

GRE

PROJECT ID:

1517-75-77

COUNTY:

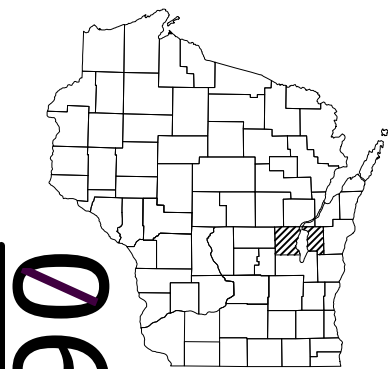
WINNEBAGO

FEBRUARY 2019

ORDER OF SHEETS

Section No. 1	Title
Section No. 2	Typical Sections and Details
Section No. 3	Estimate of Quantities
Section No. 3	Miscellaneous Quantities
Section No. 4	Right of Way Plat
Section No. 5	Plan and Profile
Section No. 6	Standard Detail Drawings
Section No. 7	Sign Plates
Section No. 8	Structure Plans
Section No. 9	Computer Earthwork Data
Section No. 9	Cross Sections

TOTAL SHEETS = 396



DESIGN	DESIGNATION	CTH AP W OF RAMP	CTH AP E OF RAMP	RACINE RD S OF AP	RACINE RD N OF AP
A.A.D.T.	2020	= 4,900	8,900	6,500	5,600
A.A.D.T.	2038	= 5,800	10,900	7,100	7,000
D.H.V.	2038	= 1,020	1,470	1,140	1,130
D.D.		= 59%	59%	59%	59%
T.		= 4.2%	3.7%	3.8%	4.1%
DESIGN SPEED		= 40 MPH	40 MPH	40 MPH	40 MPH
ESALS		= 676,000	1,076,000	813,000	809,000

CONVENTIONAL SYMBOLS

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

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

USH 10 - USH 10/STH 441

COUNTY CB - ONEIDA STREET

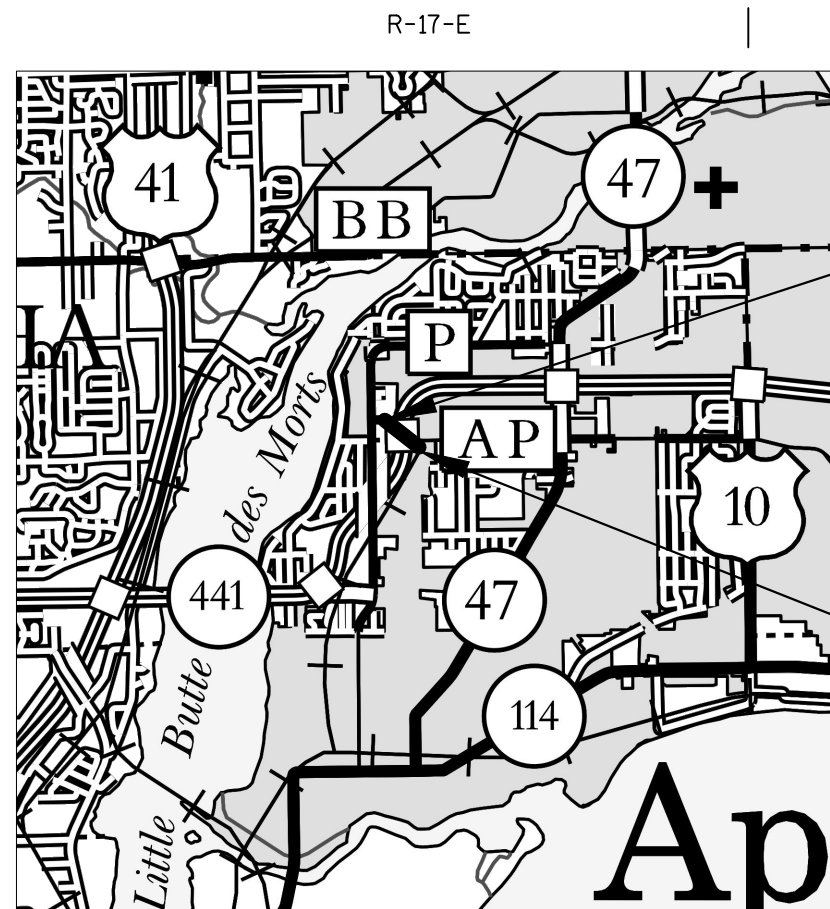
USH 10

WINNEBAGO COUNTY

MIDWAY RD (CTH AP) INTCHG

STATE PROJECT NUMBER
1517-75-77

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1517-75-77	WISC 2019120	1



BEGIN PROJECT 1517-75-77

STA 10MEB+00.00
Y=551194.398
X=817643.389

END PROJECT 1517-75-77

STA 29MEB+76.68
Y=550598.344
X=819454.236

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY	
Surveyor	KAPUR
Designer	K. SLEZAK
Project Manager	S. EBEL
Regional Examiner	
Regional Supervisor	C. DEGRAVE

APPROVED FOR THE DEPARTMENT
DATE: 8/1/2018 
(Signature)

E

TO OBTAIN LOCATIONS OF PARTICIPANTS UNDERGROUND FACILITIES BEFORE YOU DIG IN WISCONSIN

WIS. STATUTE 182.0175 (1974) REQUIRES MIN. OF 3 WORK DAYS NOTICE BEFORE YOU EXCAVATE



Dial  or (800)242-8511

www.DiggersHotline.com

UTILITY CONTACTS

AMERICAN TRANSMISSION COMPANY LLC -
ELECTRICITY-TRANMISSION

TONY MARCINIAK
W 234 N 2000 RIDGEVIEW PARKWAY COURT
PO BOX 47
WAUKESHA, WI 53187-0047
262-506-6814
TMARCINIAK@atcllc.com

AT&T WISCONSIN - COMMUNICATION LINE

JOSEPH KASSAB
205 S JEFFERSON STREET
GREEN BAY, WI 54301
920-433-4200
JK572K@att.com

CHARTER COMMUNICATION - COMMUNICATION LINE

VINCE ALBIN
3520 DESTINATION DRIVE
APPLETON, WI 54915
920-831-9249
vince.albin@charter.com

FOX CROSSING UTILITIES - SEWER

JEFF ROTH
2340 AMERICAN DRIVE
NEENAH, WI 54956
920-720-7175
JROTH@FOXCROSSINGWI.GOV

FOX CROSSING UTILITIES - WATER

JEFF ROTH
2340 AMERICAN DRIVE
NEENAH, WI 54956
920-720-7175
JROTH@FOXCROSSINGWI.GOV

MENASHA ELECTRIC & WATER UTILITIES - ELECTRIC

GREG SHULL
321 MILWAUKEE STREET
PO BOX 340
MENASHA, WI 54952-0340
920-967-3422
GShull@wppiEnergy.org

MENASHA ELECTRIC & WATER UTILITIES - WATER

SCOTT MAURER
321 MILWAUKEE STREET
PO BOX 340
MENASHA, WI 54952-0340
920-967-3430; CELL: 920-707-3733
smaurer@wppienergy.org

TDS METROCOM

STEVE JAKUBIEC
10 COLLEGE AVE STE 218A
APPLETON, WI 54911
920-882-4166; CELL: 920-562-7221
steve.jakubiec@tdstelecom.com

WE ENERGIES - ELECTRIC

CHRIS SCHULZ
500 S 116 ST
WEST ALLIS, WI 53214
414-944-5553; CELL: 414-550-8289
chris.schulz@we-energies.com

WE ENERGIES - GAS

CODY BECKMANN
PO BOX 1699
APPLETON, WI 54912
920-380-3422
cody.beckmann@we-energies.com

WISCONSIN CENTRAL LTD CONTACTS

RAILROAD FLAGGING CONTACT

MARY ELLEN CARMODY
2800 LIVERNOIS ROAD, STE 330
TROY, MI 48083
OFFICE: 248-740-6227
FAX: 248-740-6036
maryellen.carmody@cn.ca

MAIN RAILROAD CONTACT

JACKIE MACEWICZ
MANAGER PUBLIC WORKS
1625 DEPOT STREET
STEVENS POINT, WI 54481
OFFICE: 715-345-2503
FAX: 715-345-2507
JACKIE.MACEWICZ@cn.ca

24 HOUR EMERGENCY RAILROAD SIGNAL

1-800-616-3432

CALL BEFORE YOU DIG

WISCONSIN CENTRAL LTD IS NOT PART OF DIGGER HOTLINE
CALL CHRISTINE GRZESIAK, 715-345-2506
WHEN DIGGING ON RAILROAD R/W

COUNTY SURVEYOR CONTACT

JERRY BOUGIE
WINNEBAGO COUNTY COURT HOUSE
445 ALGOMA BLVD
OSHKOSH, WI 54903
920-236-4839

DNR AREA LIASON

JAY SCHIEFELBEIN
DEPARTMENT OF NATURAL RESOURCES
2984 SHAWANO AVENUE
GREEN BAY, WI 54313
920-360-3784; CELL: 920-662-5472
jeremiah.schiefelbein@wisconsin.gov

US ARMY CORP OF ENGINEERS

NICK DOMER
OLD FORT SQUARE
211 N. BROADWAY, STE 221
GREEN BAY, WI 54303
651-290-5855
T.Dormer@usace.army.mil

WINNEBAGO COUNTY
HIGHWAY COMMISSIONER

RAY PALONEN
901 WEST COUNTY ROAD Y
P.O. BOX 2764
OSHKOSH, WI 54903
920-232-1700

EMERGENCY CONTACT NUMBERS
FOR WE ENERGIES

ELECTRIC 24 HOUR EMERGENCY SERVICE: 1-800-662-4797
GAS 24 HOUR EMERGENCY SERVICE: 1-800-261-5325

ORDER OF PLAN SHEETS

- TITLE SHEET
- UTILITIES
- GENERAL NOTES
- ABBREVIATIONS
- PROJECT OVERVIEW
- TYPICAL SECTIONS
- CONSTRUCTION DETAILS
- REMOVAL PLAN
- PLAN DETAILS
- PAVEMENT GRADES
- INVASIVE SPECIES
- EROSION CONTROL
- STORM SEWER PLAN
- PIPE UNDERDRAIN
- SIGNING
- ITS
- LIGHTING PLAN
- PAVEMENT MARKING
- STAGE CONSTRUCTION
- ALIGNMENT DETAIL
- ESTIMATE OF QUANTITIES
- MISCELLANEOUS QUANTITIES
- RIGHT-OF-WAY PLAT
- BENCHMARKS
- PLAN & PROFILE
- SPECIAL SIGN DETAILS
- EARTHWORK
- CROSS SECTIONS

GENERAL NOTES

THE CONTRACTOR SHALL CONTACT THE UTILITIES AND DIGGERS HOTLINE TO LOCATE AND FIELD VERIFY UTILITIES. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

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

EXISTING SURFACE ELEVATIONS USED TO CALCULATE PROPOSED EARTHWORK QUANTITIES ARE BASED UPON PREVIOUS CONSTRUCTION DTM'S. FIELD CHANGES TO THESE PROPOSED DTM'S WILL NOT BE REFLECTED IN THE EXISTING DTM FOR THIS CONTRACT.

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

RIGHT OF WAY LINES SHOWN ON CROSS SECTIONS ARE APPROXIMATE.

THE EXACT LOCATIONS OF PRIVATE ENTRANCES ARE TO BE DETERMINED IN THE FIELD BY THE ENGINEER. ALL DRIVEWAYS ARE TO BE REPLACED IN KIND UNLESS OTHERWISE DIRECTED BY THE ENGINEER, OR AS SHOWN ON THE PLANS. BASE AGGREGATE DENSE 1¼-INCH SHALL BE USED UNDER ALL DRIVEWAYS.

THE EXACT LOCATIONS AND WIDTH OF TEMPORARY ACCESS FOR DRIVEWAYS SHALL BE DETERMINED BY THE ENGINEER.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESHAPING AND SEEDING ANY PREVIOUSLY GRASSED AREAS WHICH ARE DISTURBED BY ANY OPERATION OUTSIDE OF THE NORMAL CONSTRUCTION LIMITS AT THE CONTRACTORS EXPENSE.

TEMPORARY STORAGE OF ANY EXCAVATED MATERIAL WILL NOT BE PERMITTED IN WETLANDS, FLOODWAY OR FLOODPLAIN OF ANY WATERWAY.

CROSS SECTIONS SHOWN INCLUDE THE THICKNESS OF TOPSOIL WHERE REQUIRED. TOPSOIL SHALL BE REPLACED WITH SPECIFIED THICKNESS AS OUTLINED IN THE STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

FILL AND COMPACT ALL HOLES OR OPENINGS BELOW SUBGRADE RESULTING FROM ABANDONMENT OR REMOVAL OF EXISTING STRUCTURES WITH GRANULAR BACKFILL. BACKFILLING IS INCIDENTAL TO CORRESPONDING ABANDONMENT OR REMOVAL ITEM.

CURB AND GUTTER GRADES ARE GIVEN TO THE FLANGE. CURB AND GUTTER RADII ARE MEASURED TO THE FLANGE.

FERTILIZER SHALL NOT BE USED NEAR NAVIGABLE WATERWAYS OR WETLANDS.

BROKEN CONCRETE CONTAINING STEEL SHALL NOT BE USED AS RIPRAP OR HEAVY RIPRAP.

SIDEWALK GRADES ARE GIVEN FROM THE FRONT OF THE SIDEWALK WHEN SHOWN.

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

REMOVAL OF EROSION CONTROL DEVICES IS INCIDENTAL TO THE COST OF THEIR RESPECTIVE BID ITEMS.

ANY MESH MATERIAL THAT IS FOUND IN EXISTING PAVEMENT WILL BE INCIDENTAL TO THE REMOVAL OF THE PAVEMENT IN THAT SECTION. EXISTING PAVEMENT DEPTHS ARE BASED ON AS-BUILT DATA AND MAY VARY IN THE FIELD.

PRIOR TO ORDERING DRAINAGE PIPES AND STRUCTURES, THE CONTRACTOR SHALL VERIFY RELATED DRAINAGE INFORMATION IN THE PLAN AND PROVIDE DOCUMENTATION TO THE ENGINEER IN ACCORDANCE WITH THE SPECIFICATIONS. THIS ALSO INCLUDES VERIFICATION OF INVERT ELEVATIONS AT ALL PROPOSED STORM SEWER CONNECTION POINTS TO EXISTING SYSTEMS.

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

SIGNS IN CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE COVERED AS DIRECTED BY THE ENGINEER AND PAID FOR UNDER THE ITEM "TRAFFIC CONTROL COVERING SIGNS TYPE 1 OR TYPE 2.

STATIONING, DISTANCES AND OFFSETS FOR SIGNS SHOWN IN THE PLANS ARE APPROXIMATE AND THE FINAL LOCATIONS ARE TO BE DETERMINED BY THE ENGINEER.

BENCHMARK LOCATIONS SHOWN ON PLAN ARE APPROXIMATE AND SHOULD BE VERIFIED.

ALL ITEMS ASSOCIATED WITH SIGNING REMOVALS ARE SHOWN ON SIGNING PLAN, EXCEPT FOR REMOVING OLD SIGN STRUCTURES.

5 FOOT WIDE SIDEWALK REQUIRES TRANSVERSE JOINTS SPACED 5 FEET, AND 10 FOOT WIDE SIDEWALK REQUIRES TRANSVERSE JOINTS SPACED AT 10 FEET.

EXCAVATION REQUIRED FOR ALL SIGN STRUCTURES, BRIDGES, AND RETAINING WALLS IS NOT INCLUDED IN THE COMPUTER EARTHWORK AND IS INCIDENTAL TO THE PERTINENT STRUCTURE ITEMS. SEE STRUCTURE PLANS FOR ADDITIONAL GUIDANCE ON REQUIRED EXCAVATION LIMITS.

SIDEWALK REPLACEMENT SHOULD BE TO THE NEAREST JOINT. LIMITS ARE APPROXIMATE AND ARE TO VERIFIED IN THE FIELD BY THE ENGINEER. MATCH EXISTING SIDEWALK WIDTH.

FOR ALL CURB RAMPS, REFER TO THE STANDARD DETAIL DRAWINGS FOR THE RAMP TAPER DIMENSIONS. SIDEWALK WIDTHS ARE DIMENSIONED IN THE PLAN.

PROTECT INLETS WITH PROPER INLET PROTECTION AT LOCATIONS EXHIBITING RISK OF BEING IMPACTED BY CONSTRUCTION OPERATIONS AS SHOWN ON THE PLANS, OR AS DIRECTED BY THE ENGINEER.

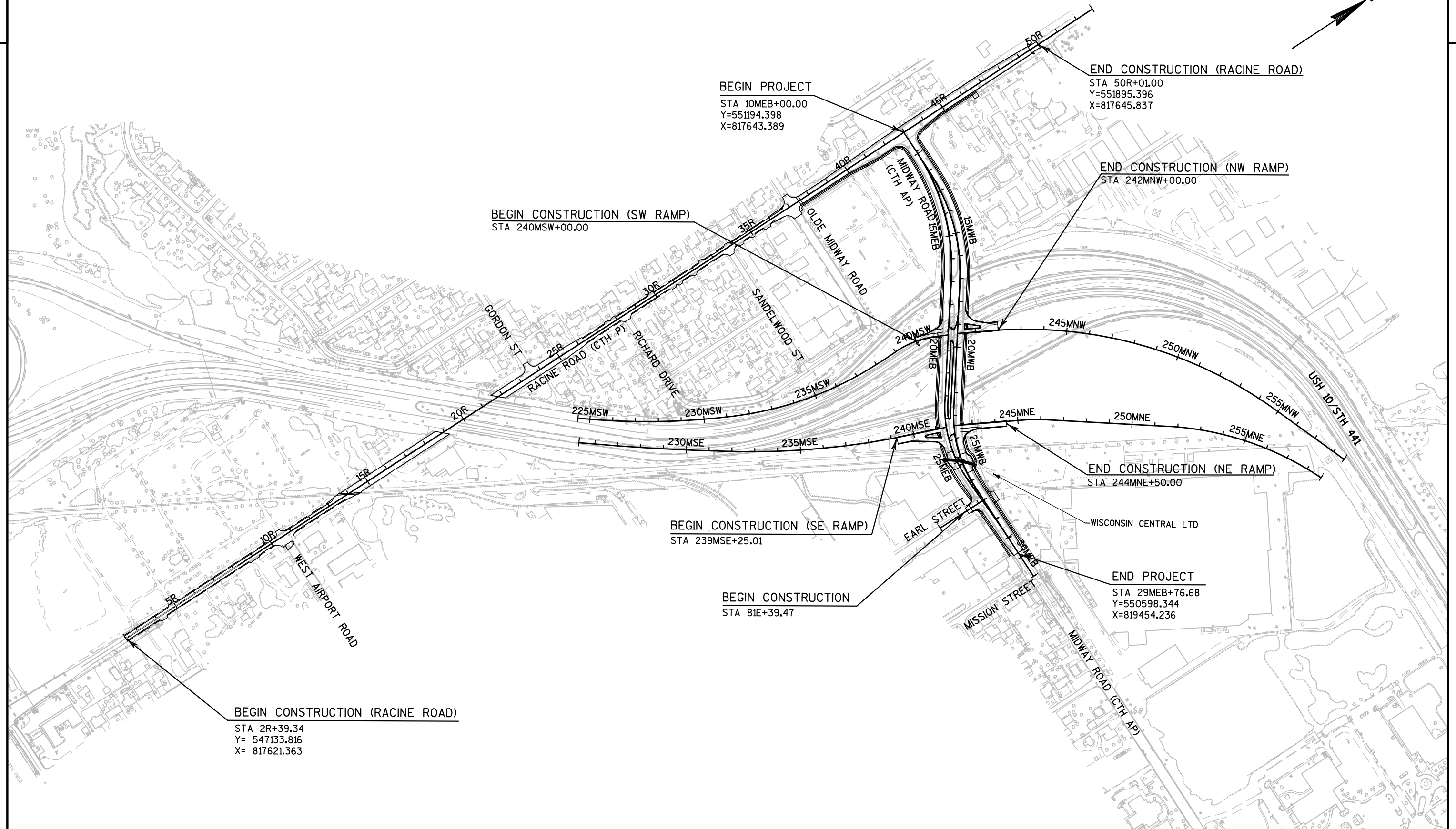
ALIGNMENT IDENTIFIERS	
E	EARL STREET
EB	STH 441/USH 10 EB
MEB	MIDWAY ROAD EB
MNE	MIDWAY ROAD NE RAMP
MNW	MIDWAY ROAD NW RAMP
MNWB	MIDWAY NW RAMP BYPASS
MSE	MIDWAY ROAD SE RAMP
MSEB	MIDWAY SE RAMP BYPASS
MSW	MIDWAY ROAD SW RAMP
MWB	MIDWAY ROAD WB
R	RACINE ROAD
WB	STH 441/USH 10 WB

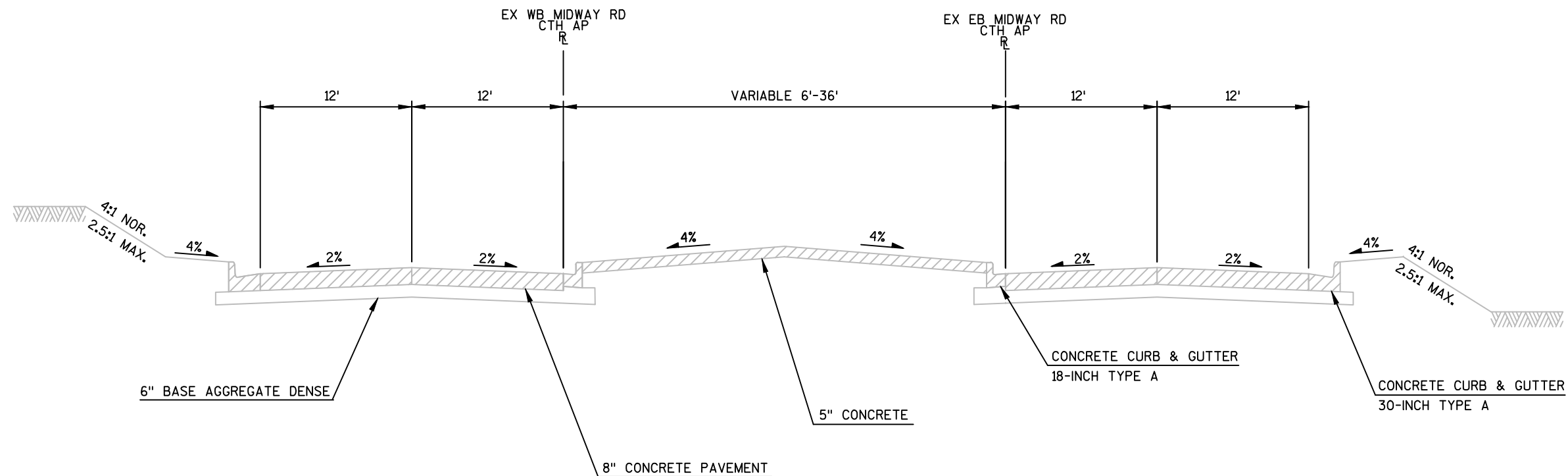
ABBREVIATIONS

AEW	APRON END WALL
AGG	AGGREGATE
BAD	BASE AGGREGATE DENSE
BM	BENCH MARK
C&G	CURB AND GUTTER
C/L	CENTER OR CONSTRUCTION LINE
CMCP	CORRUGATED METAL CULVERT PIPE
CONC	CONCRETE
CP	CULVERT PIPE
CPRC	CULVERT PIPE REINFORCED CONCRETE
CSD	CONCRETE SURFACE DRAIN
CY	CUBIC YARD
D	DEGREE OF CURVE
Δ	DELTA
DISCH	DISCHARGE
EB	EAST BOUND
EL OR ELEV	ELEVATION
EAT	ENERGY ABSORBING TERMINAL
EXIST	EXISTING
FE	FIELD ENTRANCE
FT	FOOT
HMA	HOT MIX ASPHALT
INL	INLET
INV	INVERT
L	LENGTH OF CURVE
LHF	LEFT HAND FORWARD
LT	LEFT
LF	LINEAR FOOT
MIN	MINIMUM
MH	MANHOLE
M/L	MATCHLINE
NB	NORTHBOUND
NC	NORMAL CROWN
PAVT	PAVEMENT
PC	POINT OF CURVE
PCC	POINT OF COMPOUND CURVE
PE	PRIVATE ENTRANCE
PI	POINT OF INTERSECTION
PLE	PERMANENT LIMITED EASEMENT
PT	POINT OF TANGENT
R	RADIUS OF CURVE
R/L	REFERENCE LINE
RC	REVERSE CROWN
RCAEW	REINFORCED CONCRETE APRON ENDWALL FOR CULVERT PIPE
REQ'D	REQUIRED
RHF	RIGHT HAND FORWARD
RO	RUN OFF LENGTH
RRSP	RAIL ROAD SPIKE
RT	RIGHT
RW OR R/W	RIGHT OF WAY
SALV	SALVAGED
SAPBC	SALVAGED ASPHALTIC PAVEMENT BASE COURSE
SB	SOUTHBOUND
SDD	STANDARD DETAIL DRAWING
SE	SUPER ELEVATION
SF	SQUARE FOOT
SSPRC	STORM SEWER PIPE REINFORCED CONCRETE
STA	STATION
SY	SQUARE YARD
T	TANGENT LENGTH
TEMP	TEMPORARY
TLE	TEMPORARY LIMITED EASEMENT
TYP	TYPICAL
VCL	VERTICAL CURVE LENGTH
VPC	POINT OF VERTICAL CURVE
VPI	POINT OF VERTICAL INTERSECTION
VPT	POINT OF VERTICAL TANGENT
WB	WESTBOUND
YD	YARD

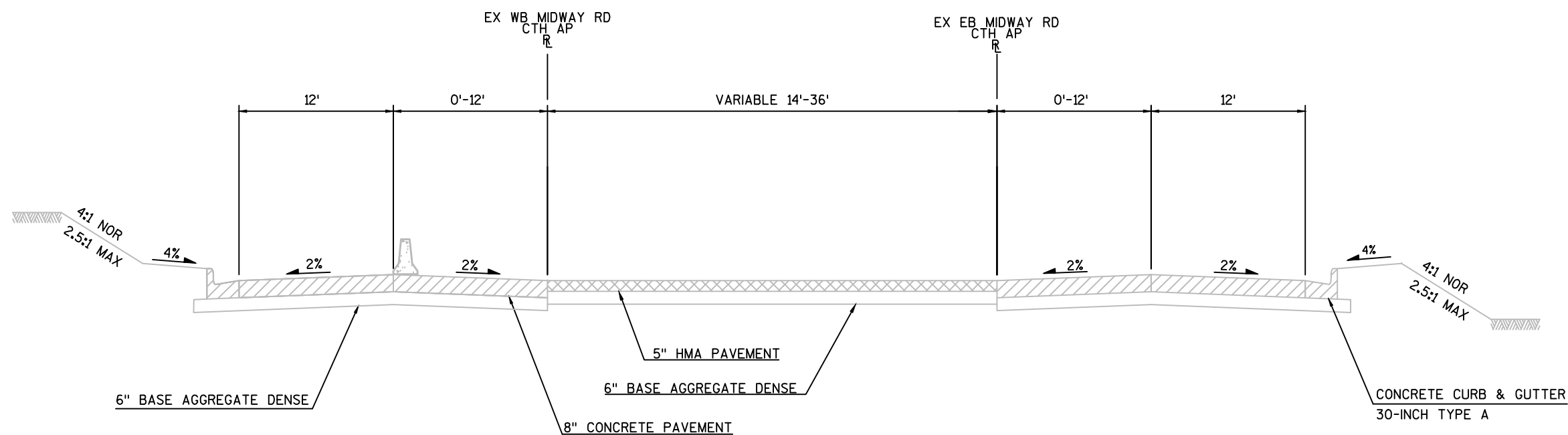
RUNOFF COEFFICENT TABLE

	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	0.08	0.16	0.22	0.12	0.20	0.27	0.15	0.24	0.33	0.19	0.28	0.38
	0.22	0.30	0.38	0.26	0.34	0.44	0.30	0.37	0.50	0.34	0.41	0.56
MEDIAN STRIP TURF	0.19	0.20	0.24	0.19	0.22	0.26	0.20	0.23	0.30	0.20	0.25	0.30
	0.24	0.26	0.30	0.25	0.28	0.33	0.26	0.30	0.37	0.27	0.32	0.40
SIDE STRIP TURF			0.25			0.27			0.28			0.30
			0.32			0.34			0.36			0.38
PAVEMENT:												
ASPHALT						.70 - .95						
CONCRETE						.80 - .95						
BRICK						.70 - .80						
DRIVES, WALKS						.75 - .85						
ROOFS						.75 - .95						
GRAVEL ROADS, SHOULDERS						.40 - .60						





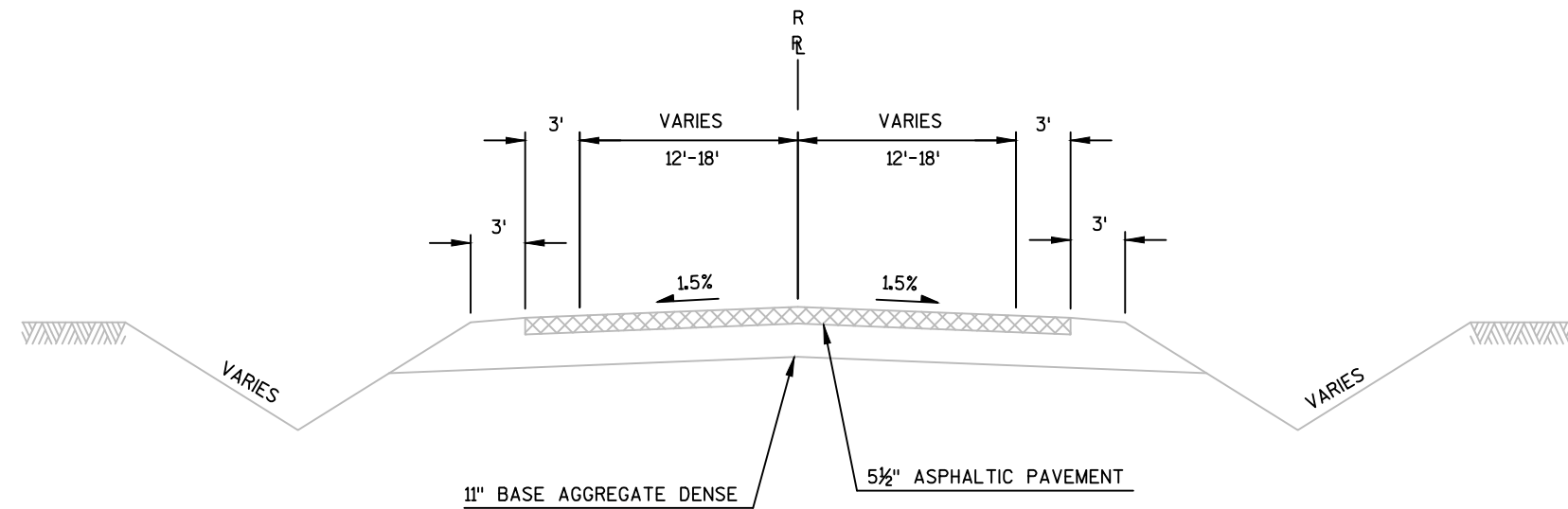
TYPICAL EXISTING SECTION
MIDWAY ROAD (CTH AP)
STA 10MEB+28.00 TO STA 15MEB+00
STA 25MEB+00 TO STA 29MEB+76.86



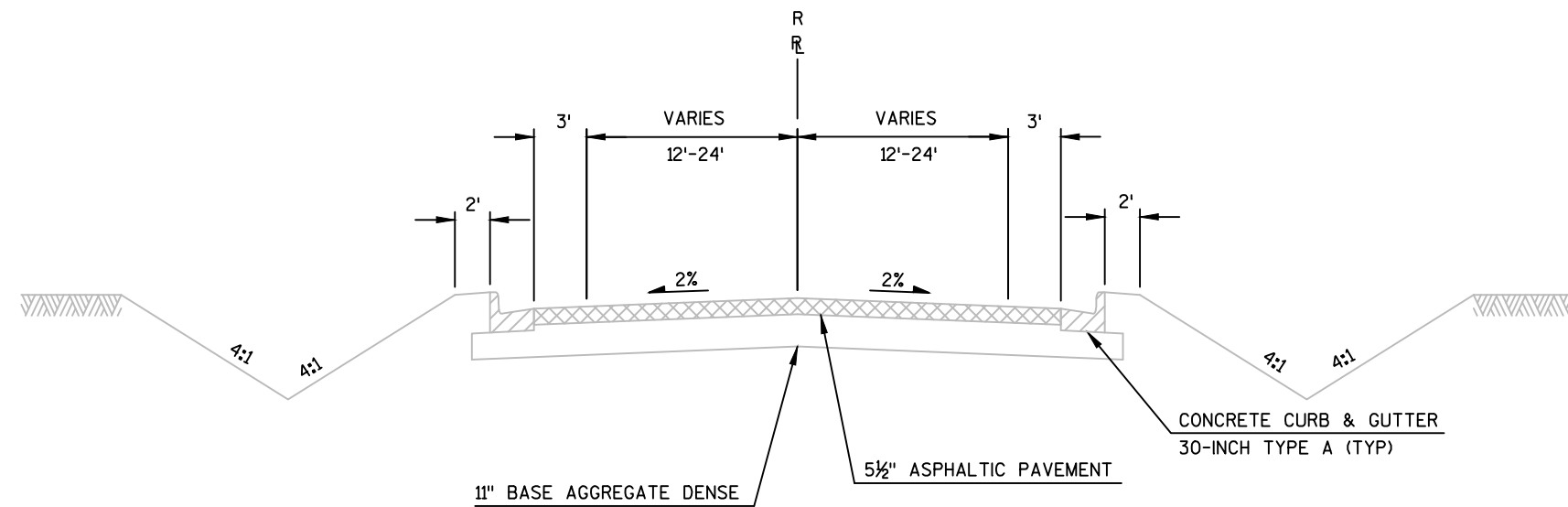
TYPICAL EXISTING SECTION
MIDWAY ROAD (CTH AP)
STA 15MEB+00 TO STA 25MEB+00

2

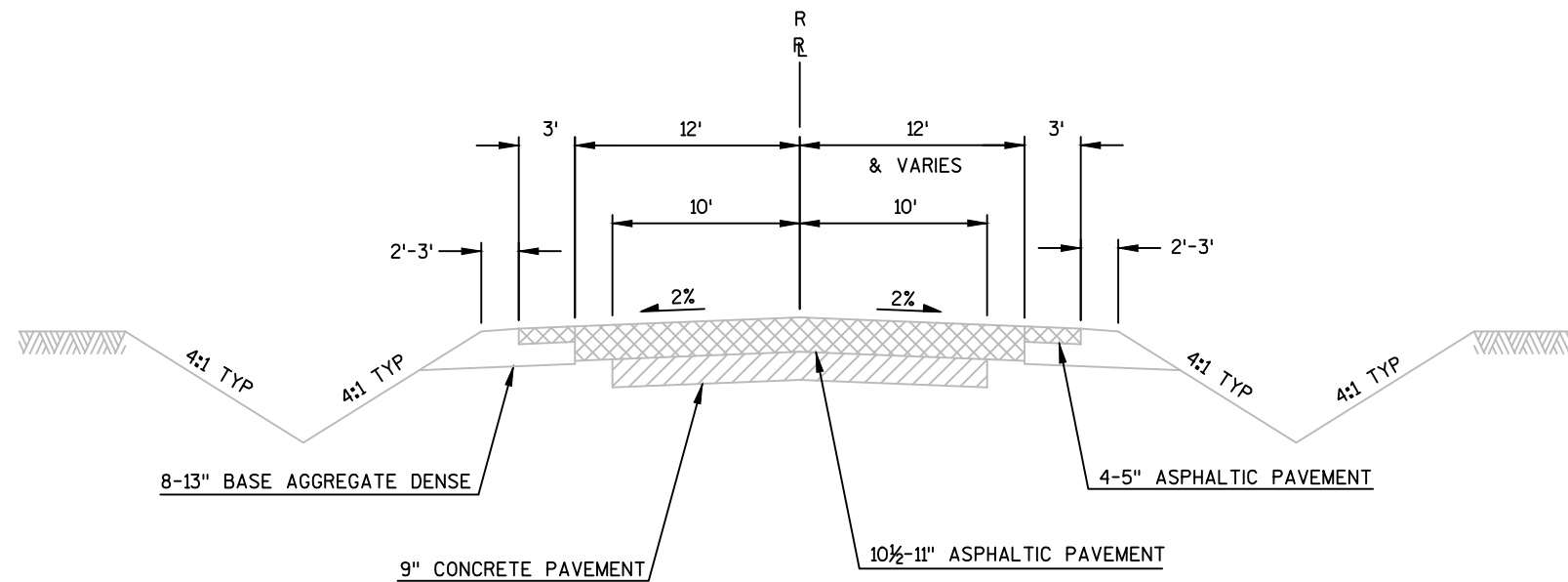
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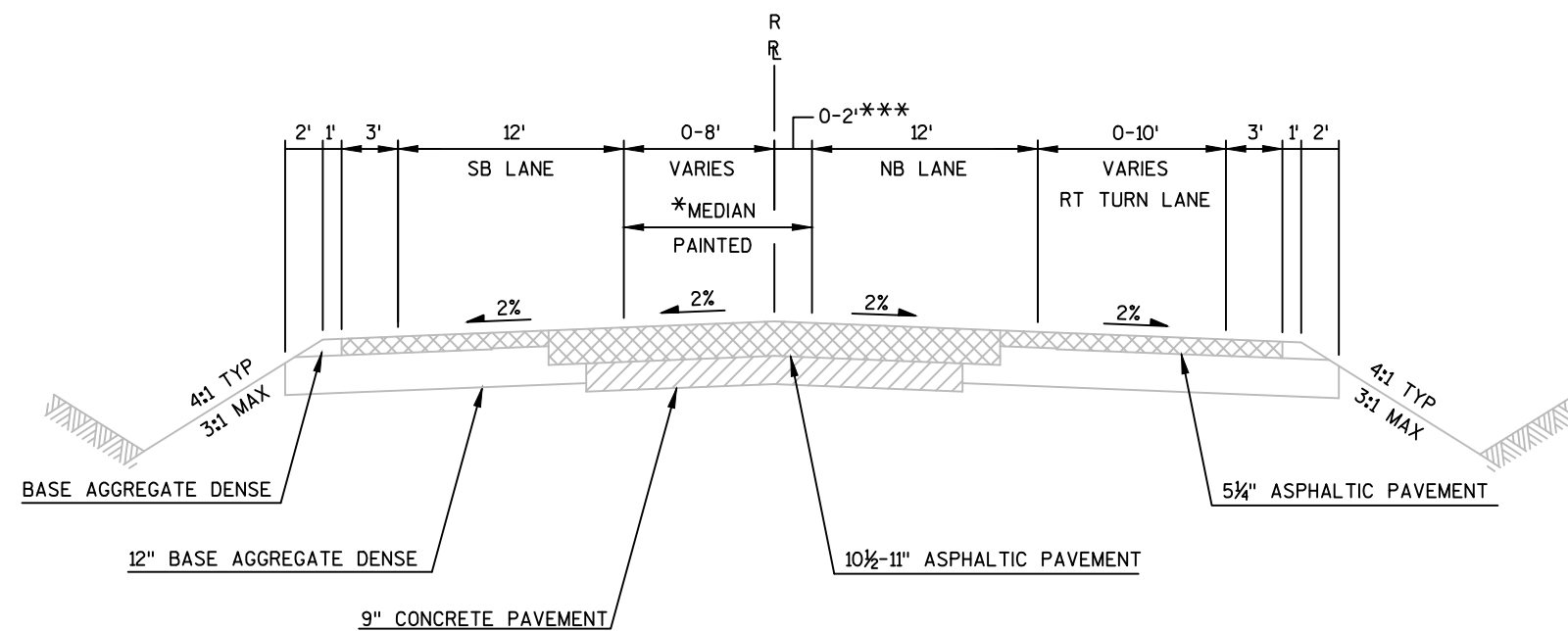
TYPICAL EXISTING SECTION
RACINE ROAD (CTH P)
STA 2R+39.34 TO STA 13R+53.95
STA 26R+28.28 TO STA 37R+58.59



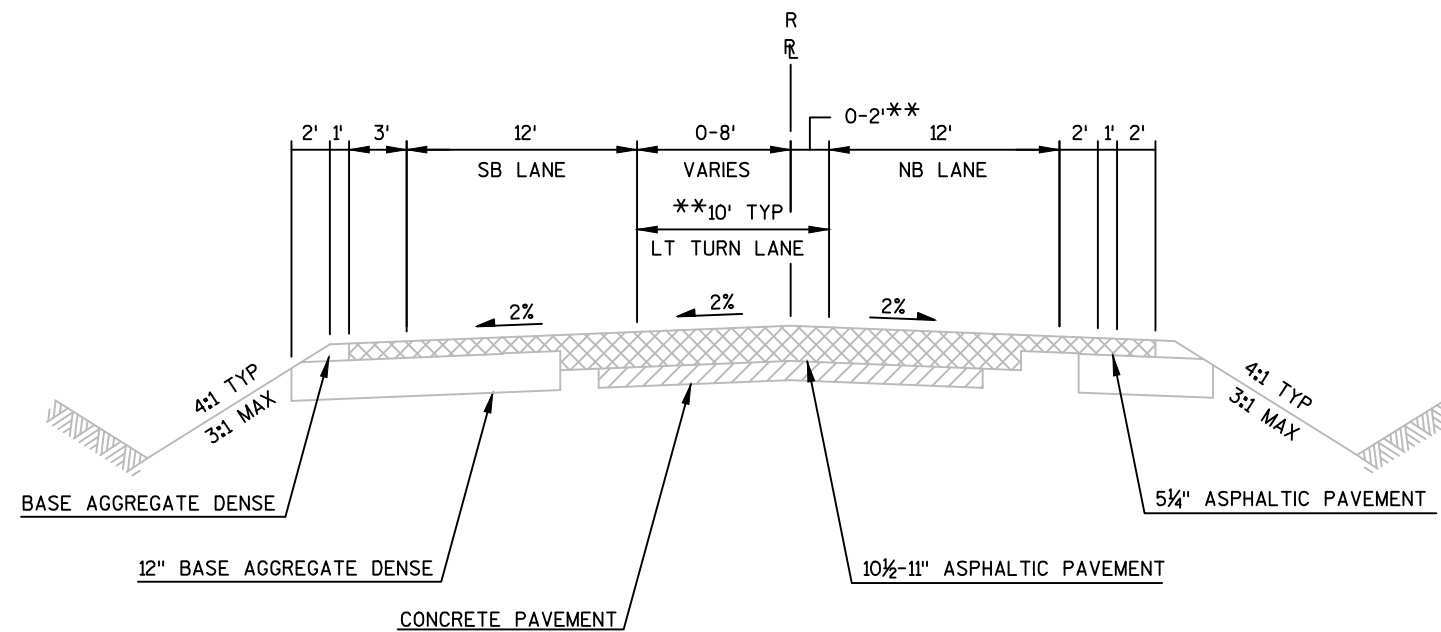
TYPICAL EXISTING SECTION
RACINE ROAD (CTH P)
STA 13R+53.95 TO STA 26R+28.28



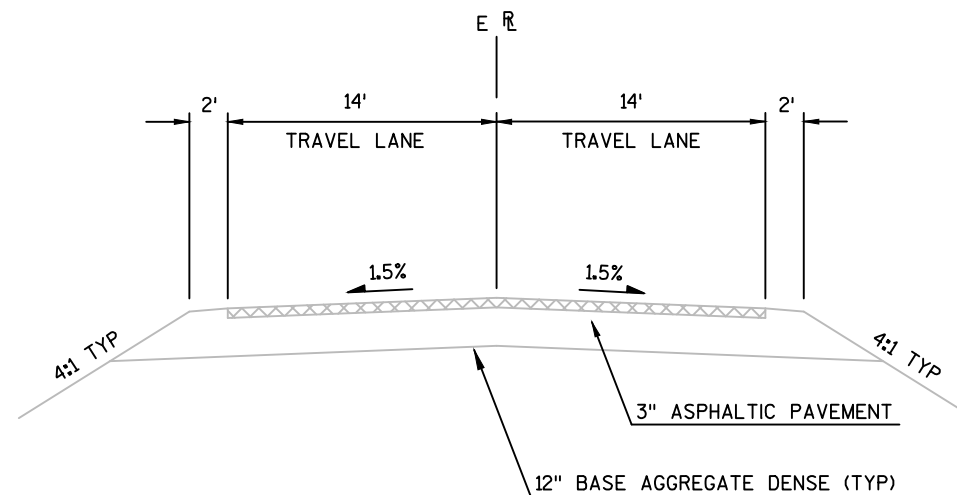
TYPICAL EXISTING SECTION
RACINE ROAD (CTH P)
STA 37R+58.59 TO STA 40R+64.13



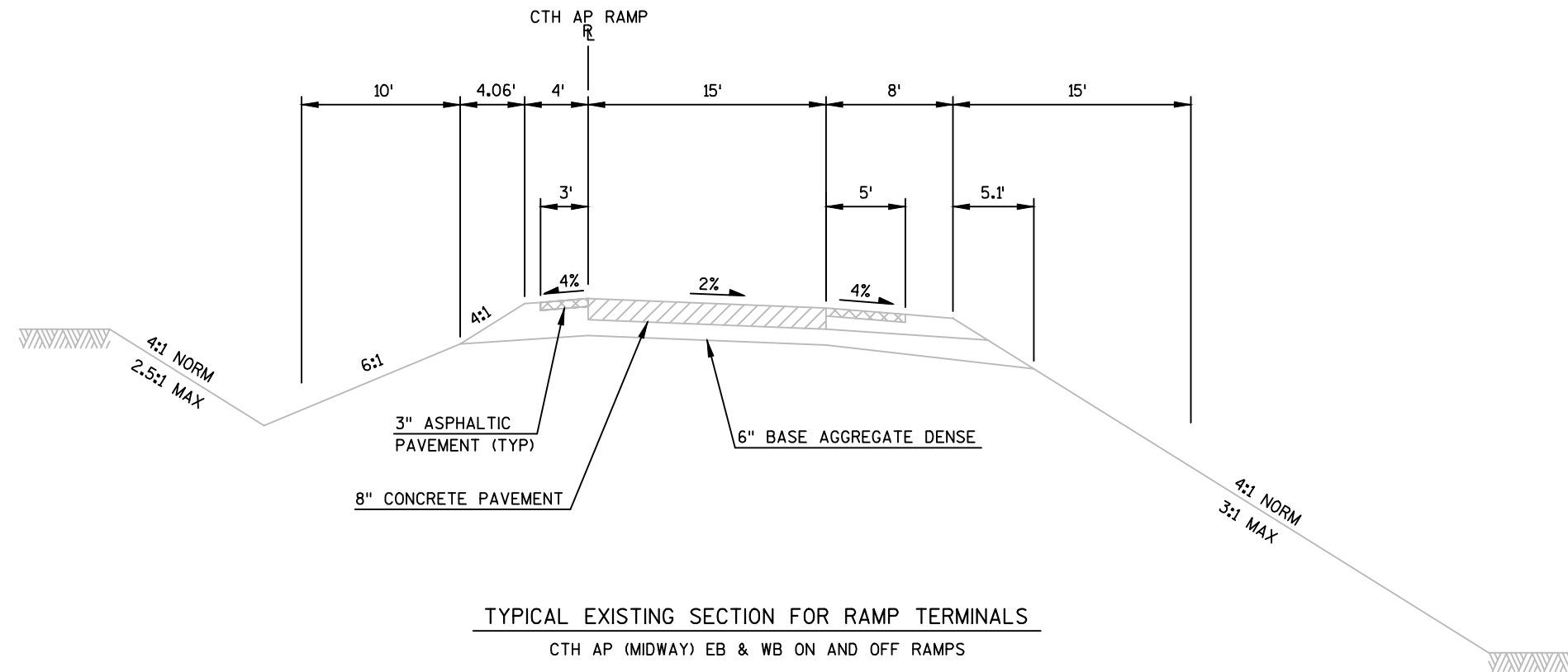
TYPICAL EXISTING SECTION
RACINE ROAD (CTH P)
STA 40R+64.13 TO STA 43R+70.41
*STA 42R+28.71 TO STA 42R+68.71
***STA 41R+76.04 TO STA 42R+53.67

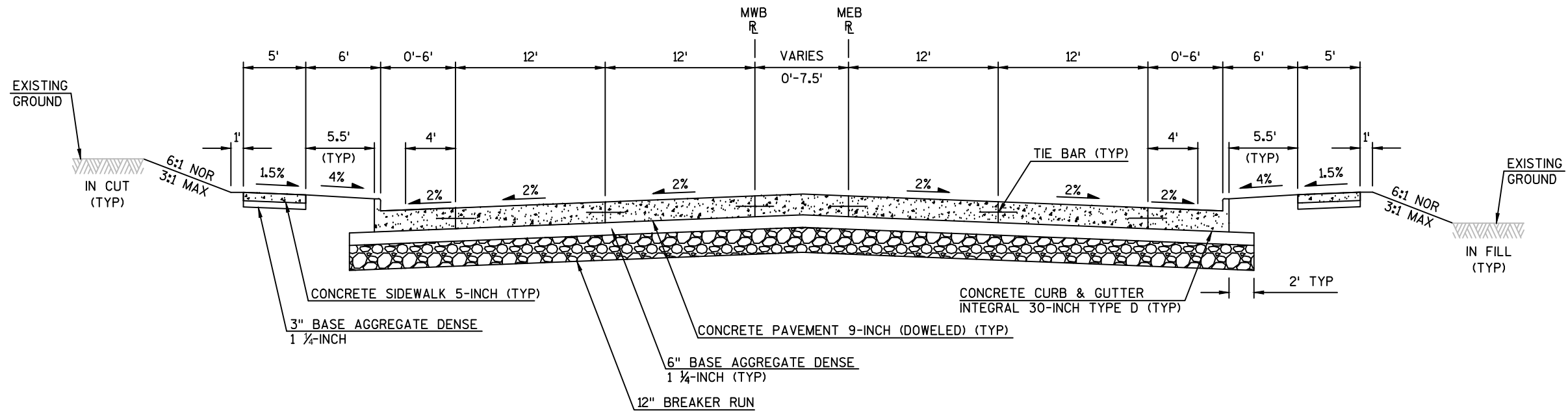


TYPICAL EXISTING SECTION
RACINE ROAD (CTH P)
STA 43R+70.41 TO STA 45R+70.60
**STA 43R+70.41 TO STA 49R+57.04



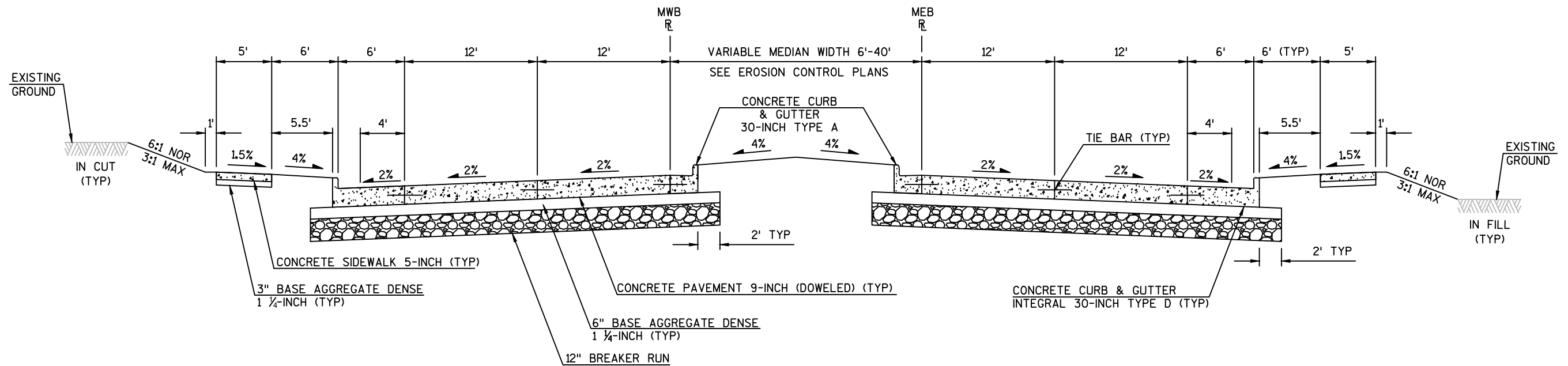
TYPICAL EXISTING SECTION
EARL STREET
STA 81E+39.47 TO STA 81E+58.91





TYPICAL FINISHED SECTION

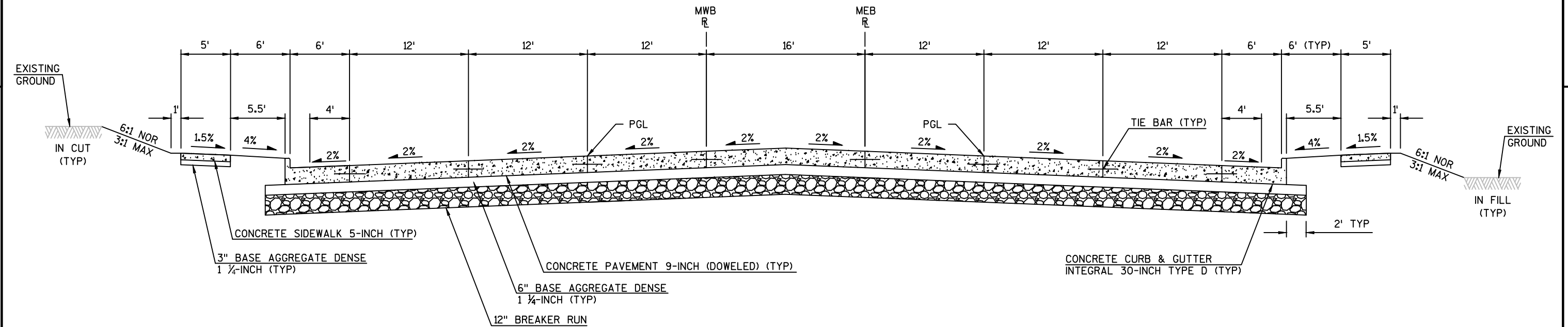
MIDWAY ROAD (CTH AP)
 STA 10MEB+32.00 TO STA 12MEB+35.19
 STA 26MEB+65.36 TO STA 29MEB+76.68



TYPICAL FINISHED SECTION

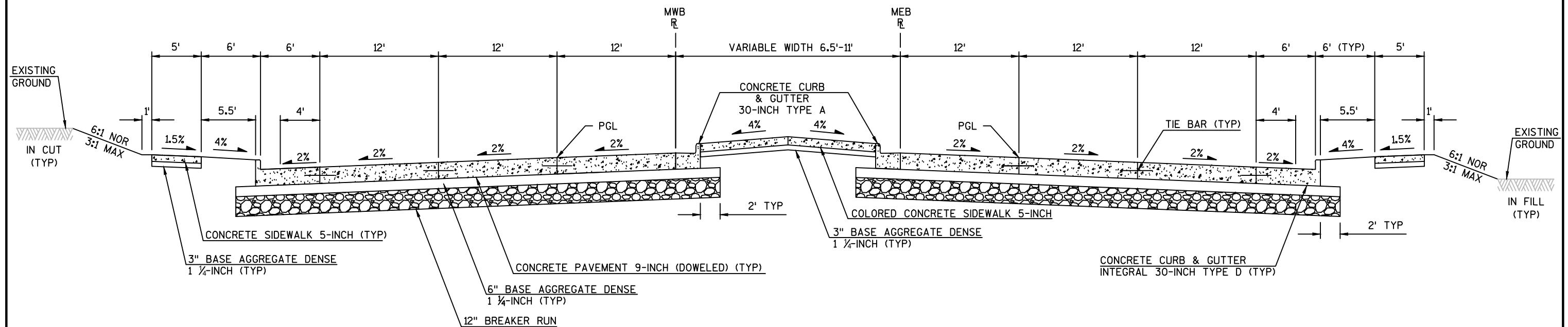
MIDWAY ROAD (CTH AP)
 STA 12MEB+35.19 TO STA 19MEB+05.06

2



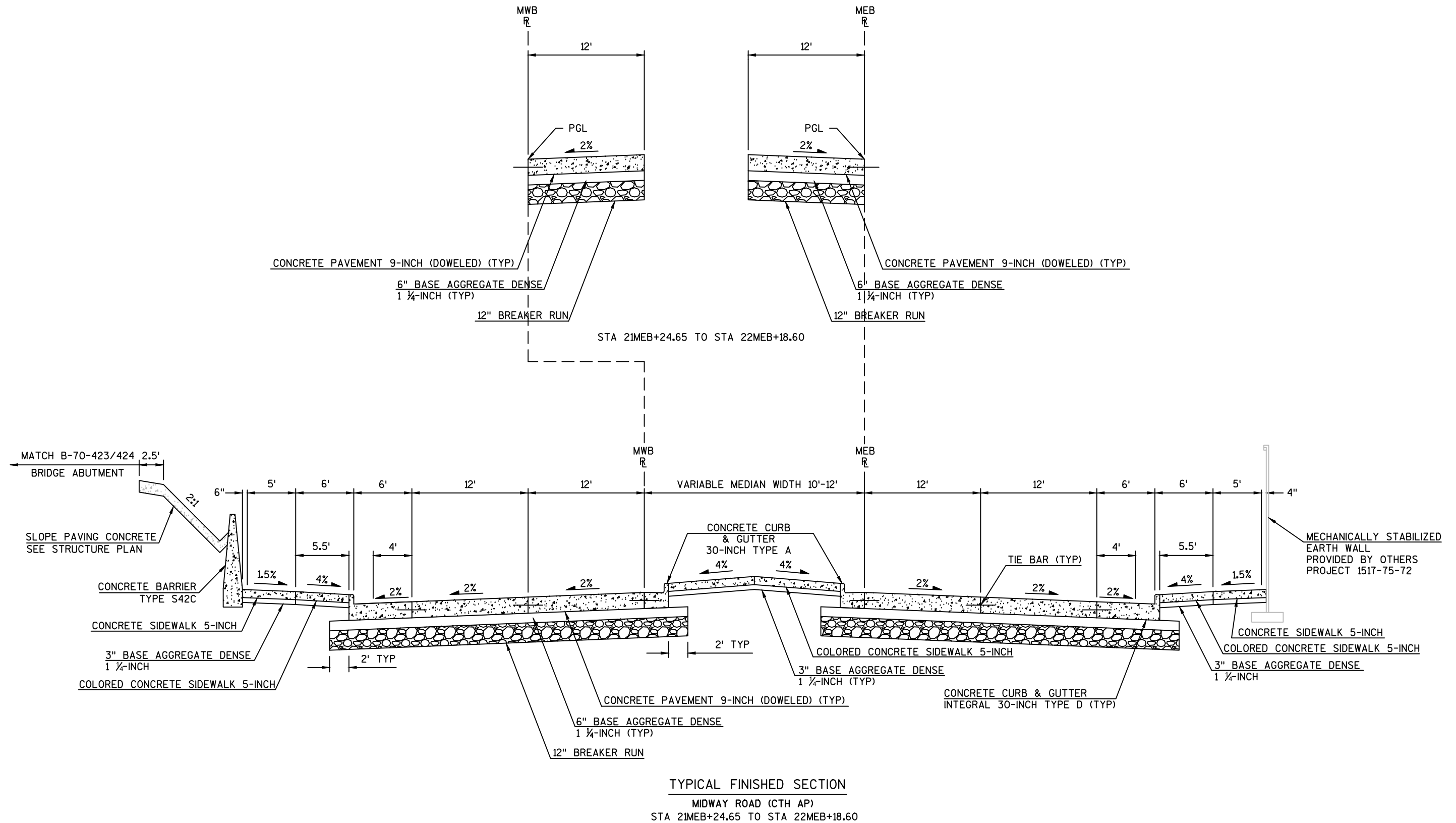
TYPICAL FINISHED SECTION

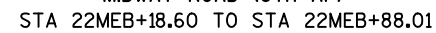
MIDWAY ROAD (CTH AP)
STA 19MEB+05.06 TO STA 19MEB+55.85
STA 22MEB+99.87 TO STA 23MEB+73.94

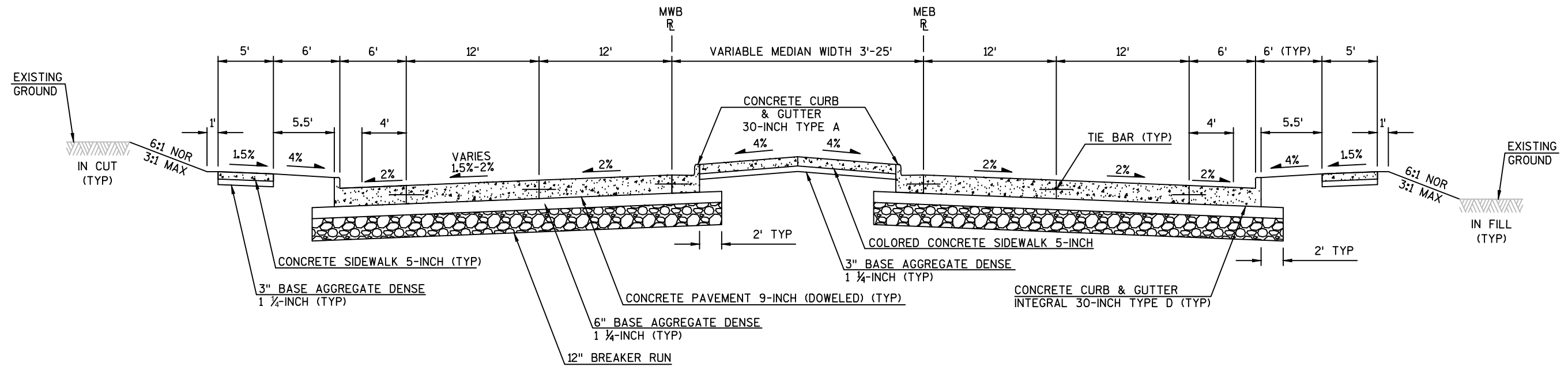


TYPICAL FINISHED SECTION

MIDWAY ROAD (CTH AP)
STA 19MEB+55.85 TO STA 21MEB+24.65
STA 22MEB+88.01 TO STA 22MEB+99.87

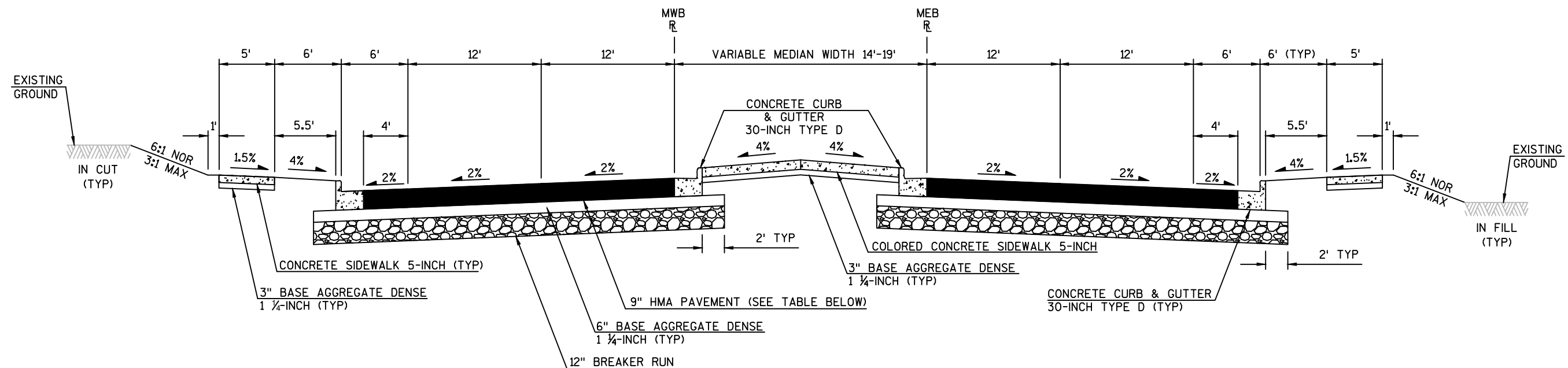






TYPICAL FINISHED SECTION

MIDWAY ROAD (CTH AP)
STA 23MEB+73.94 TO STA 24MEB+46.06
STA 25MEB+61.74 TO STA 26MEB+65.36



TYPICAL FINISHED SECTION

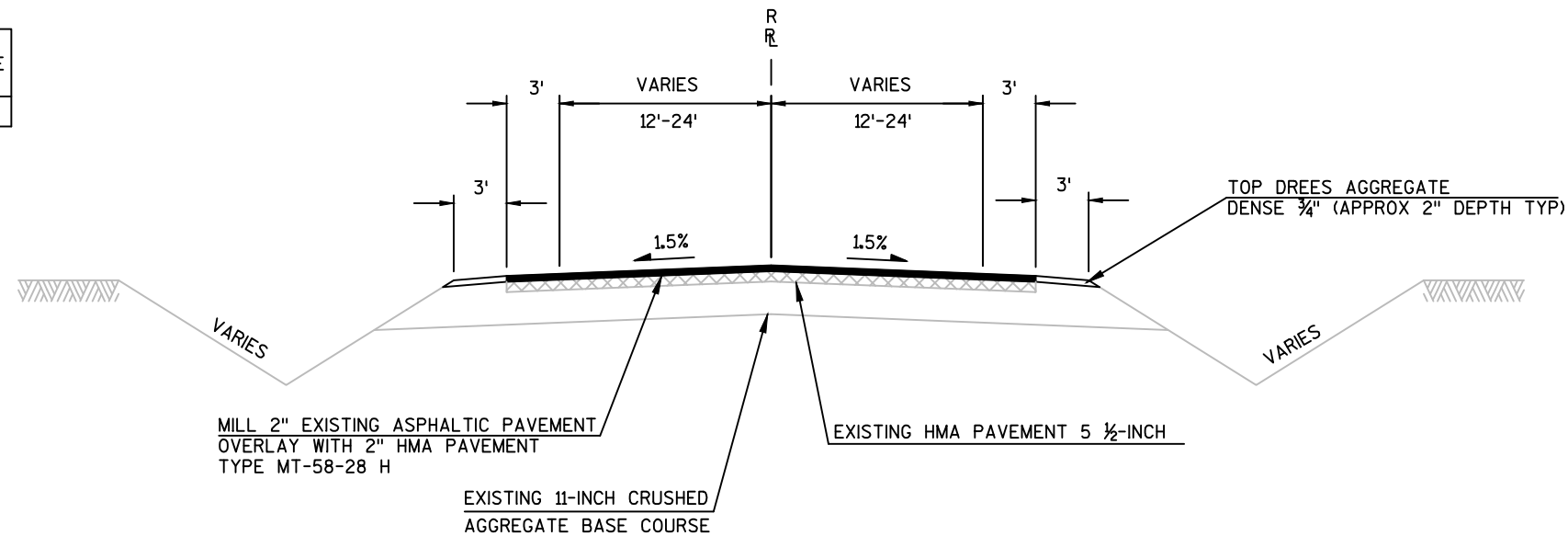
MIDWAY ROAD (CTH AP)
STA 24MEB+46.06 TO STA 25MEB+61.74

CONSTRUCT HMA PAVEMENT WITH THE FOLLOWING LAYERS AND GRADATIONS

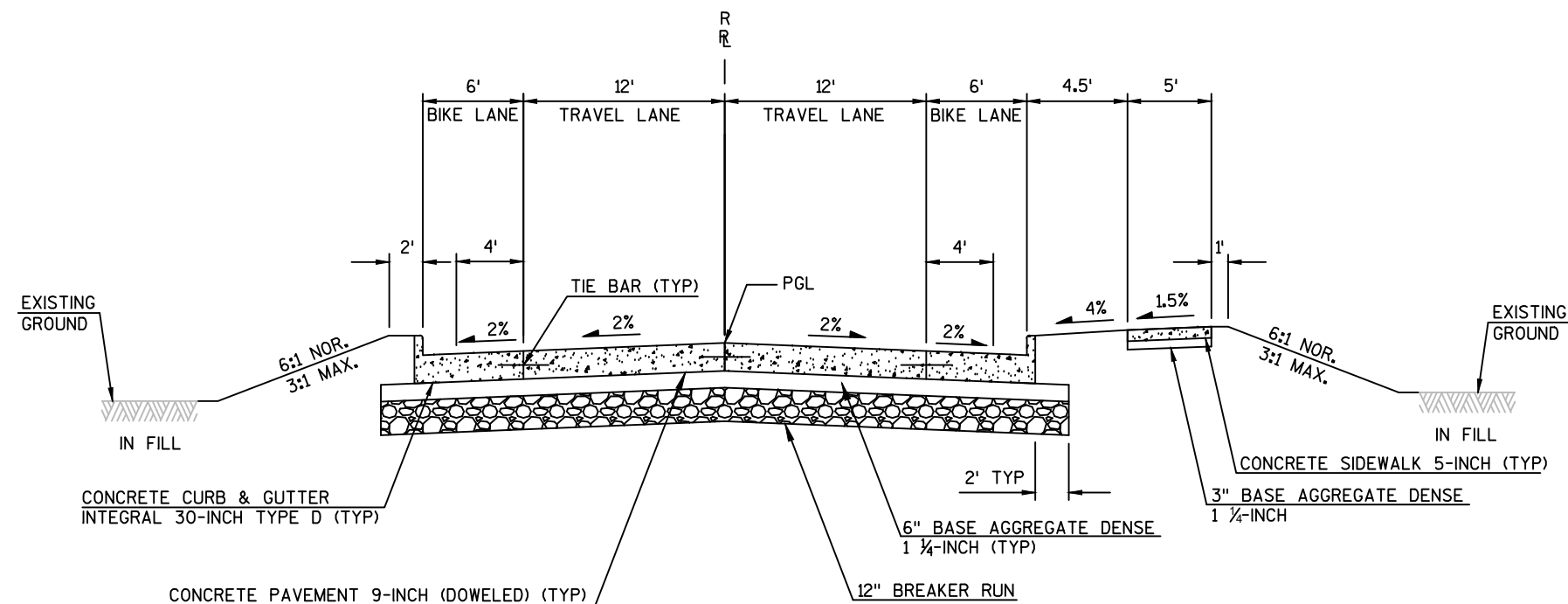
LAYERS	TOTAL LAYER PAVEMENT THICKNESS	PAVEMENT TYPE
2" UPPER LAYER	9"	4 MT 58-28 H
3" LOWER LAYER		3 MT 58-28 S
4" LOWER LAYER		

CONSTRUCT HMA PAVEMENT WITH THE
FOLLOWING LAYERS AND GRADATIONS

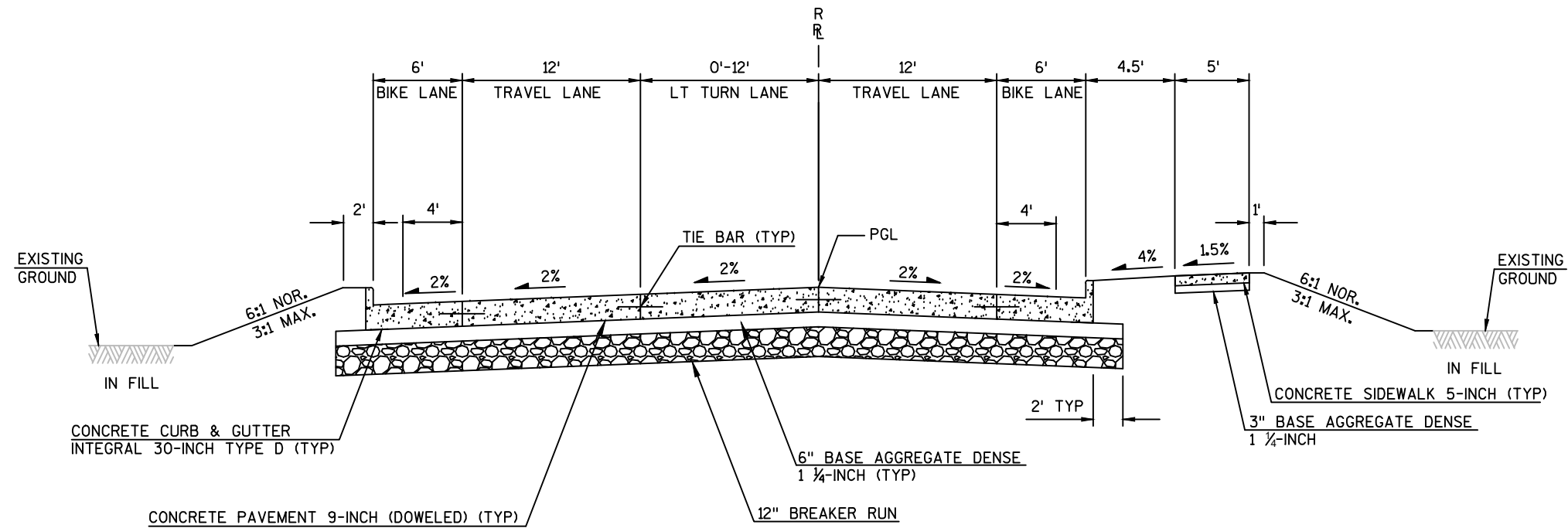
LAYERS	TOTAL LAYER PAVEMENT THICKNESS	PAVEMENT TYPE
2" UPPER LAYER	2"	4 MT 58-28 H



TYPICAL FINISHED SECTION
RACINE ROAD (CTH P)
STA 2R+39.34 TO STA 37R+58.59

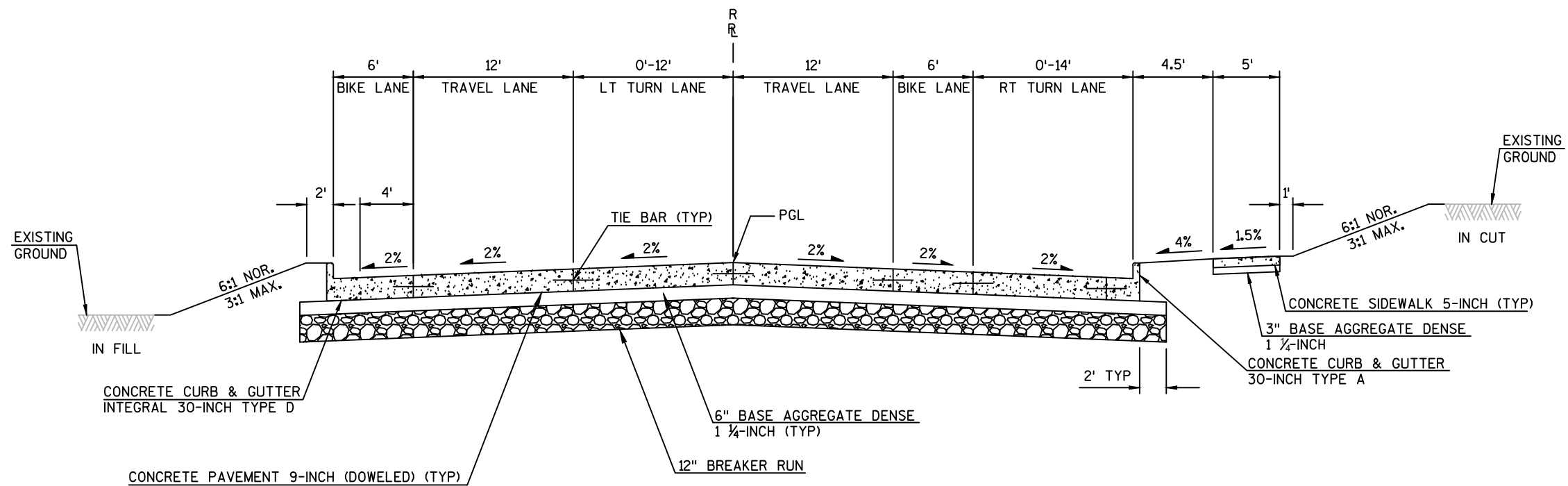


TYPICAL FINISHED SECTION
RACINE ROAD (CTH P)
STA 37R+58.59 TO STA 39R+00.00



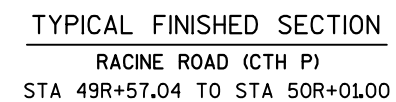
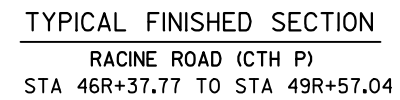
TYPICAL FINISHED SECTION

RACINE ROAD (CTH P)
STA 39R+00.00 TO STA 40R+02.95
STA 44R+75.01 TO STA 46R+37.77



TYPICAL FINISHED SECTION

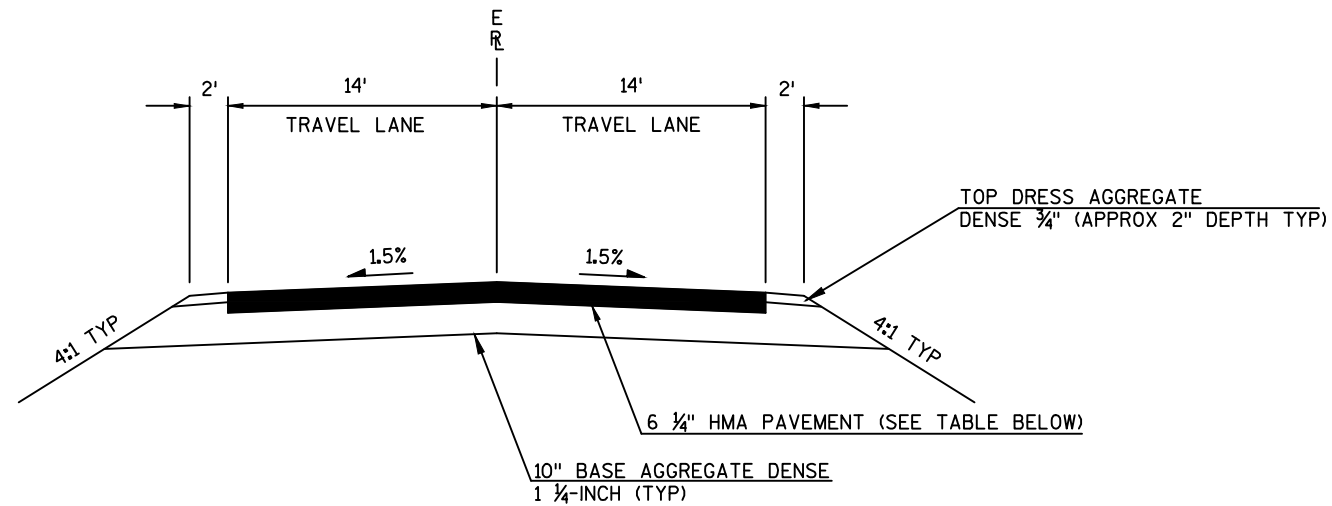
RACINE ROAD (CTH P)
STA 40R+02.95 TO STA 44R+75.01



LAYERS	TOTAL LAYER PAVEMENT THICKNESS	PAVEMENT TYPE
1¾" UPPER LAYER	6¼"	4 MT 58-28 H
2¼" LOWER LAYER		3 MT 58-28 S
2½" LOWER LAYER		

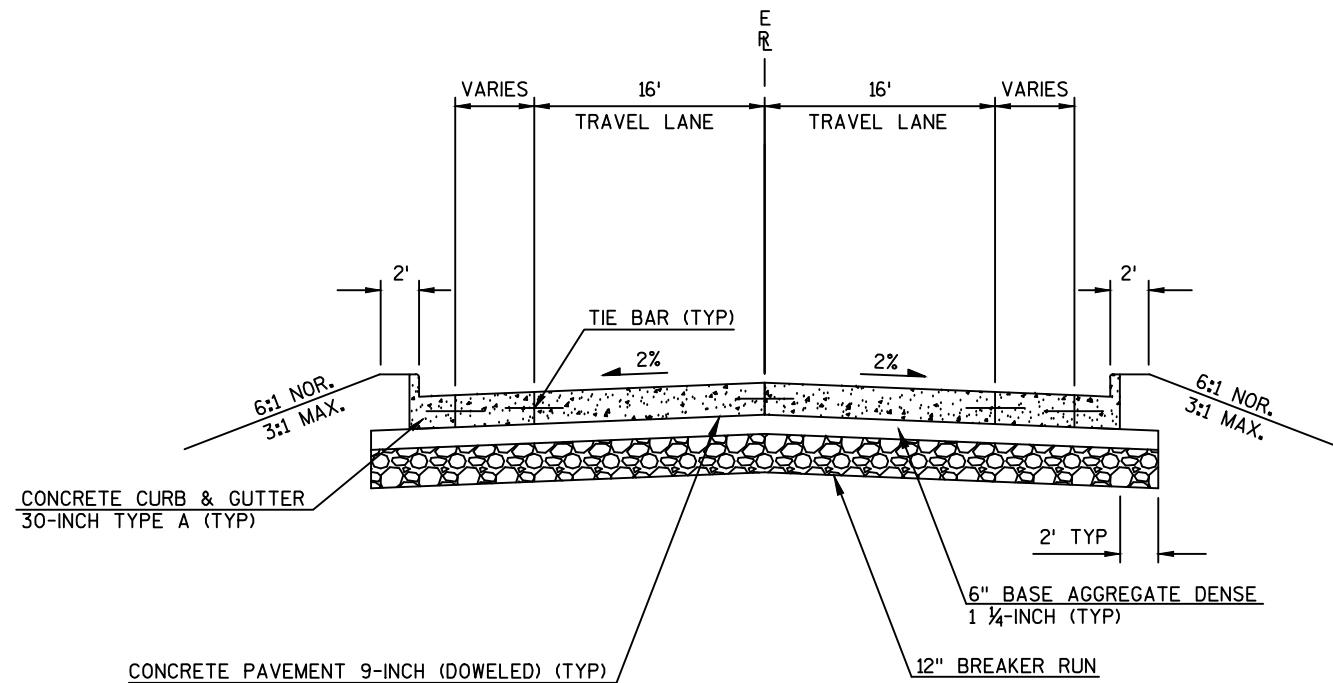
CONSTRUCT HMA PAVEMENT WITH THE
FOLLOWING LAYERS AND GRADATIONS

LAYERS	TOTAL LAYER PAVEMENT THICKNESS	PAVEMENT TYPE
1 3/4" UPPER LAYER	6 1/4"	4 MT 58-28 H
2 1/4" LOWER LAYER		3 MT 58-28 S
2 1/4" LOWER LAYER		



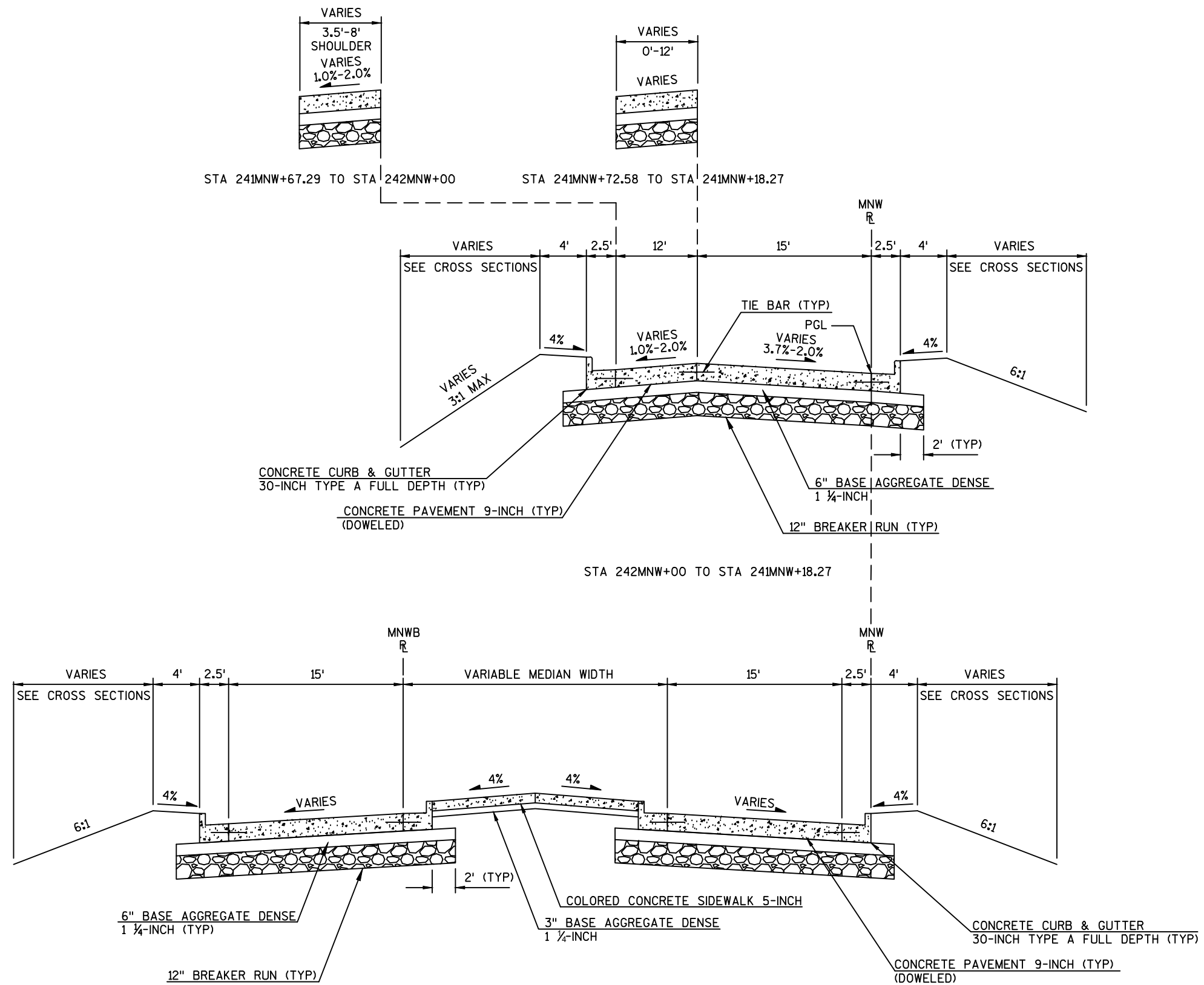
TYPICAL FINISHED SECTION

EARL STREET
STA 81E+39.47 TO STA 81E+58.91



TYPICAL FINISHED SECTION

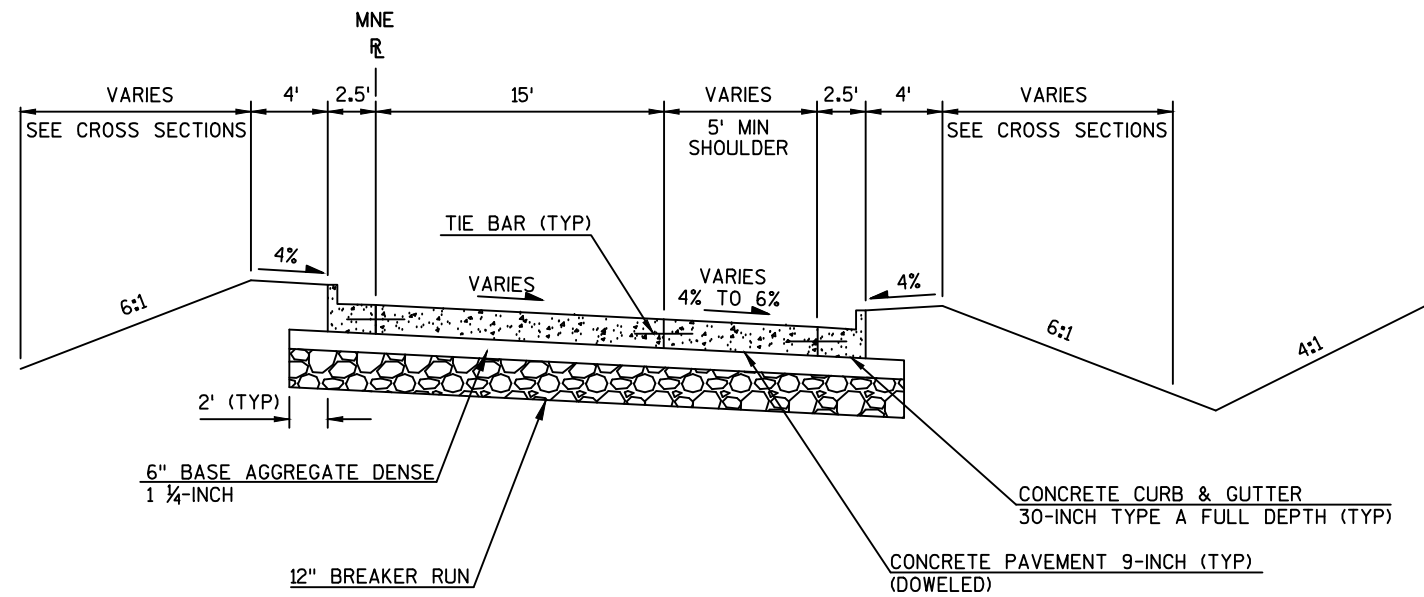
EARL STREET
STA 81E+58.91 TO STA 81E+95.98



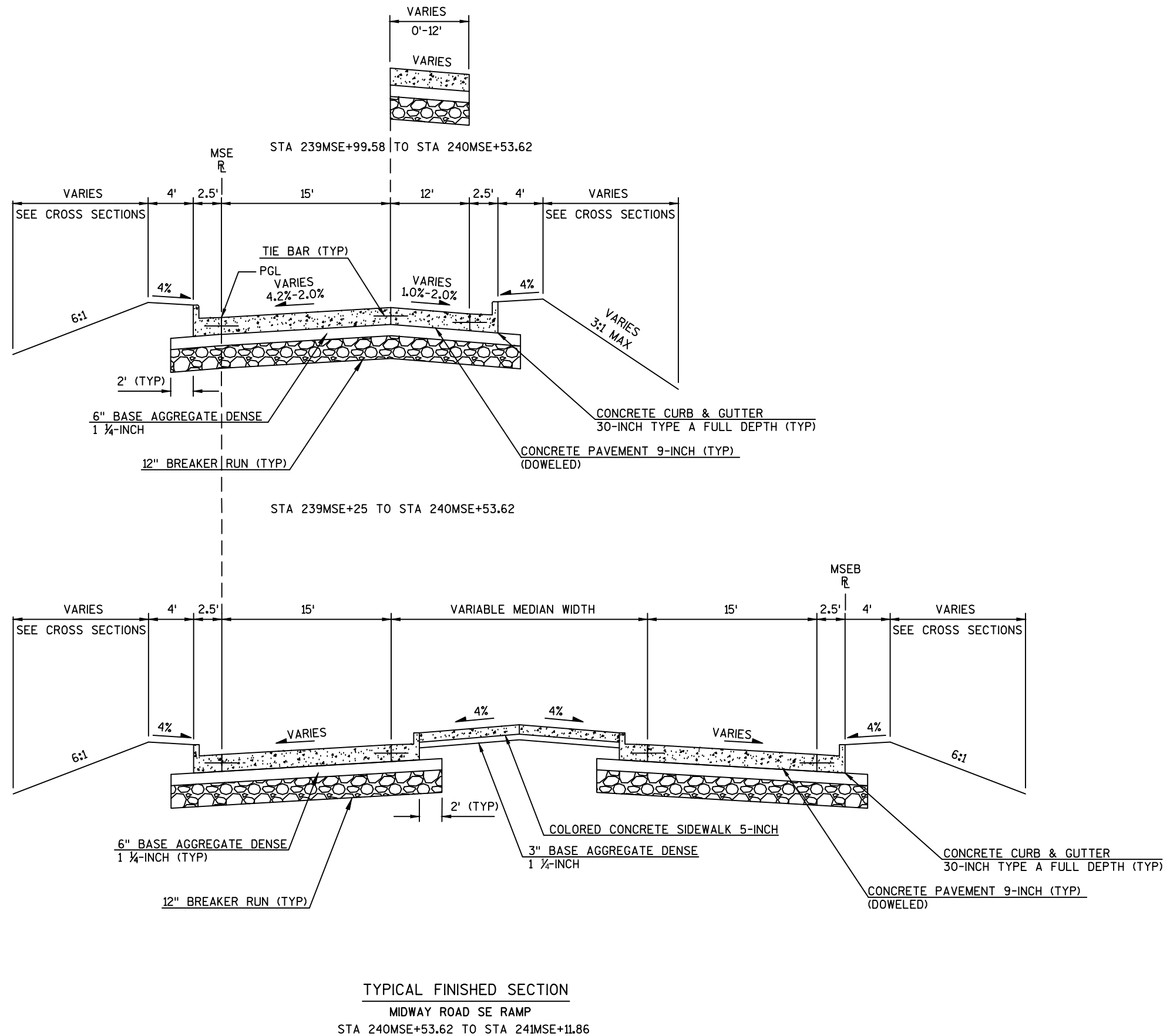
TYPICAL FINISHED SECTION

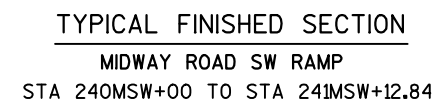
MIDWAY ROAD NW RAMP

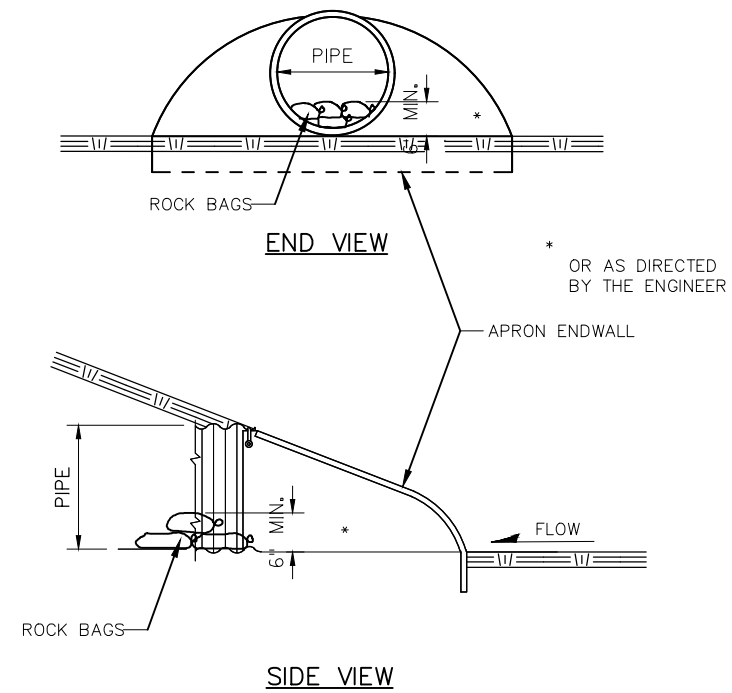
STA 241MNW+18.27 TO STA 240MNW+51.39



TYPICAL FINISHED SECTION
MIDWAY ROAD NE RAMP
STA 242MNE+53.51 TO STA 244MNE+50.00

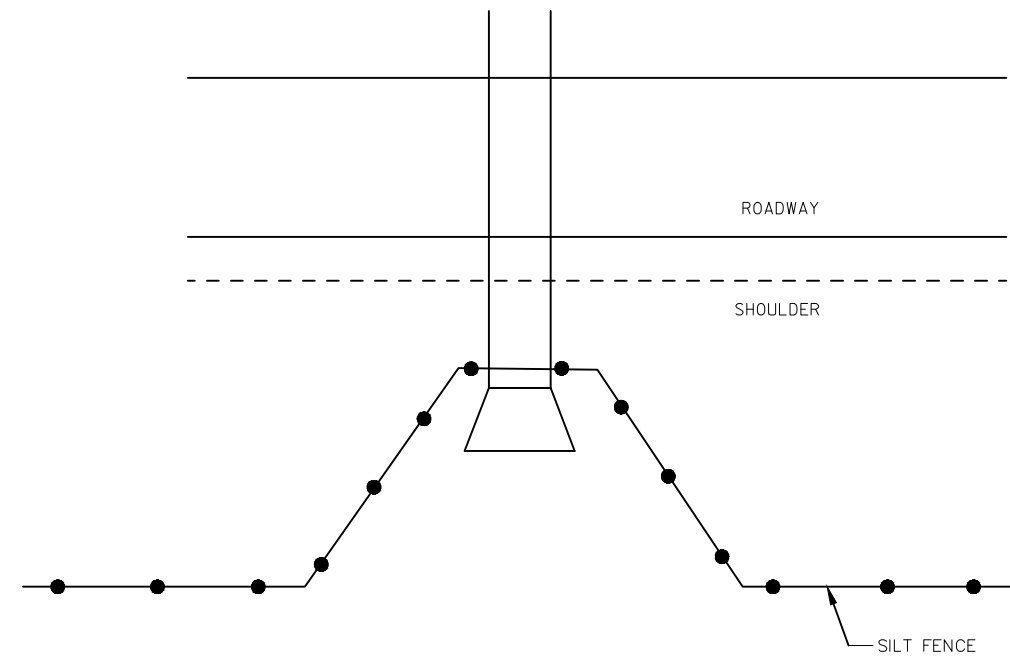






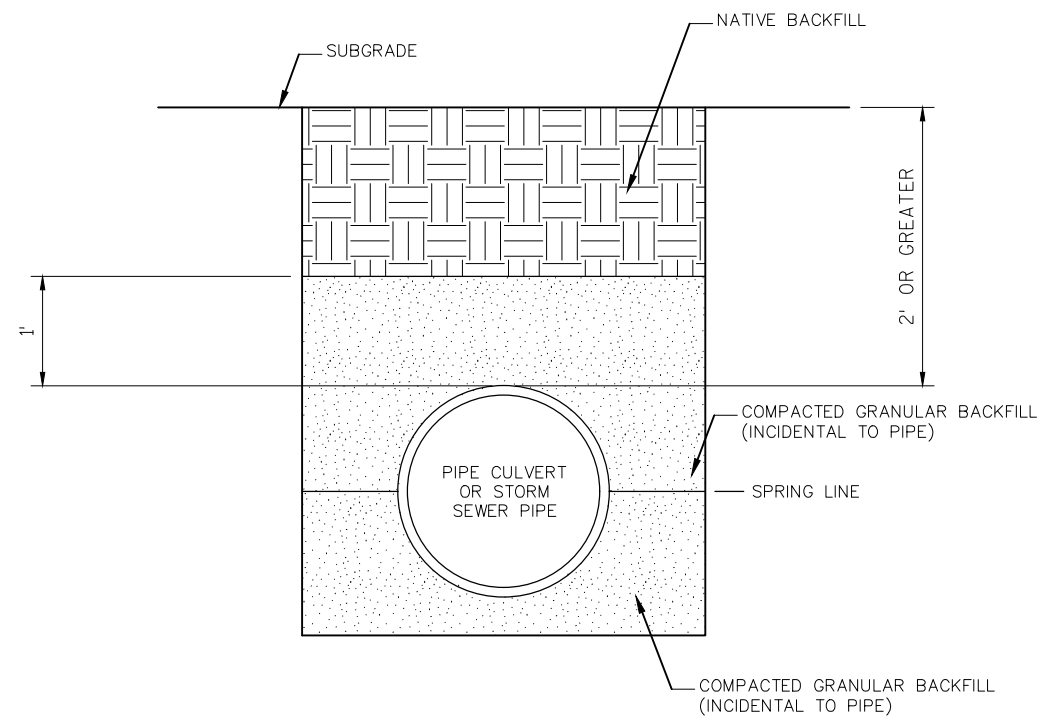
CULVERT PIPE CHECKS

AT INLET LOCATIONS



TYPICAL SILT FENCE DETAIL AT PIPE INLET

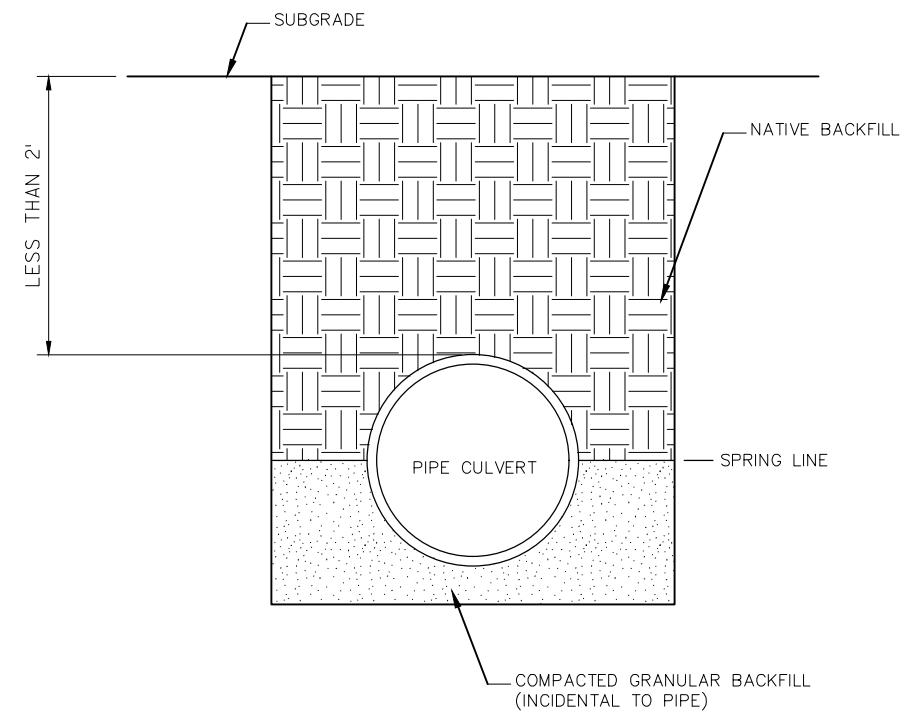
NOTE:
FOR FURTHER DETAIL SEE
SILT FENCE DETAIL SDD



TRENCH BACKFILL DETAIL FOR NORMAL DEPTH PIPE CULVERTS
AND STORM SEWER PIPE INSTALLATIONS

NOTES:

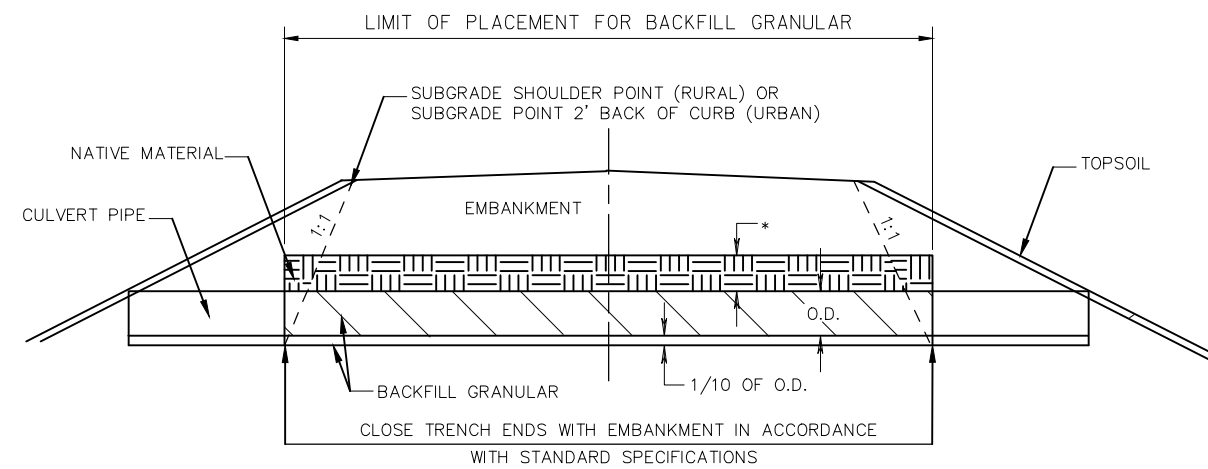
- (1) NATIVE BACKFILL SHALL BE FREE OF
LARGE LUMPS, CLODS, OR ROCK.



TRENCH BACKFILL DETAIL FOR SHALLOW PIPE CULVERTS

NOTES:

- (1) NATIVE BACKFILL SHALL BE FREE OF
LARGE LUMPS, CLODS, OR ROCK.



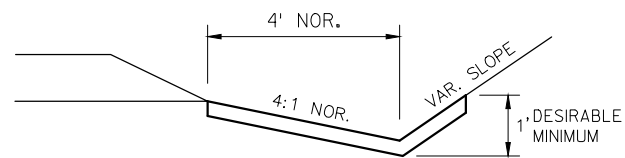
CULVERT BACKFILL DETAIL

NOTES:

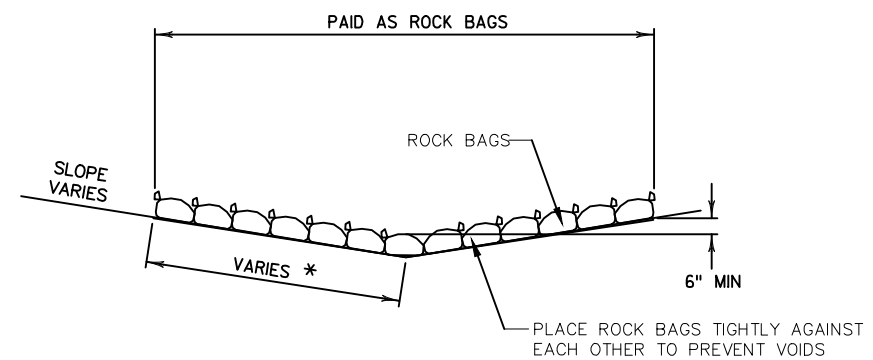
OD = OUTSIDE DIAMETER

* CULVERT PIPE IN NEW EMBANKMENT = 1' MIN

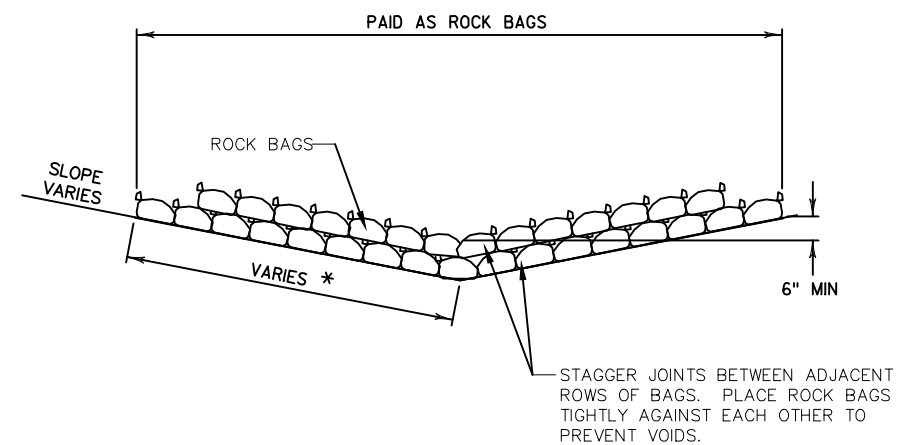
* CULVERT PIPE IN EXISTING EMBANKMENT = TO EXISTING GROUND ELEVATION



EROSION MAT DETAIL FOR DITCHES



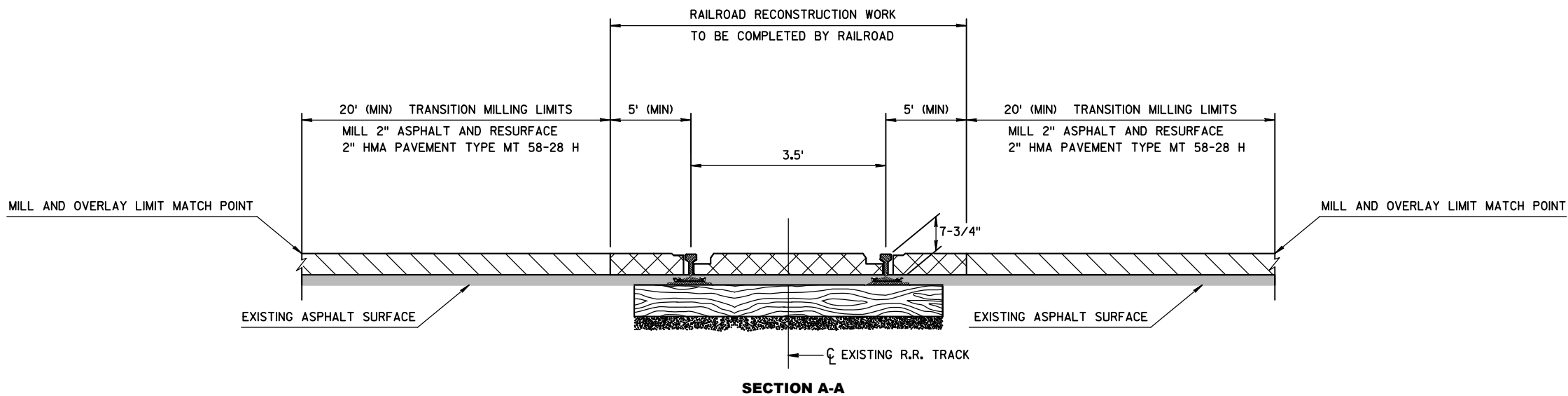
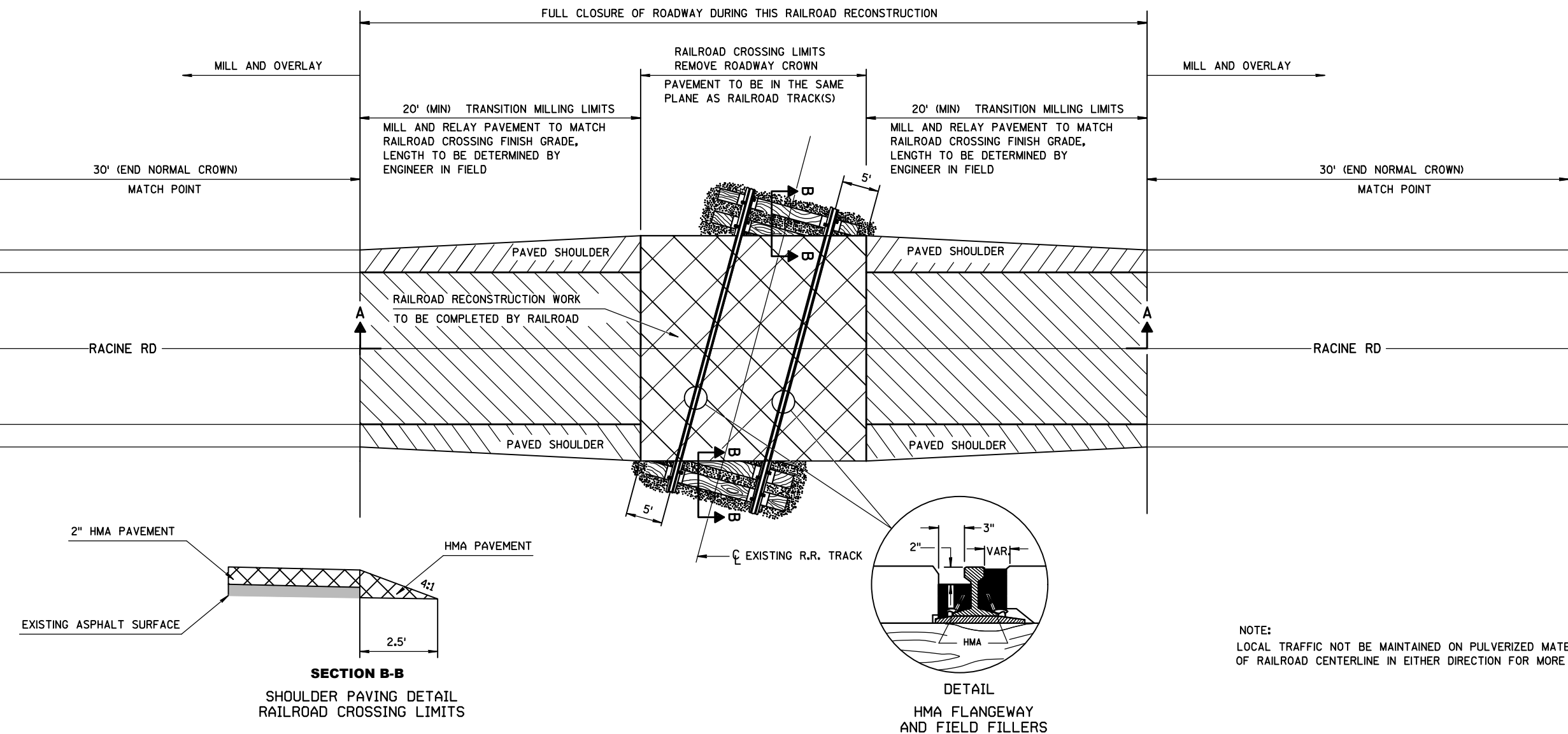
SIDE VIEW (SINGLE LAYER)

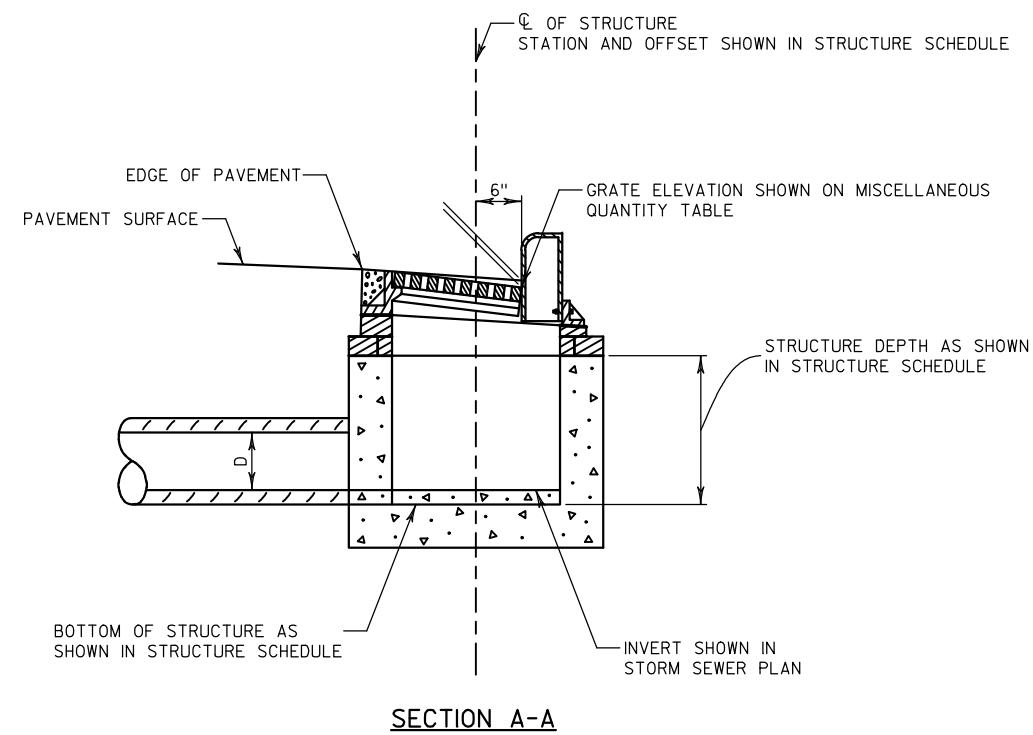
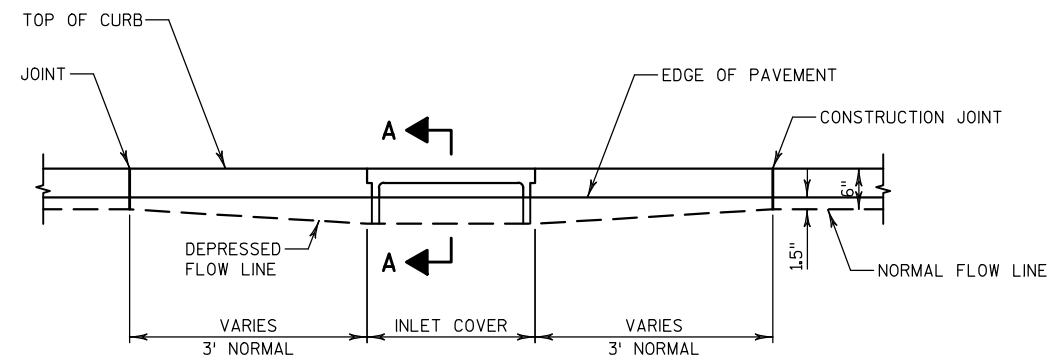


* LENGTH AND NUMBER OF BAGS MAY VARY
DEPENDING ON DESIRED DEPTH OF WATER POOL.

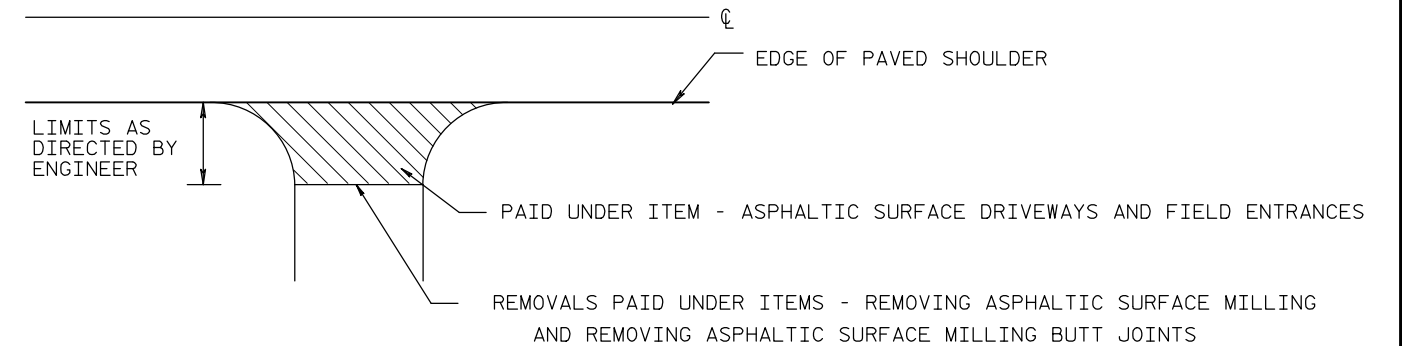
SIDE VIEW (DOUBLE LAYER)

TEMPORARY DITCH CHECK, ROCK BAGS.
SINGLE LAYER AND DOUBLE LAYER

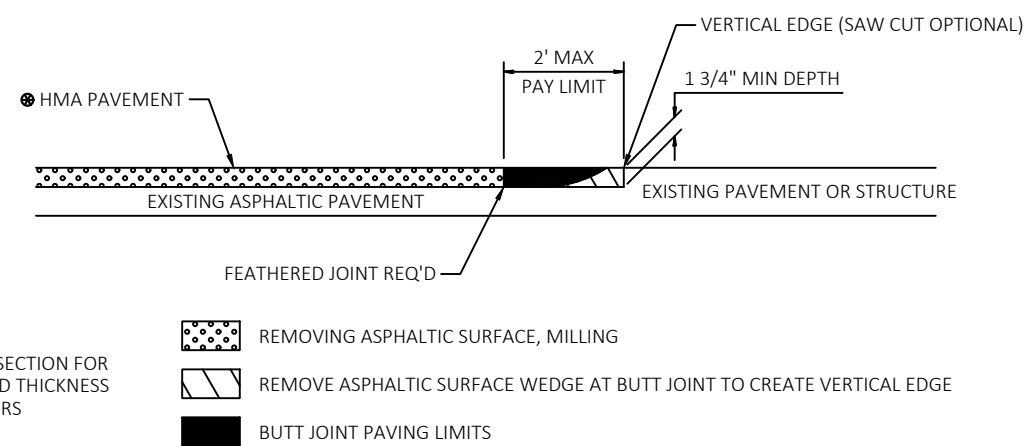




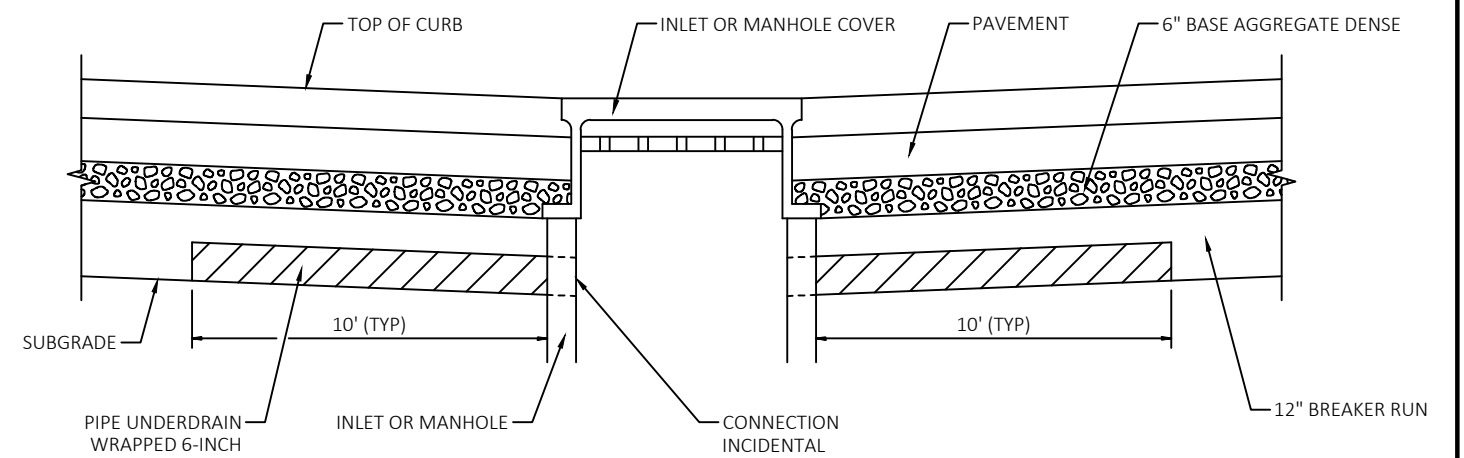
DETAIL OF CURB AND GUTTER AT INLETS



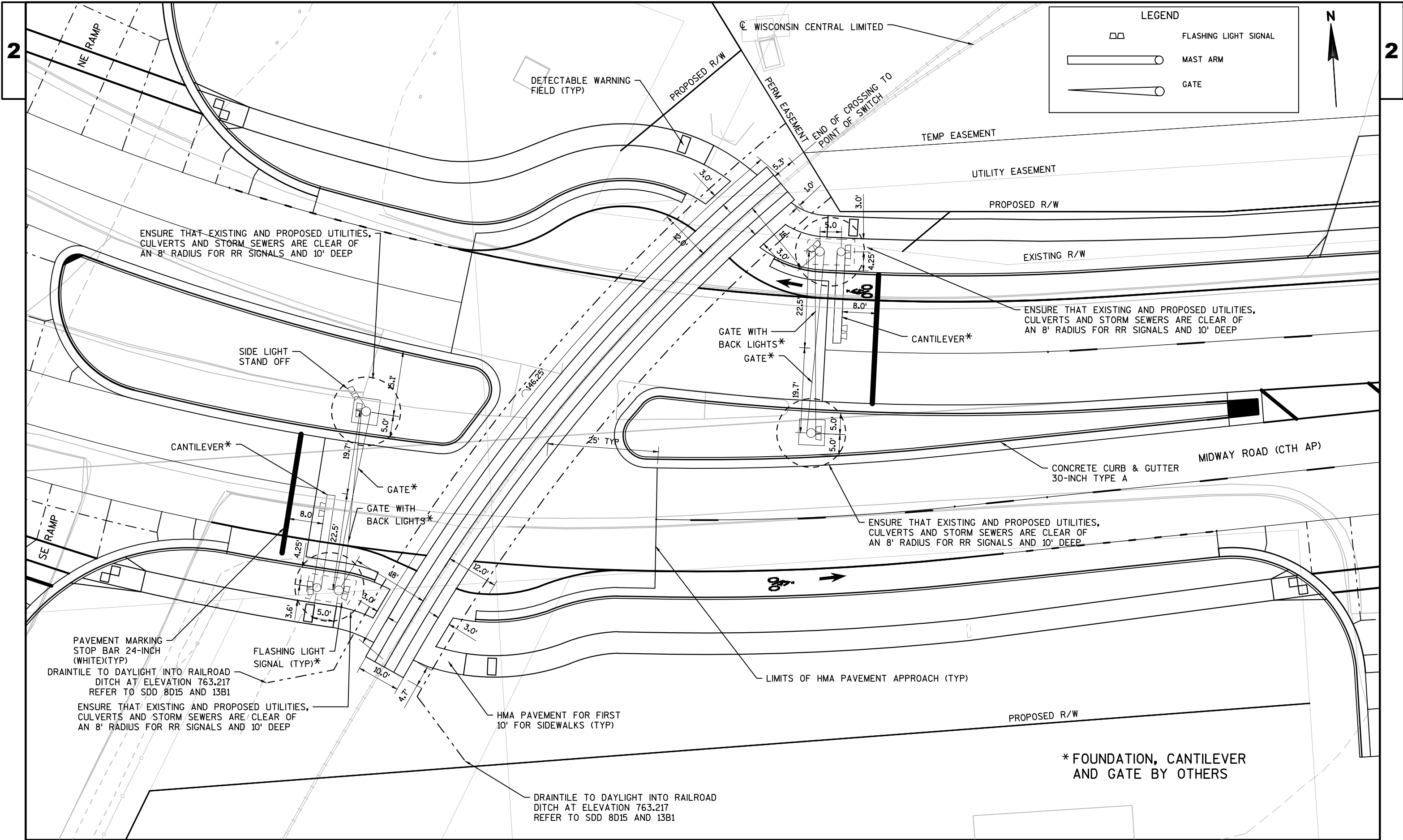
RURAL DRIVEWAY DETAIL - ASPHALT

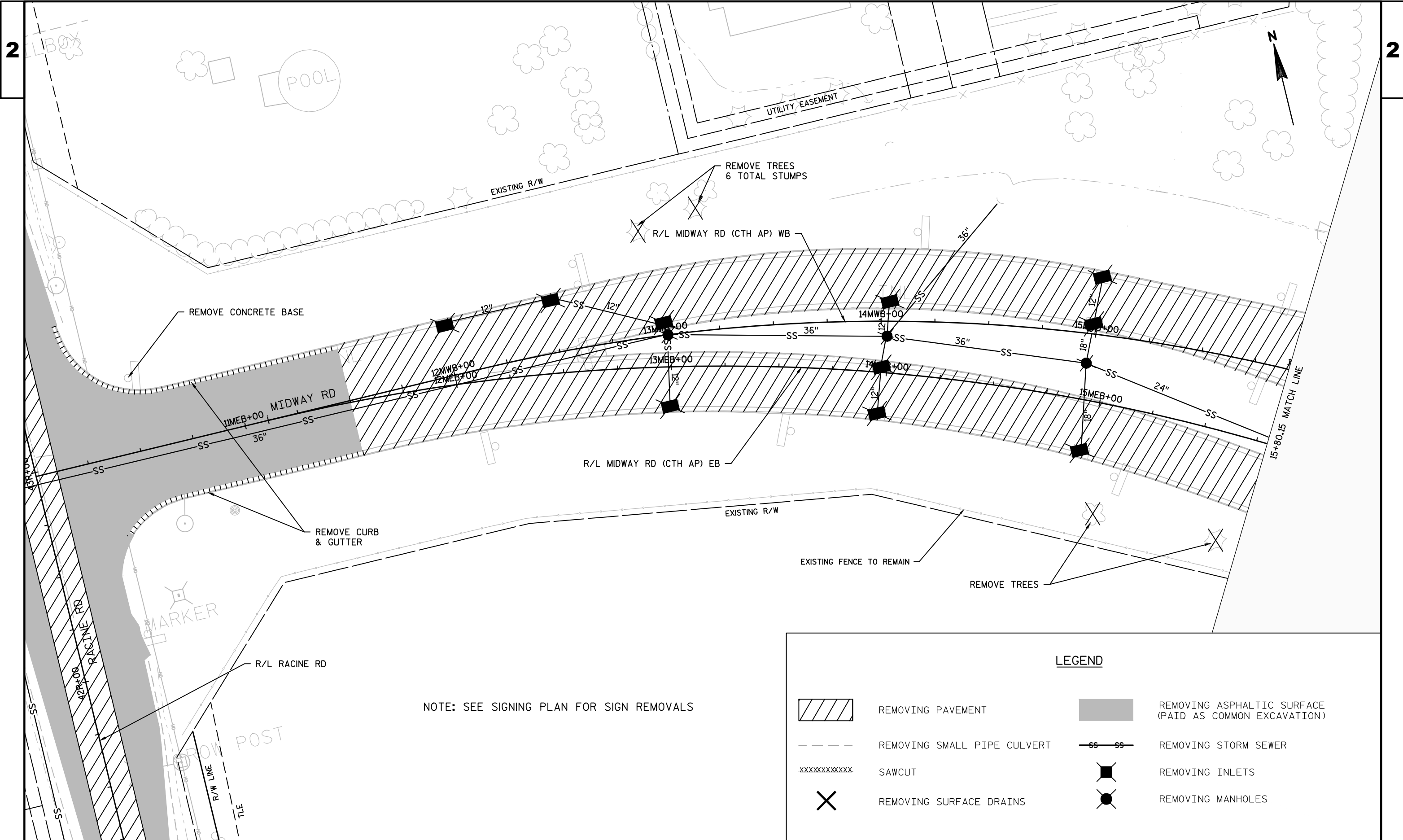


BUTT JOINT DETAIL FOR ASPHALTIC PAVEMENTS (NO PROFILE CHANGE)



PIPE UNDERDRAIN DETAIL





PROJECT NO:1517-75-77

HWY:STH 441/USH 10

COUNTY:WINNEBAGO

REMOVAL PLAN

SHEET

E

FILE NAME : S:\PDS\C3D\WIS441\15177570_72_77_85\SHEETSP\1517-75-77\021100-RM\NE-15177577-021100-RM.DWG
LAYOUT NAME - NE-15177577-021100-RM - NE-15177577-021101-RM

PLOT DATE : 11/20/2018 6:58 AM


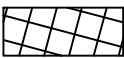


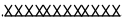



PLOT BY : MARTENS, JOHN M

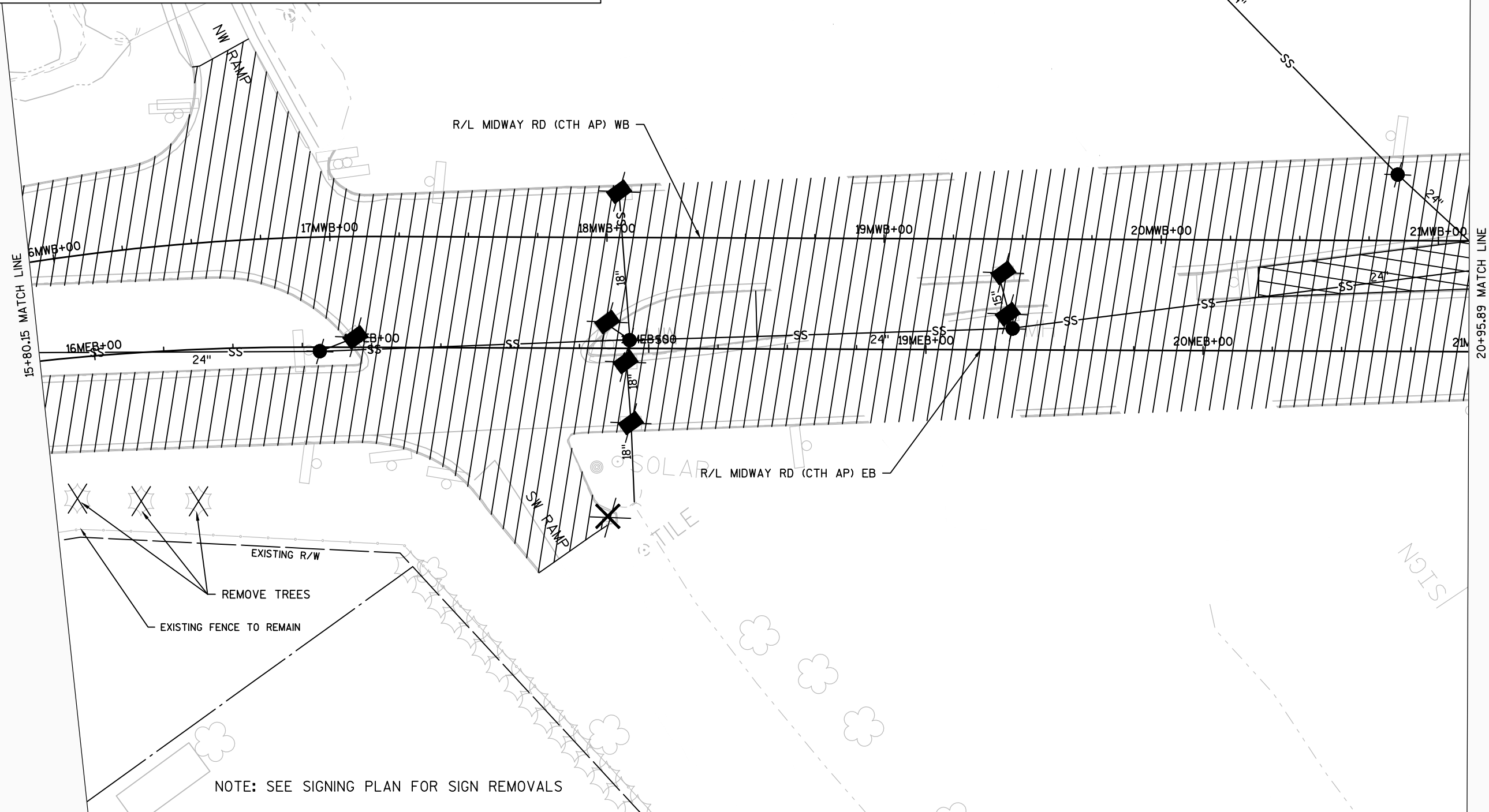
PLOT NAME :

PLOT SCALE : 1 IN:40 FT

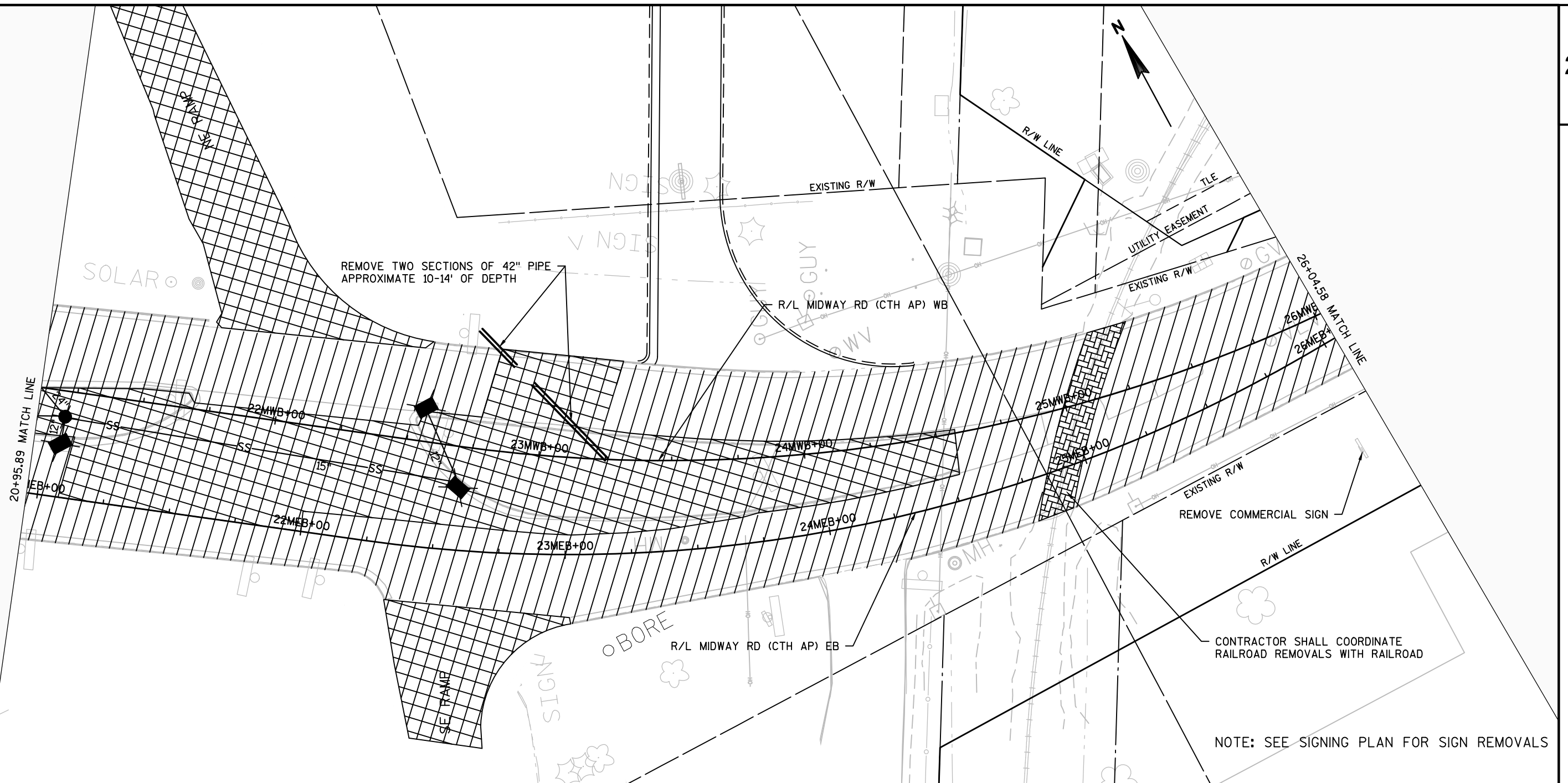
WISDOT/CADDs SHEET 42

LEGEND

	REMOVING PAVEMENT		PAVEMENT REMOVED UNDER PREVIOUS CONTRACT
	REMOVING SMALL PIPE CULVERT		REMOVING STORM SEWER
	SAWCUT		REMOVING INLETS
	REMOVING SURFACE DRAINS		REMOVING MANHOLES



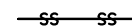
NOTE: SEE SIGNING PLAN FOR SIGN REMOVALS

**LEGEND**

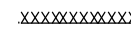
REMOVING PAVEMENT

PAVEMENT REMOVED UNDER
PREVIOUS CONTRACT

REMOVING SMALL PIPE CULVERT



REMOVING STORM SEWER



SAWCUT



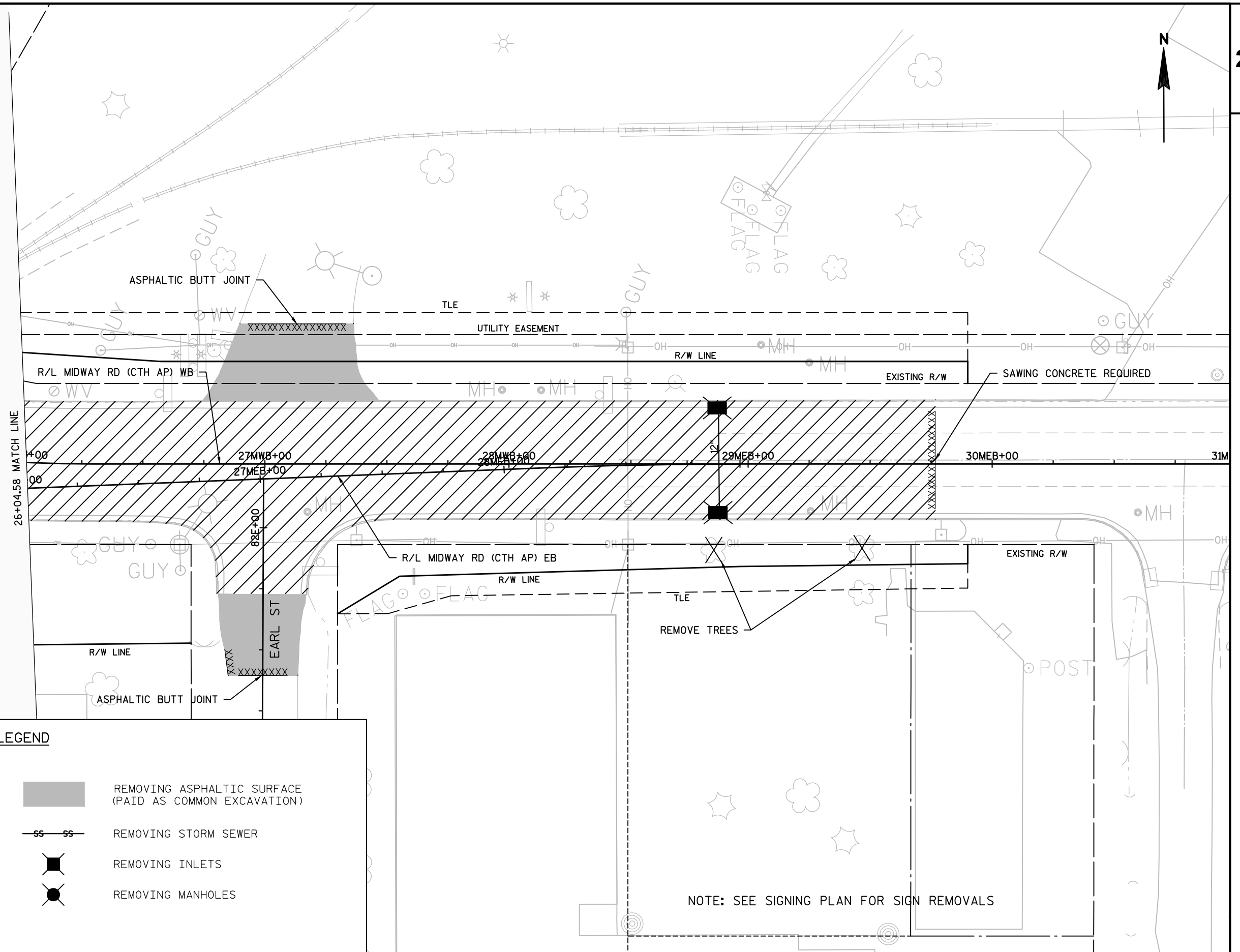
REMOVING INLETS

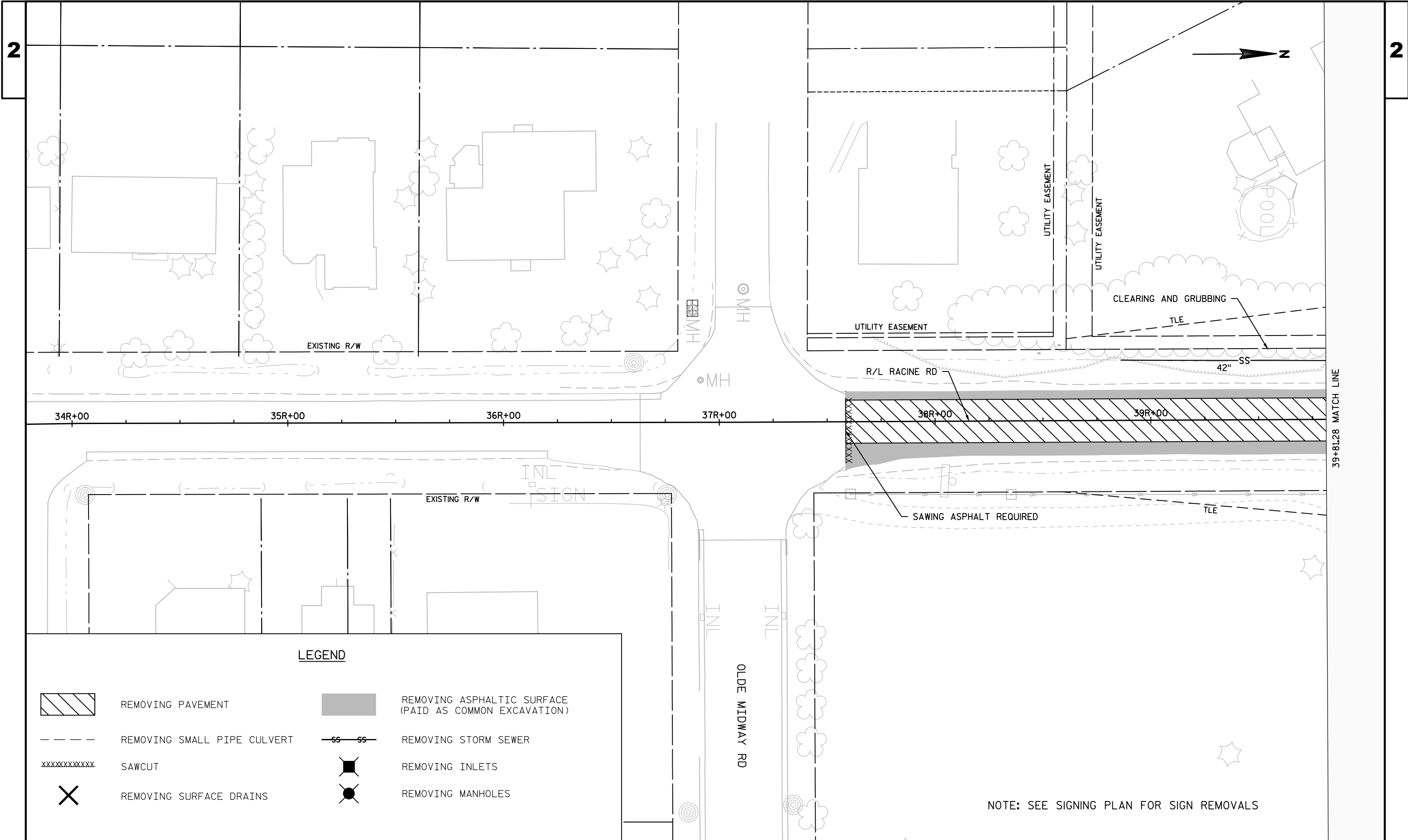


REMOVING SURFACE DRAINS



REMOVING MANHOLES



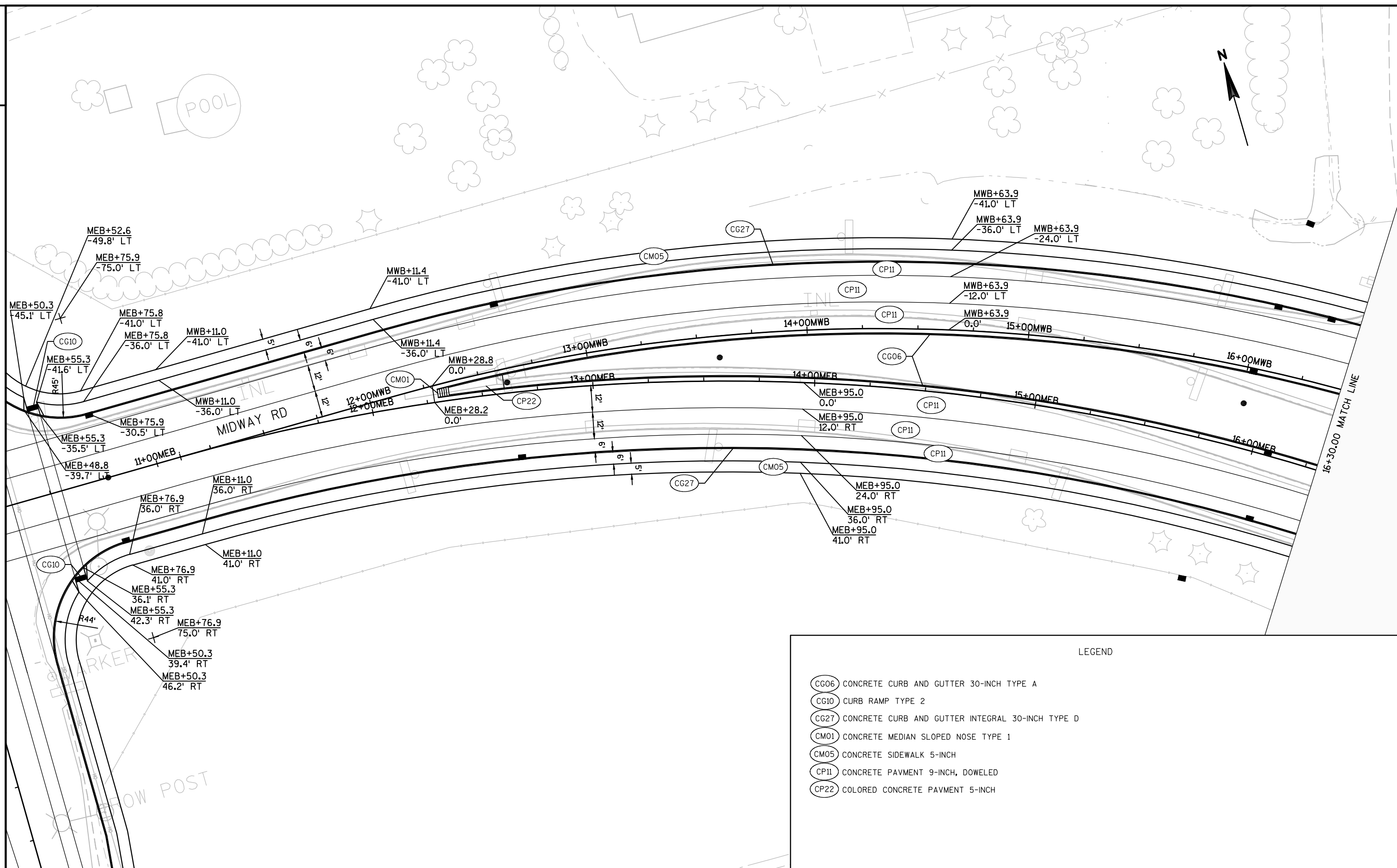


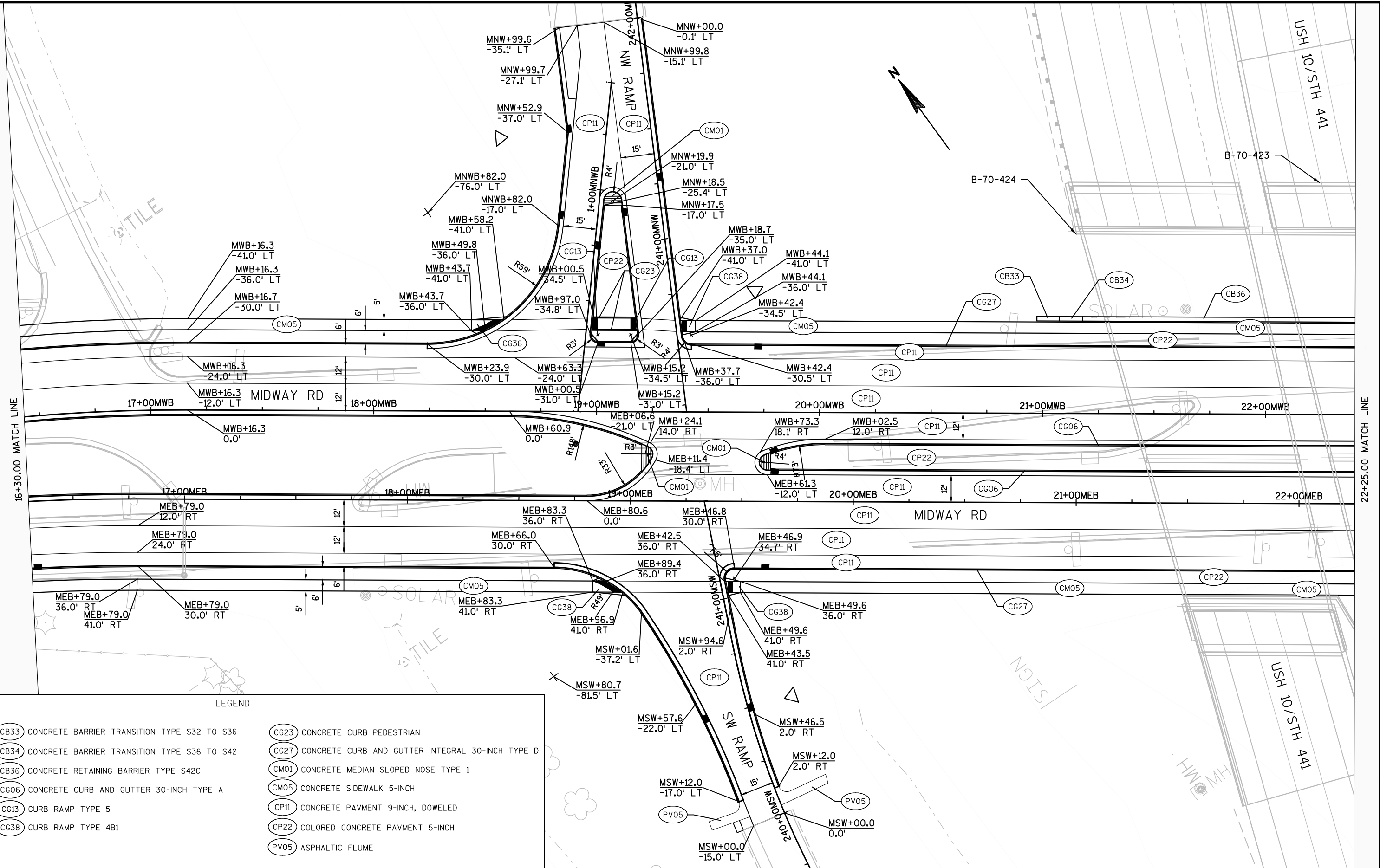
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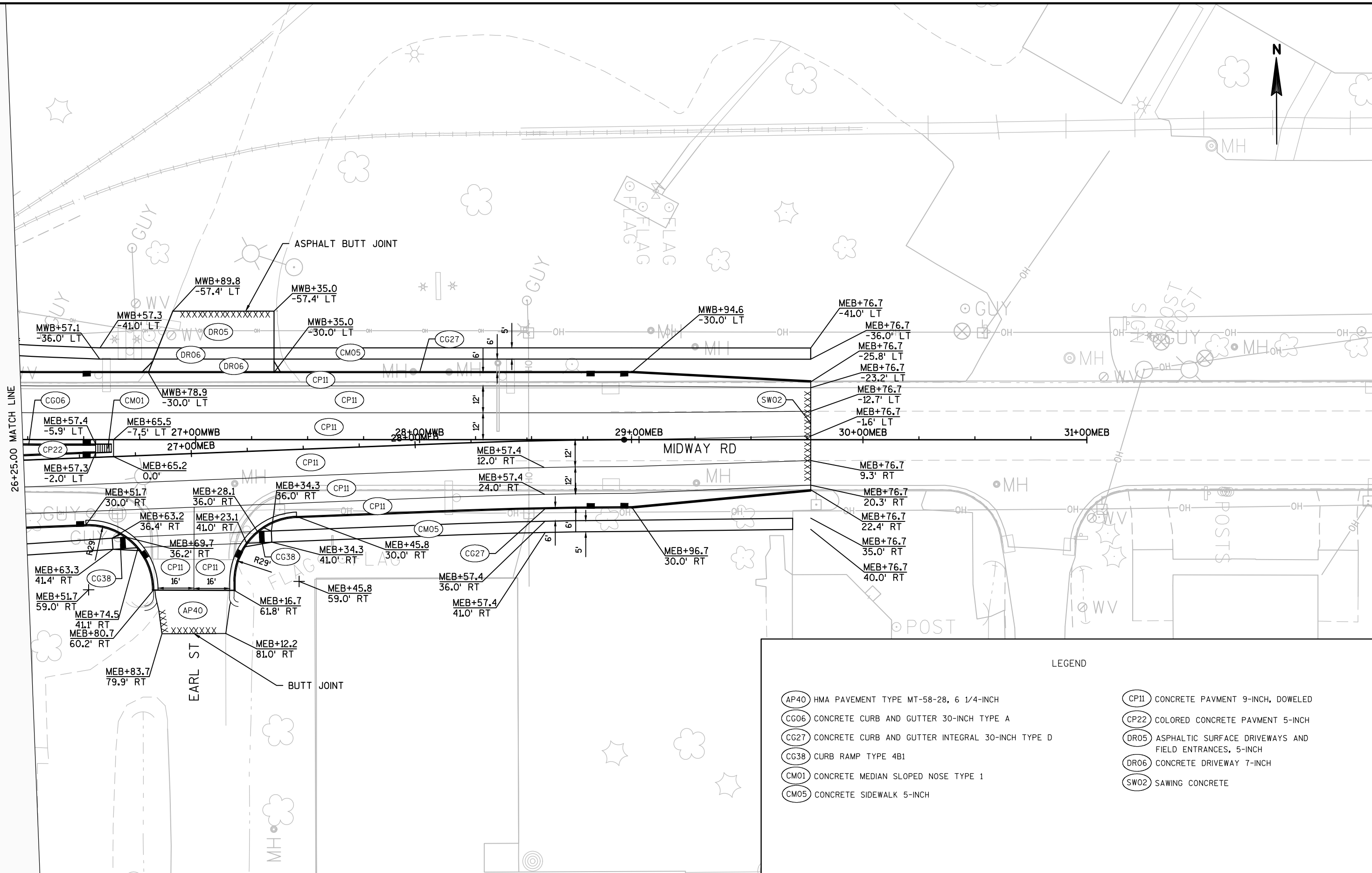
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LEGEND

- AP40

HMA PAVEMENT TYPE MT-58-28, 6 1/4-INCH
- CG06

CONCRETE CURB AND GUTTER 30-INCH TYPE A
- CG10

CURB RAMP TYPE 2
- CG27

CONCRETE CURB AND GUTTER INTEGRAL 30-INCH TYPE D
- CM05

CONCRETE SIDEWALK 5-INCH

CP11

CONCRETE PAVMENT 9-INCH, DOWELED

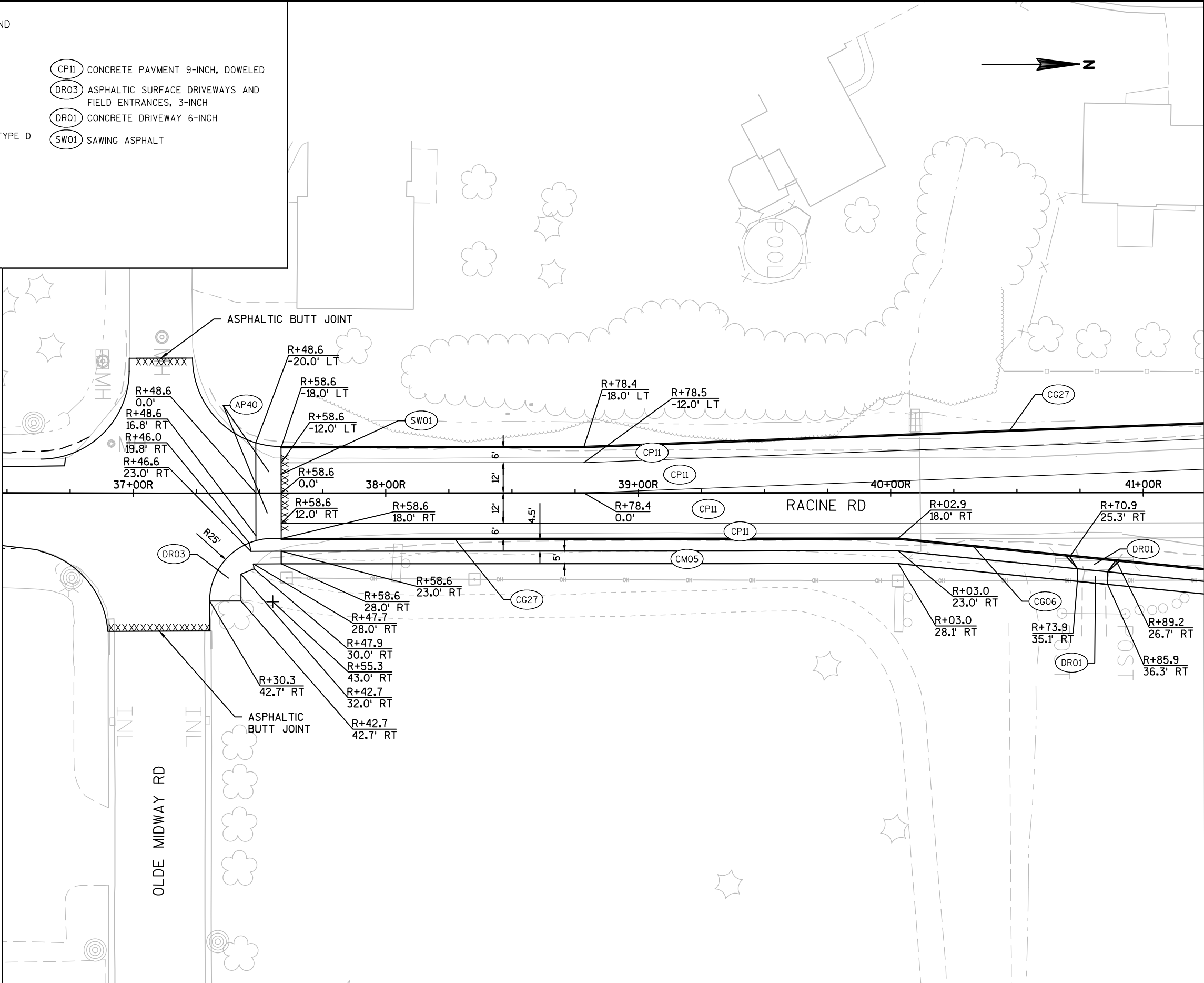
DR03

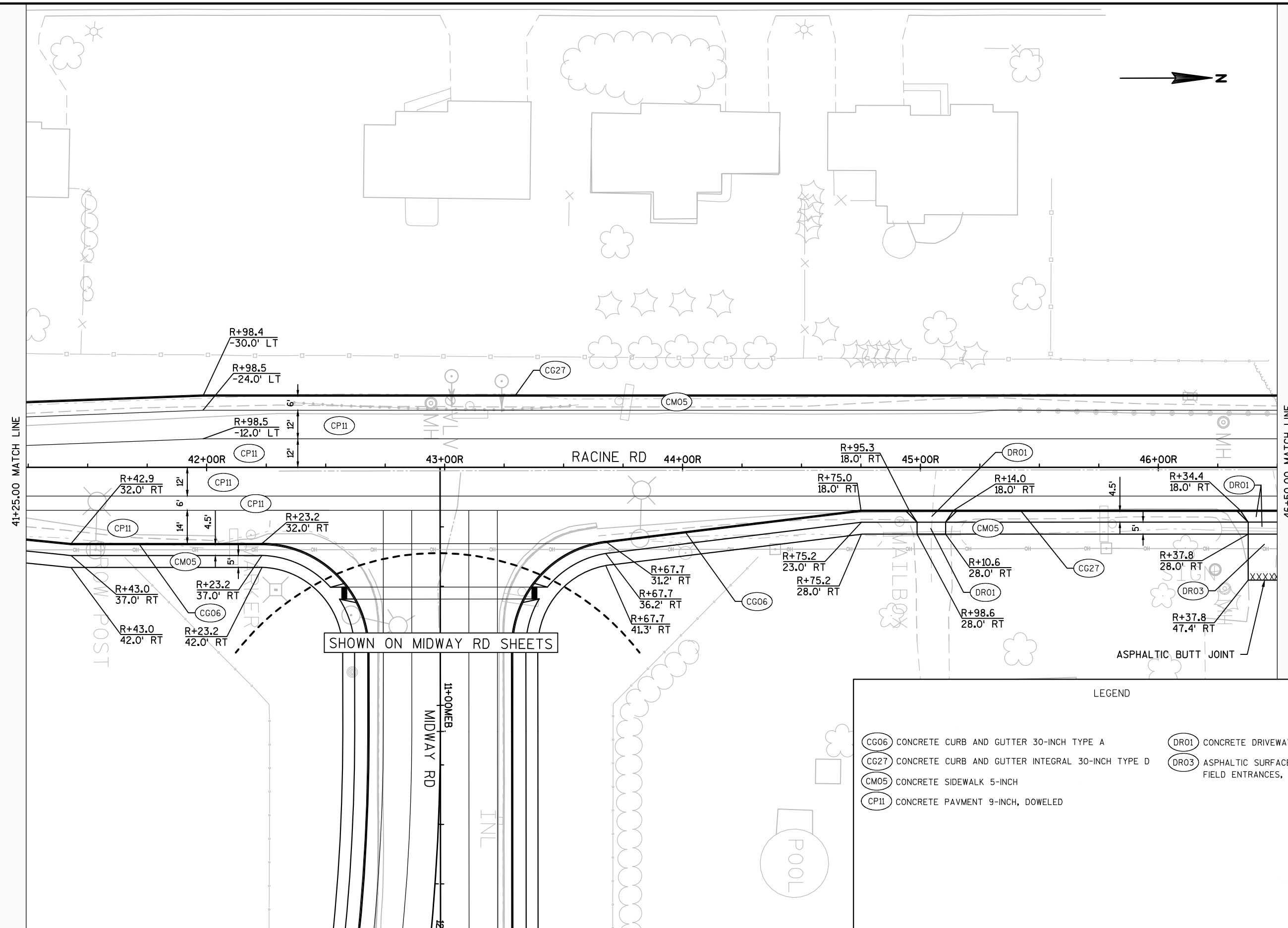
ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES, 3-INCH

DR01

CONCRETE DRIVEWAY 6-INCH

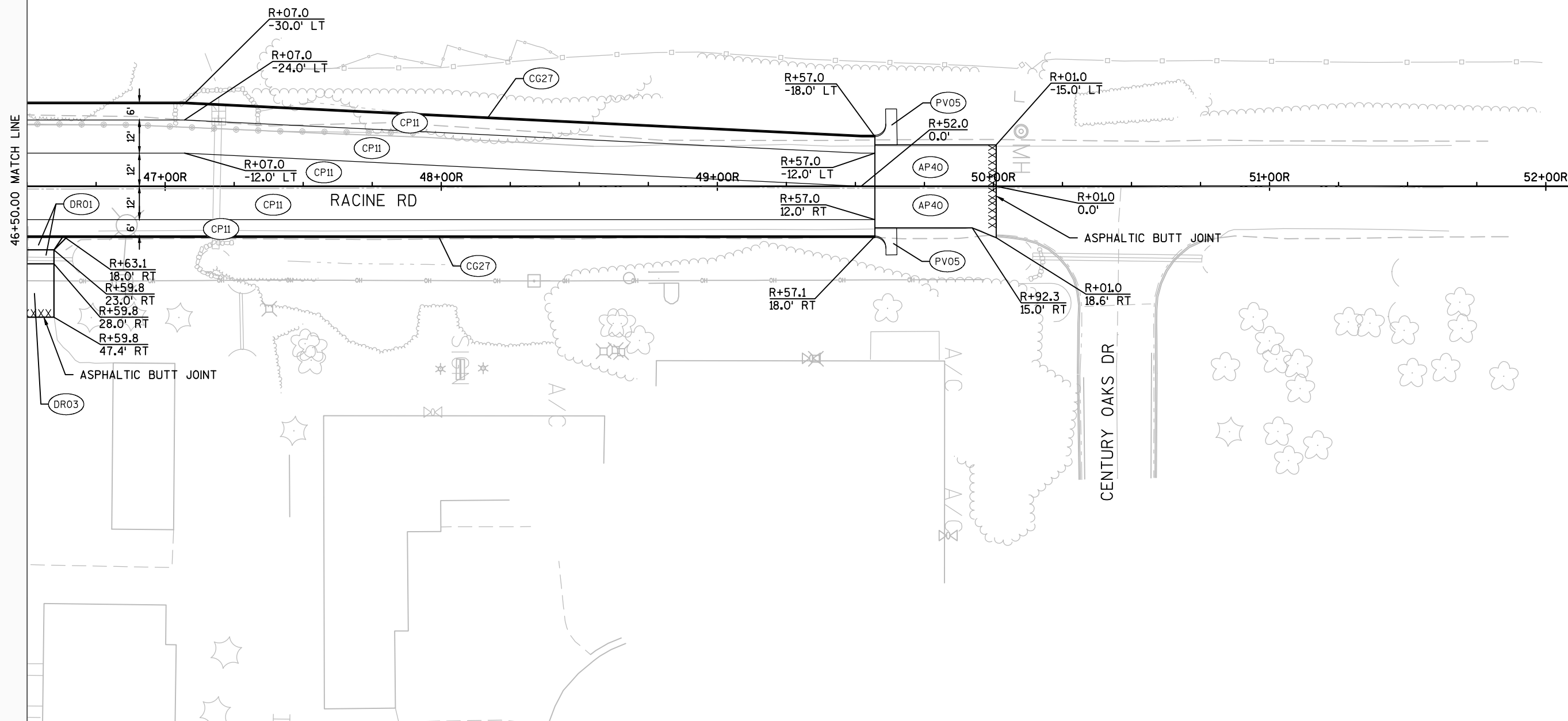
SW01

SAWING ASPHALT



LEGEND

AP40	HMA PAVEMENT TYPE MT-58-28, 6 1/4-INCH	DR01	CONCRETE DRIVEWAY 6-INCH
CG27	CONCRETE CURB AND GUTTER INTEGRAL 30-INCH TYPE D	DR03	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES, 3-INCH
CM05	CONCRETE SIDEWALK 5-INCH	PV05	ASPHALTIC FLUME
CP11	CONCRETE PAVMENT 9-INCH, DOWELED		



PROJECT NO:1517-75-77

HWY:STH 441/USH 10

COUNTY:WINNEBAGO

PLAN DETAILS RACINE ROAD

SHEET

E

FILE NAME : S:\PDS\C3D\WIS441\15177570_72_77_85\SHEETSP\1517-75-77\021200-PD\NE-15177577-021202-PD.DWG
LAYOUT NAME - NE-15177577-021202-PD - 021202-PD-C

PLOT DATE : 7/23/2018 9:27 AM

PLOT BY : MARTENS, JOHN M

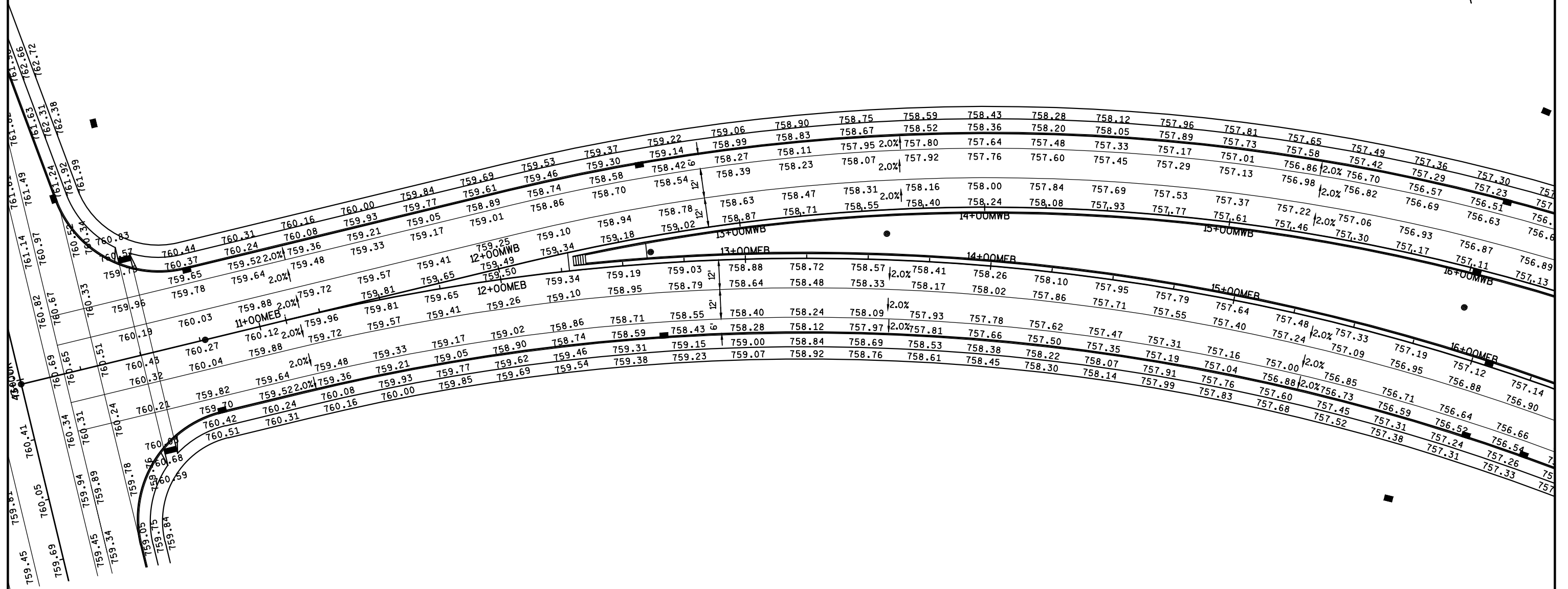
PLOT NAME :

PLOT SCALE : 1 IN:40 FT

WISDOT/CADDs SHEET 42

2

2



PROJECT NO:1517-75-77

HWY:STH 441/USH 10

COUNTY: WINNEBAGO

PAVEMENT GRADES - MIDWAY RD

SHEET

E

FILE NAME : S:\PDS\C3D\WIS441\15177570_72_77_85\SHEETSP\AN\1517-75-77\021300-PG\NE-15177577-021301-PG.DWG
LAYOUT NAME - 021301

PLOT DATE : 7/23/2018 9:30 AM

PLOT BY : MARTENS, JOHN M

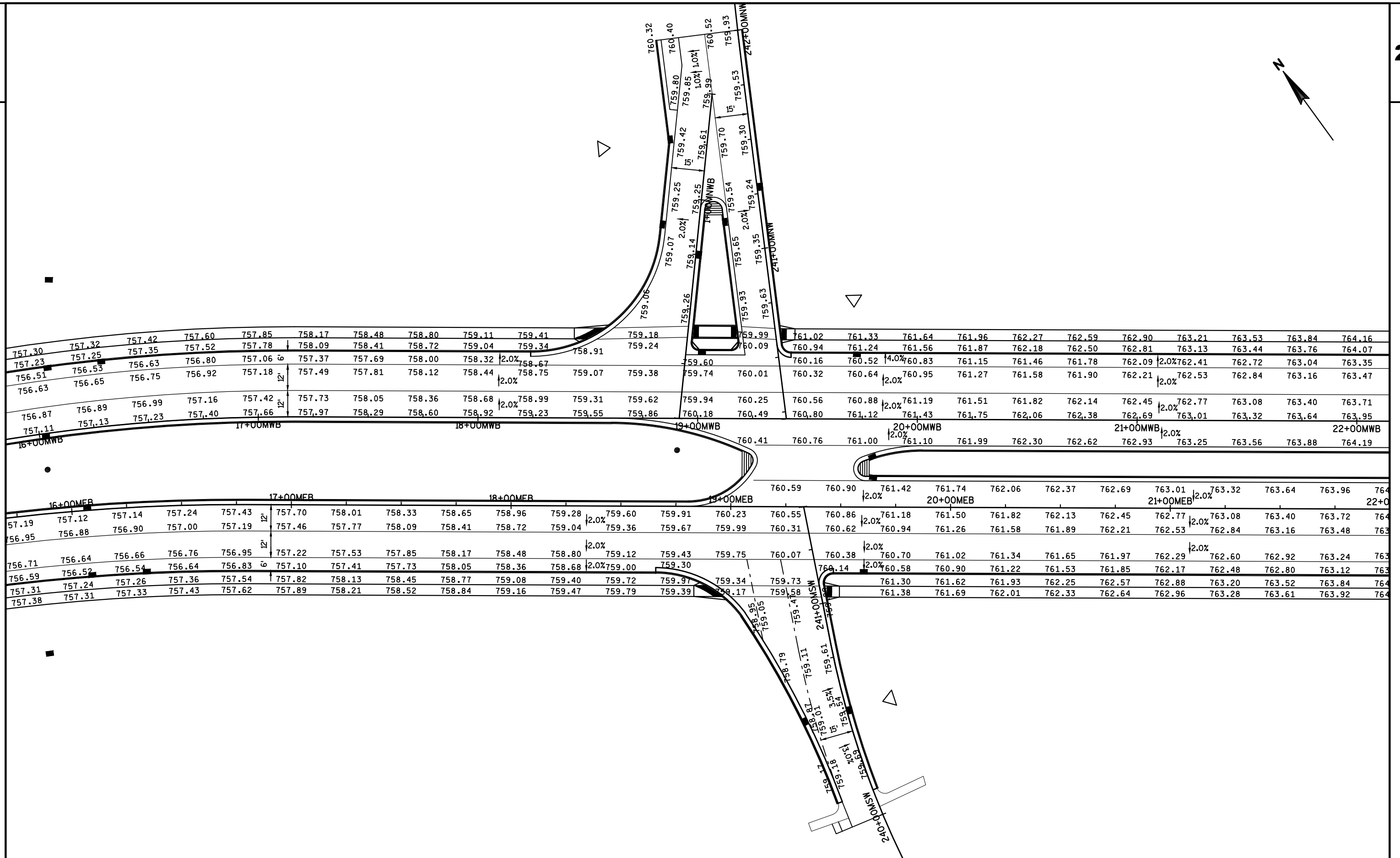
PLOT NAME :

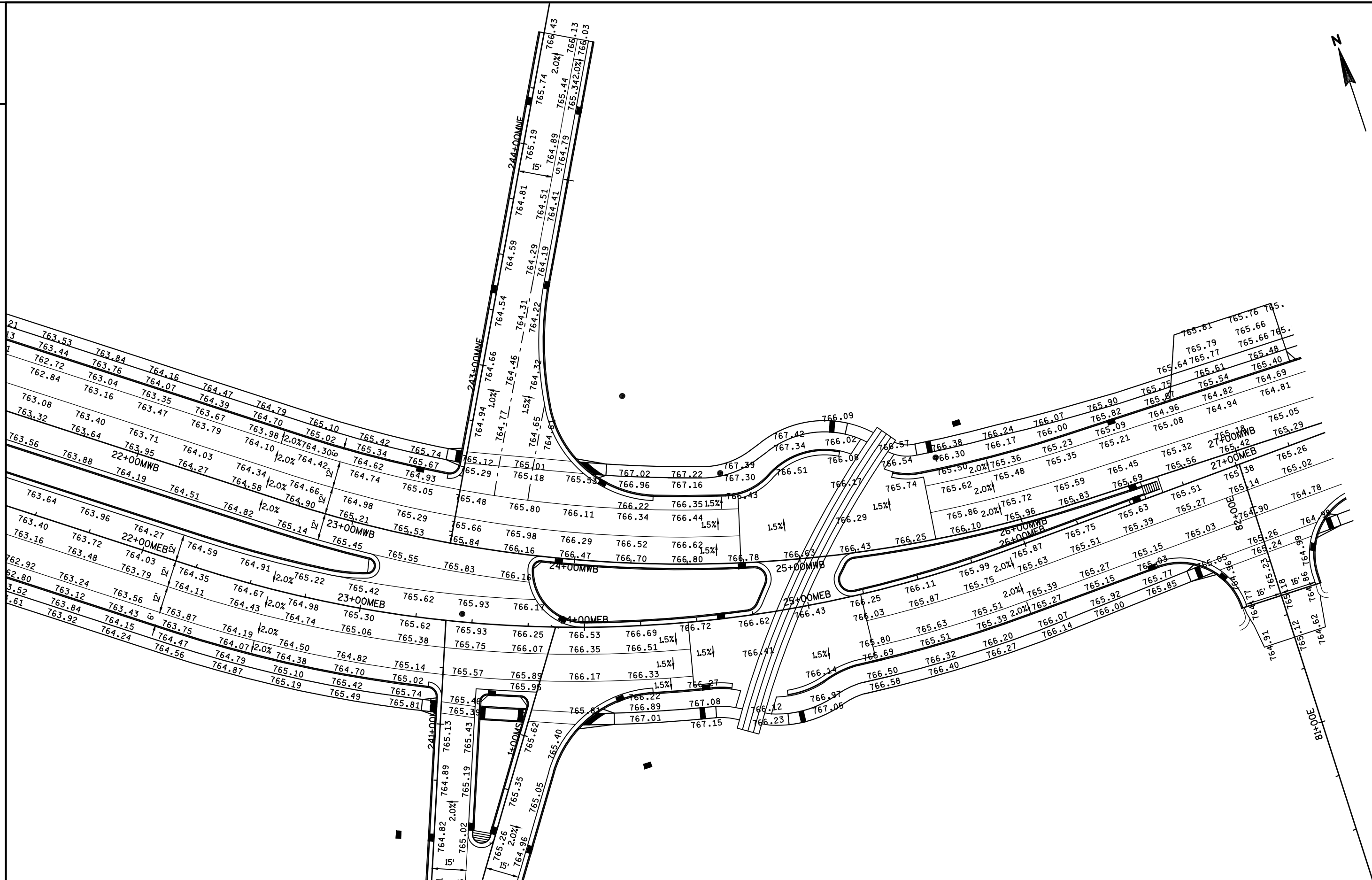
PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

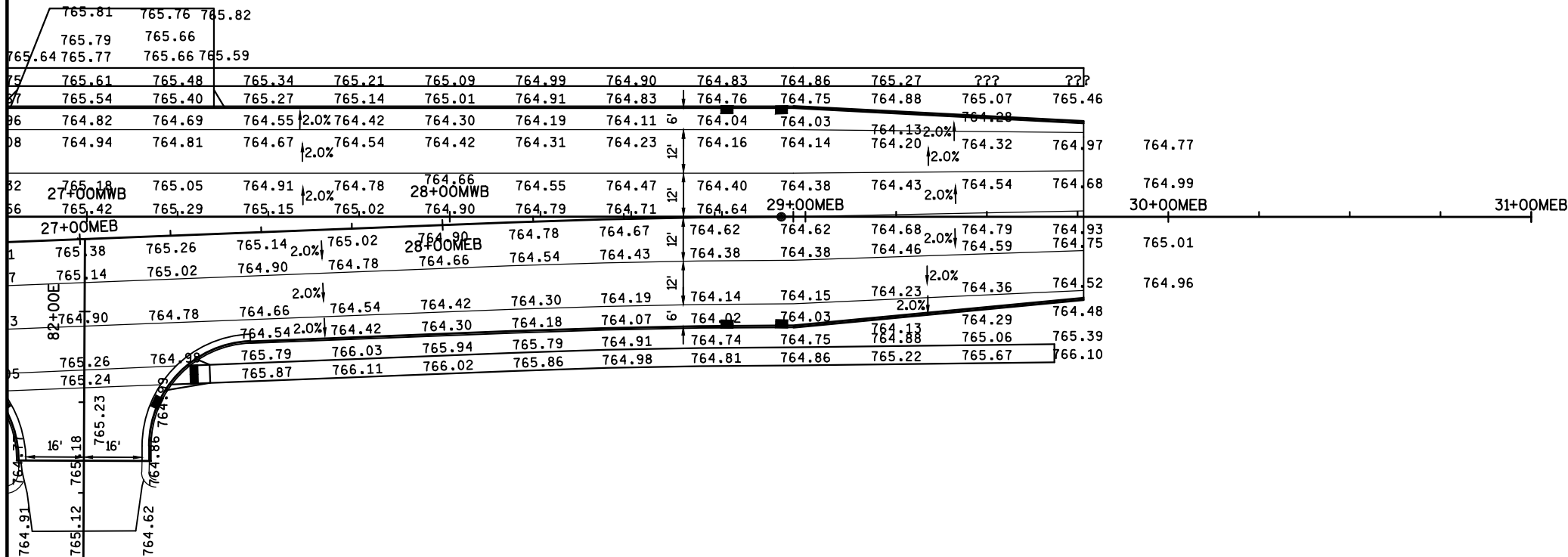
2

2 |



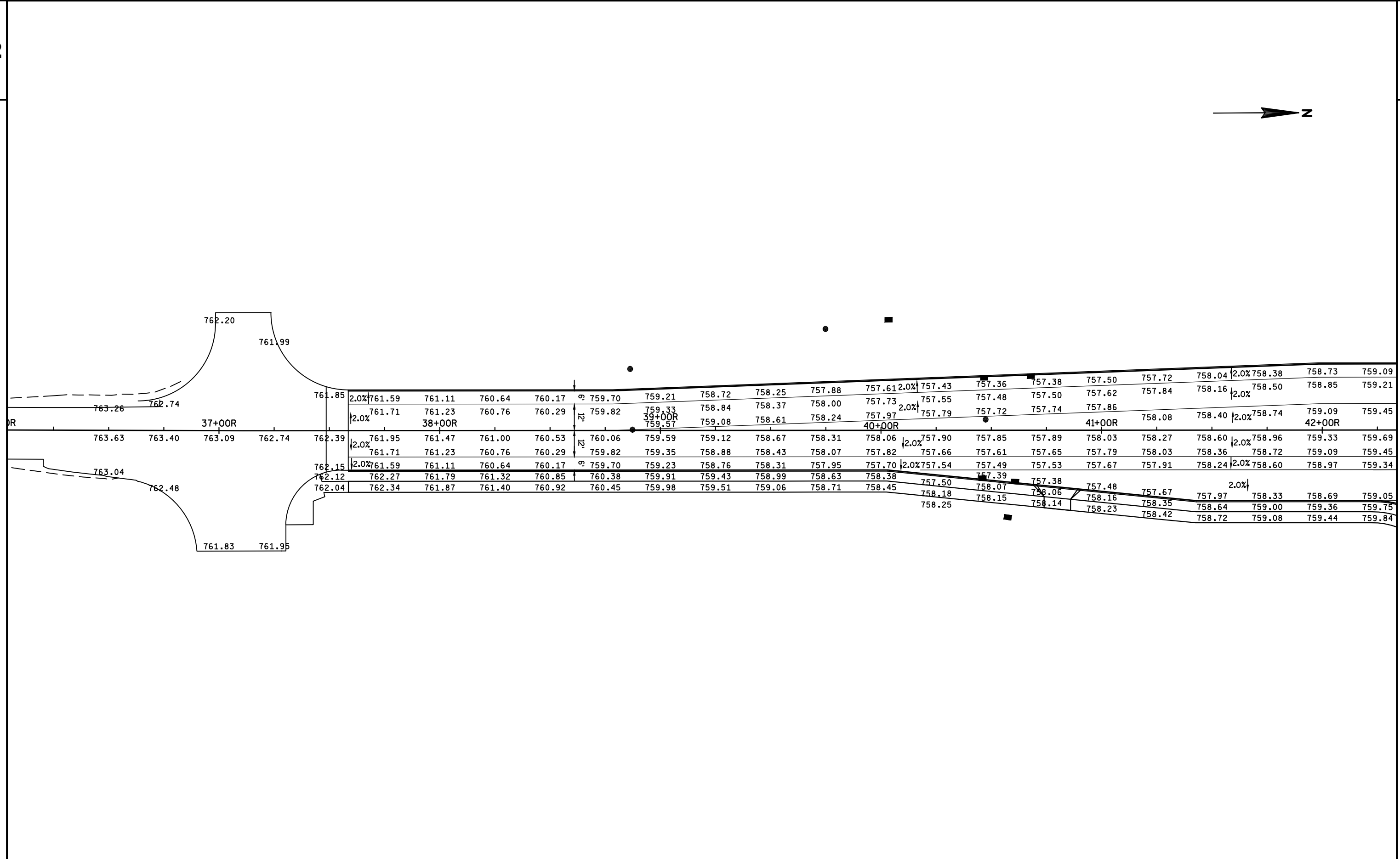


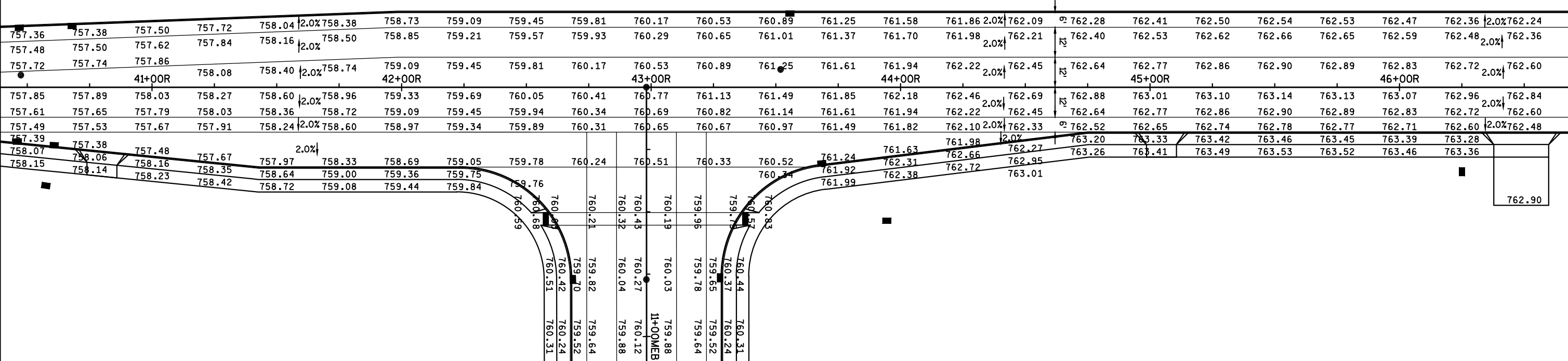
PROJECT NO:1517-75-77	HWY:STH 441/USH 10	COUNTY:WINNEBAGO	PAVEMENT GRADES - MIDWAY RD	SHEET	E
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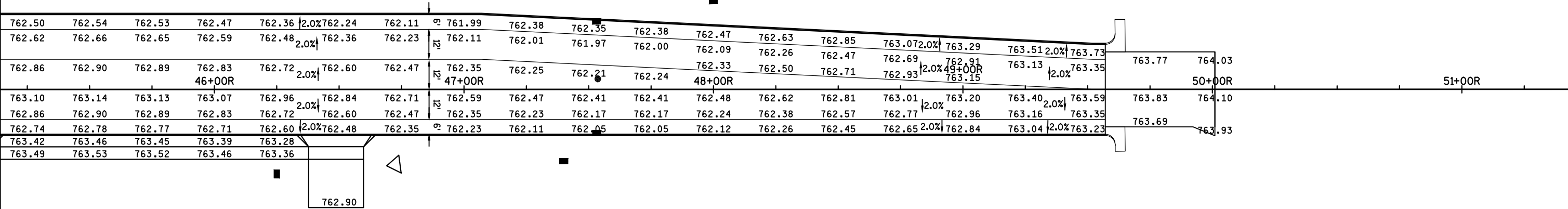


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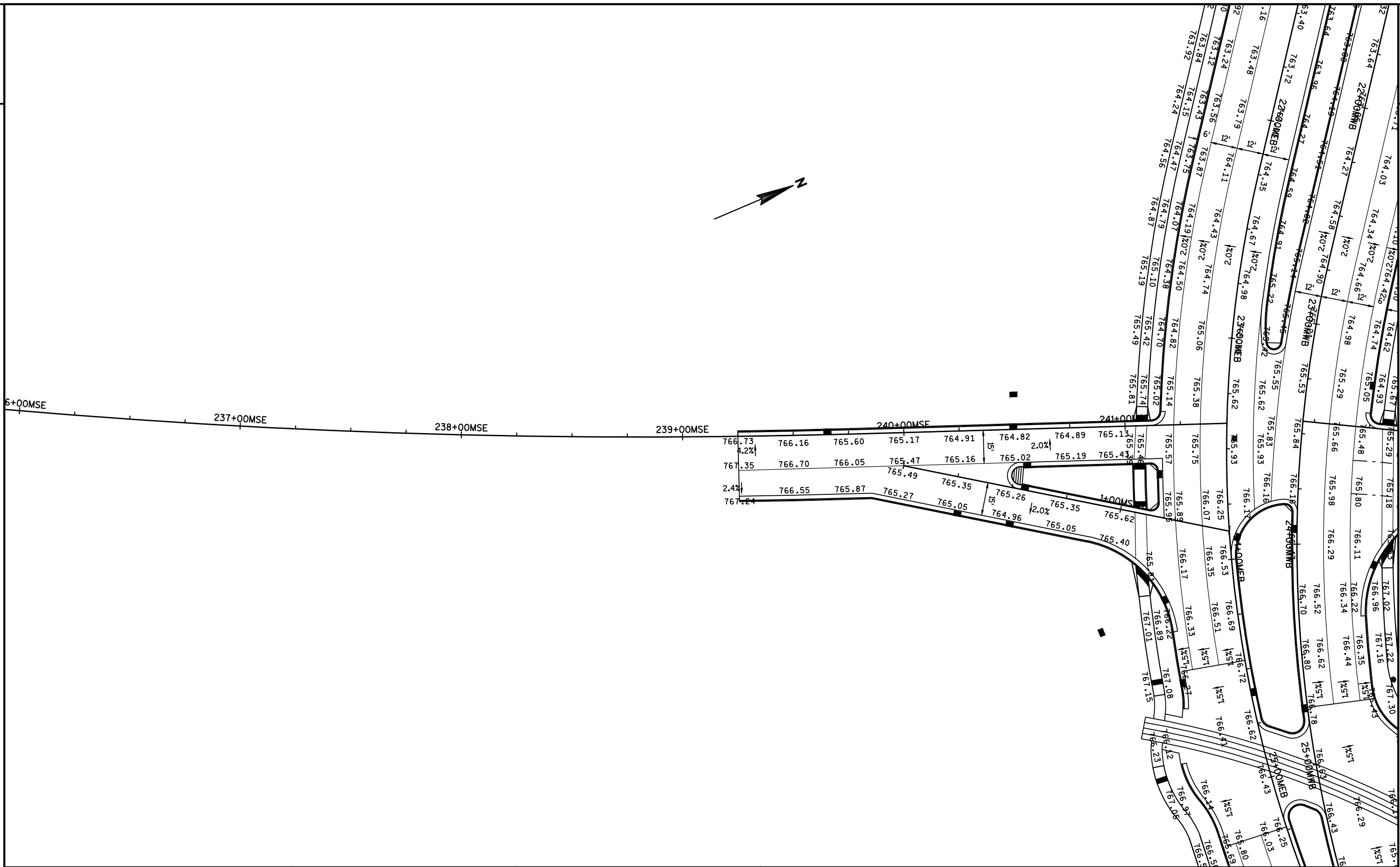
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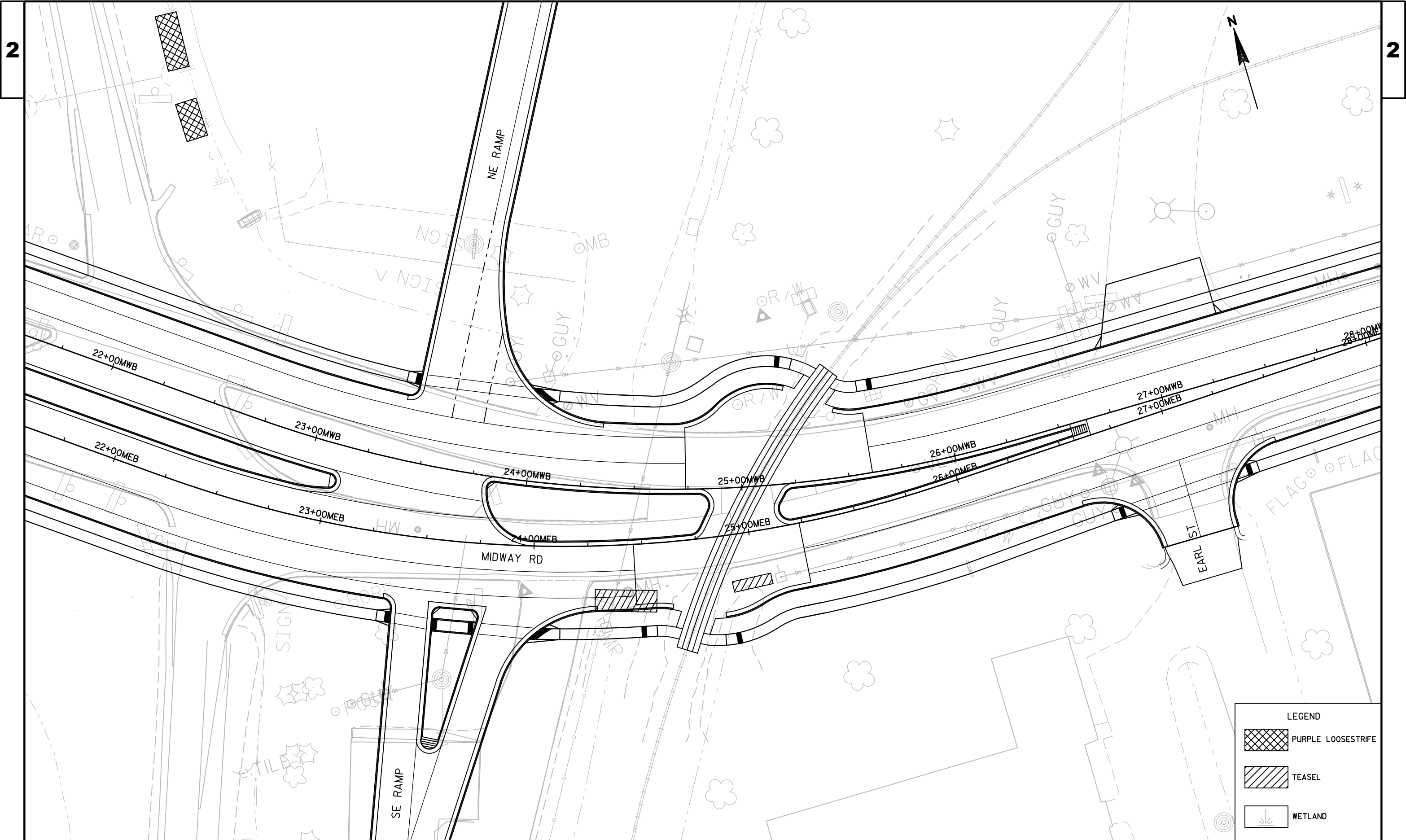




2



PROJECT NO:1517-75-77	HWY:STH 441/USH 10	COUNTY:WINNEBAGO	PAVEMENT GRADES - SE RAMP	SHEET	E
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PROJECT NO:1517-75-77

HWY:STH 441/USH 10

COUNTY:WINNEBAGO

INVASIVE SPECIES

SHEET

2

FILE NAME : S:\PDS\C3D\WIS441\15177570_72_77_85\SHEETPLAN\1517-75-77\021700-IS\NE-15177577-021700-IS.DWG
LAYOUT NAME - NE-15177577-021700-IS - 021702

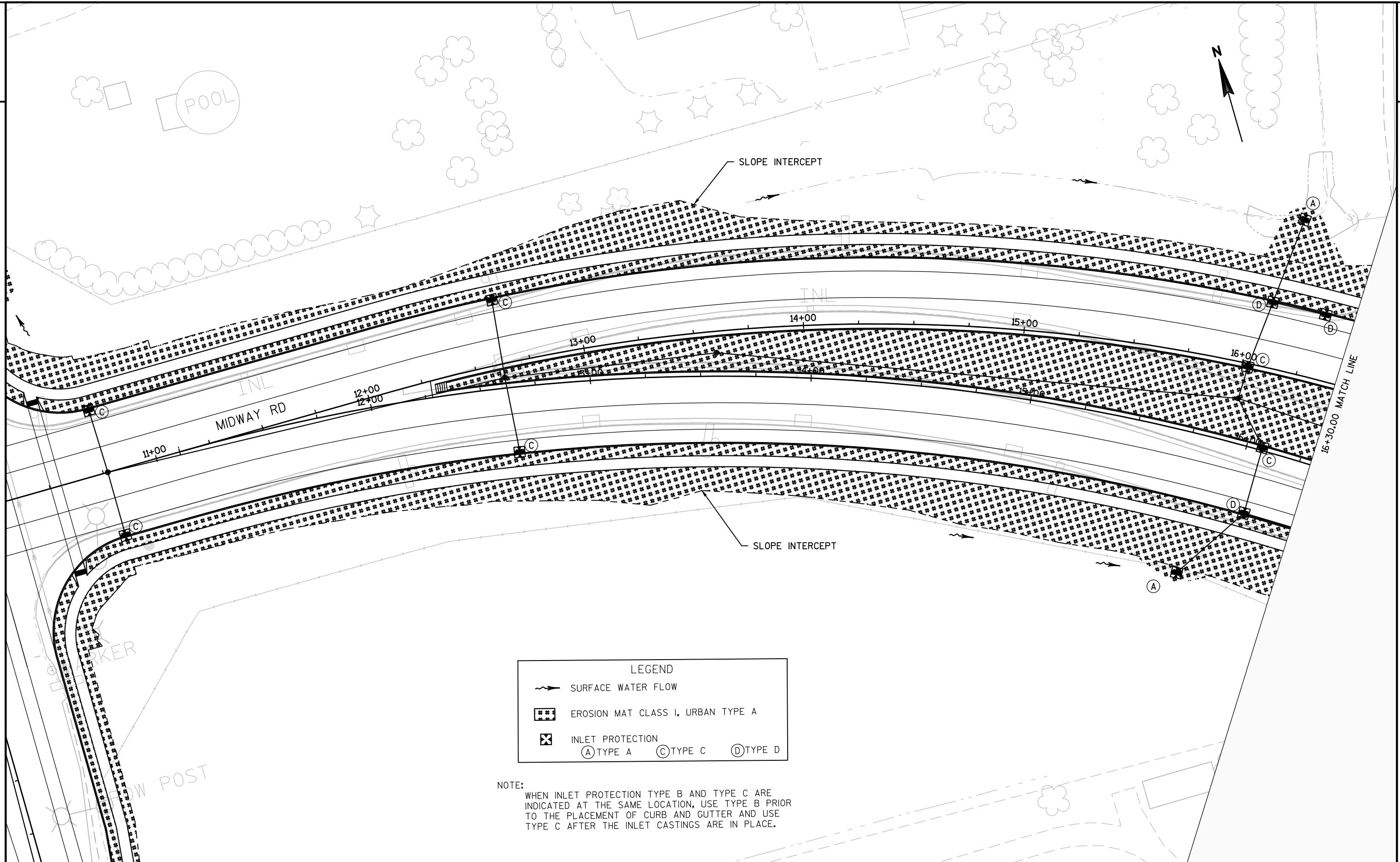
PLOT DATE : 7/23/2018 9:32 AM

PLOT BY : MARTENS, JOHN M

PLOT NAME :

PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

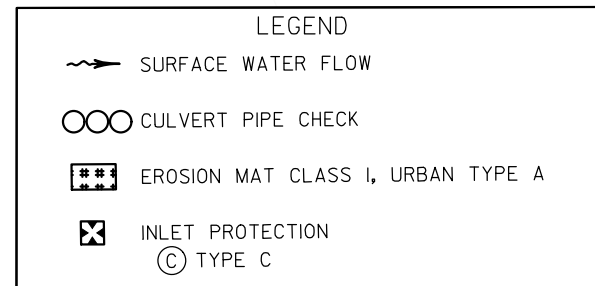


LEGEND

- SURFACE WATER FLOW
- EROSION MAT CLASS I, URBAN TYPE A
- INLET PROTECTION
 - (A) TYPE A
 - (C) TYPE C
 - (D) TYPE D

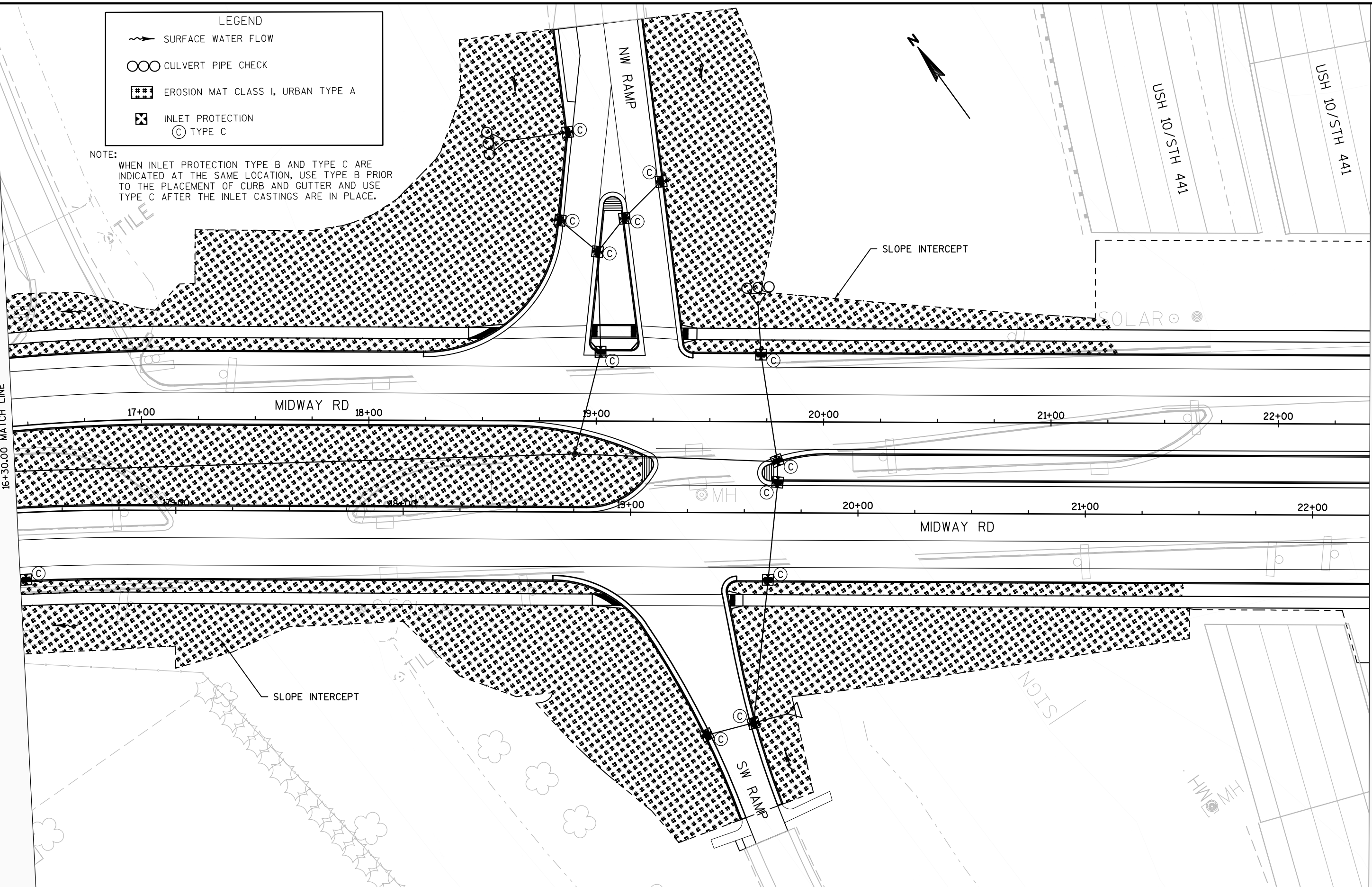
NOTE:
WHEN INLET PROTECTION TYPE B AND TYPE C ARE INDICATED AT THE SAME LOCATION, USE TYPE B PRIOR TO THE PLACEMENT OF CURB AND GUTTER AND USE TYPE C AFTER THE INLET CASTINGS ARE IN PLACE.

2



NOTE:
WHEN INLET PROTECTION TYPE B AND TYPE C ARE
INDICATED AT THE SAME LOCATION, USE TYPE B PRIOR
TO THE PLACEMENT OF CURB AND GUTTER AND USE
TYPE C AFTER THE INLET CASTINGS ARE IN PLACE.

16+30.00 MATCH LINE



22+25.00 MATCH LINE

PROJECT NO:1517-75-77

HWY:STH 441/USH 10

COUNTY:WINNEBAGO

EROSION CONTROL

SHEET

E

FILE NAME : S:\PDS\C3D\WIS441\15177570_72_77_85\SHEETSPLAN\1517-75-77\022000-EC\NE-15177577-022001-EC.DWG
LAYOUT NAME - NE-15177577-022001-EC - NE-15177577-022002-EC

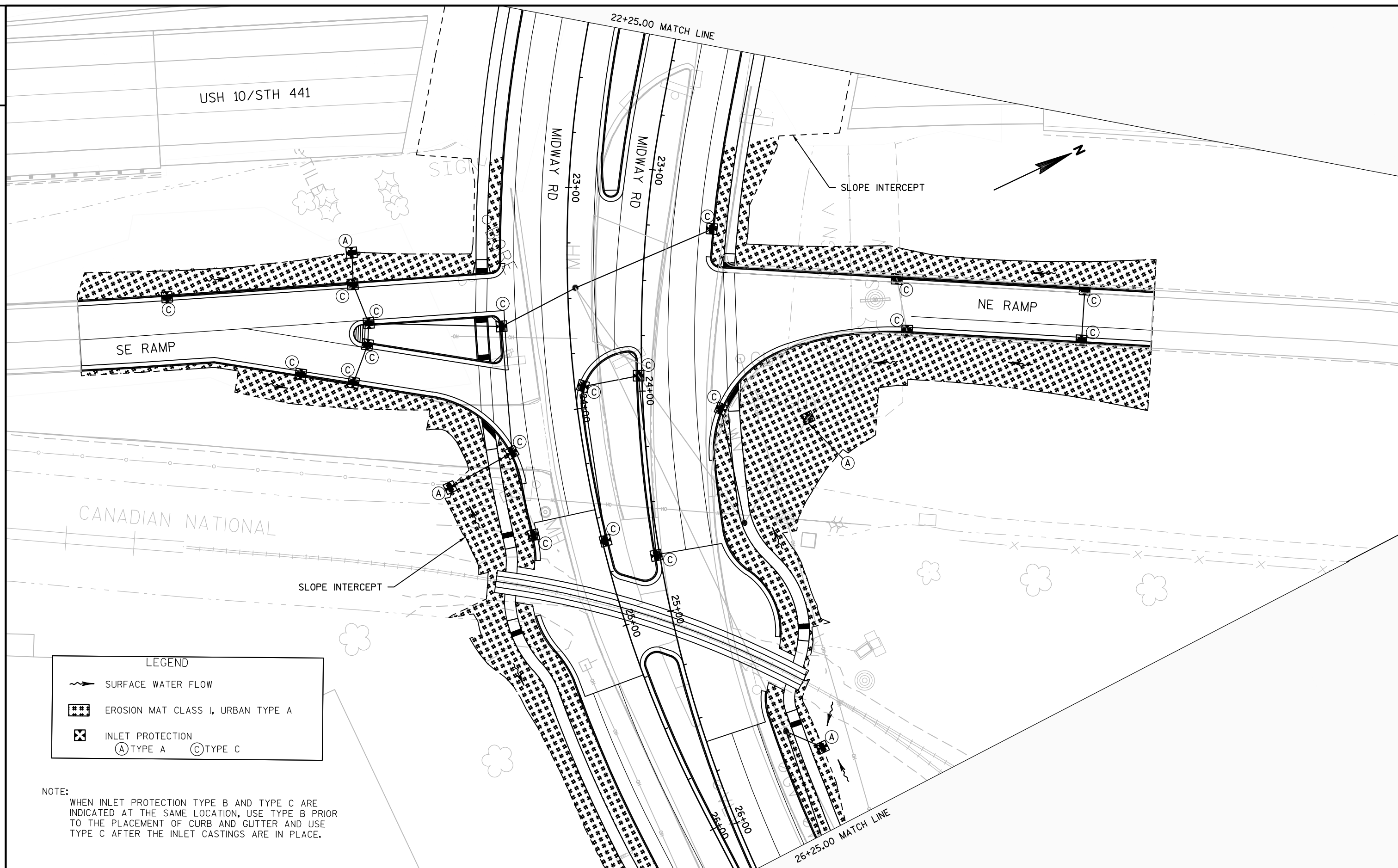
PLOT DATE : 7/24/2018 2:13 PM

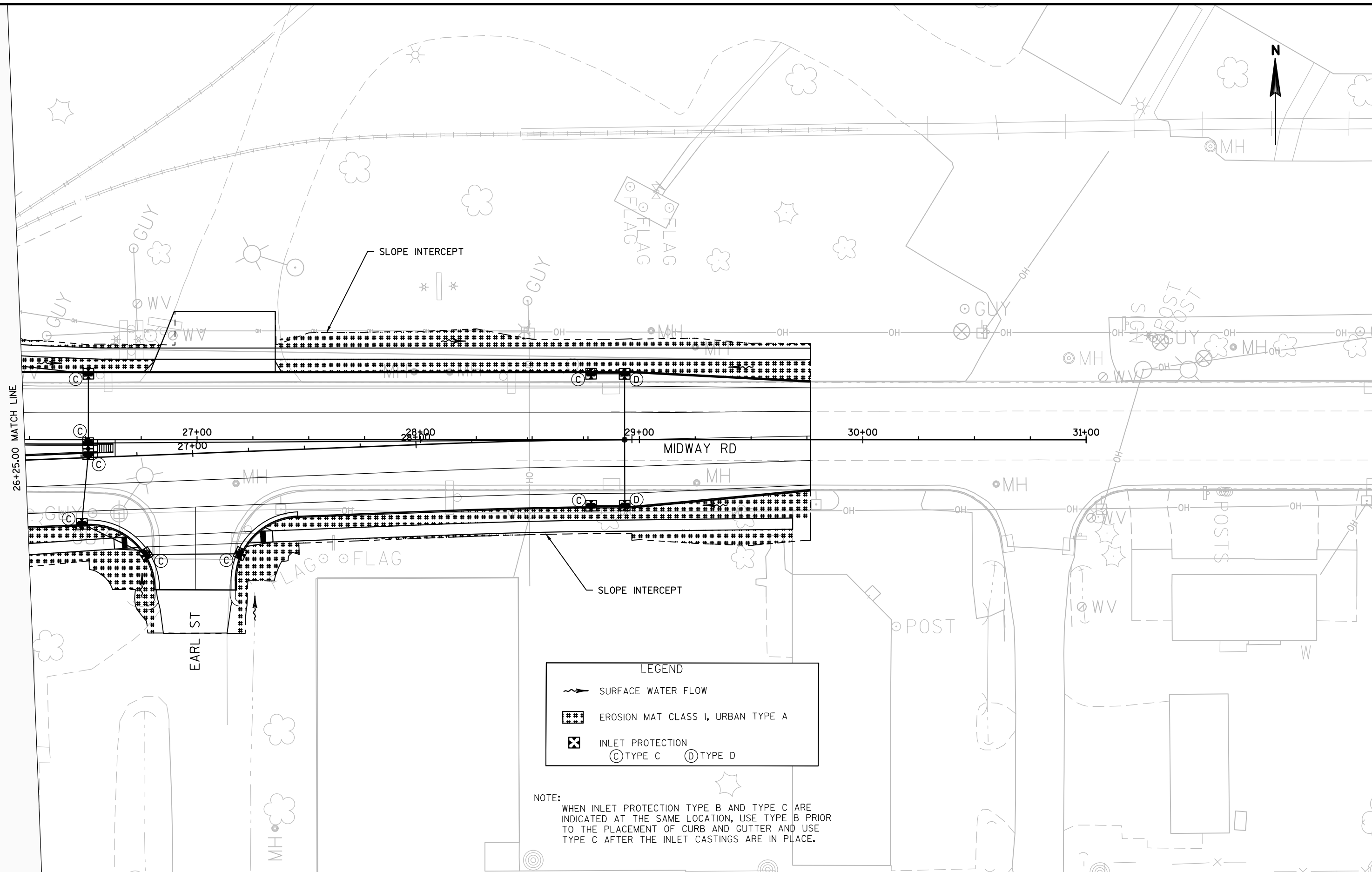
PLOT BY : MARTENS, JOHN M

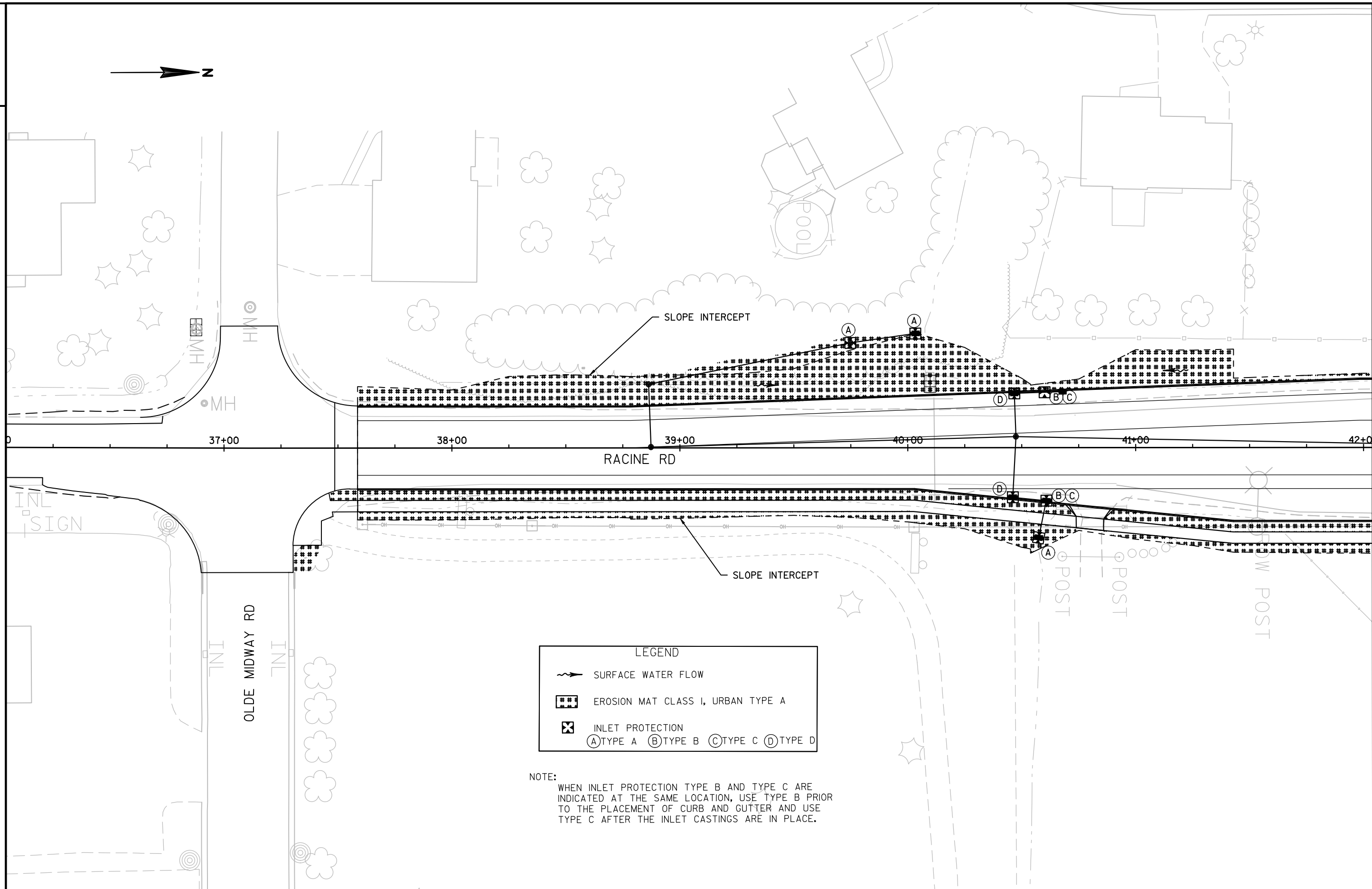
PLOT NAME :

PLOT SCALE : 1 IN:40 FT

WISDOT/CADDs SHEET 42

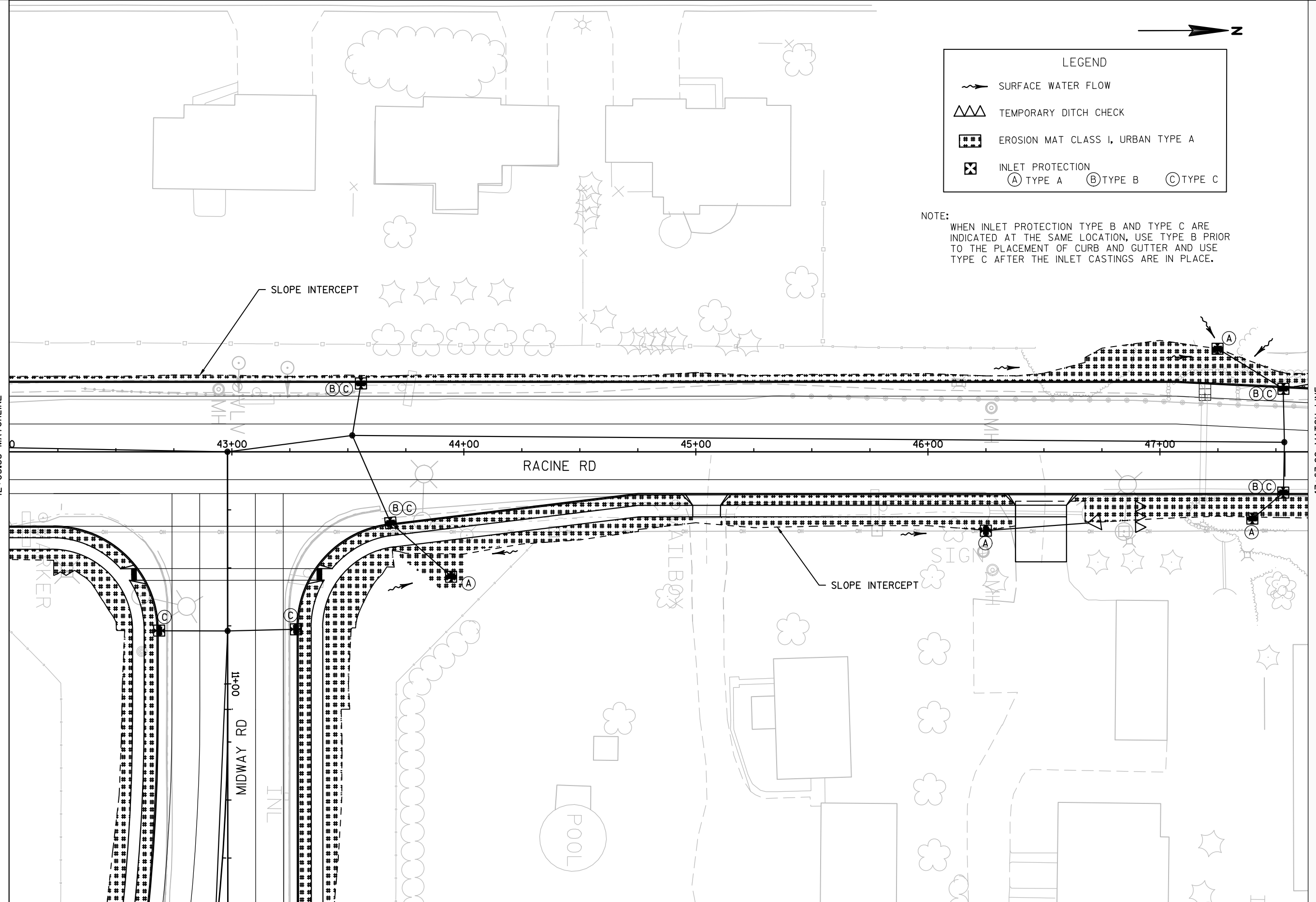






42+03.88 MATCHLINE

47+63.88 MATCH LINE



PROJECT NO:1517-75-77

HWY:STH 441/USH 10

COUNTY:WINNEBAGO

EROSION CONTROL

SHEET

E

FILE NAME : S:\PDS\C3D\WIS441\15177570_72_77_85\SHEETPLAN\1517-75-77\022000-EC\NE-15177577-022001-EC.DWG
LAYOUT NAME - NE-15177577-022001-EC - NE-15177577-022006-EC

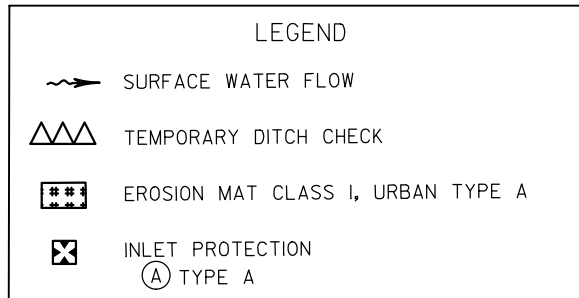
PLOT DATE : 7/24/2018 2:14 PM

PLOT BY : MARTENS, JOHN M

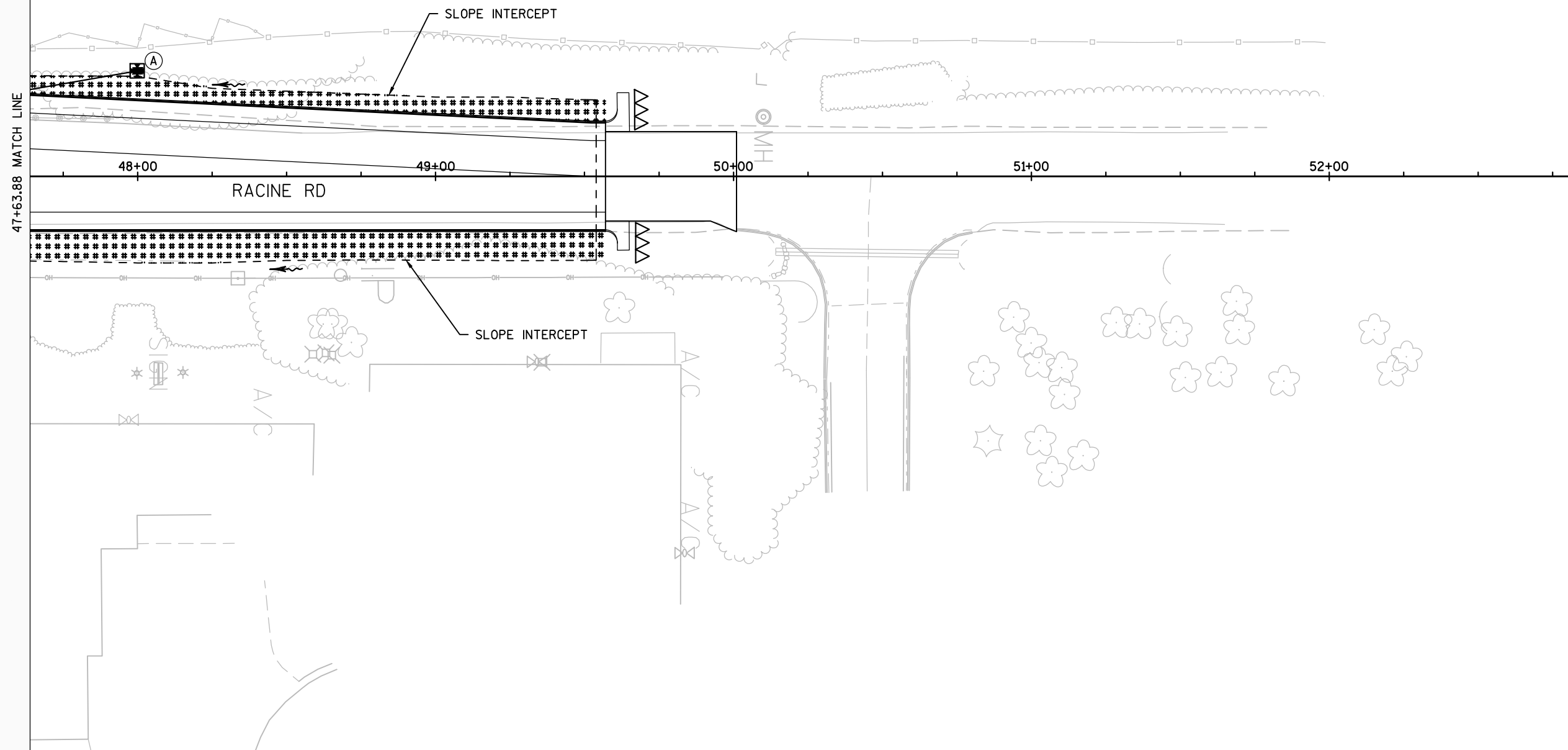
PLOT NAME :

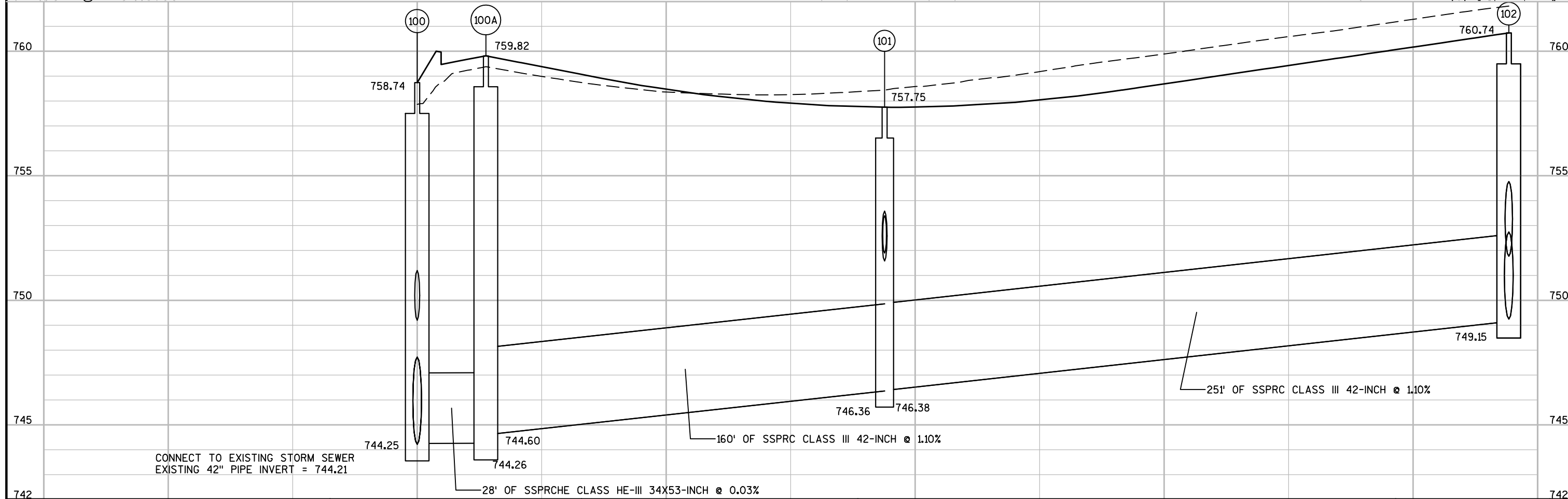
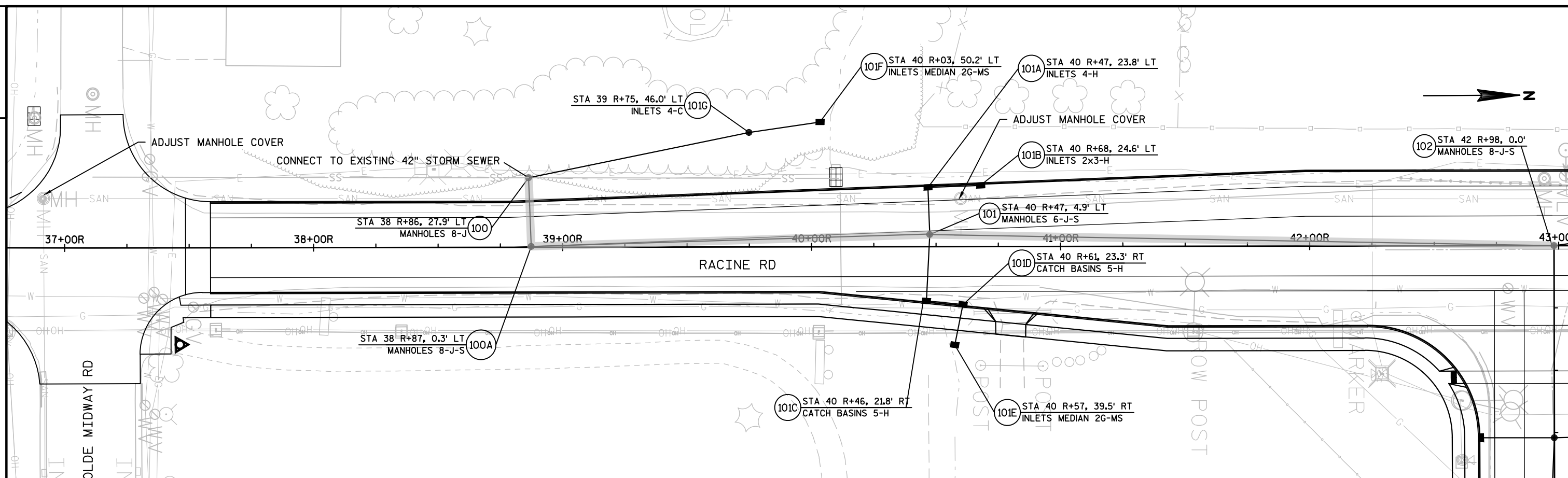
PLOT SCALE : 1 IN:40 FT

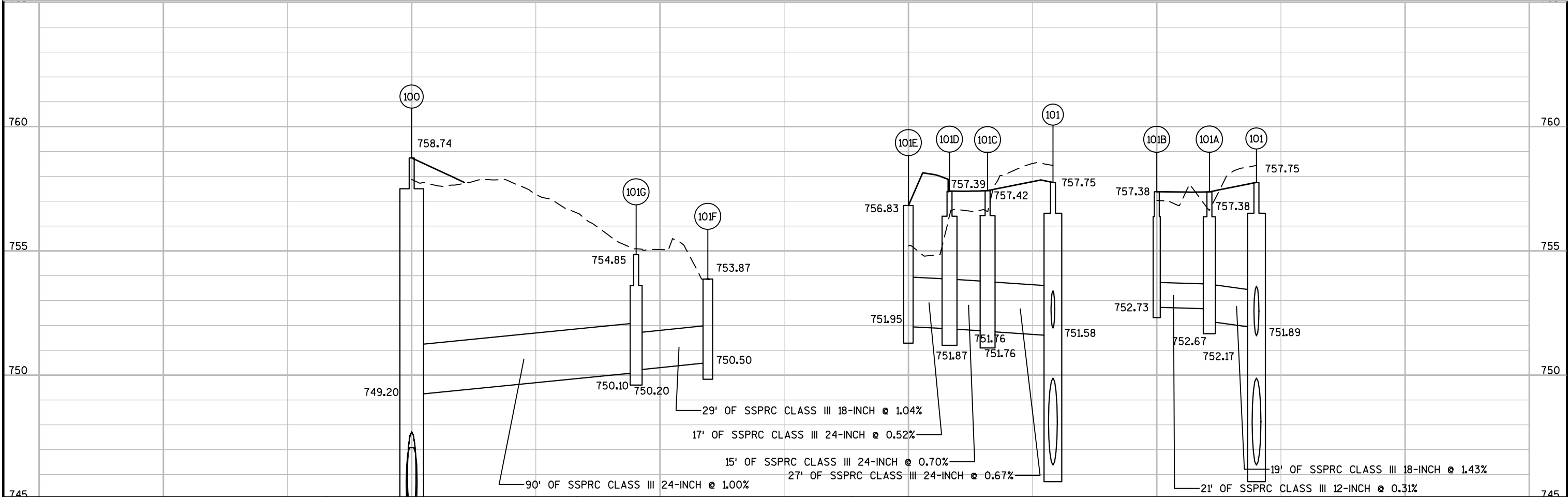
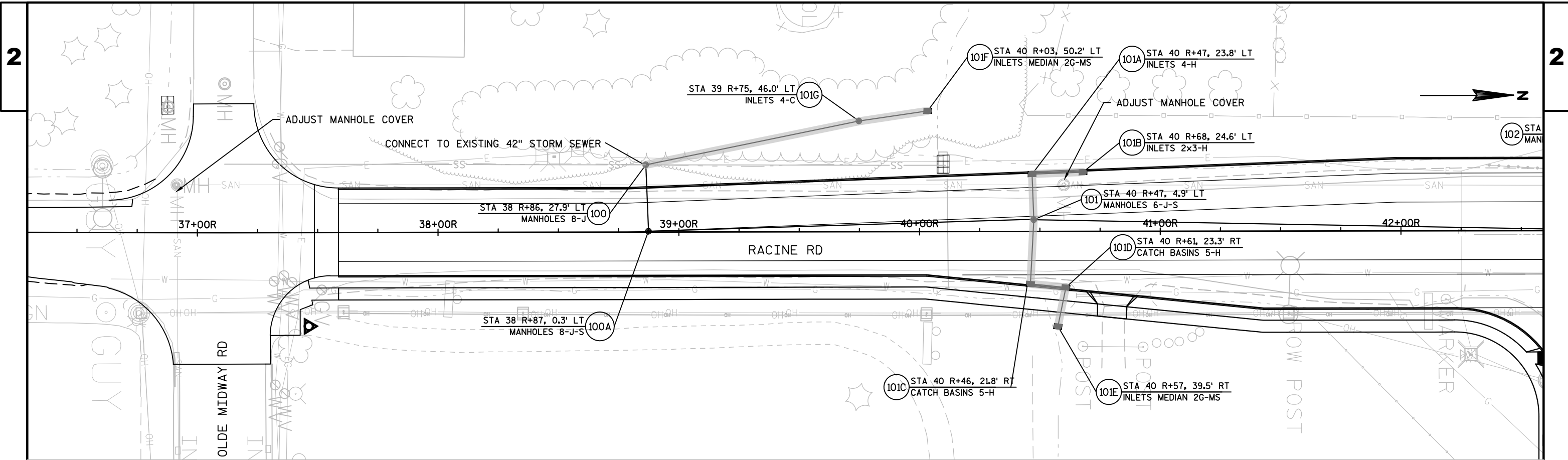
WISDOT/CADDs SHEET 42



NOTE:
WHEN INLET PROTECTION TYPE B AND TYPE C ARE
INDICATED AT THE SAME LOCATION, USE TYPE B PRIOR
TO THE PLACEMENT OF CURB AND GUTTER AND USE
TYPE C AFTER THE INLET CASTINGS ARE IN PLACE.

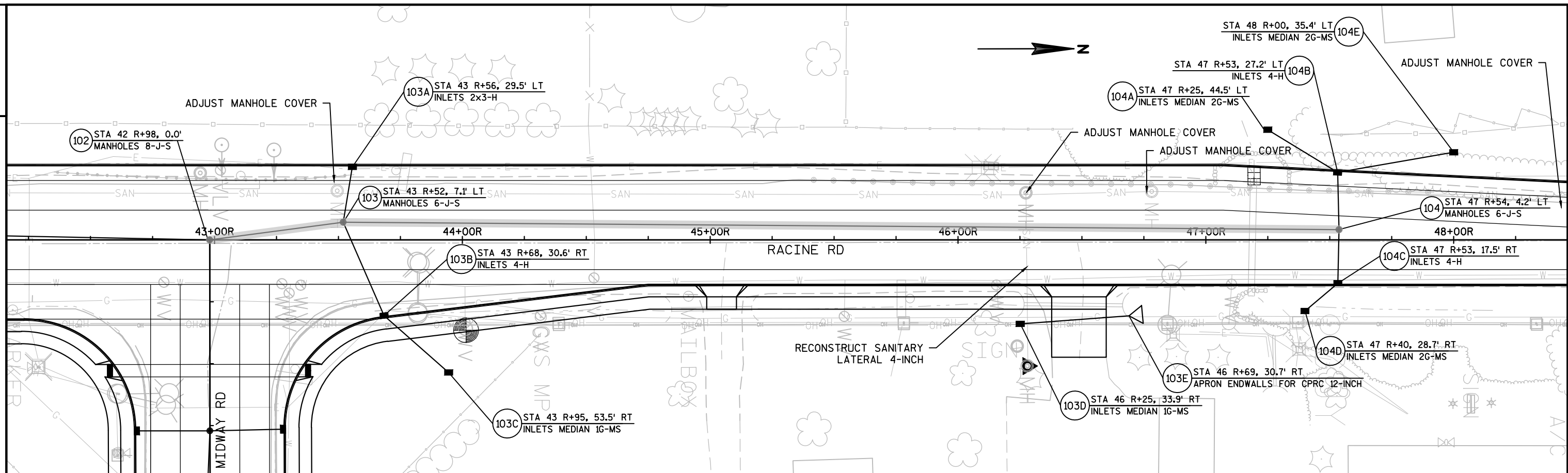




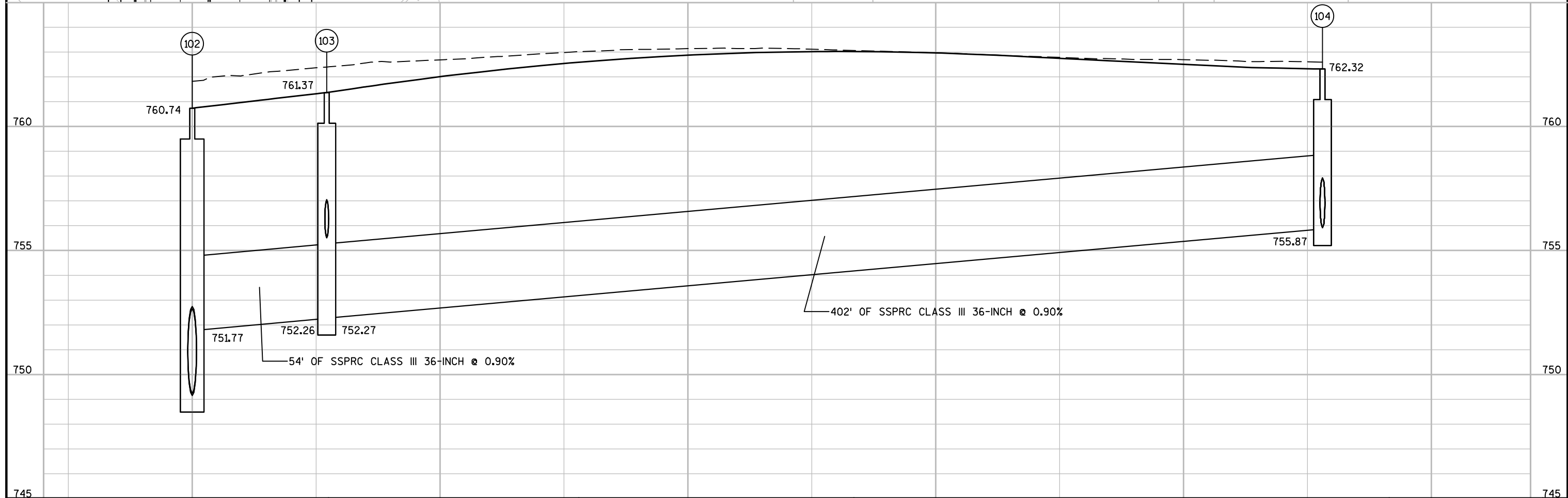


PROJECT NO:1517-75-77	HWY:STH 441/USH 10	COUNTY:WINNEBAGO	STORM SEWER	SHEET	E
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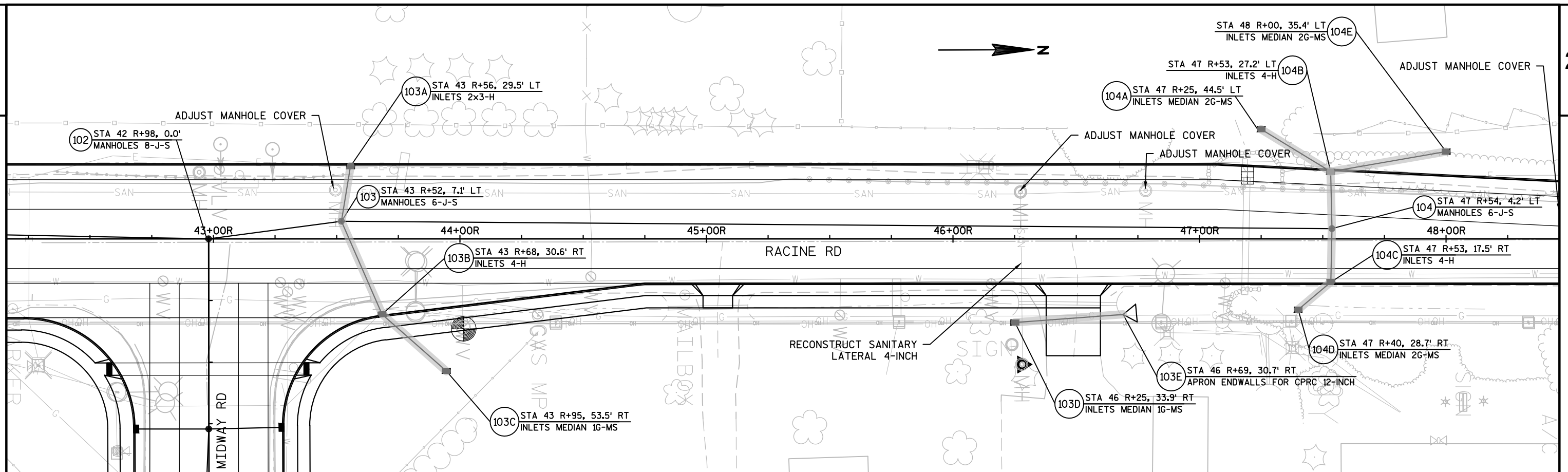
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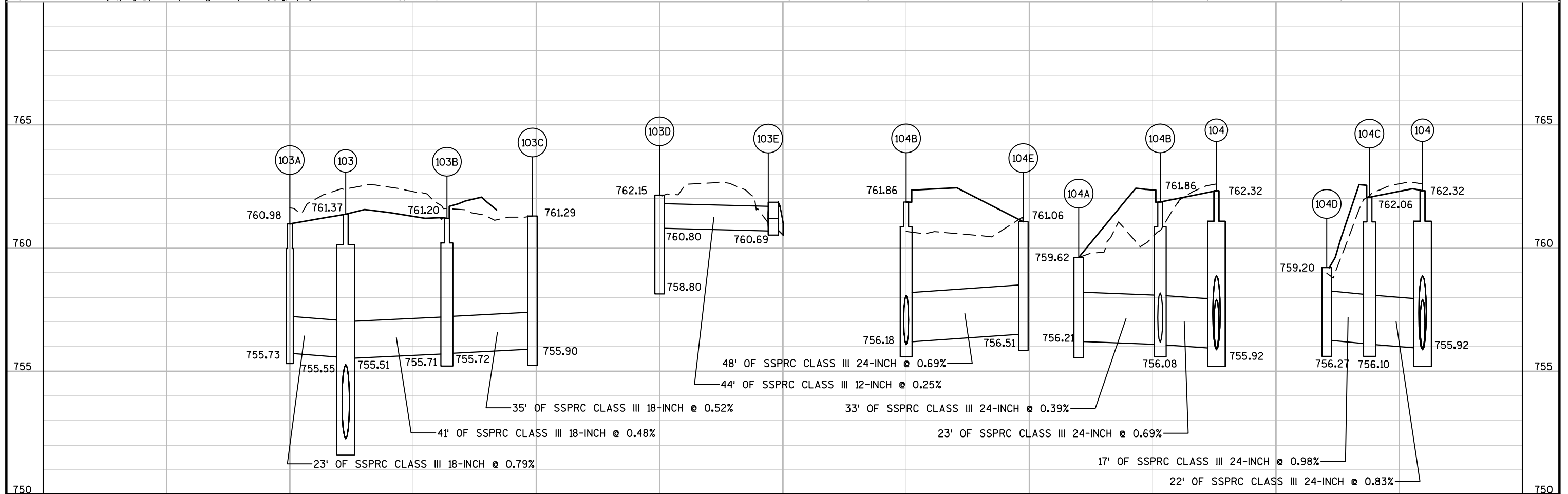
PROJECT NO:1517-75-77	HWY:STH 441/USH 10	COUNTY:WINNEBAGO	STORM SEWER	SHEET	E
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FILE NAME : S:\PDS\C3D\WIS441\15177570_72_77_85\SHEETSPLAN\1517-75-77\022500-SS\NE-15177577-022501-SS-RACINE.DWG
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PLOT BY : SLEZAK, KIMBERLY A
PLOT NAME :
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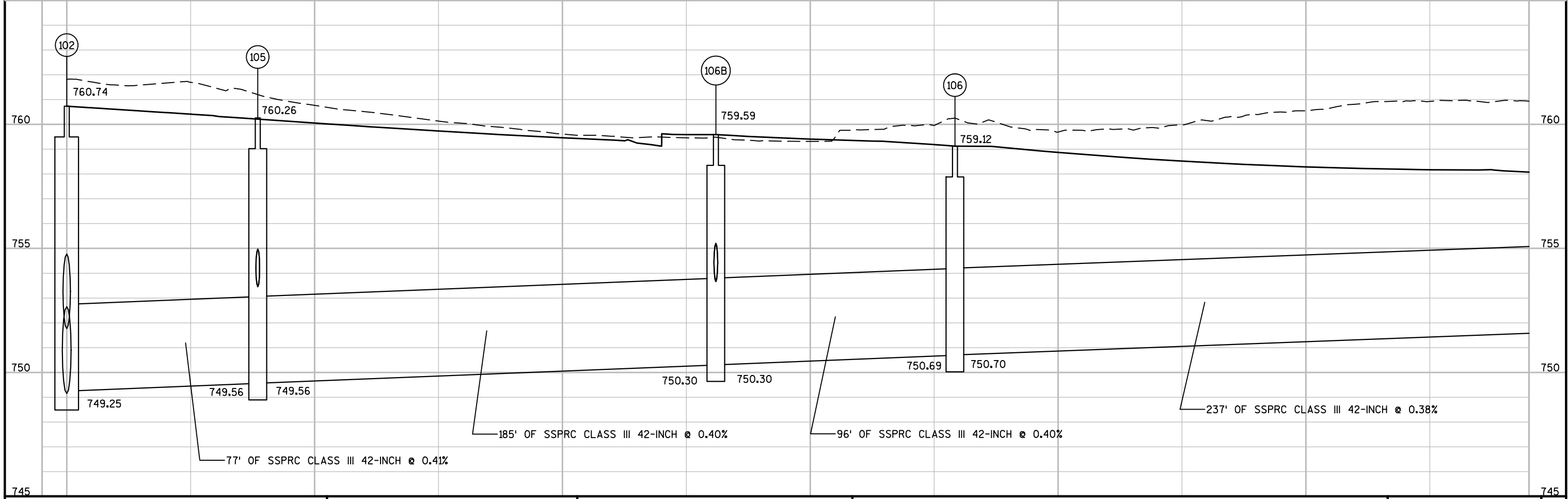
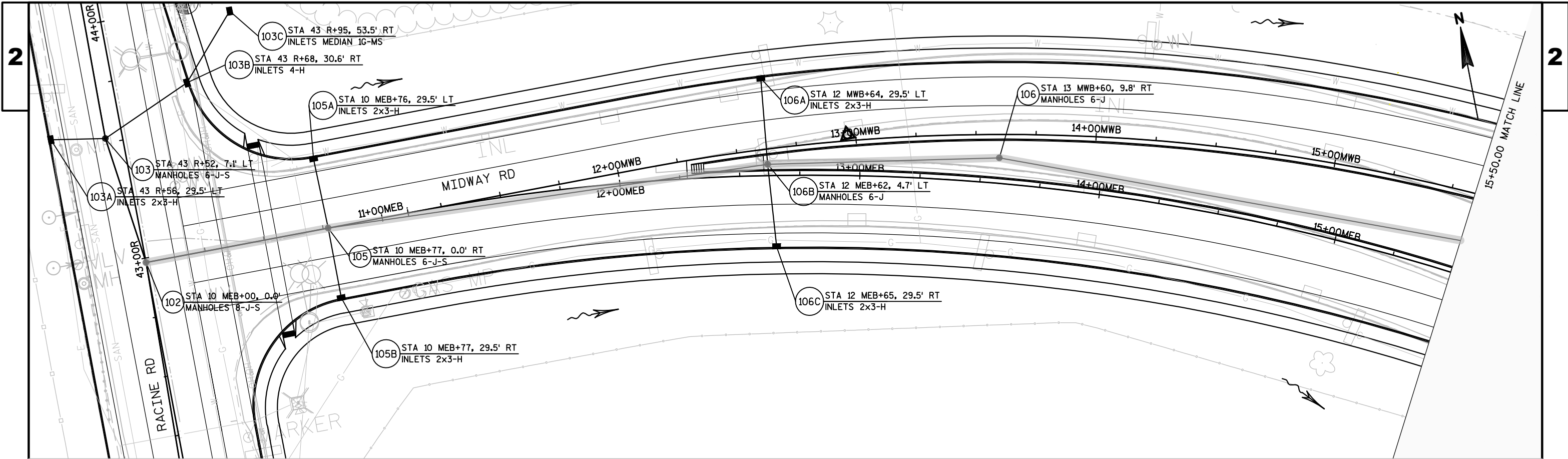
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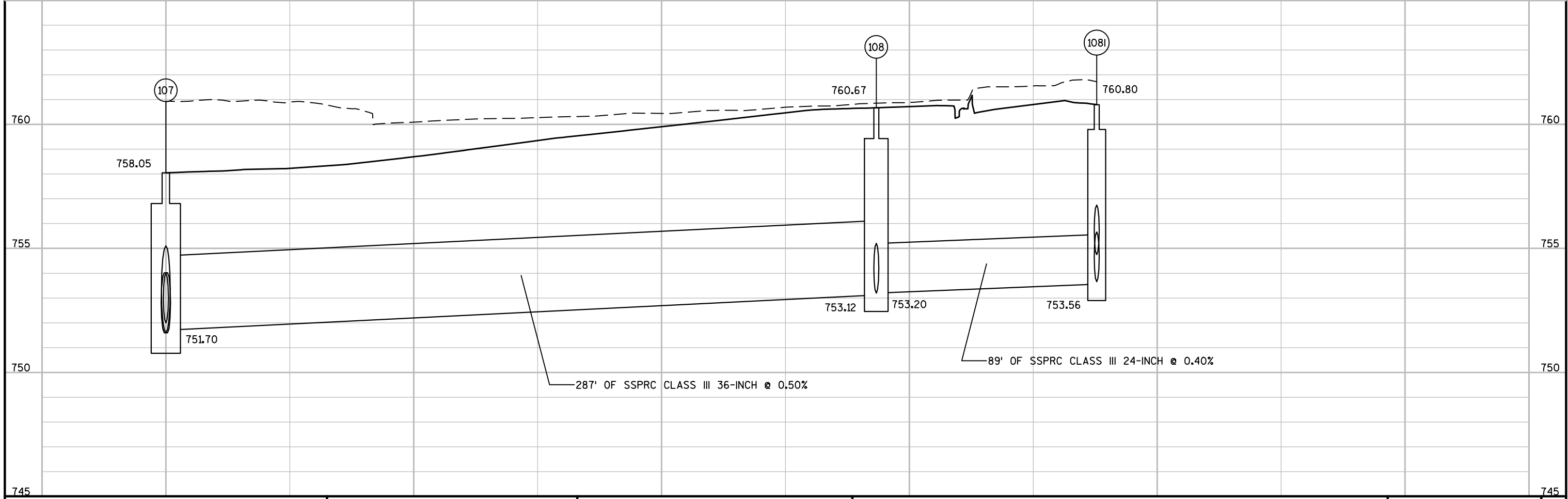
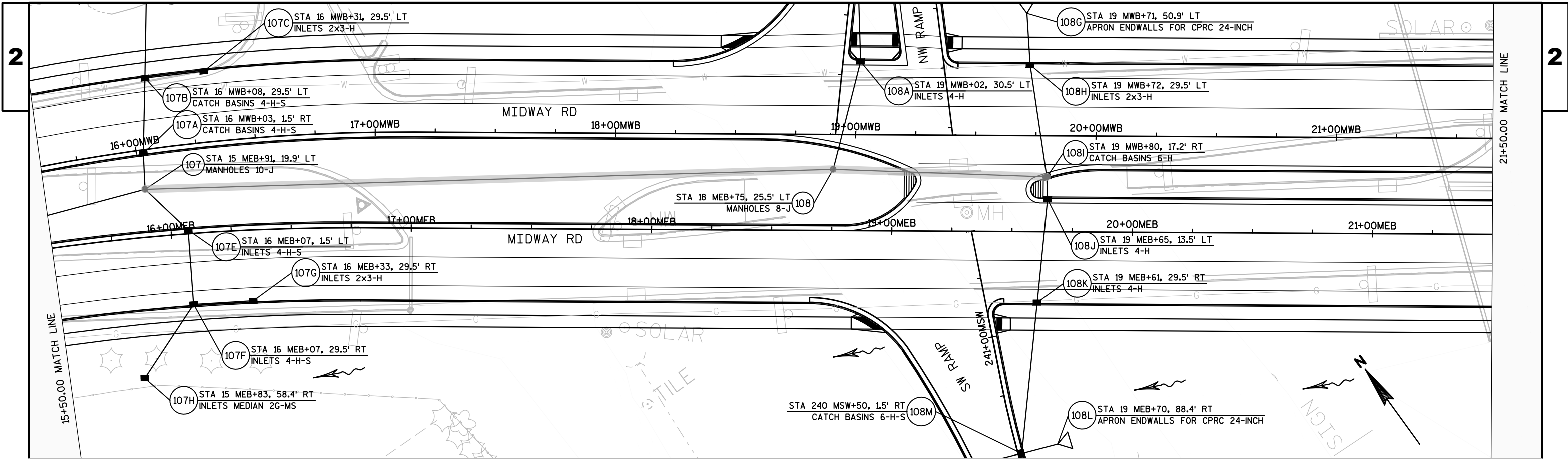


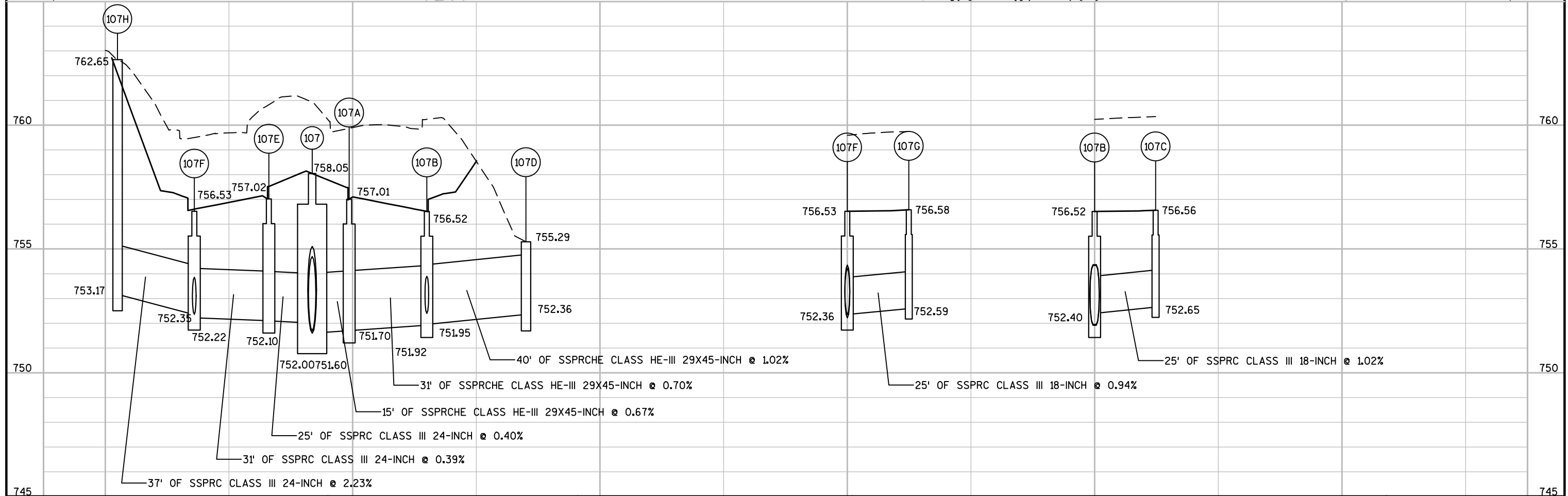
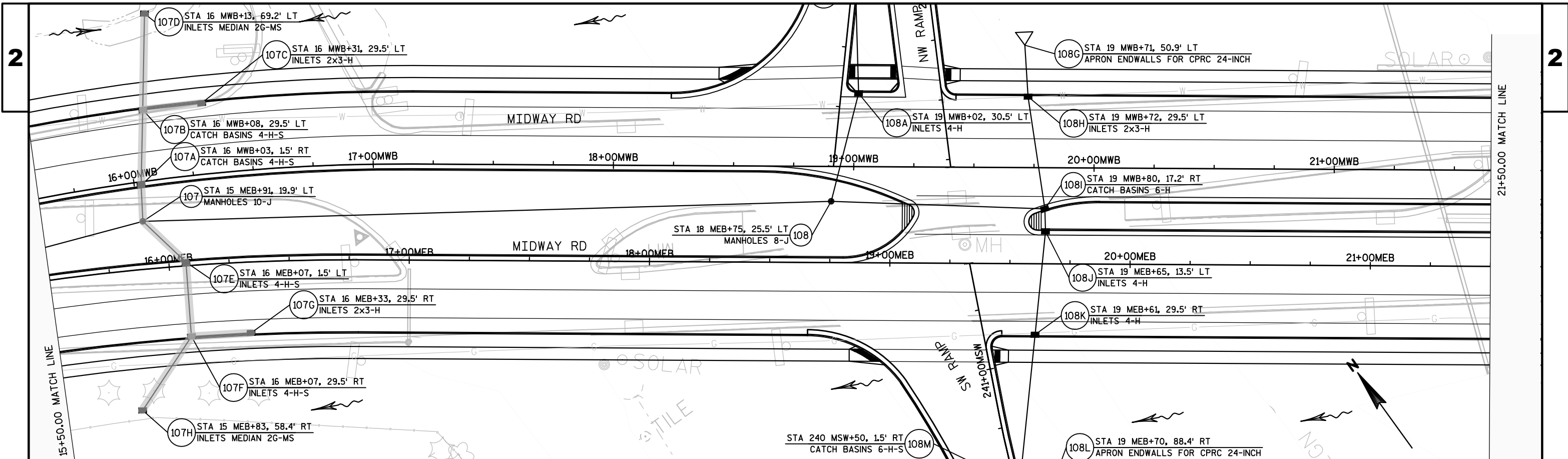
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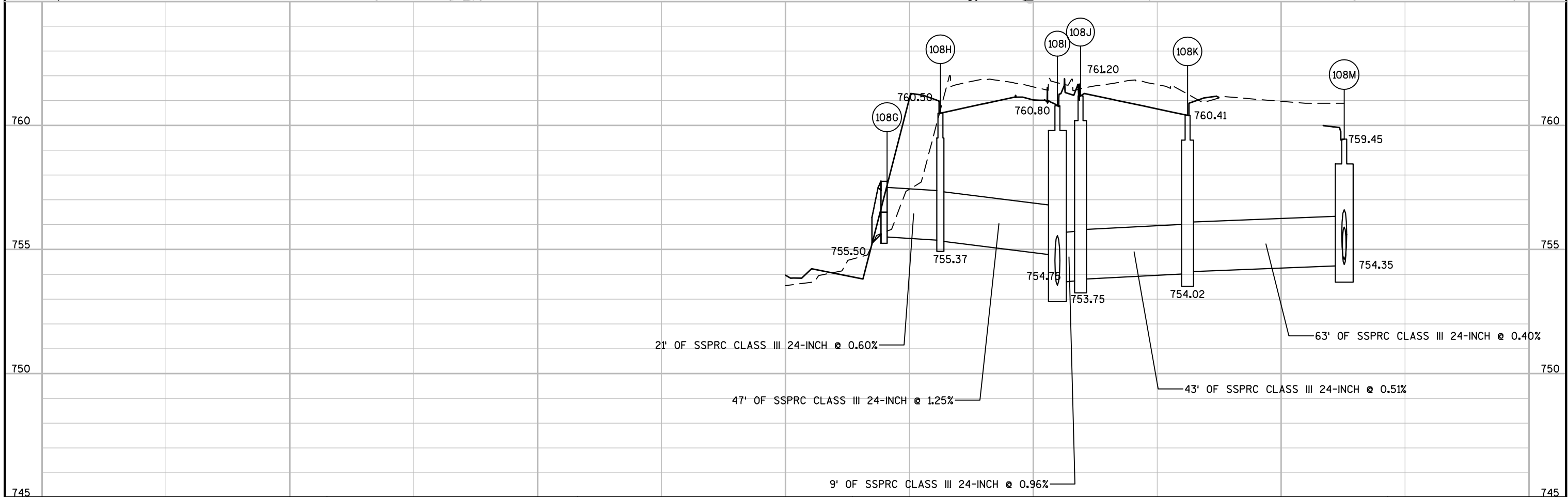
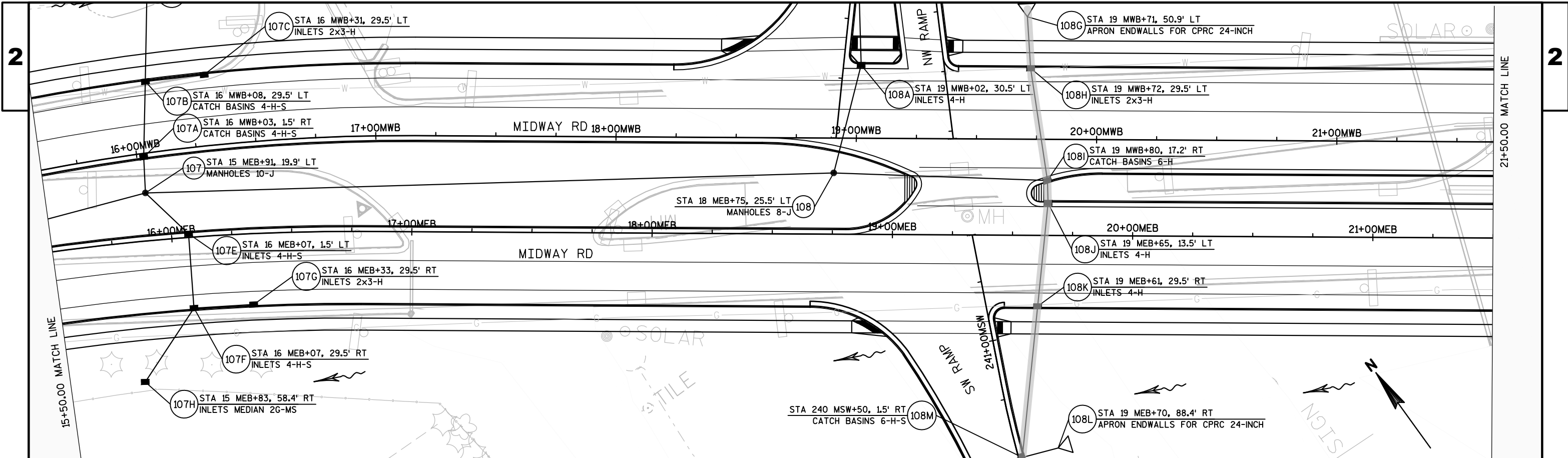


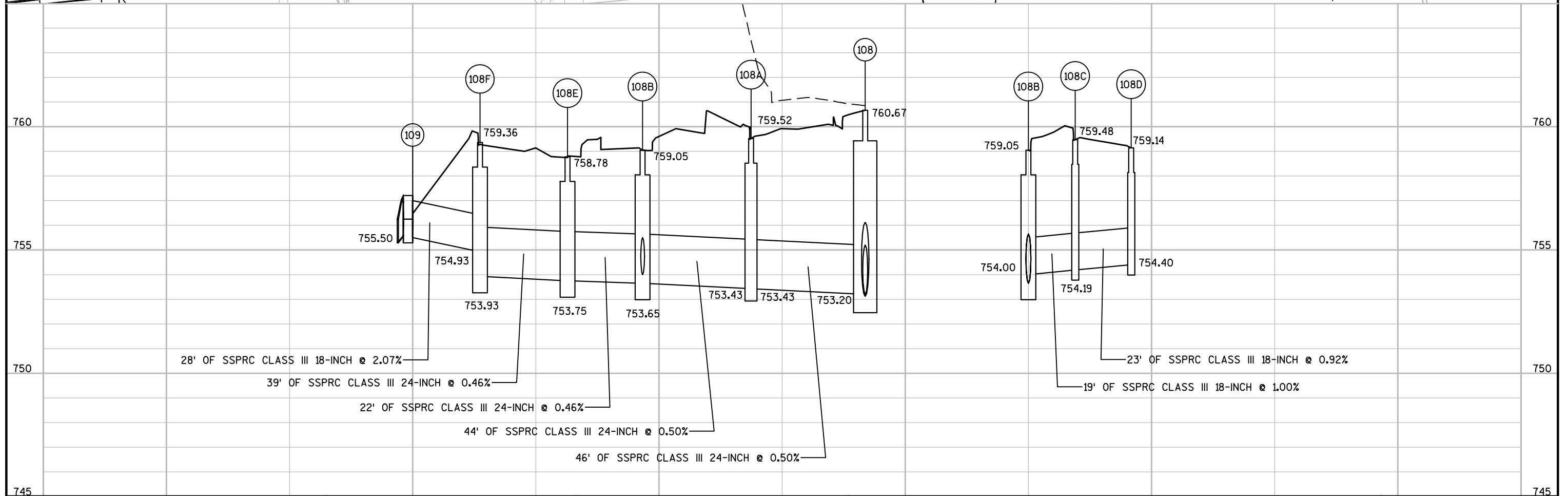
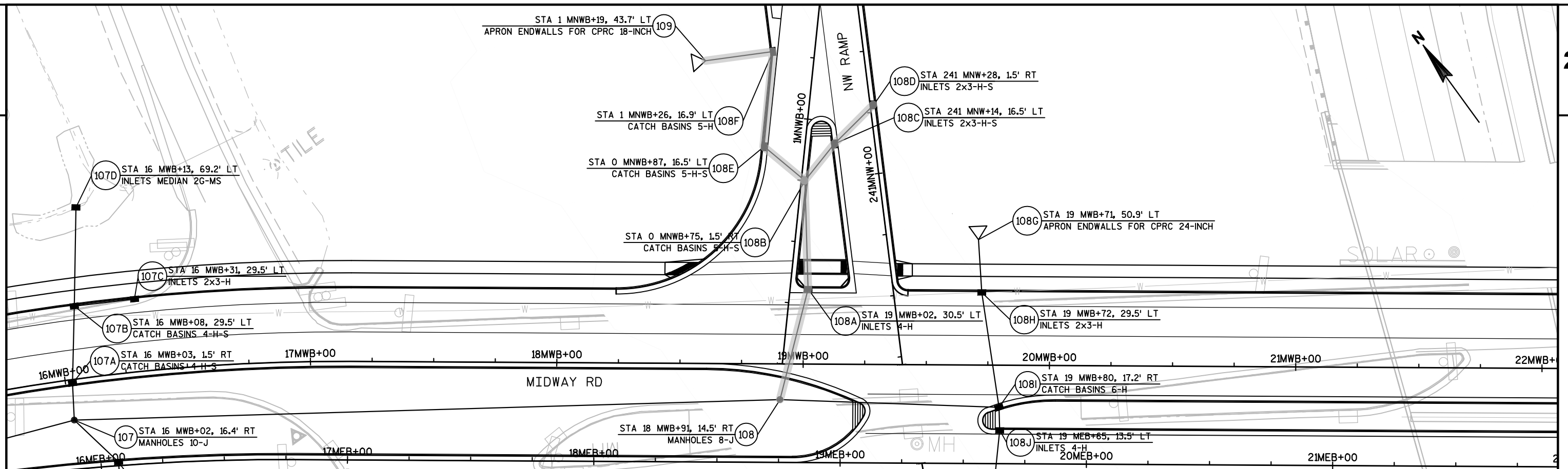
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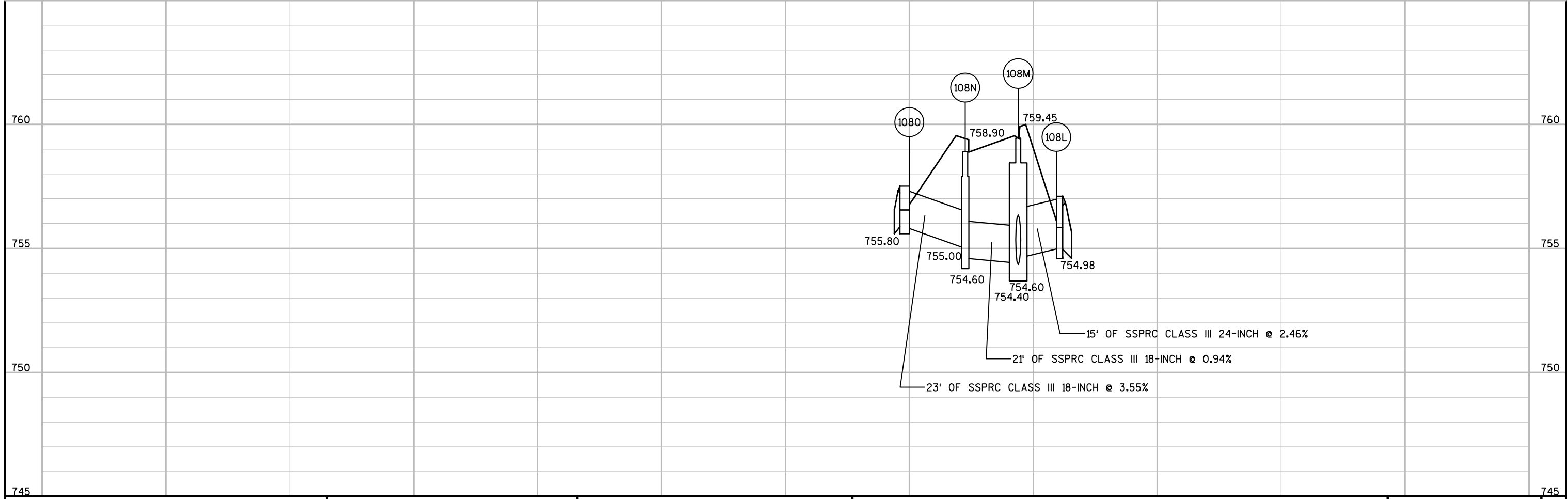
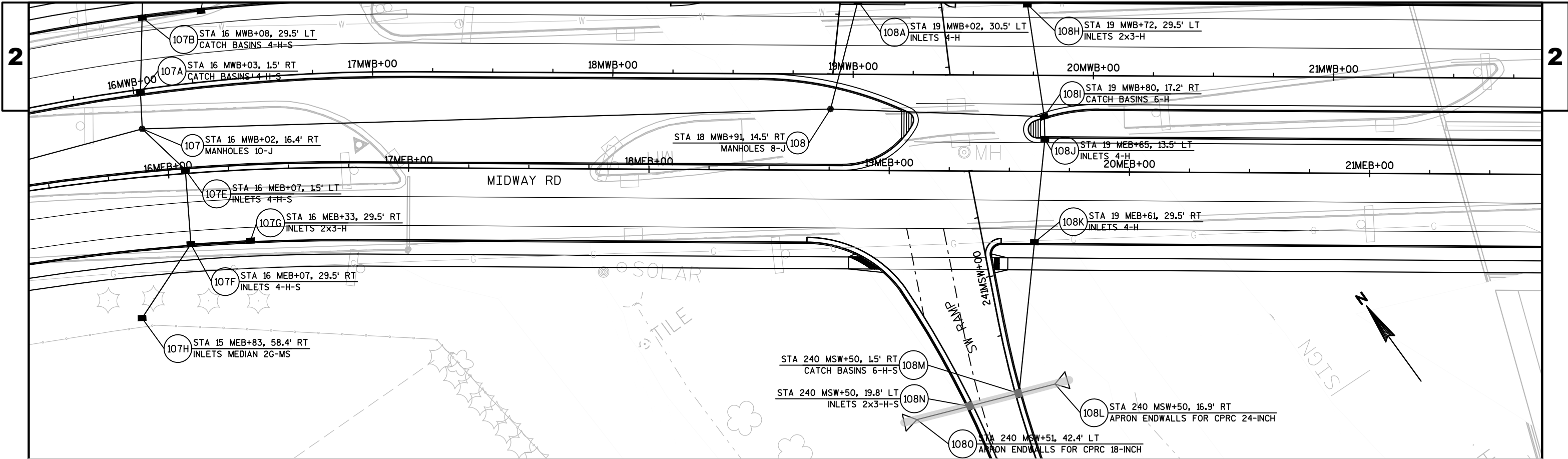


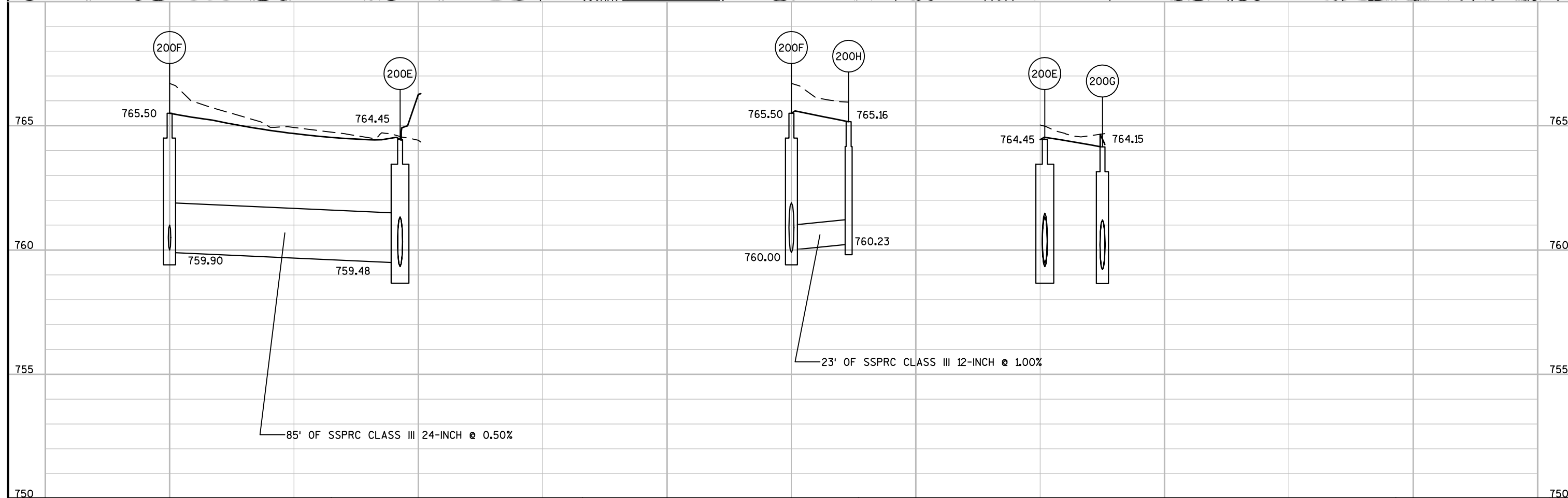
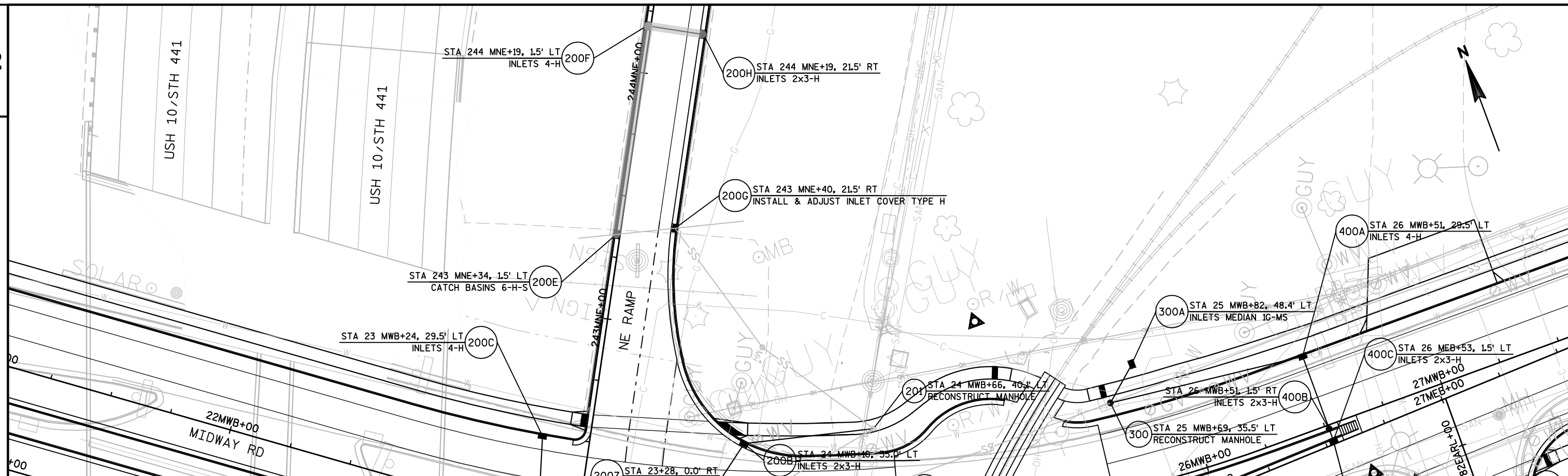


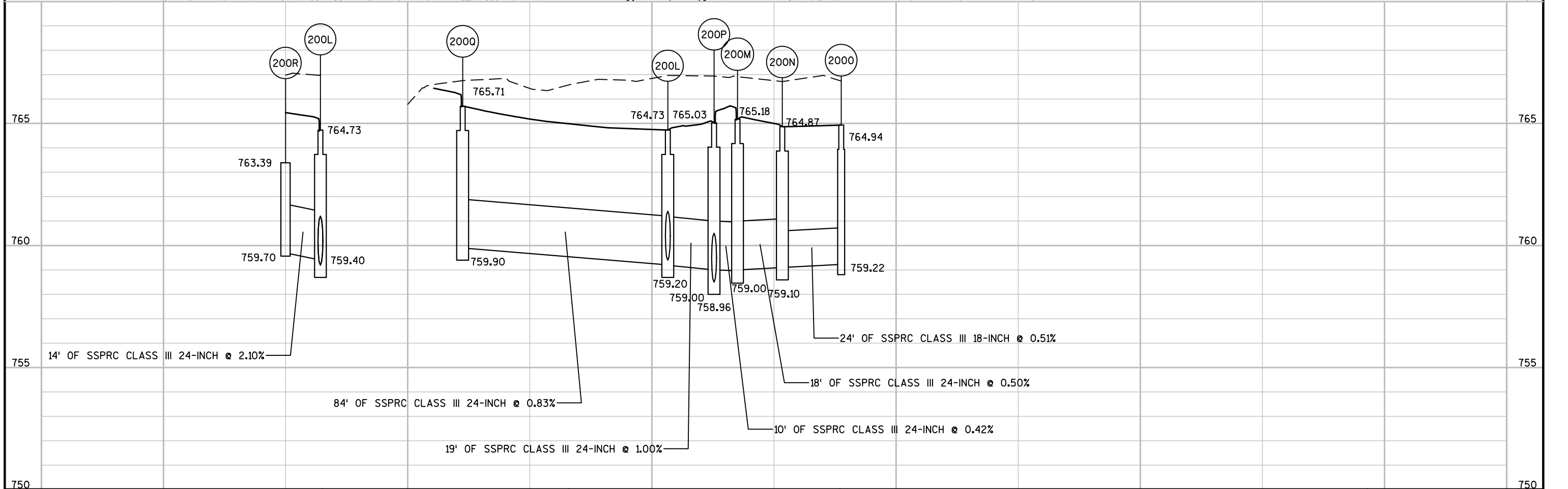
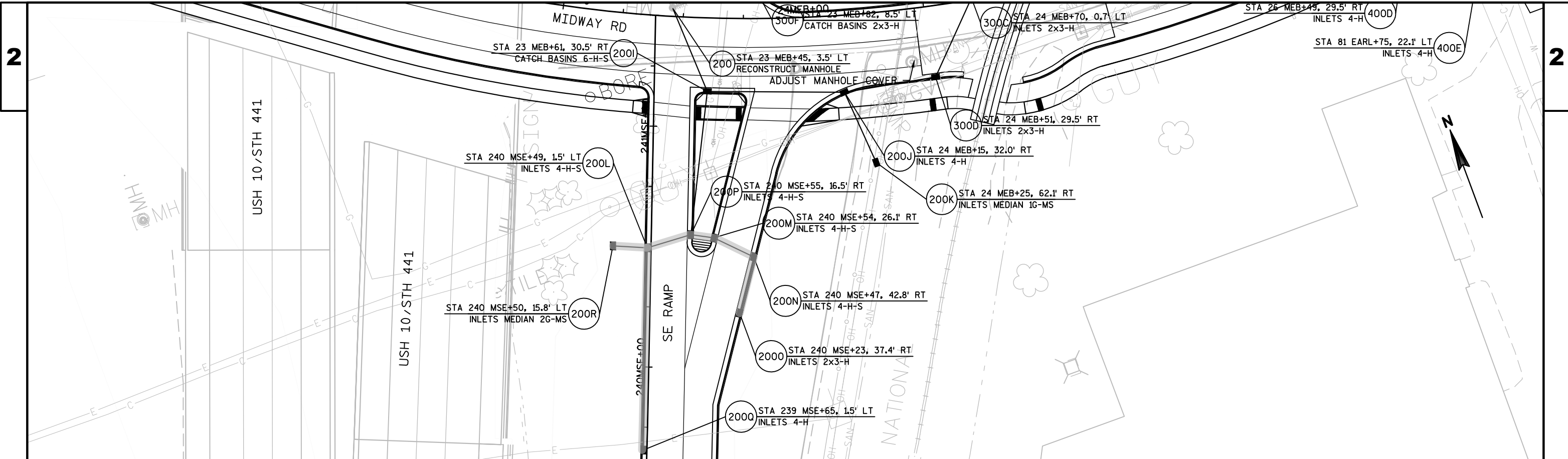


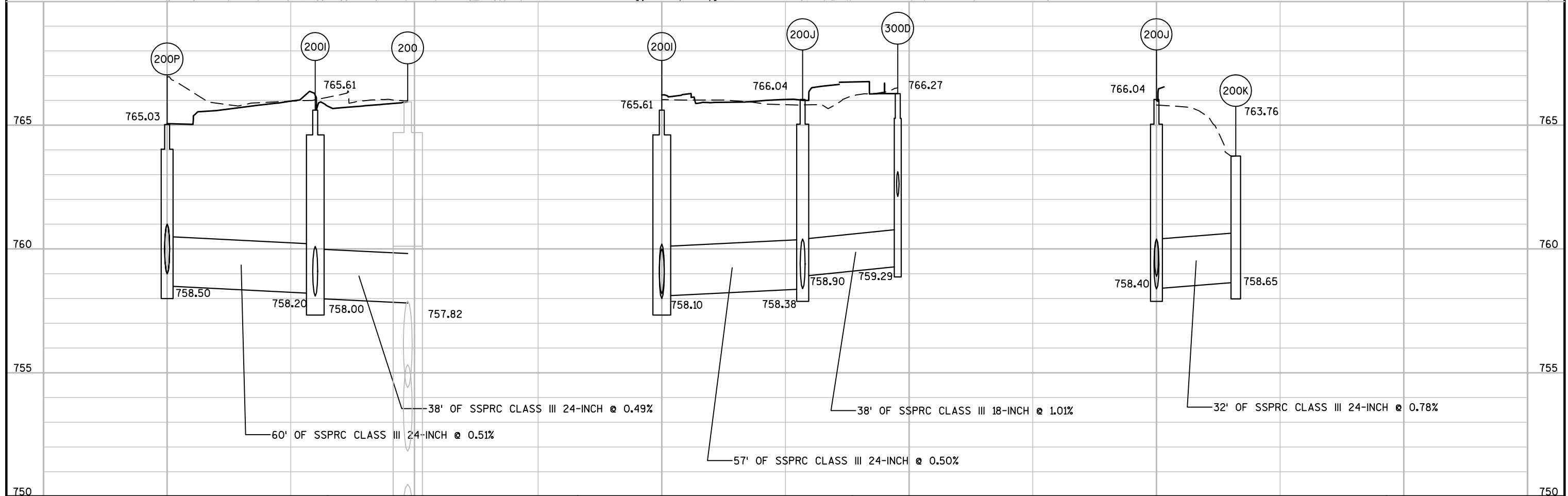
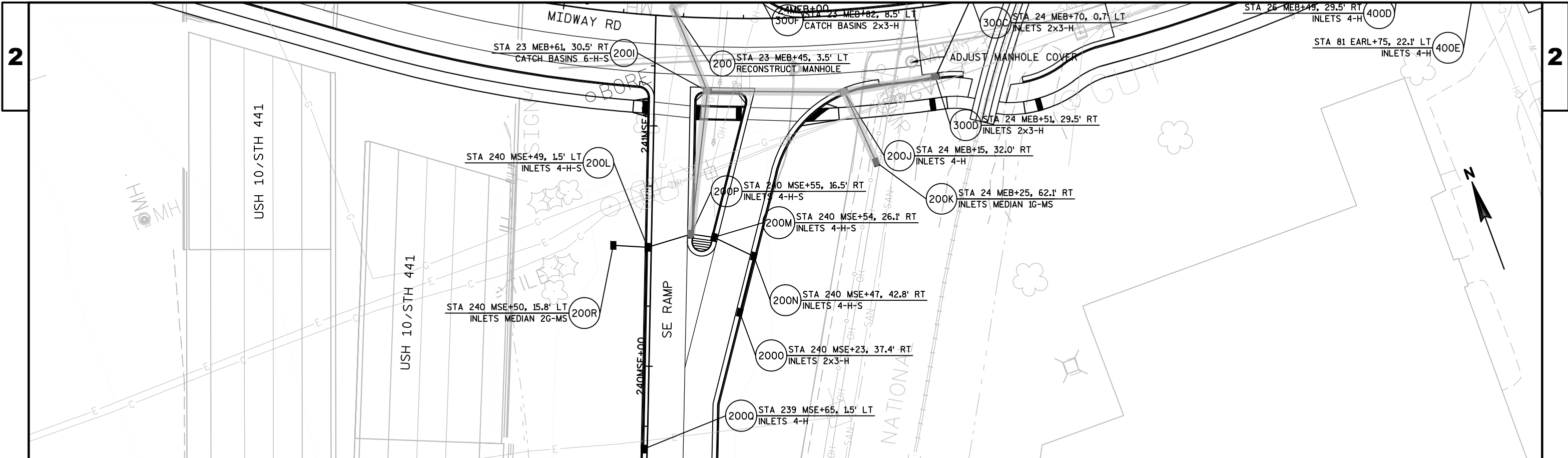


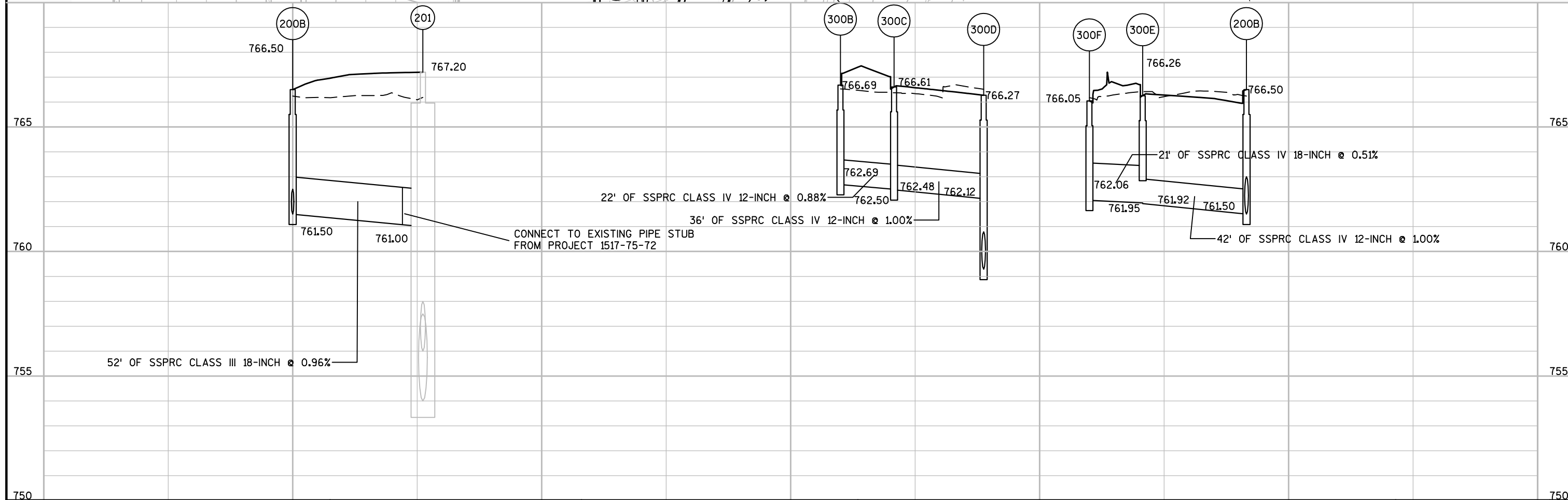
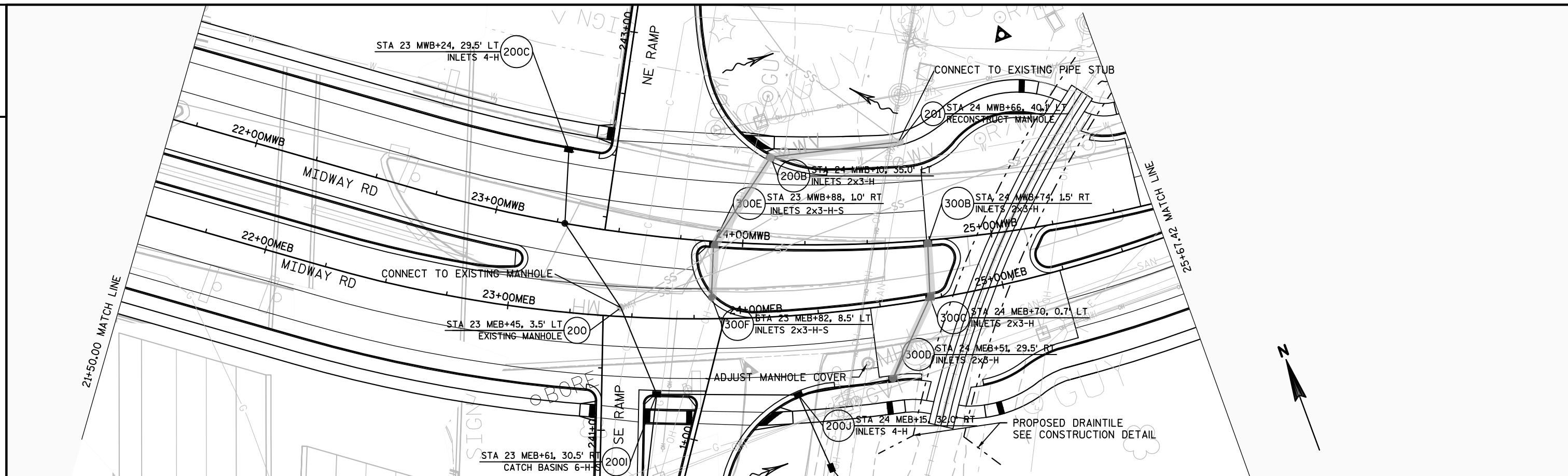


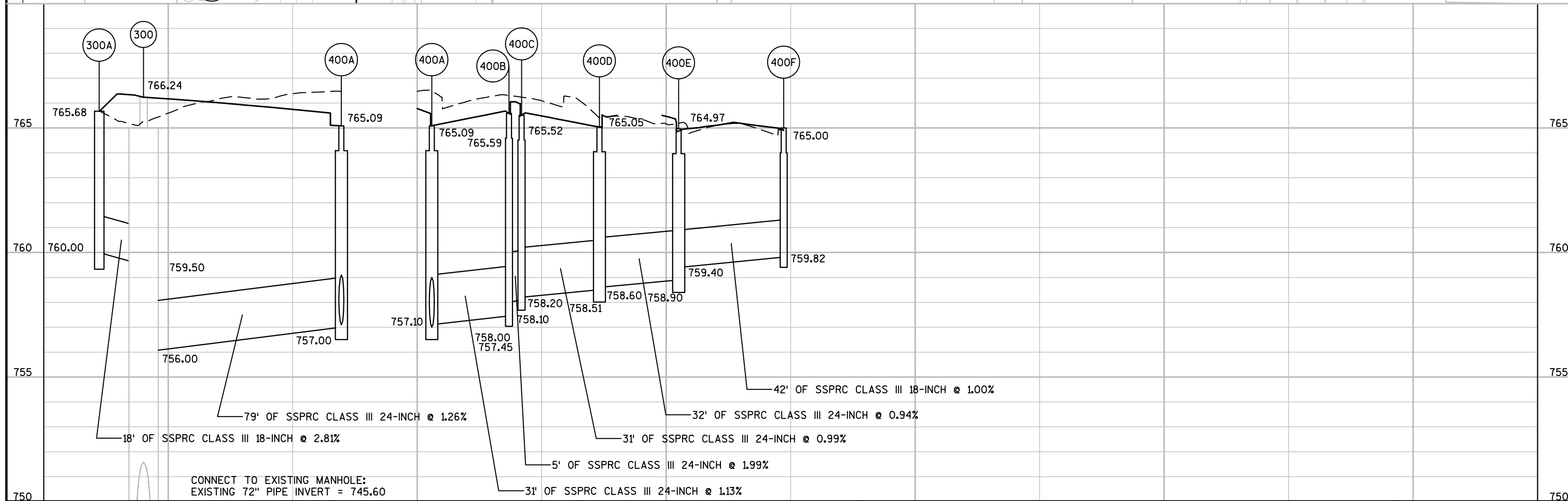
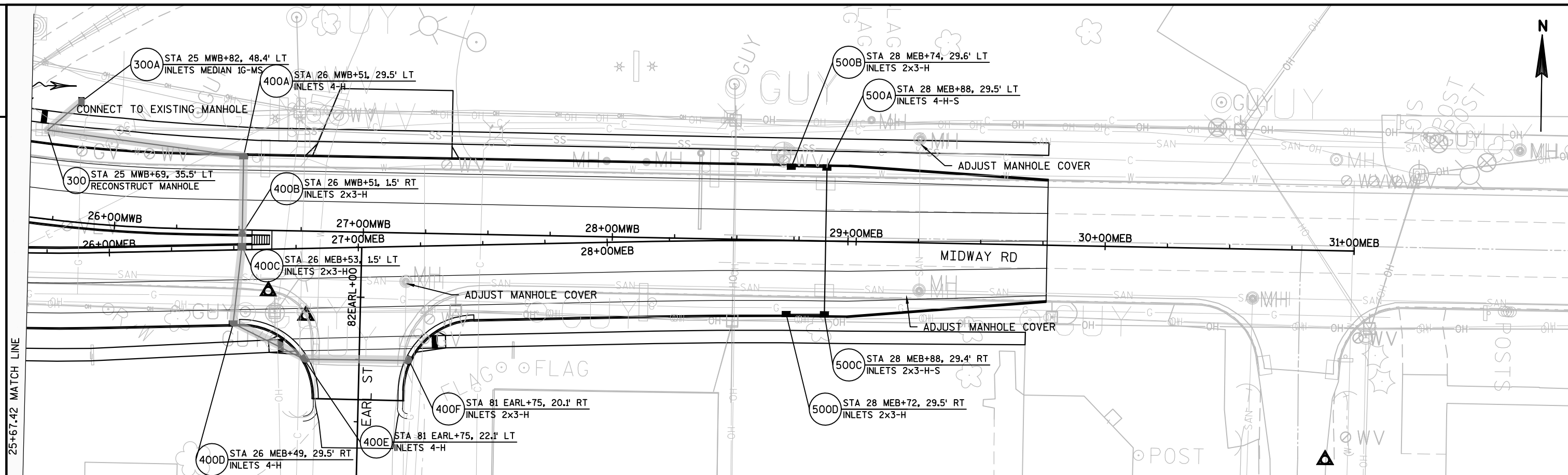






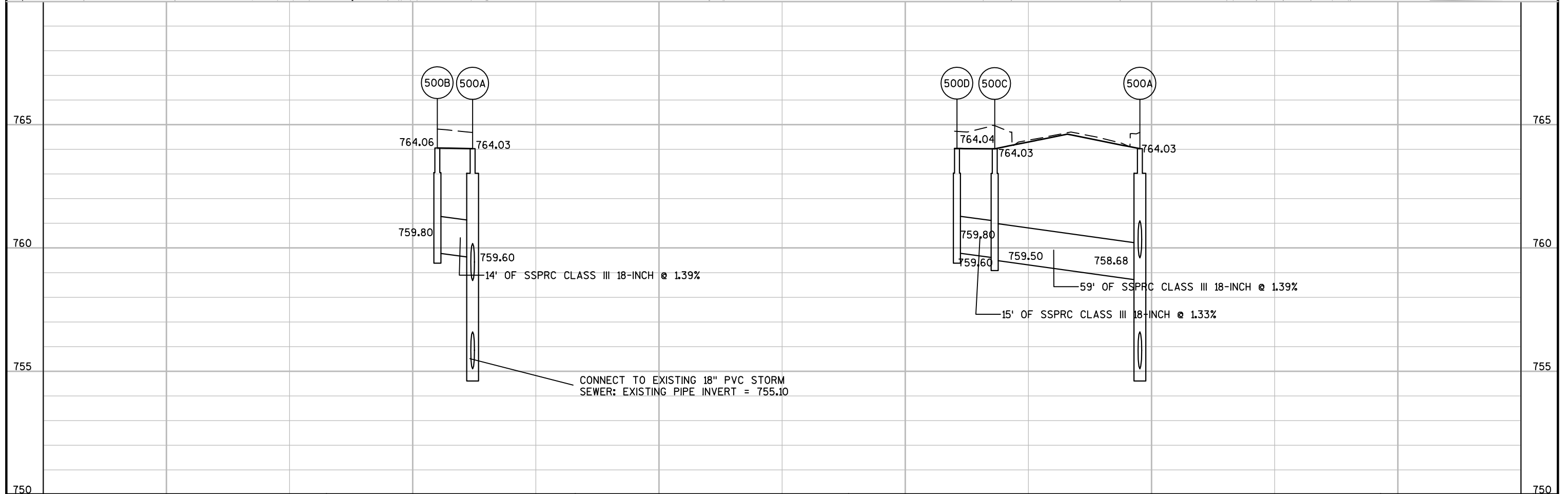
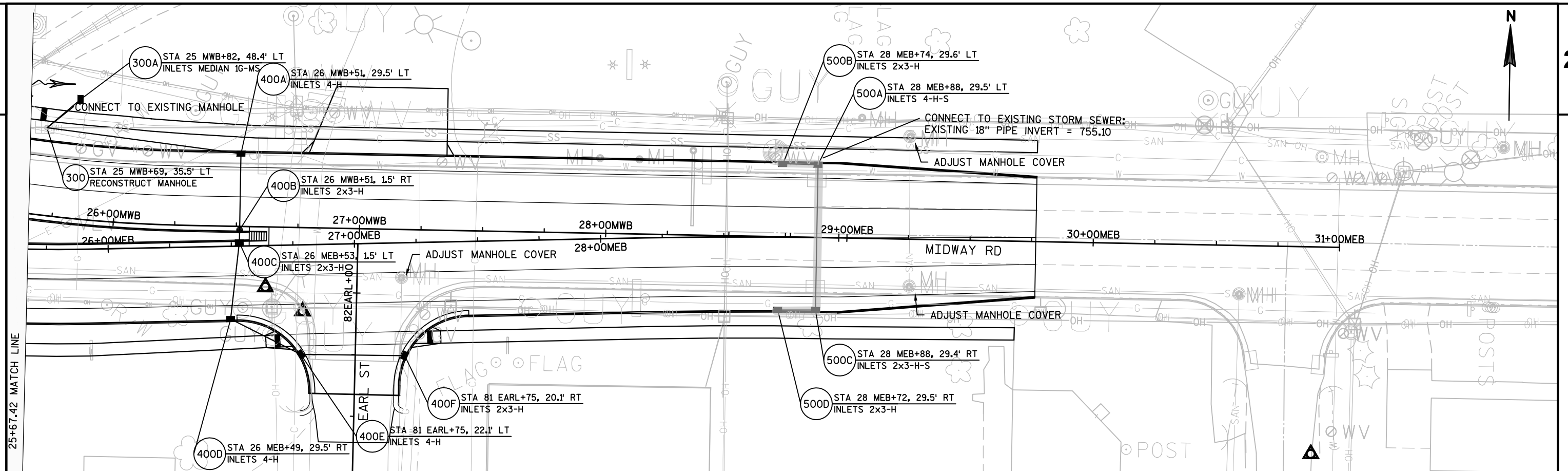






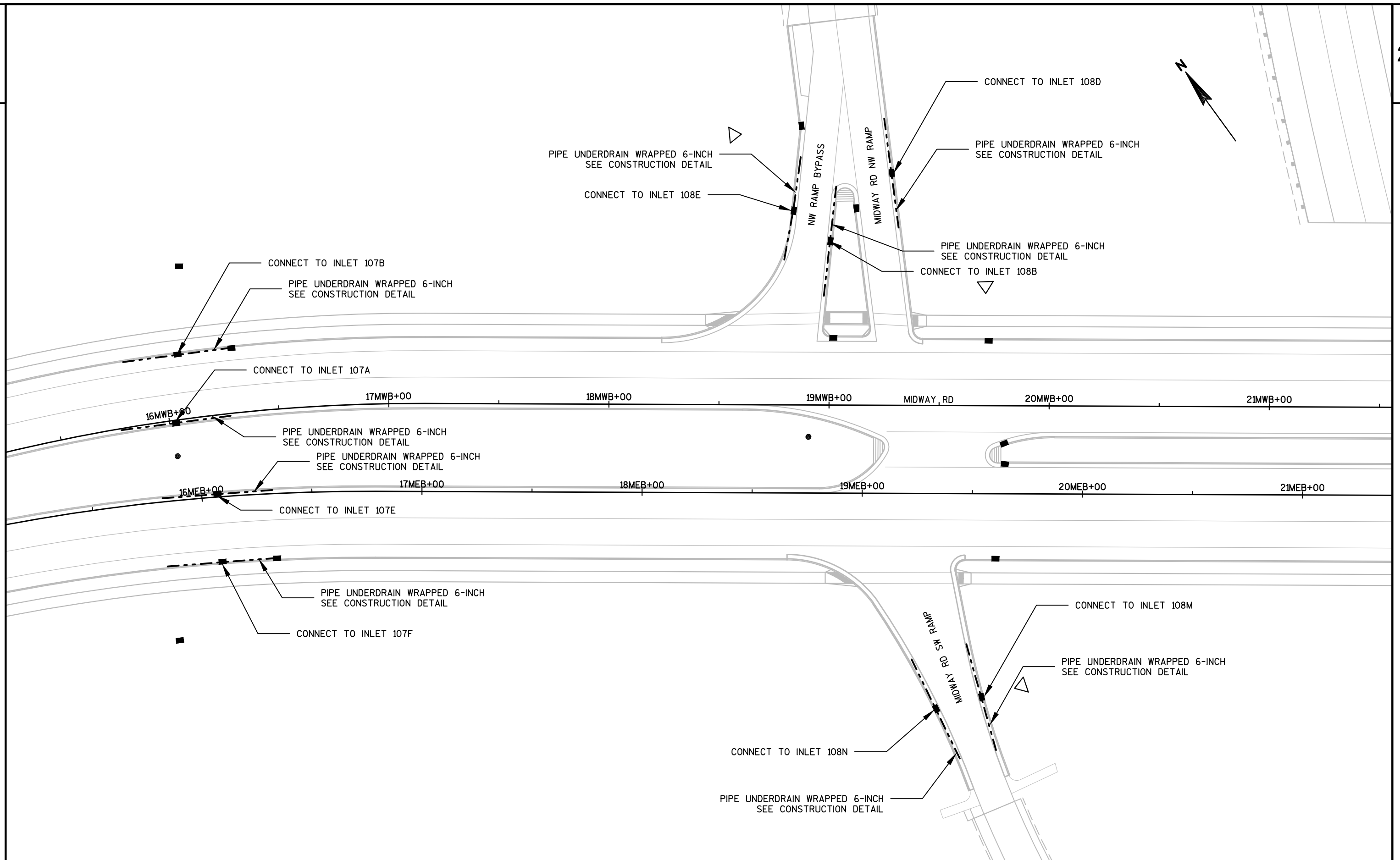
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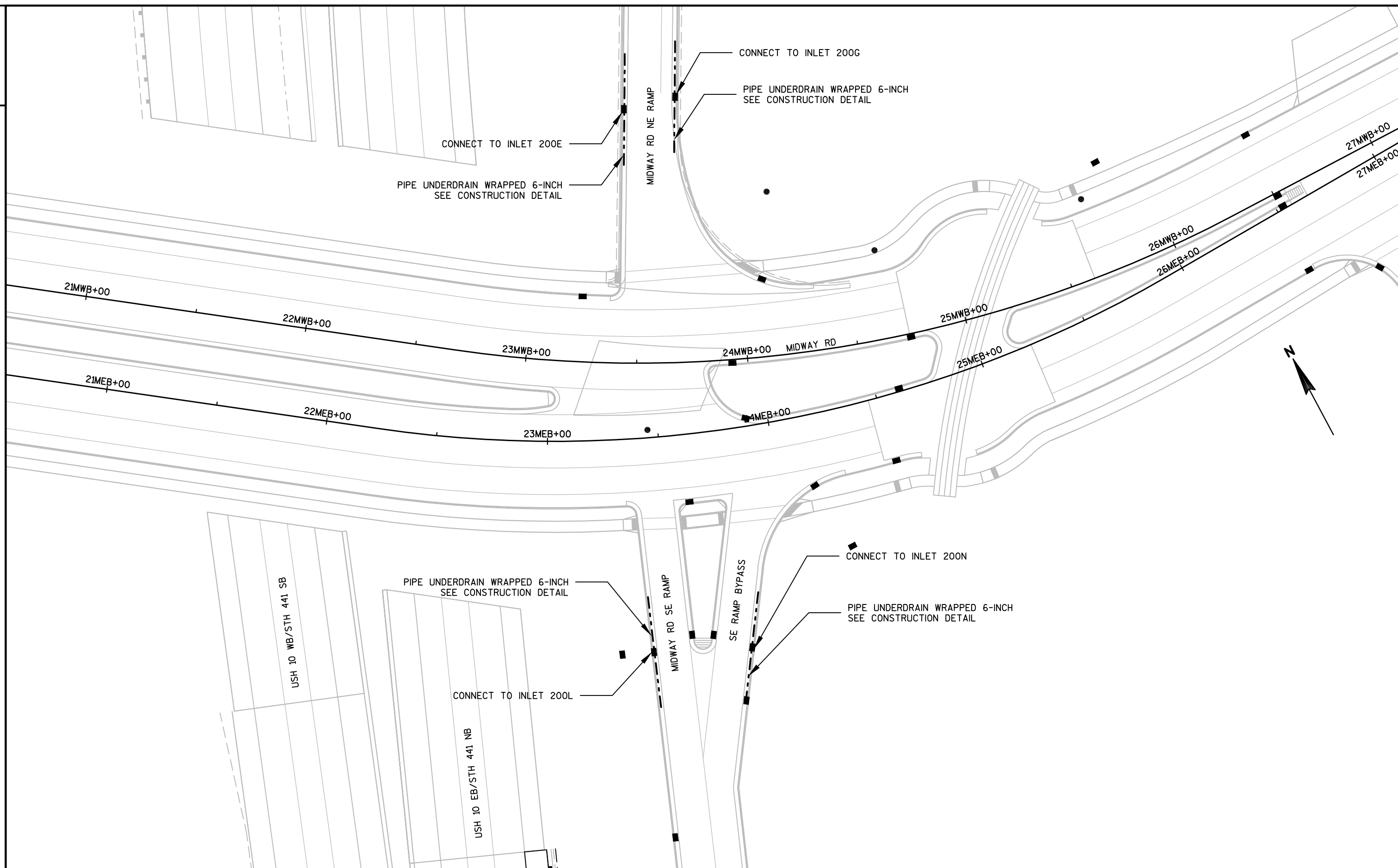
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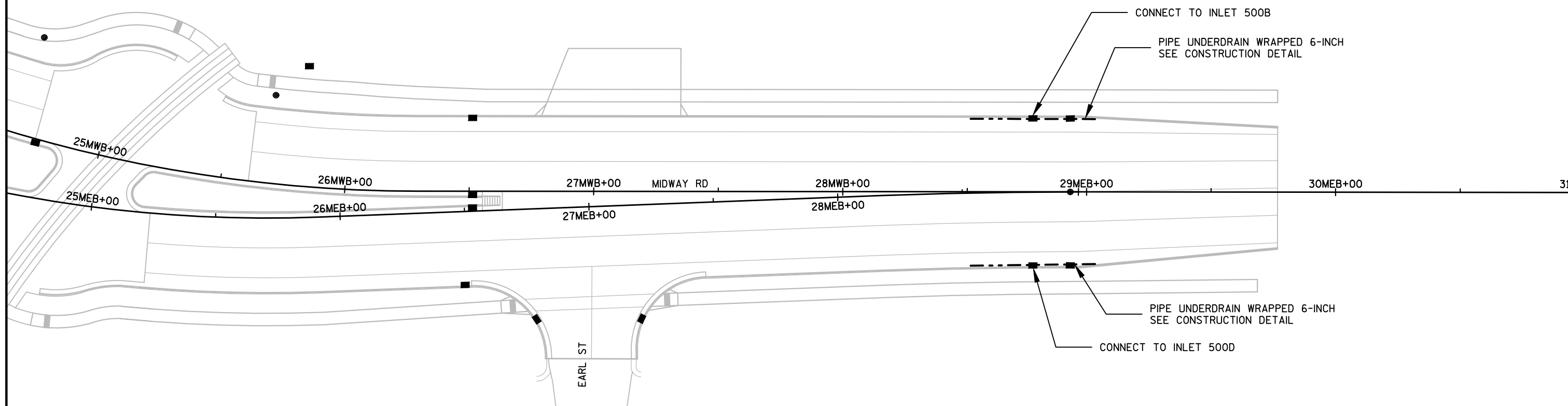


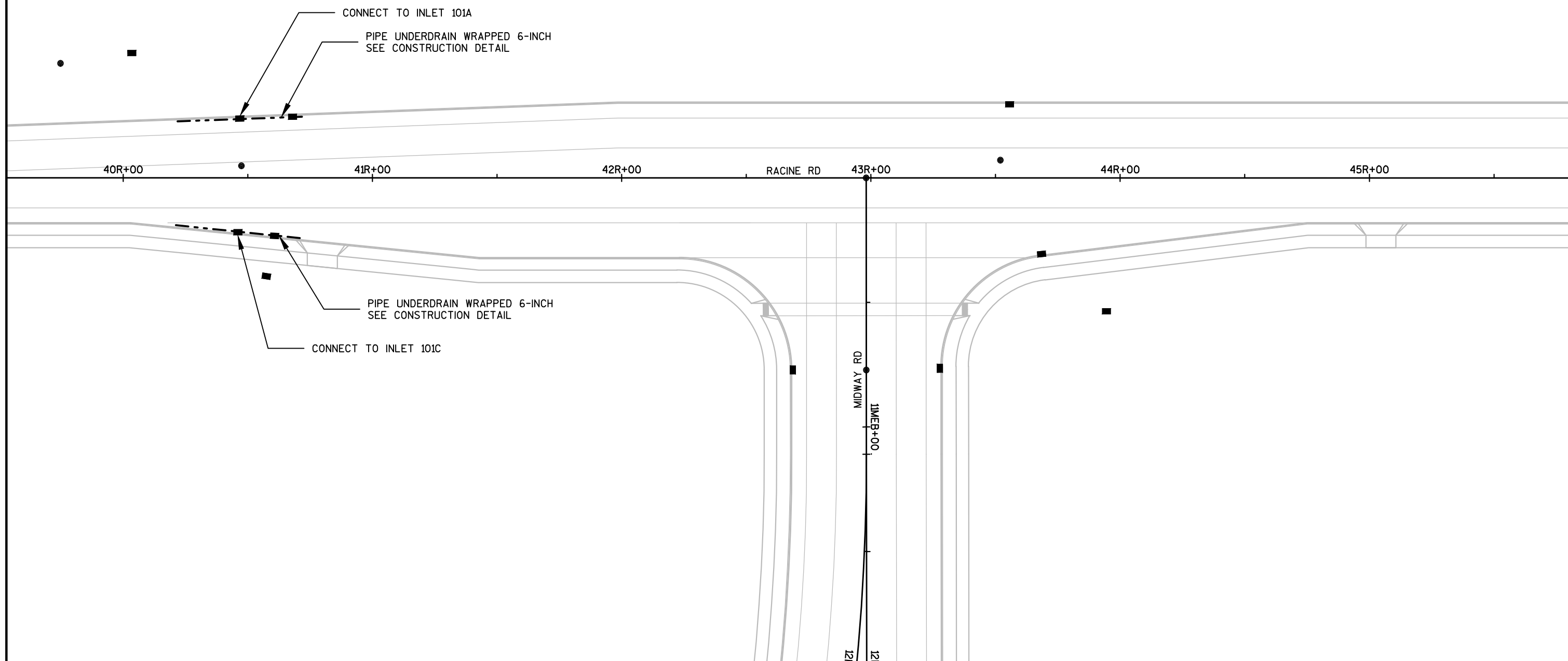
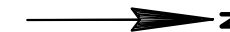
PROJECT NO: 1517-75-77	HWY: STH 441/USH 10	COUNTY: WINNEBAGO	STORM SEWER	SHEET	E
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LAYOUT NAME - NE-15177577-022501-SS - NE-15177577-022508
PLOT DATE : 11/29/2018 5:40 PM
PLOT BY : SLEZAK, KIMBERLY A
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDs SHEET 41









PROJECT NO:1517-75-77

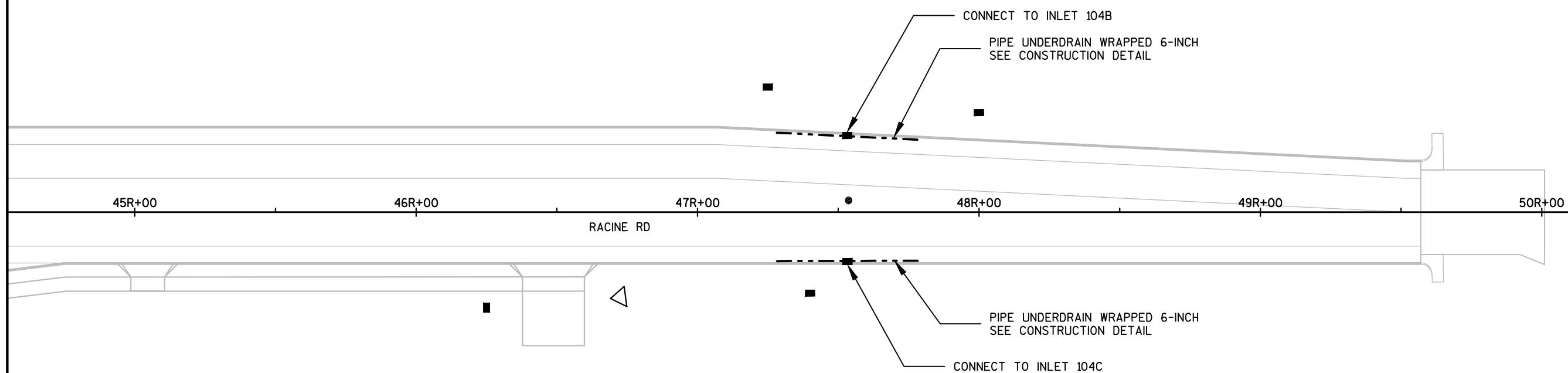
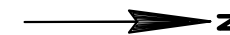
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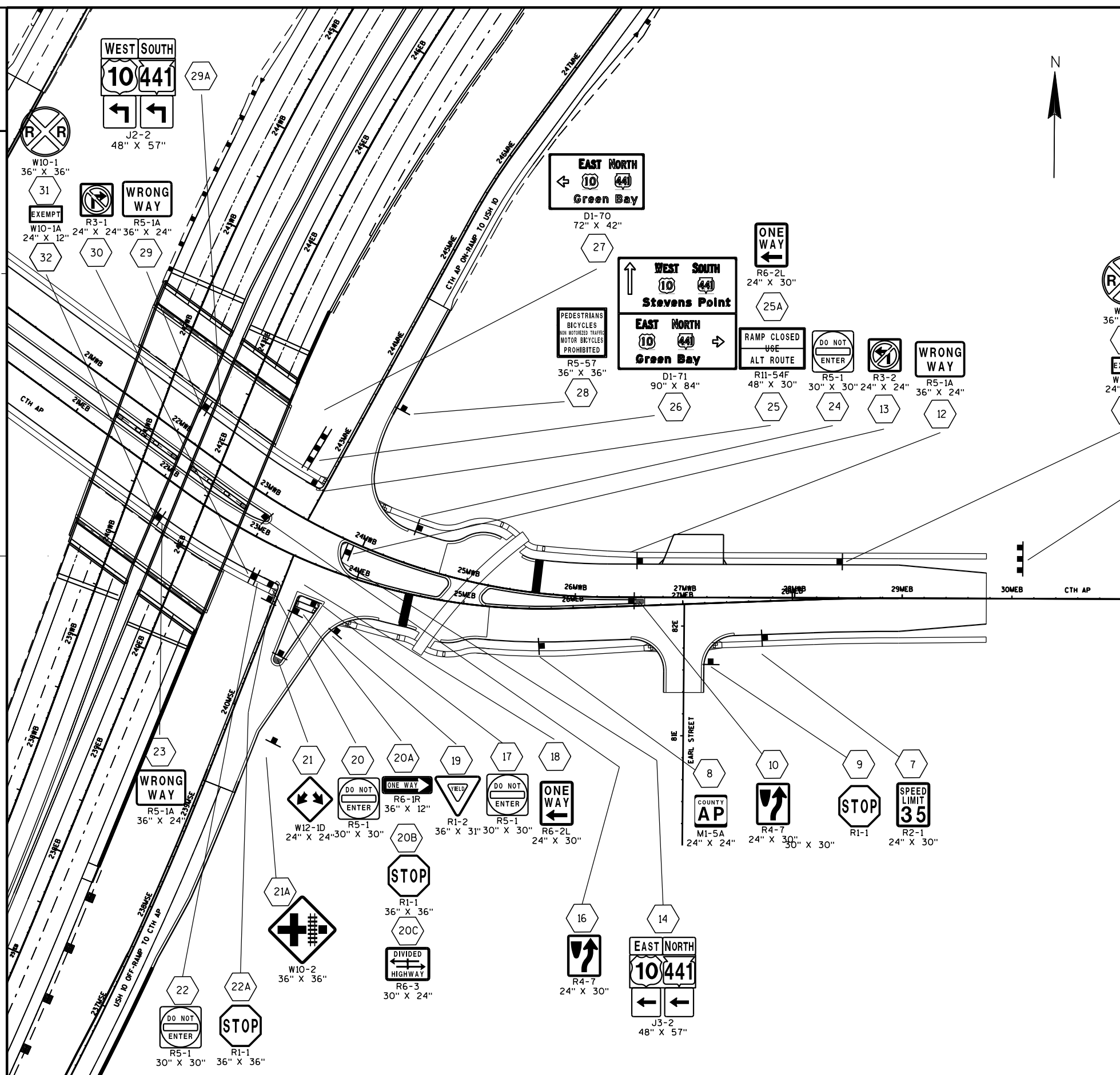
COUNTY:WINNEBAGO

PIPE UNDERDRAIN

SHEET

E





SIGNING NOTES

TYPE II SIGNS AND SUPPORTS REMOVED UNDER THE CONTRACT SHALL BE DELIVERED TO THE REGIONAL TRAFFIC UNIT. SIGNS SHALL BE CAREFULLY REMOVED FROM THE SUPPORTS, SORTED BY BASE MATERIAL AND PALLETIZED BY MATERIAL TYPE. SUPPORTS SHALL BE SORTED BY LENGTH AND TYPE. THE REGIONAL TRAFFIC UNIT 920-492-5653, SHALL BE NOTIFIED THREE WORKING DAYS PRIOR TO DELIVERY OF SIGNS AND SUPPORTS.

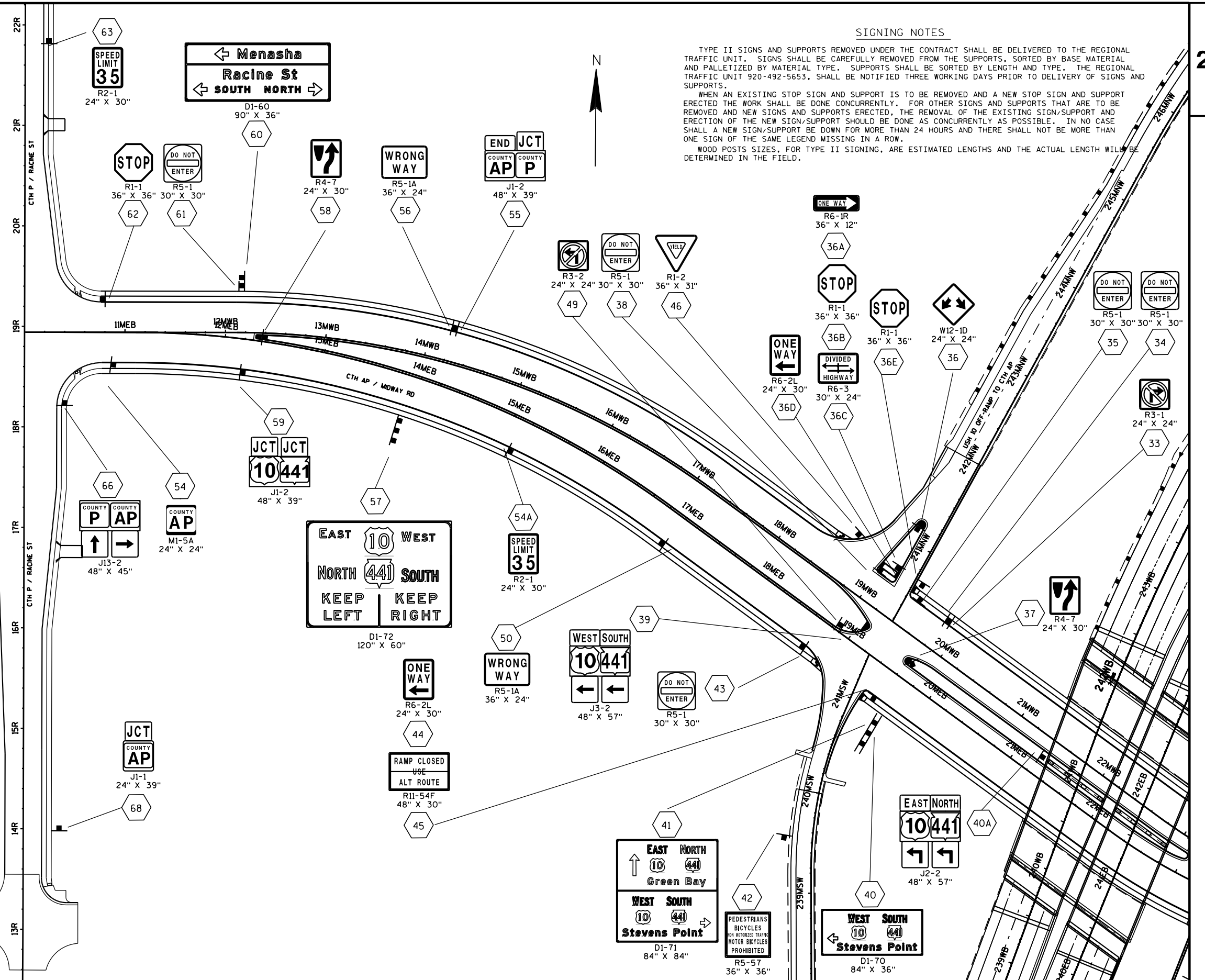
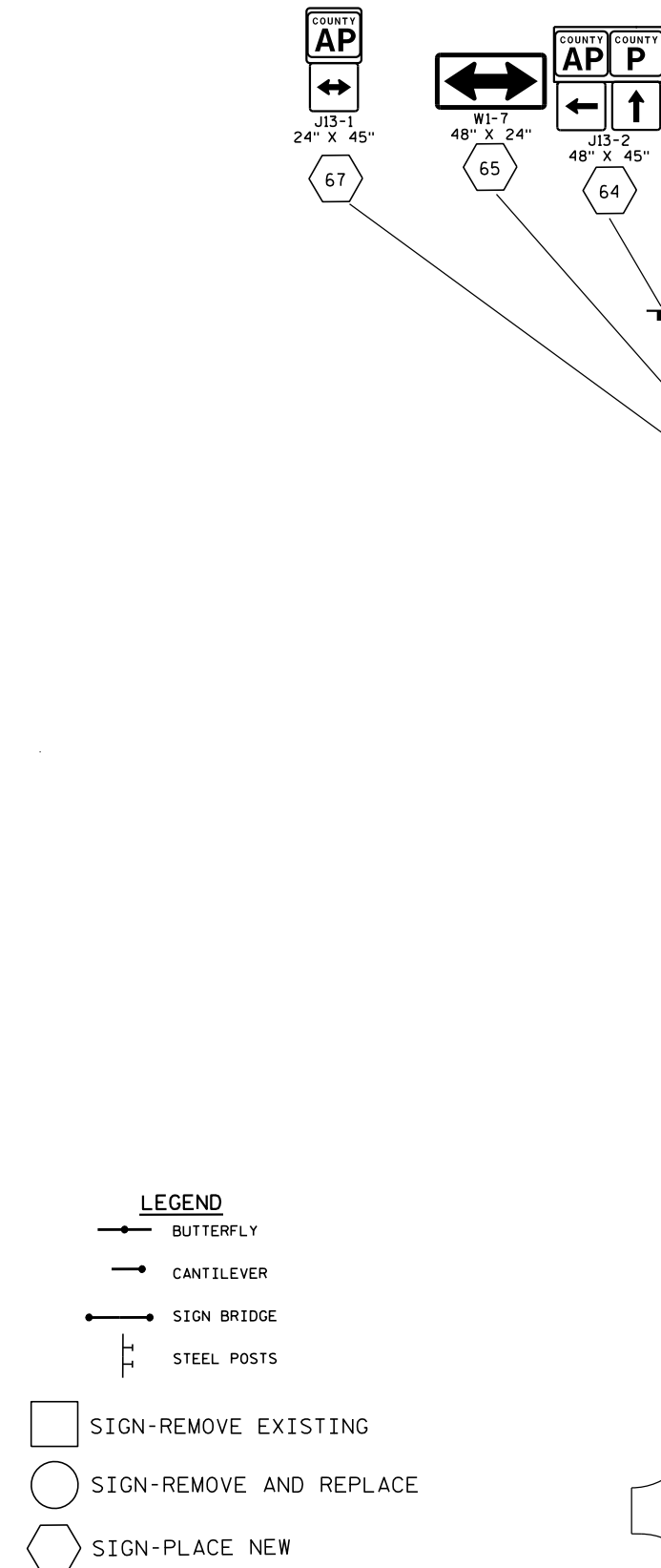
WHEN AN EXISTING STOP SIGN AND SUPPORT IS TO BE REMOVED AND A NEW STOP SIGN AND SUPPORT ERECTED THE WORK SHALL BE DONE CONCURRENTLY. FOR OTHER SIGNS AND SUPPORTS THAT ARE TO BE REMOVED AND NEW SIGNS AND SUPPORTS ERECTED, THE REMOVAL OF THE EXISTING SIGN/SUPPORT AND ERECTION OF THE NEW SIGN/SUPPORT SHOULD BE DONE AS CONCURRENTLY AS POSSIBLE. IN NO CASE SHALL A NEW SIGN/SUPPORT BE DOWN FOR MORE THAN 24 HOURS AND THERE SHALL NOT BE MORE THAN ONE SIGN OF THE SAME LEGEND MISSING IN A ROW.

WOOD POSTS SIZES, FOR TYPE II SIGNING, ARE ESTIMATED LENGTHS AND THE ACTUAL LENGTH WILL BE DETERMINED IN THE FIELD.

- LEGEND**
- BUTTERFLY
 - CANTILEVER
 - SIGN BRIDGE
 - STEEL POSTS
 - SIGN-REMOVE EXISTING
 - SIGN-REMOVE AND REPLACE
 - SIGN-PLACE NEW

PLAN SHEET PRODUCED BY WisDOT-NE REGION

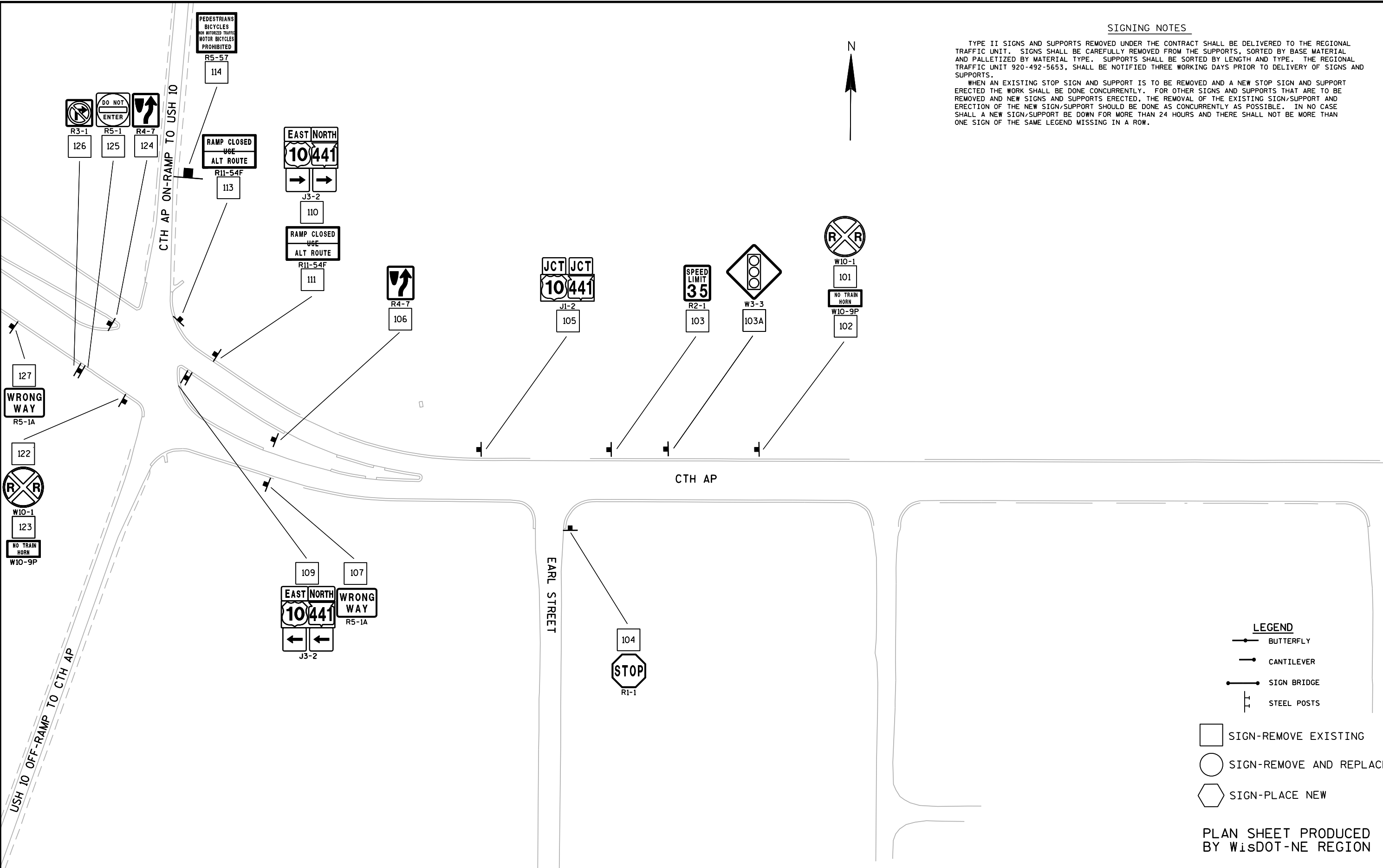
PLAN SHEET PRODUCED
BY WisDOT-NE REGION



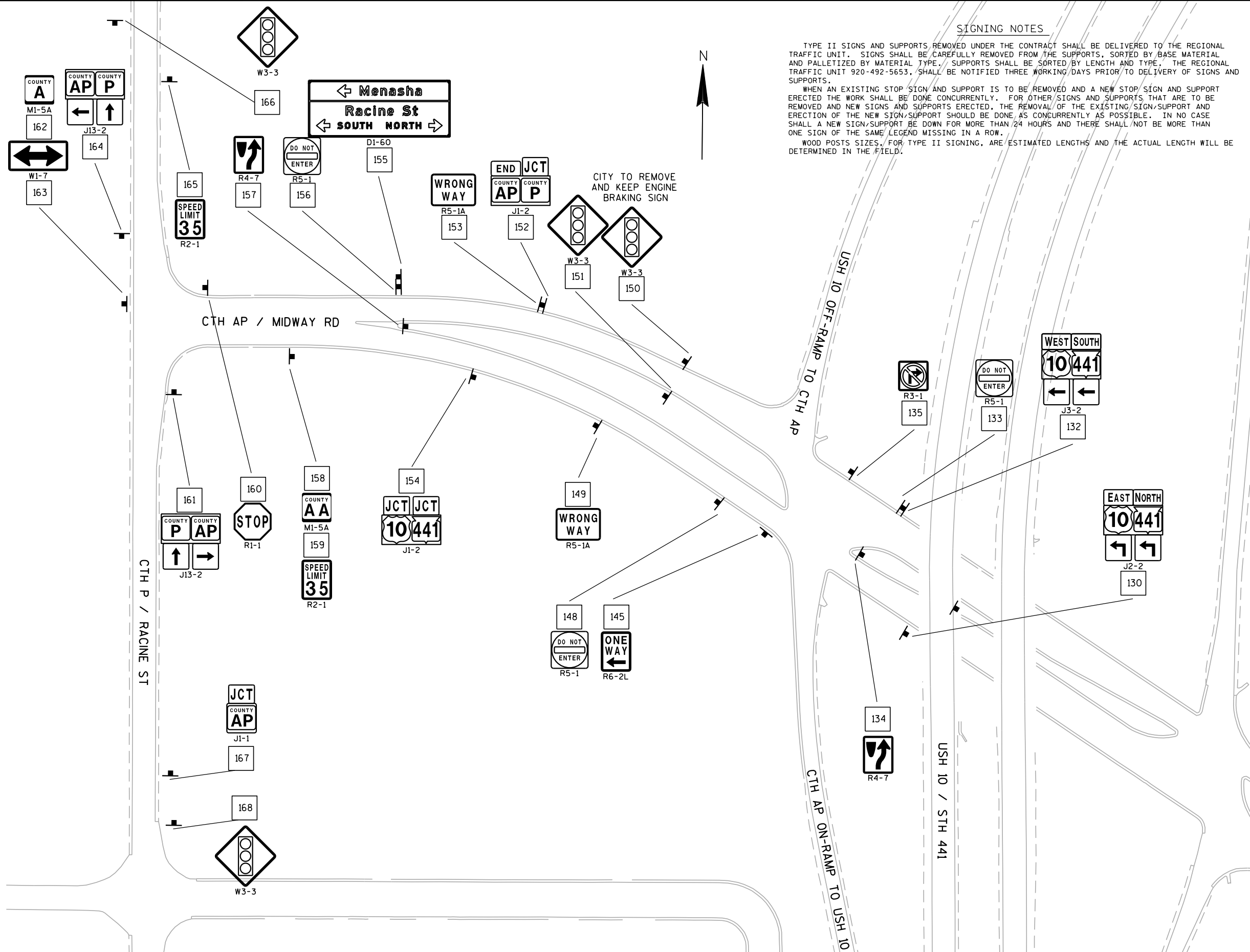
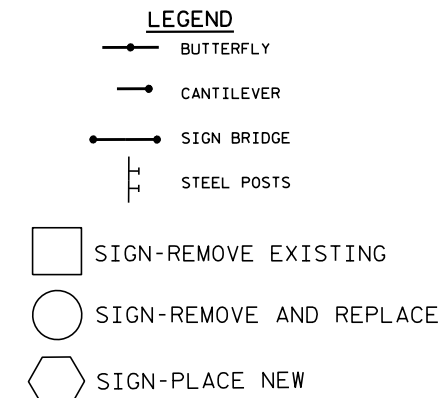
SIGNING NOTES

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WHEN AN EXISTING STOP SIGN AND SUPPORT IS TO BE REMOVED AND A NEW STOP SIGN AND SUPPORT ERECTED THE WORK SHALL BE DONE CONCURRENTLY. FOR OTHER SIGNS AND SUPPORTS THAT ARE TO BE REMOVED AND NEW SIGNS AND SUPPORTS ERECTED, THE REMOVAL OF THE EXISTING SIGN/SUPPORT AND ERECTION OF THE NEW SIGN/SUPPORT SHOULD BE DONE AS CONCURRENTLY AS POSSIBLE. IN NO CASE SHALL A NEW SIGN/SUPPORT BE DOWN FOR MORE THAN 24 HOURS AND THERE SHALL NOT BE MORE THAN ONE SIGN OF THE SAME LEGEND MISSING IN A ROW.



PLAN SHEET PRODUCED
BY WisDOT-NE REGION



GENERAL NOTES

THESE PLANS AND THE ASSOCIATED SPECIAL PROVISIONS REFLECT CONDITIONS KNOWN DURING THE DEVELOPMENT OF THE PLANS AND TECHNICAL SPECIAL PROVISIONS. ALL SCALES, DIMENSIONS AND LOCATIONS SHOWN IN THESE PLANS ARE APPROXIMATE. ACTUAL PHYSICAL FIELD CONDITIONS SHALL PROVIDE THE BASIS FOR THE APPLICATION OF WORK SHOWN IN THE PLANS. THE CONTRACTOR IS FULLY RESPONSIBLE FOR THE APPLICATION OF ALL WORK SHOWN IN THE PLANS TO THE ACTUAL PHYSICAL FIELD CONDITIONS TO PROVIDE A COMPLETE AND ACCEPTED PRJOECT. IN THE EVENT THAT ACTUAL PHYSICAL FIELD CONDITIONS AFFECT OR PREVENT THE APPLICATION OR PROGRESSION OF ANY WORK SHOWN IN THE PLANS OR TECHNICAL SPECIAL PROVISIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY, AND PRIOR TO ANY FURTHER WORK ACTIVITY. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY LOCATION CHANGES OTHER THAN MINOR ADJUSTMENTS.

BE AWARE THAT ALL EXISTING UNDERGROUND AND ABOVE GROUND STRUCTURES AND FACILITIES WITHIN THE SCOPE OF THIS PROJECT MAY NOT BE LOCATED IN THE PLANS. THE CONTRACTOR IS FULLY RESPONSIBLE FOR LOCATING AND AVOIDING ALL UNDERGROUND AND ABOVE GROUND STRUCTURES AND FACILITIES.

BE AWARE THAT NO TEST BORINGS WERE MADE WHERE CONDUITS, PULL BOXES, COMMUNICATIONS VAULTS, POLES, FOUNDATIONS, OR OTHER EQUIPMENT IS TO BE INSTALLED. THE CONTRACTOR IS FULLY RESPONSIBLE FOR EXAMINING THE JOB SITE CONDITIONS BEFORE SUBMITTING BID PROPOSALS.

NO TREES (AND/OR SHRUBS) ARE TO BE REMOVED WITHOUT APPROVAL OF THE ENGINEER.

AREAS WITHIN RIGHT-OF-WAY DISTURBED SPECIFICALLY FOR ITS CONSTRUCTION ARE TO BE RESTORED TO THE ORIGINAL CONDITION WITH TOPSOIL, FERTILIZER, AND SEED AND MULCH. RESTORATION FOR AREAS DISTURBED FOR OTHER CONSTRUCTION OPERATIONS, BUT ALSO CONTAINING ITS CONSTRUCTION, WILL BE DONE ACCORDING TO REQUIREMENTS AND PAYMENT PROVISIONS FOR THE OTHER CONSTRUCTION OPERATIONS. NO PAYMENT WILL BE MADE FOR RESTORING AREAS DISTURBED FOR ITS CONSTRUCTION OPERATIONS.

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

BE ADVISED THAT DUE TO RAMP, LANE AND SHOULDER CLOSURE RESTRICTIONS AND WORK UNDER OTHER CONTRACTS, SOME WORK MAY BE REQUIRED TO BE PERFORMED AT NIGHT.

THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING RAMP, LANE, SHOULDER, AND ROADWAY CLOSURES WITH OTHER CONTRACTORS IN THE AREA.

NOTIFY THE REGIONAL TRAFFIC UNIT (920-492-7719) A MINIMUM OF TWO (2) WEEKS PRIOR TO THE NEED TO STAKE THE FOLLOWING ITEMS: CCTV CAMERA BASE, ITS FIELD CABINET BASE, MICROWAVE DETECTOR BASES, CONDUIT, PULL BOXES AND COMMUNICATIONS VAULTS.

NOTIFY THE REGIONAL TRAFFIC UNIT (920-492-5651), OR SECONDARY CONTACT AT (920-492-7719) A MINIMUM OF TWO (2) WEEKS PRIOR TO THE NEED TO STAKE THE FOLLOWING ITEMS: RAM CLOSURE GATE BASES AND RAMP CLOSURE GATE CONTROLLER CABINET BASES.

HAND DIG TRENCHES CROSSING EXISTING CONDUIT CONTAINING FIBER OPTIC CABLE.

VISUALLY VERIFY DEPTHS OF EXISTING CONDUITS CONTAINING FIBER OPTIC CABLE PRIOR TO CROSSING BY DIRECTIONAL BORE OR SPECIAL METHOD.

LEGEND

- JUNCTION BOX
- VIDEO SENSOR
- CCTV CAMERA
- CONTROL CABINET
- POLE MOUNTED CABINET
- COMMUNICATIONS PULL BOX 24X48
- 12" PULL BOX
- TYPE 5 OR CAMERA POLE
- ELECTRICAL PULL BOX 24X48
- COMMUNICATIONS VAULT
- MANHOLE
- MICROWAVE DETECTOR
- ITS CONDUIT
- ITS CONDUIT DIRECTIONAL BORE
- ITS CONDUIT ON STRUCTURE
- DYNAMIC MESSAGE SIGN
- ROAD WEATHER INFORMATION SYSTEM
- METER BREAKER PEDESTAL
- BREAKER DISCONNECT BOX
- BARRICADE RACK
- RAMP GATE
- SOLAR RAMP GATE CONTROLLER CABINET
- RADIO LINK (REMOTE DESTINATION)
- TEMPORARY WOOD POLE

STANDARD ABBREVIATIONS

- CCTV CLOSED CIRCUIT TELEVISION
- RM RAMP METER
- DMS DYNAMIC MESSAGE SIGN
- SDS SYSTEM DETECTOR STATION
- S OVERHEAD SIGNAL SUPPORT
- CS COUNT STATION
- ATR AUTOMATIC TRAFFIC RECORDER
- AF(A) ADVANCE FLASHER (ASSEMBLY)
- CB CONTROLLER CABINET
- CP CAMERA POLE
- PF POLE FOUNDATION
- PB PULL BOX
- MH MANHOLE
- CV COMMUNICATIONS VAULT
- SB SIGNAL BASE
- AP ANTENNA POLE
- DS DRAINAGE STRUCTURE (ON ITS PLANS ONLY)
- TAR TRAVELER ADVISORY RADIO
- MD MICROWAVE DETECTOR
- DP DETECTOR POLE
- VDC VIDEO DETECTION CAMERA
- VDCS VEHICLE DETECTION CLASSIFICATION SENSOR
- FO FIBER OPTIC
- RWIS ROAD WEATHER INFORMATION SYSTEM
- WIM WEIGH IN MOTION
- CT COUNT

CONTACTS

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NE REGION
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944 VANDERPERREN WAY
GREEN BAY, WI 54304
(920) 360-3107

WIS. DEPT. OF TRANSPORTATION
NE REGION
MR. SCOTT NELSON
944 VANDERPERREN WAY
GREEN BAY, WI 54304
(920) 366-2109

WIS. DEPT. OF TRANSPORTATION
STATE TRAFFIC OPERATIONS
MR. DON SCHELL
433 W ST. PAUL AVENUE, SUITE 300
MILWAUKEE, WI 53203
(414) 227-2148

WIS. DEPT. OF TRANSPORTATION
STATE TRAFFIC OPERATIONS
MR. DEAN BEEKMAN
433 W ST. PAUL AVENUE, SUITE 300
MILWAUKEE, WI 53203
(414) 227-2154

AECOM
MR. MATT LETOURNEAU
1555 N RIVERCENTER DRIVE, SUITE 215
MILWAUKEE, WI 53214
(312) 373-7627

INTELLIGENT TRANSPORTATION
SYSTEM PLANS PREPARED BY:

AECOM

1555 N Rivercenter Dr, Suite 214
Milwaukee, WI 53212
(414) 944-6080

WISCONSIN

PROFESSIONAL ENGINEER

MATTHEW J. LETOURNEAU

E- 37209

CHICAGO

ILLINOIS

3/19/2018

(Date)



(Signature)

2

SHEET 1 OF 3

PROJECT NO:1517-75-77

HWY:USH 10

COUNTY:WINNEBAGO

ITS GENERAL NOTES

SHEET

E

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PLOT DATE : 3/19/2018







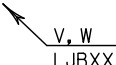
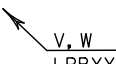
PLOT BY : nick.becker

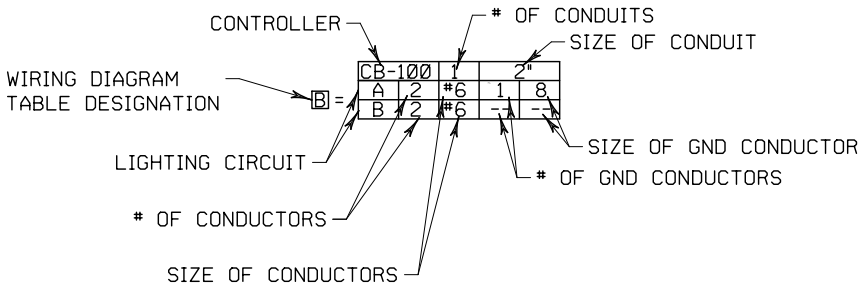
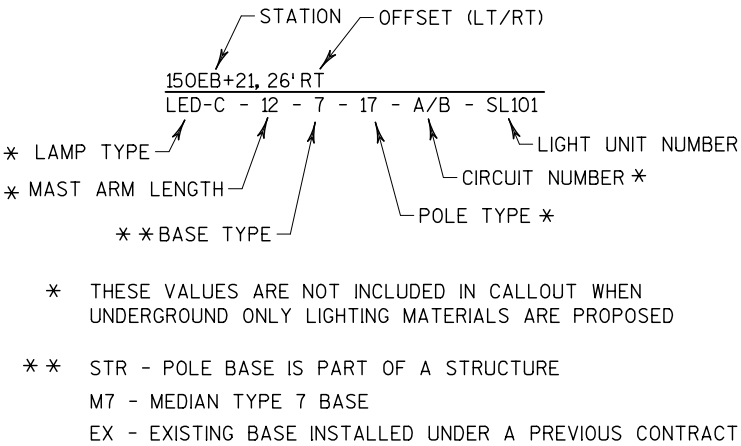
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WISDOT/CADDs SHEET 42

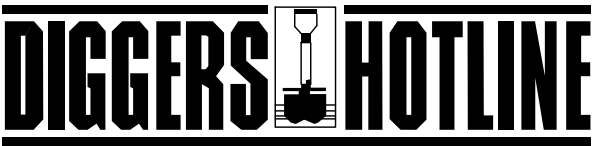
LIGHTING PLAN LEGEND

-  PROPOSED LIGHT POLE LOCATION
-  EXISTING LIGHT POLE BASE INSTALLED UNDER A PREVIOUS CONTRACT
-  PROPOSED CONDUIT RIGID NONMETALLIC
-  EXISTING CONDUIT
-  PROPOSED 24"X42" NON-CONDUCTIVE PULL BOX
-  EXISTING 24"X42" LIGHTING PULL BOX (ELPBxx)
-  V = STATION, W= OFFSET
LJB= LIGHTING JUNCTION BOX EMBEDDED IN WALL OR PARAPET, XX= PULL BOX NUMBER
-  V = STATION, W= OFFSET
LPB= LIGHTING PULL BOX, XX= PULL BOX NUMBER



LIGHTING GENERAL NOTES

1. VERIFY ALL OF THE INFORMATION SHOWN ON THE CONTRACT DRAWINGS WHICH WOULD AFFECT THE WORK UNDER THIS CONTRACT.
2. ALL NEW CONDUITS, CABLE DUCTS, DIRECT BURIAL CABLES, AND ACCESSORIES ARE INDICATED DIAGRAMMATICALLY ON THE DRAWINGS. THE ACTUAL LOCATIONS IN THE FIELD SHALL MEET WITH APPROVAL OF THE ENGINEER.
3. PERFORM THE ELECTRICAL WORK IN ACCORDANCE WITH WISDOT LATEST STANDARDS, THE SPECIAL PROVISIONS AND APPLICABLE SECTIONS OF THE WISDOT STANDARD SPECIFICATIONS (LATEST EDITION).
4. INSTALL ALL FOUNDATIONS IN ORDER FOR THE PROPOSED AND FUTURE LUMINAIRES TO BE ORIENTED WITH THE OPTICS PERPENDICULAR TO THE ROADWAY UNLESS OTHERWISE INDICATED OR DIRECTED BY THE ENGINEER.
5. INSTALL CONDUITS AT A MINIMUM 24" DEPTH BELOW GRADE AND POSITIONED IN THE FIELD TO AVOID CONFLICT WITH ROADWAY UNDERDRAINS AND OTHER EXISTING AND PROPOSED UTILITIES. INCREASE DEPTH OF DUCT AND CONDUIT AS REQUIRED AT NO ADDITIONAL COST. COORDINATE RACEWAY DEPTH WITH THE ELECTRICAL DETAILS AND THE ENGINEER.
6. ALL CONDUIT USED FOR BORED CABLE RUNS UNDER PAVEMENTS SHALL BE POLYVINYL CHLORIDE (PVC), SCHEDULE 40 IN CONFORMANCE WITH SECTION 652.2.3 OF THE WISDOT SPECIFICATIONS.
7. CAP CONDUIT ON BOTH ENDS UNTIL CABLING IS PLACED. FURNISH AND INSTALL A MANUFACTURER APPROVED CAP FOR ALL CONDUITS. DUCT TAPE AND OTHER TAPE IS NOT ACCEPTABLE MEANS OF CONDUIT CAP. EXTEND CONDUIT ONE FOOT BEYOND THE BACK OF CURB EDGE OR TWO FEET BEYOND SHOULDER IF NO CURB.
8. FURNISH AND INSTALL CABLE PULL STRINGS OR WIRES IN ALL CONDUITS. PULL WIRES MUST BE ACCESSIBLE AND ANCHORED AT EACH CONDUIT END FOR EASY FUTURE ACCESS.
9. PITCH ALL CONDUIT TOWARD PULLBOXES. A 2" DRAIN DUCT TO DITCH OR STORM SEWER REQUIRED FOR ALL PULL BOXES IN LOW POINTS. THIS 2" DRAIN DUCT IS INCIDENTAL TO THE PULL BOX BID ITEM AND IS NOT SHOWN.
10. ALL POLES ON BREAKAWAY BASES SHALL BE PLACED A MINIMUM OF 12- FEET FROM THE EDGE OF THE OUTSIDE TRAVEL LANE. ALL LIGHTS PLACED BEHIND GUARDRAIL SHALL BE PLACED A MINIMUM OF 4- FEET BEHIND THE FACE OF GUARDRAIL.
11. LIGHTING SYMBOLS ARE ENLARGED FOR CLARITY, USE CENTER OF SYMBOL TO LOCATE EQUIPMENT IN THE FIELD.




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

LIGHTING PLANS PREPARED BY:

AECOM 1555 N RiverCenter Drive, Suite 214
Milwaukee, WI 53212
(414) 944-6080

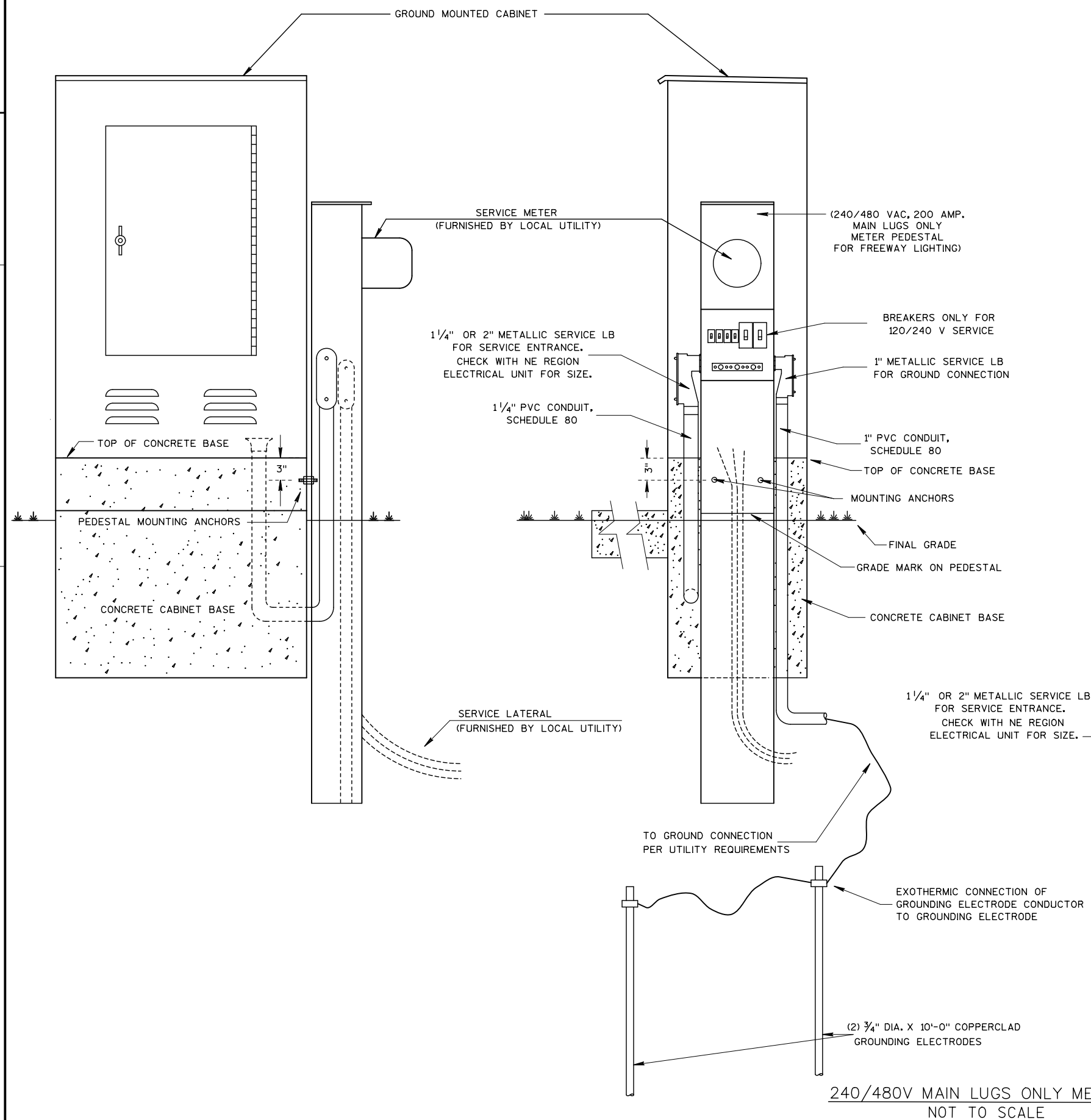


10/24/2017
(Date)


(Signature)

2

2



GENERAL NOTES

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

THE EXACT LOCATION OF THE METER BREAKER PEDESTAL SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

THE TYPE OF CONCRETE CABINET BASE TO BE INSTALLED SHALL BE AS CALLED FOR IN THE PLANS.

TO FACILITATE FLUSH MOUNTING OF THE METER BREAKER PEDESTAL AGAINST THE SIDE OF THE CABINET BASE (IF FLUSH MOUNTING POSSIBLE. CONFER WITH THE LOCAL UTILITY TO DETERMINE WHICH SIDE OF THE CONCRETE BASE THE ELECTRICAL SERVICE LATERAL WILL APPROACH. THEN FORM THAT INDICATED SIDE FOR FULL SIDE DEPTH.

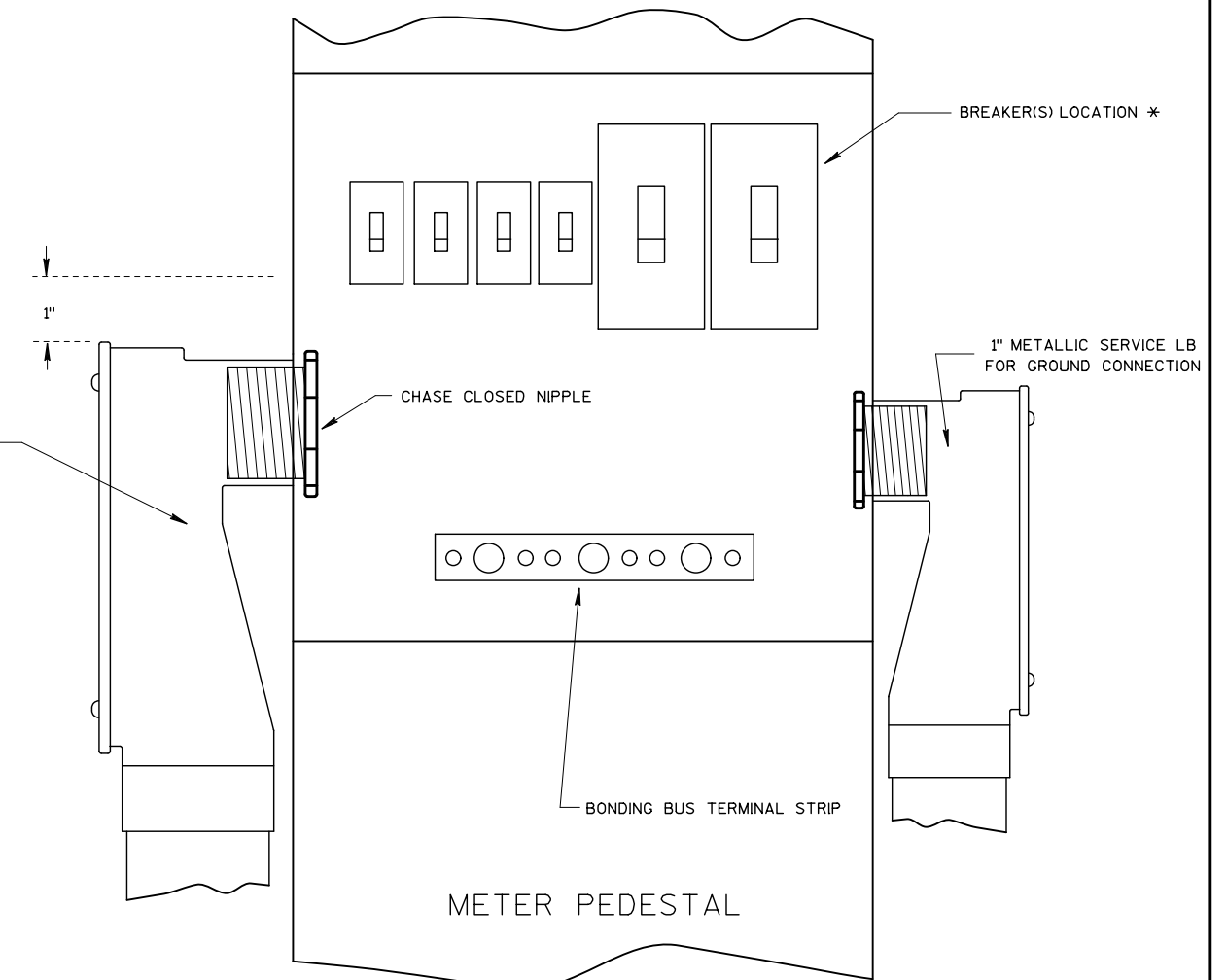
WHILE FLUSH MOUNTING IS THE MOST DESIRABLE MOUNTING CONFIGURATION UTILITY REQUIREMENTS MAY PRECLUDE THIS OPTION. CONTRACTOR MUST PROVIDE UTILITY APPROVED PEDESTAL AND INSTALL PER UTILITY AND MANUFACTURERS REQUIREMENTS.

SERVICE CONDUCTOR ENTRANCES SHALL BE RIGID METALLIC CONDUIT OR SCHEDULE 80 PVC, NIPPLES AND/OR CONDULETS AS REQUIRED. CONDUIT LB SHALL BE OF METALLIC SERVICE ENTRANCE TYPE.

SERVICE CONDUCTOR ENTRANCES SHALL BE SIZED AND LOCATED AS REQUIRED BY THE LOCAL UTILITY AND IN ACCORDANCE WITH APPROPRIATE ARTICLES OF THE LATEST ACCEPTED NATIONAL ELECTRICAL CODE.

IF MORE THAN ONE GROUNDING ELECTRODE IS REQUIRED, THE DISTANCE APART SHALL BE 6 FEET OR PER NEC.

* SOME PEDESTAL LIGHTING PLANS SHOW MAIN LUGS ONLY.



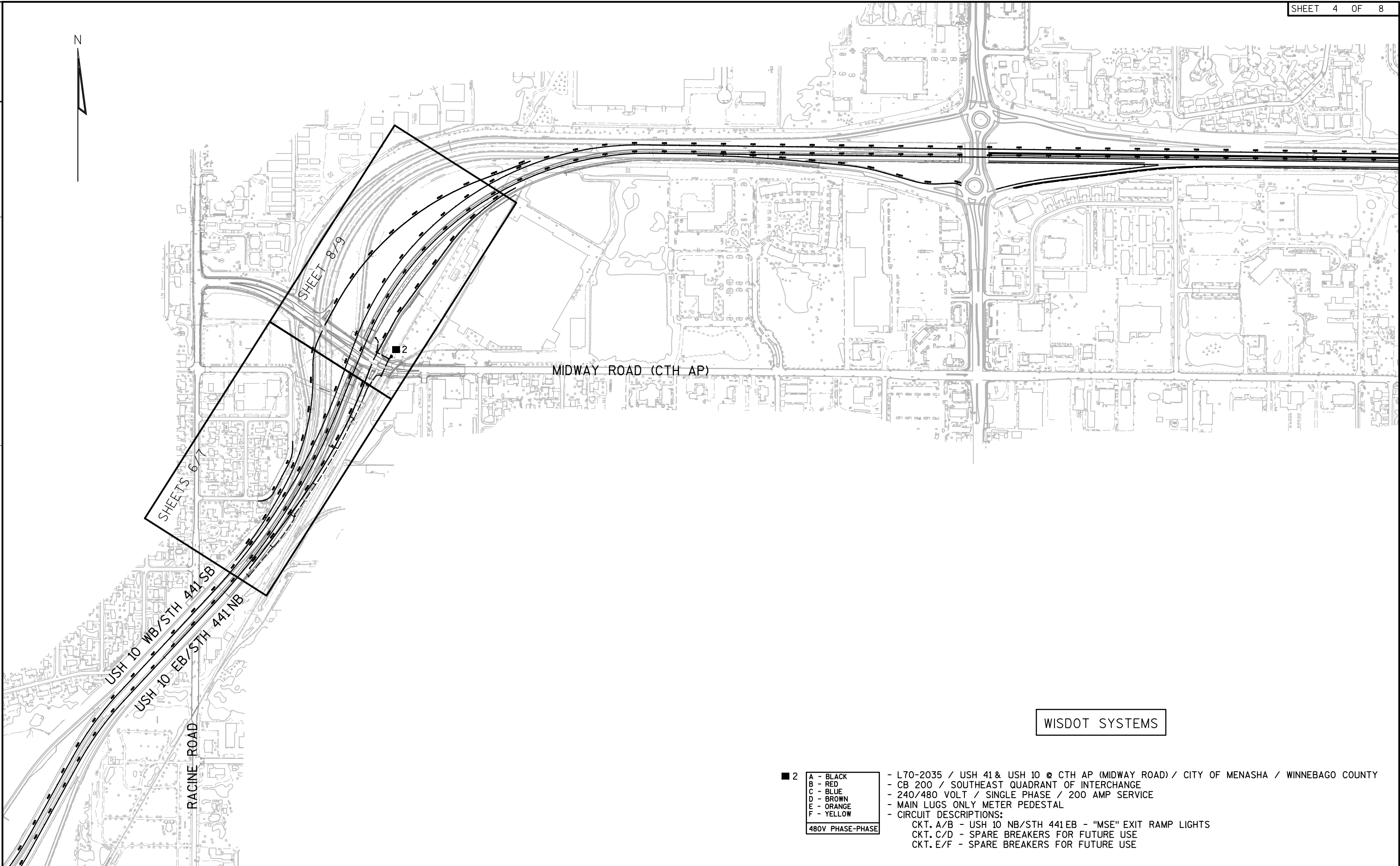
240/480V MAIN LUGS ONLY METER PEDESTAL
NOT TO SCALE

240/480 VOLT, 1-PHASE SERVICE PEDESTAL - MIDWAY ROAD
LOCATION: STA: 24MWB+41, 60' LT

L70-2035 FREEWAY LIGHTING CABINET (CB-200)

Electrical Panel: CB-200													
FREEWAY LIGHTING CABINET PANELBOARD													
Rating: 200A													
Voltage: 240/480 Volts, 1 Phase 3 Wire													
Feeder Conductors: 4/0 AWG													
Main Brkr: 200 A - 2P													
MIDWAY ROAD INTERCHANGE													
CONTRACT ID: 1517-75-77													
Ckt	Brkr Amps	Brkr Poles 1 or 2	Description	VA	A	B	VA	Description	Brkr Poles 1 or 2	Brkr Amps	Ckt		
1	30	2	CIRCUIT A	454	X		454	CIRCUIT B	2	30	2		
3				454		X	454				4		
5					X						6		
7	30	2	CIRCUIT C			X		CIRCUIT D	2	30	8		
9					X						10		
11						X						12	
13	30	2	SPARE		X			SPARE	2	30	14		
15						X					16		
17					X						18		
19	30	2	SPARE			X		SPARE	2	30	20		
21					X						22		
23						X					24		
25	20	1	CONTROL POWER	250	X			SPARE	1	20	26		
27	20	1	CONTROL POWER		250	X		SPARE	1	20	28		
29	20	1	SPARE		X			SPARE	1	20	30		
TOTALS				704	704		454	454	TOTALS				
BUS A:		1158										2.32 KVA DEMAND	
BUS B:		1158										4.8 LINE AMPS	
LOAD:		2316											

- NOTES:
- LOADS SHOWN ARE FOR INFORMATION ONLY AND WILL VARY BY FIXTURE AND MANUFACTURER.
 - PROVIDE AND INSTALL ALL ADDITIONAL SPARE CIRCUIT BREAKERS AS SHOWN ON THE WISDOT CONTROL CABINET DETAIL, FOR FUTURE USE.
 - ONLY STREET LIGHTING LOAD IS SHOWN ON THE PANELBOARD SCHEDULE. OTHER MISCELLANEOUS LOADS SUCH AS TRANSFORMER, LIGHT FIXTURE, SWITCHES, ETC.. MIGHT ALSO BE FED FROM THE PANELBOARD.



PROJECT NO: 1517-75-77

HWY: USH 10

COUNTY: WINNEBAGO

LIGHTING PLAN OVERVIEW

SHEET

E

2

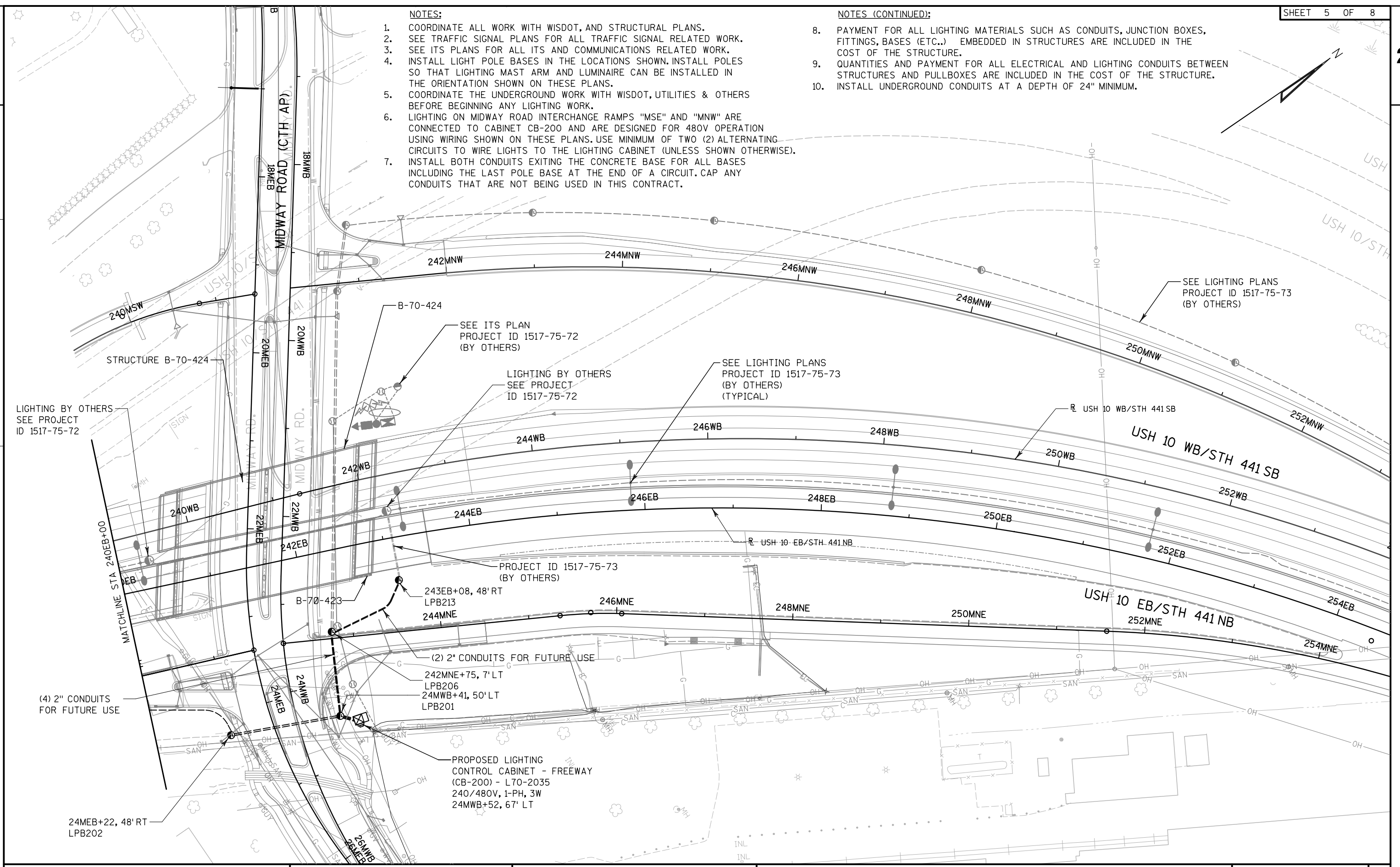
2

NOTES:

1. COORDINATE ALL WORK WITH WISDOT, AND STRUCTURAL PLANS.
2. SEE TRAFFIC SIGNAL PLANS FOR ALL TRAFFIC SIGNAL RELATED WORK.
3. SEE ITS PLANS FOR ALL ITS AND COMMUNICATIONS RELATED WORK.
4. INSTALL LIGHT POLE BASES IN THE LOCATIONS SHOWN. INSTALL POLES SO THAT LIGHTING MAST ARM AND LUMINAIRE CAN BE INSTALLED IN THE ORIENTATION SHOWN ON THESE PLANS.
5. COORDINATE THE UNDERGROUND WORK WITH WISDOT, UTILITIES & OTHERS BEFORE BEGINNING ANY LIGHTING WORK.
6. LIGHTING ON MIDWAY ROAD INTERCHANGE RAMP "MSE" AND "MNW" ARE CONNECTED TO CABINET CB-200 AND ARE DESIGNED FOR 480V OPERATION USING WIRING SHOWN ON THESE PLANS. USE MINIMUM OF TWO (2) ALTERNATING CIRCUITS TO WIRE LIGHTS TO THE LIGHTING CABINET (UNLESS SHOWN OTHERWISE).
7. INSTALL BOTH CONDUITS EXITING THE CONCRETE BASE FOR ALL BASES INCLUDING THE LAST POLE BASE AT THE END OF A CIRCUIT. CAP ANY CONDUITS THAT ARE NOT BEING USED IN THIS CONTRACT.

NOTES (CONTINUED):

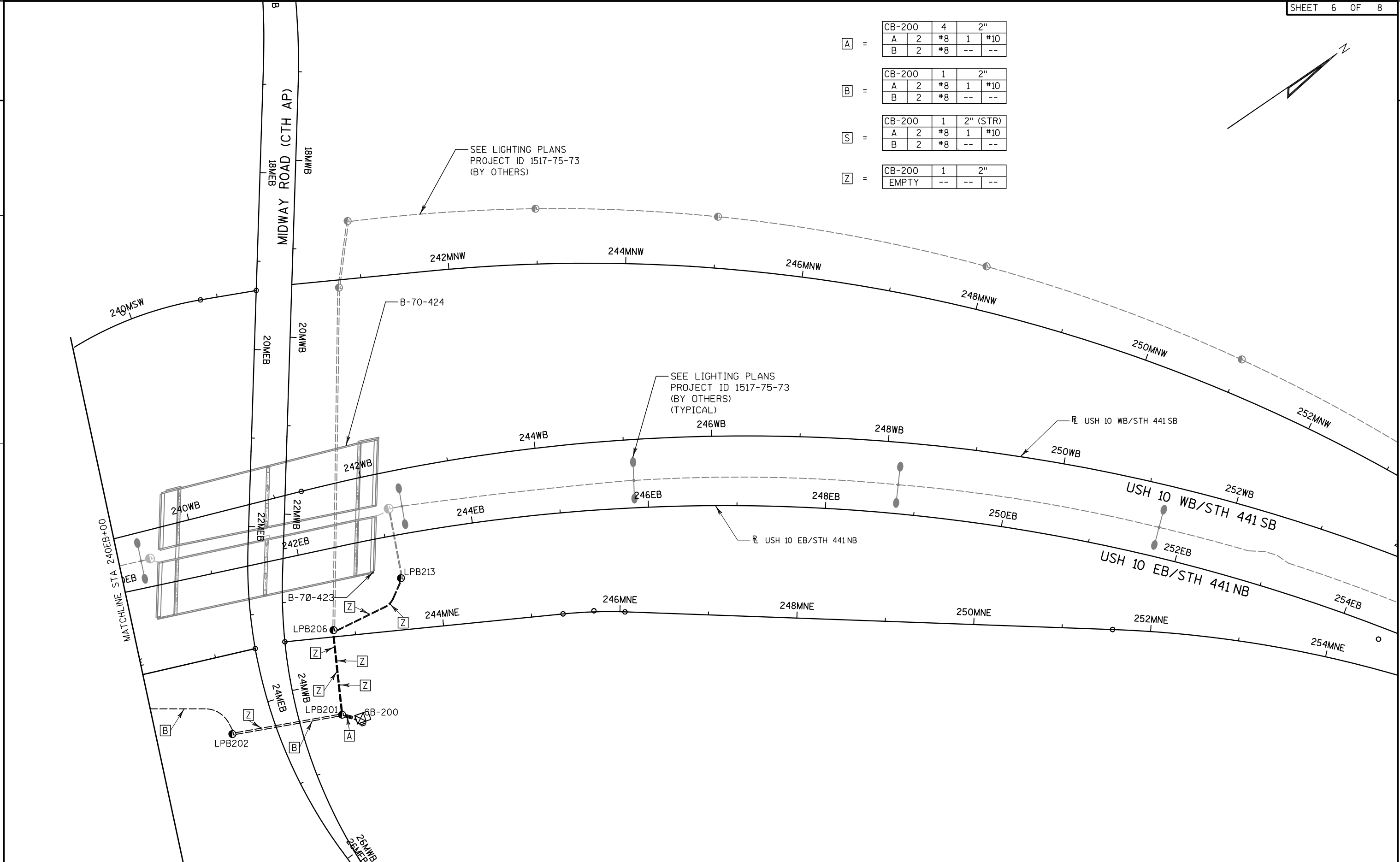
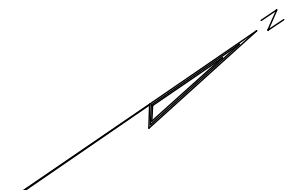
8. PAYMENT FOR ALL LIGHTING MATERIALS SUCH AS CONDUITS, JUNCTION BOXES, FITTINGS, BASES (ETC..) EMBEDDED IN STRUCTURES ARE INCLUDED IN THE COST OF THE STRUCTURE.
9. QUANTITIES AND PAYMENT FOR ALL ELECTRICAL AND LIGHTING CONDUITS BETWEEN STRUCTURES AND PULLBOXES ARE INCLUDED IN THE COST OF THE STRUCTURE.
10. INSTALL UNDERGROUND CONDUITS AT A DEPTH OF 24" MINIMUM.



2

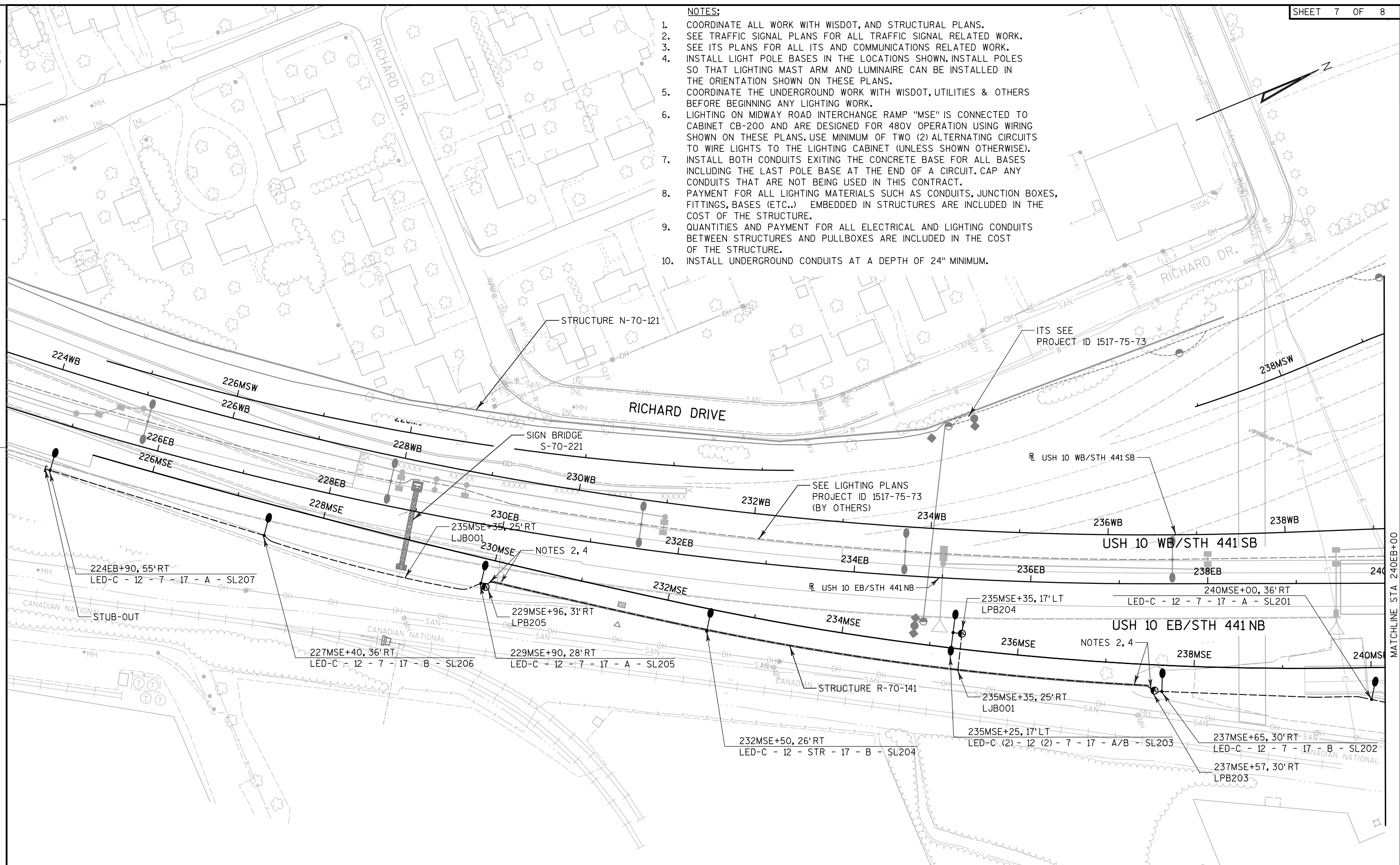
2

[A]	=				
	CB-200 4 2"				
	A	2	#8	1	#10
[B]	=				
	CB-200 1 2"				
	A	2	#8	1	#10
[S]	=				
	CB-200 1 2" (STR)				
	A	2	#8	1	#10
[Z]	=				
	CB-200 1 2"				
	EMPTY	--	--	--	--



NOTES:

1. COORDINATE ALL WORK WITH WISDOT, AND STRUCTURAL PLANS.
2. SEE TRAFFIC SIGNAL PLANS FOR ALL TRAFFIC SIGNAL RELATED WORK.
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PROJECT NO: 1517-75-77

HWY: USH 10

COUNTY: WINNEBAGO

LIGHTING PLAN - USH 10 NB/STH 441 EB - MSE RAMP

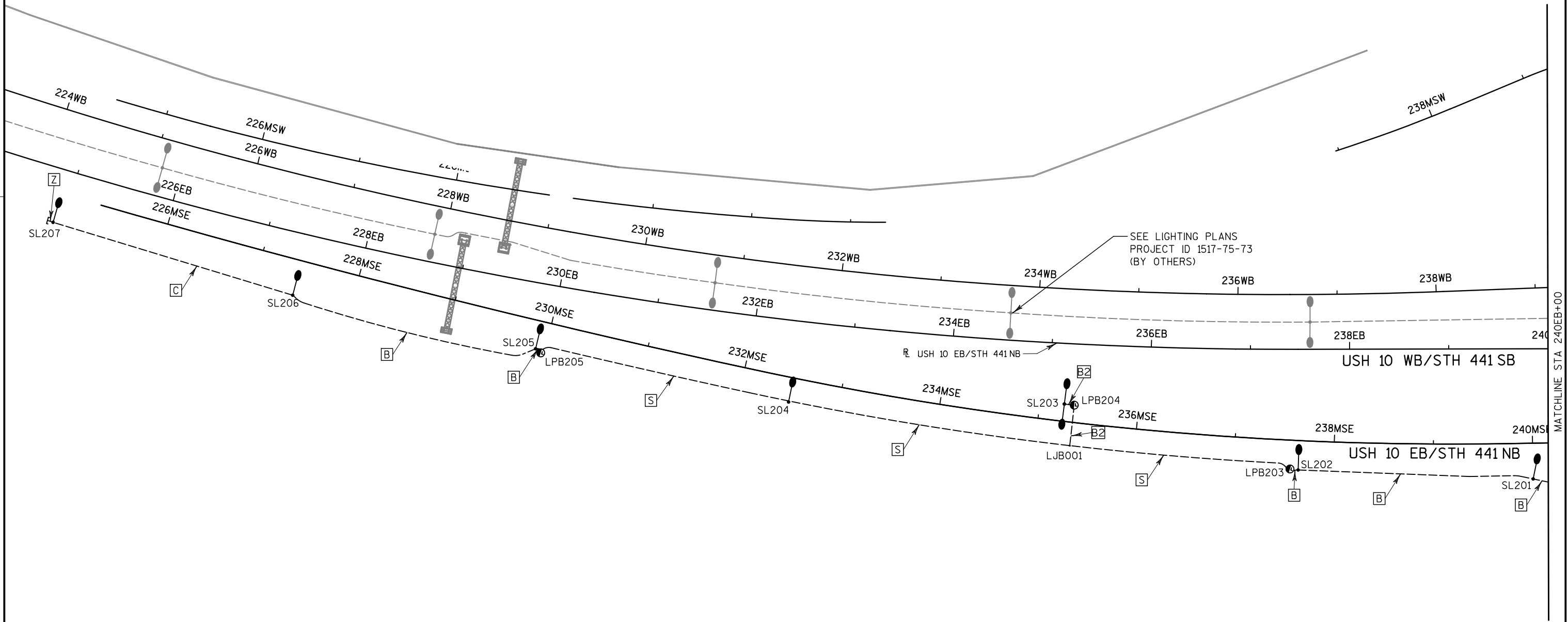
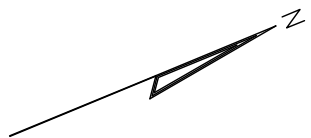
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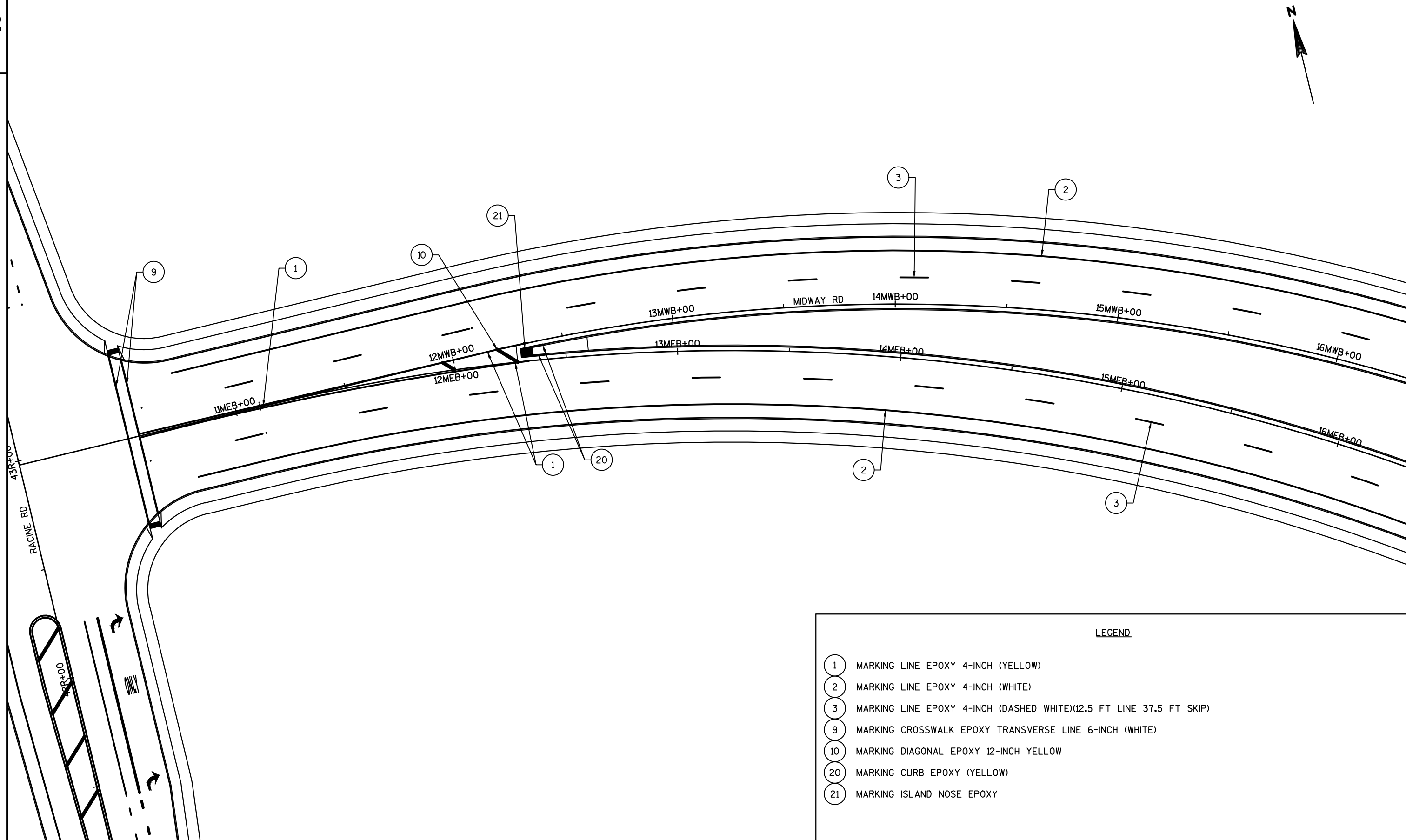
E

2

2

[B]	=				
	CB-200				
	1 2"				
[B2]	=				
	CB-200				
	1 2"				
[C]	=				
	CB-200				
	1 2"				
[S]	=				
	CB-200				
	1 2" (STR)				
[Z]	=				
	CB-200				
	EMPTY				



**LEGEND**

- 1 MARKING LINE EPOXY 4-INCH (YELLOW)
- 2 MARKING LINE EPOXY 4-INCH (WHITE)
- 3 MARKING LINE EPOXY 4-INCH (DASHED WHITE)(12.5 FT LINE 37.5 FT SKIP)
- 9 MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
- 10 MARKING DIAGONAL EPOXY 12-INCH YELLOW
- 20 MARKING CURB EPOXY (YELLOW)
- 21 MARKING ISLAND NOSE EPOXY

PROJECT NO:1517-75-77

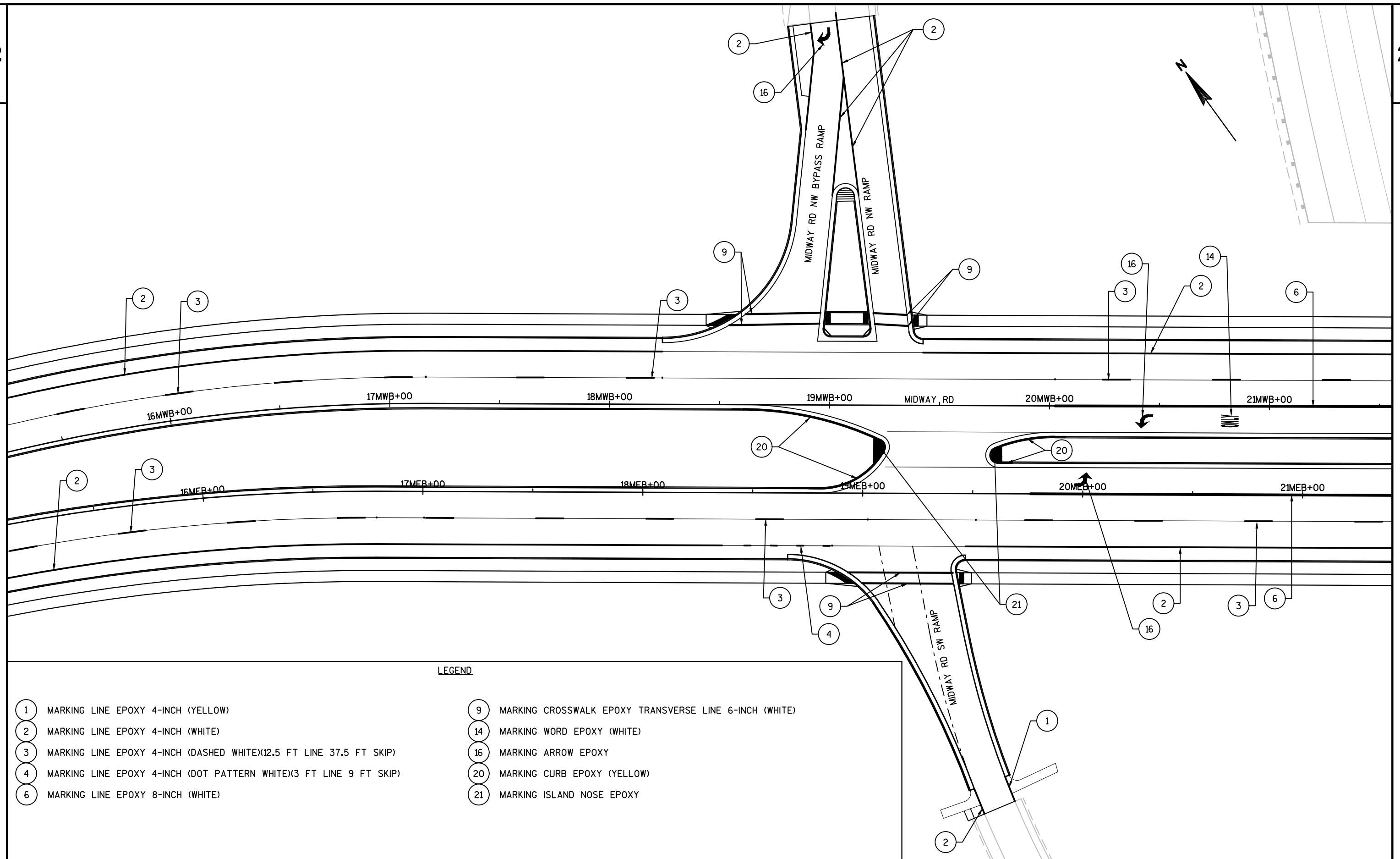
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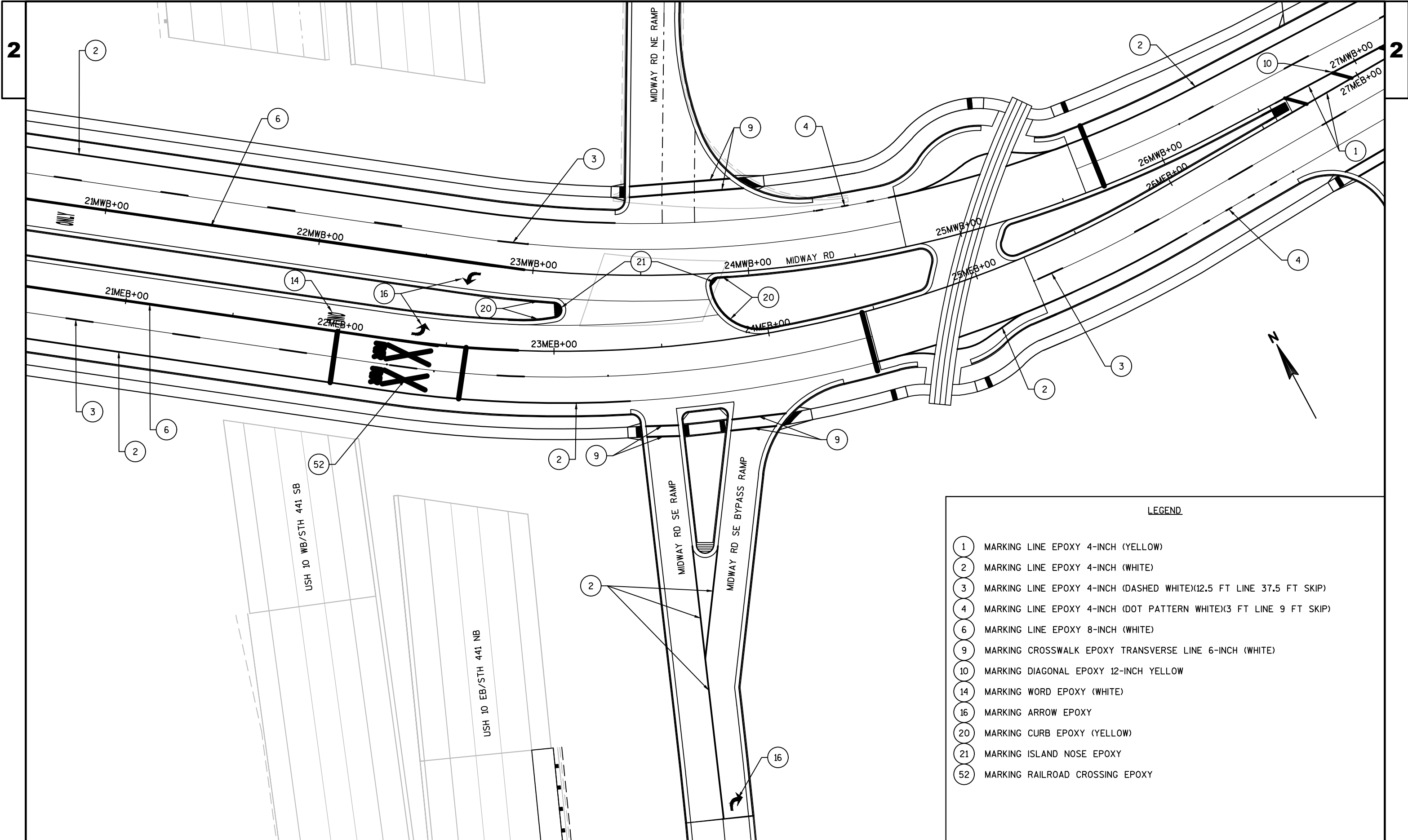
COUNTY:WINNEBAGO

PAVEMENT MARKING

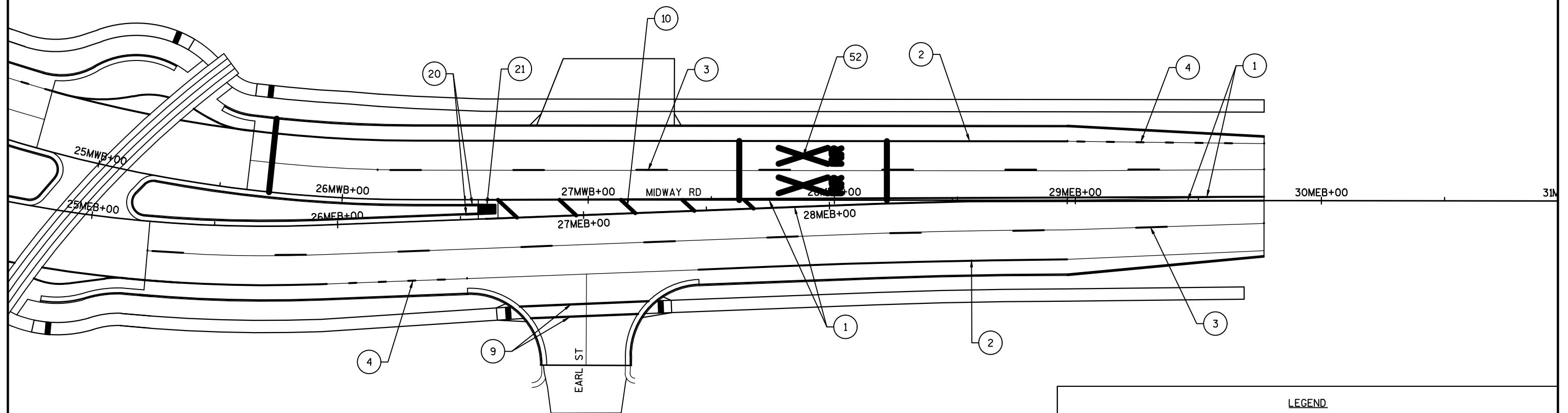
SHEET

E

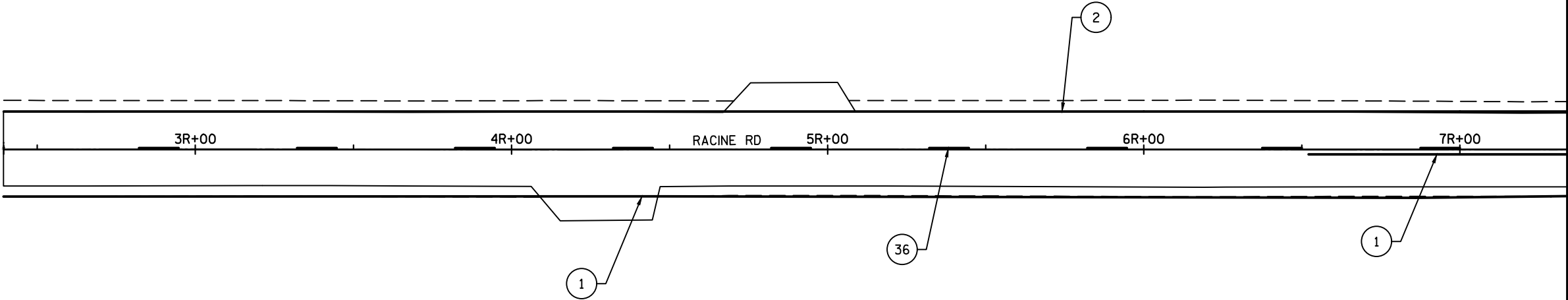




LEGEND	
1	MARKING LINE EPOXY 4-INCH (YELLOW)
2	MARKING LINE EPOXY 4-INCH (WHITE)
3	MARKING LINE EPOXY 4-INCH (DASHED WHITE)(12.5 FT LINE 37.5 FT SKIP)
4	MARKING LINE EPOXY 4-INCH (DOT PATTERN WHITE)(3 FT LINE 9 FT SKIP)
6	MARKING LINE EPOXY 8-INCH (WHITE)
9	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
10	MARKING DIAGONAL EPOXY 12-INCH YELLOW
14	MARKING WORD EPOXY (WHITE)
16	MARKING ARROW EPOXY
20	MARKING CURB EPOXY (YELLOW)
21	MARKING ISLAND NOSE EPOXY
52	MARKING RAILROAD CROSSING EPOXY

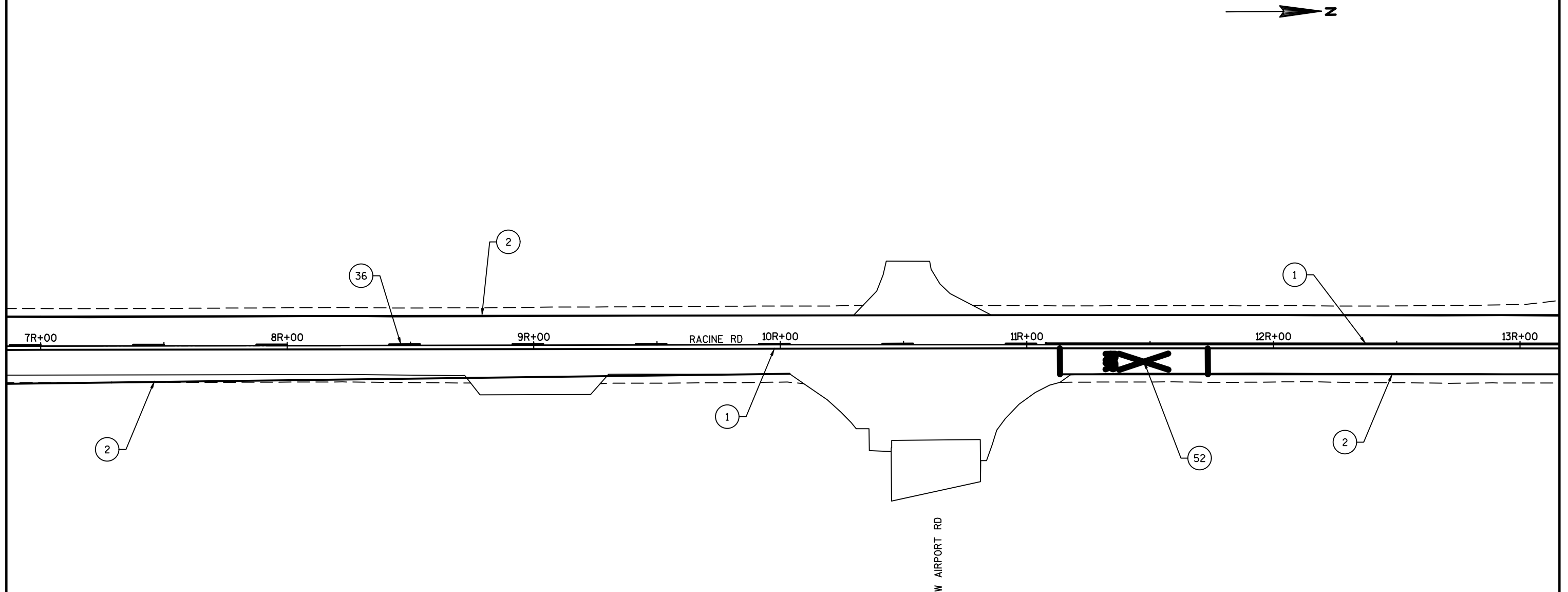
**LEGEND**

- 1 MARKING LINE EPOXY 4-INCH (YELLOW)
- 2 MARKING LINE EPOXY 4-INCH (WHITE)
- 3 MARKING LINE EPOXY 4-INCH (DASHED WHITE)(12.5 FT LINE 37.5 FT SKIP)
- 4 MARKING LINE EPOXY 4-INCH (DOT PATTERN WHITE)(3 FT LINE 9 FT SKIP)
- 9 MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
- 10 MARKING DIAGONAL EPOXY 12-INCH YELLOW
- 20 MARKING CURB EPOXY (YELLOW)
- 21 MARKING ISLAND NOSE EPOXY
- 52 MARKING RAILROAD CROSSING EPOXY



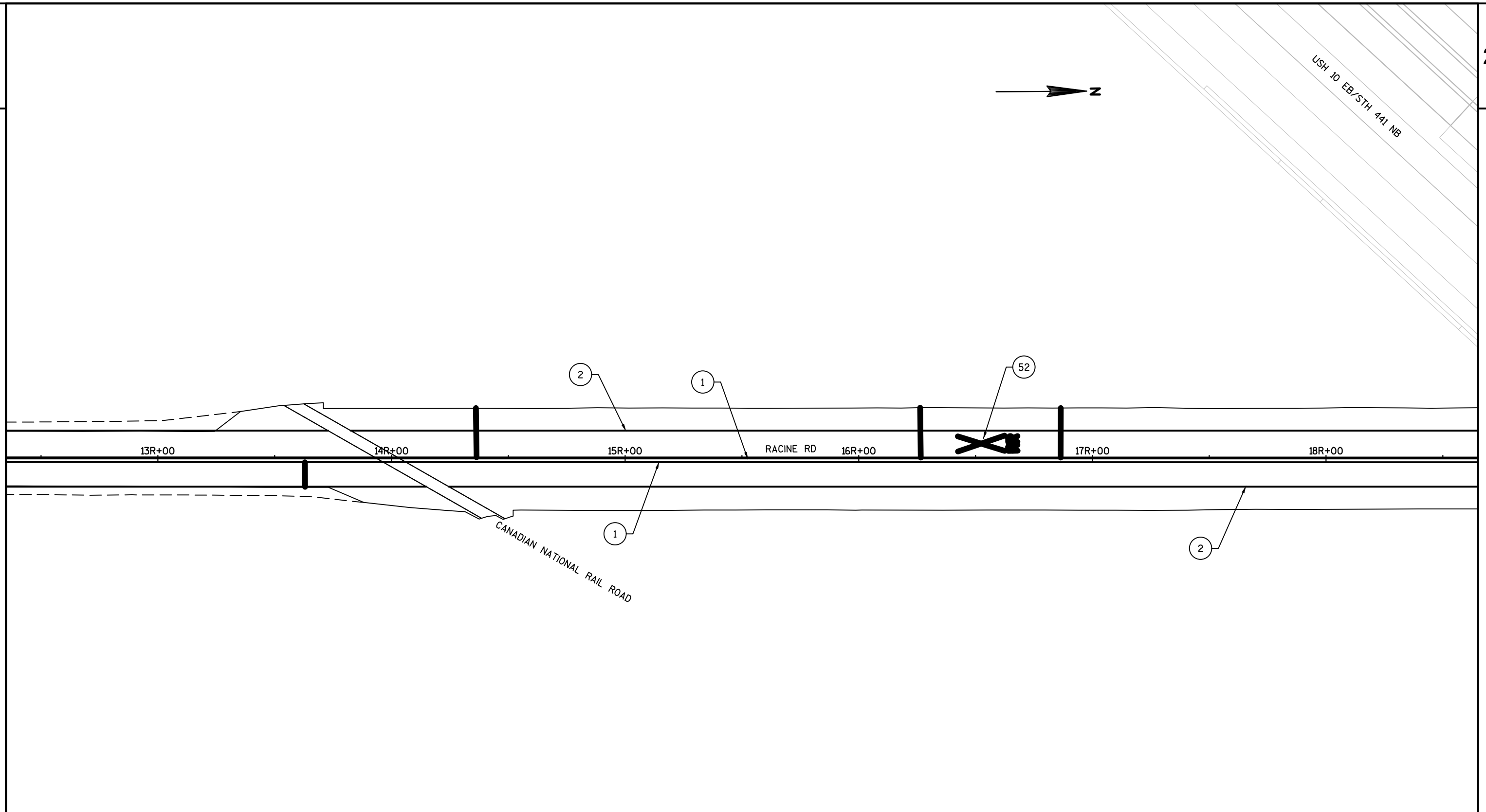
LEGEND

- 1 MARKING LINE EPOXY 4-INCH (YELLOW)
- 2 MARKING LINE EPOXY 4-INCH (WHITE)
- 36 MARKING LINE EPOXY 4-INCH (DASHED YELLOW)(12.5 FT LINE 37.5 FT SKIP)



LEGEND

- (1) MARKING LINE EPOXY 4-INCH (YELLOW)
- (2) MARKING LINE EPOXY 4-INCH (WHITE)
- (36) MARKING LINE EPOXY 4-INCH (DASHED YELLOW)(12.5 FT LINE 37.5 FT SKIP)
- (52) MARKING RAILROAD CROSSING EPOXY

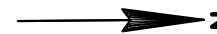


LEGEND

- (1) MARKING LINE EPOXY 4-INCH (YELLOW)
- (2) MARKING LINE EPOXY 4-INCH (WHITE)
- (52) MARKING RAILROAD CROSSING EPOXY

USH 10 EB/STH 441 NB

USH 10 WB/STH 441 SB



GORDON ST

18R+00

19R+00

20R+00

RACINE RD 21R+00

22R+00

23R+00

24R+00

LEGEND

1

MARKING LINE EPOXY 4-INCH (YELLOW)

2

MARKING LINE EPOXY 4-INCH (WHITE)

PROJECT NO:1517-75-77

HWY:STH 441/USH 10

COUNTY:WINNEBAGO

PAVEMENT MARKING

SHEET

E

FILE NAME : S:\PDS\C3D\WIS441\15177570_72_77_85\SHEETSPLAN\1517-75-77\024500-PM\NE-15177577-024501-PM.DWG
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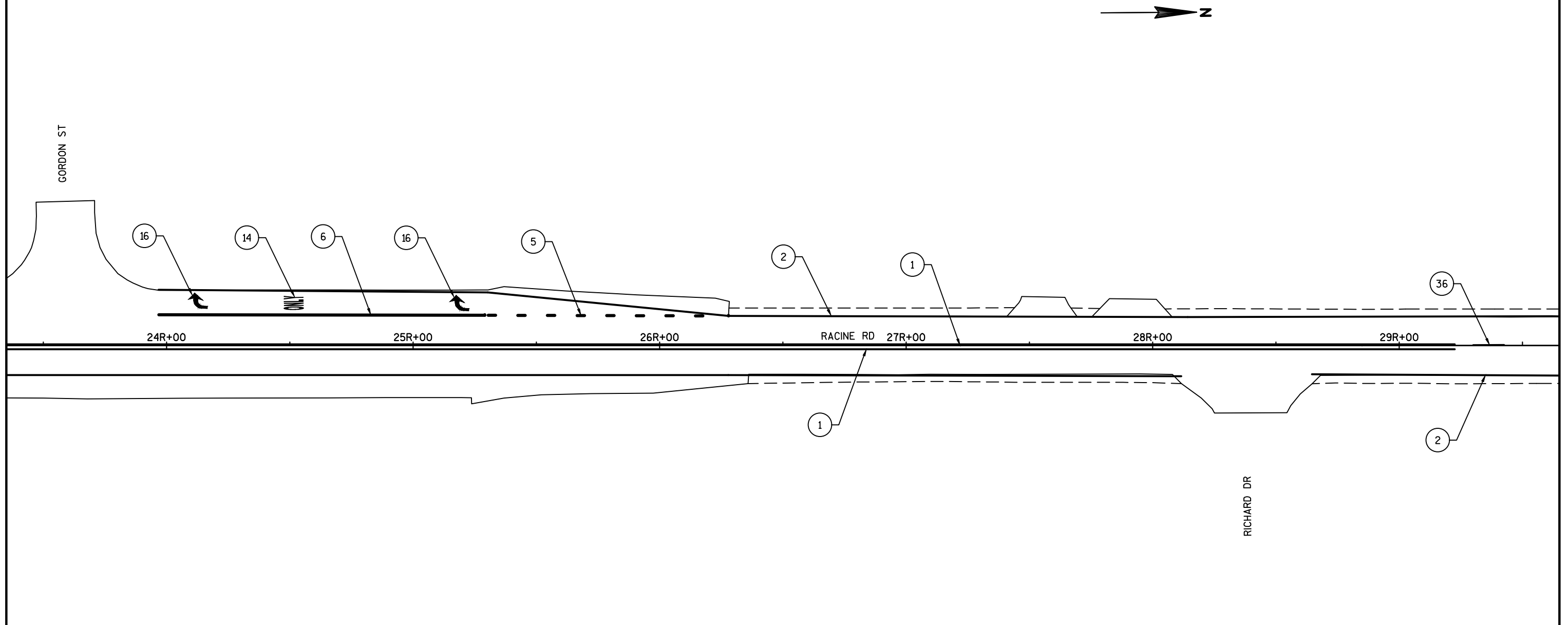
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PLOT BY : MARTENS, JOHN M

PLOT NAME :

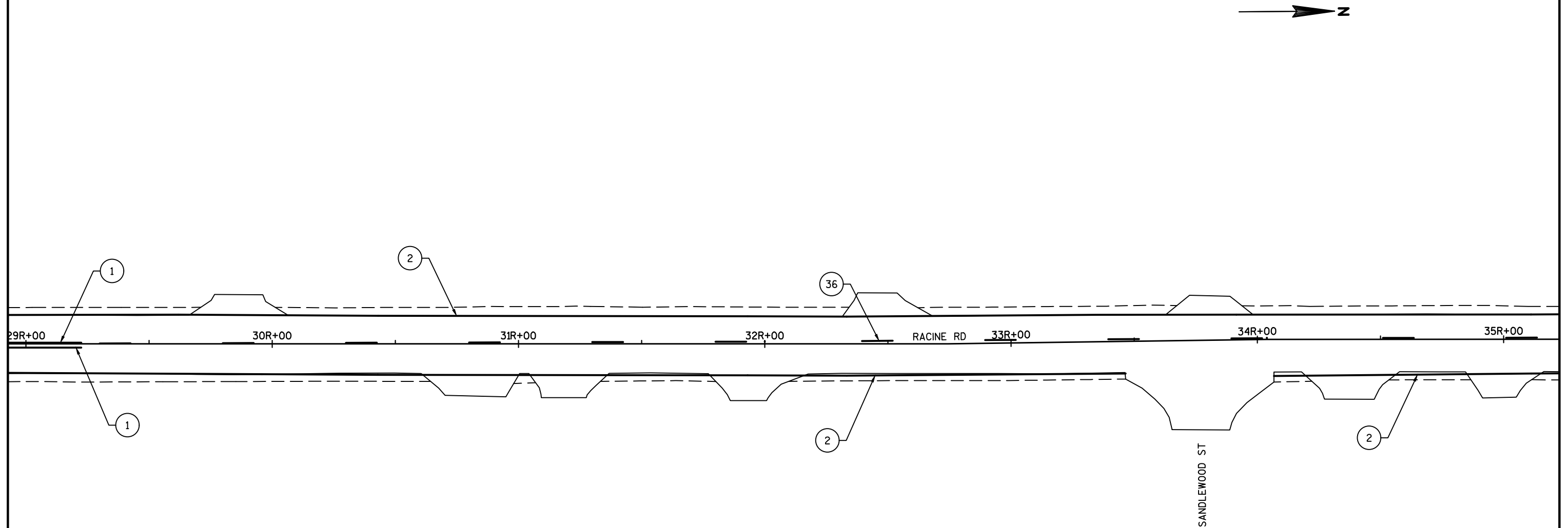
PLOT SCALE : 1 IN:40 FT

WISDOT/CADDs SHEET 42



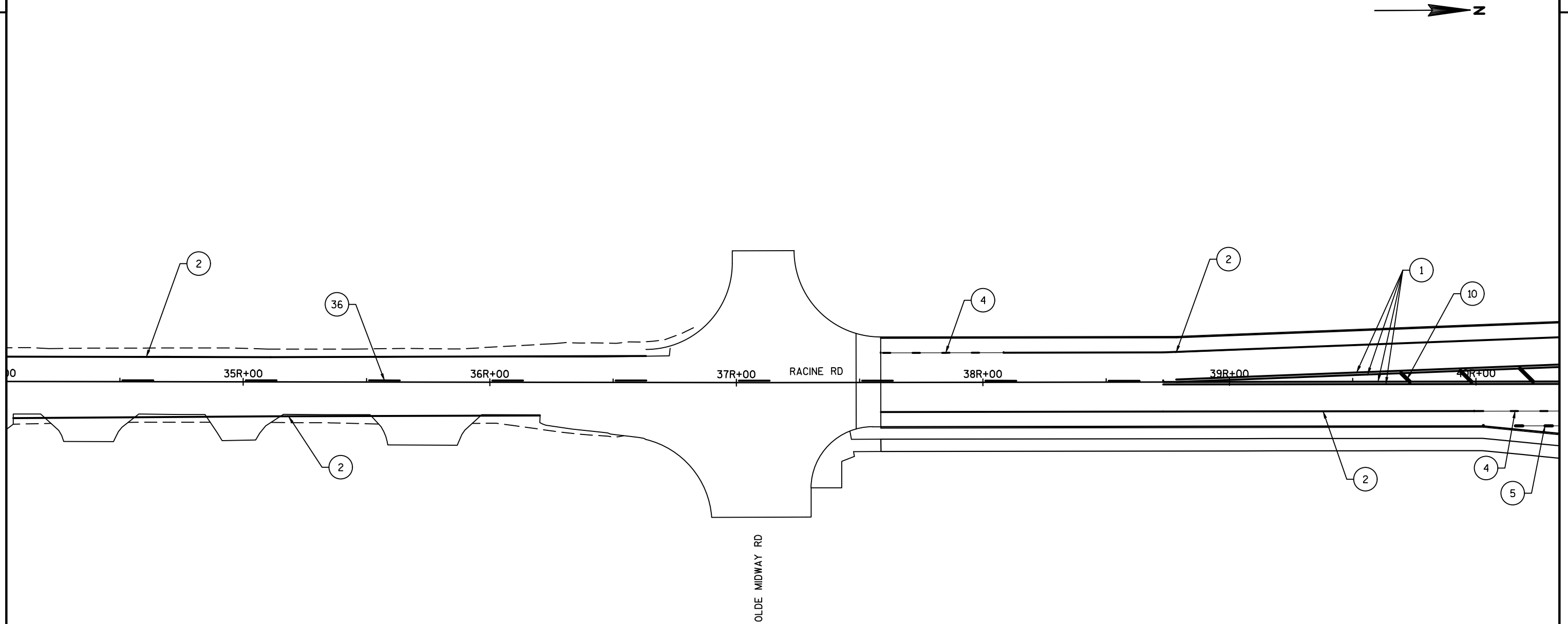
LEGEND

- 1 MARKING LINE EPOXY 4-INCH (YELLOW)
- 2 MARKING LINE EPOXY 4-INCH (WHITE)
- 5 MARKING LINE EPOXY 8-INCH (DOT PATTERN WHITE)(3 FT LINE 9 FT SKIP)
- 6 MARKING LINE EPOXY 8-INCH (WHITE)
- 14 MARKING WORD EPOXY (WHITE)
- 16 MARKING ARROW EPOXY
- 36 MARKING LINE EPOXY 4-INCH (DASHED YELLOW)(12.5 FT LINE 37.5 FT SKIP)



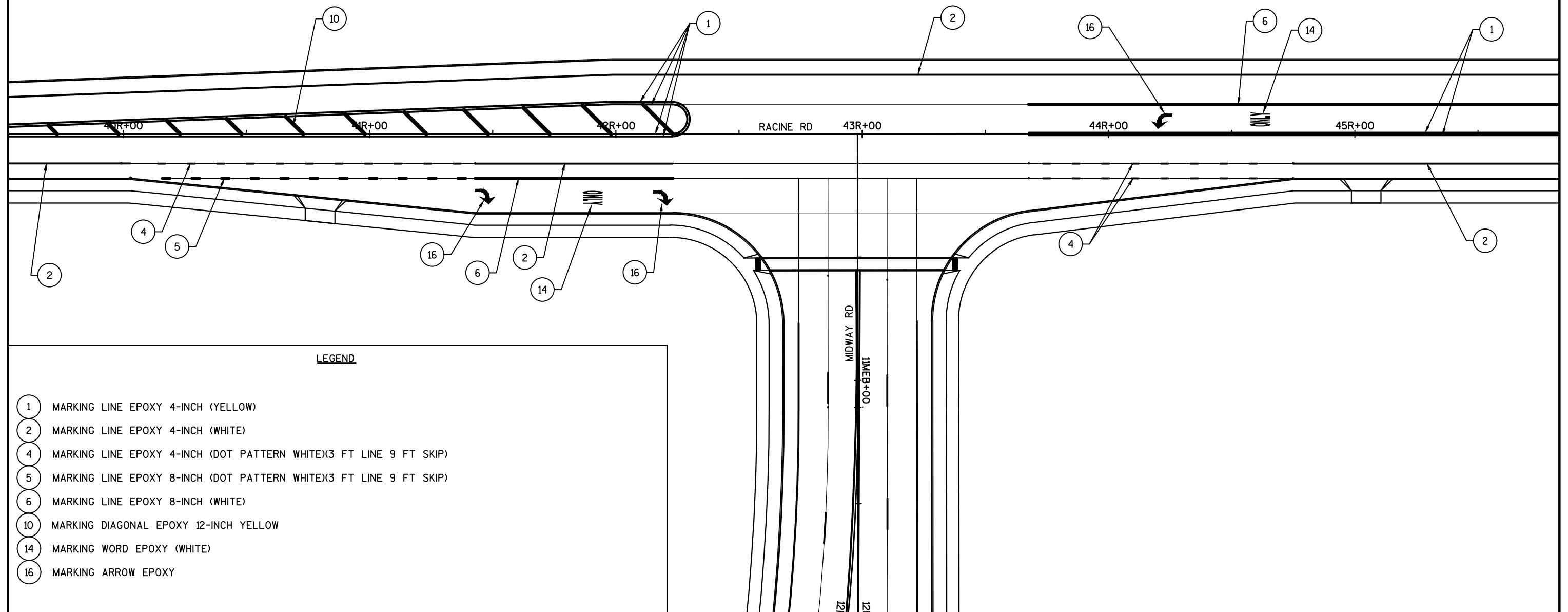
LEGEND

- (1) MARKING LINE EPOXY 4-INCH (YELLOW)
- (2) MARKING LINE EPOXY 4-INCH (WHITE)
- (36) MARKING LINE EPOXY 4-INCH (DASHED YELLOW)(12.5 FT LINE 37.5 FT SKIP)



LEGEND

- 1 MARKING LINE EPOXY 4-INCH (YELLOW)
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- 4 MARKING LINE EPOXY 4-INCH (DOT PATTERN WHITE)(3 FT LINE 9 FT SKIP)
- 5 MARKING LINE EPOXY 8-INCH (DOT PATTERN WHITE)(3 FT LINE 9 FT SKIP)
- 10 MARKING DIAGONAL EPOXY 12-INCH YELLOW
- 36 MARKING LINE EPOXY 4-INCH (DASHED YELLOW)(12.5 FT LINE 37.5 FT SKIP)



PROJECT NO:1517-75-77

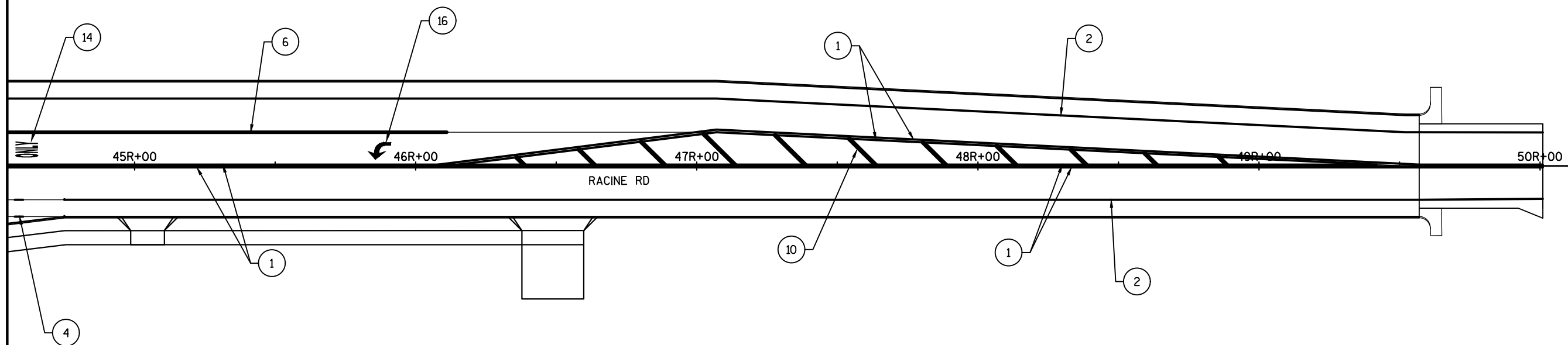
HWY:STH 441/USH 10

COUNTY:WINNEBAGO

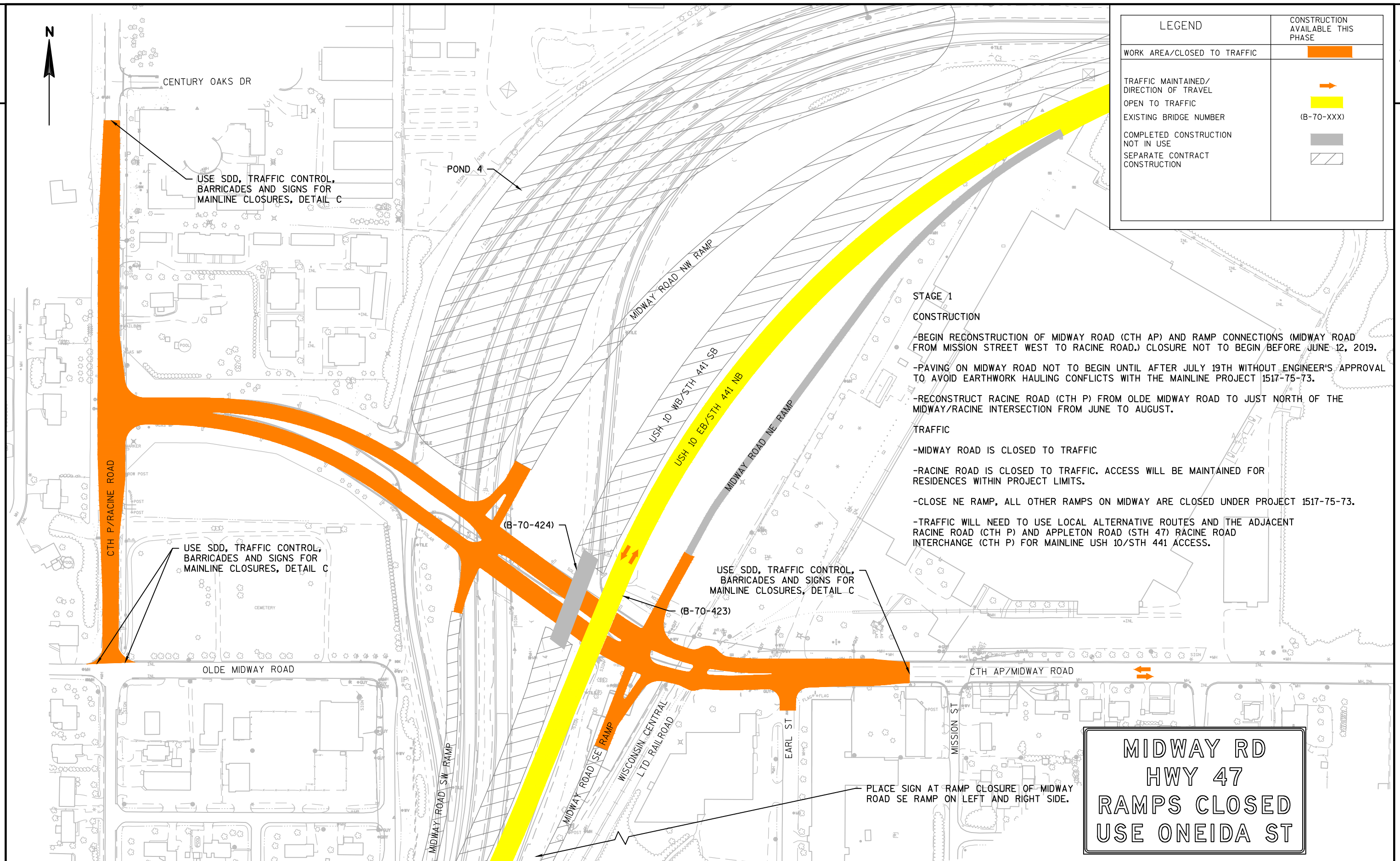
PAVEMENT MARKING

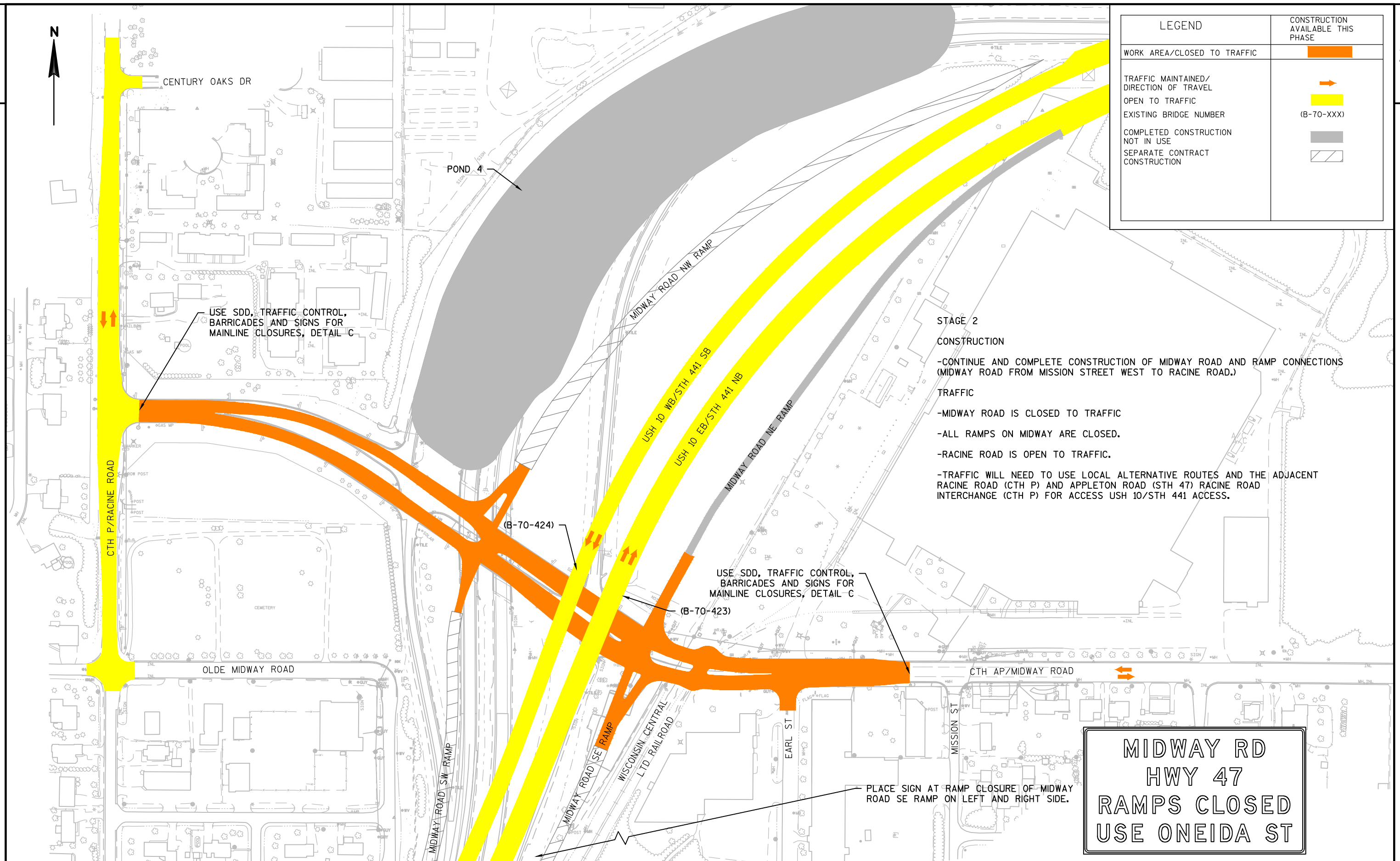
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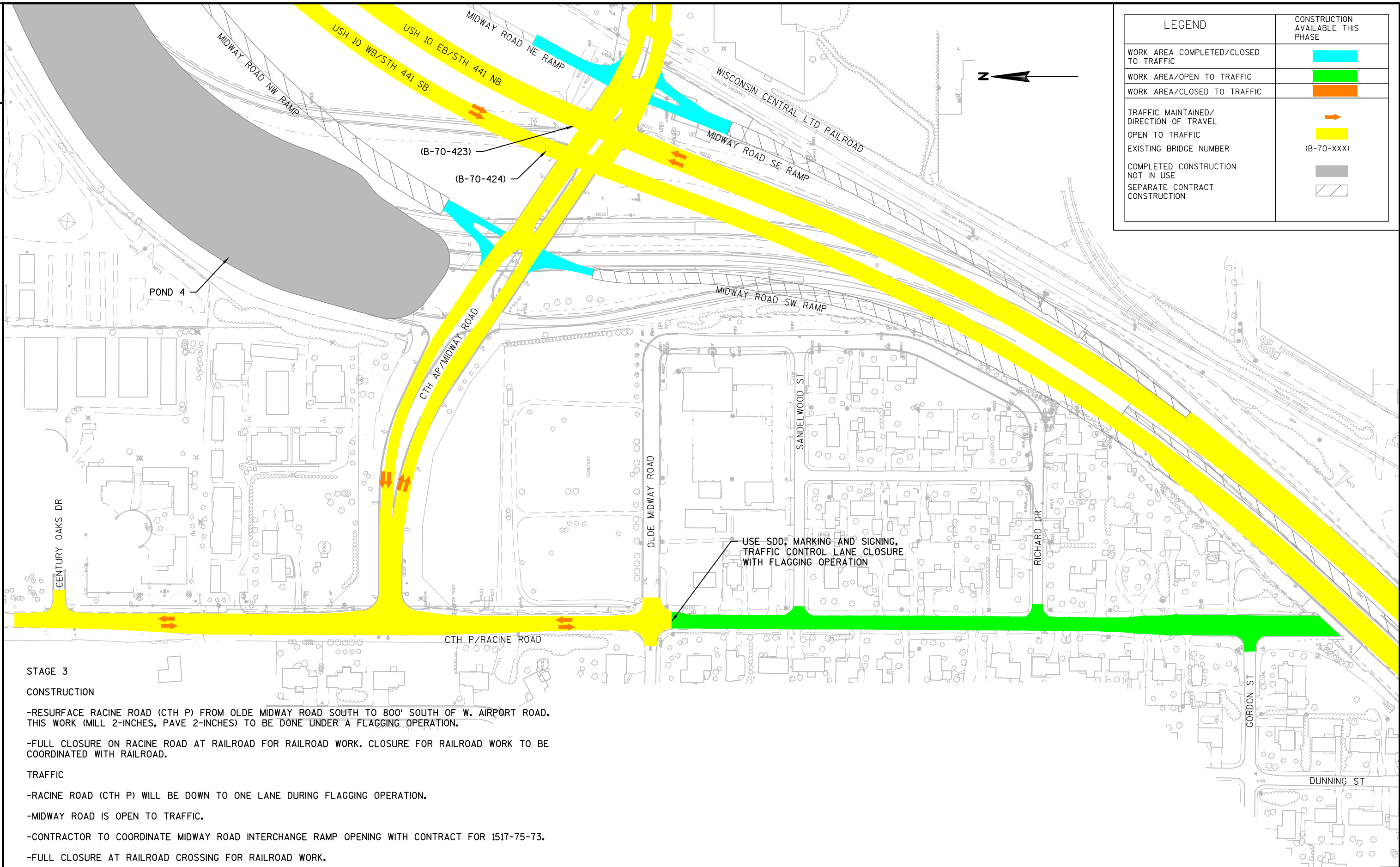
E

**LEGEND**

- 1 MARKING LINE EPOXY 4-INCH (YELLOW)
- 2 MARKING LINE EPOXY 4-INCH (WHITE)
- 4 MARKING LINE EPOXY 4-INCH (DOT PATTERN WHITE)(3 FT LINE 9 FT SKIP)
- 6 MARKING LINE EPOXY 8-INCH (WHITE)
- 10 MARKING DIAGONAL EPOXY 12-INCH YELLOW
- 14 MARKING WORD EPOXY (WHITE)
- 16 MARKING ARROW EPOXY







STAGE 3
CONSTRUCTION

- RESURFACE RACINE ROAD (CTH P) FROM OLDE MIDWAY ROAD SOUTH TO 800' SOUTH OF W. AIRPORT ROAD. THIS WORK (MILL 2-INCHES, PAVE 2-INCHES) TO BE DONE UNDER A FLAGGING OPERATION.
- FULL CLOSURE ON RACINE ROAD AT RAILROAD FOR RAILROAD WORK. CLOSURE FOR RAILROAD WORK TO BE COORDINATED WITH RAILROAD.

TRAFFIC

- RACINE ROAD (CTH P) WILL BE DOWN TO ONE LANE DURING FLAGGING OPERATION.
- MIDWAY ROAD IS OPEN TO TRAFFIC.
- CONTRACTOR TO COORDINATE MIDWAY ROAD INTERCHANGE RAMP OPENING WITH CONTRACT FOR 1517-75-73.
- FULL CLOSURE AT RAILROAD CROSSING FOR RAILROAD WORK.

STAGE 3

CONSTRUCTION

-RESURFACE RACINE ROAD (CTH P) FROM OLDE MIDWAY ROAD SOUTH TO 800' SOUTH OF W. AIRPORT ROAD. THIS WORK (MILL 2-INCHES, PAVE 2-INCHES) TO BE DONE UNDER A FLAGGING OPERATION.

-FULL CLOSURE ON RACINE ROAD AT RAILROAD FOR RAILROAD WORK. CLOSURE FOR RAILROAD WORK TO BE COORDINATED WITH RAILROAD.

TRAFFIC

-RACINE ROAD (CTH P) WILL BE DOWN TO ONE LANE DURING FLAGGING OPERATION.

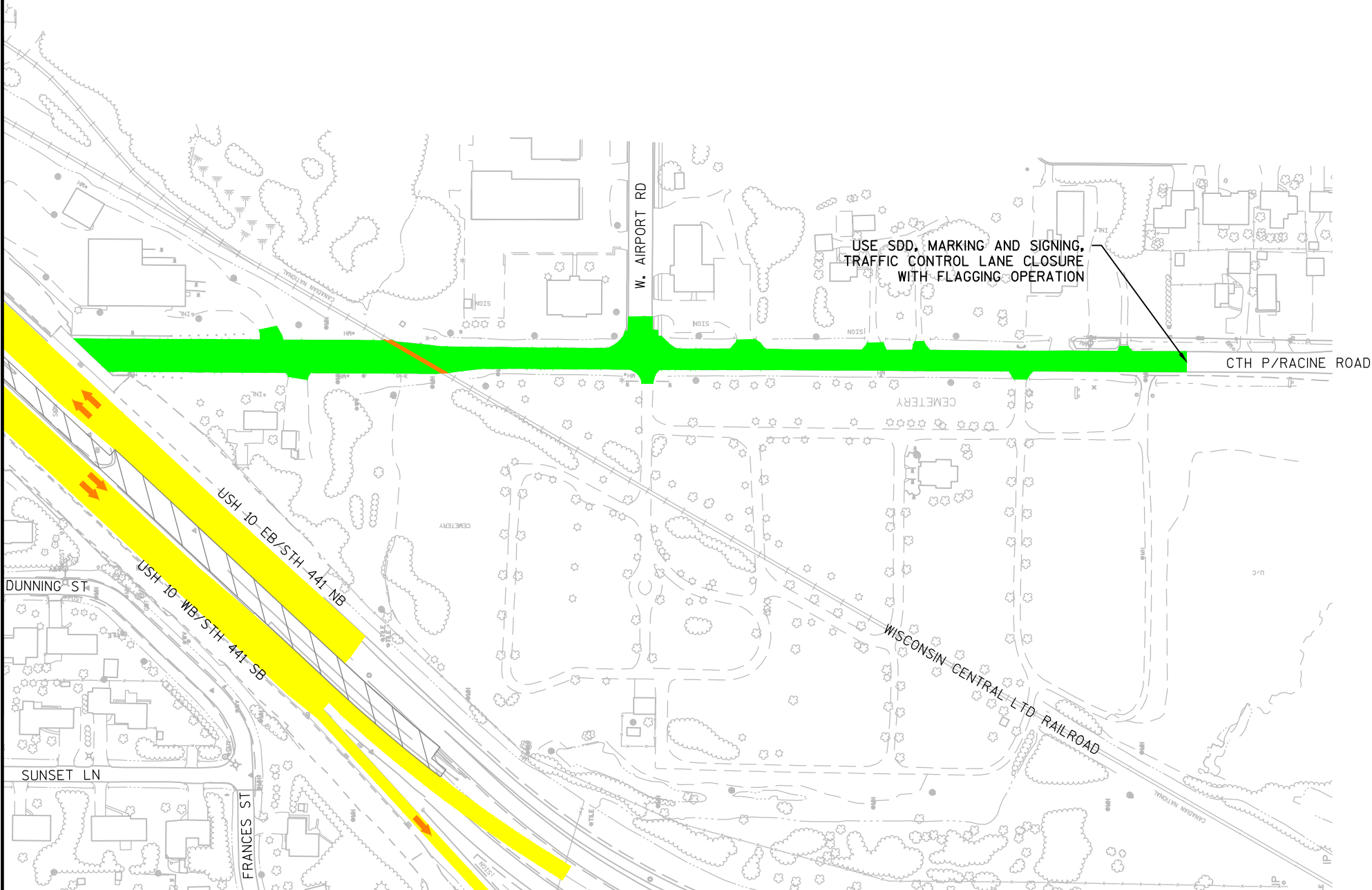
-MIDWAY ROAD IS OPEN TO TRAFFIC.

-CONTRACTOR TO COORDINATE MIDWAY ROAD INTERCHANGE RAMP OPENING WITH CONTRACT FOR 1517-75-73.

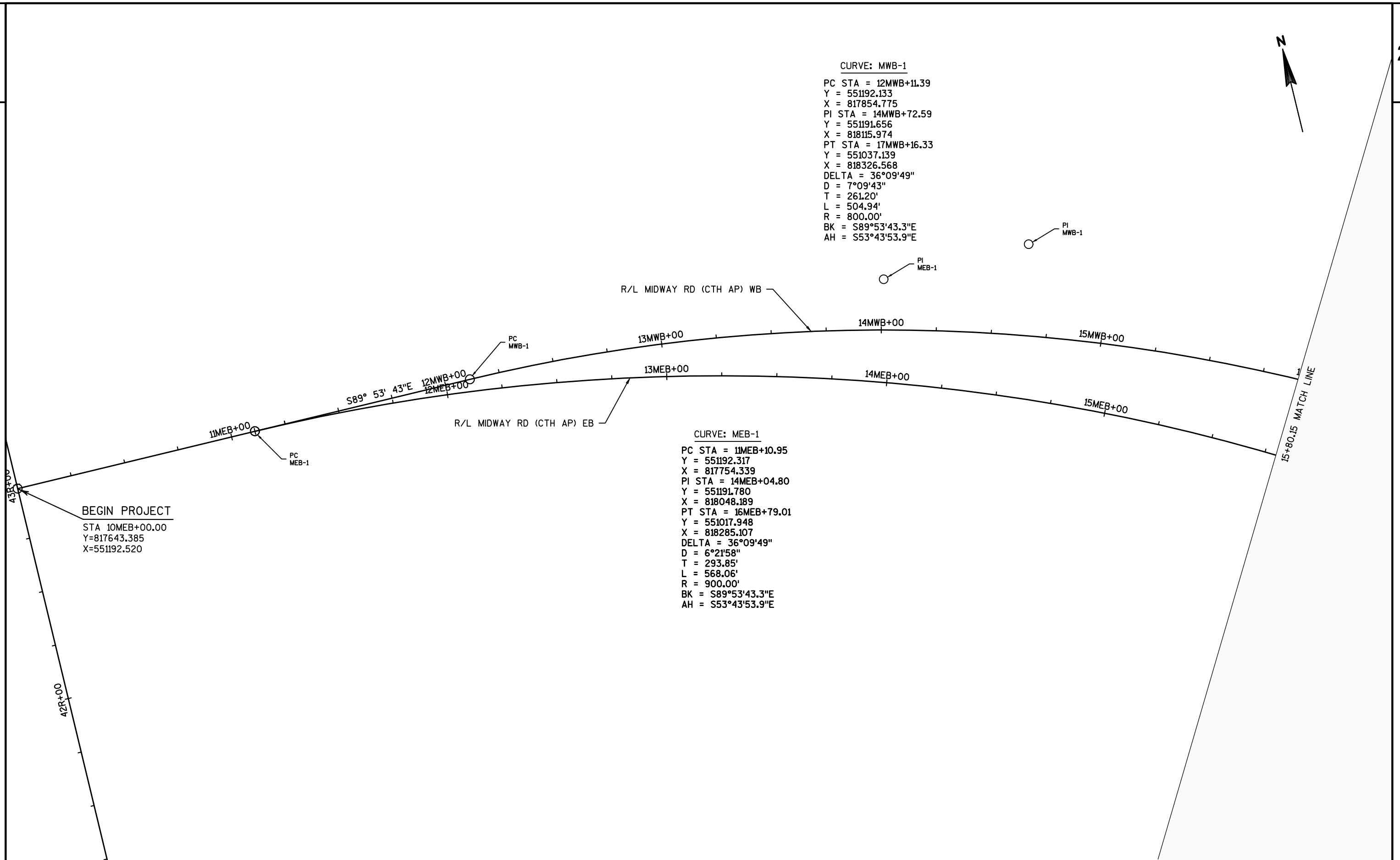
-FULL CLOSURE AT RAILROAD CROSSING FOR RAILROAD WORK.

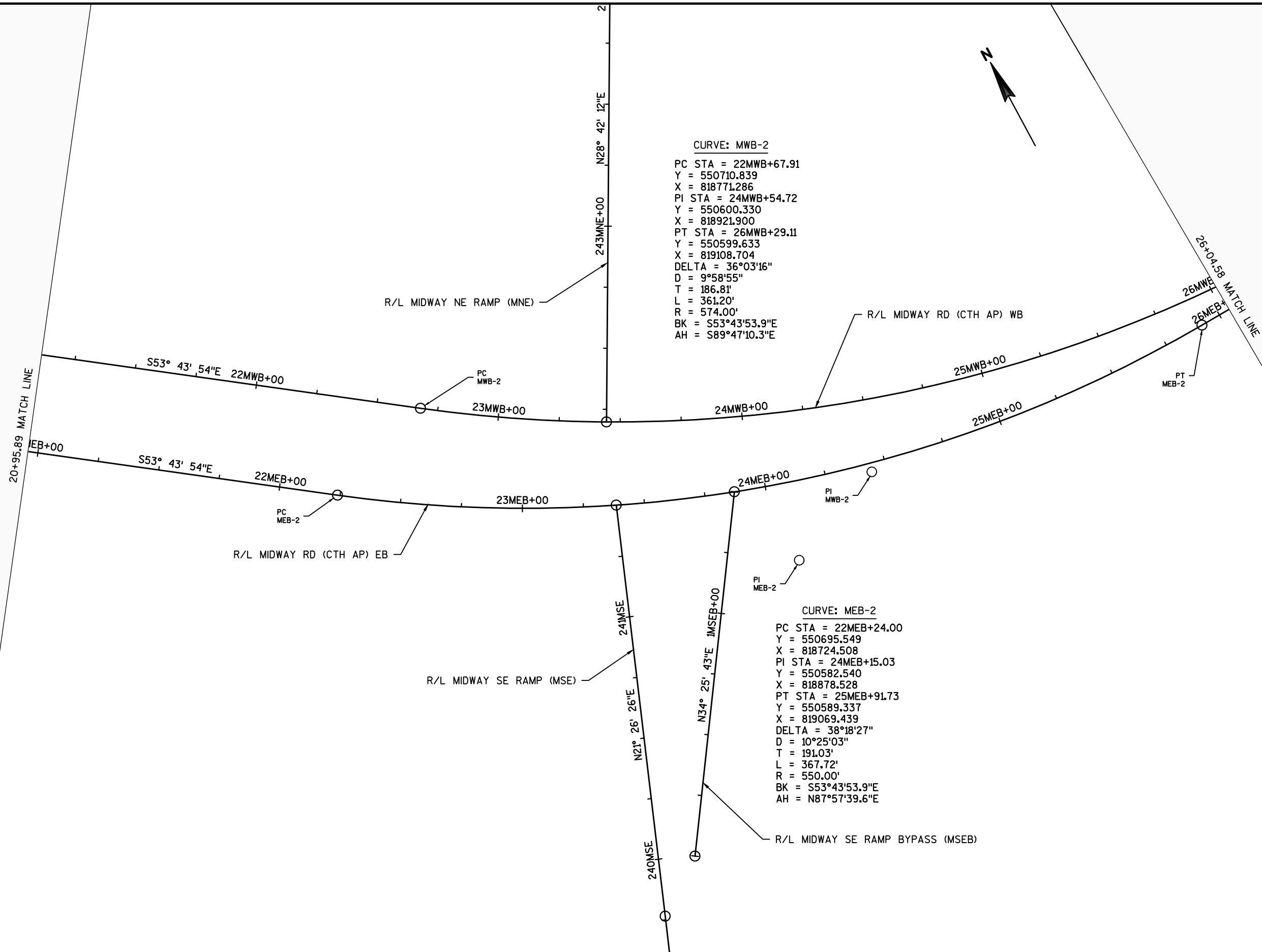


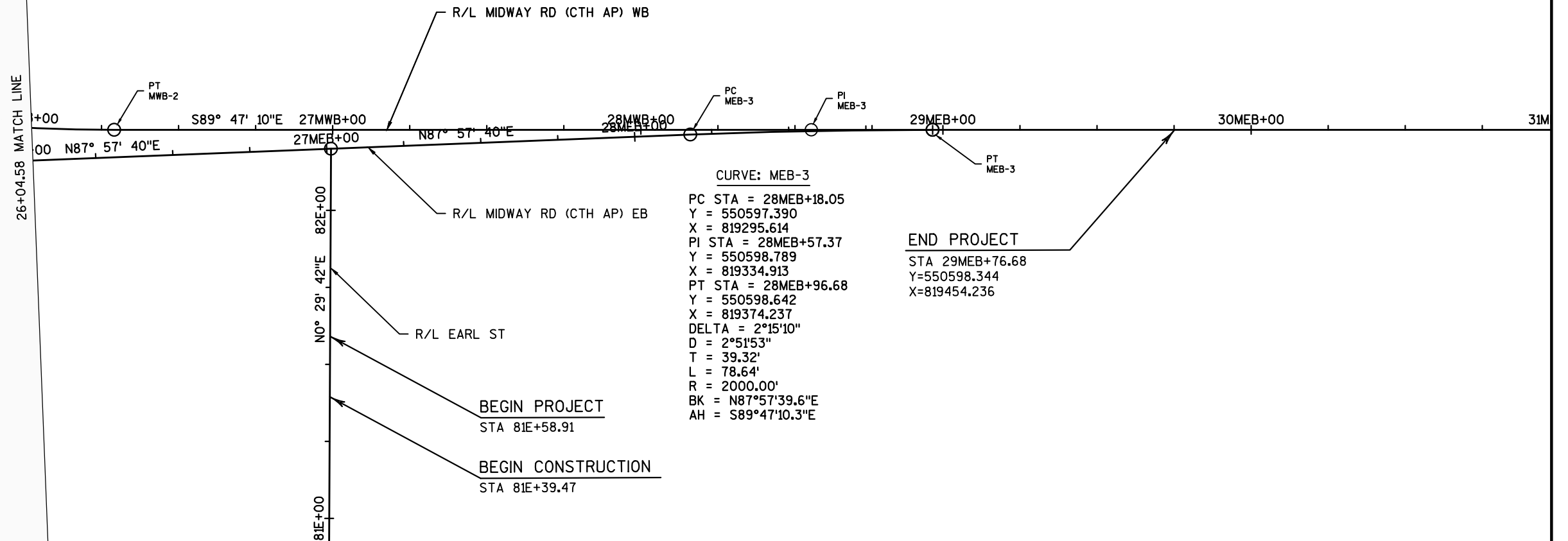
LEGEND	CONSTRUCTION AVAILABLE THIS PHASE
WORK AREA COMPLETED/CLOSED TO TRAFFIC	
WORK AREA/OPEN TO TRAFFIC	
WORK AREA/CLOSED TO TRAFFIC	
TRAFFIC MAINTAINED/DIRECTION OF TRAVEL	
OPEN TO TRAFFIC	
EXISTING BRIDGE NUMBER	(B-70-XXX)
COMPLETED CONSTRUCTION NOT IN USE	
SEPARATE CONTRACT CONSTRUCTION	

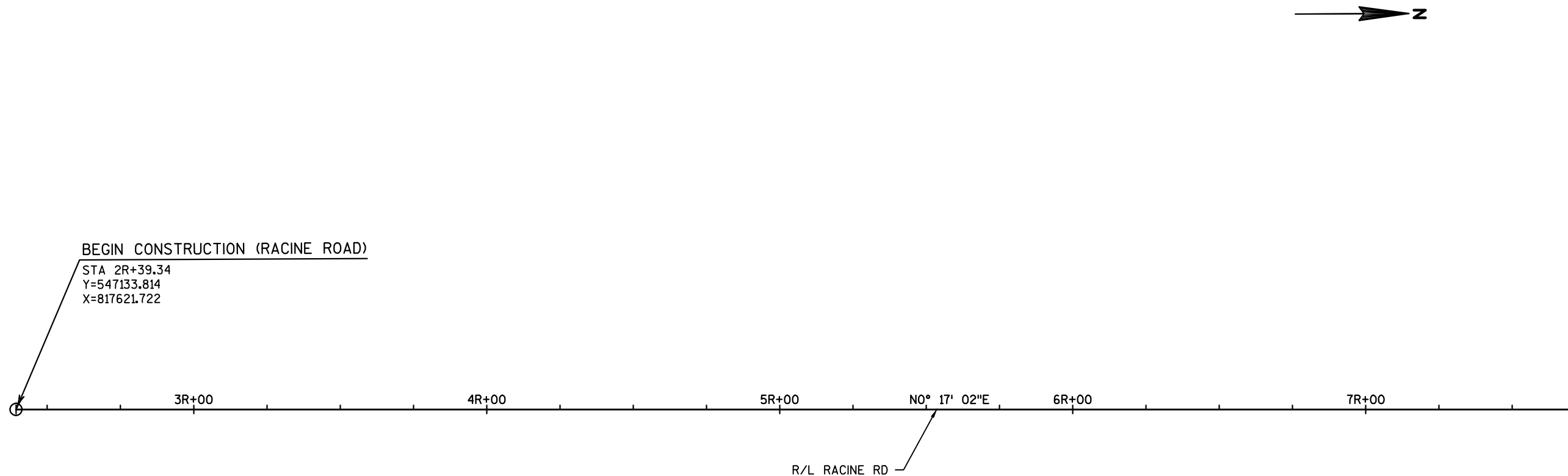


PROJECT NO:1517-75-77	HWY:STH 441/USH 10	COUNTY:WINNEBAGO	STAGE CONSTRUCTION MIDWAY ROAD INTG AND RAMPS STAGE 3	SHEET	E
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7+69.34 MATCH LINE

12+99.34 MATCH LINE

8R+00

9R+00

N0° 17' 02"E

10R+00

11R+00

N0° 23' 23"E

12R+00

13R

PI
R

R/L RACINE RD



12+99.34 MATCH LINE

18+29.34 MATCH LINE

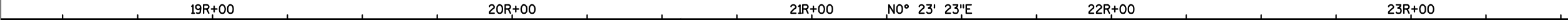
+00 14R+00 15R+00 16R+00 17R+00 18R+00

N0° 23' 23"E
R/L RACINE RD



18+29.34 MATCH LINE

23+59.34 MATCH LINE



R/L RACINE RD

23+59.34 MATCH LINE

28+89.34 MATCH LINE

24R+00

25R+00

26R+00

N0° 23' 23"E

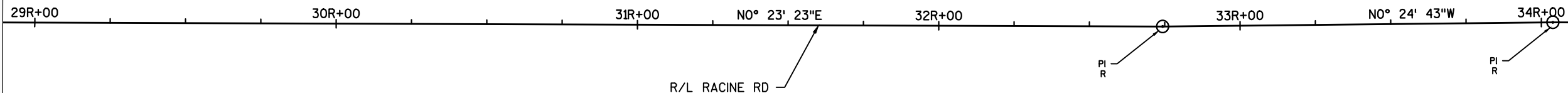
27R+00

28R+00

R/L RACINE RD



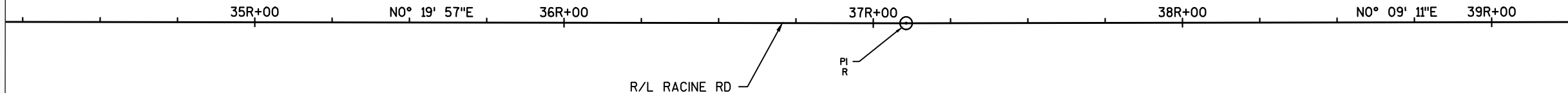
28+89.34 MATCH LINE



34+19.34 MATCH LINE

34+19.34 MATCH LINE

39+49.34 MATCH LINE



R/L RACINE RD

PI



39+49.34 MATCH LINE

40R+00

N0° 09' 11"E

41R+00

42R+00

R/L RACINE RD

43R+00

N0° 09' 11"E

44R+00

44+79.34 MATCH LINE

11ME+00

S89° 53' 43"E 121

44+79.34 MATCH LINE

45R+00

46R+00

47R+00

48R+00

N0° 09' 11"E

49R+00

50R+00

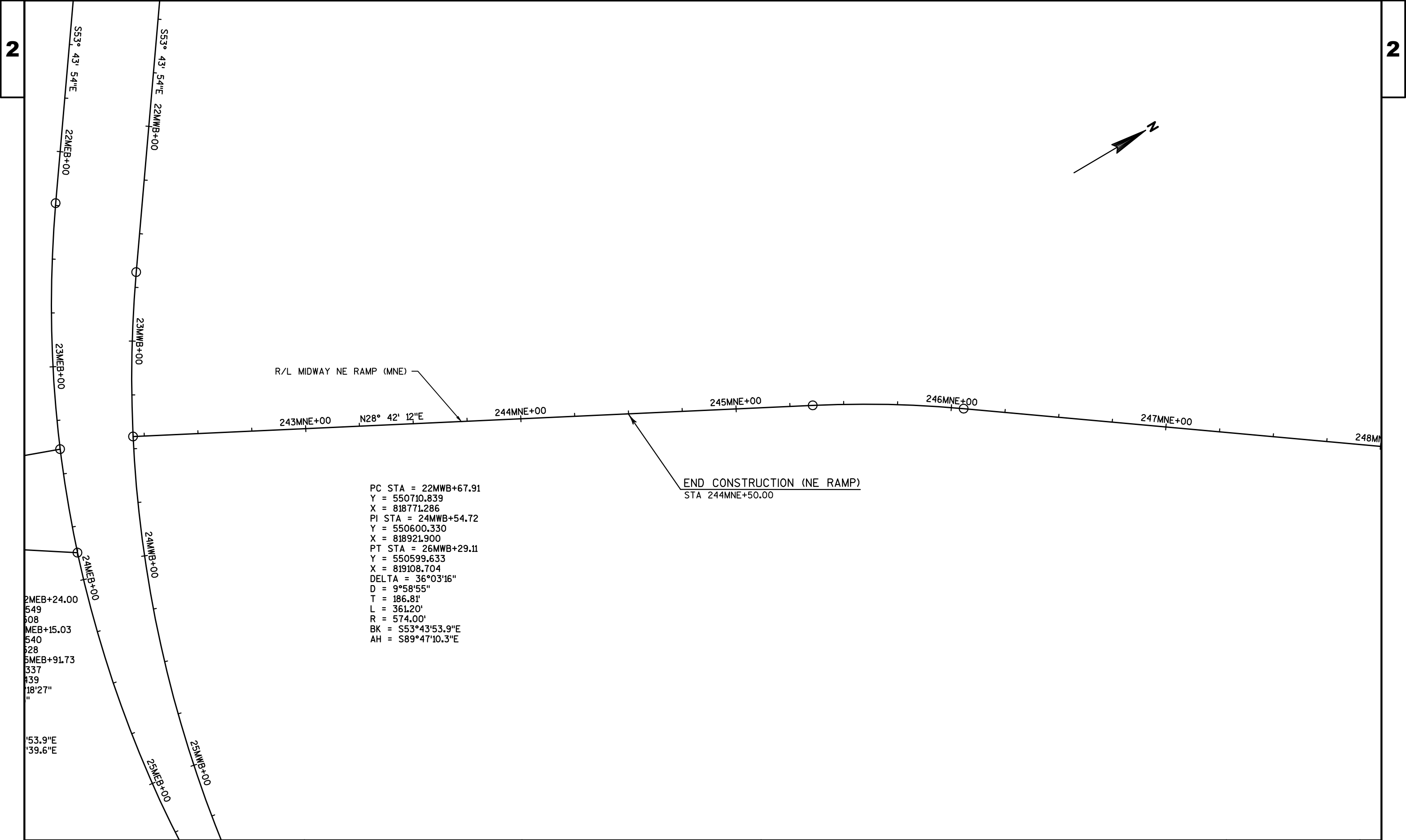
R/L RACINE RD

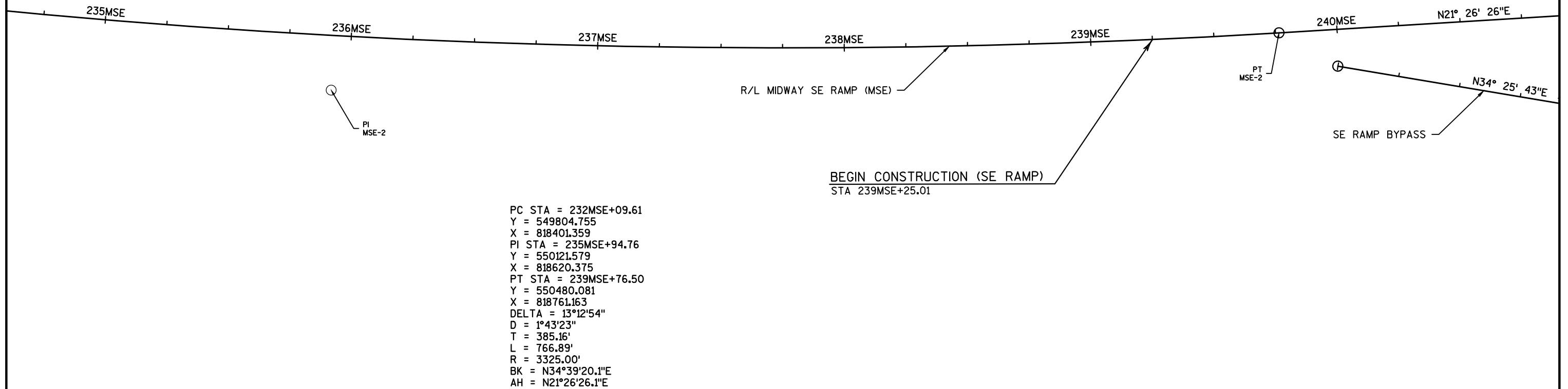
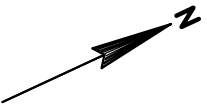
END PROJECT (RACINE ROAD)

STA 49R+57.04
Y=817645.144
X=551851.437

END CONSTRUCTION (RACINE ROAD)

STA 50R+01.00





Estimate Of Quantities

1517-75-77

Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	3.000	3.000
0004	201.0120	Clearing	ID	126.000	126.000
0006	201.0205	Grubbing	STA	3.000	3.000
0008	201.0220	Grubbing	ID	126.000	126.000
0010	203.0100	Removing Small Pipe Culverts	EACH	1.000	1.000
0012	204.0100	Removing Pavement	SY	15,591.000	15,591.000
0014	204.0115	Removing Asphaltic Surface Butt Joints	SY	143.000	143.000
0016	204.0120	Removing Asphaltic Surface Milling	SY	13,479.000	13,479.000
0018	204.0150	Removing Curb & Gutter	LF	262.000	262.000
0020	204.0165	Removing Guardrail	LF	257.000	257.000
0022	204.0185	Removing Masonry	CY	11.000	11.000
0024	204.0190	Removing Surface Drains	EACH	4.000	4.000
0026	204.0210	Removing Manholes	EACH	8.000	8.000
0028	204.0220	Removing Inlets	EACH	22.000	22.000
0030	204.0245	Removing Storm Sewer (size) 001. 6-15 Inches	LF	472.000	472.000
0032	204.0245	Removing Storm Sewer (size) 002. 18-21 Inches	LF	196.000	196.000
0034	204.0245	Removing Storm Sewer (size) 003. 24-30 Inches	LF	667.000	667.000
0036	204.0245	Removing Storm Sewer (size) 004. 36-42 Inches	LF	1,573.000	1,573.000
0038	205.0100	Excavation Common	CY	35,922.000	35,922.000
0040	209.0200.S	Backfill Controlled Low Strength	CY	30.000	30.000
0042	210.1100	Backfill Structure Type A	CY	56.000	56.000
0044	213.0100	Finishing Roadway (project) 001. 1517-75-77	EACH	1.000	1.000
0046	305.0110	Base Aggregate Dense 3/4-Inch	TON	157.000	157.000
0048	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	9,728.000	9,728.000
0050	311.0110	Breaker Run	TON	16,275.000	16,275.000
0052	405.0200	Coloring Concrete Custom 001. Color 10076	CY	153.000	153.000
0054	415.4100	Concrete Pavement Joint Filling	SY	24,167.000	24,167.000
0056	415.5110.S	Concrete Pavement Joint Layout	LS	1.000	1.000
0058	416.0160	Concrete Driveway 6-Inch	SY	56.000	56.000
0060	416.0170	Concrete Driveway 7-Inch	SY	64.000	64.000
0062	416.0610	Drilled Tie Bars	EACH	10.000	10.000
0064	416.0620	Drilled Dowel Bars	EACH	113.000	113.000
0066	455.0605	Tack Coat	GAL	1,029.000	1,029.000
0068	460.2000	Incentive Density HMA Pavement	DOL	1,470.000	1,470.000
0070	460.6223	HMA Pavement 3 MT 58-28 S	TON	94.000	94.000
0072	460.6424	HMA Pavement 4 MT 58-28 H	TON	2,250.000	2,250.000
0074	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	40.000	40.000
0076	465.0315	Asphaltic Flumes	SY	39.000	39.000
0078	520.8000	Concrete Collars for Pipe	EACH	2.000	2.000
0080	522.1012	Apron Endwalls for Culvert Pipe Reinforced Concrete	EACH	1.000	1.000

Estimate Of Quantities

1517-75-77

Line	Item	Item Description	Unit	Total	Qty
		12-Inch			
0082	522.1018	Apron Endwalls for Culvert Pipe Reinforced Concrete 18-Inch	EACH	2.000	2.000
0084	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	2.000	2.000
0086	601.0409	Concrete Curb & Gutter 30-Inch Type A	LF	2,688.000	2,688.000
0088	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	121.000	121.000
0090	601.0452	Concrete Curb & Gutter Integral 30-Inch Type D	LF	7,175.000	7,175.000
0092	601.0600	Concrete Curb Pedestrian	LF	80.000	80.000
0094	602.0410	Concrete Sidewalk 5-Inch	SF	28,961.000	28,961.000
0096	602.0515	Curb Ramp Detectable Warning Field Natural Patina	SF	160.000	160.000
0098	602.0615	Curb Ramp Detectable Warning Field Radial Natural Patina	SF	76.000	76.000
0100	603.1442	Concrete Barrier Type S42C	LF	150.000	150.000
0102	603.3513	Concrete Barrier Transition Type S32 to S36	EACH	2.000	2.000
0104	603.3535	Concrete Barrier Transition Type S36 to S42	EACH	2.000	2.000
0106	604.0400	Slope Paving Concrete	SY	945.000	945.000
0108	608.0312	Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	LF	80.000	80.000
0110	608.0318	Storm Sewer Pipe Reinforced Concrete Class III 18-Inch	LF	702.000	702.000
0112	608.0324	Storm Sewer Pipe Reinforced Concrete Class III 24-Inch	LF	1,489.000	1,489.000
0114	608.0336	Storm Sewer Pipe Reinforced Concrete Class III 36-Inch	LF	743.000	743.000
0116	608.0342	Storm Sewer Pipe Reinforced Concrete Class III 42-Inch	LF	1,006.000	1,006.000
0118	608.0412	Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	LF	100.000	100.000
0120	608.0418	Storm Sewer Pipe Reinforced Concrete Class IV 18-Inch	LF	21.000	21.000
0122	608.2329	Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 29x45-Inch	LF	86.000	86.000
0124	608.2334	Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 34x53-Inch	LF	28.000	28.000
0126	611.0420	Reconstructing Manholes	EACH	2.000	2.000
0128	611.0530	Manhole Covers Type J	EACH	6.000	6.000
0130	611.0535	Manhole Covers Type J-Special	EACH	6.000	6.000
0132	611.0612	Inlet Covers Type C	EACH	1.000	1.000
0134	611.0624	Inlet Covers Type H	EACH	39.000	39.000
0136	611.0639	Inlet Covers Type H-S	EACH	20.000	20.000
0138	611.0642	Inlet Covers Type MS	EACH	20.000	20.000

Estimate Of Quantities

1517-75-77

Line	Item	Item Description	Unit	Total	Qty
0140	611.1005	Catch Basins 5-FT Diameter	EACH	5.000	5.000
0142	611.1006	Catch Basins 6-FT Diameter	EACH	5.000	5.000
0144	611.2006	Manholes 6-FT Diameter	EACH	7.000	7.000
0146	611.2008	Manholes 8-FT Diameter	EACH	4.000	4.000
0148	611.3004	Inlets 4-FT Diameter	EACH	22.000	22.000
0150	611.3230	Inlets 2x3-FT	EACH	26.000	26.000
0152	611.3901	Inlets Median 1 Grate	EACH	4.000	4.000
0154	611.3902	Inlets Median 2 Grate	EACH	8.000	8.000
0156	611.8115	Adjusting Inlet Covers	EACH	2.000	2.000
0158	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	1,840.000	1,840.000
0160	618.0100	Maintenance And Repair of Haul Roads (project) 001. 1517-75-77	EACH	1.000	1.000
0162	619.1000	Mobilization	EACH	1.000	1.000
0164	620.0200	Concrete Median Blunt Nose	SF	454.000	454.000
0166	620.0300	Concrete Median Sloped Nose	SF	117.000	117.000
0168	624.0100	Water	MGAL	139.000	139.000
0170	625.0100	Topsoil	SY	17,261.000	17,261.000
0172	628.1504	Silt Fence	LF	550.000	550.000
0174	628.1520	Silt Fence Maintenance	LF	550.000	550.000
0176	628.1905	Mobilizations Erosion Control	EACH	6.000	6.000
0178	628.1910	Mobilizations Emergency Erosion Control	EACH	4.000	4.000
0180	628.2006	Erosion Mat Urban Class I Type A	SY	17,262.000	17,262.000
0182	628.7005	Inlet Protection Type A	EACH	13.000	13.000
0184	628.7010	Inlet Protection Type B	EACH	6.000	6.000
0186	628.7015	Inlet Protection Type C	EACH	120.000	120.000
0188	628.7020	Inlet Protection Type D	EACH	14.000	14.000
0190	628.7504	Temporary Ditch Checks	LF	46.000	46.000
0192	628.7555	Culvert Pipe Checks	EACH	10.000	10.000
0194	628.7560	Tracking Pads	EACH	4.000	4.000
0196	628.7570	Rock Bags	EACH	100.000	100.000
0198	629.0210	Fertilizer Type B	CWT	12.000	12.000
0200	630.0140	Seeding Mixture No. 40	LB	318.000	318.000
0202	630.0200	Seeding Temporary	LB	476.000	476.000
0204	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	29.000	29.000
0206	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	18.000	18.000
0208	634.0618	Posts Wood 4x6-Inch X 18-FT	EACH	8.000	8.000
0210	634.0620	Posts Wood 4x6-Inch X 20-FT	EACH	6.000	6.000
0212	637.2210	Signs Type II Reflective H	SF	674.000	674.000
0214	637.2215	Signs Type II Reflective H Folding	SF	20.000	20.000
0216	637.2230	Signs Type II Reflective F	SF	44.000	44.000

Estimate Of Quantities

1517-75-77

Line	Item	Item Description	Unit	Total	Qty
0218	638.2602	Removing Signs Type II	EACH	37.000	37.000
0220	638.3000	Removing Small Sign Supports	EACH	38.000	38.000
0222	642.5201	Field Office Type C	EACH	1.000	1.000
0224	643.0310.S	Temporary Portable Rumble Strips	LS	1.000	1.000
0226	643.0410	Traffic Control Barricades Type II	DAY	272.000	272.000
0228	643.0420	Traffic Control Barricades Type III	DAY	2,658.000	2,658.000
0230	643.0705	Traffic Control Warning Lights Type A	DAY	3,668.000	3,668.000
0232	643.0900	Traffic Control Signs	DAY	3,458.000	3,458.000
0234	643.0910	Traffic Control Covering Signs Type I	EACH	8.000	8.000
0236	643.0920	Traffic Control Covering Signs Type II	EACH	4.000	4.000
0238	643.1050	Traffic Control Signs PCMS	DAY	28.000	28.000
0240	643.5000	Traffic Control	EACH	1.000	1.000
0242	646.1020	Marking Line Epoxy 4-Inch	LF	22,647.000	22,647.000
0244	646.3020	Marking Line Epoxy 8-Inch	LF	922.000	922.000
0246	646.5020	Marking Arrow Epoxy	EACH	10.000	10.000
0248	646.5120	Marking Word Epoxy	EACH	3.000	3.000
0250	646.5320	Marking Railroad Crossings Epoxy	EACH	4.000	4.000
0252	646.7120	Marking Diagonal Epoxy 12-Inch	LF	291.000	291.000
0254	646.7420	Marking Crosswalk Epoxy Transverse Line 6-Inch	LF	517.000	517.000
0256	646.8120	Marking Curb Epoxy	LF	243.000	243.000
0258	646.8220	Marking Island Nose Epoxy	EACH	6.000	6.000
0260	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	1,868.000	1,868.000
0262	653.0164	Pull Boxes Non-Conductive 24x42-Inch	EACH	7.000	7.000
0264	653.0905	Removing Pull Boxes	EACH	2.000	2.000
0266	654.0105	Concrete Bases Type 5	EACH	3.000	3.000
0268	654.0107	Concrete Bases Type 7	EACH	6.000	6.000
0270	654.0230	Concrete Control Cabinet Bases Type L30	EACH	1.000	1.000
0272	655.0610	Electrical Wire Lighting 12 AWG	LF	1,320.000	1,320.000
0274	655.0615	Electrical Wire Lighting 10 AWG	LF	2,129.000	2,129.000
0276	655.0620	Electrical Wire Lighting 8 AWG	LF	7,984.000	7,984.000
0278	656.0400	Electrical Service Main Lugs Only Meter Pedestal (location) 001.CB-200	LS	1.000	1.000
0280	657.0210	Transformer Bases Breakaway 15-17 Inch Bolt Circle	EACH	6.000	6.000
0282	657.0255	Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	EACH	3.000	3.000
0284	657.0337	Poles Type 17-Aluminum	EACH	7.000	7.000
0286	657.0730	Luminaire Arms Truss Type 6-Inch Clamp 12-FT	EACH	8.000	8.000
0288	659.1125	Luminaires Utility LED C	EACH	8.000	8.000
0290	659.2230	Lighting Control Cabinets 240/480 30-Inch	EACH	1.000	1.000
0292	662.1026.S	Ramp Closure Gates Hardwired 26-FT	EACH	2.000	2.000
0294	662.1040.S	Ramp Closure Gates Hardwired 40-FT	EACH	1.000	1.000

Estimate Of Quantities

1517-75-77

Line	Item	Item Description	Unit	Total	Qty
0296	690.0150	Sawing Asphalt	LF	695.000	695.000
0298	690.0250	Sawing Concrete	LF	127.000	127.000
0300	715.0415	Incentive Strength Concrete Pavement	DOL	6,440.000	6,440.000
0302	715.0710	Optimized Aggregate Gradation Incentive	DOL	12,871.800	12,871.800
0304	740.0440	Incentive IRI Ride	DOL	2,950.000	2,950.000
0306	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	2,000.000	2,000.000
0308	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	1,320.000	1,320.000
0310	SPV.0035	Special 001. Roadway Embankment	CY	1,241.000	1,241.000
0312	SPV.0060	Special 100. Manhole 10-FT Diameter	EACH	1.000	1.000
0314	SPV.0060	Special 250. Remove Commerical Sign	EACH	1.000	1.000
0316	SPV.0060	Special 650. Adjusting Sanitary Manhole Covers	EACH	10.000	10.000
0318	SPV.0075	Special 001. Street Sweeping	HRS	34.000	34.000
0320	SPV.0090	Special 651. Sanitary Lateral 4-Inch	LF	50.000	50.000
0322	SPV.0105	Special 002. Survey Project 1517-75-77	LS	1.000	1.000
0324	SPV.0120	Special 150. Water for Seeded Areas	MGAL	396.000	396.000
0326	SPV.0180	Special 001. Modified High Performance Concrete (HPC) Pavement 9-Inch	SY	21,453.000	21,453.000
0328	SPV.0180	Special 002. Removing Crushed Aggregate Slope Paving	SY	705.000	705.000

CLEARING AND GRUBBING

CATEGORY	STATION	OFFSET	LOCATION	201.0105 CLEARING STA	201.0205 GRUBBING STA	201.0120 CLEARING ID	201.0220 GRUBBING ID	REMARKS
1000	38R+00 TO 39R+00	LT	RACINE RD	1	1	-	-	
	39R+00 TO 40R+00	LT	RACINE RD	1	1	-	-	
	47R+00 TO 48R+00	LT	RACINE RD	1	1	-	-	
	RACINE SUBTOTAL			3	3	0	0	
	12MEB+87	LT	MIDWAY RD	-	-	3	3	TREE REMOVAL, LOOKS LIKE ONE LARGE TREE BUT SEPARATE TRUNKS
	12MEB+87	LT	MIDWAY RD	-	-	4	4	
	12MEB+87	LT	MIDWAY RD	-	-	6	6	
	12MEB+87	LT	MIDWAY RD	-	-	2	2	
	12MEB+87	LT	MIDWAY RD	-	-	5	5	
	12MEB+87	LT	MIDWAY RD	-	-	5	5	
	13MEB+25	LT	MIDWAY RD	-	-	6	6	TREE REMOVAL
	15MEB+08	RT	MIDWAY RD	-	-	5	5	TREE REMOVAL
	15MEB+69	RT	MIDWAY RD	-	-	18	18	TREE REMOVAL
	15MEB+88	RT	MIDWAY RD	-	-	19	19	TREE REMOVAL
	16MEB+13	RT	MIDWAY RD	-	-	16	16	TREE REMOVAL
	16MEB+35	RT	MIDWAY RD	-	-	16	16	TREE REMOVAL
	28MEB+86	RT	MIDWAY RD	-	-	9	9	TREE REMOVAL
	29MEB+47	RT	MIDWAY RD	-	-	12	12	TREE REMOVAL
	MIDWAY SUBTOTAL			0	0	126	126	
PROJECT TOTAL				3	3	126	126	

REMOVALS PAVEMENT

CATEGORY	STATION	OFFSET	LOCATION	204.0100 REMOVING PAVEMENT SY	204.0120* REMOVING ASPHALTIC SURFACE MILLING SY	204.0150 REMOVING CURB AND GUTTER LF	REMARKS
1000	2R+39 - 14R+39	R/L	RACINE RD	-	4,094	-	MILLING
	13R+54 - 14R+49	R/L	RACINE RD	-	52	-	MILLING BETWEEN RAIL
	13R+63 - 19R+16	R/L	RACINE RD	-	2,361	-	MILLING
	21R+57 - 36R+63	R/L	RACINE RD	-	5,897	-	MILLING
	36R+63 - 37R+59	R/L	RACINE RD	-	746	-	MILLING
	37R+59 - 50R+01	R/L	RACINE RD	2,761	-	-	OLD CONCRETE ROADWAY
	RACINE SUBTOTAL			2,761	13,150	0	
	11MEB+50 - 25MEB+21	R/L	MIDWAY RD	10,106	-	-	
	24MEB+90 - 29MEB+77	R/L	MIDWAY RD	2,725	-	-	
	10MEB+36 - 11MEB+51	RT	MIDWAY RD	-	-	115	
	10MEB+23 - 11MEB+50	LT	MIDWAY RD	-	-	146	
	MIDWAY SUBTOTAL			12,830	0	262	

*QUANTITIES SHOWN ELSEWHERE ON PLAN

TOTAL 15,591 13,150 262

REMOVE COMMERCIAL SIGN

CATEGORY	STATION	OFFSET	LOCATION	SPV.0060.250 REMOVE COMMERCIAL SIGN EACH	REMARKS
1000	25MEB+92	RT	MIDWAY RD	1	EARL LITHO SIGN

PROJECT TOTAL 1

REMOVING GUARDRAIL

CATEGORY	STATION	OFFSET	LOCATION	204.0165 LF
1000	45R+35 to 47R+92	LT	RACINE RD	257

PROJECT TOTAL 257

REMOVALS STORM SEWER

CATEGORY	STATION	OFFSET	LOCATION	204.0245.001	204.0245.002	204.0245.003	204.0245.004	REMARKS
				REMOVING STORM SEWER 6-15- INCH LF	REMOVING STORM SEWER 18-21- INCH LF	REMOVING STORM SEWER 24-30- INCH LF	REMOVING STORM SEWER 36-42- INCH LF	
1000	40R+09 - 42R+93	LT	RACINE RD	-	-	-	123	
	40R+10 - 42R+94	LT	RACINE RD	-	-	-	285	
	40R+12 - 40R+12	R/L	RACINE RD	-	-	-	45	24"X36" CULVERT PIPE
	42R+94 - 47R+19	LT	RACINE RD	-	-	-	425	
	47R+19 - 47R+18	R/L	RACINE RD	-	-	48	-	
	42R+94 - 42R+94	R/L	RACINE RD	-	-	-	91	
	RACINE SUBTOTAL			0	0	48	969	
	11MEB+50 - 12MEB+99	RT	MIDWAY RD	-	-	-	236	
	11MEB+98 - 12MEB+47	LT	MIDWAY RD	50	-	-	-	
	12MEB+47 - 12MEB+97	LT	MIDWAY RD	54	-	-	-	
	12MEB+97 - 12MEB+99	LT	MIDWAY RD	6	-	-	-	
	12MEB+99 - 12MEB+99	R/L	MIDWAY RD	33	-	-	-	
	12MEB+99 - 13MEB+99	LT	MIDWAY RD	-	-	-	102	
	13MEB+99 - 13MEB+98	LT	MIDWAY RD	16	-	-	-	
	13MEB+98 - 13MEB+97	RT	MIDWAY RD	22	-	-	-	
	13MEB+99 - 13MEB+99	LT	MIDWAY RD	16	-	-	-	
	13MEB+99 - 14MEB+41	LT	MIDWAY RD	-	-	-	82	
	13MEB+99 - 14MEB+91	LT	MIDWAY RD	-	-	-	94	
	14MEB+91 - 14MEB+96	RT	MIDWAY RD	-	41	-	-	
	14MEB+91 - 14MEB+91	LT	MIDWAY RD	-	19	-	-	
	14MEB+91 - 14MEB+91	LT	MIDWAY RD	22	-	-	-	
	14MEB+91 - 16MEB+81	R/L	MIDWAY RD	-	-	193	-	
	16MEB+81 - 16MEB+94	LT	MIDWAY RD	-	14	-	-	
	16MEB+81 - 17MEB+93	R/L	MIDWAY RD	-		112	-	
	17MEB+93 - 17MEB+85	LT	MIDWAY RD	-	10	-	-	
	17MEB+93 - 17MEB+89	LT	MIDWAY RD	-	54	-	-	
	17MEB+93 - 17MEB+92	RT	MIDWAY RD	-	8	-	-	
	17MEB+92 - 17MEB+94	RT	MIDWAY RD	-	22	-	-	
	17MEB+94 - 17MEB+95	RT	MIDWAY RD	-	29	-	-	
	17MEB+93 - 19MEB+31	LT	MIDWAY RD	-	-	139	-	
	19MEB+31 - 19MEB+30	LT	MIDWAY RD	6	-	-	-	
	19MEB+30 - 19MEB+28	LT	MIDWAY RD	15	-	-	-	
	19MEB+31 - 21MEB+06	LT	MIDWAY RD	-	-	176	-	
	21MEB+06 - 21MEB+06	LT	MIDWAY RD	10	-	-	-	
	21MEB+06 - 22MEB+58	LT	MIDWAY RD	150	-	-	-	
	22MEB+58 - 22MEB+42	LT	MIDWAY RD	31	-	-	-	
	23MEB +20 - 23MEB +20	LT	MIDWAY RD	-	-	-	90	
	28MEB+88 - 28MEB+88	R/L	MIDWAY RD	42	-	-	-	
	MIDWAY SUBTOTAL			472	196	620	604	

REMOVALS STRUCTURES

CATEGORY	STATION	OFFSET	LOCATION	203.0100 REMOVING SMALL PIPE CULVERTS EA	204.0185 REMOVING MASONRY CY	204.0190 REMOVING SURFACE DRAINS EA	204.0210 REMOVING MANHOLES EA	204.0220 REMOVING INLETS EA	REMARKS	
1000	40R+10	LT	RACINE RD	-	4	-	-	-	MANHOLE	
	40R+12	RT	RACINE RD	-	1	-	-	-	ENDWALL	
	40R+12	RT/LT	RACINE RD	1	-	-	-	-	24" by 36" CULVERT PIPE	
	41R+15	RT	RACINE RD	-	2	-	-	-	4-3FT DIA. CONC. PIPES	
	47R+19	LT	RACINE RD	-	4	-	-	-	MANHOLE	
	42R+94	LT	RACINE RD	-	-	-	1	-		
	46R+50	RT	RACINE RD	1	-	-	-	-	12" CMP	
	RACINE SUBTOTAL				2	11	0	1	0	
	11MEB+98	LT	MIDWAY RD	-	-	-	-	-	1	
	12MEB+47	LT	MIDWAY RD	-	-	-	-	-	1	
	12MEB+97	LT	MIDWAY RD	-	-	-	-	-	1	
	12MEB+99	RT	MIDWAY RD	-	-	-	-	-	1	
	13MEB+97	RT	MIDWAY RD	-	-	-	-	-	1	
	13MEB+98	LT	MIDWAY RD	-	-	-	-	-	1	
	13MEB+99	LT	MIDWAY RD	-	-	-	-	-	1	
	14MEB+91	LT	MIDWAY RD	-	-	-	-	-	1	
	14MEB+91	LT	MIDWAY RD	-	-	-	-	-	1	
	14MEB+95	RT	MIDWAY RD	-	-	-	-	-	1	
	16MEB+94	LT	MIDWAY RD	-	-	-	-	-	1	
	17MEB+85	LT	MIDWAY RD	-	-	-	-	-	1	
	17MEB+89	LT	MIDWAY RD	-	-	-	-	-	1	
	17MEB+92	RT	MIDWAY RD	-	-	-	-	-	1	
	17MEB+94	RT	MIDWAY RD	-	-	-	-	-	1	
	19MEB+28	LT	MIDWAY RD	-	-	-	-	-	1	
	19MEB+30	LT	MIDWAY RD	-	-	-	-	-	1	
	21MEB+06	LT	MIDWAY RD	-	-	-	-	-	1	
	22MEB+42	LT	MIDWAY RD	-	-	-	-	-	1	
	22MEB+58	LT	MIDWAY RD	-	-	-	-	-	1	
	28MEB+87	LT	MIDWAY RD	-	-	-	-	-	1	
	28MEB+88	RT	MIDWAY RD	-	-	-	-	-	1	
	12MEB+99	LT	MIDWAY RD	-	-	-	-	1	-	
	13MEB+99	LT	MIDWAY RD	-	-	-	-	1	-	
	14MEB+91	LT	MIDWAY RD	-	-	-	-	1	-	
	16MEB+81	RT	MIDWAY RD	-	-	-	-	1	-	
	17MEB+93	LT	MIDWAY RD	-	-	-	-	1	-	
	19MEB+31	LT	MIDWAY RD	-	-	-	-	1	-	
	21MEB+06	LT	MIDWAY RD	-	-	-	-	1	-	
	16MEB+86	LT	MIDWAY RD	-	-	-	1	-	-	
	17MEB+86	RT	MIDWAY RD	-	-	-	1	-	-	
	21MEB+79	LT	MIDWAY RD	-	-	-	1	-	-	
	22MEB+80	RT	MIDWAY RD	-	-	-	1	-	-	
	MIDWAY SUBTOTAL				0	0	4	7	22	

EARTHWORK QUANTITIES									
Division	From/To Station	Location	205.0100* Common Excavation (1)		Salvaged/Unusable Pavement Material (CY) (3)	Available Material (CY) (4)	Fill (CY)	Mass Ordinate +/- (5)	SPV.0035.001 Roadway Embankment (CY)
			Cut (CY) (2)	EBS (CY)					
Division 1									
Midway Road MEB	10+78 to 29+76	Midway RD	25,523	0	13,003	12,520	246	12,520	246
Division 1 Subtotal			25,523	0	13,003	12,520	246	12,520	
Division 2									
Racine Road	37+35 to 52+75	Racine Road	6,436	0	667	5,769	623	5,769	623
Division 2 Subtotal			6,436	0	667	5,769	623	5,769	
Division 3									
Midway NE Ramp	242+50 to 244+50	NE Ramp	700	0	0	700	62	700	62
Division 3 Subtotal			700	0	0	700	62	700	
Division 4									
Midway NW Ramp	240+59 to 241+96	NW Ramp	284	0	0	284	309	284	309
Division 4 Subtotal			284	0	0	284	309	284	
Division 5									
Midway SE Ramp	239+25 to 241+00	SE Ramp	699	0	0	699	1	699	1
Division 5 Subtotal			699	0	0	699	1	699	
Division 6									
Midway SW Ramp	240+11 to 241+12	SW Ramp	731	0	0	731	0	731	0
Division 6 Subtotal			731	0	0	731	0	731	
Division 7									
Midway NWB Bypass Ramp	0+49 to 1+48	NW Ramp Bypass	1,171	0	0	1,171	0	1,171	0
Division 7 Subtotal			1,171	0	0	1,171	0	1,171	
Division 8									
Midway SEB Bypass Ramp	0+00 to 1+00	SE Ramp Bypass	277	0	0	277	0	277	0
Division 8 Subtotal			277	0	0	277	0	277	
PROJECT 1517-75-77 Totals			35,822	0	13,670	22,152	1,241	22,152	1,241
Total Common Exc			35,822				Total Roadway Embankment		1,241

*- Additional Quantities Shown Elsewhere on Plan

Notes:

- (1) Common Excavation is the sum of the Cut and EBS Excavation columns. Item number 205.0100
- (2) Salvaged/Unsuable Pavement Material is included in Cut.
- (3) Salvaged/Unusable Pavement Material is the Volume of Existing Concrete Pavement (Note: not shown in Earthwork Detail Summary Tables.) Concrete Pavement for Ramps are included in Midway Road Salvage Value.
- (4) Available Material = Cut - Salvaged/Unusuable Pavement Material
- (5) 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.

STRUCTURAL BACKFILL

CATEGORY	STATION TO STATION	OFFSET	LOCATION	210.1100 BACKFILL STRUCTURE TYPE A CY	REMARKS
1000	21MEB+25 - 22MEB+70	LT	MIDWAY RD	56	BACKFILL BEHIND S42C CONCRETE BARRIER

*QUANTITIES COMPUTED PER SDD

PROJECT TOTAL 56

FINISHING ROADWAY (1517-75-77)

CATEGORY	STATION	LOCATION	213.0100 FINISHING ROADWAY EACH	REMARKS
1000	VARIES	MIDWAY AND RACINE	1	

PROJECT TOTAL 1

AGGREGATE ITEMS

CATEGORY	STATION	OFFSET	LOCATION	305.0110*	305.0120*	311.0110 BREAKER RUN TON	REMARKS
				BASE AGGREGATE DENSE			
				3/4-INCH TON	1 1/4-INCH TON		
1000	ROADWAY (BASE AGG. 6-IN)(BREAKER RUN 12-IN)						
	2R+39 - 14R+39	R/L	RACINE RD	77	-	-	ROADWAY SHOULDERS
	21R+57 - 36R+63	R/L	RACINE RD	65	-	-	ROADWAY SHOULDERS
	36R+63 - 37R+59	R/L	RACINE RD	2	-	-	ROADWAY SHOULDERS
	37R+59 - 40R+03	R/L	RACINE RD	-	382	687	
	40R+03 - 44R+75	R/L	RACINE RD	-	1,208	2,175	
	44R+75 - 49R+57	R/L	RACINE RD	-	890	1,601	
	49R+57 - 50R+01	R/L	RACINE RD	3	161	-	
	RACINE SUBTOTAL			144	2,480	4,463	
	10MEB+77 - 25MEB+38	R/L	MIDWAY RD	-	4,333	7,800	
	24MEB+74 - 29MEB+77	R/L	MIDWAY RD	-	1,210	2,178	
	24MEB+54 - 24MEB+65	RT	MIDWAY RD	-	1	-	PAVED SHOULDER (BASE AGG. 3")
	24MEB+72 - 24MEB+83	RT	MIDWAY RD	-	1	-	PAVED SHOULDER (BASE AGG. 3")
	25MWB+35 - 25MWB+49	LT	MIDWAY RD	-	1	-	PAVED SHOULDER (BASE AGG. 3")
	25MWB+53 - 25MWB+67	LT	MIDWAY RD	-	1	-	PAVED SHOULDER (BASE AGG. 3")
	240MNW+55 - 242MNW+00	R/L	MNW	-	265	477	
	240MSW+00 - 240MSW+12	R/L	MSW	3	14	25	
	240MSW+12 - 241MSW+12	R/L	MSW	-	132	238	
	242MNE+53 - 244MNE+50	R/L	MNE	-	246	443	
	239MSE+25 - 241MSE+13	R/L	MSE	-	307	553	
	81EARL+39 - 81EARL+59	R/L	EARL ST	0.4	49	-	
	81EARL+59 - 81EARL+87	R/L	EARL ST	-	55	98	
	MIDWAY SUBTOTAL			3	6,616	11,812	

*QUANTITIES SHOWN ELSEWHERE ON PLAN PROJECT TOTAL 147 9,095 16,275

SIDEWALK SUMMARY

CATEGORY	STATION	OFFSET	LOCATION	305.0120* BASE AGGREGATE DENSE 1 1/4-INCH TON	602.0410 CONCRETE SIDEWALK 5-INCH SF	405.0200 COLORING CONCRETE CUSTOM COLOR 10076 CY	REMARKS
1000	37R+59 - 42R+63	RT	Racine RD	49	2,540	-	
	43R+33 - 46R+38	RT	Racine RD	30	1,601	-	
	RACINE SUBTOTAL			79	4,141	0	
	10MEB+77 - 18MEB+98	RT	Midway RD	30	1,601	-	
	19MEB+44 - 23MEB+38	RT	Midway RD	38	2,030	-	
	23MEB+57 - 23MEB+75	RT	Midway RD	2	97	-	
	23MEB+98 - 24MEB+54	RT	Midway RD	6	300	-	
	24MEB+83 - 26MEB+75	RT	Midway RD	19	999	-	
	27MEB+23 - 29MEB+69	RT	Midway RD	23	1,217	-	
	10MWB+77 - 18MWB+59	LT	Midway RD	74	4,017	-	
	18MWB+98 - 19MWB+17	LT	Midway RD	2	98	-	
	19MWB+38 - 23MWB+42	LT	Midway RD	37	2,011	-	
	23MWB+97 - 25MWB+30	LT	Midway RD	11	613	-	
	25MWB+60 - 29MWB+77	LT	Midway RD	33	1,785	-	
	21MEB+40 - 22MEB+92	RT	Midway RD	16	854	13	PAVED FRONT OF WALK TO BACK OF CURB
	21MWB+24 - 22MWB+87	LT	Midway RD	16	882	14	PAVED FRONT OF WALK TO BACK OF CURB
	21MWB+23 - 22MWB+85	LT	Midway RD	1	80	-	PAVED BACK OF WALK TO CONC. BARRIER
	19MEB+63 - 23MEB+00	R/L	Midway RD	63	3,540	55	MEDIAN ISLAND
	23MEB+77 - 24MEB+83	R/L	Midway RD	40	2,136	33	MEDIAN ISLAND
	25MEB+13 - 26MEB+57	R/L	Midway RD	20	1,062	16	MEDIAN ISLAND
	240MNW+68 - 241MNW+18	R/L	MNW	12	663	10	MEDIAN ISLAND
	240MNW+57 - 240MNW+62	R/L	MNW	2	93	1	MEDIAN ISLAND
	240MSE+53 - 241MSE+03	R/L	MSE	12	648	10	MEDIAN ISLAND
	241MSE+09 - 241MSE+14	R/L	MSE	2	92	1	MEDIAN ISLAND
	MIDWAY SUBTOTAL			458	24,820	153	
*QUANTITIES SHOWN ELSEWHERE ON PLAN				PROJECT TOTAL	537	28,961	153

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PAVEMENT ITEMS

CATEGORY					SPV.0180.001	455.0605*	460.6223	460.6424			
	STATION			OFFSET	LOCATION	MODIFIED HIGH PERFORMANCE CONCRETE (HPC) PAVEMENT 9-INCH SY	TACK COAT GAL	HMA PAVEMENT 3 MT 58-28 S TONS	HMA PAVEMENT 4 MT 58-28 H TONS	REMARKS	
1000	2R+39	-	14R+39	R/L	RACINE RD	-	287	-	604	HAUL ROAD	
	10R+45	-	10R+81	RT	RACINE RD	-	-	-	12	AIRPORT RD, OVERLAYED CONC.	
	13R+54	-	14R+49	R/L	RACINE RD	-	4	-	8	HAUL ROAD BETWEEN RAILS	
	13R+63	-	19R+16	R/L	RACINE RD	-	165	-	348	HAUL ROAD	
	21R+57	-	36R+63	R/L	RACINE RD	-	413	-	870	HAUL ROAD	
	36R+63	-	37R+59	R/L	RACINE RD	-	52	-	110	HAUL ROAD	
	37R+59	-	49R+57	RT	RACINE RD	1,598	-	-	-	TRAVEL LANE	
	37R+59	-	49R+57	LT	RACINE RD	2,132	-	-	-	TRAVEL LANE AND BIKE LANE	
	38R+79	-	49R+52	LT	RACINE RD	1,054	-	-	-	LEFT TURN LANE	
	37R+59	-	40R+03	RT	RACINE RD	109	-	-	-	BIKE LANE	
	40R+03	-	44R+74	RT	RACINE RD	1,138	-	-	-	RIGHT TURN LANE AND MIDWAY RD INT	
	44R+75	-	49R+57	RT	RACINE RD	214	-	-	-	BIKE LANE	
	49R+57	-	50R+01	R/L	RACINE RD	-	15	16	38		
	RACINE SUBTOTAL						6,244	935	16	1,990	
	10MEB+77	-	24MEB+46	RT	MIDWAY RD	4,250	-	-	-		
	10MWB+77	-	24MWB+74	LT	MIDWAY RD	4,359	-	-	-		
	11MEB+10	-	12MEB+28	R/L	MIDWAY RD	33	-	-	-		
	18MEB+61	-	24MEB+07	R/L	MIDWAY RD	1,456	-	-	-		
	25MEB+24	-	29MEB+77	RT	MIDWAY RD	1,386	-	-	-		
	25MWB+61	-	29MWB+77	LT	MIDWAY RD	1,256	-	-	-		
	26MEB+65	-	28MEB+97	R/L	MIDWAY RD	82	-	-	-		
	24MEB+46	-	25MEB+62	R/L	MIDWAY RD	-	59	71	235		RAIL ROAD APPROACH
	24MEB+46	-	25MEB+62	R/L	MIDWAY RD	-	-	-	7		PAVED SHOULDER RAIL CROSSING
	240MNW+50	-	242MNW+00	R/L	MNW	619	-	-	-		
	240MSW+00	-	240MSW+12	R/L	MSW	-	-	-	1		PAVED SHOULDERS
	240MSW+12	-	241MSW+16	R/L	MSW	335	-	-	-		
	242MNE+48	-	244MNE+50	R/L	MNE	581	-	-	-		
	239MSE+25	-	241MSE+18	R/L	MSE	689	-	-	-		
	81EARL+59	-	81EARL+92	R/L	EARL ST	164	-	-	-		
	81EARL+39	-	81EARL+59	R/L	EARL ST	-	7	7	17		
	MIDWAY SUBTOTAL						15,209	66	79	261	

*QUANTITIES SHOWN ELSEWHERE ON PLAN

PROJECT TOTAL 21,453 1,002 94 2,250

CONCRETE PAVEMENT JOINT FILLING

				415.4100 CONCRETE PAVEMENT JOINT FILLING SY
CATEGORY	STATION	OFFSET	LOCATION	
1000	37R+58 - 49R+57	R/L	RACINE RD	6,902
	RACINE SUBTOTAL			6,902
	10MEB+77 - 29MEB+77	R/L	MIDWAY RD	17,265
	MIDWAY SUBTOTAL			17,265

PROJECT TOTAL 24,167

BACKFILL CONTROLLED LOW STRENGTH

				209.0200.S BACKFILL CONTROLLED LOW STRENGTH CY
CATEGORY	STATION	OFFSET	LOCATION	
1000	38+87		RACINE RD	30
	RACINE SUBTOTAL			30

PROJECT TOTAL 30

ASPHALTIC FLUME

				465.0315 ASPHALTIC FLUMES	
CATEGORY	STATION	OFFSET	LOCATION	SY	REMARKS
1000	49R+61	RT	RACINE RD	6	
	49R+61	LT	RACINE RD	8	
	RACINE SUBTOTAL			14	
	240MSW+06	RT	MSW	12	
	240MSW+06	LT	MSW	9	
	81EARL+55	RT	EARL ST	2	
	81EARL+55	LT	EARL ST	2	
	MIDWAY SUBTOTAL			25	

PROJECT TOTAL 39

DRILLED DOWEL AND TIE BARS

CATEGORY	STATION	OFFSET	LOCATION	416.0610 DRILLED TIE BARS EACH	416.0620 DRILLED DOWEL BARS EACH	REMARKS
1000	37R+28	RT	RACINE RD	2	-	CONNECT TO OLDE MIDWAY RD C&G
	RACINE SUBTOTAL			2	0	
	29MEB+76	R/L	MIDWAY RD	4	32	
	242MNW+00	R/L	MNW	-	26	
	240MSW+00	R/L	MSW	-	15	
	244MNE+50	R/L	MNE	-	20	
	239MSE+25	R/L	MSE	4	20	
	MIDWAY SUBTOTAL			8	113	
	PROJECT TOTAL			10	113	

CONCRETE CURB PEDESTRIAN

CATEGORY	STATION	TO	STATION	OFFSET	LOCATION	601.0600 CONCRETE CURB PEDESTRIAN LF	REMARKS
1000	18MEB+82	-	19MEB+03	LT	Midway RD	41	MNW MEDIAN ISLAND
	18MEB+98	-	19MEB-18	RT	Midway RD	39	MSE MEDIAN ISLAND
PROJECT TOTAL						80	

CONCRETE CURB & GUTTER

CATEGORY	STATION	OFFSET	LOCATION	601.0409 CONCRETE CURB & GUTTER 30- INCH TYPE A LF	601.0411 CONCRETE CURB AND GUTTER 30- INCH TYPE D LF	601.0452 CONCRETE CURB & GUTTER INTEGRAL 30-INCH TYPE D LF	REMARKS
1000	37R+59	-	42R+68	RT	Racine RD	-	RACINE RD - NORTHBOUND
	43R+29	-	49R+57	RT	Racine RD	-	RACINE RD - NORTHBOUND
	37R+59	-	49R+57	LT	Racine RD	-	RACINE RD - SOUTHBOUND
	RACINE SUBTOTAL			0	0	2,390	
	10MEB-77	-	18MEB+66	RT	Midway RD	-	
	19MEB+47	-	23MEB+34	RT	Midway RD	-	
	24MEB+29	-	24MEB+62	RT	Midway RD	-	
	24MEB+85	-	26MEB+52	RT	Midway RD	-	
	27MEB+46	-	29MEB+77	RT	Midway RD	-	
	10MWB+77	-	18MWB+24	LT	Midway RD	-	
	19MWB+42	-	23MWB+37	LT	Midway RD	-	
	24MWB+34	-	25MWB+24	LT	Midway RD	-	
	25MWB+47	-	29MWB+77	LT	Midway RD	-	
	12MEB+35	-	19MEB+05	RT	Midway RD	674	MEDIAN ISLAND
	12MWB+36	-	19MWB+20	LT	Midway RD	685	MEDIAN ISLAND
	19MEB+63	-	23MEB+01	RT	Midway RD	336	MEDIAN ISLAND
	19MWB+78	-	23MWB+11	LT	Midway RD	334	MEDIAN ISLAND
	23MEB+76	-	24MEB+46	RT	Midway RD	83	MEDIAN ISLAND
	23MEB+81	-	24MEB+73	LT	Midway RD	88	MEDIAN ISLAND
	24MEB+46	-	24MEB+85	R/L	Midway RD	-	MEDIAN ISLAND RAIL ROAD
	25MEB+13	-	25MEB+63	R/L	Midway RD	-	MEDIAN ISLAND RAIL ROAD
	25MEB+24	-	26MEB+57	RT	Midway RD	133	MEDIAN ISLAND
	25MEB+63	-	26MEB+57	LT	Midway RD	94	MEDIAN ISLAND
	240MNW+51	-	242MNW+00	RT	MNW	-	
	240MNW+67	-	242MNW+00	LT	MNW	-	
	240MNW+59	-	241MNW+17	RT	MNW	58	MEDIAN ISLAND
	240MNW+62	-	241MNW+18	LT	MNW	58	MEDIAN ISLAND
	240MNW+56	-	240MNW+58	R/L	MNW	15	MEDIAN ISLAND
	242MNE+57	-	244MNE+50	RT	MNE	-	
	242MNE+50	-	244MNE+50	LT	MNE	-	
	239MSE+25	-	241MSE+19	RT	MSE	-	
	239MSE+25	-	241MSE+16	LT	MSE	-	
	240MSW+12	-	241MSW+13	RT	MSW	-	
	240MSW+12	-	241MSW+29	LT	MSW	-	
	240MSE+53	-	241MSE+10	RT	MSE	58	MEDIAN ISLAND
	240MSE+54	-	241MSE+10	LT	MSE	57	MEDIAN ISLAND
	241MSE+14	-	241MSE+14	R/L	MSE	14	MEDIAN ISLAND
	81EARL+59	-	81EARL+92	RT	EARL ST	-	
	81EARL+59	-	81EARL+87	LT	EARL ST	-	
	MIDWAY SUBTOTAL			2,688	121	4,786	
PROJECT TOTAL				2,688	121	7,175	

CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA

CATEGORY	STATION	OFFSET	LOCATION	602.0515 CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA SF	602.0615 CURB RAMP DETECTABLE WARNING FIELD RADIAL NATURAL PATINA SF
1000	42R+59	RT	RACINE RD	10	-
	43R+36	RT	RACINE RD	10	-
	RACINE SUBTOTAL			20	0
	18MEB+34	LT	MIDWAY RD	-	22
	18MEB+84	LT	MIDWAY RD	10	-
	18MEB+89	RT	MIDWAY RD	-	20
	19MEB+01	LT	MIDWAY RD	10	-
	19MEB+24	LT	MIDWAY RD	10	-
	19MEB+45	RT	MIDWAY RD	10	-
	23MEB+36	RT	MIDWAY RD	10	-
	23MEB+37	LT	MIDWAY RD	10	-
	23MEB+58	RT	MIDWAY RD	10	-
	23MEB+74	LT	MIDWAY RD	10	-
	24MEB+05	RT	MIDWAY RD	-	16
	24MEB+05	LT	MIDWAY RD	-	18
	24MEB+49	RT	MIDWAY RD	10	-
	24MEB+89	LT	MIDWAY RD	10	-
	25MEB+29	RT	MIDWAY RD	10	-
	25MEB+73	LT	MIDWAY RD	10	-
	26MEB+69	RT	MIDWAY RD	10	-
	27MEB+28	RT	MIDWAY RD	10	-
	MIDWAY SUBTOTAL			140	76
PROJECT TOTAL				160	76

MOBILIZATION

CATEGORY	STATION	LOCATION	619.1000 MOBILIZATION EACH	REMARKS
1000	VARIES	MIDWAY AND RACINE	1	
PROJECT TOTAL			1	

SURVEY PROJECT

CATEGORY	STATION	LOCATION	SPV.0105.002 SURVEY PROJECT LS	REMARKS
1000	VARIES	MIDWAY AND RACINE	1	
PROJECT TOTAL			1	

STREET SWEEPING

CATEGORY	STATION	LOCATION	SPV.0075.001 STREET SWEEPING HRS
1000	VARIES	MIDWAY AND RACINE	34
PROJECT TOTAL			34

CONCRETE PAVEMENT JOINT LAYOUT

CATEGORY	STATION	LOCATION	415.5110.S CONCRETE PAVEMENT JOINT LAYOUT LS	REMARKS
1000	VARIES	MIDWAY AND RACINE	1	
PROJECT TOTAL			1	

WATER

CATEGORY	STATION	LOCATION	624.0100 WATER MGAL	REMARKS
1000	VARIES	MIDWAY AND RACINE	40	DUST CONTROL
	VARIES	MIDWAY AND RACINE	99	COMPACTION
PROJECT TOTAL			139	

FIELD OFFICE

CATEGORY	STATION	LOCATION	642.5201 FIELD OFFICE TYPE C EACH	REMARKS
1000	VARIES	MIDWAY AND RACINE	1	
PROJECT TOTAL			1	

DRIVEWAYS

CATEGORY	STATION	OFFSET	LOCATION	204.0120*	205.0100*	305.0110*	305.0120*	416.0160		416.0170		455.0605*	465.0120	REMARKS	
				REMOVING	EXCAVATION	BASE AGGREGATE DENSE		CONCRETE DRIVEWAY		CONCRETE DRIVEWAY		TACK COAT	ASPHALTIC		
				ASPHALTIC	COMMON	3/4-INCH	1-1/4-INCH	6-INCH	7-INCH						
				SURFACE MILLING	(DRIVEWAY)	(BACK OF SIDEWALK)	(DRIVEWAY)	(APRON)	(SIDEWALK)	(APRON)	(SIDEWALK)		SURFACE DRIVEWAYS		
				SY	CY	TON	TON	SY	SY	SY	SY	GAL	AND FIELD ENTRANCES	TON	
1000	4R+09 - 4R+46	RT	RACINE RD	27	-	-	-	-	-	-	-	1.90	0.04		
	4R+70 - 5R+07	LT	RACINE RD	22	-	-	-	-	-	-	-	1.54	0.03		
	8R+74 - 9R+27	RT	RACINE RD	28	-	-	-	-	-	-	-	1.93	0.04		
	10R+34 - 10R+78	LT	RACINE RD	58	-	-	-	-	-	-	-	4.04	0.09		
	27R+44 - 27R+67	LT	RACINE RD	11	-	-	-	-	-	-	-	0.74	0.02		
	27R+79 - 28R+05	LT	RACINE RD	10	-	-	-	-	-	-	-	0.69	0.01		
	29R+71 - 30R+01	LT	RACINE RD	13	-	-	-	-	-	-	-	0.91	0.02		
	30R+64 - 30R+98	RT	RACINE RD	20	-	-	-	-	-	-	-	1.42	0.03		
	31R+07 - 31R+33	RT	RACINE RD	17	-	-	-	-	-	-	-	1.17	0.02		
	31R+80 - 32R+10	RT	RACINE RD	19	-	-	-	-	-	-	-	1.31	0.03		
	32R+34 - 32R+62	LT	RACINE RD	13	-	-	-	-	-	-	-	0.94	0.02		
	33R+68 - 33R+94	LT	RACINE RD	7	-	-	-	-	-	-	-	0.49	0.01		
	34R+22 - 34R+53	RT	RACINE RD	27	-	-	-	-	-	-	-	1.89	0.04		
	34R+87 - 35R+11	RT	RACINE RD	19	-	-	-	-	-	-	-	1.35	0.03		
	35R+55 - 35R+93	RT	RACINE RD	39	-	-	-	-	-	-	-	2.73	0.06		
	37R+31 - 37R+59	RT	RACINE RD	-	2	-	11	-	-	-	-		6	INCLUDES ASPHALT SIDEWALK	
	40R+69 - 40R+91	RT	RACINE RD	-	4	5	5	8	7	-	-	-	-		
	44R+94 - 45R+16	RT	RACINE RD	-	8	5	5	8	7	-	-	-	-		
	46R+33 - 46R+65	RT	RACINE RD	-	20	-	24	13	12	-	-	-	8		
	RACINE SUBTOTAL				329	35	10	45	30	26	0	0	23	14	
	26MWB+76 - 27MWB+38		LT	MIDWAY RD	-	66	-	51	-	-	35	29	4	25	
	MIDWAY SUBTOTAL				0	66	0	51	0	0	35	29	4	25	

*QUANTITIES SHOWN ELSEWHERE ON PLAN PROJECT TOTAL 329 100 10 96 56 64 27 40

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SAW CUTS

CATEGORY	STATION	TO	STATION	OFFSET	LOCATION	204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS SY	690.0150 SAWING ASPHALT LF	690.0250 SAWING CONCRETE LF	REMARKS
1000	2R+39	-	2R+39	R/L	RACINE RD	7	30	-	
	4R+09	-	4R+46	RT	RACINE RD	6	29	-	
	4R+70	-	5R+07	LT	RACINE RD	6	28	-	
	8R+74	-	9R+27	RT	RACINE RD	10	45	-	
	10R+34	-	10R+78	LT	RACINE RD	4	18	-	
	10R+45	-	10R+81	RT	RACINE RD	-	-	53	W. AIRPORT RD INT.
	23R+47	-	23R+71	LT	RACINE RD	5	24	-	GORDON ST
	27R+44	-	27R+67	LT	RACINE RD	4	18	-	
	27R+79	-	28R+05	LT	RACINE RD	4	19	-	
	28R+12	-	28R+65	RT	RACINE RD	7	29	-	RICHARD ST
	29R+71	-	30R+01	LT	RACINE RD	4	20	-	
	30R+64	-	30R+98	RT	RACINE RD	5	25	-	
	31R+07	-	31R+33	RT	RACINE RD	4	18	-	
	31R+80	-	32R+10	RT	RACINE RD	3	15	-	
	32R+34	-	32R+62	LT	RACINE RD	4	16	-	
	33R+65	-	33R+88	RT	RACINE RD	5	24	-	SANDLEWOOD ST
	33R+68	-	33R+94	LT	RACINE RD	4	16	-	
	34R+22	-	34R+53	RT	RACINE RD	4	20	-	
	34R+87	-	35R+11	RT	RACINE RD	3	14	-	
	35R+55	-	35R+93	RT	RACINE RD	6	28	-	
	36R+90	-	37R+31	RT	RACINE RD	9	41	-	OLDE MIDWAY RD
	36R+98	-	37R+27	LT	RACINE RD	6	25	-	OLDE MIDWAY RD
	37R+31	-	37R+48	RT	RACINE RD	-	16	-	CEMETERY ENTRANCE
	37R+59	-	37R+59	R/L	RACINE RD	-	37	-	
	46R+33	-	46R+65	RT	RACINE RD	5	22	-	
	50R+01	-	50R+01	R/L	RACINE RD	7	34	-	
	RACINE SUBTOTAL					124	609	53	
	26MEB+94	-	27MEB+39	LT	MIDWAY RD	10	47	-	
	29MEB+77	-	29MEB+77	R/L	MIDWAY RD	-	-	49	
	244MNE+50	-	244MNE+50	R/L	MNE RAMP	-	-	25	
	81EARL+39	-	81EARL+39	R/L	EARL ST	9	39	-	
	MIDWAY SUBTOTAL					19	86	74	

PROJECT TOTAL 143 695 127

NOTE: IF A VERTICAL FACE CAN BE OBTAINED WITHOUT A SAW CUT, SAW CUT CAN BE OMITTED

CONCRETE MEDIAN NOSE

CATEGORY	STATION	OFFSET	LOCATION	620.0200 CONCRETE MEDIAN BLUNT NOSE SF	620.0300 CONCRETE MEDIAN SLOPED NOSE SF	REMARKS
1000	12MEB+32	LT	MIDWAY RD	-	55	
	19MEB+07	LT	MIDWAY RD	81	-	
	19MEB+60	LT	MIDWAY RD	66	-	
	23MEB+03	LT	MIDWAY RD	43	-	
	23MEB+77	LT	MIDWAY RD	26	-	
	26MEB+61	LT	MIDWAY RD	-	62	
	240MNW+57	LT	MNW	21	-	
	240MNW+59	LT	MNW	21	-	
	241MNW+20	LT	MNW	81	-	
	240MSE+50.21	RT	MSE	68	-	
	241MSE+13	RT	MSE	25	-	
	241MSE+14	RT	MSE	22	-	
	PROJECT TOTAL			454	117	

BARRIER CONCRETE

CATEGORY	STATION	OFFSET	LOCATION	603.1442 CONCRETE BARRIER TYPE S42C LF	603.3513 CONCRETE BARRIER TRANSITION TYPE S32 TO S36 EACH	603.3535 CONCRETE BARRIER TRANSITION TYPE S36 TO S42 EACH
1000	21MEB+25 - 22MEB+70	LT	MIDWAY RD	150	2	2
PROJECT TOTAL				150	2	2

CONCRETE COLLARS

CATEGORY	STATION	LOCATION	520.8000 CONCRETE COLLARS FOR PIPE EACH	REMARKS
1000	23MEB +19.32	MIDWAY ROAD	1	CONNECT TO EXISTING 42-INCH PIPE
	28MEB+93	MSW	1	MANHOLE CONNECT TO 500A TO EXISITNG 18-INCH PVC PIPE
PROJECT TOTAL				2

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PIPE UNDERDRAIN WRAPPED 6-INCH

CATEGORY	STATION	TO	STATION	OFFSET	LOCATION	612.0406 LF	REMARKS
1000	40R+21	-	40R+71	RT	RACINE RD	50	CONNECT TO INLET 101C
	40R+22	-	40R+72	LT	RACINE RD	50	CONNECT TO INLET 101A
	47R+28	-	47R+78	RT	RACINE RD	50	CONNECT TO INLET 104C
	47R+28	-	47R+78	LT	RACINE RD	50	CONNECT TO INLET 104B
	RACINE SUBTOTAL					200	
	15MEB+67	-	16MEB+15	LT	MIDWAY RD	50	CONNECT TO INLET 107A
	15MEB+71`	-	16MEB+18	LT	MIDWAY RD	50	CONNECT TO INLET 107B
	15MEB+81	-	16MEB+33	RT	MIDWAY RD	50	CONNECT TO INLET 107F
	15MEB+82	-	16MEB+32	LT	MIDWAY RD	50	CONNECT TO INLET 107E
	240MNW+77	-	241MNW+25	LT	MNW	50	CONNECT TO INLET 108B
	240MNW+85	-	241MNW+05	LT	MNW	23	CONNECT TO INLET 108E
	241MNW+05	-	241MNW+29	LT	MNW	25	CONNECT TO INLET 108E
	241MNW+03	-	241MNW+53	RT	MNW	50	CONNECT TO INLET 108D
	240MSW+25	-	240MSW+75	RT	MSW	50	CONNECT TO INLET 108M
	240MSW+27	-	240MSW+73	LT	MSW	50	CONNECT TO INLET 108N
	243MNE+05	-	243MNE+55	LT	MNE	50	CONNECT TO INLET 200E
	243MNE+17	-	243MNE+67	RT	MNE	50	CONNECT TO INLET 200G
	240MSE+22	-	240MSE+71	RT	MSE	50	CONNECT TO INLET 200N
	240MSE+24	-	240MSE+74	LT	MSE	50	CONNECT TO INLET 200L
	24MEB+42	-	25MEB+57	R/L	MIDWAY RD	182	DAYLIGHT INTO RR DITCH
	24MEB+85	-	25MEB+68	R/L	MIDWAY RD	170	DAYLIGHT INTO RR DITCH
	28MEB+53	-	29MEB+03	RT	MIDWAY RD	50	CONNECT TO INLET 500D
	28MEB+53	-	29MEB+03	LT	MIDWAY RD	50	CONNECT TO INLET 500B
	MIDWAY SUBTOTAL					1,100	
	PROJECT TOTAL					1,300	

STORM SEWER-STRUCTURES-RECONSTRUCT & ADJUSTMENT

CATEGORY	STRUCTURE NUMBER	STATION	OFFSET	611.0420 RECONSTRUCTING MANHOLES EACH	611.8115 ADJUSTING INLET COVERS EACH	REMARKS
1000	STAGE 2					
	201	24MWB+66	40.1 LT	1	-	
	300	25MWB+69	35.5 LT	1	-	
	200E	243MNE+34	1.5 LT	-	1	
	200G	243MNE+40	21.5 RT	-	1	
	STAGE 2 SUBTOTAL			2	2	
	PROJECT TOTAL			2	2	

APRON ENDWALLS

CATEGORY	STRUCTURE NUMBER	STATION	OFFSET	INVERT ELEVATION (FT)	522.1012 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 12-INCH EACH	522.1018 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH EACH	522.1024 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH EACH
1000	STAGE 1						
	103E	46R+69	30.7 RT	760.69	1	-	-
	STAGE 1 SUBTOTAL				1	0	0
	STAGE 2						
	109	1MNWB+19	43.7 LT	755.50	-	1	-
	108G	19MWB+71	50.9 LT	753.85	-	-	1
	108L	240MSW+50	16.9 RT	754.98	-	-	1
	108O	240MSE+50	42.4 LT	755.8	-	1	-
	STAGE 2 SUBTOTAL				0	2	2
	PROJECT TOTAL				1	2	2

STORM SEWER-PIPE

CATEGORY	FROM STRUCTURE	TO STRUCTURE	START INVERT ELEVATION (FT)	END INVERT ELEVATION (FT)	SLOPE	608.0312 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 12-INCH LF	608.0318 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 18-INCH LF	608.0324 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 24-INCH LF	608.0412 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 12- INCH LF	608.0418 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 18- INCH LF	608.0336 STORM SEWER PIPE REINFORECED CONCRETE CLASS III 36- INCH LF	608.0342 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 42-INCH LF	608.2329 STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III 29X45-INCH LF	608.2334 STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III 34X53-INCH LF
1000	STAGE 1													
	101F	101G	750.50	750.20	1.04%	-	29	-	-	-	-	-	-	-
	101G	100	750.10	749.20	1.00%	-	-	90	-	-	-	-	-	-
	102	101	749.15	746.38	1.10%	-	-	-	-	-	-	251	-	-
	101	100A	746.36	744.60	1.10%	-	-	-	-	-	-	160	-	-
	100A	100	744.53	744.25	1.02%	-	-	-	-	-	-	-	-	28
	101B	101A	752.73	752.67	0.50%	13	-	-	-	-	-	-	-	-
	101A	101	752.17	751.89	1.43%	-	19	-	-	-	-	-	-	-
	101E	101D	751.95	751.87	0.52%	-	-	17	-	-	-	-	-	-
	101D	101C	751.87	751.76	0.70%	-	-	15	-	-	-	-	-	-
	101C	101	751.26	751.08	0.69%	-	-	27	-	-	-	-	-	-
	104	103	755.87	752.27	0.90%	-	-	-	-	-	402	-	-	-
	103	102	752.26	751.77	0.90%	-	-	-	-	-	54	-	-	-
	103A	103	755.73	755.55	0.79%	-	23	-	-	-	-	-	-	-
	103C	103B	755.90	755.72	0.52%	-	35	-	-	-	-	-	-	-
	103B	103	755.71	755.51	0.48%	-	41	-	-	-	-	-	-	-
	103D	103E	760.80	760.69	0.25%	44	-	-	-	-	-	-	-	-
	104A	104B	756.21	756.08	0.39%	-	-	33	-	-	-	-	-	-
	104B	104	756.08	755.92	0.69%	-	-	23	-	-	-	-	-	-
	104E	104B	756.51	756.18	0.69%	-	-	48	-	-	-	-	-	-
	104D	104C	756.27	756.10	0.98%	-	-	17	-	-	-	-	-	-
	104C	104	756.10	755.92	0.83%	-	-	22	-	-	-	-	-	-
	105	102	749.56	749.25	0.41%	-	-	-	-	-	-	77	-	-
	105A	105	753.77	753.48	1.00%	-	30	-	-	-	-	-	-	-
	105B	105	753.75	753.45	1.02%	-	29	-	-	-	-	-	-	-
	STAGE 1 SUBTOTAL					57	206	292	0	0	456	488	0	28

STORM SEWER-PIPE														
CATEGORY	FROM STRUCTURE	TO STRUCTURE	START INVERT ELEVATION (FT)	END INVERT ELEVATION (FT)	SLOPE	608.0312 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 12-INCH LF	608.0318 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 18-INCH LF	608.0324 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 24-INCH LF	608.0412 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 12- INCH LF	608.0418 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 18- INCH LF	608.0336 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 36- INCH LF	608.0342 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 42-INCH LF	608.2329 STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III 29X45-INCH LF	608.2334 STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III 34X53-INCH LF
1000	STAGE 2													
	107	106	751.60	750.70	0.38%	-	-	-	-	-	-	237	-	-
	106	106B	750.69	750.30	0.40%	-	-	-	-	-	-	96	-	-
	106B	105	750.30	749.56	0.40%	-	-	-	-	-	-	185	-	-
	106A	106B	753.86	753.66	0.56%	-	36	-	-	-	-	-	-	-
	106C	106B	753.87	753.71	0.47%	-	34	-	-	-	-	-	-	-
	108I	108	753.56	753.20	0.40%	-	-	89	-	-	-	-	-	-
	108	107	753.12	751.70	0.50%	-	-	-	-	-	287	-	-	-
	107D	107B	752.36	751.95	1.02%	-	-	-	-	-	-	-	40	-
	107C	107B	752.65	752.40	1.02%	-	25	-	-	-	-	-	-	-
	107B	107A	751.92	751.70	0.70%	-	-	-	-	-	-	-	31	-
	107A	107	751.70	751.60	0.67%	-	-	-	-	-	-	-	15	-
	107H	107F	753.17	752.35	2.02%	-	-	41	-	-	-	-	-	-
	107G	107F	752.59	752.36	0.94%	-	25	-	-	-	-	-	-	-
	107F	107E	752.22	752.10	0.39%	-	-	31	-	-	-	-	-	-
	107E	107	752.10	752.00	0.40%	-	-	25	-	-	-	-	-	-
	108G	108H	753.85	753.80	0.23%	-	-	21	-	-	-	-	-	-
	108H	108I	753.80	753.56	0.51%	-	-	47	-	-	-	-	-	-
	108M	108K	754.35	754.02	0.40%	-	-	63	-	-	-	-	-	-
	108K	108J	754.02	753.75	0.51%	-	-	43	-	-	-	-	-	-
	108J	108I	753.75	753.66	0.96%	-	-	9	-	-	-	-	-	-
	109	108F	755.50	754.93	2.07%	-	28	-	-	-	-	-	-	-
	108F	108E	753.93	753.75	0.46%	-	-	39	-	-	-	-	-	-
	108E	108B	753.75	753.65	0.46%	-	-	22	-	-	-	-	-	-
	108B	108A	753.65	753.43	0.50%	-	-	44	-	-	-	-	-	-
	108A	108	753.43	753.20	0.50%	-	-	46	-	-	-	-	-	-
	108D	108C	754.40	754.19	0.92%	-	23	-	-	-	-	-	-	-
	108C	108B	754.19	754.00	1.00%	-	19	-	-	-	-	-	-	-
	108N	108M	754.60	754.40	0.94%	-	21	-	-	-	-	-	-	-
	108O	108N	755.80	755.00	3.55%	-	23	-	-	-	-	-	-	-
	108L	108M	754.98	754.61	2.46%	-	-	15	-	-	-	-	-	-

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STORM SEWER-PIPE

CATEGORY	FROM STRUCTURE	TO STRUCTURE	START INVERT ELEVATION (FT)	END INVERT ELEVATION (FT)	SLOPE	608.0312	608.0318	608.0324	608.0412	608.0418	608.0336	608.0342	608.2329	608.2334
						STORM SEWER PIPE REINFORCED CONCRETE CLASS III 12-INCH	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 18-INCH	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 24-INCH	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 12- INCH	STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 18- INCH	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 36- INCH	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 42-INCH	STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III 29X45-INCH	STORM SEWER PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-III 34X53-INCH
						LF	LF	LF	LF	LF	LF	LF	LF	LF
1000	STAGE 2 CONT.													
	200H	200F	760.23	760.00	1.00%	23	-	-	-	-	-	-	-	-
	200F	200E	759.90	759.48	0.50%	-	-	85	-	-	-	-	-	-
	200C	200	758.00	757.50	0.75%	-	-	67	-	-	-	-	-	-
	200R	200L	759.70	759.40	2.10%	-	-	14	-	-	-	-	-	-
	200Q	200L	759.90	759.20	0.83%	-	-	84	-	-	-	-	-	-
	200L	200P	759.20	759.00	1.00%	-	-	19	-	-	-	-	-	-
	200O	200N	759.22	759.10	0.51%	-	24	-	-	-	-	-	-	-
	200N	200M	759.10	759.00	0.50%	-	-	18	-	-	-	-	-	-
	200M	200P	759.00	758.96	0.42%	-	-	10	-	-	-	-	-	-
	200P	200I	758.50	758.20	0.51%	-	-	60	-	-	-	-	-	-
	200I	200	758.00	757.82	0.49%	-	-	38	-	-	-	-	-	-
	300D	200J	759.29	758.90	1.01%	-	38	-	-	-	-	-	-	-
	200K	200J	758.65	758.40	0.78%	-	-	32	-	-	-	-	-	-
	200J	200I	758.38	758.10	0.50%	-	-	57	-	-	-	-	-	-
	200B	201	761.50	761.00	0.96%	-	52	-	-	-	-	-	-	-
	300B	300C	762.69	762.50	0.88%	-	-	-	22	-	-	-	-	-
	300C	300D	762.48	762.12	1.00%	-	-	-	36	-	-	-	-	-
	300E	200B	761.92	761.50	1.01%	-	-	-	42	-	-	-	-	-
	300F	300E	762.06	761.95	0.51%	-	-	-	-	21	-	-	-	-
	300A	300	760.00	759.50	2.81%	-	18	-	-	-	-	-	-	-
	400F	400E	759.82	759.40	1.00%	-	42	-	-	-	-	-	-	-
	400E	400D	758.90	758.60	0.94%	-	-	32	-	-	-	-	-	-
	400D	400C	758.51	758.20	0.99%	-	-	31	-	-	-	-	-	-
	400C	400B	758.10	758.00	1.99%	-	-	5	-	-	-	-	-	-
	password	400A	757.45	757.10	1.13%	-	-	31	-	-	-	-	-	-
	400A	300	757.00	756.00	1.26%	-	-	79	-	-	-	-	-	-
	500B	500A	759.80	759.60	1.39%	-	14	-	-	-	-	-	-	-
	500D	500C	759.80	759.60	1.33%	-	15	-	-	-	-	-	-	-
	500C	500a	759.50	758.68	1.39%	-	59	-	-	-	-	-	-	-
	STAGE 2 SUBTOTAL						23	496	1,197	100	21	287	518	86
PROJECT TOTAL						80	702	1,489	100	21	743	1,006	86	28

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STORM SEWER-STRUCTURES

CATEGORY	STRUCTURE NUMBER	STATION	OFFSET	RIM ELEVATION (FT)	DEPTH (FT)	611.0530 MANHOLE COVERS TYPE J EACH	611.0535 MANHOLE COVERS TYPE J-SPECIAL EACH	611.0612 INLET COVERS TYPE C EACH	611.0624 INLET COVERS TYPE H EACH	611.0639 INLET COVERS TYPE H-S EACH	611.0642 INLET COVERS TYPE MS EACH	611.1005 CATCH BASINS 5-FT DIAMETER EACH	611.1006 CATCH BASINS 6-FT DIAMETER EACH
1000	STAGE 1												
	100	38R+86	27.9 LT	758.74	13.28	1	-	-	-	-	-	-	-
	100A	38R+87	0.3 LT	759.82	14.04	-	1	-	-	-	-	-	-
	101	40R+47	4.9 LT	757.75	10.14	-	1	-	-	-	-	-	-
	101A	40R+47	23.8 LT	757.38	4.34	-	-	-	1	-	-	-	-
	101B	40R+60	24.3 LT	757.37	3.77	-	-	-	1	-	-	-	-
	101C	40R+46	21.8 RT	757.42	5.29	-	-	-	1	-	-	1	-
	101D	40R+61	23.3 RT	757.39	4.65	-	-	-	1	-	-	1	-
	101E	40R+57	39.5 RT	756.83	4.88	-	-	-	-	-	2	-	-
	101F	40R+03	50.2 LT	753.87	3.37	-	-	-	-	-	2	-	-
	101G	39R+75	46.0 LT	754.85	3.50	-	-	1	-	-	-	-	-
	102	42R+98	0.0 LT	760.74	10.34	-	1	-	-	-	-	-	-
	103	43R+52	7.1 LT	761.37	7.86	-	1	-	-	-	-	-	-
	103A	43R+56	29.5 LT	760.98	4.38	-	-	-	1	-	-	-	-
	103B	43R+68	30.6 RT	761.20	4.62	-	-	-	1	-	-	-	-
	103C	43R+95	53.5 RT	761.29	5.39	-	-	-	-	-	1	-	-
	103D	46R+25	33.9 RT	762.15	3.35	-	-	-	-	-	1	-	-
	104	47R+54	4.2 LT	762.32	5.20	-	1	-	-	-	-	-	-
	104A	47R+25	44.5 LT	759.62	3.41	-	-	-	-	-	2	-	-
	104B	47R+53	27.2 LT	761.86	4.91	-	-	-	1	-	-	-	-
	104C	47R+53	17.5 RT	762.06	5.09	-	-	-	1	-	-	-	-
	104D	47R+40	28.7 RT	759.20	2.93	-	-	-	-	-	2	-	-
	104E	48R+00	35.4 LT	761.06	4.55	-	-	-	-	-	2	-	-
	105	10MEB+77	0.0 RT	760.26	9.45	-	1	-	-	-	-	-	-
	105A	10MEB+76	29.5 LT	759.67	5.03	-	-	-	1	-	-	-	-
	105B	10MEB+77	29.5 RT	759.68	5.06	-	-	-	1	-	-	-	-
	STAGE 1 SUBTOTAL					1	6	1	10	0	12	2	0

TYPE	DEPTH (FT)
MANHOLE J, JS	0.75
INLET C	0.75
INLET H	0.375
ADJUSTMENT RINGS	0.5

STORM SEWER GENERAL NOTES

- 1) RIM ELEVATIONS ARE GIVEN AT THE FLANGE LINE FOR INLET GRATES OR THE CENTER OF THE MANHOLE COVER FOR MANHOLES UNLESS OTHERWISE NOTED.
- 2) TOP OF STRUCTURE ELEVATIONS = RIM/GRATE ELEVATION
- 3) STRUCTURE DEPTH =RIM ELEVATION - INVERT ELEVATION - RING ADJUSTMENTS (0.5') - CASTING DEPTH.
- 4) ADJOINING 2 SECTIONS OF STORM SEWER PIPE JOINT TIES ARE INCIDENTAL TO REINFORCED CONCRETE PIPE, STORM SEWER.
- 5) CONTRACTOR SHALL VERIFY EXISITNG PIPE SIZES, MATERIALS AND INVERT ELEVATIONS WHEN CONNECTING NEW STORM SEWER INTO EXISTING PIPES PRIOR TO MANUFACTURING STRUCTURES.
- 6) STATION/OFFSET OF INLETS AND MANHOLES IS AT CENTER OF STRUCTURE.
- 7) STATION/OFFSETS FOR APRON ENDWALLS ARE TO END OF PIPE WHERE IT CONNECTS TO THE ENDWALL

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STORM SEWER STRUCTURES

CATEGORY	STRUCTURE NUMBER	STATION	OFFSET	RIM ELEVATION (FT)	DEPTH	611.0530 MANHOLE COVERS TYPE J EACH	611.0535 MANHOLE COVERS TYPE J-SPECIAL EACH	611.0612 INLET COVERS TYPE C EACH	611.0624 INLET COVERS TYPE H EACH	611.0639 INLET COVERS TYPE H-S EACH	611.0642 INLET COVERS TYPE MS EACH	611.1005 CATCH BASINS 5-FT DIAMETER EACH	611.1006 CATCH BASINS 6-FT DIAMETER EACH
1000	STAGE 2												
	106	13MWB+60	9.8 RT	759.12	7.18	1	-	-	-	-	-	-	-
	106A	12MWB+64	29.5 LT	758.50	3.77	-	-	-	1	-	-	-	-
	106B	12MEB+62	4.7 LT	759.59	8.04	1	-	-	-	-	-	-	-
	106C	12MEB+65	29.5 RT	758.51	3.77	-	-	-	1	-	-	-	-
	107	15MEB+91	19.9 LT	758.05	5.20	1	-	-	-	-	-	-	-
	107A	16MWB+03	1.5 RT	757.01	4.44	-	-	-	-	1	-	-	1
	107B	16MWB+08	29.5 LT	756.52	3.73	-	-	-	-	1	-	-	1
	107C	16MWB+31	29.5 LT	756.56	3.04	-	-	-	1	-	-	-	-
	107D	16MWB+13	69.2 LT	755.29	2.93	-	-	-	-	-	2	-	-
	107E	16MEB+07	1.5 LT	757.02	4.05	-	-	-	-	1	-	-	-
	107F	16MEB+07	29.5 RT	756.53	3.44	-	-	-	-	1	-	-	-
	107G	16MEB+33	29.5 RT	756.58	3.12	-	-	-	1	-	-	-	-
	107H	15MEB+83	63.4 RT	762.71	9.54	-	-	-	-	-	2	-	-
	108	18MEB+75	25.5 LT	760.67	6.30	1	-	-	-	-	-	-	-
	108A	19MWB+02	30.5 LT	759.52	5.22	-	-	-	1	-	-	-	-
	108B	0MNWB+75	1.5 RT	759.05	4.53	-	-	-	-	1	-	1	-
	108C	241MNW+14	16.5 LT	759.23	4.17	-	-	-	-	1	-	-	-
	108D	241MNW+28	1.5 RT	759.14	3.87	-	-	-	-	1	-	-	-
	108E	0MNWB+87	16.5 LT	758.78	4.16	-	-	-	-	1	-	1	-
	108F	1MNWB+26	16.9 LT	759.13	4.33	-	-	-	1	-	-	1	-
	108H	19MWB+72	29.5 LT	760.50	5.83	-	-	-	1	-	-	-	-
	108I	19MWB+80	17.2 RT	760.80	7.24	-	-	-	1	-	-	-	1
	108J	19MEB+65	13.5 LT	761.20	6.58	-	-	-	1	-	-	-	-
	108K	19MEB+61	29.5 RT	760.41	5.52	-	-	-	1	-	-	-	-
	108M	240MSW+50	1.5 RT	759.45	4.23	-	-	-	-	1	-	-	1
	108N	240MSW+50	19.8 LT	758.90	3.43	-	-	-	-	1	-	-	-
	200B	24MWB+10	35.0 LT	766.50	4.13	-	-	-	1	-	-	-	-
	200C	23MWB+24	29.5 LT	764.93	6.06	-	-	-	1	-	-	-	-
	200E	243MNE+30	1.5 LT	764.45	4.25	-	-	-	-	1	-	-	-
	200F	244MNE+19	1.5 LT	765.50	4.73	-	-	-	1	-	-	-	-
	200G	243MNE+42	21.5 RT	764.15	4.20	-	-	-	-	1	-	-	-
	200H	244MNE+19	21.5 RT	765.16	4.06	-	-	-	1	-	-	-	-

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STORM SEWER-STRUCTURES

CATEGORY	STRUCTURE NUMBER	STATION	OFFSET	RIM ELEVATION (FT)	DEPTH	611.0530	611.0535	611.0612	611.0624	611.0639	611.0642	611.1005	611.1006	
						MANHOLE COVERS TYPE J	MANHOLE COVERS TYPE J-SPECIAL	INLET COVERS TYPE C	INLET COVERS TYPE H	INLET COVERS TYPE H-S	INLET COVERS TYPE MS	CATCH BASINS 5-FT DIAMETER	CATCH BASINS 6-FT DIAMETER	
						EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	
1000	STAGE 2 CONT.													
	200I	23MEB+61	30.5 RT	765.61	6.74	-	-	-	1	-	-	-	1	
	200J	24MEB+15	32.0 RT	766.04	6.79	-	-	-	1	-	-	-	-	
	200K	24MEB+25	62.1 RT	763.76	5.11	-	-	-	-	-	1	-	-	
	200L	240MSE+49	1.5 LT	764.73	4.66	-	-	-	-	1	-	-	-	
	200M	240MSE+54	26.1 RT	764.93	5.06	-	-	-	-	1	-	-	-	
	200N	240MSE+47	42.8 RT	764.60	4.63	-	-	-	-	1	-	-	-	
	200O	240MSE+23	37.4 RT	764.52	4.43	-	-	-	1	-	-	-	-	
	200P	240MSE+55	16.5 RT	765.03	5.66	-	-	-	-	1	-	-	-	
	200Q	239MSE+65	1.5 LT	765.71	4.94	-	-	-	1	-	-	-	-	
	200R	240MSE+50	15.8 LT	763.39	3.69	-	-	-	-	-	2	-	-	
	200Z	23MWB+28	0.0 RT	765.565	15.21	1	-	-	-	-	-	-	-	
	300A	25MWB+81	55.9 LT	765.69	5.69	-	-	-	-	-	1	-	-	
	300B	24MWB+74	1.5 RT	766.69	5.82	-	-	-	1	-	-	-	-	
	300C	24MEB+61	1.5 LT	766.60	6.33	-	-	-	1	-	-	-	-	
	300D	24MEB+51	29.5 RT	766.27	6.11	-	-	-	1	-	-	-	-	
	300E	23MWB+93	1.5 RT	766.29	11.42	-	-	-	-	1	-	-	-	
	300F	23MEB+90	3.6 LT	766.22	7.15	-	-	-	-	1	-	-	-	
	400A	26MWB+51	29.5 LT	765.09	7.22	-	-	-	1	-	-	-	-	
	400B	26MWB+51	1.5 RT	765.59	7.27	-	-	-	1	-	-	-	-	
	400C	26MEB+53	1.5 LT	765.52	6.55	-	-	-	1	-	-	-	-	
	400D	26MEB+49	29.5 RT	765.05	5.67	-	-	-	1	-	-	-	-	
	400E	81EARL+75	22.1 LT	764.97	5.20	-	-	-	1	-	-	-	-	
	400F	81EARL+75	20.1 RT	765.00	4.31	-	-	-	1	-	-	-	-	
	500A	28MEB+93	29.5 LT	764.03	3.66	-	-	-	-	1	-	-	-	
	500B	28MEB+79	29.6 LT	764.05	3.38	-	-	-	1	-	-	-	-	
	500C	28MEB+93	29.5 RT	764.03	3.66	-	-	-	-	1	-	-	-	
	500D	28MEB+78	29.5 RT	764.03	3.36	-	-	-	-	1	-	-	-	
	STAGE 2 SUBTOTAL						5	0	0	29	20	8	3	5
	PROJECT TOTAL						6	6	1	39	20	20	5	5

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STORM SEWER-STRUCTURES

CATEGORY	STRUCTURE NUMBER	STATION	OFFSET	RIM ELEVATION (FT)	DEPTH	611.2006 MANHOLES 6-FT DIAMETER EACH	611.2008 MANHOLES 8-FT DIAMETER EACH	SPV.0060.100 MANHOLES 10-FT DIAMETER EACH	611.3004 INLETS 4-FT DIAMETER EACH	611.3230 INLETS 2X3-FT EACH	611.3901 INLETS MEDIAN 1 GRATE EACH	611.3902 INLETS MEDIAN 2 GRATE EACH
1000	STAGE 1											
	100	38R+86	27.9 LT	758.74	13.28	-	1	-	-	-	-	-
	100A	38R+87	0.3 LT	759.82	14.04	-	1	-	-	-	-	-
	101	40R+47	4.9 LT	757.75	10.14	1	-	-	-	-	-	-
	101A	40R+47	23.8 LT	757.38	4.34	-	-	-	1	-	-	-
	101B	40R+60	24.3 LT	757.37	3.77	-	-	-	-	1	-	-
	101C	40R+46	21.8 RT	757.42	5.29	-	-	-	-	-	-	-
	101D	40R+61	23.3 RT	757.39	4.65	-	-	-	-	-	-	-
	101E	40R+57	39.5 RT	756.83	4.88	-	-	-	-	-	-	1
	101F	40R+03	50.2 LT	753.87	3.37	-	-	-	-	-	-	1
	101G	39R+75	46.0 LT	754.85	3.50	-	-	-	1	-	-	-
	102	42R+98	0.0 LT	760.74	10.34	-	1	-	-	-	-	-
	103	43R+52	7.1 LT	761.37	7.86	1	-	-	-	-	-	-
	103A	43R+56	29.5 LT	760.98	4.38	-	-	-	-	1	-	-
	103B	43R+68	30.6 RT	761.2	4.62	-	-	-	1	-	-	-
	103C	43R+95	53.5 RT	761.29	5.39	-	-	-	-	-	1	-
	103D	46R+25	33.9 RT	762.15	3.35	-	-	-	-	-	1	-
	104	47R+54	4.2 LT	762.32	5.20	1	-	-	-	-	-	-
	104A	47R+25	44.5 LT	759.62	3.41	-	-	-	-	-	-	1
	104B	47R+53	27.2 LT	761.86	4.91	-	-	-	1	-	-	-
	104C	47R+53	17.5 RT	762.06	5.09	-	-	-	1	-	-	-
	104D	47R+40	28.7 RT	759.20	2.93	-	-	-	-	-	-	1
	104E	48R+00	35.4 LT	761.06	4.55	-	-	-	-	-	-	1
	105	10MEB+77	0.0 RT	760.26	9.45	1	-	-	-	-	-	-
	105A	10MEB+76	29.5 LT	759.67	5.03	-	-	-	-	1	-	-
	105B	10MEB+77	29.5 RT	759.68	5.06	-	-	-	-	1	-	-
	STAGE 1 SUBTOTAL					4	3	0	5	4	2	5

STORM SEWER-STRUCTURES

CATEGORY	STRUCTURE NUMBER	STATION	OFFSET	RIM ELEVATION (FT)	DEPTH	611.2006 MANHOLES 6-FT DIAMETER EACH	611.2008 MANHOLES 8-FT DIAMETER EACH	SPV.0060.100 MANHOLES 10-FT DIAMETER EACH	611.3004 INLETS 4-FT DIAMETER EACH	611.3230 INLETS 2X3-FT EACH	611.3901 INLETS MEDIAN 1 GRATE EACH	611.3902 INLETS MEDIAN 2 GRATE EACH
1000	STAGE 2											
	106	13MWB+60	9.8 RT	759.12	7.18	1	-	-	-	-	-	-
	106A	12MWB+64	29.5 LT	758.50	3.77	-	-	-	-	1	-	-
	106B	12MEB+62	4.7 LT	759.59	8.04	1	-	-	-	-	-	-
	106C	12MEB+65	29.5 RT	758.51	3.77	-	-	-	-	1	-	-
	107	15MEB+91	19.9 LT	758.05	5.20	-	-	1	-	-	-	-
	107A	16MWB+03	1.5 RT	757.01	4.44	-	-	-	-	-	-	-
	107B	16MWB+08	29.5 LT	756.52	3.73	-	-	-	-	-	-	-
	107C	16MWB+31	29.5 LT	756.56	3.04	-	-	-	-	1	-	-
	107D	16MWB+13	69.2 LT	755.29	2.93	-	-	-	-	-	-	1
	107E	16MEB+07	1.5 LT	757.02	4.05	-	-	-	1	-	-	-
	107F	16MEB+07	29.5 RT	756.53	3.44	-	-	-	1	-	-	-
	107G	16MEB+33	29.5 RT	756.58	3.12	-	-	-	-	1	-	-
	107H	15MEB+83	63.4 RT	762.71	9.54	-	-	-	-	-	-	1
	108	18MEB+75	25.5 LT	760.67	6.30	-	1	-	-	-	-	-
	108A	19MWB+02	30.5 LT	759.52	5.22	-	-	-	1	-	-	-
	108B	0MNWB+75	1.5 RT	759.05	4.53	-	-	-	-	-	-	-
	108C	241MNW+14	16.5 LT	759.23	4.17	-	-	-	-	1	-	-
	108D	241MNW+28	1.5 RT	759.14	3.87	-	-	-	-	1	-	-
	108E	0MNWB+87	16.5 LT	758.78	4.16	-	-	-	-	-	-	-
	108F	1MNWB+26	16.9 LT	759.13	4.33	-	-	-	-	-	-	-
	108H	19MWB+72	29.5 LT	760.50	5.83	-	-	-	-	1	-	-
	108I	19MWB+80	17.2 RT	760.80	7.24	-	-	-	-	-	-	-
	108J	19MEB+65	13.5 LT	761.20	6.58	-	-	-	1	-	-	-
	108K	19MEB+61	29.5 RT	760.41	5.52	-	-	-	1	-	-	-
	108M	240MSW+50	1.5 RT	759.45	4.23	-	-	-	-	-	-	-
	108N	240MSW+50	19.8 LT	758.90	3.43	-	-	-	-	1	-	-
	200B	24MWB+10	35.0 LT	766.50	4.13	-	-	-	-	1	-	-
	200C	23MWB+24	29.5 LT	764.93	6.06	-	-	-	1	-	-	-
	200E	243MNE+30	1.5 LT	764.45	4.25	-	-	-	-	-	-	-
	200F	244MNE+19	1.5 LT	765.50	4.73	-	-	-	1	-	-	-
	200G	243MNE+42	21.5 RT	764.15	4.20	-	-	-	-	-	-	-
	200H	244MNE+19	21.5 RT	765.16	4.06	-	-	-	-	1	-	-

STORM SEWER STRUCTURES

CATEGORY	STRUCTURE NUMBER	STATION	OFFSET	RIM ELEVATION (FT)	DEPTH	611.2006 MANHOLES 6-FT DIAMETER EACH	611.2008 MANHOLES 8-FT DIAMETER EACH	SPV.0060.100 MANHOLES 10-FT DIAMETER EACH	611.3004 INLETS 4-FT DIAMETER EACH	611.3230 INLETS 2X3-FT EACH	611.3901 INLETS MEDIAN 1 GRATE EACH	611.3902 INLETS MEDIAN 2 GRATE EACH	
1000	STAGE 2 CONT.												
	200I	23MEB+61	30.5 RT	765.61	6.74	-	-	-	-	-	-	-	
	200J	24MEB+15	32.0 RT	766.04	6.79	-	-	-	1	-	-	-	
	200K	24MEB+25	62.1 RT	763.76	5.11	-	-	-	-	-	1	-	
	200L	240MSE+49	1.5 LT	764.73	4.66	-	-	-	1	-	-	-	
	200M	240MSE+54	26.1 RT	764.93	5.06	-	-	-	1	-	-	-	
	200N	240MSE+47	42.8 RT	764.60	4.63	-	-	-	1	-	-	-	
	200O	240MSE+23	37.4 RT	764.52	4.43	-	-	-	-	1	-	-	
	200P	240MSE+55	16.5 RT	765.03	5.66	-	-	-	1	-	-	-	
	200Q	239MSE+65	1.5 LT	765.71	4.94	-	-	-	1	-	-	-	
	200R	240MSE+50	15.8 LT	763.39	3.69	-	-	-	-	-	-	1	
	200Z	23MWB+28	0.0 RT	765.57	15.21	1	-	-	-	-	-	-	
	300A	25MWB+81	55.9 LT	765.69	5.69	-	-	-	-	-	1	-	
	300B	24MWB+74	1.5 RT	766.69	5.82	-	-	-	-	1	-	-	
	300C	24MEB+61	1.5 LT	766.60	6.33	-	-	-	-	1	-	-	
	300D	24MEB+51	29.5 RT	766.27	6.11	-	-	-	-	1	-	-	
	300E	23MWB+93	1.5 RT	766.29	11.42	-	-	-	-	1	-	-	
	300F	23MEB+90	3.6 LT	766.22	7.15	-	-	-	-	1	-	-	
	400A	26MWB+51	29.5 LT	765.09	7.22	-	-	-	1	-	-	-	
	400B	26MWB+51	1.5 RT	765.59	7.27	-	-	-	-	1	-	-	
	400C	26MEB+53	1.5 LT	765.52	6.55	-	-	-	-	1	-	-	
	400D	26MEB+49	29.5 RT	765.05	5.67	-	-	-	1	-	-	-	
	400E	81EARL+75	22.1 LT	764.97	5.20	-	-	-	1	-	-	-	
	400F	81EARL+75	20.1 RT	765.00	4.31	-	-	-	-	1	-	-	
	500A	28MEB+93	29.5 LT	764.03	3.66	-	-	-	1	-	-	-	
	500B	28MEB+79	29.6 LT	764.05	3.38	-	-	-	-	1	-	-	
	500C	28MEB+93	29.5 RT	764.03	3.66	-	-	-	-	1	-	-	
	500D	28MEB+78	29.5 RT	764.03	3.36	-	-	-	-	1	-	-	
	STAGE 2 SUBTOTAL						3	1	1	17	22	2	3
	PROJECT TOTAL						7	4	1	22	26	4	8

EROSION MAT

CATEGORY	STATION	OFFSET	LOCATION	628.2006 EROSION MAT URBAN CLASS I TYPE A SY	REMARKS
1000	37R+31 - 42R+58	RT	RACINE RD	471	
	37R+59 - 49R+57	LT	RACINE RD	1,054	
	43R+38 - 49R+57	RT	RACINE RD	665	
	RACINE SUBTOTAL			2,190	
	10MEB+52 - 18MEB+98	RT	MIDWAY RD	1,925	
	10MWB+53 - 18MWB+59	LT	MIDWAY RD	1,876	
	12MEB+35 - 19MEB+05	R/L	MIDWAY RD	1,943	MEDIAN ISLAND
	19MWB+37 - 21MWB+04	LT	MIDWAY RD	320	
	19MEB+43 - 21MEB+46	RT	MIDWAY RD	707	
	22MWB+75 - 23MWB+42	LT	MIDWAY RD	77	
	22MEB+89 - 23MEB+38	RT	MIDWAY RD	31	
	23MEB+98 - 26MEB+75	RT	MIDWAY RD	543	
	23MWB+93 - 26MWB+84	LT	MIDWAY RD	485	
	27MEB+22 - 29MEB+77	RT	MIDWAY RD	243	
	27MWB+35 - 29MWB+77	LT	MIDWAY RD	300	
	240MNW+64 - 242MNW+00	R/L	MNW	1,327	
	240MSW+08 - 241MSW+10	R/L	MSW	601	
	242MNE+62 - 244MNE+50	R/L	MNE	791	
	239MSE+77 - 241MSE+04	R/L	MSE	348	
	81EARL+39 - 81EARL+78	R/L	EARL ST	102	
	UNDISTRIBUTED			3,453	
	MIDWAY SUBTOTAL			15,072	

PROJECT TOTAL 17,262

MOBILIZATIONS EROSION CONTROL

CATEGORY	STATION	LOCATION	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
1000	VARIES	MIDWAY AND RACINE	6	4

PROJECT TOTAL

6

4

TRACKING PAD

CATEGORY	STATION	OFFSET	LOCATION	628.7560 TRACKING PAD EACH	REMARKS
1000	VARIES	0	MIDWAY AND RACINE	4	UNDISTRIBUTED

PROJECT TOTAL

4

LANDSCAPING

CATEGORY	STATION	OFFSET	LOCATION	625.0100 TOPSOIL SY	629.0210 FERTILIZER TYPE B CWT	630.0140 SEEDING MIXTURE NO. 40 LB	630.0200 SEEDING TEMPORARY LB	SPV.0120.150 WATER FOR SEEDED AREAS MGAL	REMARKS
1000	37R+31 - 42R+58	RT	RACINE RD	471	0.30	9	13	11	
	37R+59 - 49R+57	LT	RACINE RD	1,054	0.70	19	29	24	
	43R+38 - 49R+57	RT	RACINE RD	665	0.50	12	18	15	
	RACINE SUBTOTAL			2,190	2	40	60	50	
	10MEB+52 - 18MEB+98	RT	MIDWAY RD	1,925	1.30	35	52	44	
	10MWB+53 - 18MWB+59	LT	MIDWAY RD	1,876	1.20	34	51	43	
	12MEB+35 - 19MEB+05	R/L	MIDWAY RD	1,943	1.30	35	53	44	MEDIAN ISLAND
	19MWB+37 - 21MWB+04	LT	MIDWAY RD	320	0.30	6	9	8	
	19MEB+43 - 21MEB+46	RT	MIDWAY RD	707	0.50	13	20	16	
	22MWB+75 - 23MWB+42	LT	MIDWAY RD	77	0.10	2	3	2	
	22MEB+89 - 23MEB+38	RT	MIDWAY RD	31	0.10	1	1	1	
	23MEB+98 - 26MEB+75	RT	MIDWAY RD	543	0.40	10	15	13	
	23MWB+93 - 26MWB+84	LT	MIDWAY RD	485	0.40	9	14	11	
	27MEB+22 - 29MEB+77	RT	MIDWAY RD	243	0.20	5	7	6	
	27MWB+35 - 29MWB+77	LT	MIDWAY RD	300	0.20	6	9	7	
	240MNW+64 - 242MNW+00	R/L	MNW	1,327	0.90	24	36	30	
	240MSW+08 - 241MSW+10	R/L	MSW	601	0.40	11	17	14	
	242MNE+62 - 244MNE+50	R/L	MNE	791	0.50	15	22	18	
	239MSE+77 - 241MSE+04	R/L	MSE	348	0.30	7	10	8	
	81EARL+39 - 81EARL+78	R/L	EARL ST	102	0.10	2	3	3	
	UNDISTRIBUTED			3452	2.20	63	94	78	
	MIDWAY SUBTOTAL			15,071	10	278	416	346	

PROJECT TOTAL 17,261 12 318 476 396

EROSION CONTROL ITEMS

CATEGORY	STATION	OFFSET	LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.7504 TEMPORARY DITCH CHECKS LF	628.7555 CULVERT PIPE CHECKS EACH	628.7570 ROCK BAGS EACH	REMARKS
1000	46R+91	RT	RACINE RD	100	100	12	-	-	
	49R+74	RT	RACINE RD	100	100	12	-	-	
	49R+74	LT	RACINE RD	75	75	12	-	-	
	19MWB+71	50.9 LT	MIDWAY RD	75	75	-	4	-	
	241MNW+54	68.1 LT	MNW	75	75	-	4	-	
	UNDISTRIBUTED			125	125	10	2	100	

PROJECT TOTAL 550 550 46 10 100

INLET PROTECTION FOR EROSION CONTROL

CATEGORY	STATION	OFFSET	LOCATION	628.7005 INLET PROTECTION TYPE A EACH	628.7010 INLET PROTECTION TYPE B EACH	628.7015 INLET PROTECTION TYPE C EACH	628.7020 INLET PROTECTION TYPE D EACH	DESCRIPTION
1000	11MEB+98	LT	Midway RD	-	-	1	-	Existing inlet to be removed
	12MEB+47	LT	Midway RD	-	-	1	-	Existing inlet to be removed
	12MEB+97	LT	Midway RD	-	-	1	-	Existing inlet to be removed
	12MEB+99	RT	Midway RD	-	-	1	-	Existing inlet to be removed
	13MEB+97	RT	Midway RD	-	-	1	-	Existing inlet to be removed
	13MEB+98	LT	Midway RD	-	-	1	-	Existing inlet to be removed
	13MEB+99	LT	Midway RD	-	-	1	-	Existing inlet to be removed
	14MEB+91	LT	Midway RD	-	-	1	-	Existing inlet to be removed
	14MEB+91	LT	Midway RD	-	-	1	-	Existing inlet to be removed
	14MEB+95	RT	Midway RD	-	-	1	-	Existing inlet to be removed
	16MEB+94	LT	Midway RD	-	-	1	-	Existing inlet to be removed
	17MEB+85	LT	Midway RD	-	-	1	-	Existing inlet to be removed
	17MEB+89	LT	Midway RD	-	-	1	-	Existing inlet to be removed
	17MEB+92	RT	Midway RD	-	-	1	-	Existing inlet to be removed
	17MEB+94	RT	Midway RD	-	-	1	-	Existing inlet to be removed
	19MEB+28	LT	Midway RD	-	-	1	-	Existing inlet to be removed
	19MEB+30	LT	Midway RD	-	-	1	-	Existing inlet to be removed
	21MEB+06	LT	Midway RD	-	-	1	-	Existing inlet to be removed
	22MEB+42	LT	Midway RD	-	-	1	-	Existing inlet to be removed
	22MEB+58	LT	Midway RD	-	-	1	-	Existing inlet to be removed
	28MEB+87	LT	Midway RD	-	-	1	-	Existing inlet to be removed
	28MEB+88	RT	Midway RD	-	-	1	-	Existing inlet to be removed
	MIDWAY SUBTOTAL			0	0	22	0	

INLET PROTECTION FOR EROSION CONTROL CONTINUED

CATEGORY	STATION	OFFSET	STRUCTURE	LOCATION	628.7005 INLET PROTECTION TYPE A EACH	628.7010 INLET PROTECTION TYPE B EACH	628.7015 INLET PROTECTION TYPE C EACH	628.7020 INLET PROTECTION TYPE D EACH	DESCRIPTION
1000	10MEB+76	29.5 LT	105A	MIDWAY RD		-	2	-	
	10MEB+77	29.5 RT	105B	MIDWAY RD		-	2	-	
	12MWB+64	29.5 LT	106A	MIDWAY RD		-	2	-	
	12MEB+65	29.5 RT	106C	MIDWAY RD		-	2	-	
	16MWB+03	1.5 RT	107A	MIDWAY RD		-	2	-	
	16MWB+08	29.5 LT	107B	MIDWAY RD		-	-	2	
	16MWB+31	29.5 LT	107C	MIDWAY RD		-	-	2	
	16MWB+13	69.2 LT	107D	MIDWAY RD	1	-	-	-	
	16MEB+07	1.5 LT	107E	MIDWAY RD		-	2	-	
	16MEB+07	29.5 RT	107F	MIDWAY RD		-	-	2	
	16MEB+33	29.5 RT	107G	MIDWAY RD		-	2	-	
	15MEB+83	63.4 RT	107H	MIDWAY RD	1	-	-	-	
	19MWB+02	30.5 LT	108A	MIDWAY RD		-	2	-	
	0MNWB+75	1.5 RT	108B	MNWB		-	2	-	
	241MNW+14	16.5 LT	108C	MNW		-	2	-	
	241MNW+28	1.5 RT	108D	MNW		-	2	-	
	0MNWB+87	16.5 LT	108E	MNWB		-	2	-	
	1MNWB+26	16.9 LT	108F	MNWB		-	2	-	
	19MWB+72	29.5 LT	108H	MIDWAY RD		-	2	-	
	19MWB+80	17.2 RT	108I	MIDWAY RD		-	2	-	
	19MEB+65	13.5 LT	108J	MIDWAY RD		-	2	-	
	19MEB+61	29.5 RT	108K	MIDWAY RD		-	2	-	
	240MSW+50	1.5 RT	108M	MSW		-	2	-	
	240MSW+50	19.8 LT	108N	MSW		-	2	-	
	24MWB+10	35.0 LT	200B	MWB		-	2	-	
	MIDWAY SUBTOTAL				2	0	40	6	

INLET PROTECTION FOR EROSION CONTROL CONTINUED

CATEGORY	STATION	OFFSET	STRUCTURE	LOCATION	628.7005 INLET PROTECTION TYPE A EACH	628.7010 INLET PROTECTION TYPE B EACH	628.7015 INLET PROTECTION TYPE C EACH	628.7020 INLET PROTECTION TYPE D EACH	DESCRIPTION
1000	23MWB+24	29.5 LT	200C	MIDWAY RD		-	2	-	
	243MNE+30	1.5 LT	200E	MNE		-	2	-	
	244MNE+19	1.5 LT	200F	MNE		-	2	-	
	243MNE+42	21.5 RT	200G	MNE		-	2	-	
	244MNE+19	21.5 RT	200H	MNE		-	2	-	
	23MEB+61	30.5 RT	200I	MIDWAY RD		-	2	-	
	24MEB+15	32.0 RT	200J	MIDWAY RD		-	2	-	
	24MEB+25	62.1 RT	200K	MIDWAY RD	1	-	-	-	
	240MSE+49	1.5 LT	200L	MSE		-	2	-	
	240MSE+54	26.1 RT	200M	MSE		-	2	-	
	240MSE+47	42.8 RT	200N	MSE		-	2	-	
	240MSE+23	37.4 RT	200O	MSE		-	2	-	
	240MSE+55	16.5 RT	200P	MSE		-	2	-	
	239MSE+65	1.5 LT	200Q	MSE		-	2	-	
	240MSE+50	15.8 LT	200R	MSE	1	-	-	-	
	25MWB+81	55.9 LT	300A	MIDWAY RD	1	-	-	-	
	24MWB+74	1.5 RT	300B	MIDWAY RD		-	2	-	
	24MEB+61	1.5 LT	300C	MIDWAY RD		-	2	-	
	24MEB+51	29.5 RT	300D	MIDWAY RD		-	2	-	
	23MWB+93	1.5 RT	300E	MIDWAY RD		-	2	-	
	23MEB+90	3.6 LT	300F	MIDWAY RD		-	2	-	
	26MWB+51	29.5 LT	400A	MIDWAY RD		-	2	-	
	26MWB+51	1.5 RT	400B	MIDWAY RD		-	2	-	
	26MEB+53	1.5 LT	400C	MIDWAY RD		-	2	-	
	26MEB+49	29.5 RT	400D	MIDWAY RD		-	2	-	
	81EARL+75	22.1 LT	400E	EARL ST		-	2	-	
	81EARL+75	20.1 RT	400F	EARL ST		-	2	-	
	28MEB+93	29.5 LT	500A	MIDWAY RD		-	-	2	
	28MEB+79	29.6 LT	500B	MIDWAY RD		-	2	-	
	28MEB+93	29.5 RT	500C	MIDWAY RD		-	-	2	
	28MEB+78	29.5 RT	500D	MIDWAY RD		-	2	-	
	MIDWAY SUBTOTAL				3	0	52	4	
	MIDWAY TOTAL				5	0	114	10	

INLET PROTECTION FOR EROSION CONTROL CONTINUED

CATEGORY	STATION	OFFSET	STRUCTURE	LOCATION	628.7005 INLET PROTECTION TYPE A EACH	628.7010 INLET PROTECTION TYPE B EACH	628.7015 INLET PROTECTION TYPE C EACH	628.7020 INLET PROTECTION TYPE D EACH	DESCRIPTION
1000	40R+47	23.8 LT	101A	RACINE RD	-	-	-	2	
	40R+60	24.3 LT	101B	RACINE RD	-	1	1	-	
	40R+46	21.8 RT	101C	RACINE RD	-	-	-	2	
	40R+61	23.3 RT	101D	RACINE RD	-	1	1	-	
	40R+57	39.5 RT	101E	RACINE RD	1	-	-	-	
	40R+03	50.2 LT	101F	RACINE RD	1	-	-	-	
	39R+75	46.0 LT	101G	RACINE RD	1	-	-	-	
	43R+56	29.5 LT	103A	RACINE RD	-	1	1	-	
	43R+68	30.6 RT	103B	RACINE RD	-	1	1	-	
	43R+95	53.5 RT	103C	RACINE RD	1	-	-	-	
	46R+25	33.9 RT	103D	RACINE RD	1	-	-	-	
	47R+25	44.5 LT	104A	RACINE RD	1	-	-	-	
	47R+53	27.2 LT	104B	RACINE RD	-	1	1	-	
	47R+53	17.5 RT	104C	RACINE RD	-	1	1	-	
	47R+40	28.7 RT	104D	RACINE RD	1	-	-	-	
	48R+00	35.4 LT	104E	RACINE RD	1	-	-	-	
	RACINE SUBTOTAL				8	6	6	4	

PROJECT TOTAL 13 6 120 14

ERECTION OF TYPE II SIGNS AND SUPPORTS

SIGN NO.	LOCATION	SIGN CODE	W X H	637. 2210 SIGNS TYPE II REFLECTIVE H S. F.	637. 2215 SIGNS FOLDING TYPE II REFLECTIVE H S. F.	637. 2230 SIGNS TYPE II REFLECTIVE F S. F.	634. 0614 POSTS WOOD 4x6x14 EACH	634. 0616 POSTS WOOD 4x6x16 EACH	634. 0618 POSTS WOOD 4x6x18 EACH	634. 0620 POSTS WOOD 4x6x20 EACH	REMARKS
1	CTH AP, E. OF EARL STREET	J1- 2	48" X 39"	13. 00			1				SEE PLAN SHEET
2	"	D1- 72	120" X 60"	50. 00					3		SEE SIGN DETAIL SHEET
4- Mar	VACANT										
5	CTH AP, E. OF EARL STREET	W10- 1	36" X 36"			7. 07		1			
6	"	W10- 1A	24" X 12"			2. 00					MOUNT BELOW SIGN #5
7	"	R2- 1	24" X 30"	5. 00			1				35 MPH
8	CTH AP, W. OF EARL STREET	M1- 5A	24" X 24"	4. 00			1				
9	EARL STREET	R1- 1	30" X 30"	5. 18			1				
10	CTH AP, W. OF EARL STREET	R4- 7	24" X 30"	5. 00			1				
11	VACANT										
12	CTH AP, W. OF EARL STREET	R5- 1A	36" X 24"	6. 00							MOUNT ON BACK OF SIGN #11A
13	CTH AP, AT USH 10/STH 441 RAMP TERMINI	R3- 2	24" X 24"	4. 00				1			
14	"	J3- 2	48" X 57"	19. 00							MOUNT TO BACK OF SIGN 13
15	USH 10/STH 441 OFF-RAMP TO CTH AP	W10- 2	36" X 36"			9. 00		1			
16	CTH AP, AT USH 10/STH 441 RAMP TERMINI	R4- 7	24" X 30"	5. 00			1				
17	USH 10/STH 441 OFF-RAMP TO CTH AP	R5- 1	30" X 30"	6. 25			1				
18	"	R6- 2L	24" X 30"	5. 00							MOUNT WITH SIGN 20B
19	USH 10/STH 441 OFF-RAMP TO CTH AP	R1- 2	36" X 31"	3. 88				1			
20	"	R5- 1	30" X 30"	6. 25			1				
20A	"	R6- 1R	36" X 12"	3. 00							MOUNT ABOVE SIGN 20B
20B	"	R1- 1	36" X 36"	7. 46					1		
20C	"	R6- 3	30" X 24"	5. 00							MOUNT BELOW SIGN 20B
21	"	W12- 1D	24" X 24"			4. 00	1				
22	CTH AP, AT USH 10/STH 441 RAMP TERMINI	R5- 1	30" X 30"	6. 25			1				
22A	USH 10/STH 441 OFF-RAMP TO CTH AP	R1- 1	36" X 36"	7. 46				1			
23	CTH AP, BETWEEN RAMP TERMINI FOR USH 10	R5- 1A	36" X 24"	6. 00				1			
24	CTH AP, AT USH 10/STH 441 RAMP TERMINI	R5- 1	30" X 30"	6. 25			1				
25	"	R11- 54F	48" X 30"		10. 00			1			
25A	"	R6- 2L	24" X 30"	5. 00							MOUNT ABOVE SIGN 25
26	"	D1- 71	90" X 84"	52. 50						3	SEE SIGN DETAIL
27	"	D1- 70	72" X 42"	21. 00							MOUNT TO BACK OF SIGN 26, SEE SIGN DETAIL
28	CTH AP ON-RAMP TO USH 10	R5- 57	36" X 36"	9. 00			1				
29	CTH AP, BETWEEN RAMP TERMINI FOR USH 10	R5- 1A	36" X 24"	6. 00				1			
29A	"	J2- 2	48" X 57"	19. 00							MOUNT TO BACK OF SIGN 29
30	CTH AP, AT USH 10/STH 441 RAMP TERMINI	R3- 1	24" X 24"	4. 00							MOUNT ON BACKSIDE OF SIGN #22
31	CTH AP, BETWEEN RAMP TERMINI FOR USH 10	W10- 1	36" X 36"			7. 07					MOUNT ON BACKSIDE OF SIGN #23
32	"	W10- 1A	24" X 12"			2. 00					MOUNT BELOW SIGN #31
33	CTH AP, AT USH 10/STH 441 RAMP TERMINI	R3- 1	24" X 24"	4. 00			1				
34	"	R5- 1	30" X 30"	6. 25							MOUNT ON BACK OF SIGN #33
35	"	R5- 1	30" X 30"	6. 25			1				
36	USH 10/STH 441 OFF-RAMP TO CTH AP	W12- 1D	24" X 24"			4. 00	1				
36A	"	R6- 1R	36" X 12"	3. 00							MOUNT ABOVE SIGN 36B
36B	"	R1- 1	36" X 36"	7. 46					1		
36C	"	R6- 3	30" X 24"	5. 00							MOUNT BELOW SIGN 36B
36D	"	R6- 2L	24" X 30"	5. 00							
36E	"	R1- 1	36" X 36"	7. 46				1			
37	CTH AP, AT USH 10/STH 441 RAMP TERMINI	R4- 7	24" X 30"	5. 00			1				
38	USH 10/STH 441 OFF-RAMP TO CTH AP	R5- 1	30" X 30"	6. 25			1				
39	CTH AP, AT USH 10/STH 441 RAMP TERMINI	J3- 2	48" X 57"	19. 00							MOUNT TO BACK OF SIGN 49
40A	"	J2- 2	48" X 57"	19. 00				1			
40	"	D1- 70	84" X 36"	21. 00							MOUNT TO BACK OF SIGN 40, SEE SIGN DETAIL
41	"	D1- 71	84" X 84"	49. 00						3	SEE SIGN DETAIL
PAGE SUBTOTALS				459. 15	10. 00	35. 14	17	10	5	6	

PLAN SHEET PRODUCED
BY WisDOT - NE REGION

ERECTION OF TYPE II SIGNS AND SUPPORTS

SIGN NO.	LOCATION	SIGN CODE	W X H	637. 2210 SIGNS TYPE II REFLECTIVE H S. F.	637. 2215 SIGNS FOLDING TYPE II REFLECTIVE H S. F.	637. 2230 SIGNS TYPE II REFLECTIVE F S. F.	634. 0614 POSTS WOOD 4x6x14 EACH	634. 0616 POSTS WOOD 4x6x16 EACH	634. 0618 POSTS WOOD 4x6x18 EACH	634. 0620 POSTS WOOD 4x6x20 EACH	REMARKS
42	CTH AP ON-RAMP TO USH 10/STH 441	R5- 57	36" X 36"	9. 00			1				
43	CTH AP, AT USH 10/STH 441 RAMP TERMINI	R5- 1	30" X 30"	6. 25			1				
44	"	R2- 2L	24" X 30"	5. 00				1			
45	"	R11- 54F	48" X 30"		10. 00						MOUNT BELOW SIGN 44
46	USH 10/STH 441 OFF-RAMP TO CTH AP	R1- 2	36" X 31"	3. 88				1			
47- 48	VACANT										
49	CTH AP, AT USH 10/STH 441 RAMP TERMINI	R3- 2	24" X 24"	4. 00				1			
50	CTH AP, W. OF RAMP TERMINI	R5- 1A	36" X 24"	6. 00				1			
51	VACANT										
52	VACANT										
53	VACANT										
54	CTH AP, W. OF RAMP TERMINI	M1- 5A	24" X 24"	4. 00			1				SEE PLAN SHEET
54A	"	R2- 1	24" X 30"	5. 00			1				35 MPH
55	"	J1- 2	48" X 39"	13. 00			1				SEE PLAN SHEET
56	"	R5- 1A	36" X 24"	6. 00							MOUNT ON BACKSIDE OF SIGN #55
57	CTH AP, E. OF CTH P/RACINE ST	D1- 72	120" X 60"	50. 00					3		SEE SIGN DETAIL SHEET
58	"	R4- 7	24" X 30"	5. 00			1				
59	"	J1- 2	48" X 39"	13. 00			1				JCT USH 10, JCT STH 441
60	"	D1- 60	90" X 36"	22. 50			2				SEE SIGN DETAIL SHEET
61	"	R5- 1	30" X 30"	6. 25							MOUNT ON BACKSIDE OF SIGN #60
62	"	R1- 1	36" X 36"	7. 46			1				
63	CTH P/RACINE ST	R2- 1	24" X 30"	5. 00			1				35 MPH
64	"	J13- 2	48" X 45"	15. 00				1			SEE PLAN SHEET
65	"	W1- 7	48" X 24"			8. 00	1				
66	"	J13- 2	48" X 45"	15. 00				1			SEE PLAN SHEET
67	"	J13- 1	24" X 45"	7. 50				1			SEE PLAN SHEET
68	"	J1- 1	24" X 36"	6. 00				1			SEE PLAN SHEET
PAGE SUBTOTALS				214. 84	10. 00	8. 00	12	8	3	0	
PROJECT TOTALS				673. 99	20. 00	43. 14	29	18	8	6	

PLAN SHEET PRODUCED
BY WisDOT - NE REGION

REMOVAL OF TYPE II SIGN AND SUPPORTS

SIGN NO.	LOCATION	SIGN CODE	638. 2602 REMOVING SIGNS TYPE II EACH	638. 3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
101	CTH AP, E. OF EARL STREET	W10- 1	1	1	
102	"	W10- 9P	---	---	MOUNTED BELOW SIGN #101, PART OF REMOVAL FOR SIGN #101
103	"	R2- 1	1	1	
103A	"	W3- 3	1	1	
104	EARL STREET	R1- 1	1	1	
105	CTH AP, W. OF EARL STREET	J1- 2	1	1	
106	"	R4- 7	1	1	
107	"	R5- 1A	1	1	
108	VACANT				
109	CTH AP, AT RAMP TERMINI TO USH 10/STH 441	J3- 2	1	1	
110	"	J3- 2	1	1	
111	"	R11- 54F	---	---	MOUNTED BELOW SIGN #110, PART OF REMOVAL FOR SIGN #110
112	VACANT				
113	CTH AP, AT RAMP TERMINI TO USH 10/STH 441	R11- 54F	1	1	
114	CTH AP ON-RAMP TO USH 10	R5- 57	1	1	
115	VACANT				
116	VACANT				
117	VACANT				
118	VACANT				
119	VACANT				
120	VACANT				
121	VACANT				
122	CTH AP, AT RAMP TERMINI TO USH 10/STH 441	W10- 1	1	1	
123	"	W10- 9P	---	---	MOUNTED BELOW SIGN #122, PART OF REMOVAL FOR SIGN #122
124	"	R4- 7	1	1	
125	"	R5- 1	1	1	
126	"	R3- 1	---	---	MOUNTED ON BACK OF SIGN #125, PART OF REMOVAL FOR SIGN #125
127	CTH AP, BETWEEN USH 10 RAMP TERMINI	R5- 1A	1	1	
128	VACANT				
129	VACANT				
130	CTH AP, BETWEEN USH 10 RAMP TERMINI	J2- 2	1	1	
131	VACANT				
132	CTH AP, BETWEEN USH 10 RAMP TERMINI	J3- 2	1	1	
133	"	R5- 1	---	---	MOUNTED ON BACK OF SIGN #132, PART OF REMOVAL FOR SIGN #132
134	CTH AP, AT RAMP TERMINI TO USH 10/STH 441	R4- 7	1	1	
135	"	R3- 1	1	1	
136	VACANT				
137	VACANT				
138	VACANT				

PAGE SUBTOTALS

1919

PLAN SHEET PRODUCED
BY WisDOT - NE REGION

REMOVAL OF TYPE II SIGN AND SUPPORTS

SIGN NO.	LOCATION	SIGN CODE	638. 2602 REMOVING SIGNS TYPE II EACH	638. 3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
139	VACANT				
140	VACANT				
141	VACANT				
142	VACANT				
143	VACANT				
144	VACANT				
145	CTH AP RAMP TERMINAL	R6- 2L	1	1	
146	VACANT				
147	VACANT				
148	CTH AP, W. OF RAMP USH 10 TERMINI	R5- 1	1	1	
149	"	R5- 1A	1	1	
150	"	W3- 3	1	1	CITY TO REMOVE AND KEEP ENGINE BRAKING SIGN
151	"	W3- 3	1	1	
152	"	J1- 2	1	1	
153	"	R5- 1A	---	---	MOUNTED ON BACK OF SIGN #152, PART OF REMOVAL FOR SIGN #152
154	"	J1- 2	1	1	
155	CTH AP, W. OF CTH P/RACINE RD	D1- 60	1	2	
156	"	R5- 1	---	---	MOUNTED ON BACK OF SIGN #155, PART OF REMOVAL FOR SIGN #155
157	"	R4- 7	1	1	
158	"	M1- 5A	1	1	
159	"	R2- 1	---	---	MOUNTED BELOW SIGN #158, PART OF REMOVAL FOR SIGN #158
160		R1- 1	1	1	
161	CTH P/RACINE RD	J13- 2	1	1	
162	"	M1- 5A	1	1	
163	"	W1- 7	---	---	MOUNTED BELOW SIGN #162, PART OF REMOVAL FOR SIGN #162
164	"	J13- 2	1	1	
165	"	R2- 1	1	1	
166	"	W3- 3	1	1	
167	"	J1- 1	1	1	
168	"	W3- 3	1	1	
PAGE SUBTOTALS			18	19	
PROJECT TOTALS			37	38	

PLAN SHEET PRODUCED
BY WisDOT - NE REGION

MARKING LINE EPOXY 4-INCH

CATEGORY	STATION	OFFSET	LOCATION	646.1020					REMARKS
				MARKING LINE	12.5-FT LINE	MARKING LINE	12.5-FT LINE	3-FT LINE	
				EPOXY 4-INCH	37.5-FT GAP	EPOXY 4-INCH	37.5-FT GAP	9-FT SKIP	
				YELLOW		WHITE			
				LF	LF	LF	LF	LF	
1000	2R+39 - 10R+04	RT	RACINE RD	-	-	764	-	-	
	11R+13 - 14R+15	RT	RACINE RD	-	-	301	-	-	
	14R+25 - 25R+97	RT	RACINE RD	-	-	1,173	-	-	
	26R+28 - 28R+12	RT	RACINE RD	-	-	184	-	-	
	28R+65 - 33+46	RT	RACINE RD	-	-	482	-	-	
	34R+07 - 36R+20	RT	RACINE RD	-	-	214	-	-	
	36R+20 - 36R+63	RT	RACINE RD	-	-	-	-	11	
	2R+39 - 13R+73	LT	RACINE RD	-	-	1,134	-	-	
	13+83 - 23+24	LT	RACINE RD	-	-	942	-	-	
	23R+97 - 25R+79	LT	RACINE RD	-	-	182	-	-	
	23+97 - 25+79	LT	RACINE RD	-	-	182	-	-	
	26R+28 - 36R+63	LT	RACINE RD	-	-	1,035	-	-	
	2R+39 - 11R+08	R/L	RACINE RD	-	218	-	-	-	
	6R+52 - 13R+97	R/L	RACINE RD	745	-	-	-	-	
	11R+08 - 13R+94	R/L	RACINE RD	286	-	-	-	-	
	14R+04 - 29R+23	R/L	RACINE RD	1,519	-	-	-	-	
	14R+07 - 29R+23	R/L	RACINE RD	1,515	-	-	-	-	
	29R+23 - 38R+73	R/L	RACINE RD	-	238	-	-	-	
	37R+59 - 40R+03	RT	RACINE RD	-	-	244	-	-	BIKE LANE
	40R+03 - 41R+43	RT	RACINE RD	-	-	-	-	35	BIKE LANE
	41R+43 - 42R+23	RT	RACINE RD	-	-	80	-	-	BIKE LANE
	43R+68 - 49R+57	RT	RACINE RD	-	-	589	-	-	BIKE LANE
	37R+59 - 49R+57	LT	RACINE RD	-	-	1,199	-	-	BIKE LANE
	38R+73 - 42R+29	R/L	RACINE RD	1,427	-	-	-	-	DOUBLE LINES
	43R+68 - 49R+57	R/L	RACINE RD	1,863	-	-	-	-	DOUBLE LINES
	RACINE SUBTOTAL				7,356	456	8,706	0	46

3

MARKING LINE EPOXY 4-INCH CONTINUED

CATEGORY	STATION	OFFSET	LOCATION	646.1020					REMARKS
				MARKING LINE	12.5-FT LINE	MARKING LINE	12.5-FT LINE	3-FT LINE	
				EPOXY 4-INCH	37.5-FT GAP	EPOXY 4-INCH	37.5-FT GAP	9-FT SKIP	
				YELLOW		WHITE			
				LF	LF	LF	LF	LF	
1000	10MEB+76 - 12MEB+33	R/L	MIDWAY RD	559	-	-	-	-	DOUBLE LINES
	26MEB+60 - 29MEB+77	R/L	MIDWAY RD	1,105	-	-	-	-	DOUBLE LINES
	10MEB+76 - 18MEB+08	LT	MIDWAY RD	-	-	763	-	-	BIKE LANE
	10MEB+77 - 18MEB+36	RT	MIDWAY RD	-	-	744	-	-	BIKE LANE
	18MEB+36 - 18MEB+86	RT	MIDWAY RD	-	-	-	-	13	BIKE LANE
	19MEB+27 - 23MEB+31	LT	MIDWAY RD	-	-	392	-	-	BIKE LANE
	19MEB+47 - 23MEB+34	RT	MIDWAY RD	-	-	392	-	-	BIKE LANE
	24MEB+34 - 25MEB+27	LT	MIDWAY RD	-	-	118	-	-	BIKE LANE
	24MEB+29 - 24MEB+73	RT	MIDWAY RD	-	-	64	-	-	BIKE LANE
	24MEB+81 - 26MEB+52	RT	MIDWAY RD	-	-	211	-	-	BIKE LANE
	25MEB+33 - 28MEB+97	LT	MIDWAY RD	-	-	385	-	-	BIKE LANE
	27MEB+46 - 28MEB+97	RT	MIDWAY RD	-	-	150	-	-	BIKE LANE
	28MEB+97 - 29MEB+77	LT	MIDWAY RD	-	-	-	-	20	BIKE LANE
	10MEB+76 - 18MEB+09	LT	MIDWAY RD	-	-	-	189	-	CENTER LINE
	10MEB+76 - 18MEB+64	RT	MIDWAY RD	-	-	-	195	-	CENTER LINE
	19MEB+27 - 22MEB+86	LT	MIDWAY RD	-	-	-	89	-	CENTER LINE
	19MEB+76 - 22MEB+87	RT	MIDWAY RD	-	-	-	78	-	CENTER LINE
	24MEB+00 - 24MEB+79	RT	MIDWAY RD	-	-	-	21	-	CENTER LINE
	24MEB+33 - 25MEB+09	LT	MIDWAY RD	-	-	-	18	-	CENTER LINE
	24MEB+90 - 29MEB+77	RT	MIDWAY RD	-	-	-	123	-	CENTER LINE
	25MEB+22 - 29MEB+77	LT	MIDWAY RD	-	-	-	114	-	CENTER LINE
	241MNW+21 - 242MNW+00	R/L	MNW	-	-	134	-	-	
	239MSE+25 - 240MSE+52	R/L	MSE	-	-	180	-	-	
	240MSW+00 - 240MSW+12	LT	MSW	12	-	-	-	-	
	240MSW+00 - 240MSW+12	LT	MSW	-	-	12	-	-	
	MIDWAY SUBTOTAL				1,677	0	3,546	827	33
TOTAL				9,489		13,158			
PROJECT TOTAL						22,647			

3

3

MARKING LINE EPOXY 8-INCH

CATEGORY	STATION	OFFSET	LOCATION	646.3020		REMARKS
				MARKING LINE EPOXY 8-INCH	3-FT LINE 9-FT GAP	
				WHITE		
				LF	LF	
1000	40R+03 - 41R+43	RT	Racine RD	0	35	
	41R+43 - 42R+23	RT	Racine RD	80	0	
	43R+68 - 46R+11	LT	Racine RD	243	0	
	RACINE SUBTOTAL			324	35	
	19MEB+76 - 22MEB+83	R/L	MIDWAY RD	270	0	
	19MEB+87 - 22MEB+85	LT	MIDWAY RD	293	0	
	MIDWAY SUBTOTAL			563	0	
PROJECT TOTAL				922		

MARKING DIAGONAL EPOXY 12-INCH

CATEGORY	STATION	OFFSET	LOCATION	646.7120 MARKING DIAGNOAL EPOXY 12-INCH (YELLOW)	REMARKS
				LF	
1000	38R+73 - 42R+29	R/L	Racine RD	123	
	46R+11 - 49R+52	R/L	Racine RD	112	
	RACINE SUBTOTAL			235	
	11MEB+11 - 12MEB+28	R/L	Midway RD	17	
	26MEB+65 - 28MEB+97	R/L	Midway RD	39	
	MIDWAY SUBTOTAL			56	
	PROJECT TOTAL			291	

MARKING RAILROAD CROSSING EPOXY

CATEGORY	STATION	OFFSET	LOCATION	646.5320	REMARKS
				MARKING RAILRAOD CROSSING EPOXY EACH	
1000	11R+22 - 13R+72	RT	RACINE RD	1	
	14R+29 - 16R+79	LT	RACINE RD	1	
	RACINE SUBTOTAL			2	
	21MEB+99 - 24MEB+44	RT	Midway RD	1	
	25MEB+74 - 28MEB+24	LT	Midway RD	1	
	MIDWAY SUBTOTAL			2	
	PROJECT TOTAL				4

MARKING CURB EPOXY

CATEGORY	STATION	OFFSET	LOCATION	646.8120	REMARKS
				MARKING CURB EPOXY (YELLOW)	
				LF	
1000	12MEB+35 - 12MEB+40	LT	Midway RD	10	YELLOW
	18MEB+41 - 19MEB+05	LT	Midway RD	99	YELLOW
	19MEB+63 - 19MEB+92	LT	Midway RD	35	YELLOW
	22MEB+78 - 23MEB+01	LT	Midway RD	42	YELLOW
	23MEB+76 - 24MEB+05	LT	Midway RD	47	YELLOW
	26MEB+52 - 26MEB+57	LT	Midway RD	10	YELLOW
PROJECT TOTAL				243	

MARKING ISLAND NOSE EPOXY

CATEGORY	STATION	OFFSET	LOCATION	646.8220	REMARKS
				MARKING ISLAND NOSE EPOXY EACH	
1000	12MEB+30	LT	Midway RD	1	YELLOW
	19MEB+10	LT	Midway RD	1	YELLOW
	19MEB+58	LT	Midway RD	1	YELLOW
	23MEB+03	LT	Midway RD	1	YELLOW
	23MEB+76	LT	Midway RD	1	YELLOW
	26MEB+64	LT	Midway RD	1	YELLOW
PROJECT TOTAL				6	

3

MARKING ARROW EPOXY (WHITE)

CATEGORY	STATION	OFFSET	LOCATION	646.5020 MARKING ARROW EPOXY WHITE EACH	REMARKS
	41R+68	RT	Racine RD	1	TYPE 2
	42R+20	RT	Racine RD	1	TYPE 2
	44R+21	LT	Racine RD	1	TYPE 2
	45R+86	LT	Racine RD	1	TYPE 2
	RACINE SUBTOTAL			4	
	20MEB+01	LT	Midway RD	1	TYPE 2
	20MEB+28	LT	Midway RD	1	TYPE 2
	22MEB+38	LT	Midway RD	1	TYPE 2
	22MEB+59	LT	Midway RD	1	TYPE 2
	241MNW+92	LT	MNW	1	TYPE 2
	239MSE+25	RT	MSE	1	TYPE 2
	MIDWAY SUBTOTAL			6	

PROJECT TOTAL 10

MARKING WORD EPOXY (WHITE)

CATEGORY	STATION	OFFSET	LOCATION	646.5120 MARKING WORD EPOXY WHITE EACH	REMARKS
1000	44R+62	LT	Racine RD	1	Turn Lane Only
	RACINE SUBTOTAL			1	
	20MEB+66	LT	Midway RD	1	Turn Lane Only
	21MEB+98	LT	Midway RD	1	Turn Lane Only
	MIDWAY SUBTOTAL			2	

PROJECT TOTAL 3

MARKING CROSSWALK EPOXY TRANVERSE LINE 6-INCH (WHITE)

CATEGORY	STATION	OFFSET	LOCATION	646.7420 MARKING CROSSWALK EPOXY TRANVERSE LINE 6- INCH WHITE LF	REMARKS
1000	10MEB+53	R/L	Midway RD	147	
	240MNW+64	R/L	MNW	31	
	240MNW+68	R/L	MNW	75	
	242MNE+59	R/L	MNE	99	
	241MSW+09	R/L	MSW	89	
	241MSE+06	R/L	MSE	46	
	241MSE+07	R/L	MSE	30	
	PROJECT TOTAL			517	

TRAFFIC CONTROL 1517-75-77

CATEGORY	STATION	LOCATION	643.5000 EACH	REMARKS
1000	VARIES	MIDWAY AND RACINE	1	

PROJECT TOTAL 1

TRAFFIC CONTROL

DESCRIPTION OF WORK	DAYS	643.0310.S	643.0410		643.0420		643.0705		643.0900		643.0910	643.0920	643.1050	
		TEMPORARY PORTABLE RUMBLE STRIPS	TRAFFIC CONTROL BARRICADES TYPE II		TRAFFIC CONTROL BARRICADES TYPE III		TRAFFIC CONTROL WARNING LIGHTS TYPE A		TRAFFIC CONTROL SIGNS		TRAFFIC CONTROL COVERING SIGNS TYPE I	TRAFFIC CONTROL COVERING SIGNS TYPE II	TRAFFIC CONTROL SIGNS PCMS	
		LS	EACH	DAY	EACH	DAY	EACH	DAY	EACH	DAY	EACH	EACH	EACH	DAY
RACINE RD STAGE 1														
TRAFFIC CONTROL ADVANCE WARNING	7	-	-	-	-	-	-	-	-	-	-	-	4	28
MAINLINE CLOSURE	45	-	-	-	26	1,170	36	1,620	34	1,530	-	-	-	-
MIDWAY RD STAGE 2														
MAINLINE CLOSURE	68	-	4	272	19	1,292	26	1,768	23	1,564	-	-	-	-
HAUL ROAD REPAIR STAGE 3														
LANE CLOSURE WITH FLAGGING OPERATION	14	1	-	-	14	196	20	280	26	364	-	-	-	-
UNDISTRIBUTED	-	-	-	-	-	-	-	-	-	-	8	4	-	-
PROJECT TOTAL	134	1		272		2,658		3,668		3,458	8	4		28

ADJUSTING SANITARY AND WATER VALVE

CATEGORY	STATION	LOCATION	OFFSET	SPV.0060.650 ADJUSTING SANITARY MANHOLE COVERS EACH	SPV.0090.651 SANITARY LATERAL 4-INCH LF
1700	36R+91	RACINE RD	LT	1	-
	40R+60	RACINE RD	LT	1	-
	43R+52	RACINE RD	LT	1	-
	45R+50	RACINE RD	RT	-	50
	46R+27	RACINE RD	LT	1	-
	46R+78	RACINE RD	LT	1	-
	48R+50	RACINE RD	LT	1	-
	RACINE SUBTOTAL			6	50
	24MEB+42	MIDWAY RD	RT	1	-
	27MEB+19	MIDWAY RD	RT	1	-
	29MEB+26	MIDWAY RD	RT	1	-
	29MEB+25	MIDWAY RD	LT	1	-
	MIDWAY SUBTOTAL			4	0
	PROJECT TOTAL			10	50

RAMP GATE REMOVALS

653.0905 REMOVING PULL BOXES	
INTERSECTION	EACH
CATEGORY 1200	
MSW ON RAMP	1
MNE ON RAMP	1
TOTALS	2

RAMP GATE ITEMS

		654.0105	657.0255	662.1026.S	662.1040.S
		CONCRETE	TRANSFORMER		
		BASES	BASES	RAMP	RAMP
		TYPE 5	11 1/2-INCH	CLOSURE	CLOSURE
			BOLT CIRCLE	GATE	GATE
				26-FT	40-FT
INTERCHAGNE	ITEM ID	EACH	EACH	EACH	EACH
CATEGORY 1200					
MSW ON	RAMP GATE A	1	1	-	1
MNE ON	RAMP GATE B & C	2	2	2	-
TOTALS		3	3	2	1

POLES, ARMS, & LUMINAIRES								
WIS 441 Lighting - Contract 1517-75-77								
CATEGORY	SYSTEM	LOCATION	STATION	654.0107 CONCRETE BASES TYPE 7	657.0210 TRANSFORMER BASES BREAKAWAY 15- 17 INCH BOLT CIRCLE	657.0337 POLES TYPE 17-ALUMINUM	657.0730 LUMINAIRE ARMS TRUSS TYPE 6- INCH CLAMP 12-FT	659.1125 LUMINAIRES UTILITY LED C
				EACH	EACH	EACH	EACH	EACH
1100	MIDWAY ROAD MSE RAMP	SL201	STA 240+00	1	1	1	1	1
		SL202	STA 237+65	1	1	1	1	1
		SL203	STA 235+25	1	1	1	2	2
		SL204	STA 232+50	STR	STR	1	1	1
		SL205	STA 229+90	1	1	1	1	1
		SL206	STA 227+40	1	1	1	1	1
		SL207	STA 224+90	1	1	1	1	1
PROJECT TOTAL				6	6	7	8	8

CONDUIT & WIRING															
WIS 441 Lighting - Contract 1517-75-77															
CATEGORY	SYSTEM	CB/POLE/PB	FROM	CB/POLE/PB	TO	# OF CONDUITS	# OF PHASE CONDUCTORS	# OF GROUND CONDUCTORS	CONDUIT INSTALLED BY OTHERS	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2- INCH	655.0610 ELECTRICAL WIRE LIGHTING 12 AWG	655.0615 ELECTRICAL WIRE LIGHTING 10 AWG	655.0620 ELECTRICAL WIRE LIGHTING 8 AWG		
										LF	LF	LF	LF		
1100	CTH AP MIDWAY ROAD	CB 200	STA 24+52	LPB201	STA 24+41	4	4	1		96	-	40	160		
		LPB201	STA 24+41	LPB202	STA 24+22	2	4	1		252	-	142	568		
		LPB202	STA 24+22	SL201	STA 240+00	1	4	1		125	165	141	564		
		SL201	STA 240+00	SL202	STA 237+65	1	4	1		235	165	251	1004		
		SL202	STA 237+65	LPB203	STA 237+57	1	4	1	-	8	-	24	96		
		LPB203	STA 237+57	LJB001	STA 235+35	1	4	1	222	STR	-	238	952		
		LJB001	STA 235+35	LPB204	STA 235+35	1	4	1	-	42	-	58	232		
		LPB204	STA 235+35	SL203	STA 235+25	1	4	1	-	10	330	26	104		
		SL203	STA 235+25	LPB204	STA 235+35	1	4	1	10	-	-	26	104		
		LPB204	STA 235+35	LJB001	STA 235+35	1	4	1	42	-	-	58	232		
		LJB001	STA 235+35	SL204	STA 232+50	1	4	1	285	STR	165	301	1204		
		SL204	STA 232+50	LPB205	STA 229+96	1	4	1	254	STR	-	270	1080		
		LPB205	STA 229+96	SL205	STA 229+90	1	4	1	-	6	165	22	88		
		SL205	STA 229+90	SL206	STA 227+40	1	4	1	-	250	165	266	1064		
		SL206	STA 227+40	SL207	STA 224+90	1	2	1	-	250	165	266	532		
		SL207	STA 224+90	STUB-OUT	STA 224+84	1	-	-	-	6	-	-	-		
				LPB201	STA 24+41	LPB206	STA 242+75	4	-	-	-	384	-	-	-
				LPB206	STA 242+75	LPB213	STA 243+08	2	-	-	-	204	-	-	-
		PROJECT TOTAL										1868	1320	2129	7984

ALL ITEMS ARE CATEGORY 1000 UNLESS OTHERWISE SPECIFIED.

PULL BOXES & JUNCTION BOXES						
WIS 441 Lighting - Contract 1517-75-77						
CATEGORY	SYSTEM	DESCRIPTION	STATION	OFFSET		653.0164
						PULL BOXES
						NON-
						CONDUCTIVE
						24X42- INCH
						EACH
1100	CTH AP					
	MIDWAY ROAD	LPB201	STA 24+41	50.00	LT	1
	MSE RAMP	LPB202	STA 24+22	48.00	RT	1
		LPB203	STA 237+57	30.00	RT	1
		LPB204	STA 235+35	17.00	LT	1
		LPB205	STA 229+96	31.00	RT	1
		LPB206	STA 242+75	7.00	LT	1
		LPB213	STA 243+08	48.00	RT	1
PROJECT TOTAL						7

LIGHTING CABINETS & SERVICE PEDESTALS								
WIS 441 Lighting - Contract 1517-75-77								
CATEGORY	SYSTEM	DESCRIPTION	STATION	OFFSET		654.0230.001	656.0400.001	659.2230.001
						CONCRETE	ELECTRICAL	LIGHTING
						CONTROL	SERVICE MAIN	CONTROL
						CABINET BASES	LUGS ONLY	CABINETS
						TYPE L30	METER	240/480 30-
							PEDESTAL (CB-	INCH
							200)	
						EACH	LS	EACH
1100	CTH AP	CB 200						
	MIDWAY	LIGHTING						
	ROAD	CONTROLLER	STA 24+52	67.00	LT	1	1	1
	MSE RAMP	L70-2035						
PROJECT TOTAL						1	1	1

ALL ITEMS ARE CATEGORY 1000 UNLESS OTHERWISE SPECIFIED.

SCHEDULE OF LANDS & INTERESTS REQUIRED

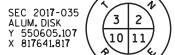
PARCEL NUMBER	*OWNER	INTEREST REQUIRED	NEW R/W ACRES	P.L.E. ACRES	T.L.E. ACRES	H.E. ACRES
84	NICK & LISA A. BONGEAN	TLE	-	-	0.018	-
87	JOHN L. & WICKIE T. SAMP	FEE/TLE	0.068	-	0.117	-
88	WISCONSIN CENTRAL LTD.	HE	-	-	-	0.075
89	DICK & STEVE EARL	FEE	0.173	-	-	-
90	WINNEBAGO COUNTY	STRUCTURES	-	-	-	-
91	MIDWAY CORPORATION	FEE/TLE	0.061	-	0.052	-
92	3 RB LLC	FEE/TLE	0.004	-	0.005	-

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

CURVE TABLE

CURVE	CH DISTANCE	CH BEARING	RADIUS	ARC LENGTH	PI COORDINATES
C1	1205.04'	N30°23'51"E	4293.00'	1209.03'	X 818294.839 Y 549596.336

RL USH-10/STH-441
PI STA. 229+83.14
Y = 549596.336
X = 818294.839
DELTA = 20°38'55"
D = 120°05"
T = 782.05
L = 1547.14
R = 4293.00



SCHEDULE OF UTILITIES & INTERESTS REQUIRED

UTILITY NUMBER	*OWNER	INTEREST REQUIRED
500	WE ENERGIES - ELECTRIC	RELEASE OF RIGHTS
503	AT&T WISCONSIN	RELEASE OF RIGHTS
505	TOWN OF MENASHA - SANITARY SEWER	RELEASE OF RIGHTS
518	MENASHA UTILITIES - ELECTRIC	RELEASE OF RIGHTS
605	TOWN OF MENASHA - SANITARY SEWER	UTILITY AGREEMENT
618	MENASHA UTILITIES - ELECTRIC	UTILITY AGREEMENT
619	MENASHA UTILITIES - WATER	UTILITY AGREEMENT
622	TOWN OF MENASHA - WATER	UTILITY AGREEMENT

STATION OFFSET TABLE

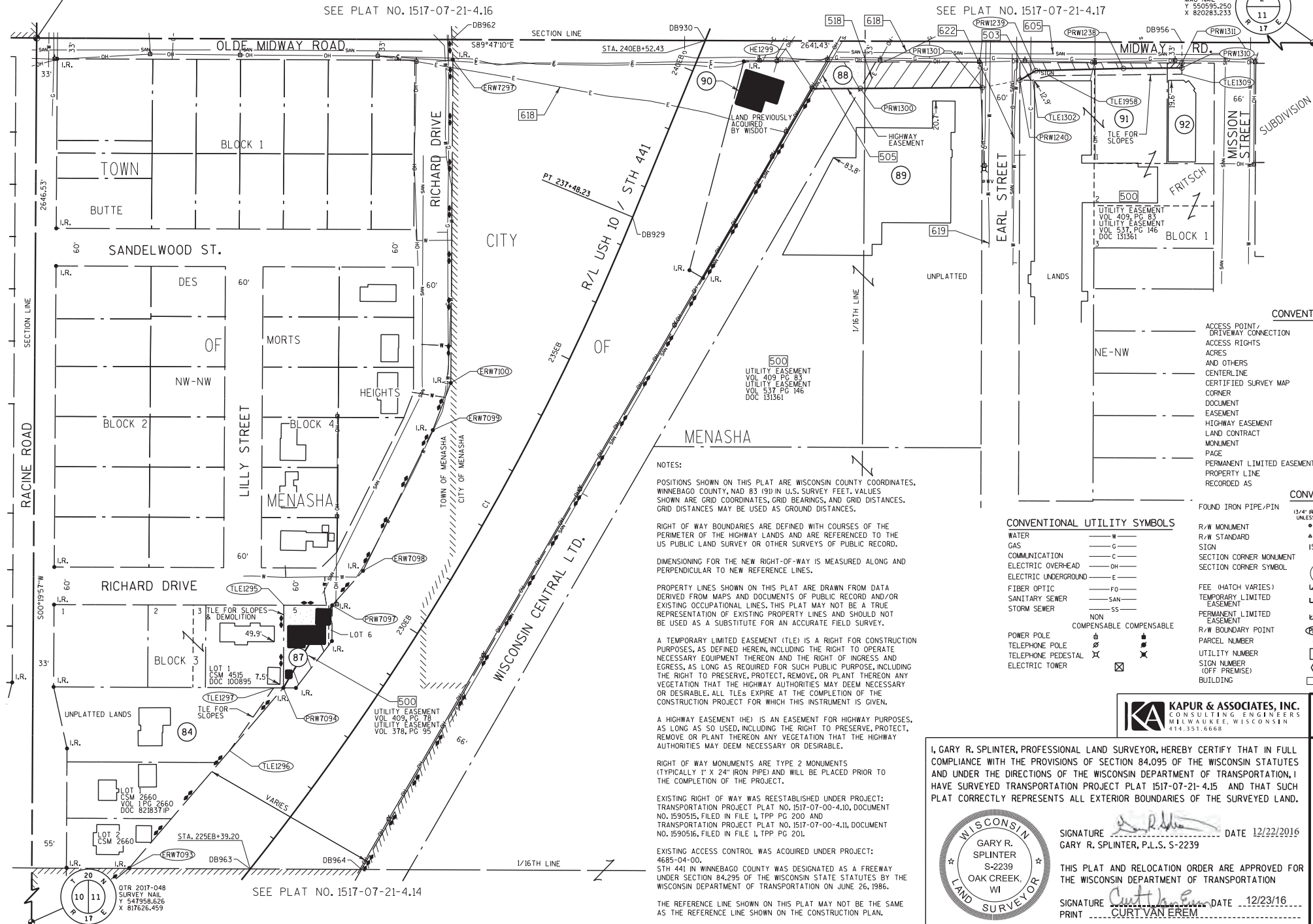
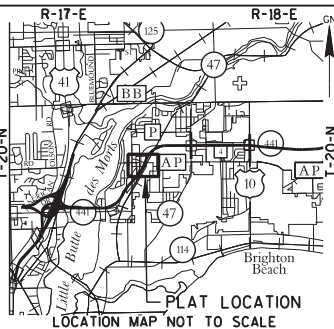
POINT	STATION	OFFSET	X	Y
DB929	237+48.23	0	818591.965	550319.747
DB930	240+52.43	0	818707.537	550501.130
DB956	243+85.16	701.08 R	819467.553	550598.294
DB962	239+00.47	373.93 L	818303.916	550602.636
DB963	225+39.20	0	817982.221	549280.358
DB964	226+45.50	140.77 R	818159.663	549279.589
PRW1238	242+72.04	633.43 R	819374.155	550556.643
PRW1239	242+08.32	505.73 R	819234.571	550563.190
PRW1240	241+84.46	488.00 R	819209.113	550537.861
TLE1295	229+20.37	203.47 L	818035.864	549700.871
TLE1296	226+70.93	141.06 L	817949.481	549469.051
TLE1297	227+97.40	142.80 L	818019.706	549569.174
HE1299	240+46.30	187.35 R	818878.509	550524.289
PRW1300	240+75.83	257.92 R	818955.013	550524.788
PRW1301	241+50.73	436.95 R	819149.075	550526.053
TLE1302	241+92.30	507.06 R	819229.722	550537.871
TLE1309	243+14.98	722.53 R	819467.363	550547.460
PRW1310	243+28.96	718.43 R	819467.401	550557.461
PRW1311	243+39.85	715.18 R	819467.430	550565.294
TLE1958	242+08.88	528.37 R	819255.724	550545.106
ERW7093	224+16.03	150.28 L	817789.290	549281.844
ERW7094	228+06.45	130.15 L	818035.101	549569.110
ERW7097	229+64.00	138.82 L	818112.894	549700.682
ERW7098	230+39.04	126.67 L	818162.022	549755.657
ERW7099	232+97.13	142.84 L	818273.282	549980.062
ERW7100	233+79.89	152.48 L	818302.021	550055.245
ERW7297	238+71.29	360.42 L	818305.327	550570.514

COURSE TABLE
NEW RIGHT OF WAY

POINT TO POINT	BEARING	DISTANCE
2017035 DB962	S89°47'10"E	662.10
DB962 DB956	S89°47'10"E	1163.65
DB956 PRW1310	S00°12'50"W	40.83
PRW1310 PRW1238	S89°29'52"W	93.25
PRW1238 PRW1239	S88°34'58"W	139.63
PRW1239 PRW1240	S58°56'48"W	29.72
PRW1240 PRW1301	S78°52'26"W	61.19
PRW1301 HE1299	S89°37'35"W	270.57
HE1299 DB964	S30°00'27"W	1437.36
DB964 ERW7093	N89°39'04"W	370.38
ERW7093 ERW7094	N40°33'12"E	378.08
ERW7094 ERW7097	N30°35'38"E	152.85
ERW7097 ERW7098	N41°47'08"E	73.73
ERW7098 ERW7099	N26°22'20"E	250.47
ERW7099 ERW7100	N20°55'10"E	80.49
ERW7100 ERW7297	N00°22'03"E	515.28
ERW7297 DB962	N02°30'55"W	32.15

COURSE TABLE
USH 10/STH 441 REFERENCE LINE

POINT TO POINT	BEARING	DISTANCE
2017048 DB963	N15°03'54"E	1368.77
DB963 DB929	CURVE C1	
DB929 DB930	N22°19'46"E	304.19
DB930 2017036	S89°47'10"E	1575.71



NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES. WINNEBAGO COUNTY, NAD 83 (9) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

RIGHT OF WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS AND ARE REFERENCED TO THE US PUBLIC LAND SURVEY OR OTHER SURVEYS OF PUBLIC RECORD.

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

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 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 HEREIN, 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 HIGHWAY EASEMENT (HE) IS AN EASEMENT FOR HIGHWAY PURPOSES, AS LONG AS SO USED, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE.

RIGHT OF WAY MONUMENTS ARE TYPE 2 MONUMENTS (TYPICALLY 1" X 24" IRON PIPE) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

EXISTING RIGHT OF WAY WAS REESTABLISHED UNDER PROJECT: TRANSPORTATION PROJECT PLAT NO. 1517-07-00-410, DOCUMENT NO. 1590515, FILED IN FILE 1, TPP PG 200 AND TRANSPORTATION PROJECT PLAT NO. 1517-07-00-411, DOCUMENT NO. 1590516, FILED IN FILE 1, TPP PG 201.

EXISTING ACCESS CONTROL WAS ACQUIRED UNDER PROJECT: 4685-04-00, STH 441 IN WINNEBAGO COUNTY WAS DESIGNATED AS A FREEWAY UNDER SECTION 84.295 OF THE WISCONSIN STATE STATUTES BY THE WISCONSIN DEPARTMENT OF TRANSPORTATION ON JUNE 26, 1986.

THE REFERENCE LINE SHOWN ON THIS PLAT MAY NOT BE THE SAME AS THE REFERENCE LINE SHOWN ON THE CONSTRUCTION PLAN.

CONVENTIONAL UTILITY SYMBOLS

WATER	—W—
GAS	—G—
COMMUNICATION	—C—
ELECTRIC OVERHEAD	—OH—
ELECTRIC UNDERGROUND	—E—
FIBER OPTIC	—FO—
SANITARY SEWER	—SS—
STORM SEWER	—SS—
NON COMPENSABLE	—N—
COMPENSABLE	—C—
POWER POLE	—P—
TELEPHONE POLE	—T—
TELEPHONE PEDESTAL	—PE—
ELECTRIC TOWER	—E—

CONVENTIONAL ABBREVIATIONS

AP	REFERENCE LINE	R/L
AR	RELEASE OF RIGHTS	ROR
AC	REMAINING	REM.
ET, AL.	RIGHT-OF-WAY	R/W
C/L	SECTION	SEC.
CSM	TEMPORARY LIMITED EASEMENT	TLE
COR.	VOLUME	VOL
DOC.		
EASE.	LONG CHORD	LC
H.E.	LONG CHORD BEARING	LCB
LC	RADIUS	R
MON.	DEGREE OF CURVE	D
PG	CENTRAL ANGLE OR DELTA	DELTA
P/E	LENGTH OF CURVE	L
PL	TANGENT	TAN
(100')		

CONVENTIONAL SYMBOLS

—	PROPOSED R/W LINE
—	EXISTING H.E. LINE
—	PROPERTY LINE
—	LOT & TIE LINES
—	SLOPE INTERCEPTS
—	CORPORATE LIMITS
—	ACCESS RESTRICTED (BY PREVIOUS ACQUISITION/CONTROL)
—	ACCESS RESTRICTED (BY ACQUISITION)
—	NO ACCESS (BY STATUTORY AUTHORITY)
—	SECTION LINE
—	QUARTER LINE
—	SIXTEENTH LINE
—	EXISTING CENTERLINE
—	PROPOSED REFERENCE LINE
—	PARALLEL OFFSET

KAPUR & ASSOCIATES, INC.
CONSULTING ENGINEERS
MILWAUKEE, WISCONSIN
414.351.6668

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 1517-07-21-415
AMENDMENT NO: 1

I, GARY R. SPLINTER, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTIONS OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION, I HAVE SURVEYED TRANSPORTATION PROJECT PLAT 1517-07-21-415 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.



SIGNATURE *Gary R. Splinter* DATE 12/22/2016
GARY R. SPLINTER, P.L.S. S-2239

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

SIGNATURE *Curt Van Erem* DATE 12/23/16
CURT VAN EREM

ACCEPTED FOR RECORDING AND FILING IN THE OFFICE OF THE REGISTER OF DEEDS IN WINNEBAGO COUNTY, WISCONSIN AT 1:50 PM ON 12/21/2016 AS DOCUMENT # 1730929 AND FILED IN FILE 166 TPP pg 284

SIGNATURE *Charles C. Jones* DEPUTY
SIGNATURE OF REGISTER OF DEEDS
1730929

SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	*OWNER	INTEREST REQUIRED	NEW R/W ACRES	P.L.E. ACRES	T.L.E. ACRES	H.E. ACRES
84	NICK & LISA A. BONGEAN	TLE	-	-	0.018	-
87	JOHN L. & VICKIE T. SAMP	FEE/TLE	0.068	-	0.117	-
88	WISCONSIN CENTRAL LTD.	HE	-	-	-	0.075
89	DICK & STEVE EARL	FEE	0.173	-	-	-
90	WINNEBAGO COUNTY	STRUCTURES	-	-	-	-
91	MIDWAY CORPORATION	FEE/TLE	0.061	-	0.052	-
92	3 RB LLC	FEE/TLE	0.004	-	0.005	-

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

CURVE TABLE

CURVE	CH DISTANCE	CH BEARING	RADIUS	ARC LENGTH	PI COORDINATES
C1	1205.04'	N30°23'51"E	4293.00'	1209.03'	X 818294.839 Y 549596.336

RL USH-10/STH-441
PI STA. 229+83.14
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X = 818294.839
DELTA = 20°38'55"
D = 1°20'05"
T = 782.05
L = 1547.14
R = 4293.00

SCHEDULE OF UTILITIES & INTERESTS REQUIRED

UTILITY NUMBER	*OWNER	INTEREST REQUIRED
500	WE ENERGIES - ELECTRIC	RELEASE OF RIGHTS
503	AT&T WISCONSIN	RELEASE OF RIGHTS
505	TOWN OF MENASHA - SANITARY SEWER	RELEASE OF RIGHTS
605	TOWN OF MENASHA - SANITARY SEWER	UTILITY AGREEMENT
622	TOWN OF MENASHA - WATER	UTILITY AGREEMENT

STATION OFFSET TABLE

POINT	STATION	OFFSET	X	Y
DB929	237+48.23	0	818591.965	550319.747
DB930	240+52.43	0	818707.537	550501.130
DB956	243+85.16	701.08 R	819467.553	550598.294
DB962	239+00.47	373.93 L	818303.916	550602.636
DB963	225+39.20	0	817982.221	549280.358
DB964	226+45.50	140.77 R	818159.663	549279.589
PRW1238	242+72.04	633.43 R	819374.155	550556.643
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PRW1240	241+84.46	488.00 R	819209.113	550537.861
TLE1295	229+20.37	203.47 L	818035.864	549700.871
TLE1296	226+70.93	141.06 L	817949.481	549469.051
TLE1297	227+97.40	142.80 L	818019.706	549569.174
HE1299	240+46.30	187.35 R	818878.509	550524.289
PRW1300	240+75.83	257.92 R	818955.013	550524.788
PRW1301	241+50.73	436.95 R	819149.075	550526.053
TLE1302	241+92.30	507.06 R	819229.722	550537.871
TLE1309	243+14.98	722.53 R	819467.363	550547.460
PRW1310	243+28.96	718.43 R	819467.401	550557.461
PRW1311	243+39.85	715.18 R	819467.430	550565.294
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ERW7094	228+06.45	130.15 L	818035.101	549569.110
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ERW7099	232+97.13	142.84 L	818273.282	549980.062
ERW7100	233+79.89	152.48 L	818302.021	550055.245
ERW7297	238+71.29	360.42 L	818305.327	550570.514

TRANSPORTATION PROJECT PLAT NO: 1517-07-21 - 4.15

USH 10 / STH 441, CTH CB - S. ONEIDA ST.

PART OF LOTS 5 AND 6, BLOCK 3 OF BUTTE DES MORTS HEIGHTS AND LANDS IN THE NW 1/4 OF THE NW 1/4, SECTION 11, TOWNSHIP 20 NORTH, RANGE 17 EAST, TOWN OF MENASHA, AND LOT 1, BLOCK 1, FRITSCH SUBDIVISION AND LANDS IN THE NE 1/4 OF THE NW 1/4 OF SECTION 11, TOWNSHIP 20 NORTH, RANGE 17 EAST, CITY OF MENASHA, ALL IN WINNEBAGO COUNTY, WISCONSIN.

RELOCATION ORDER USH 10/STH 441 WINNEBAGO 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 NAMED PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SUBSECTIONS 84.02 (3), 84.09 AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:

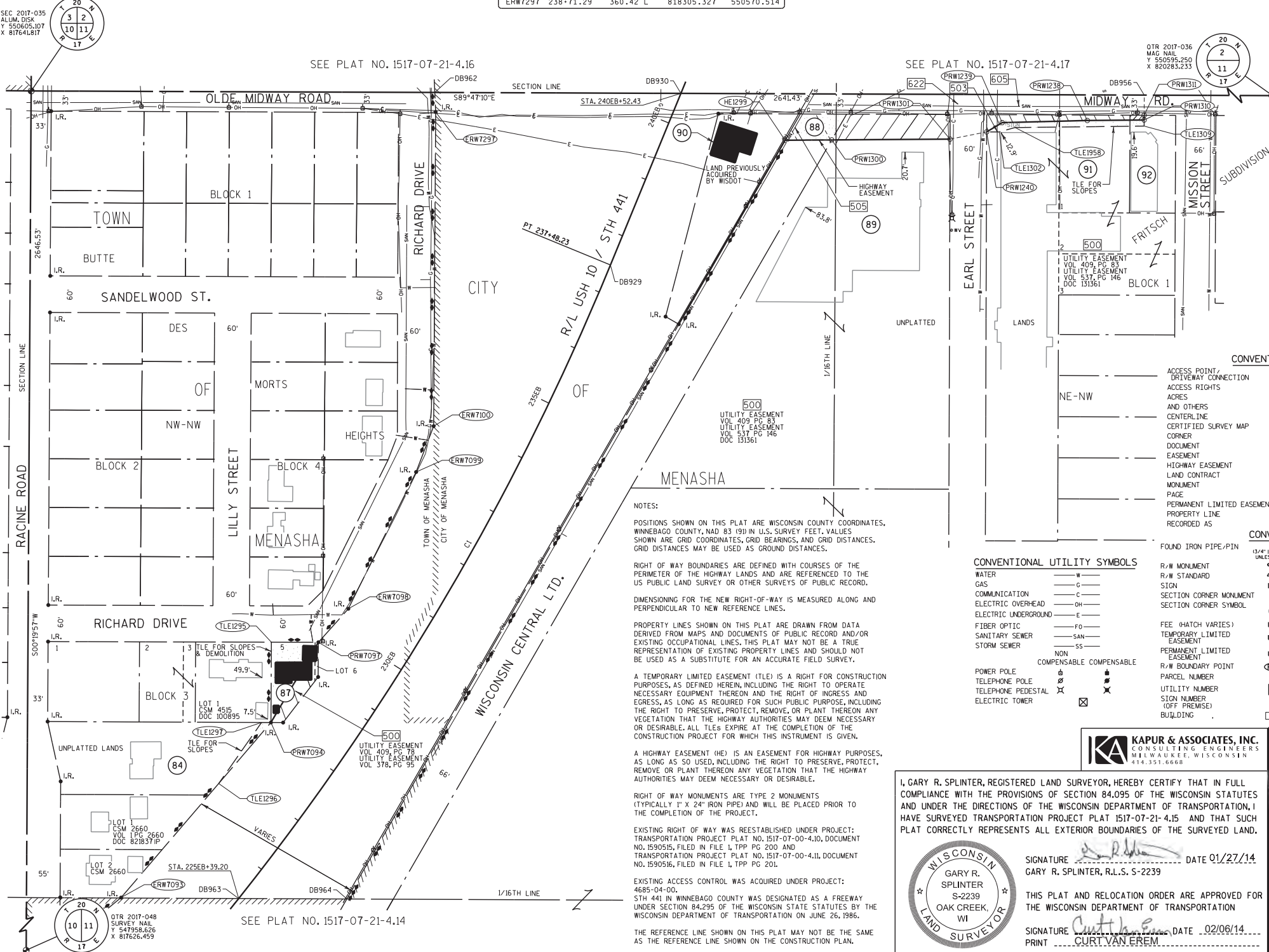
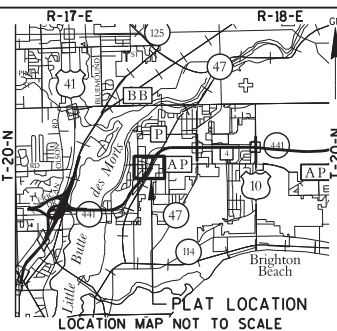
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE NAMED PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME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

COURSE TABLE NEW RIGHT OF WAY

POINT TO POINT	BEARING	DISTANCE
2017035 DB962	S89°47'10"E	662.10
DB962 DB956	S89°47'10"E	1163.65
DB956 PRW1310	S00°12'50"W	40.83
PRW1310 PRW1238	S89°29'52"W	93.25
PRW1238 PRW1239	S88°34'58"W	139.63
PRW1239 PRW1240	S58°56'48"W	29.72
PRW1240 PRW1301	S78°52'26"W	61.19
PRW1301 HE1299	S89°37'35"W	270.57
HE1299 DB964	S30°00'27"W	1437.36
DB964 ERW7093	N89°39'04"W	370.38
ERW7093 ERW7094	N40°33'12"E	378.08
ERW7094 ERW7097	N30°35'38"E	152.85
ERW7097 ERW7098	N41°47'08"E	73.73
ERW7098 ERW7099	N26°22'20"E	250.47
ERW7099 ERW7100	N20°55'10"E	80.49
ERW7100 ERW7297	N00°22'03"E	515.28
ERW7297 DB962	N02°30'55"W	32.15

COURSE TABLE USH 10/STH 441 REFERENCE LINE

POINT TO POINT	BEARING	DISTANCE
2017048 DB963	N15°03'54"E	1368.77
DB963 DB929	CURVE C1	
DB929 DB930	N22°19'46"E	304.19
DB930 2017036	S89°47'10"E	1575.71



NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES. WINNEBAGO COUNTY, NAD 83 (9) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

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

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RIGHT OF WAY MONUMENTS ARE TYPE 2 MONUMENTS (TYPICALLY 1" X 24" IRON PIPE) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

EXISTING RIGHT OF WAY WAS REESTABLISHED UNDER PROJECT: TRANSPORTATION PROJECT PLAT NO. 1517-07-00-4.0, DOCUMENT NO. 1590515, FILED IN FILE 1, TPP PG 200 AND TRANSPORTATION PROJECT PLAT NO. 1517-07-00-4.11, DOCUMENT NO. 1590516, FILED IN FILE 1, TPP PG 201.

EXISTING ACCESS CONTROL WAS ACQUIRED UNDER PROJECT: 4685-04-00, STH 441 IN WINNEBAGO COUNTY WAS DESIGNATED AS A FREEWAY UNDER SECTION 84.295 OF THE WISCONSIN STATE STATUTES BY THE WISCONSIN DEPARTMENT OF TRANSPORTATION ON JUNE 26, 1986.

THE REFERENCE LINE SHOWN ON THIS PLAT MAY NOT BE THE SAME AS THE REFERENCE LINE SHOWN ON THE CONSTRUCTION PLAN.

CONVENTIONAL UTILITY SYMBOLS

WATER	—W—
GAS	—G—
COMMUNICATION	—C—
ELECTRIC OVERHEAD	—OH—
ELECTRIC UNDERGROUND	—E—
FIBER OPTIC	—FO—
SANITARY SEWER	—SS—
STORM SEWER	—SS—
NON COMPENSABLE	—N—
COMPENSABLE	—C—
POWER POLE	—P—
TELEPHONE POLE	—T—
TELEPHONE PEDESTAL	—PE—
ELECTRIC TOWER	—E—

CONVENTIONAL ABBREVIATIONS

AP	ACCESS POINT/ DRIVEWAY CONNECTION	R/L
AR	ACCESS RIGHTS	ROR
AC	ACCESS REMAINING	REM.
ET, AL.	AND OTHERS	R/W
C/L	CENTERLINE	SEC.
CSM	CERTIFIED SURVEY MAP	STA.
COR.	CORNER	TEMPORARY LIMITED EASEMENT
DOC.	DOCUMENT	TLE
EASE.	EASEMENT	VOL
H.E.	HIGHWAY EASEMENT	
LC	LAND CONTRACT	LONG CHORD
MON.	MONUMENT	LONG CHORD BEARING
PG	PAGE	LCB
P.L.E.	PERMANENT LIMITED EASEMENT	R
PL	PROPERTY LINE	DEGREE OF CURVE
(100')	RECORDED AS	CENTRAL ANGLE OR DELTA
		DELTA
		TAN

CONVENTIONAL SYMBOLS

—	PROPOSED R/W LINE
—	EXISTING H.E. LINE
—	PROPERTY LINE
—	LOT & TIE LINES
—	SLOPE INTERCEPTS
—	CORPORATE LIMITS
—	ACCESS RESTRICTED (BY PREVIOUS ACQUISITION/CONTROL)
—	ACCESS RESTRICTED (BY ACQUISITION)
—	NO ACCESS (BY STATUTORY AUTHORITY)
—	SECTION LINE
—	QUARTER LINE
—	SIXTEENTH LINE
—	EXISTING CENTERLINE
—	PROPOSED REFERENCE LINE
—	PARALLEL OFFSET

KAPUR & ASSOCIATES, INC.
CONSULTING ENGINEERS
MILWAUKEE, WISCONSIN
414.351.6668

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 1517-07-21-4.15
AMENDMENT NO:

I, GARY R. SPLINTER, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTIONS OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION, I HAVE SURVEYED TRANSPORTATION PROJECT PLAT 1517-07-21-4.15 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

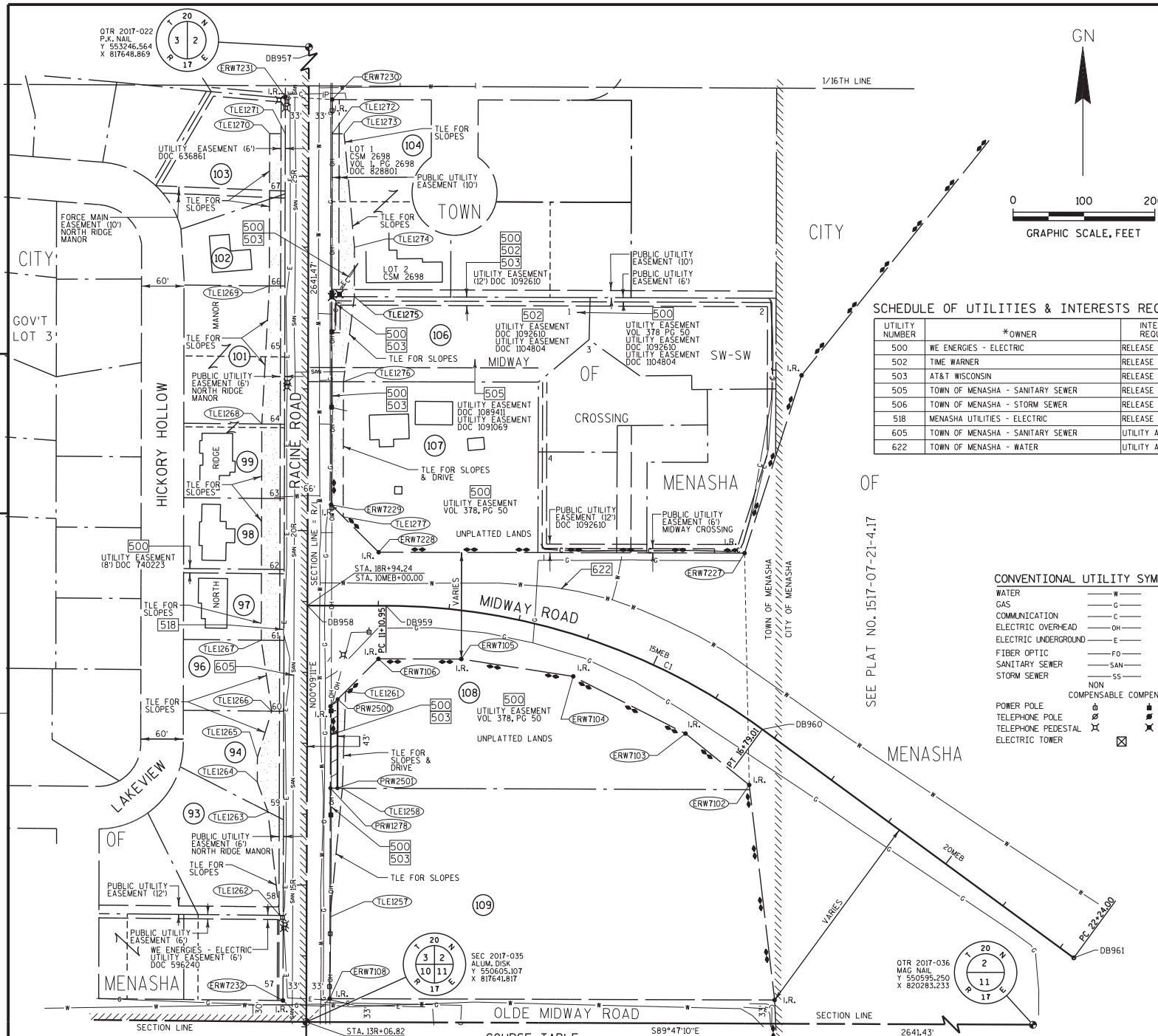


SIGNATURE *Gary R. Splinter* DATE 01/27/14
GARY R. SPLINTER, R.L.S. S-2239

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

SIGNATURE *Curt Van Erum* DATE 02/06/14
PRINT CURT VAN EREM

ACCEPTED FOR RECORDING AND FILING IN THE OFFICE OF THE REGISTER OF DEEDS IN WINNEBAGO COUNTY, WISCONSIN AT 10:28 AM ON 2/25/2014 AS DOCUMENT # 1658571 AND FILED IN FILE 1, TPP PG 237
Julie Engel
SIGNATURE OF REGISTER OF DEEDS



CURVE	CH DISTANCE	CH BEARING	RADIUS	ARC LENGTH	PI COORDINATES
C1	588.68'	S71°48'49\"E	900.00'	568.06'	X 818048.189 Y 551191.780

POINT TO POINT	BEARING	DISTANCE
2017035 DB957	N00°09'11\"E	1572.38

POINT TO POINT	BEARING	DISTANCE
2017035 DB958	N00°09'11\"E	587.41
DB958 DB959	S89°53'43\"E	110.95
DB959 DB960	CURVE C1	
DB960 DB961	S53°43'54\"E	544.99

POINT TO POINT	BEARING	DISTANCE
2017035 ERW7232	N47°21'16\"W	44.75
ERW7232 ERW7231	N00°09'11\"E	1274.81
ERW7231 ERW7230	S86°44'58\"E	66.10
ERW7230 ERW7229	S00°09'11\"W	571.70
ERW7229 ERW7228	S45°03'25\"E	94.78
ERW7228 ERW7227	S89°52'02\"E	516.27
ERW7227 ERW7102	S01°08'26\"E	327.27
ERW7102 ERW7103	N51°06'45\"W	115.43
ERW7103 ERW7104	N63°00'37\"W	177.80
ERW7104 ERW7105	N81°09'59\"W	159.76
ERW7105 ERW7106	N89°52'02\"W	116.90
ERW7106 PRW2500	S45°15'32\"W	81.03
PRW2500 PRW2501	S00°09'11\"W	125.41
PRW2501 PRW1278	N89°47'10\"W	10.00
PRW1278 ERW7108	S00°09'11\"W	297.00
ERW7108 2017035	S45°11'00\"W	46.64

PARCEL NUMBER	*OWNER	INTEREST REQUIRED	NEW R/W ACRES	P.L.E. ACRES	T.L.E. ACRES
93	JEFFREY A. & LINDA HOVARTER	TLE	-	-	0.042
94	GENO T. & SHELBY A. BONGIOVANNI	TLE	-	-	0.101
96	LEANNE M. SCHREINER	TLE	-	-	0.056
97	JOSEPH L. & KAREN K. FAHLEY	TLE	-	-	0.073
98	MARK J. & CATHERINE M. JUNG	TLE	-	-	0.073
99	DARRELL D. & CAROL M. JANSEN	TLE	-	-	0.077
101	GREG C. SYRING	TLE	-	-	0.121
102	TOTDAHL TRUST	TLE	-	-	0.064
103	GLEN C. JR. & BONNIE M. BRUSS	TLE	-	-	0.045
104	NHPCO WIS. LLC	TLE	-	-	0.141
106	D & M PROPERTIES LLC	TLE	-	-	0.067
107	PAUL M. VANCE	TLE	-	-	0.071
108	TIMOTHY R. & SANDRA L. GOSS	FEE, TLE	0.028	-	0.027
109	ST. JOHNS CEMETERY	TLE	-	-	0.035

*OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND INTERESTS TO THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

TRANSPORTATION PROJECT PLAT NO: 1517-07-21 - 4.16
AMENDMENT NO. 1
AMENDS PARCEL 108 OF TPP 1517-07-21-4.16 RECORDED AS DOCUMENT 1658572.
USH 10 / STH 441, CTH CB - S. ONEIDA ST.
PART OF LOTS 58, 59, 60, 61, 62, 63, 64, 65, 66 AND 67, NORTH RIDGE MANOR, GOVERNMENT LOT 3, SECTION 3, TOWNSHIP 20 NORTH, RANGE 17 EAST, CITY OF MENASHA AND LOTS 1 AND 2 OF CSM 2698, LOT 1 OF MIDWAY CROSSING AND LANDS IN THE SW 1/4 OF THE SW 1/4 OF SECTION 2, TOWNSHIP 20 NORTH, RANGE 17 EAST, TOWN OF MENASHA, ALL IN WINNEBAGO COUNTY, WISCONSIN.

RELOCATION ORDER USH 10/STH 441 WINNEBAGO 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 NAMED PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SUBSECTIONS 84.02 (3), 84.09 AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAY OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE NAMED PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SUBSECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

CONVENTIONAL ABBREVIATIONS

ACCESS POINT / DRIVEWAY CONNECTION	AP	REFERENCE LINE	R/L
ACCESS RIGHTS	AR	RELEASE OF RIGHTS	ROR
ACRES	AC.	REMAINING	REM.
AND OTHERS	ET. AL.	RIGHT-OF-WAY	R/W
CENTERLINE	C/L	SECTION	SEC.
CERTIFIED SURVEY MAP	CSM	STATION	STA.
CORNER	COR.	TEMPORARY LIMITED EASEMENT	TLE
DOCUMENT	DOC.	VOLUME	VOL
EASEMENT	EASE.		
HIGHWAY EASEMENT	H.E.	LONG CHORD	LCH
LAND CONTRACT	LC	LONG CHORD BEARING	LCB
MONUMENT	MON.	RADIUS	R
PAGE	PG	DEGREE OF CURVE	D
PERMANENT LIMITED EASEMENT	P.L.E.	CENTRAL ANGLE OR DELTA	DELTA
PROPERTY LINE	PL	LENGTH OF CURVE	L
RECORDED AS	(100')	TANGENT	TAN

CURVE DATA

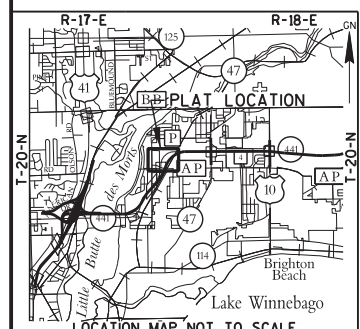
LONG CHORD	LCH
LONG CHORD BEARING	LCB
RADIUS	R
DEGREE OF CURVE	D
CENTRAL ANGLE OR DELTA	DELTA
LENGTH OF CURVE	L
TANGENT	TAN

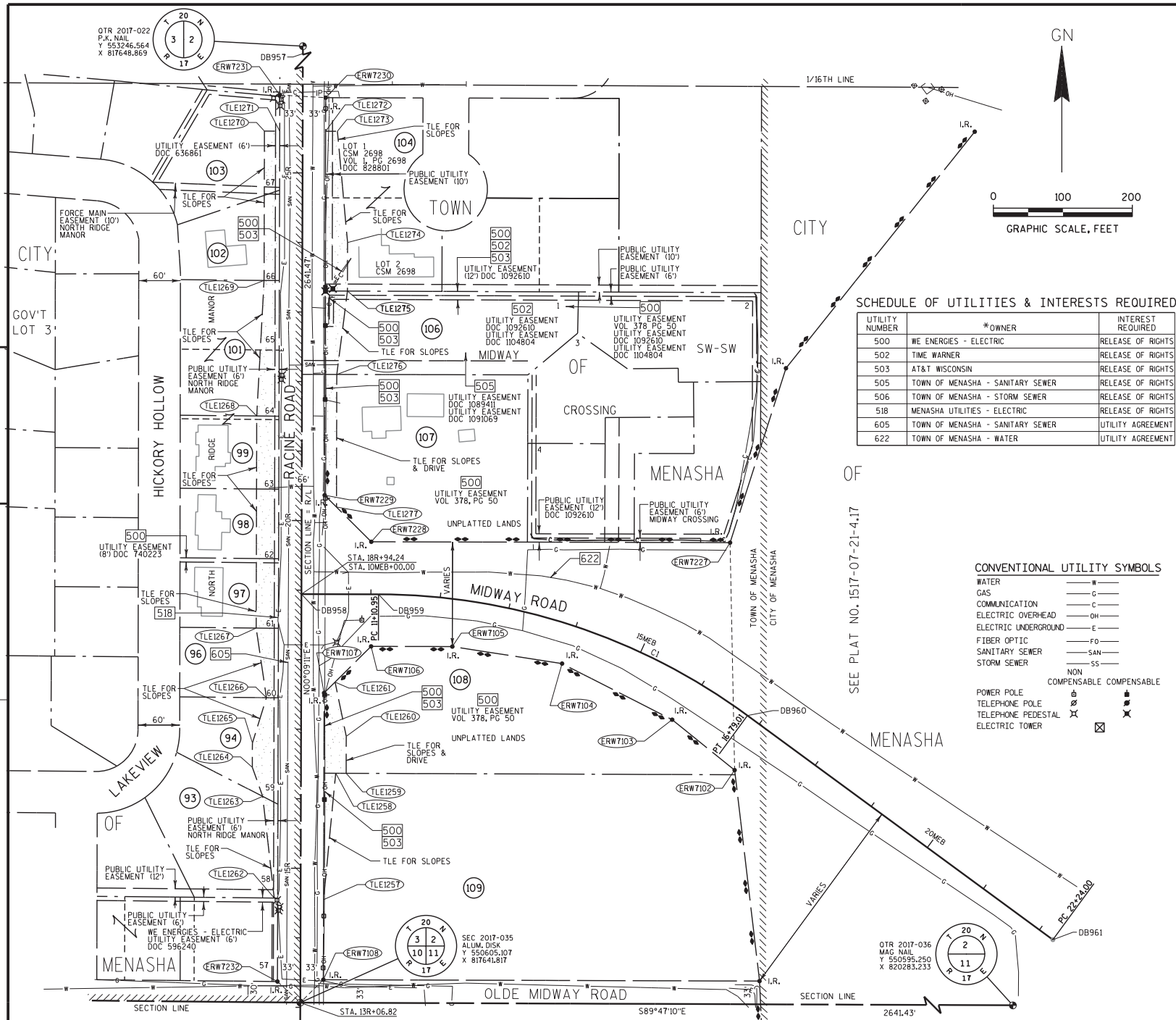
CONVENTIONAL SYMBOLS

FOUND IRON PIPE/PIN	IF	PROPOSED R/W LINE	---
R/W MONUMENT	MON	EXISTING H.E. LINE	---
R/W STANDARD	ST	PROPERTY LINE	---
SIGN	SIGN	LOT & TIE LINES	---
SECTION CORNER MONUMENT	SCM	SLOPE INTERCEPTS	---
SECTION CORNER SYMBOL	SCS	CORPORATE LIMITS	---
FEE (HATCH VARIES)	FEE	ACCESS RESTRICTED (BY PREVIOUS ACQUISITION/CONTROL)	---
TEMPORARY LIMITED EASEMENT	TLE	NO ACCESS (BY STATUTORY AUTHORITY)	---
PERMANENT LIMITED EASEMENT	P.L.E.	SECTION LINE	---
R/W BOUNDARY POINT	RWB	QUARTER LINE	---
PARCEL NUMBER	PN	SIXTEENTH LINE	---
UTILITY NUMBER	UN	EXISTING CENTERLINE	---
SIGN NUMBER (OFF PREMISE)	SIGN	PROPOSED REFERENCE LINE	---
BUILDING	BUILD	PARALLEL OFFSET	---

POINT	STATION	OFFSET	X	Y
DB958	18+94.24	0	817643.385	551192.520
TLE1257	14+55.00	33.00 R	817675.212	550753.194
TLE1258	16+36.77	50.00 R	817692.698	550934.919
TLE1261	17+73.42	54.27 R	817697.331	551071.556
TLE1262	14+57.09	38.00 L	817604.218	550755.474
TLE1263	16+03.24	55.00 L	817587.609	550901.672
TLE1264	16+45.00	70.00 L	817572.720	550943.468
TLE1265	16+80.00	70.00 L	817572.814	550978.468
TLE1266	17+45.17	50.00 L	817592.987	551043.588
TLE1267	18+45.28	65.00 L	817578.255	551143.733
TLE1268	21+50.28	65.00 L	817579.069	551448.729
TLE1269	23+45.21	55.00 L	817589.589	551643.635
TLE1270	25+60.00	55.00 L	817590.163	551858.425
TLE1271	25+60.00	33.00 L	817612.163	551858.366
TLE1272	25+60.00	33.00 R	817678.163	551858.190
TLE1273	25+60.00	50.00 R	817695.162	551858.144
TLE1274	24+00.00	65.00 R	817709.735	551698.105
TLE1275	23+30.26	65.00 R	817709.549	551628.366
TLE1276	22+10.30	50.00 R	817694.229	551508.448
TLE1277	20+19.64	50.08 R	817693.801	551317.782
PRW1278	16+36.79	33.00 R	817675.698	550934.983
PRW2500	17+62.19	43.00 R	817686.033	551060.359
PRW2501	16+36.78	43.00 R	817685.698	550934.946
ERW7108	13+39.79	33.00 R	817674.905	550637.984
ERW7229	20+36.59	33.00 R	817676.765	551334.784
ERW7230	26+08.29	33.00 R	817678.291	551906.484
ERW7231	26+11.87	33.00 L	817612.301	551910.232
ERW7232	13+37.06	33.00 L	817608.898	550635.426
2017035	13+06.82	0	817641.817	550605.107

POINT	STATION	OFFSET	X	Y
DB958	10+00.00	0	817643.385	551192.520
DB959	11+10.95	0	817754.339	551192.317
DB960	16+79.01	0	818285.107	551017.948
DB961	22+24.00	0	818724.508	550695.549
ERW7102	17+10.57	74.23 R	818266.637	550939.430
ERW7103	15+88.61	64.75 R	818176.785	551011.899
ERW7104	13+97.77	56.79 R	818018.349	551092.590
ERW7105	12+26.26	68.18 R	817860.485	551117.123
ERW7106	11+00.34	74.94 R	817743.585	551117.394
ERW7227	15+41.45	198.53 L	818260.122	551266.633
ERW7228	11+00.33	75.49 L	817743.853	551267.829





TRANSPORTATION PROJECT PLAT NO: 1517-07-21 - 4.16

USH 10 / STH 441, CTH CB - S. ONEIDA ST.
PART OF LOTS 58, 59, 60, 61, 62, 63, 64, 65, 66 AND 67, NORTH RIDGE MANOR, GOVERNMENT LOT 3, SECTION 3, TOWNSHIP 20 NORTH, RANGE 17 EAST, CITY OF MENASHA AND LOTS 1 AND 2 OF CSM 2698, LOT 10 OF MIDWAY CROSSING AND LANDS IN THE SW 1/4 OF THE SW 1/4 OF SECTION 2, TOWNSHIP 20 NORTH, RANGE 17 EAST, TOWN OF MENASHA, ALL IN WINNEBAGO COUNTY, WISCONSIN.

RELOCATION ORDER USH 10/STH 441 WINNEBAGO 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 NAMED PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SUBSECTIONS 84.02 (3), 84.09 AND 84.30, 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 NAMED 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 SUBSECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

SCHEDULE OF UTILITIES & INTERESTS REQUIRED

UTILITY NUMBER	*OWNER	INTEREST REQUIRED
500	WE ENERGIES - ELECTRIC	RELEASE OF RIGHTS
502	TIME WARNER	RELEASE OF RIGHTS
503	AT&T WISCONSIN	RELEASE OF RIGHTS
505	TOWN OF MENASHA - SANITARY SEWER	RELEASE OF RIGHTS
506	TOWN OF MENASHA - STORM SEWER	RELEASE OF RIGHTS
518	MENASHA UTILITIES - ELECTRIC	RELEASE OF RIGHTS
605	TOWN OF MENASHA - SANITARY SEWER	UTILITY AGREEMENT
622	TOWN OF MENASHA - WATER	UTILITY AGREEMENT

CONVENTIONAL ABBREVIATIONS

ACCESS POINT / DRIVEWAY CONNECTION	AP	REFERENCE LINE	R/L
ACCESS RIGHTS	AR	RELEASE OF RIGHTS	ROR
ACRES	AC	REMAINING	REM.
AND OTHERS	ET. AL.	RIGHT-OF-WAY	R/W
CENTERLINE	C/L	SECTION	SEC.
CERTIFIED SURVEY MAP	CSM	STATION	STA.
CORNER	COR.	TEMPORARY LIMITED EASEMENT	TLE
DOCUMENT	DOC.	VOLUME	VOL
EASEMENT	EASE.	<u>CURVE DATA</u>	
HIGHWAY EASEMENT	H.E.	LONG CHORD	LCH
LAND CONTRACT	LC	LONG CHORD BEARING	LCB
MONUMENT	MON.	RADIUS	R
PAGE	PG	DEGREE OF CURVE	D
PERMANENT LIMITED EASEMENT	PLE	CENTRAL ANGLE OR DELTA	DELTA
PROPERTY LINE	PL	LENGTH OF CURVE	L
RECORDED AS	(100')	TANGENT	TAN

CONVENTIONAL SYMBOLS

FOUND IRON PIPE/PIN	1/4" IRON REBAR (UNLESS NOTED)	PROPOSED R/W LINE	---
R/W MONUMENT	• (SET)	EXISTING H.E. LINE	---
R/W STANDARD	• (SET)	PROPERTY LINE	---
SIGN	• (SET)	LOT & TIE LINES	---
SECTION CORNER MONUMENT	• (SET)	SLOPE INTERCEPTS	---
SECTION CORNER SYMBOL	• (SET)	CORPORATE LIMITS	---
FEE (MATCH VARIES)	• (SET)	ACCESS RESTRICTED (BY PREVIOUS ACQUISITION/CONTROL)	---
TEMPORARY LIMITED EASEMENT	• (SET)	ACCESS RESTRICTED (BY ACQUISITION)	---
PERMANENT LIMITED EASEMENT	• (SET)	NO ACCESS (BY STATUTORY AUTHORITY)	---
R/W BOUNDARY POINT	• (SET)	SECTION LINE	---
PARCEL NUMBER	• (SET)	QUARTER LINE	---
UTILITY NUMBER	• (SET)	SIXTEENTH LINE	---
SIGN NUMBER (OFF PREMISE)	• (SET)	EXISTING CENTERLINE	---
BUILDING	• (SET)	PROPOSED REFERENCE LINE	---
		PARALLEL OFFSET	---

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, WINNEBAGO COUNTY, NAD 83 (9D) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

RIGHT OF WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS AND ARE REFERENCED TO THE US PUBLIC LAND SURVEY OR OTHER SURVEYS OF PUBLIC RECORD.

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

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 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 HEREIN, 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.

RIGHT OF WAY MONUMENTS ARE TYPE 2 MONUMENTS (TYPICALLY 1" X 24" IRON PIPE) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

EXISTING RIGHT OF WAY WAS REESTABLISHED UNDER PROJECT: TRANSPORTATION PROJECT PLAT NO. 1517-07-00-4.09, DOCUMENT NO. 1590514, FILED IN FILE 1, TPP PG 199 & NORTH RIDGE MANOR.

EXISTING ACCESS CONTROL WAS ACQUIRED UNDER PROJECT: 4685-04-00.

THE REFERENCE LINE SHOWN ON THIS PLAT MAY NOT BE THE SAME AS THE REFERENCE LINE SHOWN ON THE CONSTRUCTION PLAN.

STATION OFFSET TABLE RACINE ROAD

POINT	STATION	OFFSET	X	Y
DB958	18+94.24	0	817643.385	551192.520
TLE1257	14+55.00	33.00 R	817675.212	550753.194
TLE1258	16+36.77	50.00 R	817692.698	550934.919
TLE1259	16+36.77	65.00 R	817707.698	550934.863
TLE1260	16+90.00	65.00 R	817707.840	550988.107
TLE1261	17+67.87	48.70 R	817691.746	551066.021
TLE1262	14+57.09	38.00 L	817604.218	550755.474
TLE1263	16+03.24	55.00 L	817587.609	550901.672
TLE1264	16+45.00	70.00 L	817572.720	550943.468
TLE1265	16+80.00	70.00 L	817572.814	550978.468
TLE1266	17+45.17	50.00 L	817592.987	551043.588
TLE1267	18+45.28	65.00 L	817578.255	551143.733
TLE1268	21+50.28	65.00 L	817579.069	551148.729
TLE1269	23+45.21	55.00 L	817589.589	551643.635
TLE1270	25+60.00	55.00 L	817590.163	551858.425
TLE1271	25+60.00	33.00 L	817612.163	551858.366
TLE1272	25+60.00	33.00 R	817678.163	551858.190
TLE1273	25+60.00	50.00 R	817695.162	551858.144
TLE1274	24+00.00	65.00 R	817709.735	551698.105
TLE1275	23+30.26	65.00 R	817709.549	551628.366
TLE1276	22+10.30	50.00 R	817694.229	551508.448
TLE1277	20+19.64	50.00 R	817693.801	551317.782
ERW7107	17+52.23	33.00 R	817676.006	551050.423
ERW7108	13+39.79	33.00 R	817674.905	550637.984
ERW7229	20+36.59	33.00 R	817676.765	551334.784
ERW7230	26+08.29	33.00 R	817678.291	551906.484
ERW7231	26+11.87	33.00 L	817612.301	551910.232
ERW7232	13+37.06	33.00 L	817608.898	550635.426
2017035	13+06.82	0	817641.817	550605.107

STATION OFFSET TABLE MIDWAY ROAD

POINT	STATION	OFFSET	X	Y
DB958	10+00.00	0	817643.385	551192.520
DB959	11+10.95	0	817754.339	551192.317
DB960	16+79.01	0	818285.107	551017.948
DB961	22+24.00	0	818274.508	550695.549
ERW7102	17+10.57	74.23 R	818266.637	550939.430
ERW7103	15+88.61	64.75 R	818176.785	551011.899
ERW7104	13+97.77	56.79 R	818018.349	551092.590
ERW7105	12+26.26	68.18 R	817860.485	551117.123
ERW7106	11+00.34	74.94 R	817743.585	551117.394
ERW7227	15+41.45	198.53 L	818260.122	551266.633
ERW7228	11+00.33	75.49 L	817743.853	551267.829

CURVE	CH DISTANCE	CH BEARING	RADIUS	ARC LENGTH	PI COORDINATES
C1	588.68'	S71°48'49"E	900.00'	568.06'	X 818048.189 Y 551191.780

COURSE TABLE RACINE ROAD REFERENCE LINE

POINT TO POINT	BEARING	DISTANCE
2017035 DB957	N00°09'11"E	1572.38

COURSE TABLE MIDWAY ROAD REFERENCE LINE

POINT TO POINT	BEARING	DISTANCE
2017035 DB958	N00°09'11"E	587.41
DB958 DB959	S89°53'43"E	110.95
DB959 DB960	CURVE C1	
DB960 DB961	S53°43'54"E	544.99

COURSE TABLE NEW RIGHT OF WAY

POINT TO POINT	BEARING	DISTANCE
2017035 ERW7232	N47°21'16"W	44.75
ERW7232 ERW7231	N00°09'11"E	1274.81
ERW7231 ERW7230	S86°44'58"E	66.10
ERW7230 ERW7229	S00°09'11"W	571.70
ERW7229 ERW7228	S45°03'25"E	94.78
ERW7228 ERW7227	S89°52'02"E	516.27
ERW7227 ERW7102	S01°08'26"E	327.27
ERW7102 ERW7103	N51°06'45"W	115.43
ERW7103 ERW7104	N63°00'37"W	177.80
ERW7104 ERW7105	N81°09'59"W	159.76
ERW7105 ERW7106	N89°52'02"W	116.90
ERW7106 ERW7107	S45°15'32"W	95.14
ERW7107 ERW7108	S00°09'11"W	412.44
ERW7108 2017035	S45°11'00"W	46.64

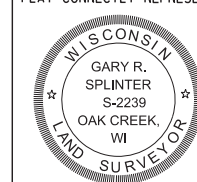
SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	*OWNER	INTEREST REQUIRED	NEW R/W ACRES	P.L.E. ACRES	T.L.E. ACRES
93	JEFFREY A. & LINDA HOVARTER	TLE	-	-	0.042
94	GENO T. & SHELBY A. BONGIOVANNI	TLE	-	-	0.101
96	LEANNE M. SCHREINER	TLE	-	-	0.056
97	JOSEPH L. & KAREN K. FAHLEY	TLE	-	-	0.073
98	MARK J. & CATHERINE M. JUNG	TLE	-	-	0.073
99	DARRELL D. & CAROL M. JANSEN	TLE	-	-	0.077
101	GREG C. SYRING	TLE	-	-	0.121
102	TODHALL TRUST	TLE	-	-	0.064
103	GLEN C. JR. & BONNIE M. BRUSS	TLE	-	-	0.045
104	NHPCO WIS. LLC	TLE	-	-	0.141
106	D & M PROPERTIES LLC	TLE	-	-	0.067
107	PAUL M. VANCE	TLE	-	-	0.071
108	TIMOTHY R. & SANDRA L. GOSS	TLE	-	-	0.079
109	ST. JOHNS CEMETERY	TLE	-	-	0.035

*OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND INTERESTS TO THE WISCONSIN DEPARTMENT OF TRANSPORTATION.



I, GARY R. SPLINTER, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTIONS OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION, I HAVE SURVEYED TRANSPORTATION PROJECT PLAT 1517-07-21-4.16 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.



SIGNATURE *Gary R. Splinter* DATE 01/27/14
GARY R. SPLINTER, R.L.S. S-2239

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

SIGNATURE *Curt Van Erum* DATE 02/06/14
PRINT CURT VAN EREM

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 1517-07-21-4.16
AMENDMENT NO:

ACCEPTED FOR RECORDING AND FILING IN THE OFFICE OF THE REGISTER OF DEEDS IN WINNEBAGO COUNTY, WISCONSIN AT 10:16 AM ON 2/25/2014 AS DOCUMENT # 1658572 AND FILED IN FILE 106 TPP 238

SIGNATURE *Julie Pagel*
SIGNATURE OF REGISTER OF DEEDS

1658572

COURSE TABLE US 10/STH 441 REFERENCE LINE

POINT TO POINT	BEARING	DISTANCE
2017036	930	N89°47'10"W 1575.71
DB930	DB954	N22°19'46"E 195.07
DB954	DB955	CURVE C1
DB955	2017036	S00°08'55"E 1429.26

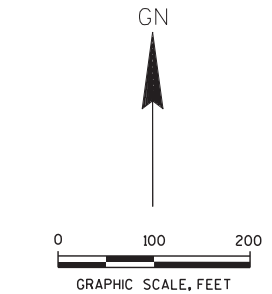
COURSE TABLE MIDWAY ROAD REFERENCE LINE

POINT TO POINT	BEARING	DISTANCE
DB961	DB994	CURVE C4 226.32
DB994	DB995	N87°57'40"E
DB995	DB996	CURVE C5
DB996	DB997	S89°47'10"E 203.32

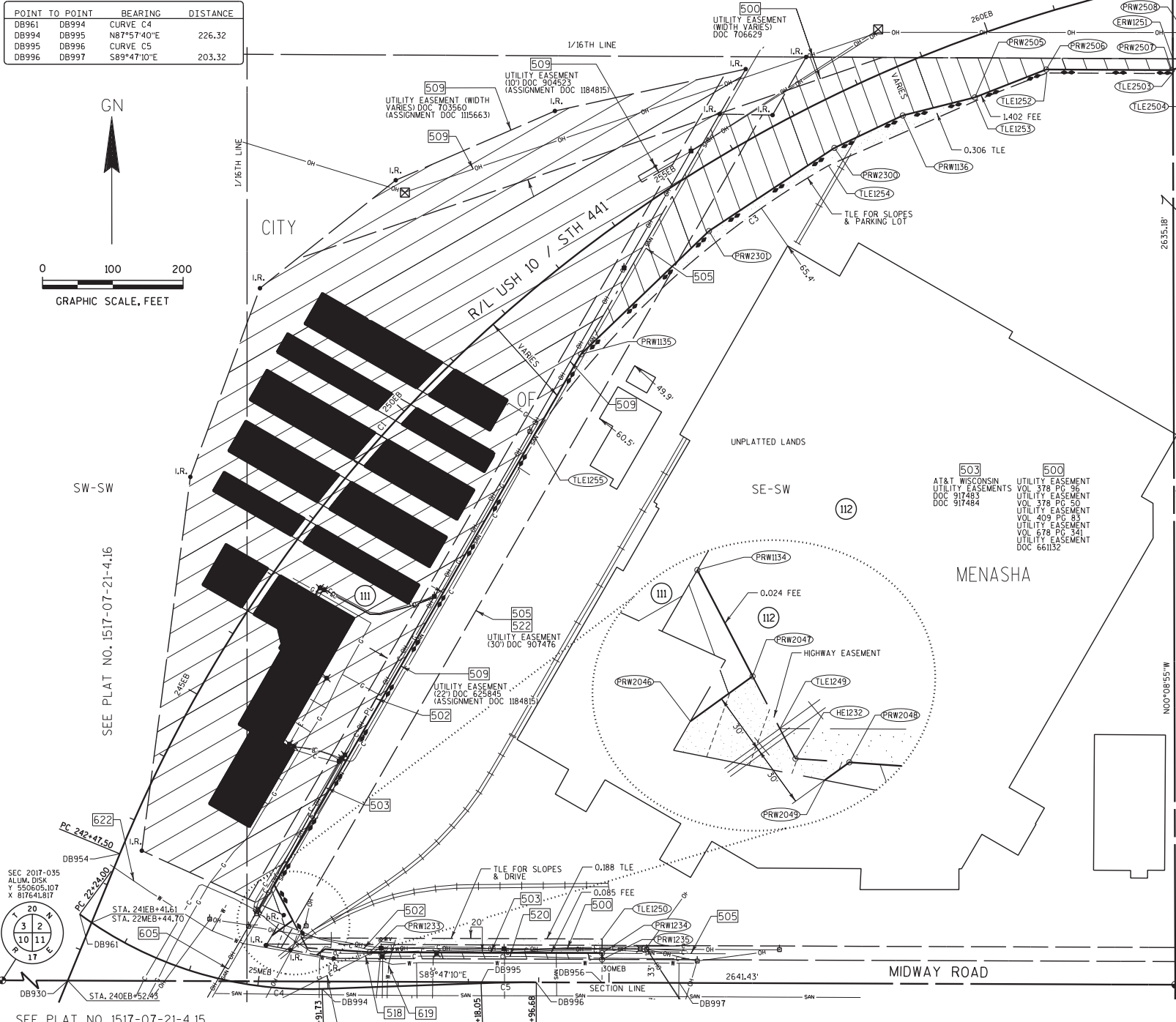
SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	*OWNER	INTEREST REQUIRED	R/W ACRES	P.L.E. ACRES	T.L.E. ACRES	H.E. ACRES
111	ESTATE HOLDINGS, INC. VENDOR: AMERICAN MINI LLC PURCHASER	FEE	9.780	-	-	-
112	GEORGE BANTA PUBLISHING, INC.	FEE, HE, TLE	1.511	-	0.494	0.037

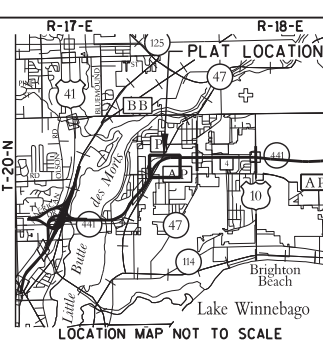
*OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND INTERESTS TO THE WISCONSIN DEPARTMENT OF TRANSPORTATION.



4



SEE PLAT NO. 1517-07-21-4.15



FILE NAME : S:\DOT\DOT_NEX120012-Tr1 County Freeway\Plat\Plats\040417.RP.dgn
APPRaisal PLAT DATE :

STATION OFFSET TABLE MIDWAY ROAD

POINT	STATION	OFFSET	X	Y
DB956	29+90.00	0	819467.553	550598.294
DB961	22+24.00	0	818724.508	550695.549
DB994	25+91.73	0	819069.439	550589.337
DB995	28+18.05	0	819295.614	550597.390
DB996	28+96.68	0	819374.237	550598.642
DB997	31+00.00	0	819577.552	550597.883
HE1232	25+70.02	58.68 L	819047.968	550647.674
PRW1233	26+61.13	49.75 L	819137.024	550641.528
PRW1234	29+90.00	42.00 L	819467.710	550640.294
PRW1235	29+90.00	33.00 L	819467.676	550631.294
TLE1249	25+61.43	72.81 L	819040.570	550661.888
TLE1250	29+90.00	62.00 L	819467.784	550660.293
PRW2046	25+12.25	73.53 L	818998.077	550665.341
PRW2047	25+45.13	97.22 L	819027.630	550686.752
PRW2048	25+97.82	56.39 L	819073.525	550645.910
PRW2049	25+85.27	48.31 L	819061.834	550637.441

STATION OFFSET TABLE

POINT	STATION	OFFSET	X	Y
DB930	240+52.43	0	818707.537	550601.130
DB954	242+47.50	0	818781.651	550781.575
DB955	262+73.50	0	820279.524	552024.500
PRW1134	242+94.89	219.70 R	819001.419	550737.114
PRW1135	252+45.29	114.26 R	819437.665	551492.511
PRW1136	258+41.51	66.94 R	819895.488	551832.300
ERW1251	262+49.89	109.28 R	820279.814	551912.833
TLE1252	262+60.78	82.48 R	820100.536	551892.718
TLE1253	259+49.80	86.82 R	819999.555	551853.194
TLE1254	257+10.58	85.98 R	819789.807	551760.953
TLE1255	251+08.79	155.75 R	819370.575	551376.339
PRW2300	257+30.36	67.36 R	819798.339	551786.185
PRW2301	255+08.56	81.45 R	819619.789	551667.850
TLE2503	262+44.43	129.64 R	820279.165	551891.836
TLE2504	263+49.67	121.24 R	820337.520	551912.393
PRW2505	259+50.07	81.81 R	819998.031	551857.966
PRW2506	260+63.42	77.42 R	820099.604	551897.722
PRW2507	262+44.70	124.58 R	820278.322	551896.840
PRW2508	262+94.34	118.34 R	820322.788	551912.505

COURSE TABLE NEW RIGHT OF WAY

POINT TO POINT	BEARING	DISTANCE
2017036	DB956	N89°47'10"W 815.69
DB956	DB930	N89°47'10"W 760.02
DB930	DB954	N22°19'46"E 195.07
DB954	DB955	CURVE C1
DB955	PRW2508	S21°07'18"E 120.06
PRW2508	PRW2507	S70°35'37"W 47.14
PRW2507	PRW2506	N89°43'02"W 178.72
PRW2506	PRW2505	S68°37'28"W 109.08
PRW2505	PRW1136	S75°56'51"W 105.71
PRW1136	PRW2300	S64°36'26"W 107.54
PRW2300	PRW2301	S56°27'55"W 214.20
PRW2301	PRW1135	S46°05'15"W 252.81
PRW1135	PRW1134	S30°00'24"W 872.32
PRW1134	HE1232	S27°29'40"E 100.83
HE1232	PRW1233	S86°03'06"E 89.27
PRW1233	PRW1234	S89°47'10"E 330.69
PRW1234	DB956	S 0°12'50" W 42.00

TRANSPORTATION PROJECT PLAT NO: 1517-07-21 - 4.17 AMENDMENT NO. 3

US 10 / STH 441, CTH CB - S. ONEIDA ST.
AMENDS UTILITY NUMBER 522 AND ADDS UTILITY NUMBERS 518, 618, AND 619 TO TPP 1517-07-21- 4.17 RECORDED AS DOCUMENT 1658573.

PART OF THE SE 1/4 OF THE SW 1/4, THE SW 1/4 OF THE SW 1/4 AND THE SW 1/4 OF THE SE 1/4 OF SECTION 20, TOWNSHIP 20 NORTH, RANGE 17 EAST, CITY OF MENASHA, WINNEBAGO COUNTY, WISCONSIN.

RELOCATION ORDER US 10/STH 441 WINNEBAGO 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 NAMED PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SUBSECTIONS 84.02 (3), 84.09 AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAY OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE NAMED PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SUBSECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES. WINNEBAGO COUNTY, NAD 83 (9) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

RIGHT OF WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS AND ARE REFERENCED TO THE US PUBLIC LAND SURVEY OR OTHER SURVEYS OF PUBLIC RECORD.

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

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 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 HEREIN, 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 HIGHWAY EASEMENT (HE) IS AN EASEMENT FOR HIGHWAY PURPOSES, AS LONG AS SO USED, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE.

RIGHT OF WAY MONUMENTS ARE TYPE 2 MONUMENTS (TYPICALLY 1" X 24" IRON PIPE) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

EXISTING RIGHT OF WAY WAS REESTABLISHED UNDER PROJECT: TRANSPORTATION PROJECT PLAT NO. 1517-07-00-4.11, DOCUMENT NO. 1590516, FILED IN FILE 1, TPP PG 201.

EXISTING ACCESS CONTROL WAS ACQUIRED UNDER PROJECT 4685-04-00: STH 441 IN WINNEBAGO COUNTY WAS DESIGNATED AS A FREEWAY UNDER SECTION 84.295 OF THE WISCONSIN STATE STATUTES BY THE WISCONSIN DEPARTMENT OF TRANSPORTATION ON JUNE 26, 1986.

THE REFERENCE LINE SHOWN ON THIS PLAT MAY NOT BE THE SAME AS THE REFERENCE LINE SHOWN ON THE CONSTRUCTION PLAN.

SCHEDULE OF UTILITIES & INTERESTS REQUIRED

UTILITY NUMBER	*OWNER	INTEREST REQUIRED
500	WE ENERGIES - ELECTRIC	RELEASE OF RIGHTS
502	TIME WARNER	RELEASE OF RIGHTS
503	AT&T WISCONSIN	RELEASE OF RIGHTS
505	TOWN OF MENASHA - SANITARY SEWER	RELEASE OF RIGHTS
509	AMERICAN TRANSMISSION COMPANY	RELEASE OF RIGHTS
518	MENASHA UTILITIES - ELECTRIC	RELEASE OF RIGHTS
520	TDS METROCOM	RELEASE OF RIGHTS
522	TOWN OF MENASHA - WATER	RELEASE OF RIGHTS
605	TOWN OF MENASHA - SANITARY SEWER	UTILITY AGREEMENT
618	MENASHA UTILITIES - ELECTRIC	UTILITY AGREEMENT
619	MENASHA UTILITIES - WATER	UTILITY AGREEMENT
622	TOWN OF MENASHA - WATER	UTILITY AGREEMENT

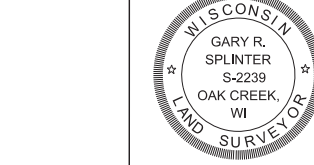
CURVE	CH DISTANCE	CH BEARING	RADIUS	ARC LENGTH	PI COORDINATES
C1	1946.40'	N50°18'52"E	2074.00'	2026.00'	X 819200.359 Y 551801.001
C3	568.93'	S47°27'57"W	1306.25'	573.53'	X 819537.282 Y 551615.417
C4	360.91'	S72°53'07"E	550.00'	367.72'	X 818878.528 Y 550582.540
C5	78.63'	N89°05'15"E	2000.00'	78.64'	X 819334.913 Y 550598.789



QTR 2017-036
ALUM. DISK
Y 550595.250
X 820283.233

I, GARY R. SPLINTER, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTIONS OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION, I HAVE SURVEYED TRANSPORTATION PROJECT PLAT 1517-07-21-4.17 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

SIGNATURE: GARY R. SPLINTER, P.L.S. S-2239 DATE 12/22/2016
THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION
SIGNATURE: CURT VAN EREM DATE 12/23/16



RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 1517-07-21-4.17
AMENDMENT NO: 3

ACCEPTED FOR RECORDING AND FILING IN THE OFFICE OF THE REGISTER OF DEEDS IN WINNEBAGO COUNTY, WISCONSIN AT 1:30 PM ON 12/29/2016 AS DOCUMENT # 1730930 AND FILED IN FILE 1 OF TPP pg. 285

1730930

COURSE TABLE US 10/STH 441 REFERENCE LINE

POINT TO POINT	BEARING	DISTANCE
2017036	930	N89°47'10"W 1575.71
DB930	DB954	N22°19'46"E 195.07
DB954	DB955	CURVE C1
DB955	2017036	S00°08'55"E 1429.26

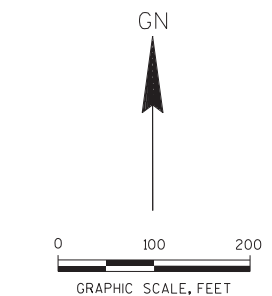
COURSE TABLE MIDWAY ROAD REFERENCE LINE

POINT TO POINT	BEARING	DISTANCE
DB961	DB994	CURVE C4
DB994	DB995	N87°57'40"E 226.32
DB995	DB996	CURVE C5
DB996	DB997	S89°47'10"E 203.32

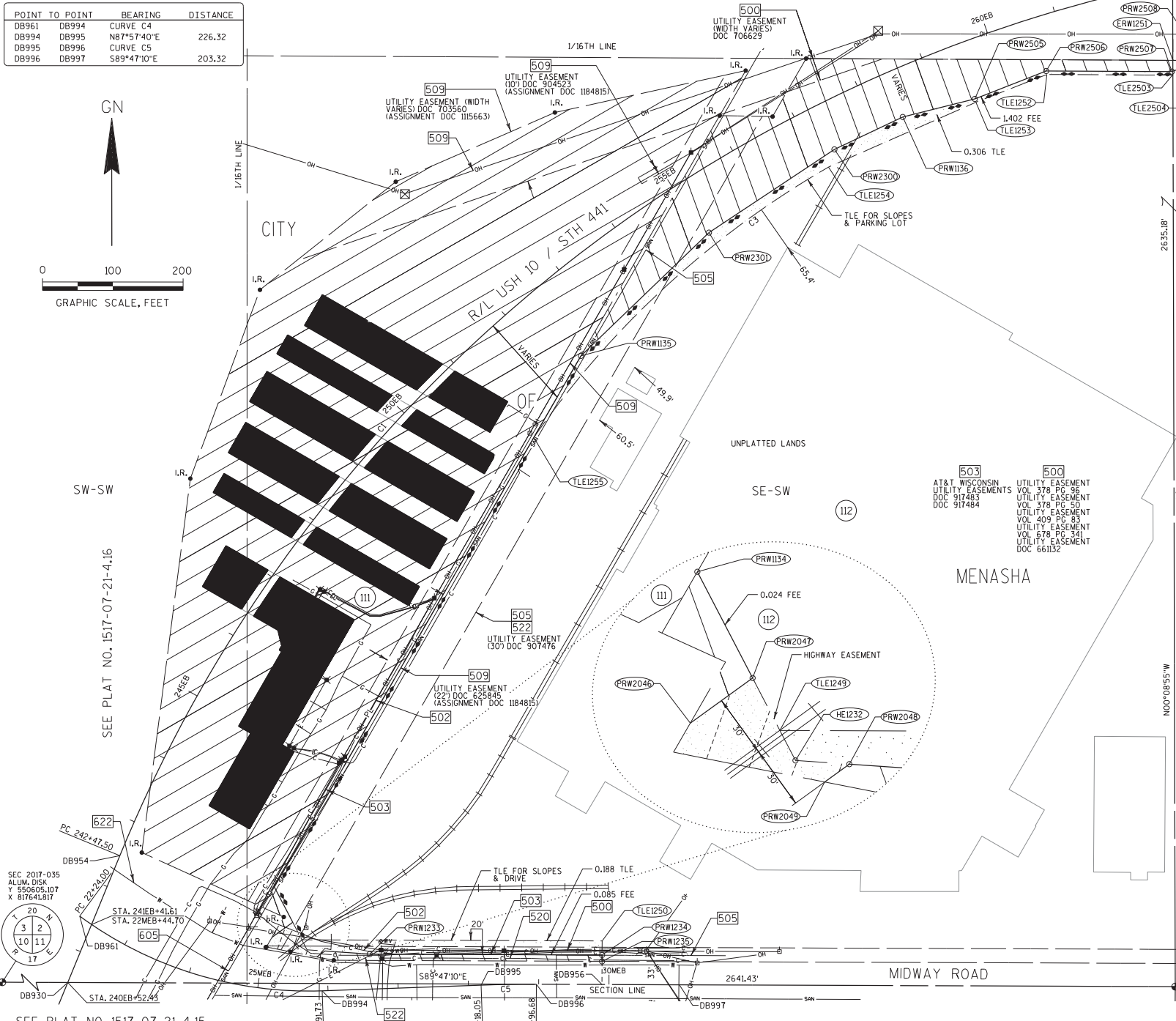
SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	*OWNER	INTEREST REQUIRED	R/W ACRES	P.L.E. ACRES	T.L.E. ACRES	H.E. ACRES
111	ESTATE HOLDINGS, INC. VENDOR: AMERICAN MINI LLC PURCHASER	FEE	9.780	-	-	-
112	GEORGE BANTA PUBLISHING, INC.	FEE, HE, TLE	1.511	-	0.494	0.037

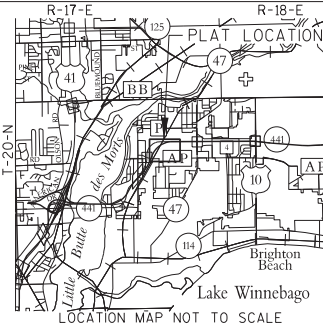
*OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND INTERESTS TO THE WISCONSIN DEPARTMENT OF TRANSPORTATION.



4



SEE PLAT NO. 1517-07-21-4.15



FILE NAME : S:\DOT\DOT_NEX\20012-Tr1 County Freeway\Plat\Plats\040417_RP.dgn
APPRaisal PLAT DATE :

STATION OFFSET TABLE MIDWAY ROAD

POINT	STATION	OFFSET	X	Y
DB956	29+90.00	0	819467.553	550598.294
DB961	22+24.00	0	818724.508	550695.549
DB994	25+91.73	0	819069.439	550589.337
DB995	28+18.05	0	819295.614	550597.390
DB996	28+96.68	0	819374.237	550596.842
DB997	31+00.00	0	819577.552	550597.883
HE1232	25+70.02	58.68 L	819047.968	550647.674
PRW1233	26+61.13	49.75 L	819137.024	550641.528
PRW1234	29+90.00	42.00 L	819467.710	550640.294
PRW1235	29+90.00	33.00 L	819467.676	550631.294
TLE1249	25+61.43	72.81 L	819040.570	550661.888
PRW1250	29+90.00	62.00 L	819467.784	550660.293
PRW2046	25+12.25	73.53 L	818998.077	550665.341
PRW2047	25+45.13	97.22 L	819027.630	550686.752
PRW2048	25+97.82	56.39 L	819073.525	550645.910
PRW2049	25+85.27	48.31 L	819061.834	550637.441

STATION OFFSET TABLE

POINT	STATION	OFFSET	X	Y
DB930	240+52.43	0	818707.537	550601.130
DB954	242+47.50	0	818781.651	550781.575
DB955	262+73.50	0	820279.524	552024.500
PRW1134	242+94.89	219.70 R	819001.419	550737.114
PRW1135	252+45.29	114.26 R	819437.665	551492.511
PRW1136	258+41.51	66.94 R	819895.488	551832.300
ERW1251	262+49.89	109.28 R	820279.814	551912.833
TLE1252	262+60.78	82.48 R	820100.536	551892.718
TLE1253	259+49.80	86.82 R	819999.555	551853.194
TLE1254	257+10.58	85.98 R	819789.807	551760.953
TLE1255	251+08.79	155.75 R	819370.575	551376.339
PRW2300	257+30.36	67.36 R	819798.339	551786.185
PRW2301	255+08.56	81.45 R	819619.789	551667.850
TLE2503	262+44.43	129.64 R	820279.165	551891.836
TLE2504	263+09.67	121.24 R	820337.520	551912.393
PRW2505	259+50.07	81.81 R	819998.031	551857.966
PRW2506	260+63.42	77.42 R	820099.604	551897.722
PRW2507	262+44.70	124.58 R	820278.322	551896.840
PRW2508	262+94.34	118.34 R	820322.788	551912.505

COURSE TABLE NEW RIGHT OF WAY

POINT TO POINT	BEARING	DISTANCE
2017036	DB956	N89°47'10"W 815.69
DB956	DB930	N89°47'10"W 760.02
DB930	DB954	N22°19'46"E 195.07
DB954	DB955	CURVE C1
DB955	PRW2508	S21°07'18"E 120.06
PRW2508	PRW2507	S70°35'37"W 47.14
PRW2507	PRW2506	N89°43'02"W 178.72
PRW2506	PRW2505	S68°37'28"W 109.08
PRW2505	PRW1136	S75°56'51"W 105.71
PRW1136	PRW2300	S64°36'26"W 107.54
PRW2300	PRW2301	S56°27'55"W 214.20
PRW2301	PRW1135	S46°05'15"W 252.81
PRW1135	PRW1134	S30°00'24"W 872.32
PRW1134	HE1232	S27°29'40"E 100.83
HE1232	PRW1234	S86°03'06"E 89.27
PRW1234	PRW1233	S89°47'10"E 330.69
PRW1233	DB956	S 0°12'50" W 42.00

TRANSPORTATION PROJECT PLAT NO: 1517-07-21 - 4.17 AMENDMENT NO. 2 US 10 / STH 441, CTH CB - S. ONEIDA ST. AMENDS PARCEL 112 OF TPP 1517-07-21- 4.17 AMENDMENT NO. 1, RECORDED AS DOCUMENT 1704427.

PART OF THE SE 1/4 OF THE SW 1/4, THE SW 1/4 OF THE SW 1/4 AND THE SW 1/4 OF THE SE 1/4 OF SECTION 20, TOWNSHIP 20 NORTH, RANGE 17 EAST, CITY OF MENASHA, WINNEBAGO COUNTY, WISCONSIN.

RELOCATION ORDER US 10/STH 441 WINNEBAGO 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 NAMED PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SUBSECTIONS 84.02 (3), 84.09 AND 84.30, 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 NAMED 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 SUBSECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

NOTES:
POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES. WINNEBAGO COUNTY, NAD 83 (9) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.
RIGHT OF WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS AND ARE REFERENCED TO THE US PUBLIC LAND SURVEY OR OTHER SURVEYS OF PUBLIC RECORD.

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

PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPANCY LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY 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 HEREIN, 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 HIGHWAY EASEMENT (HE) IS AN EASEMENT FOR HIGHWAY PURPOSES, AS LONG AS SO USED, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE.

RIGHT OF WAY MONUMENTS ARE TYPE 2 MONUMENTS (TYPICALLY 1" X 24" IRON PIPE) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

EXISTING RIGHT OF WAY WAS REESTABLISHED UNDER PROJECT: TRANSPORTATION PROJECT PLAT NO. 1517-07-00-4.11, DOCUMENT NO. 1590516, FILED IN FILE 1, TPP PG 201.

EXISTING ACCESS CONTROL WAS ACQUIRED UNDER PROJECT 4685-04-00: STH 441 IN WINNEBAGO COUNTY WAS DESIGNATED AS A FREEWAY UNDER SECTION 84.295 OF THE WISCONSIN STATE STATUTES BY THE WISCONSIN DEPARTMENT OF TRANSPORTATION ON JUNE 26, 1986.

THE REFERENCE LINE SHOWN ON THIS PLAT MAY NOT BE THE SAME AS THE REFERENCE LINE SHOWN ON THE CONSTRUCTION PLAN.

SCHEDULE OF UTILITIES & INTERESTS REQUIRED

UTILITY NUMBER	*OWNER	INTEREST REQUIRED
500	WE ENERGIES - ELECTRIC	RELEASE OF RIGHTS
502	TIME WARNER	RELEASE OF RIGHTS
503	AT&T WISCONSIN	RELEASE OF RIGHTS
505	TOWN OF MENASHA - SANITARY SEWER	RELEASE OF RIGHTS
509	AMERICAN TRANSMISSION COMPANY	RELEASE OF RIGHTS
520	TDS METROCOM	RELEASE OF RIGHTS
522	MENASHA UTILITIES - WATER	RELEASE OF RIGHTS
605	TOWN OF MENASHA - SANITARY SEWER	UTILITY AGREEMENT
622	TOWN OF MENASHA - WATER	UTILITY AGREEMENT

CURVE TABLE

CURVE	CH DISTANCE	CH BEARING	RADIUS	ARC LENGTH	PI COORDINATES
C1	1946.40'	N50°18'52"E	2074.00'	2026.00'	X 819200.359 Y 551801.001
C3	568.93'	S47°27'57"W	1306.25'	573.53'	X 819537.282 Y 551615.417
C4	360.91'	S72°53'07"E	550.00'	367.72'	X 818878.528 Y 550582.540
C5	78.63'	N89°05'15"E	2000.00'	78.64'	X 819334.913 Y 550598.789

ACCESS POINT, DRIVEWAY CONNECTION	REFERENCE LINE	R/L
ACCESS RIGHTS	RELEASE OF RIGHTS	ROR
ACRES	REMAINING	REM.
AND OTHERS	RIGHT-OF-WAY	R/W
CENTERLINE	ET. AL.	SEC.
CORNER	SECTION	STA.
CERTIFIED SURVEY MAP	C/L	TLE
COR.	CSM	VOL
DOCUMENT	DOC.	
EASEMENT	EASE.	
HIGHWAY EASEMENT	H.E.	LCH
LAND CONTRACT	LC	LCB
MONUMENT	MON.	R
PAGE	PG	D
PERMANENT LIMITED EASEMENT	PLE	L
PROPERTY LINE	PL	TAN
RECORDED AS	(1001)	

FOUND IRON PIPE/PIN	CONVENTIONAL SYMBOLS	PROPOSED R/W LINE
R/W MONUMENT	UNLESS NOTED	EXISTING H.E. LINE
R/W STANDARD	1/4" IRON PIPE	PROPERTY LINE
SIGN	1/4" IRON PIPE	LOT & TIE LINES
SECTION CORNER MONUMENT	1/4" IRON PIPE	SLOPE INTERCEPTS
SECTION CORNER SYMBOL	1/4" IRON PIPE	CORPORATE LIMITS
FEE (HATCH VARIES)	1/4" IRON PIPE	ACCESS RESTRICTED (BY PREVIOUS ACQUISITION/CONTROL)
TEMPORARY LIMITED EASEMENT	1/4" IRON PIPE	ACCESS RESTRICTED (BY ACQUISITION)
PERMANENT LIMITED EASEMENT	1/4" IRON PIPE	NO ACCESS (BY STATUTORY AUTHORITY)
R/W BOUNDARY POINT	1/4" IRON PIPE	SECTION LINE
PARCEL NUMBER	1/4" IRON PIPE	QUARTER LINE
UTILITY NUMBER	1/4" IRON PIPE	SIXTEENTH LINE
SIGN NUMBER (OFF PREMISE)	1/4" IRON PIPE	EXISTING CENTERLINE
BUILDING	1/4" IRON PIPE	PROPOSED REFERENCE LINE
	1/4" IRON PIPE	PARALLEL OFFSET

CONVENTIONAL UTILITY SYMBOLS	NON COMPENSABLE	COMPENSABLE
WATER	W	
GAS	G	
COMMUNICATION	C	
ELECTRIC OVERHEAD	OH	
ELECTRIC UNDERGROUND	E	
FIBER OPTIC	FO	
SANITARY SEWER	SAN	
STORM SEWER	SS	
POWER POLE	PP	
TELEPHONE POLE	TP	
TELEPHONE PEDESTAL	TPD	
ELECTRIC TOWER	ET	

RL USH-10/STH-441 PI STA. 256+66.08 Y : 552084.530 X : 819316.813 DELTA = 68°21'56" D = 2°45'45" T = 1408.58 L = 367.72 R = 2074.00	RL MIDWAY ROAD PI STA. 24+15.03 Y : 550582.540 X : 818878.528 DELTA = 38°18'27" D = 10°25'03" T = 19.03 L = 78.64 R = 550.00	RL MIDWAY ROAD PI STA. 28+57.37 Y : 550598.789 X : 819334.913 DELTA = 2°15'10" D = 2°32'15" T = 39.32 L = 78.64 R = 2000.00
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SIGNATURE: GARY R. SPLINTER, P.L.S. S-2239 DATE 08/30/2016

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

SIGNATURE: CURT VAN EREM DATE 09/08/2016

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 1517-07-21-4.17
AMENDMENT NO: 2

ACCEPTED FOR RECORDING AND FILING IN THE OFFICE OF THE REGISTER OF DEEDS IN WINNEBAGO COUNTY, WISCONSIN AT 3:50 PM ON 9/19/2016 AS DOCUMENT # J123310 AND FILED IN FILE 1 OF TPPs TO 282

Christy Jensen
REGISTER OF DEEDS

COURSE TABLE US 10/STH 441 REFERENCE LINE

POINT TO POINT	BEARING	DISTANCE
2017036	930	N89°47'10"W 1575.71
DB930	DB954	N22°19'46"E 195.07
DB954	DB955	CURVE C1
DB955	2017036	S00°08'55"E 1429.26

COURSE TABLE MIDWAY ROAD REFERENCE LINE

POINT TO POINT	BEARING	DISTANCE
DB961	DB994	CURVE C4
DB994	DB995	N87°57'40"E 226.32
DB995	DB996	CURVE C5
DB996	DB997	S89°47'10"E 203.32

SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	*OWNER	INTEREST REQUIRED	NEW R/W ACRES	P.L.E. ACRES	T.L.E. ACRES	H.E. ACRES
111	ESTATE HOLDINGS, INC. VENDOR: AMERICAN MINI LLC PURCHASER	FEE	9.780	-	-	-
112	GEORGE BANTA PUBLISHING, INC.	FEE, HE, TLE	1.195	-	0.758	0.037

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

TRANSPORTATION PROJECT PLAT NO: 1517-07-21 - 4.17

US 10 / STH 441, CTH CB - S. ONEIDA ST.

PART OF THE SE 1/4 OF THE SW 1/4 AND THE SW 1/4 OF THE SW 1/4 OF SECTION 2, TOWNSHIP 20 NORTH, RANGE 17 EAST, CITY OF MENASHA, WINNEBAGO COUNTY, WISCONSIN.

RELOCATION ORDER US 10/STH 441 WINNEBAGO 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 NAMED PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SUBSECTIONS 84.02 (3), 84.09 AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:

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

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, WINNEBAGO COUNTY, NAD 83 (90) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

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CONVENTIONAL ABBREVIATIONS

ACCESS POINT/ DRIVEWAY CONNECTION	AP	REFERENCE LINE	R/L
ACCESS RIGHTS	AR	RELEASE OF RIGHTS	ROR
ACRES	AC.	REMAINING	REM.
AND OTHERS	ET.AL.	RIGHT-OF-WAY	R/W
CENTERLINE	C/L	SECTION	SEC.
CERTIFIED SURVEY MAP	CSM	STATION	STA.
CORNER	COR.	TEMPORARY LIMITED EASEMENT	TLE
DOCUMENT	DOC.	VOLUME	VOL
EASEMENT	EASE.	<u>CURVE DATA</u>	
HIGHWAY EASEMENT	H.E.	LONG CHORD	LCH
LAND CONTRACT	L.C	LONG CHORD BEARING	LCH
MONUMENT	MON.	RADIUS	R
PAGE	PG.	DEGREE OF CURVE	D
PERMANENT LIMITED EASEMENT	PLE	CENTRAL ANGLE OR DELTA	DELTA
PROPERTY LINE	PL	LENGTH OF CURVE	L
RECORDED AS	(1001)	TANGENT	TAN

CONVENTIONAL SYMBOLS

FOUND IRON PIPE/PIN	IR	PROPOSED R/W LINE	---
R/W MONUMENT	MON	EXISTING H.E. LINE	---
R/W STANDARD	ST	PROPERTY LINE	---
SIGN	SIGN	LOT & TIE LINES	---
SECTION CORNER MONUMENT	SCM	SLOPE INTERCEPTS	---
SECTION CORNER SYMBOL	SCS	CORPORATE LIMITS	---
FEE (HATCH VARIES)	FEE	ACCESS RESTRICTED (BY PREVIOUS ACQUISITION/CONTROL)	---
TEMPORARY LIMITED EASEMENT	TLE	ACCESS RESTRICTED (BY ACQUISITION)	---
PERMANENT LIMITED EASEMENT	PLE	NO ACCESS (BY STATUTORY AUTHORITY)	---
R/W BOUNDARY POINT	RWB	SECTION LINE	---
PARCEL NUMBER	PN	QUARTER LINE	---
UTILITY NUMBER	UN	SIXTEENTH LINE	---
SIGN NUMBER (OFF PREMISE)	SN	EXISTING CENTERLINE	---
BUILDING	B	PROPOSED REFERENCE LINE	---
		PARALLEL OFFSET	---

CONVENTIONAL UTILITY SYMBOLS

WATER	W	NON COMPENSABLE	---
GAS	G	COMPENSABLE	---
COMMUNICATION	C	COMPENSABLE	---
ELECTRIC OVERHEAD	OH	COMPENSABLE	---
ELECTRIC UNDERGROUND	E	COMPENSABLE	---
FIBER OPTIC	FO	COMPENSABLE	---
SANITARY SEWER	SAN	COMPENSABLE	---
STORM SEWER	SS	COMPENSABLE	---
POWER POLE	PP	COMPENSABLE	---
TELEPHONE POLE	TP	COMPENSABLE	---
TELEPHONE PEDESTAL	TPD	COMPENSABLE	---
ELECTRIC TOWER	ET	COMPENSABLE	---

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SCHEDULE OF UTILITIES & INTERESTS REQUIRED

UTILITY NUMBER	*OWNER	INTEREST REQUIRED
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502	TIME WARNER	RELEASE OF RIGHTS
503	AT&T WISCONSIN	RELEASE OF RIGHTS
505	TOWN OF MENASHA - SANITARY SEWER	RELEASE OF RIGHTS
509	AMERICAN TRANSMISSION COMPANY	RELEASE OF RIGHTS
518	TOWN OF MENASHA - ELECTRIC	RELEASE OF RIGHTS
520	TDS METROCOM	RELEASE OF RIGHTS
522	MENASHA UTILITIES - WATER	RELEASE OF RIGHTS
605	TOWN OF MENASHA - SANITARY SEWER	UTILITY AGREEMENT
622	TOWN OF MENASHA - WATER	UTILITY AGREEMENT

CURVE TABLE

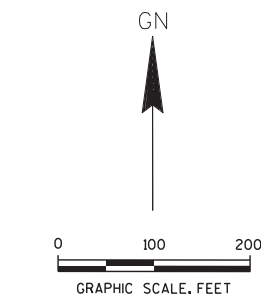
CURVE	CH DISTANCE	CH BEARING	RADIUS	ARC LENGTH	PI COORDINATES
C1	1946.40'	N50°18'52"E	2074.00'	2026.00'	X 819200.359 Y 551801.001
C2	409.03'	S51°54'12"W	1336.25'	410.65'	X 819607.778 Y 551693.333
C3	568.93'	S47°27'57"W	1306.25'	573.53'	X 819537.282 Y 551615.417
C4	360.91'	S72°53'07"E	550.00'	367.72'	X 818878.528 Y 550582.540
C5	78.63'	N89°05'15"E	2000.00'	78.64'	X 819334.913 Y 550598.789

STATION OFFSET TABLE MIDWAY ROAD

POINT	STATION	OFFSET	X	Y
DB956	29+90.00	0	819467.553	550598.294
DB961	22+24.00	0	818724.508	550695.549
DB994	25+91.73	0	819069.439	550589.337
DB995	28+18.05	0	819295.614	550597.390
DB996	28+96.68	0	819374.237	550599.642
DB997	31+00.00	0	819577.552	550597.883
HE1232	25+70.02	58.68 L	819047.968	550647.674
PRW1233	26+61.13	49.75 L	819137.024	550641.528
PRW1234	29+90.00	42.00 L	819467.710	550640.294
PRW1235	29+90.00	33.00 L	819467.676	550631.294
TLE1249	25+61.43	72.81 L	819040.570	550661.888
TLE1250	29+90.00	62.00 L	819467.784	550660.293
PRW2046	25+12.25	73.53 L	818998.077	550665.341
PRW2047	25+45.13	97.22 L	819027.630	550686.752
PRW2048	25+97.82	56.39 L	819073.525	550645.910
PRW2049	25+85.27	48.31 L	819061.834	550637.441

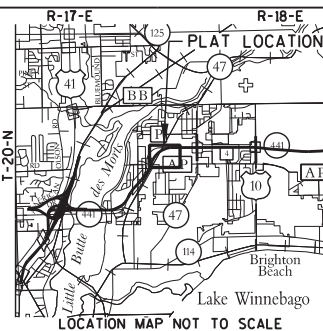
COURSE TABLE NEW RIGHT OF WAY

POINT TO POINT	BEARING	DISTANCE
2017036	DB956	N89°47'10"W 815.69
DB956	DB930	N89°47'10"W 760.02
DB930	DB954	N22°19'46"E 195.07
DB954	DB955	CURVE C1
DB955	PRW1137	S58°57'15"W 214.76
PRW1137	PRW1136	S68°48'13"W 329.55
PRW1136	PRW1135	CURVE C2
PRW1135	PRW1134	S30°00'24"W 929.72
PRW1134	HE1232	S27°29'40"E 100.83
HE1232	PRW1233	S86°03'06"E 89.27
PRW1233	PRW1234	S89°47'10"E 330.69
PRW1234	DB956	S 0°12'50" W 42.00



4

4



FILE NAME : S:\DOT\DOT_NEN\20012-Tr1 County Freeway\Plat\Plats\040417.RP.dgn
APPRaisal PLAT DATE :

PLOT DATE : 2/18/2014

PLOT BY : g.splinter

PLOT NAME :

PLOT SCALE : 1:100

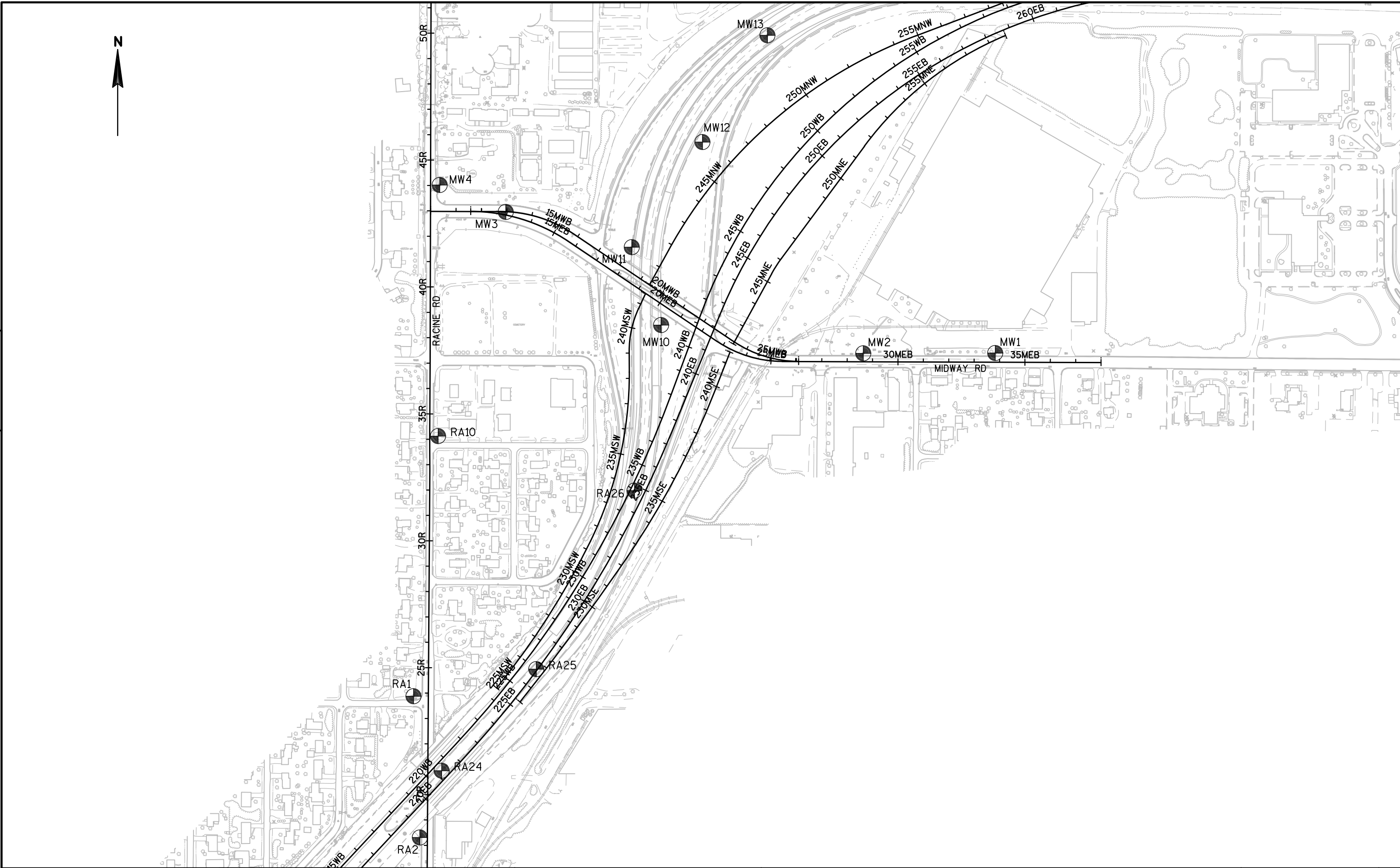
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BENCHMARKS					
NUMBER	STATION	NORTHING	EASTING	DESCRIPTION	ELEVATION
MW1	33EMEB+83.38 35.84' LT	550634.0	819868.0	NW TAG BOLT 1ST HYD WEST OF FATIMA ST ON THE NORTH SIDE OF MIDWAY RD; ACROSS FROM HOUSE #831	796.92
MW2	28EMEB+62.38 33.17' LT	550633.0	819348.0	NW TAG BOLT ON HYD BETWEEN MISSION ST & EARL ST ON NORTH SIDE OF SIDE OF MIDWAY; IN FRONT OF RR DONNELLEY SIGN @ 800 MIDWAY RD	766.56
MW3	12EMEB+94.38 12.29' LT	551190.0	817940.0	PK NAIL SET IT TOP CURB JOINT (CP 1002) +/- 400' EAST OF RACINE RD & MIDWAY RD INTERSECTION; NORTH MEDIAN CURB LINE	759.75
MW4	10EMEB+35.66 103.99' LT	551296.0	817680.0	NE TAG BOLT ON FIRE HYDRANT AT NE QUADRANT OF RACINE RD AND MIDWAY RD	763.31
MW10	20EMEB+53.30 69.66' RT	550744.0	818552.0	3" DISC TOP OF SE PARAPET WALL STR# B-70-111, 441 NB OVER MIDWAY	785.71
MW11	18EMWB+00.16 84.52' LT	551050.9	818436.4	3" DISC TOP OF NW PARAPET WALL STR# B-70-112, 441 SB OVER MIDWAY	792.23
MW12	248TEB+91.10 45.90' RT	551465.1	818714.8	NW BOLT OF WEST SIGN BASE OF "UW FOX VALLEY" EXIT SIGN, 441 NB	777.67
MW13	253TWB+26.98 49.01' RT	551885.6	818970.8	CHISELED SQUARE TOP NW CORNER OF INLET IN MEDIAN OF 441	776.85
RA1	218TEB+59.55 151.34' RT	549282.0	817577.0	NW TAG BOLT ON FIRE HYDRANT AT THE NW QUADRANT OF RACINE RD & GORDON ST AND NORTH OF BRIDGE OVER STH 441	761.71
RA2	221TWB+97.88 231.23' LT	548725.0	817602.0	TOP SE BOLT FOR RAIL ON SW CORNER OF PARAPET WALL ON RACINE RD BRIDGE OVER STH 441, PAINTED WHITE	770.81
RA10	233TWB+32.07 760.83' LT	550306.9	817673.5	NE TAG BOLT ON FIRE HYDRANT AT THE INTERSECTION OF RACINE RD AND SANDLEWOOD ST	763.72
RA24	221TEB+30.19 45.84' RT	548988.4	817687.6	SW BOLT EXISITNG SIGN STR *S-70-17, USH 10 MEDIAN 30' NE OF RACINE RD OVERPASS	749.12
RA25	226TEB+72.43 56.49' RT	549388.3	818060.0	SW BOLT EXISITNG SIGN STR *S-70-155, USH 10 MEDIAN 600' NE OF RACINE RD OVERPASS	752.83
RA26	234TEB+64.71 30.26' RT	550091.7	818446.8	SE CORNER OF INLET, USH 10 MEDIAN, 650' SOUTH OF MIDWAY	761.22

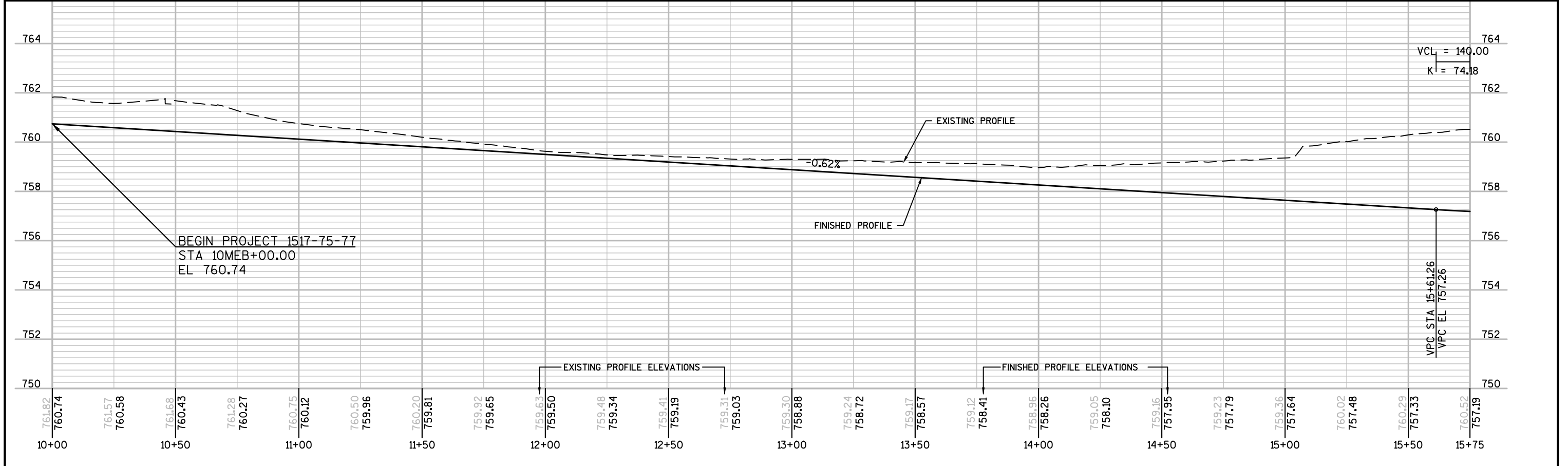
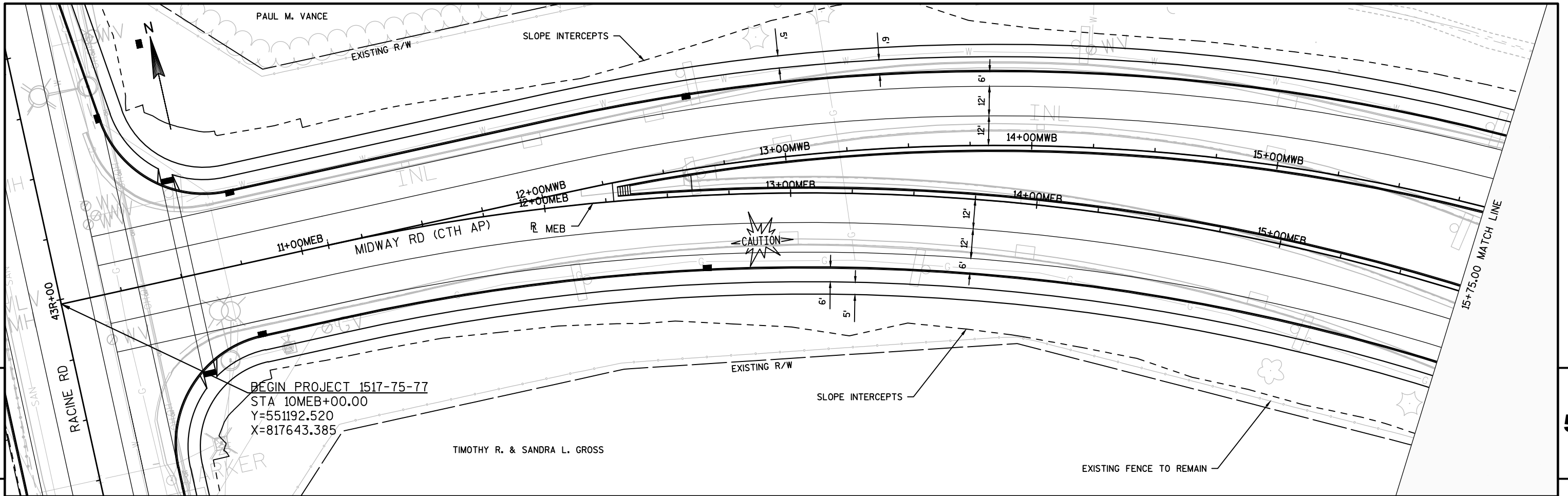


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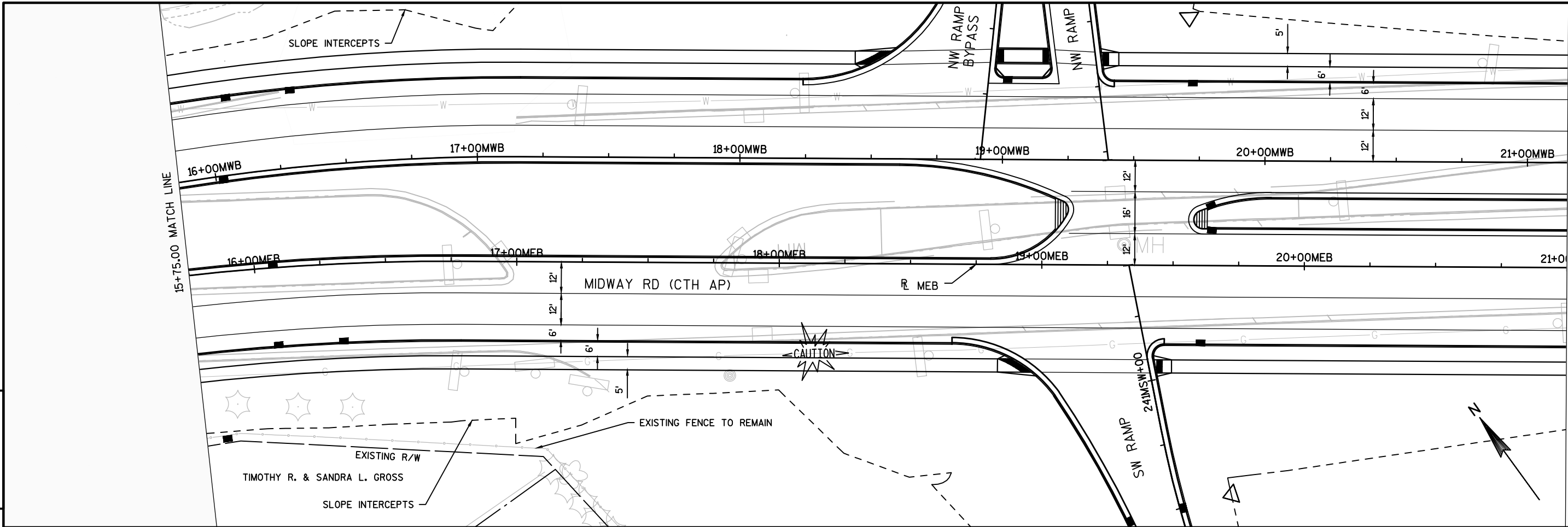
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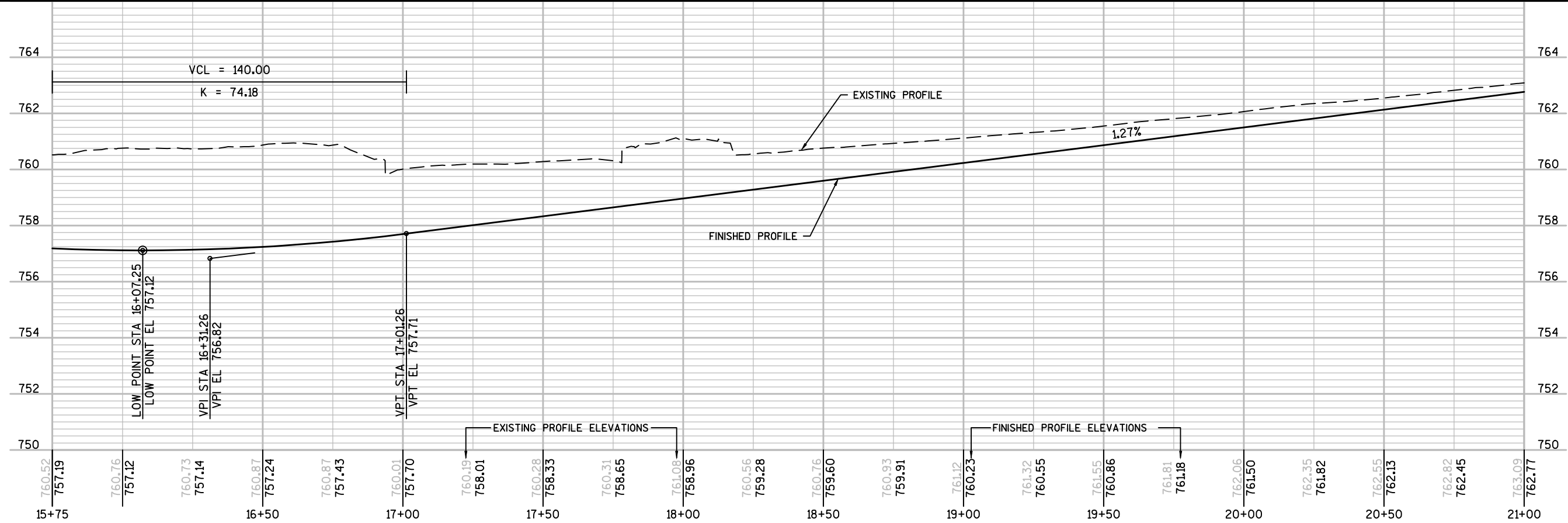
PROJECT NO:1517-75-77	HWY:STH 441/USH 10	COUNTY:WINNEBAGO	BENCHMARKS LOCATIONS	SHEET	E
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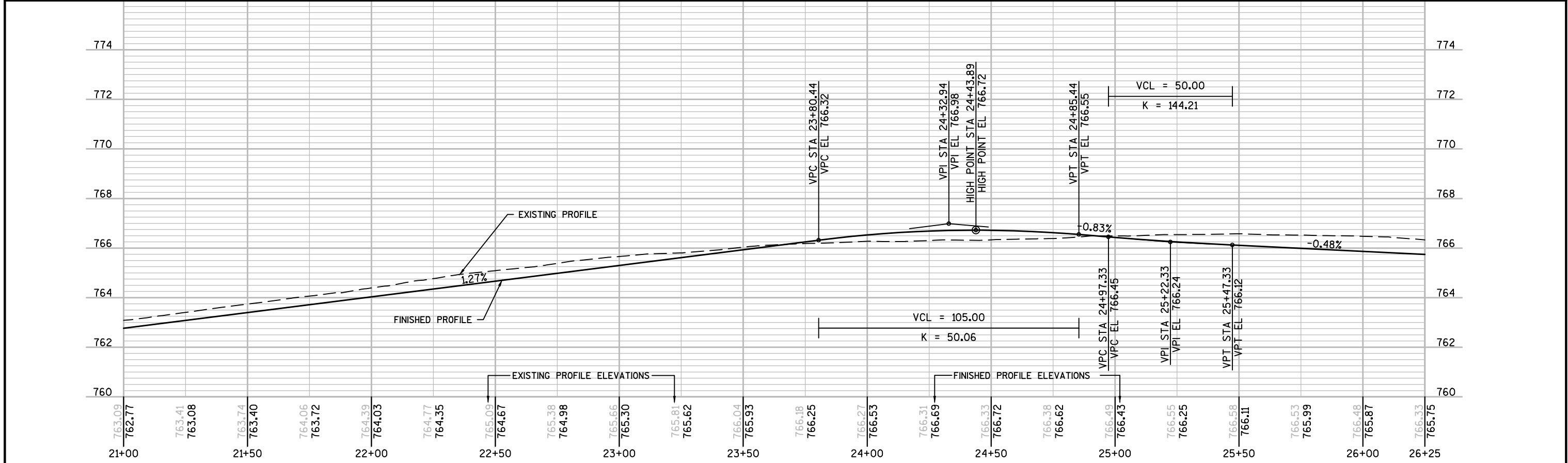
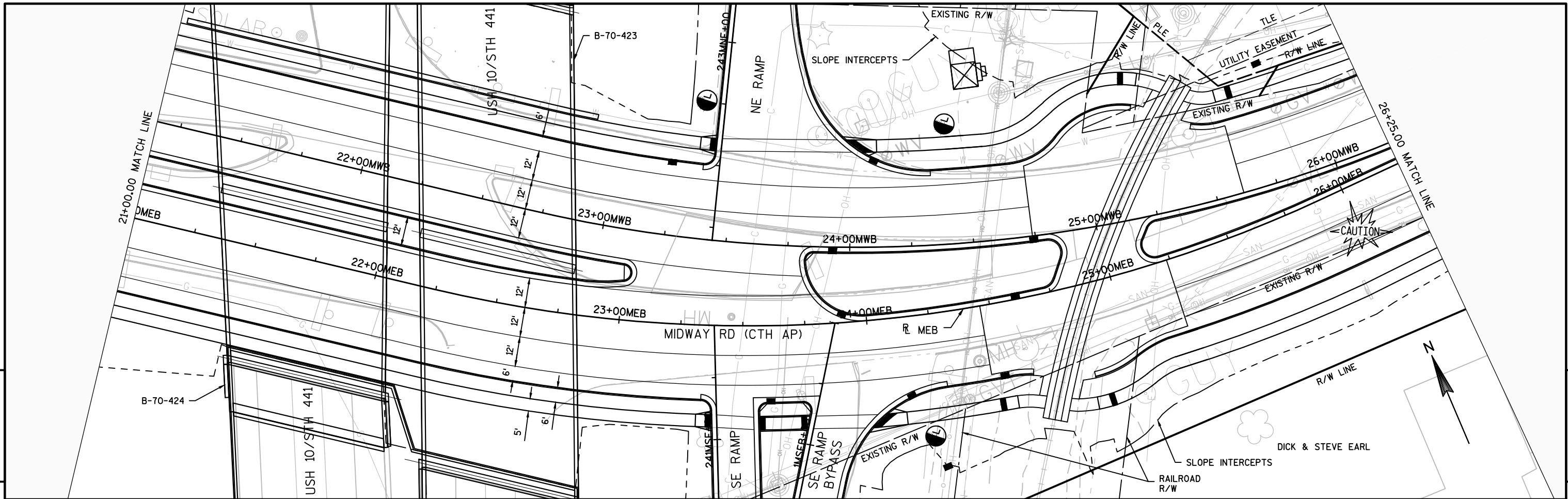


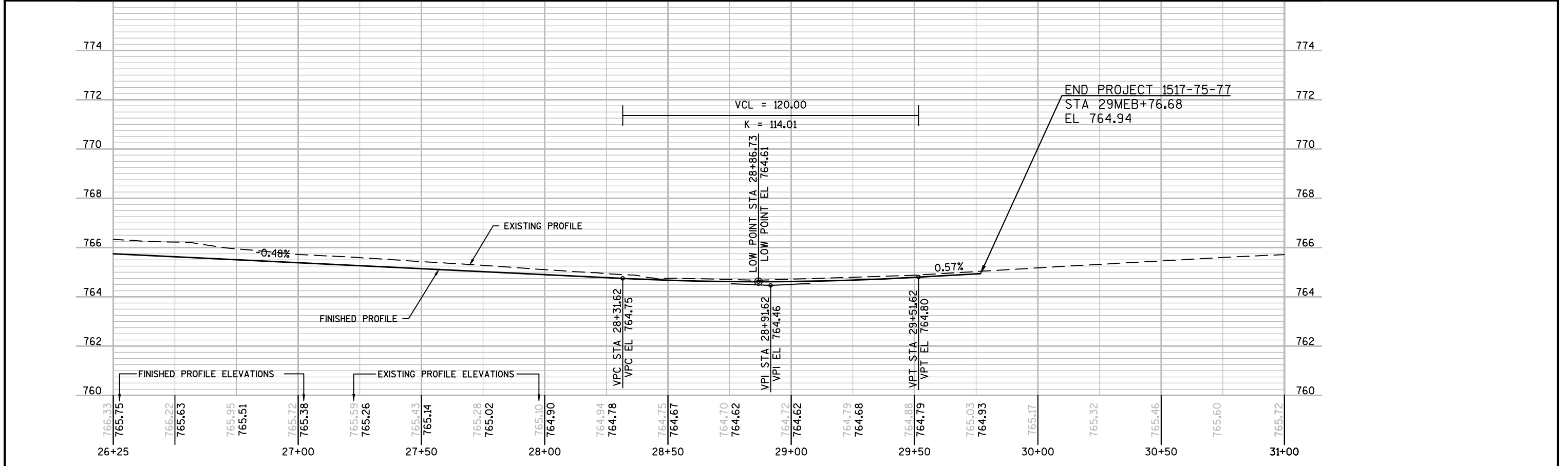
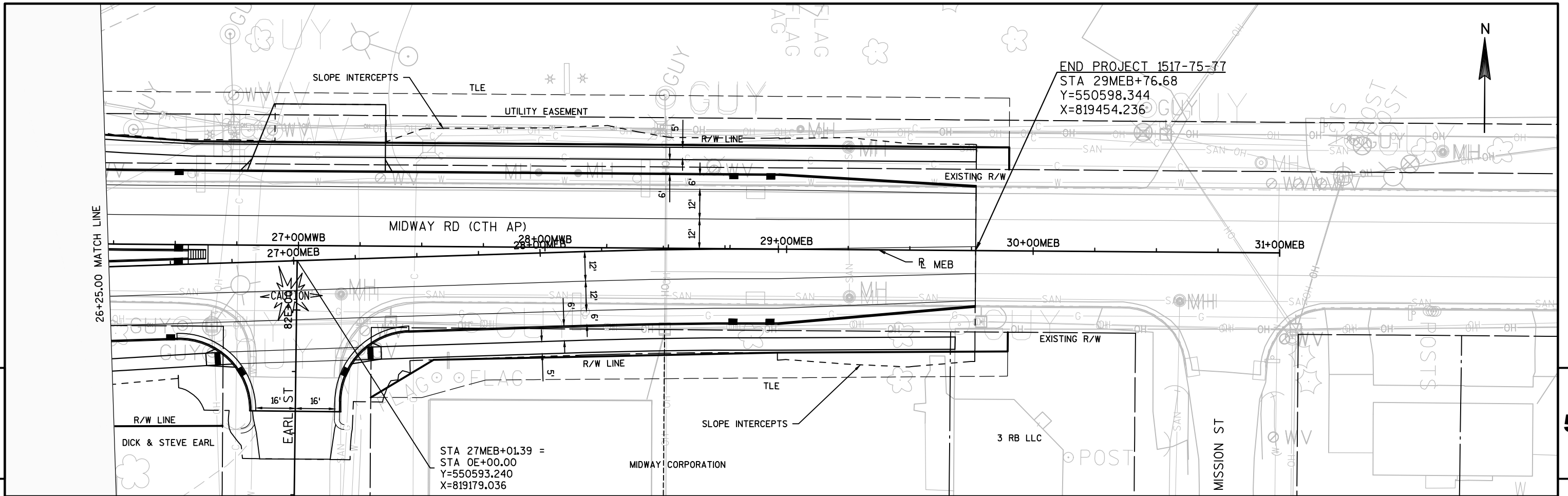
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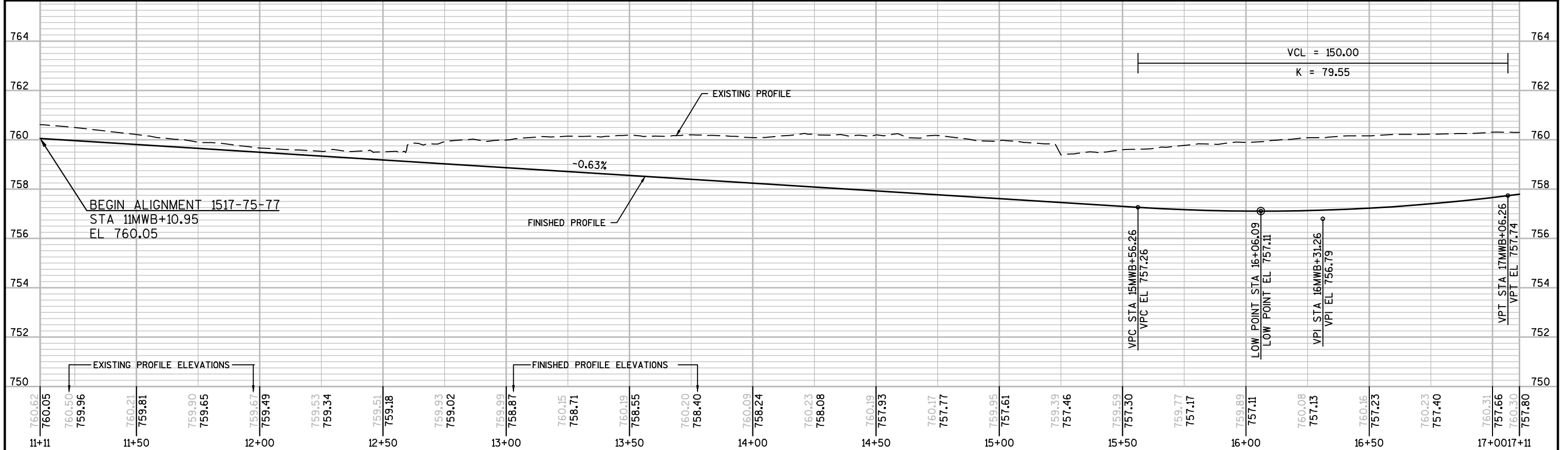
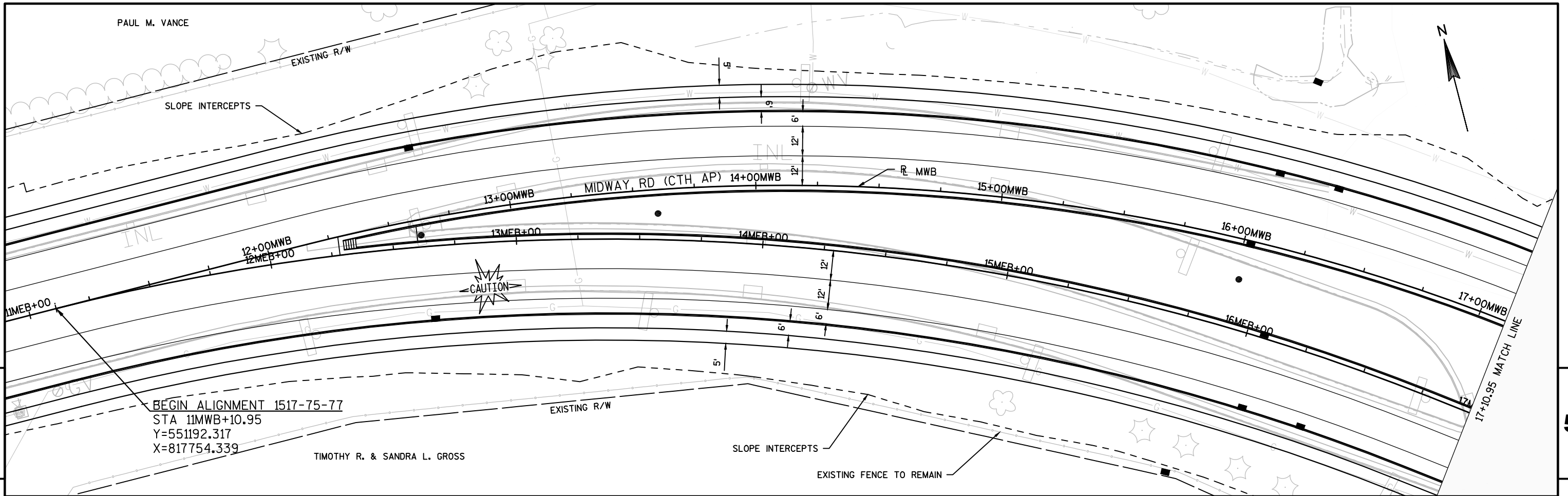


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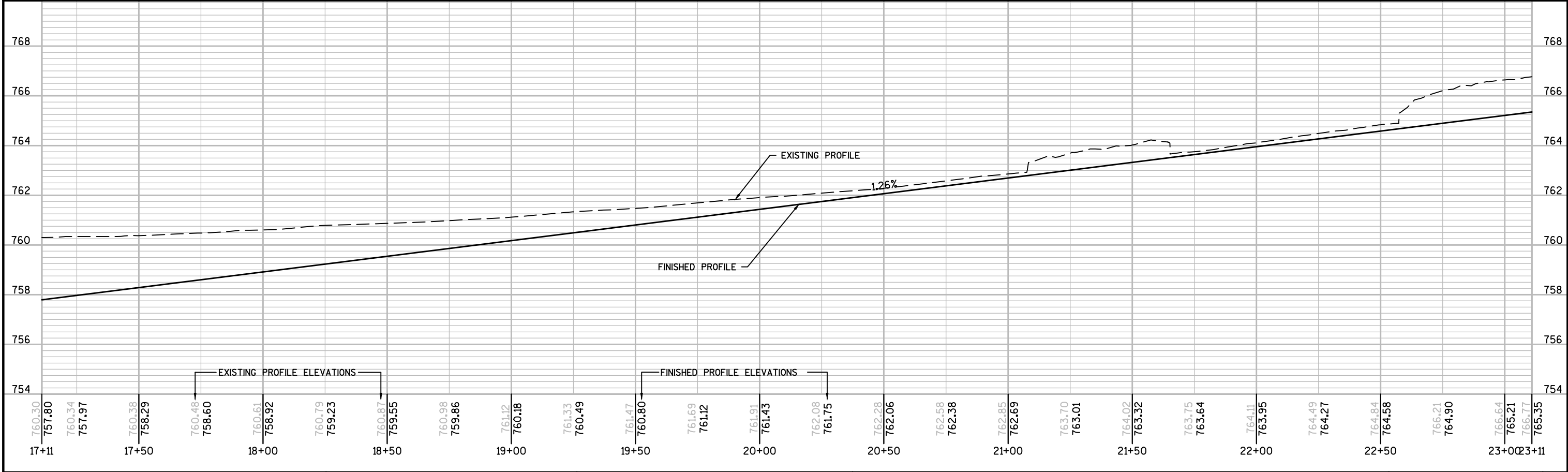
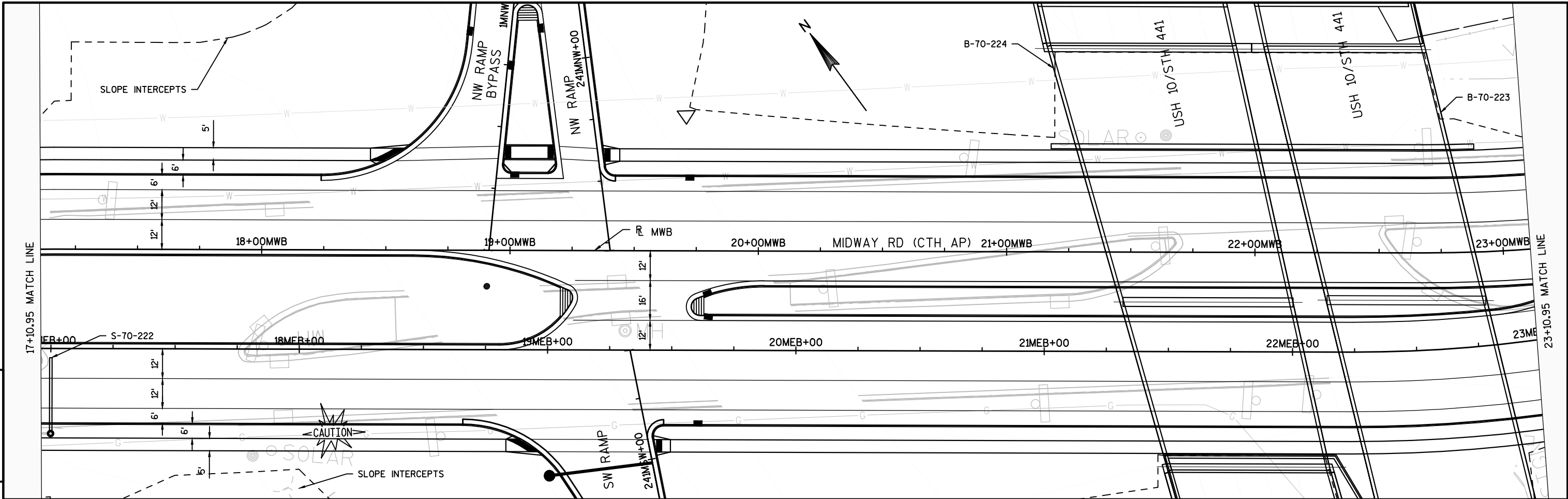




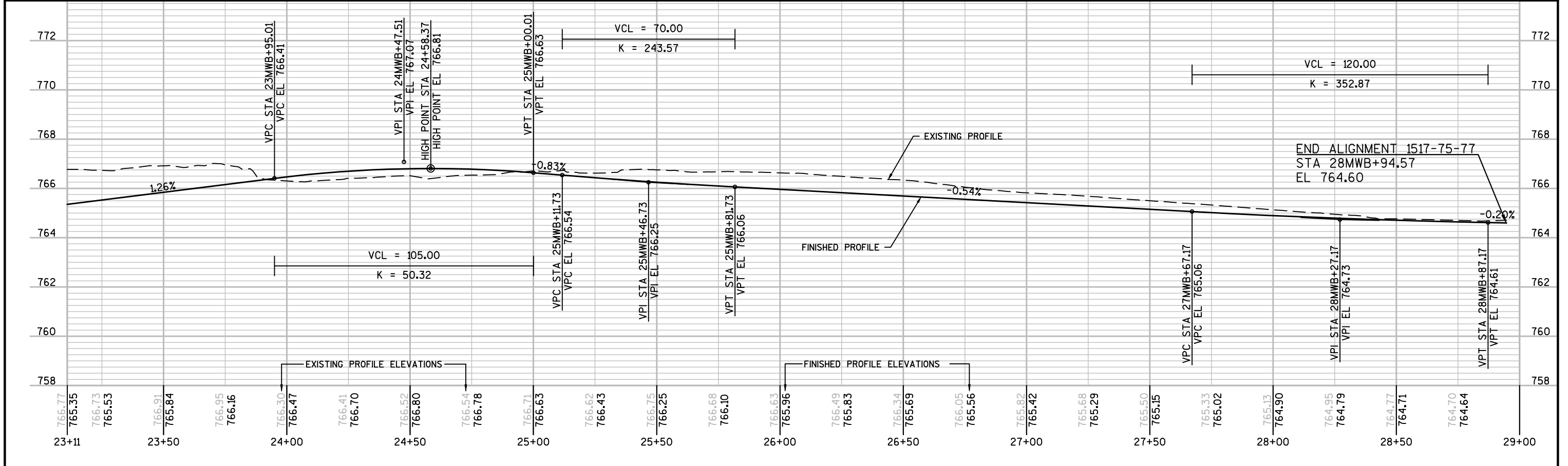
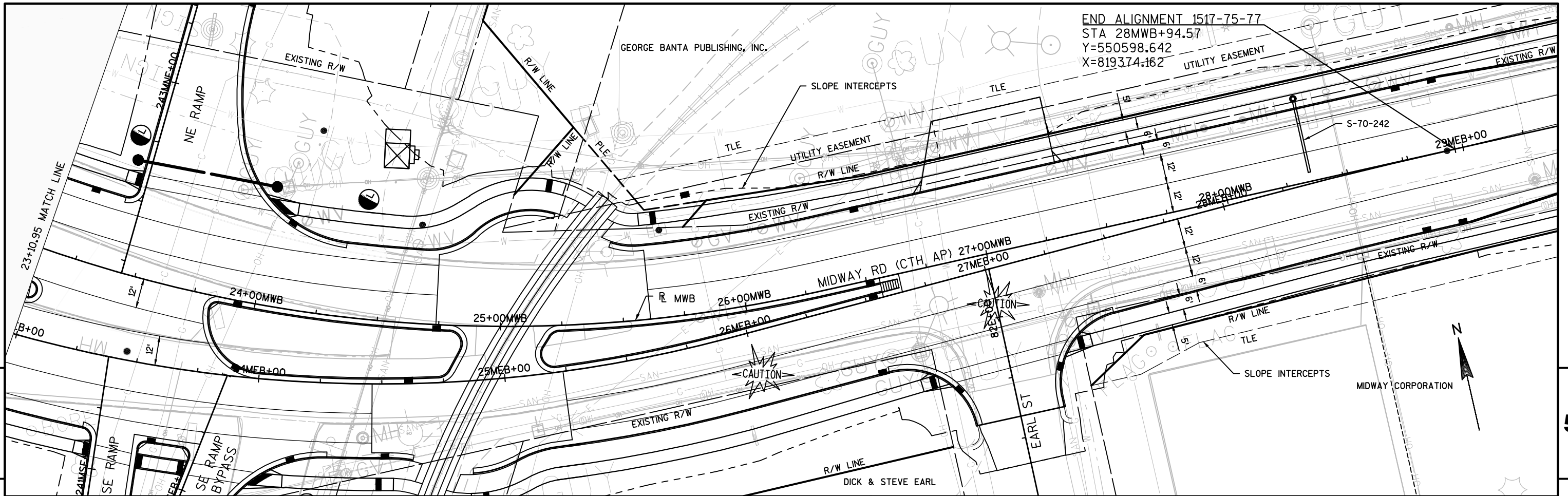


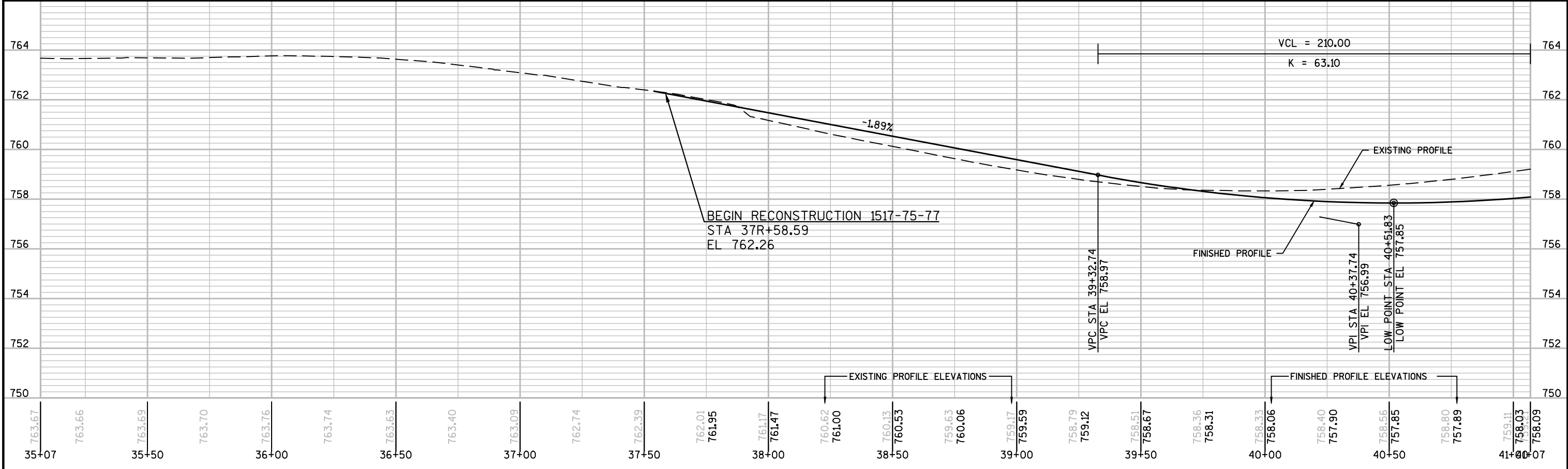
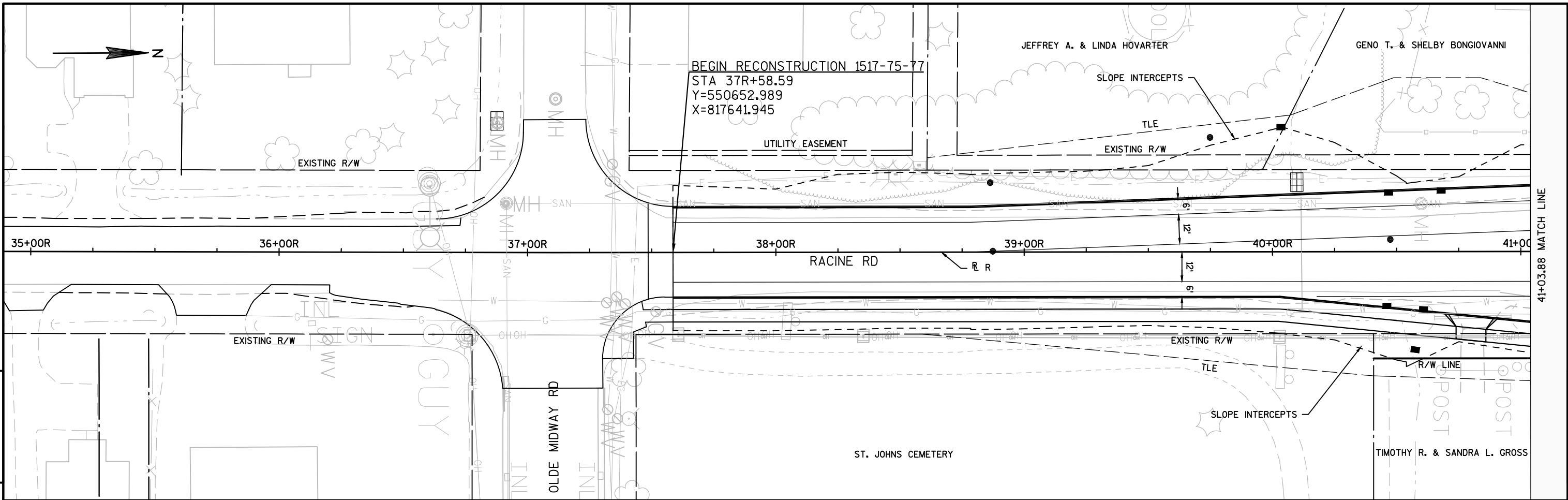


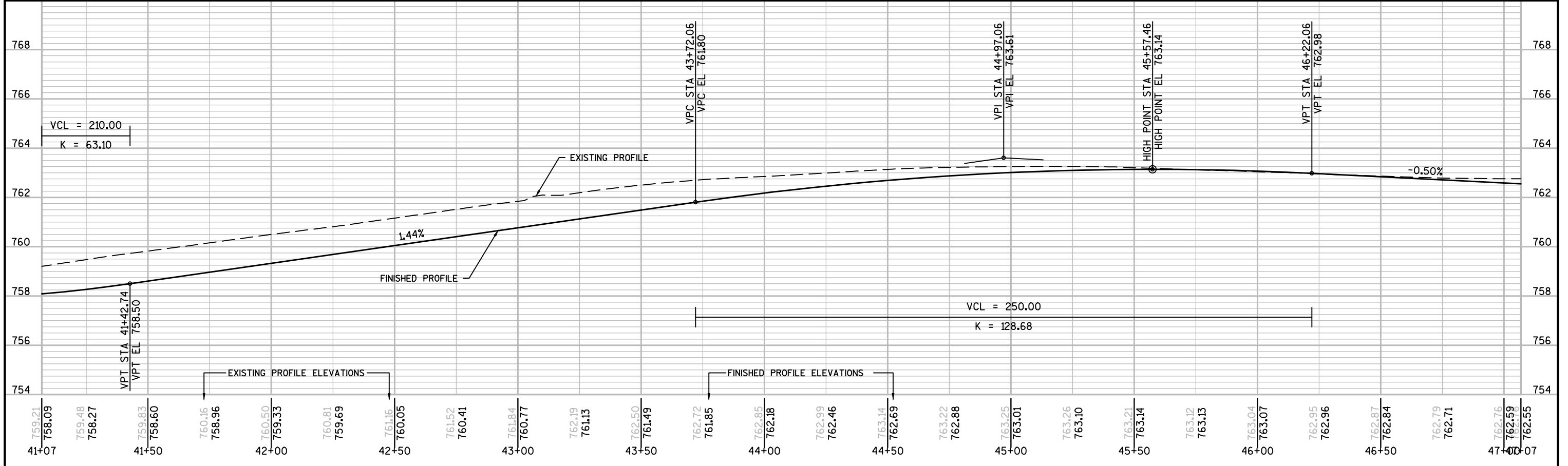
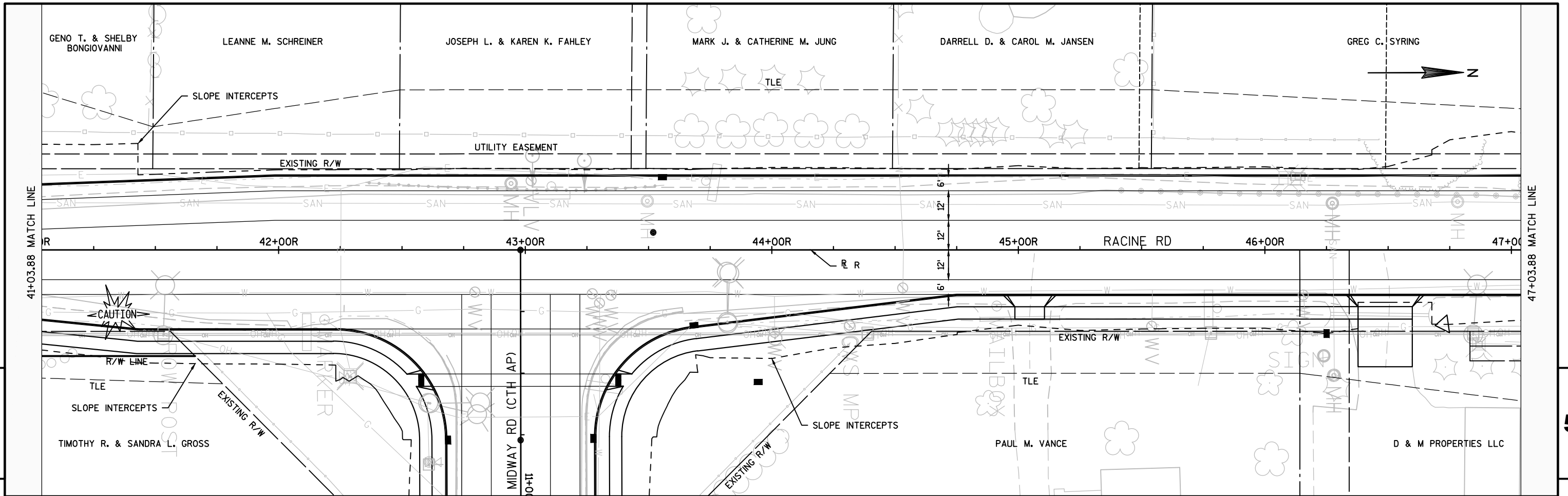
PROJECT NO:1517-75-77	HWY:STH 441/USH 10	COUNTY:WINNEBAGO	PLAN AND PROFILE: MIDWAY ROAD/CTH AP WESTBOUND (MWB)	SHEET	5
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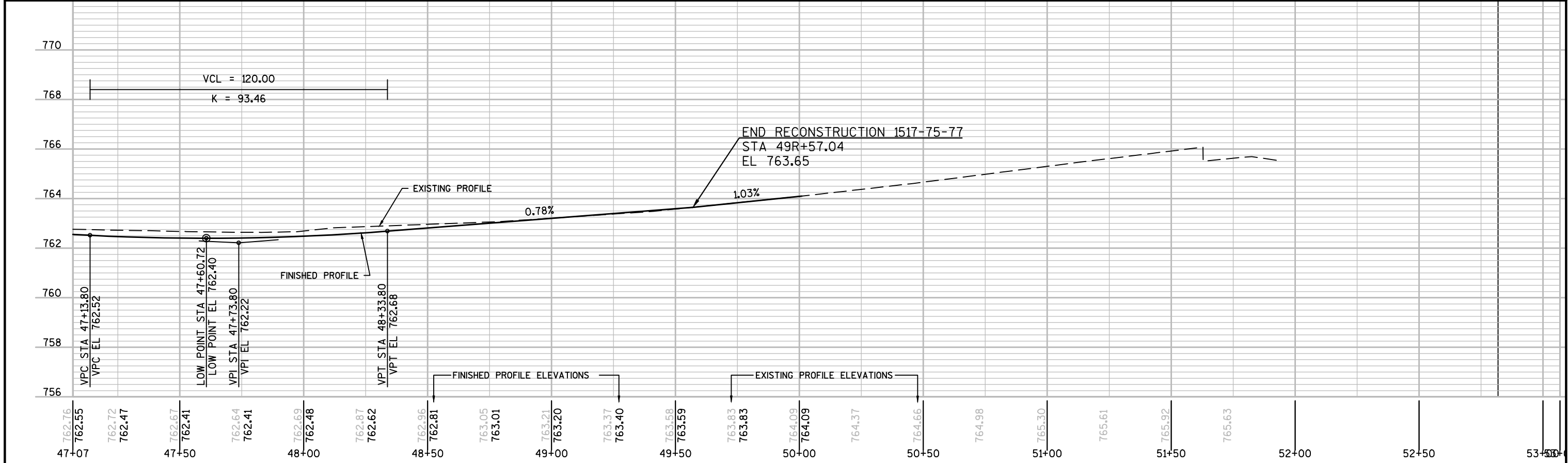
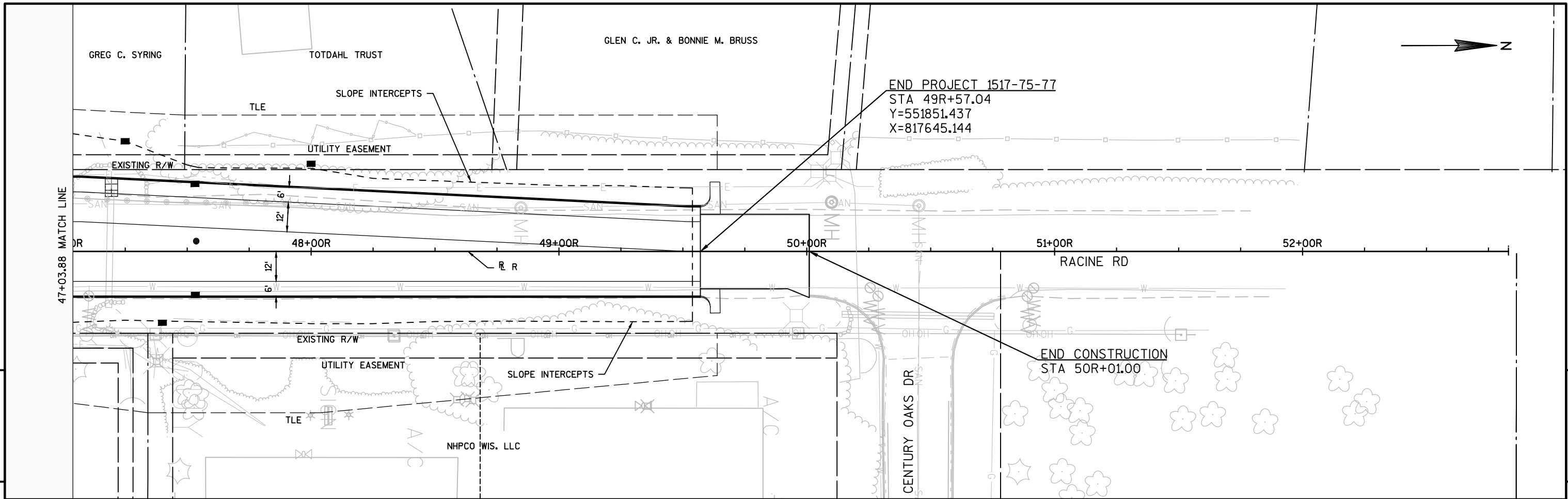
PROJECT NO:1517-75-77	HWY:STH 441/USH 10	COUNTY:WINNEBAGO	PLAN AND PROFILE: MIDWAY ROAD/CTH AP WESTBOUND (MWB)	SHEET	E
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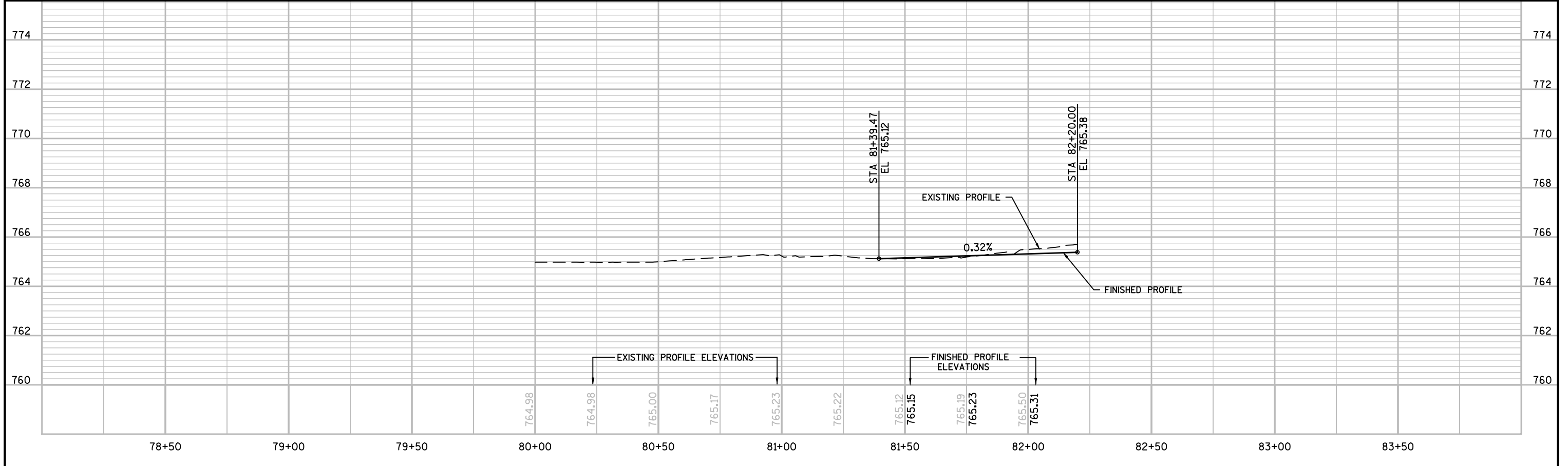
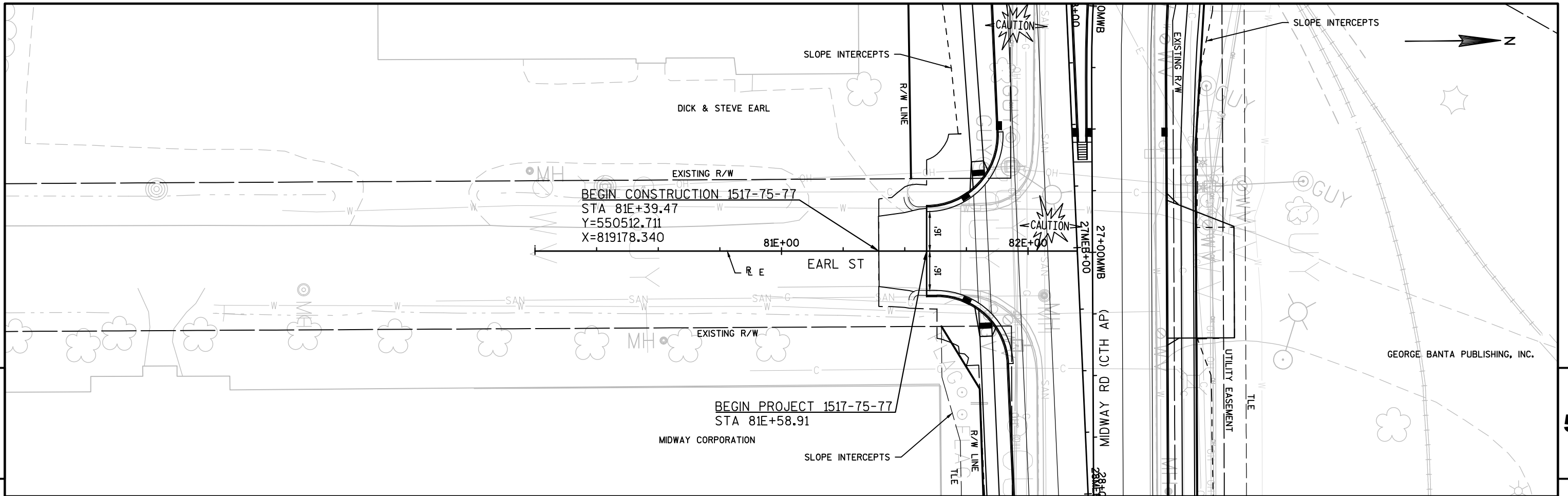


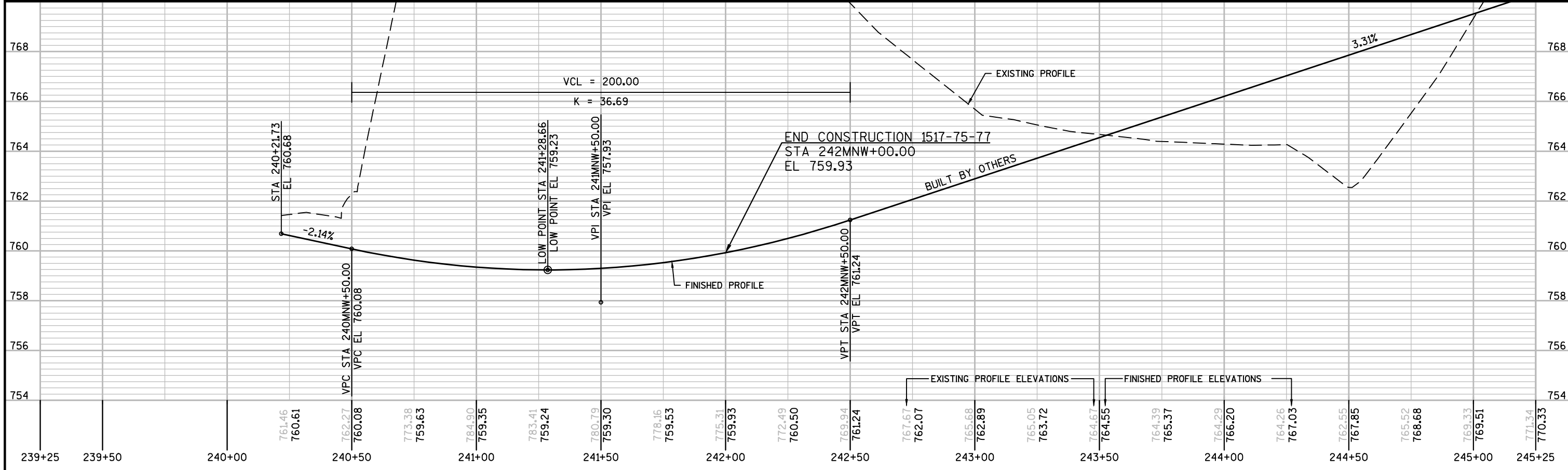
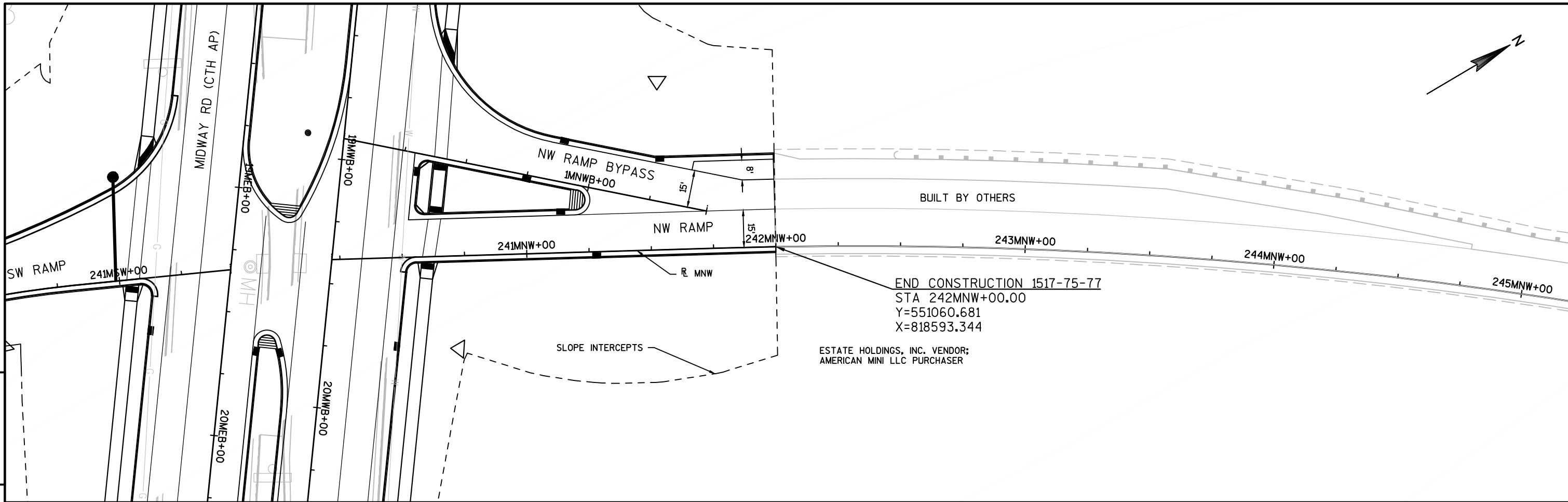


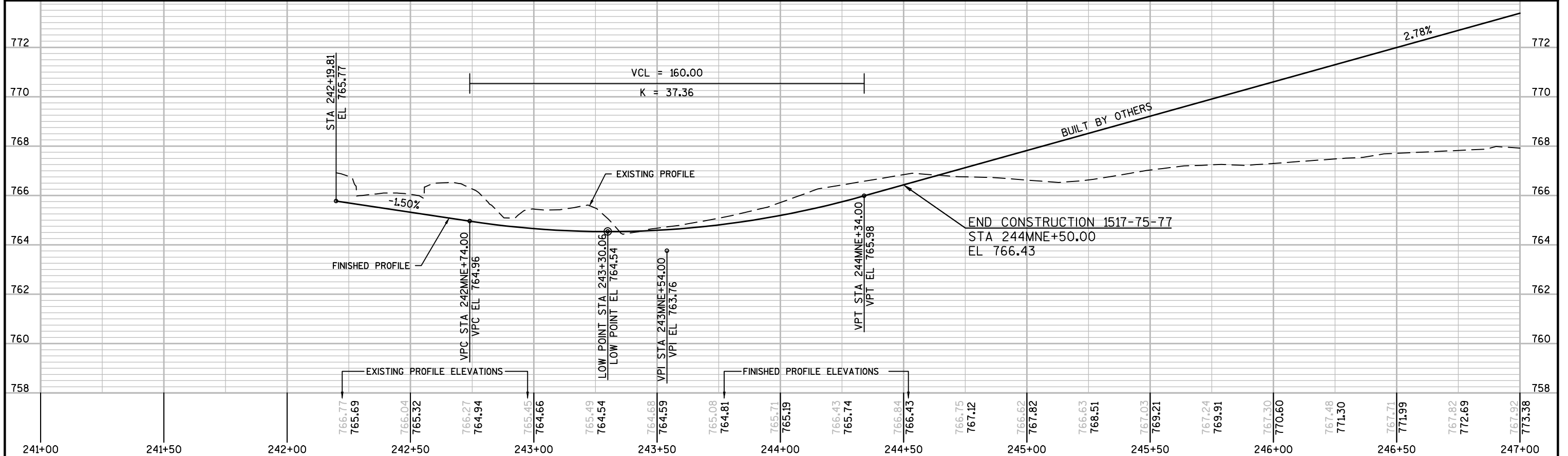
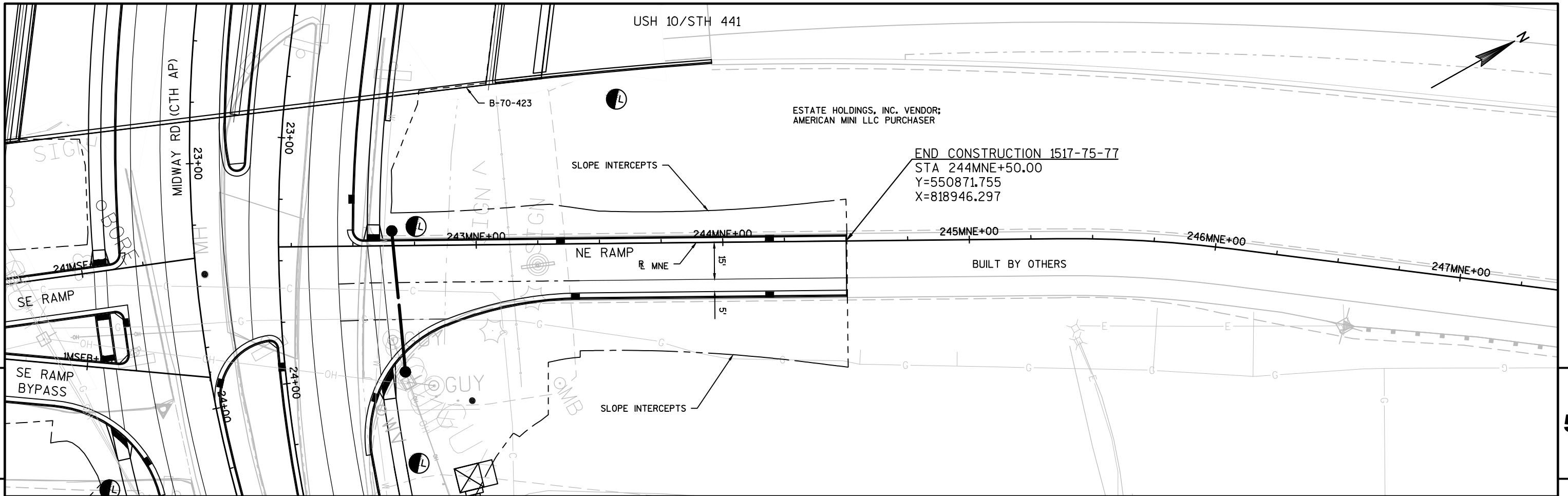
PROJECT NO:1517-75-77	HWY:STH 441/USH 10	COUNTY:WINNEBAGO	PLAN AND PROFILE: RACINE ROAD (R)	SHEET	5
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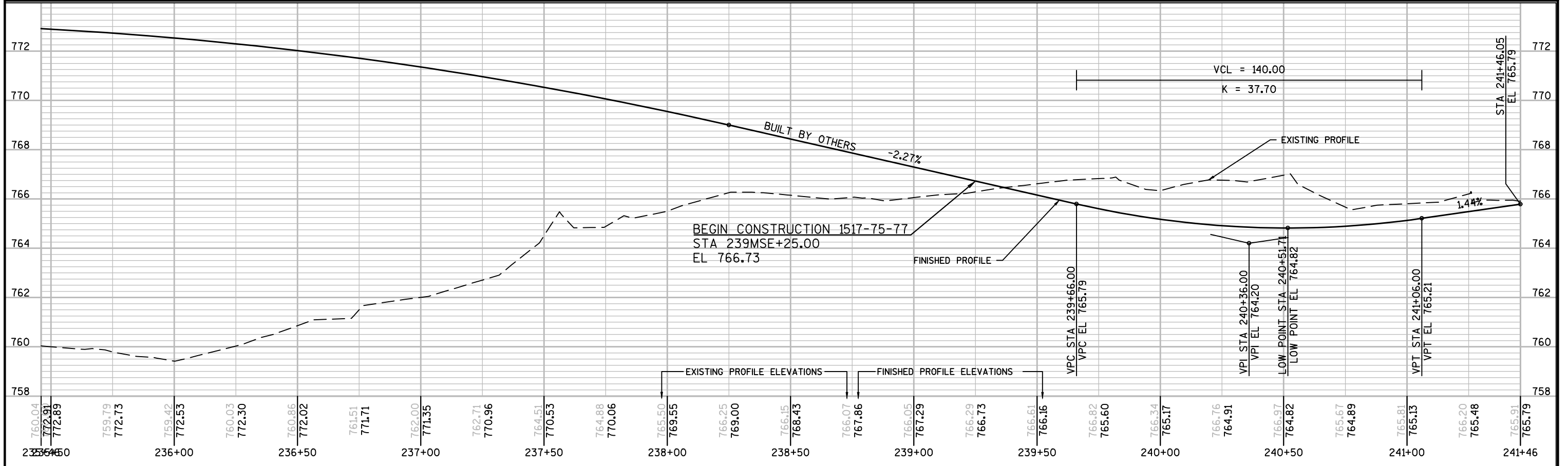
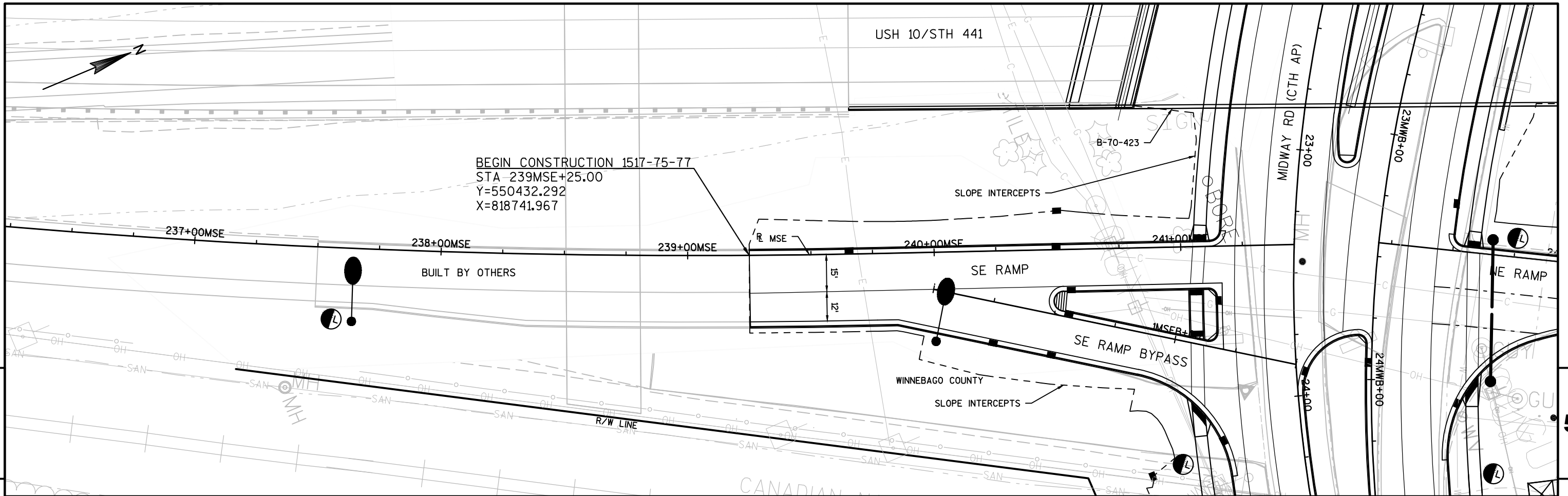
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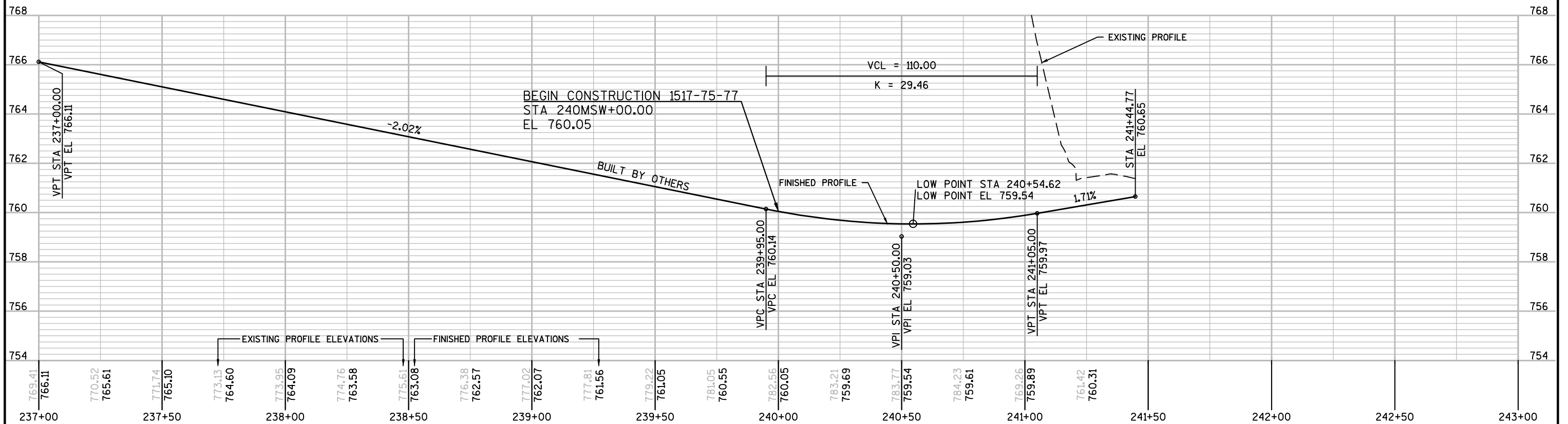
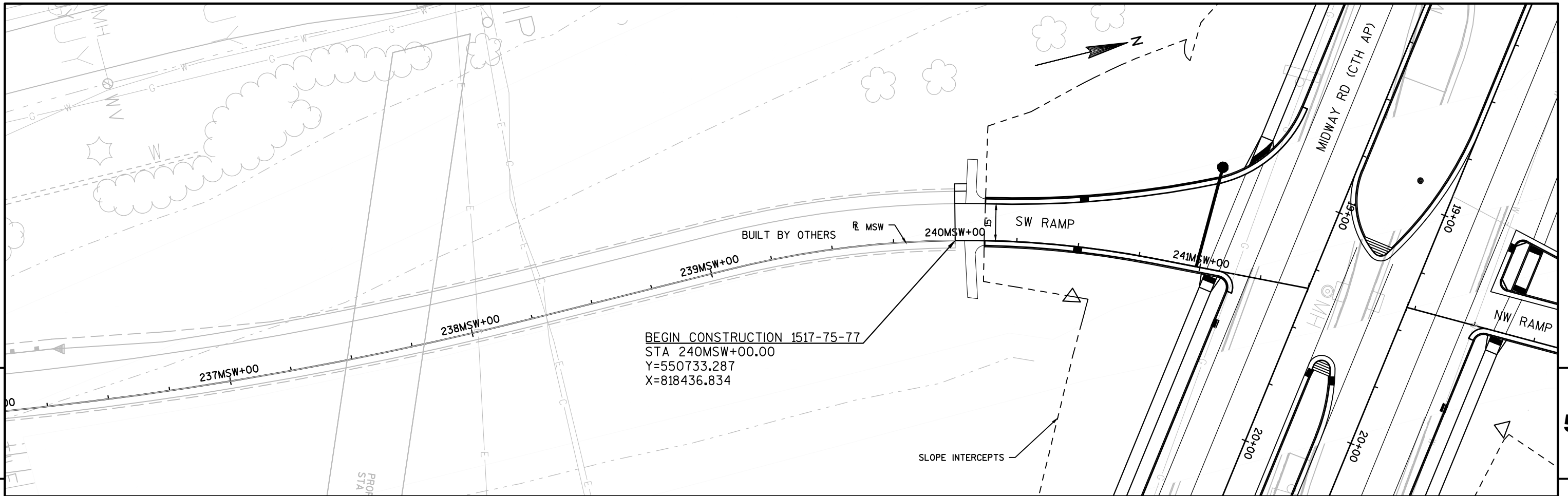


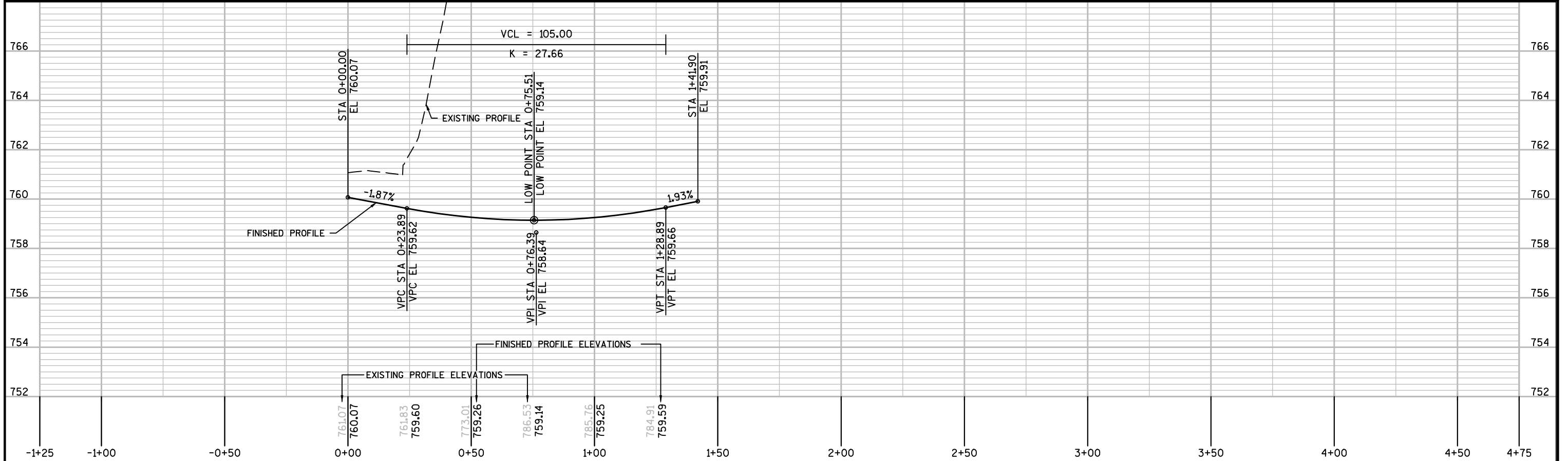
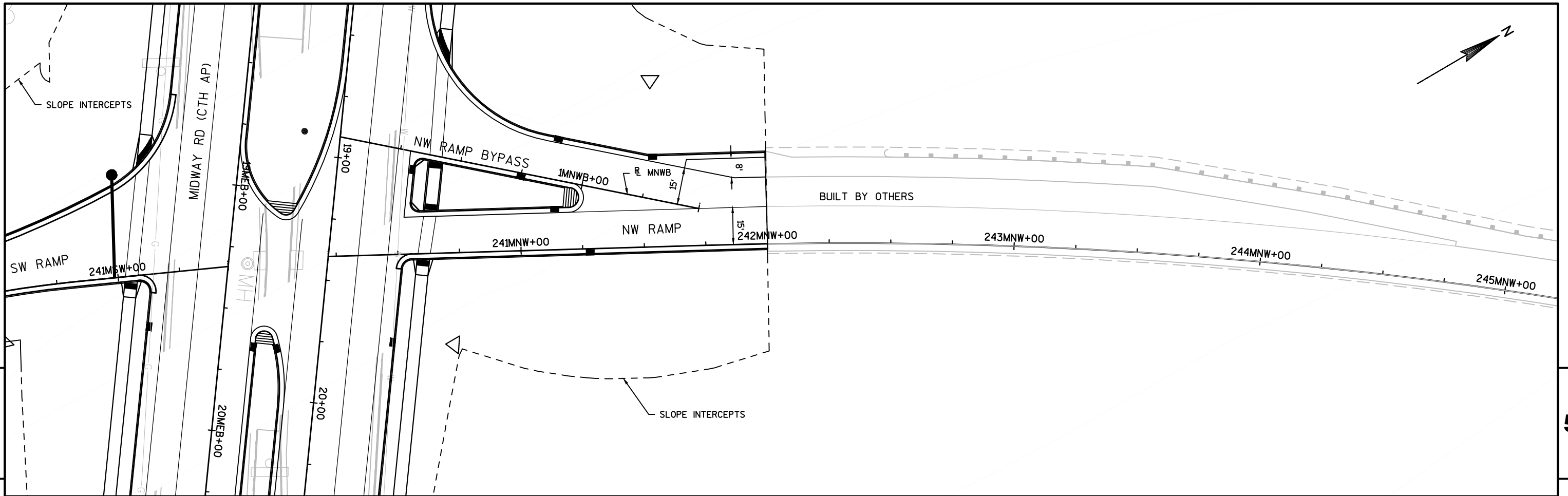


PROJECT NO:1517-75-77	HWY:STH 441/USH 10	COUNTY:WINNEBAGO	PLAN AND PROFILE: MIDWAY ROAD NE RAMP (MNE)	SHEET	5
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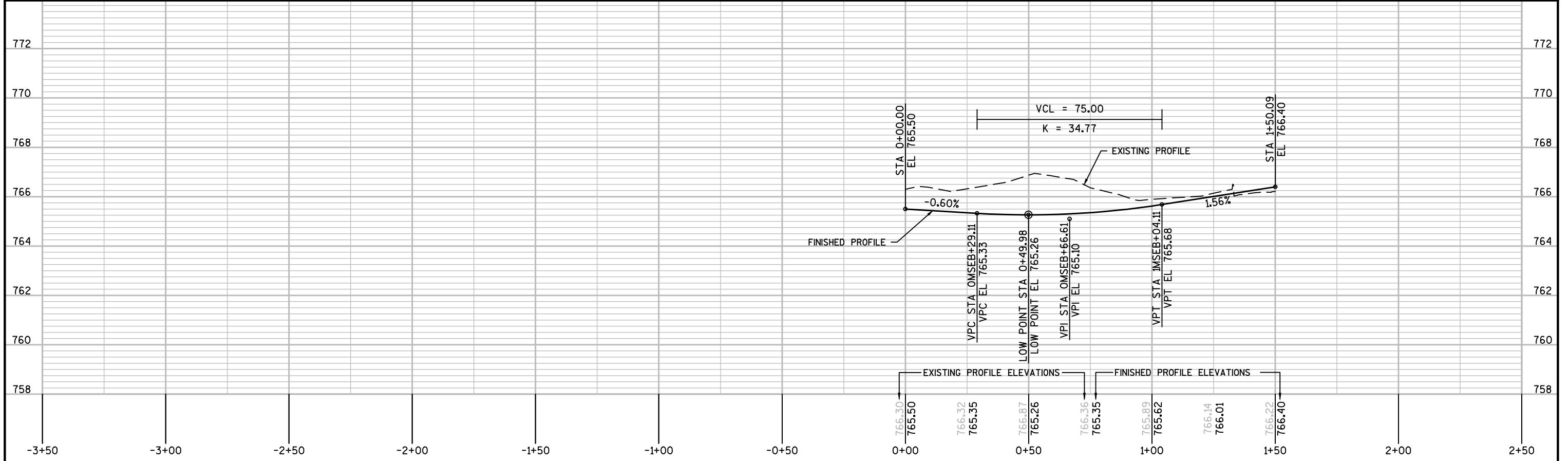
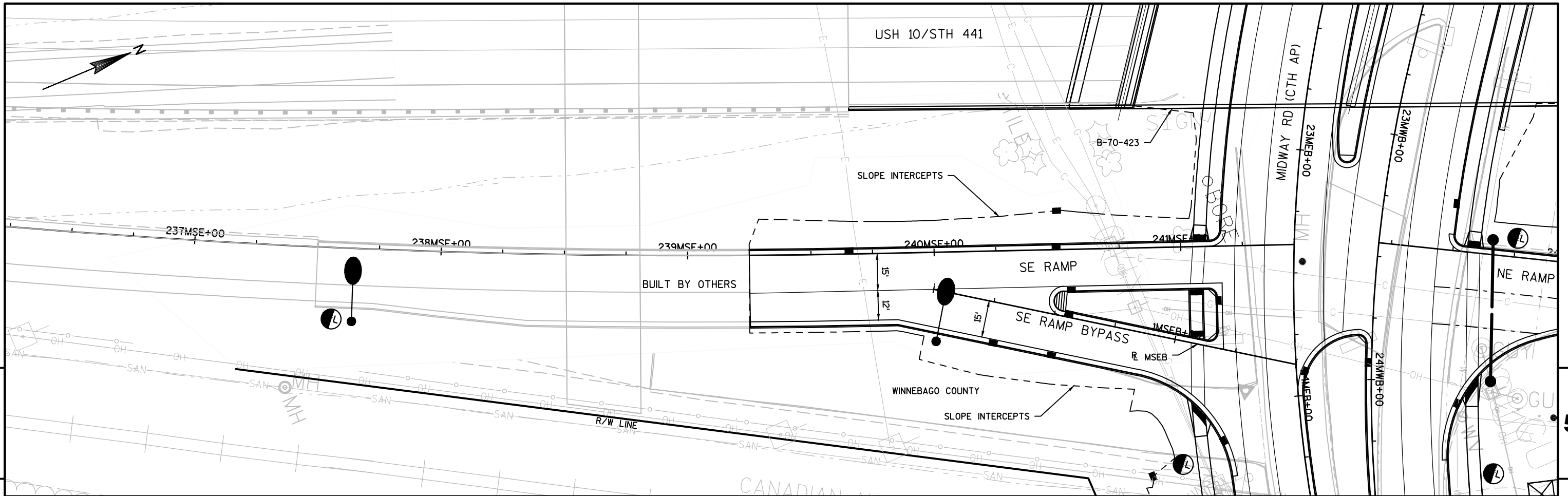


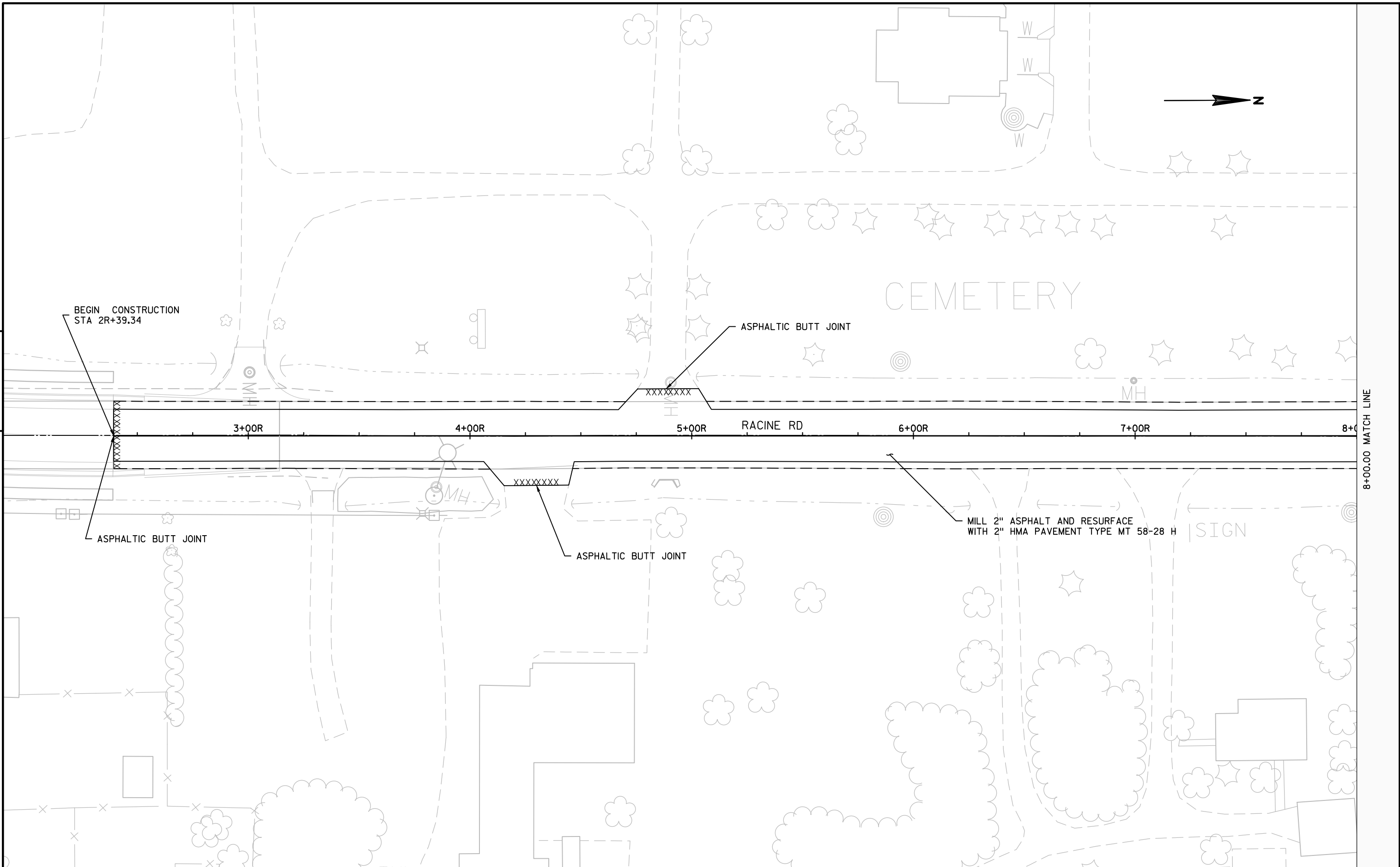
PROJECT NO:1517-75-77	HWY:STH 441/USH 10	COUNTY:WINNEBAGO	PLAN AND PROFILE: MIDWAY ROAD SE RAMP (MSE)	SHEET	5
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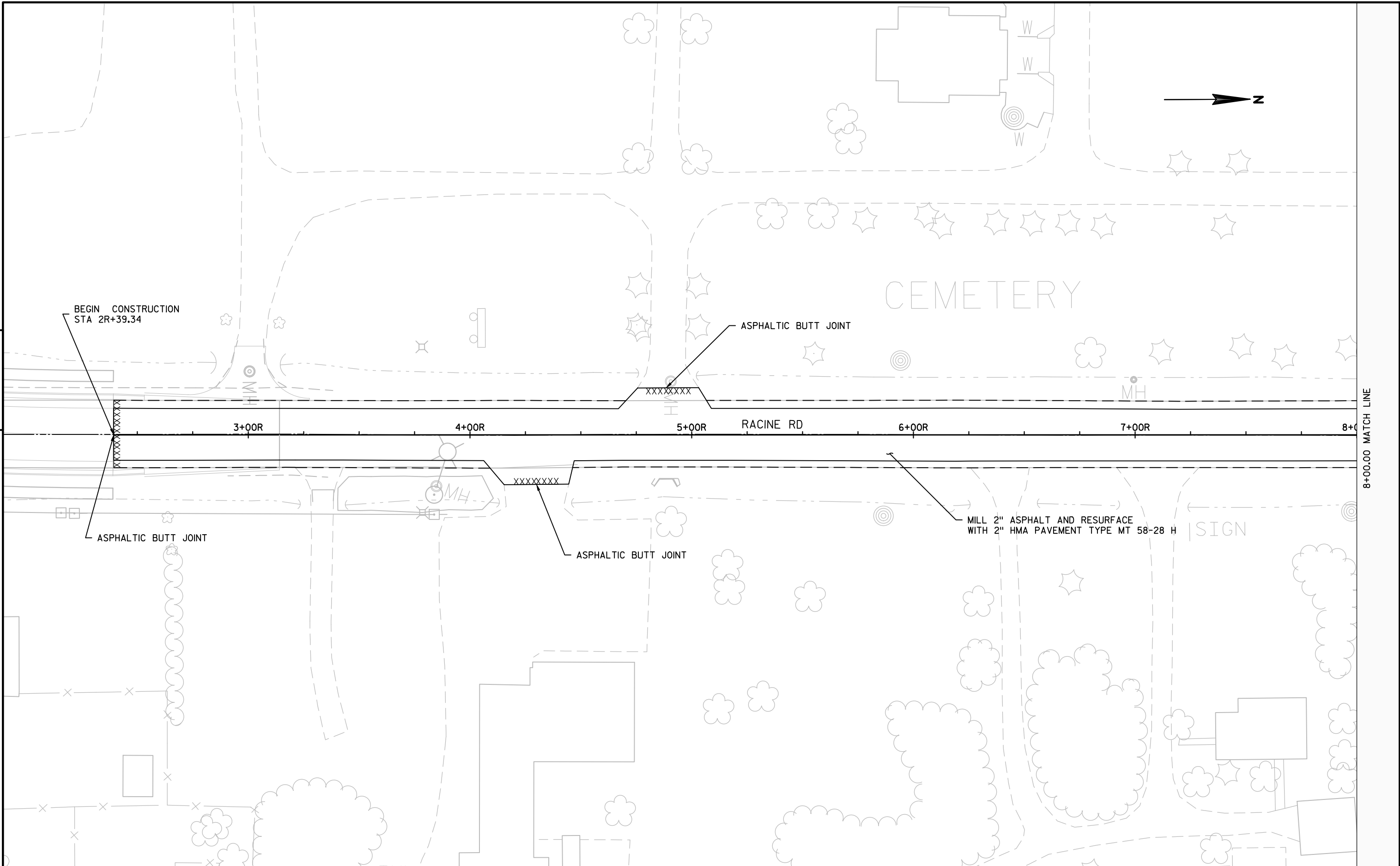




PROJECT NO:1517-75-77	HWY:STH 441/USH 10	COUNTY:WINNEBAGO	PLAN AND PROFILE: MIDWAY ROAD NW RAMP BYPASS (MNWB)	SHEET	5
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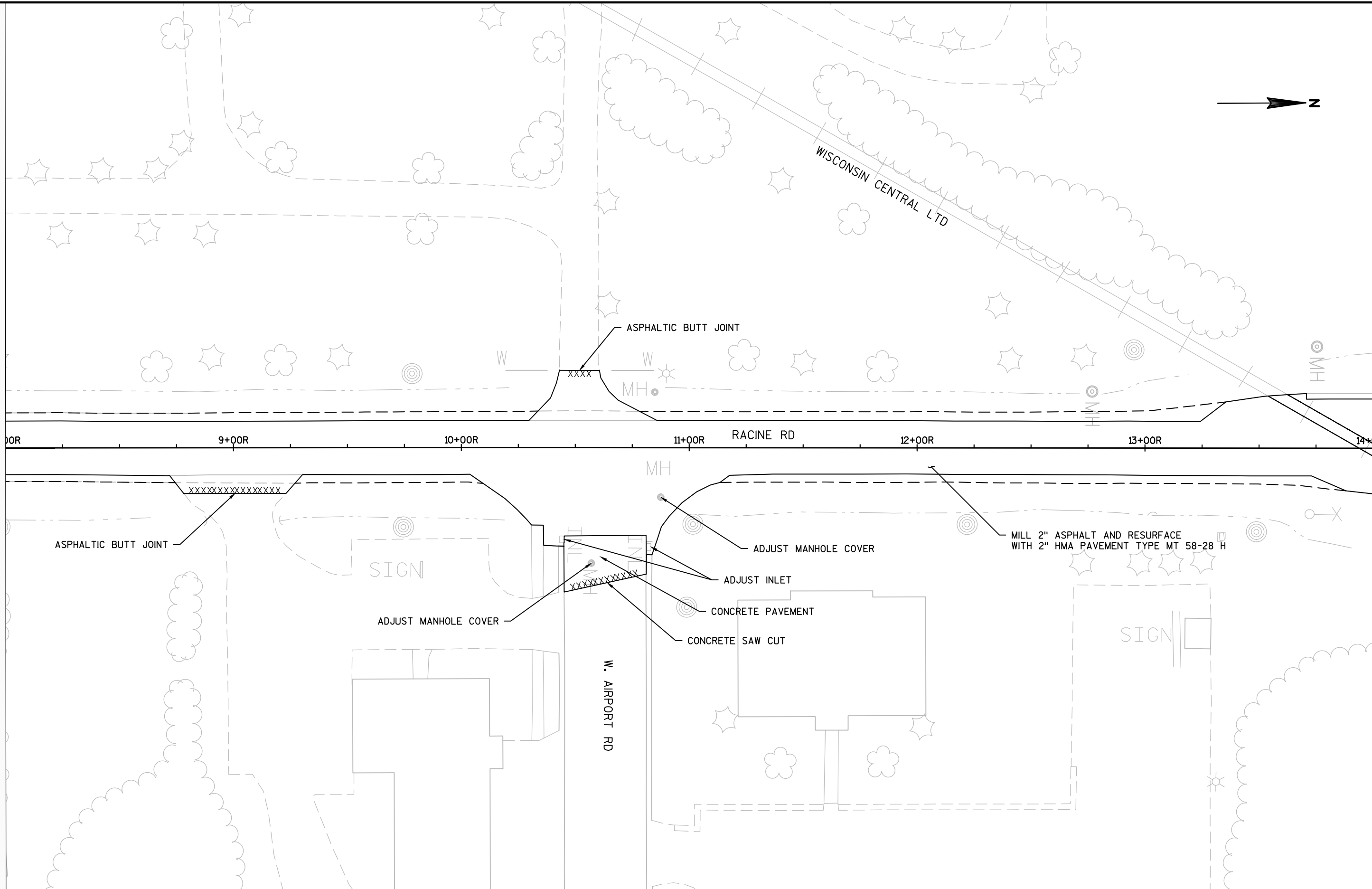






5

8+00.00 MATCH LINE



14+00.00 MATCH LINE

5

PROJECT NO:1517-75-77

HWY:STH 441/USH 10

COUNTY:WINNEBAGO

PLAN - RACINE RD

SHEET

E

FILE NAME : S:\PDS\C3D\WIS441\15177570_72_77_85\SHEETSP\1517-75-77\050200-PN\NE-15177577-050201-PN.DWG
LAYOUT NAME - NE-15177577-050201-PN - 050202-PN

PLOT DATE : 11/27/2018 2:39 PM

PLOT BY : MARTENS, JOHN M

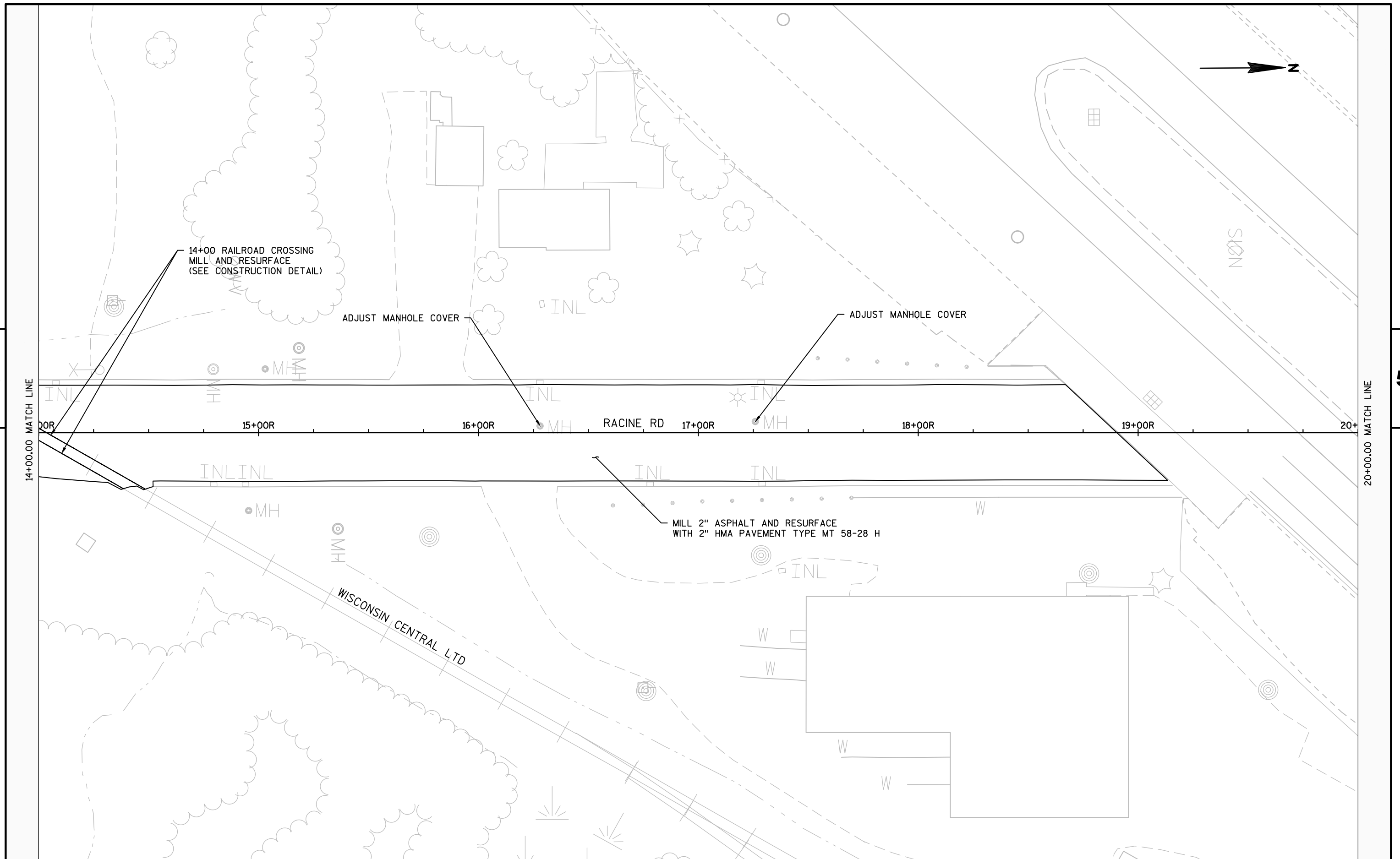
PLOT NAME :

PLOT SCALE : 1 IN:40 FT

WISDOT/CADDs SHEET 44

5

5

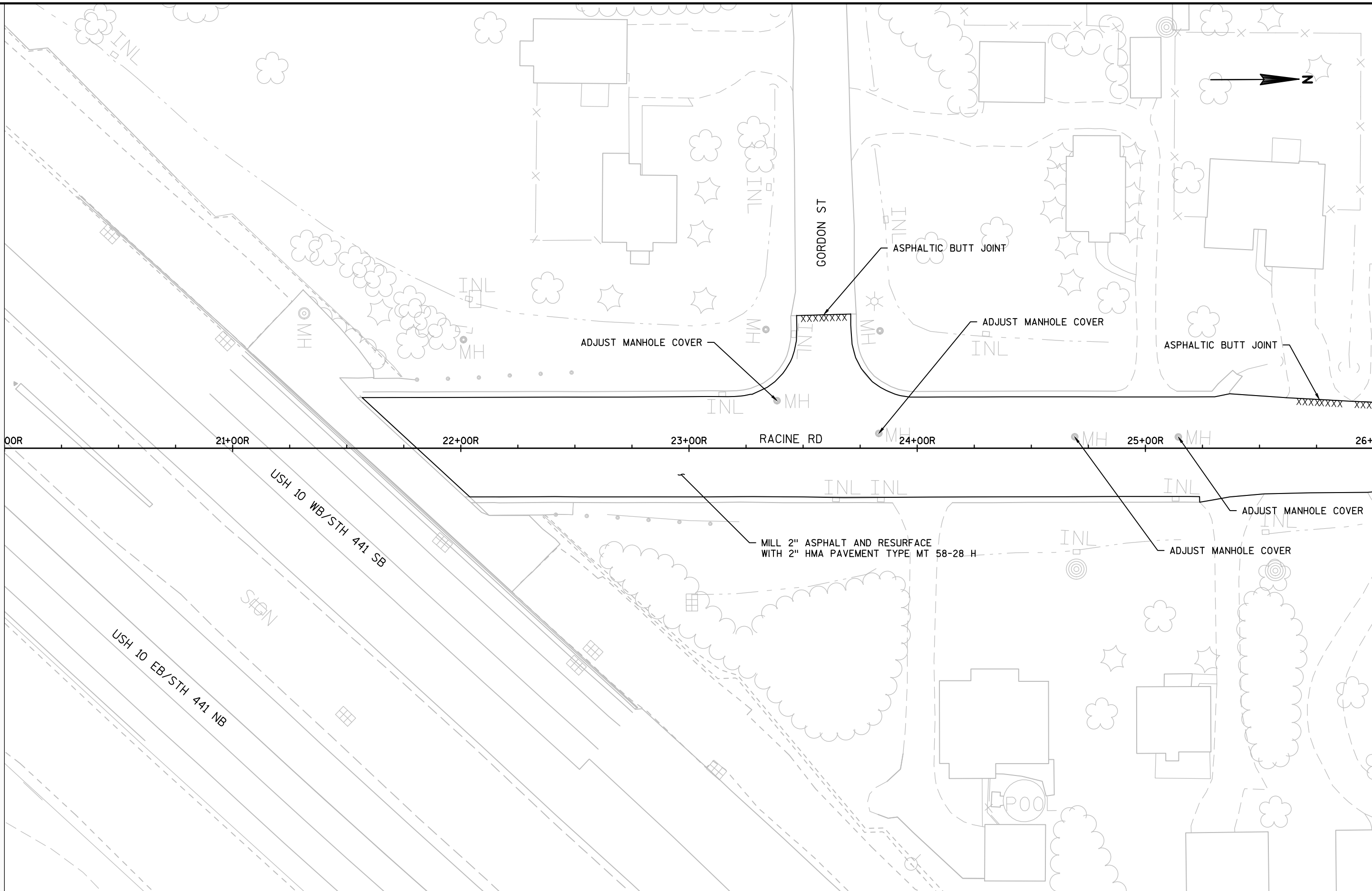


PROJECT NO:1517-75-77	HWY:STH 441/USH 10	COUNTY:WINNEBAGO	PLAN - RACINE RD	SHEET	E
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FILE NAME : S:\PDS\C3D\WIS441\15177570_72_77_85\SHEETSPLAN\1517-75-77\050200-PN\NE-15177577-050201-PN.DWG
LAYOUT NAME - NE-15177577-050201-PN - 050203-PN
PLOT DATE : 11/27/2018 2:39 PM
PLOT BY : MARTENS, JOHN M
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDs SHEET 44

5

20+00.00 MATCH LINE



26+00.00 MATCH LINE

5

PROJECT NO:1517-75-77	HWY:STH 441/USH 10	COUNTY:WINNEBAGO	PLAN - RACINE RD	SHEET	E
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5

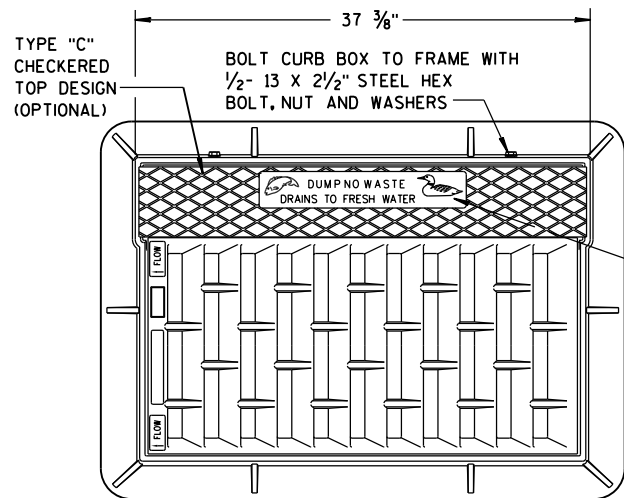
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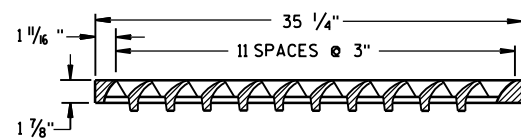
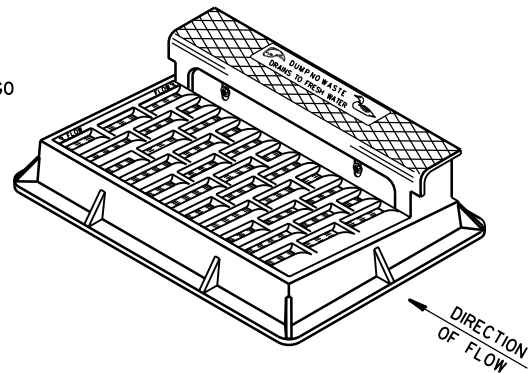
FILE NAME : S:\PDOS\3D\WIS441\15177570-72-77-85\SHEETSPLAN\1517-75-77\050200-PN\NE-15177577-050201-PN.DWG PLOT DATE : 11/27/2018 2:40 PM PLOT BY : MARTENS, JOHN M PLOT NAME : PLOT SCALE : 1 IN:40 FT WISDOT/CADDs SHEET 4

Standard Detail Drawing List

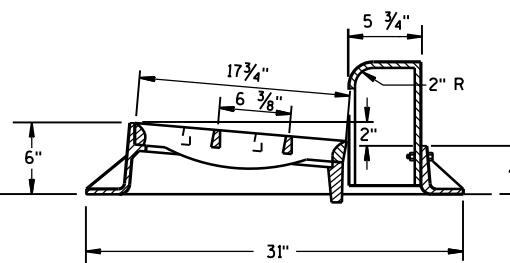
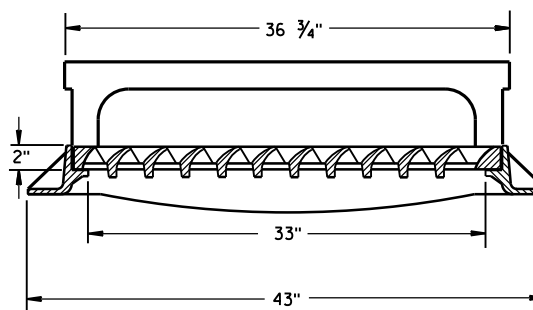
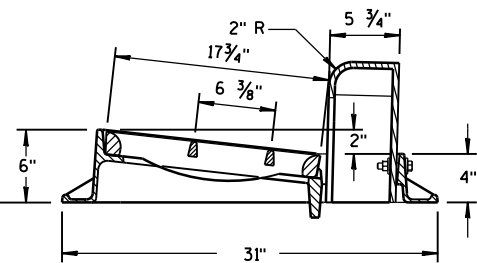
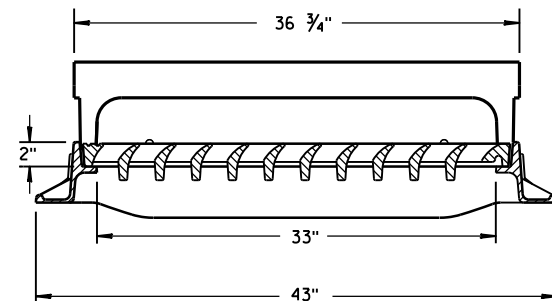
08A05-19A	INLET COVERS TYPE A, H, A-S, H-S & Z
08A05-19B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08A05-19D	INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M
08A08-02	CATCH BASINS 3-FT, 4-FT, 5-FT AND 6-FT DIAMETER
08B09-02	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
08C06-02	INLETS 3-FT AND 4-FT DIAMETER
08C07-02	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08C08-02	INLETS MEDIAN 1 AND 2 GRATE
08D01-20A	CONCRETE CURB & GUTTER
08D01-20B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D05-19A	CURB RAMPS TYPES 1 AND 1-A
08D05-19B	CURB RAMPS TYPES 2 AND 3
08D05-19C	CURB RAMPS TYPES 4A AND 4A1
08D05-19D	CURB RAMPS TYPE 4B AND 4B1
08D05-19E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D05-19F	CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS
08D05-19G	CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES
08D19-02	DRIVEWAY AND SIDEWALK RAMPS TYPE Z
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E14-01	TRACKING PAD
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09B02-10	CONDUIT
09B16-01	PULL BOX NON-CONDUCTIVE
09C02-07	CONCRETE BASES, TYPES 1, 2, 5, & 6
09C03-04	TRANSFORMER/PEDESTAL BASES
09C08-05	CONCRETE BASE, TYPE 7
09C10-03	TRANSFORMER BASE FOR 15" BOLT CIRCLE
09C14-02	CONCRETE CONTROL CABINET BASE, TYPE L
09E01-14F	POLE MOUNTINGS FOR LIGHTING UNITS, TYPE 17 (40 FEET)
11B02-02	CONCRETE MEDIAN NOSE
13B01-10	PAVEMENT DETAILS FOR RAILROAD APPROACH
13C01-19	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C13-09	URBAN DOWELED CONCRETE PAVEMENT
13C18-06A	CONCRETE PAVEMENT JOINTING
13C18-06B	CONCRETE PAVEMENT STEEL REINFORCEMENT
13C18-06C	CONCRETE PAVEMENT JOINT TYPES
13C18-06D	CONCRETE PAVEMENT JOINT TYPES AT UTILITY FIXTURES
14B39-01A	32-INCH SSCB TO 36-INCH SSCB HEIGHT TRANSITION
14B39-01C	36-INCH SSCB TO 42-INCH SSCB HEIGHT TRANSITION
14B41-03A	SINGLE SLOPE ROADSIDE RETAINING WALL
14B41-03B	SINGLE SLOPE ROADSIDE RETAINING WALL
15C02-06A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C05-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C07-14B	PAVEMENT MARKING WORDS
15C07-14C	PAVEMENT MARKING ARROWS
15C07-14E	PAVEMENT MARKING FOR BIKE LANES
15C08-19A	LONGITUDINAL MARKING (MAINLINE)
15C08-19B	PAVEMENT MARKING (TURN LANES)
15C09-11A	SIGNING AND PAVEMENT MARKING DETAILS FOR RAILROAD-HIGHWAY GRADE CROSSINGS
15C11-07B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-06	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C18-04	MEDIAN ISLAND MARKING
15C19-05A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C27-03B	PAVEMENT MARKING (ISLANDS)
15C29-06A	BICYCLE LANE MARKING
15C33-03	STOP LINE AND CROSSWALK PAVEMENT MARKING
15C35-03A	PAVEMENT MARKING (INTERSECTIONS)
15D16-03	TRAFFIC CONTROL, EXIT RAMP CLOSURE
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS



NOTE:
GRATE IS REVERSIBLE.

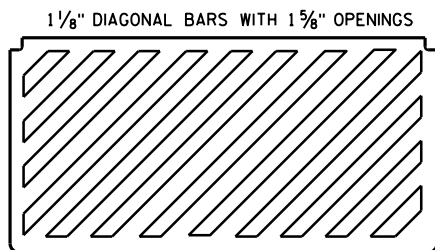


NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"



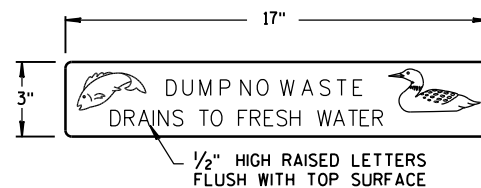
TYPE "H"

NOTE: EITHER CASTING IS ACCEPTABLE

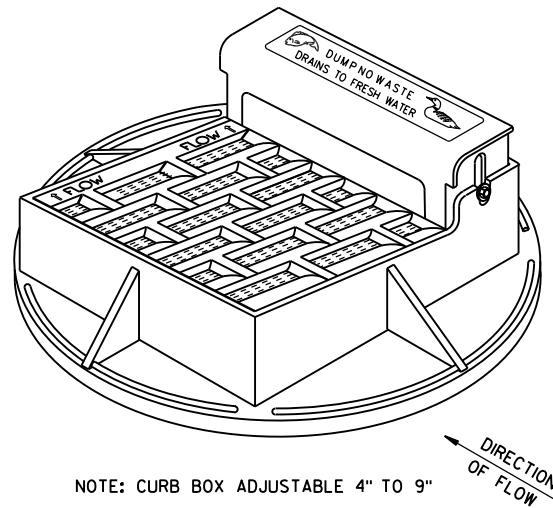


SPECIAL GRATE FOR
TYPE "H" COVER

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

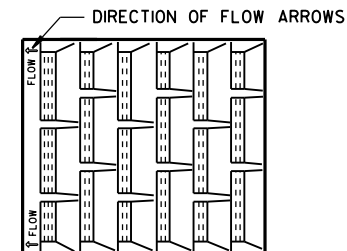


LOGO DETAIL

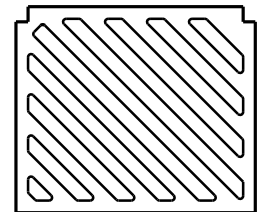


NOTE: CURB BOX ADJUSTABLE 4" TO 9"

NOTE:
GRATE IS REVERSIBLE.

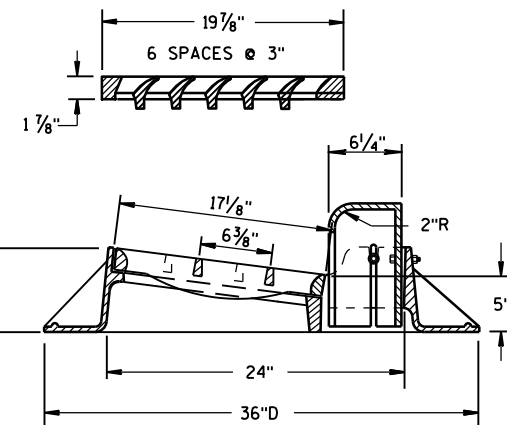
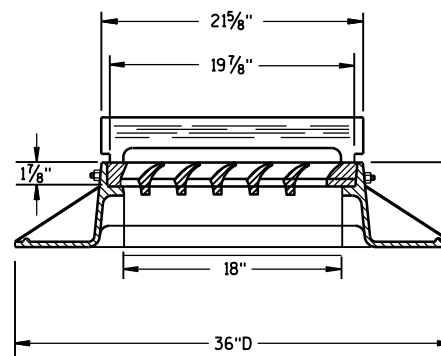


1" DIAGONAL BARS
WITH 1 1/2" OPENINGS

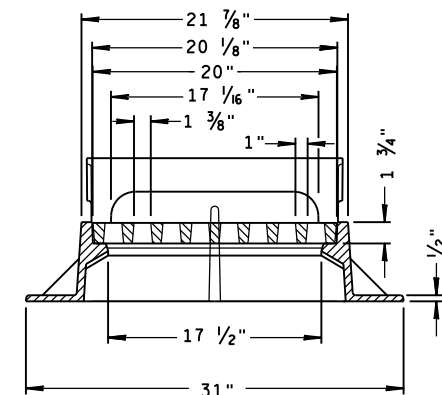
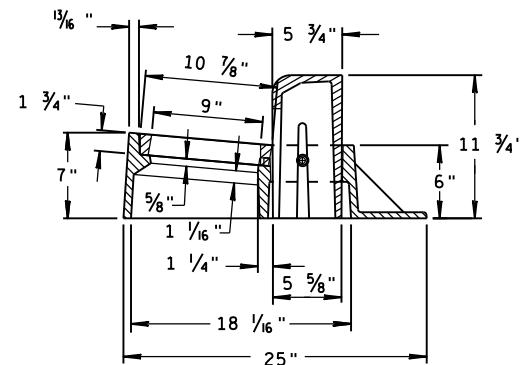


SPECIAL GRATE FOR
TYPE "A" COVER

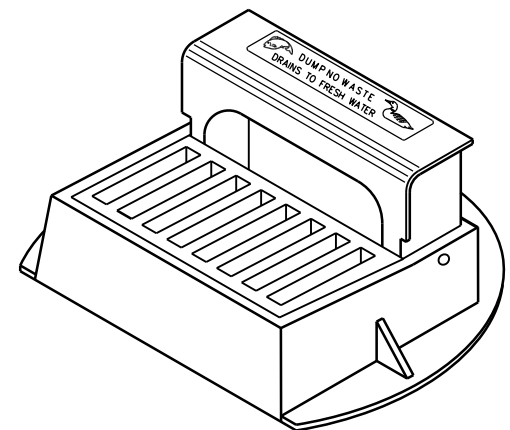
(MEASURES 19 3/4" X 17" X 1 1/8")
(NOTED AS TYPE A-S ON DRAINAGE TABLE)



TYPE "A"



TYPE "Z"

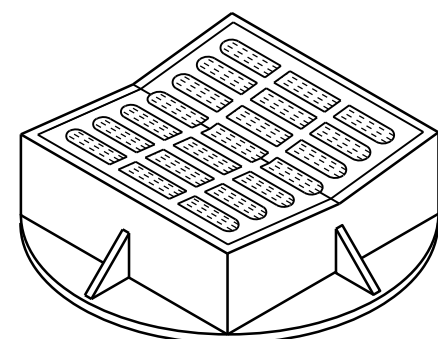
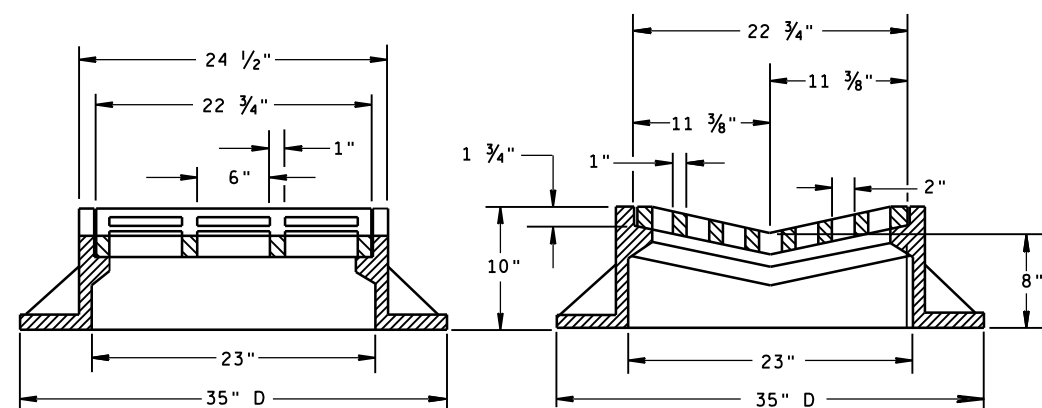


INLET COVERS
TYPE A, H, A-S, H-S & Z

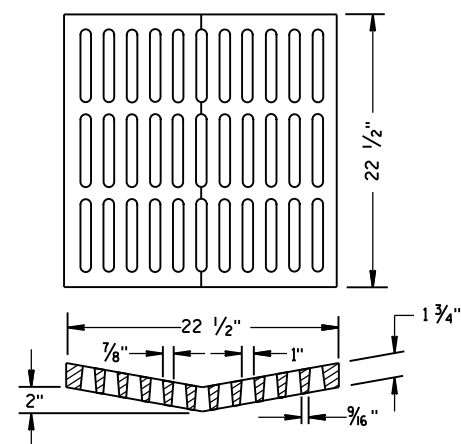
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11-27-13
DATE
FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER

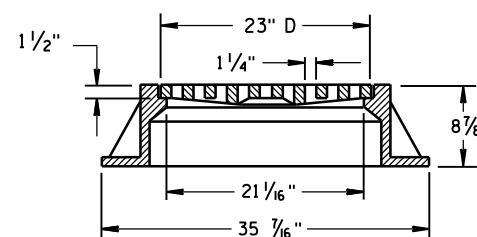
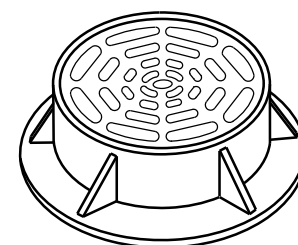
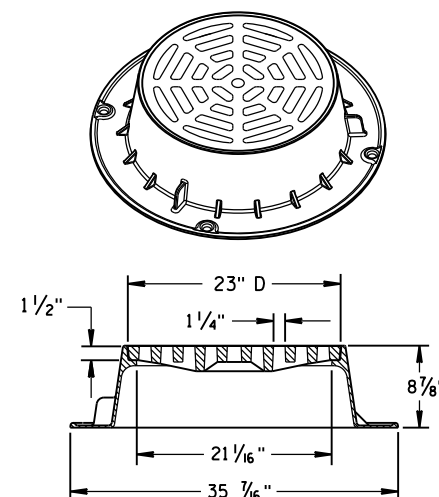


TYPE "B"



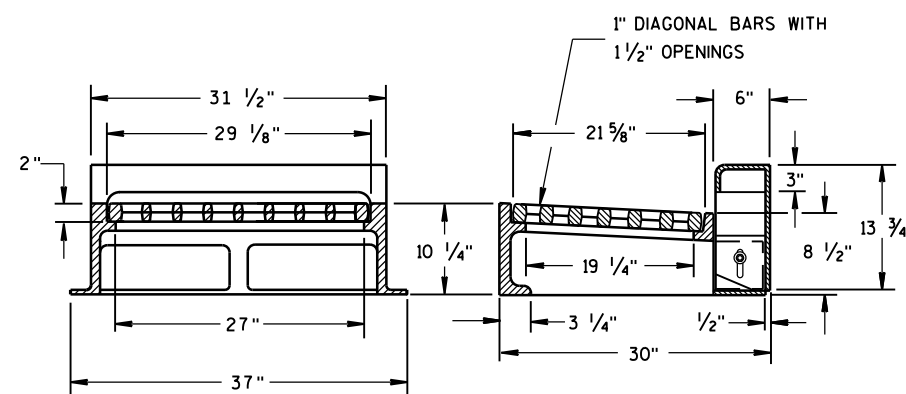
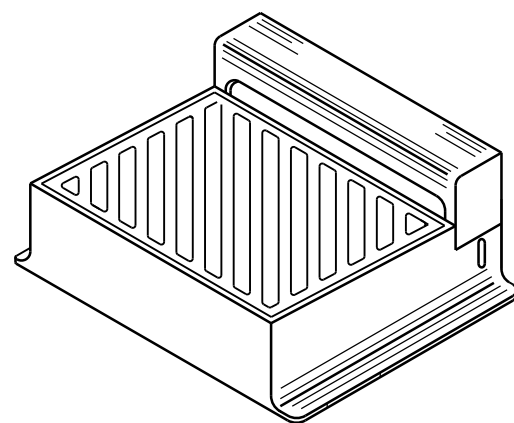
ALTERNATIVE GRATE FOR TYPE "B" COVER

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



TYPE "C"

NOTE: EITHER CASTING IS ACCEPTABLE



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

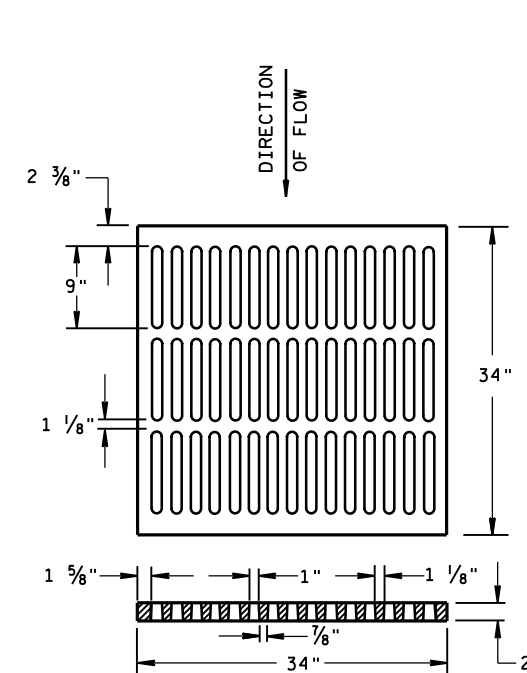
TYPE "WM"

GENERAL NOTES

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

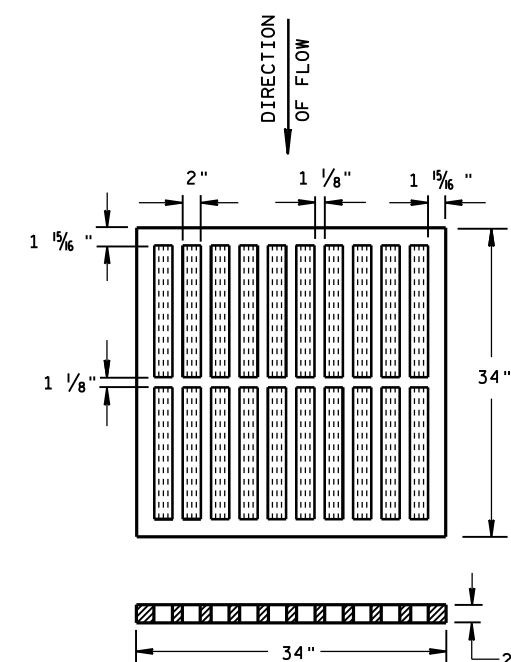
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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



ALTERNATIVE TYPE "MS"

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



TYPE "MS"

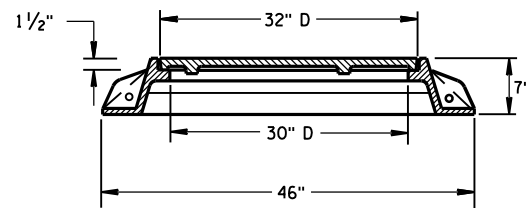
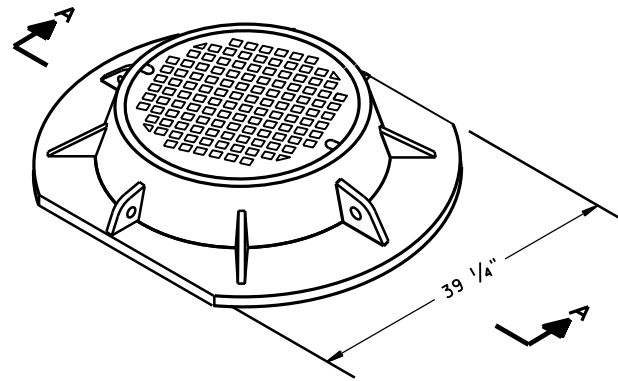
USE ON FREEWAYS AND EXPRESSWAYS
NOTED AS TYPE MS ON DRAINAGE TABLE

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

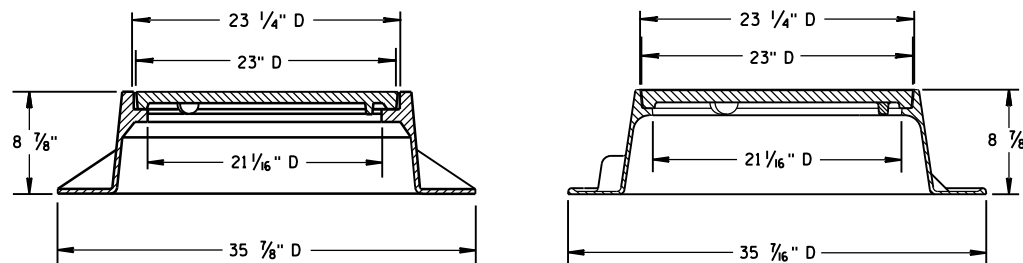
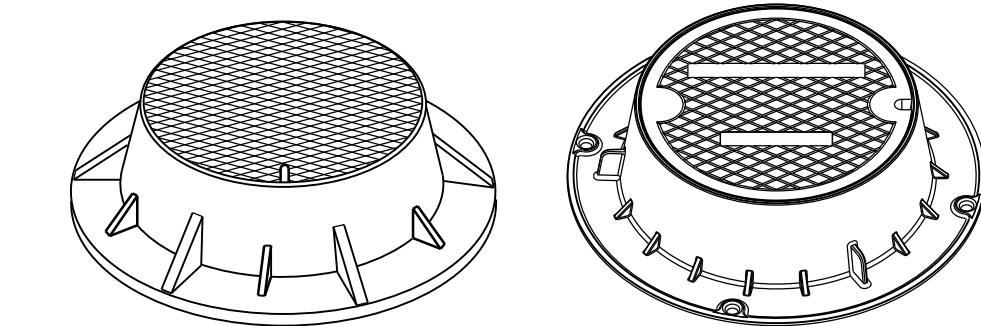
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/27/2013
DATE
FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER

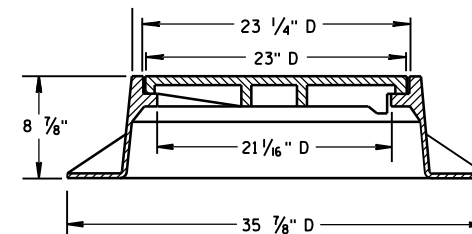
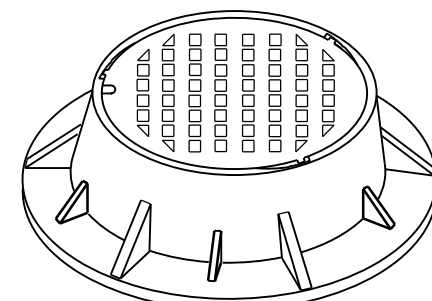
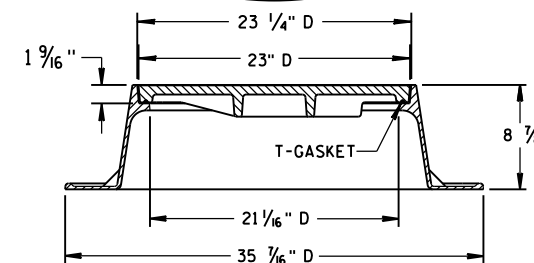
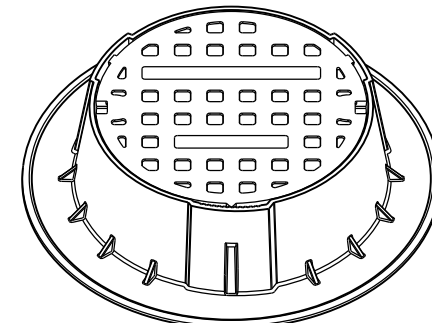


SECTION A-A
TYPE "K"



TYPE "J"

NOTE: EITHER CASTING IS ACCEPTABLE

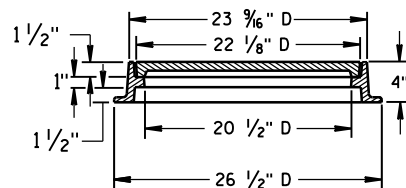
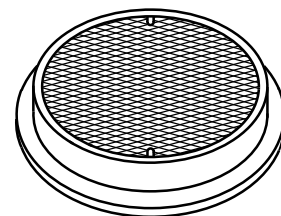


TYPE "J" SPECIAL

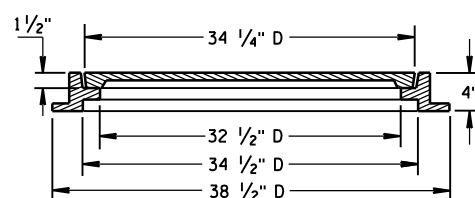
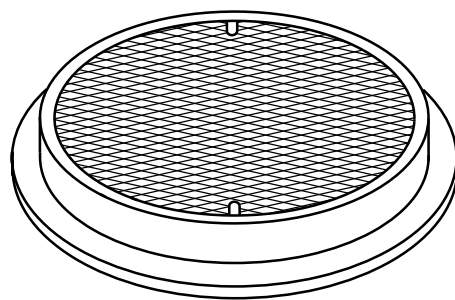
TYPE "B" NON-ROCKING SELF-SEAL LID

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

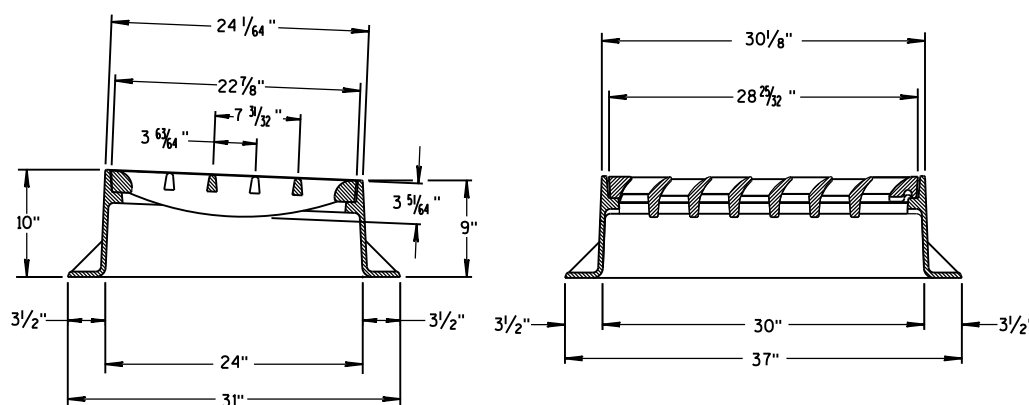
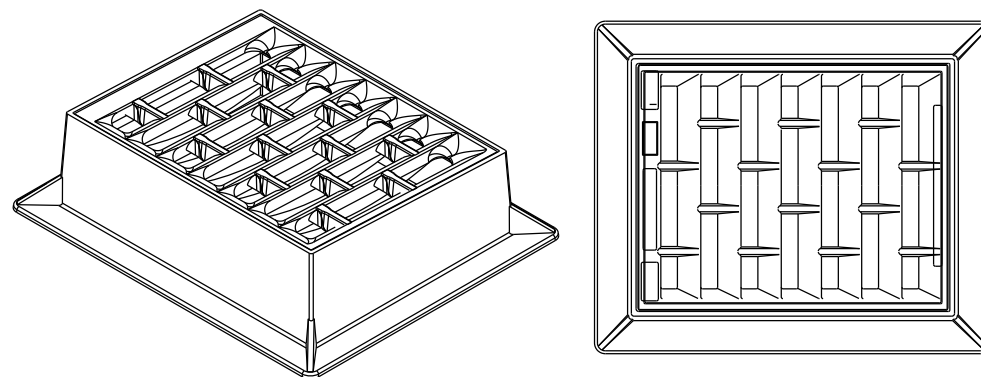
NOTE: EITHER CASTING IS ACCEPTABLE



TYPE "L"



TYPE "M"



INLET COVER TYPE "BW"

GENERAL NOTES

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

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

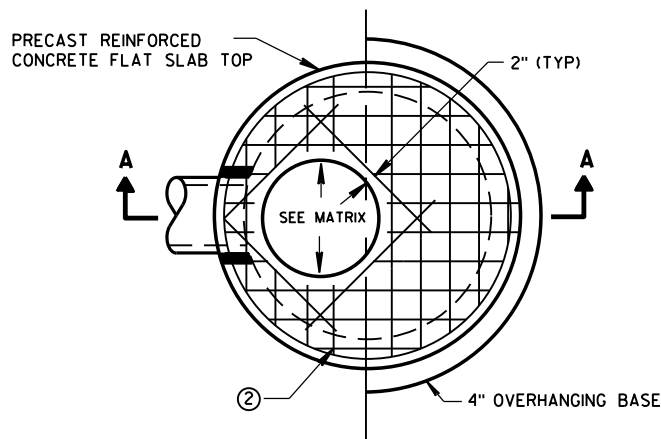
ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

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

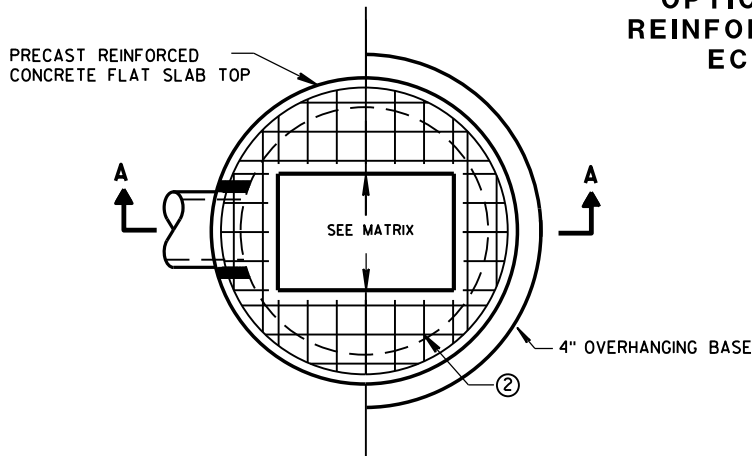
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/27/2013
DATE
FHWA

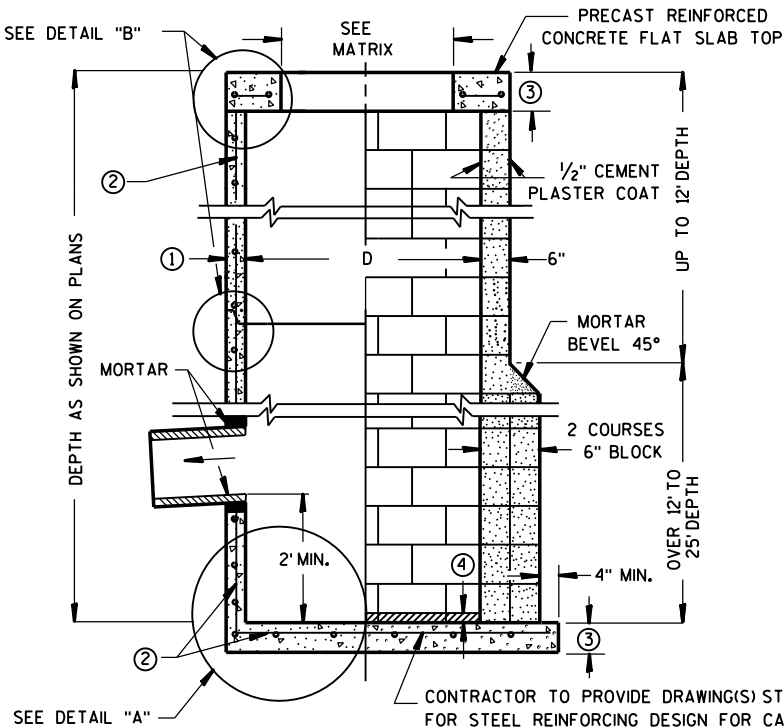
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER



PLAN VIEW CIRCULAR OPENING



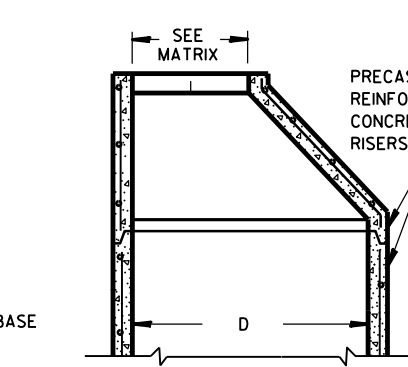
PLAN VIEW RECTANGULAR OPENING



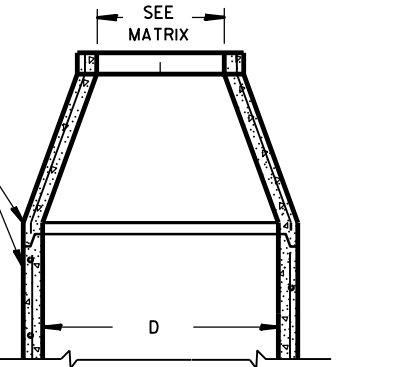
SECTION A-A

PRECAST REINFORCED
CONCRETE WITH
MONOLITHIC BASE

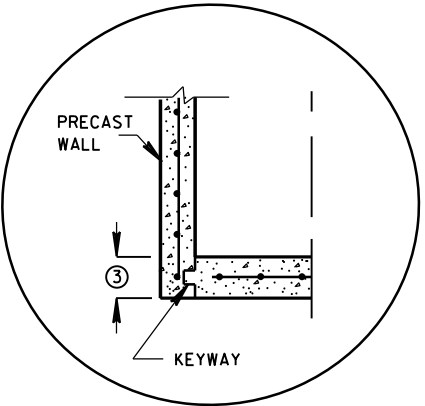
CONCRETE BLOCK WITH CAST-
IN-PLACE OR PRECAST
REINFORCED CONCRETE BASE ②



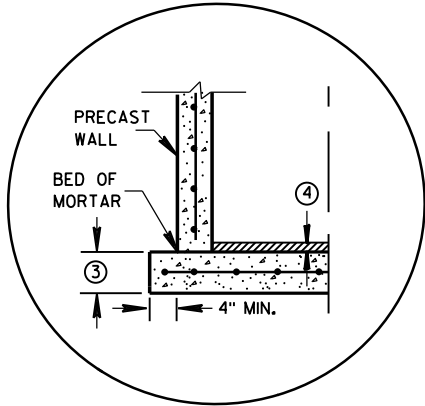
OPTIONAL PRECAST
REINFORCED CONCRETE
ECCENTRIC TOP



OPTIONAL PRECAST
REINFORCED CONCRETE
CONCENTRIC TOP



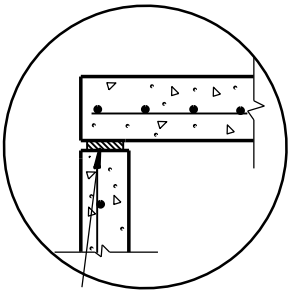
PRECAST REINFORCED
CONCRETE WITH INTEGRAL BASE OPTION



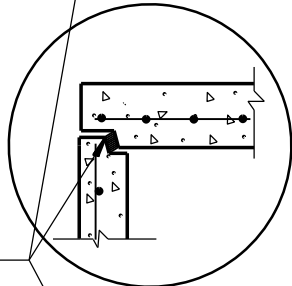
SEPARATE PRECAST REINFORCED
CONCRETE BASE OPTION

DETAIL "A"

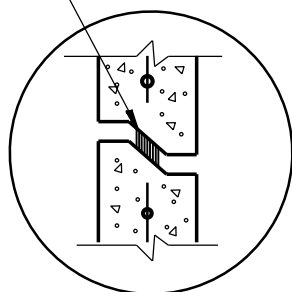
JOINTS TO BE SEALED WITH
A BUTYL RUBBER SEAL PER
SEALANT MANUFACTURERS
RECOMMENDATIONS
CONFORMING TO ASTM C 990
(TYP)



TOP WITH PLAIN END JOINT

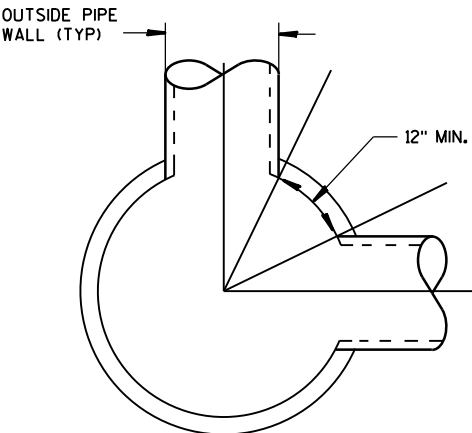


TOP WITH TONGUE AND GROOVE JOINT



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 CATCH BASIN UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

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

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

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

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

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

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

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF 1/2 INCH AND MEET THE REQUIREMENTS OF ASTM A615.

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

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

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

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

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

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

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

- ① MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT, 5 INCHES FOR 4-FT, 6 INCHES FOR 5-FT AND 7 INCHES FOR 6-FT DIAMETER PRECAST CATCH BASINS.
- ② FOR PRECAST CATCH BASINS PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.
- ③ PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER OF 48" AND LESS SHALL HAVE A MINIMUM THICKNESS OF 6". PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER LARGER THAN 48" SHALL HAVE A MINIMUM THICKNESS OF 8".
- ④ 1" CONCRETE KEY POURED AFTER INSTALLATION. 2" SUMP MEASURED FROM TOP OF KEY.

CATCH BASIN COVER OPENING MATRIX

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

PIPE MATRIX

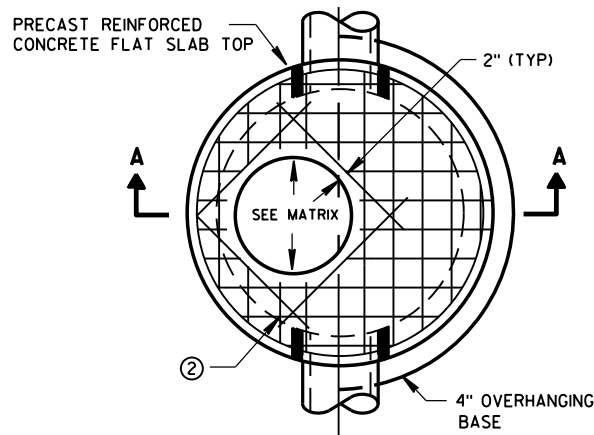
CATCH BASIN SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18
5-FT	36	24
6-FT	42	30

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

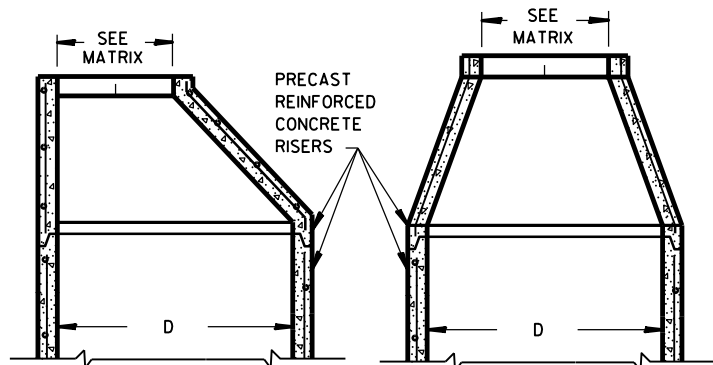
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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

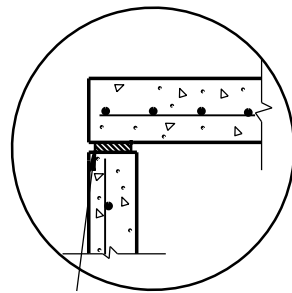


PLAN VIEW CIRCULAR OPENING

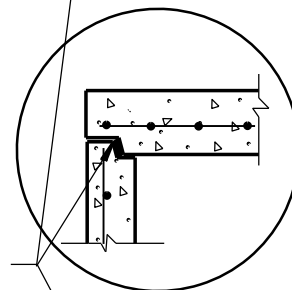


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

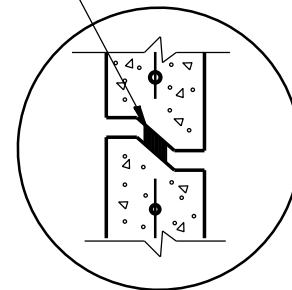
OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP



TOP WITH PLAIN END JOINT



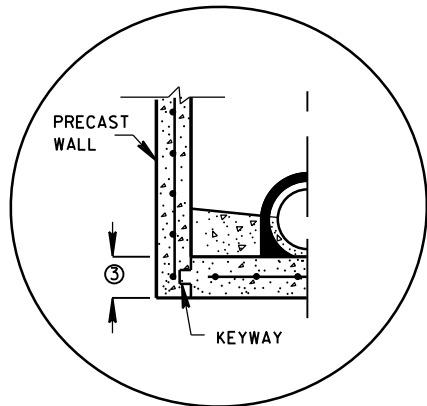
TOP WITH TONGUE AND GROOVE JOINT



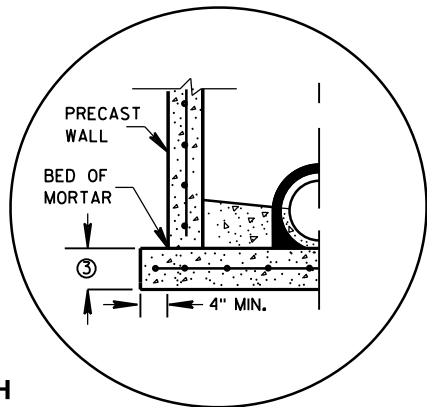
RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

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

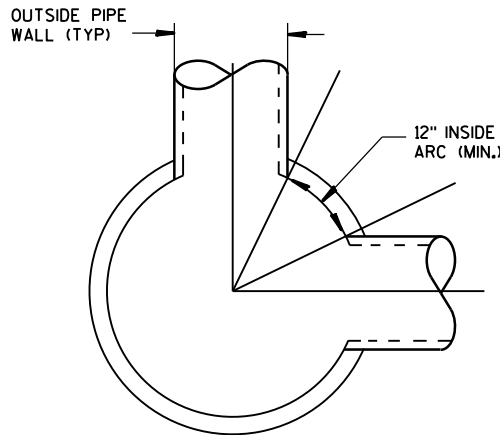


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

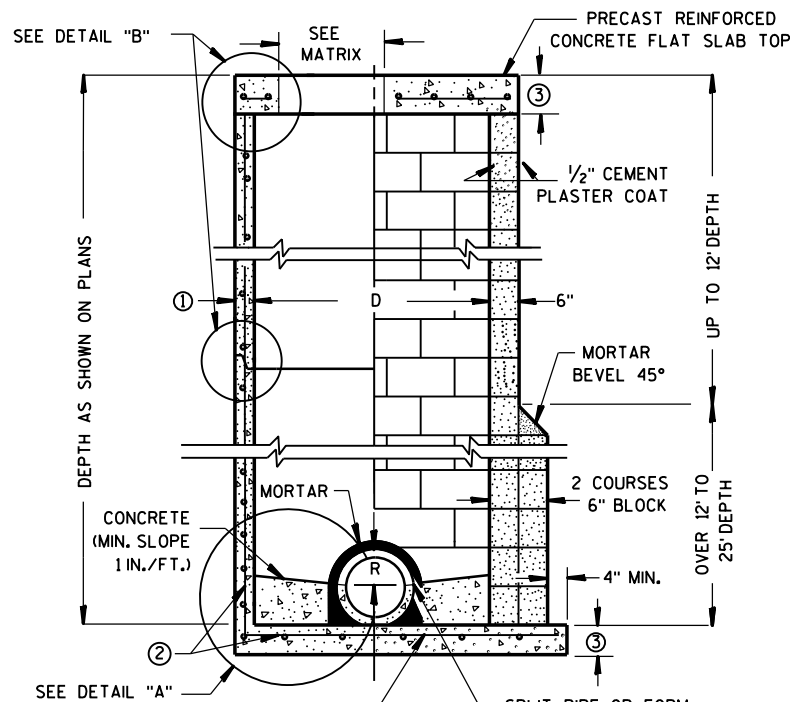


SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "C"



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

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

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

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS. UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST MANHOLE UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

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

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

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

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

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

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

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF 1/2" AND MEET THE REQUIREMENTS OF ASTM A615.

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

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

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

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

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

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

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

- ① MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT, 5 INCHES FOR 4-FT, 6 INCHES FOR 5-FT, 7 INCHES FOR 6-FT, 8 INCHES FOR 7-FT AND 9 INCHES FOR 8-FT DIAMETER PRECAST MANHOLES.
- ② FOR PRECAST MANHOLES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.
- ③ PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER OF 48" AND LESS SHALL HAVE A MINIMUM THICKNESS OF 6". PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER LARGER THAN 48" SHALL HAVE A MINIMUM THICKNESS OF 8".

MANHOLE COVER OPENING MATRIX

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

PIPE MATRIX

MANHOLE SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18
5-FT	36	24
6-FT	42	36
7-FT	48	36
8-FT	60	42

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

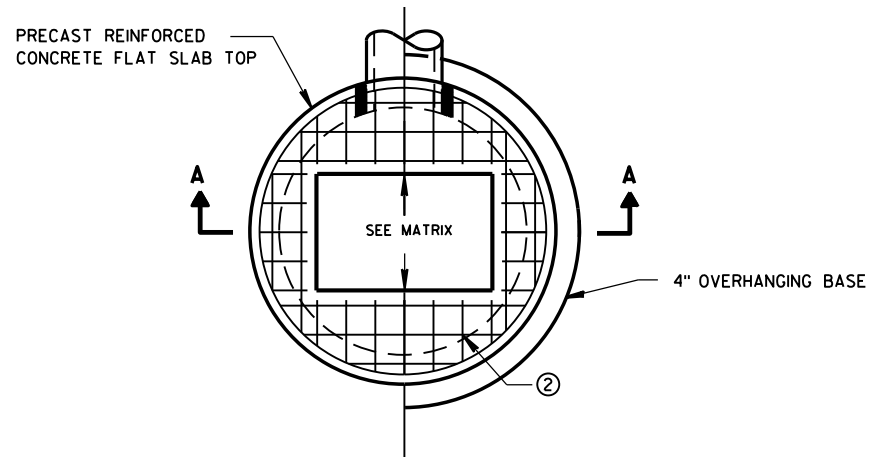
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

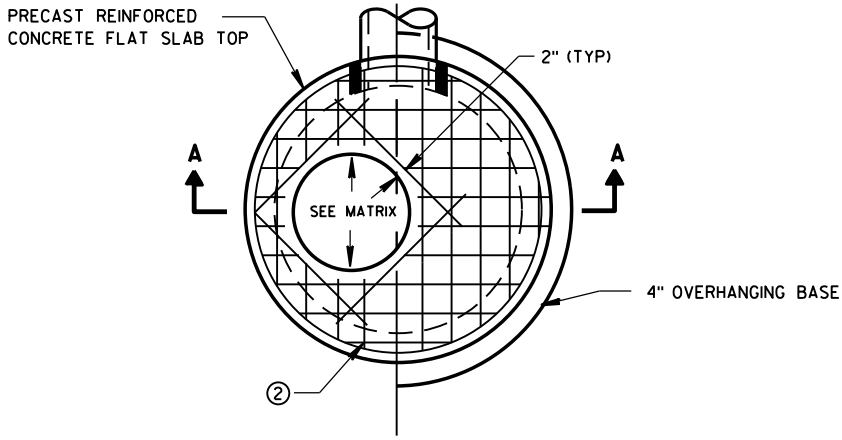
Sept., 2016
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERVISOR

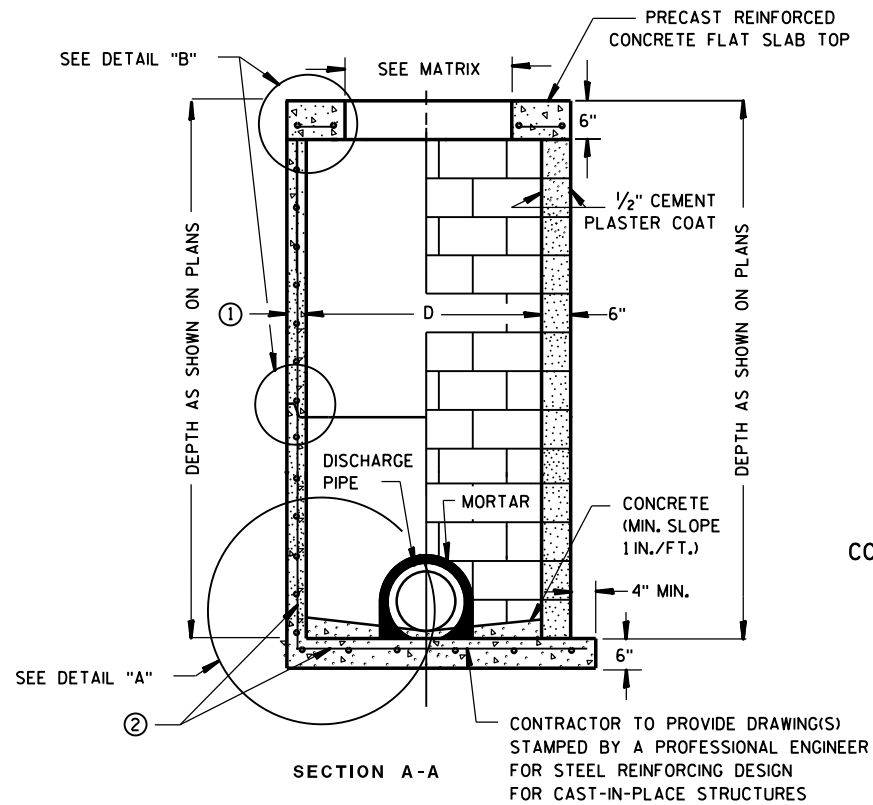
FHWA



PLAN VIEW RECTANGULAR OPENING

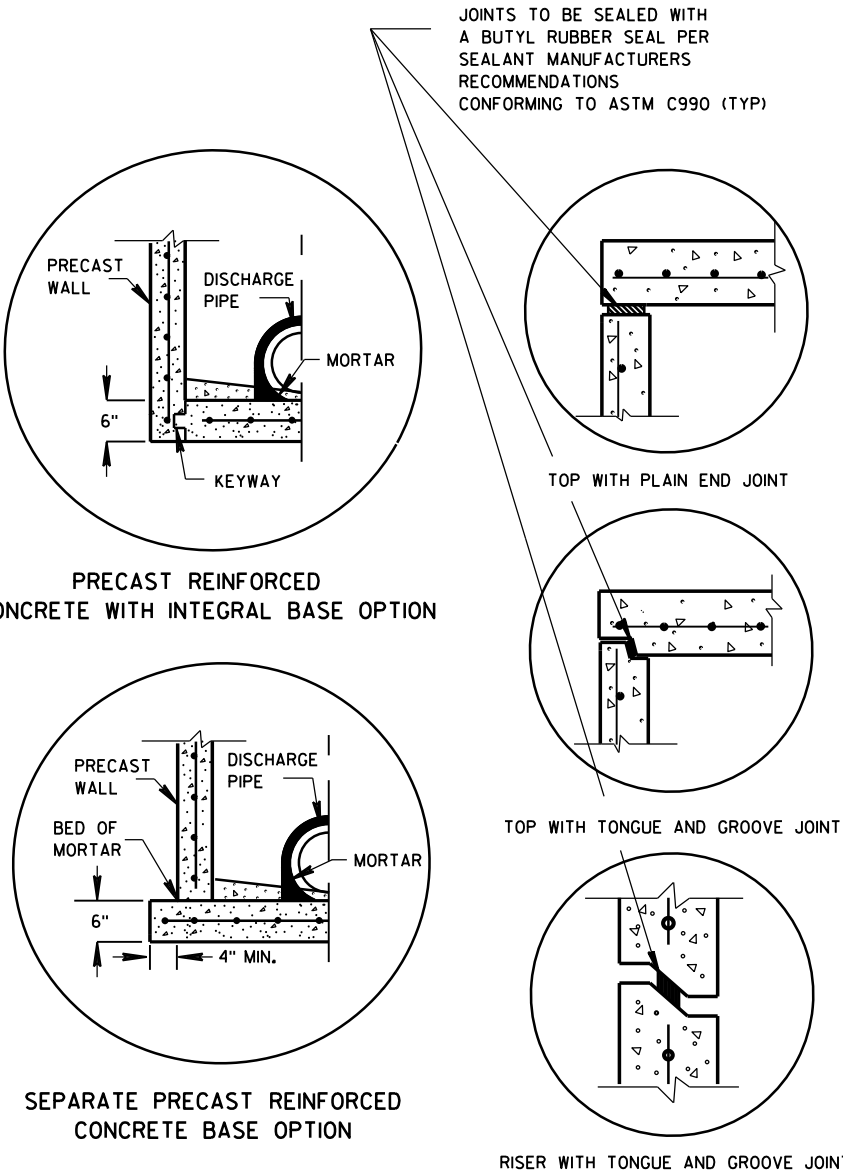


PLAN VIEW CIRCULAR OPENING



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

CIRCULAR INLETS W/ FLAT TOP



DETAIL "A"

DETAIL "B"

INLETS 3-FT AND 4-FT DIAMETER

GENERAL NOTES

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

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

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

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

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

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

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

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

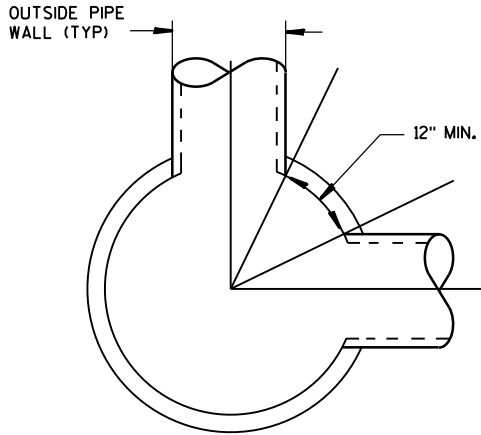
4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

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

- ① MINIMUM WALL THICKNESS SHALL BE 4-IN FOR 3-FT DIAMETER AND 5-IN FOR 4-FT DIAMETER PRECAST INLETS.
- ② FOR PRECAST CATCH BASINS PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

INLET COVER OPENING MATRIX

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



DETAIL "C"

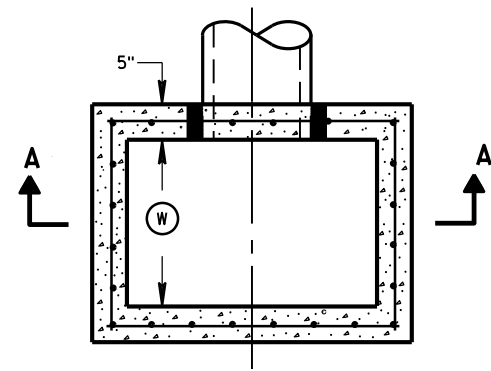
PIPE MATRIX

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

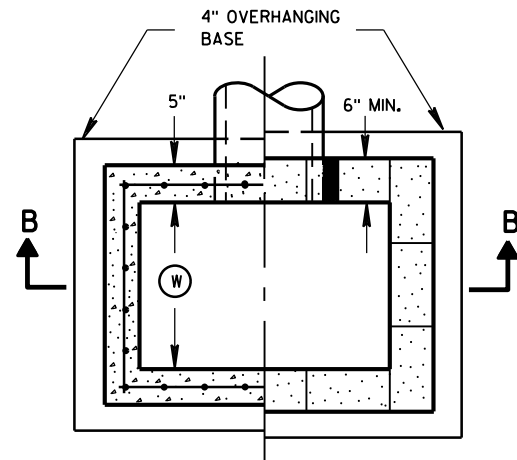
INLETS 3-FT AND 4-FT DIAMETER

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

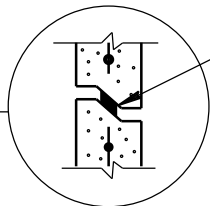
APPROVED
Sept., 2016 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA UNIT SUPERVISOR



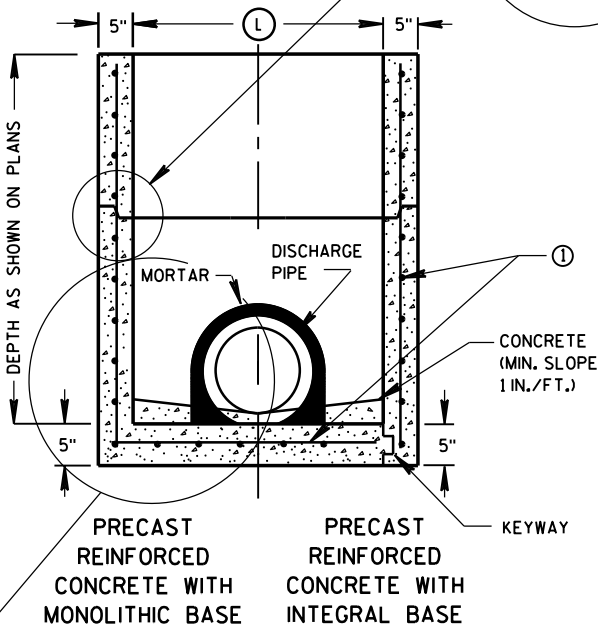
PLAN VIEW



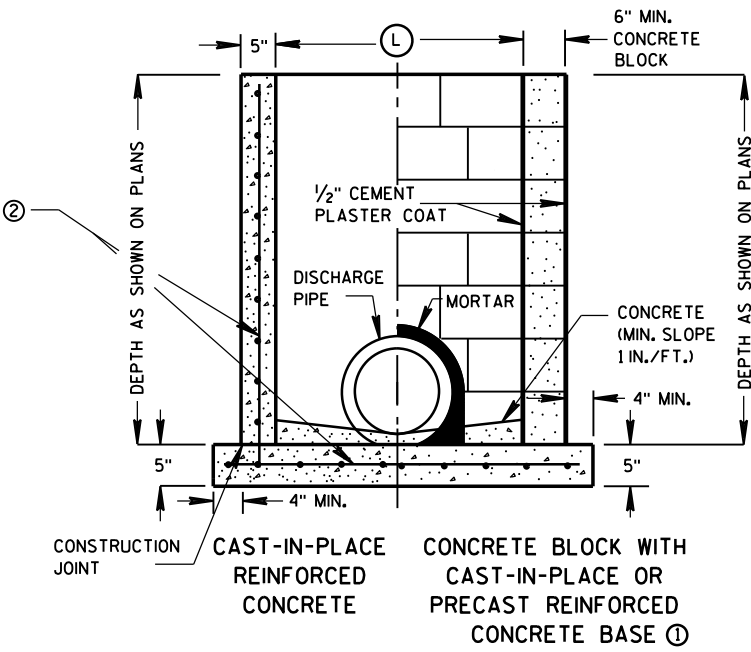
PLAN VIEW



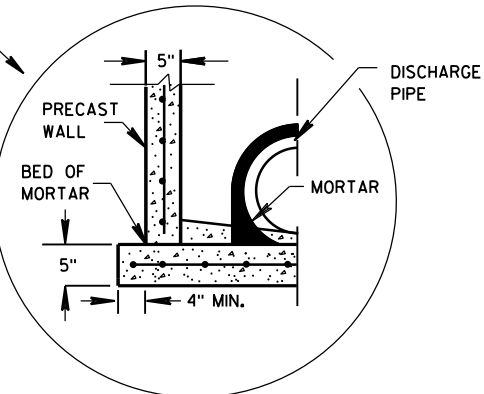
RISER JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)



SECTION A-A



SECTION B-B



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

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 FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

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

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

4" OVERHANGING BASES ARE REQUIRED FOR CAST-IN-PLACE REINFORCED CONCRETE AND CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

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

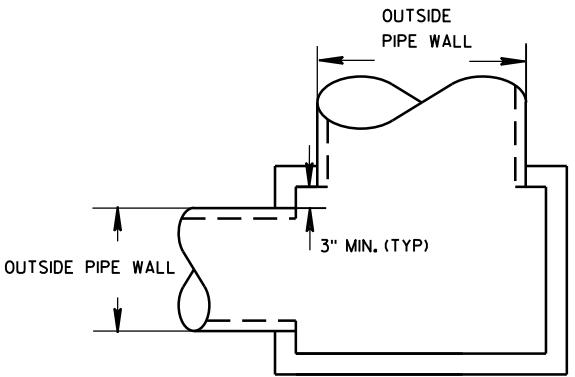
- ① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.
- ② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

INLET COVER MATRIX

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

PIPE MATRIX

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

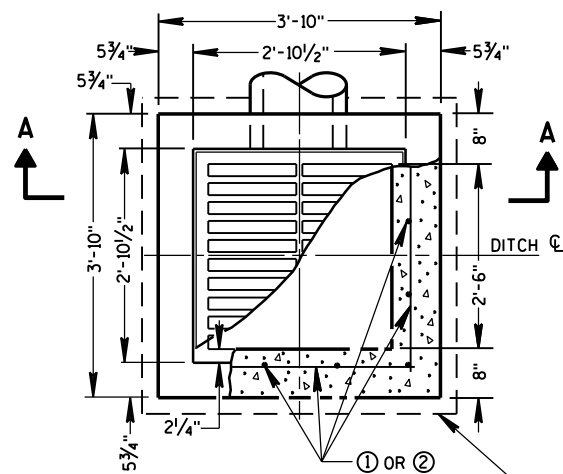


DETAIL "A"

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

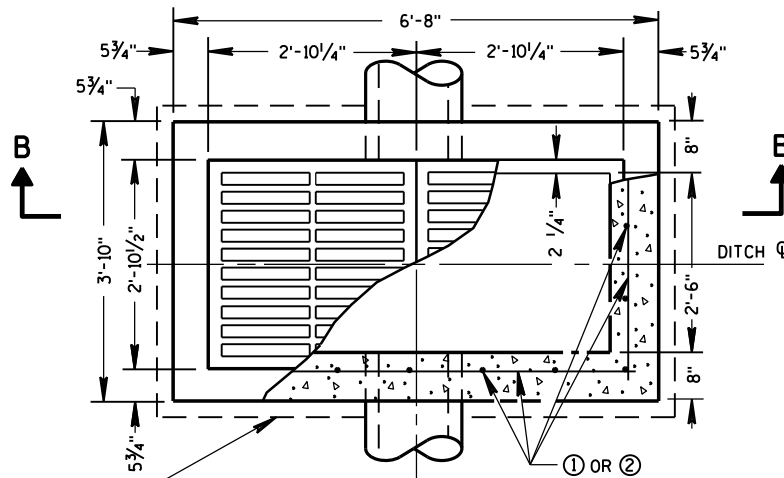
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

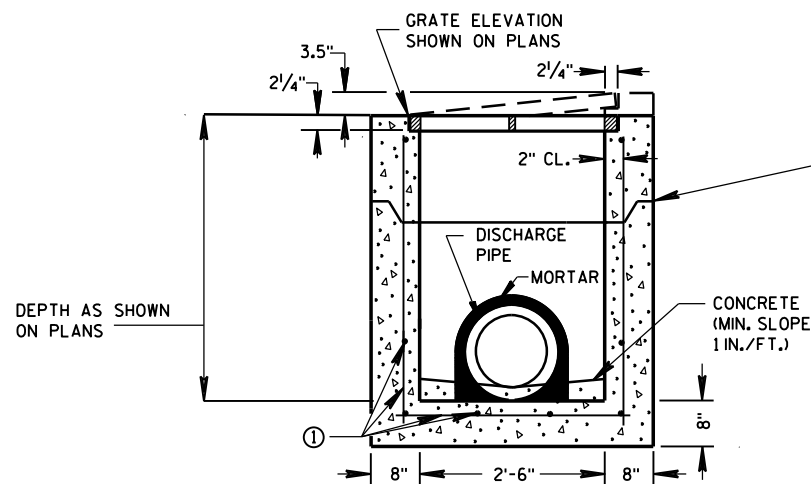


PLAN VIEW

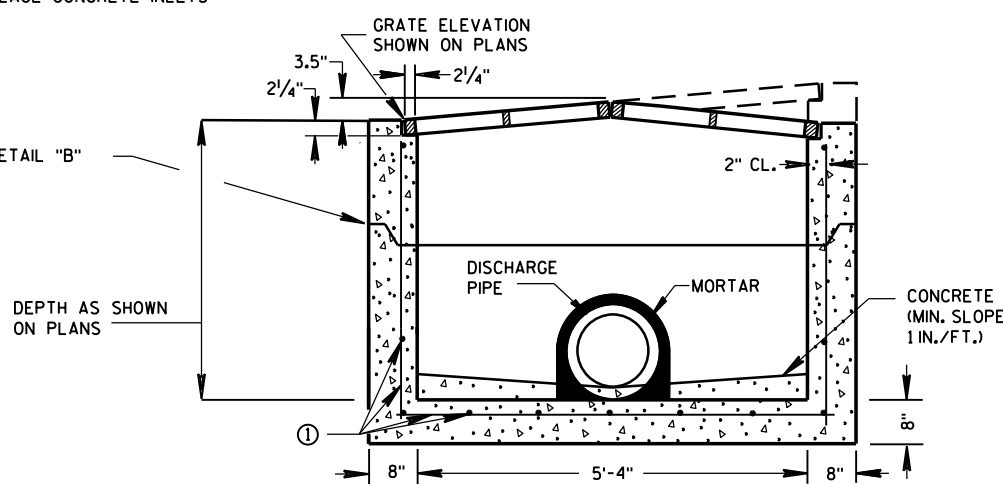
4" OVERHANGING BASE ON REINFORCED CAST-IN-PLACE CONCRETE INLETS



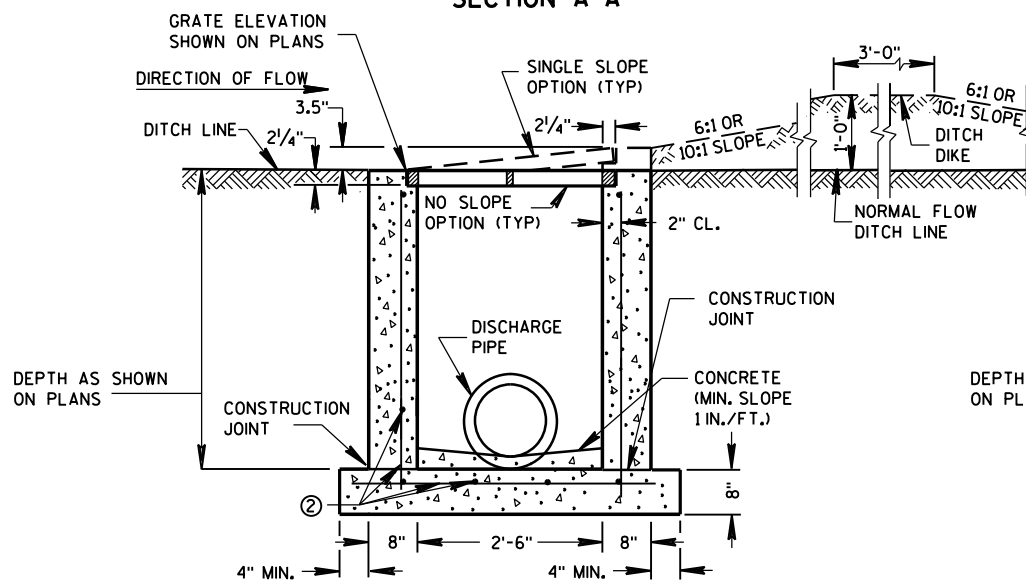
PLAN VIEW



PRECAST REINFORCED CONCRETE SECTION A-A

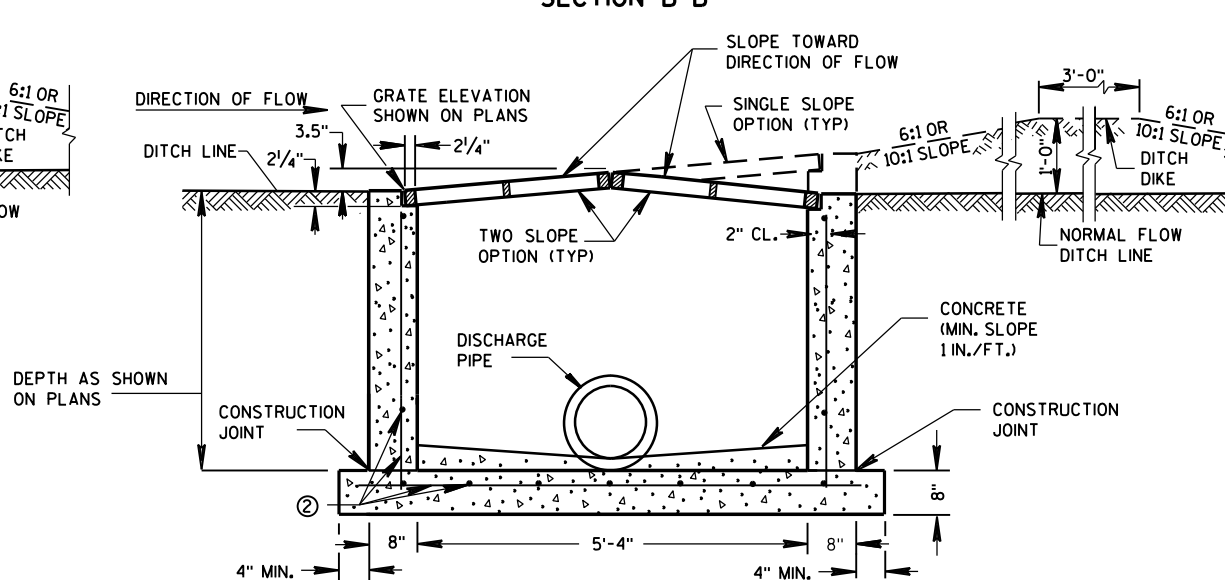


PRECAST REINFORCED CONCRETE SECTION B-B



REINFORCED CAST-IN-PLACE CONCRETE SECTION A-A

INLETS MEDIAN 1 GRATE



REINFORCED CAST-IN-PLACE CONCRETE SECTION B-B

INLETS MEDIAN 2 GRATE

GENERAL NOTES

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

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

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

ALL MEDIAN INLETS ARE DESIGNATED ON THE PLANS AS "INLETS, IG-MS", ETC. THE FIRST NUMBER AND LETTER DESIGNATE THE TYPE OF STRUCTURE, AND THE FOLLOWING LETTERS DESIGNATE THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT. BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

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

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

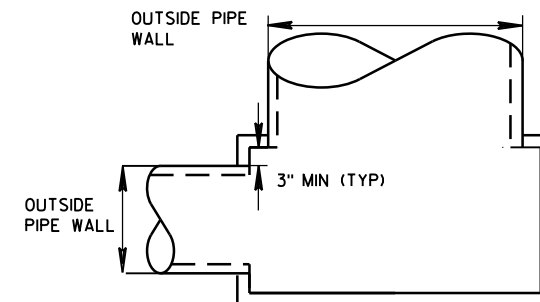
ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

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

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

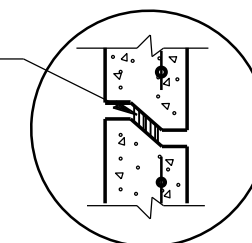
PIPE MATRIX

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



DETAIL "A"

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



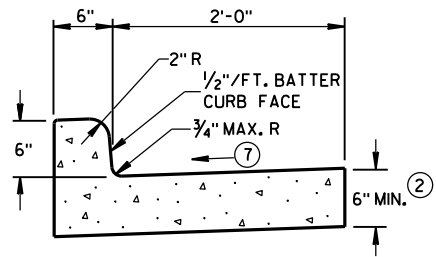
DETAIL "B"

INLETS MEDIAN 1 AND 2 GRATE

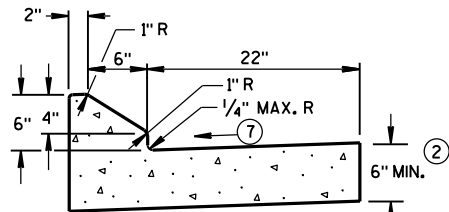
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept., 2016
DATE
FHWA

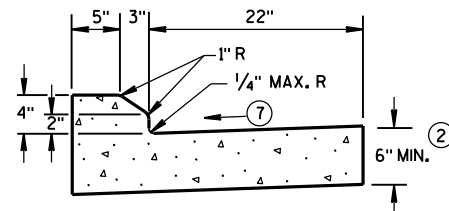
/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERVISOR



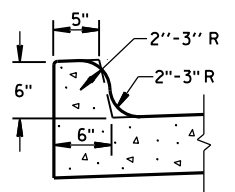
TYPES A^① & D



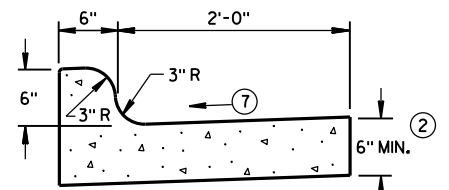
6" SLOPED CURB TYPES G^① & J



4" SLOPED CURB TYPES G^① & J

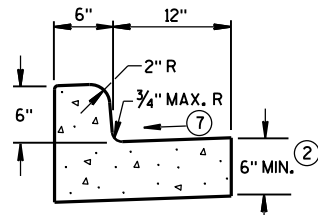


TYPES K^① & L
(OPTIONAL CURB SHAPE)



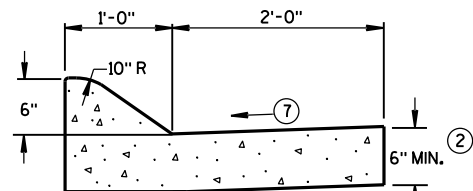
TYPES K^① & L

CONCRETE CURB & GUTTER 30"

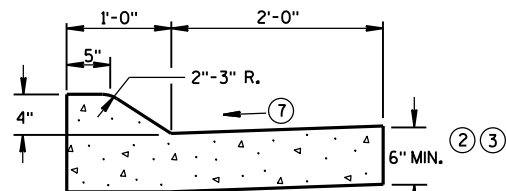


TYPES A^① & D

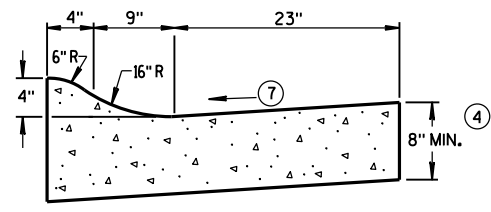
CONCRETE CURB & GUTTER 18"



6" SLOPED CURB TYPES A^① & D

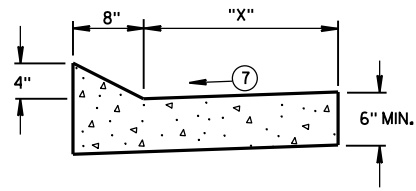


4" SLOPED CURB TYPES A^① & D



4" SLOPED CURB TYPES R^① & T^⑤

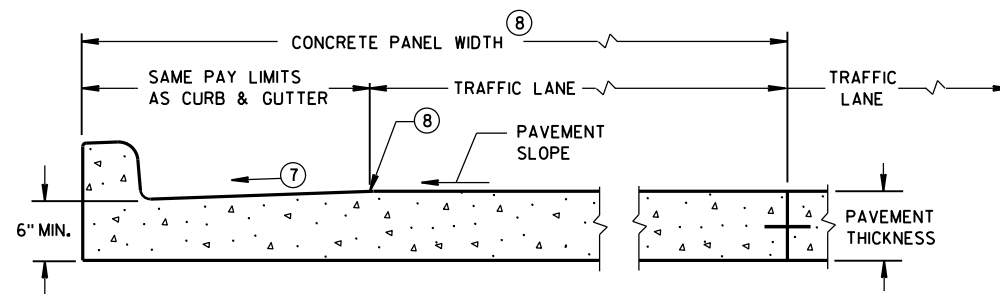
CONCRETE CURB & GUTTER 36"



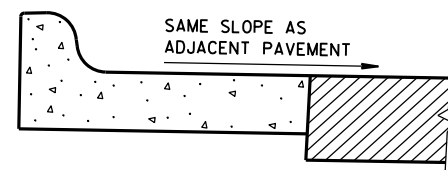
TYPES TBT & TBTT^①

CONCRETE CURB & GUTTER

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



PARTIAL SECTION OF PAVEMENT
WITH INTEGRAL CURB & GUTTER



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

GENERAL NOTES

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

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

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

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

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

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

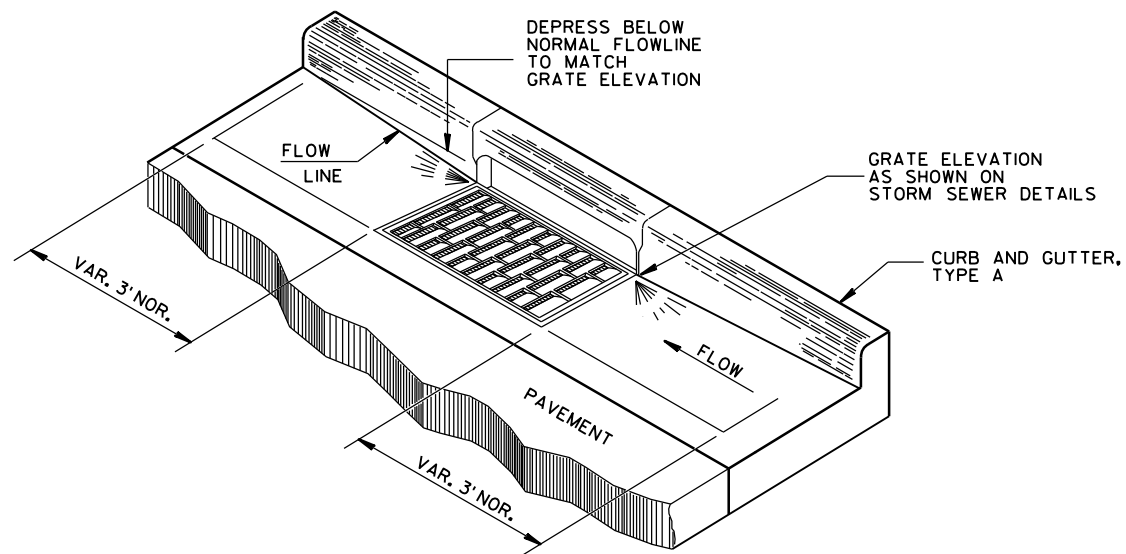
PAVEMENT THICKNESS
AND MAXIMUM CONCRETE
PANEL WIDTH TABLE

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

* BIKE LANE IS NOT SHOWN.

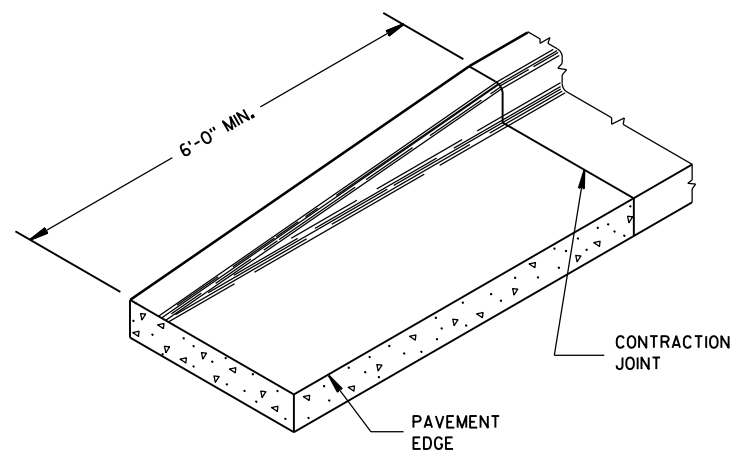
CONCRETE CURB & GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

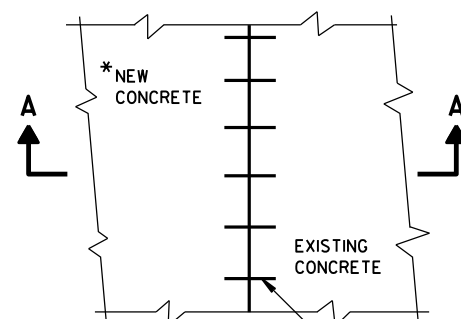


DETAIL OF CURB AND GUTTER AT INLETS

(TYPE H INLET COVER SHOWN)

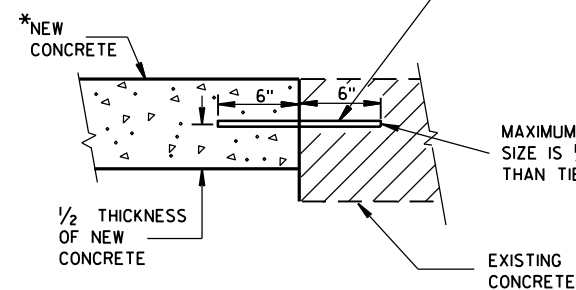


END SECTION CURB & GUTTER



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.

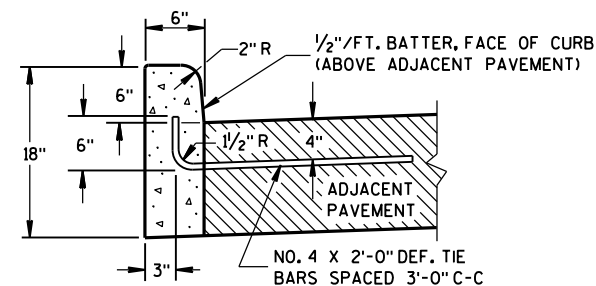
GENERAL NOTES

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

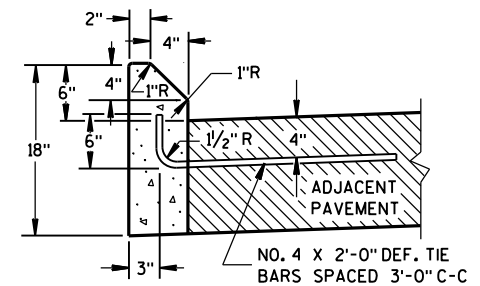
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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

- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K, R AND TBTT.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ⑨ REFER TO SDD 8D18 AND SDD 8D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.

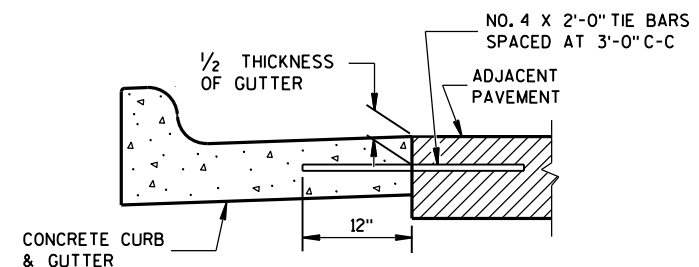


TYPES A^① & D

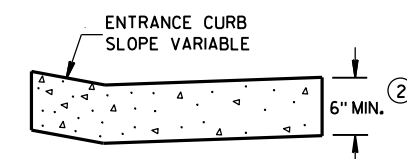


TYPES G^① & J

CONCRETE CURB



TYPICAL TIE BAR LOCATION^①



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

CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June, 2017

DATE

FHWA

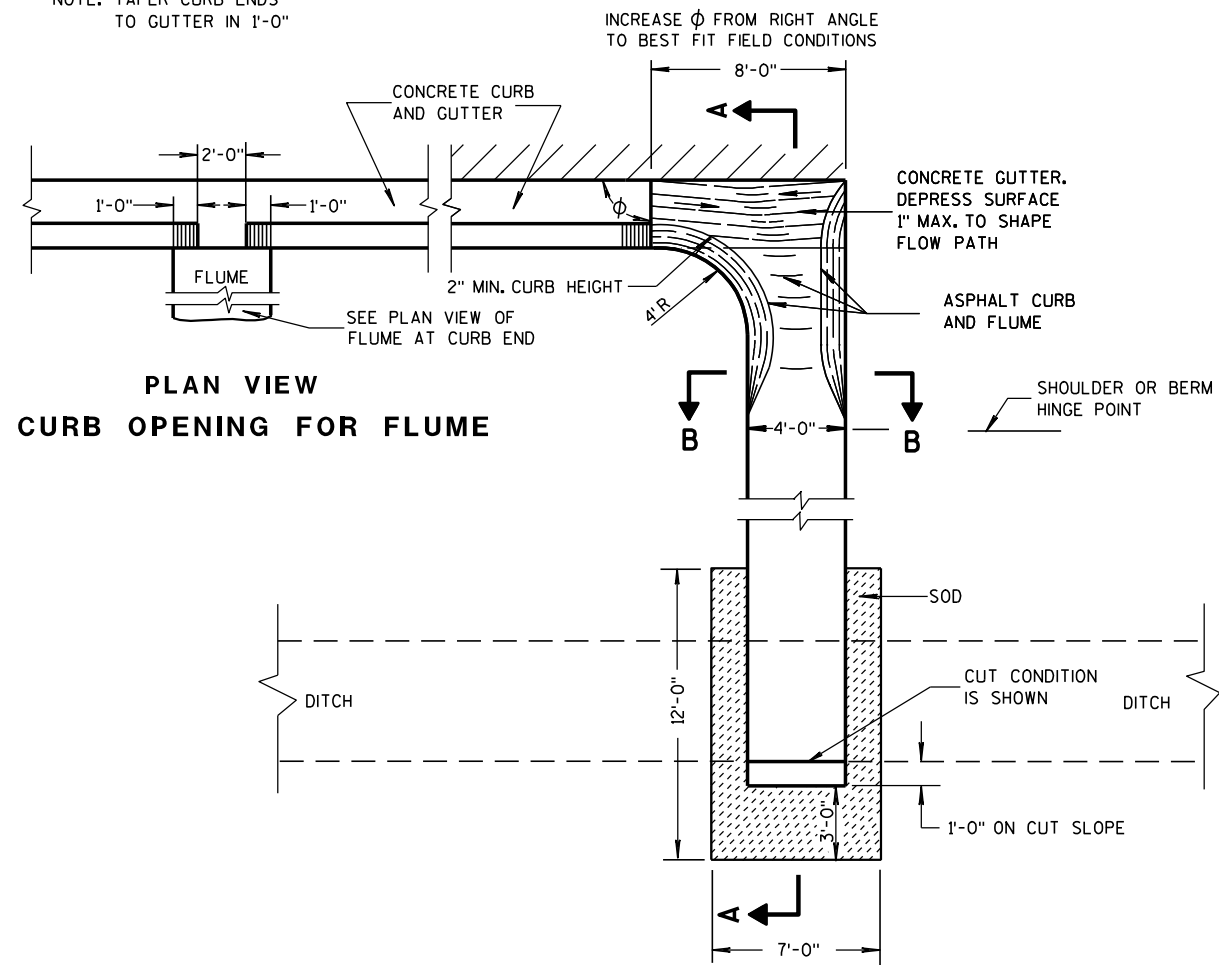
/S/ Rodney Taylor

ROADWAY STANDARDS DEVELOPMENT

UNIT SUPERVISOR

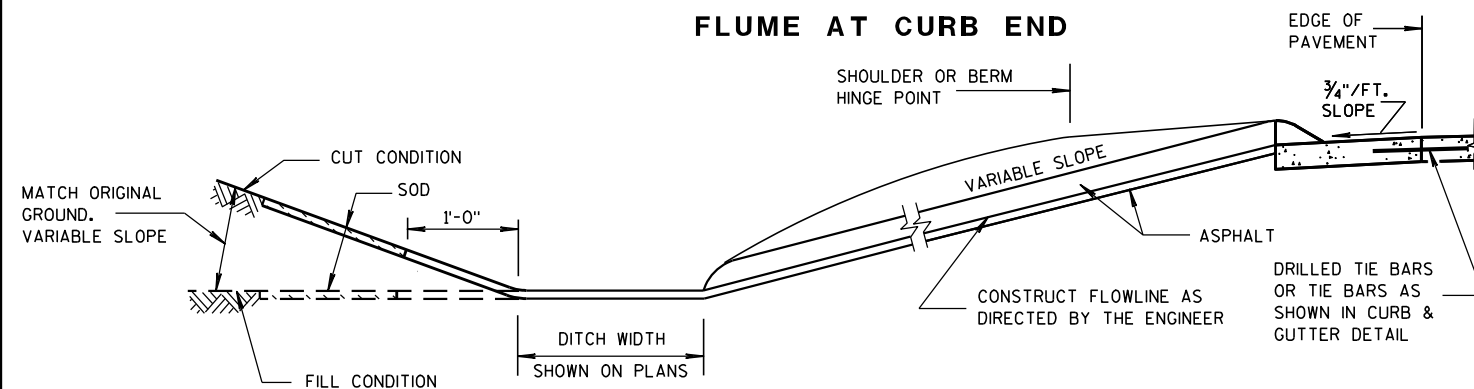
ASPHALTIC FLUME

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

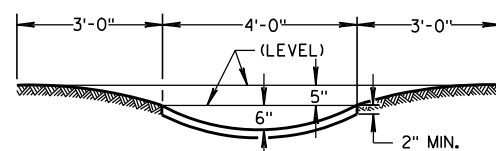


PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END



SECTION A-A



SECTION B-B

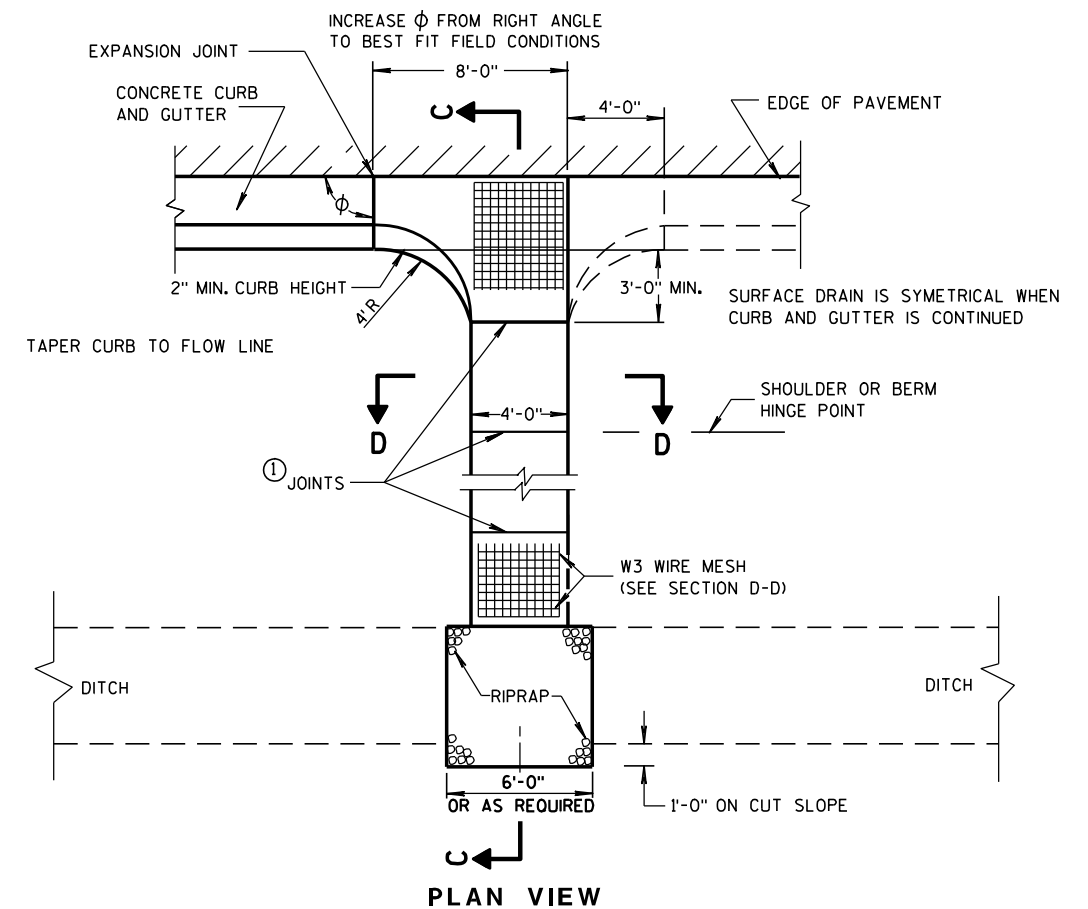
GENERAL NOTES

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

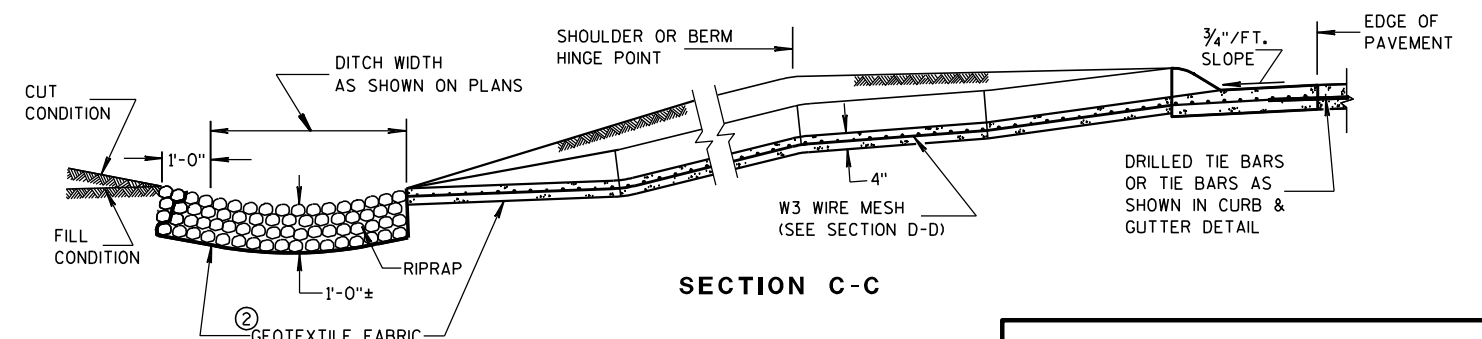
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

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

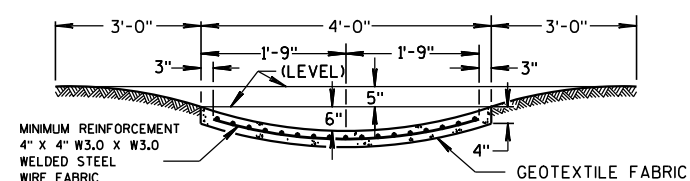
③ CONCRETE SURFACE DRAIN



PLAN VIEW



SECTION C-C



SECTION D-D

CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

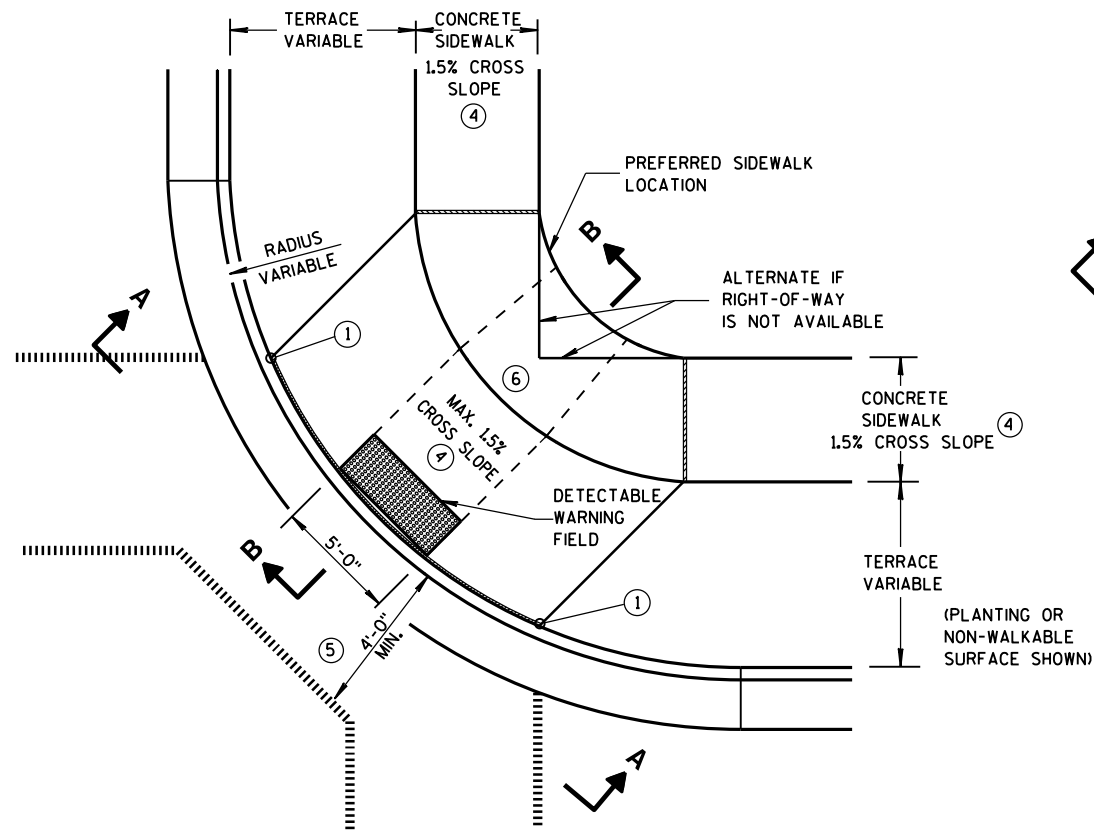
APPROVED

9-4-08

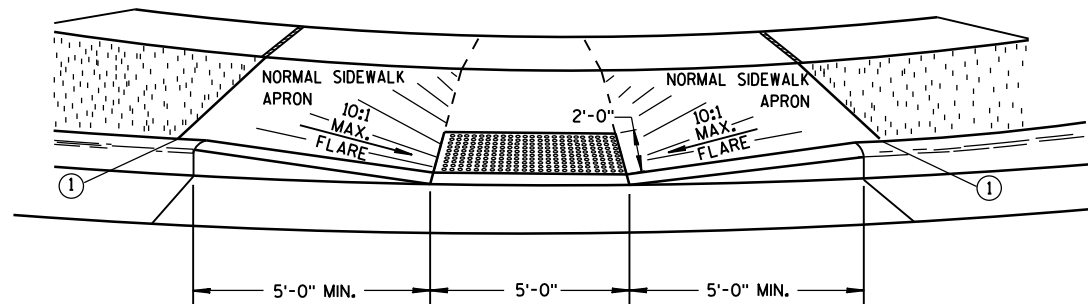
DATE

FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER

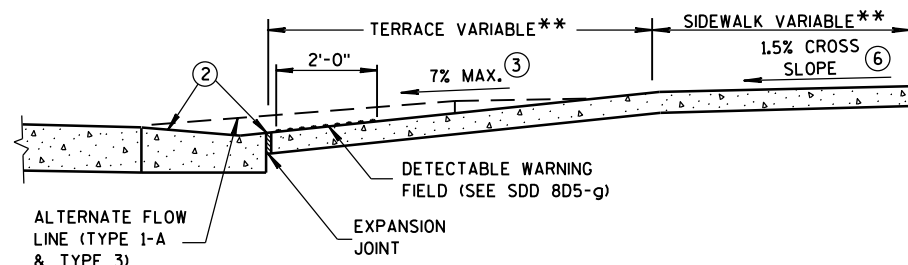


**PLAN VIEW
TYPE 1 RAMP**
(CENTER OF CORNER RADIUS)

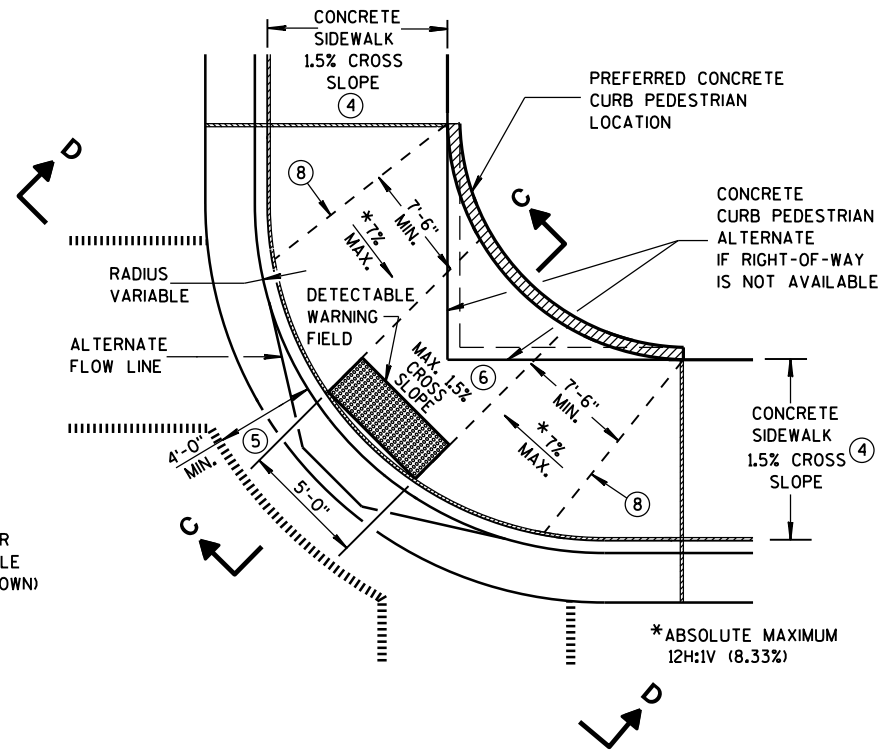


VIEW A-A

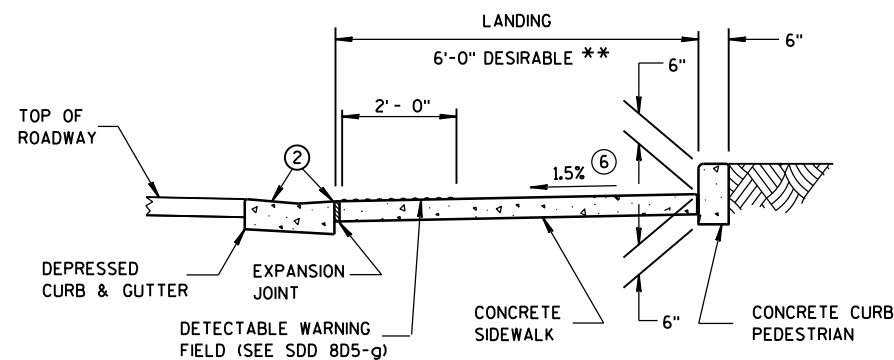
** WIDTH SHOWN ELSEWHERE
IN THE PLANS



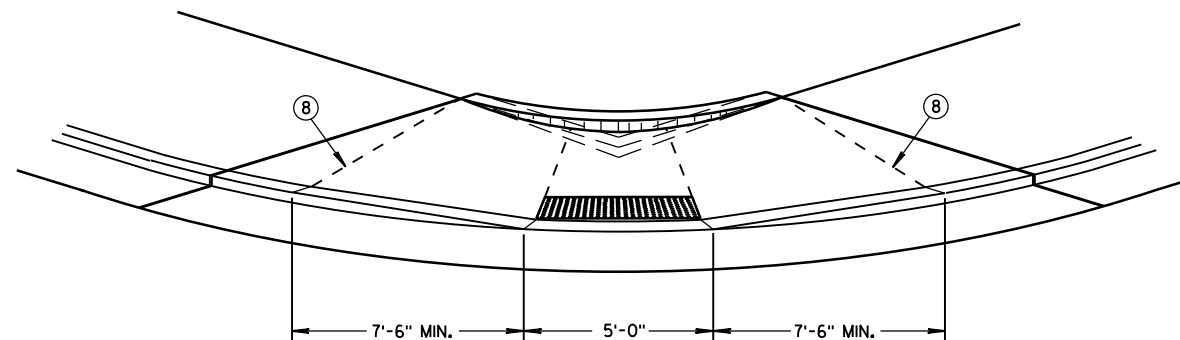
SECTION B-B



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



SECTION C-C



VIEW D-D

GENERAL NOTES

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

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

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

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

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

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

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

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

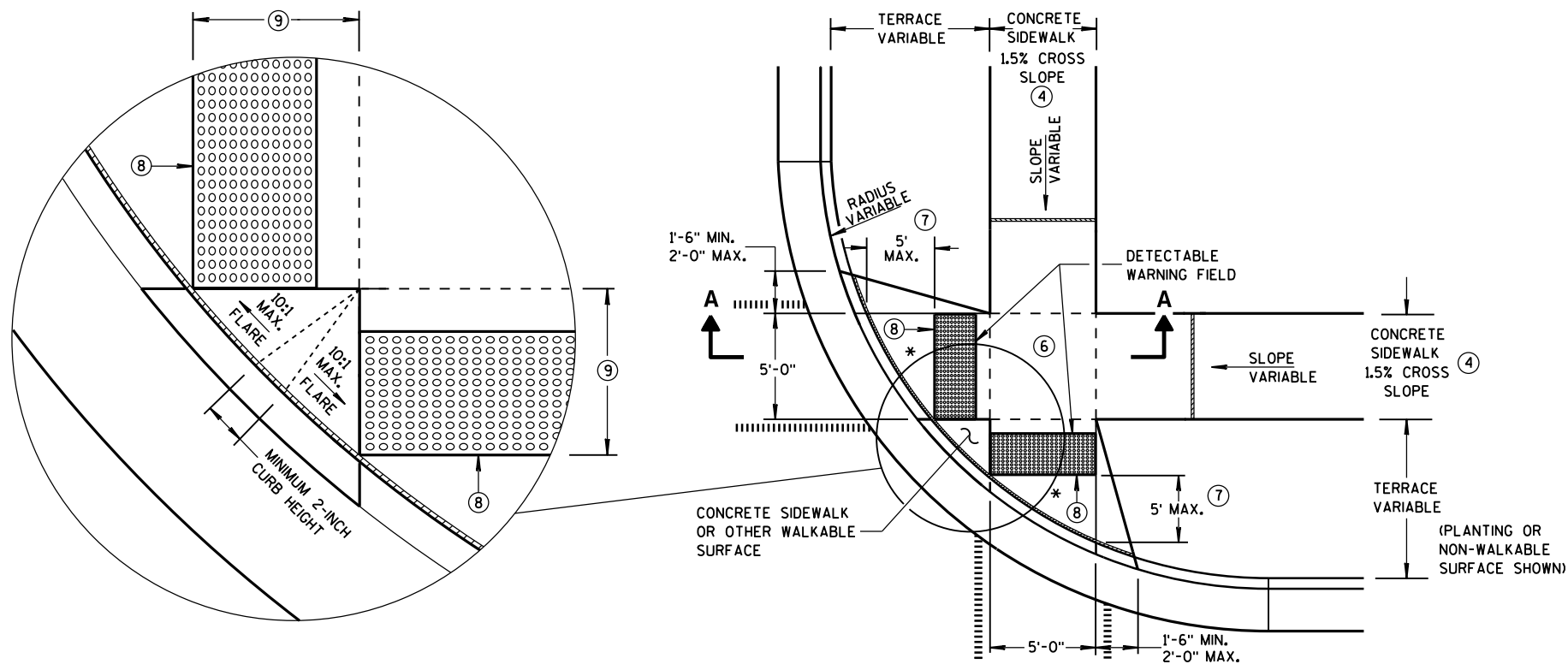
- ① THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB. POINT LOCATION MAY BE ADJUSTED TO ALIGN WITH BEGINNING OF FULL-HEIGHT CURB IF THIS DISTANCE IS SHORT.
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%.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

LEGEND

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

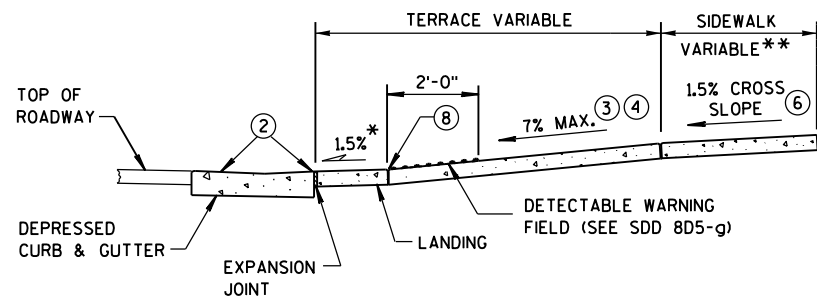
**CURB RAMPS
TYPES 1 AND 1-A**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



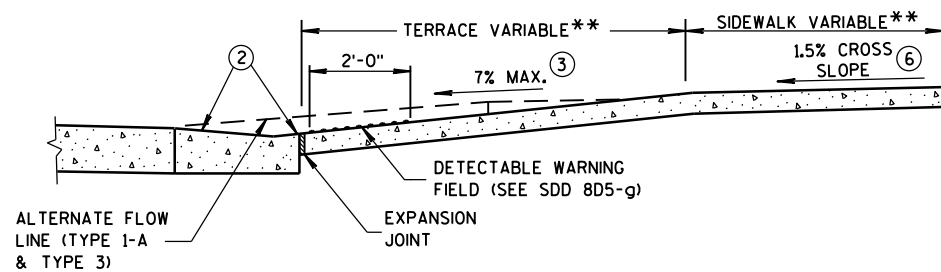
**PLAN VIEW
TYPE 2 RAMP**
(ON LINE WITH SIDEWALK)

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



SECTION A-A

** WIDTH SHOWN ELSEWHERE
IN THE PLANS



SECTION B-B

GENERAL NOTES

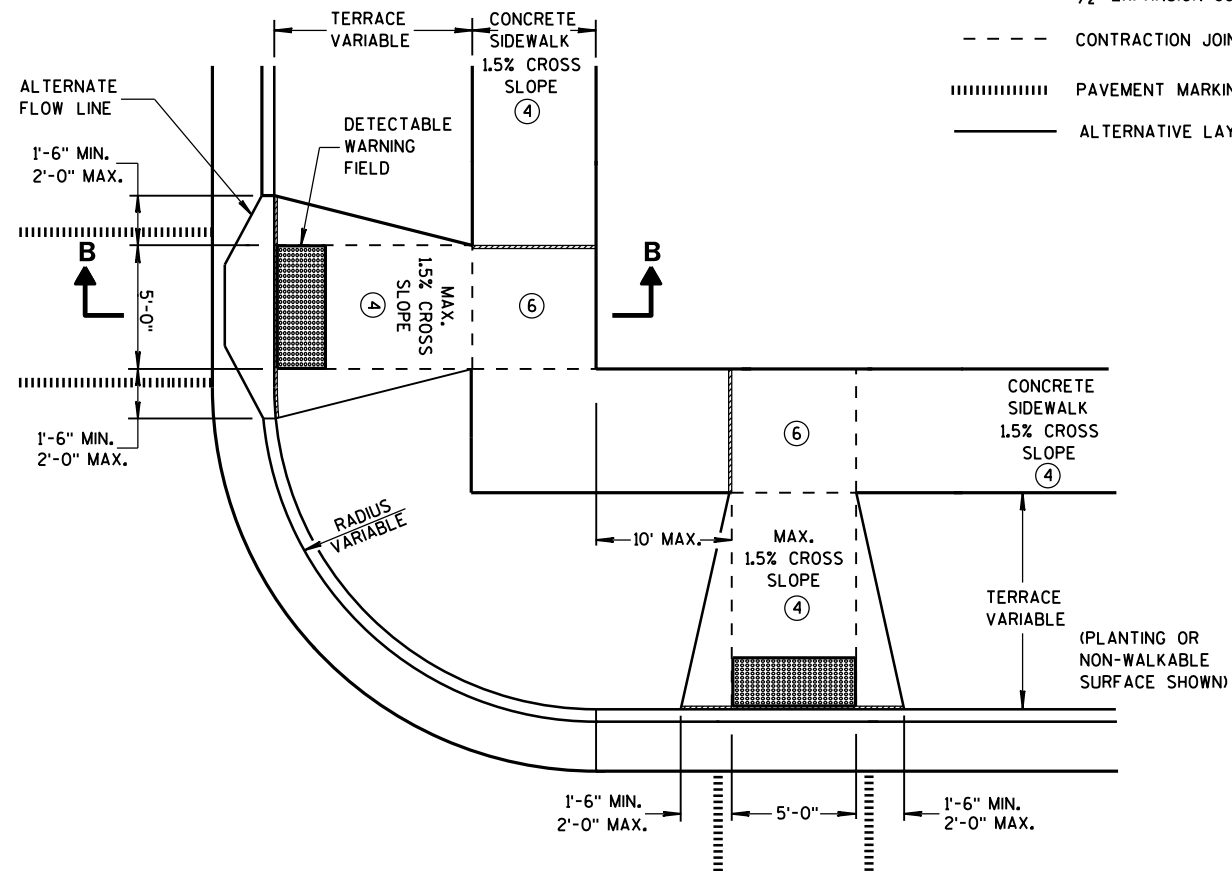
AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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

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

LEGEND

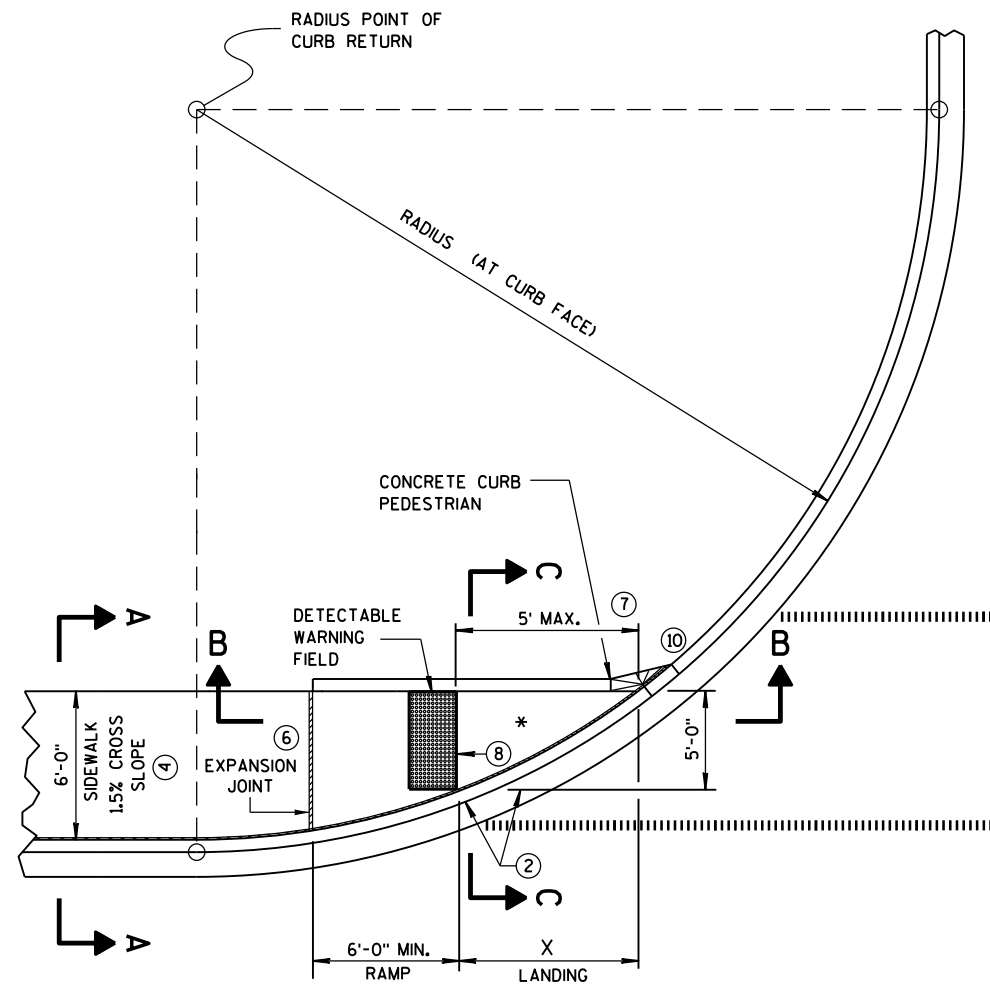
- 1/2" EXPANSION JOINT-SIDEWALK
- - - - CONTRACTION JOINT FIELD LOCATED
- ||||| PAVEMENT MARKING CROSSWALK (WHITE)
- ALTERNATIVE LAYOUT



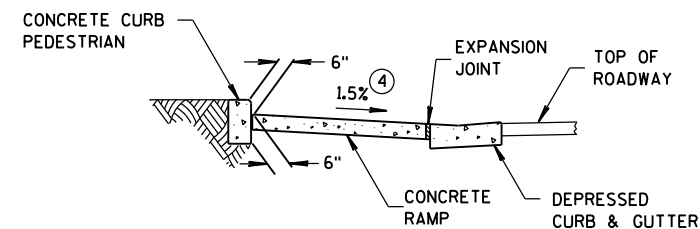
**PLAN VIEW
TYPE 3 RAMP**
(OUTSIDE OF CROSSWALK AREA)

**CURB RAMPS
TYPES 2 AND 3**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

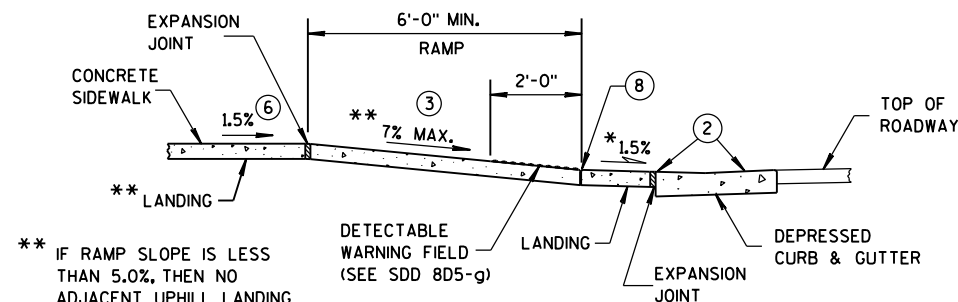


CURB RAMP TYPE 4A
PLAN VIEW



SECTION C-C FOR TYPE 4A

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

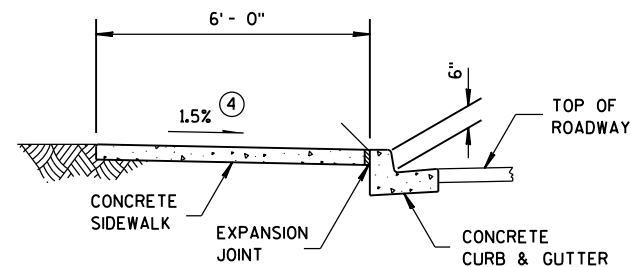


SECTION B-B FOR TYPE 4A

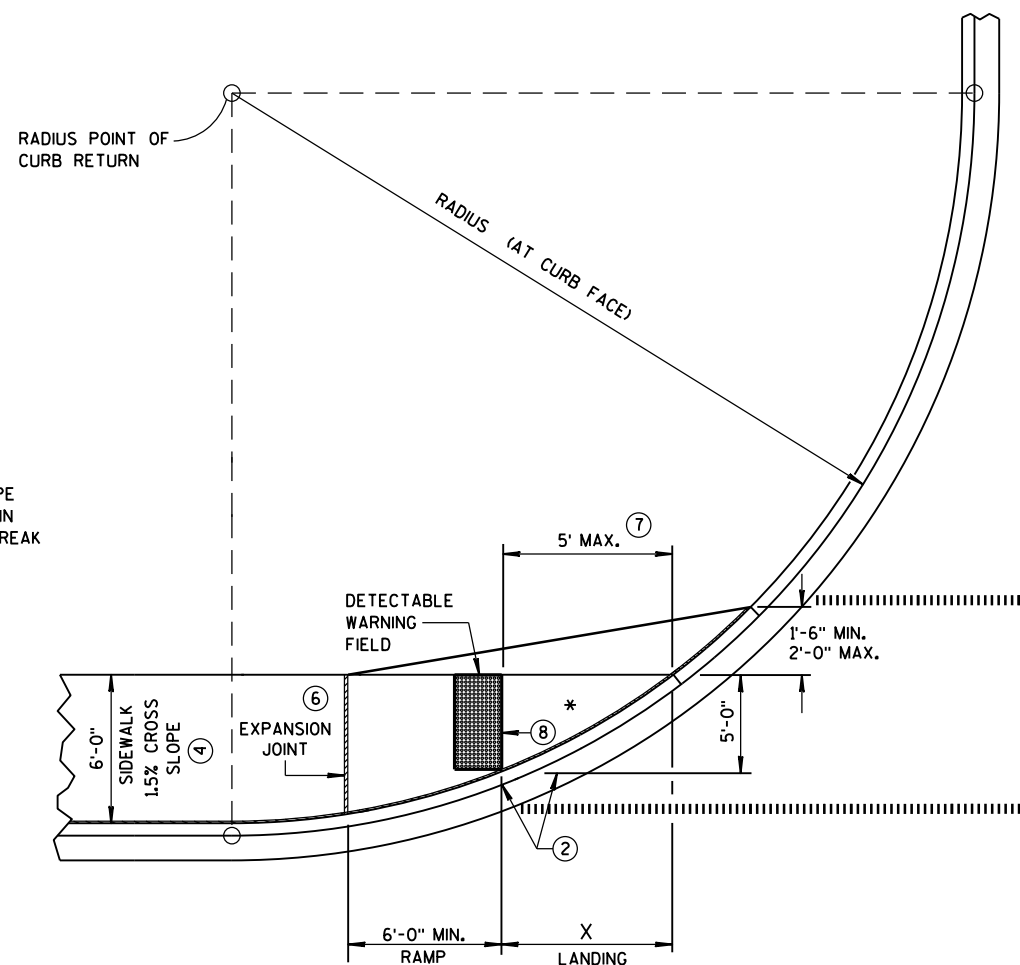
** IF RAMP SLOPE IS LESS
THAN 5.0%, THEN NO
ADJACENT UPHILL LANDING
IS REQUIRED

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

INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION A-A FOR TYPE 4A



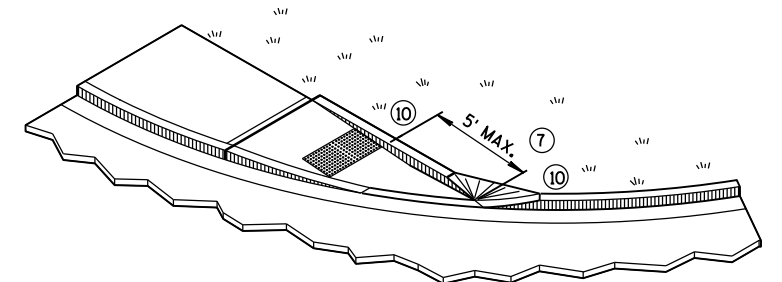
CURB RAMP TYPE 4A1
PLAN VIEW

GENERAL NOTES

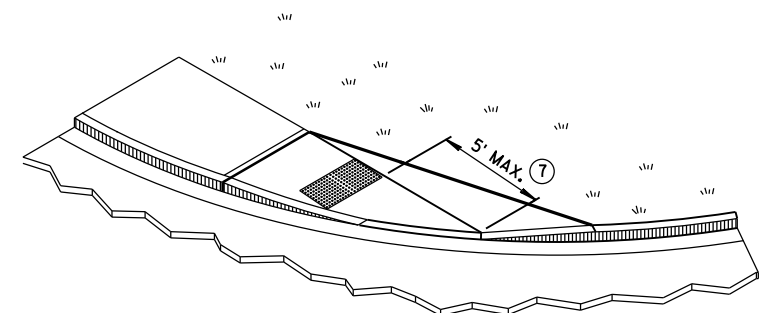
AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.

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

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



ISOMETRIC VIEW FOR TYPE 4A



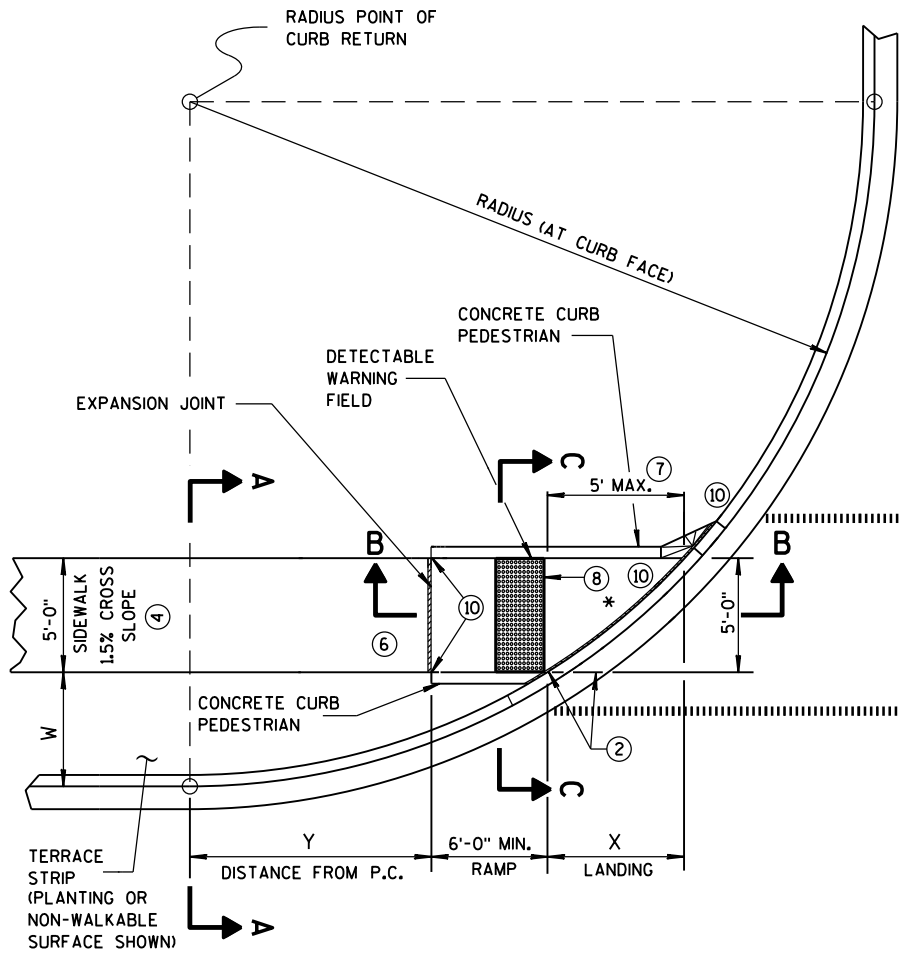
ISOMETRIC VIEW FOR TYPE 4A1

LEGEND

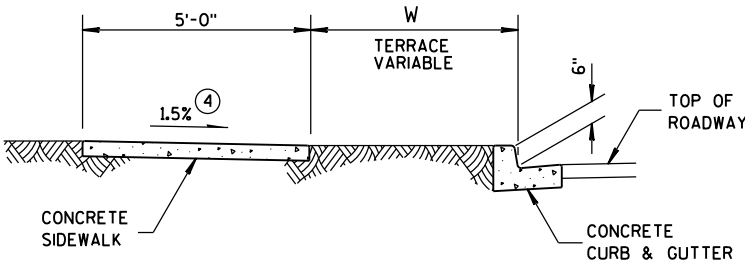
- ½" EXPANSION JOINT-SIDEWALK
- - - CONTRACTION JOINT FIELD LOCATED
- ||||| PAVEMENT MARKING CROSSWALK (WHITE)

**CURB RAMPS
TYPES 4A AND 4A1**

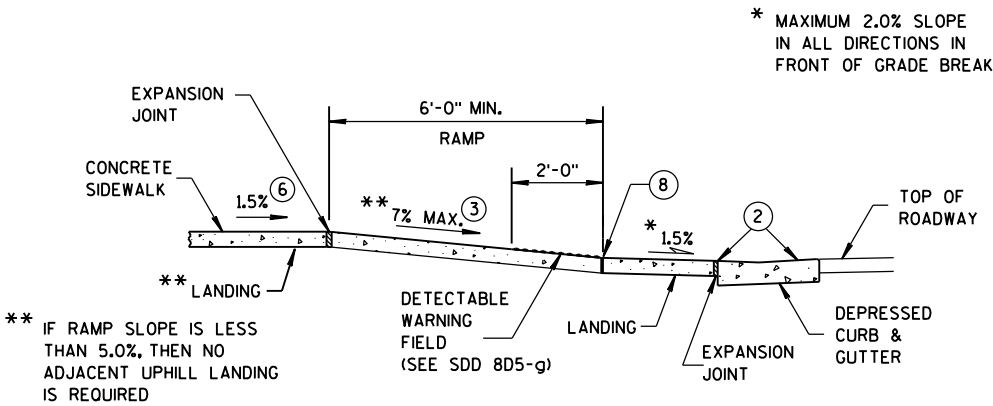
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



**CURB RAMP TYPE 4B
PLAN VIEW**



SECTION A-A FOR TYPE 4B



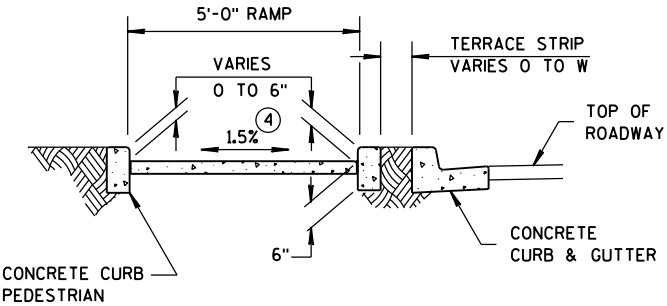
SECTION B-B FOR TYPE 4B

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

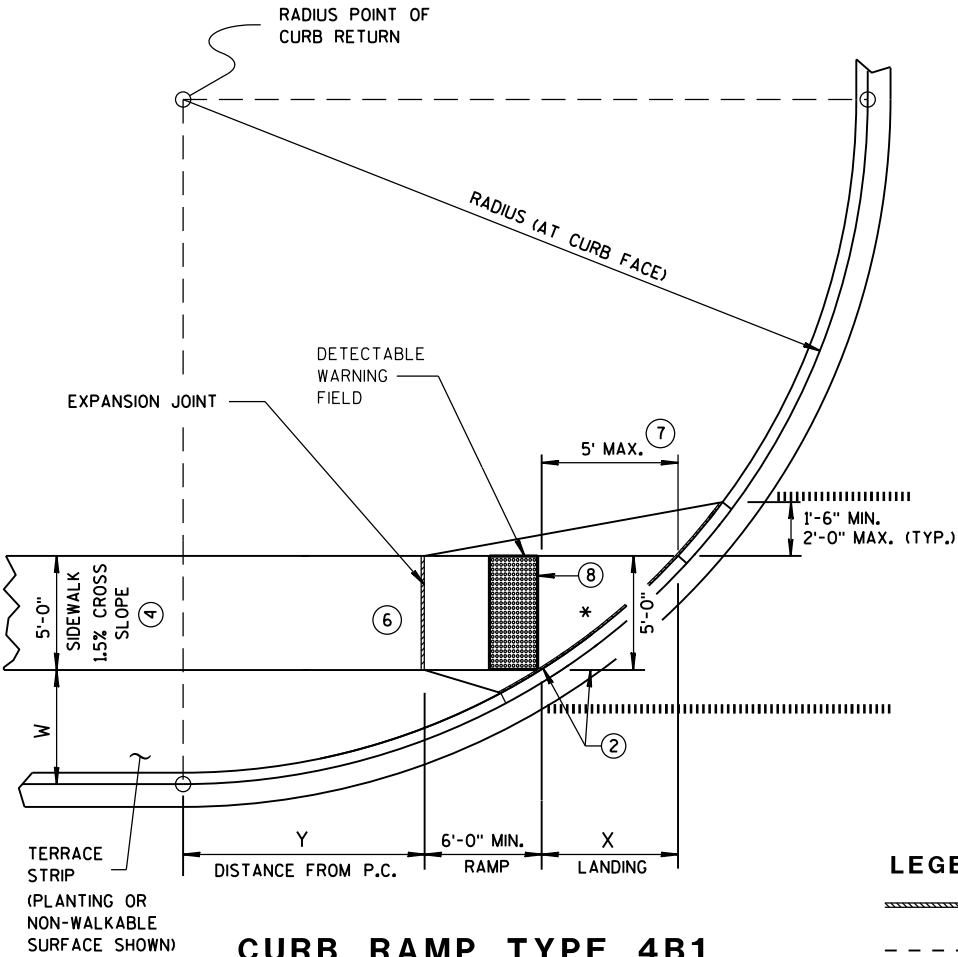
INTERMEDIATE RADII CAN BE INTERPOLATED
DIMENSION "Y" IS CALCULATED BASED ON 6'-0" RAMP LENGTH
DIMENSION "X" IS CALCULATED BASED ON 5'-0" SIDEWALK WIDTH

GENERAL NOTES

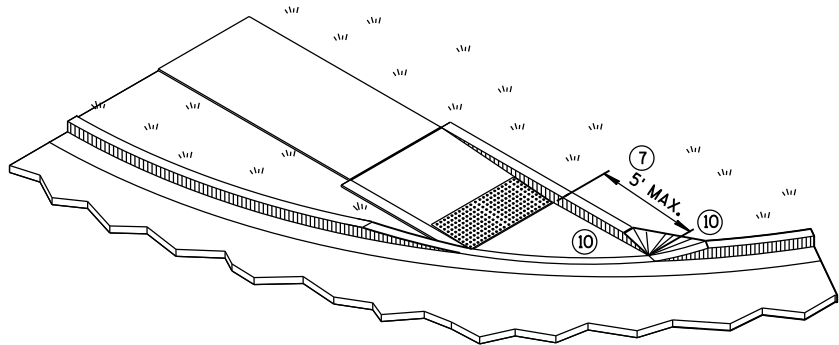
- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.
- DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.
- GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%.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



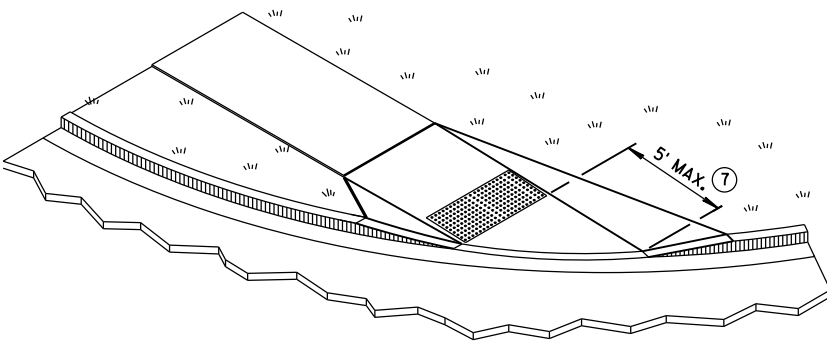
SECTION C-C FOR TYPE 4B



**CURB RAMP TYPE 4B1
PLAN VIEW**



ISOMETRIC VIEW FOR TYPE 4B



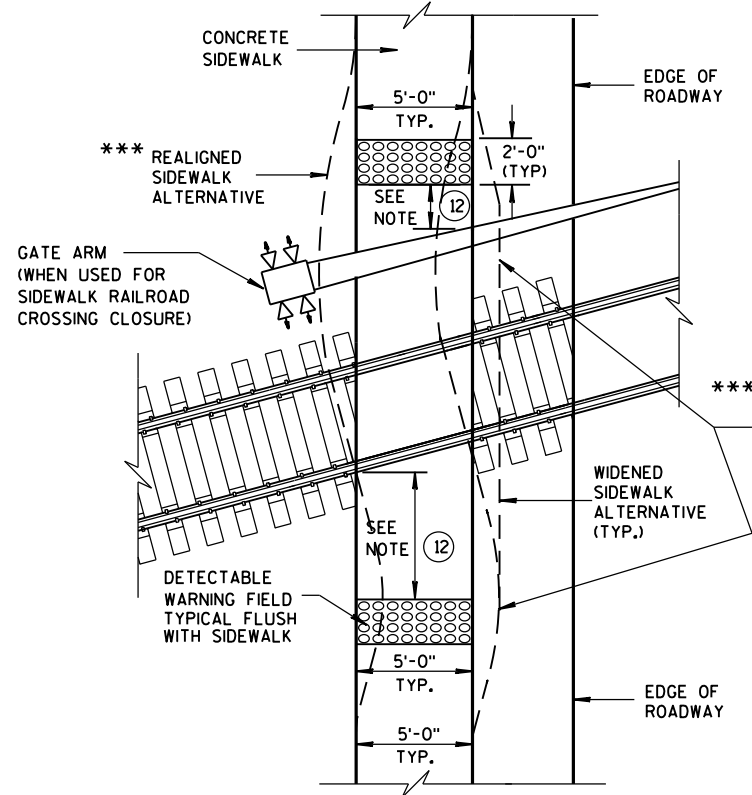
ISOMETRIC VIEW FOR TYPE 4B1

LEGEND

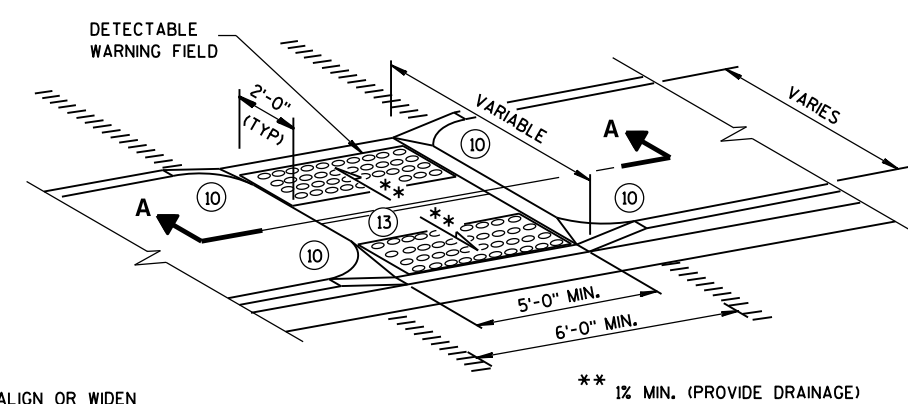
- 1/2" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS TYPE 4B AND 4B1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



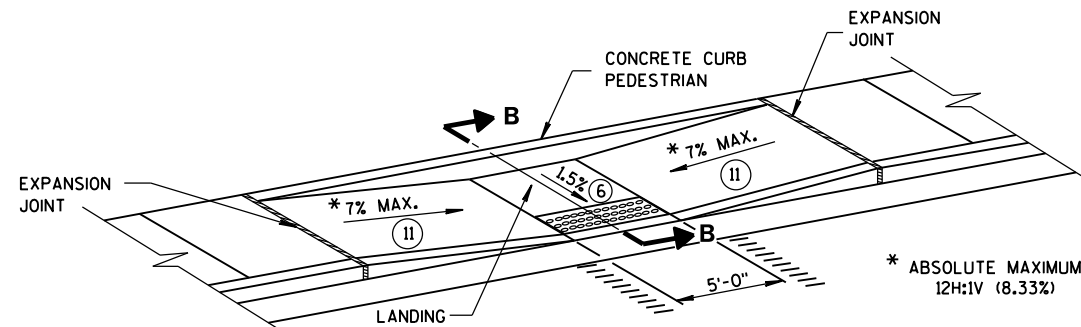
TYPE 8
DETECTABLE WARNINGS
AT RAILROAD CROSSING



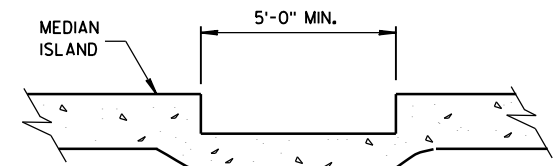
MEDIAN ISLAND
NON-ELEVATED PEDESTRIAN CROSSING
TYPE 5

GENERAL NOTES

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

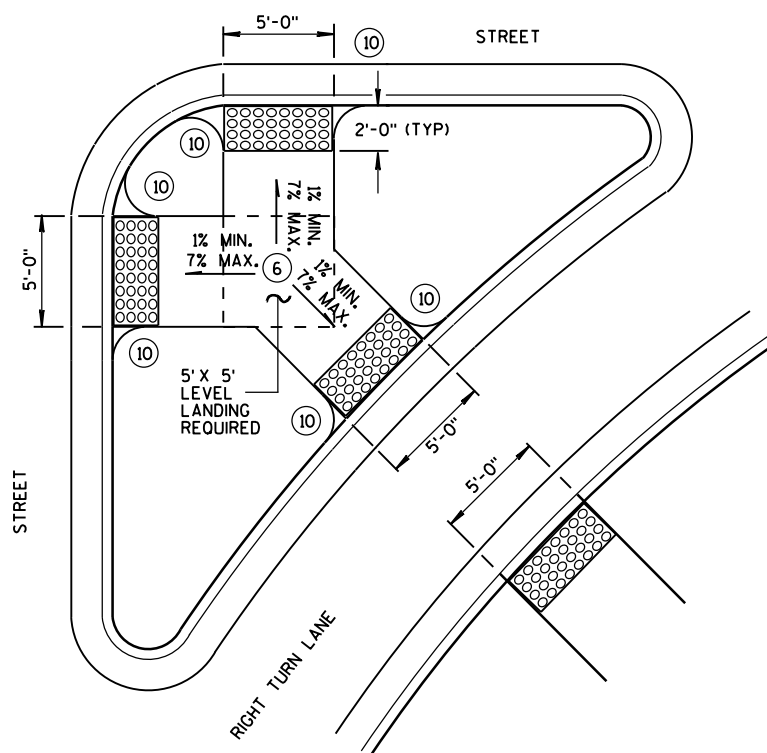


MID-BLOCK CROSSING
TYPE 7A

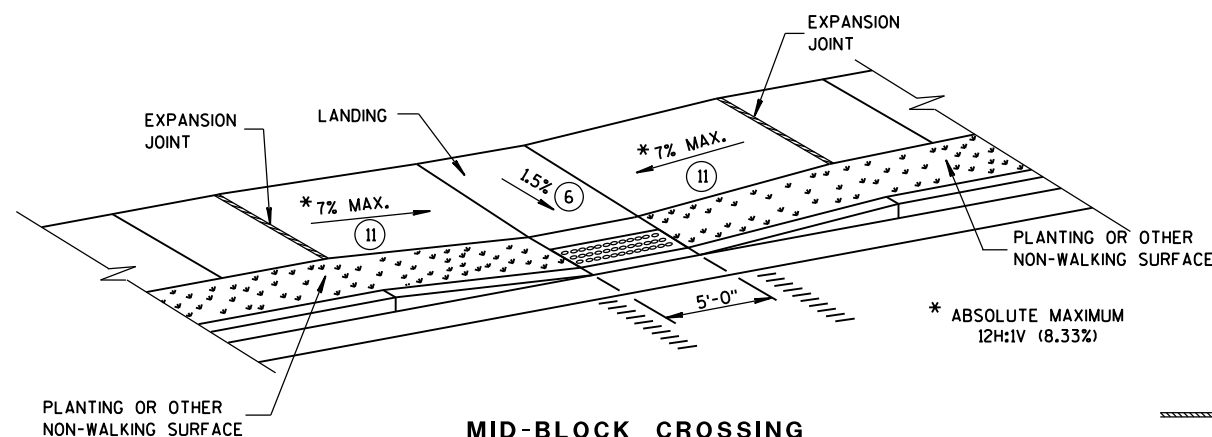


SECTION A-A

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

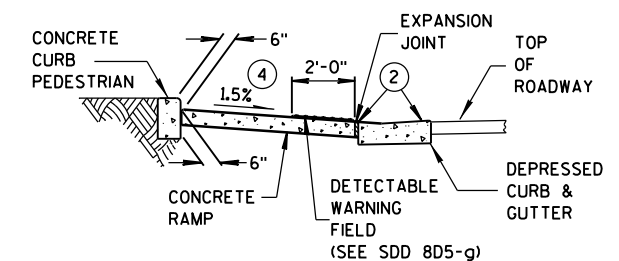


TYPE 6
DETECTABLE WARNING AT ISLANDS



MID-BLOCK CROSSING
TYPE 7B

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



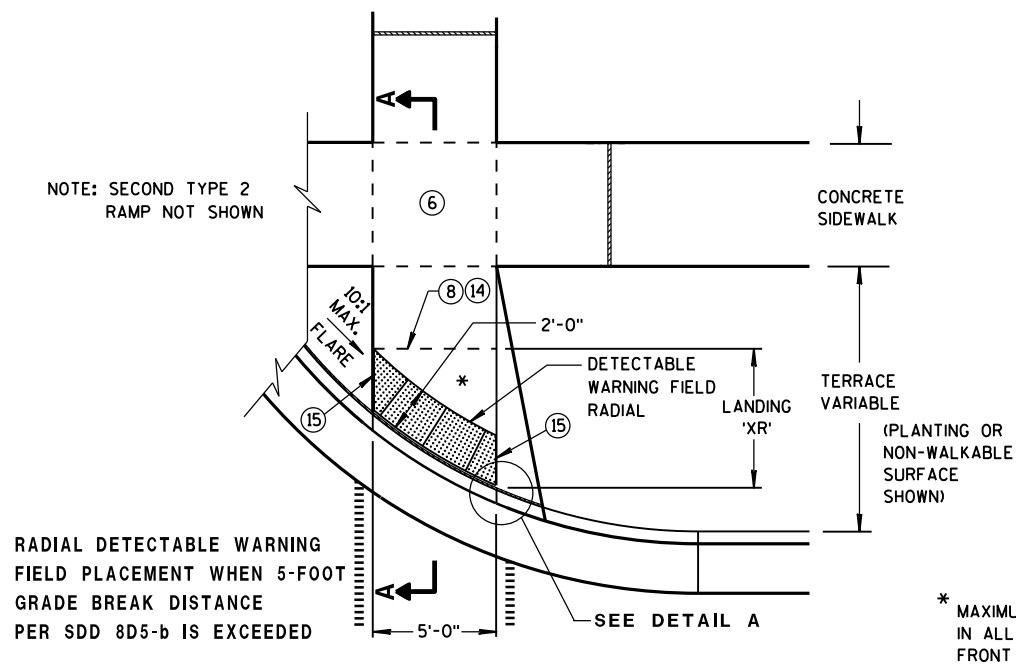
SECTION B-B

LEGEND

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

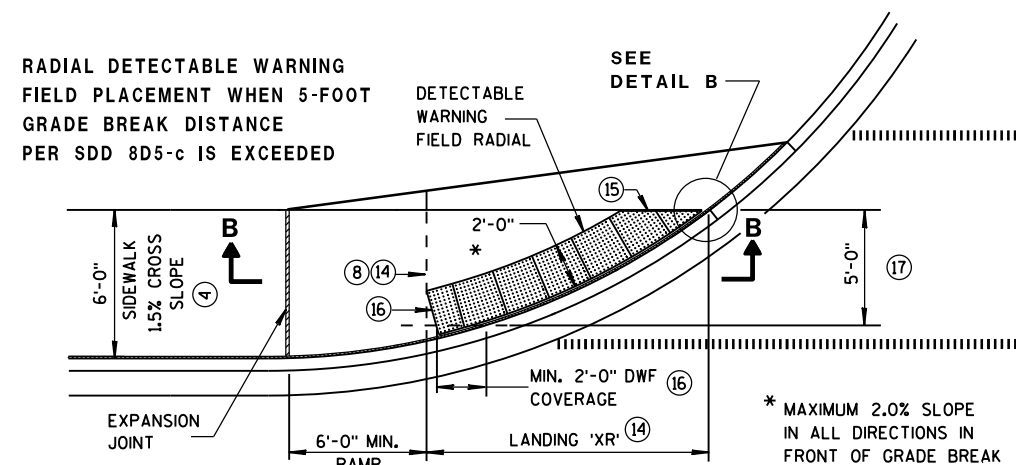
CURB RAMPS
TYPES 5, 6, 7A, 7B & 8

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



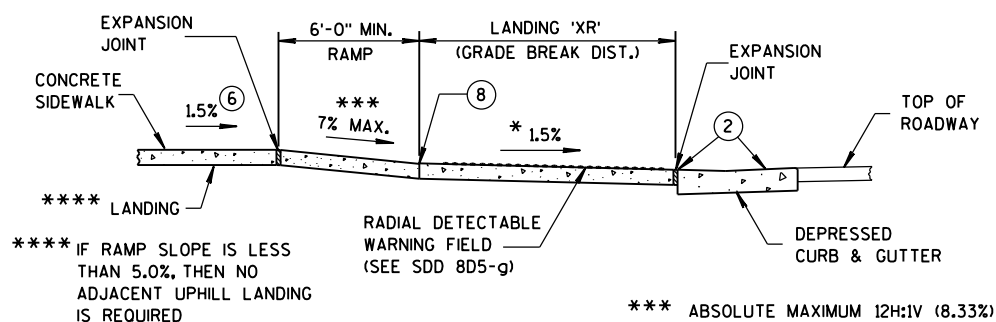
TYPE 2 RAMP PLAN VIEW

(GRADE BREAK DISTANCE GREATER THAN 5 FEET)
(ON LINE WITH SIDEWALK)

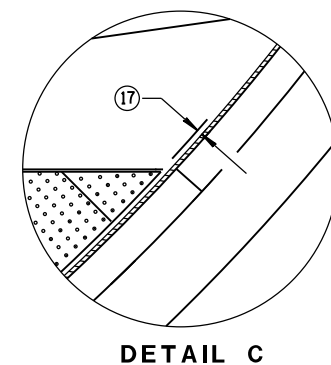
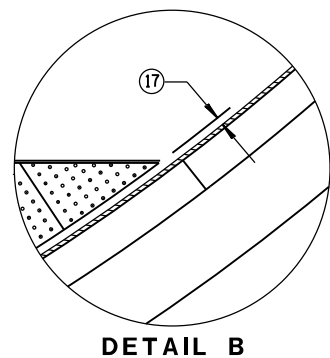
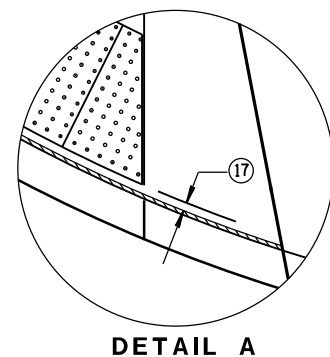
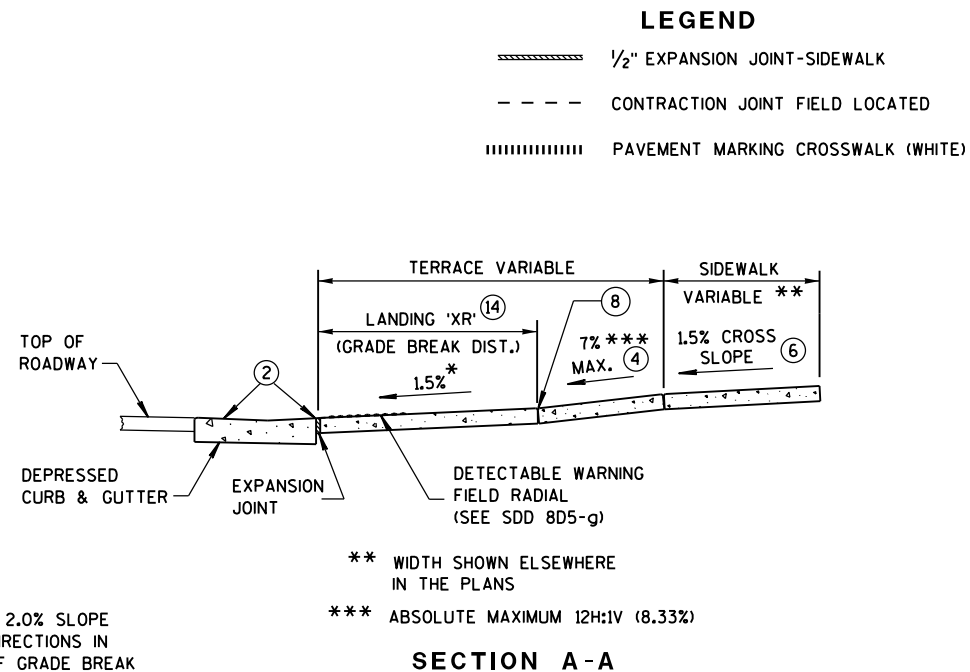


CURB RAMP TYPE 4A1 PLAN VIEW

(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



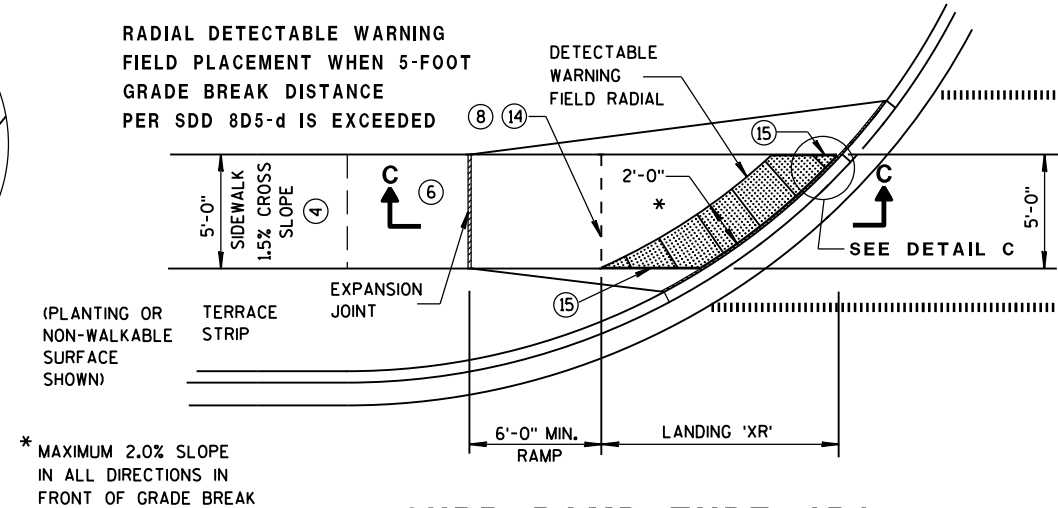
SECTION B-B FOR TYPE 4A1



GENERAL NOTES

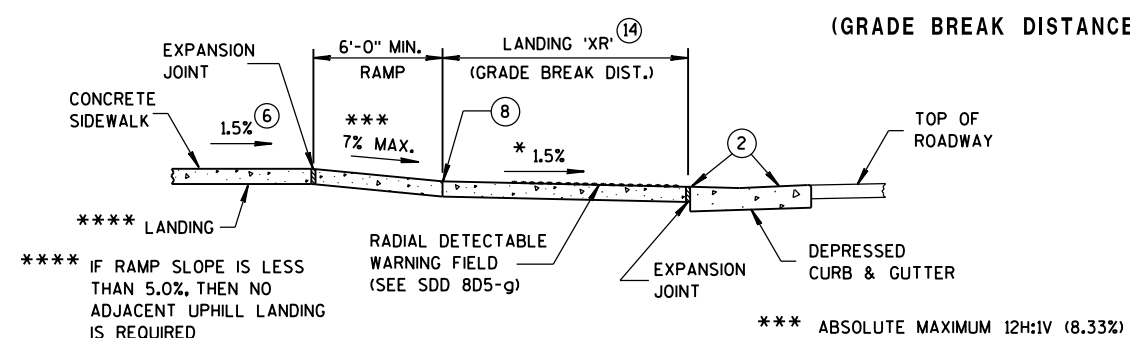
- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.
- DETECTABLE WARNING FIELDS (DWFs) THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.
- APPLY RADIAL DETECTABLE WARNING PLACEMENT SIMILARLY FOR TYPE 4A AND 4A1 CURB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

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



CURB RAMP TYPE 4B1 PLAN VIEW

(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



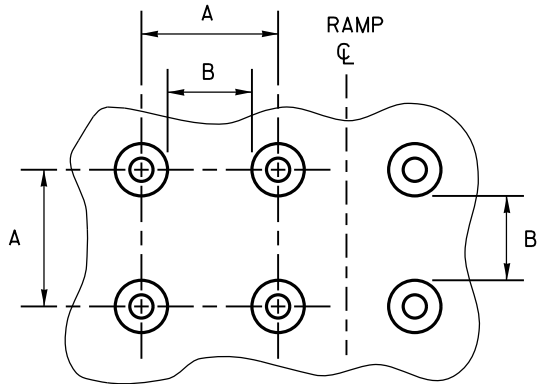
SECTION C-C FOR TYPE 4B1

**CURB RAMPS
RADIAL DETECTABLE WARNING
FIELD APPLICATIONS**

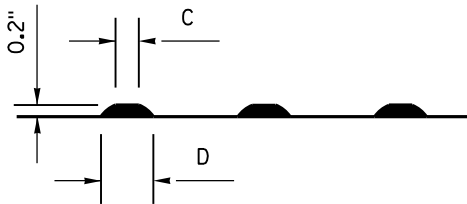
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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

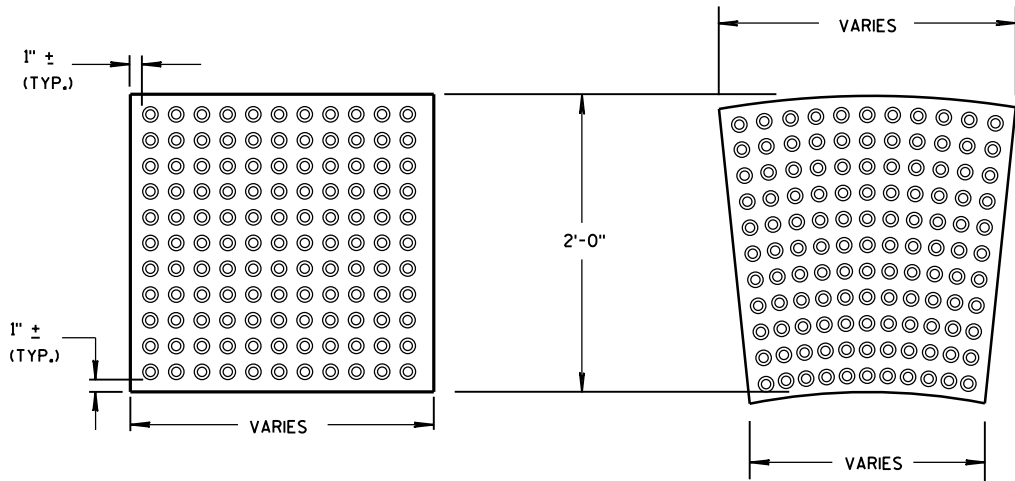


PLAN VIEW



ELEVATION VIEW

TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL



RECTANGULAR PLATES
RADIAL PLATES
DETECTABLE WARNING FIELDS (TYPICAL)

PLAN VIEW

GENERAL NOTES

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

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

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

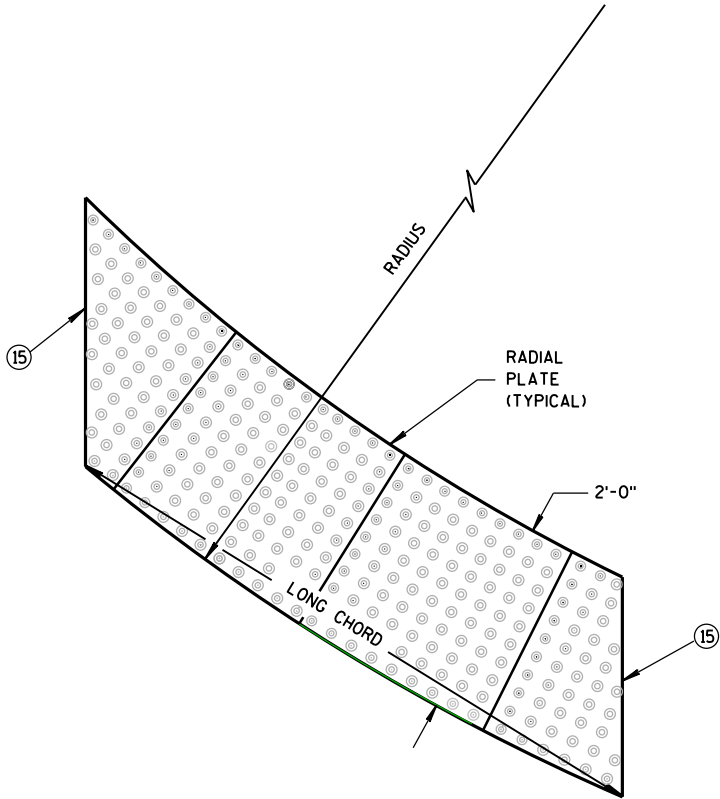
DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

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

REFER TO CONTRACT AND STANDARD SPECIFICATIONS FOR FIELD CUTTING REQUIREMENTS.

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

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

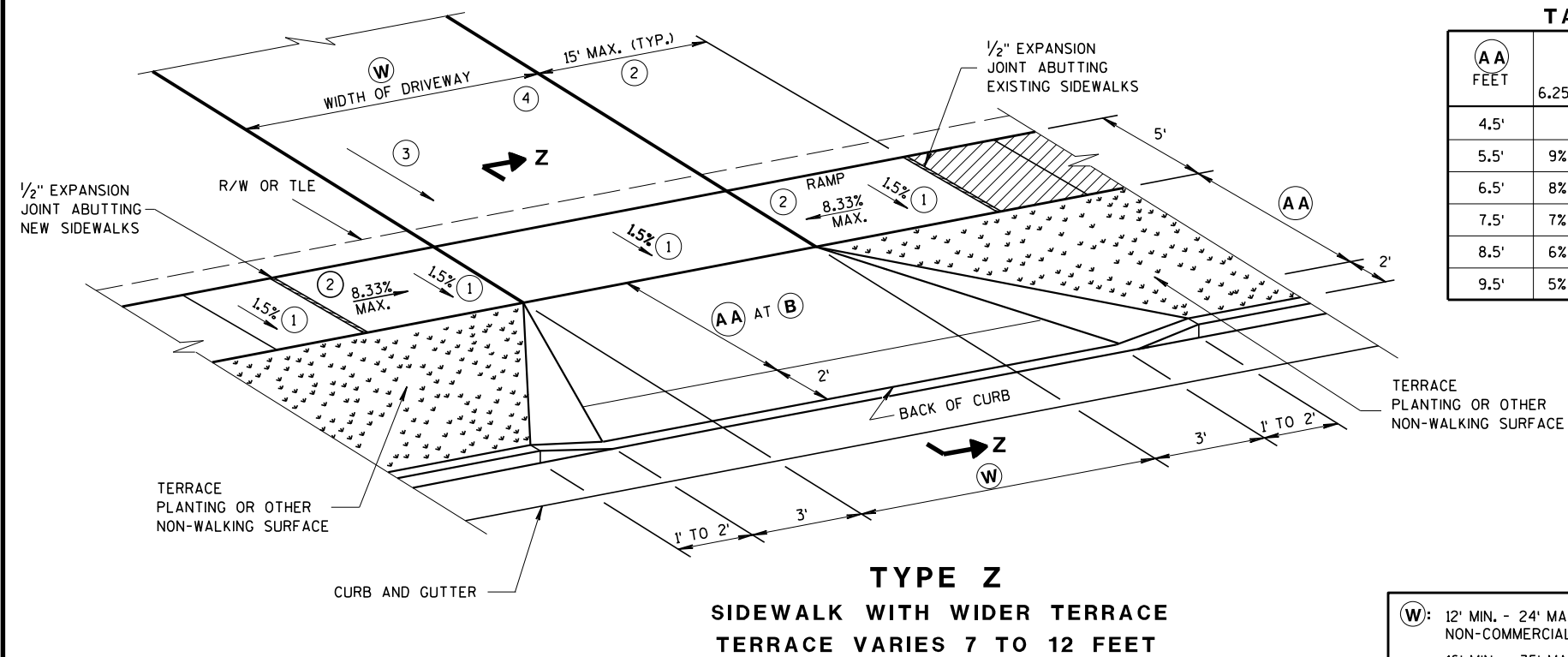


RADIAL DETECTABLE
WARNING FIELD ATTRIBUTES

CURB RAMPS
RECTANGULAR AND RADIAL
DETECTABLE WARNING PLATES

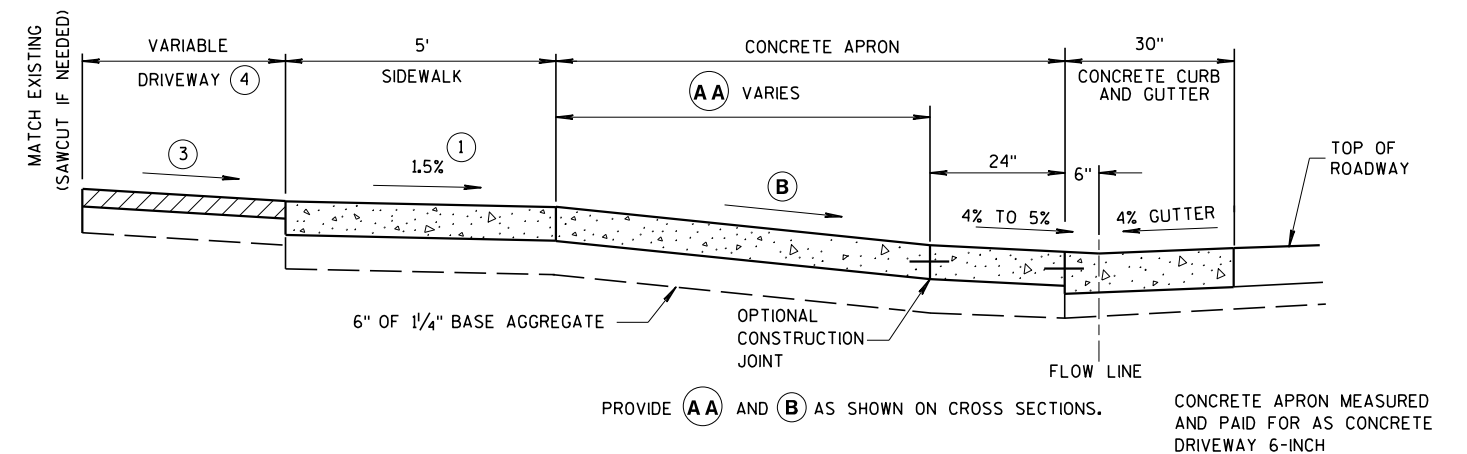
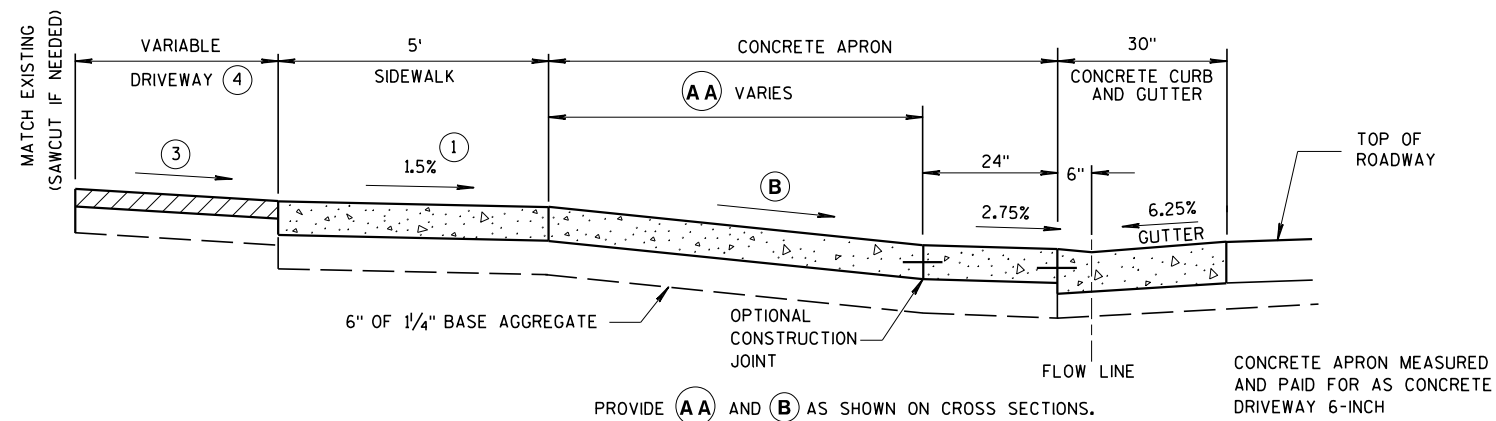
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



Ⓐ FEET	Ⓑ % 6.25% GUTTER	Ⓑ % 4% GUTTER
4.5'	11.5%	9% TO 11.5%
5.5'	9% TO 11.5%	8% TO 11.5%
6.5'	8% TO 11.5%	6% TO 11.5%
7.5'	7% TO 11.5%	6% TO 11.5%
8.5'	6% TO 11.5%	5% TO 11.5%
9.5'	5% TO 11.5%	4% TO 11.5%

GENERAL NOTES



SECTION Z-Z

DRIVEWAY DETAIL WITH CONCRETE CURB & GUTTER
(URBAN AND SUBURBAN)

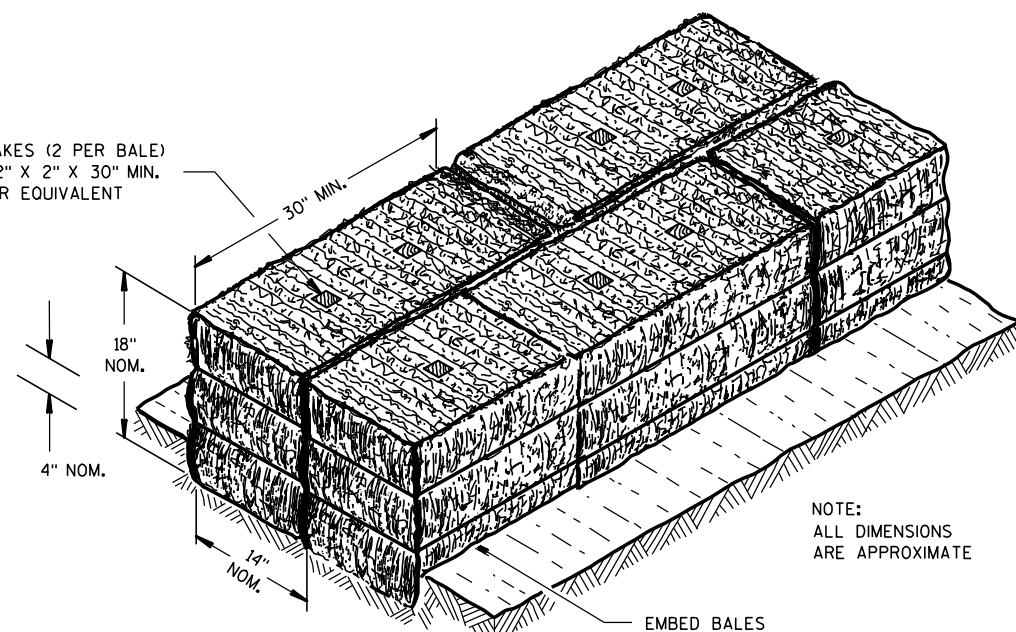
NOT TO SCALE

DRIVEWAY AND SIDEWALK RAMPS TYPE Z

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

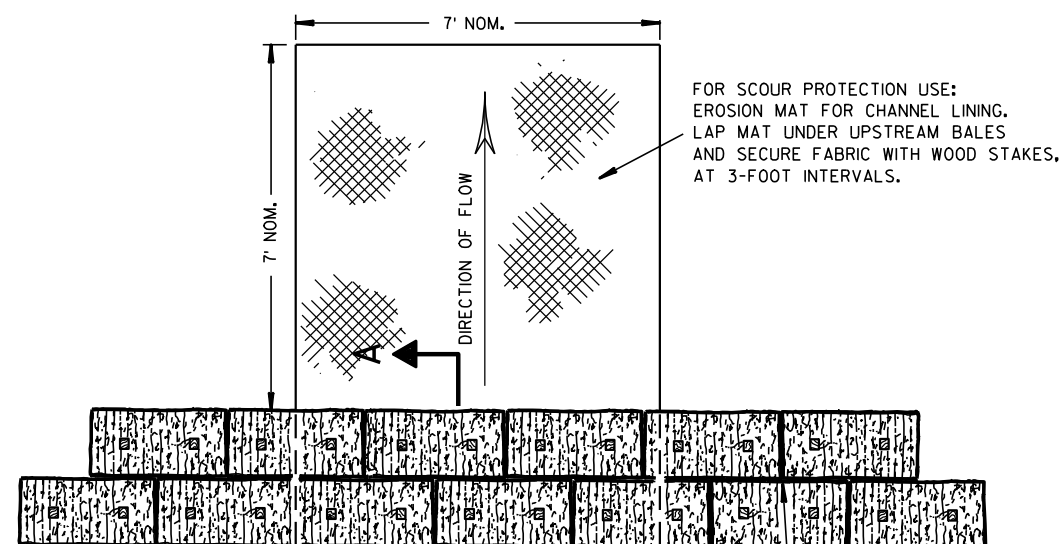
APPROVED	
March 2018	/S/ Rodney Taylor
DATE	ROADWAY STANDARDS DEVELOPMENT
FWWA	UNIT SUPERVISOR

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



NOTE:
ALL DIMENSIONS
ARE APPROXIMATE

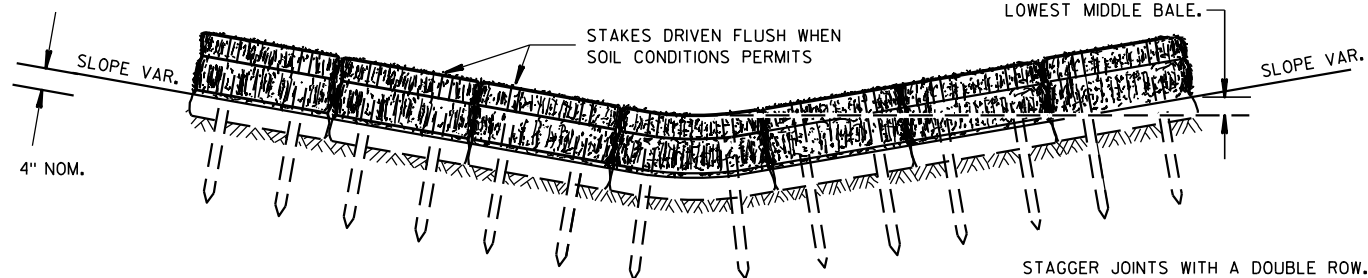
SECTION A-A



PLAN VIEW

STAGGER JOINTS BETWEEN ADJACENT
ROWS OF BALES.

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



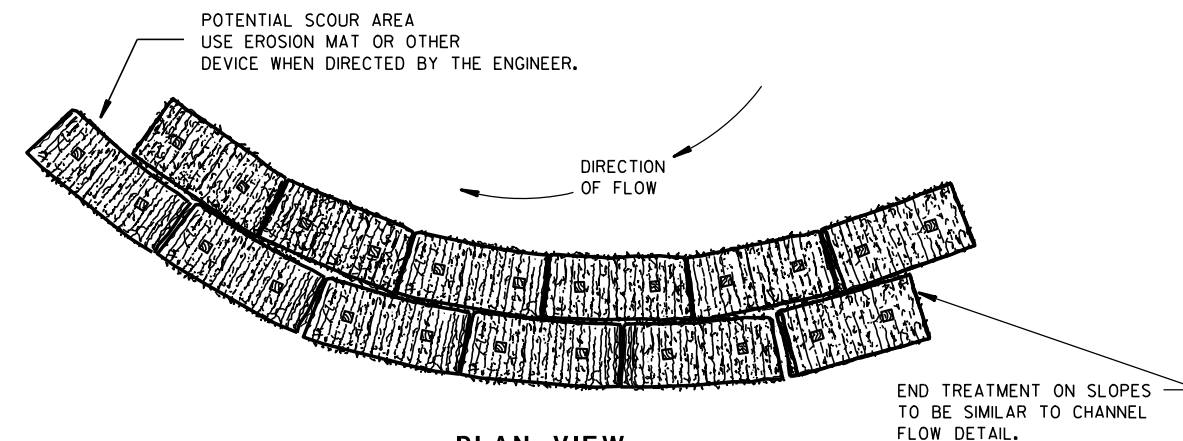
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

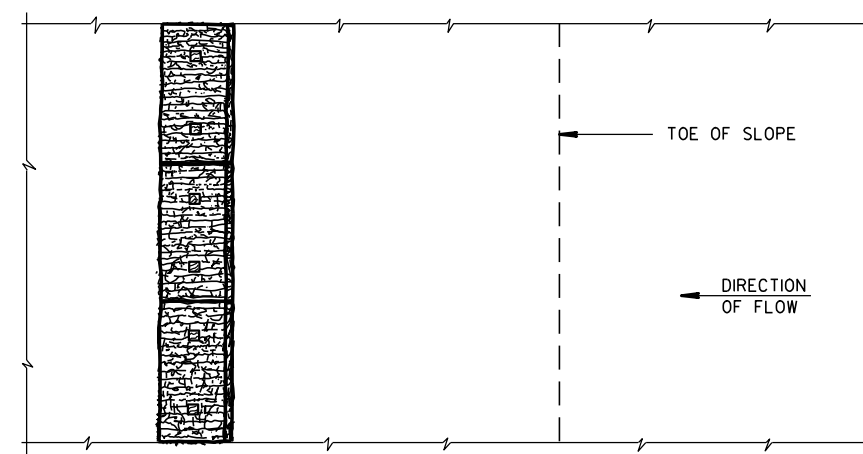
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

- 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.

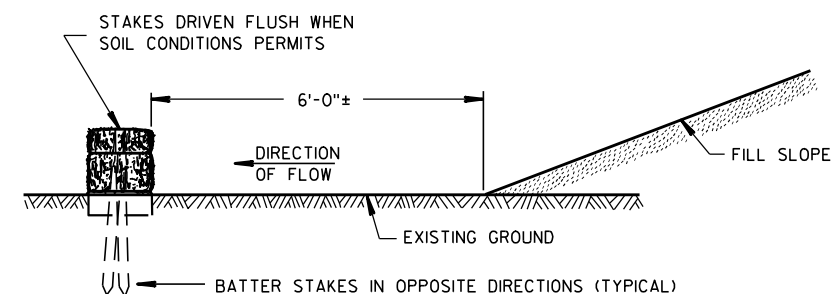


PLAN VIEW

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

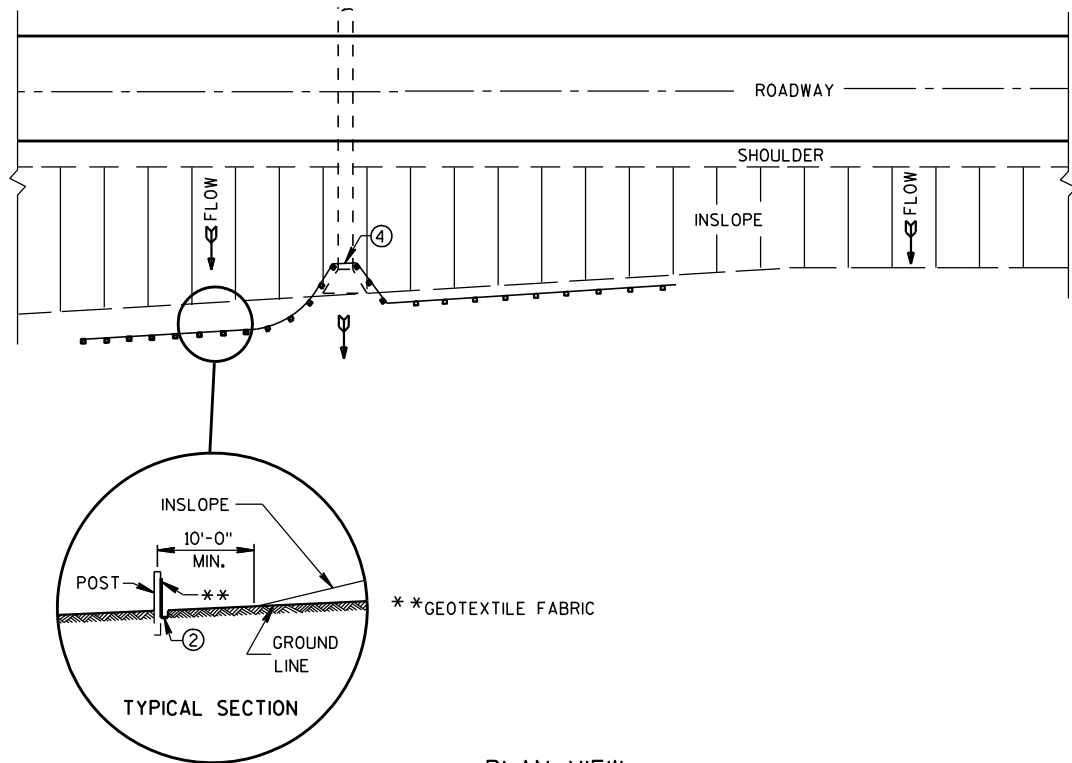
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

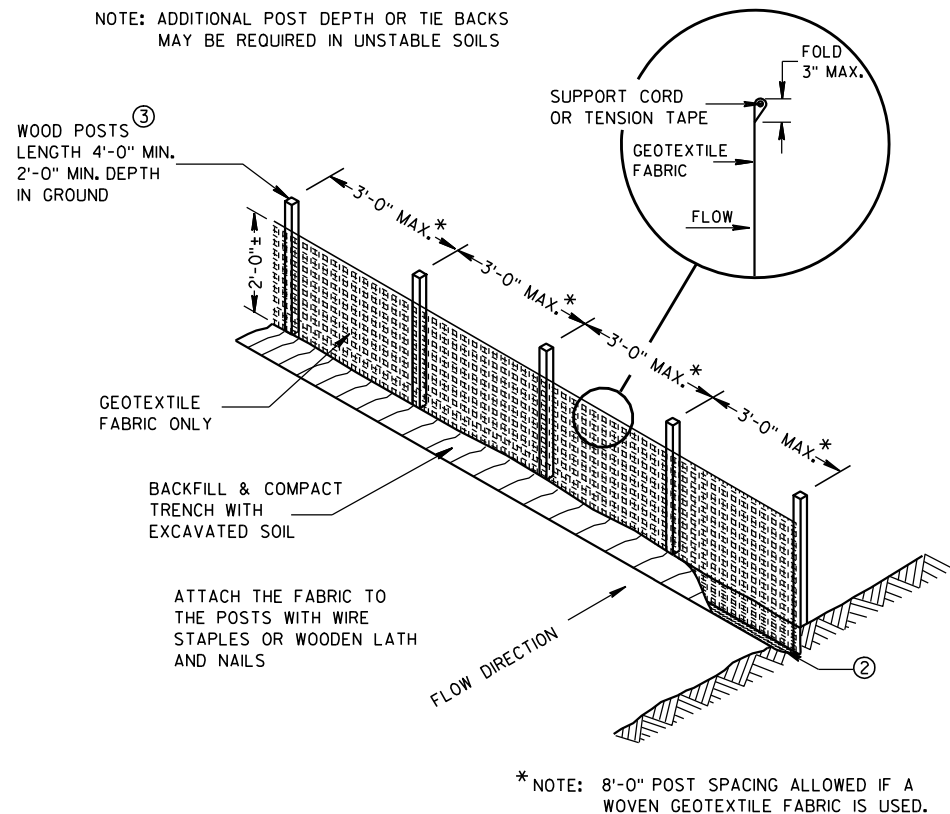
6/04/02
DATE

FHWA

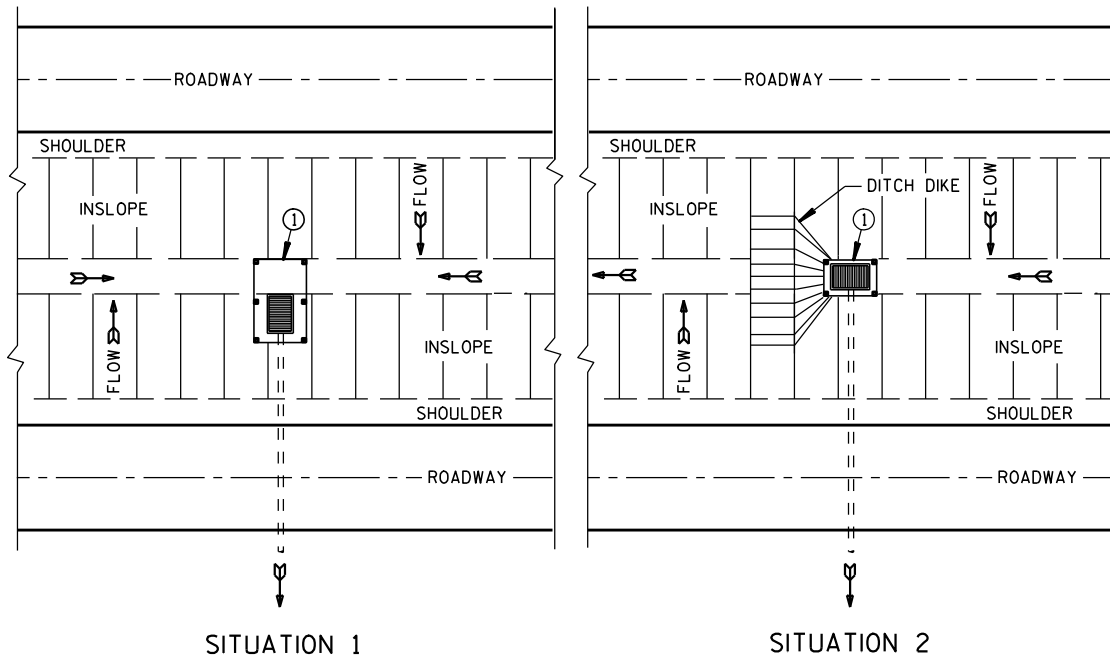
/S/ Beth Canestra
CHIEF ROADWAY DEVELOPMENT ENGINEER



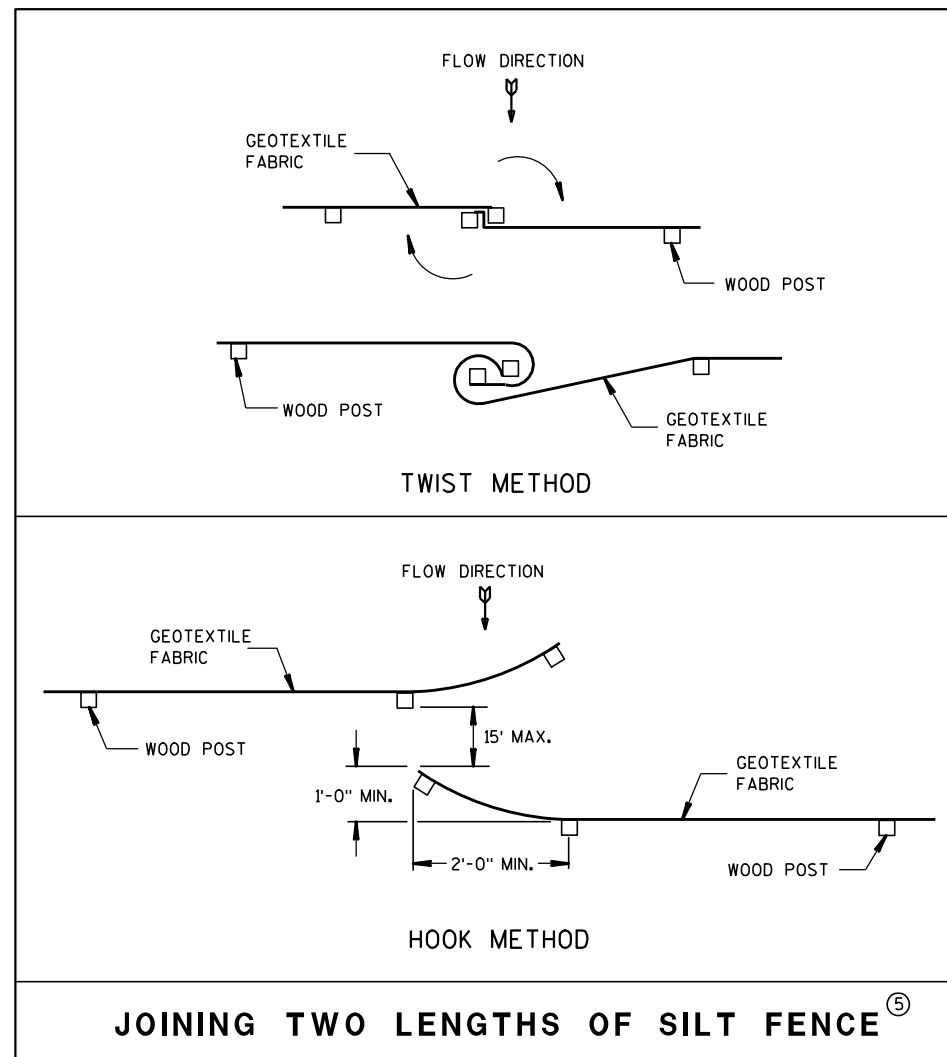
PLAN VIEW
TYPICAL APPLICATION OF SILT FENCE



SILT FENCE



PLAN VIEW
SILT FENCE AT MEDIAN SURFACE DRAINS

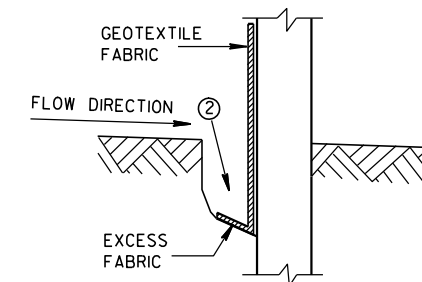


JOINING TWO LENGTHS OF SILT FENCE ⑤

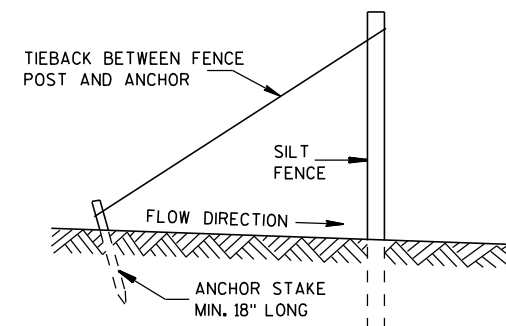
GENERAL NOTES

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

- ① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
- ② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
- ③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1 1/8" X 1 1/8" OF OAK OR HICKORY.
- ④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
- ⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



TRENCH DETAIL

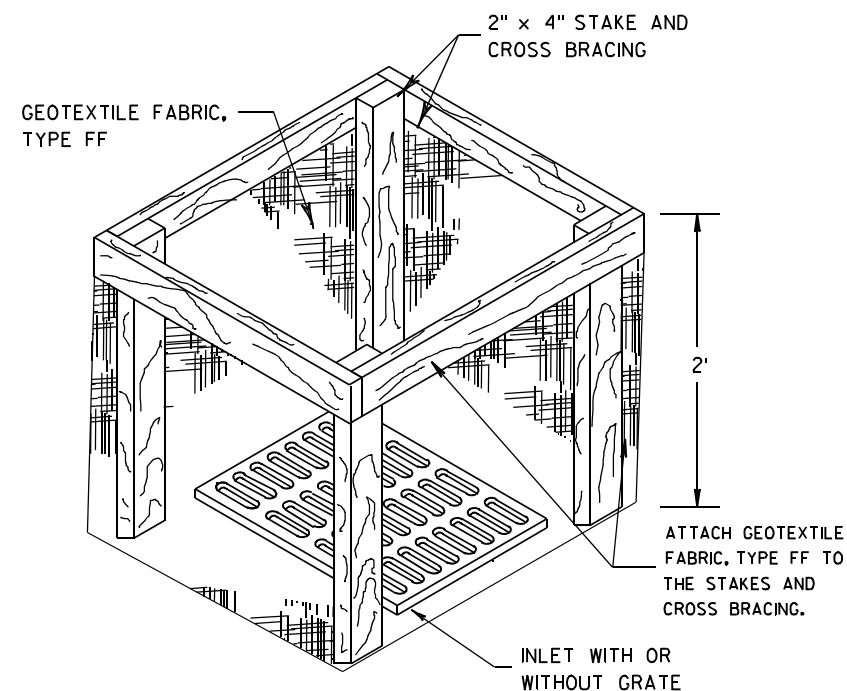
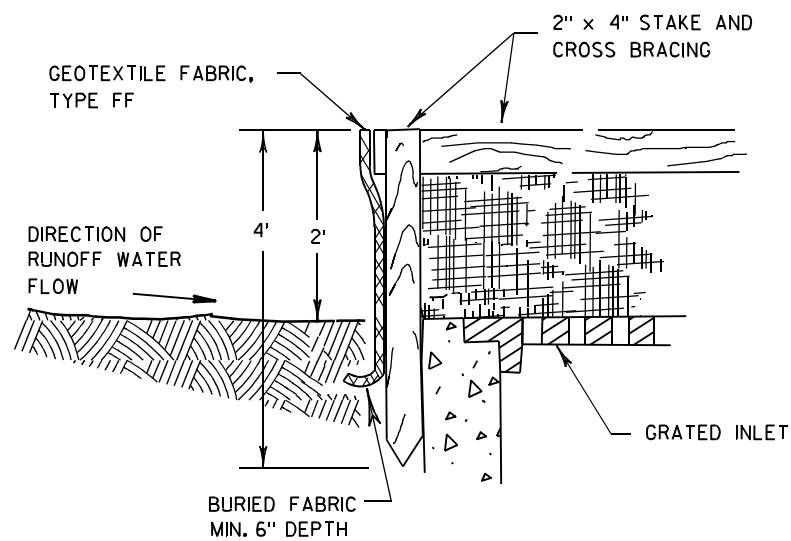


SILT FENCE TIE BACK
(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



INLET PROTECTION, TYPE A

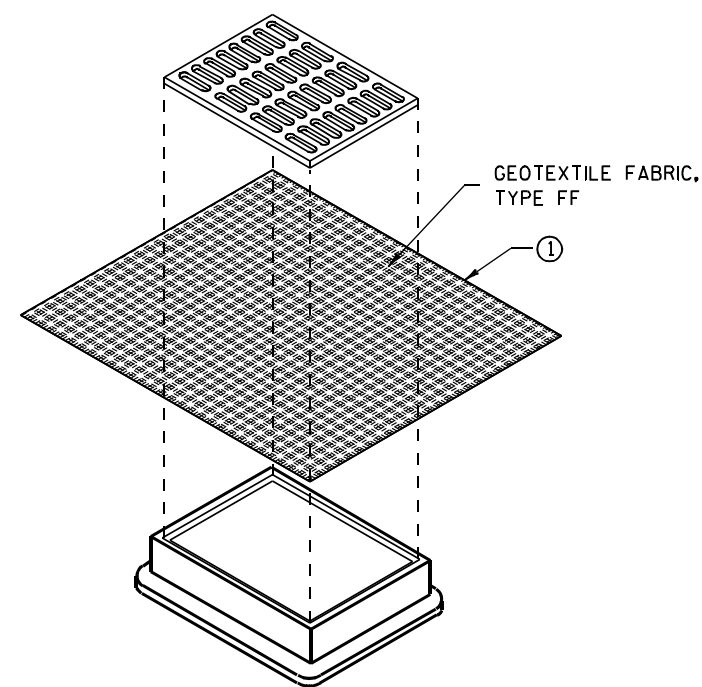
GENERAL NOTES

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

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

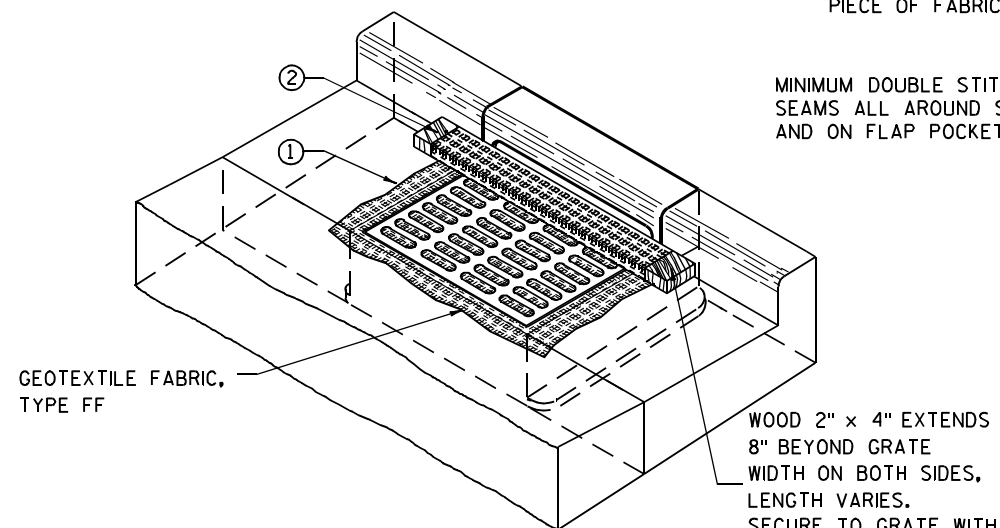
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

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



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

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



INLET PROTECTION, TYPE C (WITH CURB BOX)

INSTALLATION NOTES

TYPE B & C

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

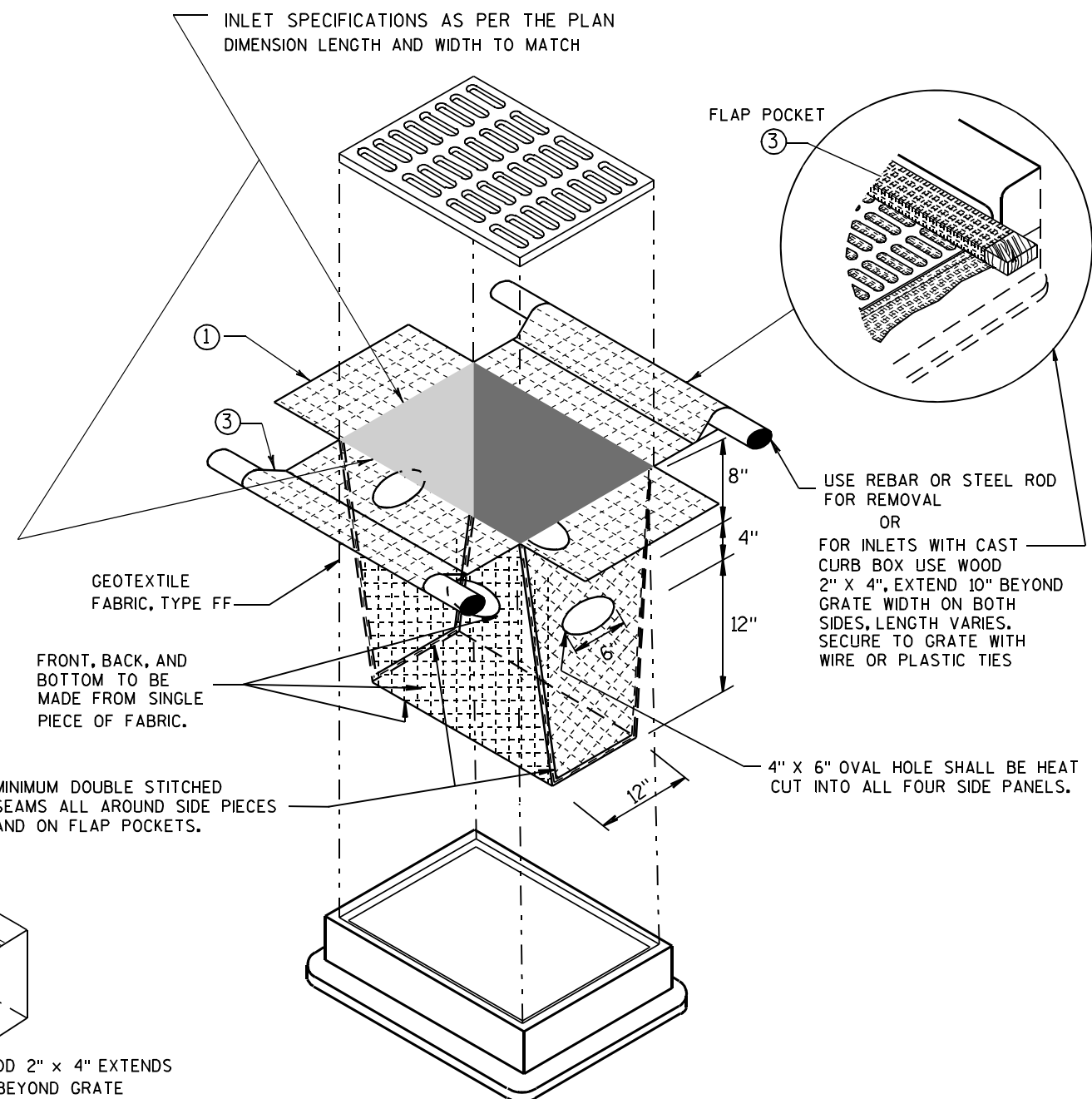
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

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

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

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



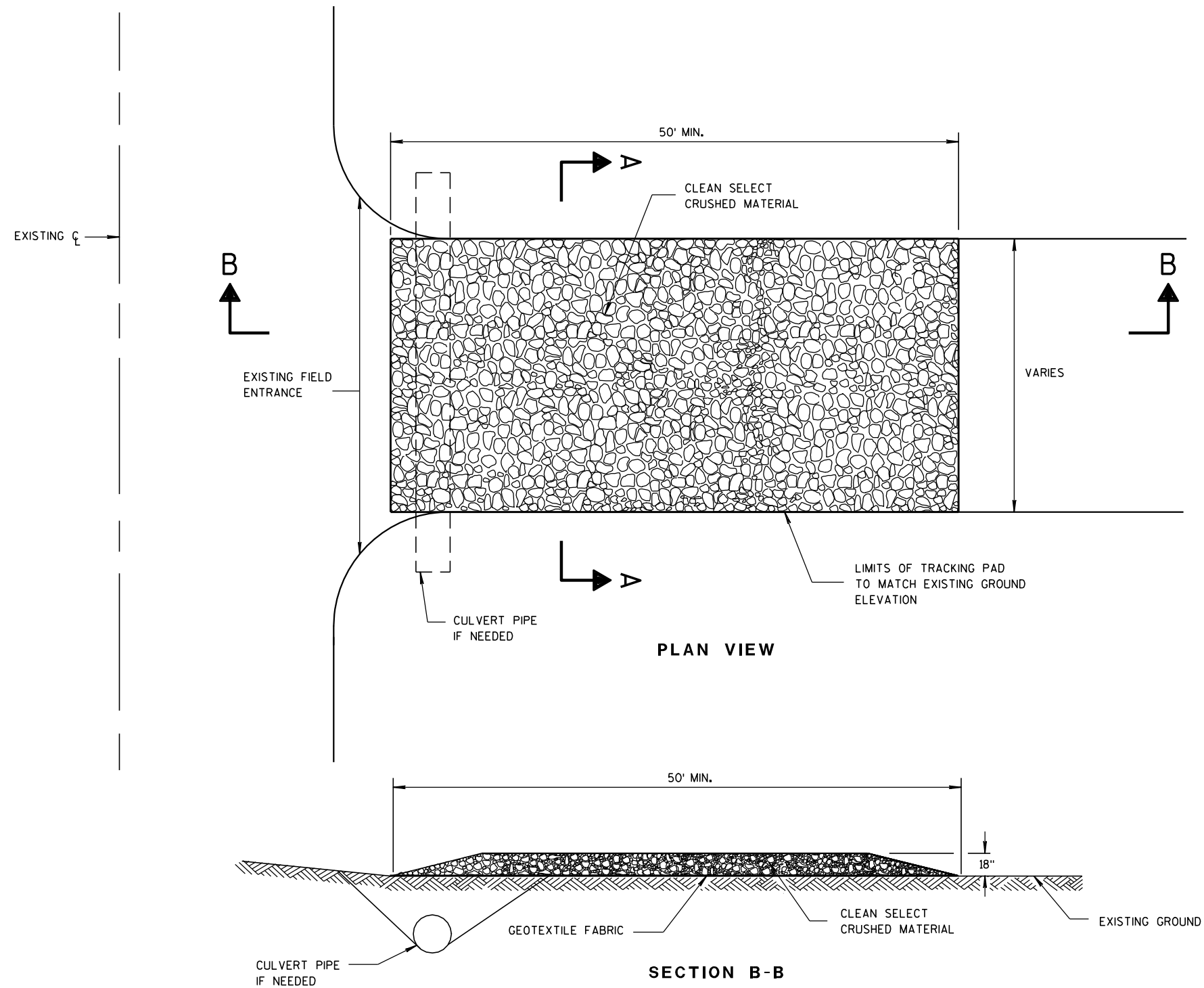
INLET PROTECTION, TYPE D

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



TRACKING PAD

GENERAL NOTES

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

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

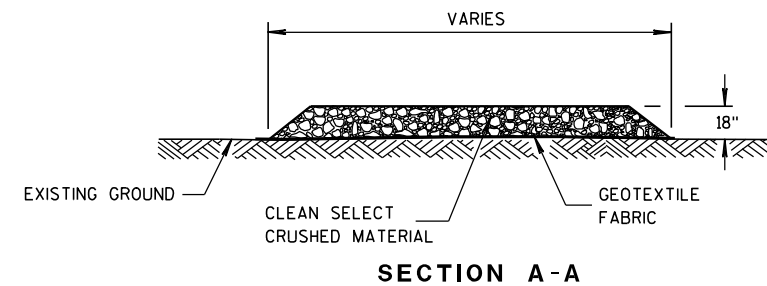
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

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

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

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

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



TRACKING PAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/24/2011

DATE

FHWA

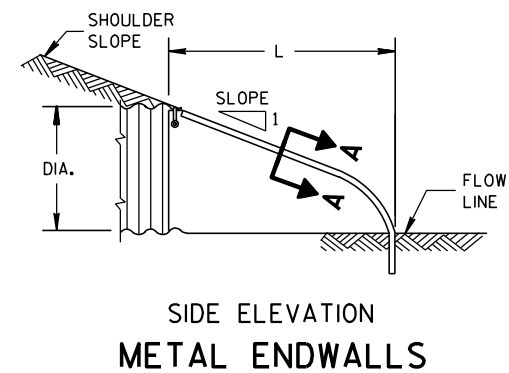
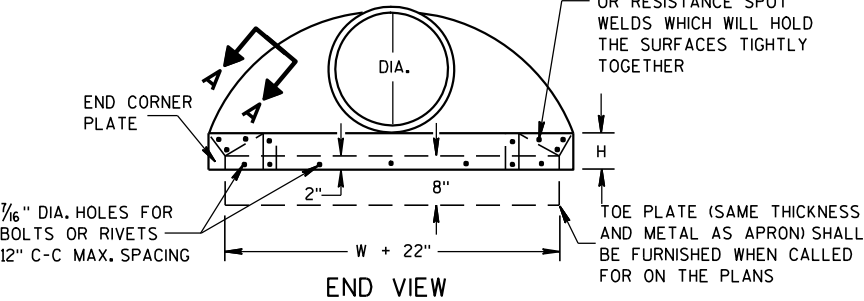
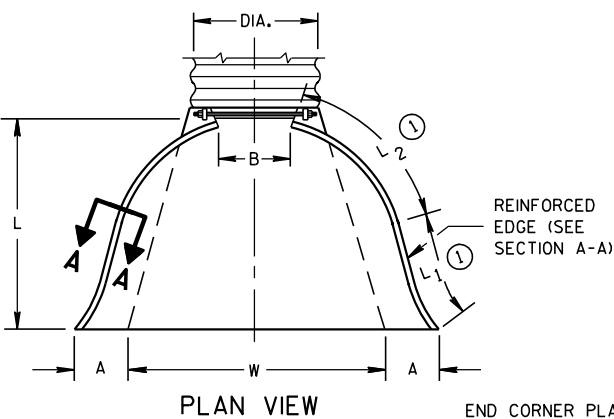
/S/ Jerry H. Zogg

ROADWAY STANDARDS DEVELOPMENT

ENGINEER

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

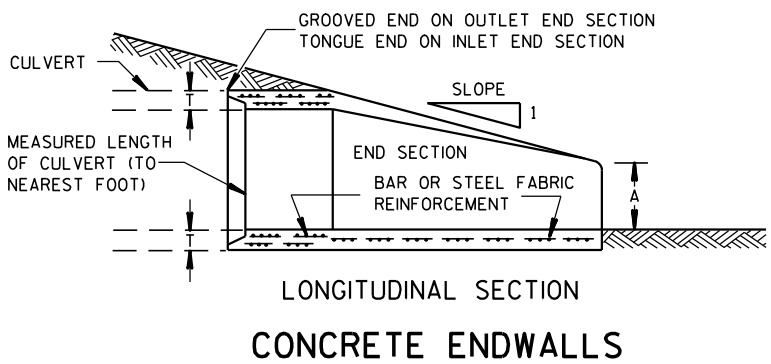
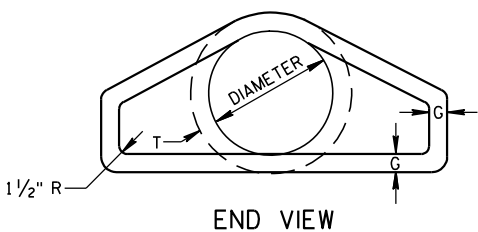
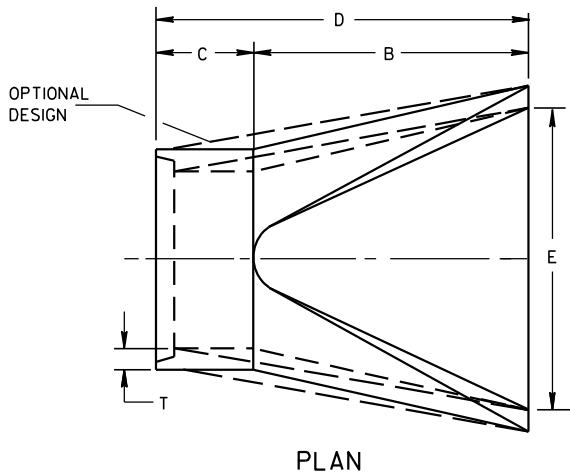
* EXCEPT CENTER PANEL
SEE GENERAL NOTES



METAL ENDWALLS

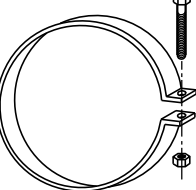
REINFORCED CONCRETE APRON ENDWALLS											
PIPE DIA. (IN.)	DIMENSIONS (Inches)							APPROX. SLOPE			
	T	A	B	C	D	E	G				
12	2	4	24	48 7/8	72 7/8	24	2	3 to 1			
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1			
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1			
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1			
24	3	9 1/2	43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

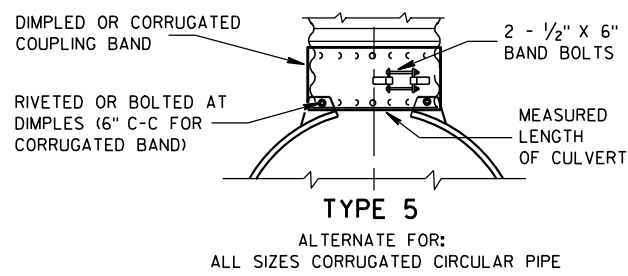
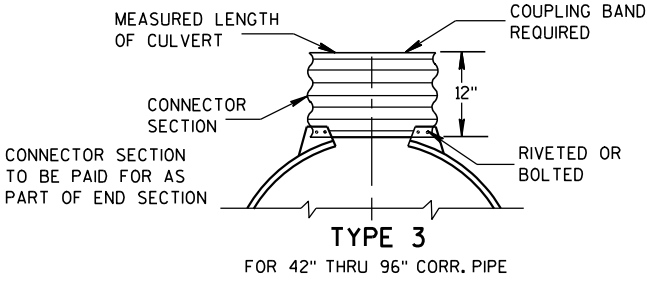
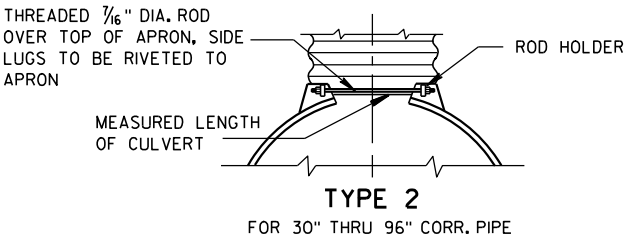
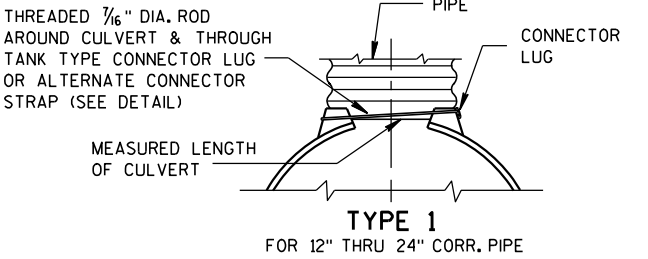


CONCRETE ENDWALLS

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



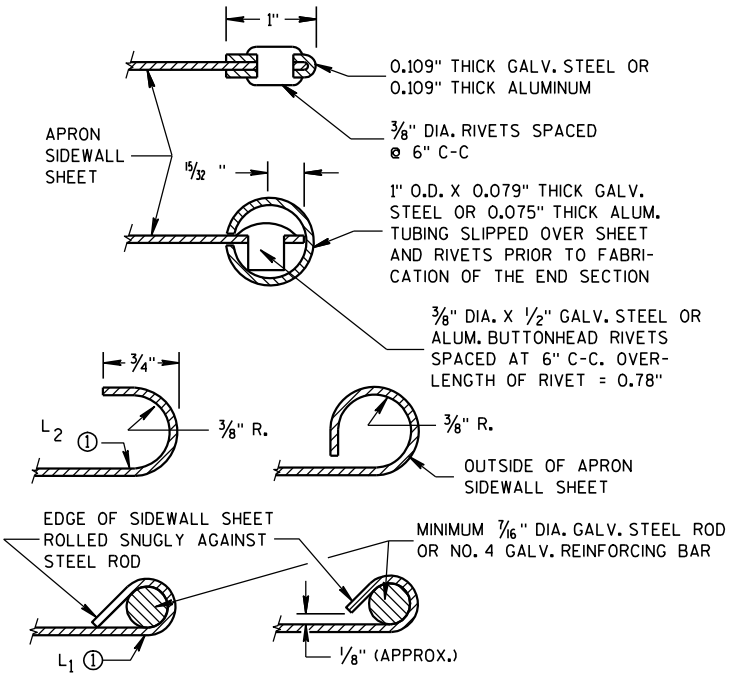
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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 VICE 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.

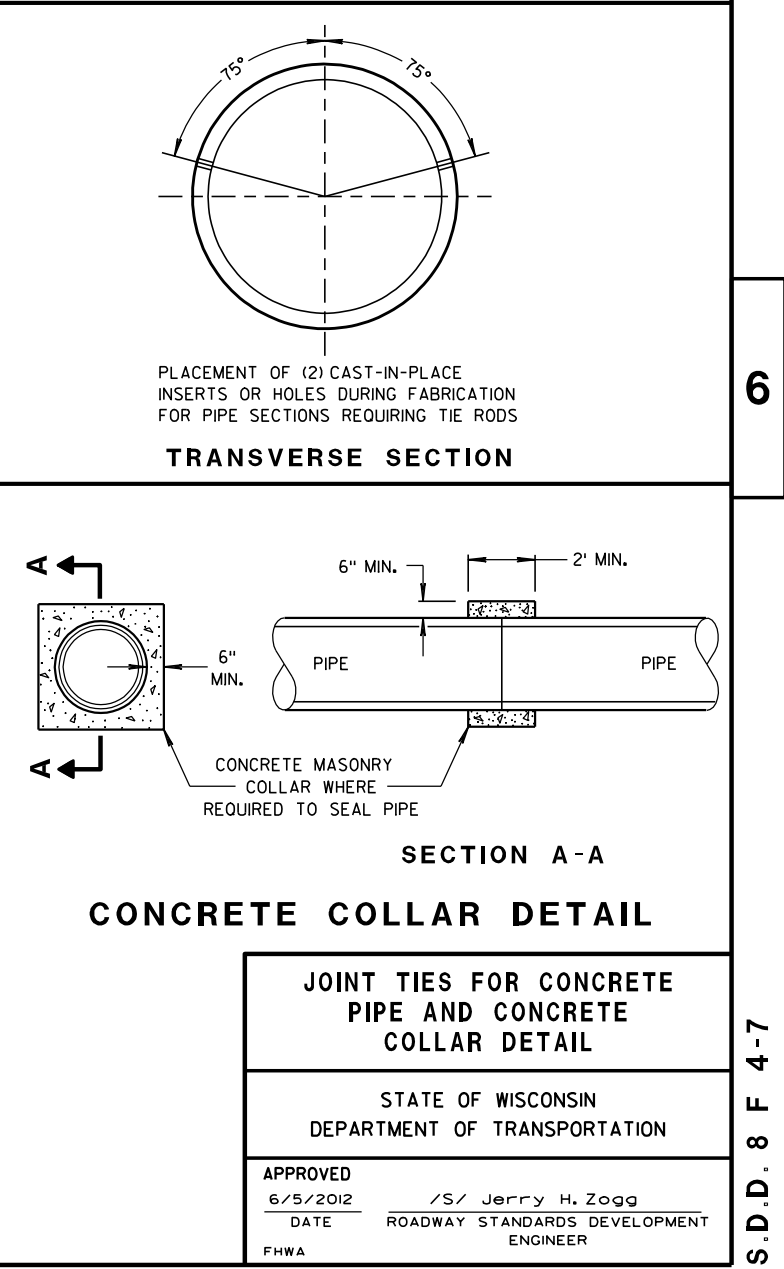
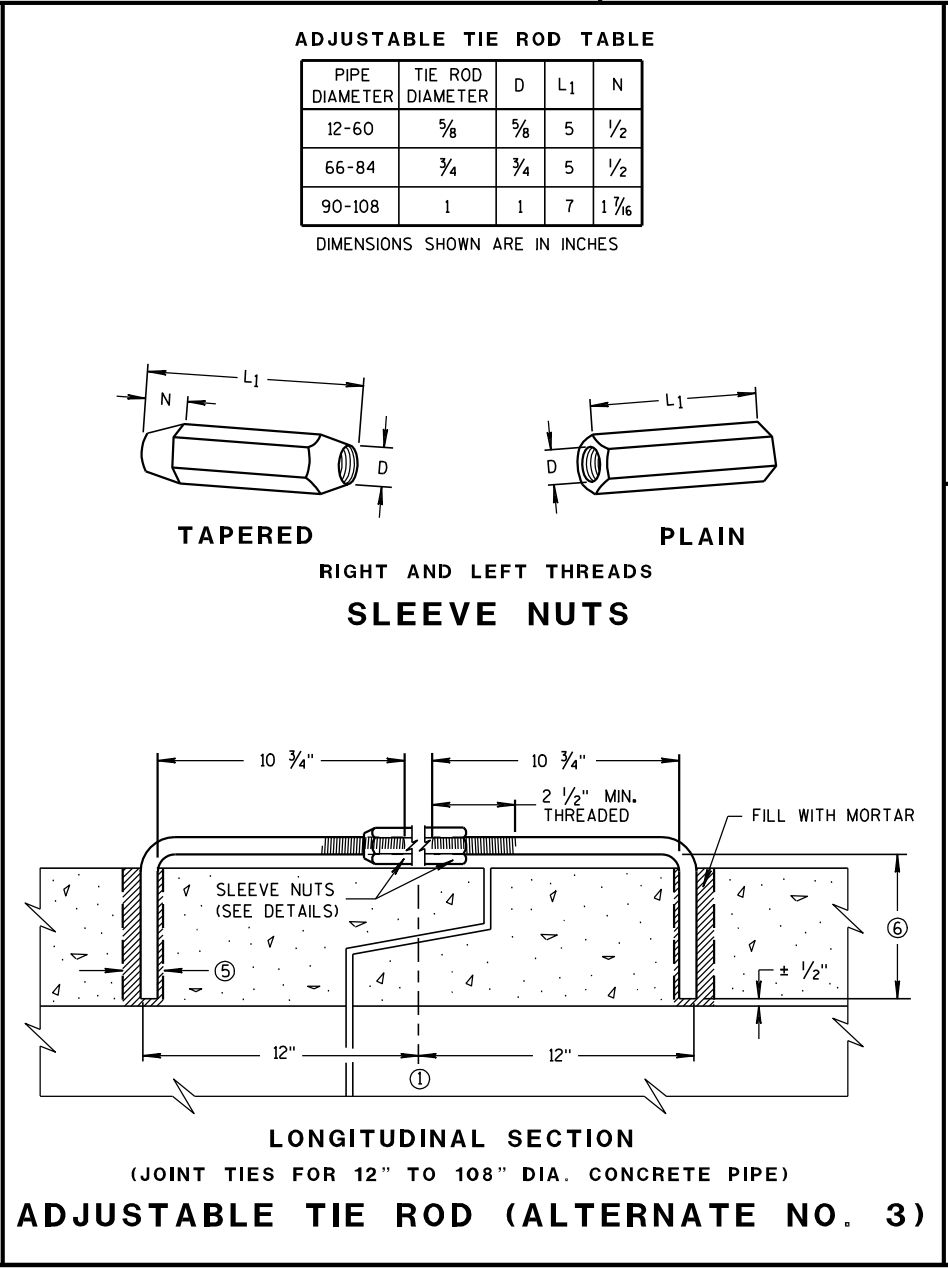
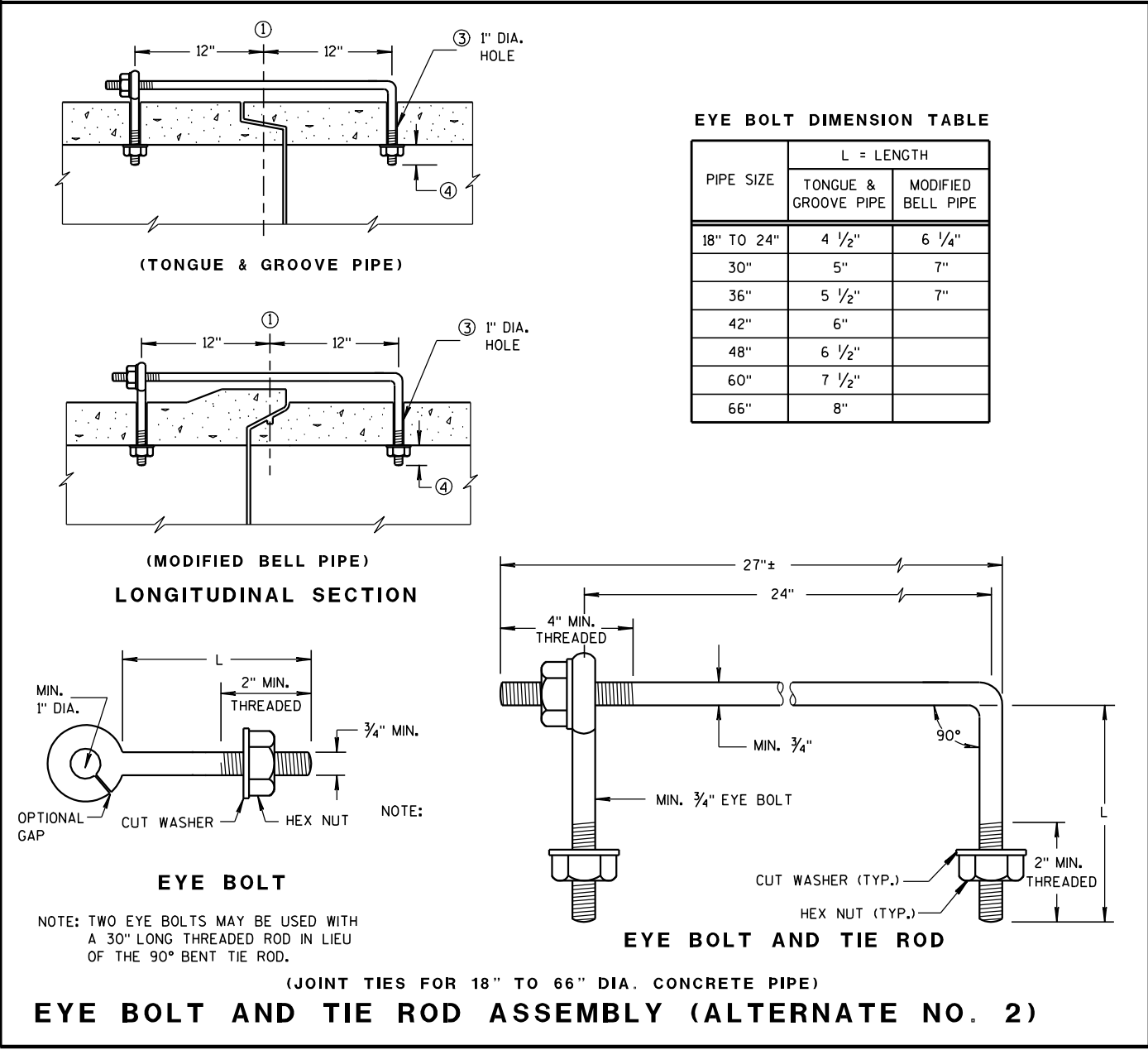
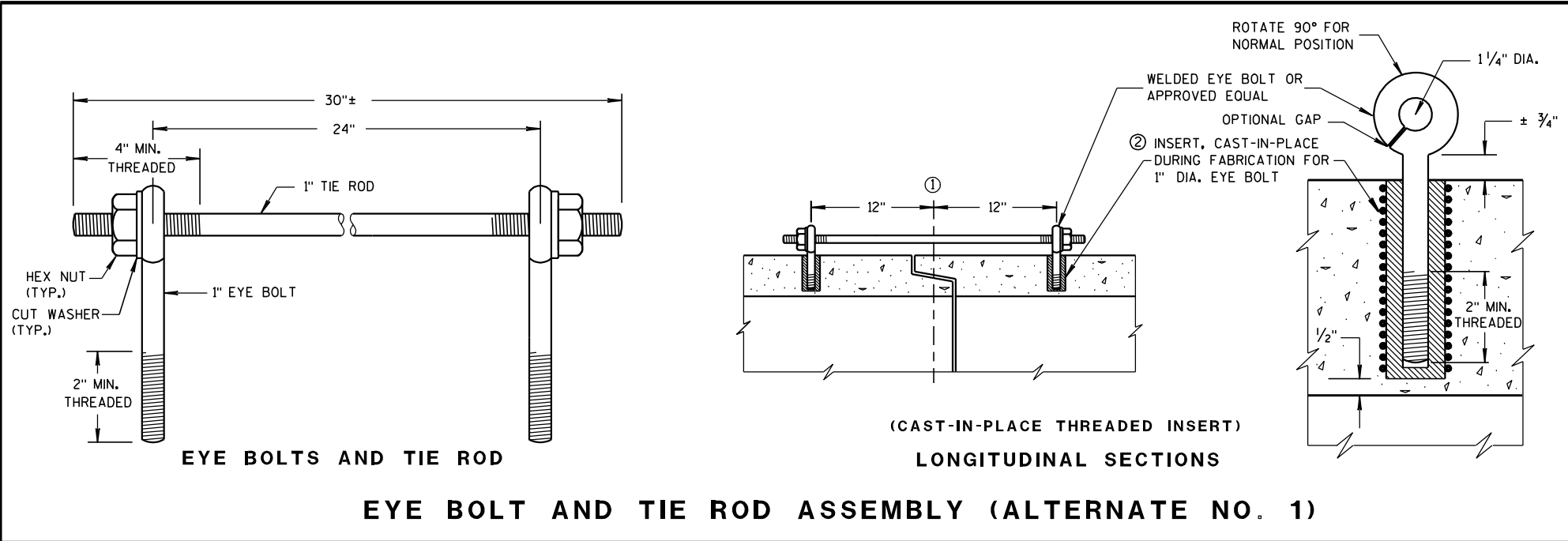
WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

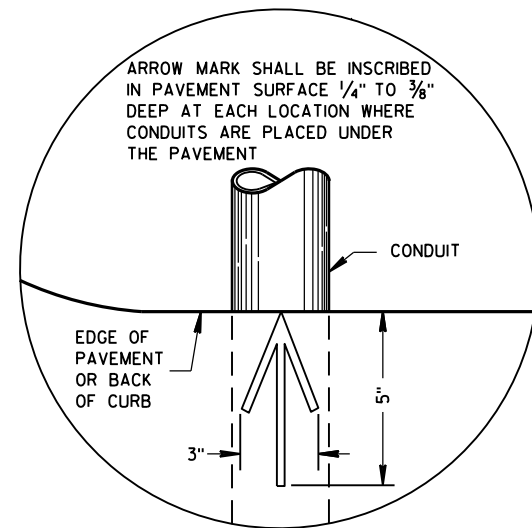
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR
CULVERT PIPE

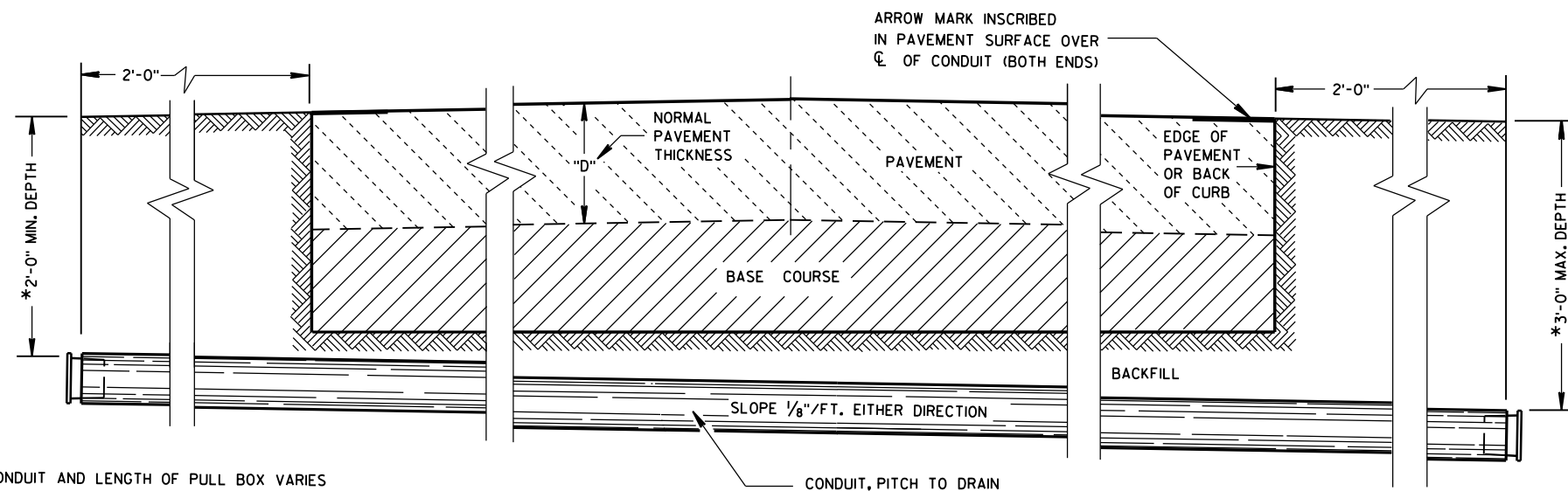
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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





PLAN VIEW
ARROW MARK



SIDE ELEVATION
DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

*DEPTH OF CONDUIT AND LENGTH OF PULL BOX VARIES
WITH HEIGHT OF CURB USED. ALSO SEE PULL BOX S.D.D. 9B4

GENERAL NOTES

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

METALLIC (STANDARD SPECIFICATION 652.2.2) OR NONMETALLIC (STANDARD SPECIFICATION 652.2.3) CONDUIT SHALL BE FURNISHED AND PLACED AS SHOWN.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

THE TRENCH SHALL NOT BE BACKFILLED PRIOR TO INSPECTION OF THE CONDUIT.

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

ALL METALLIC CONDUIT IN WHICH WIRE OR CABLE IS TO BE INSTALLED SHALL BE BUSHED WITH APPROVED THREADED BUSHINGS BEFORE INSTALLATION OF THE WIRE OR CABLE.

ALL METALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT TO BE INSTALLED SHALL BE CAPPED WITH THREADED PROTECTIVE CAPS, AS APPROVED BY THE ENGINEER.

ALL NONMETALLIC CONDUIT SHALL BE CAPPED OR PLUGGED IMMEDIATELY AFTER INSTALLATION AND SHALL REMAIN CAPPED OR PLUGGED UNTIL WIRE/CABLES ARE INSTALLED.

NONMETALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BENDING OF PVC ELECTRICAL CONDUIT SHALL BE ACCOMPLISHED BY USING A BLANKET OR EMERSION TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT.

ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON NONMETALLIC CONDUIT. (SEE NEC 347.5)

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

PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

ALL CONDUIT BEING FURNISHED AND INSTALLED SHALL HAVE THE U.L. LABEL FIRMLY ATTACHED.

CONDUIT RUNS SHALL BE THE SAME SIZE OF CONDUIT FROM ONE END TO THE OTHER (FROM PULL BOX TO PULL BOX-OR-JUNCTION BOX TO JUNCTION BOX-OR-BASE TO BASE, ETC.).

TRACER WIRE SHALL BE INSTALLED AS STATED IN THE STANDARD SPECIFICATION, ITEM 652.3.1.1.

ALL CONDUIT RUNS SHALL BE STRAIGHT (WITHOUT BENDS) FROM PULL BOX TO PULL BOX, PULL BOX TO BASE AND BASE TO BASE AS SHOWN ON THE PLANS.

CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March, 2017 /S/ Ahmet Demirbilek
DATE STATE ELECTRICAL ENGINEER
FHWA

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

DIMENSION IN INCHES		NON-CONDUCTIVE PULL BOX	
BOX DIAMETER ** (INSIDE)	A	24	24
BOX OVERALL OUTSIDE DIAMETER	B	27	27
BOX LENGTH	C	36	42
FRAME OPENING	D	22 1/2	22 1/2
WEIGHT IN POUNDS *			
COVER		50	50
BOX ONLY		75	85

* THE ACTUAL WEIGHT OF THE COVER OR BOX ONLY
MAY VARY NOT TO EXCEED 100 LBS INDIVIDUALLY.

** DIAMETER VARIES FROM TOP TO BOTTOM
WITH THE DIAMETER LARGER AT THE BOTTOM
TO PREVENT FROST HEAVE

GENERAL NOTES

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

ALL BOXES, FRAMES AND COVERS SHALL BE SUITABLE FOR TIER 15 LOADING
AS SPECIFIED IN ANSI/SCTE 77.

PROVIDE AN OPENING FOR TOOL ASSISTED COVER REMOVAL NOT LARGE ENOUGH TO PERMIT
PASSAGE OF A SPHERE MORE THAN 1/2" DIAMETER

ENSURE COVER SURFACE IS SKID RESISTANT WITH A COEFFICIENT OF FRICTION OF
AT LEAST 0.5 AND VERTICAL SURFACE DISCONTINUITIES LESS THAN 1/4".

COVER SHALL BE MAGNETICALLY LOCATABLE.

BOXES AND EXTENSIONS ARE TRIMMABLE FOR CUSTOM LENGTHS.
TRIMMED PIECES SHALL MAINTAIN A UNIFORM LENGTH.

ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW
OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER
OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN 1/4".

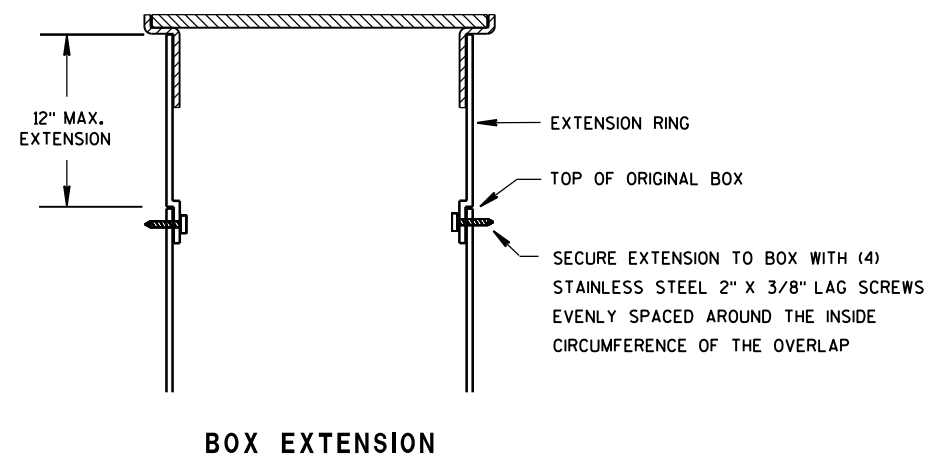
THE CONTRACTOR SHALL NOT INSTALL WIRE IN ANY PULL BOX UNTIL ITS
INSTALLATION HAS BEEN INSPECTED AND ACCEPTED BY THE ENGINEER.

ALL METALLIC CONDUIT IN WHICH WIRE AND/OR CABLE IS TO BE INSTALLED,
SHALL BE BUSHED BEFORE INSTALLATION OF THE WIRE AND/OR CABLE.

ENTIRE BOX MUST BE CONSTRUCTED OF NON-CONDUCTIVE MATERIALS
WITH THE EXCEPTION OF STAINLESS STEEL FASTENERS AND MAGNETIC LOCATABLE DEVICE.

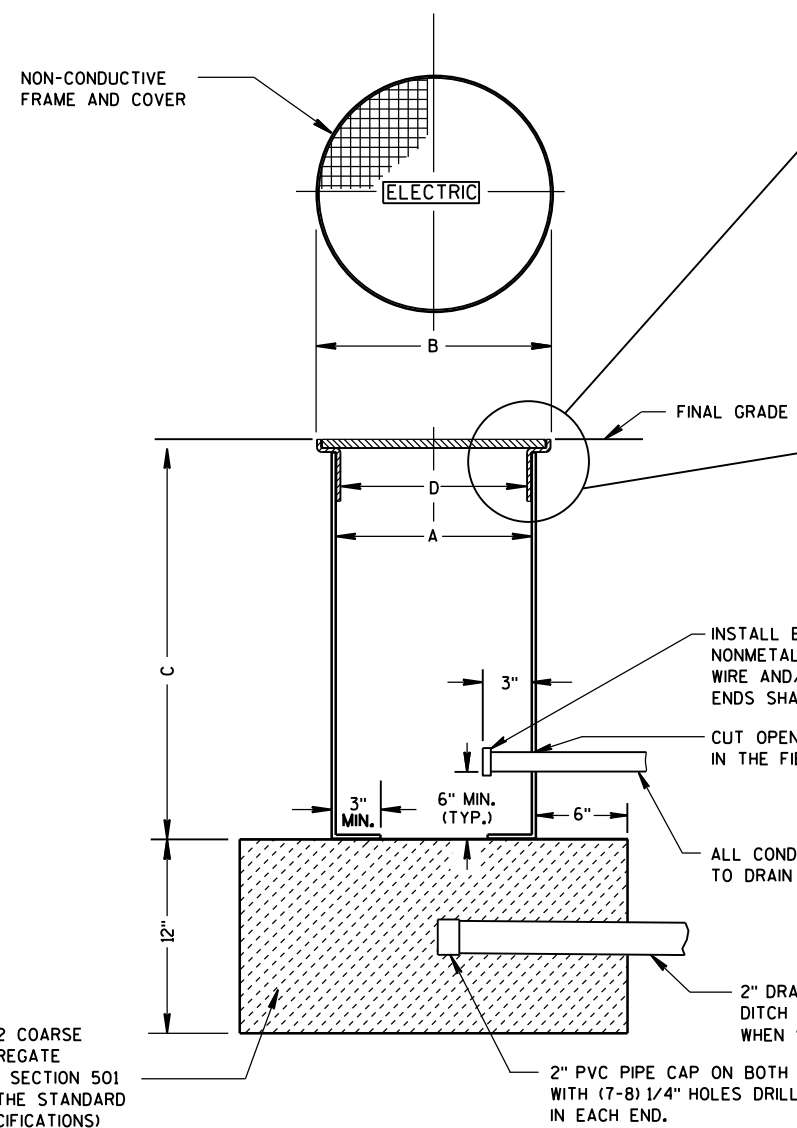
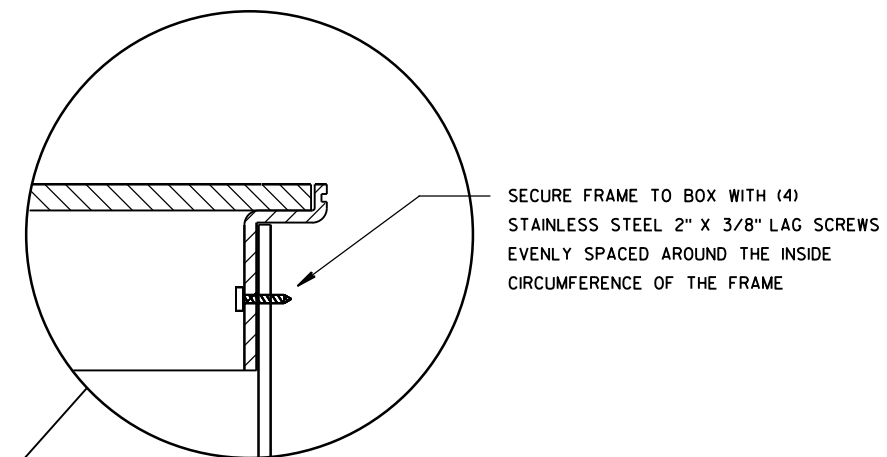
WHEN A PULL BOX IS INSTALLED IN CRUSHED AGGREGATE SHOULDERS,
PLACE IT 2-3 INCHES BELOW GRADE AND COVER IT WITH 2-3 INCHES
OF CRUSHED AGGREGATE

LABEL ON COVER SHALL READ "ELECTRIC" FOR SIGNAL AND LIGHTING SYSTEMS,
"WISDOT ITS" FOR COMMUNICATIONS AND ITS EQUIPMENT SYSTEMS.



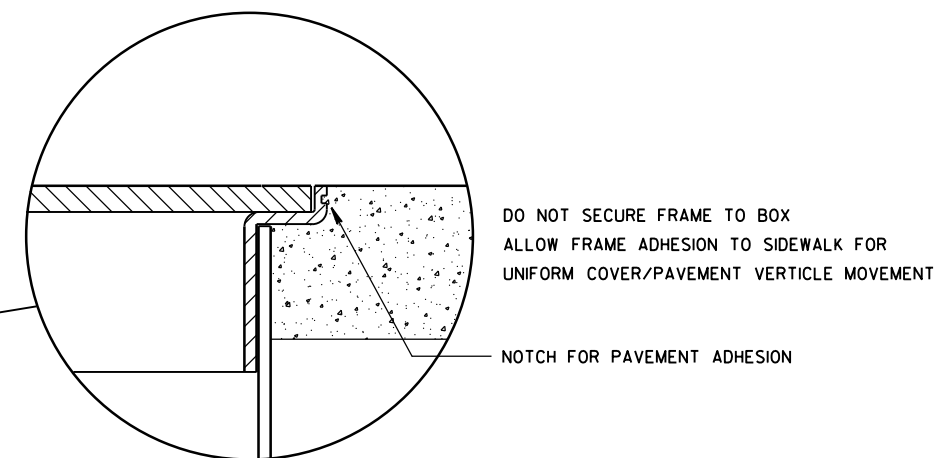
BOX EXTENSION

INSTALLED IN SOD OR CRUSHED AGGREGATE



NON-CONDUCTIVE PULL BOX

INSTALLED IN SIDEWALK



DO NOT SECURE FRAME TO BOX
ALLOW FRAME ADHESION TO SIDEWALK FOR
UNIFORM COVER/PAVEMENT VERTICLE MOVEMENT

NOTCH FOR PAVEMENT ADHESION

PULL BOX
NON-CONDUCTIVE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

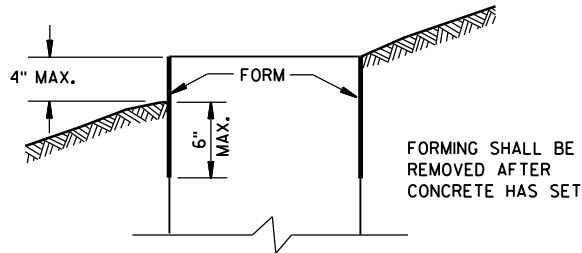
APPROVED

May 2017
DATE

FHWA

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGINEER

FORM DEPTH SHALL BE NO MORE THAN 6" BELOW GRADE ON THE LOWER SIDE OF BASE



FORMING DETAIL

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

GENERAL NOTES

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

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

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

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

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

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

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

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

GENERAL NOTES (CONTINUED)

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

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

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

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

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

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

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

WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

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

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

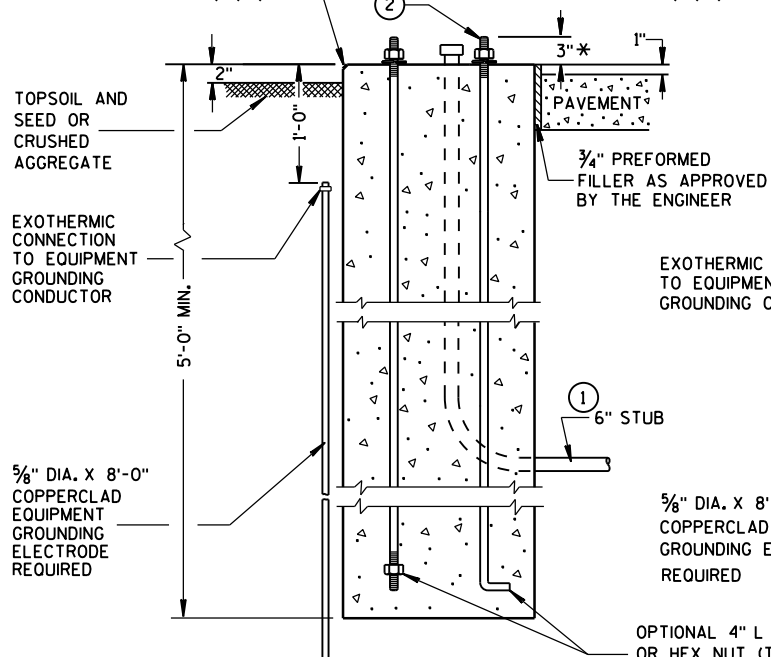
WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TIE WIRES SHALL BE USED.

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

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

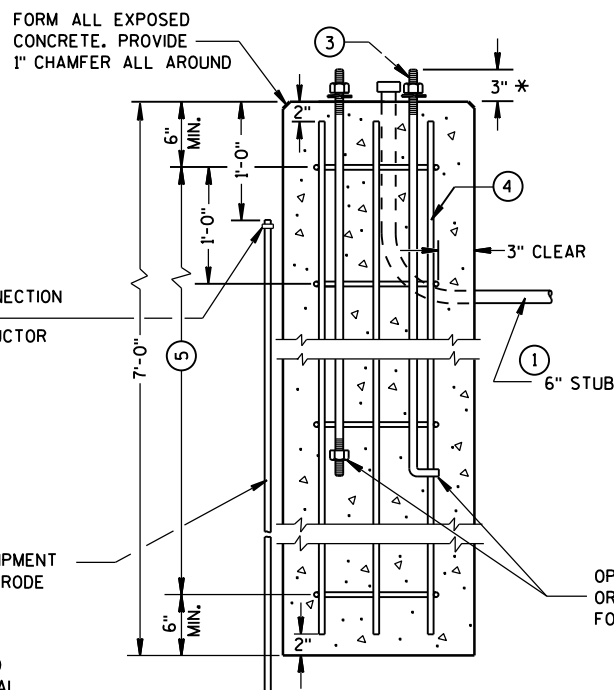
- 2 (4) 1" DIA. X 3'-6" ANCHOR RODS.
- 3 (4) 1" DIA. X 5'-0" ANCHOR RODS.
- 4 (6) NO. 6 X 6'-8" BAR STEEL REINFORCEMENT.
- 5 (7) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.
- 6 (4) 1" DIA. X 3'-6" ANCHOR RODS.
- 7 (6) NO. 4 X 4'-8" BAR STEEL REINFORCEMENT.
- 8 (5) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

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

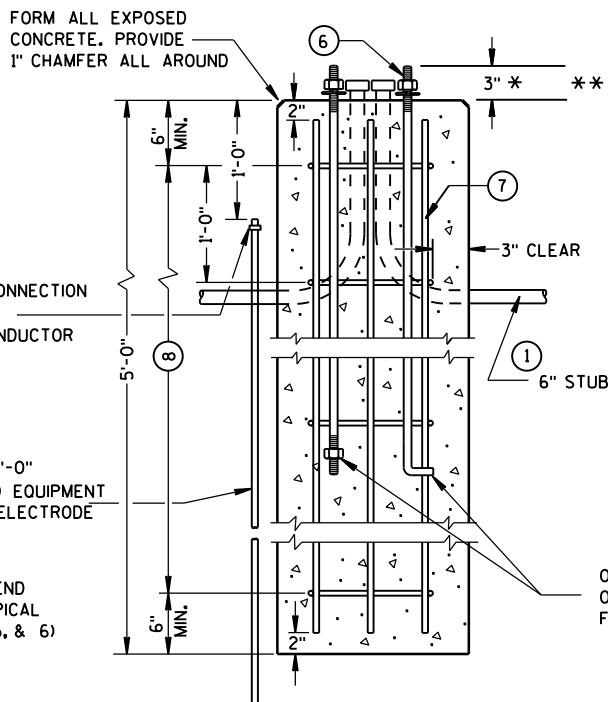


TYPE 1

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



TYPE 2



TYPE 5 & 6

CONCRETE BASES

* ANY ANCHOR ROD PROJECTION SHORTER THAN 2 3/4" OR LONGER THAN 3 1/4" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

** FOR NONBREAKAWAY INSTALLATIONS, 4 1/2" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

GENERAL NOTES

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

FOUR (4) BOLTS SHALL BE FURNISHED WITH EACH TRANSFORMER BASE. BOLTS SHALL BE 1" DIAMETER, 4" IN LENGTH, WITH WASHERS, LOCK WASHERS AND NUTS. BOLTS, NUTS AND WASHERS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 641.2.2 OF THE STANDARD SPECIFICATIONS.

LEVELING SHIMS, IF NEEDED, SHALL BE DESIGNED FOR THE PURPOSE AND USED UNDER CAST BASES WHEN PLUMBING POLES OR STANDARDS DURING INSTALLATION. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE.

SHIM LENGTH SHALL BE LONG ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.

DOUBLE NUTTING IS NOT ACCEPTABLE FOR LEVELING OR MOUNTING PURPOSES.

A NEMA APPROVED, U.L. LISTED, COPPER WITH BRASS OR STAINLESS STEEL SET SCREW, DIRECT BURY RATED, MECHANICAL CONNECTOR (LUG), SIZED TO ACCEPT AWG. #10 TO #4 COPPER STRANDED WIRE SHALL BE FURNISHED AND INSTALLED IN THE PEDESTAL AND TRANSFORMER BASES.

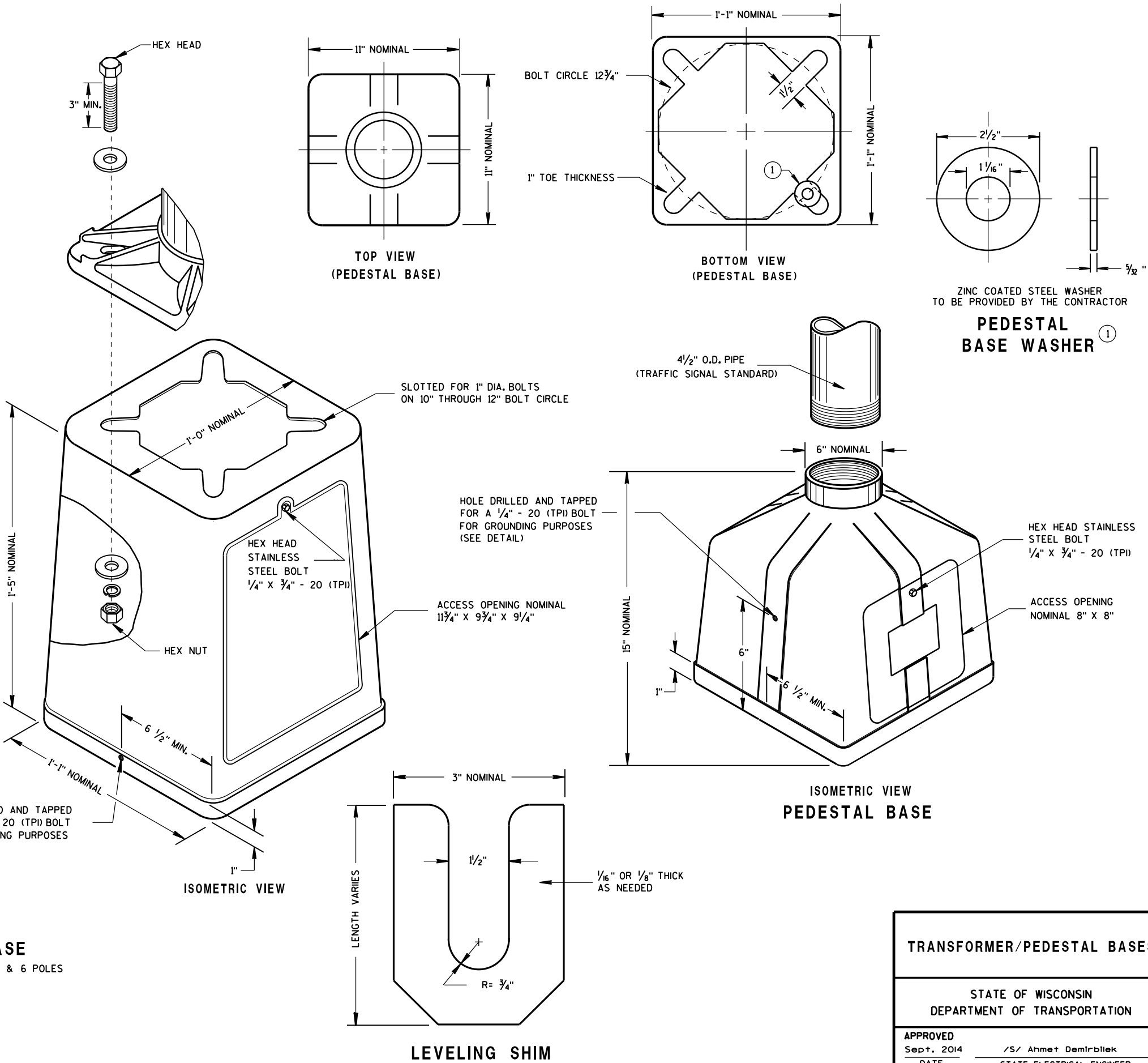
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

PEDESTAL BASE COLLAR THREADING SHALL BE TAPERED AND IN ACCORDANCE WITH NATIONAL PIPE THREADING DIMENSIONS.

BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1/2", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

THE ACCESS DOOR SHALL BE OF THE SAME MATERIAL AS THE BASE.



TYPICAL MECHANICAL
CONNECTOR LUG
TO BE FURNISHED WITH EACH BASE

TRANSFORMER BASE
INTENDED FOR USE WITH TYPE 2, 3, 4, 5 & 6 POLES

ISOMETRIC VIEW
PEDESTAL BASE

LEVELING SHIM

TRANSFORMER/PEDESTAL BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

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

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

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

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

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

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

ANCHOR RODS SHALL BE 1" X 60".

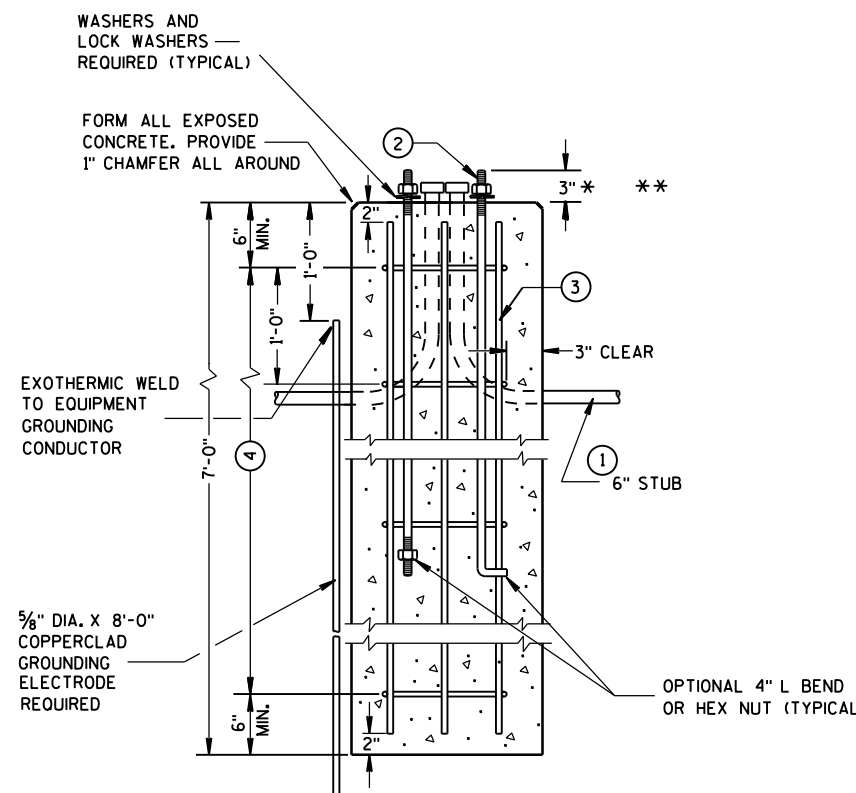
ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD.
ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 OF
THE STANDARD SPECIFICATIONS.

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

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

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

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



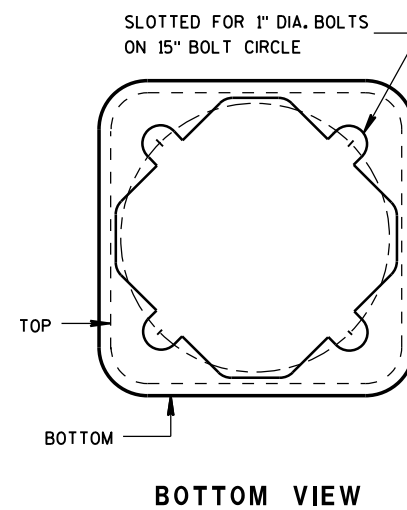
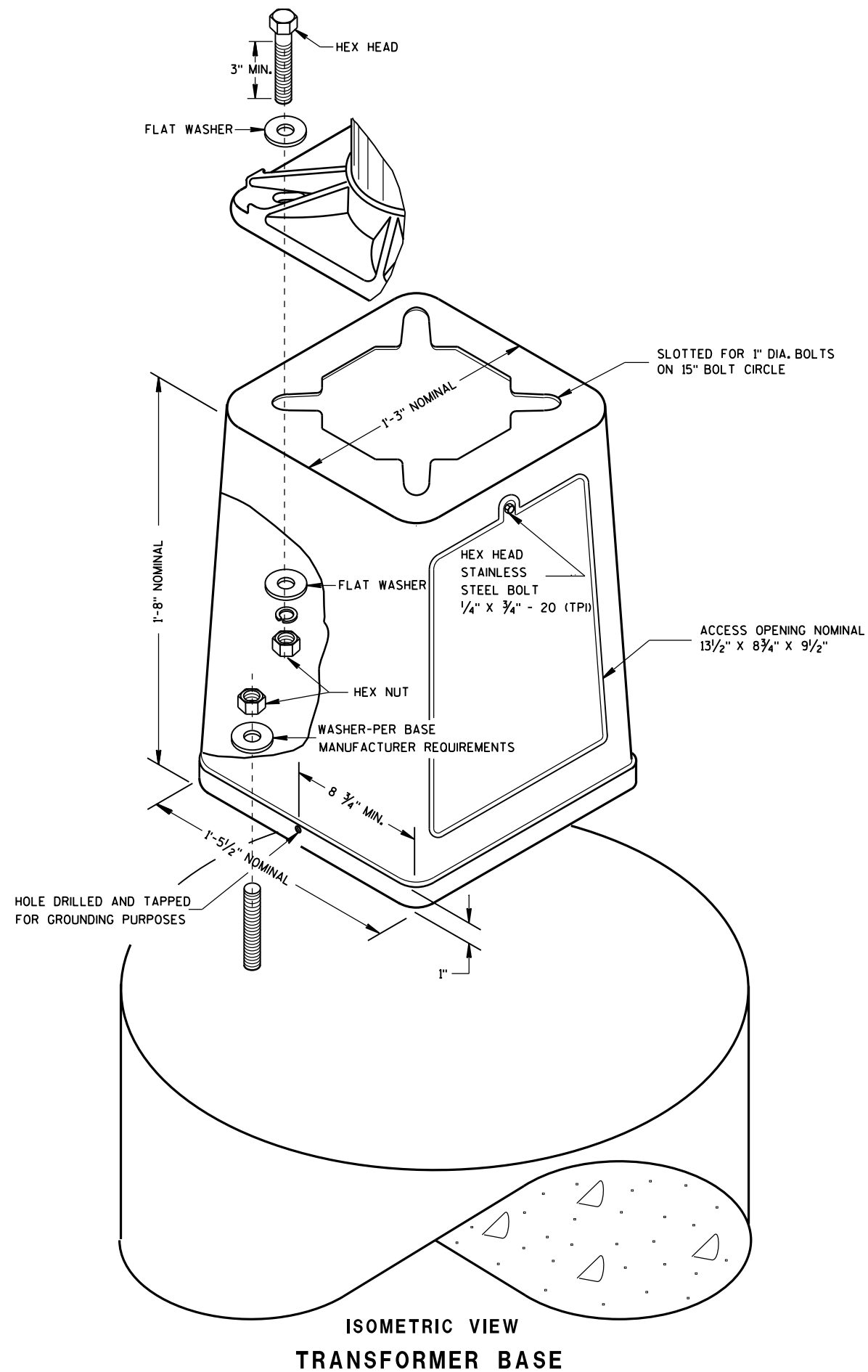
* ANY ANCHOR ROD PROJECTION SHORTER THAN 2 3/4" OR LONGER THAN 3 1/4" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

** FOR NONBREAKAWAY INSTALLATIONS, 4 1/2" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.



Diagram illustrating the assembly of a concrete base for a pedestal. The pedestal is shown being lowered into a hole in the concrete base. The hole is 4 1/2 inches deep. The pedestal has a flange with four mounting points. Labels indicate 'FLAT WASHERS' and 'HEX NUTS' are used to secure the pedestal to the concrete base.

- ① THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN APPROVAL BY THE ENGINEER.
- ② (4) 1" DIA. X 5'-0" ANCHOR RODS.
- ③ (6) NO. 6 X 6'-8" BAR STEEL REINFORCEMENT.
- ④ (7) NO. 4 X 6'-2" BAR STEEL REINFORCEMENT @ 1'-0" C-C.



GENERAL NOTES

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

BREAKAWAY BASES (WHERE REQUIRED) WILL BE MEASURED AND PAID AS SEPARATE ITEMS OF WORK IN ADDITION TO THE LIGHT POLE.

FOUR (4) BOLTS SHALL BE FURNISHED WITH EACH TRANSFORMER BASE. BOLTS SHALL BE 1" DIAMETER, 4" IN LENGTH, WITH WASHERS, LOCK WASHERS AND NUTS. BOLTS, NUTS AND WASHERS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 641.2.2 OF THE STANDARD SPECIFICATIONS.

LEVELING SHIMS, IF NEEDED, SHALL BE DESIGNED FOR THE PURPOSE AND USED UNDER CAST BASES WHEN PLUMBING POLES DURING INSTALLATION. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE.

SHIMS SHALL BE SIZED TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.

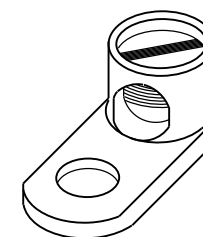
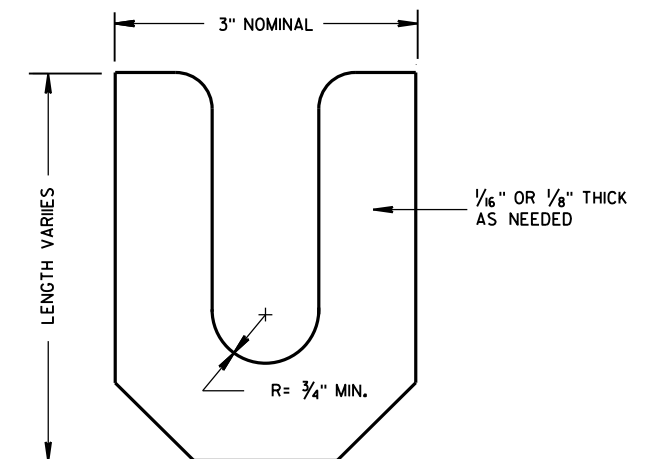
A NEMA APPROVED, U.L. LISTED, COPPER WITH BRASS OR STAINLESS STEEL SET SCREW, DIRECT BURY RATED, MECHANICAL CONNECTOR (LUG), SIZED TO ACCEPT AWG. #10 TO #4 COPPER STRANDED WIRE SHALL BE FURNISHED AND INSTALLED IN THE TRANSFORMER BASE.

THE MECHANICAL CONNECTOR (GROUNDING LUG) SHALL BE INSTALLED USING THE TAPPED HOLE PROVIDED BY THE MANUFACTURER. THE MOUNTING BOLT HEXHEAD), NUT, WASHER AND LOCK WASHER SHALL BE STAINLESS STEEL, SIZED TO FIT THE THREADING AND HOLE SIZE, AND BE OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

SHOULD A GROUNDING LUG MOUNTING HOLE NOT BE PROVIDED, THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" X 3/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE. IT SHALL BE MOUNTED IN THE SAME LOCATION AS IS SHOWN ON THE DRAWING.

SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, AND LOCK WASHERS, THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

THE ACCESS DOOR SHALL BE MANUFACTURED OF THE SAME MATERIAL AS THE BASE.



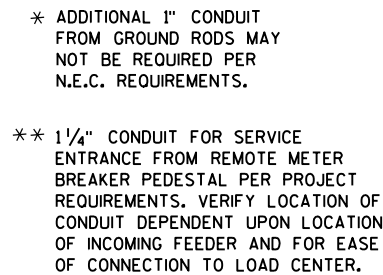
TO BE FURNISHED WITH EACH BASE

TRANSFORMER BASE
FOR 15" BOLT CIRCLE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014
DATE
FHWA

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGINEER



CONCRETE BASE TYPE	CABINET WIDTH	DIMENSIONS		MAXIMUM 3" CONDUITS
		A	B	
L24	24"	34"	24"	4
L30	30"	40"	24"	6



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

INSTALL FOUR STAINLESS STEEL APPROVED CONCRETE MASONRY ANCHORS TO ANCHOR THE CABINET BASES. THE ANCHORS SHALL BE LOCATED AS DIRECTED BY THE ENGINEER TO PROPERLY ANCHOR THE CONTROL CABINET TO THE BASE.

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

CONDUIT HEIGHT ABOVE THE CONCRETE BASE SHALL BE 1 INCH.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

CONTROL CABINET BASE TOP SURFACE SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

MAINTENANCE PLATFORM SHALL BE FLOAT OR BROOM FINISHED AND BE LEVEL.

MAINTENANCE PLATFORMS ARE NOT REQUIRED WHEN THE SURROUNDING AREA IS PAVED.

MINIMUM BENDING RADIUS OF CONDUIT = 6 X THE DIAMETER.

ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

CAP ALL BELOW GRADE METALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

PLUG ALL BELOW GRADE NONMETALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

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

CONDUIT EXITING THE CONCRETE BASE SHALL TERMINATE IN PULL BOXES AS SHOWN ON THE PLANS.

CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6" MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.

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

CONCRETE CONTROL
CABINET BASE, TYPE L

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Nov. 2014 /S/ Thomas Gorringer
DATE STATE LIGHTING ENGINEER FOR HWYS
FWHA

6



S.D.D. 9 E 1-14f

**POLE MOUNTINGS FOR
LIGHTING UNIT, TYPE 17
(40 FEET)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

S.D.D. 9 E 1-14f

TYPE 17 ALUMINUM POLES SHALL BE CONSTRUCTED OF 6063-T6 ALUMINUM ALLOY.
SLEEVING INSIDE THE POLE IS NOT ACCEPTABLE.

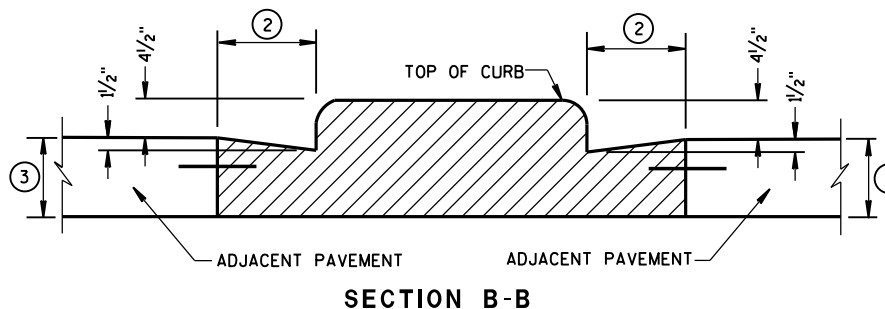
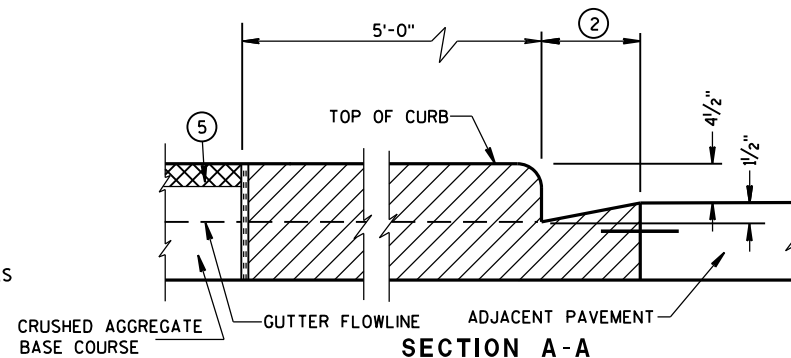
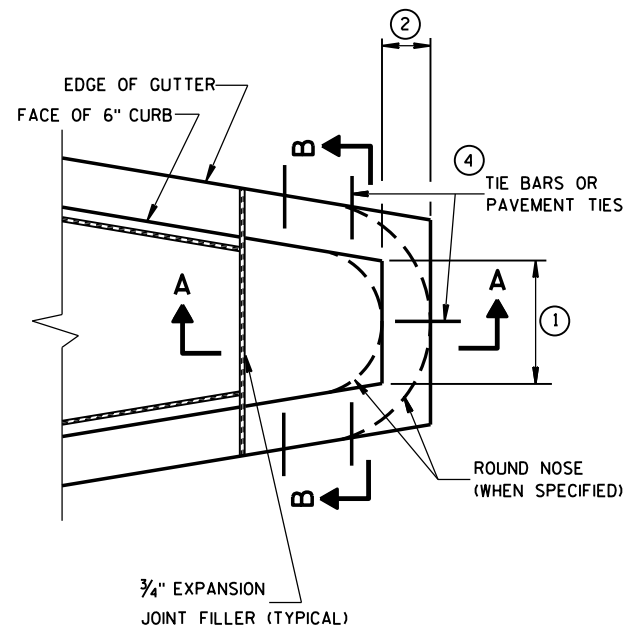
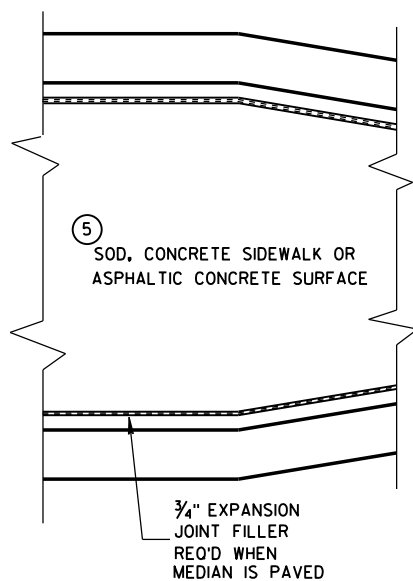
TYPE 17 STEEL POLES SHALL HAVE A MINIMUM WALL THICKNESS OF U.S. STANDARD 11 GAGE (.1196").

THE SHOE BASE SHALL BE SLOTTED TO ACCEPT A 15" BOLT CIRCLE
(14" X 16" SLOT) USING 1" ANCHOR RODS.

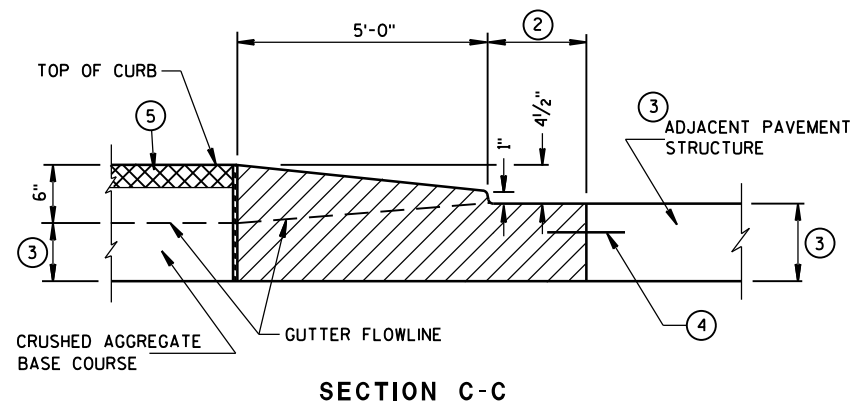
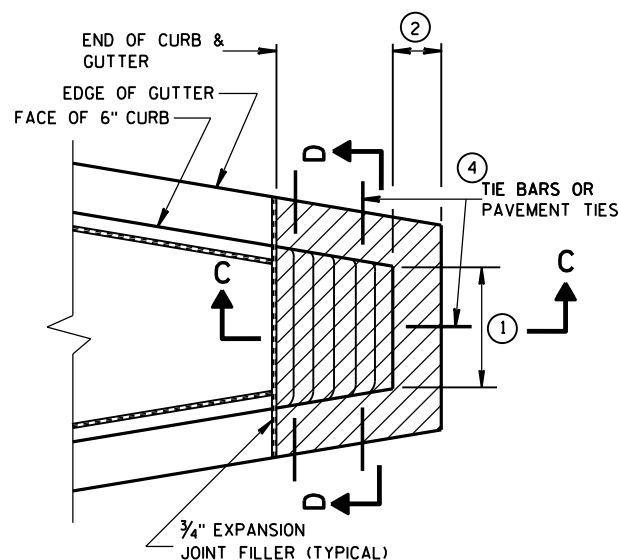
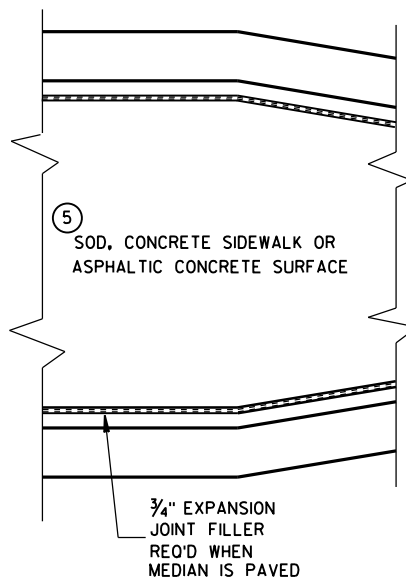
THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2 $\frac{3}{8}$ INCHES IN OUTSIDE DIAMETER. THE STRAIGHT PORTION OF THE SLIPFITTER END OF THE LUMINAIRE ARM SHALL BE A NOMINAL 12 INCHES IN LENGTH.

WHEN TRANSFORMER BASES ARE USED, WIRE CONNECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

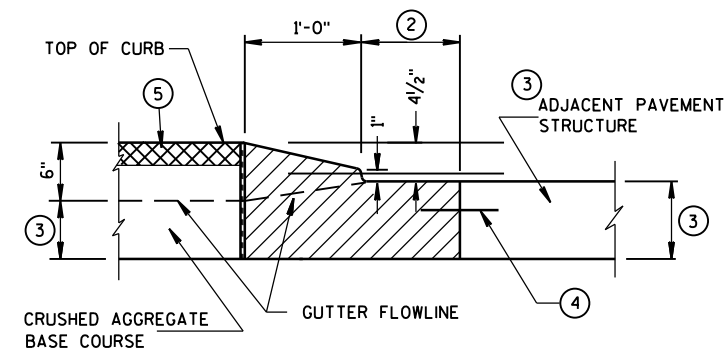
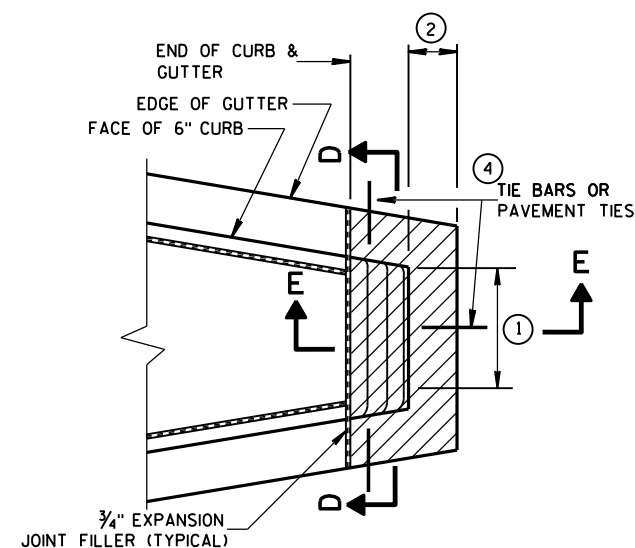
- ① 4" x 6" REINFORCED HANDHOLE & COVER ASSEMBLY WITH 2 (TWO) 1/4" x 3/4" - 20 TPI HEX HEAD STAINLESS STEEL BOLTS.
- ② GROMMETS, 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR A 1 3/8" HOLE IN THE POLE SHAFT FOR WIRING.
- ③ CAST ALUMINUM FHWA APPROVED TRANSFORMER BASE WHEN REQUIRED, SHALL HAVE AN ULTIMATE STATIC LOAD STRENGTH OF AT LEAST 40,000 FT. - LBS.
- ④ FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) 1/4" x 3/4" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.
- ⑤ SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND THE TRANSFORMER BASE.
- ⑥ INTERNAL DUMBBELL-TYPE VIBRATION DAMPER.



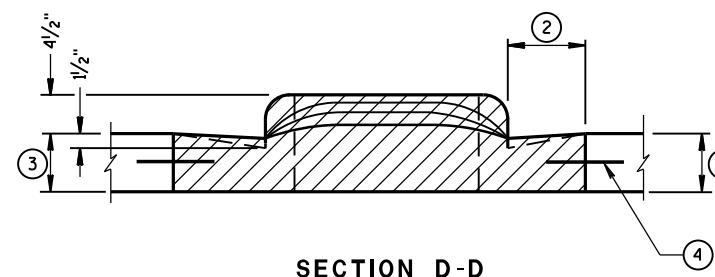
CONCRETE MEDIAN BLUNT NOSE DETAIL



CONCRETE MEDIAN SLOPED NOSE TYPE 1



CONCRETE MEDIAN SLOPED NOSE TYPE 2



GENERAL NOTES

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

- ① SEE PLAN FOR MEDIAN NOSE WIDTH AND RADIUS (FOR ROUND NOSE ALTERNATE).
- ② WIDTH OF GUTTER TO MATCH EXISTING ADJACENT GUTTER OR AS SPECIFIED ELSEWHERE IN THE PLAN.
- ③ DEPTH EQUAL TO ADJACENT PAVEMENT. ADJACENT PAVEMENT STRUCTURE DETAILS ARE SHOWN ON THE PLAN. TYPICAL OPTIONS ARE:
 - (1) NEW OR EXISTING CONCRETE PAVEMENT.
 - (2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.
 - (3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

- ④ TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C.

PAVEMENT TIES REQUIRED IN EXISTING CONCRETE BASE COURSE. PAVEMENT TIES SHALL BE NO. 6 X 1'-0" SPACED AT 3'-0" C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1. THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.

- ⑤ SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.

CONCRETE MEDIAN NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

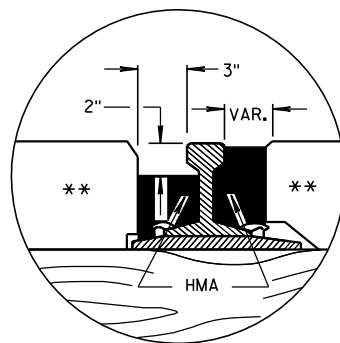
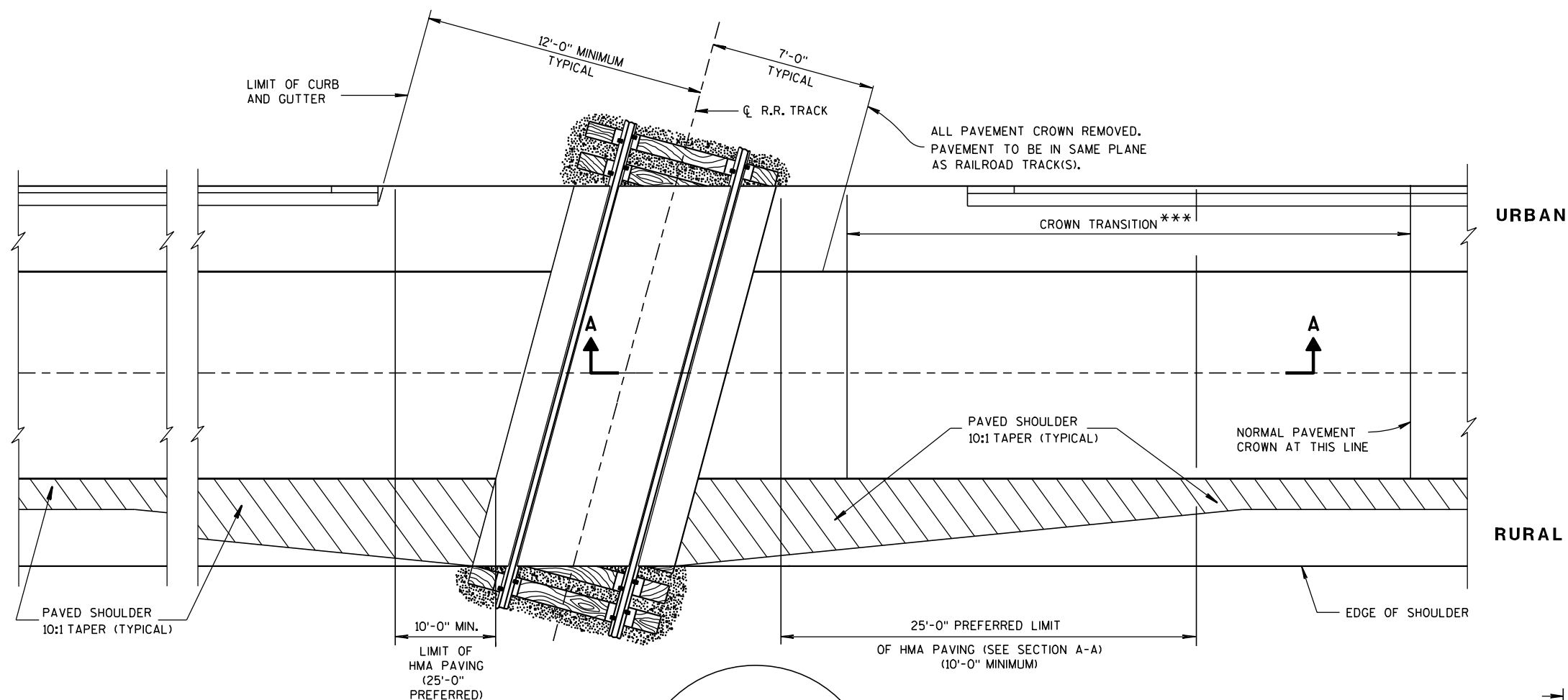
APPROVED

6/8/2006

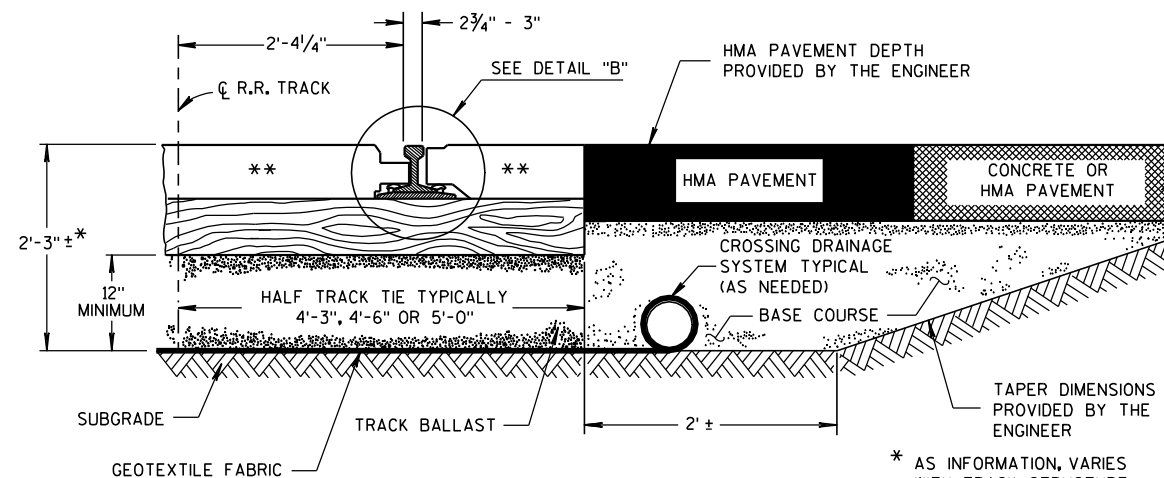
DATE

FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER

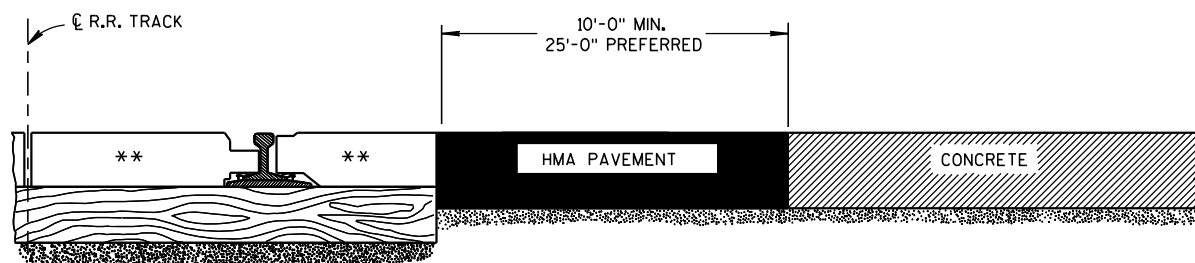


DETAIL B
HMA FLANGEWAY
AND FIELD FILLERS



TYPICAL HALF SECTION

* AS INFORMATION, VARIES WITH TRACK STRUCTURE AND SOIL CONDITIONS



SECTION A-A
CONCRETE PAVEMENT APPROACH



SECTION A-A
HMA PAVEMENT APPROACH

EXAMPLES OF PAVEMENT APPROACHES

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.

TIMBER, CONCRETE OR RUBBER CROSSING SURFACE MATERIAL, RAILS, TIES, BALLAST, GEOTEXTILE FABRIC AND CROSSING DRAINAGE SYSTEM BY OTHERS UNLESS OTHERWISE PROVIDED.

HMA PAVEMENT APPROACHES AND HMA PAVEMENT CROSSING SURFACES TO BE PLACED BY CONTRACTOR UNLESS OTHERWISE PROVIDED.

HMA FLANGEWAY AND FIELD FILLERS TO BE PLACED AND THOROUGHLY HAND COMPACTED BY THE CONTRACTOR WHEN NOT PROVIDED BY OTHERS. SEE DETAIL B. HMA FILLERS NOT REQUIRED WHEN RUBBER FILLERS ARE PROVIDED.

HMA PAVEMENT SHALL BE ROLLED PARALLEL TO THE TRACK.

** CROSSING SURFACE MAY BE TIMBER, RUBBER, CONCRETE, HMA PAVEMENT OR A COMBINATION OF SUCH MATERIALS.

*** CROWN TRANSITION LENGTH SHOWN ELSEWHERE IN THE PLAN.

PAVEMENT DETAILS FOR RAILROAD APPROACH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

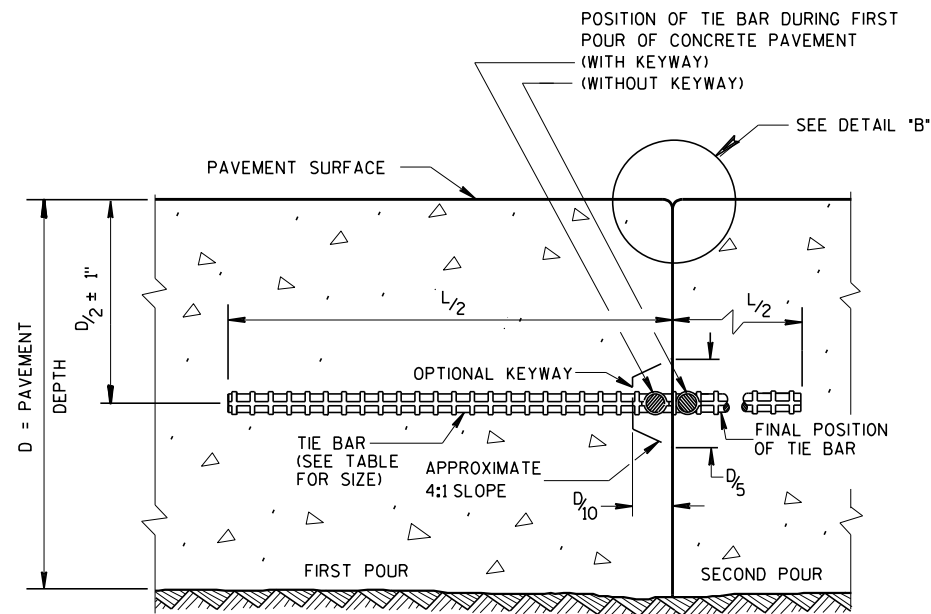
APPROVED

8-28-09

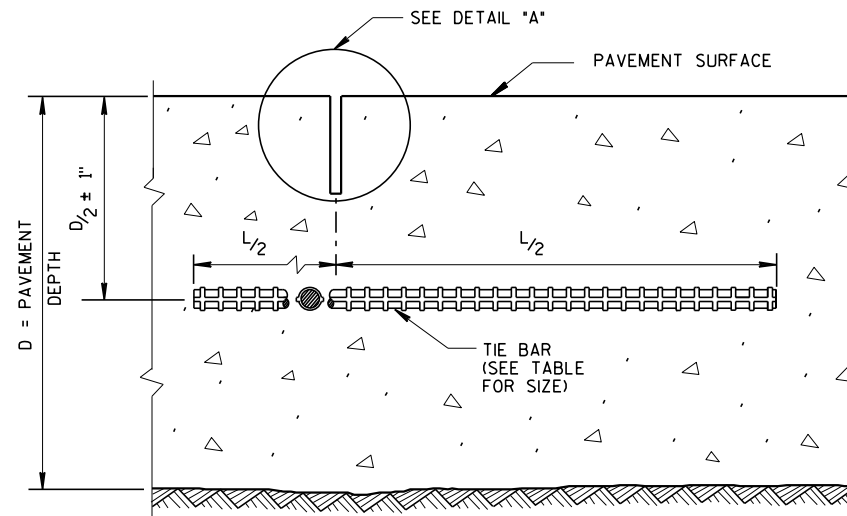
DATE

FHWA

/S/ Ronald E. Adams
CHIEF, RAILROADS & HARBORS SECTION



CONSTRUCTION JOINT



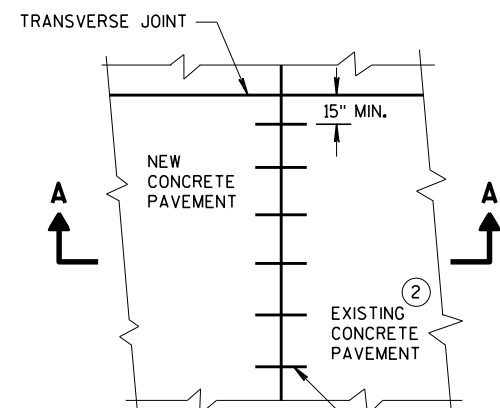
SAWED JOINT

GENERAL NOTES

CREATE A LONGITUDINAL JOINT FOR PAVEMENT WIDTHS GREATER THAN 15 FEET.

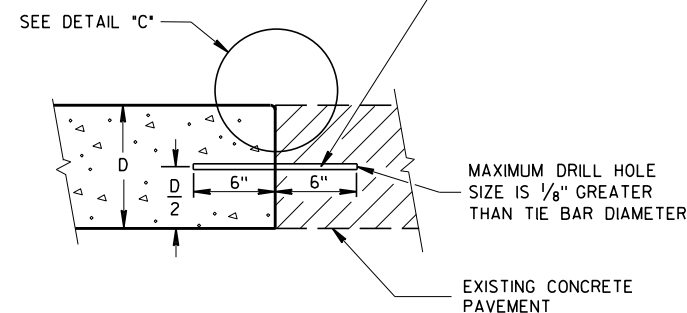
CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

- ① ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.
- ② PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.

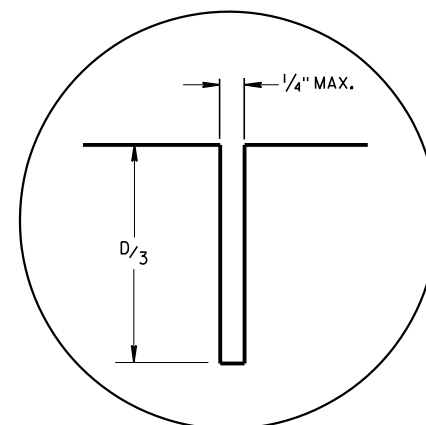


PLAN VIEW

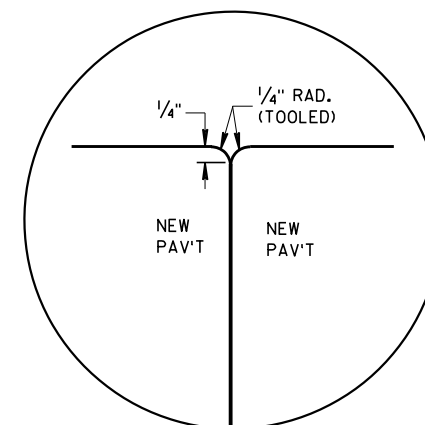
NO. 6 TIE BARS SPACED 30" C-C, INSTALLED PERPENDICULAR TO THE LONGITUDINAL JOINT. ①



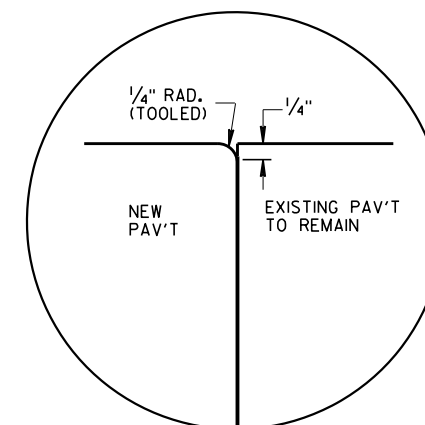
SECTION A-A
LONGITUDINAL CONSTRUCTION JOINT
TIE BARS ANCHORED
INTO EXISTING PAVEMENT



DETAIL "A"



DETAIL "B"



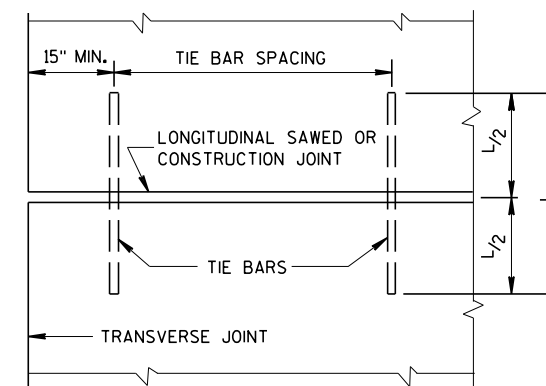
DETAIL "C"

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

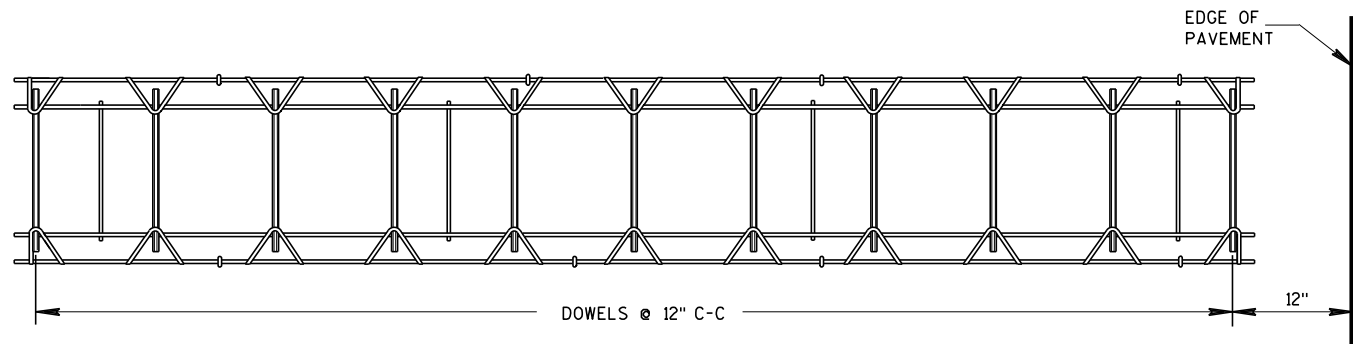


PLAN VIEW
SHOWING LOCATION OF TIE BARS

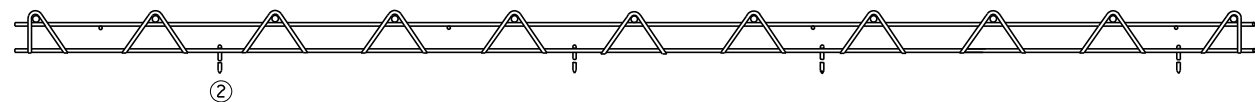
CONCRETE PAVEMENT
LONGITUDINAL JOINTS AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

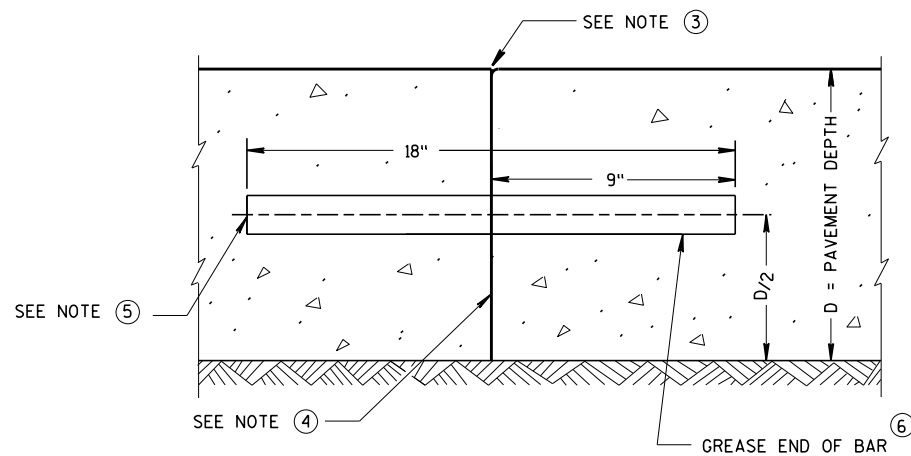
APPROVED
March 2018 /S/ Peter Kemp, P.E.
DATE PAVEMENT SUPERVISOR
FHWA



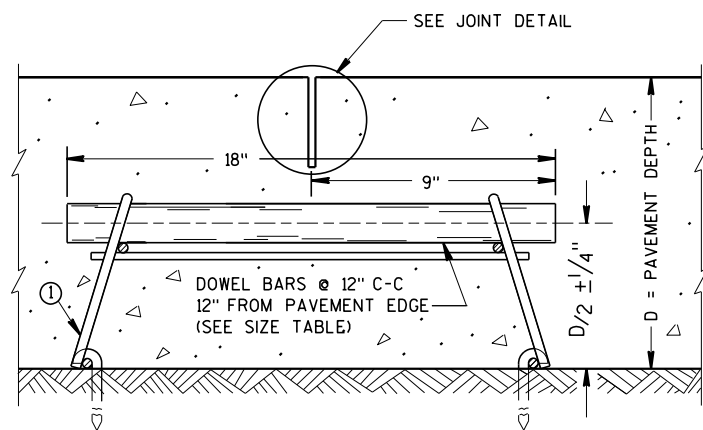
PLAN VIEW



SIDE VIEW
CONTRACTION JOINT DOWEL ASSEMBLY ①



TRANSVERSE CONSTRUCTION JOINT



DOWELED CONTRACTION JOINT

PAVEMENT DEPTH, DOWEL BAR SIZE
AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 1/2", 6", 6 1/2"	NONE	12'
7", 7 1/2"	1"	14'
8", 8 1/2"	1 1/4"	15'
9", 9 1/2"	1 1/4"	15'
10" & ABOVE	1 1/2"	15'

GENERAL NOTES

CONTRACTION JOINTS

CONSTRUCT TRANSVERSE CONTRACTION JOINTS NORMAL TO THE CENTERLINE. SHOW THE LOCATION OF CONTRACTION JOINTS THROUGH INTERSECTIONS ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

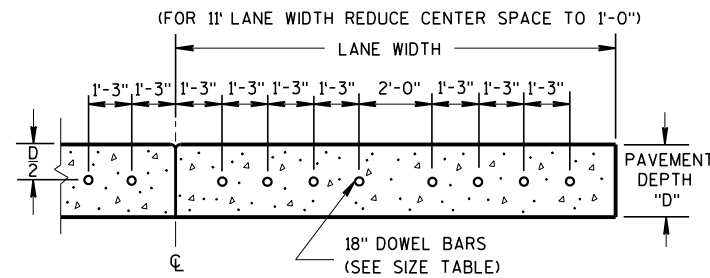
INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

FOR PAVEMENT SLABS OF VARYING WIDTHS, LOCATE THE OUTER MOST DOWEL BAR SO THAT THE CENTER OF THE BAR IS A MINIMUM OF 6 INCHES AND A MAXIMUM OF 18 INCHES FROM THE LONGITUDINAL JOINT AND THE FREE EDGE OF PAVEMENT.

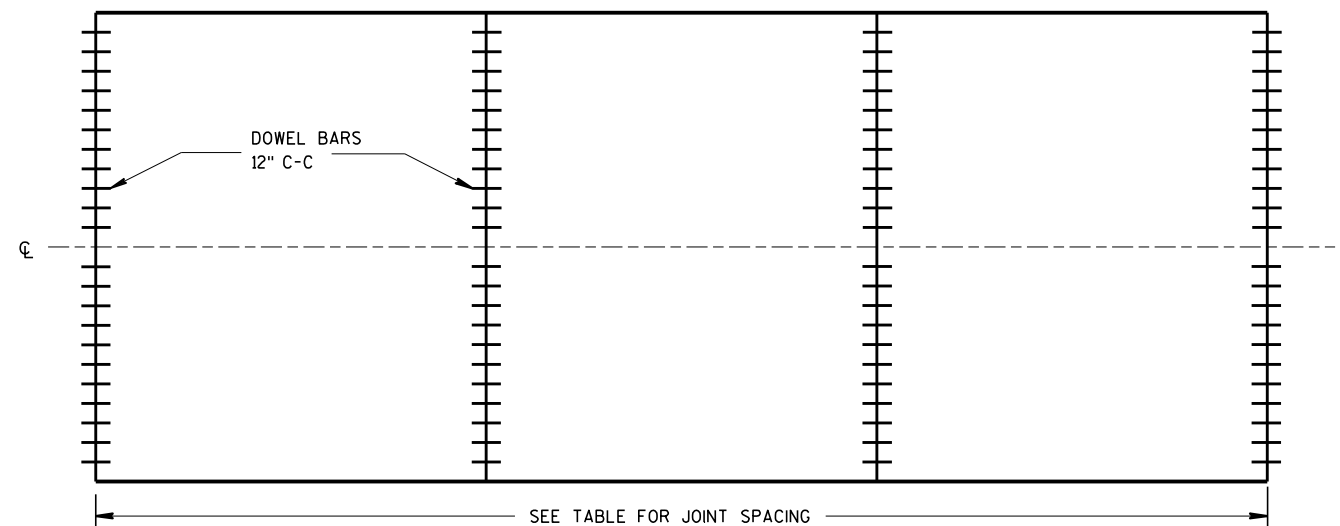
CONSTRUCTION JOINTS

LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.

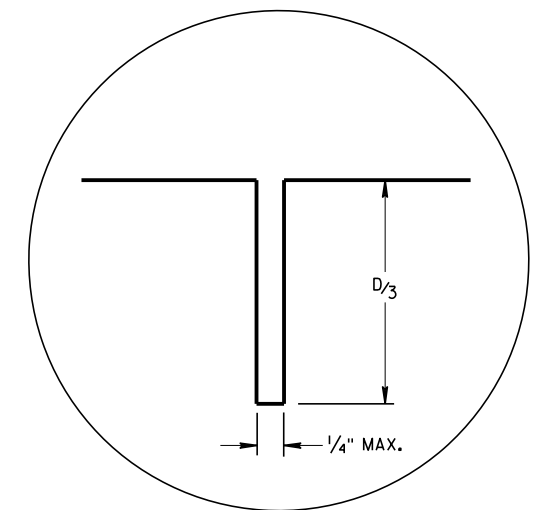
- ① OBTAIN THE ENGINEER'S APPROVAL FOR THE USE OF ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY. USE MECHANICAL DOWEL BAR INSERTERS OR DOWEL ASSEMBLIES WHEN CONSTRUCTING CONTRACTION JOINTS.
- ② SECURE BASKETS WITH ANCHORS TO HOLD DOWEL BARS IN THE CORRECT POSITION AND ALIGNMENT. TYPE, LOCATION, NUMBER AND LENGTH OF ANCHORS ARE DEPENDENT UPON FIELD CONDITIONS.
- ③ FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A 1/4-INCH RADIUS AT FORMED JOINTS.
- ④ PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS.
- ⑤ INSTALL DOWEL BARS AT CONSTRUCTION JOINTS BY FORMING OR DRILLING. INSTALL FORMED DOWEL BARS 12 INCHES C-C AND 12 INCHES FROM PAVEMENT EDGE. REMOVE EXCESS CONCRETE FROM THE FREE END OF THE DOWEL BAR IF DOWEL BARS ARE FORMED THROUGH A HEADER BOARD. INSTALL DRILLED DOWEL BARS ACCORDING TO *DRILLED DOWEL BAR CONSTRUCTION JOINT* DETAIL.
- ⑥ APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.
- ⑦ ANCHOR DOWEL BARS INTO DRILLED HOLES WITH AN EPOXY. MAXIMUM DRILLED HOLE SIZE IS 1/8-INCH GREATER THAN DOWEL BAR DIAMETER, 9 INCHES IN LENGTH.



DRILLED DOWEL BAR CONSTRUCTION JOINT ⑦



CONTRACTION JOINT LOCATIONS

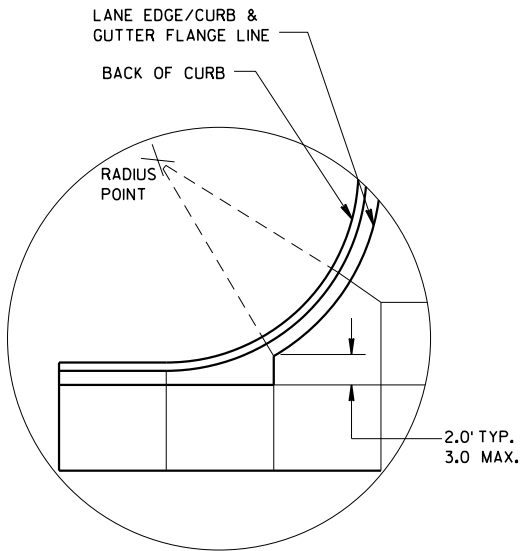


JOINT DETAIL

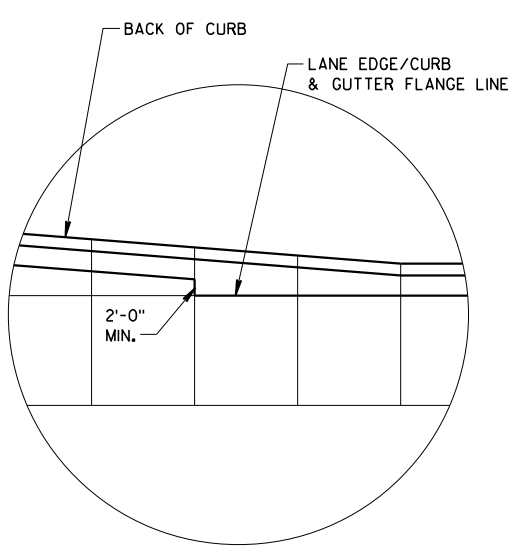
URBAN DOWELED
CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

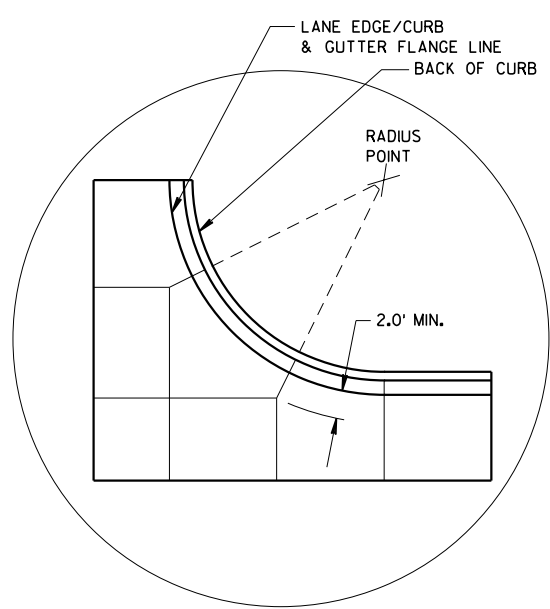
APPROVED
March 2018 /S/ Peter Kemp, P.E.
DATE PAVEMENT SUPERVISOR
FHWA



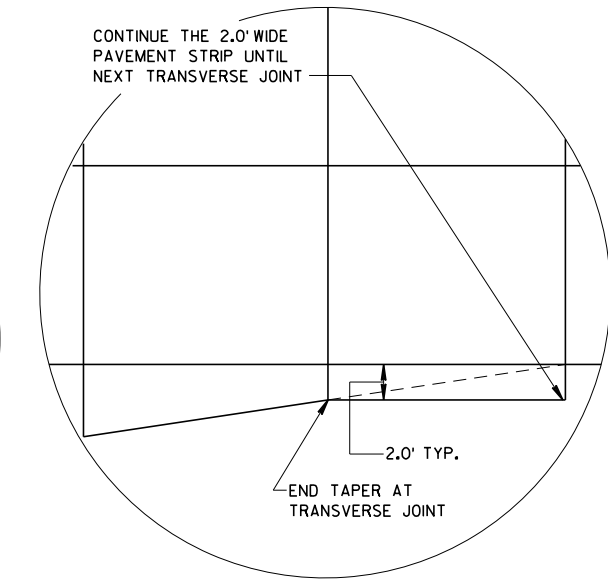
DETAIL "A"



DETAIL "B"



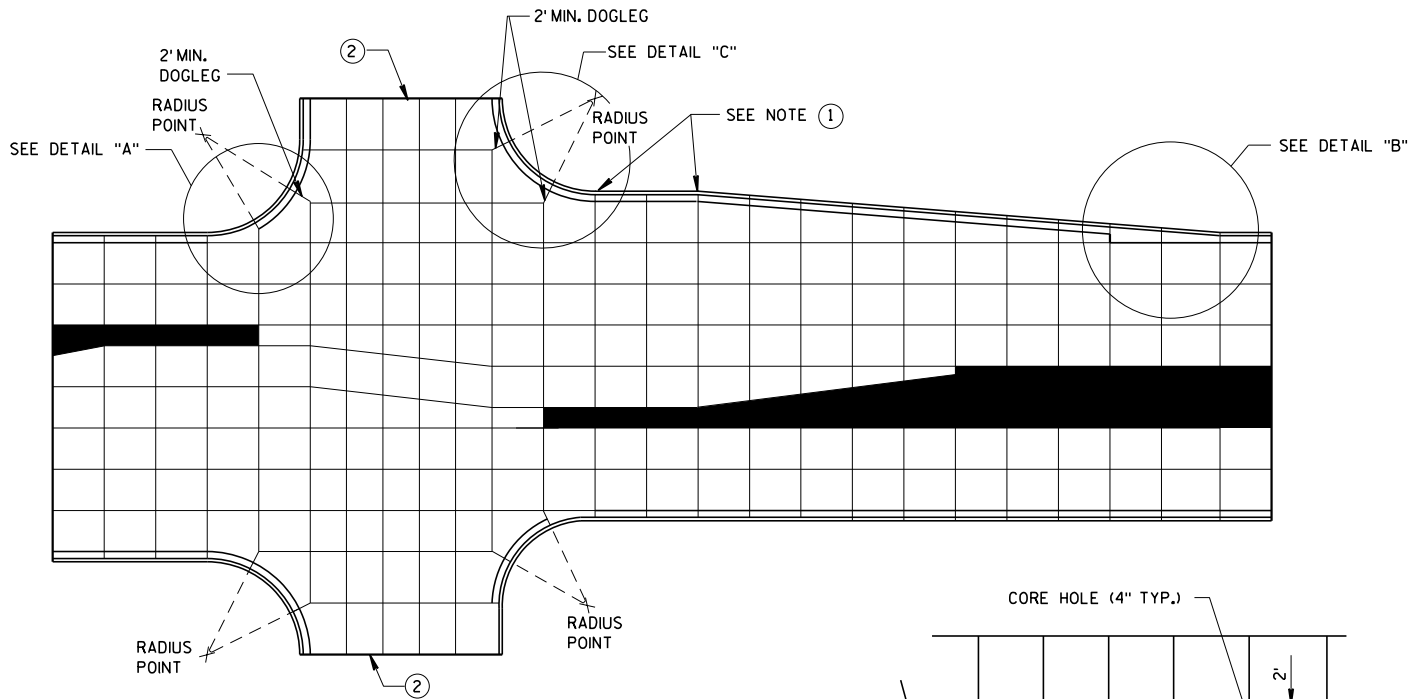
DETAIL "C"



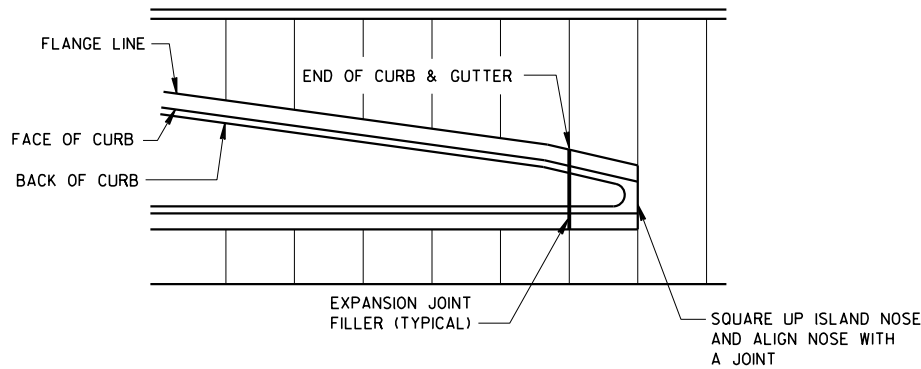
DETAIL "D"

GENERAL NOTES

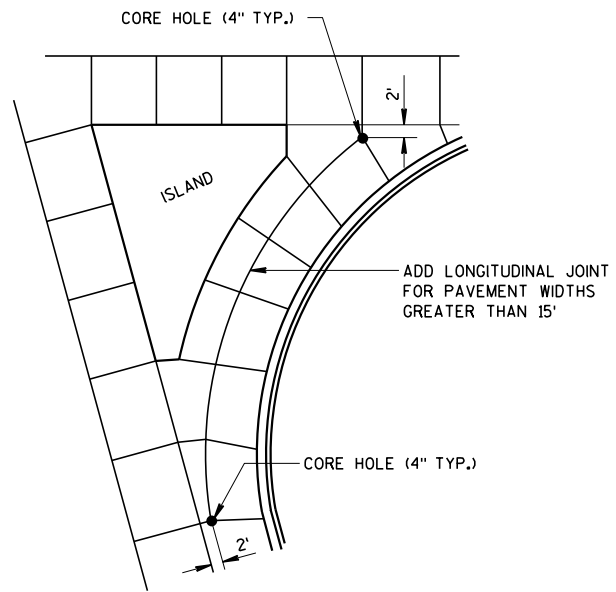
- THE PRIMARY ROADWAY CONTROLS THE TRANSVERSE JOINT PATTERN.
- ALIGN NEW JOINTS WITH EXISTING JOINTS OR CRACKS.
- CONSTRUCT TRANSVERSE JOINTS PERPENDICULAR TO THE ROADWAY.
- ADJUST TRANSVERSE JOINTS TO ALIGN WITH UTILITY FIXTURES (E.G. MANHOLES AND INLETS) IN THE PAVEMENT STRUCTURE WHEN POSSIBLE. WATER VALVES DO NOT REQUIRE JOINT ADJUSTMENT.
- AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.
- SEE TABLE FOR TRANSVERSE JOINT SPACING. JOINT SPACING SPECIFIED IS MAXIMUM AND ACTUAL SPACING CAN BE ADJUSTED TO ACCOMMODATE INTERSECTIONS.
- AVOID ANGLES LESS THAN 60° BY DOGLEGGING JOINTS THROUGH CURVE RADIUS POINTS. USE 90° ANGLES WHEN POSSIBLE.
- CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.
1. PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.
 2. CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH EDGE OF RADIUS.
 3. THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.



STANDARD INTERSECTION



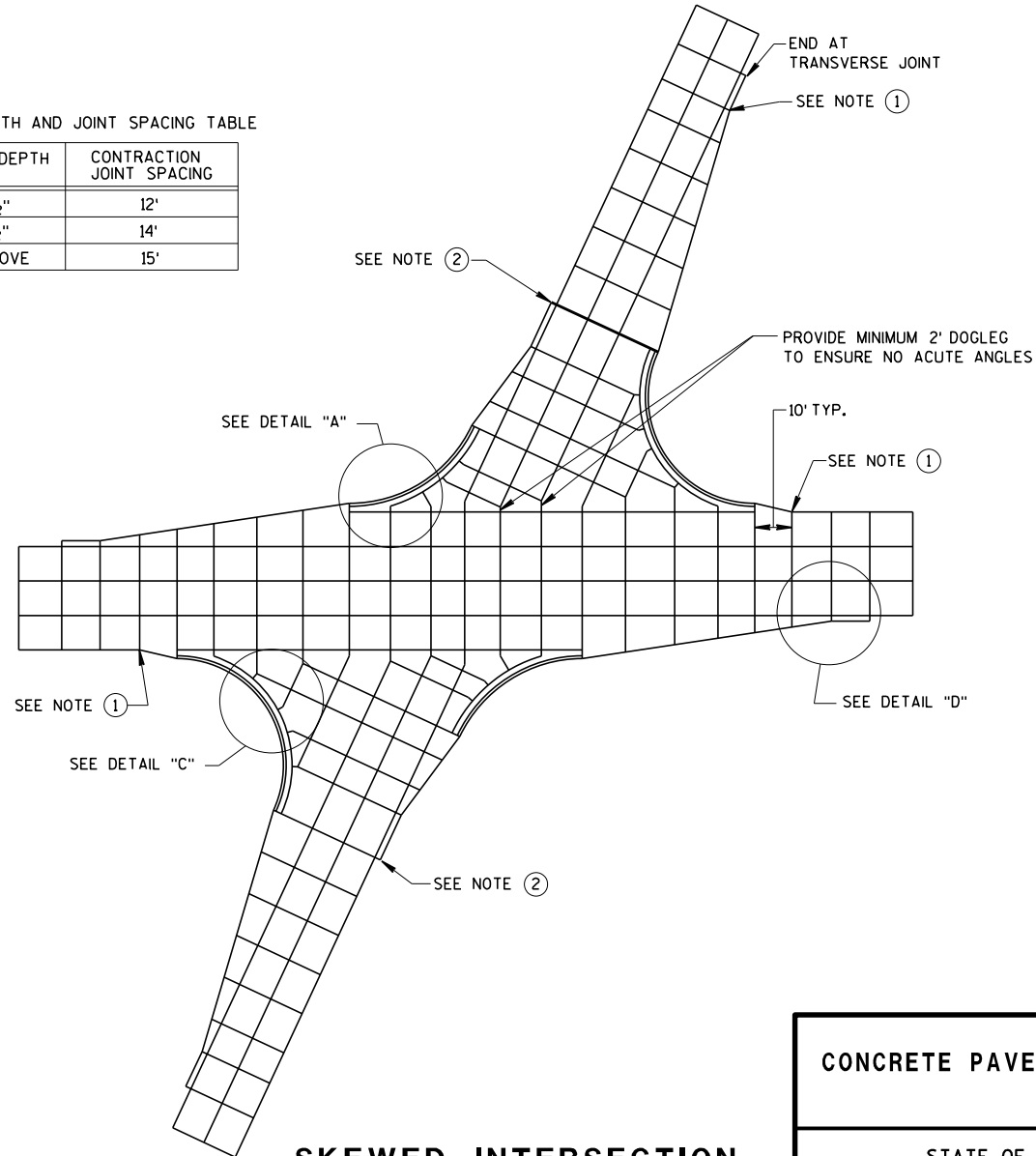
APPROACH TO MEDIAN



LARGE RIGHT TURN

PAVEMENT DEPTH AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6 1/2"	12'
7", 7 1/2"	14'
8" & ABOVE	15'



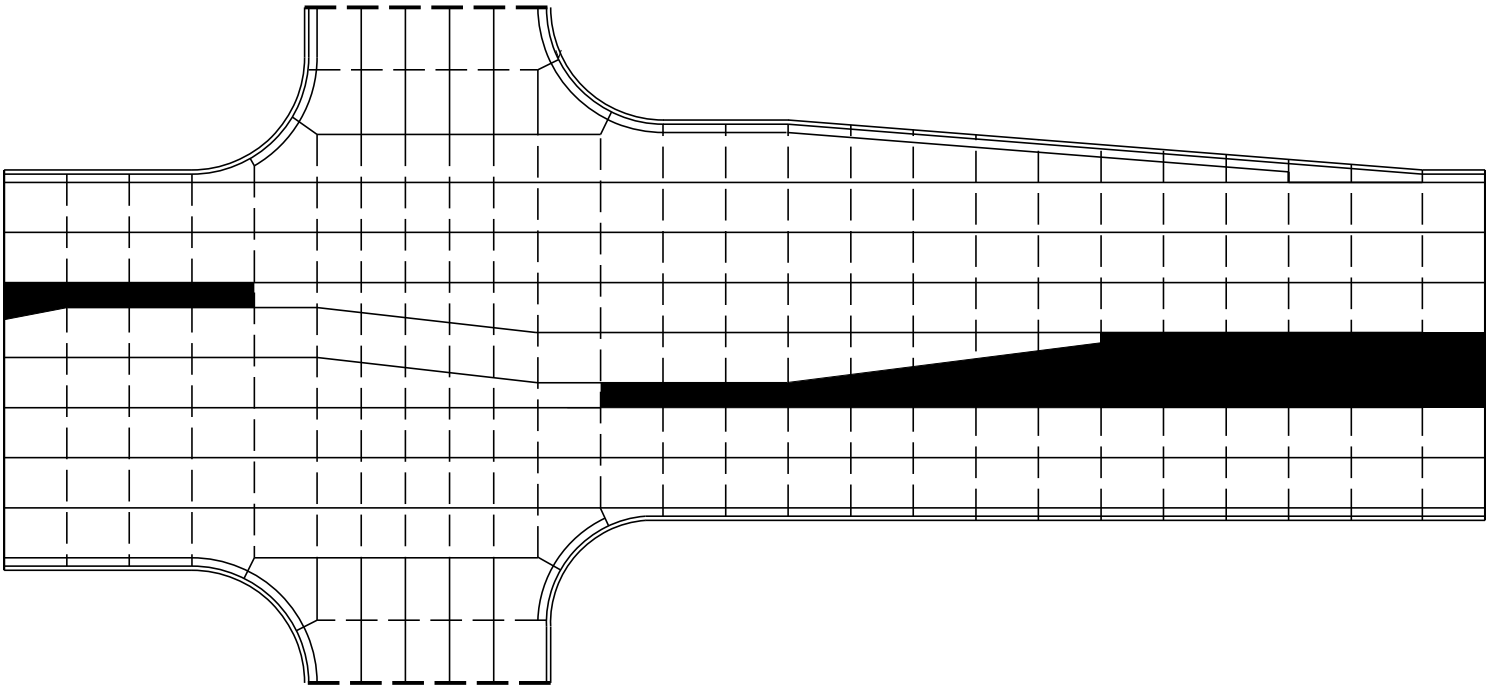
SKEWED INTERSECTION

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

LEGEND

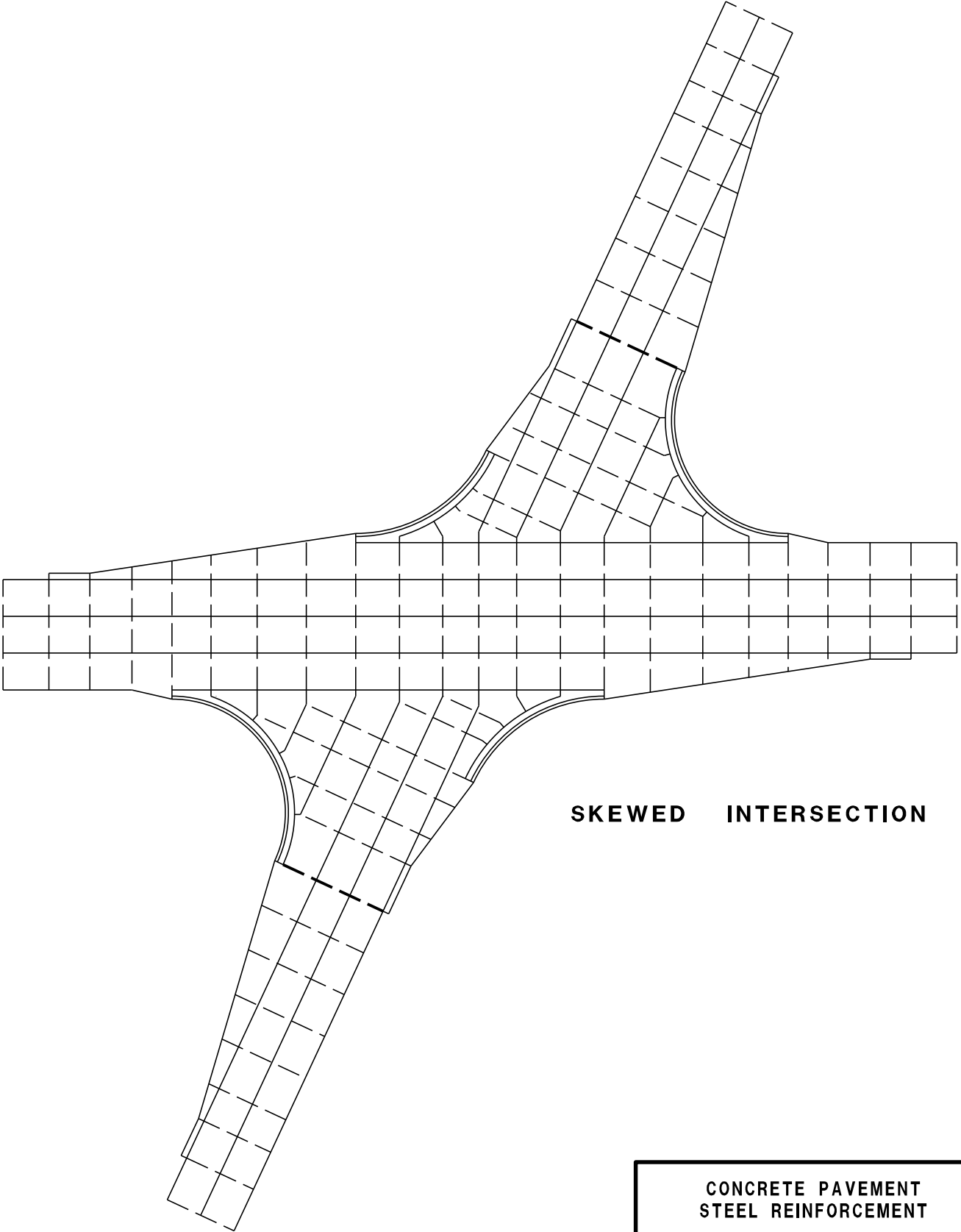
- POTENTIAL DOWELED EXPANSION JOINT
- DOWELED JOINT
- TIED JOINT



STANDARD INTERSECTION

GENERAL NOTES

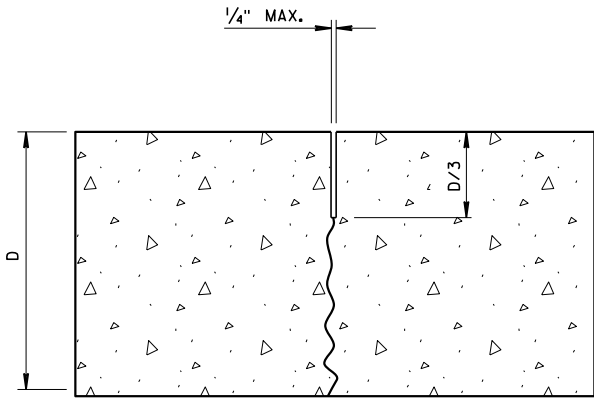
USE AN EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.



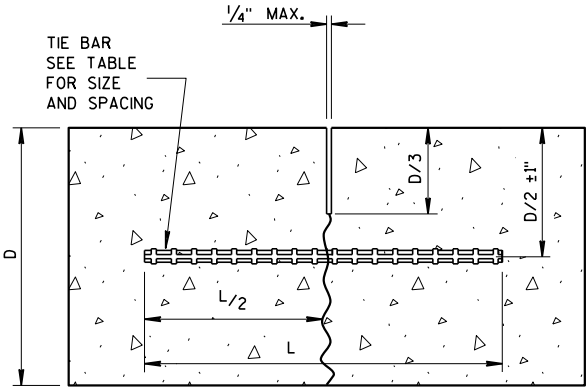
SKEWED INTERSECTION

CONCRETE PAVEMENT
STEEL REINFORCEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



UNDOWELED-TRANSVERSE



TIED LONGITUDINAL

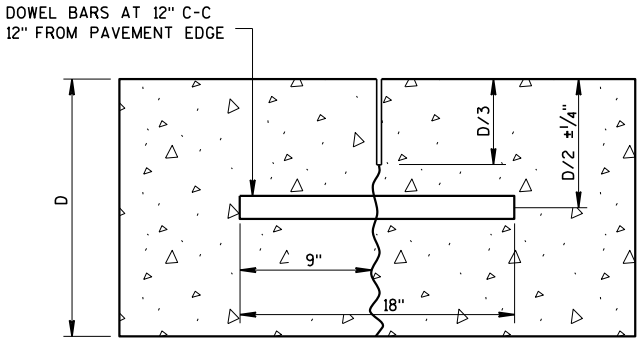
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

GENERAL NOTES

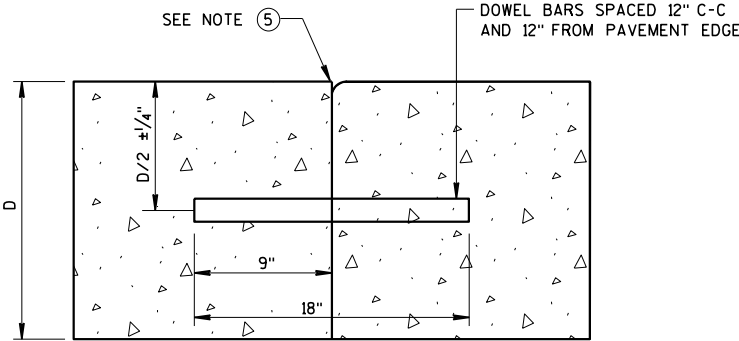
- USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATE THE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
- SPACE CONTRACTION JOINTS IN ACCORDANCE WITH 13C4, 13C11 OR 13C13.
- LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.
- CONSTRUCTION JOINTS CAN BE FORMED OR SAWED.
- IF JOINT IS FORMED, PROVIDE A 1/4-INCH RADIUS.
- ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



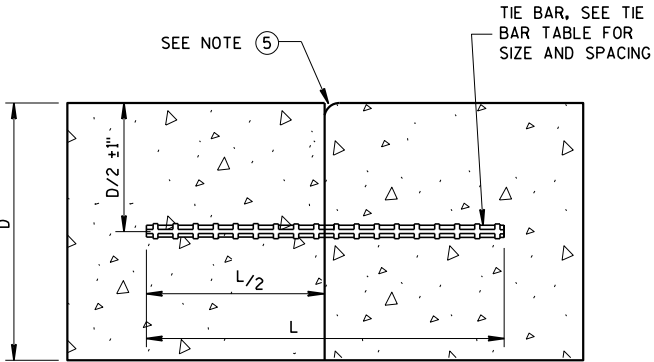
DOWELED-TRANSVERSE

CONTRACTION JOINTS

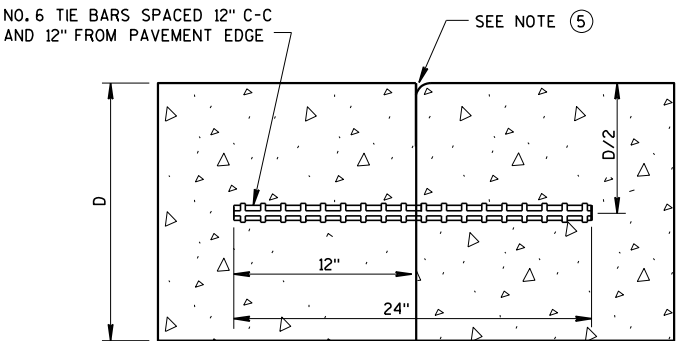
SEE NOTE ②



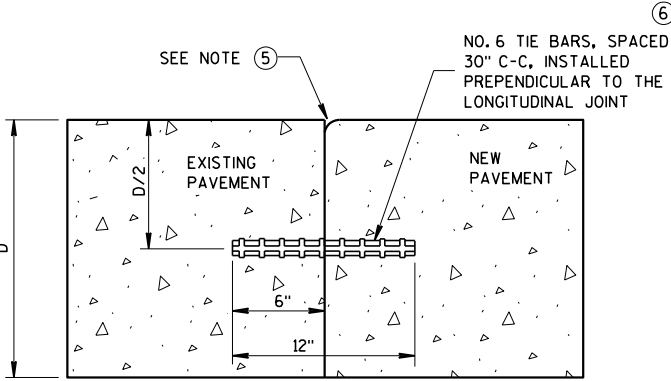
DOWELED TRANSVERSE ③



TIED LONGITUDINAL



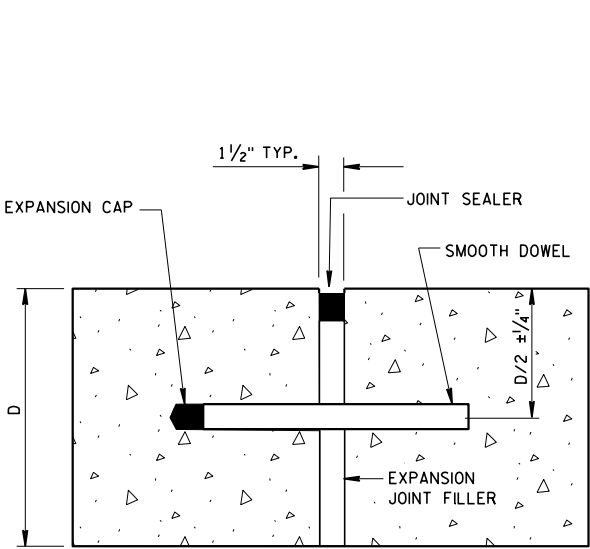
TIED TRANSVERSE ③
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)



TIED LONGITUDINAL TO EXISTING

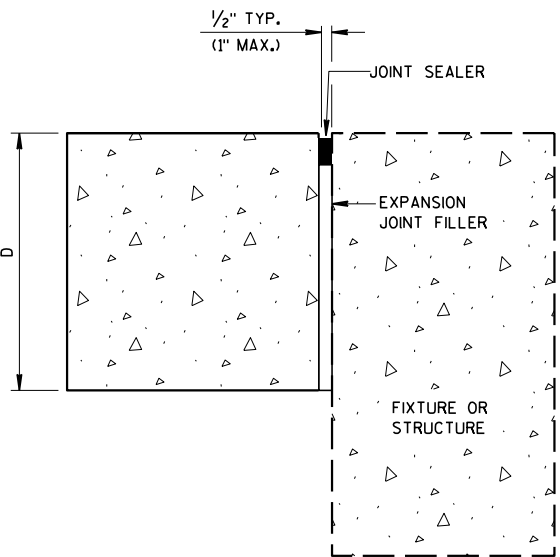
CONSTRUCTION JOINTS

SEE NOTE ④



DOWELED-TRANSVERSE

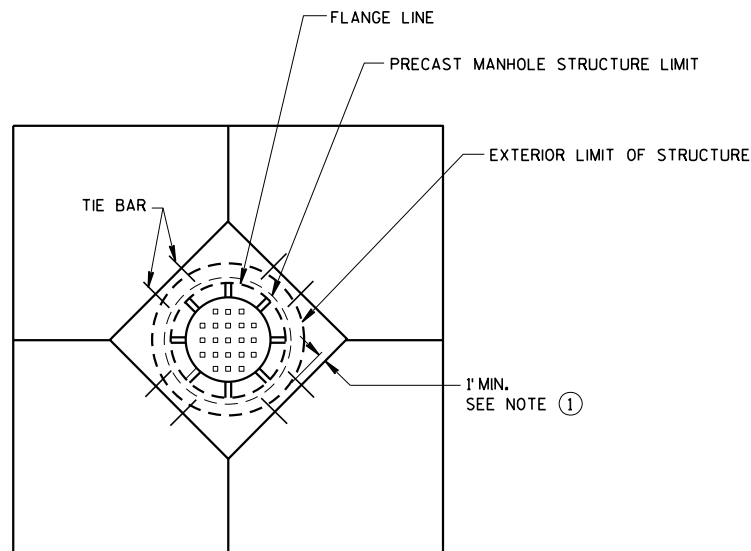
SEE NOTE ①



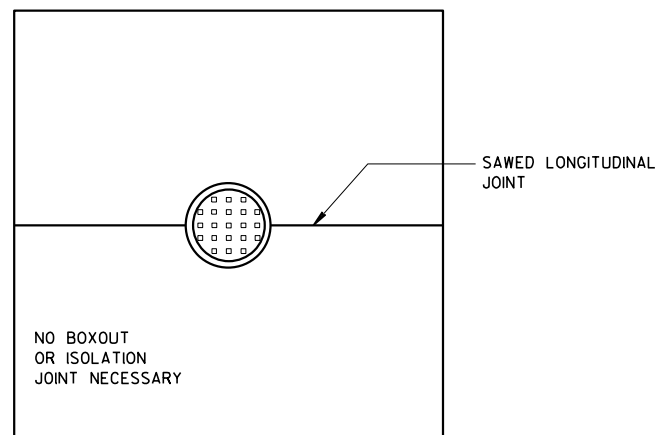
UNTIED-LONGITUDINAL

EXPANSION JOINTS

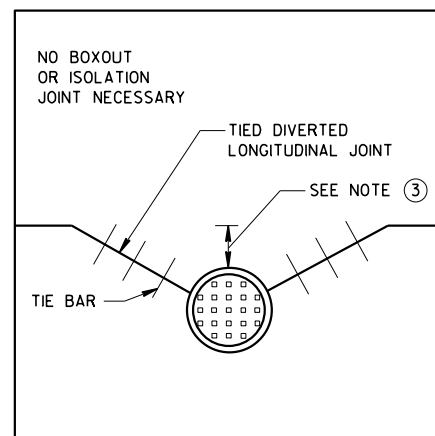
CONCRETE PAVEMENT JOINT TYPES
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION



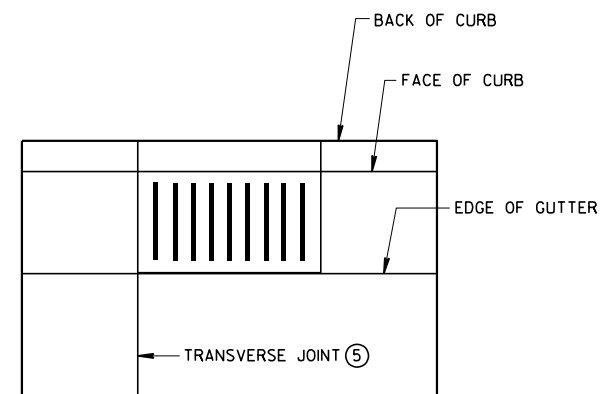
**DIAGONAL MANHOLE BOXOUT
FOR CONSTRUCTION JOINTS**



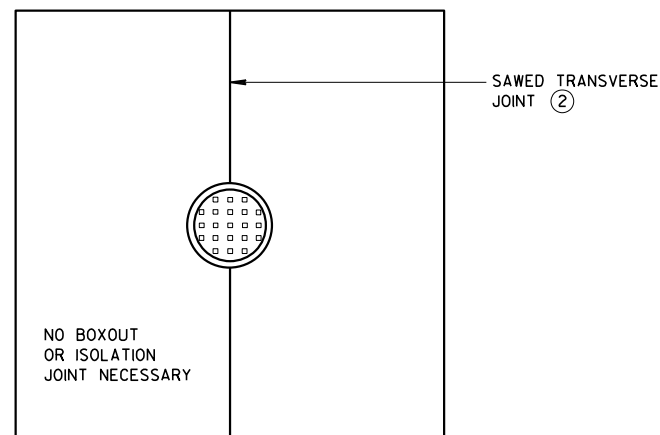
**MANHOLE WITH
LONGITUDINAL JOINT**



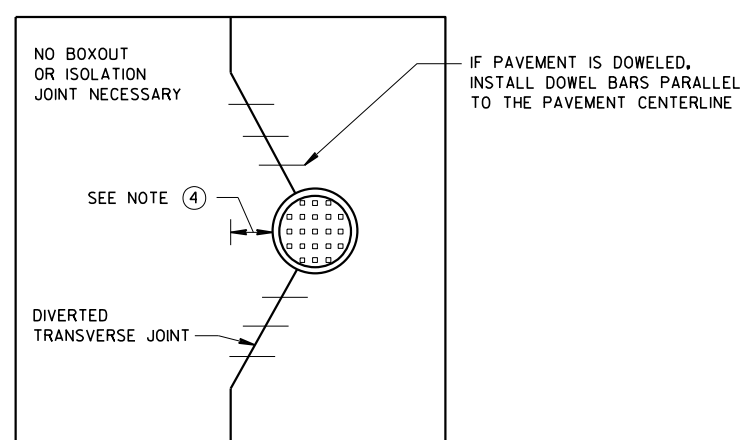
**MANHOLE WITH DIVERTED
LONGITUDINAL CONTRACTION JOINT**



**INLET WITH
TRANSVERSE JOINT**



**MANHOLE WITH
TRANSVERSE JOINT**



**MANHOLE WITH DIVERTED
TRANSVERSE CONTRACTION JOINT**

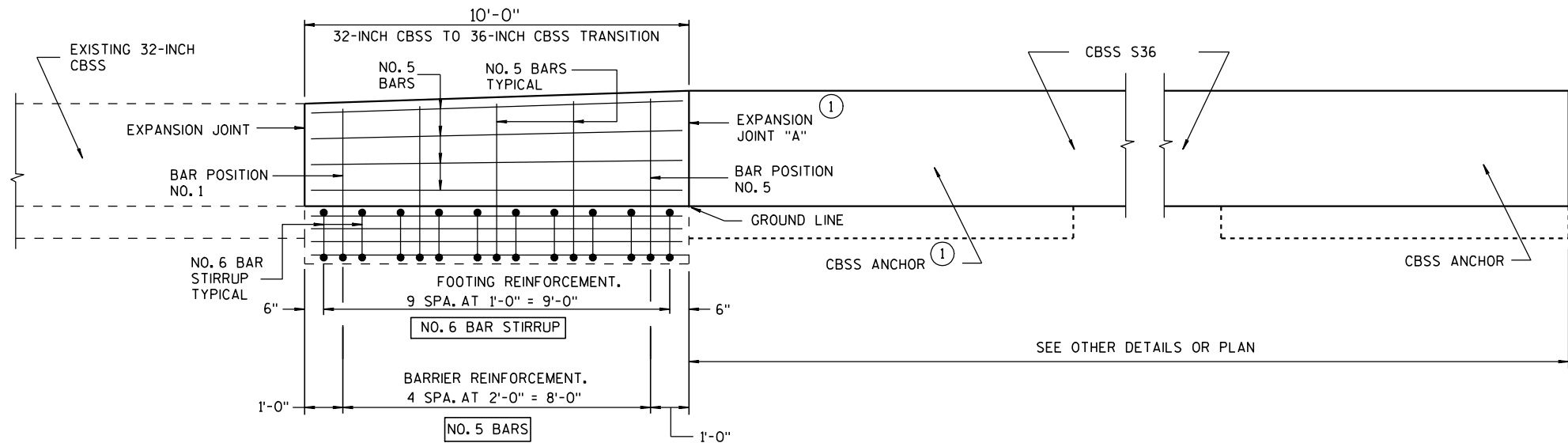
GENERAL NOTES

- ① USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1-FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.
- ② ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.
- ③ IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE OF MANHOLE IS 2 FEET OR LESS, DIVERT THE LONGITUDINAL JOINT AT A 2:1 TAPER RATE TO THE CENTER OF THE MANHOLE. IF THE DISTANCE IS GREATER THAN 2 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REBAR REINFORCEMENT AROUND THE MANHOLE.
- ④ IF DISTANCE FROM THE EDGE OF THE MANHOLE TO THE NEAREST TRANSVERSE JOINT IS 4 FEET OR LESS, REDIRECT JOINT TO INTERSECT THE CENTER OF THE MANHOLE. IF DISTANCE IS GREATER THAN 4 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REBAR REINFORCEMENT AROUND THE MANHOLE.
- ⑤ ALIGN TRANSVERSE JOINT WITH ONE EDGE OF INLET WHEN PRACTICAL.

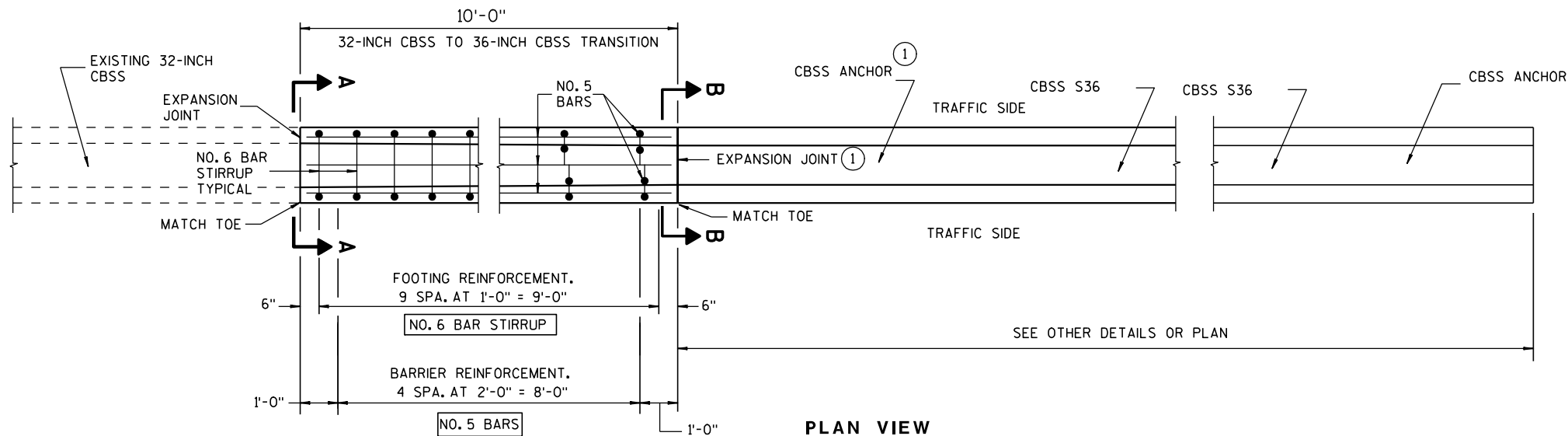
**CONCRETE PAVEMENT
JOINTING AT UTILITY FIXTURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

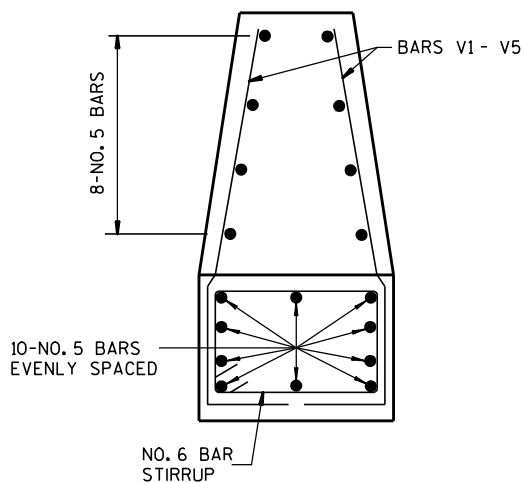
APPROVED
March 2018 /S/ Peter Kemp, P.E.
DATE PAVEMENT SUPERVISOR
FHWA



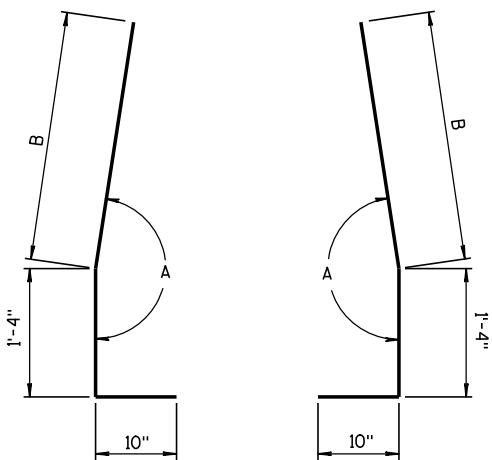
ELEVATION VIEW



PLAN VIEW



BAR DETAIL
BAR POSITION NO. 1 - NO. 5



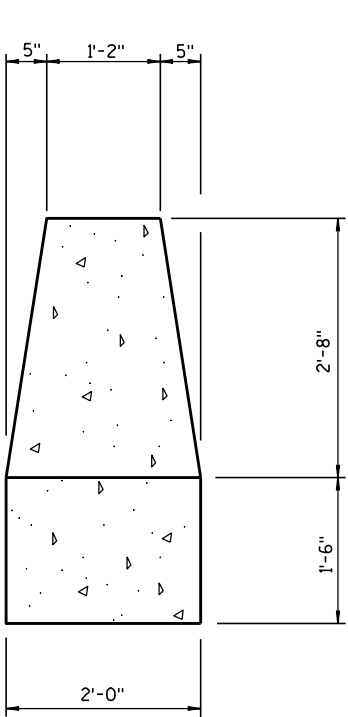
BAR BENDING DETAIL
FOR BARS V1 - V5

BAR CHART
SECTIONS V1 - V5

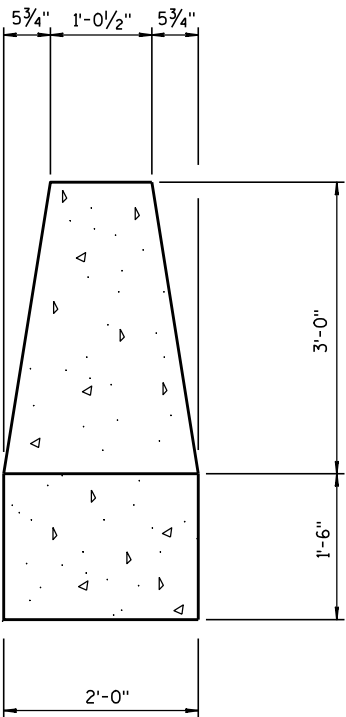
BAR	A	B
V1	171°-10'	2'-6½"
V2	171°-05'	2'-8"
V3	170°-55'	2'-9"
V4	170°-40'	2'-9½"
V5	171°	2'-10"

GENERAL NOTES

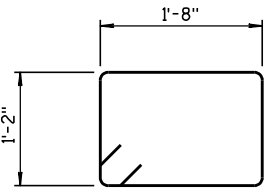
- CONSTRUCT PER STANDARD SPECIFICATION 603.
- SPLICES OF LONGITUDINAL BARS TO BE 2' LONG AND FIRMLY TIED AND FASTENED TOGETHER UNLESS NOTED OTHERWISE.
- 4000 PS CONCRETE AIR ENTRAINMENT PER STANDARD SPECIFICATIONS 501.
- USE ¾" BEVEL OR 1" RADIUS ON ALL EXPOSED SHARP EDGES UNLESS NOTED OTHERWISE.
- THE NUMBER IN BAR DESIGNATION REPRESENTS THE BARS LOCATION.
- 2" CLEAR COVER TYPICAL.
- ① EXPANSION JOINT "A" MAY BE REPLACED WITH A COLD-JOINT PROVIDED THAT 3 FEET OF LAP OF LONGITUDINAL STEEL IS PROVIDED. IF COLD-JOINT IS USED ANCHOR NOT REQUIRED.



SECTION A-A



SECTION B-B

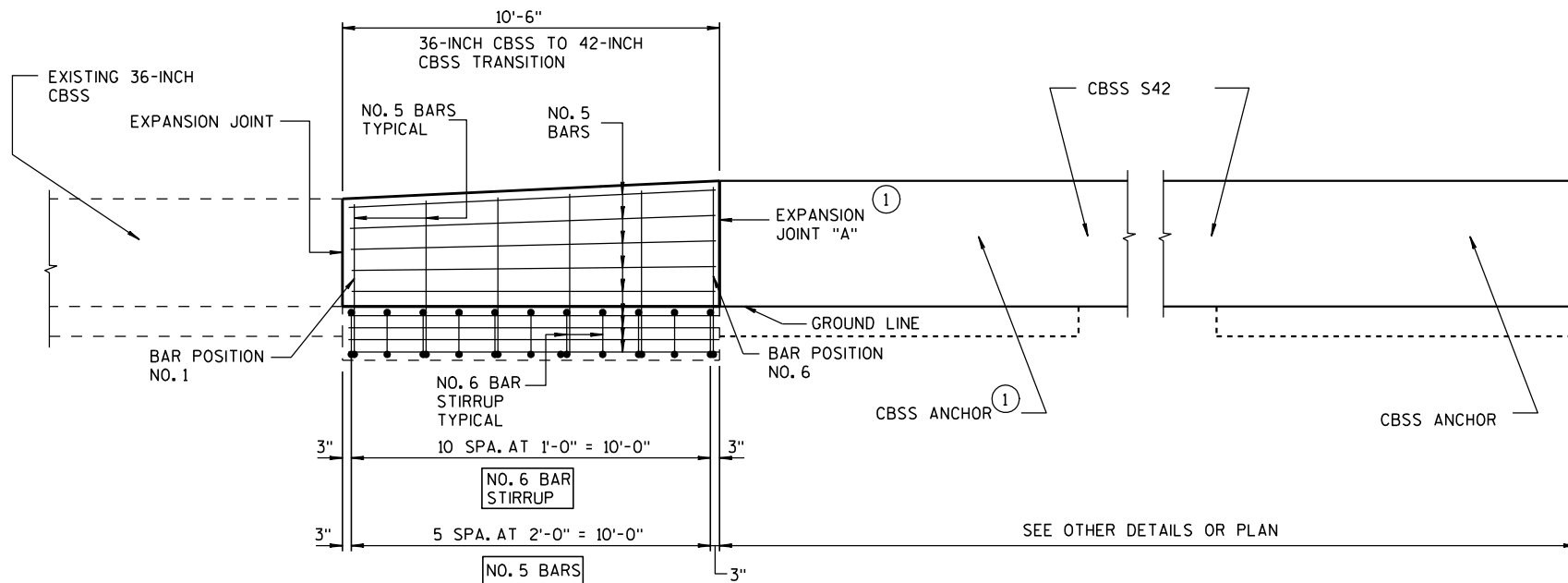


STIRRUP BAR
BENDING DETAIL

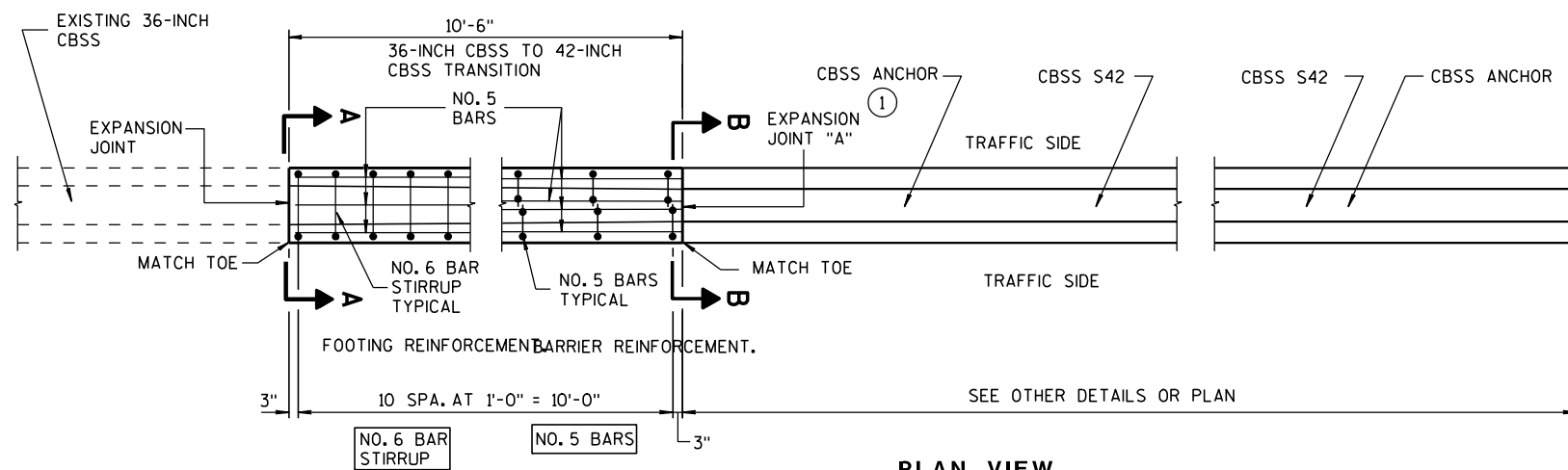
32-INCH SINGLE SLOPE CONCRETE
BARRIER TO 36-INCH SINGLE SLOPE
CONCRETE BARRIER HEIGHT TRANSITION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

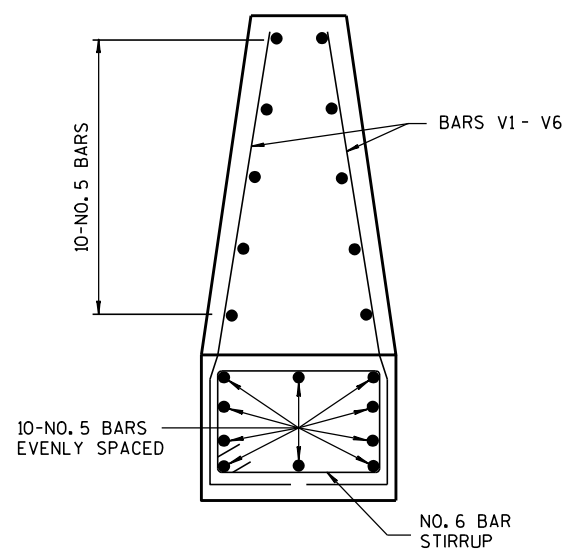
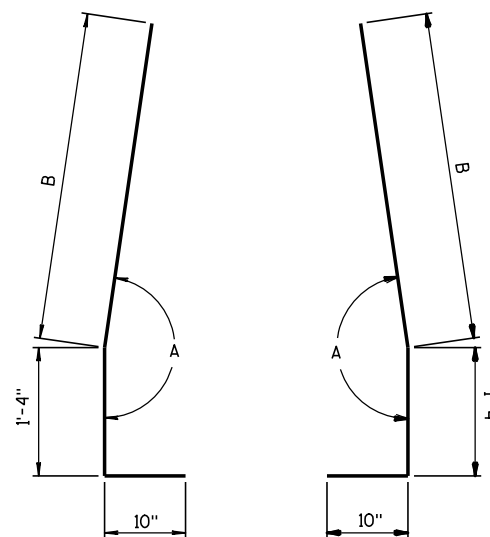
APPROVED
6-3-2010 /S/ Jerry H. Zogg
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA ENGINEER



ELEVATION VIEW



PLAN VIEW

BAR DETAIL
BAR POSITION NO. 1 - NO. 6BAR BENDING DETAIL
FOR BARS V1 - V6

GENERAL NOTES

CONSTRUCT PER STANDARD SPECIFICATION 603.

SPICES OF LONGITUDINAL BARS TO BE 2' LONG AND FIRMLY TIED AND FASTENED TOGETHER UNLESS NOTED OTHERWISE.

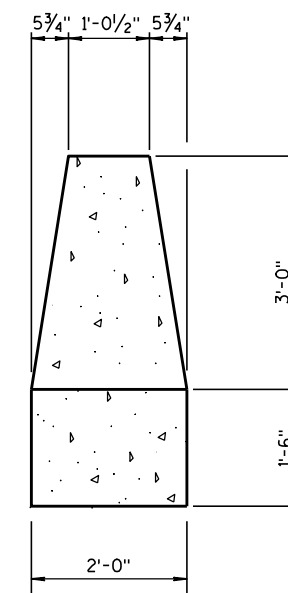
4000 PSICONCRETE AIR ENTRAINMENT PER STANDARD SPECIFICATIONS 501.

USE $\frac{3}{4}$ " BEVEL OR 1" RADIUS ON ALL EXPOSED SHARP EDGES UNLESS NOTED OTHERWISE.

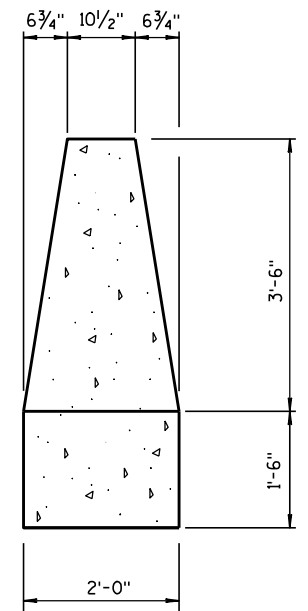
THE NUMBER IN BAR DESIGNATION REPRESENTS THE BARS LOCATION.

2" CLEAR COVER TYPICAL.

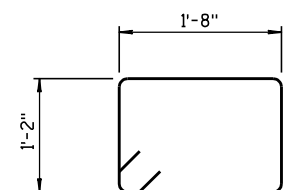
- ① EXPANSION JOINT "A" MAY BE REPLACED WITH A COLD-JOINT PROVIDED THAT 3 FEET OF LAP OF LONGITUDINAL STEEL IS PROVIDED. IF COLD-JOINT IS USED ANCHOR NOT REQUIRED.



SECTION A-A



SECTION B-B

STIRRUP BAR
BENDING DETAILBAR CHART
SECTIONS V1 - V6

BAR	A	B
V1	170°-55'	2'-10 1/2"
V2	171°-05'	3'-0"
V3	171°-20'	3'-1"
V4	171°-20'	3'-2"
V5	171°-35'	3'-3"
V6	171°-40'	3'-4 1/2"

36-INCH SINGLE SLOPE CONCRETE
BARRIER TO 42-INCH SINGLE SLOPE
CONCRETE BARRIER HEIGHT TRANSITIONSTATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6-3-2010

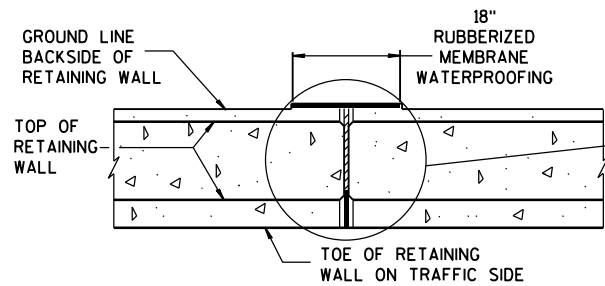
DATE

FHWA

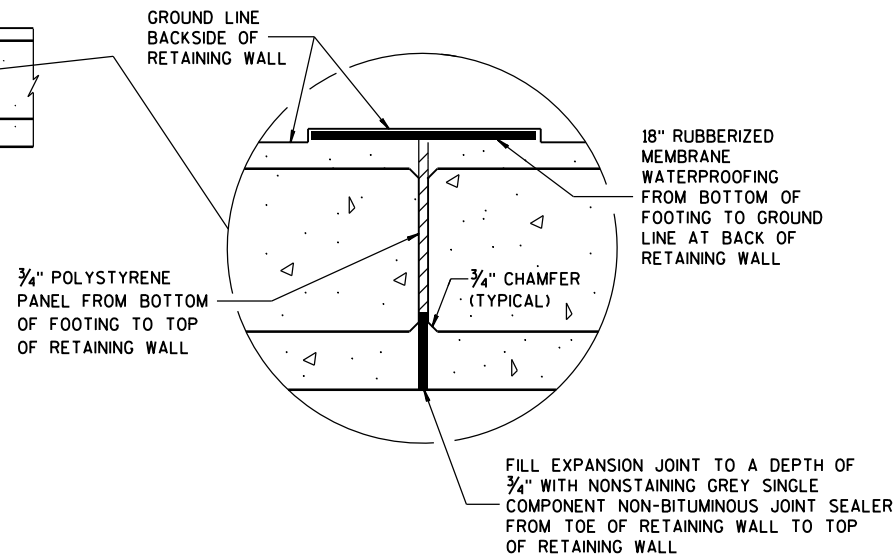
/S/ Jerry H. Zogg

ROADWAY STANDARDS DEVELOPMENT

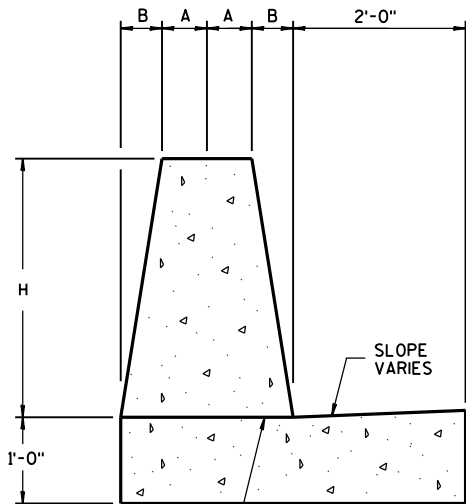
ENGINEER



VERTICAL EXPANSION JOINT
PLAN VIEW

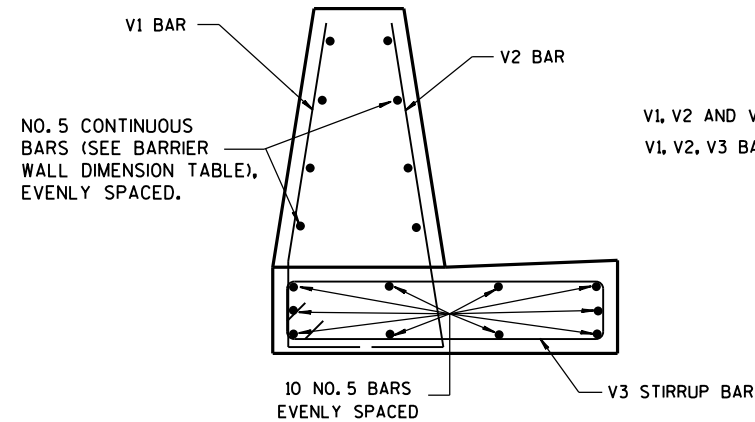


BARRIER WALL DIMENSIONS			
BARRIER HEIGHT H INCHES	A INCHES	B INCHES	NUMBER OF NO. 5 BARS EACH
32	7	5	8
36	6 1/4	5 3/4	8
42	5 1/4	6 3/4	10
56	3	9	11

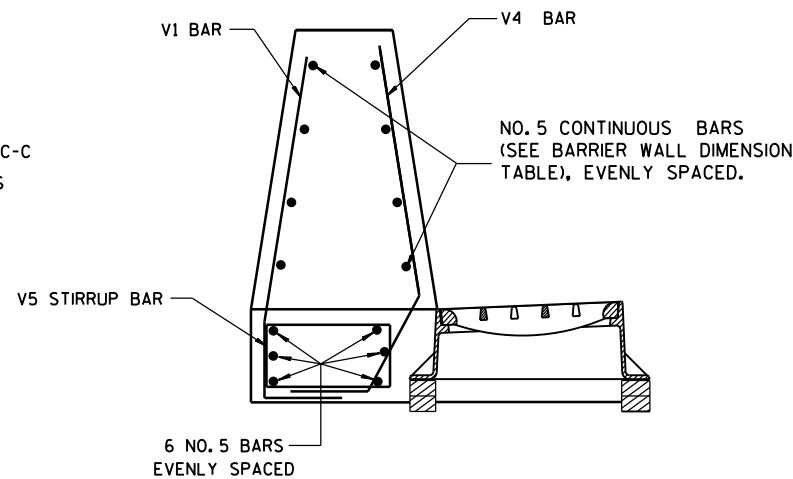


OPTIONAL CONSTRUCTION
JOINT, ROUGH FINISHED

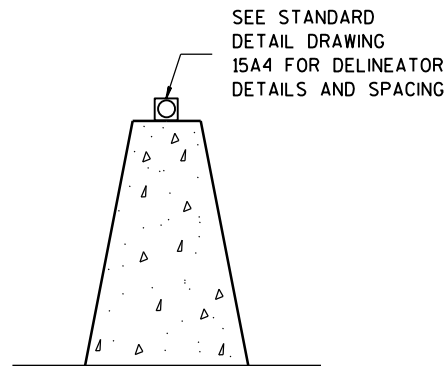
ROADSIDE RETAINING WALL



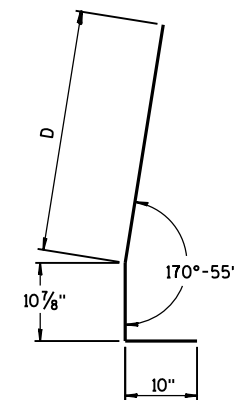
ROADSIDE RETAINING WALL
NORMAL BAR PLACEMENT



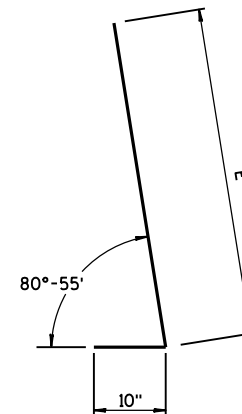
ROADSIDE RETAINING WALL
BAR PLACEMENT NEAR
INLET



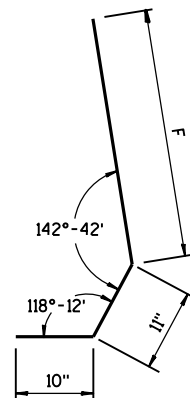
DELINEATION



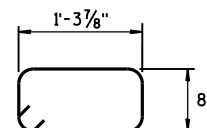
V1 BAR
BENDING DETAIL



V2 BAR
BENDING DETAIL



V4 BAR
BENDING DETAIL



V5 STIRRUP BAR
BENDING DETAIL

GENERAL NOTES

PROVIDE EXPANSION JOINTS WHERE THERE ARE EXISTING
EXPANSION JOINTS OR AT THE END OF EACH POUR.

NO HORIZONTAL STEEL CROSSES EXPANSION JOINTS.

CONSTRUCT PER STANDARD SPECIFICATION 603.
SPICES OF LONGITUDINAL BARS TO BE 2' LONG
AND FIRMLY TIED AND FASETENED TOGETHER
UNLESS NOTED OTHERWISE.

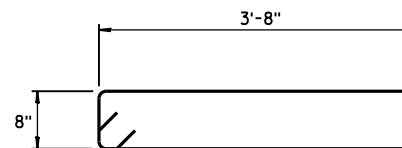
4000 PSI CONCRETE AIR ENTRAINMENT PER
STANDARD SPECIFICATIONS 501.

USE 3/4" BEVEL OR 1" RADIUS ON ALL EXPOSED
SHARP EDGES UNLESS NOTED OTHERWISE.

ALL STEEL REINFORCEMENT SHALL BE EMBEDDED
2 INCHES CLEAR.

BAR CHART ROADSIDE RETAINING WALL

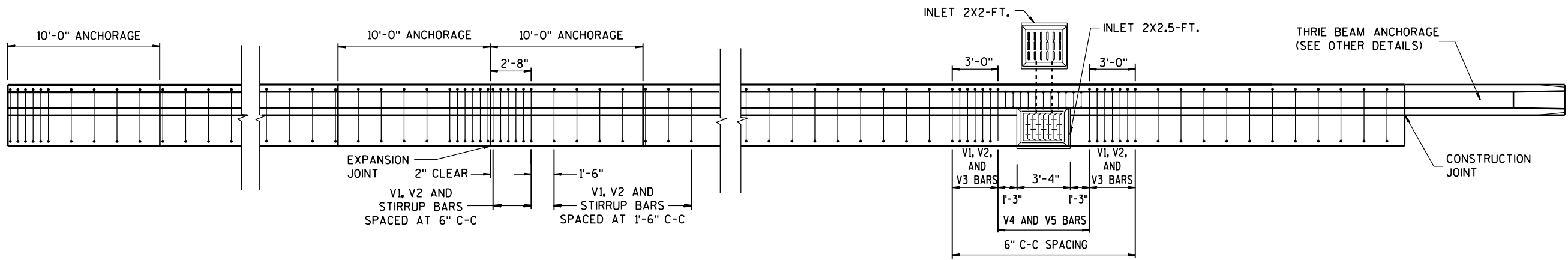
BARRIER HEIGHT	V1 BAR D	V2 BAR E	V4 BAR F
32"	2'-5 1/2"	3'-4 1/2"	2'-6 1/2"
36"	2'-9 1/2"	3'-9 3/4"	2'-10 3/4"
42"	3'-3 1/2"	4'-2 1/2"	3'-4 3/4"
56"	4'-5 3/4"	5'-4 3/4"	4'-6 3/4"



V3 STIRRUP BAR
BENDING DETAIL

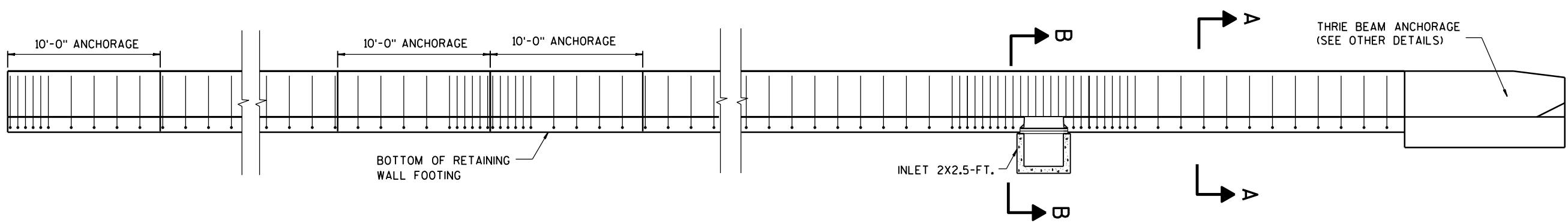
SINGLE SLOPE ROADSIDE RETAINING WALL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



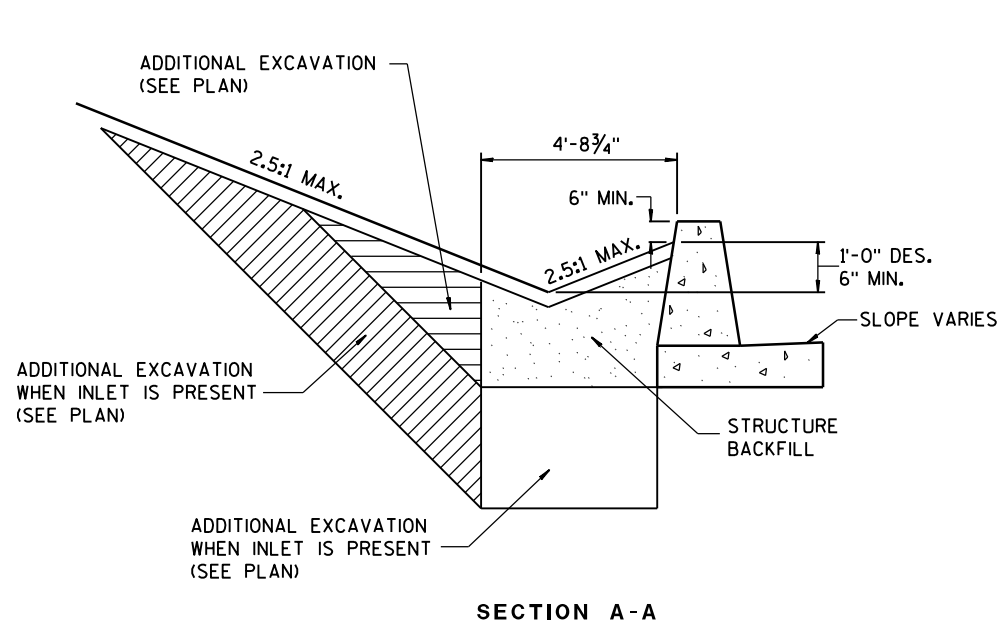
PLAN VIEW

NOTE: HORIZONTAL BARS ARE NOT SHOWN. SEE OTHER DETAILS FOR HORIZONTAL BARS.

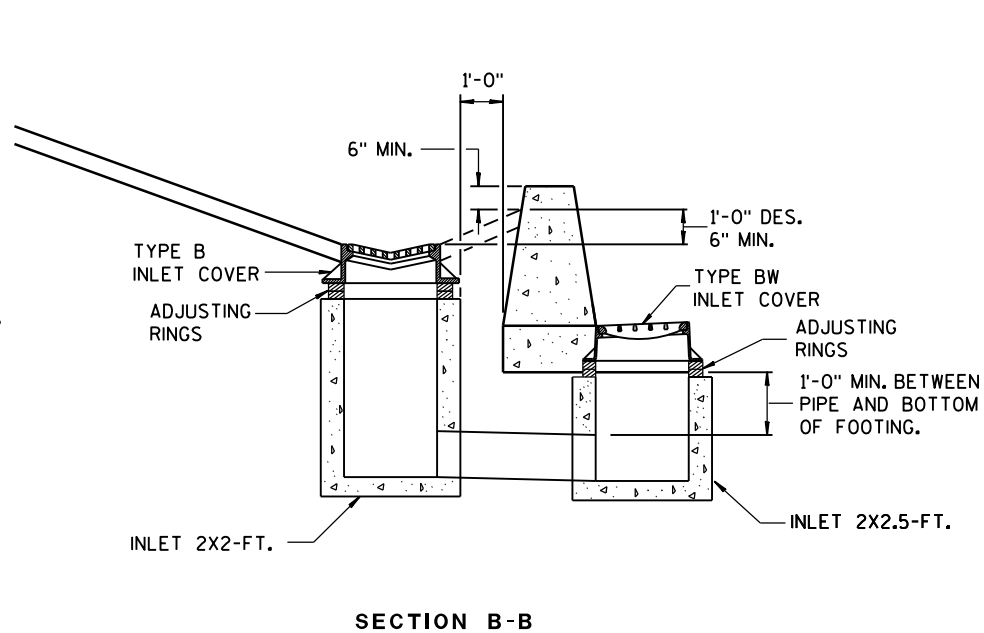


ELEVATION VIEW

NOTE: HORIZONTAL BARS ARE NOT SHOWN. SEE OTHER DETAILS FOR HORIZONTAL BARS.

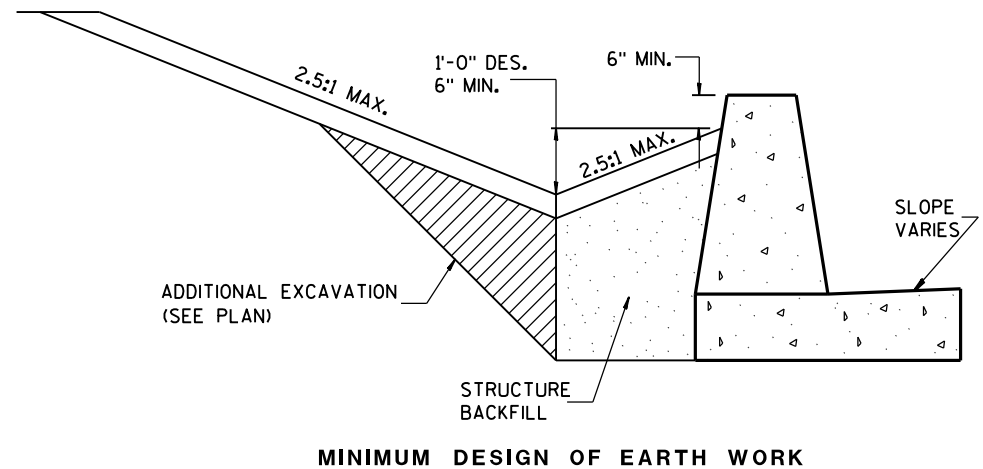


SECTION A-A



SECTION B-B

MINIMUM DESIGN OF EARTH WORK FOR INLET

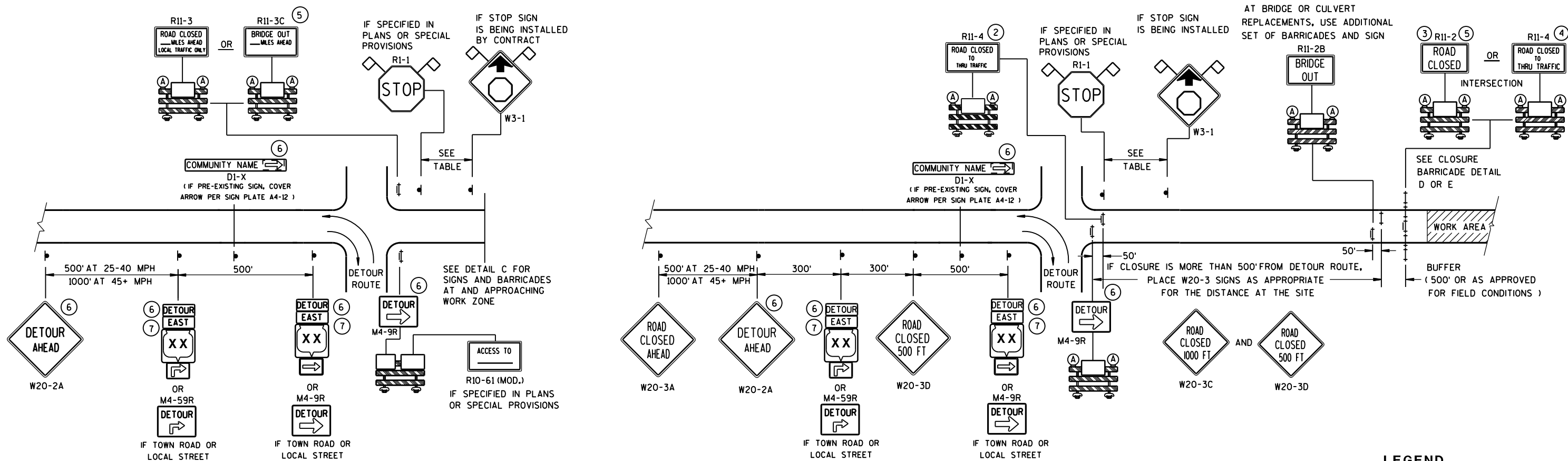


MINIMUM DESIGN OF EARTH WORK

SINGLE SLOPE
ROADSIDE RETAINING WALL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN 1/2 MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)

DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN 1/2 MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)

LEGEND

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

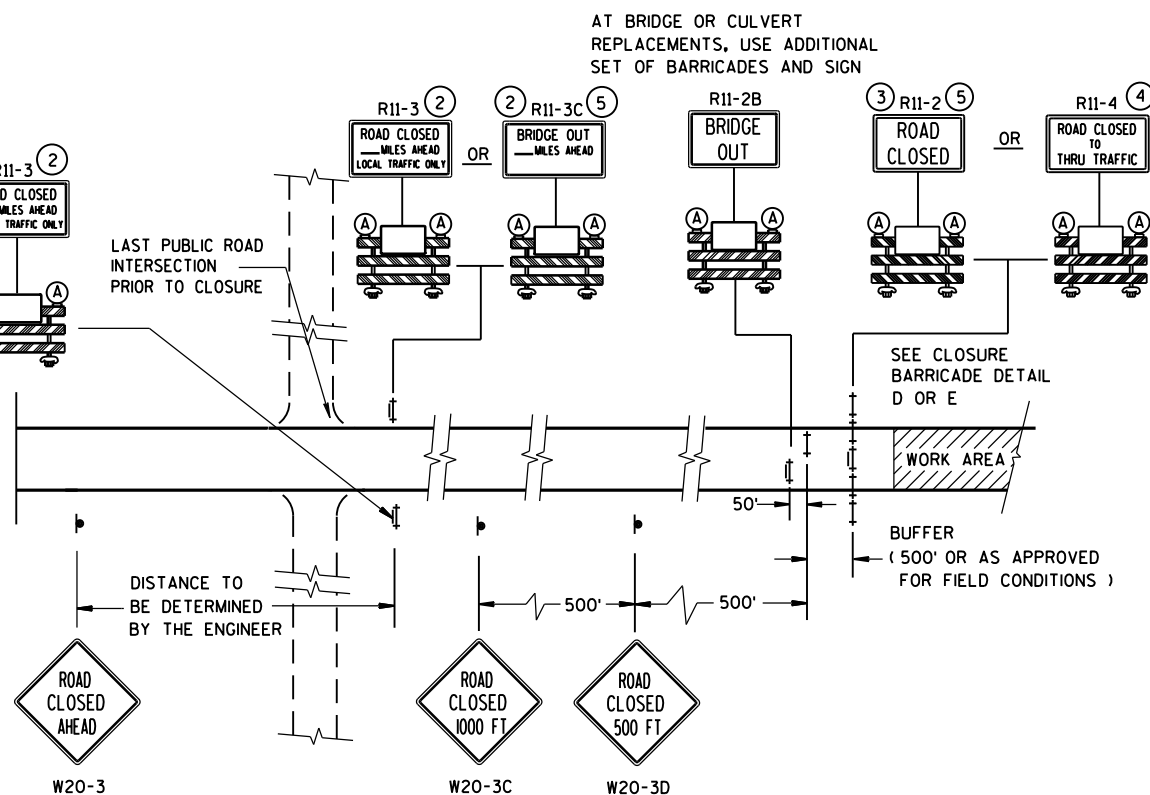
WORK AREA

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

M05-1 OR M06-1

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

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



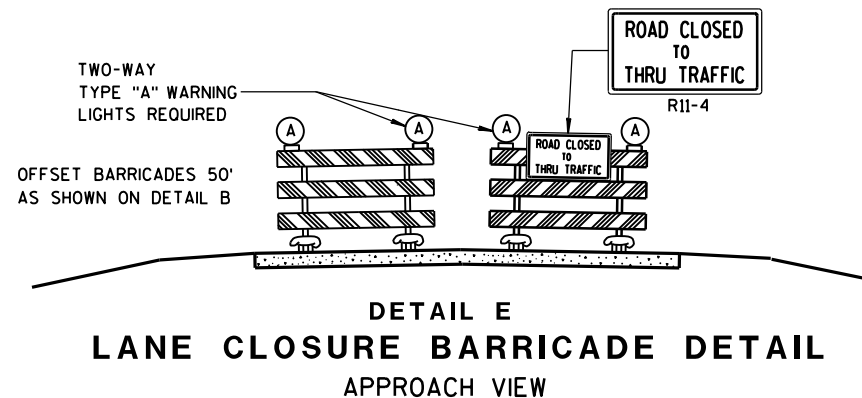
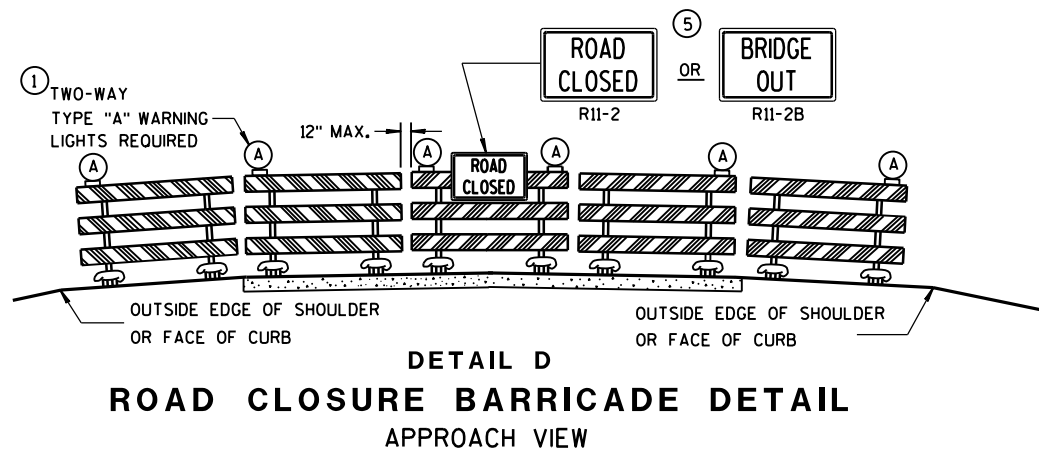
DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

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

**BARRICADES AND SIGNS
FOR
MAINLINE CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



SEE SDD 15C2-SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

R11-2 SHALL BE 48" X 30".

R11-3, R11-4 AND R10-61 SHALL BE 60" X 30".

M4-9 SHALL BE 30" X 24".

M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)

M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)

M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)

M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)

D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

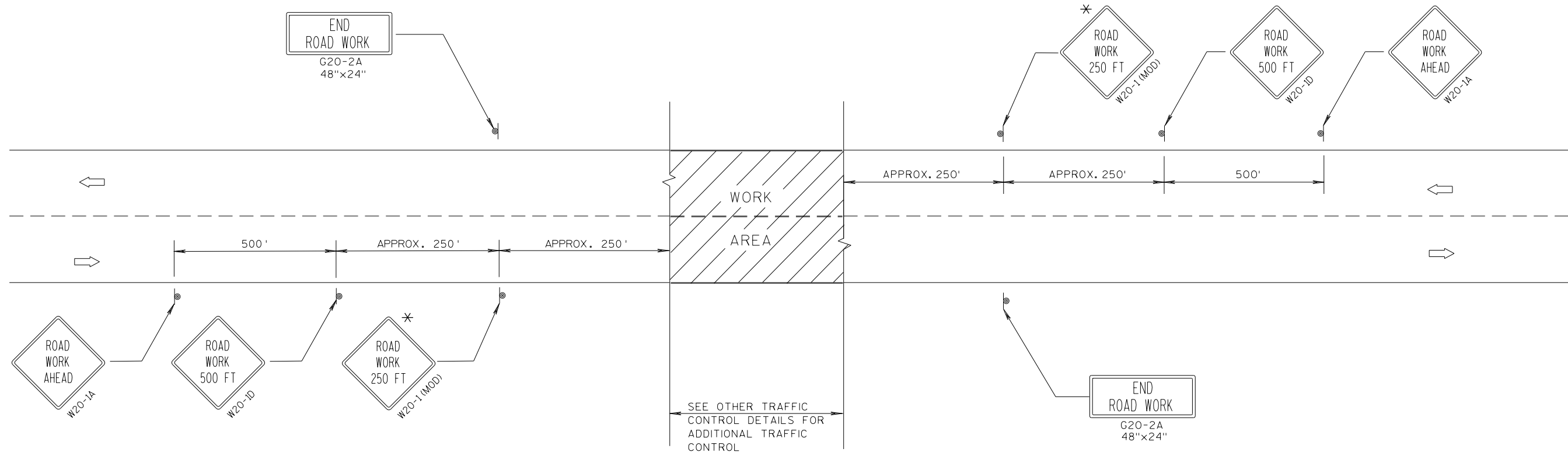
R1-1 SHALL BE 36" X 36".

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

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



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.

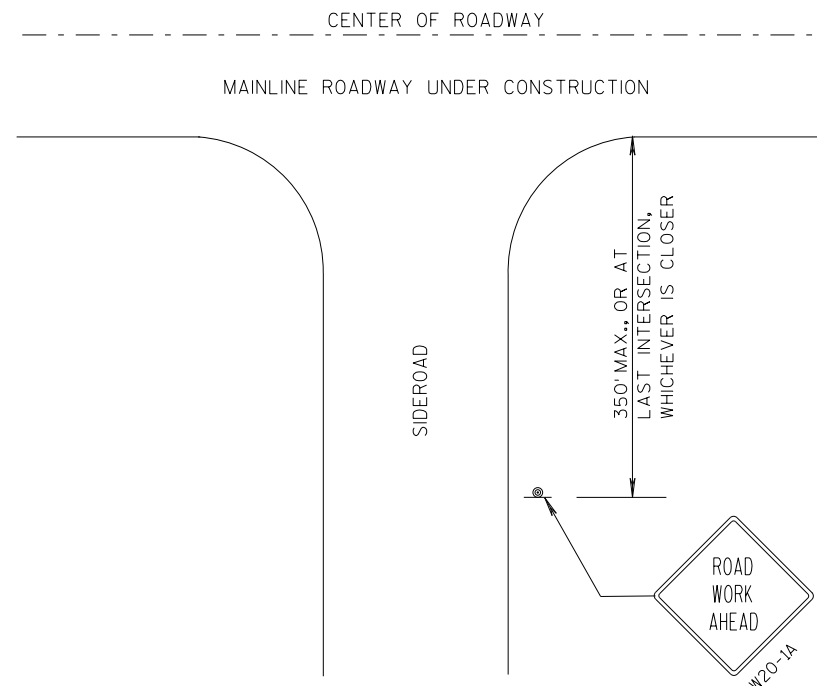
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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.

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.



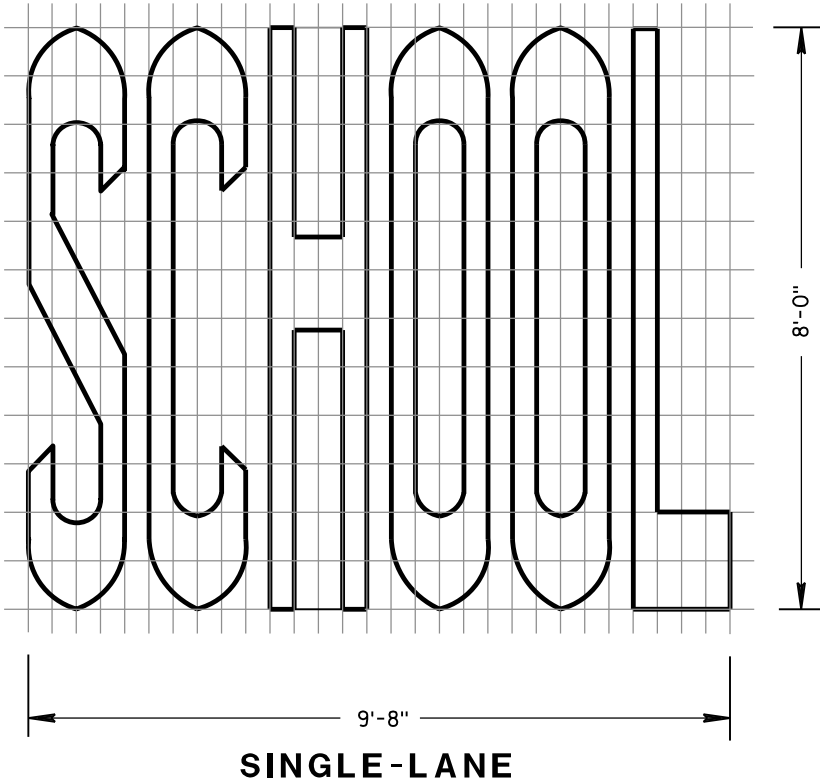
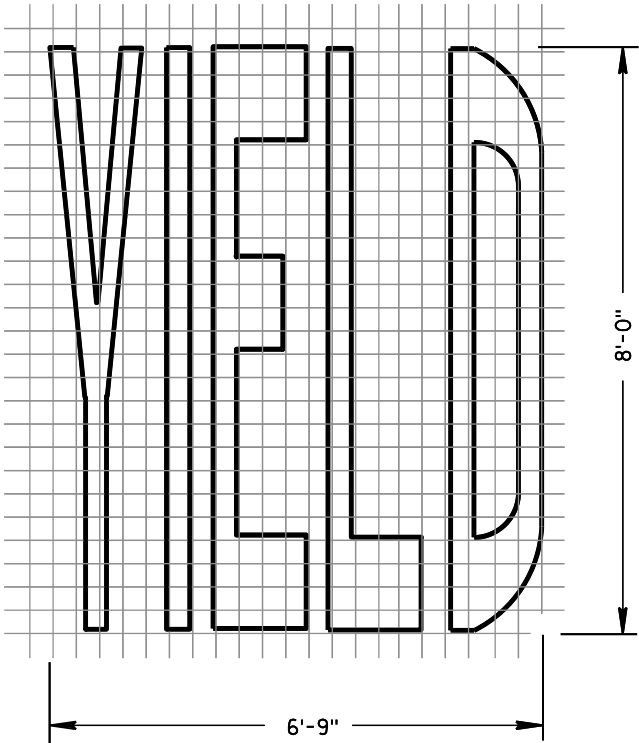
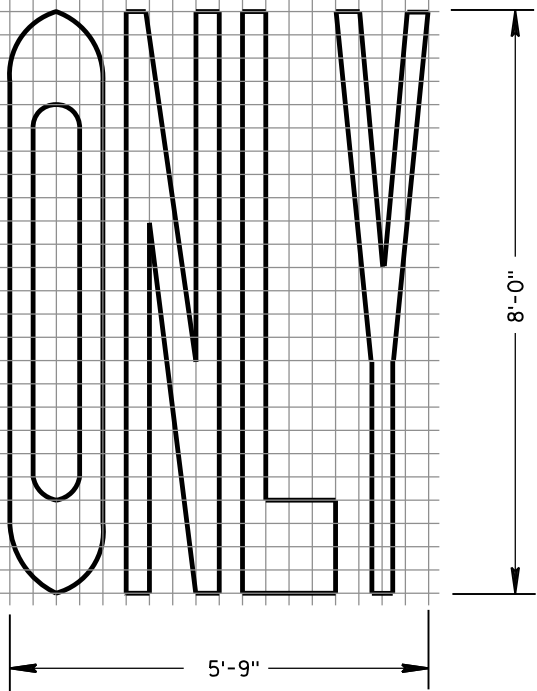
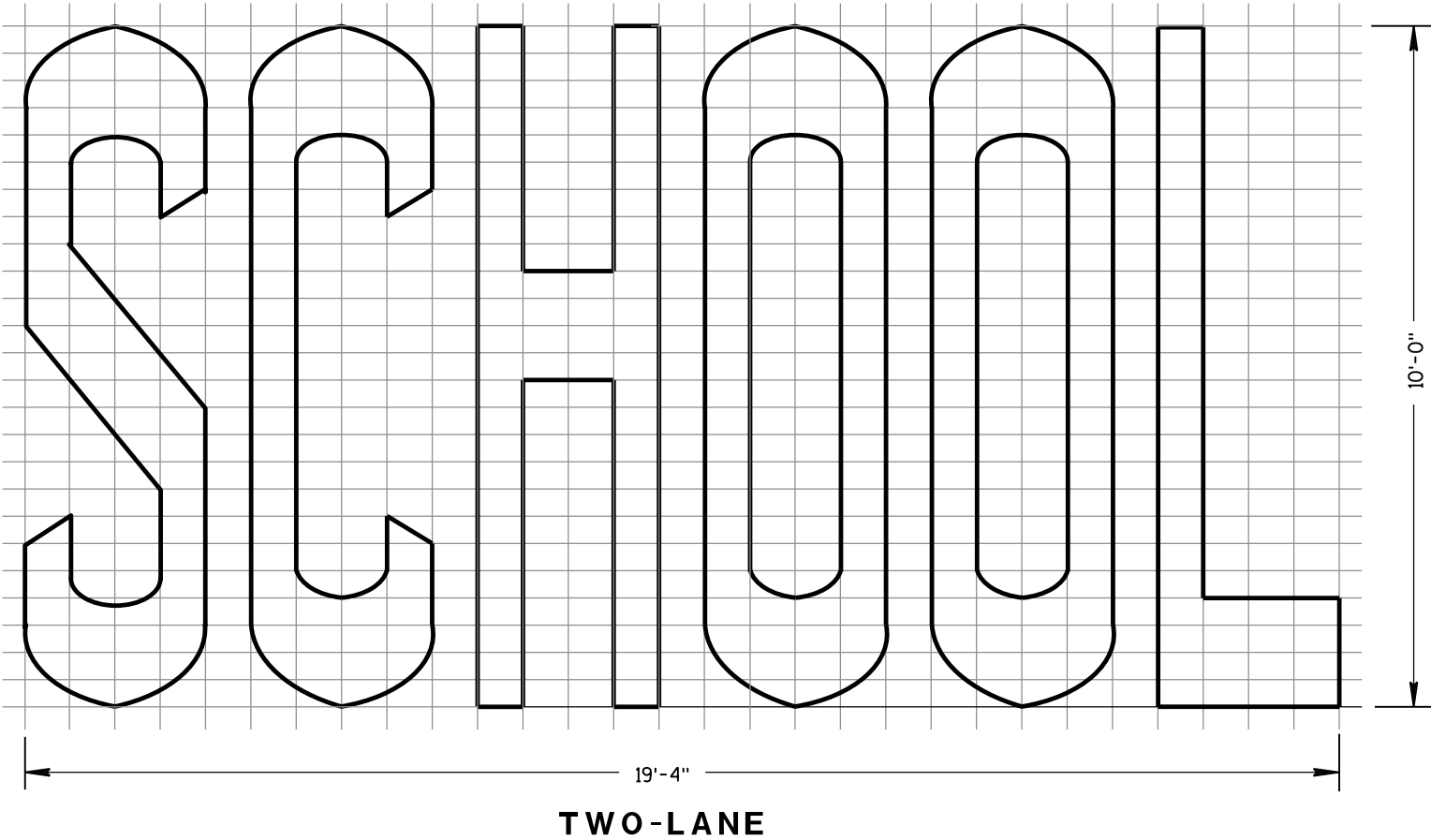
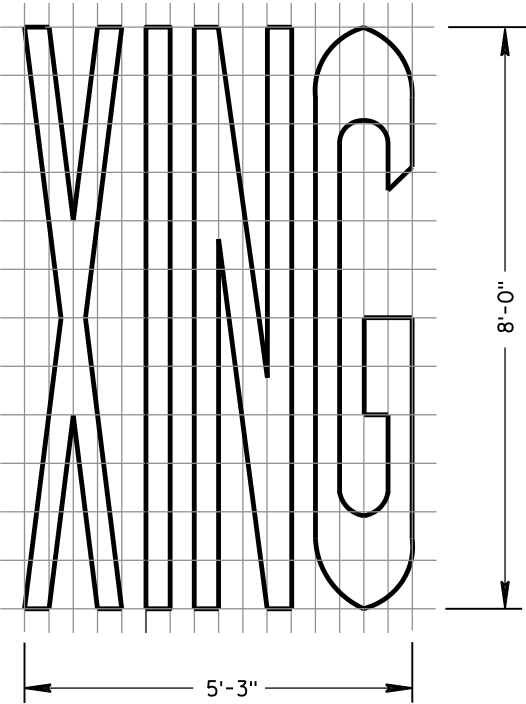
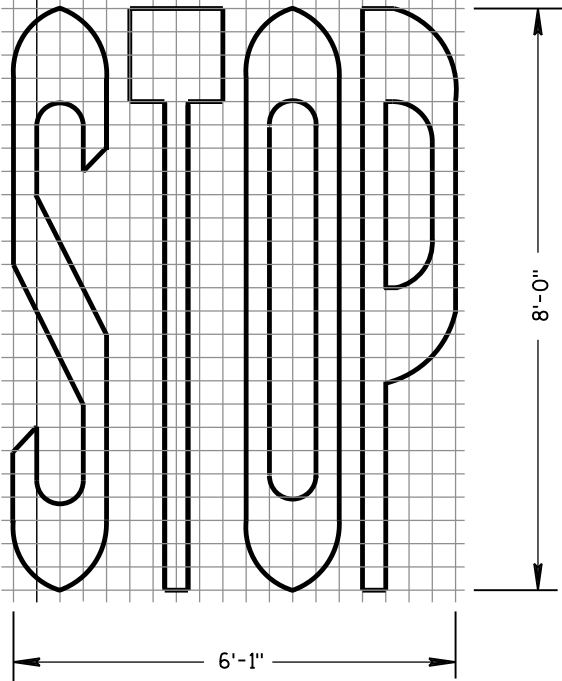
LEGEND

- ⊙ SIGN ON PERMANENT SUPPORT
- ➡ DIRECTION OF TRAFFIC
- ▨ WORK AREA

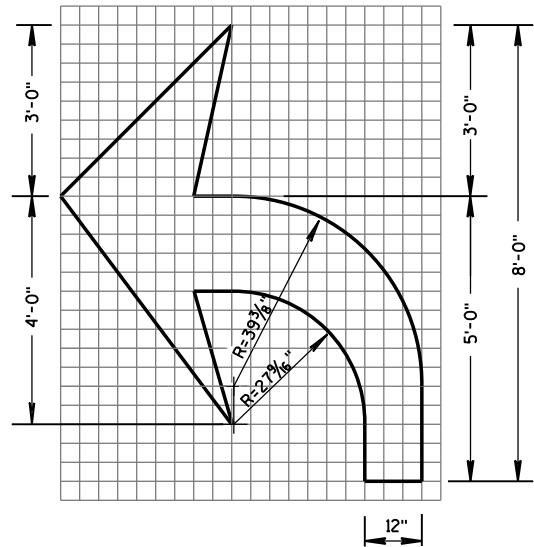
TRAFFIC CONTROL. ADVANCE WARNING SIGNS 40 M.P.H. OR LESS TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 7/2018 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

GENERAL NOTES

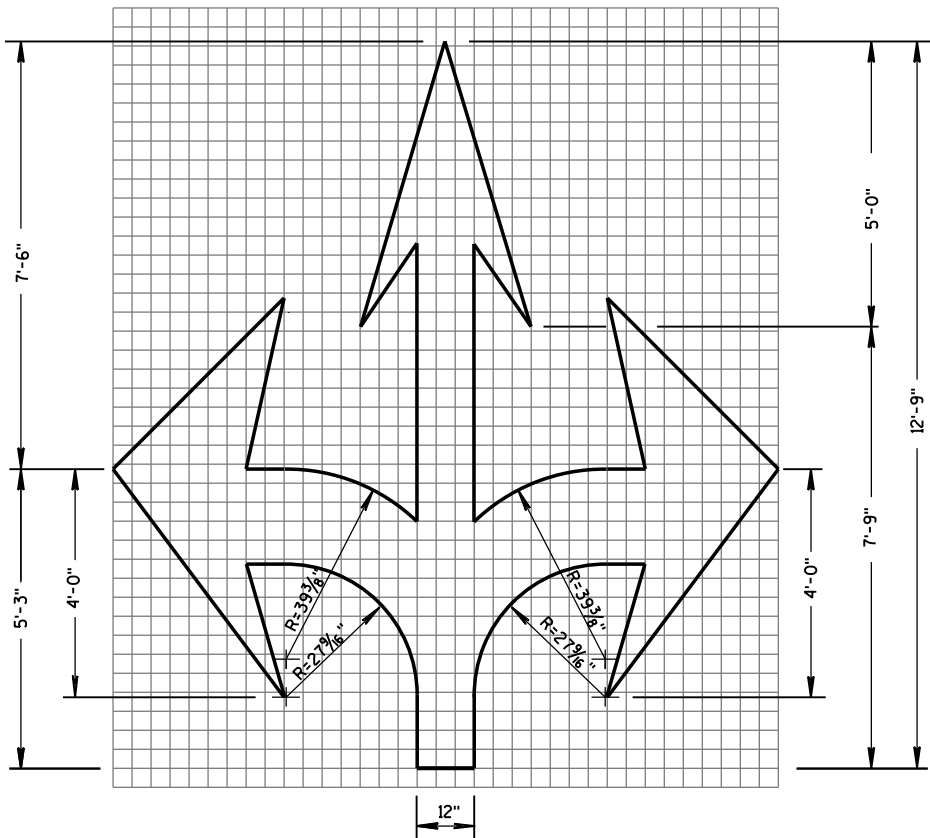
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



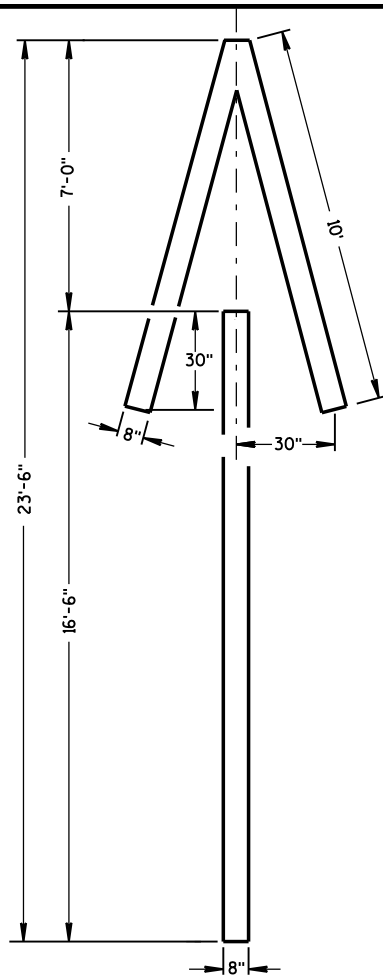
PAVEMENT MARKING WORDS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2017 DATE	/S/ Matthew R. Rauch STATE SIGNING AND MARKING ENGINEER
FHWA	



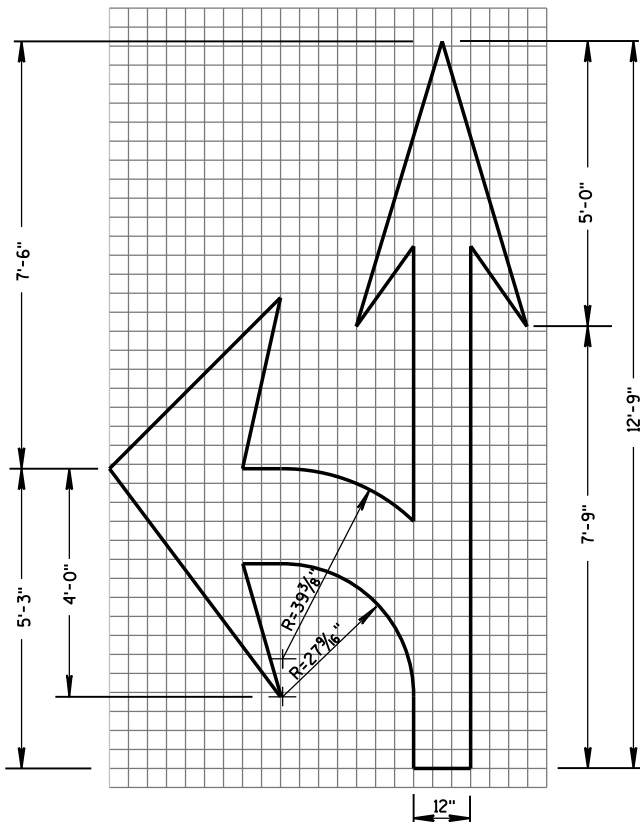
TYPE 2



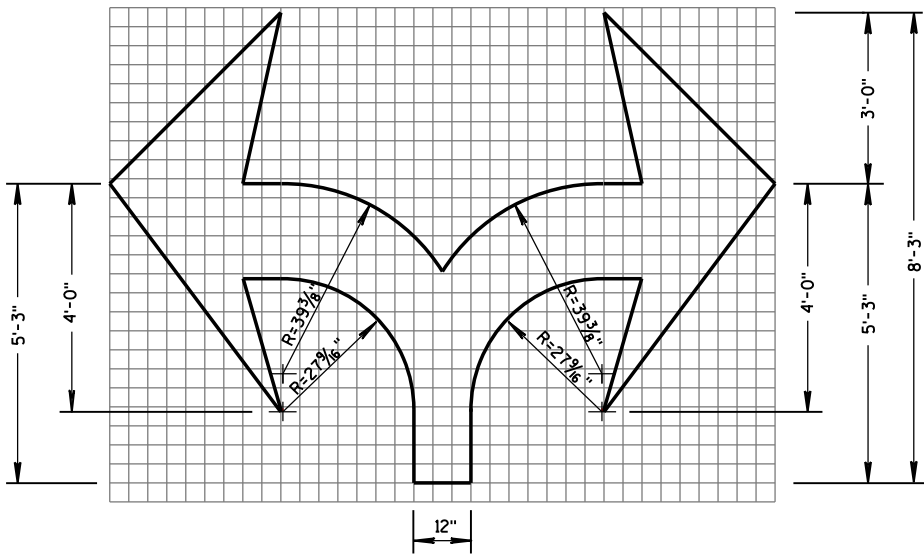
TYPE 6



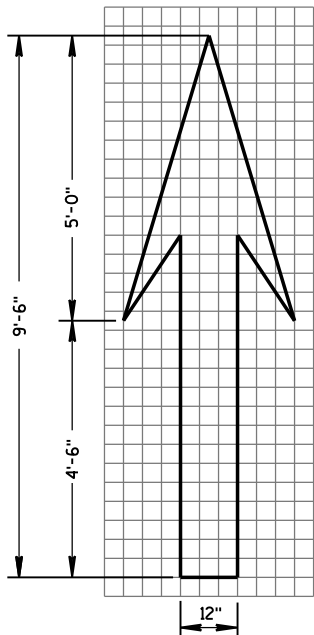
TYPE 4



TYPE 3



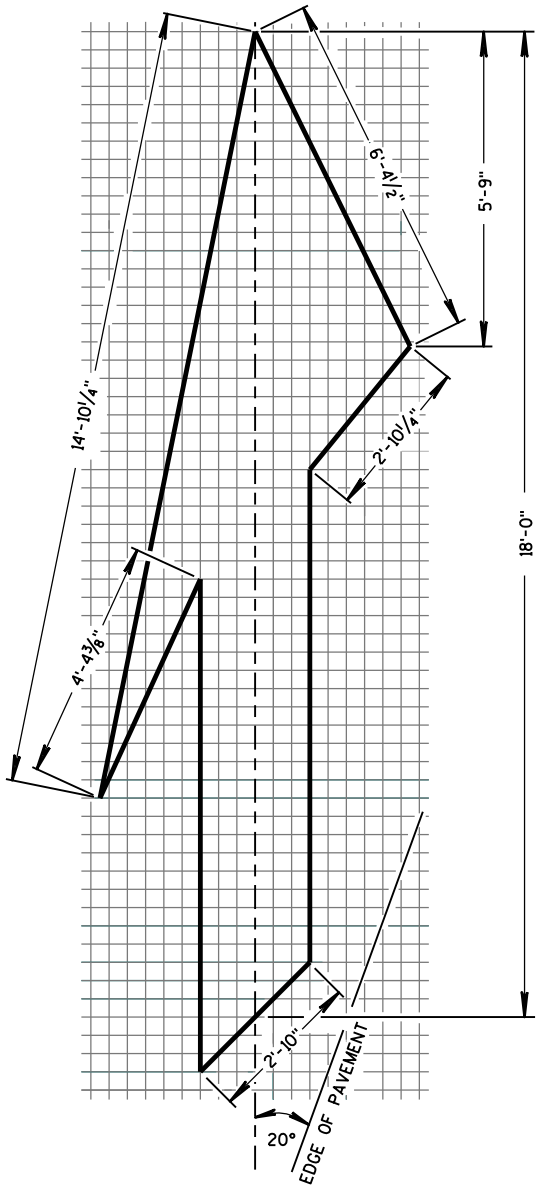
TYPE 7



TYPE 1

GENERAL NOTES

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

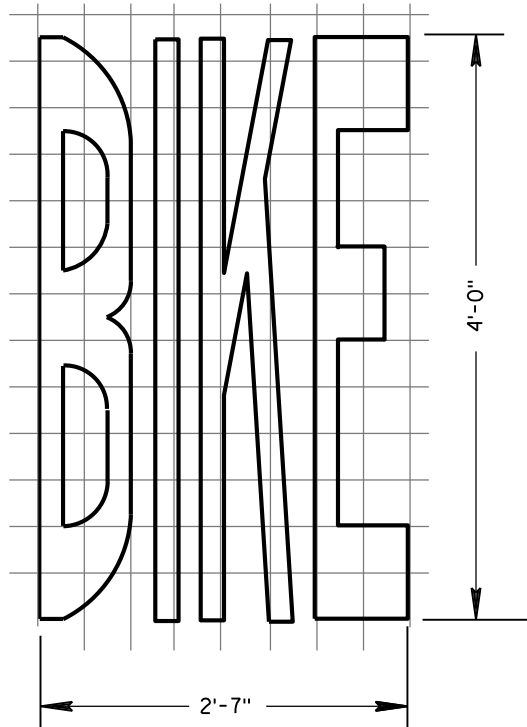


TYPE 5 LANE DROP ARROW

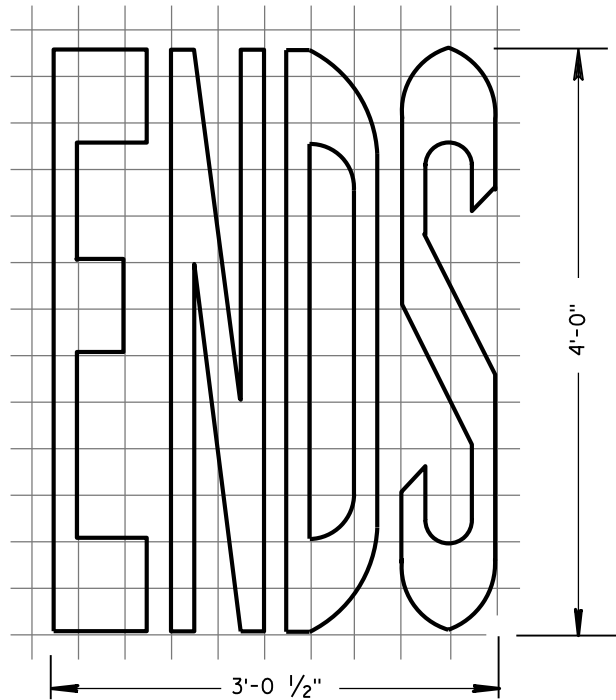
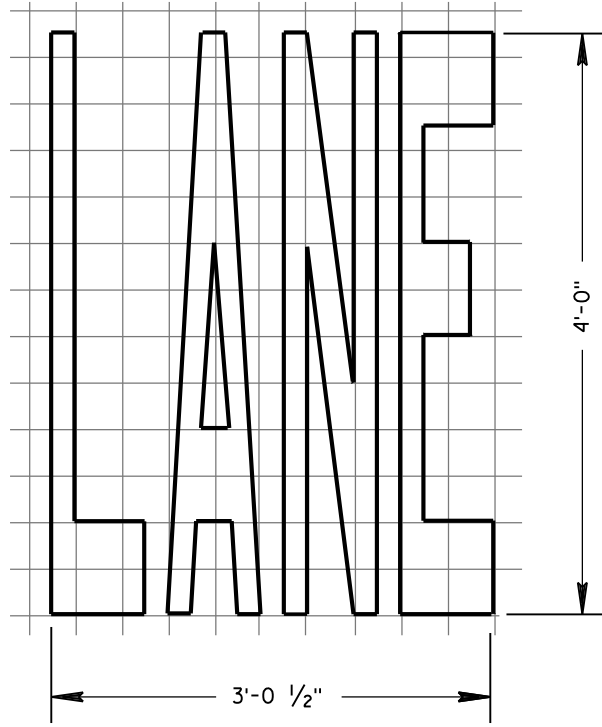
PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



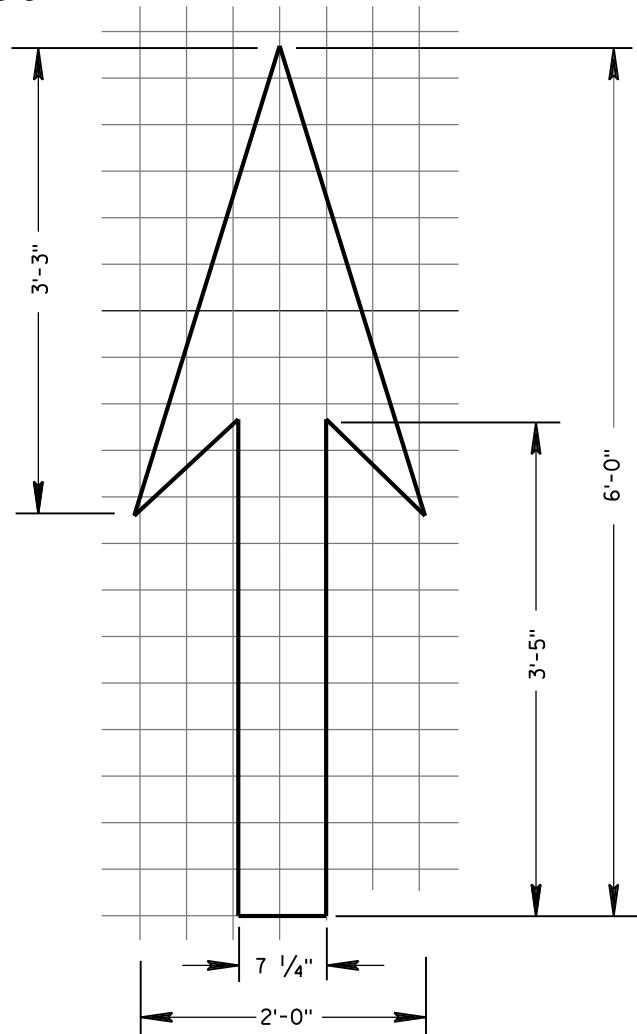
BIKE LANE WORDS



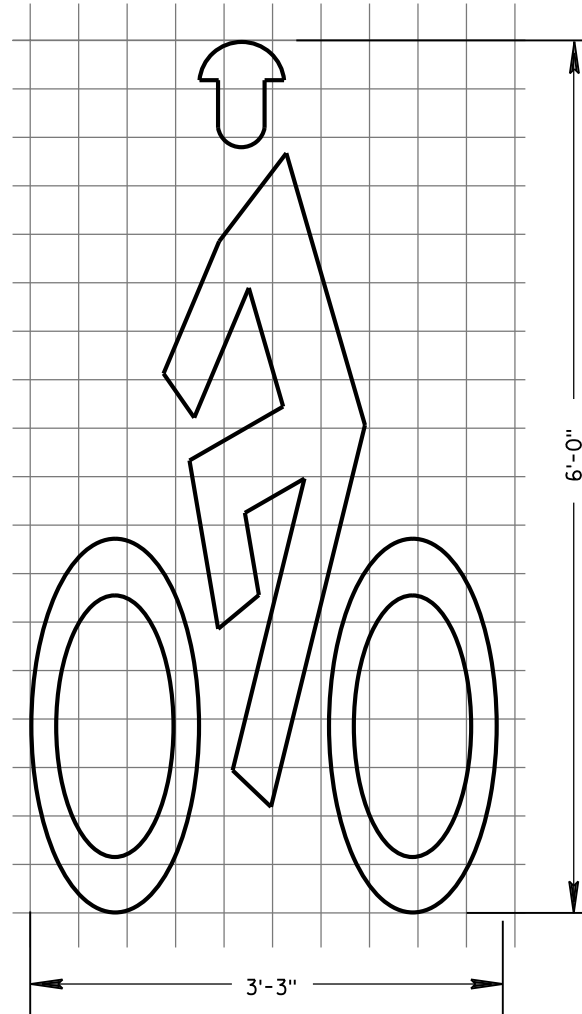
BIKE LANE WORDS

GENERAL NOTES

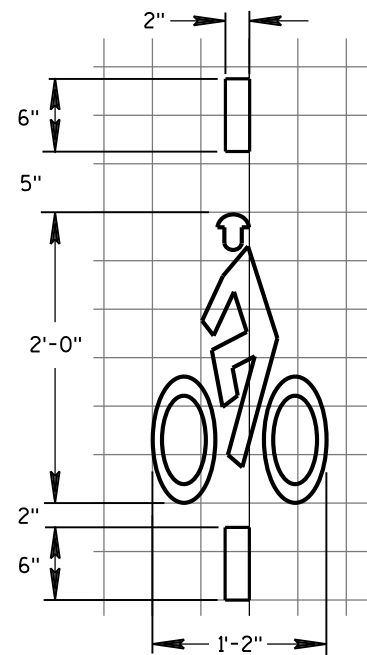
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



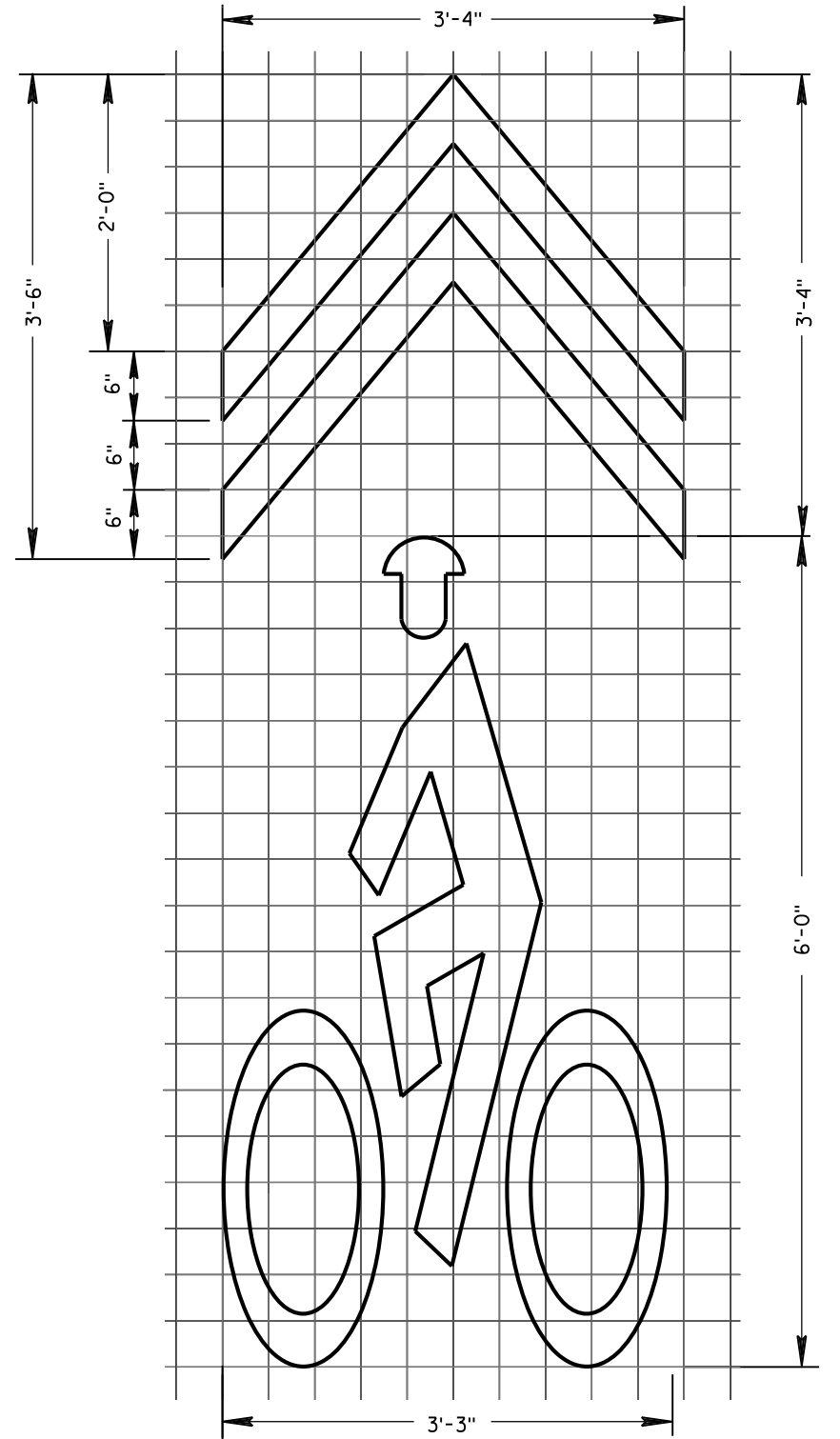
BIKE LANE ARROW



BIKE LANE SYMBOL

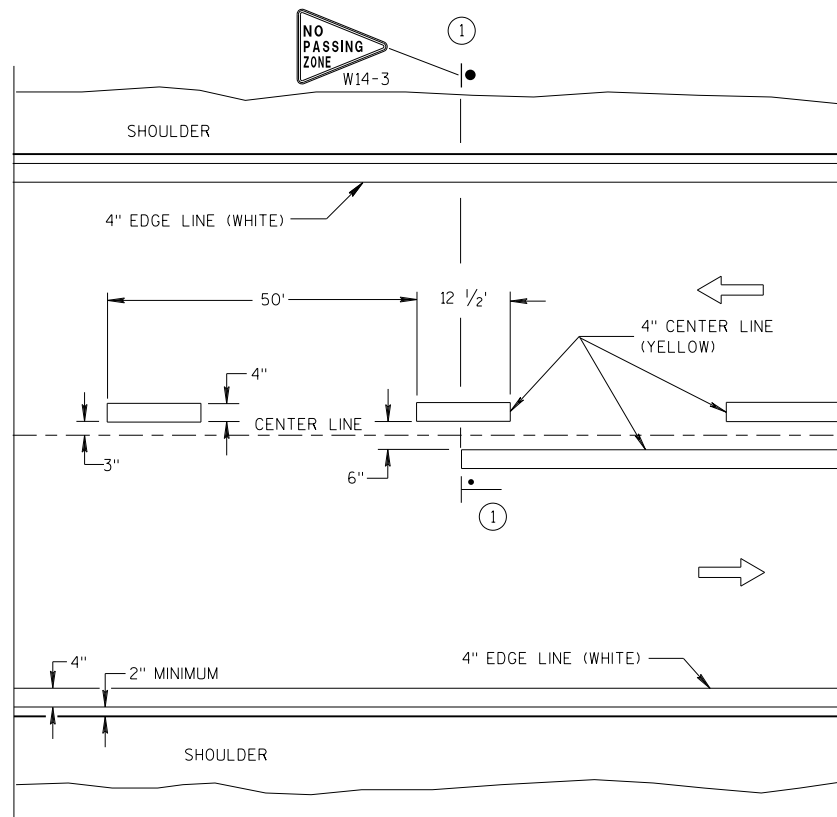


BICYCLE DETECTOR PAVEMENT MARKING

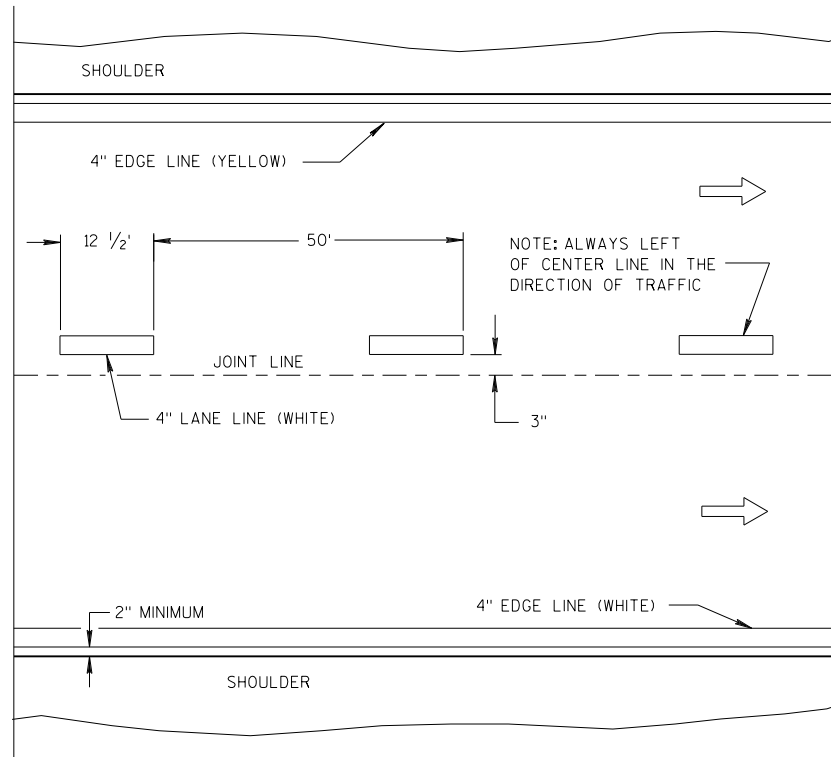


BIKE SYMBOL FOR SHARED LANE

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

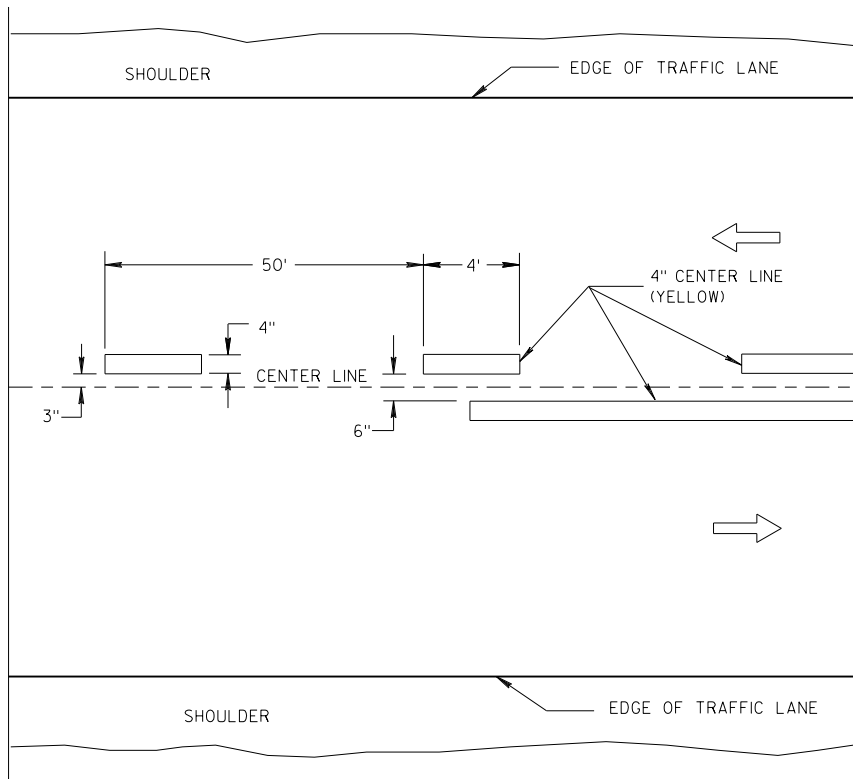


TWO WAY TRAFFIC

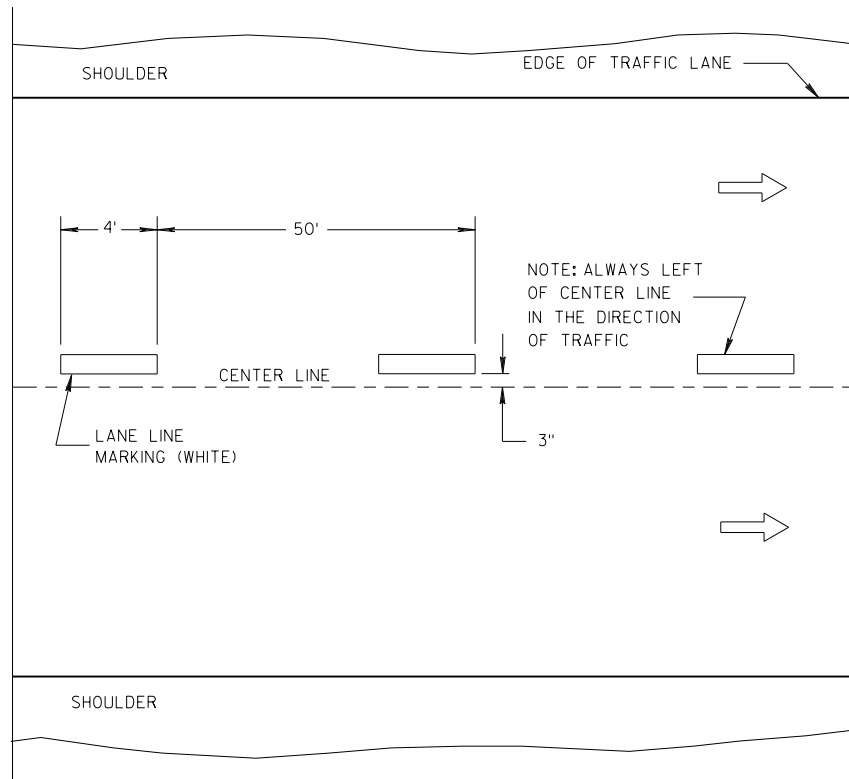


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

GENERAL NOTES

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

- ① LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING.

NOTE

ARROW SYMBOL (→) SHOWS DIRECTION OF TRAVEL

LEGEND

- "T" MARKING
- POST MOUNTED SIGN

LONGITUDINAL MARKING
(MAINLINE)

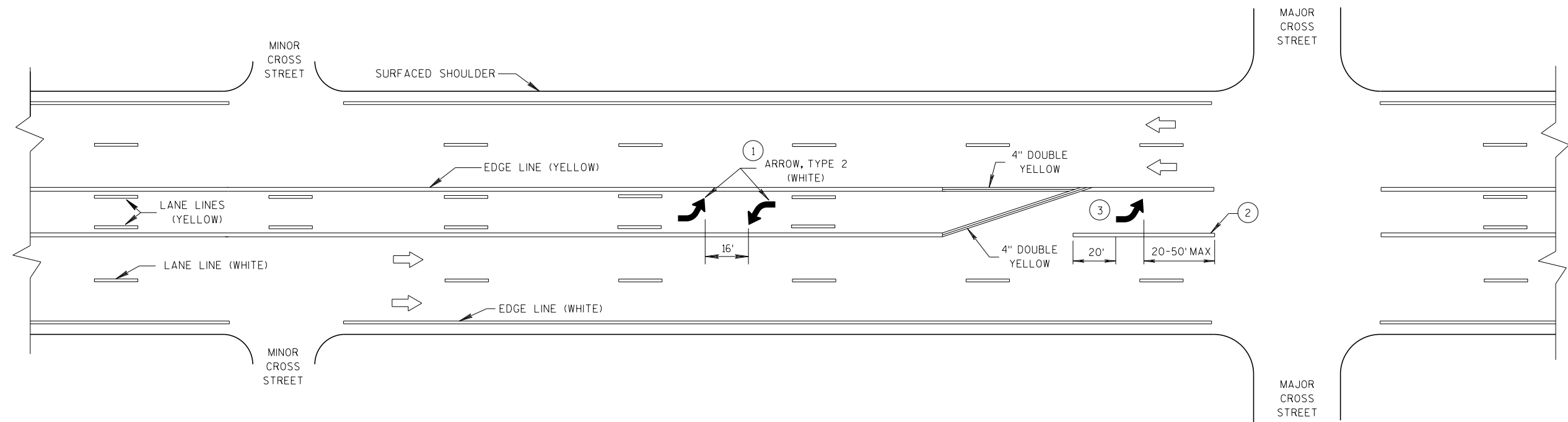
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018 /S/ Matthew R. Rauch
DATE STATE SIGNING AND MARKING ENGINEER
FHWA

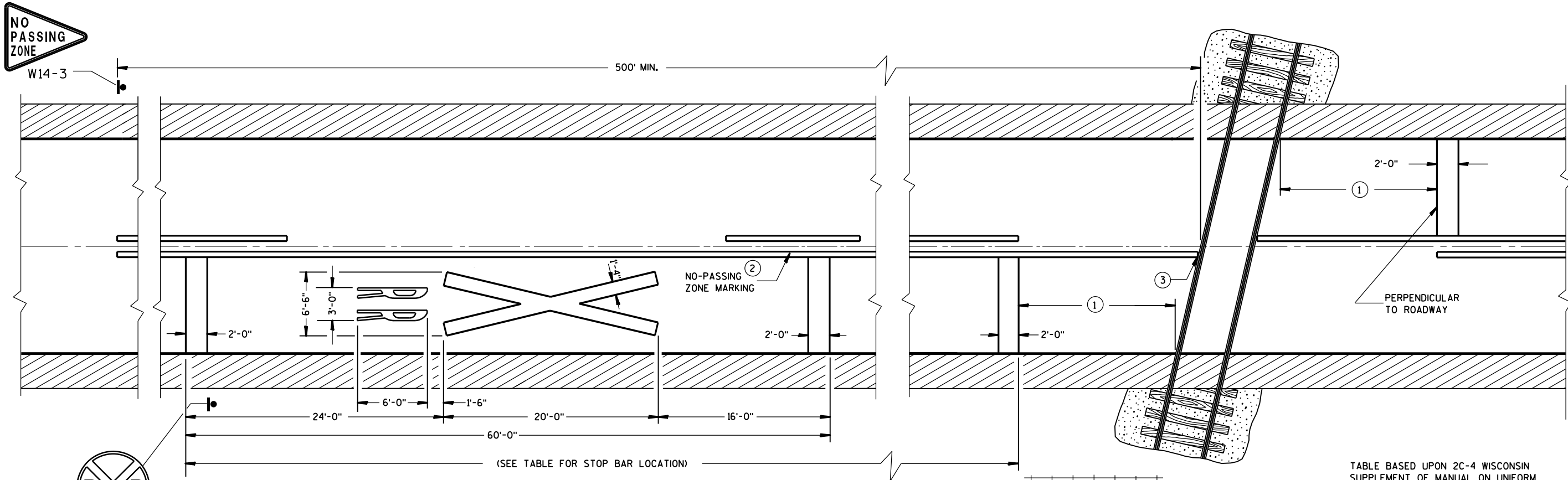
GENERAL NOTES

- ① A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
- ② 8" WHITE
- ③ TURN BAY LENGTH OF LESS THAN 48' DOES NOT REQUIRE PAVEMENT ARROWS OR TEXT

➔ DIRECTION OF TRAFFIC



TWO WAY LEFT TURN LANE



PAVEMENT MARKING

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.

ON MULTI-LANE ROADS THE TRANSVERSE BANDS SHOULD EXTEND ACROSS ALL APPROACH LANES, AND INDIVIDUAL R X R SYMBOLS SHOULD BE USED IN EACH APPROACH LANE.

CENTER OR LANE LINES AND NO-PASSING ZONE MARKINGS SHOWN ON THIS DRAWING ARE REQUIRED AND PAID FOR UNDER OTHER ITEMS IN THE CONTRACT.

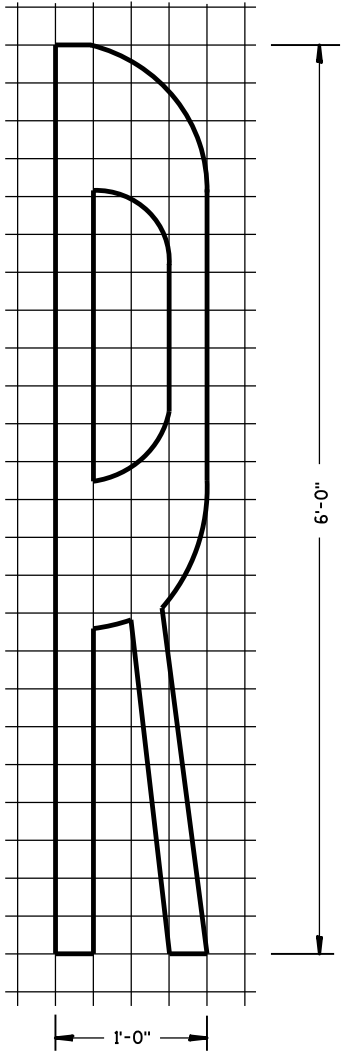
RETRACE EXISTING SYMBOL WHERE EXISTING SYMBOLS ARE PLACED.

- ① MINIMUM 8' FROM ANY RAILROAD WARNING DEVICES (SIGNALS, GATES, ETC.) OR 25' FROM THE NEAREST RAIL, WHICHEVER DISTANCE IS GREATER.
- ② 500' MINIMUM. MARKING LIMITS MAY BE EXTENDED AS DIRECTED BY THE ENGINEER TO MEET ADJACENT NO-PASSING ZONE MARKINGS.
- ③ FOR MULTIPLE TRACK CROSSINGS, THE BARRIER LINE SHALL EXTEND TO THE NEAR RAIL OF THE FURTHEST TRACK IN THE DIRECTION OF HIGHWAY TRAVEL.

TABLE BASED UPON 2C-4 WISCONSIN SUPPLEMENT OF MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

Posted Speed (M.P.H.)	Dimension Range (Feet)
25	150*- 250
30	200*- 300
35	250*- 450
40	300*- 500
45	400*- 650
50	550*- 800
55	750*- 1000
60	1000*- 1250
65	1000*- 1250

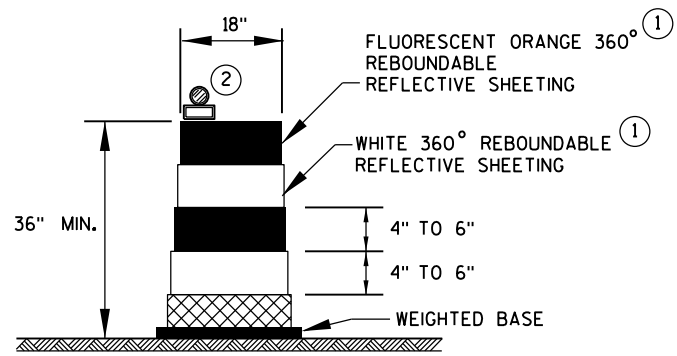
* THE MINIMUM DISTANCES IN THE TABLE ARE DESIRABLE AND SHOULD BE USED. THE DISTANCES MAY BE INCREASED UP TO THE MAXIMUM TO ALLOW FOR FIELD CONDITIONS SUCH AS THE CLOSE PROXIMITY OF DRIVEWAYS, BRIDGES, SIDEROADS OR OTHER FEATURES THAT WOULD PROHIBIT THE MINIMUM DISTANCES FROM BEING USED.



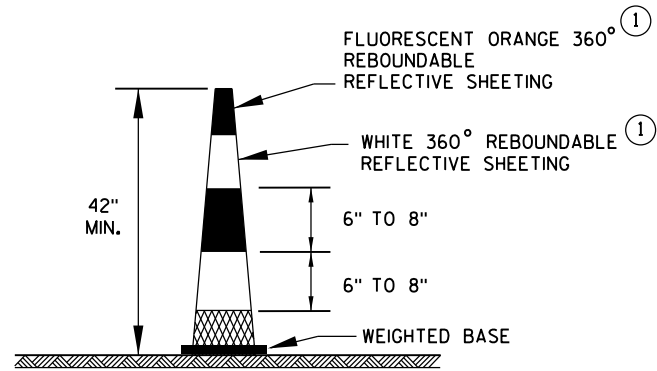
SIGNING AND PAVEMENT MARKING
DETAILS FOR RAILROAD-HIGHWAY
GRADE CROSSINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



DRUM

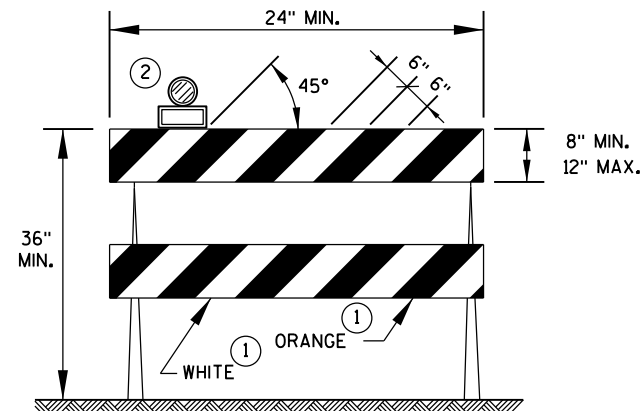


42" CONE

DO NOT USE IN TAPERS
1/2 SPACING OF DRUMS

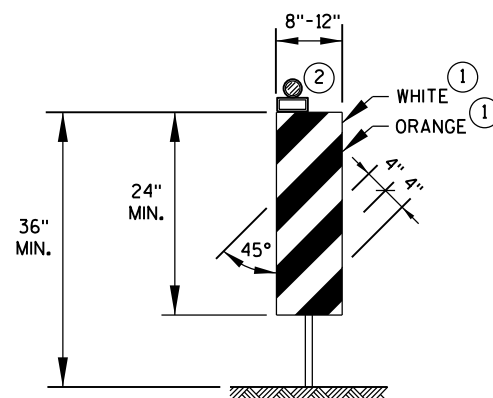
GENERAL NOTES

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



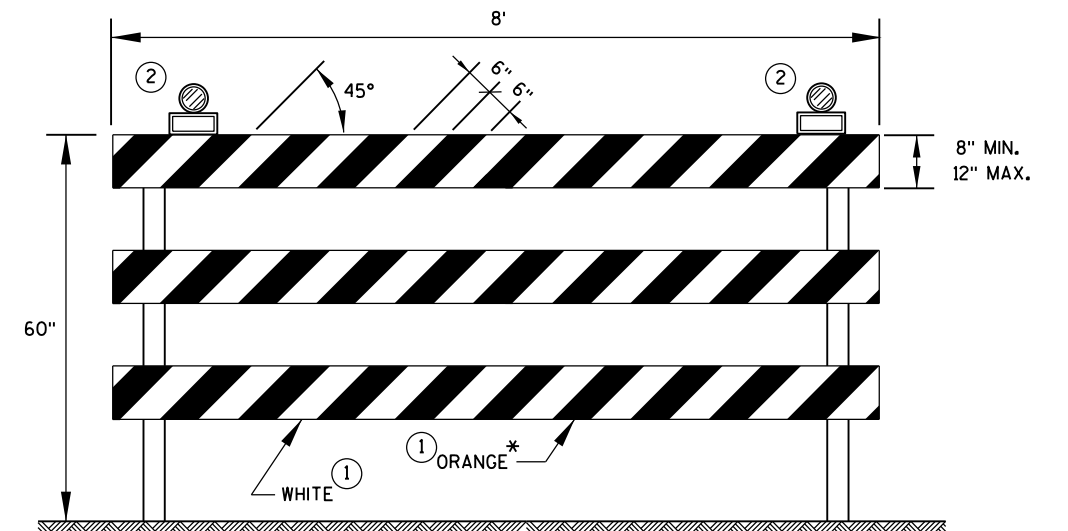
TYPE 2 BARRICADE

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



VERTICAL PANEL

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



TYPE 3 BARRICADE

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

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

CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2017
DATE

FHWA

/S/ Andrew Heidtke
WORK ZONE ENGINEER

LEGEND

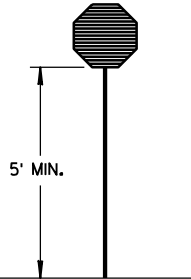
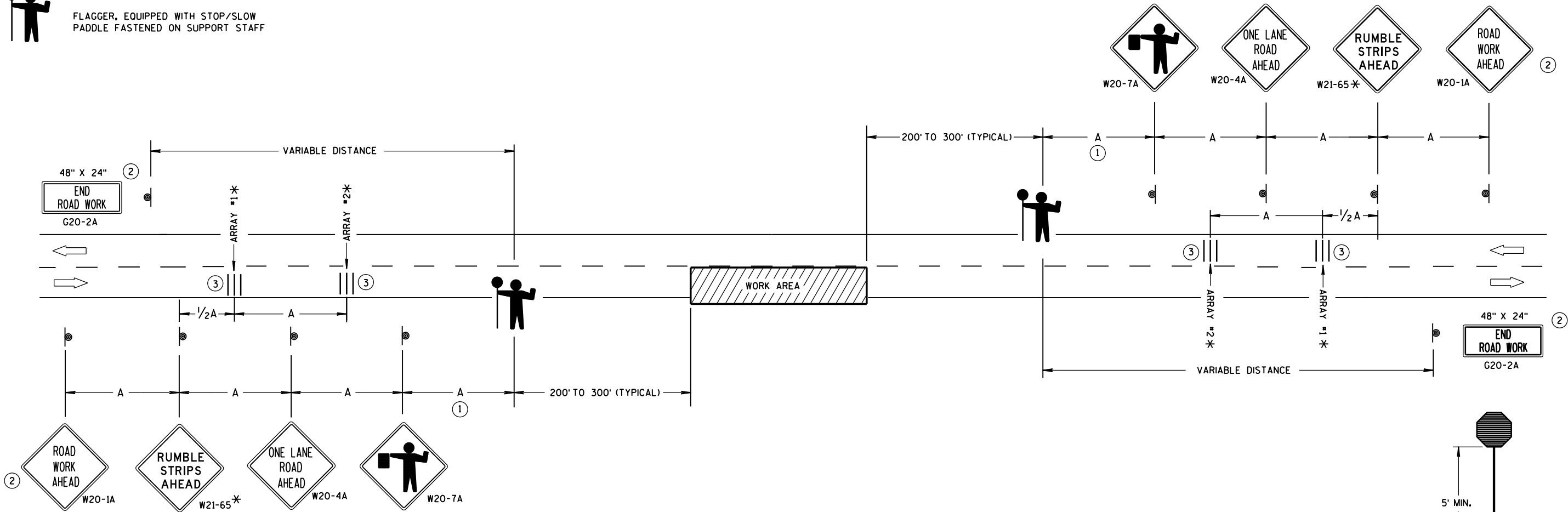
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA
- FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

SPEED LIMIT	SPACING A
25-35 MPH	200'
35-40 MPH	350'
45-55 MPH	500'



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



STOP/SLOW PADDLE ON SUPPORT STAFF

TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

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.

"W0" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

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.

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS. PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

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

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, REMOVE TEMPORARY RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.

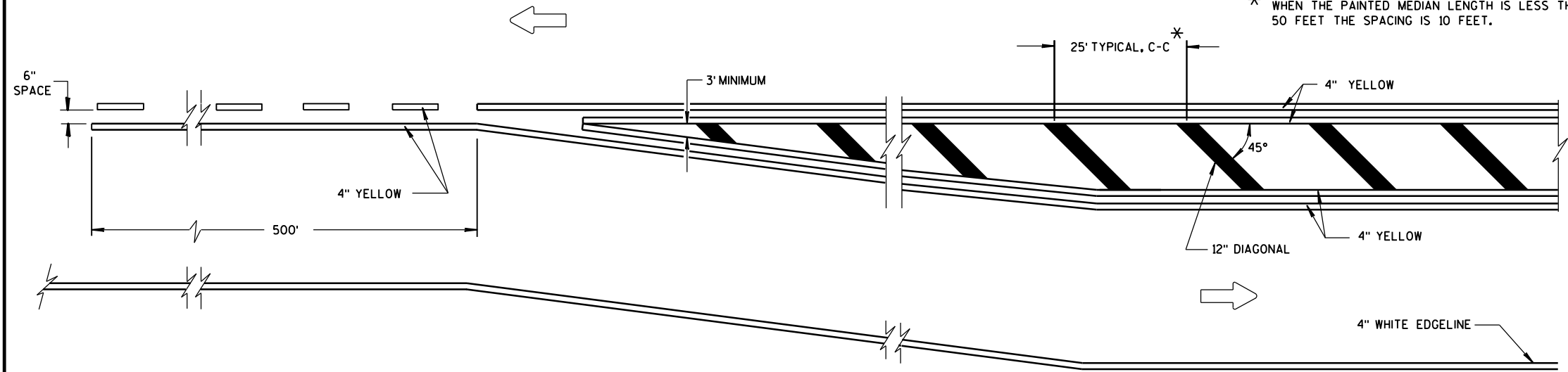
* UTILIZE TEMPORARY RUMBLE STRIPS WHEN FLAGGING OPERATION IS ANTICIPATED TO BE STATIONARY IN EXCESS OF TWO HOURS.

- FOR A MOVING WORK OPERATION, SIGNING AND TEMPORARY RUMBLE STRIPS (IF USED) SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3,500 FOOT INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.
- SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.
- EACH TEMPORARY RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS SPACED ACCORDING TO MANUFACTURER'S RECOMMENDATION, PLACED TRANSVERSE ACROSS THE LANE AT LOCATIONS SHOWN.

TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 /S/ Andrew Heldtke
DATE WORK ZONE ENGINEER
FHWA

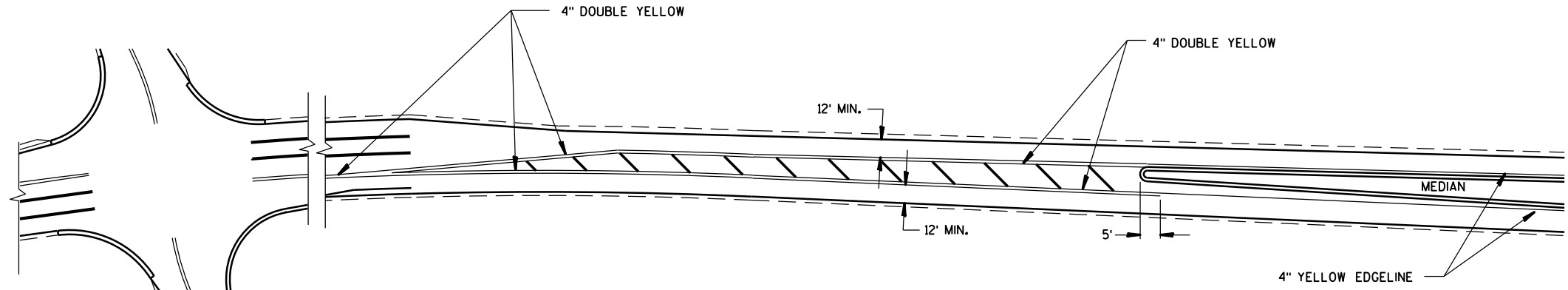


MEDIAN ISLAND DETAIL

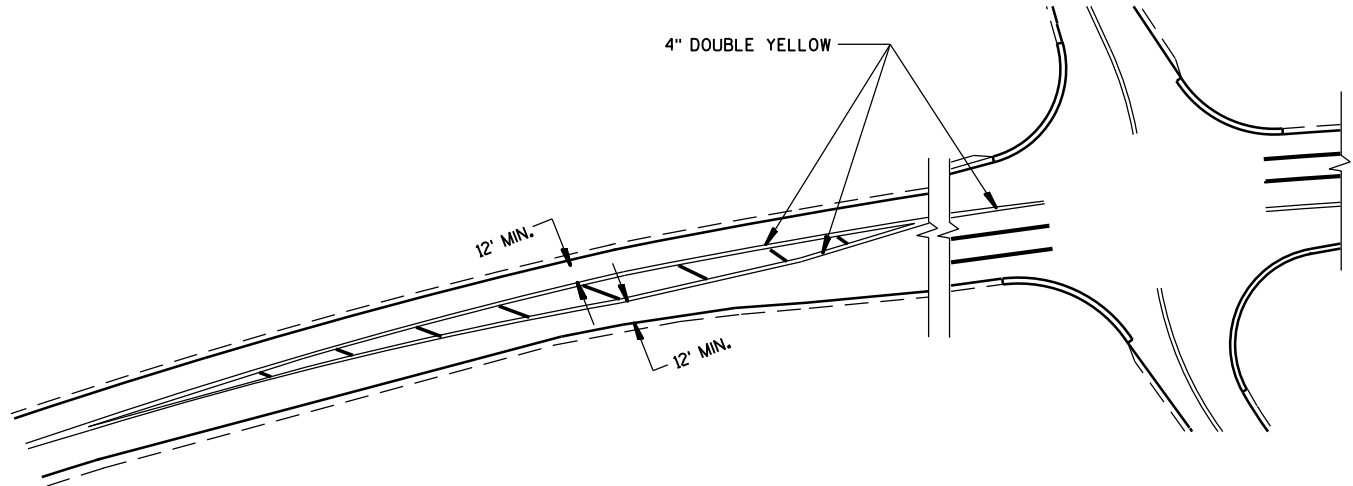
GENERAL NOTE

DIAGONALS ARE OPTIONAL WHEN PAINTED ISLAND IS LESS THAN 6 FEET AT WIDEST POINT.

➡ DIRECTION OF TRAVEL



APPROACH MARKINGS FOR OTHER MEDIAN TYPES



NON APPROACH MARKINGS

MEDIAN ISLAND MARKING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2017 DATE	/S/ Matthew Rauch STATE SIGNING AND MARKING ENGINEER
FHWA	



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

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

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

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

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

- 
 OR
 
- W21-64
 W21-64

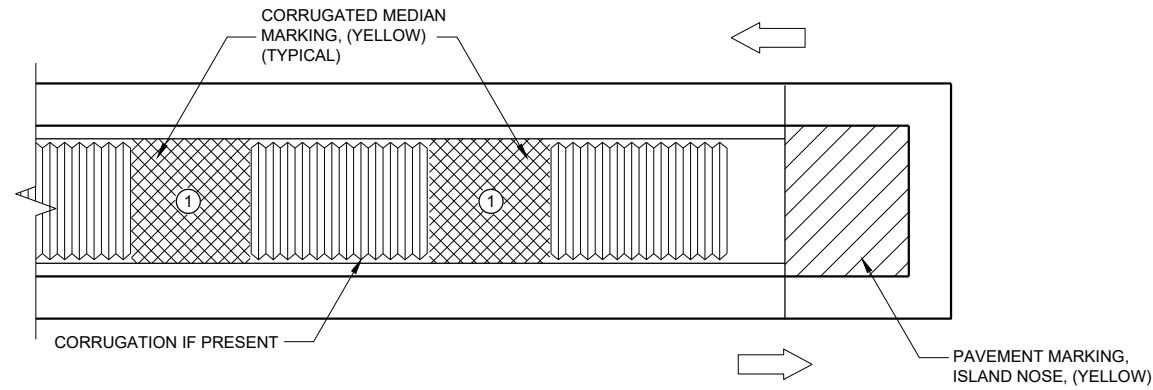
V1	LEAD VEHICLE
V2	SHADOW VEHICLE
V3	TRAIL VEHICLE WITH TMA
TMA	TRUCK-MOUNTED ATTENUATOR

 FLASHING ARROW PANEL (CAUTION)

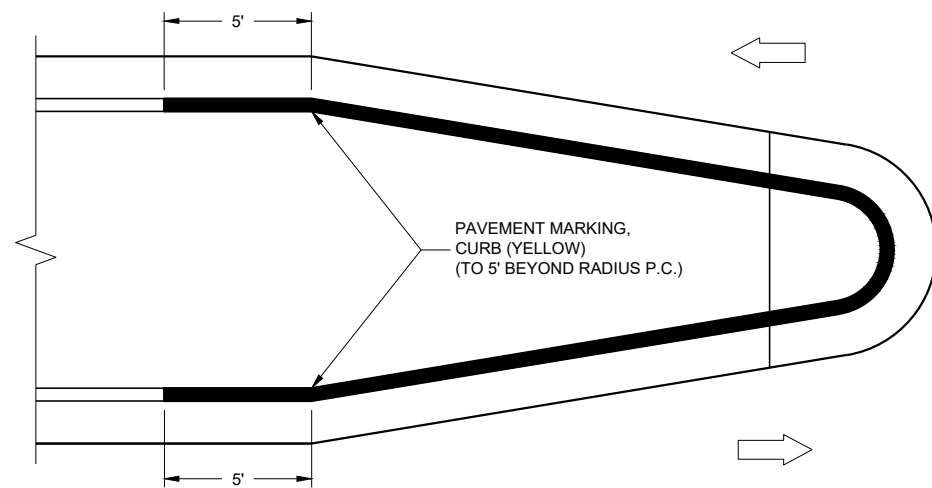
MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY

APPROVED
Sept., 2017 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER
FHWA

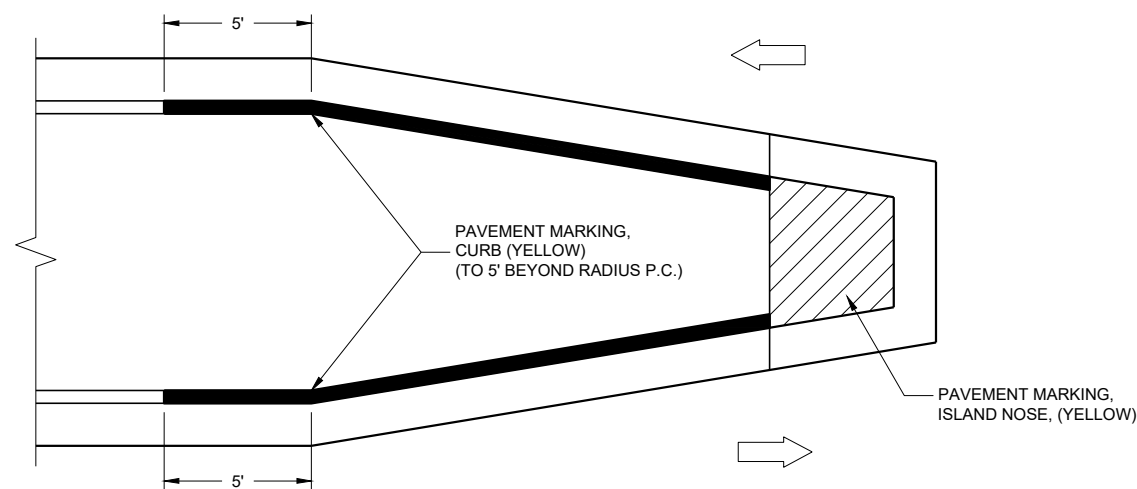




MEDIAN ISLAND WITH SQUARE BLUNT NOSE







MEDIAN ISLAND WITH ROUND BLUNT NOSE



TYPICAL PLACEMENT OF
PAVEMENT MARKING ON MEDIAN ISLANDS

GENERAL NOTES

WHEN CONCRETE CORRUGATED MEDIAN IS CONSTRUCTED TO SEPARATE TRAFFIC OPERATING IN THE OPPOSING DIRECTION, YELLOW PAVEMENT MARKING SHALL BE APPLIED TO THE FLAT PORTION OF THE CONCRETE CORRUGATED MEDIAN. THE ITEM OF PAVEMENT MARKING, CONCRETE CORRUGATED MEDIAN, WILL BE MEASURED IN PLACE AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.

-  ISLAND NOSE MARKING
-  CURB MARKING
-  CORRUGATED MEDIAN MARKING
-  DIRECTION OF TRAVEL

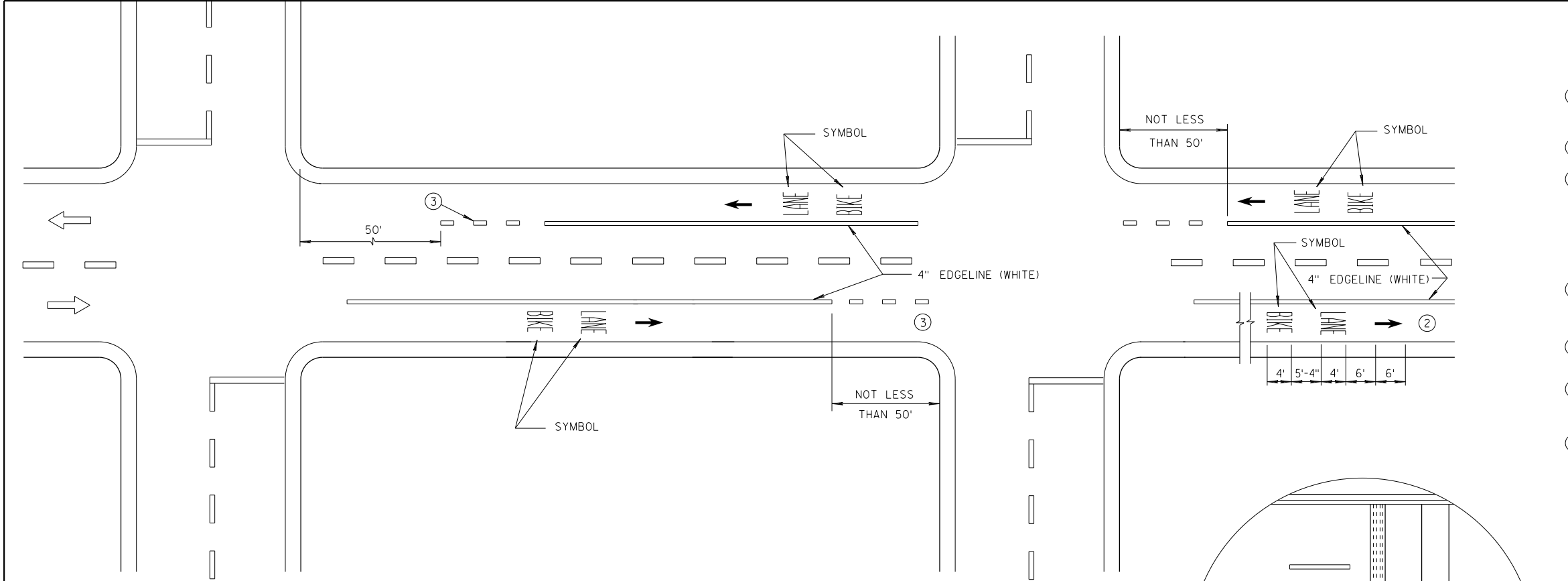
PAVEMENT MARKINGS (ISLANDS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

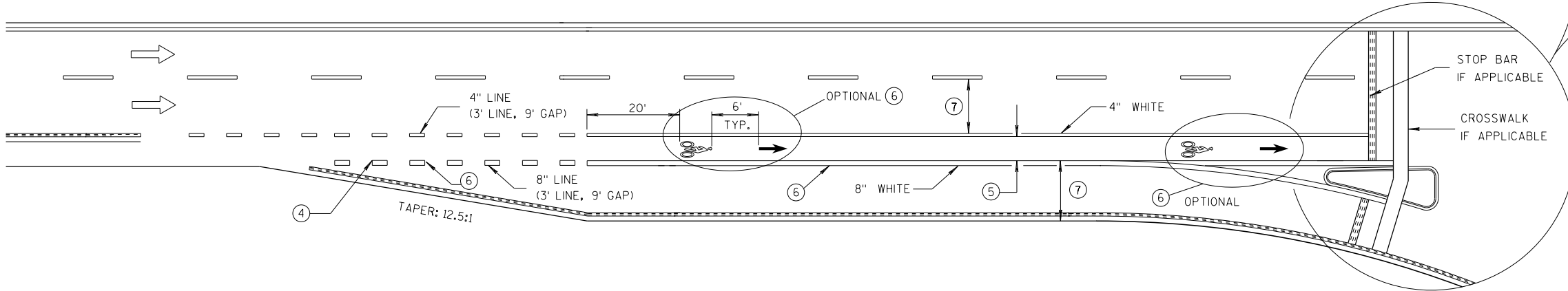
APPROVED
7/2018
DATE

/S/ Matthew R. Rauch
STATE SIGNING AND MARKING
ENGINEER

FHWA



**DESIGNATED BICYCLE LANE
NO PARKING**



**BIKE LANE - FOR 2-LANE ROADWAYS AND 4-LANE DIVIDED ROADWAYS
(4-LANE DIVIDED WITH RIGHT TURN LANE SHOWN)**

GENERAL NOTES

- ① DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.
- ② MINIMUM OF ONE PER BLOCK. MAXIMUM OF 250 FEET.
- ③ DOTTED LINES (3' LINE, 9' GAP) SHOULD BE USED 50 FEET TO 200 FEET IN ADVANCE OF AN INTERSECTION WHERE THERE IS NO RIGHT TURN ONLY LANE AND THERE IS HEAVY RIGHT TURN TRAFFIC OR THERE IS A NEAR-SIDE BUS STOP. AT OTHER INTERSECTIONS WHERE RIGHT TURN TRAFFIC IS LIGHT TO MODERATE, A SOLID LINE CAN BE USED UP TO THE INTERSECTION.
- ④ IF SIGNED AND/OR MARKED AS A BICYCLE FACILITY INCLUDE SECOND LINE OF LINE-SPACE MARKING, OTHERWISE DO NOT.
- ⑤ BIKE ACCOMODATION IS TYPICALLY 5 FEET WIDE AND A MINIMUM OF 4 FEET FROM A LONGITUDINAL JOINT. USE 5 FEET AT 45 MPH.
- ⑥ OMIT THESE MARKINGS FOR WIDER TURN LANE APPLICATIONS (MINIMUM OF 15 FEET WIDE TURN LANE).
- ⑦ REFER TO CONTRACT PLANS FOR LANE WIDTH.

➡ DIRECTION OF TRAVEL

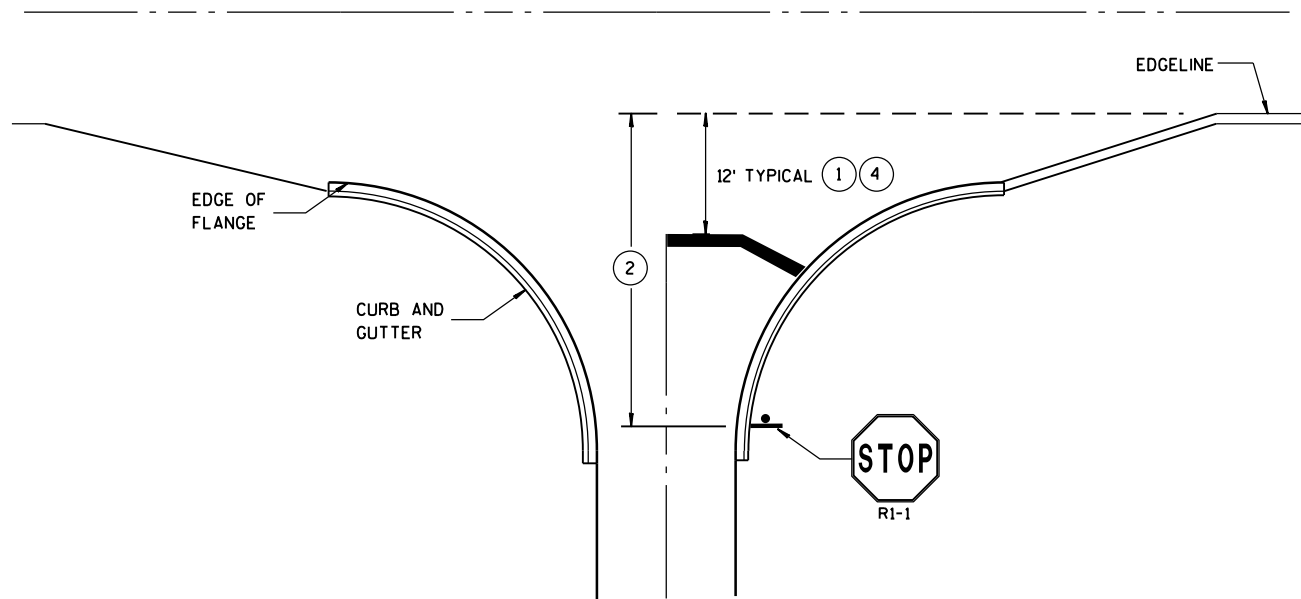
4 LANE DIVIDED WITHOUT ISLAND

4 LANE DIVIDED WITH ISLAND

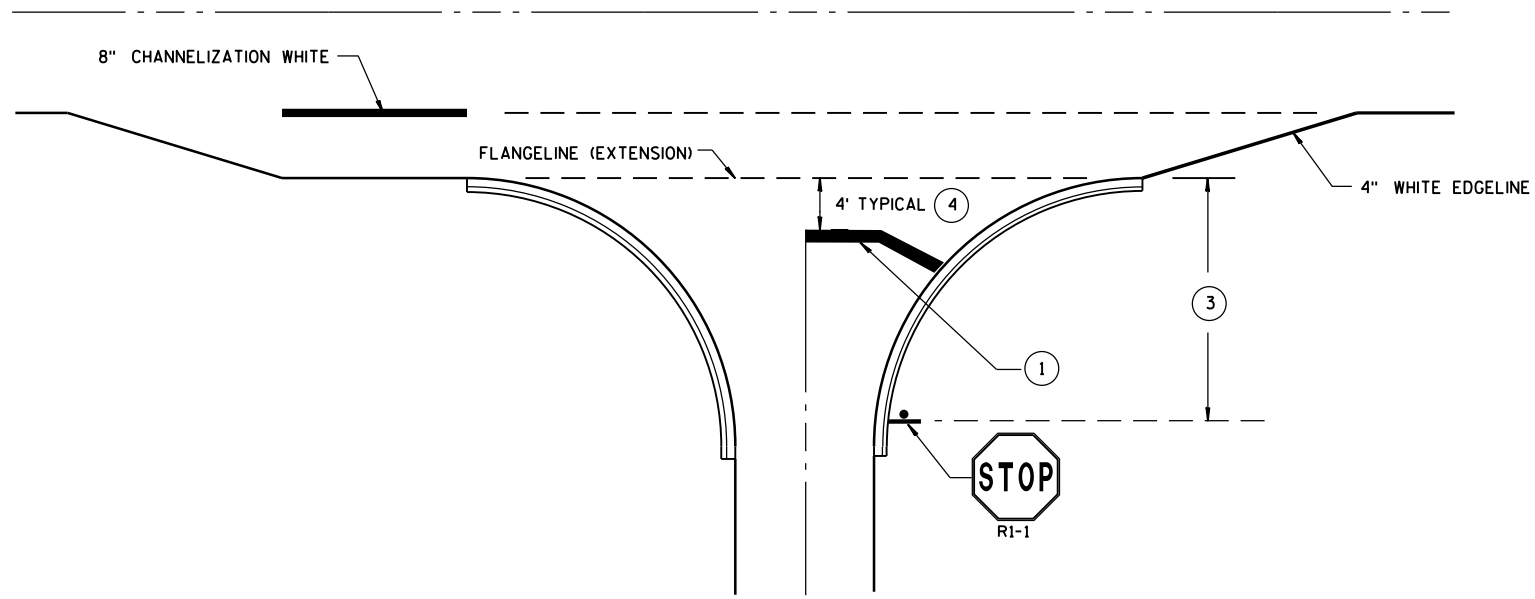
BICYCLE LANE MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

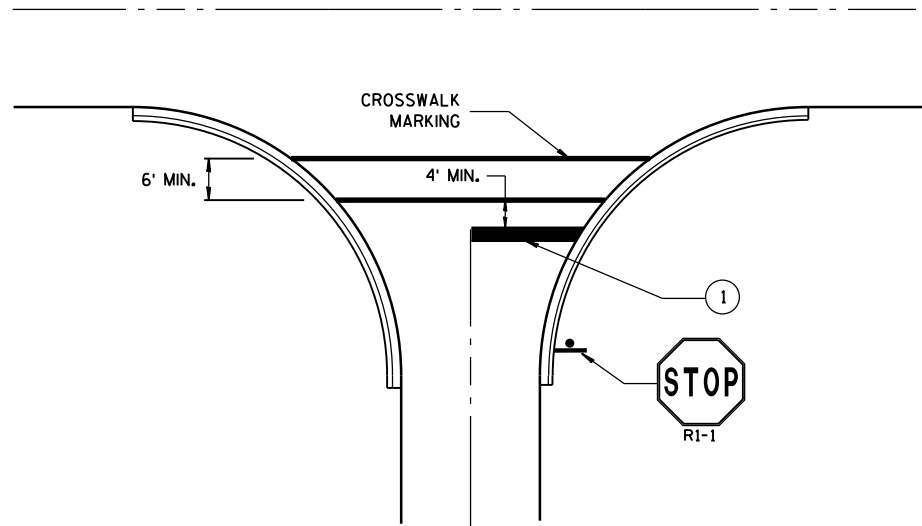
APPROVED
7/2018 /S/ Matthew R. Rauch
DATE STATE SIGNING AND MARKING ENGINEER
FHWA



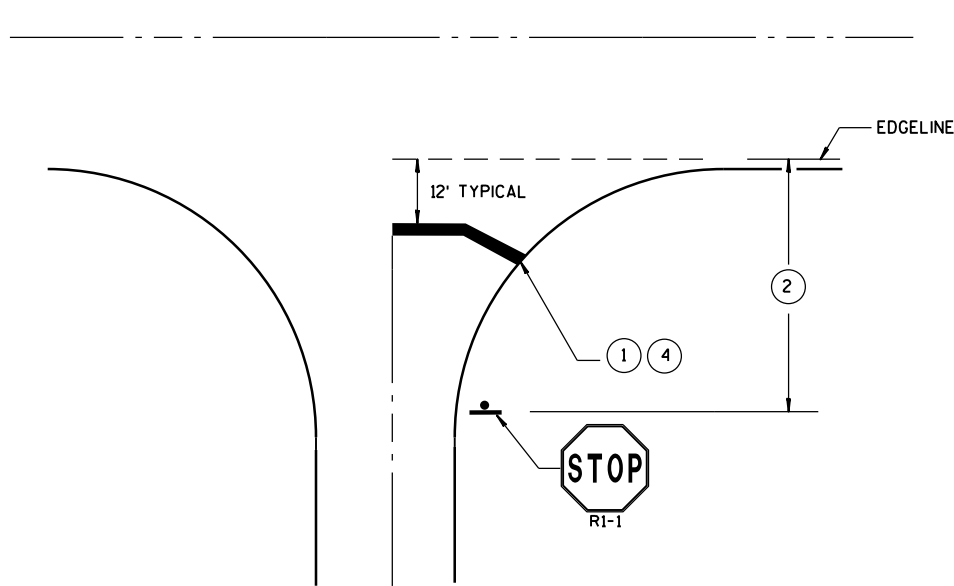
TYPICAL STOP LINE PAVEMENT MARKING
WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING
FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING
FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING
WITHOUT CURB AND GUTTER

GENERAL NOTES

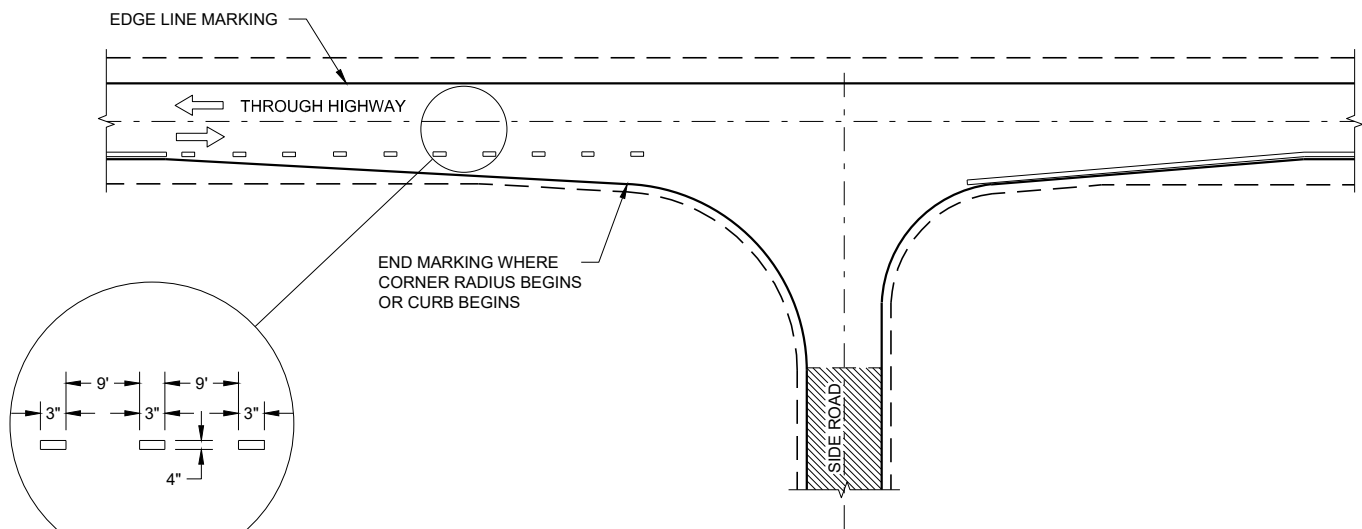
STOP SIGN SHALL BE PLACED A MINIMUM OF 6 FEET TO A MAXIMUM OF 50 FEET FROM THE EDGE LINE LOCATION.

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

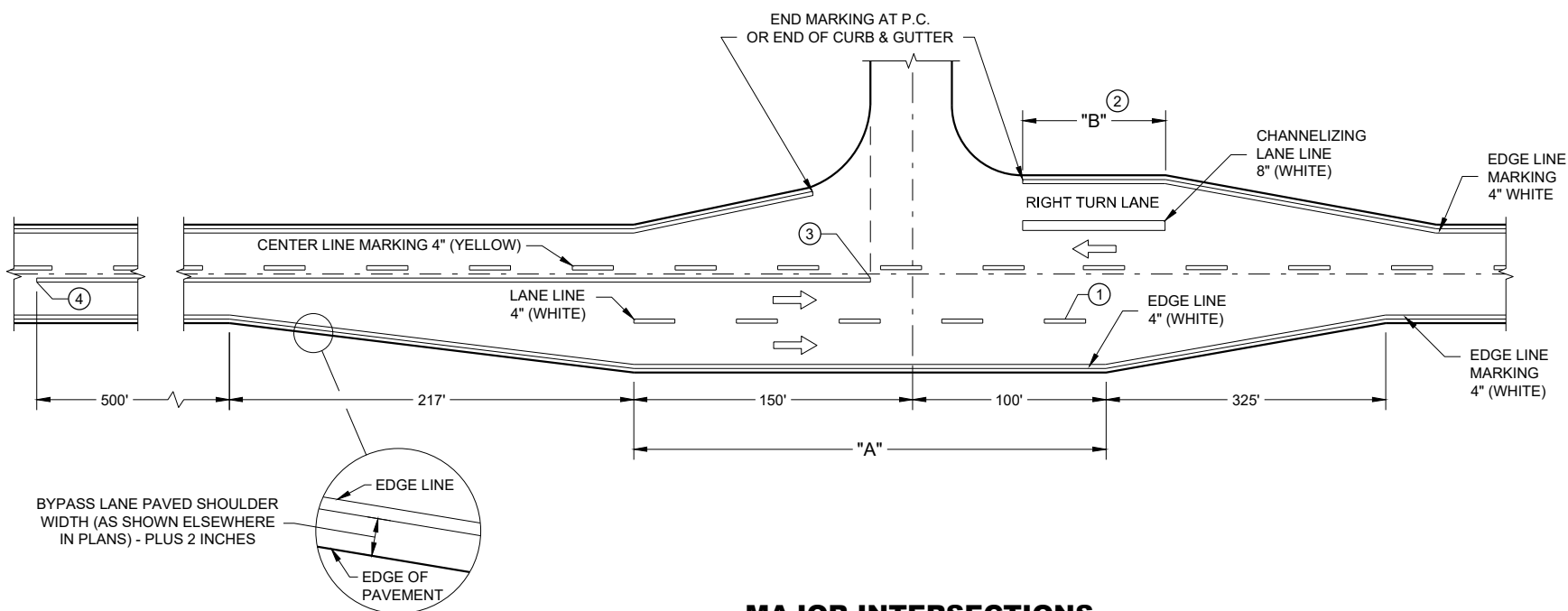
STOP LINE AND CROSSWALK
PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



MINOR INTERSECTION



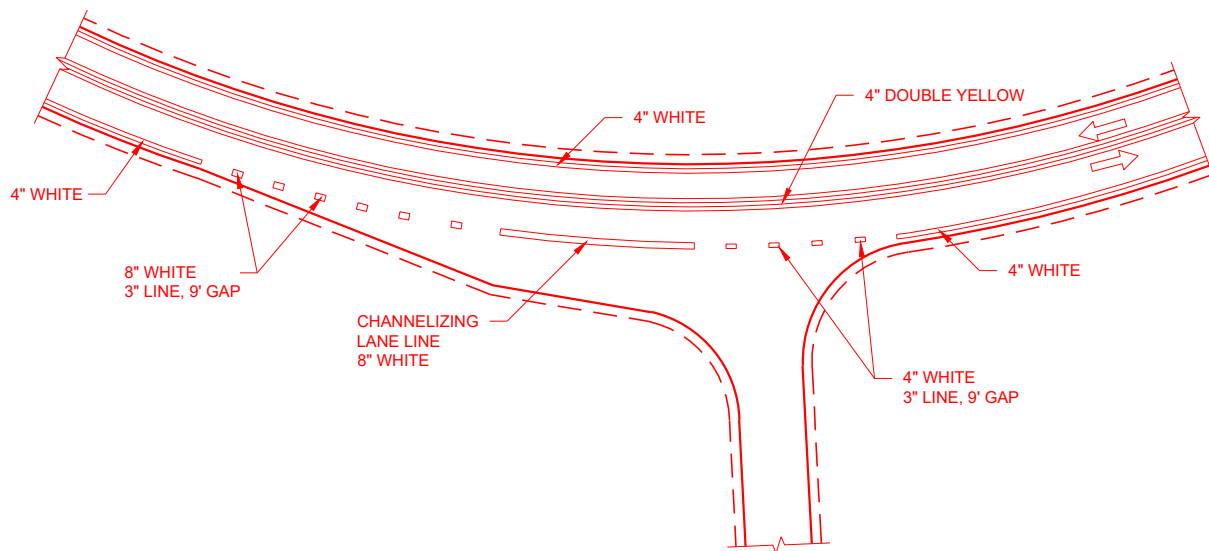
MAJOR INTERSECTIONS
(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)

GENERAL NOTES

OMIT EDGE LINES THROUGH INTERSECTIONS. CONTINUE EDGE LINES THROUGH DRIVEWAYS.

- ① WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
- ② WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
- ③ BARRIER LINE ENDS AT SIDE ROAD PAVEMENT / SURFACE EDGE EXTENSION.
- ④ BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER

ARROW SYMBOL (➞) SHOWS DIRECTION OF TRAVEL



INTERSECTION ON OUTSIDE OF CURVE

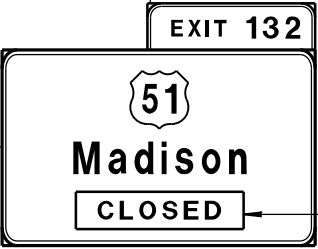
PAVEMENT MARKING
(INTERSECTIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



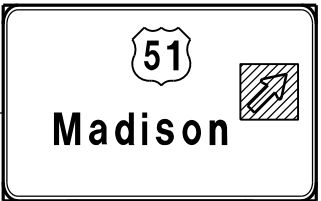
G20-60
108"x24"

OR



G20-60
108"x24"

PLACE SIGN G20-60 OVER MILEAGE
ON EXISTING E1-1A SIGN



COVER ARROW ON
EXISTING E4-1A
SIGN (COVERING
SIGNS TYPE I)

G20-61
120"x30"

GENERAL NOTES

THIS RAMP CLOSURE DETAIL IS TYPICAL FOR CLOSING A RIGHT SIDE EXIT RAMP. FOR A LEFT SIDE EXIT RAMP, REVERSE THE TRAFFIC CONTROL.

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

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

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

SIGNS THAT WILL BE IN PLACE LESS THAN 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.

PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF RAMP CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

WORK AREAS WITH A DROPOFF ALONG THE EDGE OF AN OPEN TRAVEL LANE SHALL BE LEVELED WITH TEMPORARY FILL WHEN THE CONTRACTOR IS NOT WORKING ADJACENT TO THE TRAVEL LANE. DRUMS SHALL BE PLACED ENTIRELY OUTSIDE THE TRAVEL LANE, ALLOWING THE FULL UNOBSTRUCTED LANE WIDTH, WHEN THE WORK IS NOT IN PROGRESS.

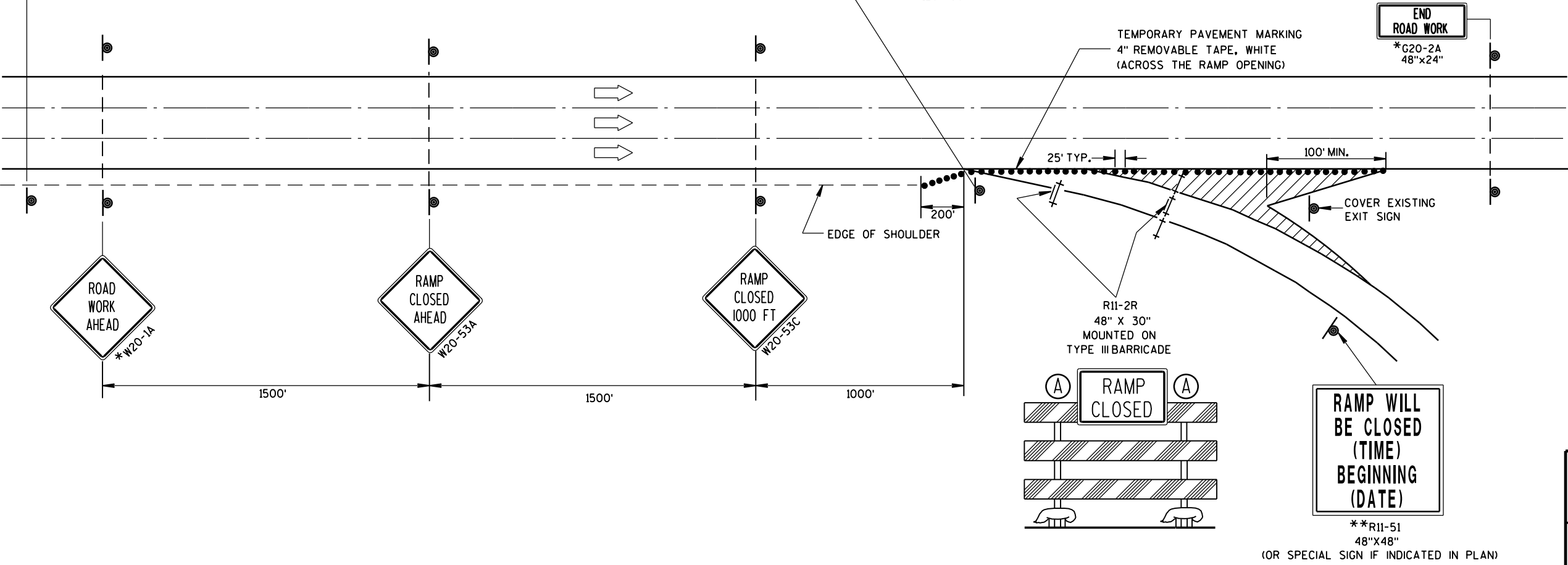
WHERE MEDIAN BARRIER IS IN PLACE, SIGNS SHOWN ON LEFT SIDE OF ROADWAY MAY BE OMITTED FOR RIGHT SIDE RAMP CLOSURES OF LESS THAN 12-HOUR DURATION.

* W20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE RAMP CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

** PLACE "RAMP WILL BE CLOSED" SIGN 7 CALENDAR DAYS PRIOR TO CLOSURE OR AS DIRECTED BY THE ENGINEER. SEE WISCONSIN STANDARD SIGN PLATES FOR SIGN LAYOUT.

6

6



LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC

TRAFFIC CONTROL, EXIT RAMP CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

S.D.D. 15 D 16-3

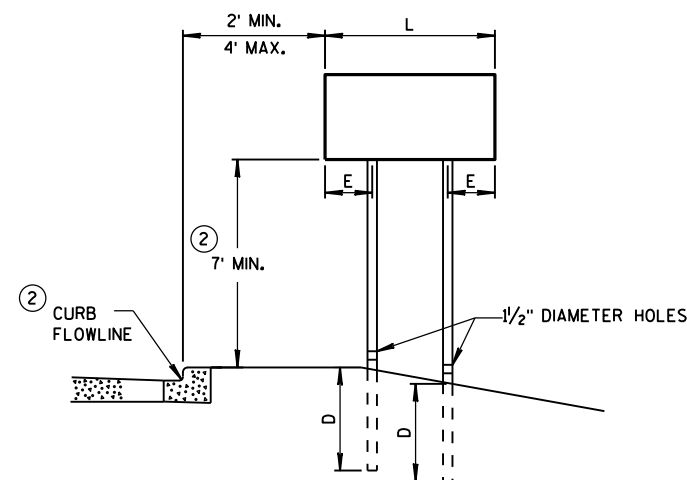
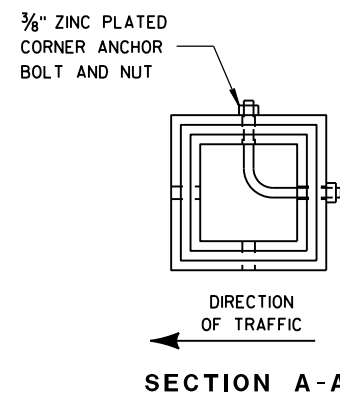
S.D.D. 15 D 16-3



TUBULAR STEEL POSTS

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

SIGNS LARGER THAN 27 SQ.FT. SHALL NOT BE MOUNTED ON TUBULAR STEEL POSTS.

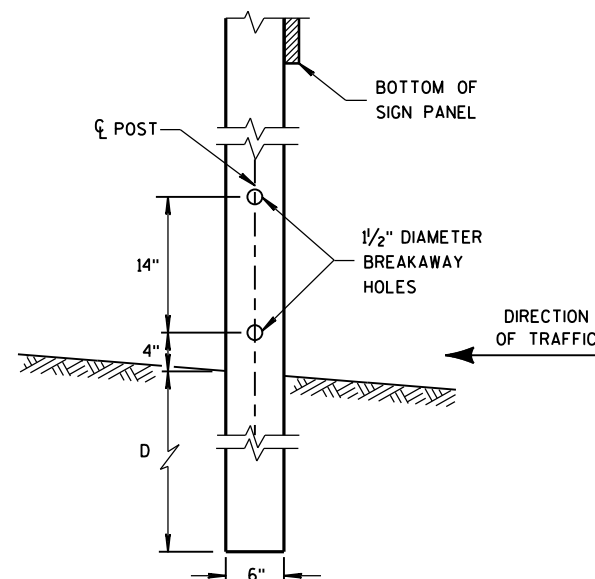


URBAN AREA

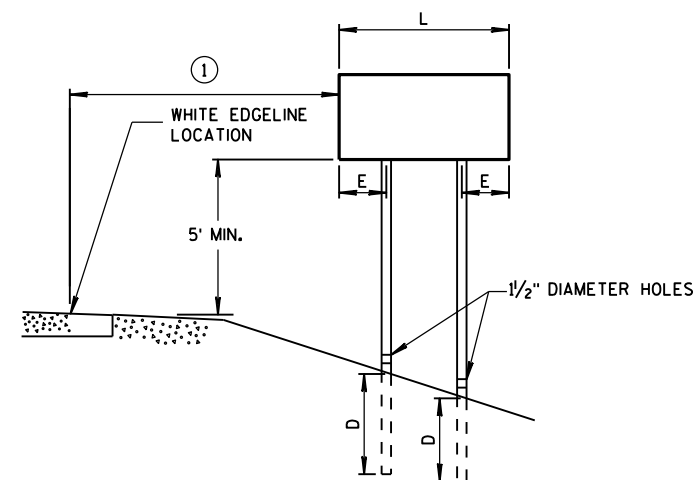
POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

WOOD POST
EMBEDMENT DEPTH

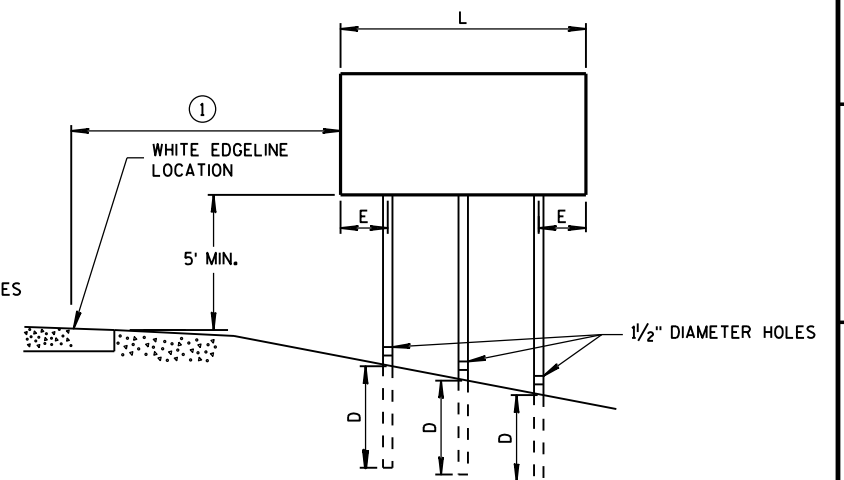
AREA OF SIGN INSTALLATION (SQ. FT.)	D (MIN)
20 OR LESS	4'
GREATER THAN 20	5'



4"x6" WOOD POST MODIFICATION



RURAL AREA



GENERAL NOTES

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

4" X 6" WOOD POST

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

SEE NOTE (3)

TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



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

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

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

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

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

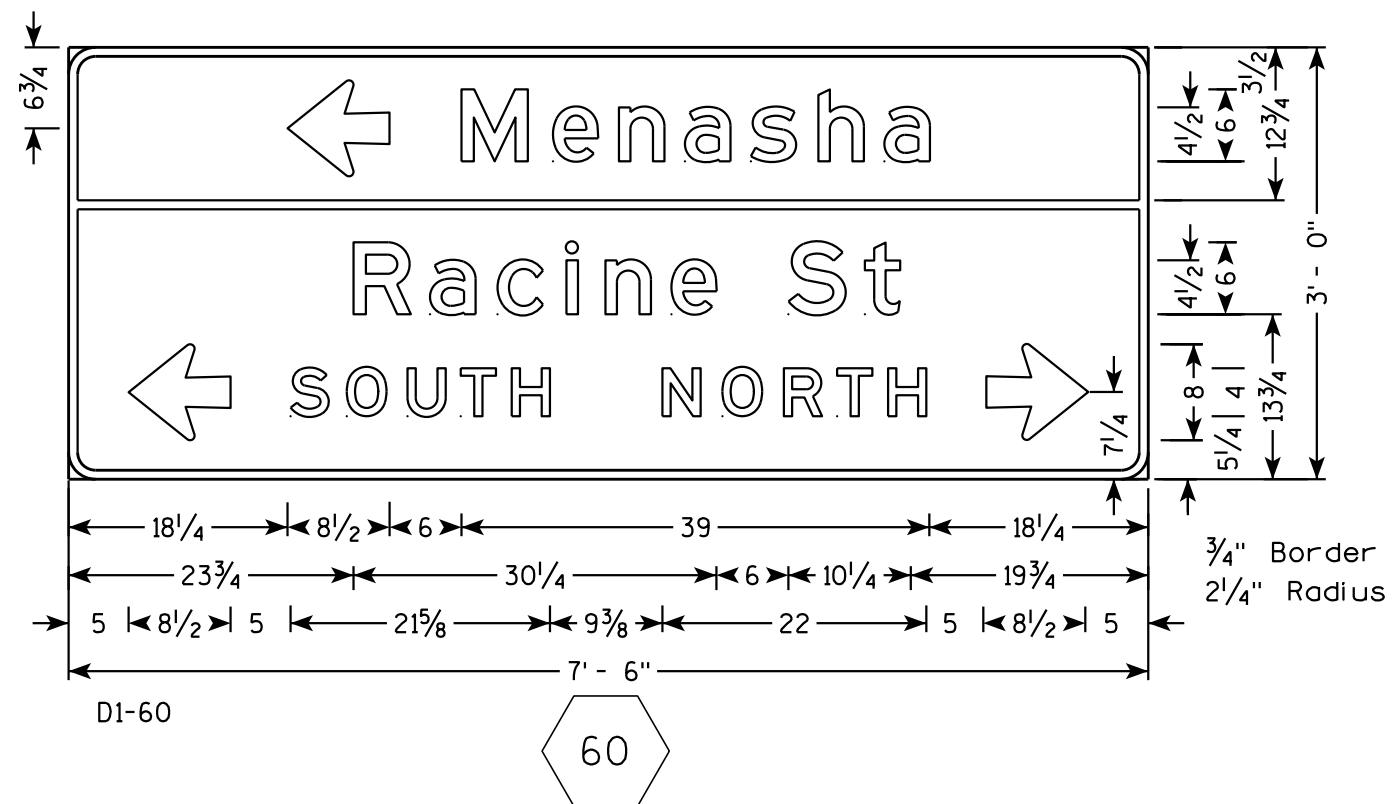
- WASHERS (ALL POSTS) -
- 1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
 - 1-1/4" O.D. X 3/8" I.D. X .080 NYLON FOR ALL TYPE H SIGNS

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

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

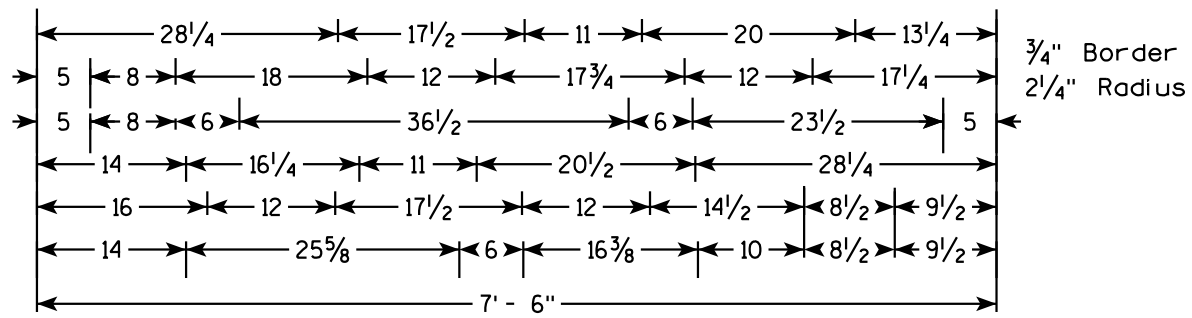
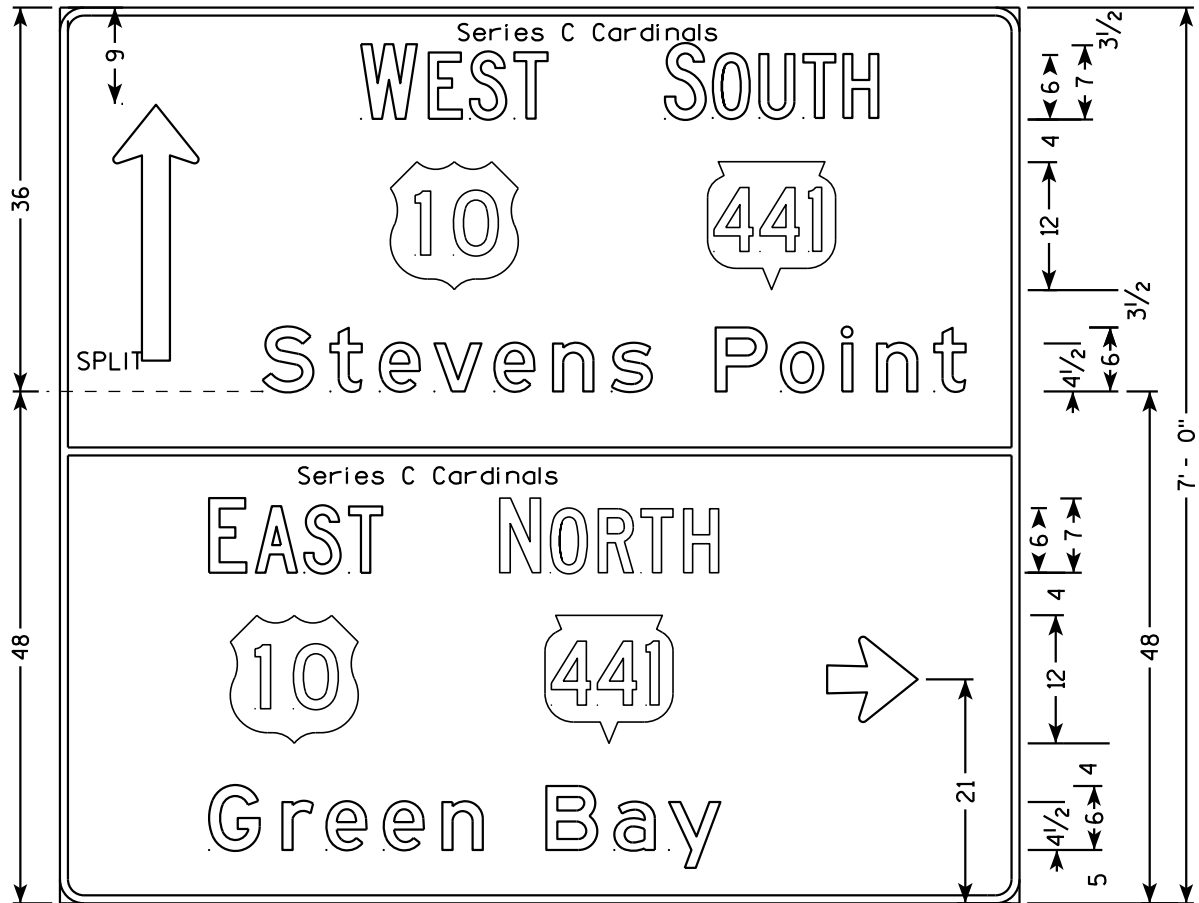
NOTES

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



NOTES

1. All SignType II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - GREEN
Message - WHITE
3. Message Series - E except as Shown

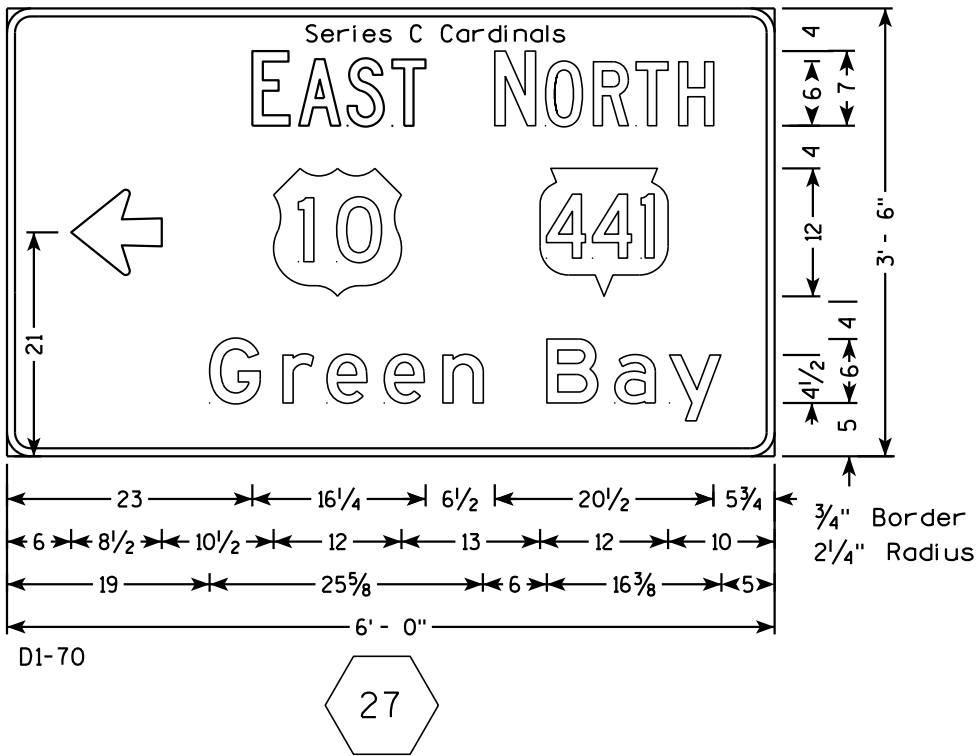
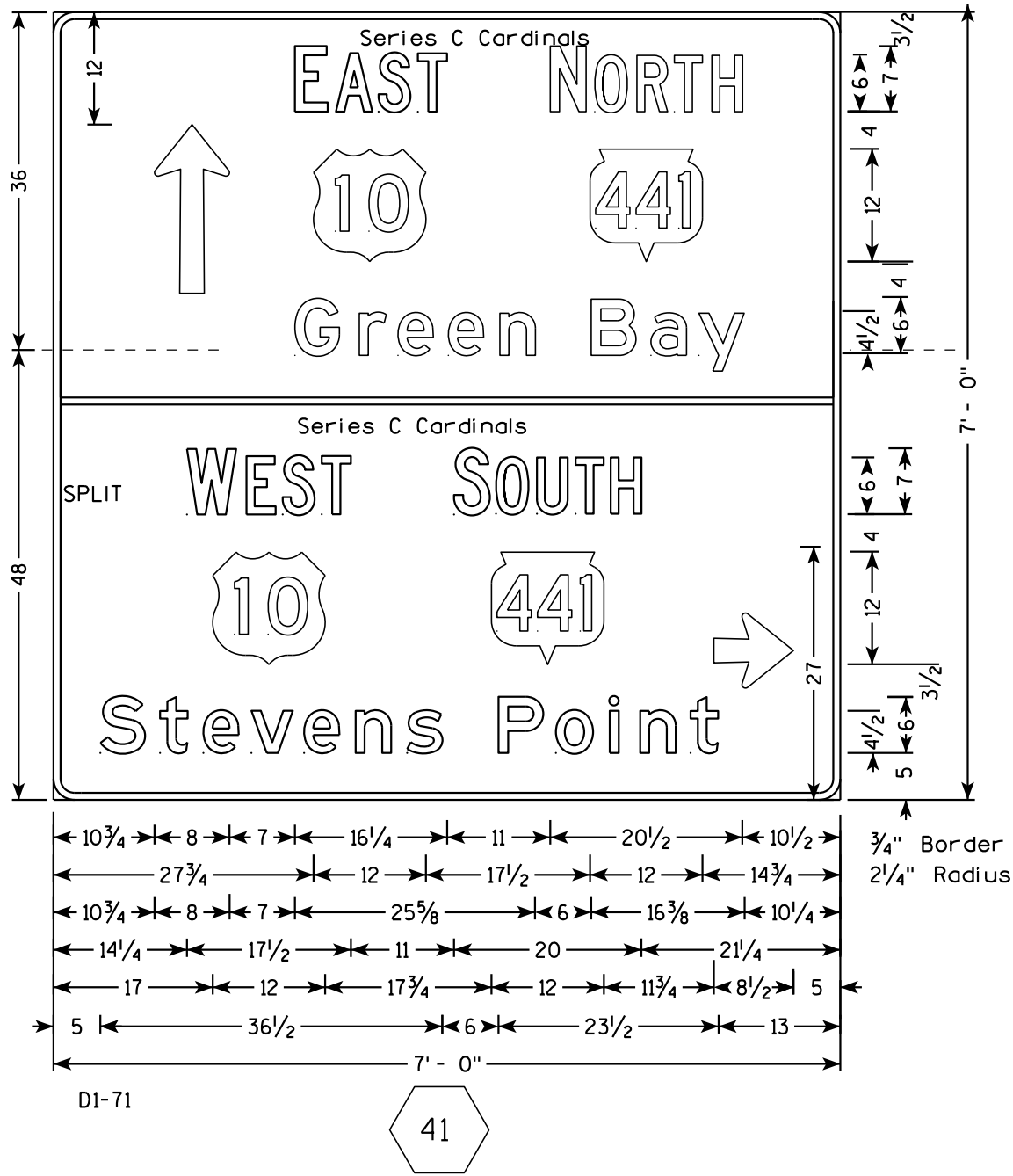


D1-71

26

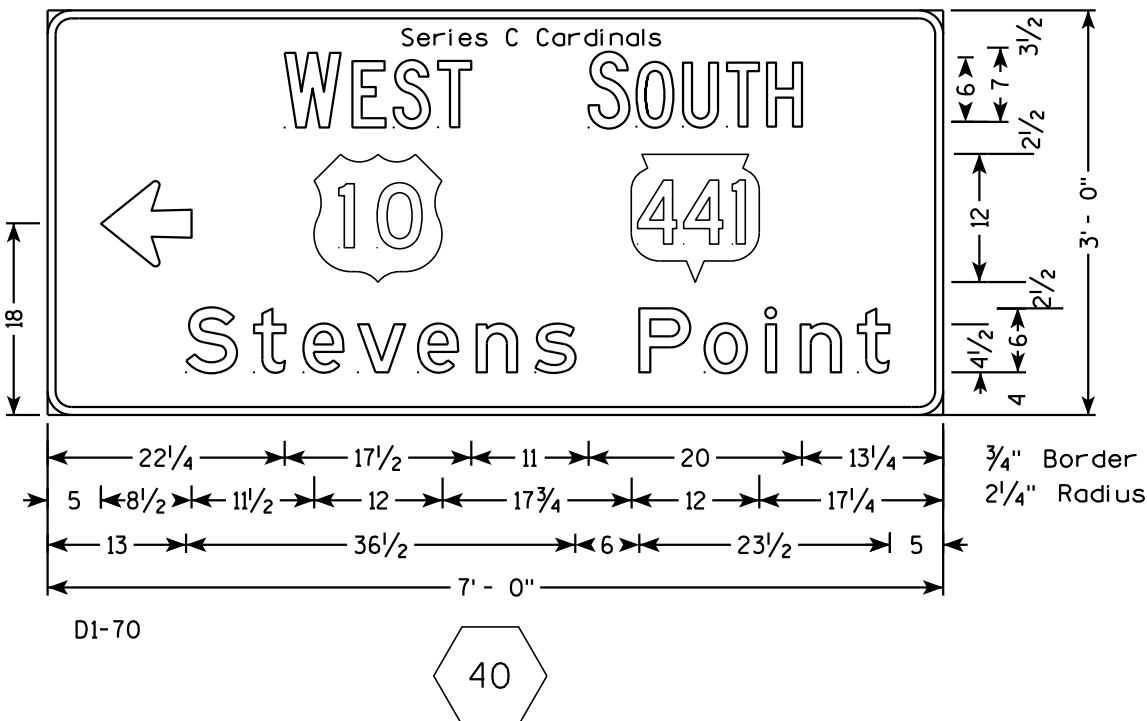
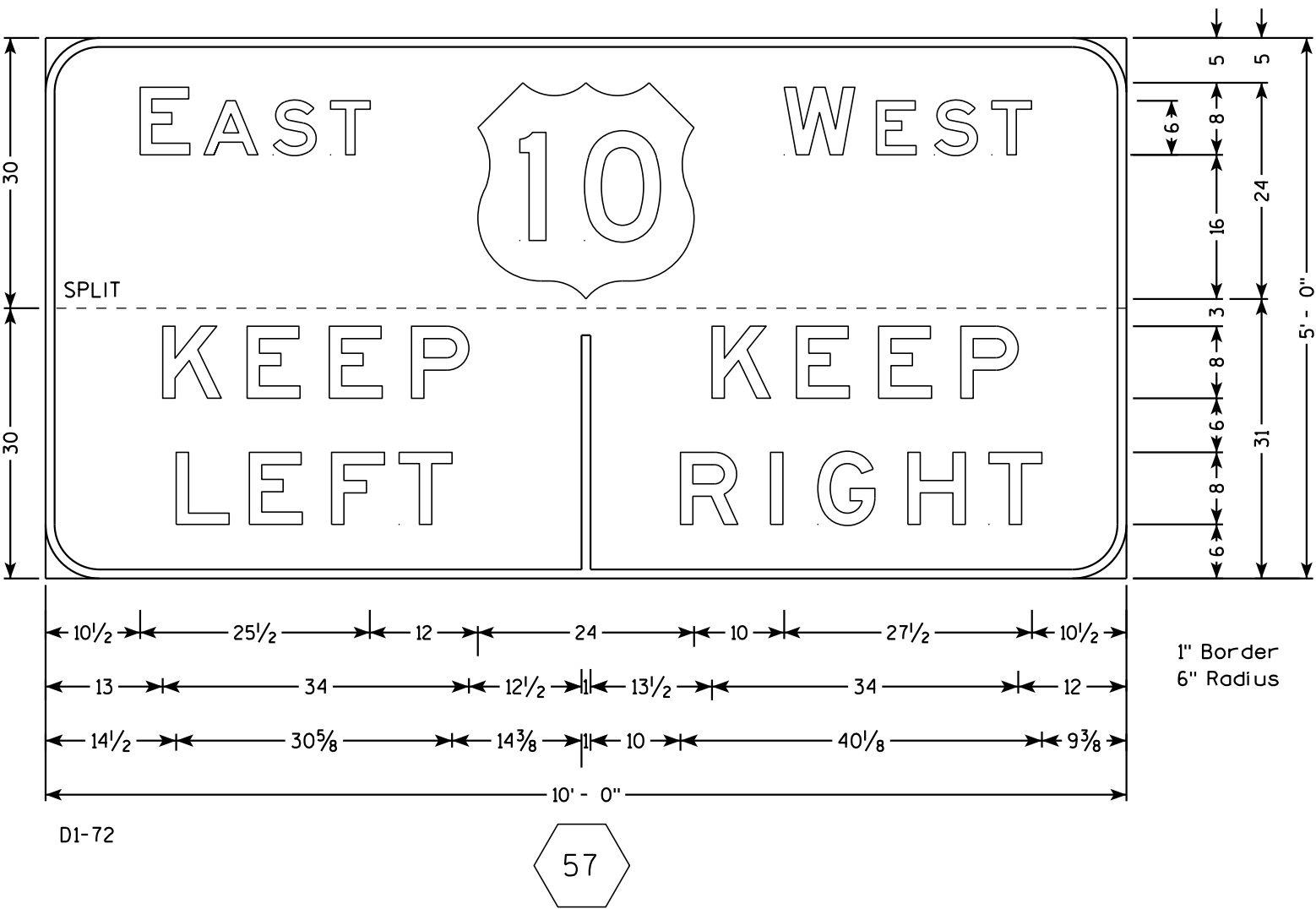
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Message - WHITE
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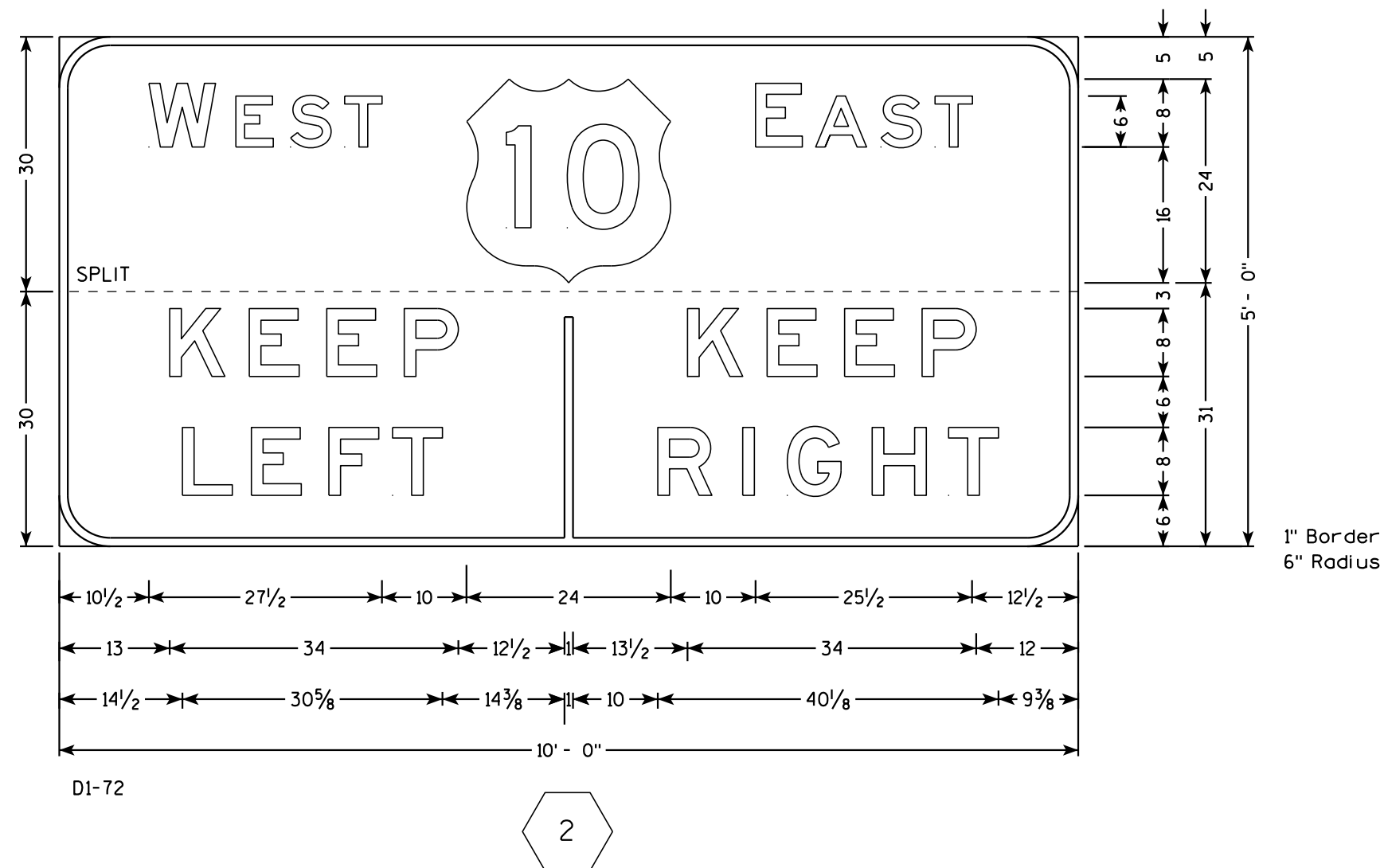
NOTES

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and STRUCTURE CONSTRUCTION latest edition.
2. Color:
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Message - WHITE
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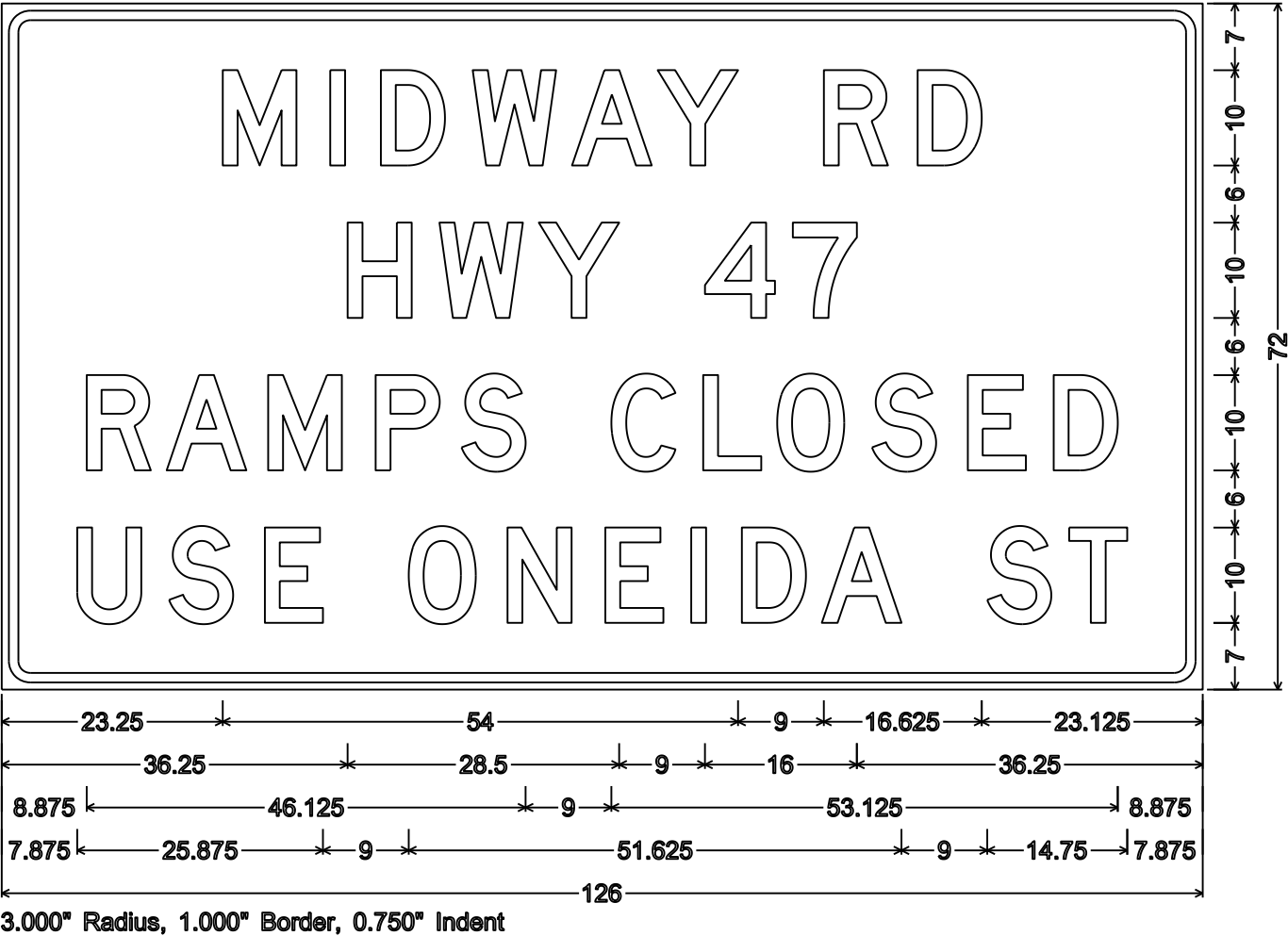
NOTES

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



NOTES

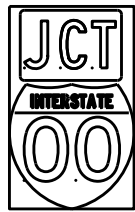
- 1. All Signs Type II - Type F Reflective
- 2. Color:
 - Background - Orange
 - Message - Black
- 3. Message Series - D



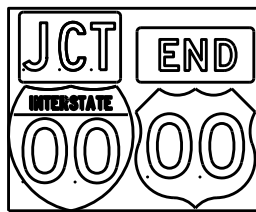
7

7

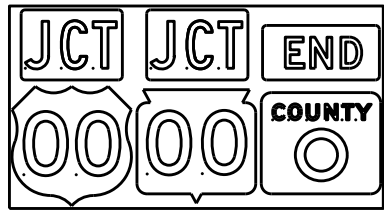
TYPICAL ASSEMBLIES



J1-1



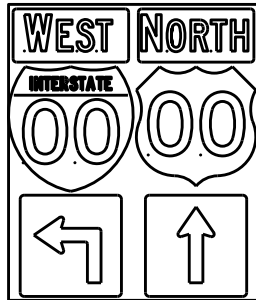
J1-2



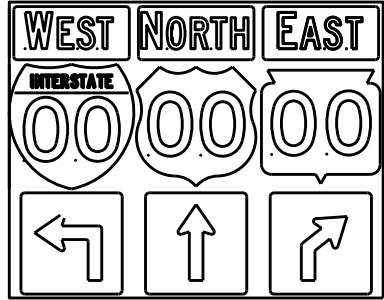
J1-3



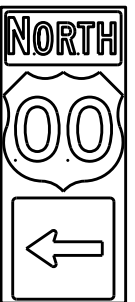
J2-1



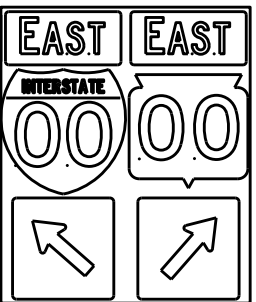
J2-2



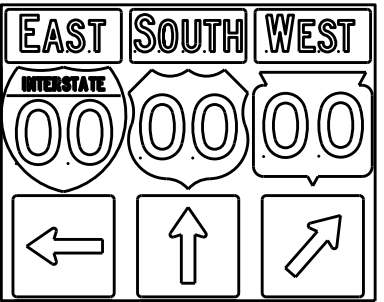
J2-3



J3-1



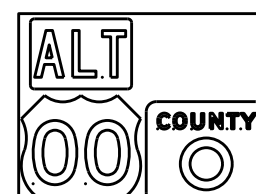
J3-2



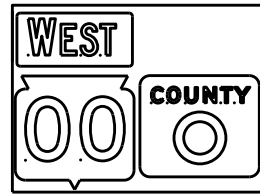
J3-3



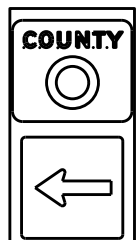
J4-1



J4-2



J4-2



J13-1



J12-1



J32-1



J33-1



J23-1

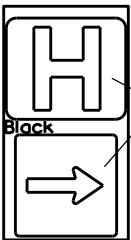


J22-1



JV

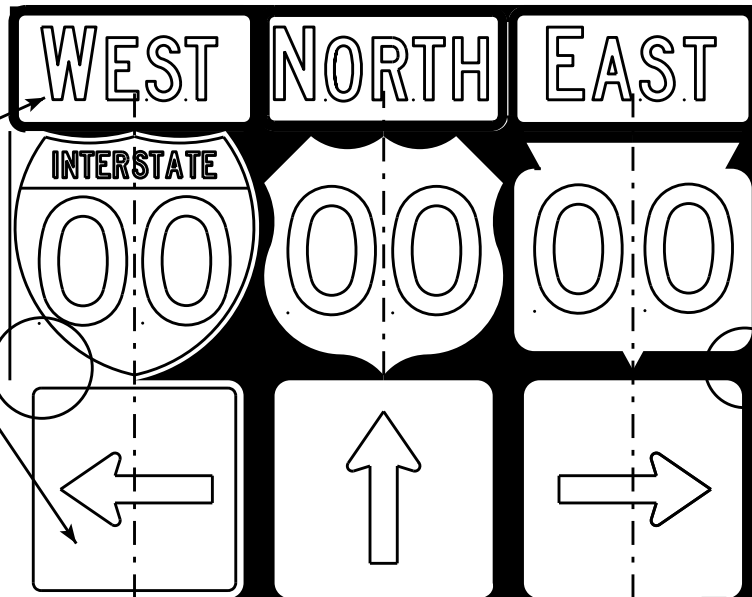
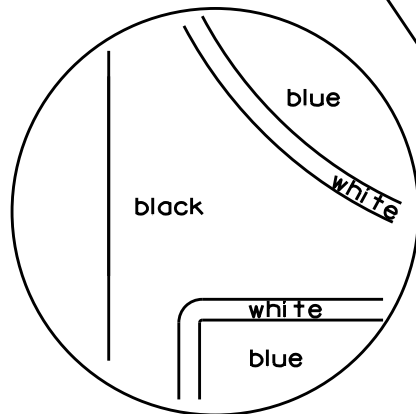
(Typical Vertical J-Assembly
See Note 10 and 11)



JH-1

Blue Background

[blue background
with interstate]



[black background]

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 2/06/14 PLATE NO. A2-1S.8

NOTES

1. Signs are Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Black Non-reflective
Message - see Note 5
3. Message Series - See Note 5
4. Corners shall be square or rounded if base material is plywood. If base material is metal the corners shall be rounded.
5. The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
6. 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.
7. 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.
8. 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.
9. 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.
10. All Vertical J Assemblies are given a Sign Code of JV
11. For JV Assemblies that have a mixture of Interstate and non Interstate shields, arrows and cardinals shall be white on blue.

PROJECT NO:

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A21S.DGN

PLOT DATE : 06-FEB-2014 14:10

PLOT BY : mscs.ja

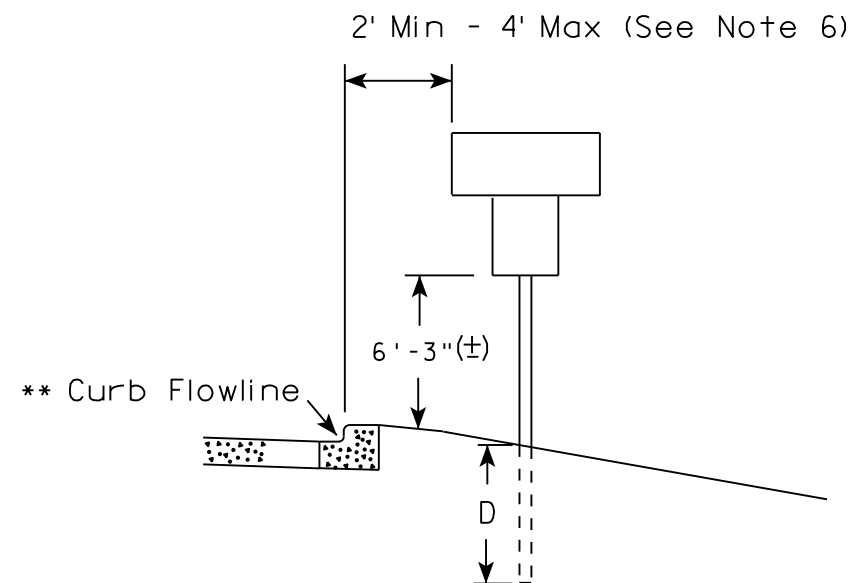
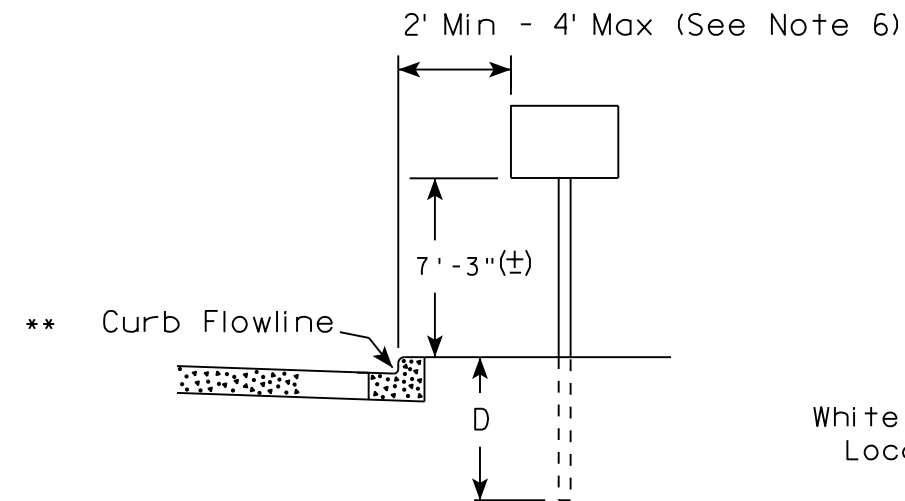
PLOT NAME :

SHEET NO:

E

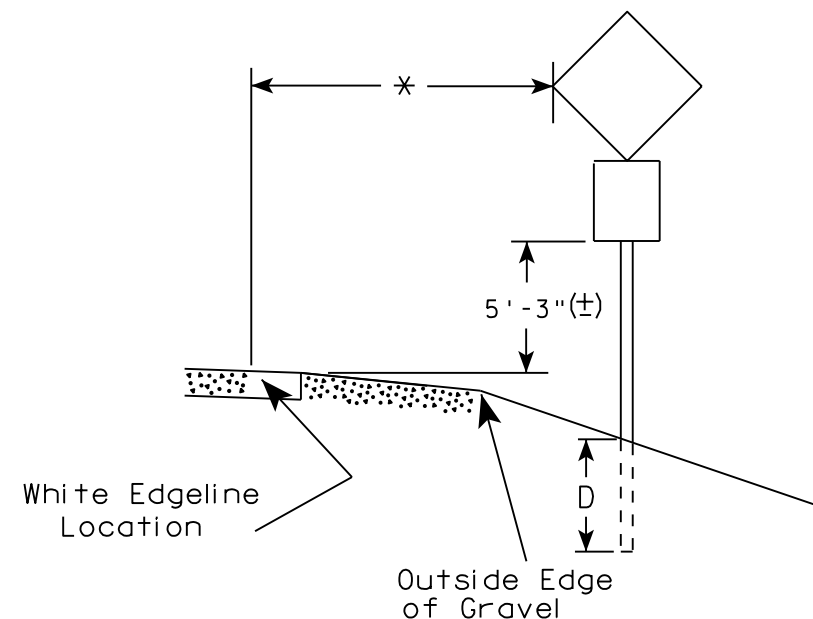
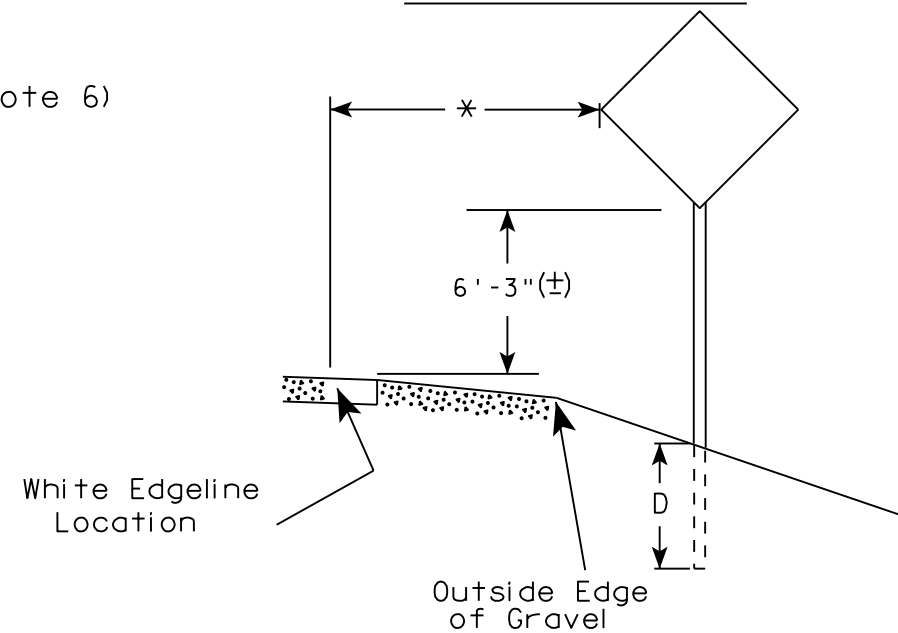
WISDOT/CADDs SHEET 42

URBAN AREA



✱✱ 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.

RURAL AREA (See Note 2)



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

POST EMBEDMENT DEPTH

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

GENERAL NOTES

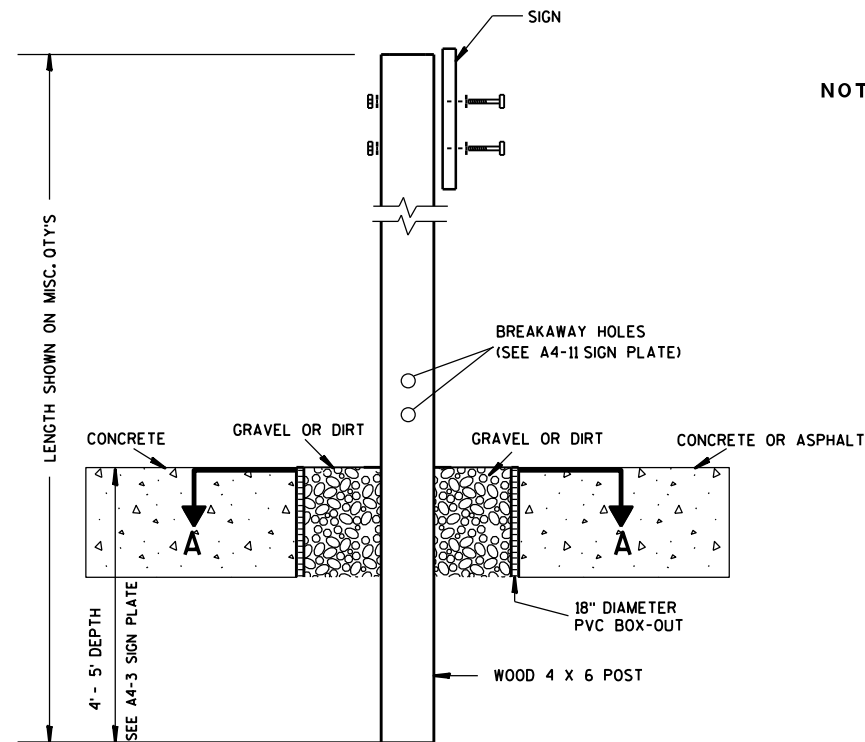
1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. J-Assemblies are considered to be one sign for mounting height.
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 signs 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), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

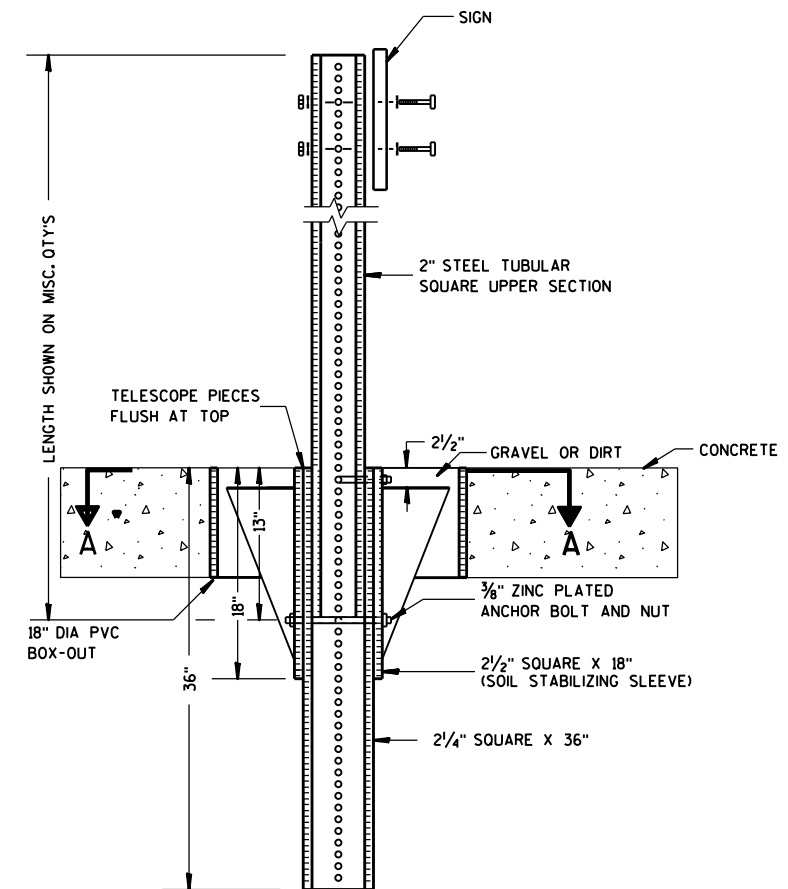
DATE 8/21/17 PLATE NO. A4-3.21



ELEVATION VIEW

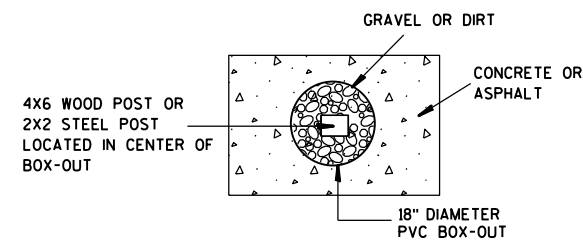
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST
BOX-OUTS
A4-3B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 1/27/14 PLATE NO. A4-3B.1

PROJECT NO:

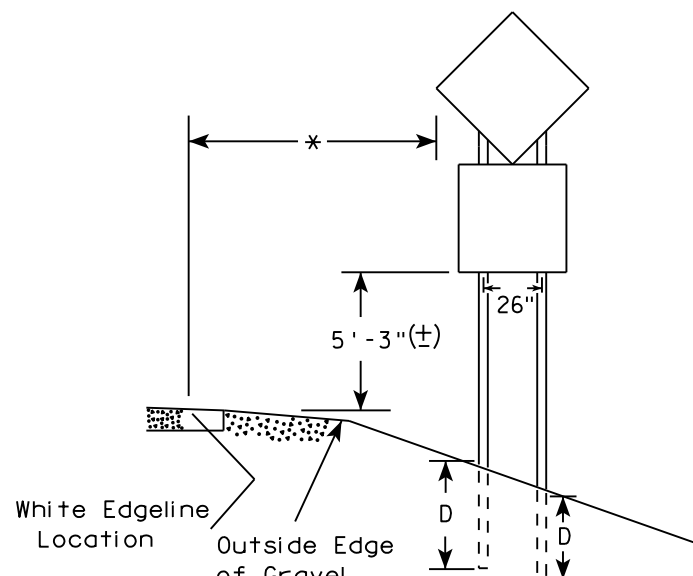
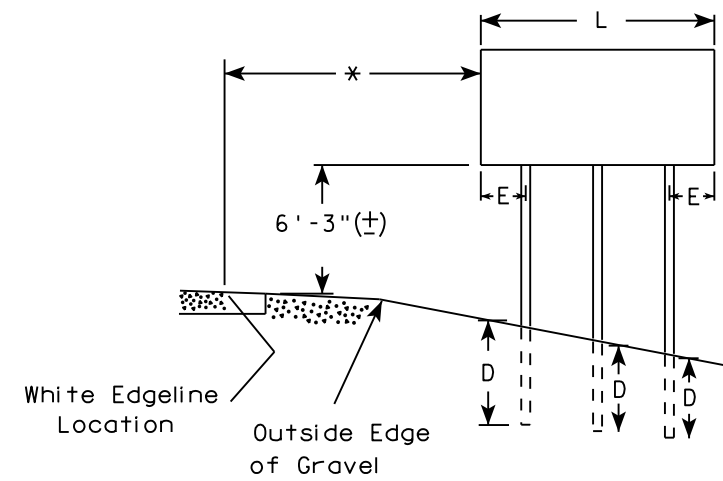
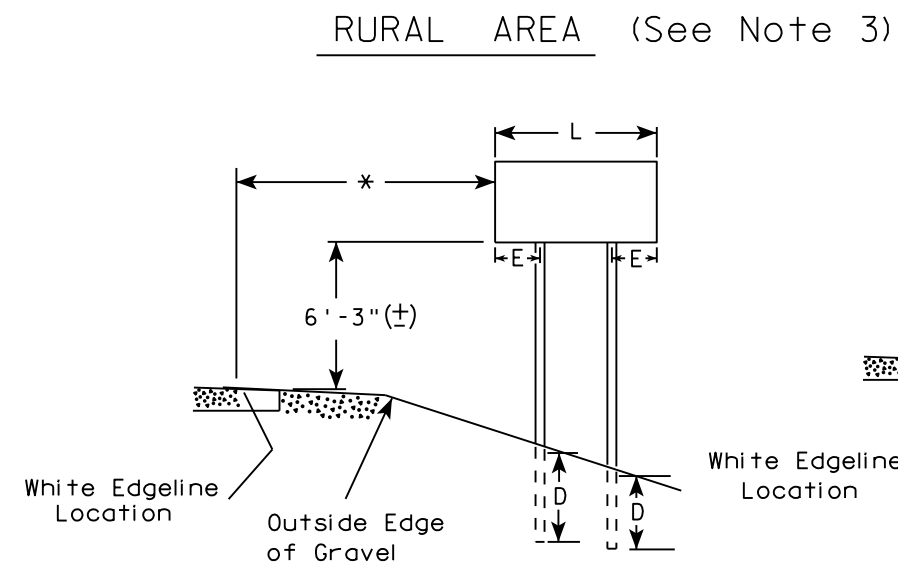
HWY:

COUNTY:

SHEET NO:

E

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (\pm) or 6'-3" (\pm) depending upon existence of sub-sign.
4. The (\pm) tolerance for mounting height is 3 inches.
5. J-Assemblies are considered to be one sign for mounting height.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs shall be mounted at a height of 5'-3" (\pm) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (\pm). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (\pm).



- * 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 and less than 20 S.F. in area.

***	SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
	L	E
	Greater than 48" Less than 60"	12"
	60" to 108"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	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	<u>Matthew R Rauch</u> For State Traffic Engineer
DATE 8/21/17	PLATE NO. A4-4.15



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.

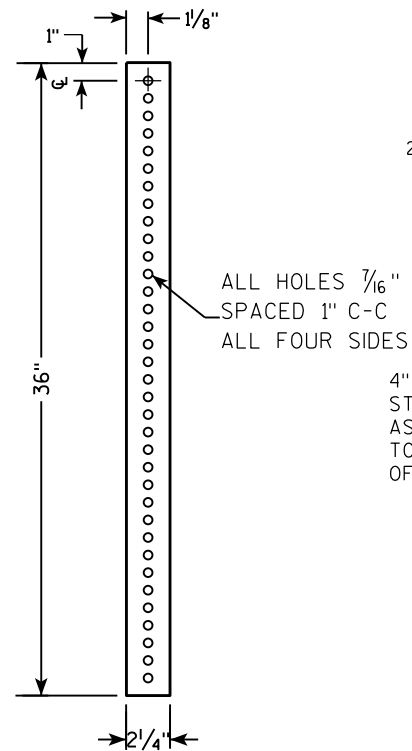
Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

- STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)
- MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts
- WOOD POSTS (4" x 4" or 4" x 6")
- LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
 - 3/8" X 4" (STRINGERS ON BACK OF SIGN)
- SQUARE STEEL POSTS (2" x 2")
- MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
 - 3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)
- RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
- O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH
- WASHERS (ALL POSTS) -
- 1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
 - 1-1/4" O.D. X 3/8" I.D. X .080 NYLON

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

ATTACHMENT OF SIGNS TO POSTS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 8/11/16	PLATE NO. A4-8.8

**2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH**



LENGTH SHOWN ON MISC. QTY'S
 18" DIA SCHEDULE 40 PVC BOX-OUT
 TELESCOPE PIECES FLUSH AT TOP
 36"
 18"
 13"
 2 1/2"
 2 1/4" SQUARE X 36"
 2 1/2" SQUARE X 18" (SOIL STABILIZING SLEEVE)
 3/8" ZINC PLATED ANCHOR BOLT AND NUT
 3/8" ZINC PLATED CORNER ANCHOR BOLT AND NUT
 ALL HOLES 7/16" SPACED 1" C-C ALL FOUR SIDES
 2" STEEL TUBULAR SQUARE UPPER SECTION
 SEE SIGN PLATE A4-8 FOR BOLT WASHER, & NUT MATERIAL
 SIGN
 2 1/2" GRAVEL OR DIRT

[illegible]

DIRECTION
OF TRAFFIC

SECTION A-A

Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch

for State Traffic Engineer

DATE 2/05/15 PLATE NO. A4-9.9

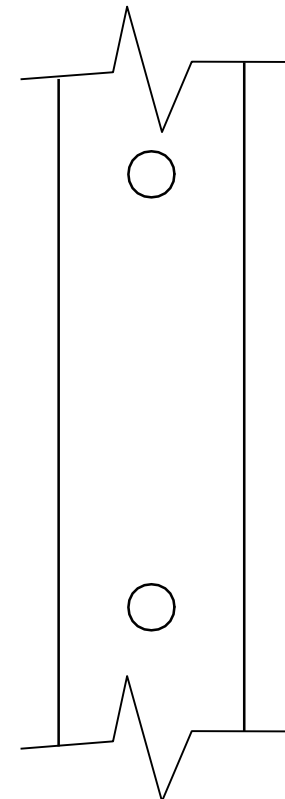
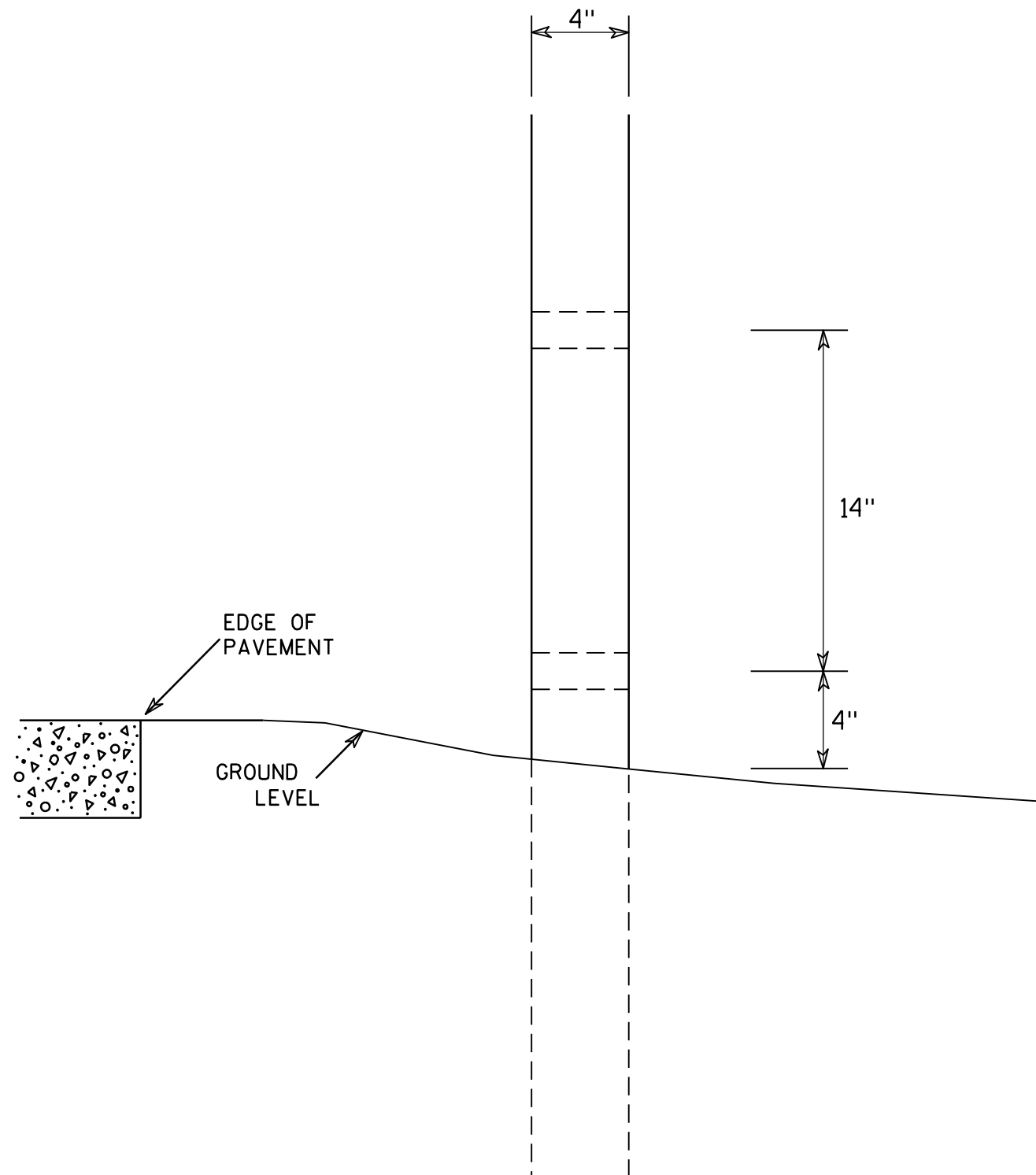
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

11



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1 1/2" diameter holes drilled perpendicular to the roadway centerline.

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Chester J. Spang
for State Traffic Engineer

DATE 3/27/97

PLATE NO. A4-11.2

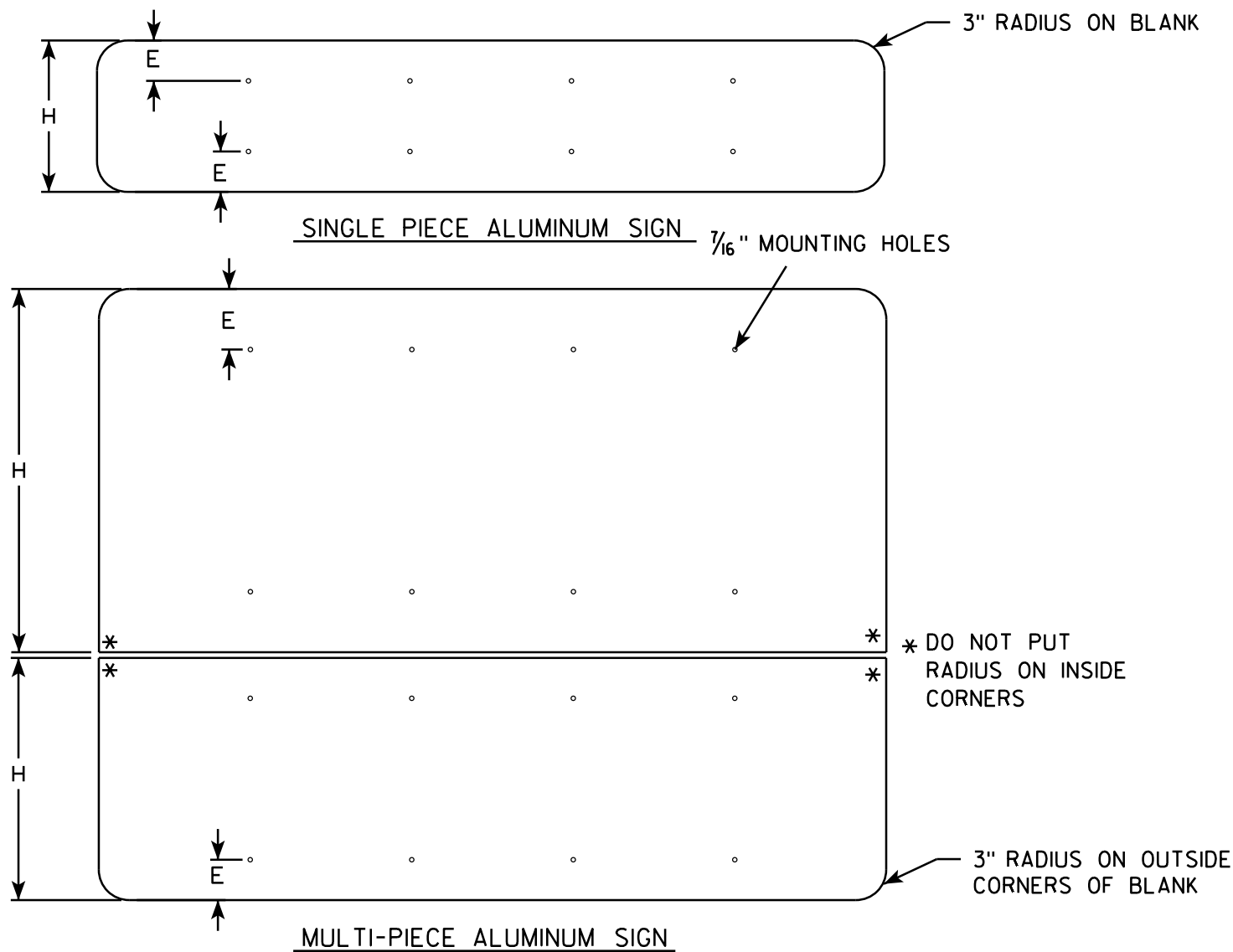
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

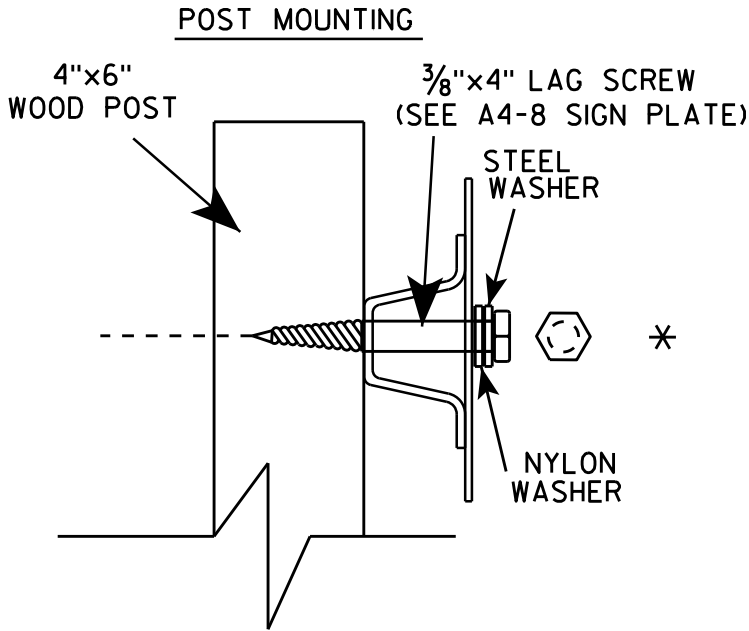
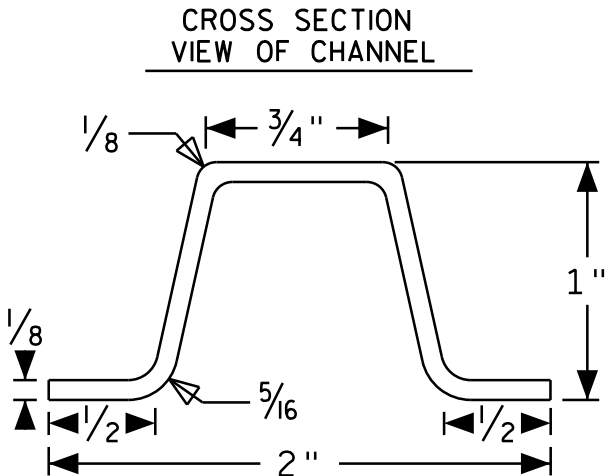
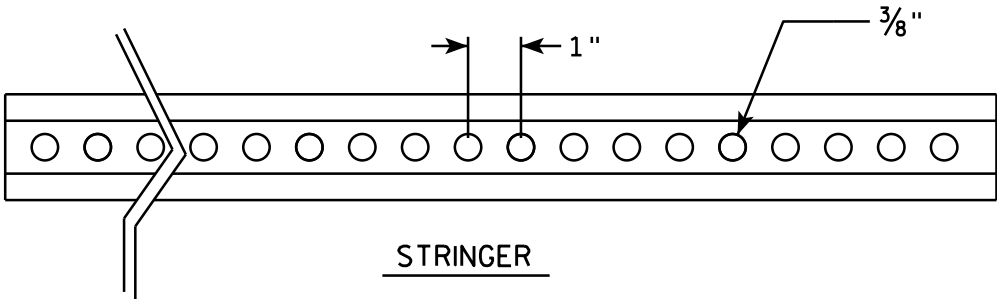
E



GENERAL NOTES

- ALL SIGNS OVER 60" IN WIDTH SHALL HAVE A 3" RADIUS ON THE OUTSIDE CORNERS OF THE ALUMINUM BLANK.
- MOUNTING HOLES SHALL BE 7/16" DIAMETER.
- SEE CHART FOR HOLE SPACING REQUIREMENTS
- FOR SIGN PANELS WITH DIMENSION (H) 36" AND OVER, DIMENSION E SHALL BE 6"
- FOR SIGN PANELS WITH DIMENSION (H) UNDER 36", DIMENSION E SHALL BE 4"
- SIGN STRINGER MATERIAL SHALL CONSIST OF STEEL CHANNEL POST SECTIONS, WEIGHING 1.12 LBS/FT IN ACCORDANCE WITH SECTION 633.2.1 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.
- SEE SIGN PLATE A4-8 FOR SIGN STRINGER BOLTING REQUIREMENTS.

SIGN WIDTH	STRINGER WIDTH	POSTS	HOLE SPACING	MOUNTING HOLES			
78"	72"	2	16"	15"	31"	47"	63"
84"	72"	2	17"	16 1/2"	33 1/2"	50 1/2"	67 1/2"
90"	72"	2	18"	18"	36"	54"	72"
96"	90"	2	19"	19 1/2"	38 1/2"	57 1/2"	76 1/2"
102"	90"	2	20"	21"	41"	61"	81"
108"	90"	2	21"	22 1/2"	43 1/2"	64 1/2"	85 1/2"
114"	108"	3	15"	12"	27"	42"	57" 72" 87" 102"
120"	108"	3	16"	12"	28"	44"	60" 76" 92" 108"
126"	108"	3	17"	12"	29"	46"	63" 80" 97" 114"
132"	126"	3	18"	12"	30"	48"	66" 84" 102" 120"
138"	126"	3	19"	12"	31"	50"	69" 88" 107" 126"
144"	126"	3	20"	12"	32"	52"	72" 92" 112" 132"



SIGN STRINGER
MOUNTING REQUIREMENTS

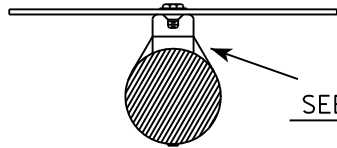
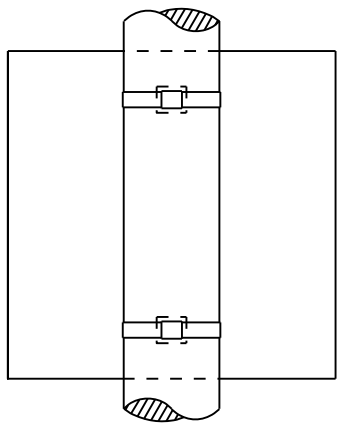
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 4/26/16 PLATE NO. A4-18.1

BANDING

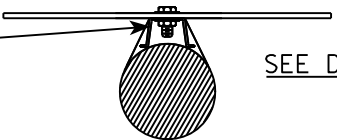
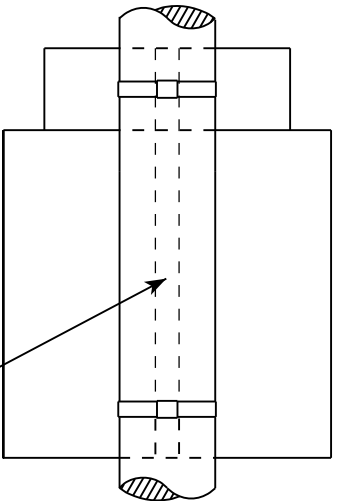
SINGLE SIGN



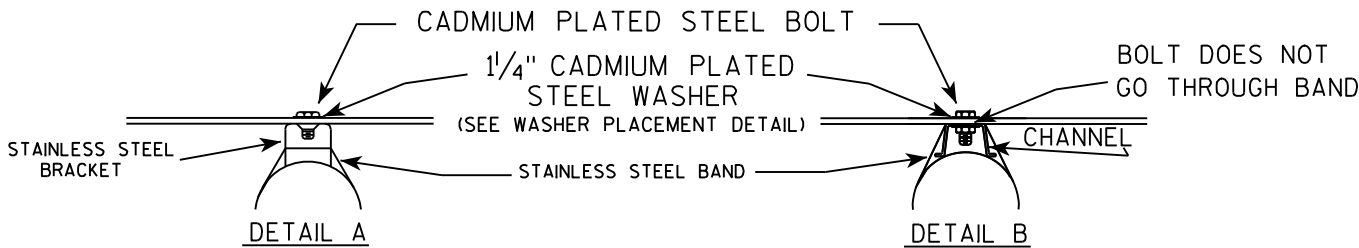
SEE DETAIL A

CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET

"J" ASSEMBLY



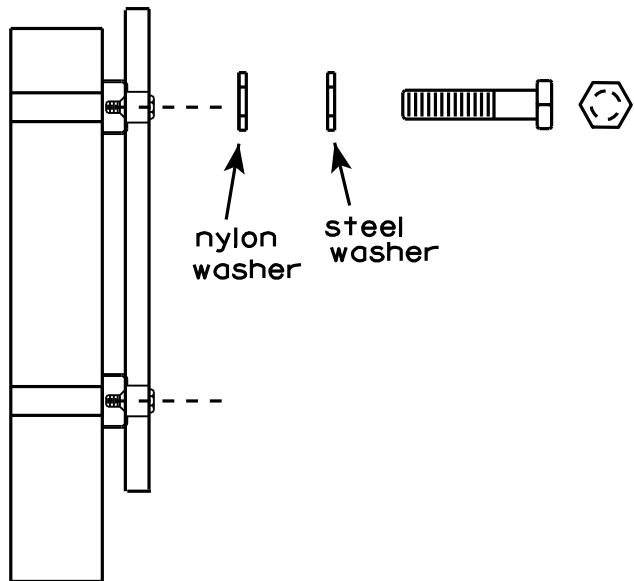
SEE DETAIL B



GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be $\frac{3}{4}$ " in width and 0.025" thickness.

WASHER PLACEMENT



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

STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch
for State Traffic Engineer

DATE 8/16/13

PLATE NO. A5-9.3

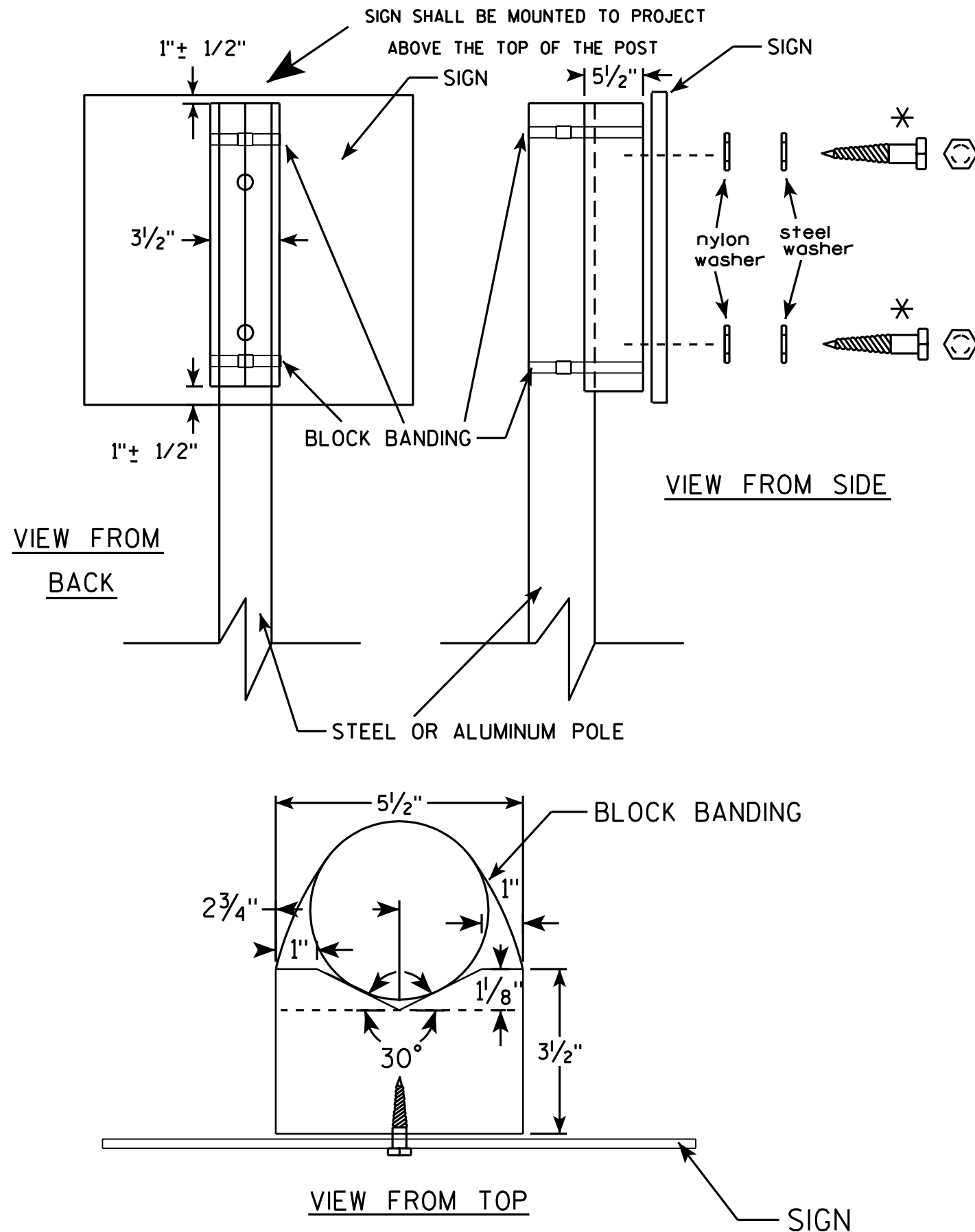
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



GENERAL NOTES

1. WOOD 4"x6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WISDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, 3/4" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORMALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
 - a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D, or
 - b. Cadmium plated in accordance with ASTM Designation : B 766 TYPE 3, Class 12, or
 - c. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1 1/4" O.D. X 3/8" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1 1/4" O.D. X 3/8" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✱ LAG BOLTS SHALL BE 3/8" X 2 1/2"

BLOCK BANDING DETAIL
(V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 7/12/07 PLATE NO. A5-10.1

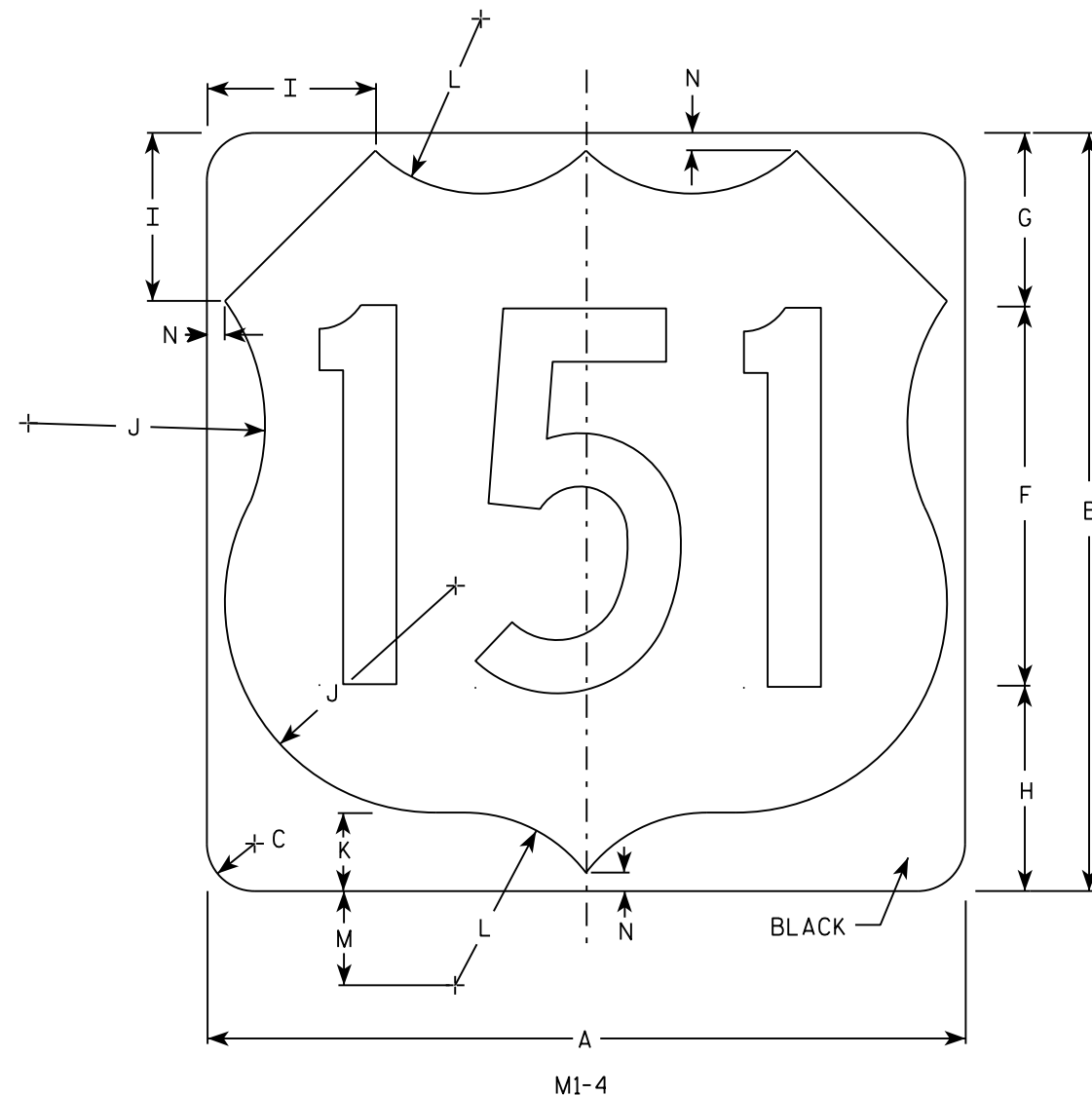
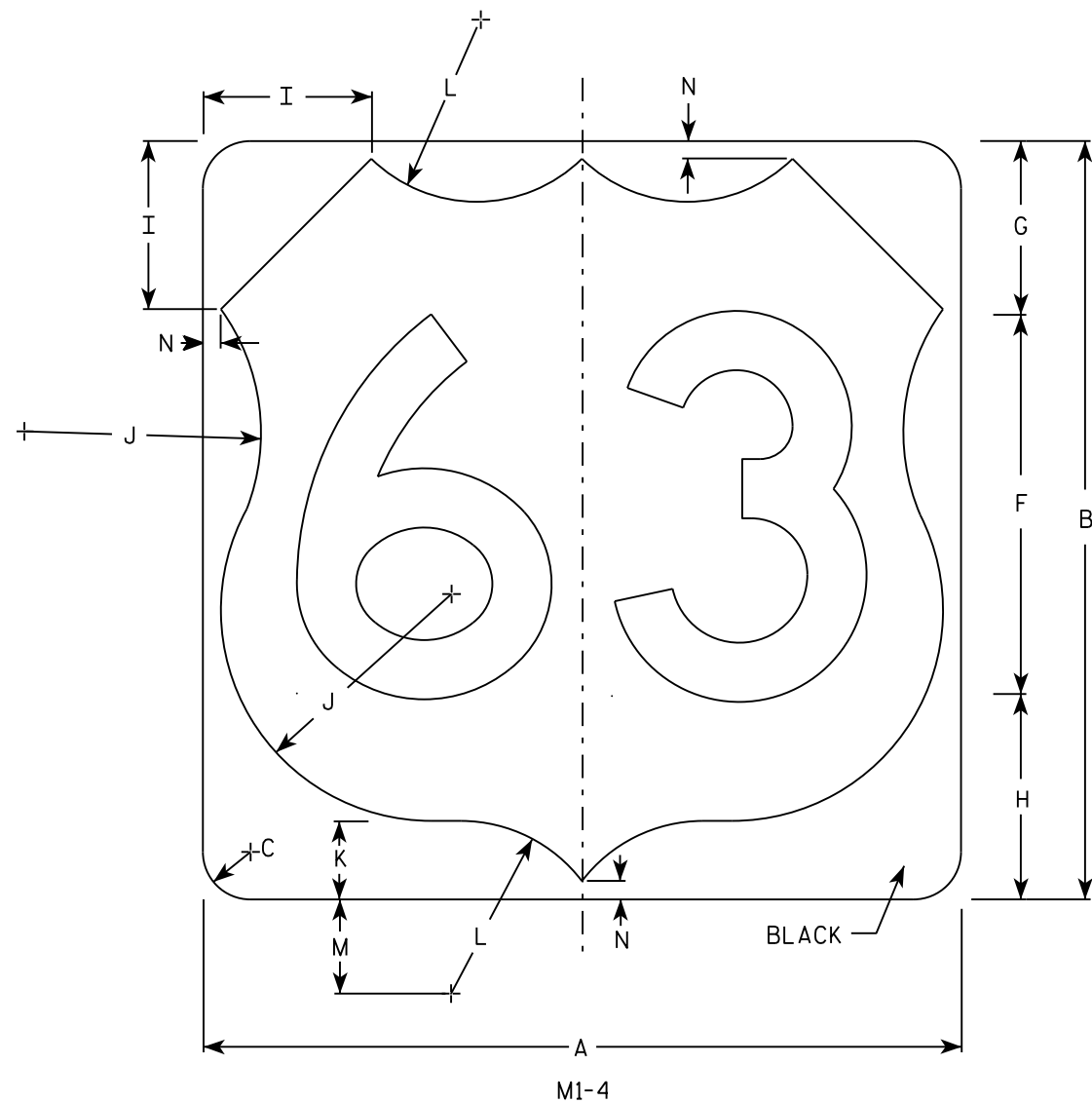
PROJECT NO:

SHEET NO:

E

NOTES

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



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	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
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
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
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

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E
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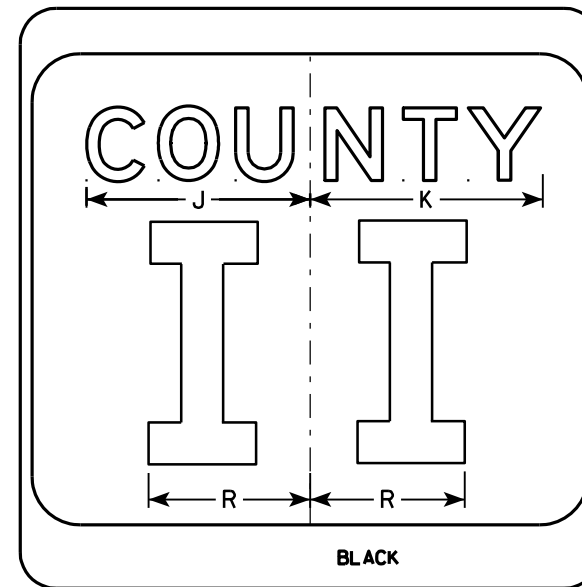
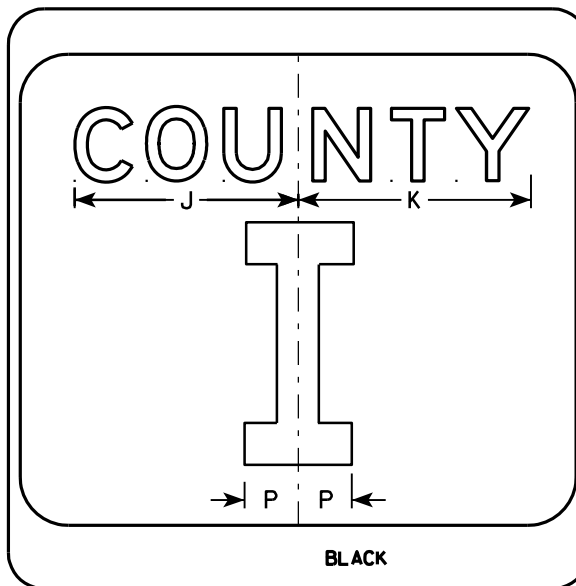
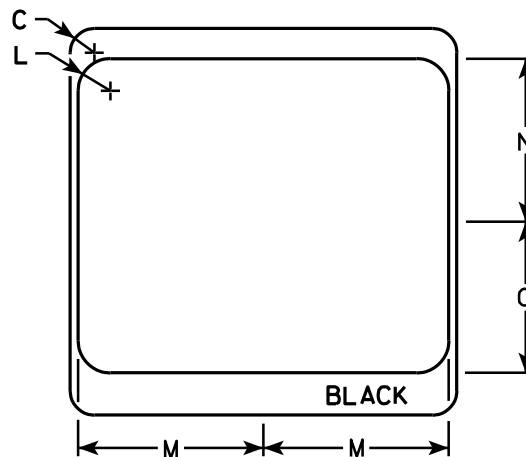
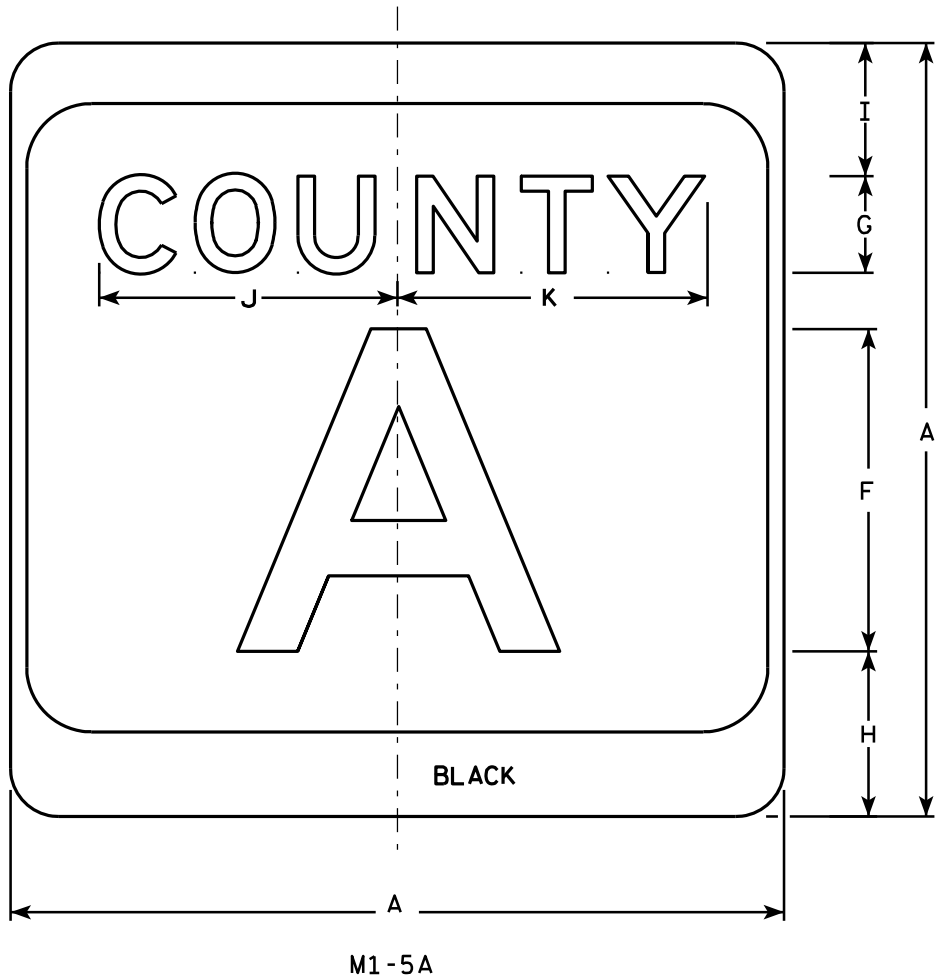
USH MARKER
M1-4 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/16/18 PLATE NO. M1-4.10

7



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

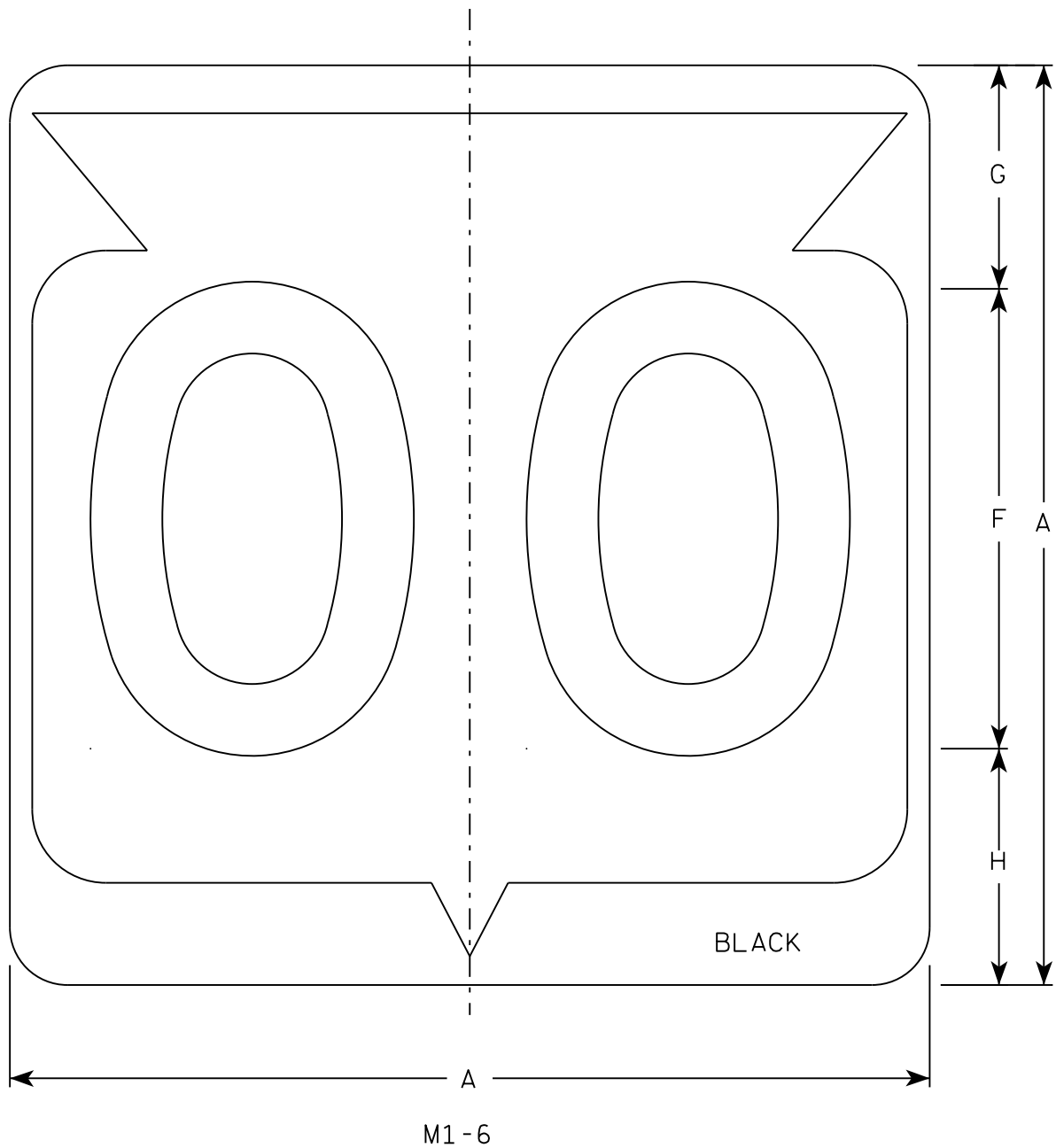
PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
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CTH MARKER
M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

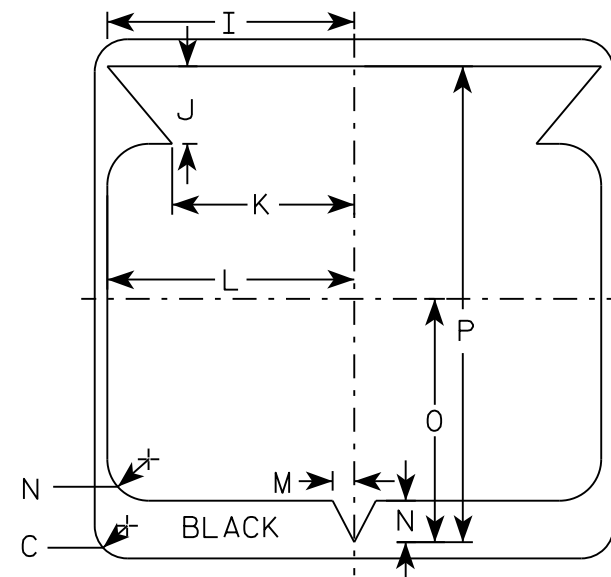
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

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



NOTES

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



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

STATE ROUTE MARKER
M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

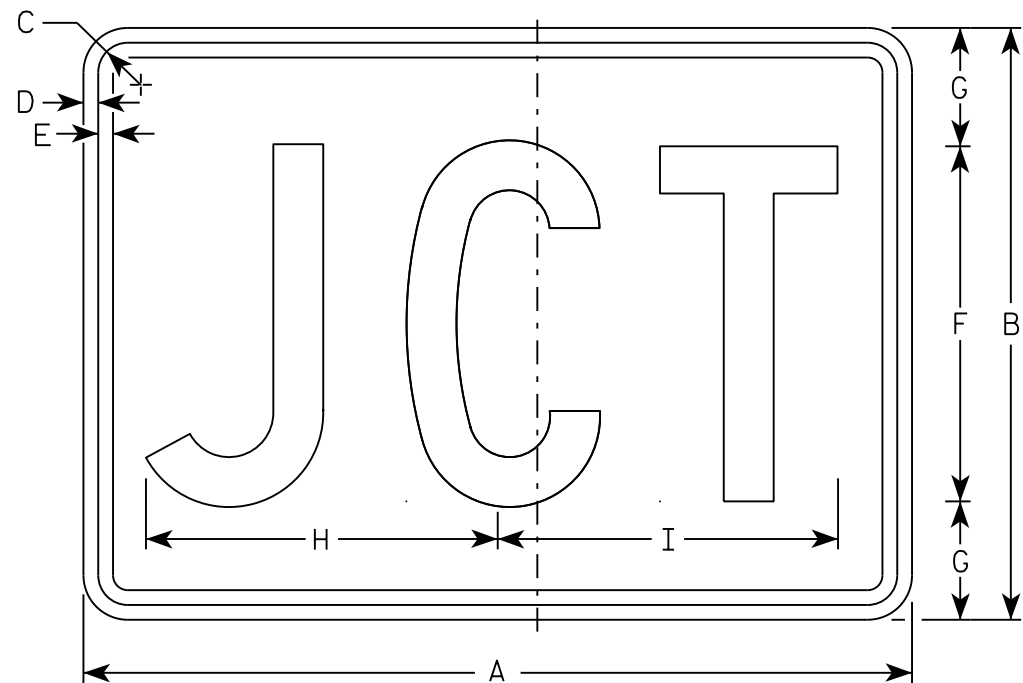
PROJECT NO:

HWY:

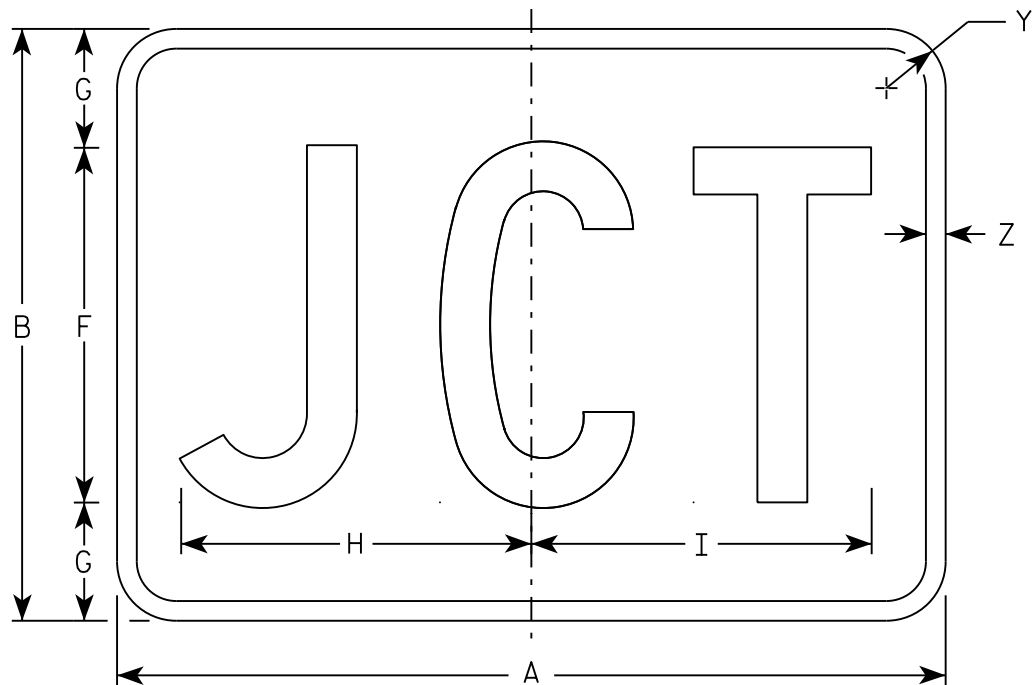
COUNTY:

SHEET NO:

E



M2-1
MM2-1
MP2-1



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

NOTES

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

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

STANDARD SIGN

M2 - 1

WISCONSIN DEPT OF TRANSPORTATION

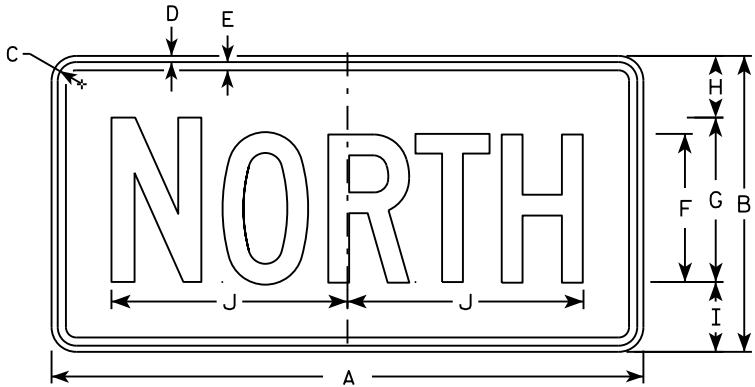
APPROVED

Matthew R. Rauch

For State Traffic Engineer

DATE 10/15/15

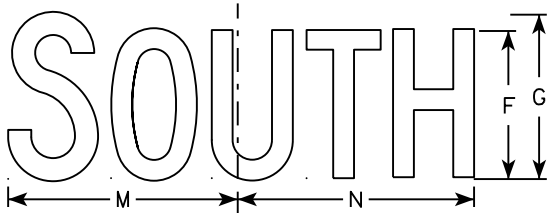
PLATE NO. M2-1.12



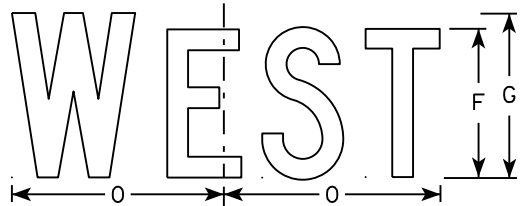
M3-1
MM3-1
MP3-1



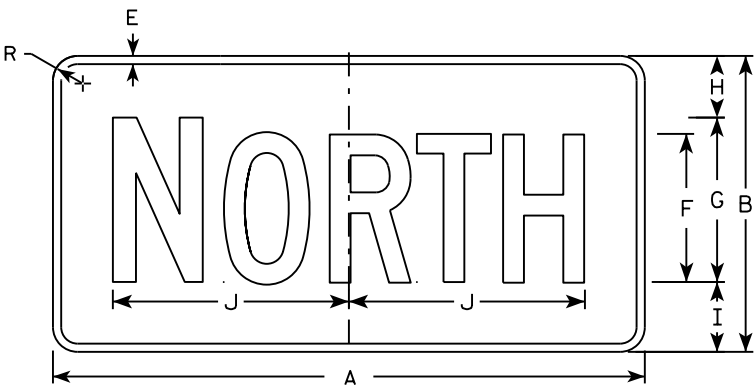
M3-2
MM3-2
MP3-2



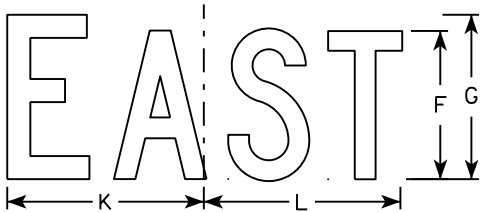
M3-3
MM3-3
MP3-3



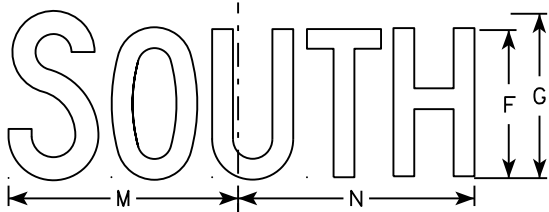
M3-4
MM3-4
MP3-4



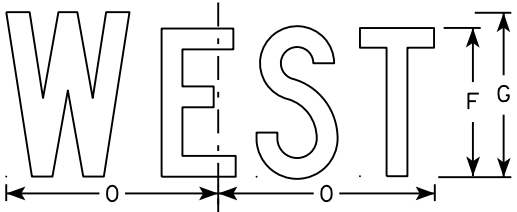
MB3-1
MK3-1
MN3-1



MB3-2
MK3-2
MN3-2



MB3-3
MK3-3
MN3-3



MB3-4
MK3-4
MN3-4

NOTES

1. All Signs Type II - Type H
2. Color:
Background - See note 5
Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White
Message - Black
MB3-1 thru MB3-4 Background - Blue
Message - White
MK3-1 thru MK3-4 Background - Green
Message - White
MM3-1 thru MM3-4 Background - White
Message - Green
MN3-1 thru MN3-4 Background - Brown
Message - White
MP3-1 thru MP3-4 Background - White
Message - Blue
6. Note the first letter of each direction is larger than the remainder of the message.

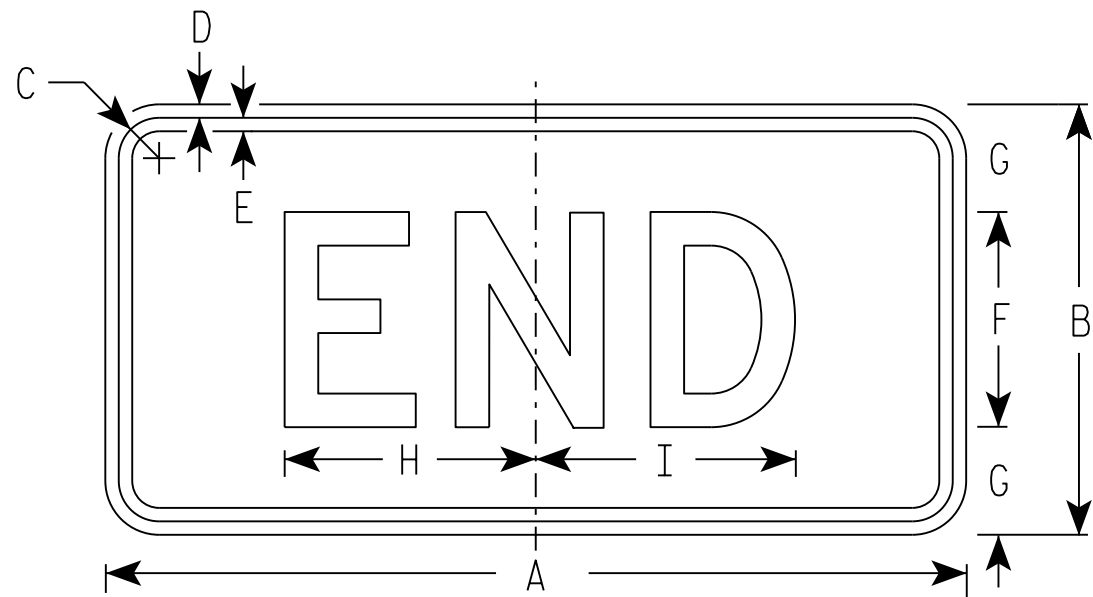
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8	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

STANDARD SIGNS
M3-1 thru M3-4
SERIES

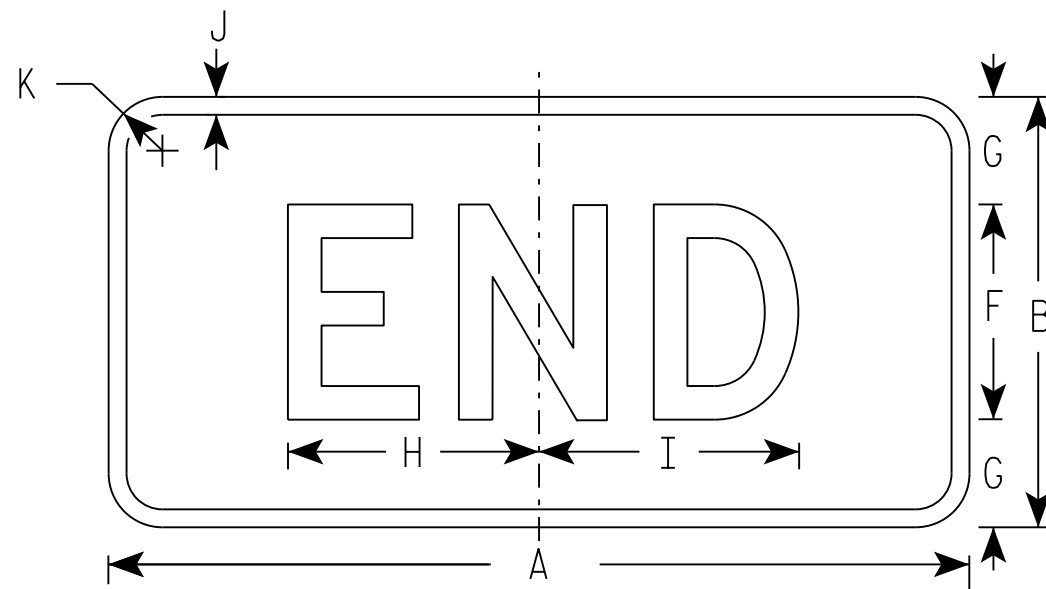
WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE NO. M3-1.14



M4-6
MM4-6
MP4-6



MB4-6
MK4-6
MN4-6
MR4-6

NOTES

- Sign is Type II - Type H
- Color:
Background - See note 5
Message - See note 5
- Message Series - D
- 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.
- M4-6 Background - White
Message - Black
MB4-6 Background - Blue
Message - White
MK4-6 Background - Green
Message - White
MM4-6 Background - White
Message - Green
MN4-6 Background - Brown
Message - White
MP4-6 Background - White
Message - Blue
MR4-6 Background - Brown
Message - Yellow

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	3	7	7 1/4	1/2	1 1/2																2.00
3	36	18	1 1/8	3/8	1/2	9	4 1/2	12	11 7/8	1/2	1 1/2																4.5
4	36	18	1 1/8	3/8	1/2	9	4 1/2	12	11 7/8	1/2	1 1/2																4.5
5	36	18	1 1/8	3/8	1/2	9	4 1/2	12	11 7/8	1/2	1 1/2																4.5

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

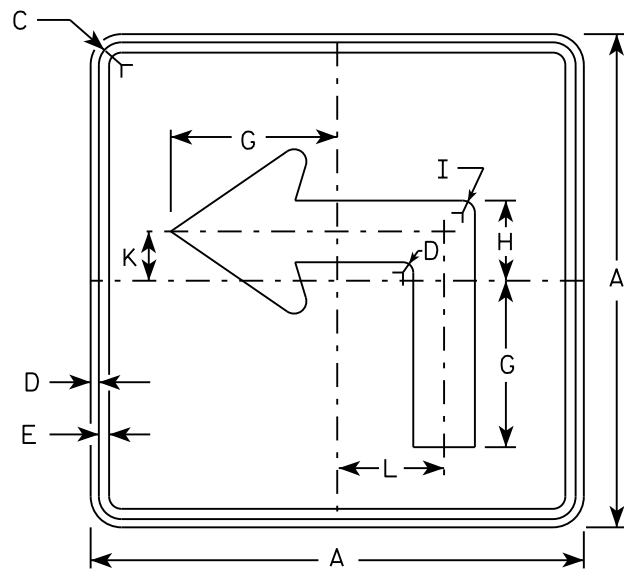
E

STANDARD SIGN
M4-6

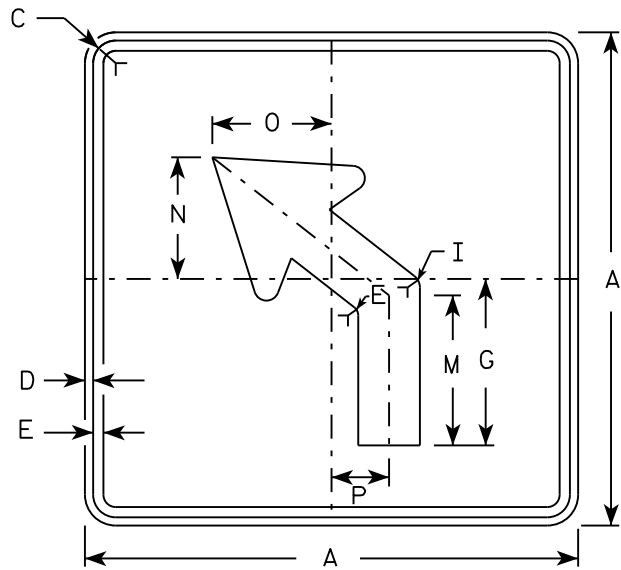
WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

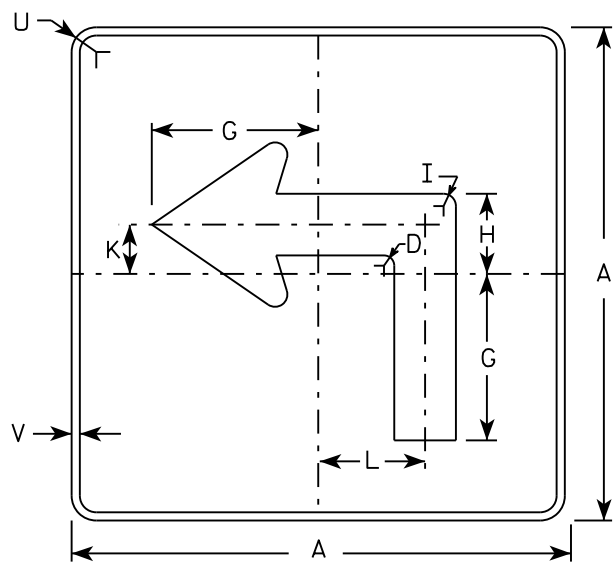
DATE 10/15/15 PLATE NO. M4-7.9



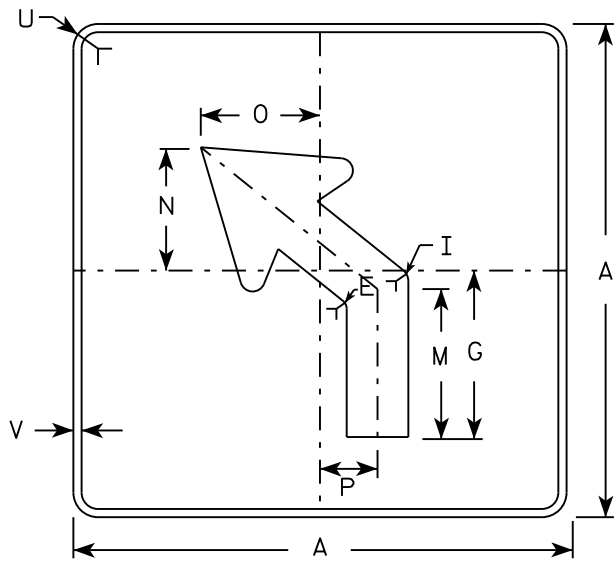
M5-1L
MM5-1L
M05-1L
MP5-1L



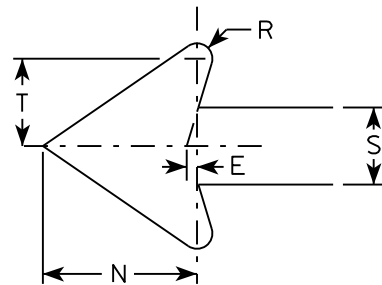
M5-2L
MM5-2L
M05-2L
MP5-2L



MB5-1L
MK5-1L
MN5-1L
MR5-1L



MB5-2L
MK5-2L
MN5-2L
MR5-2L



NOTES

- Signs are Type II - Type H reflective except as shown
- 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 |
| | Message - Black |
| MB5-1 and MB5-2 | Background - Blue |
| | Message - White |
| MK5-1 and MK5-2 | Background - Green |
| | Message - White |
| MM5-1 and MM5-2 | Background - White |
| | Message - Green |
| MN5-1 and MN5-2 | Background - Brown |
| | Message - White |
| M05-1 and M05-2 | Background - Orange - Type F Reflective |
| | Message - Black |
| MP5-1 and MP5-2 | Background - White - Type H Reflective |
| | Message - Blue |
| MR5-1 and MR5-2 | Background - Brown |
| | Message - Yellow |
- M5-1R same as M5-1L except arrow points right.
- M5-2R same as M5-2L except arrow tilts right.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		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
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
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
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

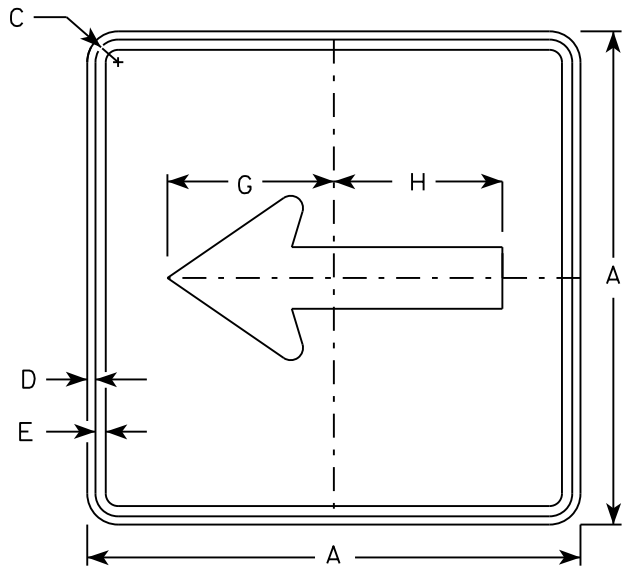
PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
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STANDARD SIGN
M5-1 & M5-2

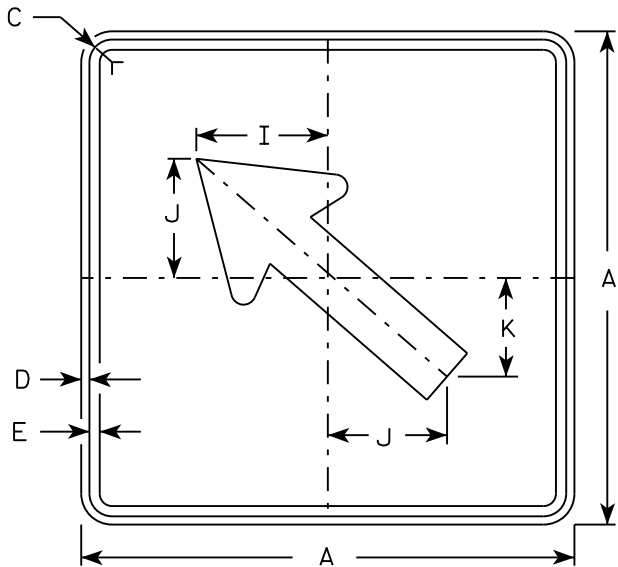
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

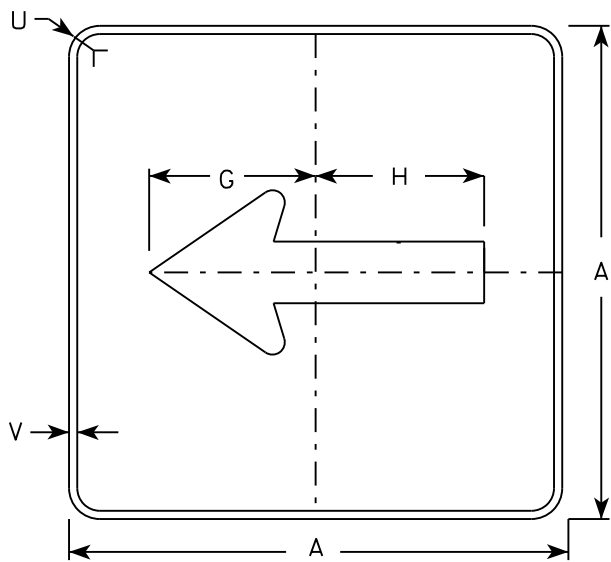
DATE 10/15/15 PLATE NO. M5-1.13



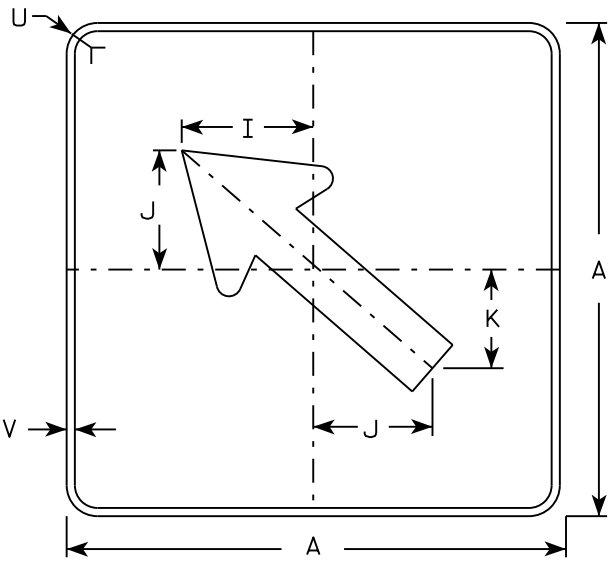
M6 - 1
MM6 - 1
M06 - 1
MP6 - 1



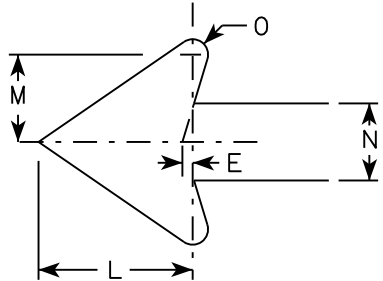
M6 - 2
MM6 - 2
M06 - 2
MP6 - 2



MB6 - 1
MK6 - 1
MN6 - 1
MR6 - 1



MB6 - 2
MK6 - 2
MN6 - 2
MR6 - 2



NOTES

- 1. Signs are Type II - Type H except as Shown
- 2. Color:
Background - See note 4
Message - See note 4
- 3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 4. M6-1 and M6-2 Background - White
Message - Black
MB6-1 and MB6-2 Background - Blue
Message - White
MK6-1 and MK6-2 Background - Green
Message - White
MM6-1 and MM6-2 Background - White
Message - Green
MN6-1 and MN6-2 Background - Brown
Message - White
M06-1 and M06-2 Background - Orange - Type F Reflective
Message - Black
MP6-1 and MP6-2 Background - White
Message - Blue
MR6-1 and MR6-2 Background - Brown
Message - Yellow

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		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
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
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
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

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

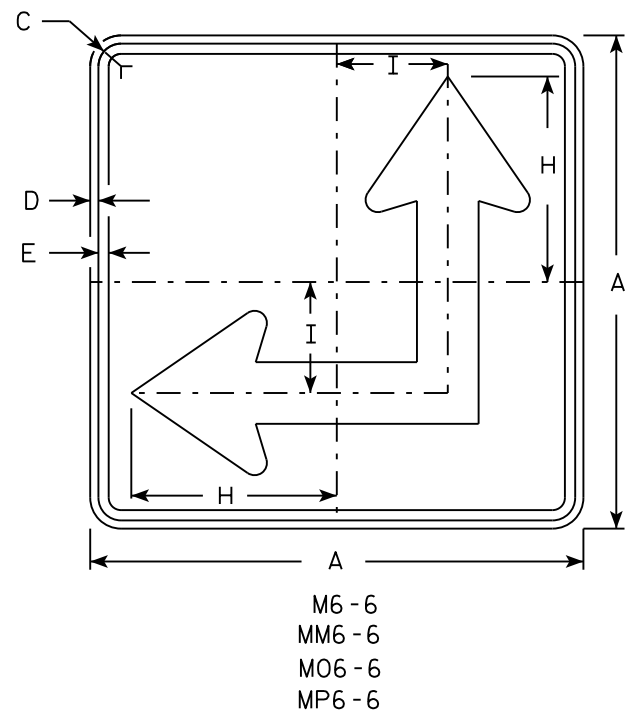
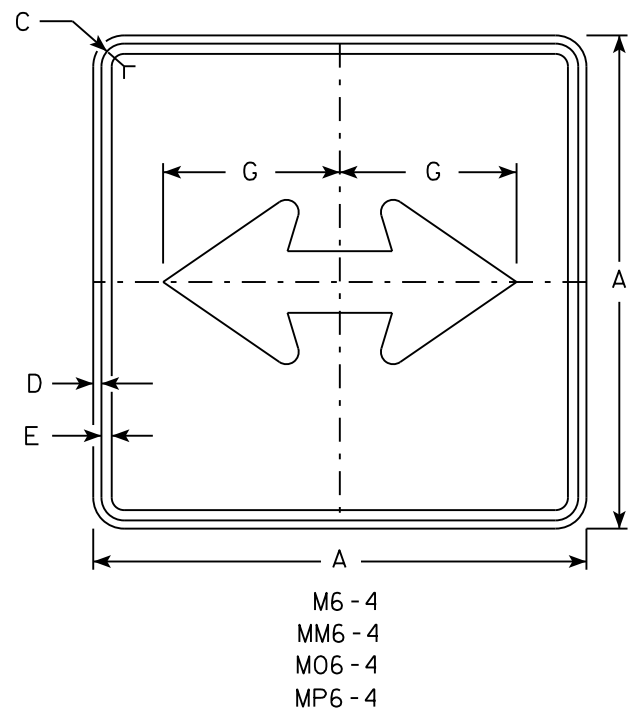
E

STANDARD SIGN
M6 - 1 & M6 - 2
SERIES

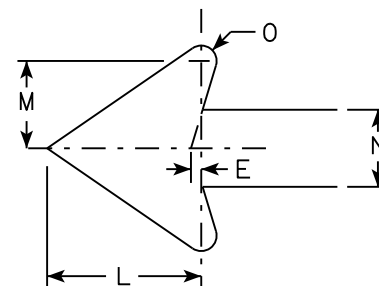
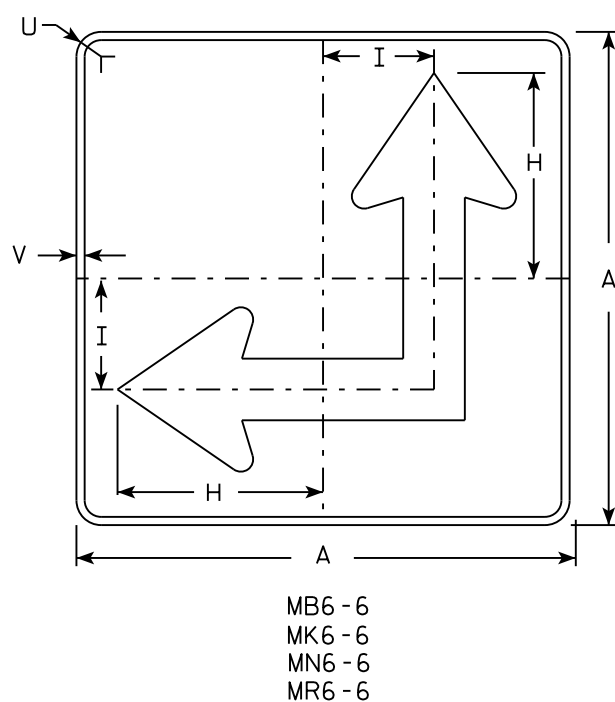
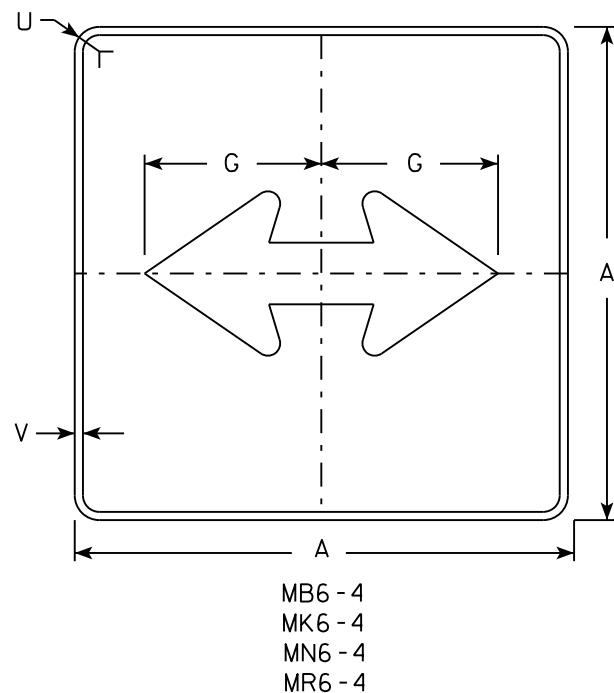
WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE NO. M6-1.15



- NOTES
- Signs are Type II - Type H except as Shown
 - 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
Message - Black
MB6-4 and MB6-6 Background - Blue
Message - White
MK6-4 and MK6-6 Background - Green
Message - White
MM6-4 and MM6-6 Background - White
Message - Green
MN6-4 and MN6-6 Background - Brown
Message - White
M06-4 and M06-6 Background - Orange - Type F Reflective
Message - Black
MP6-4 and MP6-6 Background - White
Message - Blue
MR6-4 and MR6-6 Background - Brown
Message - Yellow
 - M6-6R same as M6-6L except arrow points ahead and right.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		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
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
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
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

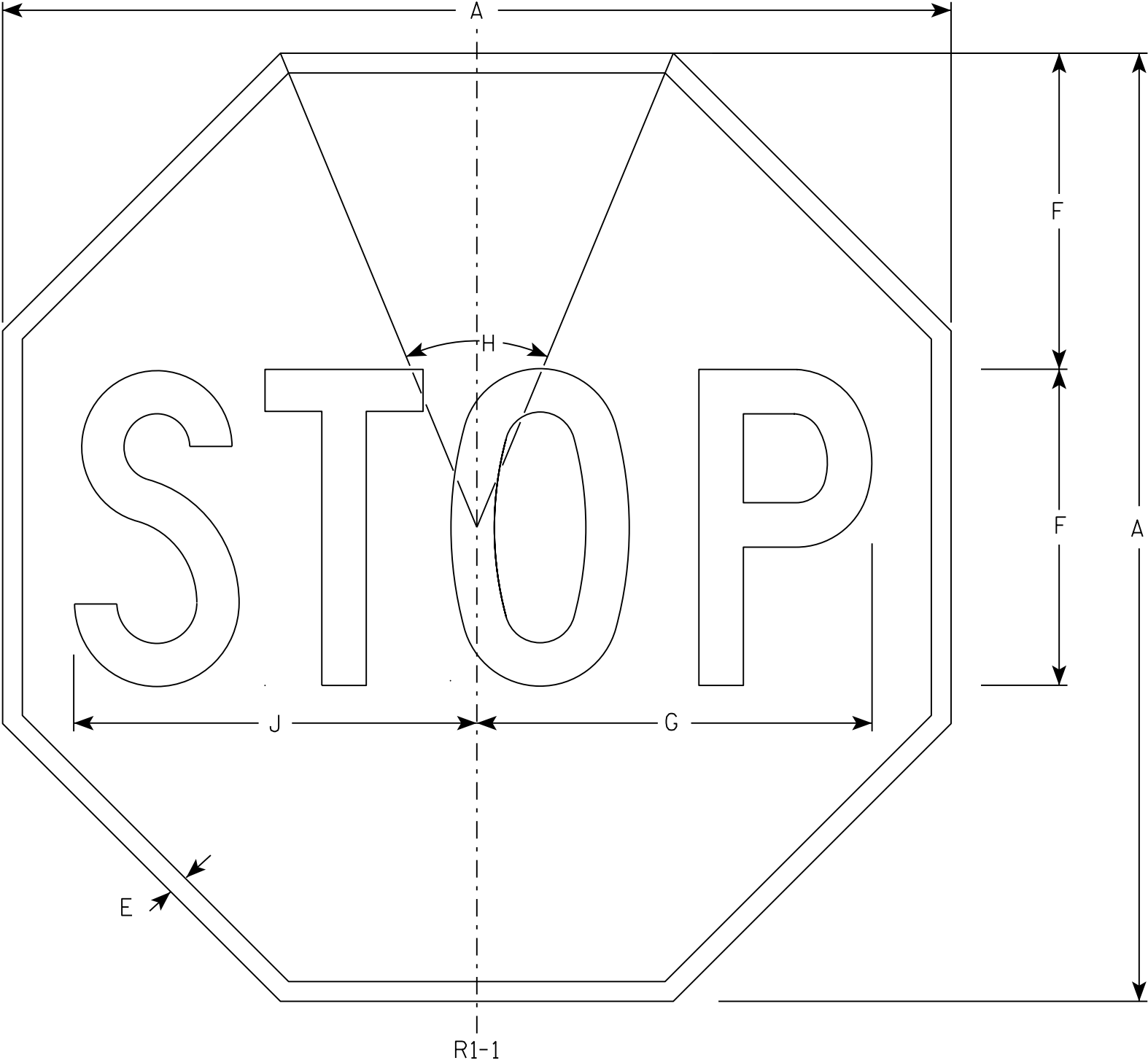
STANDARD SIGN
M6 - 4 & M6 - 6
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE NO. M6-4.10

7



NOTES

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

7

R1-1

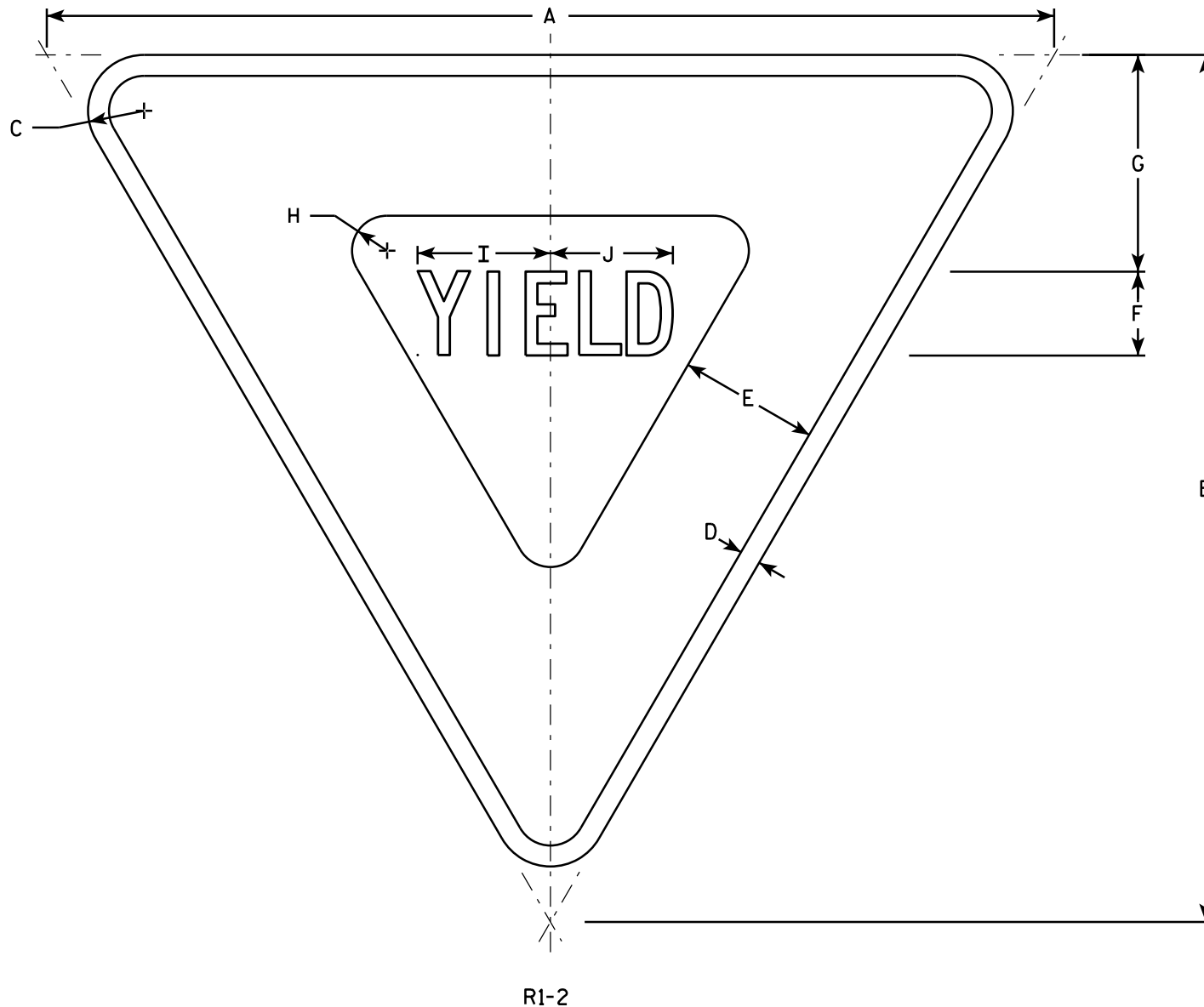
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2S	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2M	36				3/4	12	15	45°		15 3/8																	7.46
3	36				3/4	12	15	45°		15 3/8																	7.46
4	48				1	16	20	45°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

STANDARD SIGN
R1 - 1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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



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 - 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. The border strip and word message are reflectorized red.

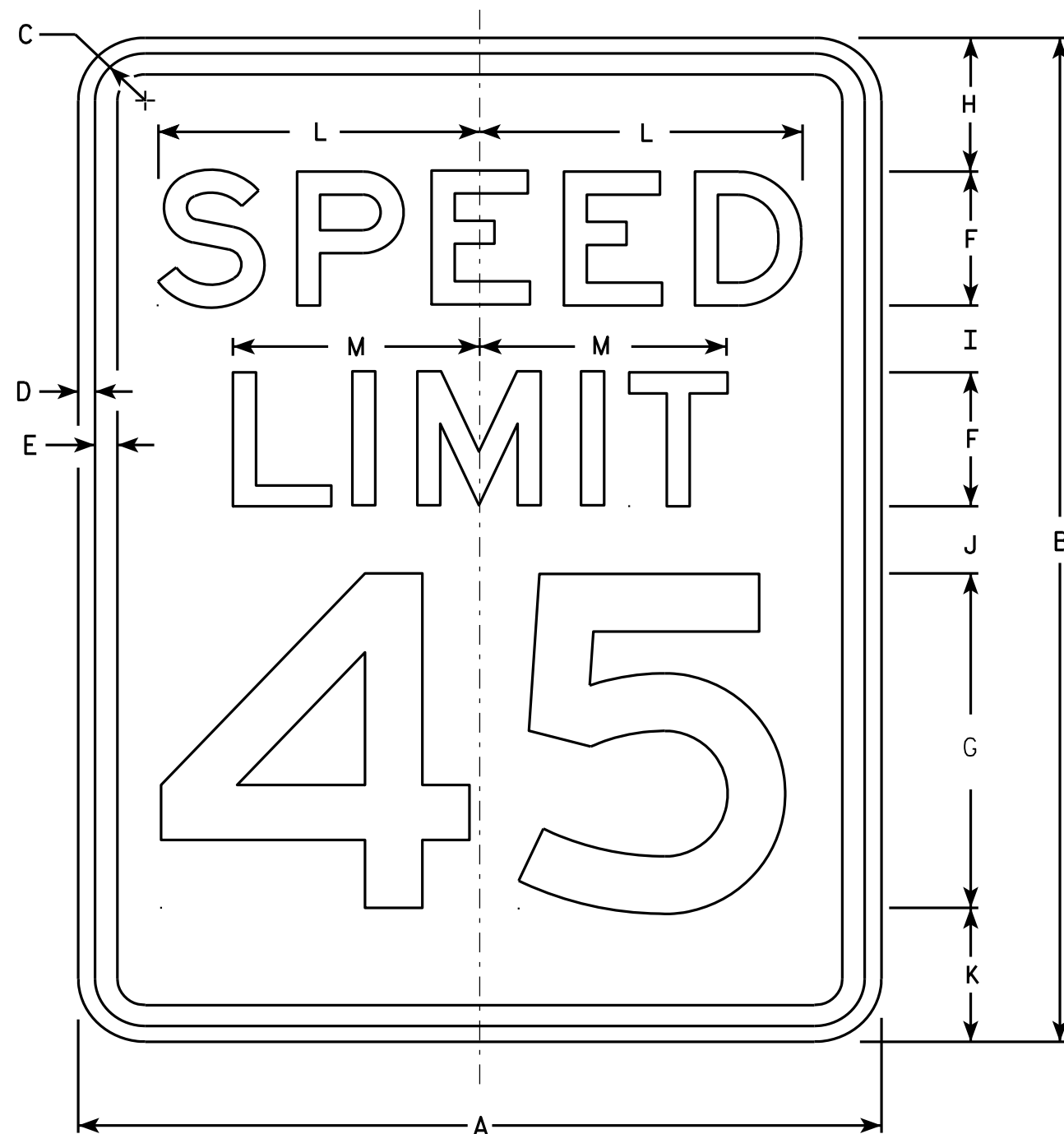
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30	26	1 1/2	5/8	4	2 1/2	6 3/8	7/8	4	3 5/8																	2.71
2S	36	31	2	3/4	5	3	7 3/4	1 1/4	4 3/4	4 3/8																	3.88
2M	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
3	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
4	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
5	60	52	3	1 1/2	8	5	13	2 1/2	7 7/8	7 1/4																	10.83
6																											
7	18	15 1/2	1	3/8	2 1/2	1 1/2	3 7/8	5/8	2 3/8	2 1/4																	0.97

STANDARD SIGN
R1-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 10/13/14 PLATE NO. R1-2.12



R2-1

NOTES

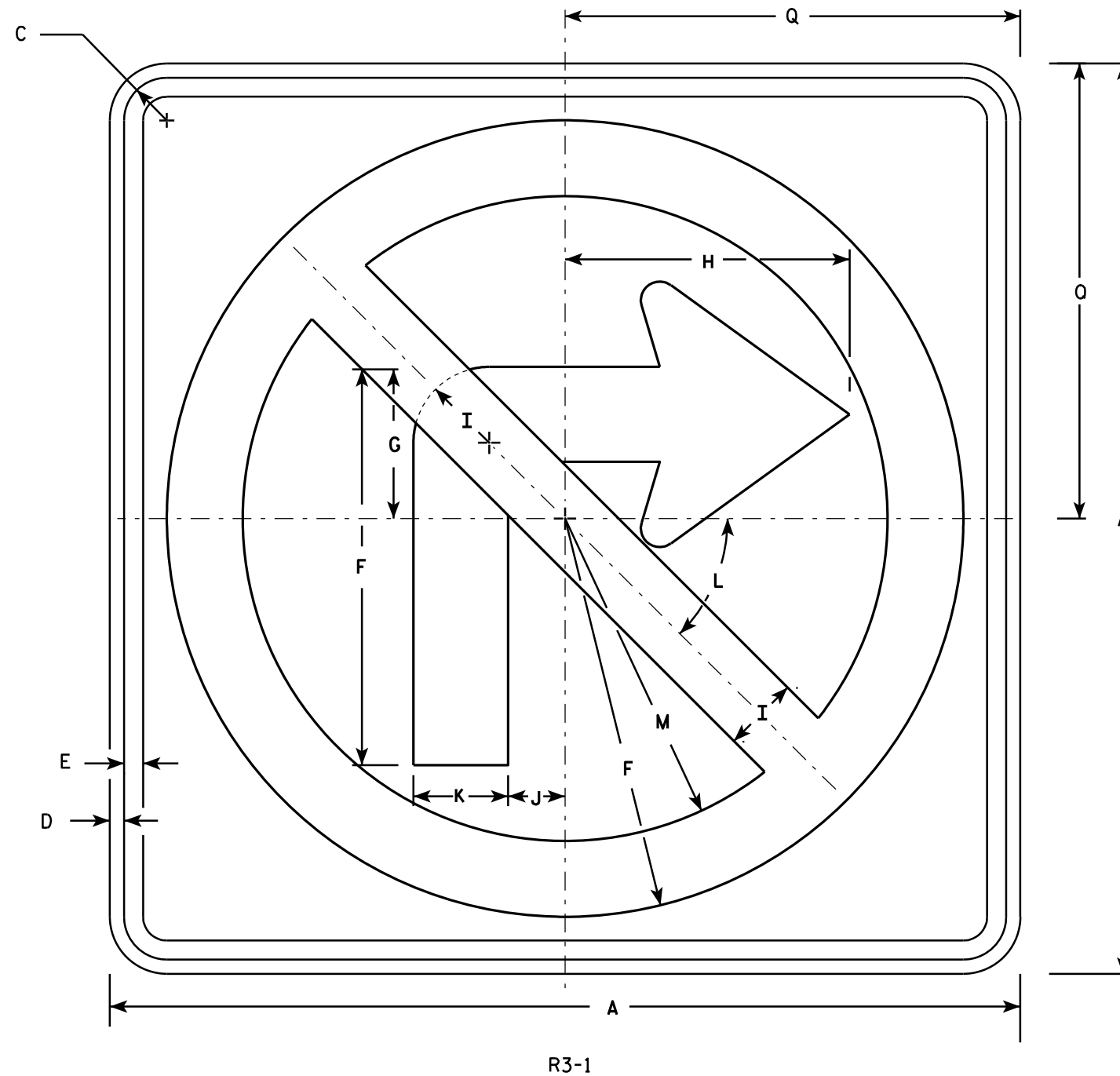
1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as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

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

STANDARD SIGN R2-1

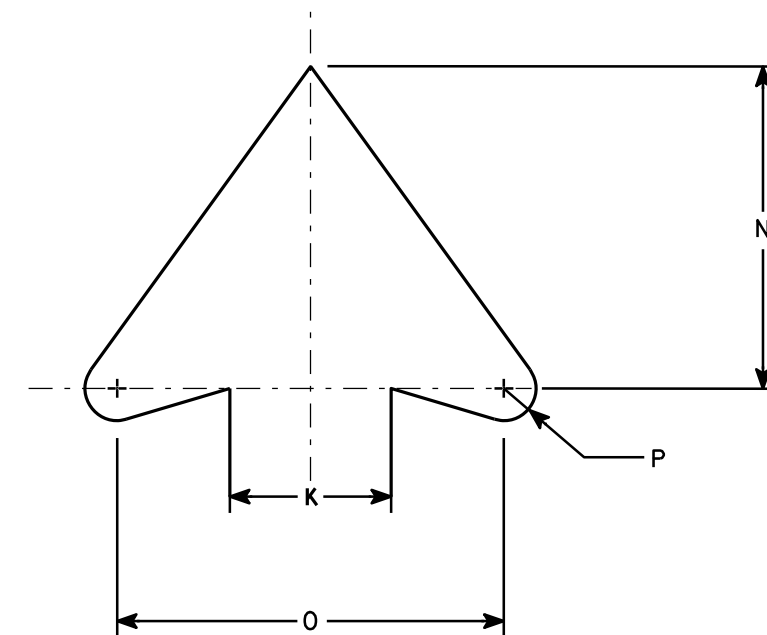
WISCONSIN DEPT OF TRANSPORTATION
APPROVED *Matthew R. Rauch*
For State Traffic Engineer
DATE 5/26/10 PLATE NO. R2-1.13

PROJECT NO: HWY: COUNTY: SHEET NO: 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 - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45	8 1/2	5	6	1/2	12										4.0
2S	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2	12										4.0
2M	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45	12 3/4	7 1/2	9	3/4	18										9.0
3	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45	12 3/4	7 1/2	9	3/4	18										9.0
4	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4	18										9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1	24										16.0

STANDARD SIGN

R3-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-1.5

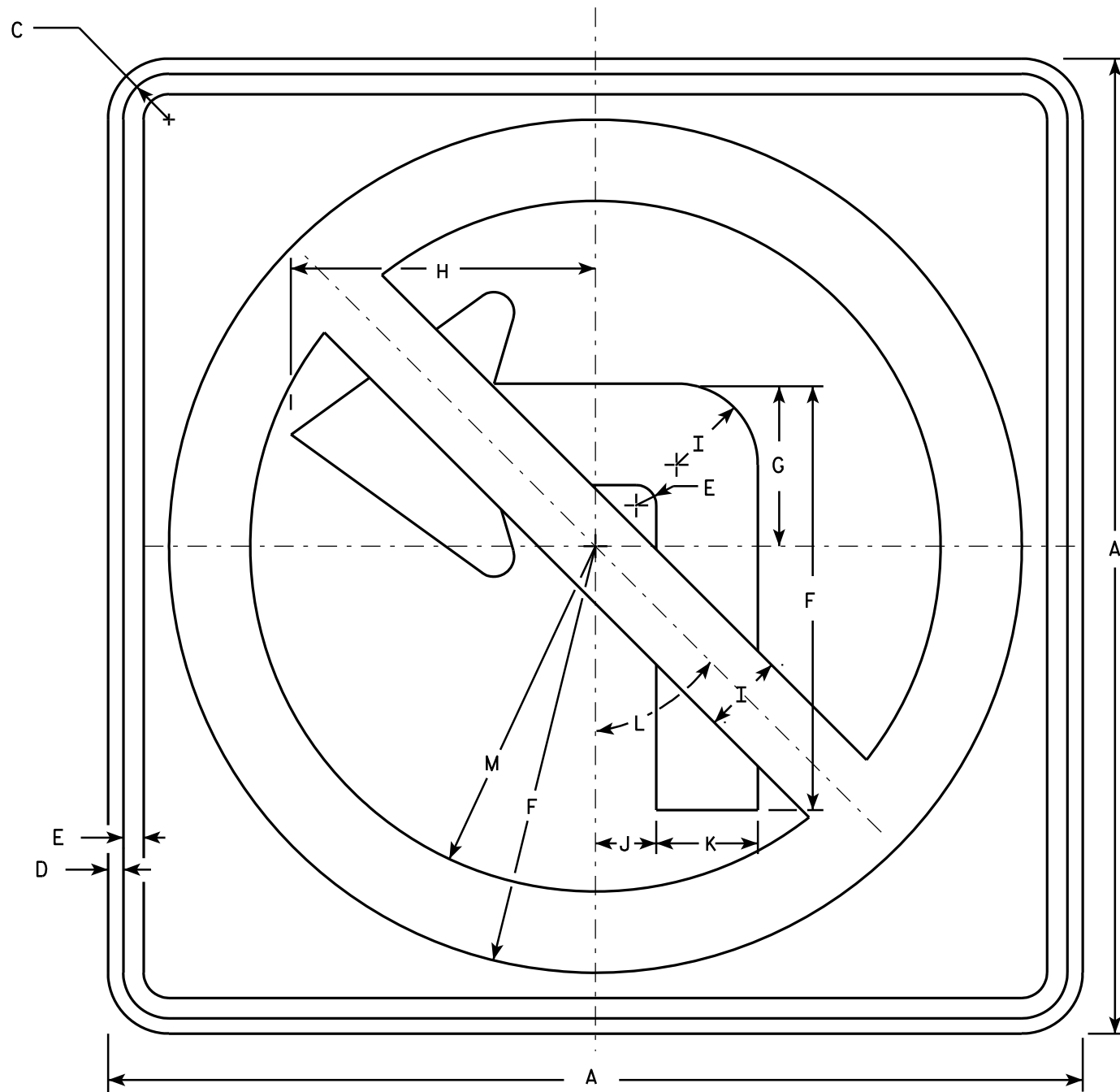
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

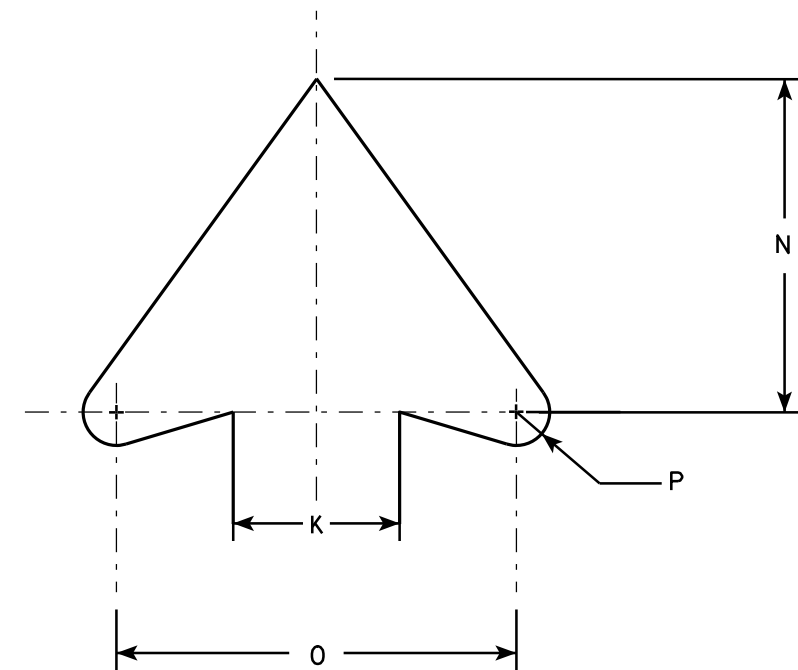
E



R3-2

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 - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2S	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2M	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
3	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
4	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1											16.0

STANDARD SIGN R3-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-2.10

PROJECT NO:

HWY:

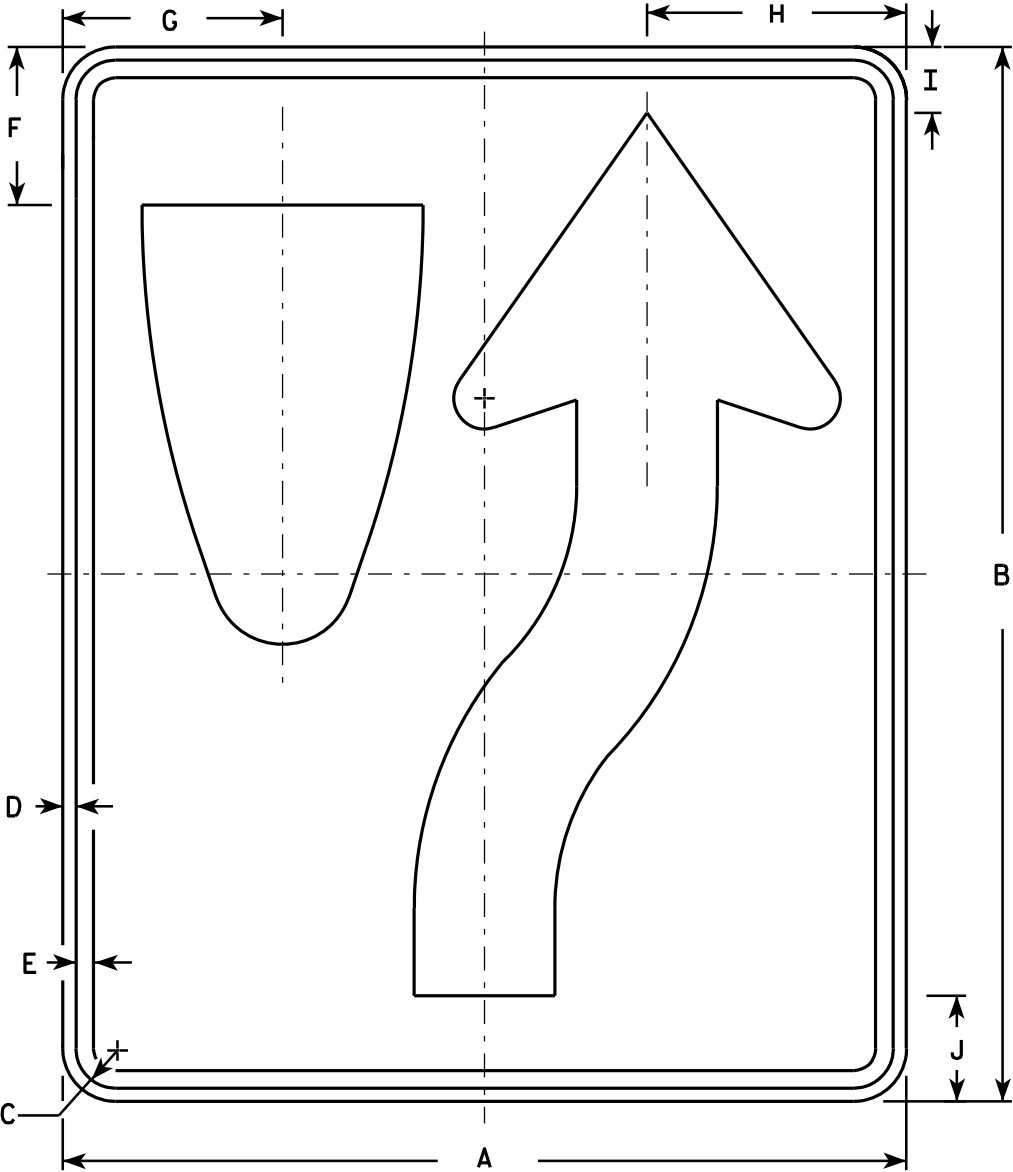
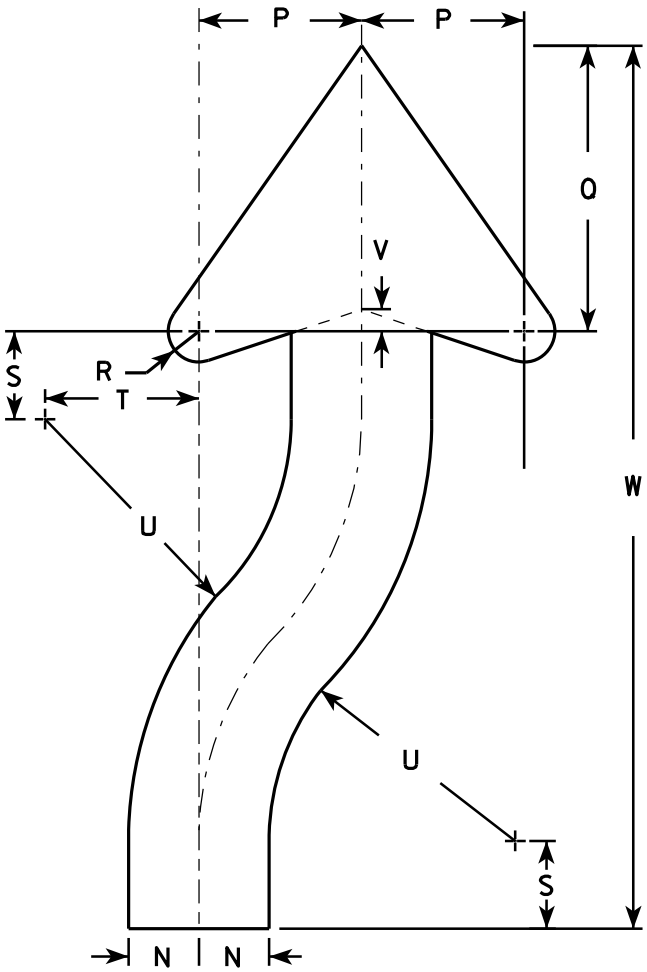
COUNTY:

SHEET NO:

E

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition. material is plywood but borders shall be rounded
2. Color:
Background - White
Message - Black
3. Corners may be square or rounded when base as shown. When base material is metal, the corners and borders shall be rounded.
4. R4-8 is the same as R4-7 except Legend is reversed.



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 3/8	4 3/4	5 1/2	1 3/8	2 1/4	6	3	9 3/8	1 1/2	22 1/2	3 1/2	6 1/8	5/8	1 7/8	3 1/4	6 3/4	1/2	20 3/8				3.0
2S	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
2M	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
3	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
4	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
5	48	60	2 1/4	3/4	1	9	12 1/2	14 3/4	3 3/4	6	16	8	25	4	60	9 1/4	16 1/4	1 5/8	5	8 3/4	18	1 1/4	50 1/4				20.0

STANDARD SIGN

R4-7 & R4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-7.8

PROJECT NO:

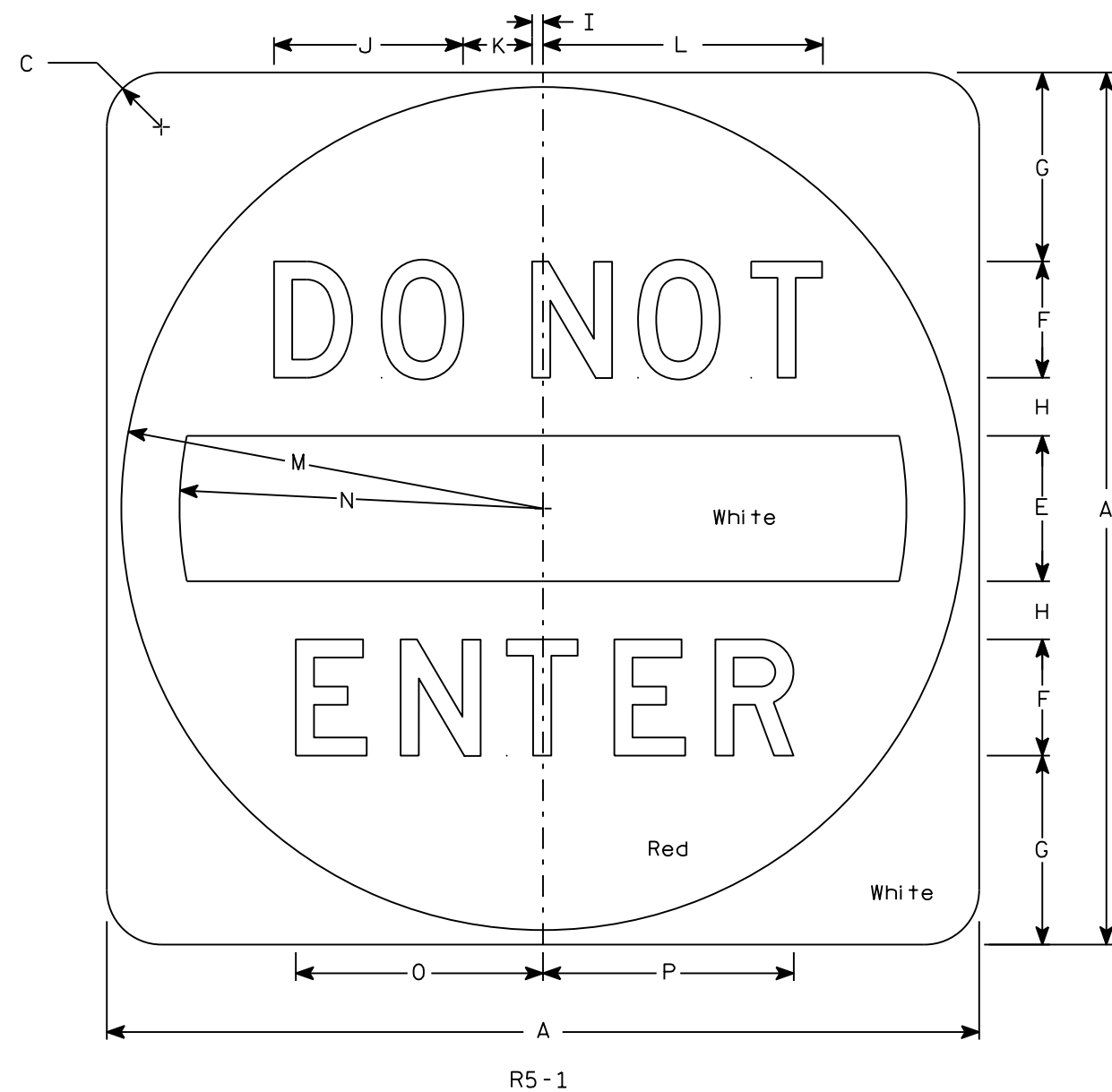
HWY:

COUNTY:

SHEET NO:

E

7



NOTES

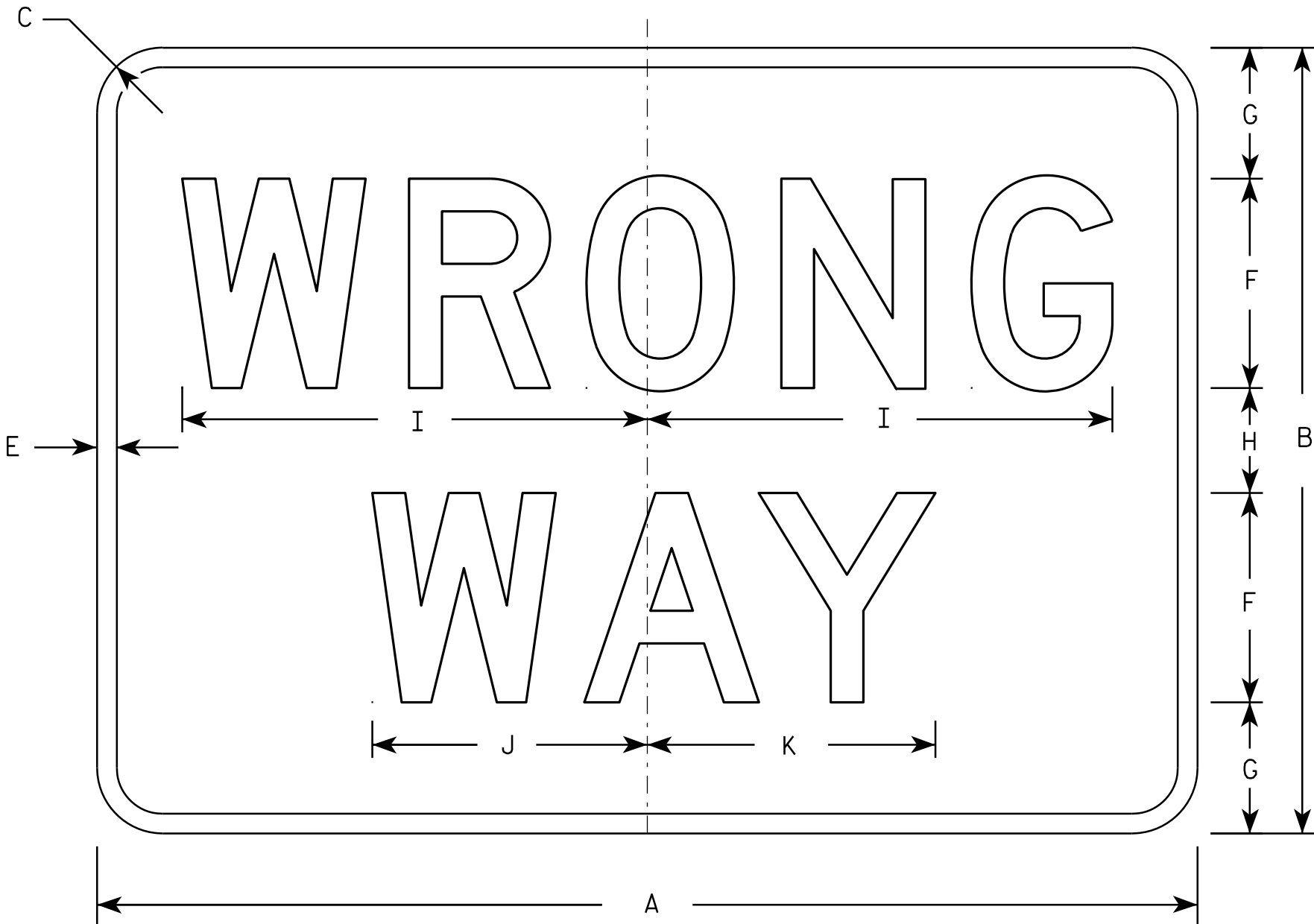
1. Sign is Type II - Type H Reflective
2. Color:
Background - See detail
Message - White
3. Message Series - D

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																											
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											6.25
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	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 3/15/18	PLATE NO. R5-1.16

PROJECT NO:	HWY:	COUNTY:	SHEET NO: E	
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\R51.DGN PLOT DATE : 15-MAR-2018 14:31 PLOT BY : **...plotuser...** PLOT NAME : PLOT SCALE : 5.914594:1.000000 WISDOT/CADDs SHEET 42				



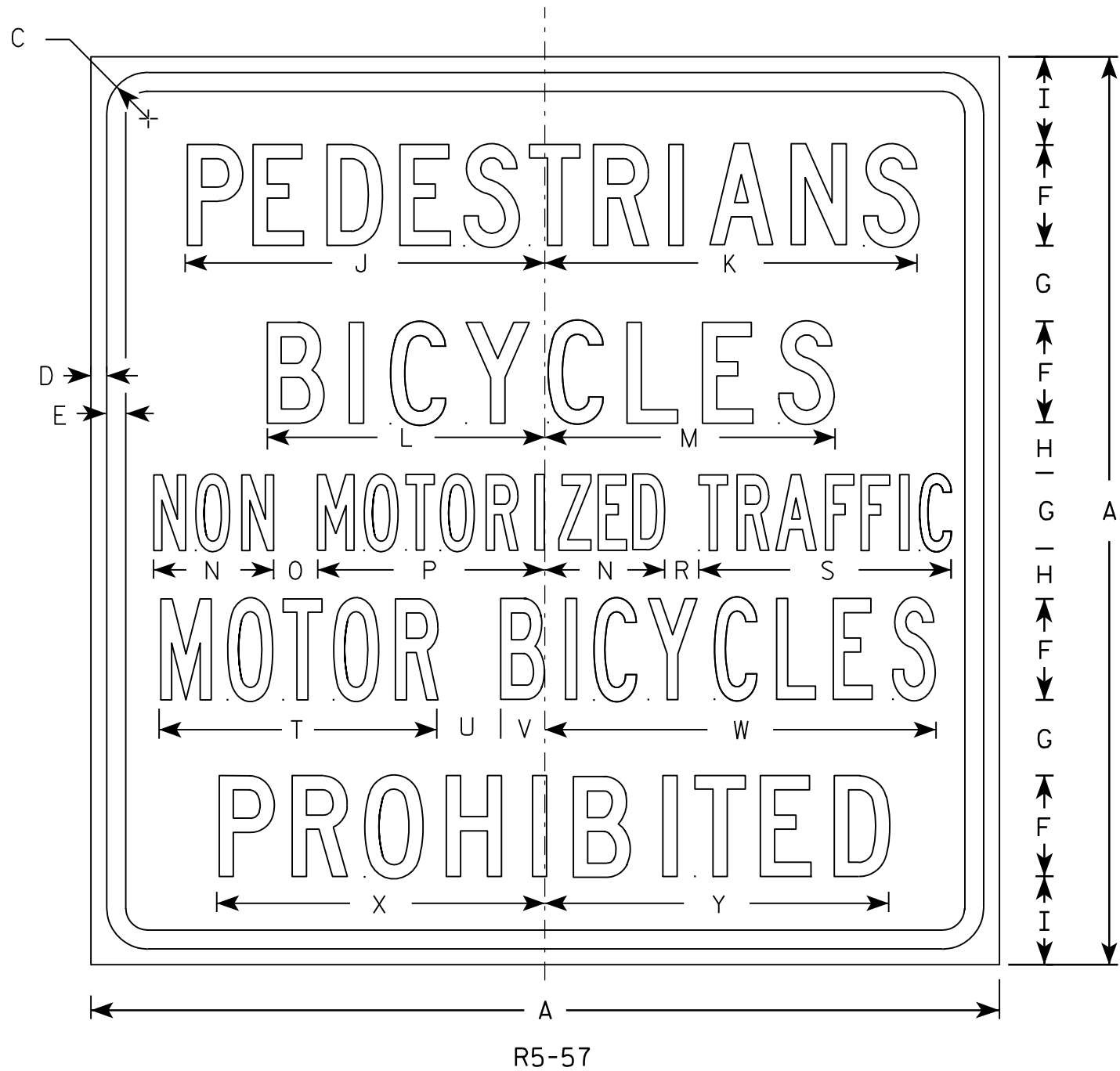
R5-1A

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 - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30	18	1 1/2		1/2	5	3	2	11	6 1/2	6 7/8																3.75
2S	36	24	2		5/8	6	4 1/2	3	13 1/4	7 7/8	8 1/4																6.00
2M	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
3	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
4	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75
5	42	30	2 1/2		3/4	8	5	4	17 3/4	10 1/2	11																8.75

STANDARD SIGN R5-1A	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 12/17/10	PLATE NO. R5-1A.2



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 - Lines 1, 2, and 5 are Series C.
Lines 3 and 4 are 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.

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																											
2S																											
2M																											
3																											
4	36		1 5⁄8	5⁄8	3⁄4	4	3	2	3 1⁄2	14 1⁄4	14 7⁄8	11	11 1⁄2	4 3⁄4	1 3⁄4	9		1 3⁄8	10	11	2 1⁄2	1 3⁄4	15 1⁄2	13	13 5⁄8		9.0
5	36		1 5⁄8	5⁄8	3⁄4	4	3	2	3 1⁄2	14 1⁄4	14 7⁄8	11	11 1⁄2	4 3⁄4	1 3⁄4	9		1 3⁄8	10	11	2 1⁄2	1 3⁄4	15 1⁄2	13	13 5⁄8		9.0

STANDARD SIGN
R5-57

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/29/2011 PLATE NO. R5-57.10

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

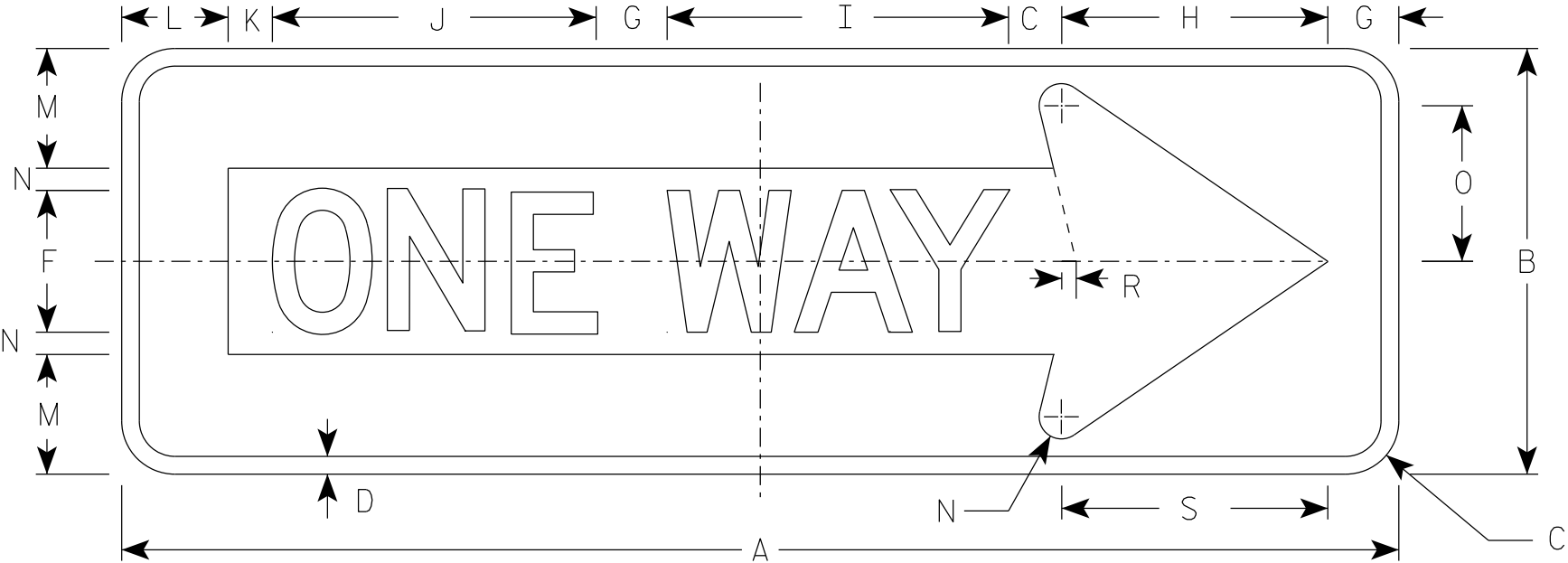
E

NOTES

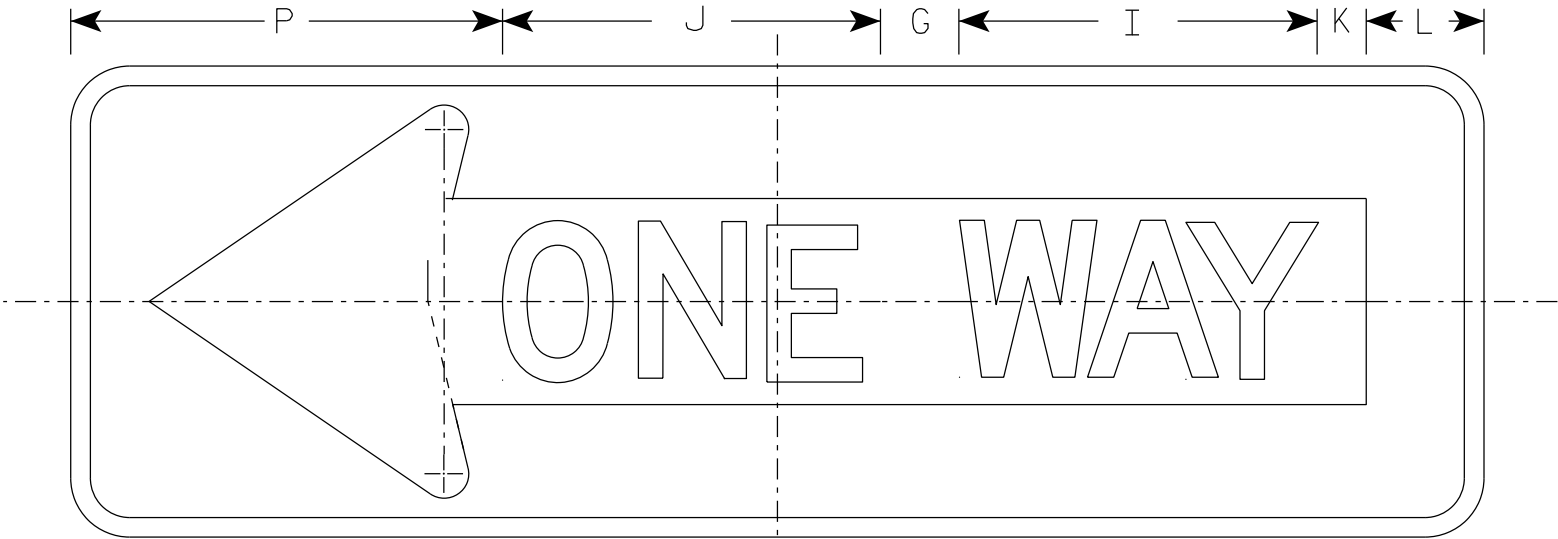
1. Sign is Type II - Type H Reflective
2. Color:

Background - BLACK

Message - BLACK LEGEND & WHITE ARROW & BORDER
3. Message Series - D



R6-1 R



R6-1 L

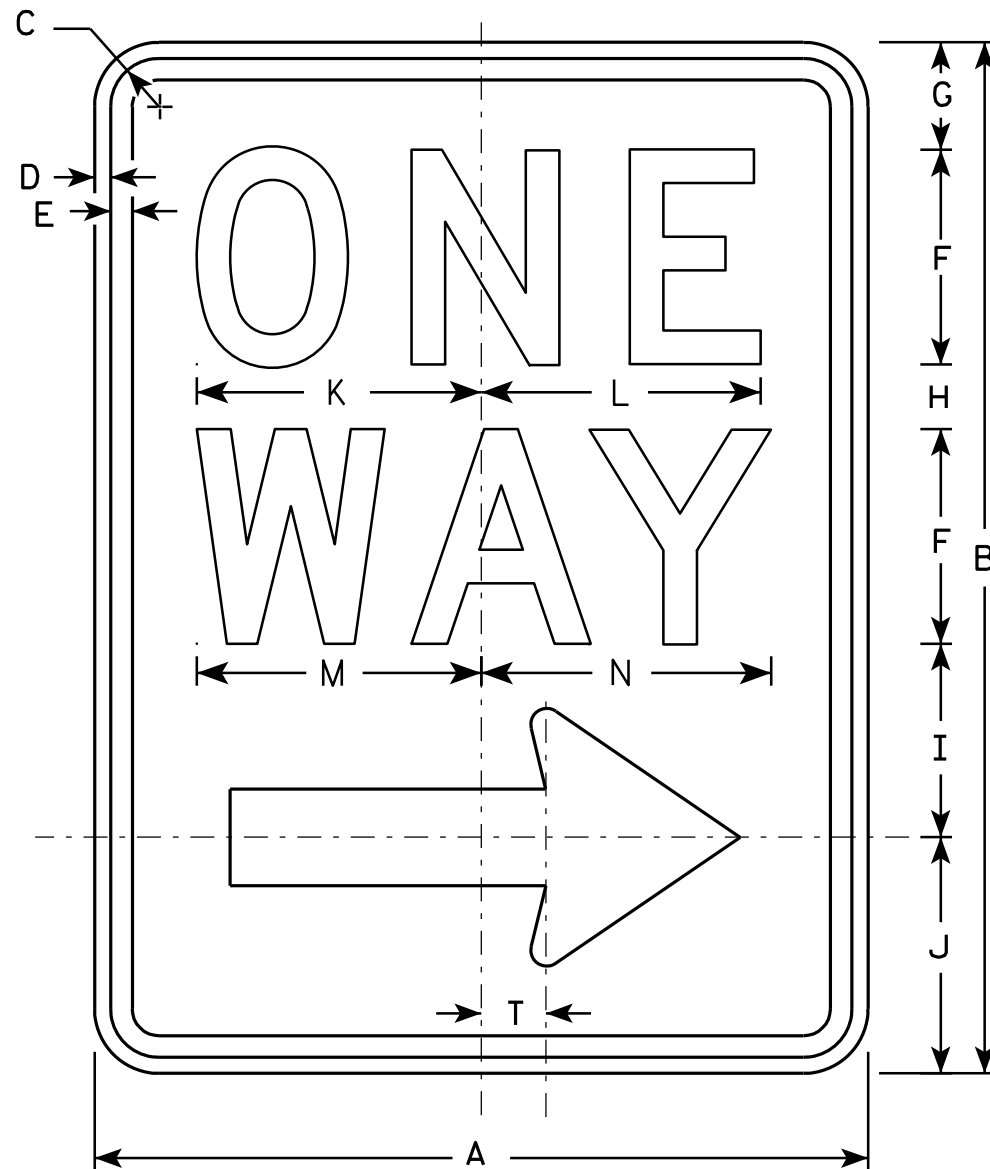
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	36	12	1 1/2	1/2		4	2	7 1/2	9 5/8	9 1/8	1 1/4	3	3 3/8	5/8	4 3/8	11		3/8	7 1/2								3.0
2M	54	18	2 1/4	3/4		6	3	11 1/4	13 5/8	14 1/2	1 7/8	4 1/2	5	1	6 1/2	16 1/2		5/8	11 1/4								6.75
3	54	18	2 1/4	3/4		6	3	11 1/4	13 5/8	14 1/2	1 7/8	4 1/2	5	1	6 1/2	16 1/2		5/8	11 1/4								6.75
4	54	18	2 1/4	3/4		6	3	11 1/4	13 5/8	14 1/2	1 7/8	4 1/2	5	1	6 1/2	16 1/2		5/8	11 1/4								6.75
5																											

STANDARD SIGN
R6-1 L & R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

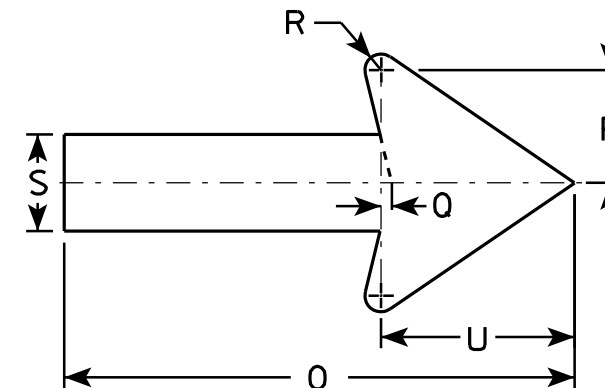
DATE 07/11/18 PLATE NO. R6-1.3



R6-2R

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 - D
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. R6-2L same as R6-2R except arrow points to the left.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z
1	18	24	1 1/8	3/8	1/2	5	2 1/2	1 1/2	4 1/2	5 1/2	6 5/8	6 1/2	6 5/8	6 3/4	11 7/8	2 5/8	1/4	3/8	2 1/4	1 1/2	4 1/2					
2S	24	30	1 1/8	3/8	1/2	6	3	2 1/2	5 1/2	7	8 1/8	8 1/8	8 1/2	8 5/8	16	3 1/2	3/8	1/2	3	2	6					
2M	30	36	1 3/8	1/2	5/8	8	2 1/2	2 5/8	6 7/8	8	10 1/2	10 1/2	11 1/4	11 1/4	20	4 3/8	1/2	5/8	3 3/4	2 1/2	7 1/2					
3	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
4	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
5																										

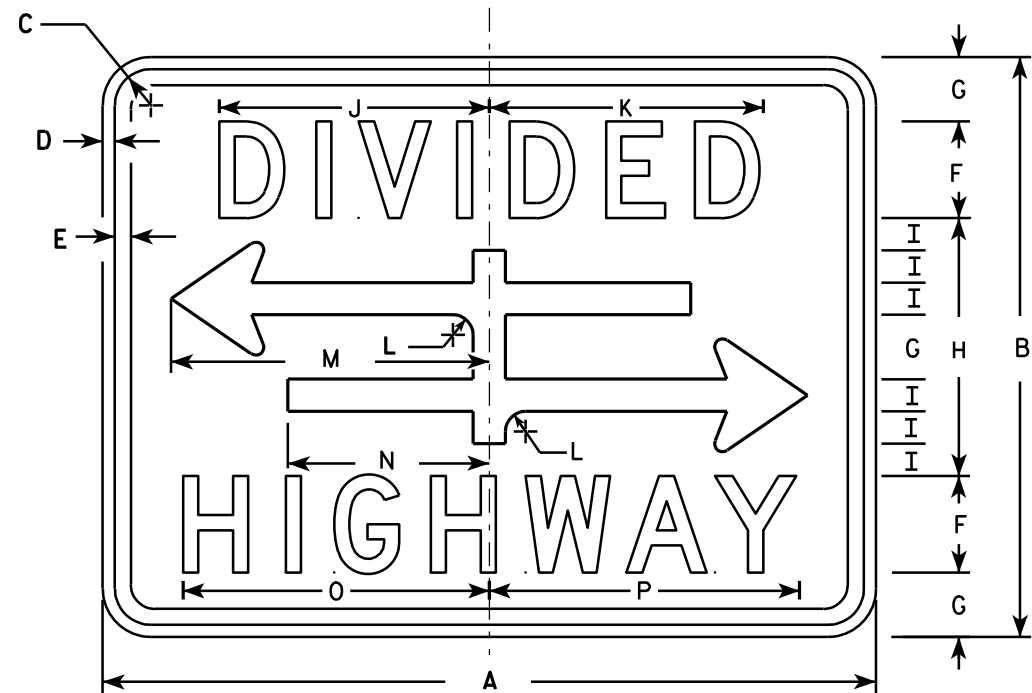
STANDARD SIGN
R6-2 R&L

WISCONSIN DEPT OF TRANSPORTATION

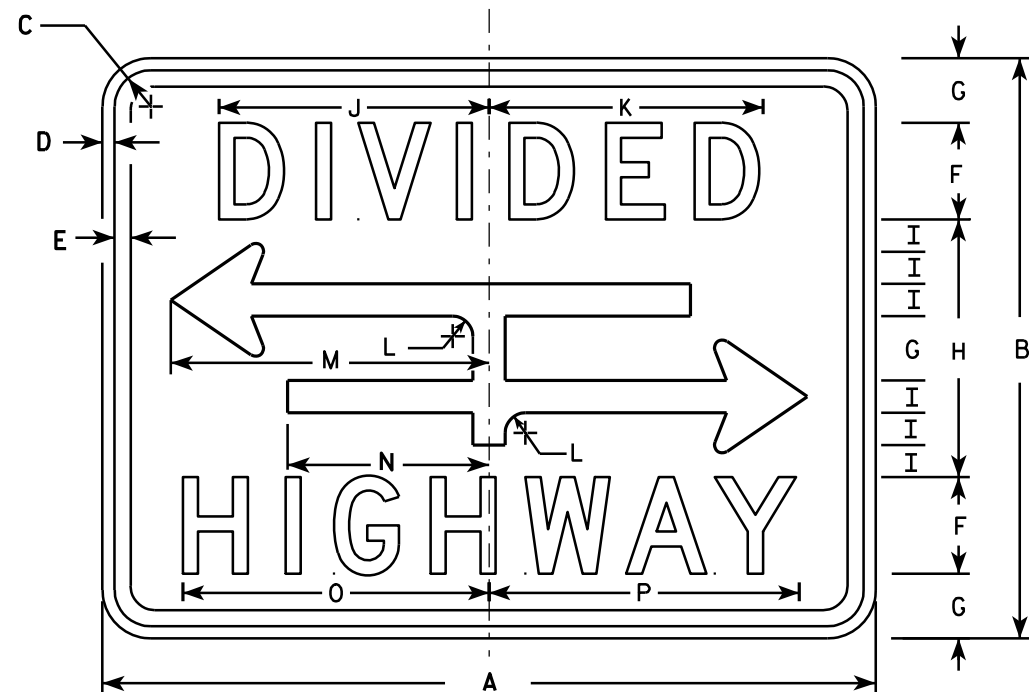
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 11/2/10 PLATE NO. R6-2.8

PROJECT NO: HWY: COUNTY: SHEET NO: E



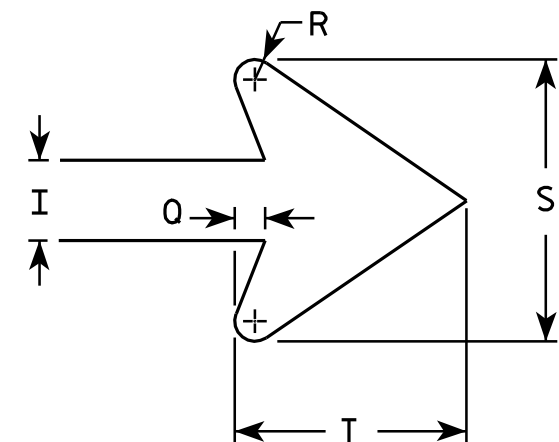
R6-3



R6-3A

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 - D
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.



ARROW DETAIL

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

STANDARD SIGN R6-3 & R6-3A

WISCONSIN DEPT OF TRANSPORTATION

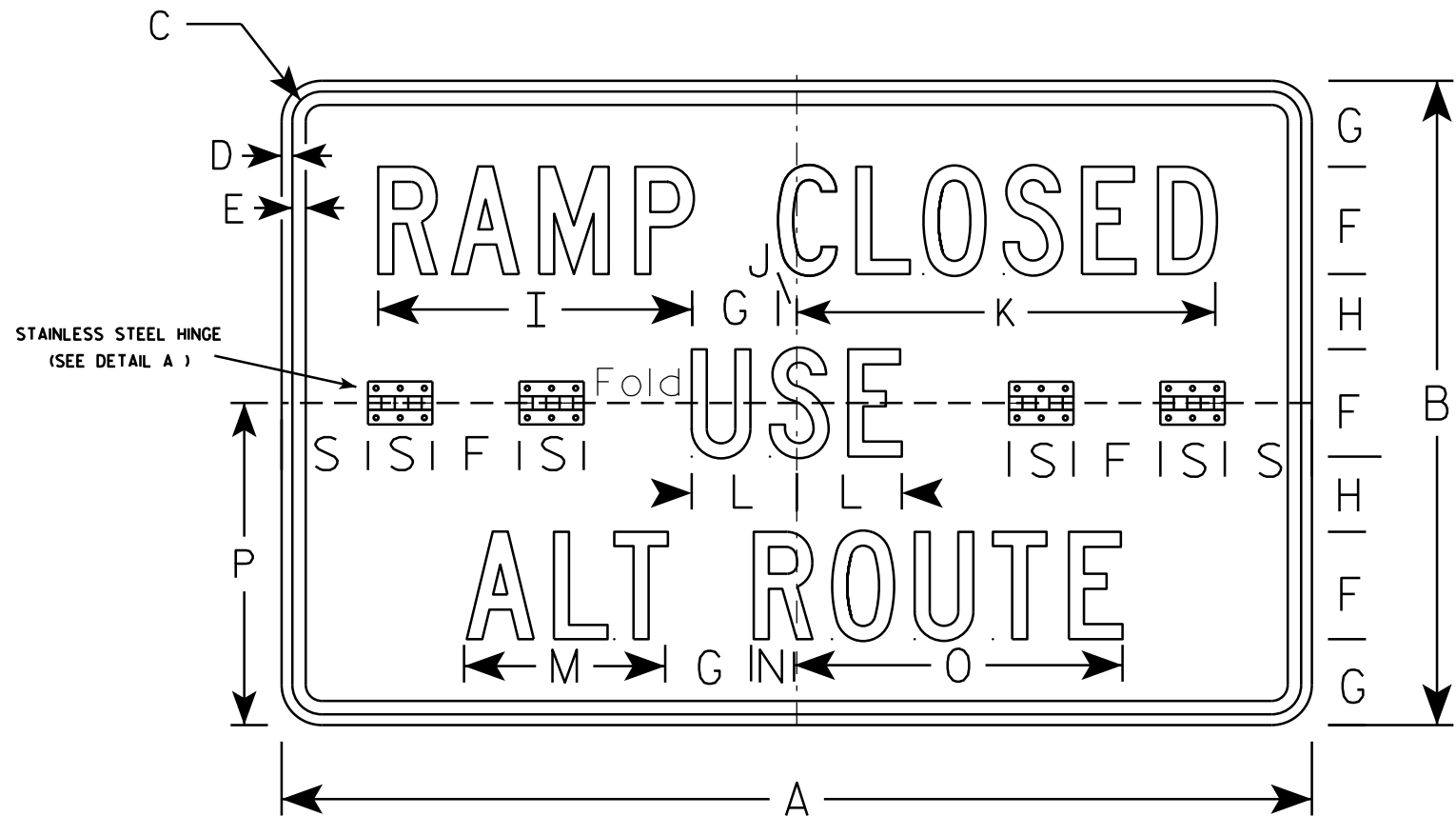
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R6-3.5

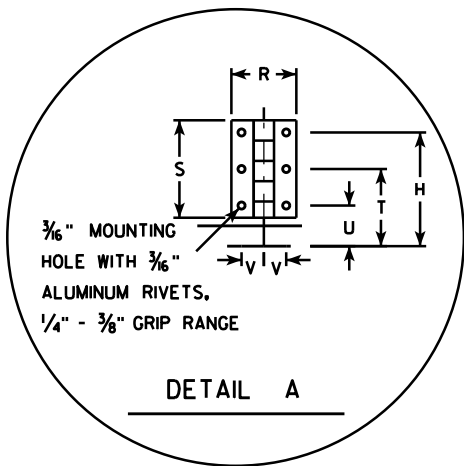
PROJECT NO:

SHEET NO:

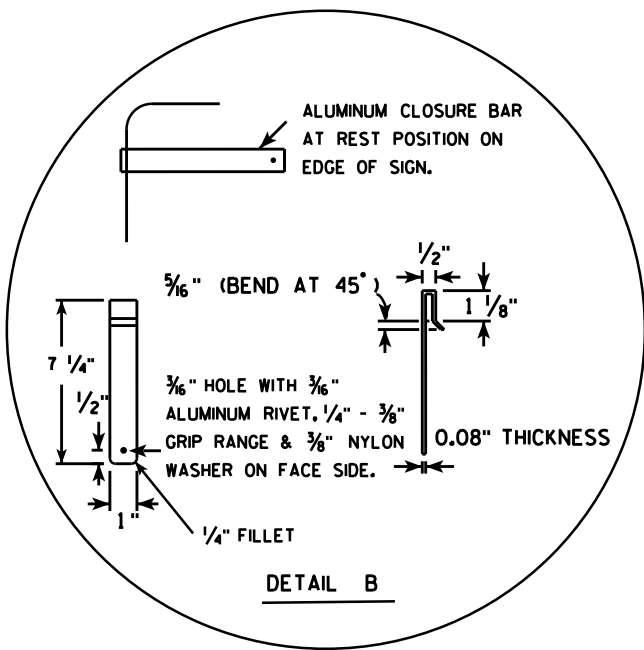
E



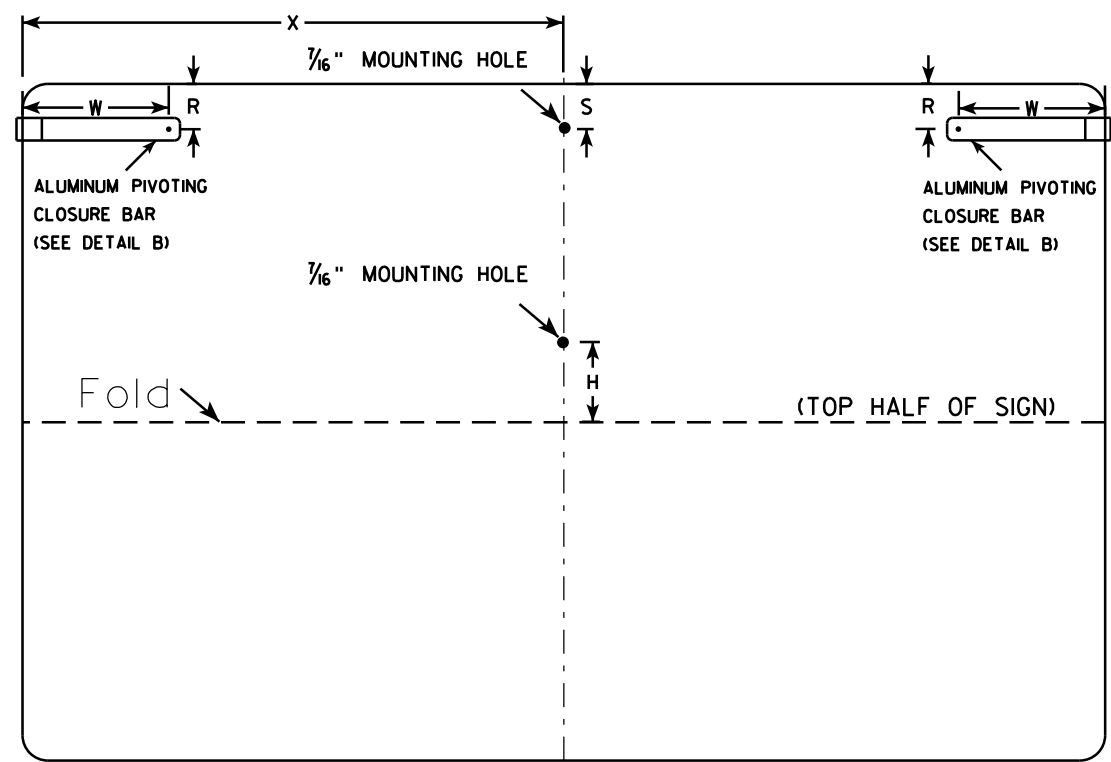
R11-54F



DETAIL A



DETAIL B



(BACK VIEW)

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - WHITE
Message - BLACK
3. Message Series - C
4. Sign Base Material shall be aluminum, corners and borders shall be rounded.
5. All hardware used on the folding sign installation shall conform to 637.2.4 of the WIS DOT Standard Specification.
6. Refer to plate A5-3A for sign blank layout.

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	48	30	1 3⁄8	½	5⁄8	5	4	3 ½	14 5⁄8	7⁄8	19 ½	4 7⁄8	9 3⁄8	2	15 ¼	15		2	3	2 5⁄8	1 ¼	11⁄16	6 ½	24			10.0
2M	48	30	1 3⁄8	½	5⁄8	5	4	3 ½	14 5⁄8	7⁄8	19 ½	4 7⁄8	9 3⁄8	2	15 ¼	15		2	3	2 5⁄8	1 ¼	11⁄16	6 ½	24			10.0
3																											
4																											
5																											

STANDARD SIGN

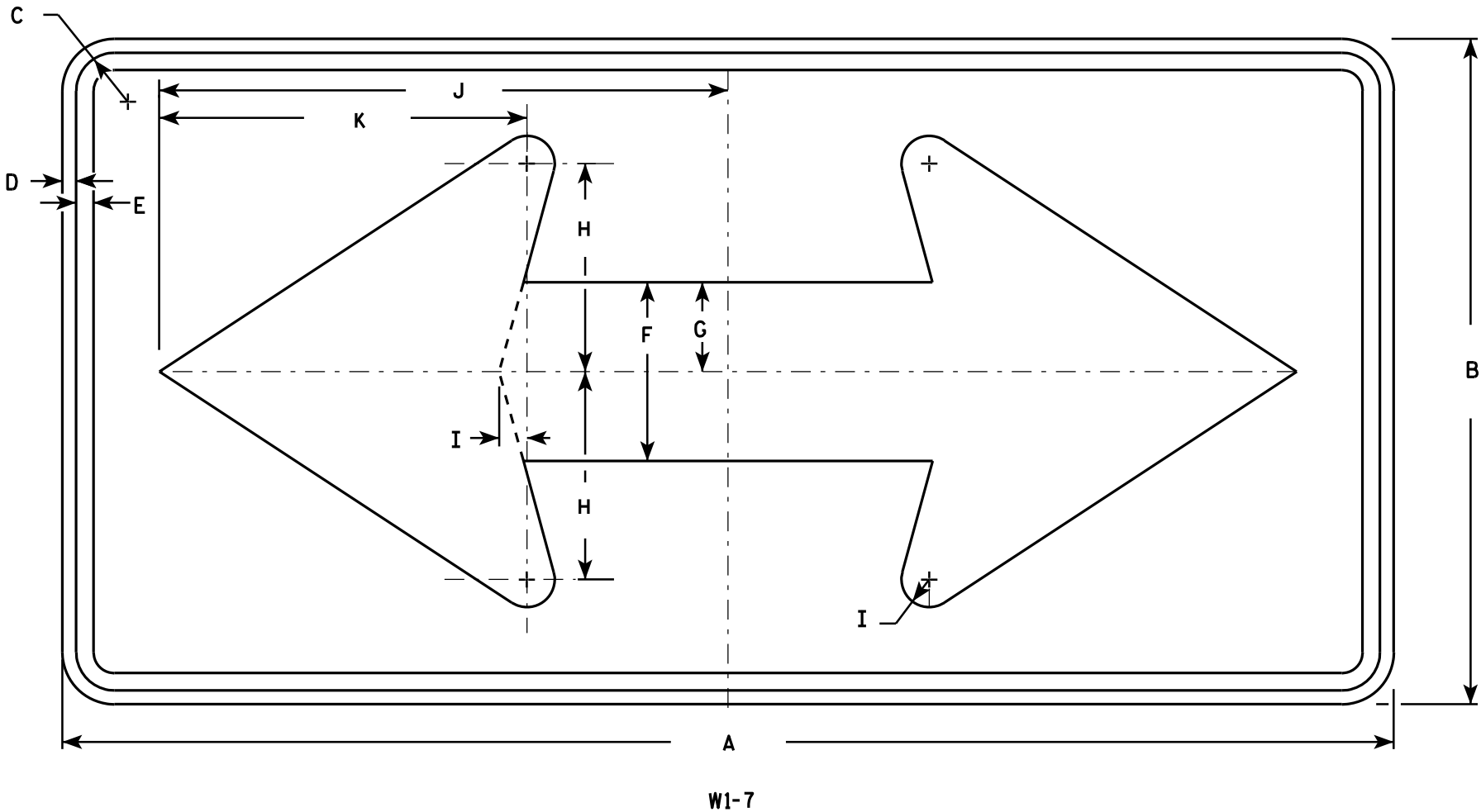
R11-54F

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 5/28/14

PLATE NO. R11-54F.3



NOTES

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

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	36	18	1 1/8	3/8	1/2	5	2 1/2	5 3/4	3/4	15 5/8	10 1/8																4.5
2S	48	24	1 3/8	1/2	5/8	6 1/2	3 1/4	7 1/2	1	20 1/2	13 1/4																8.0
2M	48	24	1 3/8	1/2	5/8	6 1/2	3 1/4	7 1/2	1	20 1/2	13 1/4																8.0
3	60	30	1 3/8	1/2	5/8	8	4	9 1/4	1 1/4	25 3/8	16 1/4																12.5
4	60	30	1 3/8	1/2	5/8	8	4	9 1/4	1 1/4	25 3/8	16 1/4																12.5
5	96	48	2 1/4	3/4	1	13	6 1/2	15	2	41	26 1/2																32.0

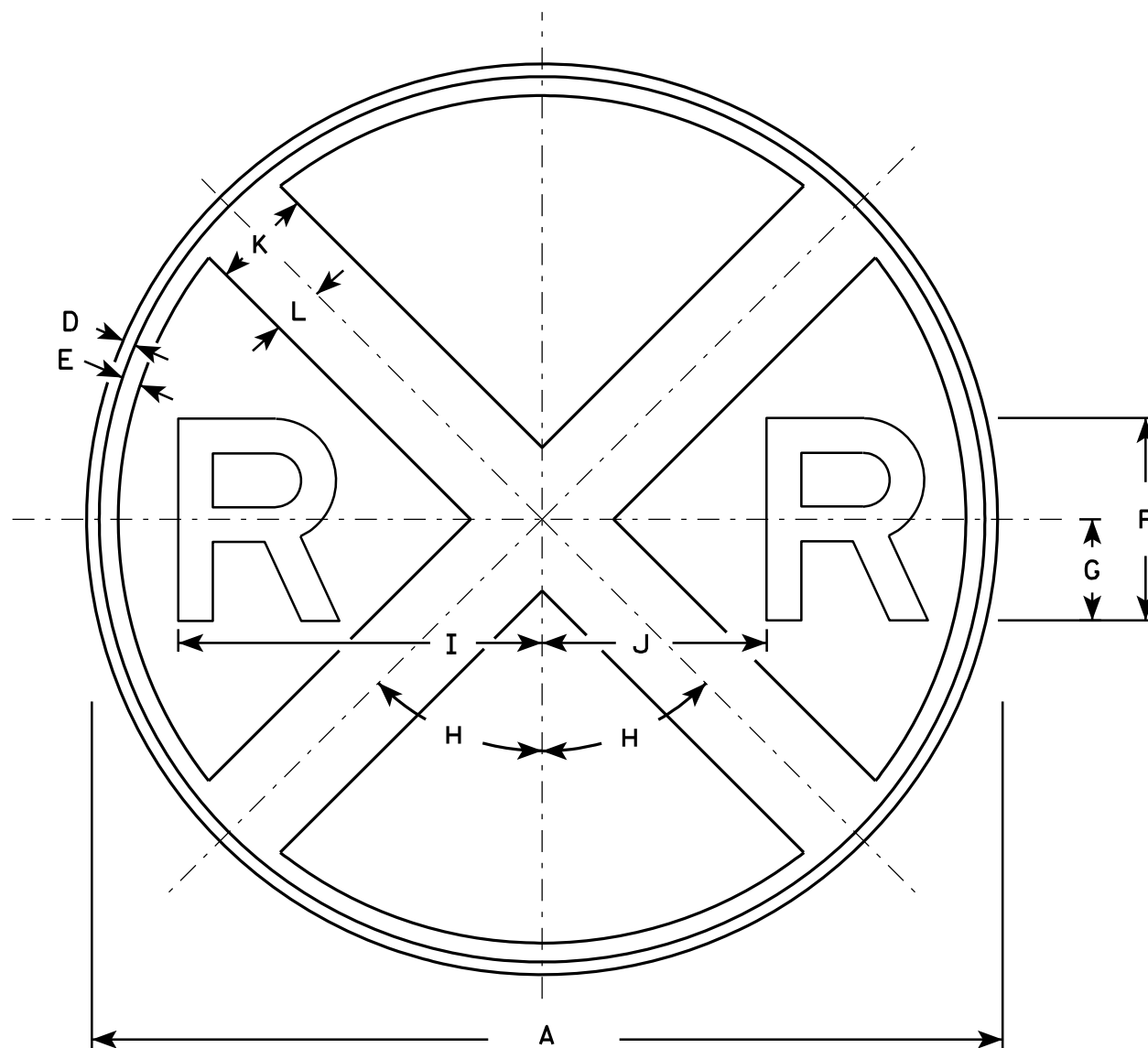
STANDARD SIGN

W1 - 7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W1-7.7



W10-1

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 - E

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			$\frac{3}{8}$	$\frac{5}{8}$	7	3 $\frac{1}{2}$	45°	12 $\frac{3}{8}$	7 $\frac{1}{8}$	3	1 $\frac{1}{2}$															4.91
2S	36			$\frac{5}{8}$	$\frac{3}{4}$	8	4	45°	14 $\frac{3}{8}$	8 $\frac{5}{8}$	4	2															7.07
2M	36			$\frac{5}{8}$	$\frac{3}{4}$	8	4	45°	14 $\frac{3}{8}$	8 $\frac{5}{8}$	4	2															7.07
3																											
4	48			$\frac{3}{4}$	1 $\frac{1}{4}$	10	5	45°	18 $\frac{3}{8}$	11 $\frac{5}{8}$	5	2 $\frac{1}{2}$															12.5
5																											

STANDARD SIGN
W10-1

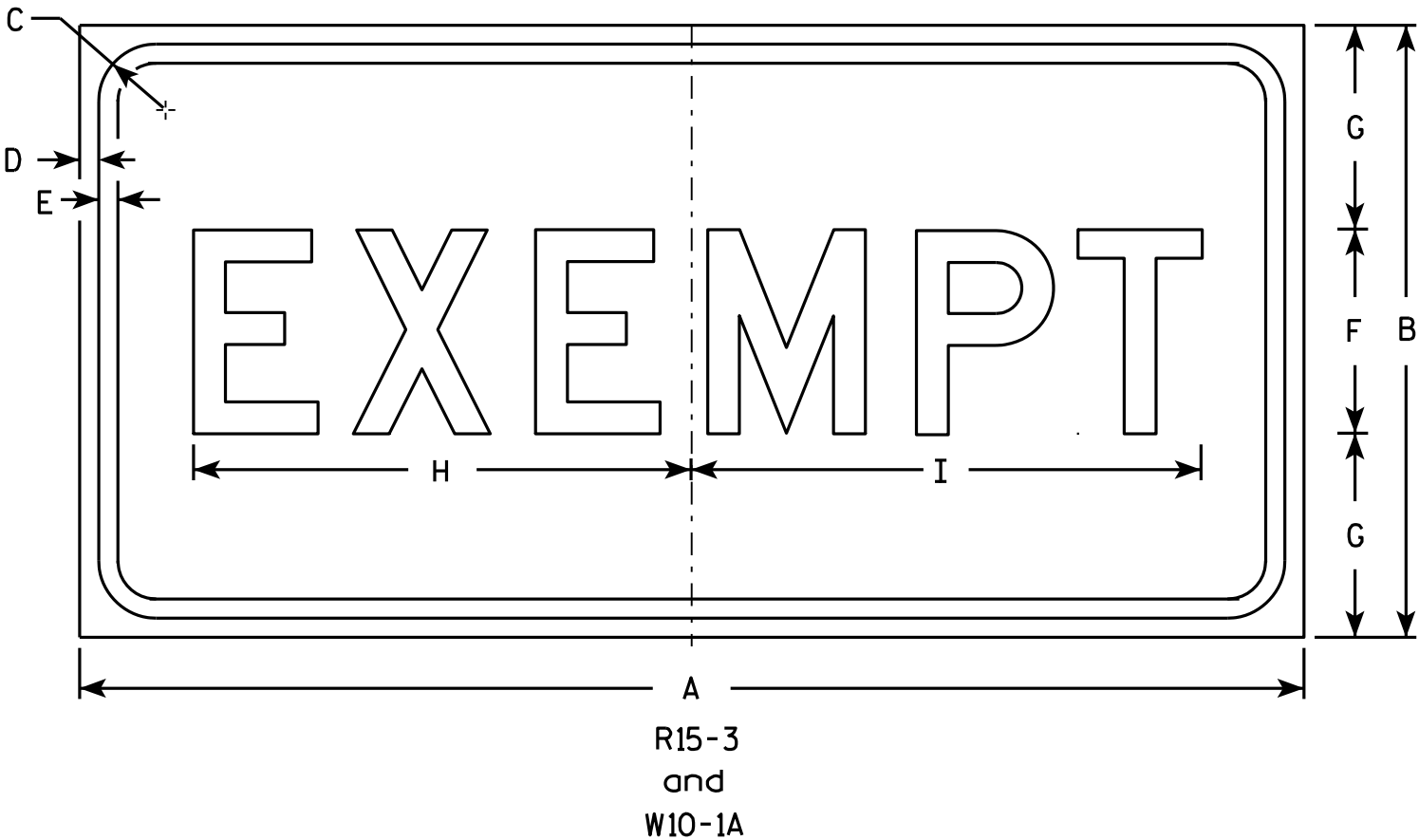
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 3/13/13 PLATE NO. W10-1.8

PROJECT NO: HWY: COUNTY: SHEET NO: E

NOTES

- 1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
Background - See Note 5
Message - Black
- 3. Message Series - D
- 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. Background - R15-3 is White Type H Reflective
W10-1A is Yellow.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 1/8	3/8	3/8	4	4	9 3/4	10																		2
2M	24	12	1 1/8	3/8	3/8	4	4	9 3/4	10																		2
3																											
4																											
5																											

STANDARD SIGN

R15-3 & W10-1A

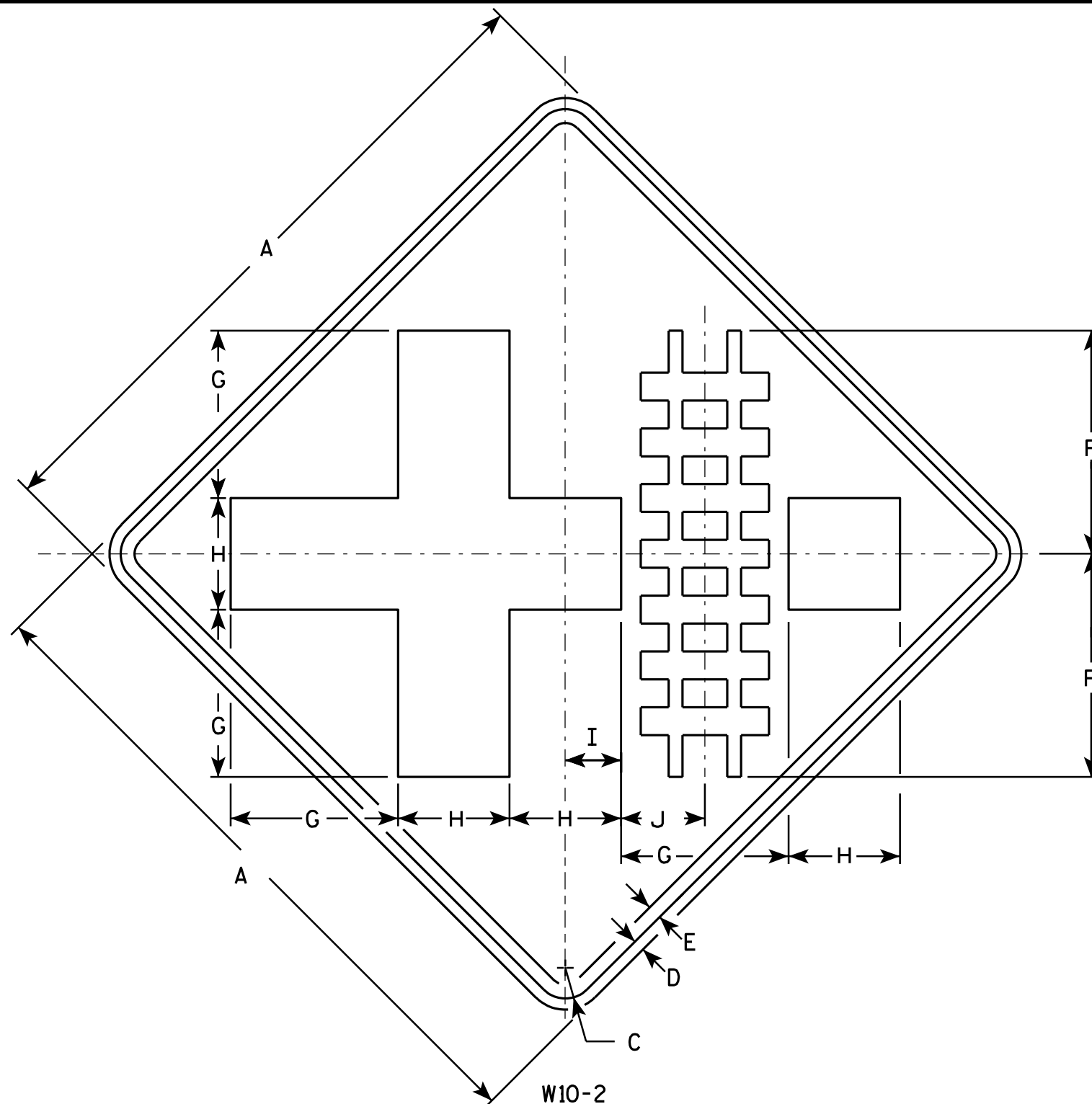
WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch
for State Traffic Engineer

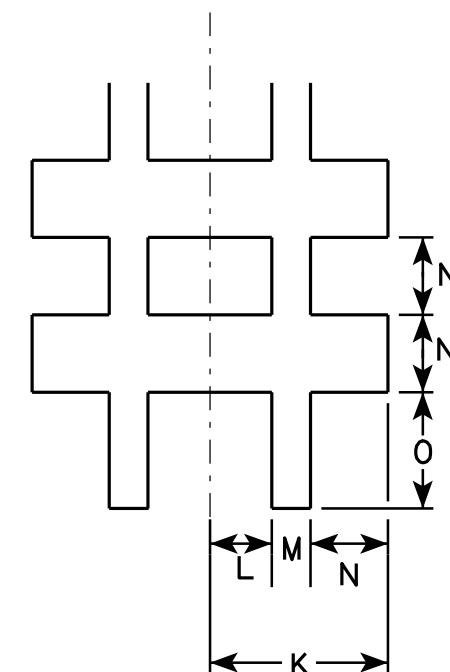
DATE 3/13/13

PLATE NO. R15-3.7



NOTES

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



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 3/13/13 PLATE NO. W10-2.8

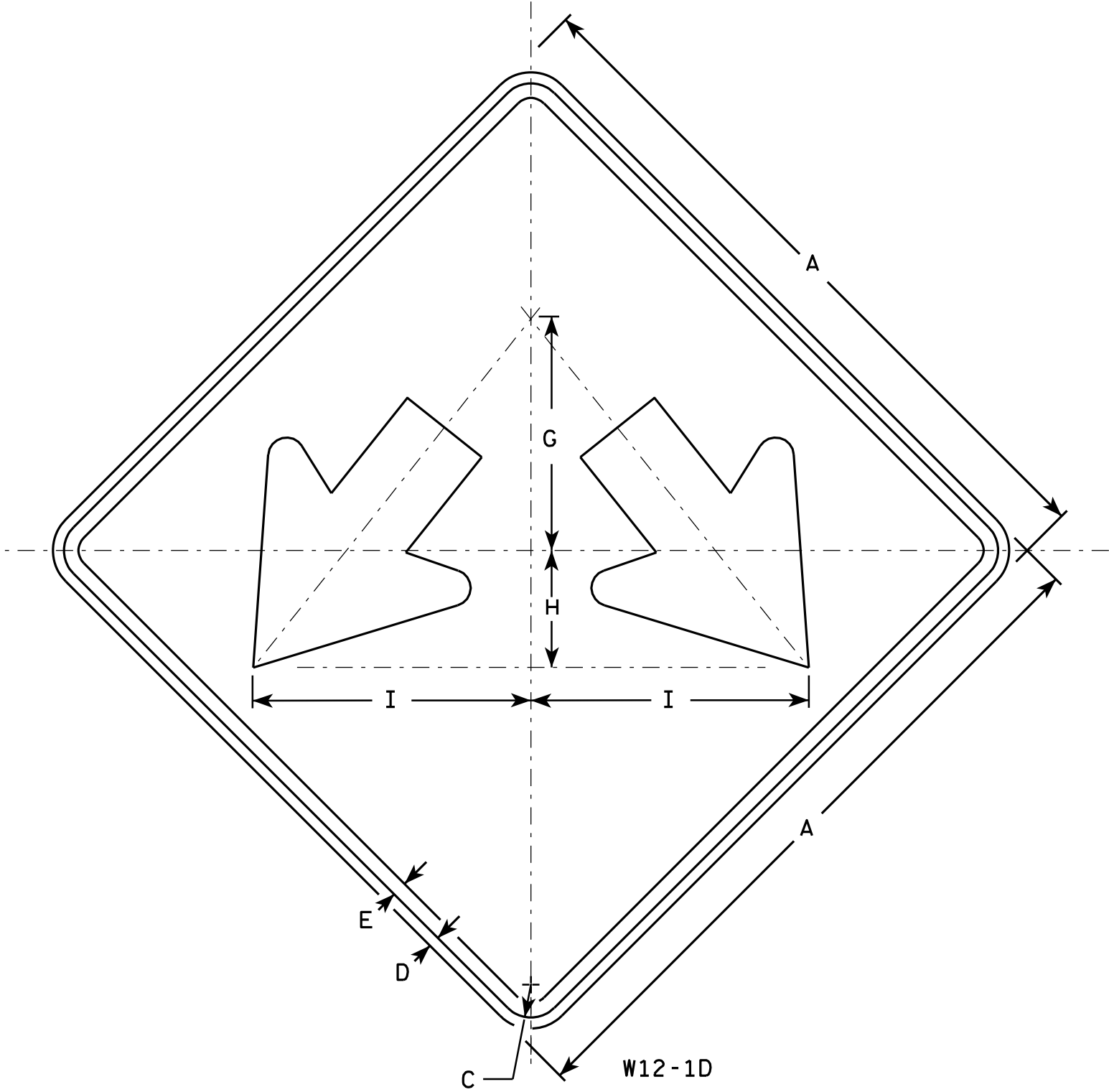
PROJECT NO:

HWY:

COUNTY:

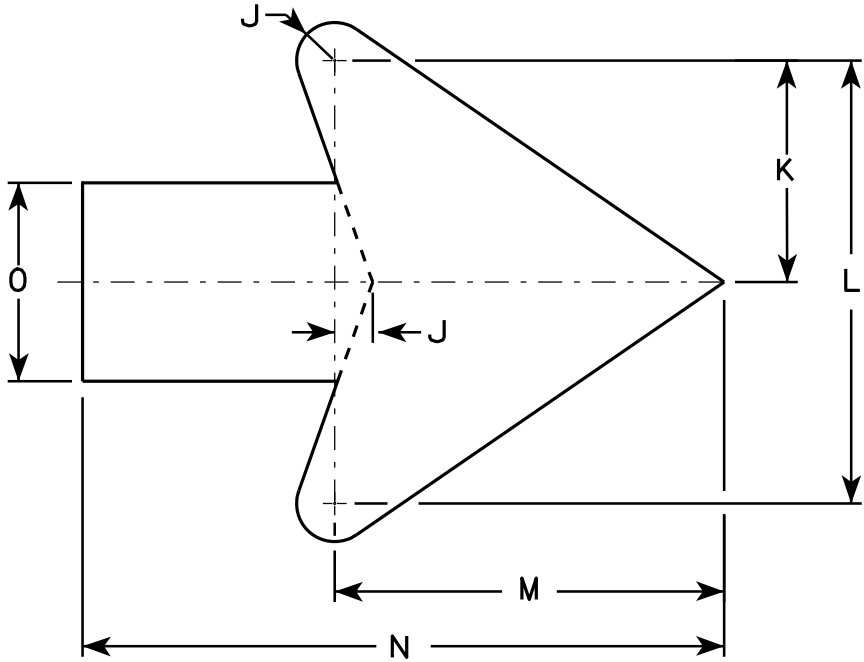
SHEET NO:

E



NOTES

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



Arrow Detail

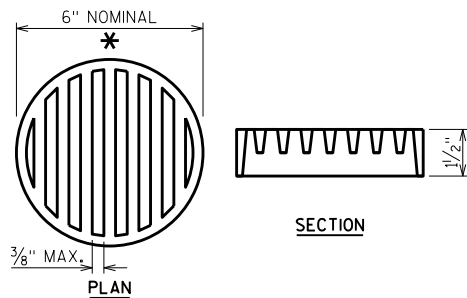
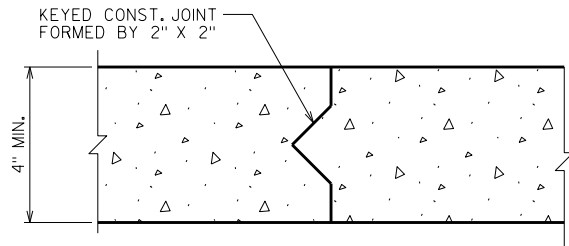
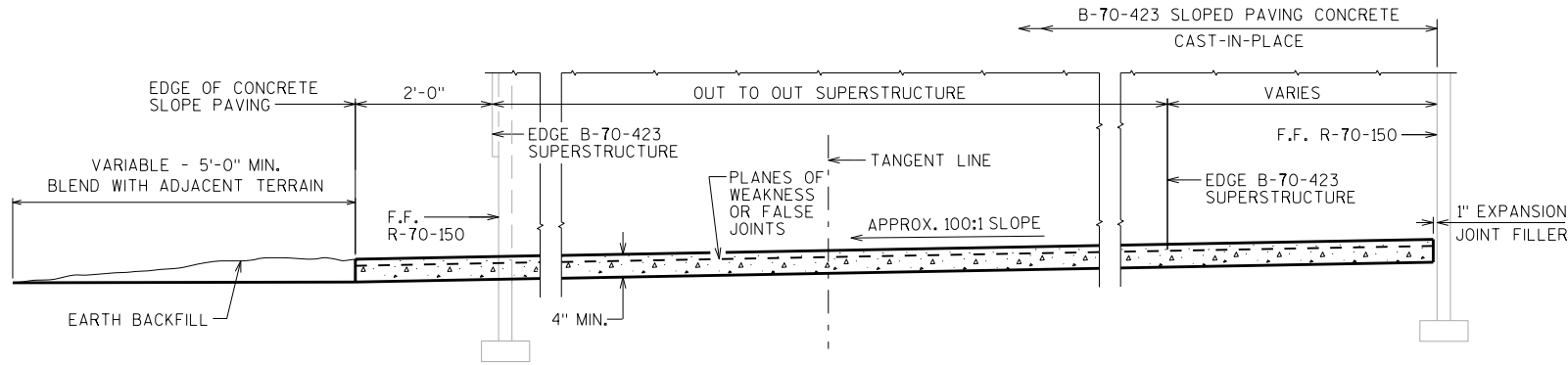
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
2M	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
3	30		1 3/8	1/2	5/8		10	5	11 7/8	3/4	4 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
Matthew R. Rauch
for State Traffic Engineer

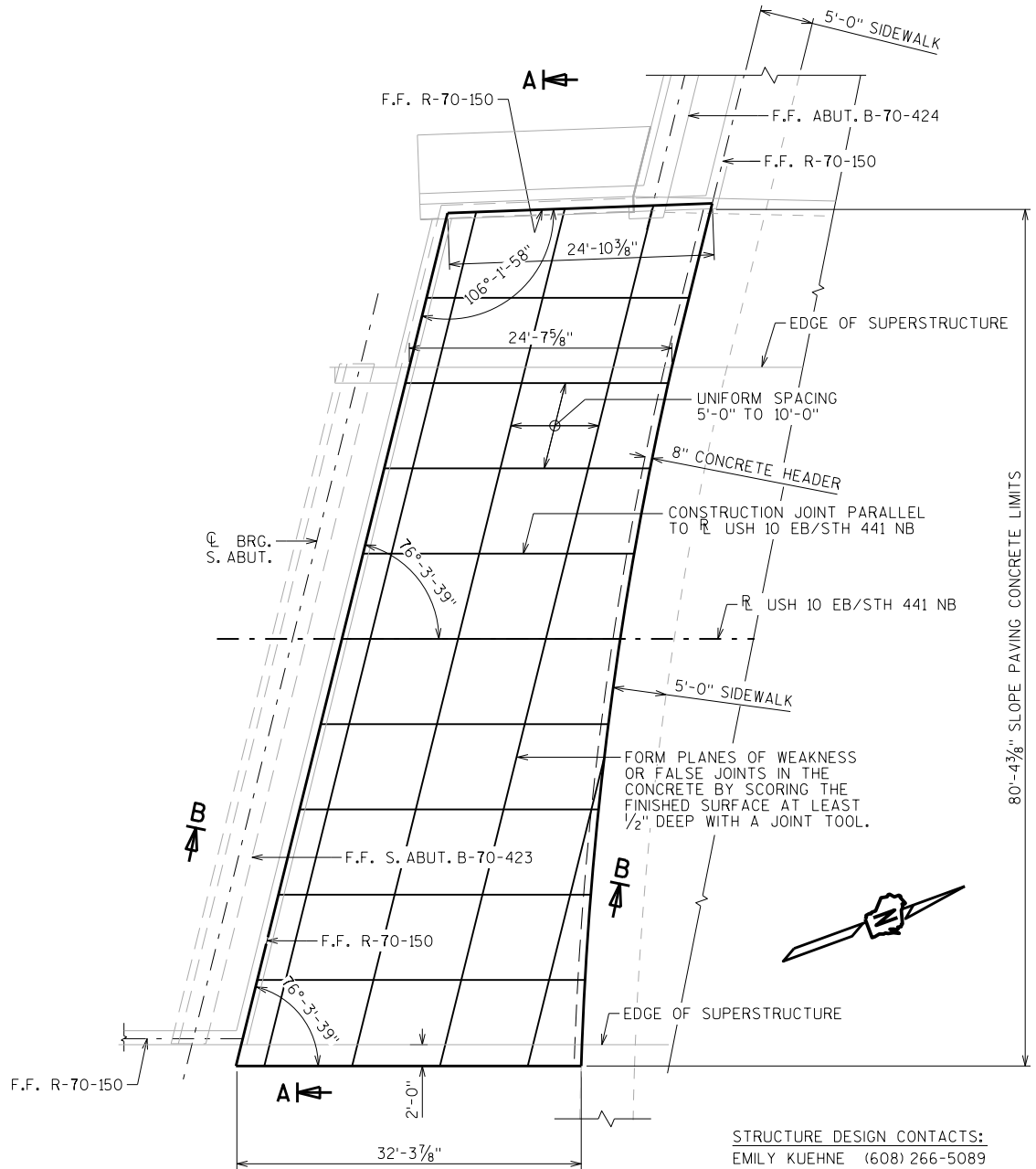
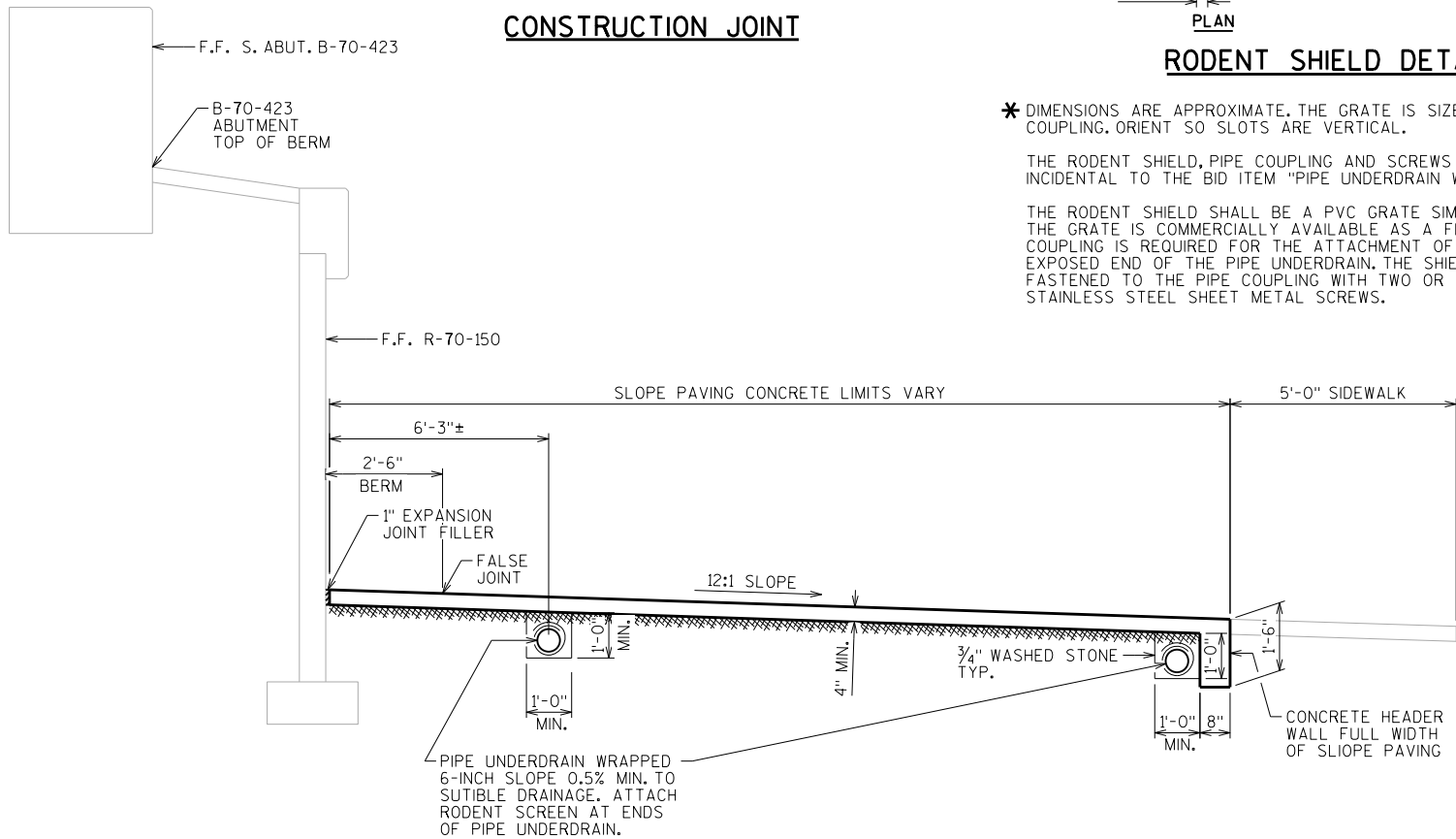
DATE 3/13/13 PLATE NO. W12-1D.15



* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.



STRUCTURE DESIGN CONTACTS:
EMILY KUEHNE (608) 266-5089
AARON BONK (608) 261-0261

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	TOTAL
604.0400	SLOPE PAVING CONCRETE	SY	555
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	350
SPV.0180	REMOVING CRUSHED AGGREGATE SLOPE PAVING	SY	320

NOTES

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

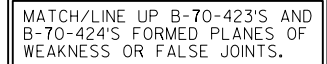
WOOD FORMS MAY BE LEFT IN PLACE WHEN OF A QUALITY ACCEPTABLE TO THE ENGINEER.

ANY EXCAVATION REQUIRED AT THE SOUTH ABUTMENT/R-70-150 SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "SLOPE PAVING CONCRETE".

LIST OF DRAWINGS

- SLOPE PAVING (CONCRETE CAST-IN-PLACE) 1
- SLOPE PAVING (CONCRETE CAST-IN-PLACE) 2

NO.	DATE	REVISION	BY
BUREAU OF STRUCTURES			
ACCEPTED <i>William C. Dierker</i> 12/11/17 CHIEF STRUCTURES DESIGN ENGINEER DATE			
STRUCTURE B-70-423			
USH 10 EB/STH 441 NB OVER CTH AP			
COUNTY	WINNEBAGO	CITY	MENASHA
DESIGN SPEC. REHABILITATION N/A			
DESIGNED BY	EMK	DESIGNED CK'D.	BH
DRAWN BY	DDS	PLANS CK'D.	EMK
SLOPE PAVING (CONCRETE CAST-IN-PLACE) 1			SHEET 1 OF 2



The technical drawing shows a circular grate. The plan view on the left is a circle with a diameter dimensioned as "6" NOMINAL" with an asterisk. Inside the circle are eight vertical bars. A dimension of $\frac{3}{8}"$ MAX. is shown for the gap between the bars. The section view on the right shows the grate's profile with a height dimensioned as $\frac{1}{8}"$. The word "SECTION" is written below the section view.

F.F. OF N. ABUT. B-70-423
 9'-3"±
 2'-6" BERM
 1" EXPANSION JOINT FILLER
 APPROX. 12:1 SLOPE
 FALSE JOINT
 4" MIN.
 2:1
 3/4" WASHED STONE, TYP.
 1'-0" MIN.
 1'-0" MIN.
 PIPE UNDERDRAIN WRAPPED (6-INCH), SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN.
 CONCRETE HEADER WALL FULL WIDTH OF SLOPE PAVING
 2'-10 1/2"
 1'-3"
 1" JOINT FILLER
 6"
 6"
 3'-6"
 CONCRETE ROADWAY BARRIER, SEE ROADWAY PLANS FOR DETAILS
 6"
 5'-0" SIDEWALK
 2'-0"
 8"

THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

WEAKNESS OR FALSE JOINTS

EDGE OF SUPERSTRUCTURE

2'-0"

VARIES - 5'-0" MIN. BLEND W/ADJACENT TERRAIN

4" MIN.

EARTH BACKFILL

38'-5 1/8"

B-70-424 CONCRETE SLOPE PAVING CAST-IN-PLACE

4'-7 5/8"

8" CONCRETE HEADER

103°-56'-20"

76°-3'-39"

EDGE OF SUPERSTRUCTURE

UNIFORM SPACING 5'-0" TO 10'-0"

CONSTRUCTION JOINT PARALLEL TO TANGENT LINE

5'-0" SIDEWALK

6"

FORM PLANES OF WEAKNESS OR FALSE JOINTS IN THE CONCRETE BY SCORING THE FINISHED SURFACE AT LEAST 1/2" DEEP WITH A JOINT TOOL.

EDGE OF SUPERSTRUCTURE

2'-0"

38'-3 1/4"

2'-6" BERM

B-70-423 SLOPE PAVING

F.F. OF ABUT.

TANGENT TO R USH 10 EB/ STH 441 NB (TANGENT @ STA. 242EB+47.50)

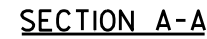
R USH 10 EB/ STH 441 NB

BRG. N. ABUT.

68'-7 3/8" SLOPE PAVING CONCRETE LIMITS

WEAKNESS OR FALSE JOINTS

NO.	DATE	REVISION			BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION STRUCTURES DESIGN SECTION					
STRUCTURE B-70-423					
DRAWN BY			DDS	PLANS CK'D.	EMK
SLOPE PAVING (CONCRETE CAST-IN-PLACE) 2				SHEET 2	




THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALY AVAILABLE AS A FLOOR STRAINER, A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.



BID ITEM NUMBER	BID ITEMS	UNIT	TOTAL
604.0400	SLOPE PAVING CONCRETE	SY	390
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	190
SPV.0180	REMOVING CRUSHED AGGREGATE SLOPE PAVING	SY	385

WOOD FORMS MAY BE LEFT IN PLACE WHEN OF A QUALITY ACCEPTABLE TO THE ENGINEER.

NO.	DATE	REVISION							BY
 BUREAU OF STRUCTURES									
ACCEPTED		<i>William C. Diehl III</i>					12/11/17		
		CHIEF STRUCTURES DESIGN ENGINEER DATE							
STRUCTURE B-70-424									
USH 10 WB/STH 441 SB OVER CTH AP									
COUNTY	WINNEBAGO						CITY	MENASHA	
DESIGN SPEC. REHABILITATION N/A									
DESIGNED BY	EMK	DESIGNED CK'D.	BH	DRAWN BY	DDS		PLANS CK'D.	EMK	
SLOPE PAVING (CONCRETE CAST-IN-PLACE)					SHEET 1 OF 1				

9

9

Division 1 - Midway Road (MEB)

STATION	Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)		
			Cut	Salvaged/Unusable Pavement Material	Fill	Cut	Salvaged/Unusable Pavement Material	Fill	Cut 1.00	Expanded Fill 1.00	Mass Ordinate
10+78.23	1078.23	0.00	250.33	0.00	0.00	0	0	0	0	0	0
11+00	1100.00	21.77	229.21	0.00	0.00	193	0	0	193	0	193
11+25	1125.00	25.00	225.92	0.00	0.00	211	0	0	404	0	404
11+50	1150.00	25.00	217.10	0.00	0.00	205	0	0	609	0	609
11+75	1175.00	25.00	214.46	0.00	0.00	200	0	0	809	0	809
12+00	1200.00	25.00	214.94	0.00	0.00	199	0	0	1,008	0	1,008
12+25	1225.00	25.00	227.60	0.00	0.01	205	0	0	1,213	0	1,213
12+50	1250.00	25.00	248.65	0.00	0.00	220	0	0	1,433	0	1,433
12+75	1275.00	25.00	285.49	0.00	0.00	247	0	0	1,680	0	1,680
13+00	1300.00	25.00	317.00	0.00	0.00	279	0	0	1,959	0	1,959
13+25	1325.00	25.00	341.26	0.00	0.00	305	0	0	2,264	0	2,264
13+50	1350.00	25.00	341.61	0.00	0.33	316	0	0	2,580	0	2,580
13+75	1375.00	25.00	354.46	0.00	0.00	322	0	0	2,902	0	2,902
14+00	1400.00	25.00	369.43	0.00	0.00	335	0	0	3,238	0	3,237
14+25	1425.00	25.00	393.07	0.00	0.00	353	0	0	3,591	0	3,590
14+50	1450.00	25.00	428.71	0.00	0.00	380	0	0	3,971	0	3,971
14+75	1475.00	25.00	464.18	0.00	0.00	413	0	0	4,384	0	4,384
15+00	1500.00	25.00	492.54	0.00	0.00	443	0	0	4,827	0	4,827
15+25	1525.00	25.00	529.59	0.00	0.00	473	0	0	5,301	0	5,300
15+50	1550.00	25.00	558.28	0.00	0.00	504	0	0	5,804	0	5,804
15+75	1575.00	25.00	584.21	0.00	0.00	529	0	0	6,333	0	6,333
16+00	1600.00	25.00	609.30	0.00	0.01	553	0	0	6,886	0	6,885
16+25	1625.00	25.00	622.05	0.00	0.13	570	0	0	7,456	0	7,455
16+50	1650.00	25.00	618.08	0.00	0.00	574	0	0	8,030	0	8,029
16+75	1675.00	25.00	581.67	0.00	0.00	555	0	0	8,585	0	8,585
17+00	1700.00	25.00	540.81	0.00	0.00	520	0	0	9,105	0	9,105
17+25	1725.00	25.00	695.83	0.00	0.00	573	0	0	9,678	0	9,677
17+50	1750.00	25.00	645.36	0.00	0.00	621	0	0	10,298	0	10,298
17+75	1775.00	25.00	636.40	0.00	0.00	593	0	0	10,892	0	10,891
18+00	1800.00	25.00	716.70	0.00	0.00	626	0	0	11,518	0	11,518
18+25	1825.00	25.00	498.40	0.00	0.00	563	0	0	12,081	0	12,080
18+50	1850.00	25.00	526.13	0.00	0.00	474	0	0	12,555	0	12,555
18+75	1875.00	25.00	488.43	0.00	0.00	470	0	0	13,025	0	13,024
19+00	1900.00	25.00	348.46	0.00	0.00	387	0	0	13,412	0	13,412
19+25	1925.00	25.00	348.62	0.00	1.67	323	0	1	13,735	1	13,734
19+50	1950.00	25.00	293.57	0.00	12.46	297	0	7	14,032	8	14,025
19+75	1975.00	25.00	449.83	0.00	16.36	344	0	13	14,377	21	14,355
20+00	2000.00	25.00	387.91	0.00	2.40	388	0	9	14,764	30	14,735
20+25	2025.00	25.00	340.04	0.00	3.78	337	0	3	15,101	33	15,069
20+50	2050.00	25.00	785.55	0.00	0.00	521	0	2	15,622	34	15,588

PROJECT NO:1517-75-77

HWY:STH 441/USH 10

COUNTY:WINNEBAGO

EARTHWORK QUANTITIES

SHEET

E

Division 1 - Midway Road (MEB) Continued

STATION	Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)		
			Cut	Salvaged/Unusable Pavement Material	Fill	Cut	Salvaged/Unusable Pavement Material	Fill	Cut 1.00	Expanded Fill 1.00	Mass Ordinate
						Note 1	Note 2	Note 3	Note 1		Note 8
20+75	2075.00	25.00	652.81	0.00	0.01	666	0	0	16,288	34	16,254
21+00	2100.00	25.00	437.82	0.00	0.63	505	0	0	16,793	35	16,759
21+25	2125.00	25.00	412.23	0.00	0.28	394	0	0	17,187	35	17,152
21+50	2150.00	25.00	294.38	0.00	2.12	327	0	1	17,514	36	17,478
21+75	2175.00	25.00	288.67	0.00	2.01	270	0	2	17,784	38	17,746
22+00	2200.00	25.00	648.06	0.00	1.78	434	0	2	18,218	40	18,178
22+25	2225.00	25.00	489.80	0.00	25.17	527	0	12	18,744	52	18,692
22+50	2250.00	25.00	357.56	0.00	7.99	392	0	15	19,137	68	19,069
22+75	2275.00	25.00	329.76	0.00	2.53	318	0	5	19,455	73	19,382
23+00	2300.00	25.00	323.79	0.00	0.00	303	0	1	19,757	74	19,684
23+25	2325.00	25.00	313.88	0.00	0.62	295	0	0	20,053	74	19,979
23+48.91	2348.91	23.91	303.27	0.00	0.00	273	0	0	20,326	74	20,252
23+75	2375.00	26.09	268.67	0.00	0.00	276	0	0	20,602	74	20,528
24+00	2400.00	25.00	250.66	0.00	4.37	240	0	2	20,843	76	20,766
24+25	2425.00	25.00	271.46	0.00	29.71	242	0	16	21,084	92	20,992
24+50	2450.00	25.00	204.64	0.00	50.24	220	0	37	21,305	129	21,176
24+75	2475.00	25.00	172.50	0.00	24.84	175	0	35	21,479	164	21,315
25+00	2500.00	25.00	230.18	0.00	30.63	186	0	26	21,666	190	21,476
25+25	2525.00	25.00	251.35	0.00	11.45	223	0	19	21,889	209	21,680
25+50	2550.00	25.00	248.79	0.00	6.30	232	0	8	22,120	217	21,903
25+75	2575.00	25.00	218.96	0.00	11.72	217	0	8	22,337	226	22,111
26+00	2600.00	25.00	226.95	0.00	5.36	206	0	8	22,543	234	22,310
26+25	2625.00	25.00	226.27	0.00	0.50	210	0	3	22,753	236	22,517
26+50	2650.00	25.00	223.61	0.00	0.02	208	0	0	22,961	237	22,725
26+75	2675.00	25.00	246.43	0.00	6.58	218	0	3	23,179	240	22,939
27+00	2700.00	25.00	316.91	0.00	1.09	261	0	4	23,440	243	23,197
27+25	2725.00	25.00	231.52	0.00	0.00	254	0	1	23,694	244	23,450
27+50	2750.00	25.00	220.47	0.00	0.14	209	0	0	23,903	244	23,659
27+75	2775.00	25.00	223.27	0.00	0.03	205	0	0	24,108	244	23,865
28+00	2800.00	25.00	216.35	0.00	0.24	204	0	0	24,312	244	24,068
28+25	2825.00	25.00	207.28	0.00	0.20	196	0	0	24,508	244	24,264
28+50	2850.00	25.00	184.85	0.00	0.53	182	0	0	24,690	244	24,445
28+75	2875.00	25.00	180.09	0.00	0.84	169	0	1	24,859	245	24,613
29+00	2900.00	25.00	189.45	0.00	0.00	171	0	0	25,030	245	24,784
29+25	2925.00	25.00	180.51	0.00	0.00	171	0	0	25,201	245	24,955
29+50	2950.00	25.00	174.82	0.00	0.09	165	0	0	25,365	246	25,120
29+75	2975.00	25.00	154.12	0.00	0.00	152	0	0	25,518	246	25,272
29+76	2976.00	1.00	146.47	0.00	0.00	6	0	0	25,523	246	25,278
COLUMN TOTALS						25,523	0	246			

Notes:

- 1- Cut includes Salvaged/Unusable Pavement material
2- Salvaged/Unusable Pavement Material is included in Cut
3- Fill Does not include Unusable Pavement Exc volume.

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Division 2 - Racine Road (R)

STATION	Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)		
			Cut	Salvaged/Unusable Pavement Material	Fill	Cut Note 1	Salvaged/Unusable Pavement Material Note 2	Fill Note 3	Cut 1.00 Note 1	Expanded Fill 1.00	Mass Ordinate Note 8
37+35.61	3735.61	0.00	0.00	0.00	0.00	0	0	0	0	0	0
37+50	3750.00	14.39	0.00	0.00	0.00	0	0	0	0	0	0
37+75	3775.00	25.00	94.72	15.00	8.30	44	7	4	44	4	33
38+00	3800.00	25.00	83.27	15.00	9.57	82	14	8	126	12	93
38+25	3825.00	25.00	75.22	15.00	17.39	73	14	12	200	25	140
38+50	3850.00	25.00	73.49	15.00	18.32	69	14	17	268	41	179
38+75	3875.00	25.00	72.71	15.00	20.42	68	14	18	336	59	215
39+00	3900.00	25.00	73.91	15.00	21.36	68	14	19	404	78	249
39+25	3925.00	25.00	78.33	15.00	19.18	70	14	19	475	97	287
39+50	3950.00	25.00	86.25	15.00	20.60	76	14	18	551	116	331
39+75	3975.00	25.00	93.98	15.00	33.26	83	14	25	634	141	376
40+00	4000.00	25.00	100.83	15.00	71.84	90	14	49	724	189	403
40+25	4025.00	25.00	111.66	15.00	66.27	98	14	64	823	253	424
40+50	4050.00	25.00	134.67	15.00	45.48	114	14	52	937	305	472
40+75	4075.00	25.00	172.00	15.00	1.28	142	14	22	1,079	327	579
41+00	4100.00	25.00	177.72	15.00	11.58	162	14	6	1,241	332	721
41+25	4125.00	25.00	204.69	15.00	9.31	177	14	10	1,418	342	874
41+50	4150.00	25.00	219.86	15.00	0.00	197	14	4	1,614	346	1,053
41+75	4175.00	25.00	223.00	15.00	0.00	205	14	0	1,819	346	1,244
42+00	4200.00	25.00	222.79	15.00	0.00	206	14	0	2,026	346	1,436
42+25	4225.00	25.00	235.34	15.00	0.15	212	14	0	2,238	347	1,634
42+50	4250.00	25.00	270.87	15.00	1.40	234	14	1	2,472	347	1,854
42+75	4275.00	25.00	338.79	15.00	0.08	282	14	1	2,754	348	2,122
43+00	4300.00	25.00	354.79	15.00	0.04	321	14	0	3,075	348	2,429
43+25	4325.00	25.00	374.90	15.00	0.00	338	14	0	3,413	348	2,753
43+50	4350.00	25.00	295.27	15.00	0.00	310	14	0	3,724	348	3,049
43+75	4375.00	25.00	195.60	15.00	0.76	227	14	0	3,951	348	3,262
44+00	4400.00	25.00	168.16	15.00	5.42	168	14	3	4,119	351	3,414
44+25	4425.00	25.00	153.47	15.00	9.29	149	14	7	4,268	358	3,542
44+50	4450.00	25.00	143.28	15.00	13.09	137	14	10	4,405	368	3,655
44+75	4475.00	25.00	134.55	15.00	15.53	129	14	13	4,534	382	3,757
45+00	4500.00	25.00	132.15	15.00	0.48	123	14	7	4,658	389	3,859
45+25	4525.00	25.00	125.93	15.00	14.65	119	14	7	4,777	396	3,957

Division 2 - Racine Road (R) Continued

STATION	Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)		
			Cut	Salvaged/Unusable Pavement Material	Fill	Cut	Salvaged/Unusable Pavement Material	Fill	Cut 1.00	Expanded Fill 1.00	Mass Ordinate
						Note 1	Note 2	Note 3	Note 1		Note 8
45+50	4550.00	25.00	120.76	15.00	12.18	114	14	12	4,891	408	4,045
45+75	4575.00	25.00	115.52	15.00	10.79	109	14	11	5,001	419	4,130
46+00	4600.00	25.00	114.00	15.00	13.40	106	14	11	5,107	430	4,211
46+25	4625.00	25.00	117.70	15.00	18.89	107	14	15	5,214	445	4,290
46+50	4650.00	25.00	117.75	15.00	0.49	109	14	9	5,323	454	4,376
46+75	4675.00	25.00	112.35	15.00	25.64	107	14	12	5,430	466	4,457
47+00	4700.00	25.00	107.74	15.00	34.13	102	14	28	5,532	494	4,517
47+25	4725.00	25.00	105.80	15.00	32.11	99	14	31	5,630	525	4,571
47+50	4750.00	25.00	113.32	15.00	12.98	101	14	21	5,732	545	4,638
47+75	4775.00	25.00	110.28	15.00	13.81	104	14	12	5,835	558	4,715
48+00	4800.00	25.00	109.66	15.00	15.10	102	14	13	5,937	571	4,790
48+25	4825.00	25.00	88.74	15.00	7.32	92	14	10	6,029	582	4,857
48+50	4850.00	25.00	84.10	15.00	8.39	80	14	7	6,109	589	4,916
48+75	4875.00	25.00	81.07	15.00	7.15	76	14	7	6,186	596	4,971
49+00	4900.00	25.00	78.90	15.00	8.23	74	14	7	6,260	603	5,024
49+25	4925.00	25.00	76.29	15.00	9.49	72	14	8	6,332	611	5,074
49+50	4950.00	25.00	74.87	15.00	7.40	70	14	8	6,402	619	5,123
49+75	4975.00	25.00	0.00	0.00	0.00	35	7	3	6,436	623	5,147
50+00	5000.00	25.00	0.00	0.00	0.00	0	0	0	6,436	623	5,147
50+25	5025.00	25.00	0.00	0.00	0.00	0	0	0	6,436	623	5,147
50+50	5050.00	25.00	0.00	0.00	0.00	0	0	0	6,436	623	5,147
50+75	5075.00	25.00	0.00	0.00	0.00	0	0	0	6,436	623	5,147
51+00	5100.00	25.00	0.00	0.00	0.00	0	0	0	6,436	623	5,147
51+25	5125.00	25.00	0.00	0.00	0.00	0	0	0	6,436	623	5,147
51+50	5150.00	25.00	0.00	0.00	0.00	0	0	0	6,436	623	5,147
51+75	5175.00	25.00	0.00	0.00	0.00	0	0	0	6,436	623	5,147
52+00	5200.00	25.00	0.00	0.00	0.00	0	0	0	6,436	623	5,147
52+25	5225.00	25.00	0.00	0.00	0.00	0	0	0	6,436	623	5,147
52+50	5250.00	25.00	0.00	0.00	0.00	0	0	0	6,436	623	5,147
52+75	5275.00	25.00	0.00	0.00	0.00	0	0	0	6,436	623	5,147
COLUMN TOTALS						6,436	667	623			

- Notes:
- 1- Cut includes Salvaged/Unusable Pavement material
 - 2- Salvaged/Unusable Pavement Material is included in Cut
 - 3- Fill Does not include Unusable Pavement Exc volume.

9

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Division 3 - Midway Road NE Ramp (MNE)

STATION	Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)		
			Cut	Salvaged/Unusable Pavement Material	Fill	Cut	Salvaged/Unusable Pavement Material	Fill	Cut 1.00 Note 1	Expanded Fill 1.00	Mass Ordinate Note 8
						Note 1	Note 2	Note 3			
242+50	24250.00	0.00	202.52	0.00	0.00	0	0	0	0	0	0
242+75	24275.00	25.00	141.57	0.00	0.00	159	0	0	159	0	159
243+00	24300.00	25.00	96.15	0.00	0.38	110	0	0	269	0	269
243+25	24325.00	25.00	94.39	0.00	1.91	88	0	1	358	1	356
243+50	24350.00	25.00	78.71	0.00	7.66	80	0	4	438	6	432
243+75	24375.00	25.00	74.86	0.00	9.61	71	0	8	509	14	495
244+00	24400.00	25.00	70.73	0.00	12.93	67	0	10	576	24	552
244+25	24425.00	25.00	66.50	0.00	19.37	64	0	15	640	39	601
244+50	24450.00	25.00	64.50	0.00	30.54	61	0	23	700	62	638
COLUMN TOTALS						700	0	62			

- Notes:
- 1- Cut includes Salvaged/Unusable Pavement material
 - 2- Salvaged/Unusable Pavement Material is included in Cut
 - 3- Fill Does not include Unusable Pavement Exc volume.

Division 4 - Midway Road NW Ramp (MNW)

STATION	Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)		
			Cut	Salvaged/Unusable Pavement Material	Fill	Cut	Salvaged/Unusable Pavement Material	Fill	Cut 1.00 Note 1	Expanded Fill 1.00	Mass Ordinate
						Note 1	Note 2	Note 3			Note 8
240+59.13	24059.13	0.00	132.60	0.00	124.74	0	0	0	0	0	0
240+75	24075.00	15.87	55.94	0.00	0.06	55	0	37	55	37	19
241+00	24100.00	25.00	49.83	0.00	71.42	49	0	33	104	70	35
241+25	24125.00	25.00	48.02	0.00	87.44	45	0	74	150	143	6
241+49.97	24149.97	24.97	32.92	0.00	86.24	37	0	80	187	224	-37
241+75	24175.00	25.03	39.06	0.00	47.58	33	0	62	220	286	-65
241+96.79	24196.79	21.79	119.62	0.00	9.87	64	0	23	284	309	-24
COLUMN TOTALS						284	0	309			

- Notes:
- 1- Cut includes Salvaged/Unusable Pavement material
 - 2- Salvaged/Unusable Pavement Material is included in Cut
 - 3- Fill Does not include Unusable Pavement Exc volume.

Division 5 - Midway Road MSE Ramp (MSE)

STATION	Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)	
			Cut	Salvaged/Unusable Pavement Material	Fill	Cut Note 1	Salvaged/Unusable Pavement Material Note 2	Fill Note 3	Cut 1.00 Note 1	Mass Ordinate Note 8
239+25	23925.00	0.00	85.53	0.00	0.57	0	0	0	0	0
239+50	23950.00	25.00	88.63	0.00	0.91	81	0	1	81	80
239+75	23975.00	25.00	117.98	0.00	0.14	96	0	0	176	175
240+00	24000.00	25.00	80.86	0.00	0.00	92	0	0	268	267
240+25	24025.00	25.00	115.62	0.00	0.00	91	0	0	359	358
240+50	24050.00	25.00	159.74	0.00	0.00	127	0	0	487	486
240+75	24075.00	25.00	101.37	0.00	0.00	121	0	0	608	606
241+00	24100.00	25.00	95.93	0.00	0.00	91	0	0	699	698
COLUMN TOTALS						699	0	1		

Notes:

- 1- Cut includes Salvaged/Unusable Pavement material
- 2- Salvaged/Unusable Pavement Material is included in Cut
- 3- Fill Does not include Unusable Pavement Exc volume.

Division 6 - Midway Road SW Ramp (MSW)

STATION	Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)		
			Cut	Salvaged/Unusable Pavement Material	Fill	Cut	Salvaged/Unusable Pavement Material	Fill	Cut 1.00	Expanded Fill 1.00	Mass Ordinate
						Note 1	Note 2	Note 3	Note 1		Note 8
240+11.83	24011.83	0.00	109.52	0.00	0.05	0	0	0	0	0	0
240+25	24025.00	13.17	137.61	0.00	0.01	60	0	0	60	0	60
240+50	24050.00	25.00	206.81	0.00	0.00	159	0	0	220	0	220
240+75	24075.00	25.00	219.29	0.00	0.00	197	0	0	417	0	417
241+00	24100.00	25.00	231.73	0.00	0.00	209	0	0	626	0	626
241+12.07	24112.07	12.07	238.59	0.00	0.00	105	0	0	731	0	731
COLUMN TOTALS						731	0	0			

- Notes:
- 1- Cut includes Salvaged/Unusable Pavement material
 - 2- Salvaged/Unusable Pavement Material is included in Cut
 - 3- Fill Does not include Unusable Pavement Exc volume.

Division 7 - Midway Road NW Bypass Ramp (MNWB)

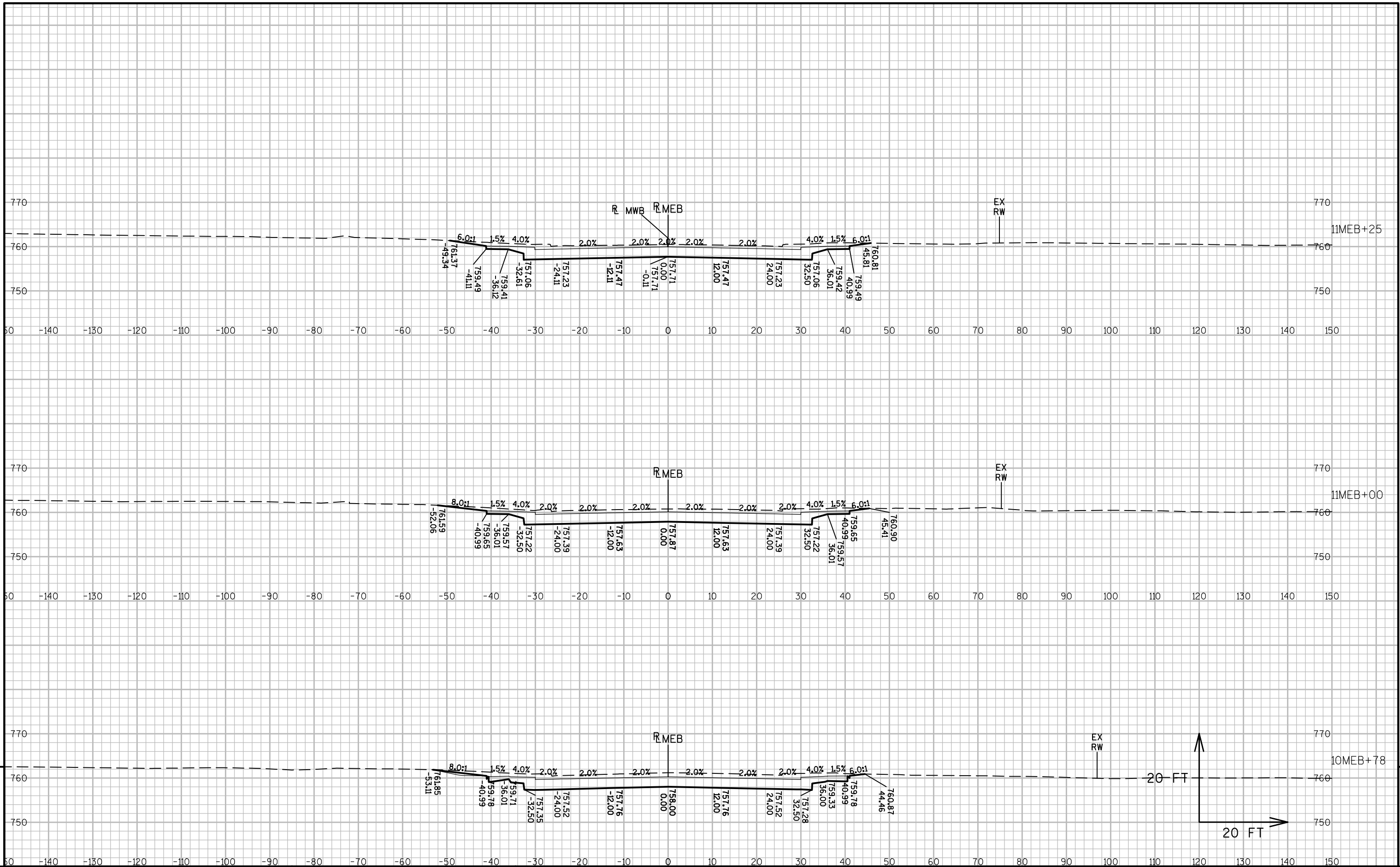
STATION	Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)		
			Cut	Salvaged/Unusable Pavement Material	Fill	Cut	Salvaged/Unusable Pavement Material	Fill	Cut 1.00 Note 1	Expanded Fill 1.00	Mass Ordinate Note 8
						Note 1	Note 2	Note 3			
00+49.43	49.43	0.00	374.58	0.00	0.00	0	0	0	0	0	0
00+75	75.00	25.57	478.45	0.00	0.00	404	0	0	404	0	404
01+00	100.00	25.00	313.72	0.00	0.00	367	0	0	771	0	771
01+48.34	148.34	48.34	133.87	0.00	0.00	401	0	0	1,171	0	1,171
COLUMN TOTALS						1,171	0	0			

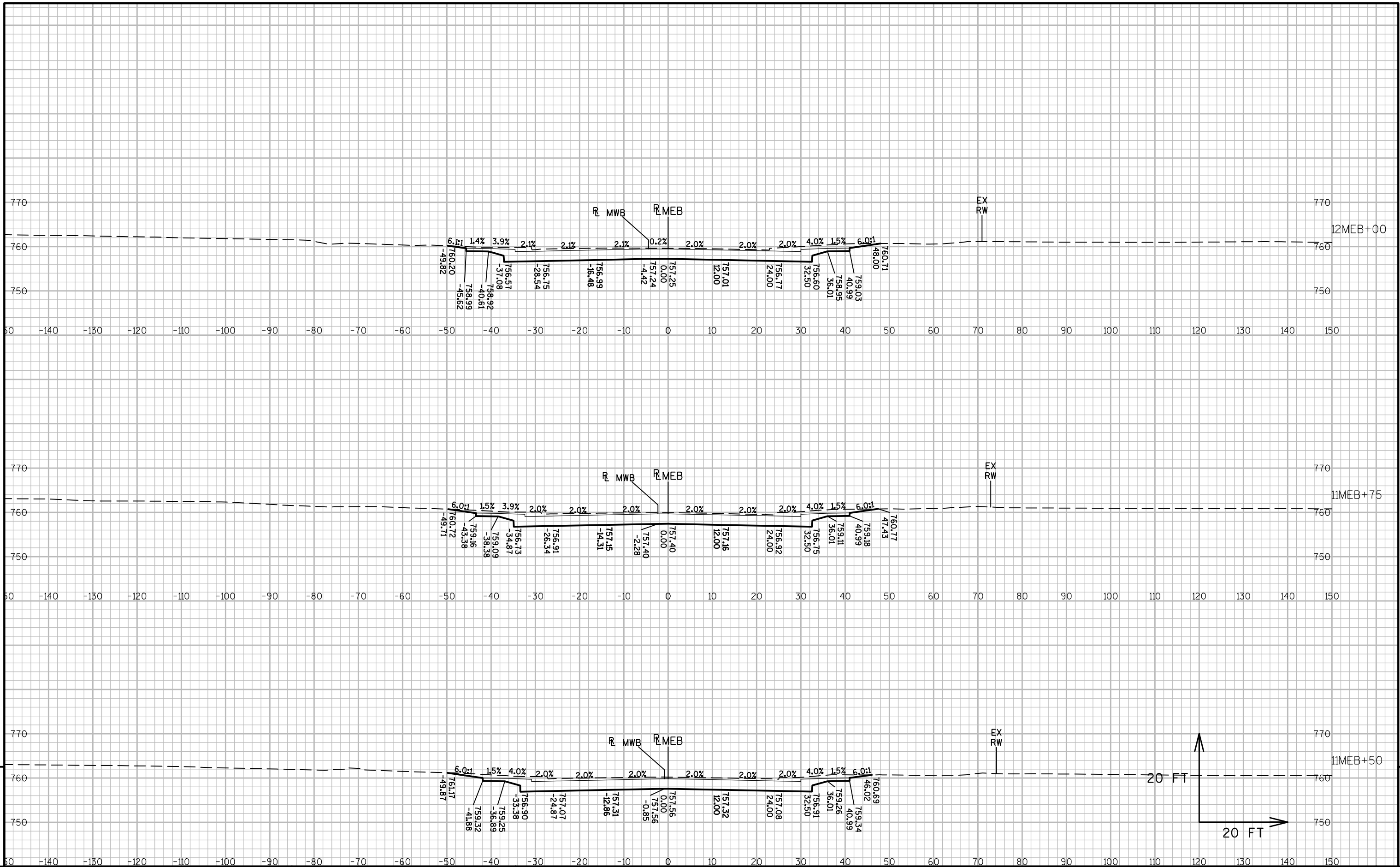
- Notes:
- 1- Cut includes Salvaged/Unusable Pavement material
 - 2- Salvaged/Unusable Pavement Material is included in Cut
 - 3- Fill Does not include Unusable Pavement Exc volume.

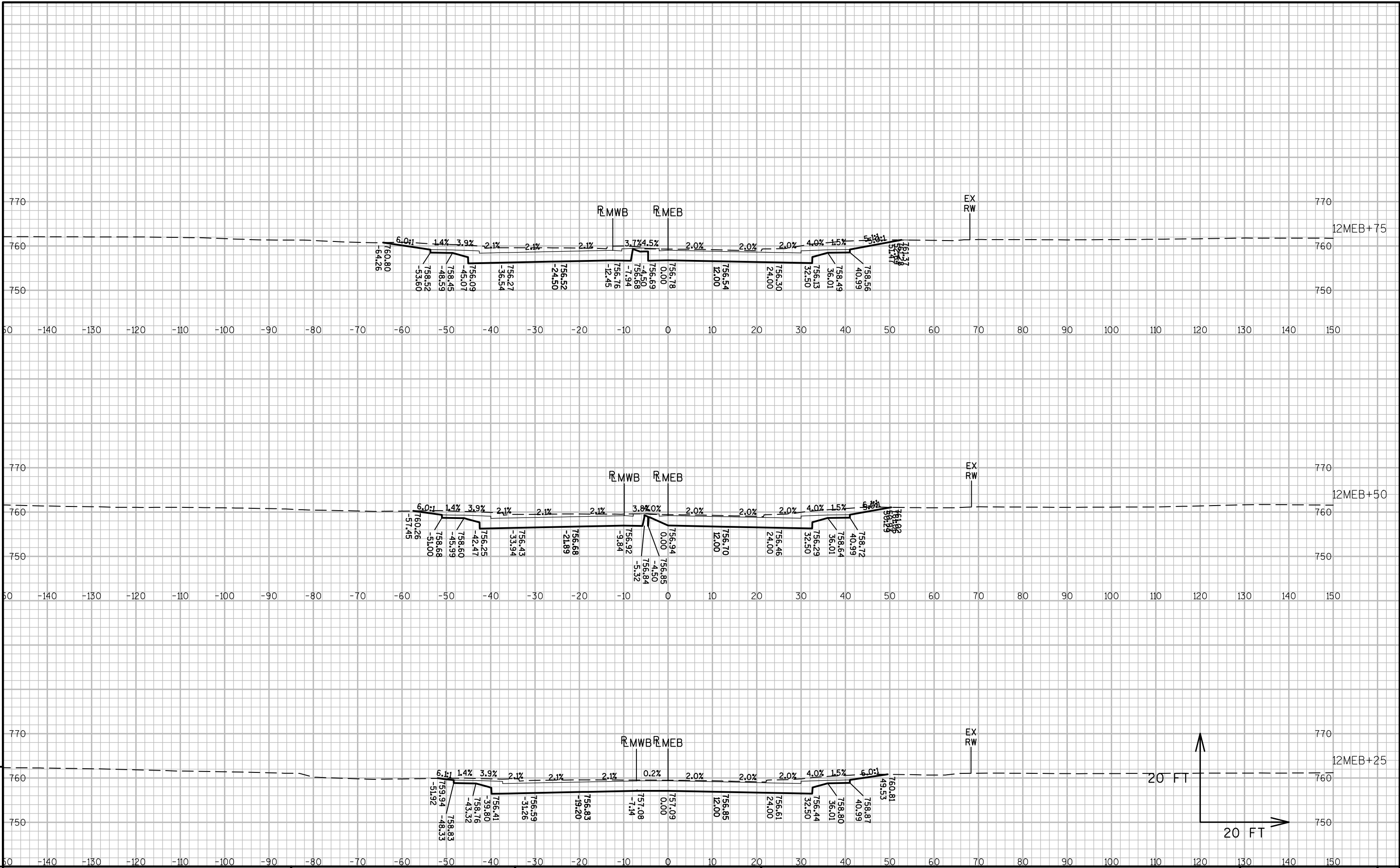
Division 8 - Midway Road SE Bypass Ramp (MSEB)

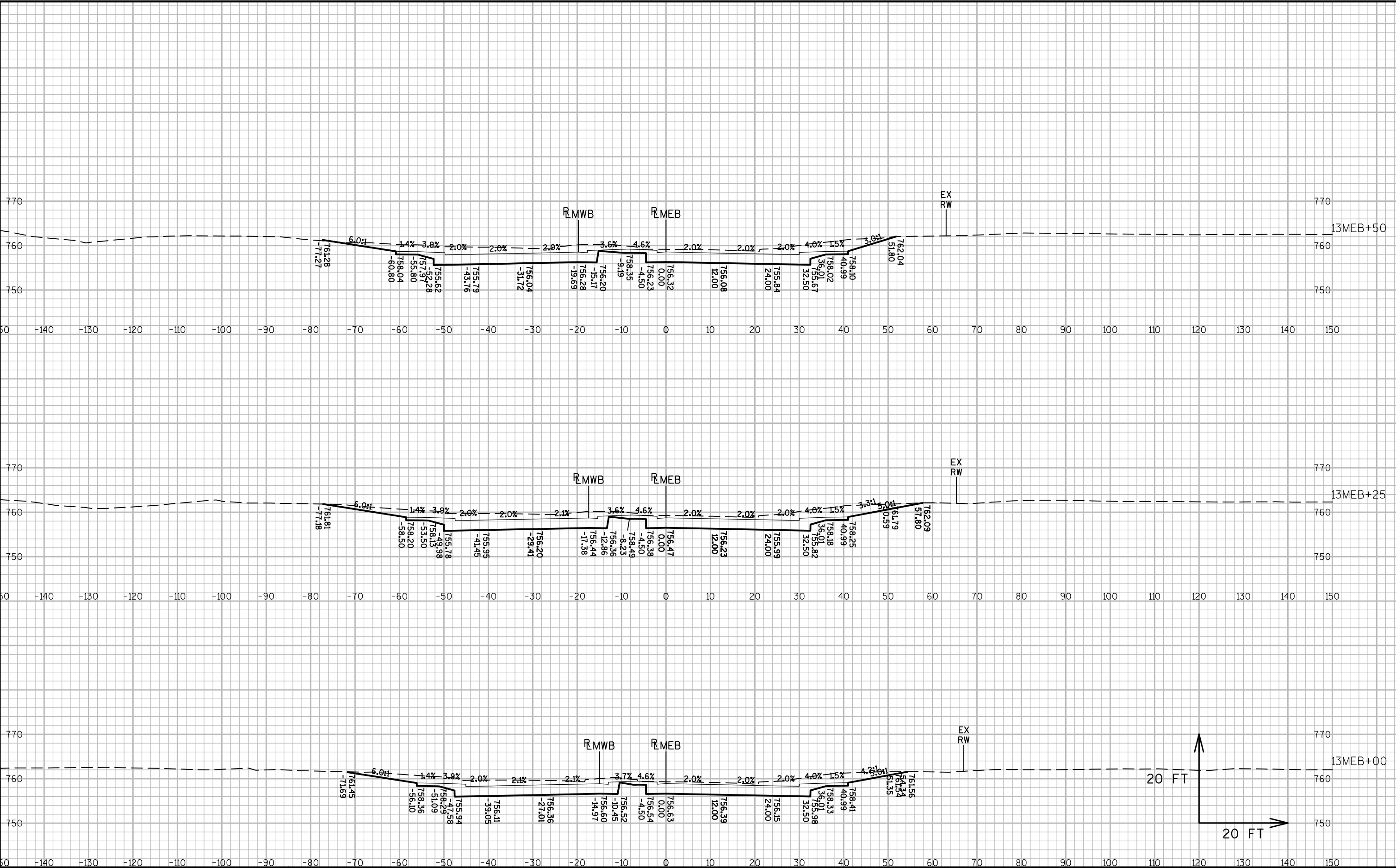
STATION	Real Station	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)		
			Cut	Salvaged/Unusable Pavement Material	Fill	Cut Note 1	Salvaged/Unusable Pavement Material Note 2	Fill Note 3	Cut 1.00 Note 1	Expanded Fill 1.00	Mass Ordinate Note 8
00+00	0.00	0.00	63.88	0.00	0.00	0	0	0	0	0	0
00+50	50.00	50.00	87.33	0.00	0.00	140	0	0	140	0	140
00+75	75.00	25.00	74.00	0.00	0.00	75	0	0	215	0	215
01+00	100.00	25.00	59.68	0.00	0.00	62	0	0	277	0	277
COLUMN TOTALS						277	0	0			

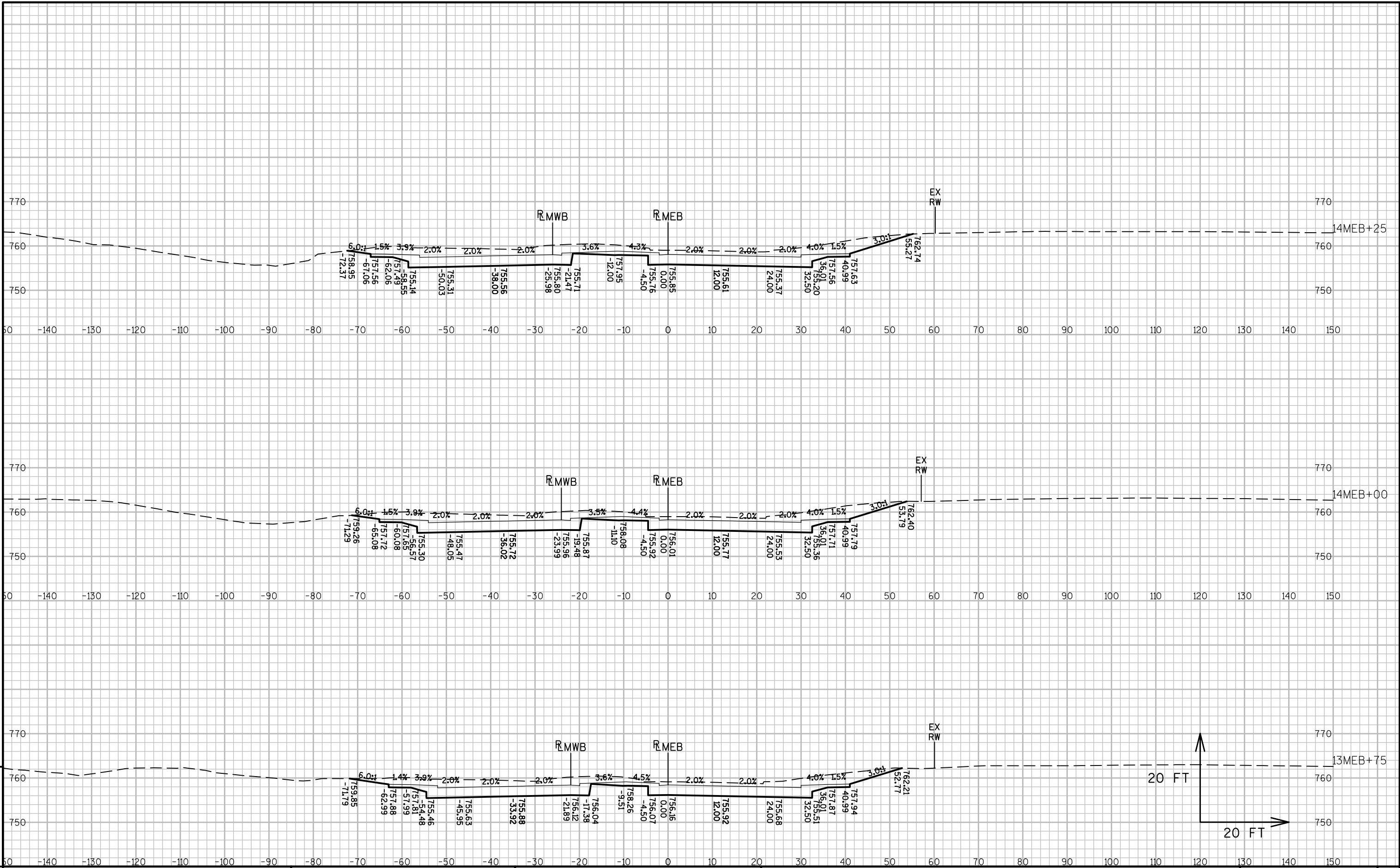
- Notes:
- 1- Cut includes Salvaged/Unusable Pavement material
 - 2- Salvaged/Unusable Pavement Material is included in Cut
 - 3- Fill Does not include Unusable Pavement Exc volume.

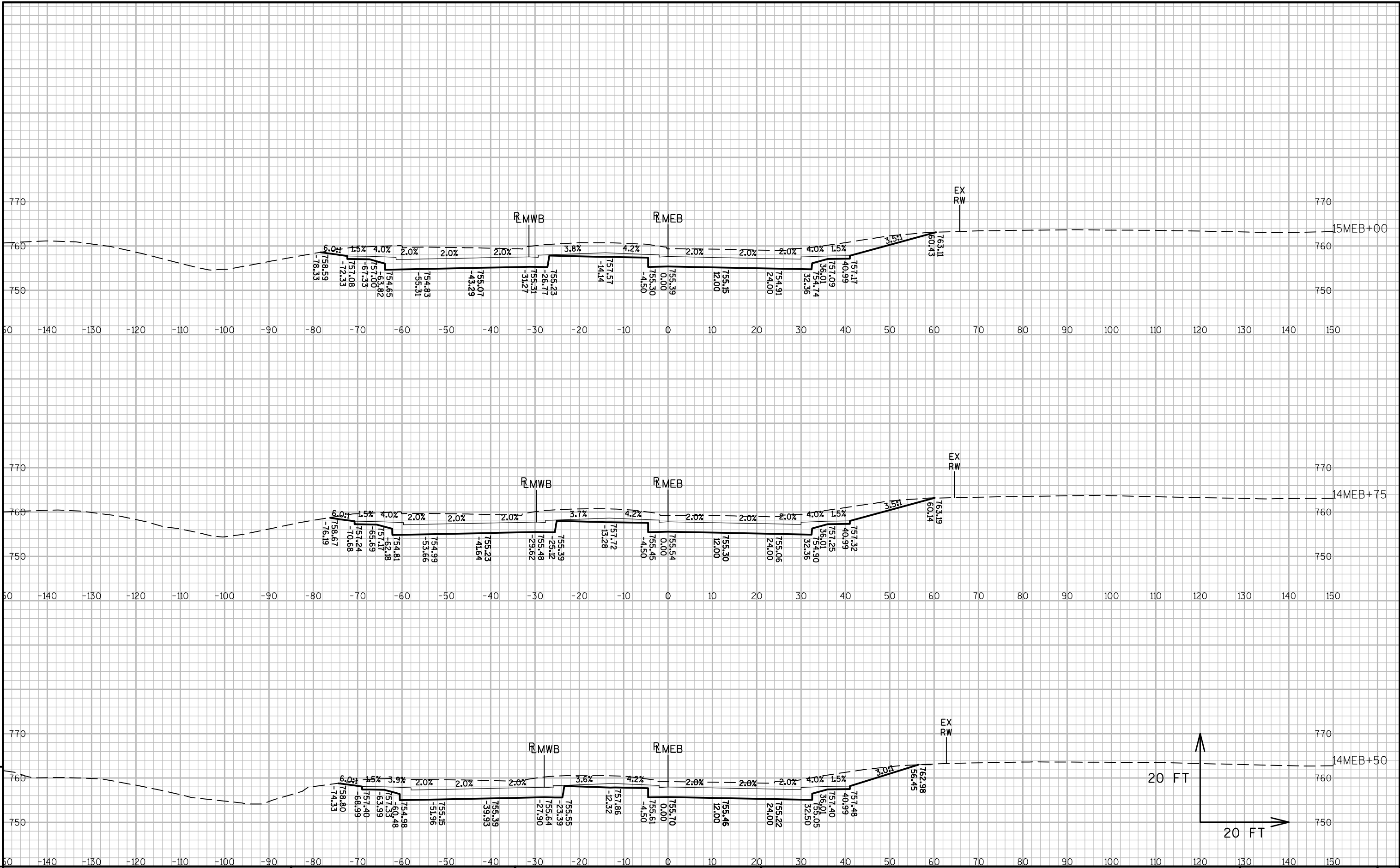


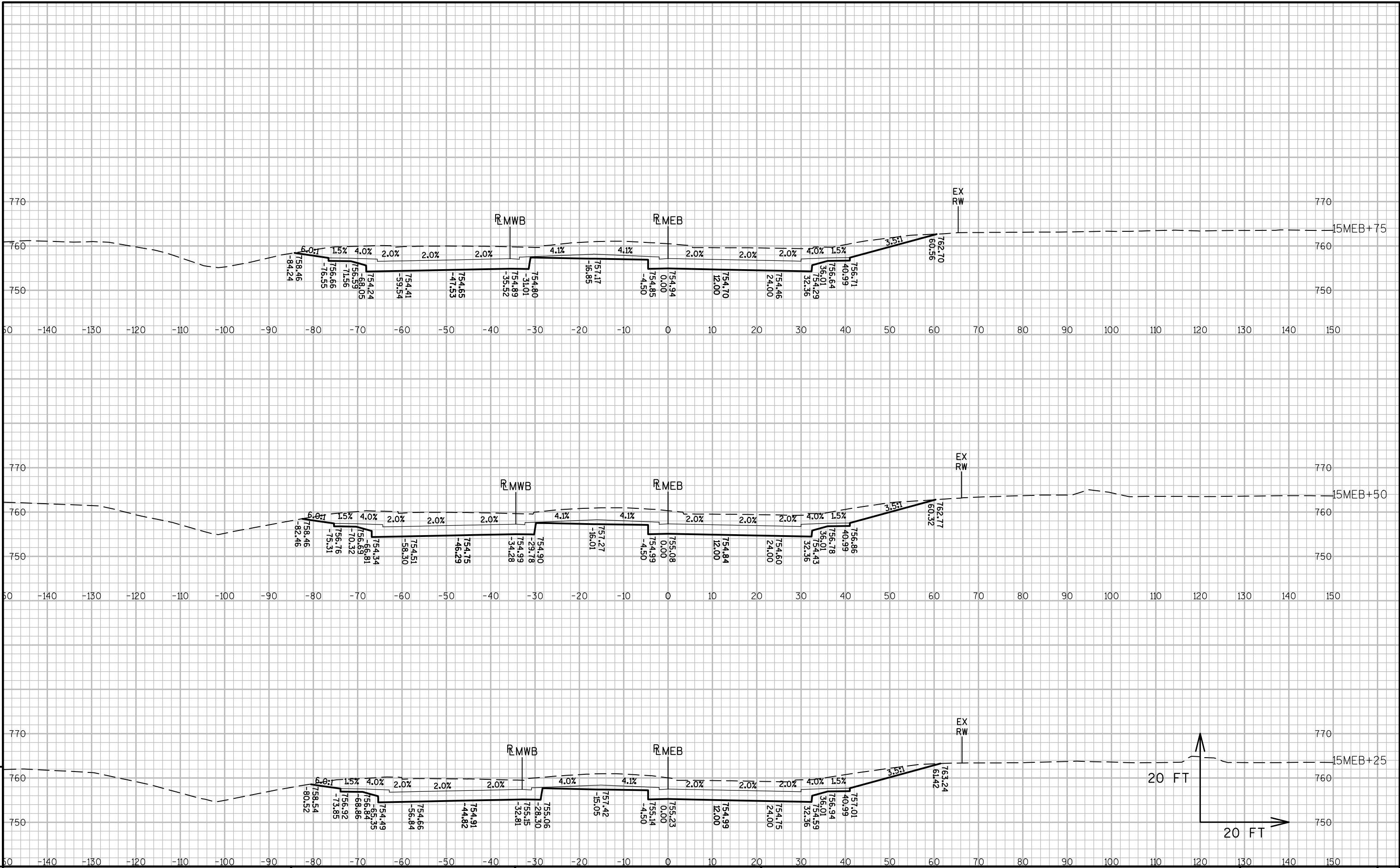


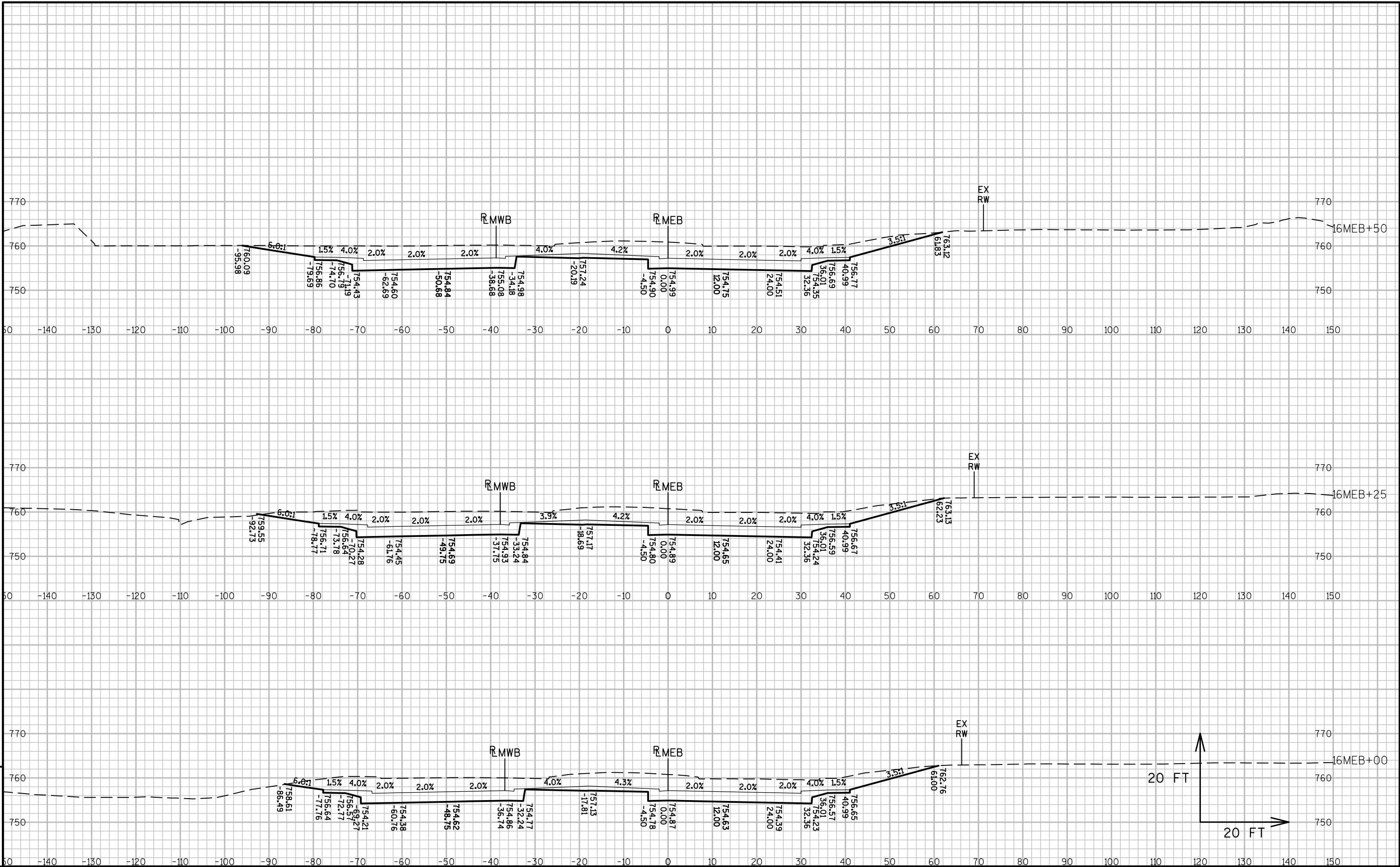


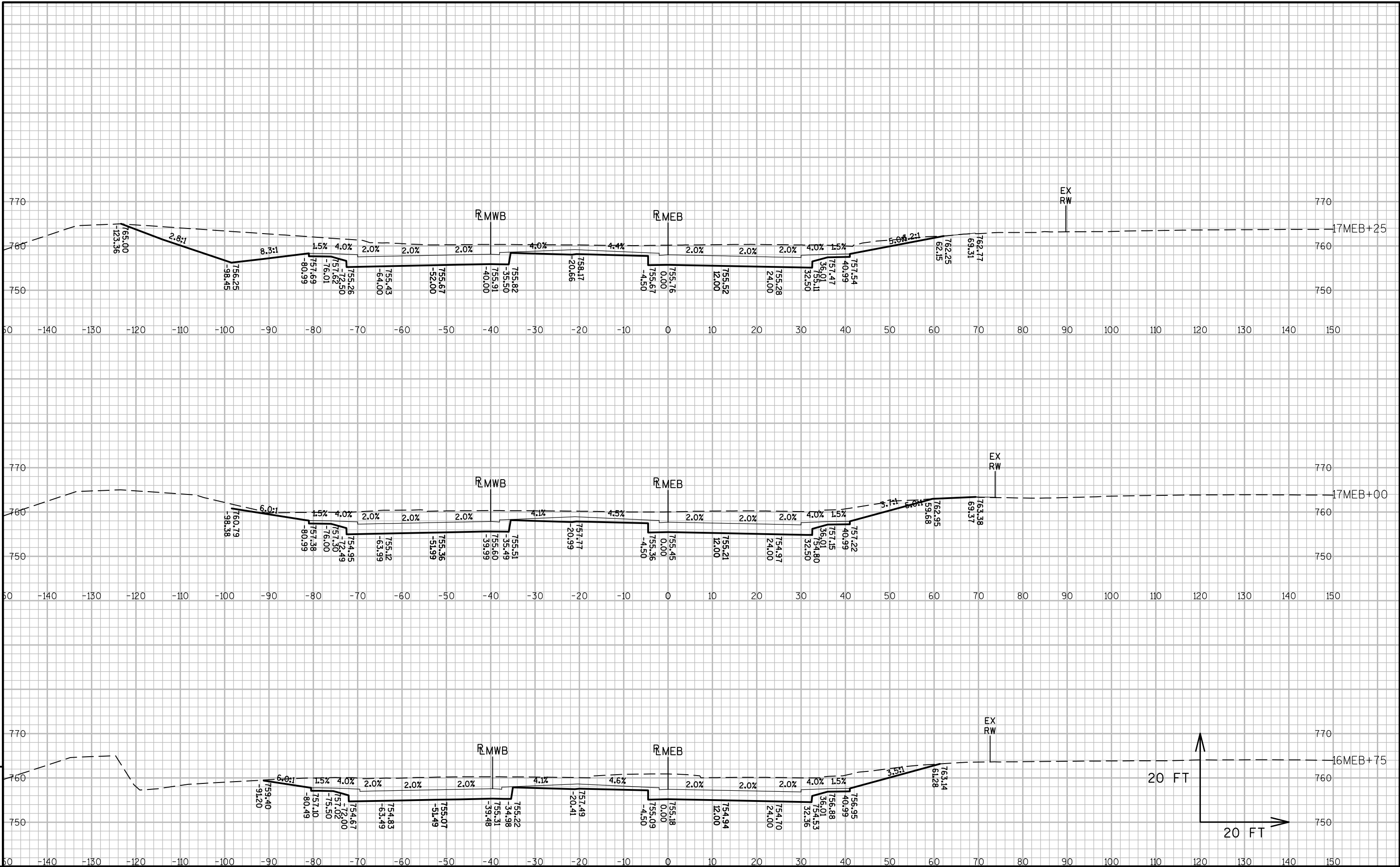












PROJECT NO:1517-75-77

HWY:STH 441/USH 10

COUNTY:WINNEBAGO

CROSS SECTIONS: MIDWAY ROAD (CTH AP)

SHEET

E

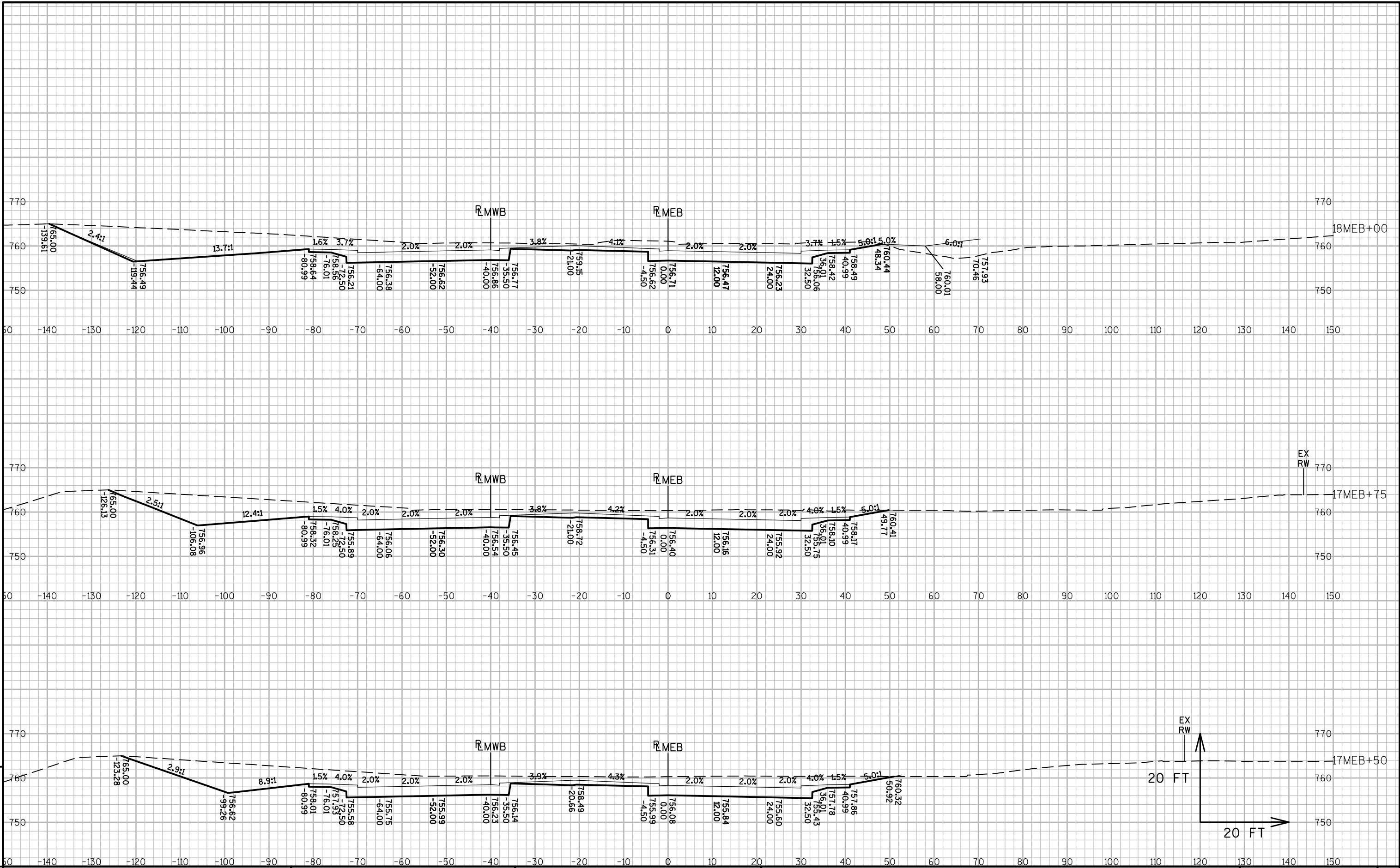
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LAYOUT NAME - NE-15177577-090209-XS-MEB

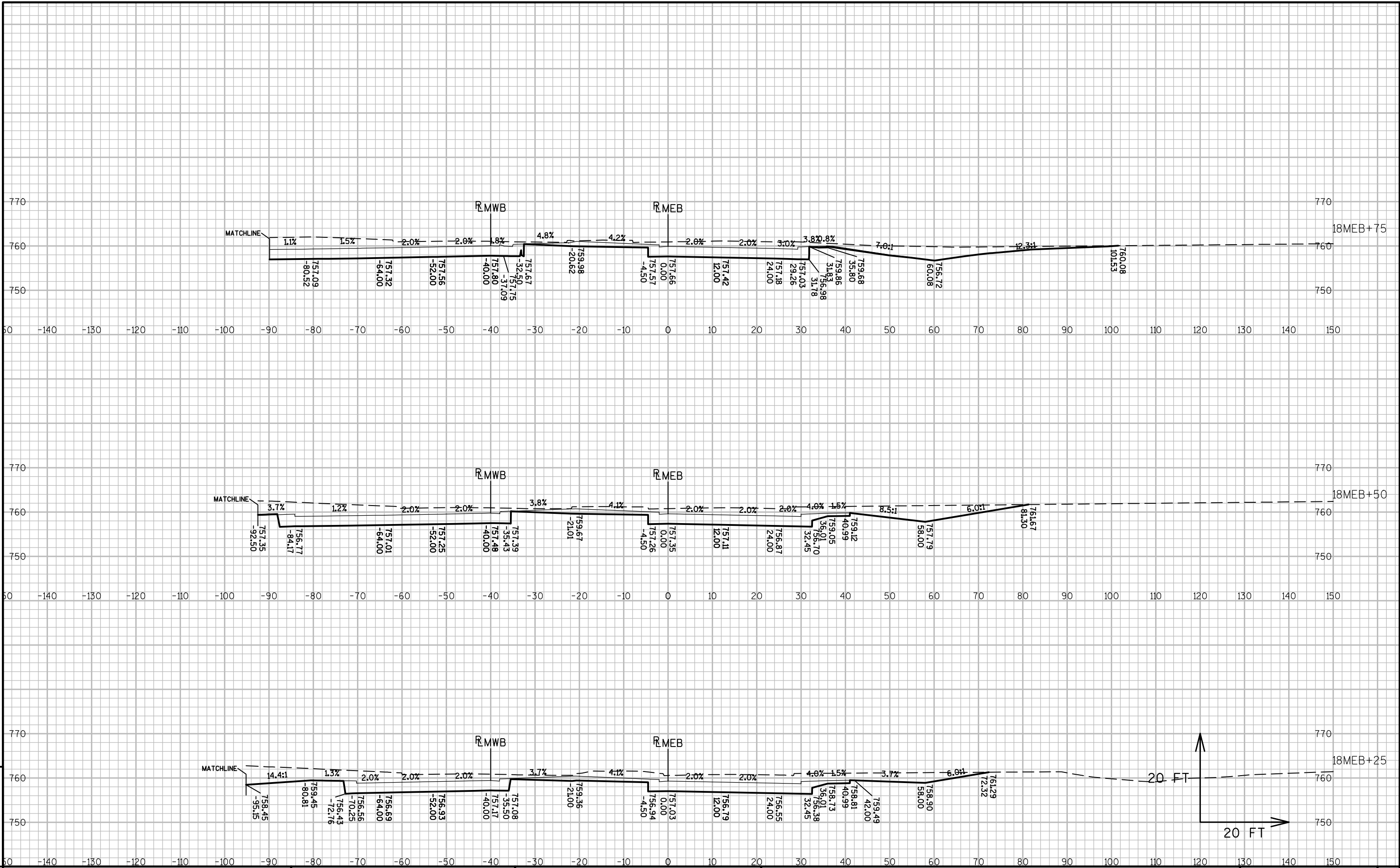
PLOT DATE : 7/19/2018 4:19 PM

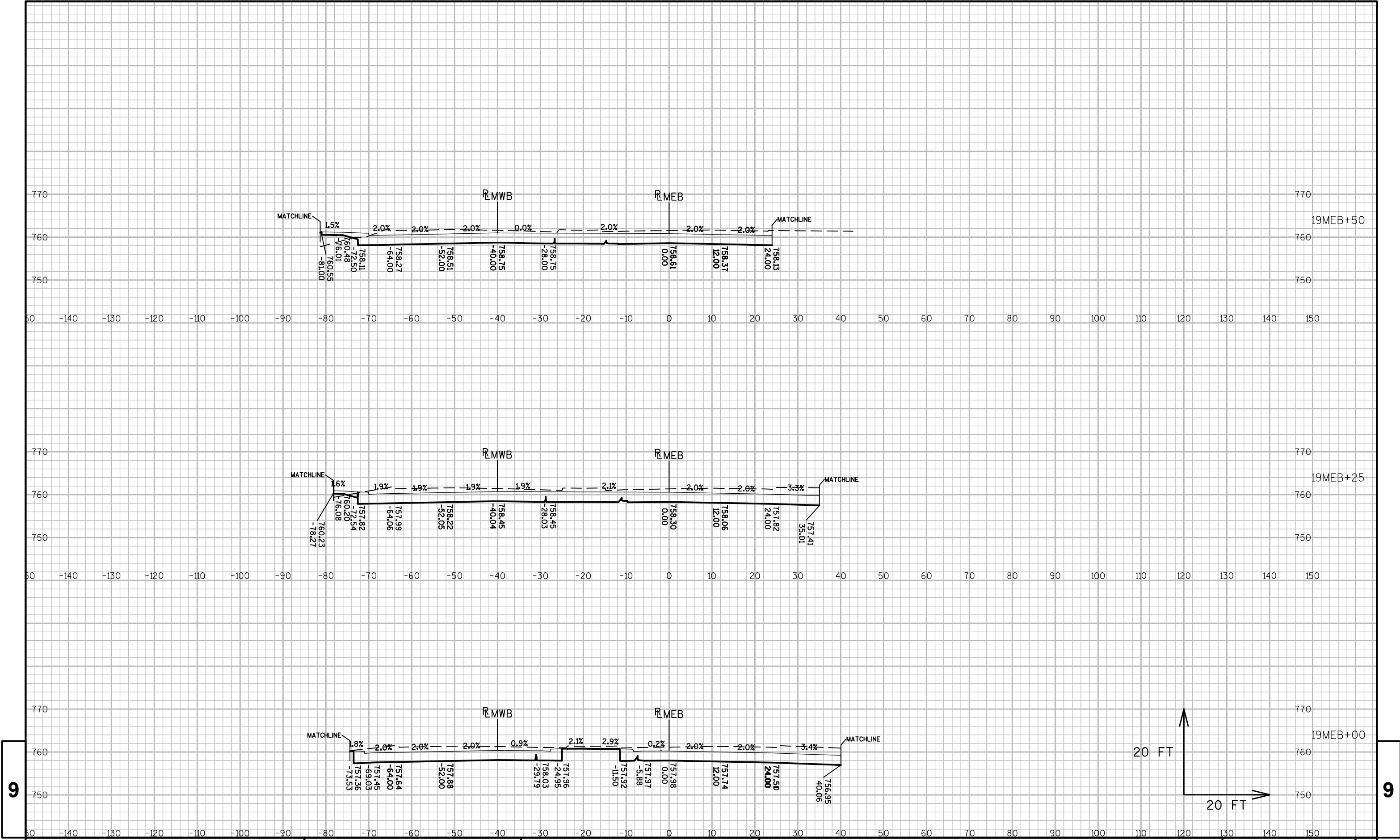
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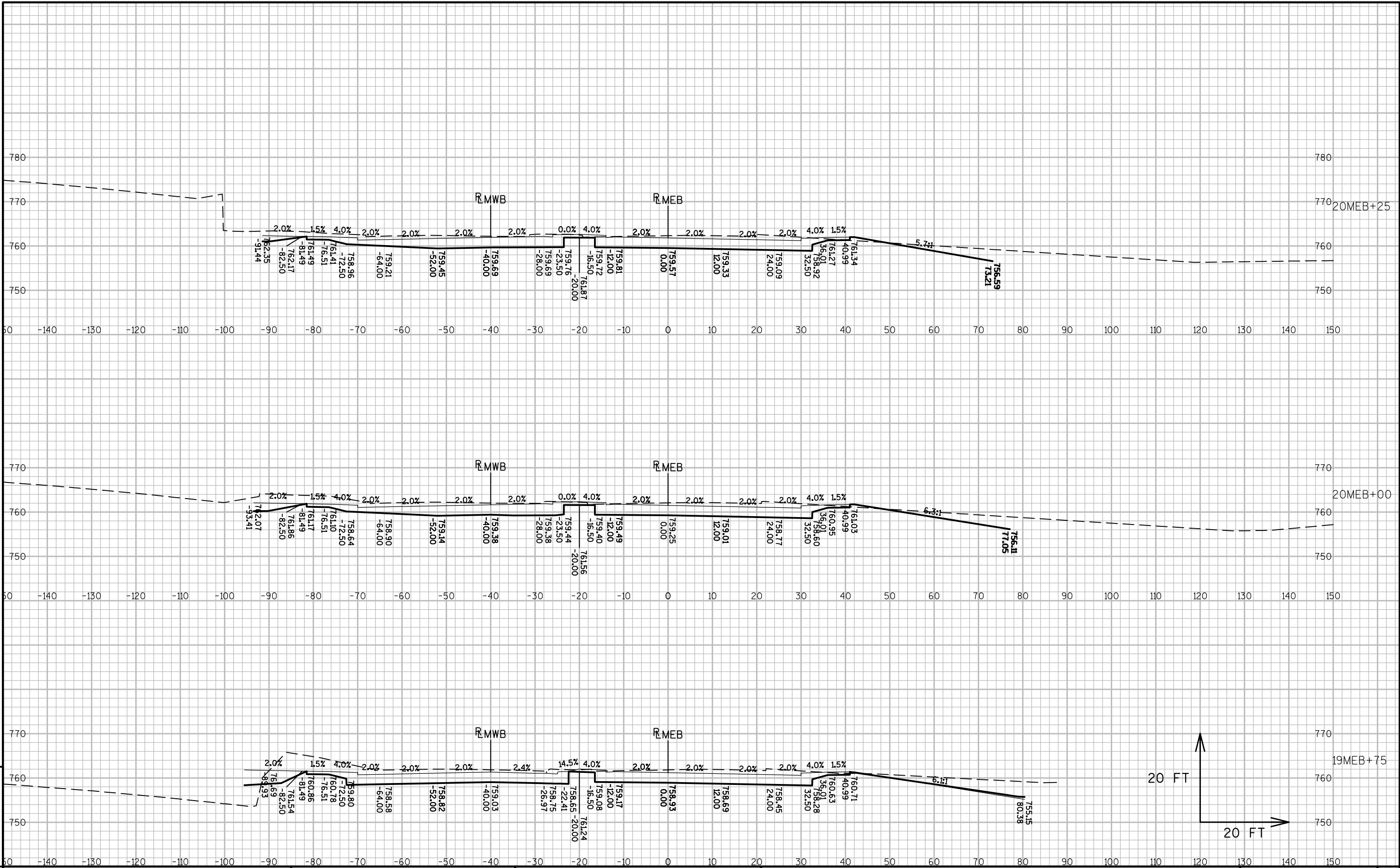
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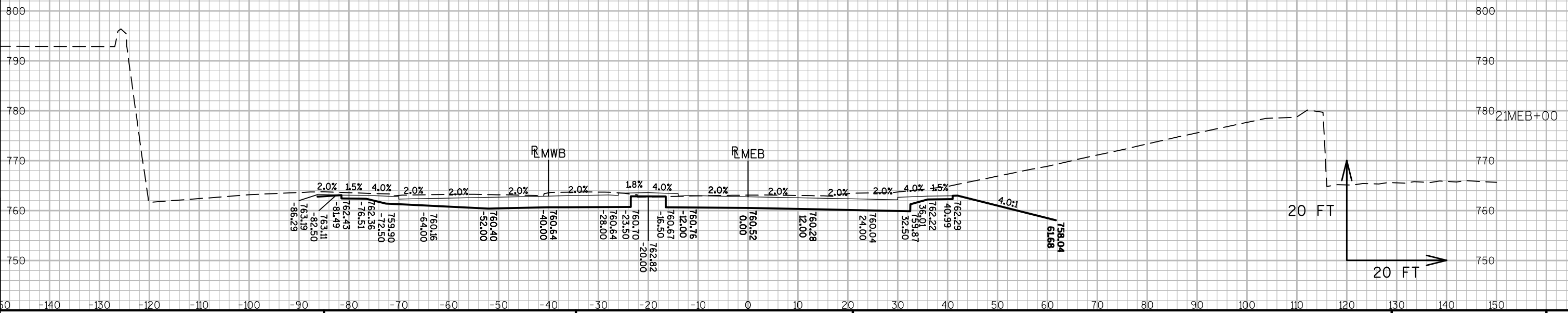
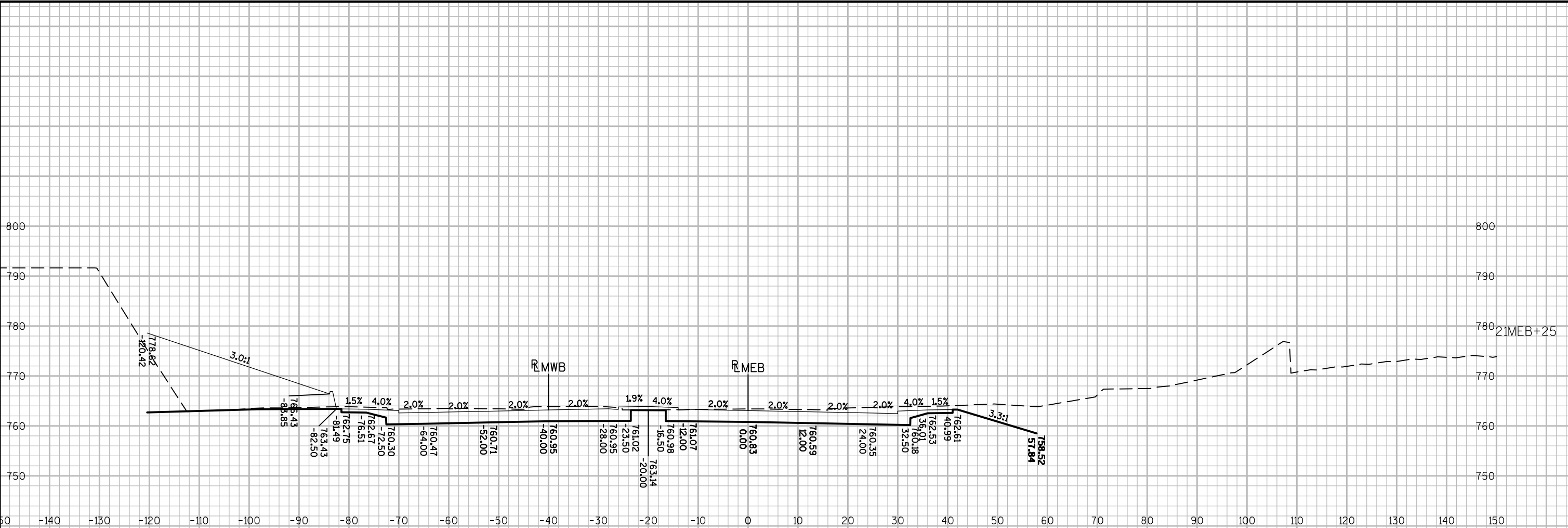
WISDOT/CADDs SHEET 49

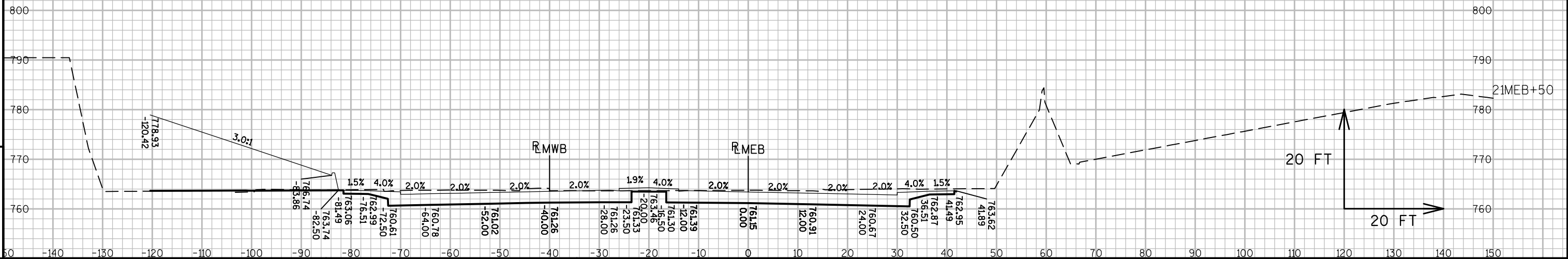
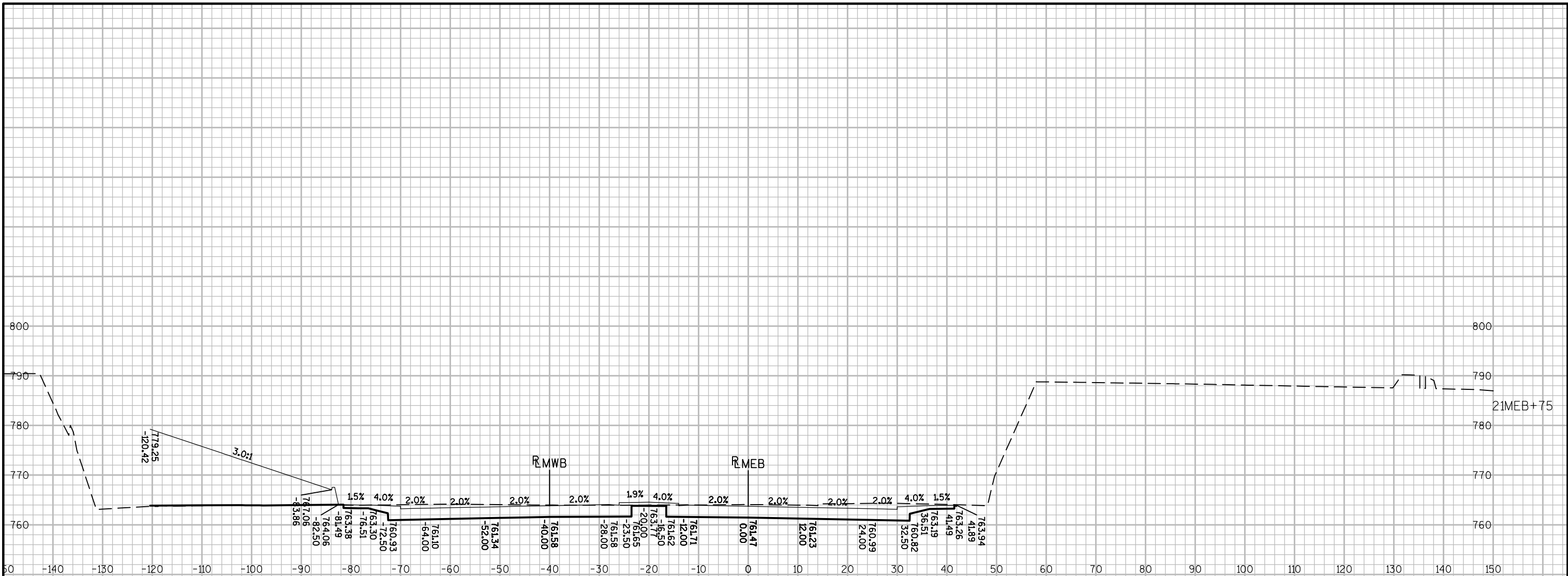


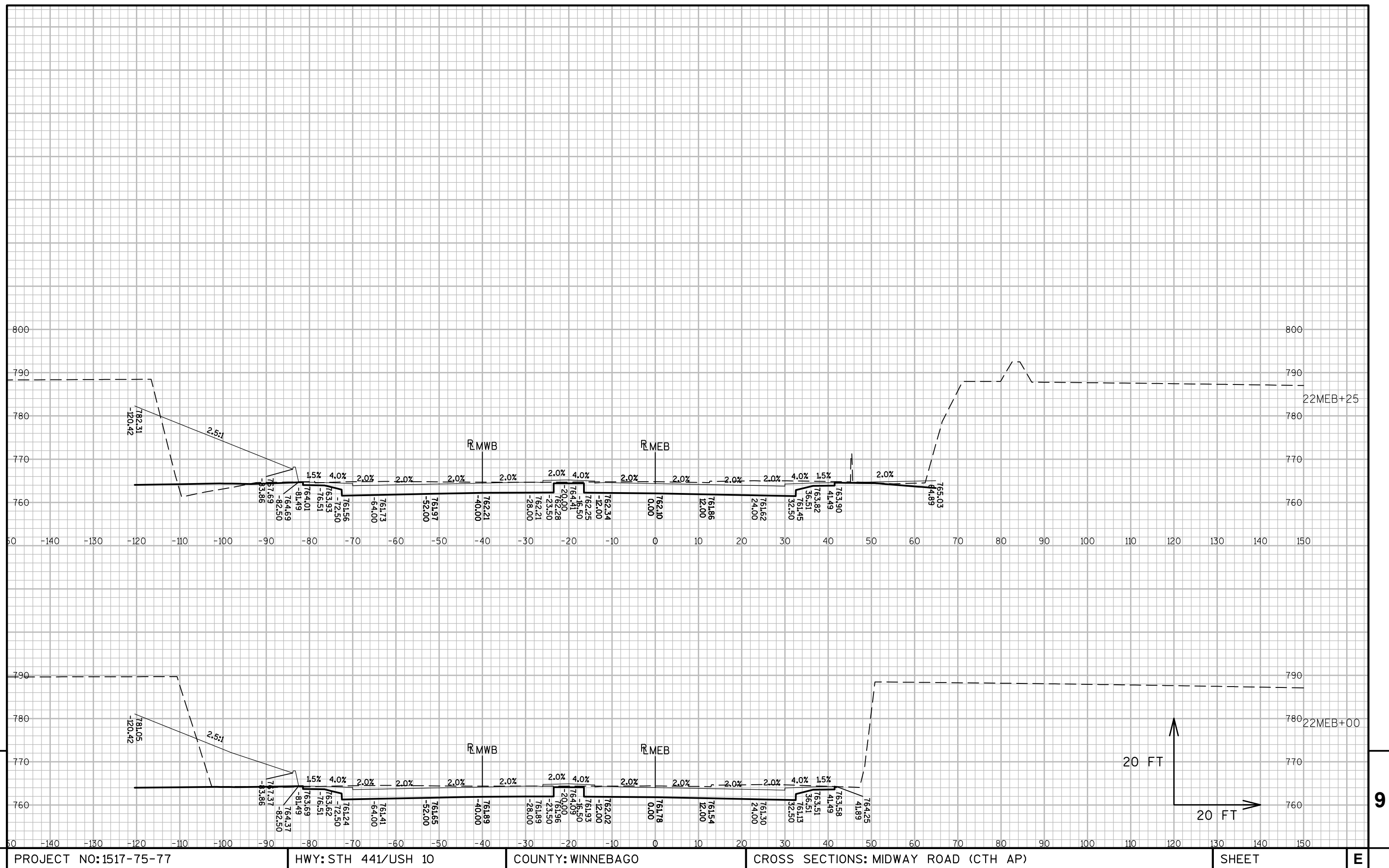
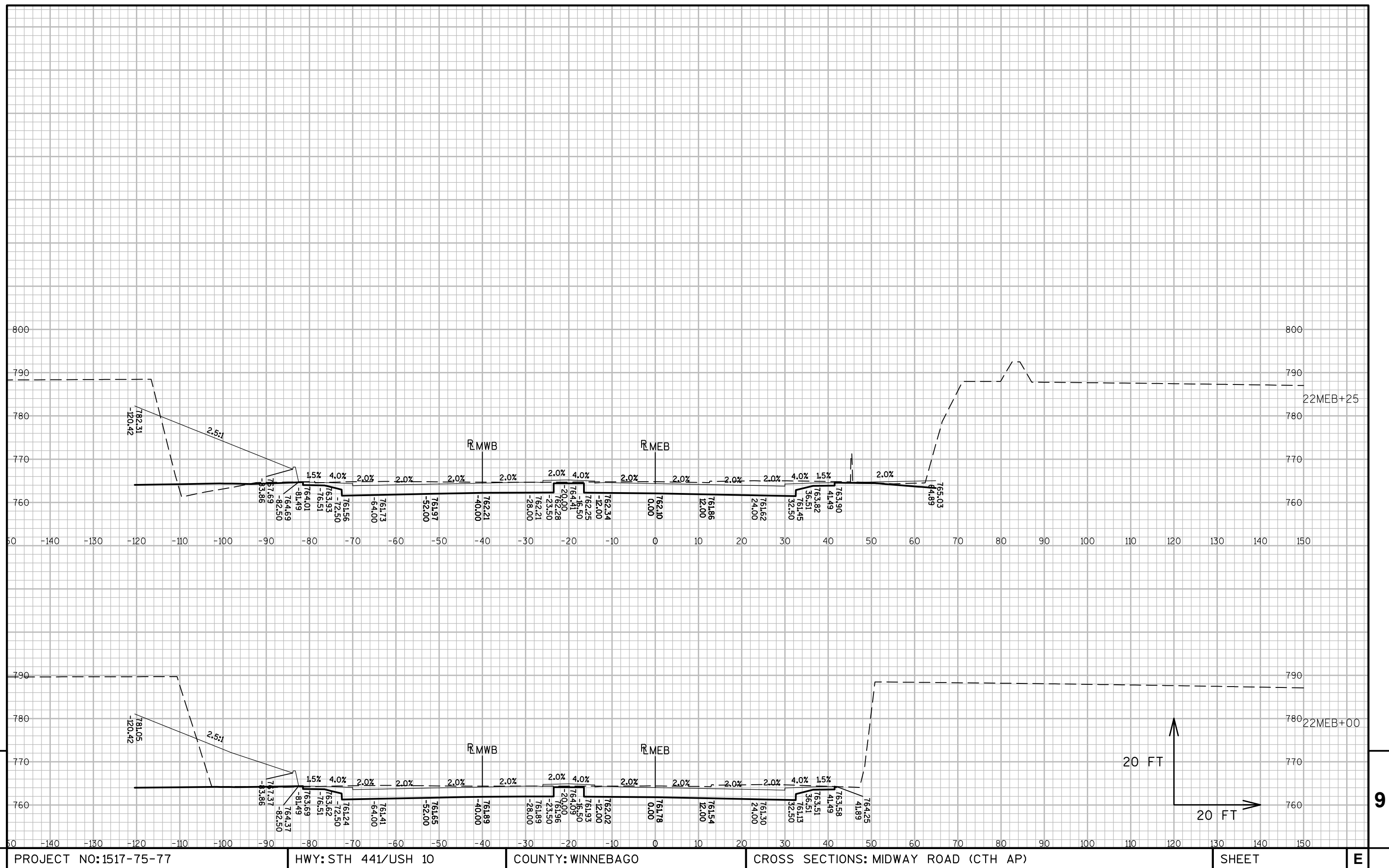


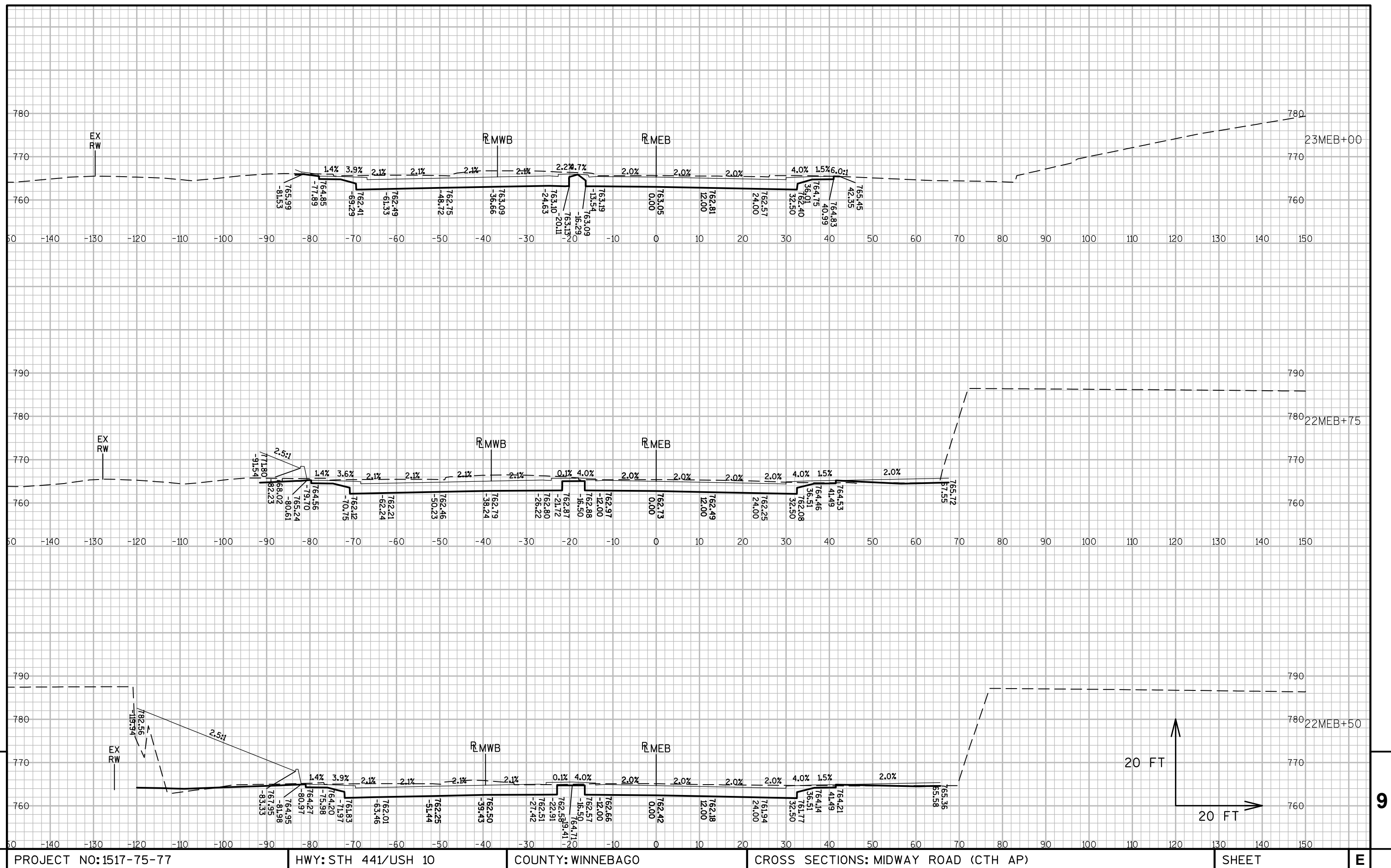


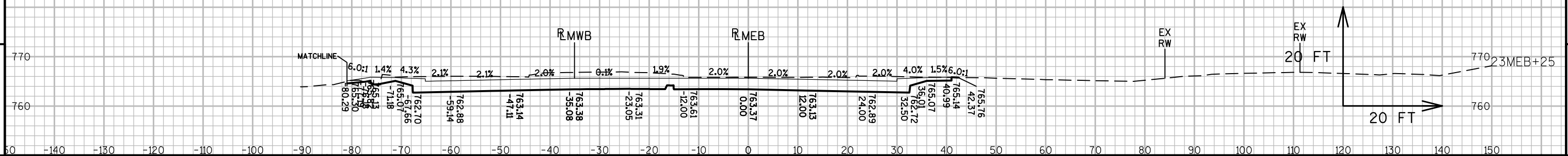
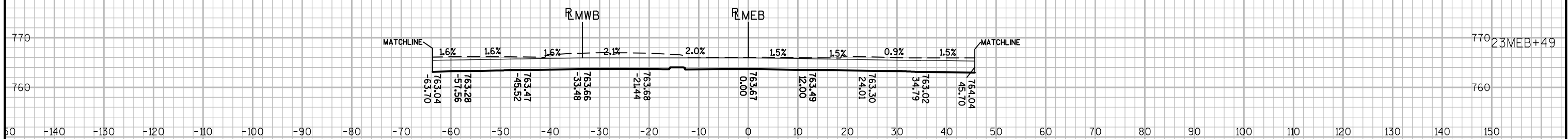
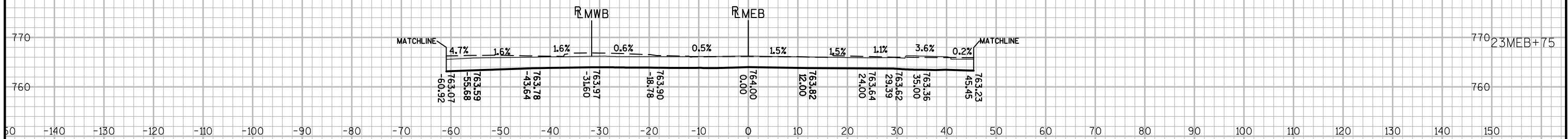
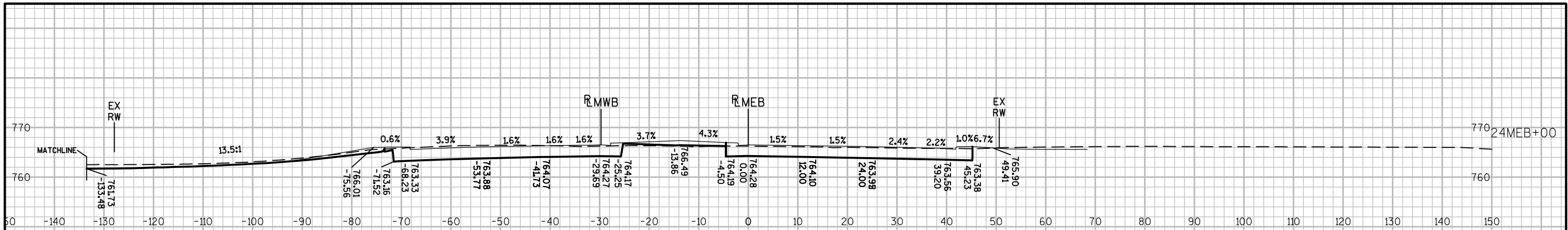




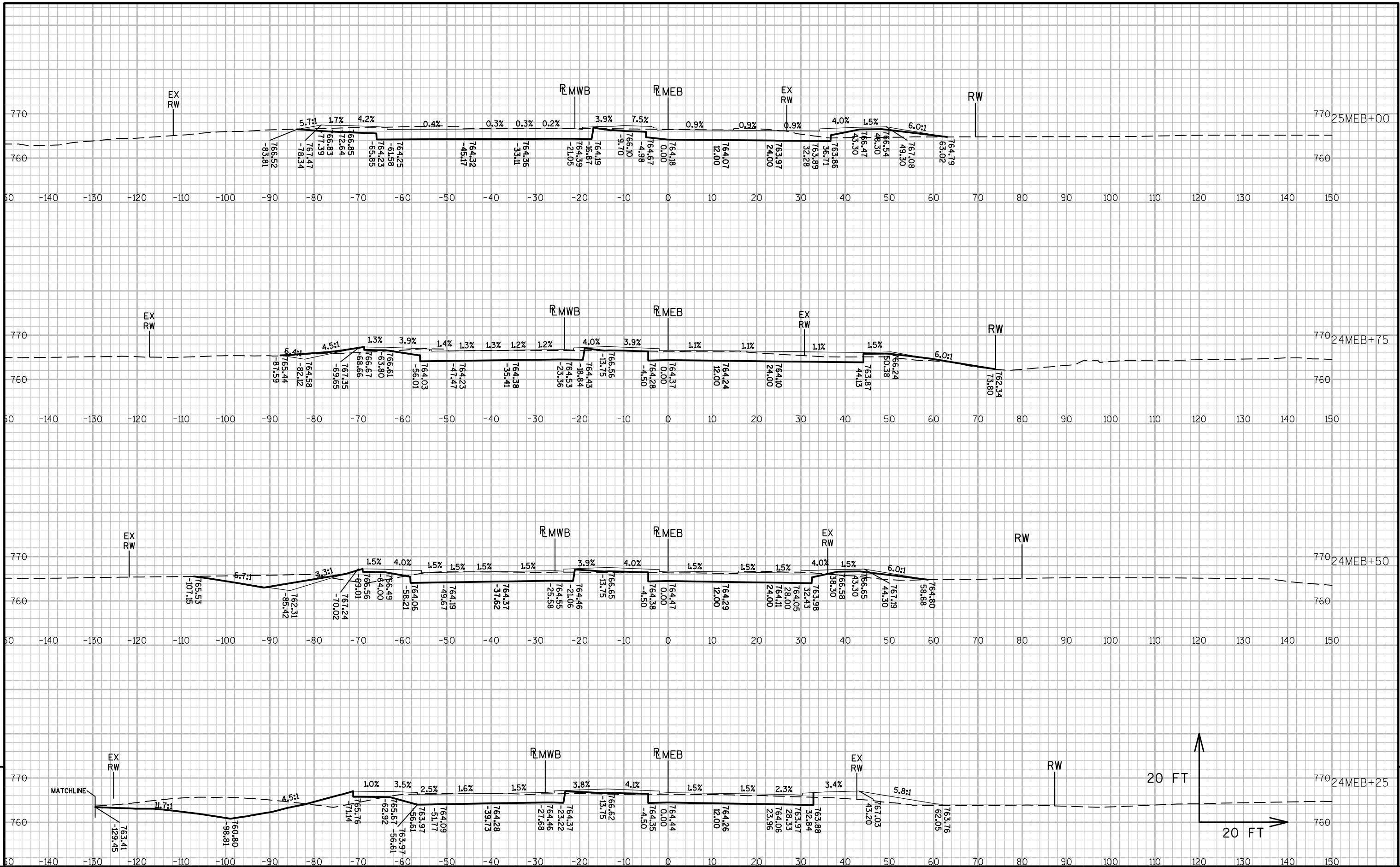


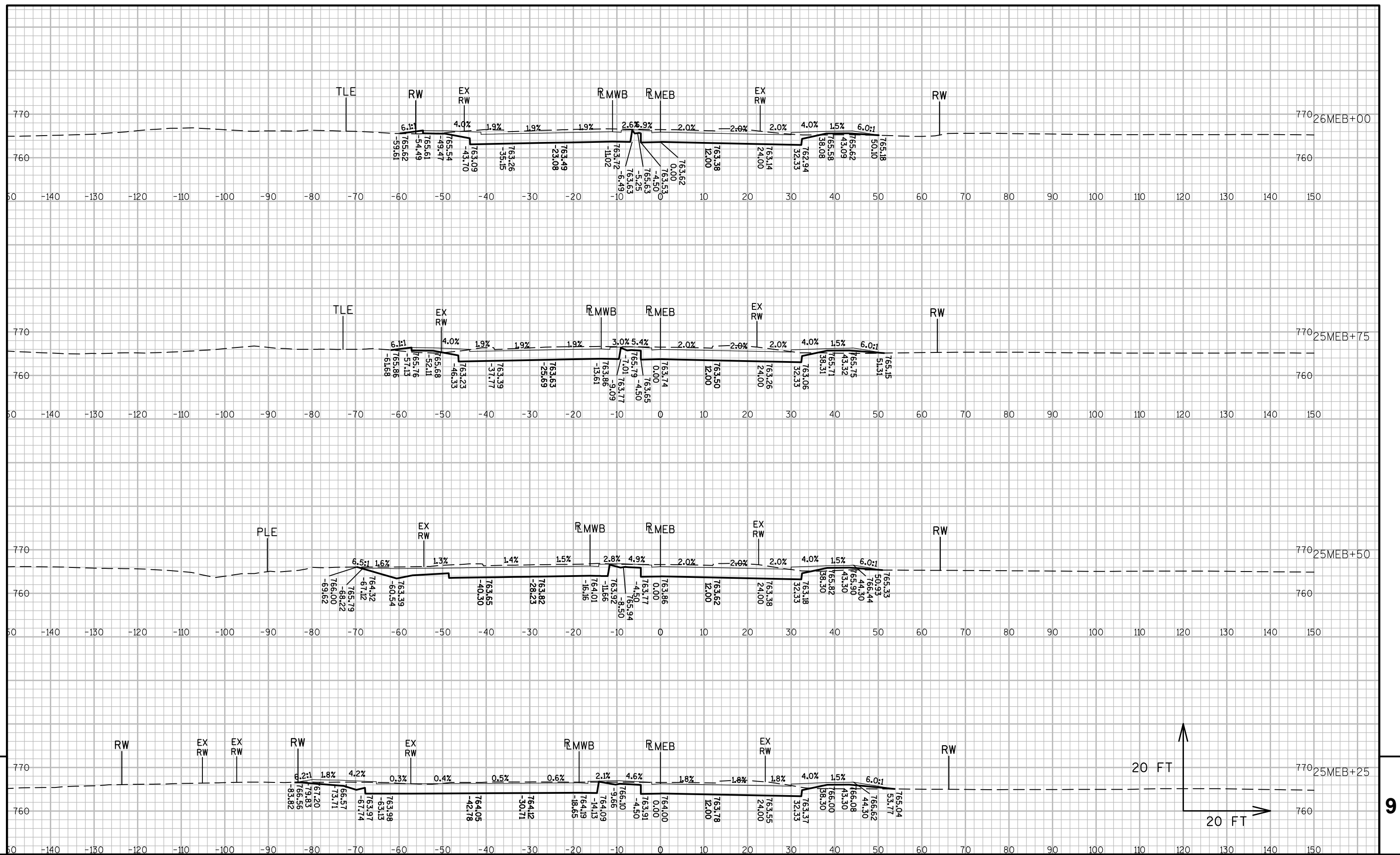


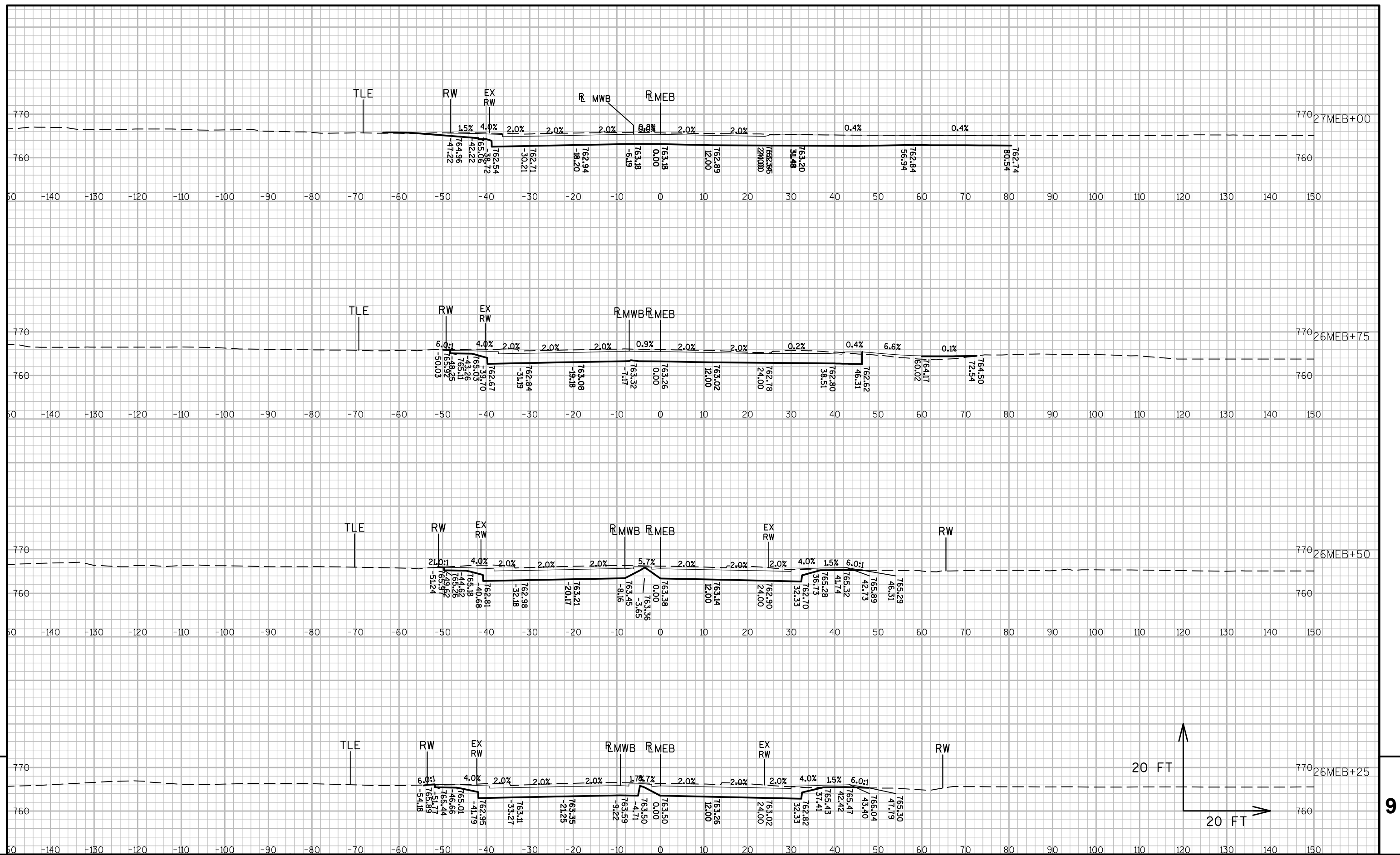




PROJECT NO:1517-75-77	HWY:STH 441/USH 10	COUNTY:WINNEBAGO	CROSS SECTIONS: MIDWAY ROAD (CTH AP)	SHEET	E
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PROJECT NO:1517-75-77

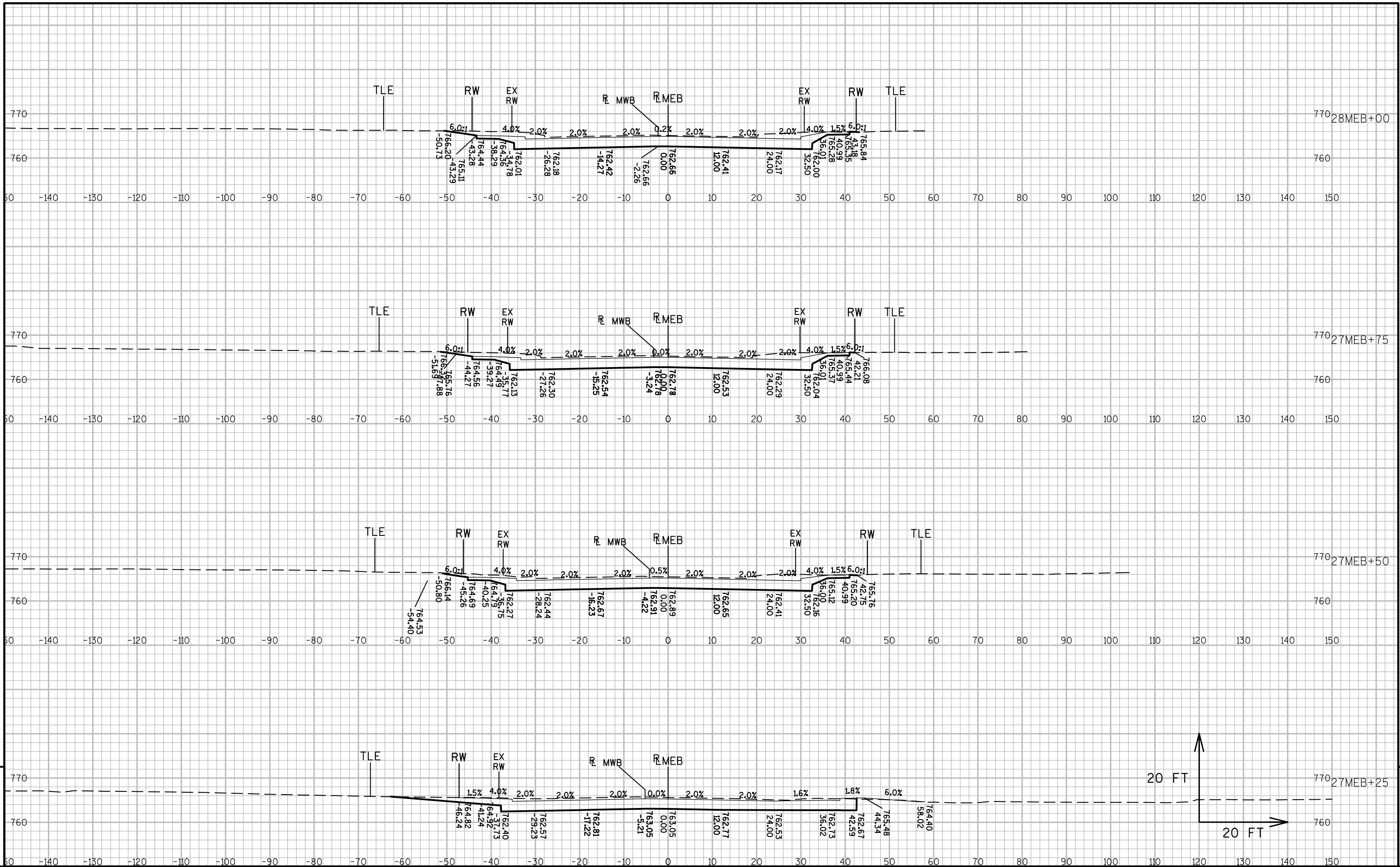
HWY:STH 441/USH 10

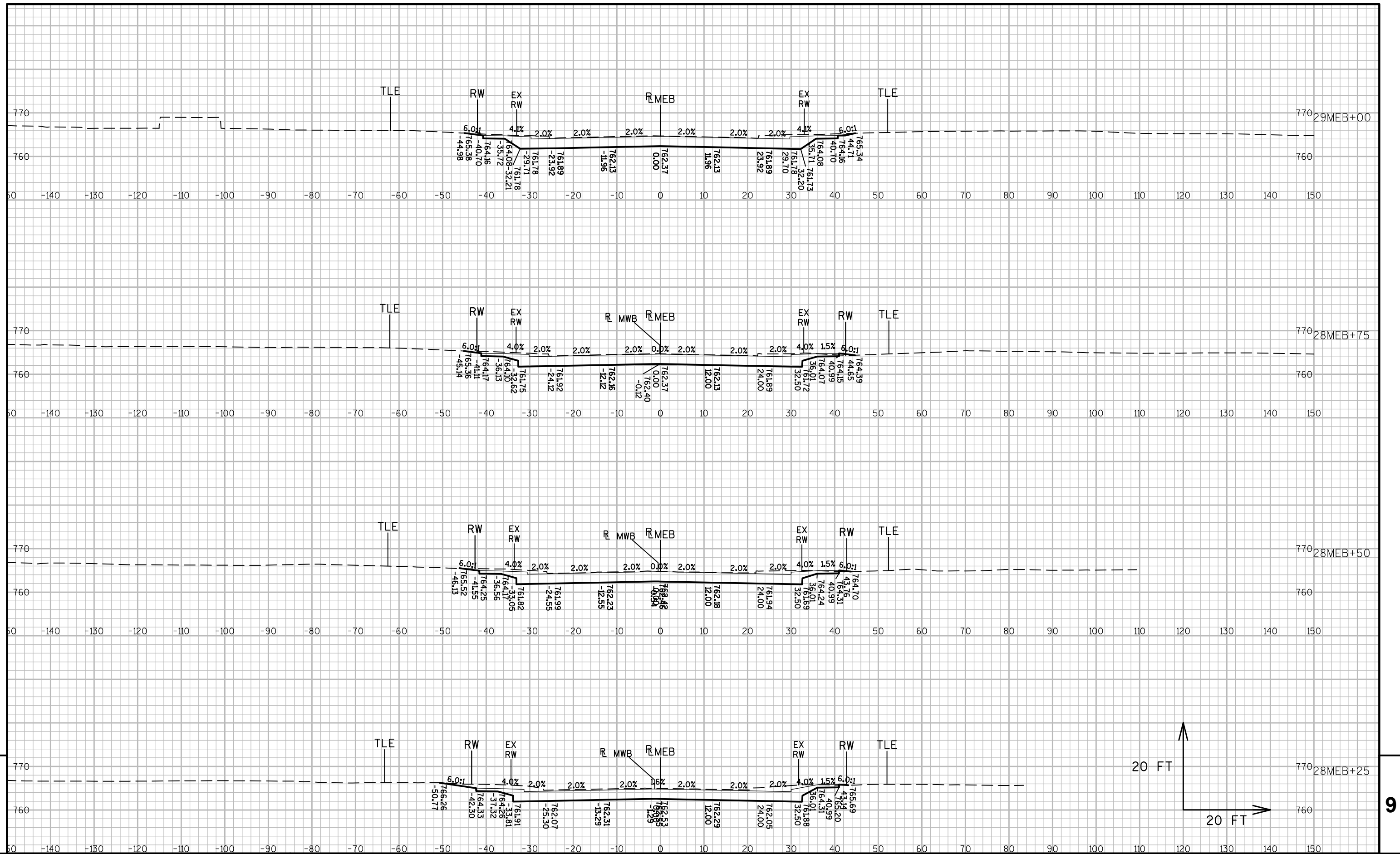
COUNTY: WINNEBAGO

CROSS SECTIONS: MIDWAY ROAD (CTH AP)

SHEET

1





PROJECT NO:1517-75-77

HWY:STH 441/USH 10

COUNTY: WINNEBAGO

CROSS SECTIONS: MIDWAY ROAD (CTH AP)

SHEET

1

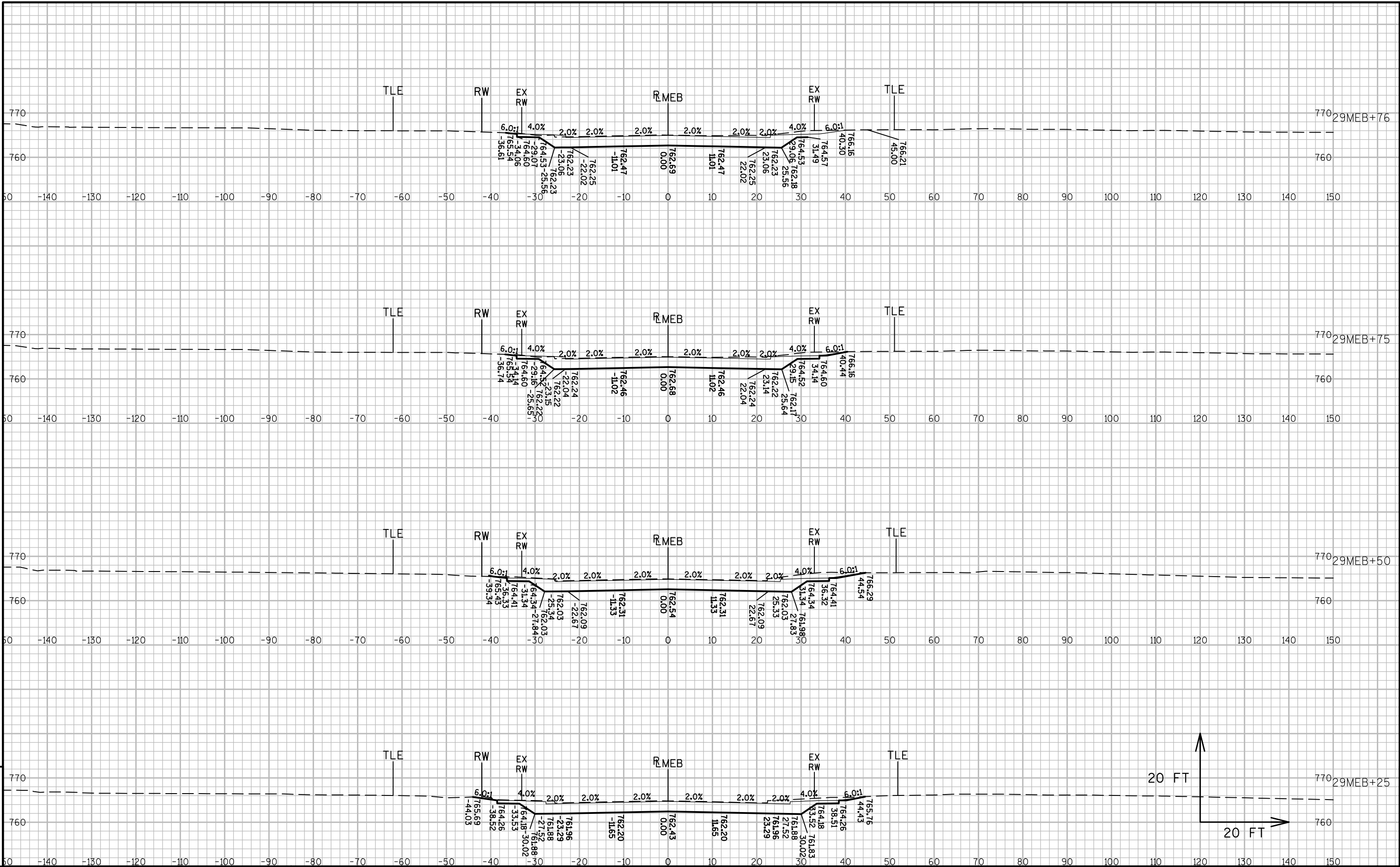
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LAYOUT NAME - NE-15177577-090224-XS-MEB

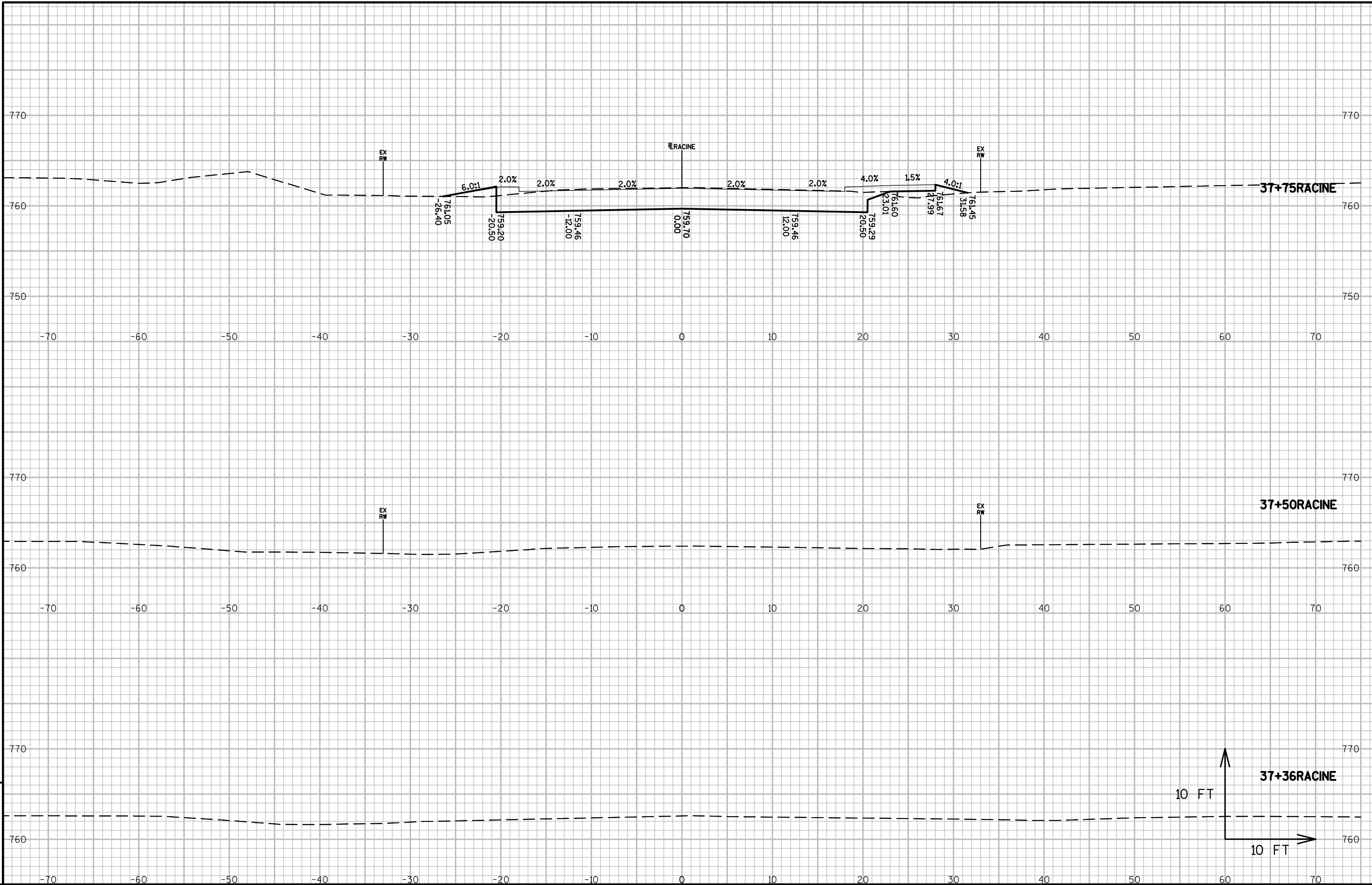
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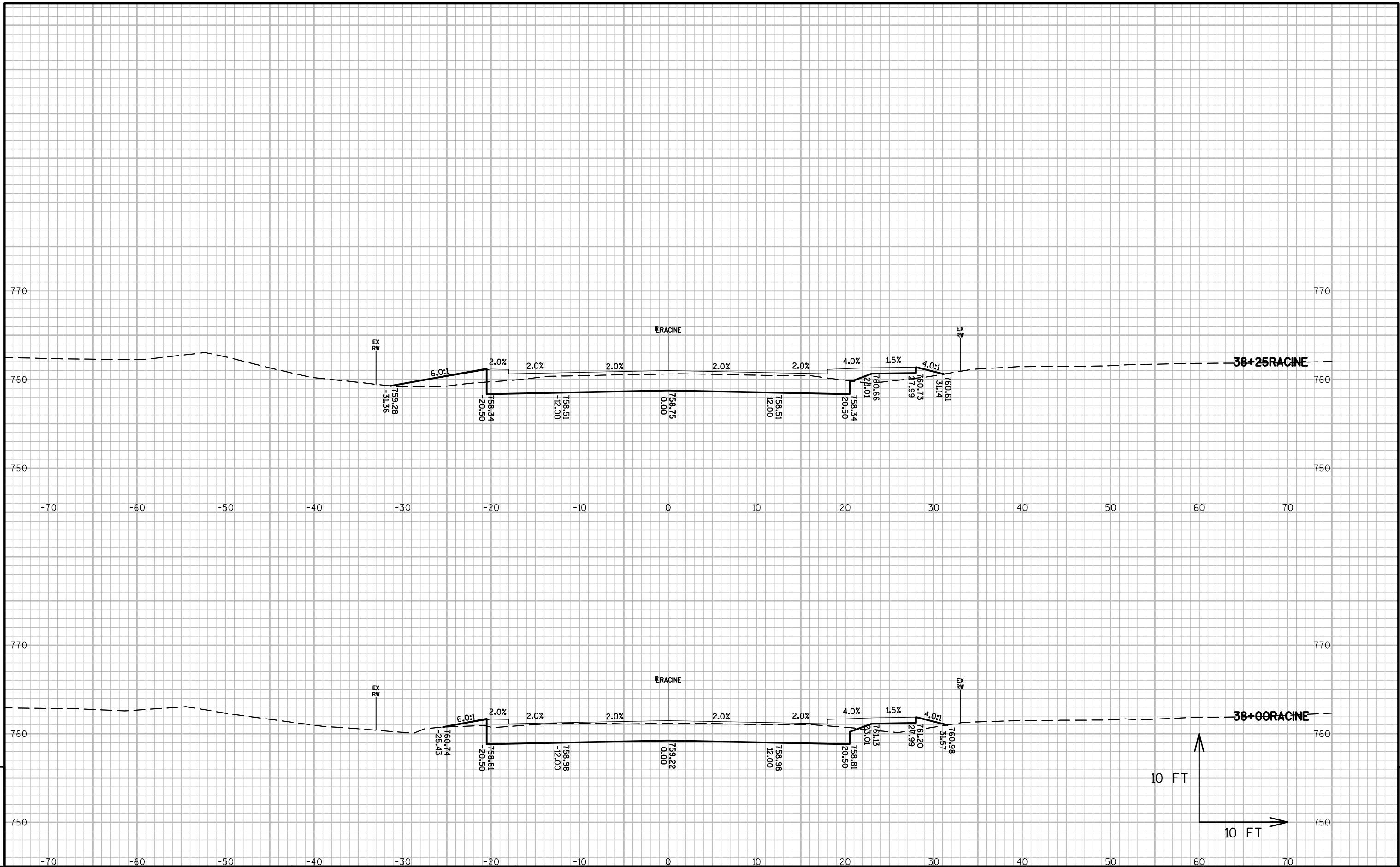
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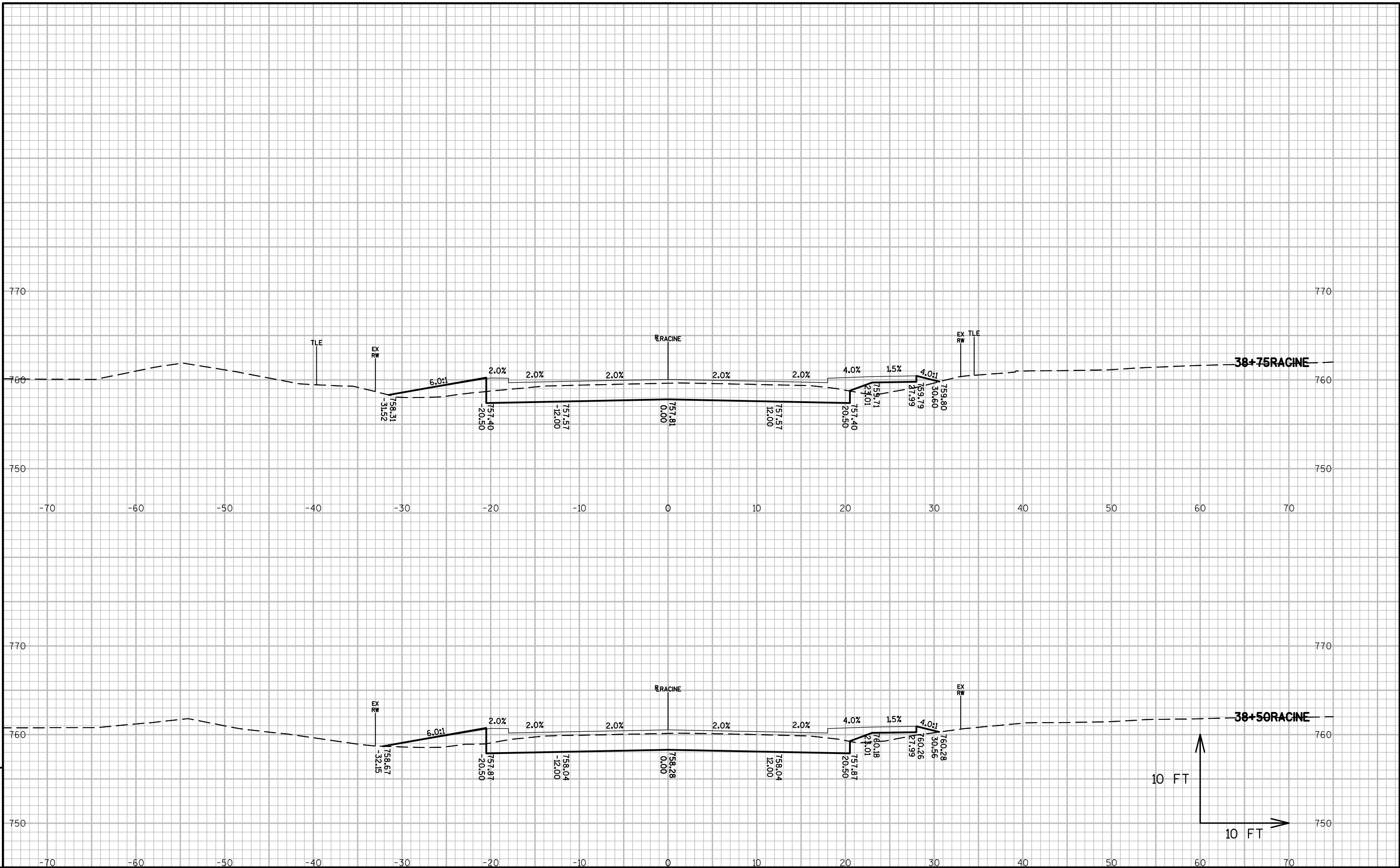
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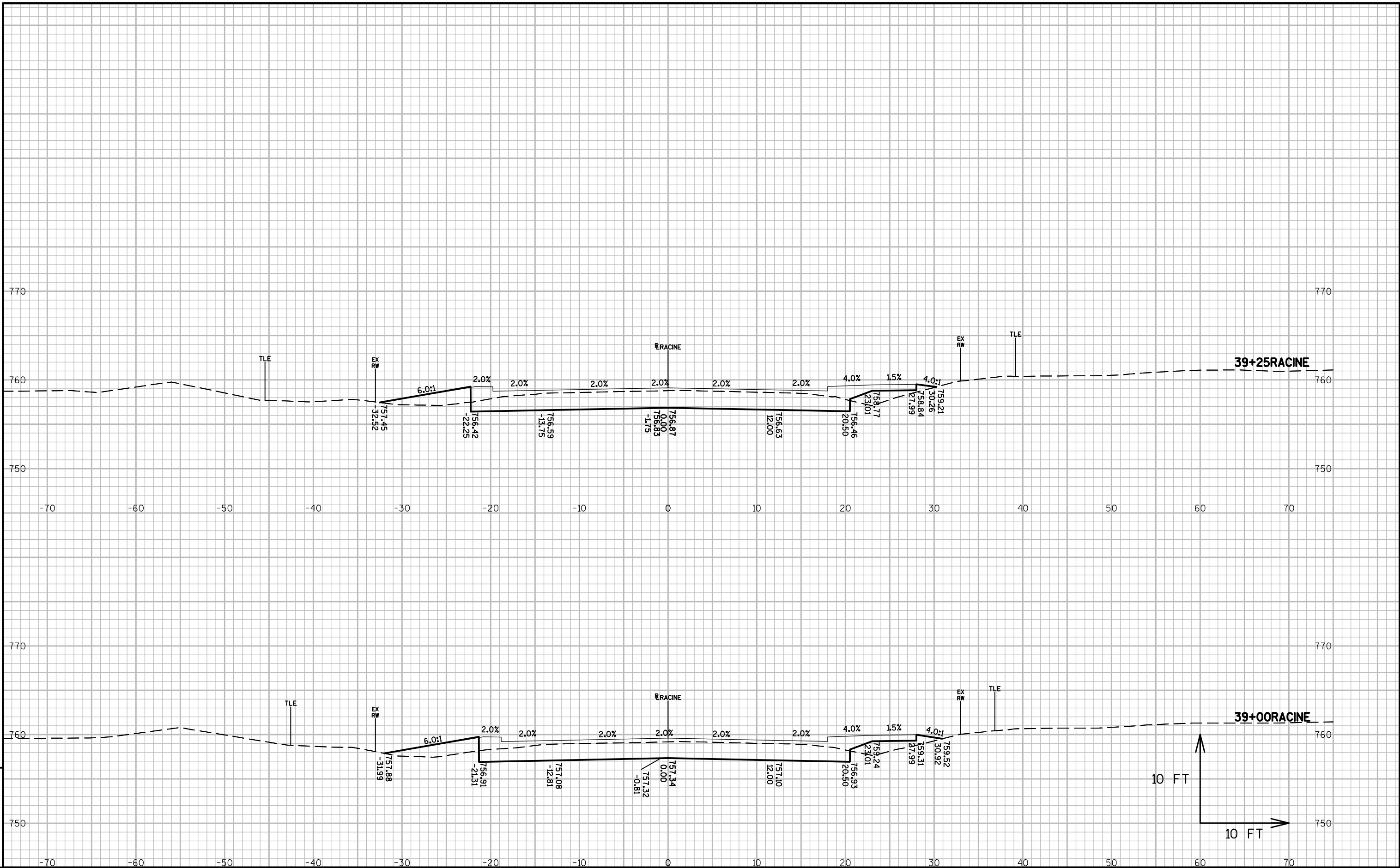
WISDOT/CADDS SHEET 49

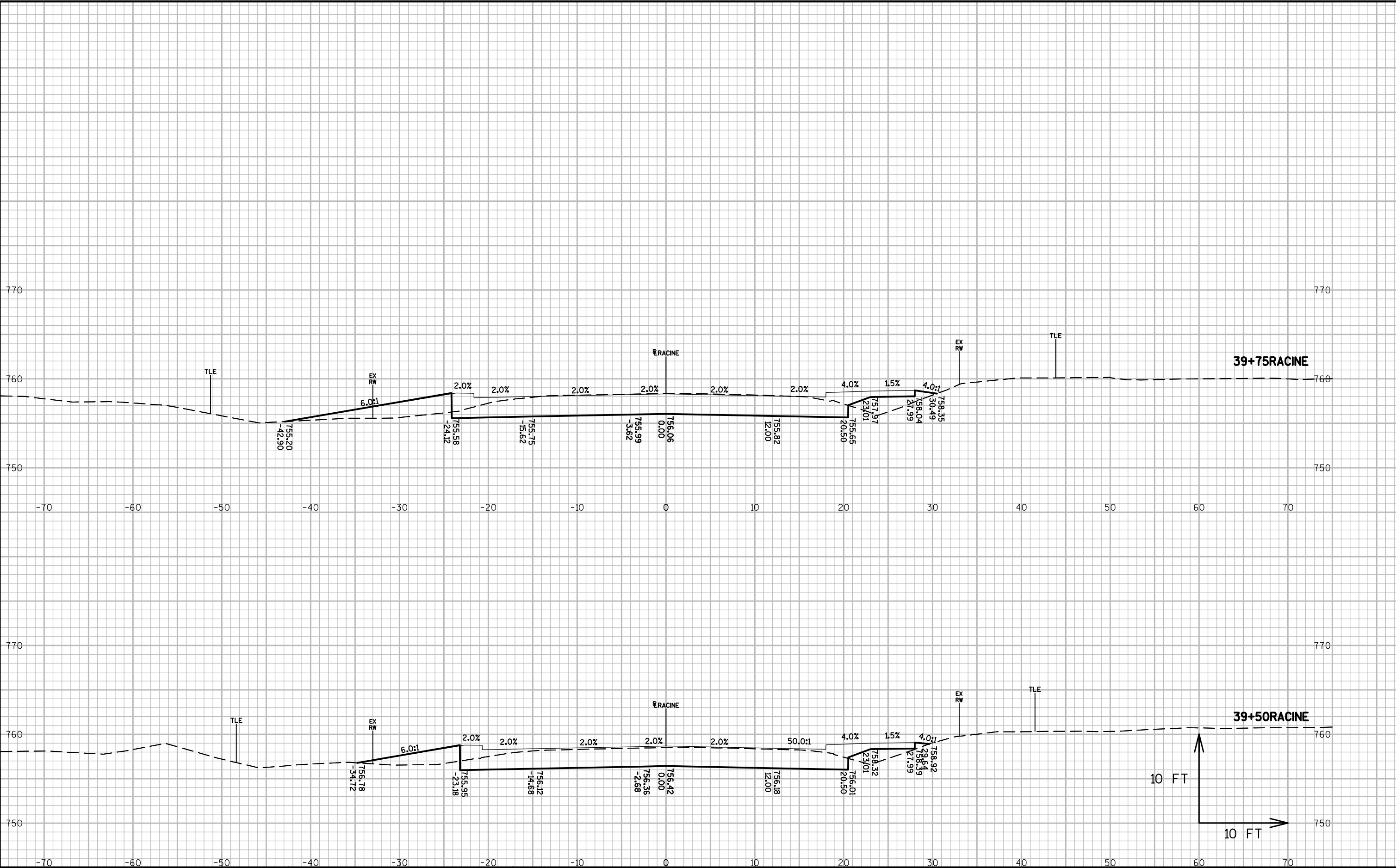


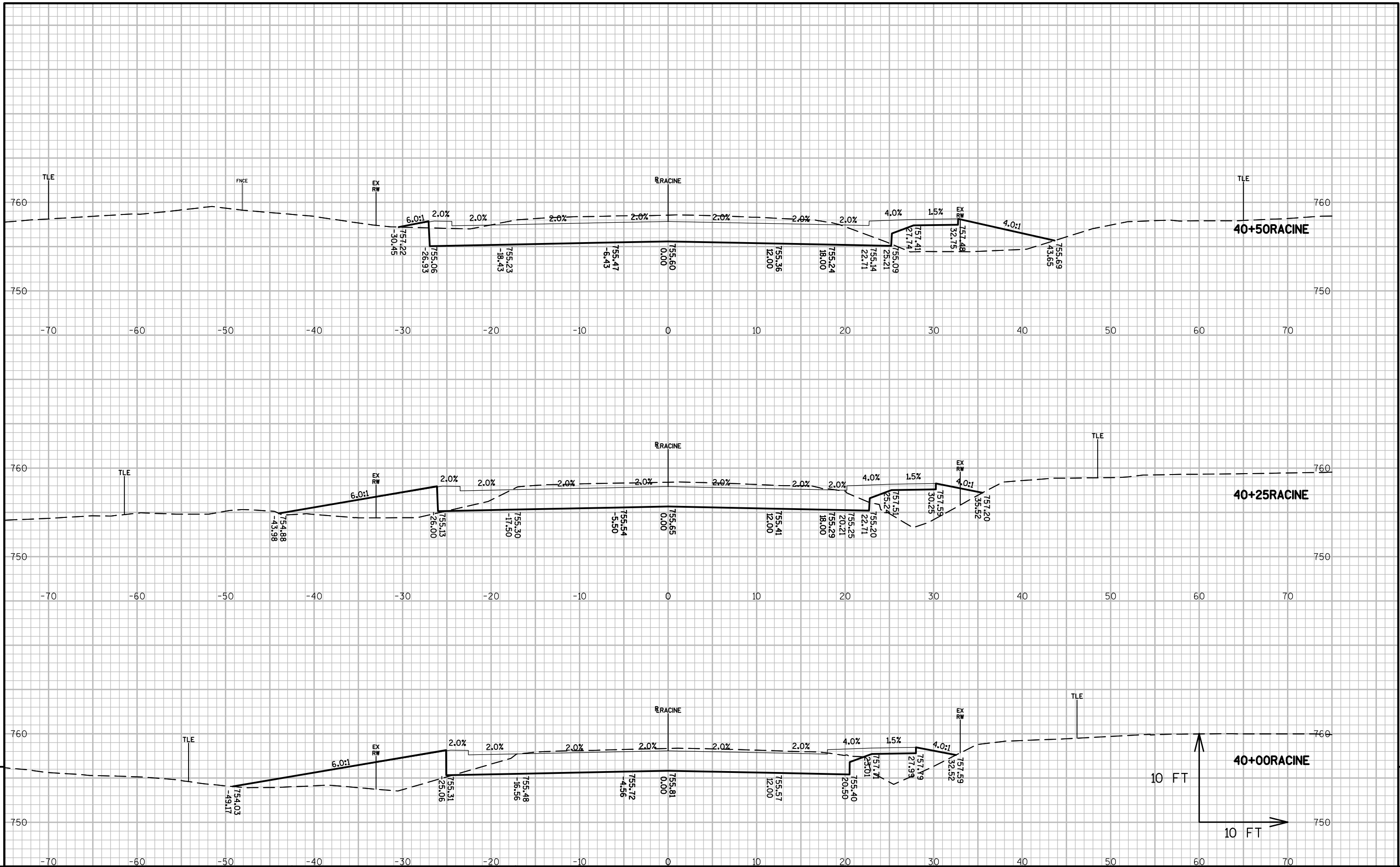


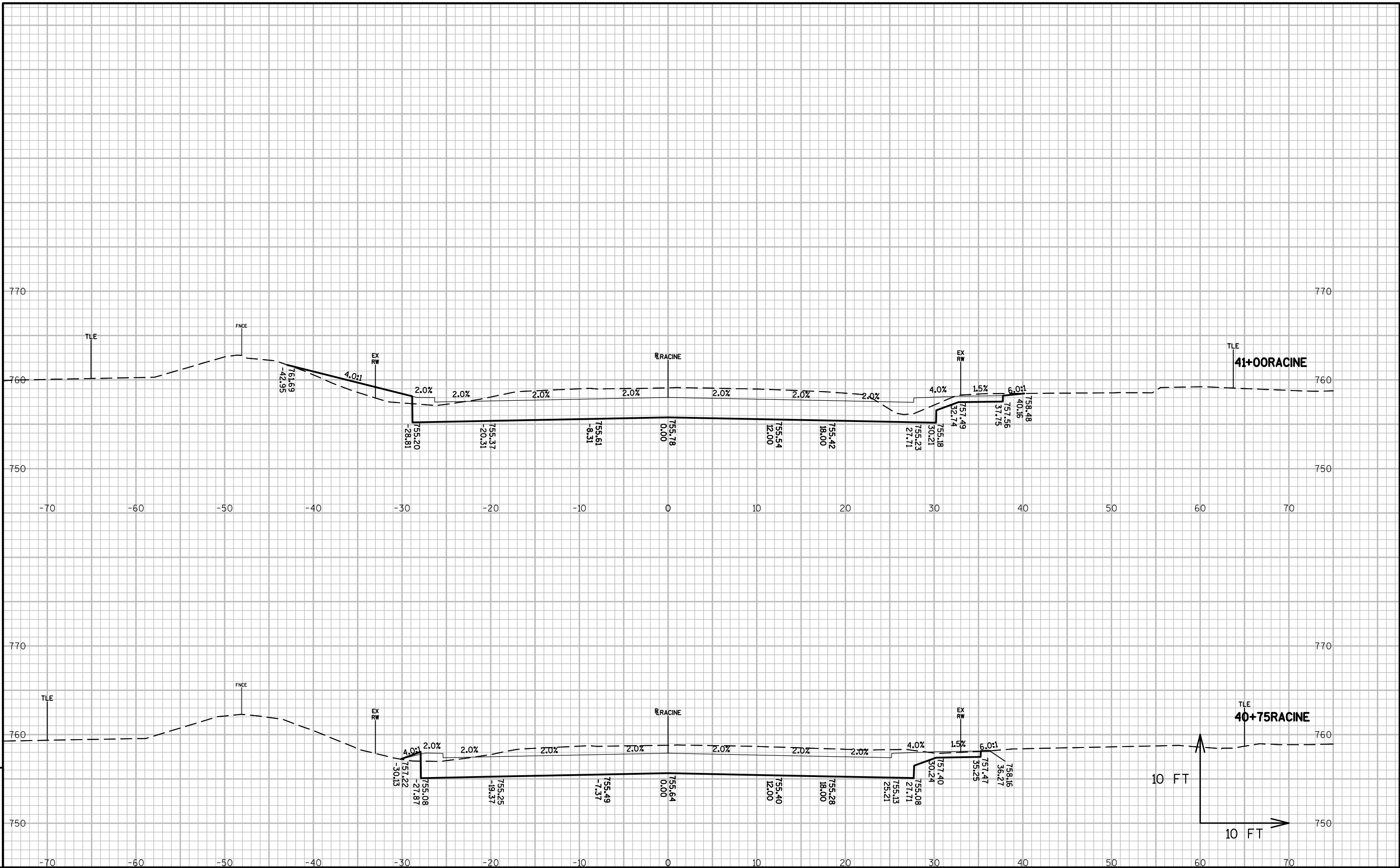


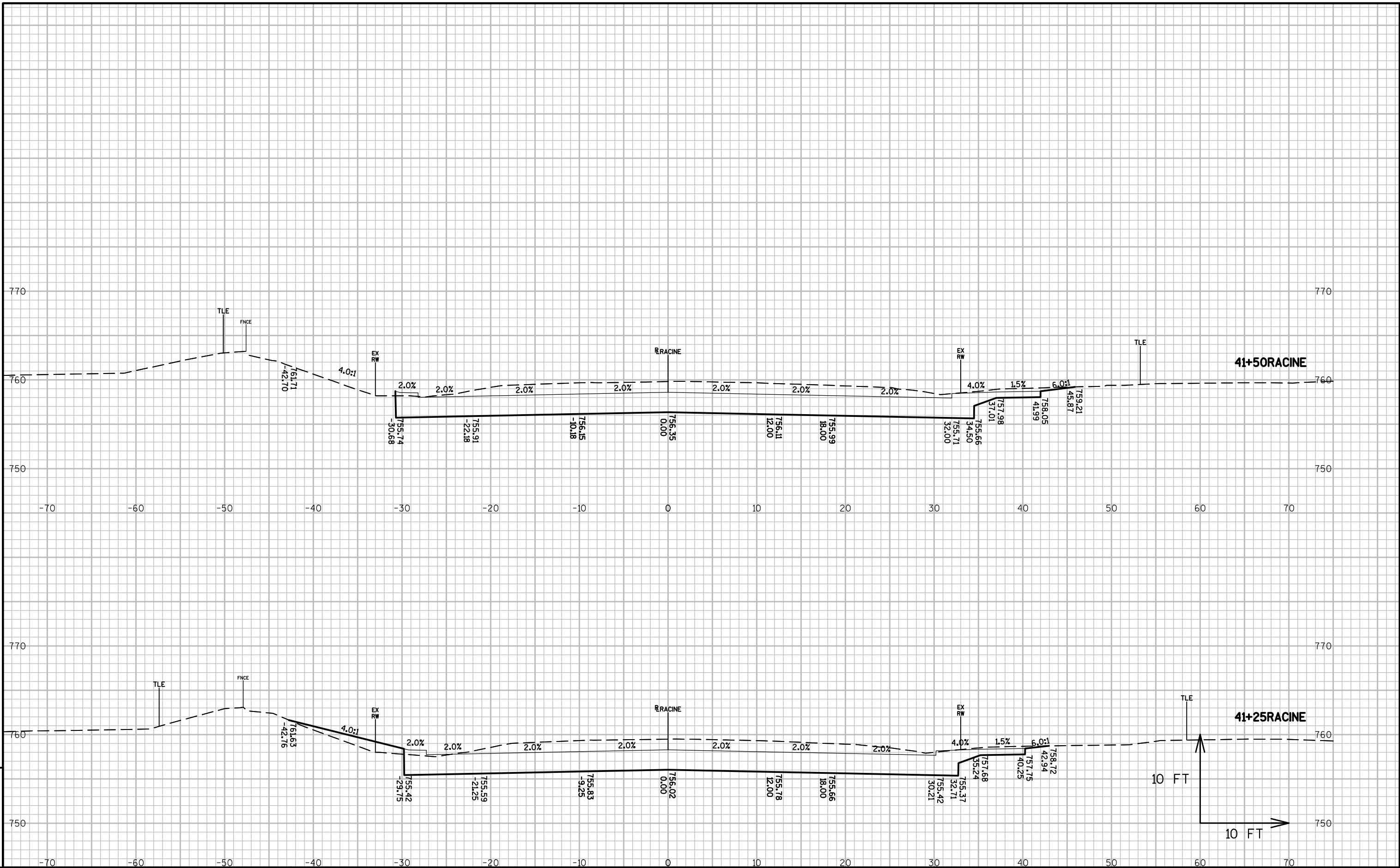


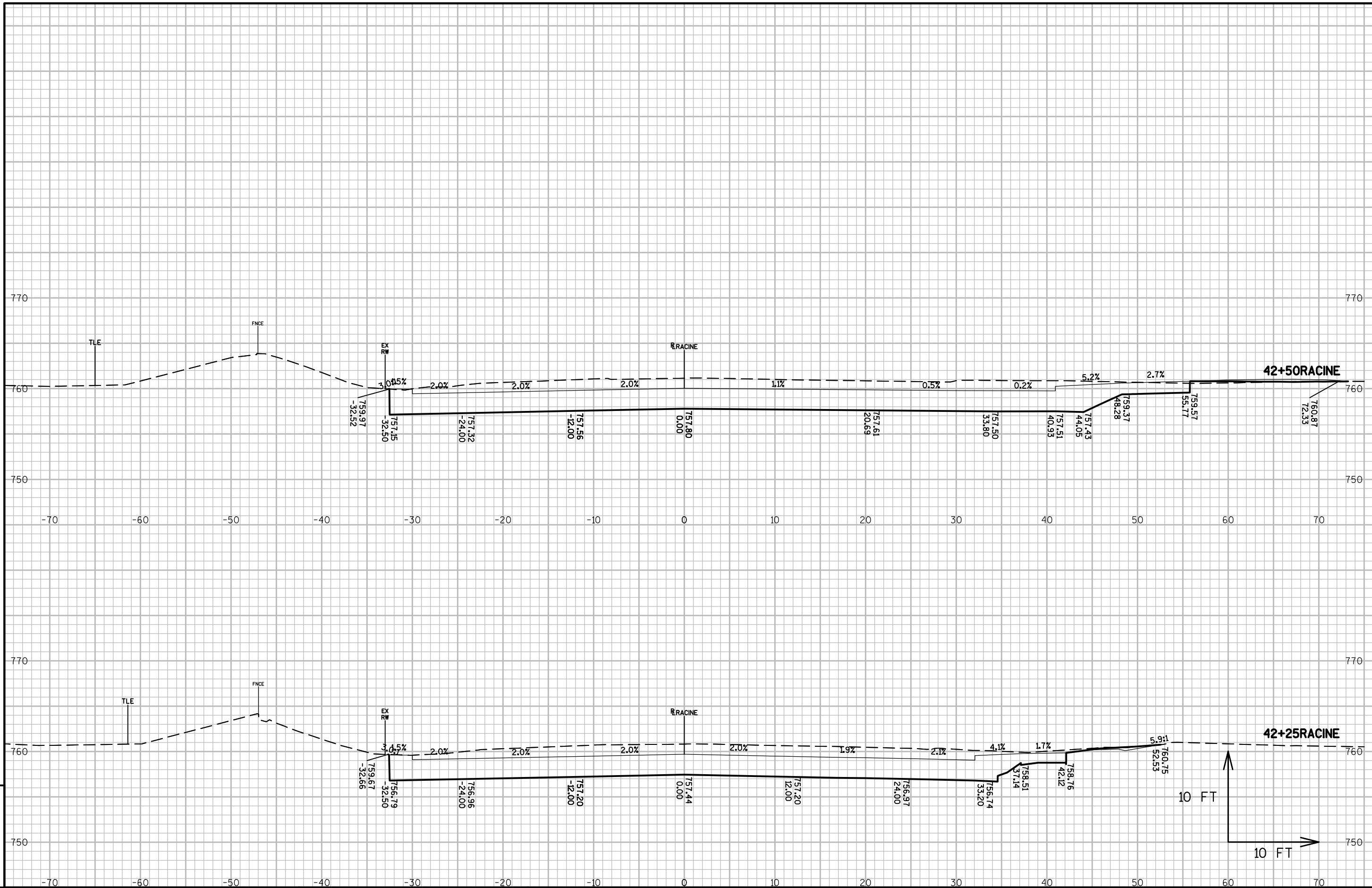


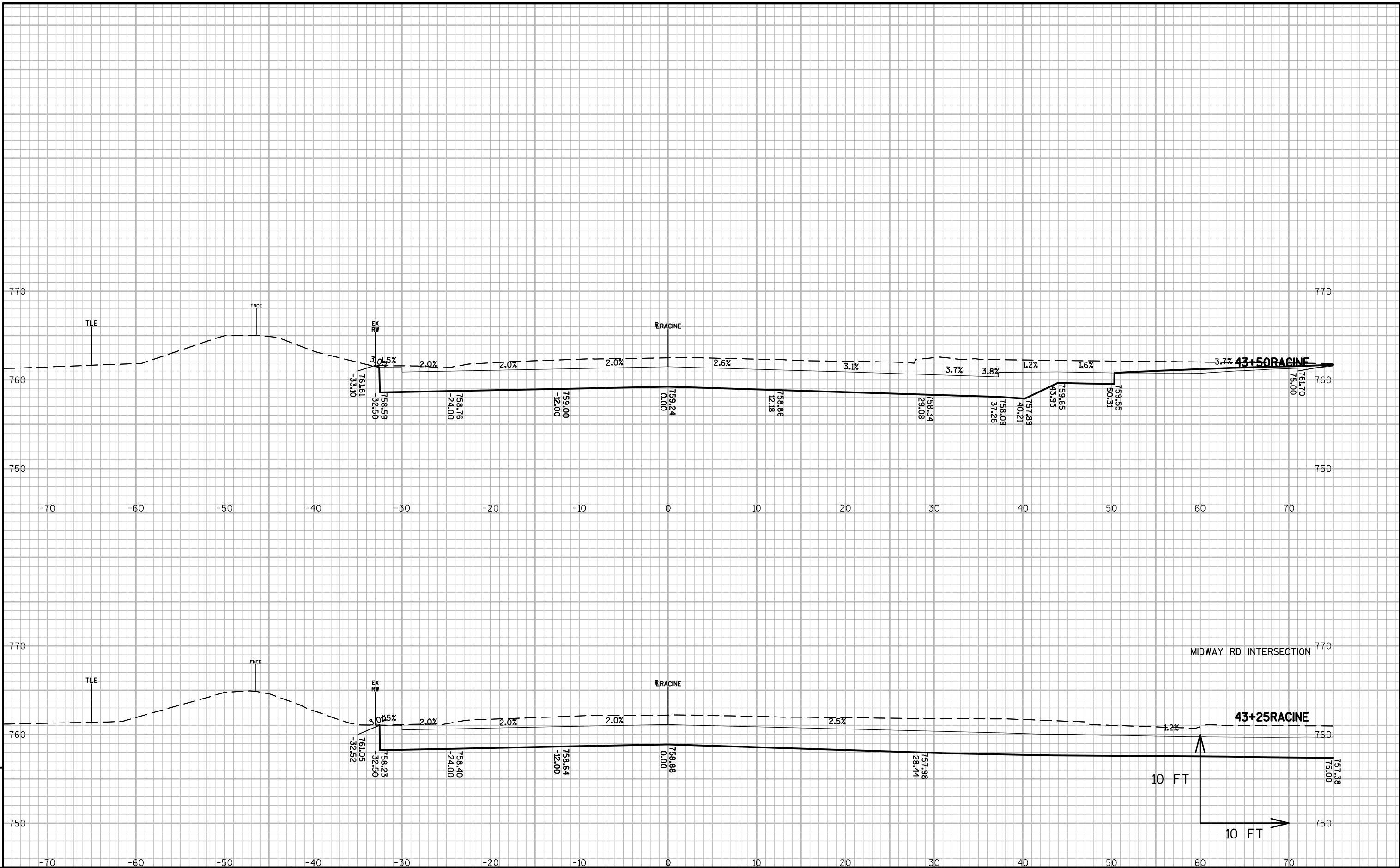


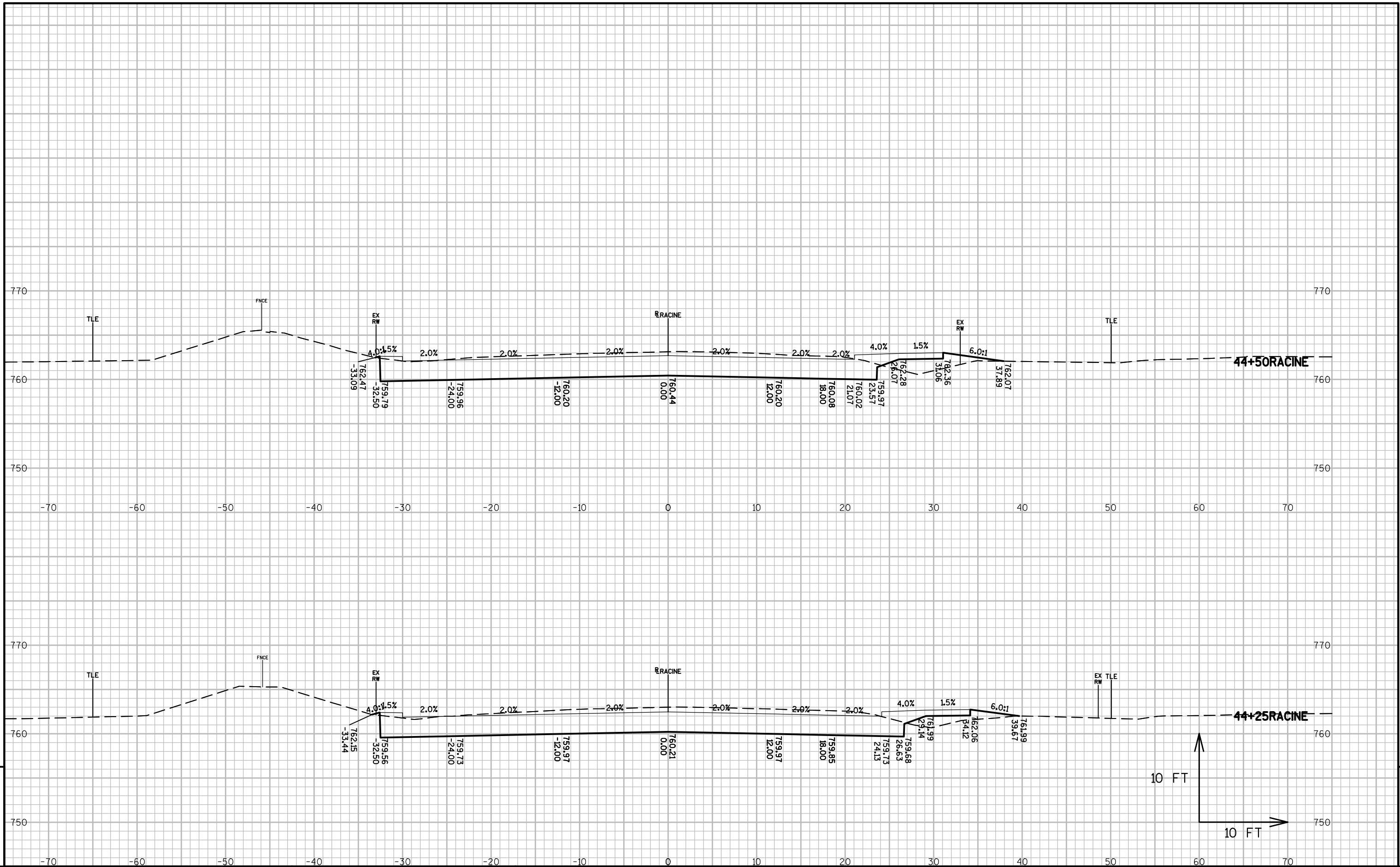


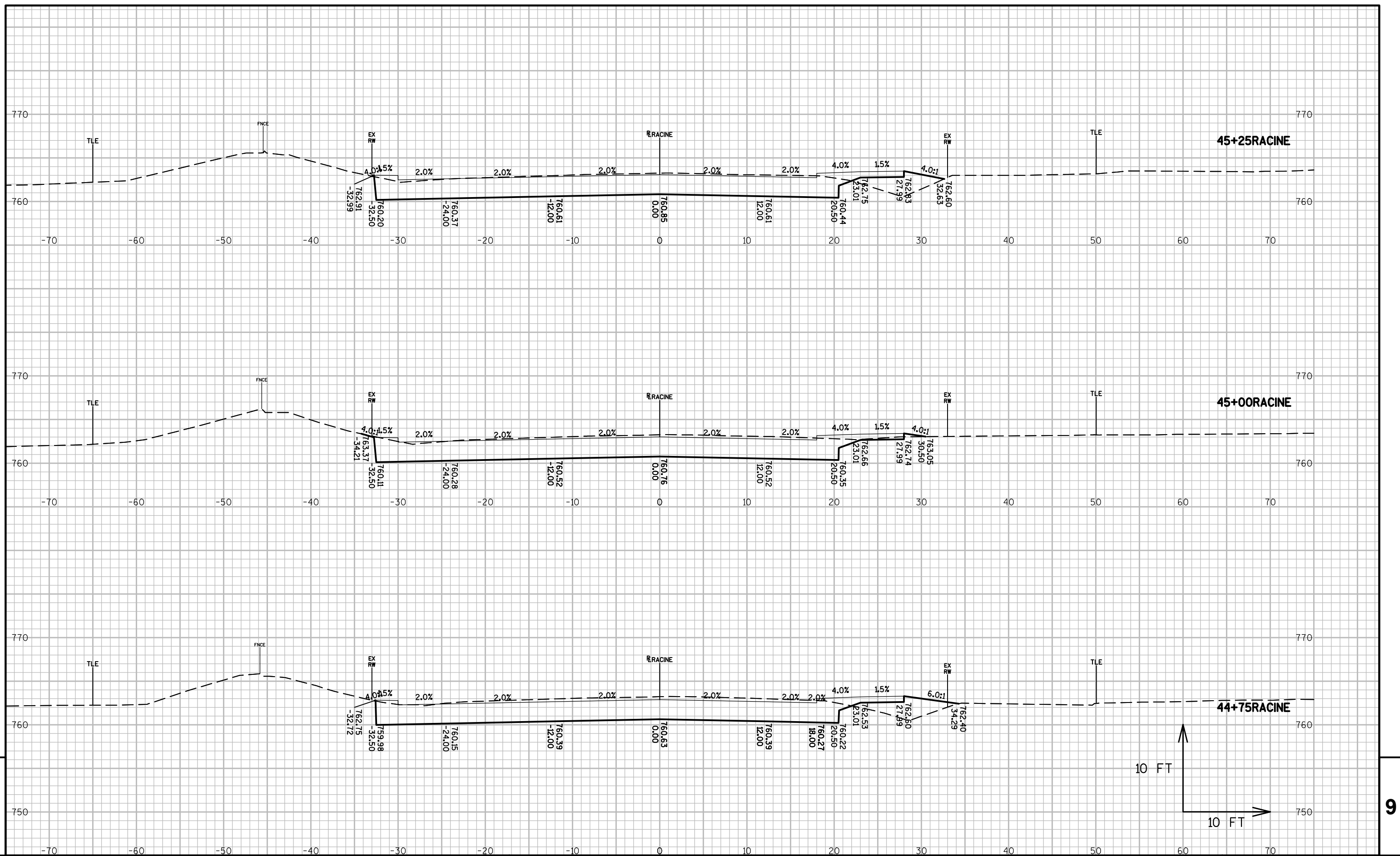
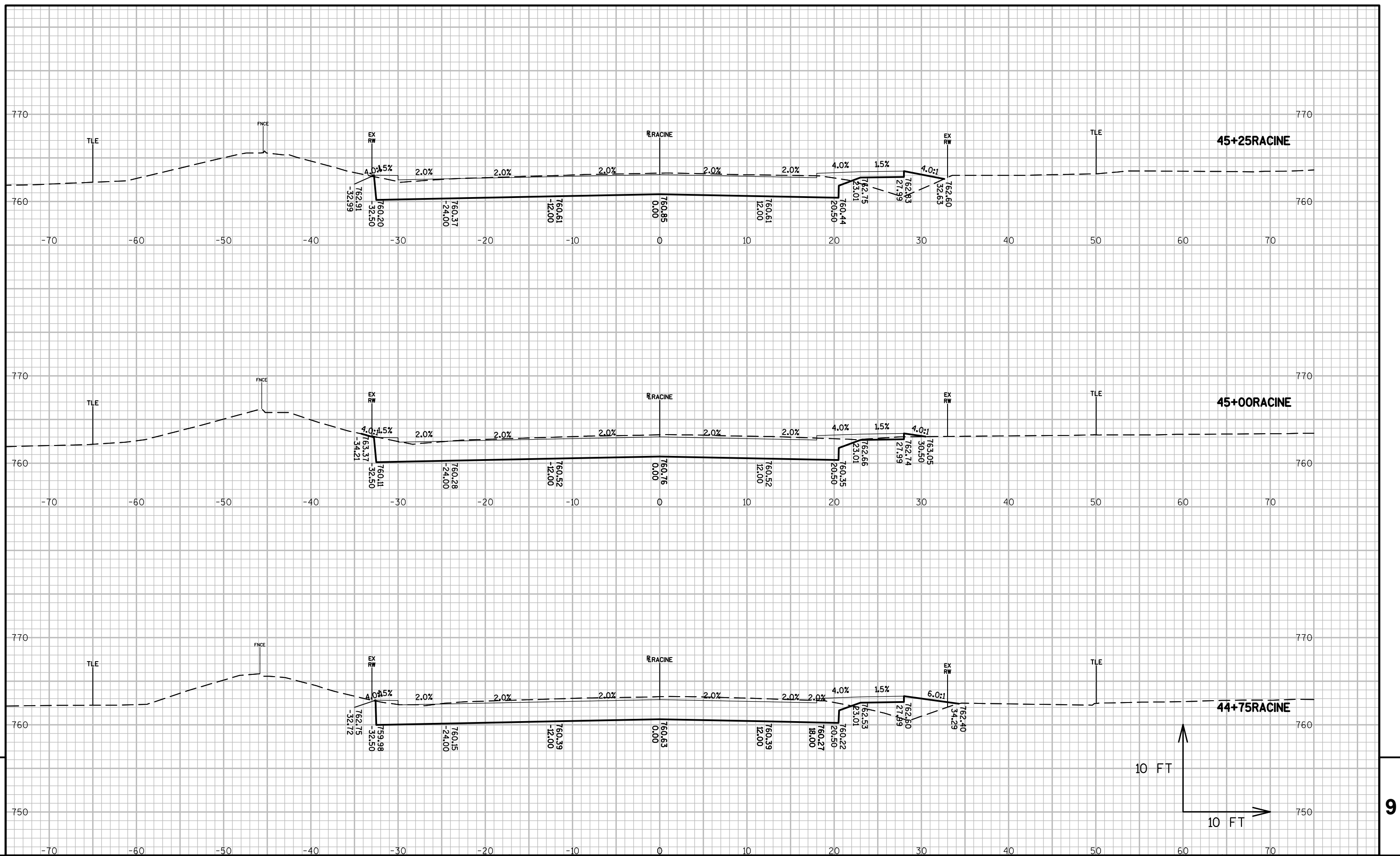


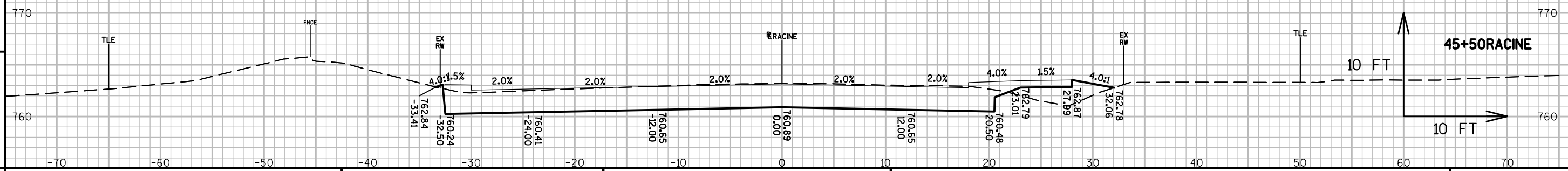
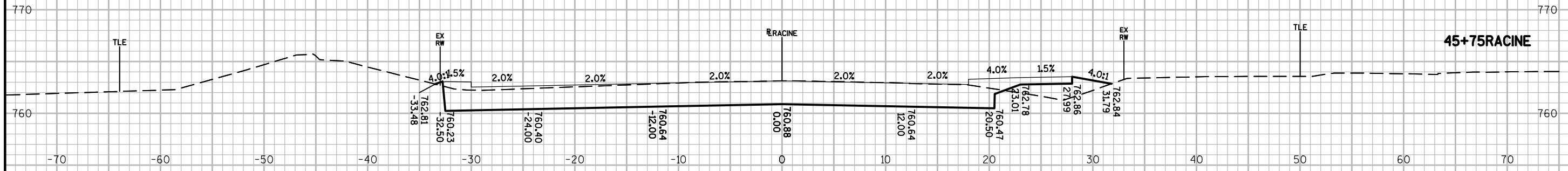
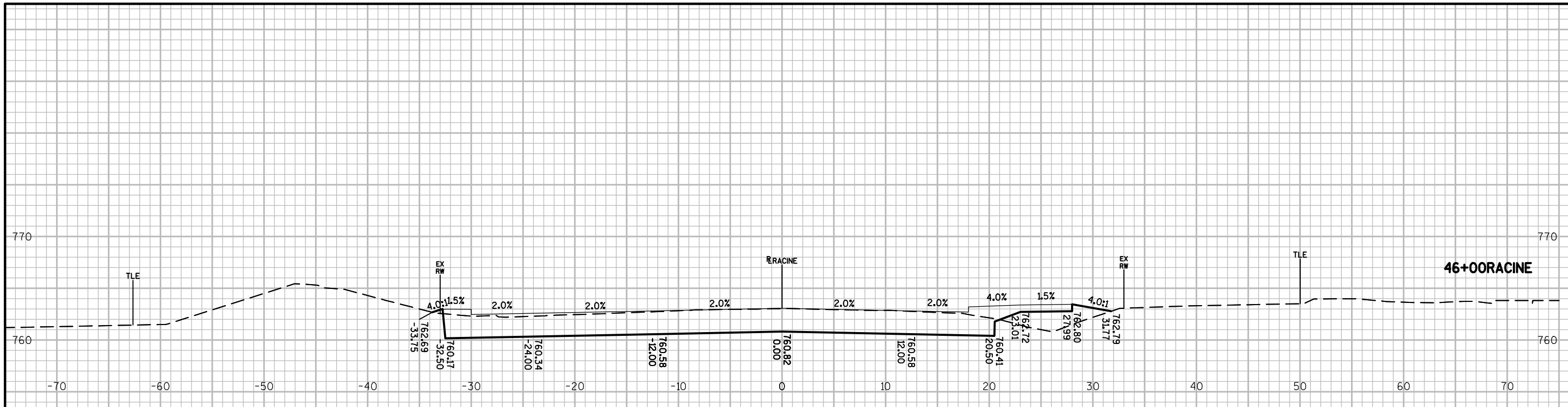


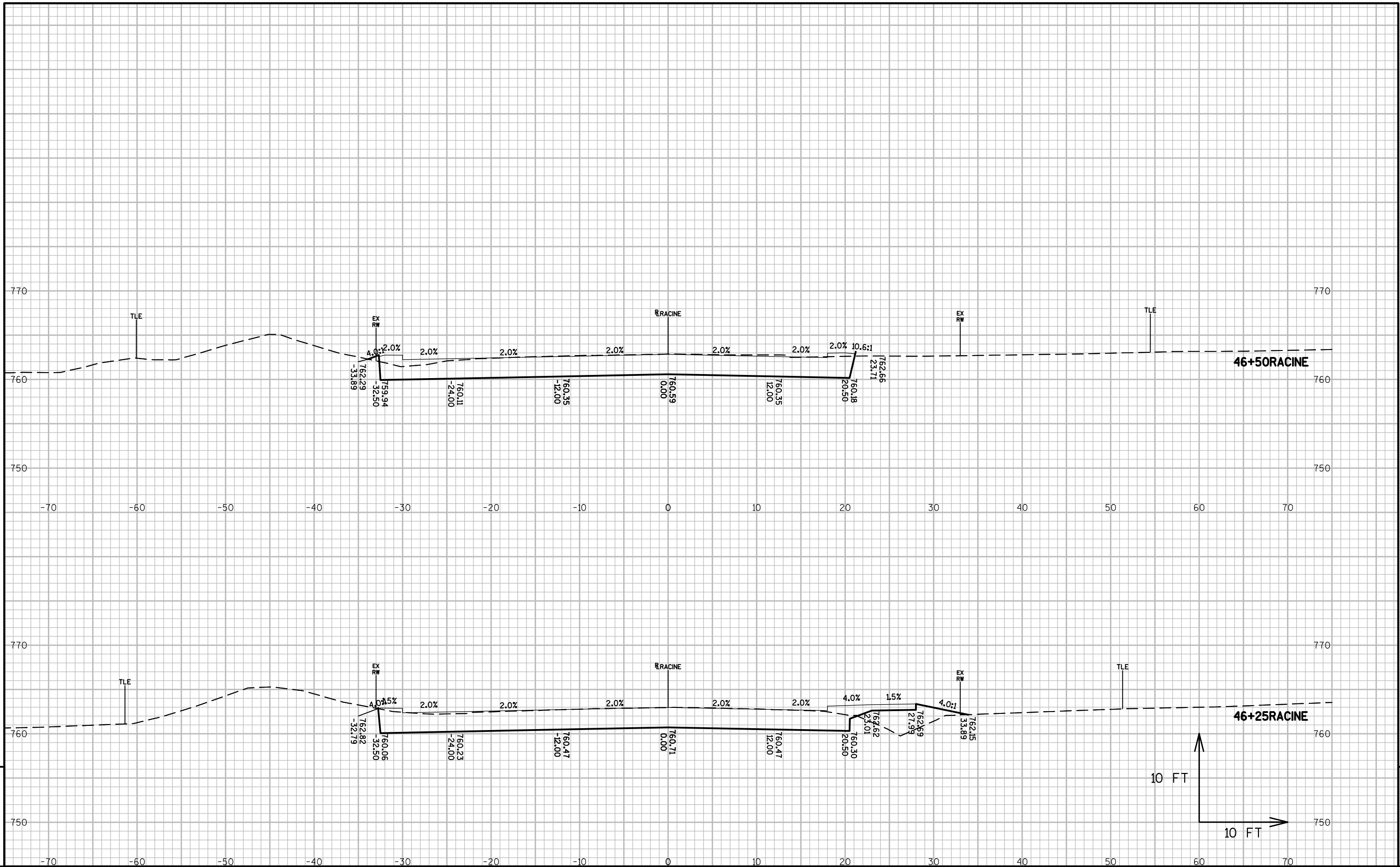


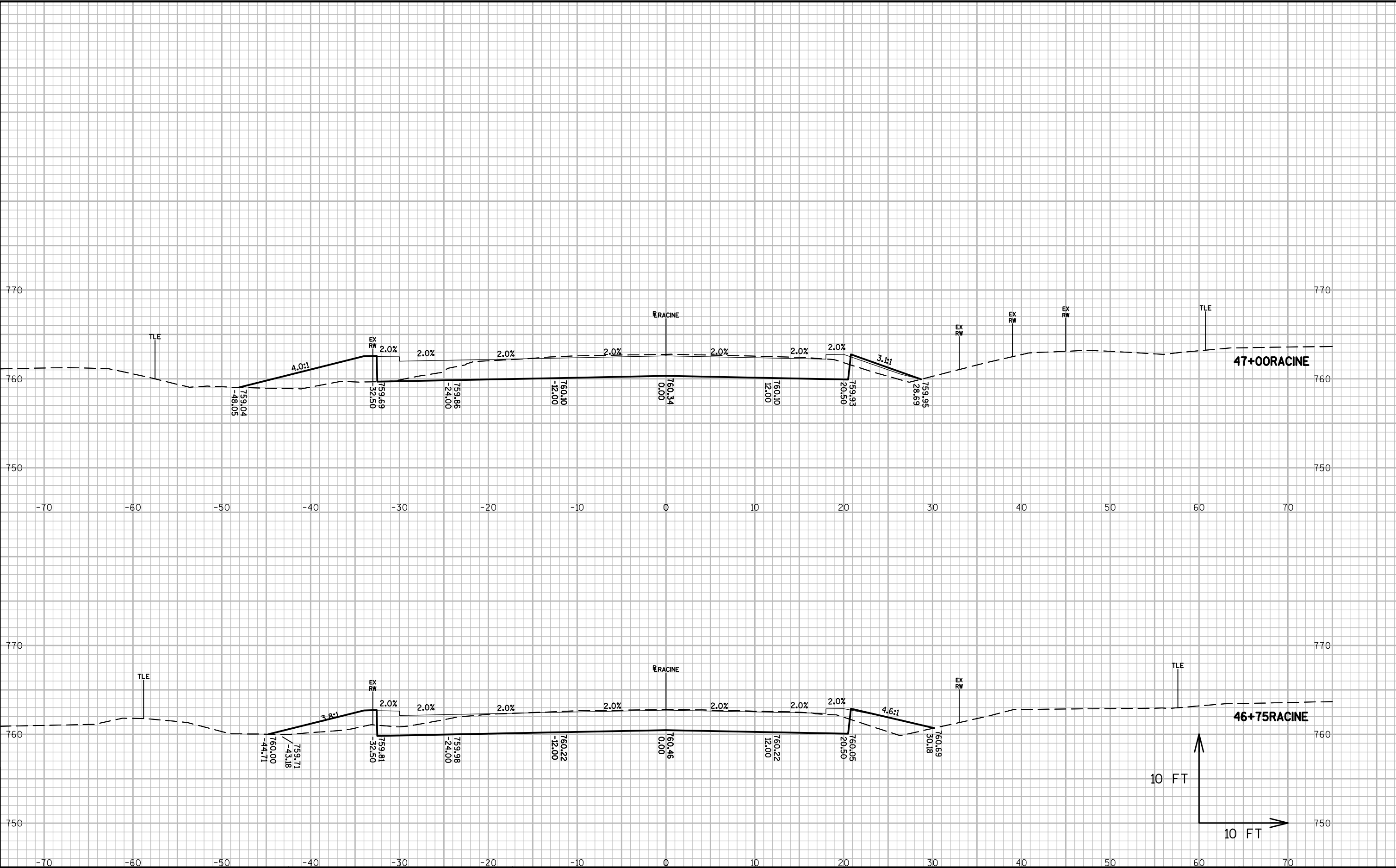


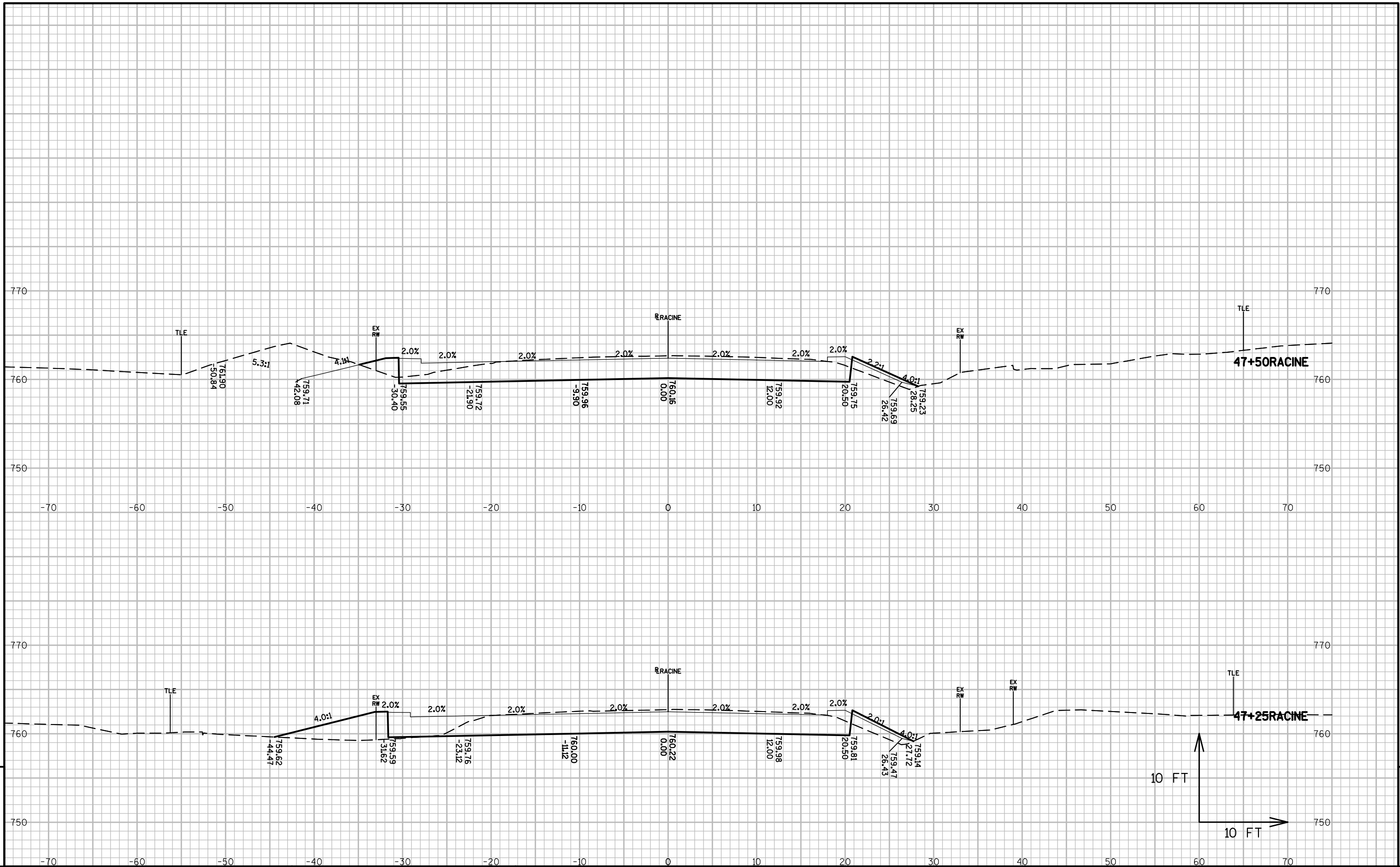


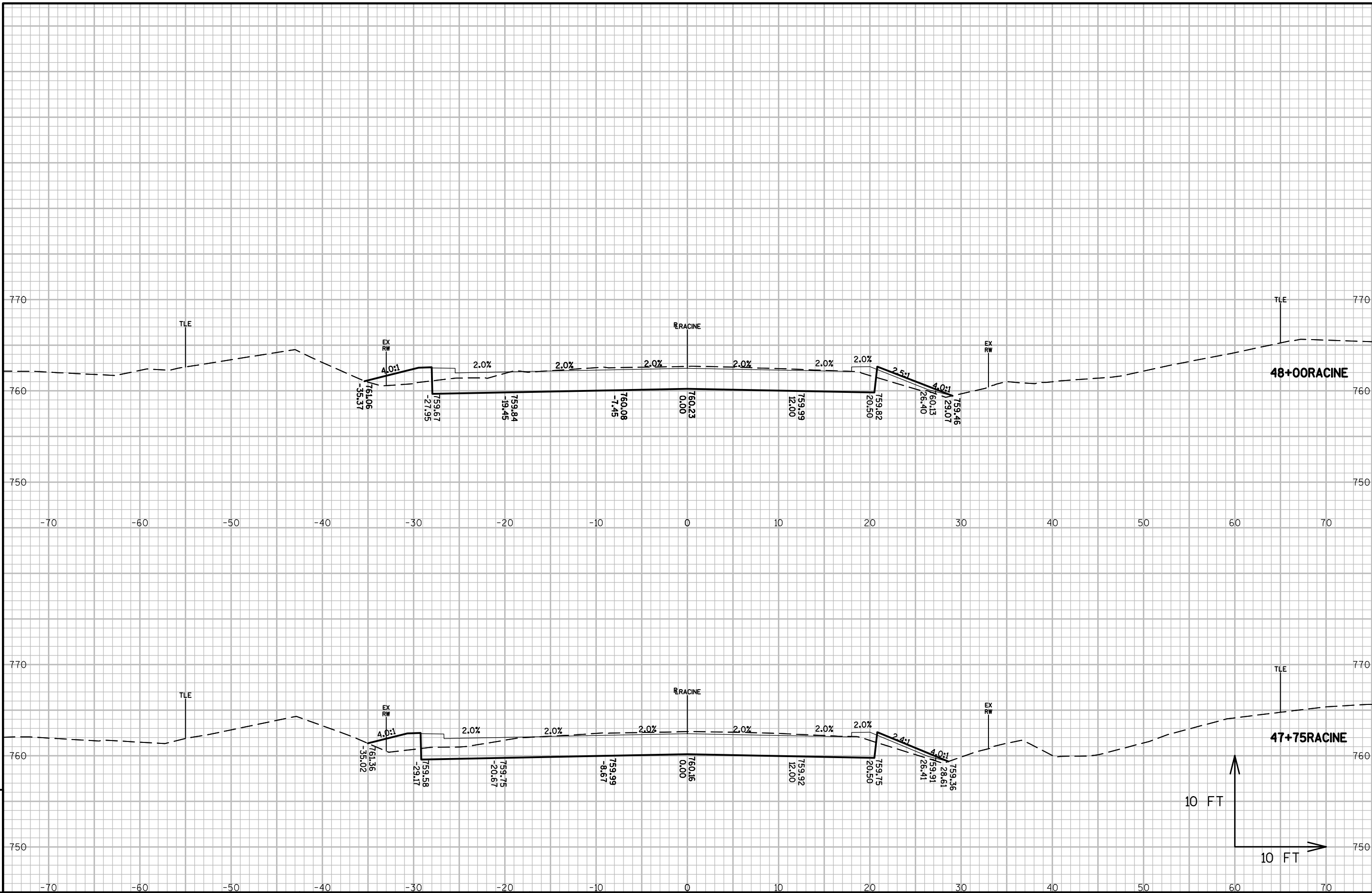


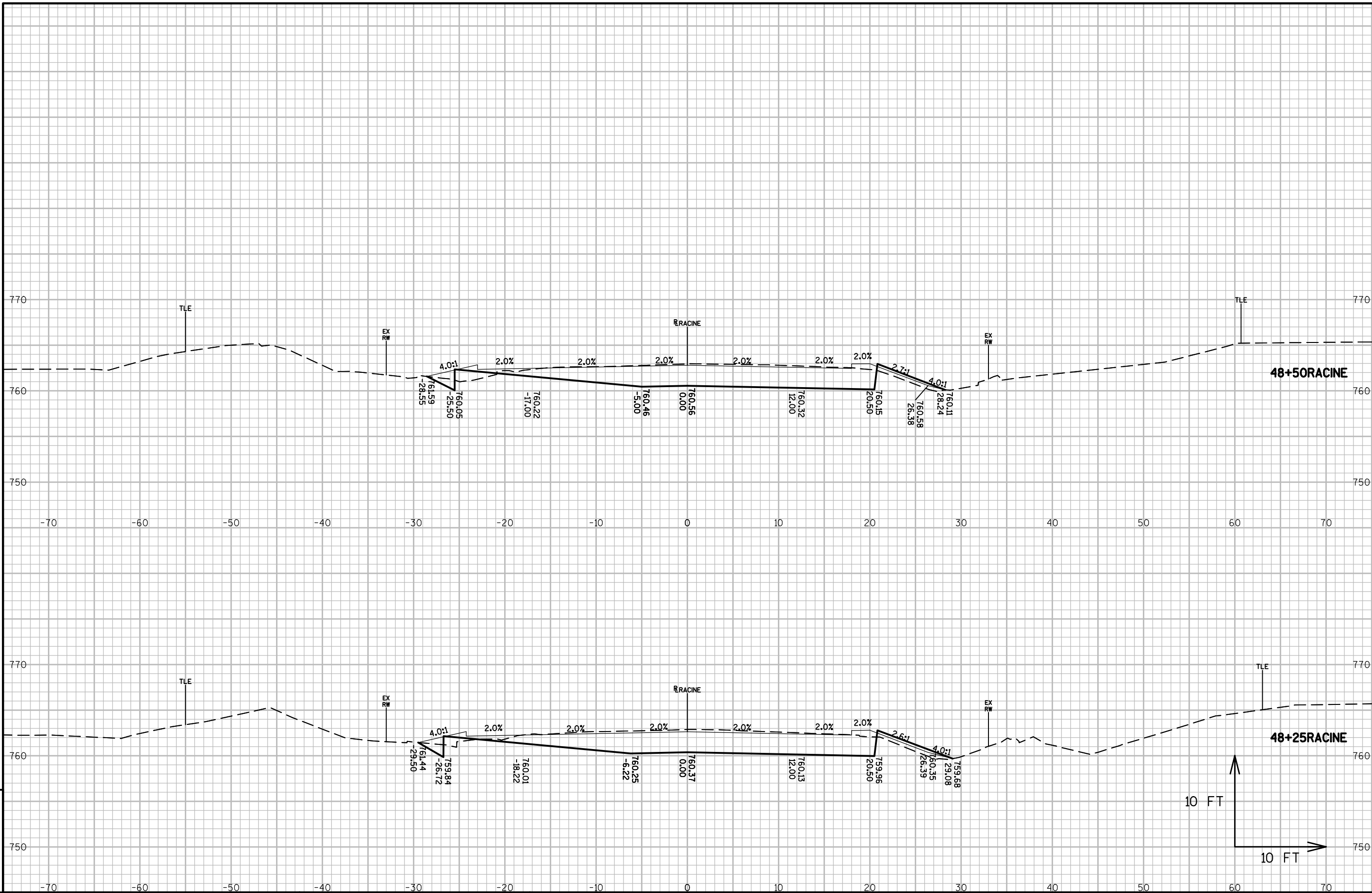


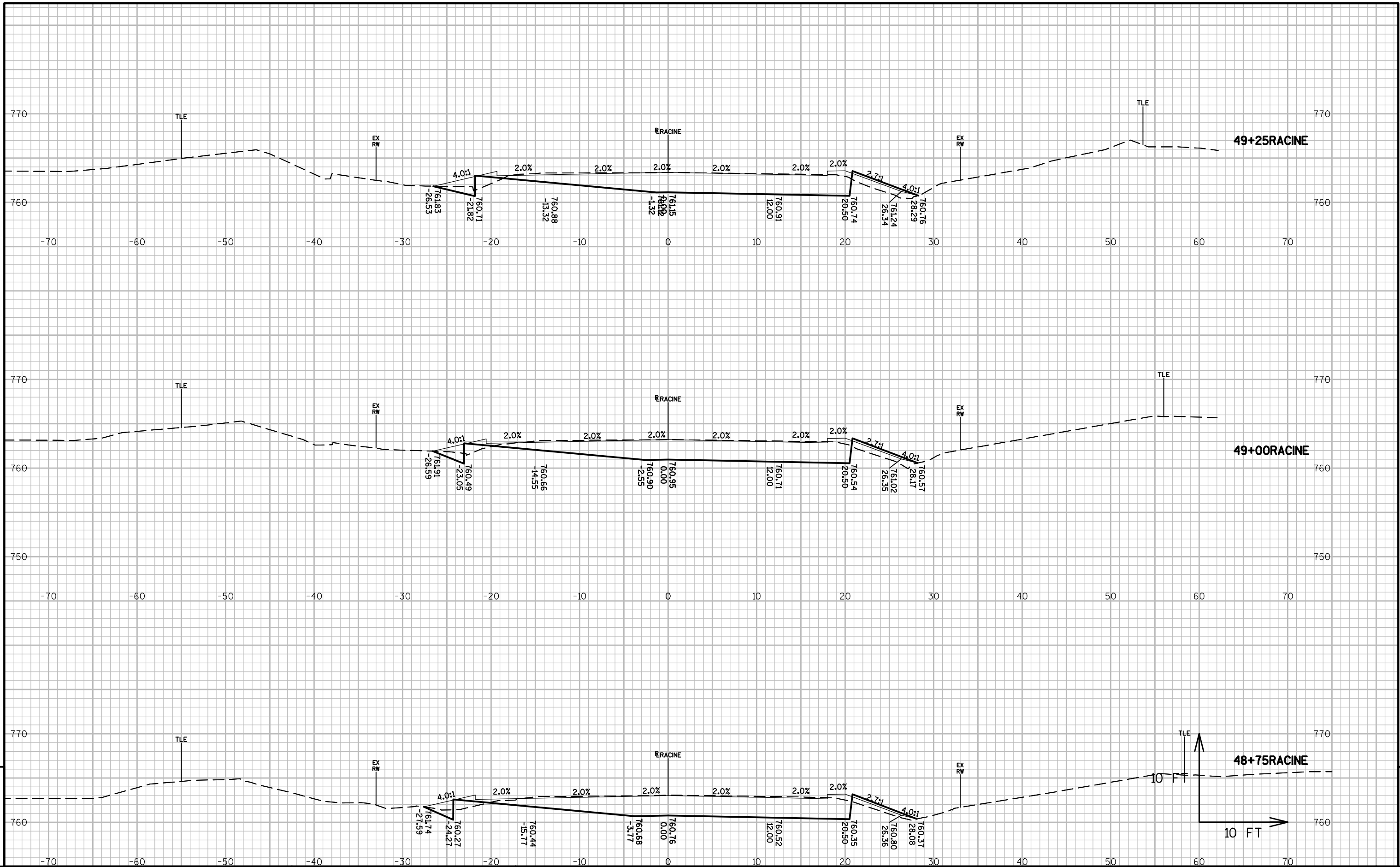


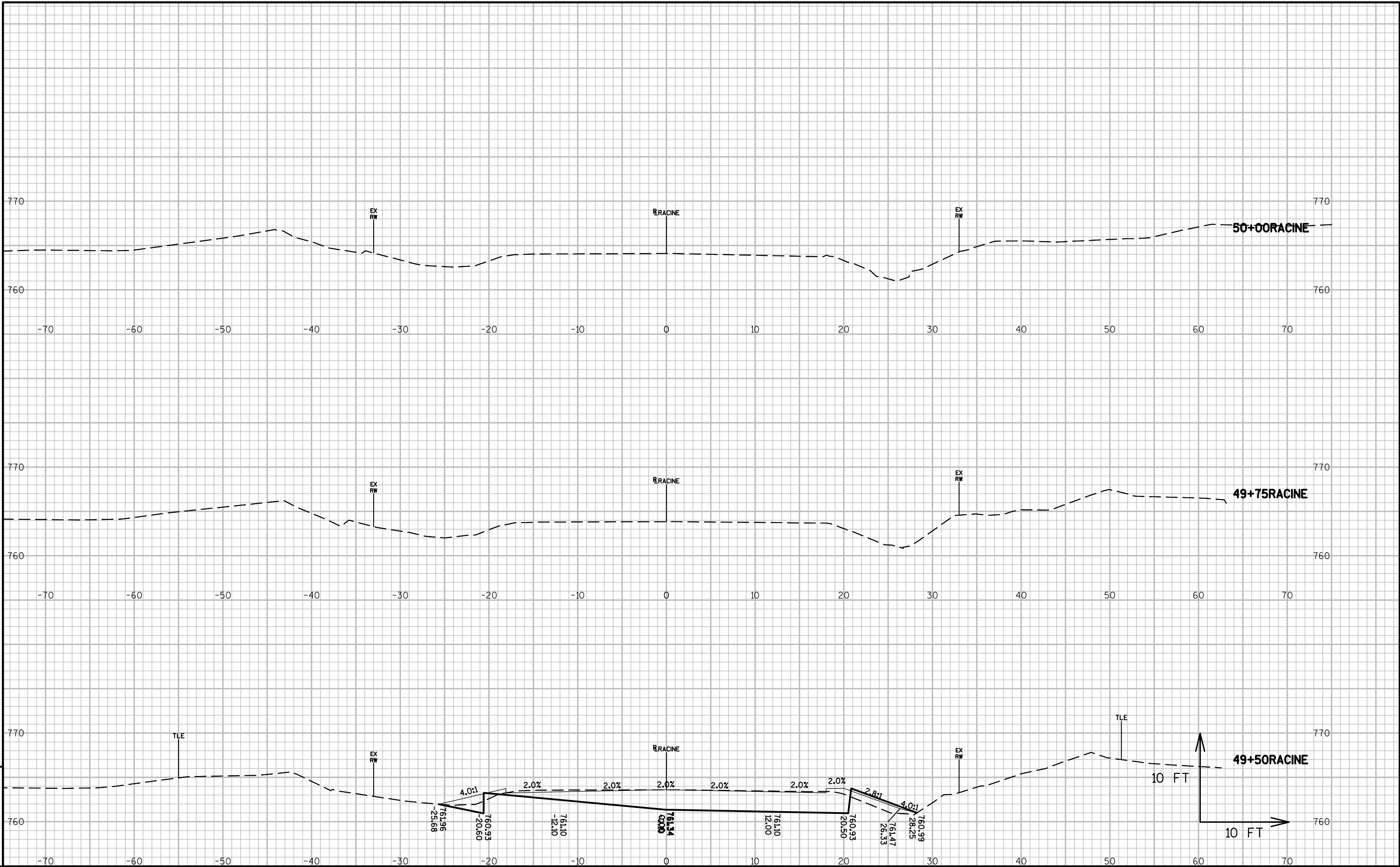


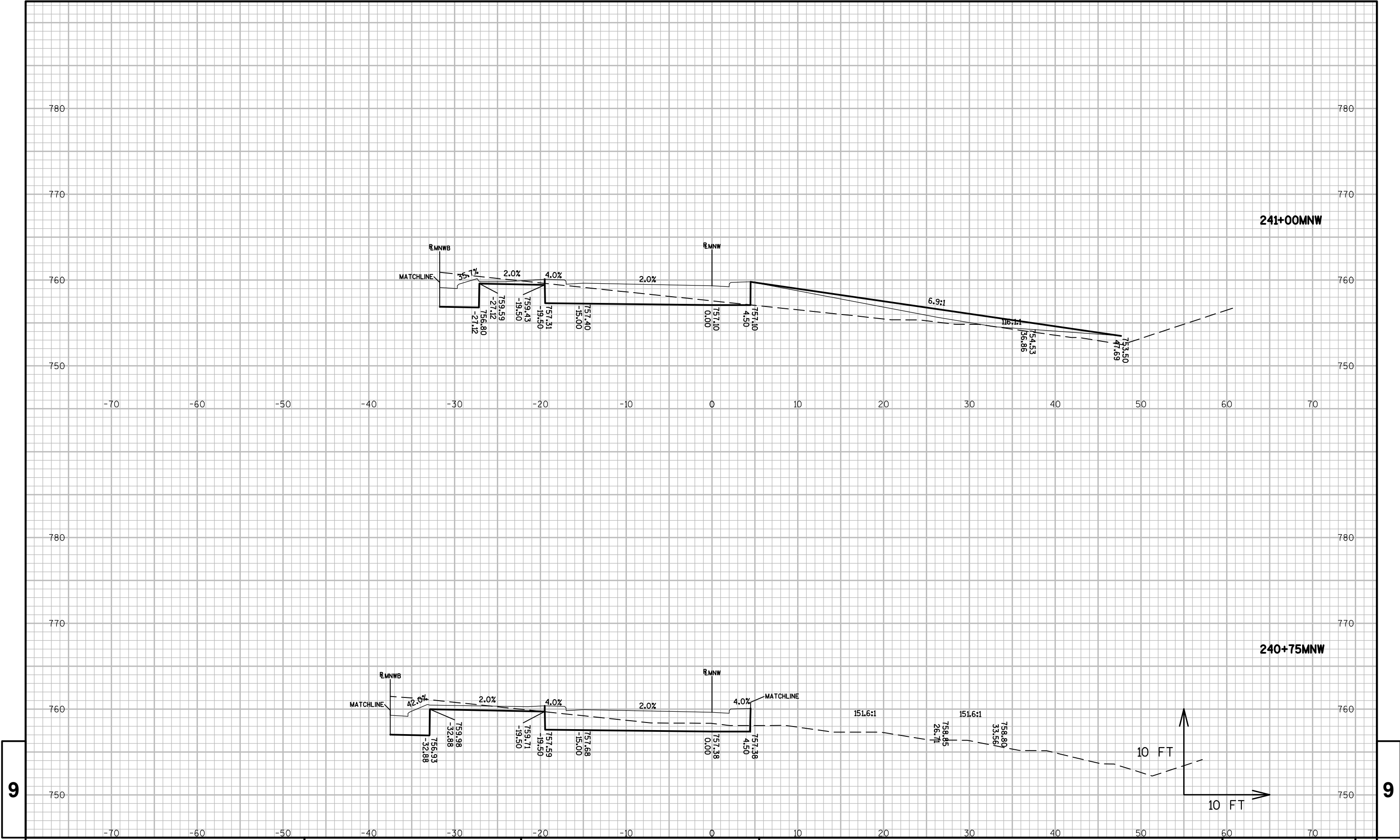






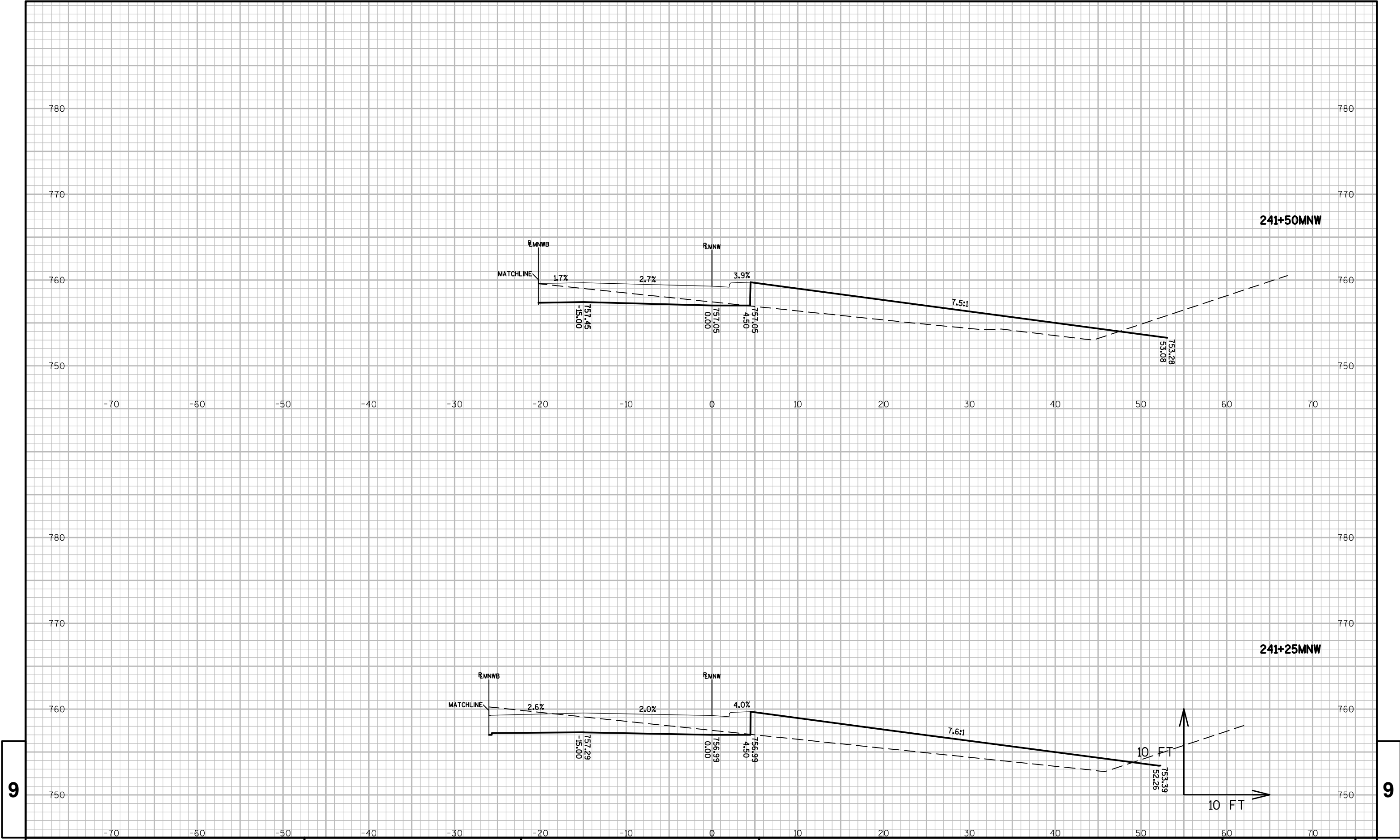






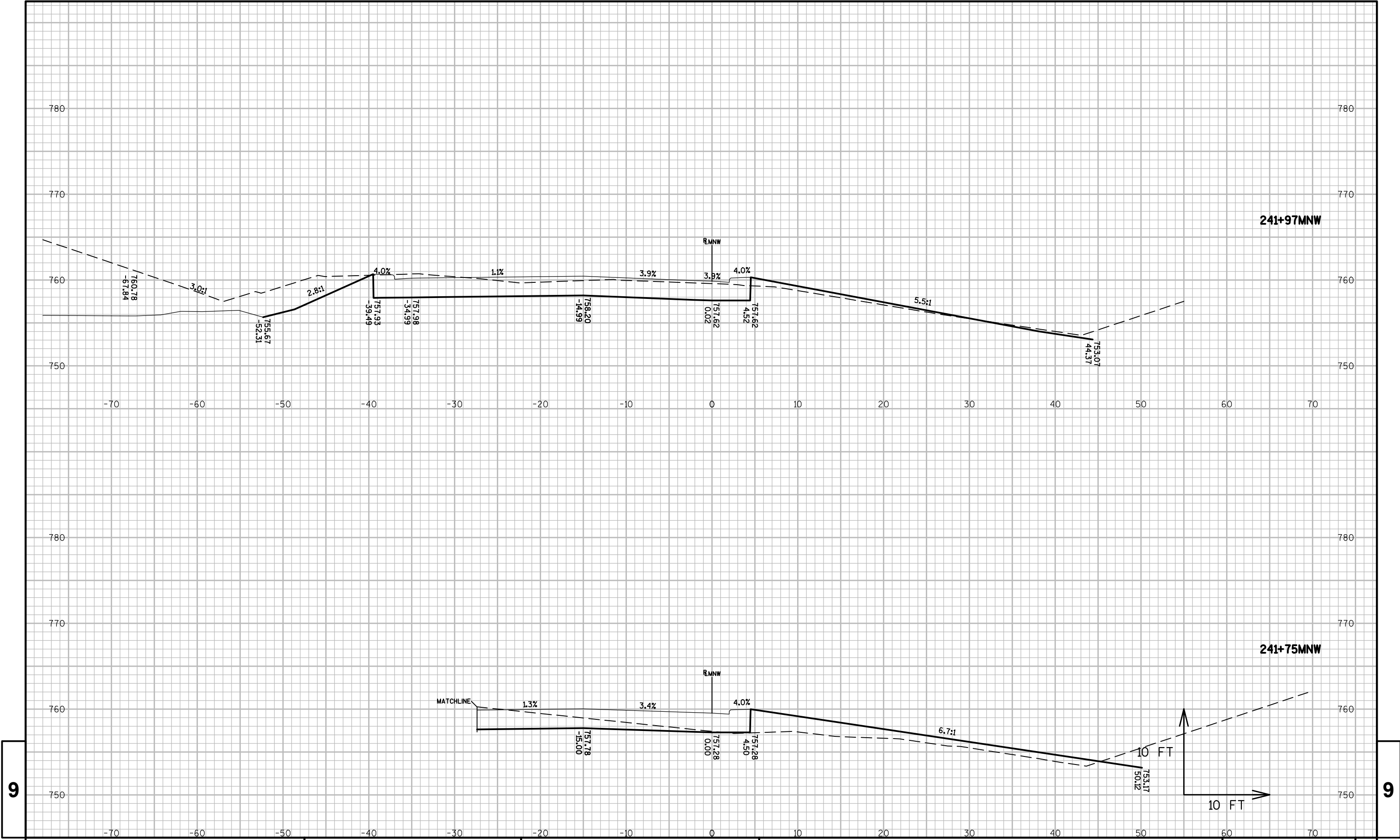
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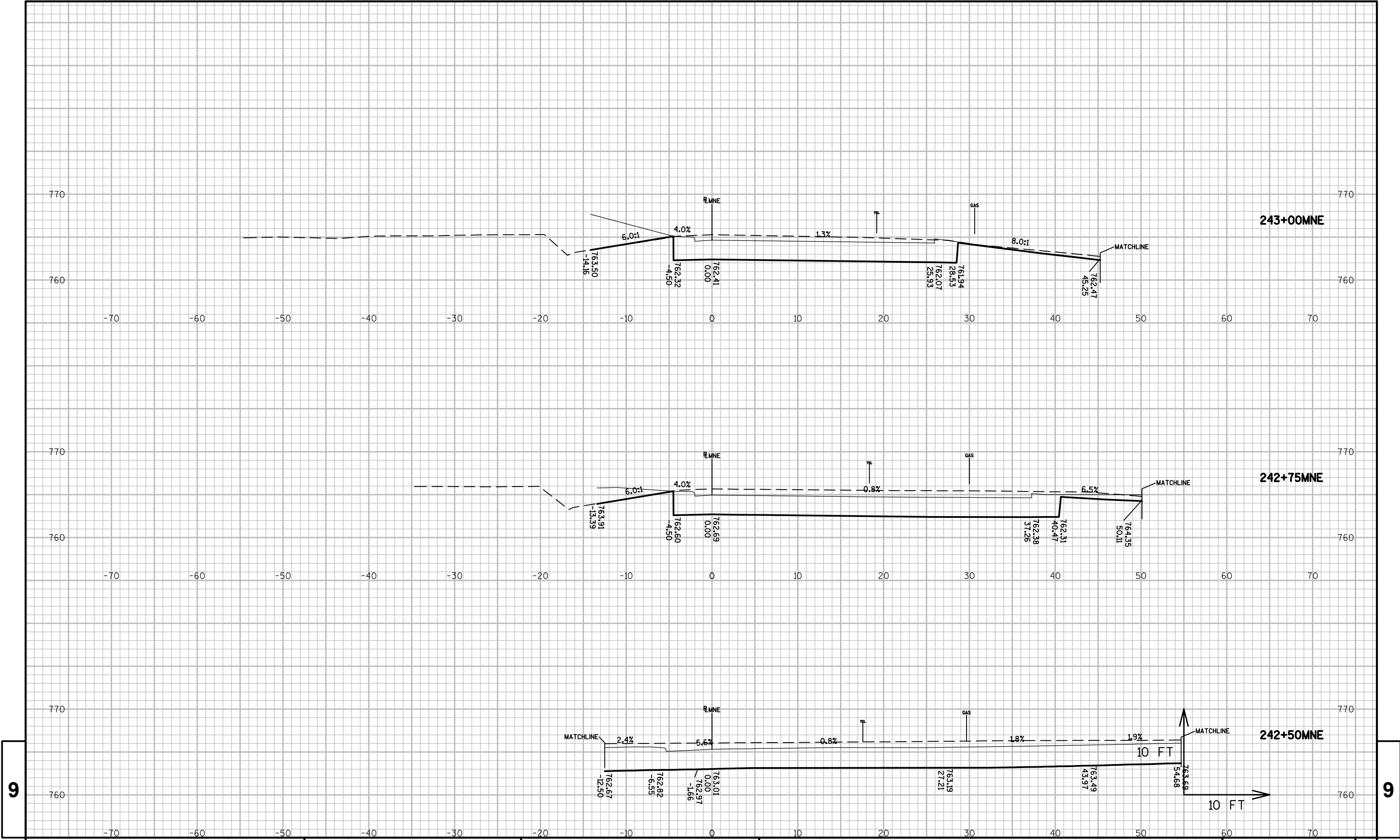
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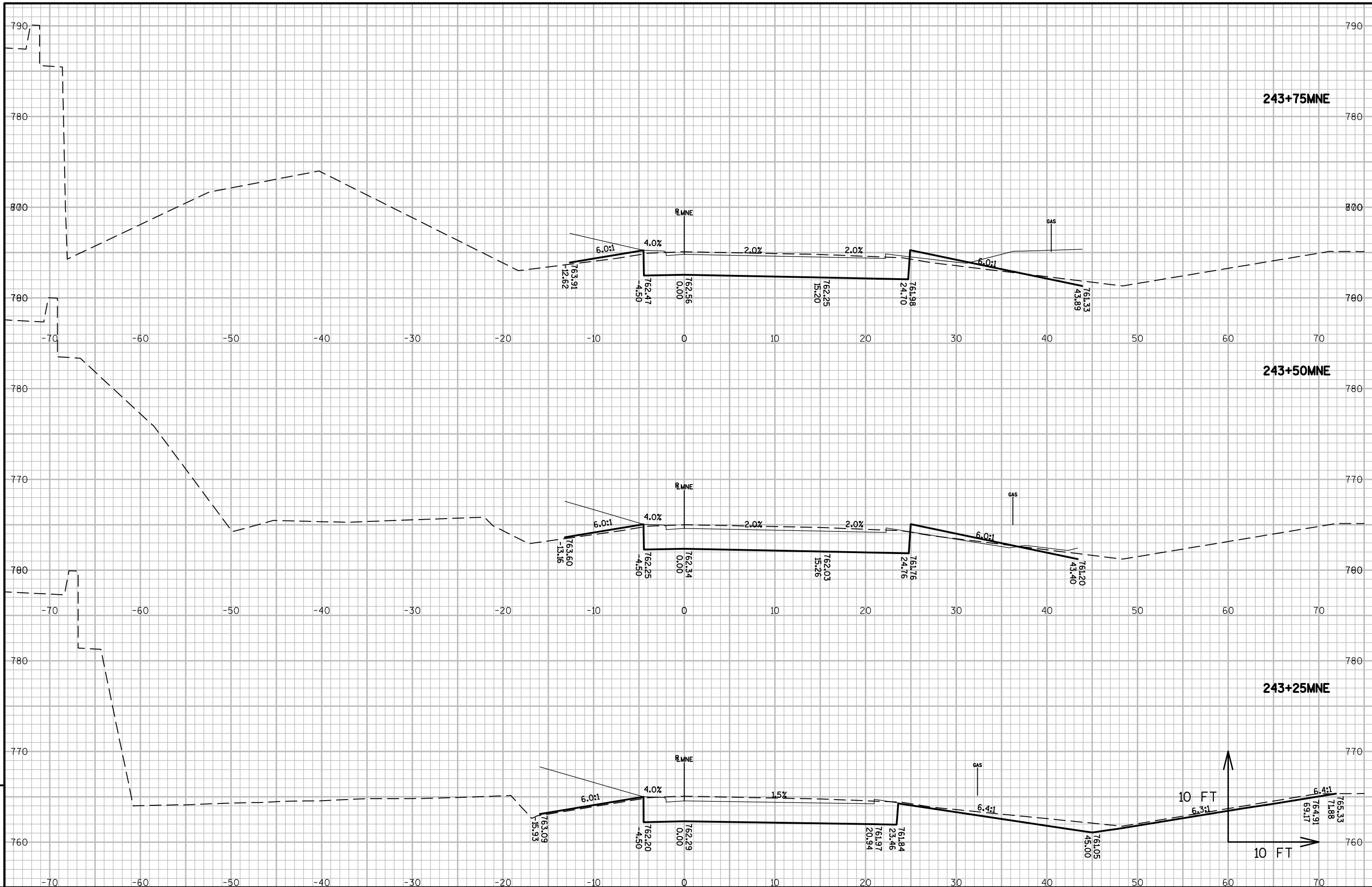
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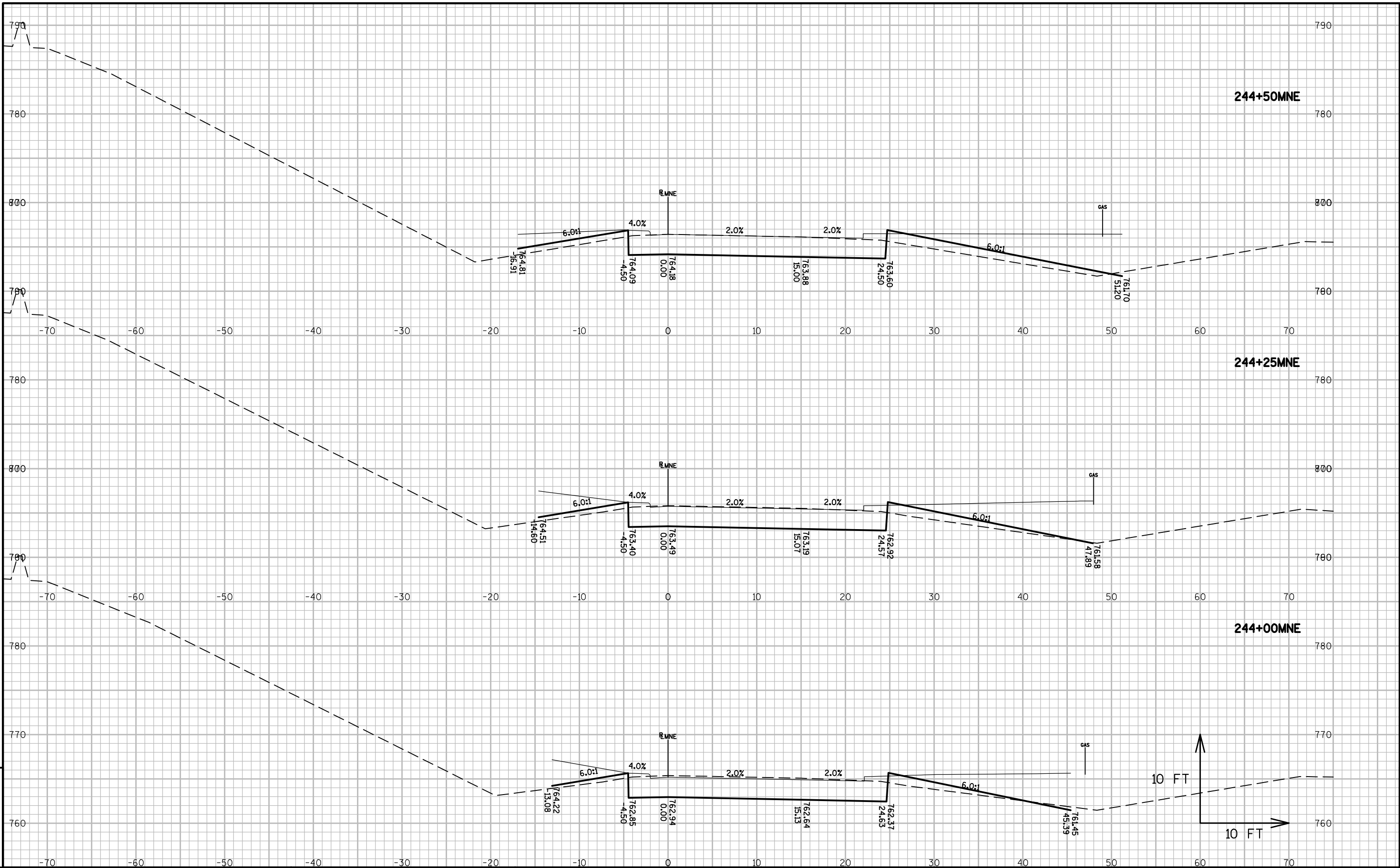
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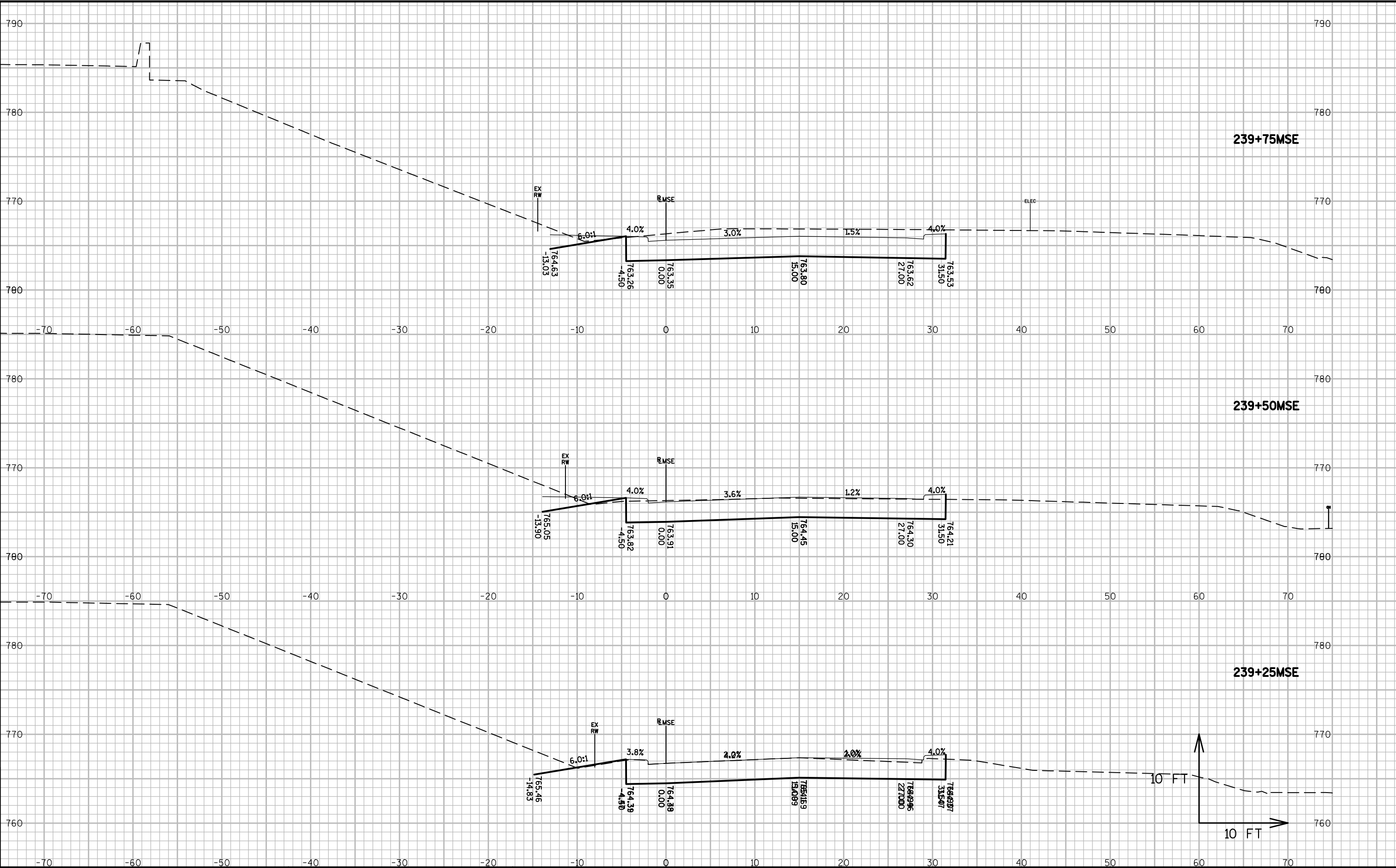


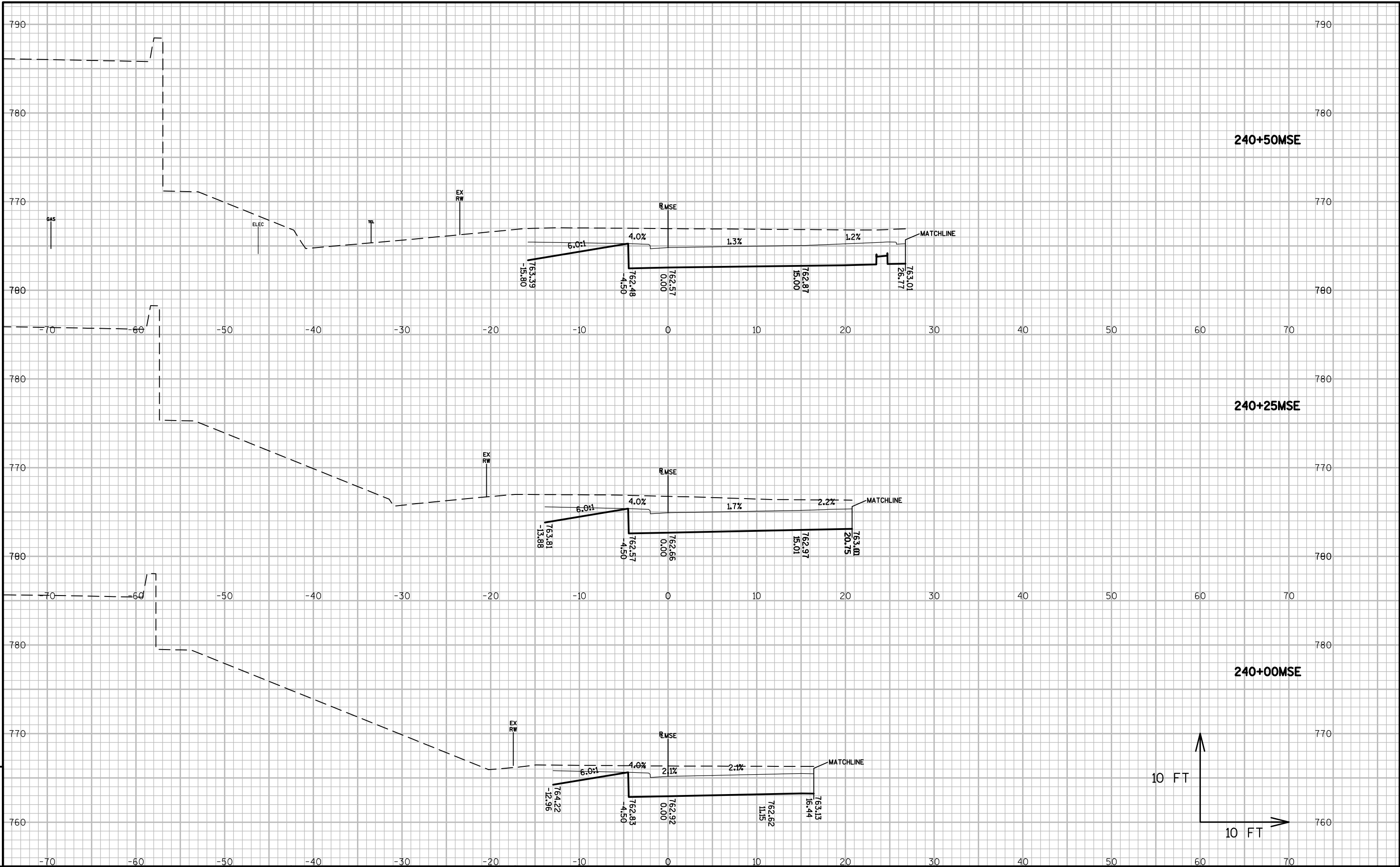
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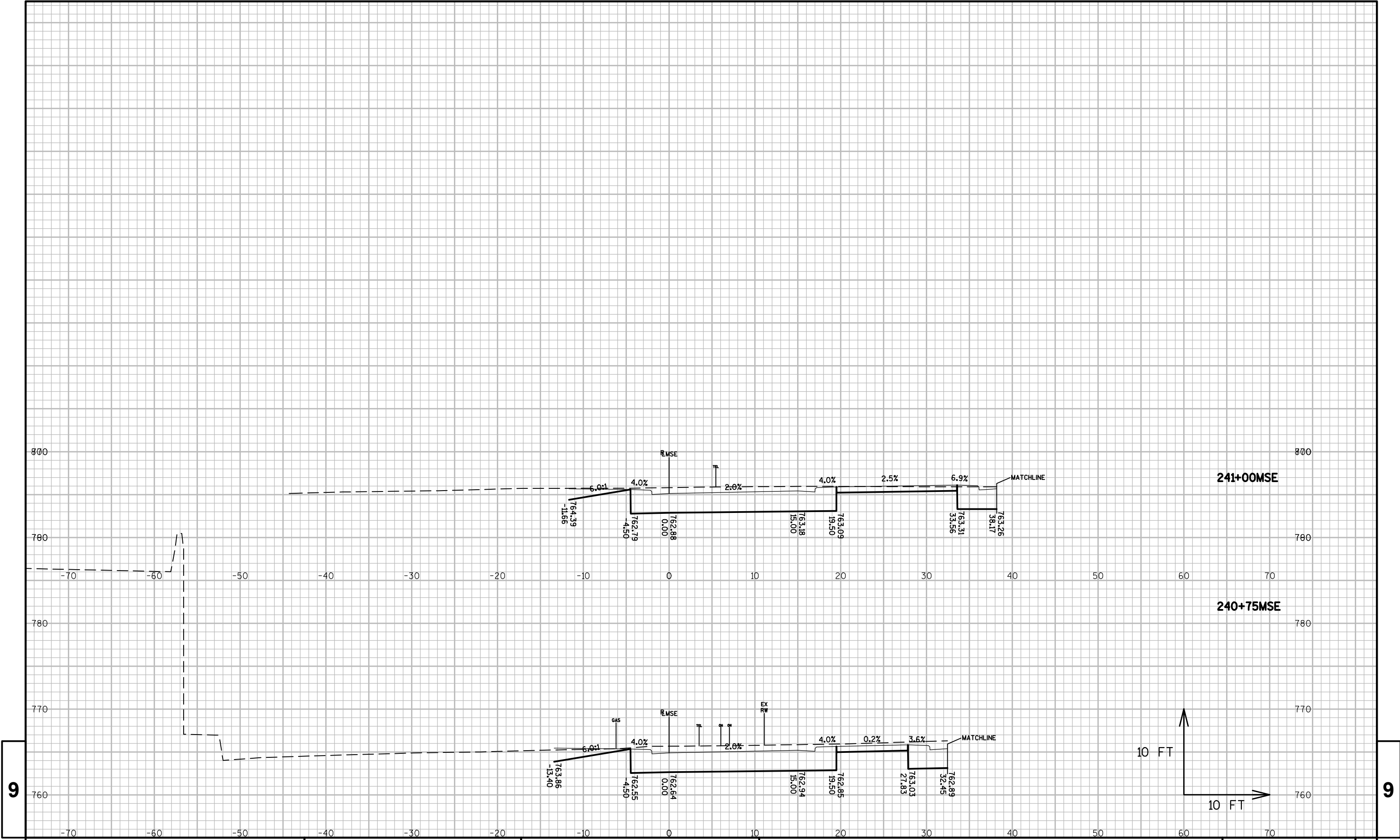
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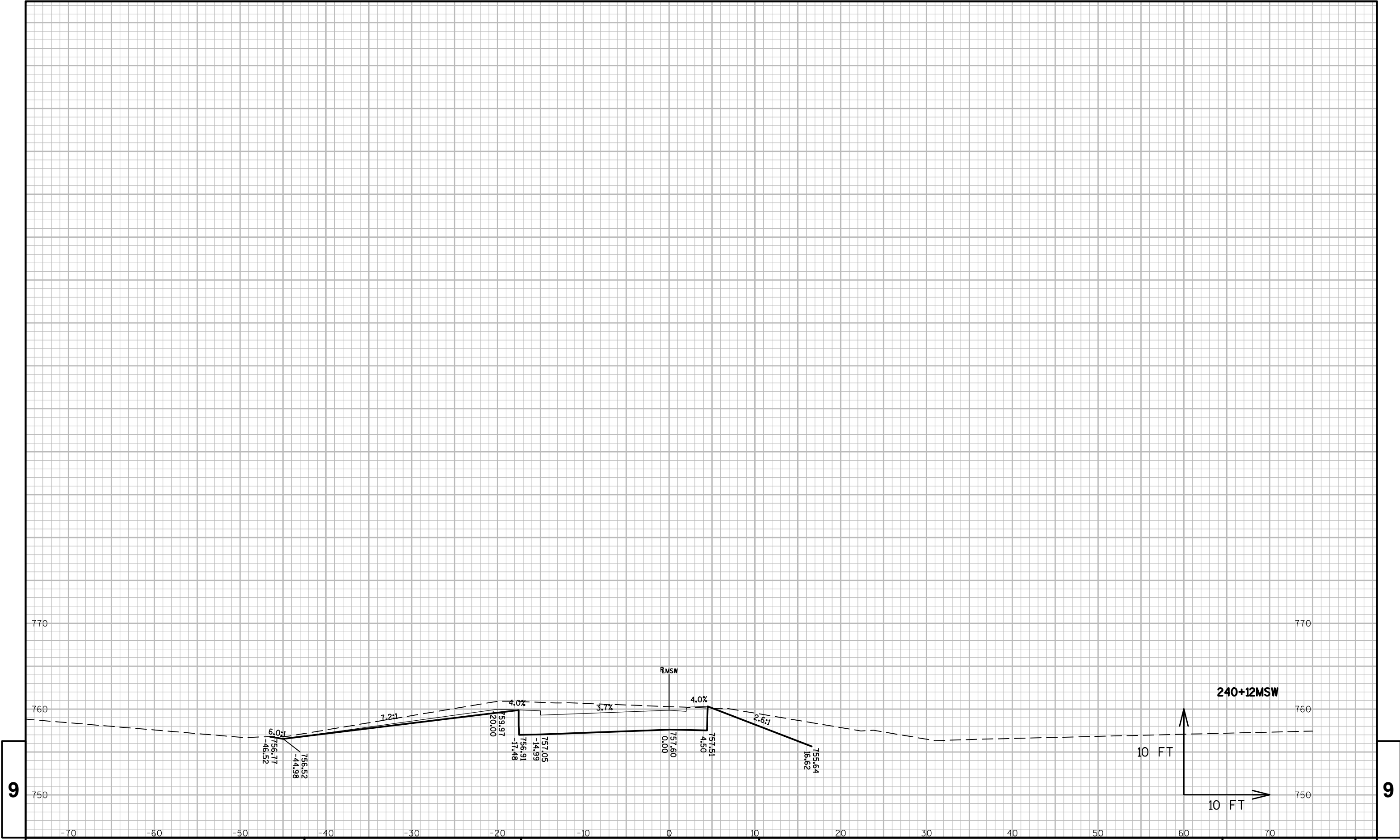






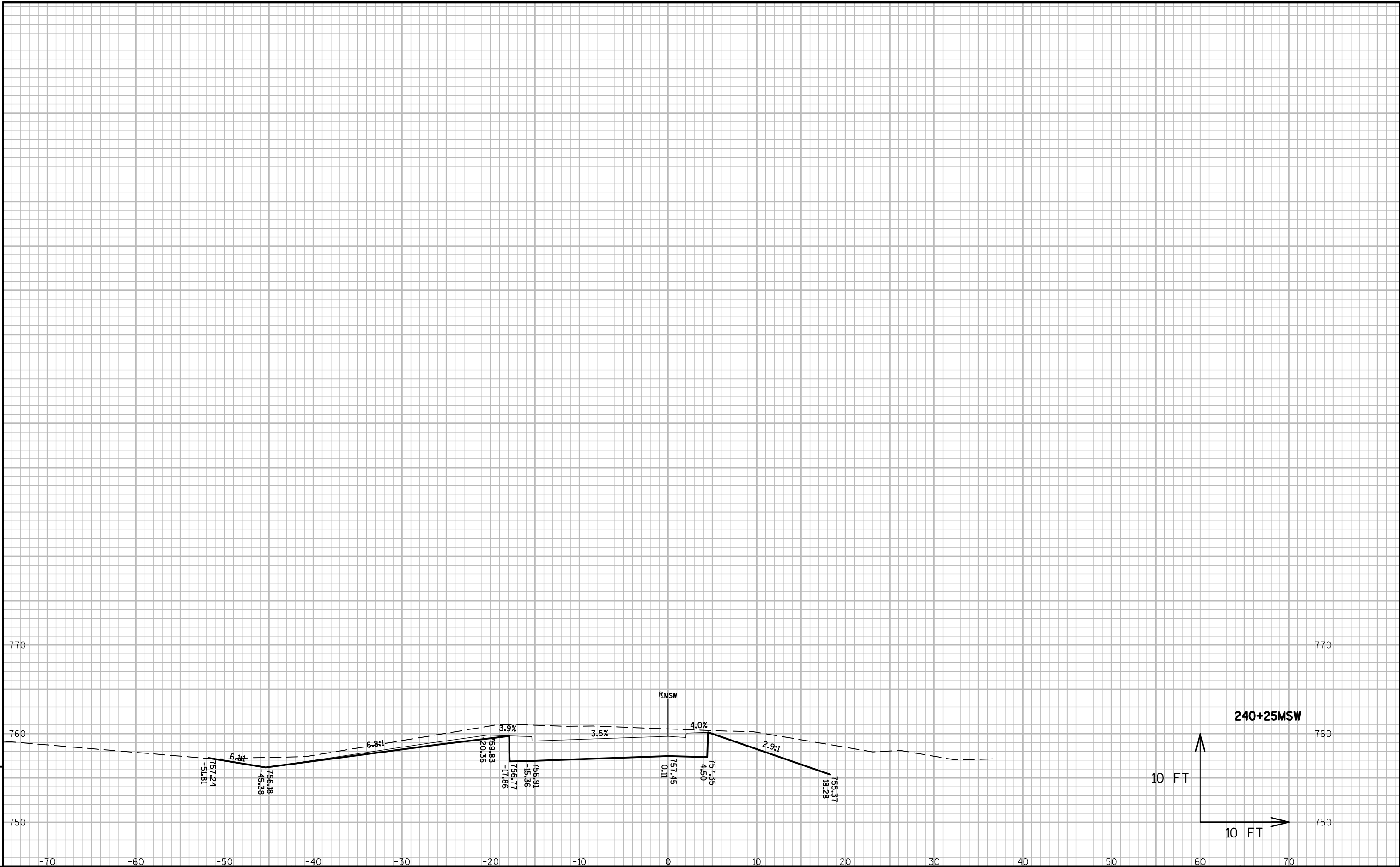
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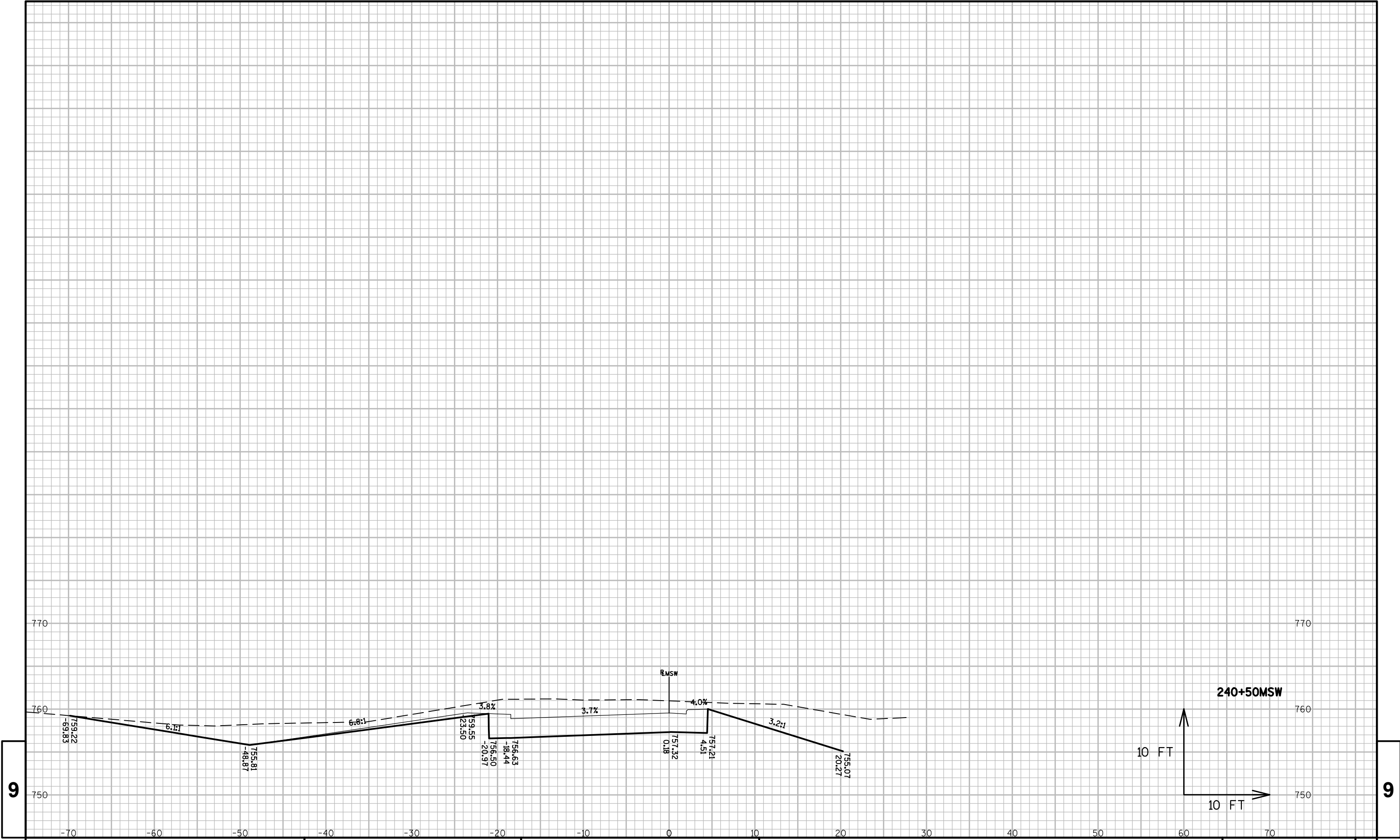
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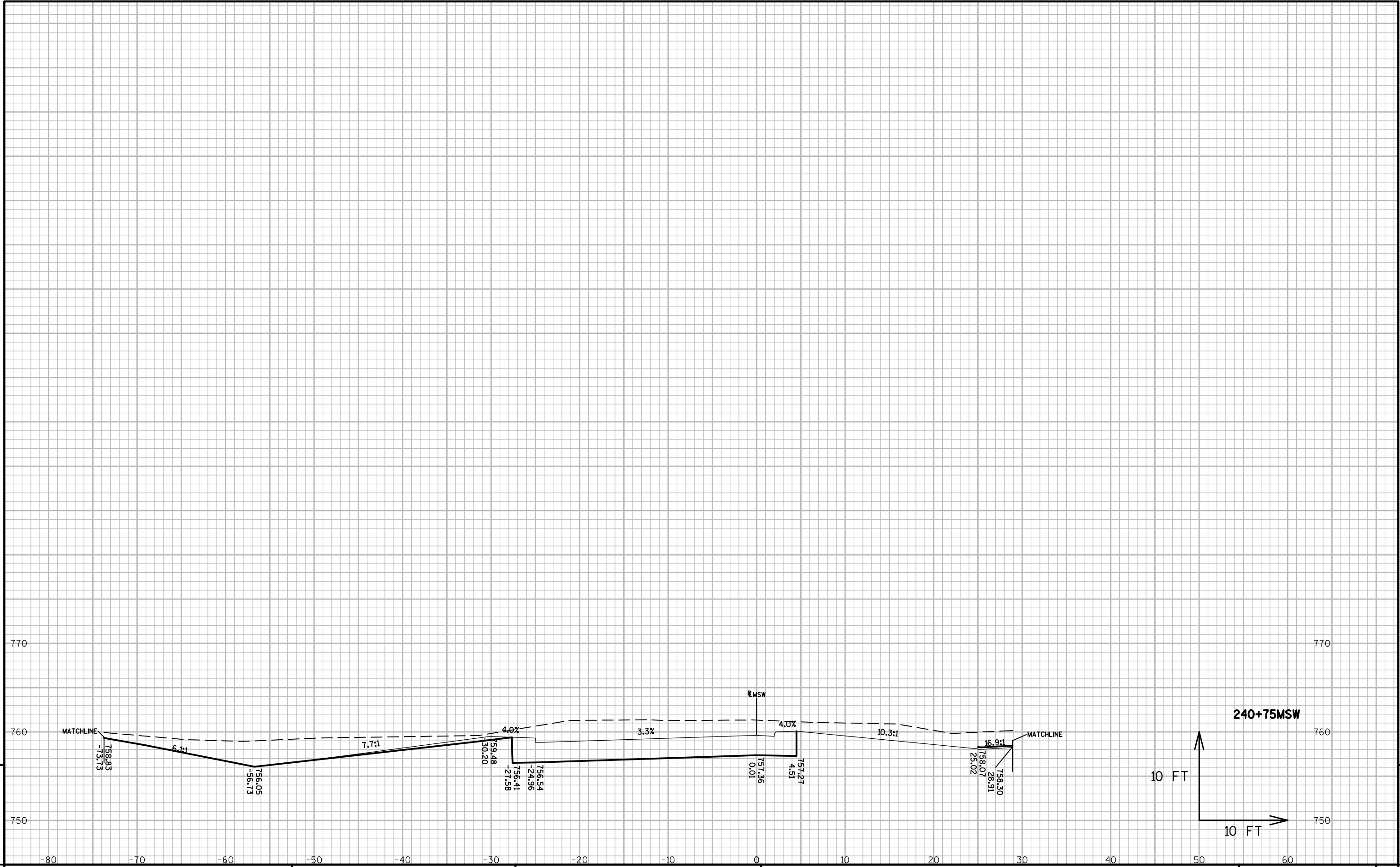
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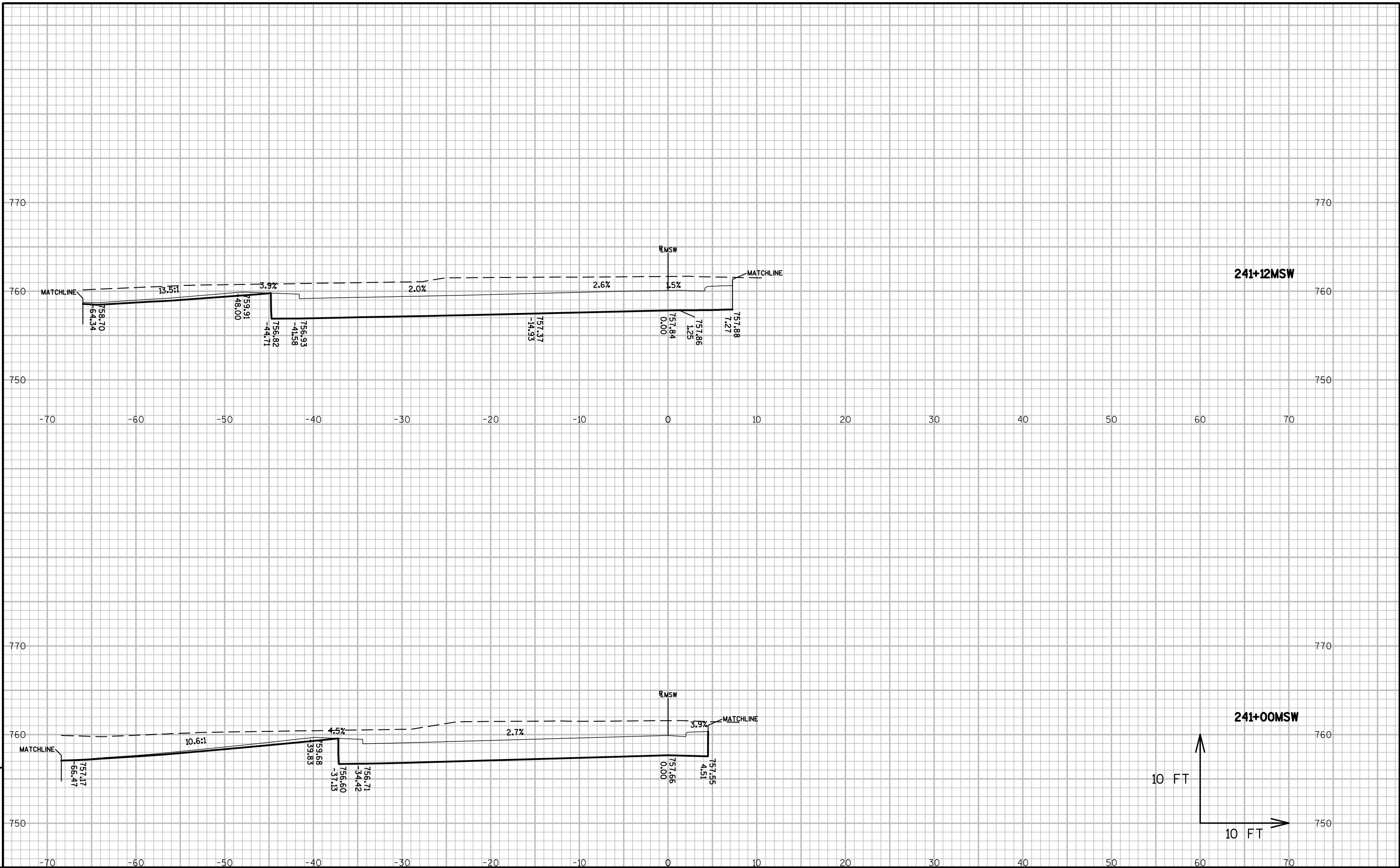


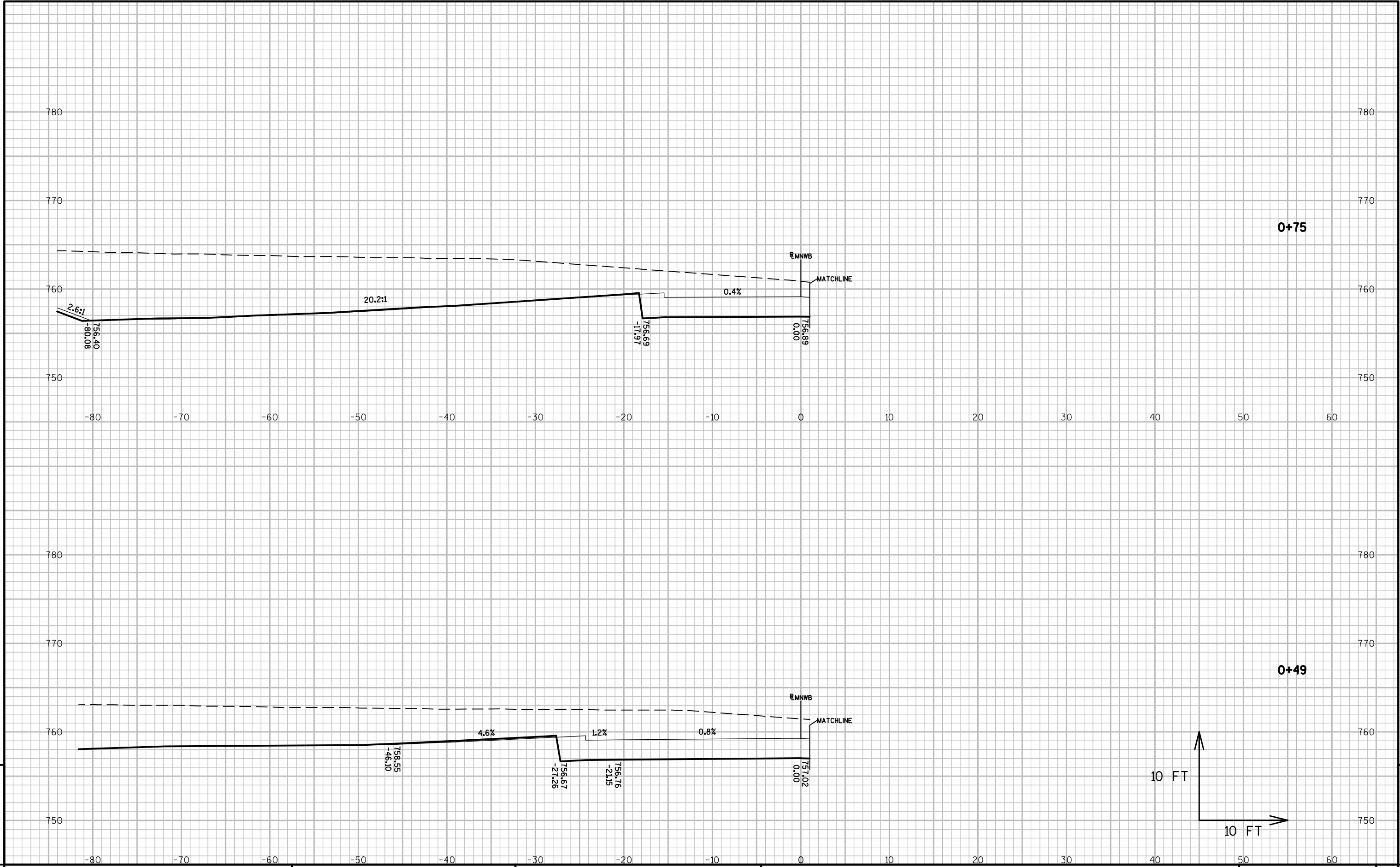


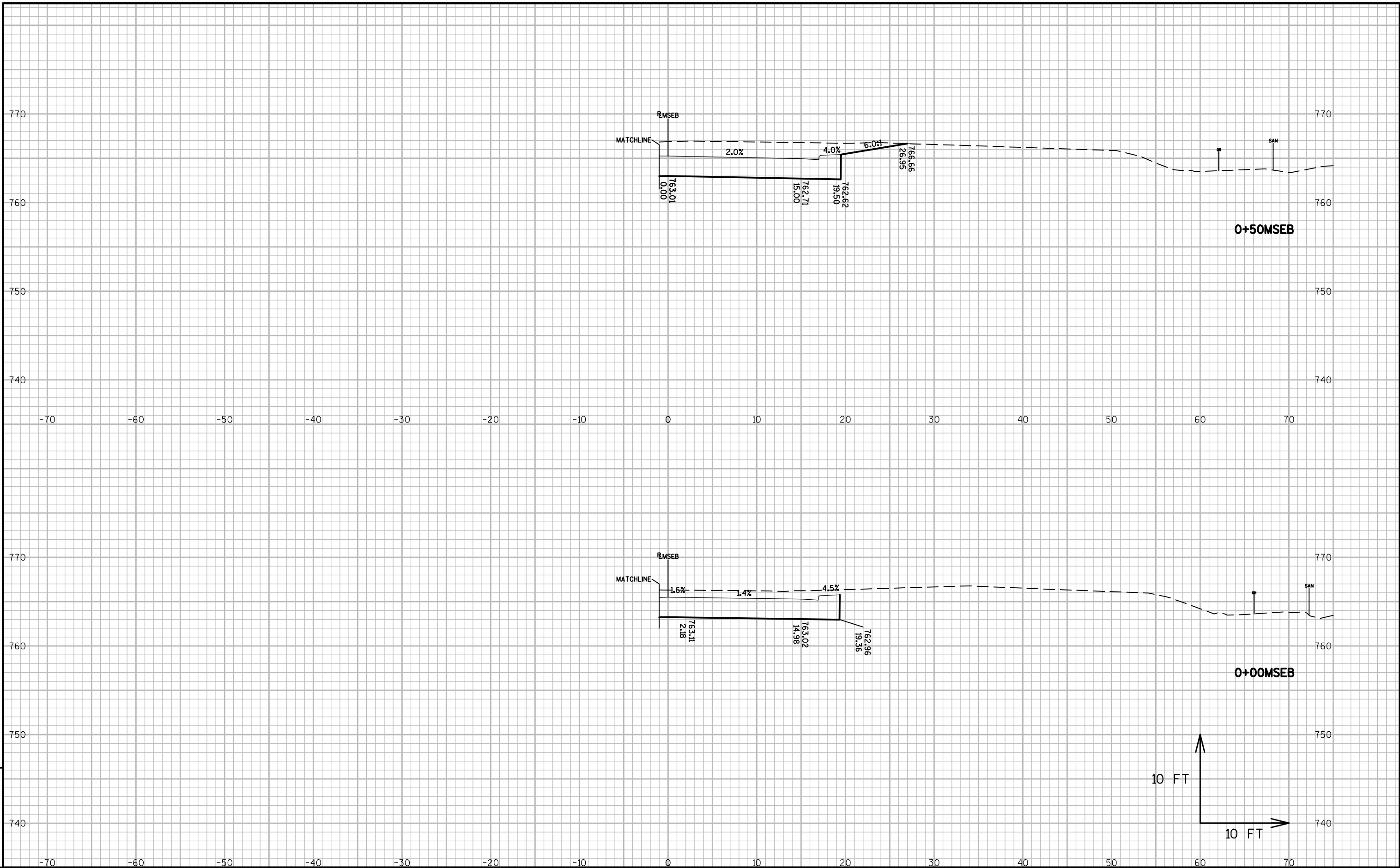
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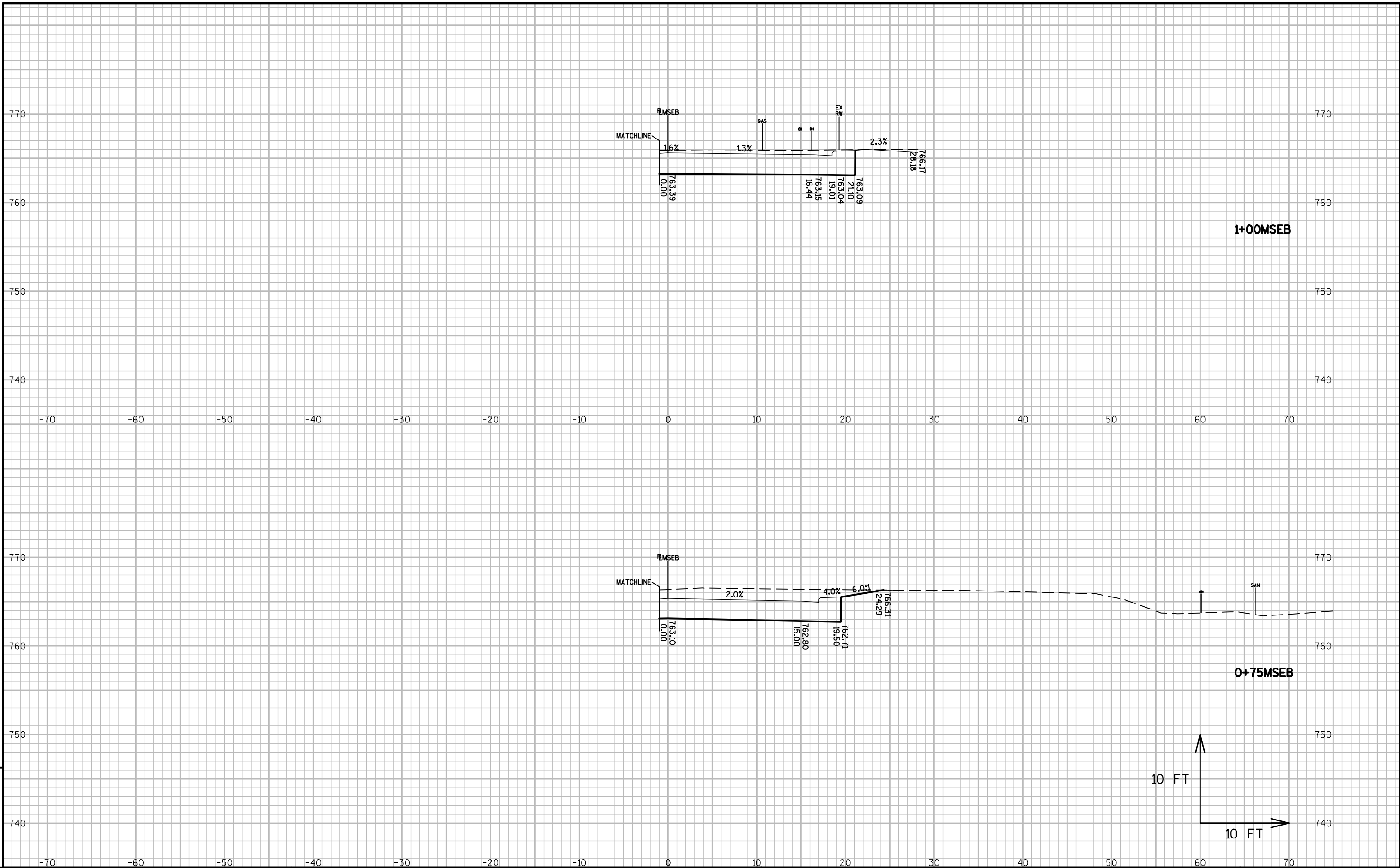


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Notes



Wisconsin Department of Transportation

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