONSIN RAPIDS.

ROAD NAME	BASIS OF EXISTING R/W	YEAR
USH 10	DIVISION JOB NO. 4776	1938
USH 10	6350-07-21	1990
SIDE ROADS	MAP OF THE VILLAGE OF MILLADORE (SUBDIVISION PLAT)	1877

COURSE TABLE			
LINE	BEARING	DISTANCE	POINTS
L16	S0°03'16"W	5272.14	SEC505-SEC522
L44	S0°03'16"W	3190.77	SEC505-SL200
L45	S0°03'16"W	2081.37	SL200-SEC522
L15	S89°56'44"E	30.00	SL200-RL201
L18	N0°03'16"E	40.46	RL201-RW202
L19	S78°07'28"E	400.02	RW202-RW212
L20	S12°24'02"W	39.30	RW212-RL214
L21	S12°24'02"W	26.70	RL214-RW215
L114	S11°51'02"W	25.00	RW215-PLE216
L22	N78°07'33"W	363.56	PLE216-PLE218
L23	S50°56'36"W	21.22	PLE218-PLE219
L115	N0°03'16"E	42.38	PLE219-RW217
L17	N0°03'16"E	26.97	RW217-RL201

Becher Hoppe
Engineers and Architects

I, DAVID A. RENAUD, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION, I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT 6350-07-28-4.01 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED.

DAVID A. RENAUD
S-2142
MERRILL
WI
DATE 18 Jan 2012

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION

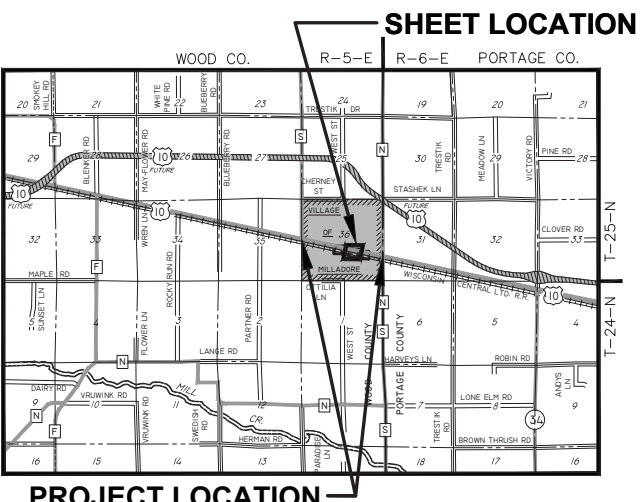
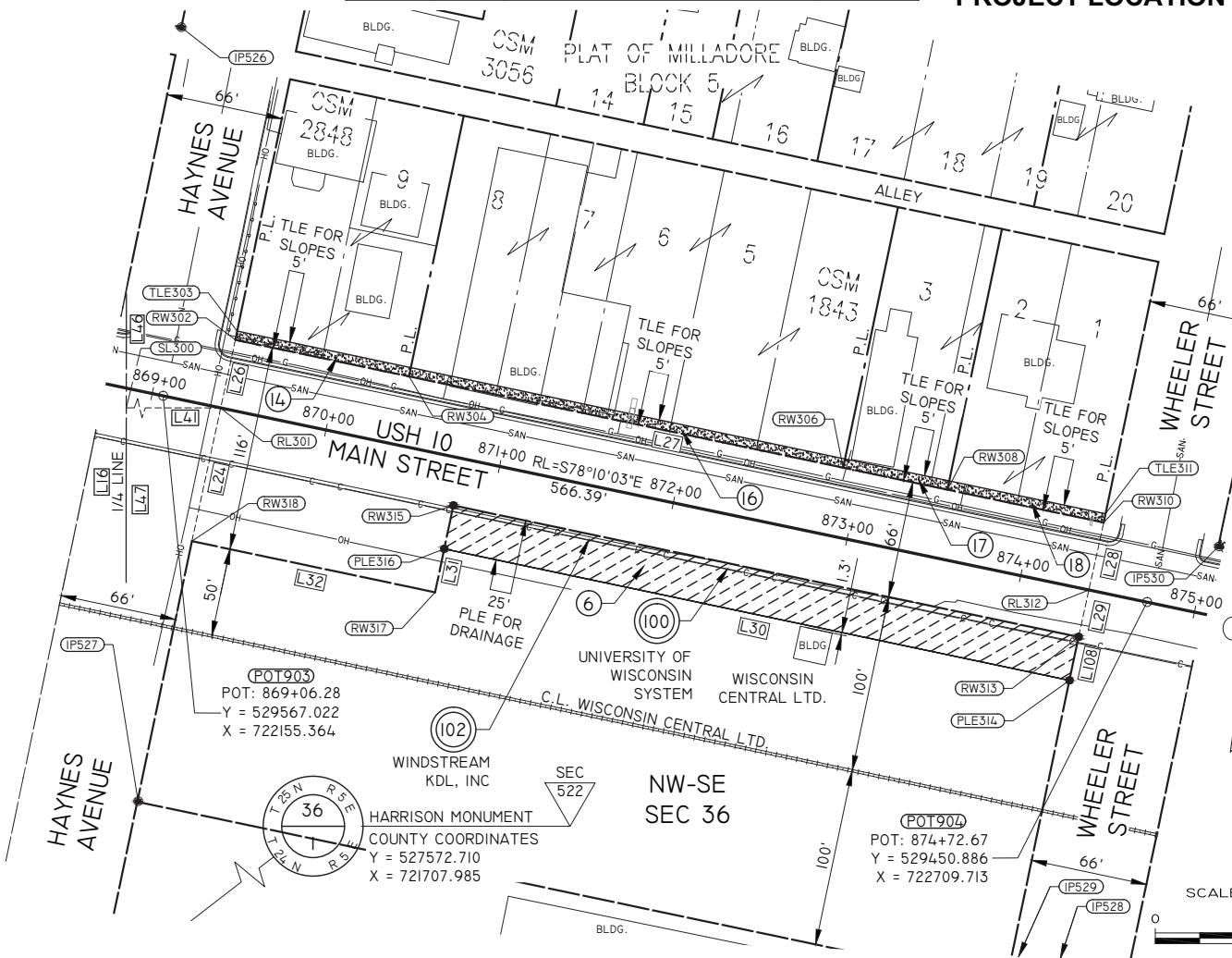
BRENT L. STELLA
PRINTED NAME

Brent L. Stella
SIGNATURE

1-19-12
DATE

SCHEDULE OF LANDS & INTERESTS REQUIRED				OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT.			
SEE ALSO SHEET	PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	R/W ACRES OR SF REQUIRED			PLE, TLE ACRES OR SF
				NEW	EXISTING	TOTAL	
4.01, 4.02, 4.04	6	WISCONSIN CENTRAL LTD.	PLE	-	-	-	9000SF
-	14	MARY JO KOBACK	TLE	-	-	-	500SF
-	16	HUGHES SERVICE, INC.	TLE	-	-	-	1250SF
-	17	SUSAN MANCL	TLE	-	-	-	130SF
-	18	ABURNDALE STATE BANK	TLE	-	-	-	450SF

UTILITY INTERESTS REQUIRED			
SEE ALSO SHEET	UTILITY NUMBER	OWNER(S)	INTEREST REQUIRED
4.02, 4.04	100	UNIVERSITY OF WISCONSIN SYSTEM	RELEASE OF RIGHTS
4.02, 4.04	102	WINDSTREAM KDL, INC.	RELEASE OF RIGHTS



TRANSPORTATION PROJECT PLAT
NO: 6350-07-28-4.03
MARSHFIELD - STEVENS POINT
(WEST ST - CTH N, VILL OF MILLADORE)

PART OF WOOD COUNTY CERTIFIED SURVEY MAP NO. 2848, PART OF WOOD COUNTY CERTIFIED SURVEY MAP NO. 1843 AS RECORDED IN VOLUME 7 OF CSM'S ON PAGE 43, PART OF LOTS 1 THROUGH 3, AND LOTS 5 THROUGH 9, BLOCK 5, PLAT OF MILLADORE, AND PART OF THE NORTHWEST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 36, TOWNSHIP 25 NORTH, RANGE 5 EAST, IN THE VILLAGE OF MILLADORE, WOOD COUNTY, WISCONSIN

RELOCATION ORDER USH 10 WOOD COUNTY
TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

NOTES:
COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, WOOD COUNTY ZONE, NAD83 (2007) ADJUSTMENT. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT. ALL BEARINGS AND COORDINATES ARE BASED ON GPS MEASUREMENTS TO THE SECTION CORNERS AS NOTED ON THE PLAT. COORDINATES WERE OBTAINED FROM TPP6350-06-20 AND WERE VERIFIED AND THEN HELD DURING THE FIELD SURVEY CONDUCTED BEGINNING IN JUNE, 2010.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT (TYPICALLY 3/4"x24" RE-BAR).

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

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

A TEMPORARY LIMITED EASEMENT (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREON, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND 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 NECESSARY OR DESIRABLE. ALL TLES EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

A PERMANENT LIMITED EASEMENT (PLE) IS A RIGHT FOR CONSTRUCTION AND MAINTENANCE PURPOSES, AS DEFINED HEREON, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND 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 NECESSARY OR DESIRABLE. BUT WITHOUT PREJUDICE TO THE OWNER'S RIGHT TO MAKE OR CONSTRUCT IMPROVEMENT ON SAID LANDS OR TO FLATTEN THE SLOPES, PROVIDING SAID ACTIVITIES WILL NOT IMPAIR OR OTHERWISE ADVERSELY AFFECT THE HIGHWAY FACILITIES.

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

DISTANCES SHOWN TO BUILDINGS ARE APPROXIMATE.

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION CONTACT THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WISCONSIN RAPIDS.

ROAD NAME	BASIS OF EXISTING R/W	YEAR
USH 10	DIVISION JOB NO. 4776	1938
USH 10	6350-07-21	1990
SIDE ROADS	MAP OF THE VILLAGE OF MILLADORE (SUBDIVISION PLAT)	1877

Becher Hoppe
Engineers and Architects

I, DAVID A. RENAUD, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION, I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT 6350-07-28-4.01 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

David A. Renaud
DAVID A. RENAUD
RLS S-2142
RENAUD
S-2142
MERRILL
WI
LAND SURVEYOR
18 JAN 2012

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION

BRENT L. STELLA
PRINTED NAME
SIGNATURE
1-19-12
DATE

CONVENTIONAL ABBREVIATIONS		CONVENTIONAL SYMBOLS		CONVENTIONAL UTILITY SYMBOLS	
ACRES	AC.	SIGN	PROPERTY LINE	WATER	W
AND OTHERS	ET. AL.	SECTION CORNER SYMBOL	SECTION LINE	GAS	G
CENTERLINE	C/L	TEMPORARY LIMITED EASEMENT	QUARTER LINE	COMMUNICATION OVERHEAD	C
CERTIFIED SURVEY MAP	CSM	PERMANENT LIMITED EASEMENT	SIXTEENTH LINE	TRANSMISSION LINES	OH
PROPERTY LINE	P.L.	PERMANENT LIMITED EASEMENT	EXISTING CENTERLINE	ELECTRIC	E
REFERENCE LINE	R/L	PERMANENT LIMITED EASEMENT	PROPOSED REFERENCE LINE	CABLE TELEVISION	TV
SECTION	SEC.	R/W BOUNDARY POINT	PARALLEL OFFSET	FIBER OPTIC	FO
STATION	STA.	TLE BOUNDARY POINT	PARALLEL OFFSET	SANITARY SEWER	SS
TEMPORARY LIMITED EASEMENT	TLE	POINT ON SEC. LINE	PARALLEL OFFSET	STORM SEWER	SS
PERMANENT LIMITED EASEMENT	PLE	POINT ON REF. LINE	PARALLEL OFFSET	NON COMPENSABLE	NON
ACCESS RIGHTS	AR	R/W MONUMENT	FOUND IRON PIPE/PIN	COMPENSABLE	COMPENSABLE
		ACCESS RESTRICTED (BY ACQUISITION)	FOUND IRON PIPE/PIN	POWER POLE	P
				TELEPHONE POLE	TP
				TELEPHONE PEDESTAL	TP

COURSE TABLE			
LINE	BEARING	DISTANCE	POINTS
L16	S0°03'16"W	5272.14	SEC505-SEC522
L46	S0°03'16"W	3284.16	SEC505-SL300
L47	S0°03'16"W	1987.98	SL300-SEC522
L41	S89°56'44"E	477.90	SL300-RL301
L26	N12°09'49"E	39.25	RL301-RW302
L27	S78°07'28"E	500.00	RW302-RW310
L28	S12°24'02"W	38.88	RW310-RL312

COURSE TABLE			
LINE	BEARING	DISTANCE	POINTS
L29	S12°24'02"W	27.13	RL312-PLE313
L108	S11°51'02"W	25.00	PLE313-PLE314
L30	N78°07'28"W	359.99	PLE314-PLE316
L31	S11°52'32"W	25.00	PLE316-RW317
L32	N78°07'28"W	140.00	RW317-RW318
L24	N12°09'49"E	76.75	RW318-RL301

SCHEDULE OF LANDS & INTERESTS REQUIRED

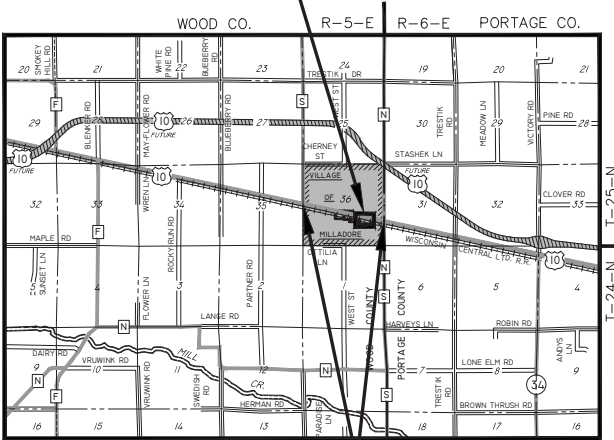
SEE ALSO SHEET	PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	R/W ACRES OR SF REQUIRED			PLE, TLE ACRES OR SF
				NEW	EXISTING	TOTAL	
4.01, 4.02, 4.03	6	WISCONSIN CENTRAL LTD.	PLE	-	-	-	10,230 SF
-	19	SHERRY VOLUNTEER FIRE DEPARTMENT, INC.	TLE	-	-	-	471SF
-	21	LUCY BERKHOLTZ & DENNIS L.BERKHOLTZ	TLE	-	-	-	500SF
-	22	DENNIS P. BRANDL	TLE	-	-	-	500SF
-	23	DAVID A. SEIDL	TLE	-	-	-	774SF

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

UTILITY INTERESTS REQUIRED

SEE ALSO SHEET	UTILITY NUMBER	OWNER(S)	INTEREST REQUIRED
4.02, 4.03	100	UNIVERSITY OF WISCONSIN SYSTEM	RELEASE OF RIGHTS
4.02, 4.03	102	WINDSTREAM KDL, INC.	RELEASE OF RIGHTS

SHEET LOCATION



TRANSPORTATION PROJECT PLAT

NO: 6350-07-28-4.04

MARSHFIELD - STEVENS POINT
(WEST ST - CTH N, VILL OF MILLADORE)

PART OF LOTS 1 & 2 OF WOOD COUNTY CERTIFIED SURVEY MAP NO. 7369 AS RECORDED IN VOLUME 25 OF CSM'S ON PAGE 169, PART OF LOTS 1 THROUGH 4, BLOCK 8, PLAT OF MILLADORE, PART OF THE NORTHEAST 1/4 OF THE SOUTHEAST 1/4 AND PART OF THE NORTHWEST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 36, TOWNSHIP 25 NORTH, RANGE 5 EAST, IN THE VILLAGE OF MILLADORE, WOOD COUNTY, WISCONSIN

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 6350-07-28-4.04
AMENDMENT NO:

ACCEPTED FOR RECORDING AND FILING IN THE OFFICE OF THE REGISTER OF DEEDS IN WOOD COUNTY, WISCONSIN AT 1:38 PM ON 1-23-2012 AS DOCUMENT #201200039 AND FILED IN Vol. 13 of Plats, Page 87
Susan E. Hietala
SIGNATURE OF REGISTER OF DEEDS
2500 WDT

RELOCATION ORDER USH 10 WOOD COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

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DISTANCES SHOWN TO BUILDINGS ARE APPROXIMATE.

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION CONTACT THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN WISCONSIN RAPIDS.

ROAD NAME	BASIS OF EXISTING R/W	YEAR
USH 10	DIVISION JOB NO. 4776	1938
USH 10	6350-07-21	1990
SIDE ROADS	MAP OF THE VILLAGE OF MILLADORE (SUBDIVISION PLAT)	1877

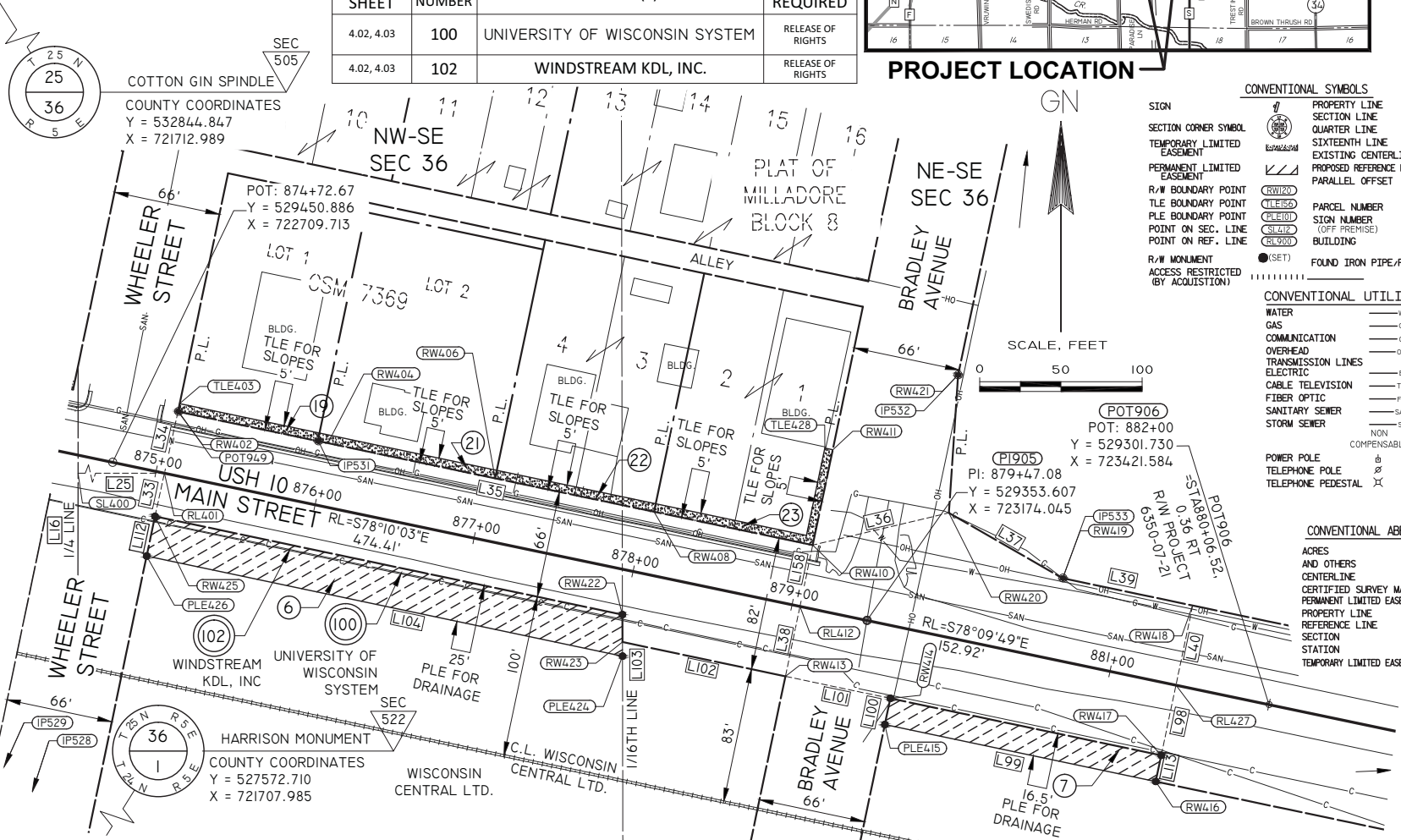
Becher Hoppe
Engineers and Architects

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David A. Renaud
DAVID A. RENAUD
RLS S-2142
RENAUD
S-2142
MERRILL
WI
LAND SURVEYOR
18 JAN 2012

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION

BRENT L. STELLA
PRINTED NAME
Brent L. Stella
SIGNATURE
1-19-12
DATE



COURSE TABLE			
LINE	BEARING	DISTANCE	POINTS
L16	S0°03'16"W	5272.14	SEC505-SEC522
L48	S0°03'16"W	3399.66	SEC505-SL400
L49	S0°03'16"W	1872.48	SL400-SEC522
L25	S89°56'44"E	1031.83	SL400-RL401
L34	N12°24'02"E	38.83	RL401-RW402
L35	S78°07'28"E	399.30	RW402-RW410
L36	N76°41'27"E	86.13	RW410-RW420
L37	S60°08'47"E	80.83	RW420-RW419
L39	S78°09'42"E	81.73	RW419-RW418
L40	S11°50'18"W	50.12	RW418-RL427
L98	S11°50'18"W	44.14	RL427-RW417

COURSE TABLE			
LINE	BEARING	DISTANCE	POINTS
L113	S11°52'32"W	16.50	RW417-RW416
L99	N78°07'28"W	170.43	RW416-PLE415
L100	N11°52'36"E	16.50	PLE415-RW414
L101	N78°07'28"W	66.00	RW414-RW413
L102	N78°07'28"W	102.53	RW413-RW423
L103	S0°06'37"E	8.69	RW423-PLE424
L104	N78°07'28"W	299.37	PLE424-PLE426
L112	S11°51'02"W	25.00	PLE426-RW425
L33	N12°24'02"E	27.18	RW425-RL401
L38	N11°44'21"E	43.98	RW413-RL412
L158	N11°44'21"E	38.52	RL412-RW410

STATION & OFFSET POINT TABLE		
POINT	STATION	OFFSET
SL400	864+95.13	210.62
RL401	875+05.23	0.00
RW402	875+05.62	-38.83
TLE403	875+05.62	-43.83
RW404	875+99.90	-38.75
RW406	877+05.12	-38.67
RW408	878+05.12	-38.60
RW410	879+04.92	-38.52
RW411	879+04.99	-98.52
RL412	879+04.99	0.00
RW413	879+05.06	43.98
RW414	879+71.06	44.03

STATION & OFFSET POINT TABLE		
POINT	STATION	OFFSET
PLE415	879+71.05	60.53
RW416	881+41.48	60.64
RW417	881+41.49	44.14
RW418	881+41.49	-50.12
RW419	880+59.76	-50.12
RW420	879+82.89	-75.12
RW421	879+71.04	-159.46
RW422	877+99.04	27.40
RW423	878+02.53	43.90
PLE424	878+04.33	52.40
RW425	875+04.97	27.18

STATION & OFFSET POINT TABLE		
POINT	STATION	OFFSET
PLE426	875+04.96	52.18
RL427	881+41.49	0.00
RL428	878+99.99	-98.53
IP528	874+37.31	469.39
IP529	874+38.90	228.06
IP530	875+05.90	-38.98
IP531	875+93.88	-38.85
IP532	879+71.04	-159.46
IP533	880+59.81	-50.25
IP534	885+71.13	-50.00
IP536	879+71.19	-428.90

BRYAN & SUSAN
BROCKMAN

EILEEN M. CHERNEY
(NULL)



CTH S

END CONSTRUCTION 90' LT
BUTT JOINT REQD

SEE ASPHALTIC FLUME DETAIL)

MATCH EXISTING CURB FLANGE

ALLIANT ENERGY
(ELECTRIC)

WE ENERGIES
(GAS)

EXISTING BASE AGGREGATE
SHOULDER (TO REMAIN)

HMA SHOULDER

CTH P/CTH S

S78° 10' 12.98"E

IE-1187.99

IE-1189.45

12" CMCP

AGG (PE)

SCP
11

**BEGIN PROJECT
STA 835+99**

Y=530,244.85
X=718,918.26
BUTT JOINT REQD

STA 837+65 RT
RESTORE AGG PE
REMOVING SMALL PIPE CULVERT 12" CMCP
1-CULVERT PIPE CLASS III 18-INCH
2-AEW REQD

DELINEATED WETLANDS

WINDSTREAM KDL
(COMMUNICATION)

CCI SYSTEMS
(COMMUNICATION)

TDS TELECOM
(COMMUNICATION)

EXISTING BASE AGGREGATE
SHOULDER (TO REMAIN)

HMA SHOULDER

CANADIAN NATIONAL RAILROAD

MATCH LINE STA 842+00

PROJECT NO:6350-07-78

HWY:CTH P

COUNTY:WOOD

PLAN SHEETS

SHEET

5

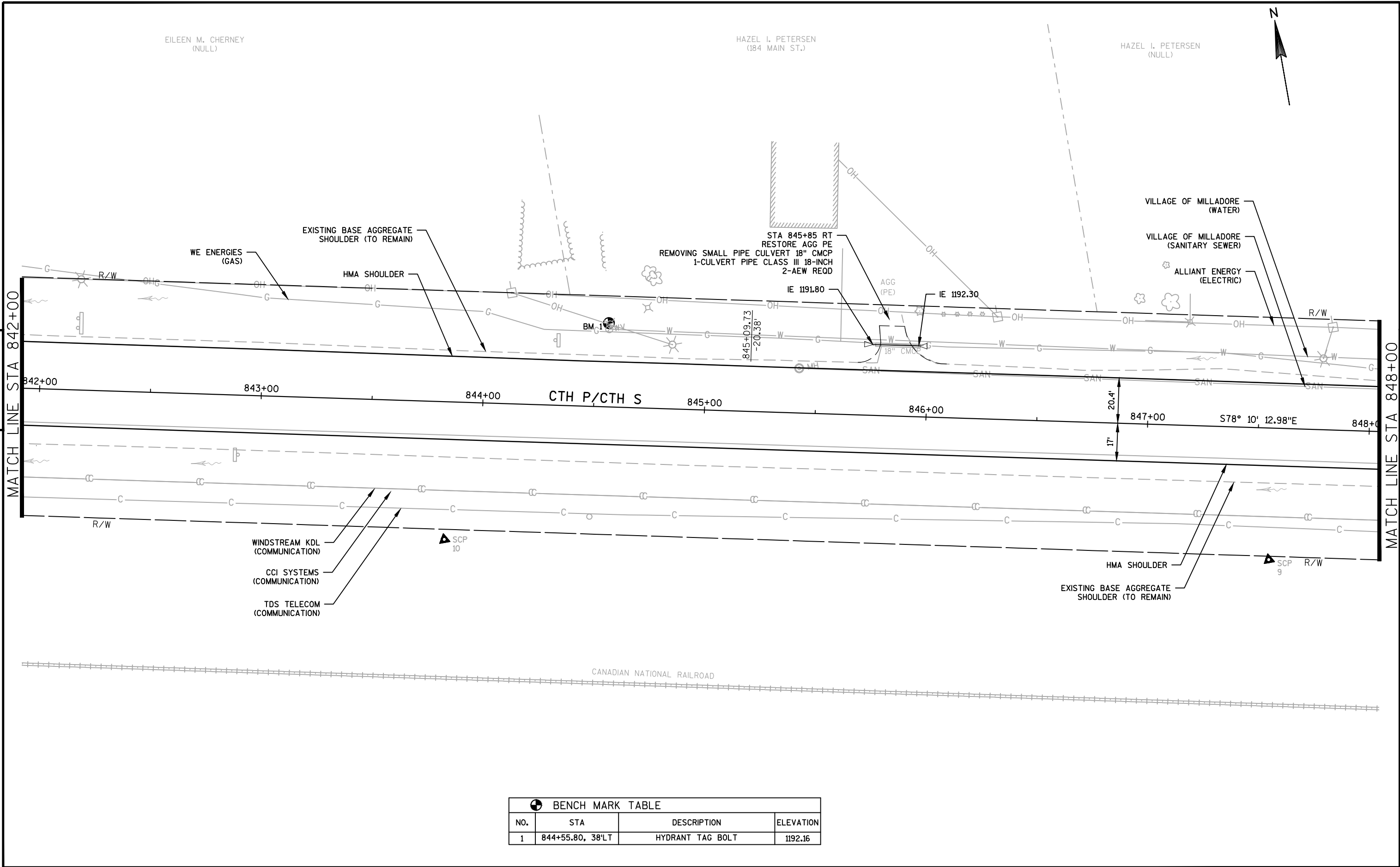
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PLOT DATE : 07/26/2012 8:34AM

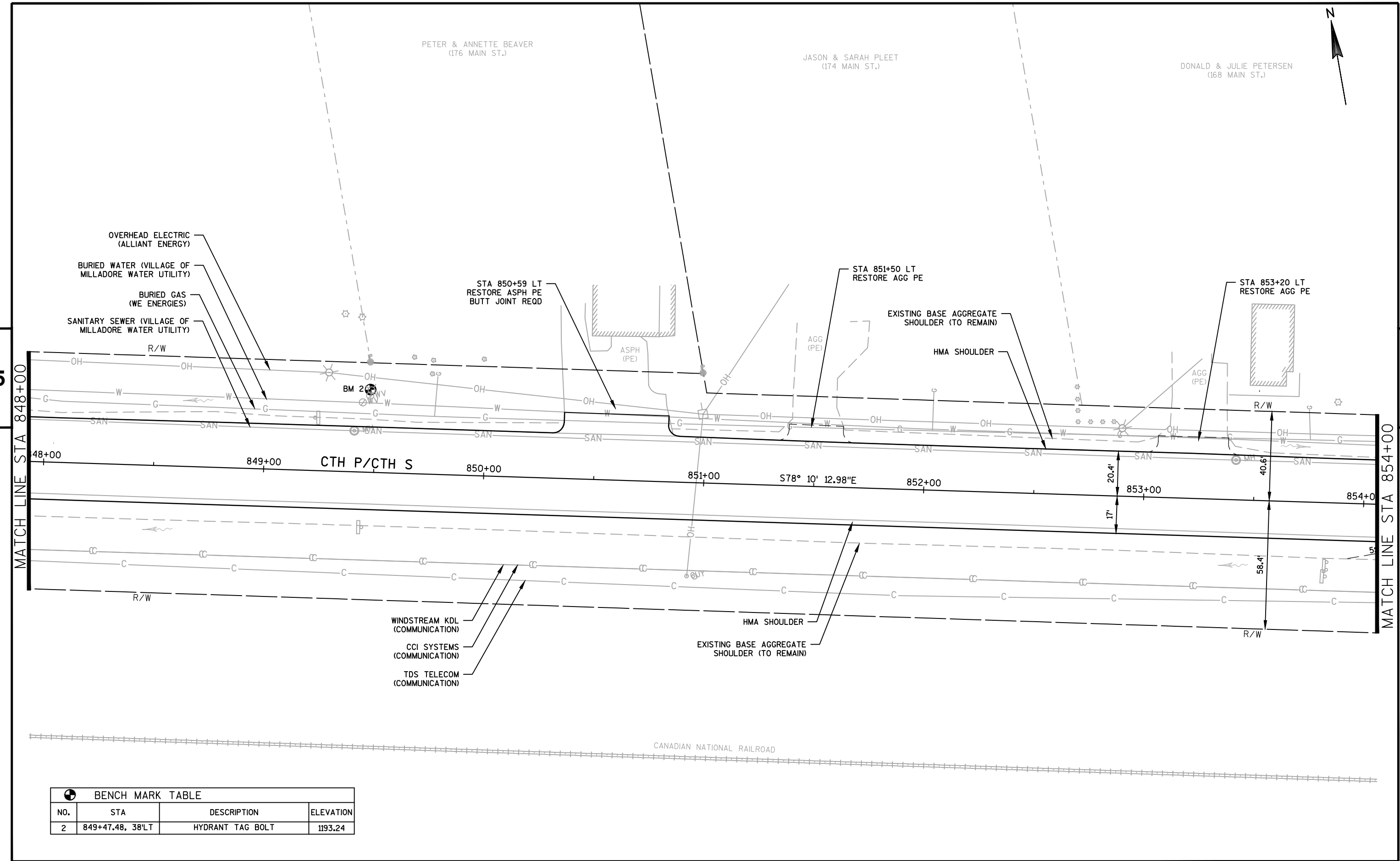
PLOT BY : HIGGINS, MIKE

PLOT NAME : ----- PLOT SCALE : 1:40_XREF

WISDOT/CADDS SHEET 44



BENCH MARK TABLE			
NO.	STA	DESCRIPTION	ELEVATION
1	844+55.80, 38'LT	HYDRANT TAG BOLT	1192.16



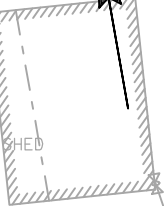
BENCH MARK TABLE			
NO.	STA	DESCRIPTION	ELEVATION
2	849+47.48, 38"LT	HYDRANT TAG BOLT	1193.24

BENCH MARK TABLE			
NO.	STA	DESCRIPTION	ELEVATION
3	855+44.95, 37'LT	HYDRANT TAG BOLT	1193.79
4	859+76.46 40'LT	HYDRANT TAG BOLT	1195.23

JOSHUA & AMY GUPTILL
(164 MAIN ST.)

WILLIAM J FUHRER
(ETUX)

ROBERT J.
MANCL



EUGENE & DEAN HOLLAR
(158 MAIN ST.)

STA 857+65 LT
RESTORE ASPH PE
BUTT JOINT REQD
REMOVING SMALL PIPE CULVERT-12"CMCP
1-CULVERT PIPE CLASS III 12-INCH REQD
2-AEW REQD

RICHARD
D
STASHEK
(WOOD
SPECIALTIES)

STA 856+95 LT
RESTORE AGG PE

STA 856+50 LT
RESTORE AGG PE

REMOVING SMALL PIPE CULVERT-12"CMCP
1-CULVERT PIPE CLASS III 12-INCH REQD
2-AEW REQD

STA 855+80 LT
RESTORE CONC PE
MATCH ASPHALT
TO EXISTING EDGE
OF CONCRETE

STA 855+25 LT
RESTORE AGG PE

ALLIANT ENERGY
(ELECTRIC)

VILLAGE OF MILLADORE
(WATER)

VILLAGE OF MILLADORE
(SANITARY SEWER)

BURIED GAS
(WE ENERGIES)

HMA SHOULDER

AGG
(CE)

STA 858+95 LT
RECONSTRUCT AGG PE

IE 1192.70
SLOPE INTERCEPT
SEE CROSS SECTIONS FOR GRADING LIMITS
AT DRIVEWAYS IN THIS AREA

IE 1192.70

AGG
(PE)

AGG
(PE)

AGG
(PE)

CONC
(PE)

IE-1192.50

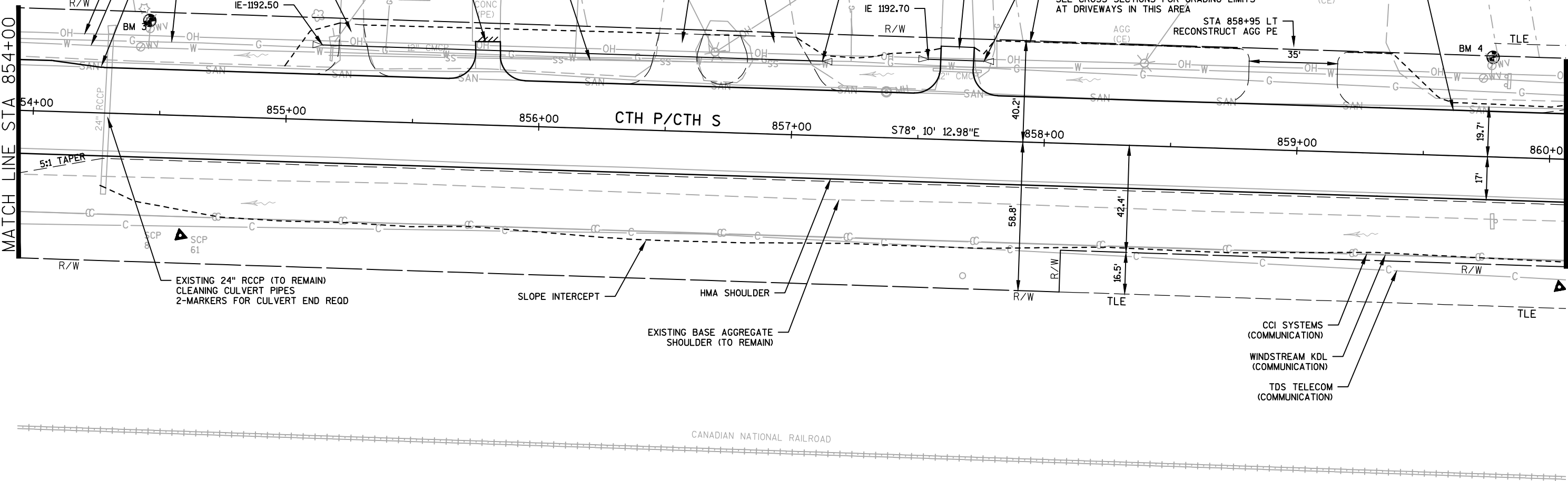
BM 3

BM 4

TLE

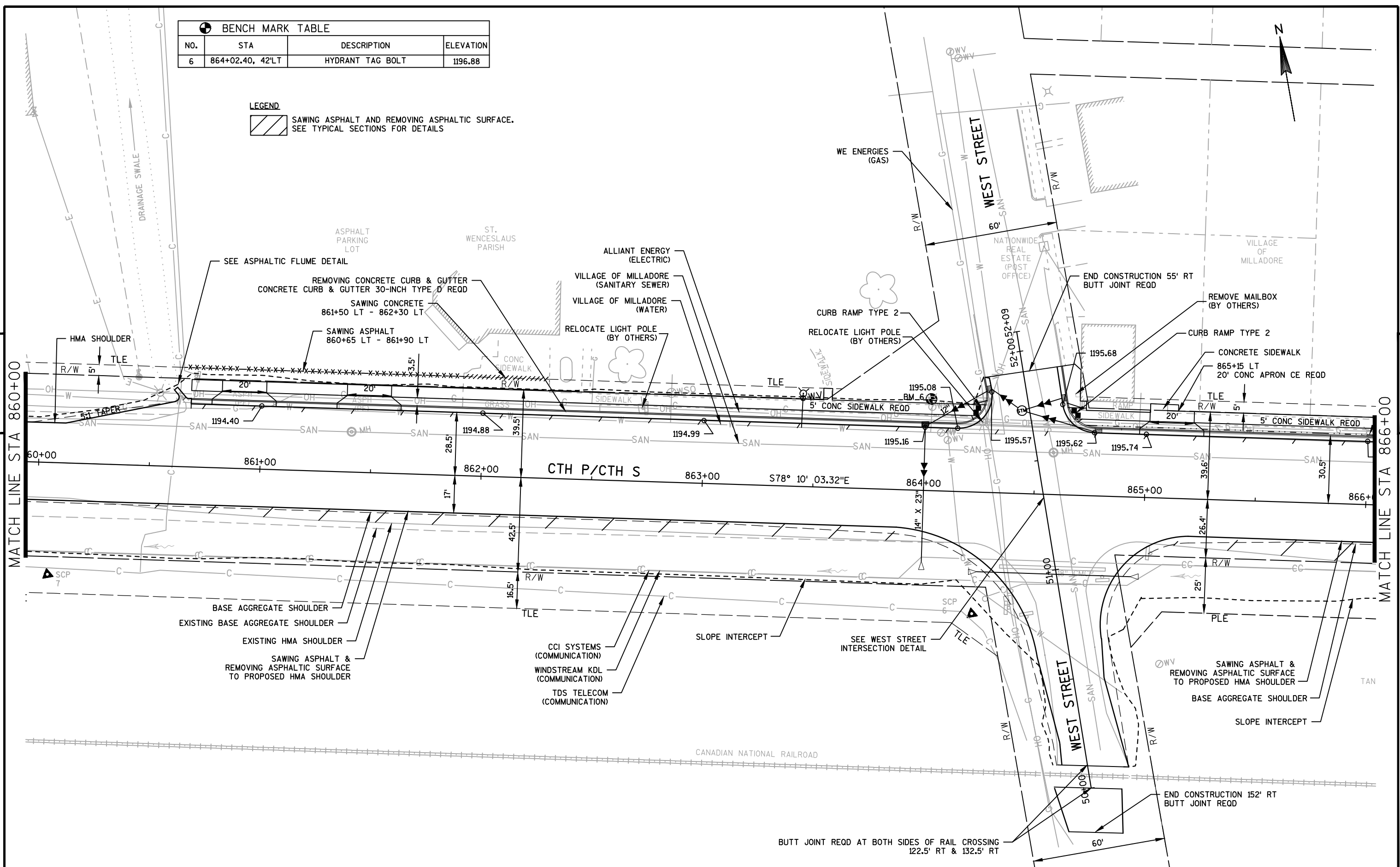
MATCH LINE STA 860+00

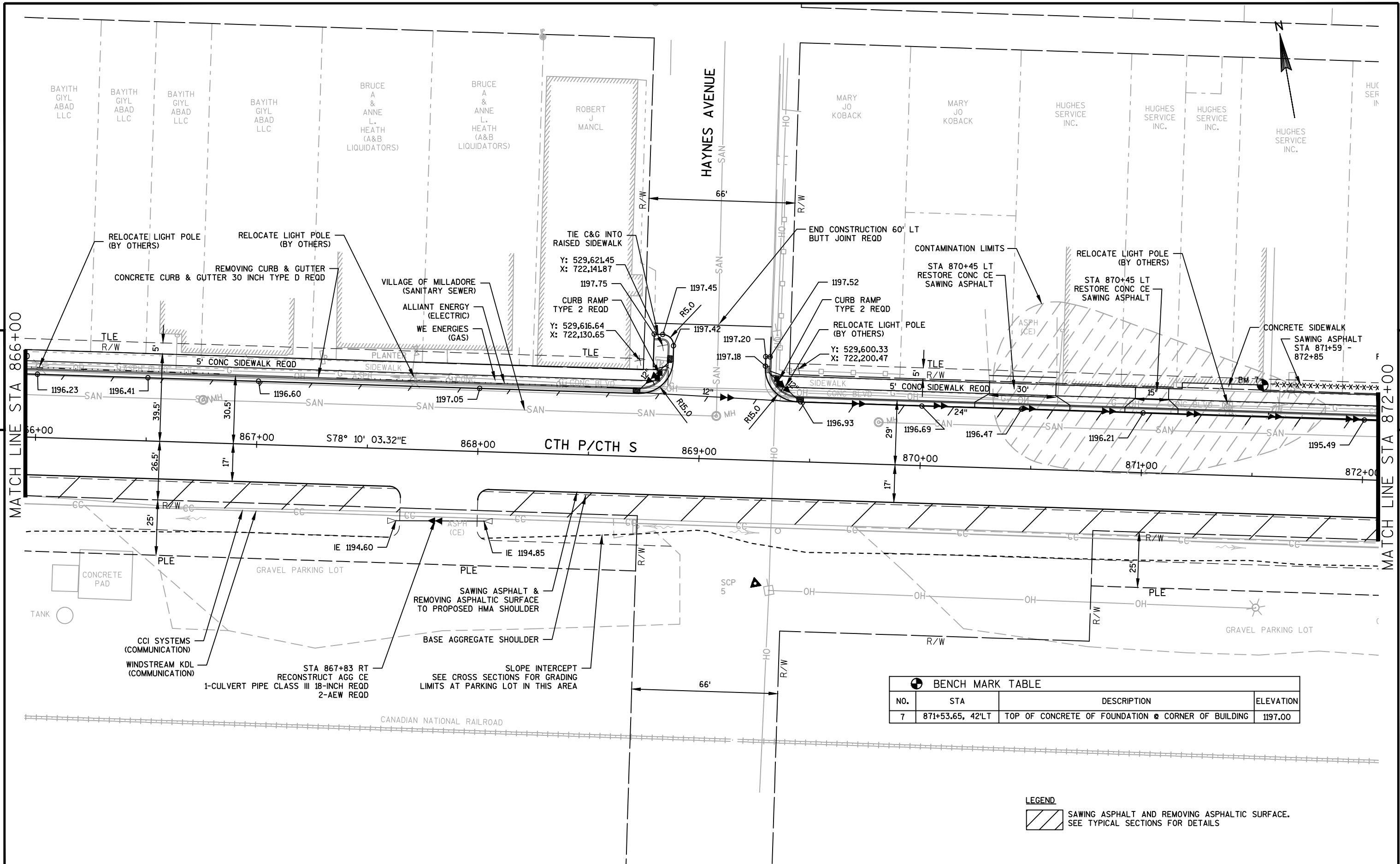
MATCH LINE STA 854+00



BENCH MARK TABLE			
NO.	STA	DESCRIPTION	ELEVATION
6	864+02.40, 42'LT	HYDRANT TAG BOLT	1196.88

LEGEND
SAWING ASPHALT AND REMOVING ASPHALTIC SURFACE.
SEE TYPICAL SECTIONS FOR DETAILS

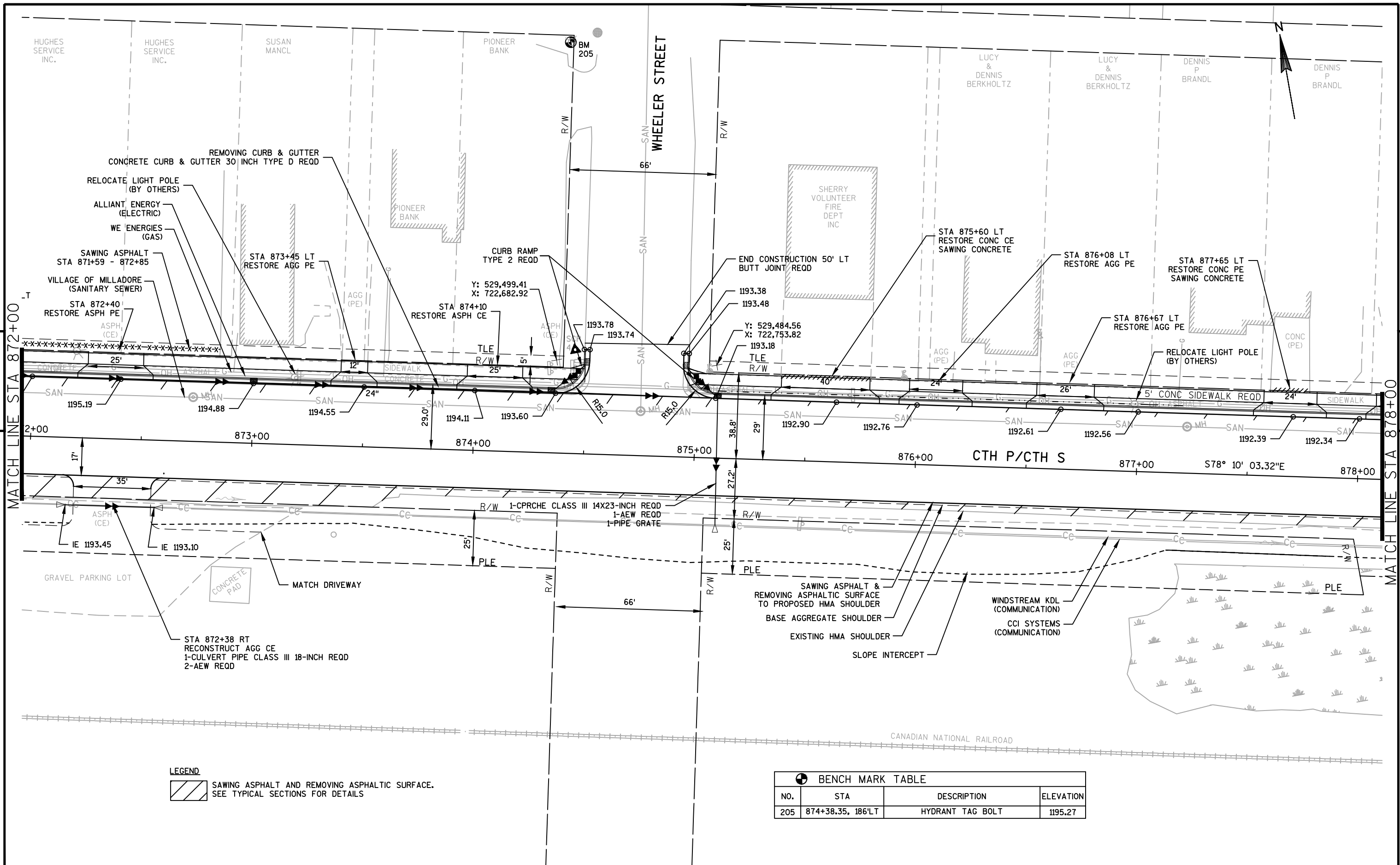




BENCH MARK TABLE			
NO.	STA	DESCRIPTION	ELEVATION
7	871+53.65, 42' LT	TOP OF CONCRETE OF FOUNDATION @ CORNER OF BUILDING	1197.00

LEGEND

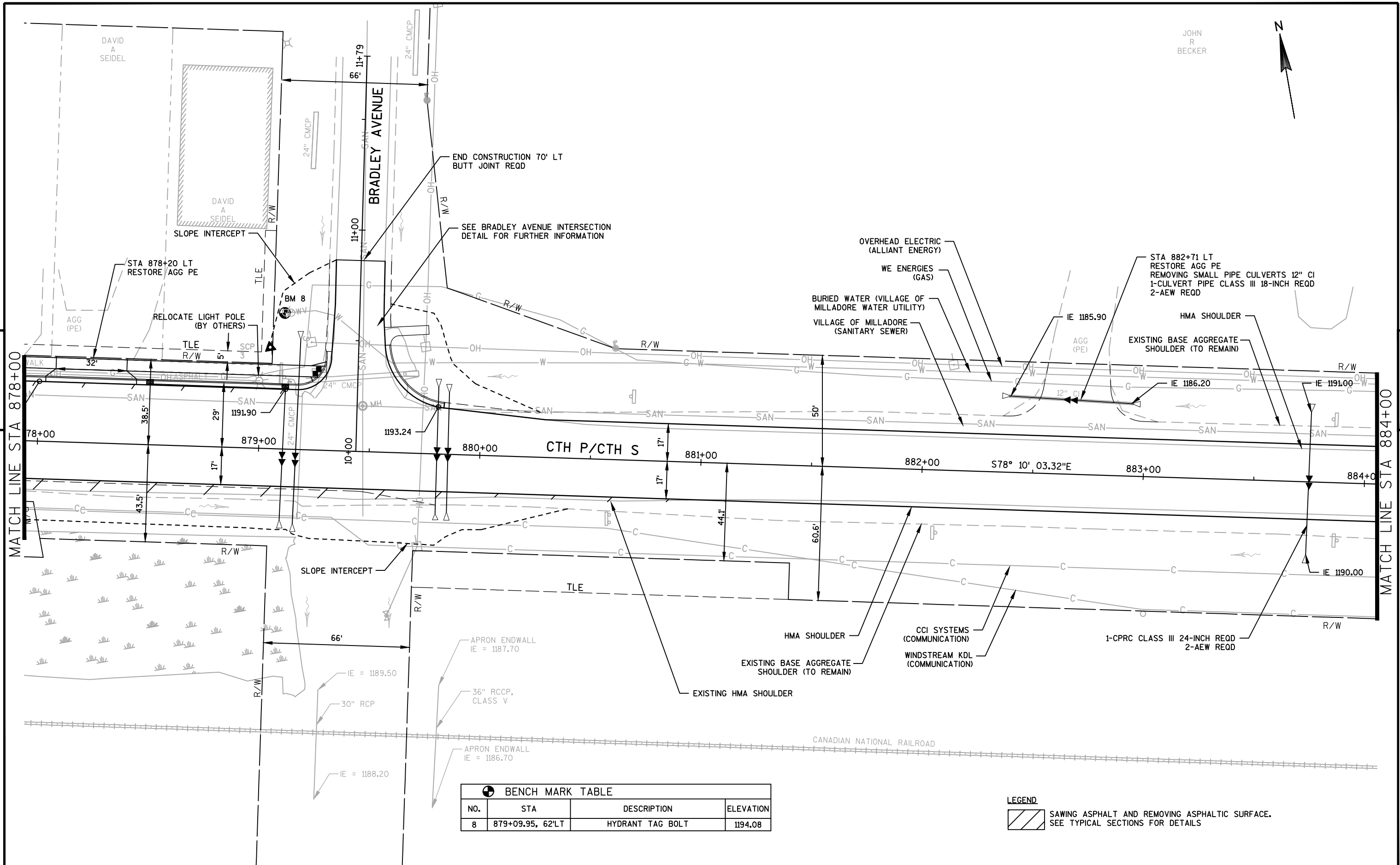
SAWING ASPHALT AND REMOVING ASPHALTIC SURFACE. SEE TYPICAL SECTIONS FOR DETAILS



LEGEND

SAWING ASPHALT AND REMOVING ASPHALTIC SURFACE. SEE TYPICAL SECTIONS FOR DETAILS

BENCH MARK TABLE			
NO.	STA	DESCRIPTION	ELEVATION
205	874+38.35, 186'LT	HYDRANT TAG BOLT	1195.27

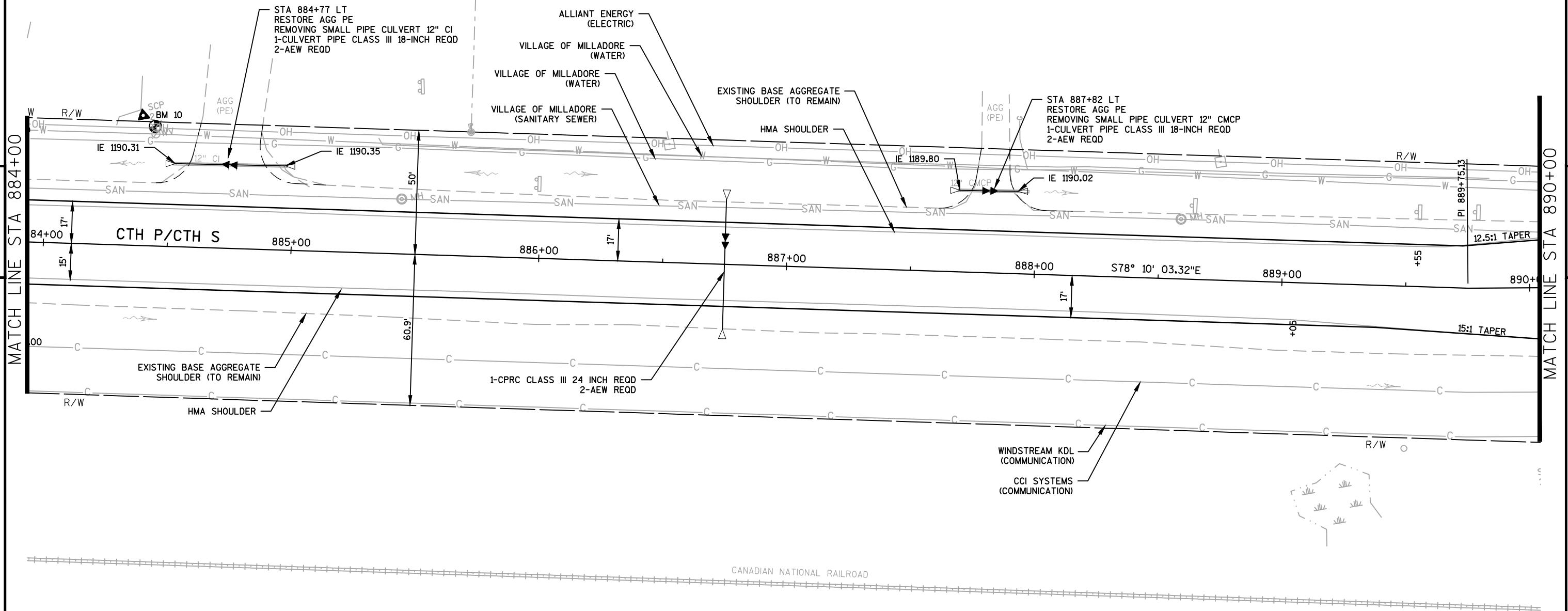


BENCH MARK TABLE			
NO.	STA	DESCRIPTION	ELEVATION
8	879+09.95, 62'LT	HYDRANT TAG BOLT	1194.08

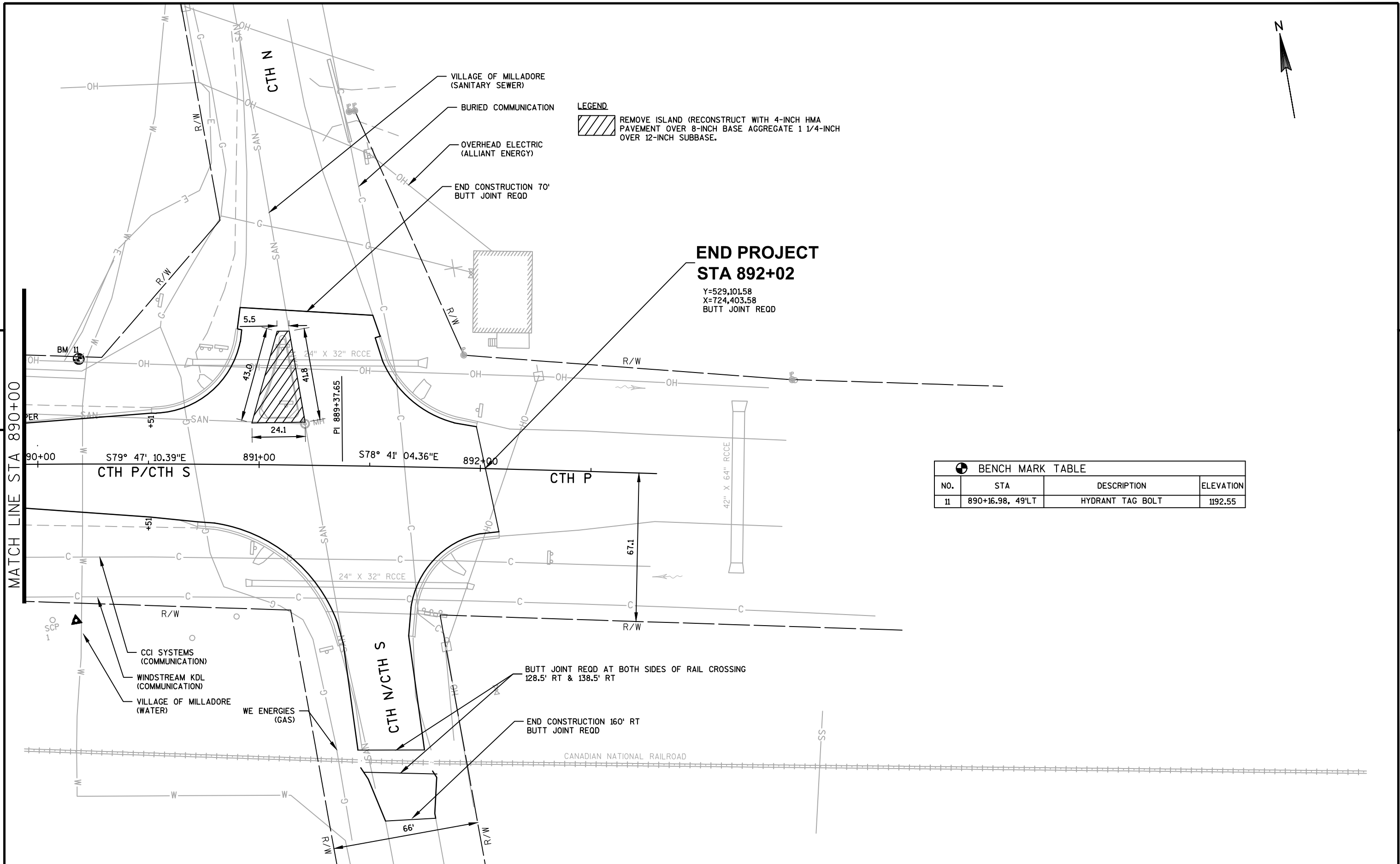
LEGEND

SAWING ASPHALT AND REMOVING ASPHALTIC SURFACE. SEE TYPICAL SECTIONS FOR DETAILS

DUSTIN
&
CHRISTINA
ALBERT



BENCH MARK TABLE			
NO.	STA	DESCRIPTION	ELEVATION
10	884+43.78, 48'LT	HYDRANT TAG BOLT	1193.18



LEGEND



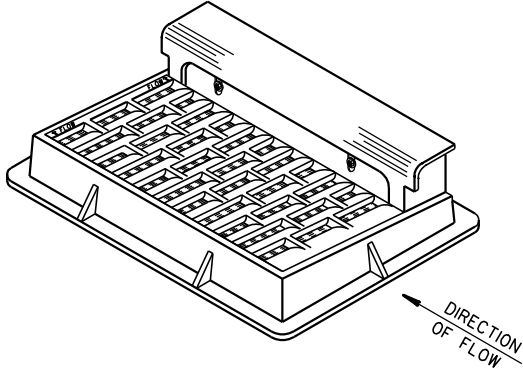
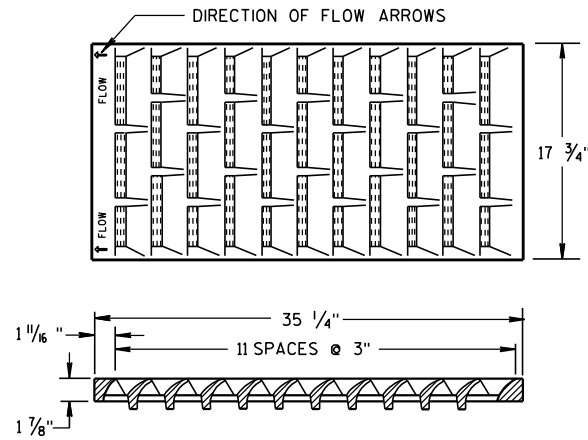
REMOVE ISLAND (RECONSTRUCT WITH 4-INCH HMA PAVEMENT OVER 8-INCH BASE AGGREGATE 1 1/4-INCH OVER 12-INCH SUBBASE.

BENCH MARK TABLE			
NO.	STA	DESCRIPTION	ELEVATION
11	890+16.98, 49°LT	HYDRANT TAG BOLT	1192.55

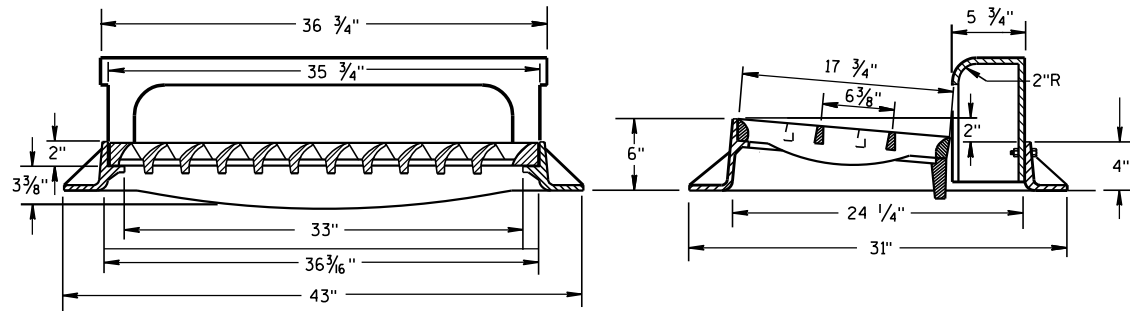
Standard Detail Drawing List

08A05-16A	INLET COVERS TYPE A, H, A-S, & H-S
08A05-16B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08A05-17C	INLET COVERS TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S
08A05-17D	INLET COVER, TYPE Z MANHOLE COVERS, TYPE K, J, J-S, J-H, J-H-S, L & M
08B09-01	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
08C07-01	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08D01-17	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D05-14A	CURB RAMPS TYPES 1 AND 1-A
08D05-14B	CURB RAMPS TYPES 2 AND 3
08D05-14C	CURB RAMPS TYPE 4A
08D05-14D	CURB RAMPS TYPE 4B
08D05-14E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D15-04B	EDGEDRAIN AND BASE AGGREGATE OPEN GRADED
08D15-04C	EDGEDRAIN AND BASE AGGREGATE OPEN GRADED
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
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
09A01-12A	AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND D AND TEE INTERSECTION BYPASS LANE
09A01-12B	AT-GRADE SIDE ROAD INTERSECTION, TYPE "A1" & "A2"
15A03-01	MARKER POSTS, FLEXIBLE, FOR CULVERT END
15C02-04A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-04B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C03-01	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C05-01	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C08-14A	PAVEMENT MARKING (MAINLINE)
15C12-03	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
15C19-01A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C19-01B	MOVING PAVEMENT MARKING OPERATION MULTI-LANE UNDIVIDED ROADWAY
15C19-01C	MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY
15D28-01	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D30-01	TRAFFIC CONTROL, SIDEWALK CLOSURE

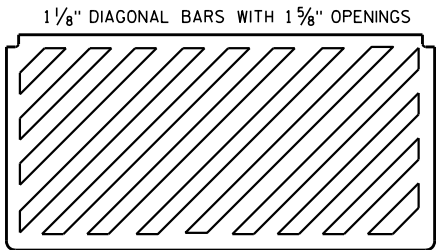
NOTE:
GRATE IS REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"



TYPE "H"
(APPROXIMATE WEIGHT 422 LBS.)
FRAME..... 175 LBS.
GRATE..... 138 LBS.
CURB BOX..... 109 LBS.



**SPECIAL GRATE FOR
TYPE "H" COVER**
(MEASURES 35 1/4" X 17 3/4" X 2")
(APPROXIMATE WEIGHT 172 LBS.)
GRATE..... 172 LBS.
(NOTED AS TYPE H-S ON DRAINAGE TABLE)

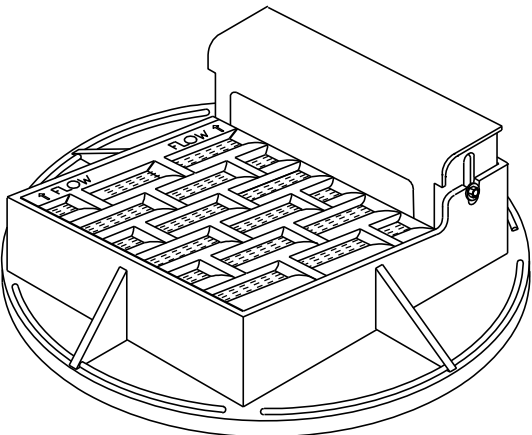
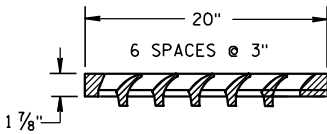
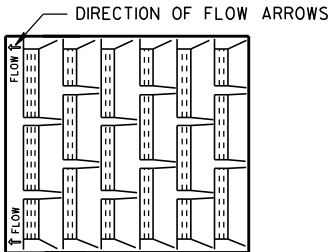
GENERAL NOTES

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

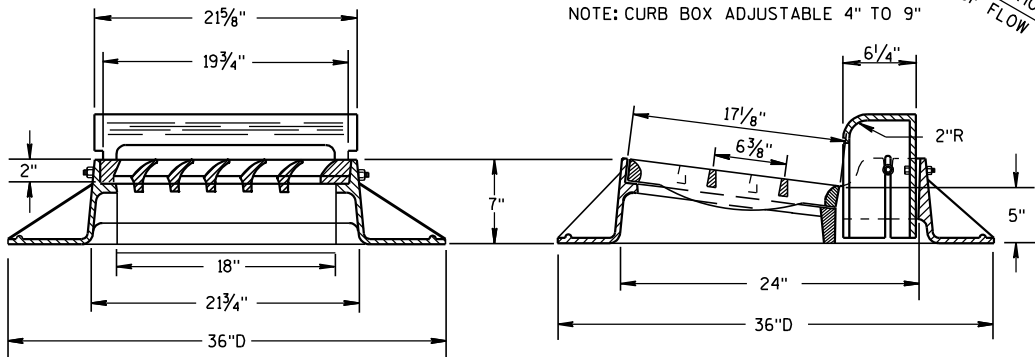
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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

THE ACTUAL WEIGHT OF COVERS MAY VARY WITHIN 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.



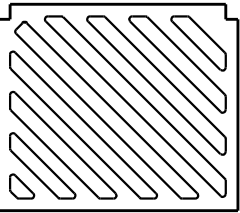
NOTE: CURB BOX ADJUSTABLE 4" TO 9"



TYPE "A"
(APPROXIMATE WEIGHT 325 LBS.)
FRAME..... 157 LBS.
GRATE..... 84 LBS.
CURB BOX..... 84 LBS.

NOTE:
GRATE IS REVERSIBLE.

1" DIAGONAL BARS
WITH 1 1/2" OPENINGS

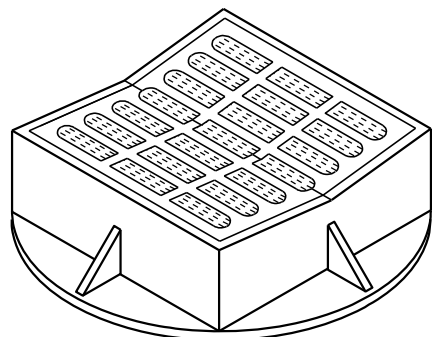
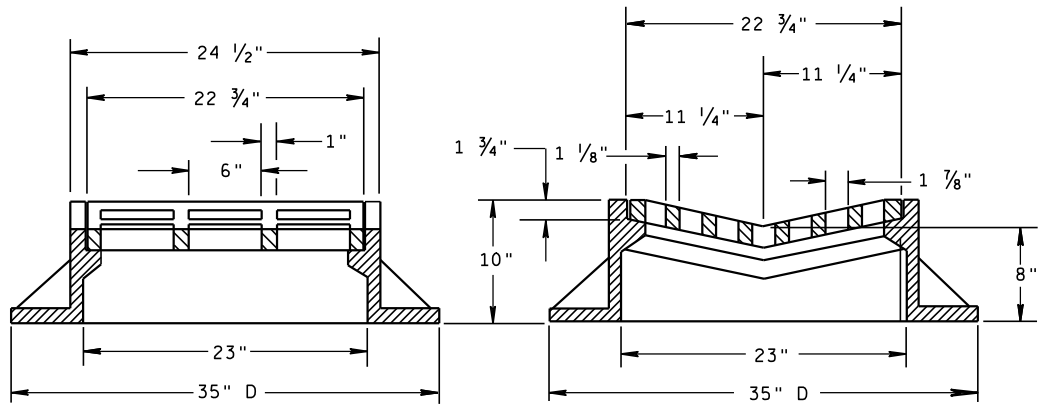


**SPECIAL GRATE FOR
TYPE "A" COVER**
(MEASURES 19 3/4" X 17" X 1 1/8")
GRATE..... 84 LBS.
(NOTED AS TYPE A-S ON DRAINAGE TABLE)

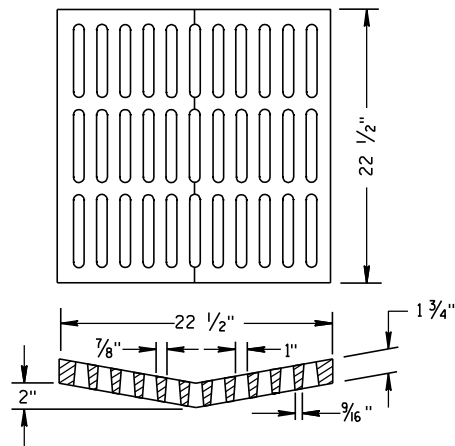
**INLET COVERS
TYPE A, H, A-S, & H-S**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/4/1999 /S/ Rory L. Rhinesmith
DATE CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

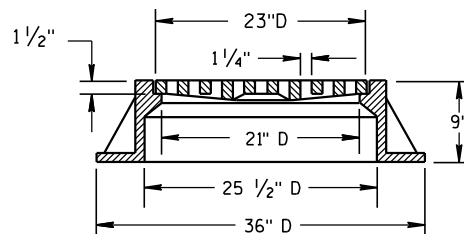
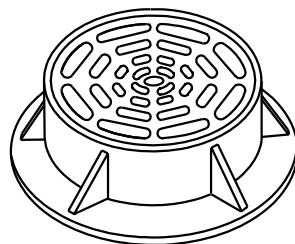


TYPE "B"
(APPROXIMATE WEIGHT 395 LBS.)
FRAME..... 285 LBS.
GRATE..... 110 LBS.



**ALTERNATIVE GRATE FOR
TYPE "B" COVER**

(APPROXIMATE GRATE WEIGHT 125 LBS.)
GRATE.....125 LBS.
USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS POSSIBLE.
NOTED AS TYPE B-A ON THE DRAINAGE TABLE



TYPE "C"
(APPROXIMATE WEIGHT 340 LBS.)
FRAME..... 235 LBS.
GRATE..... 105 LBS.

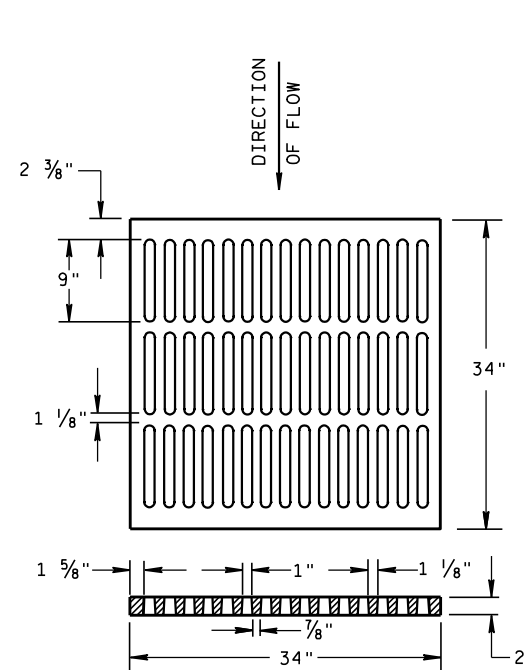
GENERAL NOTES

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.

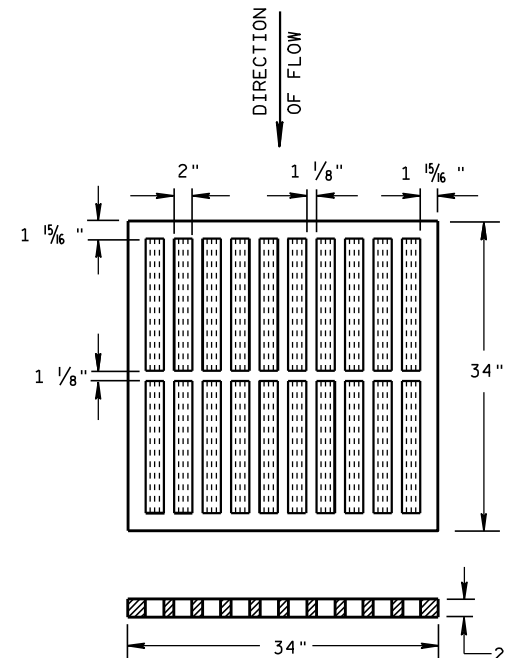
ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

THE ACTUAL WEIGHT OF COVERS MAY VARY WITHIN 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.



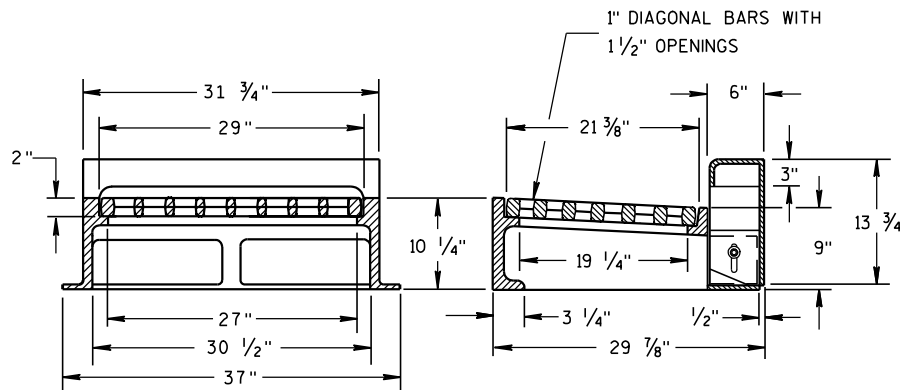
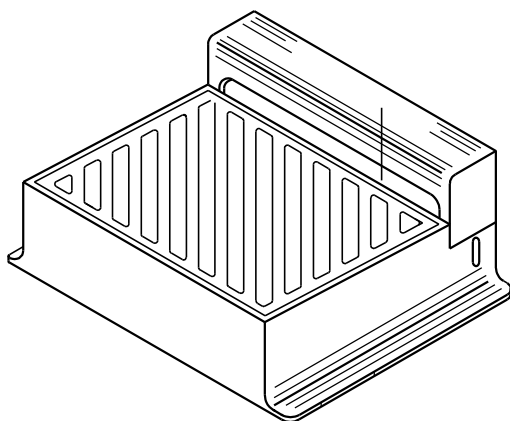
ALTERNATIVE TYPE "MS"
(APPROXIMATE GRATE WEIGHT 365 LBS.)
GRATE..... 365 LBS.

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



TYPE "MS"
(APPROXIMATE GRATE WEIGHT 270 LBS.)
GRATE..... 270 LBS.

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



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

TYPE "WM"
(APPROXIMATE WEIGHT 670 LBS.)

FRAME..... 360 LBS.
GRATE..... 160 LBS.
CURB BOX..... 150 LBS.

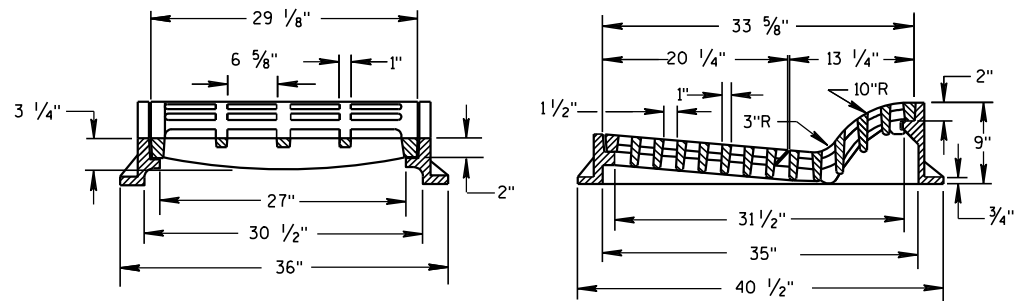
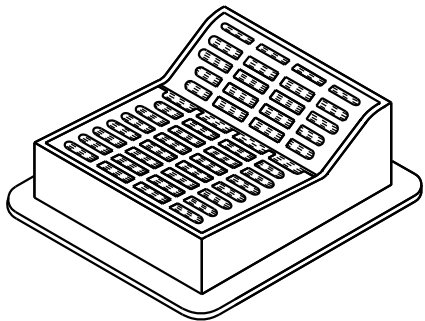
DIAGONAL SLOTS, SHALL BE ORIENTED TO THE DIRECTION OF FLOW AS ILLUSTRATED. GRATES ARE MANUFACTURED TO BE REVERSIBLE.

DIRECTION OF FLOW

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/4/1999 /S/ Rory L. Rhinesmith
DATE CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

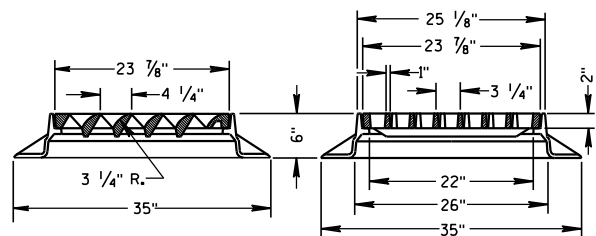
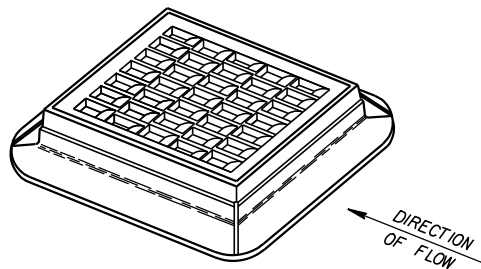


TYPE "F"

(APPROXIMATE WEIGHT 645 LBS.)

FRAME.....300 LBS.
GRATE.....165 LBS.
GRATE.....180 LBS.

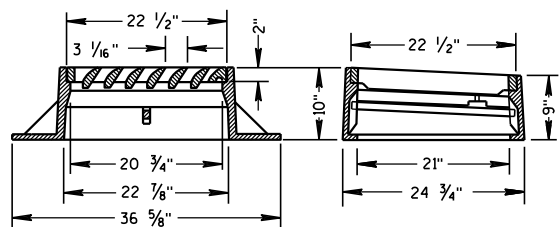
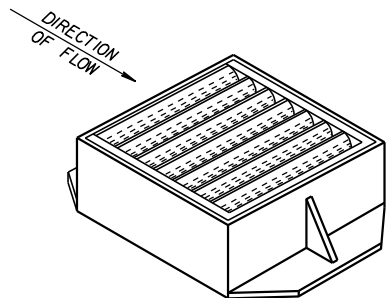
USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.



TYPE "S"

(APPROXIMATE WEIGHT 334 LBS.)

FRAME.....165 LBS.
GRATE.....169 LBS.



TYPE "V"

(APPROXIMATE WEIGHT 405 LBS.)

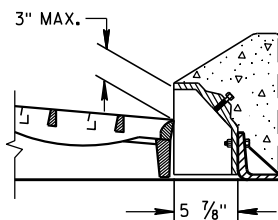
FRAME.....270 LBS.
GRATE.....130 LBS.
SAFETY BAR.....5 LBS.

**ALTERNATIVE CURB BOX
FOR TYPE "HM" COVER**

(APPROXIMATE WEIGHT 79 LBS.)

CURB BOX.....79 LBS.

USE WITH TYPES G & J CONCRETE CURB & GUTTER, 30 INCH
NOTED AS TYPE HM-GJ ON DRAINAGE TABLE



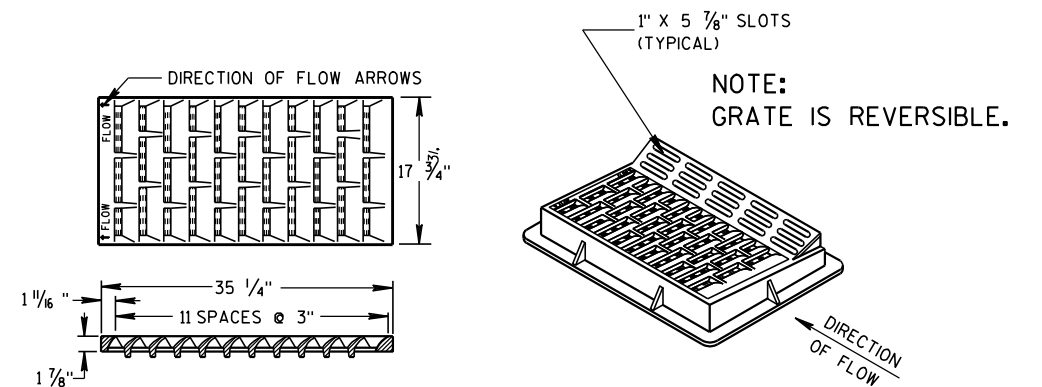
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM-GJ" COVER
NOTED AS TYPE HM-GJ-S ON DRAINAGE TABLE

GENERAL NOTES

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

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

THE ACTUAL WEIGHT OF COVERS MAY VARY WITHIN 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.



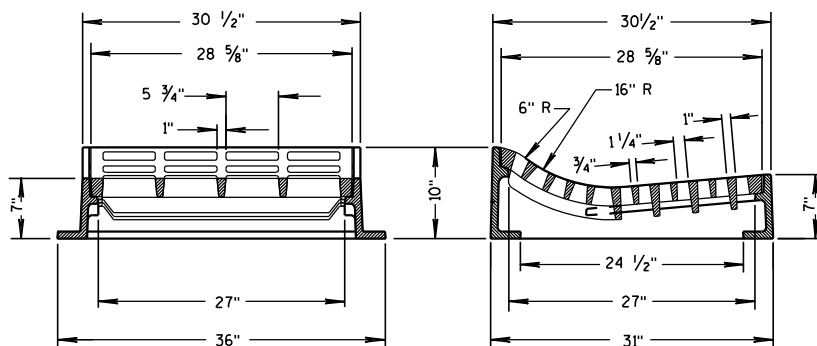
TYPE "HM"

(APPROXIMATE WEIGHT 375 LBS.)

FRAME.....175 LBS.
GRATE.....138 LBS.
CURB BOX.....62 LBS.

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

NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM" COVER
NOTED AS TYPE HM-S ON DRAINAGE TABLE

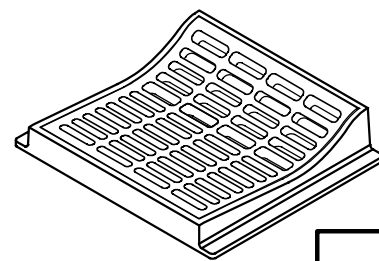


TYPE "T"

(APPROXIMATE WEIGHT 530 LBS.)

FRAME.....270 LBS.
GRATE.....260 LBS.

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



INLET COVERS
TYPE F, HM, HM-S, S, T, V,
HM-GJ, & HM-GJ-S

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
1/7/08 /S/ Jerry H. Zogg
DATE ROADWAY STANDARDS DEVELOPMENT
ENGINEER
FHWA

GENERAL NOTES

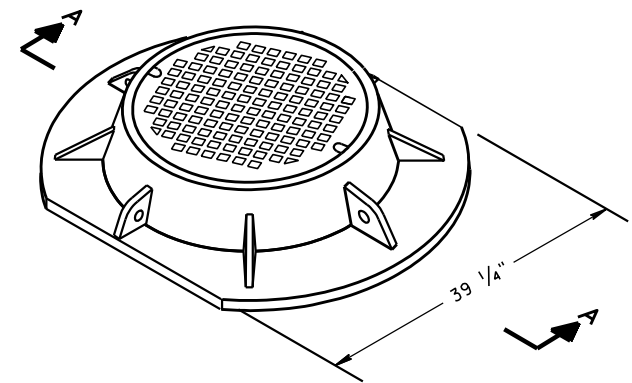
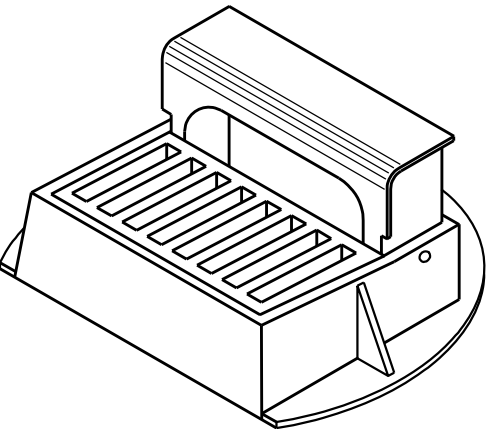
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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.

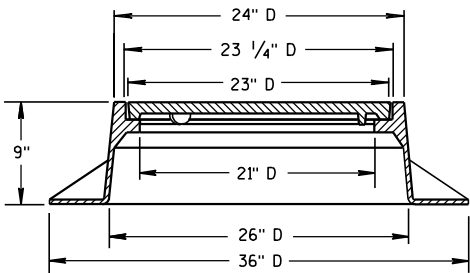
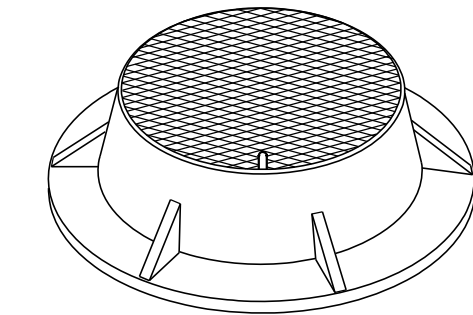
ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

THE ACTUAL WEIGHT OF COVERS MAY VARY WITHIN 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.

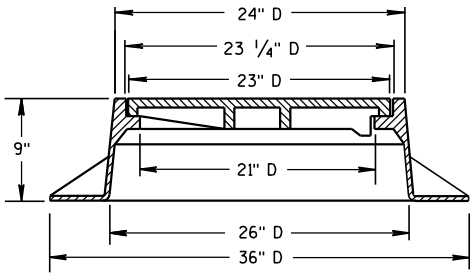
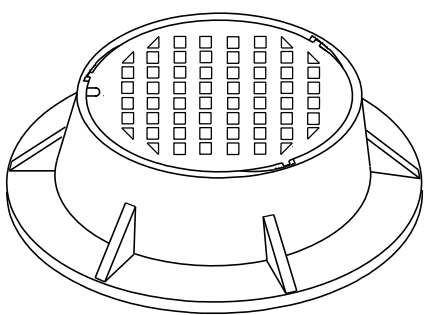
① MANUFACTURER MAY PROVIDE ADDITIONAL SEALS OR GASKETS.



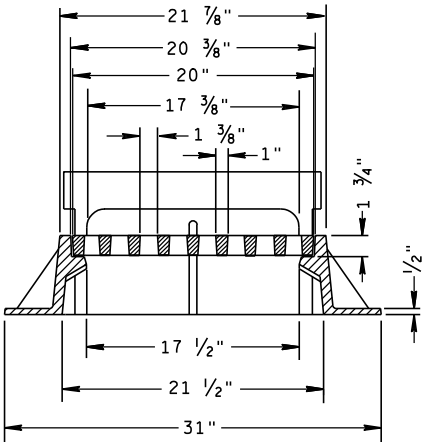
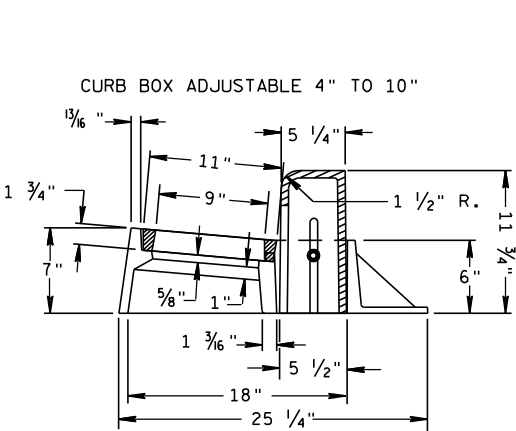
SECTION A-A
TYPE "K"
(APPROXIMATE WEIGHT 415 LBS.)
FRAME.....210 LBS.
LID.....205 LBS.



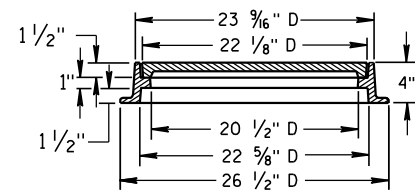
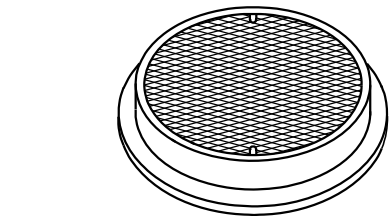
TYPE "J"
(APPROXIMATE WEIGHT 250 LBS.)
FRAME.....135 LBS.
LID.....115 LBS.



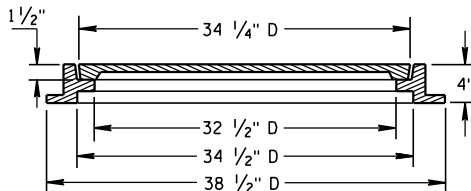
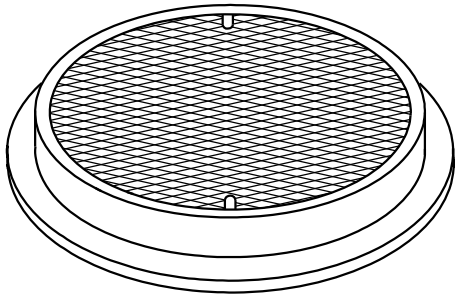
TYPE "J" SPECIAL
TYPE "B" NON-ROCKING SELF-SEAL LID
(APPROXIMATE WEIGHT 245 LBS.)
FRAME.....145 LBS.
LID.....100 LBS.
(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)



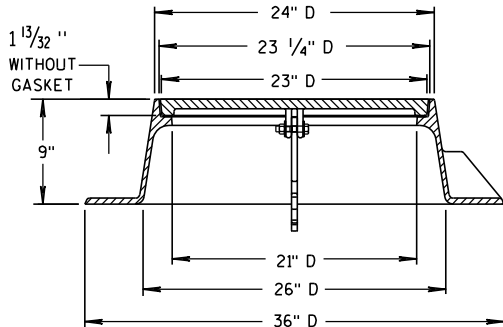
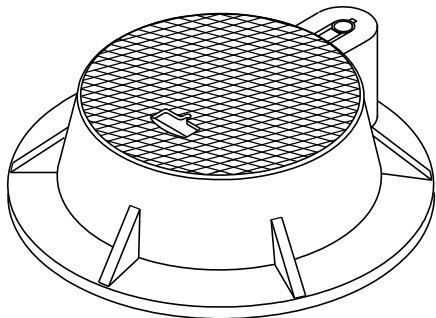
INLET COVER TYPE "Z"
(APPROXIMATE WEIGHT 340 LBS.)
FRAME.....198 LBS.
GRATE..... 50 LBS.
CURB BOX..... 92 LBS.



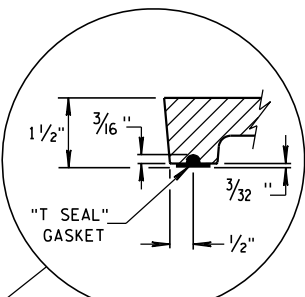
TYPE "L"
(APPROXIMATE WEIGHT 145 LBS.)
FRAME..... 75 #
LID..... 70 #



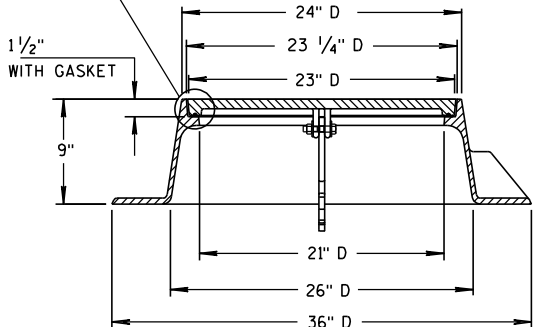
TYPE "M"
(APPROXIMATE WEIGHT 385 LBS.)
FRAME..... 125 #
LID..... 260 #



TYPE "J" HINGED
LID WITHOUT "T SEAL" GASKET
(APPROXIMATE WEIGHT 310 LBS.)
FRAME.....190 LBS.
LID.....120 LBS.
(NOTED AS TYPE J-H ON THE DRAINAGE TABLE)



"T SEAL" GASKET DETAIL

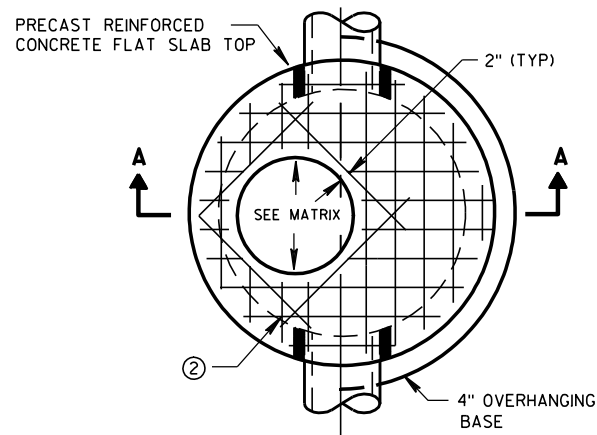


TYPE "J" HINGED-SPECIAL
LID WITH "T SEAL" GASKET
(APPROXIMATE WEIGHT 310 LBS.)
FRAME.....190 LBS.
LID.....120 LBS.
(NOTED AS TYPE J-S-H ON THE DRAINAGE TABLE)

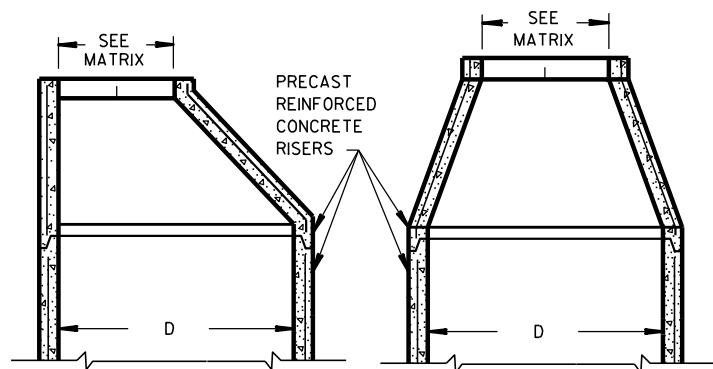
INLET COVER, TYPE Z
MANHOLE COVERS, TYPE
K, J, J-S, J-H, J-H-S, L & M

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/24/2005 DATE /S/ Beth Canestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

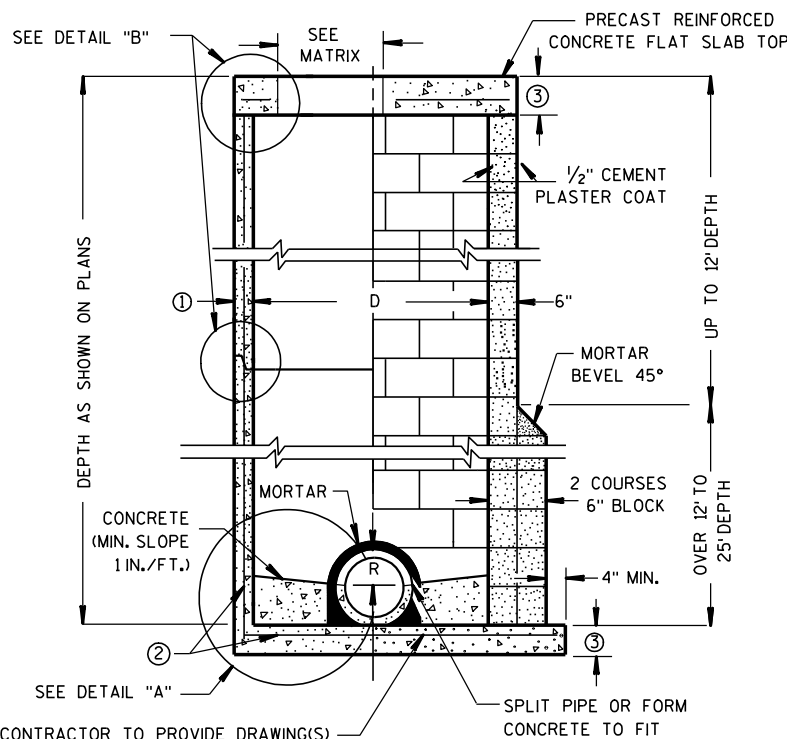


PLAN VIEW CIRCULAR OPENING



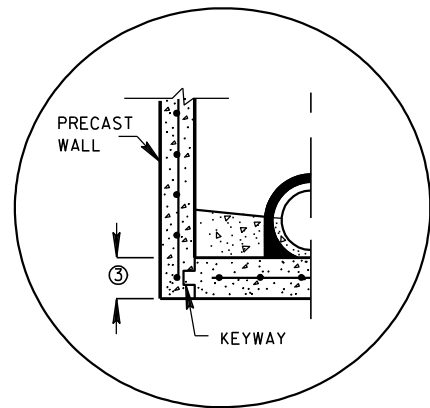
OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

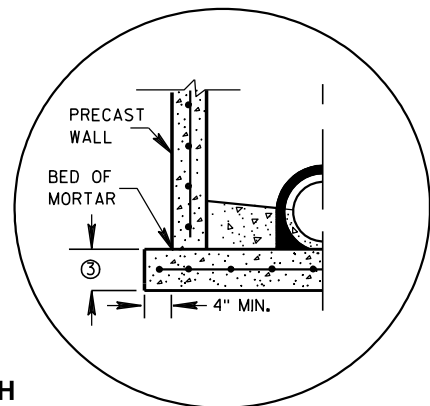


CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES

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

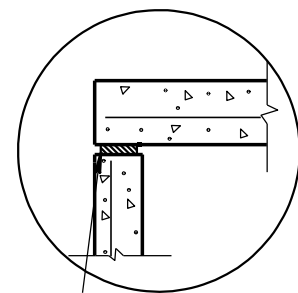


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

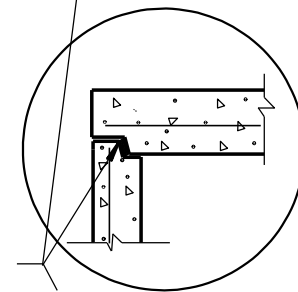


SEPERATE PRECAST REINFORCED CONCRETE BASE OPTION

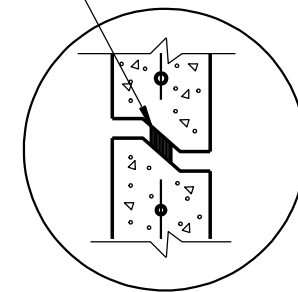
DETAIL "A"



TOP WITH PLAIN END JOINT

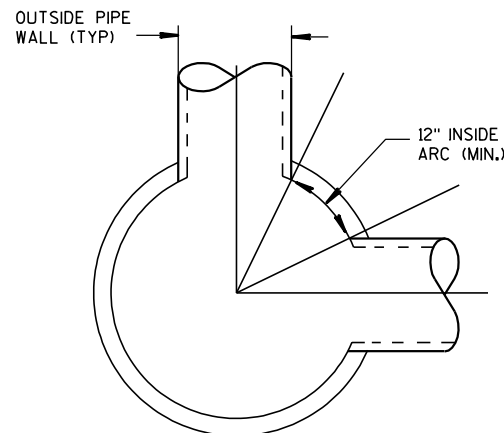


TOP WITH TONGUE AND GROOVE JOINT



RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"



DETAIL "C"

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 GRANULAR 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. THE CONE TOPS SHALL BE INSTALLED ON A BED OF MORTAR.

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 SEPERATE 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

6/5/2012

DATE

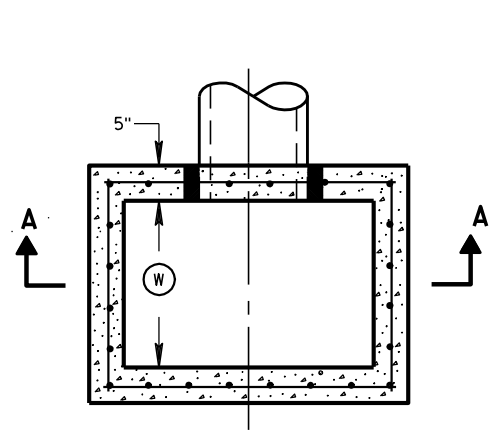
FHWA

/S/ Jerry H. Zogg

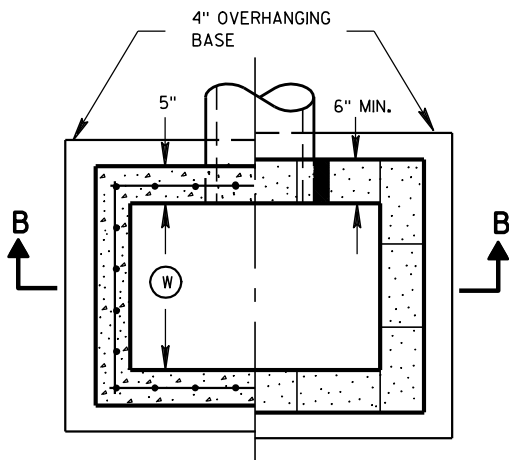
ROADWAY STANDARDS DEVELOPMENT

ENGINEER

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

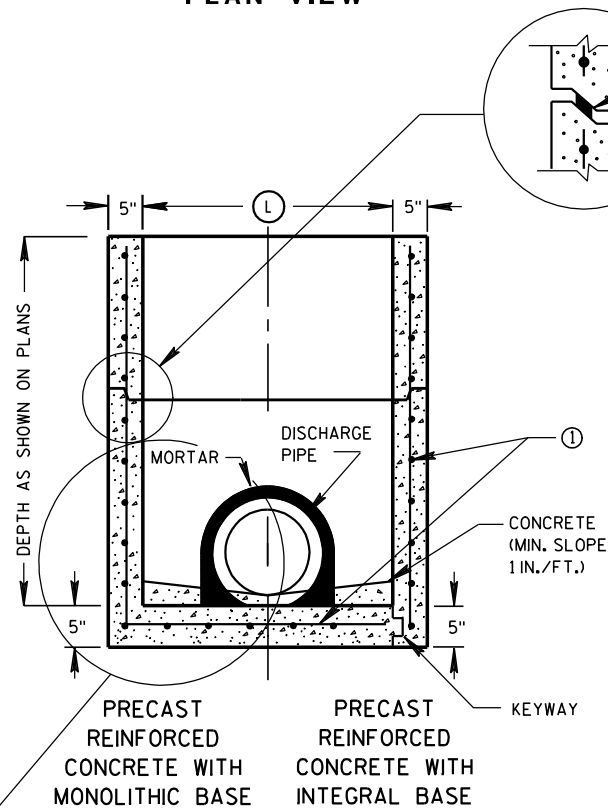


PLAN VIEW

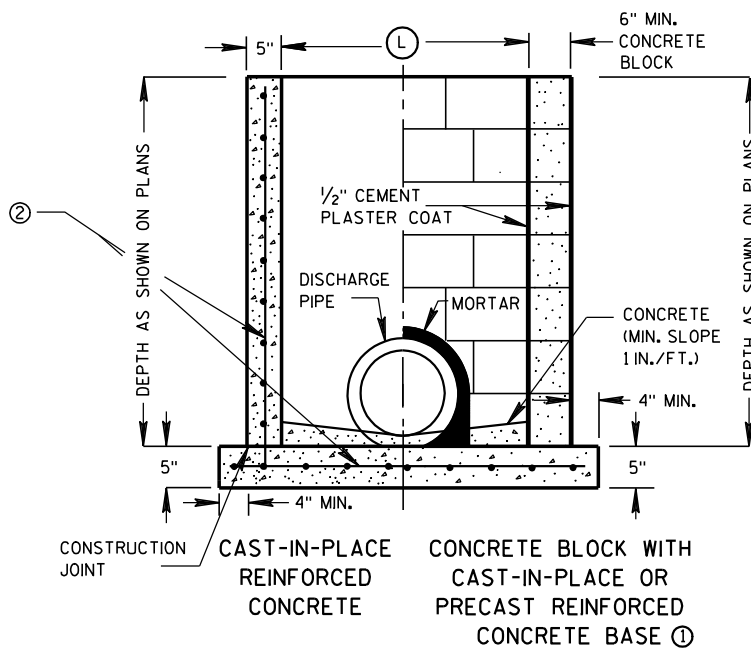


PLAN VIEW

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

SEPERATE PRECAST REINFORCED CONCRETE BASE OPTION

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

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 GRANULAR 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 SEPERATE 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.

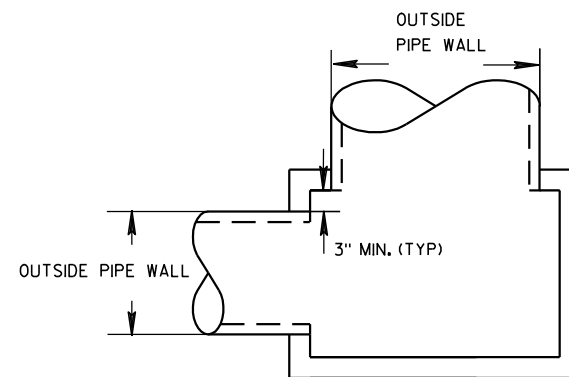
- FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.
- CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

INLET COVER MATRIX

INLET SIZE		INLET COVER TYPE	ALL A'S	ALL B'S	BW	F	ALL H'S	S	T	V	WM
	WIDTH (FT)	LENGTH (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

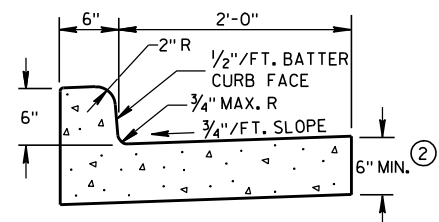


DETAIL "A"

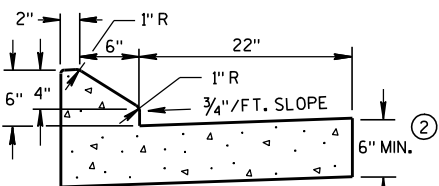
INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

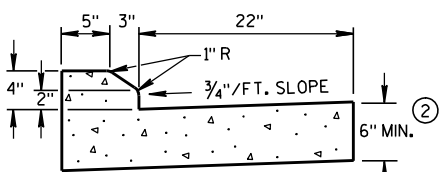
APPROVED
6/5/2012
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER
FHWA



TYPES A & D ①

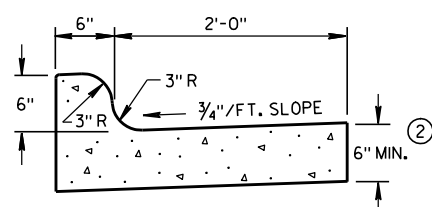


6" SLOPED CURB TYPES G & J ①

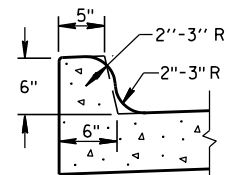
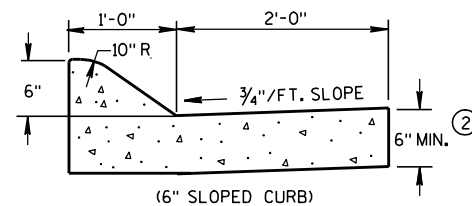


4" SLOPED CURB TYPES G & J ①

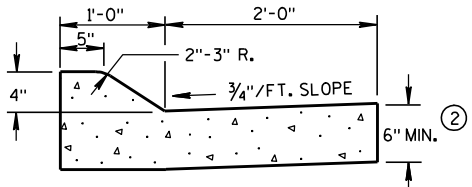
CONCRETE CURB & GUTTER 30"



TYPES K & L ①

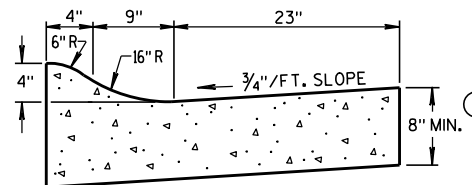
OPTIONAL CURB SHAPE
FOR TYPES K & L ①

(6" SLOPED CURB)

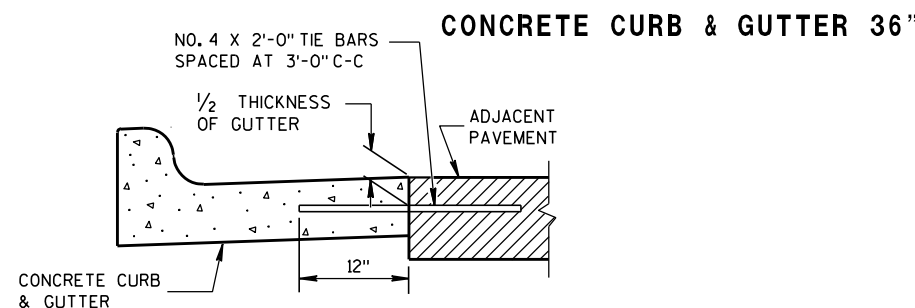


(4" SLOPED CURB)

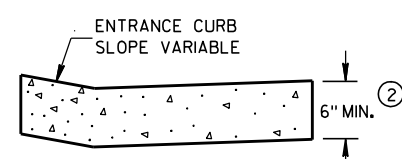
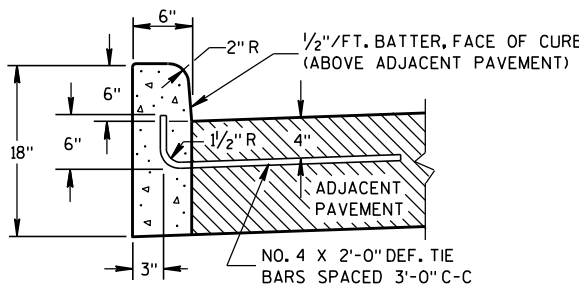
TYPES A & D ①



4" SLOPED CURB TYPES R & T ① ④

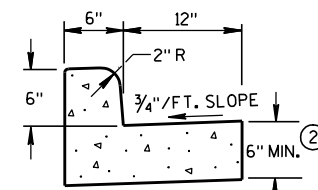
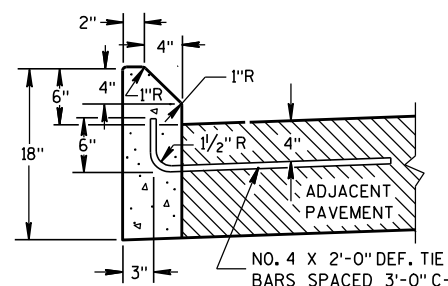


TYPICAL TIE BAR LOCATION ①

DRIVEWAY ENTRANCE CURB
(WHEN DIRECTED BY THE ENGINEER)

TYPES A & D ①

CONCRETE CURB

TYPES A & D
CONCRETE CURB & GUTTER 18"

TYPES G & J ①

GENERAL NOTES

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

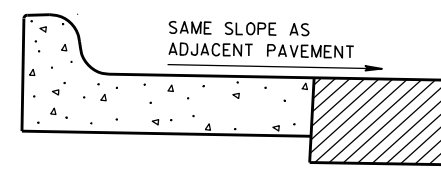
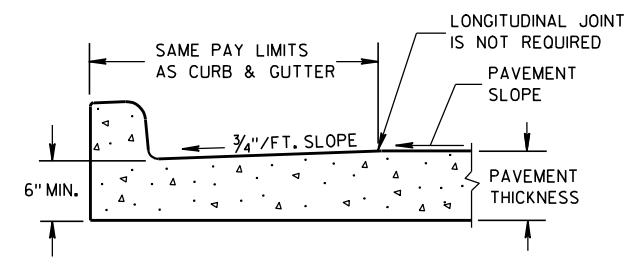
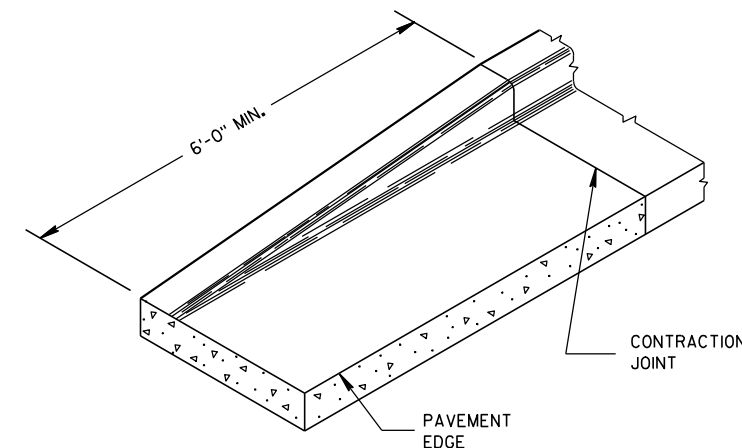
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

INTEGRAL CURB & GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB & GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE. A LONGITUDINAL CONSTRUCTION JOINT IS NOT REQUIRED WITH INTEGRAL CURB AND GUTTER.

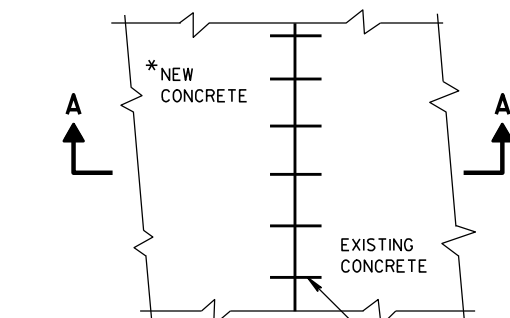
WHERE THE TRANSVERSE JOINTS IN THE PAVEMENT ARE REQUIRED TO BE SEALED, THE JOINTS IN THE INTEGRAL CURB AND GUTTER SHALL BE SEALED TO THE FACE OF CURB WITH THE SAME TYPE OF SEALANT. THE COST OF FURNISHING AND INSTALLING THIS SEALANT SHALL BE INCIDENTAL TO THE ITEM CONCRETE CURB AND GUTTER.

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

- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K AND R.
- 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 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.
- ④ THE FACE OF CURB IS 6" FROM THE BACK OF CURB.
- ⑤ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.

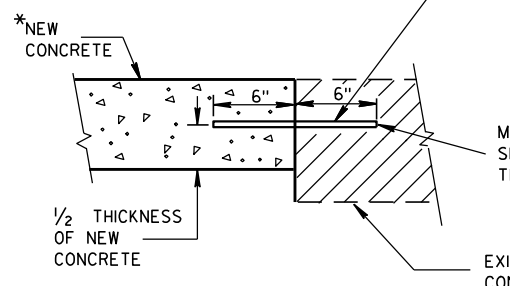
REVERSE SLOPE GUTTER ⑤
(TYPICAL FOR ALL CURB & GUTTER TYPES)PARTIAL SECTION OF PAVEMENT
WITH INTEGRAL CURB & GUTTER

END SECTION CURB & GUTTER



PLAN VIEW

* NEW CURB & GUTTER,
SURFACE DRAINS,
CONCRETE PAVEMENT
OR OTHER NEW CONCRETE.

SECTION A-A
TIE BARS DRILLED
INTO EXISTING PAVEMENT

NO. 6 TIE BARS SPACED 2'-6" C-C,
INSTALLED PERPENDICULAR
TO THE LONGITUDINAL JOINT.

MAXIMUM DRILL HOLE
SIZE IS 1/8" GREATER
THAN TIE BAR DIAMETER

EXISTING
CONCRETE

CONCRETE CURB, CONCRETE
CURB & GUTTER AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

9/4/08

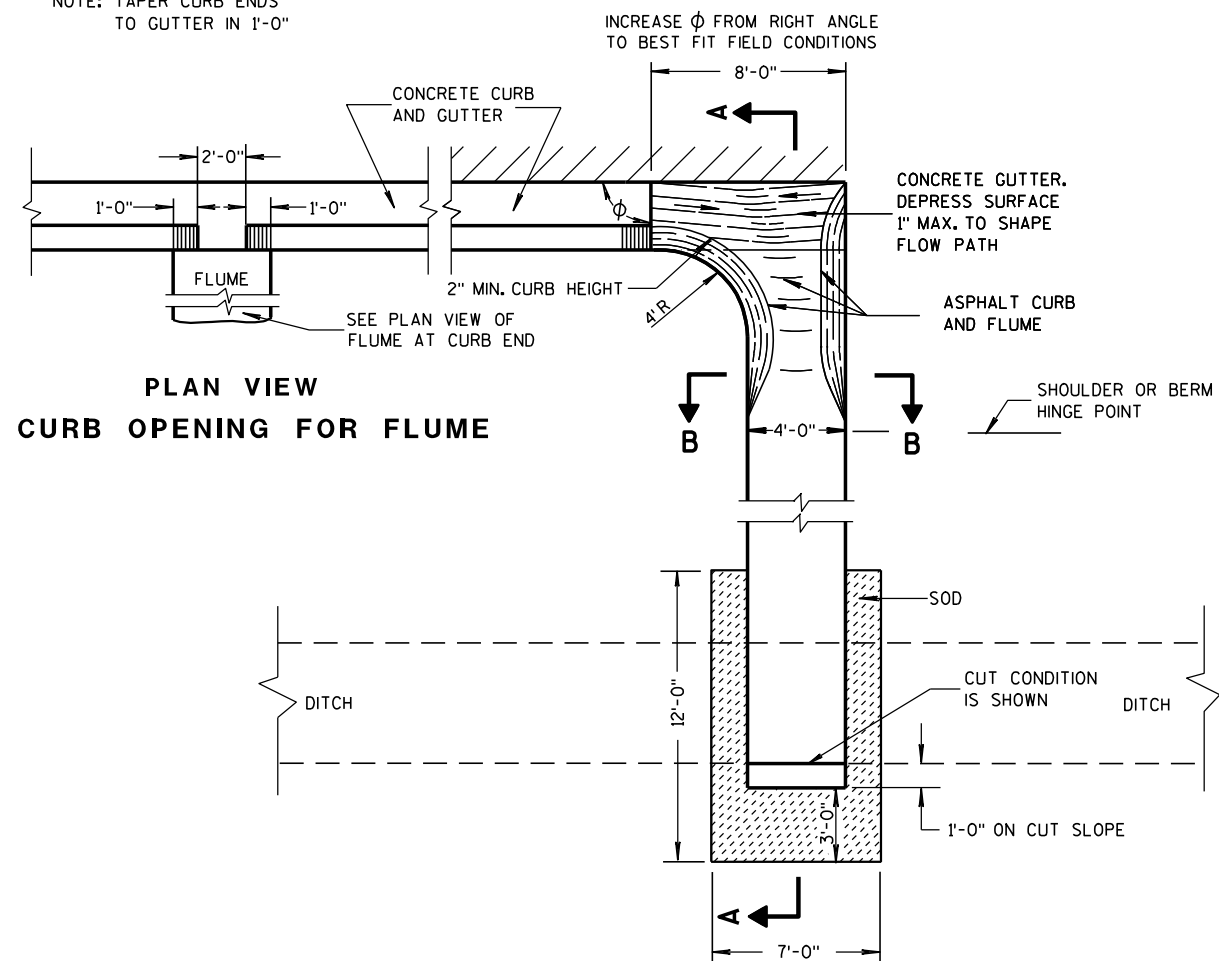
DATE

FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER

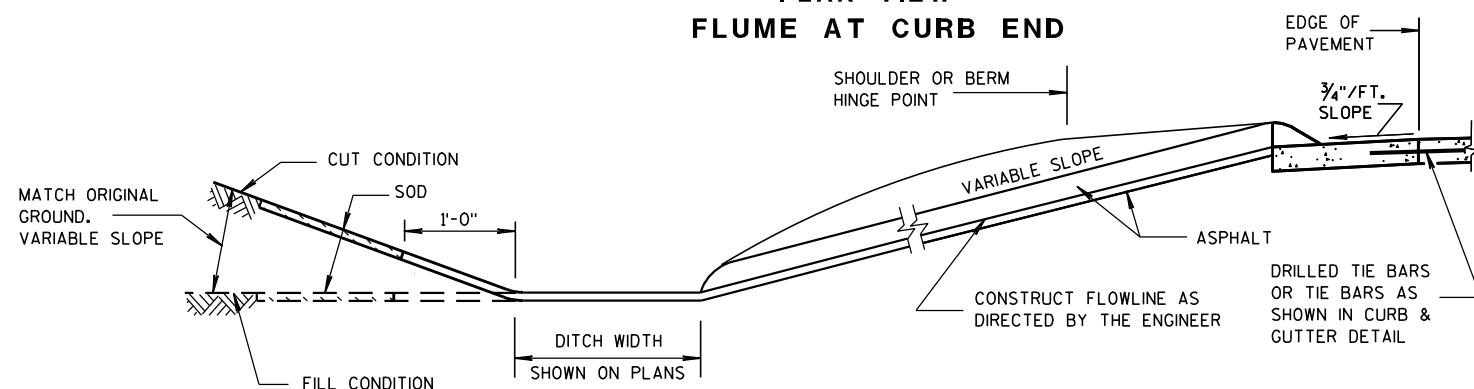
ASPHALTIC FLUME

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

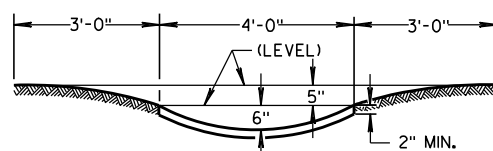


PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END



SECTION A-A



SECTION B-B

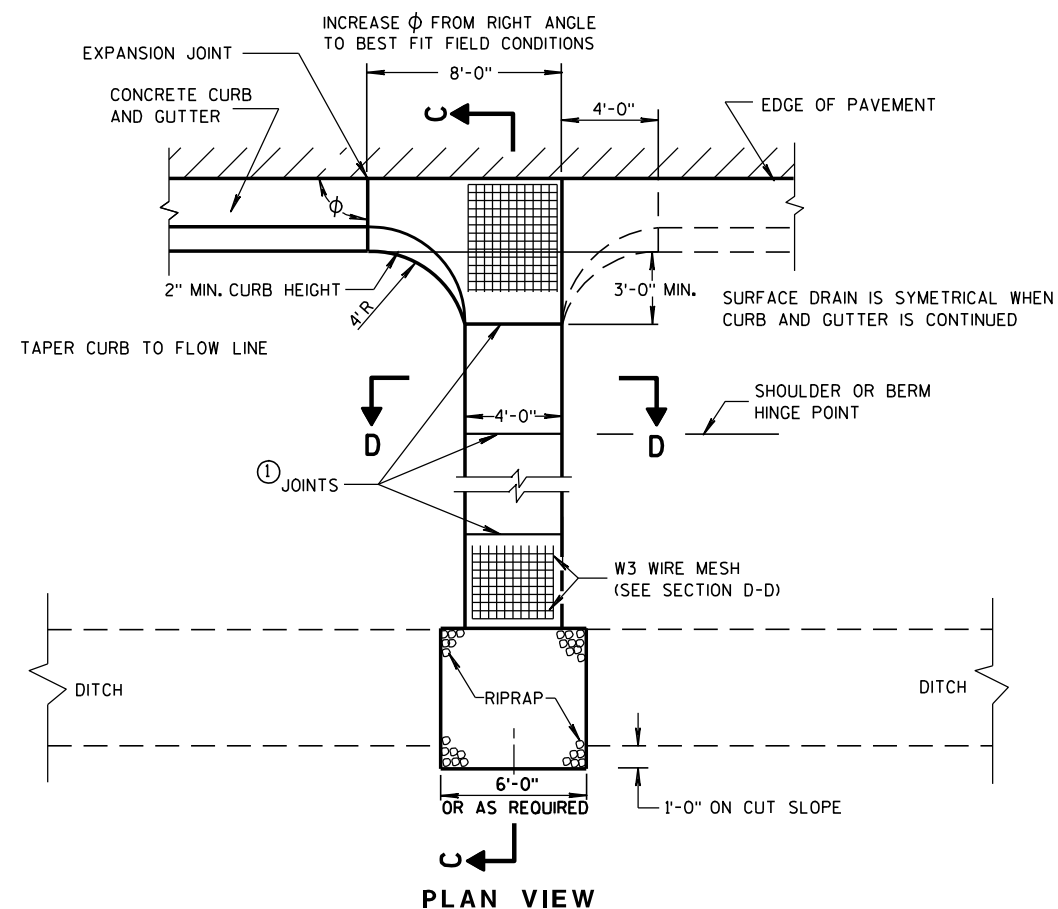
GENERAL NOTES

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

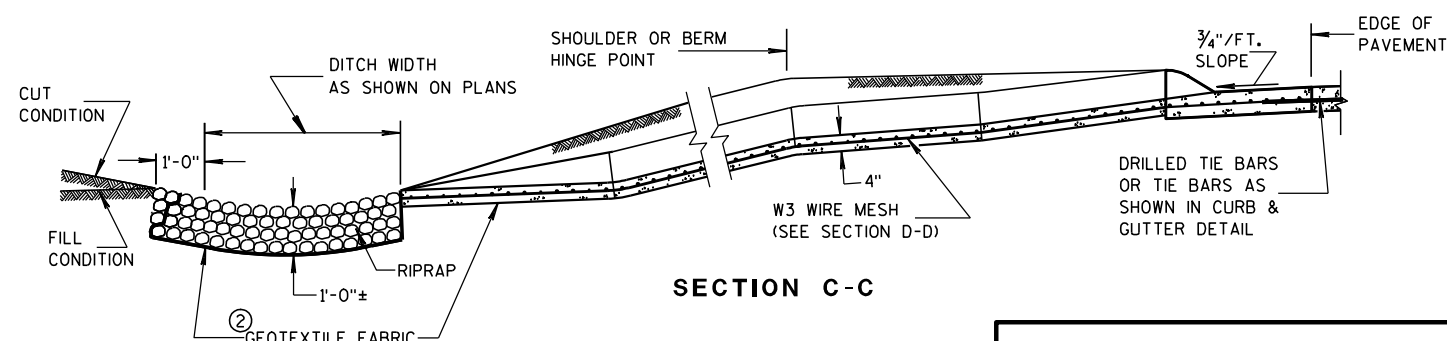
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

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

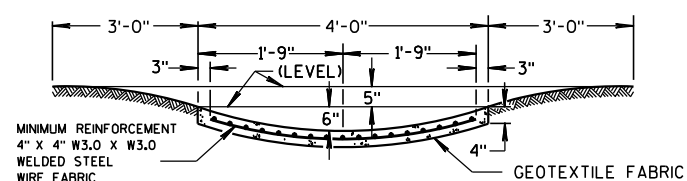
③ CONCRETE SURFACE DRAIN



PLAN VIEW



SECTION C-C



SECTION D-D

CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

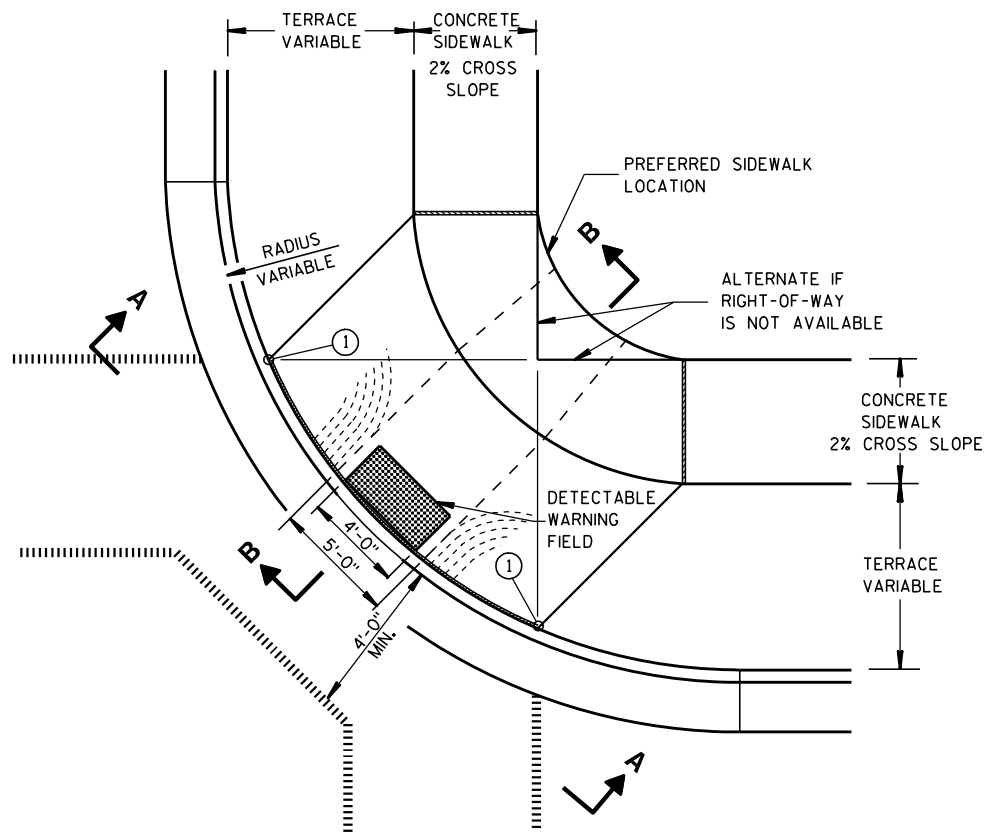
APPROVED

9-4-08

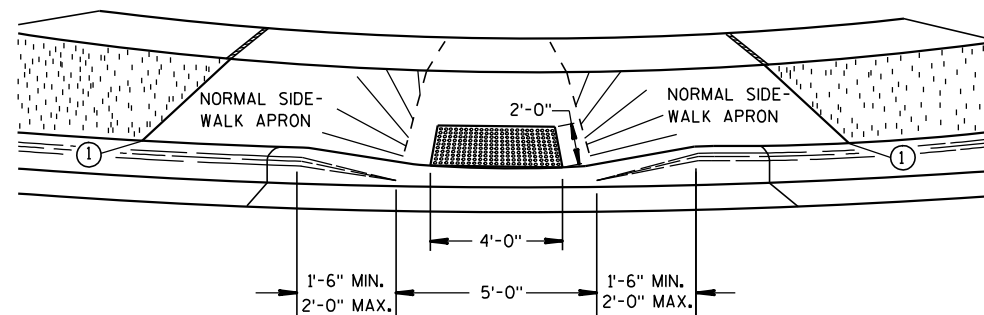
DATE

FHWA

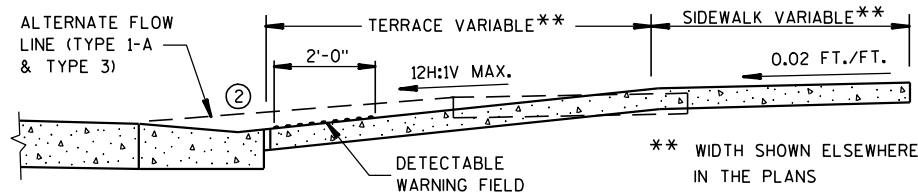
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER



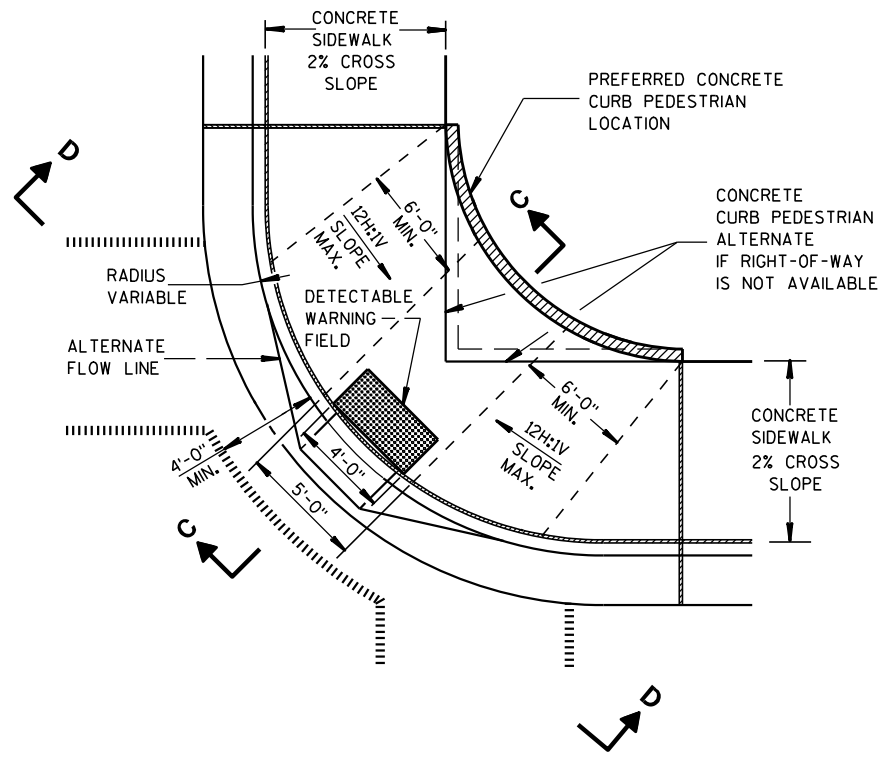
PLAN VIEW
TYPE 1 RAMP
(CENTER OF CORNER RADIUS)



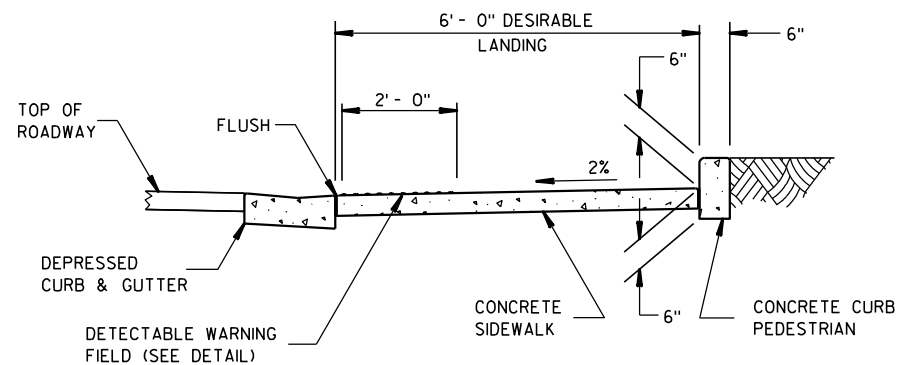
VIEW A-A



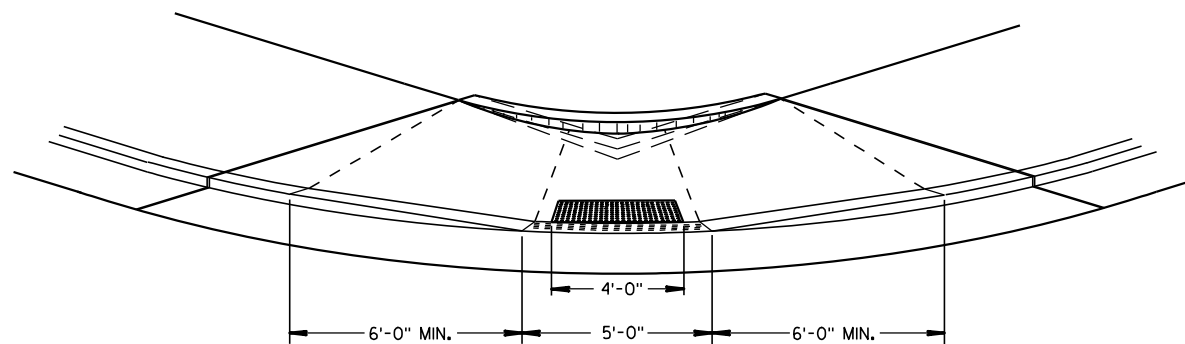
SECTION B-B



PLAN VIEW
TYPE 1-A RAMP
(NO TERRACE)



SECTION C-C



VIEW D-D

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.

RAMPS SHALL BE BUILT AT 12H:1V OR FLATTER. WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.

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

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

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

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

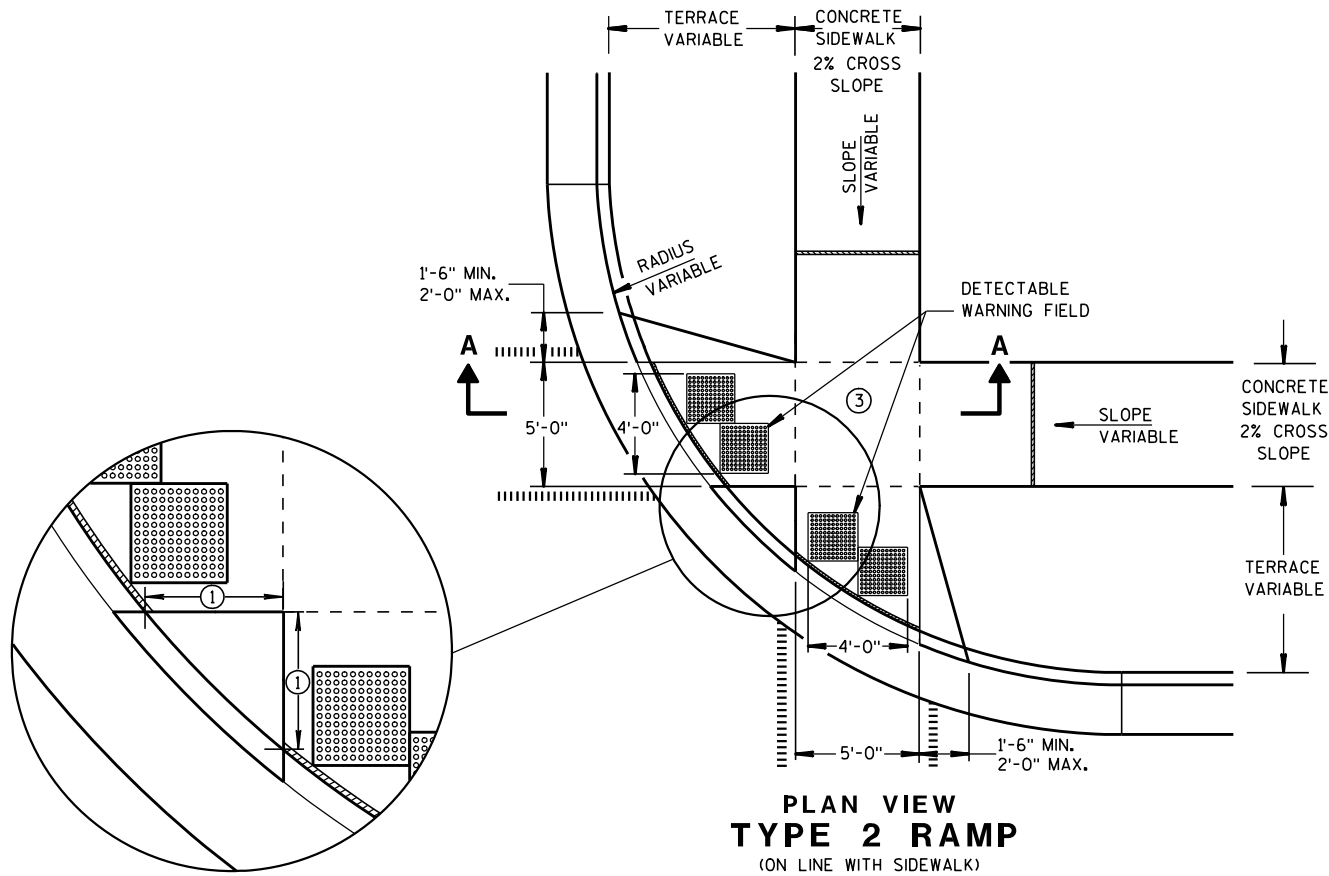
- THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB.
- GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE.

LEGEND

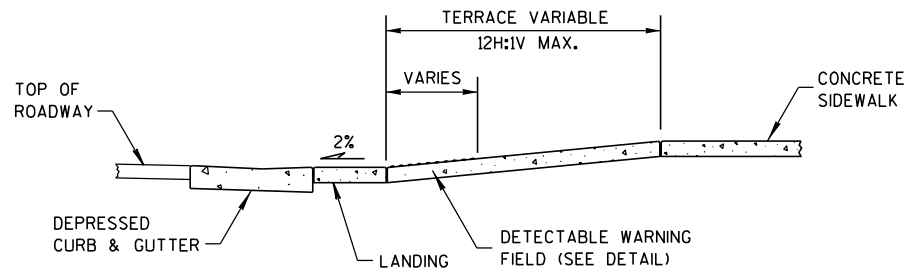
- 1/2" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT

CURB RAMPS
TYPES 1 AND 1-A

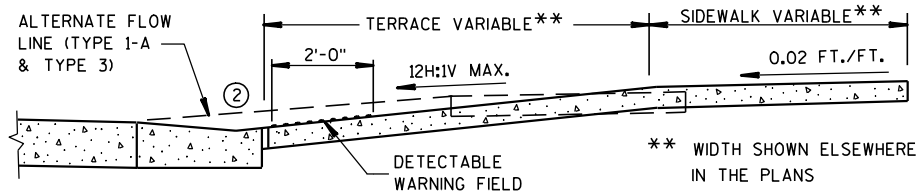
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



PLAN VIEW
TYPE 2 RAMP
(ON LINE WITH SIDEWALK)



SECTION A-A



SECTION B-B

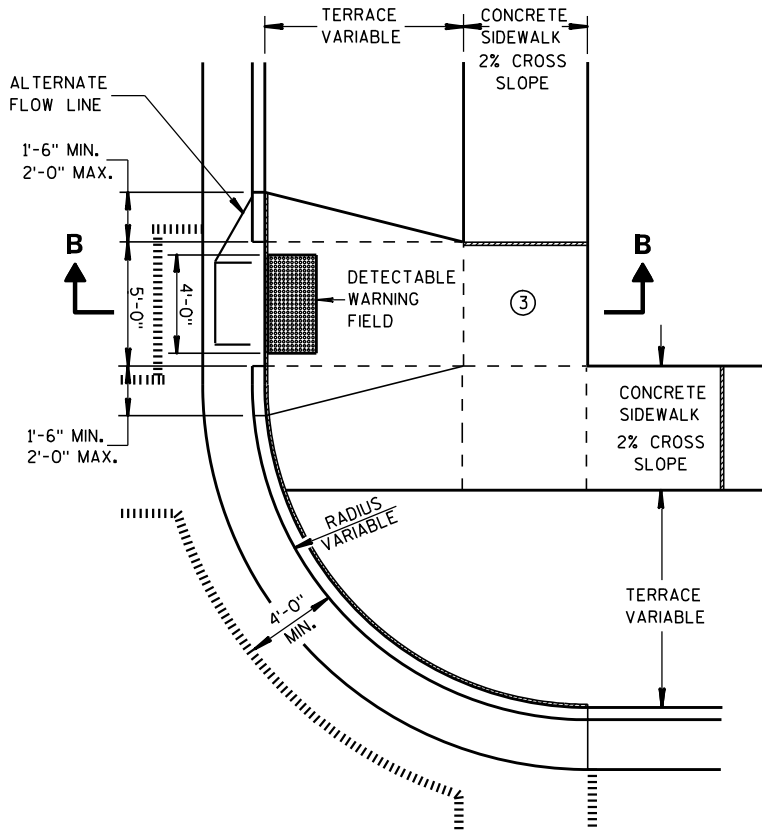
GENERAL NOTES

USE THE TYPE 3 RAMP ONLY WHEN A TYPE 1 OR TYPE 2 CANNOT BE ACHIEVED BECAUSE OF FIELD CONDITIONS.

- ① WHEN THIS DISTANCE IS LESS THAN 6'-0" IT MAY BE DIFFICULT TO ACHIEVE A 12H:1V SLOPE, OR FLATTER, ON THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 12H:1V SLOPE, OR FLATTER, ON RAMP. 2" MINIMUM CURB HEIGHT.
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE.
- ③ PROVIDE LANDING AT TOP OF RAMP WITH NO MORE THAN 2% SLOPE IN ANY DIRECTION.

LEGEND

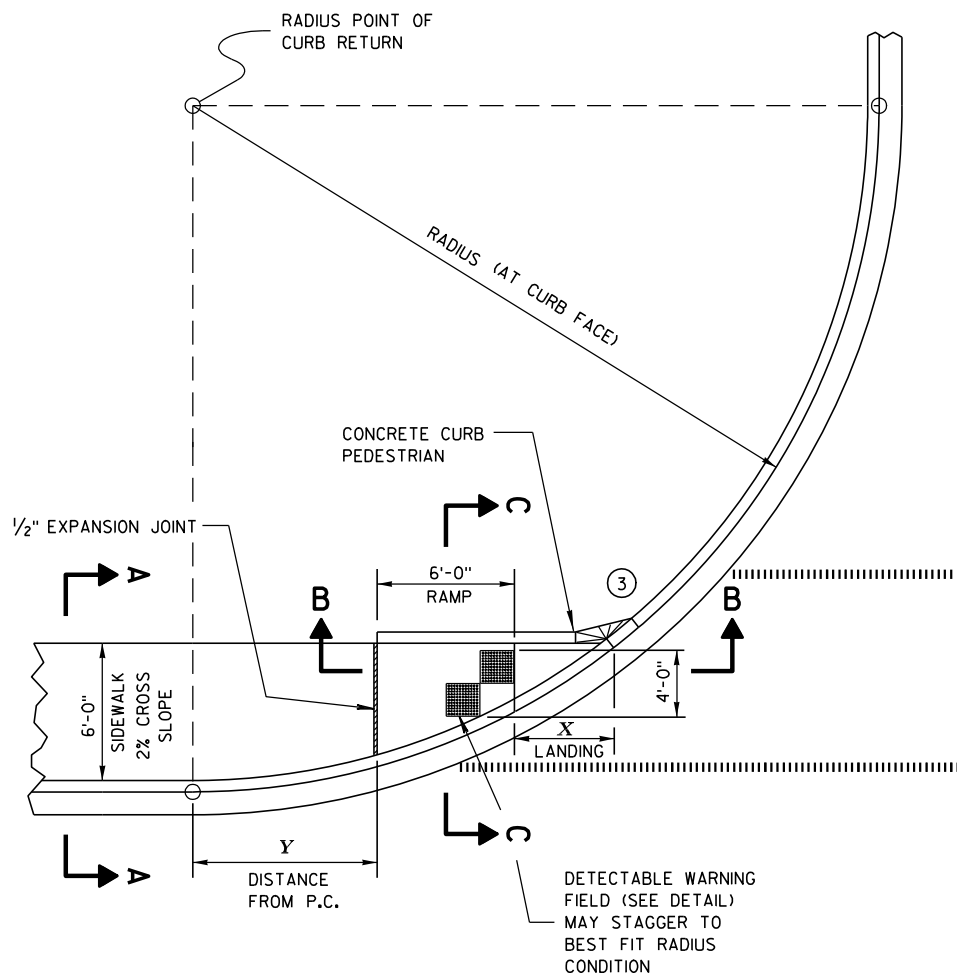
- ===== 1/2" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- ||||| PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



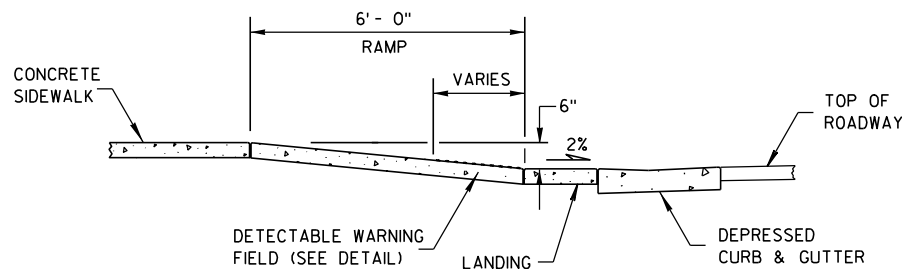
PLAN VIEW
TYPE 3 RAMP
(OUTSIDE OF CROSSWALK AREA)

CURB RAMPS
TYPES 2 AND 3

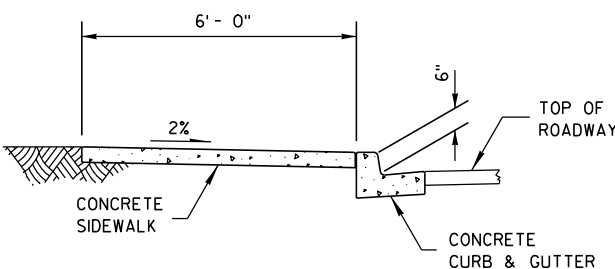
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



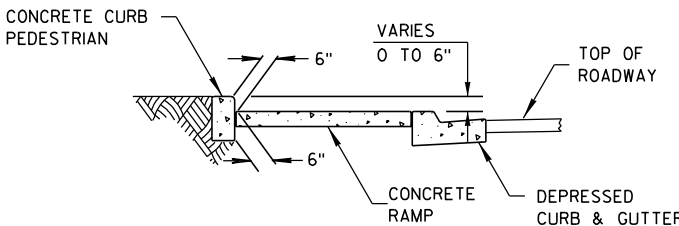
CURB RAMP TYPE 4A
PLAN VIEW



SECTION B-B



SECTION A-A



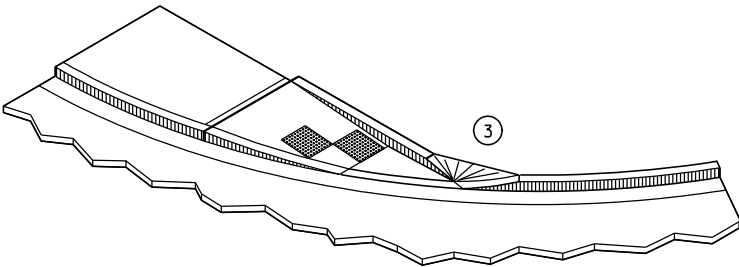
SECTION C-C

RADIUS (AT CURB FACE)	X	Y
20 FEET	6'-13/4"	2'-7 1/4"
30 FEET	7'-11 3/4"	4'-8 1/4"
40 FEET	9'-5 1/4"	6'-5"
50 FEET	10'-8 3/4"	7'-11 1/4"
60 FEET	11'-10 1/4"	9'-3 1/2"

INTERMEDIATE RADII CAN BE INTERPOLATED

GENERAL NOTES

- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.
- RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.
- SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.
- ③ INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.)
DO NOT MARK TRANSITION NOSE.

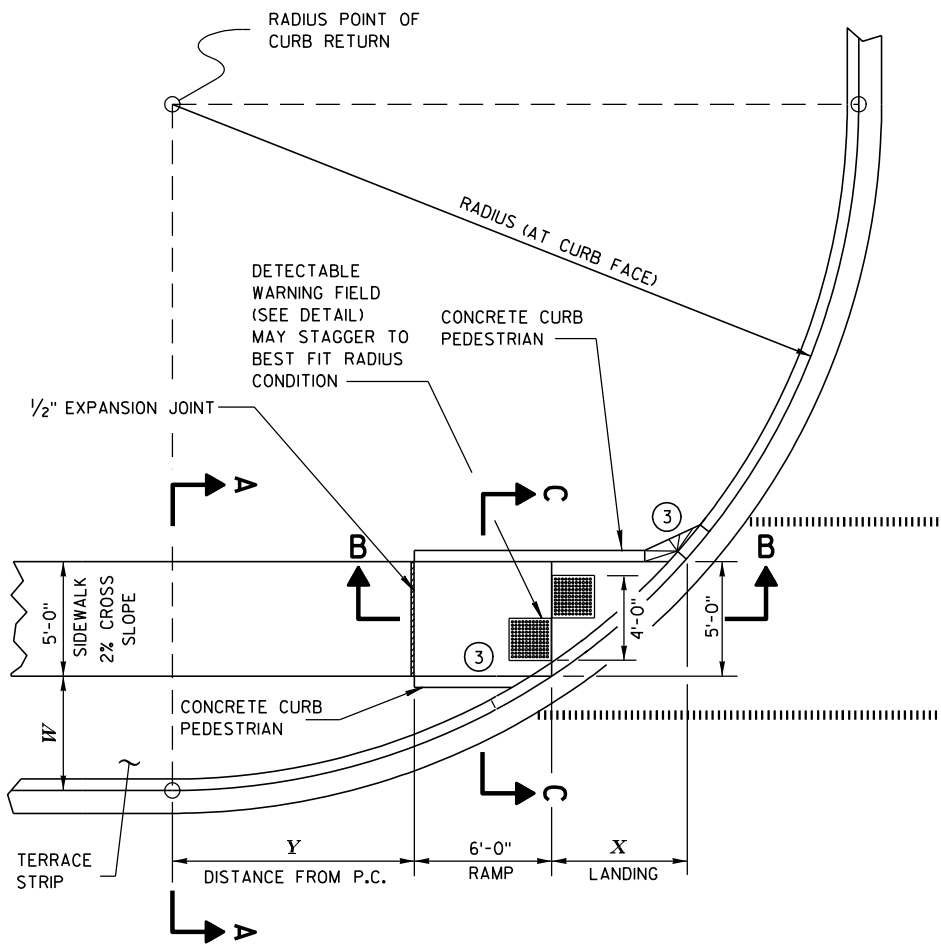


ISOMETRIC VIEW

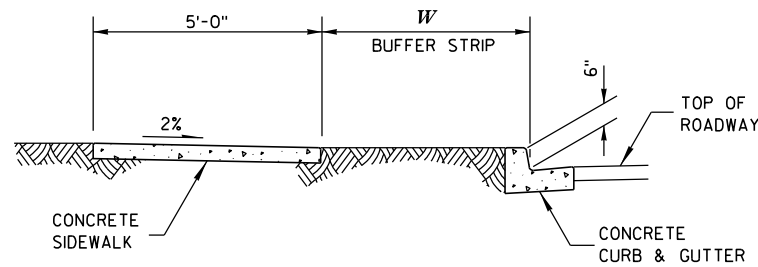
- LEGEND**
- 1/2" EXPANSION JOINT-SIDEWALK
 - CONTRACTION JOINT FIELD LOCATED
 - PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPE 4A

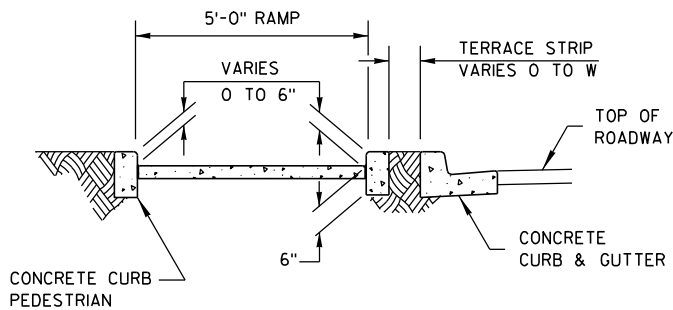
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



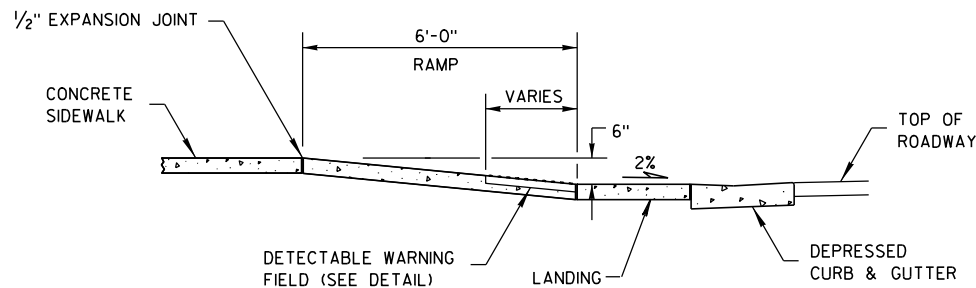
CURB RAMP TYPE 4B
PLAN VIEW



SECTION A-A



SECTION C-C



SECTION B-B

GENERAL NOTES

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

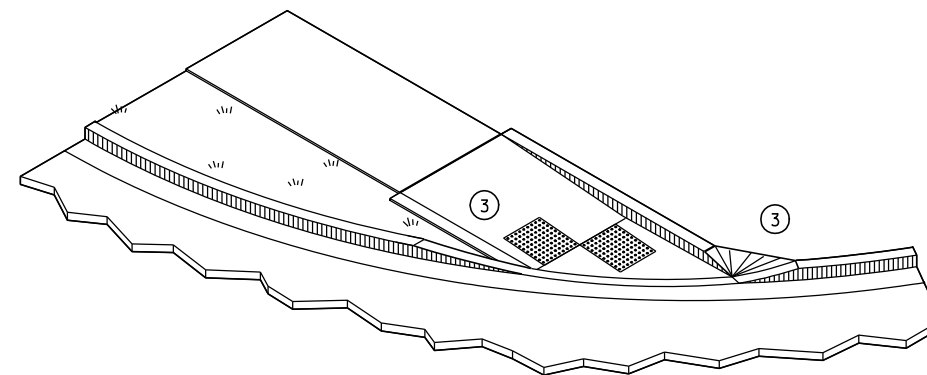
RAMP SLOPES SHALL NOT BE STEEPER THAN 12:1.

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

- ③ INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.)
DO NOT MARK TRANSITION NOSE.

RADIUS (AT CURB FACE)	W = 3'- 0"		W = 4'- 0"		W = 5'- 0"		W = 6'- 0"		W = 7'- 0"	
	X	Y	X	Y	X	Y	X	Y	X	Y
20 FEET	5'-5 1/2"	4'-6 1/2"	4'-8 1/2"	6'-0"	4'-1"	7'-2 3/4"	3'-7"	8'-3 1/2"	3'-1 1/2"	9'-2 1/2"
30 FEET	7'-3 3/4"	7'-1"	6'-5 1/2"	8'-11 1/2"	5'-9 1/4"	10'-7"	5'-2 1/2"	12'-0"	4'-8 3/4"	13'-3 1/4"
40 FEET	8'-9 1/2"	9'-2 1/2"	7'-10"	11'-5 1/4"	7'-1"	13'-4 1/2"	6'-5 3/4"	15'-3 1/4"	5'-11 1/2"	16'-7 1/4"
50 FEET	10'-3 1/4"	11'-3 1/4"	9'-1 1/4"	13'-7 1/4"	8'-2 1/2"	15'-9 1/2"	7'-6 1/2"	17'-9"	6'-11 3/4"	19'-6 1/4"
60 FEET	11'-2 1/2"	12'-8 3/4"	10'-3 1/4"	15'-6 1/2"	9'-2 1/4"	17'-11 3/4"	8'-5 3/4"	20'-1 3/4"	7'-10 1/2"	22'-1 1/2"
70 FEET	12'-2 3/4"	14'-3 1/4"	11'-1 1/4"	17'-4"	10'-1"	19'-11 3/4"	9'-3 3/4"	22'-4 1/4"	8'-8 1/4"	24'-6 1/4"
80 FEET	13'-2"	15'-8 1/2"	11'-10 1/2"	18'-11 3/4"	10'-10 3/4"	21'-10"	10'-1"	24'-4 3/4"	9'-5"	26'-8 3/4"
90 FEET	14'-1 1/2"	17'-1 1/2"	12'-8 1/4"	20'-6 1/2"	11'-7 3/4"	23'-7"	10'-9 3/4"	26'-3 3/4"	10'-1 1/4"	28'-9 1/2"
100 FEET	14'-10 1/2"	18'-3 3/4"	13'-5 1/2"	22'-0"	12'-4 1/4"	25'-2 3/4"	11'-5 3/4"	28'-1 1/2"	10'-9"	30'-9"

INTERMEDIATE RADII CAN BE INTERPOLATED



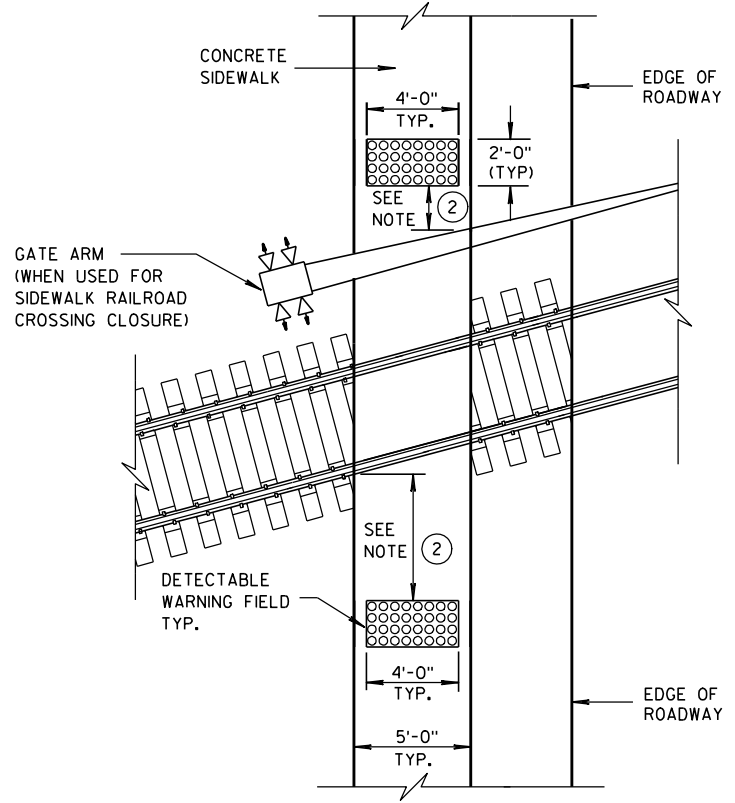
ISOMETRIC VIEW

LEGEND

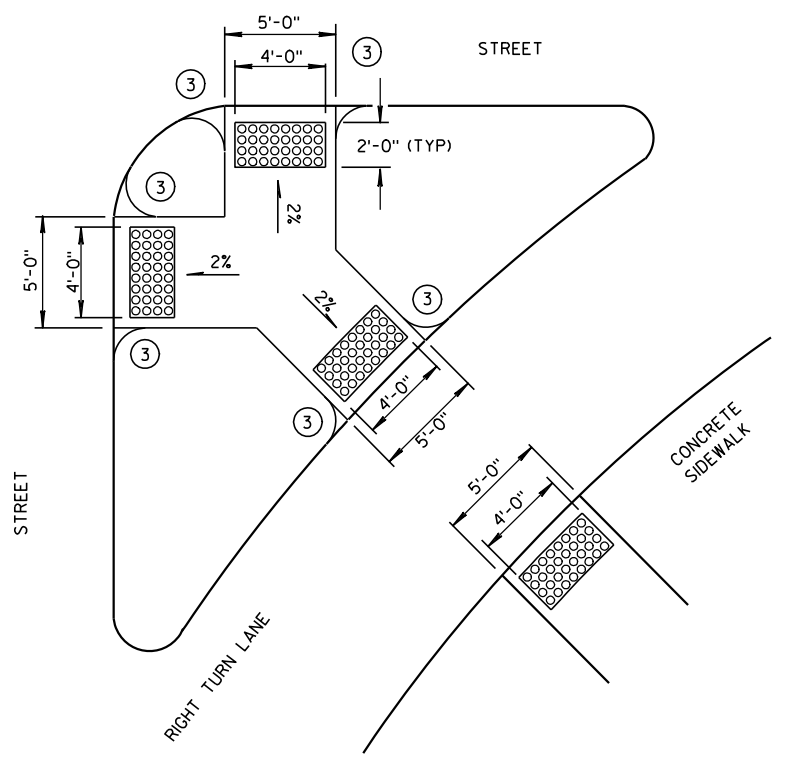
- 1/2" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS
TYPE 4B

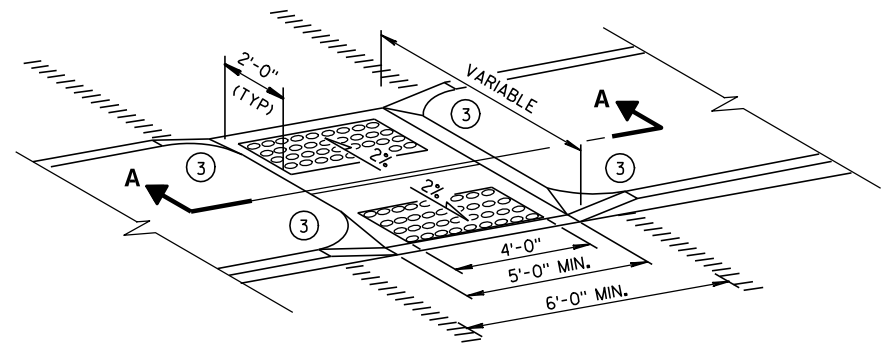
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



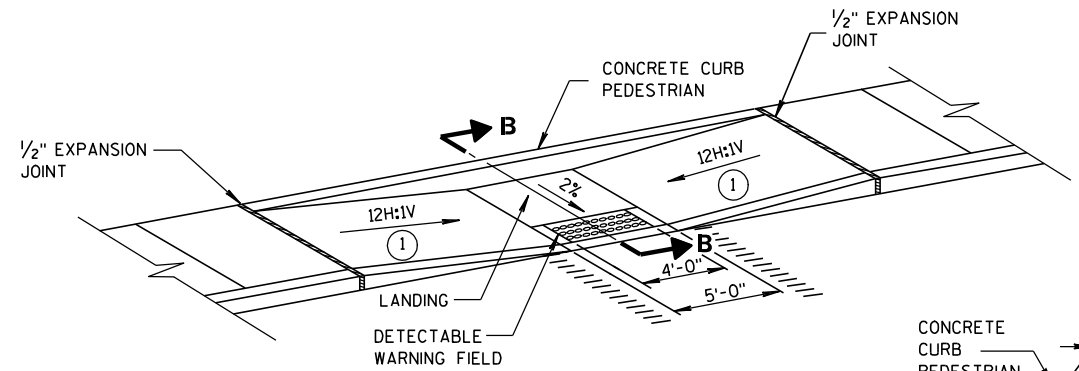
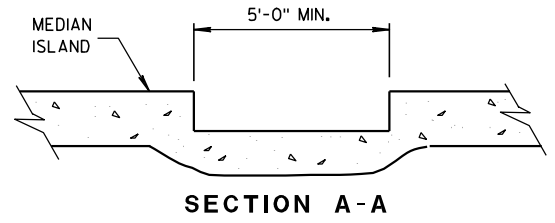
TYPE 8
DETECTABLE WARNINGS
AT RAILROAD CROSSING



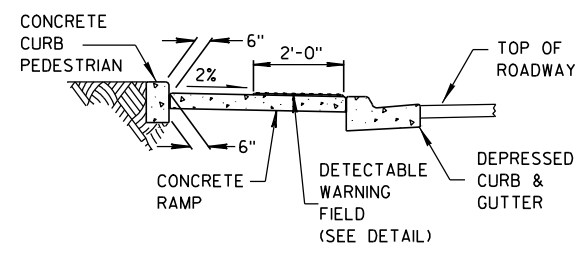
TYPE 6
DETECTABLE WARNING AT ISLANDS



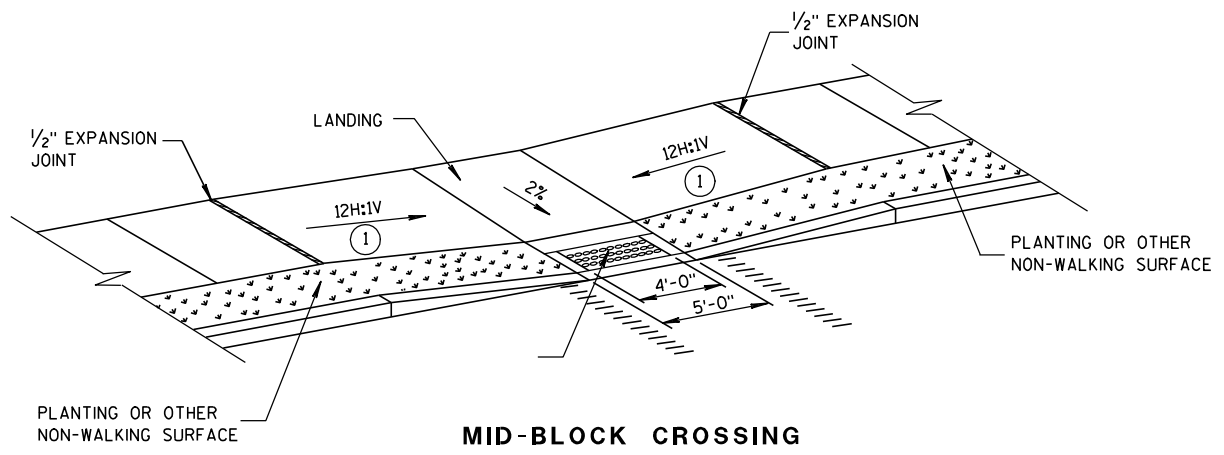
MEDIAN ISLAND
NON-ELEVATED CROSSING
TYPE 5



MID-BLOCK CROSSING
TYPE 7A



SECTION B-B



MID-BLOCK CROSSING
TYPE 7B

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

GENERAL NOTES

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

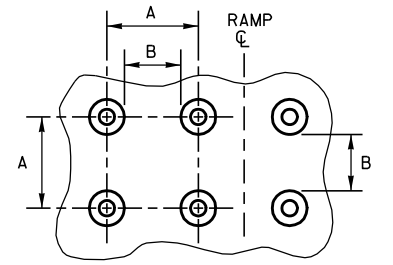
- ① SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.
- ② THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET ± 0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK. WHERE 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.
- ③ INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS.) DO NOT MARK TRANSITION NOSE.

LEGEND

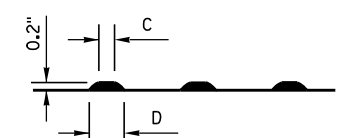
- 1/2" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

	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.

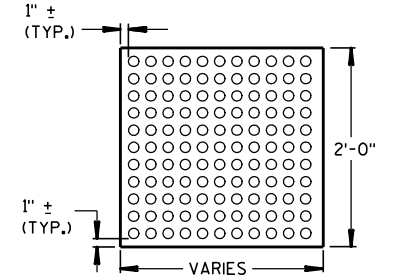


PLAN VIEW



ELEVATION VIEW

TRUNCATED DOMES
DETECTABLE WARNING
PATTERN DETAIL



PLAN VIEW
DETECTABLE WARNING
FIELD (TYPICAL)

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

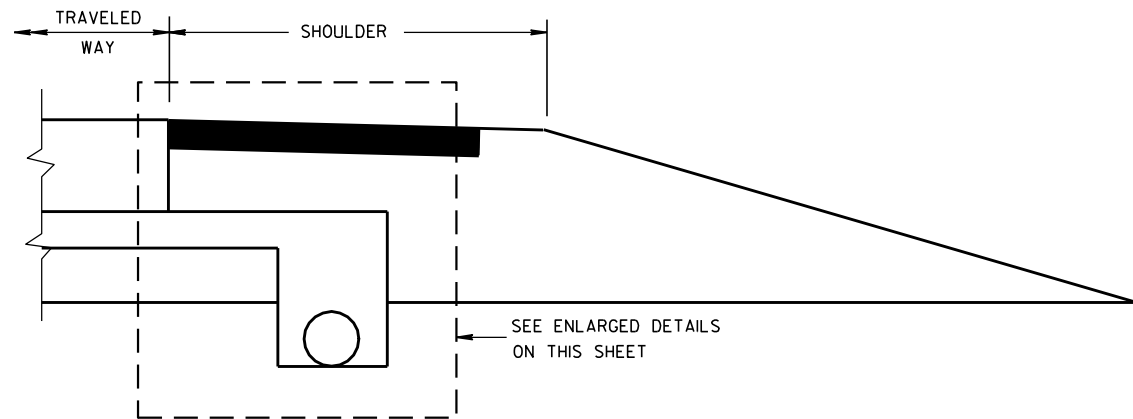
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

2-9-10
DATE

FHWA

/s/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER



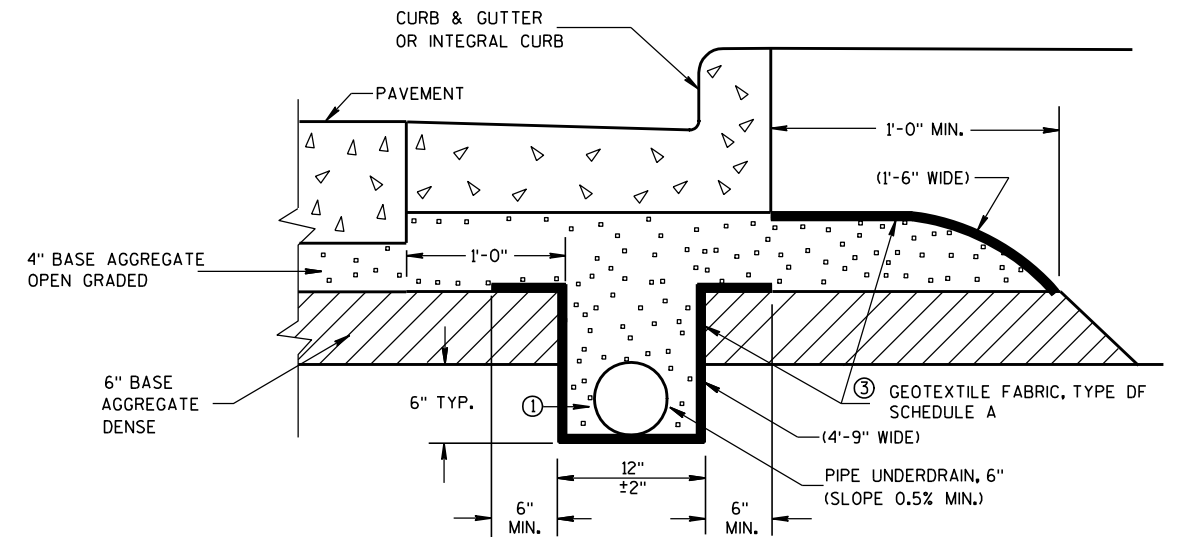
RURAL CROSS SECTION

GENERAL NOTES

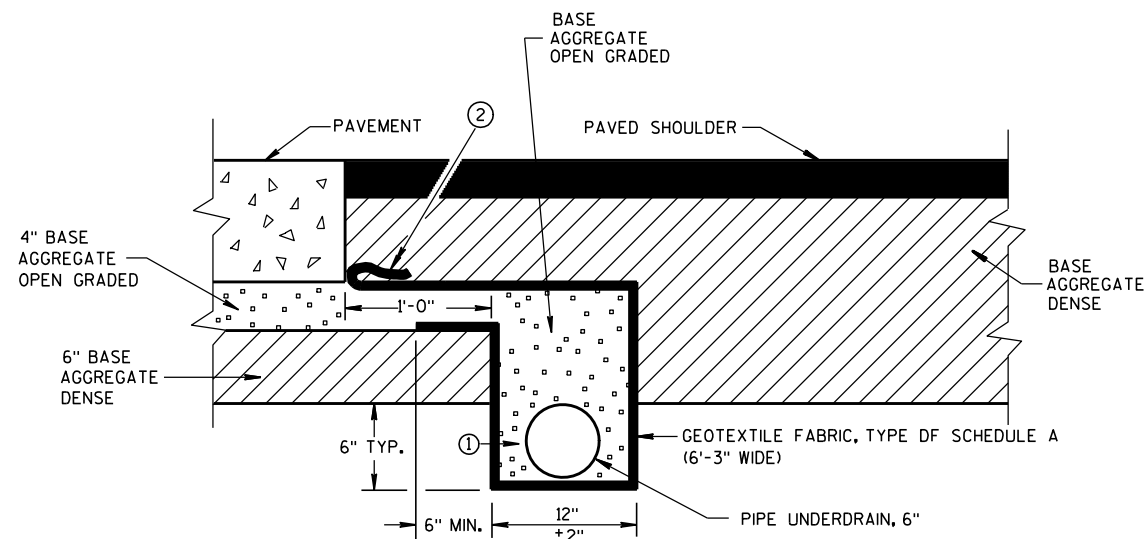
THE DIMENSIONS SHOWN ON THE TYPICAL CROSS SECTIONS WILL GOVERN IN THE EVENT THERE IS A CONFLICT WITH THE DETAILS SHOWN ON THIS DRAWING.

PIPE UNDERDRAIN SHALL BE LAID PARALLEL TO THE GRADE OF THE ROADWAY.

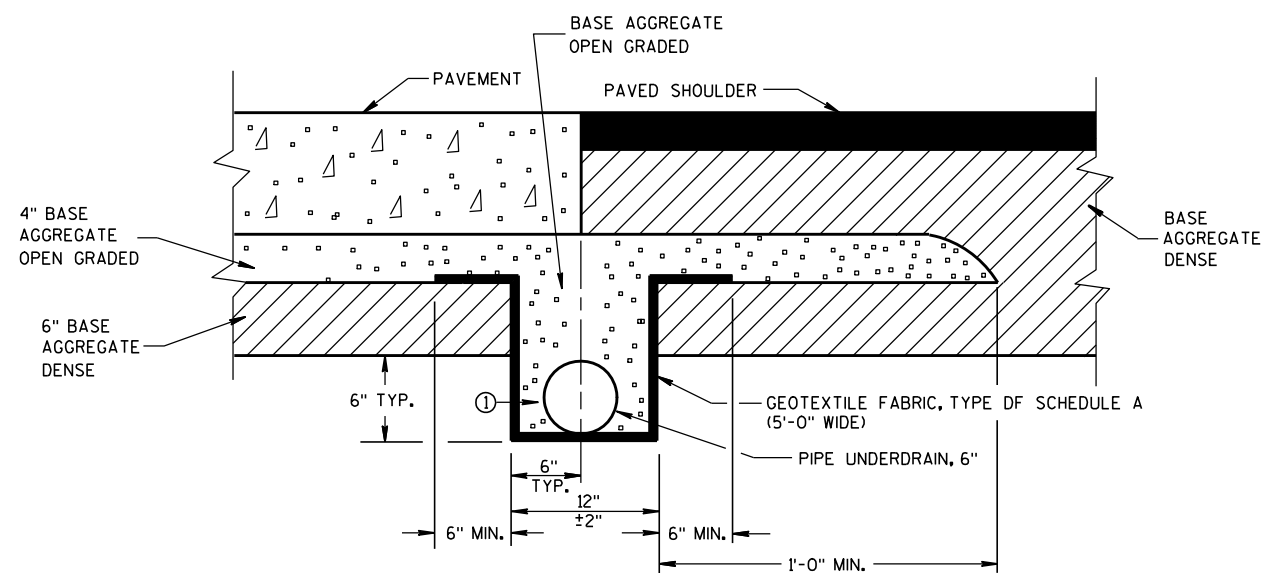
- ① TRENCH BACKFILL WILL BE PAID FOR AS BASE AGGREGATE OPEN GRADED.
- ② FOLD OVER EXCESS GEOTEXTILE FABRIC AT THIS LOCATION.
- ③ TOTAL FABRIC WIDTH IS 6'-3" FOR PAYMENT.



EDGEDRAIN IN URBAN ROADWAY



POST PAVING INSTALLATION
(QUANTITIES ARE BASED ON THIS DETAIL)



PRE-PAVING INSTALLATION ALTERNATE

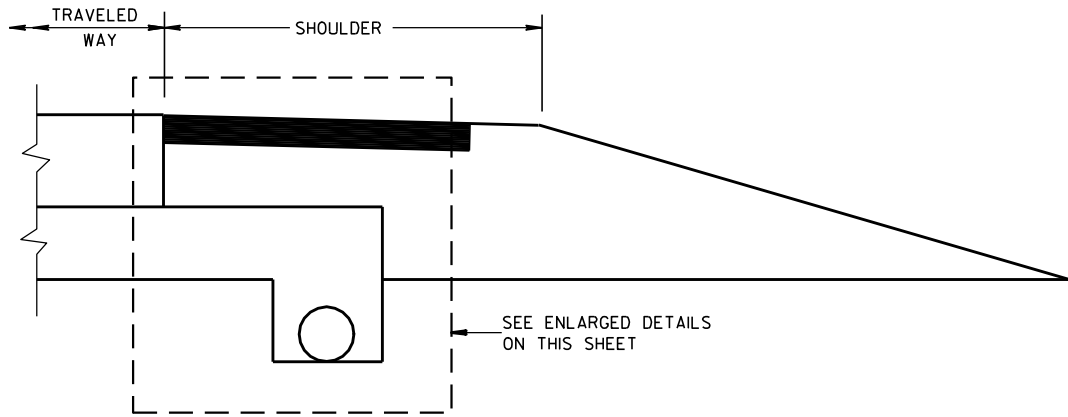
EDGEDRAIN IN RURAL ROADWAY

**EDGEDRAIN AND BASE
AGGREGATE OPEN GRADED**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/21/07 /S/ Steven W. Krebs
DATE CHIEF MATERIALS MANAGEMENT ENGINEER
FHWA



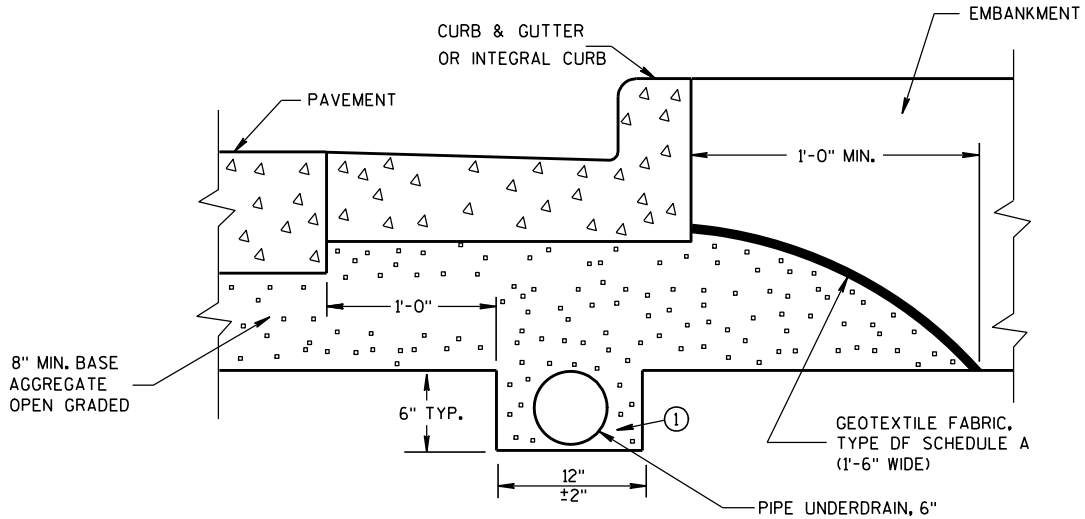
RURAL CROSS SECTION

GENERAL NOTES

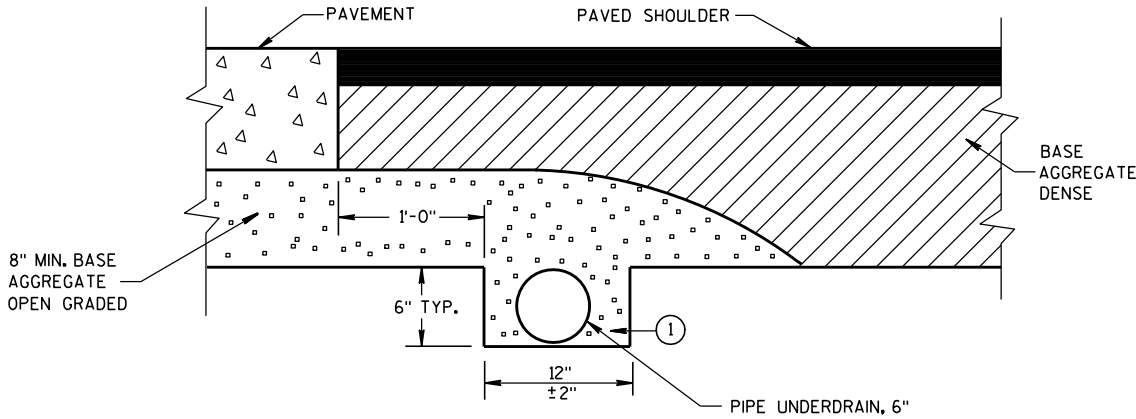
THE DIMENSIONS SHOWN ON THE TYPICAL CROSS SECTIONS WILL GOVERN IN THE EVENT THERE IS A CONFLICT WITH THE DETAILS SHOWN ON THIS DRAWING.

PIPE UNDERDRAIN SHALL BE LAID PARALLEL TO THE GRADE OF THE ROADWAY.

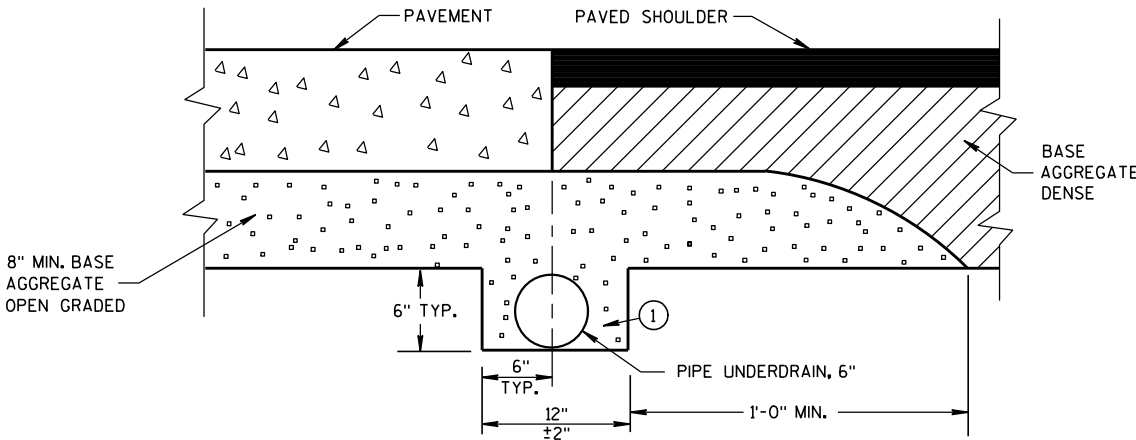
① TRENCH BACKFILL WILL BE PAID FOR AS BASE AGGREGATE OPEN GRADED.



EDGEDRAIN IN URBAN ROADWAY



POST PAVING INSTALLATION
(QUANTITIES ARE BASED ON THIS DETAIL)



PRE-PAVING INSTALLATION ALTERNATIVE

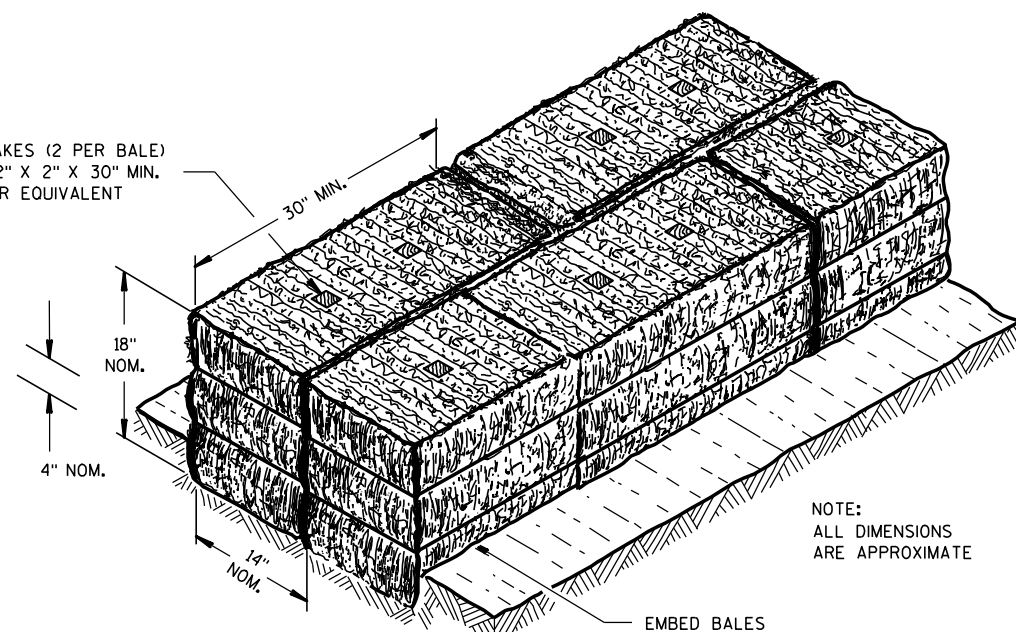
EDGEDRAIN IN RURAL ROADWAY

EDGEDRAIN AND BASE AGGREGATE OPEN GRADED

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/21/07 /S/ Steven W. Krebs
DATE CHIEF MATERIALS MANAGEMENT ENGINEER
FHWA

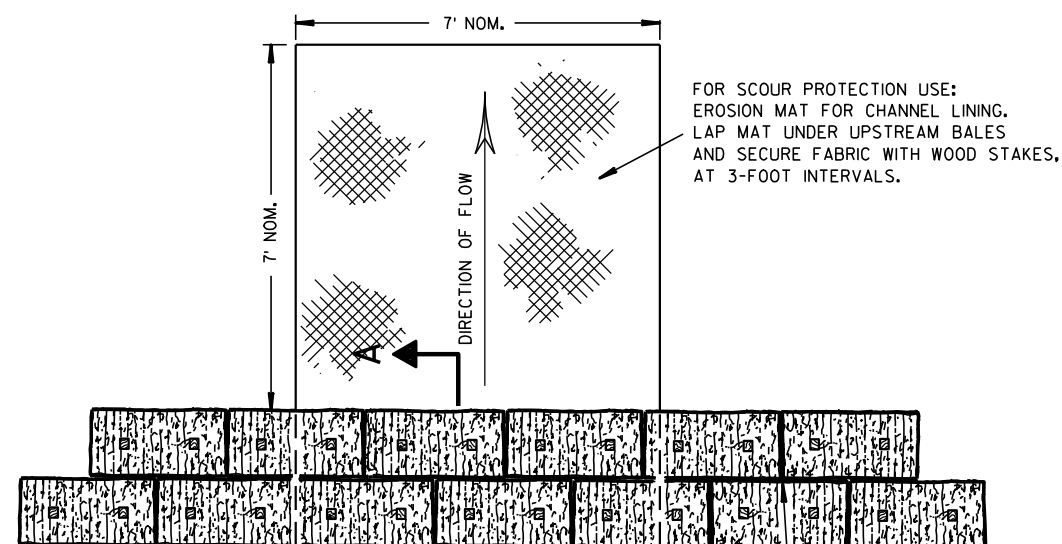
WOOD STAKES (2 PER BALE)
NOMINAL 2" X 2" X 30" MIN.
LENGTH OR EQUIVALENT



NOTE:
ALL DIMENSIONS
ARE APPROXIMATE

EMBED BALES

SECTION A-A

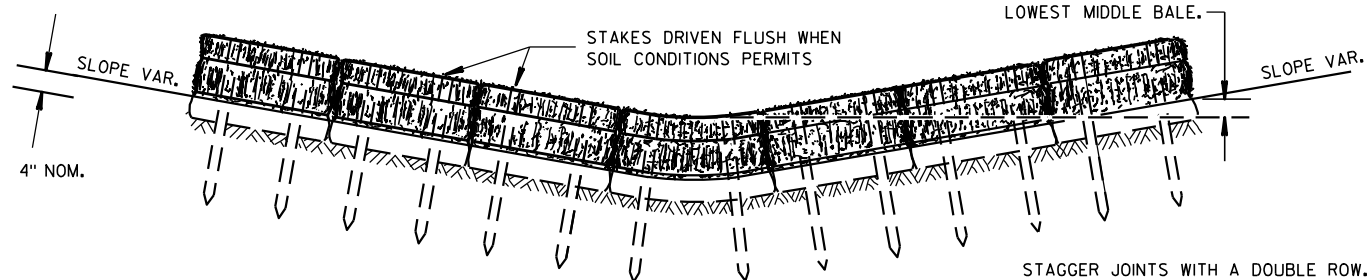


FOR SCOUR PROTECTION USE:
EROSION MAT FOR CHANNEL LINING.
LAP MAT UNDER UPSTREAM BALES
AND SECURE FABRIC WITH WOOD STAKES,
AT 3-FOOT INTERVALS.

PLAN VIEW

STAGGER JOINTS BETWEEN ADJACENT
ROWS OF BALES.

BOTTOM ELEVATION OF END BALE SHALL
BE EQUAL TO OR GREATER THAN TOP OF
LOWEST MIDDLE BALE.



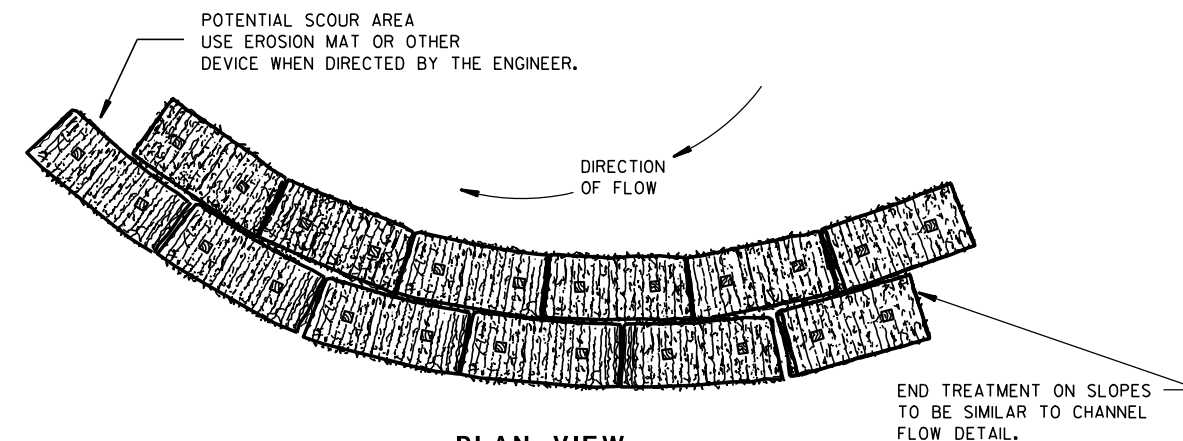
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

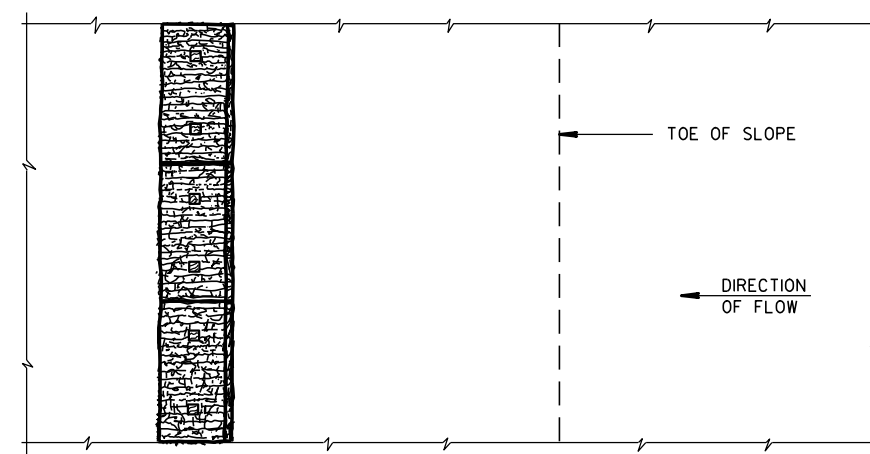
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

- 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.

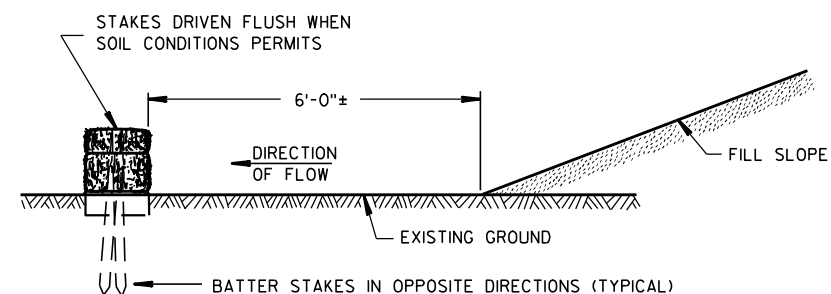


PLAN VIEW

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

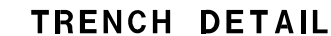
6/04/02
DATE

/S/ Beth Canestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

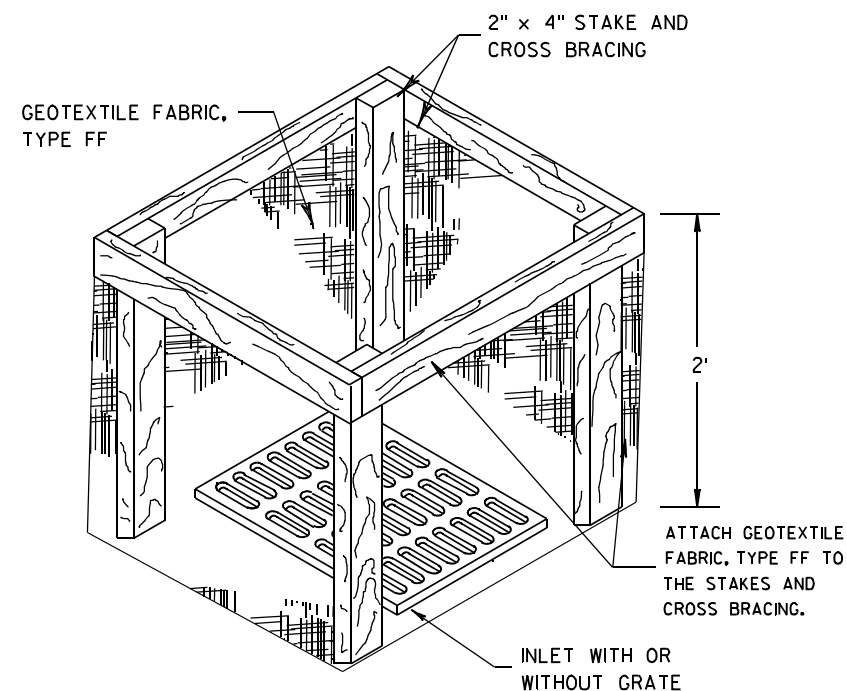
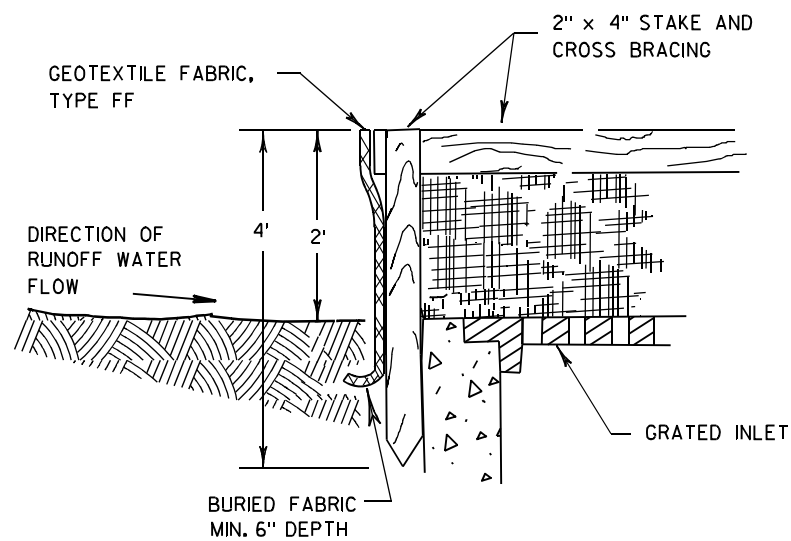
FHWA



- ① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
- ② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
- ③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1½" X 1½" OF OAK OR HICKORY.
- ④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
- ⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



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



INLET PROTECTION, TYPE A

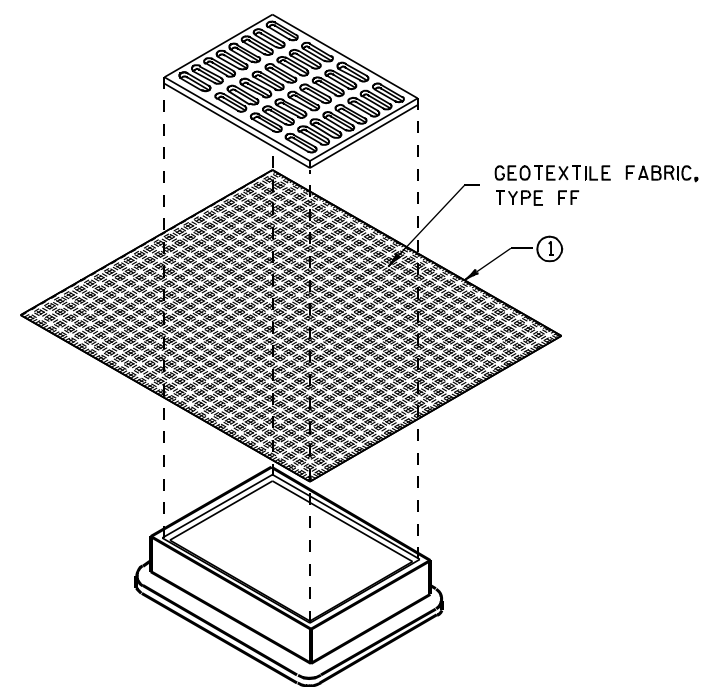
GENERAL NOTES

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

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

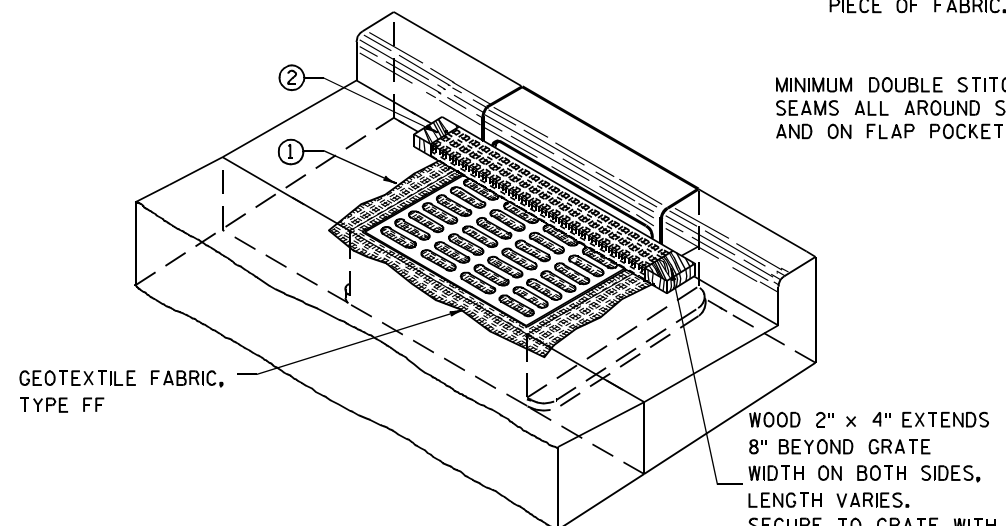
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

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



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

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



INLET PROTECTION, TYPE C (WITH CURB BOX)

INSTALLATION NOTES

TYPE B & C

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

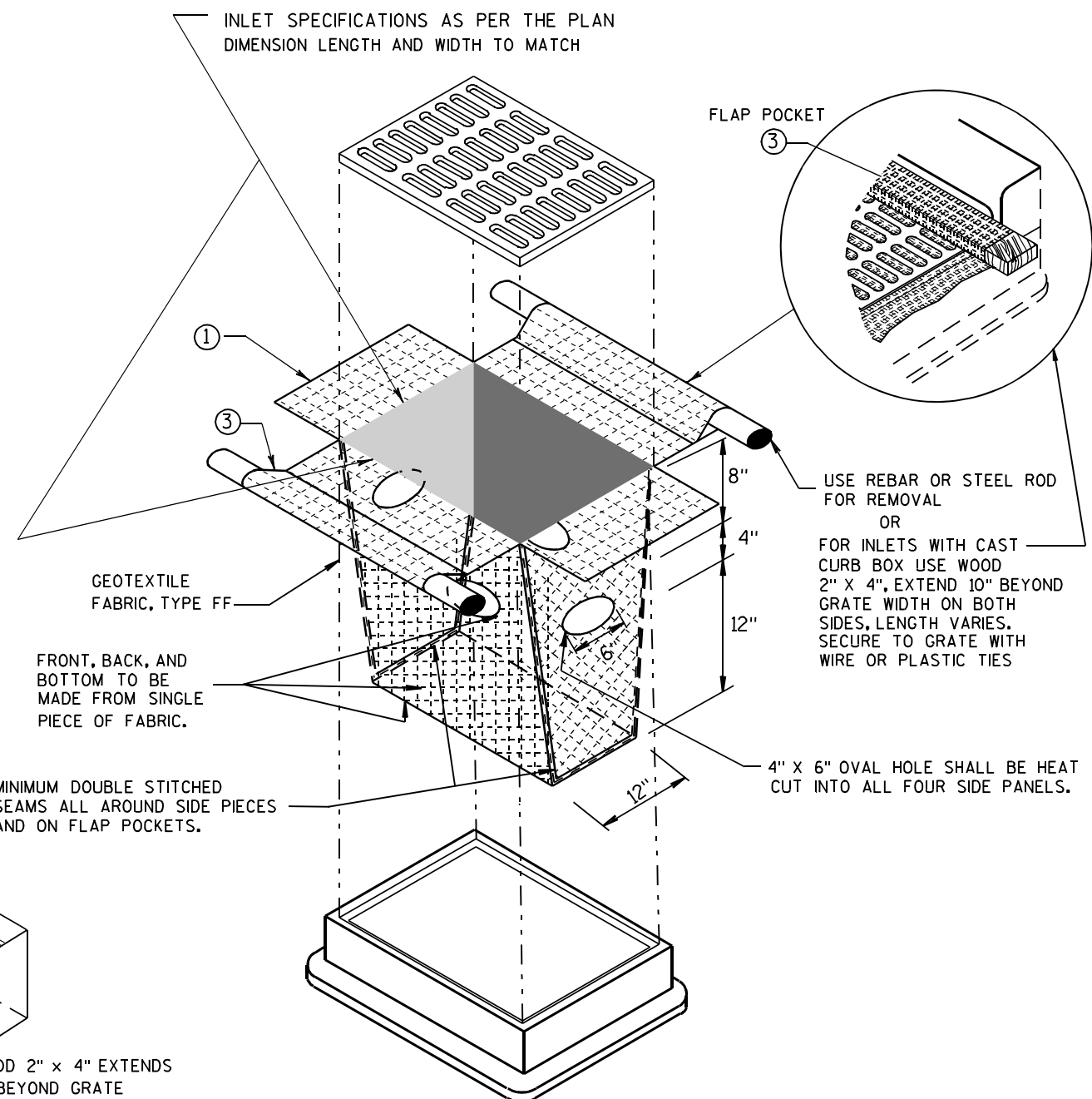
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

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

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

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



INLET PROTECTION, TYPE D

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

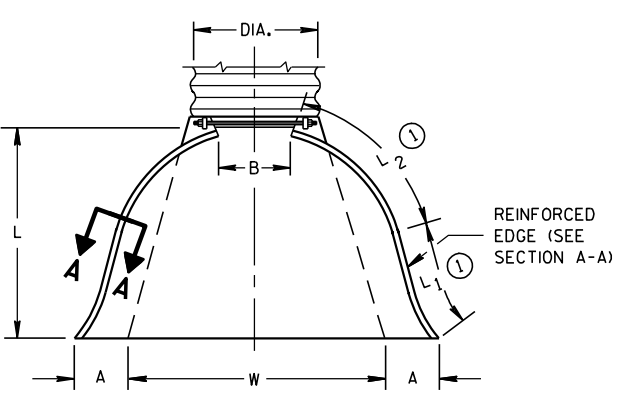
**INLET PROTECTION
TYPE A, B, C, AND D**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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.

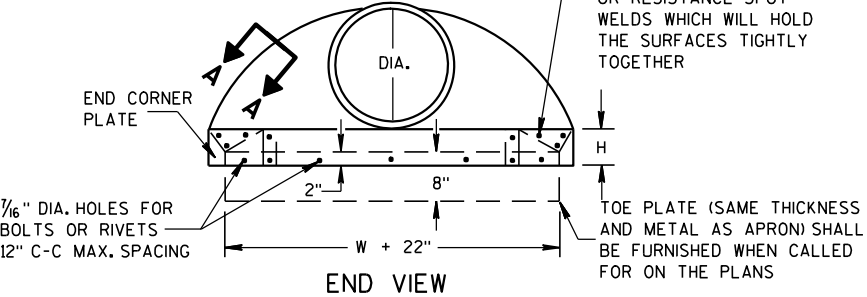
* EXCEPT CENTER PANEL
SEE GENERAL NOTES



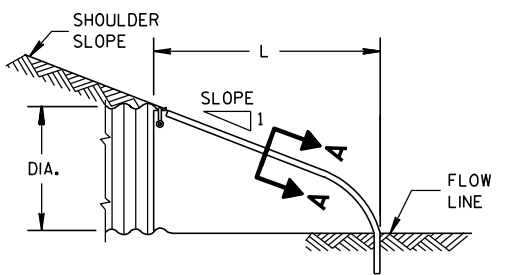
PLAN VIEW

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

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



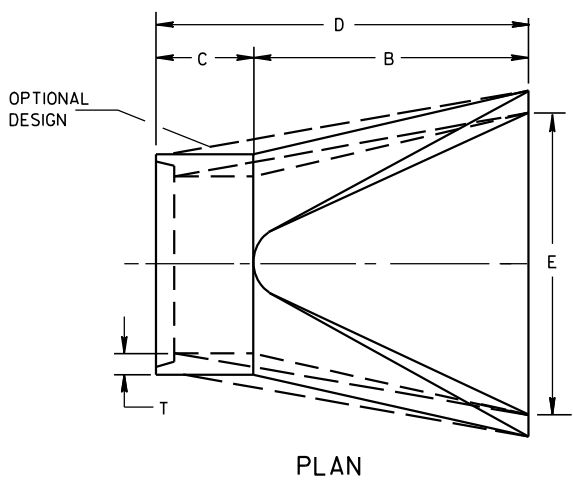
END VIEW



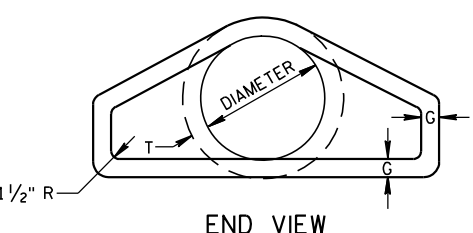
SIDE ELEVATION
METAL ENDWALLS

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	98 1/4	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			

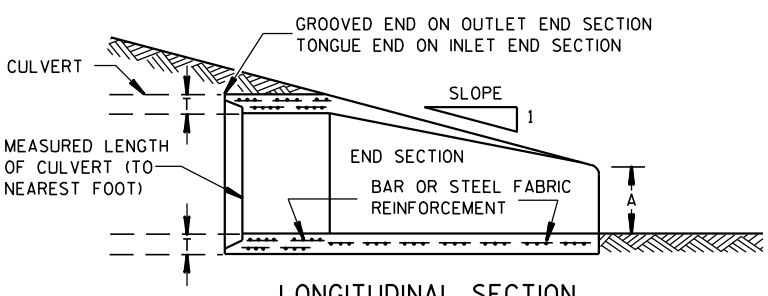
* MINIMUM
** MAXIMUM



PLAN

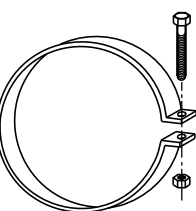


END VIEW

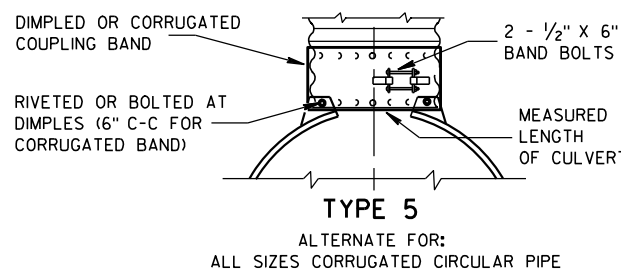
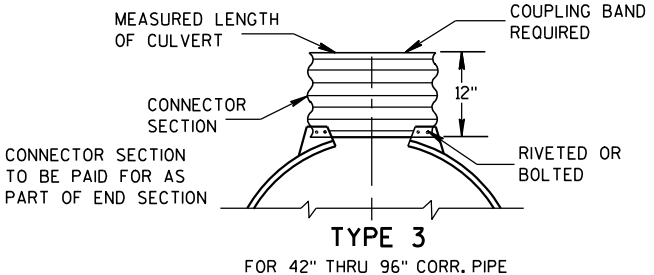
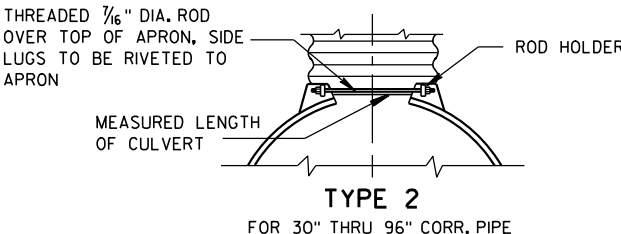
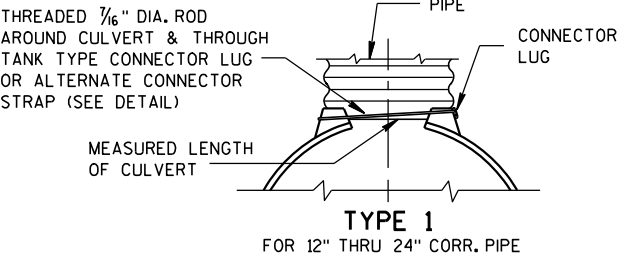


LONGITUDINAL SECTION
CONCRETE ENDWALLS

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



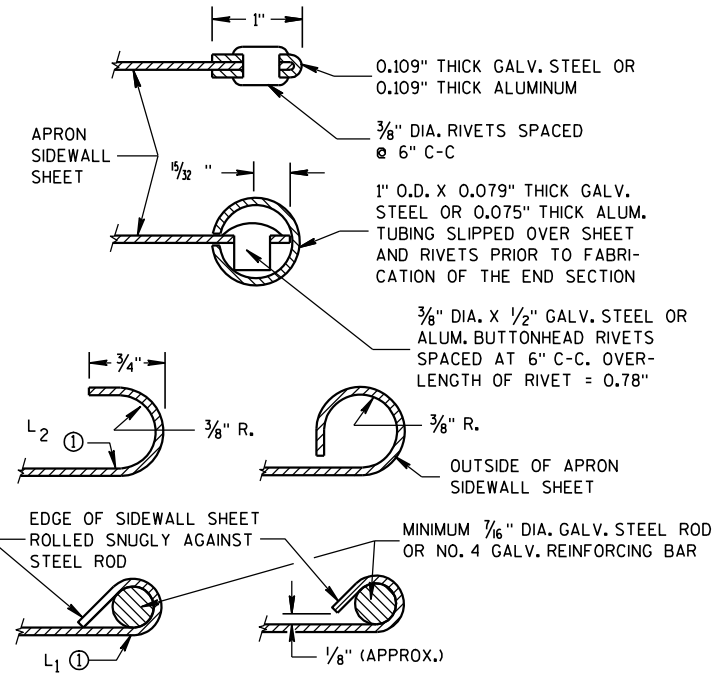
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

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

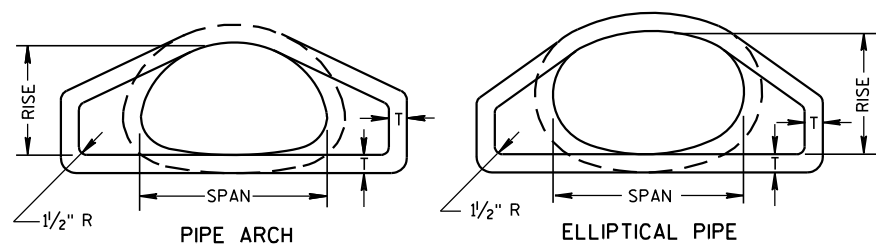
ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT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

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

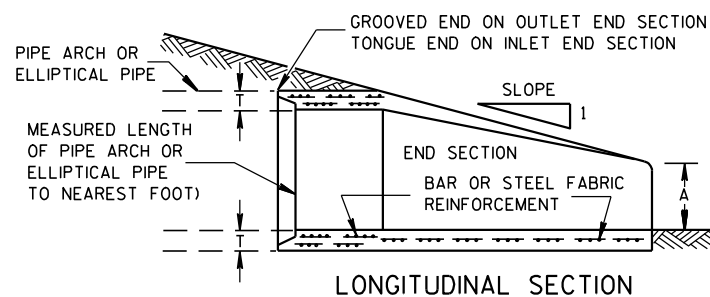
WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

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

APRON ENDWALLS FOR CULVERT PIPE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 11/30/94 DATE	/S/ Rory L. Rhinesmith CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA	

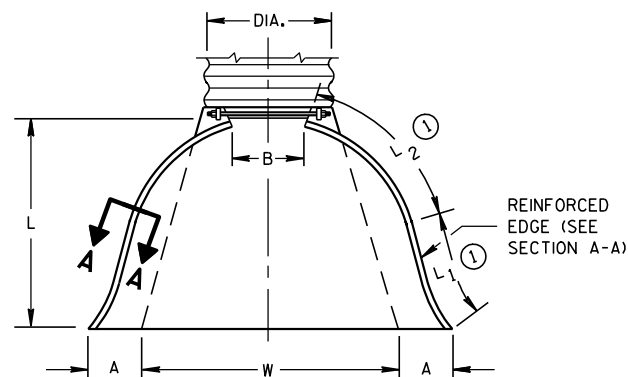


END VIEW



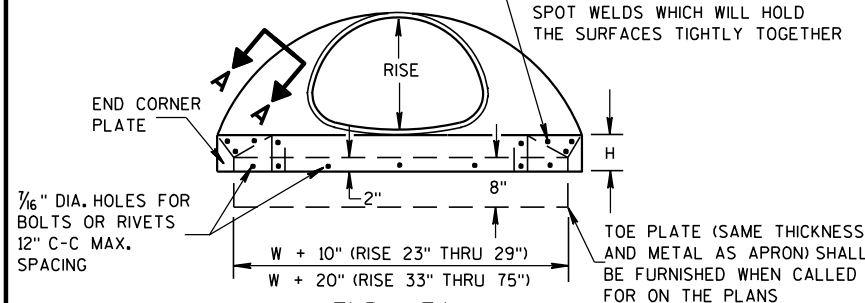
LONGITUDINAL SECTION

CONCRETE ENDWALLS

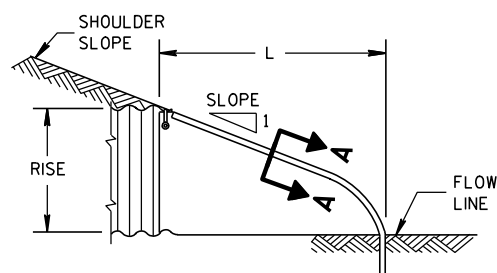
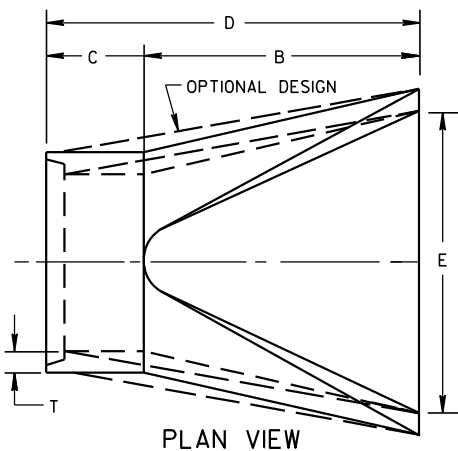


PLAN VIEW

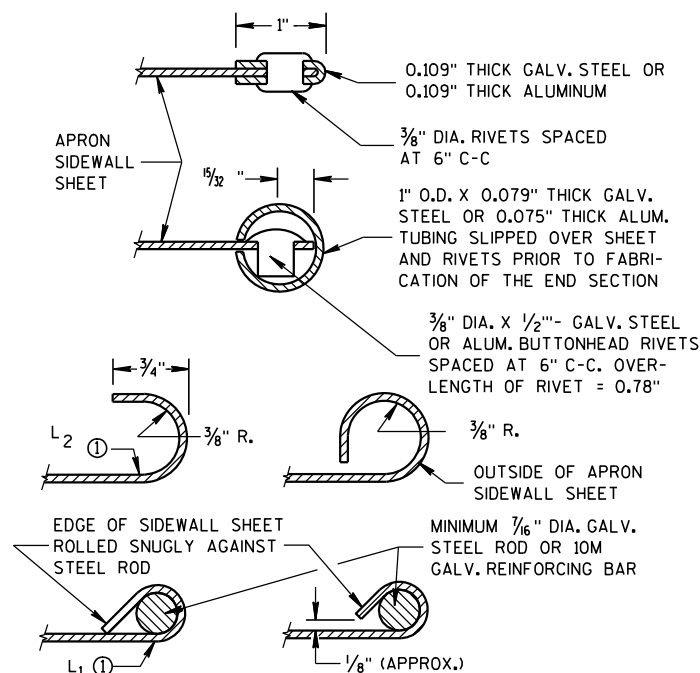
END CORNER PLATES MAY BE FASTENED TO APRON PROPER BY BOLTS, RIVETS, OR RESISTANCE SPOT WELDS WHICH WILL HOLD THE SURFACES TIGHTLY TOGETHER



END VIEW

SIDE ELEVATION
METAL ENDWALLS

PLAN VIEW

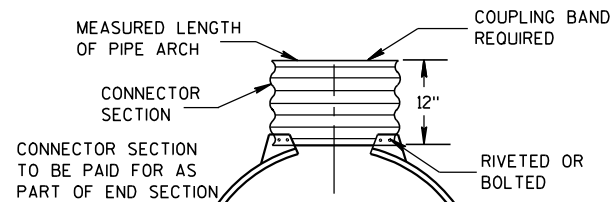


SECTION A-A



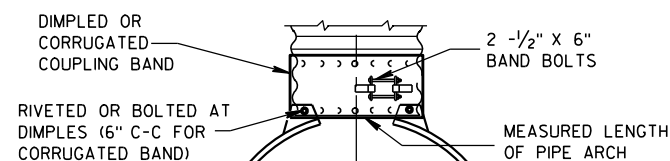
TYPE 2

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

2- 2/3" X 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")		
					(±1")	(MAX.)	(±1")	(±1 1/2")	①	①	(±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 ①	L2 ①	W (±2")		
					(±1")	(MAX.)	(±1")	(±1 1/2")	①	①	(±2")		
48	53	41	.109	.105	18	26	12	63	24	72 3/4	90	2 1/2 to 1	2 Pc.
54	60	46	.109	.105	18	30	12	70	30	82 1/4	102	2 to 1	2 Pc.
60	66	51	.109*	.105*	18	33	12	77	—	—	114	1 1/2 to 1	3 Pc.
66	73	55	.109*	.105*	18	36	12	77	—	—	126	1 1/2 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	1 1/2 to 1	3 Pc.
84	95	67	.109*	.105*	22	34	12	77	—	—	162	1 1/2 to 1	3 Pc.
90	103	71	.109*	.105*	22	38	12	77	—	—	174	1 1/2 to 1	3 Pc.
96	112	75	.109*	.105*	24	40	12	77	—	—	174	1 1/2 to 1	3 Pc.

NOTE: ALL SPLICES TO BE LAP RIVETED OR BOLTED.

* EXCEPT CENTER PANEL
SEE GENERAL NOTES

REINFORCED CONCRETE PIPE ARCH

EQUIV. DIA. (Inches)	DIMENSIONS (Inches)								APPROX. SLOPE
	** SPAN	** RISE	T	A	B	C	D	E	
	(Inches)	(Inches)	(Inches)	(Inches)	(Inches)	(Inches)	(Inches)	(Inches)	
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 1/8	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	
	(Inches)	(Inches)	(Inches)	(Inches)	(Inches)	(Inches)	(Inches)	(Inches)	
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.

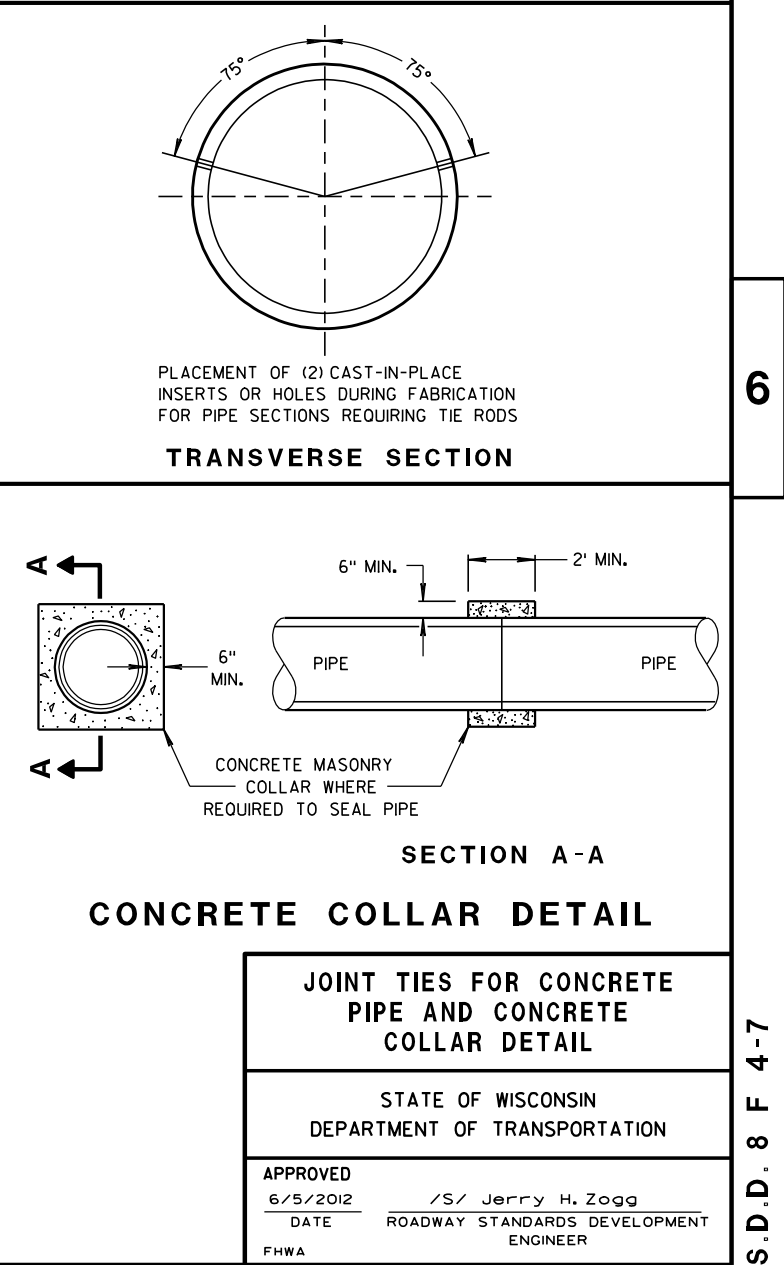
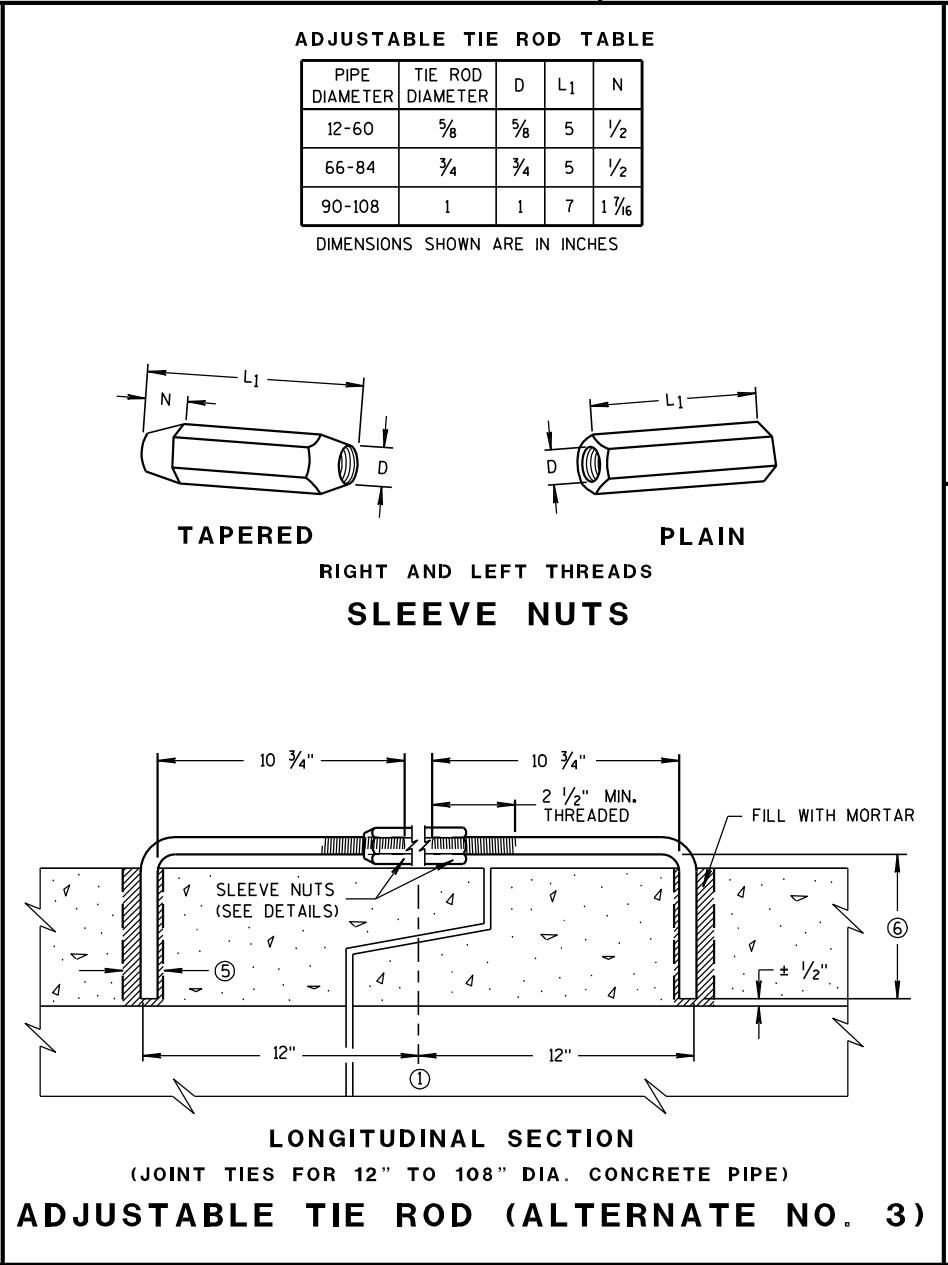
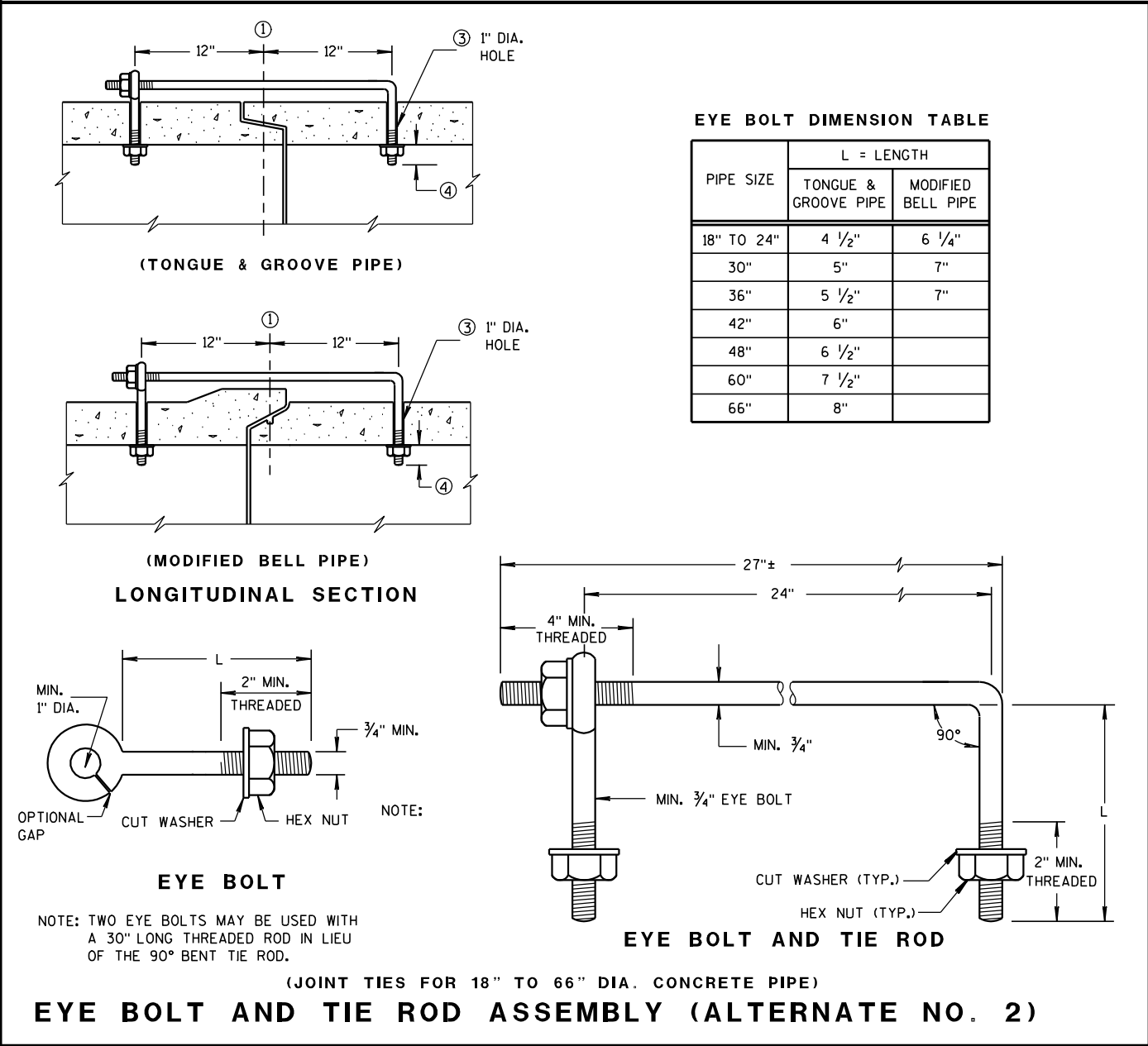
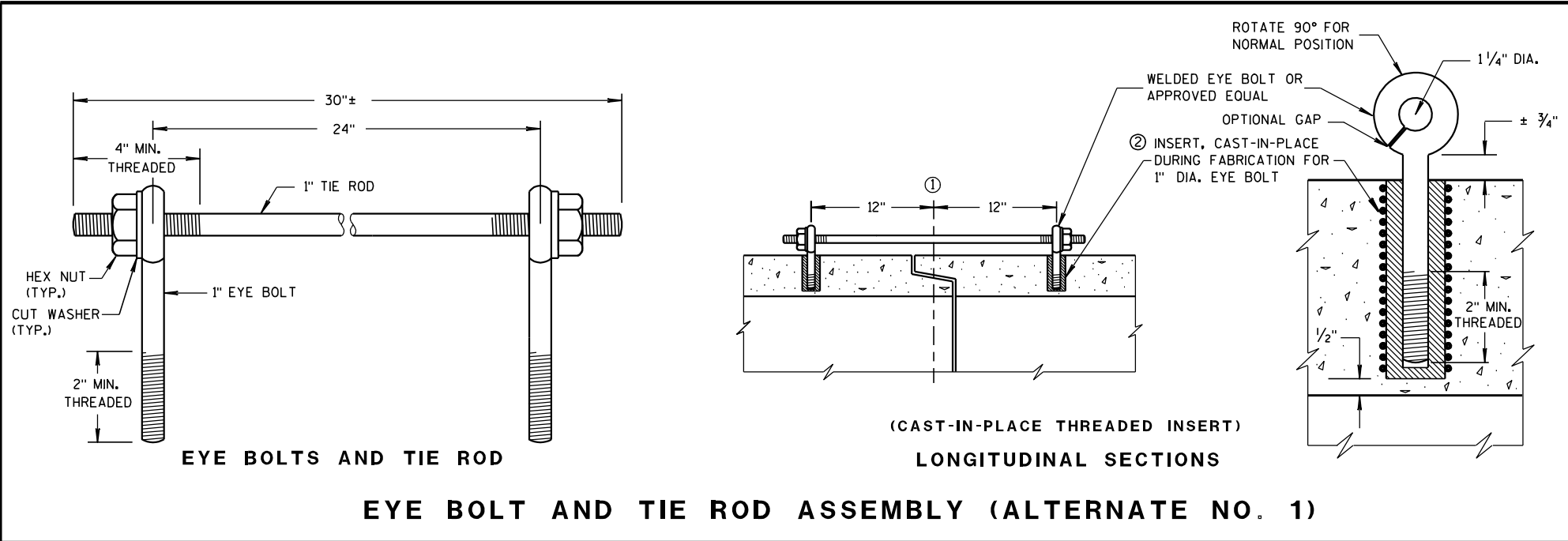
① FOR PIPE ARCH SIZES UP TO 73" X 55" A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

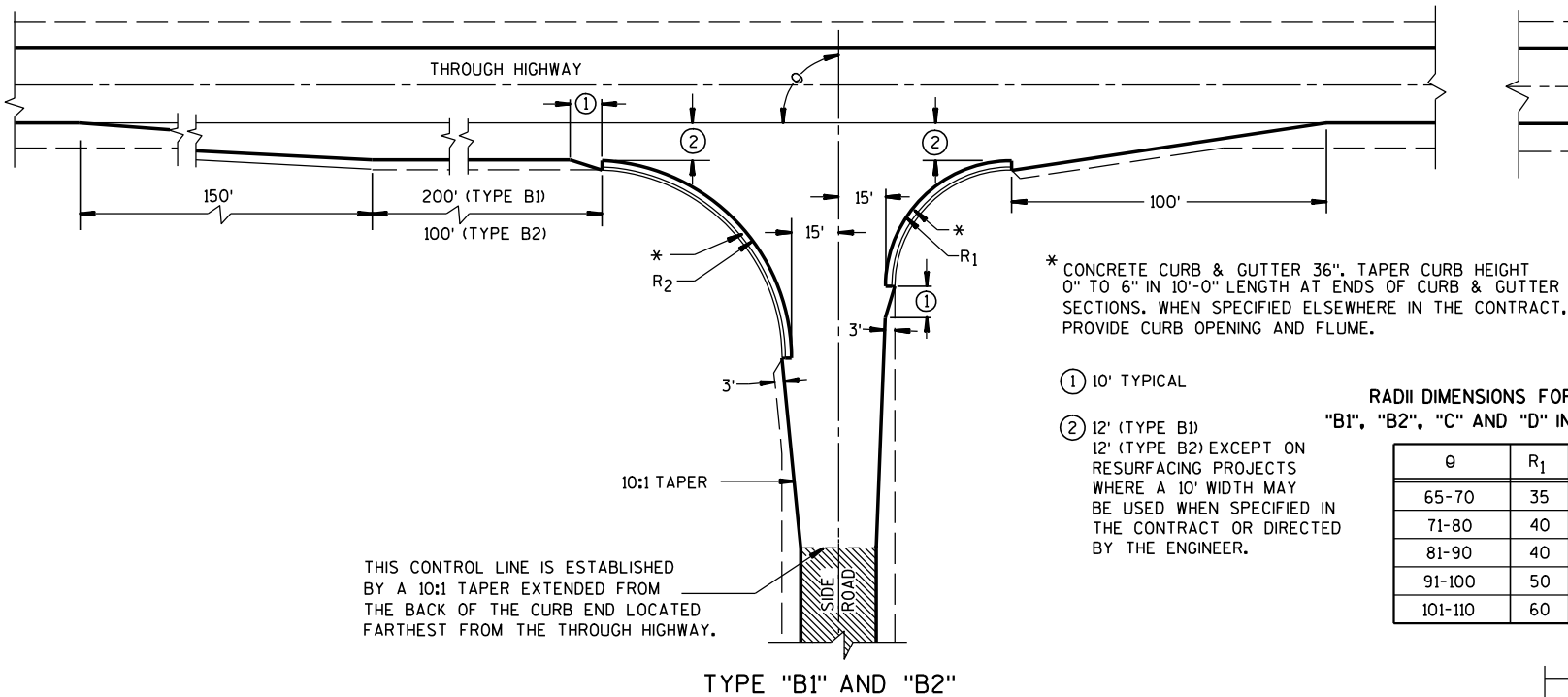
APRON ENDWALLS FOR
PIPE ARCH AND
ELLIPTICAL PIPESTATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

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

FHWA





GENERAL NOTES

DESIGNS MAY BE USED INTERCHANGEABLY IN COMBINATION OR SEPARATELY FOR ANY ONE COMPLETE INTERSECTION DEPENDING UPON INTERSECTION ANGLE AND SURFACING OF EACH APPROACH ROADWAY.

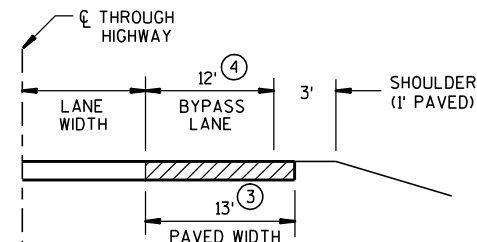
SIDE ROAD SURFACING NOTE

WHEN THE SIDE ROAD IS NOT PRESENTLY PAVED, PAVEMENT SHALL BE PLACED TO THE LIMITS SHOWN UNLESS OTHERWISE PROVIDED IN THE CONTRACT. WHERE THE CONSTRUCTION LIMITS ARE BEYOND THE PAVING LIMITS, CRUSHED AGGREGATE SURFACING SHALL BE PLACED BETWEEN THE PAVING LIMITS AND CONSTRUCTION LIMITS.

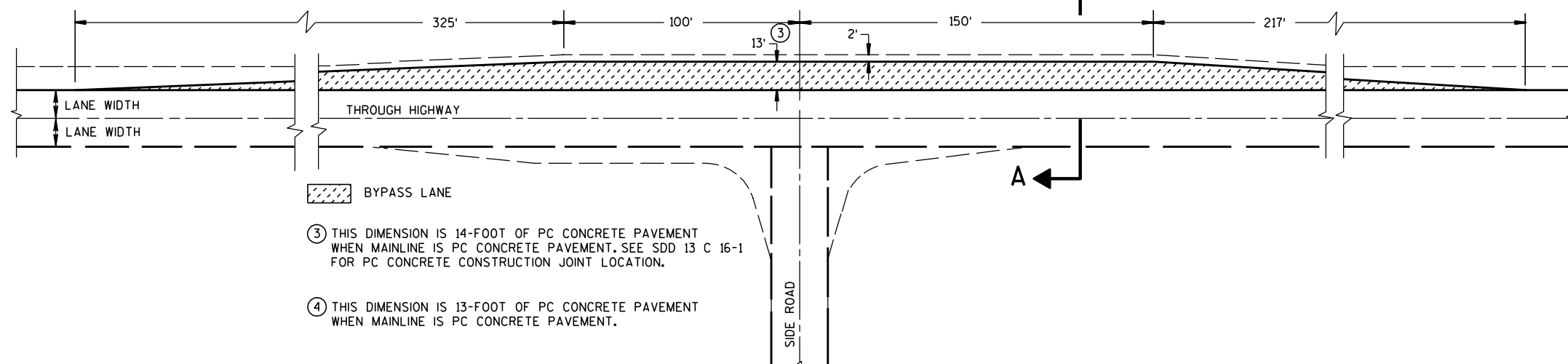
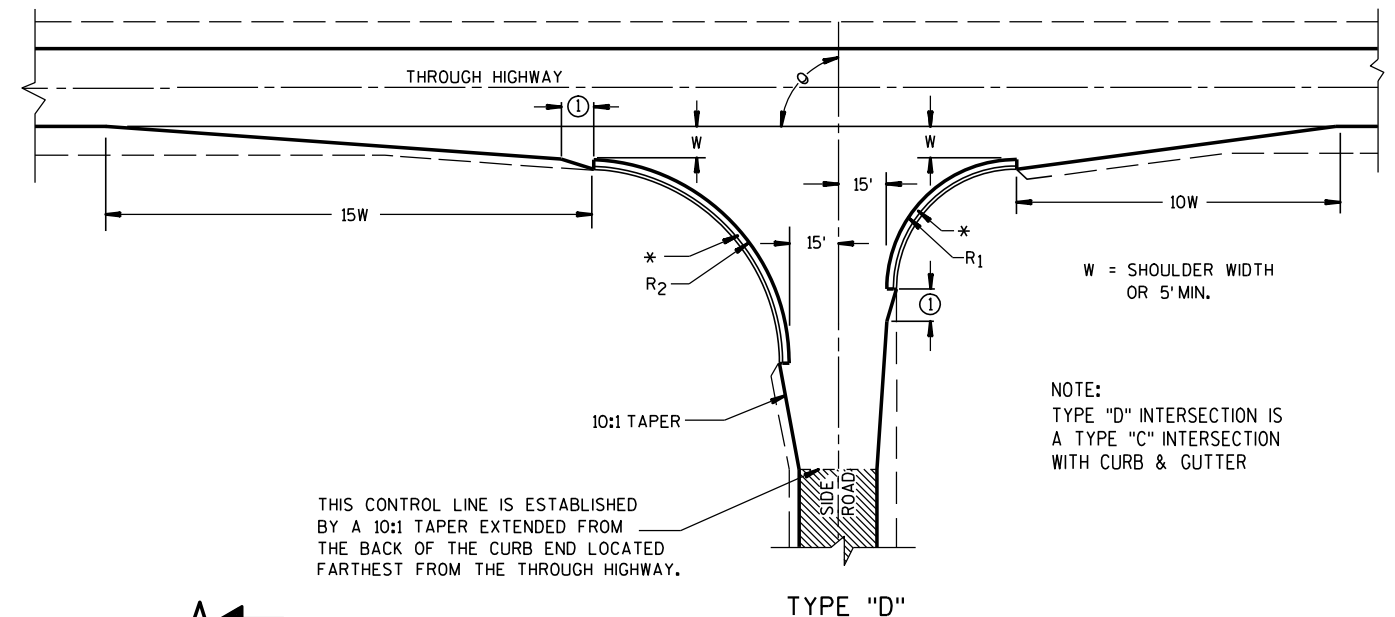
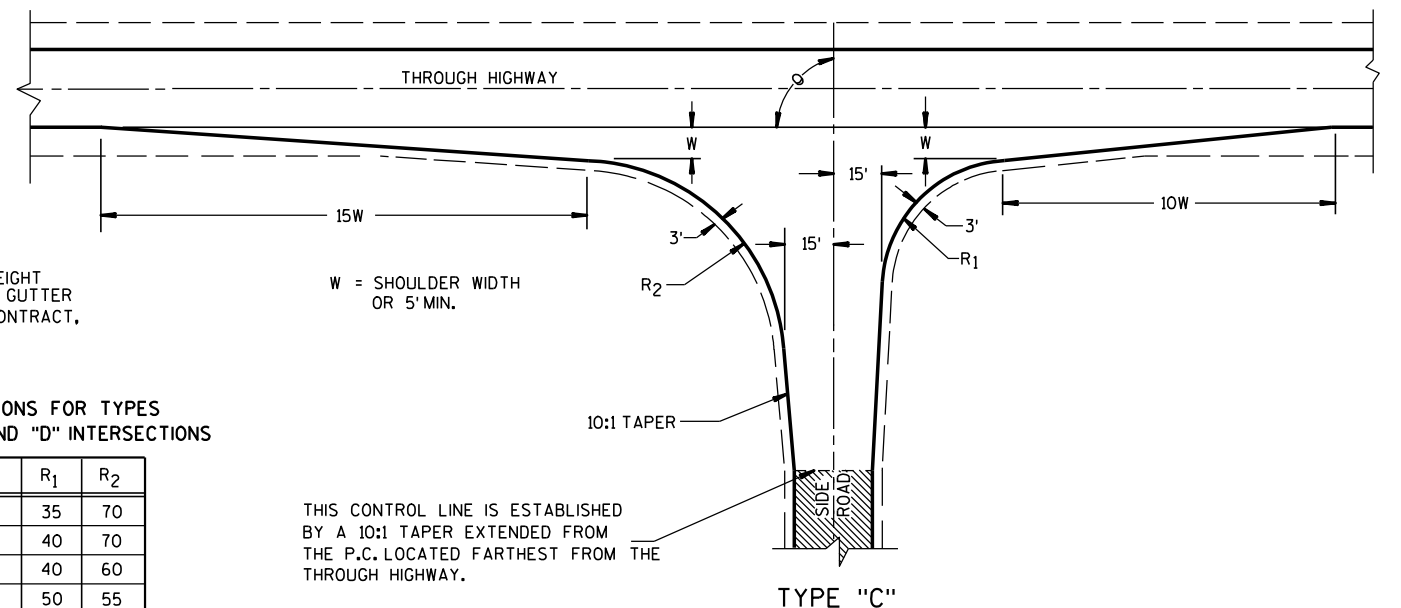
WHEN THE SIDE ROAD IS PRESENTLY PAVED, NEW PAVEMENT SHALL BE PLACED TO THE LIMITS OF DESIGN AS SHOWN AND BEYOND, IF NECESSARY, TO MEET EXISTING PAVEMENT.

WHEN THE SIDE ROAD IS THE CONSTRUCTION PROJECT, THE INTERSECTION SURFACING SHALL BE THE SAME AS FOR THE PROJECT.

EXISTING SURFACE



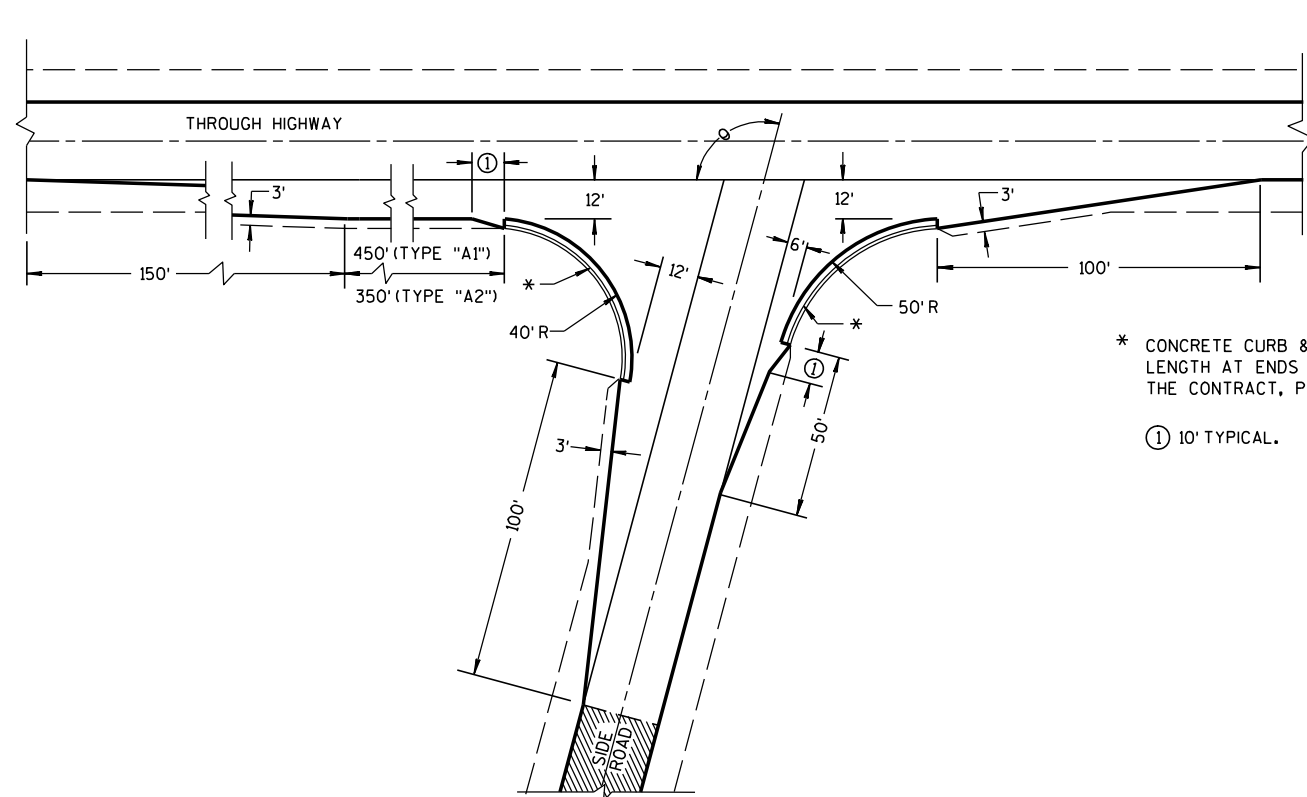
SECTION A-A
(SHOWING BYPASS LANE AND SHOULDER)



TEE INTERSECTION BYPASS LANE DETAIL

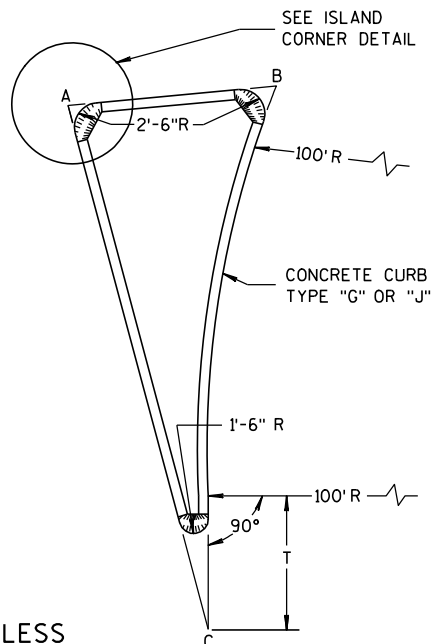
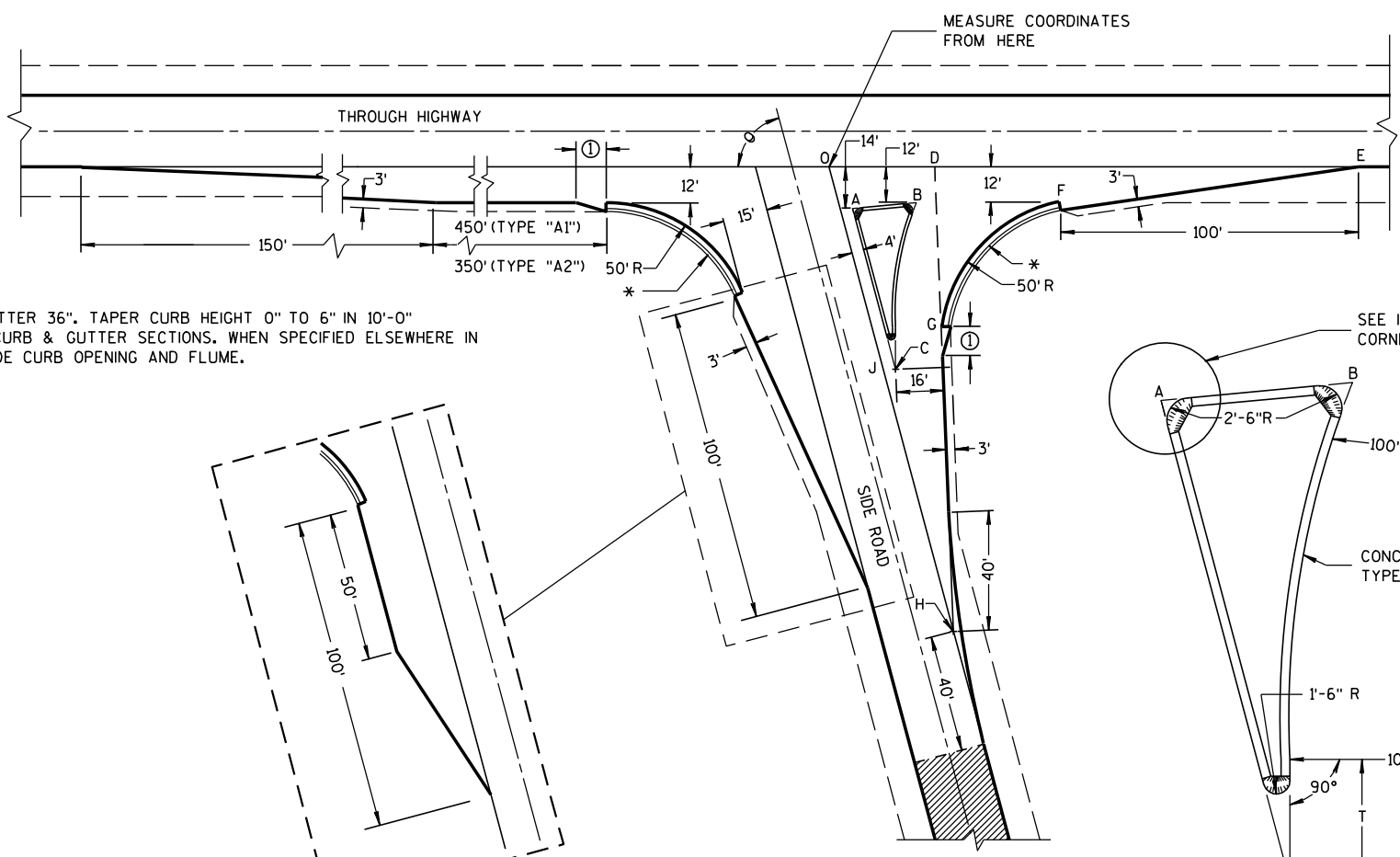
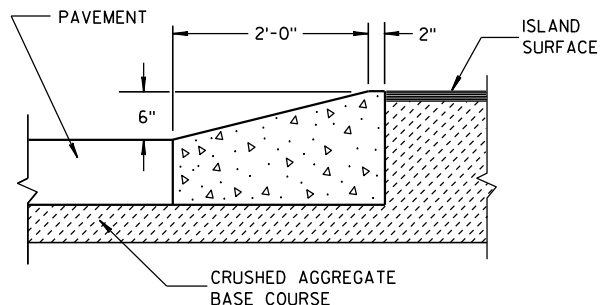
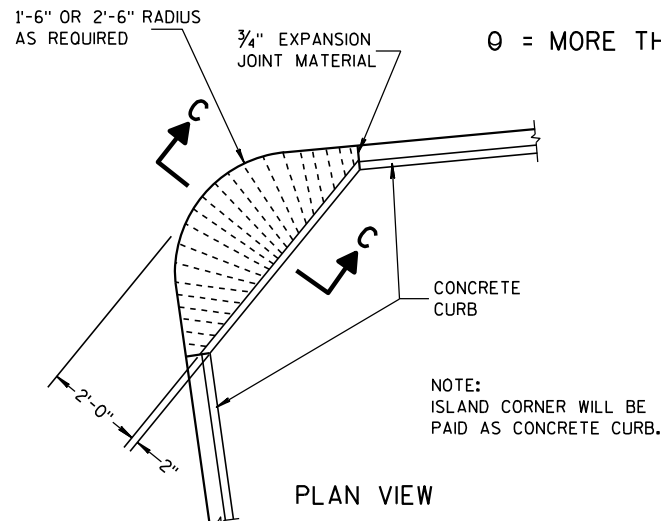
AT-GRADE SIDE ROAD
INTERSECTION, TYPES "B1", "B2",
"C" AND "D" AND TEE
INTERSECTION BYPASS LANE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



* CONCRETE CURB & GUTTER 36". TAPER CURB HEIGHT 0" TO 6" IN 10'-0" LENGTH AT ENDS OF CURB & GUTTER SECTIONS. WHEN SPECIFIED ELSEWHERE IN THE CONTRACT, PROVIDE CURB OPENING AND FLUME.

① 10' TYPICAL.



SIDE ROAD WIDENING AND TAPER REQUIRED WHERE THE THROUGH HIGHWAY CARRIES TWO-WAY TRAFFIC
 θ = ACUTE ANGLES 70° OR LESS

TABLE OF DIMENSIONS FOR
VARIABLE SIDE ROAD INTERSECTION ANGLES
(INTERPOLATE VALUES FOR ANGLES NOT SHOWN)

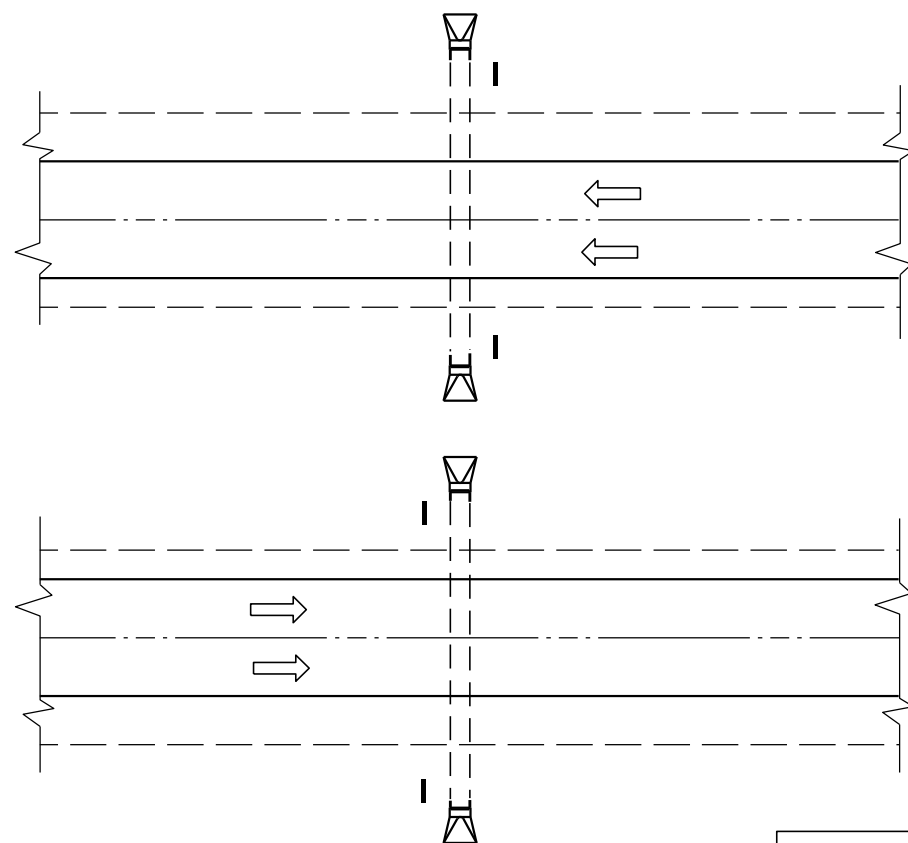
ANGLE θ DEGREES	COORDINATES IN FEET (MEASURED FROM POINT "O")								LENGTH IN FEET				
	A	B	C	D	E	F	G	H	AB	AC	T	OJ	OH
60	12.7	44.9	46.4	41.9	205.0	104.6	64.0	85.0	32.3	67.4	4.9	85.9	169.9
	-14.0	-12.0	-72.4	0.0	0.0	-12.0	-75.5	-147.1					
65	10.9	39.0	37.8	39.4	196.1	95.7	54.1	70.5	28.2	63.6	8.5	80.9	166.9
	-14.0	-12.0	-71.6	0.0	0.0	-12.0	-71.5	-151.3					
70	9.4	33.9	29.8	37.4	188.3	87.8	45.6	56.1	24.6	59.7	11.5	76.1	164.1
	-14.0	-12.0	-70.1	0.0	0.0	-12.0	-67.5	-154.2					
75	7.9	29.3	22.3	35.7	181.2	80.7	38.2	41.8	21.5	55.8	13.8	71.4	161.4
	-14.0	-12.0	-67.9	0.0	0.0	-12.0	-63.4	-155.9					
80	6.5	25.4	15.6	34.4	174.8	74.4	31.8	27.6	18.9	52.0	15.6	66.9	158.9
	-14.0	-12.0	-65.2	0.0	0.0	-12.0	-59.3	-156.5					

TYPE "A1" & "A2" SIDE ROAD INTERSECTION DETAILS

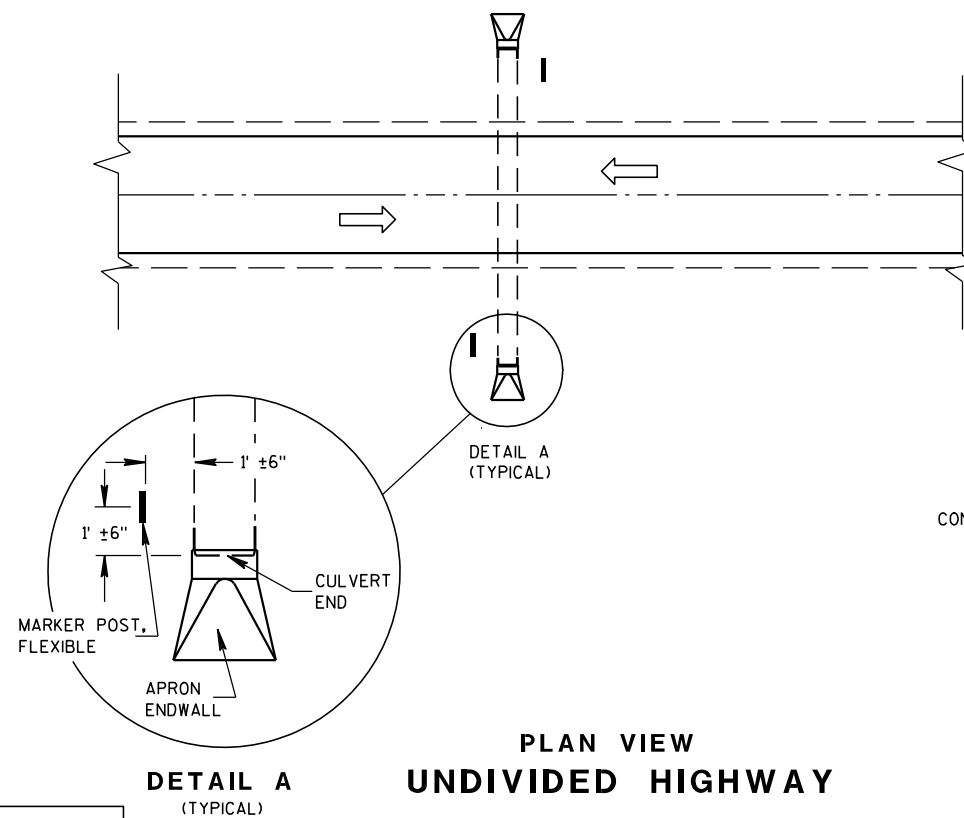
AT-GRADE SIDE ROAD
INTERSECTION, TYPE "A1" & "A2"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
12/17/02
DATE
/S/ Beth Canestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

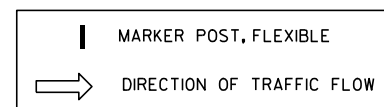


PLAN VIEW
DIVIDED HIGHWAY

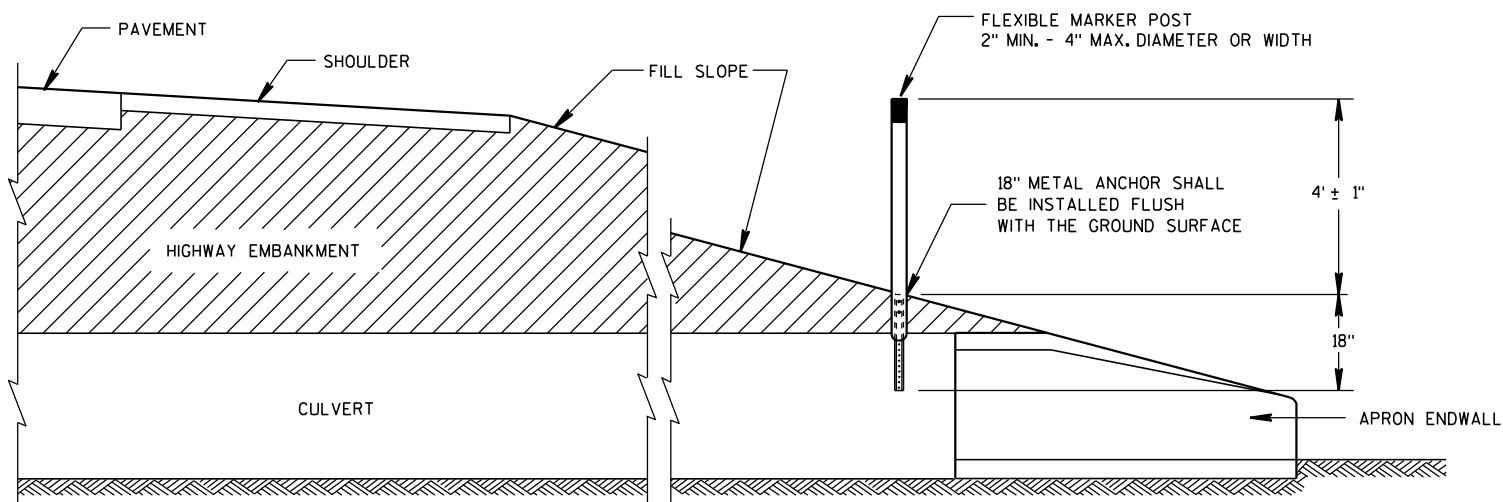


PLAN VIEW
UNDIVIDED HIGHWAY

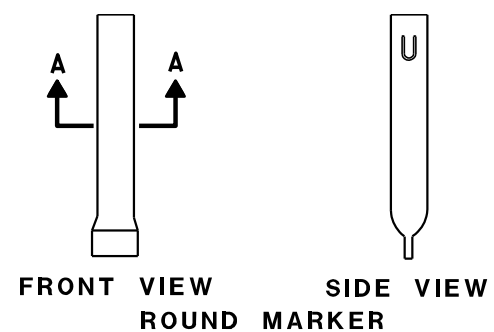
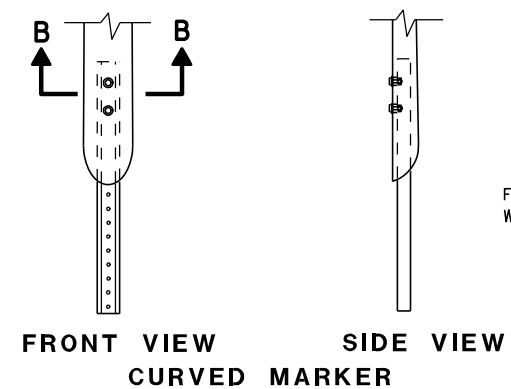
DETAIL A
(TYPICAL)



FLEXIBLE MARKER POST LOCATION



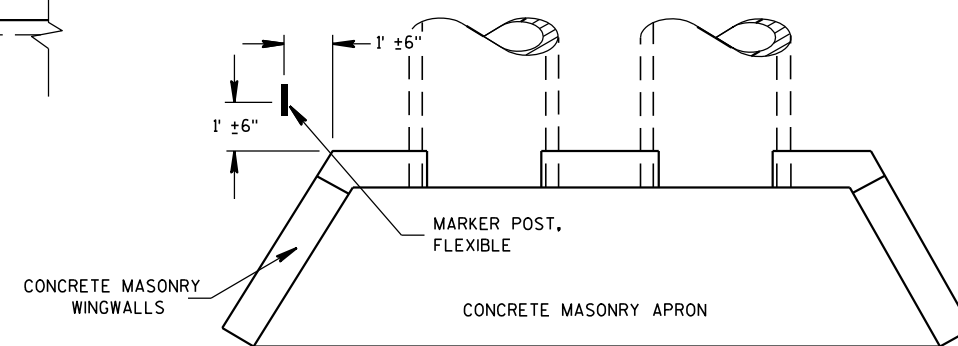
CROSS SECTION
FLEXIBLE MARKER POST



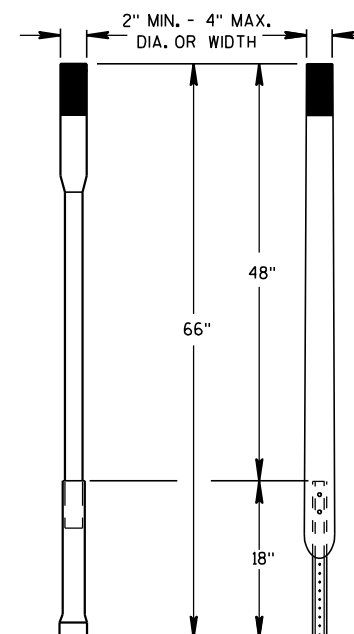
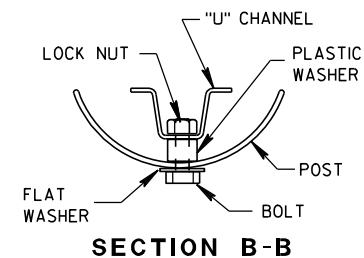
FLEXIBLE MARKER POST ANCHORS

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



ALTERNATE 1 ALTERNATE 2
FLEXIBLE MARKER POST

MARKER POST, FLEXIBLE,
FOR CULVERT END

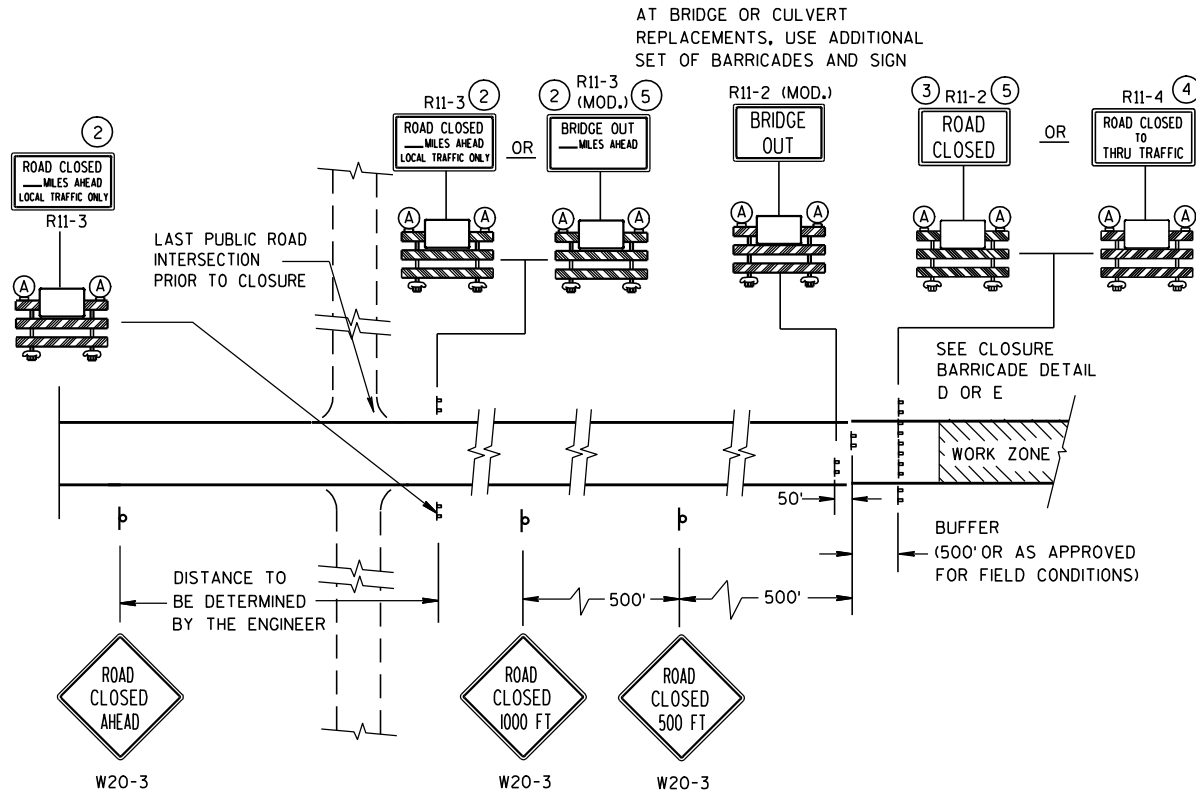
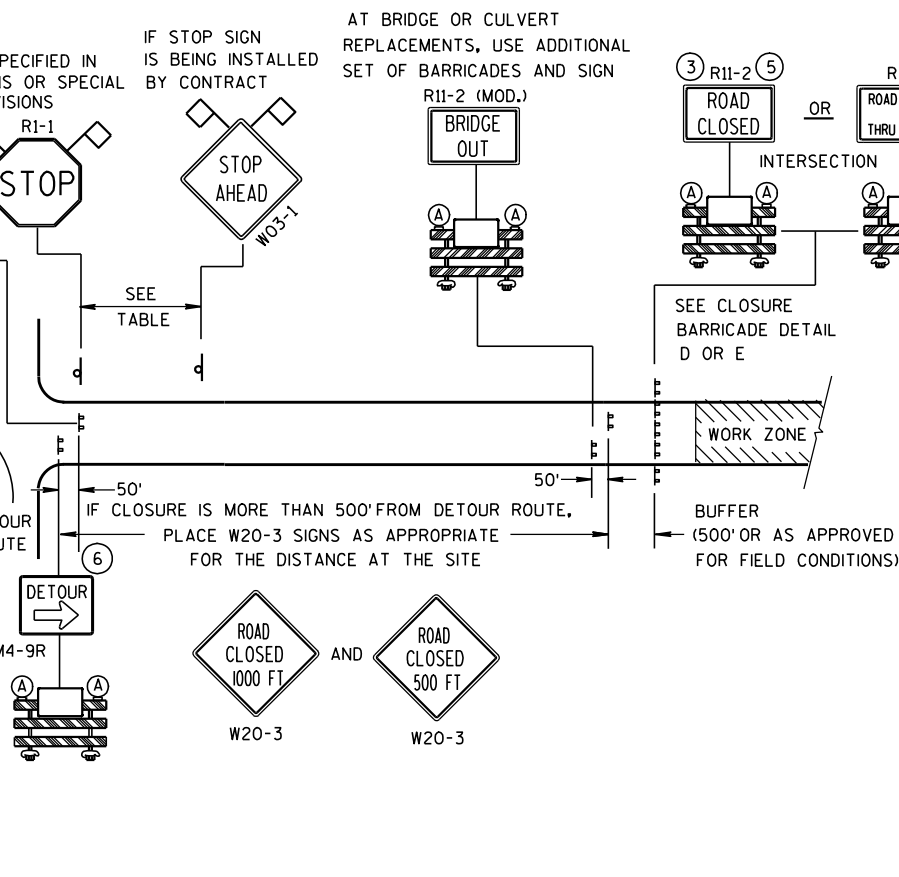
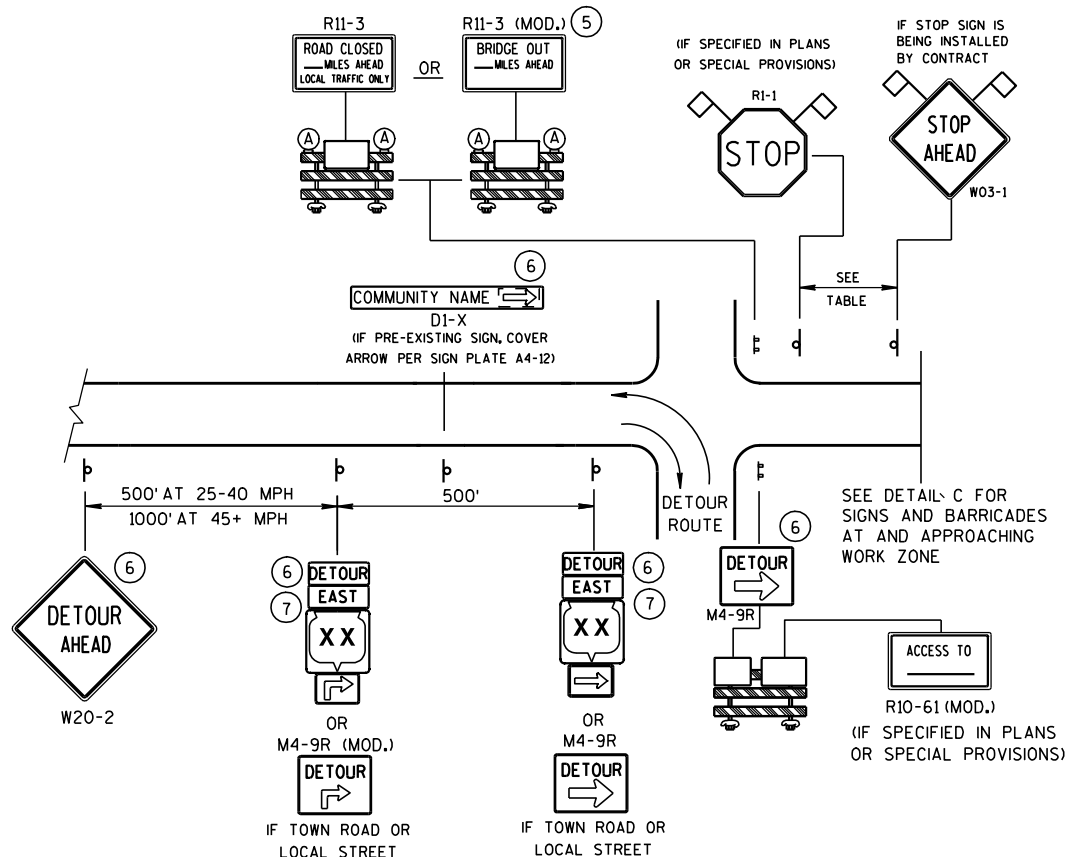
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/1/98
DATE

FHWA

/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER



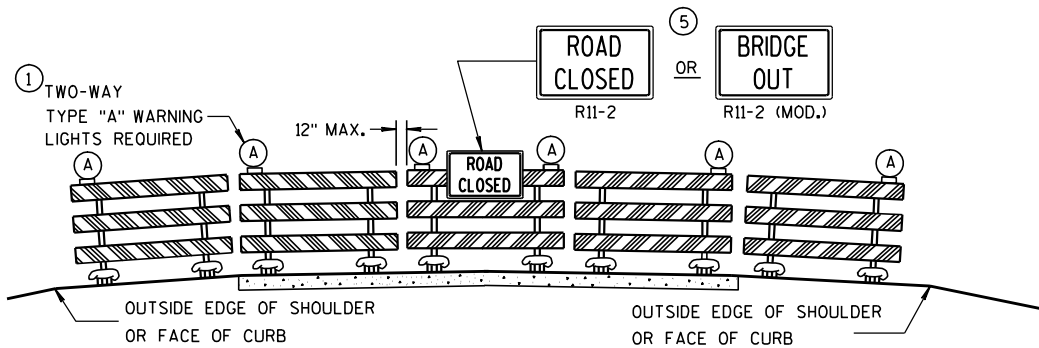
SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

SEE SDD 15C2-4b
FOR GENERAL NOTES
AND FOOTNOTES ① THROUGH ⑦

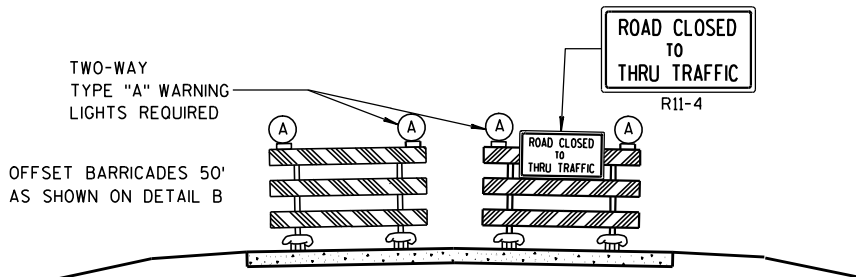
- LEGEND**
- POST MOUNTED SIGN
 - TYPE III BARRICADES
 - TYPE "A" LOW INTENSITY FLASHING WARNING LIGHT (FOR NIGHT USE)
 - WORK ZONE
 - DETOUR EAST M4-8 M3-X
 - MI-4 OR MI-5A OR MI-6
 - MO5-1 OR MO6-1
 - FLAGS, 16" X 16" MIN., (ORANGE)

**BARRICADES AND SIGNS
FOR
MAINLINE CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2-4a FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

THE REFLECTIVE SHEETING USED ON R11-2, R11-3, R11-4, R10-61 AND R1-1 SIGNS SHALL COMPLY WITH SUBSECTION 637.2.2.2 OF THE STANDARD SPECIFICATIONS.

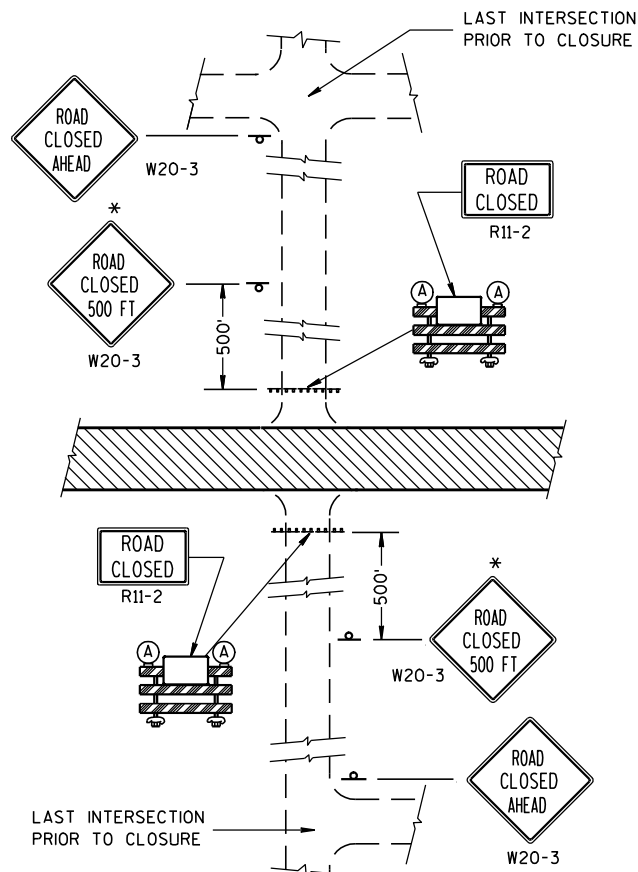
"WO AND "MO" SIGNS ARE THE SAME AS "W" AND "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

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

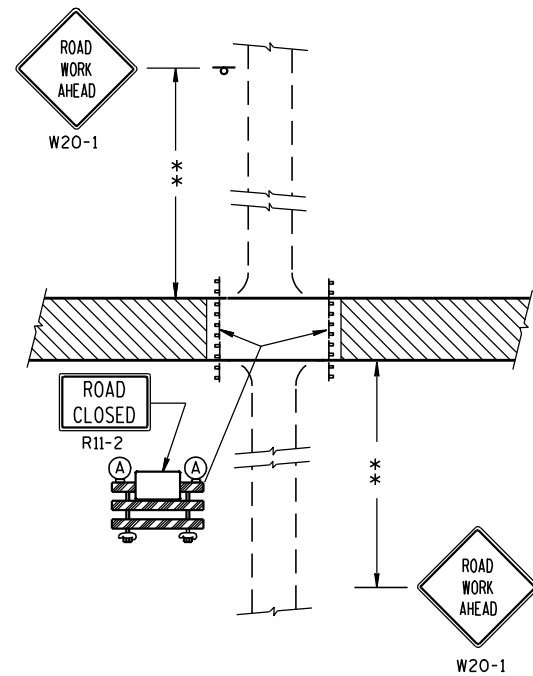
- R11-2 SHALL BE 48" X 30".
- R11-3, R11-4 AND R10-61 SHALL BE 60" X 30".
- M4-9 SHALL BE 30" X 24".
- M3-X AND M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- M05-1 AND M06-1 SHALL BE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

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

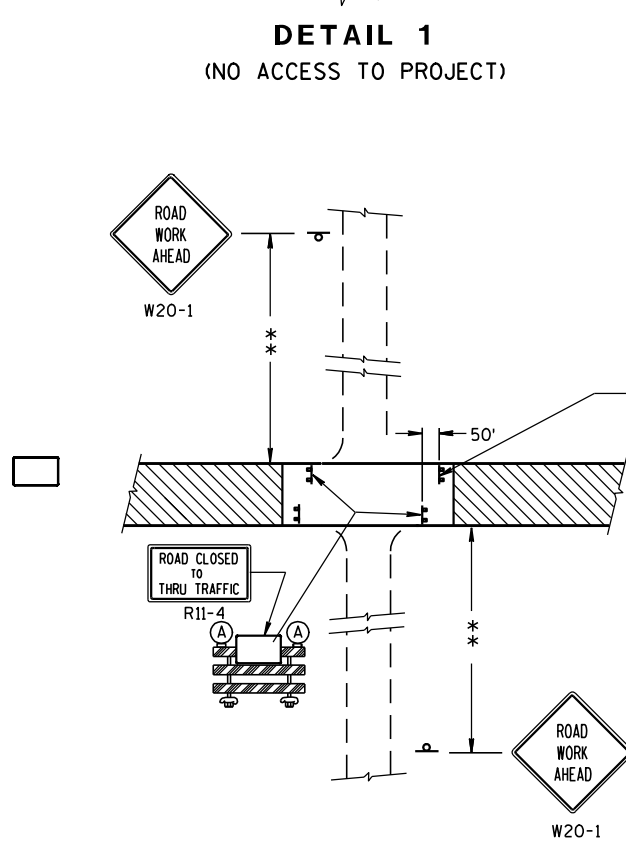
BARRICADES AND SIGNS FOR MAINLINE CLOSURES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
9/16/03 DATE	/S/ Thomas N. Notbohm CHIEF SIGNS AND MARKING ENGINEER
FHWA	



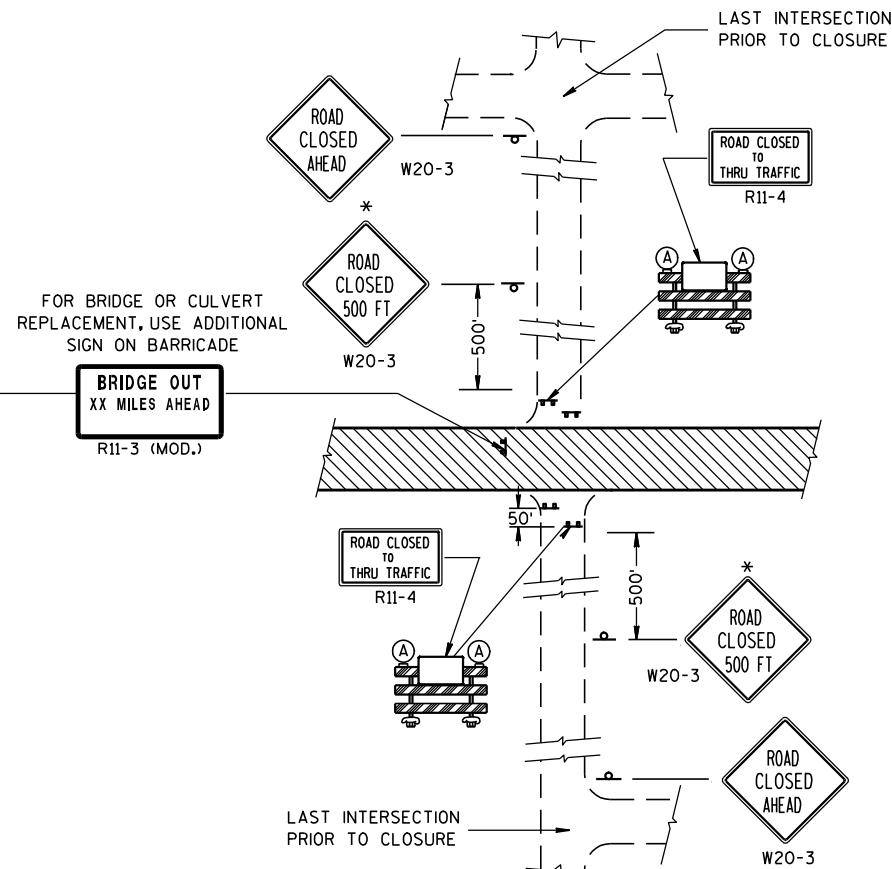
DETAIL 1
(NO ACCESS TO PROJECT)



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



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



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 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 RE-ESTABLISHED.

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 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.

THE REFLECTIVE SHEETING USED ON R11-2, R11-3 AND R11-4 SIGNS SHALL COMPLY WITH SUBSECTION 637.2.2.2 OF THE STANDARD SPECIFICATIONS.

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 FT. OR LESS FROM THE WORK ZONE.

**500' MAX. OR AT LAST INTERSECTION WHICHEVER IS CLOSER.

LEGEND

⌋ POST MOUNTED WARNING SIGN

⌋ TYPE III BARRICADES

Ⓐ TYPE "A" LOW INTENSITY FLASHING WARNING LIGHT (FOR NIGHT USE)

▨ WORK AREA

**BARRICADES AND SIGNS
FOR
SIDEROAD CLOSURES**

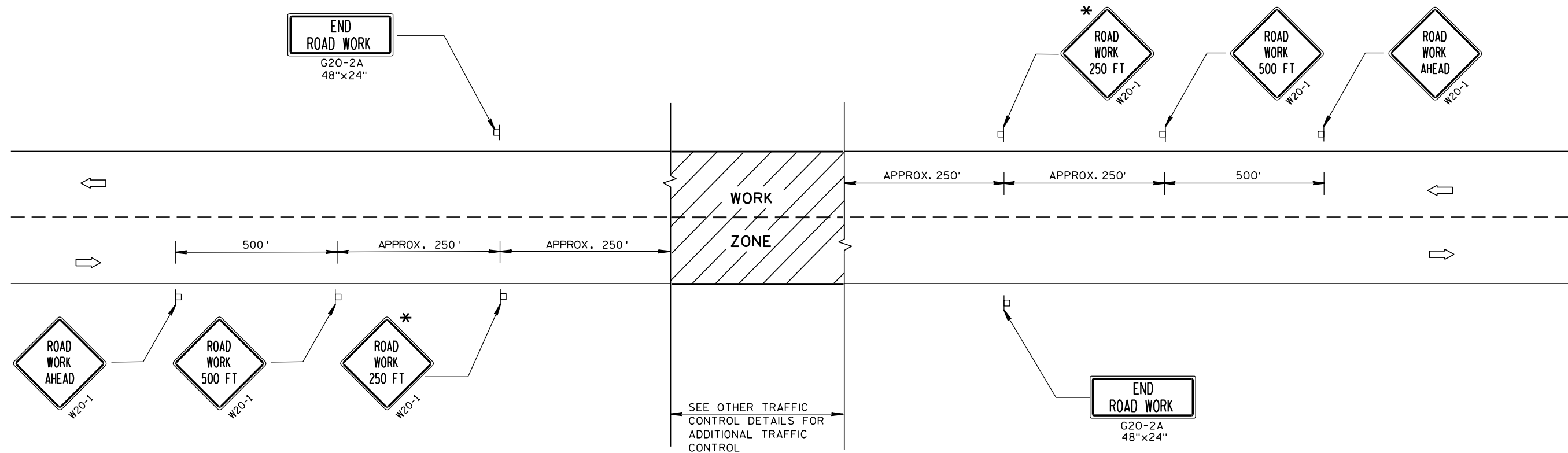
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

9-16-03
DATE

/S/ Thomas N. Notbohm
CHIEF SIGNS AND MARKING ENGINEER

FHWA



TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL

GENERAL NOTES

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

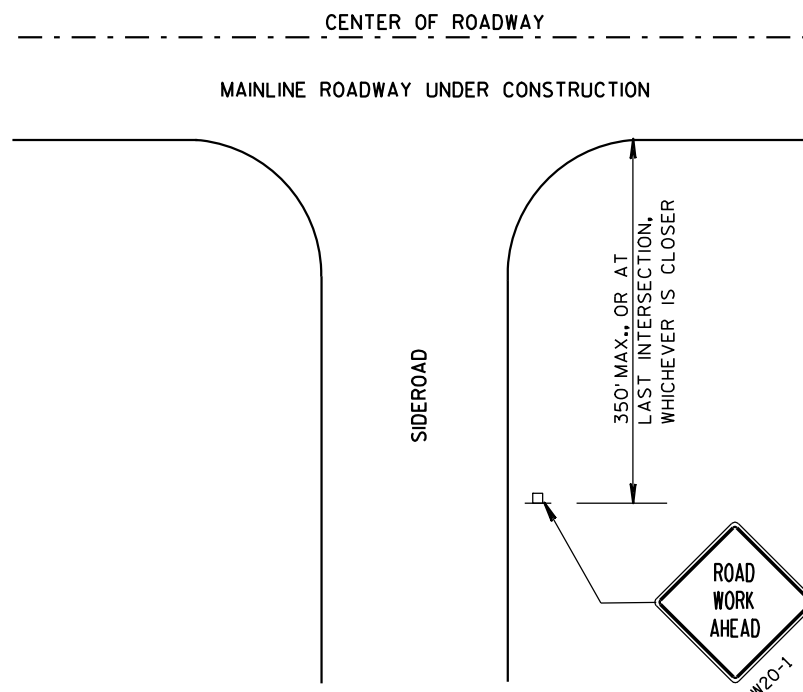
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"x36" SIGNS MAY BE USED INSTEAD OF 48"x48" SIGNS, IF APPROVED BY DISTRICT TRAFFIC UNIT.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 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 RE-ESTABLISHED.

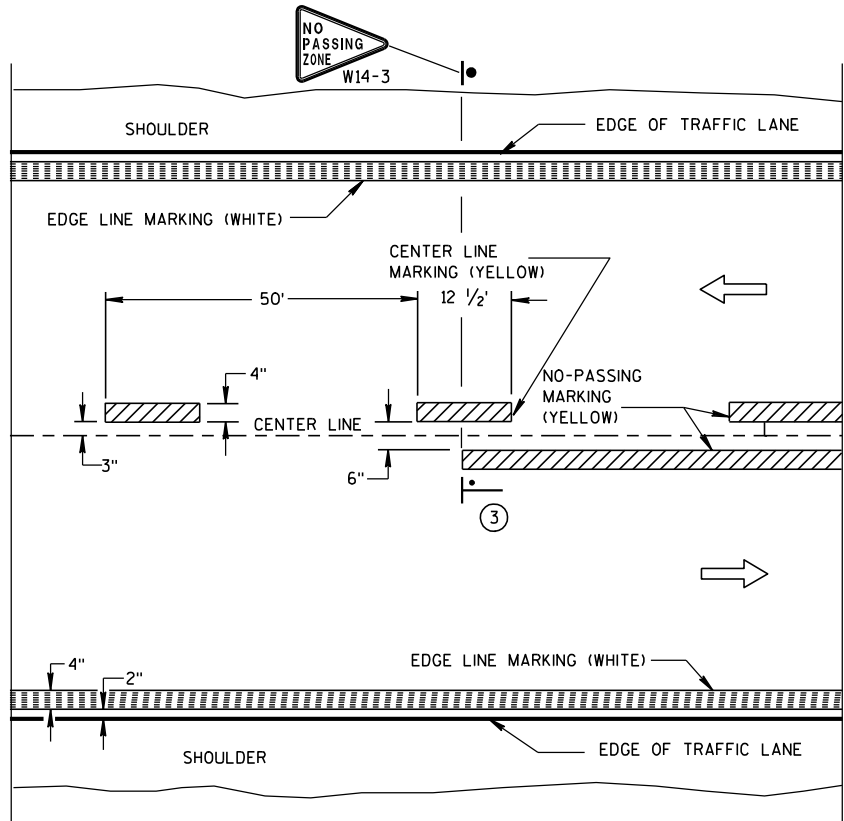
* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FT" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.



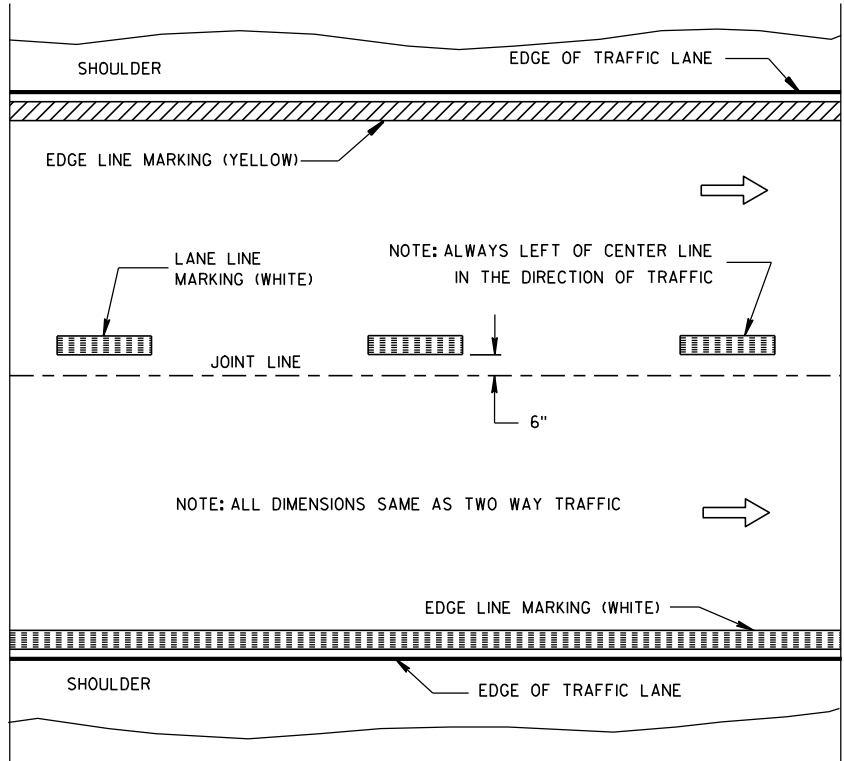
LEGEND

- POST MOUNTED SIGN
- ➡ DIRECTION OF TRAFFIC FLOW

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 5/23/00 DATE	/S/ Chester J. Spang CHIEF SIGNS AND MARKING ENGINEER
FHWA	

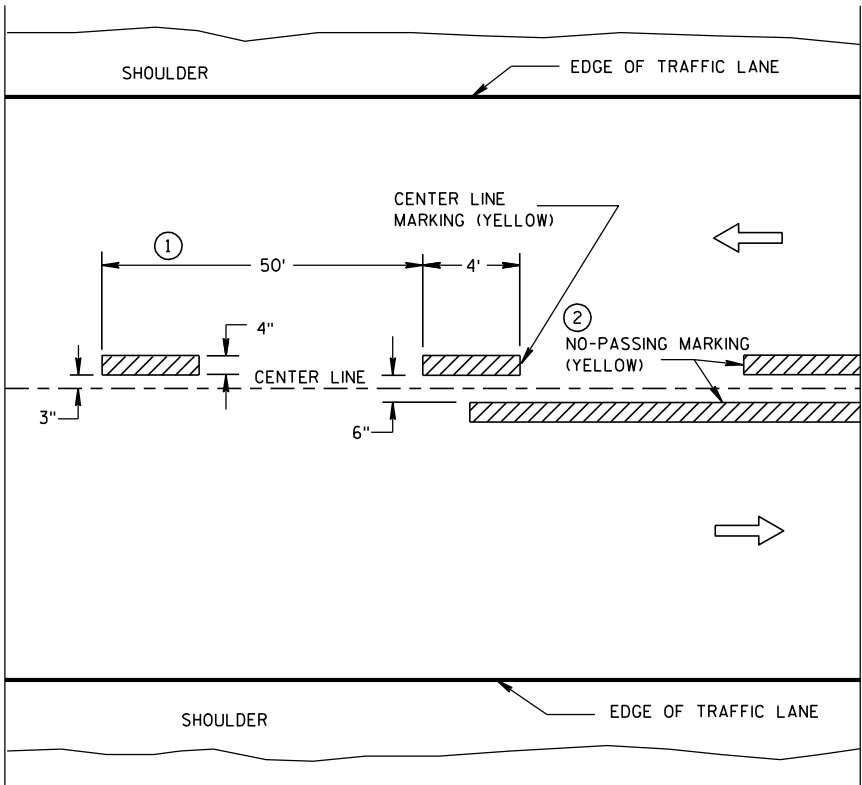


TWO WAY TRAFFIC

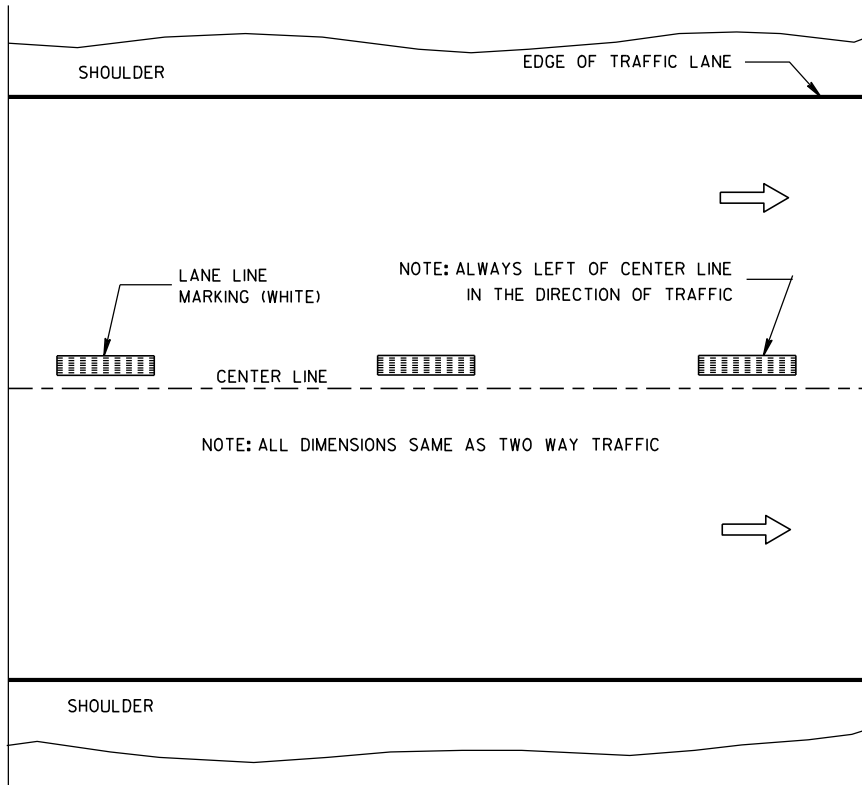


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING
(SHOWS CYCLE FOR TEMPORARY CENTER LINE OR TEMPORARY LANE LINE MARKING)

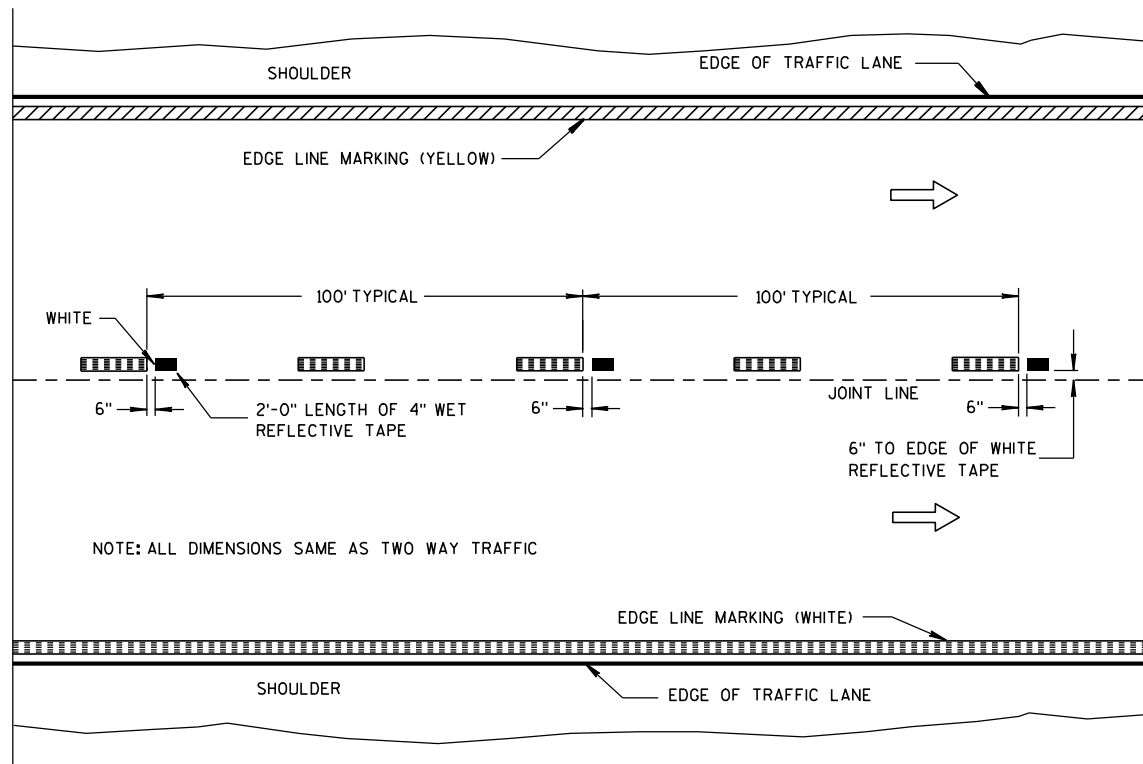
GENERAL NOTES

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

- 1 HALF CYCLE LENGTHS (25'±) WITH 2' MINIMUM STRIPE LENGTHS SHALL BE PROVIDED ON ROADWAYS (INCLUDING TEMPORARY TRAVELED WAYS) WITH REVERSE CURVATURE, CURVATURE OF OVER 5 DEGREES OR WHEN DIRECTED BY THE ENGINEER TO MARK UNUSUAL ALIGNMENT OF THE TRAVELED WAY.
- 2 NO PASSING ZONE TEMPORARY PAVEMENT MARKING IS REQUIRED TO BE PLACED, WHERE APPROPRIATE, ALONG WITH CENTERLINE TEMPORARY PAVEMENT MARKING WHEN A SAME DAY PERMANENT PAVEMENT MARKING ITEM IS INCLUDED IN THE CONTRACT.
- 3 NO PASSING ZONE MARKINGS ARE PLACED ACCORDING TO "T" MARKINGS. IF EXISTING NO PASSING ZONE W14-3 SIGNS ARE BEYOND 50 FEET IN EITHER DIRECTION, THE SIGNS SHALL BE MOVED TO THE "T" MARKINGS.

NOTE

ARROW SYMBOL (→) SHOWS DIRECTION OF TRAVEL



WET REFLECTIVE TAPE SUPPLEMENT TO
SPRAYED OR NON WET REFLECTIVE TAPE LANE LINE

LEGEND

- "T" MARKING
- POST MOUNTED SIGN

PAVEMENT MARKING
(MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6-23-11 /S/ Thomas N. Notbohm
DATE STATE TRAFFIC ENGINEER OF DESIGN
FHWA

TWO-LANE ROADWAY

SYMBOLS



WORK AREA



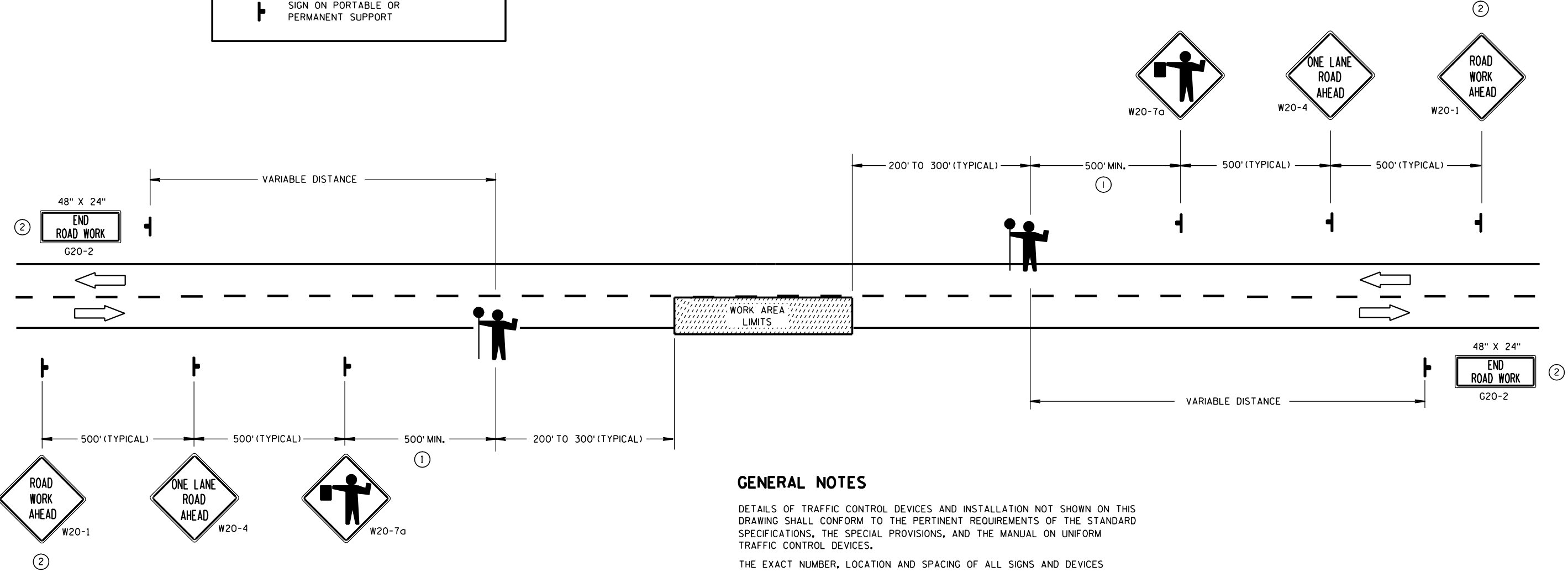
FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF



SIGN ON PORTABLE OR PERMANENT SUPPORT



USE OF THE "BE PREPARED TO STOP" SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7a AND W20-4 SIGNS. A 500' TYPICAL SPACING SHALL BE PROVIDED BETWEEN THE SIGNS.



GENERAL NOTES

DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

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

THE FIRST ADVANCE WARNING SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR QUEUE.

WHEN A SIDE ROAD OR RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT, THE "FLAGGER AHEAD", THE "ROAD WORK AHEAD" AND THE ONE LANE ROAD AHEAD" SIGNS SHALL BE COVERED OR REMOVED AND THE HIGHWAY RESTORED TO NORMAL OPERATION.

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

- ① FOR A MOVING WORK OPERATION, SIGNING FOR BOTH DIRECTIONS SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3500 FOOT INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.
- ② SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

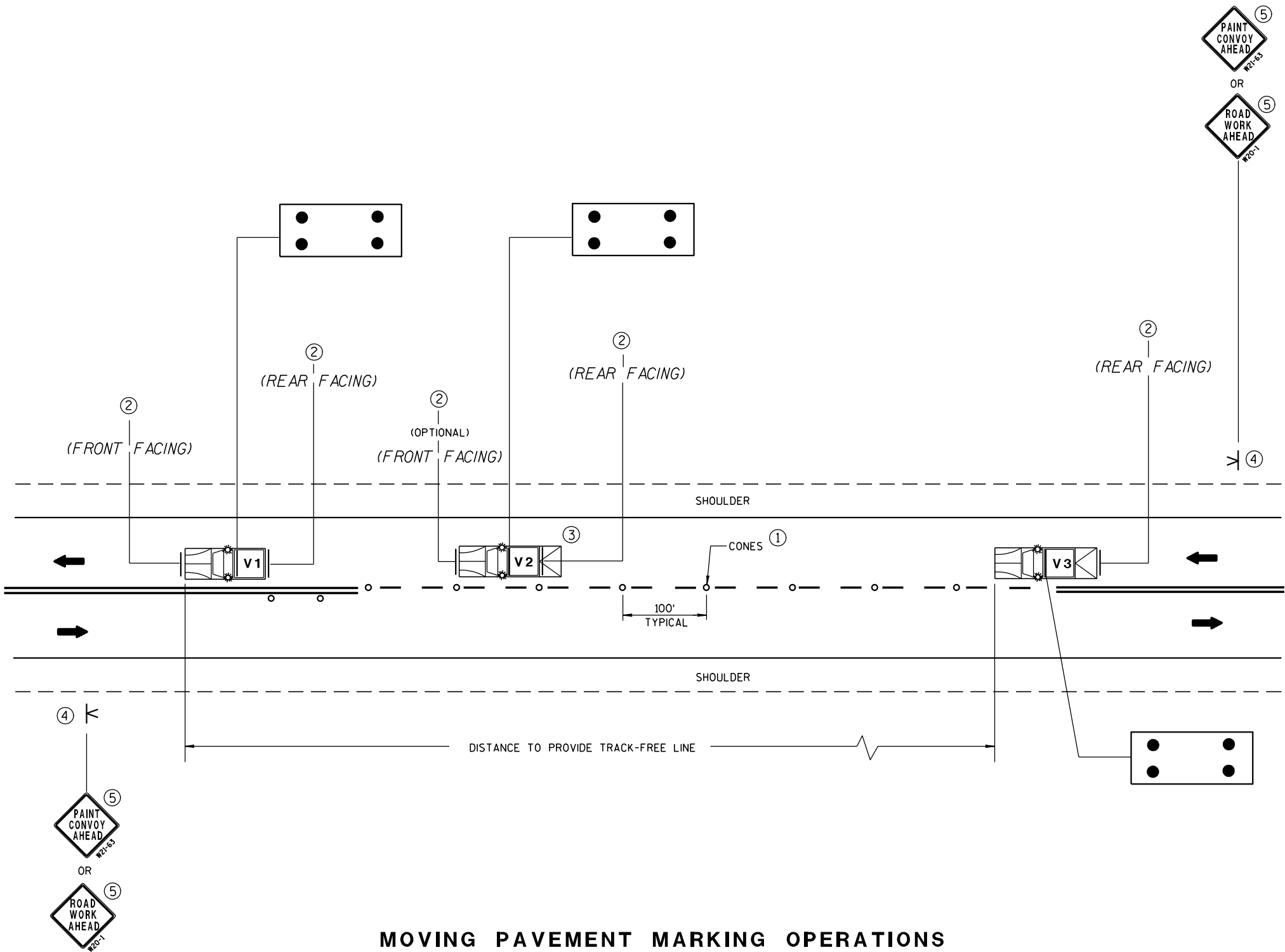
TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9/5/06
DATE

/S/ Thomas N. Notbohm
STATE TRAFFIC ENGINEER OF DESIGN

FHWA



MOVING PAVEMENT MARKING OPERATIONS
TWO-LANE TWO-WAY ROADWAY

GENERAL NOTES

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL OPERATING IN CAUTION MODE. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

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

IF SPEED LIMIT IS 40 MPH OR LESS STATIONARY SIGNS MAY BE OMITTED IF CONES ARE USED.

ALTERNATE SIGN MESSAGES, SUCH AS "PAINT CREW AHEAD" OR "ROAD PAINTING AHEAD" MAY BE USED.

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

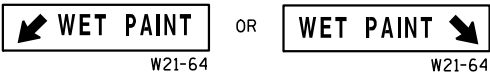
THE WORK AND SHADOW VEHICLES SHOULD PULL OVER PERIODICALLY TO ALLOW TRAFFIC TO PASS.

THIS DRAWING SHALL BE USED FOR CENTERLINE OR EDGELINE MARKING.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR TURN THE STATIONARY WARNING SIGNS AWAY FROM TRAFFIC.

① CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER, CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

② USE STANDARD SIGN W21-64 WITH APPROPRIATE ARROW.



③ OPTIONAL TRUCK-MOUNTED ATTENUATOR.

④ SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.

⑤ IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1 OR W21-63 ARE NOT REQUIRED.

LEGEND

V1 LEAD VEHICLE

V2 SHADOW VEHICLE (OPTIONAL)

V3 TRAIL VEHICLE WITH TMA

TMA TRUCK-MOUNTED ATTENUATOR

SIGN ON PORTABLE SUPPORT

DIRECTION OF TRAVEL

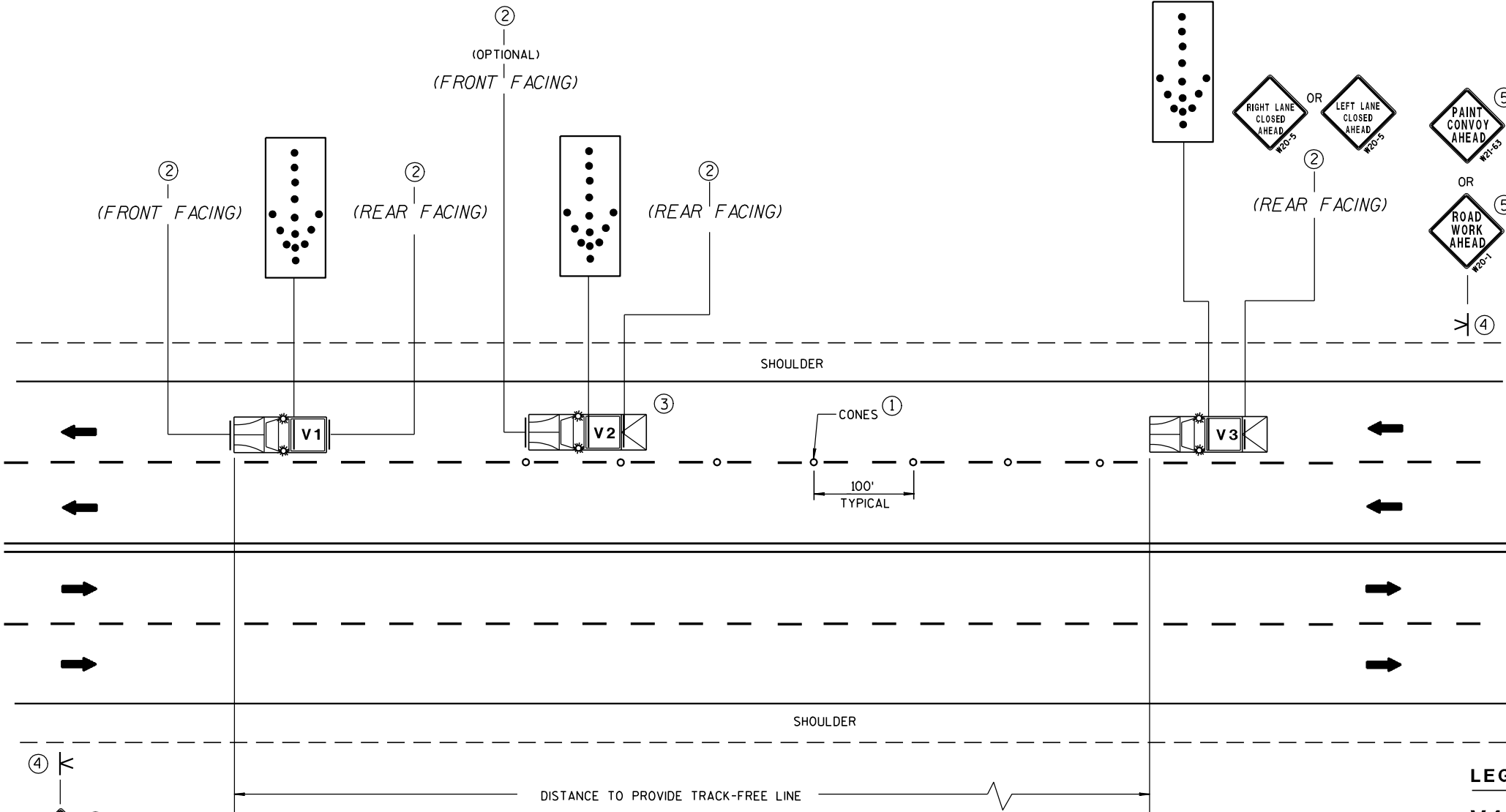
CONES

FLASHING ARROW PANEL (CAUTION)

MOVING PAVEMENT MARKING
OPERATION
TWO-LANE TWO-WAY ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
12/6/2011 /S/ Thomas N. Notbohm
DATE STATE TRAFFIC ENGINEER OF DESIGN
FHWA



**MOVING PAVEMENT MARKING OPERATIONS
MULTI-LANE UNDIVIDED ROADWAY**

- LEGEND**
- V1** LEAD VEHICLE
 - V2** SHADOW VEHICLE (OPTIONAL)
 - V3** TRAIL VEHICLE WITH TMA
 - TMA** TRUCK-MOUNTED ATTENUATOR
 - K** SIGN ON PORTABLE SUPPORT
 - ➡** DIRECTION OF TRAVEL
 - CONES
 - ...** FLASHING ARROW PANEL (MERGE)

GENERAL NOTES

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

ALL VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

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

IF SPEED LIMIT IS 40 MPH OR LESS STATIONARY SIGNS MAY BE OMITTED IF CONES ARE USED.

ALTERNATE SIGN MESSAGES, SUCH AS "PAINT CREW AHEAD" OR "ROAD PAINTING AHEAD" MAY BE USED.

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

WHEN WORK ACTIVITY BLOCKS THE LEFT LANE, REVERSE TRAFFIC CONTROL.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, PROVIDE ADDITIONAL TRAFFIC CONTROLS AS SPECIFIED IN THE CONTRACT OR AS APPROVED BY THE ENGINEER.

USE AN ATTENUATOR ON THE REARMOST VEHICLE THAT BLOCKS ALL OR PART OF THE TRAFFIC LANE.

FOR EDGELINE MARKING OR IF CONES ARE NOT USED, POSITION THE REARMOST SHADOW VEHICLE ON THE SHOULDER AS SHOWN IN THE MUTCD IF THE SHOULDER HAS ADEQUATE WIDTH.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR TURN THE STATIONARY WARNING SIGNS AWAY FROM TRAFFIC.

THIS DRAWING SHALL BE USED FOR CENTERLINE OR EDGELINE OR LANELINE MARKING FOR MULTILANE UNDIVIDED ROADWAYS.

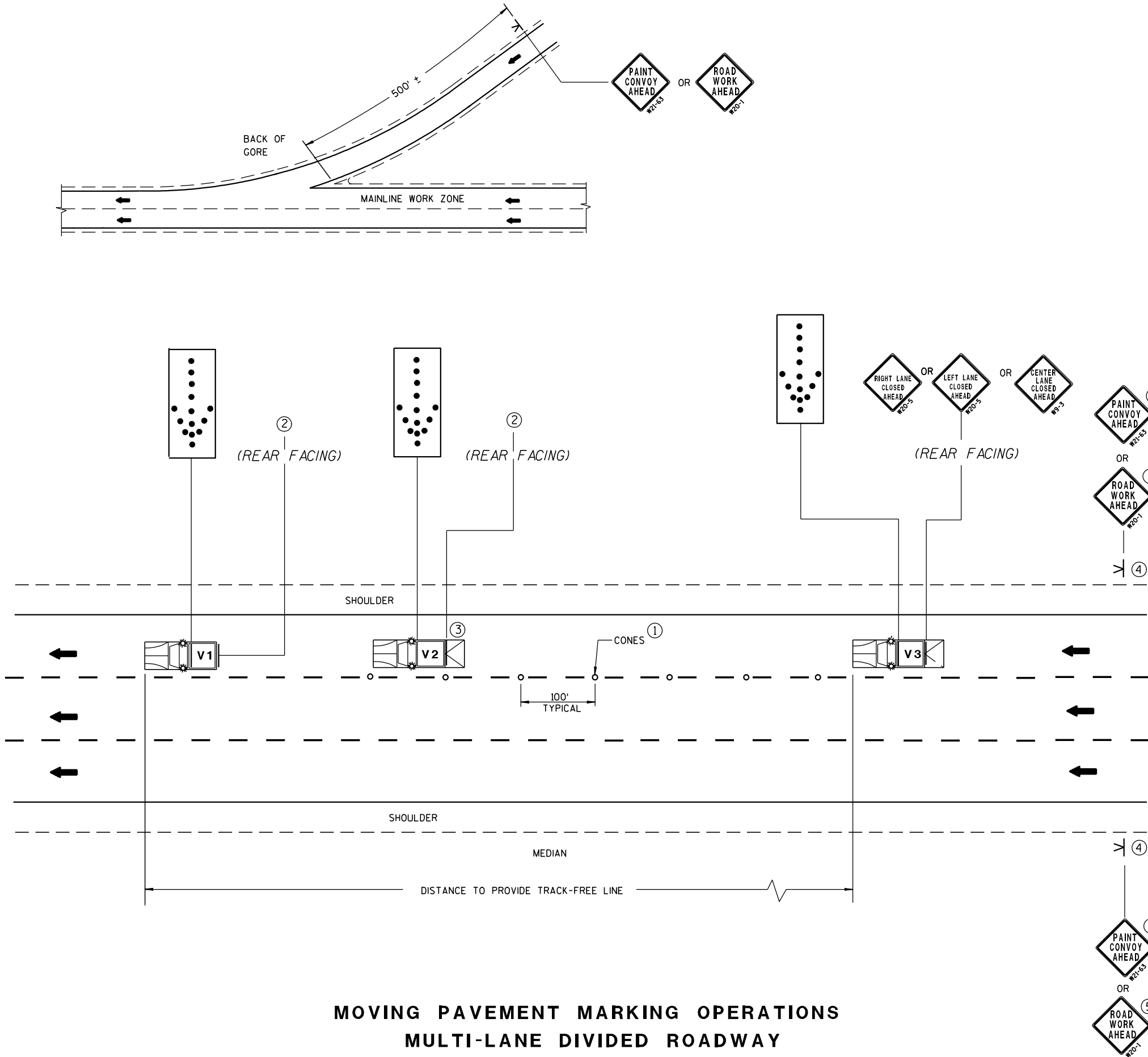
- ① CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.
- ② USE STANDARD SIGN W21-64 WITH APPROPRIATE ARROW.
 WET PAINT OR **WET PAINT**
W21-64 W21-64
- ③ OPTIONAL TRUCK-MOUNTED ATTENUATOR.
- ④ SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.
- ⑤ IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1 OR W21-63 ARE NOT REQUIRED.

**MOVING PAVEMENT MARKING
OPERATION
MULTI-LANE UNDIVIDED ROADWAY**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
12/6/2011 /S/ Thomas N. Notbohm
DATE STATE TRAFFIC ENGINEER OF DESIGN

FHWA



MOVING PAVEMENT MARKING OPERATIONS
MULTI-LANE DIVIDED ROADWAY

GENERAL NOTES

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

ALL VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

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

IF SPEED LIMIT IS 40 MPH OR LESS STATIONARY SIGNS MAY BE OMITTED IF CONES ARE USED.

ALTERNATE SIGN MESSAGES, SUCH AS "PAINT CREW AHEAD" OR "ROAD PAINTING AHEAD" MAY BE USED.

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

WHEN WORK ACTIVITY BLOCKS THE LEFT LANE, REVERSE TRAFFIC CONTROL.

WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, PROVIDE ADDITIONAL TRAFFIC CONTROLS AS SPECIFIED IN THE CONTRACT OR AS APPROVED BY THE ENGINEER.

USE AN ATTENUATOR ON THE REARMOST VEHICLE THAT BLOCKS ALL OR PART OF THE TRAFFIC LANE.

FOR EDGELINE MARKING OR IF CONES ARE NOT USED, POSITION THE REARMOST SHADOW VEHICLE ON THE SHOULDER AS SHOWN IN THE MUTCD IF THE SHOULDER HAS ADEQUATE WIDTH. USE DOUBLE ARROWS WHEN CONVOY IS IN CENTER LANE ONLY.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR TURN THE STATIONARY WARNING SIGNS AWAY FROM TRAFFIC.

THIS DRAWING SHALL BE USED FOR EDGELINE OR LANELINE MARKING FOR MULTILANE DIVIDED ROADWAYS.

- ① CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.
- ② USE STANDARD SIGN W21-64 WITH APPROPRIATE ARROW.
- ③ OPTIONAL TRUCK-MOUNTED ATTENUATOR.
- ④ SIGNS SHALL BE REPEATED AFTER EVERY ON RAMP OR EVERY THREE MILES.
- ⑤ IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1 OR W21-63 ARE NOT REQUIRED.

LEGEND

- V1 LEAD VEHICLE
- V2 SHADOW VEHICLE
- V3 TRAIL VEHICLE WITH TMA
- TMA TRUCK-MOUNTED ATTENUATOR
- SIGN ON PORTABLE SUPPORT
- DIRECTION OF TRAVEL
- CONES
- FLASHING ARROW PANEL (MERGE)

MOVING PAVEMENT MARKING
OPERATION
MULTI-LANE DIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
12/6/2011 /S/ Thomas N. Notbohm
DATE STATE TRAFFIC ENGINEER OF DESIGN
FHWA

GENERAL NOTES

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

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

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

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

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.

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

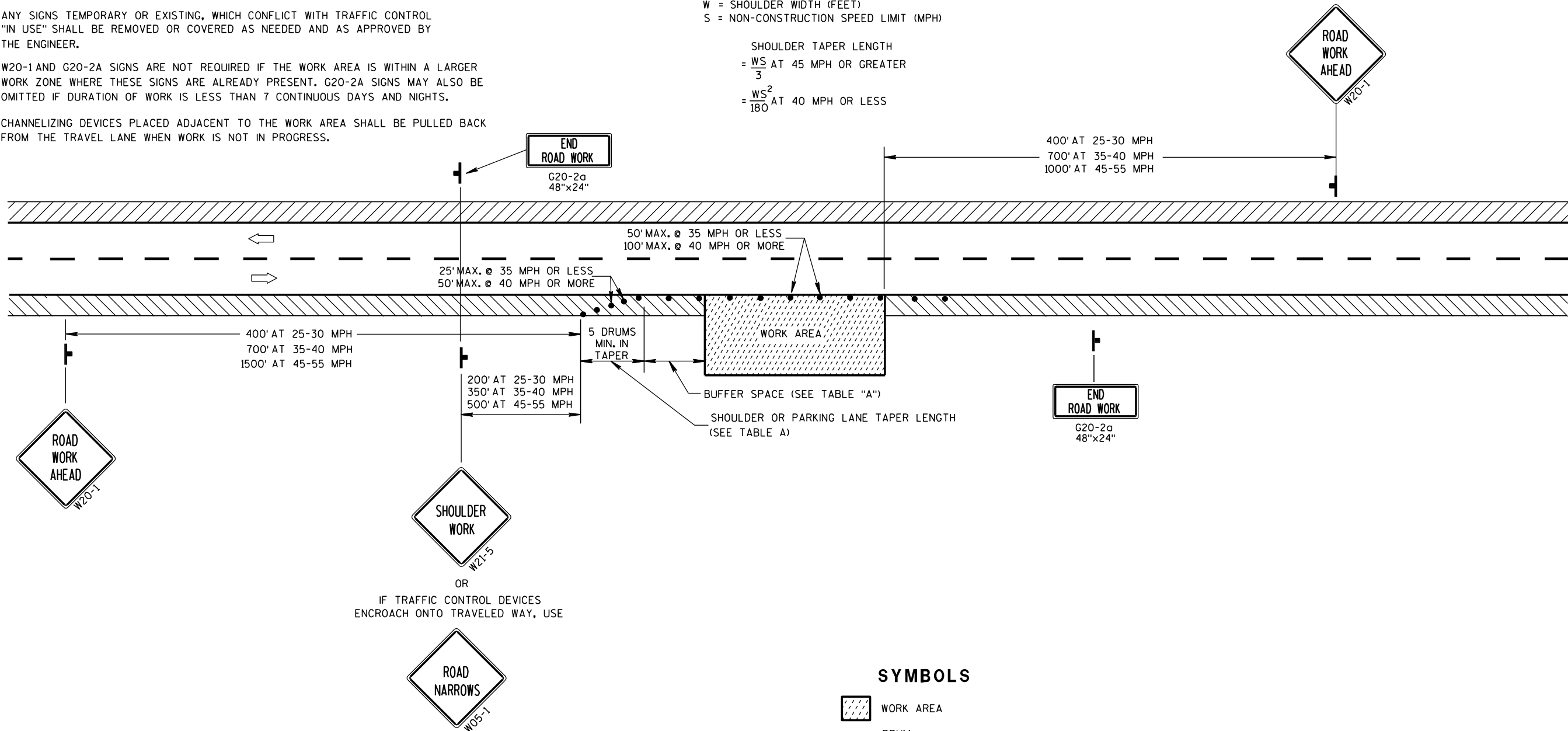
CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

TABLE A

SHOULDER TAPER LENGTH (FEET)					BUFFER SPACE (FEET)
S	W	4	6	8	
30	20	30	40	50	85
35	30	45	55	70	120
40	40	55	75	90	170
45	60	90	120	150	220
50	70	100	135	170	280
55	75	110	150	185	335

W = SHOULDER WIDTH (FEET)
S = NON-CONSTRUCTION SPEED LIMIT (MPH)

SHOULDER TAPER LENGTH
= $\frac{WS}{3}$ AT 45 MPH OR GREATER
= $\frac{WS^2}{180}$ AT 40 MPH OR LESS



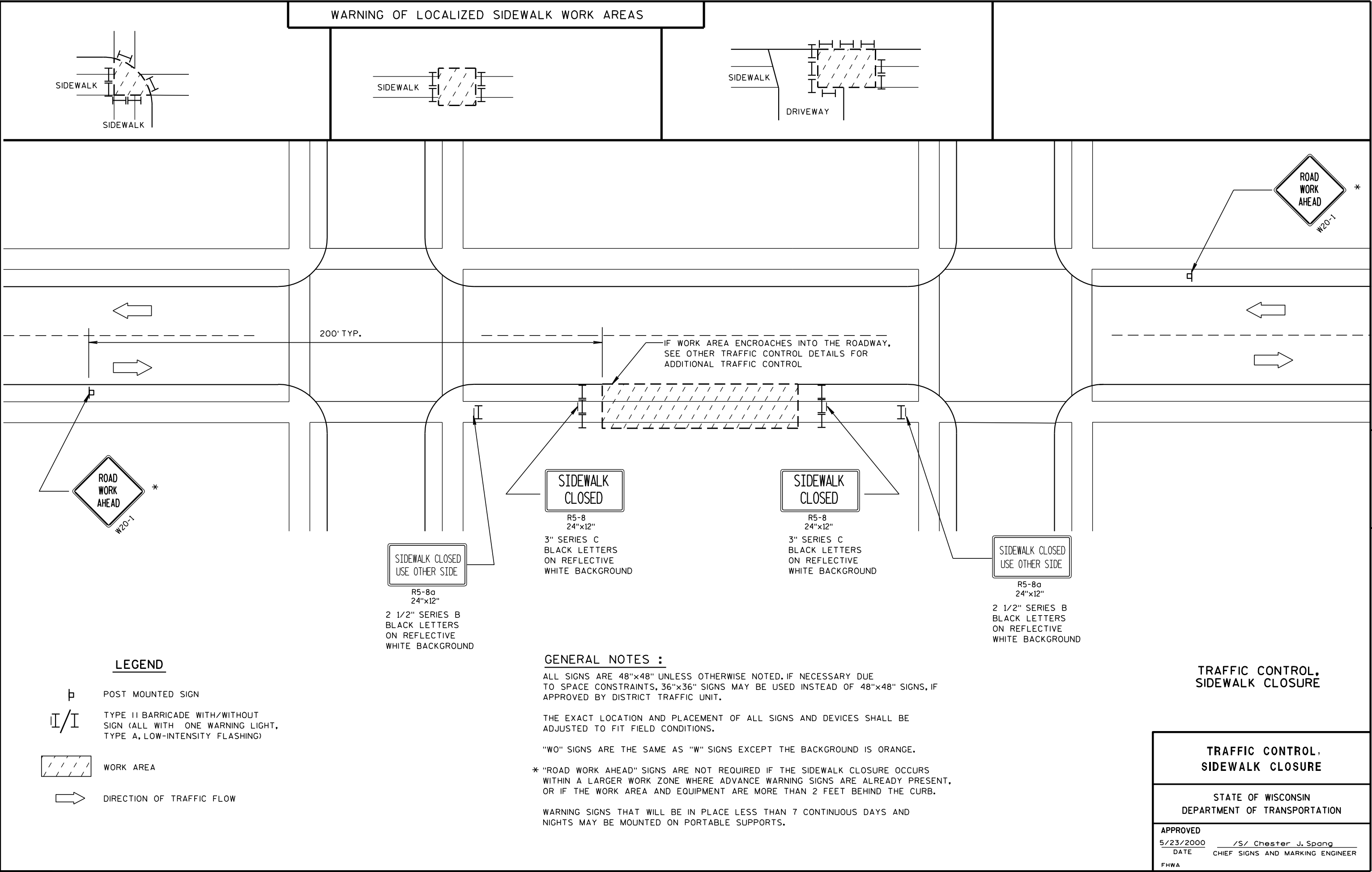
SYMBOLS

- WORK AREA
- DRUM
- POST MOUNTED SIGN
- DIRECTION OF TRAFFIC FLOW

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

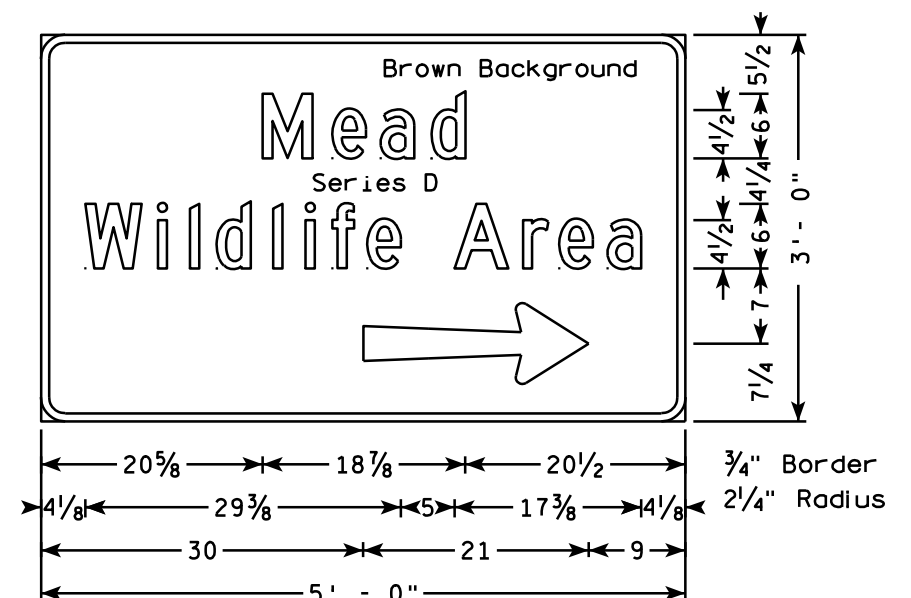
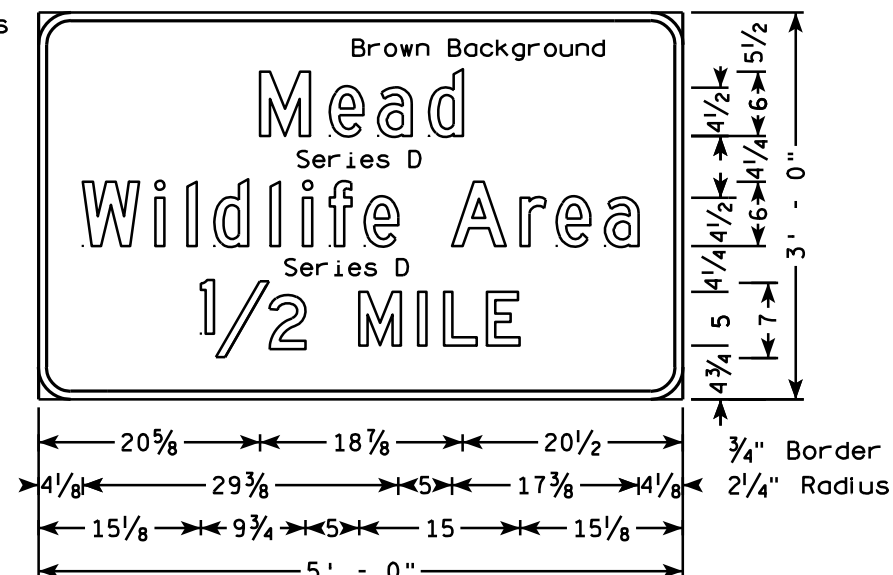
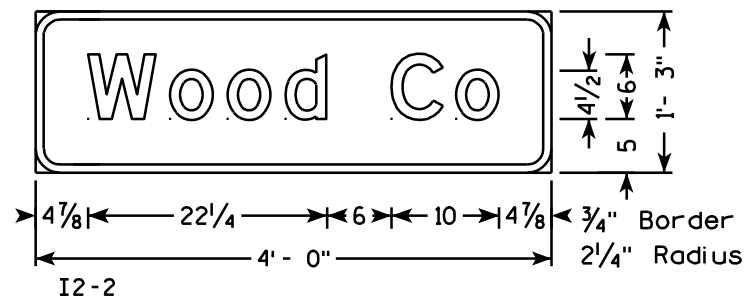
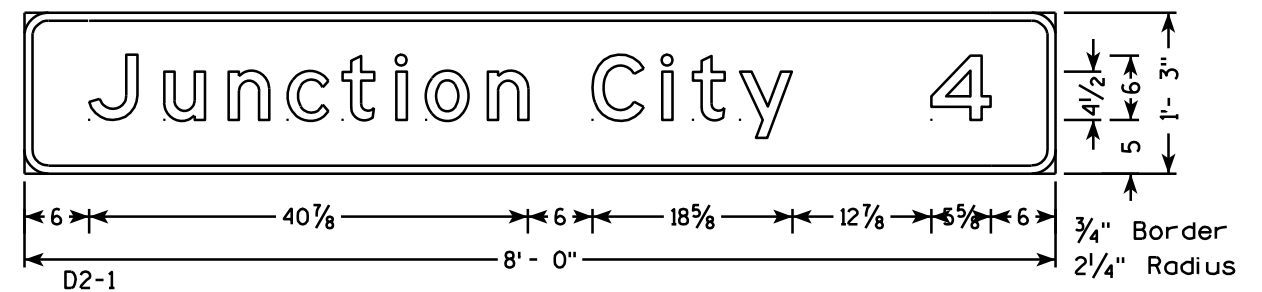
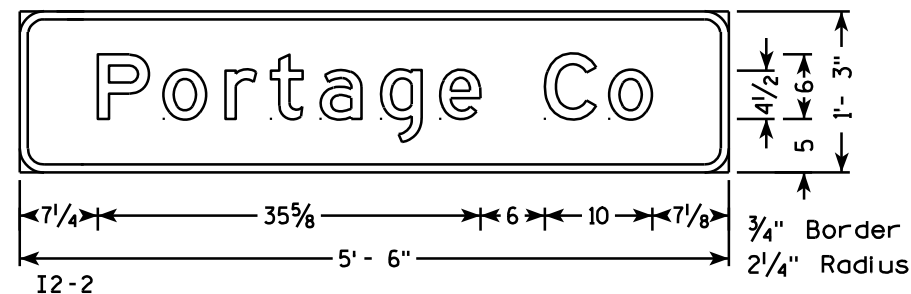
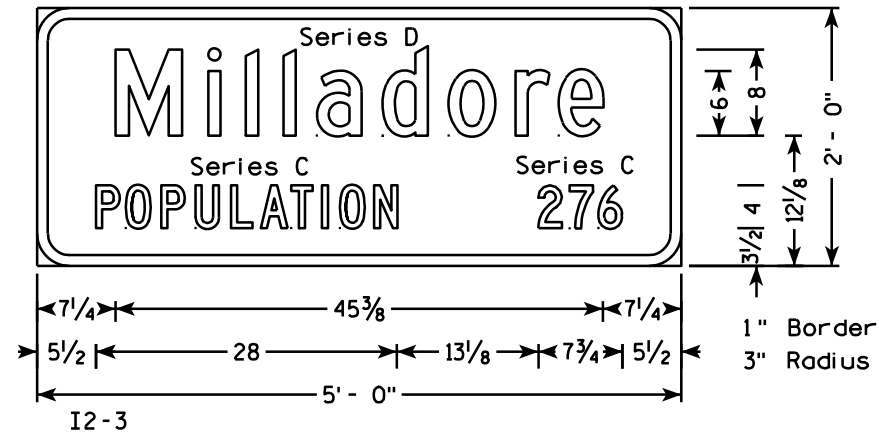
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/23/00 /S/ Chester J. Spang
DATE CHIEF SIGNS AND MARKING ENGINEER
FHWA

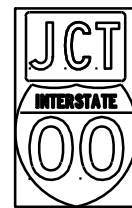


NOTES

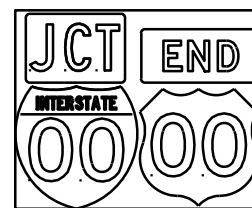
1. All Signs Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Green except as noted
Message - White
3. Message Series - E except as noted



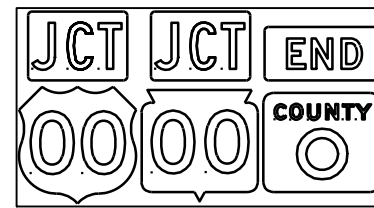
TYPICAL ASSEMBLIES



J1-1



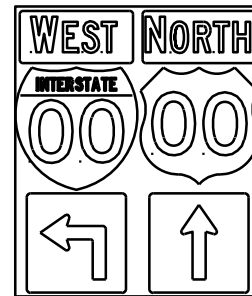
J1-2



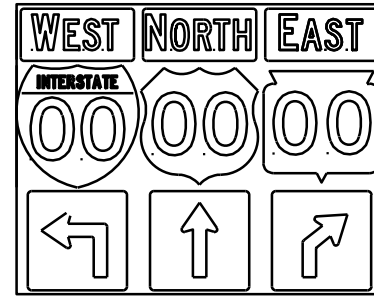
J1-3



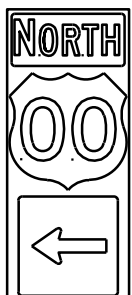
J2-1



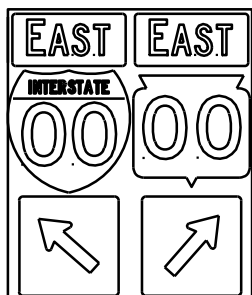
J2-2



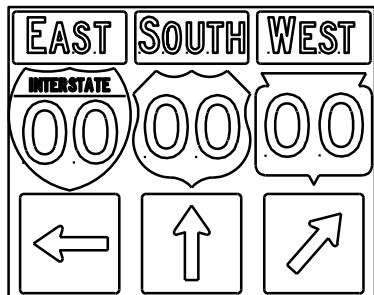
J2-3



J3-1



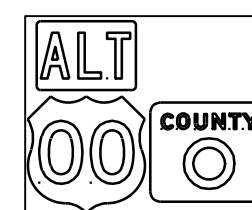
J3-2



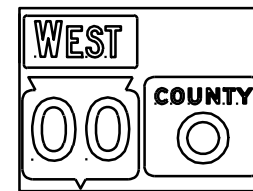
J3-3



J4-1



J4-2



J4-2



J13-1



J12-1



J32-1



J33-1



J23-1



J22-1

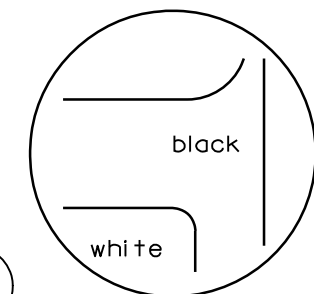
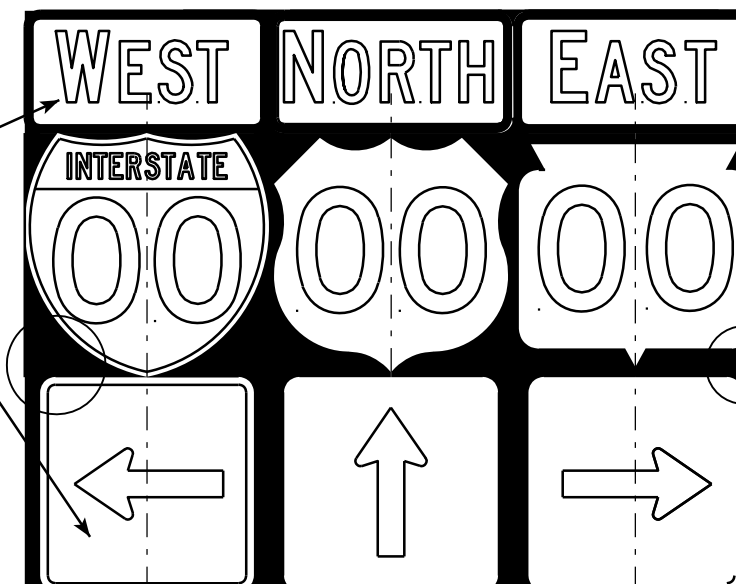
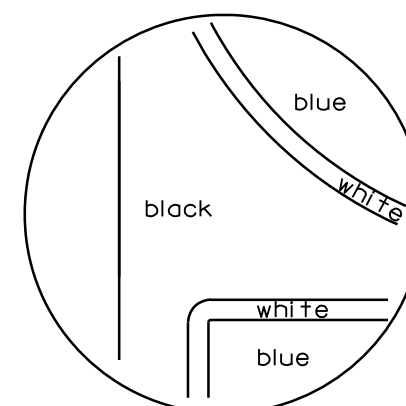


JV

NOTES

- Signs are Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - Black Non-reflective
Message - see Note 5
- Message Series - See Note 5
- Corners shall be square since base material is plywood.
- The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
- Certain marker heads require the component pieces to be the same color. As an example, all the components used with an M1-1 Interstate marker shall be blue.
- Single panel j-assemblies shall only be used with route marker shields that are same size. If the route marker shields are different size use multiple piece component.
- Route assemblies that have 24 inch route shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have one horizontal splice between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 inches or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
- Route assemblies that have 36 inch shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have two horizontal splices. One horizontal splice shall be between the cardinal direction and route shields and the other horizontal splice shall be between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.

[blue background with interstate]



[black background]

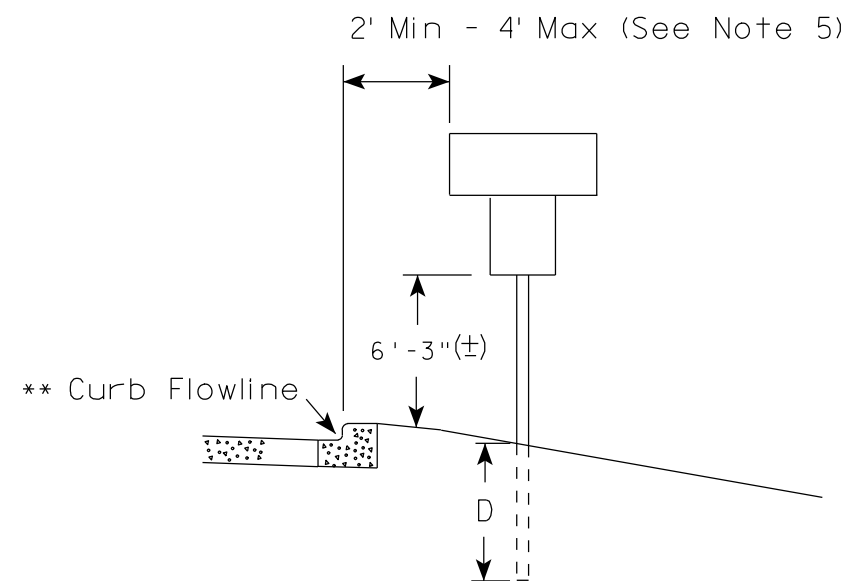
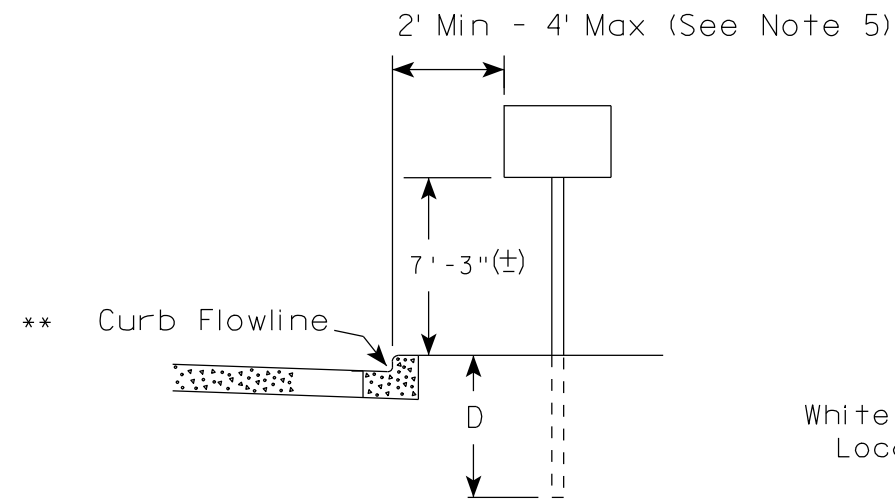
ROUTE MARKERS & COMPONENTS IN TYPICAL ASSEMBLIES	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 10/21/09	PLATE NO. A2-1S.6

PROJECT NO:

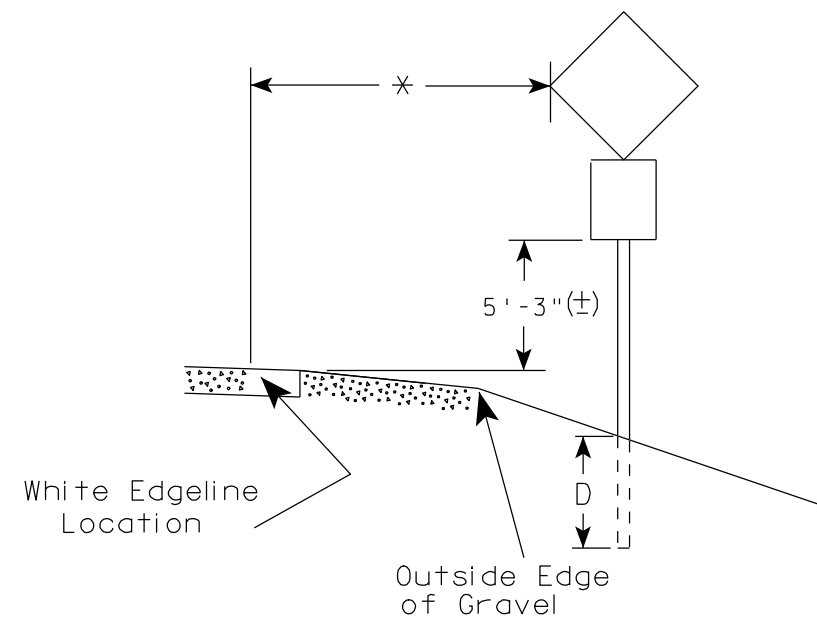
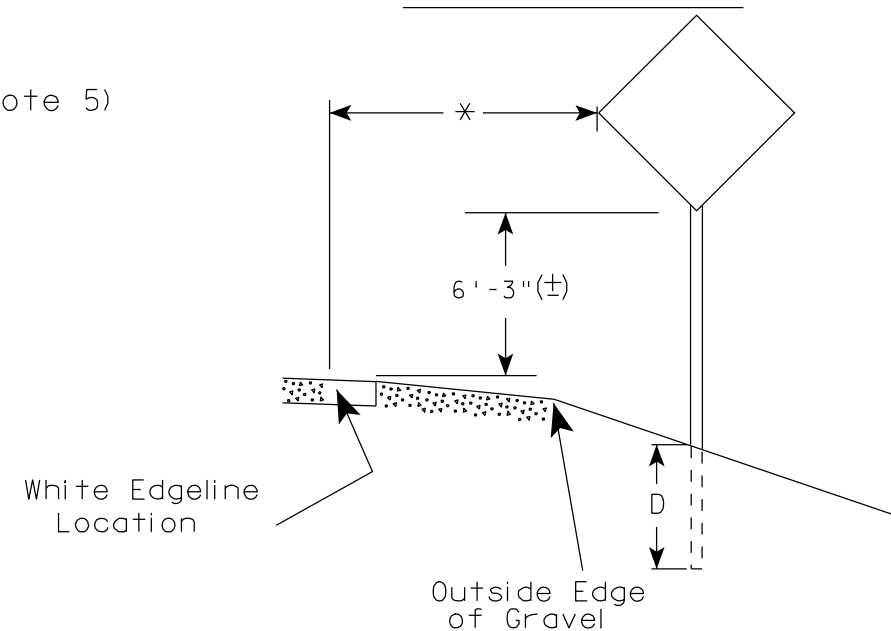
SHEET NO:

E

URBAN AREA



RURAL AREA (See Note 2)



GENERAL NOTES

1. Signs wider than 4 feet or larger than 20 sq. ft. shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
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 J assemblies (A4-5) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'-3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding stop signs (R1-1F) shall be mounted at a height of 5'-3" (±) or as directed by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series) & End of Road Markers (W5-56 & W5-56A) shall be mounted at a height of 4'-3" (±).

POST EMBEDMENT DEPTH

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

✱✱ 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.

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 9/21/2011 PLATE NO. A4-3.16

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

GENERAL NOTES

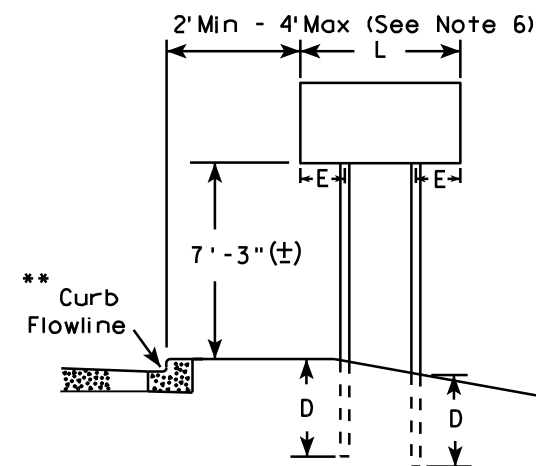
- For multiple post installations, individual post spacing shall be greater than 3'-6".
- See tables below for required number of posts.
- For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
- The (±) tolerance for mounting height is 3 inches.
- Minimum mounting height for J assemblies (A4-5) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
- Offset distance shall be consistent with existing signs or consistent throughout length of project.
- Folding stop signs (R1-1F) shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
- The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series) & End of Road Markers (W5-56 & W5-56A) shall be mounted at a height of 4'-3" (±).

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

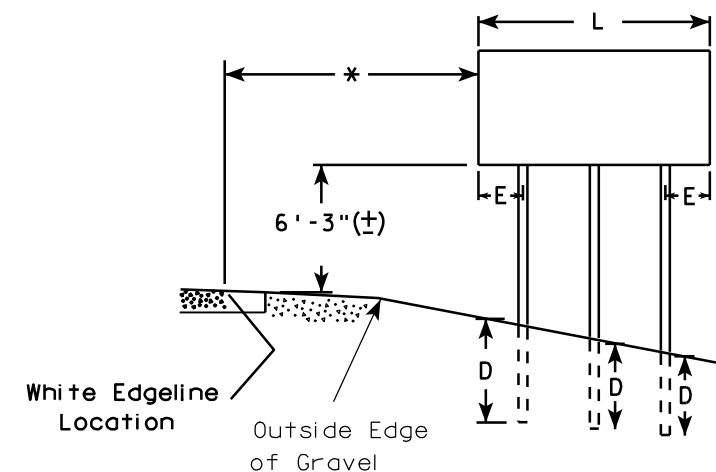
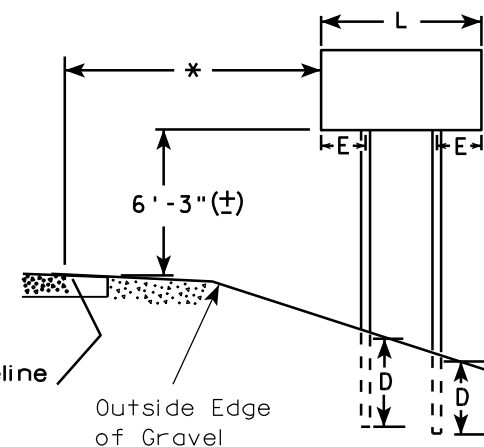
** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs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

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

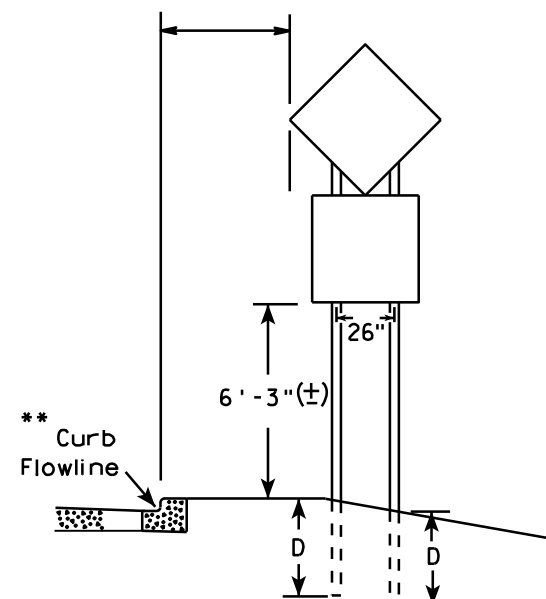
URBAN AREA



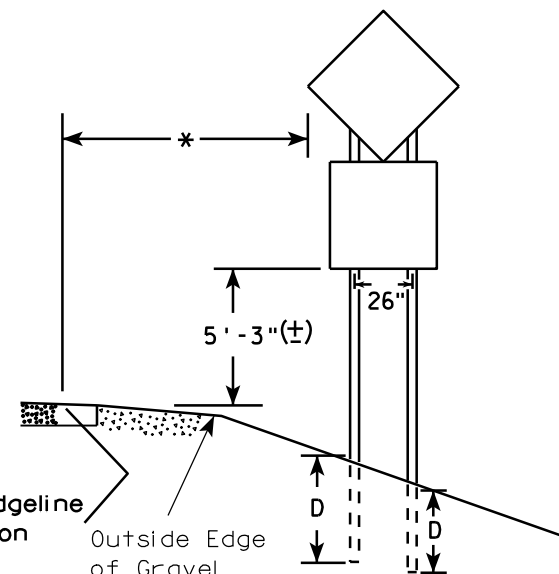
RURAL AREA (See Note 3)



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



48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)

L	E
Greater than 48" Less than 60"	12"
60" to 120"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)

L	E
Greater than 120" less than 168"	12"

SIGN SHAPE OTHER THAN DIAMOND (FOUR POSTS REQUIRED)

L	E
168" and greater	12"

POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION
APPROVED *Matthew R. Rauch*
For State Traffic Engineer
DATE 9/21/2011 PLATE NO. A4-4.11

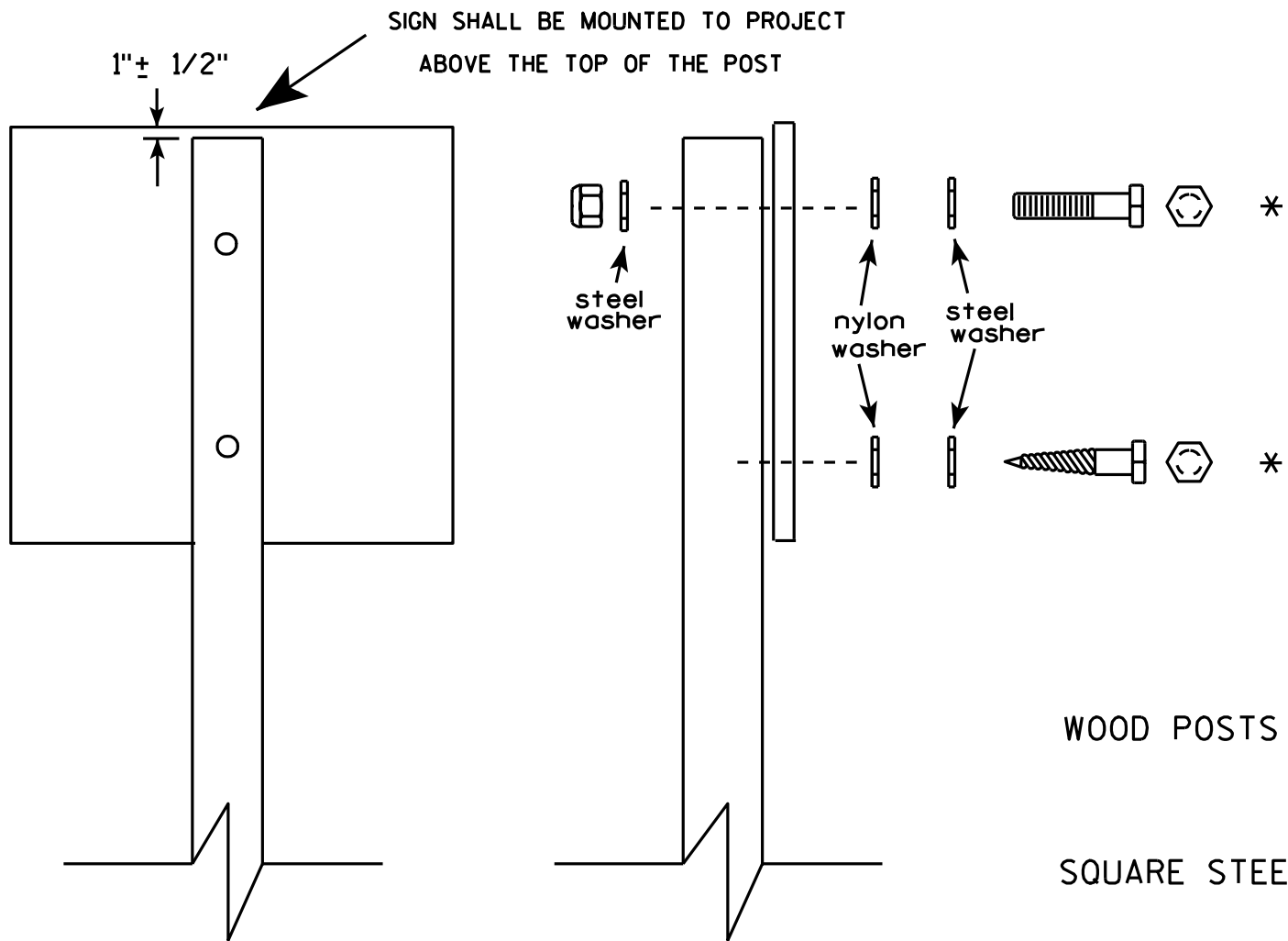
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

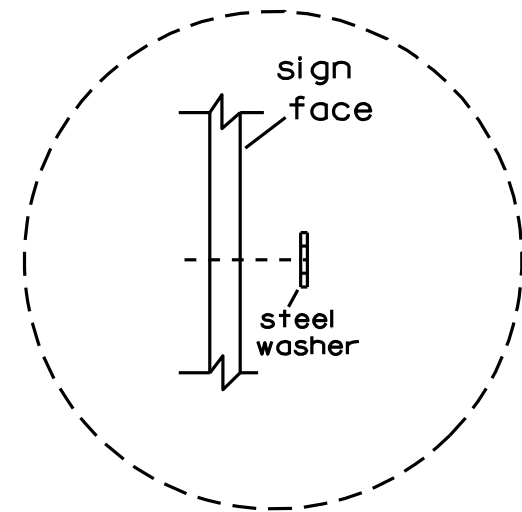


Nuts, bolts and lags used for mounting signs shall have hexagonal heads and shall be either :

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

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

- WOOD POSTS (4" x 4" or 4" x 6")
LAG SCREWS - 3/8" X 3"
MACHINE BOLTS - 5/16" X 6-1/2" or 7" Length w/ nuts
- SQUARE STEEL POSTS (2" x 2")
MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts
RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH
- WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON for all Type H signs.

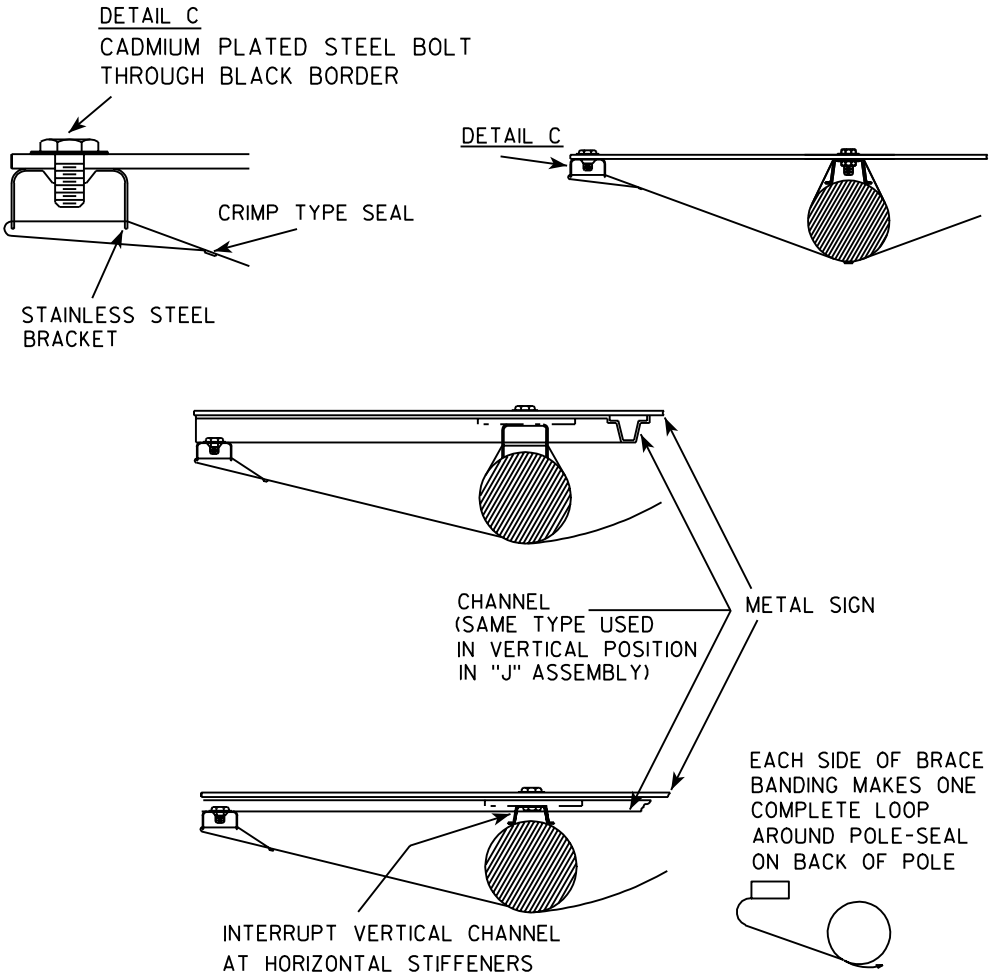


Washer Placement when Sign Has Other Than Type H or Type F Face

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

ATTACHMENT OF SIGNS TO POSTS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 3/23/10	PLATE NO. A4-8.7

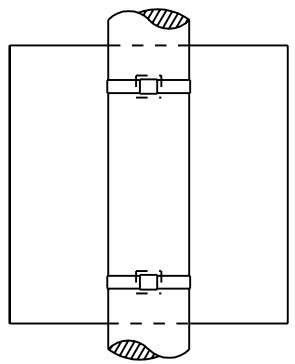
BRACE BANDING



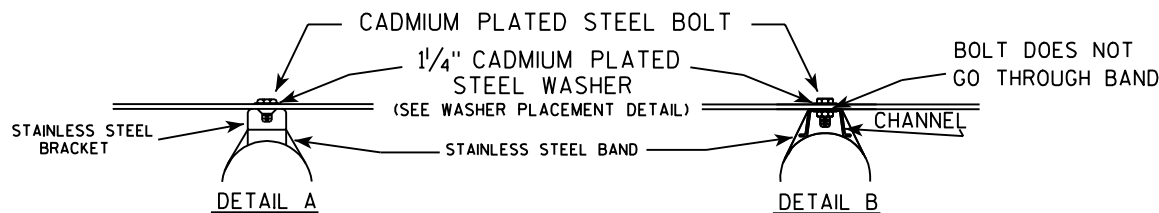
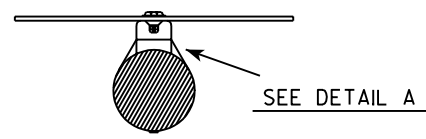
BRACE BANDING

BRACE BANDING SHALL BE TIGHTENED FIRMLY
BUT NOT SO TIGHT AS TO APPRECIABLY
CURVE FACE OF SIGN.

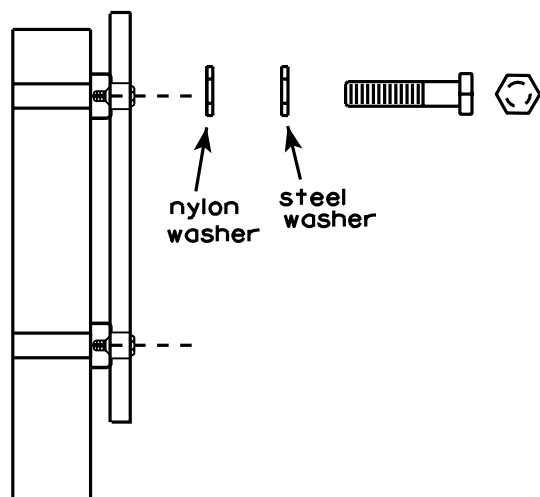
SINGLE SIGN



BRACKET BANDING

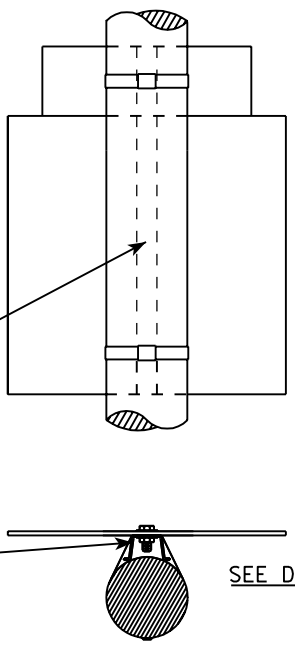


WASHER PLACEMENT



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

"J" ASSEMBLY



SEE DETAIL B

GENERAL NOTES

1. Signs 4' or greater in width shall have one brace band installed at the center of the sign.
2. Signs 3' or greater in height shall have three bracket bands installed. Signs less than 3' in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be 3/4" in width and 0.025" thickness.

STANDARD SIGN
SIGN BANDING DETAILS

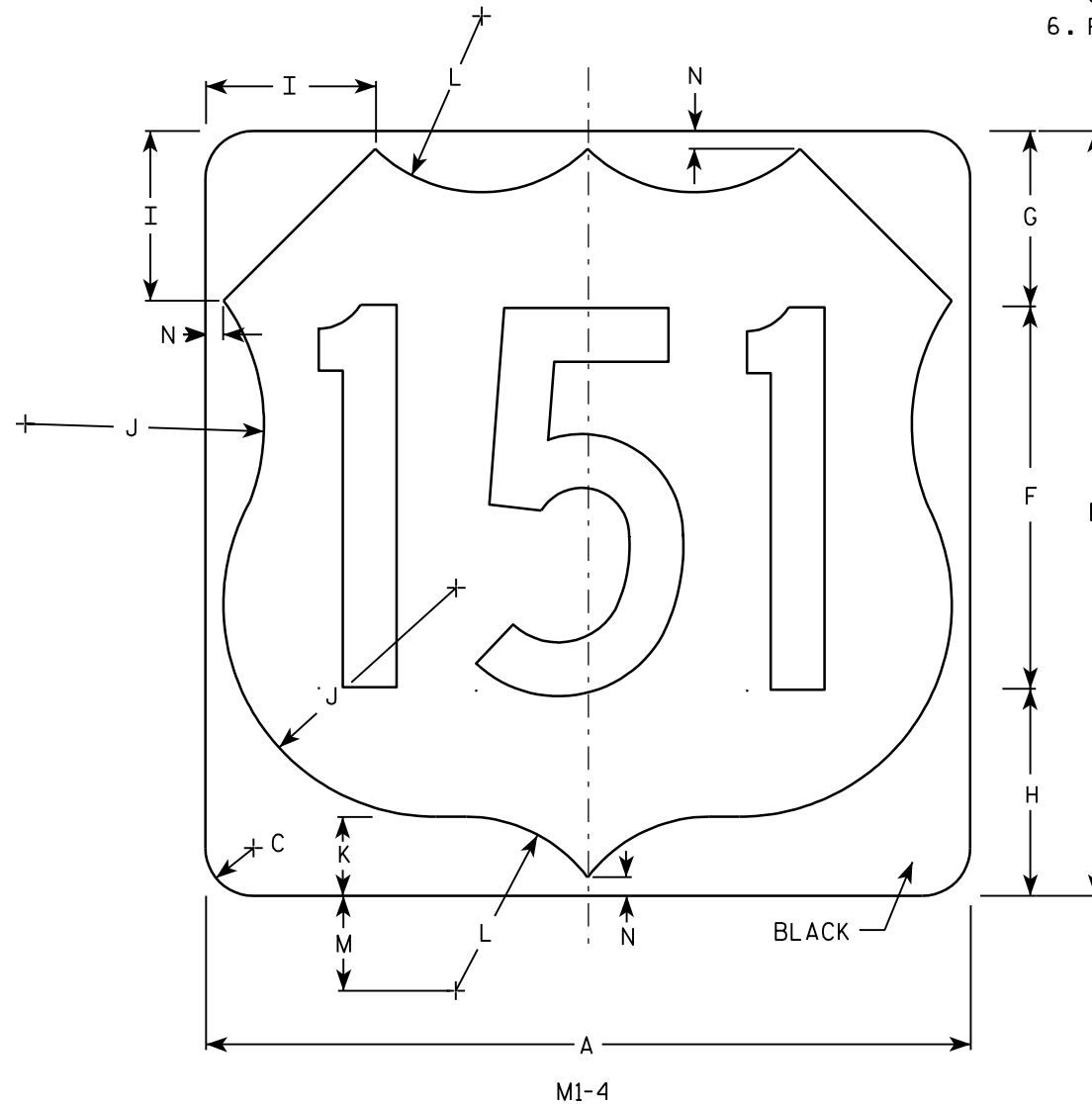
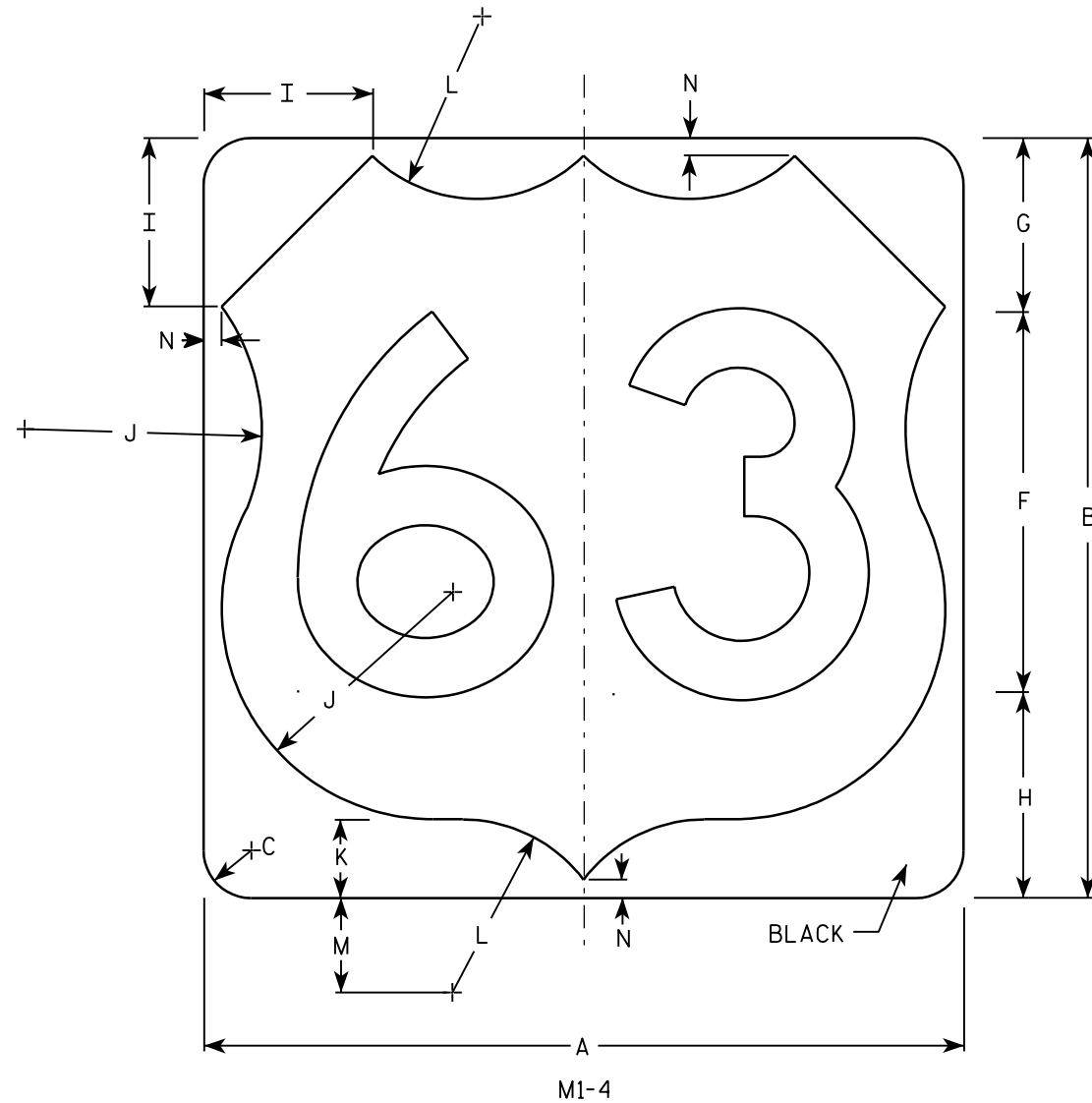
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 11/08/05 PLATE NO. A5-9.2

NOTES

1. Sign is Type II - See Note 6 - reference
WIS DOT Standard Specification for HIGHWAY
and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White & Black - See Note 6
Message - Black
3. Message Series - See note 5
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 adjust
spacing as per Plate A10-1.
6. Permanent Signs
Background - Type H Reflective
Detour or other temporary signs
Background - Reflective



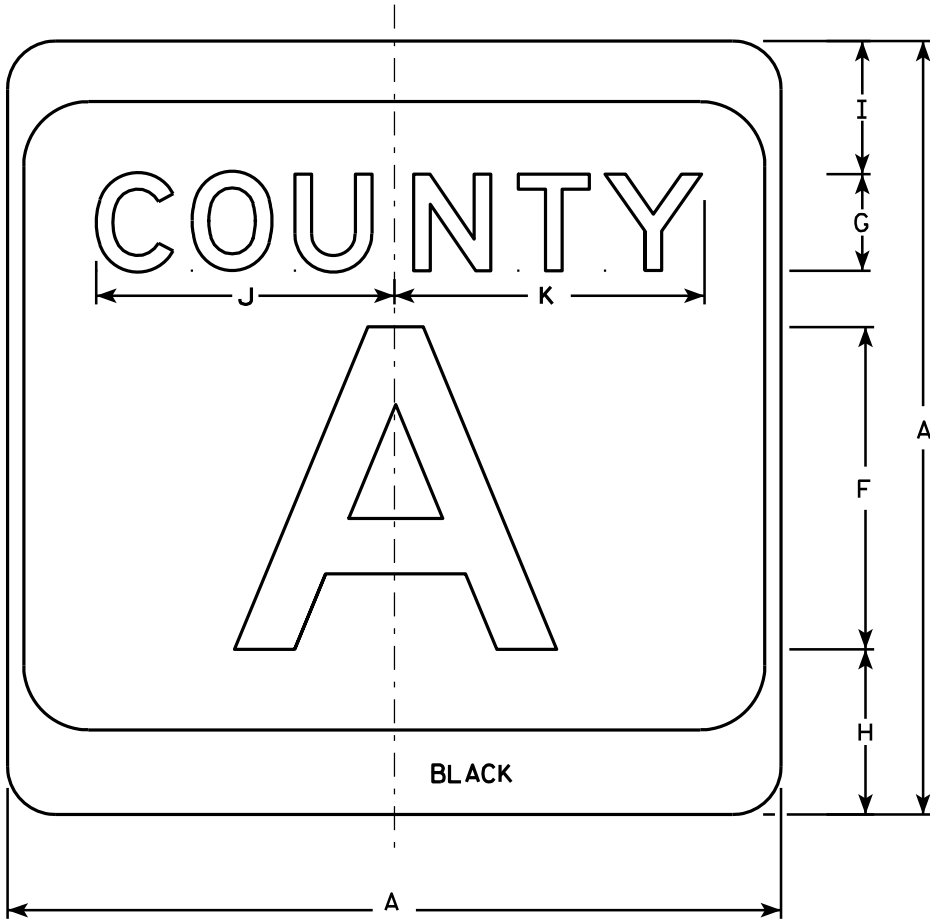
Metric equivalent
for this sign is:

SIZE	
1	
2	600 mm X 600 mm
3	900 mm X 900 mm
4	900 mm X 900 mm
5	900 mm X 900 mm

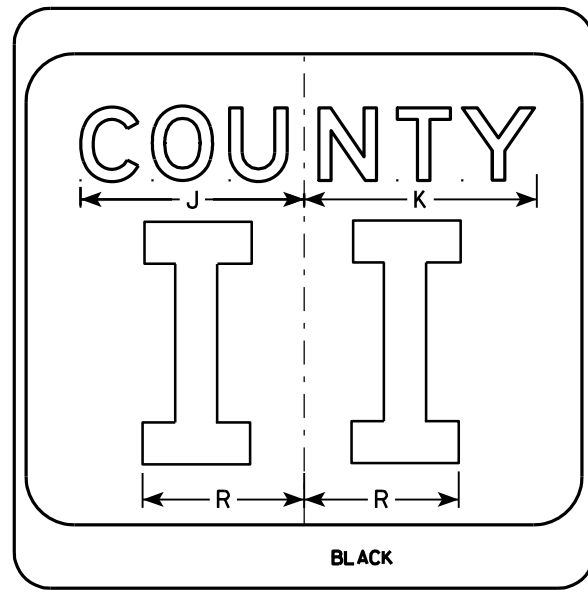
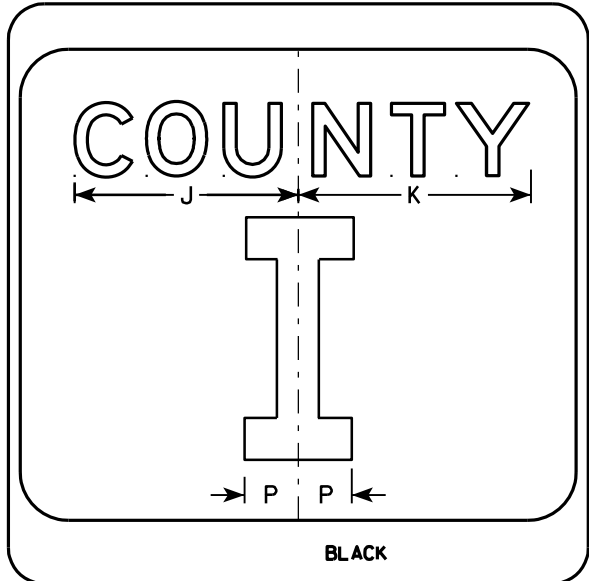
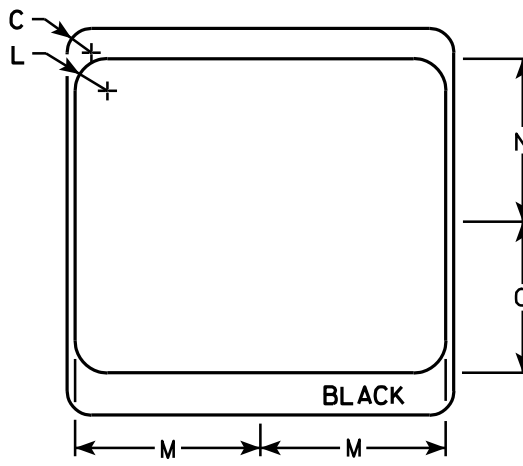
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Areq sq. ft.	Areq m ²
1																												
2	24	24	1 1/2			12	5 1/2	6 1/2	5	7 1/2	2 1/2	5 1/2	3	1/2													4.0	.36
3	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81
4	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81
5	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0	.81

PROJECT NO: HWY: COUNTY: SHEET NO: E

7



M1-5A



NOTES

1. Sign is Type II - see Note 7 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White & Black - See Note 7
Message - Black
3. Message Series - see Note 5
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. Message Series E for 1 letter.
Message Series D for 2 letters unless message is too big then Series C.
Message Series C for 3 letters unless message is too big then Series B.
6. Substitute appropriate letters & optically center to achieve proper balance.
7. Permanent Signs
Background - Type H Reflective
Detour or temporary Signs
Background - Reflective

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			10	3	5 1/8	4 1/8	9 1/4	9 5/8	2	11 1/2	10 1/8	9 3/8	2 1/4		6 5/8									4.0
3	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
4	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
5	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0

CTH MARKER

M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 9/27/11 PLATE NO. M1-5A.8

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

7

7

Metric equivalent
for this sign is:

SIZE	
1	
2	450 mm X 900 mm
3	
4	
5	

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.	Area m ²
1																												
2	18	36	1 1/8	3/8		4	2	13 3/4	2 1/2	1 5/8	7 1/4	7	4 3/8	1 3/4	2 5/8	7/8	1/4	3/4	5 1/8	2 1/8							4.5	.41
3																												
4																												
5																												

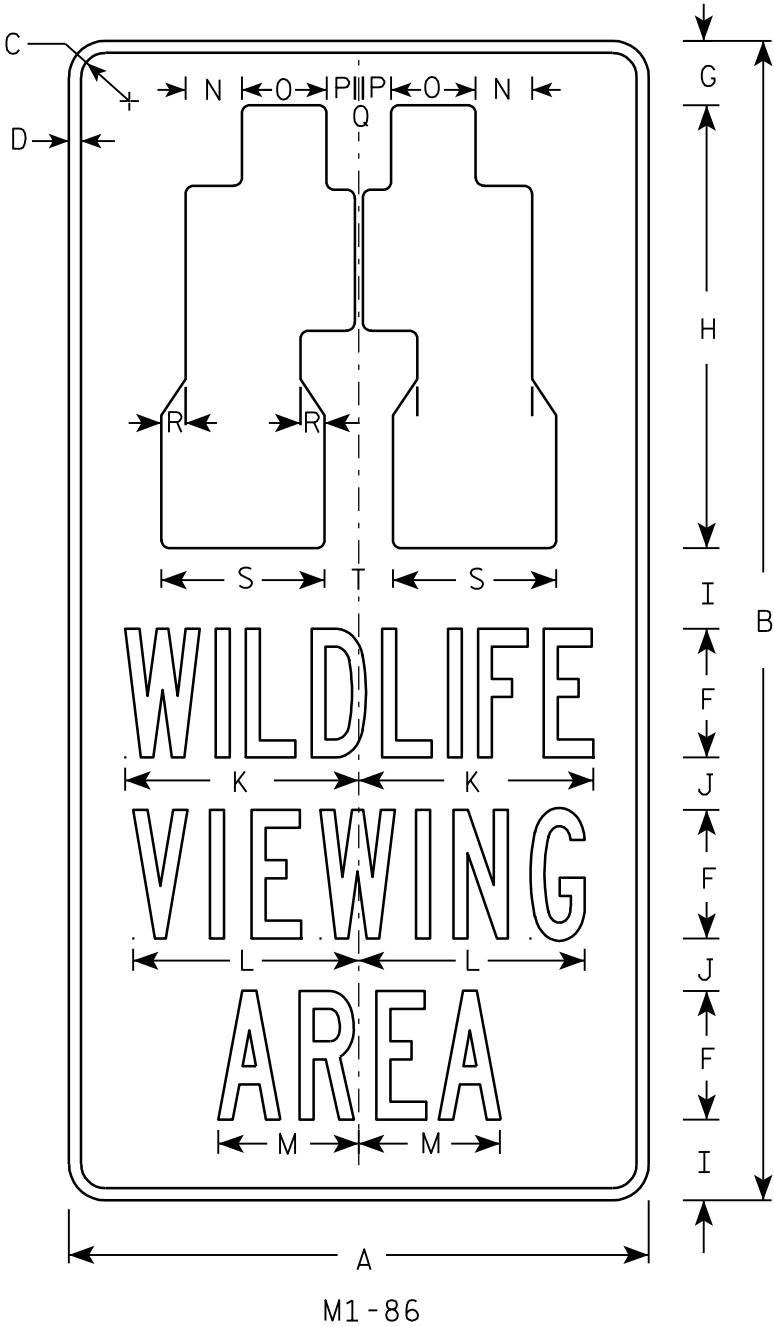
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



NOTES

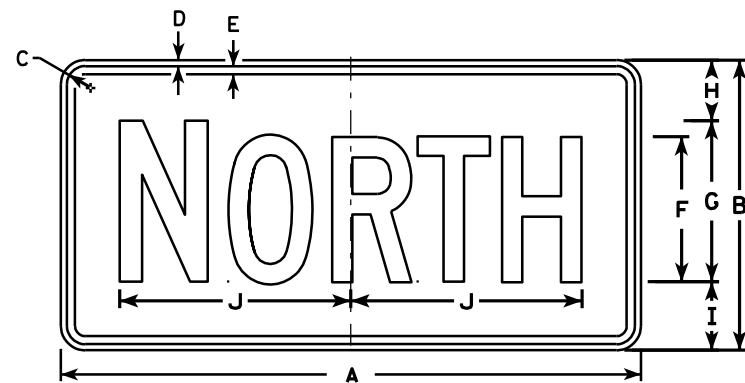
1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Brown
Message - White - Type H Reflective
3. Message Series - B
4. Corners may be square or rounded when base material is plywood but borders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

STANDARD SIGN
M1-86

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Chester J. Spang
for State Traffic Engineer

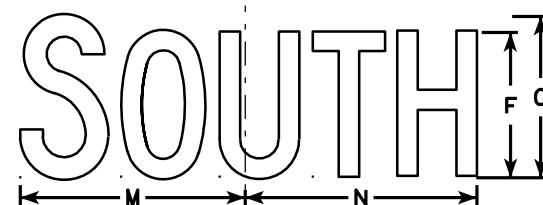
DATE 1/30/02 PLATE NO. M1-86.3



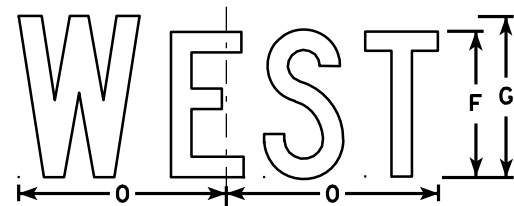
M3-1
MK3-1
M03-1



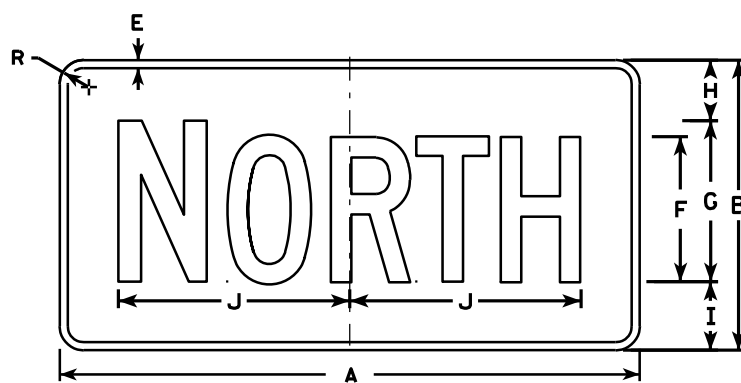
M3-2
MK3-2
M03-2



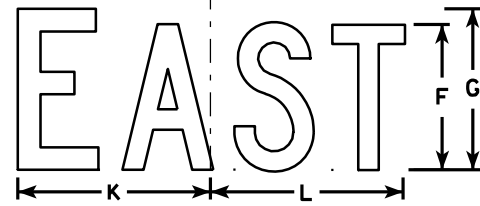
M3-3
MK3-3
M03-3



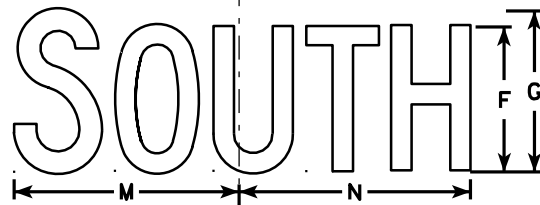
M3-4
MK3-4
M03-4



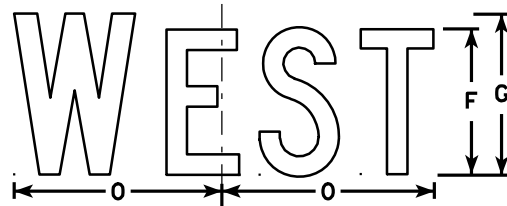
MB3-1
MG3-1
MM3-1
MN3-1



MB3-2
MG3-2
MM3-2
MN3-2



MB3-3
MG3-3
MM3-3
MN3-3



MB3-4
MG3-4
MM3-4
MN3-4

NOTES

1. All Signs Type II - See Note 5 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
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. M3-1 thru M3-4 Background - White - Type H Reflective (Detour or temporary signs - Reflective)
Message - Black
MB3-1 thru MB3-4 Background - Blue
Message - White - Type H Reflective (Detour or temporary signs - Reflective)
MG3-1 thru MG3-4 Background - Green
Message - White - Type H Reflective
MK3-1 thru MK3-4 Background - Green
Message - White - Type H Reflective
MM3-1 thru MM3-4 Background - White - Type H Reflective
Message - Green
MN3-1 thru MN3-4 Background - Brown
Message - White - Type H Reflective
M03-1 thru M03-4 Background - Orange - Reflective
Message - Black
6. Note the first letter of each direction is larger than the remainder of the message.

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	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
5	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5

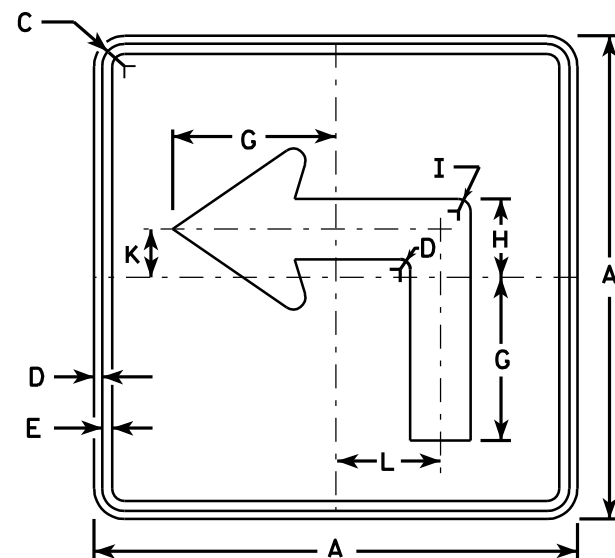
PROJECT NO: HWY: COUNTY: SHEET NO: E

STANDARD SIGNS
M3-1 thru M3-4
SERIES

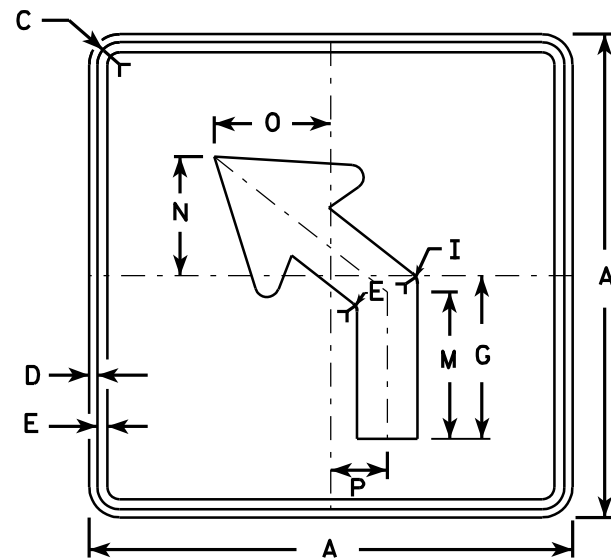
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

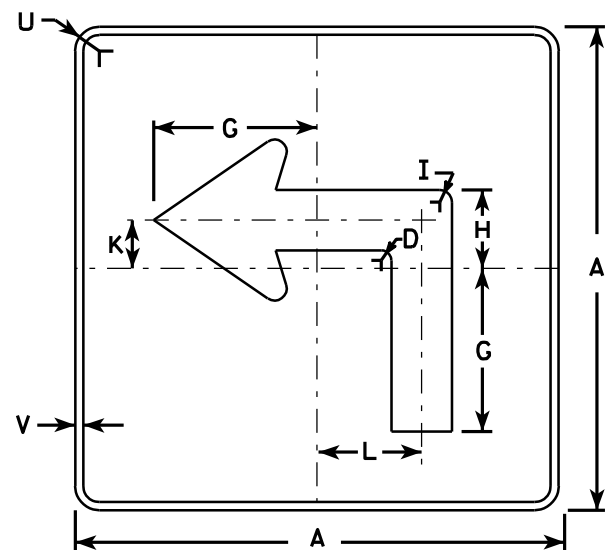
DATE 11/10/10 PLATE NO. M3-1.12



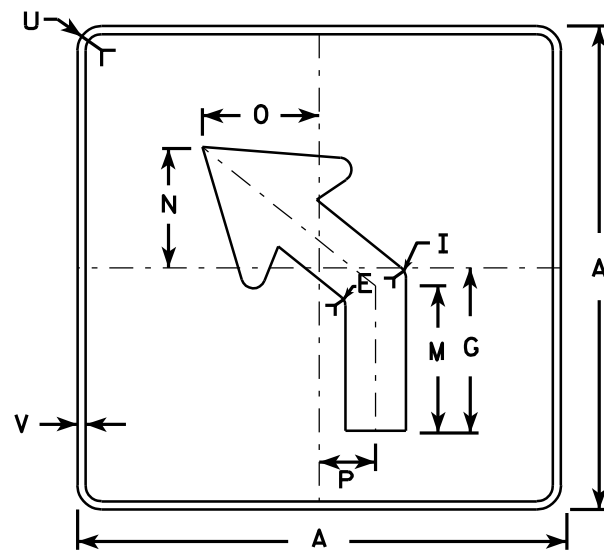
M5-1L
MK5-1L
MM5-1L
MO5-1L
MR5-1L



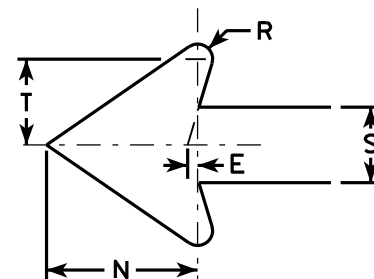
M5-2L
MK5-2L
MM5-2L
MO5-2L
MR5-2L



MB5-1L
MG5-1L
MN5-1L



MB5-2L
MG5-2L
MN5-2L



Metric equivalent
for this sign is:

SIZE	
1	
2	525 mm X 525 mm
3	750 mm X 750 mm
4	750 mm X 750 mm
5	750 mm X 750 mm

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.	Area m ²
1																												
2	21		1 1/8	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3	1 1/2	1/2					3.06	0.28
3	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25	0.56
4	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25	0.56
5	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25	0.56

PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
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NOTES

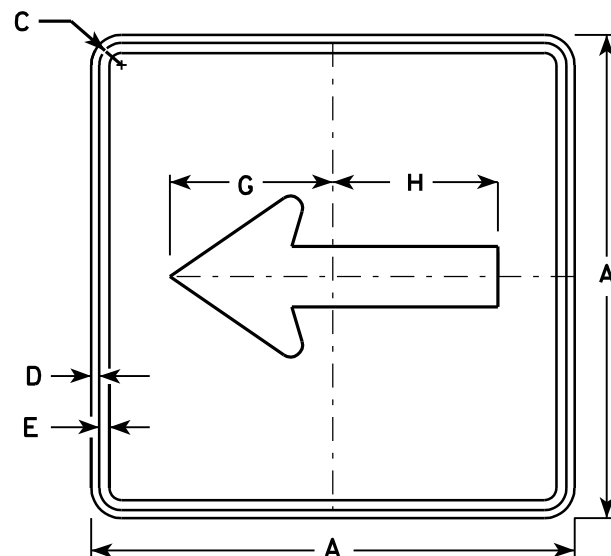
- Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - See note 4
Message - See note 4
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- M5-1 and M5-2 Background - White - Type H Reflective (Detour or temporary Signs - Reflective)
Message - Black
MB5-1 and MB5-2 Background - Blue
Message - White - Type H Reflective (Detour or temporary Signs - Reflective)
MG5-1 and MG5-2 Background - Green
Message - White - Type H Reflective
MK5-1 and MK5-2 Background - Green
Message - White Type H Reflective
MM5-1 and MM5-2 Background - White - Type H Reflective
Message - Green
MN5-1 and MN5-2 Background - Brown
Message - White - Type H Reflective
MO5-1 and MO5-2 Background - Orange - Reflective
Message - Black
MR5-1 and MR5-2 Background - Brown
Message - Yellow - Type H Reflective
- M5-1R same as M5-1L except arrow points right.
- M5-2R same as M5-2L except arrow tilts right.

STANDARD SIGN
M5-1 & M5-2

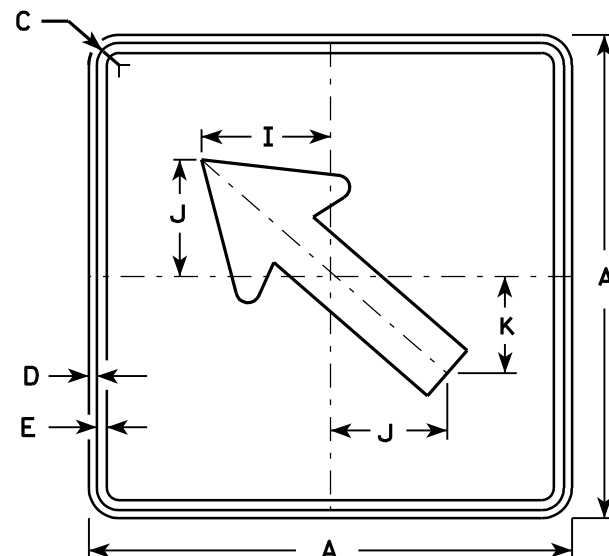
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

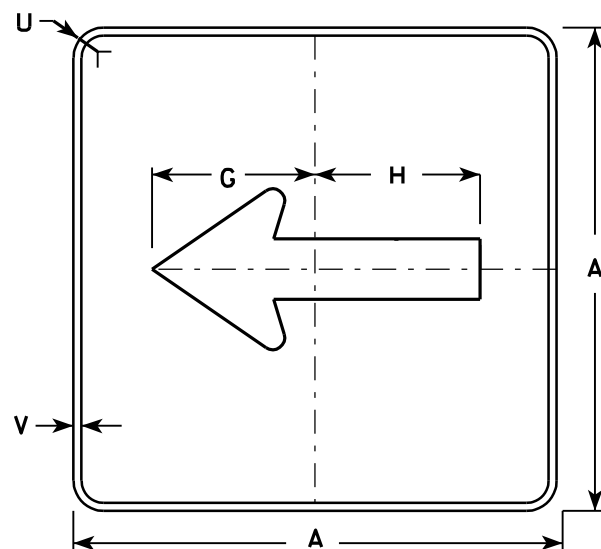
DATE 3/16/10 PLATE NO. M5-1.11



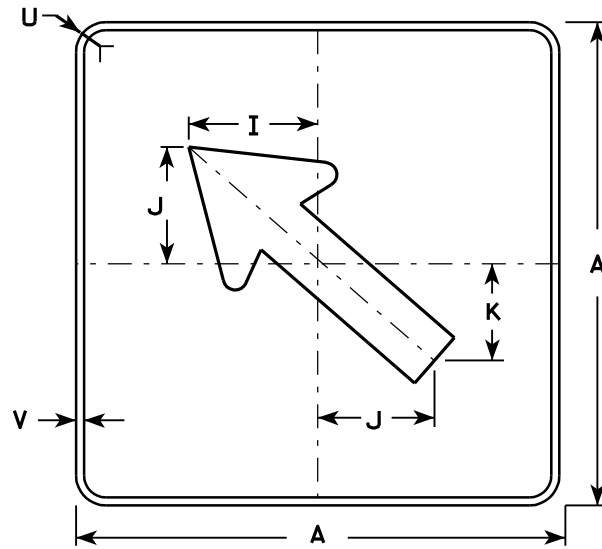
M6-1
MK6-1
MM6-1
MO6-1
MR6-1



M6-2
MK6-2
MM6-2
MO6-2
MR6-2



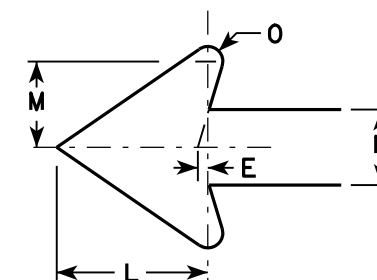
MB6-1
MG6-1
MN6-1



MB6-2
MG6-2
MN6-2

NOTES

- Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - See note 4
Message - See note 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.
- M6-1 and M6-2 Background - White - Type H Reflective
(Detour or temporary Signs - Reflective)
Message - Black
MB6-1 and MB6-2 Background - Blue
Message - White - Type H Reflective
(Detour or temporary Signs - Reflective)
MG6-1 and MG6-2 Background - Green
Message - White - Type H Reflective
MK6-1 and MK6-2 Background - Green
Message - White - Type H Reflective
MM6-1 and MM6-2 Background - White - Type H Reflective
Message - Green
MN6-1 and MN6-2 Background - Brown
Message - White - Type H Reflective
MO6-1 and MO6-2 Background - Orange - Reflective
Message - Black
MR6-1 and MR6-2 Background - Brown
Message - Yellow - Type H Reflective

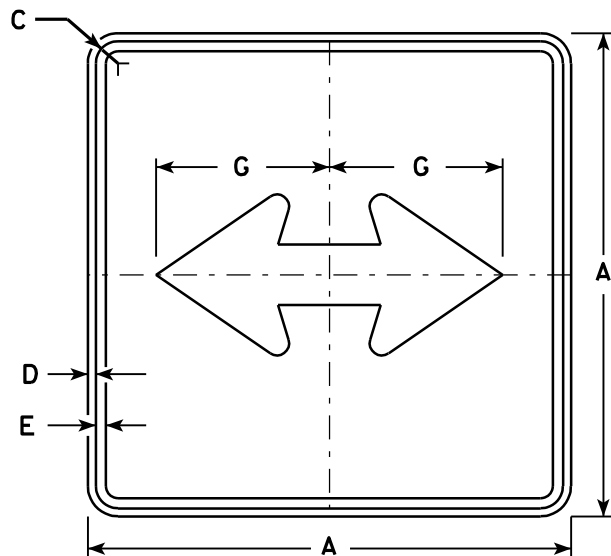


Metric equivalent
for this sign is:

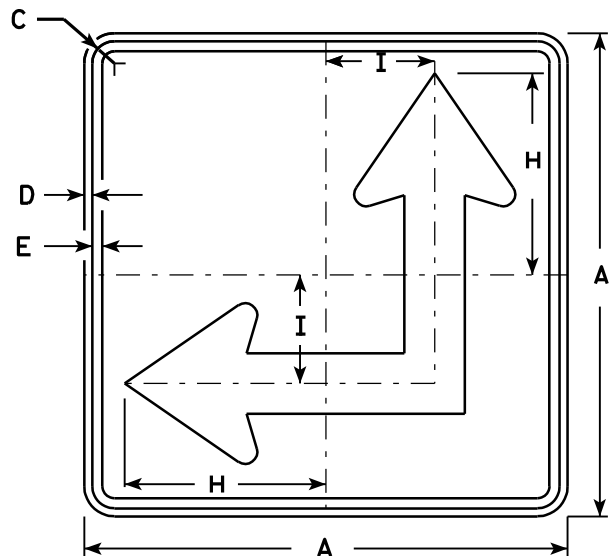
SIZE	
1	
2	525 mm X 525 mm
3	750 mm X 750 mm
4	750 mm X 750 mm
5	750 mm X 750 mm

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.	Area m2
1																												
2	21		1 1/8	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2						1 1/2	1/2					3.06	0.28
3	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25	0.56
4	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25	0.56
5	30		1 3/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25	0.56

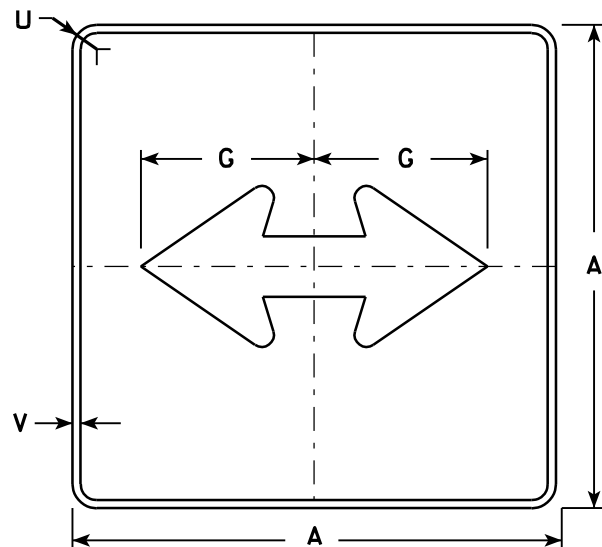
PROJECT NO: HWY: COUNTY: SHEET NO: E



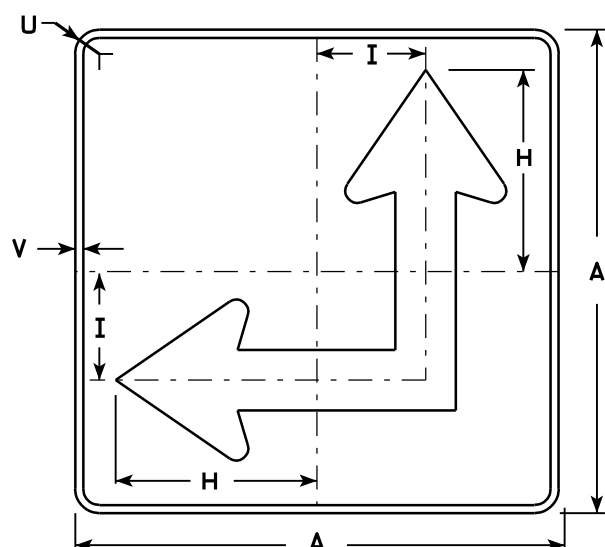
M6 - 4
MK6 - 4
MM6 - 4
MO6 - 4
MR6 - 4



M6 - 6
MK6 - 6
MM6 - 6
MO6 - 6
MR6 - 6



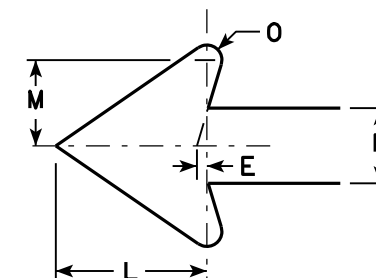
MB6 - 4
MG6 - 4
MN6 - 4



MB6 - 6
MG6 - 6
MN6 - 6

NOTES

- Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - See Note 4
Message - See Note 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.
- M6-4 and M6-6 Background - White - Type H Reflective
(Detour or temporary Signs - Reflective)
Message - Black
MB6-4 and MB6-6 Background - Blue
Message - White - Type H Reflective
(Detour or temporary Signs - Reflective)
MG6-4 and MG6-6 Background - Green
Message - White - Type H Reflective
MK6-4 and MK6-6 Background - Green
Message - White - Type H Reflective
MM6-4 and MM6-6 Background - White - Type H Reflective
Message - Green
MN6-4 and MN6-6 Background - Brown
Message - White - Type H Reflective
MO6-4 and MO6-6 Background - Orange - Reflective
Message - Black
MR6-4 and MR6-6 Background - Brown
Message - Yellow - Type H Reflective
- M6-6R same as M6-6L except arrow points ahead and right.



Metric equivalent
for this sign is:

SIZE	
1	
2	525 mm X 525 mm
3	750 mm X 750 mm
4	750 mm X 750 mm
5	750 mm X 750 mm

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.	Area m ²
1																												
2	21		1 1/8	3/8	3/8		7 1/2	8 3/4	4 1/4			5 1/4	3	2 5/8	1/2						1 1/2	1/2					3.06	0.28
3	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25	0.56
4	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25	0.56
5	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25	0.56

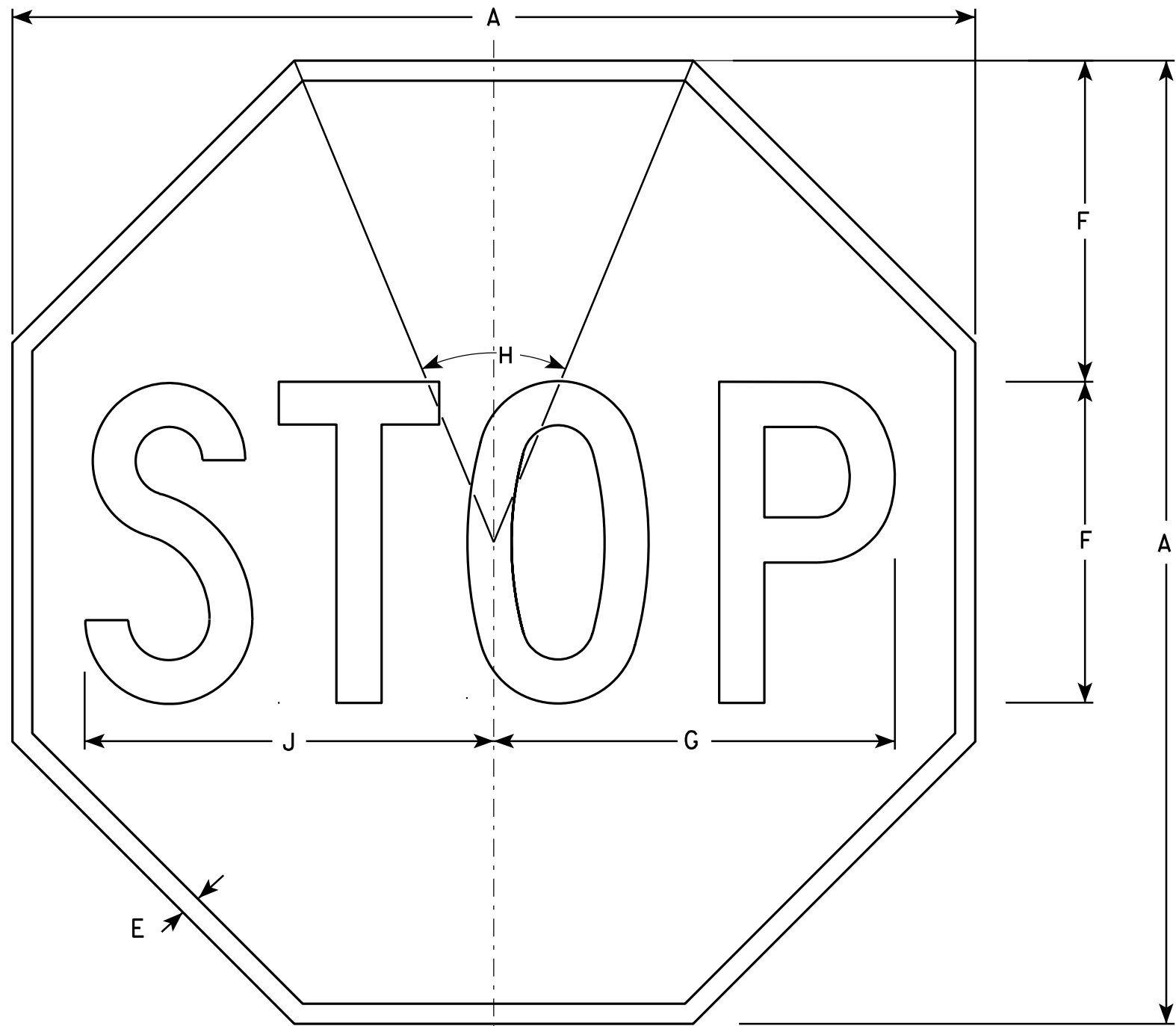
PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
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STANDARD SIGN
M6 - 4 & M6 - 6
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/16/10 PLATE NO. M6-4.7



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

R1-1

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				3/8	8	10	45°		10 1/4																	3.31
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

STANDARD SIGN
R1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-1.12

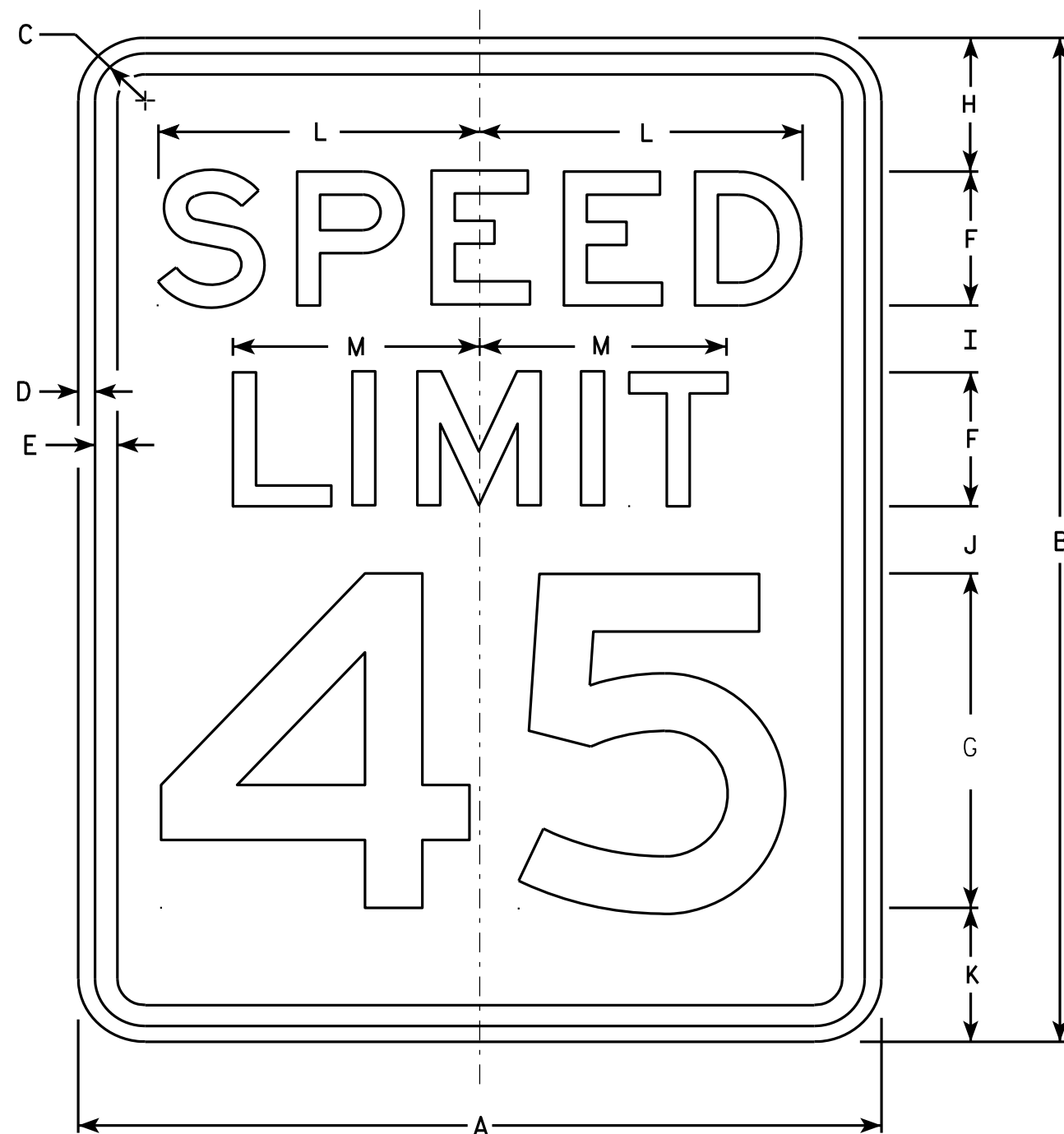
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



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.

R2-1

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:

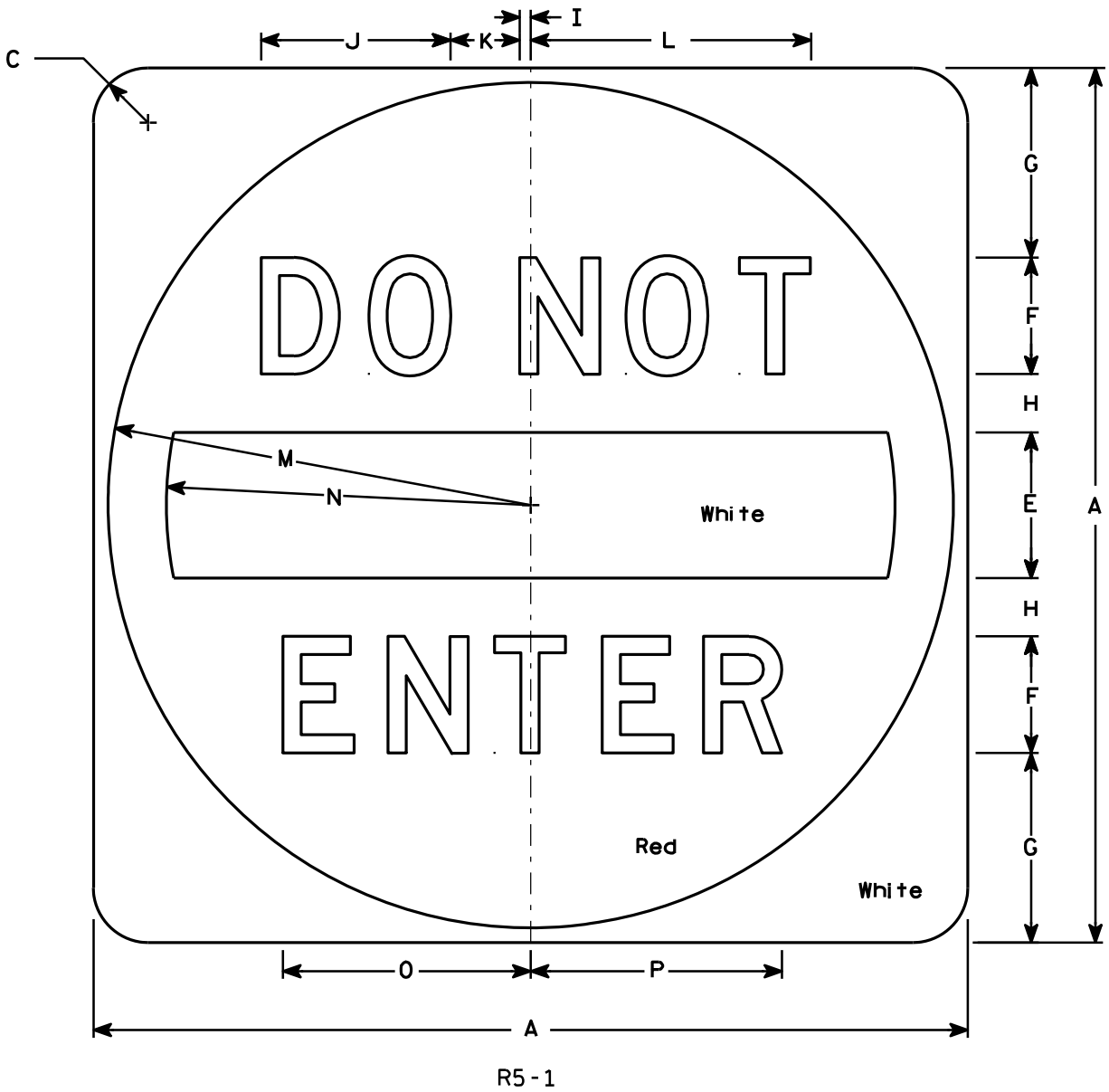
E

NOTES

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

Background - See detail

Message - White - Type H Reflective
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but when base material is metal, the corners 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																											
2S	30		1 7⁄8		5	4	6 1⁄2	2	3⁄8	6 1⁄2	2 3⁄8	9 5⁄8	14 1⁄2	12 1⁄2	8 1⁄2	8 5⁄8											6.26
2M	36		2 1⁄4		6	5	7 1⁄2	2 1⁄2	1⁄2	8 1⁄8	3	12 1⁄8	17 1⁄2	15	10 5⁄8	10 3⁄4											9.0
3	36		2 1⁄4		6	5	7 1⁄2	2 1⁄2	1⁄2	8 1⁄8	3	12 1⁄8	17 1⁄2	15	10 5⁄8	10 3⁄4											9.0
4	36		2 1⁄4		6	5	7 1⁄2	2 1⁄2	1⁄2	8 1⁄8	3	12 1⁄8	17 1⁄2	15	10 5⁄8	10 3⁄4											9.0
5	48		3		8	6	11	3	5⁄8	9 3⁄4	3 5⁄8	14 1⁄2	23 1⁄2	20	12 3⁄4	12 7⁄8											16.0

STANDARD SIGN

R5 - 1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch

for State Traffic Engineer

DATE 12/17/10PLATE NO. R5-1.15

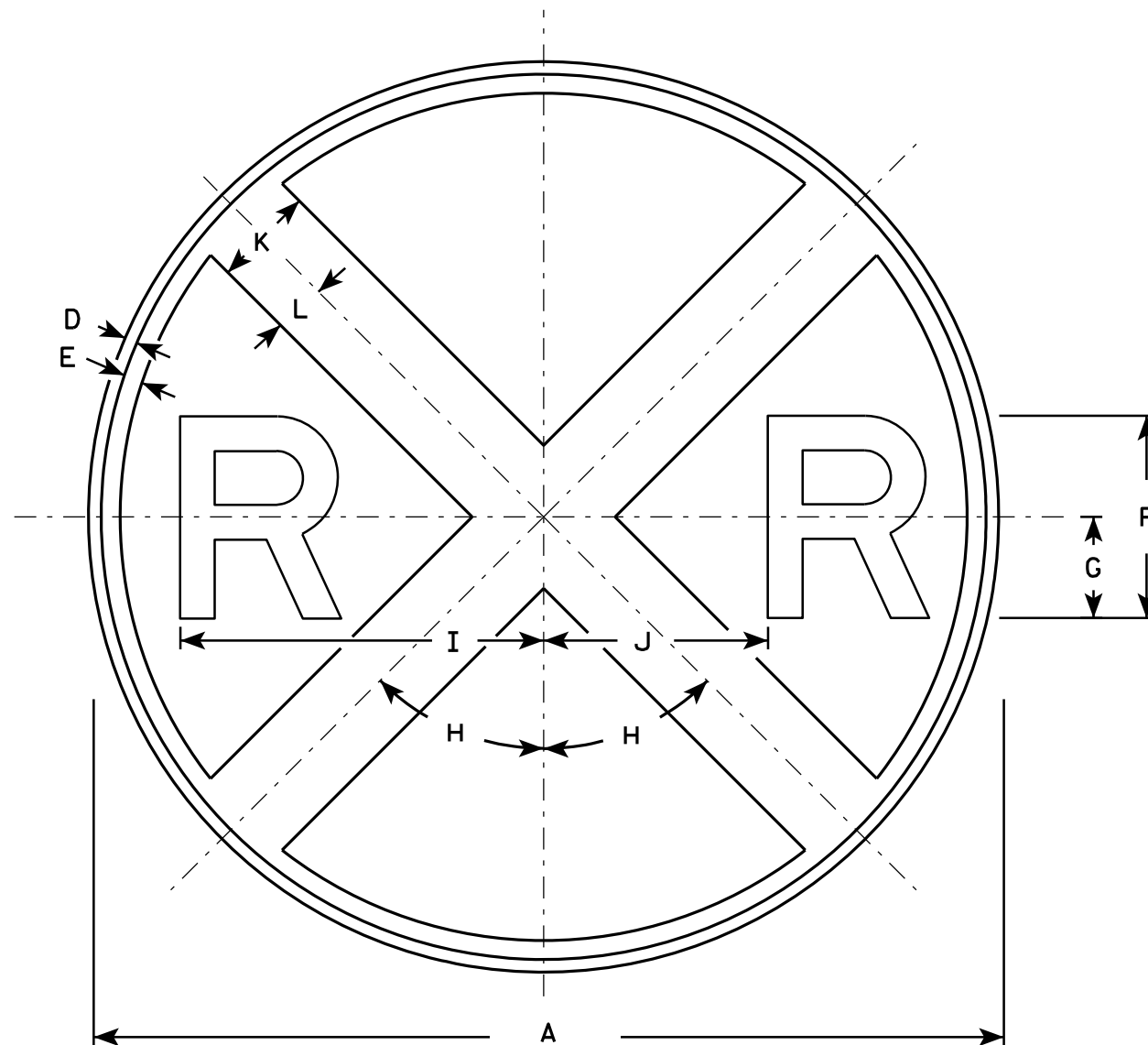
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



W10-1

NOTES

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

7

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			3/8	5/8	7	3 1/2	45°	12 3/8	7 1/8	3	1 1/2															4.91
2S	36			5/8	3/4	8	4	45°	14 3/8	8 5/8	4	2															7.07
2M	36			5/8	3/4	8	4	45°	14 3/8	8 5/8	4	2															7.07
3																											
4	48			3/4	1 1/4	10	5	45°	18 3/8	11 5/8	5	2 1/2															12.57
5																											

STANDARD SIGN
W10-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 3/15/11 PLATE NO. W10-1.7

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



NOTES

1. Sign is Type II - Type H 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.
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																											
2S	30	30	1 3⁄8	1⁄2	5⁄8	4	5 5⁄8	7⁄8	9 5⁄8	10 1⁄4	11 1⁄8	5 1⁄4	9 3⁄8	9 1⁄2	3 1⁄4	2 1⁄2											7.5
2M	30	30	1 3⁄8	1⁄2	5⁄8	4	5 5⁄8	7⁄8	9 5⁄8	10 1⁄4	11 1⁄8	5 1⁄4	9 3⁄8	9 1⁄2	3 1⁄4	2 1⁄2											7.5
3																											
4																											
5																											

STANDARD SIGN

W10-11A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch

for State Traffic Engineer

DATE 3/15/11

PLATE NO. W10-11A.2

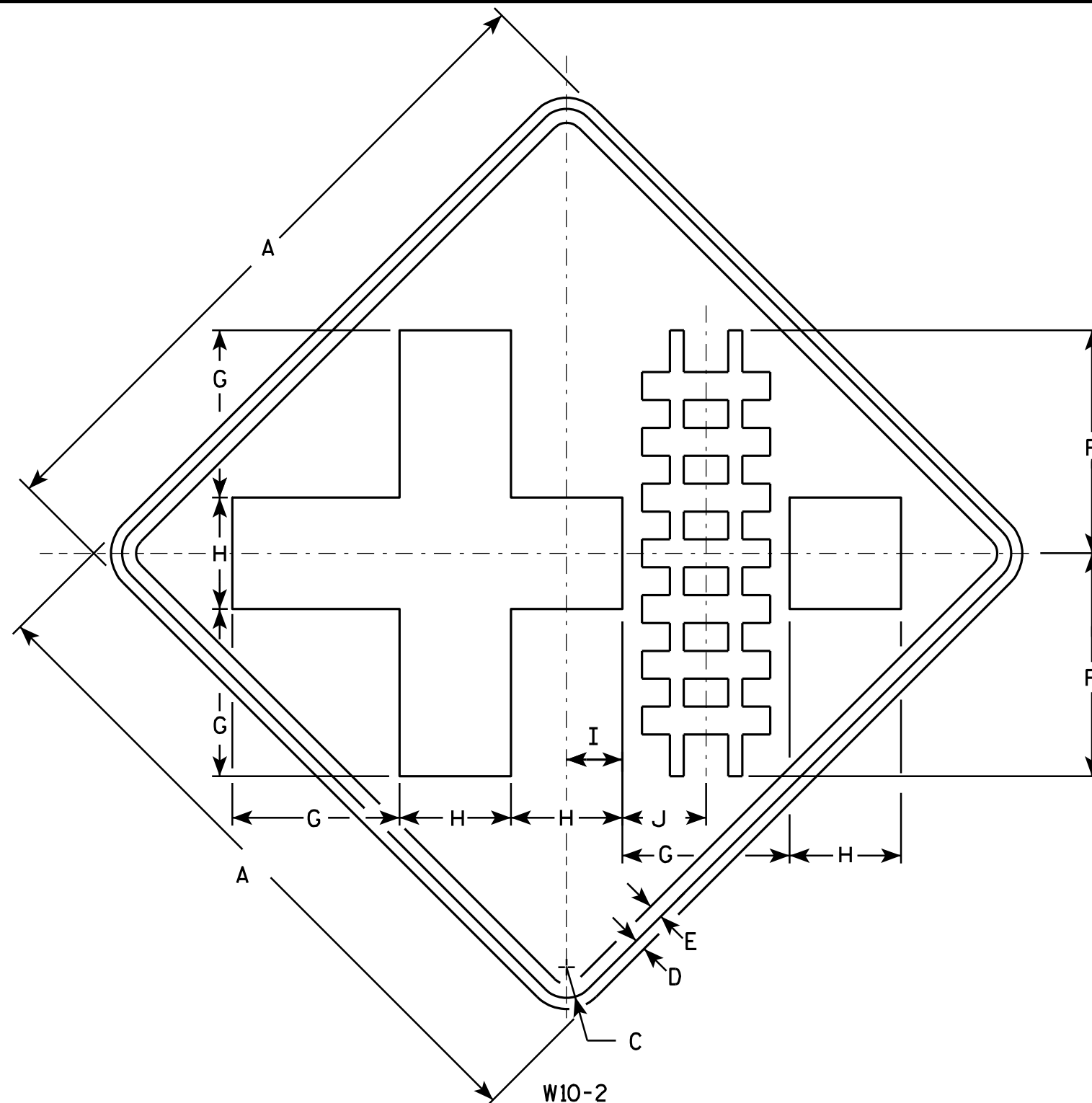
PROJECT NO:

HWY:

COUNTY:

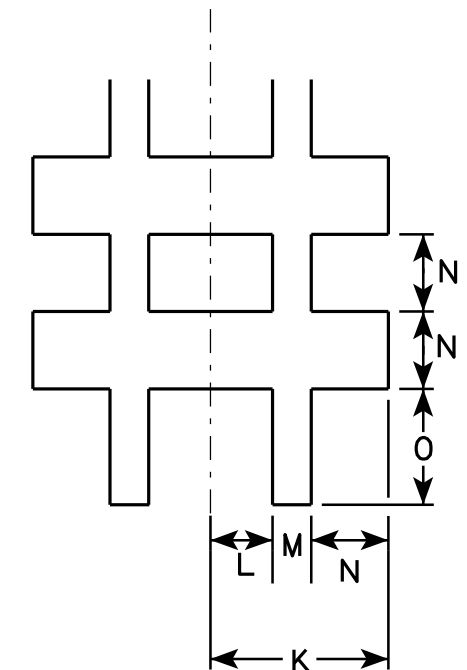
SHEET NO:

E



NOTES

1. Sign is Type II - Type H 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.



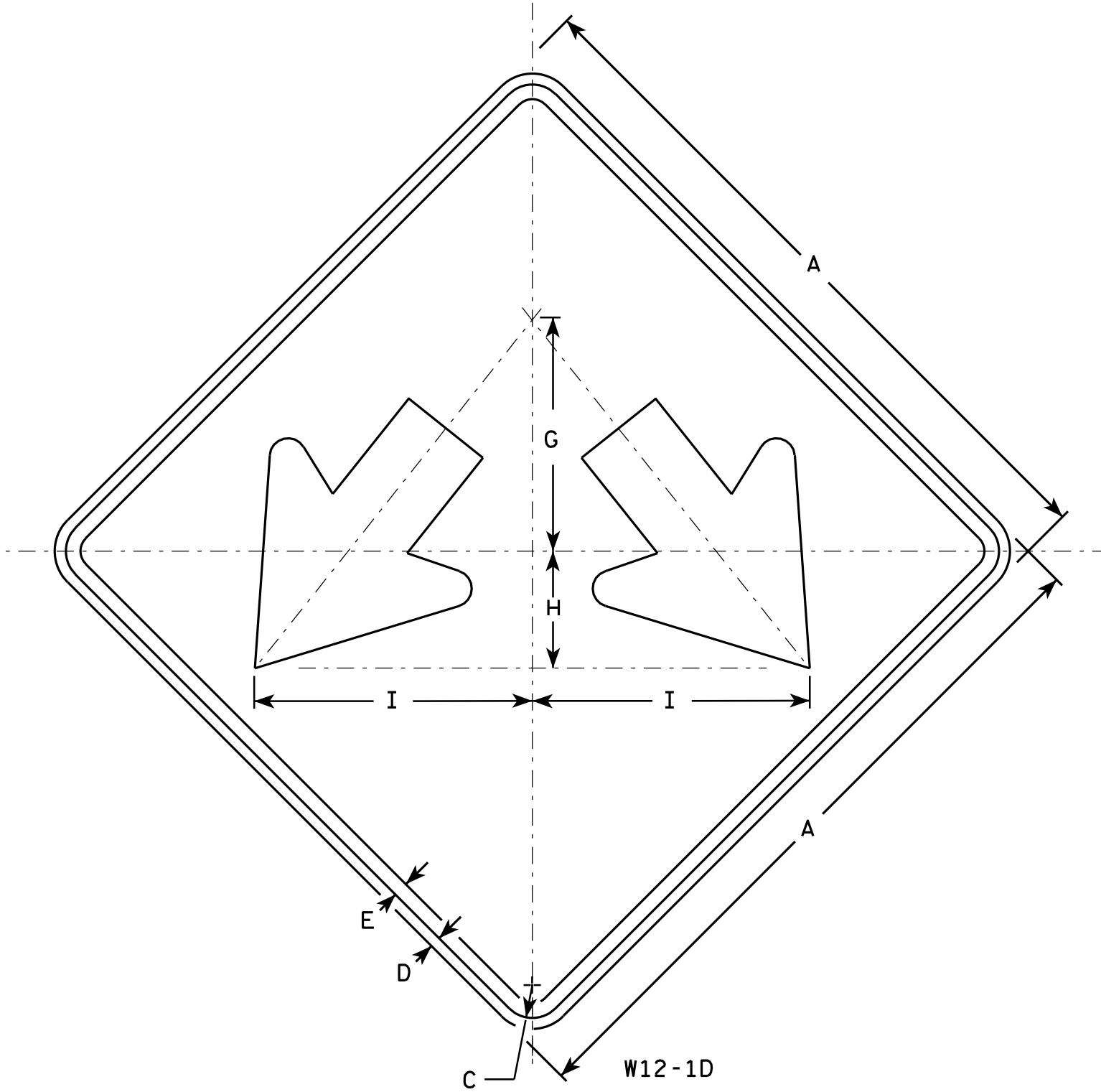
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	10	7 1/2	5	2 1/2	3 3/4	2 7/8	1	5/8	1 1/4	1 7/8												6.25
2S	36		1 5/8	5/8	3/4	12	9	6	3	4 1/2	3 3/8	1 1/8	3/4	1 1/2	2 1/4												9.0
2M	36		1 5/8	5/8	3/4	12	9	6	3	4 1/2	3 3/8	1 1/8	3/4	1 1/2	2 1/4					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

STANDARD SIGN W10-2

WISCONSIN DEPT OF TRANSPORTATION
APPROVED *Matthew R. Rauch*
For State Traffic Engineer
DATE 3/16/11 PLATE NO. W10-2.7

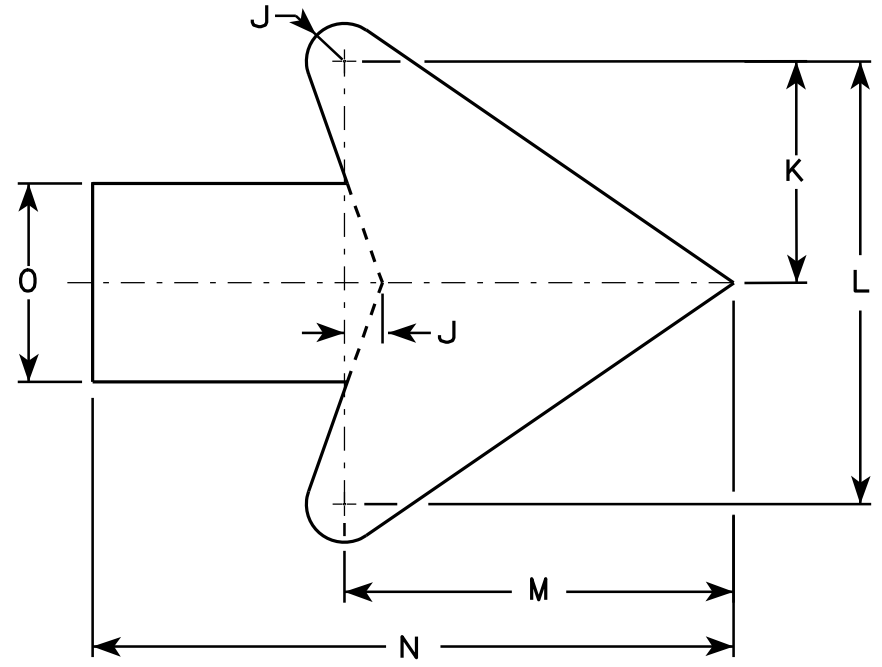
PROJECT NO: HWY: COUNTY: SHEET NO: E

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 - 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.



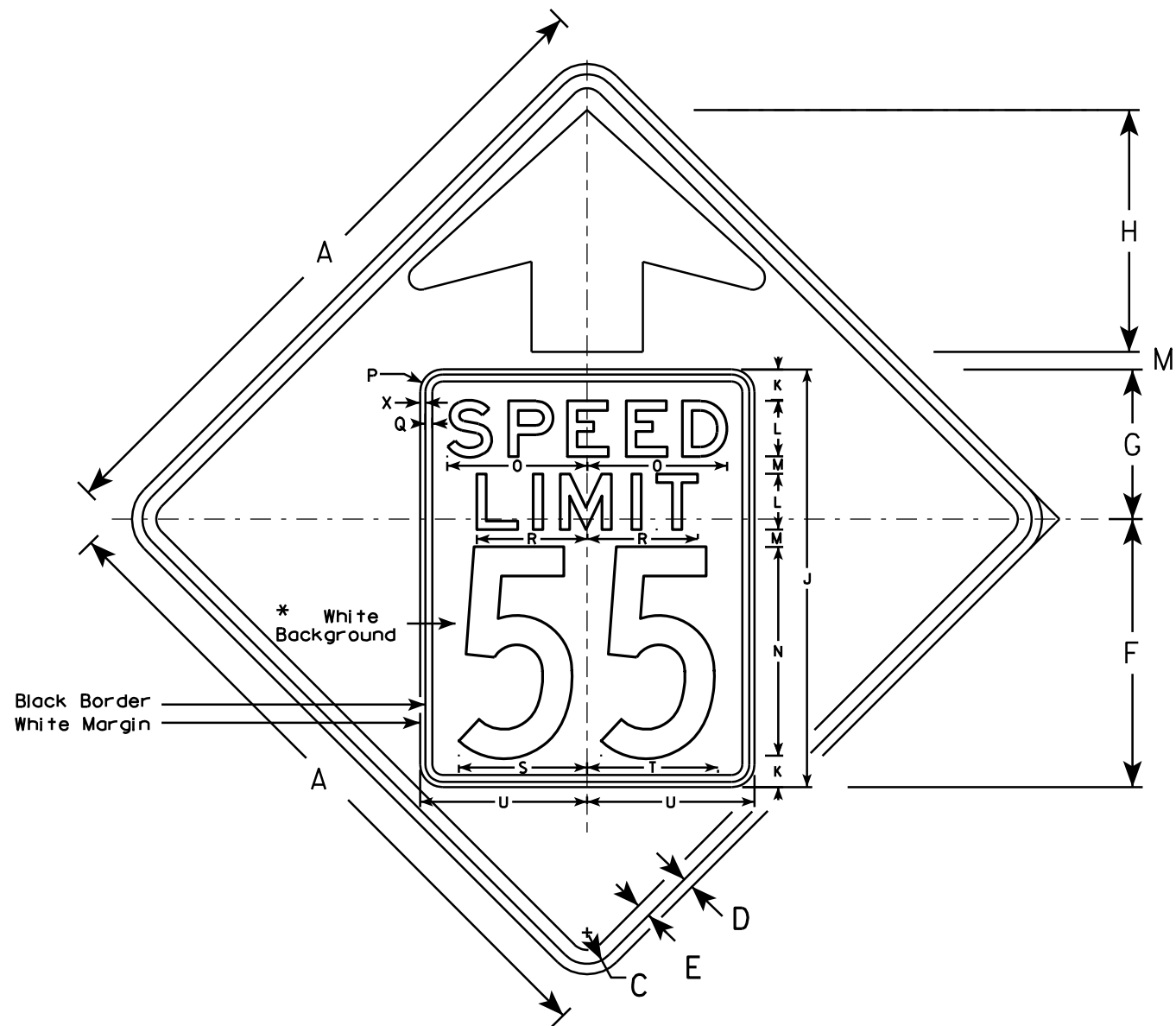
Arrow Detail

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																											
2S	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
2M	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
3	30		1 3/8	1/2	5/8		10	5	11 7/8	3/4	4 1/2	9	7 7/8	13	4												6.25
4	36		1 3/8	1/2	5/8		12	6	14 1/4	1	5 1/2	10 7/8	9 5/8	15 3/4	4 3/4												9.0
5	48		2 1/4	3/4	1		16	8	19	1 1/4	7 1/4	14 1/2	12 3/4	21	6 1/4												16.0

STANDARD SIGN W12-1D	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 3/15/11	PLATE NO. W12-1D.14

PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
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7

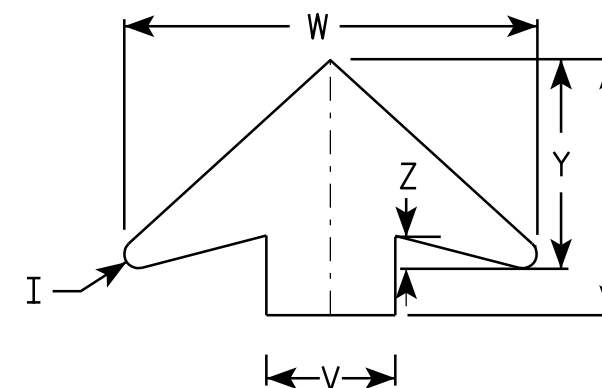


W3-5

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 for numbers Series E for wording
4. Substitute appropriate numerals and optically adjust spacing to achieve proper balance

*Speed Limit Sign shall have a White 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																											
2S	36		1 5⁄8	5⁄8	3⁄4	14 1⁄2	9 1⁄2	11 1⁄2	5⁄8	24	2	3	1	12	7 1⁄8	1 1⁄2	3⁄8	5 3⁄4	7 1⁄4	7 1⁄8	9	6	19 1⁄4	3⁄8	9 3⁄4	1 5⁄8	9.0
2M	36		1 5⁄8	5⁄8	3⁄4	14 1⁄2	9 1⁄2	11 1⁄2	5⁄8	24	2	3	1	12	7 1⁄8	1 1⁄2	3⁄8	5 3⁄4	7 1⁄4	7 1⁄8	9	6	19 1⁄4	3⁄8	9 3⁄4	1 5⁄8	9.0
3	36		1 5⁄8	5⁄8	3⁄4	14 1⁄2	9 1⁄2	11 1⁄2	5⁄8	24	2	3	1	12	7 1⁄8	1 1⁄2	3⁄8	5 3⁄4	7 1⁄4	7 1⁄8	9	6	19 1⁄4	3⁄8	9 3⁄4	1 5⁄8	9.0
4	48		2 1⁄4	3⁄4	1	19 1⁄4	10 3⁄4	17 3⁄8	7⁄8	30	2 1⁄4	4	1 1⁄4	15	10	1 5⁄8	1⁄2	8	9 1⁄4	9 3⁄8	12	8	25 5⁄8	3⁄8	13	2	16.0
5	48		2 1⁄4	3⁄4	1	19 1⁄4	10 3⁄4	17 3⁄8	7⁄8	30	2 1⁄4	4	1 1⁄4	15	10	1 5⁄8	1⁄2	8	9 1⁄4	9 3⁄8	12	8	25 5⁄8	3⁄8	13	2	16.0

STANDARD SIGN

W3-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch
for State Traffic Engineer

DATE 5/29/12

PLATE NO. W3-5.5

PROJECT NO:

SHEET NO:

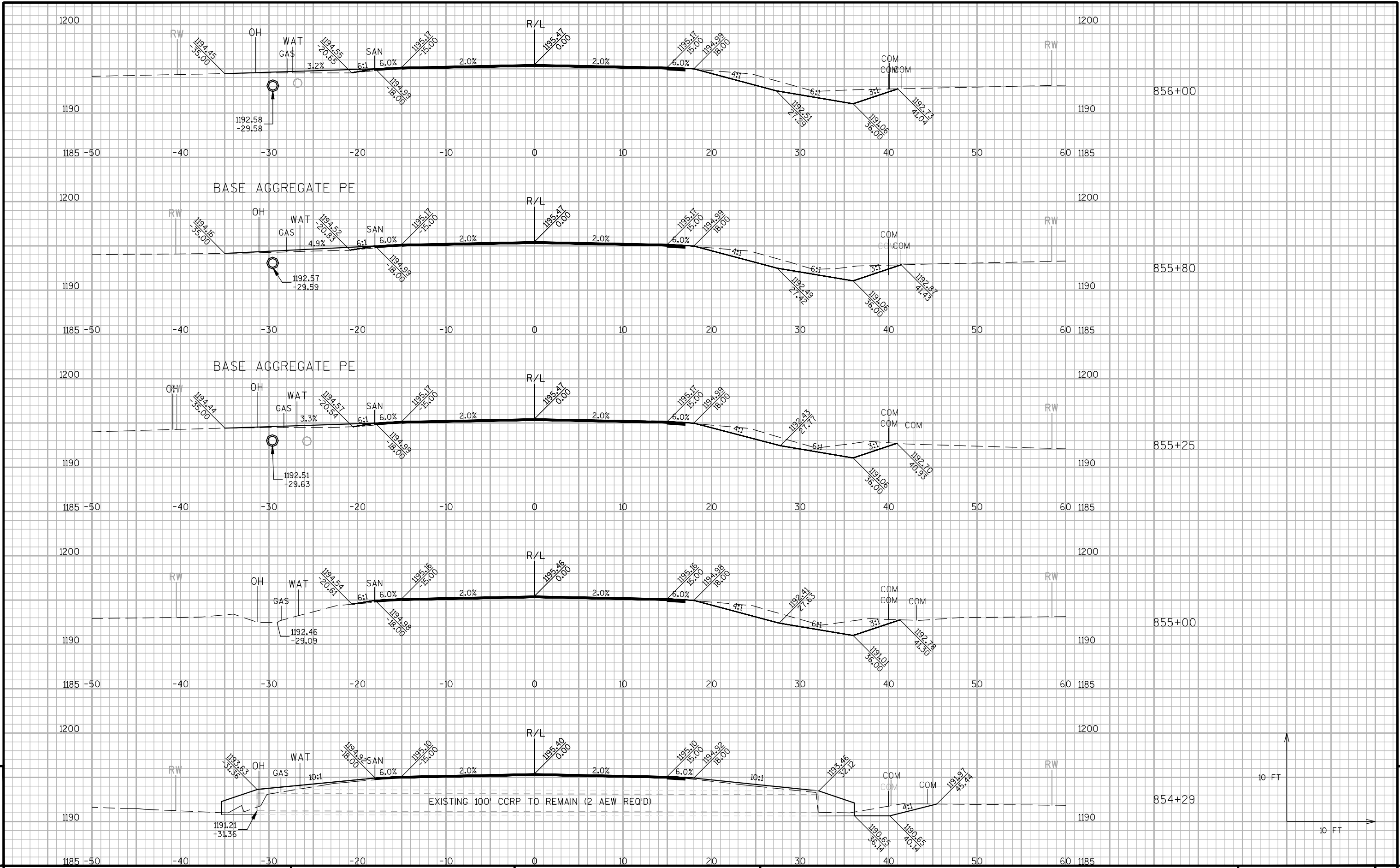
E

Total Volume Table CTH P							
Station	Cut Area (SF)	Expanded Fill Area (SF)	Cut Vol (CY)	Expanded Fill Vol (CY)	Cum Cut Vol (CY)	Cum Expanded Fill Vol (CY)	Net Vol (CY)
837+58	0.00	0.00	0.00	0.00	0.00	0.00	0.00
854+29	14.17	2.92	438.71	90.28	438.71	90.28	348.43
855+00	24.01	1.73	50.07	6.10	488.79	96.38	392.41
855+25	22.55	1.01	21.56	1.27	510.34	97.65	412.70
855+80	24.39	0.68	47.81	1.72	558.16	99.37	458.79
856+00	26.01	0.88	18.67	0.58	576.83	99.95	476.88
856+50	32.96	0.38	54.61	1.16	631.44	101.11	530.33
856+85	32.32	1.01	42.31	0.90	673.75	102.01	571.74
857+00	30.84	1.15	17.54	0.60	691.29	102.61	588.69
857+35	42.91	0.51	47.80	1.08	739.09	103.68	635.40
857+65	52.43	0.73	52.97	0.69	792.06	104.38	687.68
858+00	43.87	1.02	62.42	1.14	854.47	105.51	748.96
859+00	27.80	2.06	132.71	5.72	987.19	111.23	875.96
860+00	30.51	2.15	107.99	7.80	1095.17	119.03	976.14
860+50	34.67	1.36	60.35	3.25	1155.53	122.29	1033.24
861+00	40.09	0.20	69.23	1.44	1224.75	123.73	1101.02
862+00	60.82	0.05	186.88	0.46	1411.63	124.19	1287.45
863+00	66.14	0.26	235.11	0.58	1646.74	124.76	1521.97
864+00	53.93	0.10	222.37	0.67	1869.10	125.44	1743.67
864+50	55.47	3.02	101.28	2.89	1970.38	128.33	1842.05
864+84	55.56	0.86	70.53	2.46	2040.91	130.79	1910.11
865+00	72.24	2.02	37.15	0.84	2078.06	131.63	1946.43
866+00	80.89	0.00	283.58	3.74	2361.64	135.37	2226.27
866+50	78.57	0.00	147.65	0.00	2509.29	135.37	2373.92
867+00	68.97	0.00	136.60	0.00	2645.89	135.37	2510.52
867+84	65.46	0.00	209.96	0.00	2855.85	135.37	2720.49
868+00	61.90	0.00	36.92	0.00	2892.78	135.37	2757.41
869+00	43.72	5.05	195.59	9.36	3088.37	144.73	2943.64
869+07	44.56	5.52	11.08	1.33	3099.45	146.05	2953.39
869+45	94.58	0.03	99.71	3.97	3199.15	150.03	3049.13
870+00	74.06	0.00	170.29	0.03	3369.44	150.06	3219.39
870+45	60.97	0.02	112.53	0.01	3481.97	150.07	3331.90
871+00	44.41	0.01	107.33	0.03	3589.30	150.10	3439.20
872+00	54.48	0.00	183.14	0.02	3772.44	150.12	3622.32
872+40	47.25	0.00	75.36	0.00	3847.79	150.12	3697.67
873+00	34.71	0.20	91.06	0.22	3938.85	150.34	3788.51
873+50	40.60	3.37	69.73	3.30	4008.58	153.64	3854.93
874+00	50.26	1.00	84.13	4.04	4092.70	157.69	3935.02
874+73	43.61	5.97	127.21	9.45	4219.91	167.14	4052.78
875+10	63.39	0.39	73.81	4.39	4293.72	171.52	4122.20
875+60	70.39	0.28	122.82	0.62	4416.54	172.14	4244.40
876+00	66.95	0.30	101.74	0.43	4518.28	172.57	4345.71
876+10	61.01	0.24	23.01	0.10	4541.29	172.67	4368.62
876+65	51.19	0.37	114.88	0.63	4656.17	173.30	4482.87
877+00	39.07	1.84	58.50	1.43	4714.67	174.74	4539.94

Total Volume Table CTH P							
Station	Cut Area (SF)	Expanded Fill Area (SF)	Cut Vol (CY)	Expanded Fill Vol (CY)	Cum Cut Vol (CY)	Cum Expanded Fill Vol (CY)	Net Vol (CY)
877+70	35.22	5.06	96.35	8.94	4811.03	183.68	4627.35
878+00	21.50	4.54	31.47	5.32	4842.50	189.00	4653.50
878+25	26.73	2.61	22.33	3.31	4864.83	192.32	4672.51
879+11	30.17	7.11	90.52	15.46	4955.35	207.78	4747.57
879+17	28.83	66.52	6.60	8.24	4961.95	216.02	4745.94
879+81	85.50	7.22	134.73	86.90	5096.68	302.92	4793.77
879+85	85.38	7.11	15.42	1.29	5112.10	304.21	4807.89

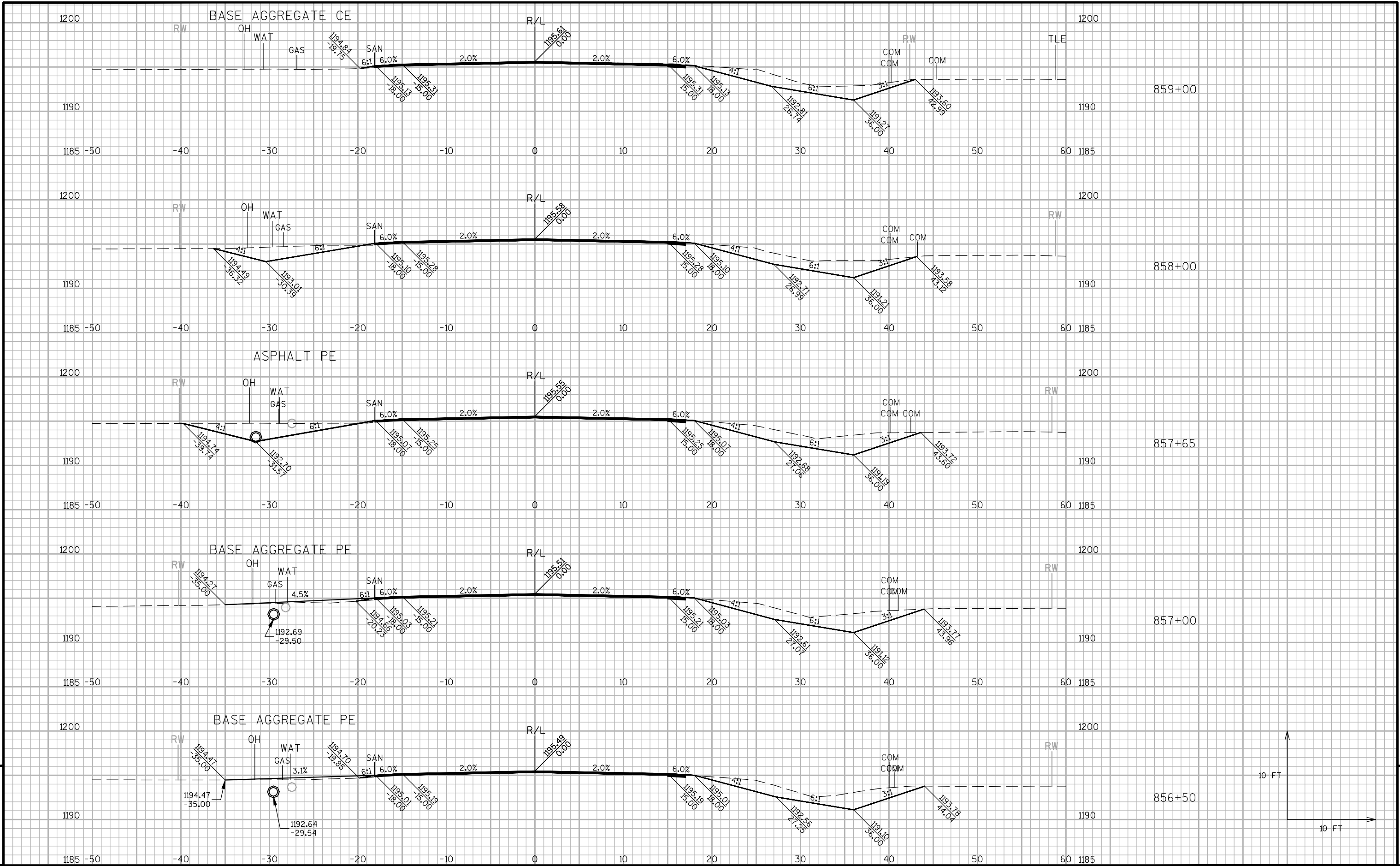
Total Volume Table Bradley Avenue							
Station	Cut Area (SF)	Expanded Fill Area (SF)	Cut Vol (CY)	Expanded Fill Vol (CY)	Cum Cut Vol (CY)	Cum Expanded Fill Vol (CY)	Net Vol (CY)
10+45	31.86	2.55	0.00	0.00	0.00	0.00	0.00
10+50	32.38	0.24	6.27	0.27	6.27	0.27	6.00
10+60	14.08	0.33	8.60	0.11	14.88	0.38	14.50
10+70	5.26	1.28	3.58	0.30	18.46	0.68	17.78
10+86	2.15	0.00	2.15	0.37	20.61	1.05	19.56
10+90	0.00	0.00	0.17	0.00	20.78	1.05	19.73
10+99	0.00	0.00	0.00	0.00	20.78	1.05	19.73

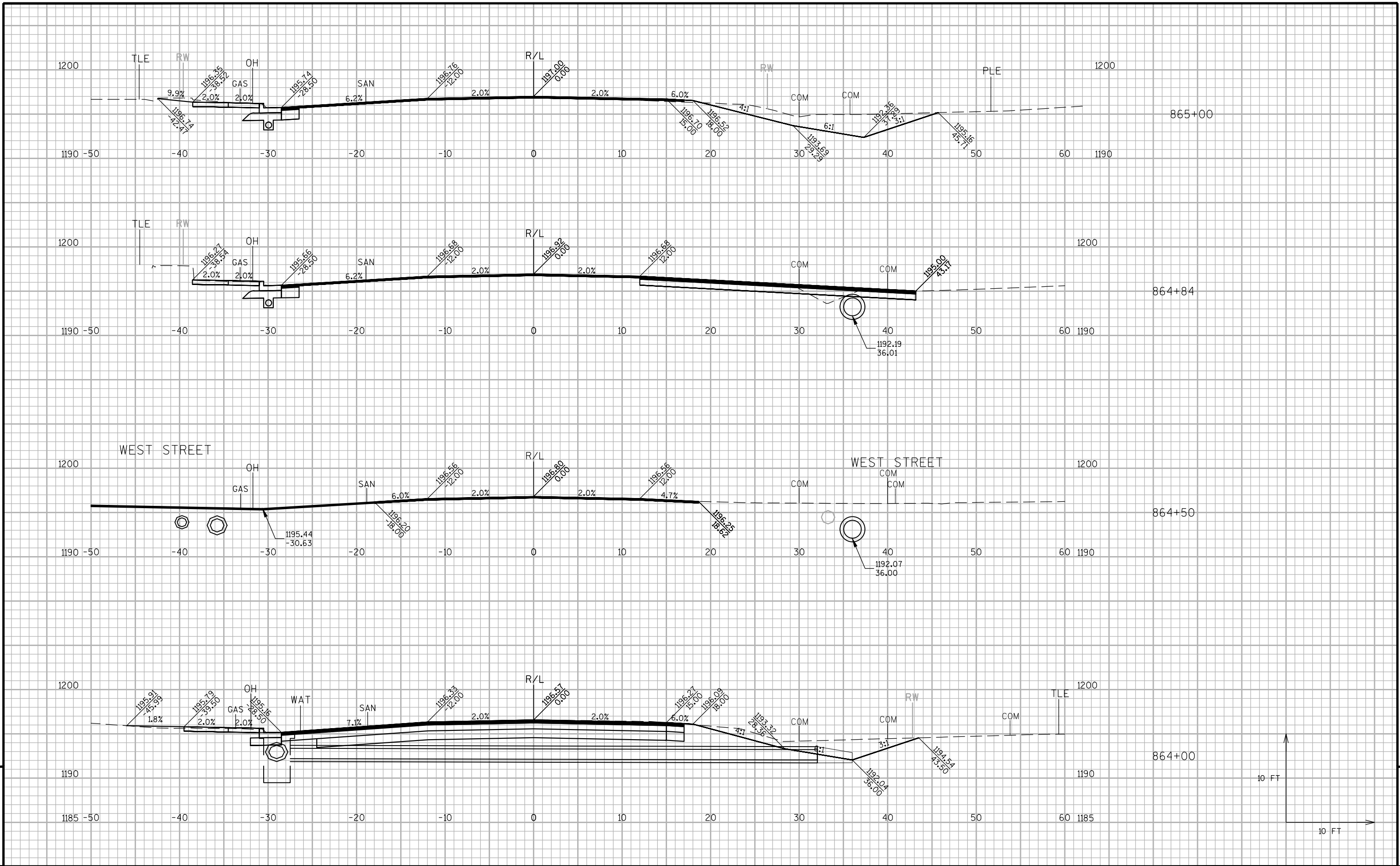
Total Volume Table West Street							
Station	Cut Area (SF)	Expanded Fill Area (SF)	Cut Vol (CY)	Expanded Fill Vol (CY)	Cum Cut Vol (CY)	Cum Expanded Fill Vol (CY)	Net Vol (CY)
50+20	72.02	2.75	0.00	0.00	0.00	0.00	0.00
50+50	28.29	6.25	55.80	5.01	55.80	5.01	50.79
50+75	40.01	2.77	31.62	4.17	87.42	9.18	78.24
50+98	63.08	5.56	43.22	3.49	130.64	12.67	117.96

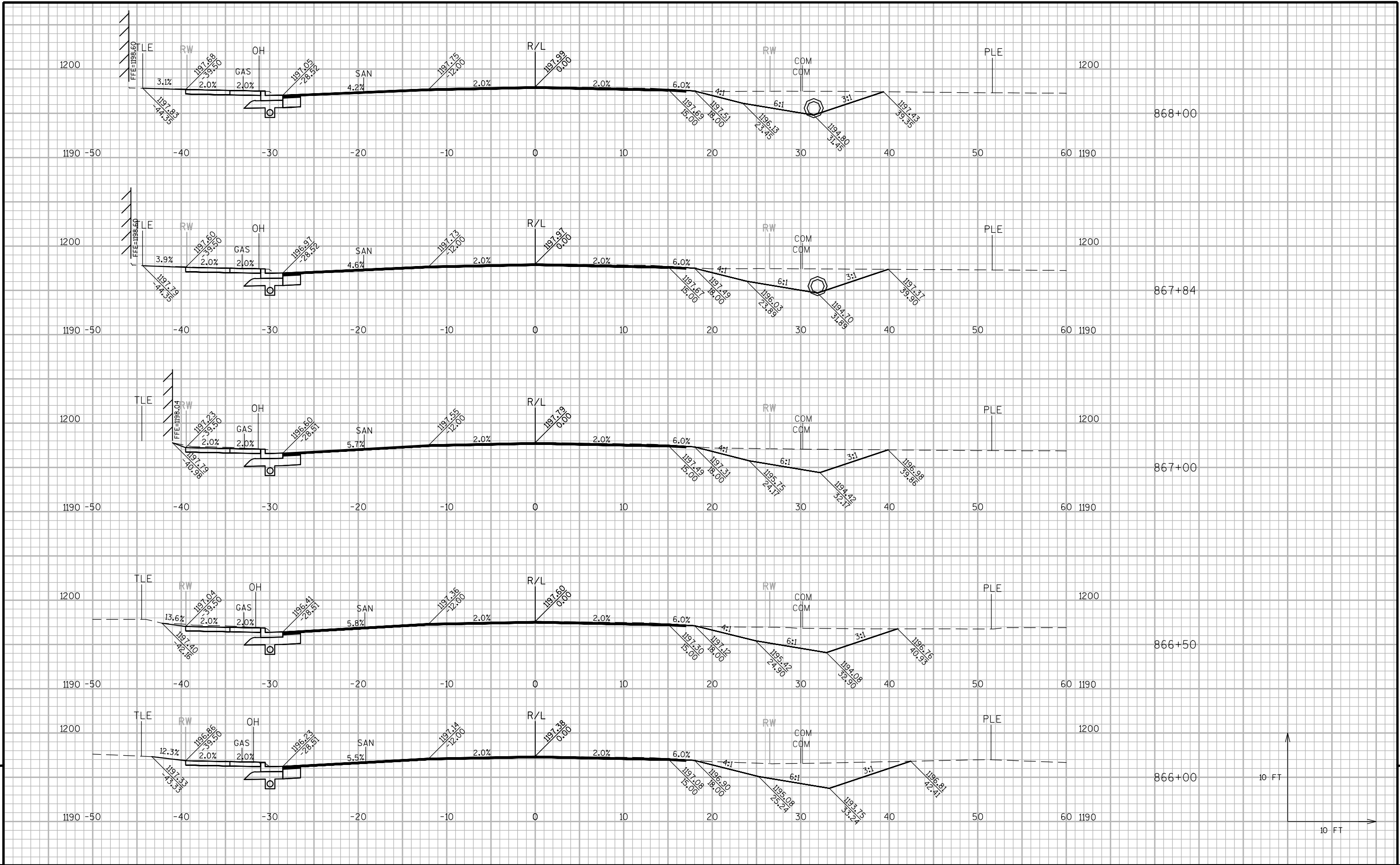


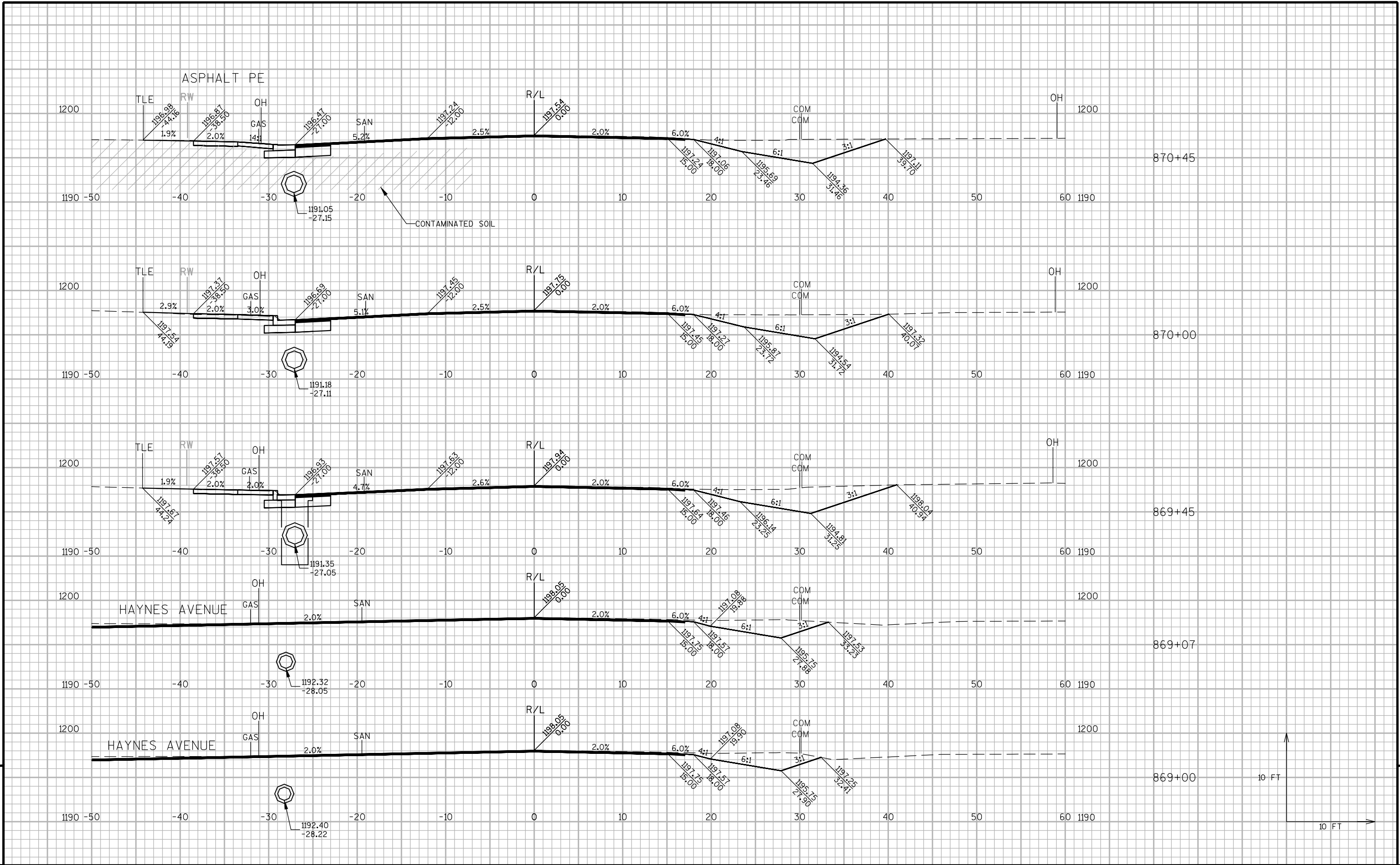
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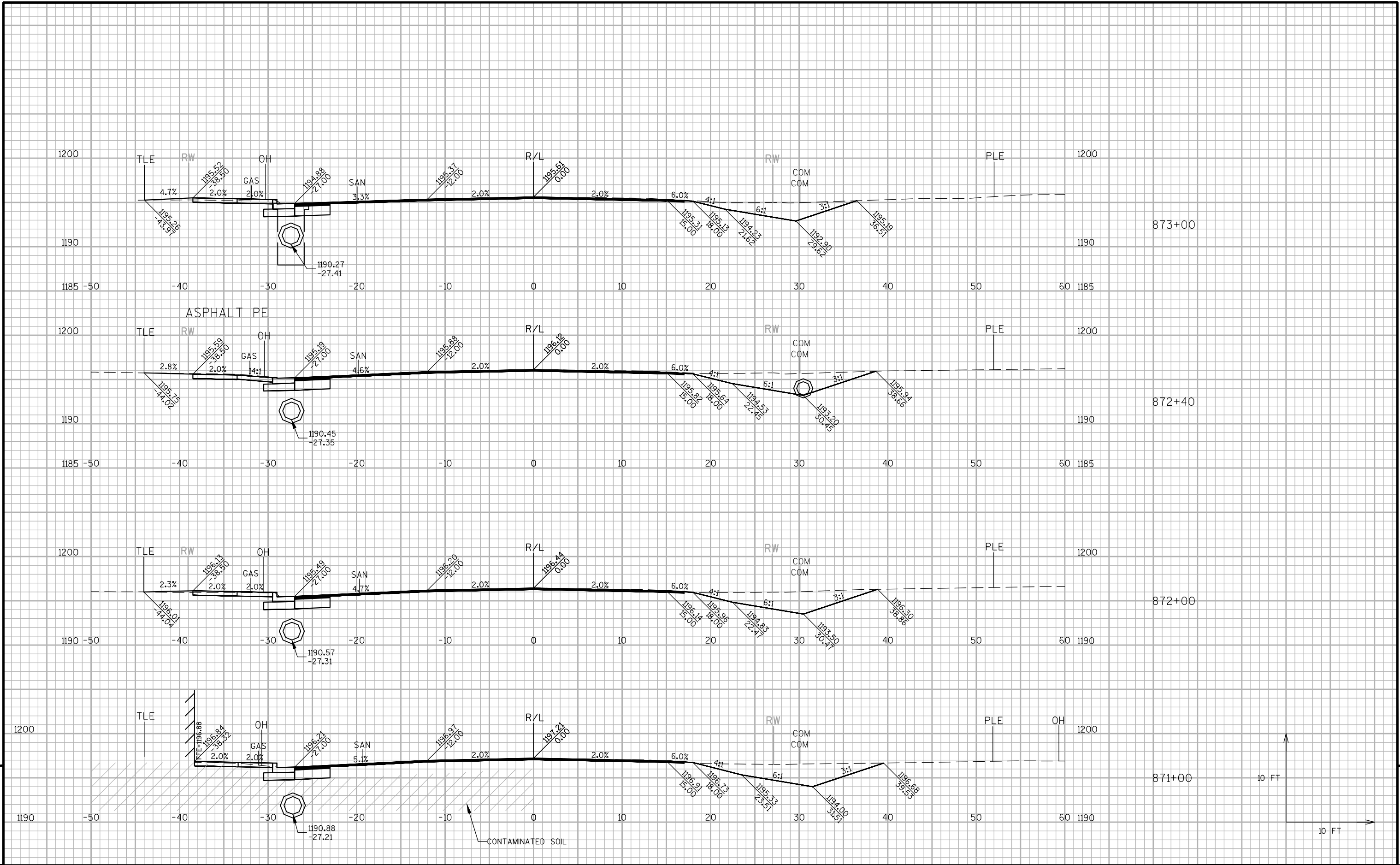
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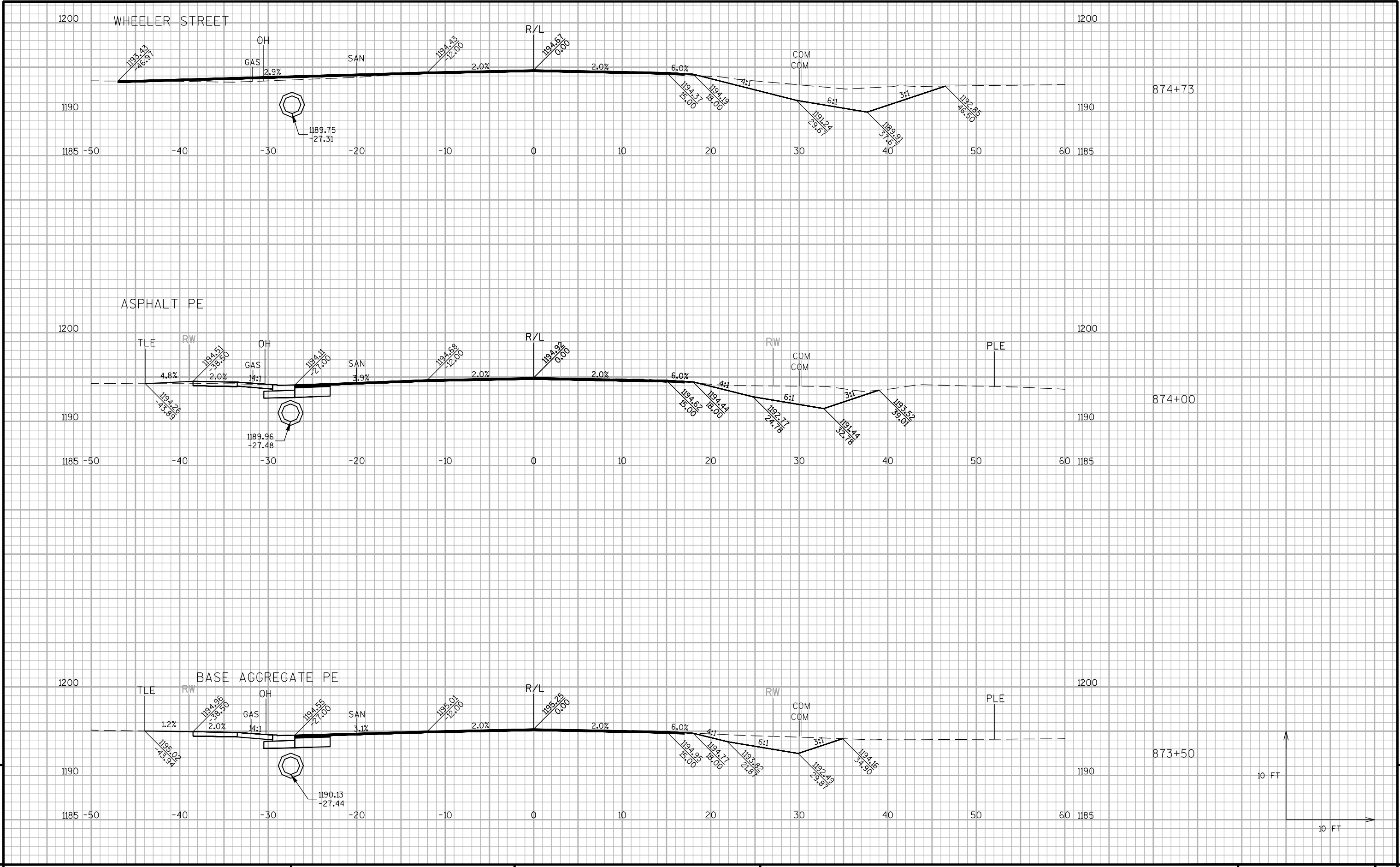


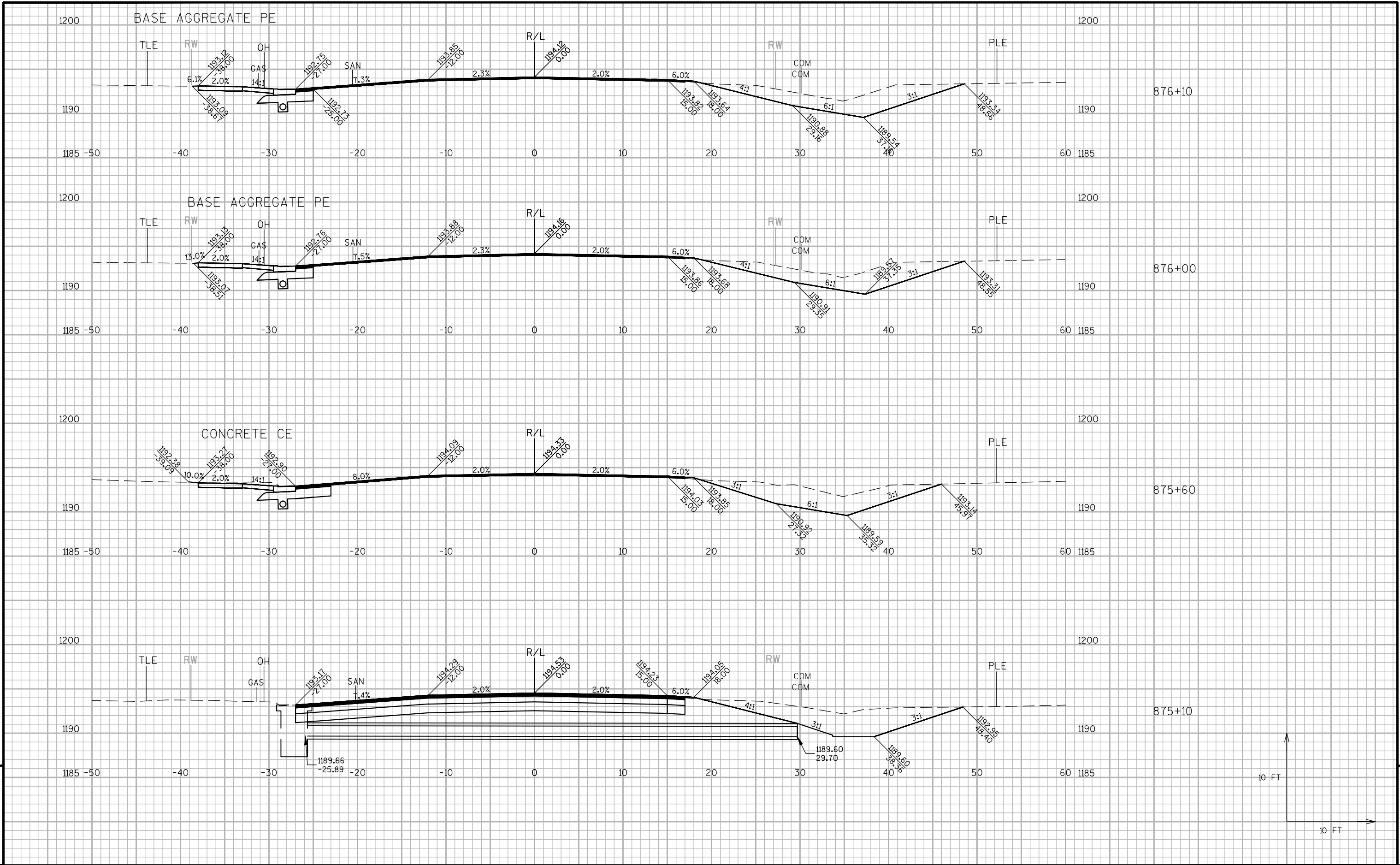


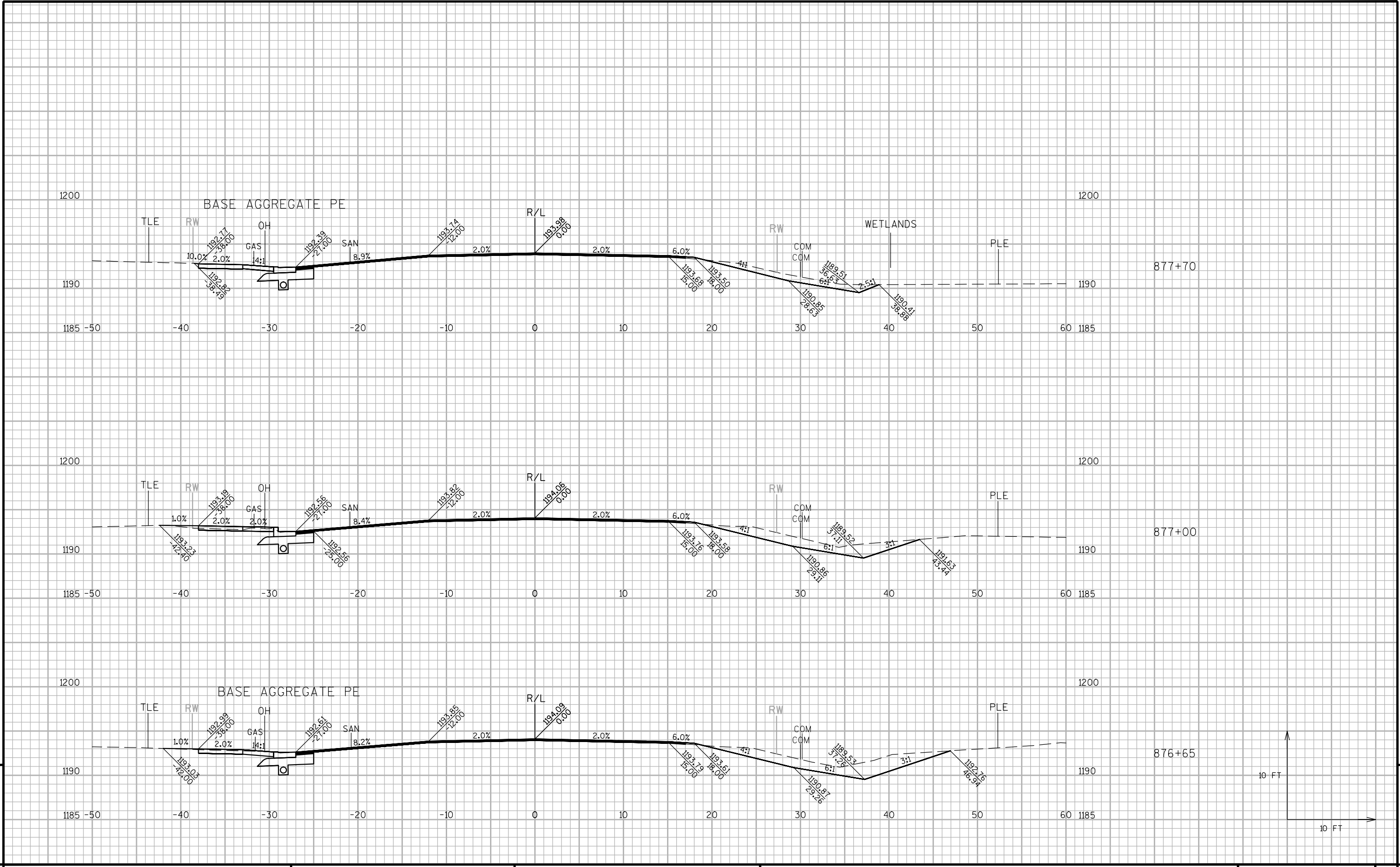


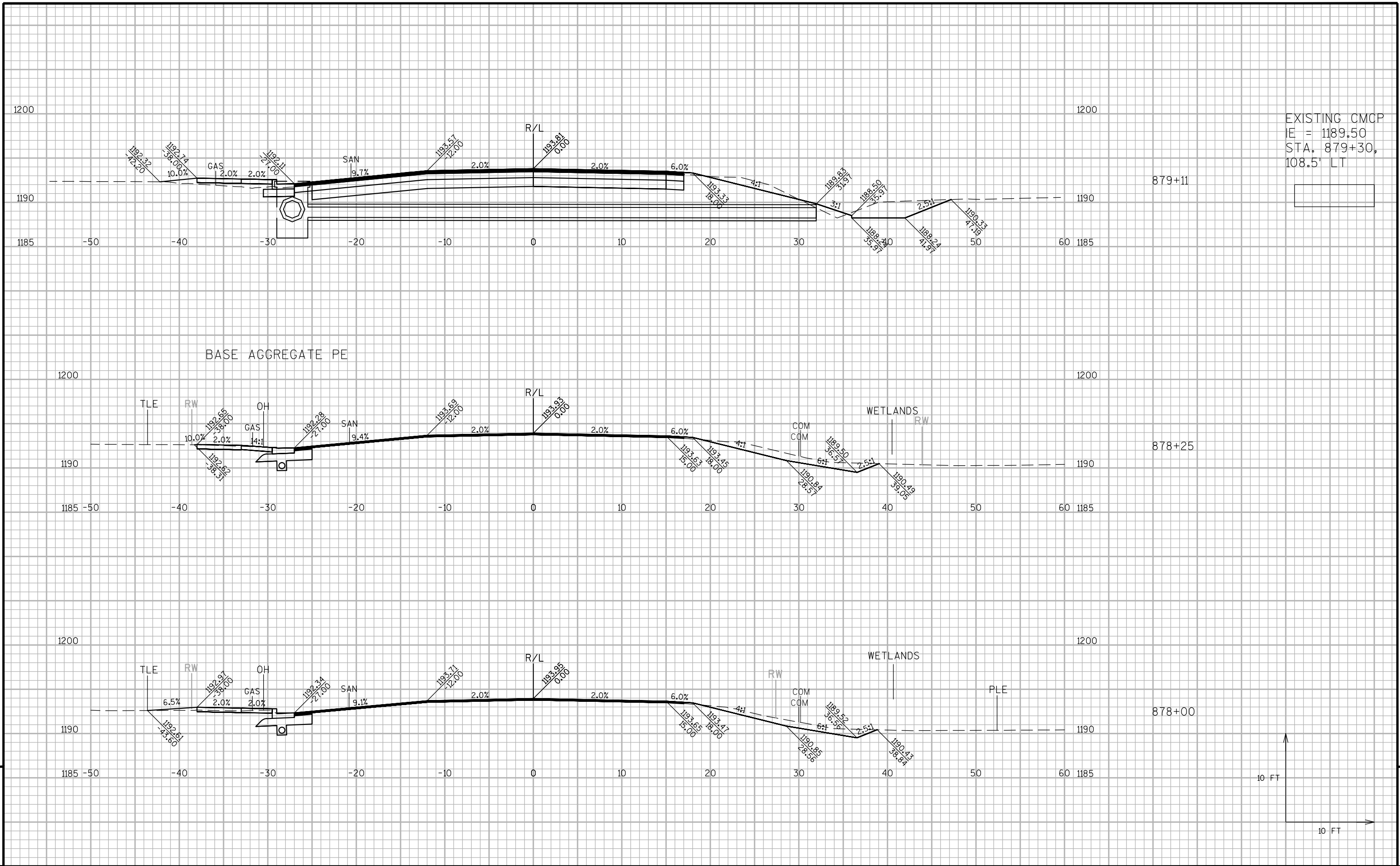




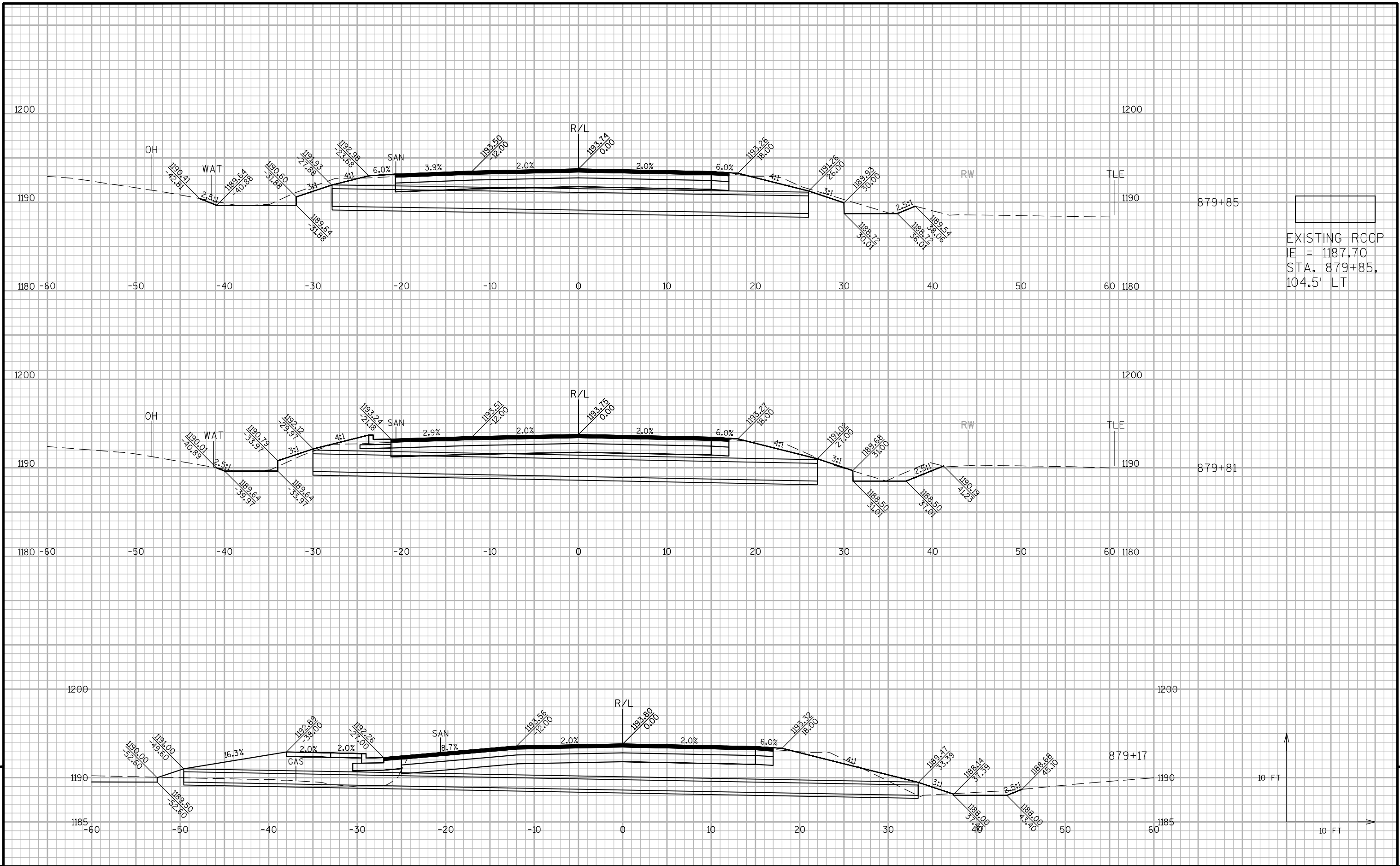


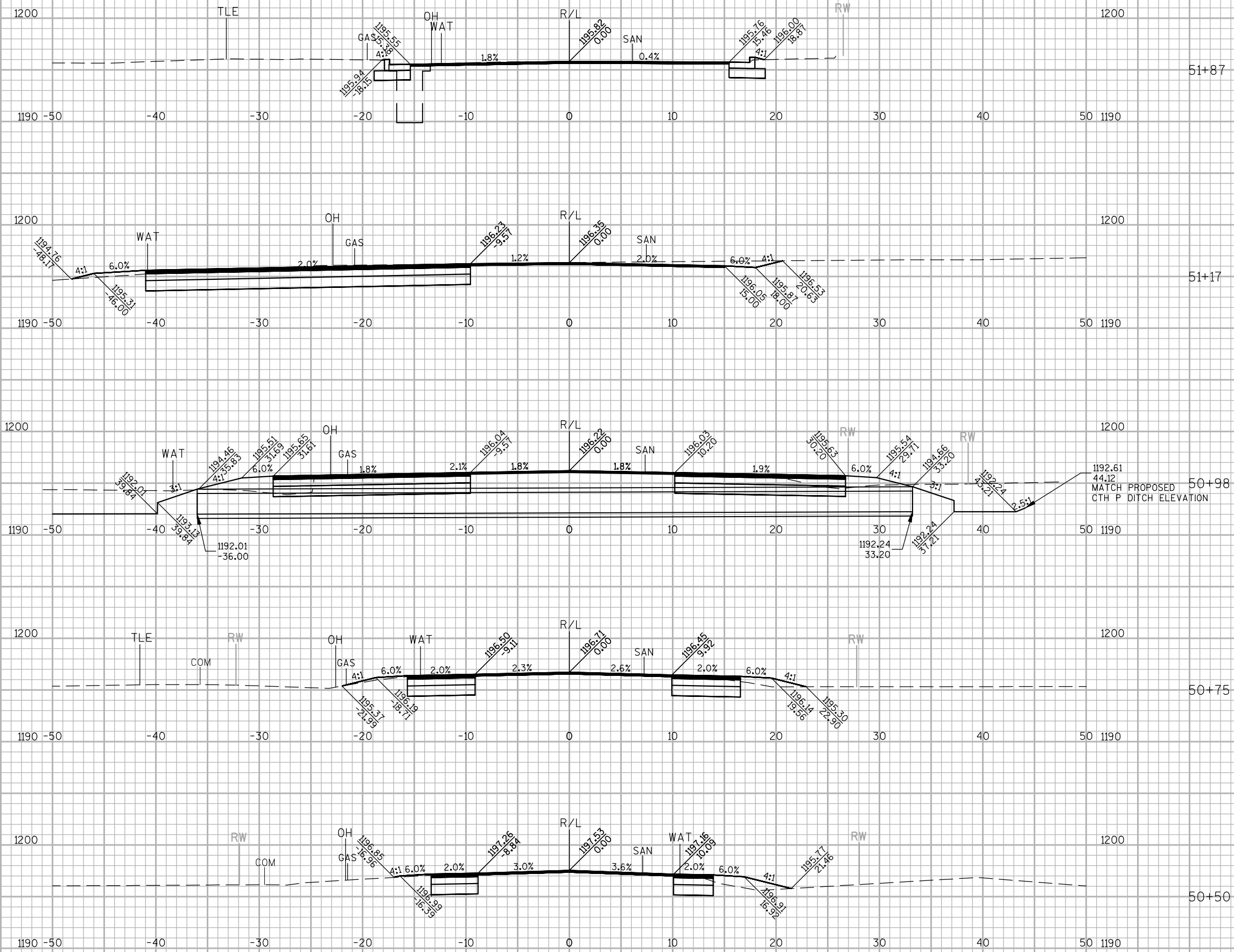


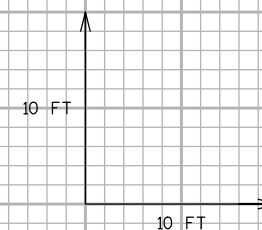
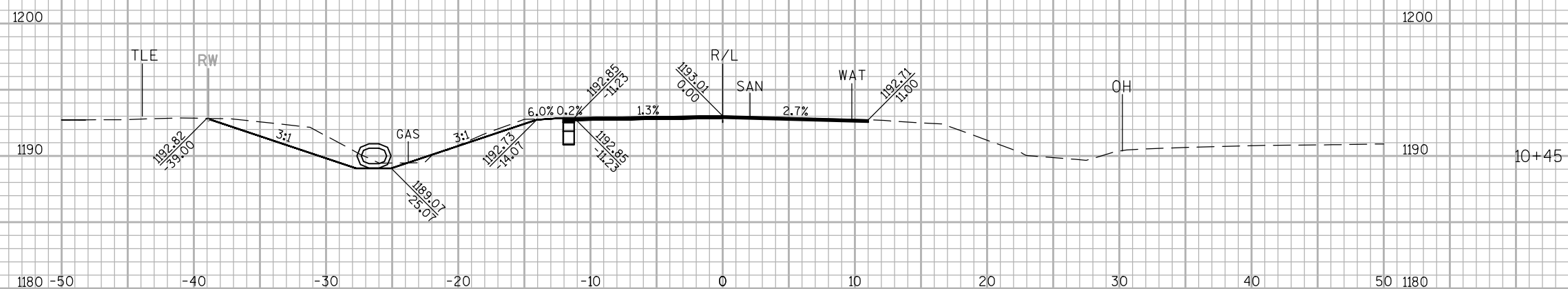
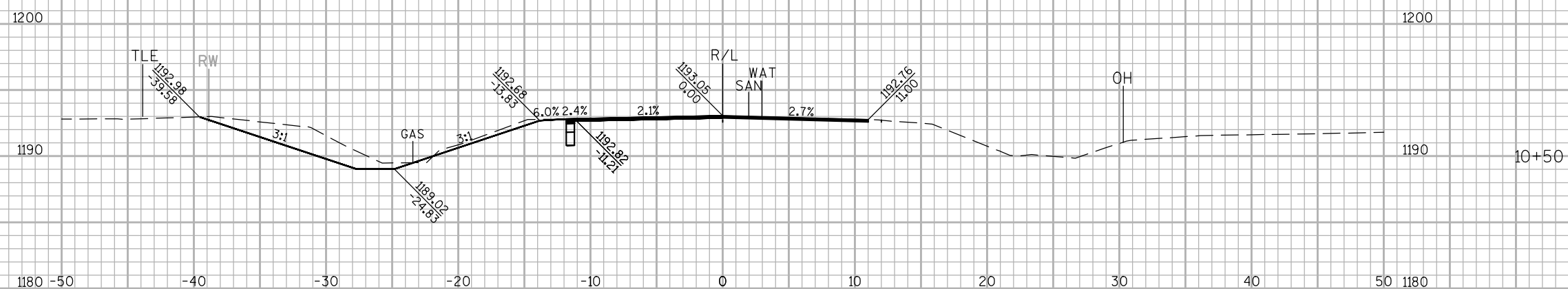
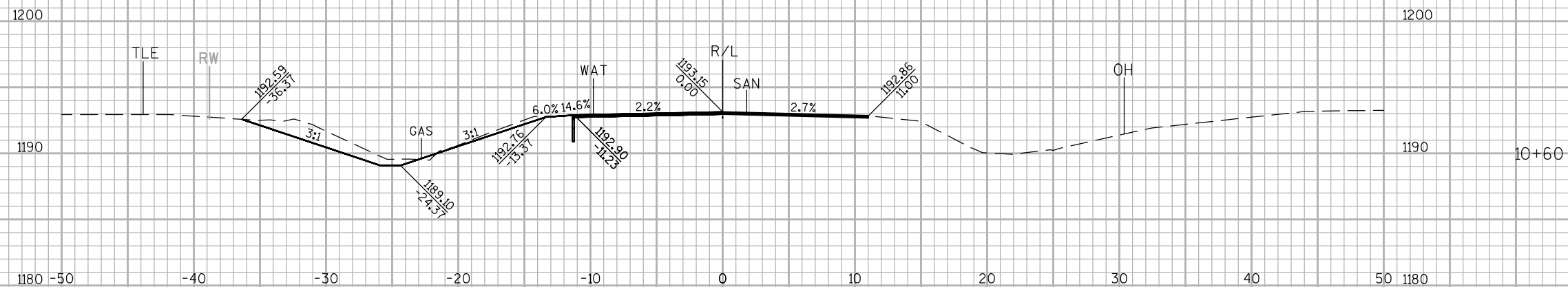




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STA. 879+30,
108.5' LT

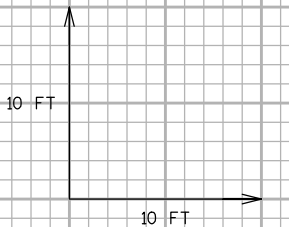
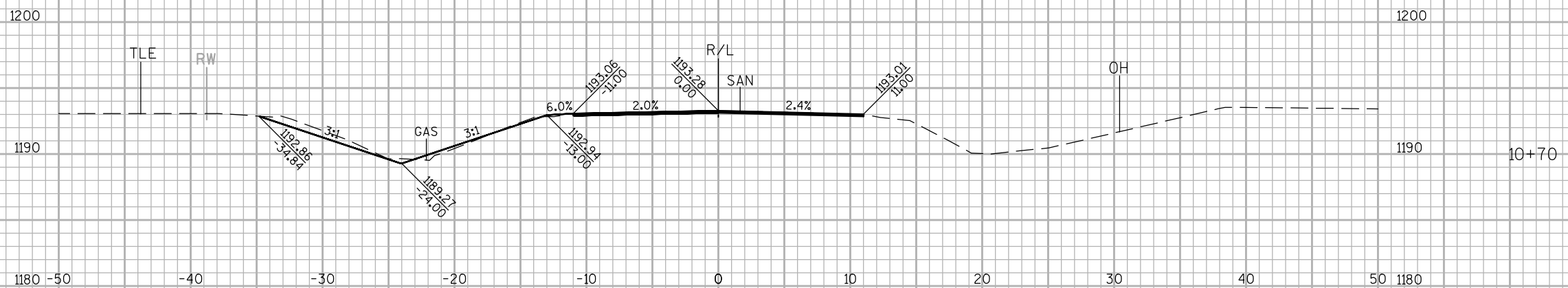
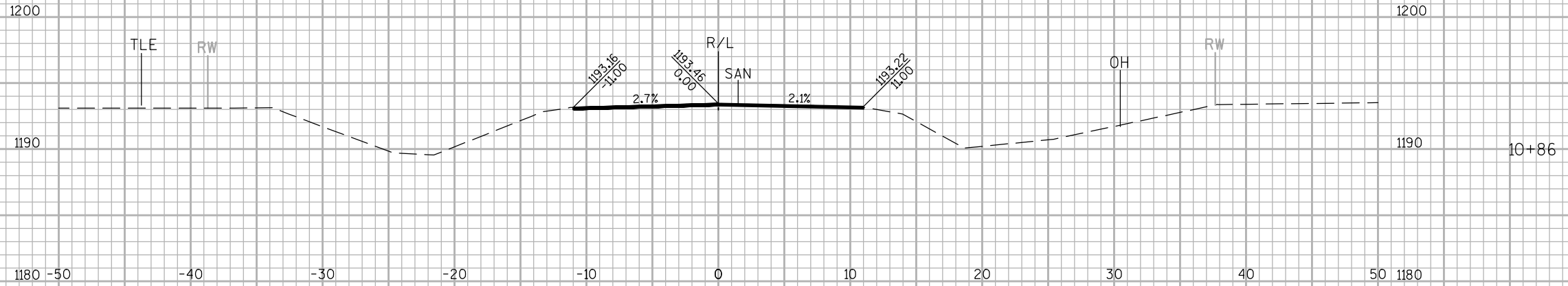


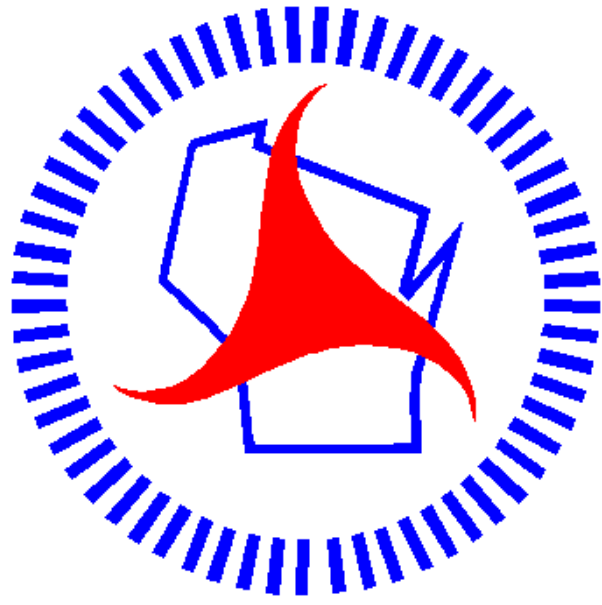




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