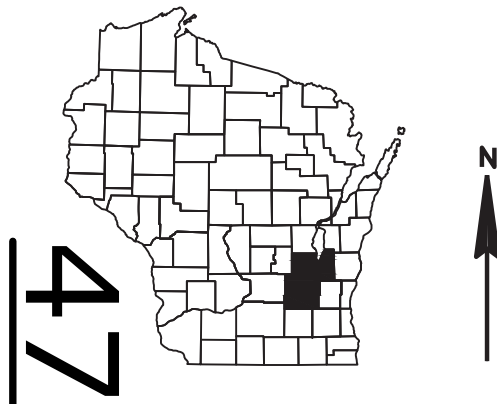


NOVEMBER 2021

ORDER OF SHEETS

Section No.	1	Title
Section No.	2	Typical Sections and Details
Section No.	3	Estimate of Quantities
Section No.	3	Miscellaneous Quantities
Section No.	4	Right of Way Plan
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 = 332



DESIGN DESIGNATION 1112-06-04

A.A.D.T.	2020	=	STH 49-4,800; USH 151-16,300
A.A.D.T.	2042	=	STH 49-5,500; USH 151-19,700
D.H.V.		=	
D.D.		=	STH 49 - 61/39; USH 151 59/41
T.		=	22.4% / 19.9%
DESIGN SPEED		=	25 MPH - 65 MPH
ESALS		=	STH 49-1,800,000; USH 151-11,000,000

CONVENTIONAL SYMBOLS

PLAN

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

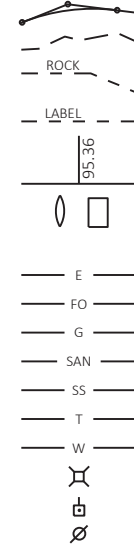
PROFILE

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

GRADE ELEVATION

CULVERT (Profile View)

UTILITIES
ELECTRIC
FIBER OPTIC
GAS
SANITARY SEWER
STORM SEWER
TELEPHONE
WATER
UTILITY PEDESTAL
POWER POLE
TELEPHONE POLE



STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

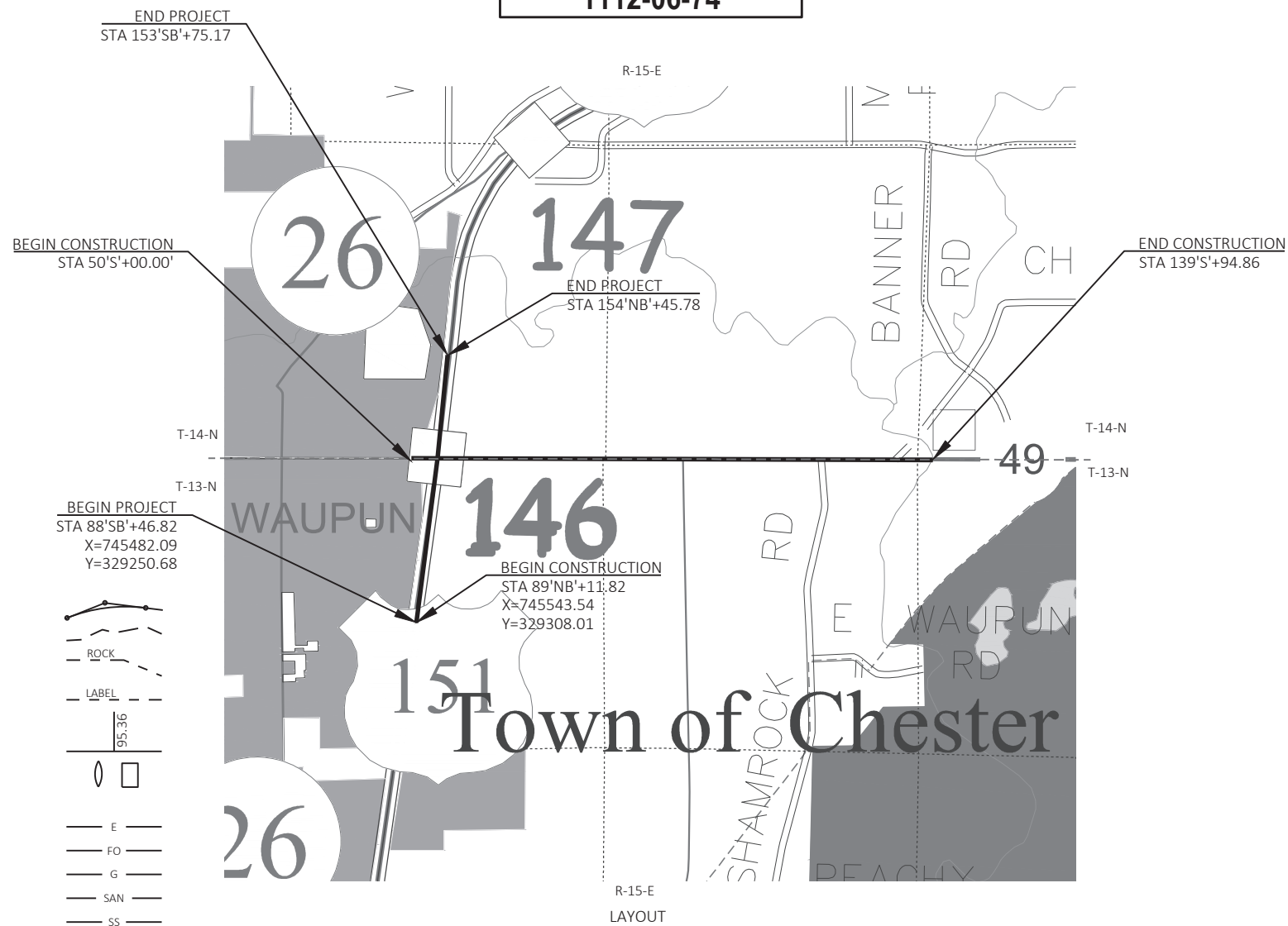
BEAVER DAM - FOND DU LAC

STH 49 INTERCHANGE

USH 151

DODGE & FOND DU LAC COUNTIES

STATE PROJECT NUMBER
1112-06-74



SCALE 0 0.5 MI

TOTAL NET LENGTH OF CENTERLINE = 1.17 MI

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

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1112-06-74	WISC 2021433	1

ORIGINAL PLANS PREPARED BY



DATE: 4-13-2021 _____
(Professional Engineer Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY	
Surveyor	KL ENGINEERING
Designer	JEDIDIAH MUNROE
Project Manager	JEREMY HALL
Regional Examiner	SW REGION
Regional Supervisor	JIM OETTINGER

APPROVED FOR THE DEPARTMENT

DATE: 4/13/2021 [Signature]
(Signature)

1

STANDARD ABBREVIATIONS

AC	ACRE	MIN.	MINIMUM
AGG.	AGGREGATE	N.C.	NORMAL CROWN OR NO CHANGE
AH	AHEAD	N	NORTH
AE	APRON ENDWALL	NO.	NUMBER
APPROX.	APPROXIMATE	PAV'T	PAVEMENT
ASPH.	ASPHALT	P.L.E.	PERMANENT LIMITED EASEMENT
A.D.T.	AVERAGE DAILY TRAFFIC	P.C.	POINT OF CURVATURE
B.F.	BACK FACE	P.I.	POINT OF INTERSECTION
BK.	BACK	P.T.	POINT OF TANGENCY
B.M.	BENCH MARK	V.P.C.	VERTICAL POINT OF CURVATURE
C/L	CENTER LINE	V.P.I.	VERTICAL POINT OF INTERSECTION
C.M.C.P. or CMP	CORRUGATED METAL CULVERT PIPE	V.P.T.	VERTICAL POINT OF TANGENCY
CO.	COUNTY	P.E.	PRIVATE ENTRANCE
CTH	COUNTY TRUNK HIGHWAY	P.L.	PROPERTY LINE
CR.	CREEK	R	RADIUS
C.A.B.C.	CRUSHED AGGREGATE BASE COURSE	R/L	REFERENCE LINE
C.Y.	CUBIC YARD	R.C.C.P.	REINFORCED CONCRETE CULVERT PIPE
C.P.	CULVERT PIPE	RT	RIGHT
C&G	CURB AND GUTTER	REQ'D	REQUIRED
D	DEGREE OF CURVATURE	R/W	RIGHT OF WAY
D.	DELTA	R.	RIVER
D.H.V.	DESIGN HOURLY VOLUME	RD.	ROAD
EA	EACH	SHLD.	SHOULDER(S)
E	EAST	SHR.	SHRINKAGE
ELEC.	ELECTRIC(AL) CABLE	S	SOUTH
EL, ELEV.	ELEVATION	S.F.	SQUARE FEET
EXC.	EXCAVATION	SDD	STANDARD DETAIL DRAWING
FERT.	FERTILIZER	STH	STATE TRUNK HIGHWAY
F.E.	FIELD ENTRANCE	STA.	STATION
F/L	FLOWLINE	S.E.	SUPERELEVATION
CWT	HUNDRED WEIGHT	S/L	SURVEY LINE
INT	INTERSECTION	T	TANGENT
JT.	JOINT	TEL.	TELEPHONE
LT	LEFT	TEMP.	TEMPORARY
L	LENGTH OF CURVE	T.L.E.	TEMPORARY LIMITED EASEMENT
L.F.	LENGTH FEET	T.	TRUCK PERCENTAGE
LS	LUMP SUM	TYP.	TYPICAL
M.P.	MARKER POST	U.G.	UNDERGROUND
MAX.	MAXIMUM	V.C.	VERTICAL CURVE
MGAL	1000 GALLONS	W	WEST

UTILITY CONTACTS

AT&T WISCONSIN -
COMMUNICATION LINE
CHARLES BARTELT
70 E WISCONSIN ST.
FOND DU LAC, WI 54935
(920) 929-1013
cb1461@att.com

ALLIANT ENERGY - ELECTRICITY
MARY MONTGOMERY
200 FIRST ST.
CEDAR RAPIDS, IA 52401
(319) 786-4768
MaryMontgomery@alliantenergy.com

ALLIANT ENERGY - GAS
MARY MONTGOMERY
200 FIRST ST.
CEDAR RAPIDS, IA 52401
(319) 786-4768
MaryMontgomery@alliantenergy.com

WAUPUN UTILITIES - SEWER
STEVE BROOKS
817 S MADISON ST
PO BOX 431
WAUPUN, WI 53963-0431
(920) 324-7920
sbrooks@wppienergy.org

ATC MANAGEMENT, INC -
ELECTRICITY/TRANSMISSION
ANTHONY MARCINIAK
W 234 N 2000 RIDGEVIEW PARKWAY CT.
PO BOX 47
WAUKESHA, WI 53187-0047
(262) 506-6814
amarciniak@atcllc.com

CHARTER COMMUNICATIONS -
COMMUNICATION LINE
NICK FRASE
1515 WEST WASHINGTON ST.
WEST BEND, WI 53095
(920) 793-2216
Nick.Frase@charter.com

WAUPUN UTILITIES - WATER
STEVE BROOKS
817 S MADISON ST
PO BOX 431
WAUPUN, WI 53963-0431
(920) 324-7920
sbrooks@wppienergy.org

RUNOFF COEFFICIENT TABLE

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

TOTAL PROJECT AREA = 69.87 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 3.14 ACRES

GENERAL NOTES

- NO TREES OR SHRUBS SHALL BE REMOVED WITHOUT THE APPROVAL OF THE FIELD ENGINEER.
- DIMENSIONS GIVEN FOR EXISTING FEATURES SHALL BE CONSIDERED APPROXIMATE AND MEASURED IN THE FIELD FOR MATCHING PURPOSES.
- TRAFFIC CONTROL DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE FIELD ENGINEER.
- 3-INCH HMA PAVEMENT ON USH 151 MAINLINE SHALL BE CONSTRUCTED WITH AN 1.75-INCH 4 HT 58-28 H UPPER LAYER AND 1.25-INCH 5 HT 58-28 H LOWER LAYER
- 3-INCH HMA PAVEMENT ON USH 151 RAMPS SHALL BE CONSTRUCTED WITH AN 1.75-INCH 4 MT 58-28 H UPPER LAYER AND 1.25-INCH 5 MT 58-28 H LOWER LAYER
- 5-INCH HMA PAVEMENT ON USH 151 CROSSOVERS SHALL BE CONSTRUCTED WITH AN 2.5-INCH 4 HT 58-28 H UPPER LAYER AND 2.5-INCH 4 HT 58-28 H LOWER LAYER
- 3.5-INCH HMA PAVEMENT ON STH 49 CONNECTING LIMITS SHALL BE CONSTRUCTED WITH AN 1.75-INCH 4 MT 58-28 H UPPER LAYER AND 1.75-INCH 4 MT 58-28 H LOWER LAYER
- 2-INCH HMA PAVEMENT ON STH 49 SHALL BE CONSTRUCTED WITH A SINGLE 2-INCH 4 MT 58-28 H LAYER
- APPLY TACK COAT AT A RATE OF 0.07 GAL/SY ON MILLED SURFACES AND 0.05 GAL/SY BETWEEN HMA LAYERS.
- HMA PAVEMENT LIMITS AT INTERSECTIONS ARE TO BE DETERMINED BY THE FIELD ENGINEER.
- HMA PAVEMENT QUANTITIES WERE CALCULATED USING 112 LB/IN/SY.
- PAVING OPERATIONS BY THE CONTRACTOR SHALL BE CONSISTENT WITH THE PLAN TYPICAL SECTIONS AND CONSTRUCTED TO PREVENT HMA LONGITUDINAL JOINTS FROM BEING LOCATED WITHIN DRIVING, TURNING, OR PASSING LANES.
- THERE ARE UTILITY FACILITIES WITHIN THE PROJECT AREA THAT ARE NOT SHOWN IN THE PLANS. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH A CALL TO DIGGERS HOTLINE AND/OR A DIRECT CALL TO THE UTILITIES THAT HAVE FACILITIES IN THE AREA. NOT ALL UTILITIES ARE MEMBERS OF DIGGERS HOTLINE.



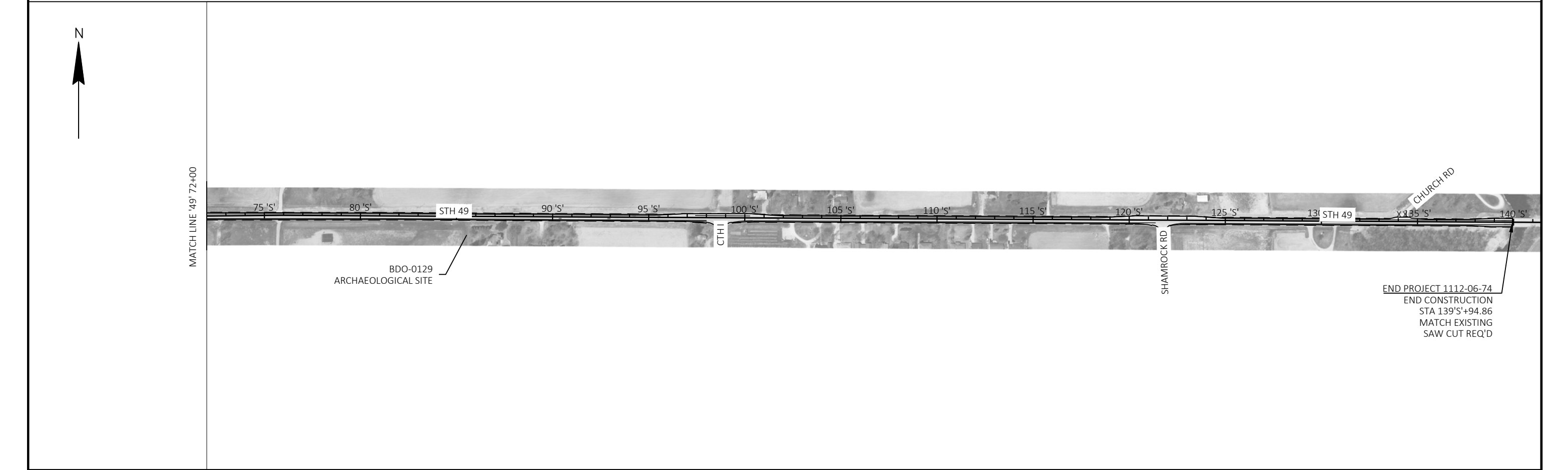
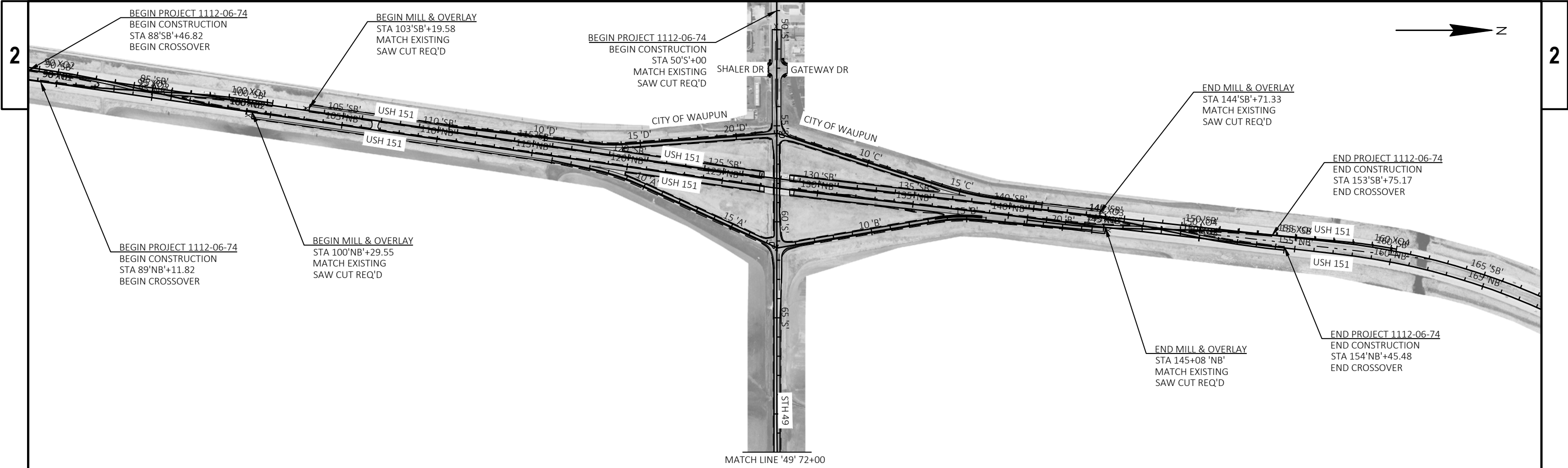
Dial  or (800)242-8511

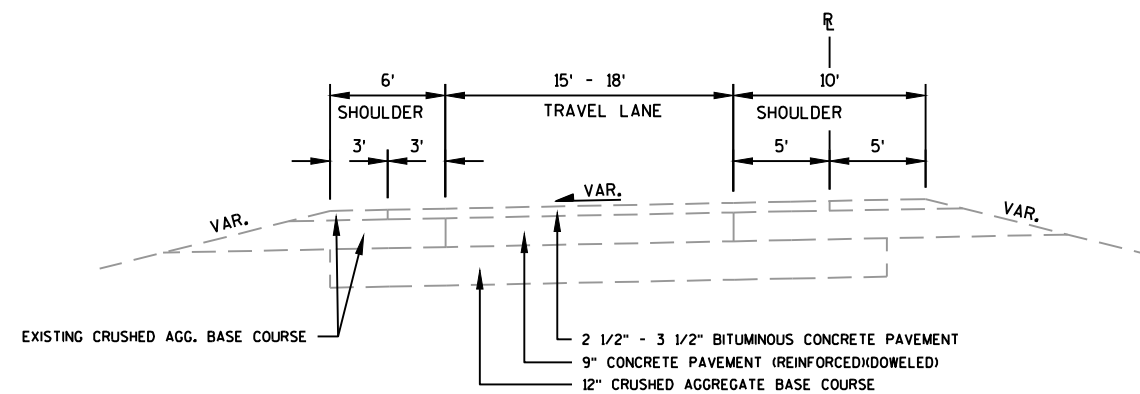
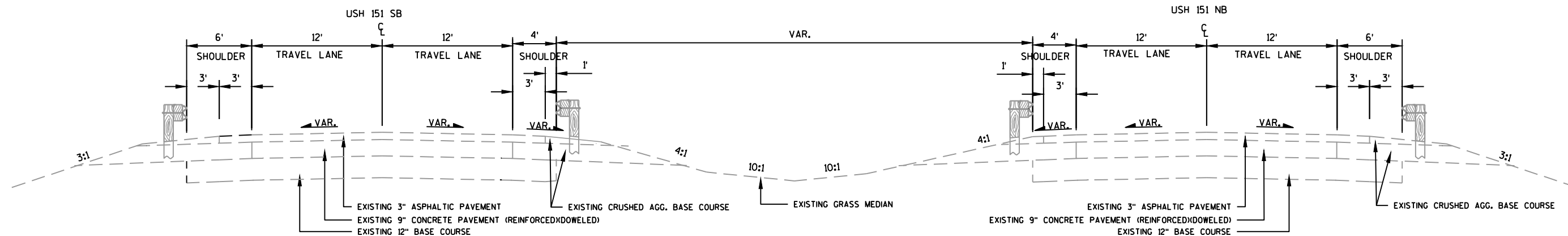
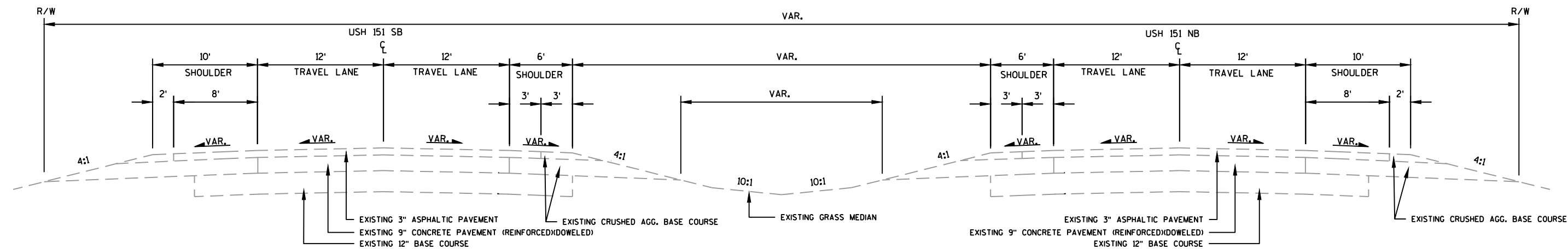
www.DiggersHotline.com

DESIGN CONTACTS
WISDOT PROJECT MANAGER
JEREMY HALL, P.E.
2101 WRIGHT ST.
MADISON, WI 53704
(608) 245-2655
JEREMY.HALL@DOT.WI.GOV

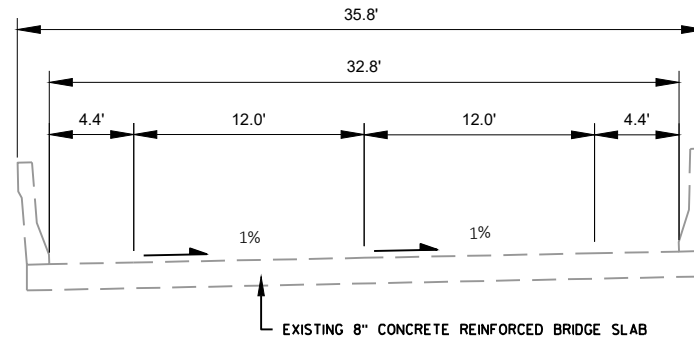
DESIGN PROJECT MANAGER
JEDIDIAH MUNROE, P.E.
6325 ODANA ROAD, SUITE 2
MADISON, WI 53719
(608) 204-0909
JEDM@JT-ENGINEERING.COM

DNR LIASON
ERIC HEGGELUND
ENVIRONMENTAL ANALYSIS & REVIEW SPECIALIST
WISCONSIN DEPT. OF NATURAL RESOURCES
SOUTH CENTRAL REGION
3911 FISH HATCHERY RD.
MADISON, WI 53711
(608) 275-3301
ERIC.HEGGELUND@WISCONSIN.GOV



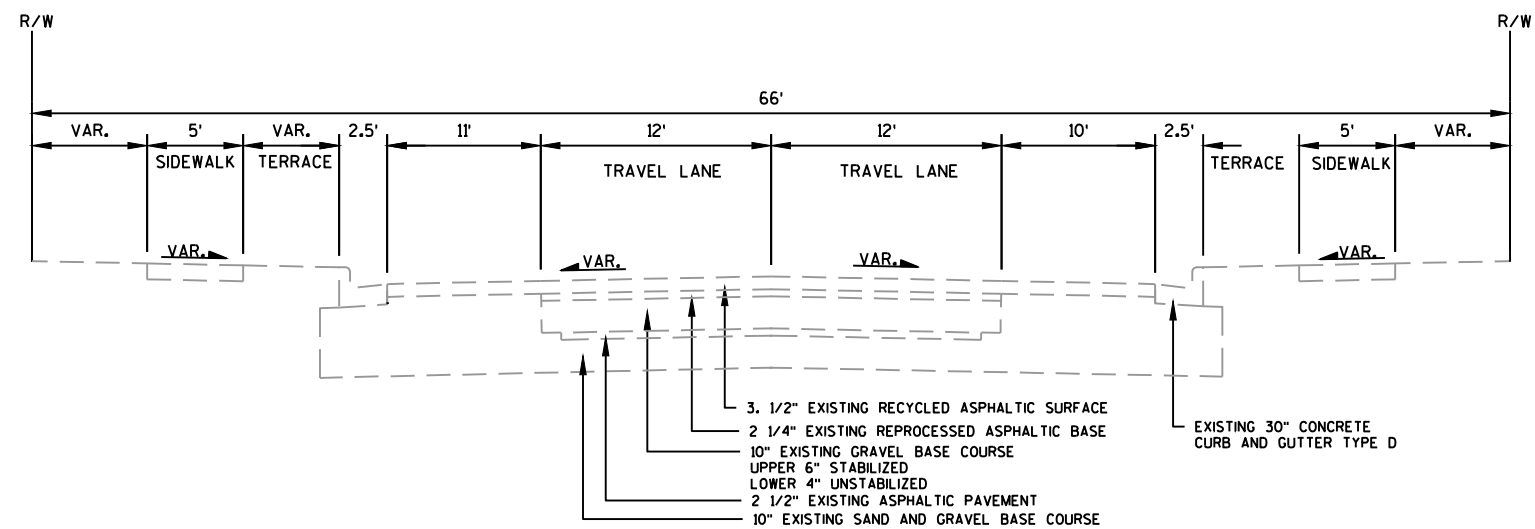


NOTE:
 ALL EXISTING PAVEMENT THICKNESSES ARE APPROXIMATE AND SHALL BE
 FIELD VERIFIED. ANY ADDITIONAL WORK DUE TO VARYING THICKNESS WILL
 BE CONSIDERED INCIDENTAL TO THE AFFECTED WORK ITEM(S).



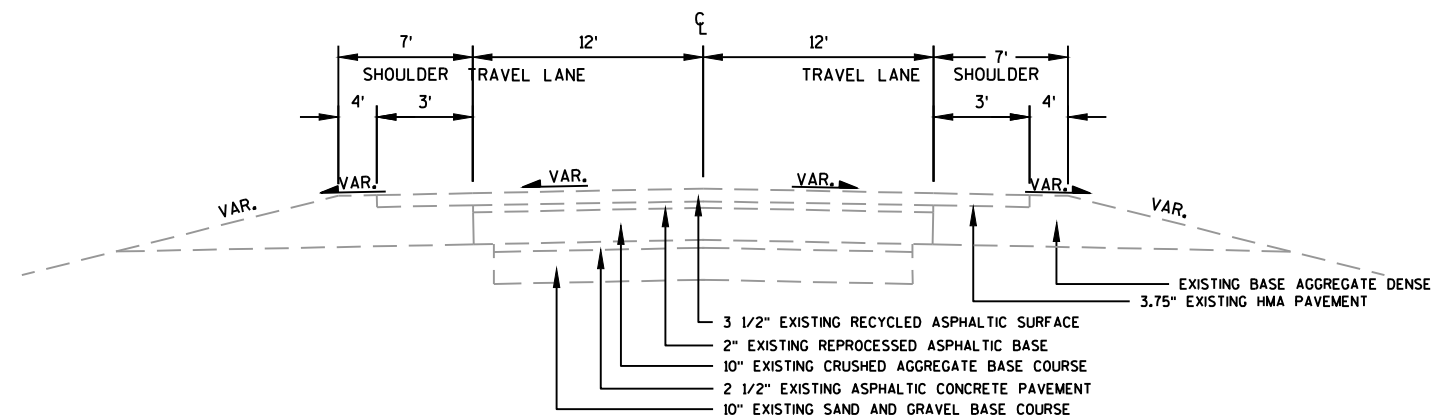
EXISTING TYPICAL SECTION

USH 151
B-14-033 & B-14-034
(BRIDGES OVER STH 49)



EXISTING TYPICAL SECTION

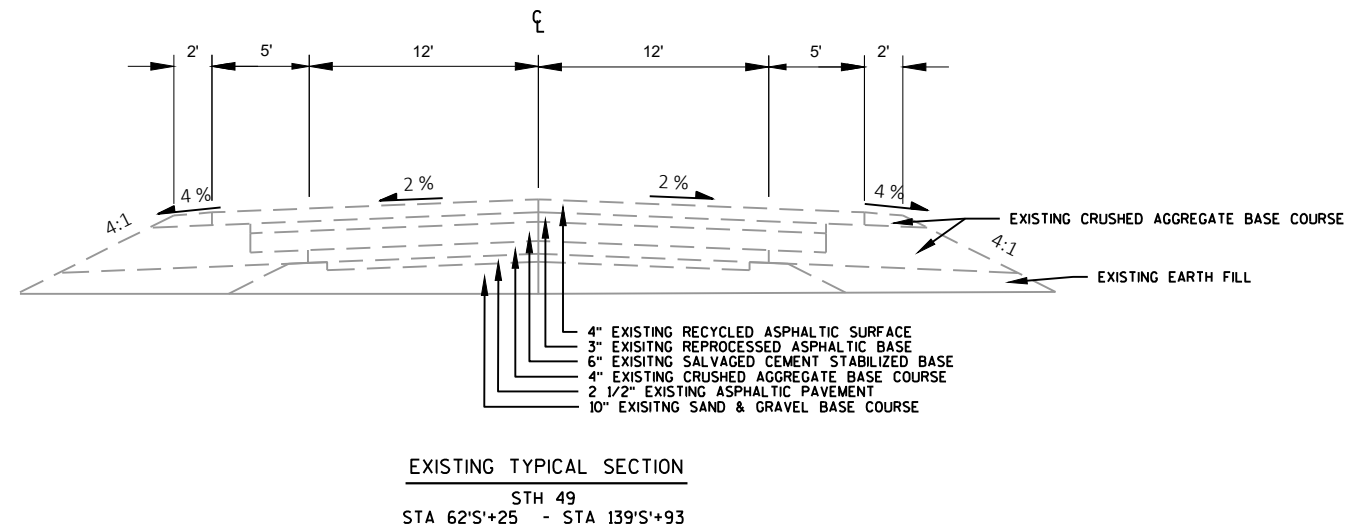
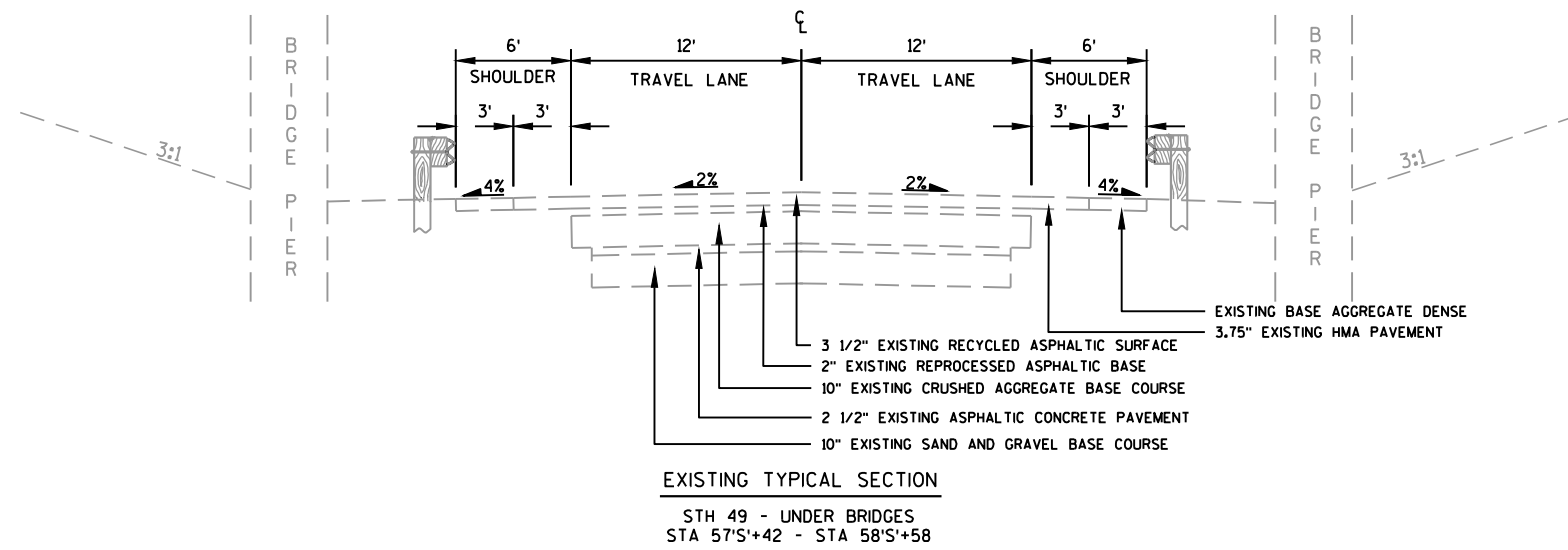
STH 49
STA 50'S+00 - STA 54'S+72



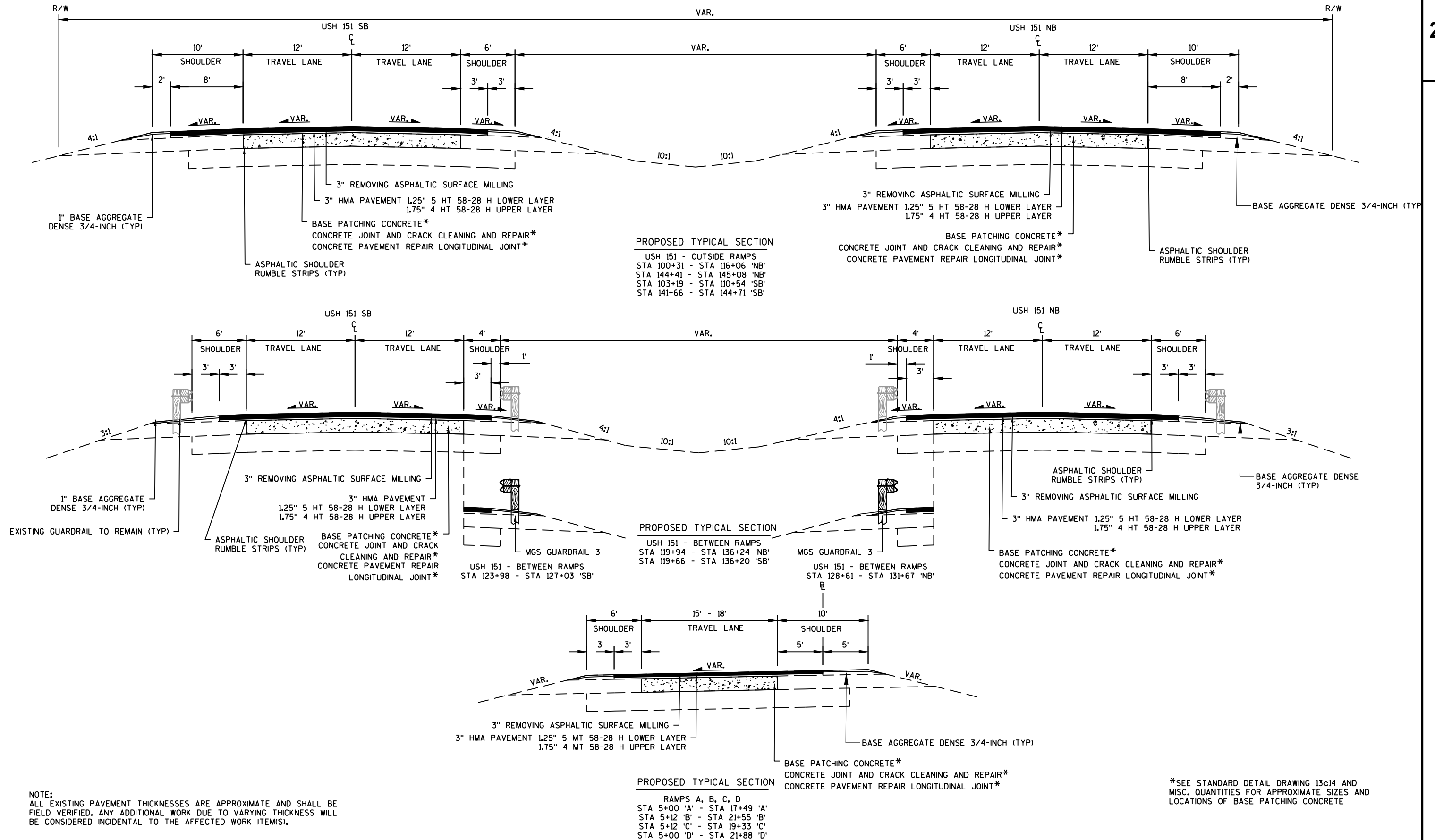
EXISTING TYPICAL SECTION

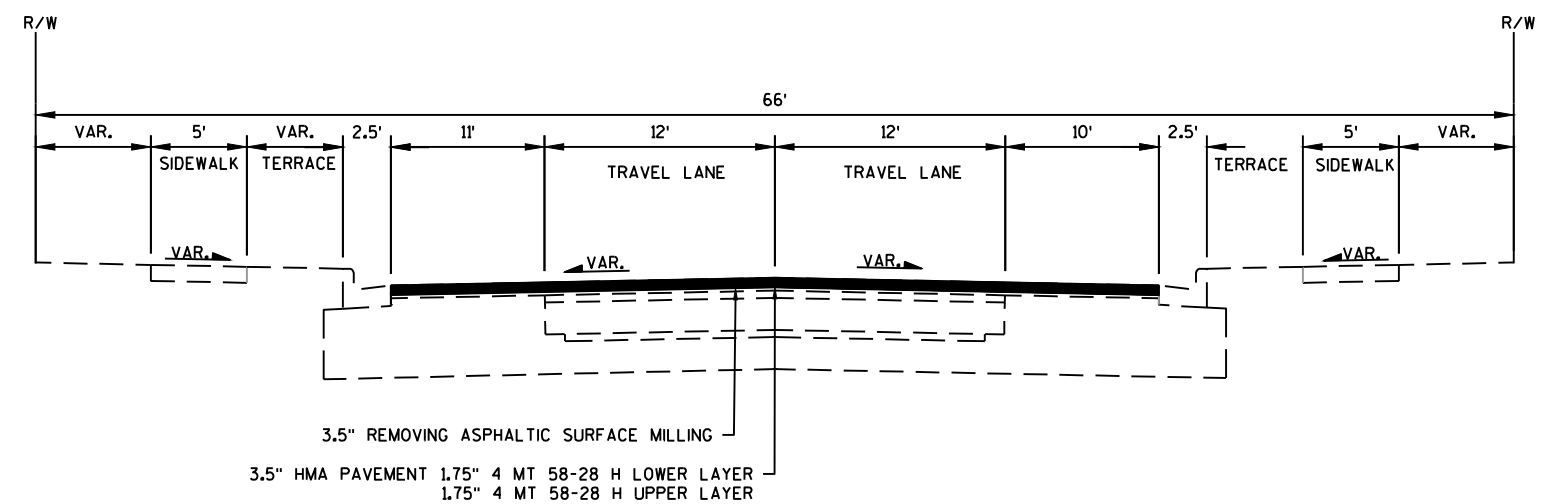
STH 49 - BETWEEN RAMP TERMINALS
STA 54'S+72 - STA 57'S+42
STA 58'S+58 - STA 62'S+25

NOTE:
ALL EXISTING PAVEMENT THICKNESSES ARE APPROXIMATE AND SHALL BE
FIELD VERIFIED. ANY ADDITIONAL WORK DUE TO VARYING THICKNESS WILL
BE CONSIDERED INCIDENTAL TO THE AFFECTED WORK ITEM(S).

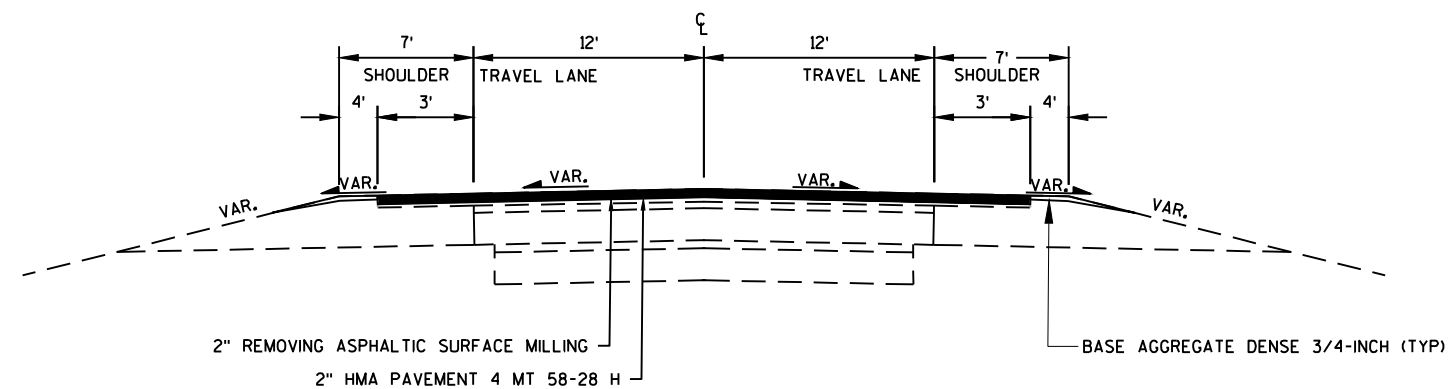


NOTE:
ALL EXISTING PAVEMENT THICKNESSES ARE APPROXIMATE AND SHALL BE
FIELD VERIFIED. ANY ADDITIONAL WORK DUE TO VARYING THICKNESS WILL
BE CONSIDERED INCIDENTAL TO THE AFFECTED WORK ITEM(S).



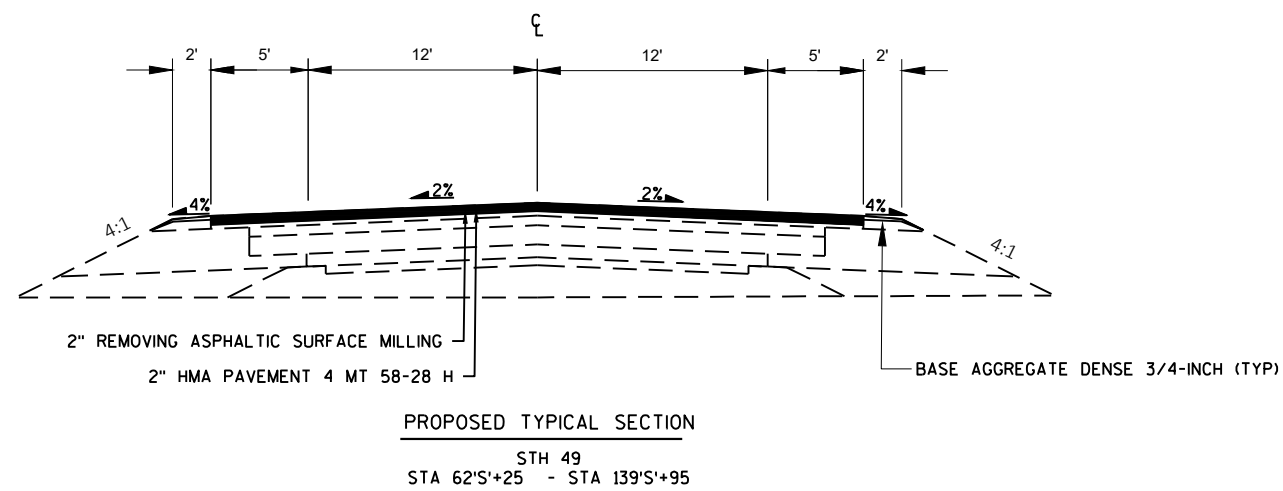
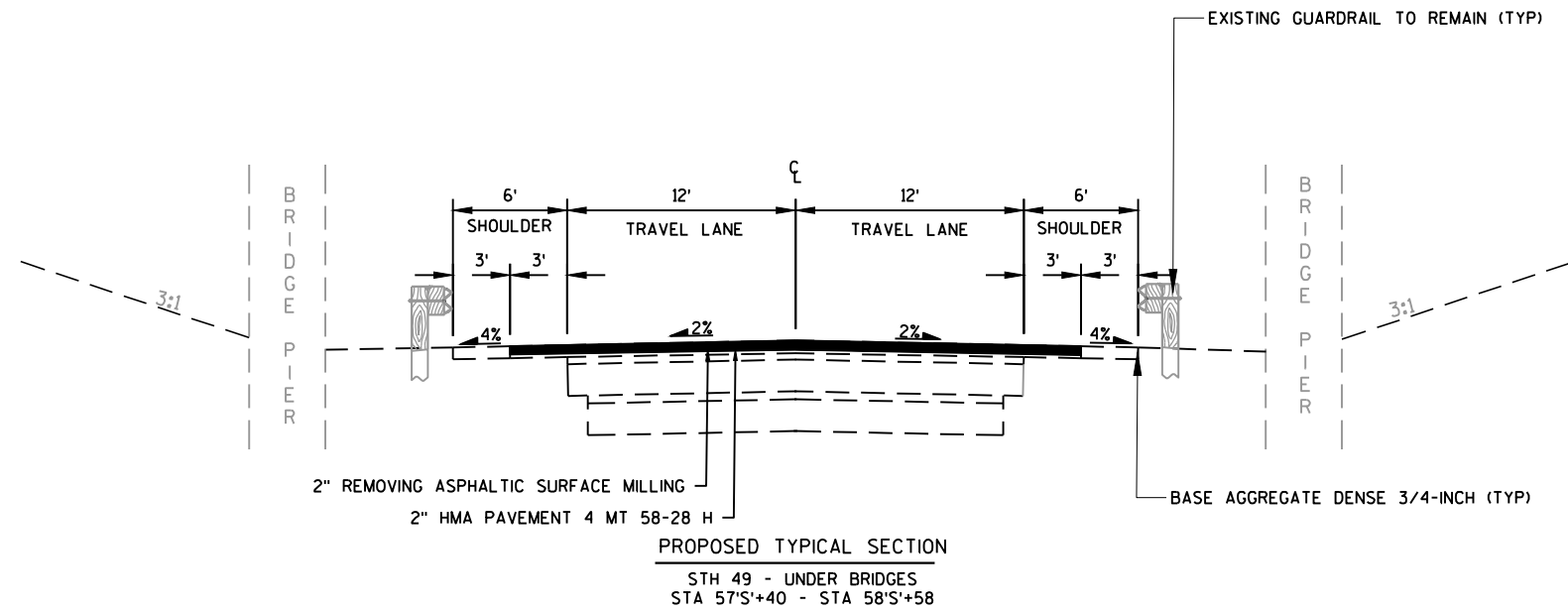


PROPOSED TYPICAL SECTION
STH 49
STA 50'S+00 - STA 54'S+70



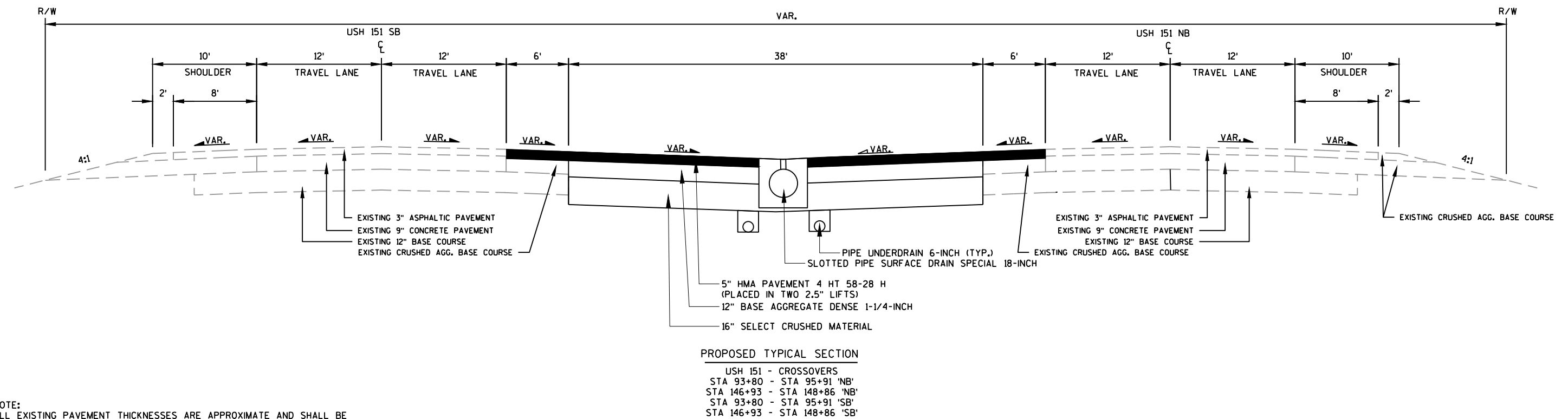
PROPOSED TYPICAL SECTION
STH 49 - BETWEEN RAMP TERMINALS
STA 54'S+70 - STA 57'S+42
STA 58'S+58 - STA 62'S+25

NOTE:
ALL EXISTING PAVEMENT THICKNESSES ARE APPROXIMATE AND SHALL BE
FIELD VERIFIED. ANY ADDITIONAL WORK DUE TO VARYING THICKNESS WILL
BE CONSIDERED INCIDENTAL TO THE AFFECTED WORK ITEM(S).



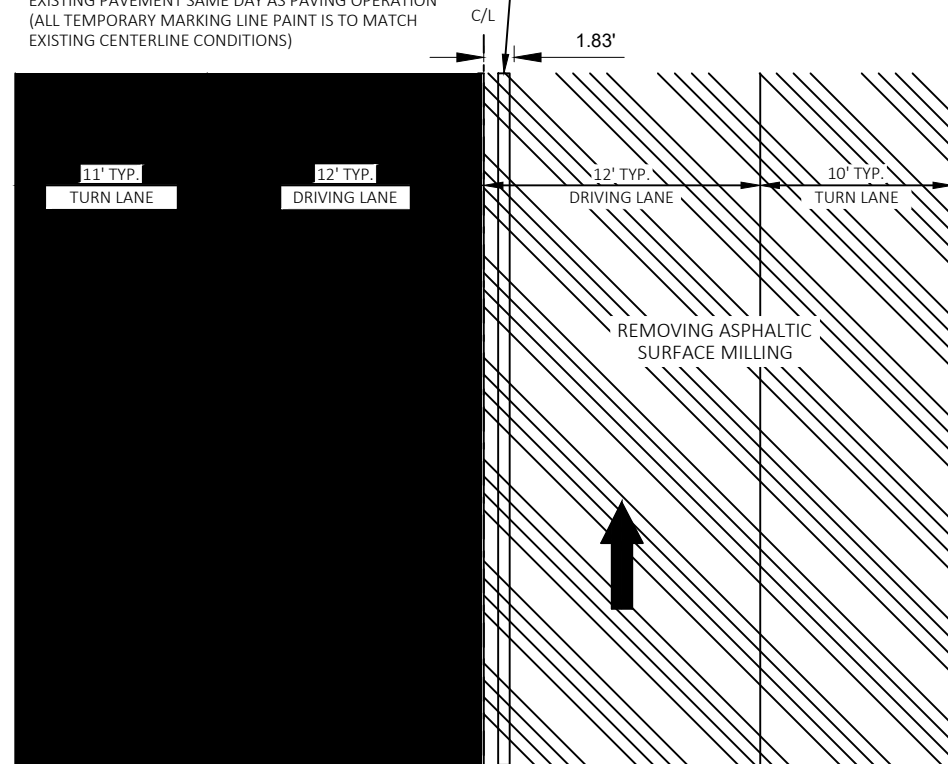
NOTE:
ALL EXISTING PAVEMENT THICKNESSES ARE APPROXIMATE AND SHALL BE
FIELD VERIFIED. ANY ADDITIONAL WORK DUE TO VARYING THICKNESS WILL
BE CONSIDERED INCIDENTAL TO THE AFFECTED WORK ITEM(S).

2 |

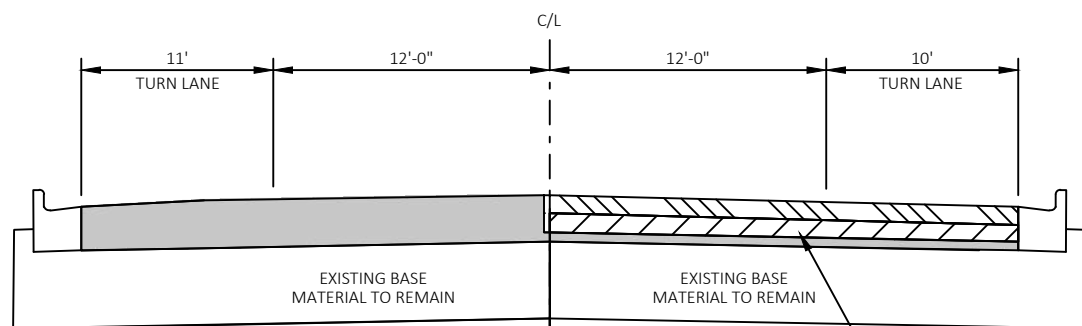


FILE NAME :	X:\PROJECTS\DODGE\200093 - 1112-06-03 USH 151 AND STH 49 INTERCHANGE\DESIGN\C3D\SHEETSPLAN\Q020301-TYPICAL SECTIONS\Q020301-TS.DWG	PLOT DATE :	9/1/2021 8:56 PM	PLOT BY :	JEDIDIAH MUNROE	PLOT NAME :		PLOT SCALE :	1:10	WSDOT/CADDS SHEET 42
LAYOUT NAME :	- 07									

TEMPORARY MARKING LINE PAINT 4-INCH TO BE PLACED ON EXISTING PAVEMENT SAME DAY AS PAVING OPERATION (ALL TEMPORARY MARKING LINE PAINT IS TO MATCH EXISTING CENTERLINE CONDITIONS)



PLAN VIEW



CROSS SECTION VIEW

SAME DAY OPERATION FOR FIRST AND SECOND PASS

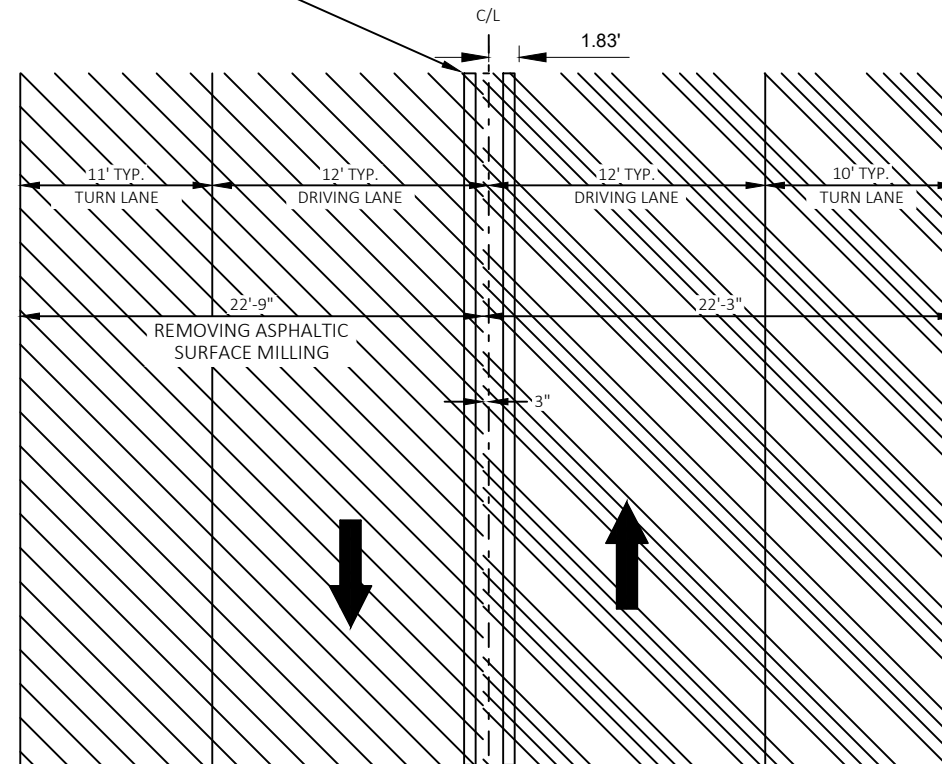
NOTE: SEE CONSTRUCTION STAGING FOR MILLING AND HMA OVERLAY DETAIL FOR ADDITIONAL INFORMATION

LONGITUDINAL PAVEMENT JOINT DETAIL - FIRST AND SECOND PASS

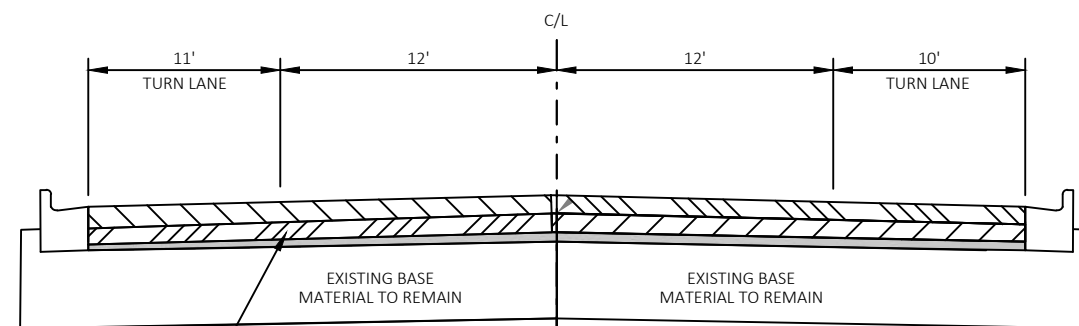
STH 49
STA 50'S'+00 - STA 54'S'+70

OR COMPLETE BOTTOM SAME DAY

TEMPORARY MARKING LINE EPOXY 4-INCH*



PLAN VIEW



CROSS SECTION VIEW

SAME DAY OPERATION FOR THIRD AND FOURTH PASS

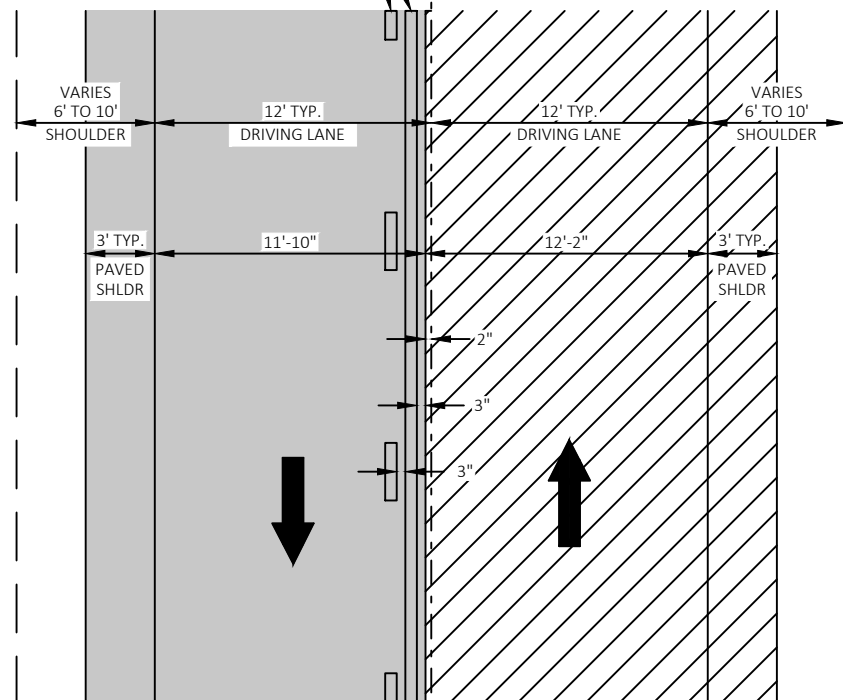
NOTE: SEE CONSTRUCTION STAGING FOR MILLING AND HMA OVERLAY DETAIL FOR ADDITIONAL INFORMATION

LONGITUDINAL PAVEMENT JOINT DETAIL - THIRD AND FOURTH PASS

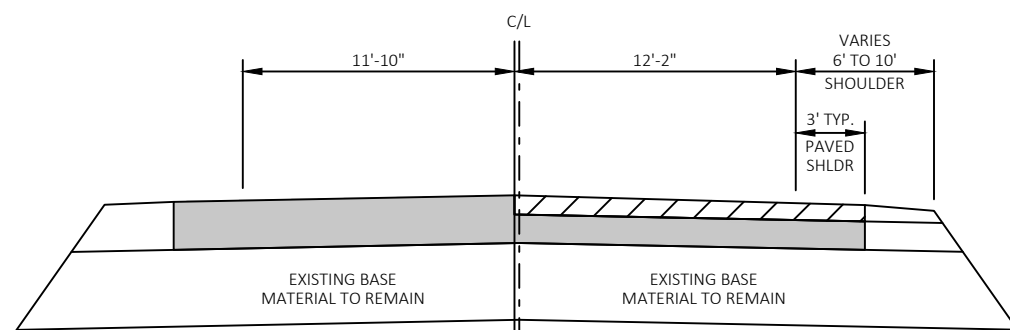
STH 49
STA 50'S'+00 - STA 54'S'+70

- EXISTING ASPHALTIC SURFACE
- FIRST PASS 1 $\frac{3}{4}$ " HMA PAVEMENT 4 MT 58-28 H PAVING LIMITS (BINDER)
- SECOND PASS 1 $\frac{3}{4}$ " HMA PAVEMENT 4 MT 58-28 H PAVING LIMITS (SURFACE)
- THIRD PASS 1 $\frac{3}{4}$ " HMA PAVEMENT 4 MT 58-28 H PAVING LIMITS (BINDER)
- FOURTH PASS 1 $\frac{3}{4}$ " HMA PAVEMENT 4 MT 58-28 H PAVING LIMITS (SURFACE)

TEMPORARY MARKING LINE PAINT 4-INCH TO BE PLACED ON EXISTING PAVEMENT SAME DAY AS PAVING OPERATION (ALL TEMPORARY MARKING LINE PAINT IS TO MATCH EXISTING CENTERLINE CONDITIONS)



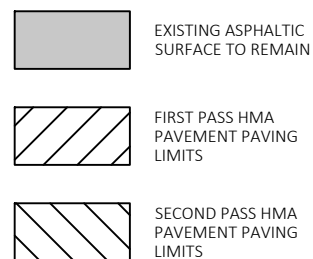
PLAN VIEW



CROSS SECTION VIEW

LONGITUDINAL PAVEMENT JOINT DETAIL - FIRST PASS

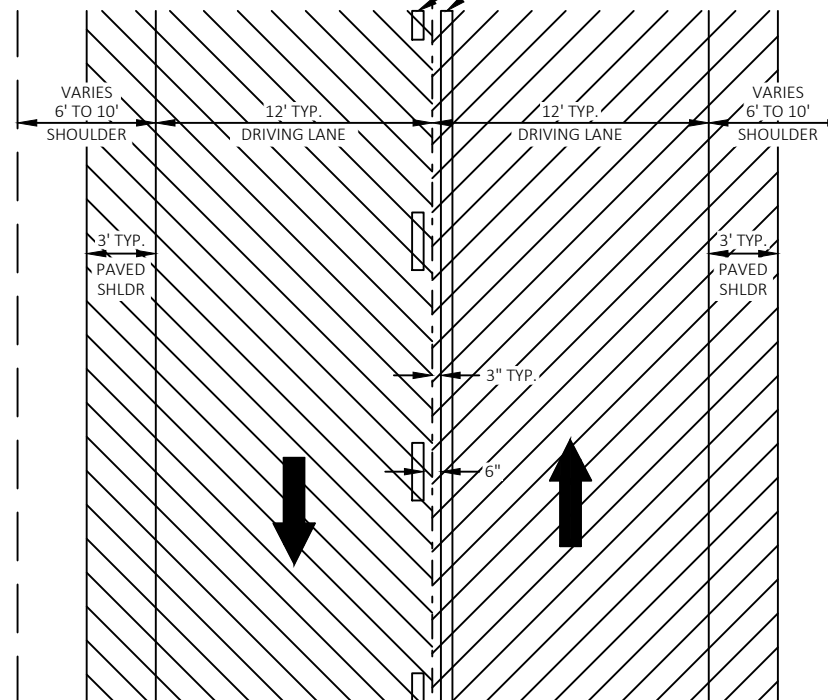
STH 49
STA 54'S'+70 STA 139'S'+95



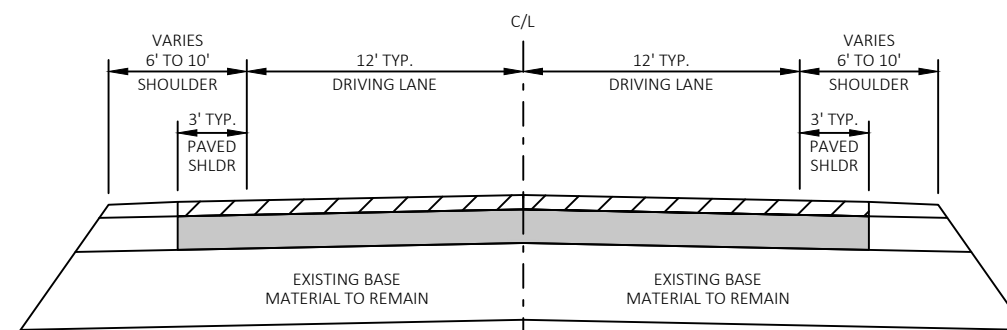
*LOCATING NO PASSING ZONES REQUIRED PRIOR TO PLACEMENT OF TEMPORARY MARKING LINE EPOXY 4-INCH. ENSURE 4' SKIPS ARE LOCATED WITHIN FINAL 12.5' SKIP LOCATIONS.

**MARKING LINE EPOXY 4-INCH REQUIRED AFTER INSTALLING CENTERLINE RUMBLE STRIPS.

TEMPORARY MARKING LINE EPOXY 4-INCH* (PLACE SAME DAY AS PAVING OPERATION AND PRIOR TO CENTERLINE RUMBLE STRIPS INSTALLATION**)



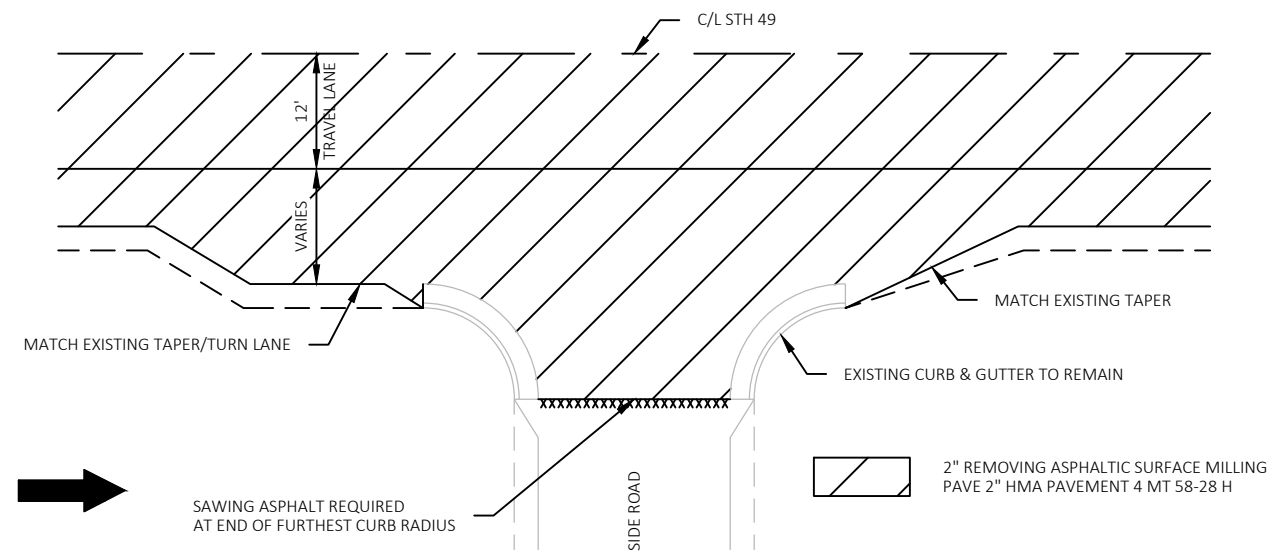
PLAN VIEW



CROSS SECTION VIEW

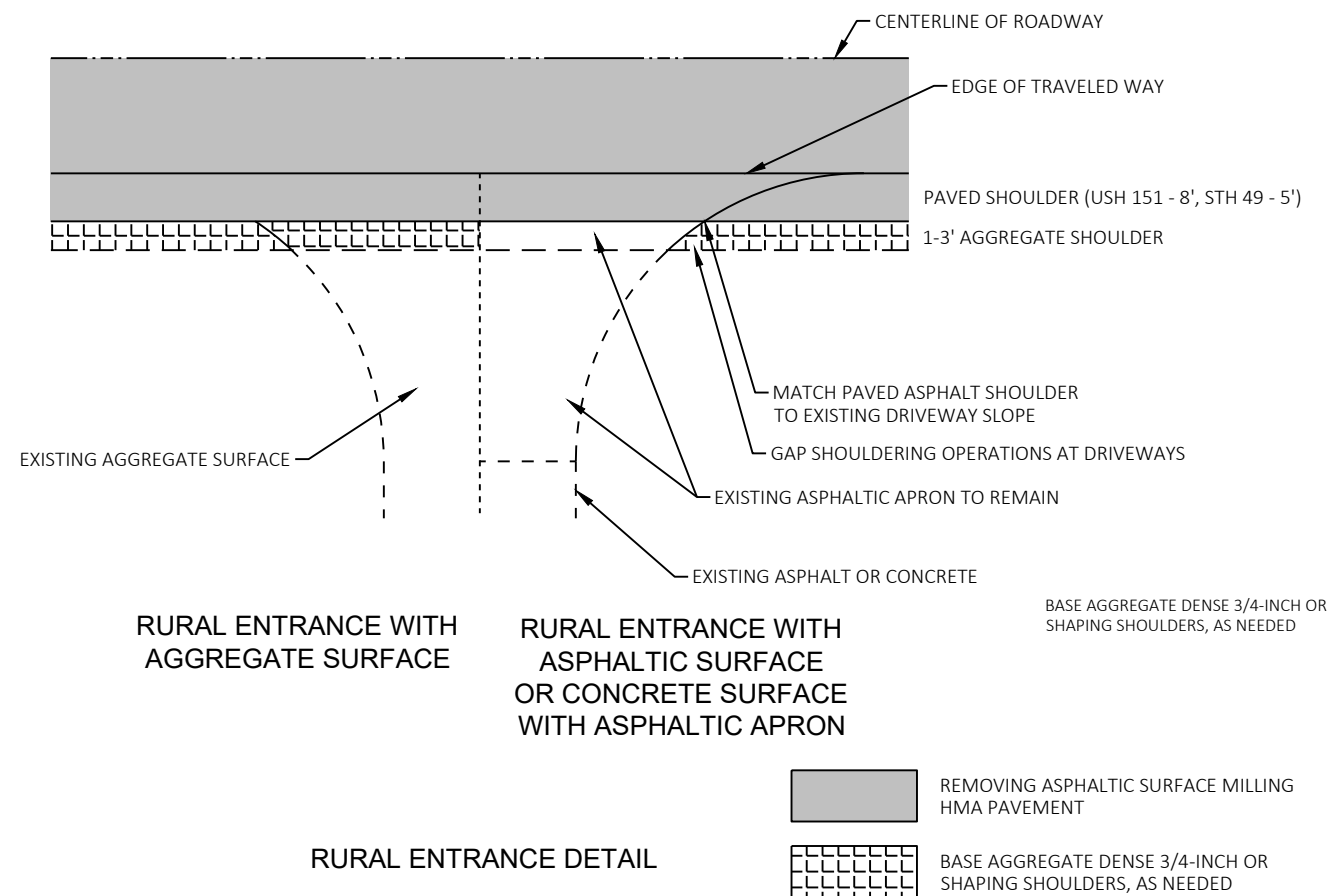
LONGITUDINAL PAVEMENT JOINT DETAIL - SECOND PASS

STH 49
STA 54'S'+70 - STA 139'S'+95

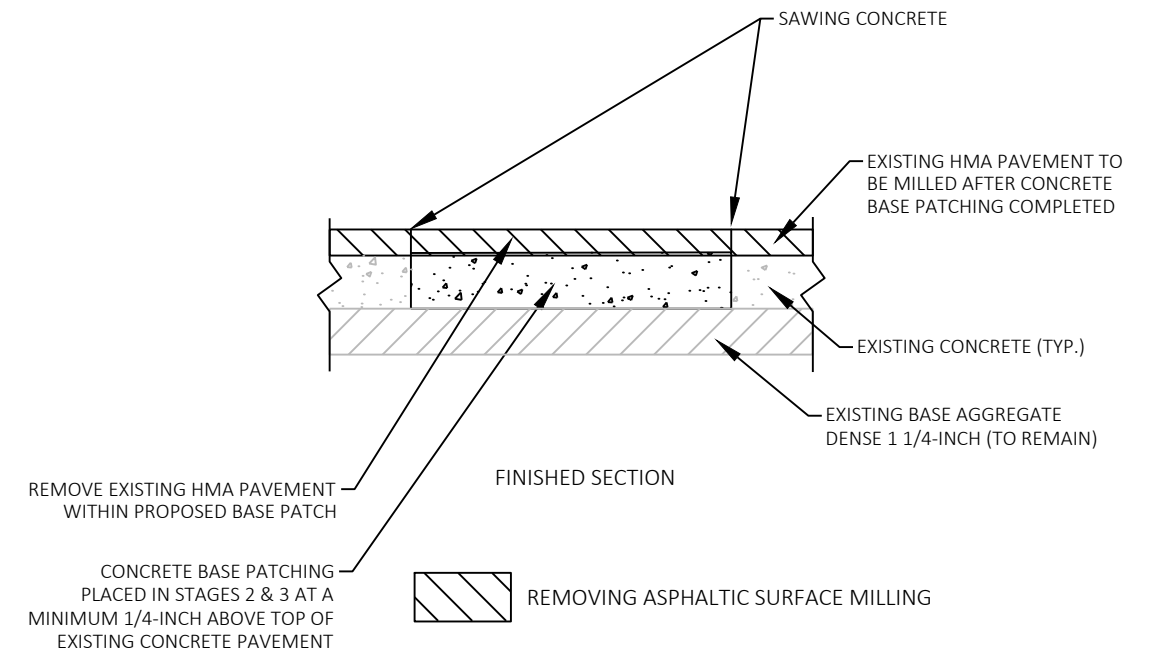


TYPICAL SIDE ROAD DETAIL - WITH EXISTING SIDE ROAD CONSTRUCTION JOINT

SHALER DR (SOUTH)
GATEWAY DR (NORTH)
CTH I (SOUTH)
SHAMROCK RD (SOUTH)

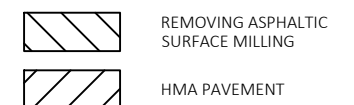
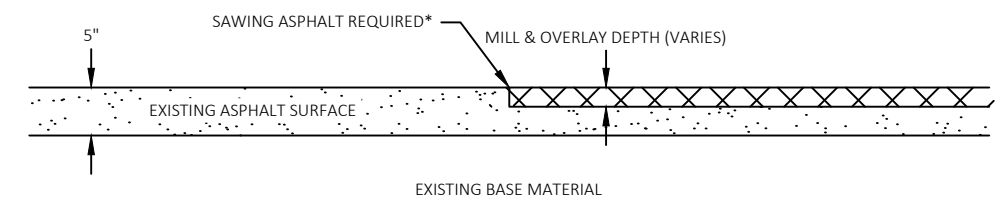


RURAL ENTRANCE DETAIL

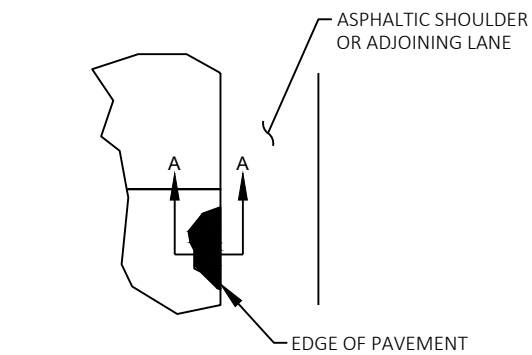


BASE PATCHING CONCRETE DETAIL

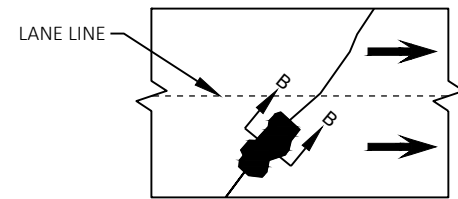
*ANY TRANSVERSE MILL OR SAW CUT USED AT TIE-INS WILL BE PAID UNDER SAWING ASPHALT.



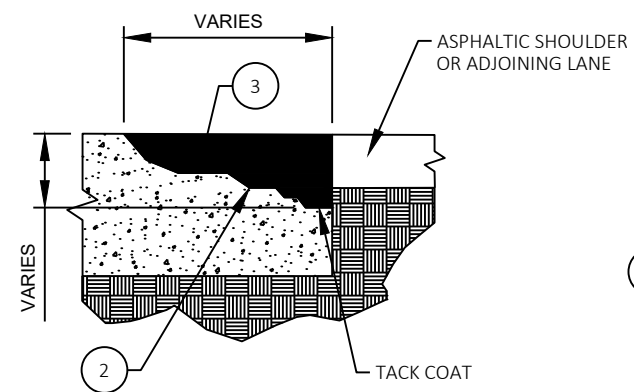
END JOINT DETAIL



PLAN VIEW

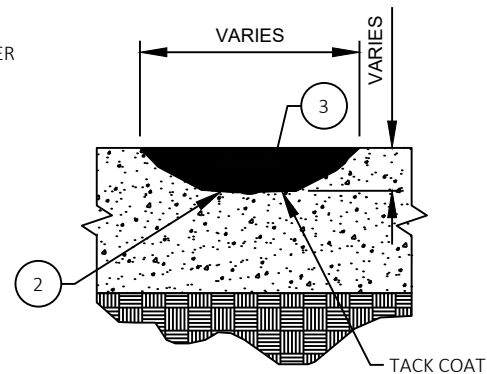


PLAN VIEW



SECTION A-A

EDGE REPAIR

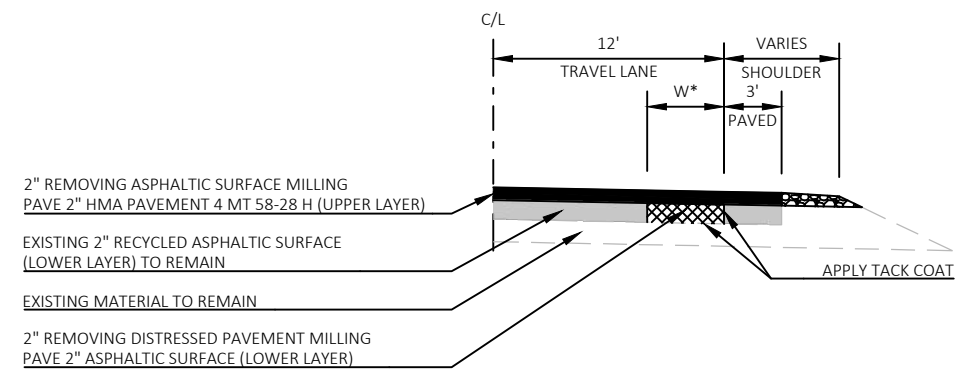


SECTION B-B

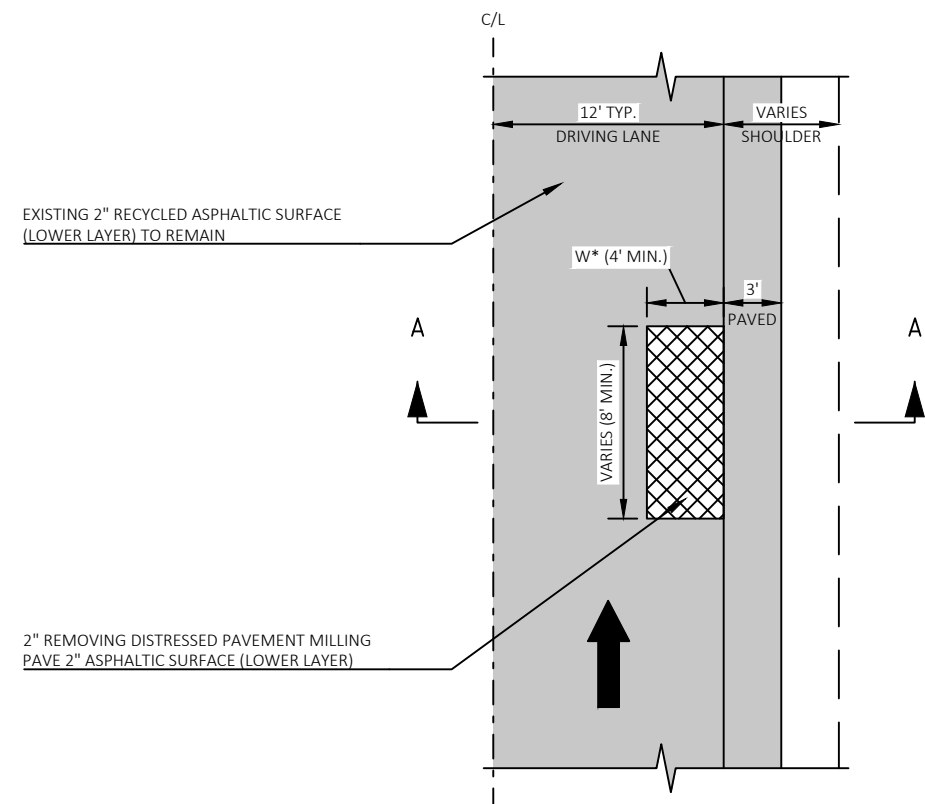
CRACK/JOINT REPAIR

- ① REMOVE ALL UNSOUND AND DETERIORATED MATERIAL.
- ② BLOW OUT REPAIR AREAS WITH 80 P.S.I. MINIMUM COMPRESSED AIR.
- ③ ASPHALTIC SURFACE AND TACK COAT (INCIDENTAL TO CONCRETE JOINT AND CRACK CLEANING)

CONCRETE JOINT AND CRACK CLEANING AND REPAIR



SECTION A-A



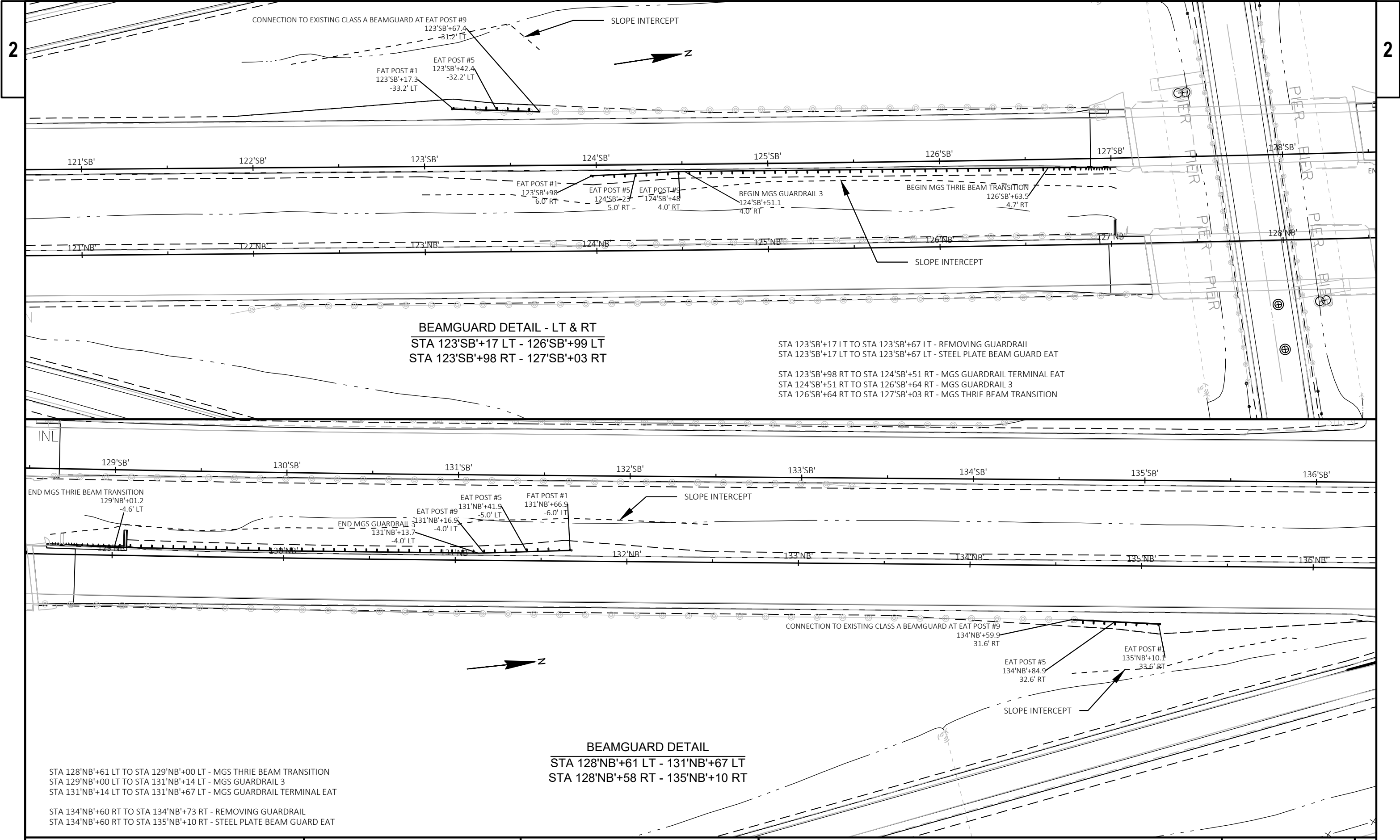
PLAN VIEW - LOWER LAYER

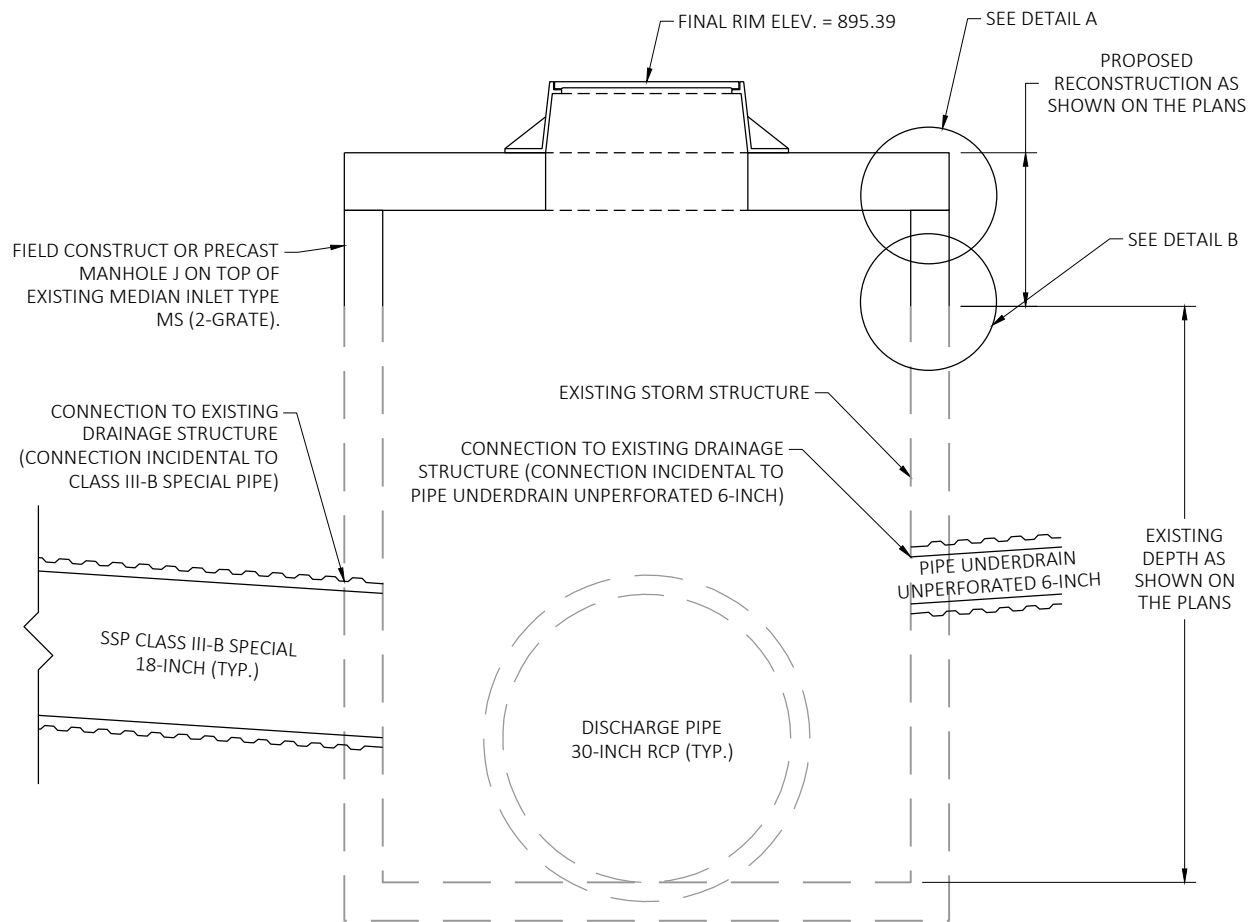
REMOVING DISTRESSED PAVEMENT MILLING DETAIL
EXACT LOCATIONS AND WIDTHS TO BE DETERMINED BY THE FIELD ENGINEER.

2

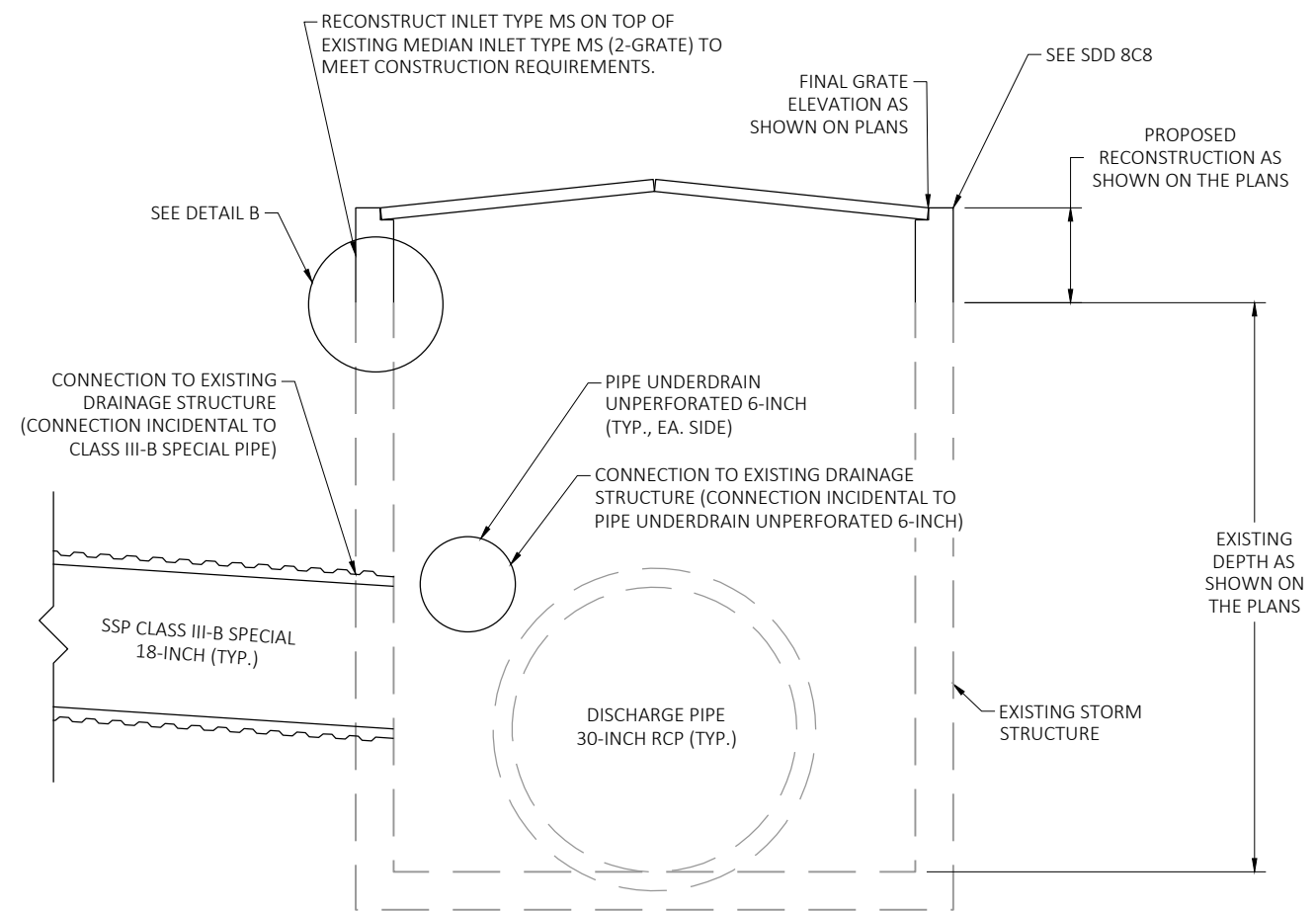
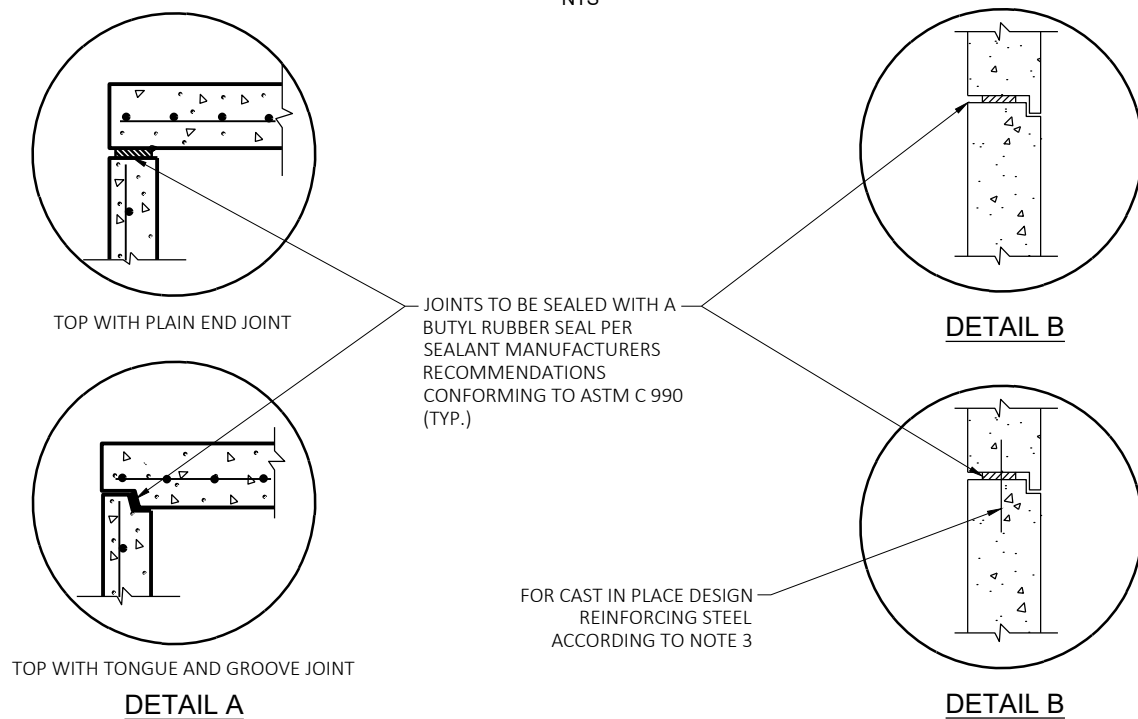
E

WISDOT/CADDS SHEET 42





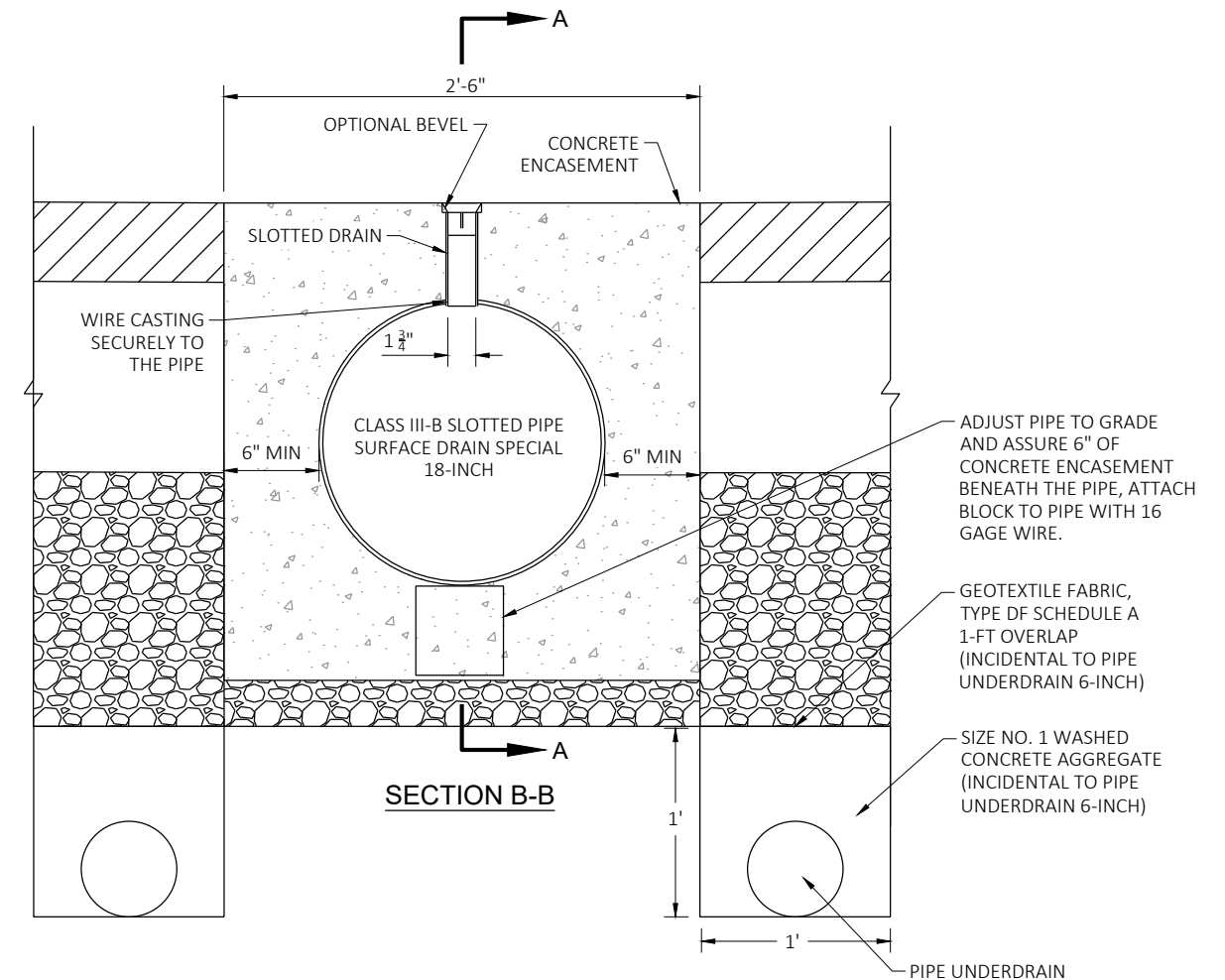
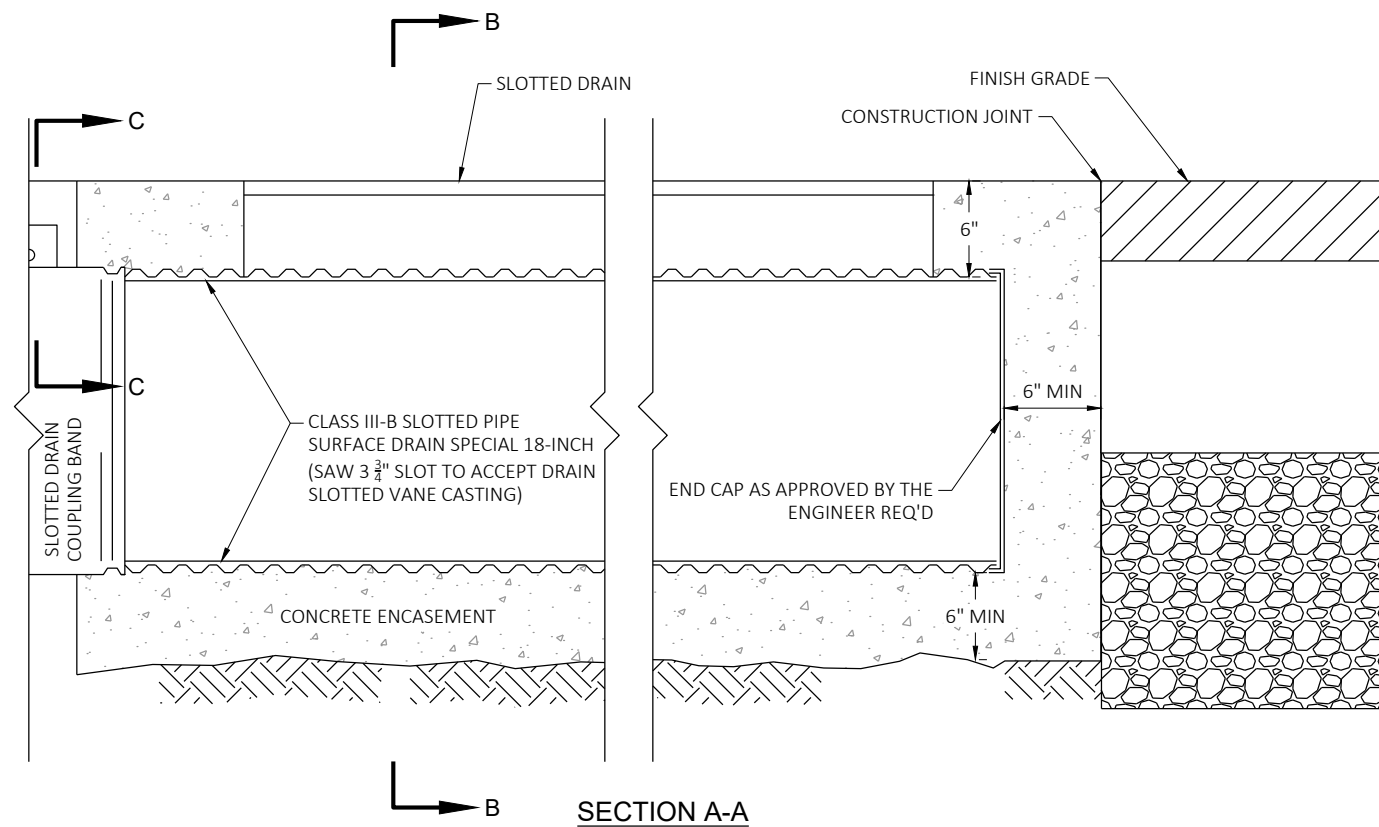
**MEDIAN MANHOLE
RECONSTRUCTION DETAIL (1.1)**
NTS



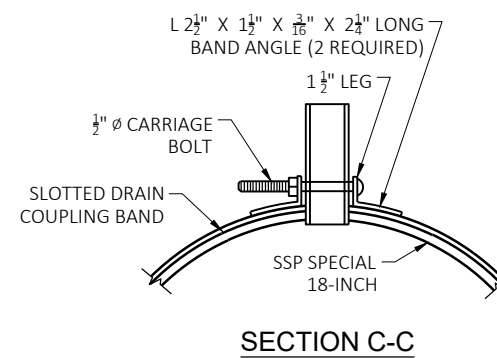
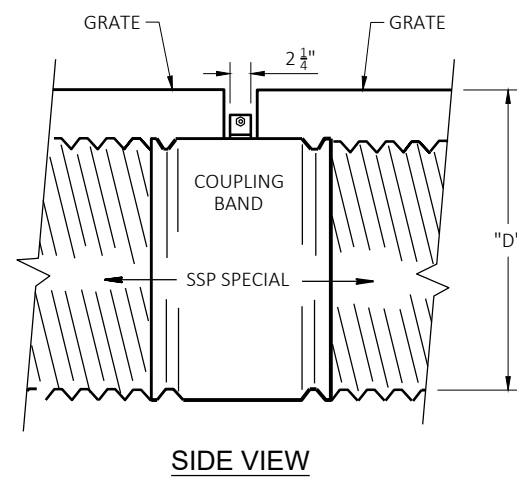
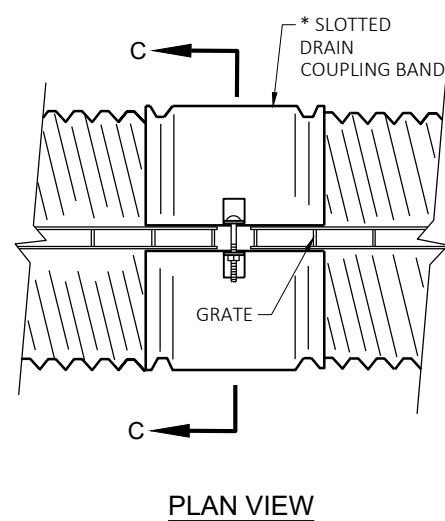
**MEDIAN INLET RECONSTRUCTION
DETAIL (2.0 & 3.0)**
NTS

NOTES

1. THE MANHOLE RECONSTRUCTION SHALL BE CAST-IN-PLACE OR PRECAST TO MEET THE CONSTRUCTION REQUIREMENTS.
2. THE INLET RECONSTRUCTION SHALL BE CAST-IN-PLACE OR PRECAST TO MEET THE CONSTRUCTION REQUIREMENTS.
3. CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.
4. REFERENCE STANDARD DETAIL DRAWINGS 8C8 AND 8B9 (INLETS MEDIAN 1 AND 2 GRATE) FOR ADDITIONAL DETAILS, MATERIALS AND DIMENSIONS.
5. PIPE UNDERDRAIN UNPERFORATED 6-INCH CONNECTION ELEVATION SHALL FIELD VERIFIED.

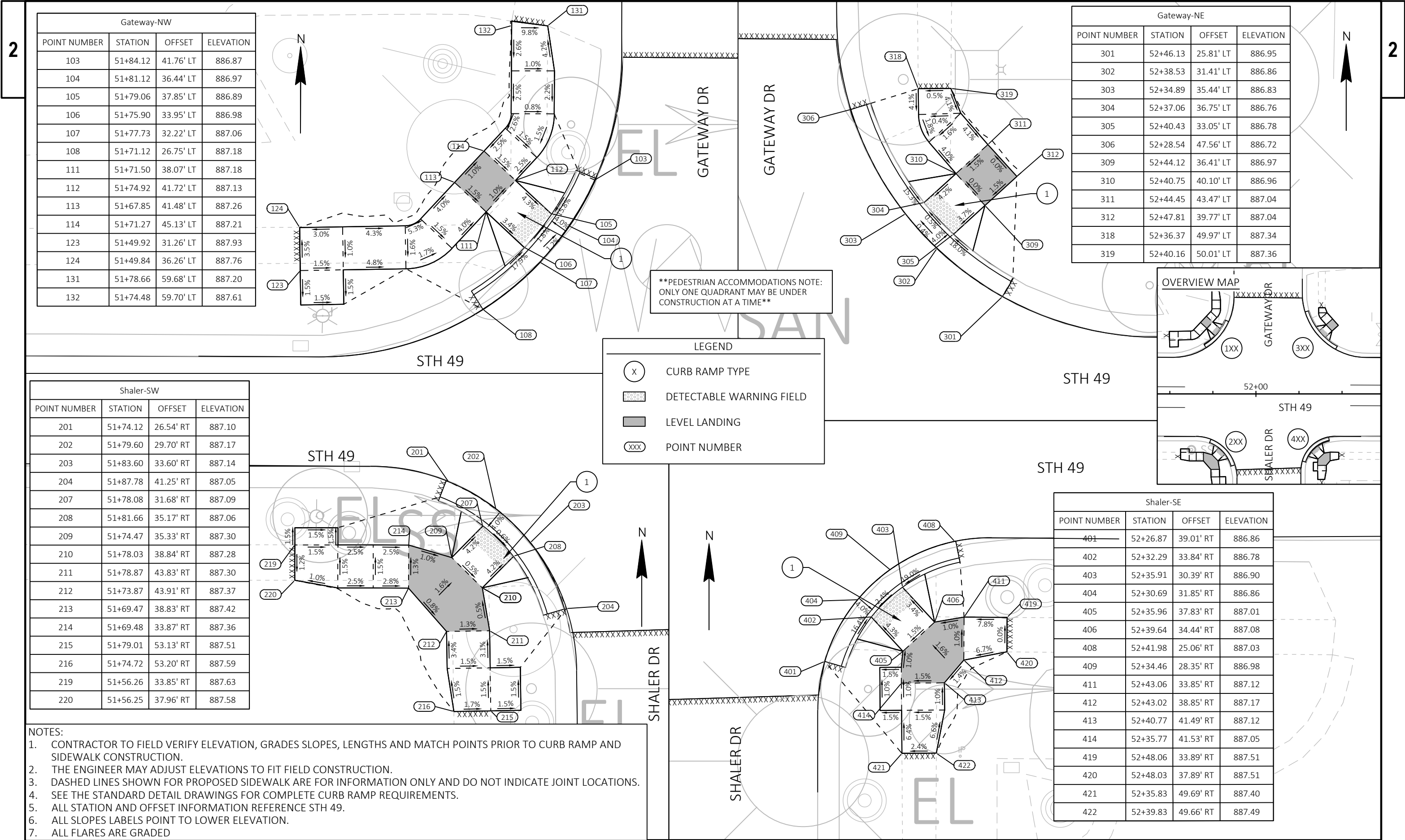


DRAIN SLOTTED VANE, CORRUGATED POLYETHYLENE 18-INCH

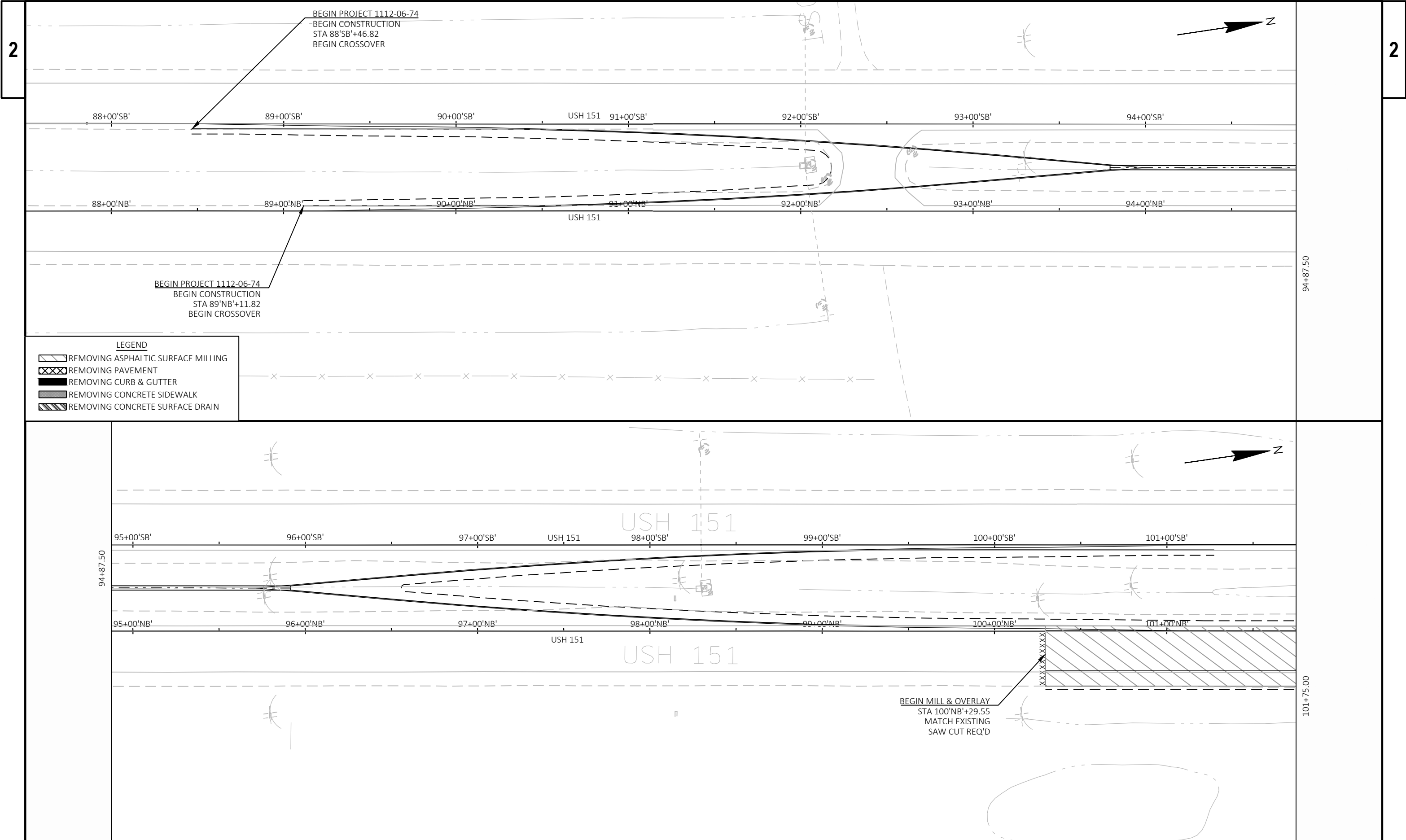


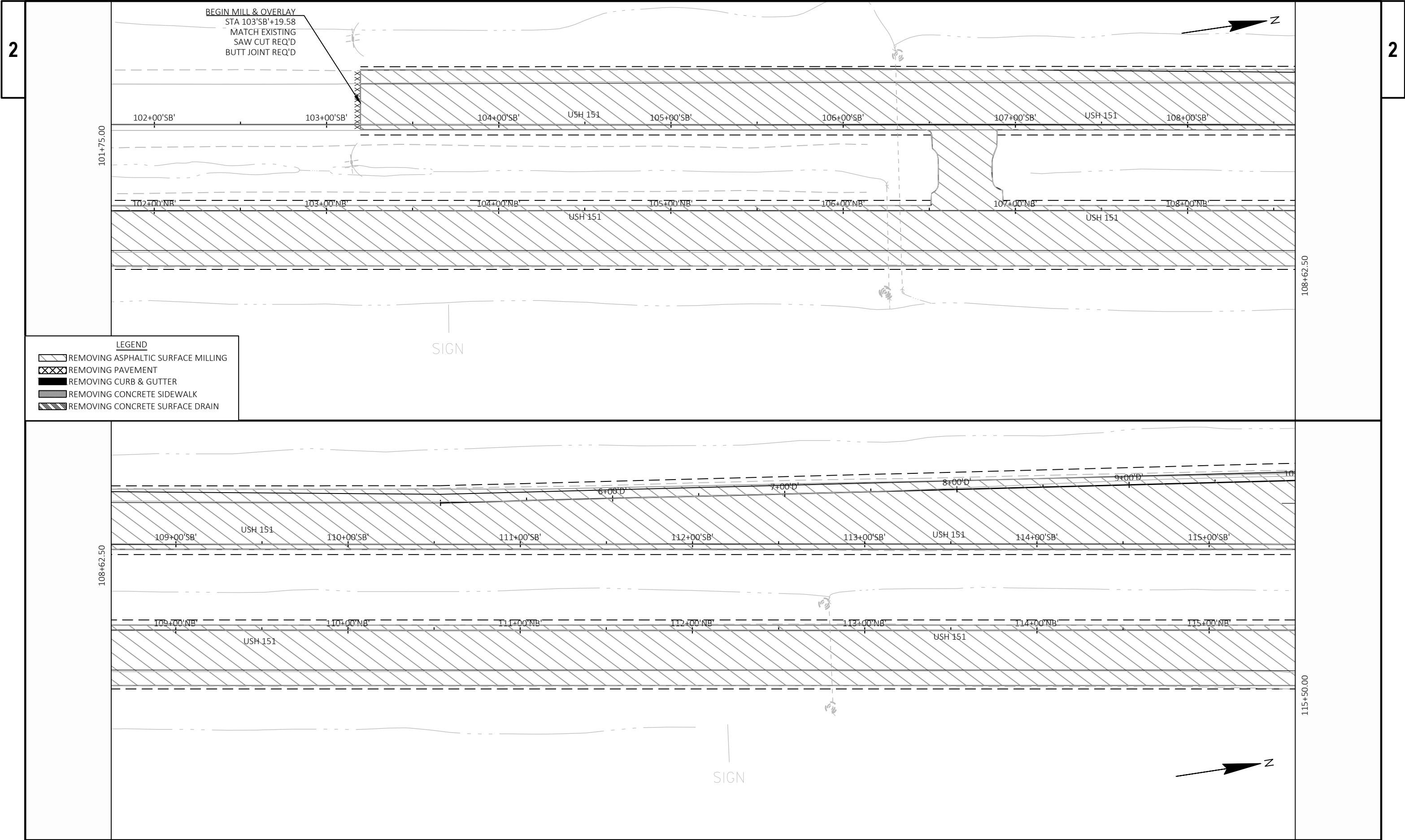
NOTES

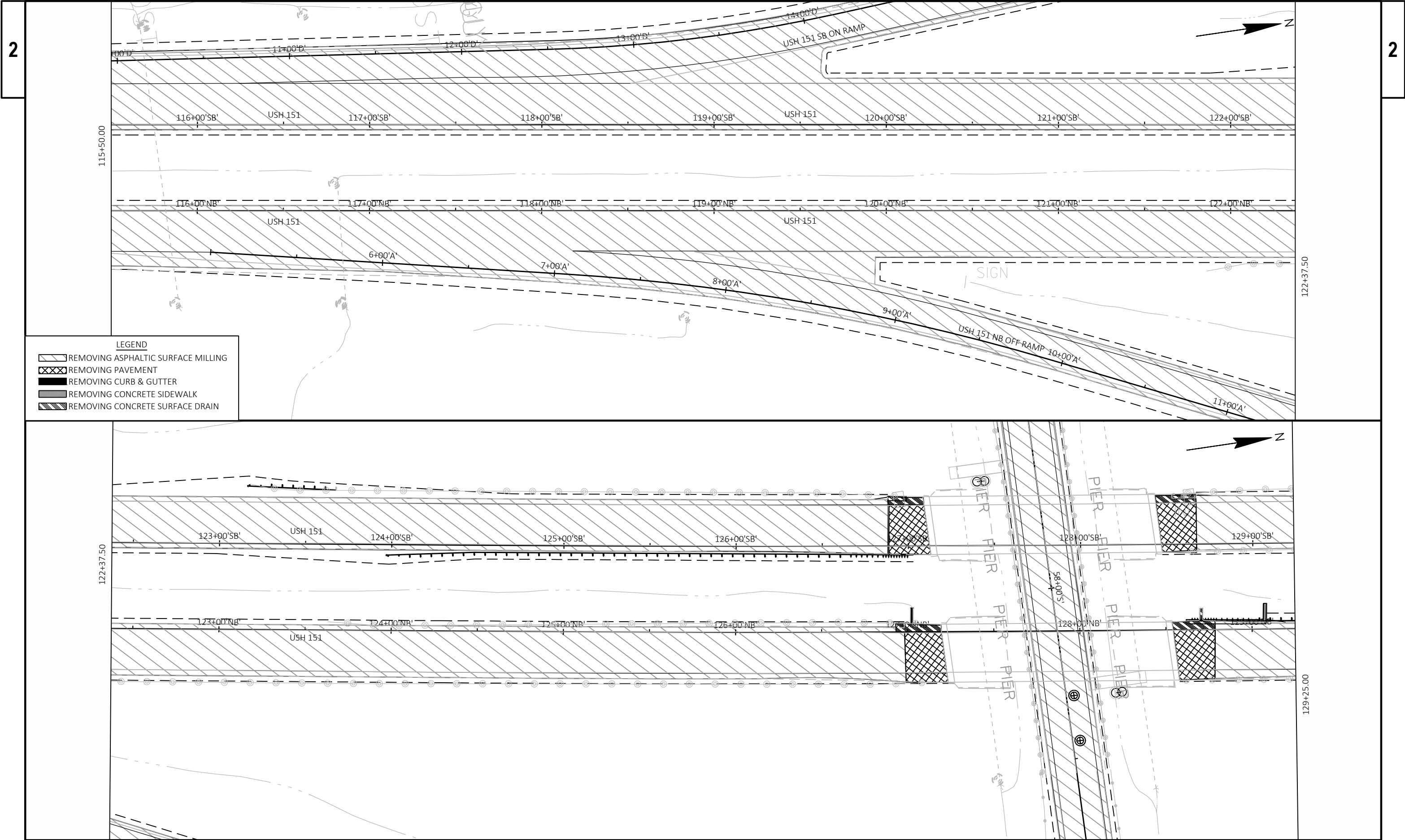
1. SECURELY STAKE AND ANCHOR THE CASTING AND SPECIAL PIPE INTO PLACE DURING THE POURING OF THE CONCRETE ENCASEMENT
- * TYPICAL COUPLING BAND FOR SLOTTED DRAIN
(ALTERNATIVES AS APPROVED BY THE ENGINEER)

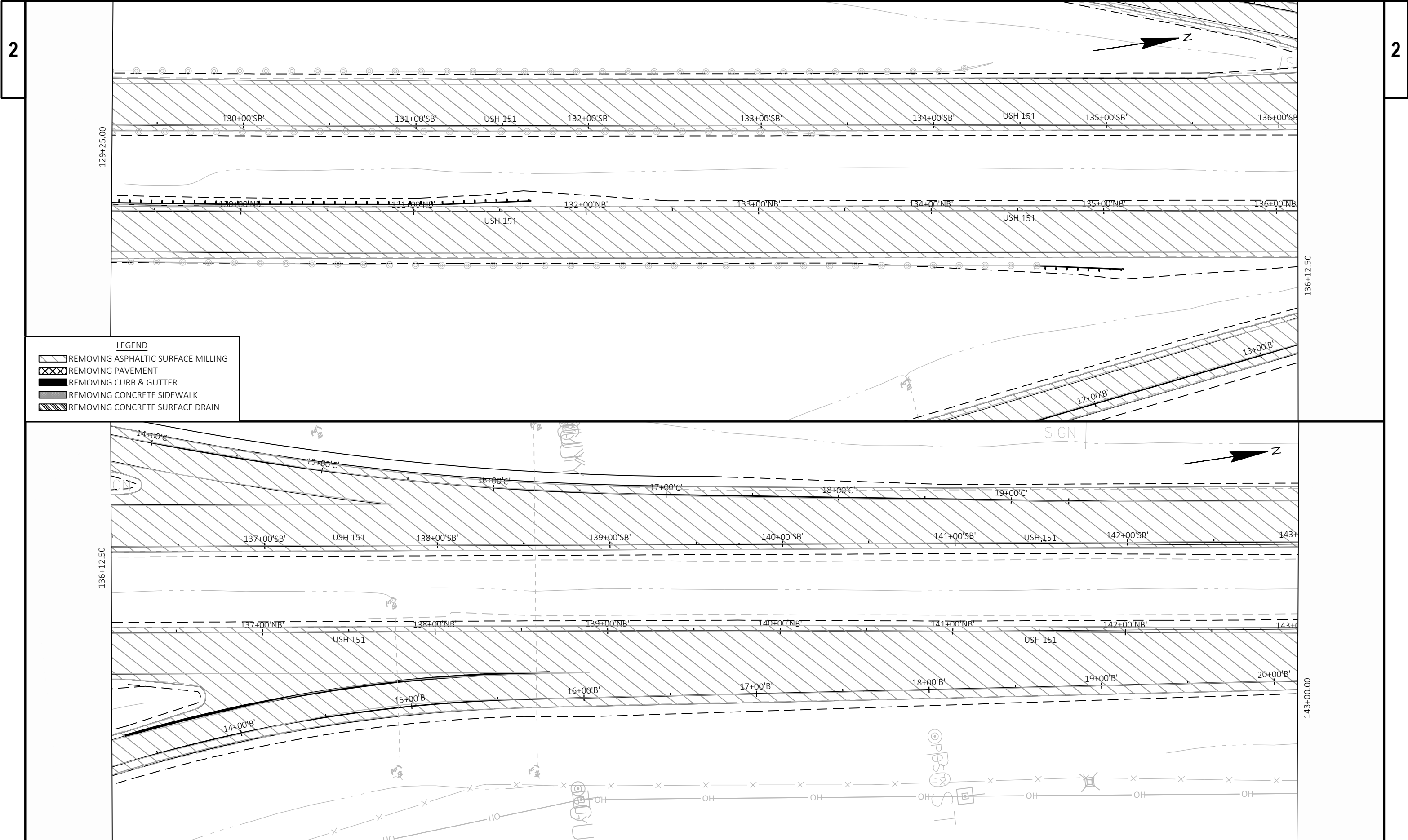


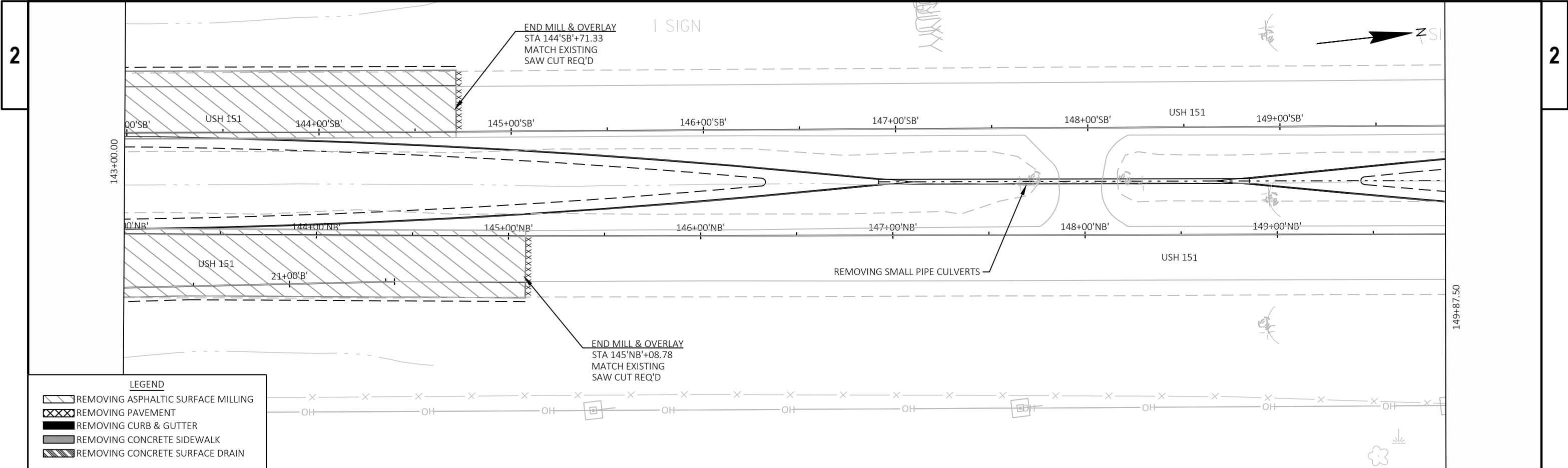
- NOTES:
1. CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION.
 2. THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION.
 3. DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS.
 4. SEE THE STANDARD DETAIL DRAWINGS FOR COMPLETE CURB RAMP REQUIREMENTS.
 5. ALL STATION AND OFFSET INFORMATION REFERENCE STH 49.
 6. ALL SLOPES LABELS POINT TO LOWER ELEVATION.
 7. ALL FLARES ARE GRADED





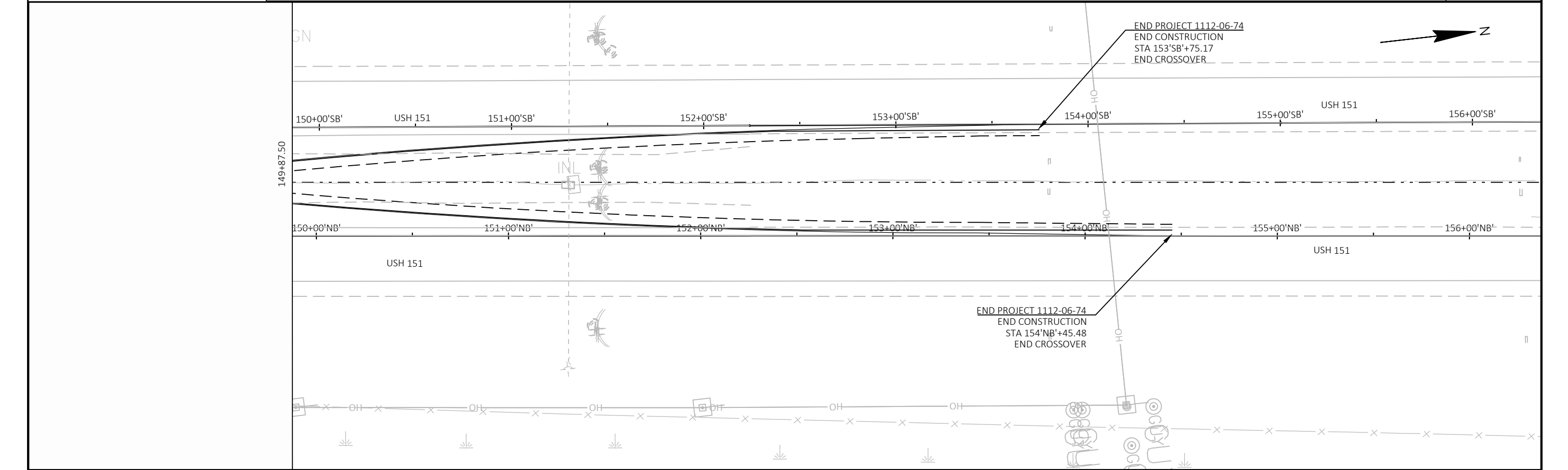






LEGEND

- REMOVING ASPHALTIC SURFACE MILLING
- REMOVING PAVEMENT
- REMOVING CURB & GUTTER
- REMOVING CONCRETE SIDEWALK
- REMOVING CONCRETE SURFACE DRAIN



PROJECT NO: 1112-06-74	HWY: USH 151	COUNTY: DODGE & FOND DU LAC	REMOVALS	SHEET 24	E
------------------------	--------------	-----------------------------	----------	----------	---



- LEGEND**
- REMOVING ASPHALTIC SURFACE MILLING
 - REMOVING PAVEMENT
 - REMOVING CURB & GUTTER
 - REMOVING CONCRETE SIDEWALK
 - REMOVING CONCRETE SURFACE DRAIN



 REMOVING ASPHALTIC SURFACE MILLING
 REMOVING PAVEMENT
 REMOVING CURB & GUTTER
 REMOVING CONCRETE SIDEWALK
 REMOVING CONCRETE SURFACE DRAIN

13+00'A'

14+00'A'

USH 151 OFF RAMP

15+00'A'

16+00'A'

17+00'A'

STH 49

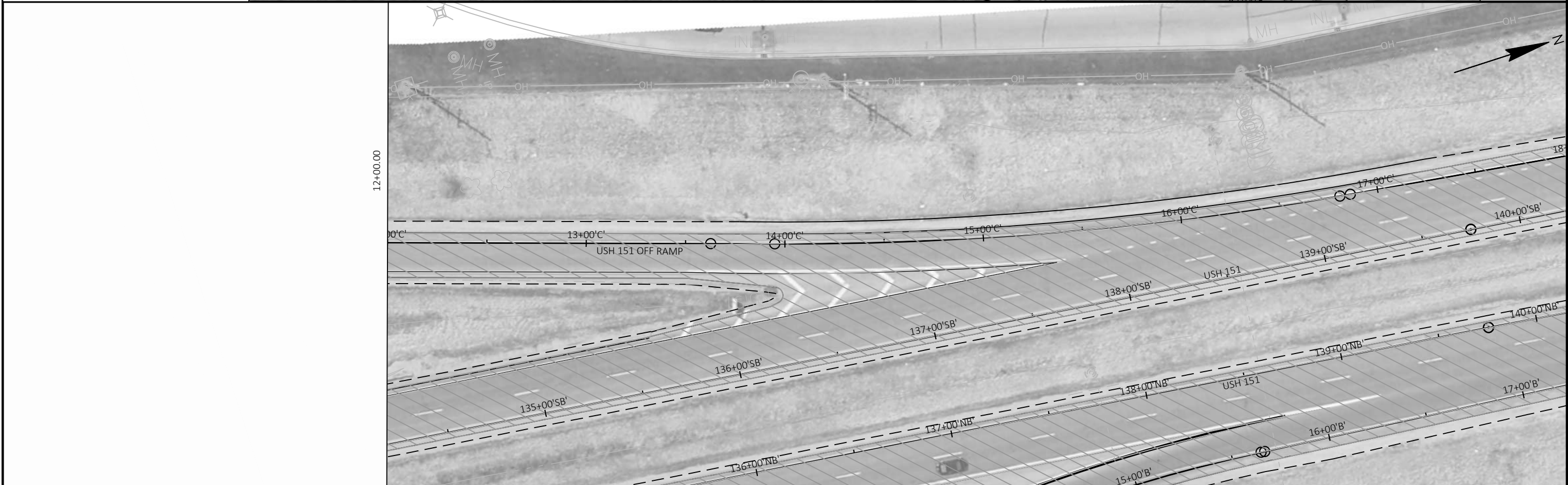
6+00' B

6+00' B

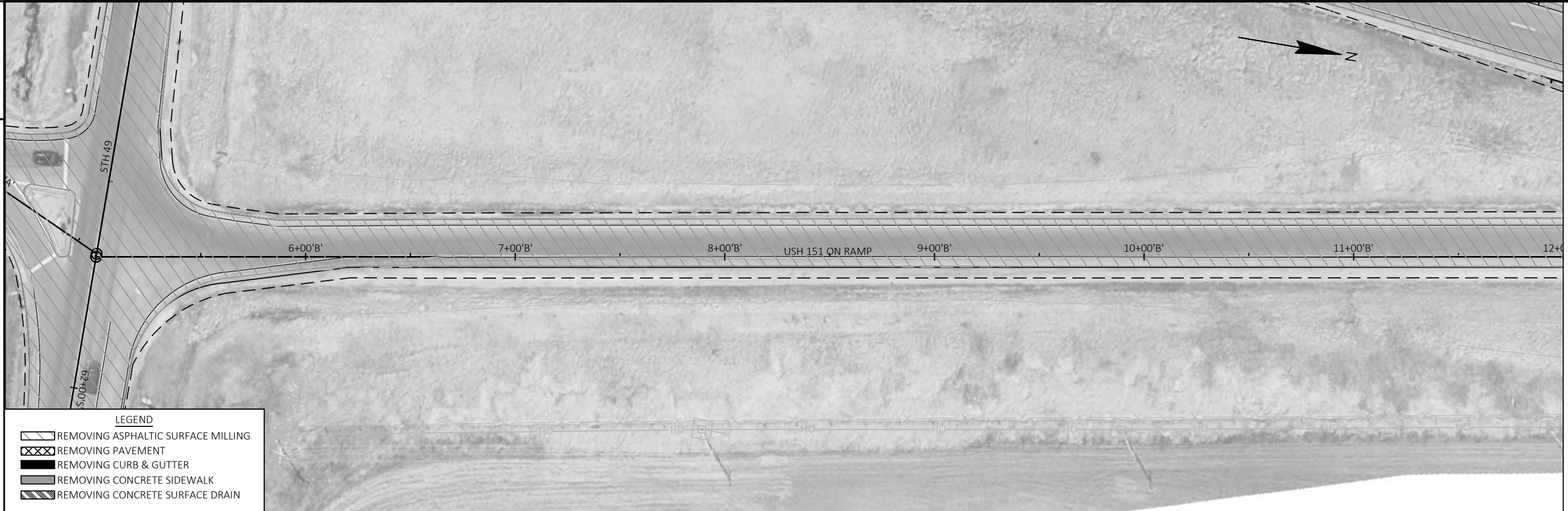
PP30 ST SIGN

E

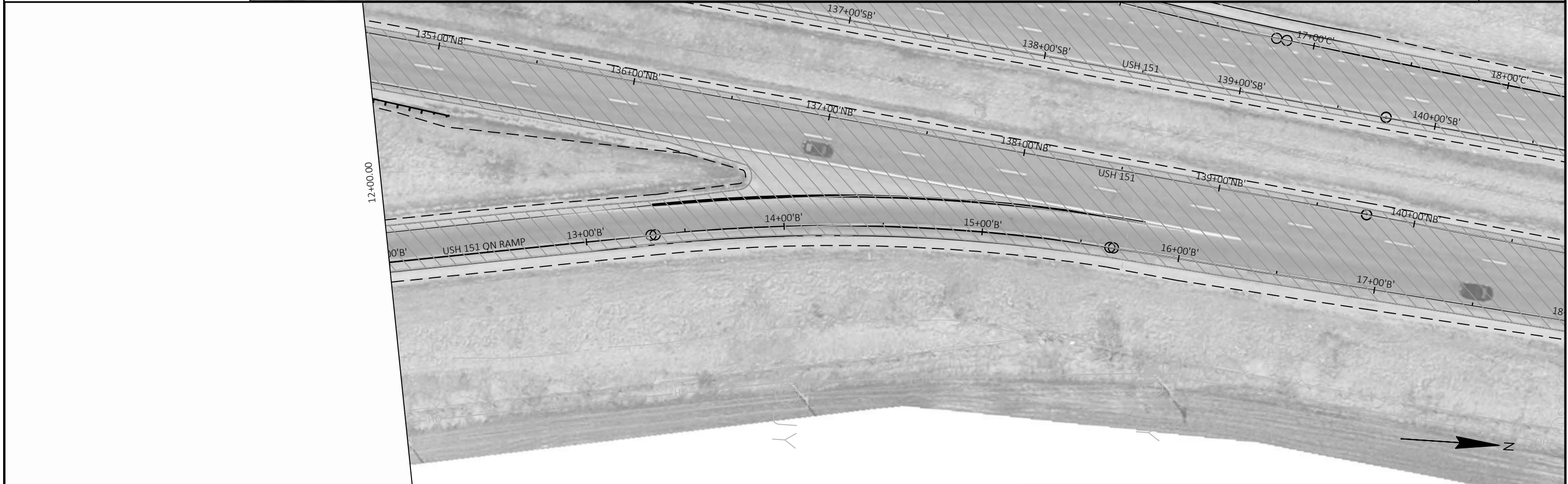
WISDOT/CADDS SHEET 44



2



2



PROJECT NO:	1112-06-74
-------------	------------

HWY: USH 151

COUNTY: DODGE & FOND DU LAC

REMOVALS

SHEET 28 **E**

FILE NAME : X:\PROJECTS\DODGE\200093 - 1112-06-03 USH 151 AND STH 49 INTERCHANGE\DESIGN\C3D\SHEETSP\PLAN\021103-REMOVALS\021103-RP RAMPS.DWG
LAYOUT NAME - 151-(13)

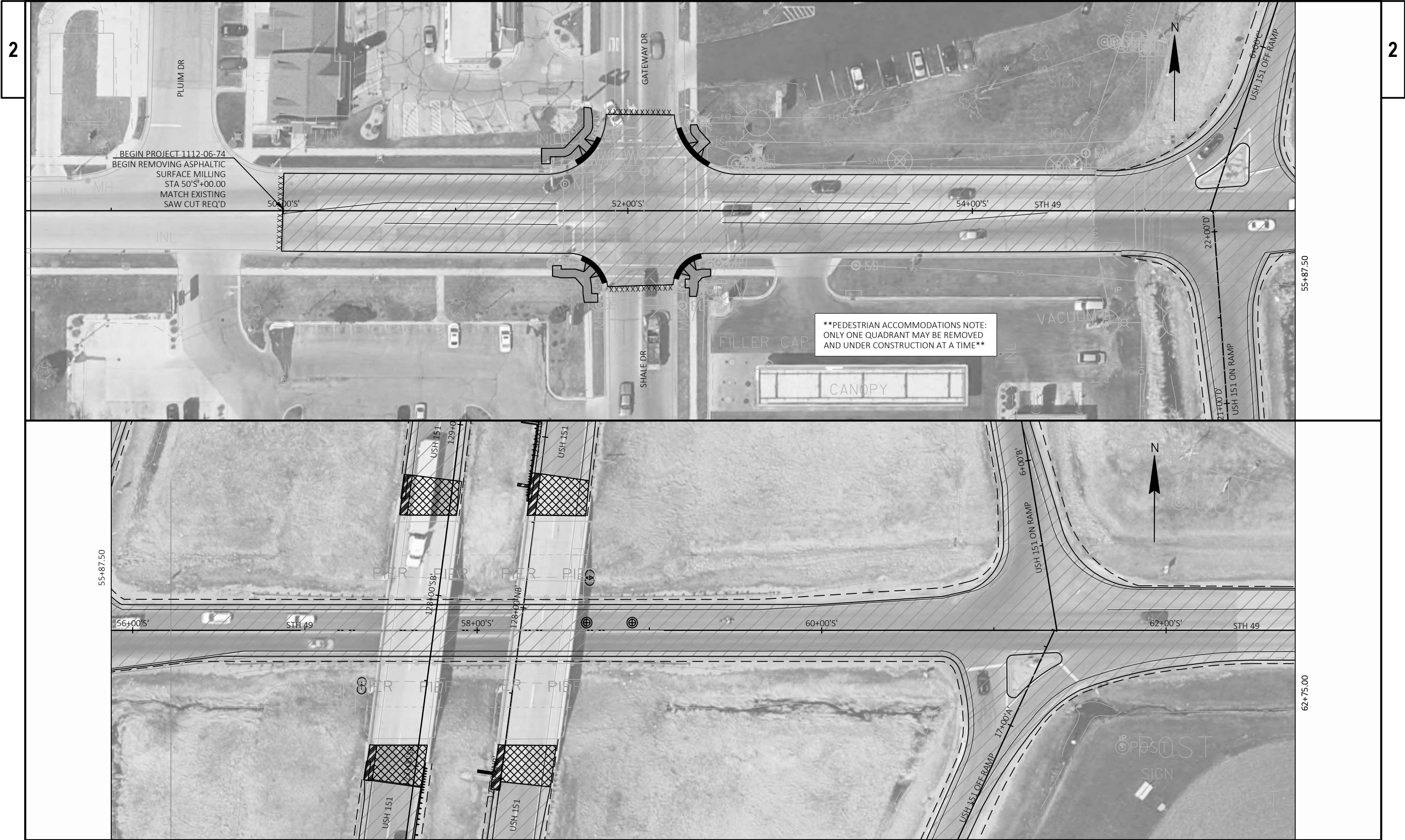
PLOT DATE : 4/16/2021 1:44 PM

PLOT BY : BOB WILSON

PLOT NAME :

PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 44







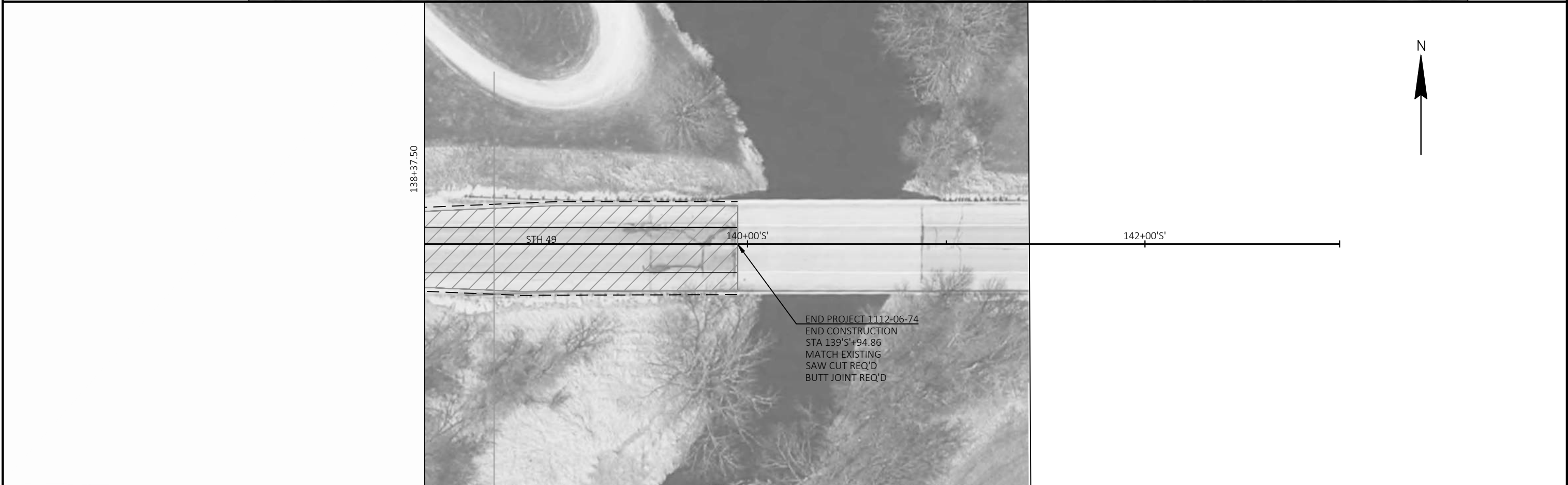
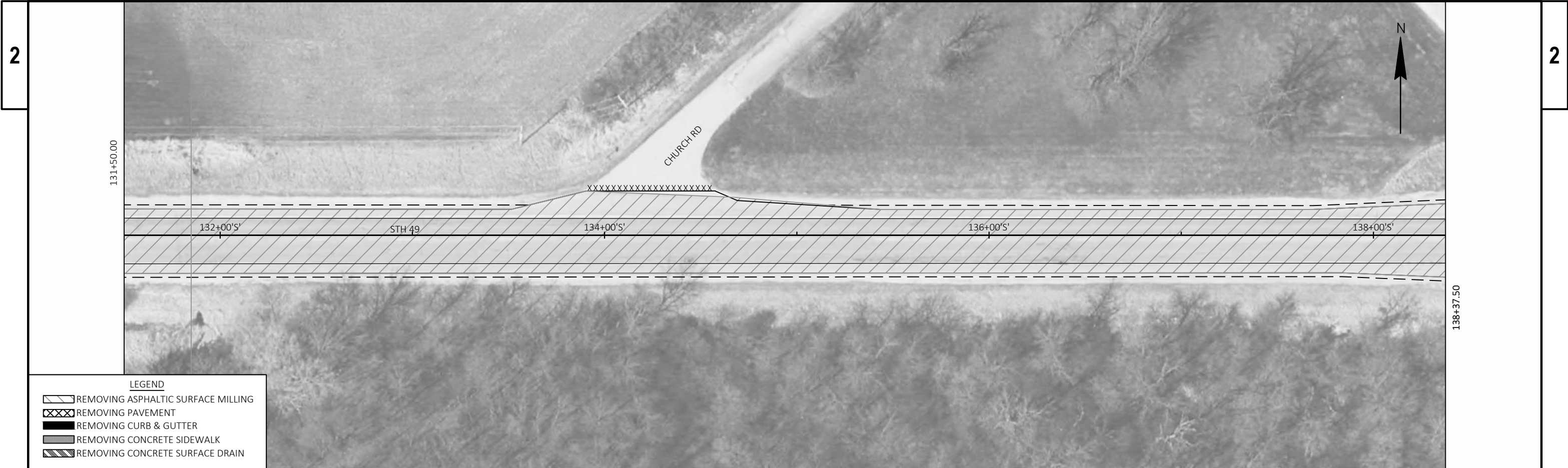


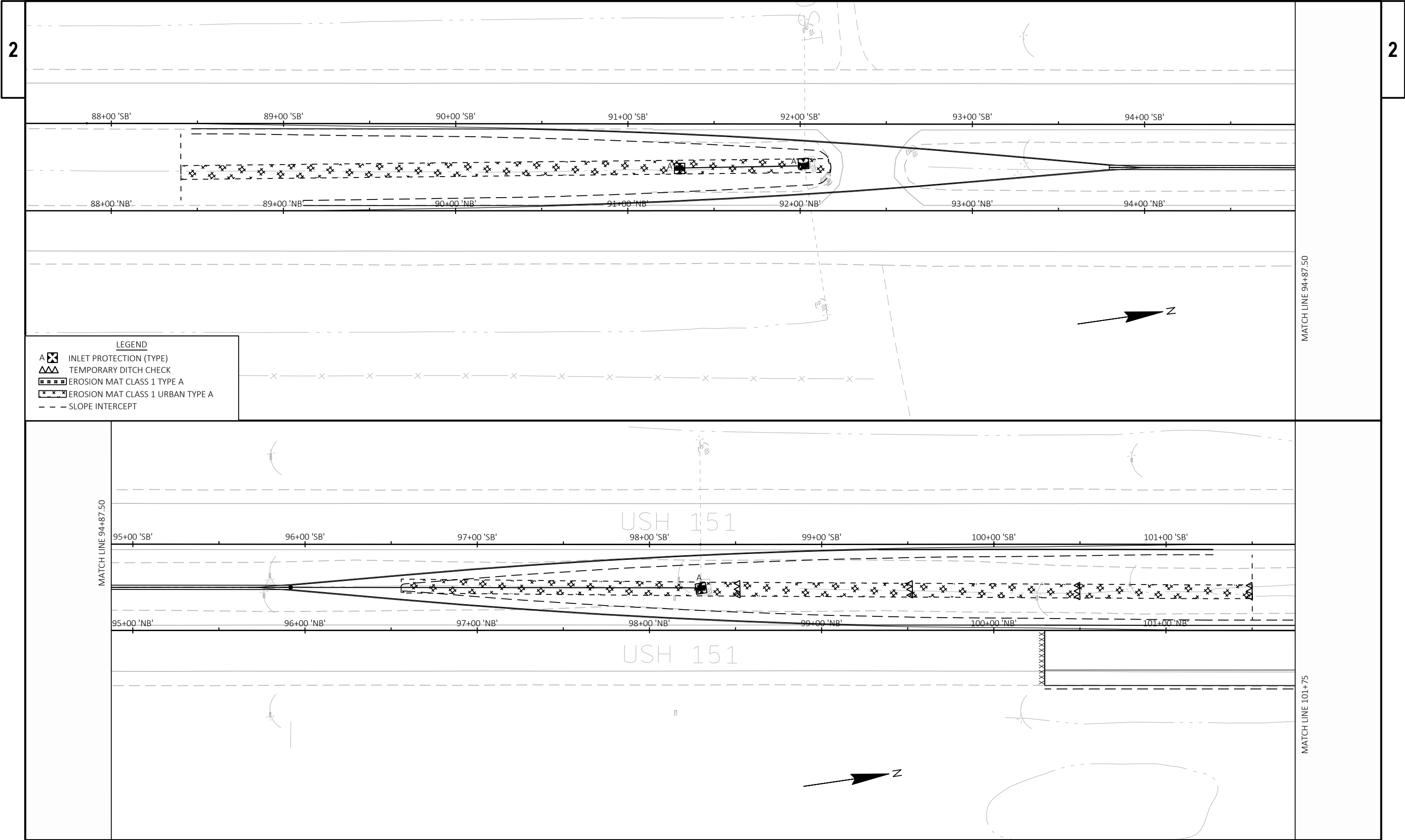


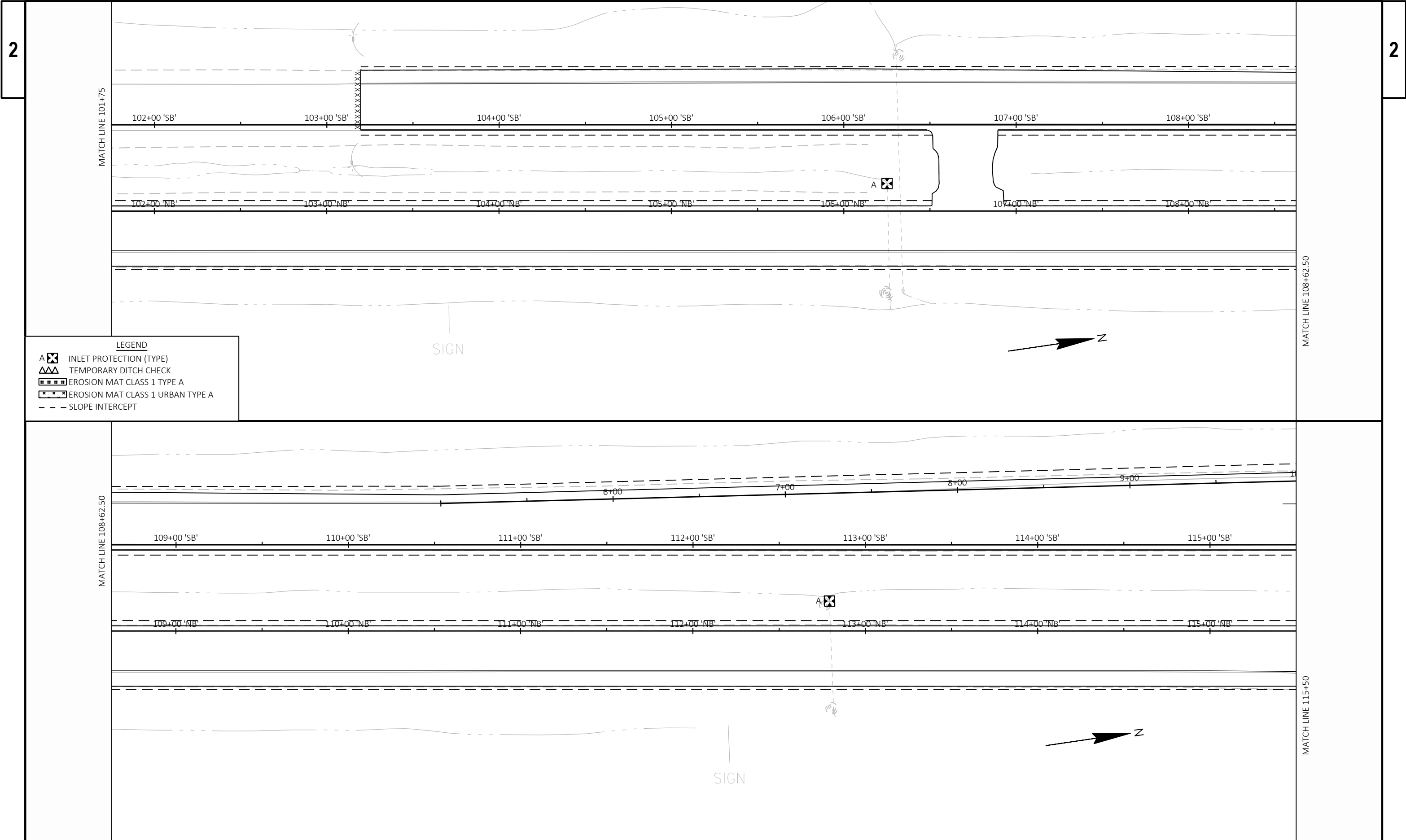


LEGEND

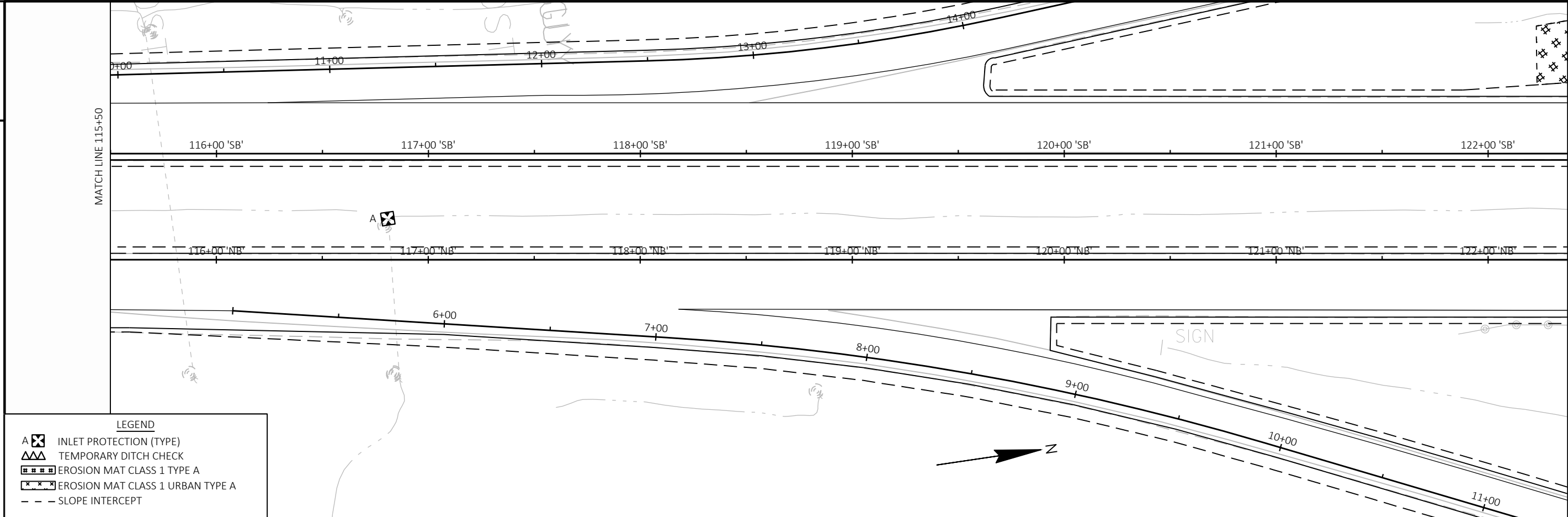
- REMOVING ASPHALTIC SURFACE MILLING
- REMOVING PAVEMENT
- REMOVING CURB & GUTTER
- REMOVING CONCRETE SIDEWALK
- REMOVING CONCRETE SURFACE DRAIN



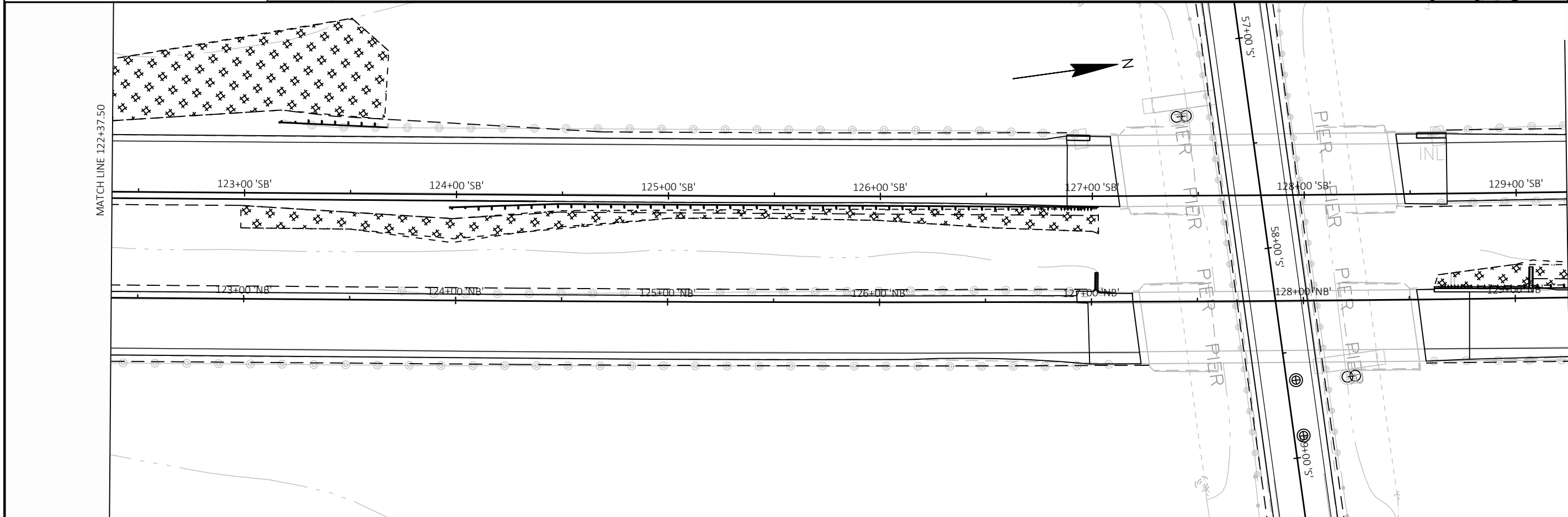




2



2



PROJECT NO:	1112-06-74
-------------	------------

HWY: USH 151

COUNTY: DODGE & FOND DU LAC

EROSION CONTROL

SHEET 38

E

FILE NAME : X:\PROJECTS\DODGE\200093 - 1112-06-03 USH 151 AND STH 49 INTERCHANGE\DESIGN\C3D\SHEETS\PLAN\022001-EROSION CONTROL\022001-EC.DWG
LAYOUT NAME - 03

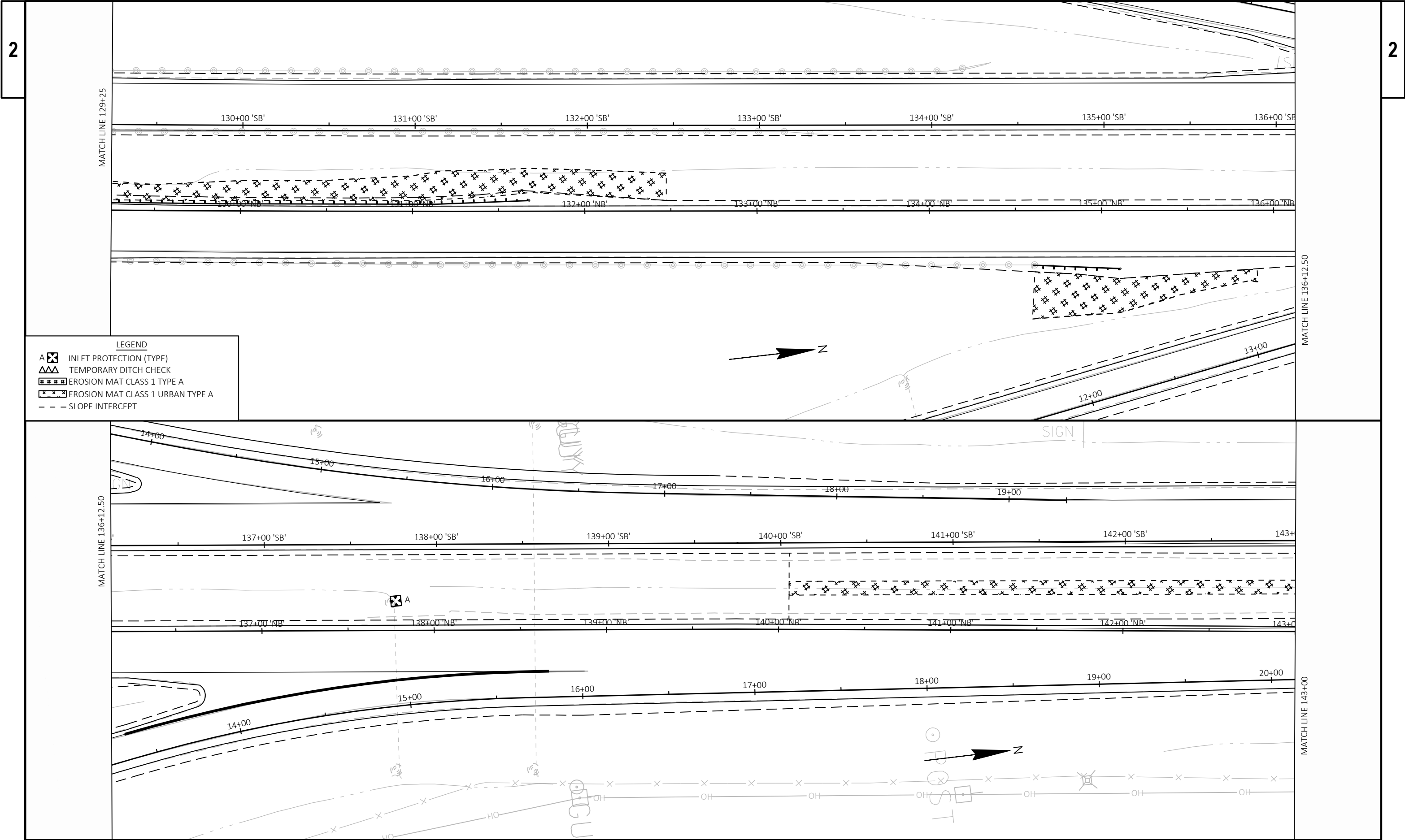
PLOT DATE : 4/16/2021 1:49 PM PLOT BY : BOB WILSON

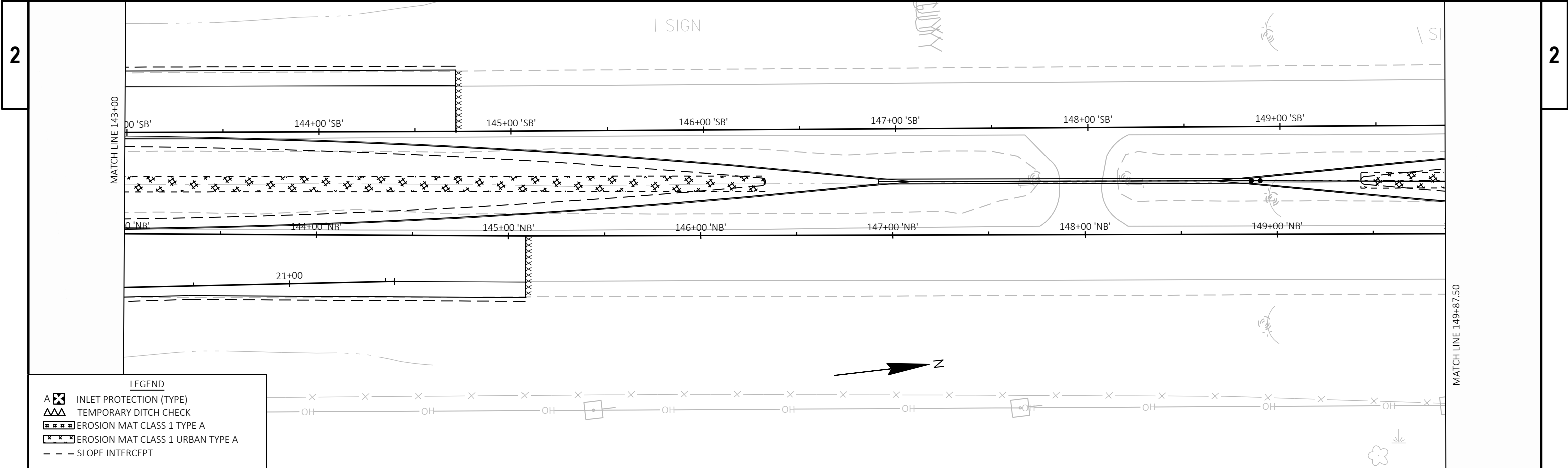
PLOT BY : BOB WILSON

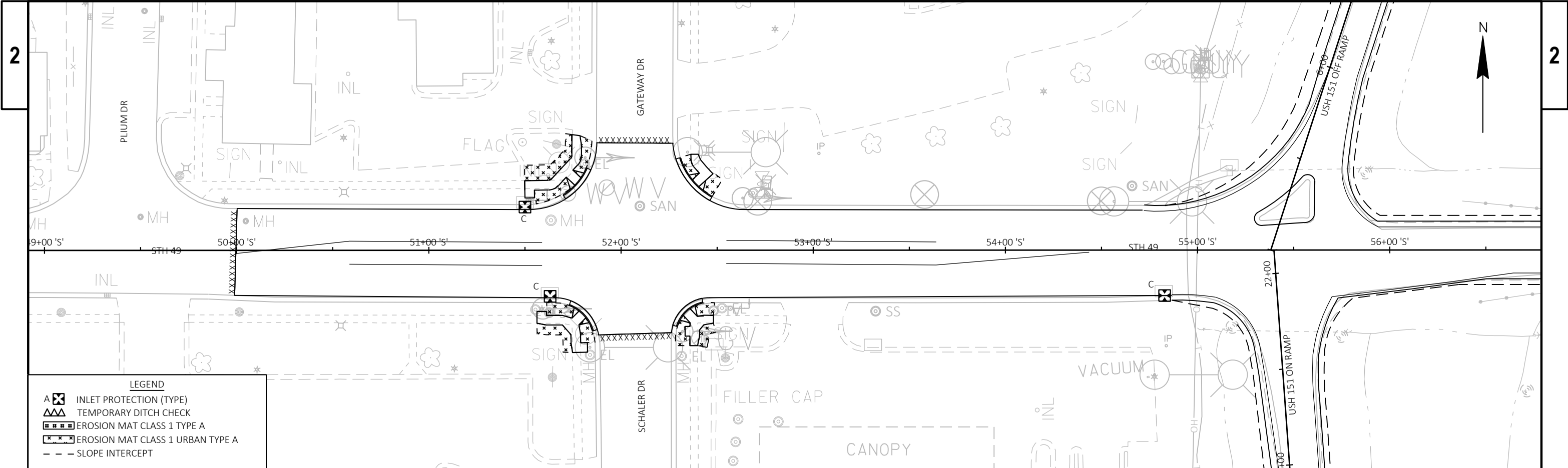
PLOT NAME : PLOT SCALE : 1 IN:50 FT

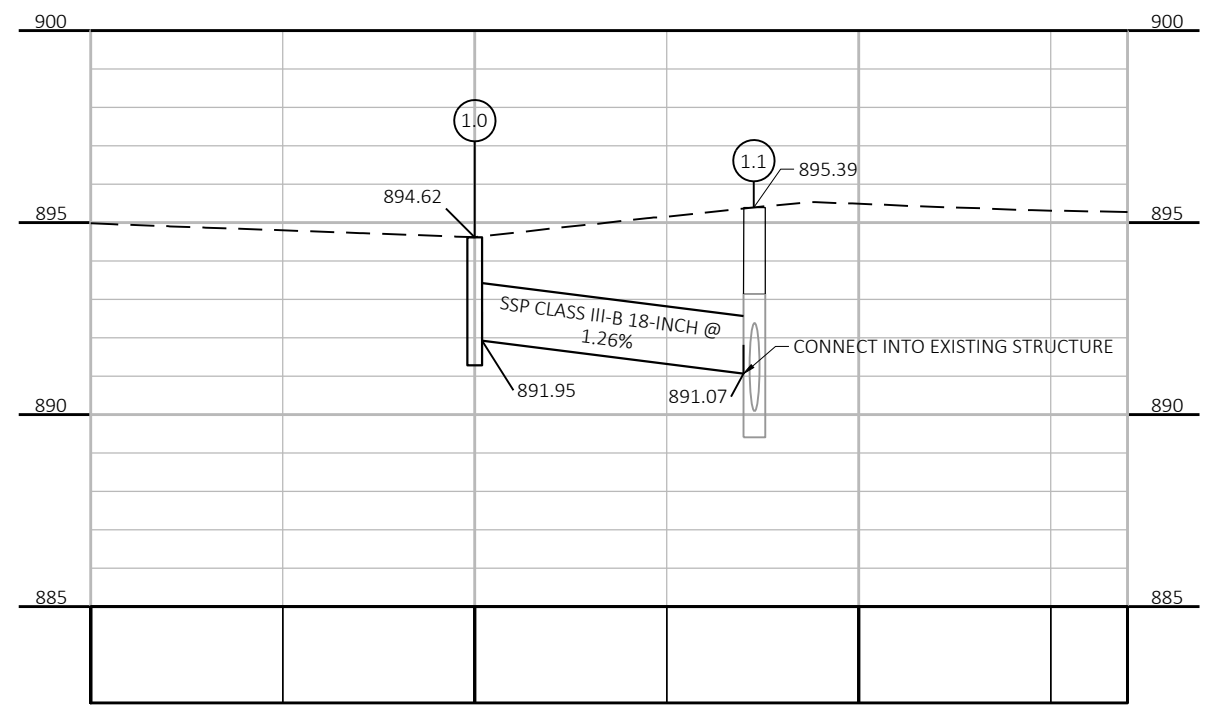
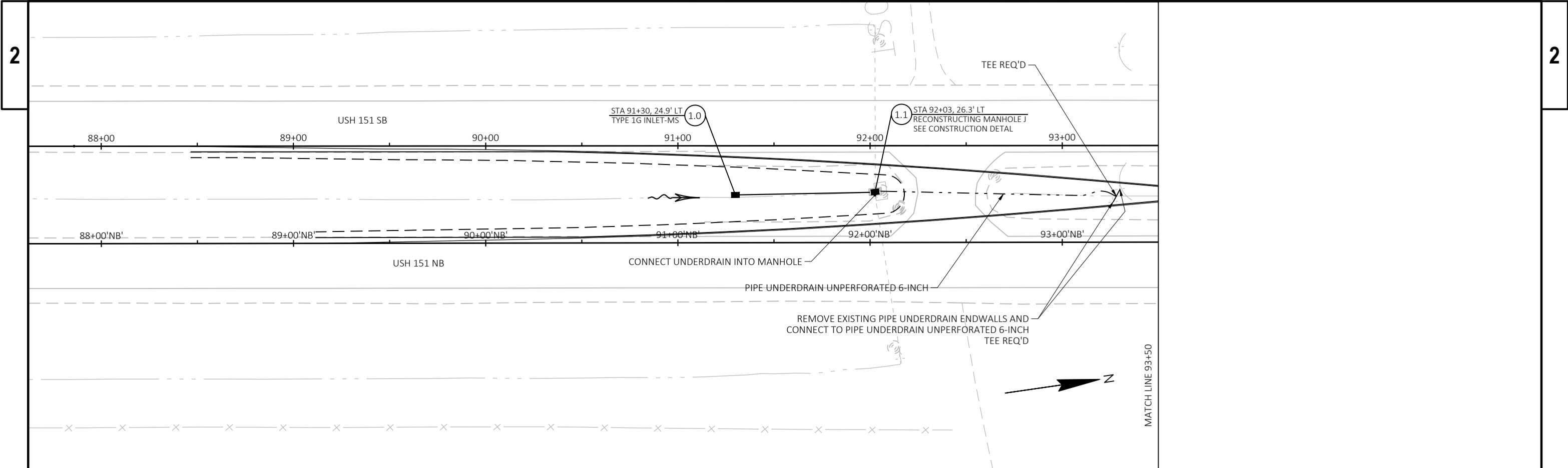
PLOT SCALE : 1 IN:50 FT

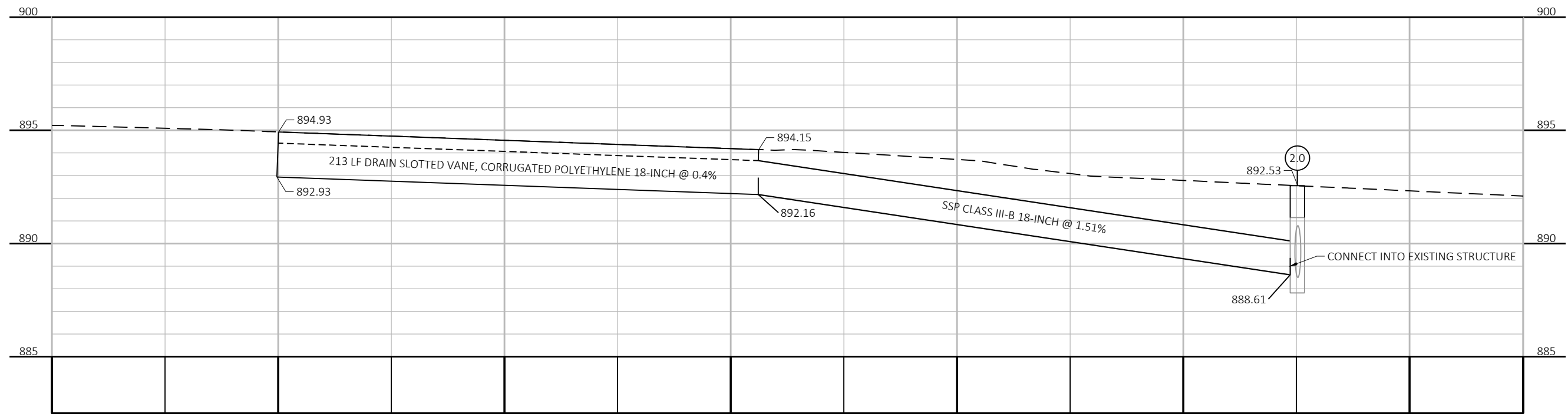
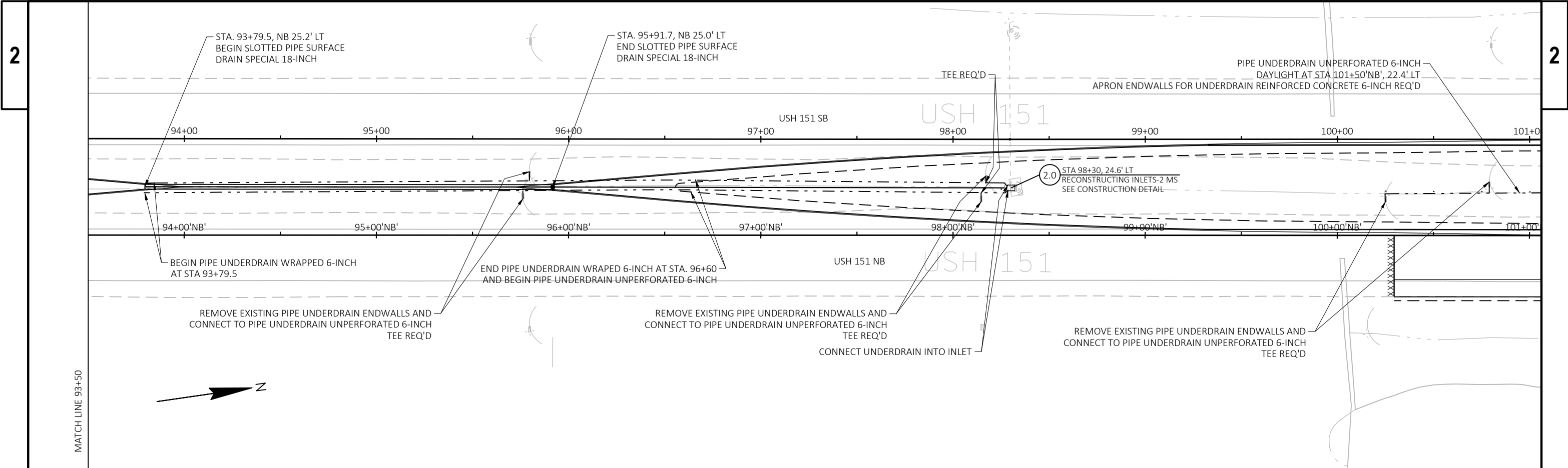
WISDOT/CADDS SHEET 44

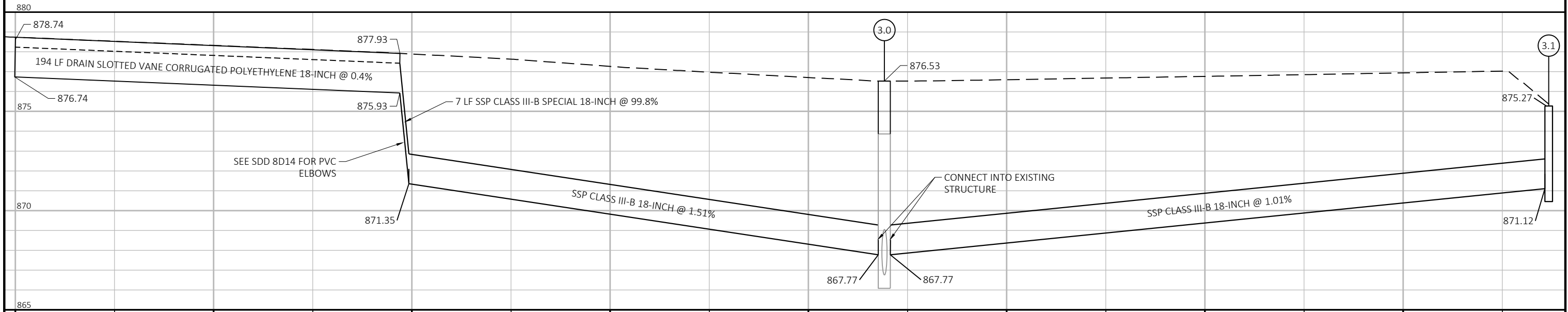
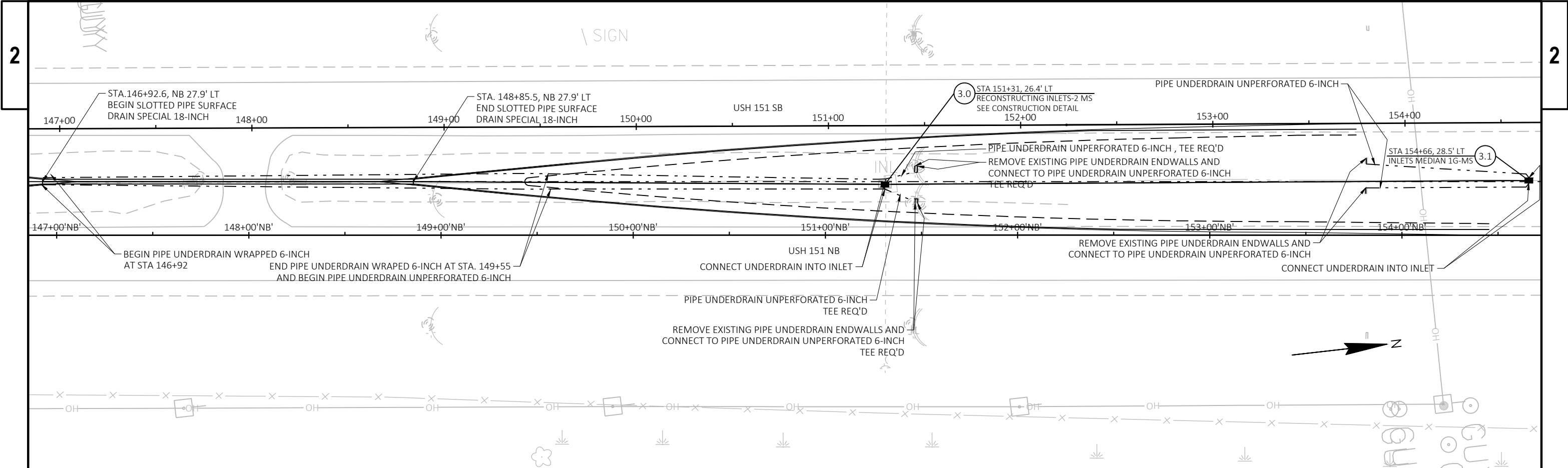




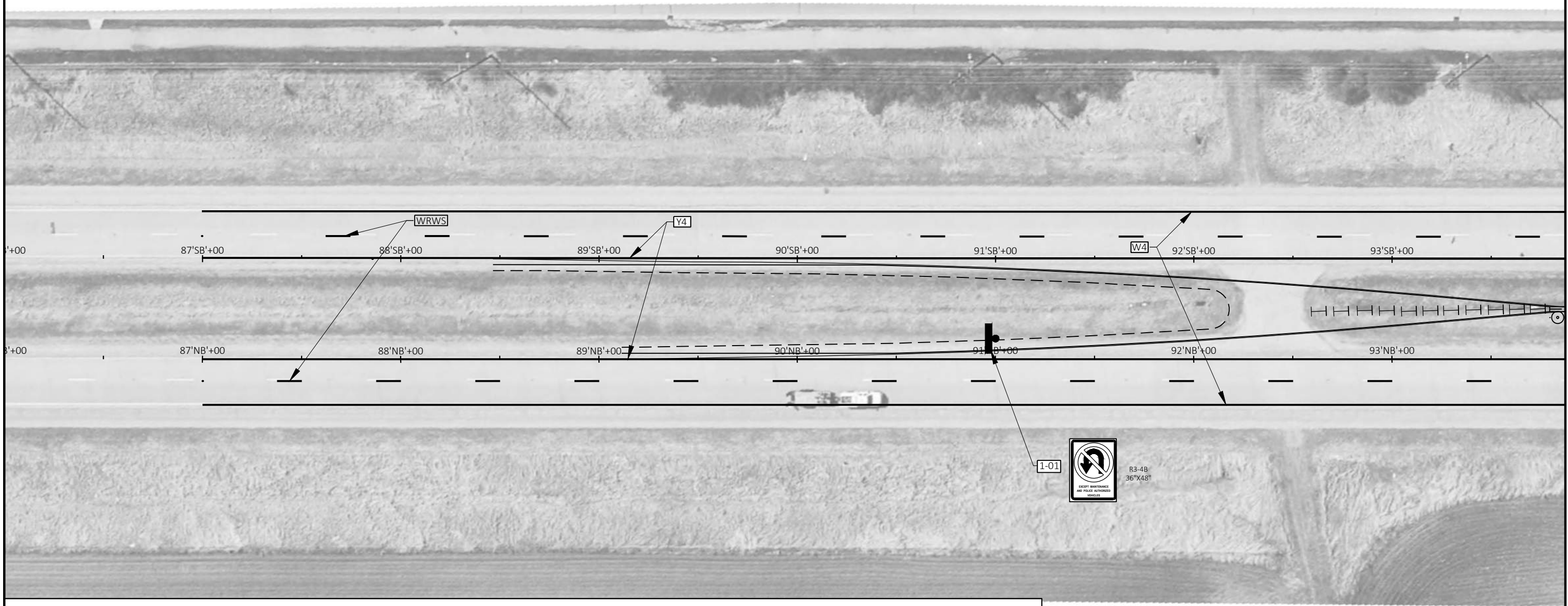








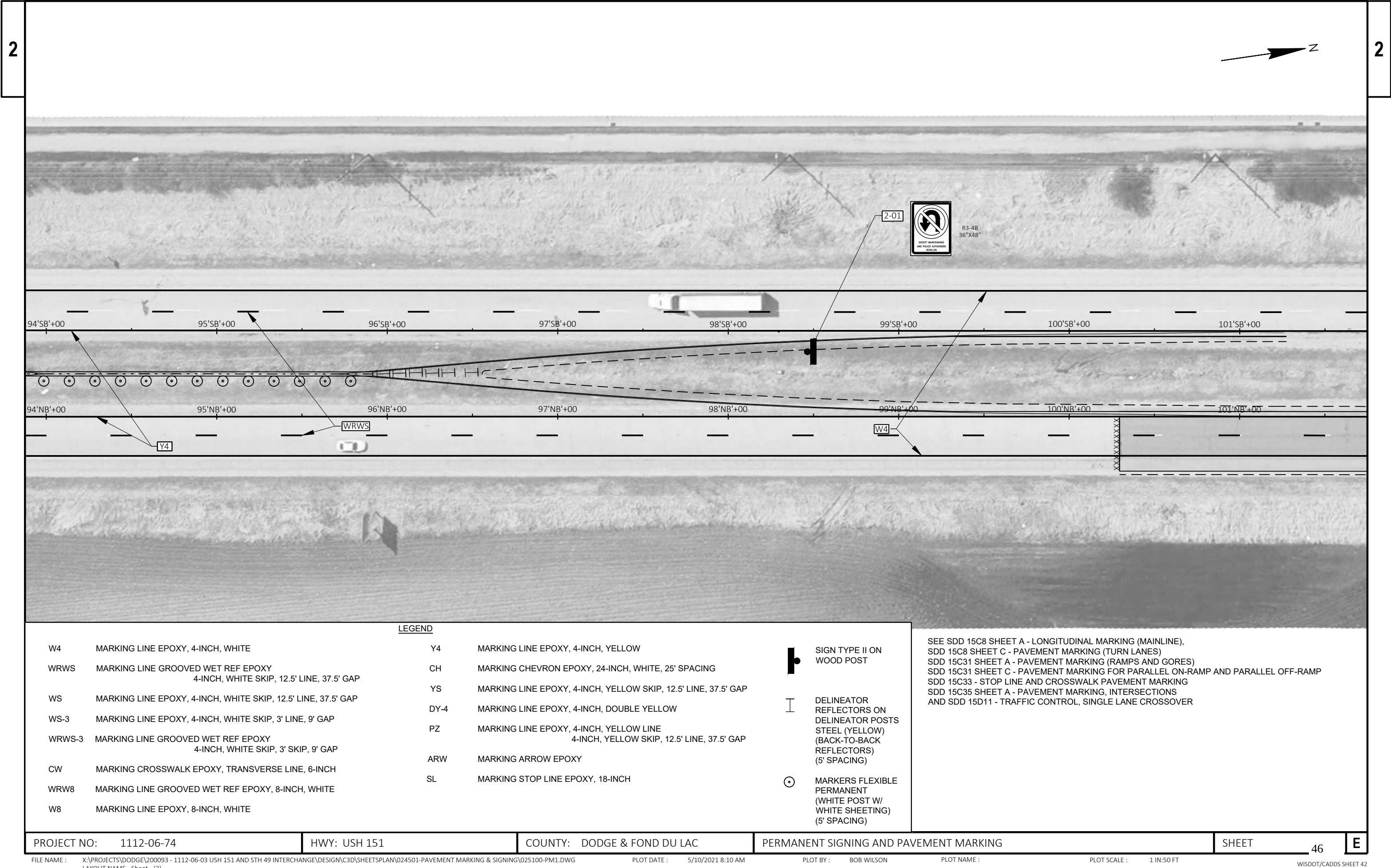
PROJECT NO:	1112-06-74	HWY:	USH 151	COUNTY:	DODGE & FOND DU LAC	STORM SEWER	SHEET	44	E
-------------	------------	------	---------	---------	---------------------	-------------	-------	----	---

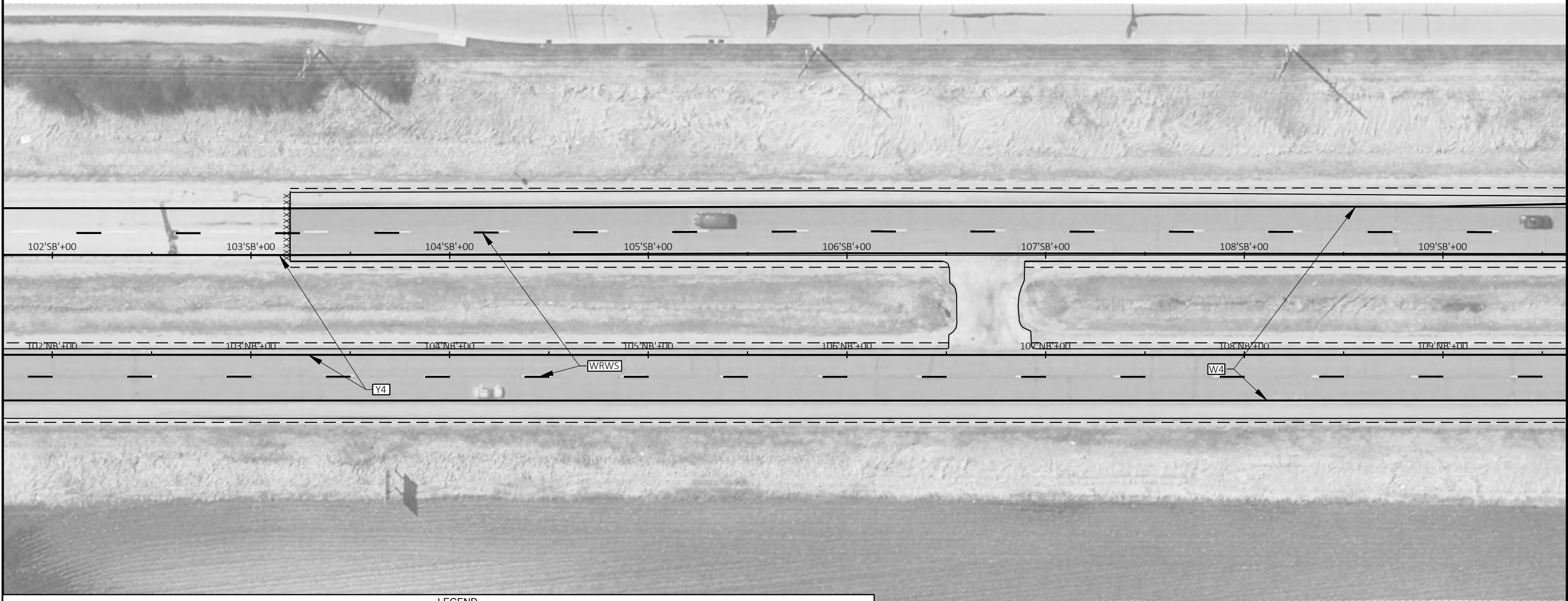


LEGEND

W4	MARKING LINE EPOXY, 4-INCH, WHITE	Y4	MARKING LINE EPOXY, 4-INCH, YELLOW		SIGN TYPE II ON WOOD POST
WRWS	MARKING LINE GROOVED WET REF EPOXY 4-INCH, WHITE SKIP, 12.5' LINE, 37.5' GAP	CH	MARKING CHEVRON EPOXY, 24-INCH, WHITE, 25' SPACING		DELINEATOR REFLECTORS ON DELINEATOR POSTS STEEL (YELLOW) (BACK-TO-BACK REFLECTORS) (5' SPACING)
WS	MARKING LINE EPOXY, 4-INCH, WHITE SKIP, 12.5' LINE, 37.5' GAP	YS	MARKING LINE EPOXY, 4-INCH, YELLOW SKIP, 12.5' LINE, 37.5' GAP		MARKERS FLEXIBLE PERMANENT (WHITE POST W/ WHITE SHEETING) (5' SPACING)
WS-3	MARKING LINE EPOXY, 4-INCH, WHITE SKIP, 3' LINE, 9' GAP	DY-4	MARKING LINE EPOXY, 4-INCH, DOUBLE YELLOW		
WRWS-3	MARKING LINE GROOVED WET REF EPOXY 4-INCH, WHITE SKIP, 3' SKIP, 9' GAP	PZ	MARKING LINE EPOXY, 4-INCH, YELLOW LINE 4-INCH, YELLOW SKIP, 12.5' LINE, 37.5' GAP		
CW	MARKING CROSSWALK EPOXY, TRANSVERSE LINE, 6-INCH	ARW	MARKING ARROW EPOXY		
WRW8	MARKING LINE GROOVED WET REF EPOXY, 8-INCH, WHITE	SL	MARKING STOP LINE EPOXY, 18-INCH		
W8	MARKING LINE EPOXY, 8-INCH, WHITE				

SEE SDD 15C8 SHEET A - LONGITUDINAL MARKING (MAINLINE),
SDD 15C8 SHEET C - PAVEMENT MARKING (TURN LANES)
SDD 15C31 SHEET A - PAVEMENT MARKING (RAMPS AND GORES)
SDD 15C31 SHEET C - PAVEMENT MARKING FOR PARALLEL ON-RAMP AND PARALLEL OFF-RAMP
SDD 15C33 - STOP LINE AND CROSSWALK PAVEMENT MARKING
SDD 15C35 SHEET A - PAVEMENT MARKING, INTERSECTIONS
AND SDD 15D11 - TRAFFIC CONTROL, SINGLE LANE CROSSOVER





LEGEND

W4	MARKING LINE EPOXY, 4-INCH, WHITE	Y4	MARKING LINE EPOXY, 4-INCH, YELLOW
WRWS	MARKING LINE GROOVED WET REF EPOXY 4-INCH, WHITE SKIP, 12.5' LINE, 37.5' GAP	CH	MARKING CHEVRON EPOXY, 24-INCH, WHITE, 25' SPACING
WS	MARKING LINE EPOXY, 4-INCH, WHITE SKIP, 12.5' LINE, 37.5' GAP	YS	MARKING LINE EPOXY, 4-INCH, YELLOW SKIP, 12.5' LINE, 37.5' GAP
WS-3	MARKING LINE EPOXY, 4-INCH, WHITE SKIP, 3' LINE, 9' GAP	DY-4	MARKING LINE EPOXY, 4-INCH, DOUBLE YELLOW
WRWS-3	MARKING LINE GROOVED WET REF EPOXY 4-INCH, WHITE SKIP, 3' SKIP, 9' GAP	PZ	MARKING LINE EPOXY, 4-INCH, YELLOW LINE 4-INCH, YELLOW SKIP, 12.5' LINE, 37.5' GAP
CW	MARKING CROSSWALK EPOXY, TRANSVERSE LINE, 6-INCH	ARW	MARKING ARROW EPOXY
WRW8	MARKING LINE GROOVED WET REF EPOXY, 8-INCH, WHITE	SL	MARKING STOP LINE EPOXY, 18-INCH
W8	MARKING LINE EPOXY, 8-INCH, WHITE		



SIGN TYPE II ON WOOD POST



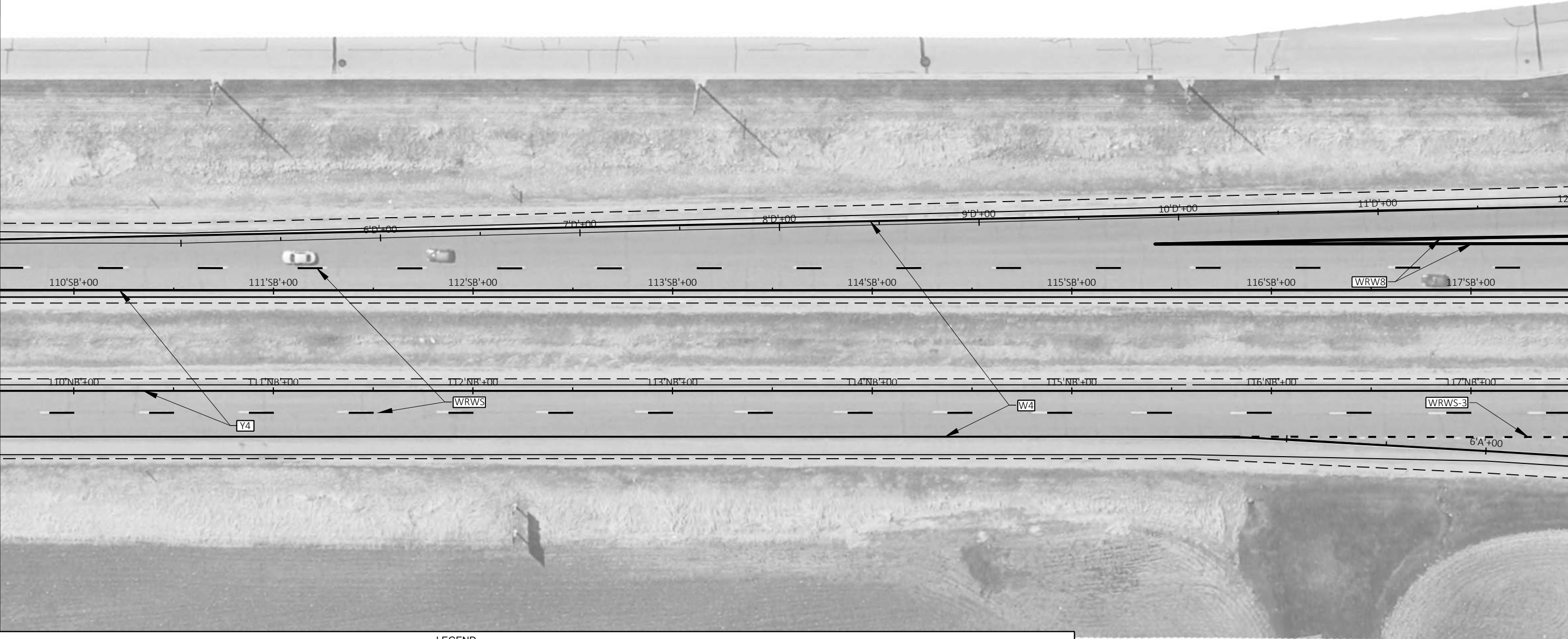
DELINEATOR REFLECTORS
ON DELINEATOR POSTS
STEEL (YELLOW)
(BACK-TO-BACK
REFLECTORS)
(5' SPACING)



MARKERS FLEXIBLE
PERMANENT
(WHITE POST W/ WHITE
SHEETING)
(5' SPACING)

SEE SDD 15C8 SHEET A - LONGITUDINAL MARKING (MAINLINE),
SDD 15C8 SHEET C - PAVEMENT MARKING (TURN LANES)
SDD 15C31 SHEET A - PAVEMENT MARKING (RAMPS AND GORES)
SDD 15C31 SHEET C - PAVEMENT MARKING FOR PARALLEL ON-RAMP AND PARALLEL OFF-RAMP
SDD 15C33 - STOP LINE AND CROSSWALK PAVEMENT MARKING
SDD 15C35 SHEET A - PAVEMENT MARKING, INTERSECTIONS
AND SDD 15D11 - TRAFFIC CONTROL, SINGLE LANE CROSSOVER





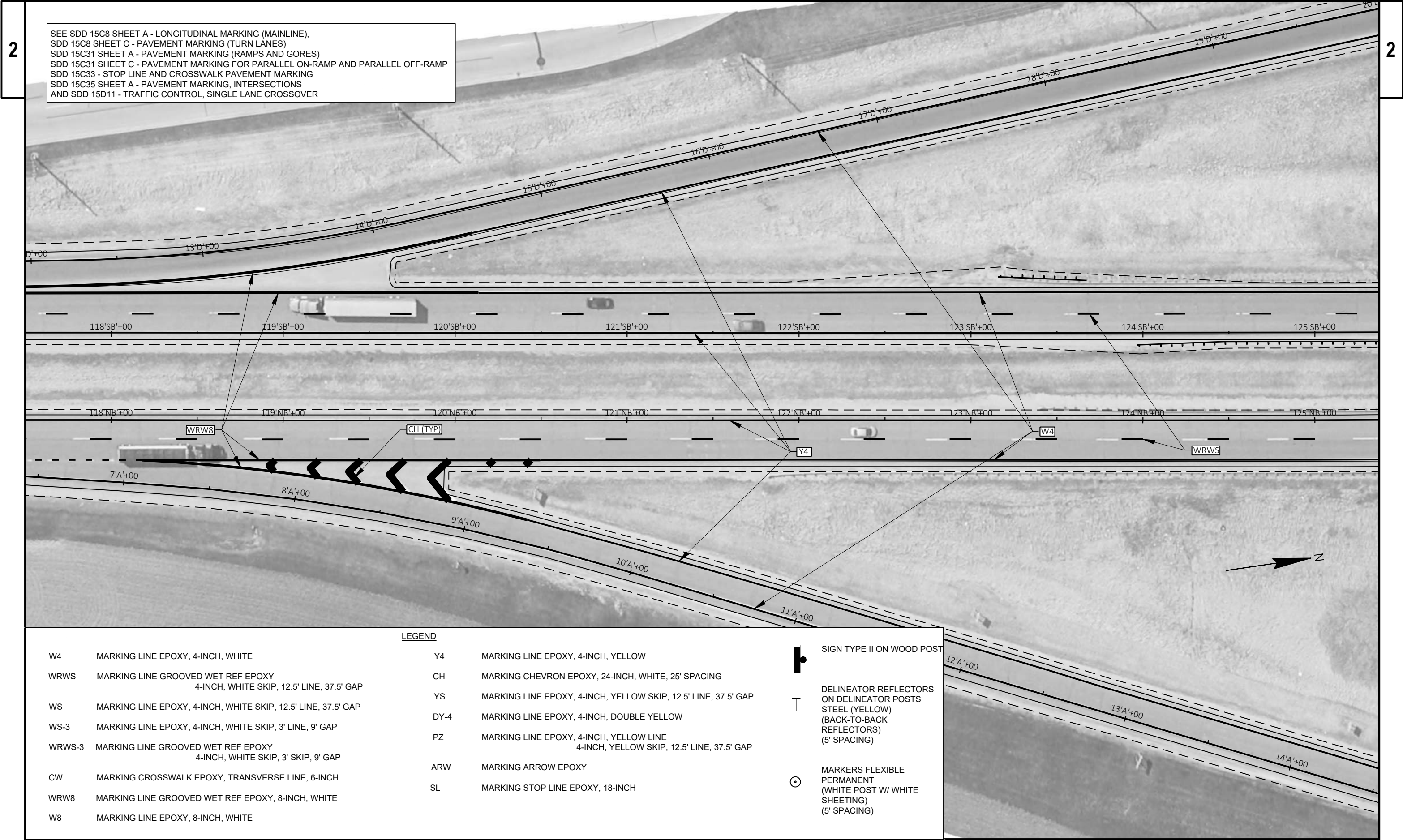
LEGEND

W4	MARKING LINE EPOXY, 4-INCH, WHITE
WRWS	MARKING LINE GROOVED WET REF EPOXY 4-INCH, WHITE SKIP, 12.5' LINE, 37.5' GAP
WS	MARKING LINE EPOXY, 4-INCH, WHITE SKIP, 12.5' LINE, 37.5' GAP
WS-3	MARKING LINE EPOXY, 4-INCH, WHITE SKIP, 3' LINE, 9' GAP
WRWS-3	MARKING LINE GROOVED WET REF EPOXY 4-INCH, WHITE SKIP, 3' SKIP, 9' GAP
CW	MARKING CROSSWALK EPOXY, TRANSVERSE LINE, 6-INCH
WRW8	MARKING LINE GROOVED WET REF EPOXY, 8-INCH, WHITE
W8	MARKING LINE EPOXY, 8-INCH, WHITE

Y4	MARKING LINE EPOXY, 4-INCH, YELLOW
CH	MARKING CHEVRON EPOXY, 24-INCH, WHITE, 25' SPACING
YS	MARKING LINE EPOXY, 4-INCH, YELLOW SKIP, 12.5' LINE, 37.5' GAP
DY-4	MARKING LINE EPOXY, 4-INCH, DOUBLE YELLOW
PZ	MARKING LINE EPOXY, 4-INCH, YELLOW LINE 4-INCH, YELLOW SKIP, 12.5' LINE, 37.5' GAP
ARW	MARKING ARROW EPOXY
SL	MARKING STOP LINE EPOXY, 18-INCH

-  SIGN TYPE II ON WOOD POST
-  DELINEATOR REFLECTORS
ON DELINEATOR POSTS
STEEL (YELLOW)
(BACK-TO-BACK
REFLECTORS)
(5' SPACING)
-  MARKERS FLEXIBLE
PERMANENT
(WHITE POST W/ WHITE
SHEETING)
(5' SPACING)

SEE SDD 15C8 SHEET A - LONGITUDINAL MARKING (MAINLINE),
SDD 15C8 SHEET C - PAVEMENT MARKING (TURN LANES)
SDD 15C31 SHEET A - PAVEMENT MARKING (RAMPS AND GORES)
SDD 15C31 SHEET C - PAVEMENT MARKING FOR PARALLEL ON-RAMP AND PARALLEL OFF-RAMP
SDD 15C33 - STOP LINE AND CROSSWALK PAVEMENT MARKING
SDD 15C35 SHEET A - PAVEMENT MARKING, INTERSECTIONS
AND SDD 15D11 - TRAFFIC CONTROL, SINGLE LANE CROSSOVER



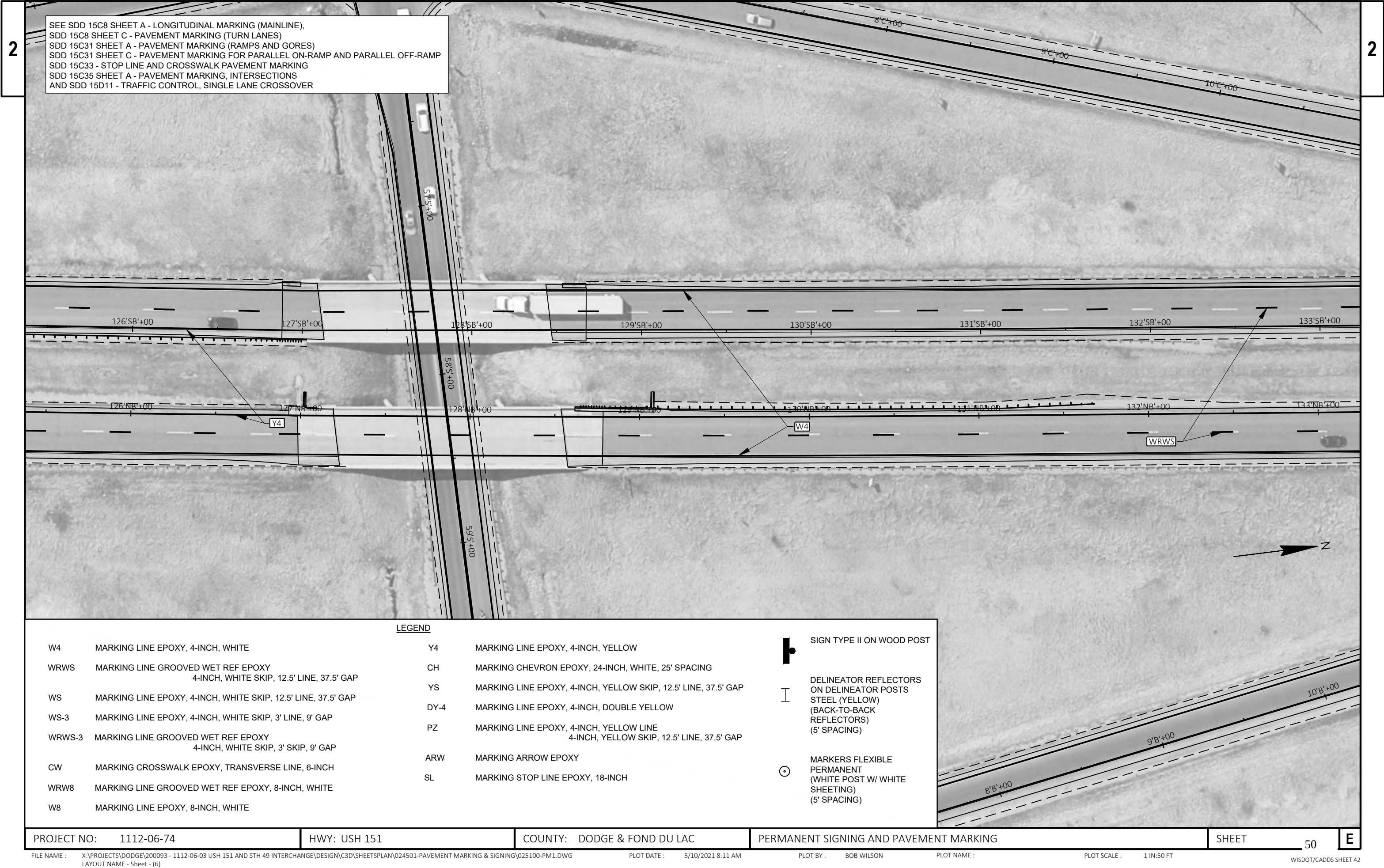
SEE SDD 15C8 SHEET A - LONGITUDINAL MARKING (MAINLINE),
SDD 15C8 SHEET C - PAVEMENT MARKING (TURN LANES)
SDD 15C31 SHEET A - PAVEMENT MARKING (RAMPS AND GORES)
SDD 15C31 SHEET C - PAVEMENT MARKING FOR PARALLEL ON-RAMP AND PARALLEL OFF-RAMP
SDD 15C33 - STOP LINE AND CROSSWALK PAVEMENT MARKING
SDD 15C35 SHEET A - PAVEMENT MARKING, INTERSECTIONS
AND SDD 15D11 - TRAFFIC CONTROL, SINGLE LANE CROSSOVER

- | | |
|--------|---|
| W4 | MARKING LINE EPOXY, 4-INCH, WHITE |
| WRWS | MARKING LINE GROOVED WET REF EPOXY
4-INCH, WHITE SKIP, 12.5' LINE, 37.5' GAP |
| WS | MARKING LINE EPOXY, 4-INCH, WHITE SKIP, 12.5' LINE, 37.5' GAP |
| WS-3 | MARKING LINE EPOXY, 4-INCH, WHITE SKIP, 3' LINE, 9' GAP |
| WRWS-3 | MARKING LINE GROOVED WET REF EPOXY
4-INCH, WHITE SKIP, 3' SKIP, 9' GAP |
| CW | MARKING CROSSWALK EPOXY, TRANSVERSE LINE, 6-INCH |
| WRW8 | MARKING LINE GROOVED WET REF EPOXY, 8-INCH, WHITE |
| W8 | MARKING LINE EPOXY, 8-INCH, WHITE |

LEGEND

- | | |
|------|---|
| Y4 | MARKING LINE EPOXY, 4-INCH, YELLOW |
| CH | MARKING CHEVRON EPOXY, 24-INCH, WHITE, 25' SPACING |
| YS | MARKING LINE EPOXY, 4-INCH, YELLOW SKIP, 12.5' LINE, 37.5' GAP |
| DY-4 | MARKING LINE EPOXY, 4-INCH, DOUBLE YELLOW |
| PZ | MARKING LINE EPOXY, 4-INCH, YELLOW LINE
4-INCH, YELLOW SKIP, 12.5' LINE, 37.5' GAP |
| ARW | MARKING ARROW EPOXY |
| SL | MARKING STOP LINE EPOXY, 18-INCH |

- | | |
|--|--|
| | SIGN TYPE II ON WOOD POST |
| | DELINEATOR REFLECTORS
ON DELINEATOR POSTS
STEEL (YELLOW)
(BACK-TO-BACK
REFLECTORS)
(5' SPACING) |
| | MARKERS FLEXIBLE
PERMANENT
(WHITE POST W/ WHITE
SHEETING)
(5' SPACING) |



SEE SDD 15C8 SHEET A - LONGITUDINAL MARKING (MAINLINE),
SDD 15C8 SHEET C - PAVEMENT MARKING (TURN LANES)
SDD 15C31 SHEET A - PAVEMENT MARKING (RAMPS AND GORES)
SDD 15C31 SHEET C - PAVEMENT MARKING FOR PARALLEL ON-RAMP AND PARALLEL OFF-RAMP
SDD 15C33 - STOP LINE AND CROSSWALK PAVEMENT MARKING
SDD 15C35 SHEET A - PAVEMENT MARKING, INTERSECTIONS
AND SDD 15D11 - TRAFFIC CONTROL, SINGLE LANE CROSSOVER

LEGEND

W4 MARKING LINE EPOXY, 4-INCH, WHITE
WRWS MARKING LINE GROOVED WET REF EPOXY
4-INCH, WHITE SKIP, 12.5' LINE, 37.5' GAP
WS MARKING LINE EPOXY, 4-INCH, WHITE SKIP, 12.5' LINE, 37.5' GAP
WS-3 MARKING LINE EPOXY, 4-INCH, WHITE SKIP, 3' LINE, 9' GAP
WRWS-3 MARKING LINE GROOVED WET REF EPOXY
4-INCH, WHITE SKIP, 3' SKIP, 9' GAP
CW MARKING CROSSWALK EPOXY, TRANSVERSE LINE, 6-INCH
WRW8 MARKING LINE GROOVED WET REF EPOXY, 8-INCH, WHITE
W8 MARKING LINE EPOXY, 8-INCH, WHITE

Y4 MARKING LINE EPOXY, 4-INCH, YELLOW
CH MARKING CHEVRON EPOXY, 24-INCH, WHITE, 25' SPACING
YS MARKING LINE EPOXY, 4-INCH, YELLOW SKIP, 12.5' LINE, 37.5' GAP
DY-4 MARKING LINE EPOXY, 4-INCH, DOUBLE YELLOW
PZ MARKING LINE EPOXY, 4-INCH, YELLOW LINE
4-INCH, YELLOW SKIP, 12.5' LINE, 37.5' GAP
ARW MARKING ARROW EPOXY
SL MARKING STOP LINE EPOXY, 18-INCH

 SIGN TYPE II ON WOOD POST
 DELINEATOR REFLECTORS
ON DELINEATOR POSTS
STEEL (YELLOW)
(BACK-TO-BACK
REFLECTORS)
(5' SPACING)
 MARKERS FLEXIBLE
PERMANENT
(WHITE POST W/ WHITE
SHEETING)
(5' SPACING)



LEGEND			
W4	MARKING LINE EPOXY, 4-INCH, WHITE	Y4	MARKING LINE EPOXY, 4-INCH, YELLOW
WRWS	MARKING LINE GROOVED WET REF EPOXY 4-INCH, WHITE SKIP, 12.5' LINE, 37.5' GAP	CH	MARKING CHEVRON EPOXY, 24-INCH, WHITE, 25' SPACING
WS	MARKING LINE EPOXY, 4-INCH, WHITE SKIP, 12.5' LINE, 37.5' GAP	YS	MARKING LINE EPOXY, 4-INCH, YELLOW SKIP, 12.5' LINE, 37.5' GAP
WS-3	MARKING LINE EPOXY, 4-INCH, WHITE SKIP, 3' LINE, 9' GAP	DY-4	MARKING LINE EPOXY, 4-INCH, DOUBLE YELLOW
WRWS-3	MARKING LINE GROOVED WET REF EPOXY 4-INCH, WHITE SKIP, 3' SKIP, 9' GAP	PZ	MARKING LINE EPOXY, 4-INCH, YELLOW LINE 4-INCH, YELLOW SKIP, 12.5' LINE, 37.5' GAP
CW	MARKING CROSSWALK EPOXY, TRANSVERSE LINE, 6-INCH	ARW	MARKING ARROW EPOXY
WRW8	MARKING LINE GROOVED WET REF EPOXY, 8-INCH, WHITE	SL	MARKING STOP LINE EPOXY, 18-INCH
W8	MARKING LINE EPOXY, 8-INCH, WHITE		



SIGN TYPE II ON WOOD POST



DELINEATOR REFLECTORS
ON DELINEATOR POSTS
STEEL (YELLOW)
(BACK-TO-BACK
REFLECTORS)
(5' SPACING)



MARKERS FLEXIBLE
PERMANENT
(WHITE POST W/ WHITE
SHEETING)
(5' SPACING)

SEE SDD 15C8 SHEET A - LONGITUDINAL MARKING (MAINLINE),
SDD 15C8 SHEET C - PAVEMENT MARKING (TURN LANES)
SDD 15C31 SHEET A - PAVEMENT MARKING (RAMPS AND GORES)
SDD 15C31 SHEET C - PAVEMENT MARKING FOR PARALLEL ON-RAMP AND PARALLEL OFF-RAMP
SDD 15C33 - STOP LINE AND CROSSWALK PAVEMENT MARKING
SDD 15C35 SHEET A - PAVEMENT MARKING, INTERSECTIONS
AND SDD 15D11 - TRAFFIC CONTROL, SINGLE LANE CROSSOVER

PROJECT NO: 1112-06-74

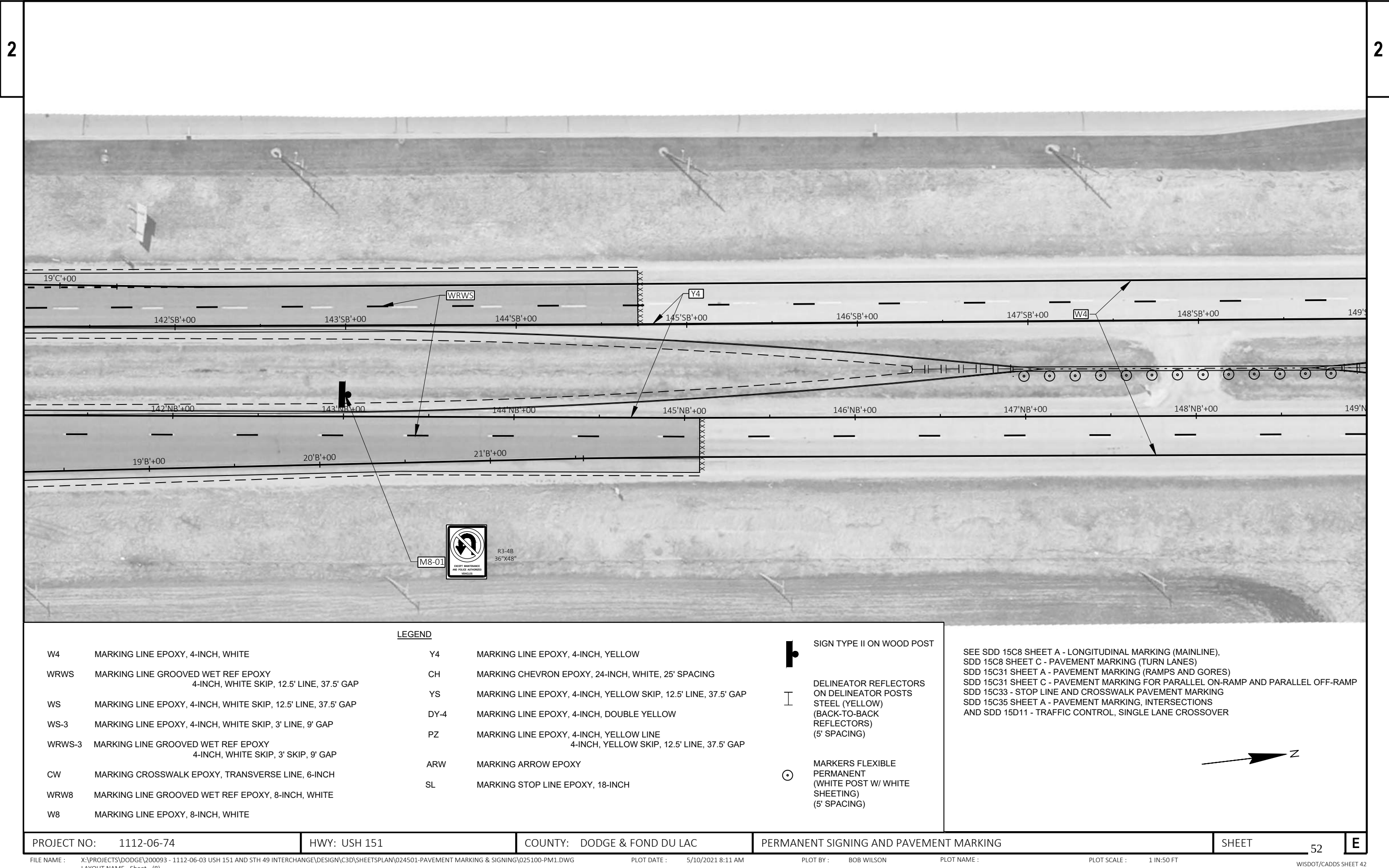
HWY: USH 151

COUNTY: DODGE & FOND DU LAC

PERMANENT SIGNING AND PAVEMENT MARKING

SHEET 51

E





SEE SDD 15C8 SHEET A - LONGITUDINAL MARKING (MAINLINE),
SDD 15C8 SHEET C - PAVEMENT MARKING (TURN LANES)
SDD 15C31 SHEET A - PAVEMENT MARKING (RAMPS AND GORES)
SDD 15C31 SHEET C - PAVEMENT MARKING FOR PARALLEL ON-RAMP AND PARALLEL OFF-RAMP
SDD 15C33 - STOP LINE AND CROSSWALK PAVEMENT MARKING
SDD 15C35 SHEET A - PAVEMENT MARKING, INTERSECTIONS
AND SDD 15D11 - TRAFFIC CONTROL, SINGLE LANE CROSSOVER





LEGEND

W4	MARKING LINE EPOXY, 4-INCH, WHITE
WRWS	MARKING LINE GROOVED WET REF EPOXY 4-INCH, WHITE SKIP, 12.5' LINE, 37.5' GAP
WS	MARKING LINE EPOXY, 4-INCH, WHITE SKIP, 12.5' LINE, 37.5' GAP
WS-3	MARKING LINE EPOXY, 4-INCH, WHITE SKIP, 3' LINE, 9' GAP
WRWS-3	MARKING LINE GROOVED WET REF EPOXY 4-INCH, WHITE SKIP, 3' SKIP, 9' GAP
CW	MARKING CROSSWALK EPOXY, TRANSVERSE LINE, 6-INCH
WRW8	MARKING LINE GROOVED WET REF EPOXY, 8-INCH, WHITE
W8	MARKING LINE EPOXY, 8-INCH, WHITE

Y4	MARKING LINE EPOXY, 4-INCH, YELLOW
CH	MARKING CHEVRON EPOXY, 24-INCH, WHITE, 25' SPACING
YS	MARKING LINE EPOXY, 4-INCH, YELLOW SKIP, 12.5' LINE, 37.5' GAP
DY-4	MARKING LINE EPOXY, 4-INCH, DOUBLE YELLOW
PZ	MARKING LINE EPOXY, 4-INCH, YELLOW LINE 4-INCH, YELLOW SKIP, 12.5' LINE, 37.5' GAP
ARW	MARKING ARROW EPOXY
SL	MARKING STOP LINE EPOXY, 18-INCH

	SIGN TYPE II ON WOOD POST
	DELINEATOR REFLECTORS ON DELINEATOR POSTS STEEL (YELLOW) (BACK-TO-BACK REFLECTORS) (5' SPACING)
	MARKERS FLEXIBLE PERMANENT (WHITE POST W/ WHITE SHEETING) (5' SPACING)



W4

MARKING LINE EPOXY, 4-INCH, WHITE

WRWS

MARKING LINE GROOVED WET REF EPOXY
4-INCH, WHITE SKIP, 12.5' LINE, 37.5' GAP

WS

MARKING LINE EPOXY, 4-INCH, WHITE SKIP, 12.5' LINE, 37.5' GAP

WS-3

MARKING LINE EPOXY, 4-INCH, WHITE SKIP, 3' LINE, 9' GAP

WRWS-3

MARKING LINE GROOVED WET REF EPOXY
4-INCH, WHITE SKIP, 3' SKIP, 9' GAP

CW

MARKING CROSSWALK EPOXY, TRANSVERSE LINE, 6-INCH

WRW8

MARKING LINE GROOVED WET REF EPOXY, 8-INCH, WHITE

W8

MARKING LINE EPOXY, 8-INCH, WHITE

LEGEND

Y4

MARKING LINE EPOXY, 4-INCH, YELLOW

CH

MARKING CHEVRON EPOXY, 24-INCH, WHITE, 25' SPACING

YS

MARKING LINE EPOXY, 4-INCH, YELLOW SKIP, 12.5' LINE, 37.5' GAP

DY-4

MARKING LINE EPOXY, 4-INCH, DOUBLE YELLOW

PZ

MARKING LINE EPOXY, 4-INCH, YELLOW LINE
4-INCH, YELLOW SKIP, 12.5' LINE, 37.5' GAP

ARW

MARKING ARROW EPOXY

SL

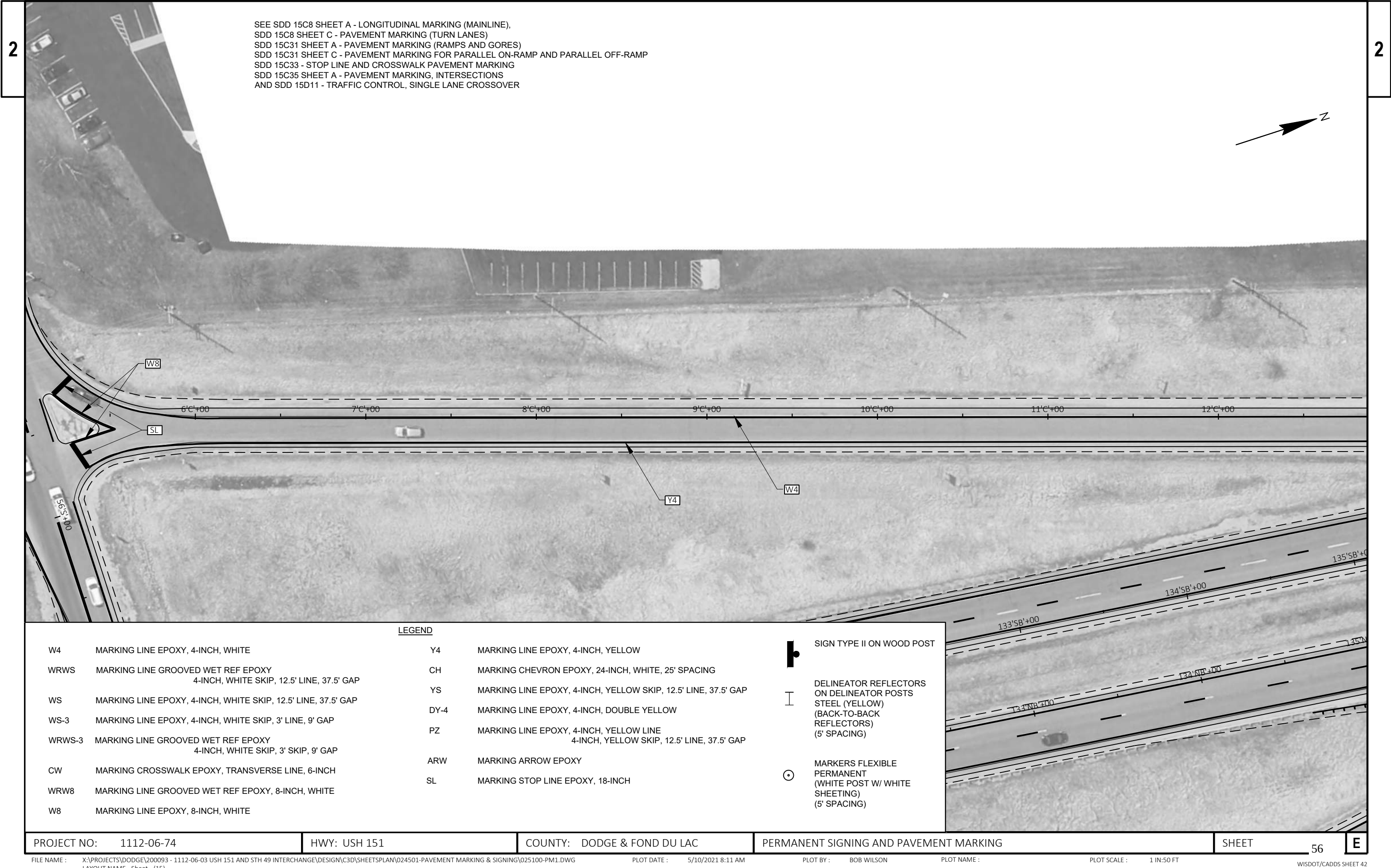
MARKING STOP LINE EPOXY, 18-INCH

SIGN TYPE II ON WOOD POST

DELINEATOR REFLECTORS
ON DELINEATOR POSTS
STEEL (YELLOW)
(BACK-TO-BACK
REFLECTORS)
(5' SPACING)

MARKERS FLEXIBLE
PERMANENT
(WHITE POST W/ WHITE
SHEETING)
(5' SPACING)

SEE SDD 15C8 SHEET A - LONGITUDINAL MARKING (MAINLINE),
SDD 15C8 SHEET C - PAVEMENT MARKING (TURN LANES)
SDD 15C31 SHEET A - PAVEMENT MARKING (RAMPS AND GORES)
SDD 15C31 SHEET C - PAVEMENT MARKING FOR PARALLEL ON-RAMP AND PARALLEL OFF-RAMP
SDD 15C33 - STOP LINE AND CROSSWALK PAVEMENT MARKING
SDD 15C35 SHEET A - PAVEMENT MARKING, INTERSECTIONS
AND SDD 15D11 - TRAFFIC CONTROL, SINGLE LANE CROSSOVER



SEE SDD 15C8 SHEET A - LONGITUDINAL MARKING (MAINLINE),
SDD 15C8 SHEET C - PAVEMENT MARKING (TURN LANES)
SDD 15C31 SHEET A - PAVEMENT MARKING (RAMPS AND GORES)
SDD 15C31 SHEET C - PAVEMENT MARKING FOR PARALLEL ON-RAMP AND PARALLEL OFF-RAMP
SDD 15C33 - STOP LINE AND CROSSWALK PAVEMENT MARKING
SDD 15C35 SHEET A - PAVEMENT MARKING, INTERSECTIONS
AND SDD 15D11 - TRAFFIC CONTROL, SINGLE LANE CROSSOVER

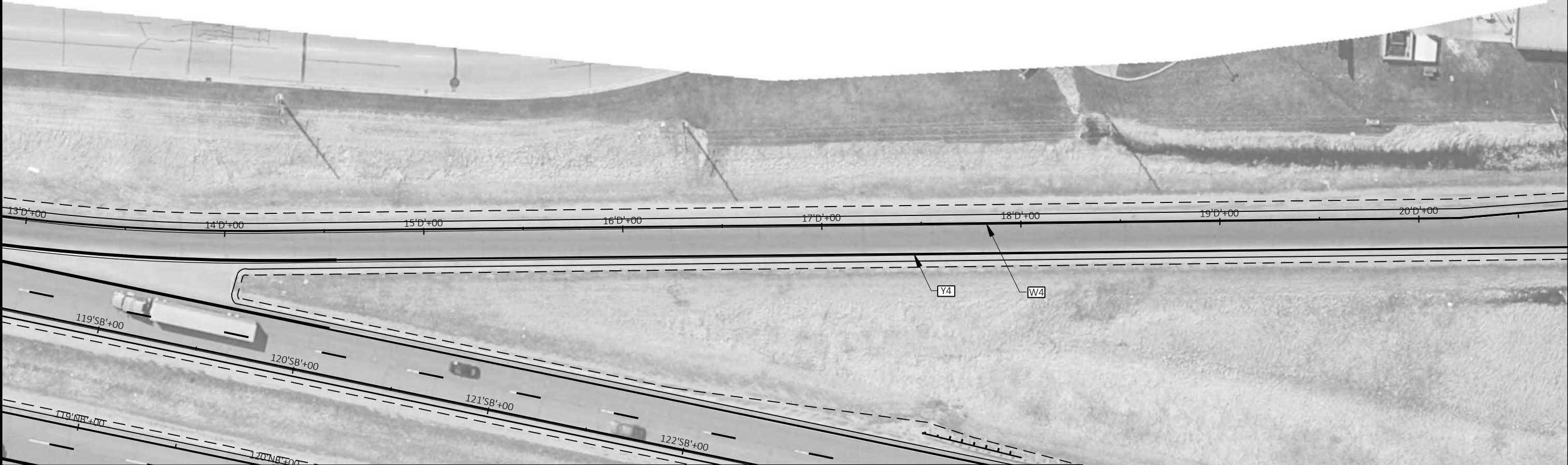
LEGEND

W4 MARKING LINE EPOXY, 4-INCH, WHITE
WRWS MARKING LINE GROOVED WET REF EPOXY
4-INCH, WHITE SKIP, 12.5' LINE, 37.5' GAP
WS MARKING LINE EPOXY, 4-INCH, WHITE SKIP, 12.5' LINE, 37.5' GAP
WS-3 MARKING LINE EPOXY, 4-INCH, WHITE SKIP, 3' LINE, 9' GAP
WRWS-3 MARKING LINE GROOVED WET REF EPOXY
4-INCH, WHITE SKIP, 3' SKIP, 9' GAP
CW MARKING CROSSWALK EPOXY, TRANSVERSE LINE, 6-INCH
WRW8 MARKING LINE GROOVED WET REF EPOXY, 8-INCH, WHITE
W8 MARKING LINE EPOXY, 8-INCH, WHITE

Y4 MARKING LINE EPOXY, 4-INCH, YELLOW
CH MARKING CHEVRON EPOXY, 24-INCH, WHITE, 25' SPACING
YS MARKING LINE EPOXY, 4-INCH, YELLOW SKIP, 12.5' LINE, 37.5' GAP
DY-4 MARKING LINE EPOXY, 4-INCH, DOUBLE YELLOW
PZ MARKING LINE EPOXY, 4-INCH, YELLOW LINE
4-INCH, YELLOW SKIP, 12.5' LINE, 37.5' GAP
ARW MARKING ARROW EPOXY
SL MARKING STOP LINE EPOXY, 18-INCH

 SIGN TYPE II ON WOOD POST
 DELINEATOR REFLECTORS
ON DELINEATOR POSTS
STEEL (YELLOW)
(BACK-TO-BACK
REFLECTORS)
(5' SPACING)
 MARKERS FLEXIBLE
PERMANENT
(WHITE POST W/ WHITE
SHEETING)
(5' SPACING)

SEE SDD 15C8 SHEET A - LONGITUDINAL MARKING (MAINLINE),
SDD 15C8 SHEET C - PAVEMENT MARKING (TURN LANES)
SDD 15C31 SHEET A - PAVEMENT MARKING (RAMPS AND GORES)
SDD 15C31 SHEET C - PAVEMENT MARKING FOR PARALLEL ON-RAMP AND PARALLEL OFF-RAMP
SDD 15C33 - STOP LINE AND CROSSWALK PAVEMENT MARKING
SDD 15C35 SHEET A - PAVEMENT MARKING, INTERSECTIONS
AND SDD 15D11 - TRAFFIC CONTROL, SINGLE LANE CROSSOVER

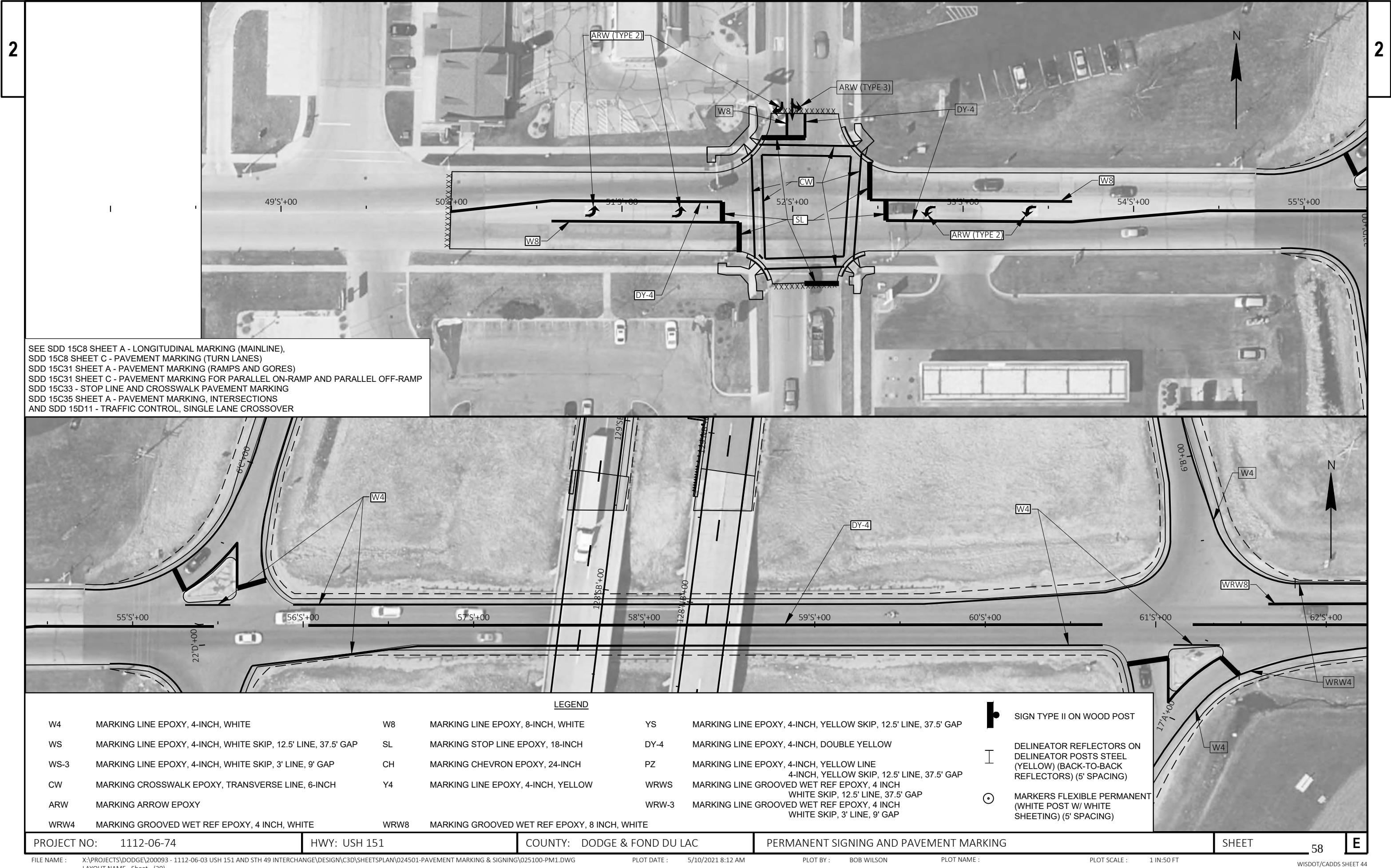


LEGEND

W4	MARKING LINE EPOXY, 4-INCH, WHITE
WRWS	MARKING LINE GROOVED WET REF EPOXY 4-INCH, WHITE SKIP, 12.5' LINE, 37.5' GAP
WS	MARKING LINE EPOXY, 4-INCH, WHITE SKIP, 12.5' LINE, 37.5' GAP
WS-3	MARKING LINE EPOXY, 4-INCH, WHITE SKIP, 3' LINE, 9' GAP
WRWS-3	MARKING LINE GROOVED WET REF EPOXY 4-INCH, WHITE SKIP, 3' SKIP, 9' GAP
CW	MARKING CROSSWALK EPOXY, TRANSVERSE LINE, 6-INCH
WRW8	MARKING LINE GROOVED WET REF EPOXY, 8-INCH, WHITE

Y4	MARKING LINE EPOXY, 4-INCH, YELLOW
CH	MARKING CHEVRON EPOXY, 24-INCH, WHITE, 25' SPACING
YS	MARKING LINE EPOXY, 4-INCH, YELLOW SKIP, 12.5' LINE, 37.5' GAP
DY-4	MARKING LINE EPOXY, 4-INCH, DOUBLE YELLOW
PZ	MARKING LINE EPOXY, 4-INCH, YELLOW LINE 4-INCH, YELLOW SKIP, 12.5' LINE, 37.5' GAP
ARW	MARKING ARROW EPOXY
SL	MARKING STOP LINE EPOXY, 18-INCH
W8	MARKING LINE EPOXY, 8-INCH, WHITE

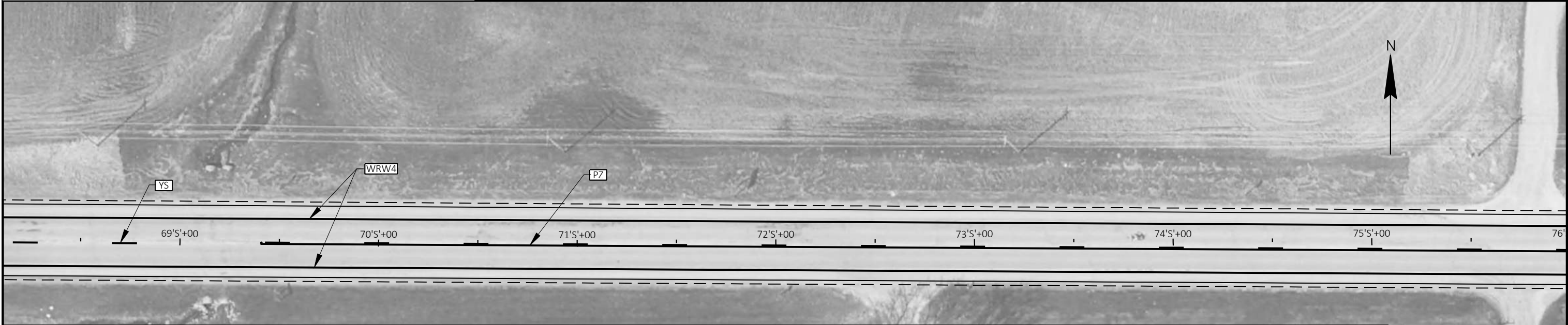
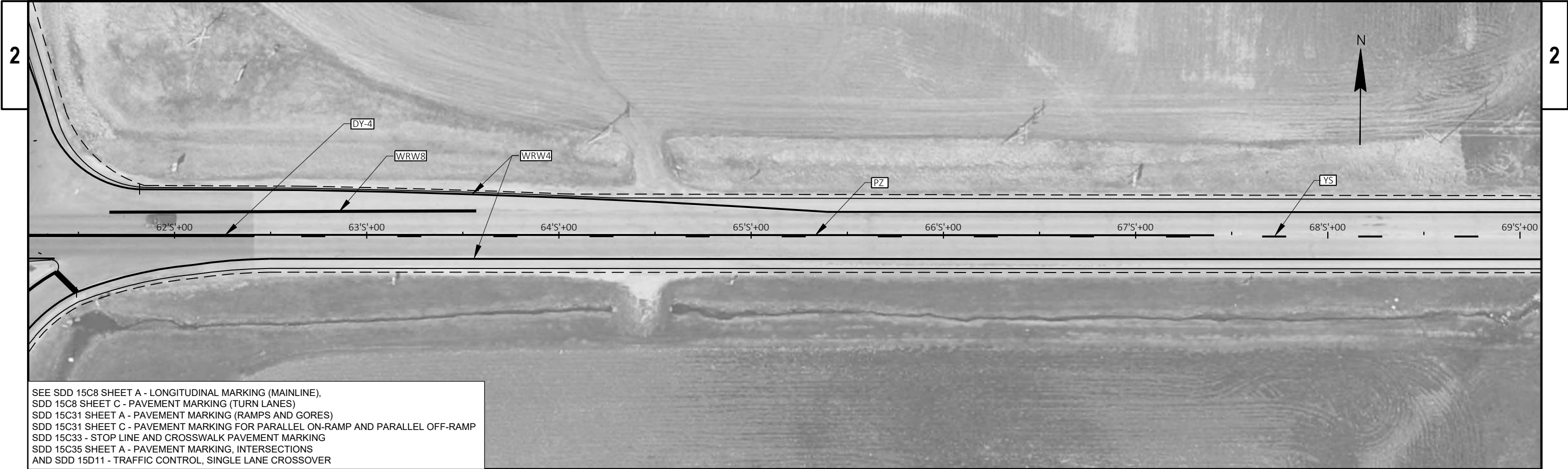
-  SIGN TYPE II ON WOOD POST
-  DELINEATOR REFLECTORS
ON DELINEATOR POSTS
STEEL (YELLOW)
(BACK-TO-BACK
REFLECTORS)
(5' SPACING)
-  MARKERS FLEXIBLE
PERMANENT
(WHITE POST W/ WHITE
SHEETING)
(5' SPACING)



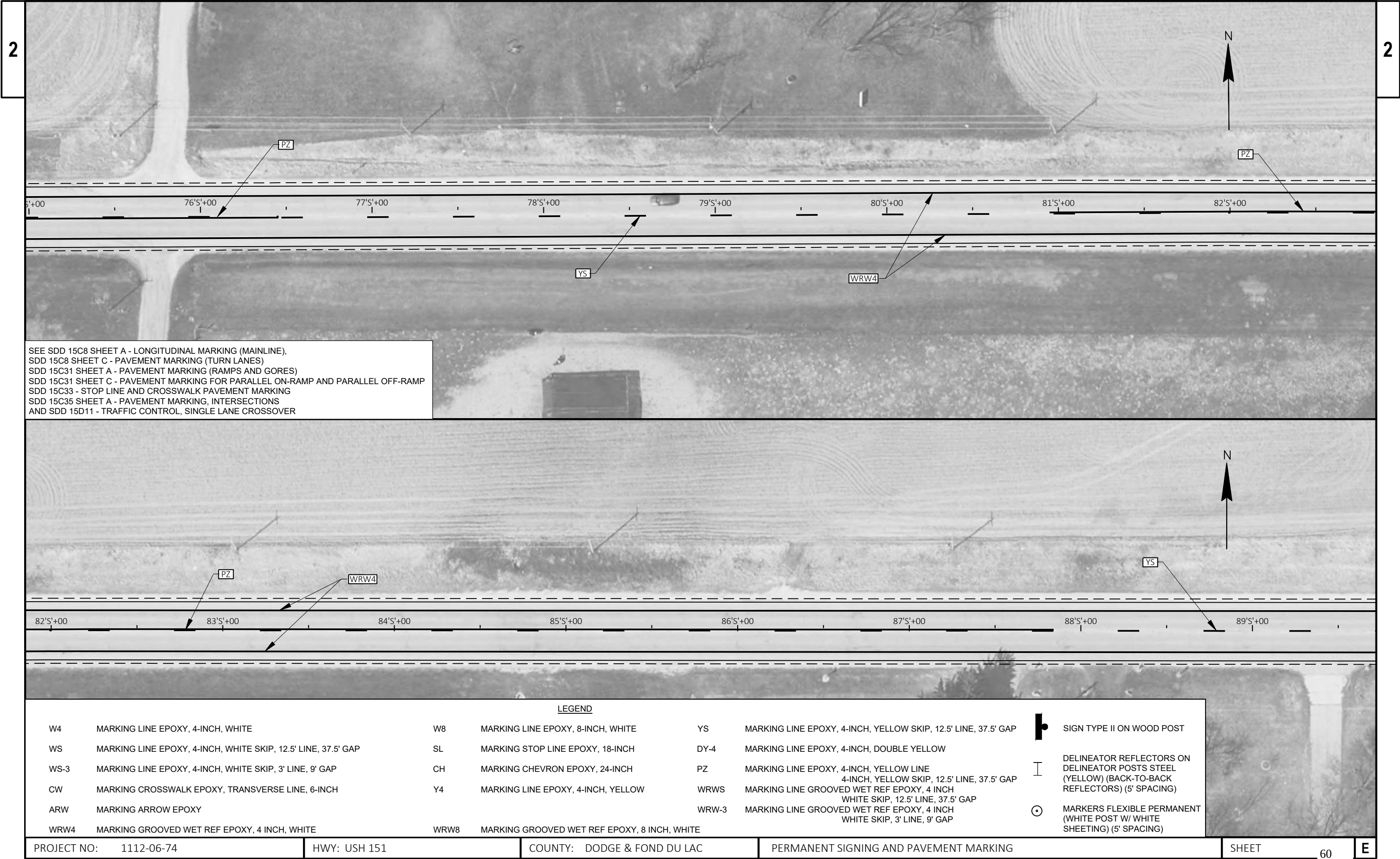
SEE SDD 15C8 SHEET A - LONGITUDINAL MARKING (MAINLINE),
SDD 15C8 SHEET C - PAVEMENT MARKING (TURN LANES)
SDD 15C31 SHEET A - PAVEMENT MARKING (RAMPS AND GORES)
SDD 15C31 SHEET C - PAVEMENT MARKING FOR PARALLEL ON-RAMP AND PARALLEL OFF-RAMP
SDD 15C33 - STOP LINE AND CROSSWALK PAVEMENT MARKING
SDD 15C35 SHEET A - PAVEMENT MARKING, INTERSECTIONS
AND SDD 15D11 - TRAFFIC CONTROL, SINGLE LANE CROSSOVER

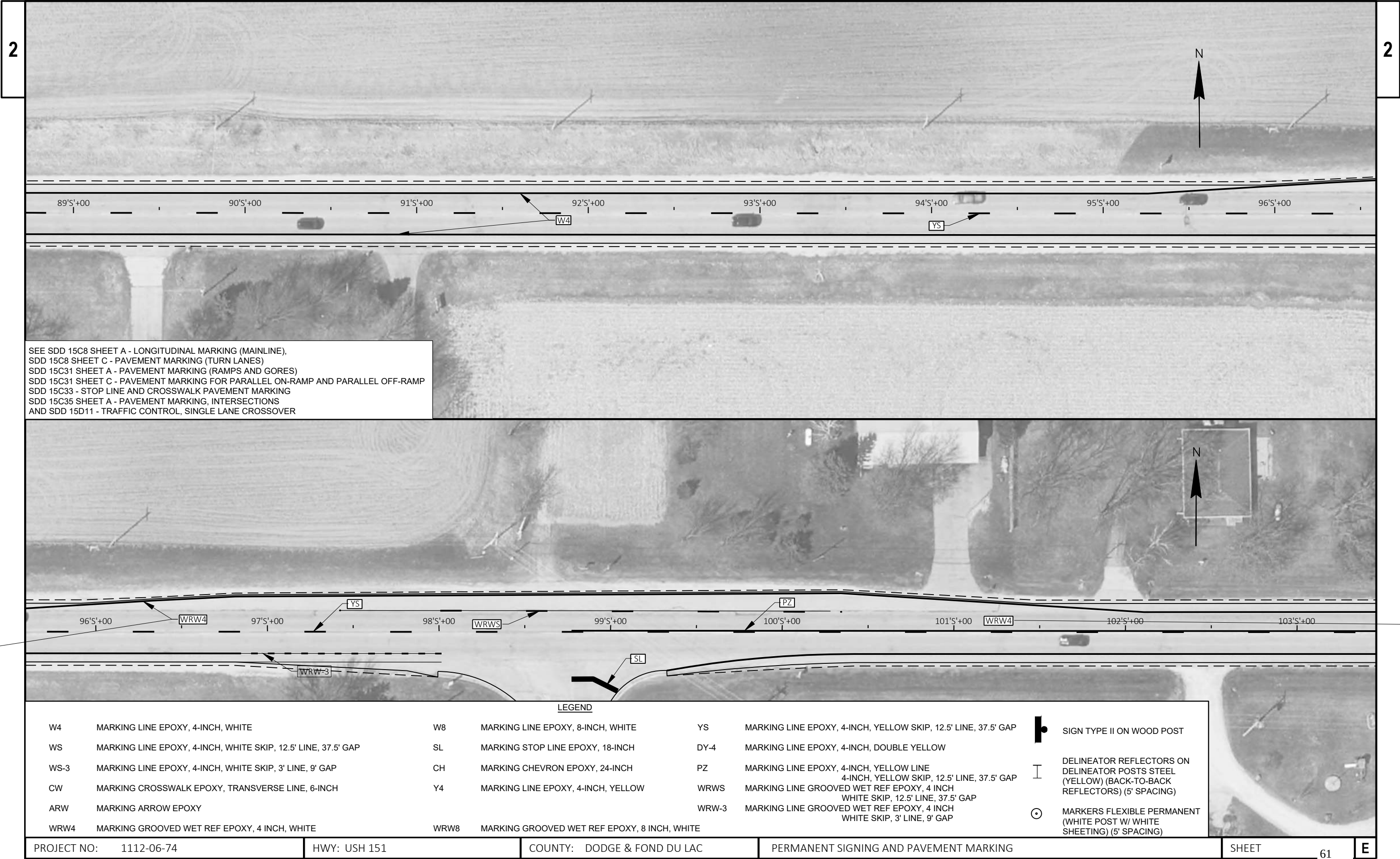
LEGEND					
W4	MARKING LINE EPOXY, 4-INCH, WHITE	W8	MARKING LINE EPOXY, 8-INCH, WHITE	YS	MARKING LINE EPOXY, 4-INCH, YELLOW SKIP, 12.5' LINE, 37.5' GAP
WS	MARKING LINE EPOXY, 4-INCH, WHITE SKIP, 12.5' LINE, 37.5' GAP	SL	MARKING STOP LINE EPOXY, 18-INCH	DY-4	MARKING LINE EPOXY, 4-INCH, DOUBLE YELLOW
WS-3	MARKING LINE EPOXY, 4-INCH, WHITE SKIP, 3' LINE, 9' GAP	CH	MARKING CHEVRON EPOXY, 24-INCH	PZ	MARKING LINE EPOXY, 4-INCH, YELLOW LINE
CW	MARKING CROSSWALK EPOXY, TRANSVERSE LINE, 6-INCH	Y4	MARKING LINE EPOXY, 4-INCH, YELLOW	WRWS	MARKING LINE GROOVED WET REF EPOXY, 4 INCH WHITE SKIP, 12.5' LINE, 37.5' GAP
ARW	MARKING ARROW EPOXY			WRW-3	MARKING LINE GROOVED WET REF EPOXY, 4 INCH WHITE SKIP, 3' LINE, 9' GAP
WRW4	MARKING GROOVED WET REF EPOXY, 4 INCH, WHITE	WRW8	MARKING GROOVED WET REF EPOXY, 8 INCH, WHITE		

- SIGN TYPE II ON WOOD POST
- DELINEATOR REFLECTORS ON DELINEATOR POSTS STEEL (YELLOW) (BACK-TO-BACK REFLECTORS) (5' SPACING)
- MARKERS FLEXIBLE PERMANENT (WHITE POST W/ WHITE SHEETING) (5' SPACING)



LEGEND							
W4	MARKING LINE EPOXY, 4-INCH, WHITE	W8	MARKING LINE EPOXY, 8-INCH, WHITE	YS	MARKING LINE EPOXY, 4-INCH, YELLOW SKIP, 12.5' LINE, 37.5' GAP		SIGN TYPE II ON WOOD POST
WS	MARKING LINE EPOXY, 4-INCH, WHITE SKIP, 12.5' LINE, 37.5' GAP	SL	MARKING STOP LINE EPOXY, 18-INCH	DY-4	MARKING LINE EPOXY, 4-INCH, DOUBLE YELLOW		
WS-3	MARKING LINE EPOXY, 4-INCH, WHITE SKIP, 3' LINE, 9' GAP	CH	MARKING CHEVRON EPOXY, 24-INCH	PZ	MARKING LINE EPOXY, 4-INCH, YELLOW LINE 4-INCH, YELLOW SKIP, 12.5' LINE, 37.5' GAP		DELINEATOR REFLECTORS ON DELINEATOR POSTS STEEL (YELLOW) (BACK-TO-BACK REFLECTORS) (5' SPACING)
CW	MARKING CROSSWALK EPOXY, TRANSVERSE LINE, 6-INCH	Y4	MARKING LINE EPOXY, 4-INCH, YELLOW	WRWS	MARKING LINE GROOVED WET REF EPOXY, 4 INCH WHITE SKIP, 12.5' LINE, 37.5' GAP		
ARW	MARKING ARROW EPOXY			WRW-3	MARKING LINE GROOVED WET REF EPOXY, 4 INCH WHITE SKIP, 3' LINE, 9' GAP		MARKERS FLEXIBLE PERMANENT (WHITE POST W/ WHITE SHEETING) (5' SPACING)
WRW4	MARKING GROOVED WET REF EPOXY, 4 INCH, WHITE	WRW8	MARKING GROOVED WET REF EPOXY, 8 INCH, WHITE				
PROJECT NO: 1112-06-74		HWY: USH 151		COUNTY: DODGE & FOND DU LAC		PERMANENT SIGNING AND PAVEMENT MARKING	
						SHEET 59	
						E	

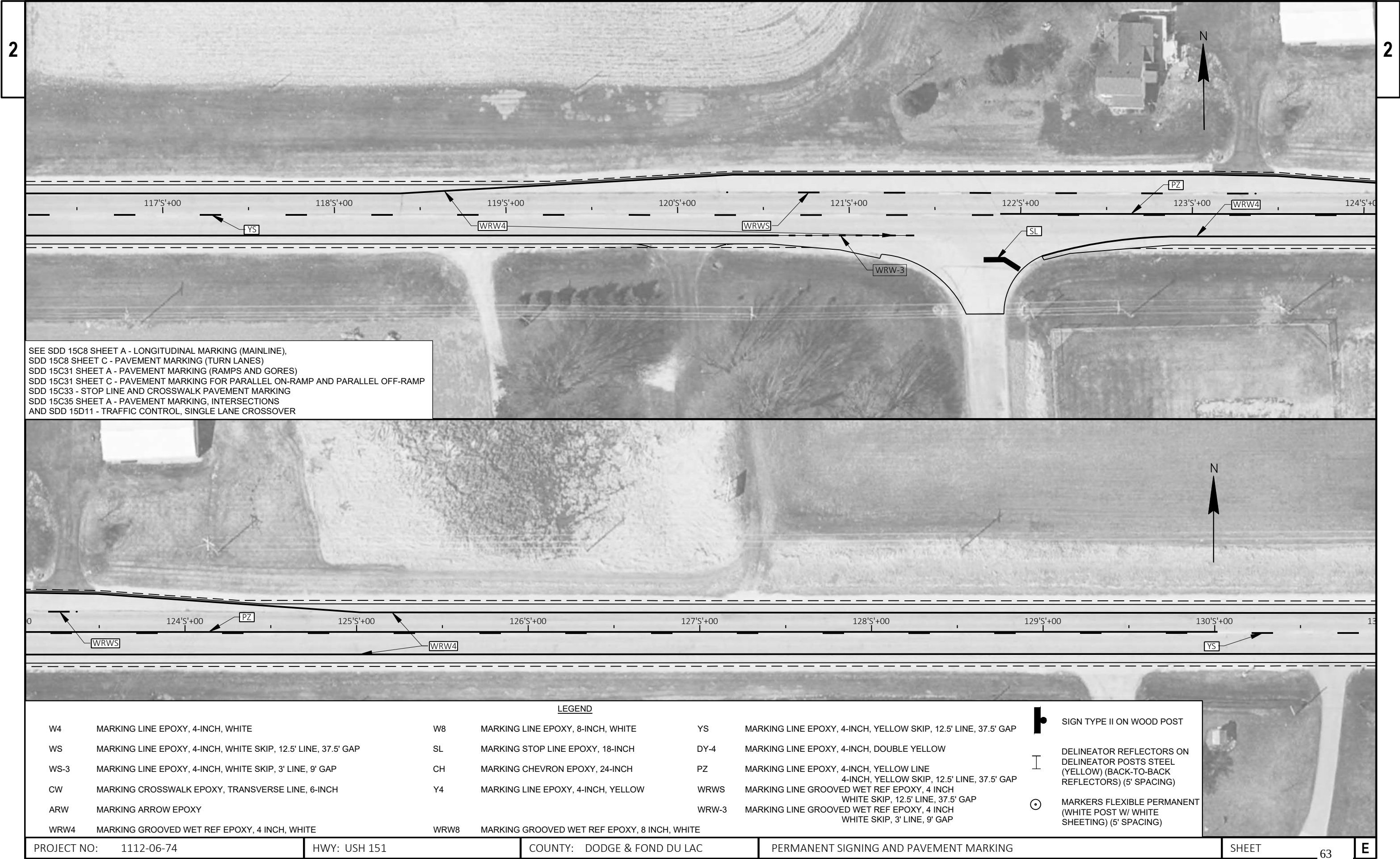




SEE SDD 15C8 SHEET A - LONGITUDINAL MARKING (MAINLINE),
SDD 15C8 SHEET C - PAVEMENT MARKING (TURN LANES)
SDD 15C31 SHEET A - PAVEMENT MARKING (RAMPS AND GORES)
SDD 15C31 SHEET C - PAVEMENT MARKING FOR PARALLEL ON-RAMP AND PARALLEL OFF-RAMP
SDD 15C33 - STOP LINE AND CROSSWALK PAVEMENT MARKING
SDD 15C35 SHEET A - PAVEMENT MARKING, INTERSECTIONS
AND SDD 15D11 - TRAFFIC CONTROL, SINGLE LANE CROSSOVER

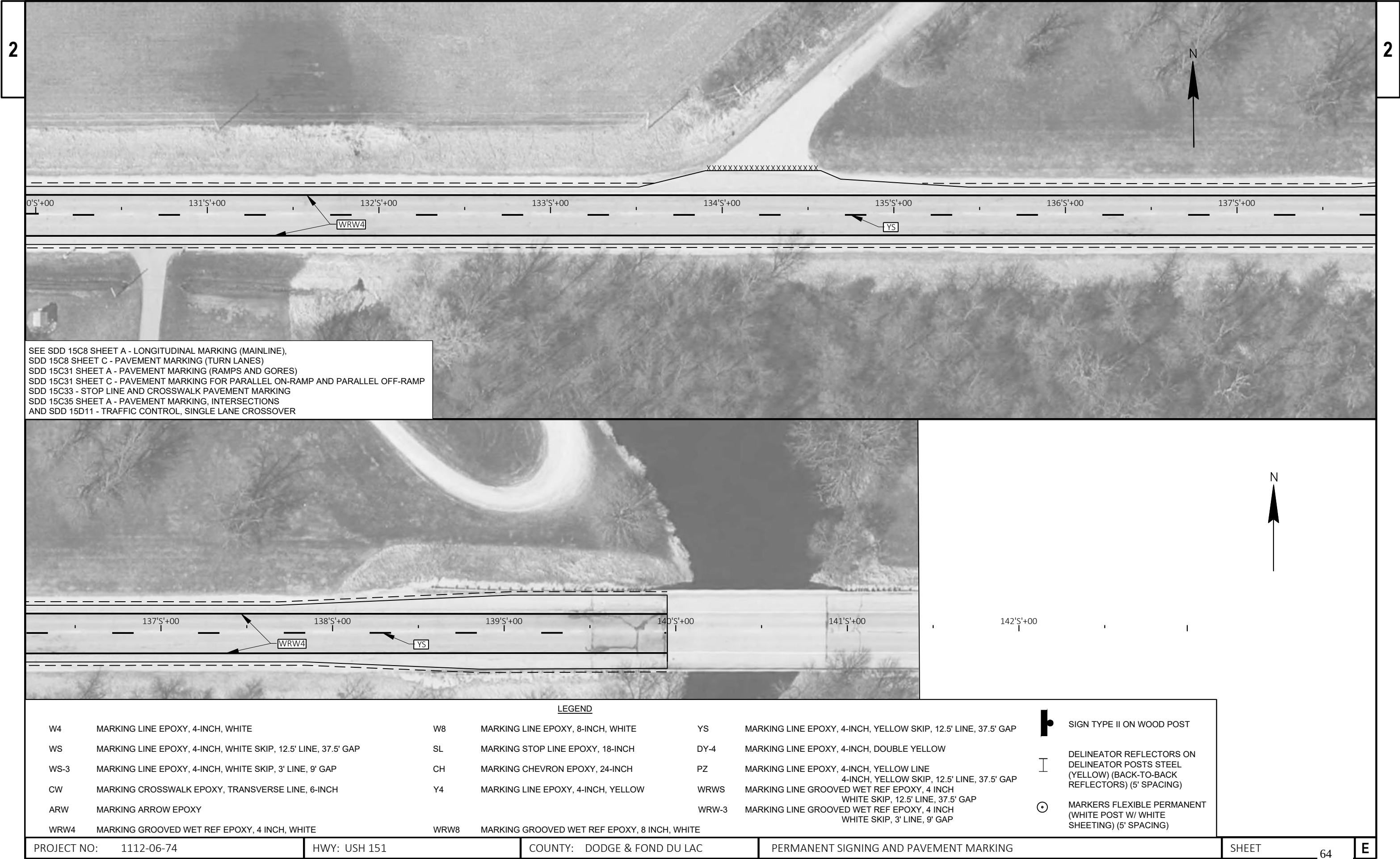
LEGEND					
W4	MARKING LINE EPOXY, 4-INCH, WHITE	W8	MARKING LINE EPOXY, 8-INCH, WHITE	YS	MARKING LINE EPOXY, 4-INCH, YELLOW SKIP, 12.5' LINE, 37.5' GAP
WS	MARKING LINE EPOXY, 4-INCH, WHITE SKIP, 12.5' LINE, 37.5' GAP	SL	MARKING STOP LINE EPOXY, 18-INCH	DY-4	MARKING LINE EPOXY, 4-INCH, DOUBLE YELLOW
WS-3	MARKING LINE EPOXY, 4-INCH, WHITE SKIP, 3' LINE, 9' GAP	CH	MARKING CHEVRON EPOXY, 24-INCH	PZ	MARKING LINE EPOXY, 4-INCH, YELLOW LINE 4-INCH, YELLOW SKIP, 12.5' LINE, 37.5' GAP
CW	MARKING CROSSWALK EPOXY, TRANSVERSE LINE, 6-INCH	Y4	MARKING LINE EPOXY, 4-INCH, YELLOW	WRWS	MARKING LINE GROOVED WET REF EPOXY, 4 INCH WHITE SKIP, 12.5' LINE, 37.5' GAP
ARW	MARKING ARROW EPOXY			WRW-3	MARKING LINE GROOVED WET REF EPOXY, 4 INCH WHITE SKIP, 3' LINE, 9' GAP
WRW4	MARKING GROOVED WET REF EPOXY, 4 INCH, WHITE	WRW8	MARKING GROOVED WET REF EPOXY, 8 INCH, WHITE		
					 SIGN TYPE II ON WOOD POST
					 DELINEATOR REFLECTORS ON DELINEATOR POSTS STEEL (YELLOW) (BACK-TO-BACK REFLECTORS) (5' SPACING)
					 MARKERS FLEXIBLE PERMANENT (WHITE POST W/ WHITE SHEETING) (5' SPACING)

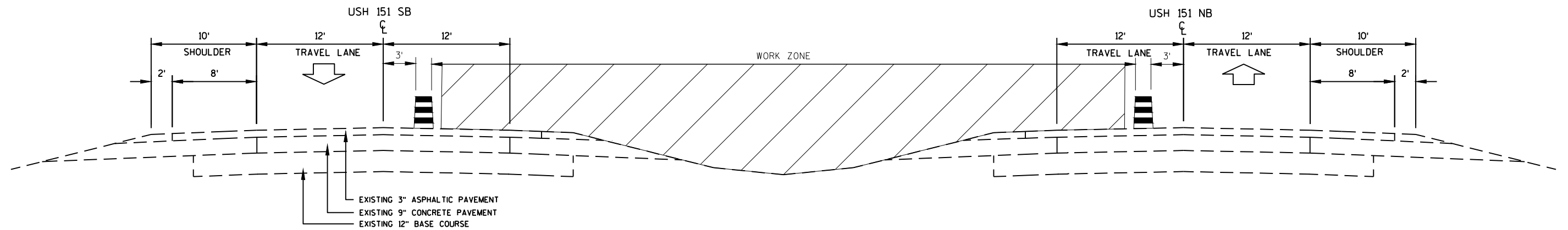




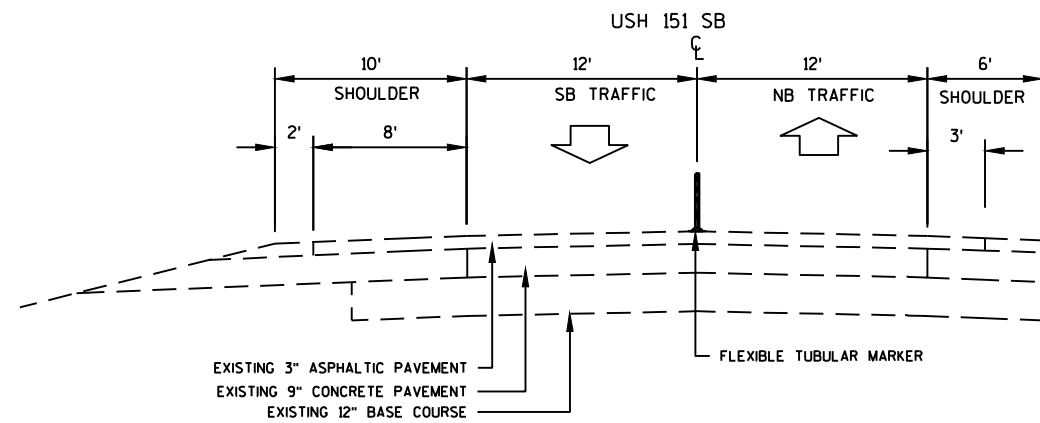
SEE SDD 15C8 SHEET A - LONGITUDINAL MARKING (MAINLINE),
SDD 15C8 SHEET C - PAVEMENT MARKING (TURN LANES)
SDD 15C31 SHEET A - PAVEMENT MARKING (RAMPS AND GORES)
SDD 15C31 SHEET C - PAVEMENT MARKING FOR PARALLEL ON-RAMP AND PARALLEL OFF-RAMP
SDD 15C33 - STOP LINE AND CROSSWALK PAVEMENT MARKING
SDD 15C35 SHEET A - PAVEMENT MARKING, INTERSECTIONS
AND SDD 15D11 - TRAFFIC CONTROL, SINGLE LANE CROSSOVER

LEGEND					
W4	MARKING LINE EPOXY, 4-INCH, WHITE	W8	MARKING LINE EPOXY, 8-INCH, WHITE	YS	MARKING LINE EPOXY, 4-INCH, YELLOW SKIP, 12.5' LINE, 37.5' GAP
WS	MARKING LINE EPOXY, 4-INCH, WHITE SKIP, 12.5' LINE, 37.5' GAP	SL	MARKING STOP LINE EPOXY, 18-INCH	DY-4	MARKING LINE EPOXY, 4-INCH, DOUBLE YELLOW
WS-3	MARKING LINE EPOXY, 4-INCH, WHITE SKIP, 3' LINE, 9' GAP	CH	MARKING CHEVRON EPOXY, 24-INCH	PZ	MARKING LINE EPOXY, 4-INCH, YELLOW LINE 4-INCH, YELLOW SKIP, 12.5' LINE, 37.5' GAP
CW	MARKING CROSSWALK EPOXY, TRANSVERSE LINE, 6-INCH	Y4	MARKING LINE EPOXY, 4-INCH, YELLOW	WRWS	MARKING LINE GROOVED WET REF EPOXY, 4 INCH WHITE SKIP, 12.5' LINE, 37.5' GAP
ARW	MARKING ARROW EPOXY			WRW-3	MARKING LINE GROOVED WET REF EPOXY, 4 INCH WHITE SKIP, 3' LINE, 9' GAP
WRW4	MARKING GROOVED WET REF EPOXY, 4 INCH, WHITE	WRW8	MARKING GROOVED WET REF EPOXY, 8 INCH, WHITE		
					 SIGN TYPE II ON WOOD POST
					 DELINEATOR REFLECTORS ON DELINEATOR POSTS STEEL (YELLOW) (BACK-TO-BACK REFLECTORS) (5' SPACING)
					 MARKERS FLEXIBLE PERMANENT (WHITE POST W/ WHITE SHEETING) (5' SPACING)

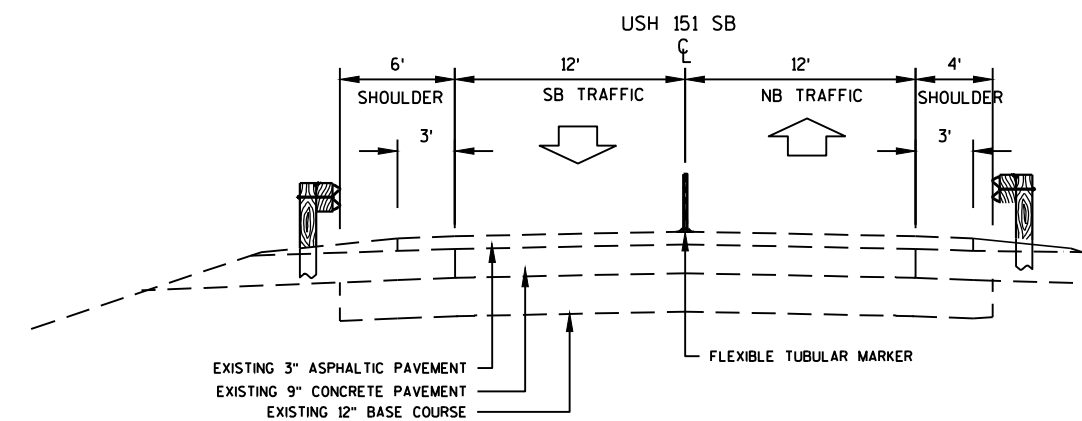




USH 151
STAGE 1 TYPICAL SECTION
CONSTRUCT CROSSEOVERS
STA 90+00 - STA 158+00



USH 151
STAGE 2 TYPICAL SECTION
NB JOINT REPAIR & M&O
STA 100+31 - STA 116+06
STA 144+41 - STA 144+83



USH 151
STAGE 2 TYPICAL SECTION
NB JOINT REPAIR & M&O
STA 119+94 - STA 136+24

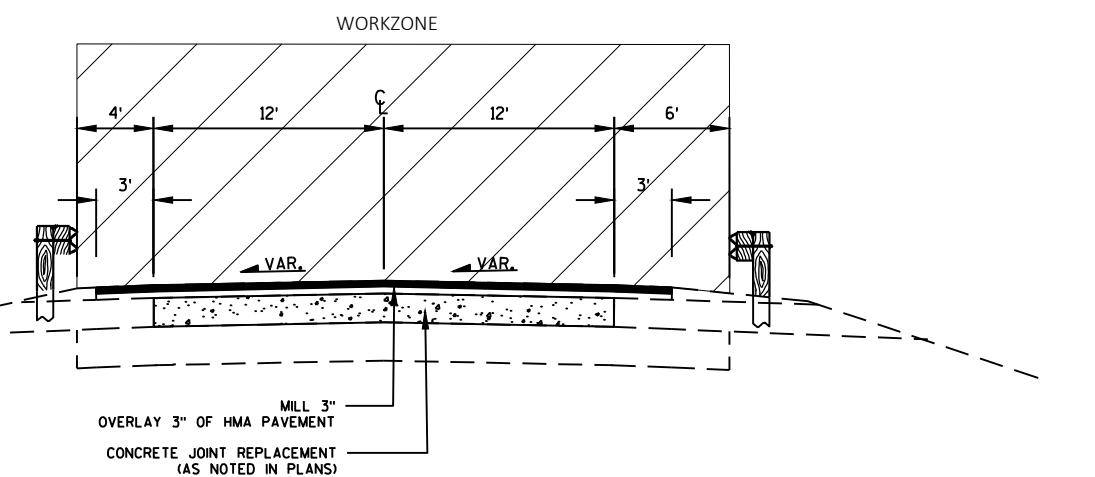
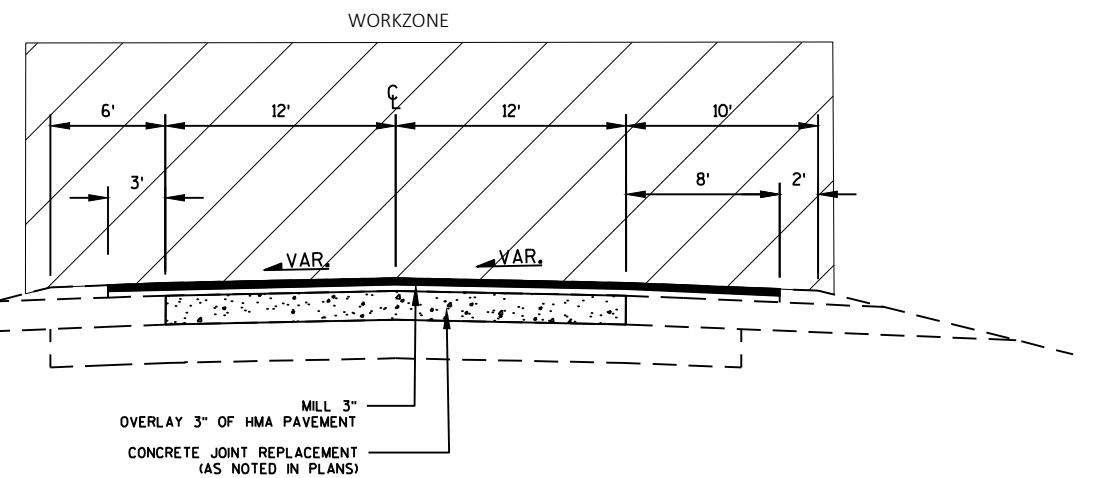
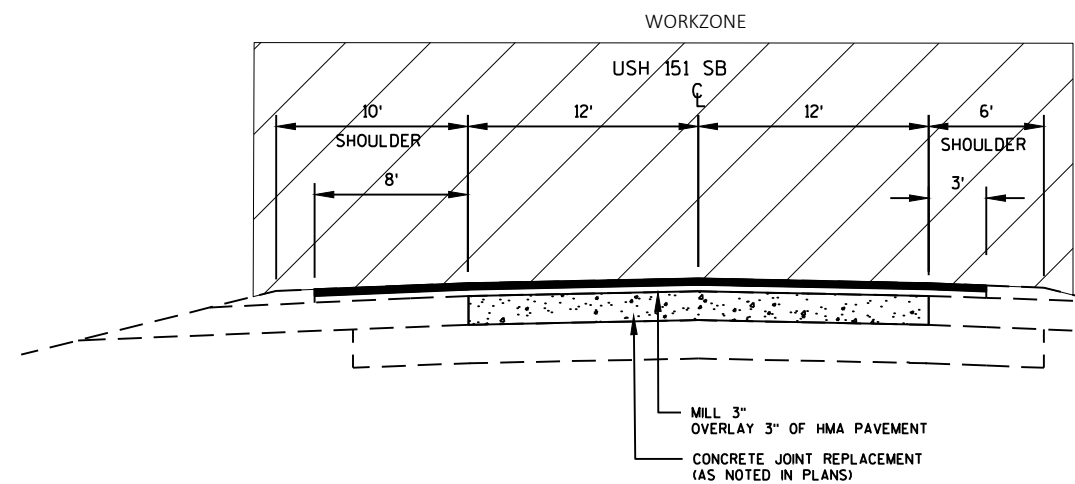
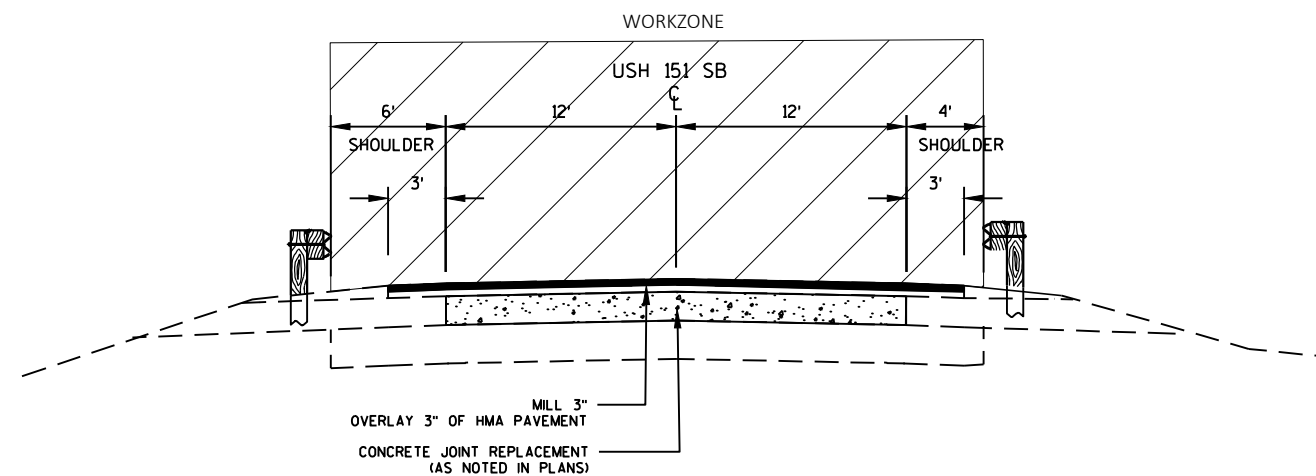
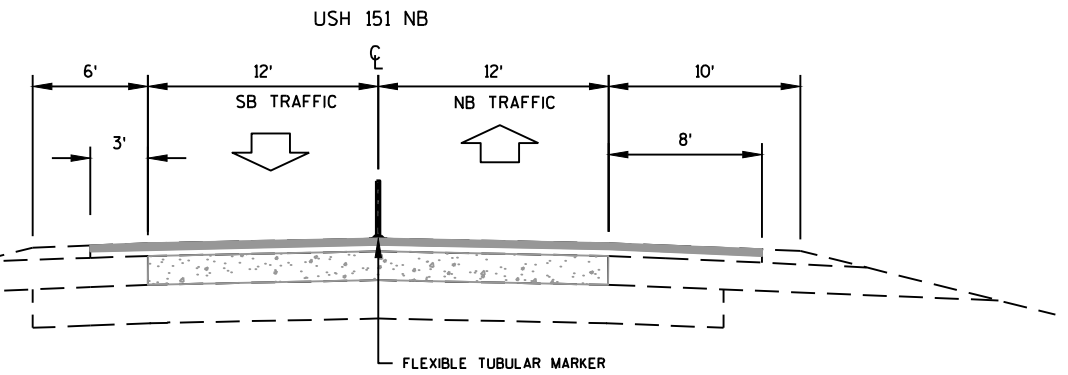


Diagram illustrating the plan view of the bridge deck. The total width is 32.8'. The left lane (SB TRAFFIC) is 17.0' wide. The right lane (NB TRAFFIC) is 15.0' wide. A 1.0' gap separates the lanes. The diagram also shows the centerline (CL) and the location of the flexible tubular marker and existing 8" concrete reinforced bridge slab.

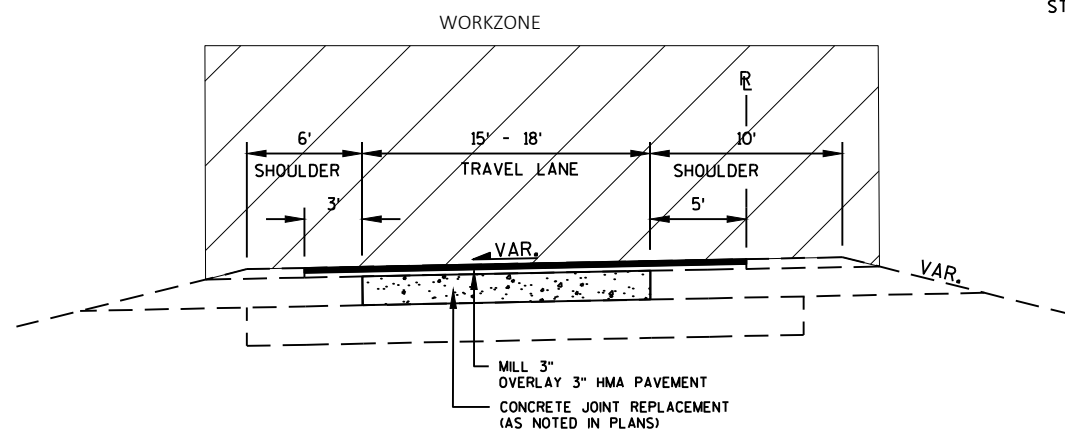
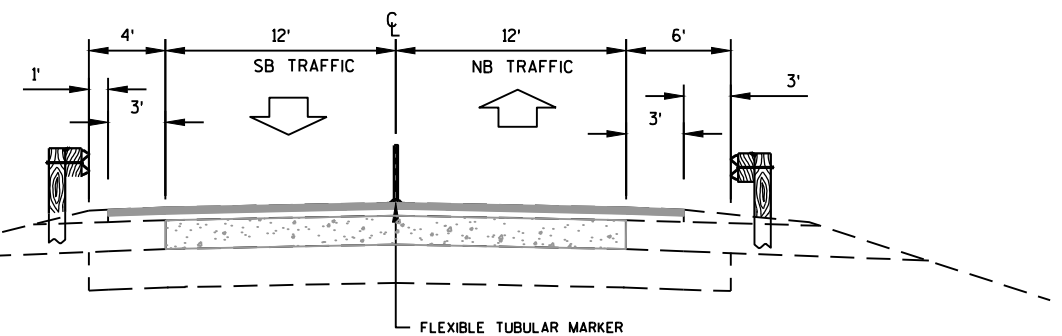


STA 83+00 - STA 99+50
STA 142+50 - STA 154+46

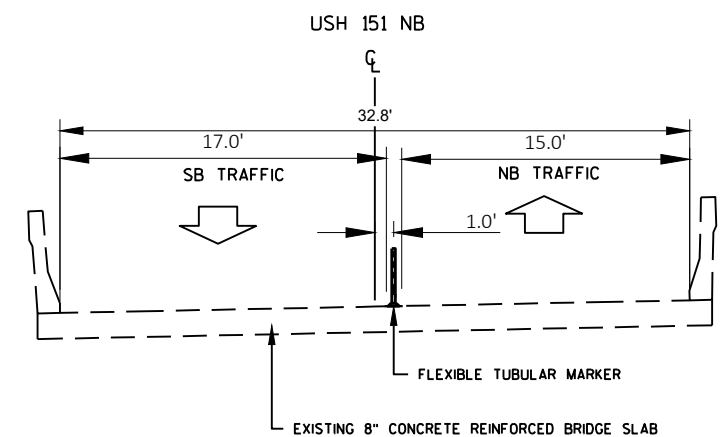
USH 151
STAGE 3 TYPICAL SECTION
SB JOINT REPAIR & M&O
STA 100+31 - STA 116+06
STA 144+41 - STA 144+83



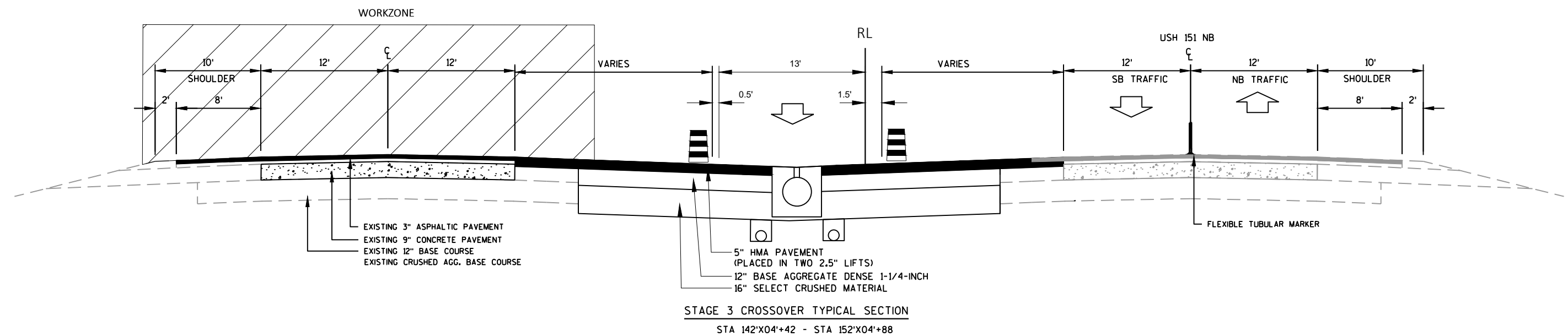
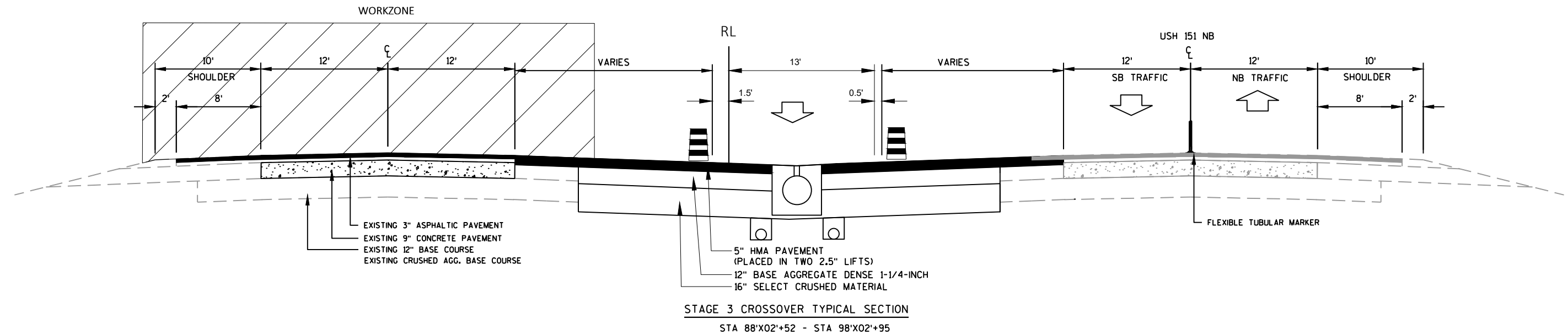
USH 151
STAGE 3 TYPICAL SECTION
SB JOINT REPAIR & M&O
STA 119+94 - STA 136+24



STAGE 3 RAMPS TYPICAL SECTION
CONCRETE JOINT REPAIR AND
M&O RAMPS C. D.
STA 5+12 'C' - 19+33 'C'
STA 5+00 'D' - 21+88 'D'

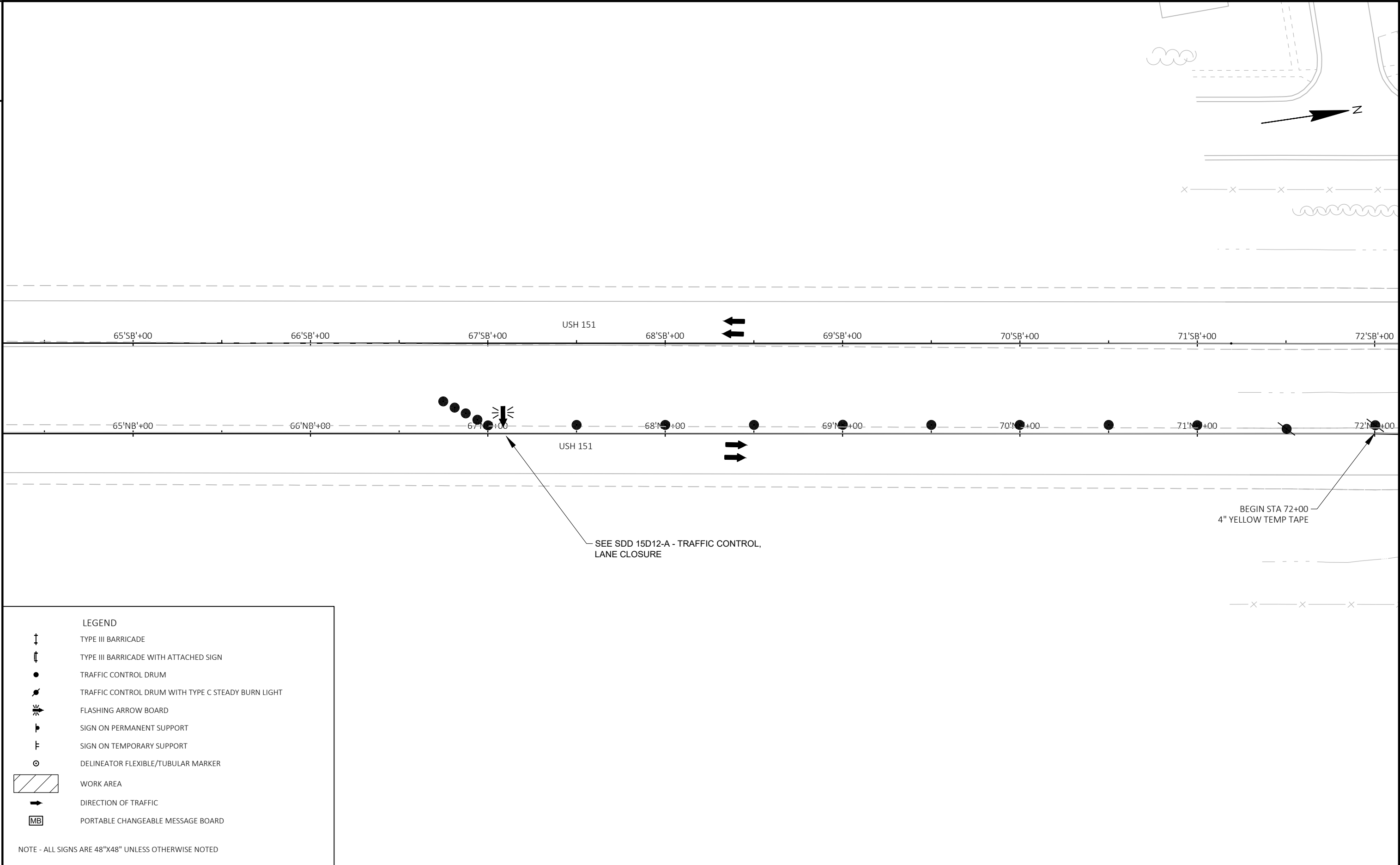


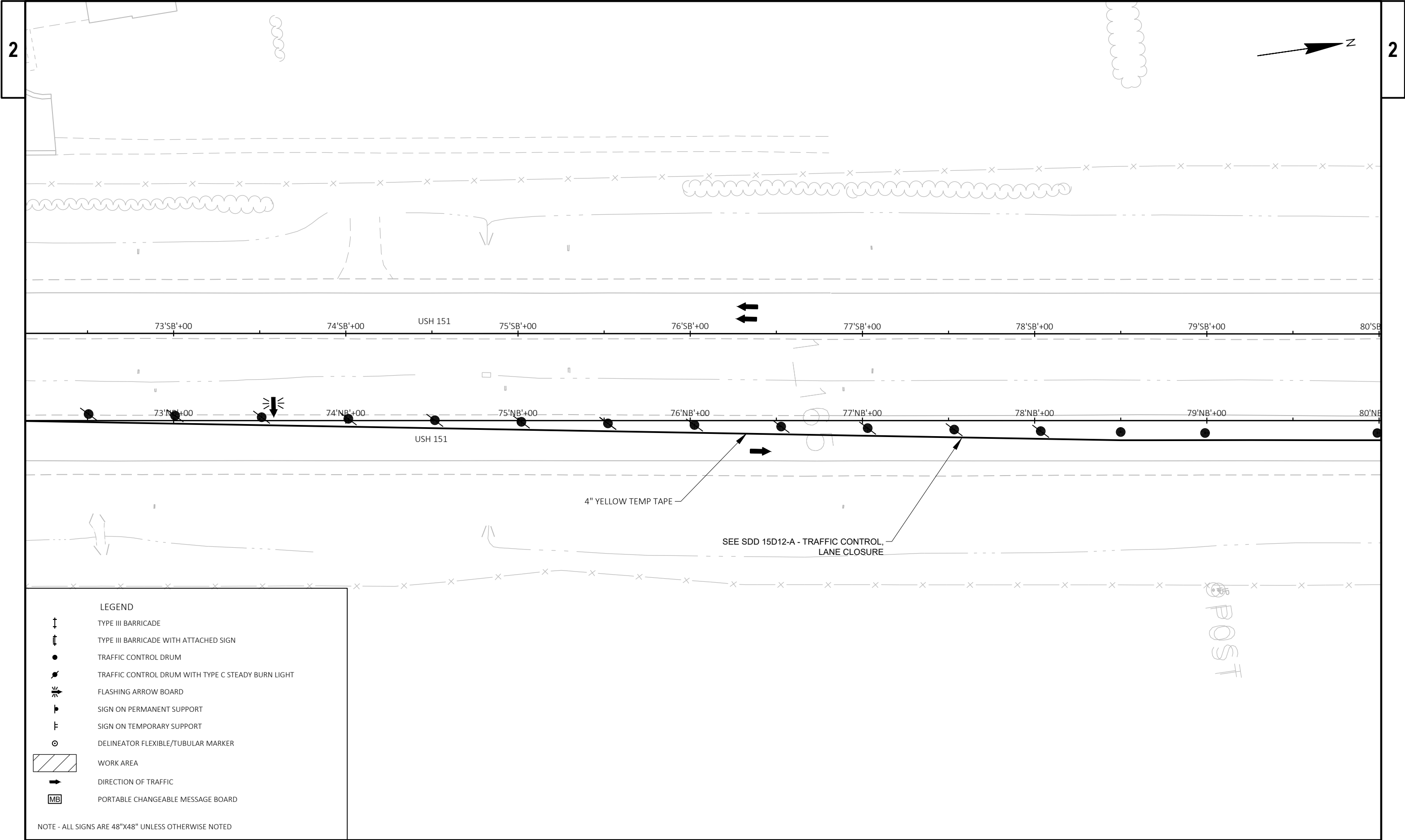
STAGE 3 TYPICAL SECTION
B-14-034
(NB BRIDGE OVER STH 49)

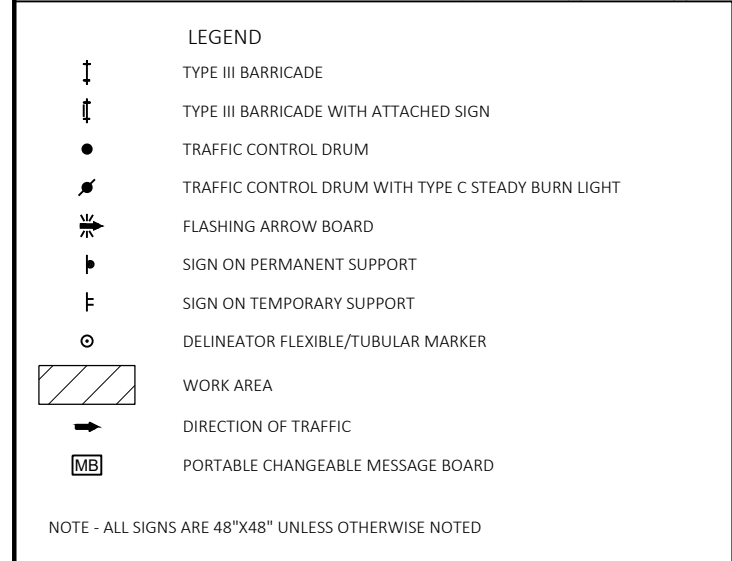


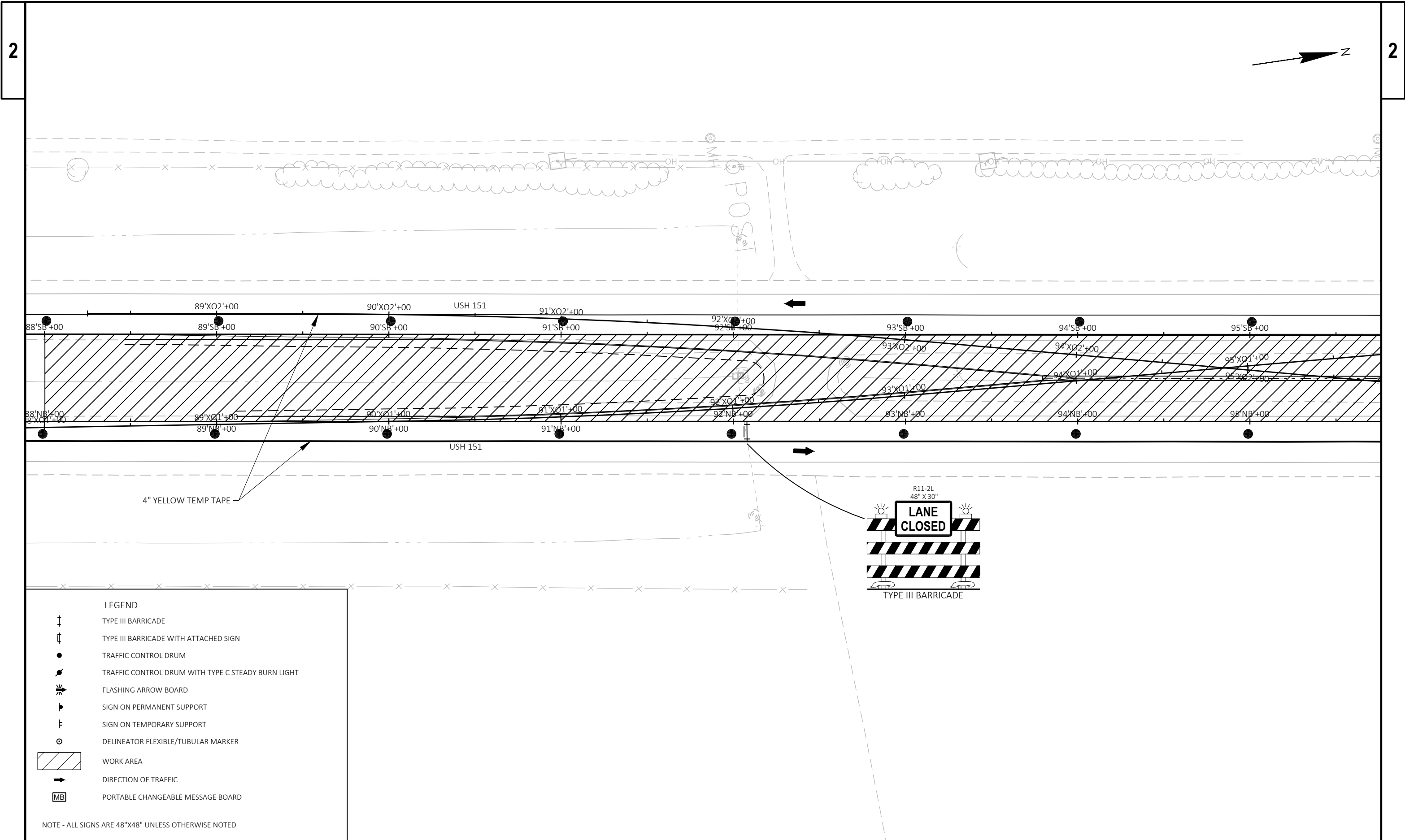
2

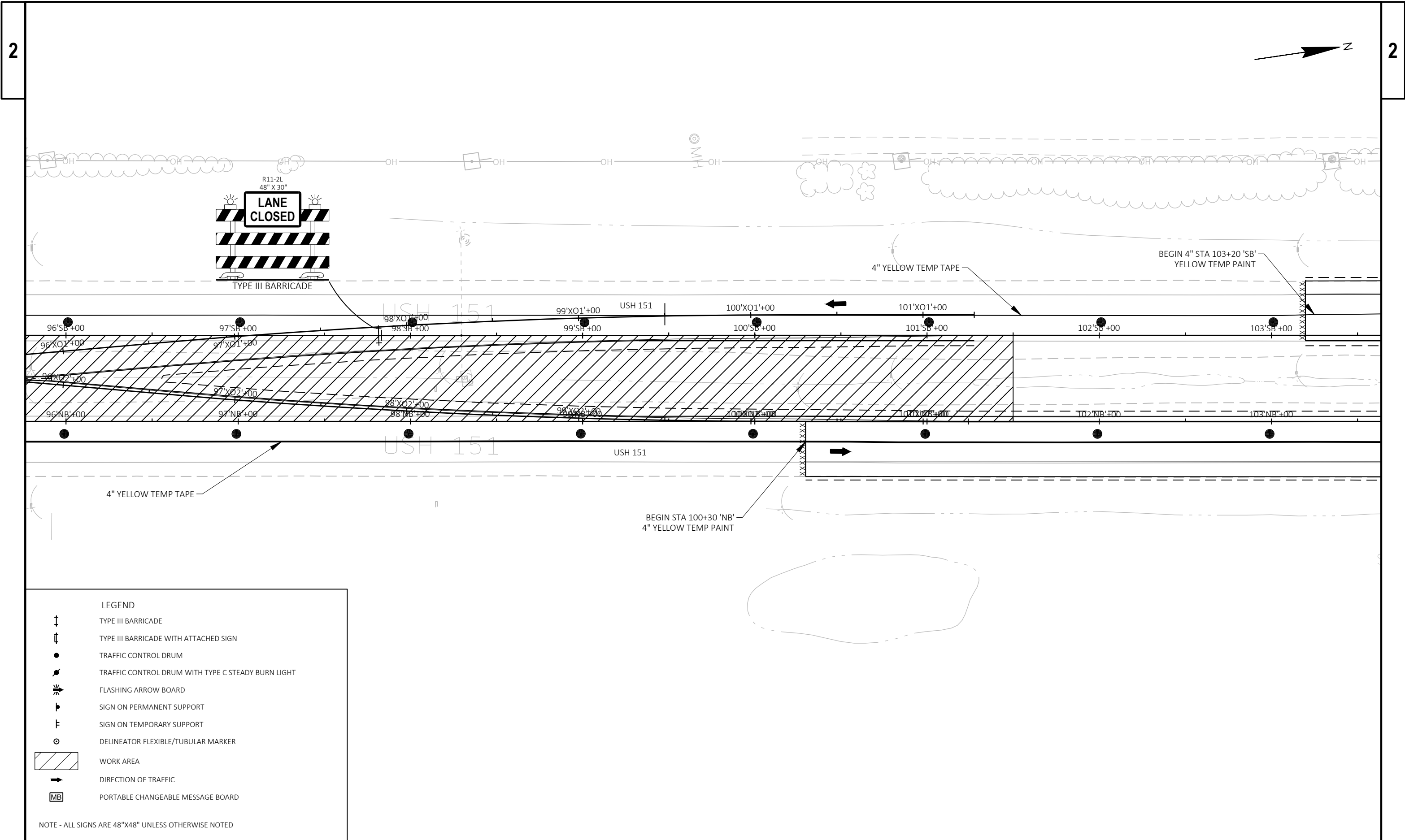
2

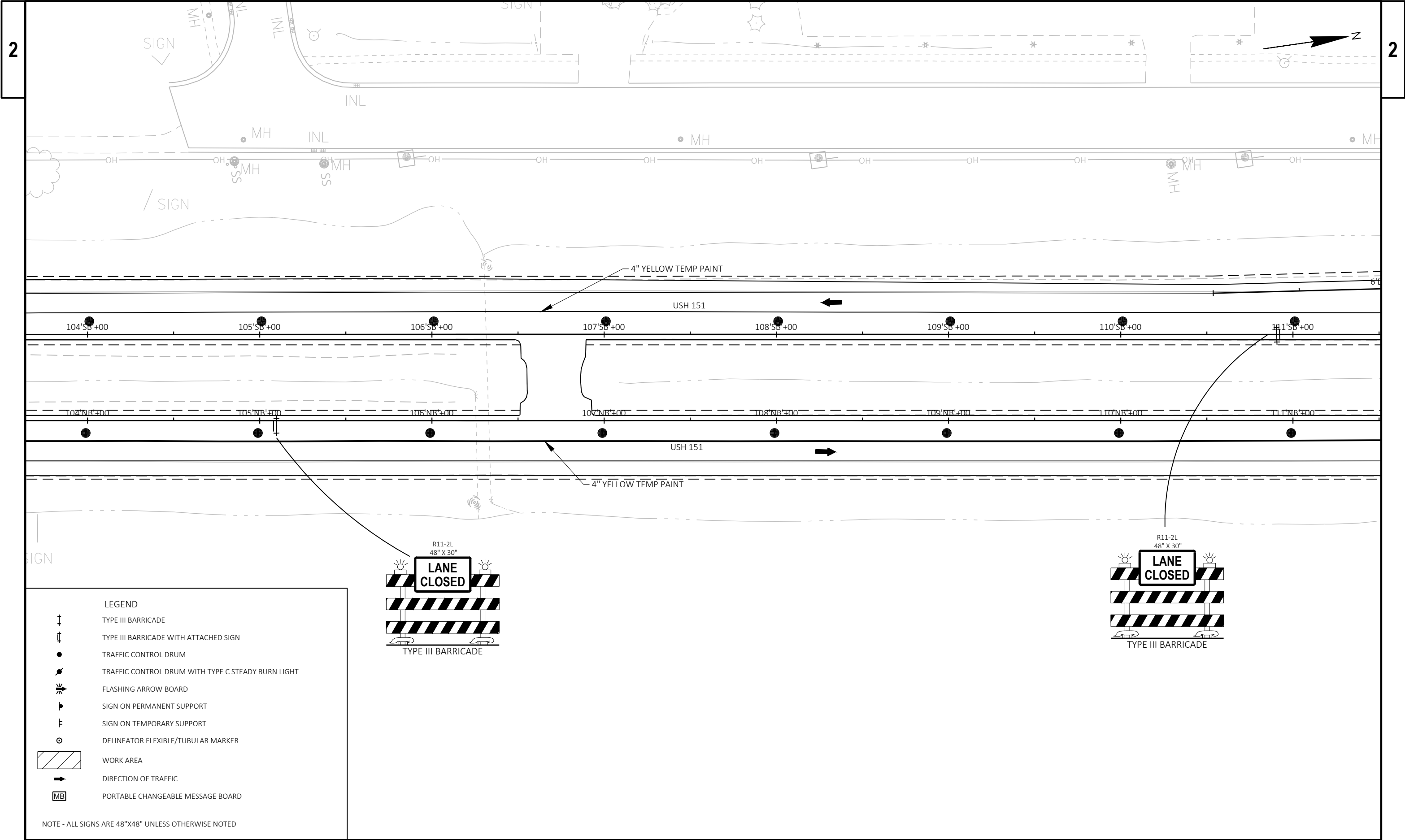






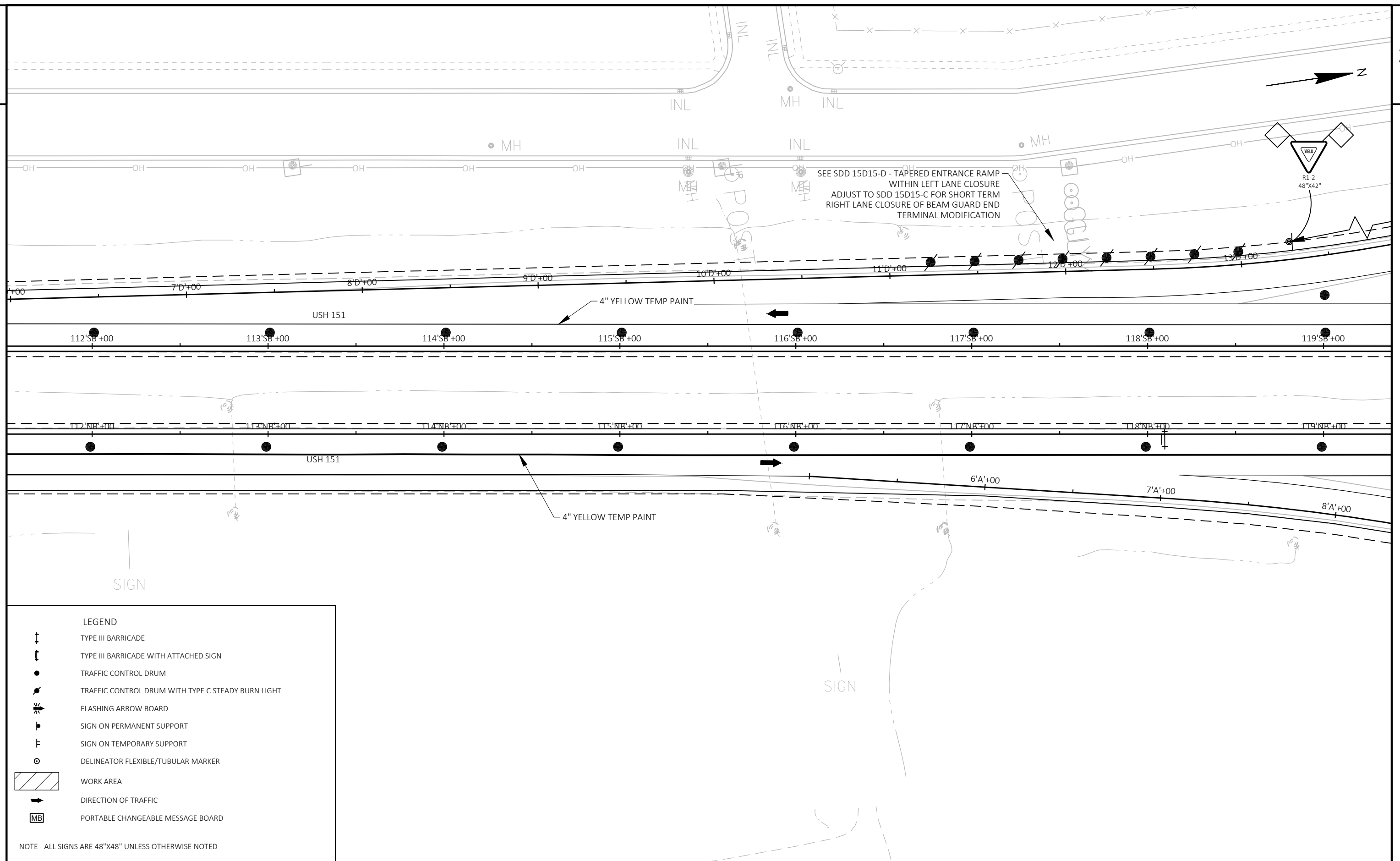






2

2 |



PROJECT NO:	1112-06-74
-------------	------------

HWY: USH 151

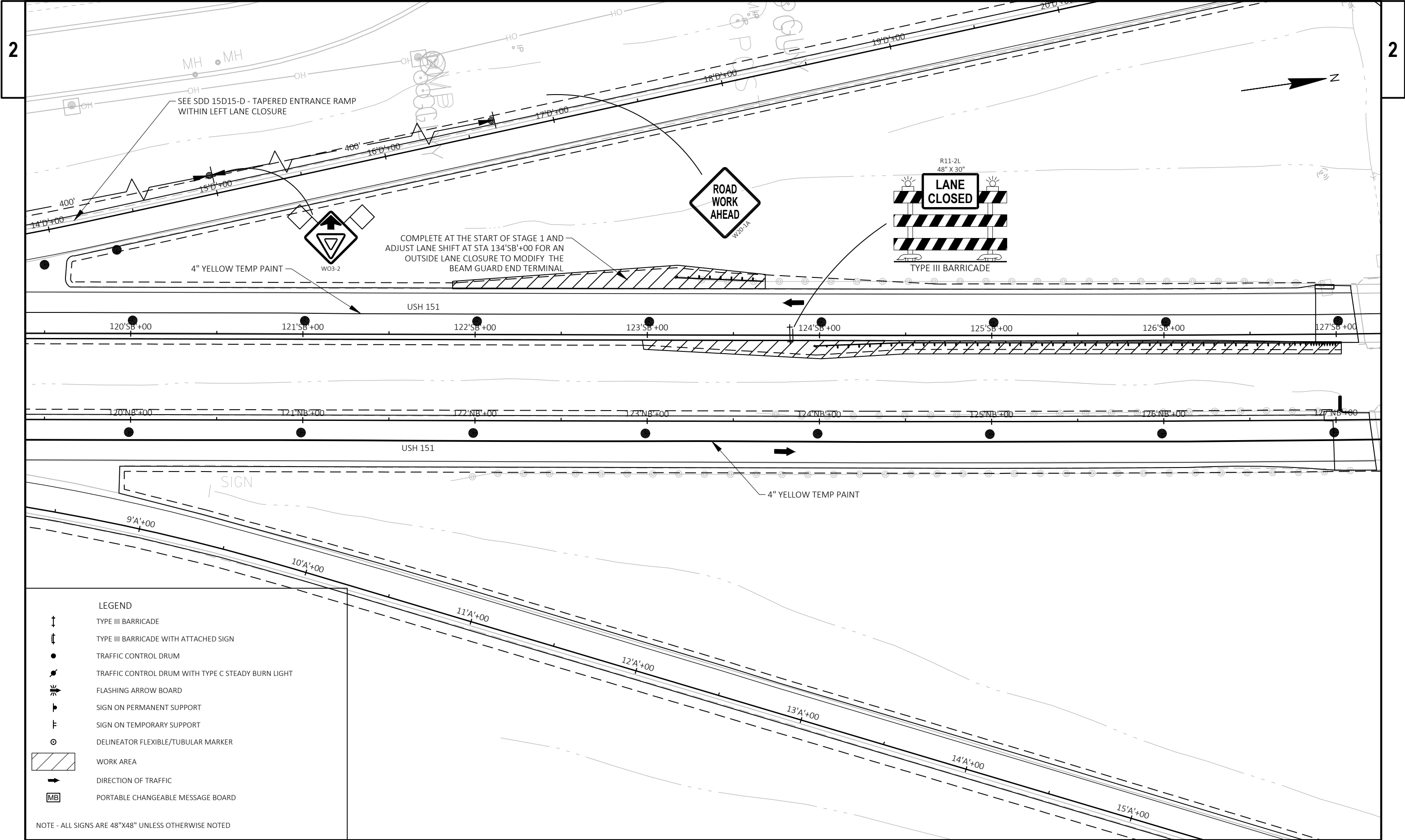
COUNTY: DODGE & FOND DU LAC

STAGE 1

SHEET

75

I



PROJECT NO: 1112-06-74

HWY: USH 151

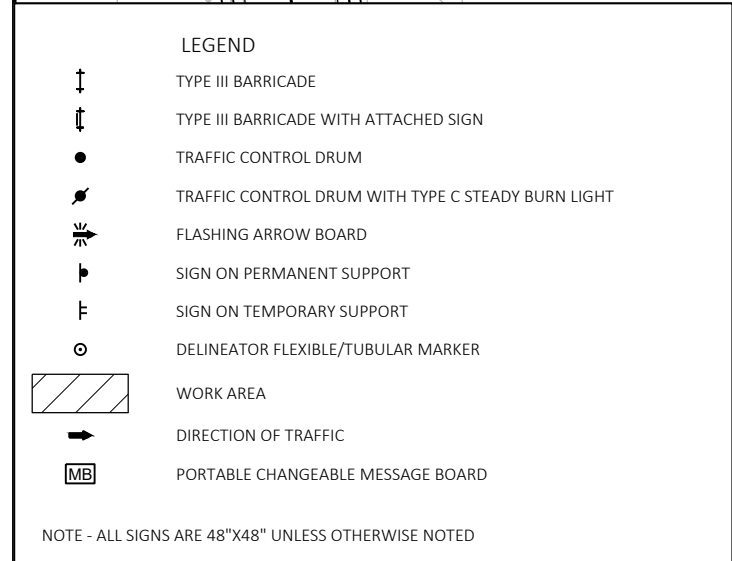
COUNTY: DODGE & FOND DU LAC

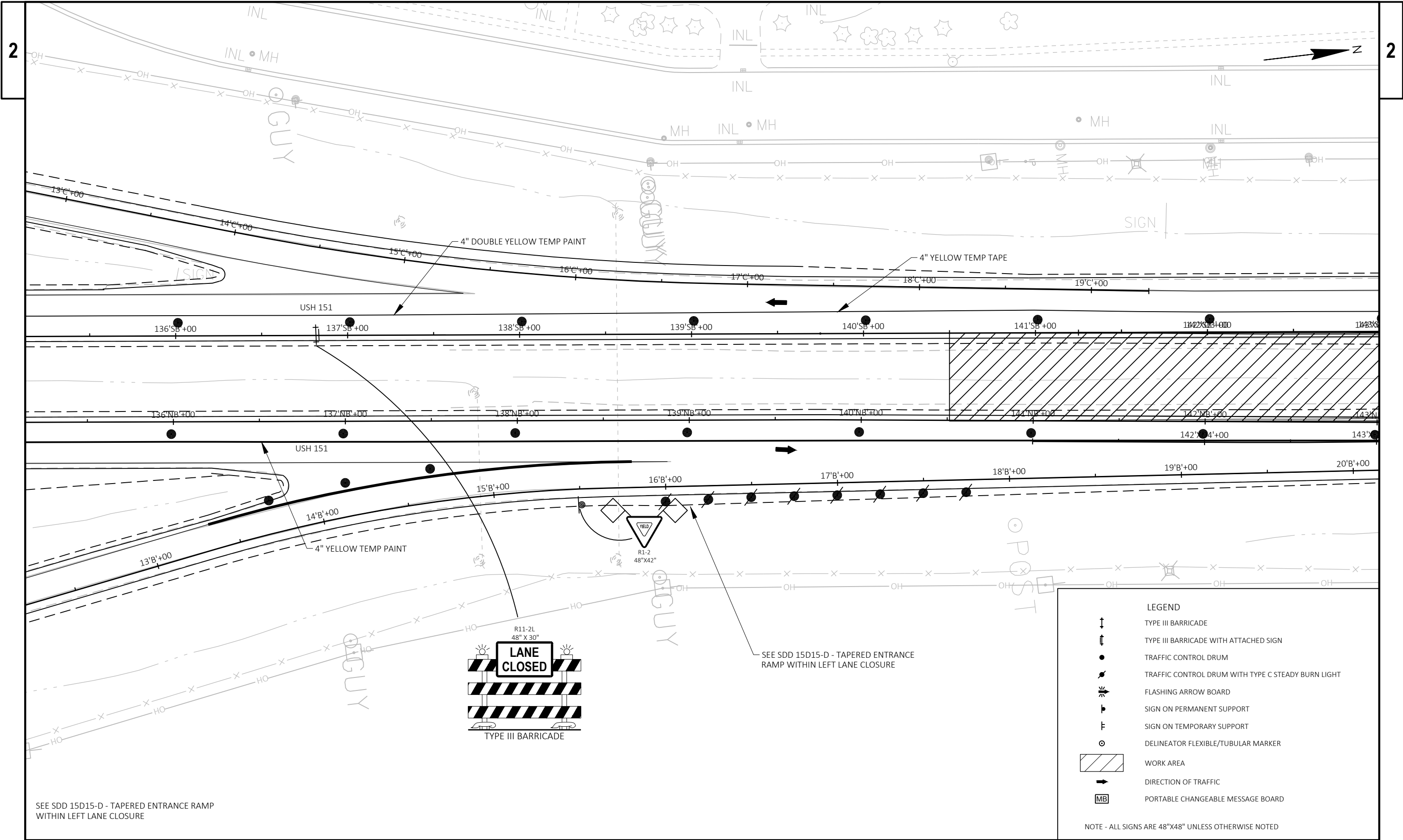
STAGE 1

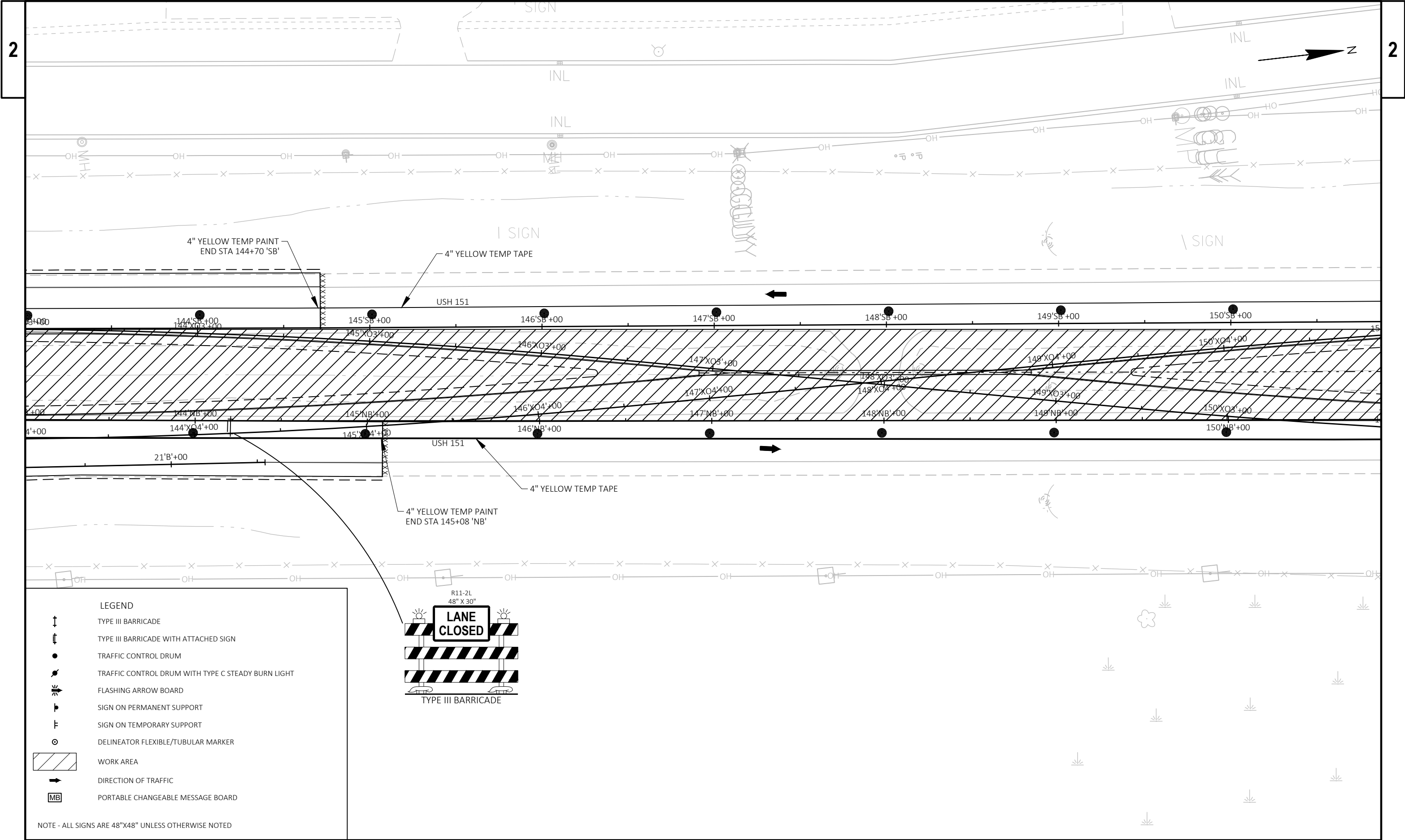
SHEET

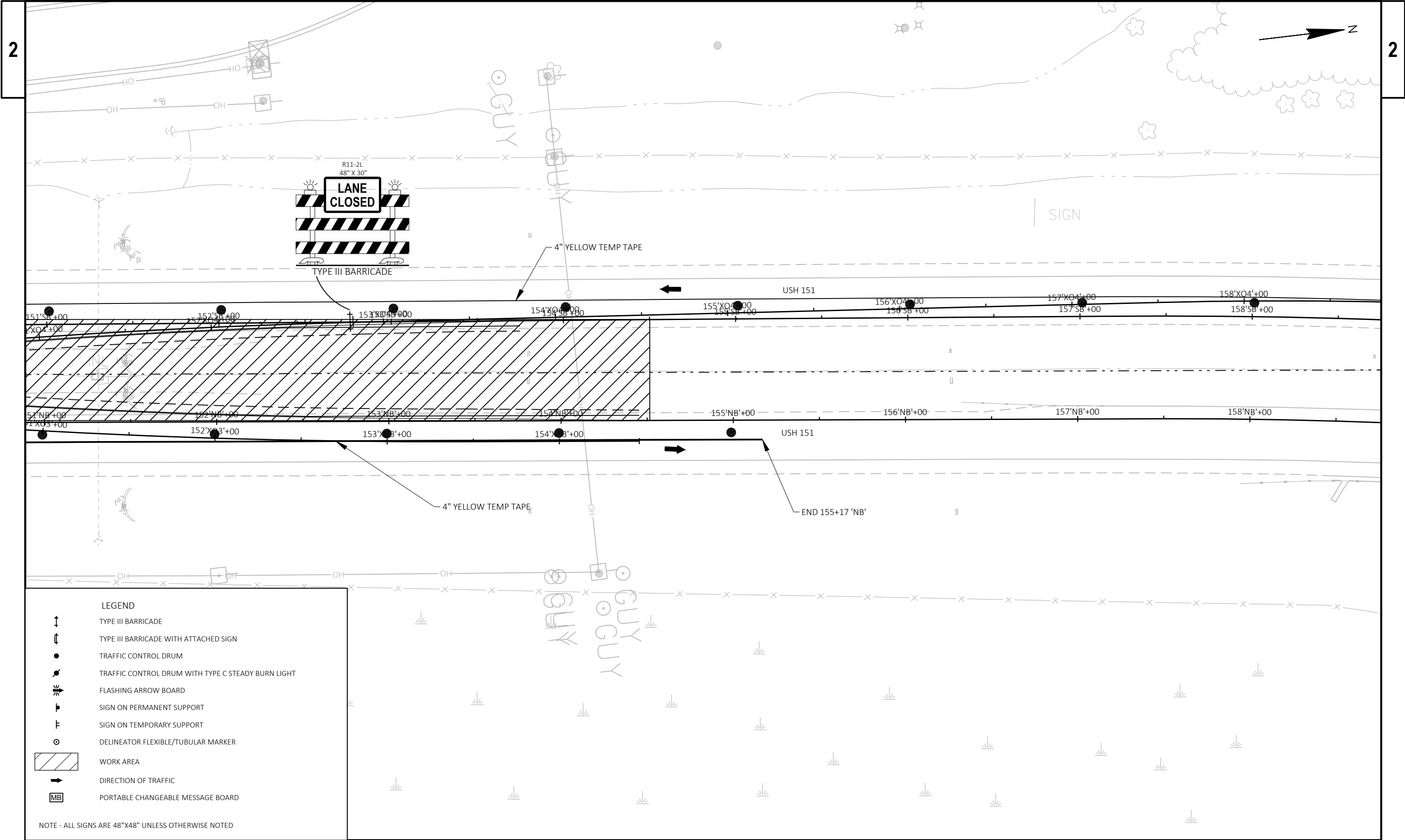
76

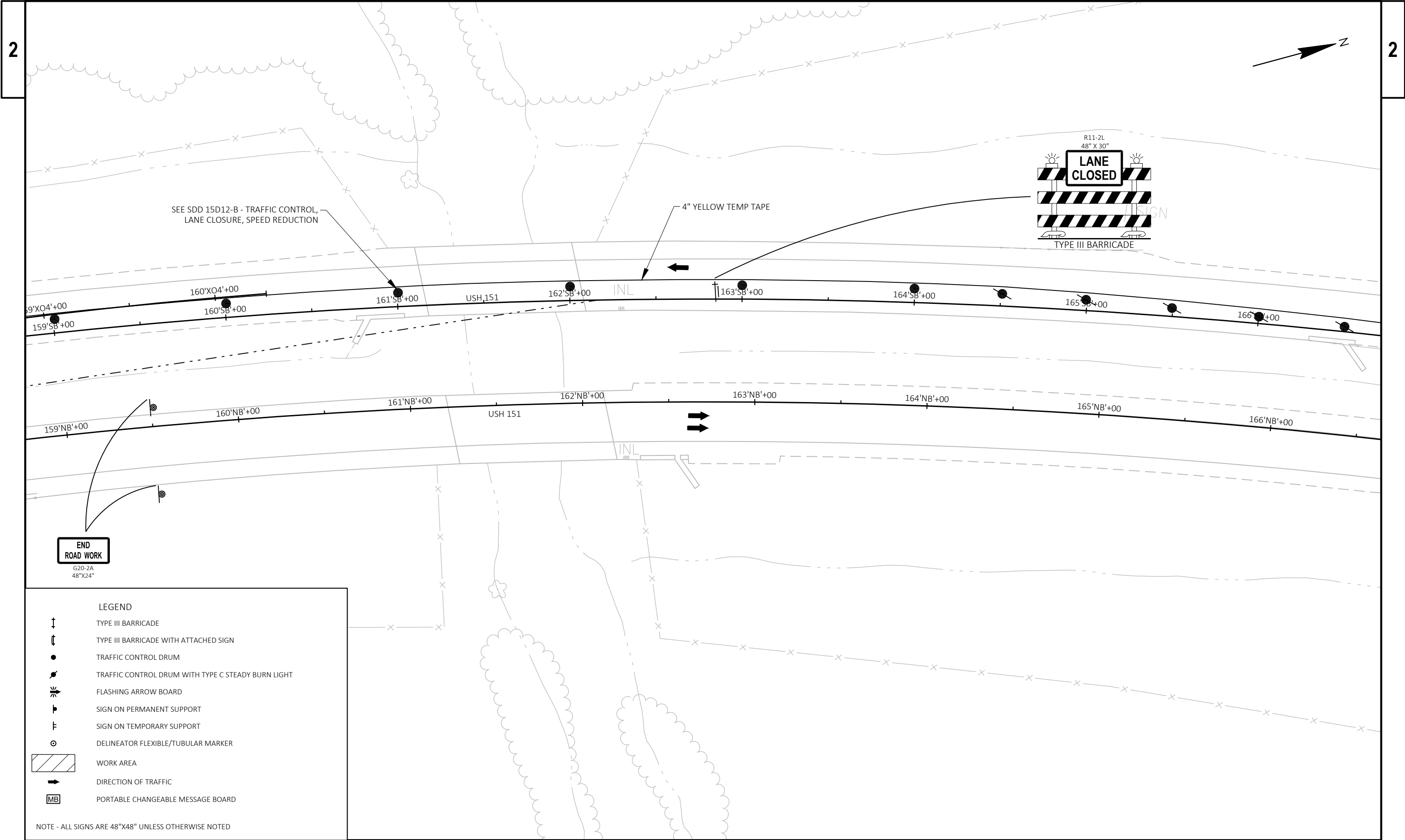
E

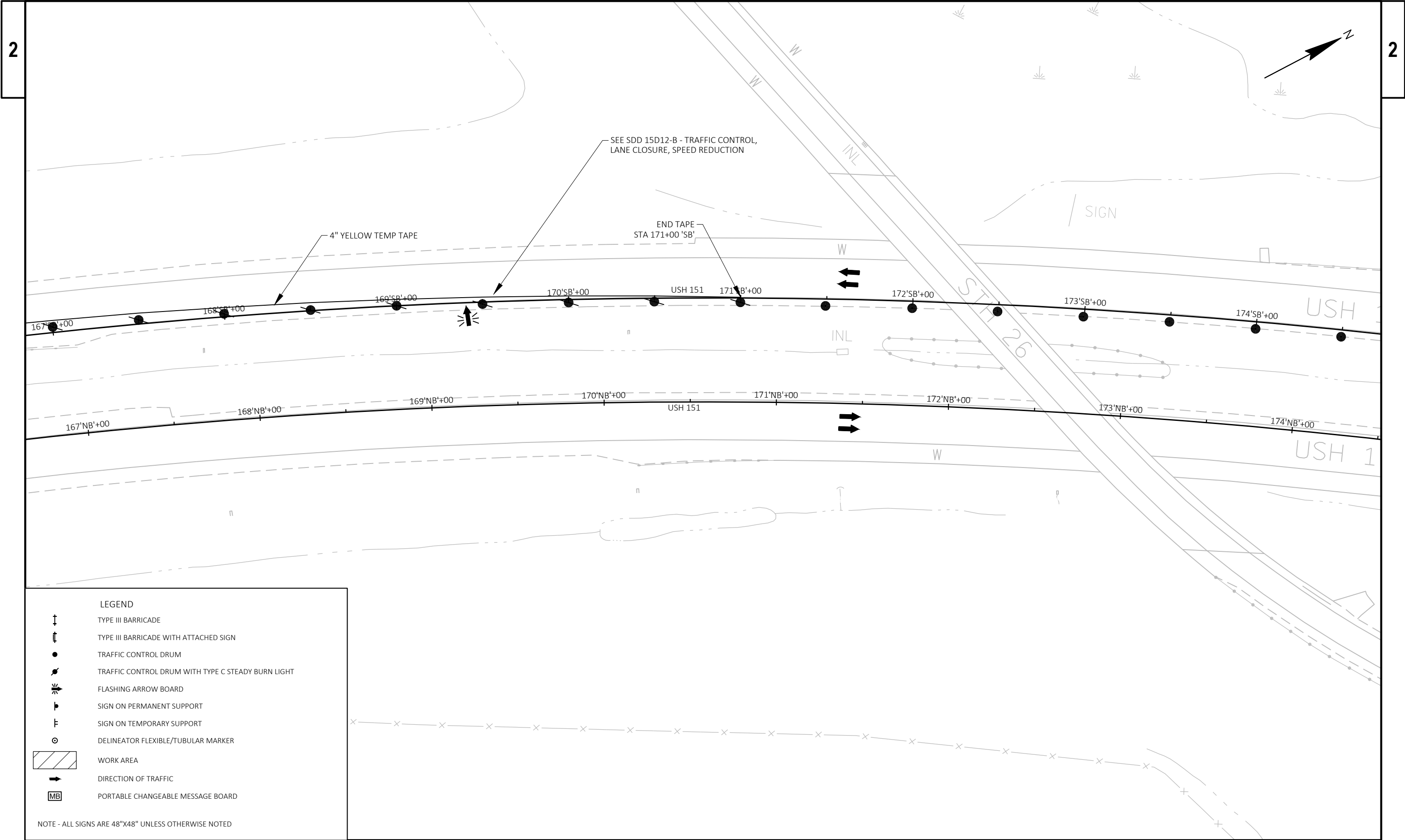


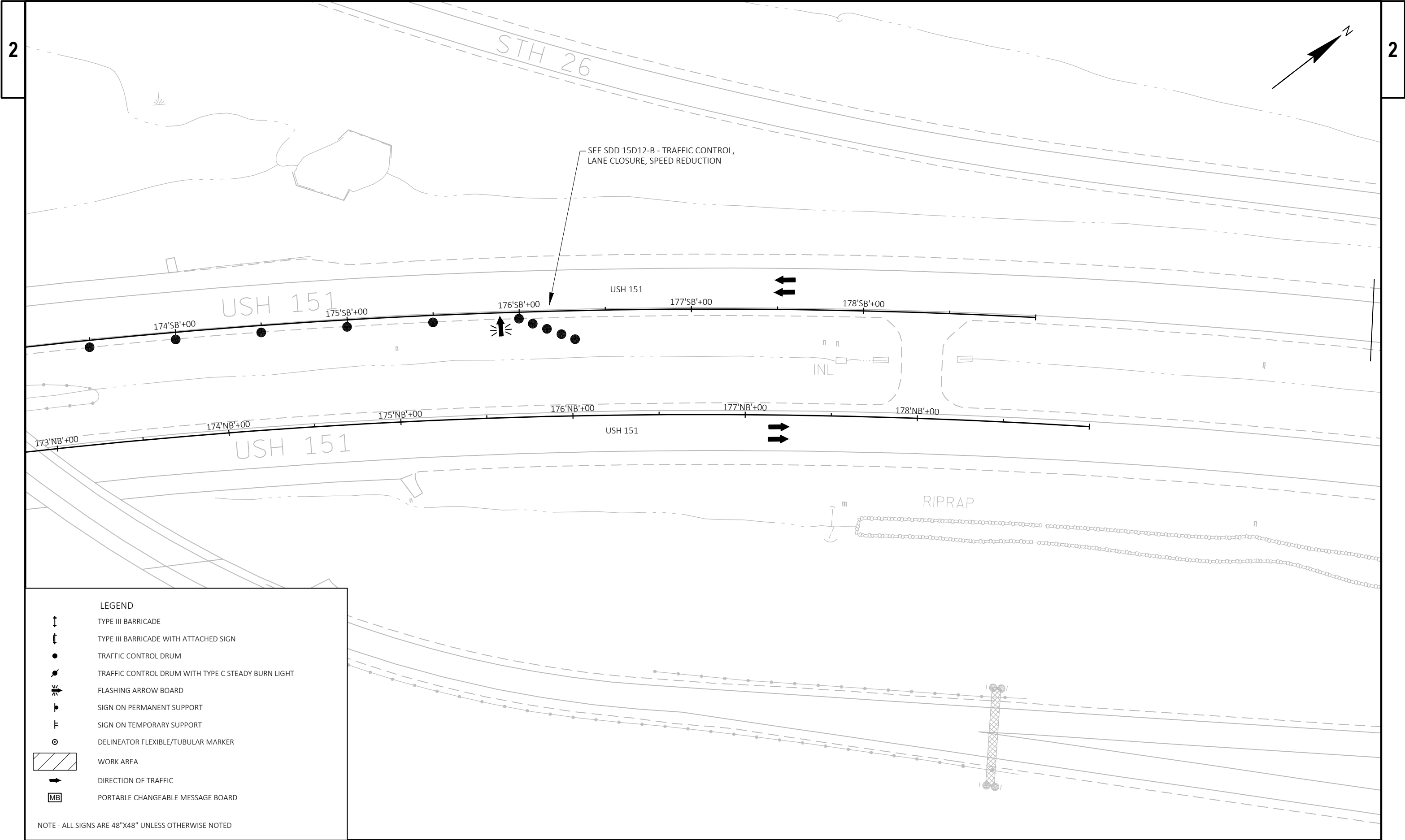


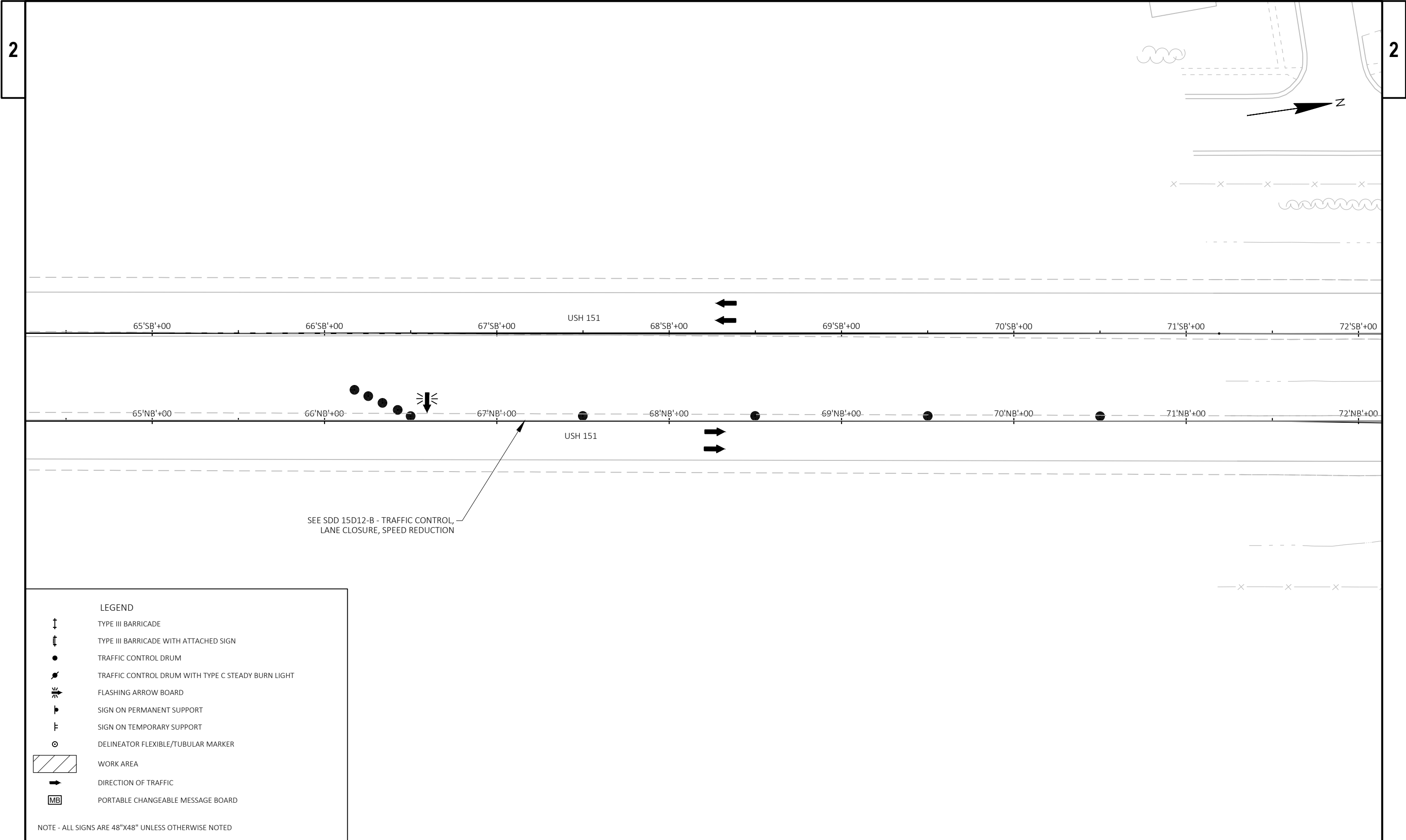


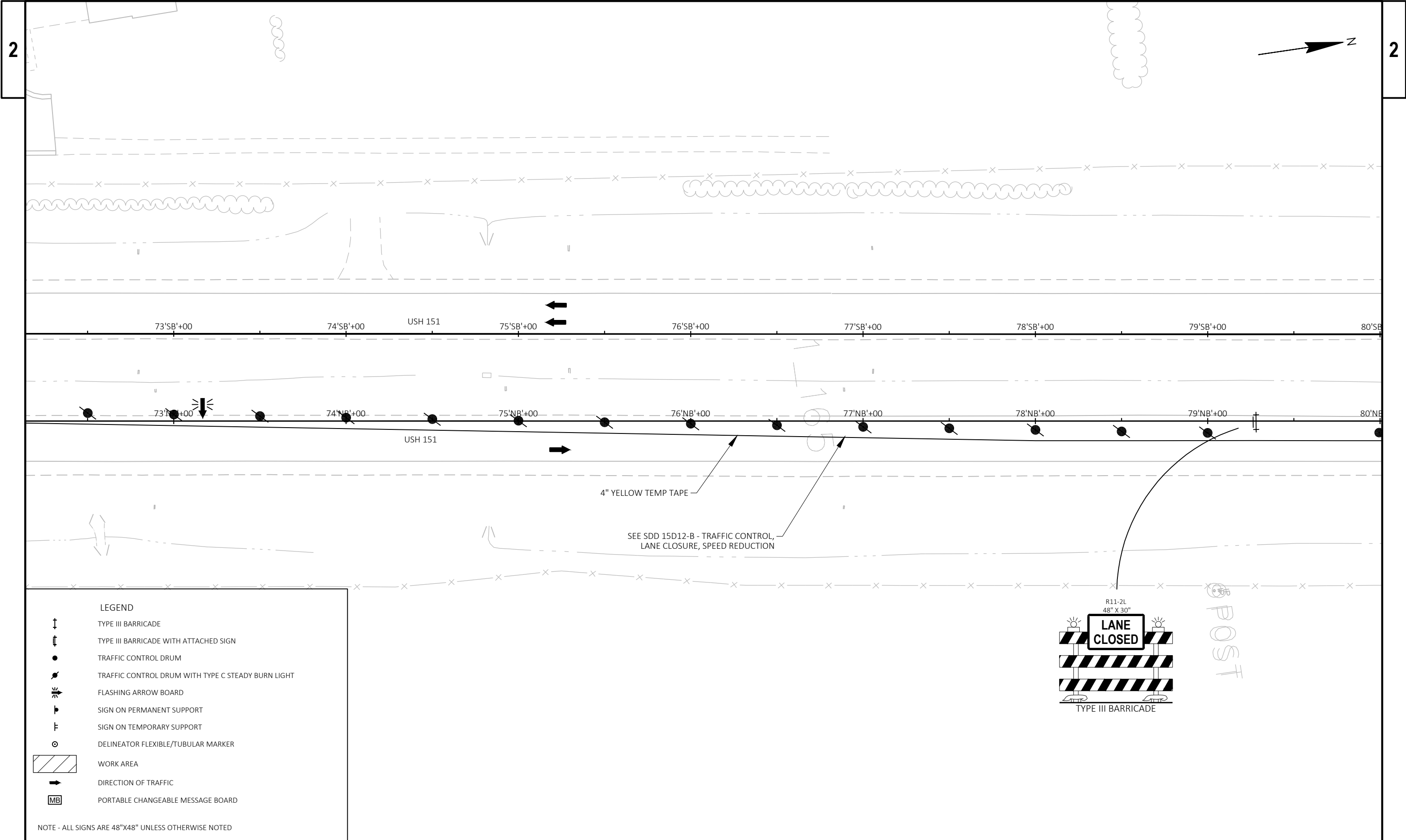






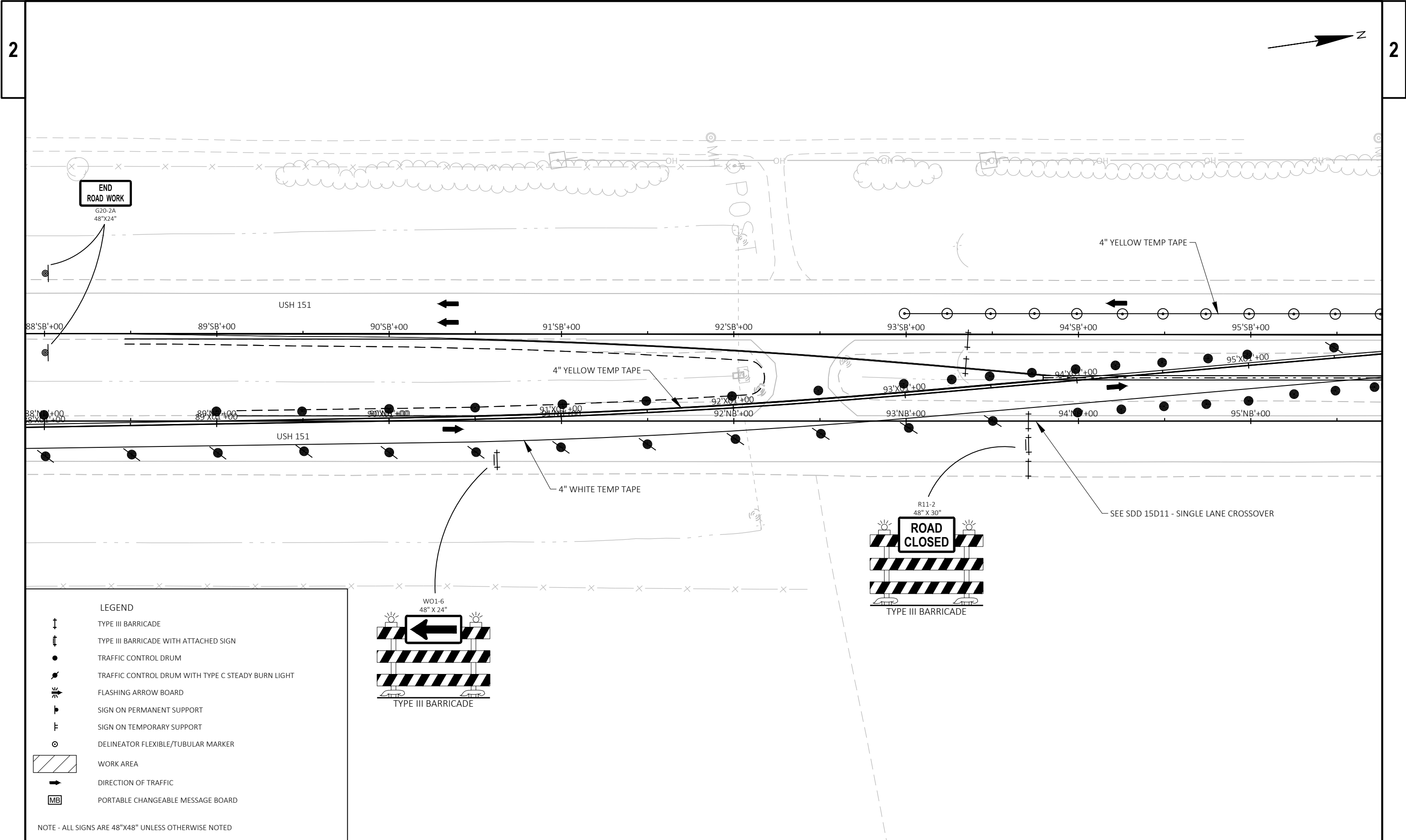


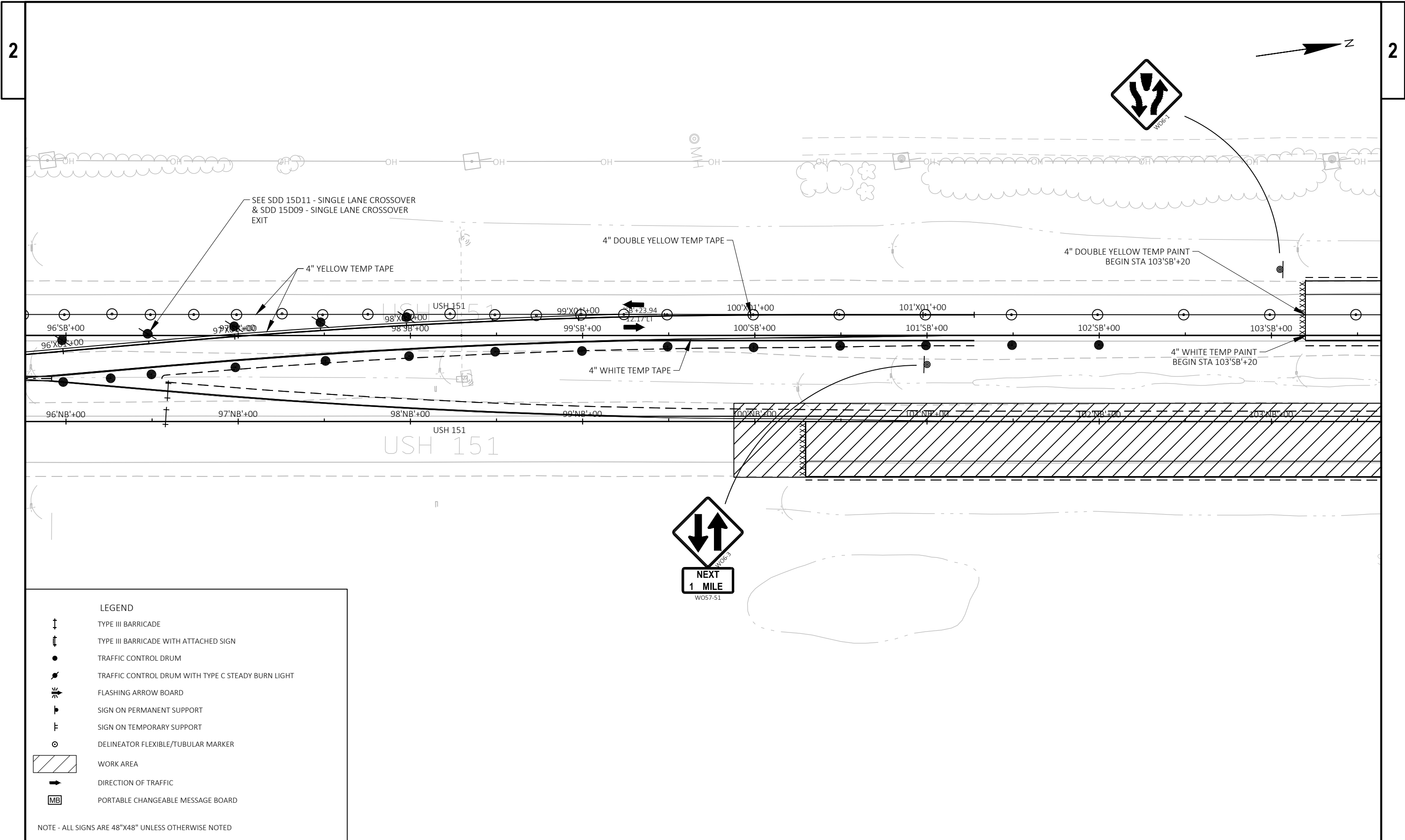


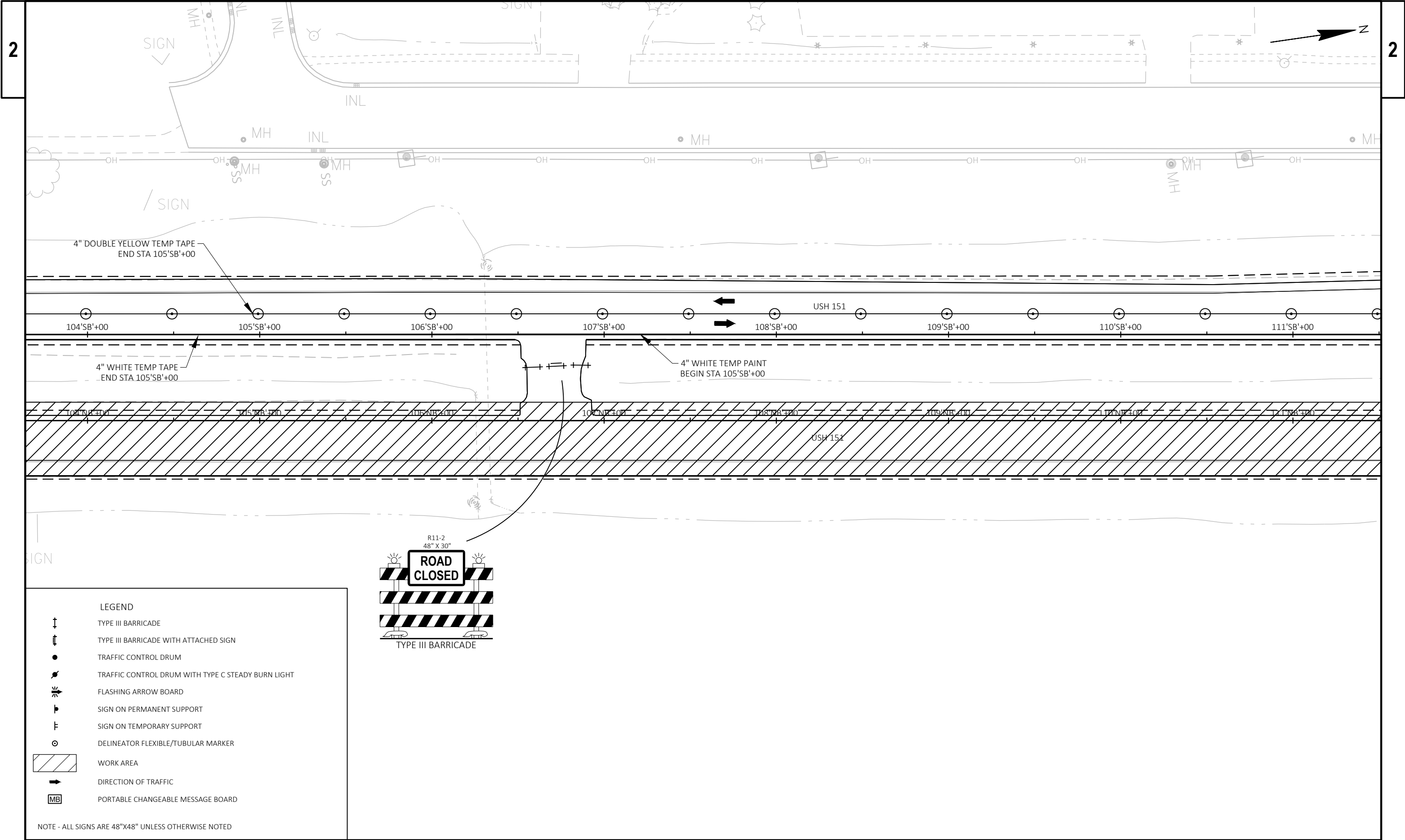




- NOTE - ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED

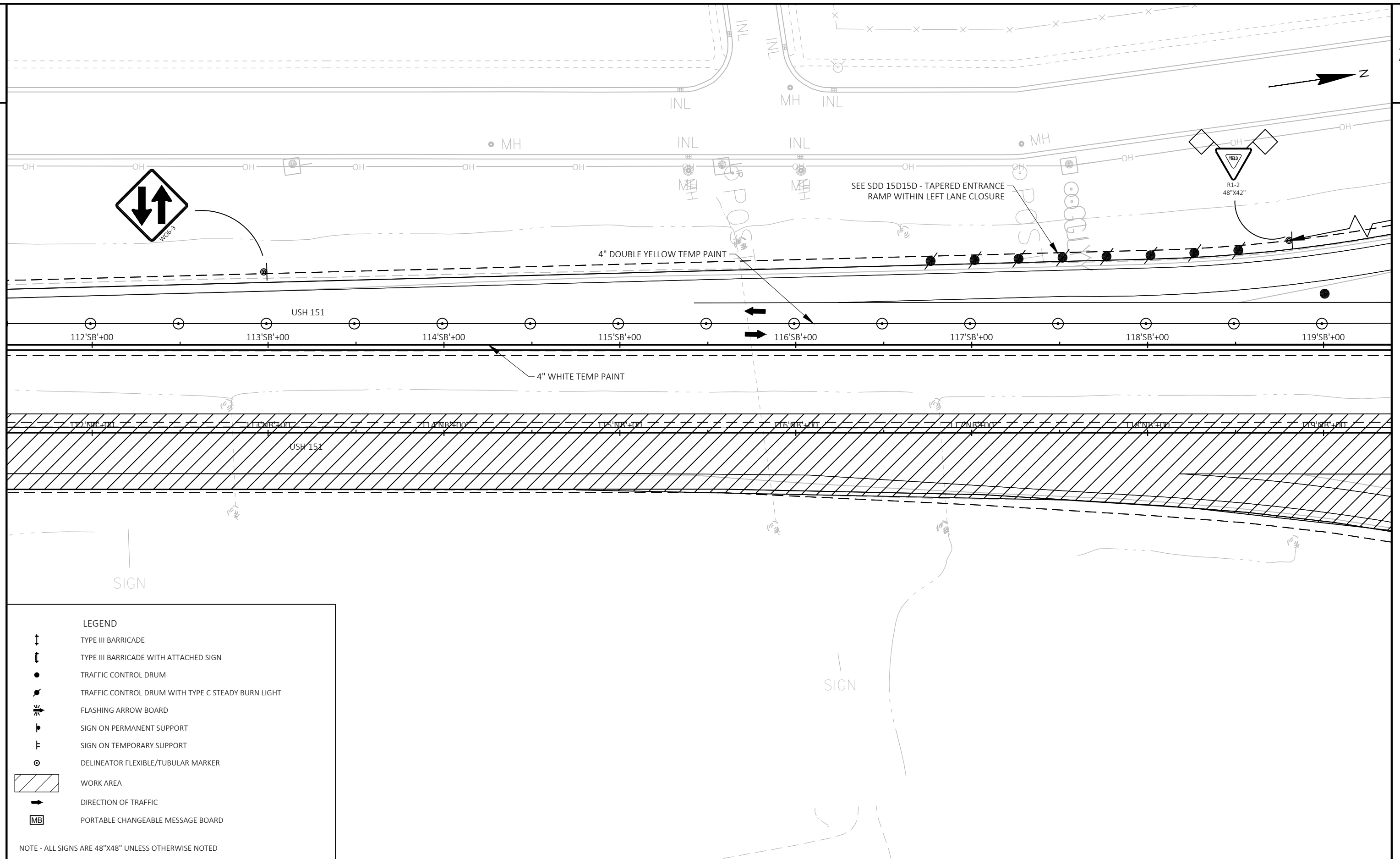






2

2 |



PROJECT NO:	1112-06-74
-------------	------------

HWY: USH 151

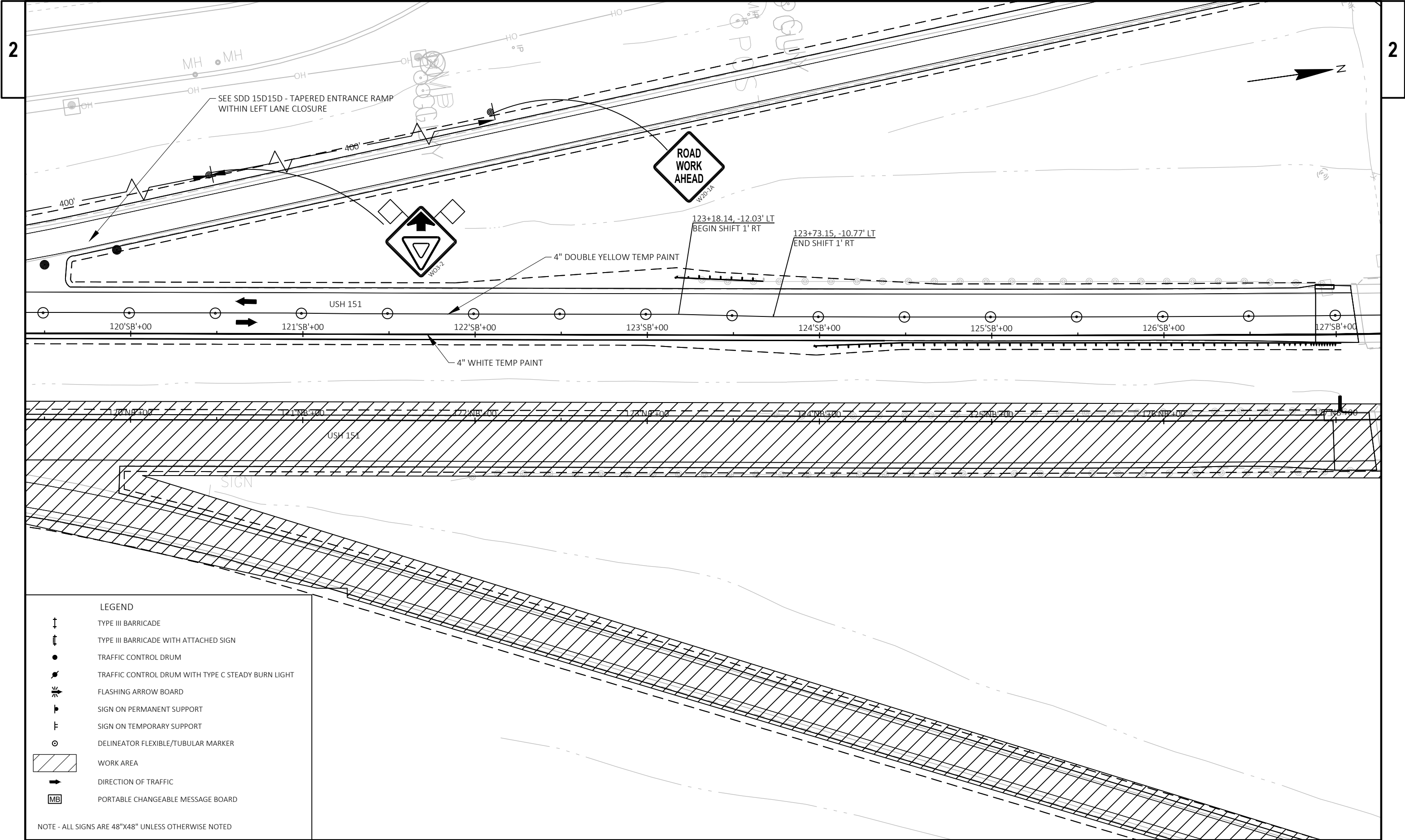
COUNTY: DODGE & FOND DU LAC

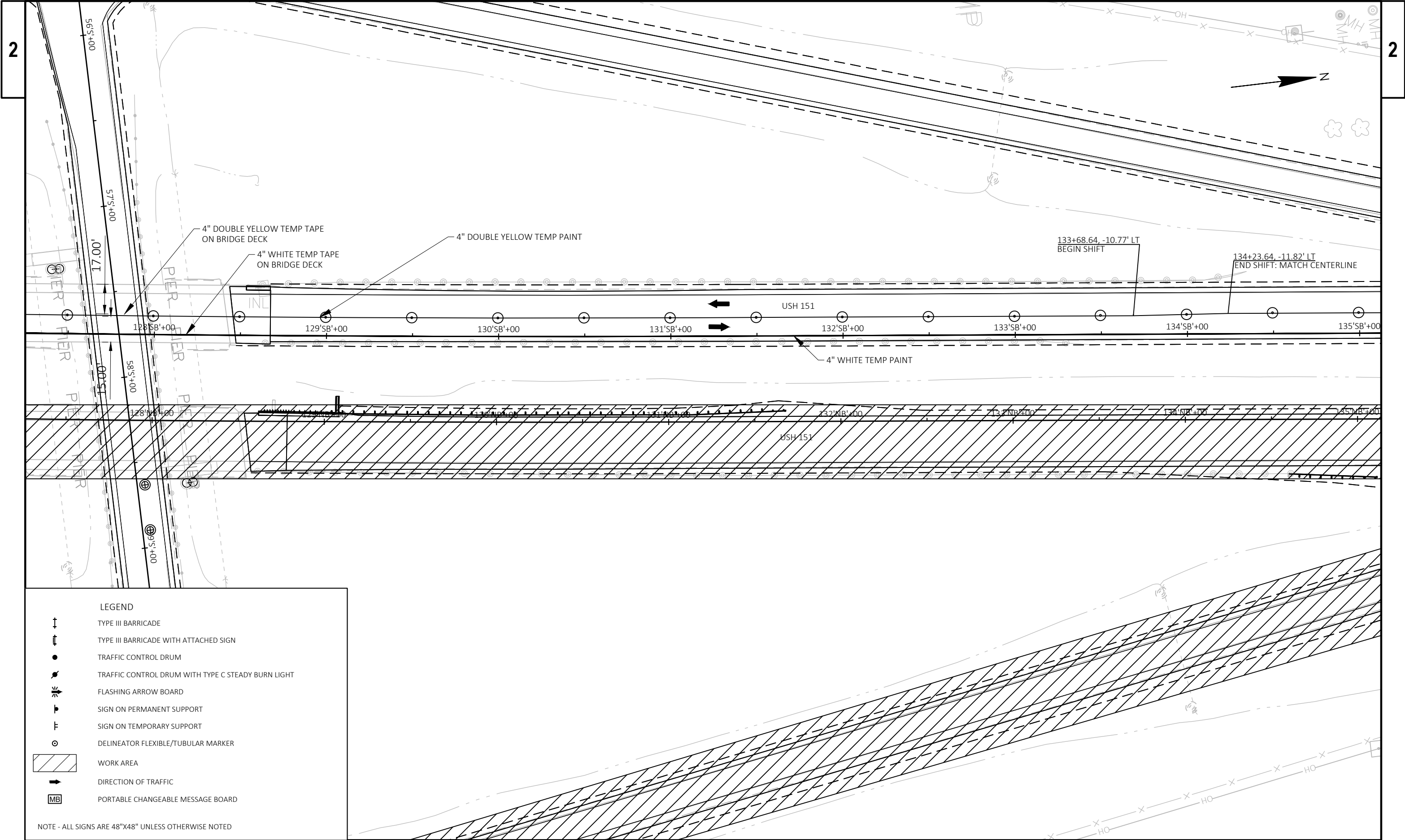
STAGE 2

SHEET

90

I





↑

↑

●

●

⬇

⬆

⊙

➡

MB

LEGEND

TYPE III BARRICADE

TYPE III BARRICADE WITH ATTACHED SIGN

TRAFFIC CONTROL DRUM

TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT

FLASHING ARROW BOARD

SIGN ON PERMANENT SUPPORT

SIGN ON TEMPORARY SUPPORT

DELINEATOR FLEXIBLE/TUBULAR MARKER

WORK AREA

DIRECTION OF TRAFFIC

PORTABLE CHANGEABLE MESSAGE BOARD

NOTE - ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED

PROJECT NO: 1112-06-74

HWY: USH 151

COUNTY: DODGE & FOND DU LAC

STAGE 2

SHEET 92

E

FILE NAME : X:\PROJECTS\DODGE\200093 - 1112-06-03 USH 151 AND STH 49 INTERCHANGE\DESIGN\C3D\SHEETSPLAN\025001-TRAFFIC CONTROL\025100-TC2.DWG

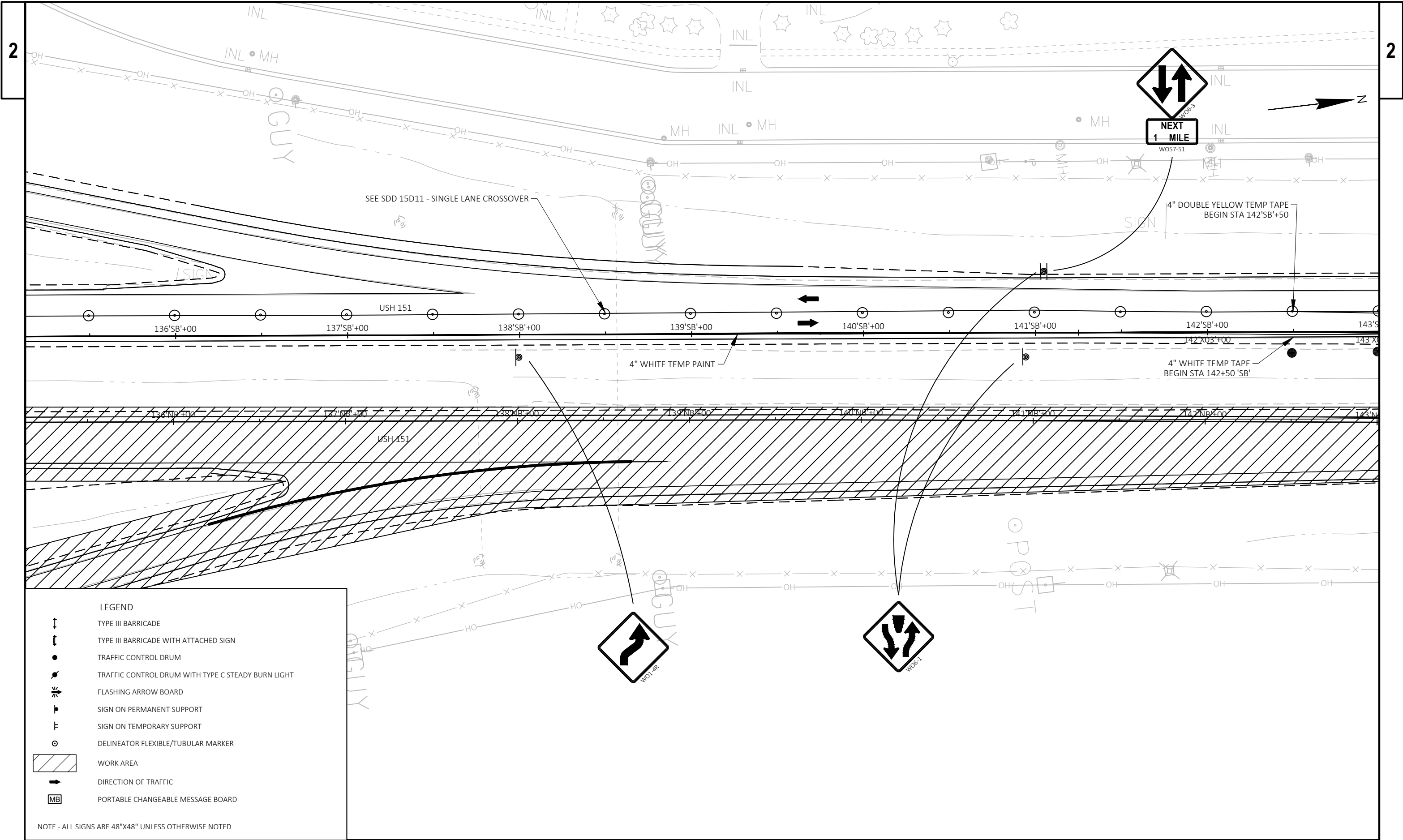
PLOT DATE : 4/16/2021 1:56 PM

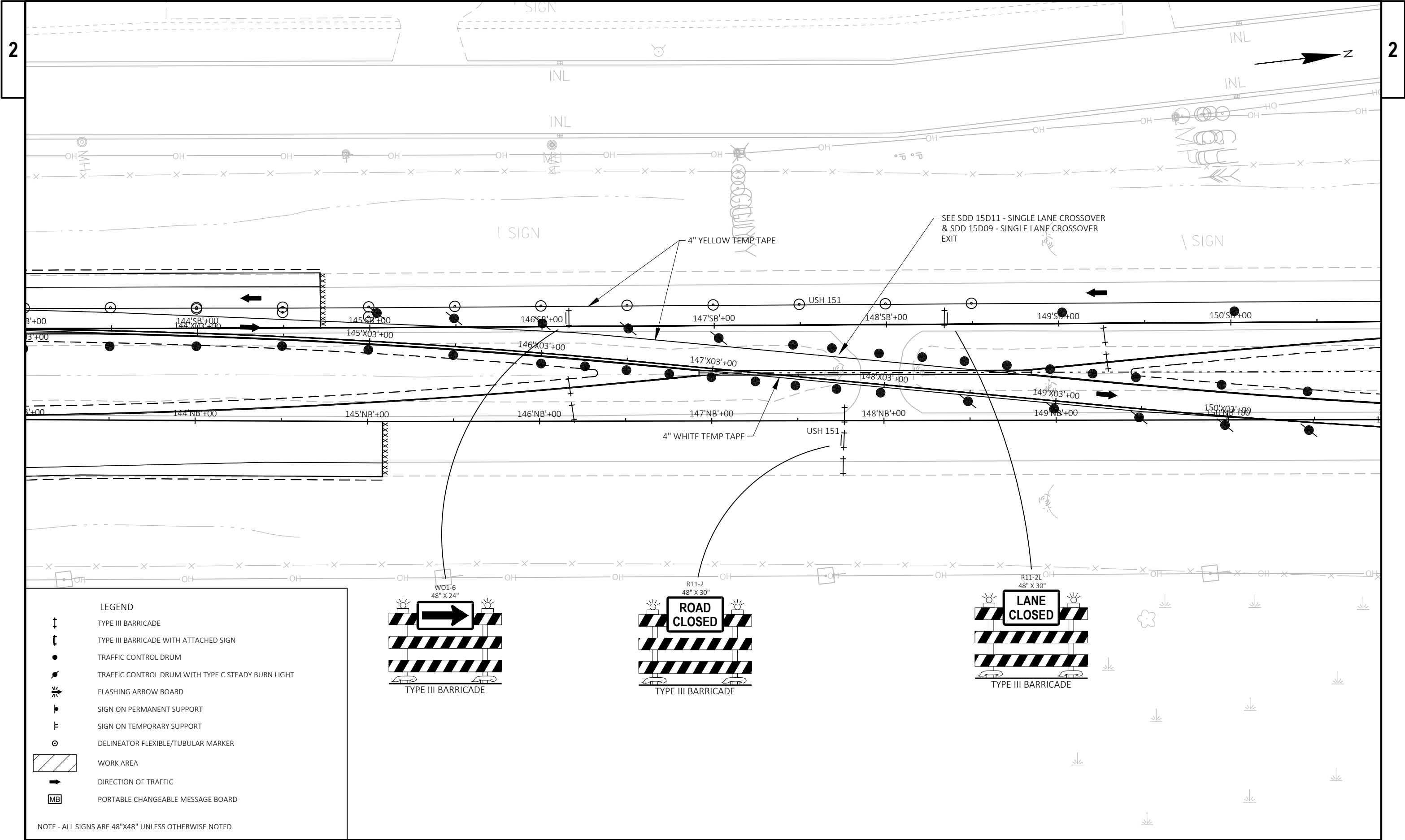
PLOT BY : BOB WILSON

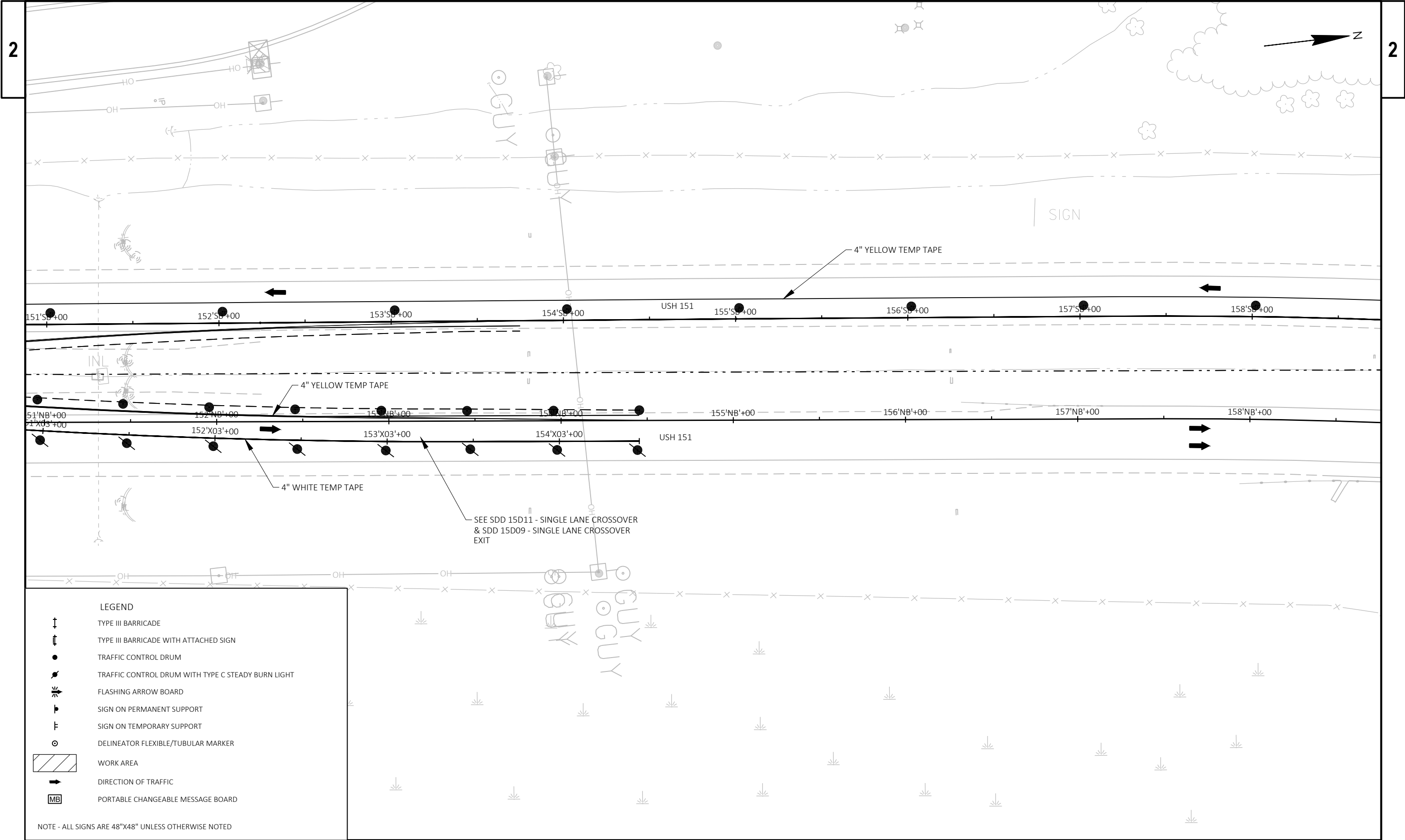
PLOT NAME :

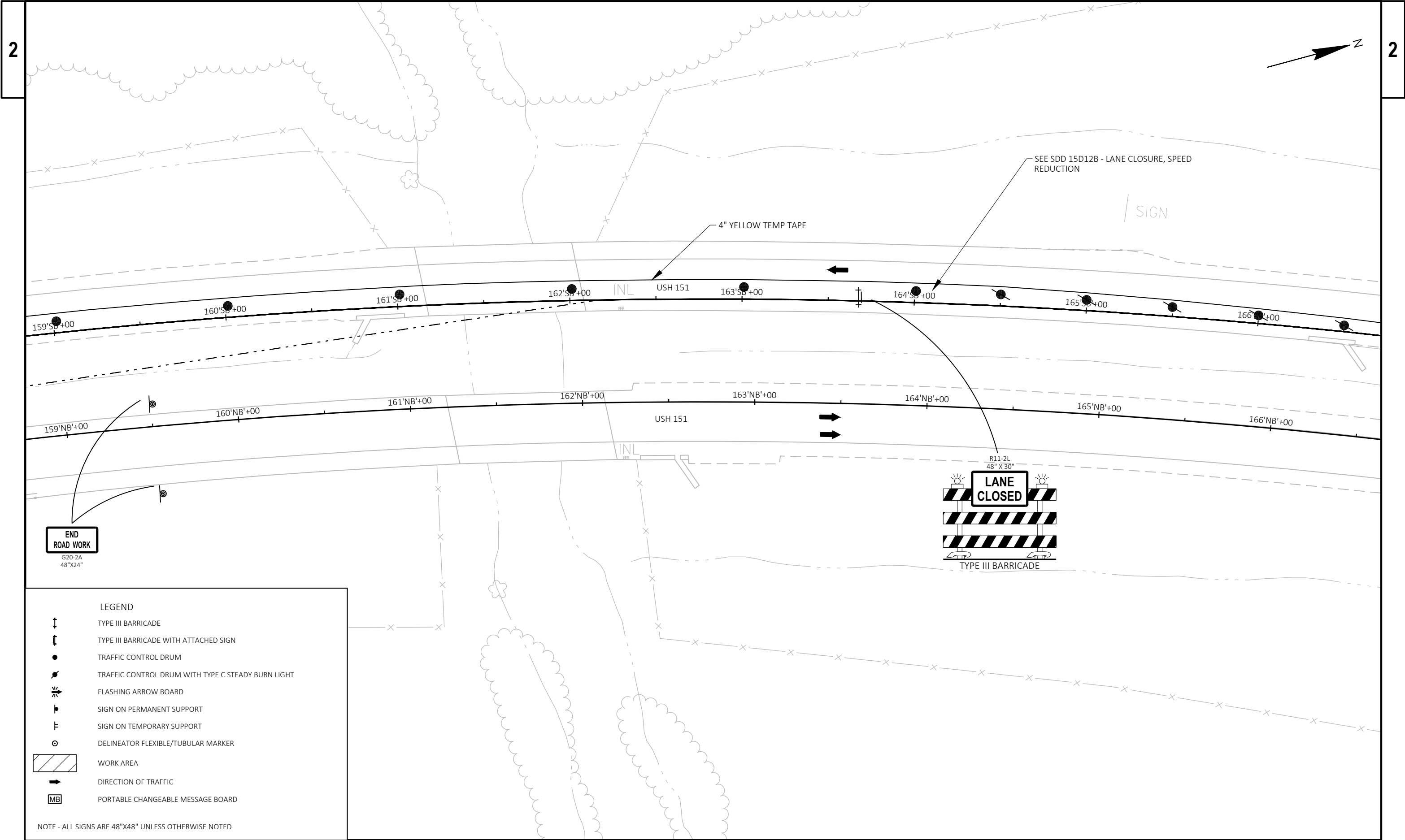
PLOT SCALE : 1 IN:50 FT

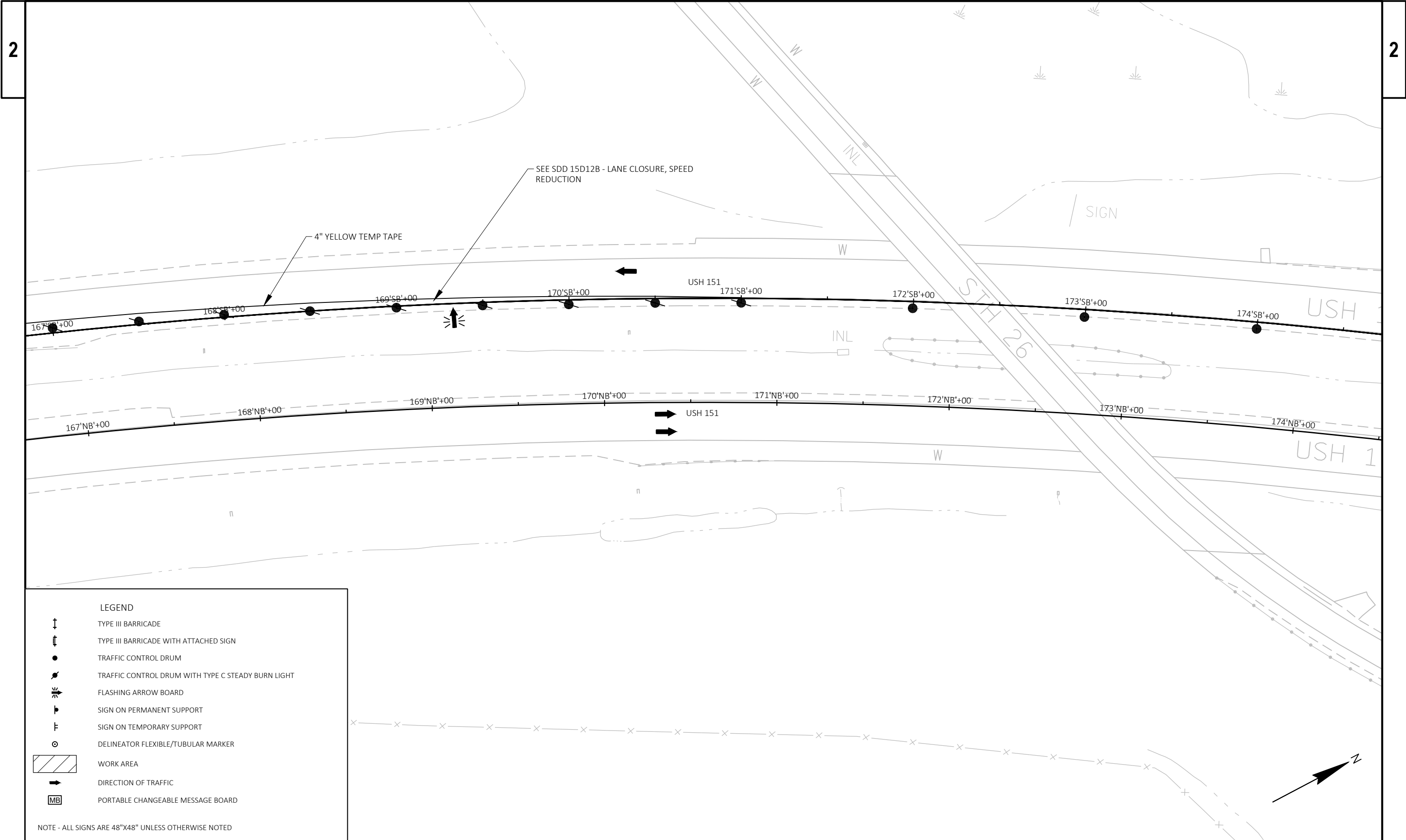
WISDOT/CADDs SHEET 42











PROJECT NO: 1112-06-74

HWY: USH 151

COUNTY: DODGE & FOND DU LAC

STAGE 2

SHEET

97

E

FILE NAME : X:\PROJECTS\DODGE\200093 - 1112-06-03 USH 151 AND STH 49 INTERCHANGE\DESIGN\C3D\SHEETSPLAN\025001-TRAFFIC CONTROL\025100-TC2.DWG
LAYOUT NAME - Sheet - dt stg2(29)

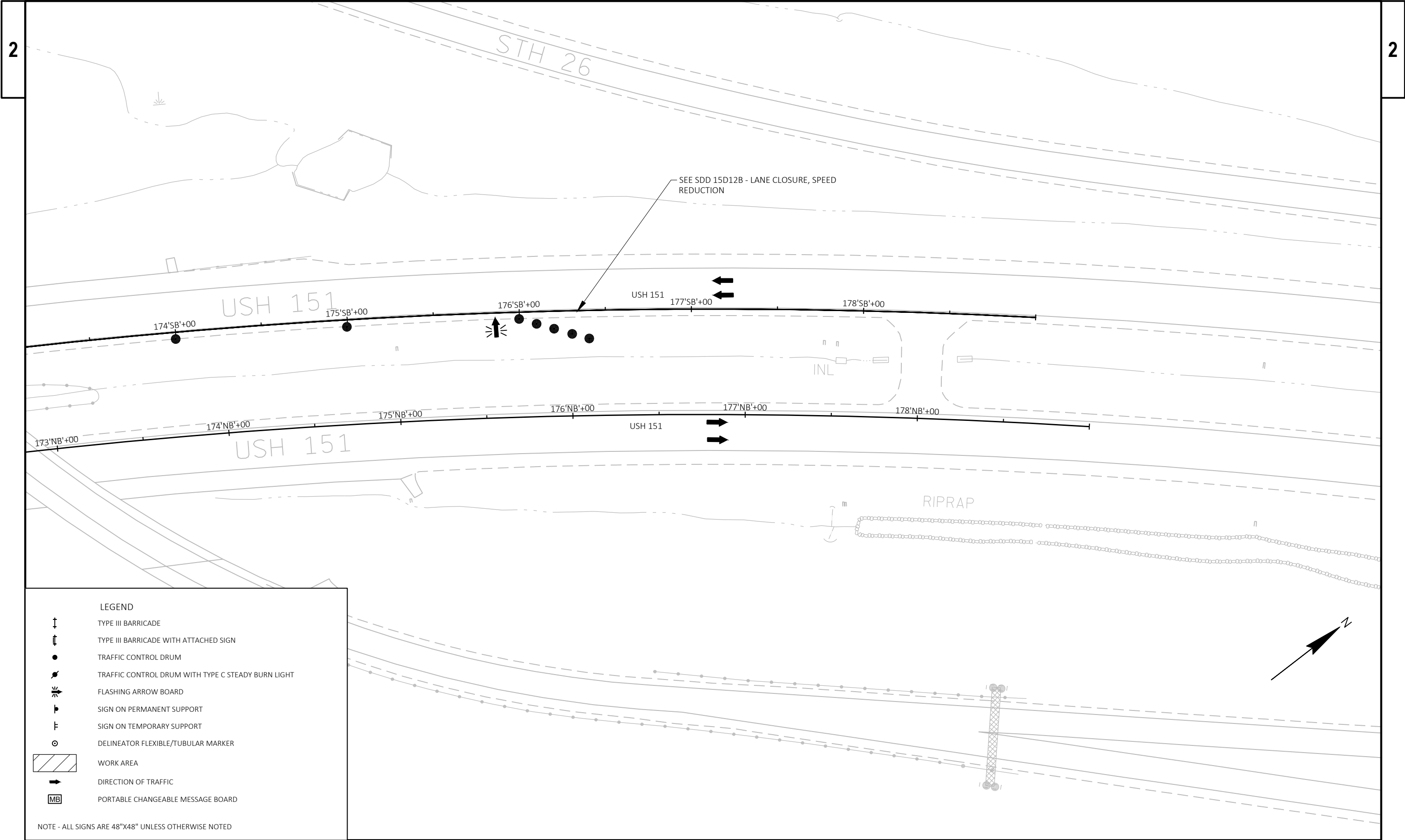
PLOT DATE : 4/16/2021 1:56 PM

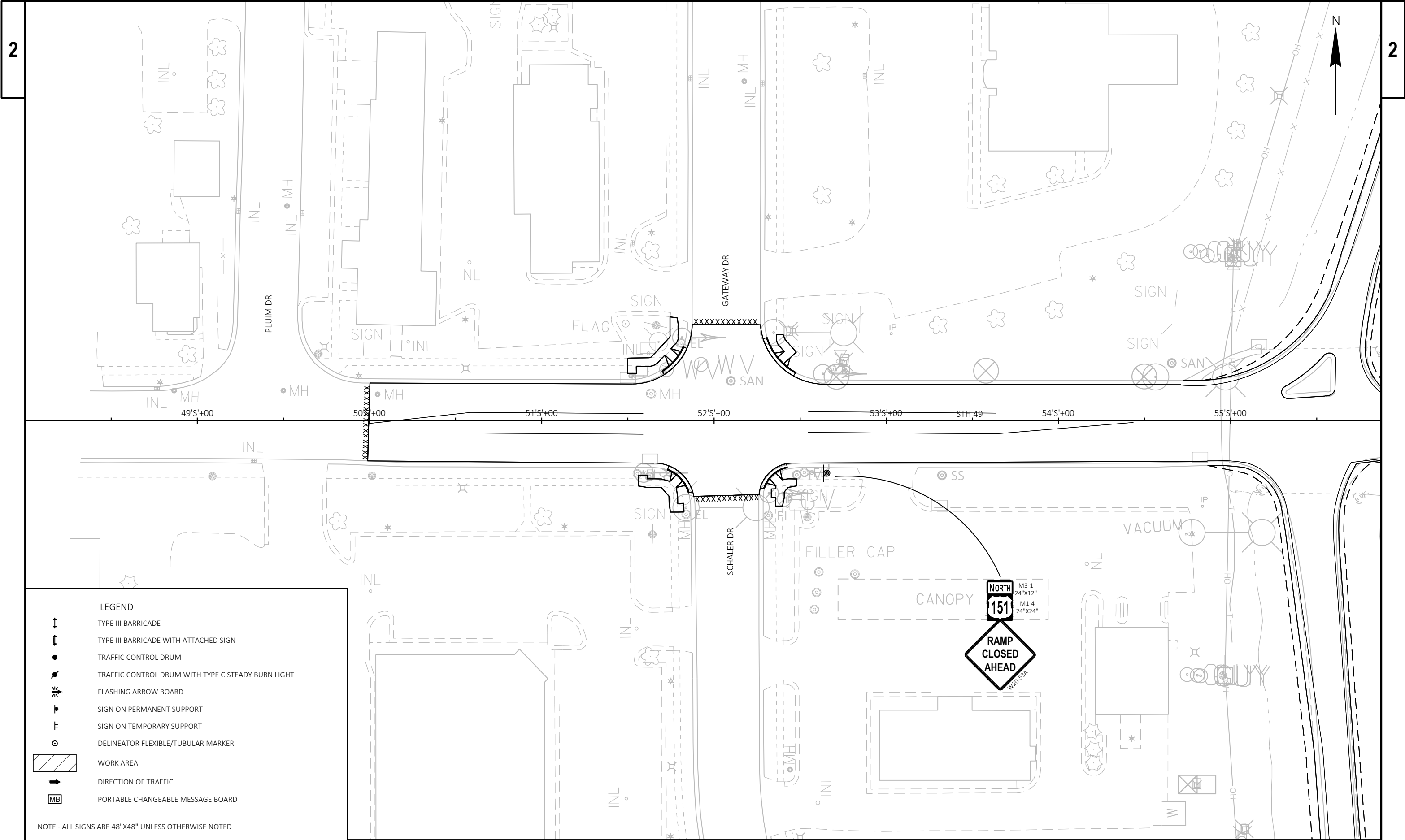
PLOT BY : BOB WILSON

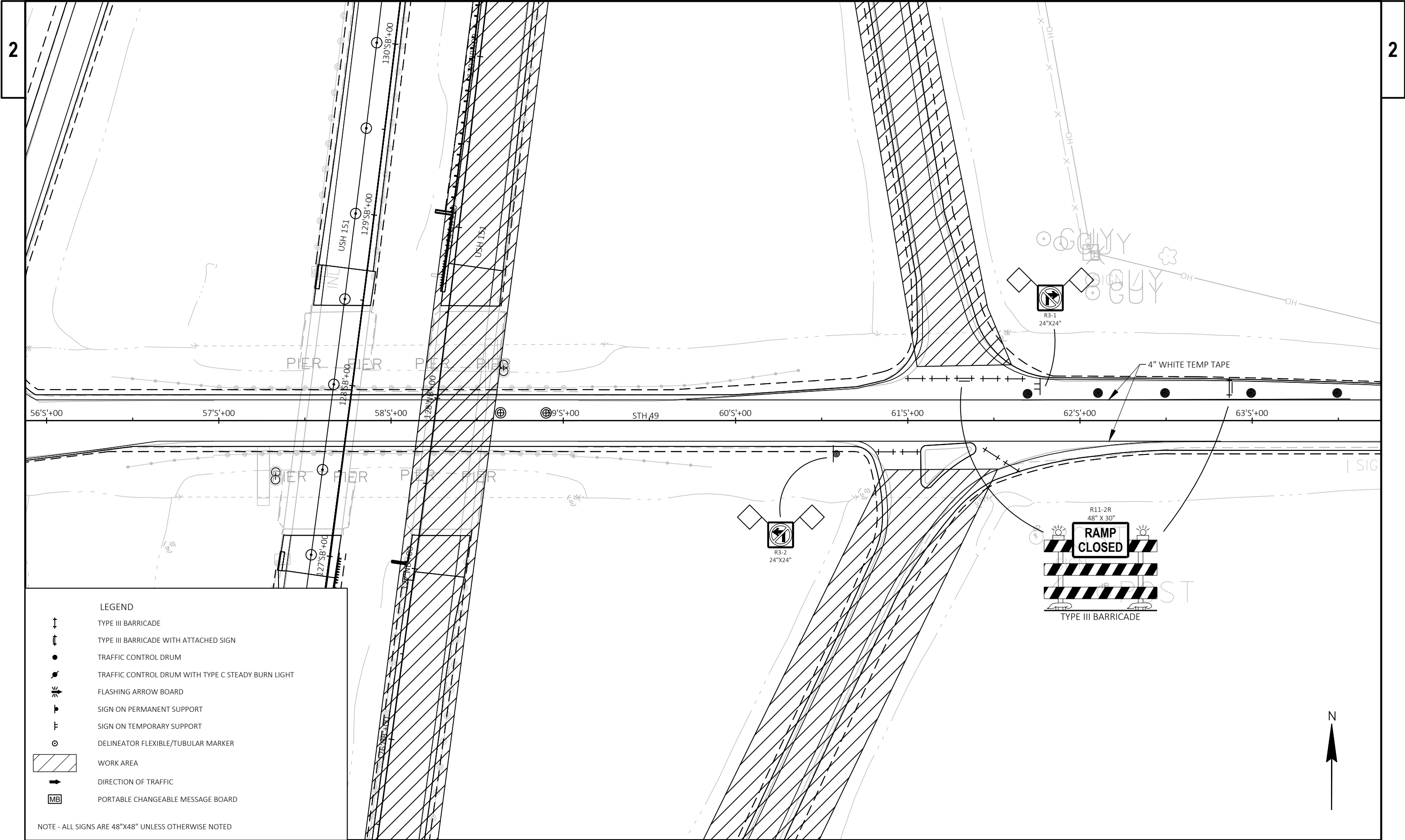
PLOT NAME :

PLOT SCALE : 1 IN:50 FT

WISDOT/CADDs SHEET 42







↑

↑

●

●

⚡

⬆

F

○

➡

MB

LEGEND

TYPE III BARRICADE

TYPE III BARRICADE WITH ATTACHED SIGN

TRAFFIC CONTROL DRUM

TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT

FLASHING ARROW BOARD

SIGN ON PERMANENT SUPPORT

SIGN ON TEMPORARY SUPPORT

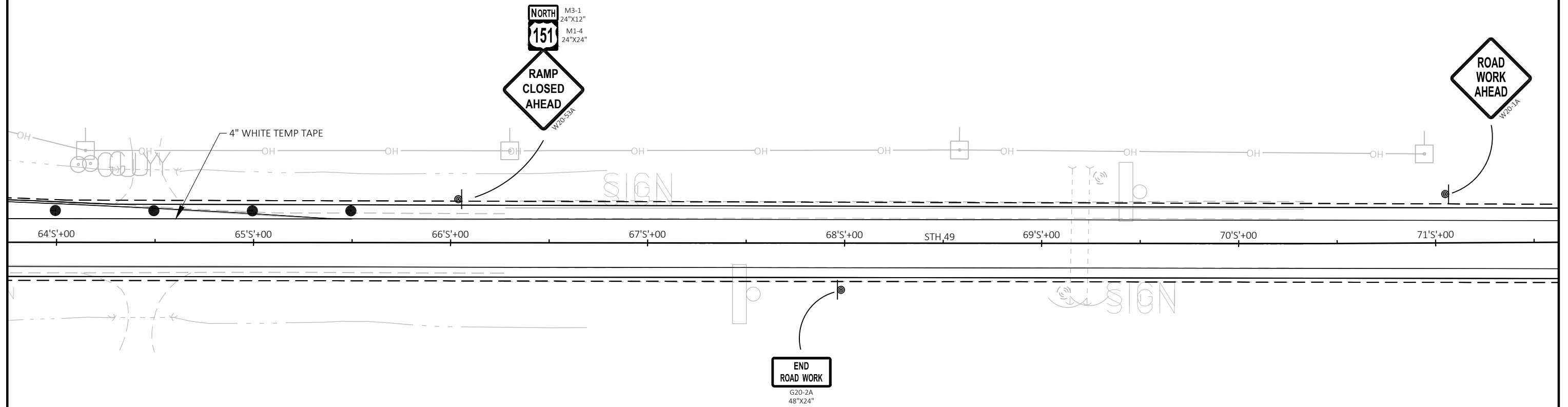
DELINEATOR FLEXIBLE/TUBULAR MARKER

WORK AREA

DIRECTION OF TRAFFIC

PORTABLE CHANGEABLE MESSAGE BOARD

NOTE - ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED



LEGEND

- ↑ TYPE III BARRICADE
- ↑ TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- ↗ FLASHING ARROW BOARD
- ▮ SIGN ON PERMANENT SUPPORT
- ▮ SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- ▨ WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD

NOTE - ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED

PROJECT NO: 1112-06-74

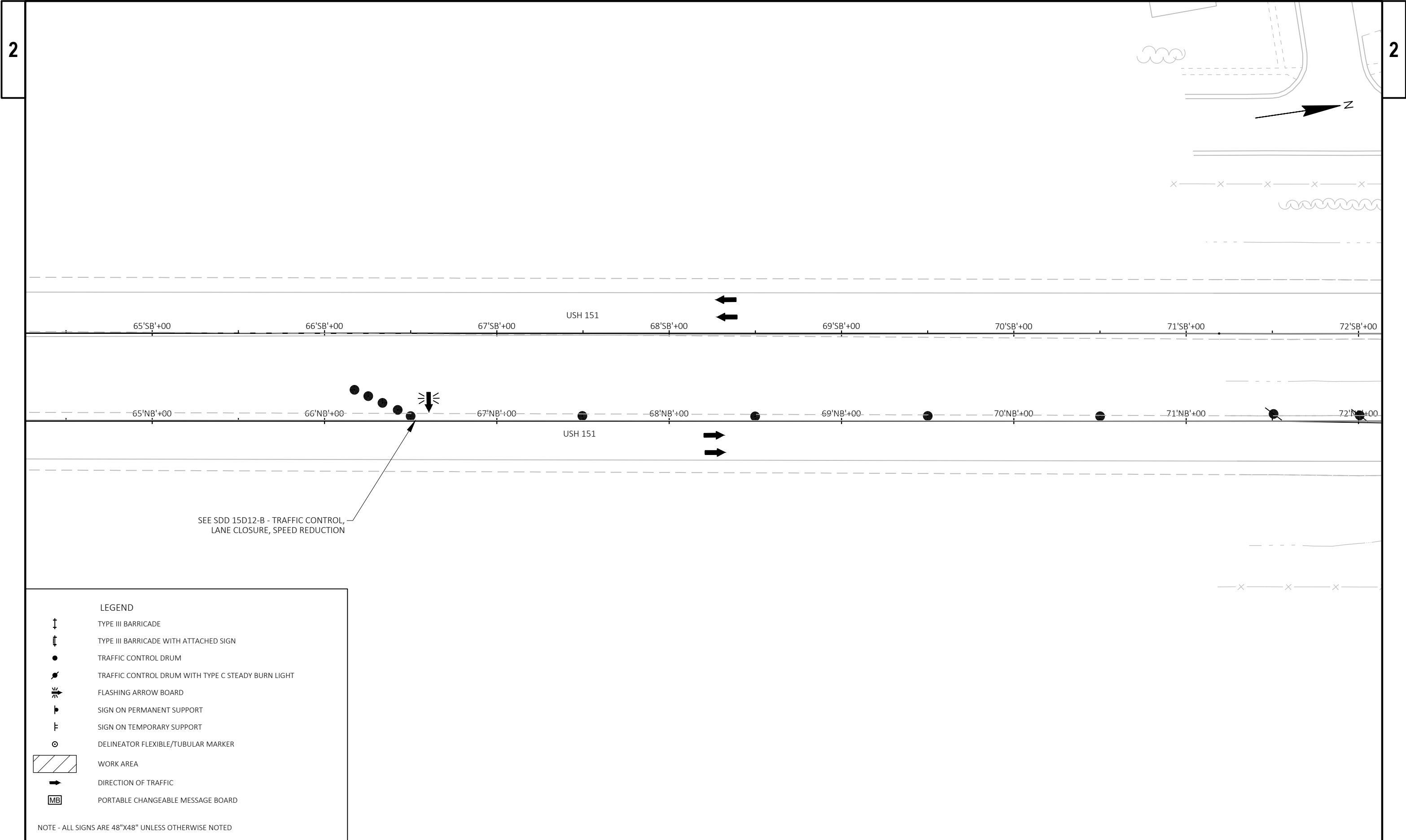
HWY: USH 151

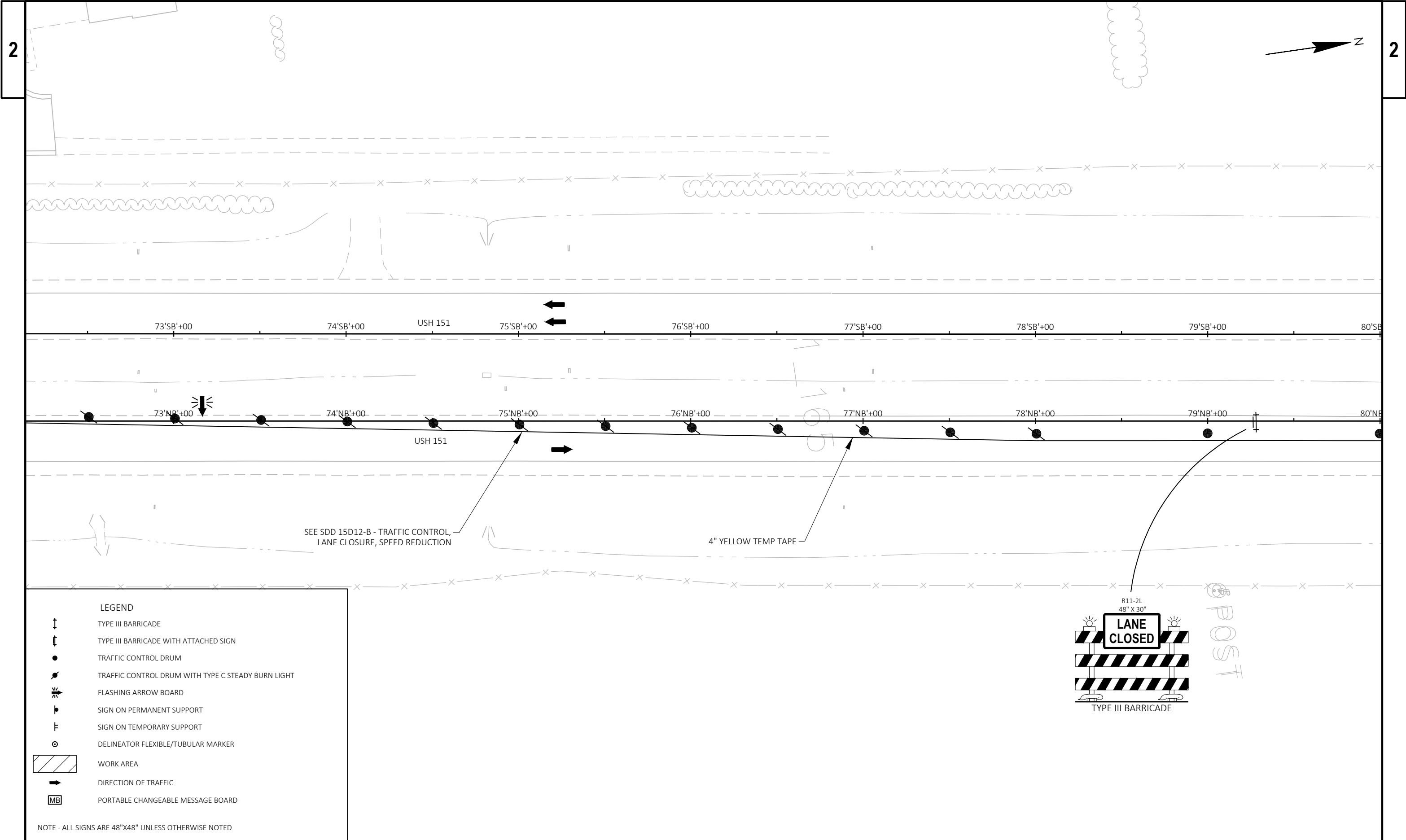
COUNTY: DODGE & FOND DU LAC

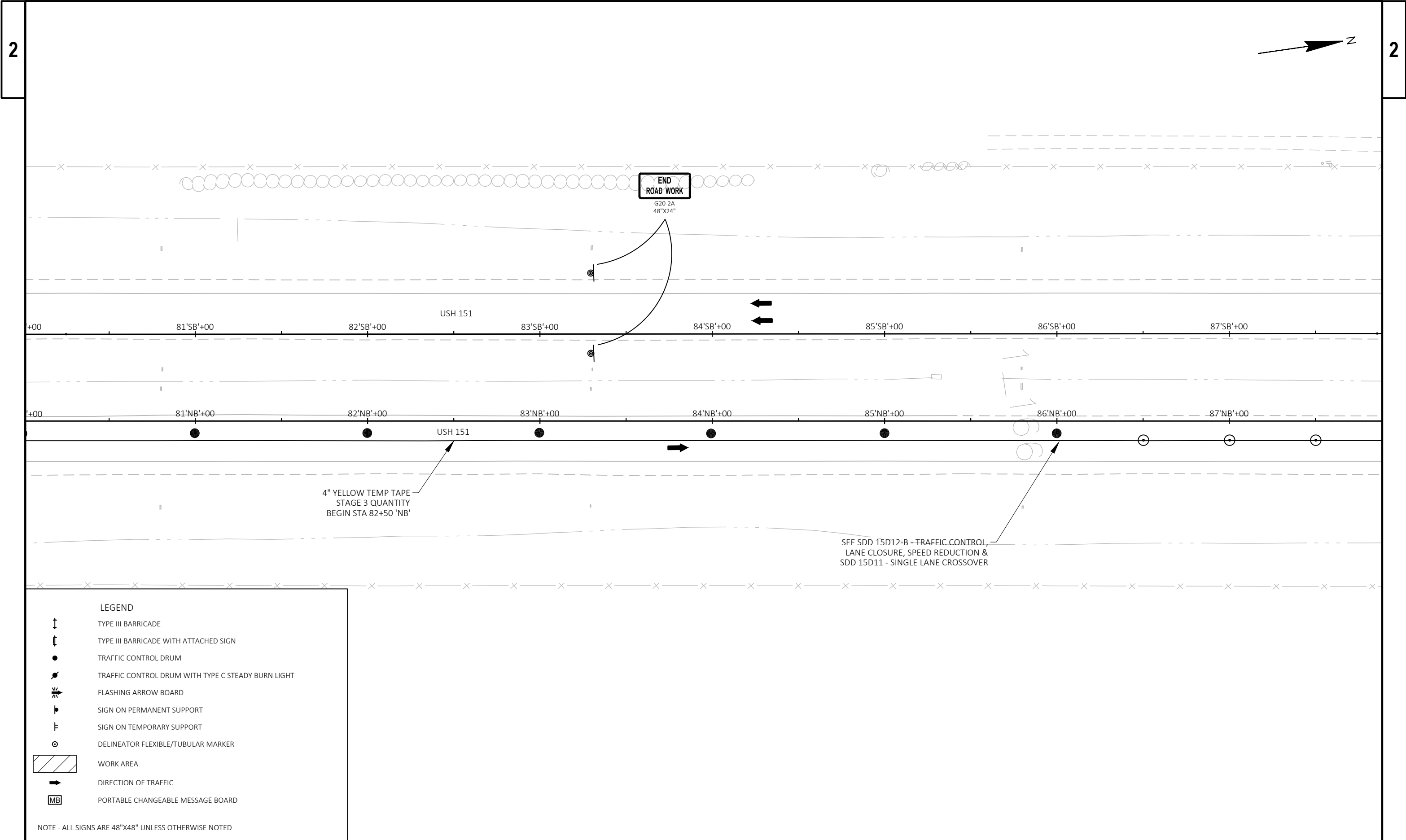
STAGE 2

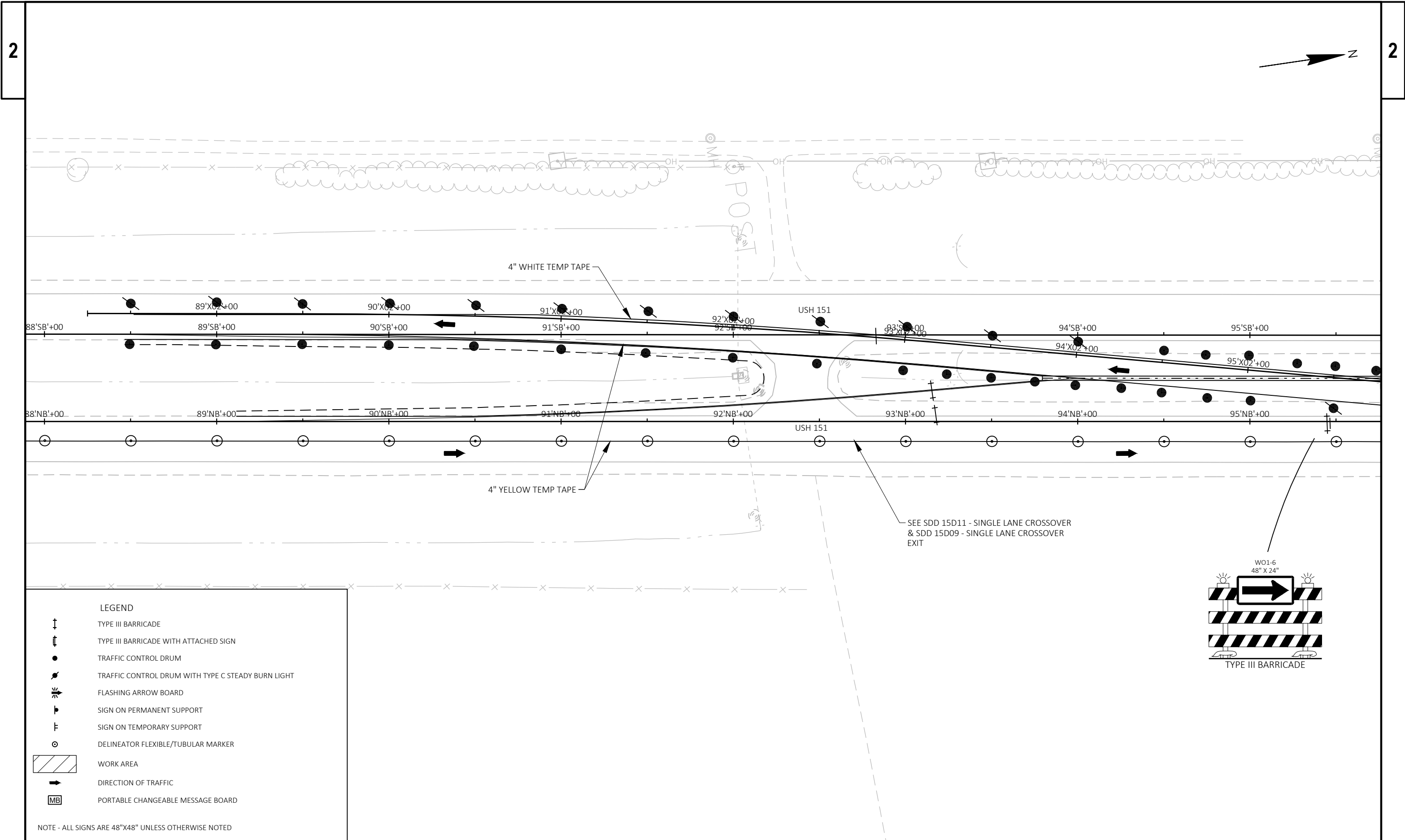
SHEET 101

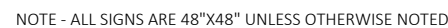
E

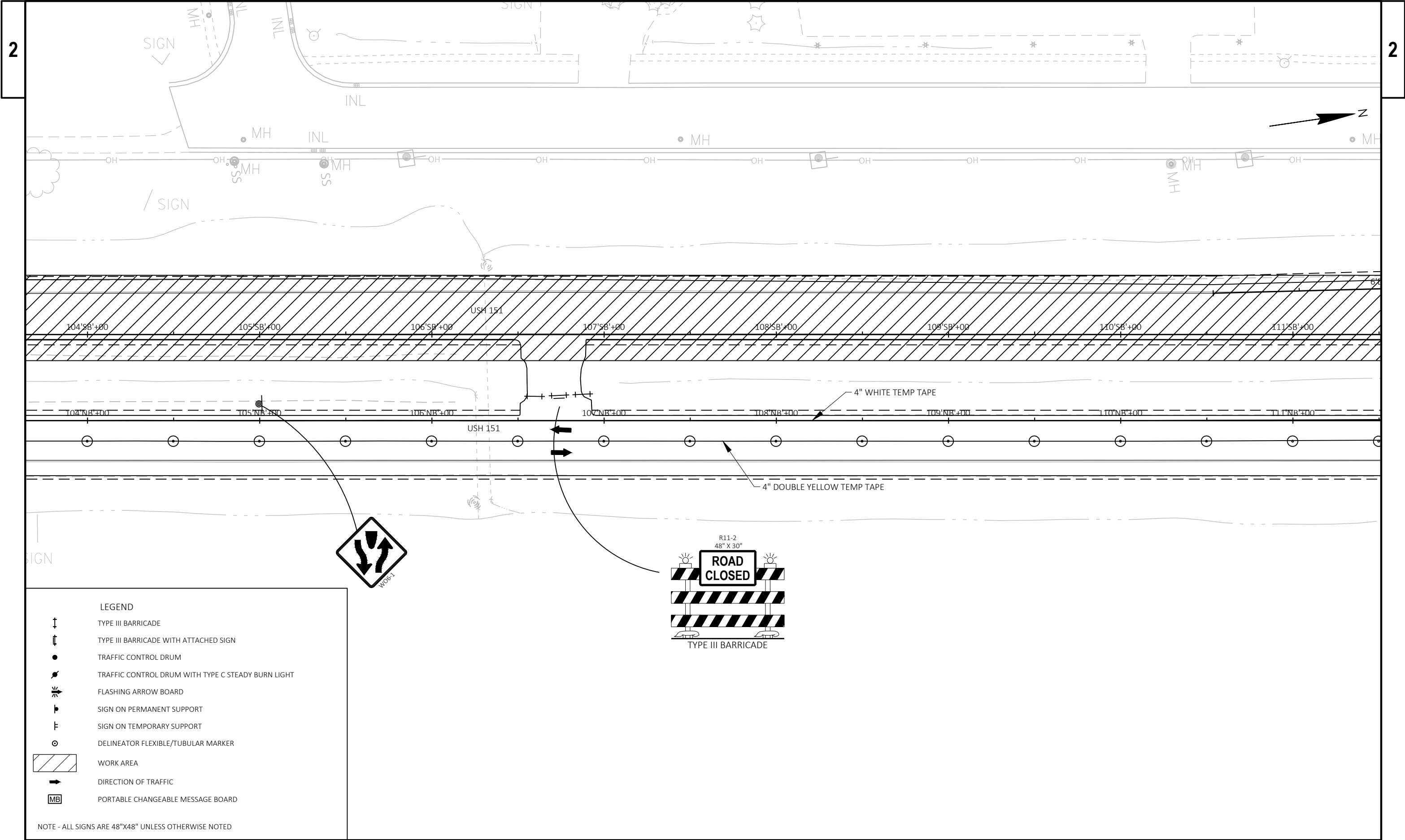


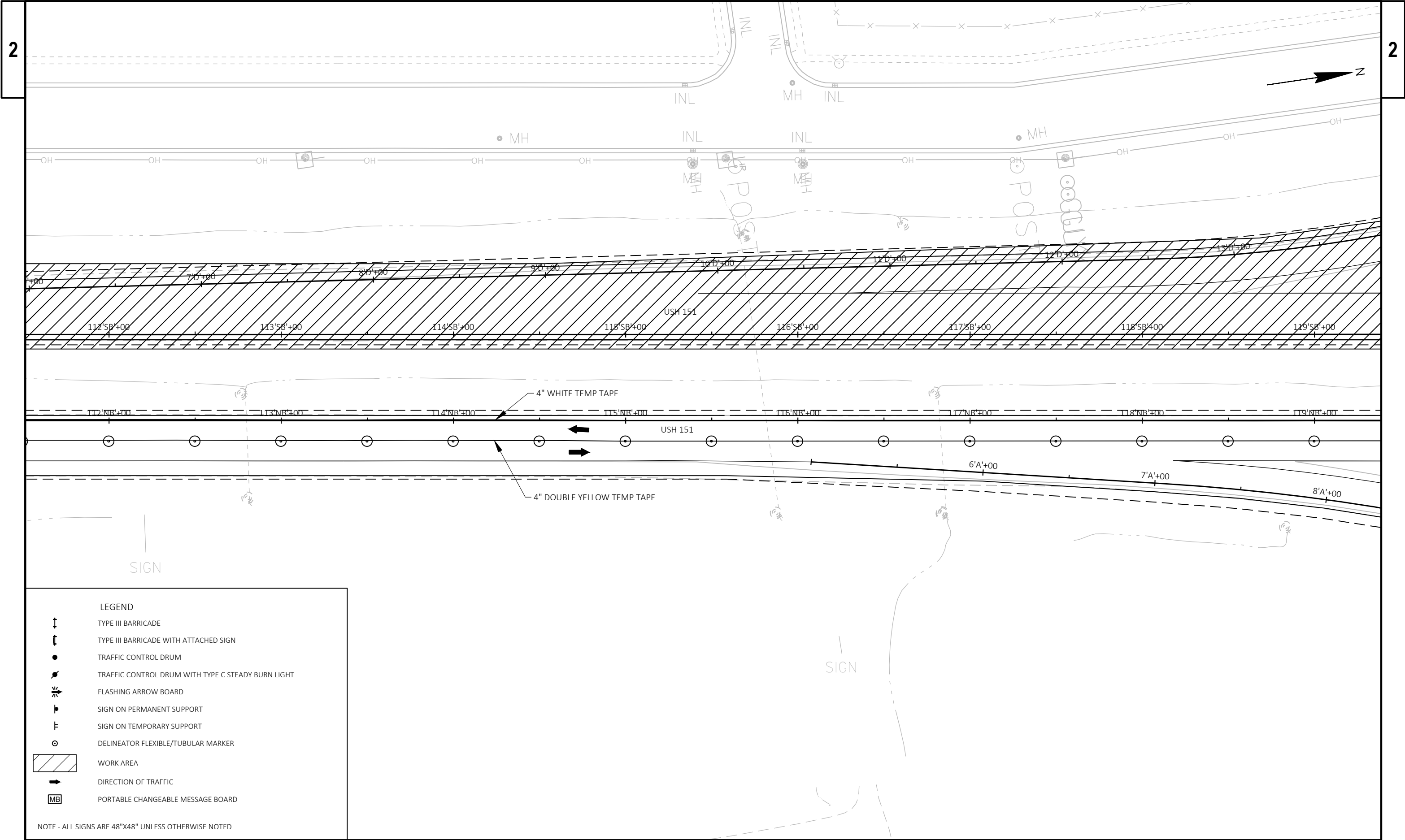


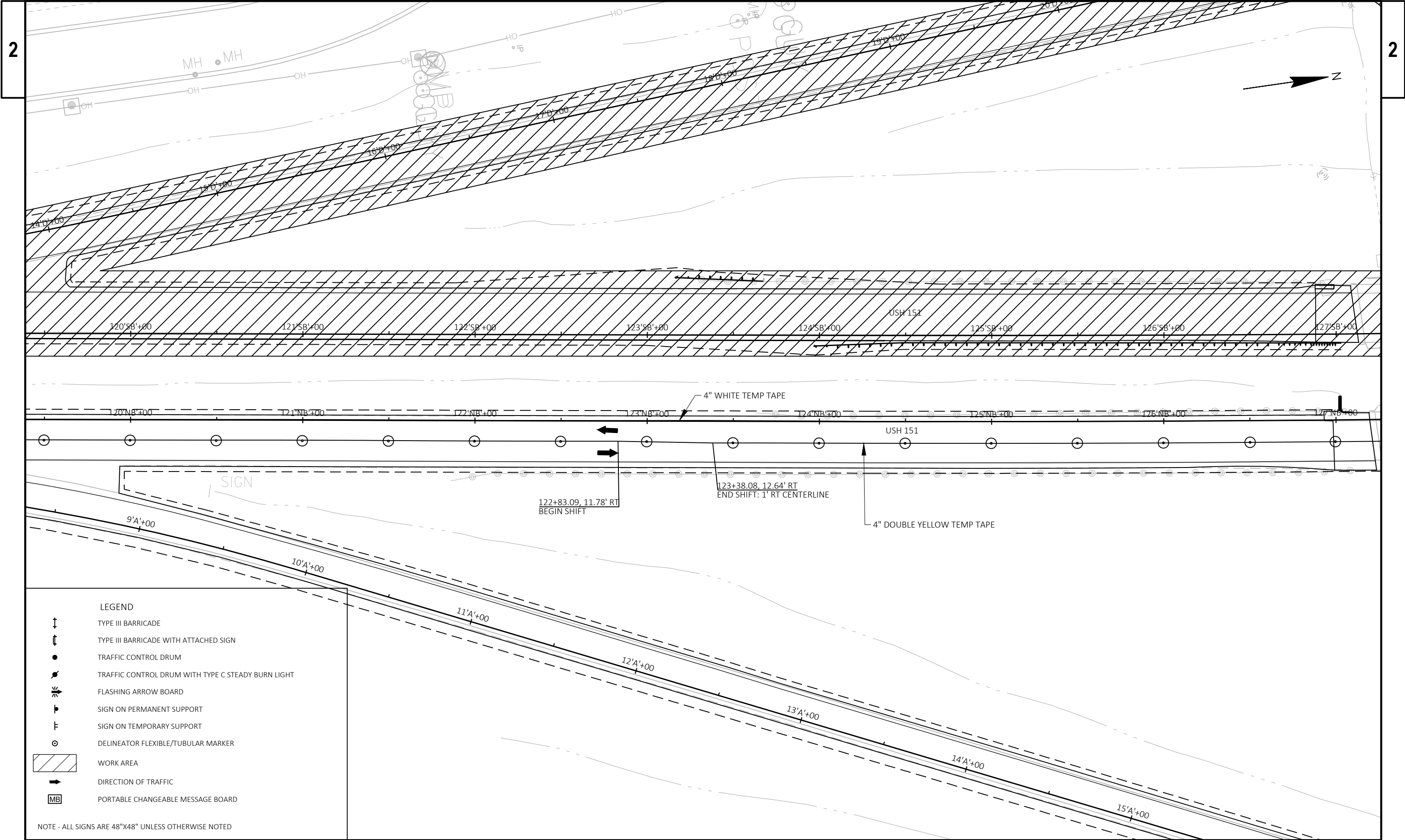


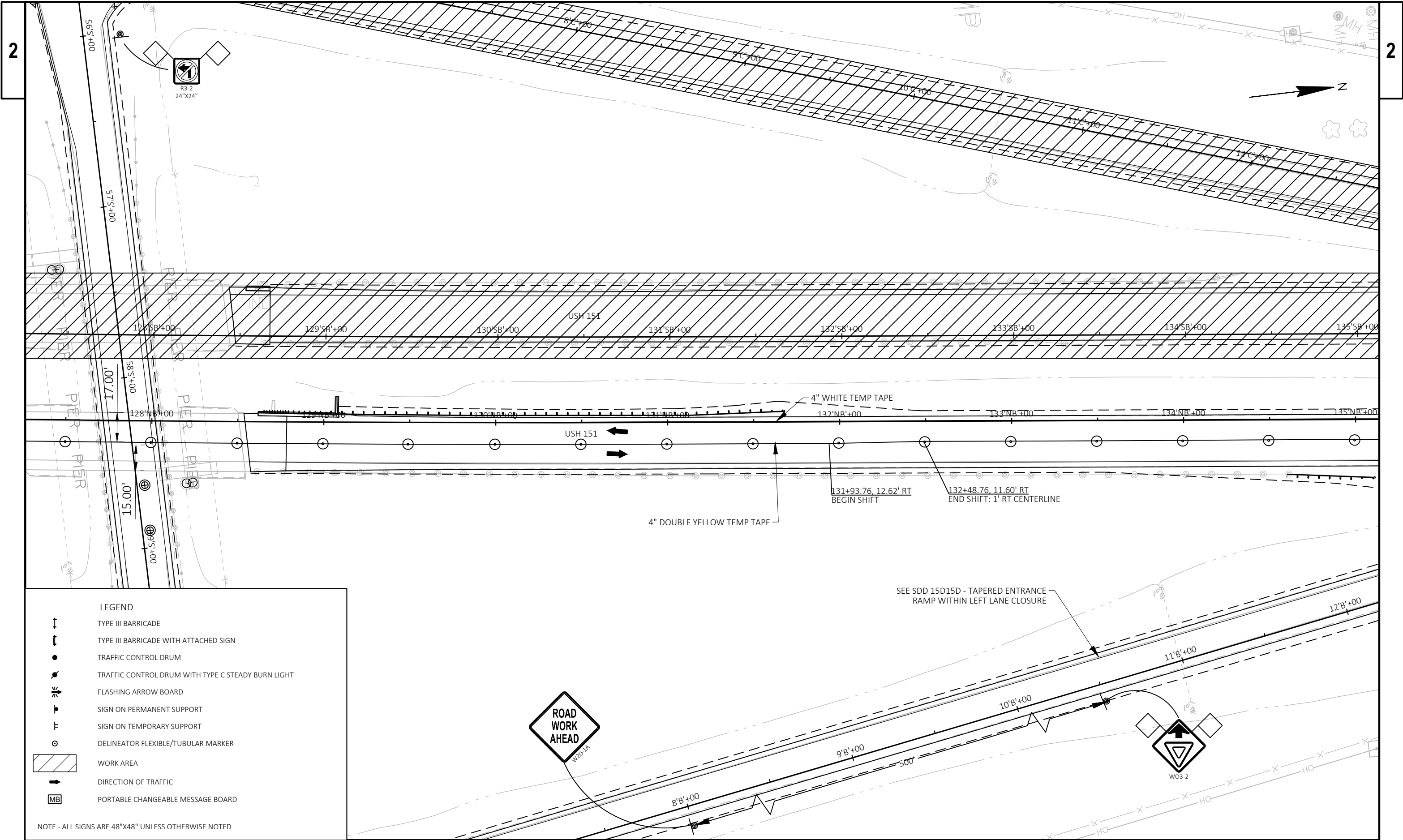


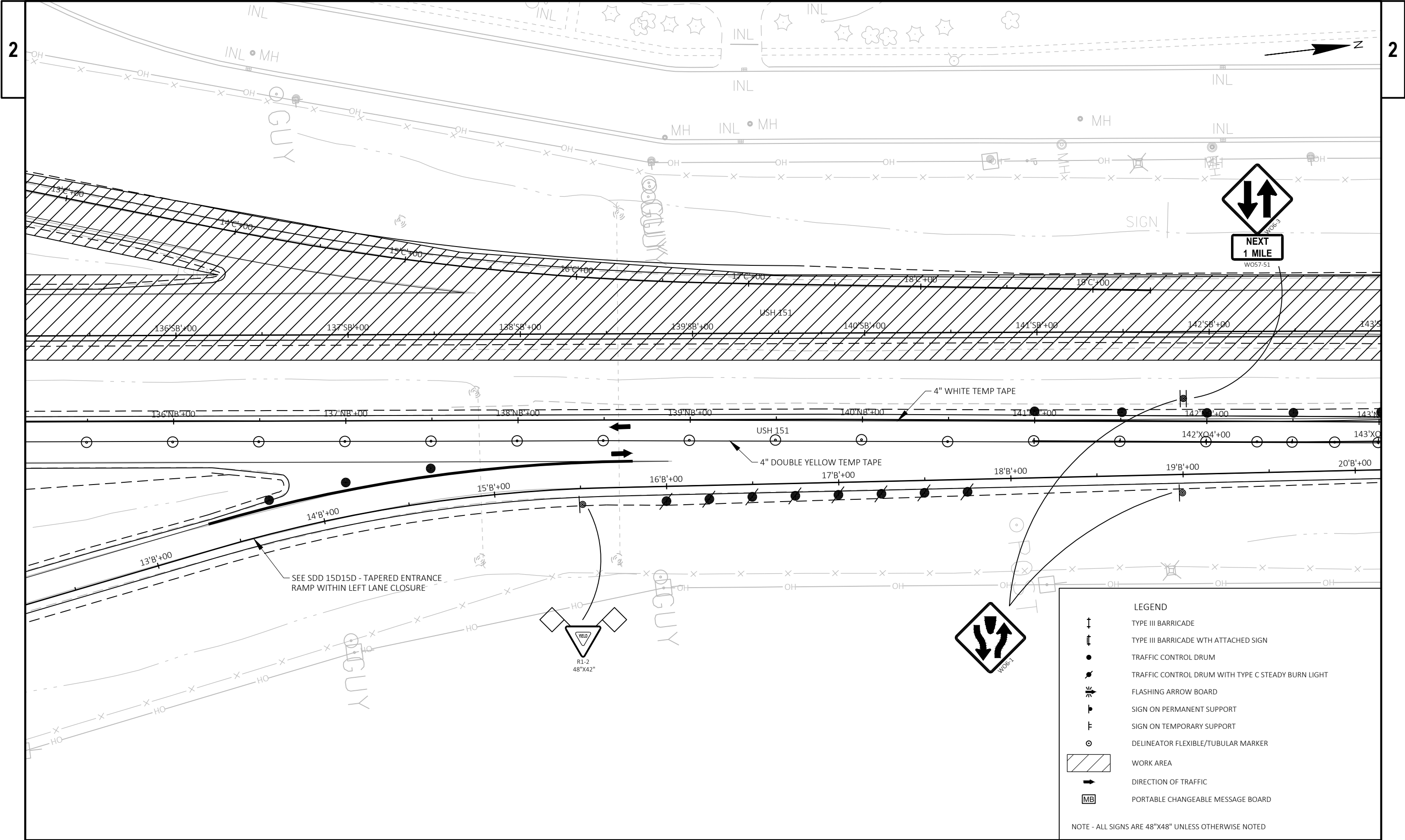


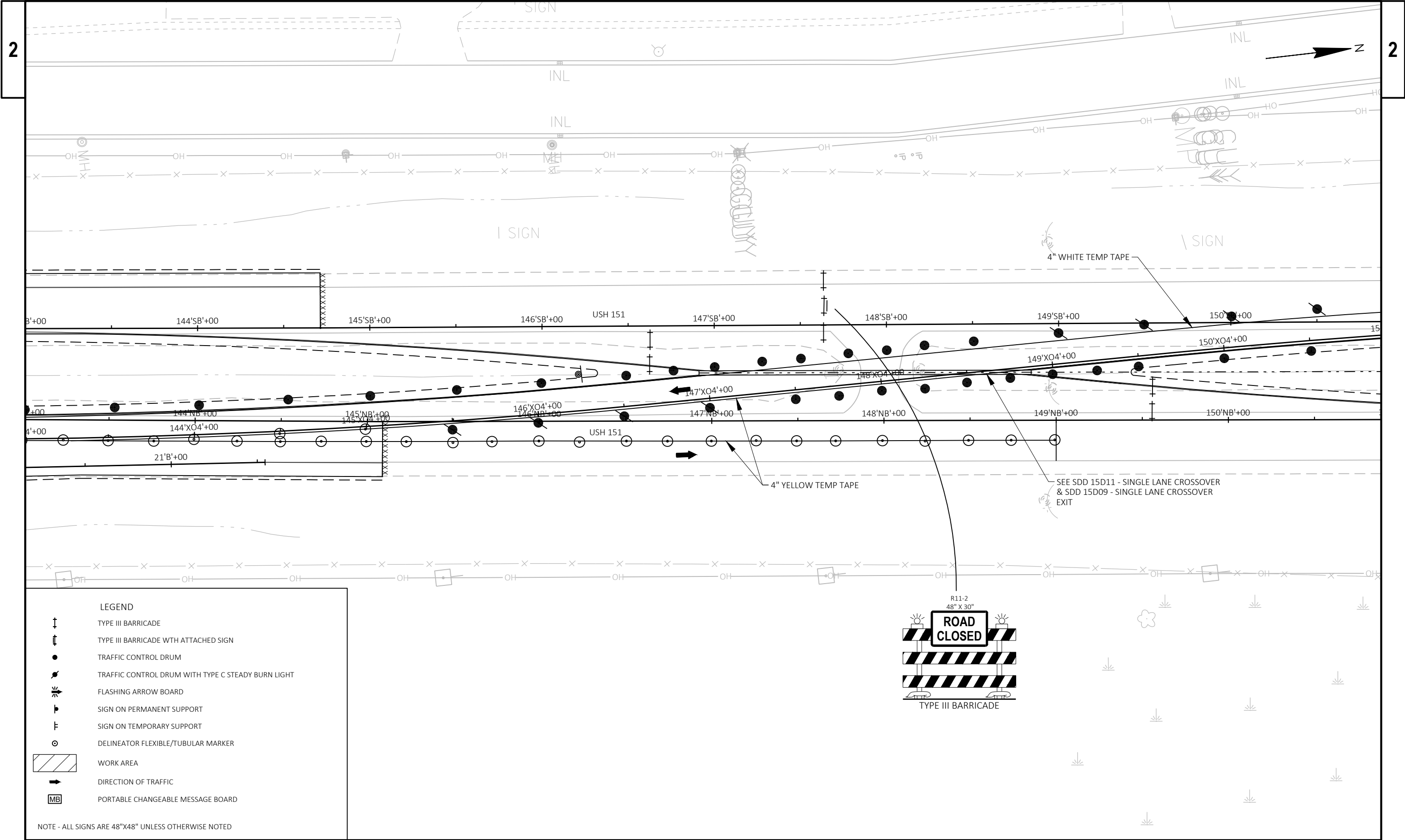


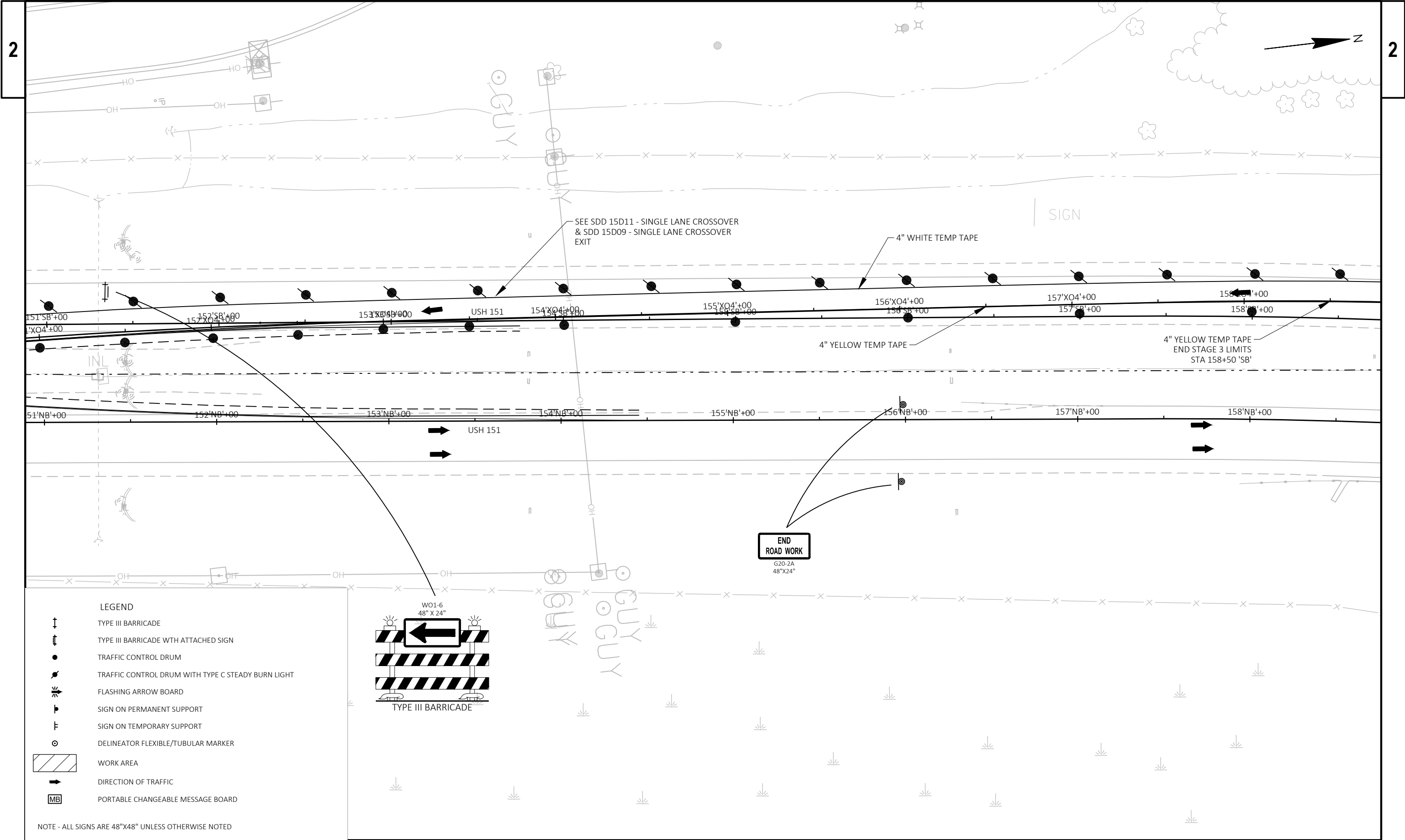


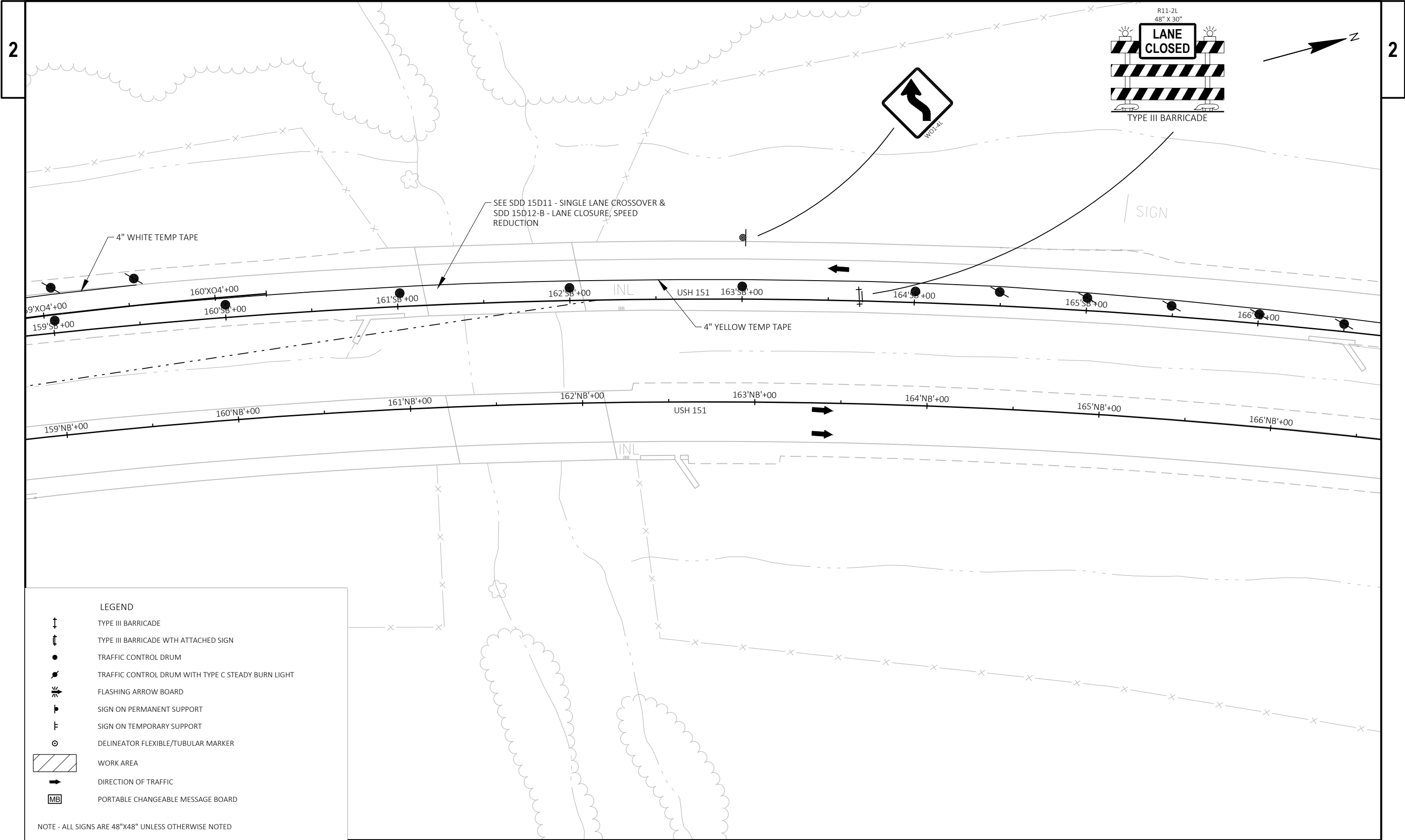






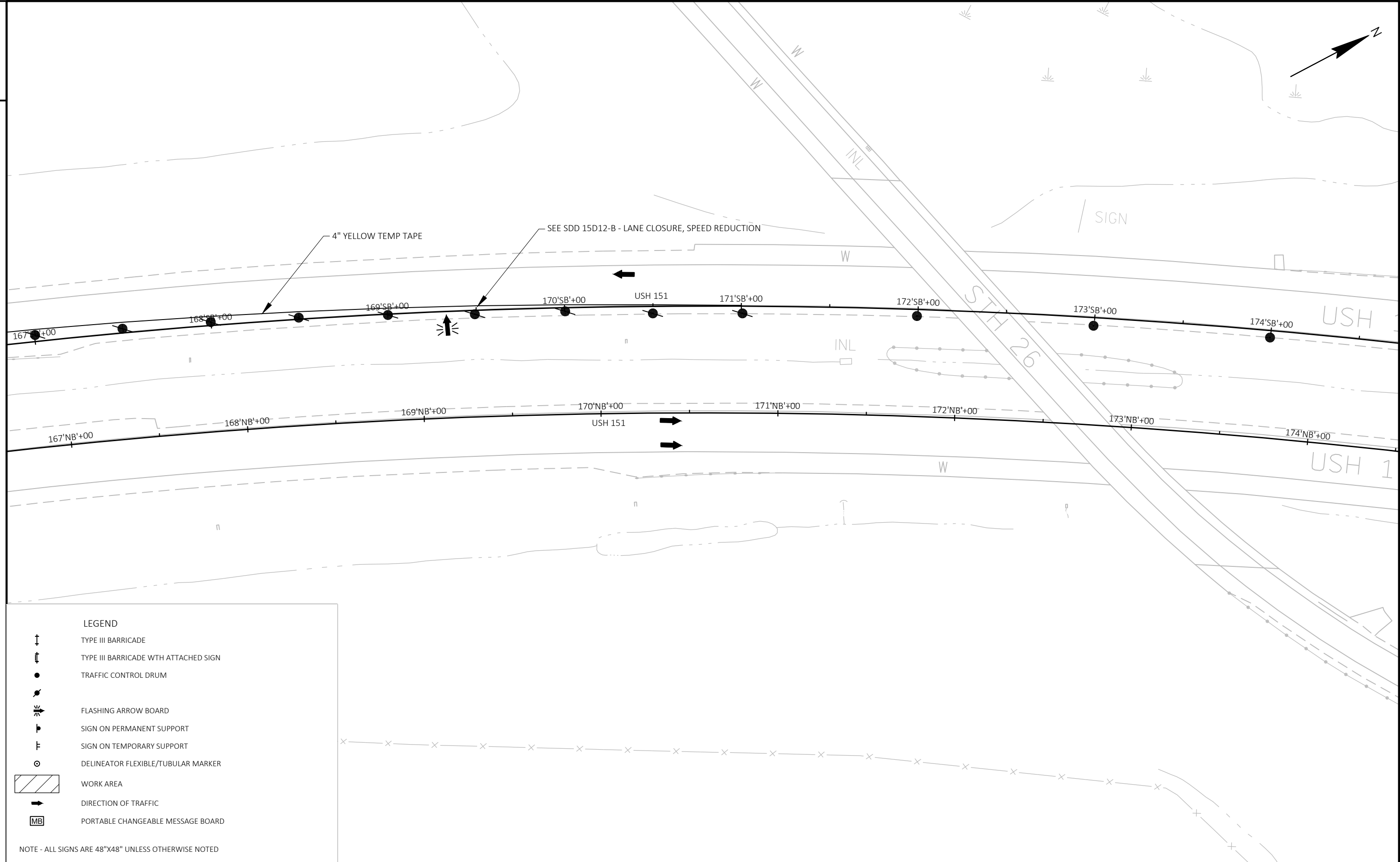






2

2



PROJECT NO: 1112-06-74	HWY: USH 151	COUNTY: DODGE & FOND DU LAC	STAGE 3	SHEET 115	E
------------------------	--------------	-----------------------------	---------	-----------	----------

FILE NAME : X:\PROJECTS\PODGE\200093 - 1112-06-03 USH 151 AND STH 49 INTERCHANGE\DESIGN\C3D\SHEETSP\025001-TRAFFIC CONTROL\025100-TC3.DWG
LAYOUT NAME - Sheet - (14)

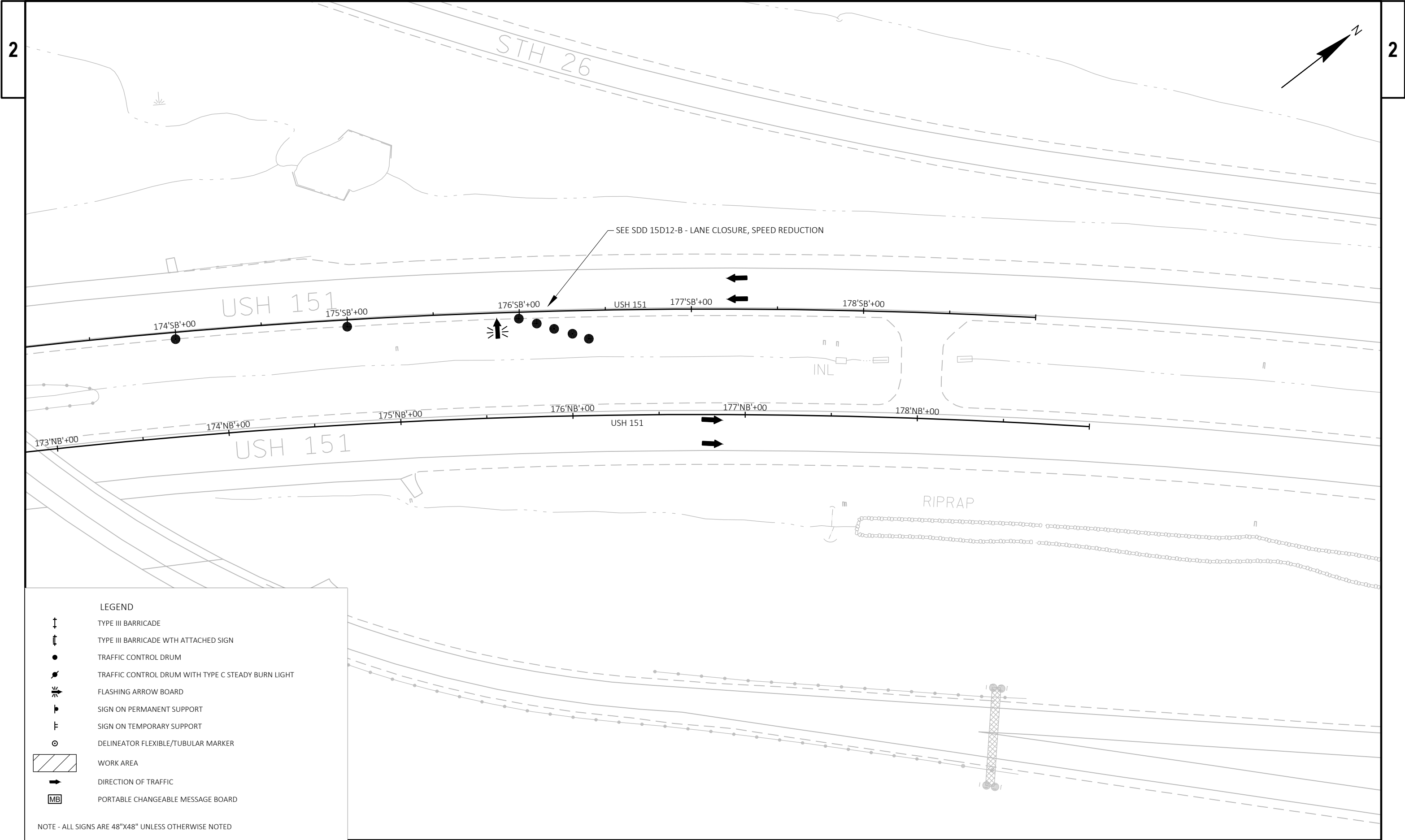
PLOT DATE : 4/16/2021 1:57 PM

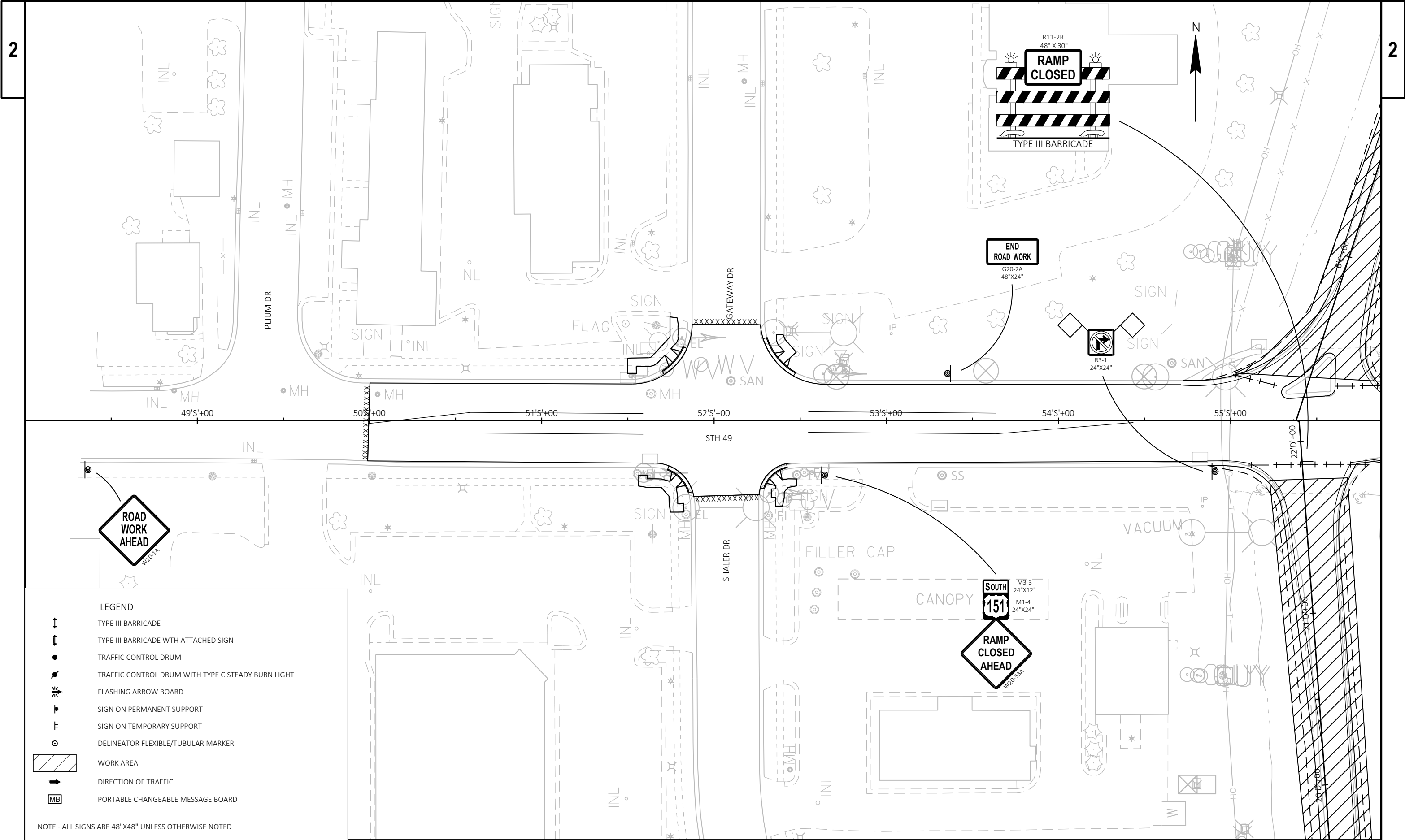
PLOT BY : BOB WILSON

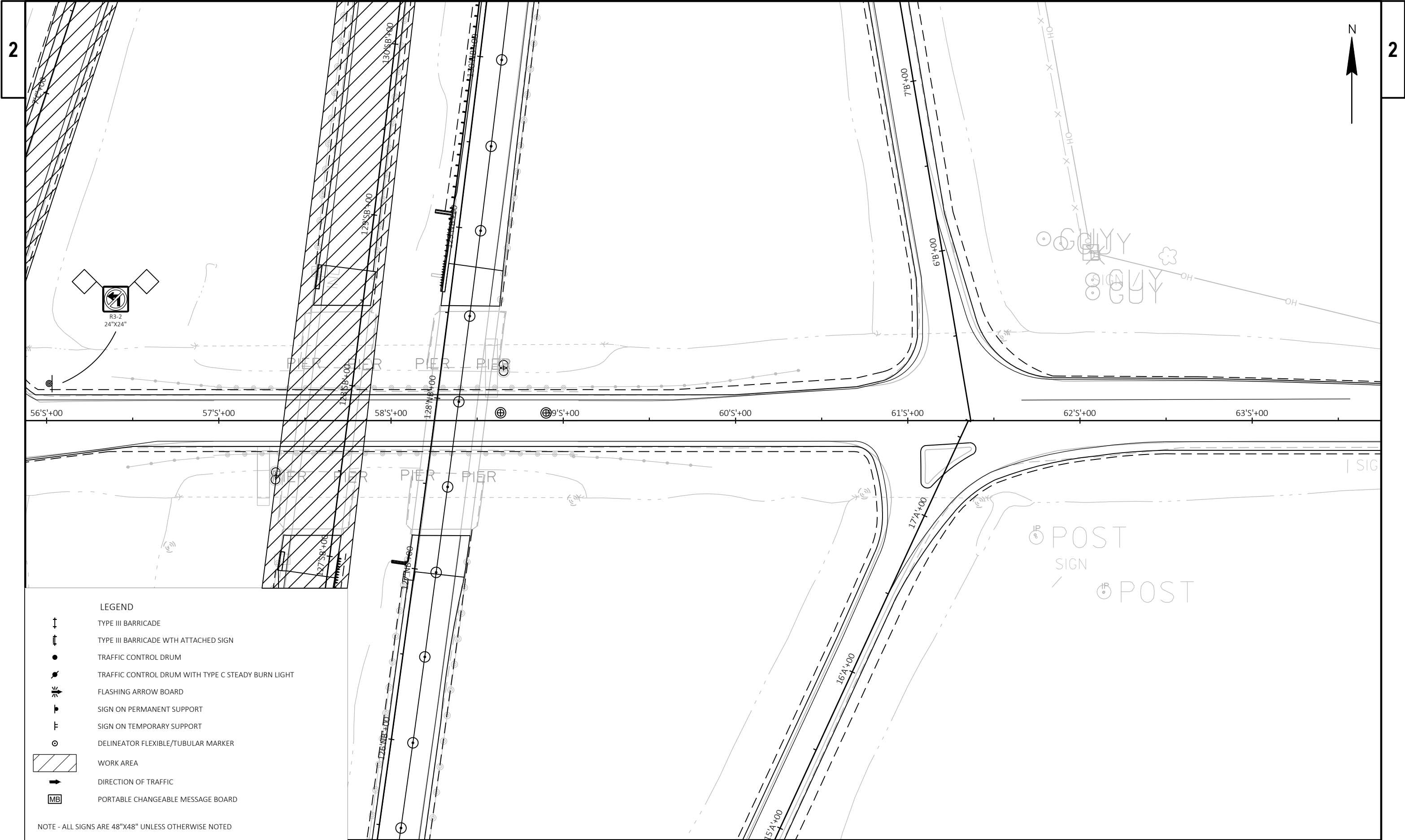
PLOT NAME :

PLOT SCALE : 1 IN=50 FT

WISDOT/CADDs SHEET 42







- LEGEND
- TYPE III BARRICADE
 - TYPE III BARRICADE WITH ATTACHED SIGN
 - TRAFFIC CONTROL DRUM
 - TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
 - FLASHING ARROW BOARD
 - SIGN ON PERMANENT SUPPORT
 - SIGN ON TEMPORARY SUPPORT
 - DELINEATOR FLEXIBLE/TUBULAR MARKER
 - WORK AREA
 - DIRECTION OF TRAFFIC
 - PORTABLE CHANGEABLE MESSAGE BOARD

NOTE - ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED

PROJECT NO: 1112-06-74

HWY: USH 151

COUNTY: DODGE & FOND DU LAC

STAGE 3

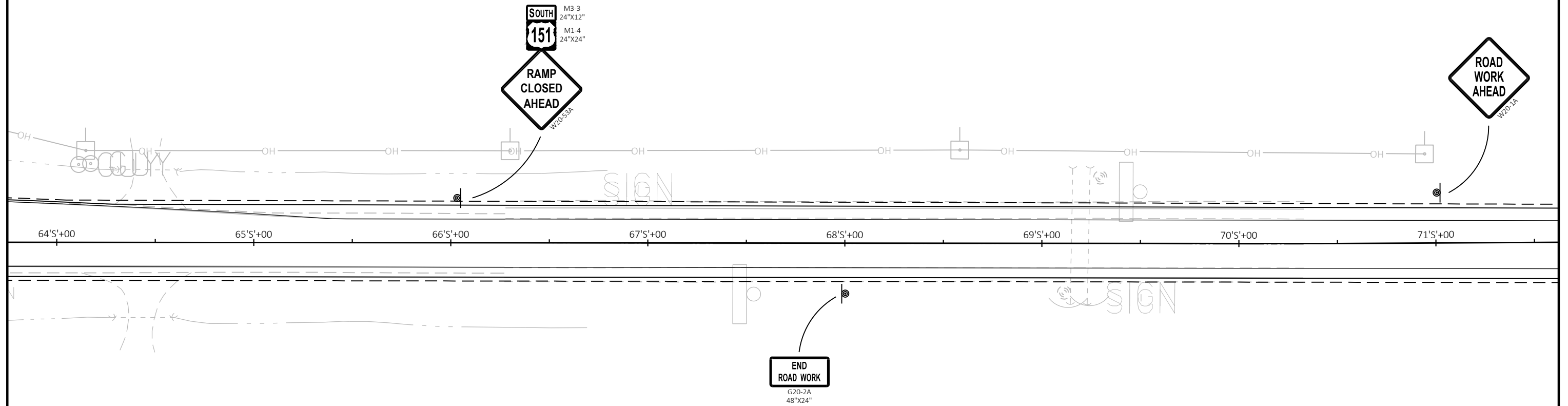
SHEET

118

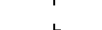
E

2

2



LEGEND

- | | |
|---|--|
|  | TYPE III BARRICADE |
|  | TYPE III BARRICADE WITH ATTACHED SIGN |
|  | TRAFFIC CONTROL DRUM |
|  | TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT |
|  | FLASHING ARROW BOARD |
|  | SIGN ON PERMANENT SUPPORT |
|  | SIGN ON TEMPORARY SUPPORT |
|  | DELINEATOR FLEXIBLE/TUBULAR MARKER |
|  | WORK AREA |
|  | DIRECTION OF TRAFFIC |
|  | PORTABLE CHANGEABLE MESSAGE BOARD |

NOTE - ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED

PROJECT NO:	1112-06-74
-------------	------------

HWY: USH 151

COUNTY: DODGE & FOND DU LAC

STAGE 3

SHEET
119

■

FILE NAME : X:\PROJECTS\DODGE\200093 - 1112-06-03 USH 151 AND STH 49 INTERCHANGE\DESIGN\C3D\SHEETS\PLAN\025001-TRAFFIC CONTROL\025100-TC3.DWG
LAYOUT NAME - Sheet - (18)

PLOT DATE : 4/16/2021 1:57 PM

PLOT BY : BOB WILSON

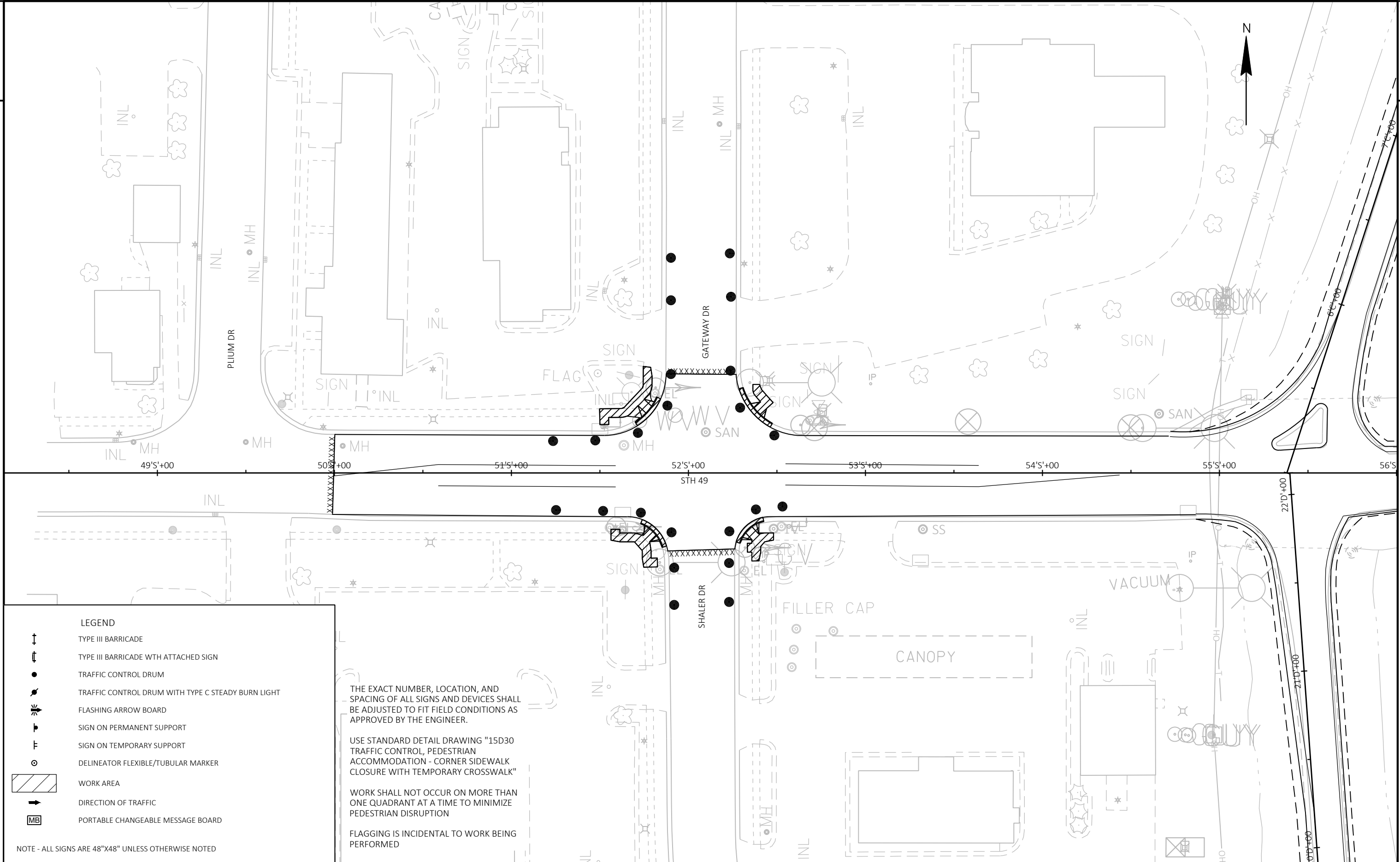
PLOT NAME :

PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 42

2

2



LEGEND

TYPE III BARRICADE

TYPE III BARRICADE WITH ATTACHED SIGN

TRAFFIC CONTROL DRUM

TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT

FLASHING ARROW BOARD

SIGN ON PERMANENT SUPPORT

SIGN ON TEMPORARY SUPPORT

DELINEATOR FLEXIBLE/TUBULAR MARKER

WORK AREA

1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 2679, 2680, 26

 CC BY-SA

NOTE - ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED

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

USE STANDARD DETAIL DRAWING "15D30
TRAFFIC CONTROL, PEDESTRIAN
ACCOMMODATION - CORNER SIDEWALK
CLOSURE WITH TEMPORARY CROSSWALK"

WORK SHALL NOT OCCUR ON MORE THAN ONE QUADRANT AT A TIME TO MINIMIZE PEDESTRIAN DISRUPTION

FLAGGING IS INCIDENTAL TO WORK BEING PERFORMED

PROJECT NO:	1112-06-74
-------------	------------

HWY: USH 151

COUNTY: DODGE & FOND DU LAC

STAGE 3 - PEDESTRIAN ACCOMODATION

SHEET 120

1

FILE NAME : X:\PROJECTS\DODGE\200093 - 1112-06-03 USH 151 AND STH 49 INTERCHANGE\DESIGN\C3D\SHEETSP\LAN\025001-TRAFFIC CONTROL\025100-TC4.DWG
LAYOUT NAME - Sheet - (31)

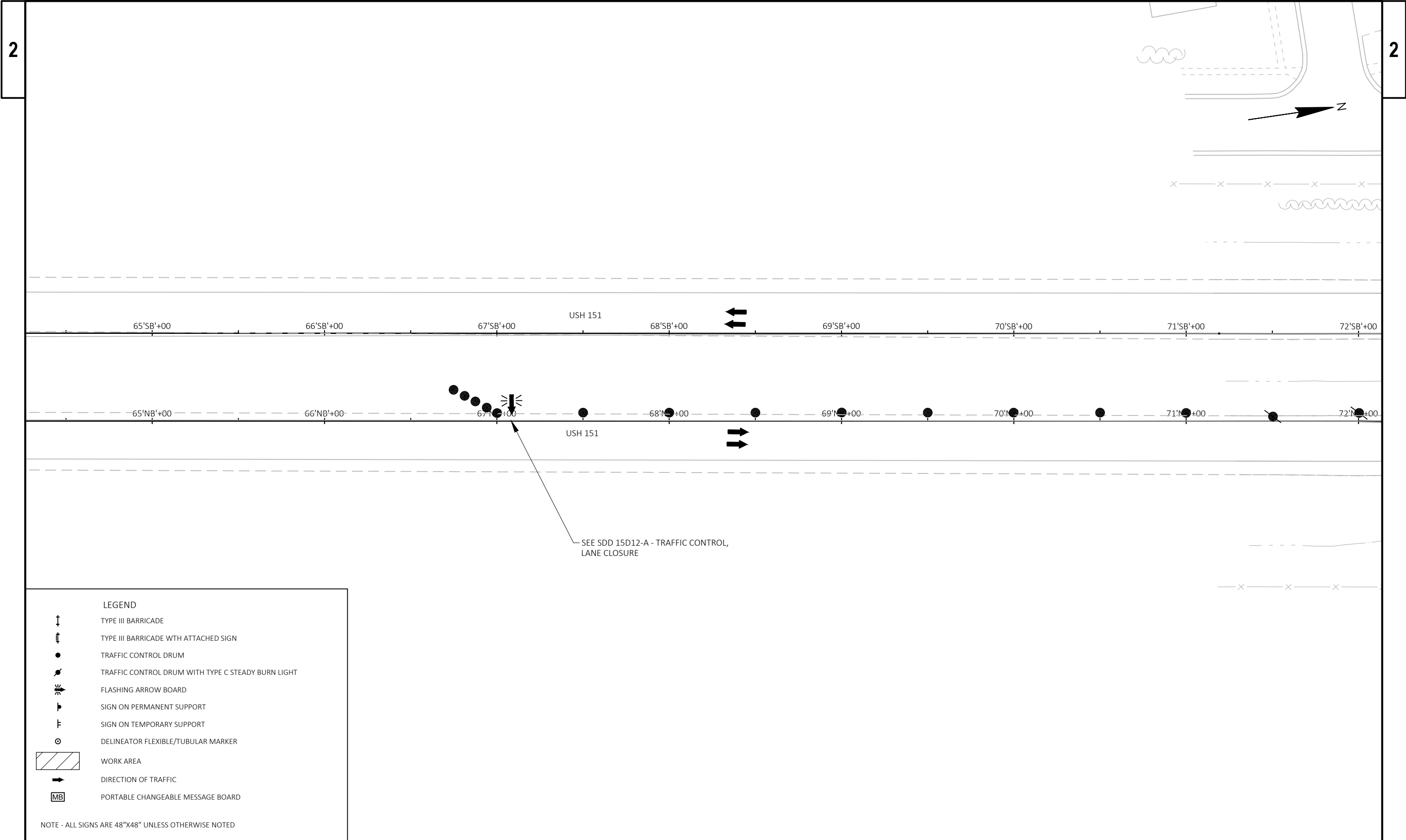
PLOT DATE : 6/2/2021 9:39 AM

PLOT BY : MIKE LISKA

PLOT NAME :

PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 42



FILE NAME : X:\PROJECTS\DODGE\200093 - 1112-06-03 USH 151 AND STH 49 INTERCHANGE\DESIGN\C3D\SHEETSPLAN\025001-TRAFFIC CONTROL\025100-TC4.DWG

LAYOUT NAME - Sheet - (1)

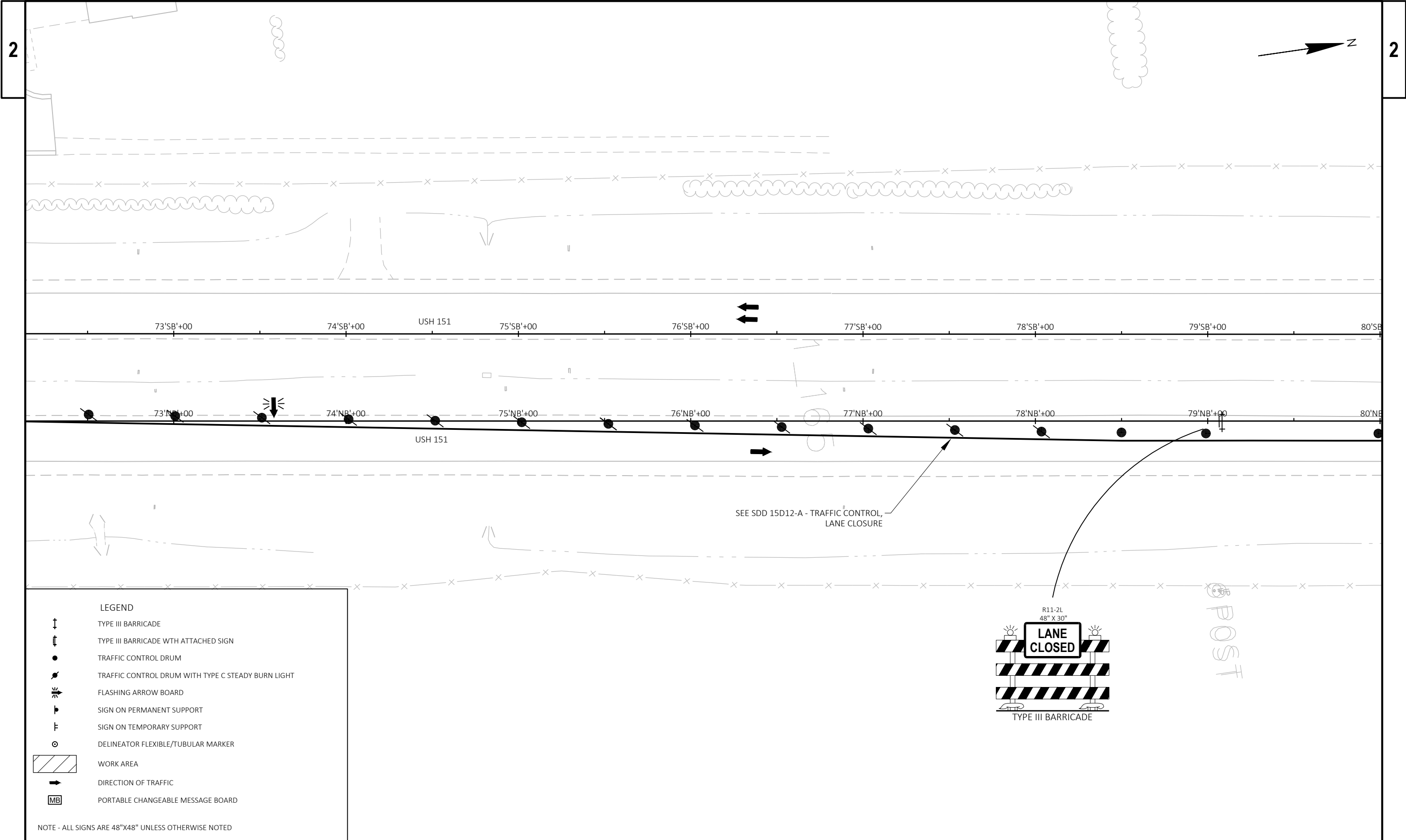
PLOT DATE : 4/16/2021 1:58 PM

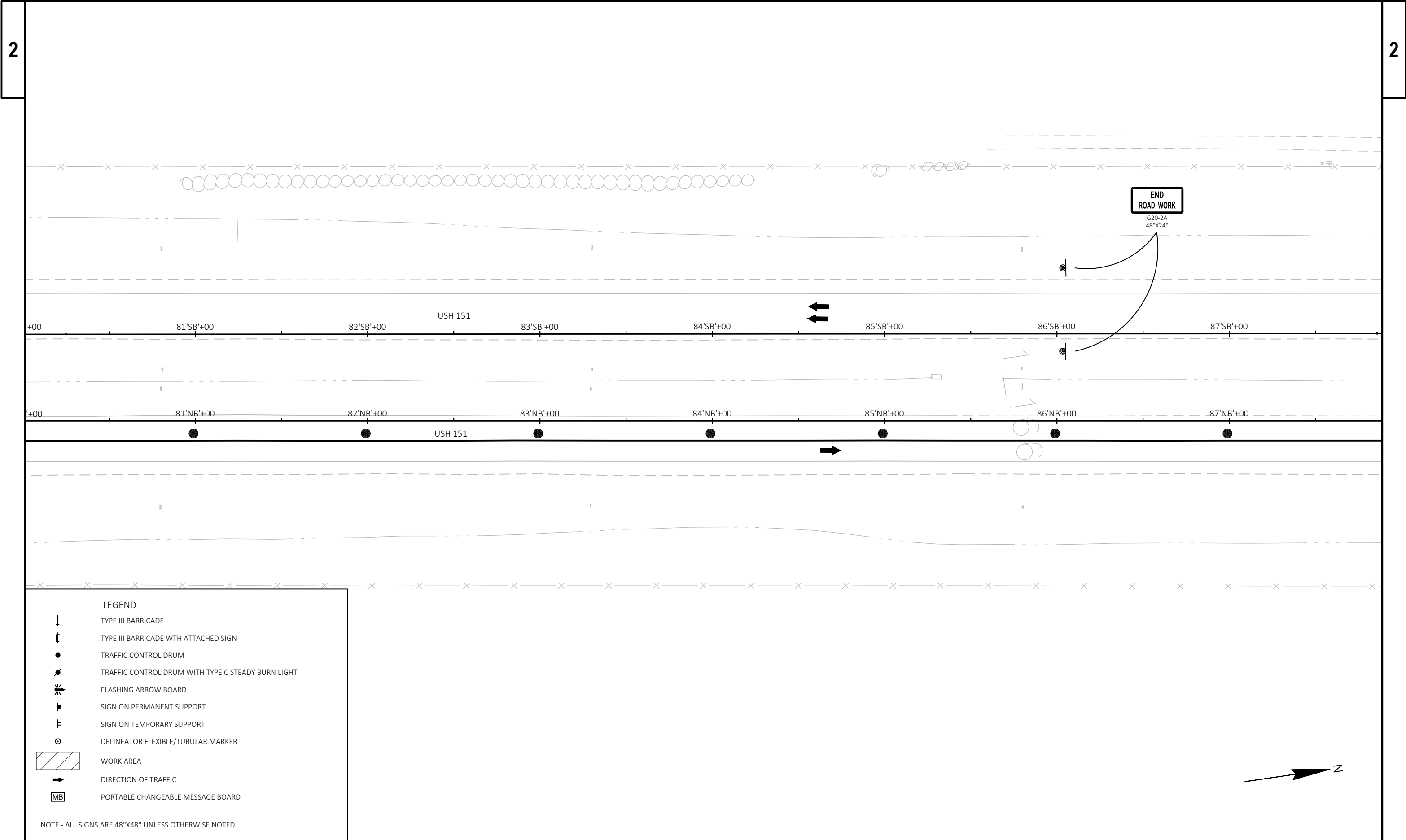
PLOT BY : BOB WILSON

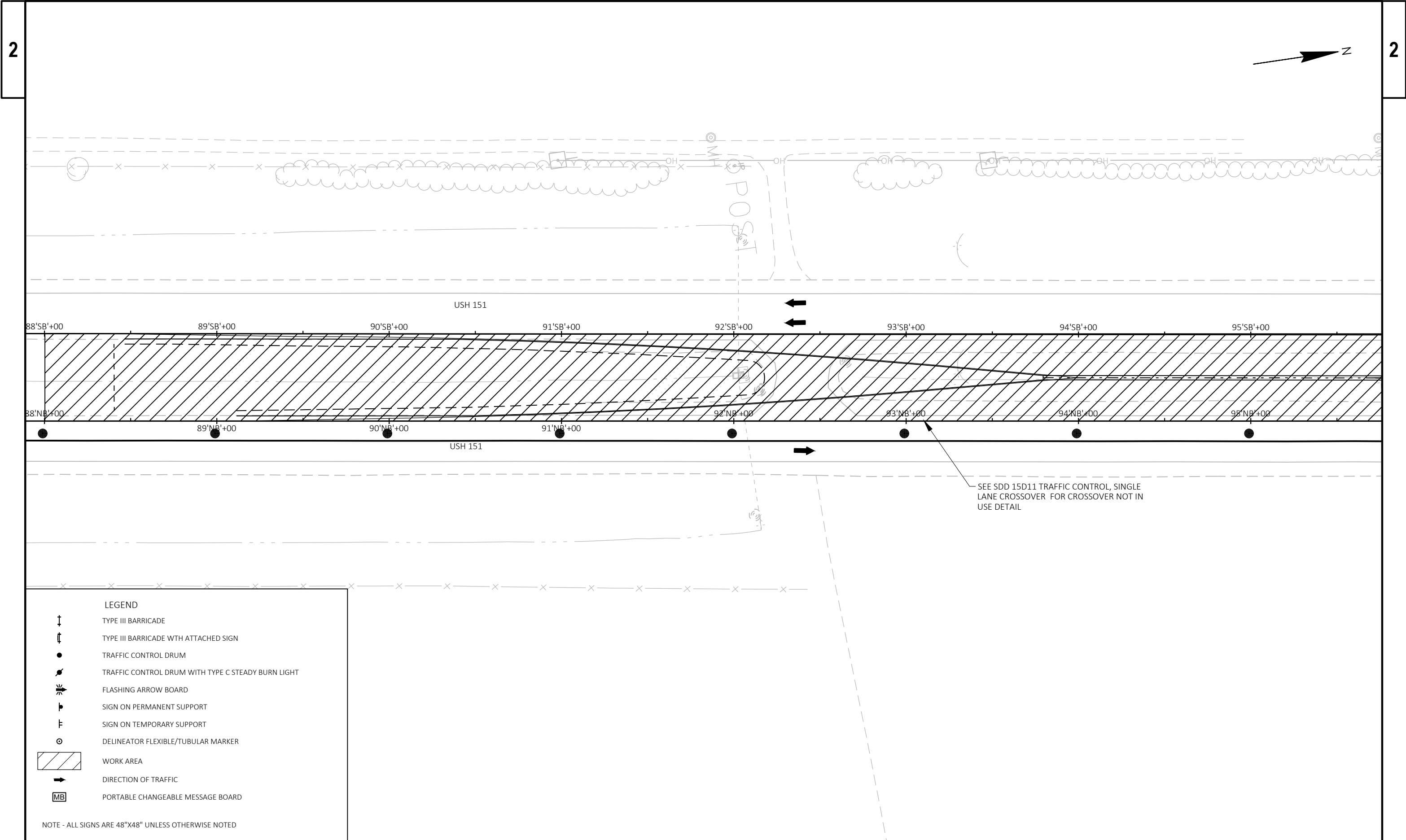
PLOT NAME :

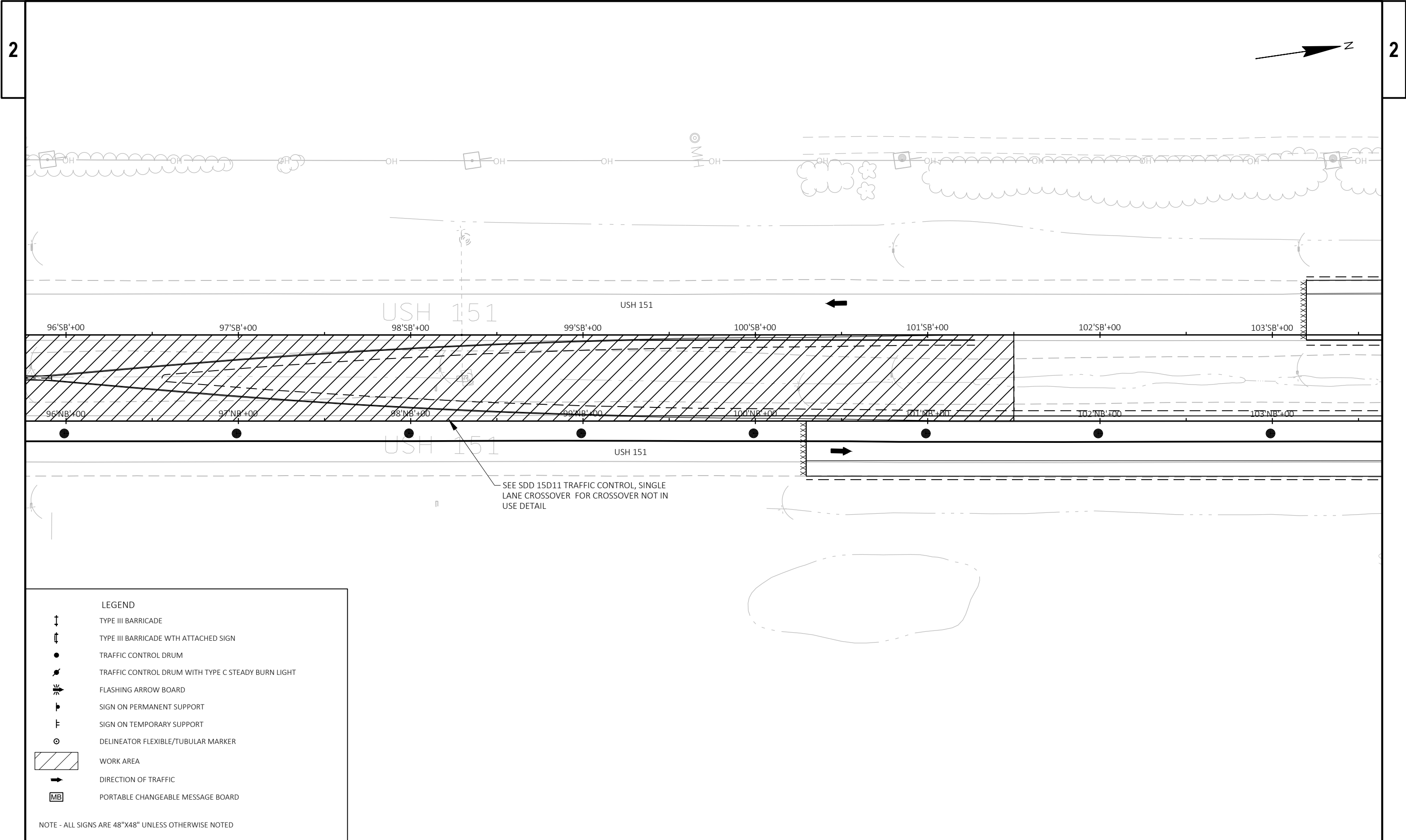
PLOT SCALE : 1 IN:50 FT

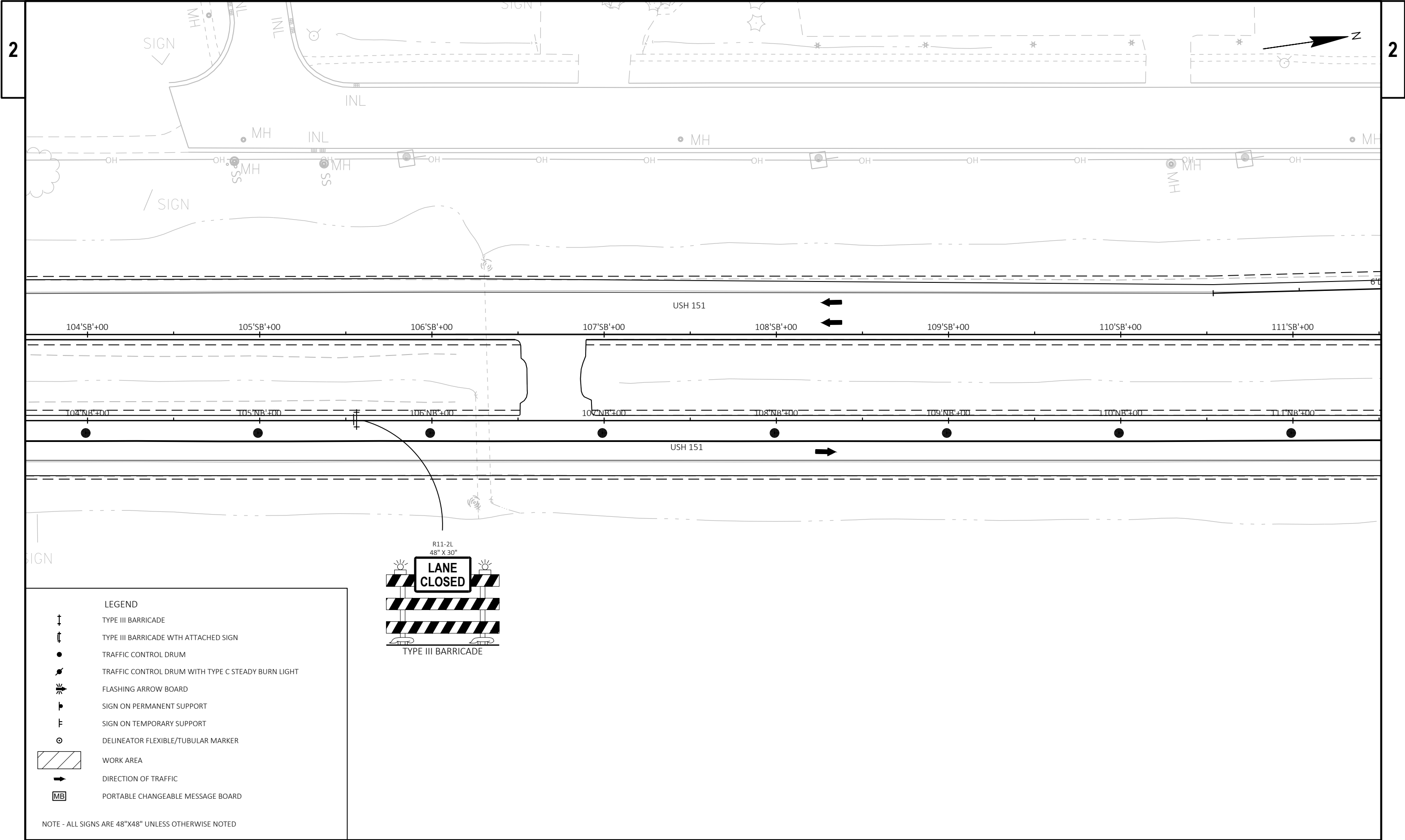
WISDOT/CADDs SHEET 42

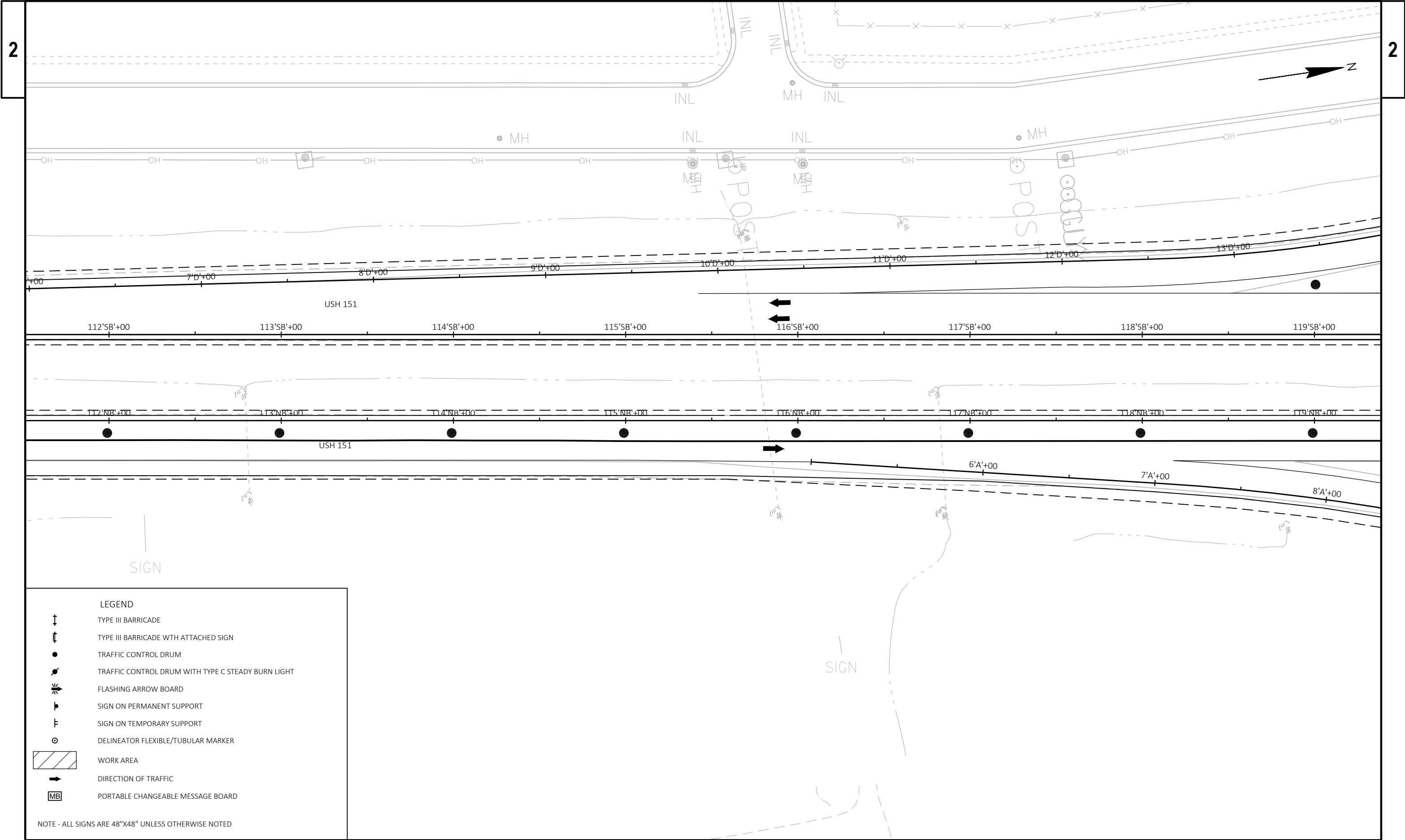






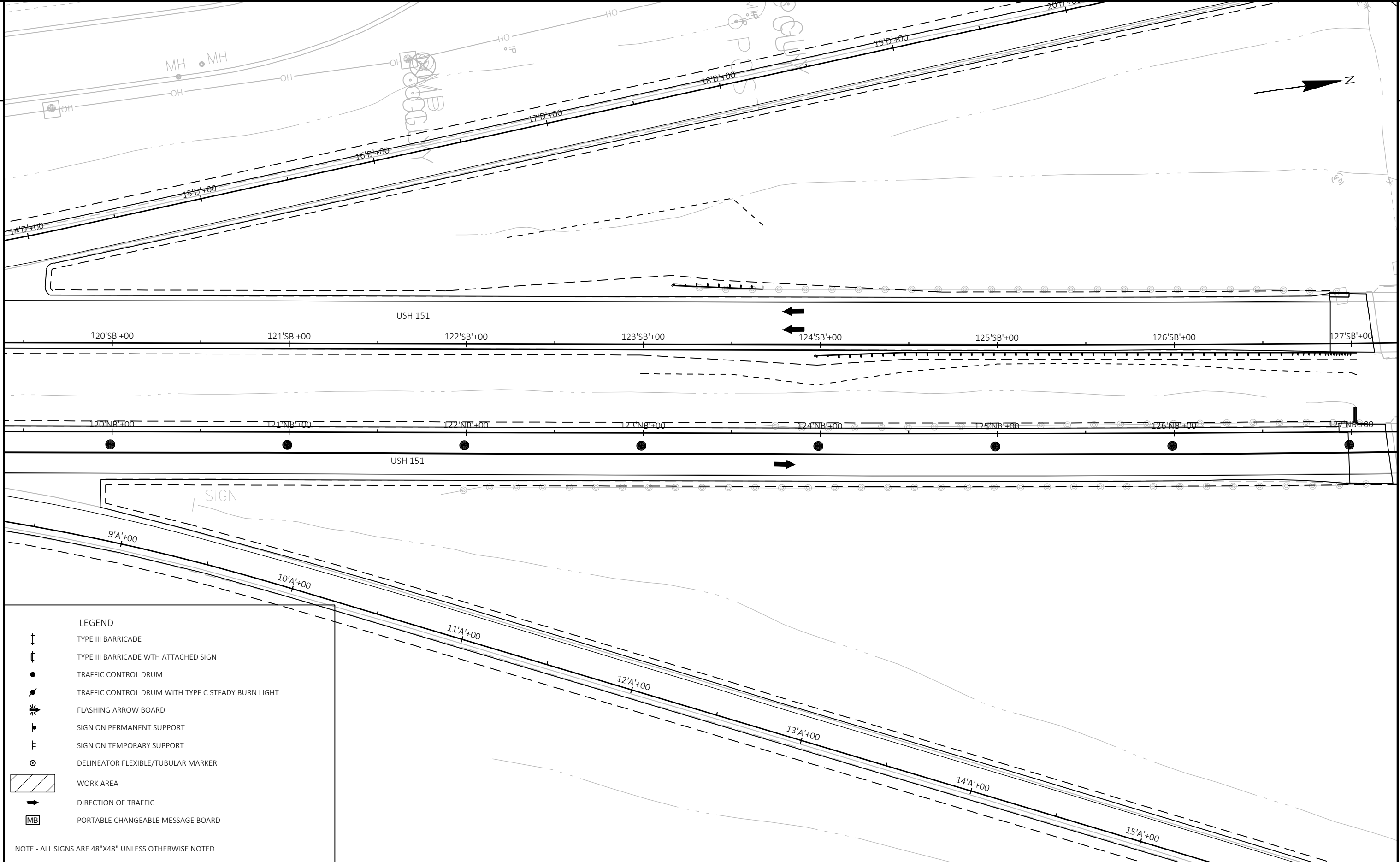






2

2



PROJECT NO:	1112-06-74
-------------	------------

HWY: USH 151

COUNTY: DODGE & FOND DU LAC

STAGE 4

SHEET 128

E

FILE NAME : X:\PROJECTS\DODGE\200093 - 1112-06-03 USH 151 AND STH 49 INTERCHANGE\DESIGN\C3D\SHEETSPLAN\025001-TRAFFIC CONTROL\025100-TC4.DWG
LAYOUT NAME - Sheet - (8)

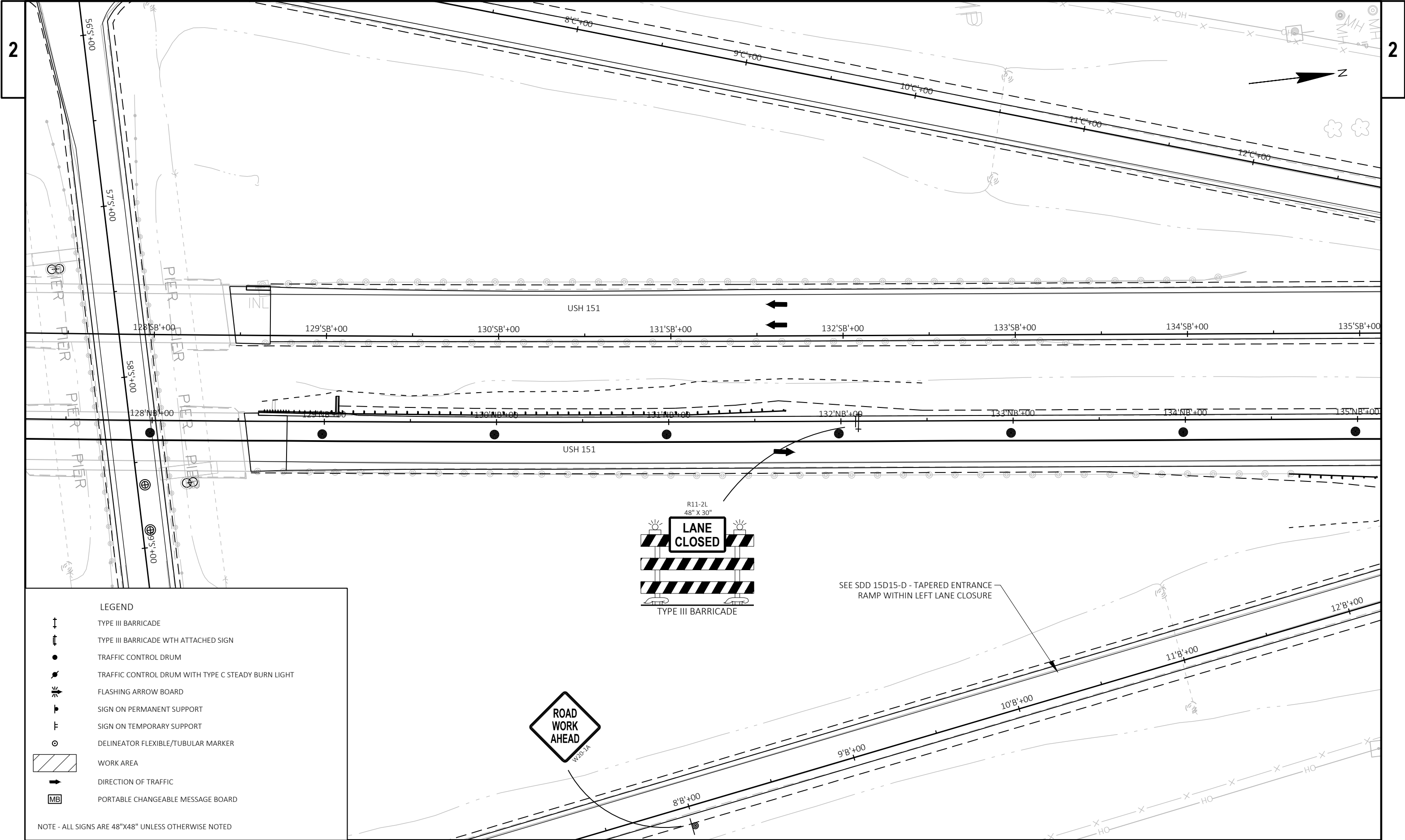
PLOT DATE : 4/16/2021 1:58 PM

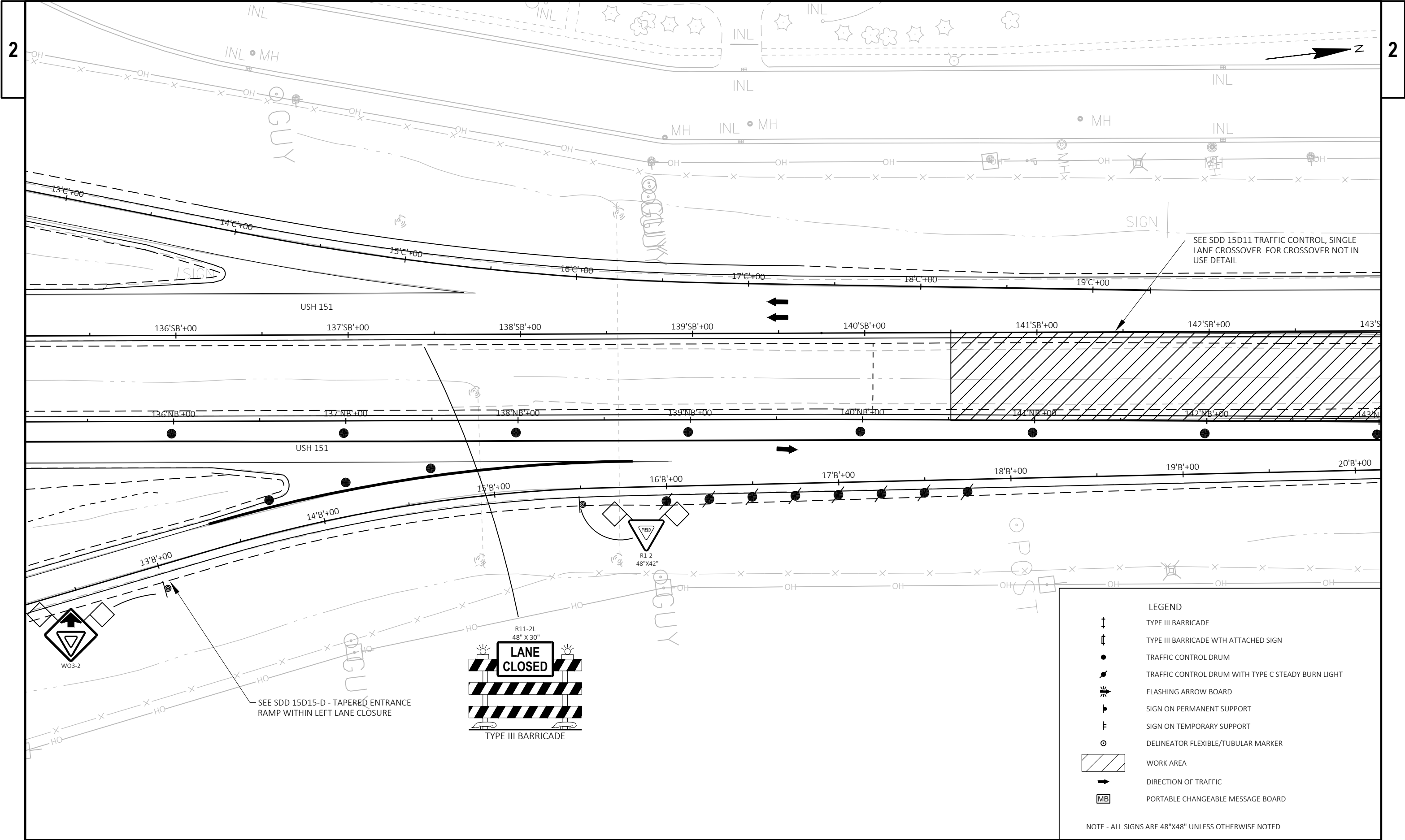
PLOT BY : BOB WILSON

PLOT NAME : PLOT SCALE :

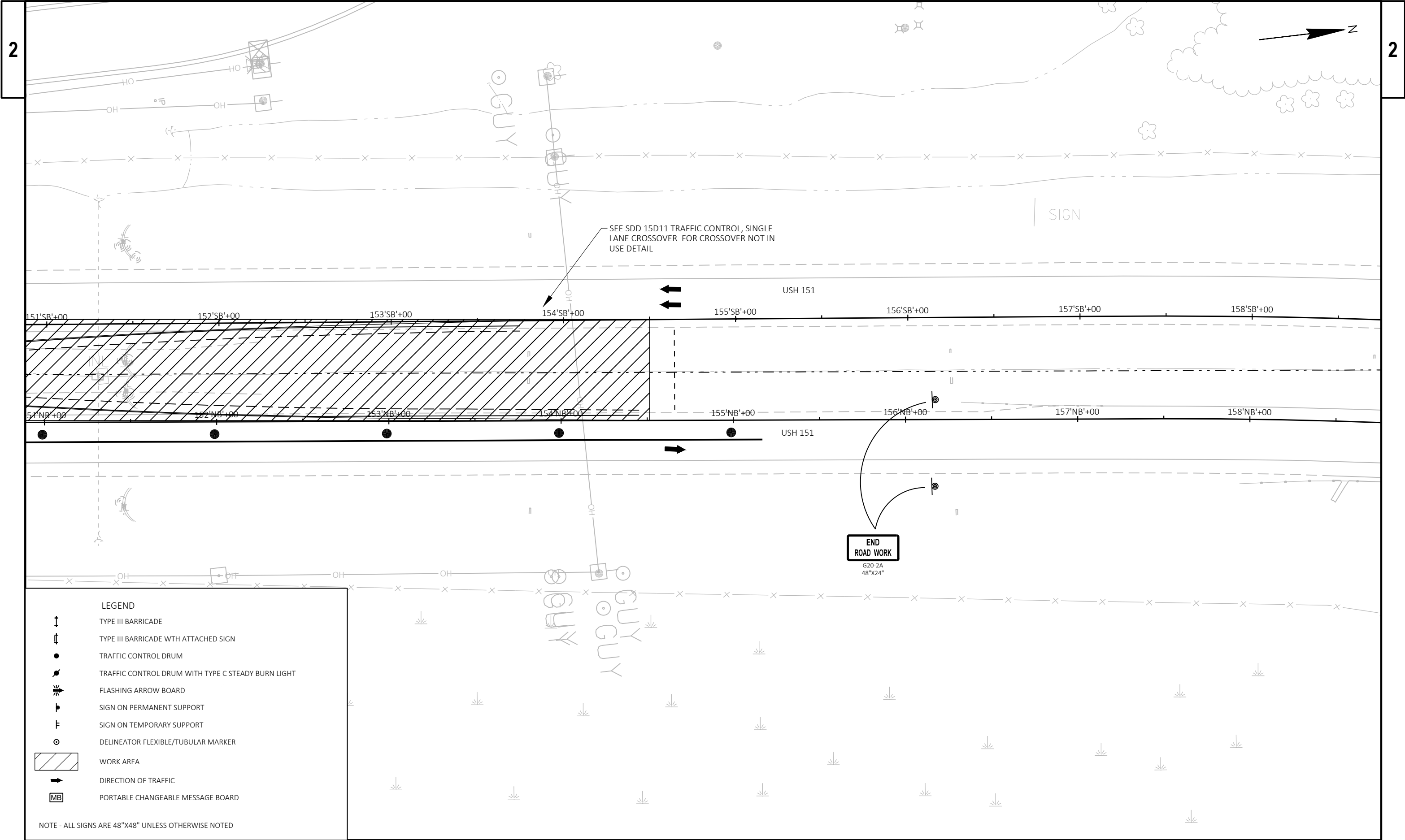
PLOT SCALE : 1 IN:50 FT

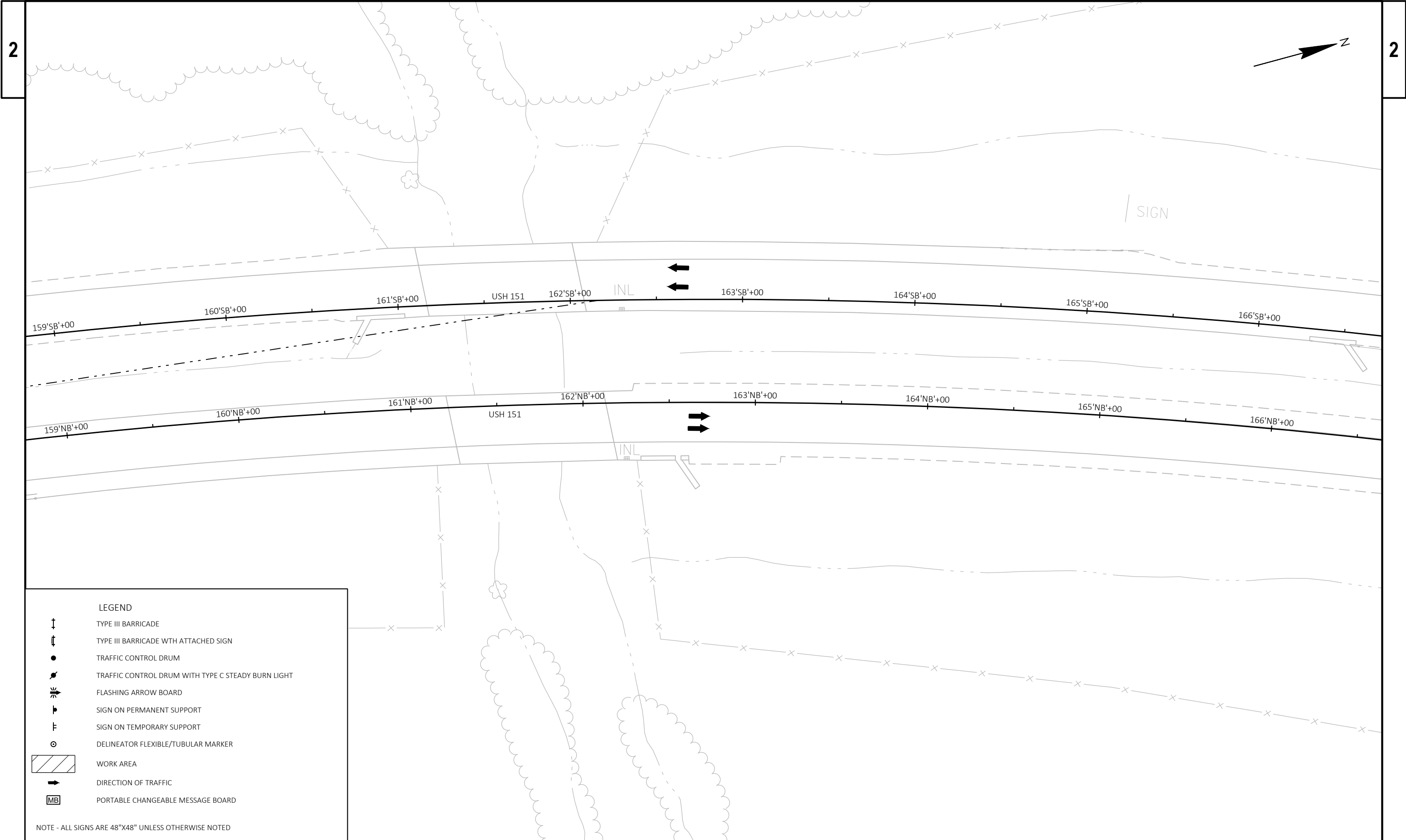
WISDOT/CADDs SHEET 42

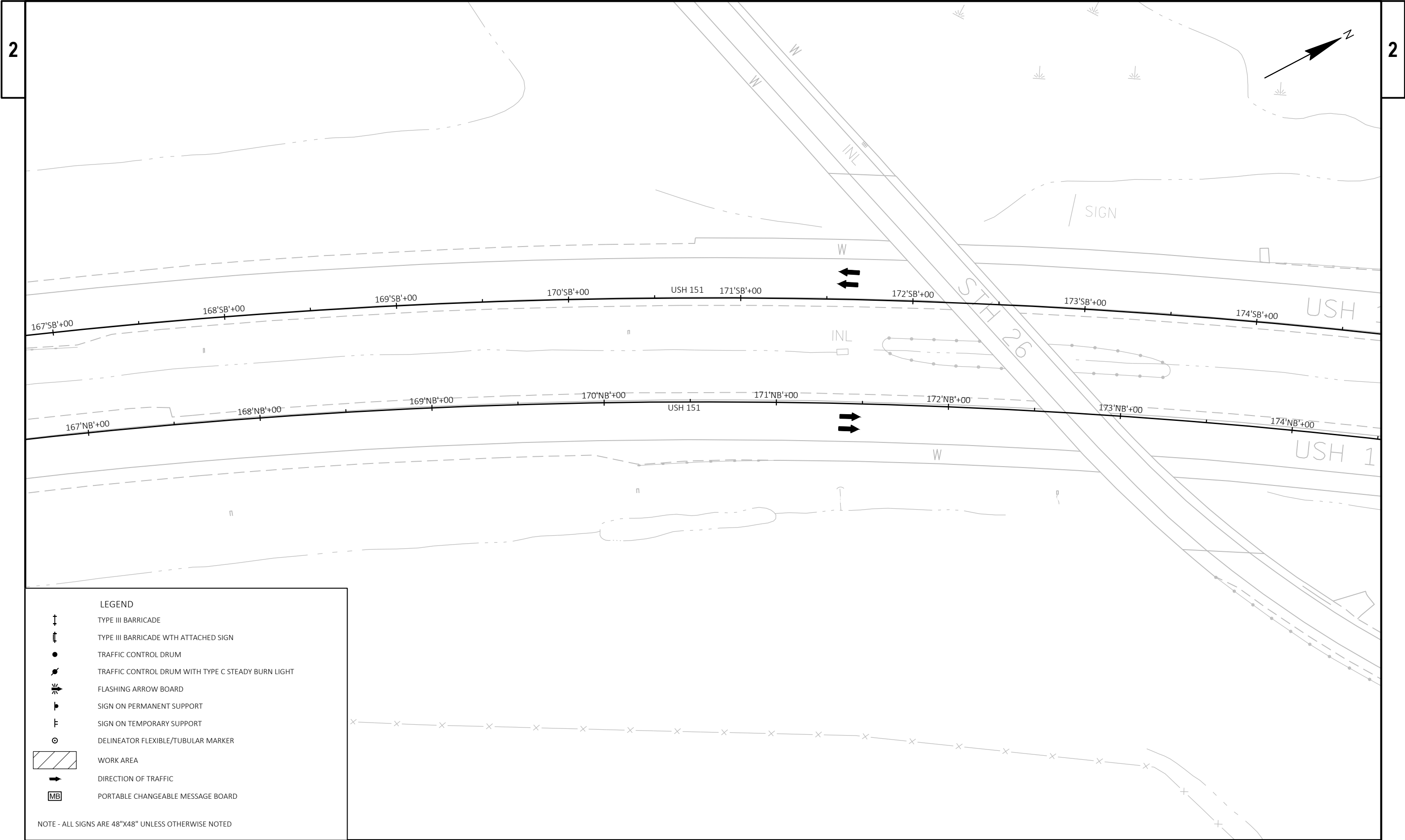


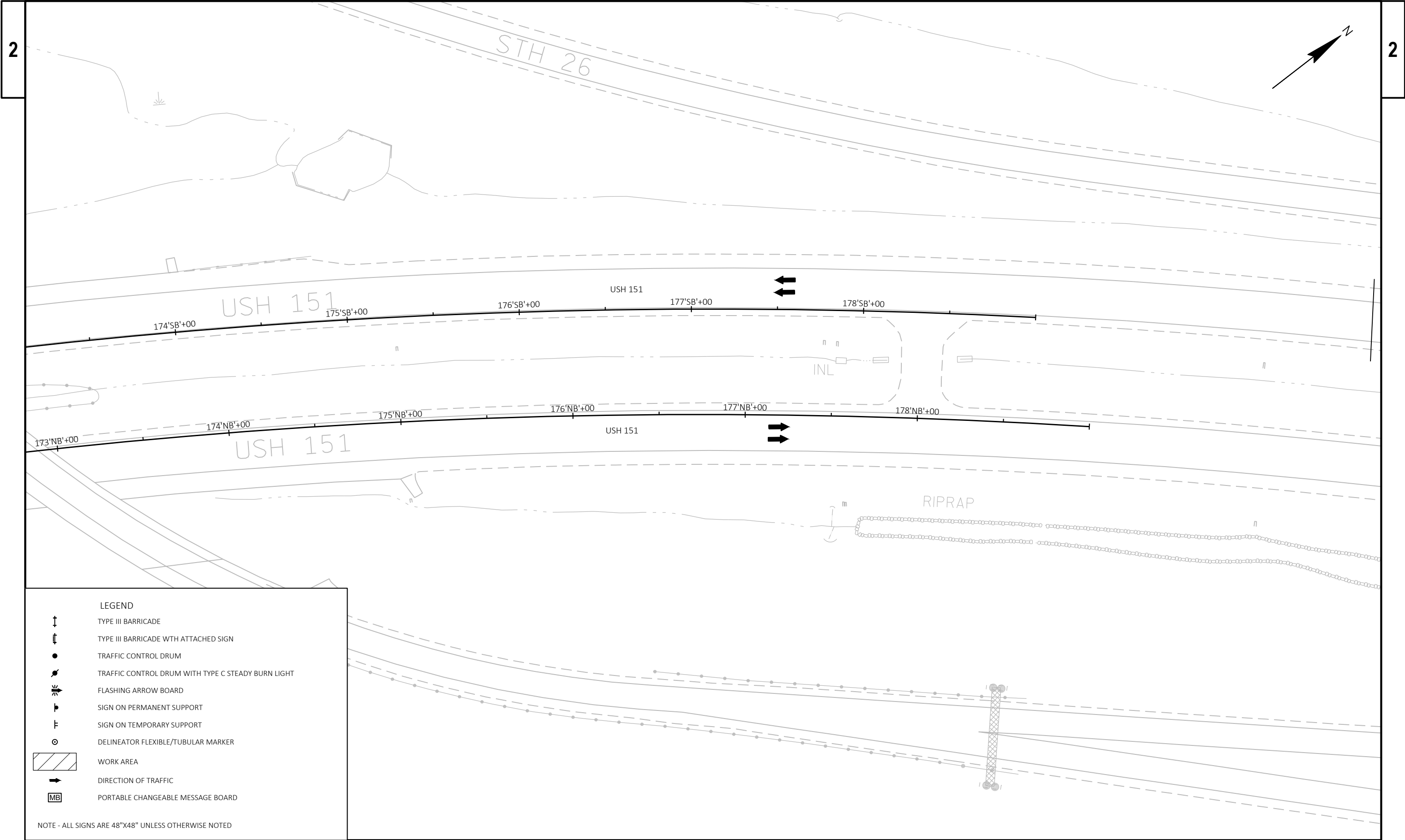


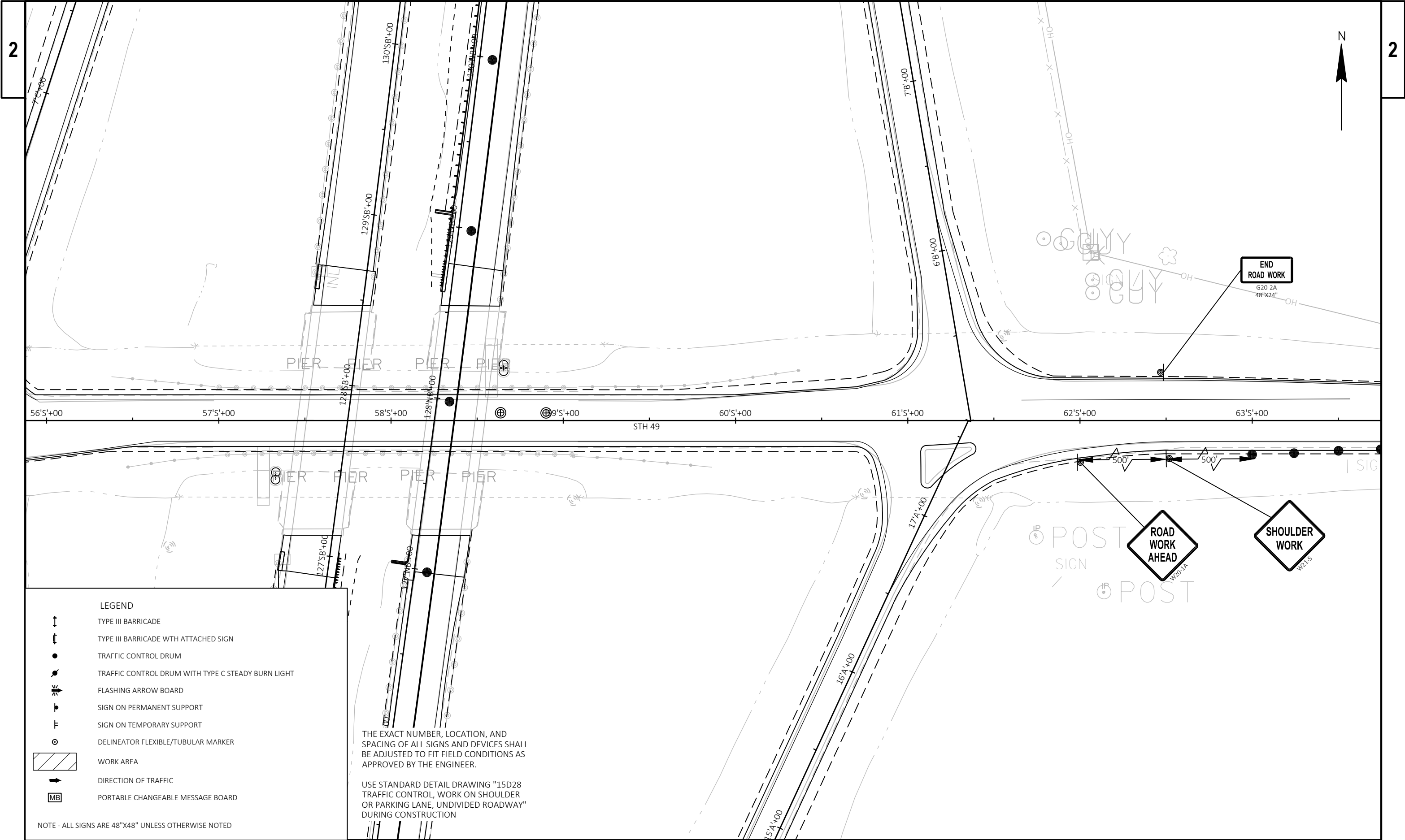






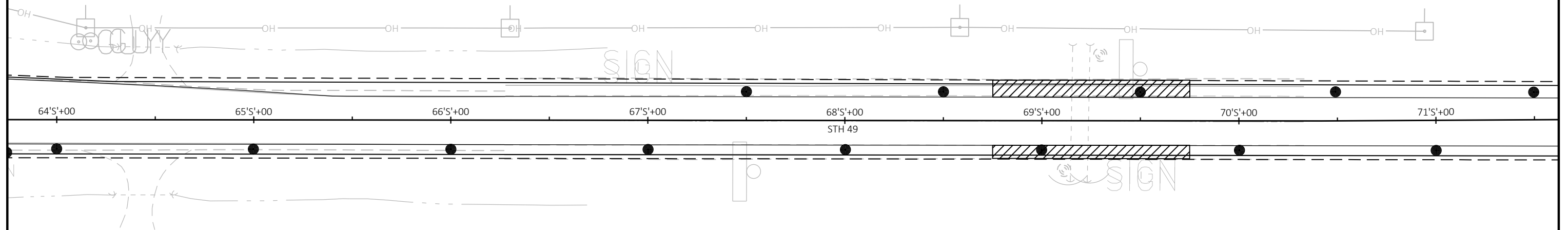






2

2 |



LEGEND

- | | |
|---|--|
|  | TYPE III BARRICADE |
|  | TYPE III BARRICADE WITH ATTACHED SIGN |
|  | TRAFFIC CONTROL DRUM |
|  | TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT |
|  | FLASHING ARROW BOARD |
|  | SIGN ON PERMANENT SUPPORT |
|  | SIGN ON TEMPORARY SUPPORT |
|  | DELINEATOR FLEXIBLE/TUBULAR MARKER |
|  | WORK AREA |
|  | DIRECTION OF TRAFFIC |
|  | PORTABLE CHANGEABLE MESSAGE BOARD |

NOTE - ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED

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

USE STANDARD DETAIL DRAWING "15D28
TRAFFIC CONTROL, WORK ON SHOULDER
OR PARKING LANE, UNDIVIDED ROADWAY"
DURING CONSTRUCTION

PROJECT NO:	1112-06-74
-------------	------------

HWY: USH 151

COUNTY: DODGE & FOND DU LAC

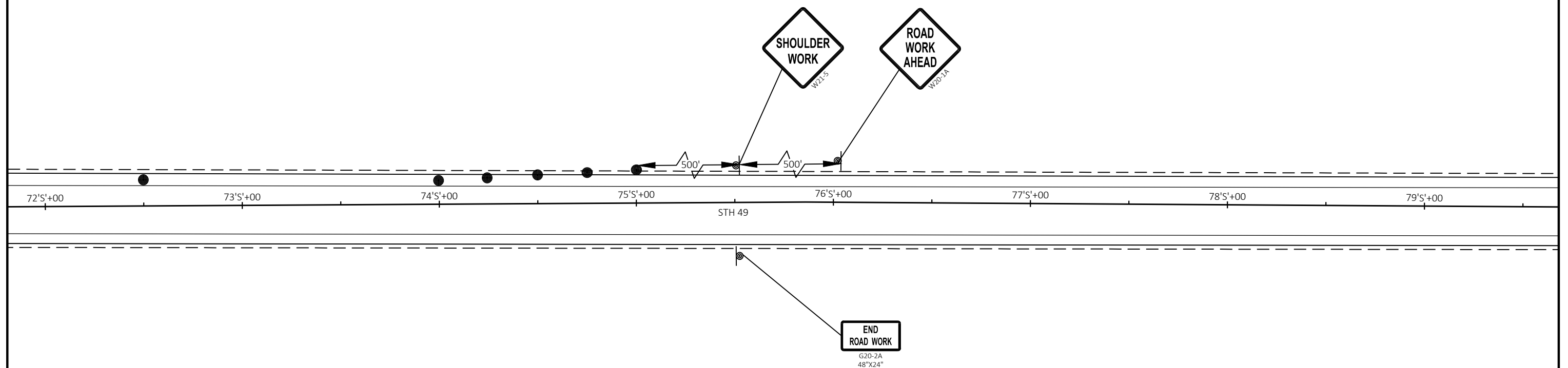
STAGE 4 - SHOULDER CLOSURE

SHEET 137

-
-
-

2

2 |



LEGEND

- | | |
|---|--|
|  | TYPE III BARRICADE |
|  | TYPE III BARRICADE WITH ATTACHED SIGN |
|  | TRAFFIC CONTROL DRUM |
|  | TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT |
|  | FLASHING ARROW BOARD |
|  | SIGN ON PERMANENT SUPPORT |
|  | SIGN ON TEMPORARY SUPPORT |
|  | DELINEATOR FLEXIBLE/TUBULAR MARKER |
|  | WORK AREA |
|  | DIRECTION OF TRAFFIC |
|  | PORTABLE CHANGEABLE MESSAGE BOARD |

NOTE - ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED

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

USE STANDARD DETAIL DRAWING "15D28
TRAFFIC CONTROL, WORK ON SHOULDER
OR PARKING LANE, UNDIVIDED ROADWAY"
DURING CONSTRUCTION

PROJECT NO:	1112-06-74
-------------	------------

HWY: USH 151

COUNTY: DODGE & FOND DU LAC

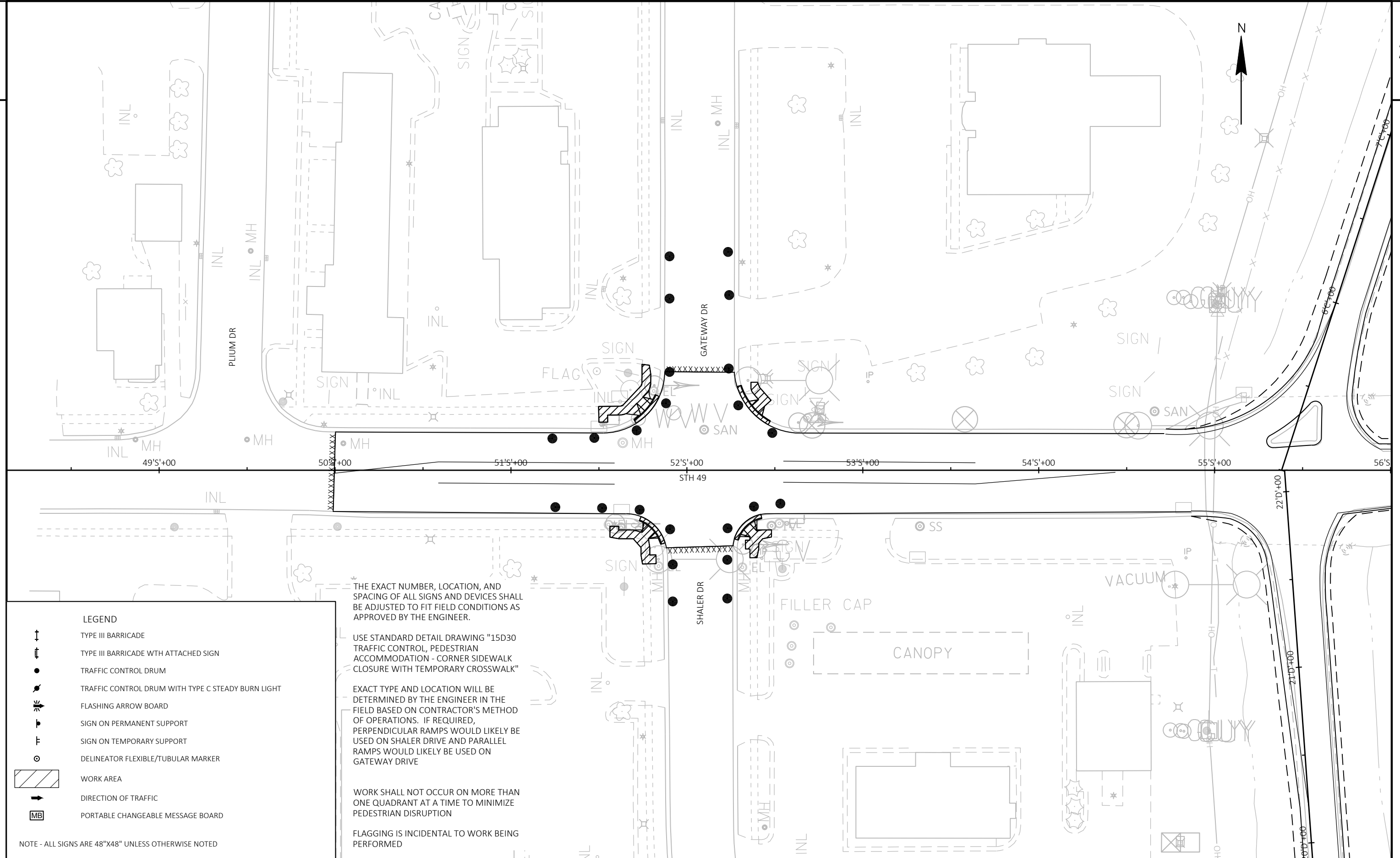
STAGE 4 - SHOULDER CLOSURE

SHEET 138

-
-
-

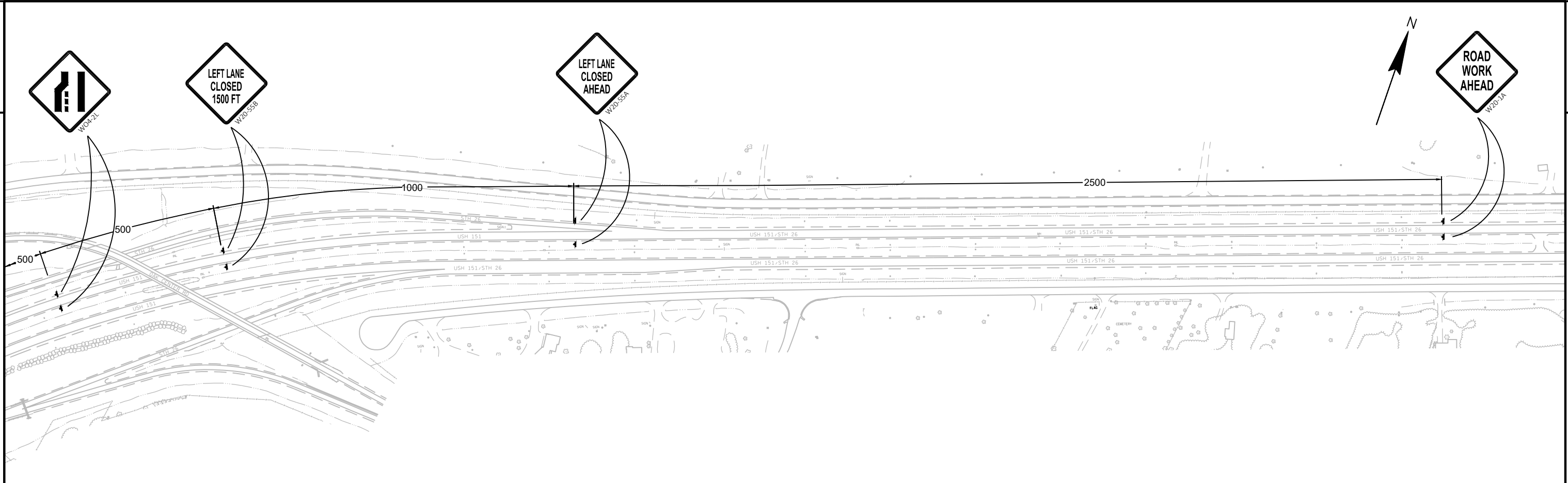
2

2

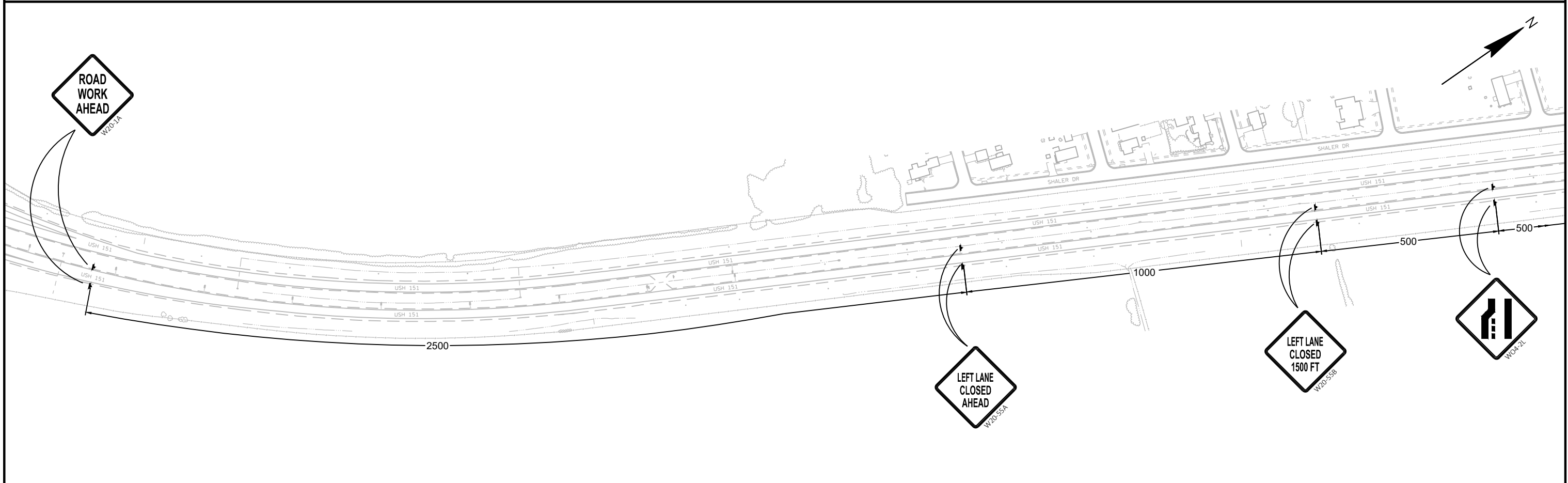


PROJECT NO: 1112-06-74	HWY: USH 151	COUNTY: DODGE & FOND DU LAC	STAGE 4 - PEDESTRIAN ACCOMODATION	SHEET 139	E
------------------------	--------------	-----------------------------	-----------------------------------	-----------	----------

2



2



PROJECT NO:	1112-06-74
-------------	------------

HWY: 151

COUNTY: DODGE & FON DU LAC

ADVANCED WARNING - USH 151 STAGES 1 & 4

SHEET 140

E

FILE NAME : X:\PROJECTS\DODGE\200093 - 1112-06-03 USH 151 AND STH 49 INTERCHANGE\DESIGN\C3D\SHEETSPLAN\025001-TRAFFIC CONTROL\025100-TC-ADV STAGE 1&4.DWG
LAYOUT NAME - US 151 ADV

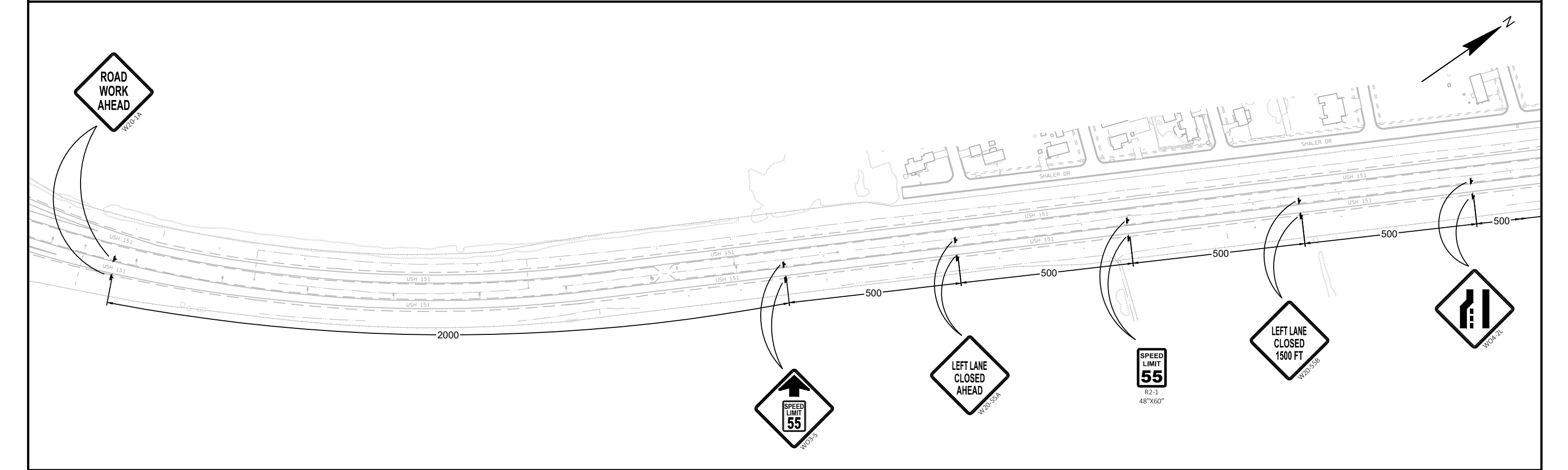
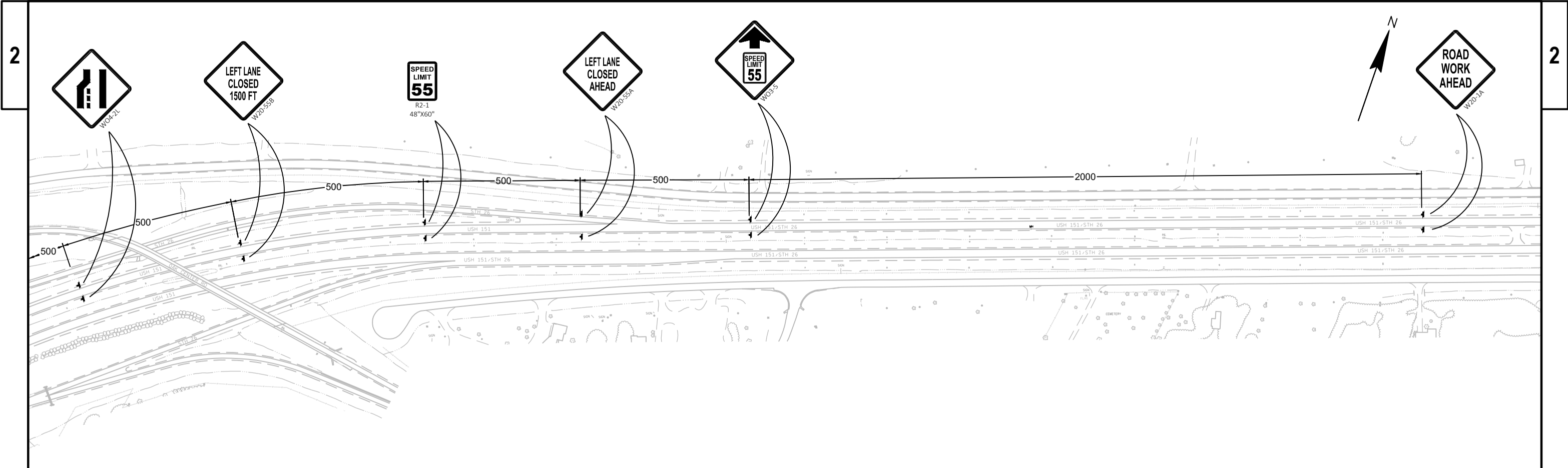
PLOT DATE : 4/16/2021 1:59 PM

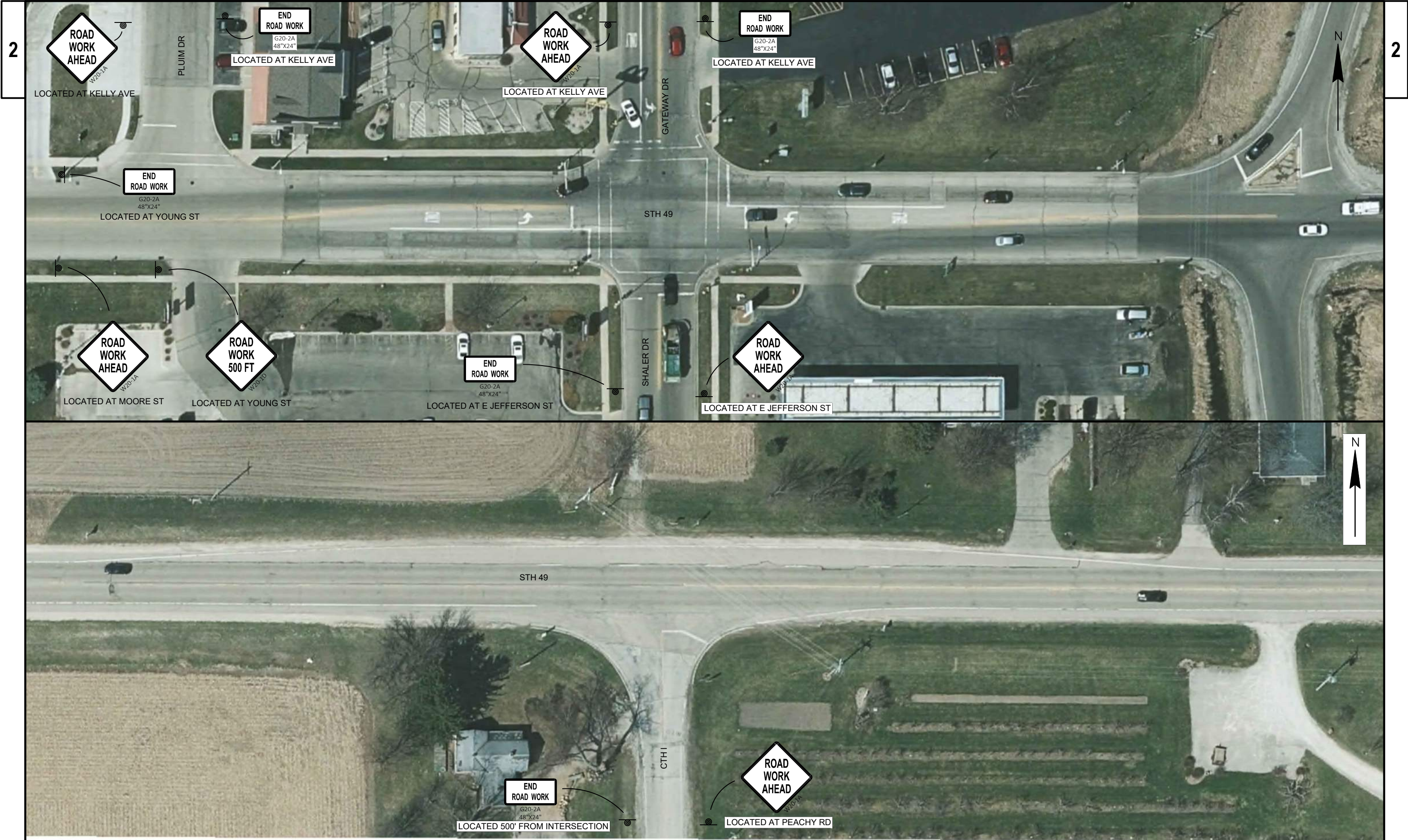
PLOT BY : BOB WILSON

PLOT NAME : PLOT SCALE :

PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 44

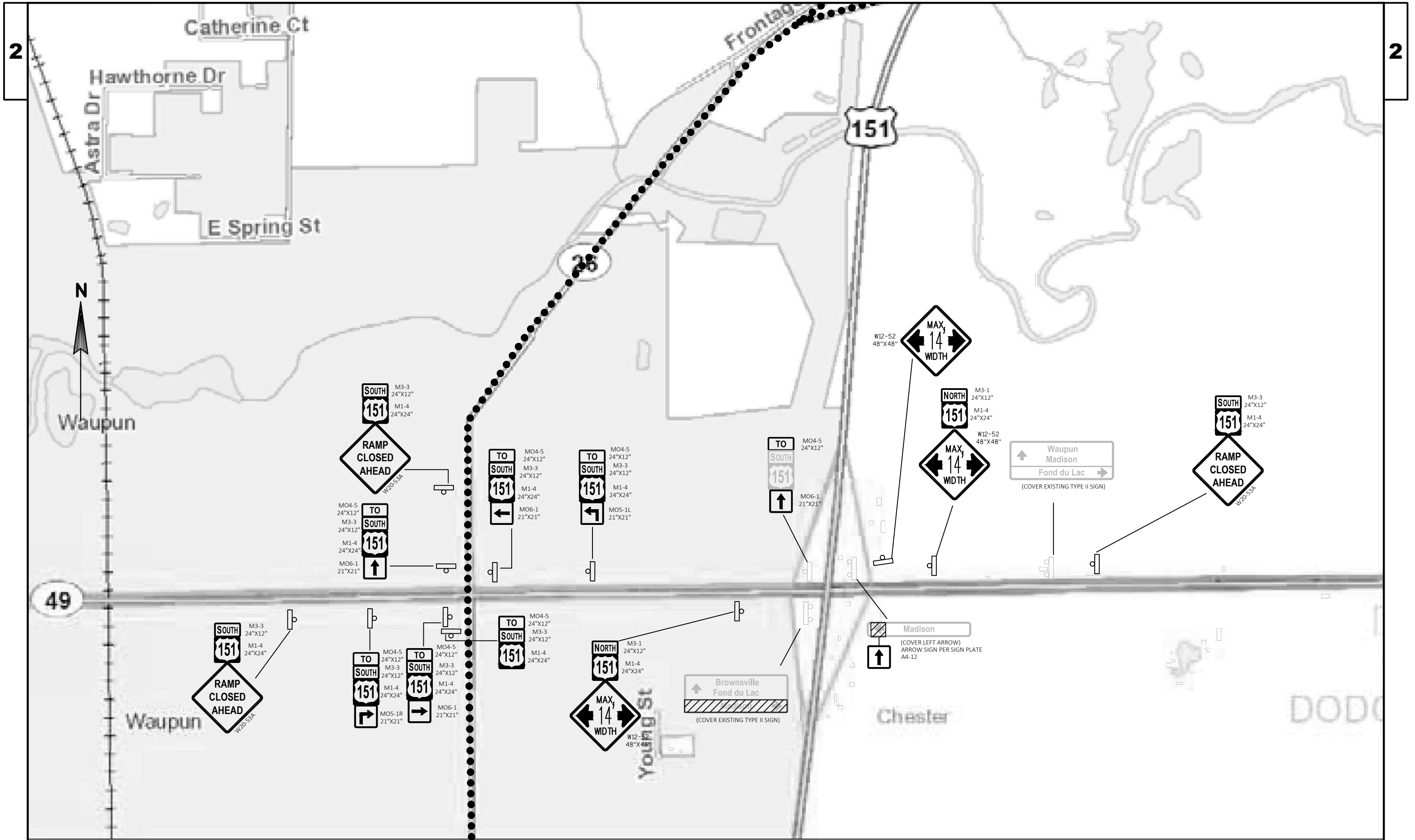












PROJECT NO: 1112-06-74

HWY: USH 151

COUNTY: DODGE & FOND DU LAC

DETOUR PLAN

SHEET 147

E

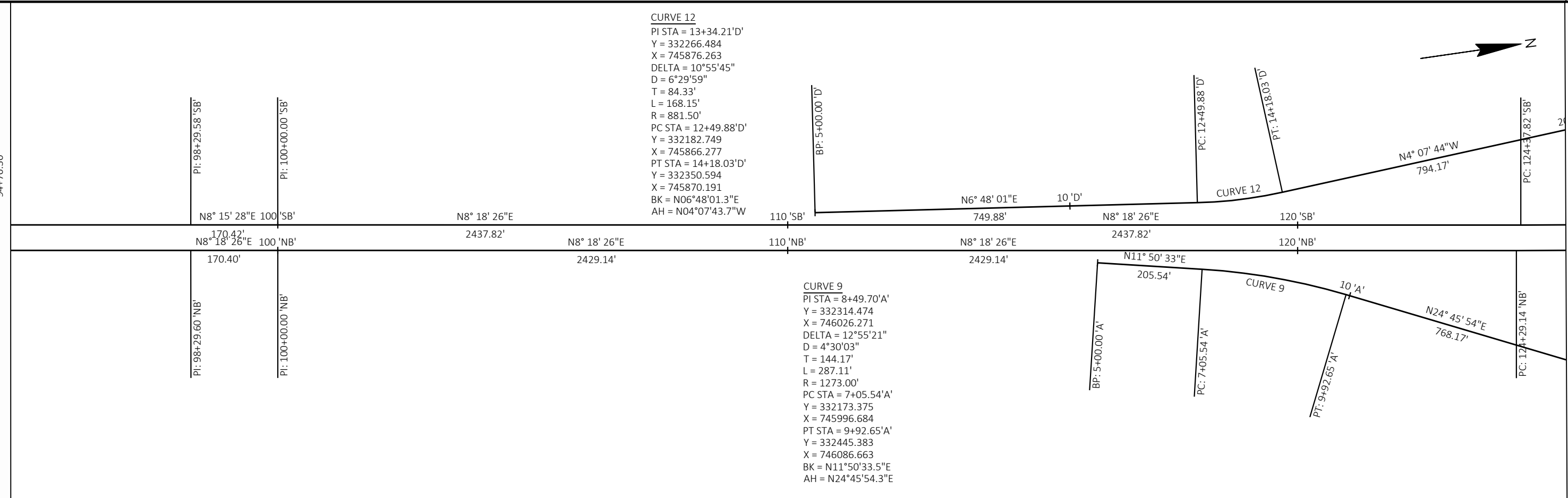
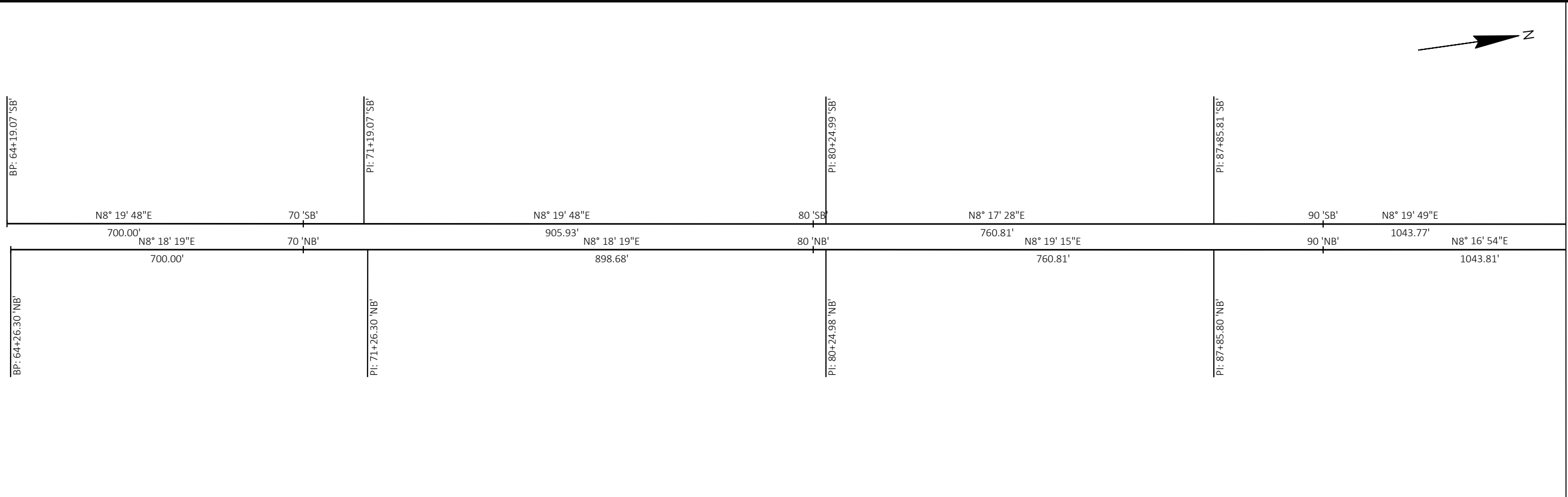
FILE NAME : X:\PROJECTS\DODGE\200093 - 1112-06-03 USH 151 AND STH 49 INTERCHANGE\DESIGN\C3D\SHEETPLAN\027001-DETOURS\027001_DET.DWG PLOT DATE : 5/11/2021 9:06 AM
LAYOUT NAME - 027004_DET

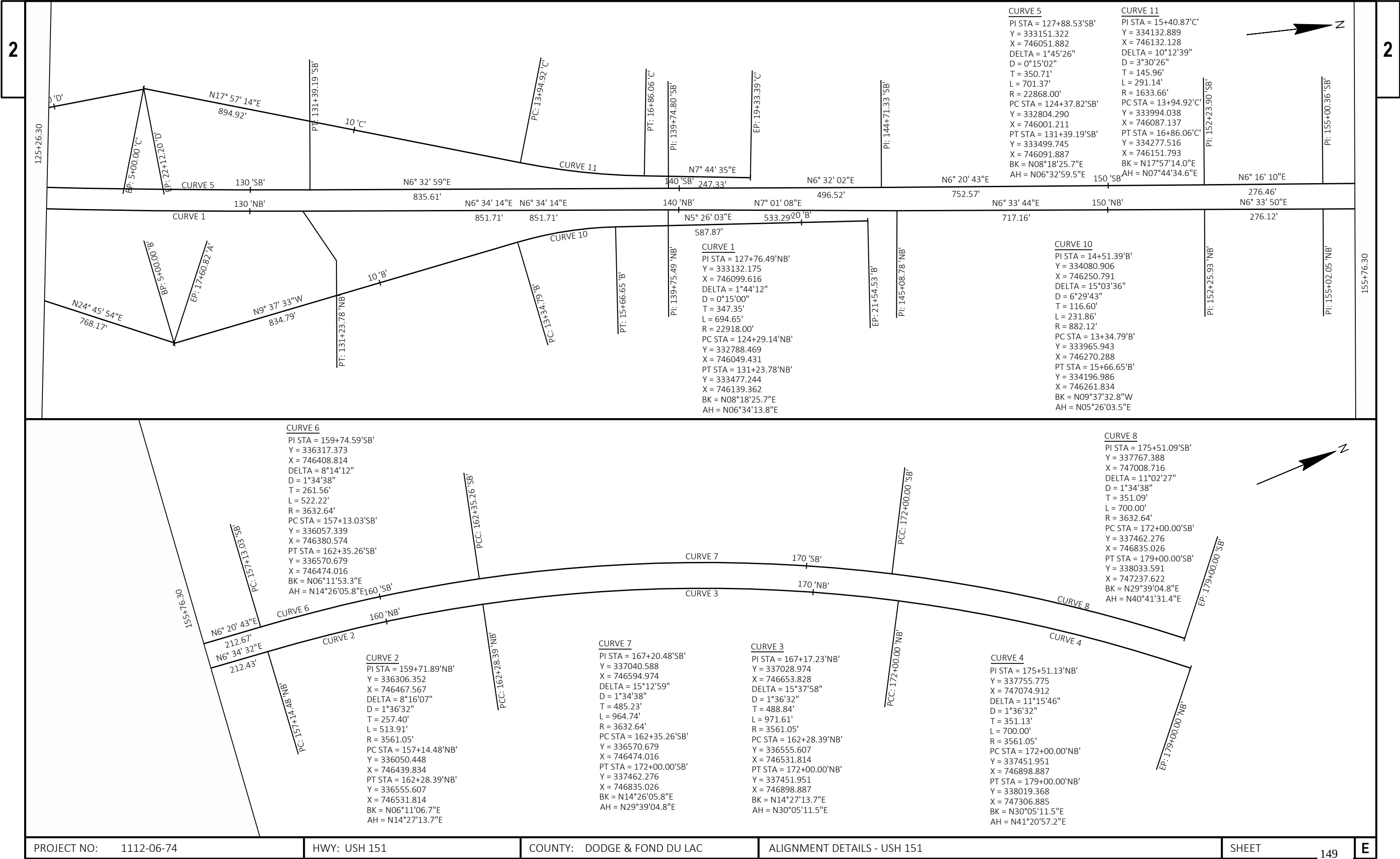
PLOT BY : BOB WILSON

PLOT NAME :

PLOT SCALE : Custom

WISDOT/CADDs SHEET 42





2



2



PROJECT NO:	1112-06-74
-------------	------------

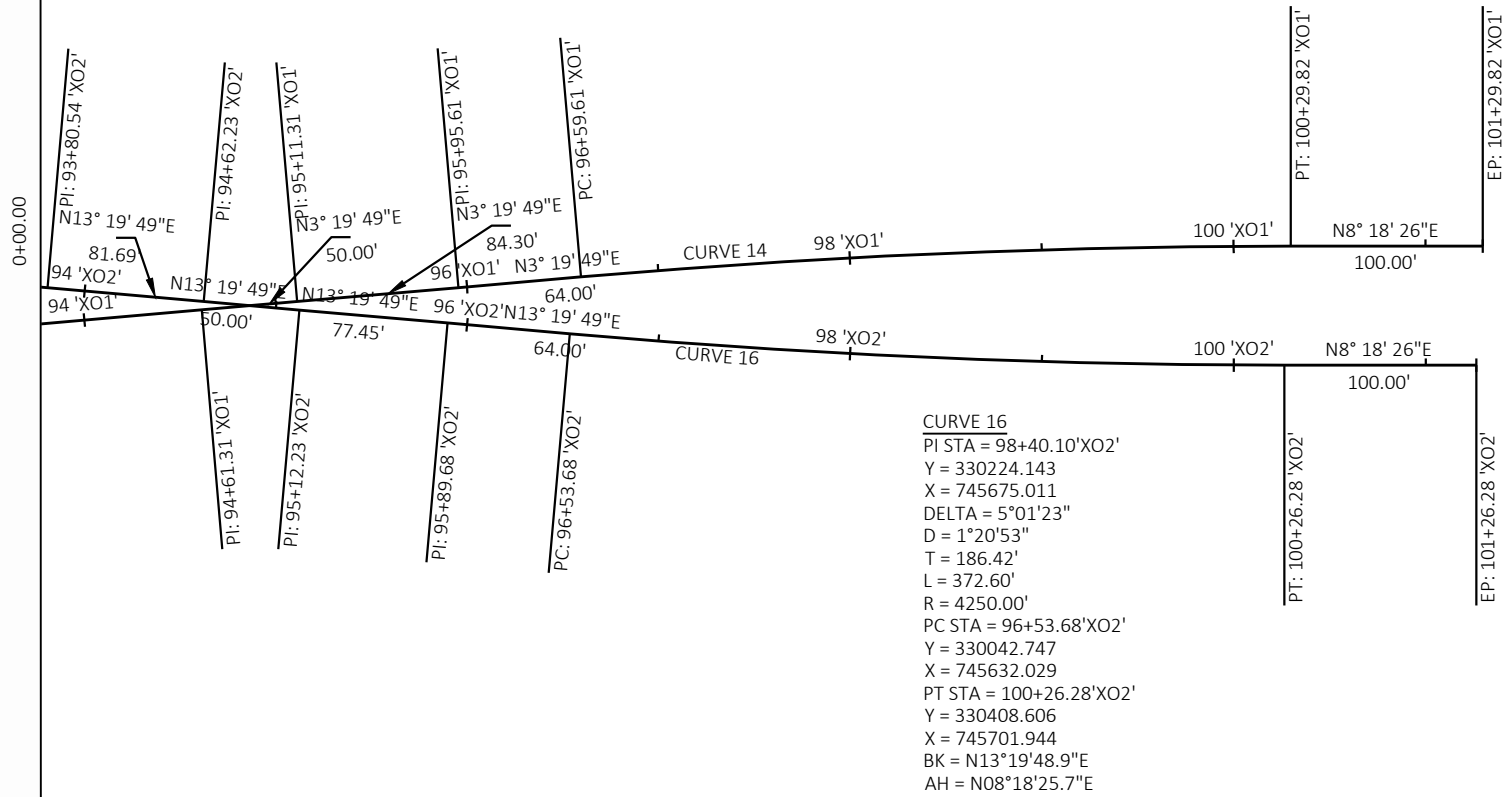
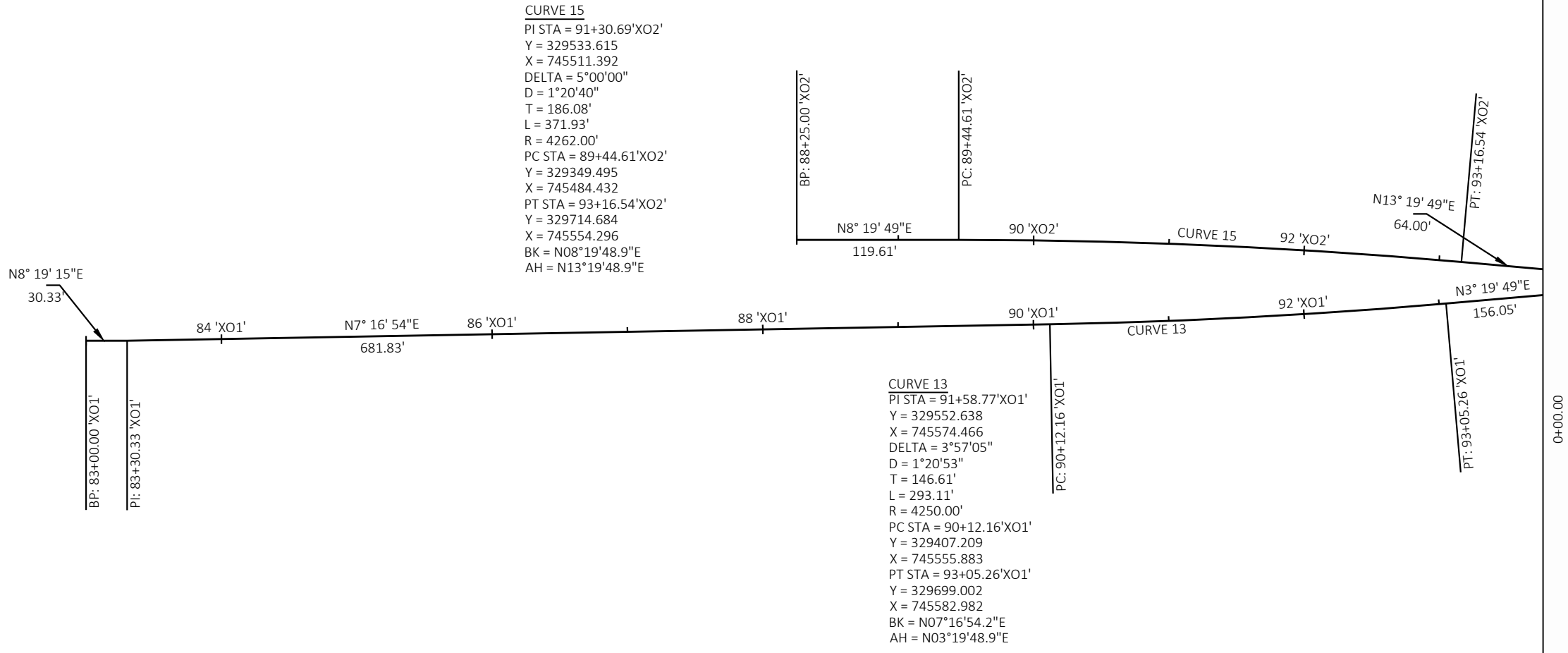
HWY: USH 151

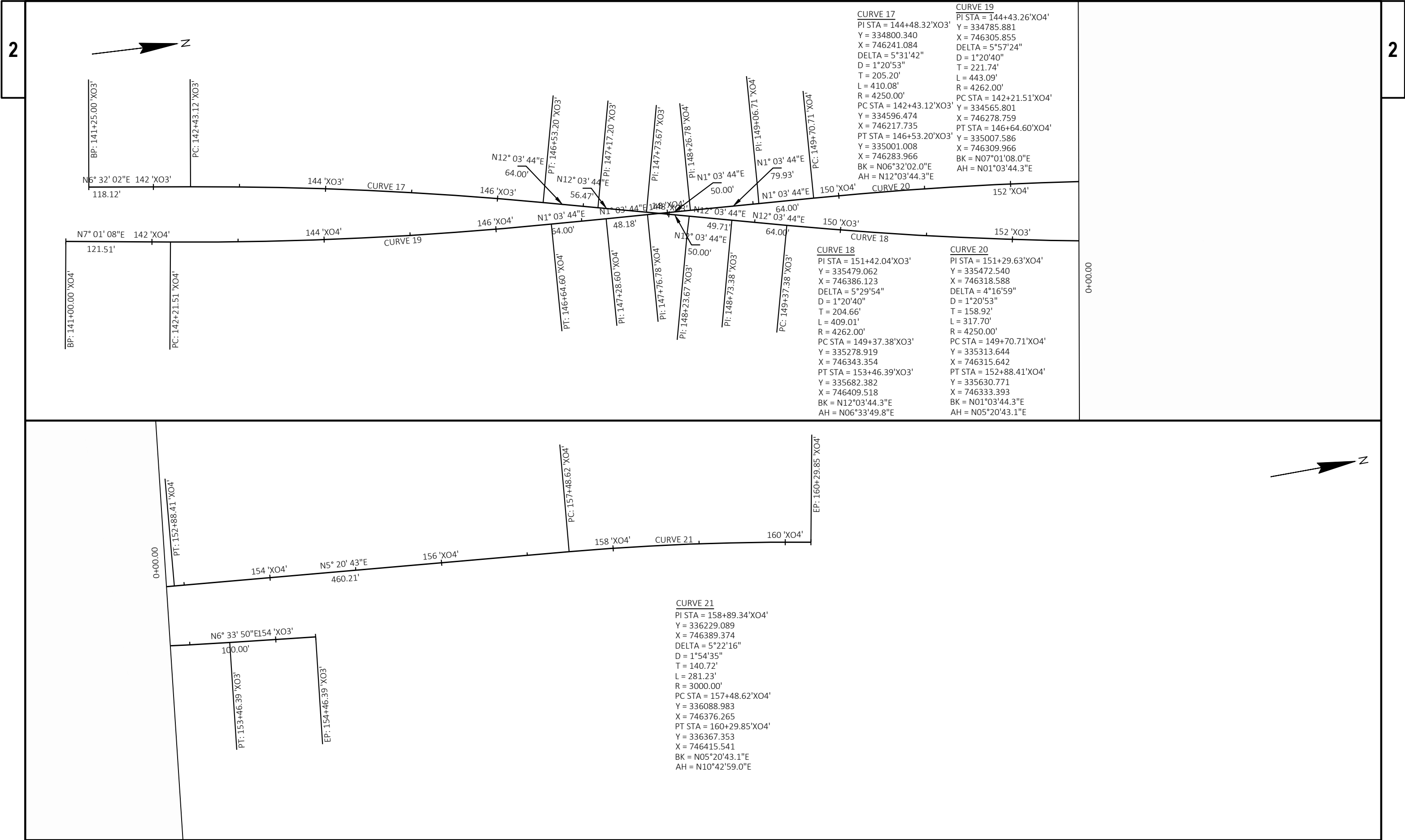
COUNTY: DODGE & FOND DU LAC

ALIGNMENT DETAILS - STH 49

SHEET	150	E
-------	-----	----------

E





Estimate Of Quantities

1112-06-74

Line	Item	Item Description	Unit	Total	Qty
0002	203.0100	Removing Small Pipe Culverts	EACH	1.000	1.000
0004	204.0100	Removing Concrete Pavement	SY	338.000	338.000
0006	204.0120	Removing Asphaltic Surface Milling	SY	75,902.000	75,902.000
0008	204.0150	Removing Curb & Gutter	LF	84.000	84.000
0010	204.0155	Removing Concrete Sidewalk	SY	68.000	68.000
0012	204.0165	Removing Guardrail	LF	63.000	63.000
0014	204.0180	Removing Delineators and Markers	EACH	2.000	2.000
0016	204.0190	Removing Surface Drains	EACH	2.000	2.000
0018	205.0100	Excavation Common	CY	3,955.000	3,955.000
0020	211.0100	Prepare Foundation for Asphaltic Paving (project) 01. 1112-06-74	LS	1.000	1.000
0022	213.0100	Finishing Roadway (project) 01. 1112-06-74	EACH	1.000	1.000
0024	305.0110	Base Aggregate Dense 3/4-Inch	TON	1,842.000	1,842.000
0026	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	5,098.000	5,098.000
0028	305.0500	Shaping Shoulders	STA	415.000	415.000
0030	312.0110	Select Crushed Material	TON	5,861.000	5,861.000
0032	390.0303	Base Patching Concrete	SY	6,648.000	6,648.000
0034	415.0120	Concrete Pavement 12-Inch	SY	154.000	154.000
0036	415.0410	Concrete Pavement Approach Slab	SY	174.000	174.000
0038	416.0610	Drilled Tie Bars	EACH	714.000	714.000
0040	416.0620	Drilled Dowel Bars	EACH	12,188.000	12,188.000
0042	416.1010	Concrete Surface Drains	CY	4.000	4.000
0044	455.0605	Tack Coat	GAL	8,581.000	8,581.000
0046	460.2000	Incentive Density HMA Pavement	DOL	8,220.000	8,220.000
0048	460.6424	HMA Pavement 4 MT 58-28 H	TON	5,470.000	5,470.000
0050	460.6425	HMA Pavement 5 MT 58-28 H	TON	813.000	813.000
0052	460.7424	HMA Pavement 4 HT 58-28 H	TON	4,347.000	4,347.000
0054	460.7425	HMA Pavement 5 HT 58-28 H	TON	2,158.000	2,158.000
0056	465.0105	Asphaltic Surface	TON	350.000	350.000
0058	465.0400	Asphaltic Shoulder Rumble Strips	LF	14,913.000	14,913.000
0060	465.0425	Asphaltic Shoulder Rumble Strips 2-Lane Rural	LF	5,424.000	5,424.000
0062	465.0475	Asphalt Centerline Rumble Strips 2-Lane Rural	LF	6,570.000	6,570.000
0064	520.9700.S	Culvert Pipe Liners (size) 01. 60-Inch	LF	140.000	140.000
0066	520.9750.S	Cleaning Culvert Pipes for Liner Verification	EACH	2.000	2.000
0068	601.0409	Concrete Curb & Gutter 30-Inch Type A	LF	108.000	108.000
0070	601.0584	Concrete Curb & Gutter 4-Inch Sloped 30-Inch Type TBT	LF	16.000	16.000
0072	601.0586	Concrete Curb & Gutter 4-Inch Sloped 30-Inch Type TBTT	LF	28.000	28.000
0074	602.0405	Concrete Sidewalk 4-Inch	SF	224.000	224.000
0076	602.0505	Curb Ramp Detectable Warning Field Yellow	SF	40.000	40.000
0078	608.0318	Storm Sewer Pipe Reinforced Concrete Class III 18-Inch	LF	881.000	881.000
0080	611.0420	Reconstructing Manholes	EACH	1.000	1.000
0082	611.0430	Reconstructing Inlets	EACH	2.000	2.000
0084	611.0530	Manhole Covers Type J	EACH	1.000	1.000
0086	611.0642	Inlet Covers Type MS	EACH	6.000	6.000
0088	611.3901	Inlets Median 1 Grate	EACH	2.000	2.000
0090	611.8115	Adjusting Inlet Covers	EACH	2.000	2.000
0092	612.0206	Pipe Underdrain Unperforated 6-Inch	LF	1,171.000	1,171.000
0094	612.0806	Apron Endwalls for Underdrain Reinforced Concrete 6-Inch	EACH	1.000	1.000
0096	614.0010	Barrier System Grading Shaping Finishing	EACH	4.000	4.000
0098	614.0370	Steel Plate Beam Guard Energy Absorbing Terminal	EACH	2.000	2.000

Estimate Of Quantities

1112-06-74

Line	Item	Item Description	Unit	Total	Qty
0100	614.0400	Adjusting Steel Plate Beam Guard	LF	300.000	300.000
0102	614.2300	MGS Guardrail 3	LF	425.000	425.000
0104	614.2500	MGS Thrie Beam Transition	LF	79.000	79.000
0106	614.2610	MGS Guardrail Terminal EAT	EACH	2.000	2.000
0108	618.0100	Maintenance And Repair of Haul Roads (project) 01. 1112-06-74	EACH	1.000	1.000
0110	619.1000	Mobilization	EACH	1.000	1.000
0112	624.0100	Water	MGAL	104.000	104.000
0114	625.0100	Topsoil	SY	7,082.000	7,082.000
0116	627.0200	Mulching	SY	6,963.000	6,963.000
0118	628.1905	Mobilizations Erosion Control	EACH	5.000	5.000
0120	628.1910	Mobilizations Emergency Erosion Control	EACH	3.000	3.000
0122	628.2002	Erosion Mat Class I Type A	SY	3,766.000	3,766.000
0124	628.2006	Erosion Mat Urban Class I Type A	SY	144.000	144.000
0126	628.7005	Inlet Protection Type A	EACH	9.000	9.000
0128	628.7015	Inlet Protection Type C	EACH	3.000	3.000
0130	628.7504	Temporary Ditch Checks	LF	40.000	40.000
0132	629.0210	Fertilizer Type B	CWT	4.500	4.500
0134	630.0130	Seeding Mixture No. 30	LB	188.000	188.000
0136	630.0140	Seeding Mixture No. 40	LB	3.000	3.000
0138	630.0200	Seeding Temporary	LB	188.000	188.000
0140	630.0500	Seed Water	MGAL	79.000	79.000
0142	633.0100	Delineator Posts Steel	EACH	50.000	50.000
0144	633.0500	Delineator Reflectors	EACH	100.000	100.000
0146	633.5350	Markers Permanent Flexible	EACH	82.000	82.000
0148	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	2.000	2.000
0150	637.2210	Signs Type II Reflective H	SF	24.000	24.000
0152	638.2102	Moving Signs Type II	EACH	2.000	2.000
0154	638.4000	Moving Small Sign Supports	EACH	2.000	2.000
0156	642.5201	Field Office Type C	EACH	1.000	1.000
0158	643.0300	Traffic Control Drums	DAY	14,613.000	14,613.000
0160	643.0410	Traffic Control Barricades Type II	DAY	160.000	160.000
0162	643.0420	Traffic Control Barricades Type III	DAY	1,816.000	1,816.000
0164	643.0500	Traffic Control Flexible Tubular Marker Posts	EACH	303.000	303.000
0166	643.0600	Traffic Control Flexible Tubular Marker Bases	EACH	303.000	303.000
0168	643.0705	Traffic Control Warning Lights Type A	DAY	3,472.000	3,472.000
0170	643.0715	Traffic Control Warning Lights Type C	DAY	8,118.000	8,118.000
0172	643.0800	Traffic Control Arrow Boards	DAY	264.000	264.000
0174	643.0900	Traffic Control Signs	DAY	6,993.000	6,993.000
0176	643.0910	Traffic Control Covering Signs Type I	EACH	5.000	5.000
0178	643.0920	Traffic Control Covering Signs Type II	EACH	10.000	10.000
0180	643.1000	Traffic Control Signs Fixed Message	SF	66.000	66.000
0182	643.1050	Traffic Control Signs PCMS	DAY	193.000	193.000
0184	643.5000	Traffic Control	EACH	1.000	1.000
0186	644.1420	Temporary Pedestrian Surface Plywood	SF	680.000	680.000
0188	644.1601	Temporary Pedestrian Curb Ramp	DAY	20.000	20.000
0190	646.1020	Marking Line Epoxy 4-Inch	LF	42,321.000	42,321.000
0192	646.1040	Marking Line Grooved Wet Ref Epoxy 4-Inch	LF	19,020.000	19,020.000
0194	646.3020	Marking Line Epoxy 8-Inch	LF	569.000	569.000
0196	646.3040	Marking Line Grooved Wet Ref Epoxy 8-Inch	LF	2,390.000	2,390.000

Estimate Of Quantities

1112-06-74

Line	Item	Item Description	Unit	Total	Qty
0198	646.5020	Marking Arrow Epoxy	EACH	4.000	4.000
0200	646.6120	Marking Stop Line Epoxy 18-Inch	LF	233.000	233.000
0202	646.7220	Marking Chevron Epoxy 24-Inch	LF	234.000	234.000
0204	646.7420	Marking Crosswalk Epoxy Transverse Line 6-Inch	LF	447.000	447.000
0206	649.0105	Temporary Marking Line Paint 4-Inch	LF	23,475.000	23,475.000
0208	649.0120	Temporary Marking Line Epoxy 4-Inch	LF	4,474.000	4,474.000
0210	649.0150	Temporary Marking Line Removable Tape 4-Inch	LF	43,657.000	43,657.000
0212	650.4000	Construction Staking Storm Sewer	EACH	10.000	10.000
0214	650.4500	Construction Staking Subgrade	LF	1,879.000	1,879.000
0216	650.5000	Construction Staking Base	LF	1,879.000	1,879.000
0218	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	84.000	84.000
0220	650.8000	Construction Staking Resurfacing Reference	LF	22,905.000	22,905.000
0222	650.9000	Construction Staking Curb Ramps	EACH	4.000	4.000
0224	650.9910	Construction Staking Supplemental Control (project) 01. 1112-06-74	LS	1.000	1.000
0226	690.0150	Sawing Asphalt	LF	445.000	445.000
0228	690.0250	Sawing Concrete	LF	23,923.000	23,923.000
0230	715.0720	Incentive Compressive Strength Concrete Pavement	DOL	500.000	500.000
0232	740.0440	Incentive IRI Ride	DOL	8,526.000	8,526.000
0234	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	2,000.000	2,000.000
0236	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	1,320.000	1,320.000
0238	SPV.0060	Special 01. Verify Landmark Reference Monuments	EACH	6.000	6.000
0240	SPV.0090	Special 01. Concrete Joint and Crack Cleaning	LF	4,500.000	4,500.000
0242	SPV.0090	Special 02. Concrete Pavement Repair Longitudinal Joint	LF	1,540.000	1,540.000
0244	SPV.0090	Special 03. Drain Slotted Vane, Corrugated Polyethylene 18-Inch	LF	407.000	407.000
0246	SPV.0090	Special 04. Pipe Underdrain (6-Inch) With Geotextile Fabric and Aggregate	LF	1,088.000	1,088.000
0248	SPV.0090	Special 05. Temporary Marking Line Removable Tape 6-Inch	LF	334.000	334.000
0250	SPV.0180	Special 01. Removing Distressed Pavement Milling	SY	3,121.000	3,121.000

3

3

REMOVING ASPHALTIC SURFACE MILLING

204.0120
REMOVING
ASPHALTIC
SURFACE
MILLING

SPV.0180.01
REMOVING
DISTRESSED
PAVEMENT
MILLING

CATEGORY	STATION	STATION	LOCATION	SY	SY	REMARKS
0010	100'NB'+29	- 126'NB'+98	USH 151 NB	10,017	--	
0010	128'NB'+78	- 145'NB'+08	USH 151 NB	6,226	--	
0010	103'SB'+20	- 126'SB'+88	USH 151 SB	8,732	--	
0010	128'SB'+67	- 144'SB'+71	USH 151 SB	5,818	--	
0010	5'A'+00	- 17'A'+46	USH 151 NB OFF-RAMP	2,970	--	
0010	5'B'+21	- 17'B'+00	USH 151 NB ON-RAMP	2,802	--	
0010	5'C'+14	- 17'C'+21	USH 151 SB OFF-RAMP	2,826	--	
0010	6'D'+20	- 21'D'+91	USH 151 SB ON-RAMP	2,986	--	
0010	54'S'+70	- 62'S'+25	STH 49	2,749	--	
CATEGORY 0010 SUBTOTAL				45,127	0	
0020	50'S'+00	- 54'S'+70	STH 49	2,690	--	
0020	62'S'+25	- 101'S'+00	STH 49	14,143	1,571	
0020	101'S'+00	- 139'S'+95	STH 49	13,943	1,549	
CATEGORY 0020 SUBTOTAL				30,775	3,121	
TOTAL				75,903	3,121	

REMOVING CONCRETE PAVEMENT

204.0100

REMOVING CONCRETE
PAVEMENT

STATION	STATION	LOCATION	SY	REMARKS
100'NB'+29	- 126'NB'+98	USH 151 NB	88	
128'NB'+78	- 145'NB'+49	USH 151 NB	85	
103'SB'+20	- 126'SB'+88	USH 151 SB	84	
128'SB'+67	- 144'SB'+71	USH 151 SB	81	
TOTAL			338	

REMOVING SMALL PIPE CULVERTS

203.0100

REMOVING SMALL
PIPE CULVERTS

STATION	LOCATION	EA	REMARKS
147'NB'+75	LT	1	49 LF 18-IN REINFORCED CONCRETE CULVERT
TOTAL		1	

ANCILLARY CONCRETE REMOVAL SUMMARY

					204.0150	204.0155	REMARKS
					REMOVING CURB & GUTTER	REMOVING CONCRETE SIDEWALK	
CATEGORY	STATION	STATION	HWY	LOCATION	LF	SY	
0020	51'S'+73 -	51'S'+86	STH 49	GATEWAY DR INTERSECTION SW QUAD	19	21	
0020	52'S'+29 -	52'S'+43	STH 49	GATEWAY DR INTERSECTION SE QUAD	19	15	
0020	51'S'+70 -	51'S'+82	STH 49	GATEWAY DR INTERSECTION NW QUAD	19	25	
0020	52'S'+30 -	52'S'+47	STH 49	GATEWAY DR INTERSECTION NE QUAD	27	7	
TOTAL					84	68	

REMOVING CONCRETE SURFACE DRAINS

				204.0190
				REMOVING SURFACE DRAINS
STATION	STATION	LOCATION	EA	REMARKS
126'NB'+93 -	127'NB'+19	LT	1	
128'NB'+53 -	128'NB'+78	LT	1	
TOTAL			2	

REMOVING DELINEATORS AND MARKERS

			208.0180
			REMOVING DELINEATORS AND MARKERS
STATION	LOCATION	EA	REMARKS
147'NB'+75	LT	2	
TOTAL		2	

EARTHWORK SUMMARY

DIVISION	FROM/TO STATION	LOCATION	205.0100 COMMON EXCAVATION (1)		AVAILABLE MATERIAL (5)	REDUCED EBS IN FILL (6)	UNEXPANDED FILL	EXPANDED FILL (7)	MASS ORDINATE +/- (8)	WASTE	COMMENT
			CUT (2)	EBS EXCAVATION (3)		FACTOR 0.80		FACTOR 1.30			
DIVISION 1											
USH 151 CROSSTOVS	88+40.481/155+11.805	USH 151	3,585	370	3,585	296	2,169	2,435	1,150	1,150	
DIVISION 1 SUBTOTAL			3,585	370	3,585	296	2,169	2,435	1,150	1,150	
GRAND TOTAL			3,585	370	3,585	296	2,169	2,435	1,150	1,150	
TOTAL COMMON EXC			3,955								

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) EBS EXCAVATION TO BE BACKFILLED WITH SELECT CRUSHED MATERIAL.
- (4) SALVAGED/UNUSABLE PAVEMENT MATERIAL
- (5) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSUABLE PAVEMENT MATERIAL
- (6) REDUCED EBS IN FILL - EXCAVATED EBS MATERIAL IS USUABLE IN FILLS OUTSIDE THE 1:1 SLOPE. EBS IN FILL REDUCTION FACTOR = 0.80
- (7) EXPANDED FILL FACTOR = 1.30
- DEPENDING ON SELECTIONS:

EXPANDED FILL = (UNEXPANDED FILL - EXPANDED ROCK - REDUCED MARSH - REDUCED EBS) * FILL FACTOR

OR

EXPANDED FILL = (UNEXPANDED FILL - EXPANDED ROCK - REDUCED EBS) * FILL FACTOR

OR

EXPANDED FILL = (UNEXPANDED FILL - EXPANDED ROCK - REDUCED MARSH) * FILL FACTOR

OR

EXPANDED FILL = (UNEXPANDED FILL - EXPANDED ROCK) * FILL FACTOR
- (8) 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.
- (9) FACTORS USED TO COMPUTE ANTICIPATED WASTE AND THE COMPUTED WASTE VOLUME IDENTIFIED ARE FOR GENERAL INFORMATION ONLY.

BASE AGGREGATE SUMMARY

				312.0110	305.0110	305.0120	305.0500		
				SELECT	BASE AGGREGATE	BASE AGGREGATE			
				CRUSHED	DENSE 3/4 -	DENSE 1 1/4 -	SHAPING		
				MATERIAL	INCH	INCH	SHOULDERS		
CATEGORY	STATION	STATION	LOCATION	TON	TON	TON	STA	REMARKS	
0010	100'NB'+29	- 126'NB'+98	USH 151 NB	--	82	--	47		
0010	128'NB'+78	- 145'NB'+49	USH 151 NB	--	54	--	30		
0010	103'SB'+20	- 126'SB'+88	USH 151 SB	--	71	--	39		
0010	128'SB'+67	- 144'SB'+71	USH 151 SB	--	52	--	28		
0010	5'A'+00	- 17'A'+46	USH 151 NB OFF-RAMP	--	59	--	22		
0010	5'B'+21	- 17'B'+00	USH 151 NB ON-RAMP	--	56	--	21		
0010	5'C'+14	- 17'C'+21	USH 151 SB OFF-RAMP	--	57	--	21		
0010	6'D'+20	- 21'D'+91	USH 151 SB ON-RAMP	--	69	--	25		
0010	90'NB'+38	- 100'NB'+29	USH 151 SOUTH CROSSOVER	2550	482	2190	13		
0010	143'NB'+19	- 152'NB'+07	USH 151 NORTH CROSSOVER	2608	454	2227	12		
0010	54'S'+70	- 62'S'+25	STH 49	--	18	--	9		
110			UNDISTRIBUTED	703	--	663	--	EBS BACKFILL	
CATEGORY 0010 SUBTOTAL				5861	1453	5080	267		
0020	50'S'+00	- 54'S'+70	STH 49	--	--	18	--		
0020	62'S'+25	- 69'S'+75	STH 49	--	214	--	13		
0020	69'S'+75	- 101'S'+00	STH 49	--	77	--	60		
0020	101'S'+00	- 139'S'+95	STH 49	--	98	--	75		
CATEGORY 0020 SUBTOTAL				0	389	18	148		
				5,861	1,842	5,098	415		

PREPARE FOUNDATION

			211.0100
			PREPARE FOUNDATION FOR
			ASPHALTIC PAVING
			(PROJECT)
CATEGORY	LS	REMARKS	
0010	1.0		
TOTAL			1

FINISHING ROADWAY

			213.0100
			FINISHING
			ROADWAY
			(PROJECT)
CATEGORY	EACH	REMARKS	
0010	0.8		
0020	0.2		
TOTAL			1

CONCRETE SUMMARY

			390.0303	415.0120	415.0410	416.0610	416.0620	416.1010	SPV.0090.01	SPV.0090.02		
			BASE PATCHING CONCRETE	CONCRETE PAVEMENT 12-INCH	CONCRETE PAVEMENT APPROACH SLAB	DRILLED TIE BARS*	DRILLED DOWEL BARS	CONCRETE SURFACE DRAINS	CONCRETE JOINT AND CRACK CLEANING AND REPAIR	CONCRETE PAVEMENT REPAIR LONGITUDINAL JOINT		
STATION	STATION	LOCATION	SY	SY	SY	EA	EA	CY	LF	LF	REMARKS	
100'NB'+29	- 126'NB'+98	USH 151 NB	1600	46	43	250	3200	2	--	--		
128'NB'+78	- 145'NB'+08	USH 151 NB	640	40	42	100	1280	2	--	--		
103'SB'+20	- 126'SB'+88	USH 151 SB	1120	35	45	175	2240	--	--	--		
128'SB'+67	- 144'SB'+71	USH 151 SB	800	33	44	125	1600	--	--	1040		
5'A'+00	- 17'A'+46	USH 151 NB OFF-RAMP	300	--	--	--	600	--	300	--		
5'B'+21	- 17'B'+00	USH 151 NB ON-RAMP	300	--	--	--	600	--	300	--		
5'C'+14	- 17'C'+21	USH 151 SB OFF-RAMP	300	--	--	--	600	--	300	--		
6'D'+20	- 21'D'+91	USH 151 SB ON-RAMP	480	--	--	--	960	--	480	--		
UNDISTRIBUTED			1108	--	--	--	1108	--	3120	500		
			6,648	154	174	650	12,188	4	4,500	1,540		

*ADDITIONAL QUANTITIES LISTED ELSEWHERE

ASPHALT PAVEMENT SUMMARY

				455.0605	460.6424	460.6425	460.7424	460.7425	465.0105	465.0400	465.0425	465.0475				
					HMA	HMA	HMA	HMA			ASPHALTIC	ASPHALTIC				
					LOWER	UPPER					ASPHALTIC	SHOULDER	RUMBLE STRIPS	RUMBLE STRIPS	RUMBLE STRIPS	RUMBLE STRIPS
					LAYER	LAYER	TACK	4 MT	5 MT	4 HT	5 HT	ASPHALTIC	SHOULDER	2-LANE RURAL	2-LANE RURAL	2-LANE RURAL
CATEGORY	STATION	STATION	LOCATION	AREA	DEPTH	DEPTH	COAT	58-28 H	58-28 H	58-28 H	58-28 H	SURFACE	RUMBLE STRIPS	2-LANE RURAL	2-LANE RURAL	REMARKS
0010	100'NB'+29	- 126'NB'+98	USH 151 NB	10,017	1.25	1.75	1,203	--	--	982	702	--	4,848	--	--	
0010	128'NB'+78	- 145'NB'+08	USH 151 NB	6,226	1.25	1.75	748	--	--	611	436	--	3,167	--	--	
0010	103'SB'+20	- 126'SB'+88	USH 151 SB	8,732	1.25	1.75	1,048	--	--	856	612	--	4,226	--	--	
0010	128'SB'+67	- 144'SB'+71	USH 151 SB	5,818	1.25	1.75	699	--	--	571	408	--	2,672	--	--	
0010	5'A'+00	- 17'A'+46	USH 151 NB OFF-RAMP	2,970	1.25	1.75	357	292	208	--	--	--	--	--	--	
0010	5'B'+21	- 17'B'+00	USH 151 NB ON-RAMP	2,802	1.25	1.75	337	275	197	--	--	--	--	--	--	
0010	5'C'+14	- 17'C'+21	USH 151 SB OFF-RAMP	2,826	1.25	1.75	340	277	198	--	--	--	--	--	--	
0010	6'D'+20	- 21'D'+91	USH 151 SB ON-RAMP	2,986	1.25	1.75	359	293	210	--	--	--	--	--	--	
0010	90'NB'+38	- 100'NB'+29	USH 151 SOUTH CROSSOVER	2,312	2.5	2.5	278	--	--	648	--	--	--	--	--	
0010	143'NB'+19	- 152'NB'+07	USH 151 NORTH CROSSOVER	2,422	2.5	2.5	291	--	--	679	--	--	--	--	--	
0010	54'S'+70	- 62'S'+25	STH 49	2,749	--	2	193	308	--	--	--	--	--	--	--	
0010			UNDISTRIBUTED	0			--	--	--	--	--	0	--	--	--	
CATEGORY 0010 SUBTOTAL							5,853	1,445	813	4,347	2,158	0	14,913	0	0	
0020	50'S'+00	- 54'S'+70	STH 49	2,690	1.75	1.75	323	528	--	--	--	--	--	--	--	
0020	62'S'+25	- 69'S'+75	STH 49	3,109	--	2	218	349	--	--	--	--	--	592	750	
0020	69'S'+75	- 101'S'+00	STH 49	12,605	--	2	883	1,412	--	--	--	--	--	3,336	2,725	
0020	101'S'+00	- 139'S'+95	STH 49	15,492	--	2	1,085	1,736	--	--	--	--	--	1,496	3,095	
0020			UNDISTRIBUTED	3,121	--	--	219	--	--	--	--	350	--	--	--	FOR DISTRESSED MILLING AREAS
CATEGORY 0020 SUBTOTAL							2,728	4,025	0	0	0	350	0	5,424	6,570	
TOTAL							8,581	5,470	813	4,347	2,158	350	14,913	5,424	6,570	

3

CULVERT PIPE SUMMARY

	520.9700.S	520.9750.S	
	CULVERT PIPE LINERS, 60-INCH	CLEANING CULVERT PIPES FOR LINER VERIFICATION	
LOCATION	LF	EACH	REMARKS
STA 69'S'+15	70	1	
STA 69'S'+24	70	1	
TOTAL	140	2	

MAINTENANCE AND REPAIR OF HAUL ROADS

	618.0100	
	MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT)	
CATEGORY	EACH	REMARKS
0010	0.8	
0020	0.2	
TOTAL	1	

3

CURB AND GUTTER SUMMARY

					416.0610	601.0409	601.0584	601.0586	690.0250	
					DRILLED TIE BARS*	CONCRETE CURB & GUTTER 30-INCH TYPE A	CONCRETE CURB & GUTTER 30-INCH TYPE TBT	CONCRETE CURB & GUTTER 30-INCH TYPE TBTT	SAWING CONCRETE*	
CATEGORY	STATION	STATION	HWY	LOCATION	EA	LF	LF	LF	LF	REMARKS
0010	128'NB'+62	- 129'NB'+00	STH 49	USH 151 NB	9	--	16	28	37	
0010	126'SB'+88	- 126'SB'+90	STH 49	USH 151 SB	5	10	--	--	--	
0010	128'SB'+53	- 128'SB'+60	STH 49	USH 151 SB	7	14	--	--	--	
CATEGORY 0010 SUBTOTAL					21	24	16	28	37	
0020	51'S'+73	- 51'S'+86	STH 49	GATEWAY DR INTERSECTION SW QUAD	10	19	--	--	5	
0020	52'S'+29	- 52'S'+43	STH 49	GATEWAY DR INTERSECTION SE QUAD	10	19	--	--	5	
0020	51'S'+70	- 51'S'+82	STH 49	GATEWAY DR INTERSECTION NW QUAD	13	27	--	--	5	
0020	52'S'+30	- 52'S'+47	STH 49	GATEWAY DR INTERSECTION NE QUAD	10	19	--	--	5	
CATEGORY 0020 SUBTOTAL					43	84	0	0	20	
TOTAL					64	108	16	28	57	

*ADDITIONAL QUANTITIES LISTED ELSEWHERE

CONCRETE SIDEWALK SUMMARY

602.0405 602.0505
CONCRETE CURB RAMP
SIDEWALK DETECTABLE
4-INCH WARNING FIELD
YELLOW

STATION	STATION	HWY	LOCATION	SF	SF	REMARKS
1112-06-74						
51'S'+56	- 51'S'+82	STH 49	GATEWAY DR INTERSECTION SW QUAD	224	10	
52'S'+33	- 52'S'+48	STH 49	GATEWAY DR INTERSECTION SE QUAD	143	10	
51'S'+50	- 51'S'+79	STH 49	GATEWAY DR INTERSECTION NW QUAD	272	10	
52'S'+36	- 52'S'+48	STH 49	GATEWAY DR INTERSECTION NE QUAD	96	10	
TOTAL				224	40	

MOBILIZATION

619.1000
MOBILIZATION

CATEGORY	EACH	REMARKS
0010	0.80	
0020	0.20	
TOTAL	1	

WATER SUMMARY

624.0100
WATER

LOCATION	MGAL	REMARKS
UNDISTRIBUTED	104	
TOTAL	104	

10-20 gallons/ton base aggregate per FDM 14-5-10.1

ADJUSTING INLET COVERS

611.8115
ADJUSTING
INLET
COVERS

STATION	EACH	REMARKS
126'SB'+92	1	
128'SB'+60	1	
TOTAL	2	

3

3

STORM SEWER PIPES

608.0318

SPV.0090.03

STORM SEWER PIPE
REINFORCED

DRAIN SLOTTED
VANE, CORRUGATED

CONCRETE CLASS

POLYETHYLENE 18-

III 18-INCH

INCH

CATEGORY	FROM STRUCTURE	TO STRUCTURE	INLET	DISCHARGE	SLOPE (%)	LF	LF	REMARKS
			ELEV.	ELEV.				
0010	1.0	- 1.1	891.95	891.07	1.30	70	--	
0010	STA 93'NB'+79	- STA 95'NB'+91	892.93	892.15	0.40	--	213	
0010	STA 95'NB'+91	- 2.0	892.15	888.61	1.50	235	--	
0010	STA 146'NB'+92	- STA 148'NB'+85	876.74	875.93	1.50	--	194	
0010	STA 148'NB'+85	- STA 148'NB'+85	875.93	871.12	99.80	7	--	
0010	STA 148'NB'+86	- 3.0	871.12	867.77	1.50	237	--	
0010	3.0	- 3.1	877.67	872.12	1.00	332	--	

TOTAL

881

407

STORM SEWER STRUCTURES

611.0420

611.0430

611.0642

611.0530

611.3901

INLETS

RECONSTRUCTING MANHOLES

RECONSTRUCTING INLETS

INLET COVERS
TYPE MS

MANHOLE COVERS
TYPE J

MEDIAN 1
GRATE

CATEGORY	STRUC. NO.	STATION	OFFSET*	CASTING ELEV.	INVERT ELEV.	DEPTH**	EACH	EACH	EACH	EACH	EACH	REMARKS
0010	1.0	91'NB'+30	24.9' LT	894.62	891.95	2.67	--	--	1	--	1	--
0010	1.1	92'NB'+03	26.3' LT	895.39	891.07	4.32	1	--	--	1	--	--
0010	2.0	98'NB'+30	24.6' LT	892.53	888.61	3.92	--	1	2	--	--	--
0010	3.0	151'NB'+31	26.4' LT	876.53	867.33	9.20	--	1	2	--	--	--
0010	3.1	154'NB'+66	28.5' LT	875.27	871.12	4.15	--	--	1	--	1	CONNECT UNDERDRIN

TOTAL

1

2

6

1

2

REMARKS

* STATIONS AND OFFSETS ARE TO CENTER OF STRUCTURE

$$**DEPTH = CASTING\ ELEV. - INVERT\ ELEV$$

UNDERDRAIN SUMMARY

612.0206 SPV.0090.04 612.0806

				PIPE UNDERDRAIN UNPERFORATED 6- INCH	PIPE UNDERDRAIN (6- INCH) WITH GEOTEXTILE FABRIC AND AGGREGATE	APRON ENDWALLS FOR UNDERDRAIN REINFORCED 6-INCH		
STATION		STATION	HWY	LOCATION	LF	LF	EA	REMARKS
92'NB'+03	-	93'NB'+30	USH 151	LT	132	--	--	
93'NB'+79	-	96'NB'+60	USH 151	LT	--	281	--	
93'NB'+79	-	96'NB'+60	USH 151	LT	--	281	--	
96'NB'+60	-	98'NB'+30	USH 151	LT	170	--	--	
96'NB'+60	-	98'NB'+30	USH 151	LT	170	--	--	
100'NB'+25	-	101'NB'+50	USH 151	LT	135	--	1	
146'NB'+92	-	149'NB'+55	USH 151	LT	--	263	--	
146'NB'+92	-	149'NB'+55	USH 151	LT	--	263	--	
149'NB'+55	-	151'NB'+48	USH 151	LT	193	--	--	
149'NB'+55	-	151'NB'+48	USH 151	LT	193	--	--	
153'NB'+81	-	154'NB'+66	USH 151	LT	178	--	--	
				TOTAL	1,171	1,088	1	

GUARDRAIL ITEMS

204.0165 614.0010 614.0370 614.0400 614.2300 614.2500 614.2610 FOR INFORMATION ONLY

				STEEL PLATE BEAM																
				REMOVING GUARDRAIL	BARRIER SYSTEM GRADING SHAPING FINISHING	GUARD ENERGY ABSORBING TERMINAL	ADJUSTING STEEL PLATE BEAM GUARD	MGS GUARDRAIL 3	MGS THRIE BEAM TRANSITION	MGS GUARDRAIL TERMINAL EAT	BORROW	EXCAVATION COMMON	SALVAGED TOPSOIL	FERTILIZER TYPE B	SEEDING MIXTURE NO. 30	SEEDING TEMPORARY				
CATEGORY	STATION	TO	STATION	LOCATION	LF	EACH	EACH	LF	LF	LF	EACH	CY	CY	SY	CWT	LB	LB	REMARKS		
0010	128'NB'+61	-	131'NB'+67	USH 151 NB LT	--	1	--	--	212.5	39.4	1	48	24	492	0.3	13	13			
0010	134'NB'+58	-	135'NB'+09	USH 151 NB RT	13	1	1	--	--	--	--	54	15	240	0.2	6	6			
0010	123'SB'+98	-	127'SB'+03	USH 151 SB RT	--	1	--	--	212.5	39.4	1	156	29	331	0.2	9	9			
0010	123'NB'+16	-	123'SB'+68	USH 151 SB LT	50	1	1	--	--	--	--	0	23	569	0.4	15	15			
0010	UNDISTRIBUTED				--	--	--	300	--	--	--	--	--	--	--	--	--			
TOTAL					63	4	2	300	425	79	2	258	91	1632	1.10	43	43			

3

3

EROSION CONTROL SUMMARY

				628.1905	628.1910	628.2002	628.2006	628.7005	628.7015	628.7504	REMARKS
				MOBILIZATIONS	MOBILIZATIONS	EROSION MAT	EROSION MAT	INLET	INLET	TEMPORARY	
				EROSION	EMERGENCY	CLASS 1	CLASS 1 URBAN	PROTECTION	PROTECTION	DITCH	
CATEGORY	STATION	STATION	LOCATION	CONTROL	EROSION CONTROL	TYPE A	TYPE A	TYPE A	TYPE C	CHECKS	
				EACH	EACH	SY	SY	EA	EA	LF	
0010	90'NB'+38 -	100'NB'+29	USH 151 SOUTH CROSSOVER	--	--	774	--	6	--	40	
0010	128'NB'+61 -	131'NB'+67	USH 151 NB LT	--	--	530	--	--	--	--	
0010	134'NB'+58 -	135'NB'+09	USH 151 NB RT	--	--	240	--	--	--	--	
0010	143'NB'+19 -	152'NB'+07	USH 151 NORTH CROSSOVER	--	--	1022	--	3	--	--	
0010	123'NB'+16 -	123'SB'+68	USH 151 SB LT	--	--	569	--	--	--	--	
0010	123'NB'+98 -	127'NB'+03	USH 151 SB RT	--	--	331	--	--	--	--	
0010			UNDISTRIBUTED	4	2	300	--	--	--	--	
CATEGORY 0010 SUBTOTAL				4	2	3766	0	9	0	40	
0020	50'S'+00 -	54'S'+70	STH 49	--	--	--	119	--	3	--	
0020			UNDISTRIBUTED	1	1	--	25	--	--	--	
CATEGORY 0020 SUBTOTAL				1	1	0	144	0	3	0	
TOTAL				5	3	3,766	144	9	3	40	

FINISHING ITEMS

				625.0100	627.0200	629.0210	630.0130	630.0140	630.0200	630.0500	REMARKS
				TOPSOIL	MULCHING	FERTILIZER	SEEDING	SEEDING	SEEDING	SEED	
						TYPE B	MIXTURE	MIXTURE	TEMPORARY	WATER	
CATEGORY	STATION	STATION	LOCATION	SY	SY	CWT	NO. 30	NO. 40	LB	MGAL	
0010	90'NB'+38 -	100'NB'+29	USH 151 SOUTH CROSSOVER	2,871	2,871	1.8	78	--	78	32	
0010	143'NB'+19 -	152'NB'+07	USH 151 NORTH CROSSOVER	4,092	4,092	2.6	110	--	110	46	
CATEGORY 0010 SUBTOTAL				6,963	6,963	4.4	188	0	188	78	
0020	50'S'+00 -	54'S'+70	STH 49	119	--	0.1	--	3	--	1	
CATEGORY 0020 SUBTOTAL				119	0	0.1	0	3	0	1	
TOTAL				7,082	6,963	4.5	188	3	188	79	

DELINEATOR SUMMARY

CATEGORY	STATION	-	STATION	LOCATION	633.0100	633.0500	633.5350	REMARKS
					DELINEATOR POSTS STEEL EACH	DELINEATOR REFLECTORS EACH	MARKERS PERMANENT FLEXIBLE EACH	
0010	90'NB'+38	-	100'NB'+29	USH 151 SOUTH CROSSOVER	26	52	43	
0010	143'NB'+19	-	152'NB'+07	USH 151 NORTH CROSSOVER	24	48	39	
TOTAL					50	100	82	

SIGN SUMMARY

CATEGORY	SIGN NO.	STATION	OFFSET	CODE	SIGN WIDTH (IN)	SIGN HEIGHT (IN)	637.2210	634.0616	638.2102	638.4000	REMARKS
							SIGNS TYPE II REFLECTIVE H SF	POSTS WOOD 4x6-IN x 16- FT EACH	MOVING SIGN TYPE II EACH	MOVING SMALL SIGN SUPPORTS	
0010	1-01	91'NB'+00	LT	R3-4B	36	48	12.00	1	--	--	
0010	2-01	99'SB'+00	RT	R3-4B	36	48	12.00	1	--	--	
0010	M8-01	143'NB'+00	LT	--	--	--	--	--	1	1	DO NOT ENTER/NO U-TURN
0010	M9-01	152'SB'+00	RT	--	--	--	--	--	1	1	DO NOT ENTER/NO U-TURN
1112-06-03 TOTAL							24.00	2	2	2	

FIELD OFFICE

642.5201 FIELD OFFICE TYPE C		
CATEGORY	EACH	REMARKS
0010	0.8	
0020	0.2	
TOTAL		1

TRAFFIC CONTROL																			
		643.0300		643.0410		643.0420		643.0500		643.0600		643.0705		643.0715		643.0800		643.0900	
		EST. SERVICE PERIOD		BARRICADES		BARRICADES		FLEXIBLE TUBULAR MARKERS		FLEXIBLE TUBULAR MARKER BASES		WARNING LIGHTS		WARNING LIGHTS		ARROW BOARDS		TRAFFIC CONTROL SIGNS	
STAGE	LOCATION	DAYS	NO	DAYS	NO	DAYS	NO	DAYS	EA	EA	EA	NO	DAYS	NO	DAYS	NO	DAYS	NO	DAYS
1	PREWARNING USH 151	7	20	140	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
		16	238	3,808	--	--	13	208	--	--	--	26	416	46	736	4	64	48	768
2	USH 151	21	205	4,305	--	--	33	693	125	125	66	1,386	156	3,276	4	84	59	1239	
2	DETOUR	21	15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	62	1302
3	USH 151	21	187	3,927	--	--	31	651	150	150	62	1,302	156	3,276	4	84	57	1197	
3	DETOUR	21	20	420	--	--	--	--	--	--	--	--	--	--	--	--	--	59	1239
4	USH 151	2	233	466	--	--	13	26	--	--	26	52	46	92	4	8	38	76	
4	STH 49	28	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	UNDISTRIBUTED		92	1,307	--	--	9	158	28	28	18	316	40	738	2	24	48	582	
CATEGORY 0010 SUBTOTAL			14,373		0		1,736		303	303	3,472		8,118		264		6,403		
4	STH 49 (SHOULDER CLOSURE)	5	24	120	--	--	--	--	--	--	--	--	--	--	--	--	--	10	50
4	STH 49 (FLAGGING)	28	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	10	280
4	PEDESTRIAN ACCOMODATIONS	20	6	120	8	160	4	80	--	--	--	--	--	--	--	--	--	13	260
CATEGORY 0020 SUBTOTAL			240		160		80		0	0	0		0		0		590		
TOTAL			14,613		160		1,816		303	303	3,472		8,118		264		6,993		

TRAFFIC CONTROL CONT'D														
		EST.	643.0910		643.0920		643.1000		643.1050		643.5000		644.1420	644.1601
		SERVICE PERIOD	COVERING TYPE I	SIGNS EACH	COVERING TYPE II	SIGNS EACH	FIXED MESSAGE SF	SIGNS NO	PCMS DAYS	TRAFFIC CONTROL EACH	PEDESTRIAN SURFACE SF	PLYWOOD	TEMPORARY CURB NO	RAMP DAYS
STAGE	LOCATION	DAYS	CYCLE		CYCLE									REMARKS
1	PREWARNING USH 151	7	--	--	--	--	--	4	28	--	--	--	--	
		16	--	--	--	--	--	--	--	--	--	--	--	
2	USH 151	21	--	--	--	--	--	--	--	--	--	--	--	
2	DETOUR	21	1	2	1	6	33	3	63	--	--	--	--	
3	USH 151	21	--	--	--	--	--	--	--	--	--	--	--	
3	DETOUR	21	1	3	1	4	33	4	84	--	--	--	--	
4	USH 151	2	--	--	--	--	--	--	--	--	--	--	--	
4	STH 49	28	--	--	--	--	--	--	--	--	--	--	--	
UNDISTRIBUTED			--	--	--	--	--	--	18	--	--	--	--	
CATEGORY 0010 SUBTOTAL			5		10		66	193		0.8	0		0	
4	STH 49 (SHOULDER CLOSURE)	5	--	--	--	--	--	--	--	--	--	--	--	
4	STH 49 (FLAGGING)	28	--	--	--	--	--	--	--	--	--	--	--	
4	PEDESTRIAN ACCOMODATIONS	20	--	--	--	--	--	--	--	--	680	4	20	
CATEGORY 0020 SUBTOTAL			0		0		0	0		0.2	680		20	
TOTAL			5		10		66	193		1	680		20	

PAVEMENT MARKING SUMMARY

			646.1020	646.1020	646.1040	646.3020	646.3040	646.5020	646.6120	646.7220	646.7420	REMARKS
			MARKING LINE	MARKING LINE	MARKING LINE	MARKING LINE	MARKING LINE		MARKING STOP	MARKING	MARKING	
			EPOXY	EPOXY	GROOVED WET	EPOXY	GROOVED WET		LINE EPOXY	CHEVRON EPOXY	CROSSWALK EPOXY	
			4-INCH	4-INCH	REFLECTIVE EPOXY	8-INCH	REFLECTIVE EPOXY	MARKING ARROW	18-INCH	24-INCH	TRANSVERSE LINE 6-INCH	
			(YELLOW)	(WHITE)	4-INCH (WHITE)	(WHITE)	8-INCH (WHITE)	EPOXY	(WHITE)	(WHITE)	(WHITE)	
STATION	STATION	LOCATION	LF	LF	LF	LF	LF	EACH	LF	LF	LF	
87' 'NB'+00 -	115'NB'+42	USH 151	5687	5721	1424	-	-	-	-	-	-	
5'A'+00 -	17'A'+46	NB OFF RAMP	790	1271	-	67	227	-	39	-	-	
6'D'+20 -	21'D'+91	SB ON RAMP	732	1237	-	-	471	-	-	-	-	
115'NB'+42 -	127'NB'+15	USH 151	2310	1370	636	-	704	-	-	109	-	
127'NB'+15 -	142'NB'+16	USH 151	2994	1757	863	-	500	-	-	125	-	
5'B'+21 -	17'B'+00	NB ON RAMP	821	1455	-	-	298	-	-	-	-	
5'C'+14 -	17'C'+21	SB OFF RAMP	816	1516	-	68	190	-	32	-	-	
142'NB'+16 -	155'NB'+00	USH 151	2568	2568	642	-	-	-	-	-	-	
54'S'+70 -	62'S'+25	STH 49	932	1048	-	-	-	-	-	-	-	
CATEGORY 0010		SUBTOTAL	35593		3565	135	2390	0	71	234	0	
50'S'+00 -	54'S'+70	STH 49	934	-	-	243	-	4	110	-	447	
62'S'+25 -	95'S'+25	STH 49	2954	-	6724	191	-	-	-	-	-	
95'S'+25 -	118'S'+40	STH 49	1487	-	4477	-	-	-	29	-	-	
118'S'+40 -	139'S'+95	STH 49	1353	-	4254	-	-	-	23	-	-	
CATEGORY 0020		SUBTOTAL	6728		15455	434	0	4	162	0	447	
TOTAL			42,321		19,020	569	2,390	4	233	234	447	

TEMPORARY PAVEMENT MARKING SUMMARY

						649.0105		649.0120		649.0150		SPV.0090.05	
						TEMPORARY MARKING LINE PAINT 4-INCH		TEMPORARY MARKING LINE EPOXY 4-INCH		TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH		TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH	
						EDGE LINE WHITE	EDGE LINE YELLOW	CENTER LINE YELLOW	EDGE LINE WHITE	EDGE LINE YELLOW			
STAGE	STA*	TO	STA*	ALIGN	LOCATION	LF	LF	LF	LF	LF	LF	LF	REMARKS
1	72+00	-	103+20		USH 151	-	-	-	-	4,800	--		TAPE ON DECK INCLUDED
	100+25	-	145+25		USH 151	-	8,628	-	-	-	--		
	144+70	-	17100		USH 151	-	-	-	-	3,639	--		
2	83+00	-	103+20		USH 151	-	-	-	3,760	4,071	--		
	103+20	-	142+50		USH 151	3,900	3,900	-	-	-	--		
	142+50	-	154+50		USH 151	-	-	-	1,200	1,200	--		
3	82+50	-	179+00		USH 151	-	-	-	-	7,000	--		
	89+50	-	158+50		USH 151	-	-	-	-	6,912	--		
	88+50	-	159+50		USH 151	-	-	-	7,106	-	--		
					UNDISTRIBUTED	390	1,253	-	1,207	2,762	--		
CATEGORY 0010 SUBTOTAL						18,071		0		43,657		0	
4	50'S'+00	-	54'S'+70		STH 49	--	930	--	--	--	334		
4	62'S'+25	-	95'S'+25		STH 49	--	2,394	2,394	--	--	--		
4	95'S'+25	-	118'S'+40		STH 49	--	1,094	1,094	--	--	--		
4	118'S'+40	-	139'S'+95		STH 49	--	986	986	--	--	--		
CATEGORY 0020 SUBTOTAL						5,404		4,474		0		334	
TOTAL						23,475		4,474		43,657		334	

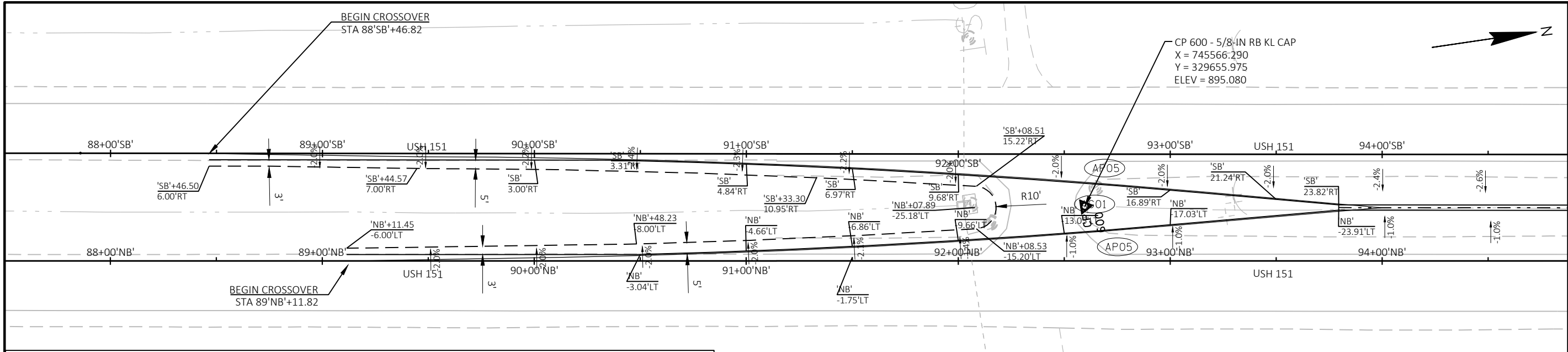
SURVEY SUMMARY

				650.4000	650.4500	650.5000	650.5500	650.8000	650.9000	650.9910	SPV.0060.01	REMARKS
				CONSTRUCTION STAKING STORM SEWER	CONSTRUCTION STAKING SUBGRADE	CONSTRUCTION STAKING BASE	CONSTRUCTION STAKING CURB & GUTTER	CONSTRUCTION STAKING RESURFACING REFERENCE	CONSTRUCTION STAKING CURB RAMPS	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT)	VERIFY LANDMARK REFERENCE MONUMENTS	
CATEGORY	STATION	STATION	LOCATION	EACH	LF	LF	LF	LF	EACH	LS	EA	
0010	100'NB'+29	- 126'NB'+98	USH 151 NB	--	--	--	--	2669	--	--	--	
0010	128'NB'+78	- 145'NB'+49	USH 151 NB	--	--	--	--	1671	--	--	--	
0010	103'SB'+20	- 126'SB'+88	USH 151 SB	--	--	--	--	2368	--	--	--	
0010	128'SB'+67	- 144'SB'+71	USH 151 SB	--	--	--	--	1604	--	--	--	
0010	5'A'+00	- 17'A'+46	USH 151 NB OFF-RAMP	--	--	--	--	1741	--	--	--	
0010	5'B'+21	- 17'B'+00	USH 151 NB ON-RAMP	--	--	--	--	1179	--	--	--	
0010	5'C'+14	- 17'C'+21	USH 151 SB OFF-RAMP	--	--	--	--	1207	--	--	--	
0010	6'D'+20	- 21'D'+91	USH 151 SB ON-RAMP	--	--	--	--	1,571	--	--	--	
0010	90'NB'+38	- 100'NB'+29	USH 151 SOUTH CROSSOVER	5	991	991	--	--	--	--	--	
0010	143'NB'+19	- 152'NB'+07	USH 151 NORTH CROSSOVER	5	888	888	--	--	--	--	--	
0010	54'S'+70	- 62'S'+25	STH 49	--	--	--	--	755	--	--	2	
0010			PROJECT	--	--	--	--	--	--	1	--	
CATEGORY 0010 SUBTOTAL				10	1879	1879	0	14765	0	1	2	
0020	50'S'+00	- 54'S'+70	STH 49	--	--	--	84	470	4	--	--	
0020	62'S'+25	- 68'S'+75	STH 49	--	--	--	--	650	--	--	--	
0020	68'S'+75	- 101'S'+00	STH 49	--	--	--	--	3125	--	--	2	
0020	101'S'+00	- 139'S'+95	STH 49	--	--	--	--	3895	--	--	2	
			PROJECT	--	--	--	--	--	--	--	--	
CATEGORY 0020 SUBTOTAL				0	0	0	84	8140	4	0	4	
PROJECT TOTAL				10	1879	1879	84	22905	4	1	6	

SAWING SUMMARY

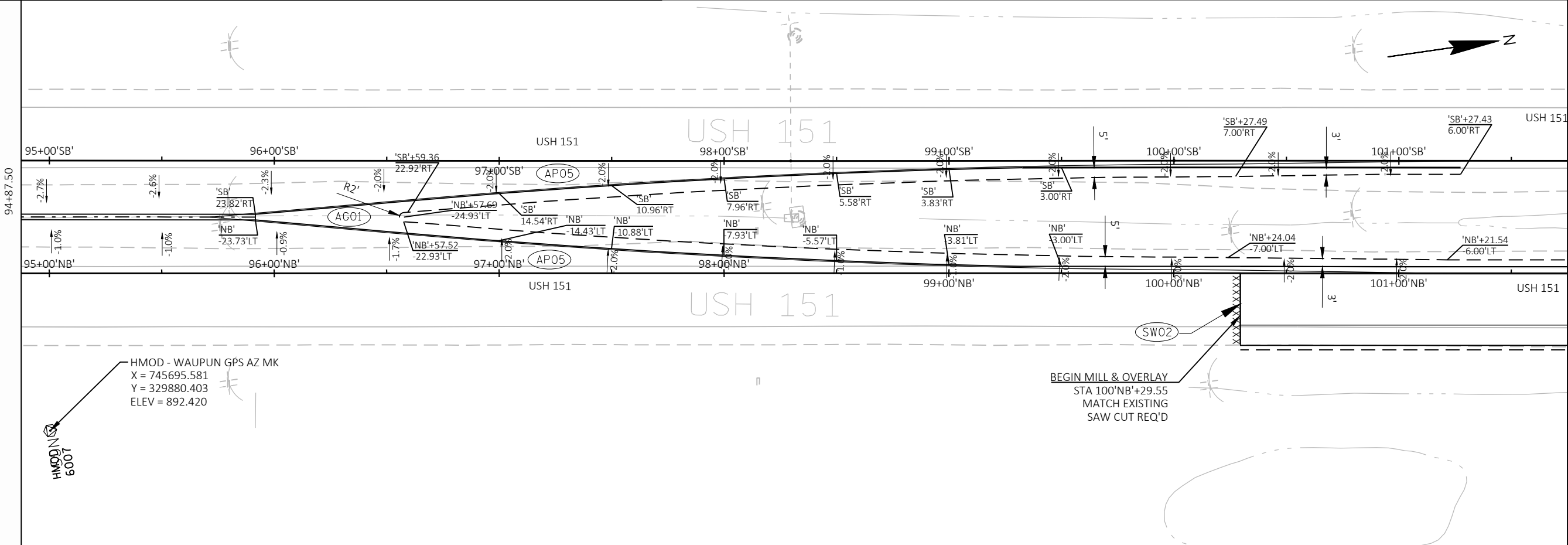
				690.0150	690.0250	REMARKS
				SAWING	SAWING	
				ASPHALT	CONCRETE*	
CATEGORY	STATION	STATION	LOCATION	LF	LF	
0010	100'NB'+29 -	126'NB'+98	USH 151 NB	35	4800	
0010	128'NB'+78 -	145'NB'+49	USH 151 NB	35	1920	
0010	103'SB'+20 -	126'SB'+88	USH 151 SB	35	3360	
0010	128'SB'+67 -	144'SB'+71	USH 151 SB	35	4480	
0010	5'A'+00 -	17'A'+46	USH 151 NB OFF-RAMP	--	1200	
0010	5'B'+21 -	17'B'+00	USH 151 NB ON-RAMP	--	1104	
0010	5'C'+14 -	17'C'+21	USH 151 SB OFF-RAMP	--	1200	
0010	6'D'+20 -	21'D'+91	USH 151 SB ON-RAMP	--	1824	
0010	90'NB'+38 -	100'NB'+29	USH 151 SOUTH CROSSOVER	--	--	
0010	143'NB'+19 -	152'NB'+07	USH 151 NORTH CROSSOVER	--	--	
0010	54'S'+70 -	62'S'+25	STH 49	--	--	
			UNDISTRIBUTED	28	3978	
CATEGORY 0010 SUBTOTAL				168	23866	
0020	50'S'+00 -	54'S'+70	STH 49	125	--	
0020	62'S'+25 -	69'S'+75	STH 49	--	--	
0020	69'S'+75 -	101'S'+00	STH 49	51	--	
0020	101'S'+00 -	139'S'+95	STH 49	55	--	
			UNDISTRIBUTED	46	0	
CATEGORY 0020 SUBTOTAL				277	0	
PROJECT TOTAL				445	23866	

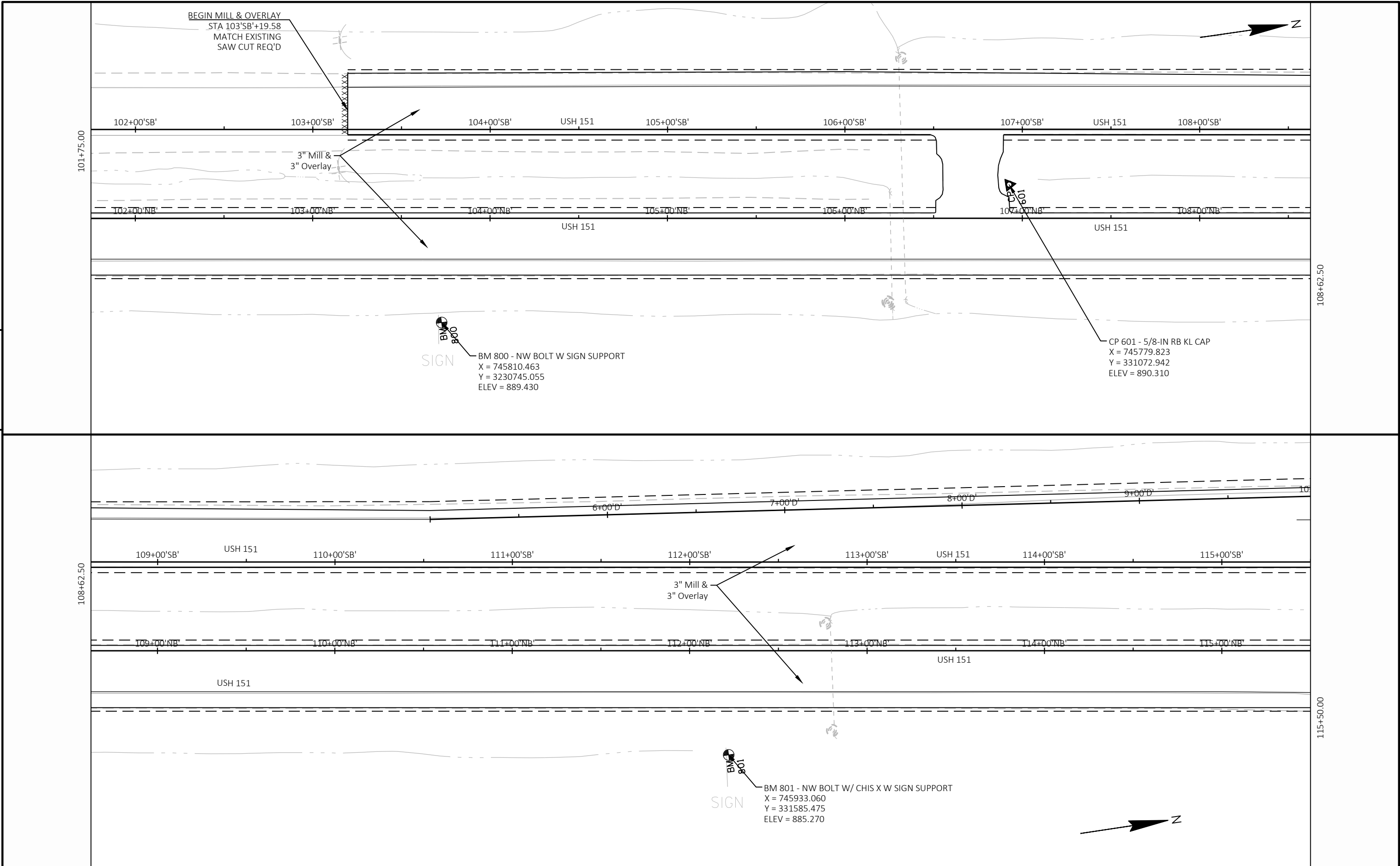
*ADDITIONAL QUANTITIES LISTED ELSEWHERE



LEGEND

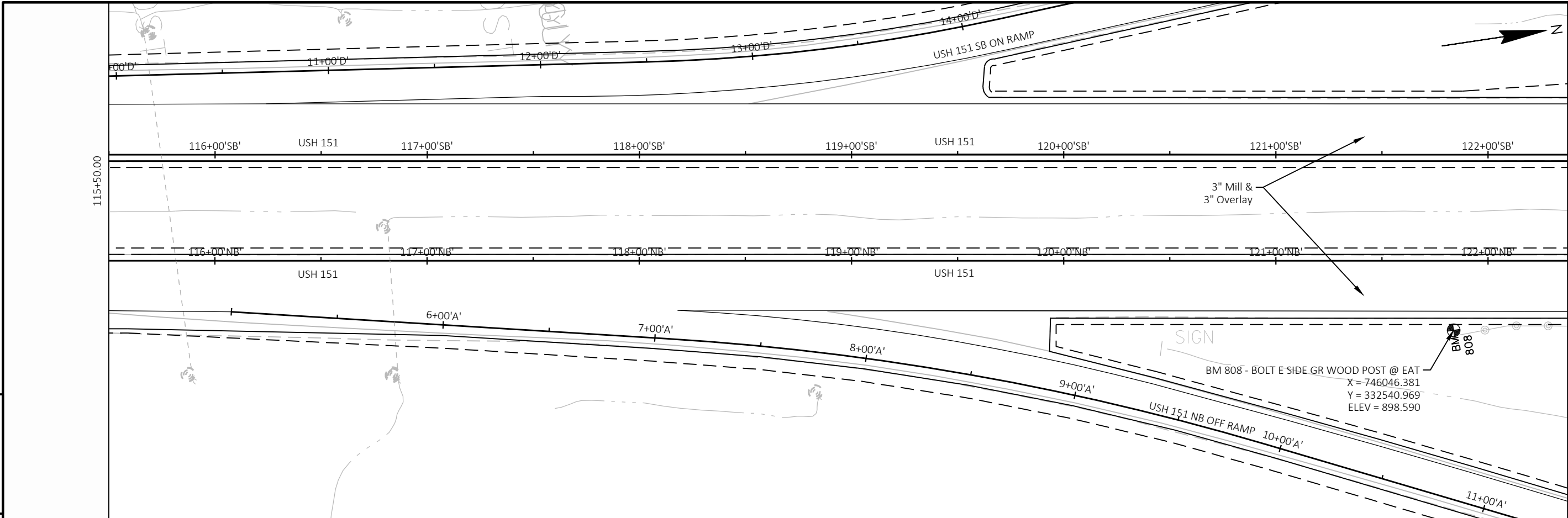
- | | | | |
|------|---|------|---|
| AG01 | BASE AGGREGATE DENSE 3/4-INCH | AP06 | 3" HMA PAVEMENT
1.75" HMA PAVEMENT 4 HT 58-28 H
(UPPER LAYER)
1.25" HMA PAVEMENT 5 HT 58-28 H
(LOWER LAYER) |
| AG02 | TOP OF 4" BASE AGGREGATE DENSE
1 1/4-INCH | SW02 | SAWING CONCRETE |
| AP05 | 5" HMA PAVEMENT
2.5" HMA PAVEMENT 4 HT 58-28 H
(UPPER LAYER)
2.5" HMA PAVEMENT 4 HT 58-28 H
(LOWER LAYER) | | |



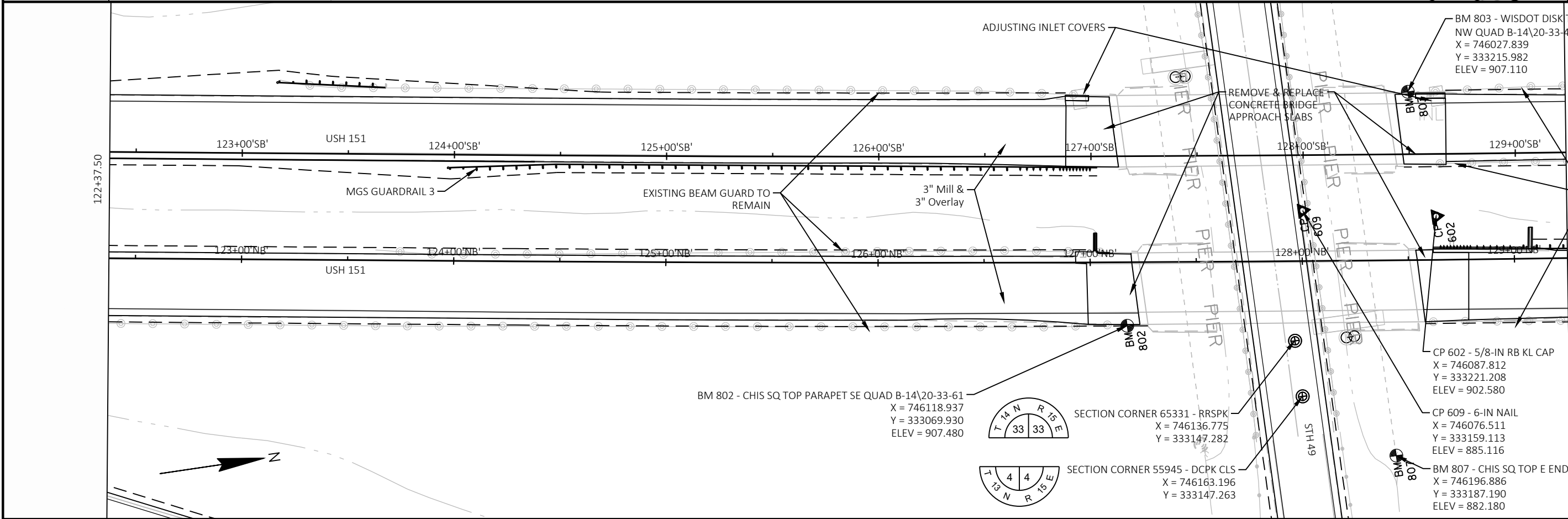


PROJECT NO:	1112-06-74	HWY:	USH 151	COUNTY:	DODGE & FOND DU LAC	PLAN:	USH 151 NORTHBOUND AND SOUTHBOUND	SHEET	175	E
-------------	------------	------	---------	---------	---------------------	-------	-----------------------------------	-------	-----	---

5



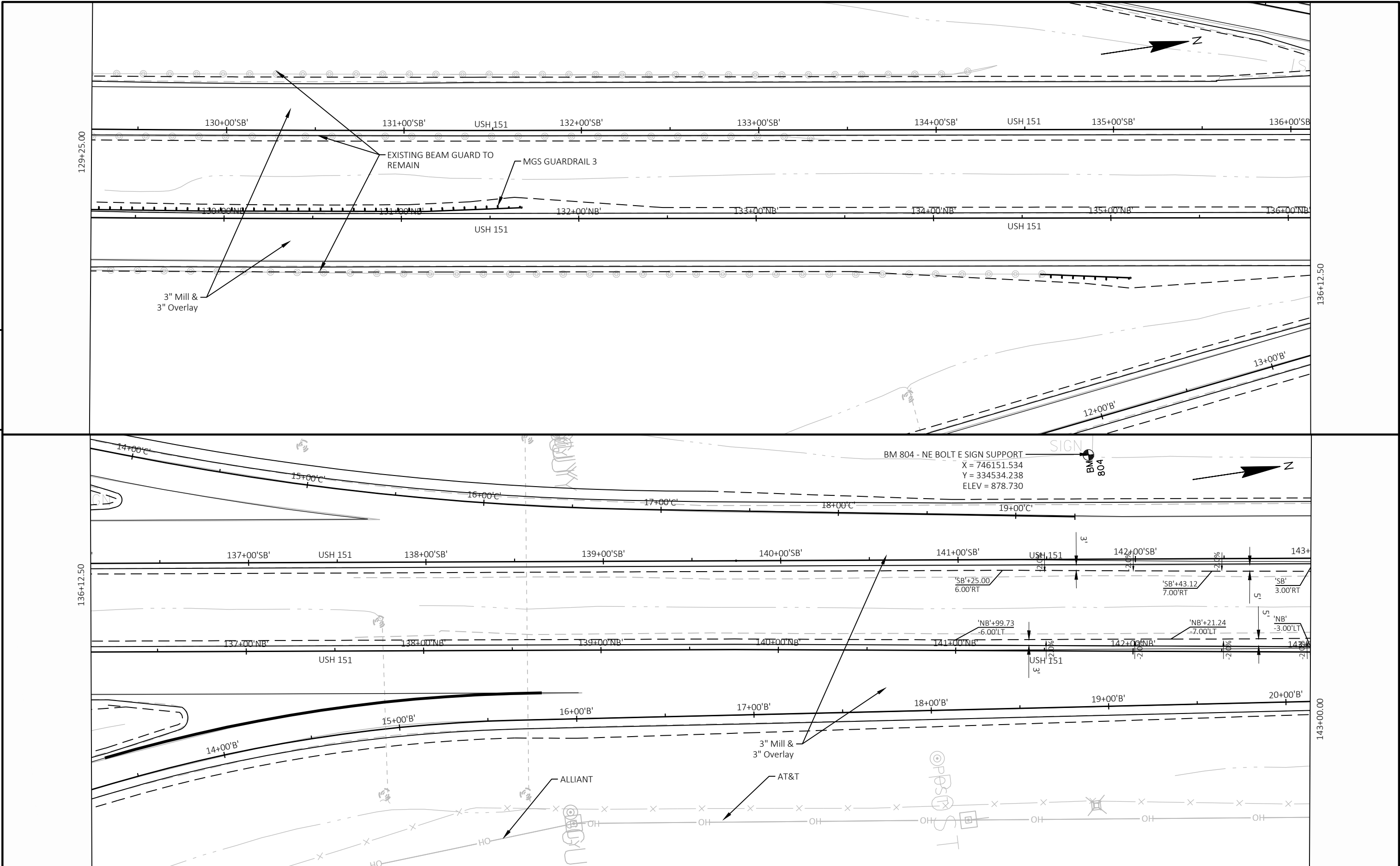
5

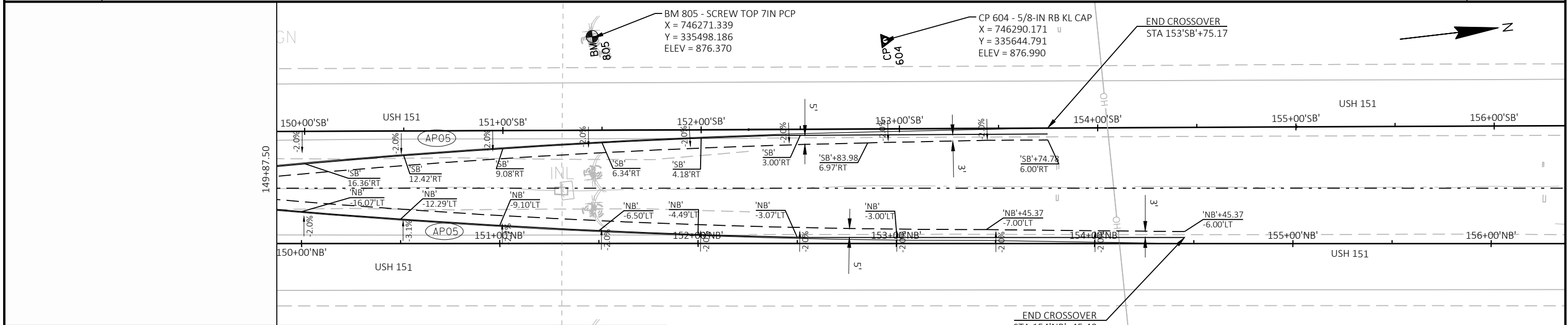
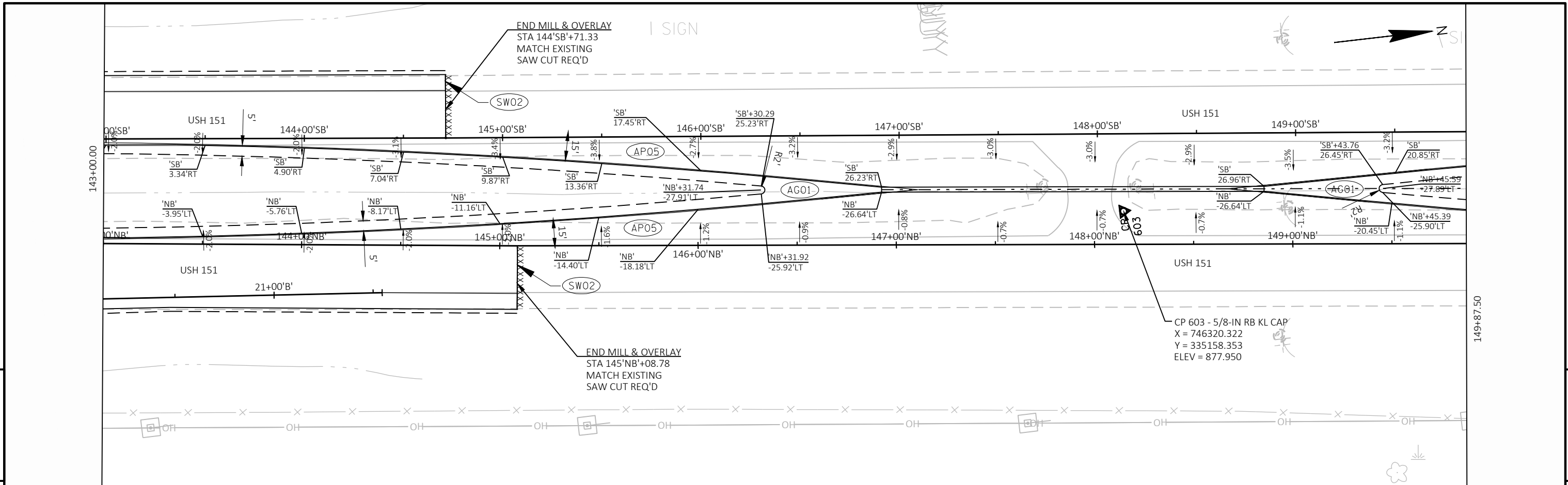


PROJECT NO:	1112-06-74	HWY:	USH 151	COUNTY:	DODGE & FOND DU LAC	PLAN:	USH 151 NORTHBOUND AND SOUTHBOUND	SHEET	176	E
-------------	------------	------	---------	---------	---------------------	-------	-----------------------------------	-------	-----	---

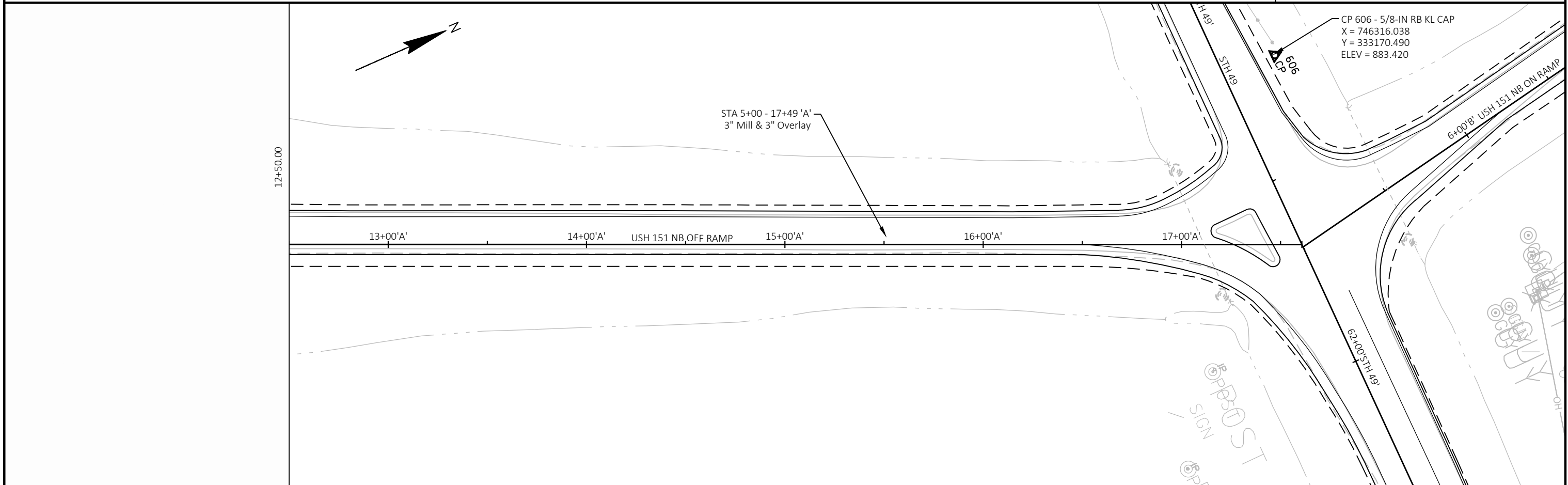
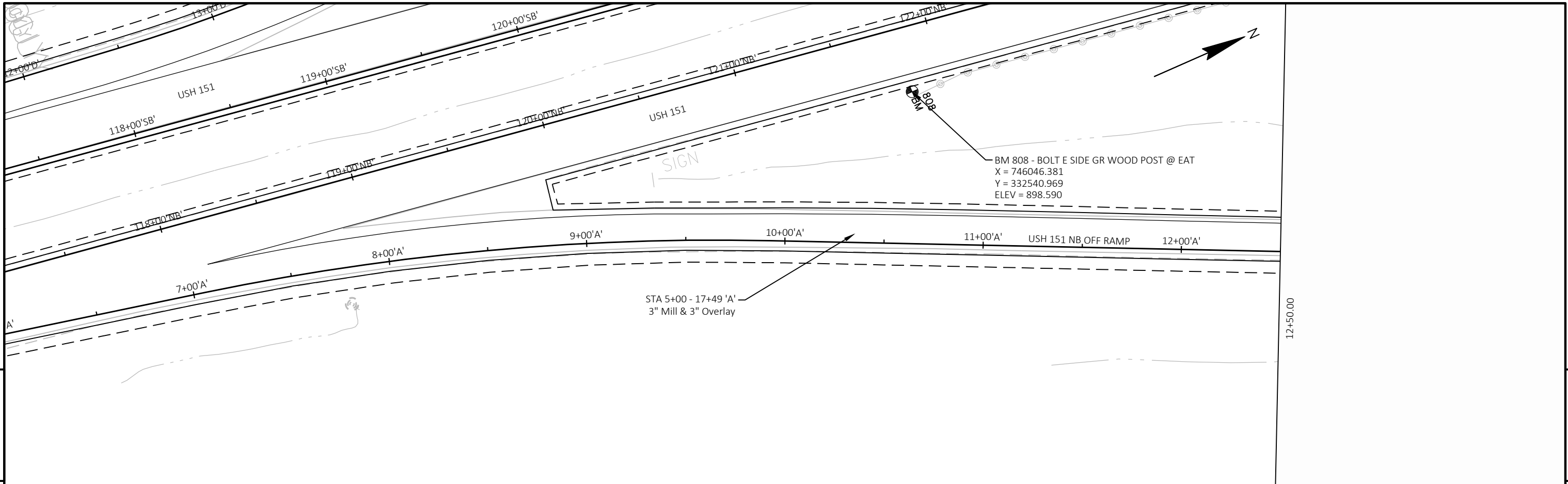
5

5

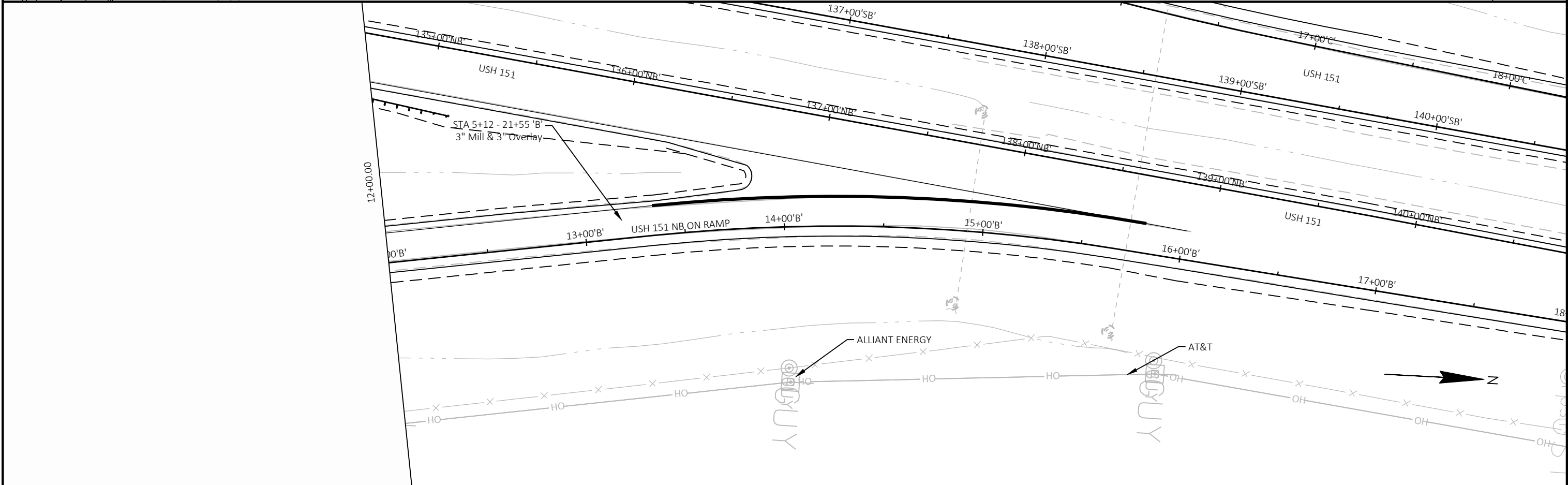
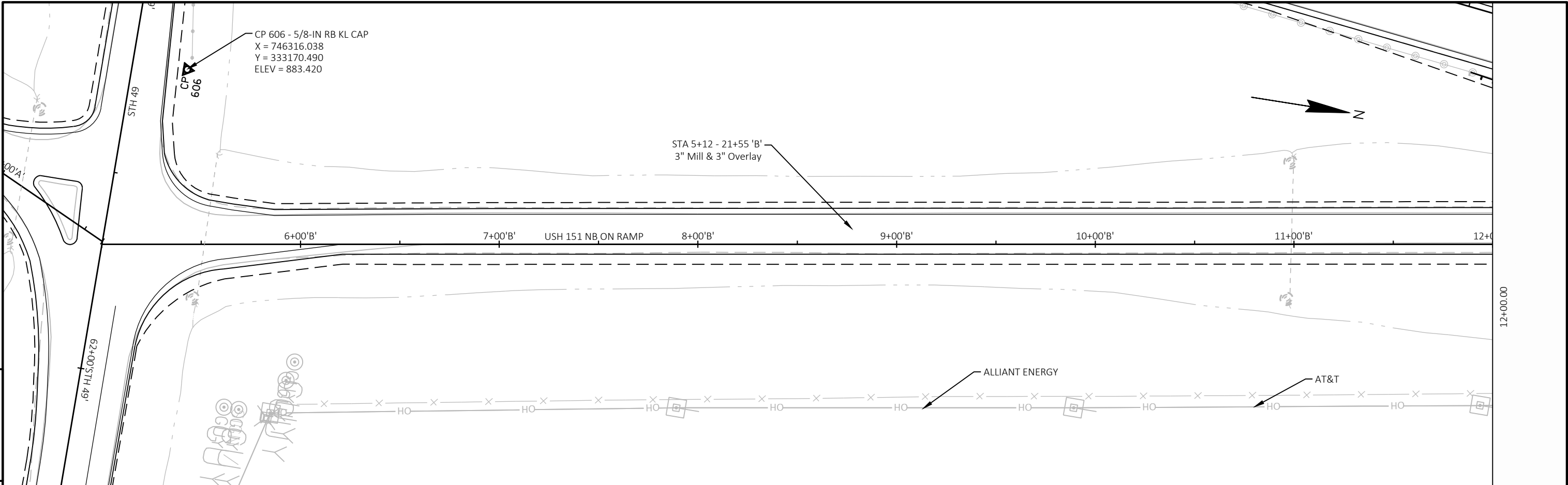


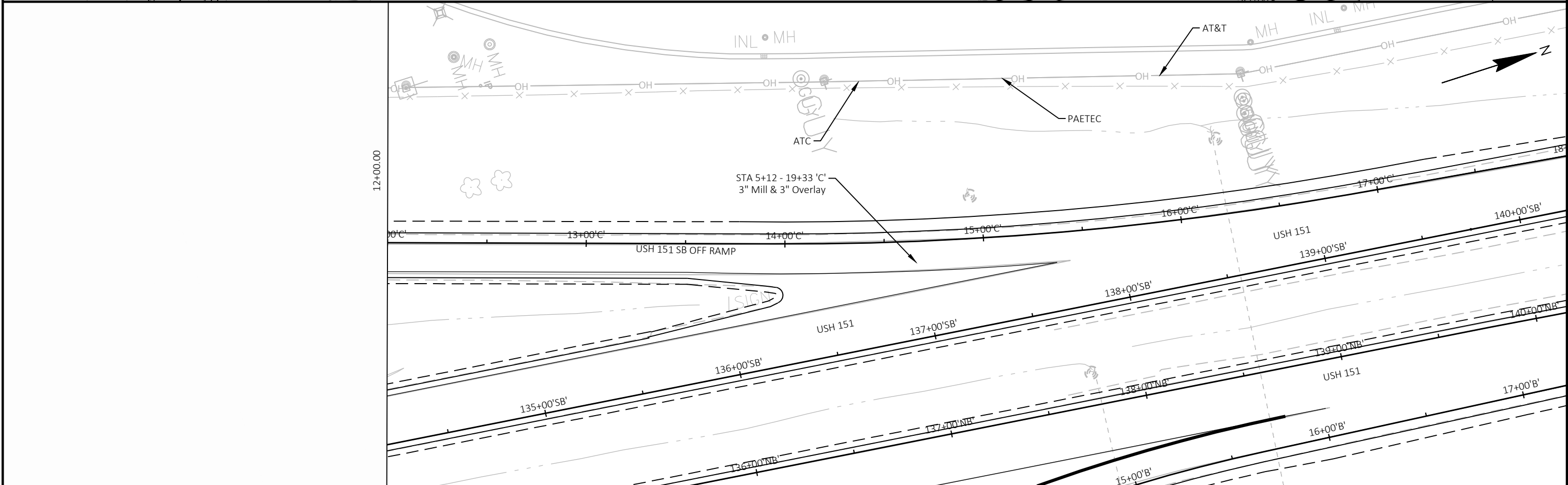
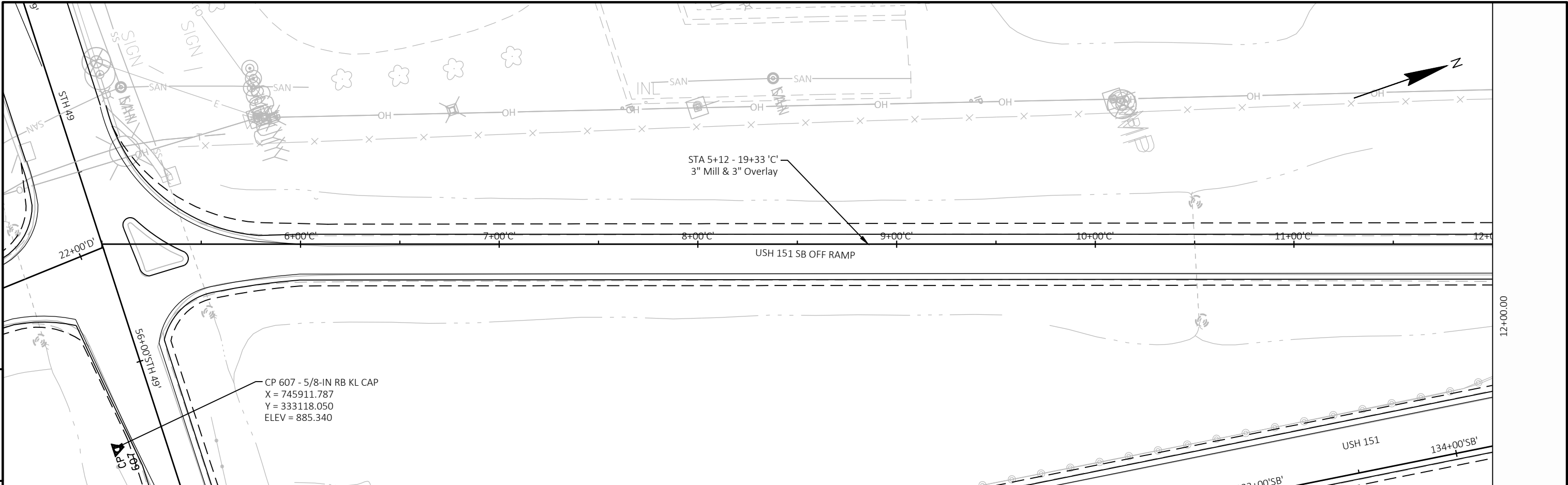


LEGEND			
AG01	BASE AGGREGATE DENSE 3/4-INCH	AP06	3" HMA PAVEMENT 1.75" HMA PAVEMENT 4 HT 58-28 H (UPPER LAYER) 1.25" HMA PAVEMENT 5 HT 58-28 H (LOWER LAYER)
AG02	TOP OF 4" BASE AGGREGATE DENSE 1 1/4-INCH	SW02	SAWING CONCRETE
AP05	5" HMA PAVEMENT 2.5" HMA PAVEMENT 4 HT 58-28 H (UPPER LAYER) 2.5" HMA PAVEMENT 4 HT 58-28 H (LOWER LAYER)		

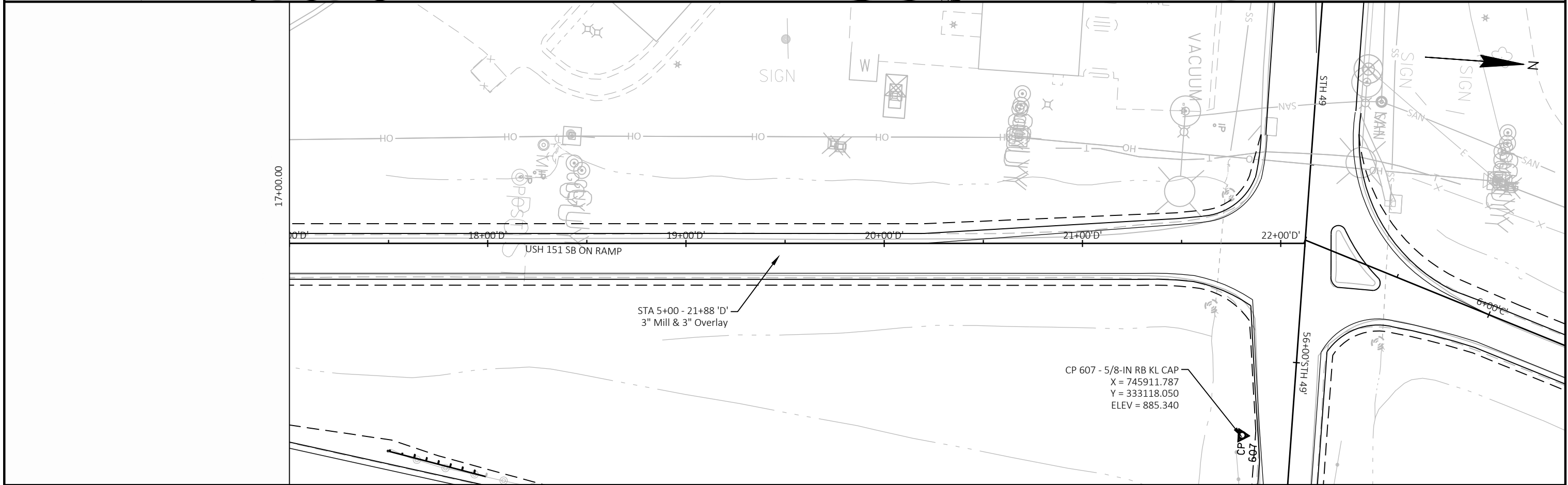
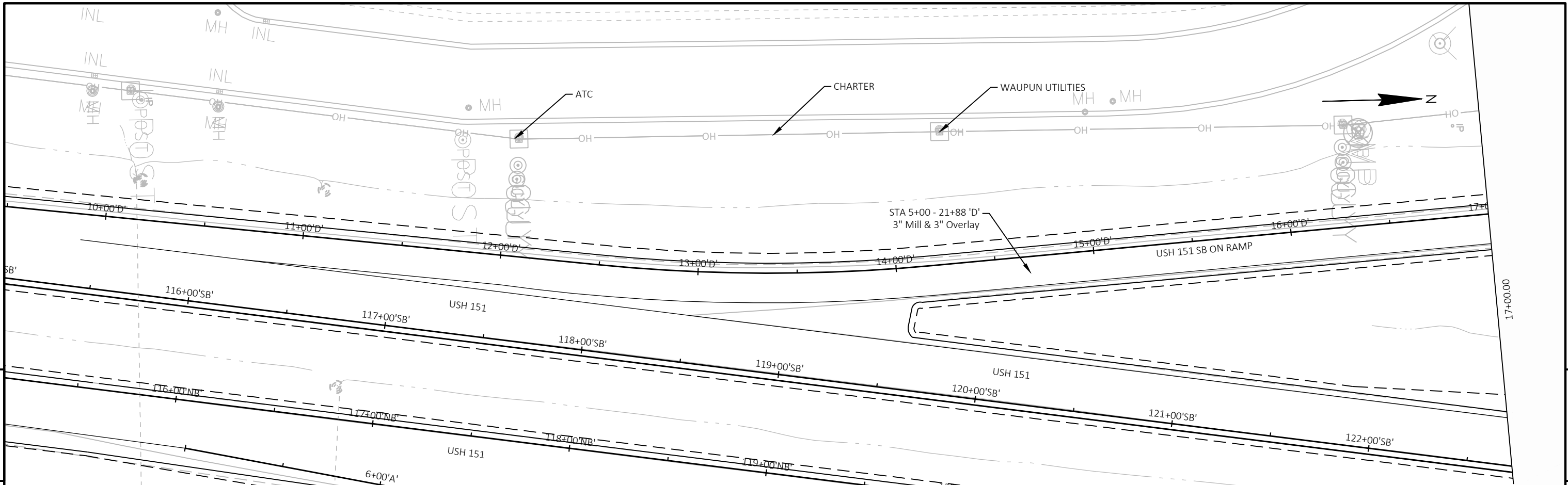


PROJECT NO: 1112-06-74	HWY: USH 151	COUNTY: DODGE & FOND DU LAC	PLAN: RAMP A - NORTHBOUND OFF	SHEET 179	E
------------------------	--------------	-----------------------------	-------------------------------	-----------	---

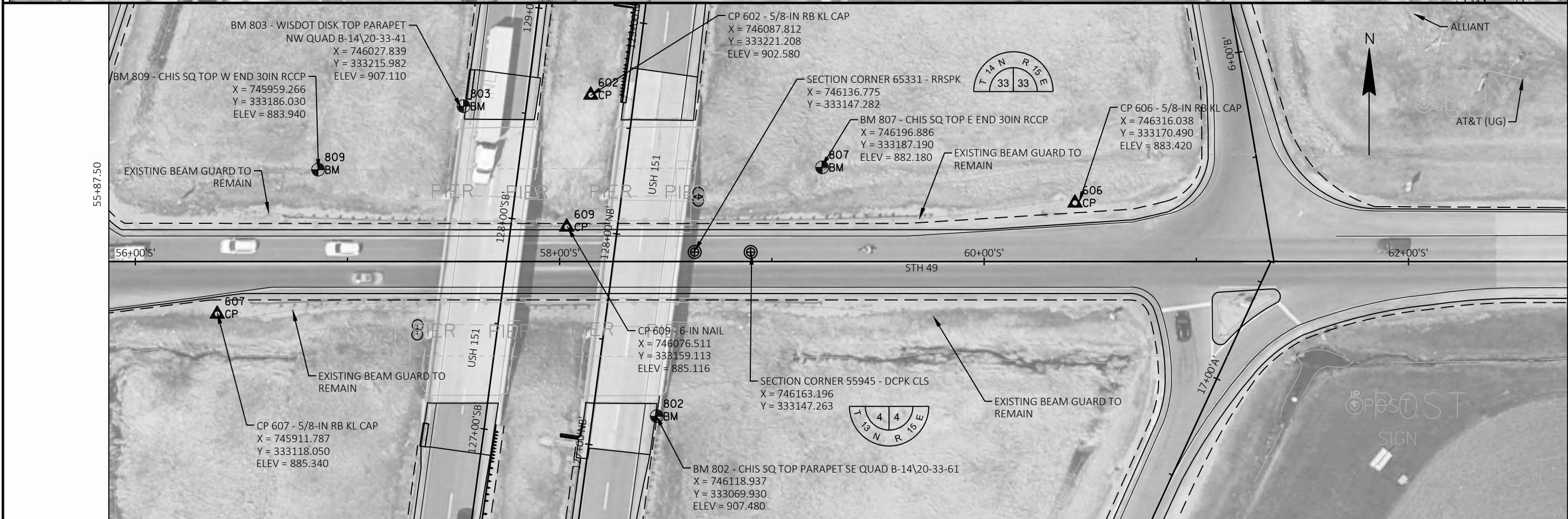
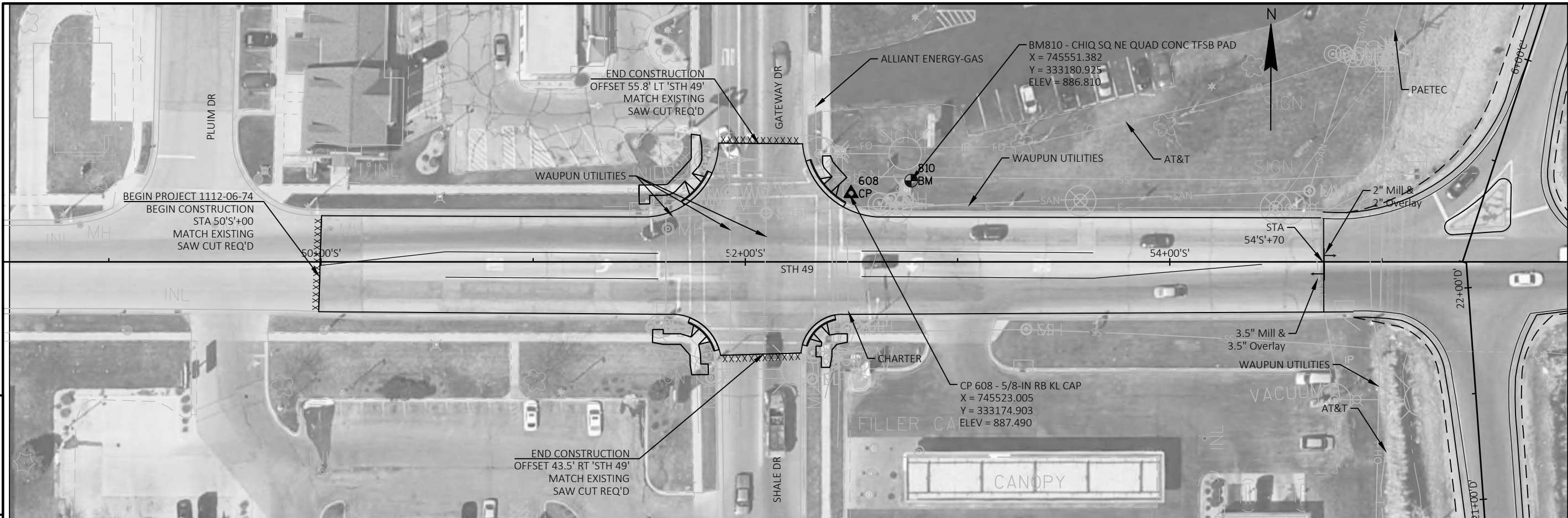




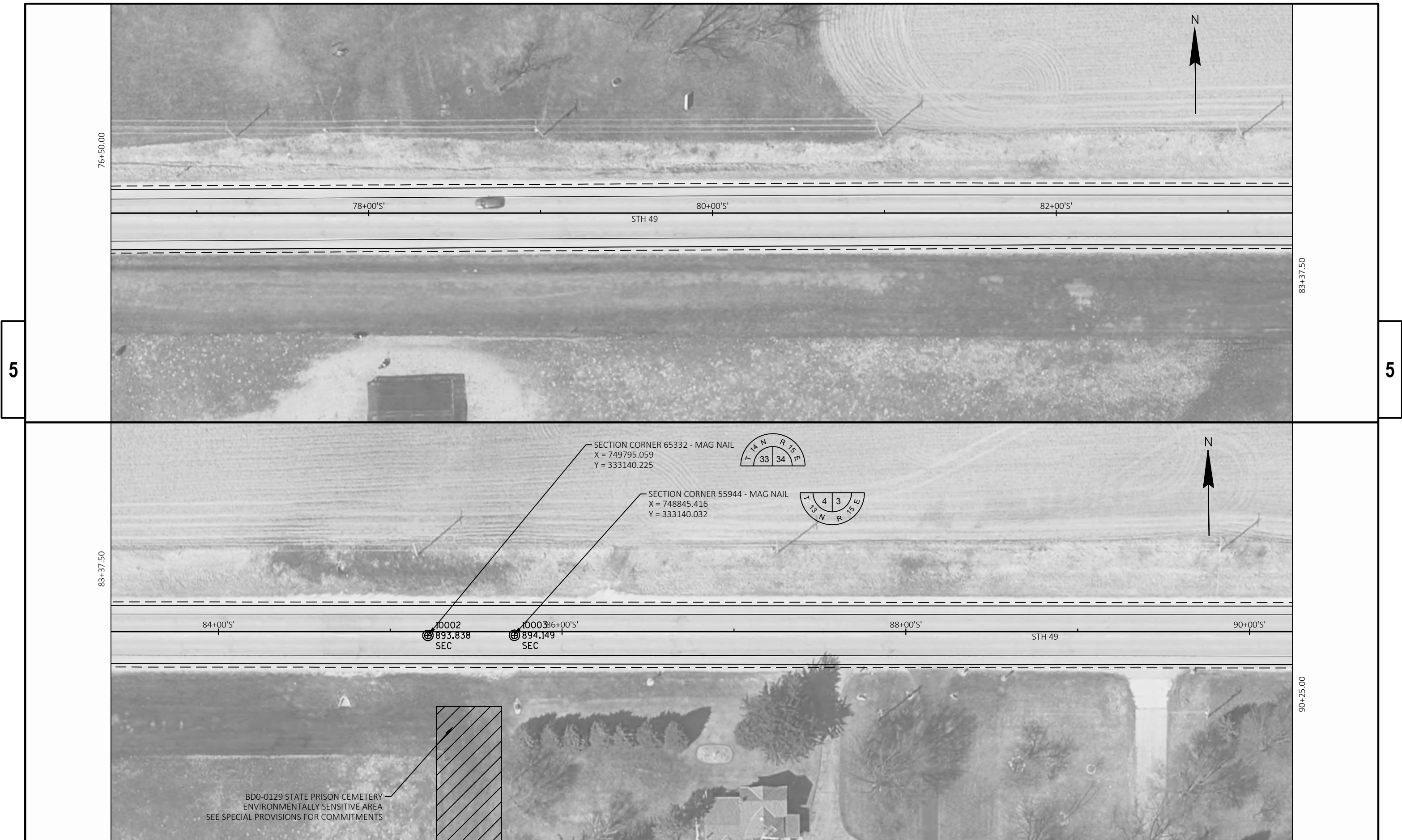
PROJECT NO: 1112-06-74	HWY: USH 151	COUNTY: DODGE & FOND DU LAC	PLAN: RAMP C - SOUTHBOUND OFF	SHEET 181	E
------------------------	--------------	-----------------------------	-------------------------------	-----------	---



PROJECT NO: 1112-06-74	HWY: USH 151	COUNTY: DODGE & FOND DU LAC	PLAN: RAMP D - SOUTHBOUND ON	SHEET 182	E
------------------------	--------------	-----------------------------	------------------------------	-----------	---







5

83+37.50

5

83+37.50

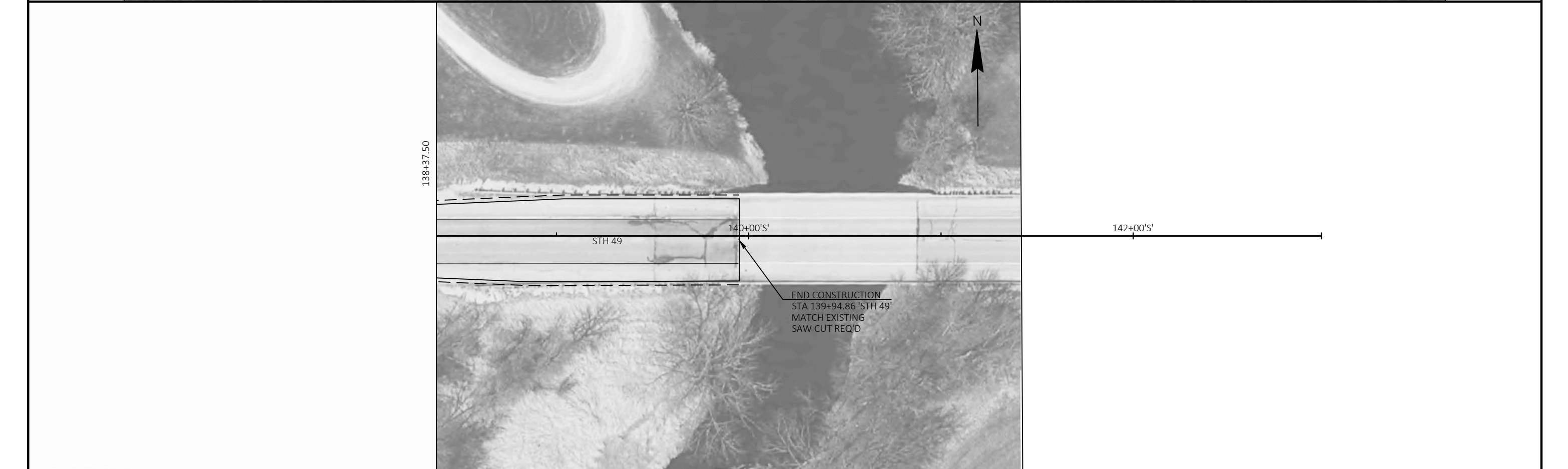
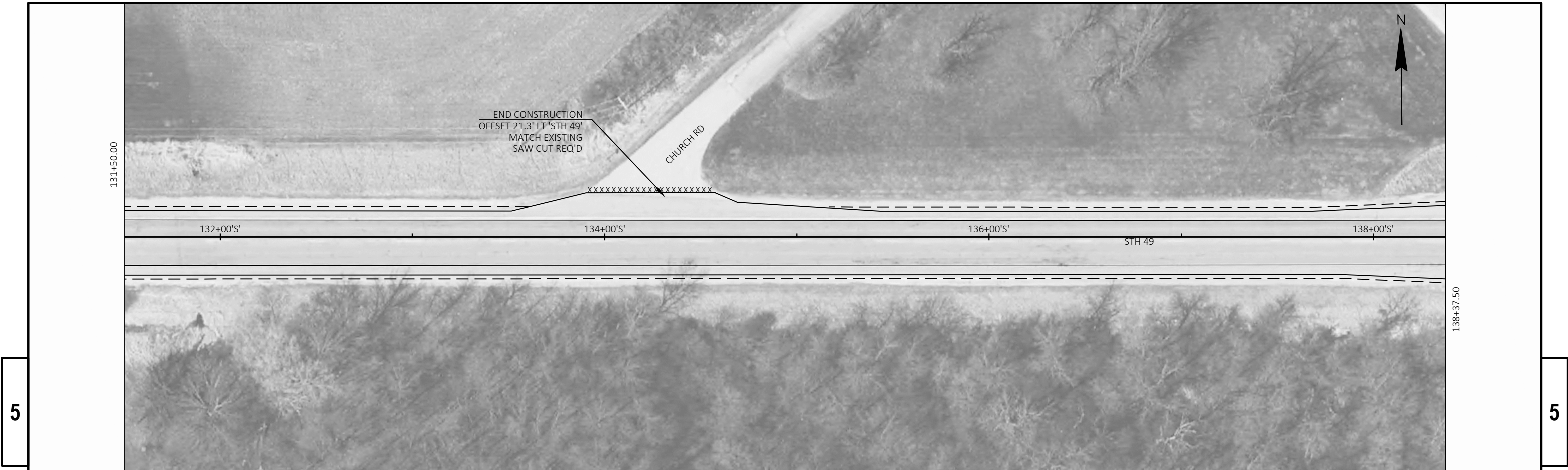
90+25.00

PROJECT NO:	1112-06-74	HWY:	USH 151	COUNTY:	DODGE & FOND DU LAC	PLAN:	STH 49	SHEET	185	E
-------------	------------	------	---------	---------	---------------------	-------	--------	-------	-----	---







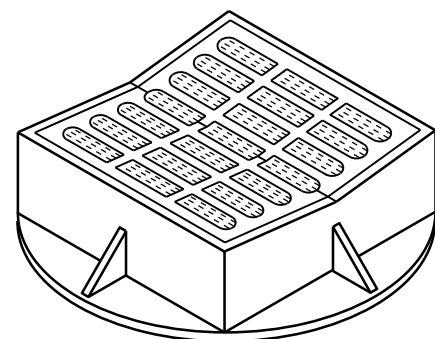
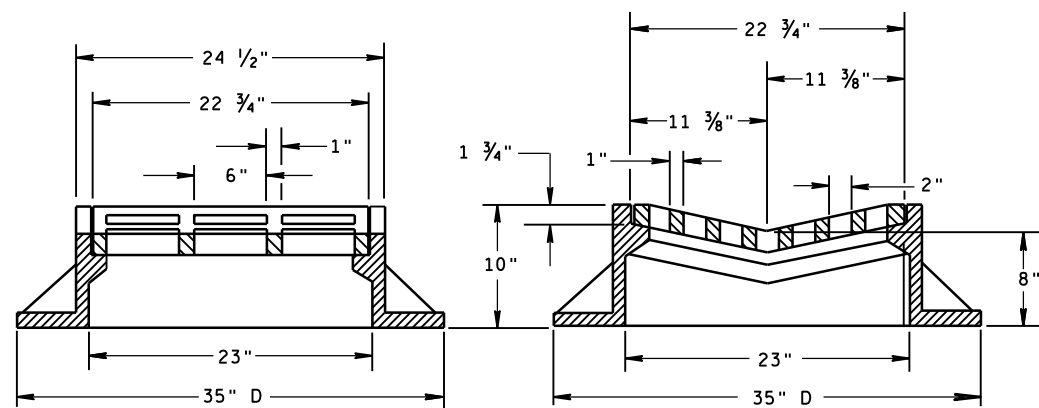


Standard Detail Drawing List

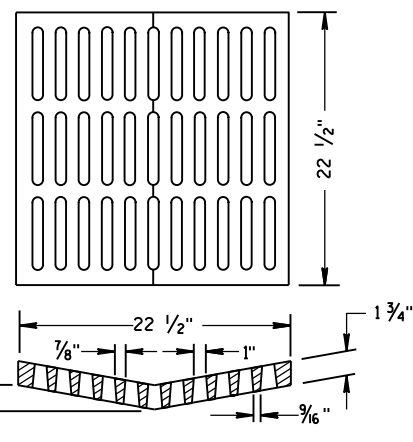
08A05-19B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08A05-19D	INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M
08C08-02	INLETS MEDIAN 1 AND 2 GRATE
08D01-22A	CONCRETE CURB & GUTTER
08D01-22B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D02-07A	CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES
08D02-07B	CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES
08D02-07C	CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES
08D03-08A	CONCRETE SURFACE DRAINS DROP INLET TYPE AT STRUCTURES
08D03-08B	CONCRETE SURFACE DRAINS DROP INLET TYPE AT STRUCTURES
08D05-20A	CURB RAMPS TYPES 1 AND 1-A
08D05-20B	CURB RAMPS TYPES 2 AND 3
08D05-20C	CURB RAMPS TYPES 4A AND 4A1
08D05-20D	CURB RAMPS TYPE 4B AND 4B1
08D05-20E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D05-20F	CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS
08D05-20G	CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08F06-04	REINFORCED CONCRETE APRON ENDWALL FOR PIPE UNDERDRAIN
13A05-05A	SHOULDER RUMBLE STRIP, MILLING
13A05-05B	SHOULDER RUMBLE STRIP, MILLING
13A10-02A	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-02C	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-02D	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A11-03A	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13A11-03B	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13B02-09A	CONCRETE PAVEMENT APPROACH SLAB
13C01-19	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C14-07A	BASE PATCHING CONCRETE
13C14-07B	BASE PATCHING CONCRETE
13C14-07C	BASE PATCHING CONCRETE
13C19-03	HMA LONGITUDINAL JOINTS
14B24-09A	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B24-09B	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B24-09C	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B42-06A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06D	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-04A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-05A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
15A04-05C	DELINEATOR POST WITH REFLECTIVE SHEETING
15C02-08F	ADVANCED WIDTH RESTRICTION SIGNING
15C07-15C	PAVEMENT MARKING ARROWS
15C08-20A	LONGITUDINAL MARKING (MAINLINE)
15C08-20C	PAVEMENT MARKING (TURN LANES)
15C11-08A	CHANNELIZING DEVICES FLEXIBLE TUBULAR MARKER POST
15C11-08B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-07	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C31-03A	PAVEMENT MARKING (RAMPS AND GORES)
15C31-03C	PAVEMENT MARKING FOR PARALLEL ON-RAMP AND PARALLEL OFF-RAMP
15C33-04	STOP LINE AND CROSSWALK PAVEMENT MARKING
15C35-04A	PAVEMENT MARKING (INTERSECTIONS)
15D06-04	TRAFFIC CONTROL, TWO LANE TWO WAY OPERATION
15D09-05	TRAFFIC CONTROL, SINGLE LANE CROSSOVER EXIT
15D11-07	TRAFFIC CONTROL, SINGLE LANE CROSSOVER
15D12-09B	TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION
15D15-05D	TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE
15D30-06A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-06B	TRAFFIC CONTROL, TEMPORARY ADA COMPLIANT PEDESTRIAN ACCOMMODATION
15D30-06C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

Standard Detail Drawing List

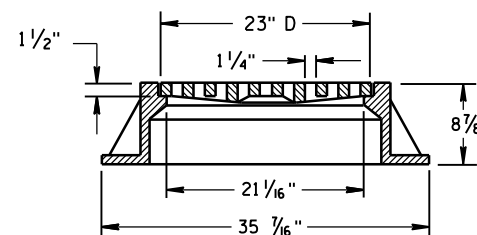
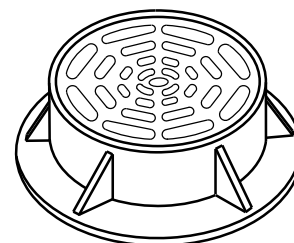
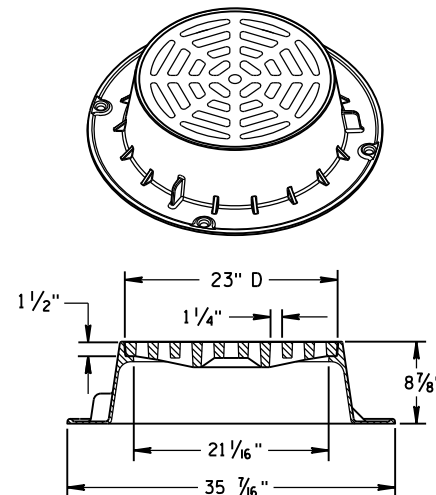
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS
16A01-07	LANDMARK REFERENCE MONUMENTS AND COVERS



TYPE "B"

ALTERNATIVE GRATE FOR
TYPE "B" COVER

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



TYPE "C"

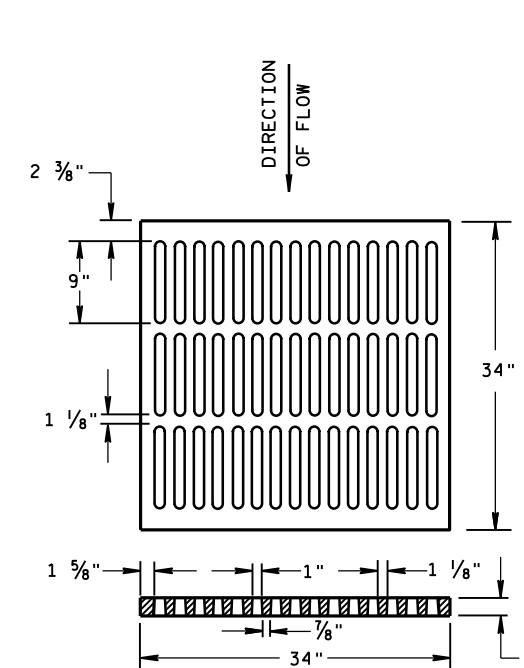
NOTE: EITHER CASTING IS ACCEPTABLE

GENERAL NOTES

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

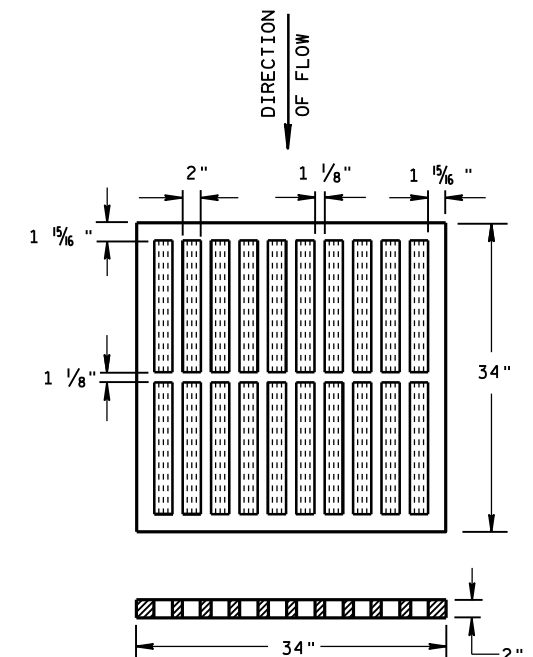
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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



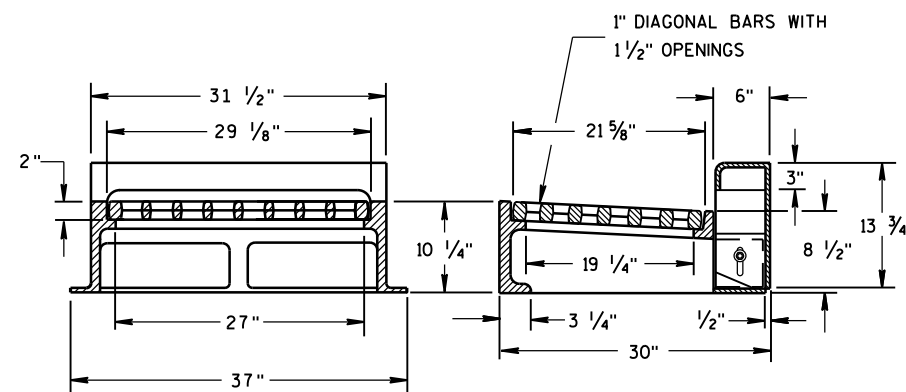
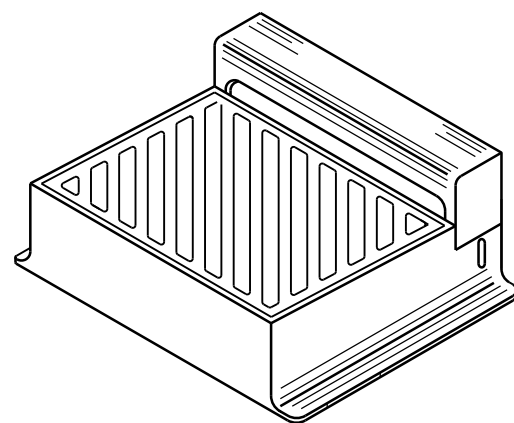
ALTERNATIVE TYPE "MS"

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



TYPE "MS"

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



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

TYPE "WM"

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

DIRECTION
OF FLOW

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

STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION

APPROVED

11/27/2013

DATE

FHWA

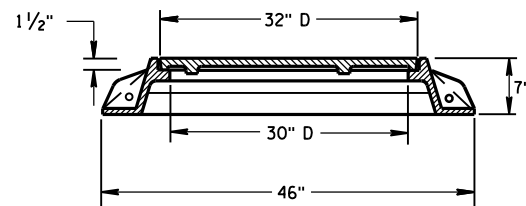
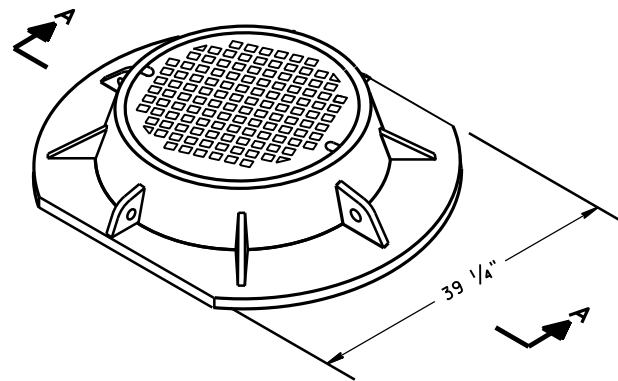
/S/ Jerry H. Zogg

ROADWAY STANDARDS

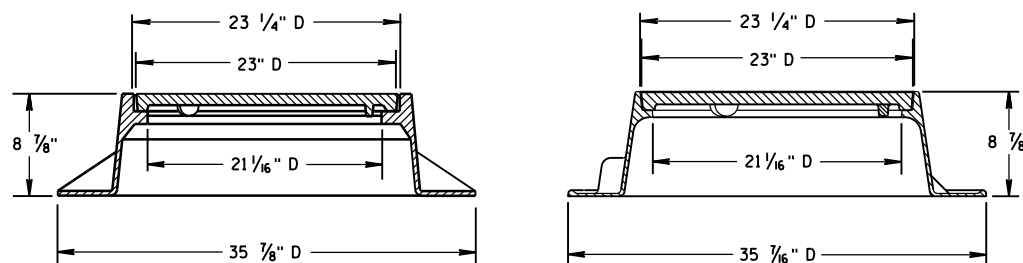
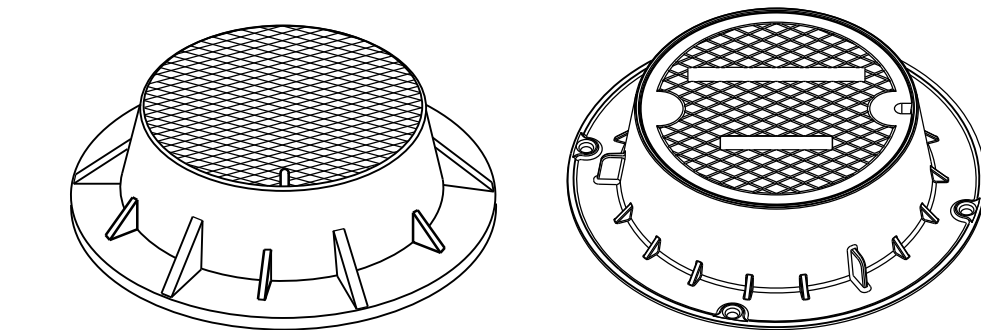
ENGINEER

192

NT

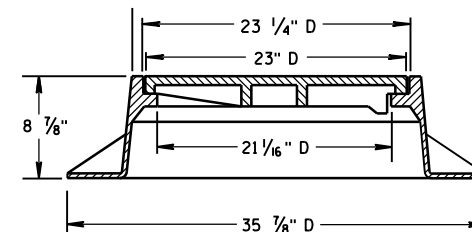
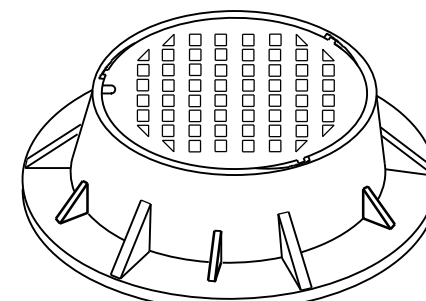
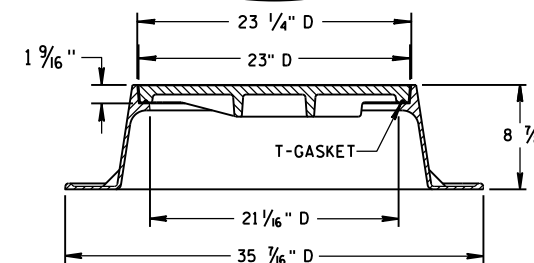
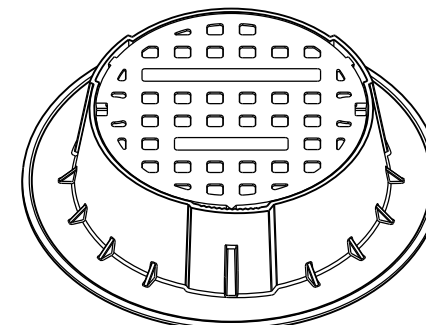


SECTION A-A
TYPE "K"



TYPE "J"

NOTE: EITHER CASTING IS ACCEPTABLE

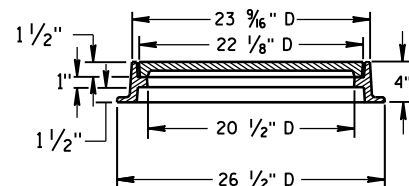
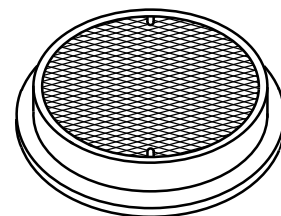


TYPE "J" SPECIAL

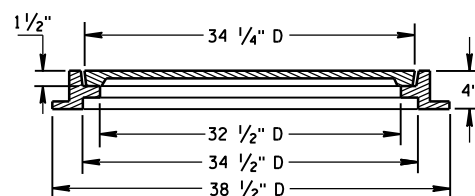
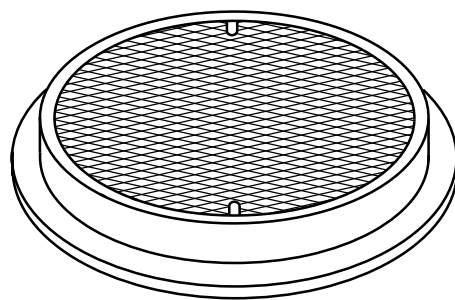
TYPE "B" NON-ROCKING SELF-SEAL LID

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

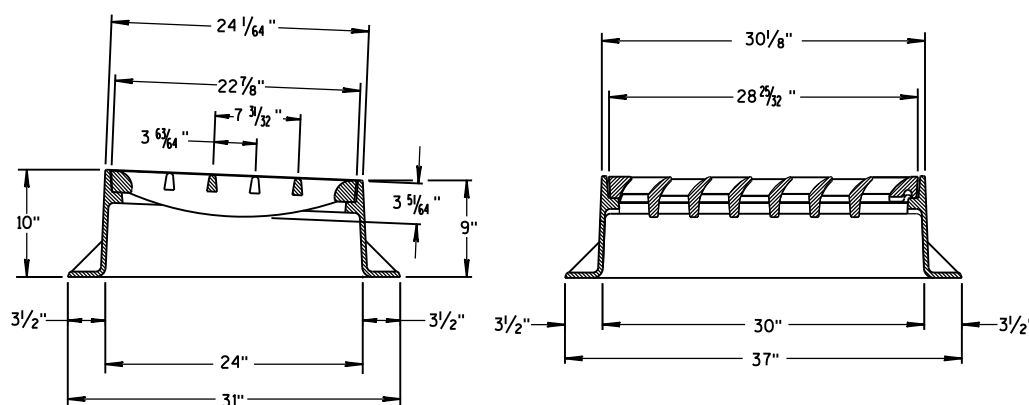
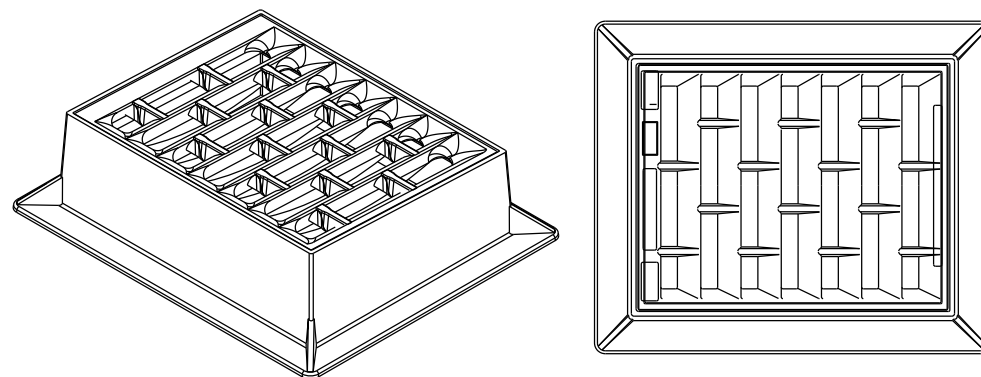
NOTE: EITHER CASTING IS ACCEPTABLE



TYPE "L"



TYPE "M"



INLET COVER TYPE "BW"

GENERAL NOTES

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

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

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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/27/2013

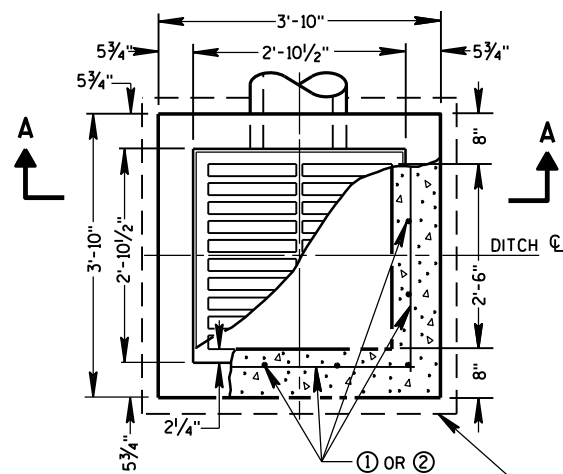
DATE

FHWA

/S/ Jerry H. Zogg

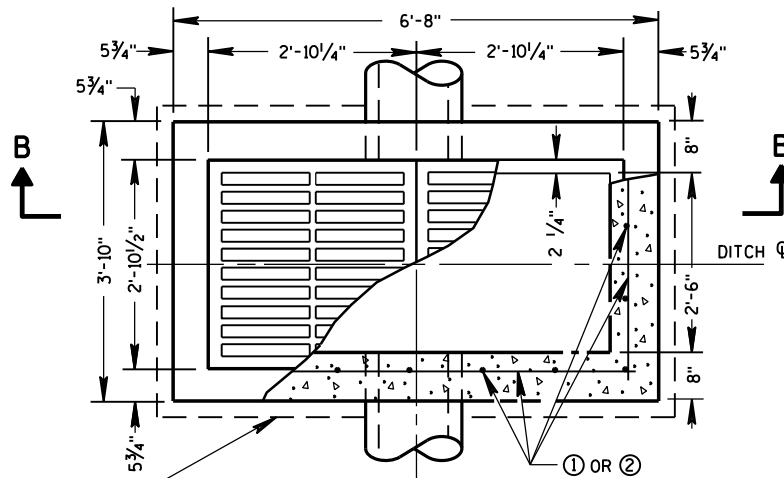
ROADWAY STANDARDS 193

ENGINEER

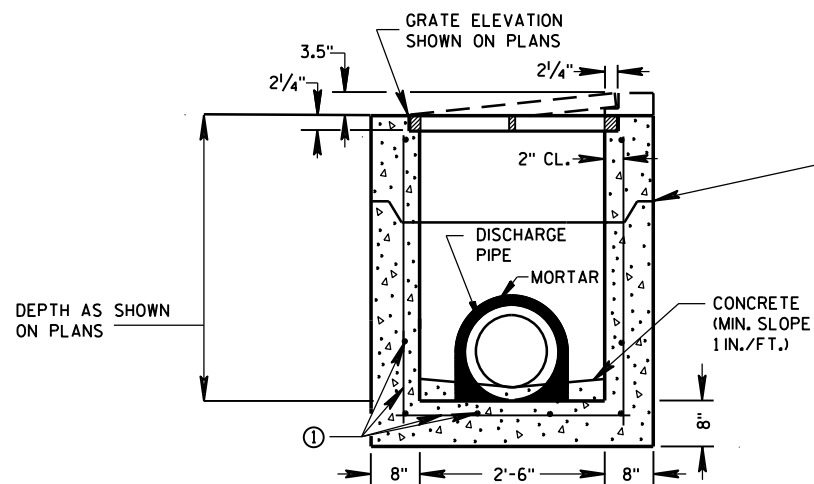


PLAN VIEW

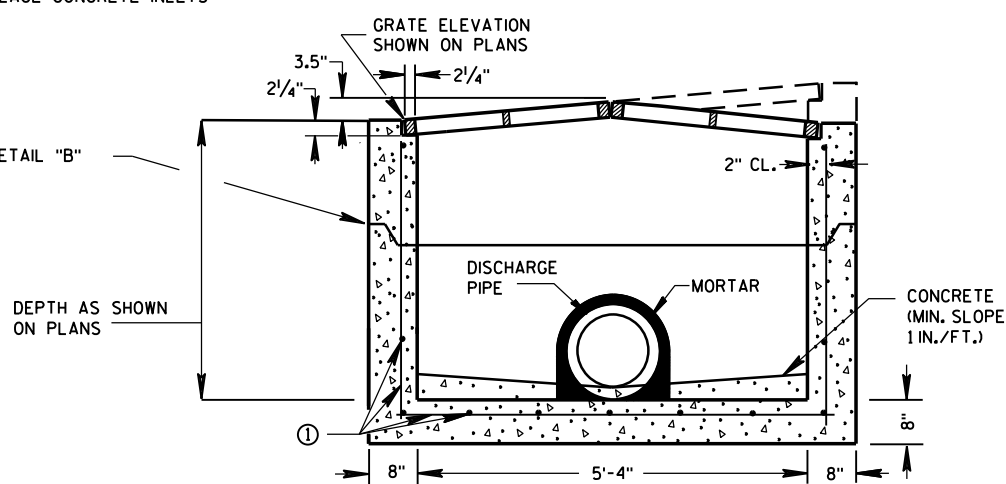
4" OVERHANGING BASE ON REINFORCED
CAST-IN-PLACE CONCRETE INLETS



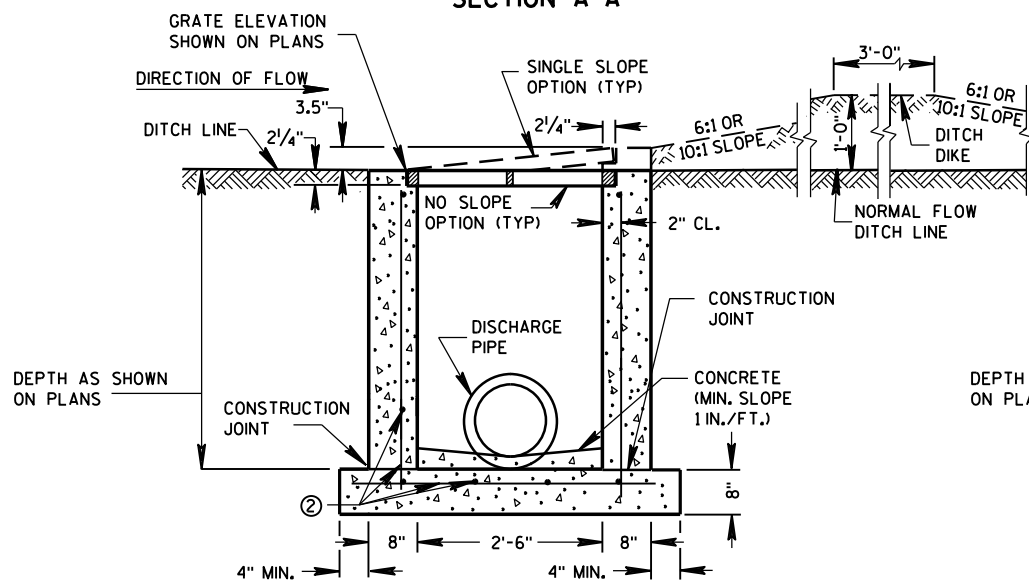
PLAN VIEW



PRECAST REINFORCED CONCRETE
SECTION A-A

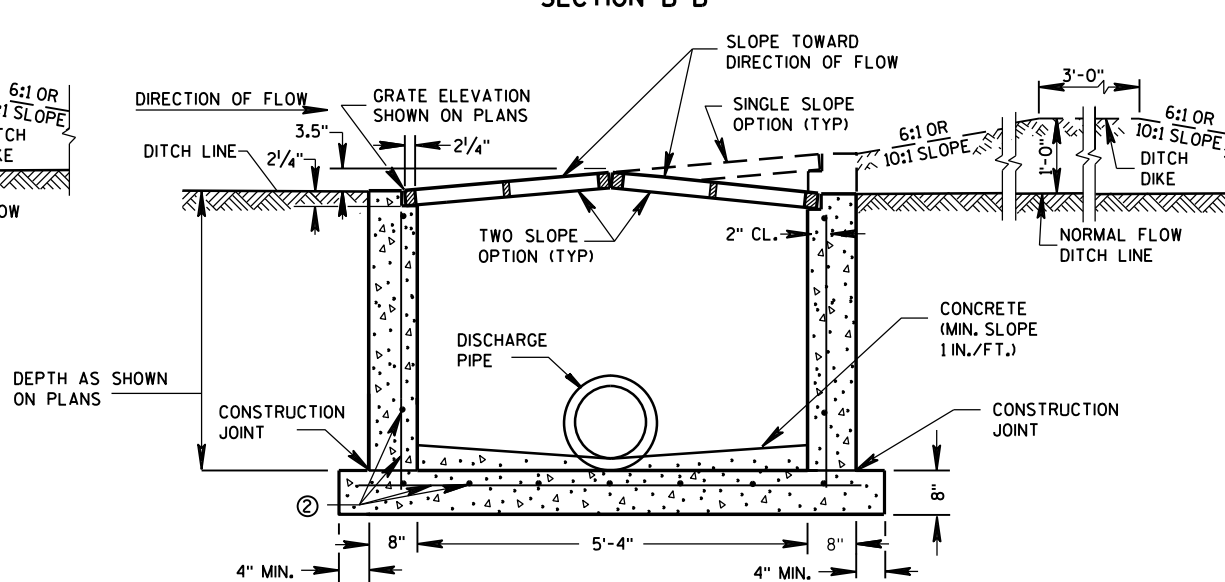


PRECAST REINFORCED CONCRETE
SECTION B-B



REINFORCED CAST-IN-PLACE CONCRETE
SECTION A-A

INLETS MEDIAN 1 GRATE



REINFORCED CAST-IN-PLACE CONCRETE
SECTION B-B

INLETS MEDIAN 2 GRATE

GENERAL NOTES

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

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

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

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

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

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

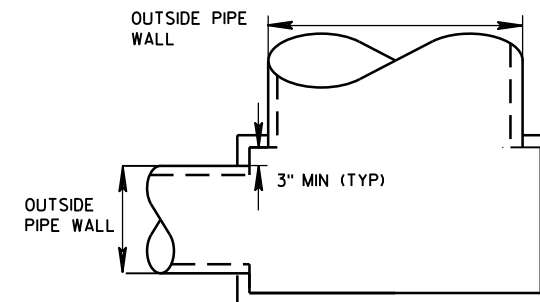
ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

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

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

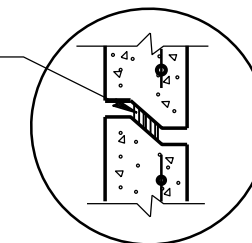
PIPE MATRIX

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



DETAIL "A"

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

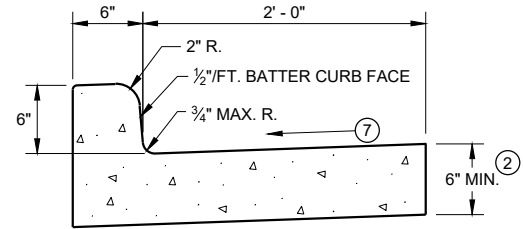


DETAIL "B"

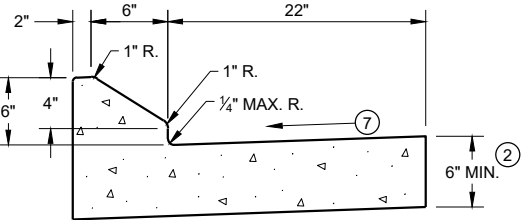
INLETS MEDIAN 1 AND 2 GRATE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

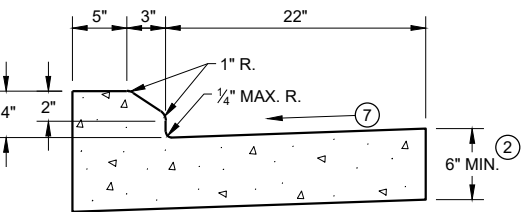
APPROVED
Sept., 2016 /S/ Rodney Taylor
DATE ROADWAY STANDARDS UNIT SUPERVISOR
FHWA 194 ENT



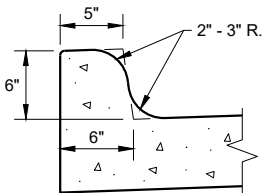
TYPES A^① & D



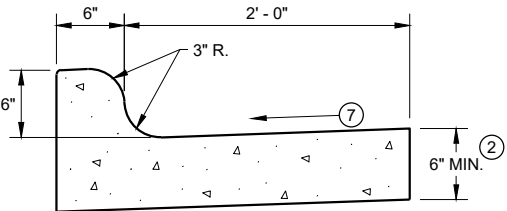
6" SLOPED CURB TYPES G^① & J



4" SLOPED CURB TYPES G^① & J

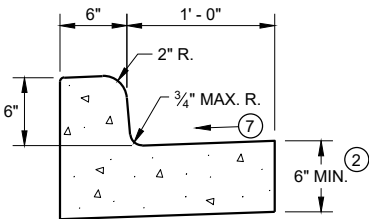


TYPES K^① & L
(OPTIONAL CURB SHAPE)



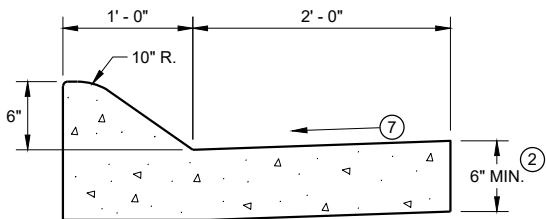
TYPES K^① & L

CONCRETE CURB AND GUTTER 30"

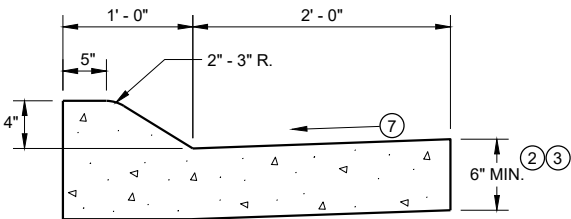


TYPES A^① & D

CONCRETE CURB AND GUTTER 18"

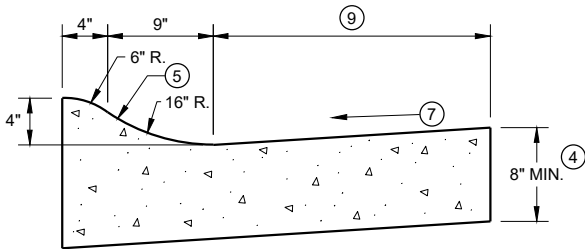


6" SLOPED CURB TYPES A^① & D



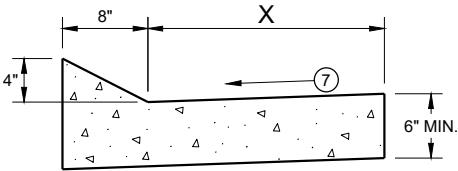
4" SLOPED CURB TYPES A^① & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R^① & T

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

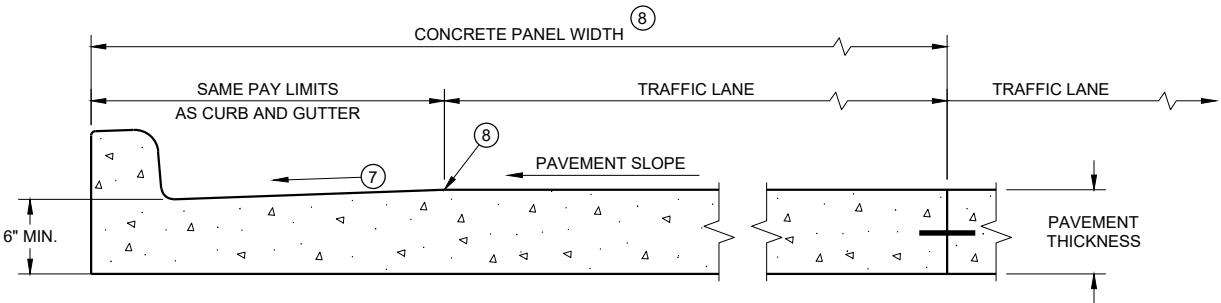


TYPES TBT & TBTT^①

CONCRETE CURB AND GUTTER

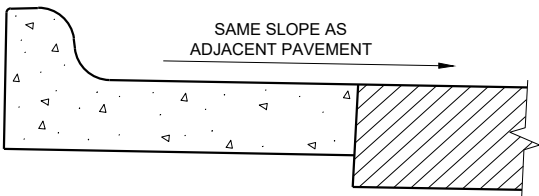
PAVEMENT THICKNESS
AND MAXIMUM CONCRETE
PANEL WIDTH TABLE

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



PARTIAL SECTION OF PAVEMENT *
WITH INTEGRAL CURB AND GUTTER

* BIKE LANE IS NOT SHOWN



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

GENERAL NOTES

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

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

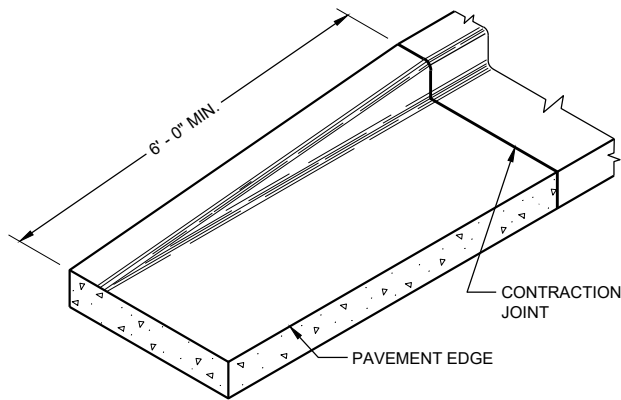
INTEGRAL CURB AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE.

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

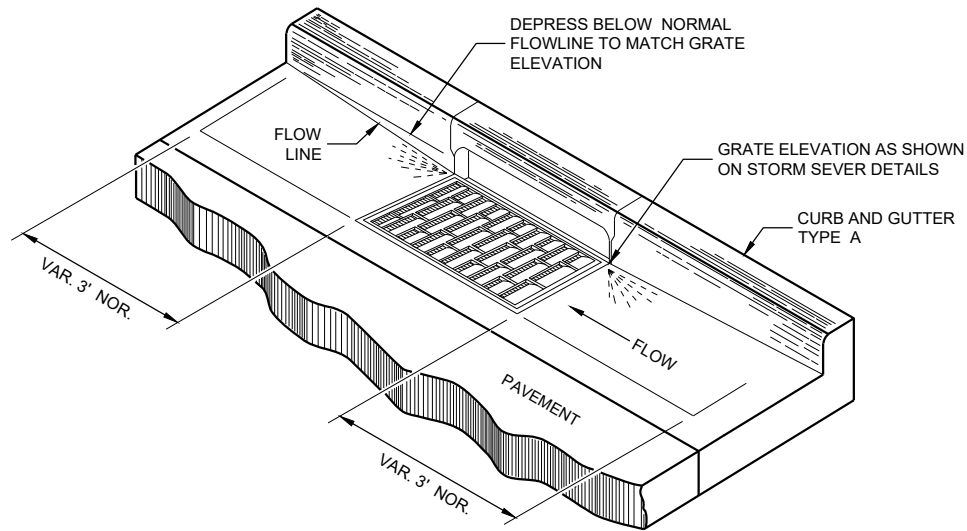
- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ③ USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH AN ADJACENT CONCRETE TRUCK APRON PLACED BEHIND BACK OF CURB.
- ④ THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ⑤ UNLESS OTHERWISE NOTED, FOR STAKING PURPOSES 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.
- ⑨ CONCRETE CURB AND GUTTER 4-INCH SLOPED 30-INCH TYPE "R" AND "T" = 17 INCHES
CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE "R" AND "T" = 23 INCHES

CONCRETE CURB AND GUTTER

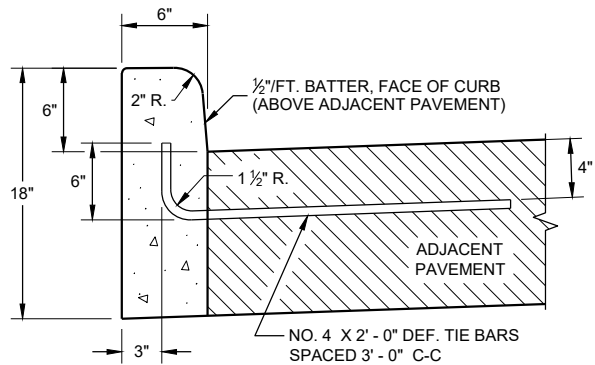
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 195



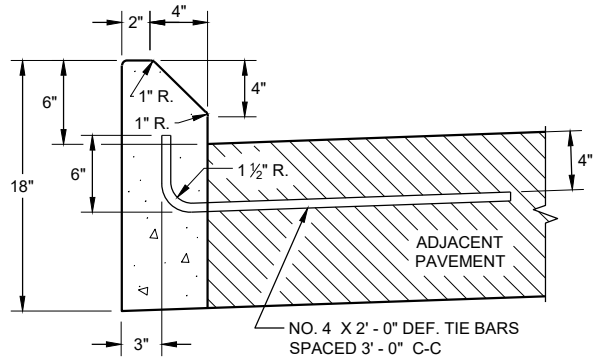
END SECTION CURB AND GUTTER



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

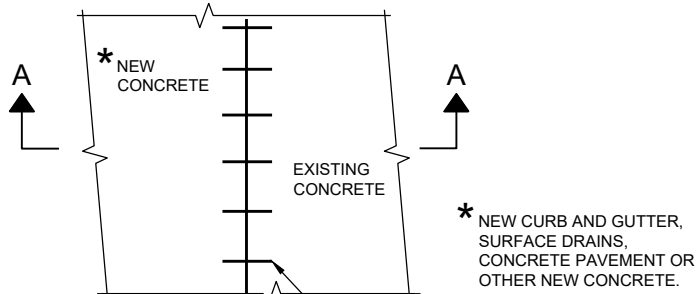


TYPES A^① & D

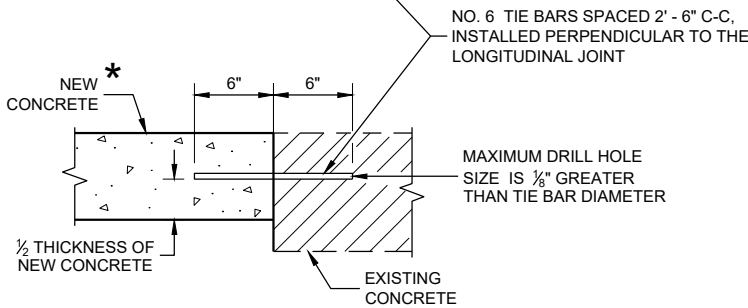


TYPES G^① & J

CONCRETE CURB



PLAN VIEW



SECTION A - A

TIE BARS DRILLED
INTO EXISTING PAVEMENT

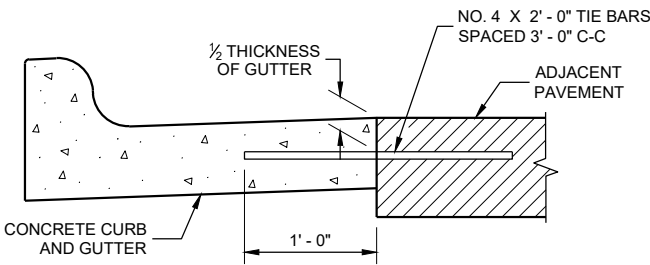
GENERAL NOTES

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

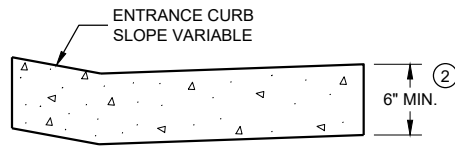
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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

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



TYPICAL TIE BAR LOCATION^①



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

CONCRETE CURB, TIES
AND CURB AND GUTTER
APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2021
DATE /S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT ENGINEER 196

FHWA

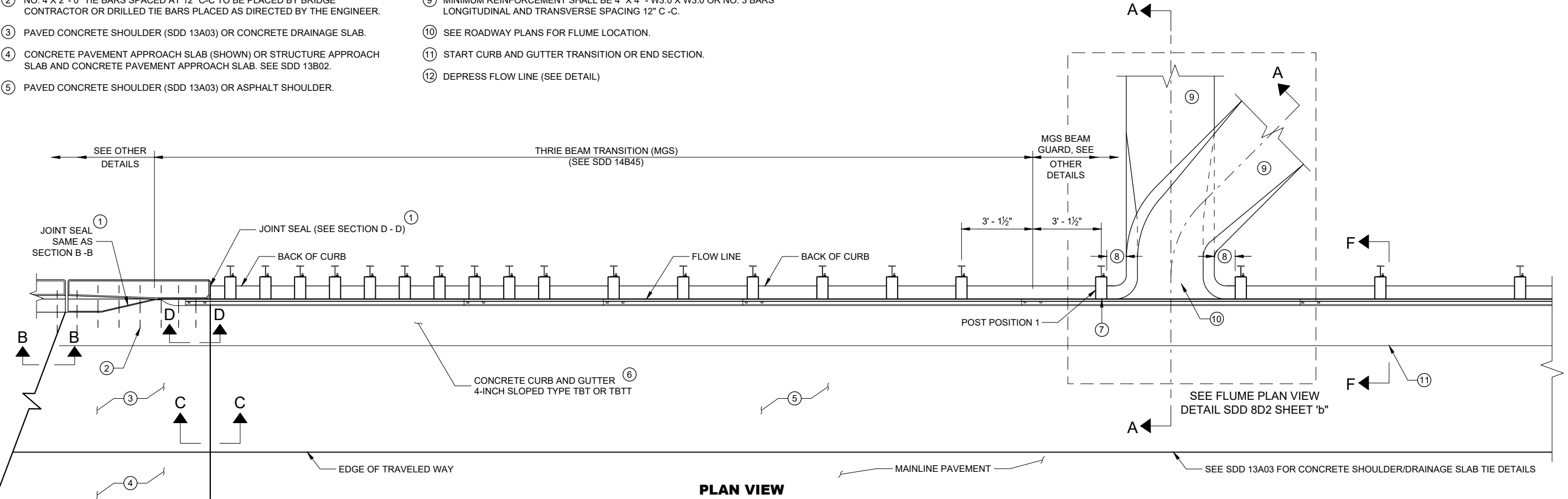
GENERAL NOTES

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

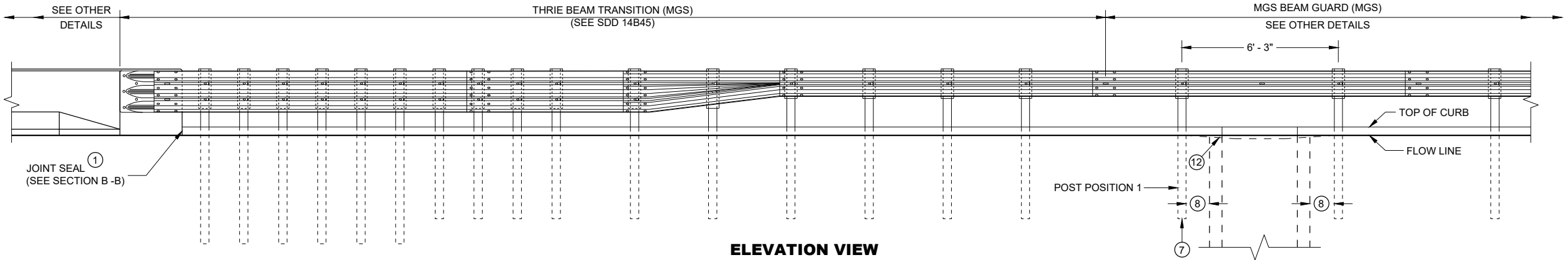
ALL STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

- 1 USE A JOINT SEALANT CONFORMING TO STANDARD SPECIFICATION 415.2.6.
- 2 NO. 4 X 2' - 0" TIE BARS SPACED AT 12" C-C TO BE PLACED BY BRIDGE CONTRACTOR OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.
- 3 PAVED CONCRETE SHOULDER (SDD 13A03) OR CONCRETE DRAINAGE SLAB.
- 4 CONCRETE PAVEMENT APPROACH SLAB (SHOWN) OR STRUCTURE APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB. SEE SDD 13B02.
- 5 PAVED CONCRETE SHOULDER (SDD 13A03) OR ASPHALT SHOULDER.

- 6 CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE TBT OR TBTT. USE TYPE TBTT CURB WITH NO. 4 X 2' - 0" TIE BARS SPACED AT 3' - 0" C-C ONLY WHEN ADJACENT TO CONCRETE PAVEMENTS.
- 7 PLACE FLUME BEFORE MSG THRIE BEAM TRANSITION POST 1 (SEE SDD 14B45)
- 8 CENTER FLUME BETWEEN POSTS. 6-INCH MINIMUM SEPARATION FROM OUTSIDE EDGE OF FLUME TO POSTS.
- 9 MINIMUM REINFORCEMENT SHALL BE 4" X 4" - W3.0 X W3.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C-C.
- 10 SEE ROADWAY PLANS FOR FLUME LOCATION.
- 11 START CURB AND GUTTER TRANSITION OR END SECTION.
- 12 DEPRESS FLOW LINE (SEE DETAIL)



PLAN VIEW



ELEVATION VIEW

CONCRETE SURFACE
DRAINS FLUME TYPE
AT STRUCTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



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.

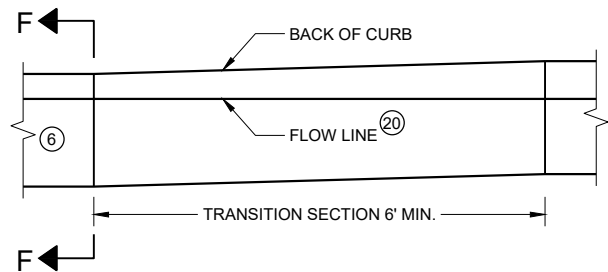
ALL STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

- ① USE A JOINT SEALANT CONFORMING TO STANDARD SPECIFICATION 415.2.6.
- ② NO. 4 X 2' - 0" TIE BARS SPACED AT 12" C-C TO BE PLACED BY BRIDGE CONTRACTOR OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.
- ③ PAVED CONCRETE SHOULDER (SDD 13A03) OR CONCRETE DRAINAGE SLAB.
- ④ CONCRETE PAVEMENT APPROACH SLAB (SHOWN) OR STRUCTURE APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB. SEE SDD 13B02 AND STRUCTURE PLANS.
- ⑤ PAVED CONCRETE SHOULDER (SDD 13A03) OR ASPHALT SHOULDER.
- ⑥ CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE TBT OR TBT.T. USE TYPE TBT.T CURB WITH NO. 4 X 2' -0" TIE BARS SPACED AT 3' - 0" C-C ONLY WHEN ADJACENT TO CONCRETE PAVEMENTS.

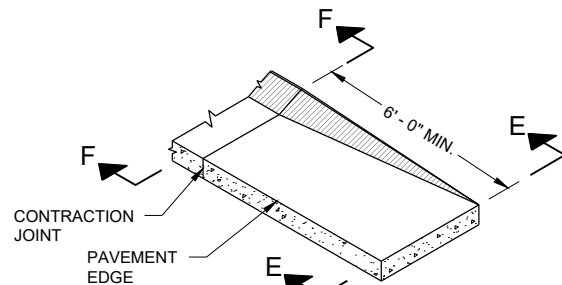
7. PLACE FLUME BEFORE MSG THRIE BEAM TRANSITION POST 1 (SEE SDD 14B45)
8. CENTER FLUME BETWEEN POSTS. 6-INCH MINIMUM SEPARATION FROM OUTSIDE EDGE OF FLUME TO POSTS.
9. MINIMUM REINFORCEMENT SHALL BE 4" X 4" - W3.0 X W3.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C - C.
10. SEE ROADWAY PLANS FOR FLUME LOCATION.
11. START CURB AND GUTTER TRANSITION OR END SECTION.
12. DEPRESS FLOW LINE (SEE DETAIL)
13. MEDIUM RIPRAP UNLESS OTHERWISE SPECIFIED.
14. LIMITS OF ADDITIONAL RIPRAP WHEN SPECIAL DITCH AS REQUIRED.
15. GEOTEXTILE FABRIC TYPE HR.

CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES

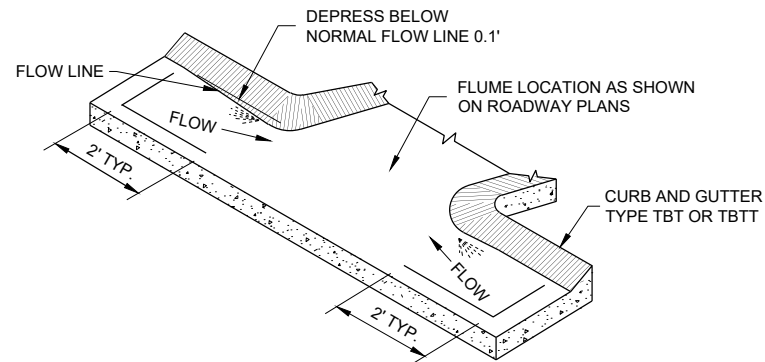
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 198



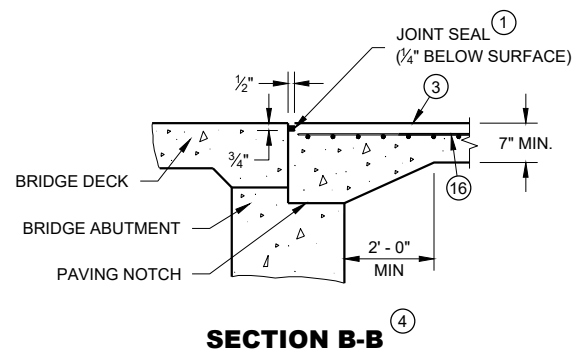
**CURB AND GUTTER TRANSITION SECTION
CONCRETE CURB AND GUTTER 4-INCH SLOPED
36 INCH TYPE TBT OR TBTT**



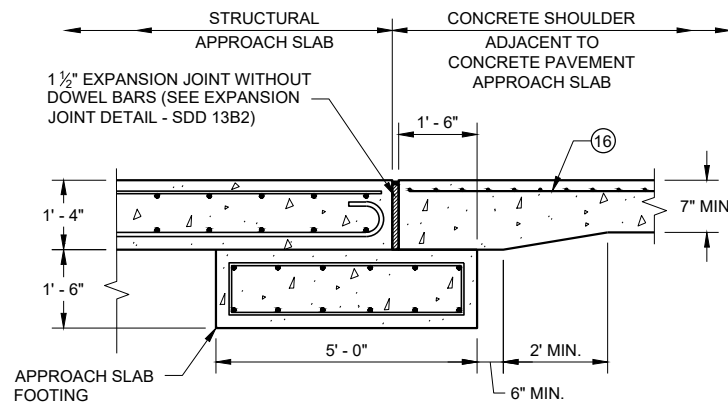
**CURB AND GUTTER END SECTION
CONCRETE CURB AND GUTTER 4-INCH SLOPED
36 INCH TYPE TBT OR TBTT**



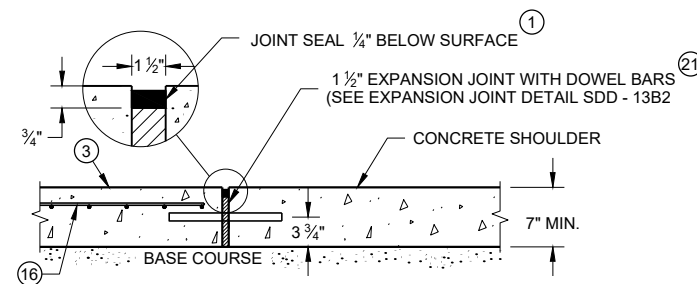
**CURB AND GUTTER FLOW LINE DEPRESSION
AT FLUMES CONCRETE CURB AND GUTTER
4-INCH SLOPED 36 INCH TYPE TBT OR TBTT**



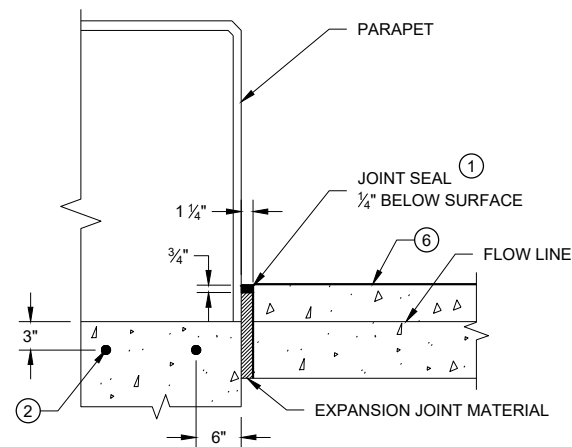
SECTION B-B



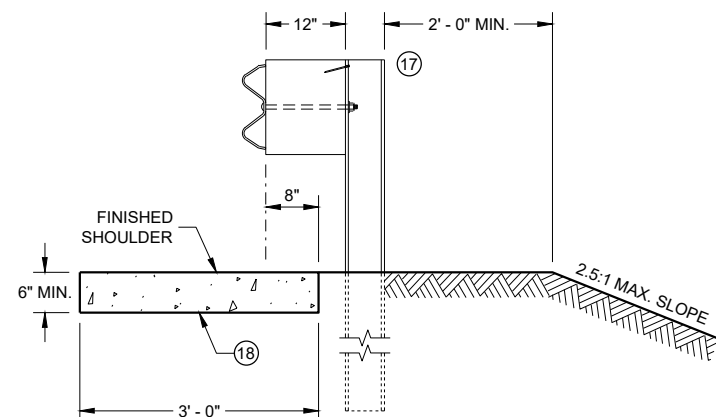
**SECTION C - C
JOINT DETAIL FOR BRIDGE WITH STRUCTURAL
APPROACH SLAB AND CONCRETE APPROACH SLAB**



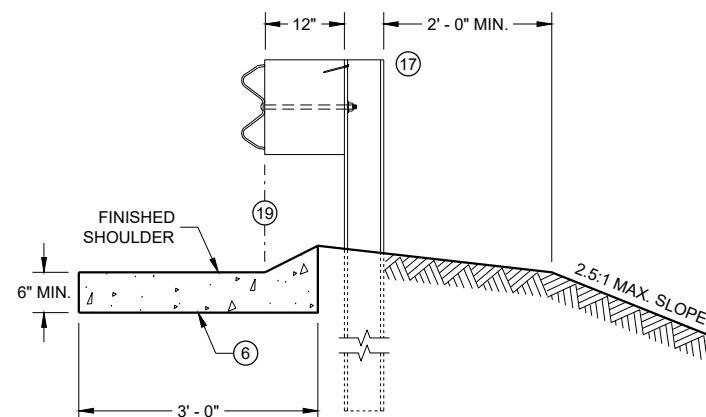
**SECTION C - C
JOINT DETAIL FOR BRIDGE APPROACH
WITH CONCRETE SHOULDERS**



SECTION D - D



SECTION E - E



SECTION F - F

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.

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

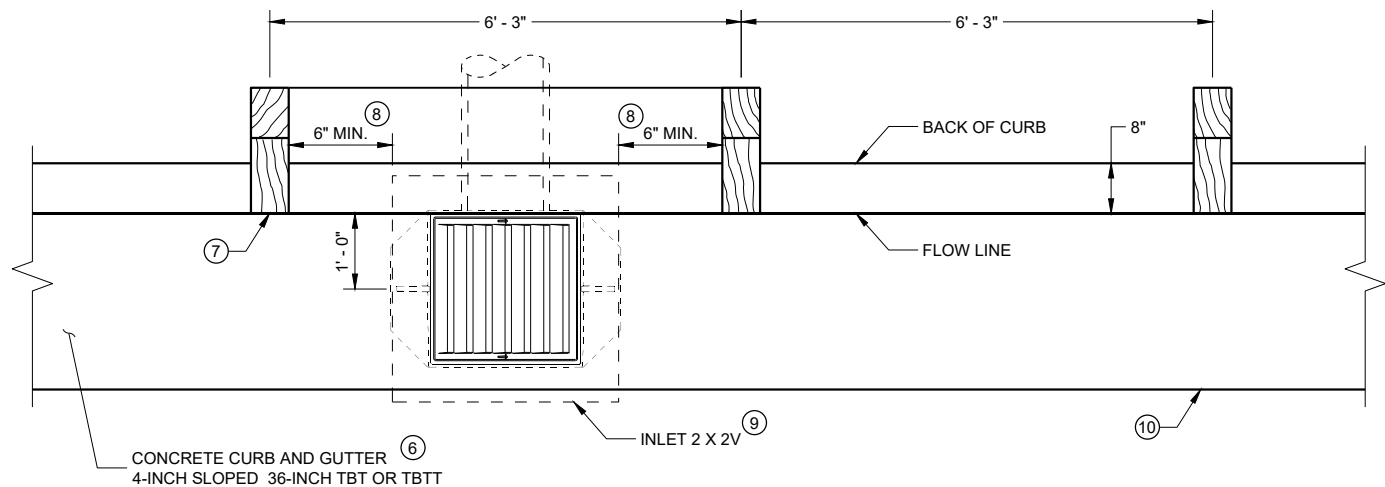
- ① USE A JOINT SEALANT CONFORMING TO STANDARD SPECIFICATION 415.2.6.
- ② NO. 4 X 2' - 0" TIE BARS SPACED AT 12" C-C TO BE PLACED BY BRIDGE CONTRACTOR OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.
- ③ PAVED CONCRETE SHOULDER (SDD 13A03) OR CONCRETE DRAINAGE SLAB.
- ④ CONCRETE PAVEMENT APPROACH SLAB (SHOWN) OR STRUCTURE APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB. SEE SDD 13B02 AND STRUCTURE PLANS.
- ⑤ PAVED CONCRETE SHOULDER (SDD 13A03) OR ASPHALT SHOULDER.
- ⑥ CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE TBT OR TBTT. USE TYPE TBTT CURB WITH NO. 4 X 2' - 0" TIE BARS SPACED AT 3' - 0" C-C ONLY WHEN ADJACENT TO CONCRETE PAVEMENTS.
- ⑦ PLACE FLUME BEFORE MSG THRIE BEAM TRANSITION POST 1 (SEE SDD 14B45)
- ⑧ CENTER FLUME BETWEEN POSTS. 6-INCH MINIMUM SEPARATION FROM OUTSIDE EDGE OF FLUME TO POSTS.
- ⑨ MINIMUM REINFORCEMENT SHALL BE 4" X 4" - W3.0 X W3.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C - C.
- ⑩ SEE ROADWAY PLANS FOR FLUME LOCATION.
- ⑪ START CURB AND GUTTER TRANSITION OR END SECTION.
- ⑫ DEPRESS FLOW LINE (SEE DETAIL)
- ⑬ MEDIUM RIPRAP UNLESS OTHERWISE SPECIFIED.
- ⑭ LIMITS OF ADDITIONAL RIPRAP WHEN SPECIAL DITCH IS REQUIRED.
- ⑮ GEOTEXTILE FABRIC TYPE HR.
- ⑯ MINIMUM REINFORCEMENT SHALL BE 6" X 6" - W4.0 X W4.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C - C.
- ⑰ MSG THRIE BEAM TRANSITION POST 1. SEE SDD 14B45 FOR ADDITIONAL CONSTRUCTION DETAILS AND ACCEPTABLE MATERIALS.
- ⑱ MAINTAIN WIDTH, THICKNESS AND CROSS SLOPE OF ADJACENT TYPE TBT OR TBTT CURB. SEE NOTE 6 FOR TIE BAR SPACING.
- ⑲ ALIGN FACE OF POST BLOCK WITH FLOW LINE.
- ⑳ MAINTAIN FLOW LINE AT EDGE OF PAVEMENT/FACE OF BEAM GUARD AS APPLICABLE.
- ㉑ DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING HMA PAVEMENTS.

CONCRETE SURFACE DRAINS FLUME TYPE AT STRUCTURES

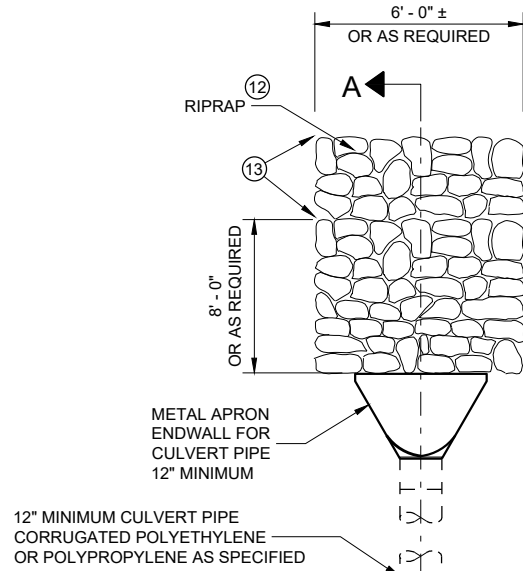
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT ENGINEER 199

FHWA



INLET PLAN VIEW
(NOTE: RAIL NOT SHOWN FOR CLARITY)

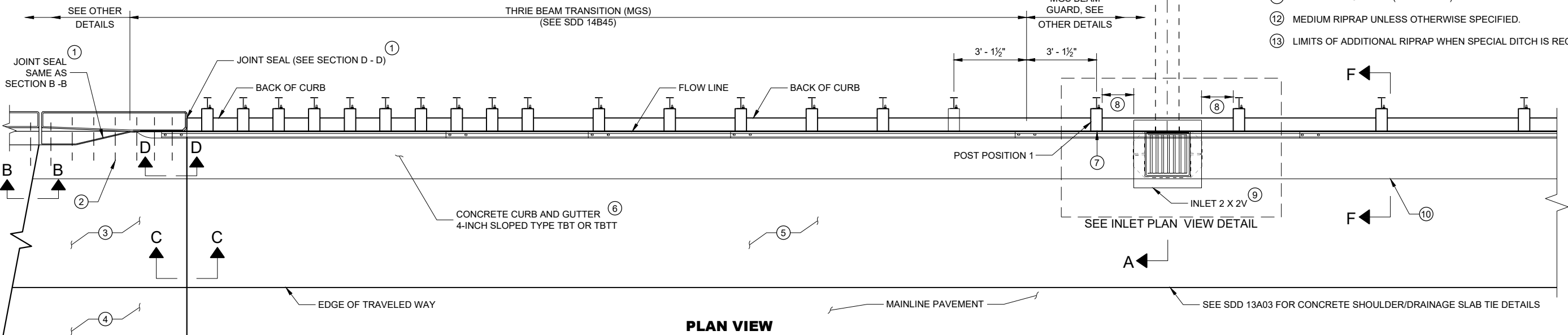


GENERAL NOTES

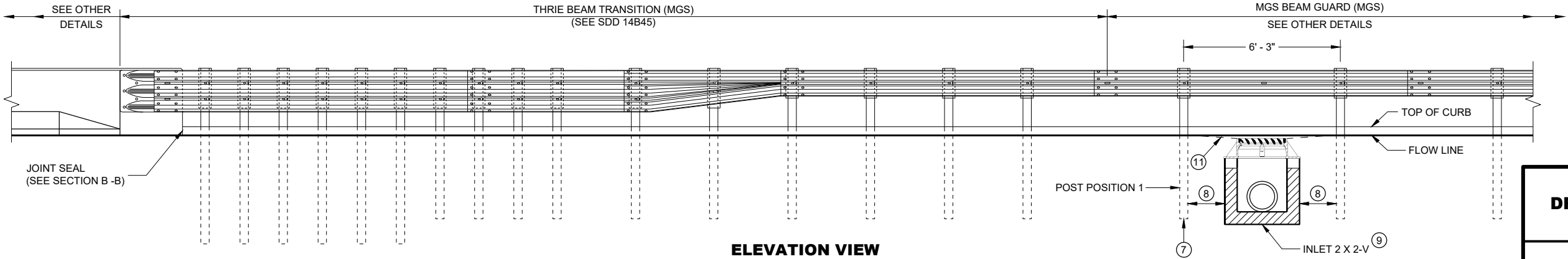
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

- ① USE A JOINT SEALANT CONFORMING TO STANDARD SPECIFICATION 415.2.6.
- ② NO. 4 X 2' - 0" TIE BARS SPACED AT 12" C-C TO BE PLACED BY BRIDGE CONTRACTOR OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.
- ③ PAVED CONCRETE SHOULDER (SDD 13A03) OR CONCRETE DRAINAGE SLAB.
- ④ CONCRETE PAVEMENT APPROACH SLAB (SHOWN) OR STRUCTURE APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB. SEE SDD 13B02.
- ⑤ PAVED CONCRETE SHOULDER (SDD 13A03) OR ASPHALT SHOULDER.
- ⑥ CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE TBT OR TBT. USE TYPE TBT CURB WITH NO. 4 X 2' - 0" TIE BARS SPACED AT 3' - 0" C-C ONLY WHEN ADJACENT TO CONCRETE PAVEMENTS.
- ⑦ PLACE DRAINAGE STRUCTURE BEFORE MSG THRIE BEAM TRANSITION POST 1 (SEE SDD 14B45)
- ⑧ CENTER DRAINAGE STRUCTURE BETWEEN POSTS. 6-INCH MINIMUM SEPARATION FROM OUTSIDE WALL OF DRAINAGE STRUCTURE TO POSTS.
- ⑨ SEE SDD 08A05 AND 08C07 FOR DETAILS. SEE ROADWAY PLANS FOR LOCATION.
- ⑩ START CURB AND GUTTER TRANSITION OR END SECTION.
- ⑪ DEPRESS FLOW LINE (SEE DETAIL)
- ⑫ MEDIUM RIPRAP UNLESS OTHERWISE SPECIFIED.
- ⑬ LIMITS OF ADDITIONAL RIPRAP WHEN SPECIAL DITCH IS REQUIRED.



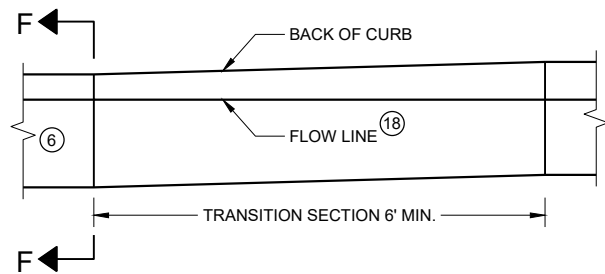
PLAN VIEW



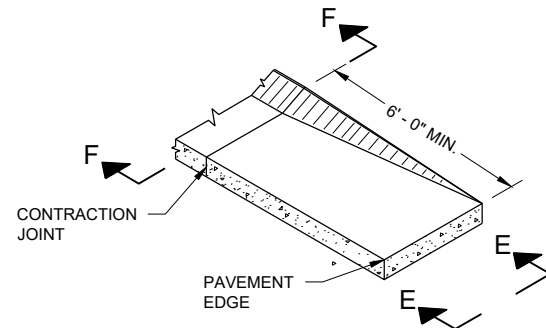
ELEVATION VIEW

**CONCRETE SURFACE
DRAINS DROP INLET TYPE
AT STRUCTURES**

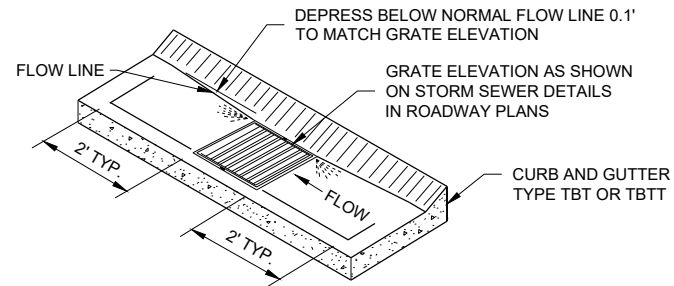
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



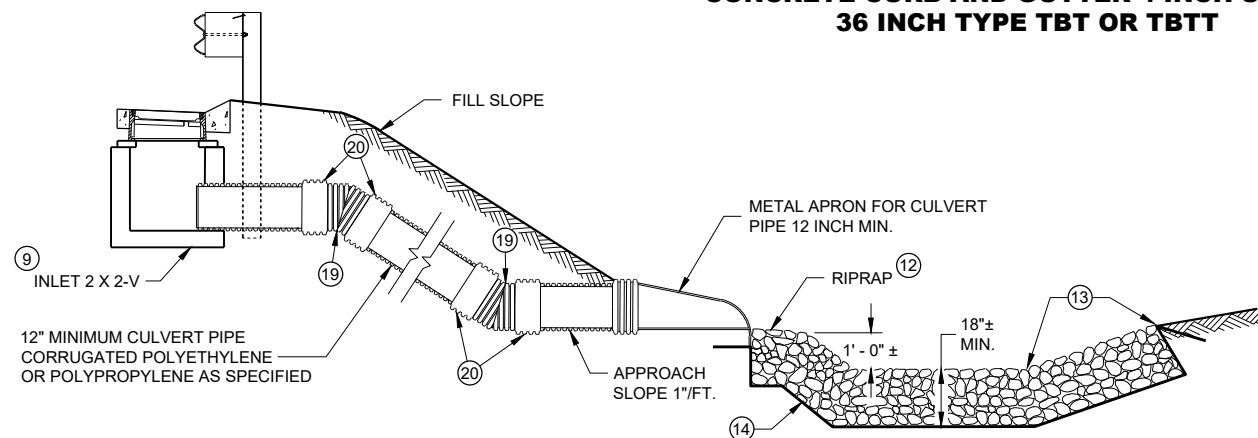
**CURB AND GUTTER TRANSITION SECTION
CONCRETE CURB AND GUTTER 4-INCH SLOPED
36 INCH TYPE TBT OR TBT**



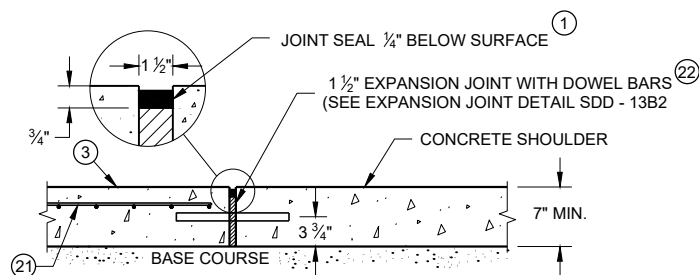
**CURB AND GUTTER END SECTION
CONCRETE CURB AND GUTTER 4-INCH SLOPED
36 INCH TYPE TBT OR TBT**



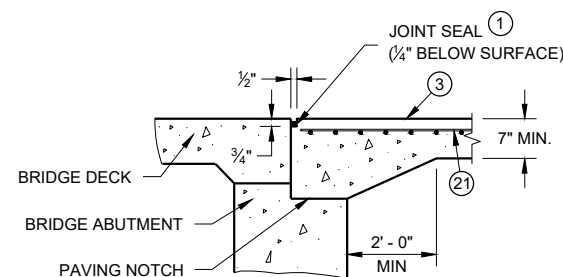
**CURB AND GUTTER FLOW LINE DEPRESSION
AT INLETS CONCRETE CURB AND GUTTER
4-INCH SLOPED 36 INCH TYPE TBT OR TBT**



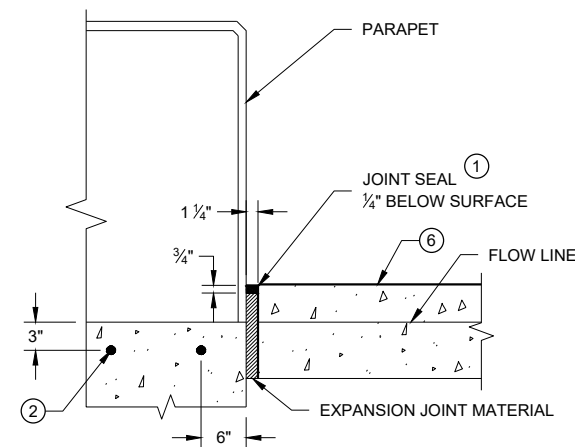
SECTION A - A



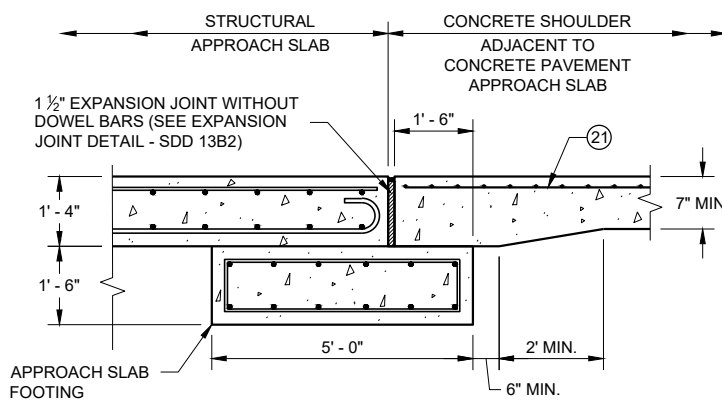
**SECTION C - C
JOINT DETAIL FOR BRIDGE APPROACH
WITH CONCRETE SHOULDERS**



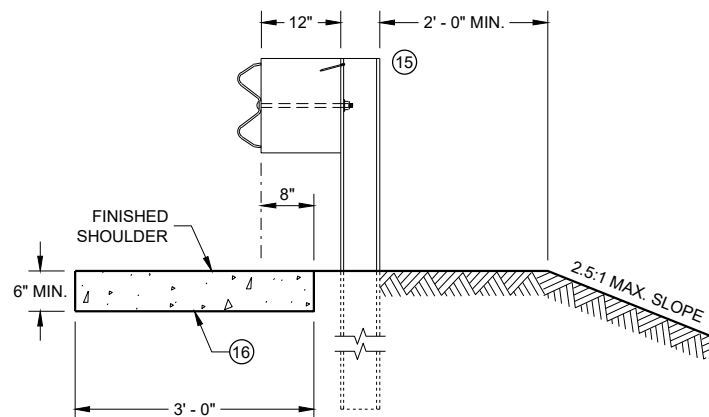
SECTION B-B



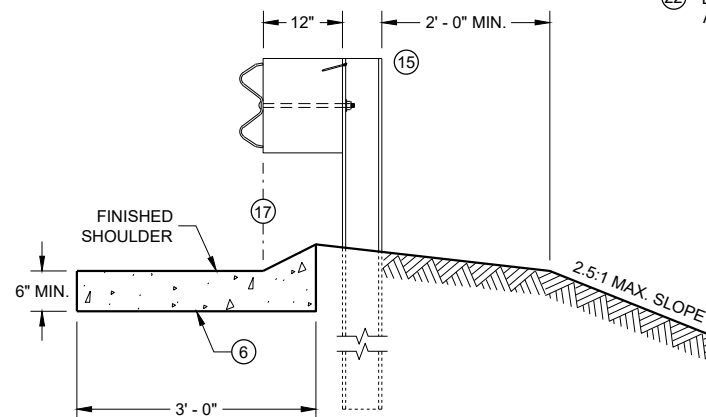
SECTION D - D



**SECTION C - C
JOINT DETAIL FOR BRIDGE WITH STRUCTURAL
APPROACH SLAB AND CONCRETE APPROACH SLAB**



SECTION E - E



SECTION F - F

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.

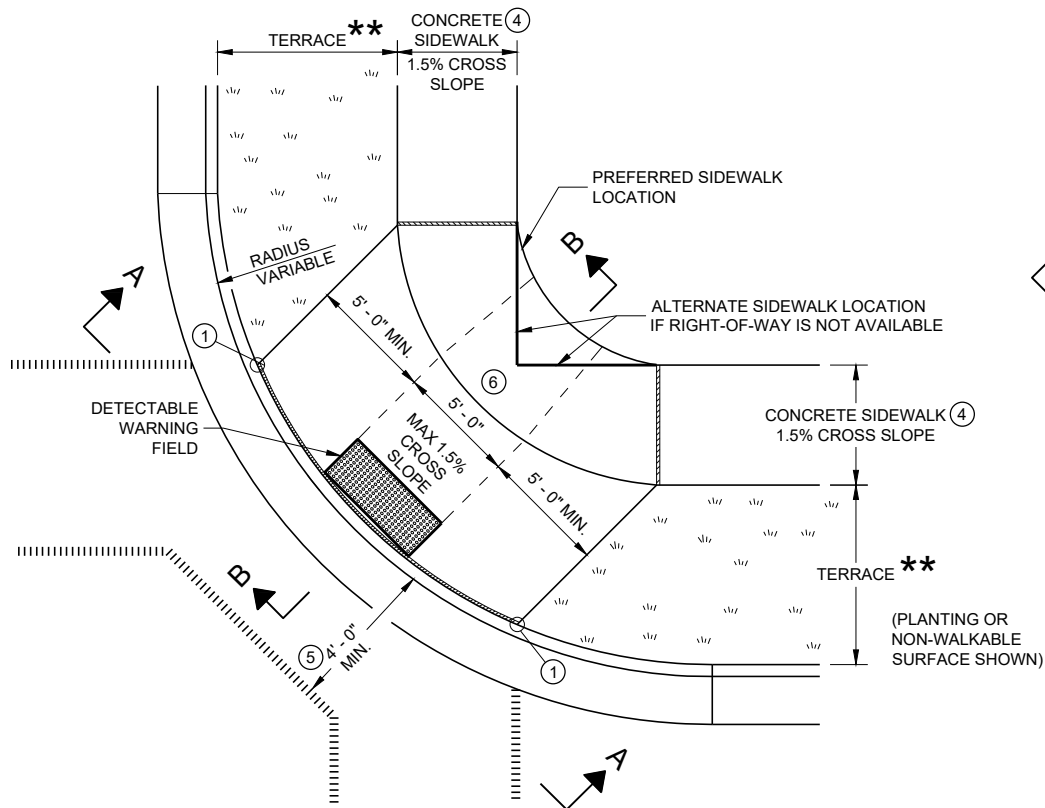
ALL STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

- ① USE A JOINT SEALANT CONFORMING TO STANDARD SPECIFICATION 415.2.6.
- ② NO. 4 X 2' - 0" TIE BARS SPACED AT 12" C-C TO BE PLACED BY BRIDGE CONTRACTOR OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.
- ③ PAVED CONCRETE SHOULDER (SDD 13A03) OR CONCRETE DRAINAGE SLAB.
- ④ CONCRETE PAVEMENT APPROACH SLAB (SHOWN) OR STRUCTURE APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB. SEE SDD 13B02 AND STRUCTURE PLANS.
- ⑤ PAVED CONCRETE SHOULDER (SDD 13A03) OR ASPHALT SHOULDER.
- ⑥ CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE TBT OR TBT. USE TYPE TBT CURB WITH NO. 4 X 2' - 0" TIE BARS SPACED AT 3' - 0" C-C ONLY WHEN ADJACENT TO CONCRETE PAVEMENTS.
- ⑦ PLACE DRAINAGE STRUCTURE BEFORE MSG THRIE BEAM TRANSITION POST 1 (SEE SDD 14B45)
- ⑧ CENTER DRAINAGE STRUCTURE BETWEEN POSTS. 6-INCH MINIMUM SEPARATION FROM OUTSIDE WALL OF DRAINAGE STRUCTURE TO POSTS.
- ⑨ SEE SDD 08A05 AND 08C07 FOR DETAILS. SEE ROADWAY PLANS FOR LOCATION.
- ⑩ START CURB AND GUTTER TRANSITION OR END SECTION.
- ⑪ DEPRESS FLOW LINE (SEE DETAIL)
- ⑫ MEDIUM RIPRAP UNLESS OTHERWISE SPECIFIED.
- ⑬ LIMITS OF ADDITIONAL RIPRAP WHEN SPECIAL DITCH IS REQUIRED.
- ⑭ GEOTEXTILE FABRIC TYPE HR.
- ⑮ MSG THRIE BEAM TRANSITION POST 1. SEE SDD 14B45 FOR ADDITIONAL CONSTRUCTION DETAILS AND ACCEPTABLE MATERIALS.
- ⑯ MAINTAIN WIDTH, THICKNESS AND CROSS SLOPE OF ADJACENT TYPE TBT OR TBT CURB. SEE NOTE 6 FOR TIE BAR SPACING.
- ⑰ ALIGN FACE OF POST BLOCK WITH FLOW LINE.
- ⑱ MAINTAIN FLOW LINE AT EDGE OF PAVEMENT/FACE OF BEAM GUARD AS APPLICABLE.
- ⑲ MANUFACTURER SUPPLIED BEND.
- ⑳ MANUFACTURER SUPPLIED EXTERNAL MECHANICAL COUPLING OR A MANUFACTURER RECOMMENDED COUPLING WITH A MASTIC IMPREGNATED GEOTEXTILE WRAP AND MECHANICAL FASTENING BANDS.
- ㉑ MINIMUM REINFORCEMENT SHALL BE 6" X 6" - W4.0 X W4.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C - C.
- ㉒ DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING HMA PAVEMENTS.

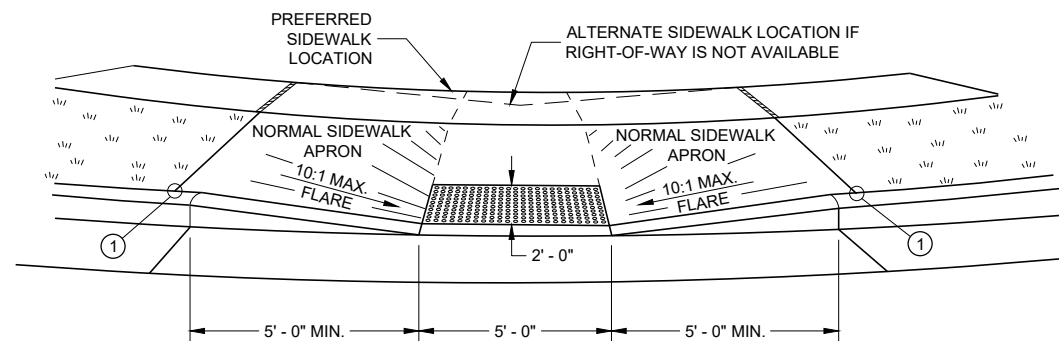
CONCRETE SURFACE DRAINS DROP INLET TYPE AT STRUCTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT ENGINEER 201
FHWA

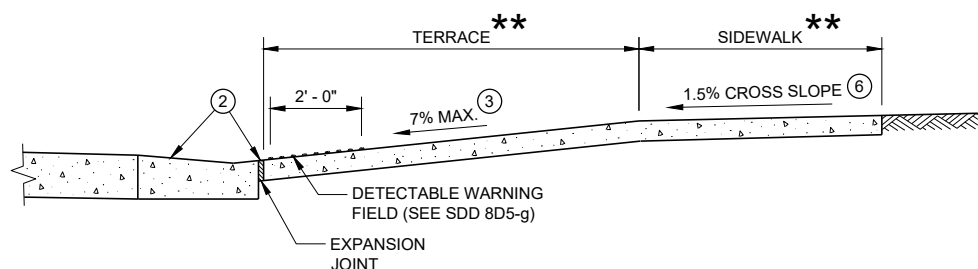


PLAN VIEW
CURB RAMP TYPE 1
(CENTER OF CORNER RADIUS)

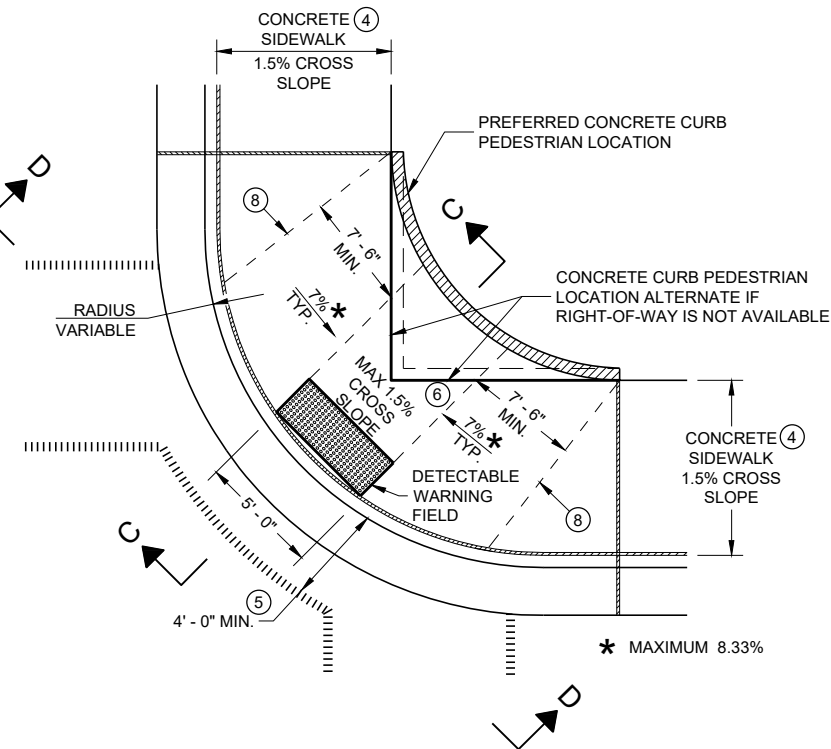


VIEW A - A FOR TYPE 1

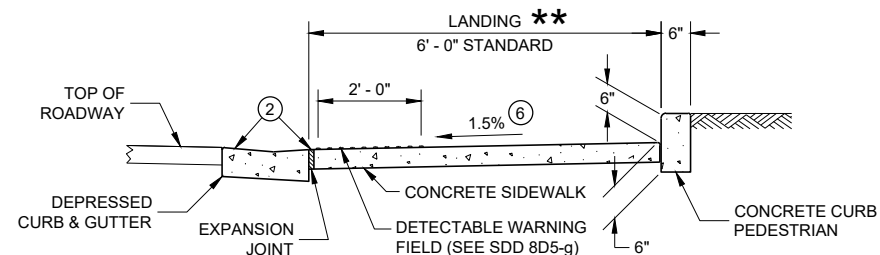
** WIDTH SHOWN ELSEWHERE
IN THE PLANS



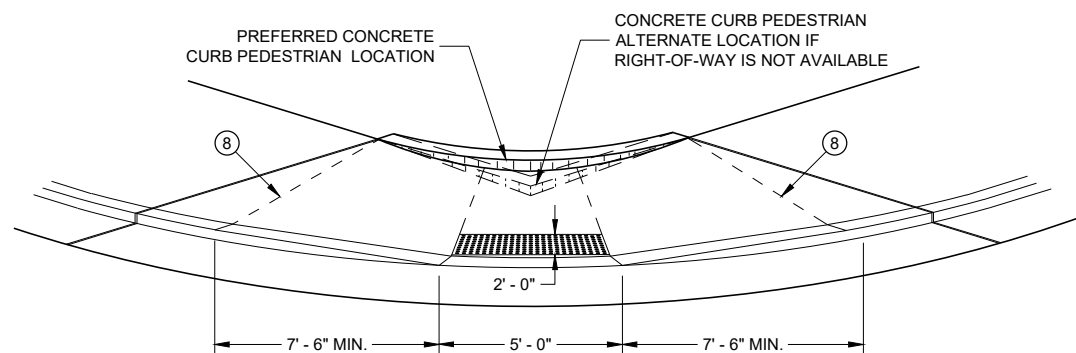
SECTION B - B FOR TYPE 1



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



SECTION C - C FOR TYPE 1 - A



VIEW D - D FOR TYPE 1 - A

GENERAL NOTES

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

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

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

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

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

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

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

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

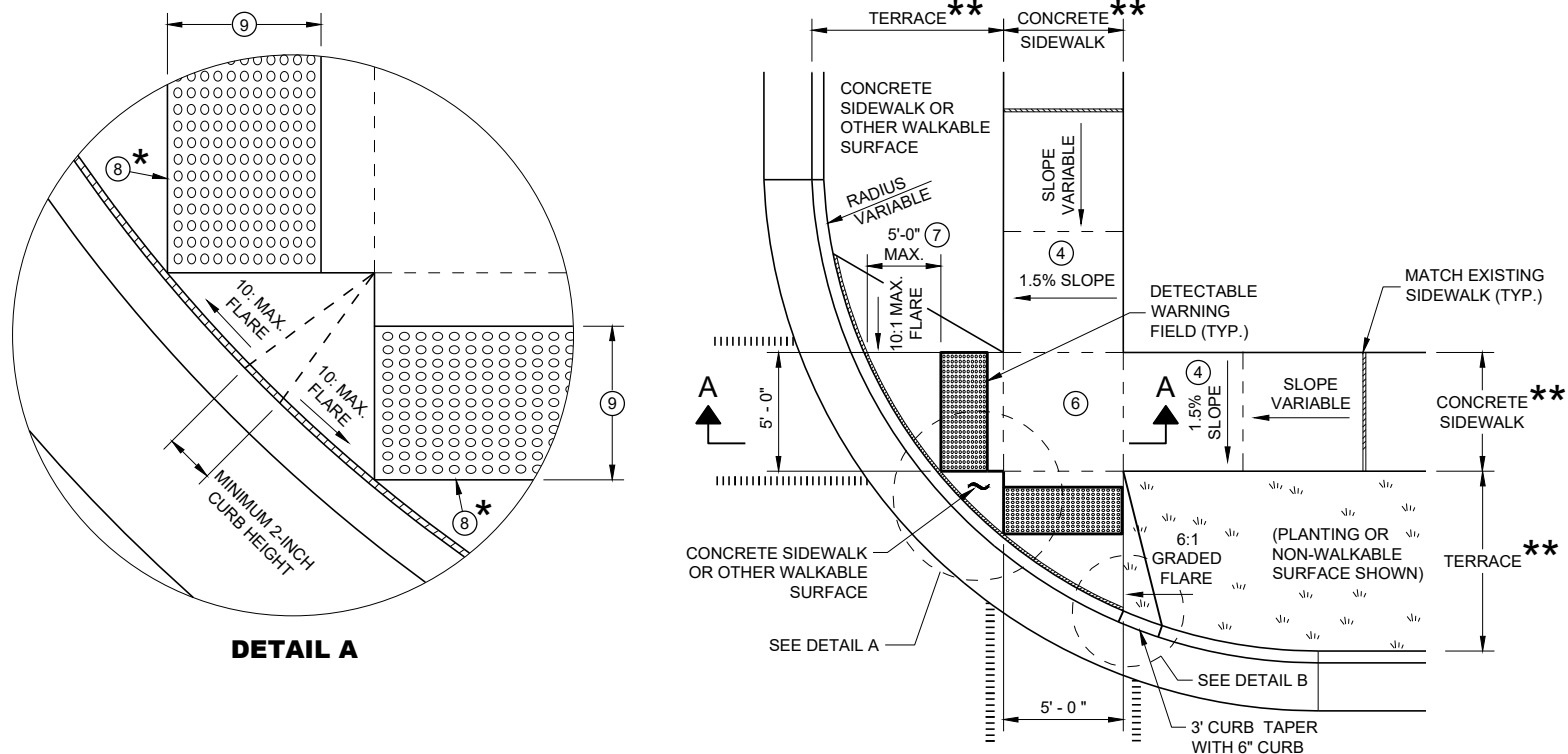
- THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB. POINT LOCATION MAY BE ADJUSTED TO ALIGN WITH BEGINNING OF FULL-HEIGHT CURB IF THIS DISTANCE IS SHORT.
- GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM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

LEGEND

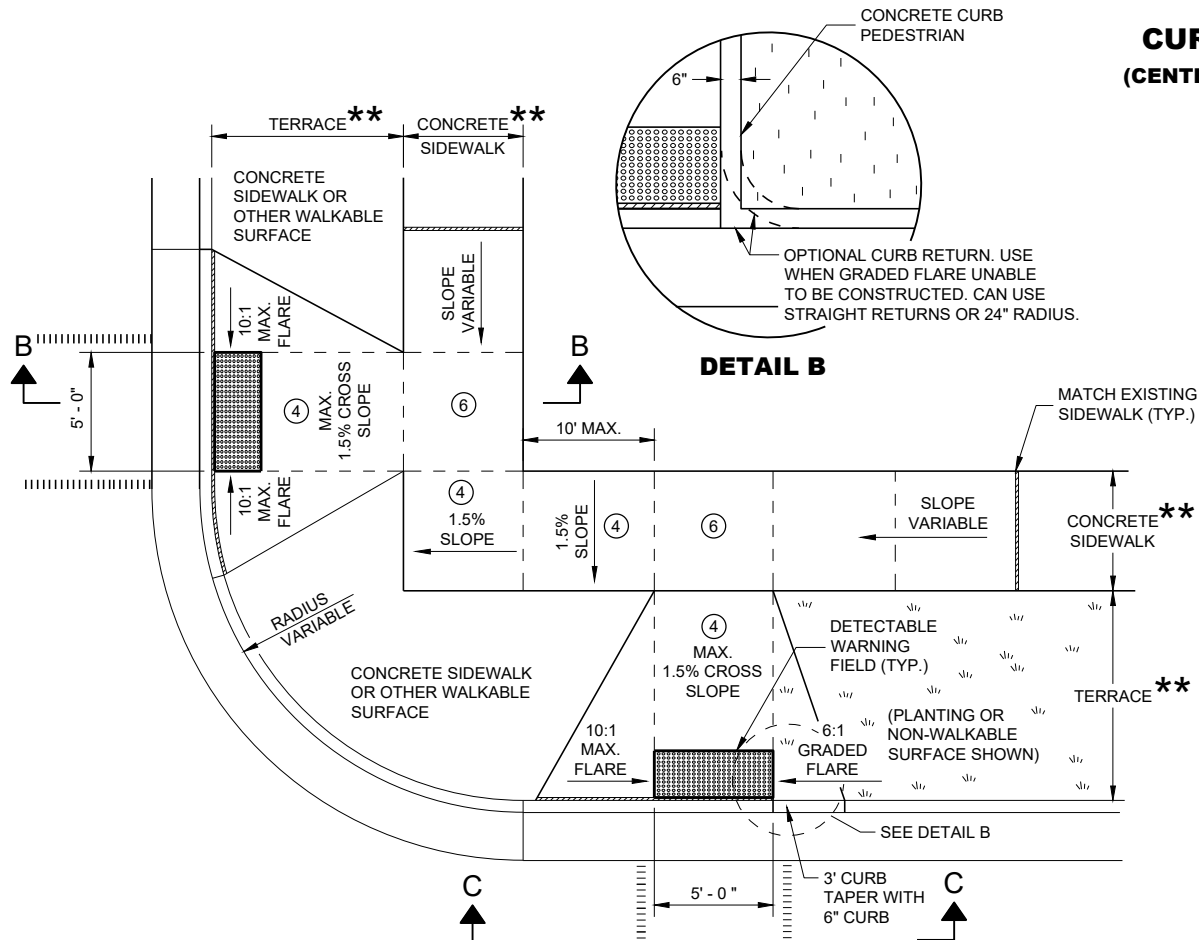
- 1/2" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS TYPE 1 AND 1-A

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



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



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

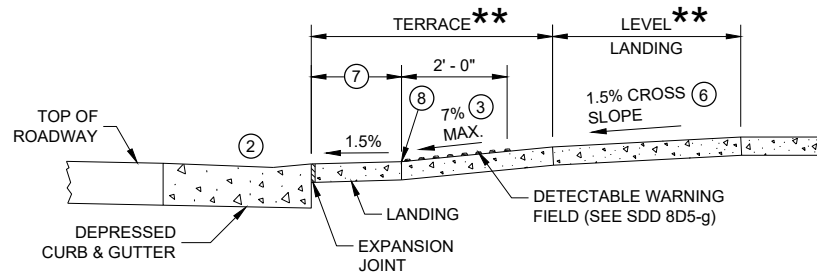
GENERAL NOTES

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

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

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

- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/2 - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- ③ AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE (2.67% OR LESS) AND NOT TO EXCEED 11% GRADE CHANGE.
- ④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑥ PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET X 5 FEET.
- ⑦ WHEN GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.
- ⑧ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- ⑨ WHEN DISTANCE IS LESS THAN 6' - 0", IT MAY BE DIFFICULT TO ACHIEVE A 7% SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% SLOPE OR FLATTER ON RAMP. CONSTRUCT 2-INCH MINIMUM CURB HEIGHT BETWEEN 10:1 FLARES.



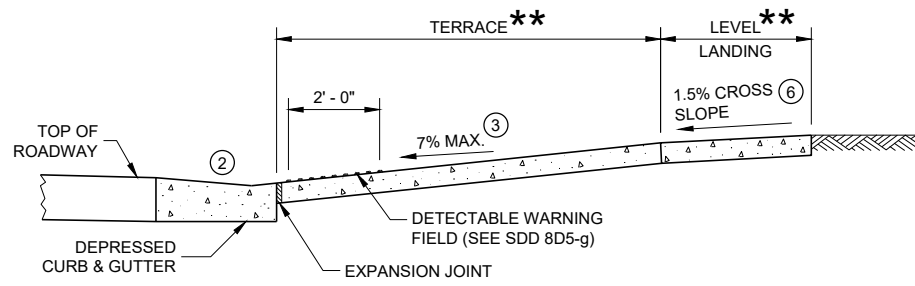
SECTION A - A FOR TYPE 2

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

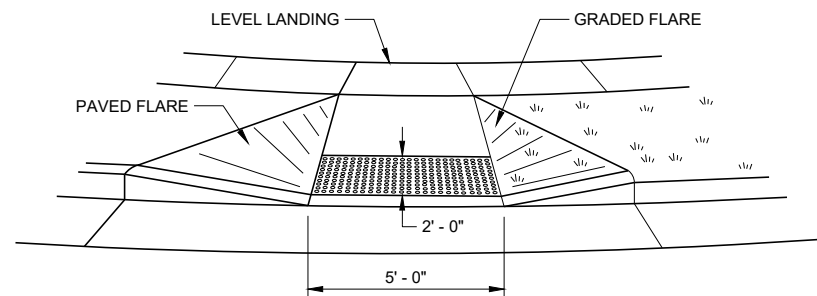
** WIDTH SHOWN ELSEWHERE IN THE PLANS

LEGEND

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



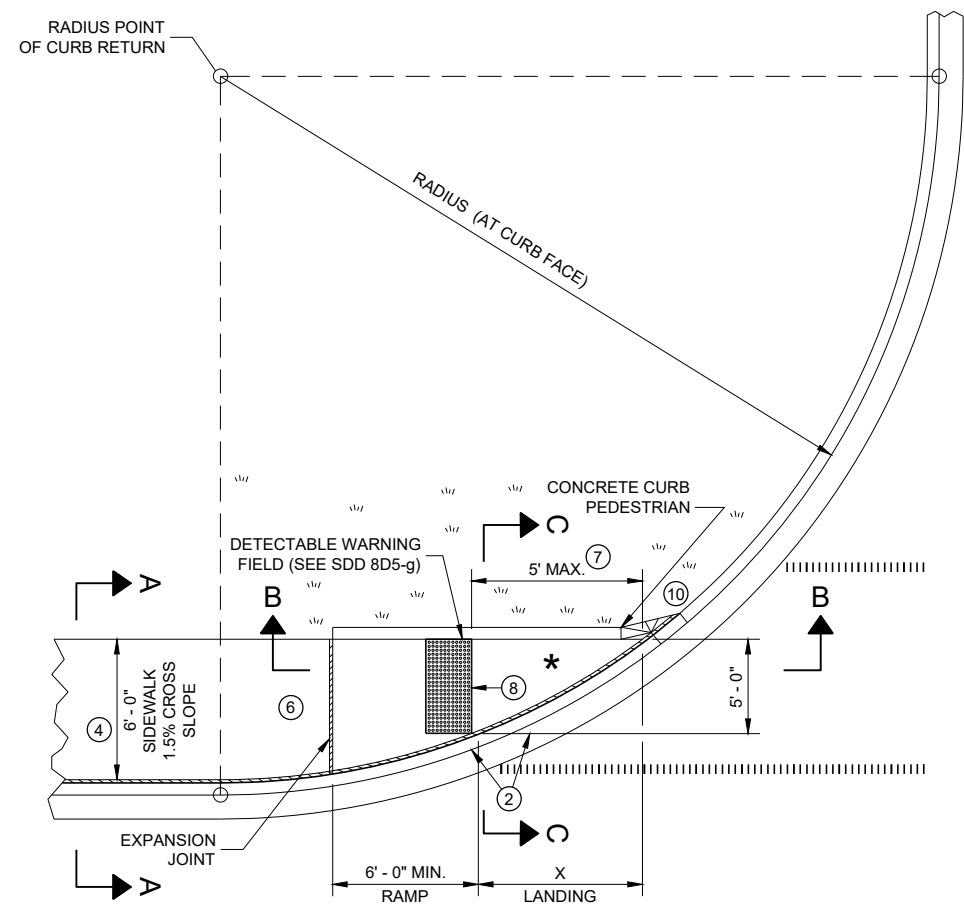
SECTION B - B FOR TYPE 3



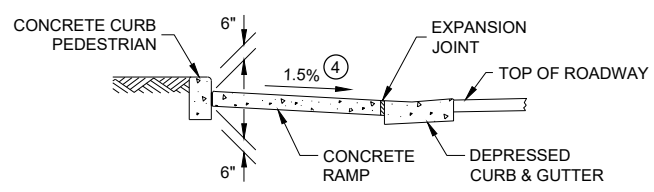
VIEW C - C FOR TYPE 3

**CURB RAMPS
TYPE 2 AND 3**

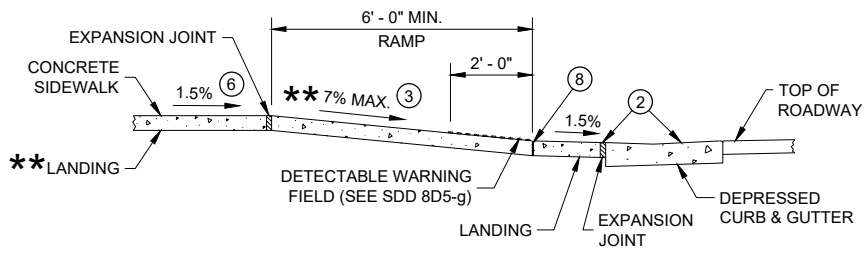
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



PLAN VIEW
CURB RAMP TYPE 4A



SECTION C - C FOR TYPE 4A



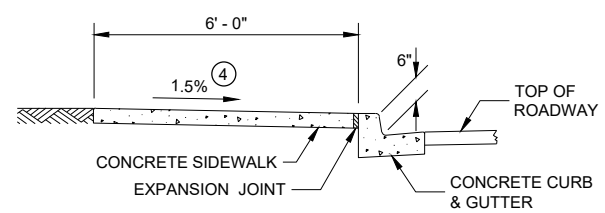
SECTION B - B FOR
TYPE 4A AND TYPE 4A1

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

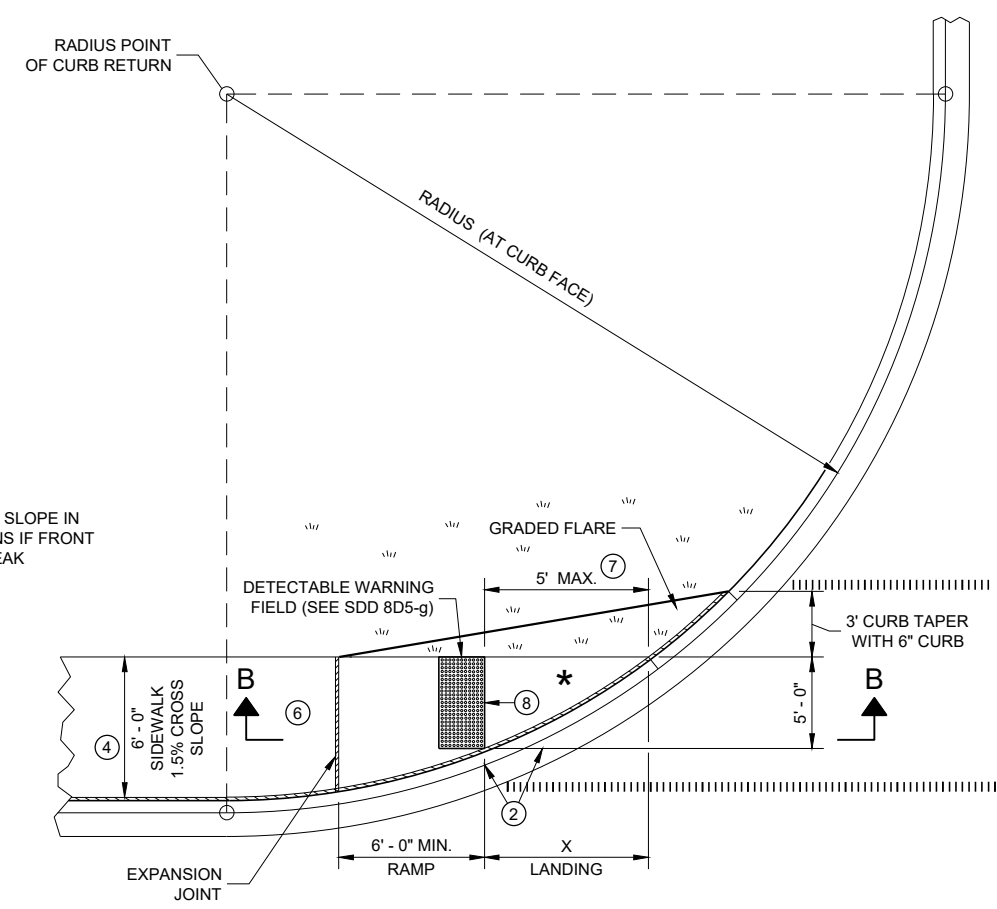
* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK

RADIUS (AT CURB FACE)	X
10 FEET	4' - 7"
15 FEET	6' - 5 1/2"

INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION A - A FOR TYPE 4A



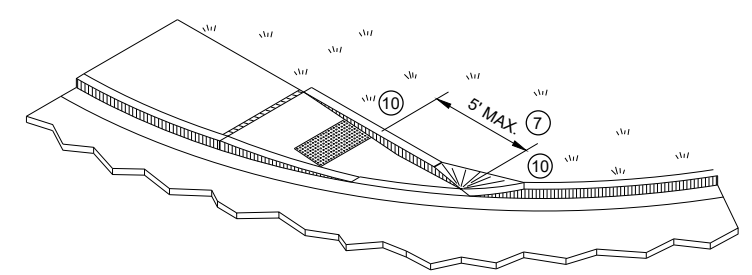
PLAN VIEW
CURB RAMP TYPE 4A1

GENERAL NOTES

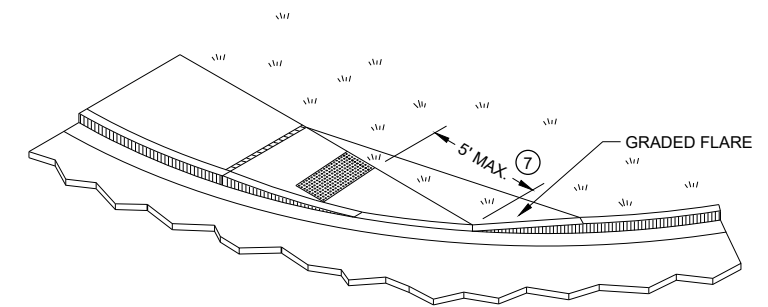
- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.
- DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.
- DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4 - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
 - ③ AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
 - ④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
 - ⑥ PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.
 - ⑦ WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.
 - ⑧ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
 - ⑩ INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

LEGEND

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



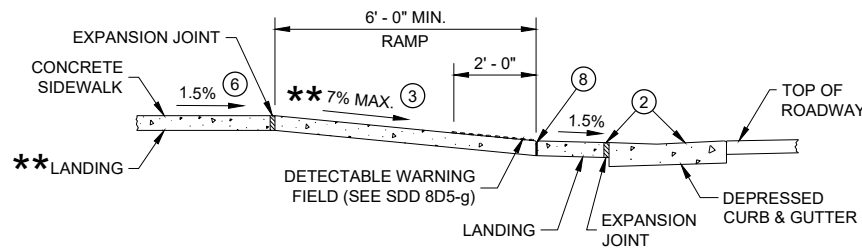
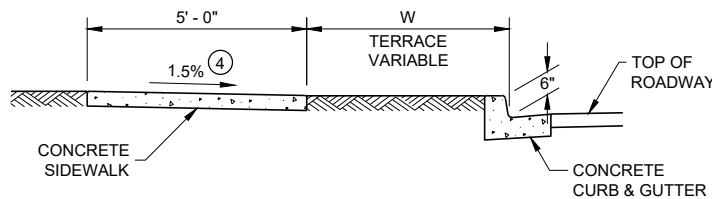
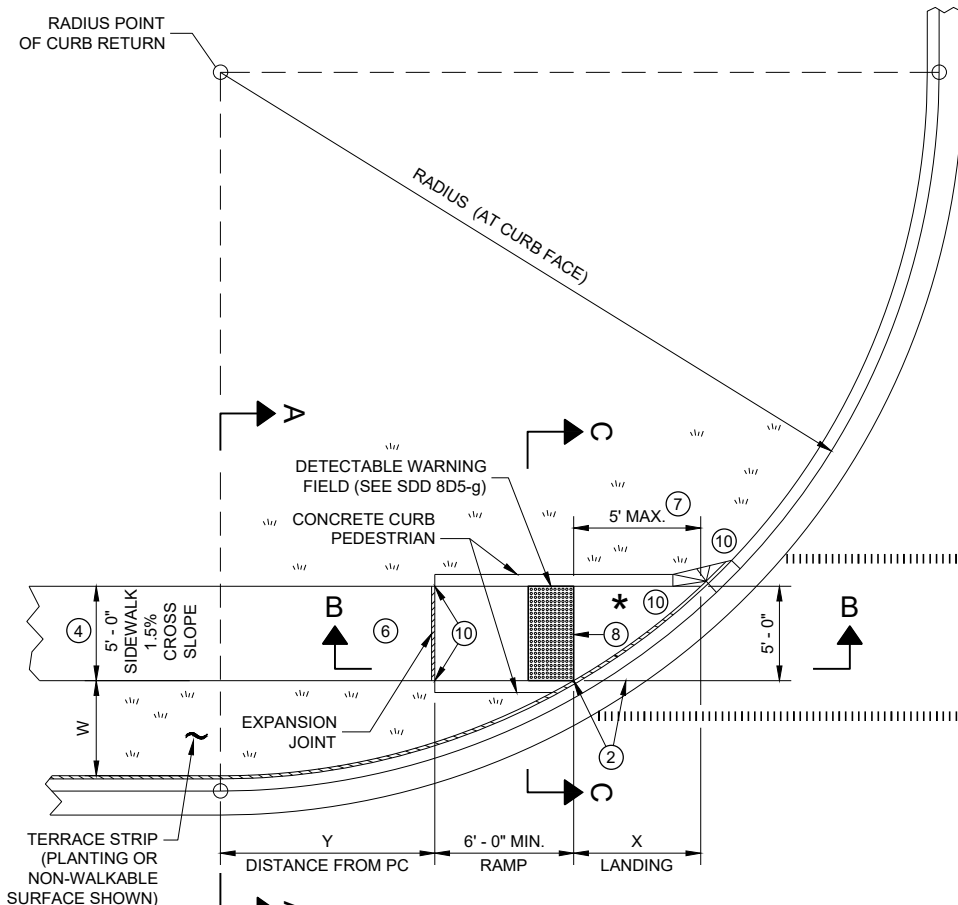
ISOMETRIC VIEW FOR TYPE 4A



ISOMETRIC VIEW FOR TYPE 4A1

CURB RAMPS TYPE 4A AND 4A1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

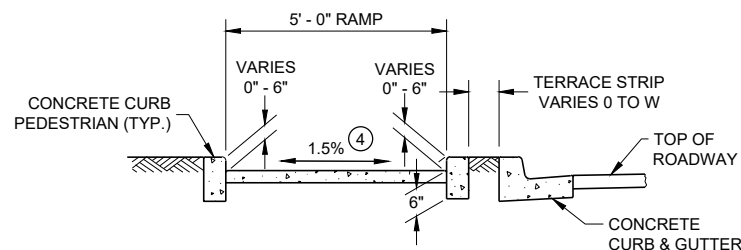


** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

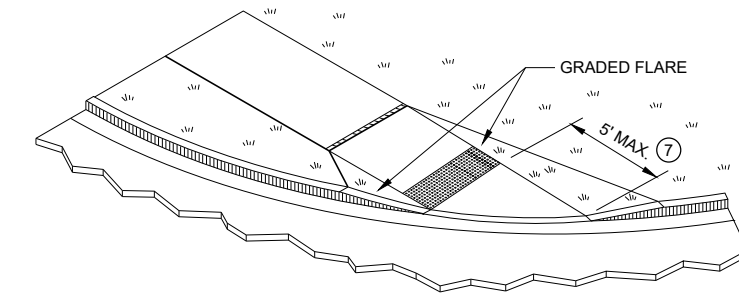
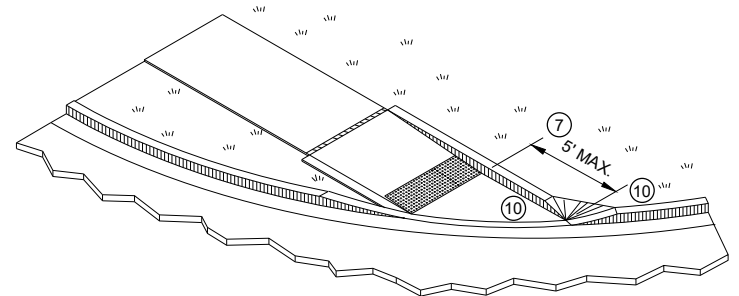
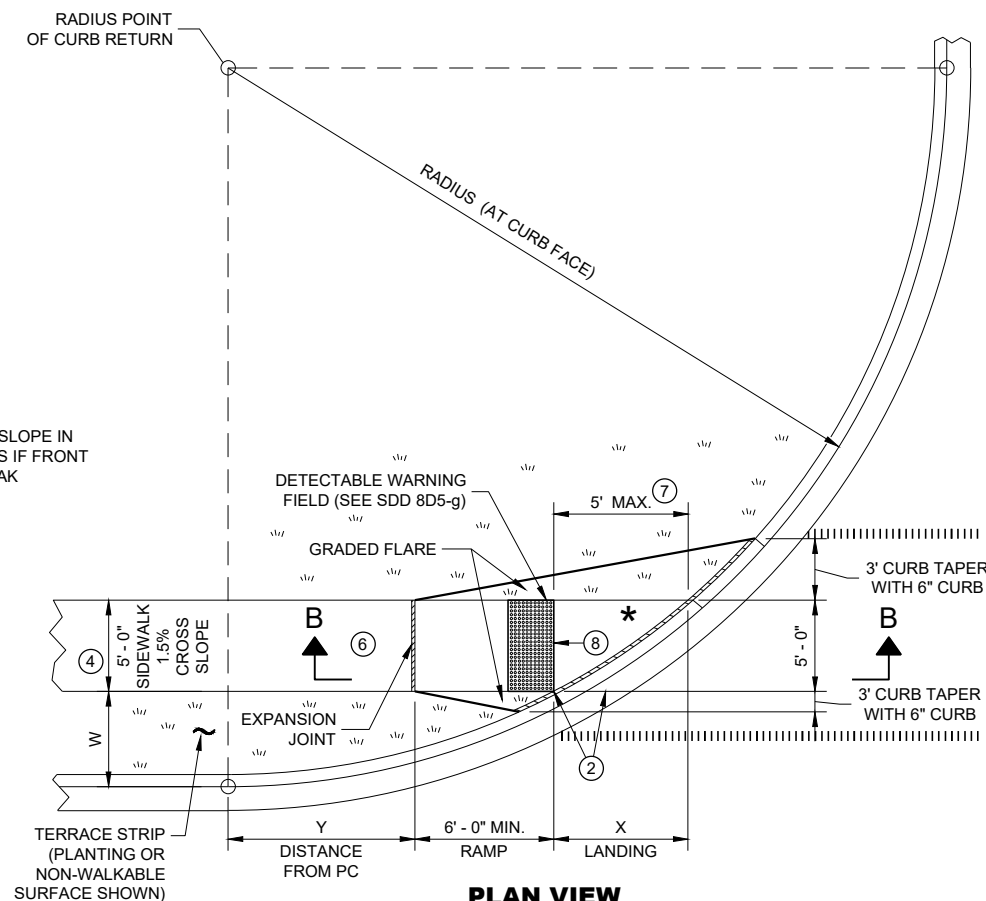
* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK

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

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



SECTION C - C FOR TYPE 4B



LEGEND

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

GENERAL NOTES

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

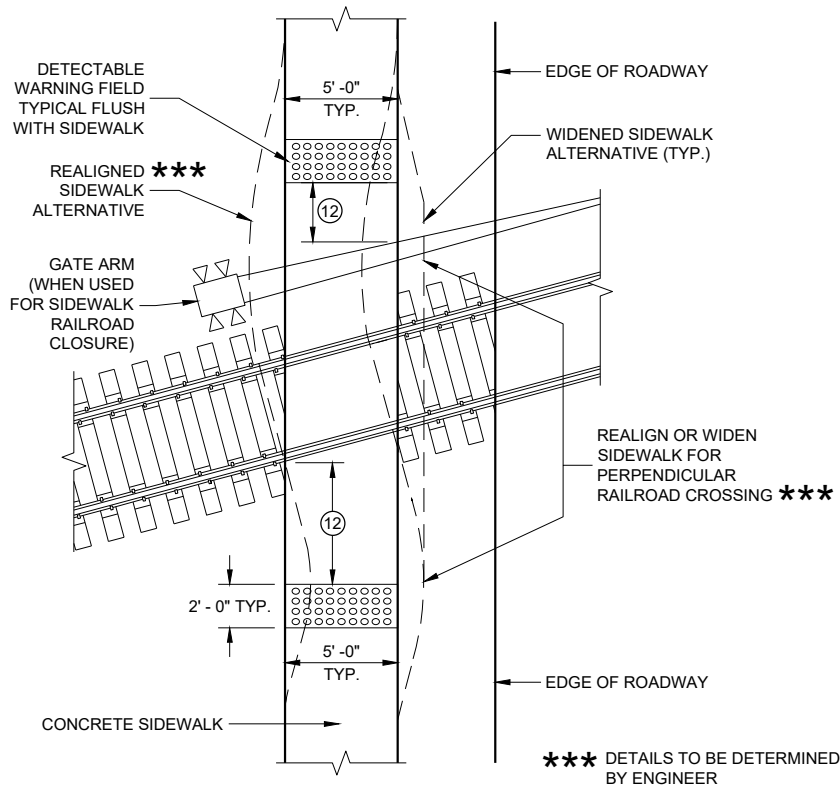
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

- 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.
- AN 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 LEVEL LANDING SIZE IS 5 FEET BY 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.

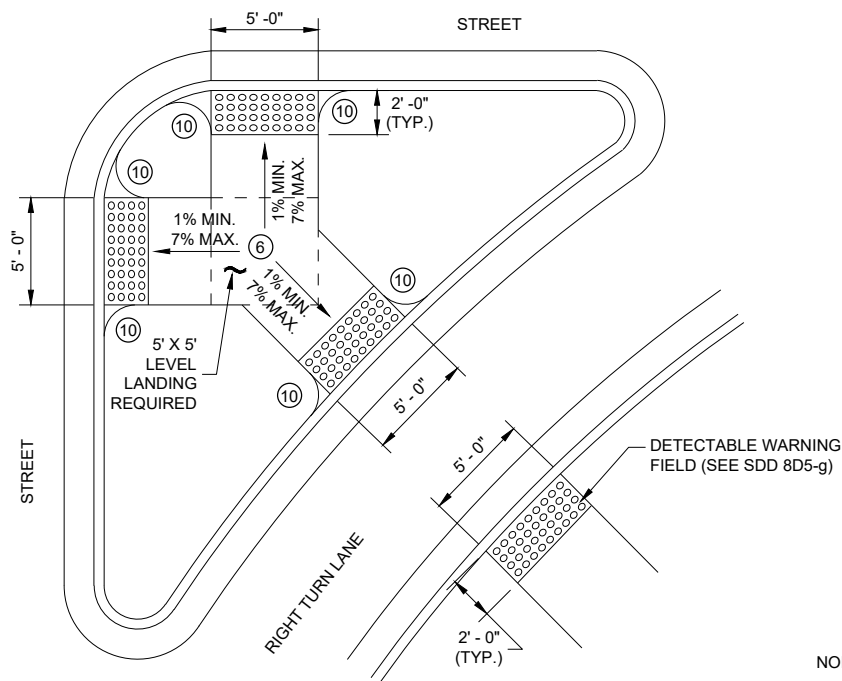
CURB RAMPS
TYPE 4B AND 4B1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



CURB RAMP TYPE 8

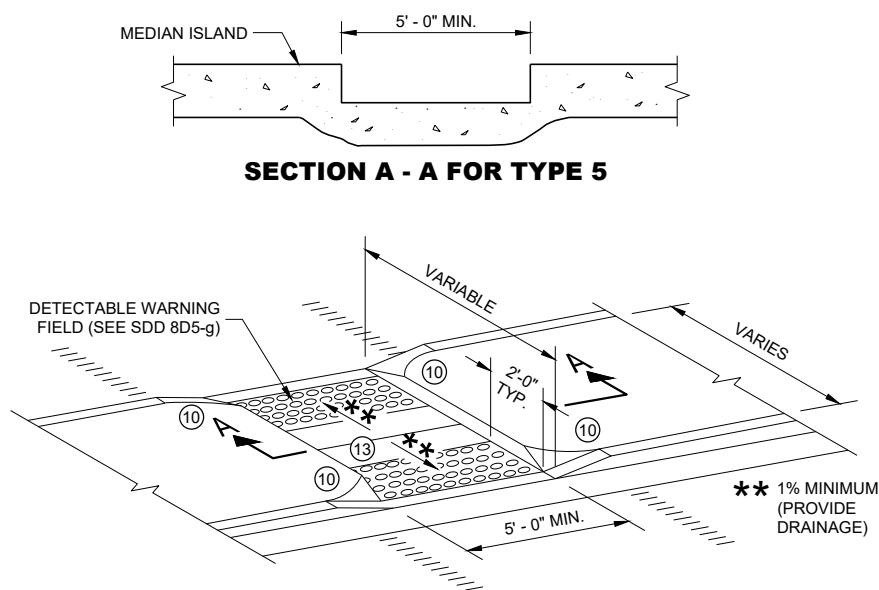
**DETECTABLE WARNINGS
AT RAILROAD CROSSING**



CURB RAMP TYPE 6

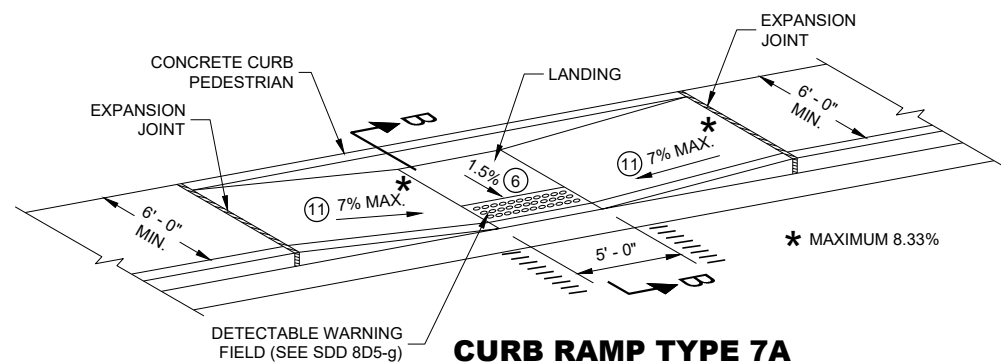
DETECTABLE WARNING AT ISLANDS

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

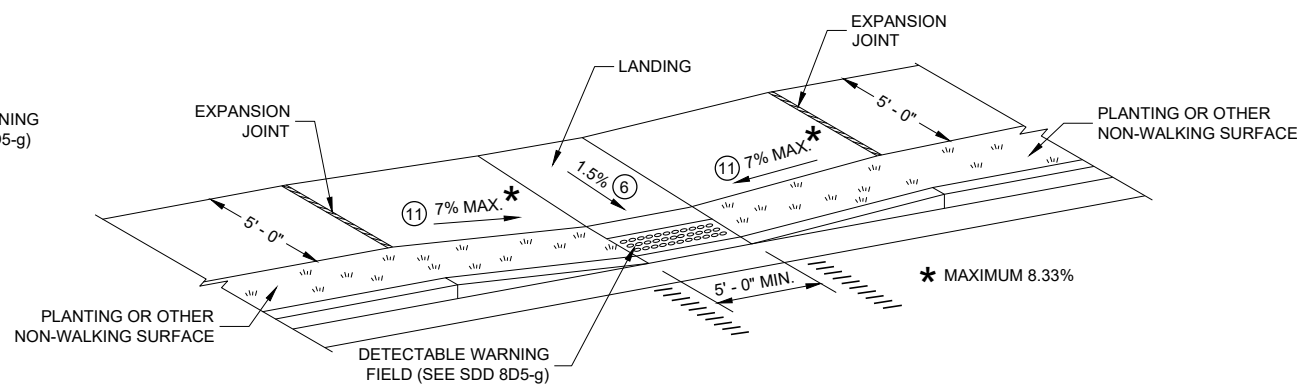


CURB RAMP TYPE 5

**MEDIAN ISLAND
NON-ELEVATED PEDESTRIAN CROSSING**



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



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

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

GENERAL NOTES

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

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

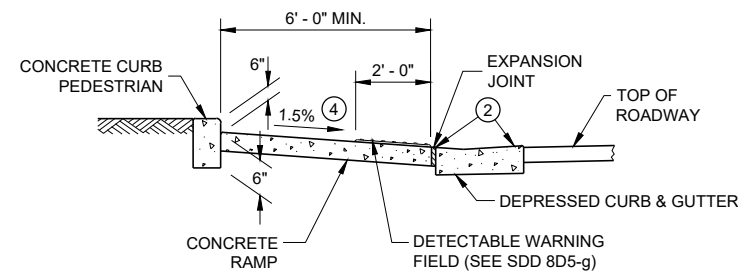
SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

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

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

LEGEND

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

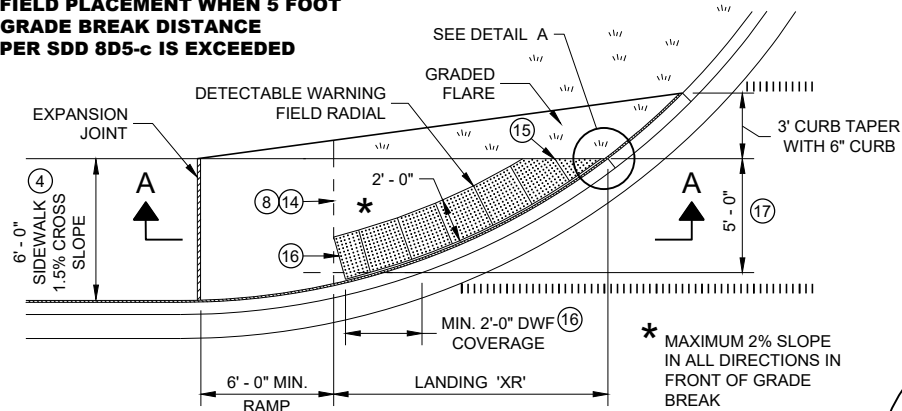


SECTION B - B FOR TYPE 7A

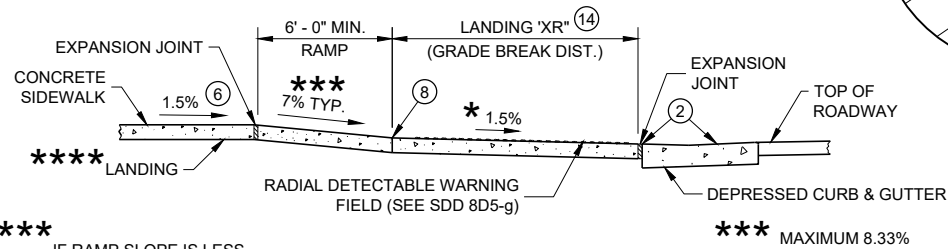
**CURB RAMPS
TYPE 5, 6, 7A, 7B & 8**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

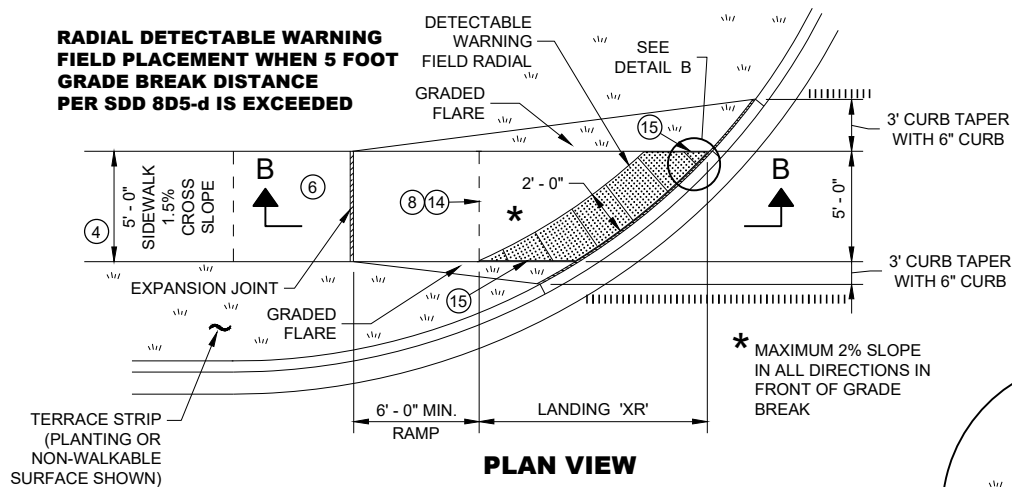


**PLAN VIEW
CURB RAMP TYPE 4A1
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)**

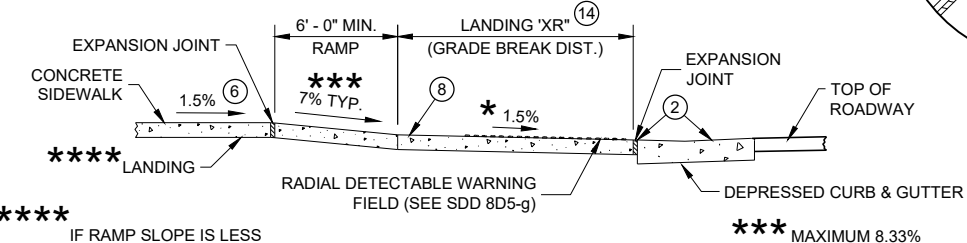


SECTION A - A FOR TYPE 4A1

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



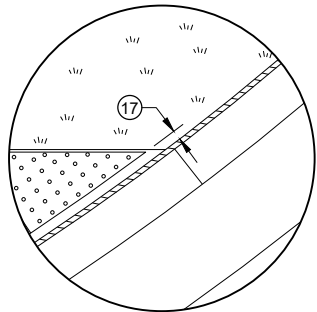
**PLAN VIEW
CURB RAMP TYPE 4B1
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)**



SECTION B - B FOR TYPE 4B1

LEGEND

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



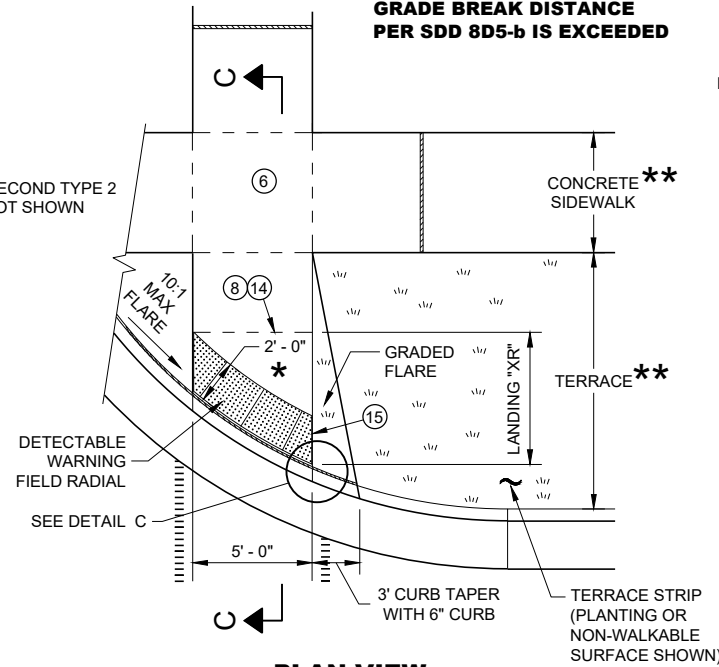
DETAIL A

GENERAL NOTES

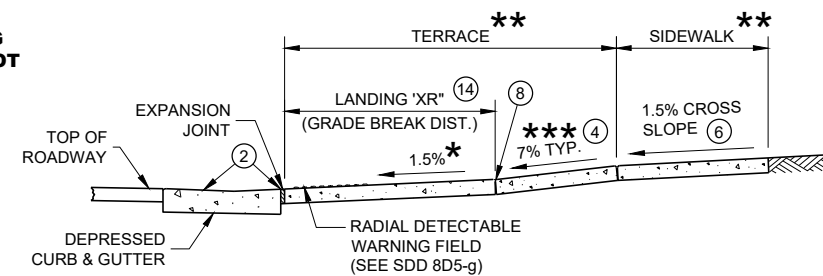
- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.
- DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.
- DETECTABLE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

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

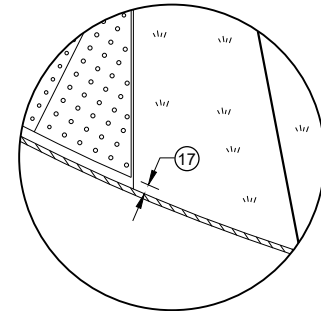
NOTE: SECOND TYPE 2 RAMP NOT SHOWN



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



SECTION C - C FOR TYPE 2



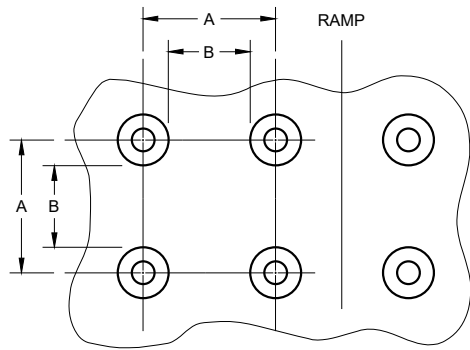
DETAIL C

**CURB RAMPS
RADIAL DETECTABLE WARNING
FIELD APPLICATIONS**

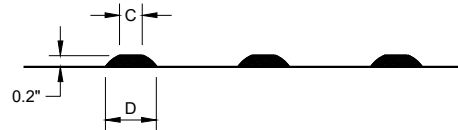
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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

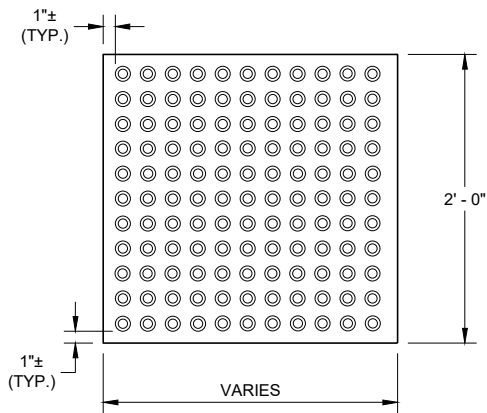


PLAN VIEW

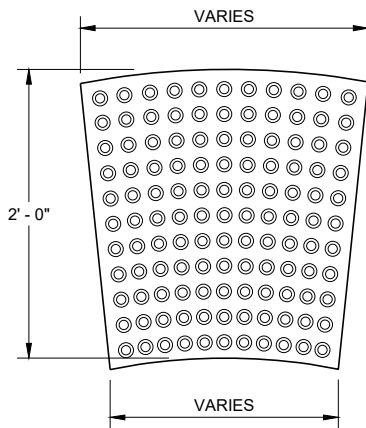


ELEVATION VIEW

TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL

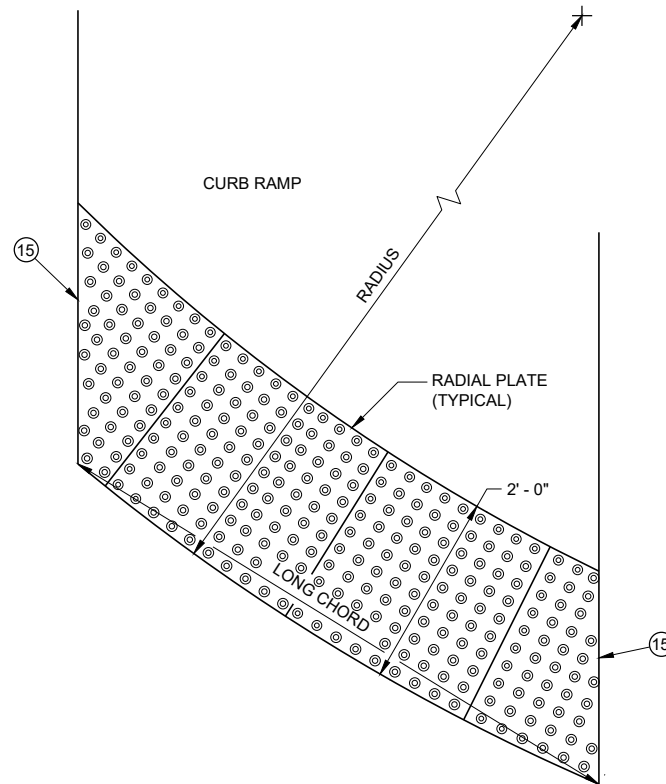


RECTANGULAR
PLATES

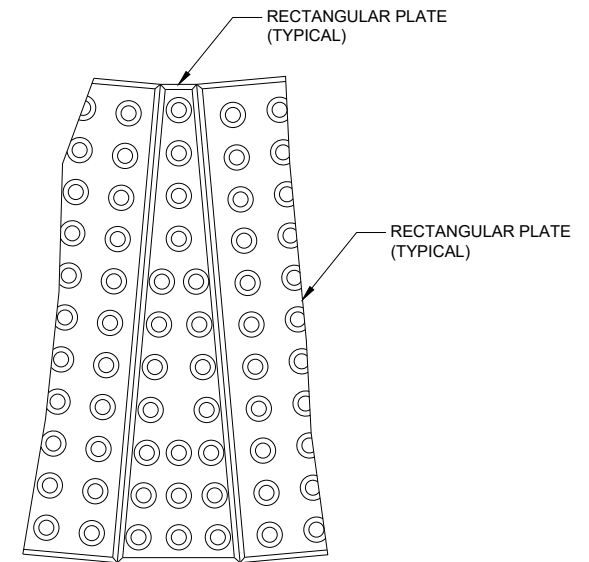


RADIAL
PLATES

PLAN VIEW
DETECTABLE WARNING FIELDS (TYPICAL)



PLAN VIEW
RADIAL DETECTABLE
WARNING FIELD ATTRIBUTES



PLAN VIEW
RADIAL WEDGE PLATE
CONNECTION DETAIL

GENERAL NOTES

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AT A CURB RAMP SHALL BE FROM THE SAME MANUFACTURER.

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

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

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

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

REFER TO CONTRACT AND STANDARD SPECIFICATIONS FOR FIELD CUTTING REQUIREMENTS.

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

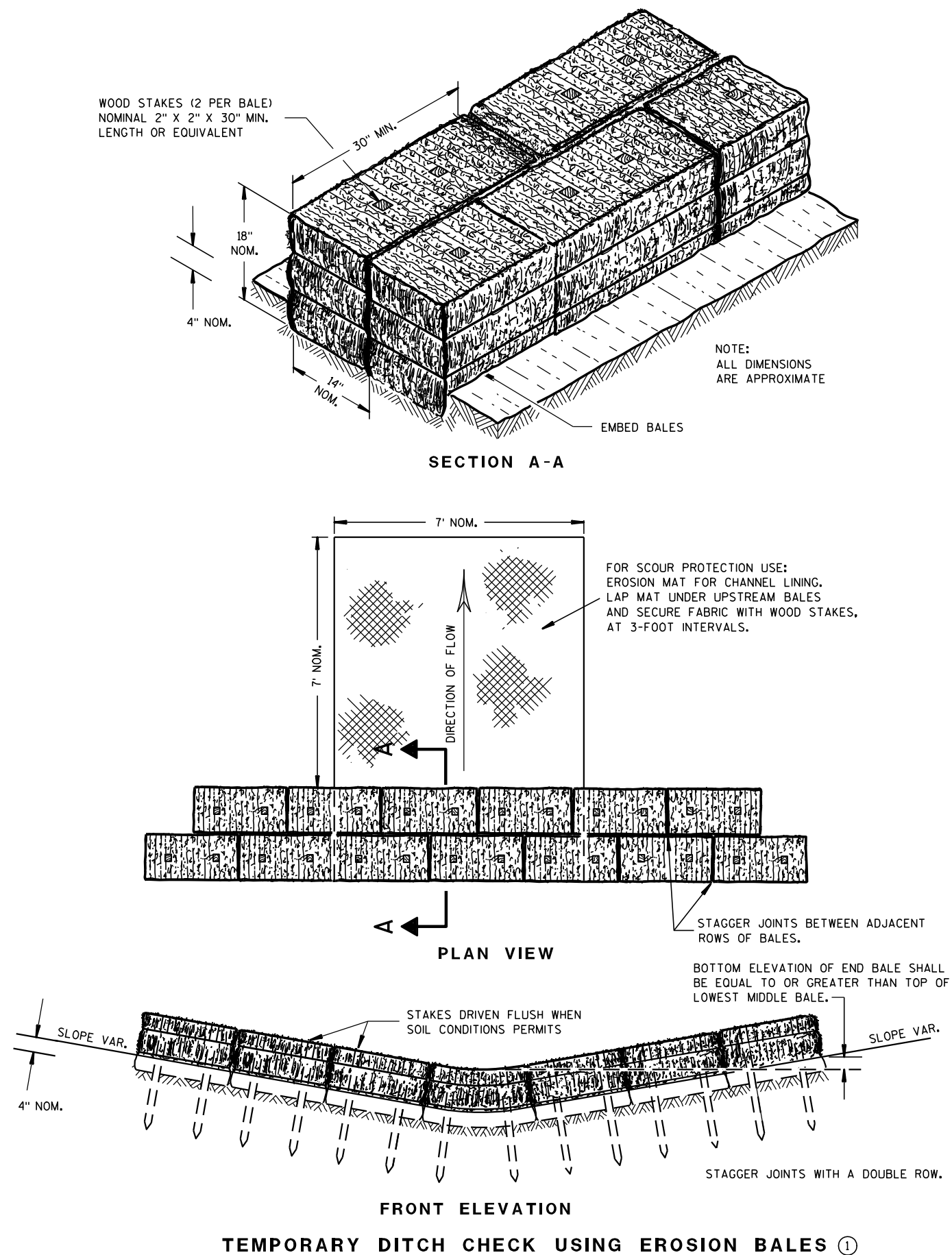
15 FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN 1/8" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.

CURB RAMPS
RECTANGULAR AND RADIAL
DETECTABLE WARNING PLATES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR 208

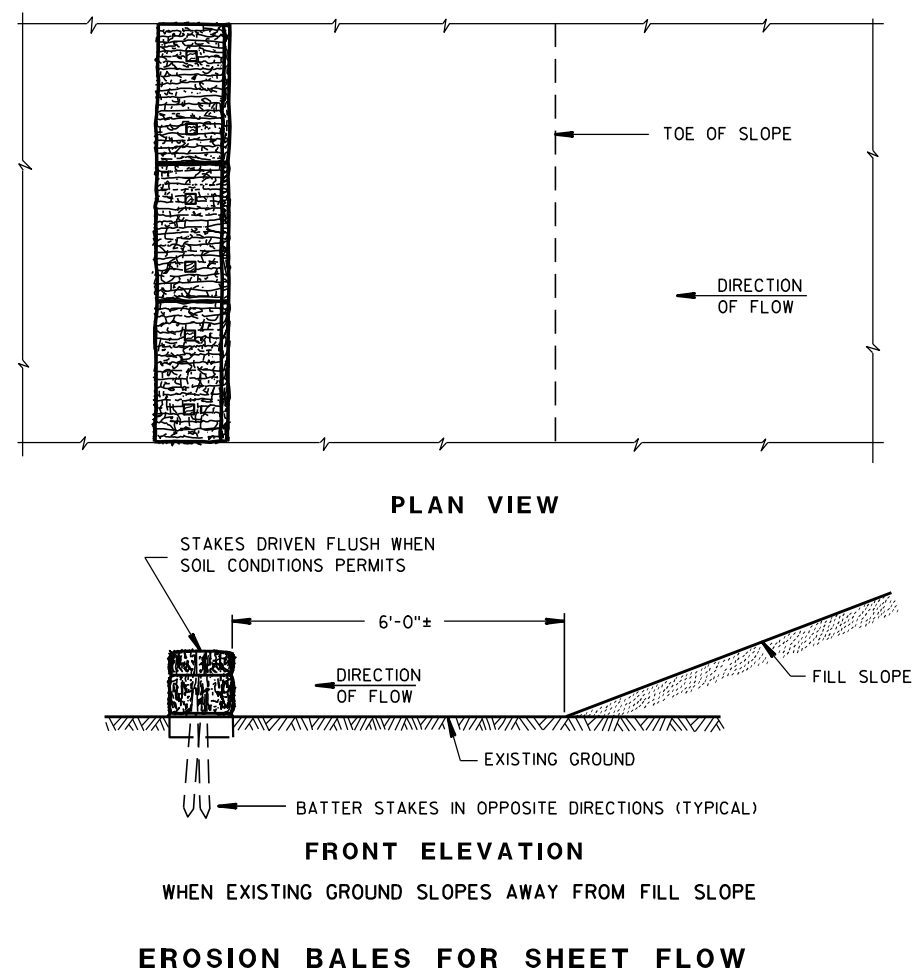
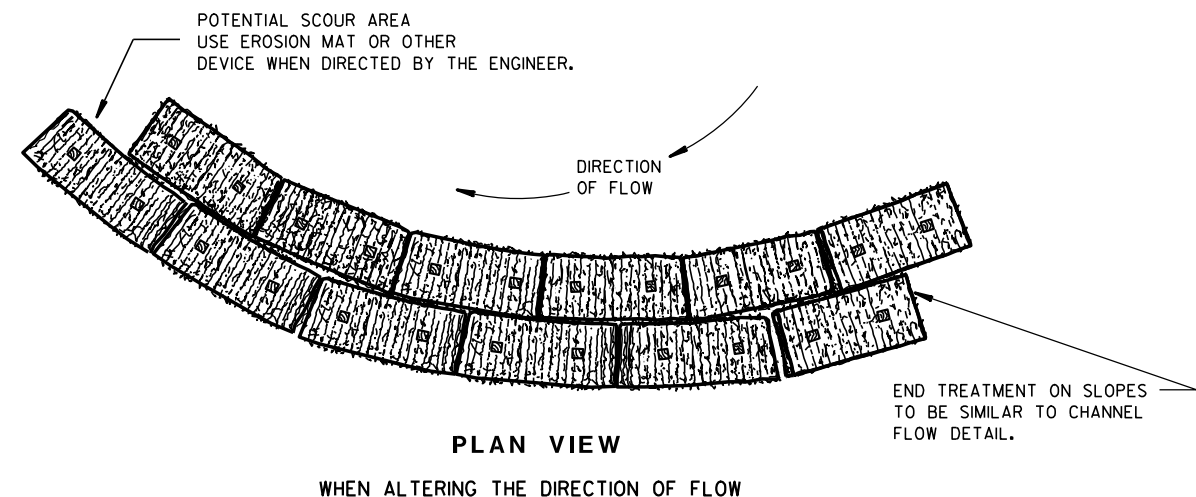
FHWA



GENERAL NOTES

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

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

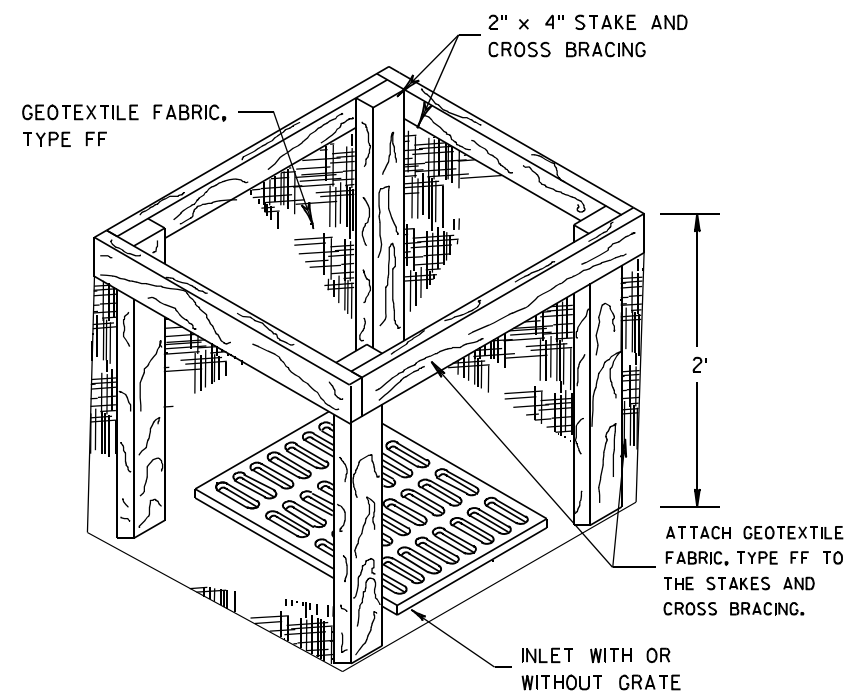
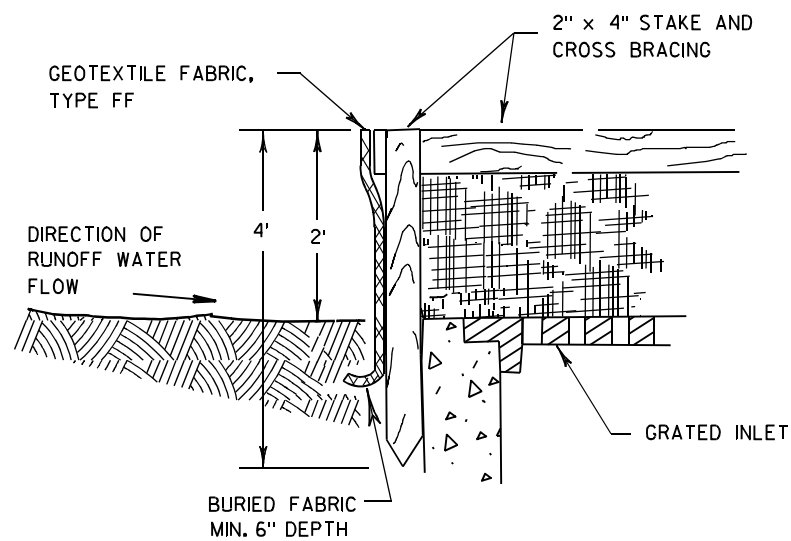
TYPICAL INSTALLATIONS OF
EROSION BALES / TEMPORARY
DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/04/02
DATE/S/ Beth Conn-----
CHIEF ROADWAY DEVELOP 209 ENGINEER

FHWA



INLET PROTECTION, TYPE A

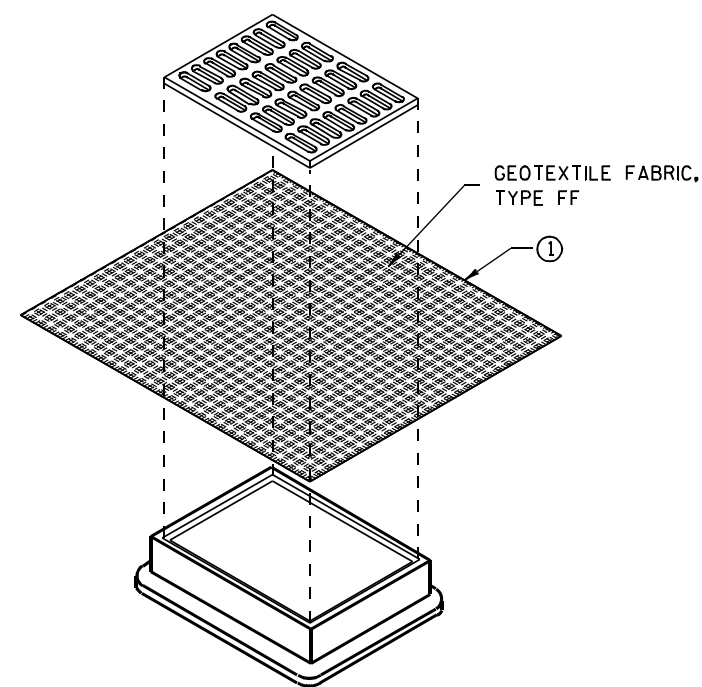
GENERAL NOTES

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.

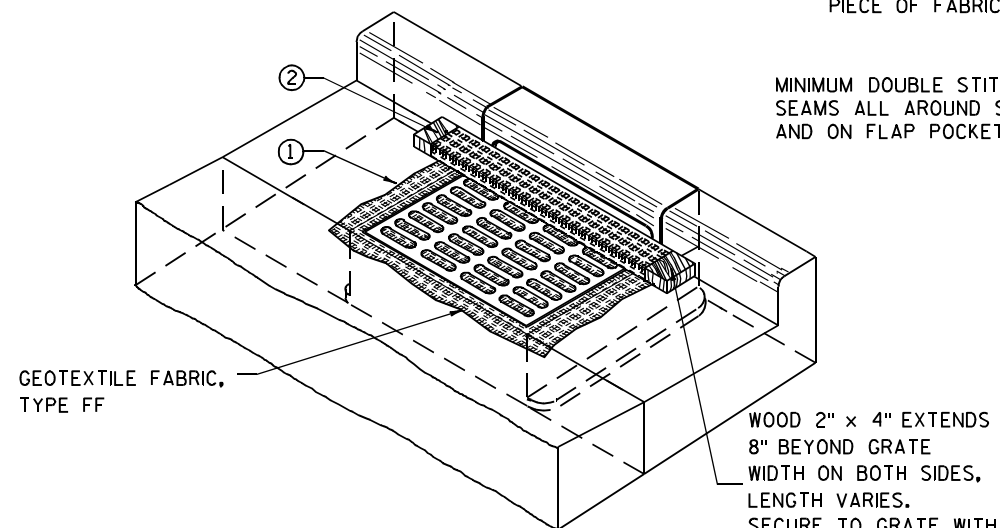
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- 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.

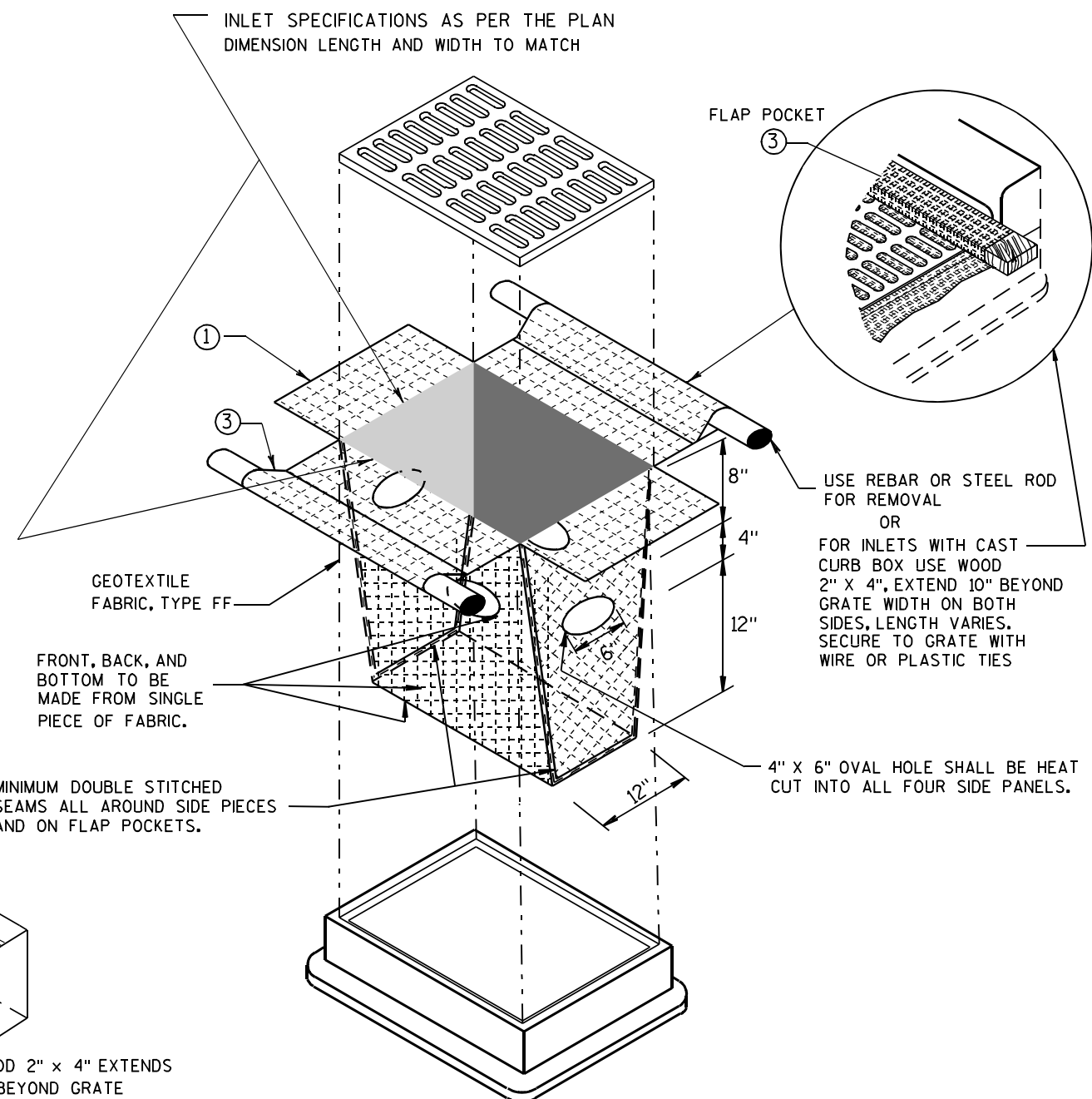
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

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)

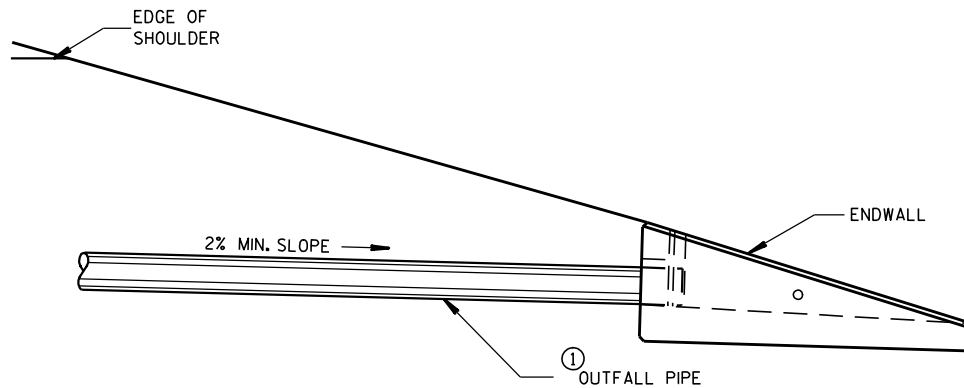
**INLET PROTECTION
TYPE A, B, C, AND D**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

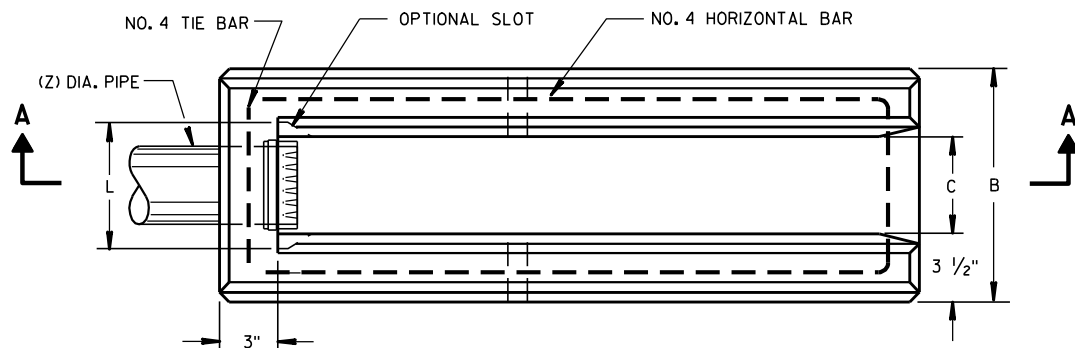
APPROVED
10/16/02 /S/ Beth Connolly
DATE 210
FHWA CHIEF ROADWAY DEVELOPMENT ENGINEER

DIMENSIONS IN INCHES											
PIPE DIA.	A	B	C	D	E	F	G	H	J	L	Z
**4	6	12	5 1/4	9	8	32	36	11	2 3/8	6 1/2	4
6	8	14	7 1/4	11	10	42	44	13	3 5/8	8 1/2	6

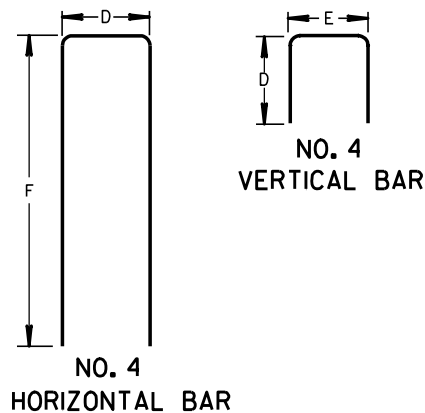
** APRON ENDWALL FOR 6 INCH DIAMETER PIPE MAY BE SUBSTITUTED FOR THIS SIZE PROVIDED THE HOLE IN THE HEADWALL IS SIZED AND LOCATED TO CONFORM TO THE 4 INCH DIAMETER PIPE DIMENSIONS (C & J)



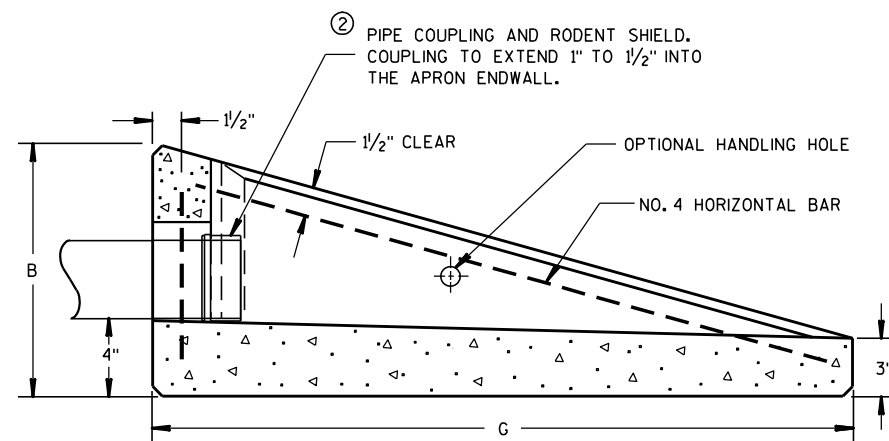
INSTALLATION DETAIL



PLAN VIEW

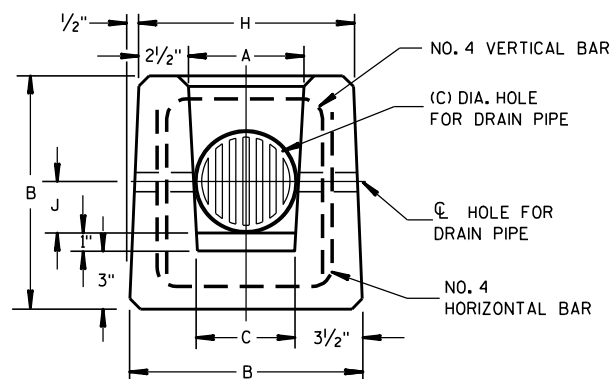


BAR STEEL REINFORCEMENT DETAILS



SECTION A-A

CONCRETE APRON ENDWALL FOR UNDERDRAIN



END VIEW

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.

ALTERNATIVE DESIGNS WHICH PROVIDE EQUIVALENT CAPACITY AND STRENGTH MAY BE USED WHEN APPROVED BY THE ENGINEER. ENDWALL MAY BE EITHER PRECAST OR CAST-IN-PLACE CONCRETE.

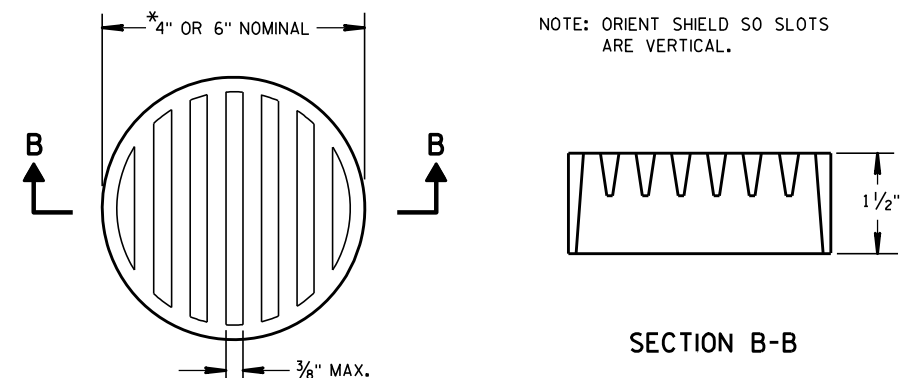
THE UNDERDRAIN PIPE SHALL BE FULLY INSERTED AND SEALED INTO THE ENDWALL WITH CEMENT MORTAR PRIOR TO BACKFILLING AROUND THE STRUCTURE.

THE UPPERMOST POINT OF THE ENDWALL SHALL BE PLACED FLUSH WITH THE ROADWAY SLOPE. ADJACENT EMBANKMENT SLOPES SHALL BE SHAPED TO FIT THE SIDES AND TOE OF THE ENDWALL. EXACT PLACEMENT OF THE OUTFALL PIPE AND ENDWALL SHALL BE DETERMINED BY THE ENGINEER TO MATCH THE ELEVATIONS AND FLOW DIRECTION OF THE ROADSIDE DITCH.

- ① THE OUTFALL PIPE UNDERDRAIN AND FITTINGS SHALL CONFORM TO THE REQUIREMENTS OF THE SPECIFICATION FOR POLY (VINYL CHORIDE) (PVC) PLASTIC DRAIN, WASTE AND VENT PIPE AND FITTINGS, ASTM DESIGNATION: D 2665, SCHEDULE 40 PVC OR THE STANDARD SPECIFICATION FOR TYPE PSM POLY (VINYL CHORIDE) (PVC) SEWER PIPE AND FITTINGS, ASTM DESIGNATION: D 3034, TYPE PSM SDR 23.5 PVC SEWER PIPE, ALL JOINTS SHALL BE SOLVENT WELDED.

THE OUTFALL PIPE INCLUDING ALL FITTINGS AND THE RODENT SHIELD SHALL BE MEASURED AND PAID FOR AS PIPE UNDERDRAIN UNPERFORATED.

- 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 OUTFALL PIPE. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.



② RODENT SHIELD

*NOTE: DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING.

**REINFORCED
CONCRETE APRON ENDWALL
FOR PIPE UNDERDRAIN**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

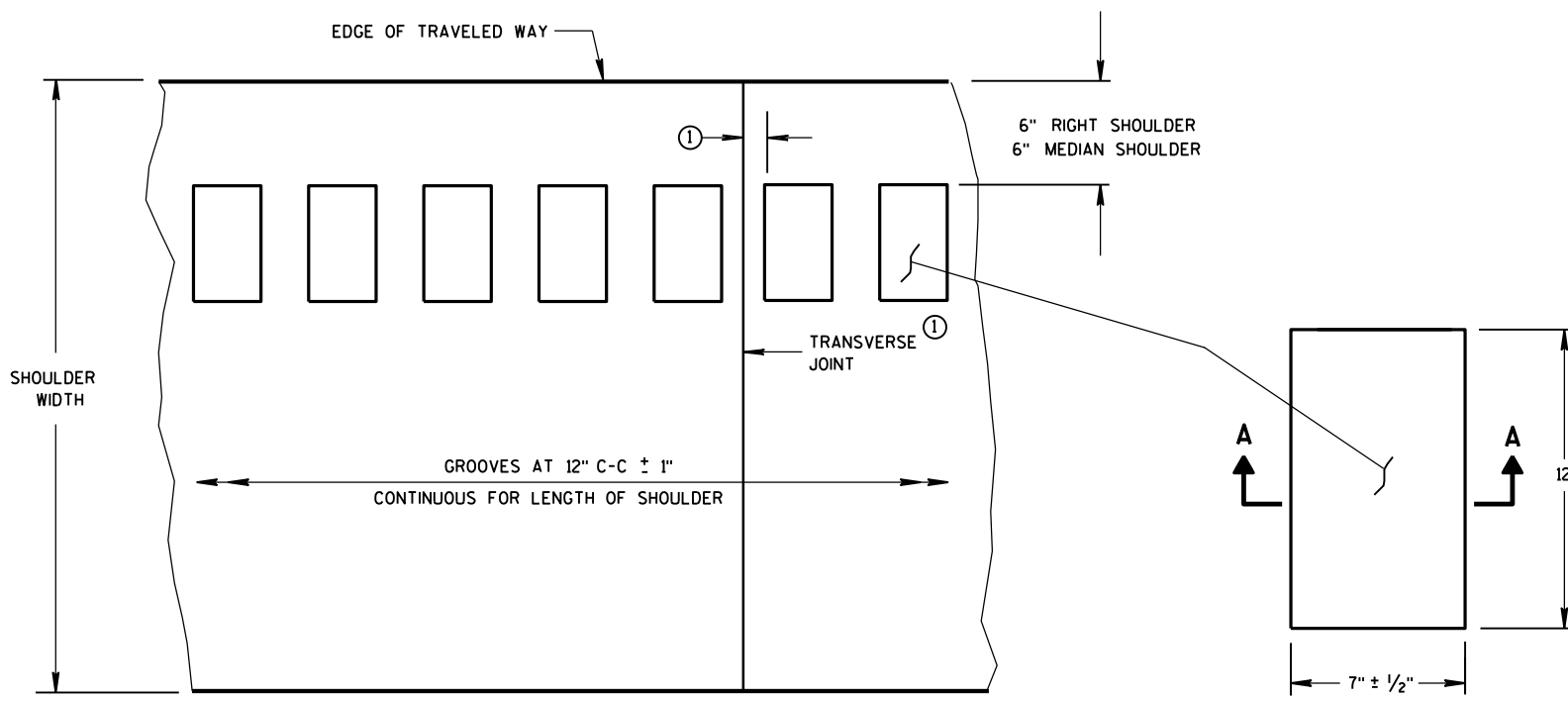
3/10/98

DATE

FHWA

/S/ Rory L. Rhinehart
CHIEF ROADWAY DEVELOPER

INEER



PLAN VIEW
SHOULDER WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

PLACEMENT DETAIL FOR MILLED RUMBLE STRIP

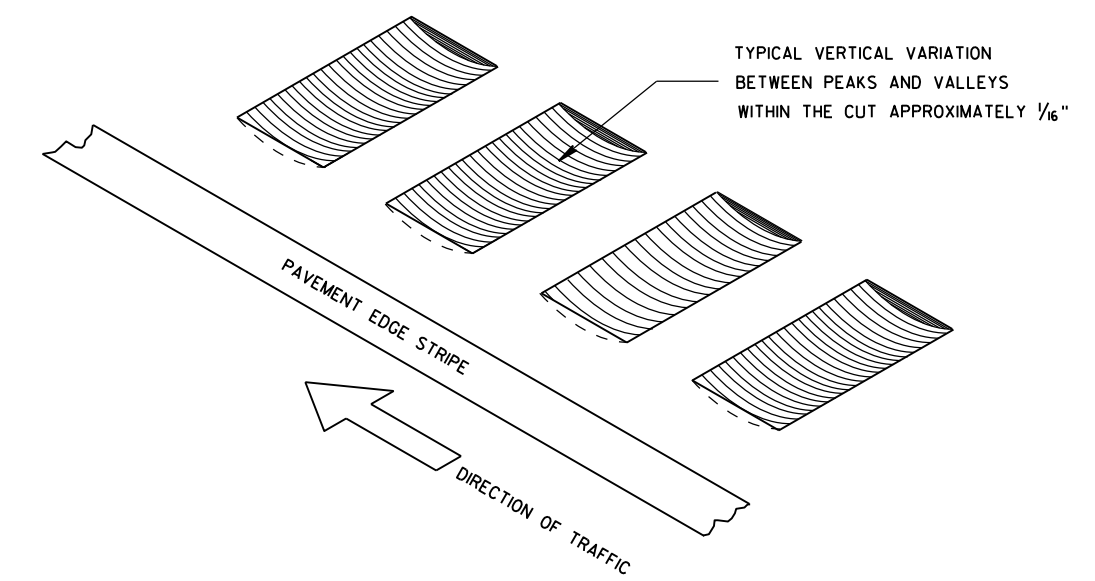
GENERAL NOTES

DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

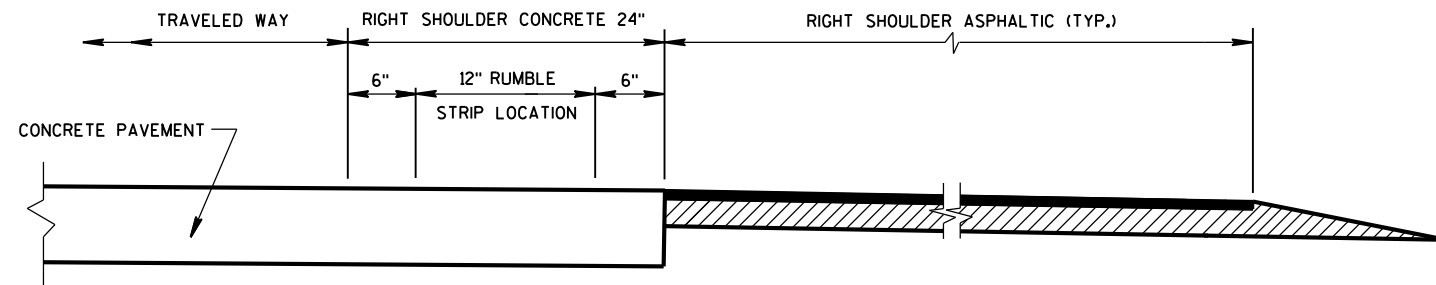
RUMBLE STRIPS ON EXPRESSWAYS

DO NOT INSTALL RUMBLE STRIPS ACROSS SIDE ROAD INTERSECTIONS, COMMERCIAL DRIVEWAYS, PRIVATE DRIVEWAYS OR ADJACENT TO RIGHT TURN LANES, LEFT TURN LANES, TURN LANE TAPERS, BRIDGE DECKS, BRIDGE APPROACHES, OR 100 FEET IN ADVANCE OF RAILROAD CROSSING. THE ATTACHED STANDARD DETAIL DRAWING SHOWS THE LOCATION OF THE RUMBLE STRIPS AT INTERCHANGE AREAS.

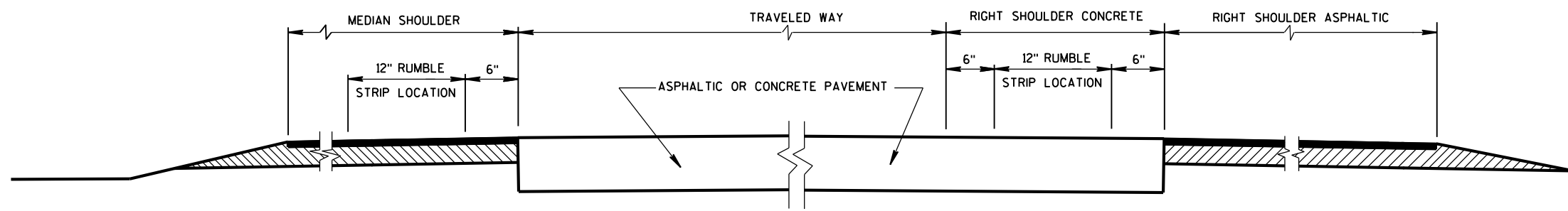
① CONCRETE PAVEMENT - RUMBLE STRIPS SHALL BE A MINIMUM OF 6" AWAY FROM TRANSVERSE JOINTS.



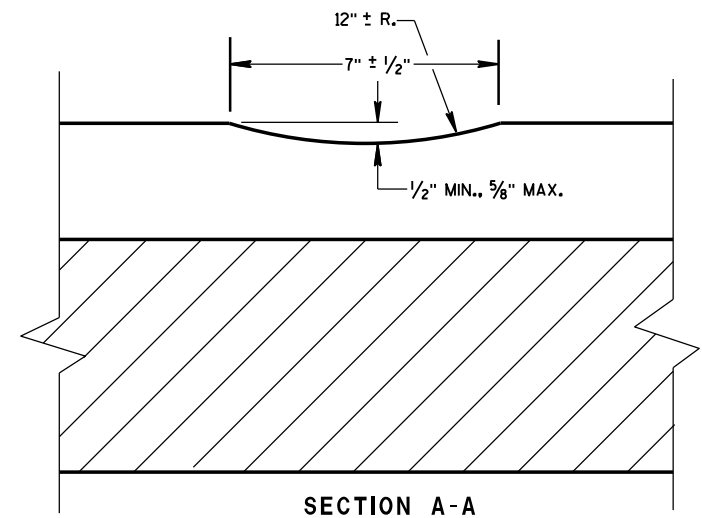
ISOMETRIC



SECTION VIEW
CONCRETE PAVEMENT EXTENDS INTO RIGHT SHOULDER)



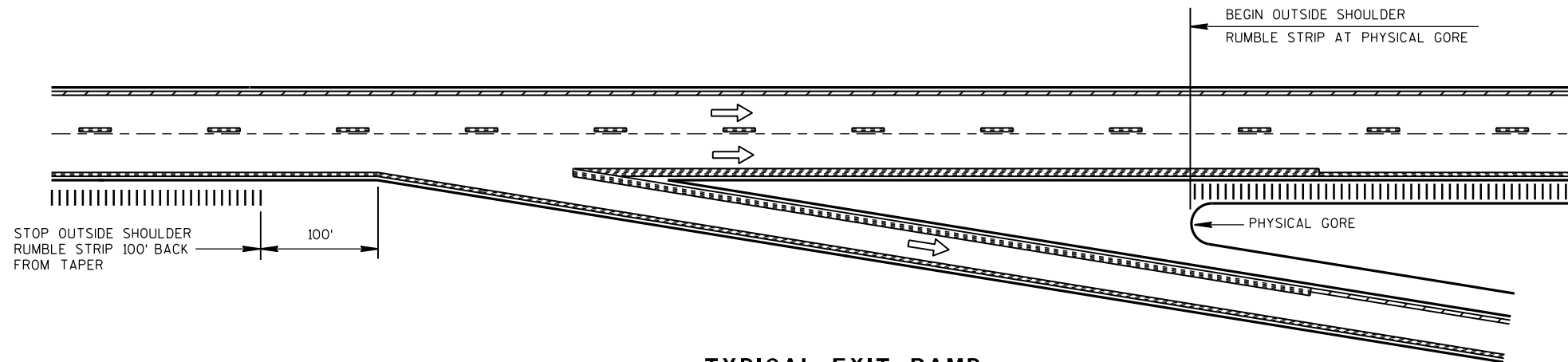
SECTION VIEW
TYPICAL LOCATIONS OF SHOULDER RUMBLE STRIPS
IN RURAL DIVIDED HIGHWAYS
(ONE ROADWAY IS SHOWN)



SECTION A-A

SHOULDER RUMBLE STRIP,
MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



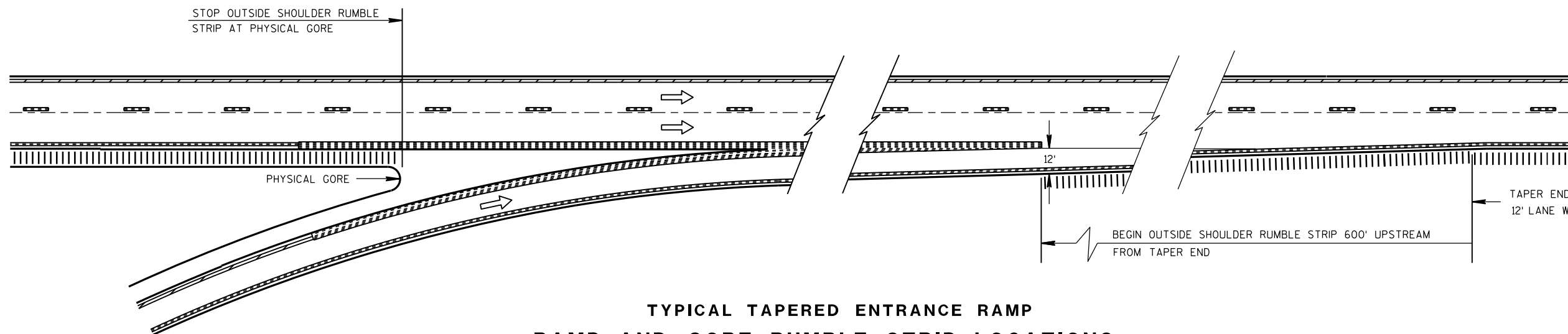
TYPICAL EXIT RAMP

NOTES:

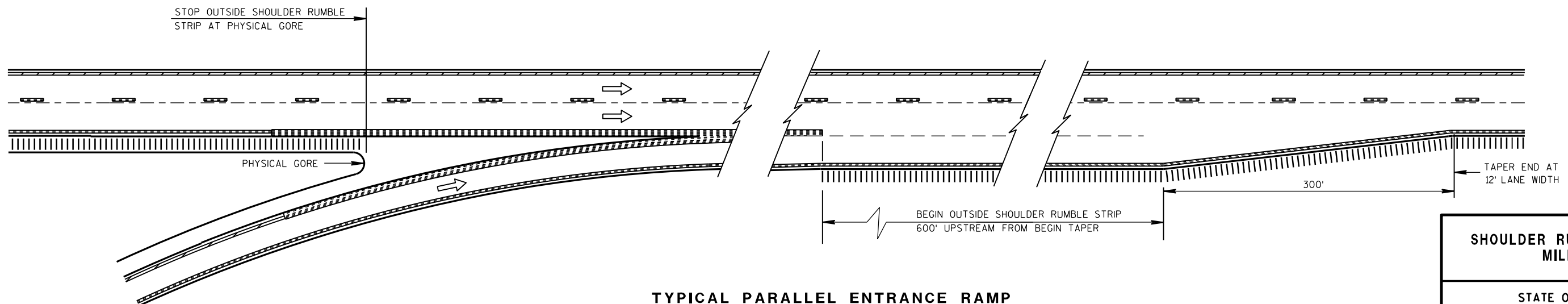
NO RUMBLE STRIP ON EXIT, DIRECTIONAL, OR ENTRANCE RAMPS, EXCEPT NEAR THE ENTRANCE TAPER END AND ALONG THE PARALLEL RAMP AREA AS SHOWN.

PAVEMENT MARKING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

NOTE:
ARROW SYMBOL (→)
SHOWS DIRECTION OF TRAVEL



**TYPICAL TAPERED ENTRANCE RAMP
RAMP AND GORE RUMBLE STRIP LOCATIONS**



**TYPICAL PARALLEL ENTRANCE RAMP
RAMP AND GORE RUMBLE STRIP LOCATIONS**

**SHOULDER RUMBLE STRIP,
MILLING**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

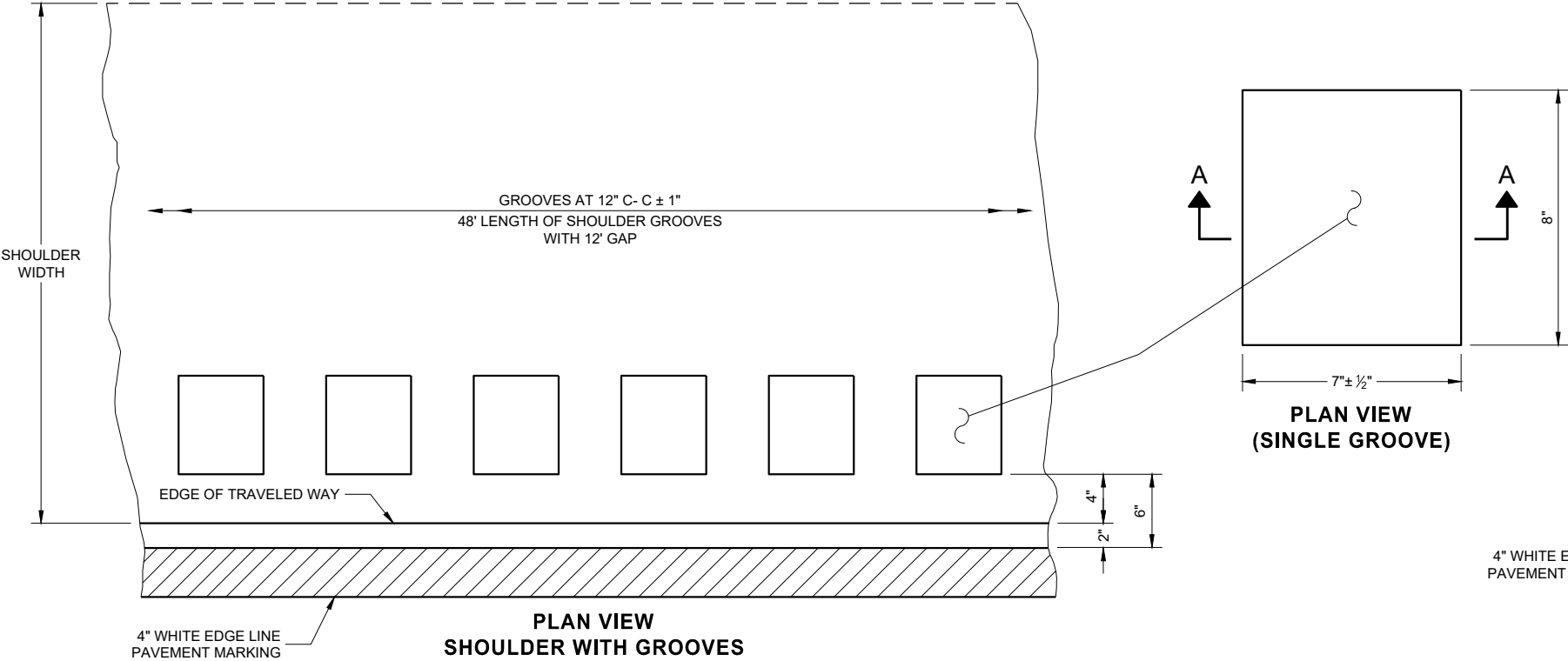
12/17/2012
DATE

FHWA

/S/ Jerry H. Zoog
ROADWAY STANDARDS ENGINEER

213

ENT



PLAN VIEW SHOULDER WITH GROOVES

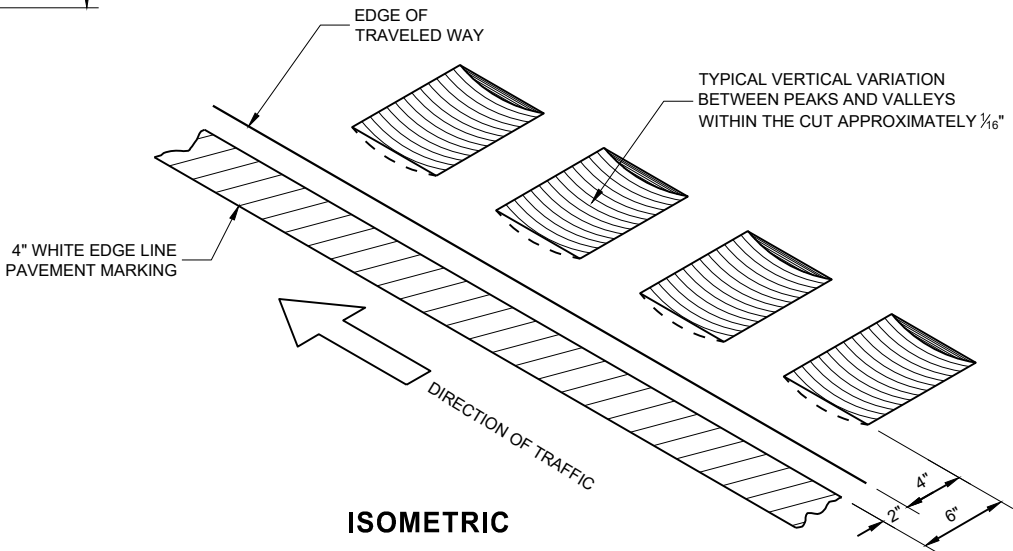
PLACEMENT DETAIL FOR TYPE 1 MILLED RUMBLE STRIP

GENERAL NOTES

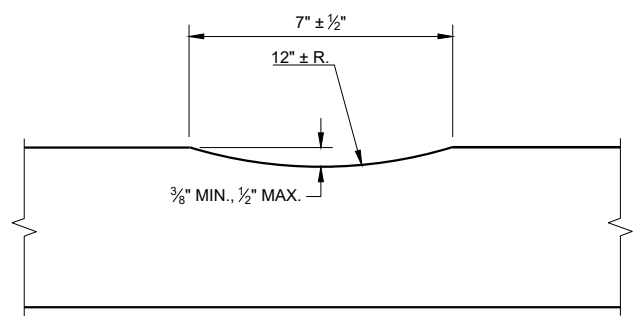
DETAILS OF CONSTRUCTION NO SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

DO NOT MILL SHOULDER GROOVES THROUGH ANY INTERSECTION, MARKED CROSSWALK, NON-MOTORIZED PATH CROSSING, OR SNOWMOBILE CROSSING.

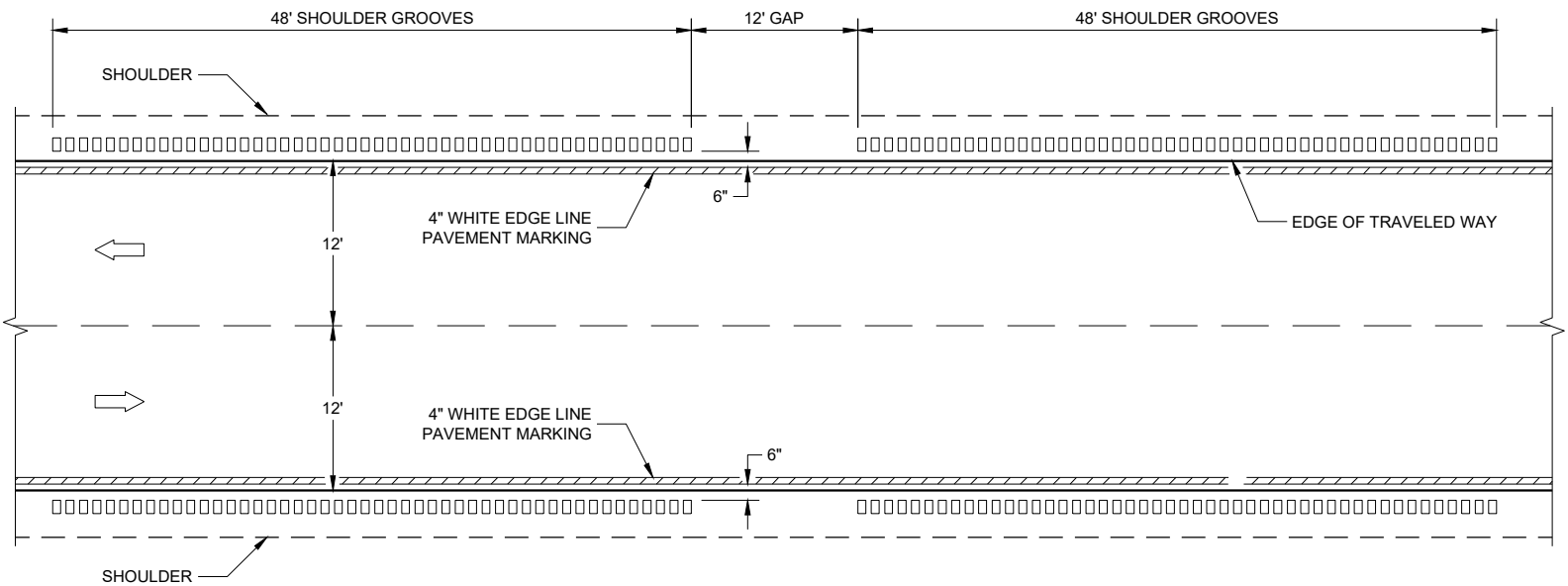
- ① SHOULDER GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.



ISOMETRIC



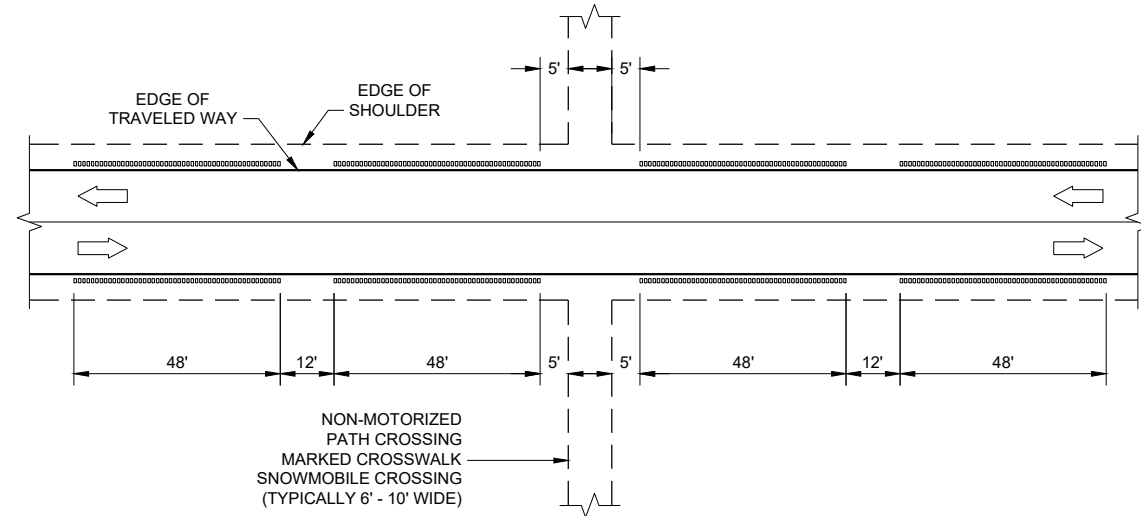
SECTION A - A



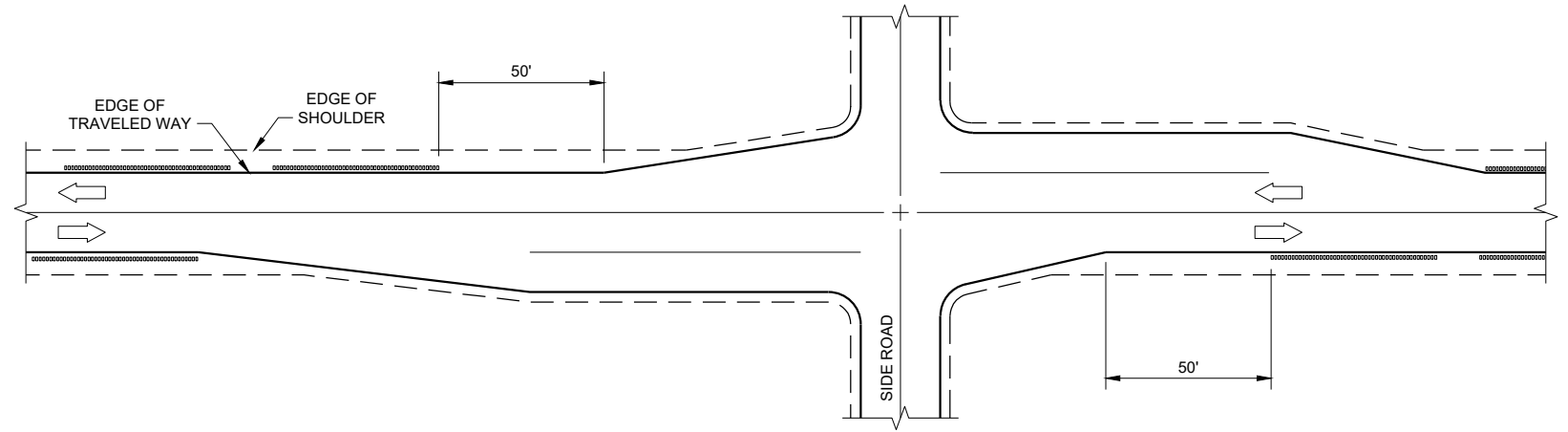
TYPE 1 2 - LANE SHOULDER RUMBLE STRIP

2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING

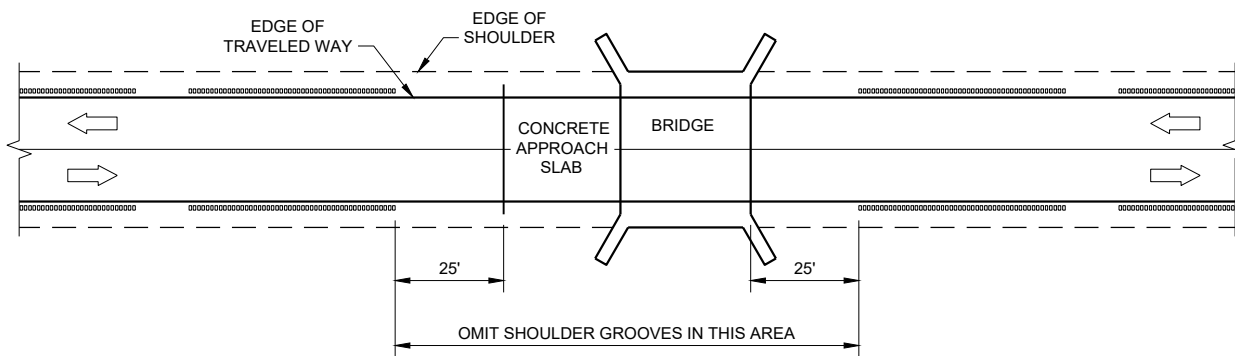
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION



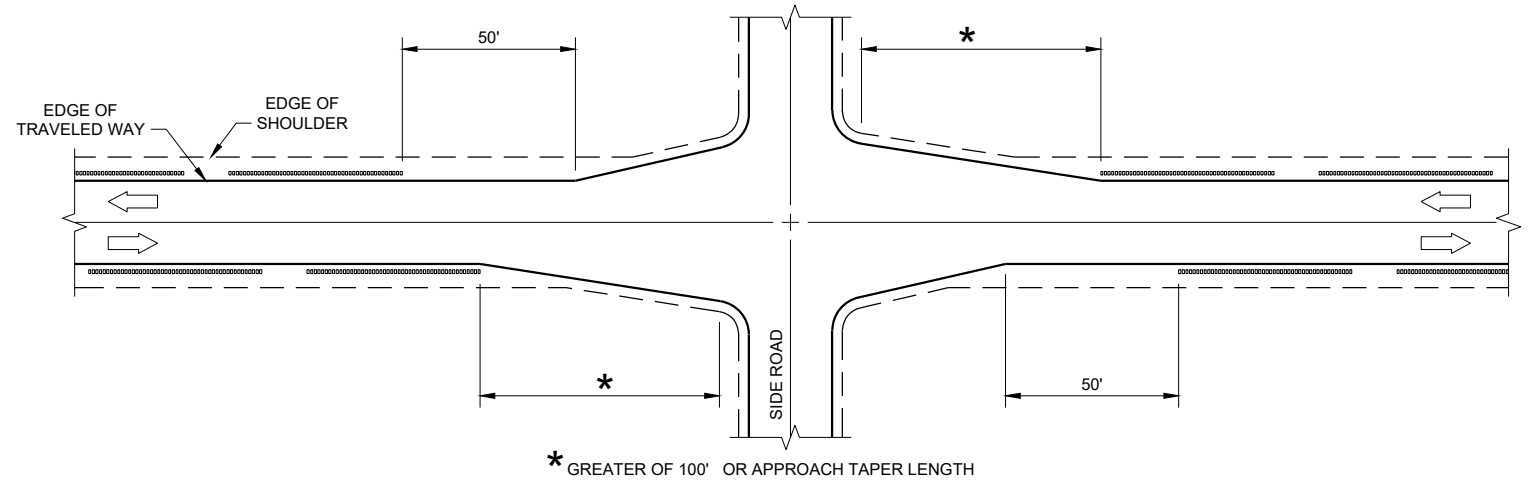
SHOULDER GROOVES AT MISCELLANEOUS CROSSINGS



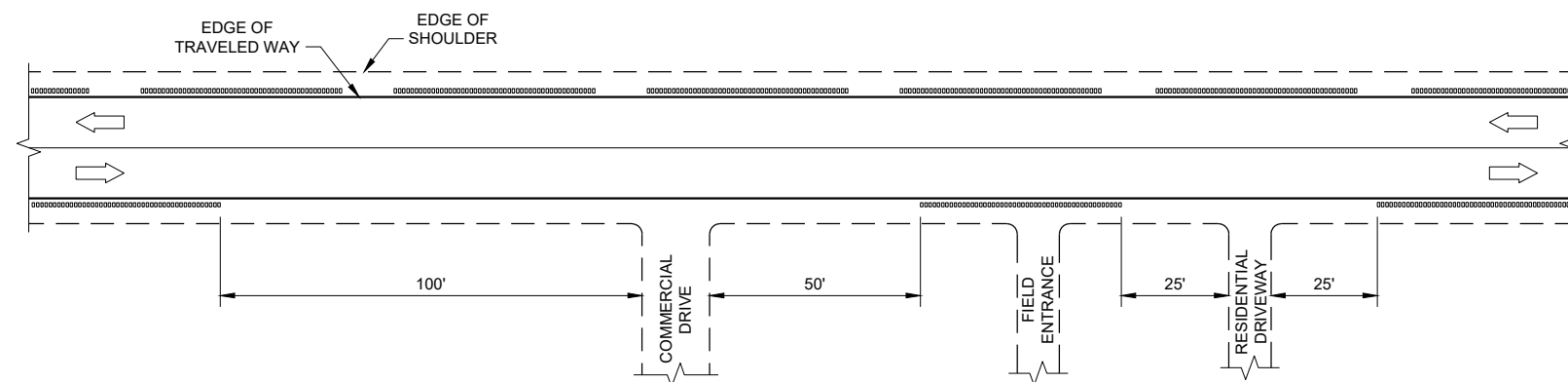
SHOULDER GROOVES AT RIGHT TURN LANE



SHOULDER GROOVES AT BRIDGES



SHOULDER GROOVES AT INTERSECTIONS WITH APPROACH TAPER



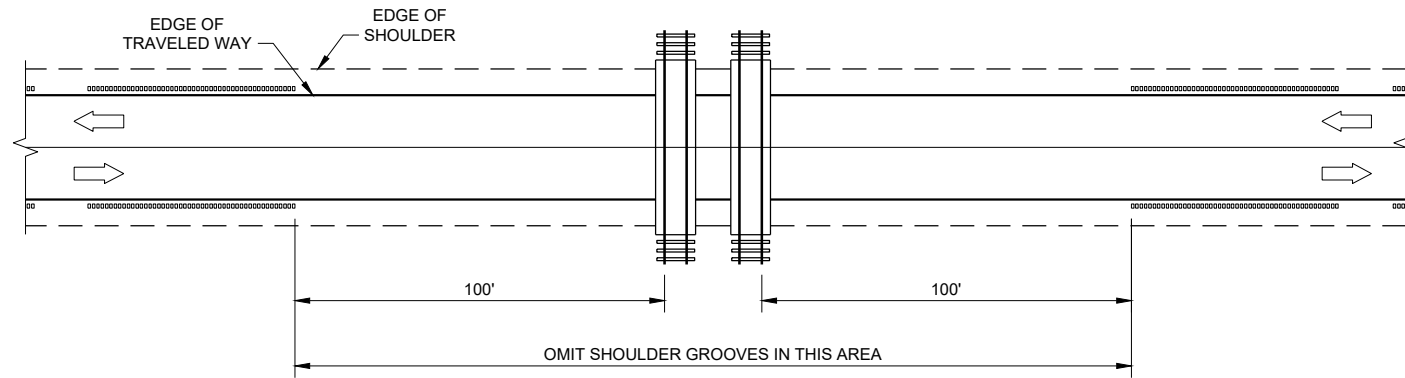
SHOULDER GROOVES AT DRIVEWAYS^①

GENERAL NOTES

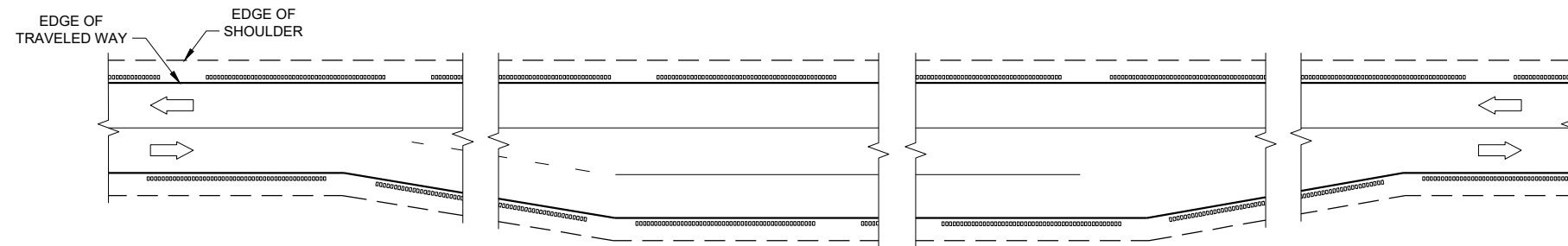
- ① SHOULDER GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.

**2-LANE RURAL SHOULDER
RUMBLE STRIP, MILLING**

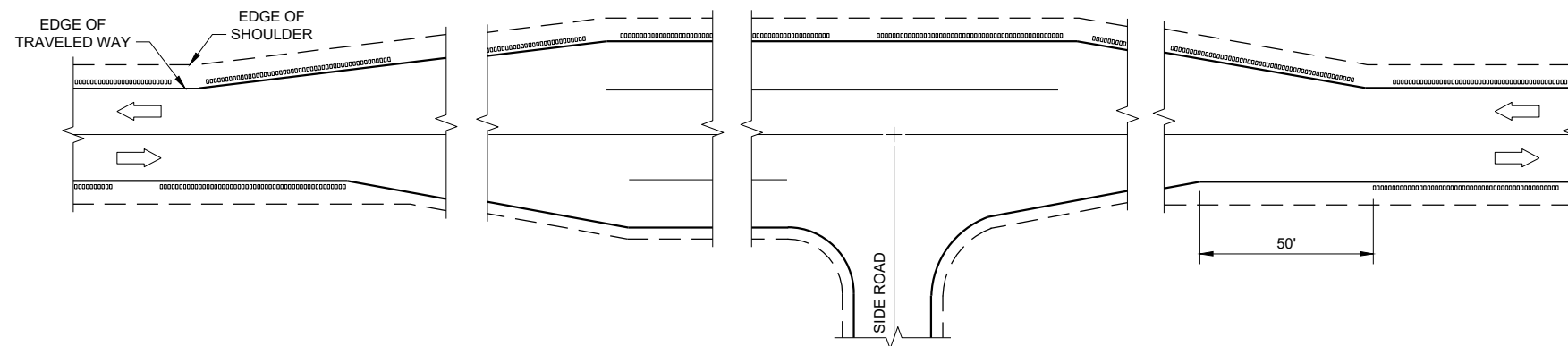
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



SHOULDER GROOVES AT RAILROADS



SHOULDER GROOVES AT PASSING AND CLIMBING LANES



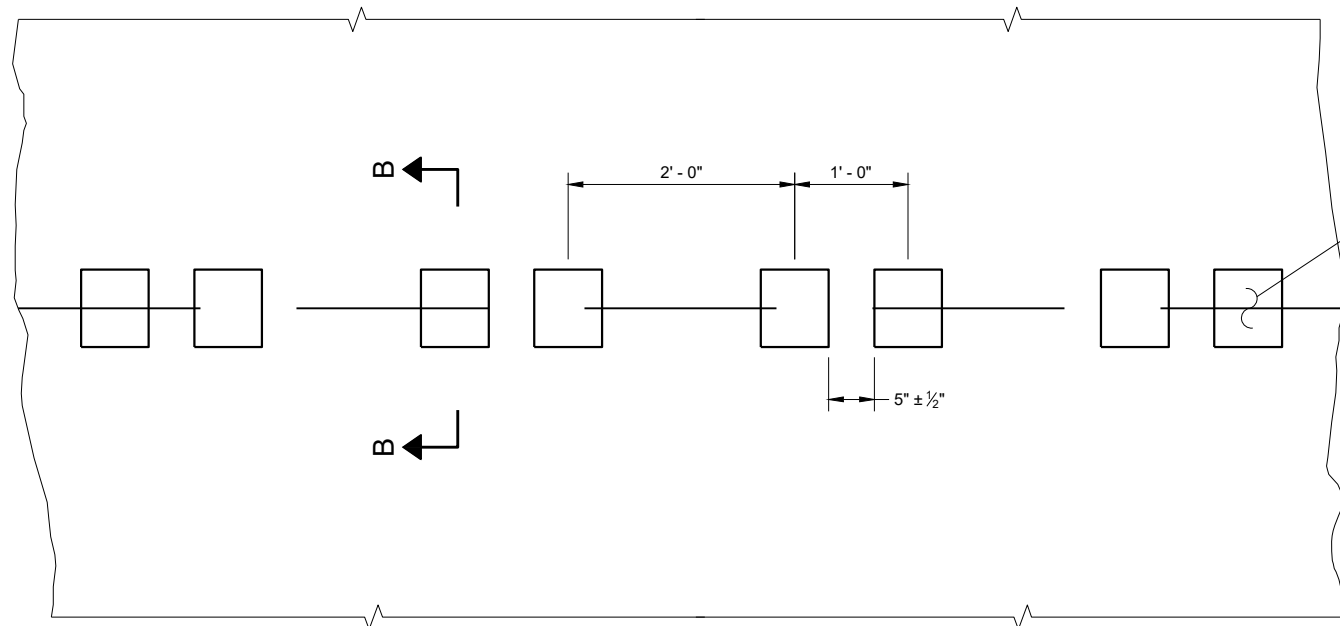
SHOULDER GROOVES AT BYPASS LANES

**2-LANE RURAL SHOULDER
RUMBLE STRIP, MILLING**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

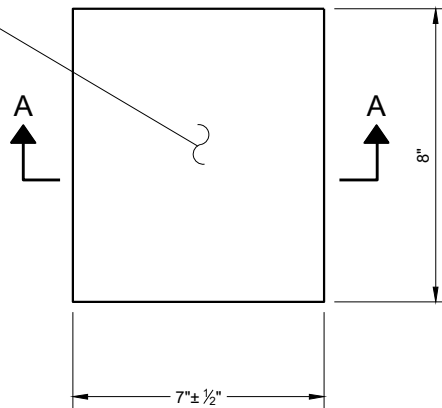
APPROVED
7/2018 DATE /S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT ENGINEER 216

FHWA



PLAN VIEW
SHOULDER WITH GROOVES

PLACEMENT DETAIL FOR TYPE 1 MILLED RUMBLE STRIP



PLAN VIEW
(SINGLE GROOVE)

GENERAL NOTES

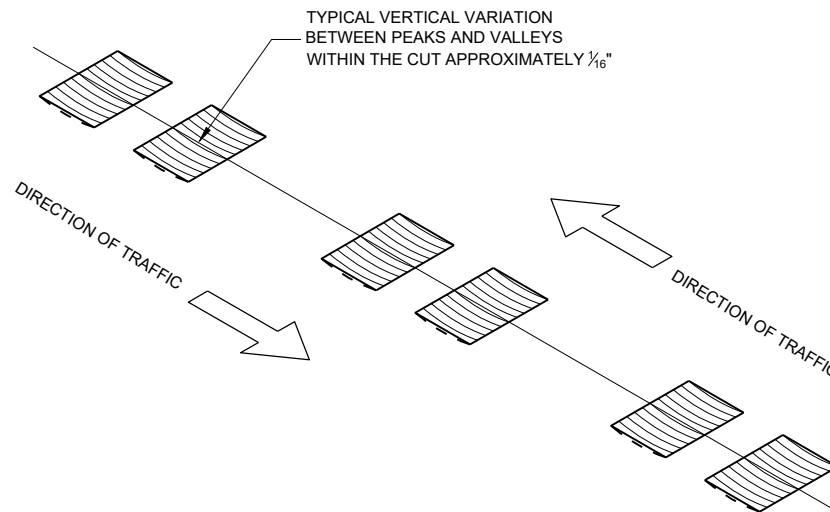
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

DO NOT MILL CENTERLINE GROOVES THROUGH ANY INTERSECTION, MARKED CROSSWALK, NON-MOTORIZED PATH CROSSING, OR SNOWMOBILE CROSSING.

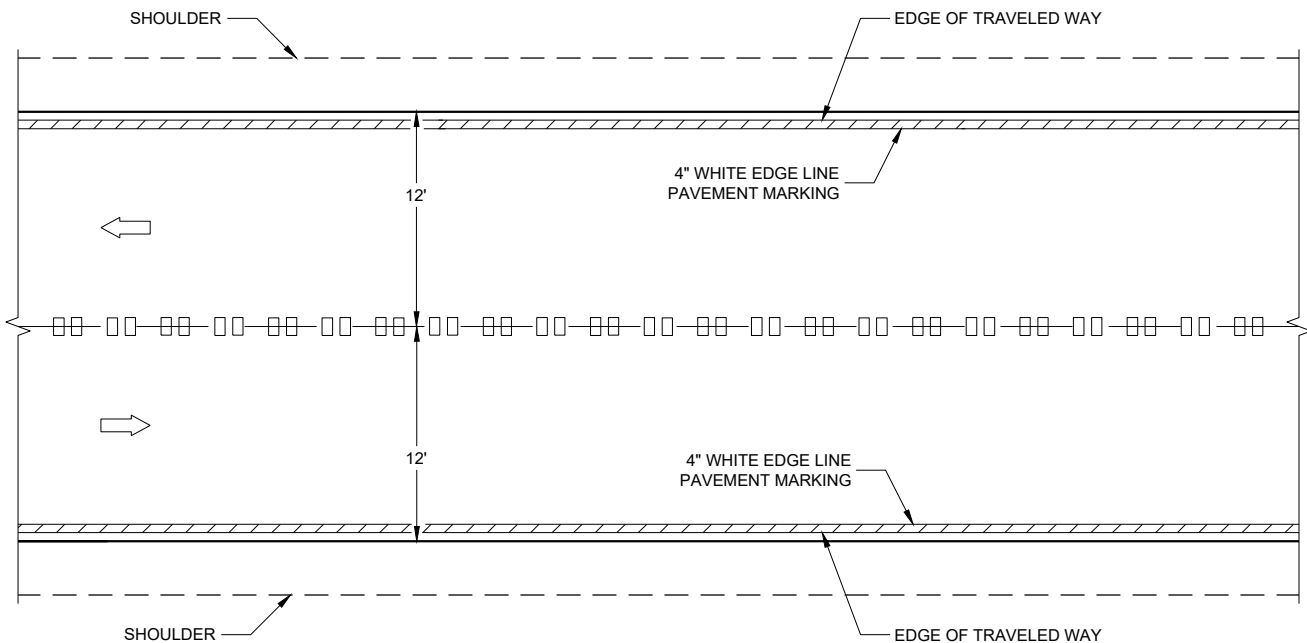
INSTALL PAVEMENT MARKING AFTER THE GROOVES ARE INSTALLED.

SEE SIGNING PLAN FOR SIGN REQUIREMENTS THAT MAY BE NEEDED.

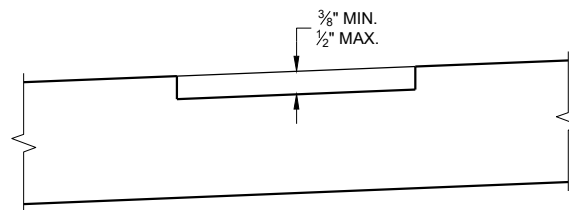
- ① CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.



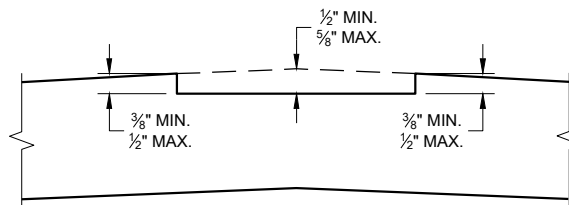
ISOMETRIC



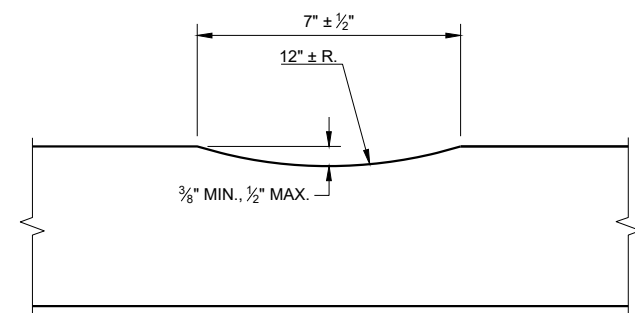
CENTERLINE GROOVES ON TWO-WAY ROADWAYS



SECTION B - B
SUPERELEVATED ROADWAY



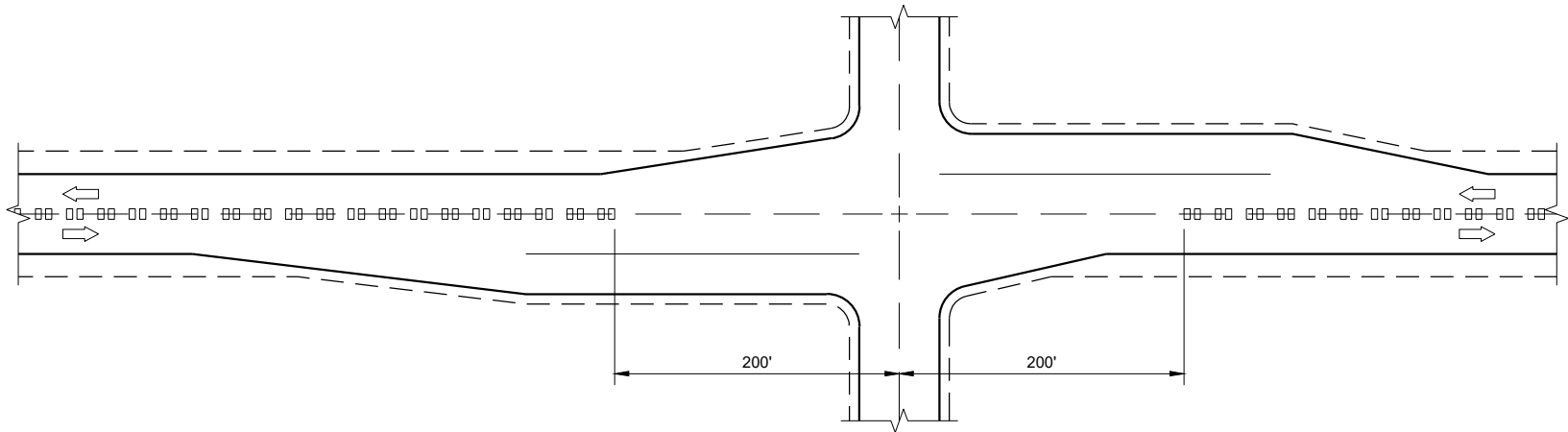
SECTION B - B
CROWNED ROADWAY



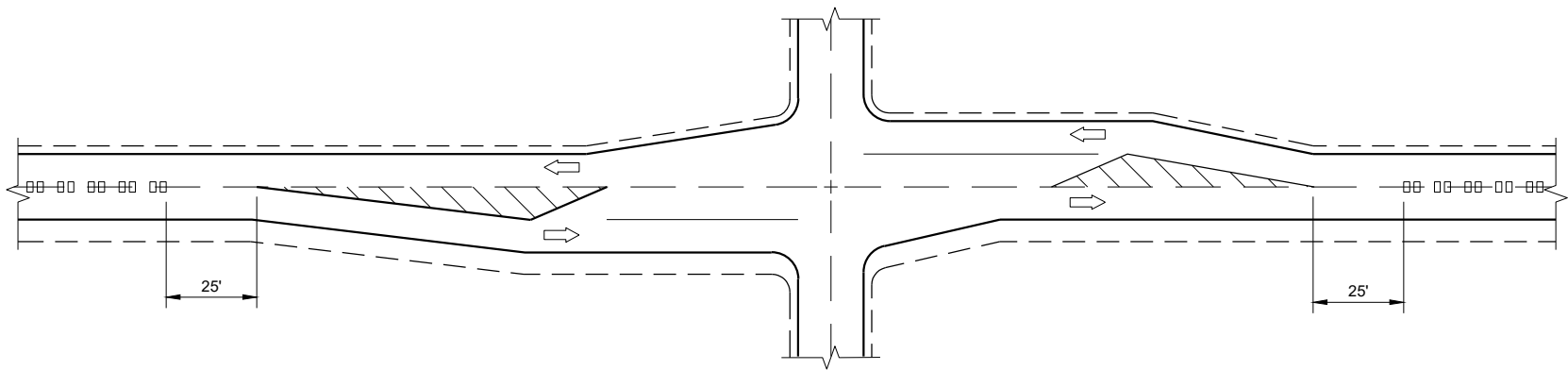
SECTION A - A

**2-LANE RURAL
CENTER LINE RUMBLE STRIP,
MILLING**

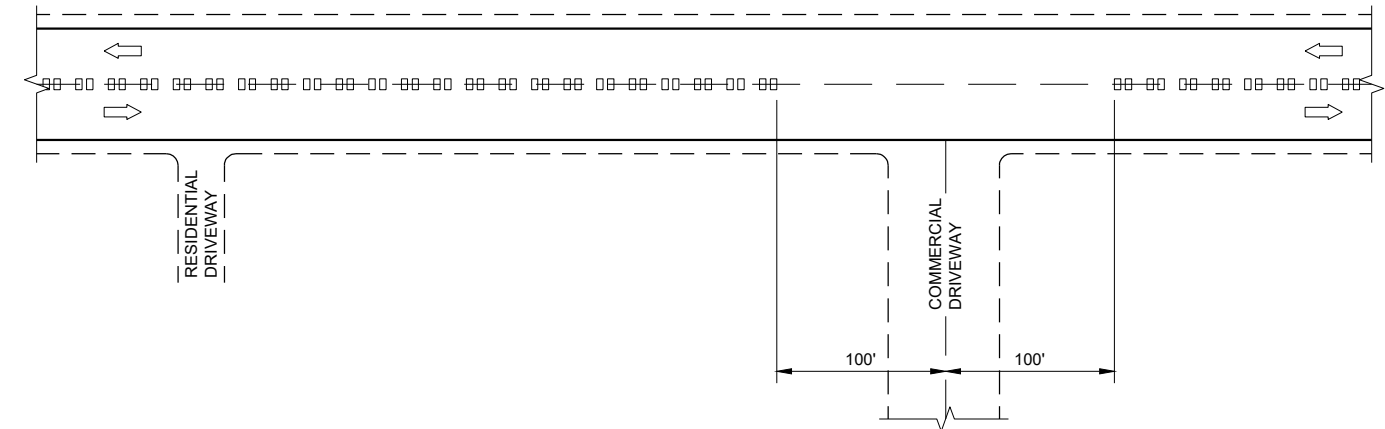
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



CENTERLINE GROOVES AT INTERSECTIONS



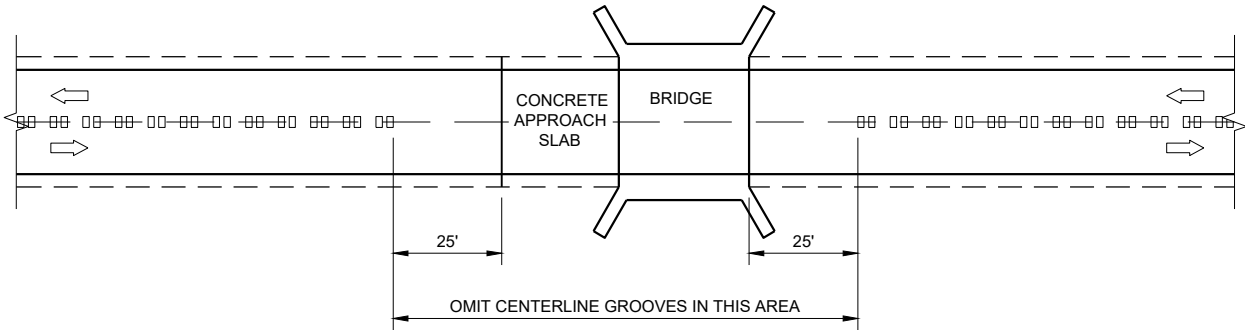
CENTERLINE GROOVES AT INTERSECTIONS
(WITH LEFT TURN LANES)



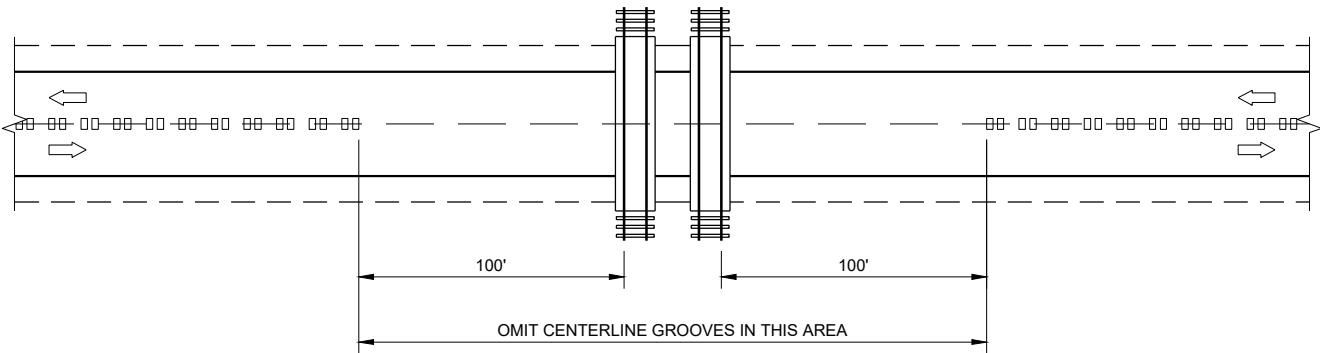
CENTERLINE GROOVES AT DRIVEWAYS^①

GENERAL NOTES

- ① CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.



CENTERLINE GROOVES AT BRIDGES



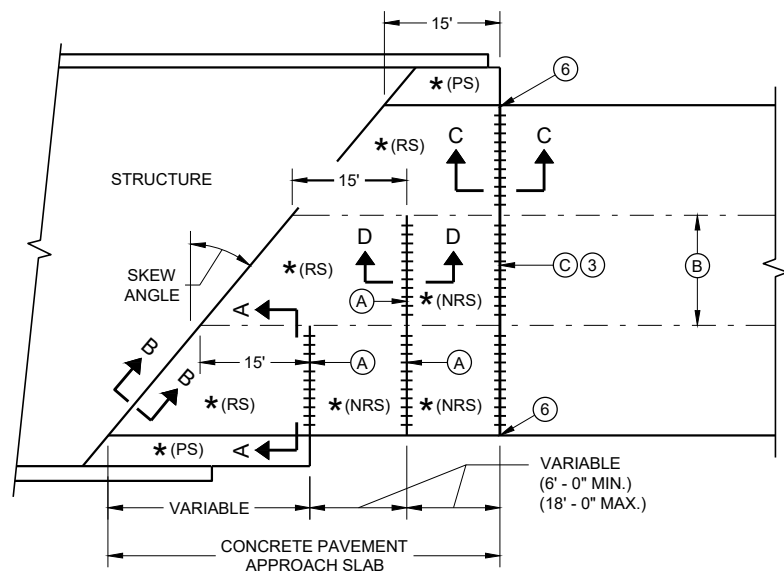
CENTERLINE GROOVES AT RAILROADS

2-LANE RURAL
CENTERLINE RUMBLE STRIP,
MILLING

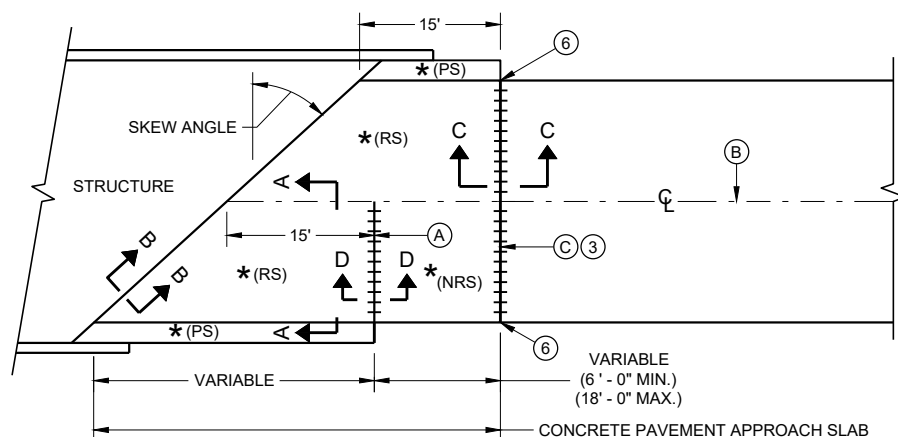
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
ENGINEER

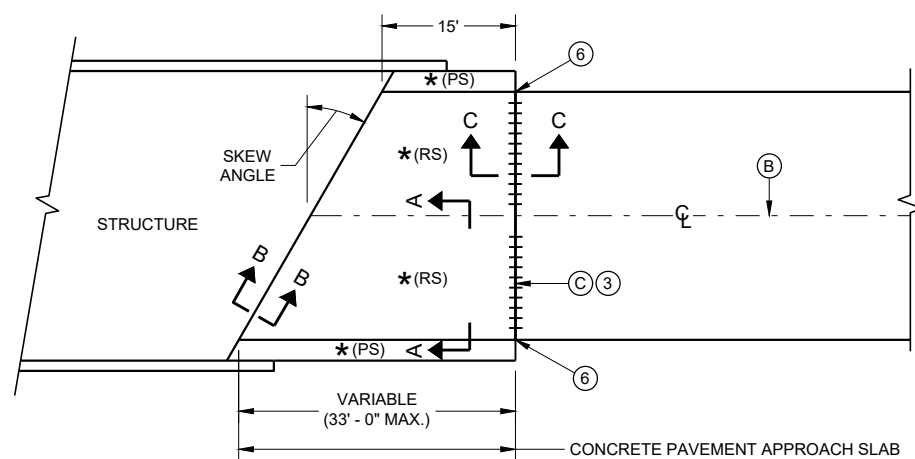
FHWA



SKewed APPROACH
(PAVEMENT MORE THAN TWO LANES)



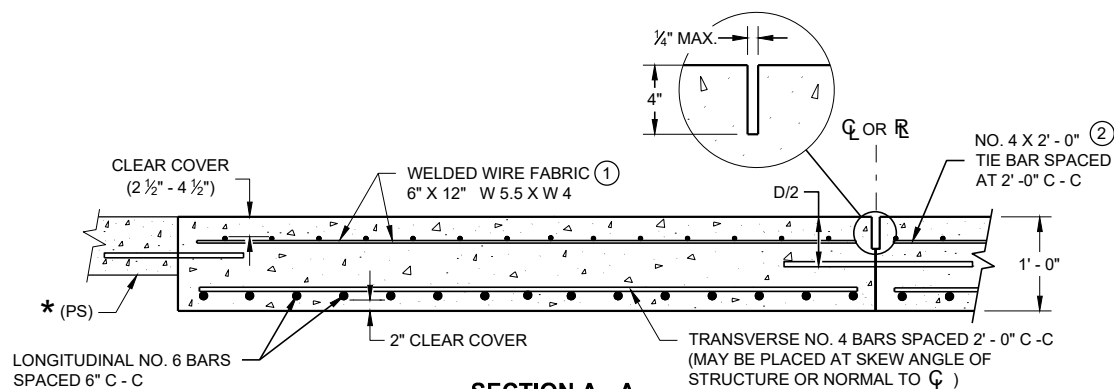
SKews > 20°
(PAVEMENT WIDTH ≤ 30')



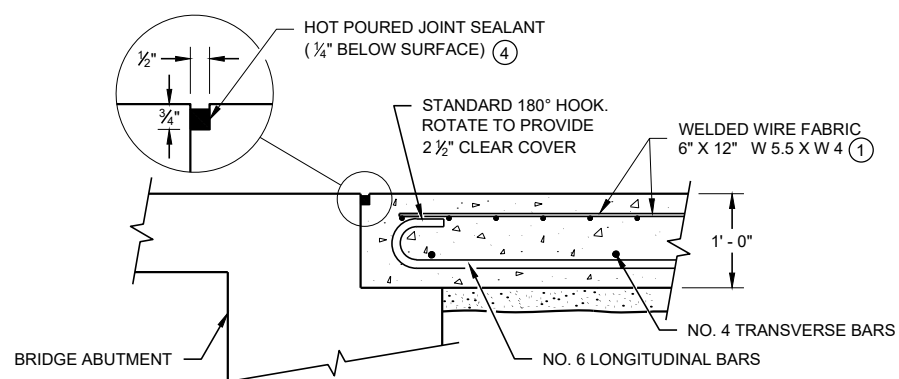
SKews ≤ 20°
(PAVEMENT WIDTH ≤ 30')

APPROACH SLAB AND ADJACENT PAVEMENT

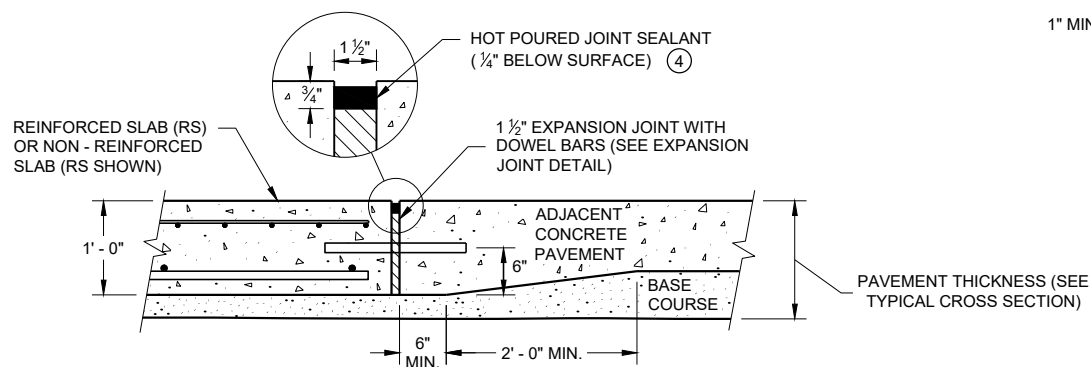
- * (RS) = REINFORCED CONCRETE SLAB
- * (PS) = PAVED CONCRETE SHOULDER OR CONCRETE DRAINAGE SLAB
- * (NRS) = NON - REINFORCED CONCRETE SLAB
- *** STANDARD DOWEL BAR DIAMETER (SEE SDD 13C11 AND SDD 13C13)



SECTION A - A
REINFORCEMENT POSITIONING DETAIL



SECTION B - B
BEND DETAIL
BOTTOM REINFORCEMENT



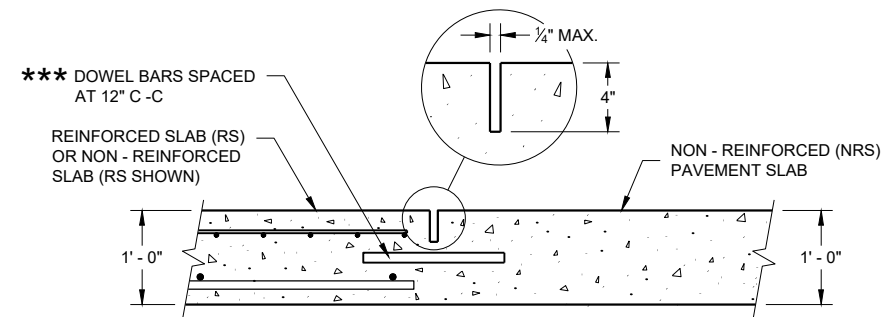
SECTION C - C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT

GENERAL NOTES

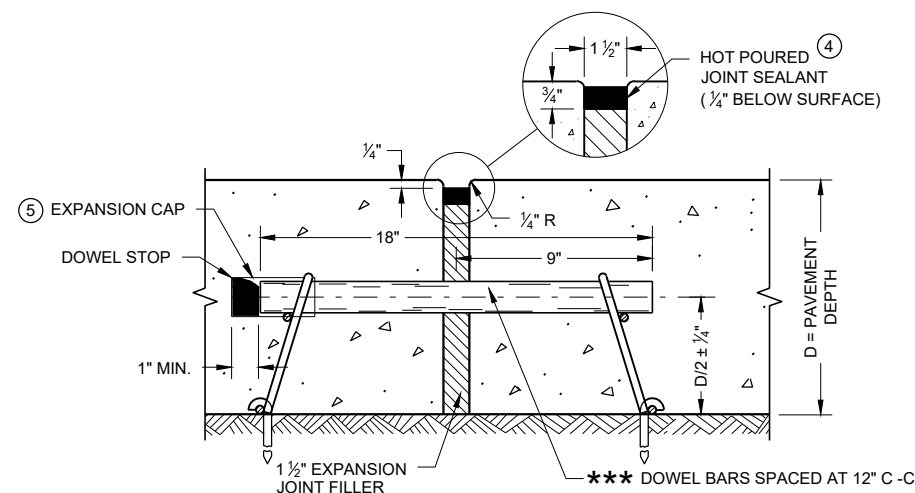
THE CONTRACTOR MAY SPLICE NO. 6 BARS IN THE APPROACH SLAB FOR SKEWED STRUCTURES ONLY. STAGGER SPLICES WITH A MAXIMUM OF ONE SPLICE PER BAR. THE LENGTH OF LAP IS 20 INCHES.

TACK WELD DOWEL BARS TO THE BASKETS ON ALTERNATE ENDS.

- ① THE CONTRACTOR MAY USE NO. 4 BARS SPACED AT 2' - 0" C - C IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTIONS FOR TOP REINFORCEMENT AS AN ALTERNATIVE TO THE WELDED WIRE FABRIC.
- ② THE CONTRACTOR MAY OMIT THE BARS BETWEEN REINFORCED SLABS WHERE SLAB REINFORCEMENT BARS EXTEND ACROSS THE CENTERLINE OR REFERENCE LINE.
- ③ DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING AN HMA PAVEMENT.
- ④ USE A JOINT SEALANT CONFORMING TO STANDARD SPECIFICATION 415.2.6.
- ⑤ PLACE EXPANSION CAP ON THE END OF THE DOWEL THAT IS NOT TACK WELDED TO THE BASKET. DO NOT FORCE DOWEL BAR PAST THE DOWEL STOP.
- ⑥ EXTEND EXPANSION JOINT THROUGH ANY ADJACENT TIED CONCRETE.
- (A) STANDARD CONTRACTION JOINT NORMAL TO $\mathcal{C}$ OR $\mathcal{R}$.
- (B) STANDARD LONGITUDINAL JOINT WITH TIE BARS.
- (C) 1 1/2" EXPANSION JOINT WITH DOWEL BARS NORMAL TO $\mathcal{C}$ OR $\mathcal{R}$.



SECTION D - D
CONTRACTION JOINT



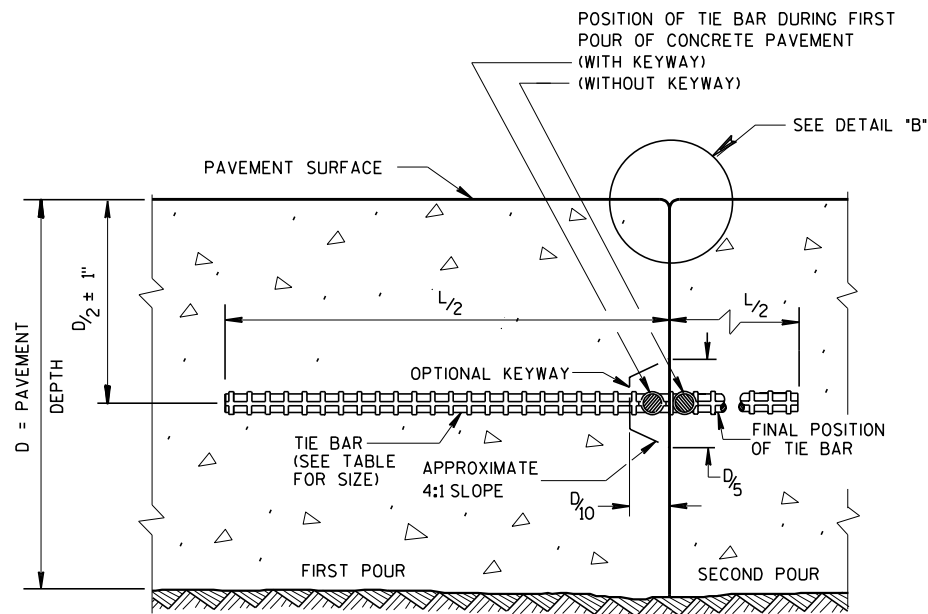
EXPANSION JOINT DETAIL

CONCRETE PAVEMENT APPROACH SLAB

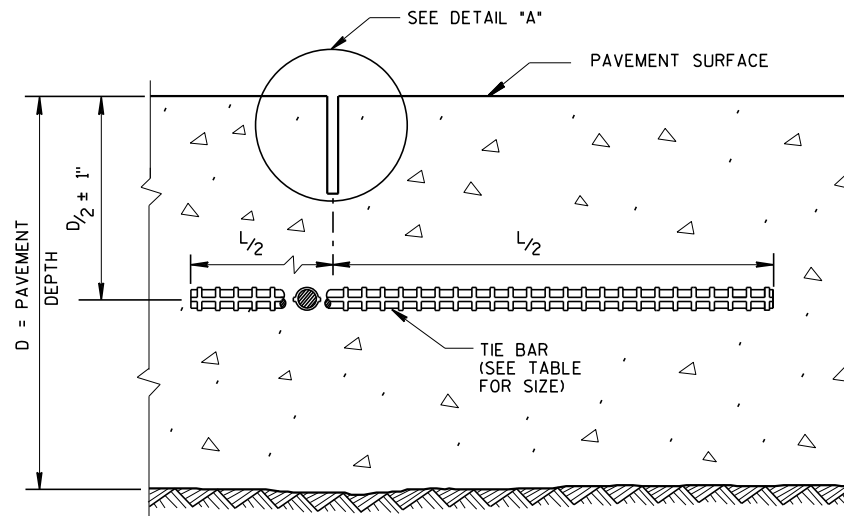
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018 /S/ Peter Kemp, P.E.
DATE PAVEMENT SUPERVISOR 219

FHWA



CONSTRUCTION JOINT



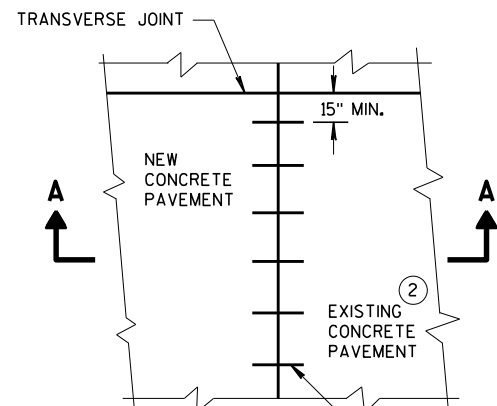
SAWED JOINT

GENERAL NOTES

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

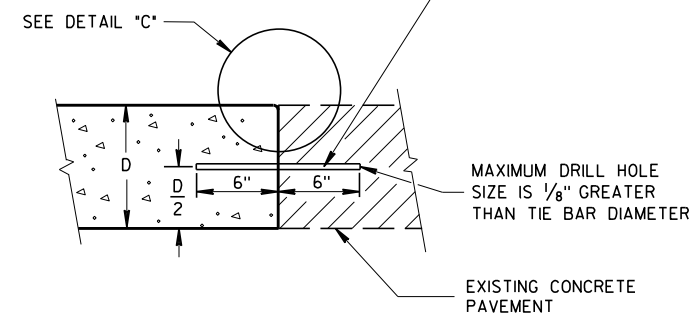
CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

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

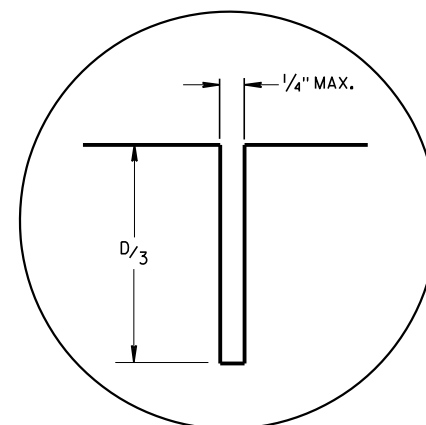


PLAN VIEW

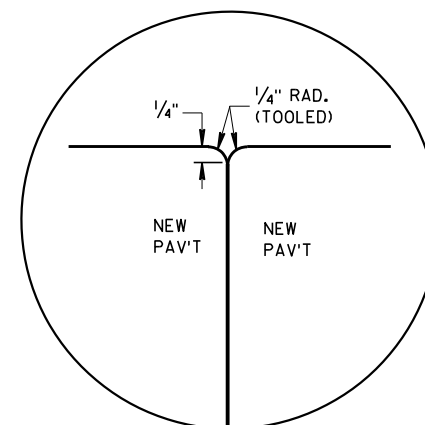
NO. 6 TIE BARS SPACED 30" C-C, INSTALLED PERPENDICULAR TO THE LONGITUDINAL JOINT. ①



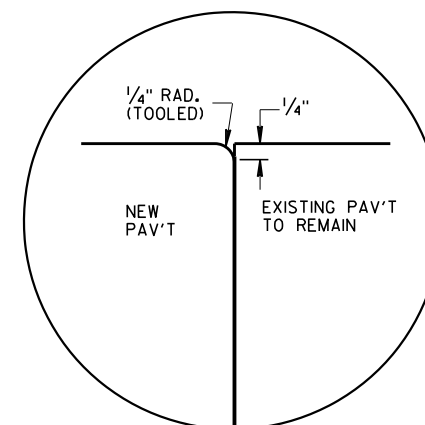
SECTION A-A
LONGITUDINAL CONSTRUCTION JOINT
TIE BARS ANCHORED
INTO EXISTING PAVEMENT



DETAIL "A"



DETAIL "B"



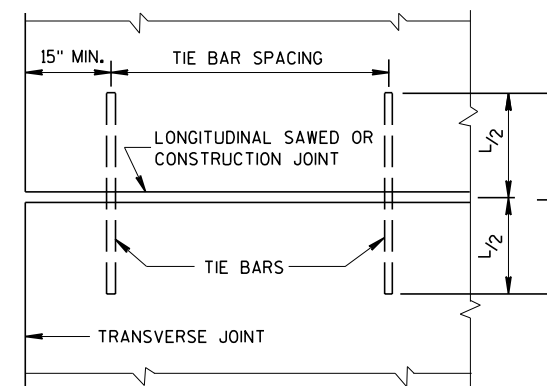
DETAIL "C"

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.

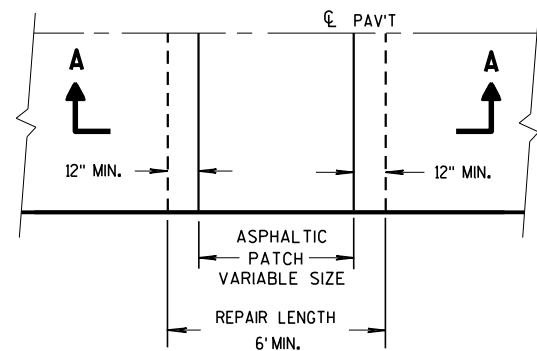


PLAN VIEW
SHOWING LOCATION OF TIE BARS

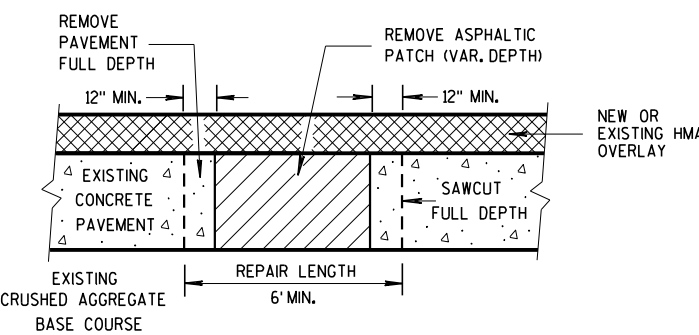
CONCRETE PAVEMENT
LONGITUDINAL JOINTS AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 /S/ Peter Kern
DATE PAVEMENT SUPE 220
FHWA

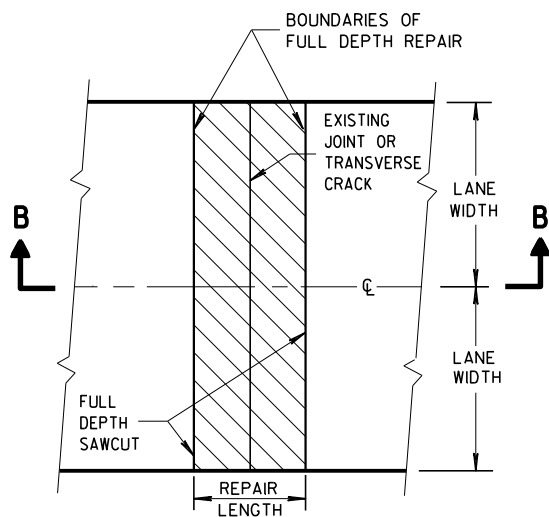


PLAN VIEW

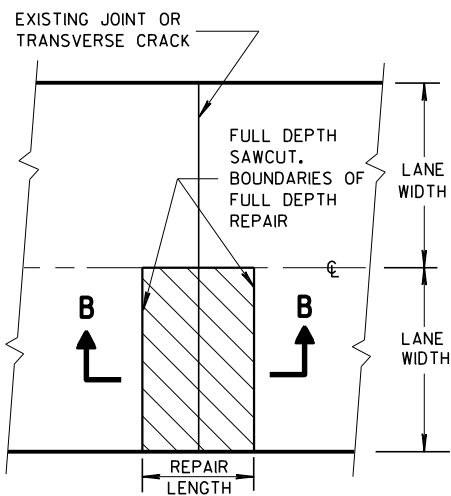


SECTION A-A

HMA PATCH REMOVAL



PLAN VIEW
(DOUBLE LANE REPAIR)



PLAN VIEW
(SINGLE LANE REPAIR)

FULL DEPTH CONCRETE PAVEMENT REMOVAL

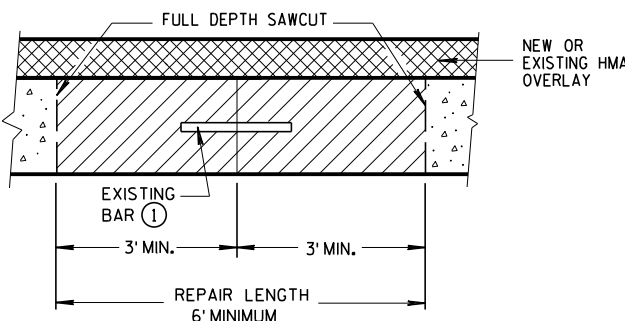
GENERAL NOTES

SAW CUT, DRILL, AND LIFT OUT EXISTING CONCRETE PAVEMENT WITHIN THE BOUNDARIES OF CONCRETE REPAIR AREAS. THE CONTRACTOR MAY MAKE ADDITIONAL SAW CUTS INSIDE THE REPAIR LIMITS TO REDUCE WEIGHT AND SIZE OF CONCRETE PIECES.

PROVIDE 6-FOOT MINIMUM DISTANCE FROM BOUNDARIES OF CONCRETE REPAIR AREAS TO ADJACENT TRANSVERSE JOINT OR CRACK.

THE LENGTH OF THE REPAIRS MAY VARY FROM THE DIMENSIONS SHOWN IF THE EXISTING CONCRETE PAVEMENT IS NONDOWELED AND THE PAVEMENT IS TO BE OVERLAID AFTER REPAIRING.

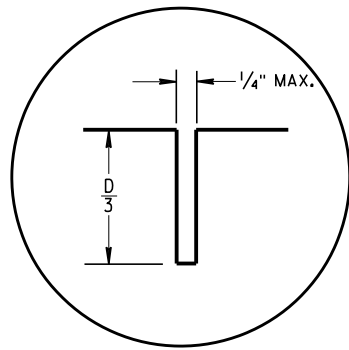
① DOWEL BARS MIGHT NOT EXIST.



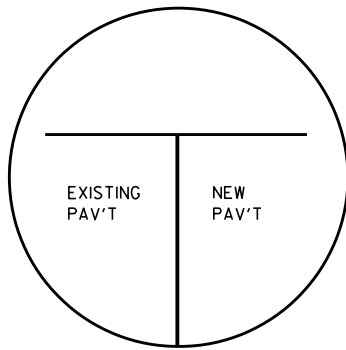
SECTION B-B
CONCRETE REMOVAL

BASE PATCHING CONCRETE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

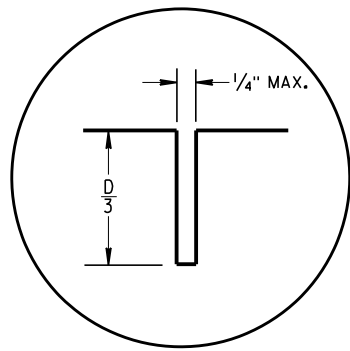


C1

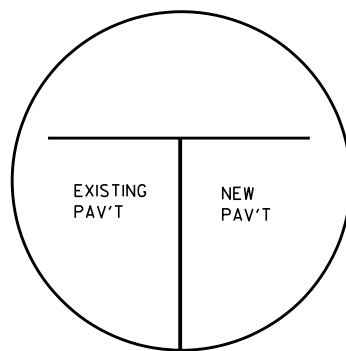


C2

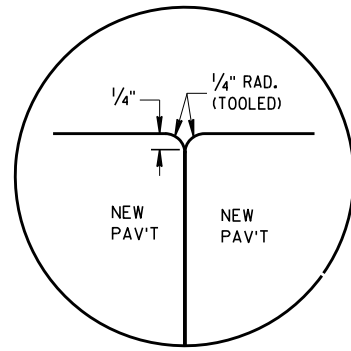
TRANSVERSE JOINTS



L1

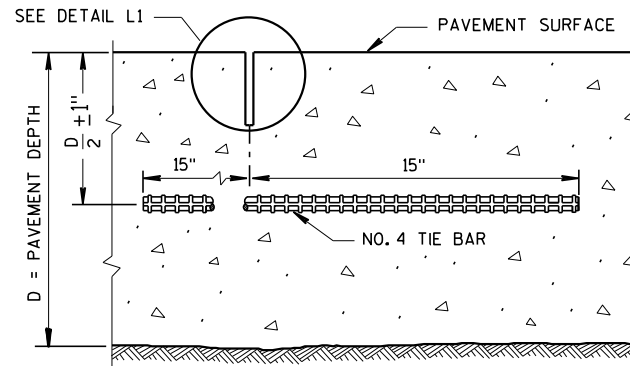


L2

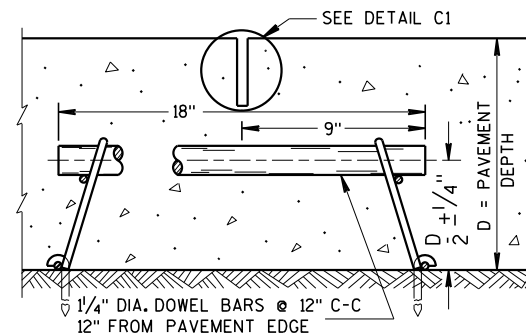


L3

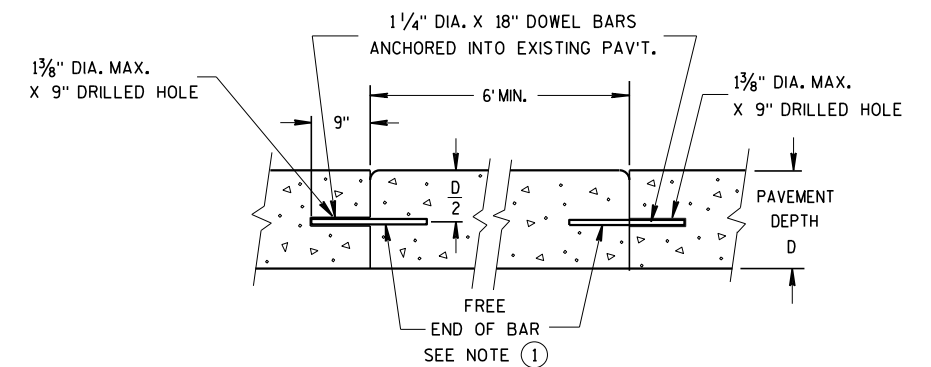
LONGITUDINAL JOINTS



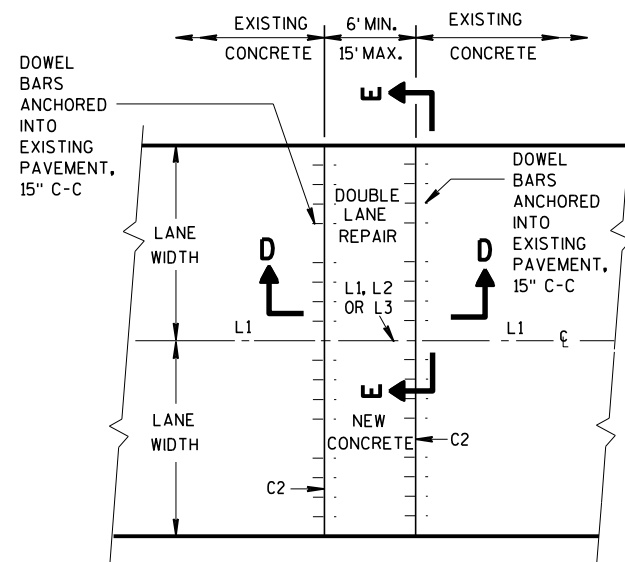
SECTION C-C
SAWED LONGITUDINAL JOINT



SECTION F-F
CONTRACTION JOINT

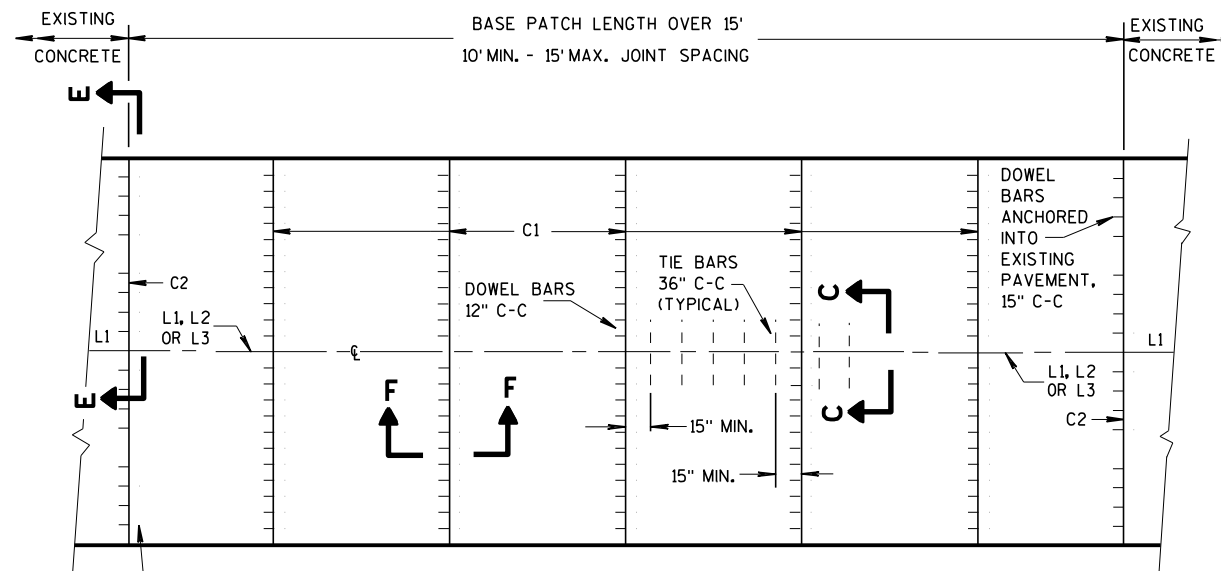


SECTION D-D



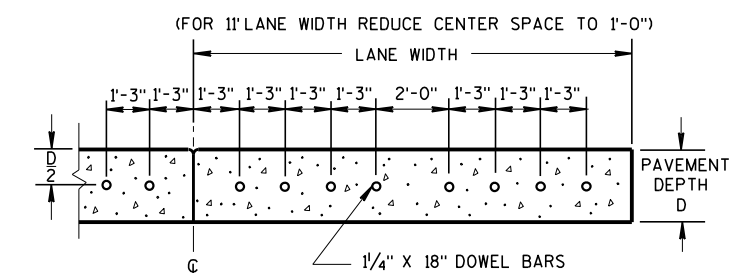
PLAN VIEW

MULTI-LANE CONCRETE BASE PATCH
15' MAXIMUM LENGTH



PLAN VIEW

MULTI-LANE CONCRETE BASE PATCH
GREATER THAN 15' IN LENGTH



SECTION E-E
SPACING OF DOWEL BARS
ANCHORED INTO EXISTING PAVEMENT

GENERAL NOTES

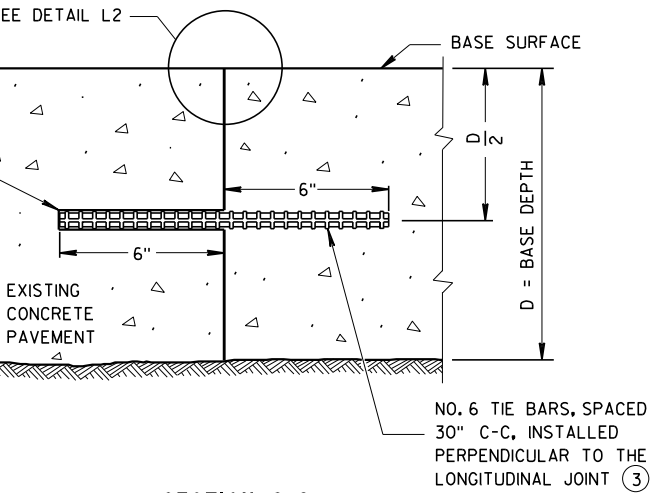
INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

CONCRETE BASE PATCHES OF EXISTING NONDOWELED CONCRETE PAVEMENTS DO NOT NEED TO BE DOWELED.

ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

PROVIDE A MINIMUM DISTANCE OF 15 INCHES FROM AN EXISTING TRANSVERSE JOINT OR THE EDGE OF REPLACEMENT TO THE CENTER OF THE TIE BAR NEAREST THAT JOINT OR EDGE.

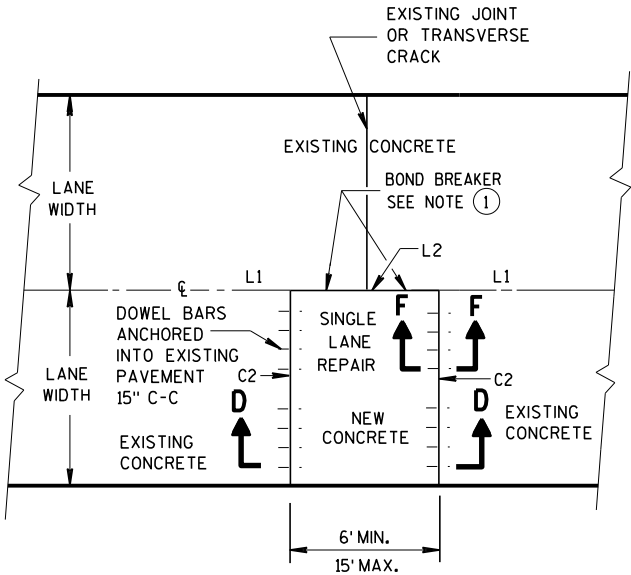
- APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.



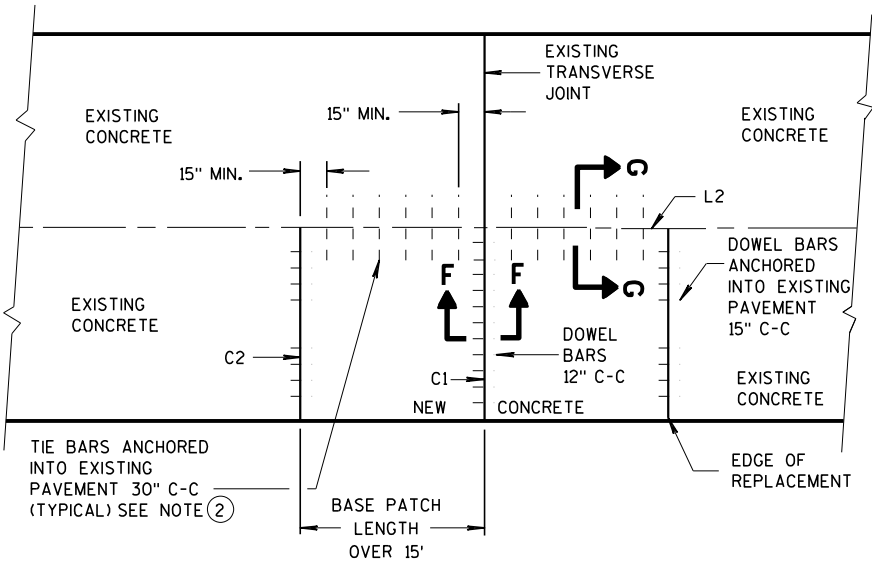
SECTION G-G
TIE BARS ANCHORED
INTO EXISTING PAVEMENT

GENERAL NOTES

- ① USE AN ENGINEER-APPROVED BOND BREAKER (E.G. RELEASE AGENT, CURING COMPOUND) FOR SINGLE LANE BASE PATCHES UP TO 15 FEET IN LENGTH.
- ② WITH THE APPROVAL OF THE ENGINEER, FOR SINGLE LANE PAVEMENT REPLACEMENTS LESS THAN 30 FEET IN LENGTH, DRILLED TIE BARS MAY BE INSTALLED ON 6:1 SKEW HORIZONTALLY, DIRECTION OF SKEW ALTERNATING WITH EACH SUCCESSIVE BAR. DRIVE SKEWED TIE BARS TO A DEPTH OF 6 INCHES IN A HOLE OF SUCH A DIAMETER AS TO PROVIDE A TIGHT DRIVEN FIT.
- ③ ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



PLAN VIEW
SINGLE LANE CONCRETE BASE PATCH
15' MAXIMUM LENGTH

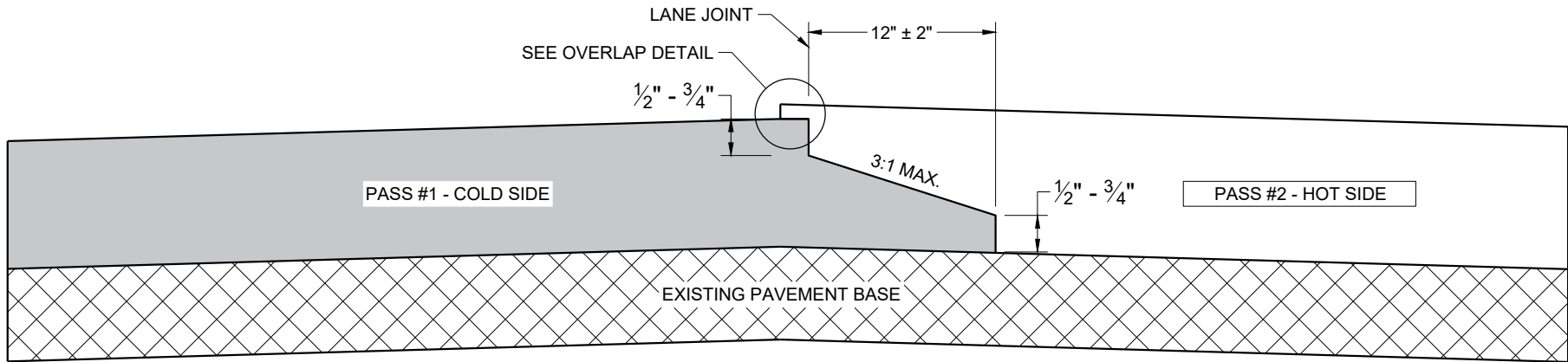


PLAN VIEW
SINGLE LANE CONCRETE BASE PATCH
GREATER THAN 15' IN LENGTH

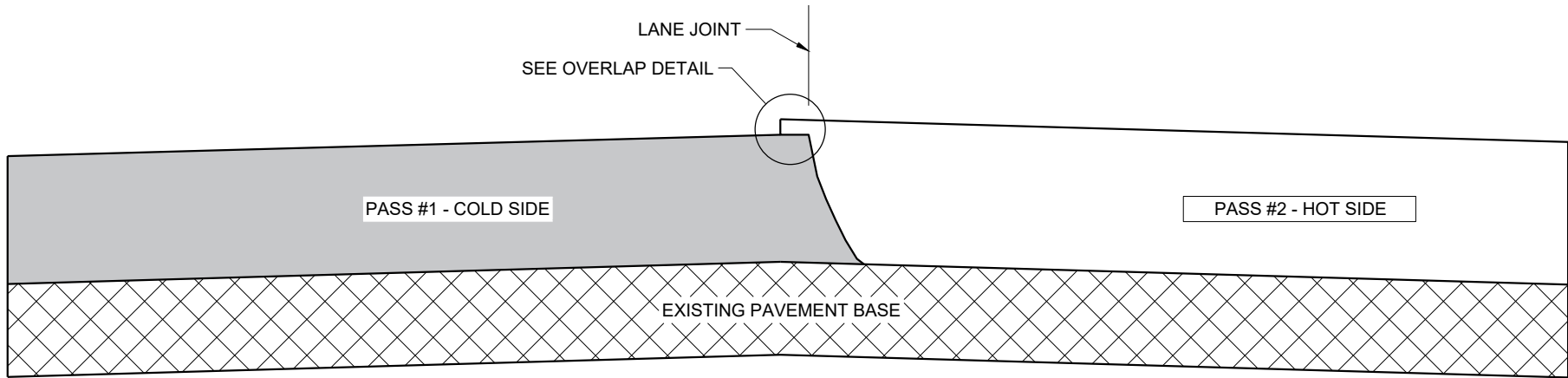
BASE PATCHING CONCRETE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

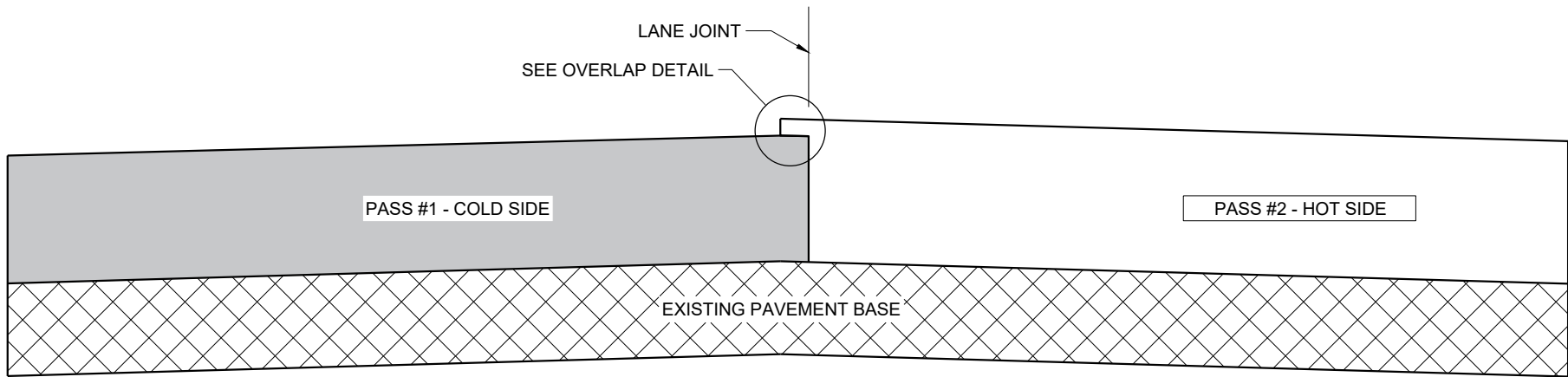
APPROVED
March 2018 /S/ Peter Kern P.E.
DATE PAVEMENT SUPER 223
FHWA



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

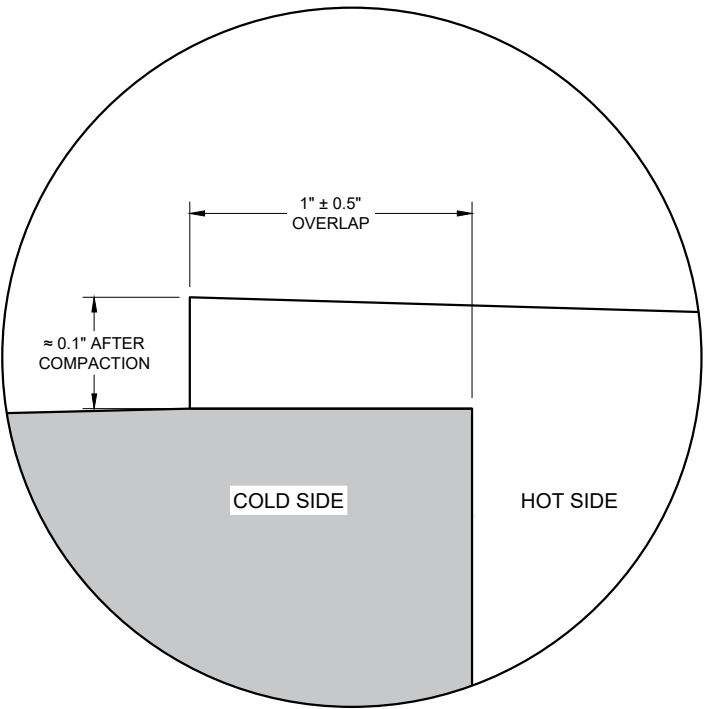
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

FOR ALL LONGITUDINAL JOINTS, ENSURE THE PAVER SCREED OVERLAPS THE PREVIOUSLY PLACED PAVEMENT BY $1" \pm 0.5"$ AND THE HOT SIDE OF THE JOINT REMAINS HIGHER THAN THE COLD SIDE BY APPROXIMATELY 0.1" AFTER FINAL COMPACTION. (IT WILL BE FLUSH WHEN PAVING IN ECHELON.)

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

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

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



OVERLAP DETAIL (TYPICAL)

HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2020 /S/ Steven Hefel
DATE HMA PAVEMENT ENGIN 224
FHWA

BILL OF MATERIALS

NOTE NO.	DESCRIPTION
①	WOOD BREAKAWAY TERMINAL POST: 5½" X 7½" X 3'-9"
②	STEEL TUBE TS 8" X 6" X 0.188", 6'-0"
④	WOOD BREAKAWAY CRT POST: 6" X 8" X 6'-0"
⑤	WOOD OFFSET BLOCKS: 6' X 8" X 1'-2"
⑥	PIPE SLEEVE: 2" X 5 ½" STANDARD PIPE
⑦	BEARING PLATE
⑧	BCT CABLE ASSEMBLY
⑨	CABLE ANCHOR BOX
⑩	STRUT & YOKE
⑪	STEEL PLATE BEAM, END PANEL 12 GA.
⑫	STEEL PLATE BEAM: 12 GA. 13'-6½"
⑬	IMPACT HEAD
⑭	0.040" ALUMINUM SHEET WITH REFLECTIVE SHEETING TYPE F PER SECTION 637 OF THE STANDARD SPECIFICATIONS

GENERAL NOTES

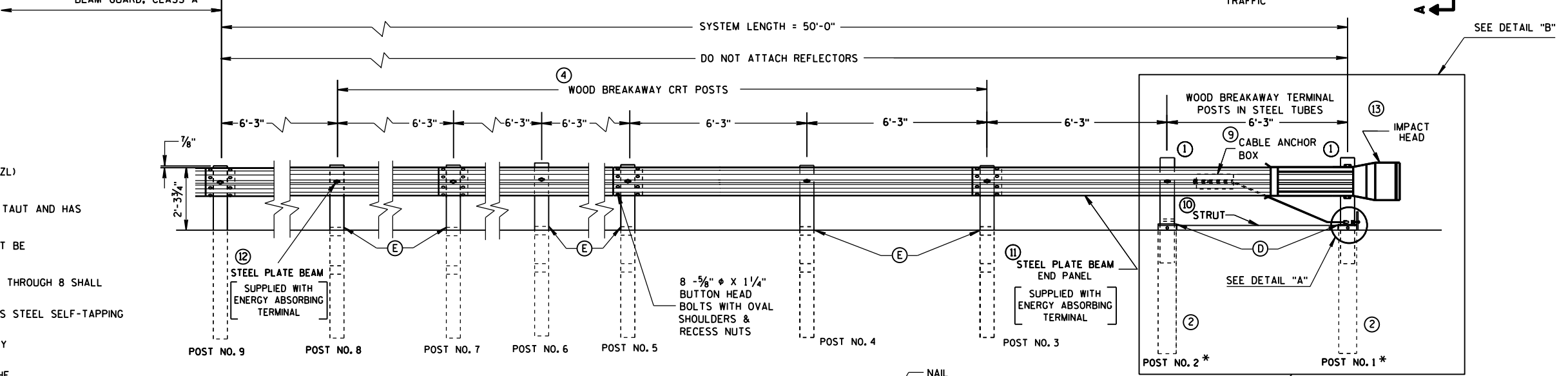
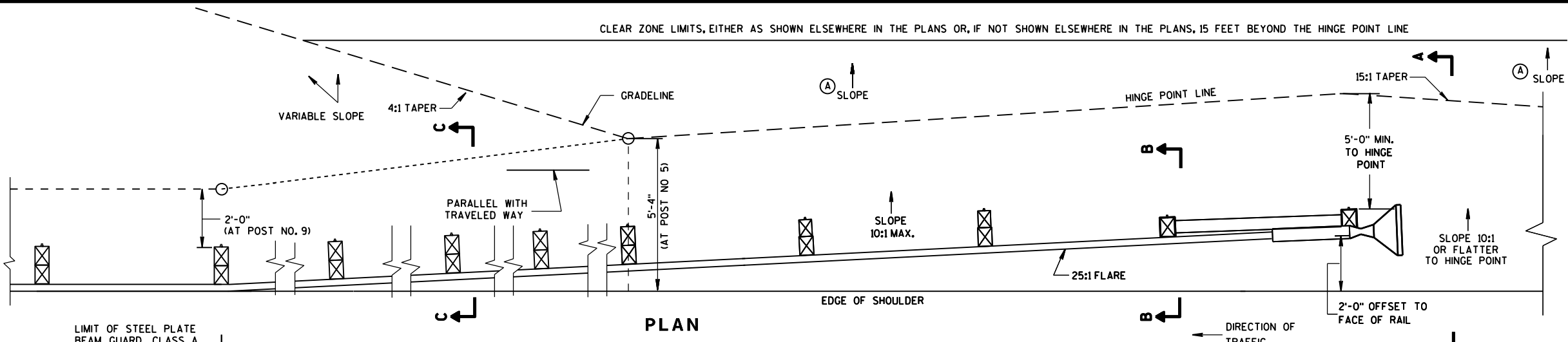
FOLLOW MANUFACTURE'S BOLTING RECOMMENDATIONS.

- (A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, THE HINGE POINT LINE (HPL), AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.
- (B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED.
- (D) THE TOP OF THE STEEL TUBE ON POSTS 1 AND 2 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.
- (E) THE CENTER OF THE UPPER 3½" DIAMETER HOLE ON POST 3 THROUGH 8 SHALL BE ¾" ABOVE THE FINISHED GROUND LINE.
- (F) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS, ONE SCREW PER CORNER.

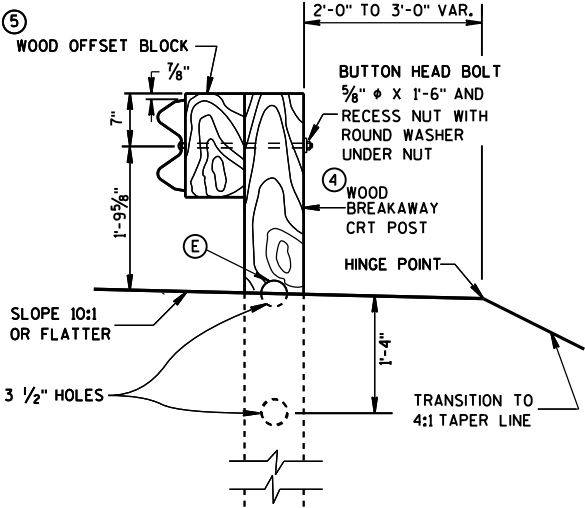
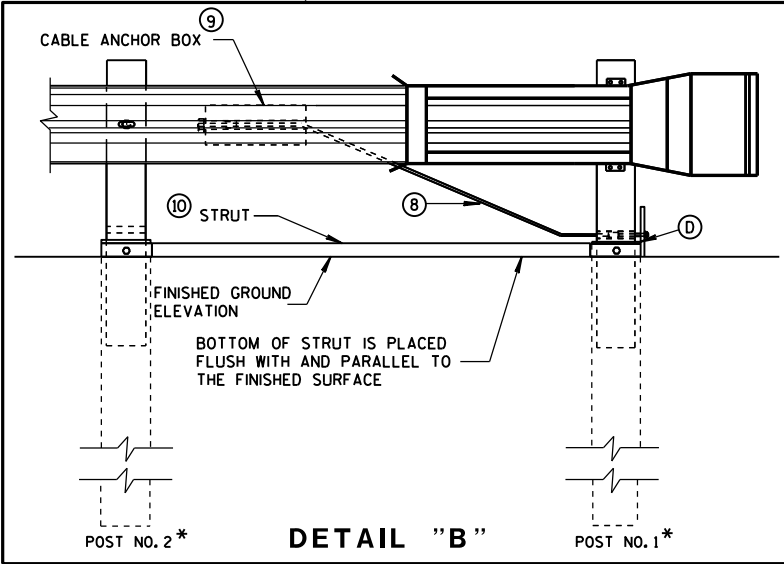
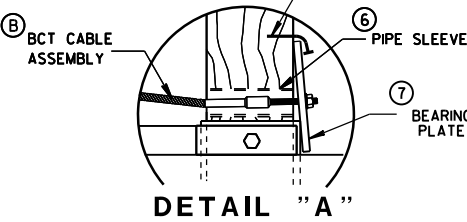
STEEL POSTS SHALL NOT BE ALLOWED FOR USE WITH ENERGY ABSORBING TERMINALS.

DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

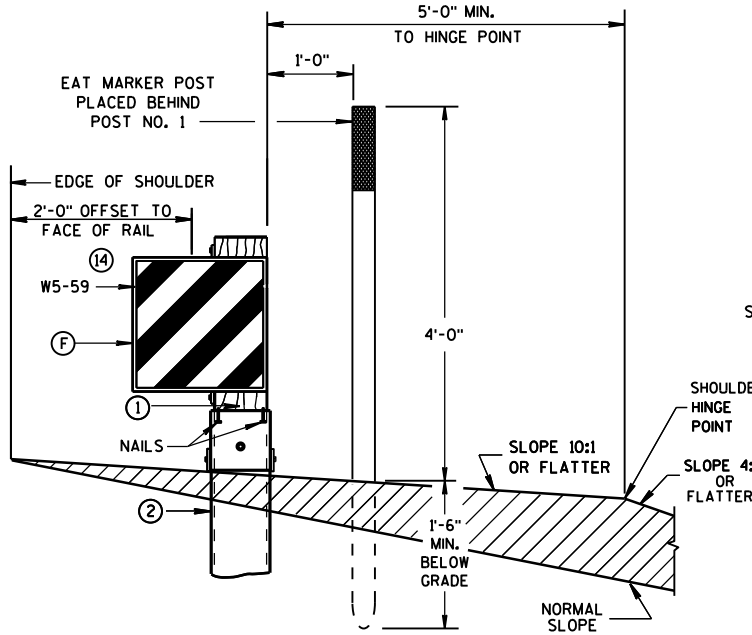
*DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.



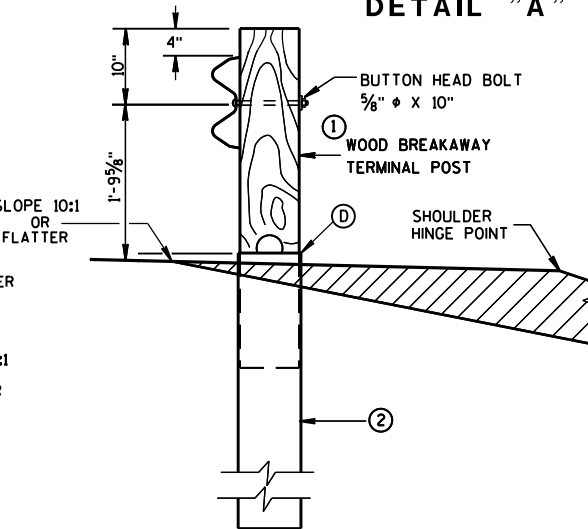
ELEVATION



SECTION C-C
TYPICAL AT POST NOS. 6, 8



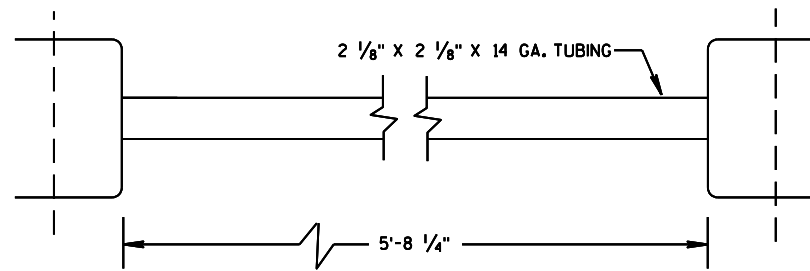
SECTION A-A
TYPICAL AT POST NO. 1*



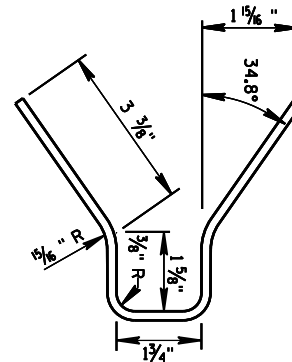
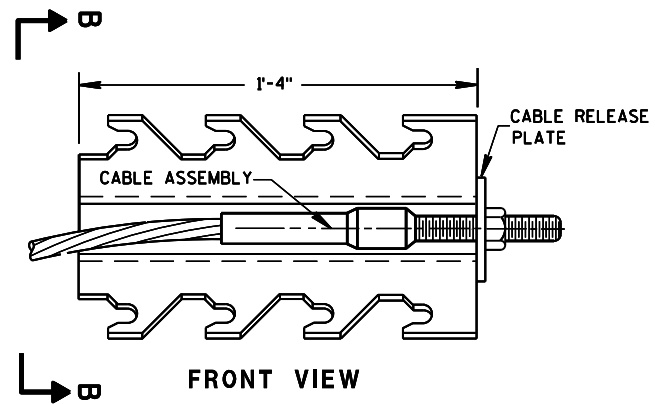
SECTION B-B
TYPICAL AT POST NO. 2*

STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL

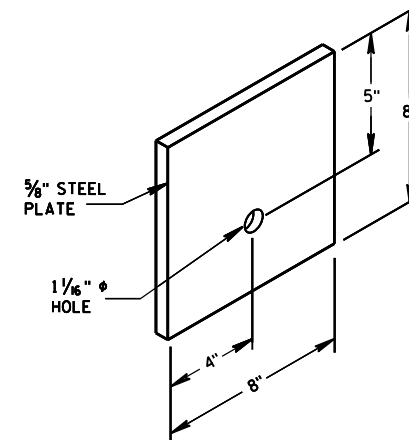
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



⑩ STRUT DETAIL



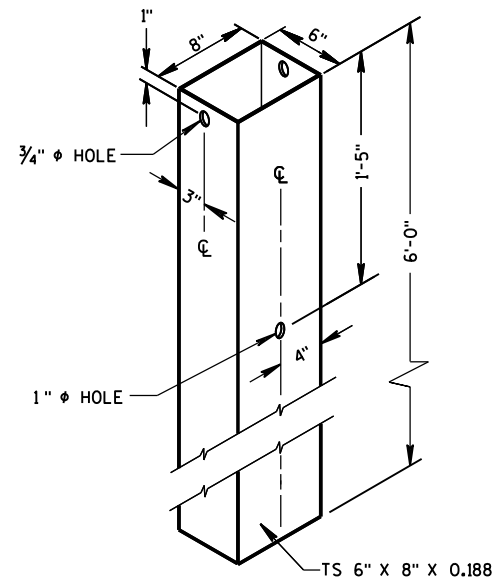
⑨ CABLE ANCHOR BOX



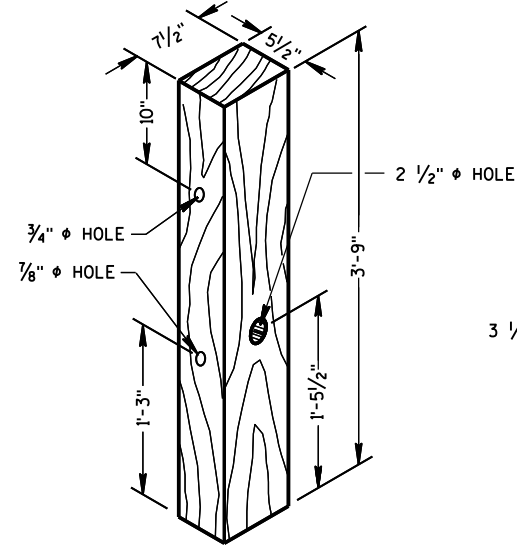
⑦ STEEL BEARING PLATE

STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL

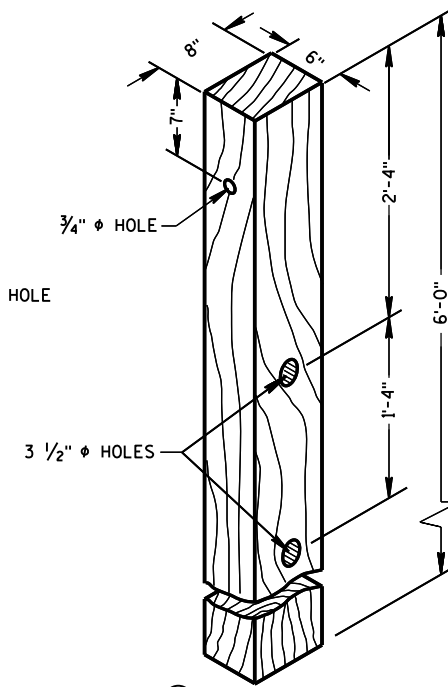
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



② **72" STEEL TUBE**
(POSTS NO. 1-2)



① **TERMINAL POST**

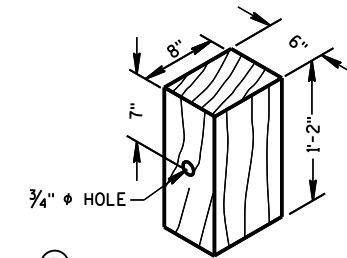


④ **CRT POST**
(POSTS NO'S 5-8)

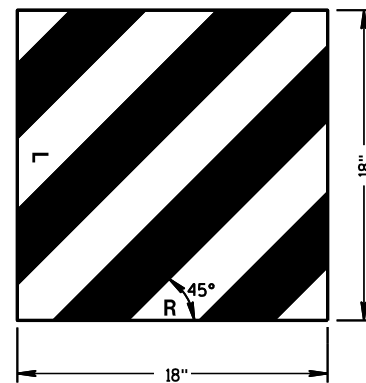
WOOD BREAKAWAY POSTS

GENERAL NOTES

WHEN ROCK IS ENCOUNTERED DURING EXCAVATION, A 12 INCH DIA. POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK MAY BE USED IF APPROVED BY THE ENGINEER. GRANULAR MATERIAL SHALL BE PLACED IN THE BOTTOM OF THE HOLE APPROXIMATELY 2 1/2" INCHES DEEP TO PROVIDE DRAINAGE. THE SOIL TUBES SHALL BE FIELD CUT TO LENGTH, PLACED IN THE HOLE AND BACKFILLED WITH ADEQUATELY COMPACTED MATERIAL EXCAVATED FROM THE HOLE.



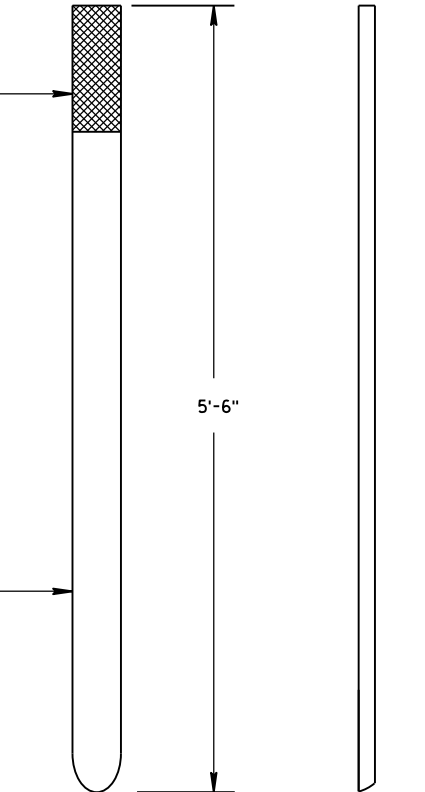
⑤ **WOOD OFFSET BLOCK**
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



⑭ **REFLECTIVE SHEETING DETAILS**

TYPE H
YELLOW REFLECTIVE
SHEETING 3" X 9".
SEE STANDARD
SPECIFICATION 637.

E.A.T. MARKER
POST (YELLOW)
SEE APPROVED
PRODUCTS LIST



FRONT VIEW SIDE VIEW

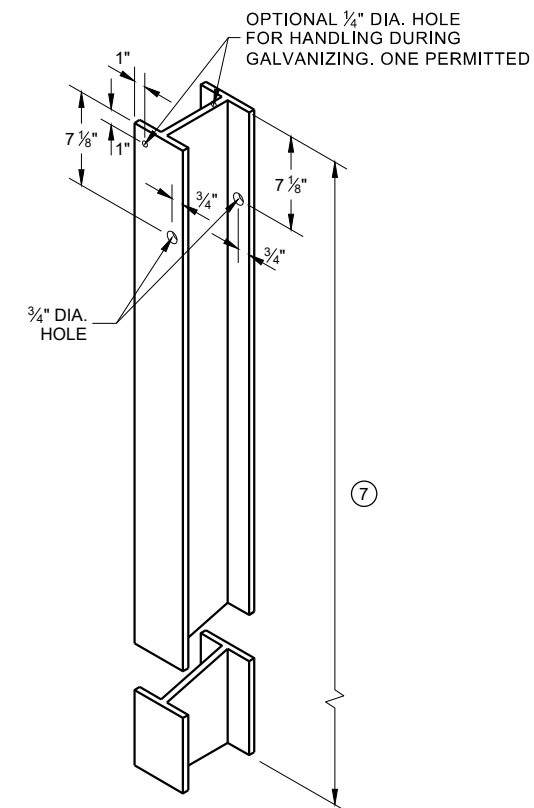
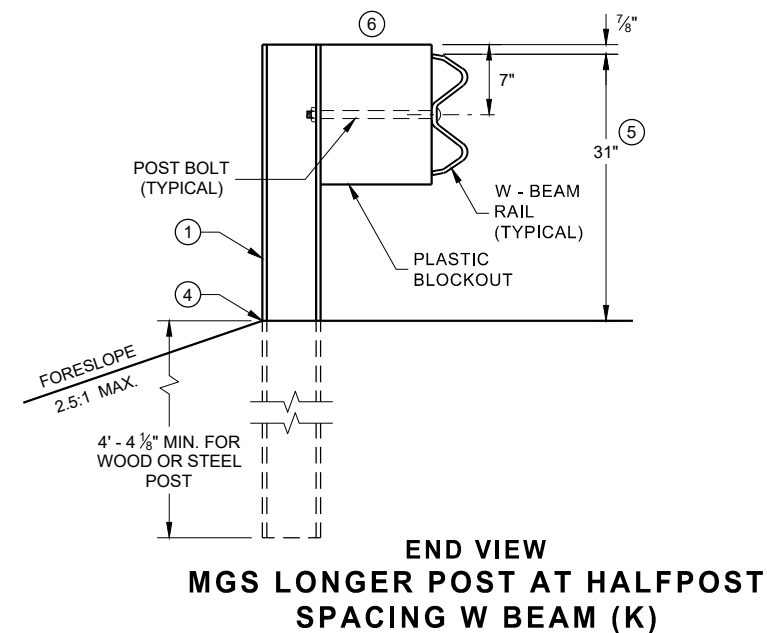
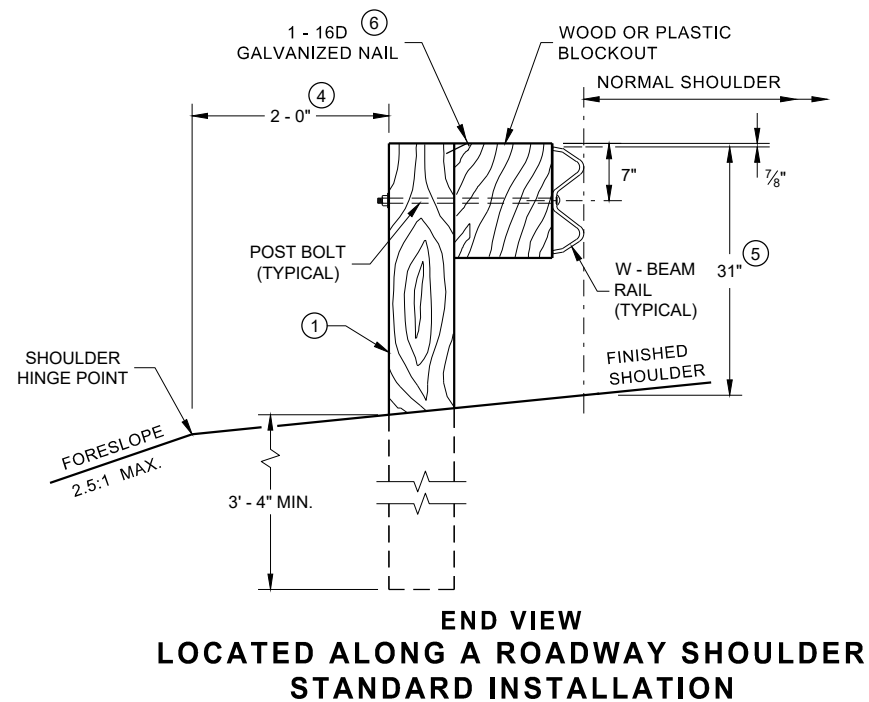
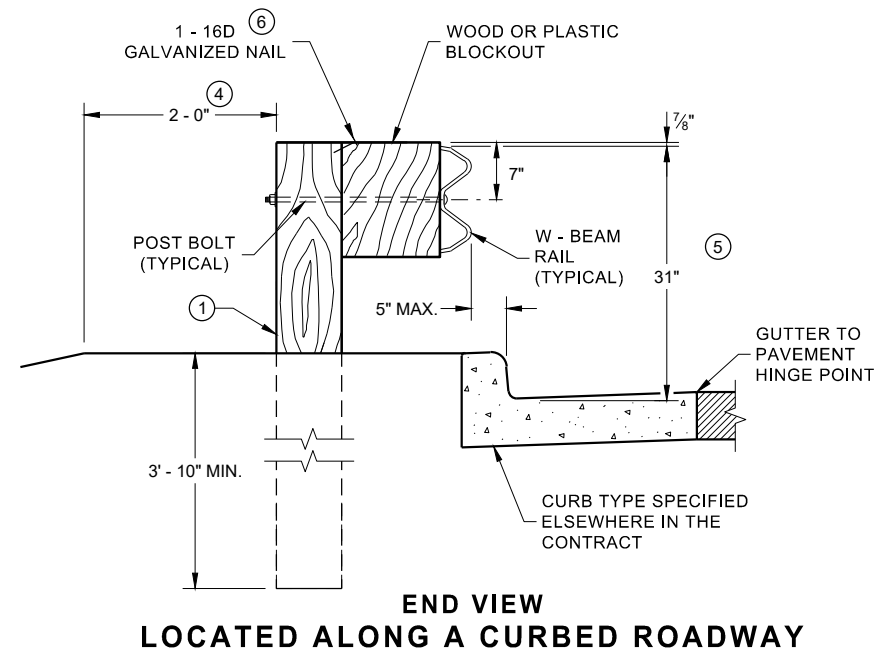
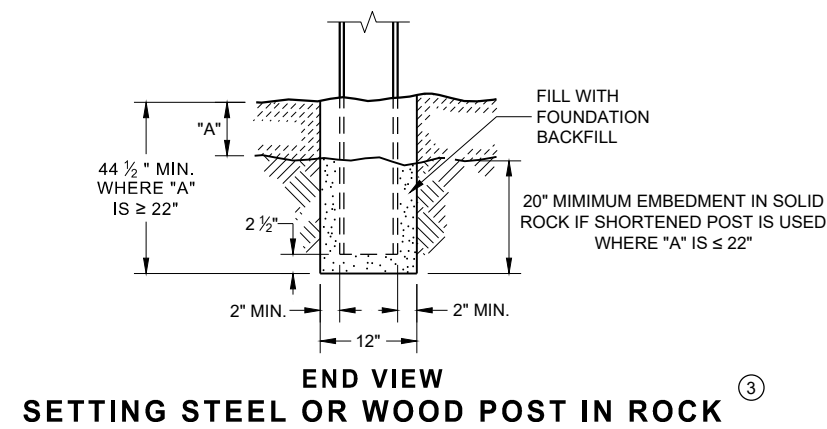
E.A.T. MARKER POST

**STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL**

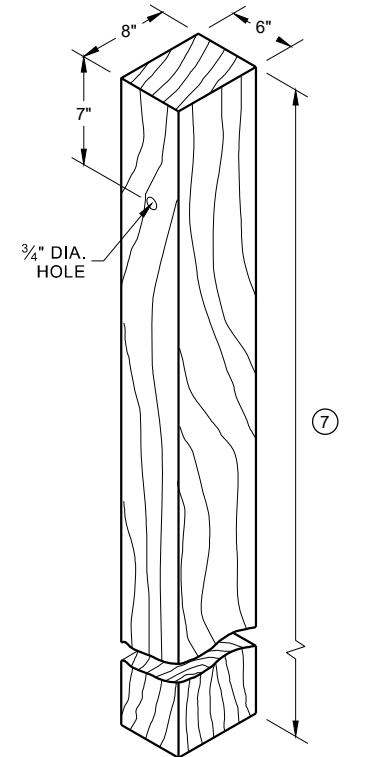
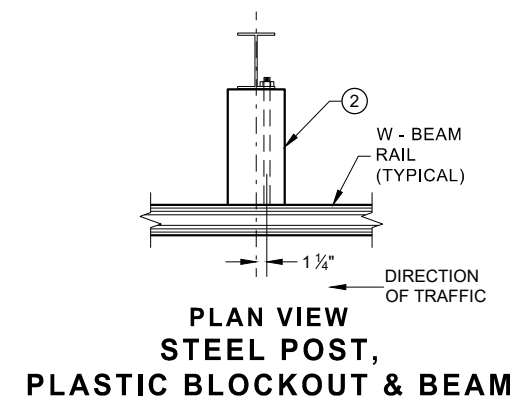
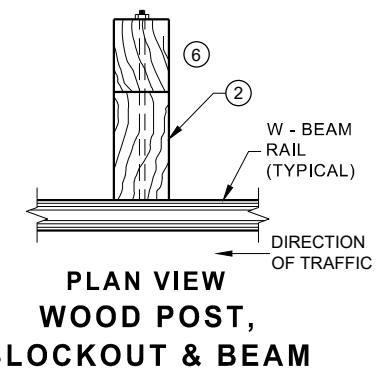
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 /S/ Rodney Taylor
DATE ROADWAY STANDARDS 227 ENT
FHWA UNIT SUPERVISOR

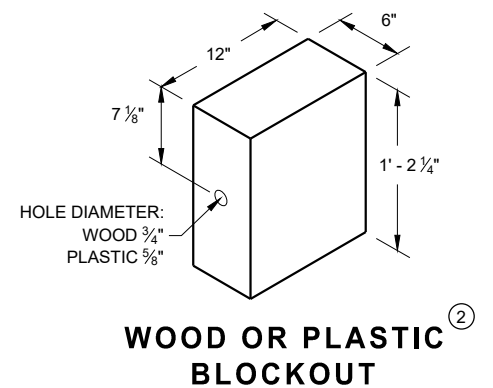
- ① WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.
- ② USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.
- ③ IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 30 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS TO LENGTH AND INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS TO BE FREE OF LARGE ROCKS.
- ④ WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).
- ⑤ FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS +1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 3/4" TO 32".
- ⑥ WHEN USING STEEL POST AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.
- ⑦ TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".

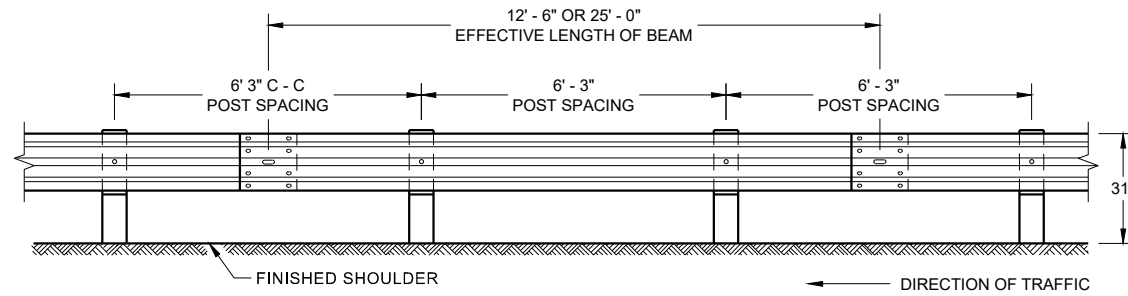


**STEEL POST & HOLE
PUNCHING DETAIL
(W 6 X 9) ①**

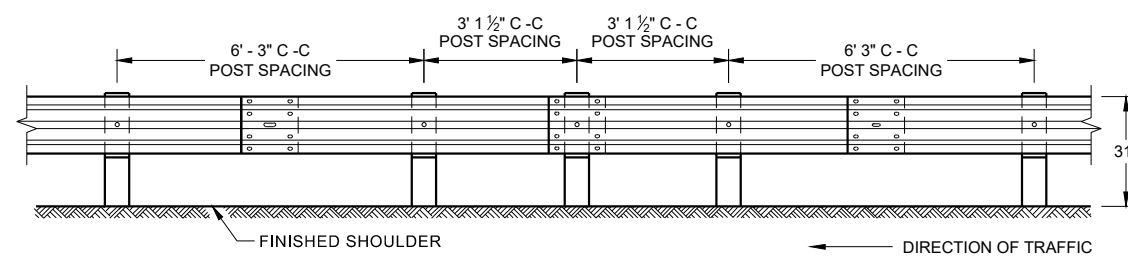


WOOD POST (6" X 8") NOMINAL ⁽¹⁾

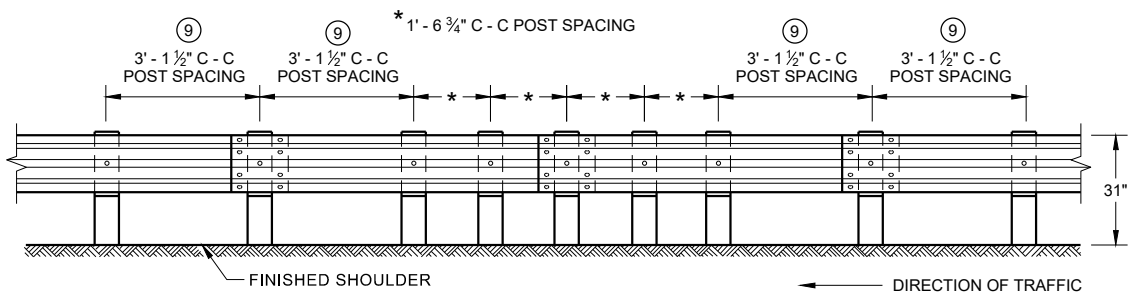




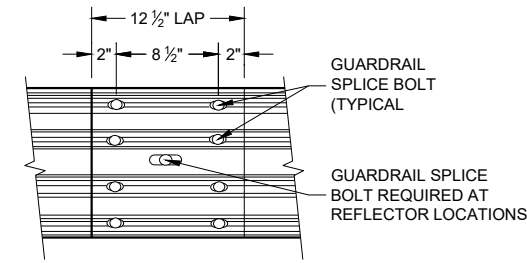
**FRONT VIEW
POST SPACING STANDARD INSTALLATION**



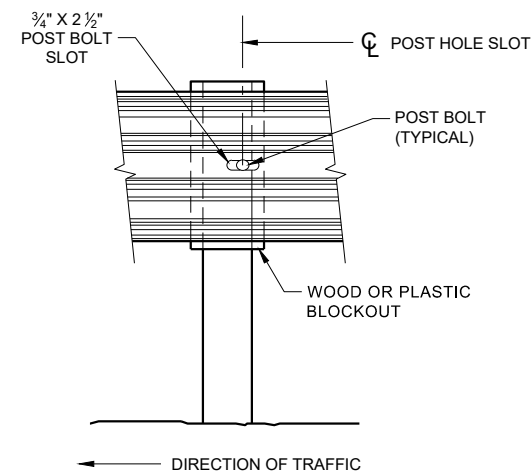
**FRONT VIEW
HALF POST SPACING (HS) AND
HALF POST SPACING WITH LONGER POSTS (K)**



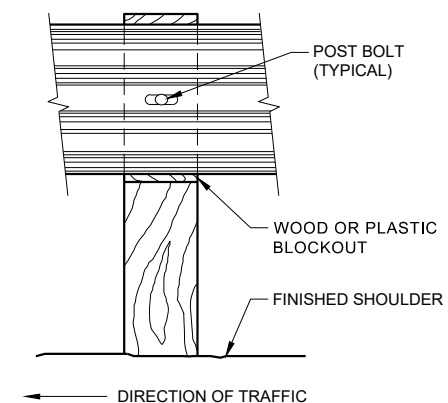
**FRONT VIEW
QUARTER POST SPACING (QS)**



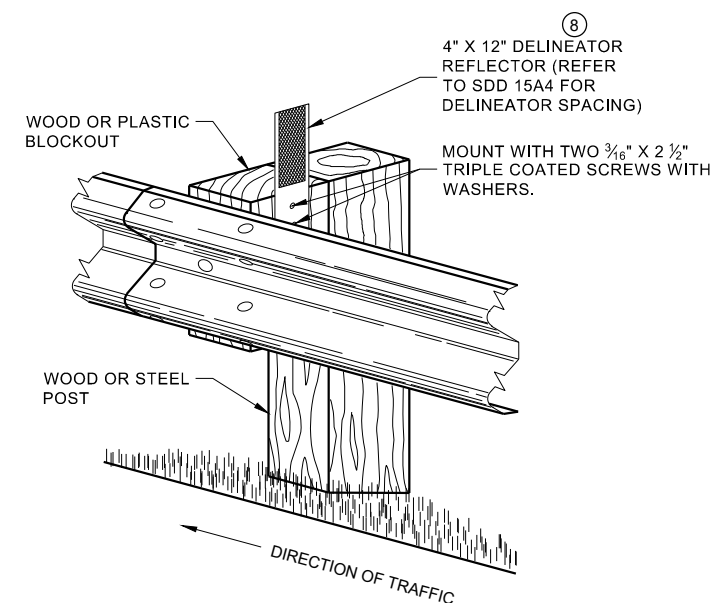
**FRONT VIEW
MID-SPAN BEAM SPLICE**



FRONT VIEW AT STEEL POST



FRONT VIEW AT WOOD POST



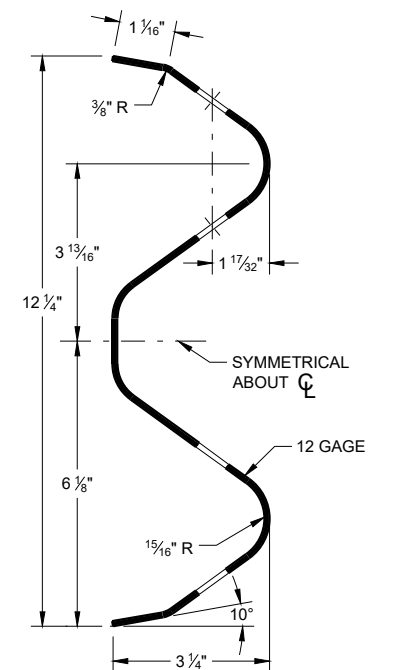
**ONE SIDED REFLECTOR DETAIL
AND TYPICAL INSTALLATION**

GENERAL NOTES

- 8 DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.
- 9 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

POST BOLTS ARE A 3/8" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES 3/4" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND 3/8" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

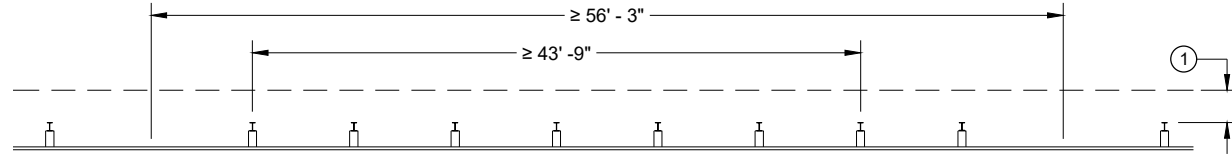
GUARD RAIL SPLICE BOLTS ARE A 3/8" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES 3/4" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.



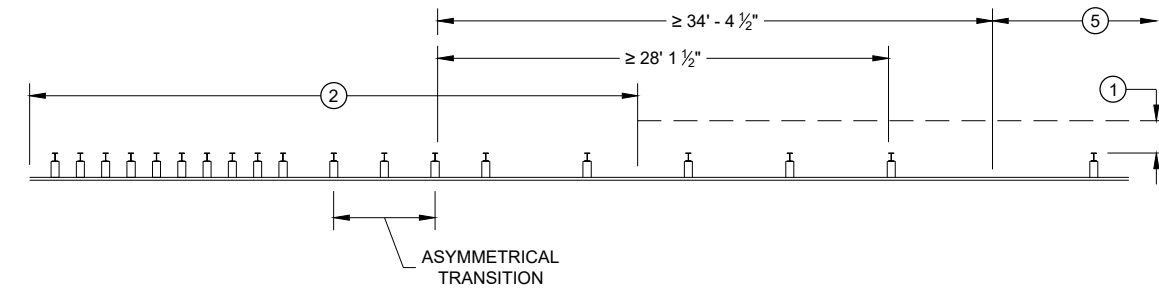
SECTION THRU W-BEAM RAIL

**MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL**

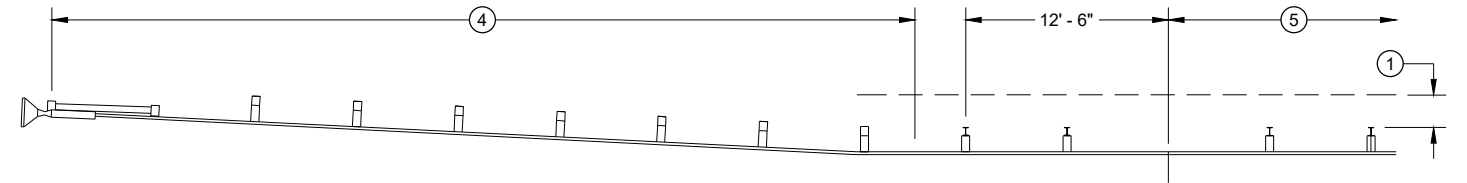
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 229



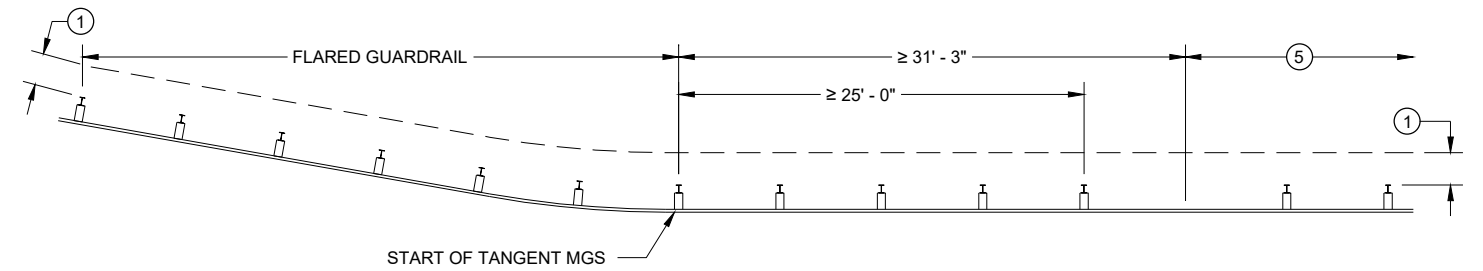
MISSING POST IN NORMAL BEAM GUARD RUN



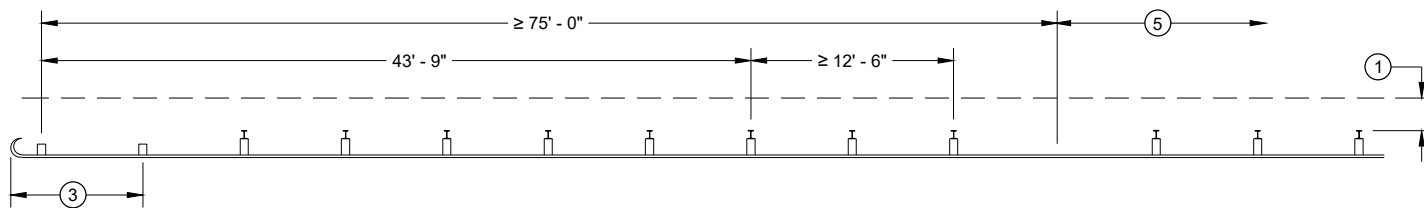
MISSING POST NEAR APPROACH THRIE BEAM TRANSITION



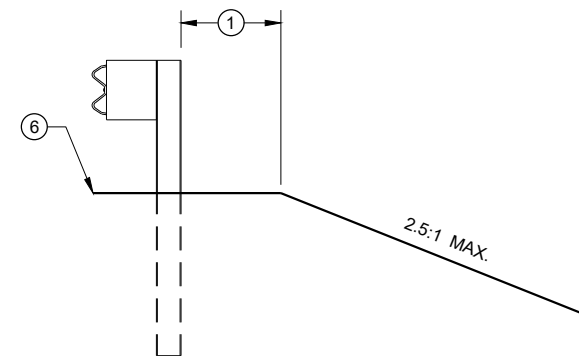
MISSING POST IN NORMAL BEAM GUARD RUN NEAR EAT



MISSING POST IN NORMAL BEAM GUARD RUN
NEAR FLARED BEAM GUARD



MISSING POST IN NORMAL BEAM GUARD RUN
NEAR TYPE 2 TERMINAL



CROSS SECTION VIEW

- ① MINIMUM OF 2 FEET OF GRADING BEHIND POST.
- ② SEE SDD 14B45 FOR MORE DETAILS.
- ③ SEE SDD 14B47 FOR MORE DETAILS.
- ④ SEE SDD 14B44 FOR MORE DETAILS.
- ⑤ SEE MISSING POST IN NORMAL BEAM GUARD RUN FOR DISTANCE TO NEXT MISSING POST AND AREA FOR WELL DRAINED, COMPACTED SOILS.
- ⑥ SEE PLAN FOR SHOULDER DESIGN.

**MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERVISOR 231
FHWA

GENERAL NOTES

- (A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, THE HINGE POINT LINE (HPL) AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.
 - (B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED
 - (C) DIFFERENT MANUFACTURERS REQUIRE DIFFERENT PERFORATED W - BEAM RAIL END PANELS. SEE MANUFACTURER'S INFORMATION.
 - (D) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF - TAPPING SCREWS. ONE SCREW PER CORNER.
 - (E) HARDWARE MAY VARY BETWEEN MANUFACTURER. SEE MANUFACTURER'S DRAWING FOR INFORMATION.
- DIMENSIONS MAY VARY, MANUFACTURER'S INFORMATION.

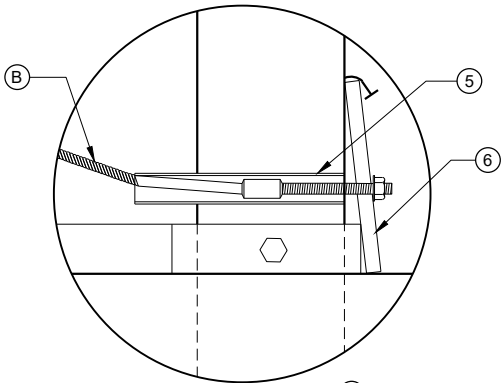
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

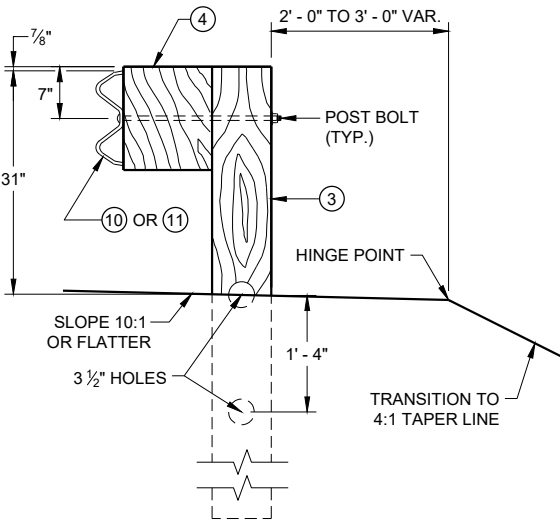
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

SEE MANUFACTURER'S DRAWING FOR SPLICE LOCATION, HARDWARE DIMENSIONS AND INSTALLATION INSTRUCTIONS.

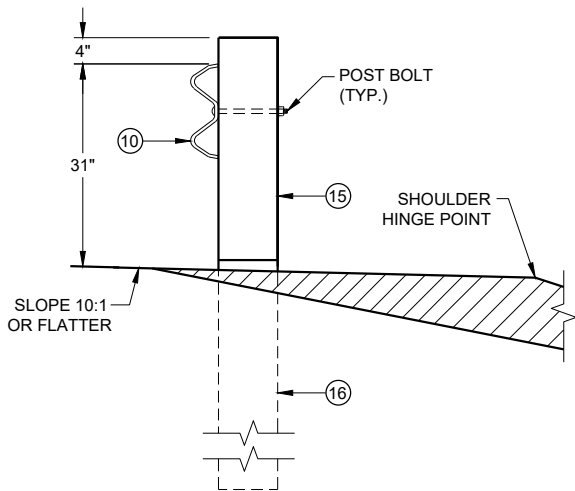
THE CENTER OF THE UPPER 3 1/2" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.



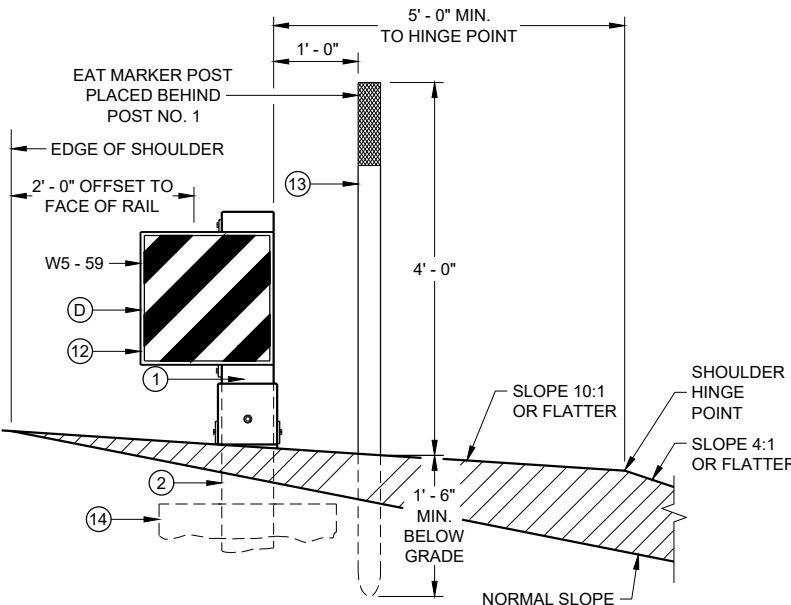
DETAIL "A"



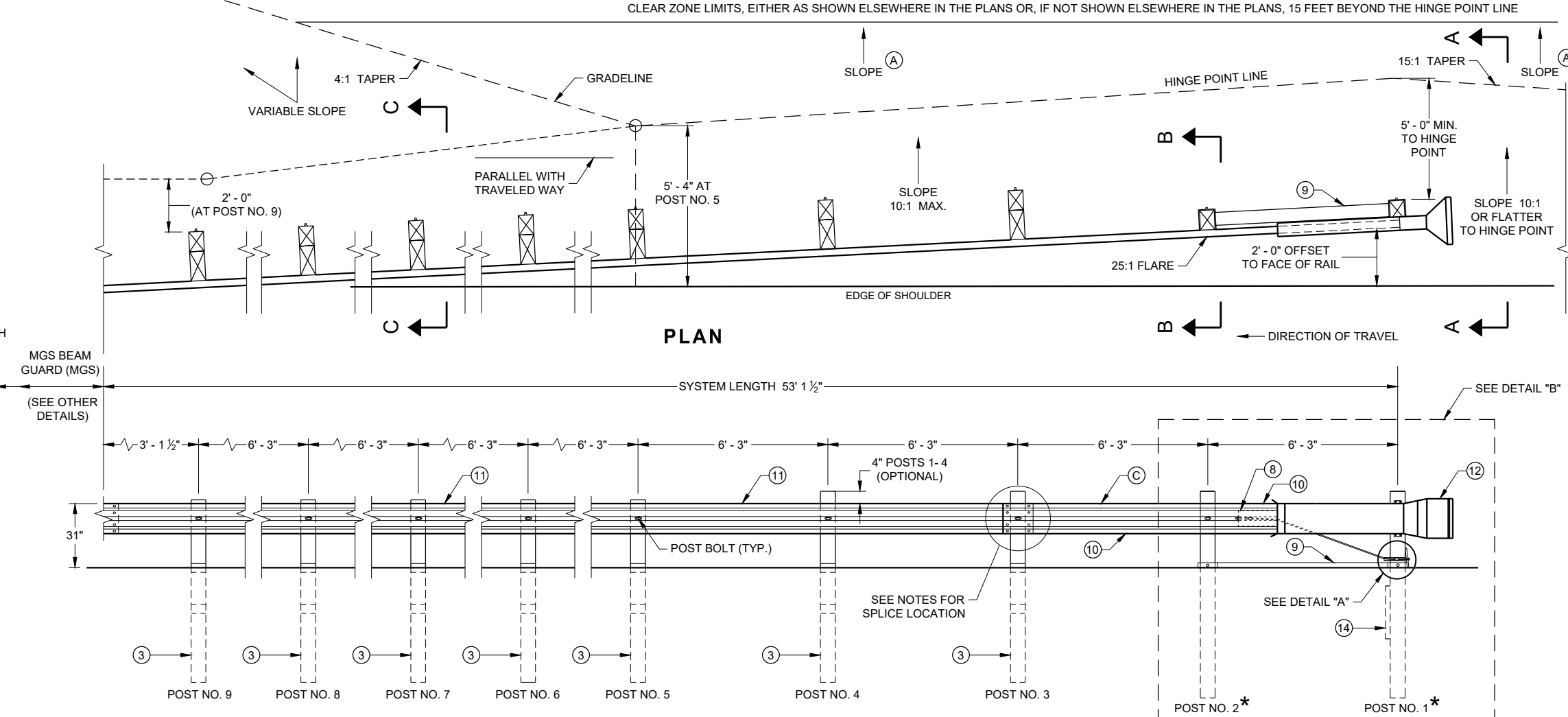
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



SECTION B - B
TYPICAL AT POST NO. 2*

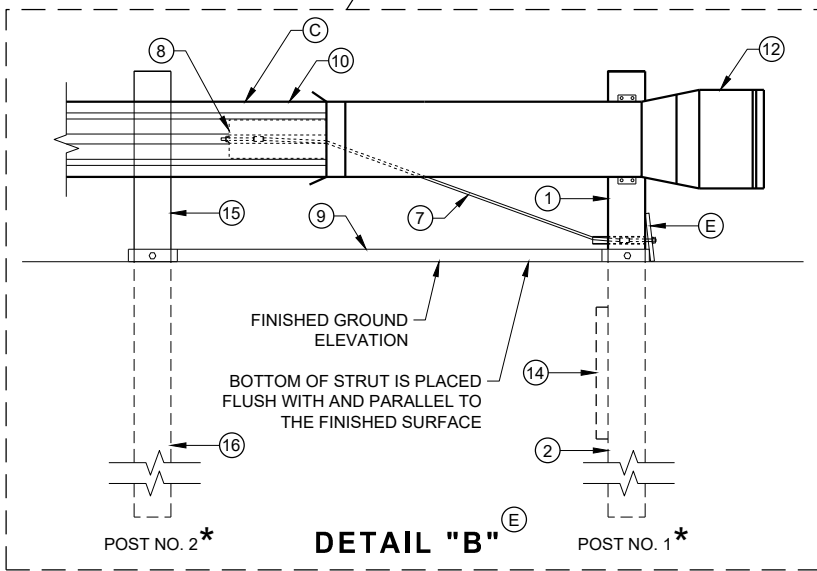


SECTION A - A
TYPICAL AT POST NO. 1*



PLAN

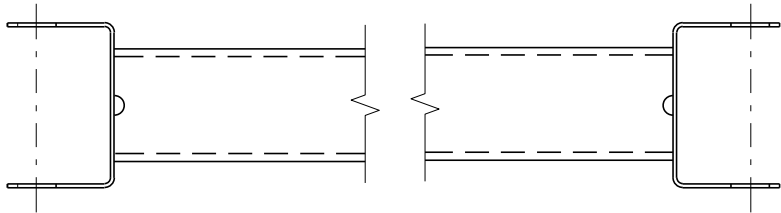
ELEVATION



DETAIL "B"

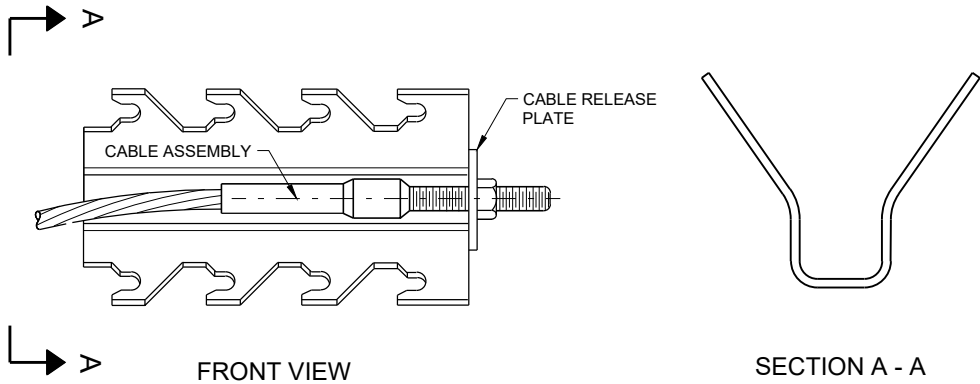
**MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

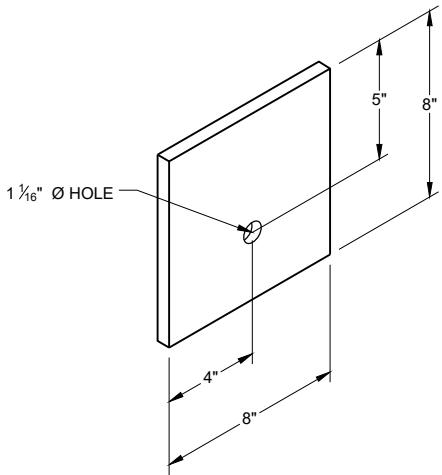


GENERIC GROUND STRUT 9 E

BILL OF MATERIALS	
PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.
1	UPPER POST NO. 1 6" X 6" TUBE
2	LOWER POST NO. 1
3	WOOD CRT
4	WOOD BLOCKOUT
5	PIPE SLEEVE
6	BEARING PLATE
7	BCT CABLE ASSEMBLY
8	ANCHOR CABLE BOX
9	GROUND STRUT
10	PERFORATED W-BEAM RAIL END PANEL, 12'-6" LONG.
11	STANDARD W-BEAM RAIL. MULTIPLE SECTIONS REQUIRED. SECTIONS VARY IN LENGTH.
12	IMPACT HEAD
13	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)
14	SOIL PLATE
15	UPPER POST NO. 2
16	LOWER POST NO. 2



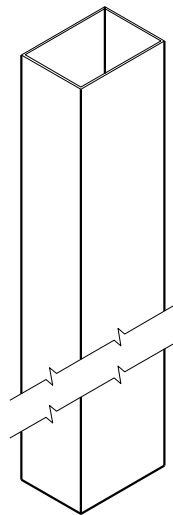
GENERIC ANCHOR CABLE BOX 9 E



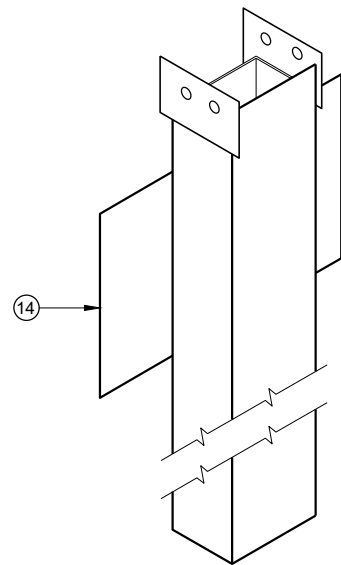
BEARING PLATE 6 E

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

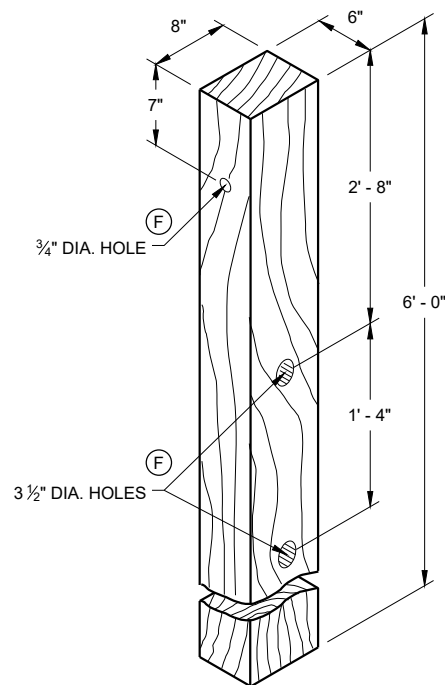
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 233



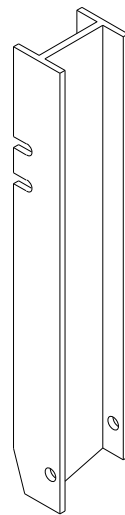
UPPER POST NO. 1 ⁽¹⁾ (E)



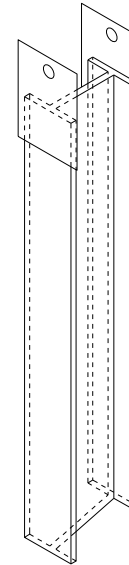
LOWER POST NO. 1 ⁽²⁾ (E)



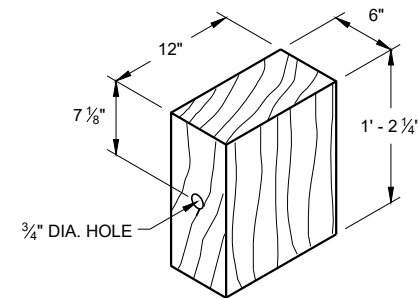
WOOD CRT POST ⁽³⁾ (E)
POSTS NUMBER 3-9



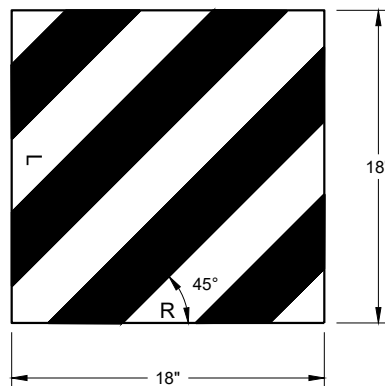
UPPER POST NO. 2 ⁽¹⁵⁾ (E)



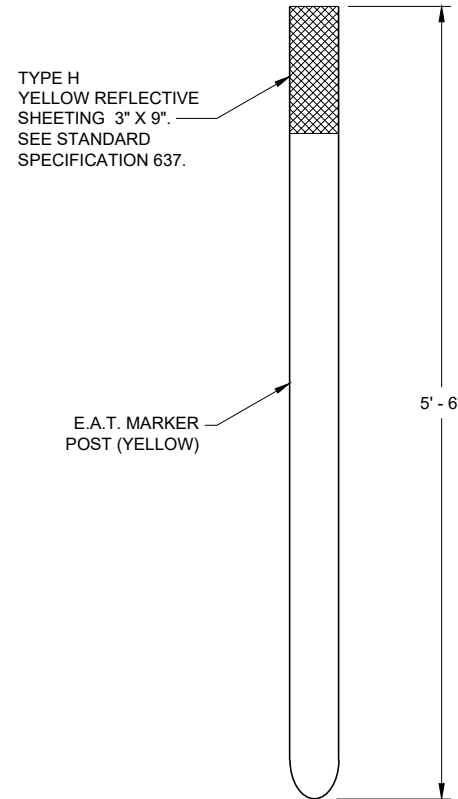
LOWER POST NO. 2 ⁽¹⁶⁾ (E)



WOOD BLOCKOUT ⁽⁴⁾
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



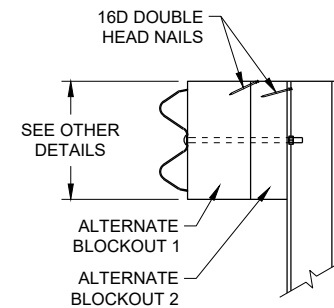
REFLECTIVE SHEETING DETAIL ^(E)



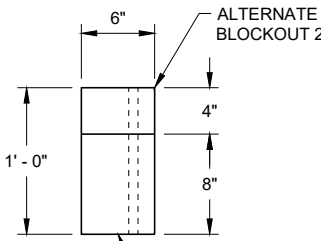
FRONT VIEW

SIDE VIEW

E.A.T. MARKER POST ⁽¹³⁾



SIDE VIEW



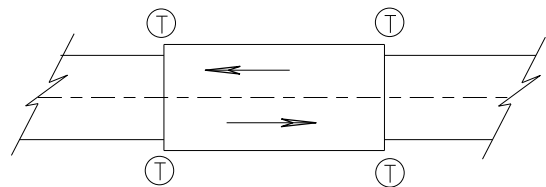
TOP VIEW

ALTERNATE WOOD
BLOCKOUT DETAIL

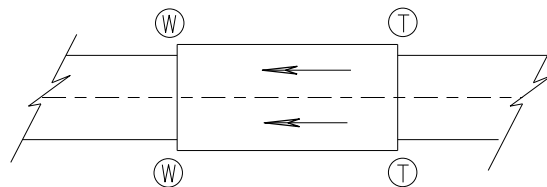
**MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018 DATE /S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
FHWA



TWO WAY TRAFFIC



ONE WAY TRAFFIC

(T) THRIE BEAM CONNECTION

(W) W-BEAM CONNECTION WHEN REQUIRED

TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE

GENERAL NOTES

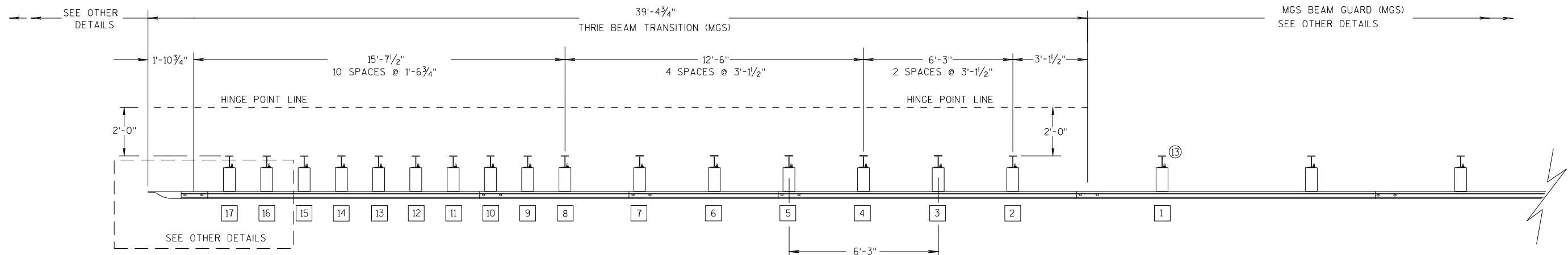
IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2 1/2", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

TRANSITION USES STEEL POSTS ONLY.

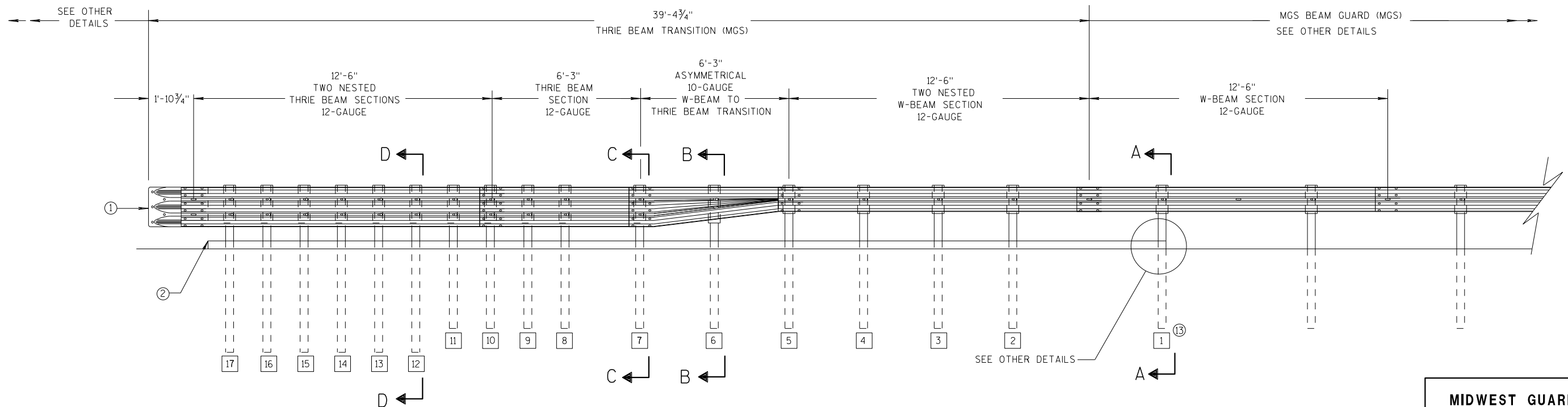
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

POST 2 THROUGH 17 USES STEEL POST ONLY

- ① BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.
- ② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.
- ⑬ STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD14B42



PLAN VIEW



ELEVATION VIEW

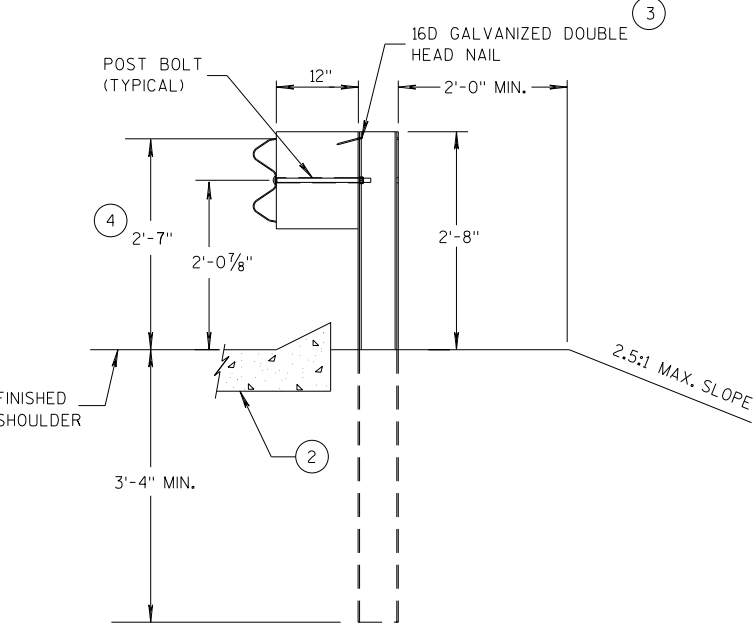
MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

**MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)**

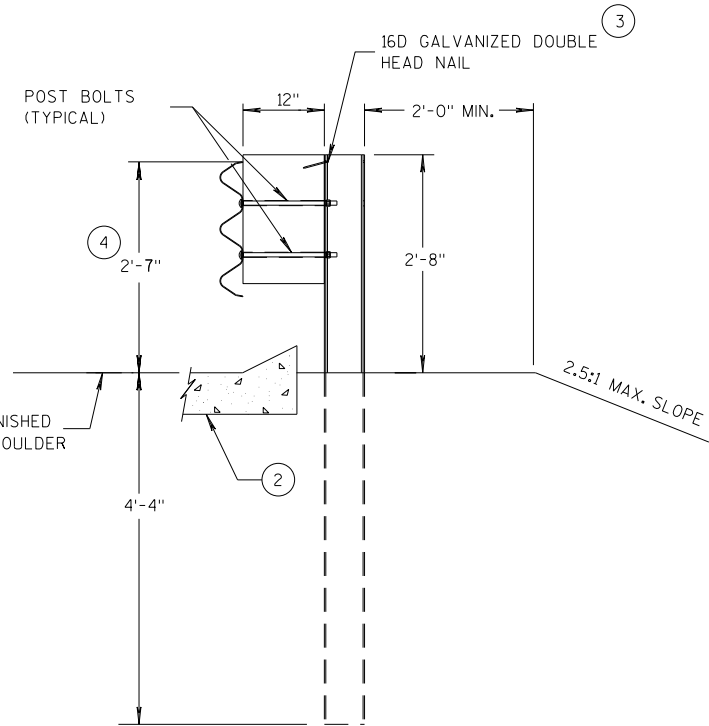
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

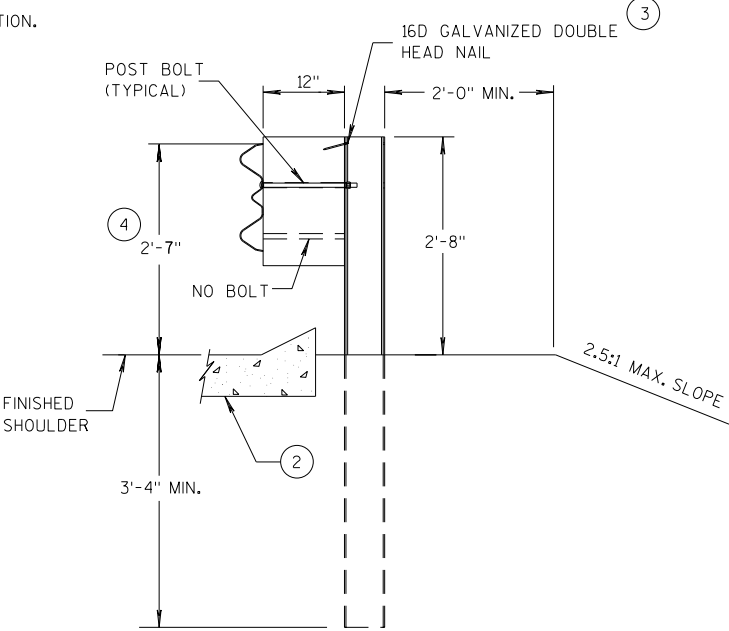
- 2 OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.
- 3 WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 10D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.
- 4 TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".
- 13 STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD 14B42



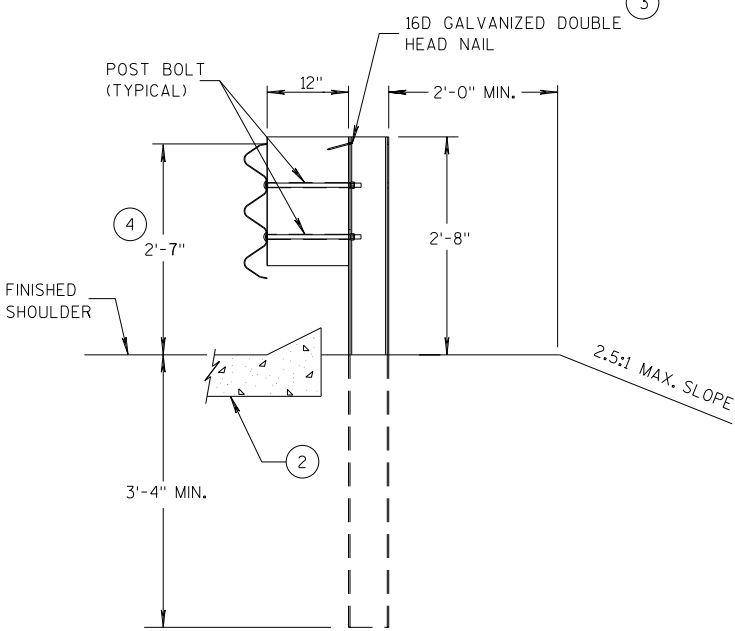
SECTION A-A
POSTS 1-5



SECTION D-D
POSTS 12-17



SECTION B-B
POST 6



SECTION C-C
POSTS 7-11

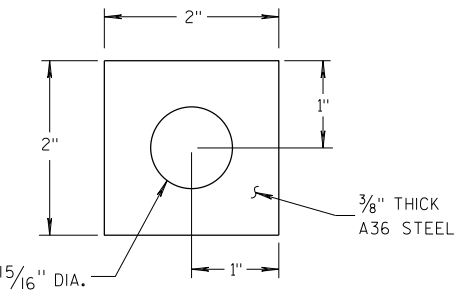
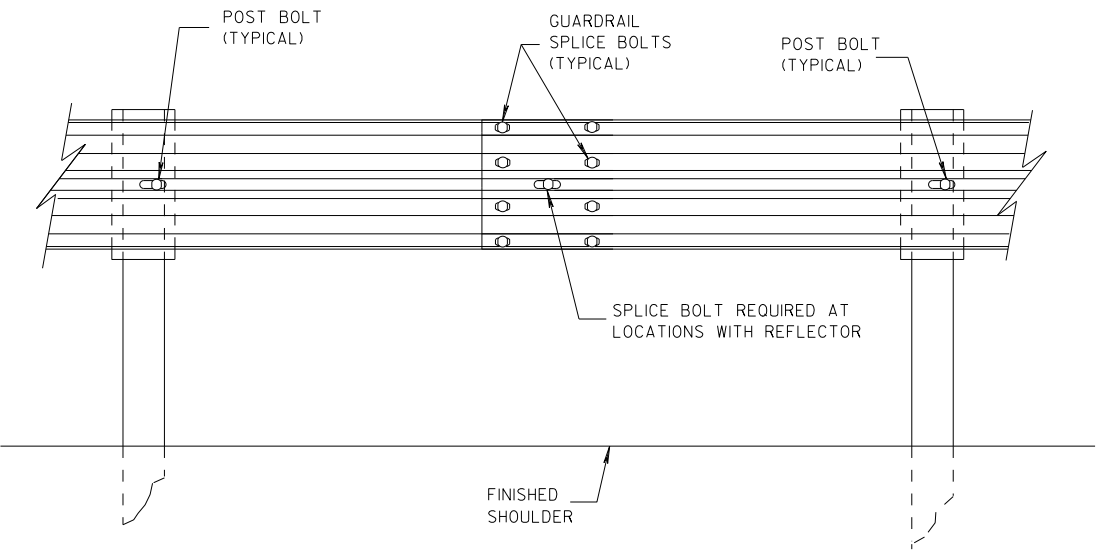
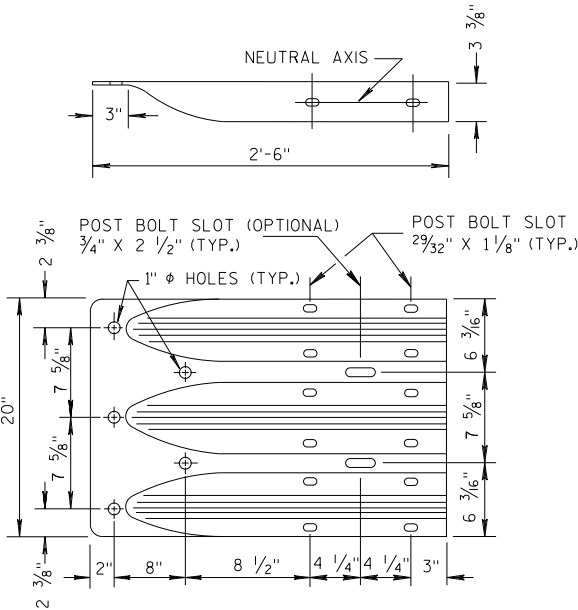


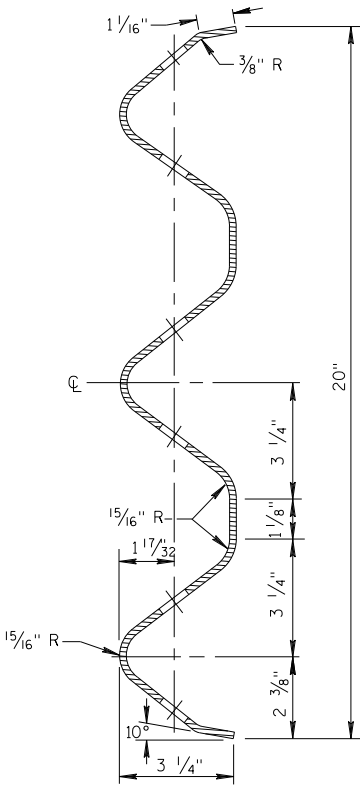
PLATE WASHER DETAIL



SPlice DETAIL



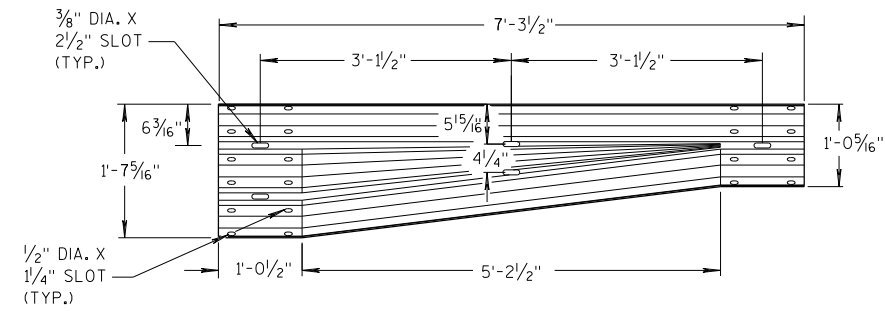
THRIE BEAM
TERMINAL CONNECTOR



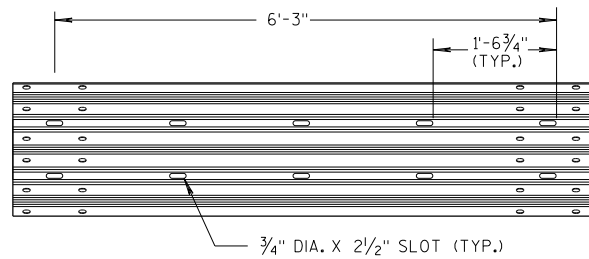
SECTION THRU THRIE
BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

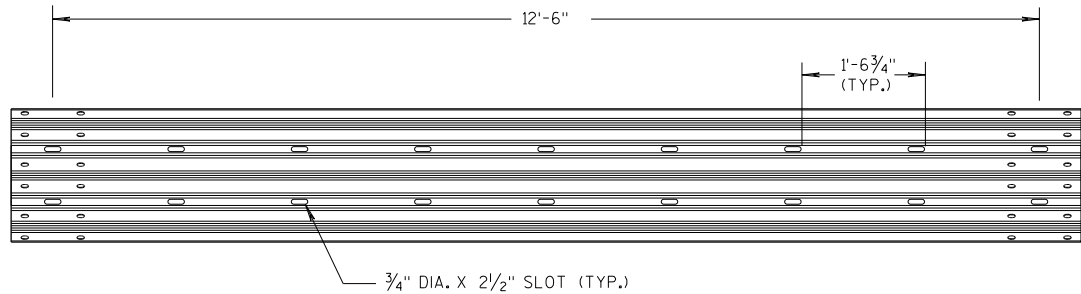
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



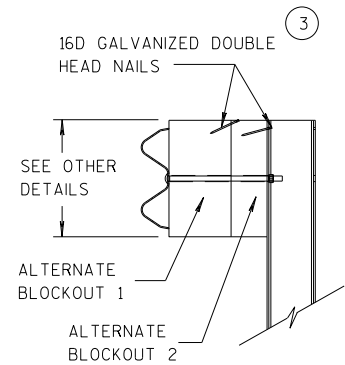
W-BEAM TO THRIE BEAM TRANSITION SECTION



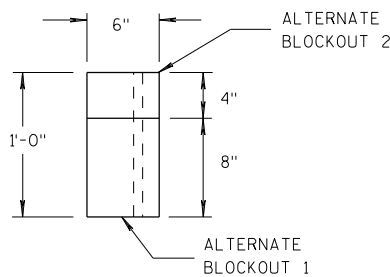
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

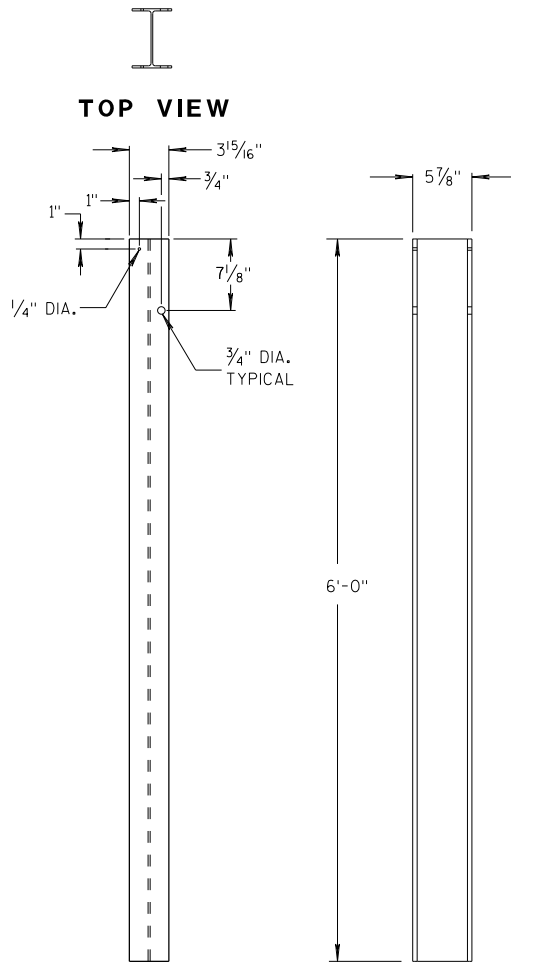


SIDE VIEW



TOP VIEW

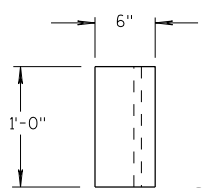
ALTERNATE WOOD BLOCKOUT DETAIL



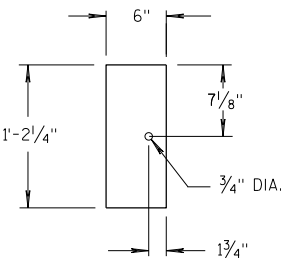
FRONT VIEW

SIDE VIEW

STEEL POSTS 1-5

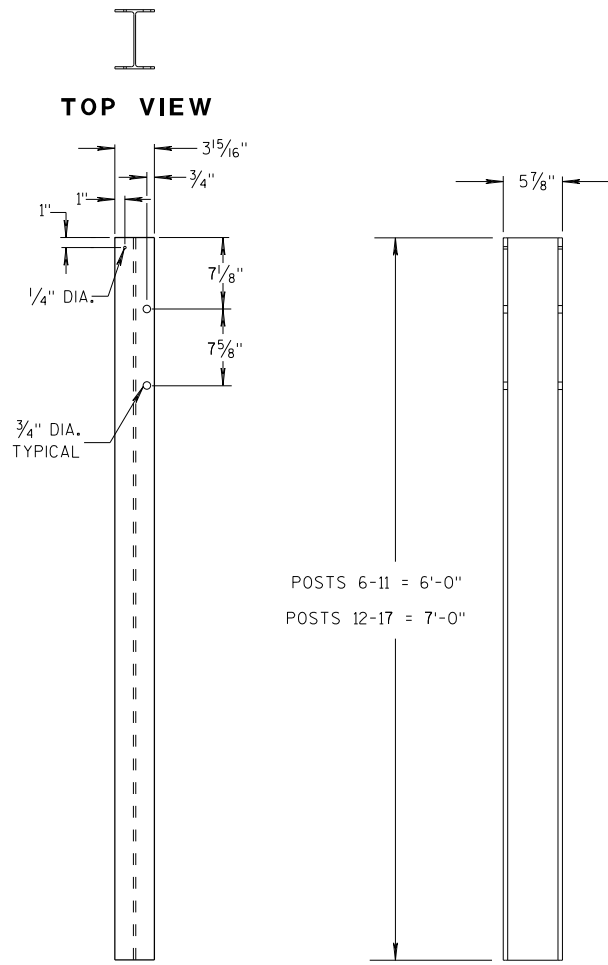


TOP VIEW



FRONT VIEW

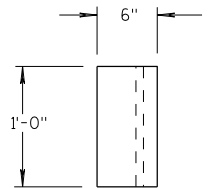
BLOCKOUT POSTS 1-5



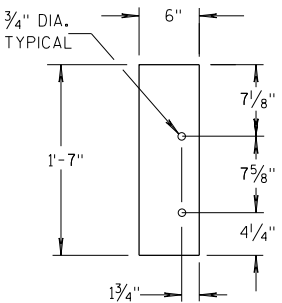
FRONT VIEW

SIDE VIEW

STEEL POSTS 6-17



TOP VIEW



FRONT VIEW

BLOCKOUT POSTS 6-17

GENERAL NOTES

STEEL POSTS ARE W6X9 OR W6X8.5.

BOLT HOLES FOR POST ARE ON FRONT AND OF SIDE OF POST.

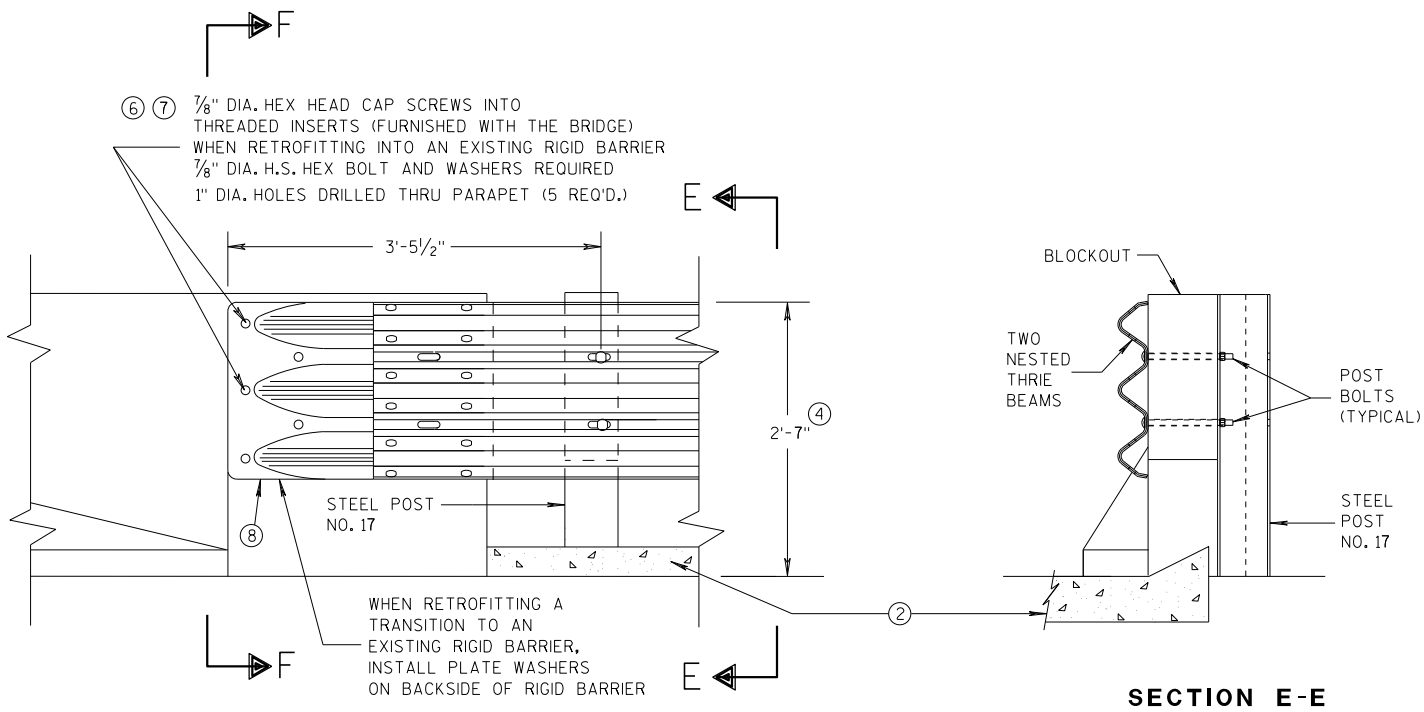
③ WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

⑤ WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.

⑬ STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD 14B42.

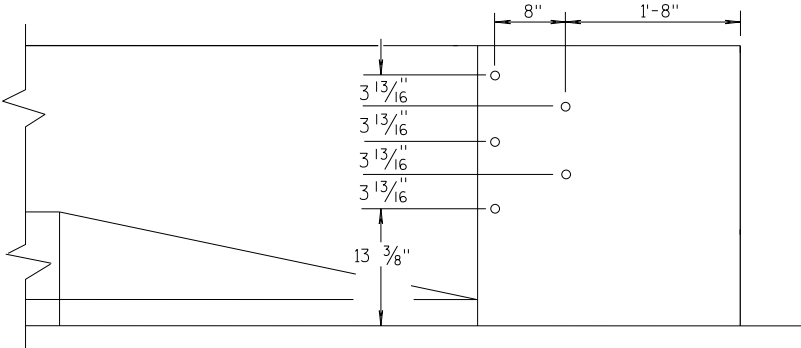
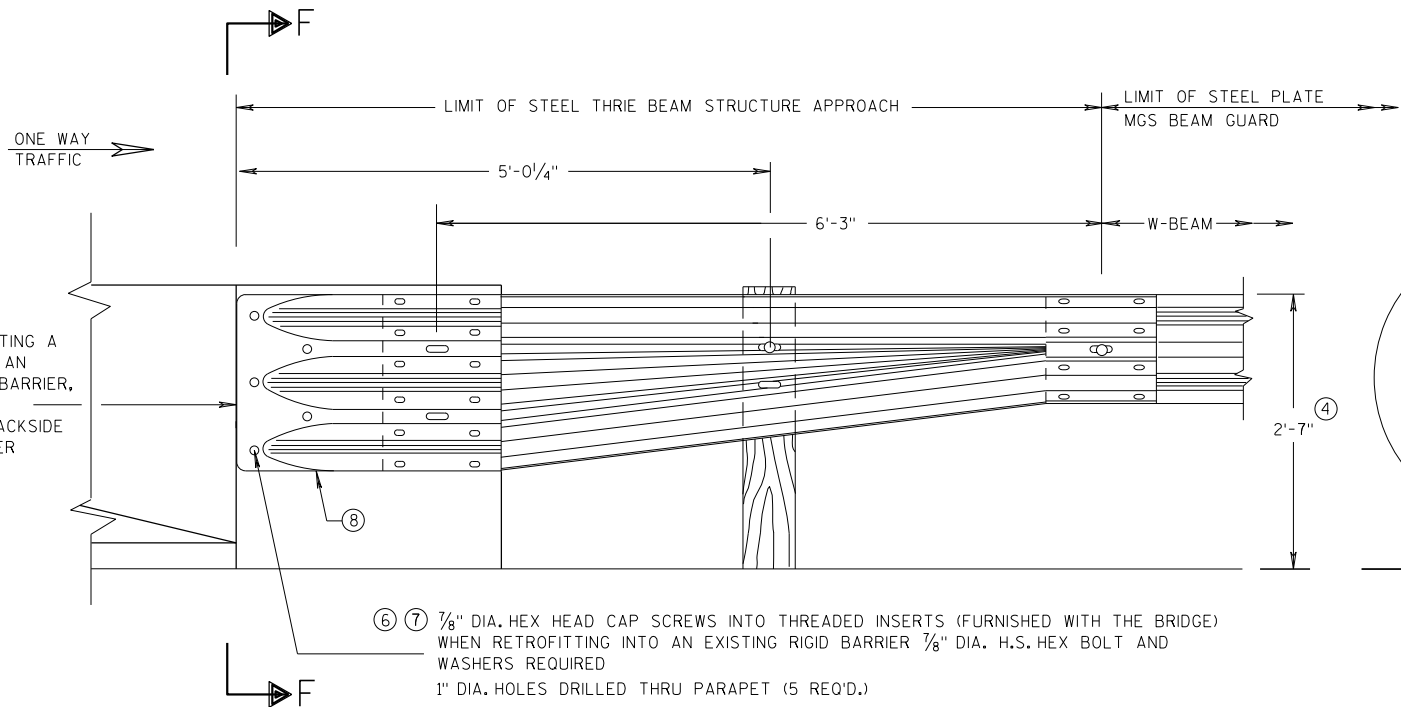
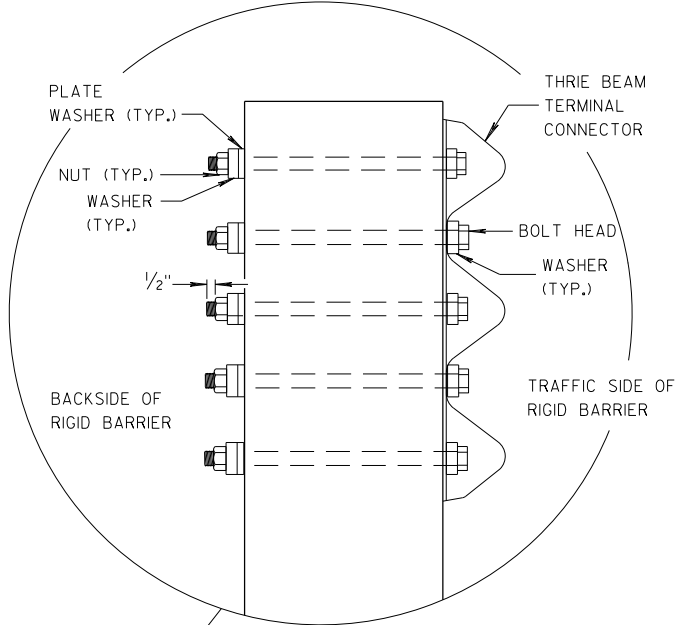
MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



GENERAL NOTES

- THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.
- ② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.
- ④ TOLERANCE FOR TOP OF BEAM IS $\pm 1"$.
- ⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.
- ⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/32" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.
- ⑧ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

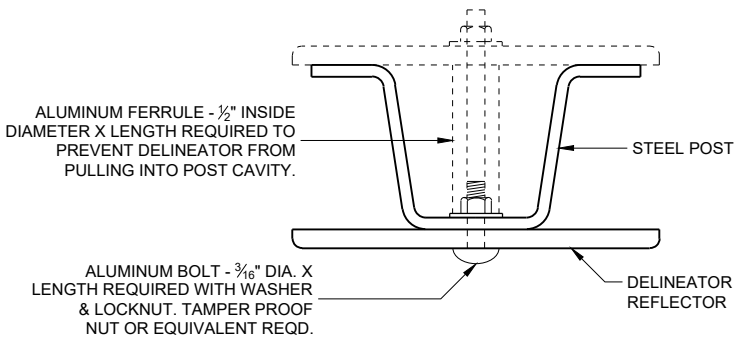


DRILL HOLE LOCATION

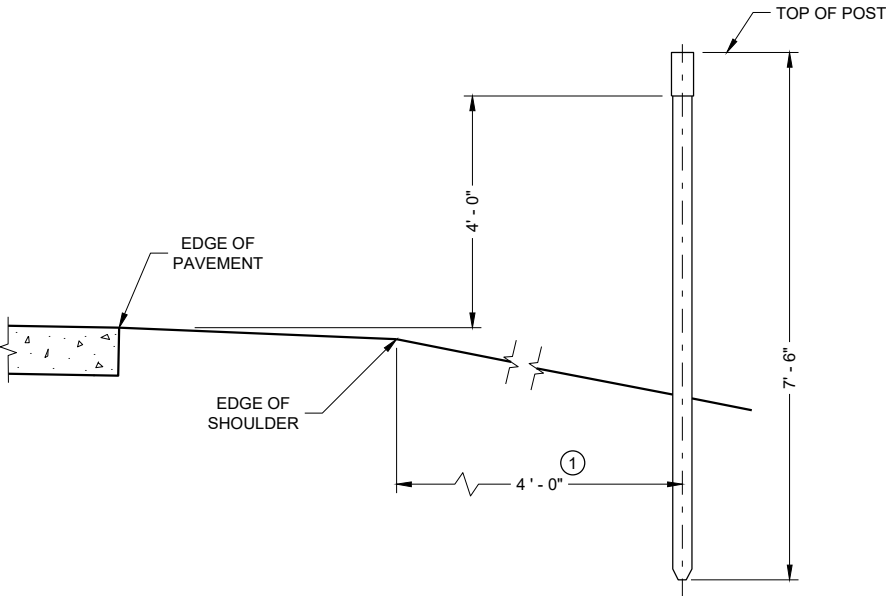
**MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

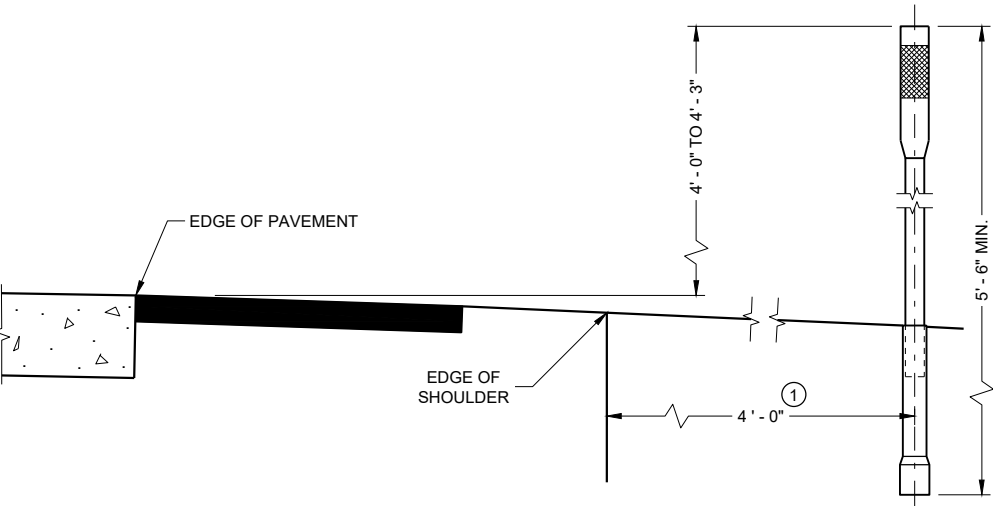
APPROVED
07/2018
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS UNIT SUPERVISOR
238
FHWA



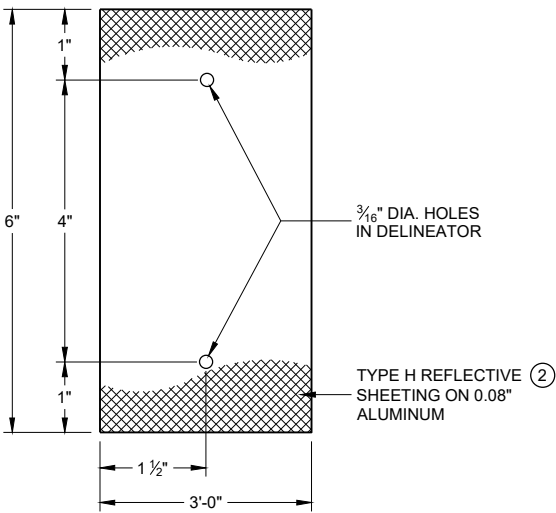
MOUNTING DETAIL FOR DELINEATOR REFLECTOR



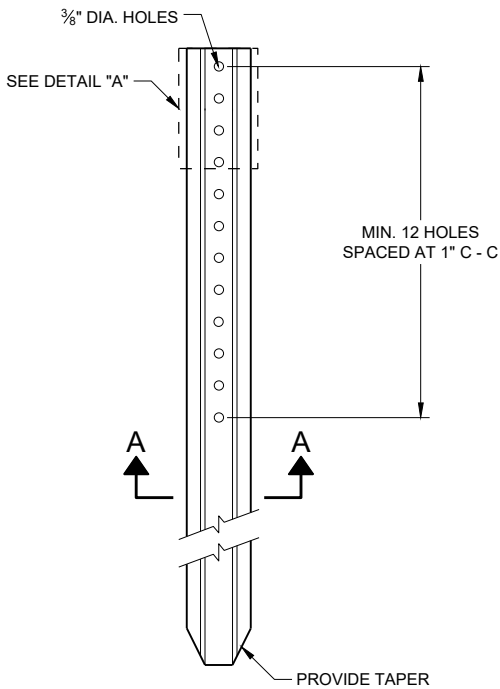
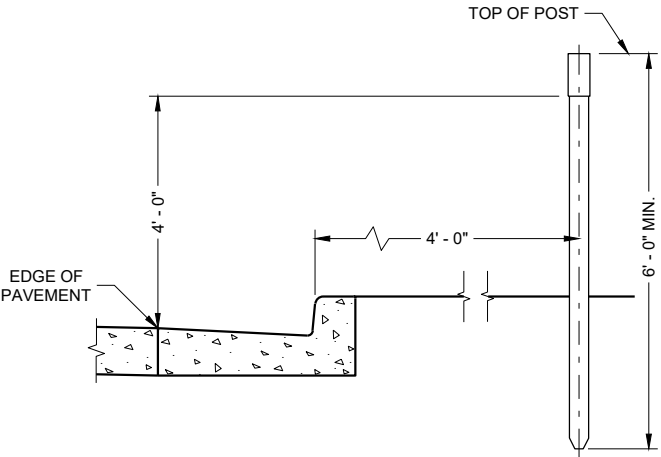
TYPICAL INSTALLATIONS OF DELINEATOR POSTS



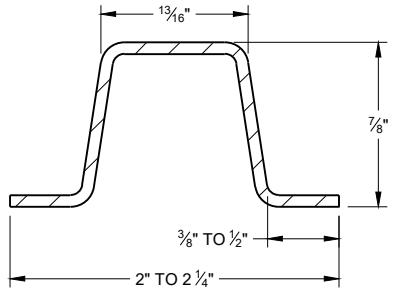
TYPICAL INSTALLATIONS OF FLEXIBLE DELINEATOR POSTS



DETAIL "A" 3" X 6" DELINEATOR REFLECTOR



DELINEATOR POST



SECTION A - A
WEIGHT 1.12 LBS PER FT. \ 0.1 LB.

REFLECTOR SPACING TABLE

REFLECTOR SPACING	LOCATION
* 100' C-C	RAMPS
400' C-C	MAINLINE

* START AT BEGINNING OF RAMP TAPER AND END AT END OF RAMP TAPER

GENERAL NOTES

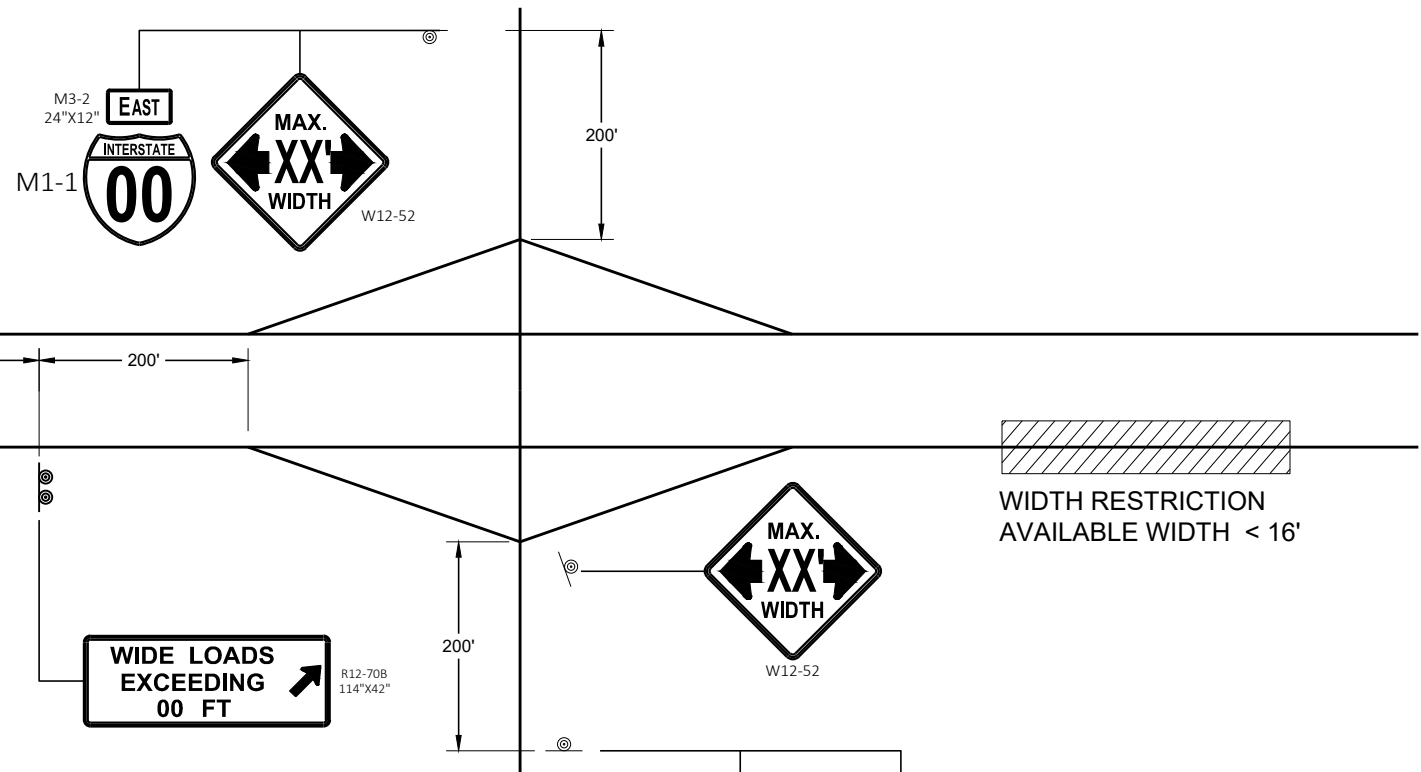
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF TEH STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

- (1) DELINEATORS SHALL BE PLACED AT A CONSTANT DISTANCE FROM THE EDGE OF THE SHOULDER FOR THE LENGTH OF THE INSTALLATION.
- (2) FURNISH TYPE H SHEETING FROM THE APPROVED PRODUCTS LIST.

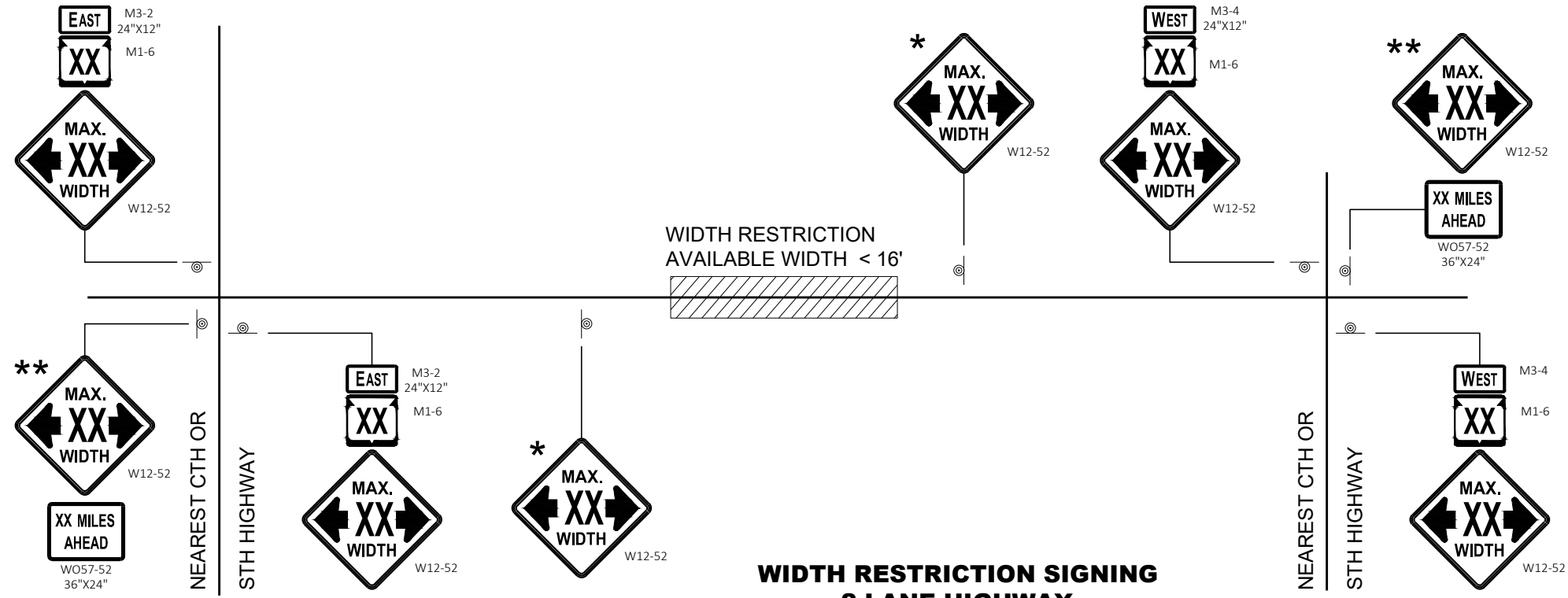
DELINEATOR POST
WITH REFLECTIVE SHEETING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2019 /S/ Matthew Rauch
DATE STATE SIGNING AND MAP 239
ENGINEER
FHWA



WIDTH RESTRICTION SIGNING



WIDTH RESTRICTION SIGNING
2 LANE HIGHWAY

LEGEND

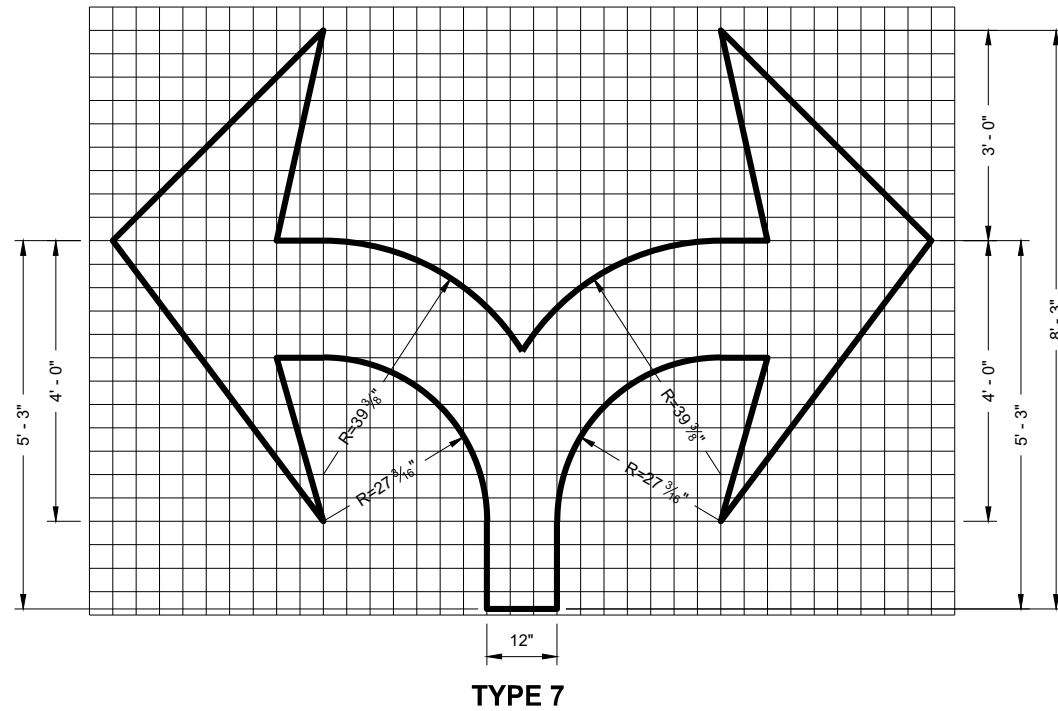
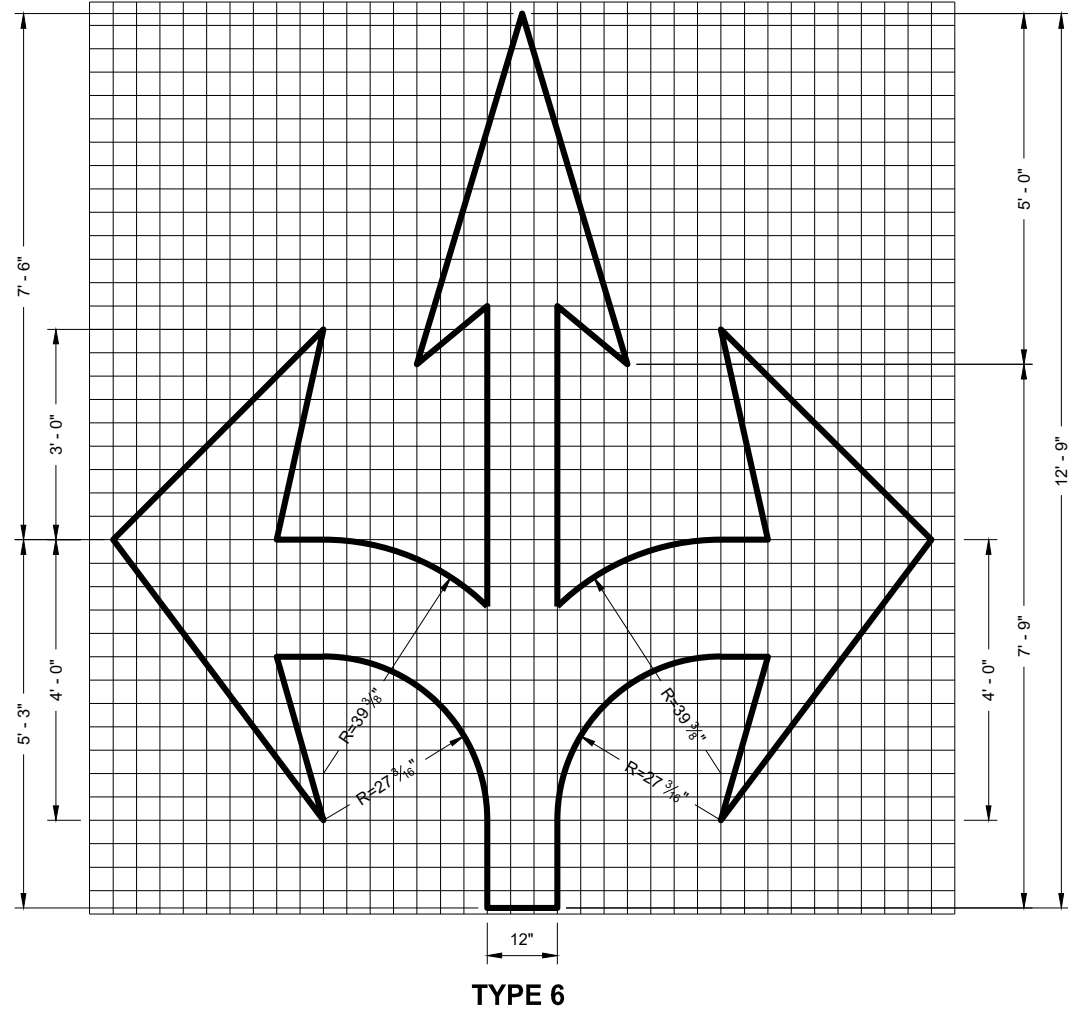
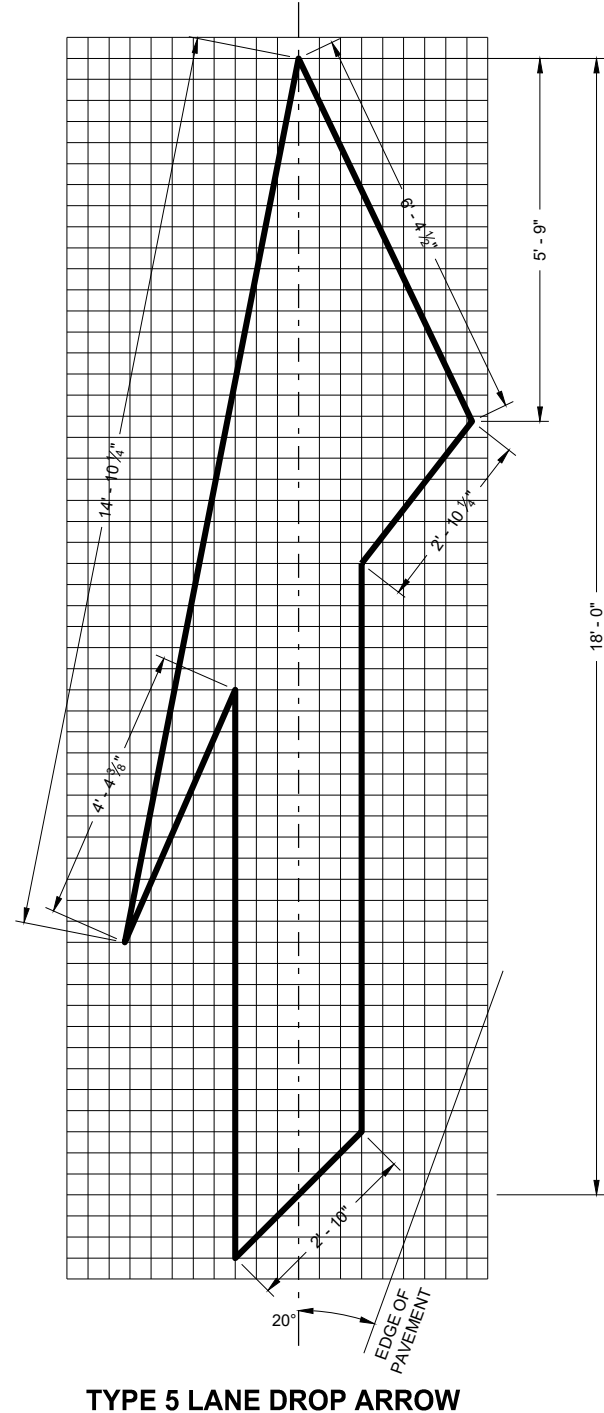
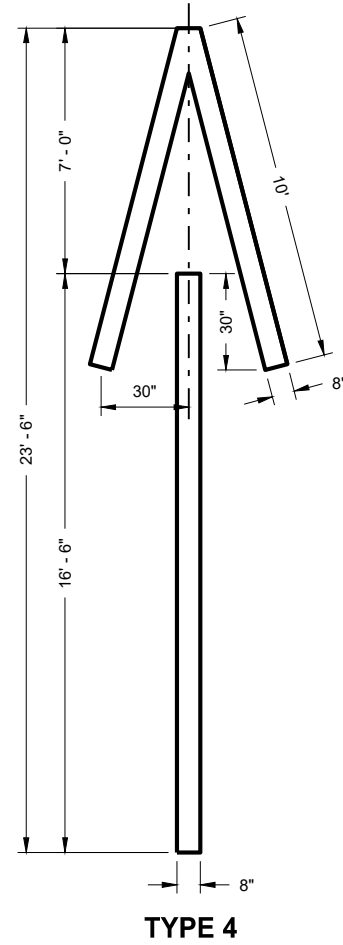
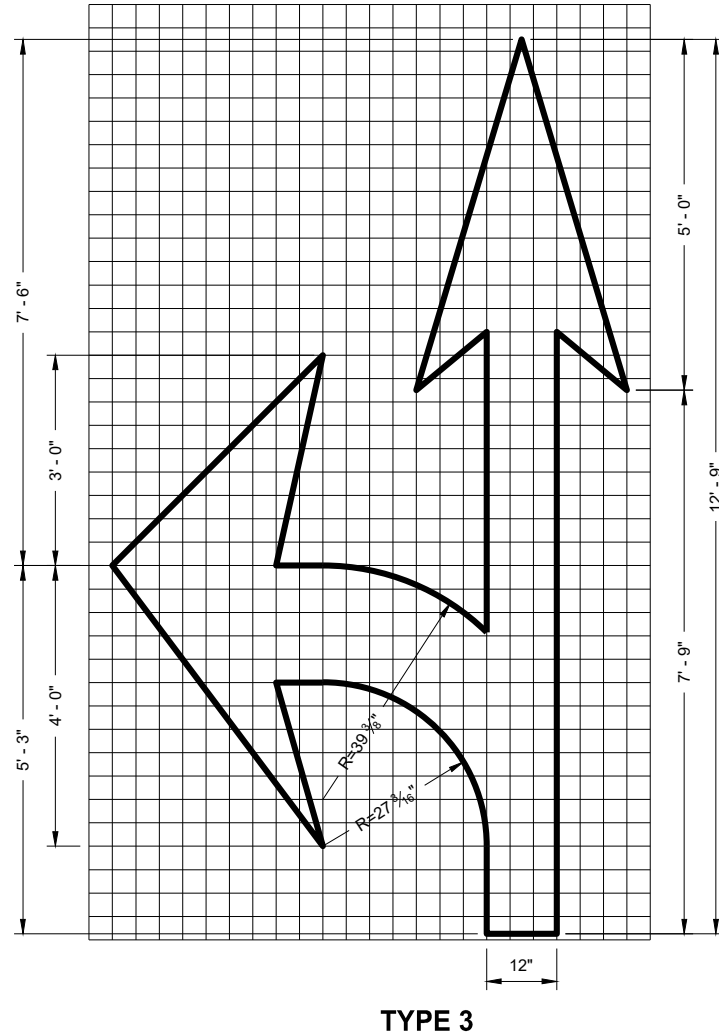
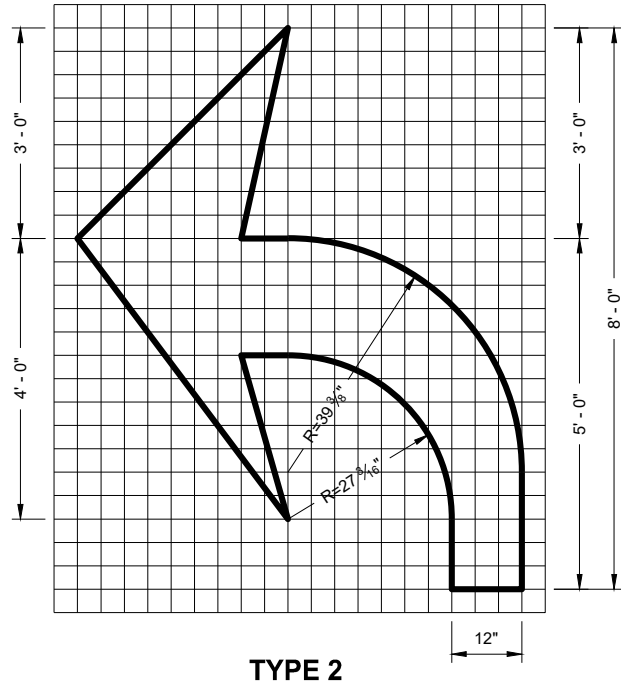
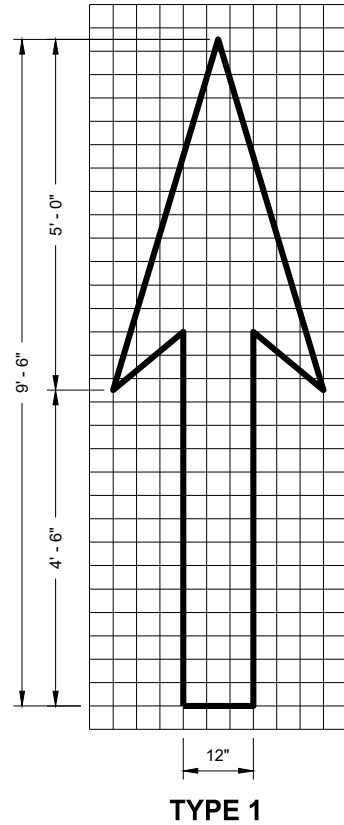
⊙ SIGN ON PERMANENT SUPPORT

GENERAL NOTES

- THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
- THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.
- ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.
- ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.
- "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.
- WIDTH ON SIGN TO BE APPROXIMATELY ONE FOOT LESS THAN AVAILABLE WIDTH.
- * PLACE 500 FEET AFTER THE W20 - 1A AND 500 FEET BEFORE ADDITIONAL SIGNS FOR ROADWAYS WITH A PRE - CONSTRUCTION SPEED LIMIT OF 45 MPH OR MORE. FOR 35-40 MPH, USE 350 FOOT TYPICAL SPACING. FOR 25-30 MPH, USE 200 FOOT TYPICAL SPACING.
- ** SIGN SHALL BE VISIBLE FROM ROADWAY.
- *** ADDITIONAL SIGNS NEEDED IF THERE IS AN ON RAMP BETWEEN SIGNS.



ADVANCED WIDTH RESTRICTION SIGNING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED February 2020 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER 240
FHWA	



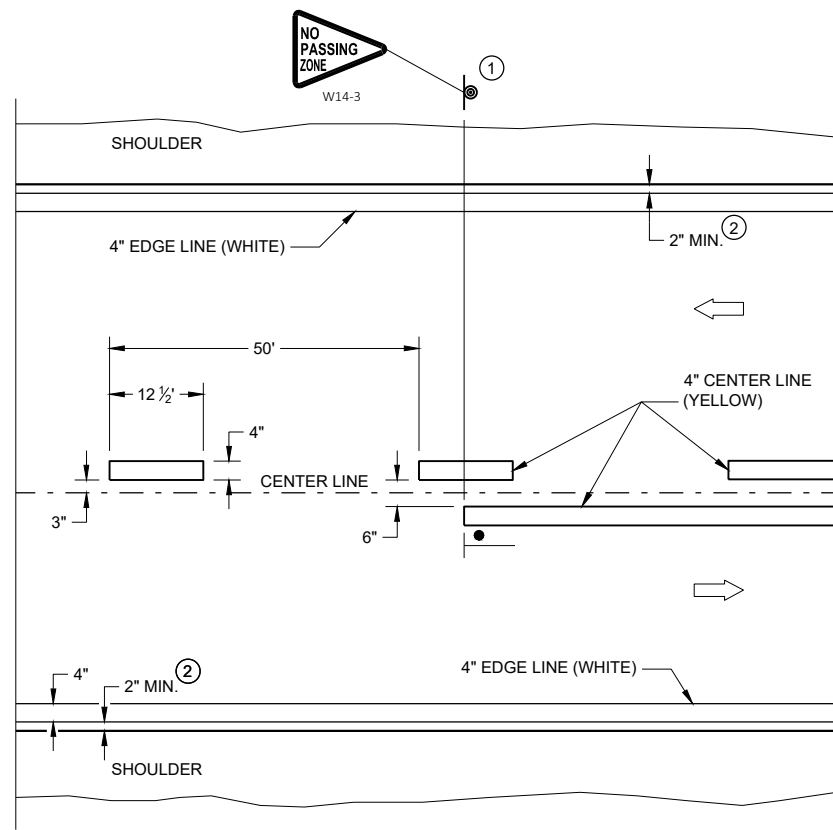
GENERAL NOTES

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.

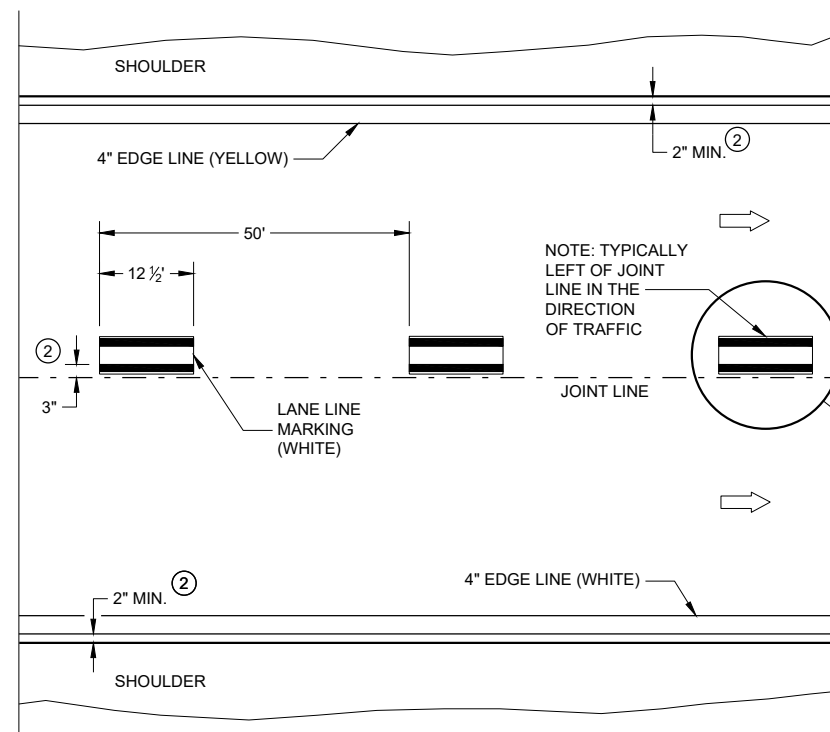
PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019
DATE
/S/ Matthew Rauch
STATE SIGNING AND MAP ENGINEER 241
FHWA

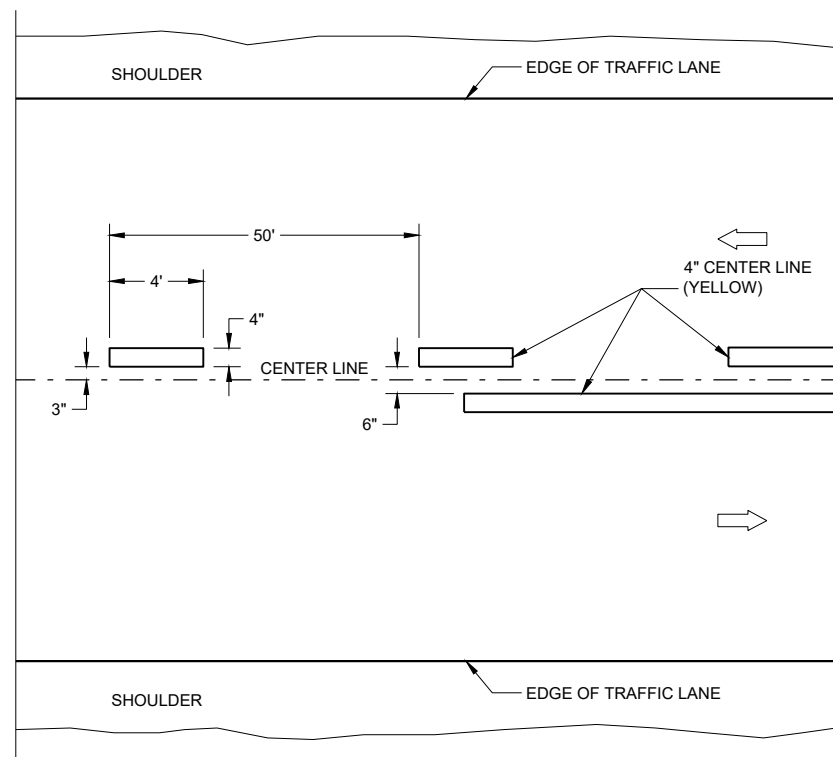


TWO WAY TRAFFIC

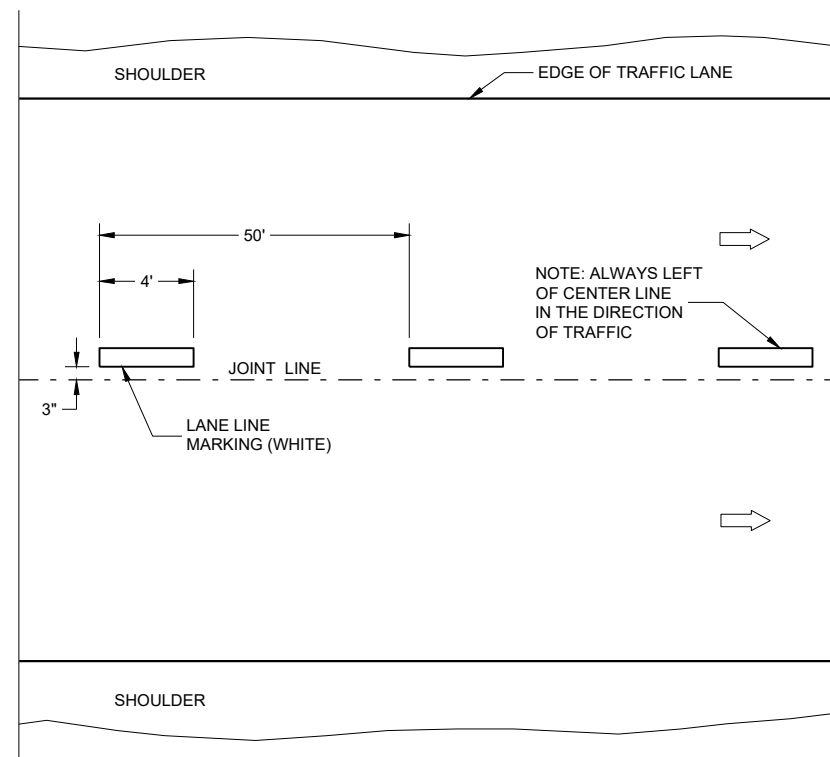


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

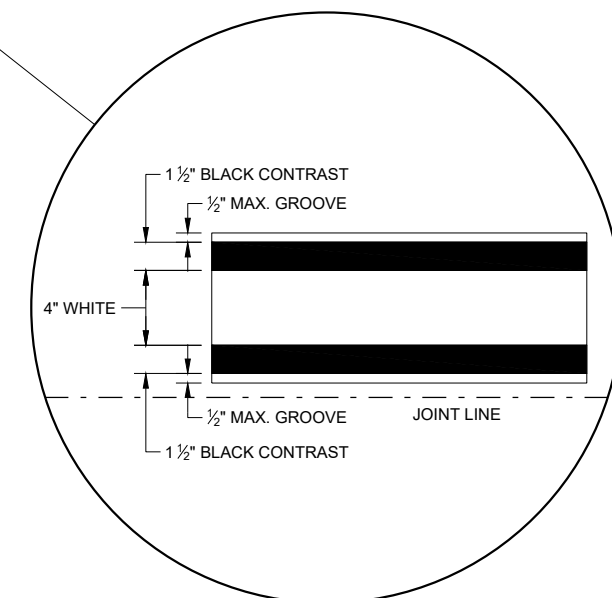
GENERAL NOTES

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

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

LEGEND

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



LONGITUDINAL MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE

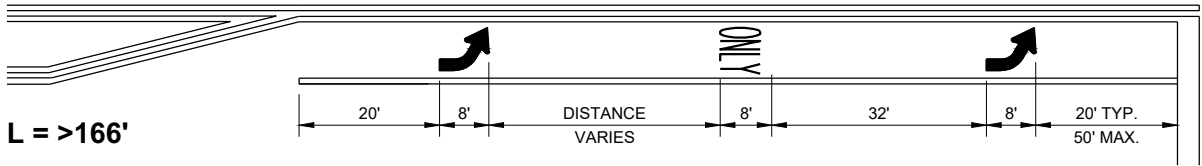
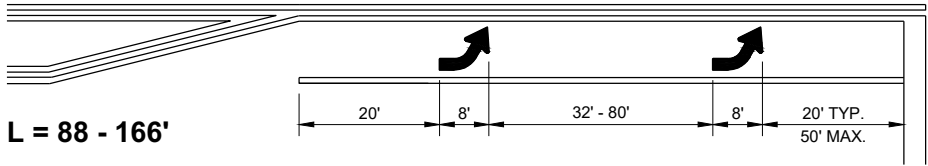
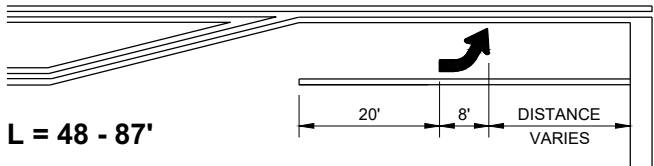
/S/ Matthew Rauch
STATEWIDE SIGNING AND M
ENGINEER

242

FHWA

TURN LANE OPTIONS

LENGTH OF TURN BAY (**L**) OF 0 - 47' DOES NOT REQUIRE PAVEMENT MARKING ARROWS OR WORDS



*(SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

GENERAL NOTES

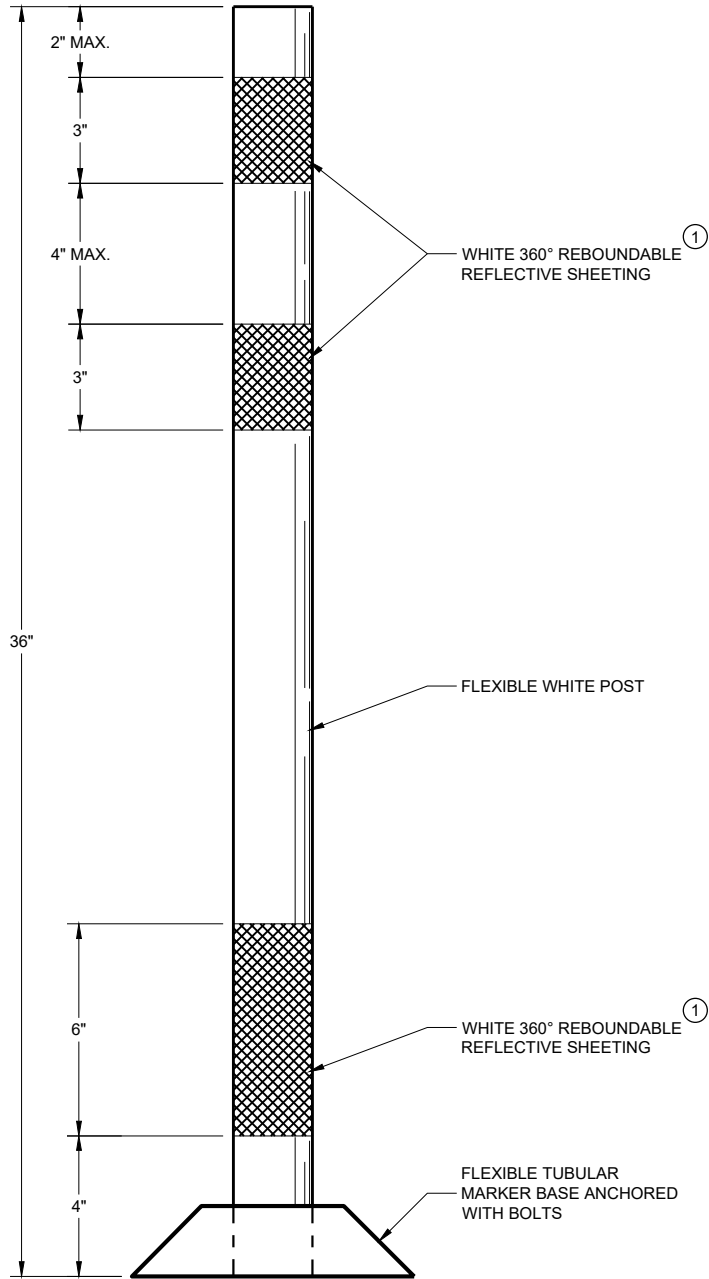
- ① 8" WHITE
- ② QUANTITY AND LOCATION OF TYPE 3 ARROWS ARE THE SAME AS THE TYPE II ARROWS IN THE ADJACENT TURN LANE. FOR TURN LANES WITH A PHYSICAL SEPARATION IN THE SAME DIRECTION OF TRAVEL, THE ARROWS AND "ONLY" MARKING MAY BE ELIMINATED.

➡ DIRECTION OF TRAFFIC

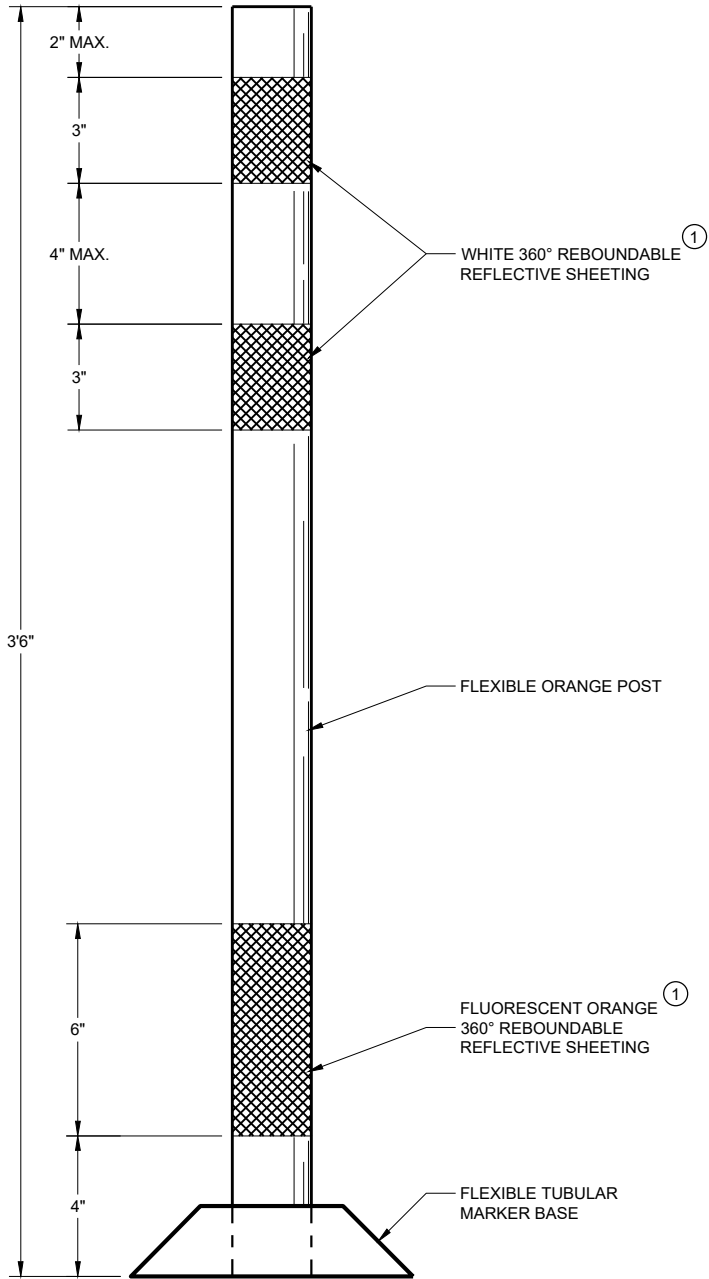
L = LENGTH OF TURN BAY

PAVEMENT MARKING
(TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 243



FLEXIBLE TUBULAR
MARKER POST
PERMANENT CROSSOVER



FLEXIBLE TUBULAR
MARKER POST
WORK ZONE

GENERAL NOTES

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

SURFACE MOUNTED BASES SHALL BE FURNISHED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS TO BE COMPATIBLE WITH FLEXIBLE TUBULAR MARKER POSTS TO A SIZE AND SHAPE THAT WILL PROVIDE A STABLE POST FOUNDATION WHEN SECURED TO THE PAVEMENT.

THE ASPHALTIC ADHESIVE OR BUTYL PAD FURNISHED SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS, UNLESS DIRECTED BY THE ENGINEER TO USE BOLTS.

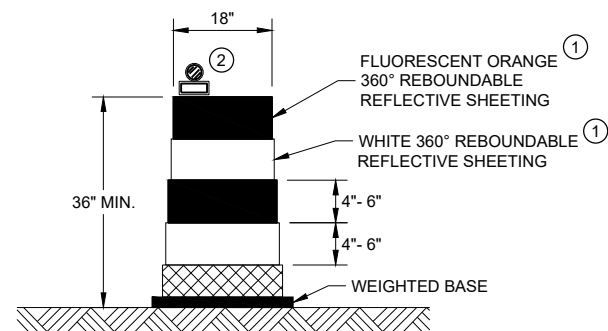
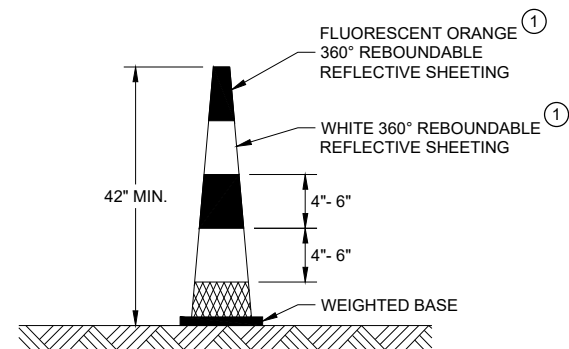
① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

CHANNELIZING DEVICES
FLEXIBLE TUBULAR
MARKER POST

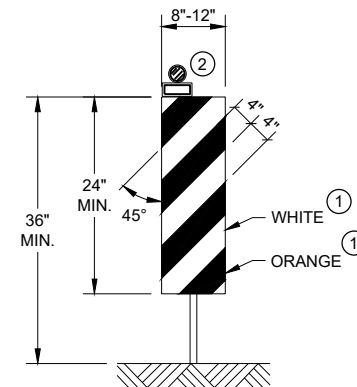
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2020 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 244

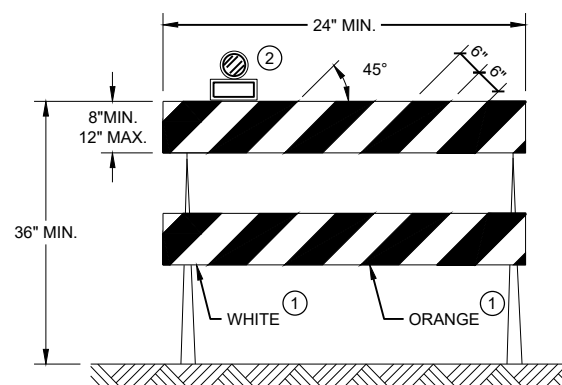
FHWA

**DRUM****42" CONE**

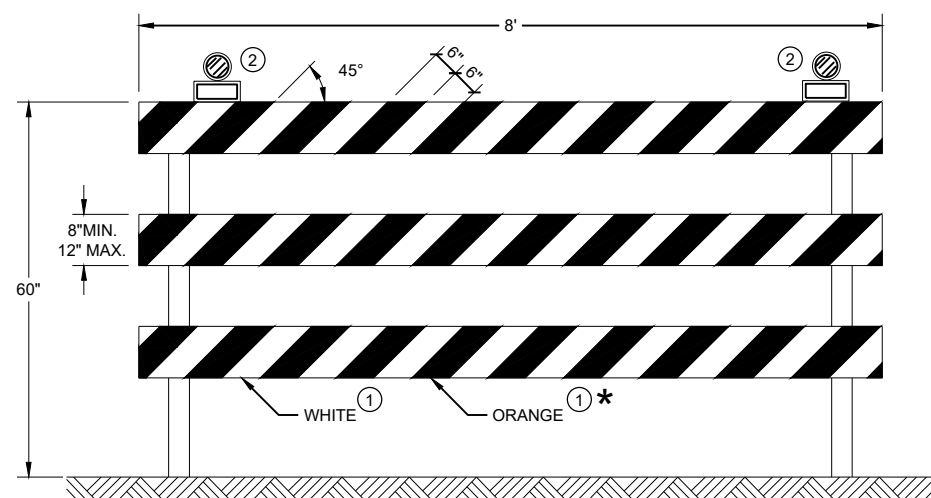
DO NOT USE IN TAPERS
 $\frac{1}{2}$ SPACING OF DRUMS

**VERTICAL PANEL**

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

**TYPE II BARRICADE**

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

**TYPE III BARRICADE**

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

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

GENERAL NOTES

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

**CHANNELIZING DEVICES
 DRUMS, CONES, BARRICADES
 AND VERTICAL PANELS**

STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION

APPROVED
 November 2020 /S/ Andrew Heidtke
 DATE WORK ZONE ENGINEER 245
 FHWA

LEGEND

-  SIGN ON PORTABLE OR PERMANENT SUPPORT
-  TEMPORARY PORTABLE RUMBLE STRIP ARRAY
-  DIRECTION OF TRAFFIC
-  WORK AREA
-  FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

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.

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

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

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

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

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

FLAGGING

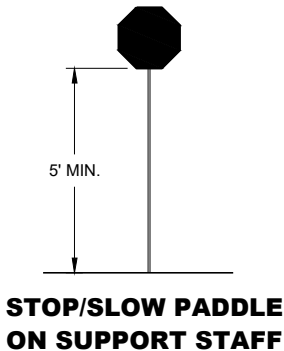
FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT REMOVE TEMPORARY PORTABLE RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.

- ① FOR MOVING WORK OPERATIONS, POST ADDITIONAL W20-7A FLAGGER SIGNS AT APPROXIMATELY 3,500' INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.
- ② SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

WHEN THE DISTANCE BETWEEN FLAGGERS EXCEEDS 2 MILES, A PILOT CAR IS REQUIRED. WHEN CURVES REDUCE SIGHT DISTANCE BELOW 400', A PILOT CAR IS REQUIRED.

TEMPORARY PORTABLE RUMBLE STRIPS

- UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.
- ③ EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS SPACED ACCORDING TO MANUFACTURER'S RECOMMENDATION, PLACED TRANSVERSE ACROSS THE LANE AT LOCATIONS SHOWN.
- ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FOR THE APPROVED PRODUCTS LIST.
- INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.
- PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.
- DO NOT INSTALL TEMPORARY PORTABLE RUMBLE STRIPS ON GRAVEL, MILLED SURFACES, OR ASPHALT THAT HAS BEEN PAVED LESS THAN 12 HOURS.

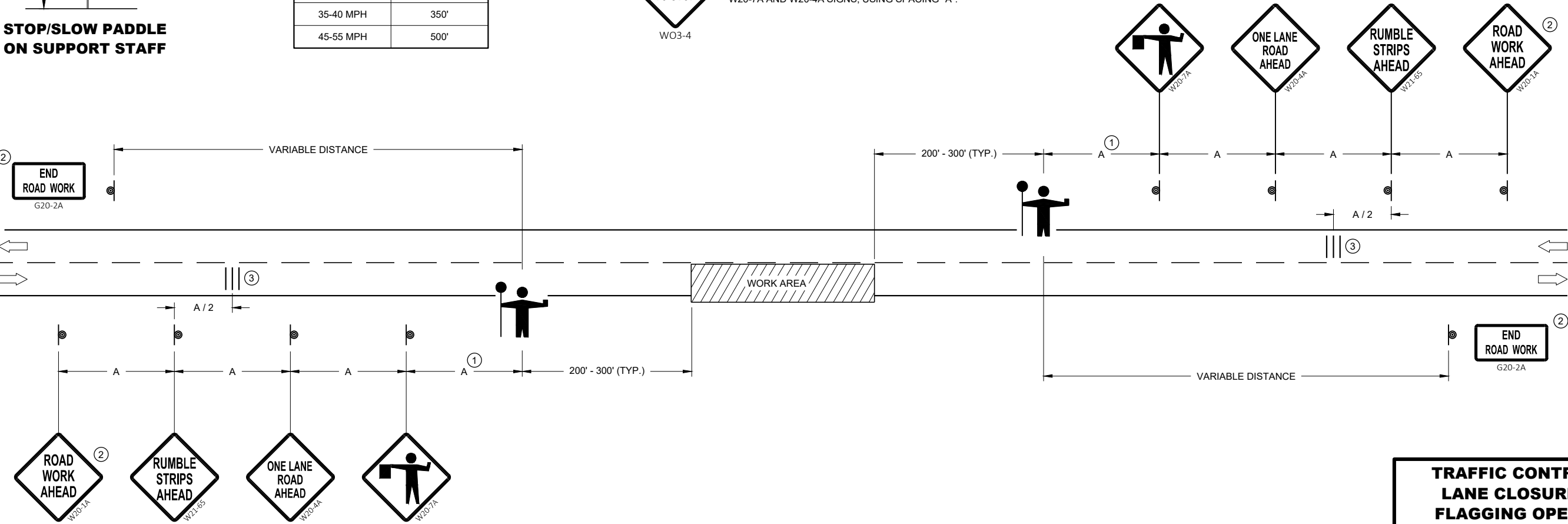


SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

SPEED LIMIT	SPACING "A"
25-30 MPH	200'
35-40 MPH	350'
45-55 MPH	500'



USE OF W03-4 SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7A AND W20-4A SIGNS, USING SPACING "A".



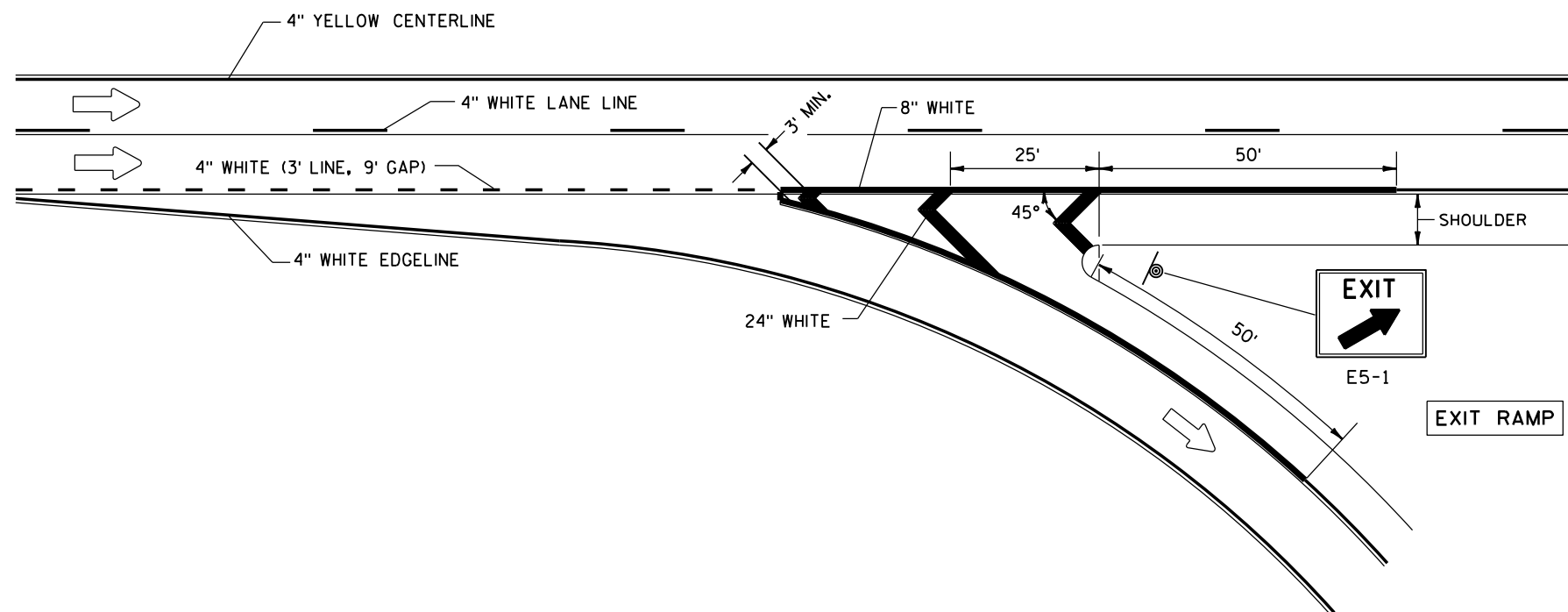
TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 246

FHWA



GENERAL NOTES

PLACE GROOVE 3 INCHES LEFT OF JOINT.

LEGEND

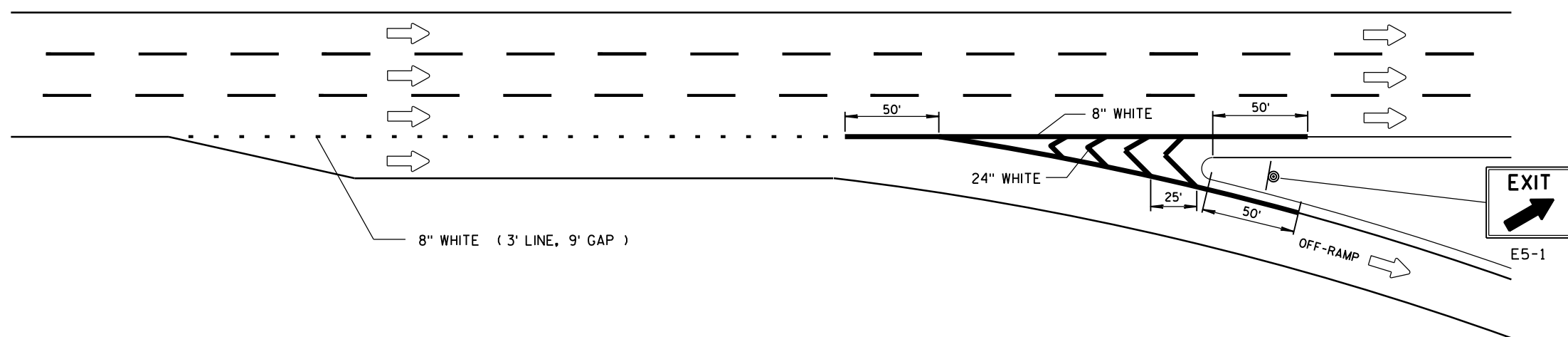


DIRECTION OF TRAVEL



SIGN ON PERMANENT SUPPORT

PAVEMENT MARKING FOR EXIT RAMP



SERVICE INTERCHANGE PAVEMENT MARKING FOR PARALLEL EXIT-RAMP

GENERAL NOTES

PLACE GROOVE 3 INCHES LEFT OF JOINT.

① 1/2 LENGTH OF FULL WIDTH ACCELERATION LANE.

PAVEMENT MARKING FOR ENTRANCE RAMP

LEGEND

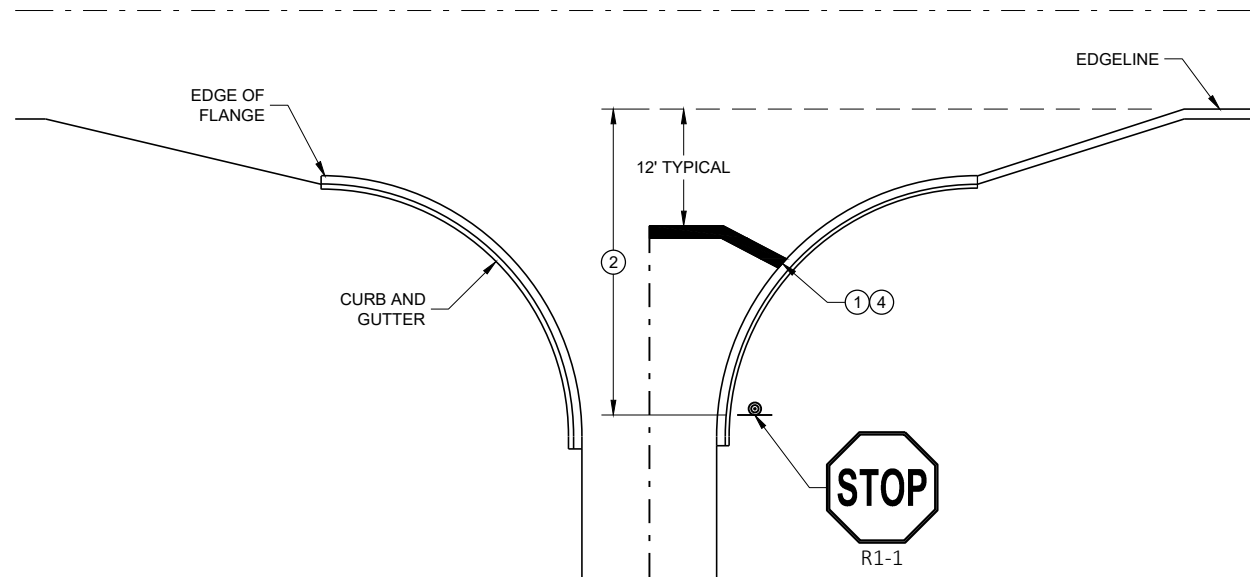
DIRECTION OF TRAVEL

SERVICE INTERCHANGE PAVEMENT MARKING FOR PARALLEL ENTRANCE-RAMP

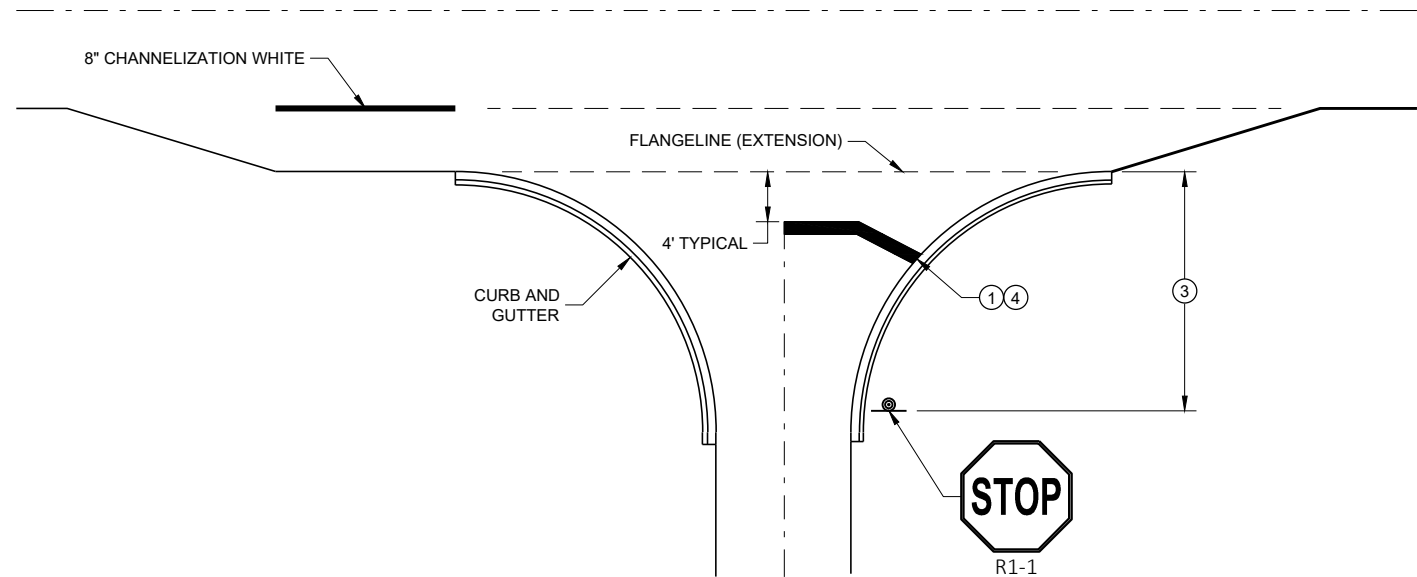
PAVEMENT MARKING FOR
PARALLEL ON-RAMP AND
PARALLEL OFF-RAMP

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

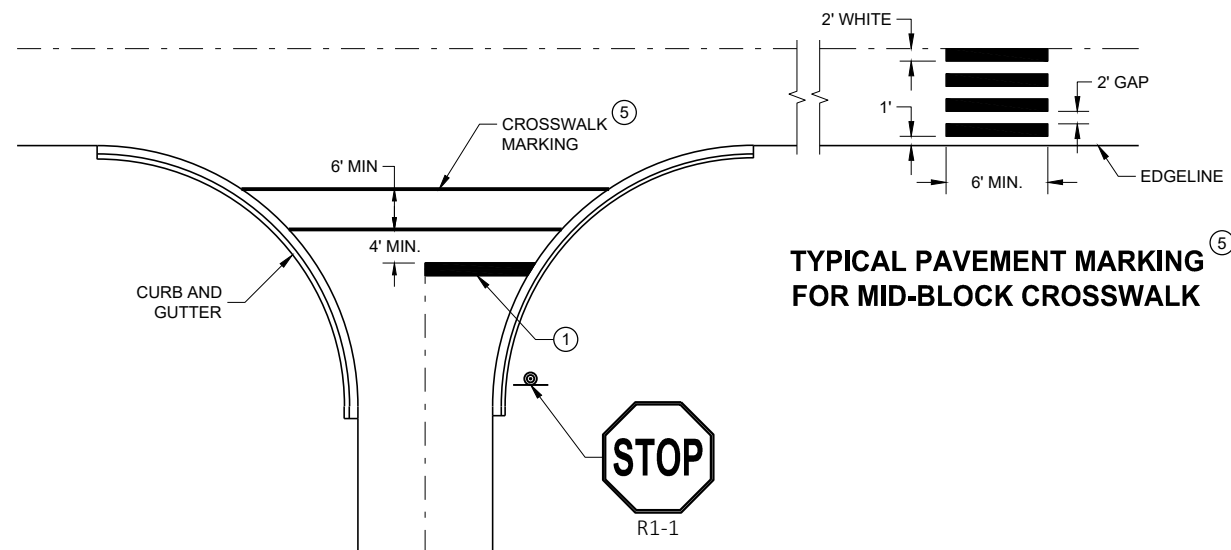
APPROVED
Sept., 2017 /S/ Matthew R. Rauch
DATE STATE SIGNING AND MAP 248 NEER
FHWA



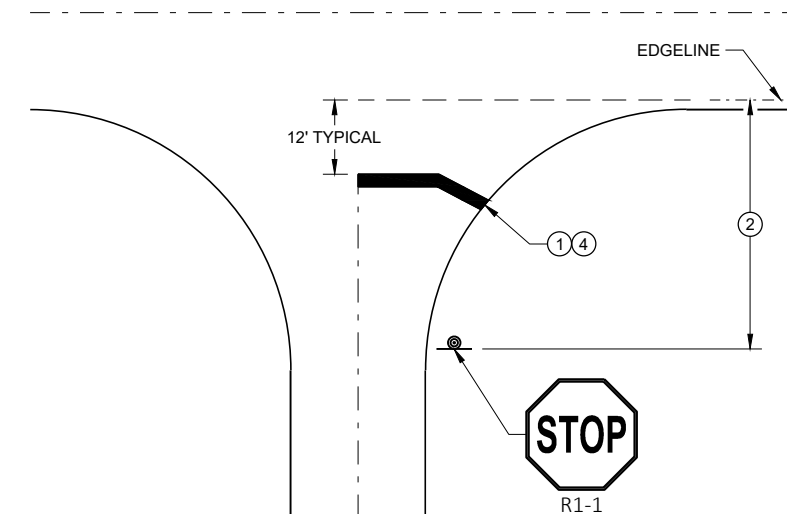
TYPICAL STOP LINE PAVEMENT MARKING
WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING
FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR
SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING
WITHOUT CURB AND GUTTER

GENERAL NOTES

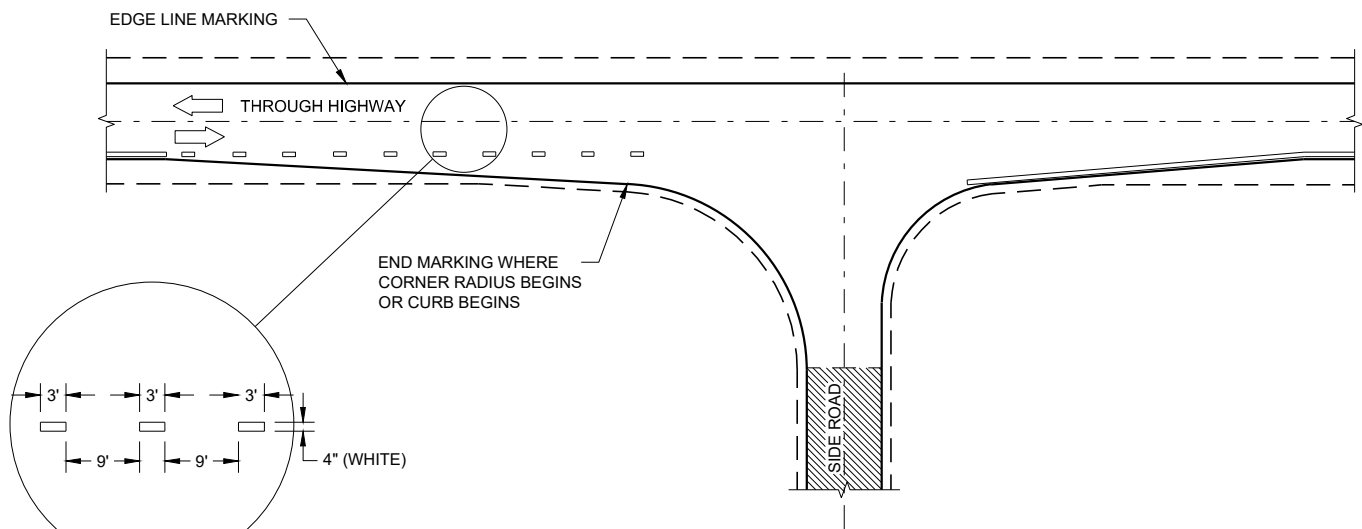
STOP SIGN SHALL BE PLACED A MINIMUM OF 6 FEET TO A MAXIMUM OF 50 FEET FROM THE EDGE LINE LOCATION.

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

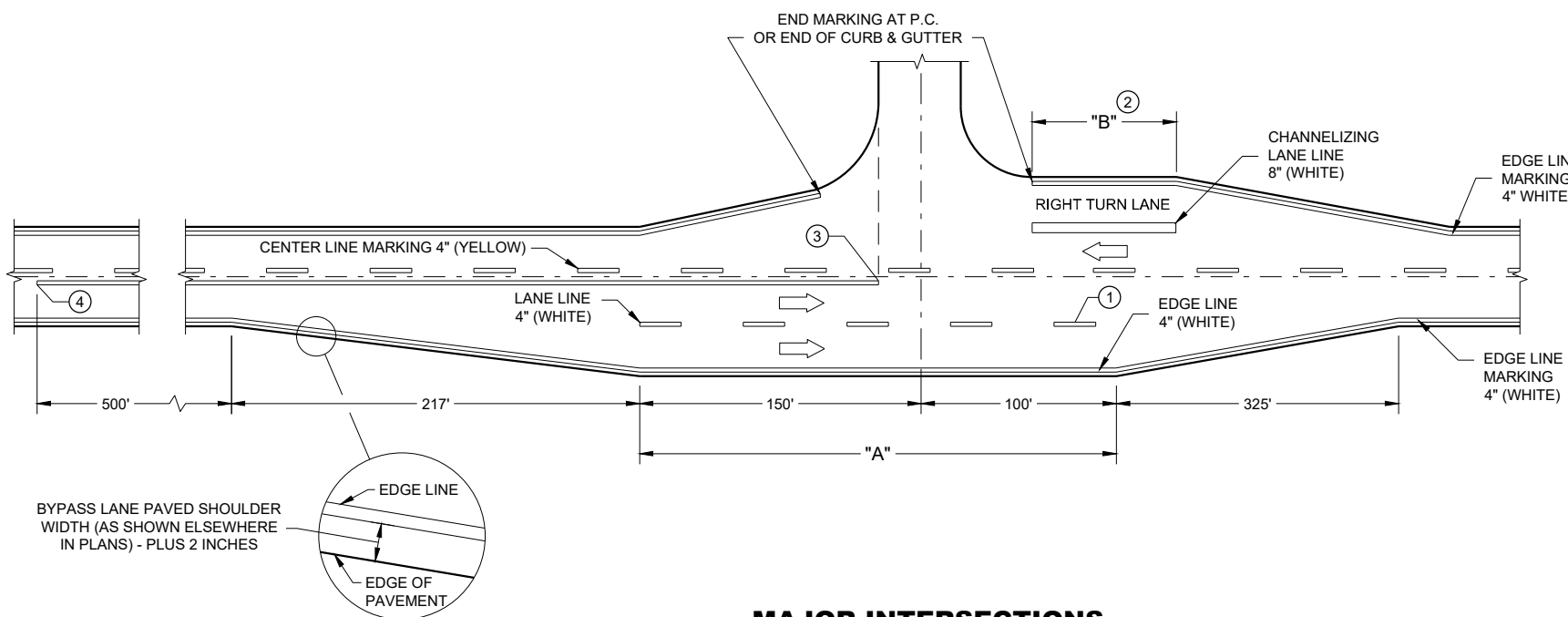
STOP LINE AND CROSSWALK
PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019 /S/ Matthew Rauch
DATE STATE SIGNING AND MAP ENGINEER 249
FHWA



MINOR INTERSECTION



MAJOR INTERSECTIONS
(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)

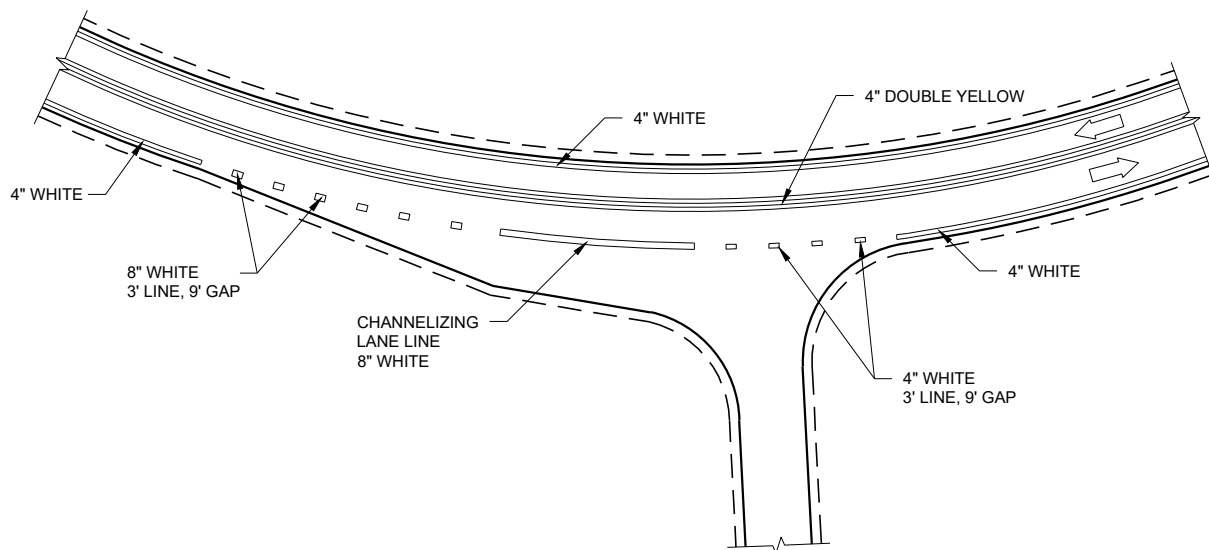
GENERAL NOTES

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.

LEGEND

➡ DIRECTION OF TRAVEL



INTERSECTION ON OUTSIDE OF CURVE

PAVEMENT MARKING
(INTERSECTIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

LEGEND

-  SIGN ON PERMANENT SUPPORT
-  DELINEATOR, FLEXIBLE/TUBULAR MARKER
-  DIRECTION OF TRAFFIC

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

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

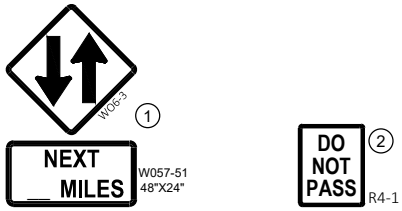
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

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

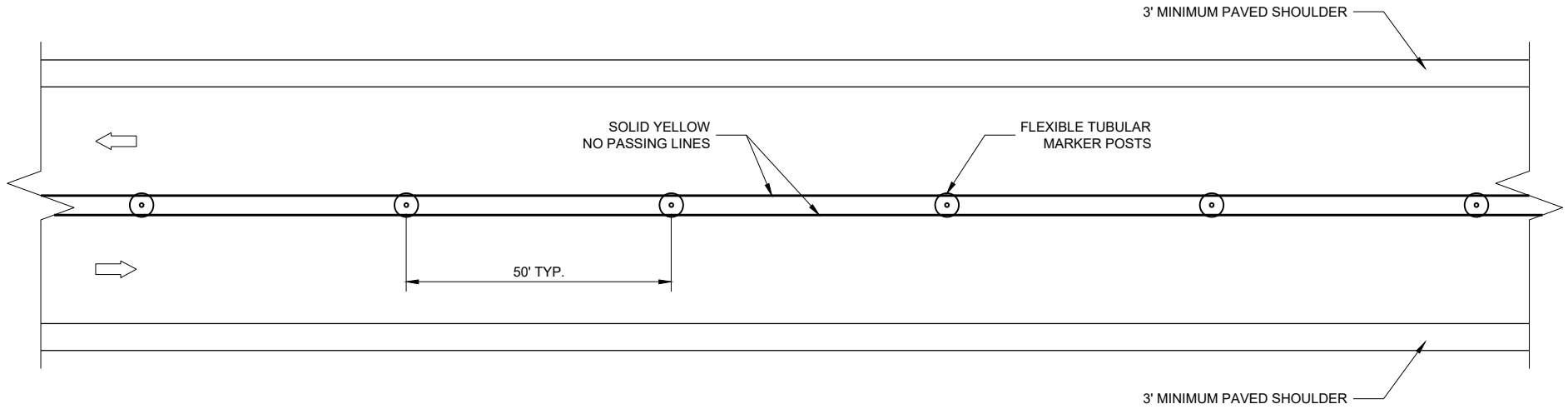
THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500' DESIRABLE) DISTANCE TO EXISTING SIGNS.

A SINGLE ROW OF FLEXIBLE TUBULAR MARKERS ON CENTERLINE EXTEND FOR THE ENTIRE LENGTH OF TWO-WAY TRAFFIC AT 50 FOOT SPACING.

COVER EXISTING CENTERLINE STRIPE WITH TEMPORARY PAVEMENT MARKING, 4 INCH DOUBLE YELLOW.



- ① THE W06-3 AND W057-51 SHALL BE LOCATED 200 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP AND / OR 500 FEET BEYOND ANY SIDE ROAD. THE R4-1 SHALL BE LOCATED 1000 FEET BEYOND THE W06-3 AND THE W057-51 AND THE SIGNS SHALL BE ALTERNATED WITH ONE MILE INTERVALS BETWEEN THE SIGNS.
- ② CONVENTIONAL: 24" X 30"
FREEWAY AND EXPRESSWAY: 36" X 48"



TWO LANE, TWO WAY OPERATION

TRAFFIC CONTROL
TWO LANE TWO WAY
OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 /S/ Andrew Heidtke
DATE STATE TRAFFIC ENGINEER O 251
FHWA

LEGEND

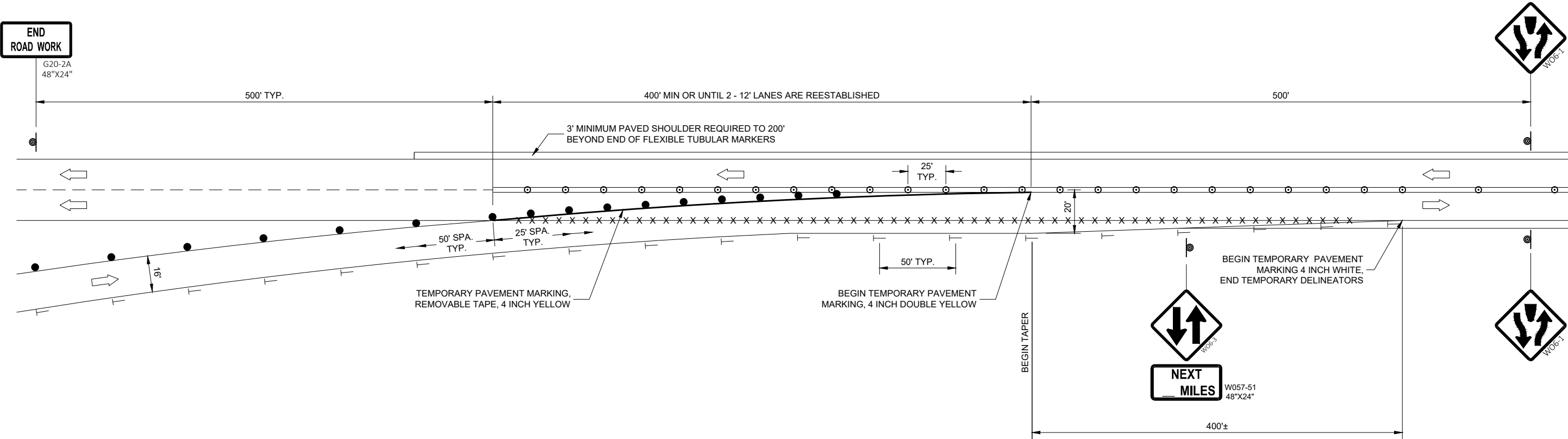
-  SIGN ON PERMANENT SUPPORT
-  TRAFFIC CONTROL DRUM
-  DELINEATOR FLEXIBLE / TUBULAR MARKER
-  TEMPORARY DELINEATOR (STEEL POST DELINEATOR) COLOR OF DELINEATOR SHALL MATCH THE RESPECTIVE EDGE LINE MARKING
-  DIRECTION OF TRAFFIC
-  REMOVE PAVEMENT MARKINGS

GENERAL NOTES

- ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.
- "WO" SIGN IS THE SAME AS "W" SIGN EXCEPT THE BACKGROUND IS ORANGE.
- ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.
- 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 SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500' DESIRABLE) DISTANCE TO EXISTING SIGNS.
- TEMPORARY PAVEMENT MARKING REMOVABLE TAPE SHALL BE USED WHEN CROSSING PERMANENT ROADWAY SURFACES THAT WILL REMAIN AFTER USED OF CROSSOVER.
- ① CONVENTIONAL: 24" X 30"
FREEWAY AND EXPRESSWAY: 36" X 48"

 ①
R4-1
24"X30"

INSTALL THE R4-1 SIGN 1000 FEET BEYOND THE WO6-3 SIGN WITH THE WO57-51 AND ALTERNATE THE SEQUENCE OF THESE SIGNS EVERY 1 MILE.



TRAFFIC CONTROL, SINGLE LANE CROSSOVER EXIT	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED February 2020 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER 252
FHWA	

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- DELINEATOR FLEXIBLE / TUBULAR MARKER
- TEMPORARY DELINEATOR (STEEL POST WITH SINGLE DELINEATOR)
COLOR OF DELINEATOR SHALL MATCH THE COLOR OF THE RESPECTIVE
EDGE LINE MARKING
- TEMPORARY DELINEATOR (DOUBLE SIDED)
- TYPE "A" WARNING LIGHT (FLASHING)
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- REMOVE PAVEMENT MARKINGS
- WORK AREA

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

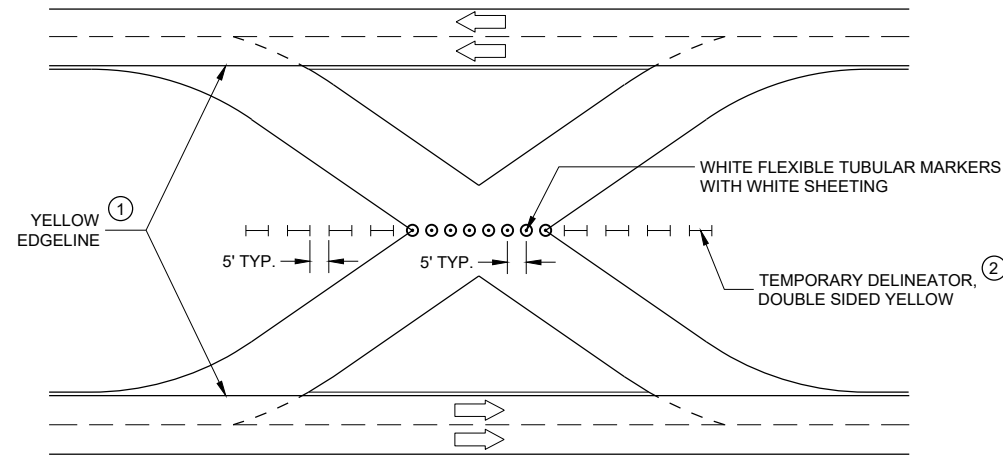
THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN PROPOSED SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500' DESIRABLE) DISTANCE TO EXISTING SIGNS.

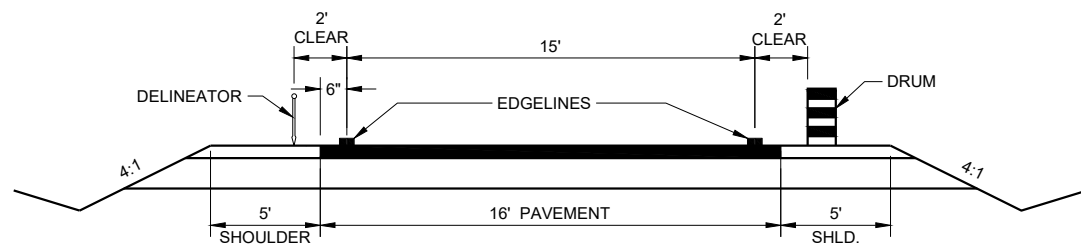
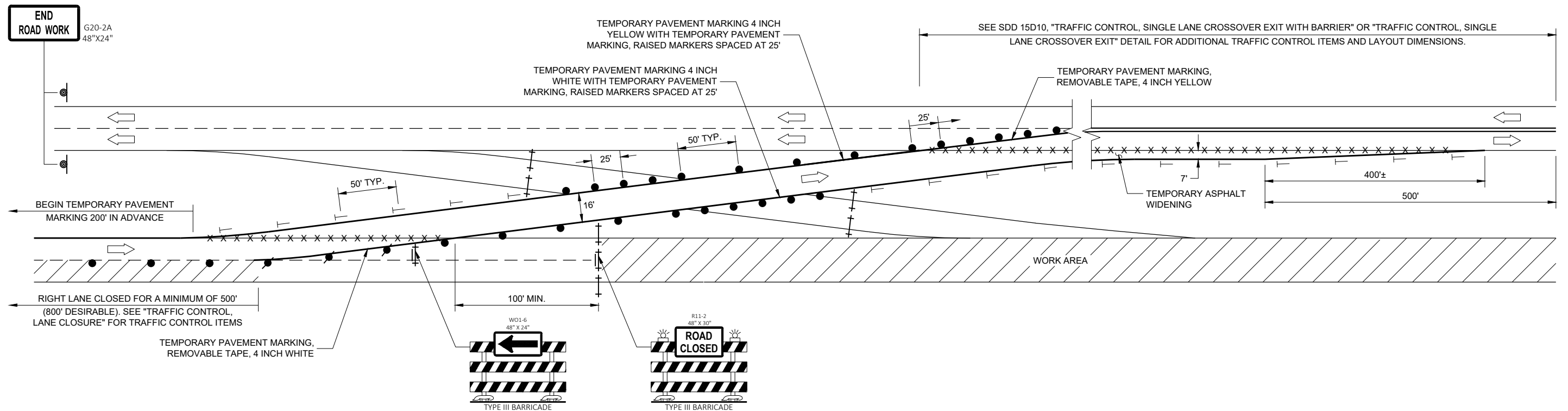
TEMPORARY PAVEMENT MARKING REMOVABLE TAPE SHALL BE USED WHEN CROSSING PERMANENT ROADWAY SURFACES THAT WILL REMAIN AFTER USED OF CROSSOVER AND TEMPORARY PAVEMENT MARKING WHERE USED.

REVERSE DEVICES WHEN OTHER LEG OF CROSSOVER IS IN USE.

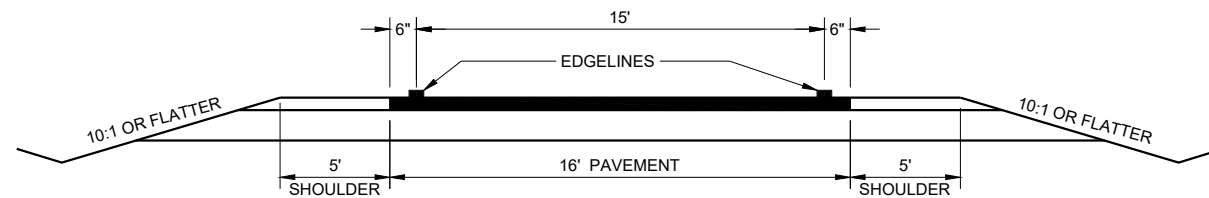
- ① FOR PERMANENT CROSSOVER, PAVEMENT MARKING SHOULD CONFORM TO SECTION 646 OF THE STANDARD SPECIFICATIONS.
- ② FOR PERMANENT CROSSOVER, INSTALL PERMANENT DELINEATORS ACCORDING TO SECTION 633 OF THE STANDARD SPECIFICATIONS.



TRAFFIC CONTROL FOR CROSSOVER THAT IS NOT IN USE



TYPICAL TEMPORARY CROSSOVER ROADWAY DIMENSIONS
(SEE PLAN FOR ROADWAY DESIGN ELEMENTS)



TYPICAL CROSSOVER TO REMAIN IN PLACE ROADWAY DIMENSIONS
(SEE PLAN FOR ROADWAY DESIGN ELEMENTS)

TRAFFIC CONTROL,
SINGLE LANE CROSSOVER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
September 2017 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 253
FHWA

GENERAL NOTES

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

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

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

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

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

CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP OR INTERSECTION. THE LANE CLOSURE MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE ONE HALF THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

* A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. PLACE A SPEED LIMIT SIGN A MINIMUM OF EVERY 3 MILES. INCLUDE A RESUME SPEED LIMIT SIGN 200 FEET MINIMUM (500 FEET DESIRABLE) BEYOND THE "END OF ROADWORK" SIGN.

LEGEND

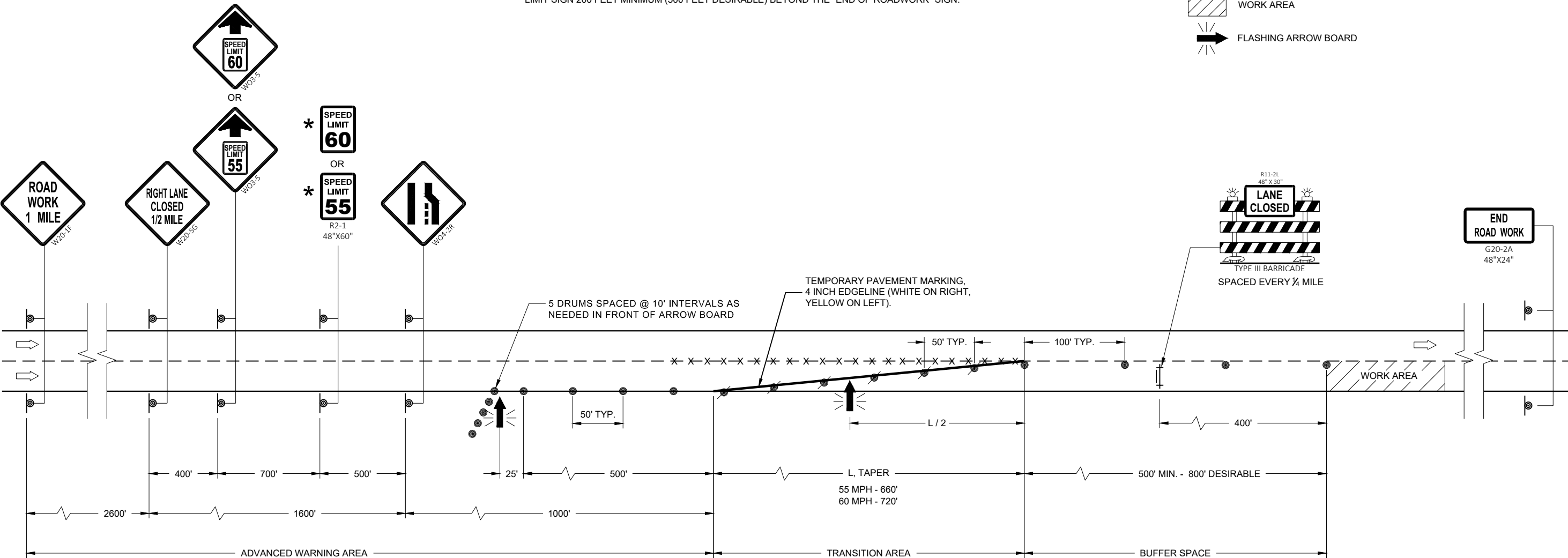
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)

✕ ✕ ✕ REMOVING PAVEMENT MARKINGS

➡ DIRECTION OF TRAFFIC

WORK AREA

FLASHING ARROW BOARD



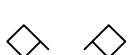
TRAFFIC CONTROL,
LANE CLOSURE,
SPEED REDUCTION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2020 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 254

FHWA

LEGEND

-  SIGN ON PERMANENT SUPPORT
-  SIGN ON TEMPORARY SUPPORT
-  TRAFFIC CONTROL DRUM
-  TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
-  TYPE III BARRICADE WITH ATTACHED SIGN
-  FLAGS, 16" X 16" MIN., ORANGE
-  DIRECTION OF TRAFFIC

GENERAL NOTES

THE INSTALLATIONS SHOWN ON THIS SHEET ARE TYPICAL EXAMPLES AND ARE NOT INTENDED TO REPRESENT ANY PARTICULAR RAMP. AT SPECIFIC FIELD LOCATIONS, SIMILAR INSTALLATIONS SHALL BE USED AND ADJUSTED TO THE GEOMETRICS OF THE RAMP AS COORDINATED WITH THE ENGINEER.

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.

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

SEE SEPARATE LANE CLOSURE DETAIL FOR TYPICAL SPACING OF TYPE III BARRICADES AND R11-2L "LANE CLOSED" SIGNS.

YIELD SIGN AND WARNING SIGNS ON ENTRANCE RAMP ARE ALSO APPROPRIATE FOR CLOSURE OF THE MAINLINE LEFT LANE. OMIT THE YIELD SIGN IF MORE THAN ONE LANE REMAINS OPEN ON THE MAINLINE AND THE RAMP TAPER IS AT LEAST AS LONG AS THE NORMAL ENTRANCE RAMP TAPER AT THE SITE.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONSECUTIVE DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS. USE SUPPORTS THAT PROVIDE A MINIMUM OF 5 FEET FROM THE BOTTOM OF THE SIGN TO THE PAVEMENT.

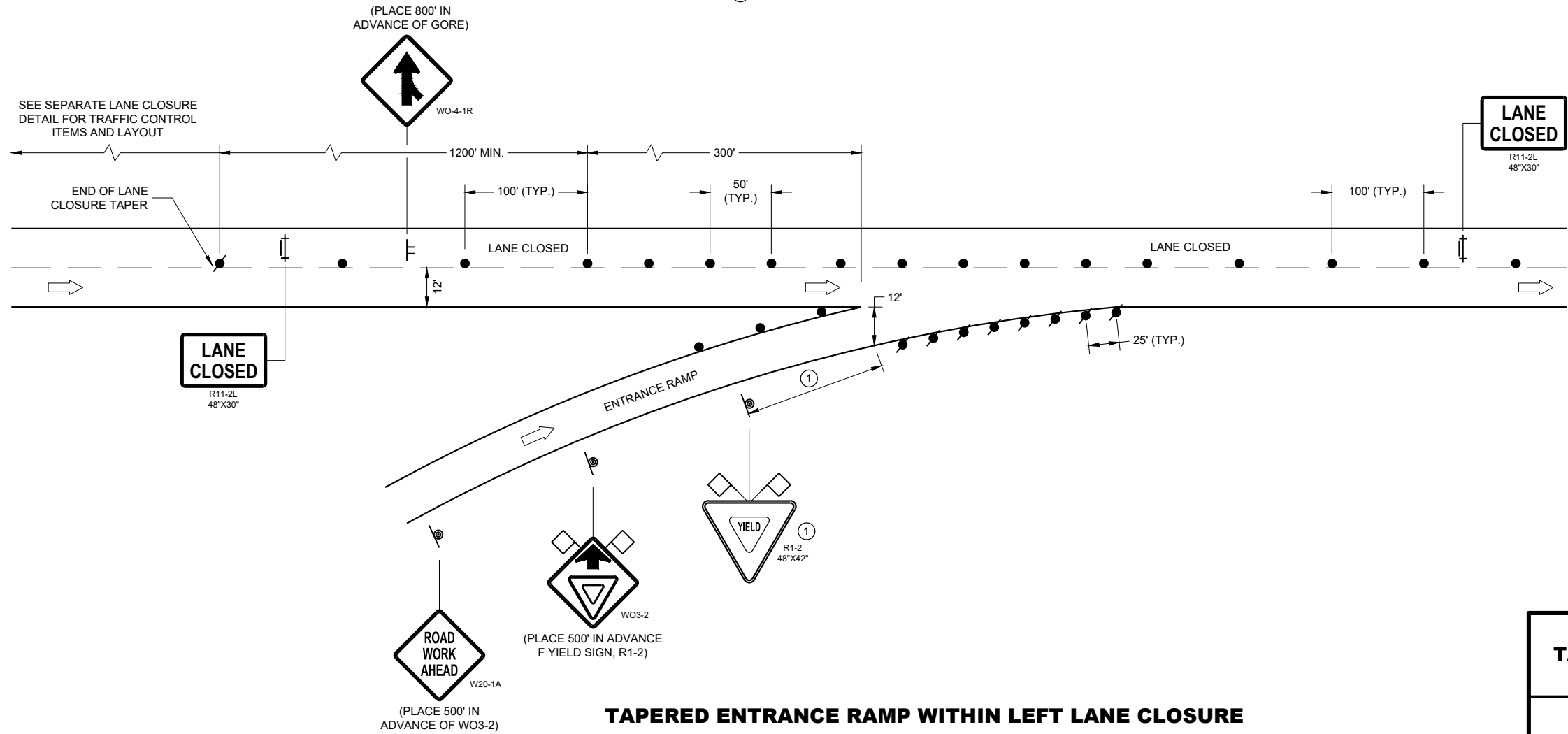
IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE ENTRANCE RAMP AND MAINLINE TRAFFIC.

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.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING, REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

- ① PLACE YIELD SIGN TO PROVIDE ADEQUATE SIGHT DISTANCE AND ACCELERATION DISTANCE.



TAPERED ENTRANCE RAMP WITHIN LEFT LANE CLOSURE

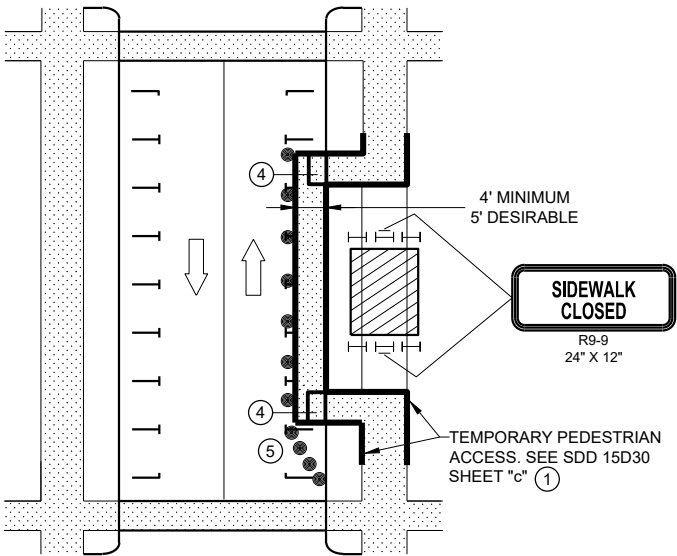
**TRAFFIC CONTROL,
TAPERED ENTRANCE RAMP
WITHIN LANE CLOSURE**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 255

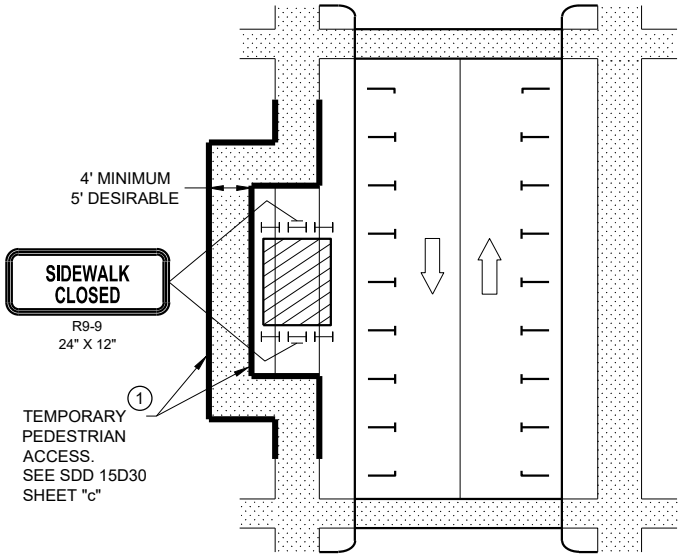
FHWA

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

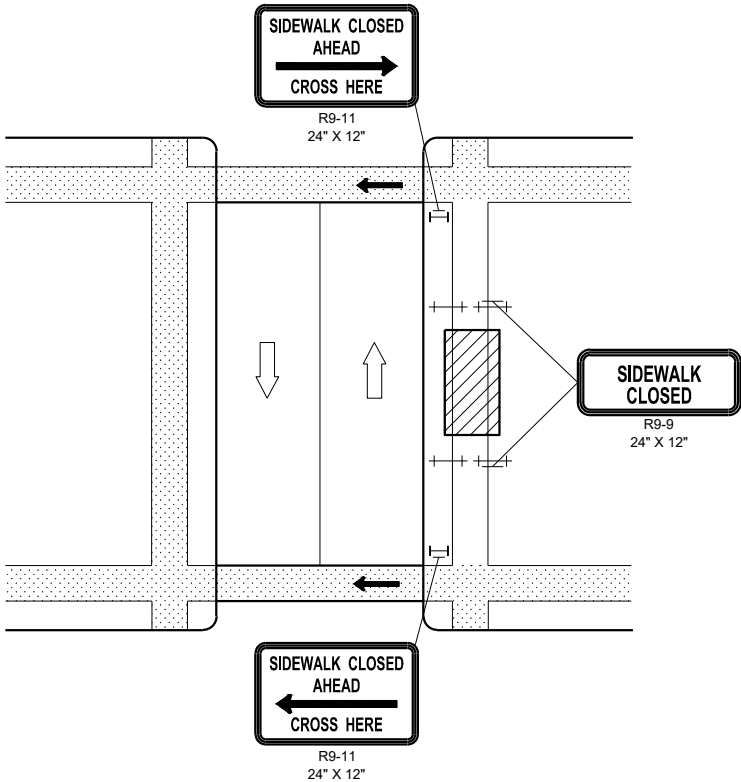


MID-BLOCK SIDEWALK CLOSURE
IN PARKING LANE

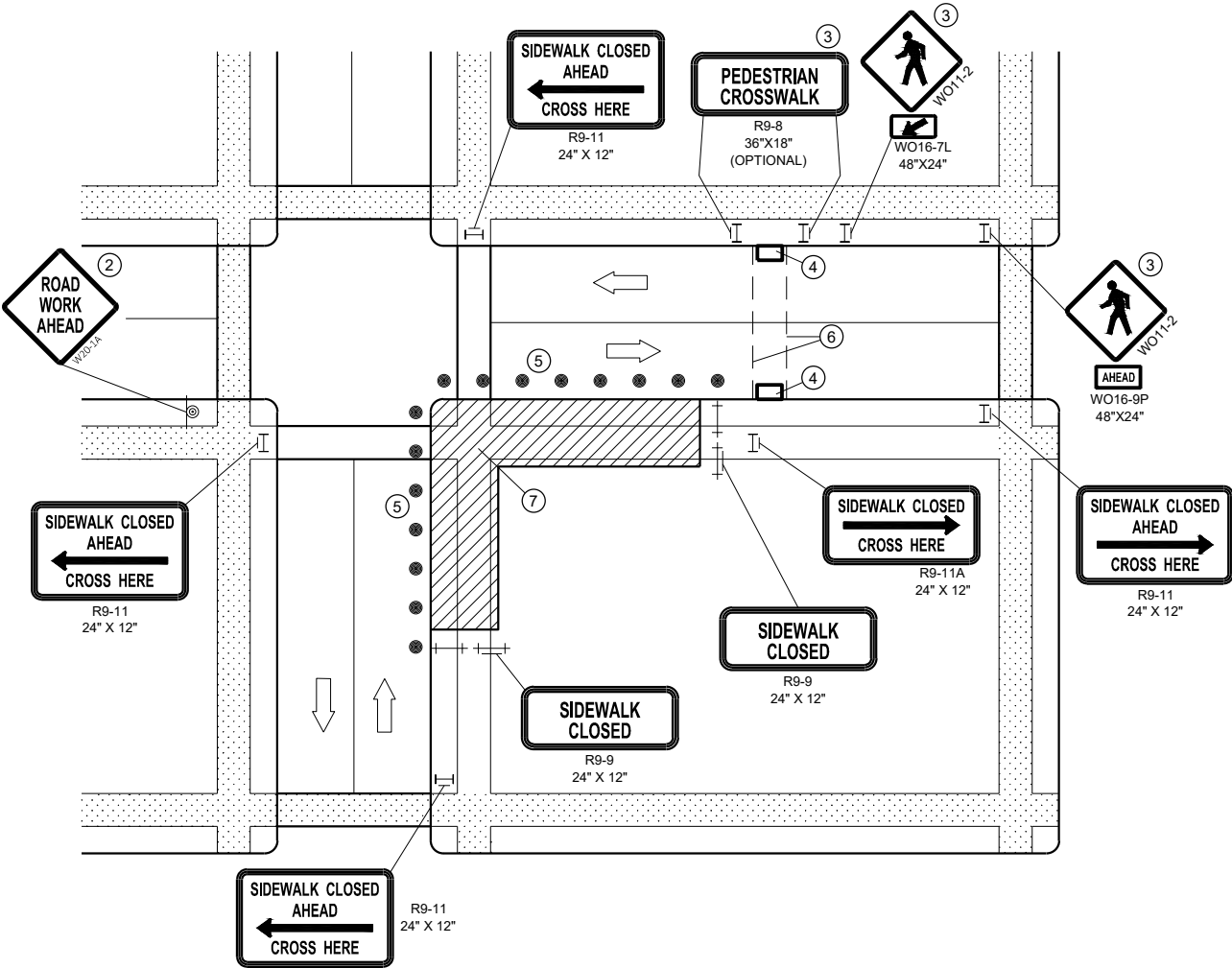
NOTE: LAYOUT SAME AS ABOVE.



SIDEWALK DIVERSION



MID-BLOCK SIDEWALK
CLOSURE



CORNER SIDEWALK CLOSURE WITH TEMPORARY CROSSWALK

GENERAL NOTES

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

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

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

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

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

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

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

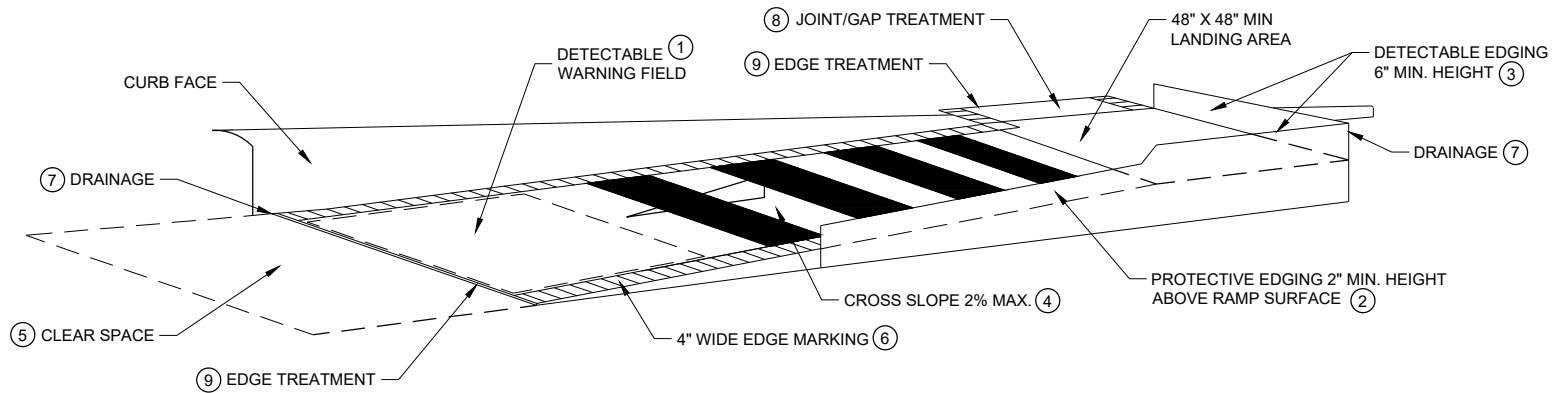
- ① IF SIDEWALK CLOSURE AFFECTS AN ACCESSIBLE AND DETECTABLE FACILITY, MAINTAIN ACCESSIBILITY AND DETECTABILITY ALONG THE ALTERNATE PEDESTRIAN ROUTE
- ② "ROAD WORK AHEAD" SIGNS ARE NOT REQUIRED IF THE SIDEWALK CLOSURE OCCURS WITHIN A LARGER WORK ZONE WHERE ADVANCE WARNING SIGNS ARE ALREADY PRESENT, OR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

LEGEND

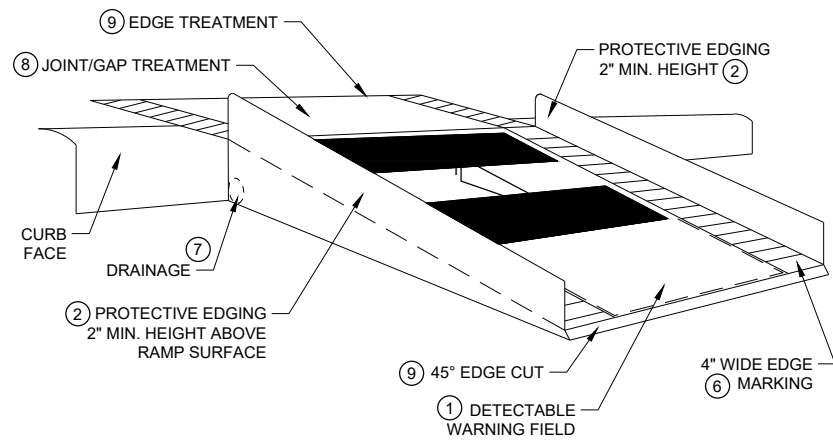
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE II BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW INTENSITY FLASHING)
- TYPE III BARRICADE WITH/WITHOUT SIGN (ALL WITH ONE WARNING LIGHT, TYPE A, LOW INTENSITY FLASHING)
- UNDER PEDESTRIAN TRAFFIC
- WORK AREA
- PEDESTRIAN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

TRAFFIC CONTROL,
PEDESTRIAN ACCOMMODATION

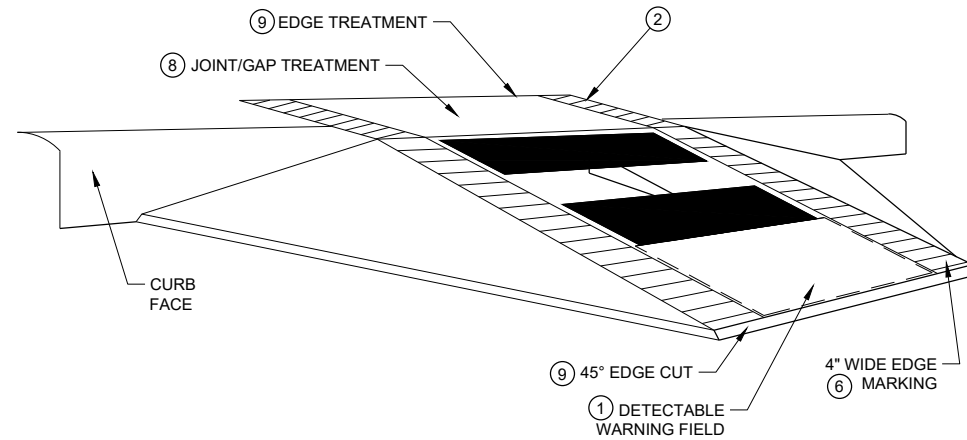
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



TEMPORARY CURB RAMP PARALLEL TO CURB



WITH PROTECTIVE EDGE



WITH SIDE APRON

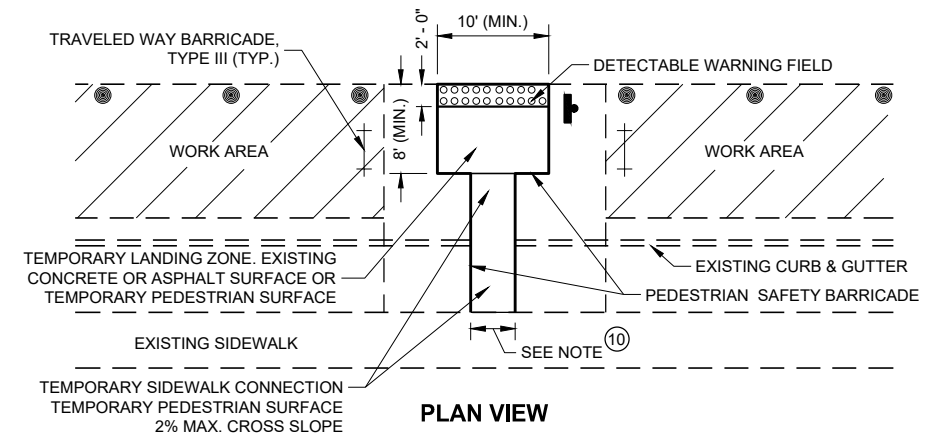
TEMPORARY CURB RAMP PERPENDICULAR TO CURB

GENERAL NOTES

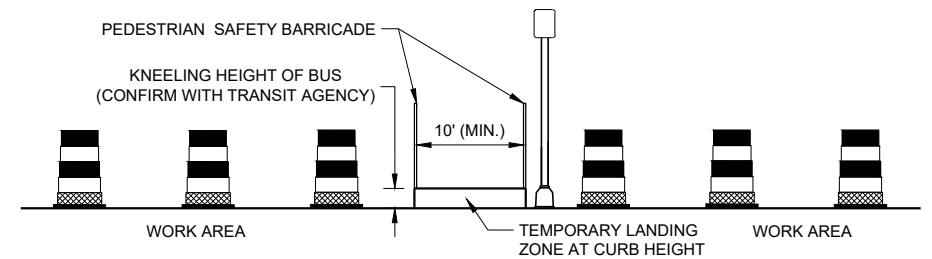
NOTIFY THE BUS COMPANY 7 DAYS IN ADVANCE OF THE BUS STOP RELOCATION.

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

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



PLAN VIEW



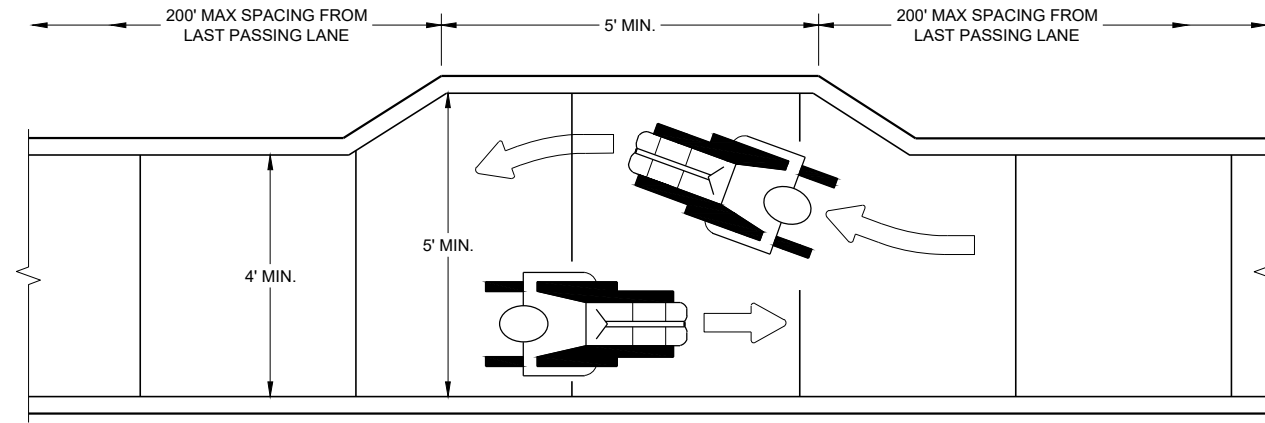
PROFILE VIEW

TEMPORARY BUS STOP PAD

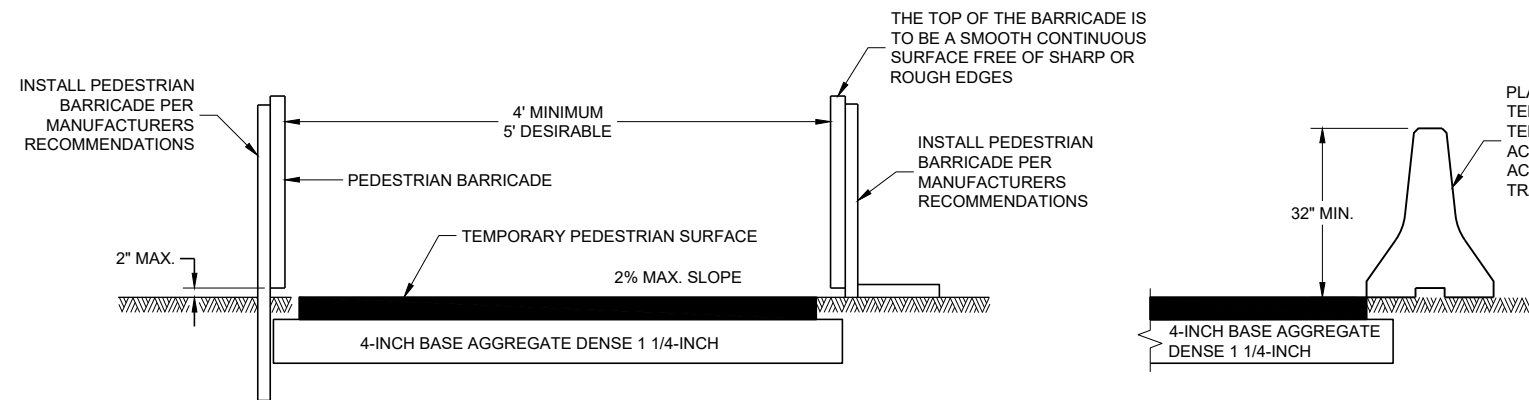
LEGEND

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

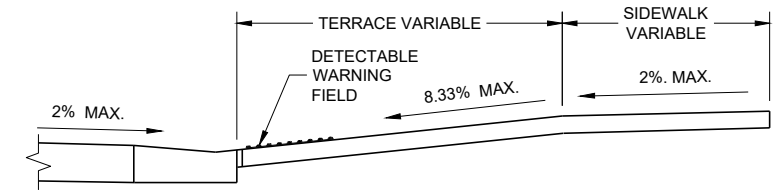
TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION 257



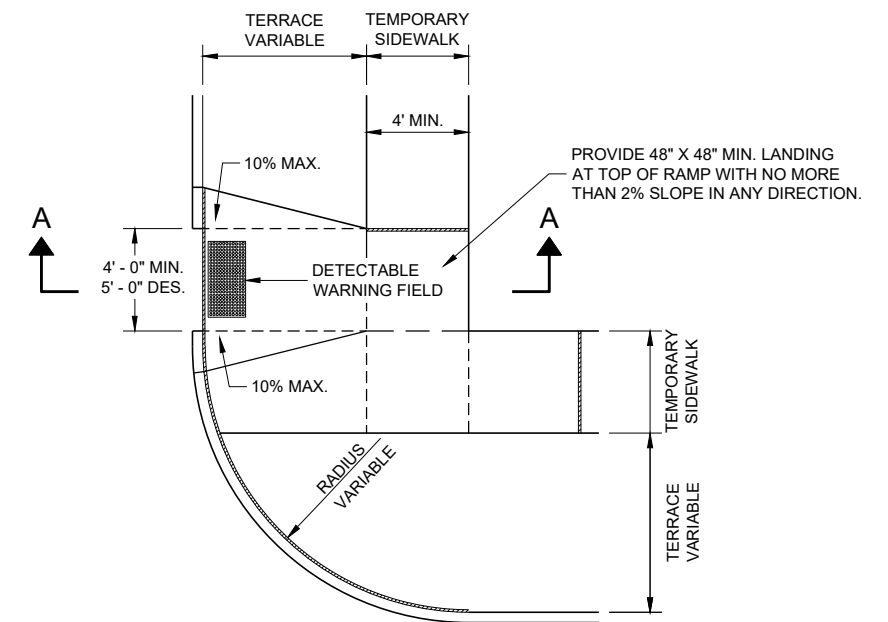
NARROW SIDEWALK PASSING DETAIL



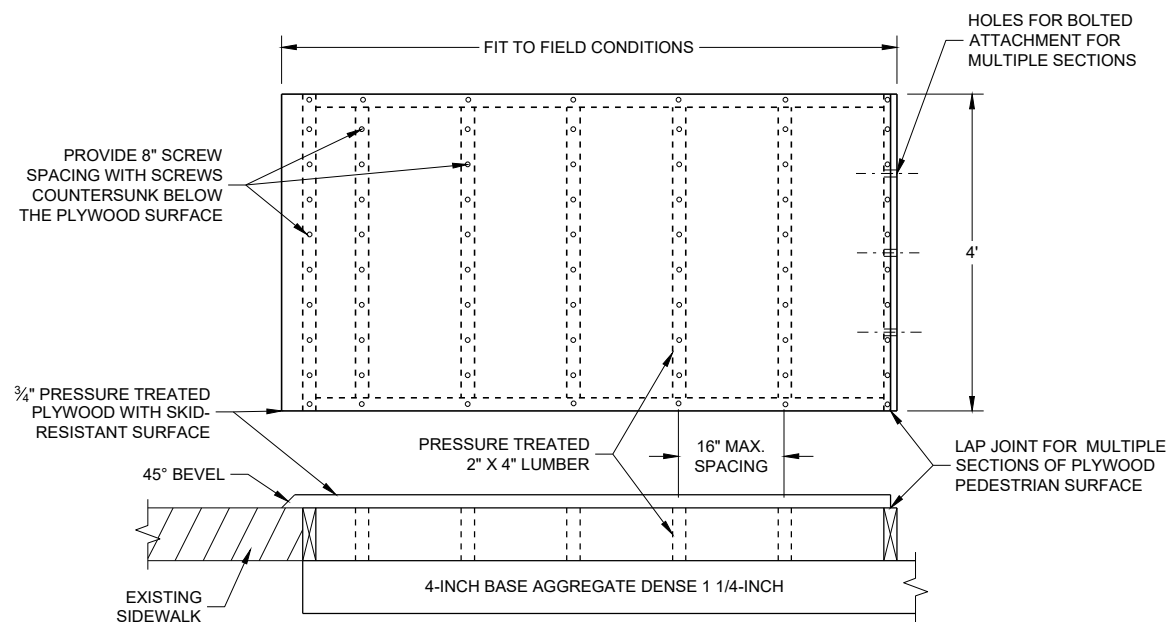
TEMPORARY PEDESTRIAN ACCESS



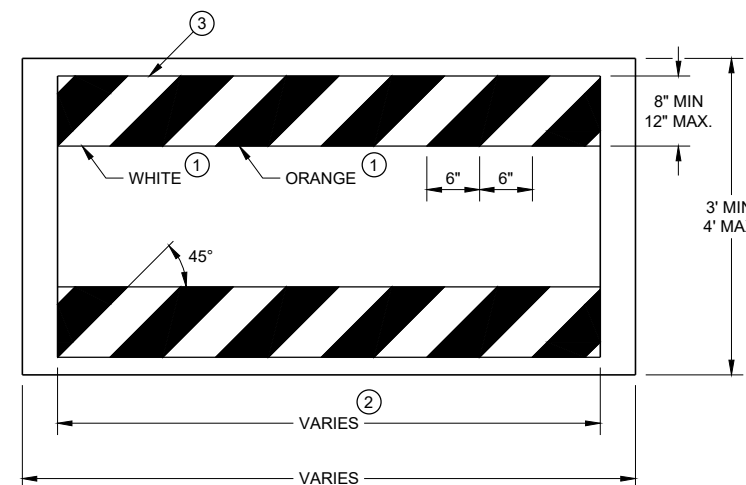
SECTION A - A



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



TEMPORARY PEDESTRIAN SURFACE PLYWOOD

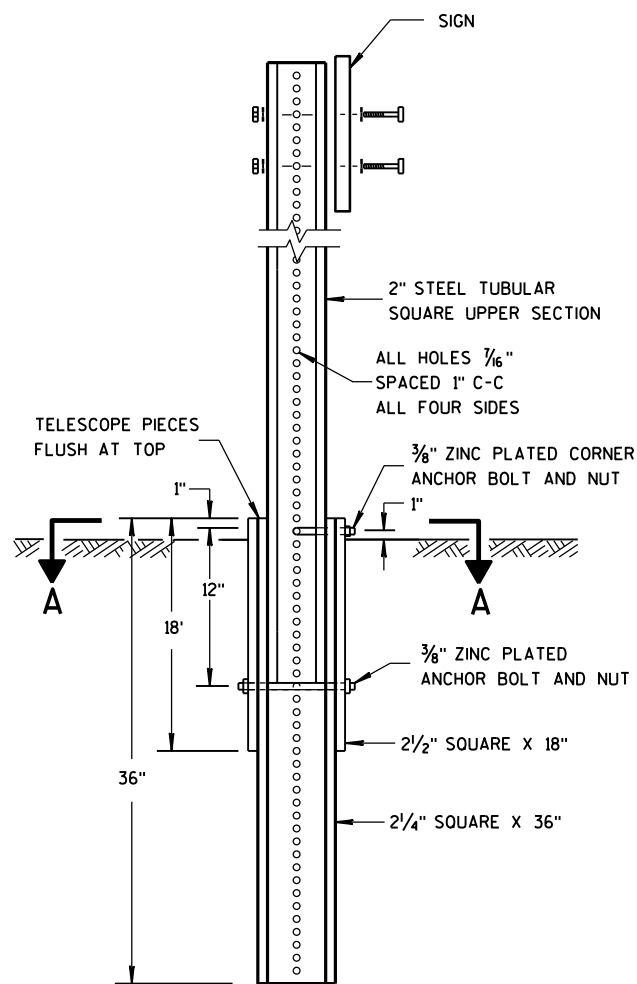


TEMPORARY PEDESTRIAN BARRICADE *

GENERAL NOTES

- BARRICADE DEVICE SELECTED FROM APPROVED PRODUCT LIST
- ① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
- ② SHEETING REQUIRED ON MORE THAN 50% OF BARRICADE WIDTH.
- ③ PLACE SHEETING ON BOTH SIDES OF THE BARRICADE.
- * USE THIS DETAIL FOR SHEETING PLACEMENT REFERENCE.

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED November 2019 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER 258
FHWA	

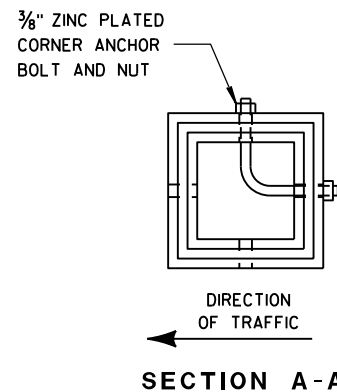


DETAIL OF TUBULAR
STEEL SIGN POST

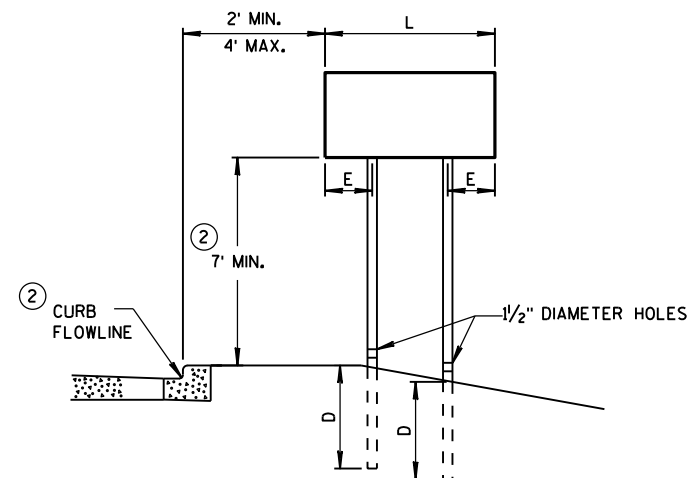
TUBULAR STEEL POSTS

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

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



SECTION A-A

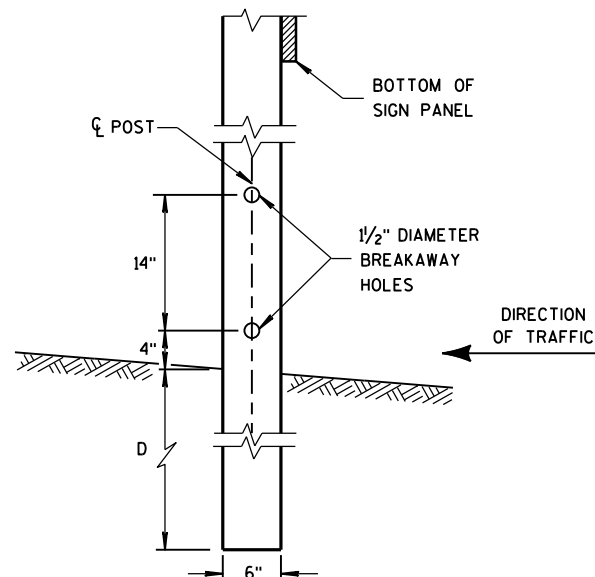


URBAN AREA

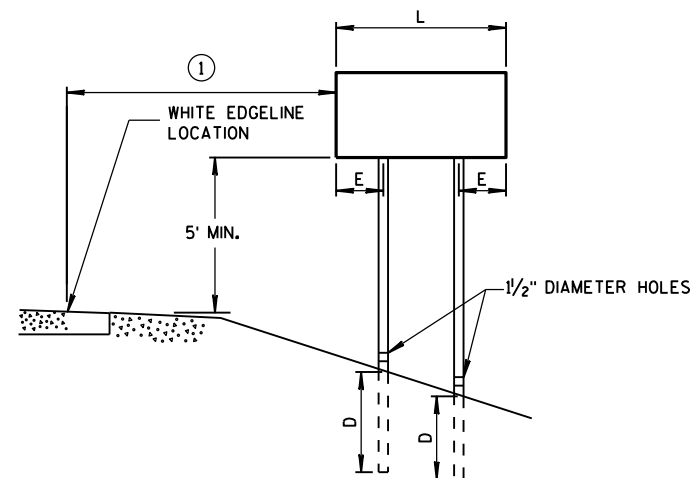
POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

WOOD POST
EMBEDMENT DEPTH

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



4 "x6 " WOOD POST
MODIFICATION



RURAL AREA

4 " X 6 " WOOD POST

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

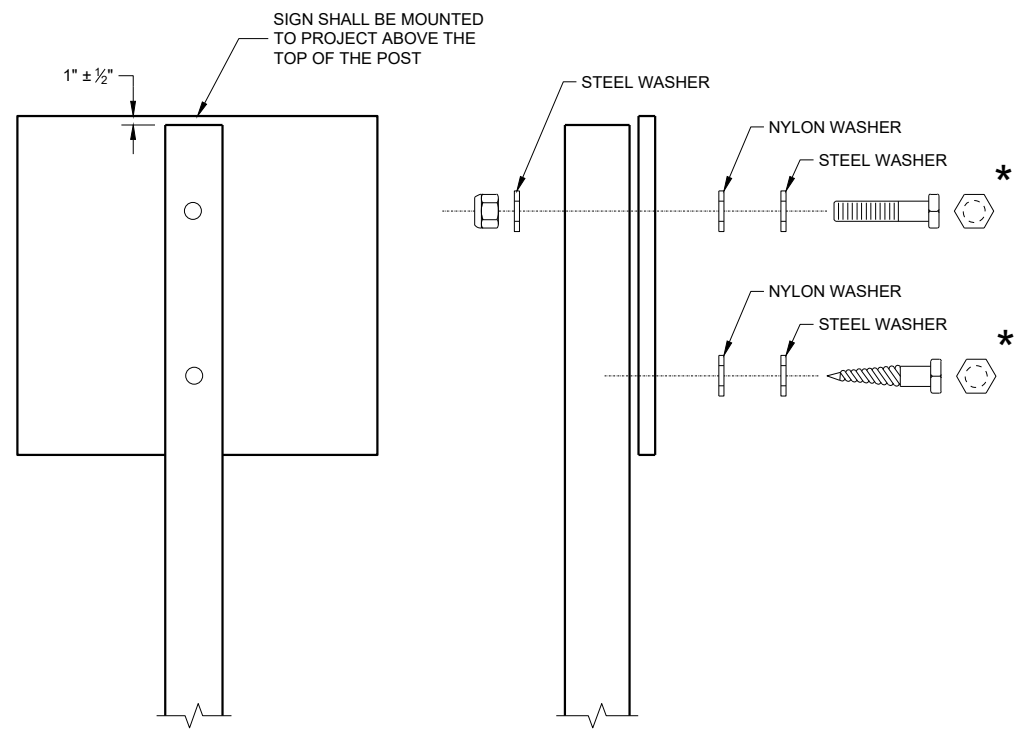
SEE NOTE ③

GENERAL NOTES

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

TEMPORARY TRAFFIC CONTROL
SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



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

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

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

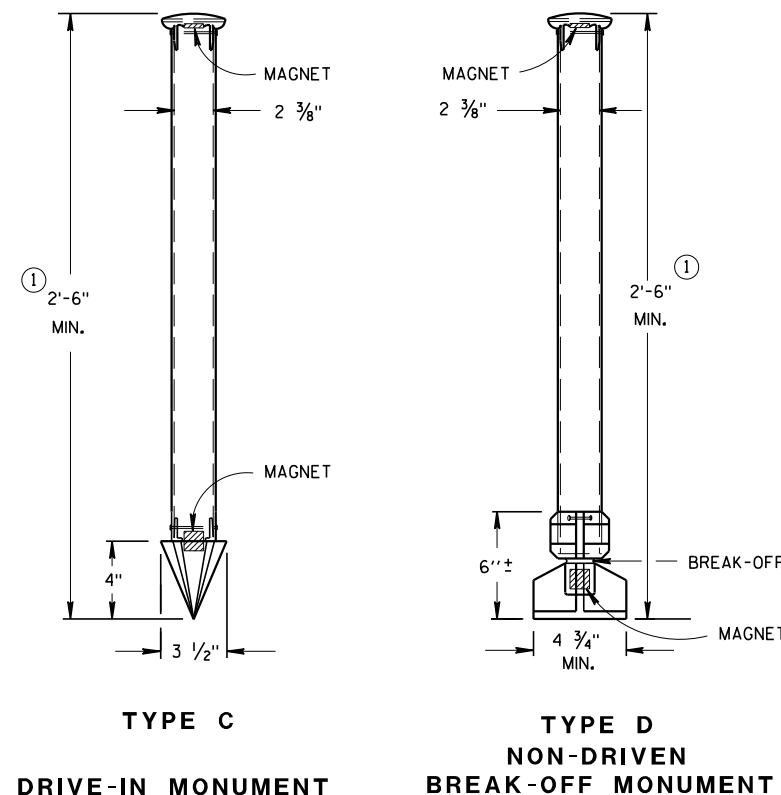
WOOD POST (4" x 6")
LAG SCREWS - ⅜" x 3"
MACHINE BOLTS - ⅝" x 6 ½" OR 7" LENGTH W/NUTS

SQUARE STEEL POST (2" x 2")
MACHINE BOLTS - ⅜" x 3 ¼" LENGTH W/NUTS
RIVETS - ⅝" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM
BODY/MANDREL O.D. FLANGE 0.720 - 0.765 INCH,
GRIP RANGE 0.042 - 0.375 INCH

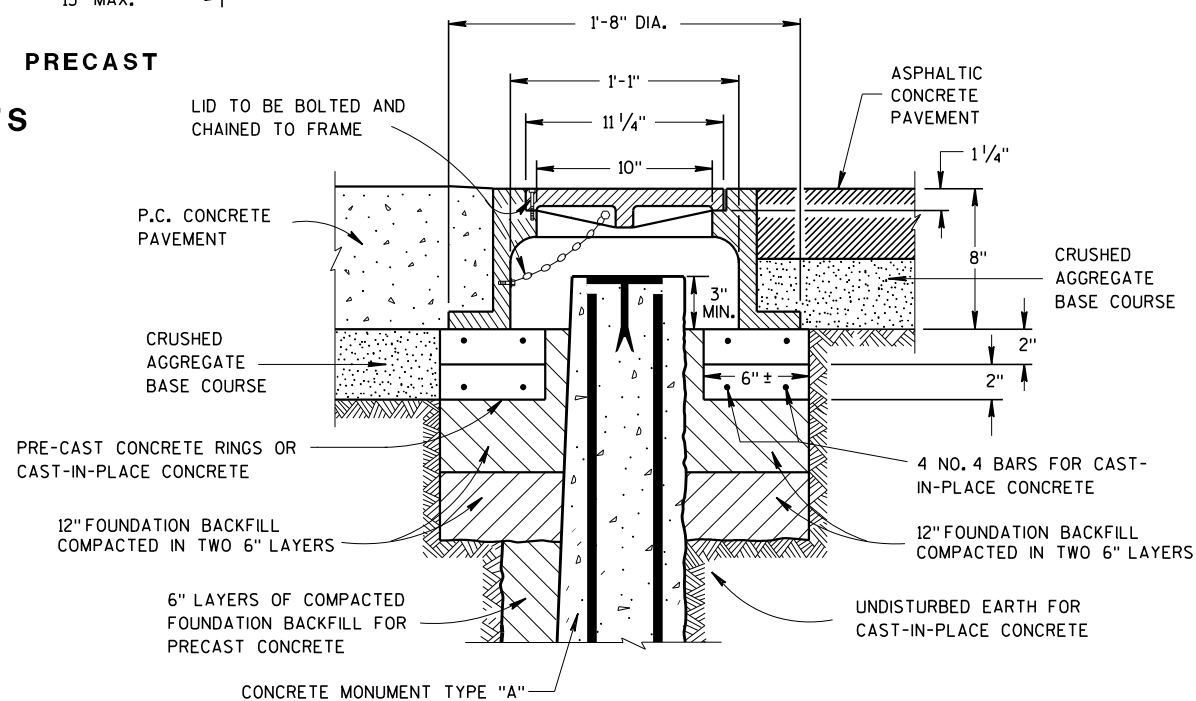
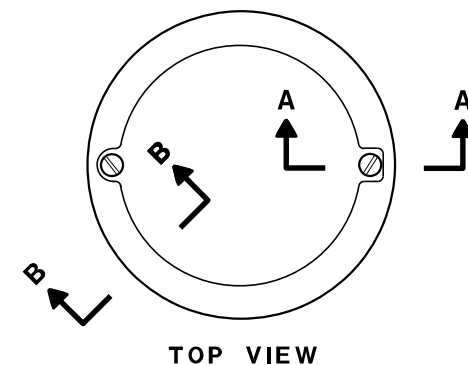
WASHERS (ALL POSTS) -
1 ¼" O.D. x ⅜" I.D. x ⅛" STEEL
1 ¼" O.D. x ⅜" I.D. x 0.080 NYLON

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

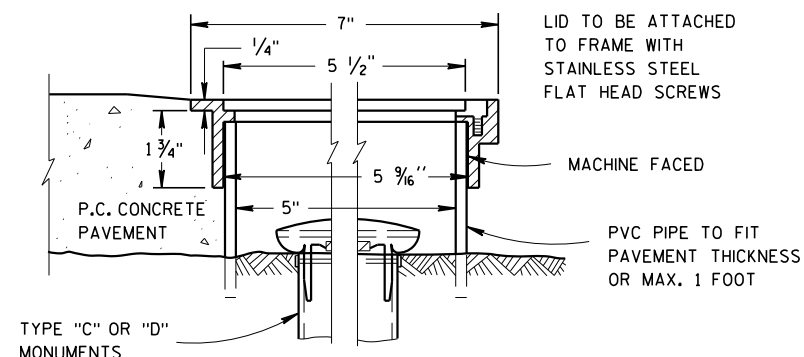
ATTACHMENT OF SIGNS TO POSTS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2017 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER 260
FHWA	



(INCLUDES MARKER)



(APPROXIMATE WEIGHT 95 LBS)



ALUMINUM MONUMENT COVER

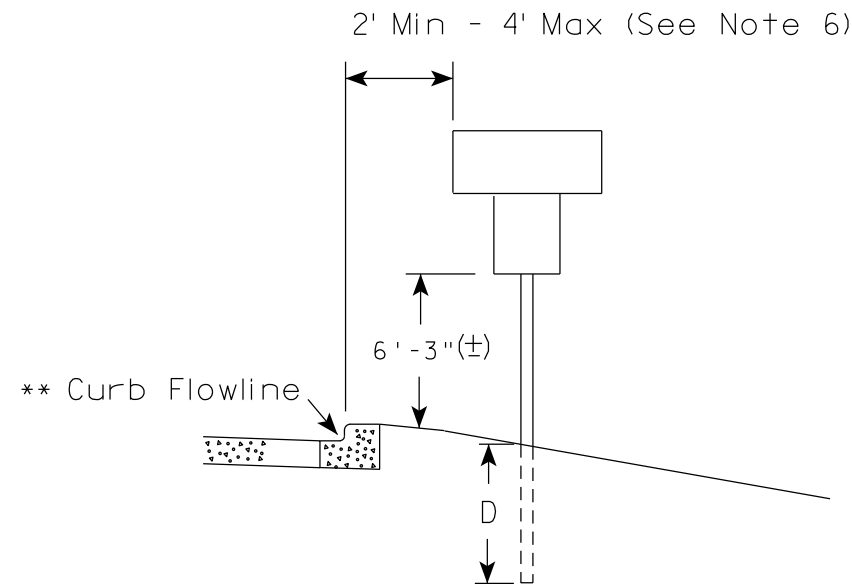
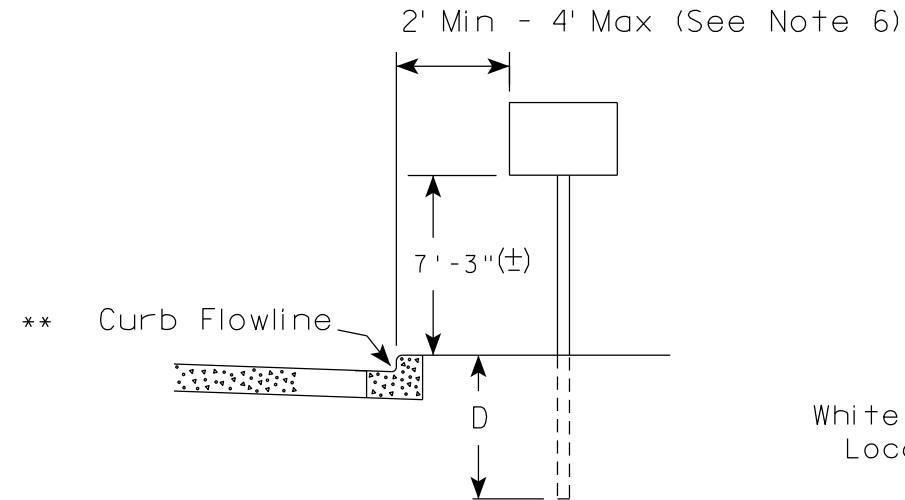
(APPROXIMATE WEIGHT 2 LBS)
(FOR CONCRETE PAVEMENT ONLY)

LANDMARK REFERENCE
MONUMENTS AND COVERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

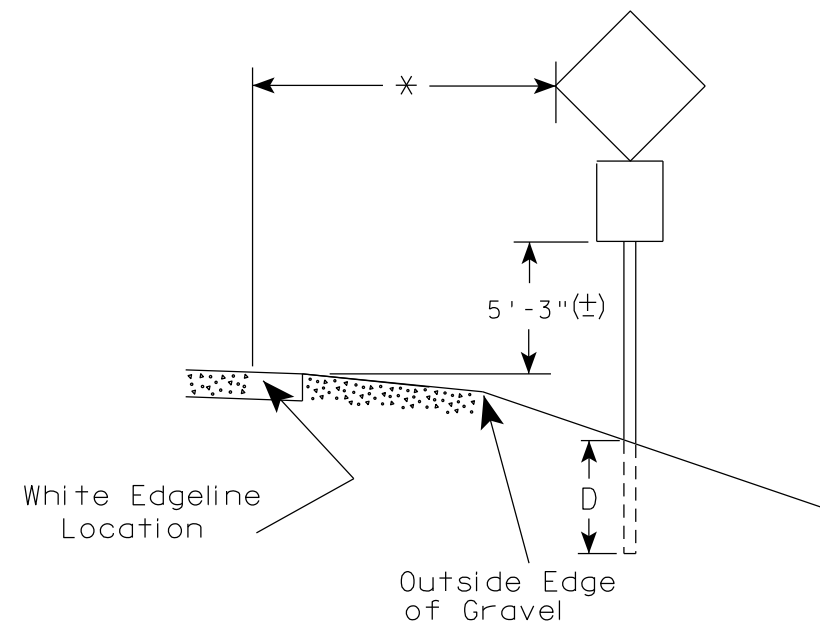
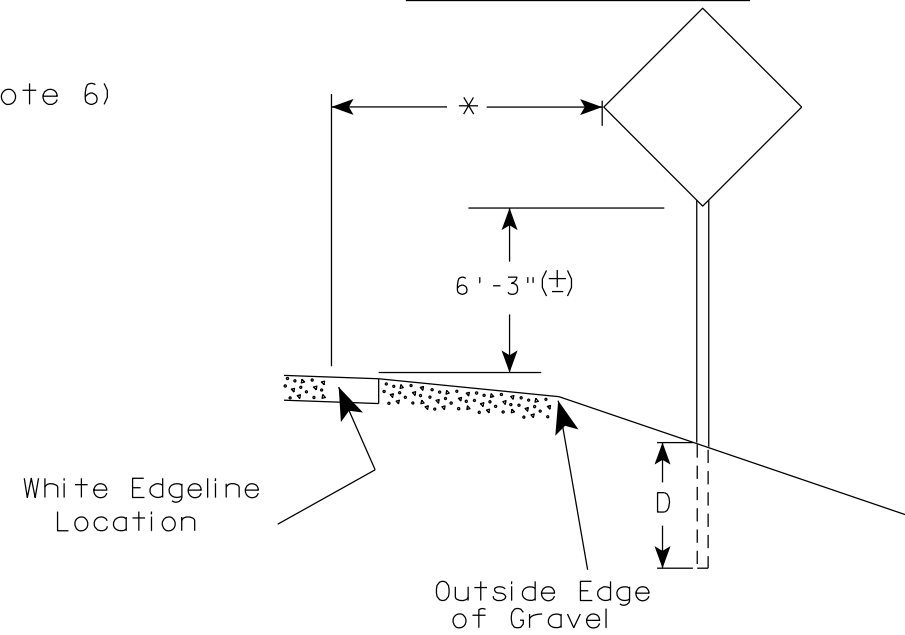
APPROVED
March 2018 /S/ Raymond A. Kumanoyi
DATE 261
CHIEF SURVEYING AND M GINEER
FWA

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

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

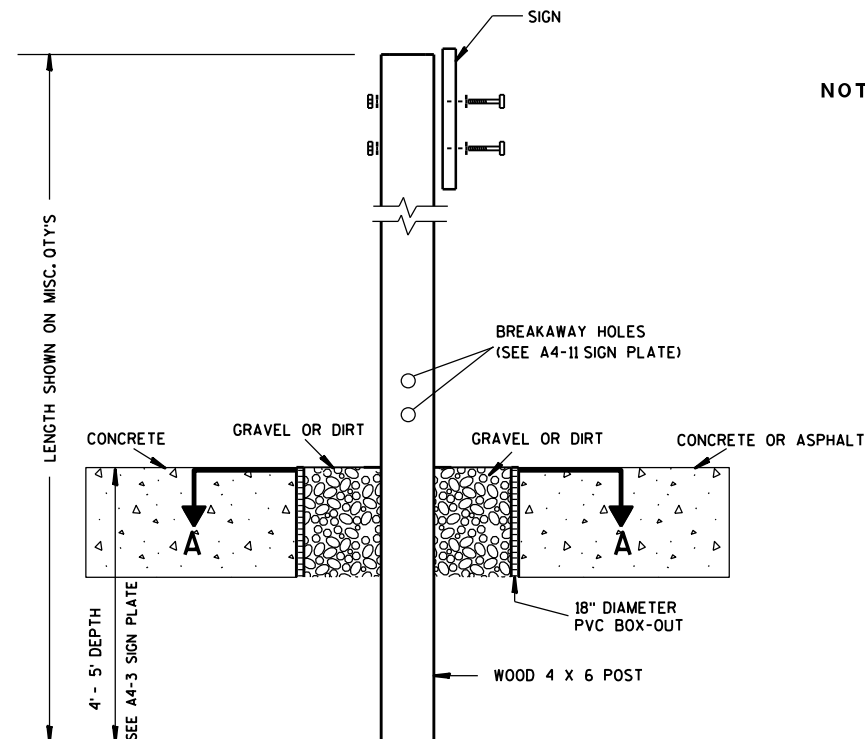
PROJECT NO:

HWY:

COUNTY:

SHEET NO: 262

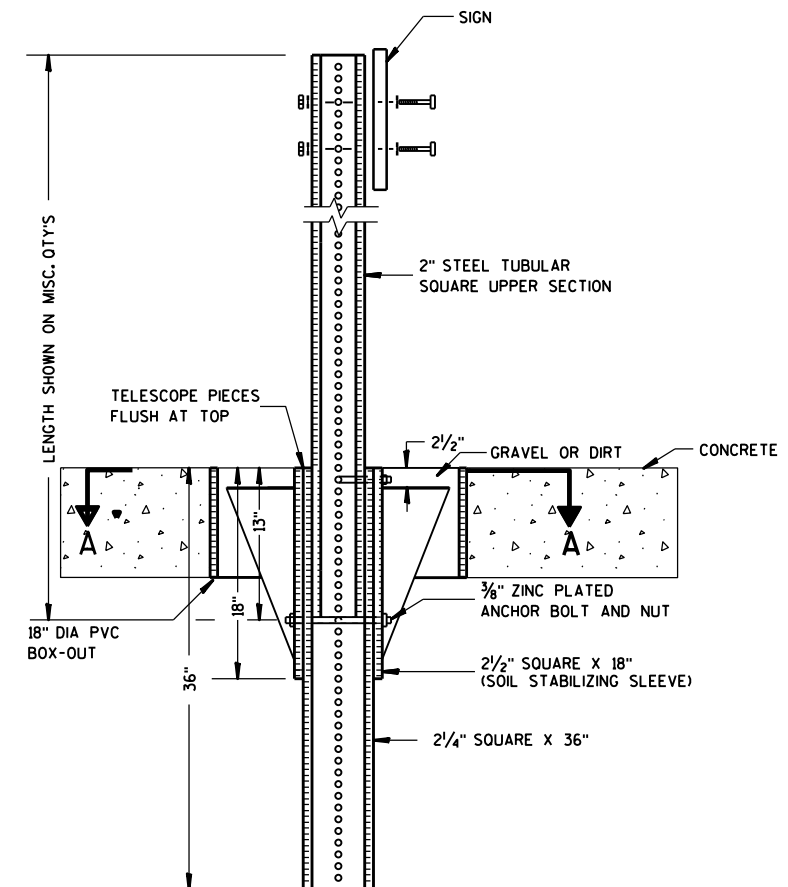
E



ELEVATION VIEW

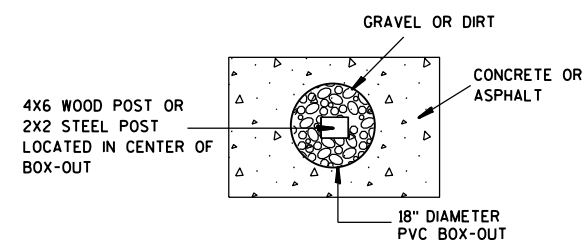
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST
BOX-OUTS
A4-3B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 1/27/14 PLAT 263 A4-3B.1

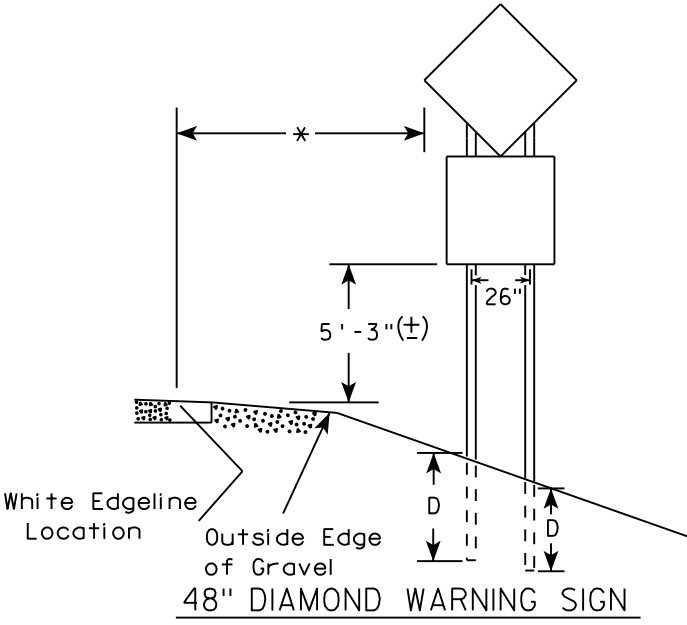
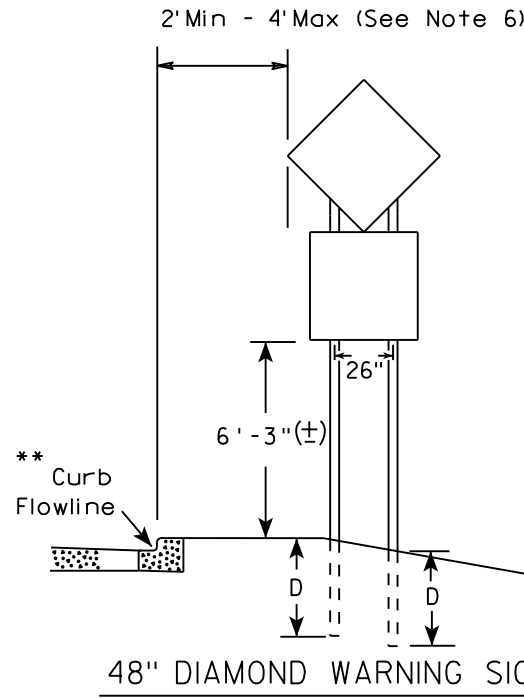
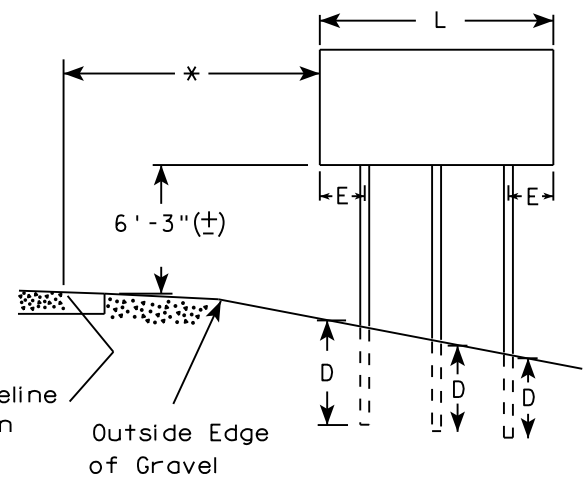
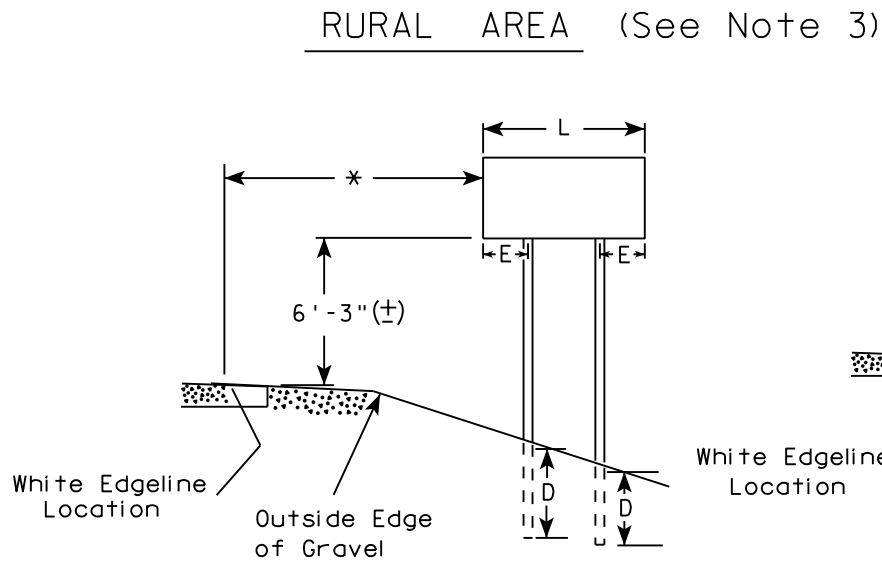
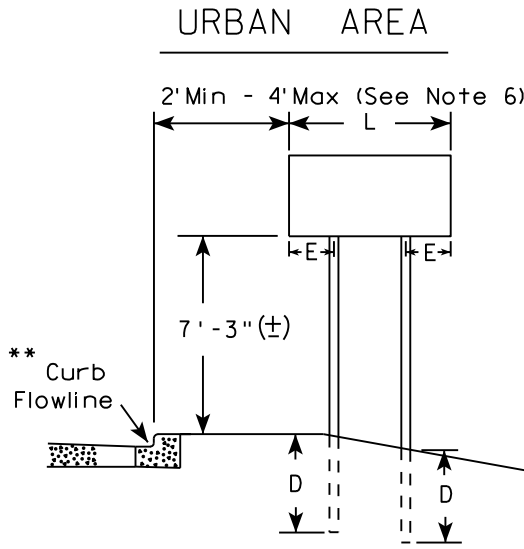
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



- GENERAL NOTES
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" (±) or 6'-3" (±) depending upon existence of sub-sign.
 4. The (±) 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" (±) or as directed by the engineer.
 8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4"-3" (±).

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

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

*** See A4-3 sign plate for signs 4' or less in width 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

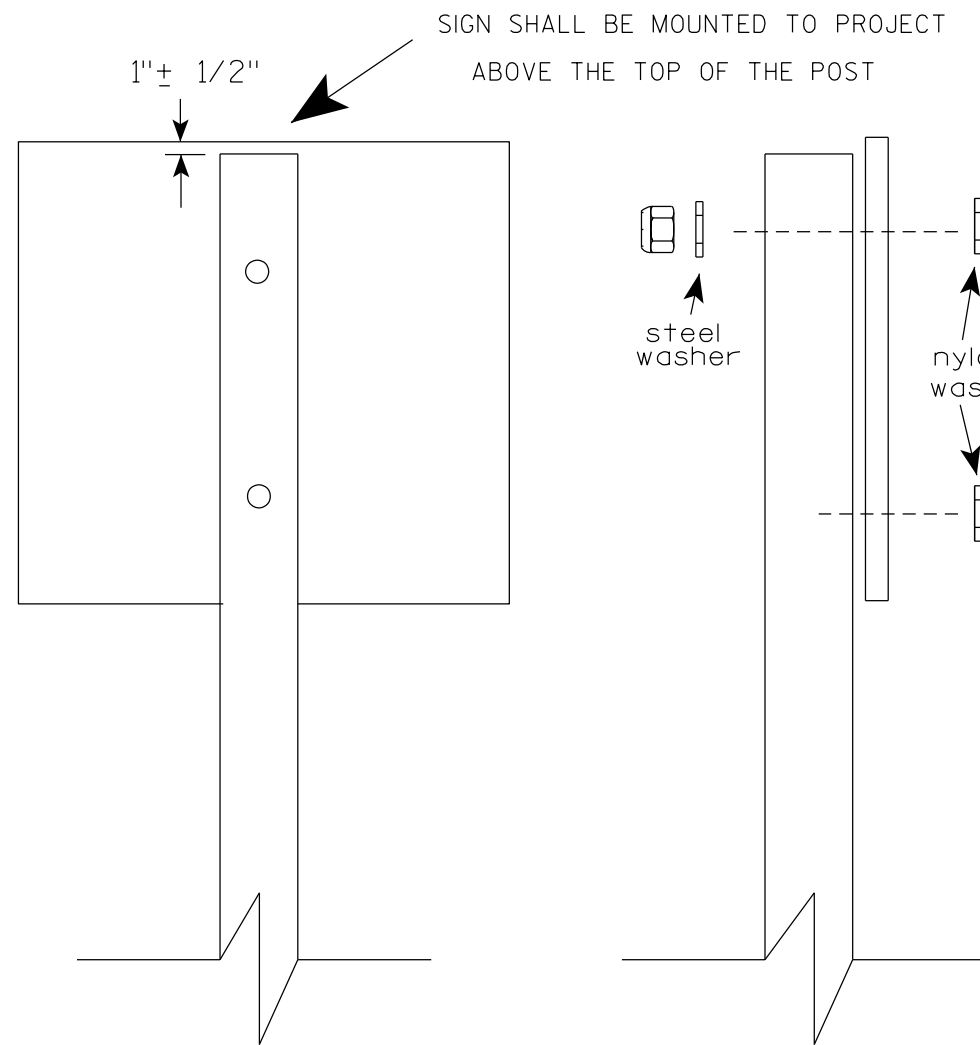
Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION
OF TYPE II SIGNS
ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
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.

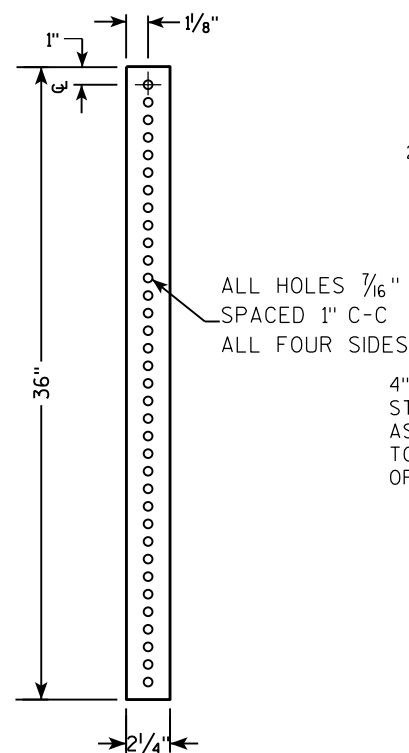
Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

- STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)
- MACHINE BOLTS - $\frac{5}{16}$ " X 1-3/4" Length w/ lock nuts
- WOOD POSTS (4" x 6")
- LAG SCREWS - $\frac{3}{8}$ " X 3" (NO STRINGERS ON BACK OF SIGN)
 $\frac{3}{8}$ " X 4" (STRINGERS ON BACK OF SIGN)
- SQUARE STEEL POSTS (2" x 2")
- MACHINE BOLTS - $\frac{3}{8}$ " X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
 $\frac{3}{8}$ " X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)
- RIVETS - $\frac{9}{32}$ " (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 $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ " STEEL
 - 1-1/4" O.D. X $\frac{3}{8}$ " I.D. X .080 NYLON

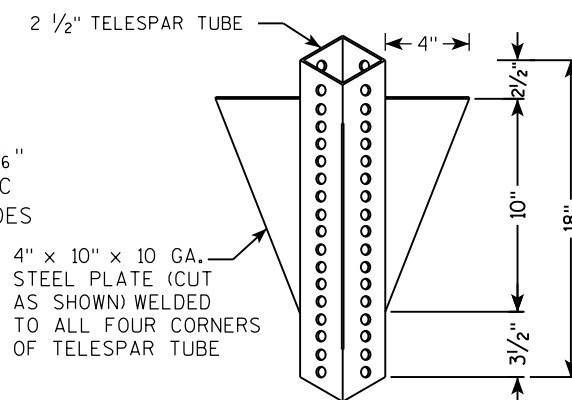
* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require 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 4/1/2020	PLATE NO. A4-8.9

**2 1/4" SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH**

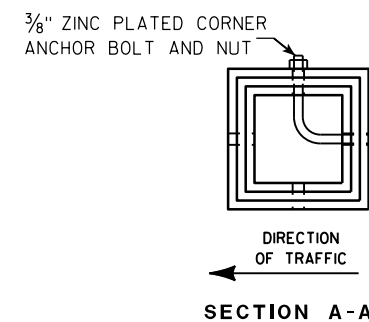


**2 1/2" SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH**

[illegible]

TECHNICAL DRAWING OF A SIGNPOST ASSEMBLY:

- TELESCOPE PIECES FLUSH AT TOP**: Indicated by a dimension line on the left.
- 2" STEEL TUBULAR SQUARE UPPER SECTION**: The main vertical support.
- ALL HOLES $\frac{7}{16}$ " SPACED 1" C-C ALL FOUR SIDES**: Specification for the perforations in the upper section.
- SIGN**: Attached to the top of the upper section.
- SEE SIGN PLATE A4-8 FOR BOLT WASHER, & NUT MATERIAL**: Reference to a sign plate for hardware details.
- 3/8" ZINC PLATED CORNER ANCHOR BOLT AND NUT**: Hardware used to secure the post to the base.
- 1"**: Dimension for the offset of the anchor bolt from the post face.
- 3/8" ZINC PLATED ANCHOR BOLT AND NUT**: Hardware used to secure the base plate to the ground.
- 2 1/2" SQUARE X 18" (SOIL STABILIZING SLEEVE)**: The base plate of the post.
- 2 1/4" SQUARE X 36"**: The main vertical support post.
- Dimensions**:
 - 36" (Total height of the main post section)
 - 18" (Height of the upper section)
 - 12" (Height of the lower section)
- Arrows A**: Indicate downward forces or weights applied to the top of the post sections.



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

Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R. Rauch

for State Traffic Engineer

DATE 2/05/15 PLATI 266 14-9.9

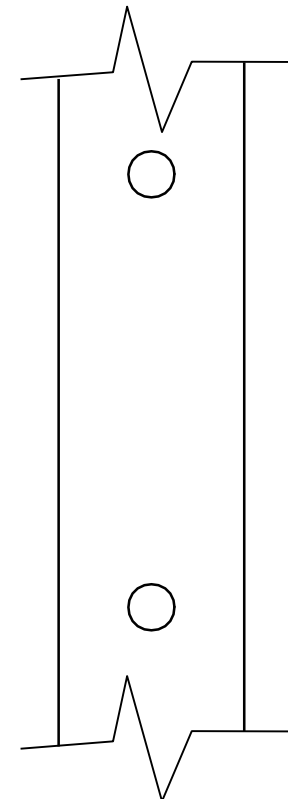
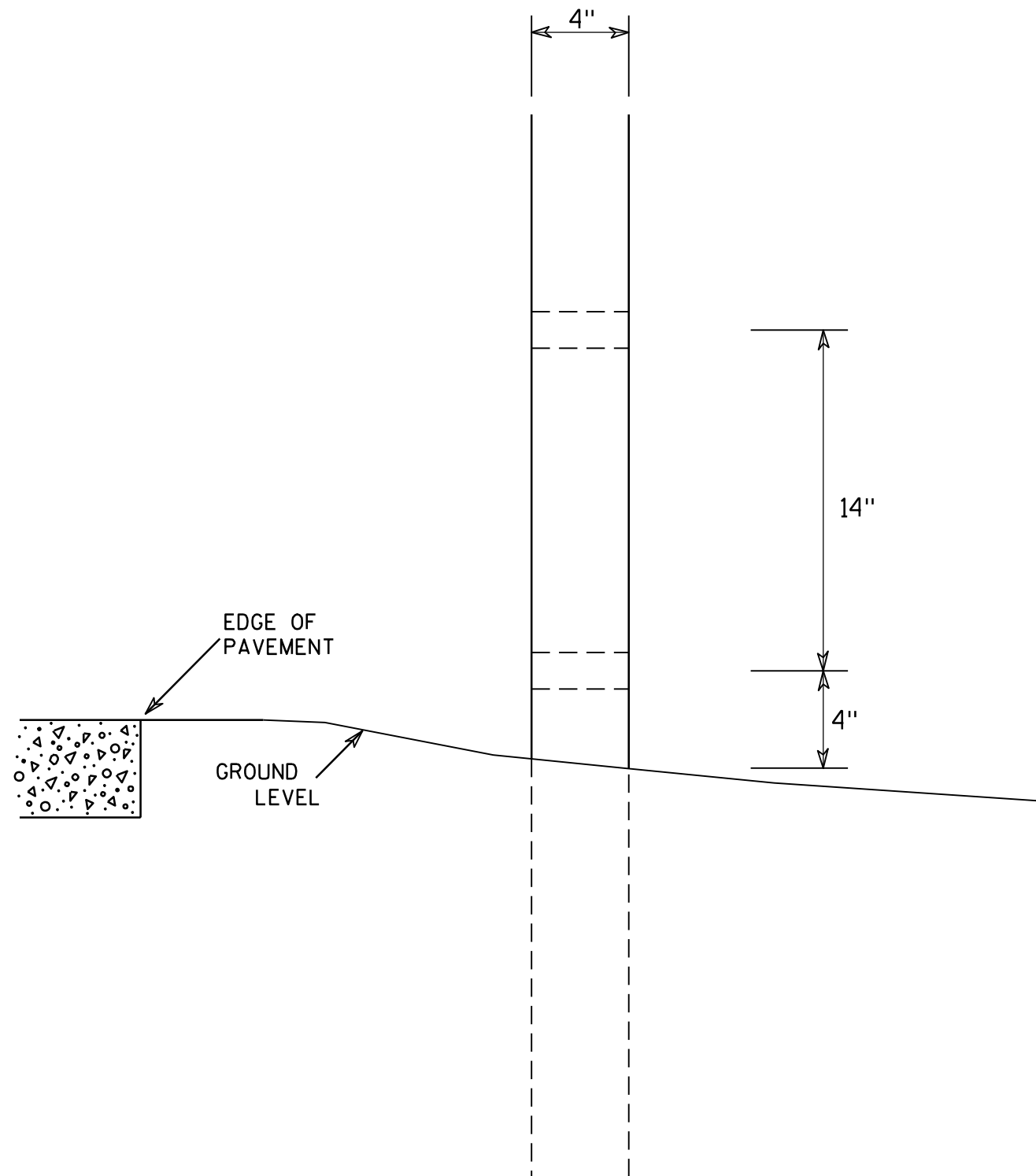
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



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

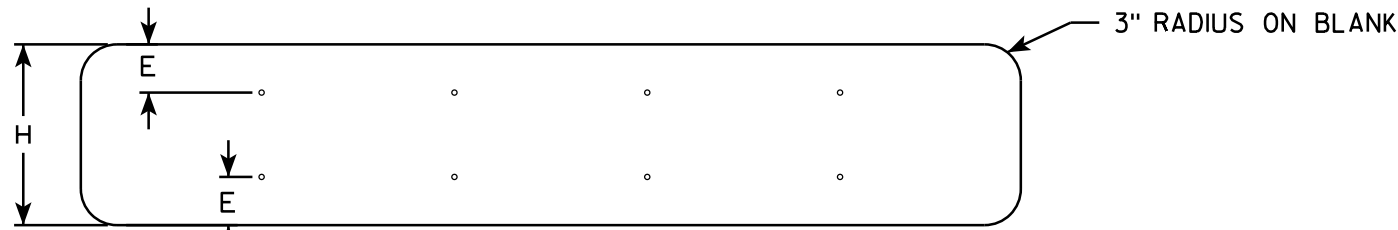
PROJECT NO:

HWY:

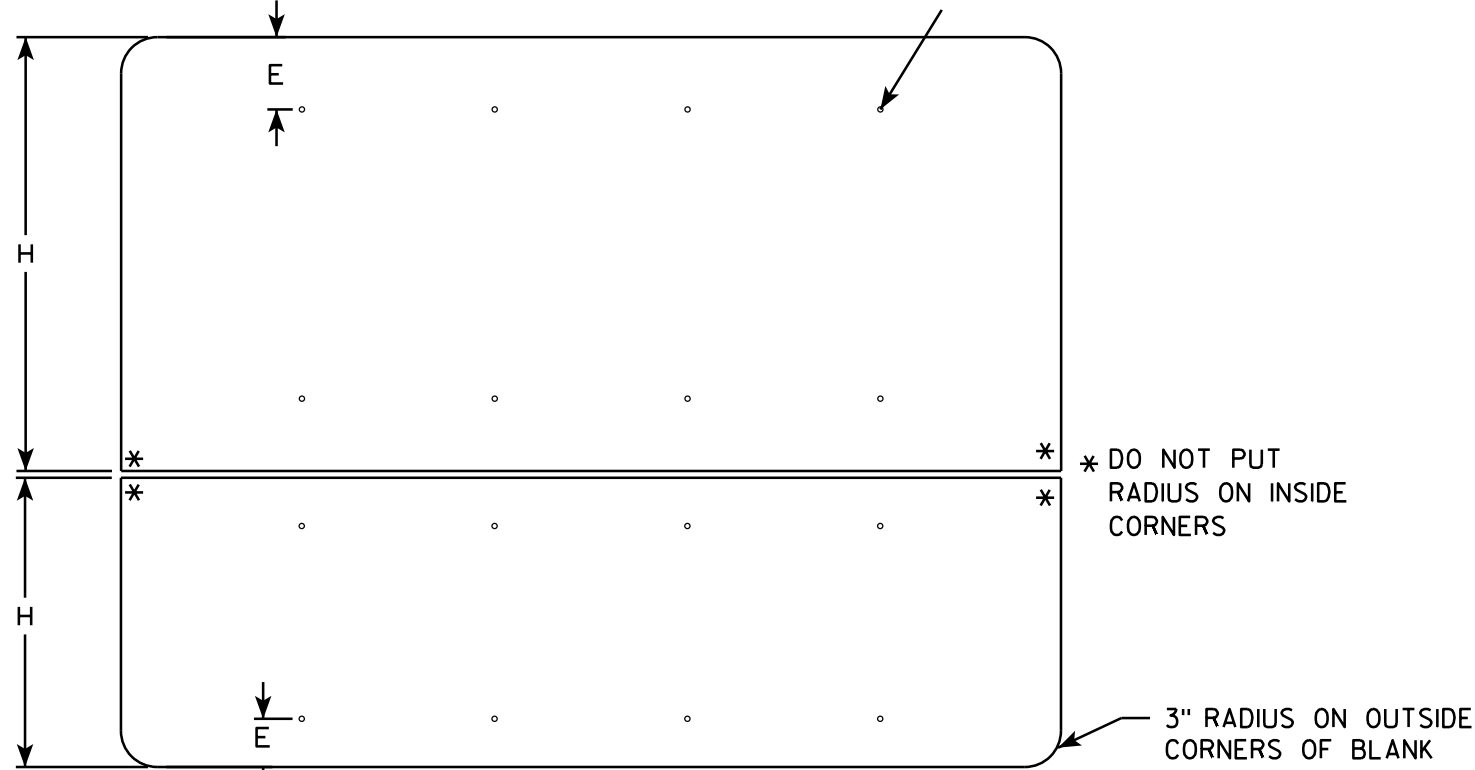
COUNTY:

SHEET NO: 267

E



SINGLE PIECE ALUMINUM SIGN 1/16" MOUNTING HOLES



MULTI-PIECE ALUMINUM SIGN

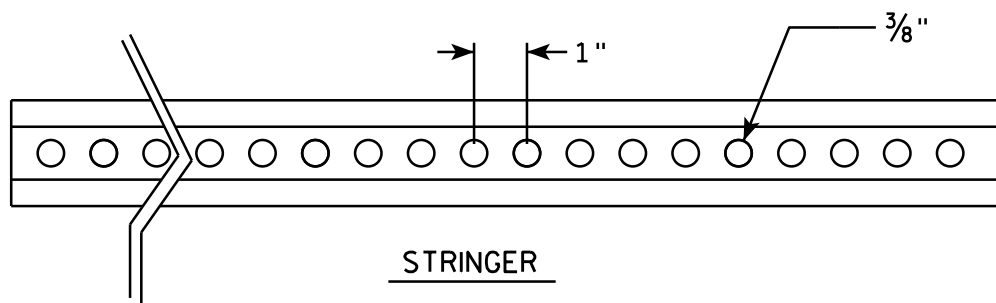
* DO NOT PUT
RADIUS ON INSIDE
CORNERS

3" RADIUS ON OUTSIDE
CORNERS OF BLANK

GENERAL NOTES

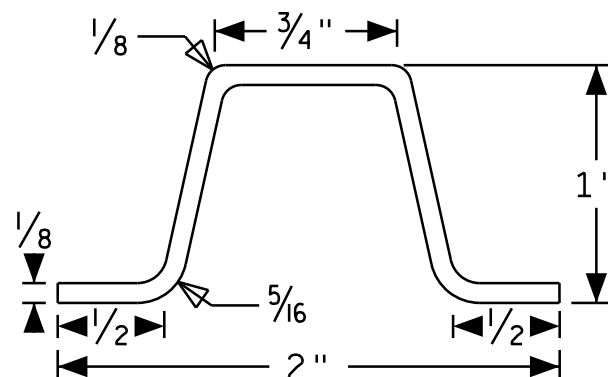
- ALL SIGNS OVER 60" IN WIDTH SHALL HAVE A 3" RADIUS ON THE OUTSIDE CORNERS OF THE ALUMINUM BLANK.
- MOUNTING HOLES SHALL BE 7/16" DIAMETER.
- SEE CHART FOR HOLE SPACING REQUIREMENTS
- FOR SIGN PANELS WITH DIMENSION (H) 36" AND OVER, DIMENSION E SHALL BE 6"
- FOR SIGN PANELS WITH DIMENSION (H) UNDER 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"

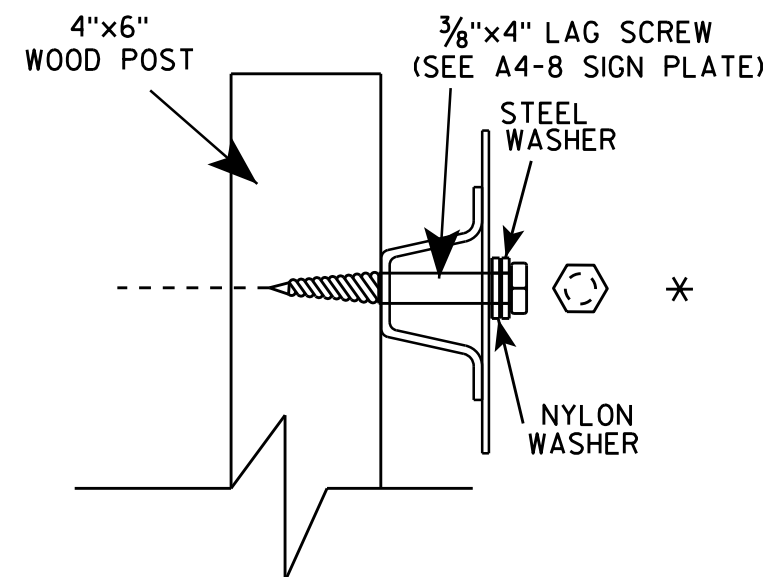


STRINGER

CROSS SECTION
VIEW OF CHANNEL



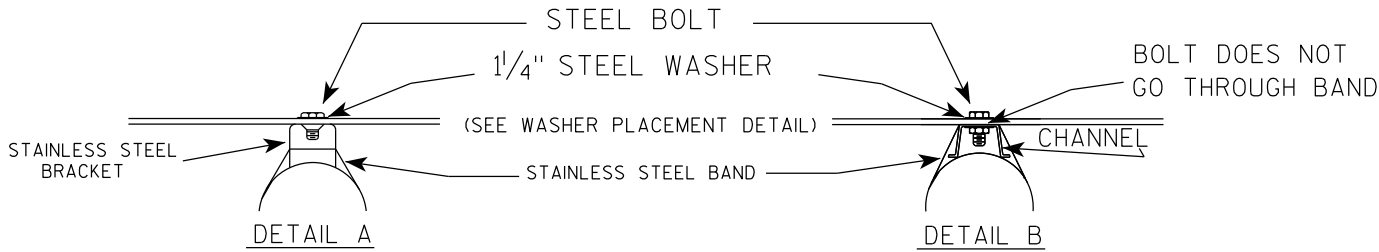
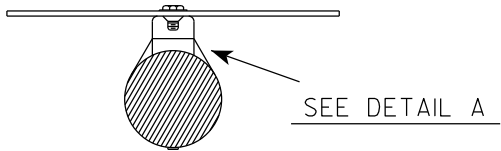
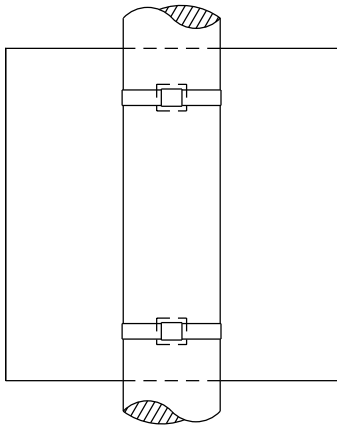
POST MOUNTING



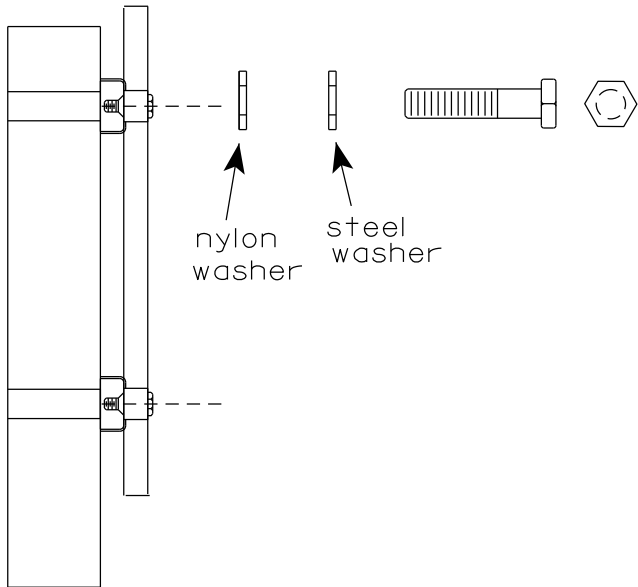
SIGN STRINGER MOUNTING REQUIREMENTS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 4/26/16	PLATE No A4-18.1 268

BANDING

SINGLE SIGN



WASHER PLACEMENT

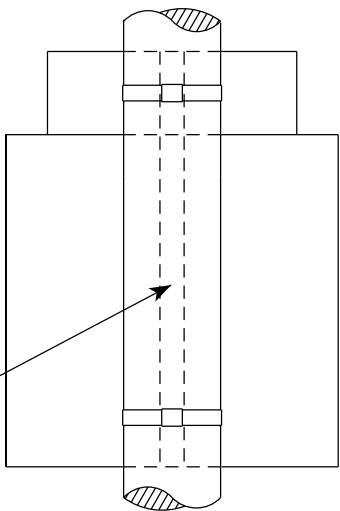


WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

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 3/4" in width and 0.025" thickness.
4. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
 - a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
 - b. Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

"J" ASSEMBLY



CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET

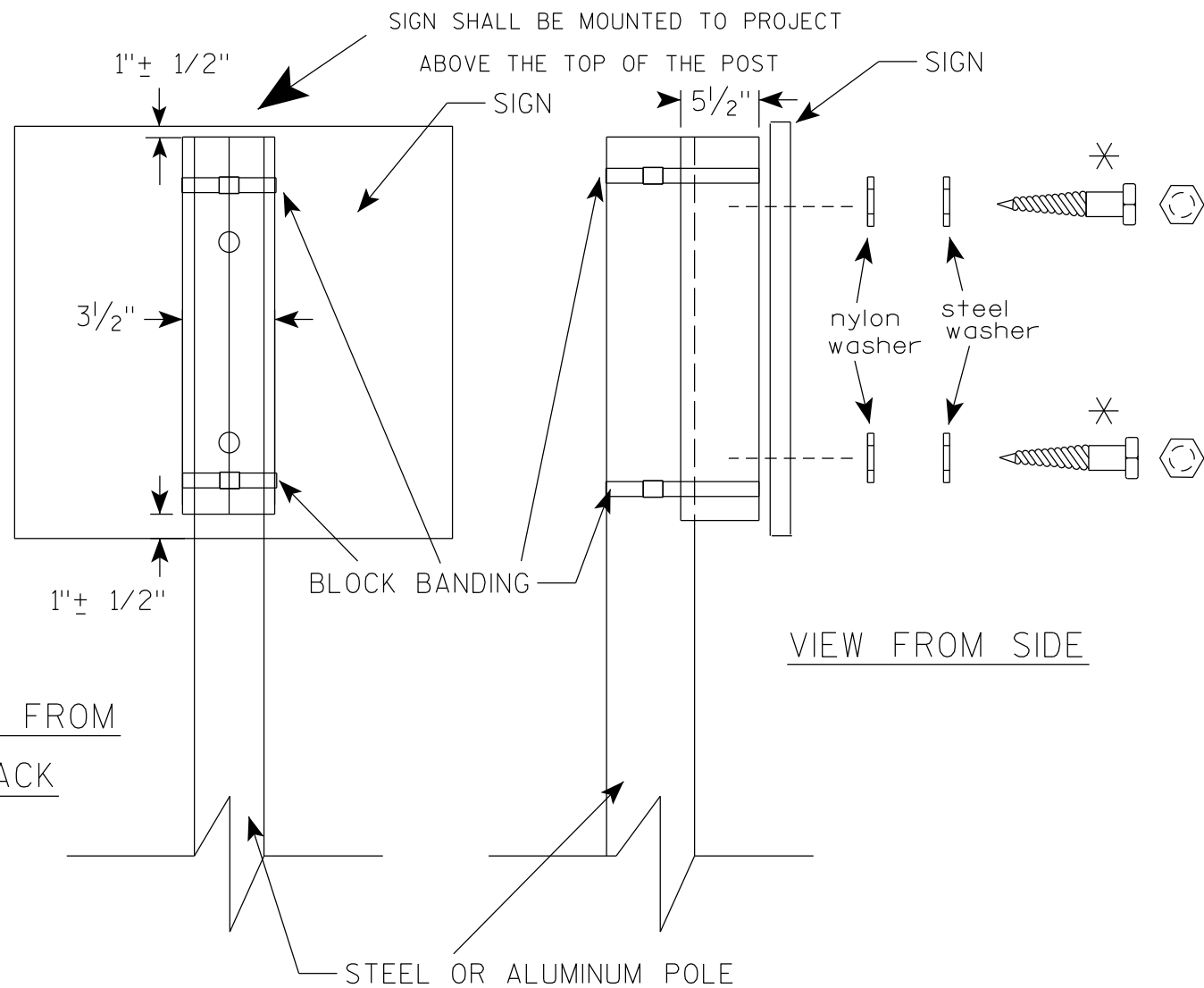
SEE DETAIL B

STANDARD SIGN
SIGN BANDING DETAILS

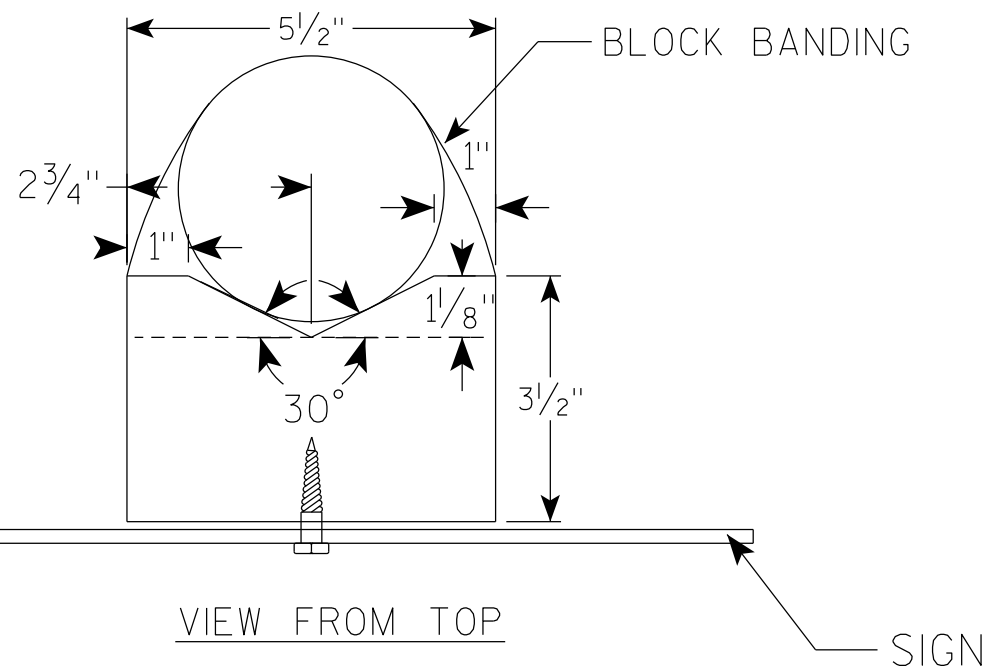
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 6/10/19 PLATE NO. A5-9.4

VIEW FROM
BACK



VIEW FROM SIDE



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, $\frac{3}{4}$ " 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
 - b. 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 $1\frac{1}{4}$ " O.D. X $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ "
8. NYLON WASHERS SHALL BE $1\frac{1}{4}$ " O.D. X $\frac{3}{8}$ " I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✱ LAG BOLTS SHALL BE $\frac{3}{8}$ " X $2\frac{1}{2}$ "

BLOCK BANDING DETAIL
(V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R. Rauch
for State Traffic Engineer

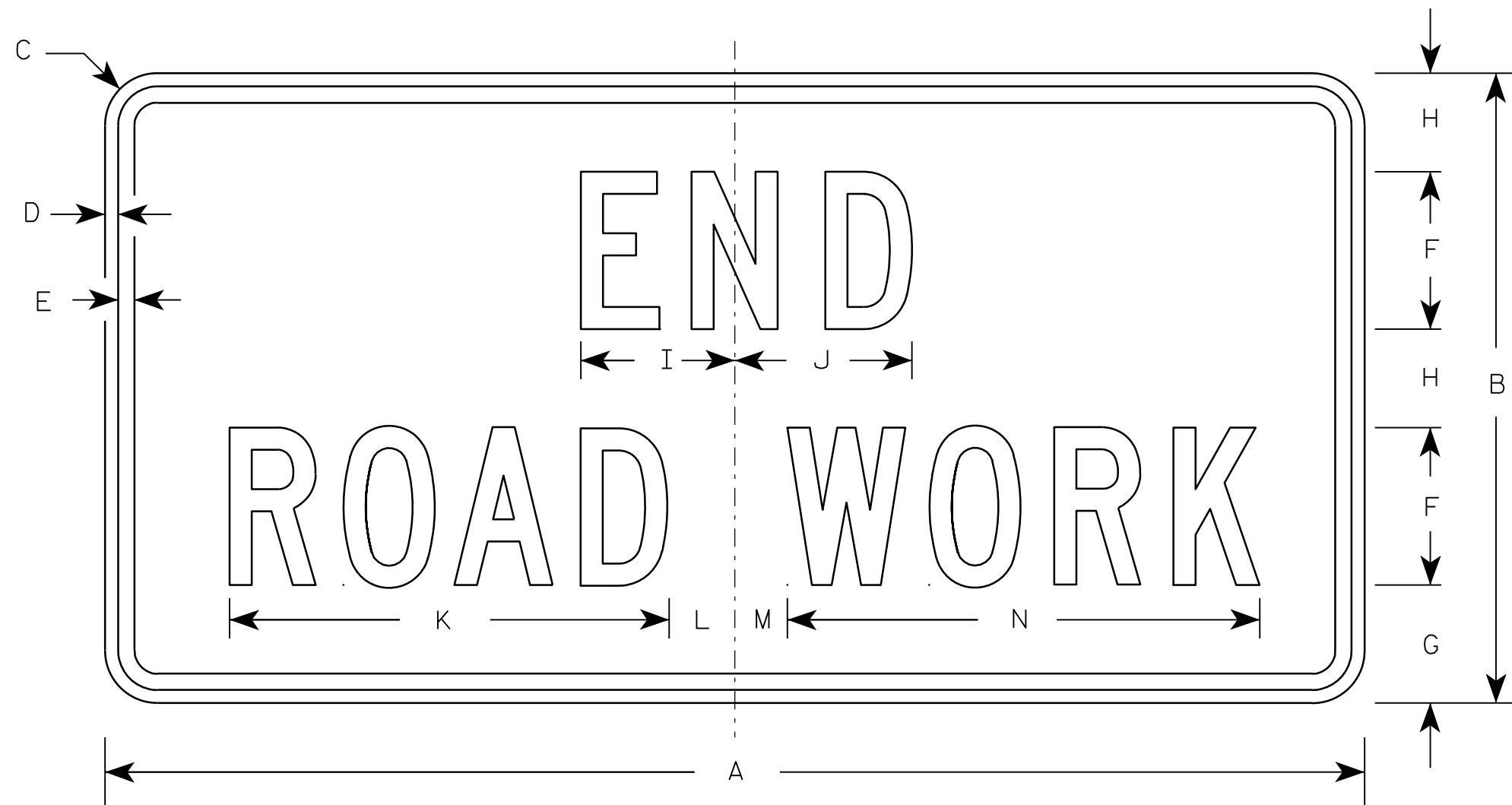
DATE 6/10/19 PLATE NO. A5-10.2

PROJECT NO:

SHEET NO: 270

E

7



G20-2A

Metric equivalent
for this sign is:

SIZE	
1	900 mm X 450 mm
2	1200 mm X 600 mm
3	1200 mm X 600 mm
4	1200 mm X 600 mm
5	1200 mm X 600 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area sq. m.
1	36	18	1 1/8	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5	0.41
2	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
3	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
4	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
5	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72

NOTES

- Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - Orange
Message - Black
- Message Series - C
- 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

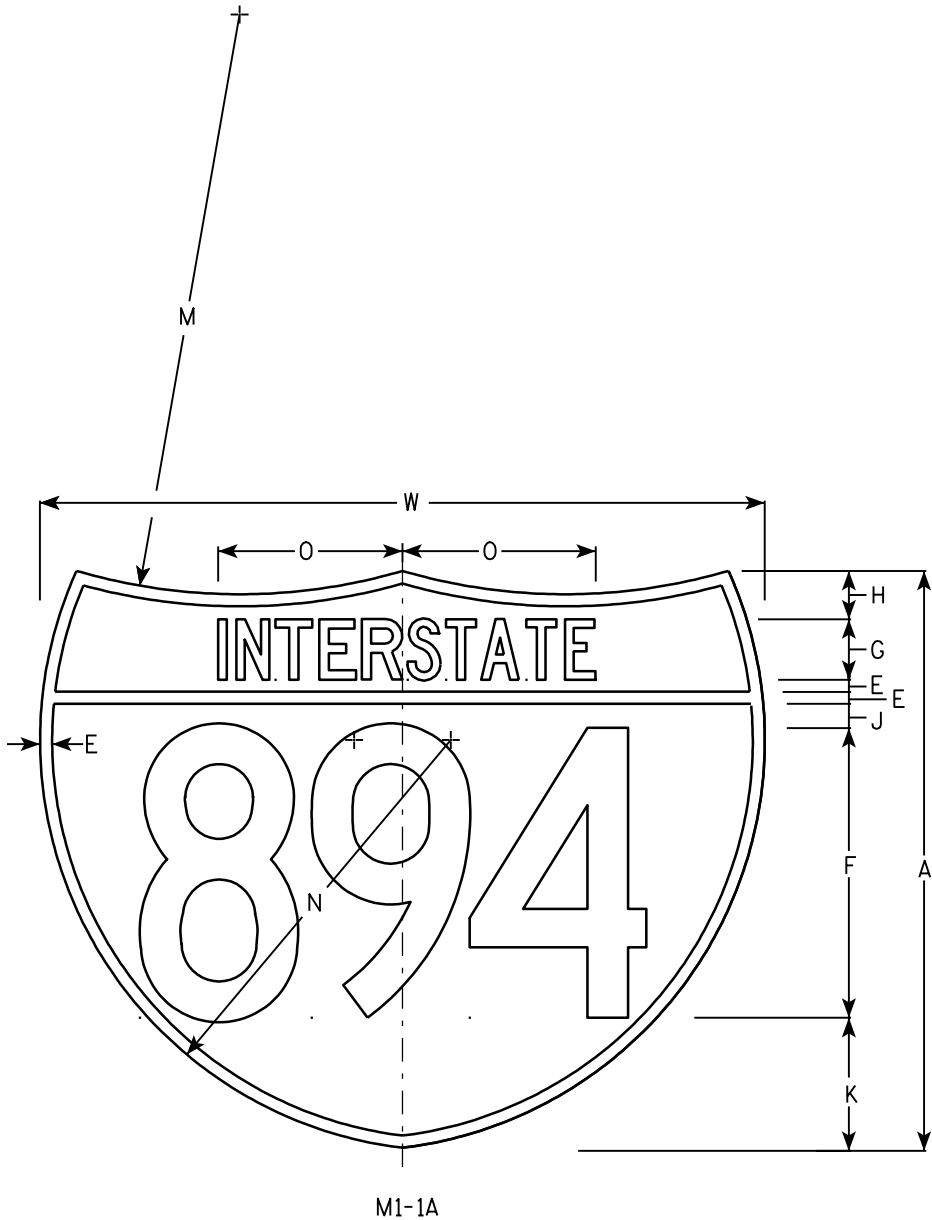
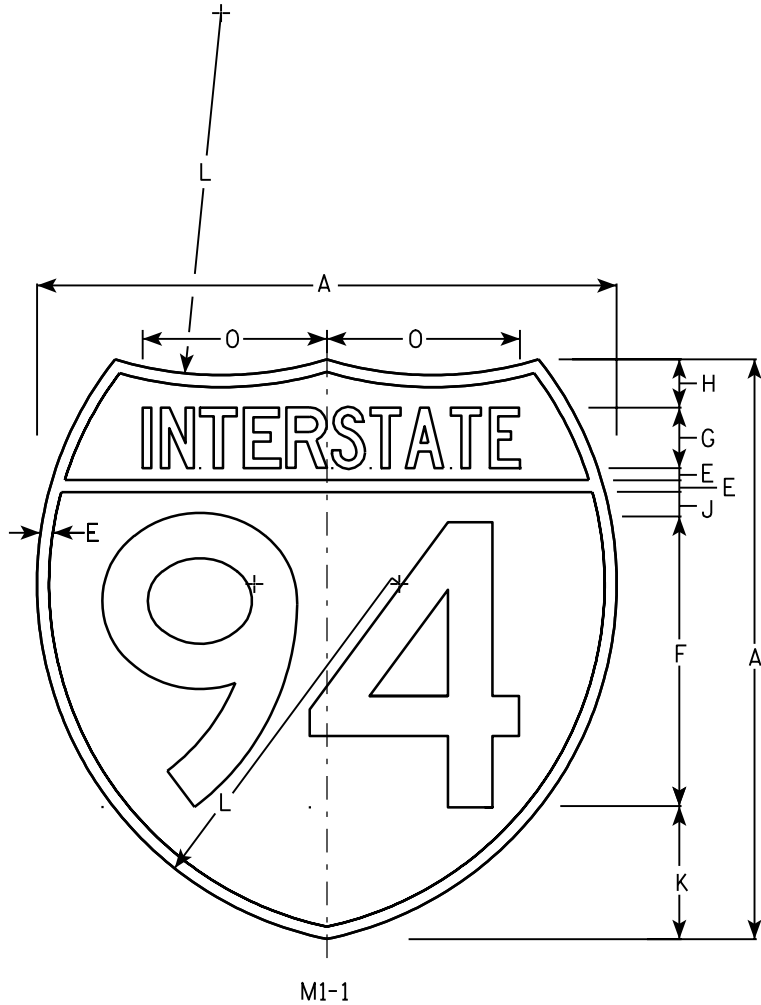
PROJECT NO:

HWY:

COUNTY:

SHEET NO: 271

E



NOTES

- 1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
Background - Top Red - Bottom Blue (See Note 6)
Message - White - See Note 6
- 3. Message Series - See note 5
- 4. Substitute appropriate numerals & adjust spacing as per plate A10-1.
- 5. M1-1 - Numerals - D
Interstate - C
M1-1A - All copy - C
- 6. Permanent Signs
Message - Type H Reflective
Detour or other temporary signs
Background - Reflective
Message - Reflective

Metric equivalent for these signs are:

SIZE	M1 - 1	SIZE	M1 - 1A
1			
2	600 mm X 600 mm	2	600 mm X 750 mm
3	900 mm X 900 mm	3	900 mm X 1125 mm
4	900 mm X 900 mm	4	900 mm X 1125 mm
5	900 mm X 900 mm	5	900 mm X 1125 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Area sq. ft.	Area sq. ft.	Area m ²	Area m ²
1																													
2	24				1/2	12	2 1/2	2		1	5 1/2	15	24	17	7 7/8								30			3.13	3.91	.36	.46
3	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
4	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
5	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05

INTERSTATE ROUTE MARKER
M1-1 FOR ASSEMBLIES

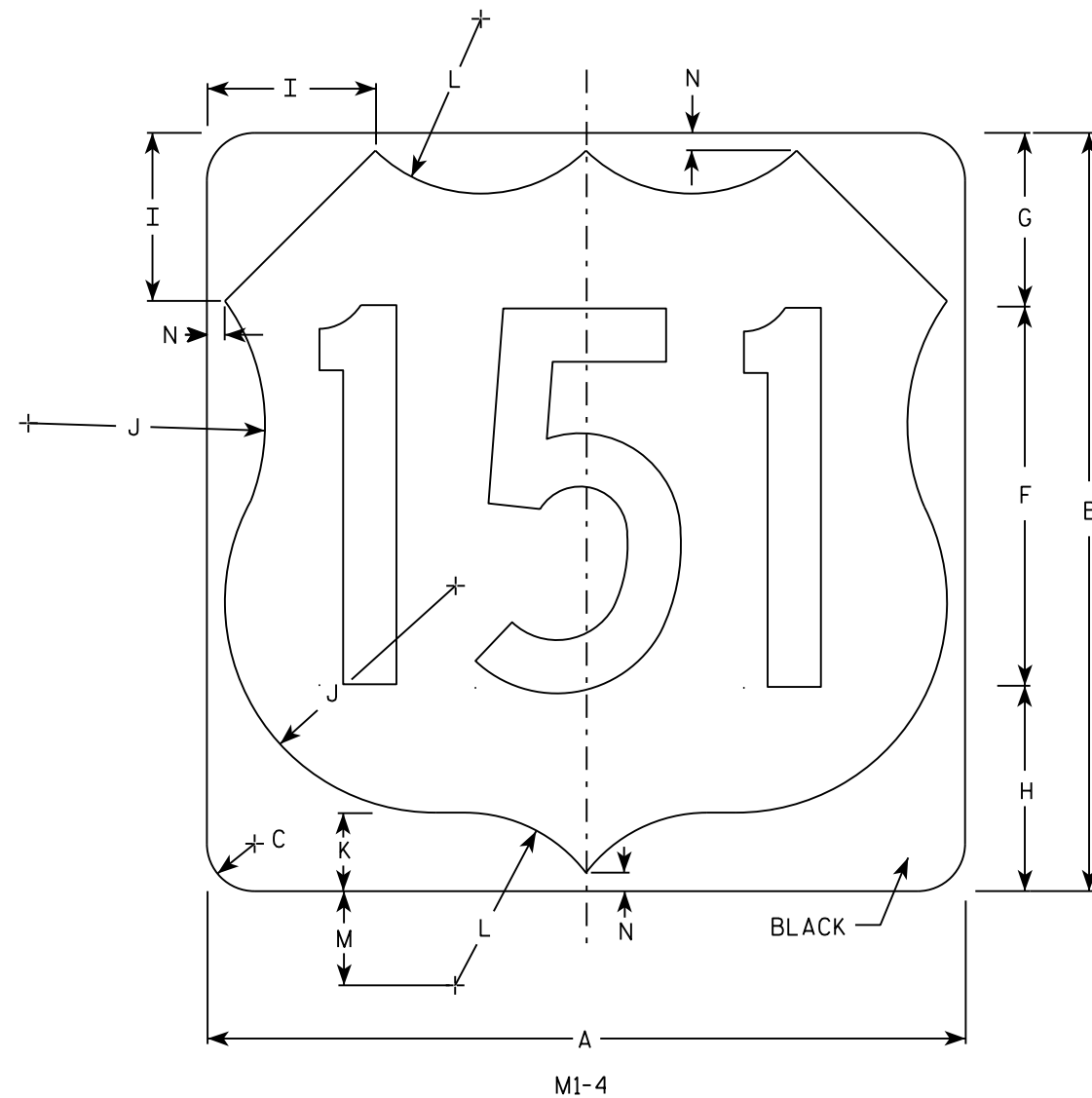
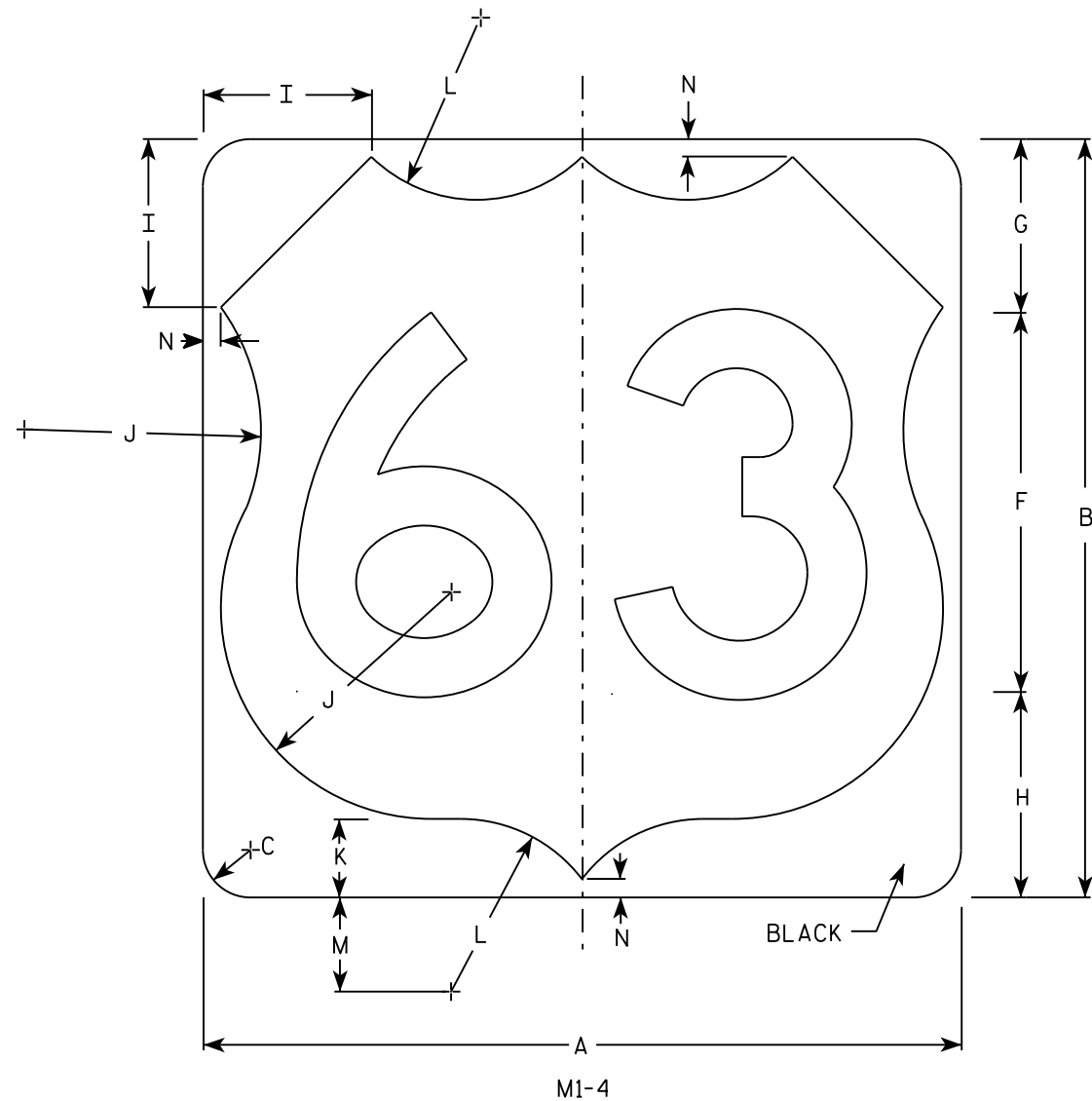
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 08/23/05 PLATE NO. M1-1.8

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	Areq. 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

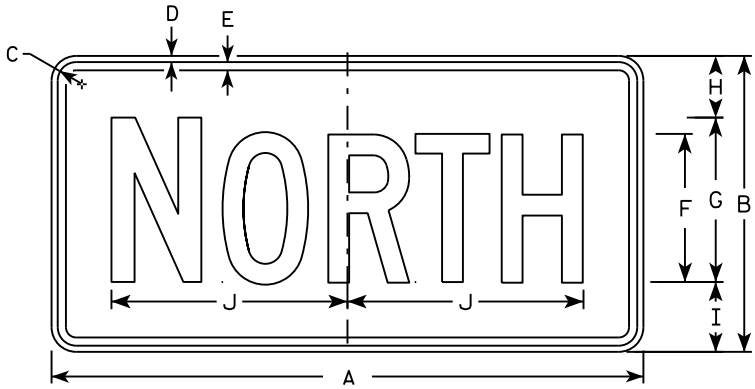
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 273	E
-------------	------	---------	--	---------------	---

USH MARKER
M1-4 FOR ASSEMBLIES

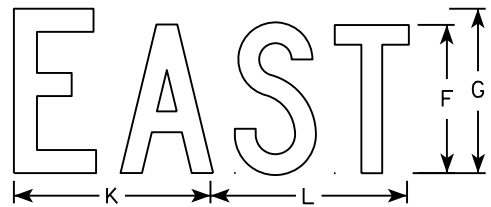
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

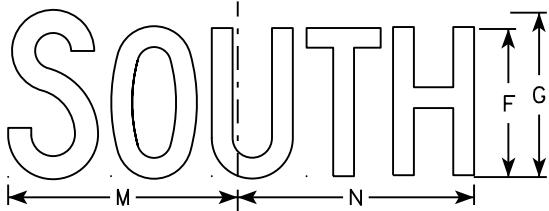
DATE 3/16/18 PLATE NO. M1-4.10



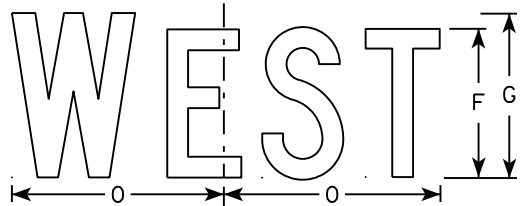
M3-1
MM3-1
MP3-1



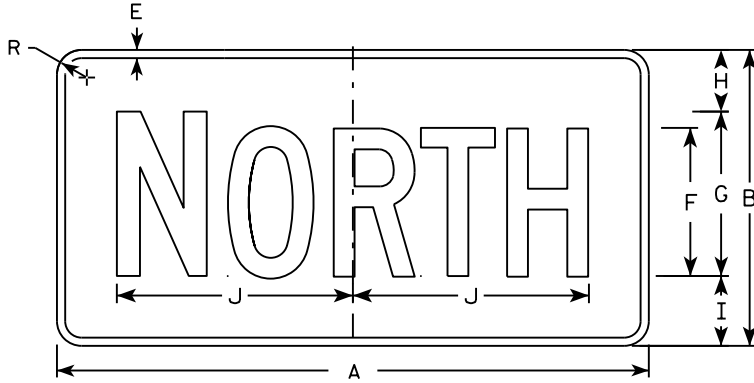
M3-2
MM3-2
MP3-2



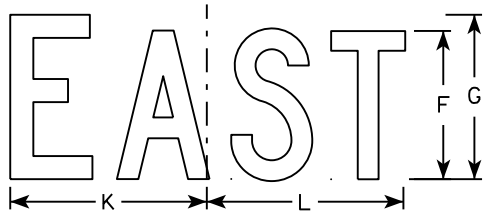
M3-3
MM3-3
MP3-3



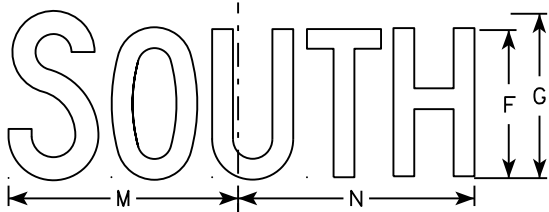
M3-4
MM3-4
MP3-4



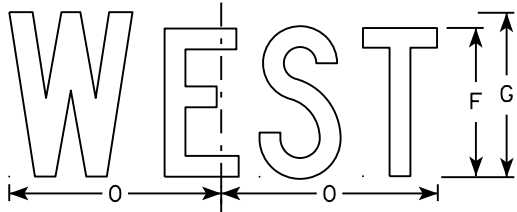
MB3-1
MK3-1
MN3-1



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. 274 M3-1.14

NOTES

1. Sign is Type II - Type H except as Shown
2. Color:

Background - See Note 5

Message - See note 5
3. Message Series - B
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-1

Background - White

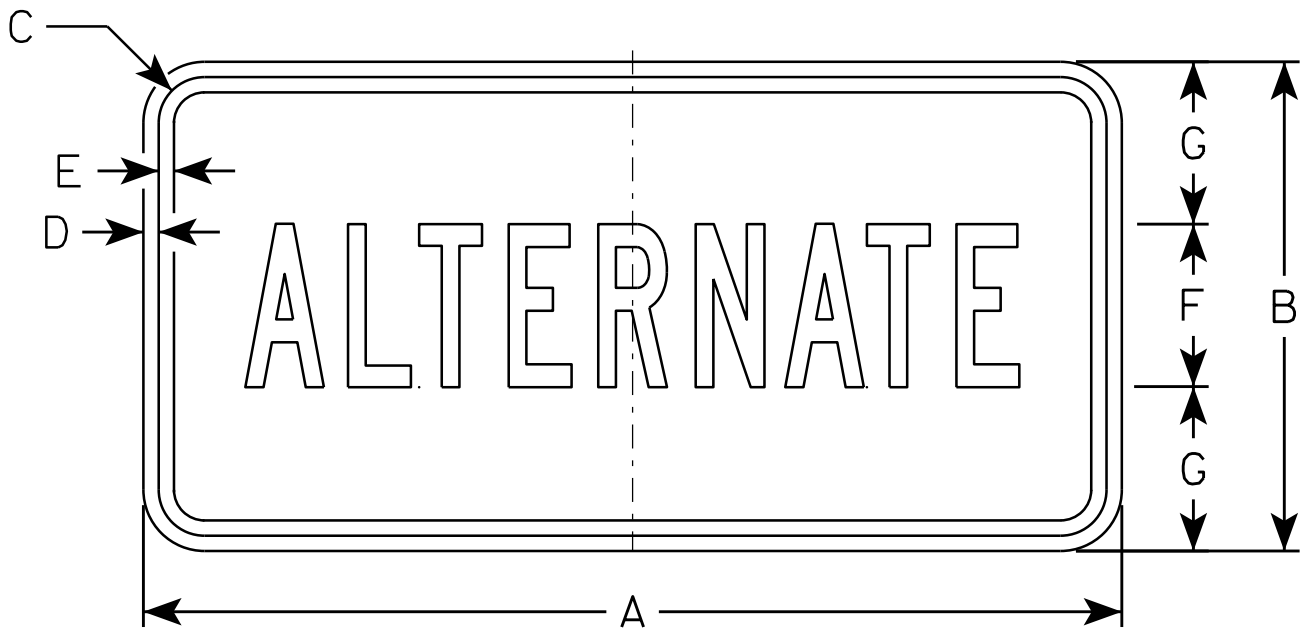
Message - Black
- MB4-1

Background - Blue

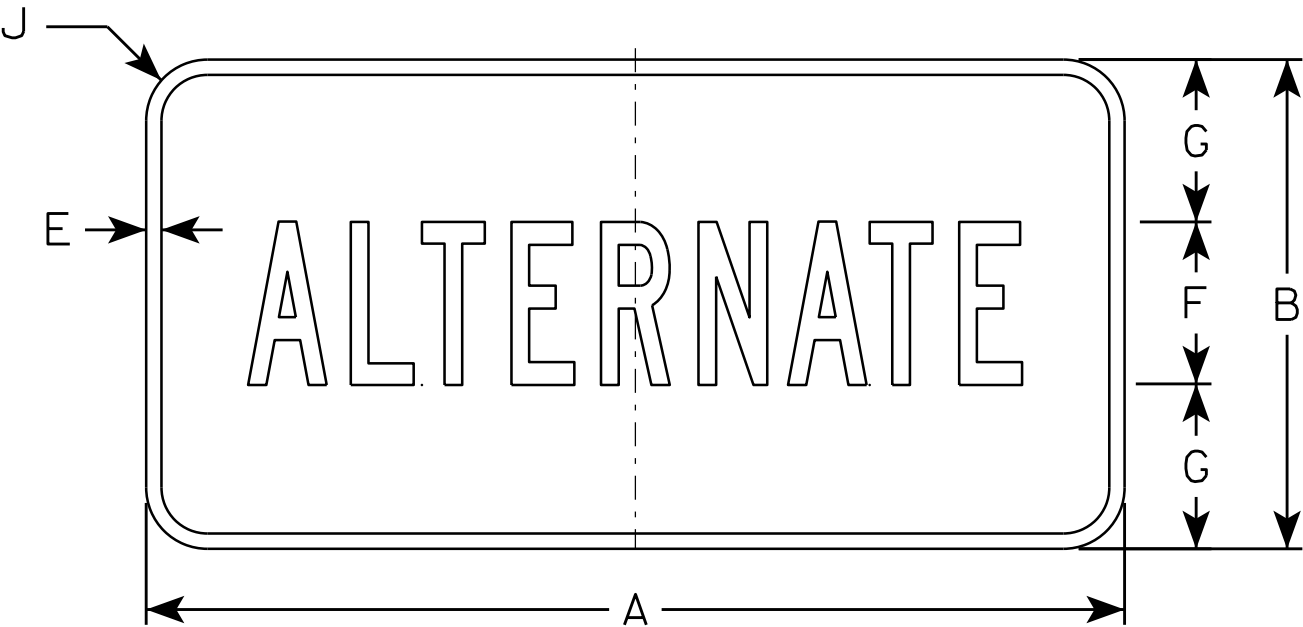
Message - White
- M04-1

Background - Orange - Type F

Message - Black



M4 - 1
M04 - 1



MB4 - 1

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	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	4	4	9 3/4	9 1/2	1 1/2																	2.00
3	36	18	1 1/8	3/8	1/2	7	5 1/2	16 3/8	16 1/2	1 1/2																	4.5
4	36	18	1 1/8	3/8	1/2	7	5 1/2	16 3/8	16 1/2	1 1/2																	4.5
5	36	18	1 1/8	3/8	1/2	7	5 1/2	16 3/8	16 1/2	1 1/2																	4.5

STANDARD SIGN
M4 - 1

WISCONSIN DEPT OF TRANSPORTATION

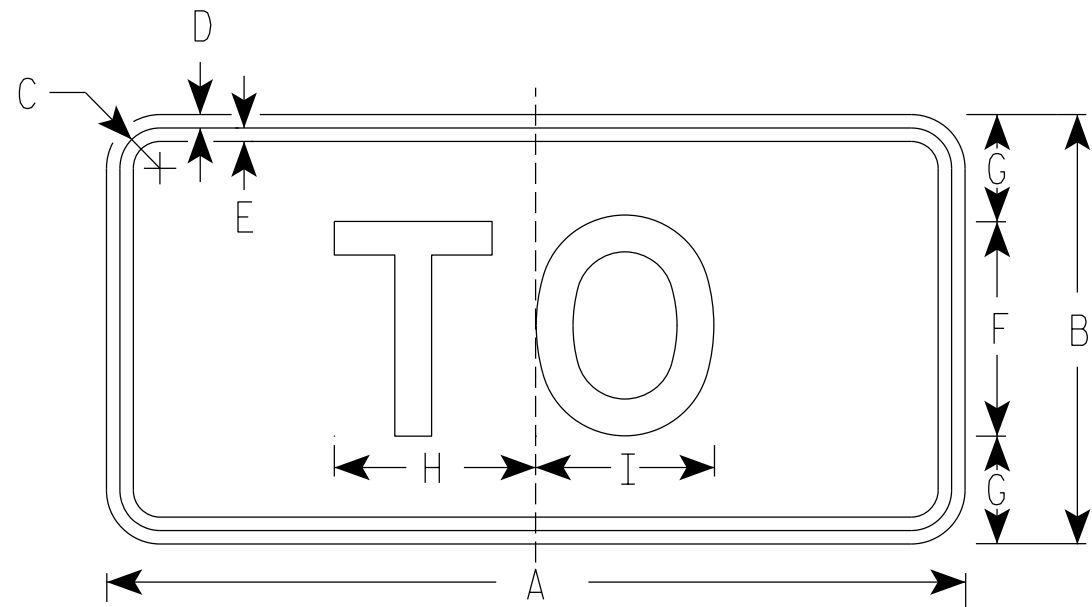
APPROVED

Matthew R. Rauch

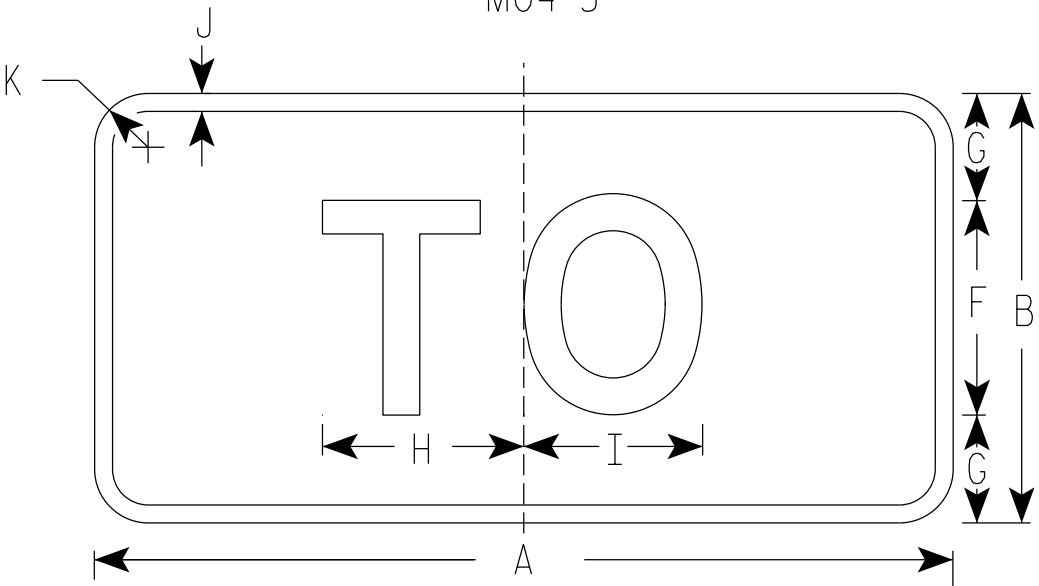
for State Traffic Engineer

DATE 6/30/14PLATE 275'14-1.8

7



M4-5
MM4-5
MP4-5
M04-5



MB4-5
MK4-5
MN4-5

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - See note 5
Message - See note 5
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. M4-5 Background - White
Message - Black
MB4-5 Background - Blue
Message - White
MK4-5 Background - Green
Message - White
MM4-5 Background - White
Message - Green
MN4-5 Background - Brown
Message - White
MP4-5 Background - White
Message - Blue
M04-5 Background - Orange Type F Reflective
Message - Black

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	5 3/8	5 1/4	1/2	1 1/2																2.00
3	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5
4	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5
5	36	18	1 3/8	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2	1 1/2																4.5

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 276

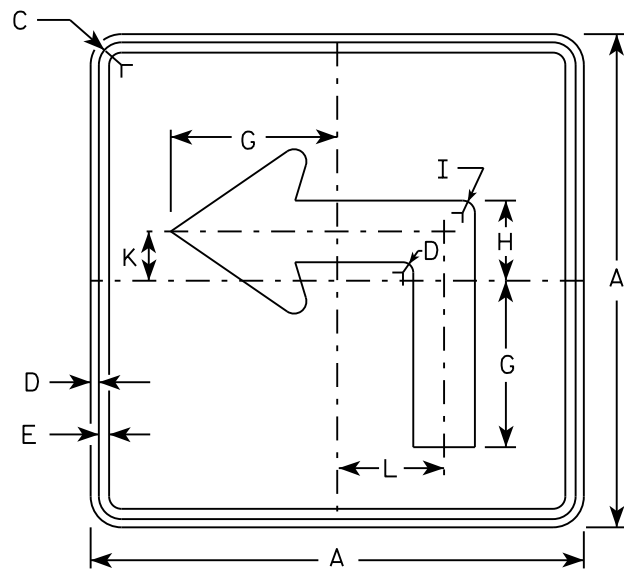
E

STANDARD SIGN
M4-5

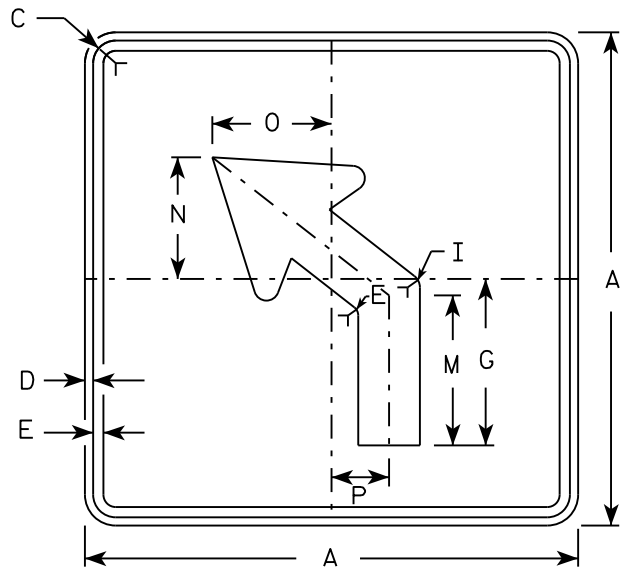
WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
State Traffic Engineer

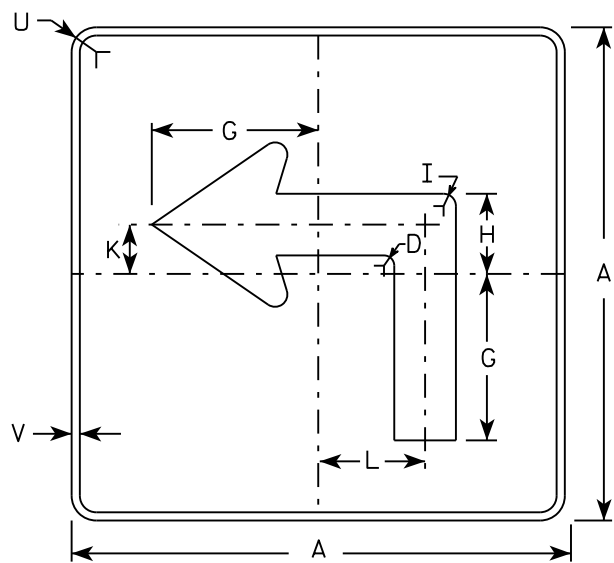
DATE 03/7/19 PLATE NO. M4-5.9



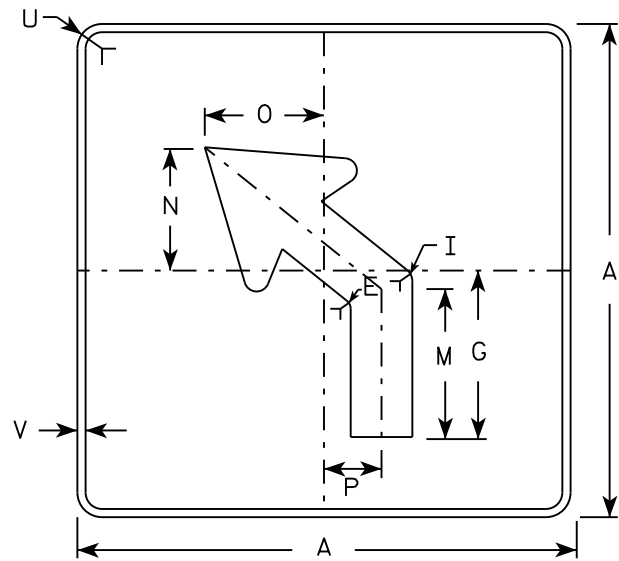
M5-1L
MM5-1L
M05-1L
MP5-1L



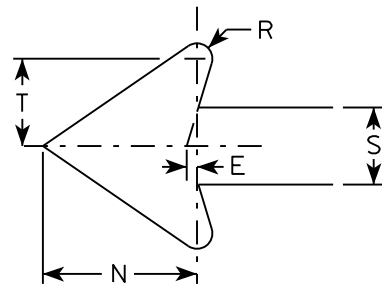
M5-2L
MM5-2L
M05-2L
MP5-2L



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

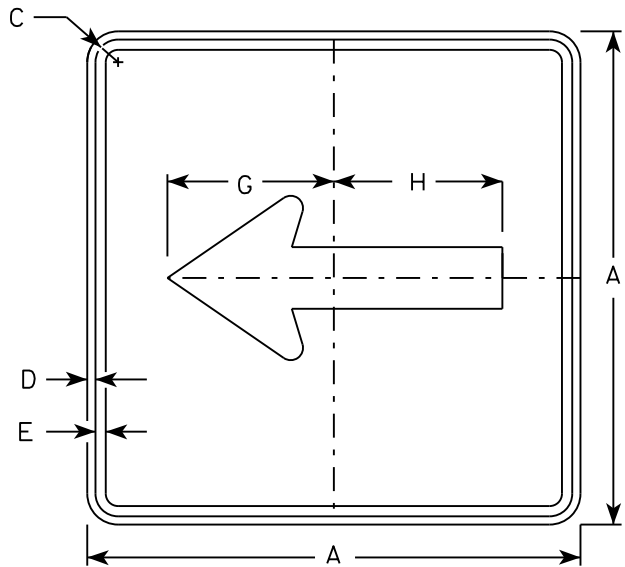
PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
-------------	------	---------	-----------	---

STANDARD SIGN
M5-1 & M5-2

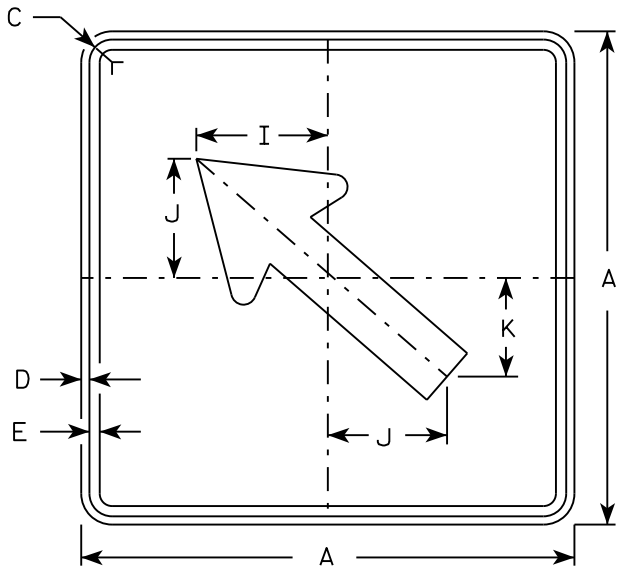
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

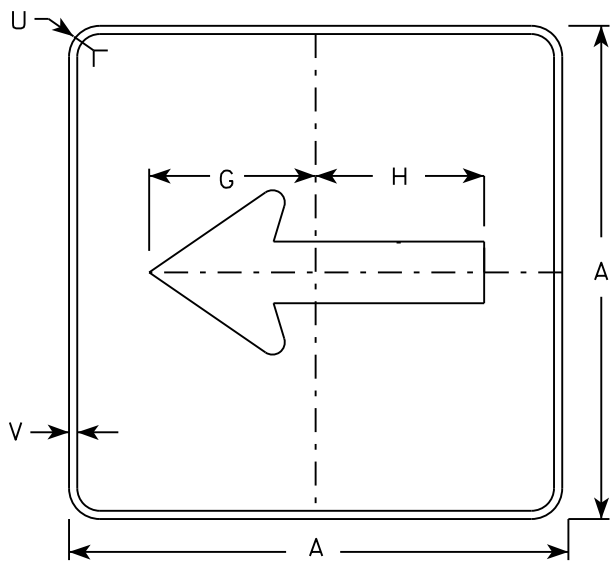
DATE 10/15/15 PLATE 277 M5-1.13



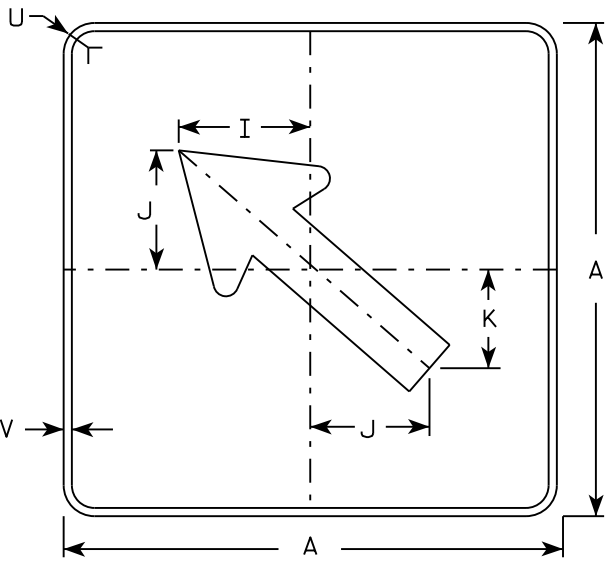
M6 - 1
MM6 - 1
M06 - 1
MP6 - 1



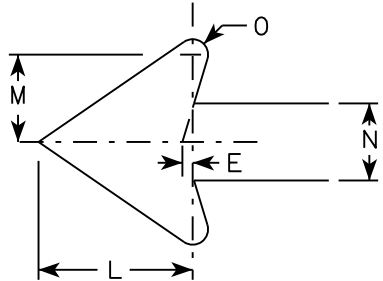
M6 - 2
MM6 - 2
M06 - 2
MP6 - 2



MB6 - 1
MK6 - 1
MN6 - 1
MR6 - 1



MB6 - 2
MK6 - 2
MN6 - 2
MR6 - 2



NOTES

- 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.
- M6-1 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:

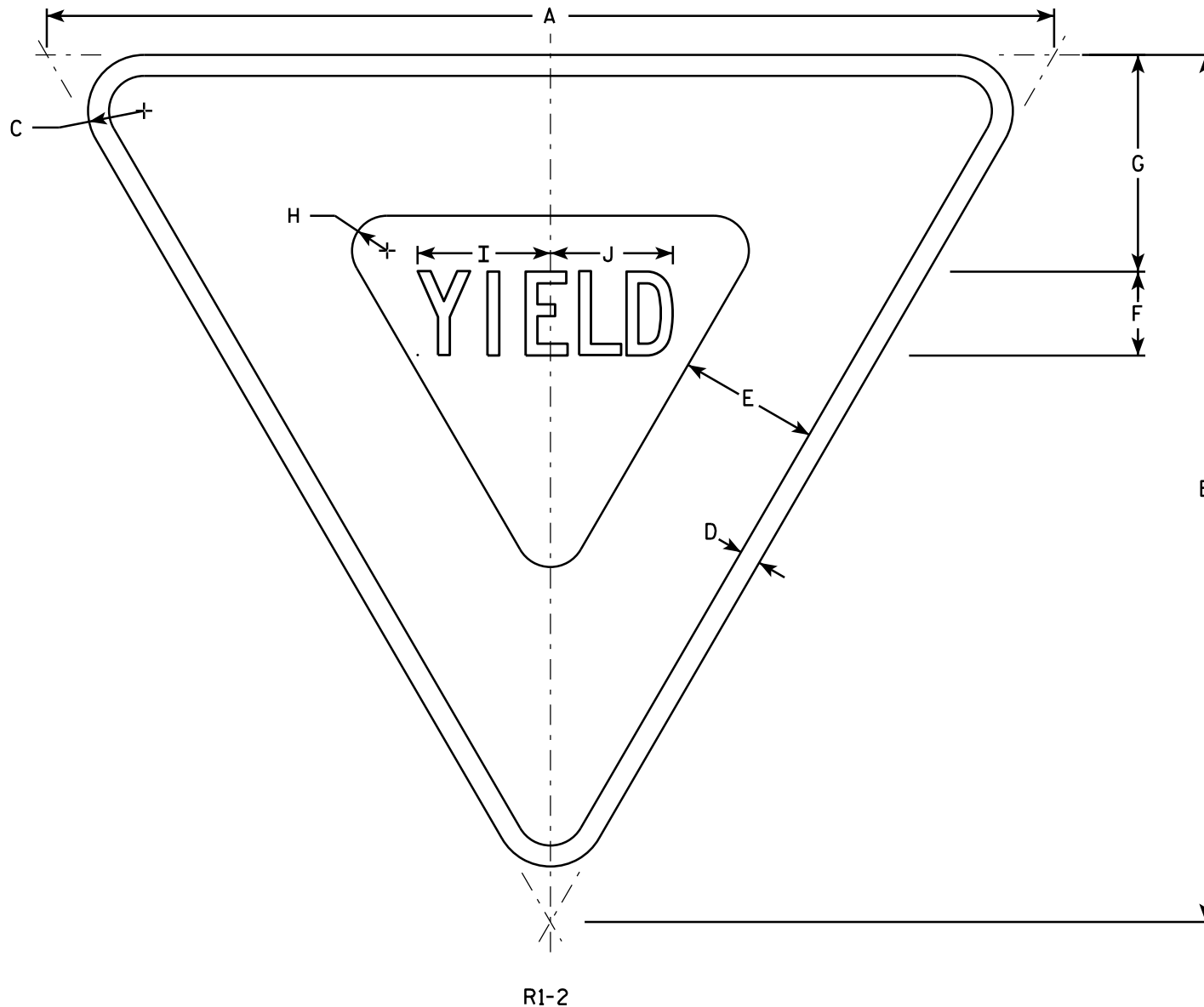
E

STANDARD SIGN
M6 - 1 & M6 - 2
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

DATE 10/15/15 PLAT 278 M6-1.15



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.

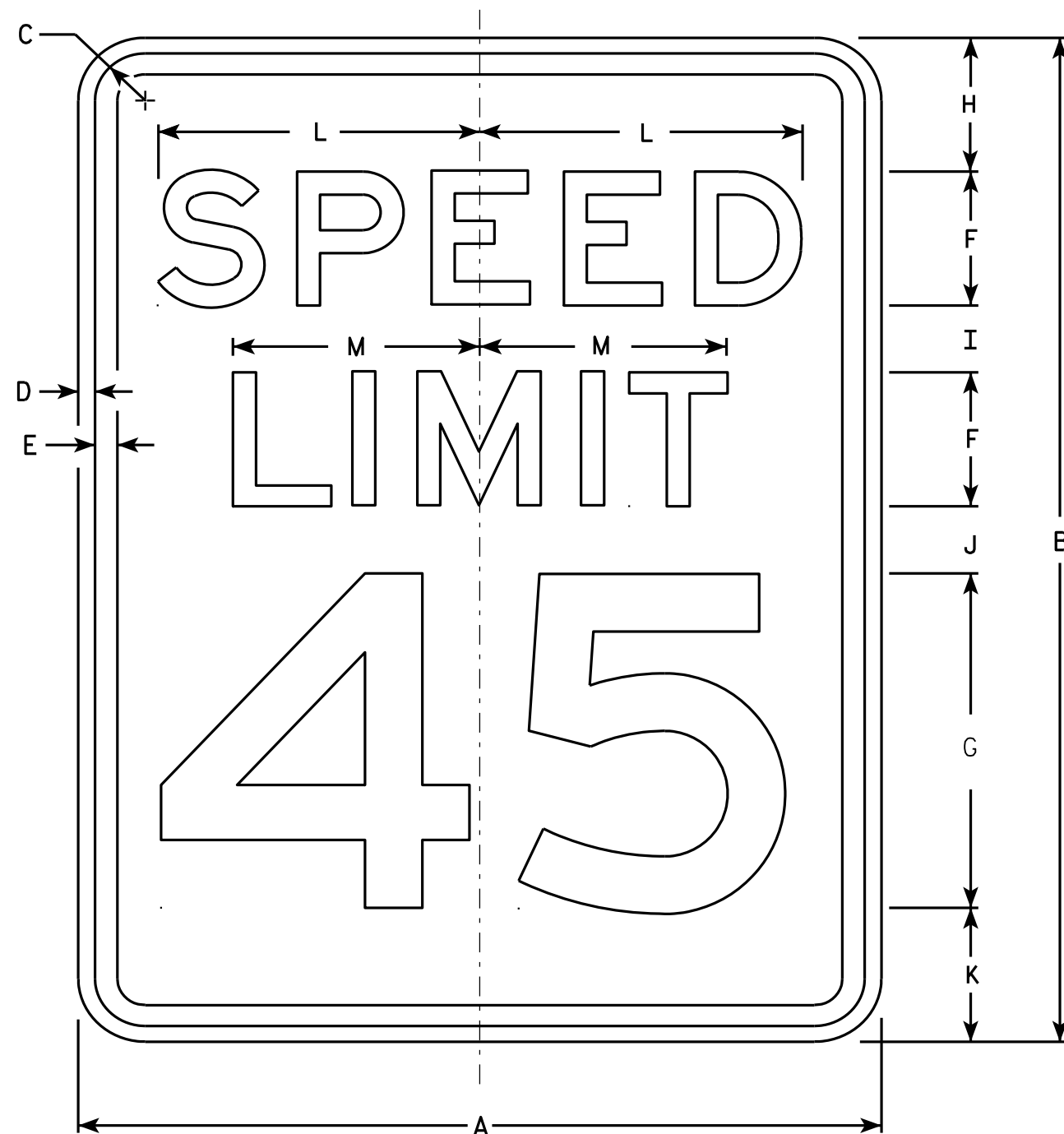
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30	26	1 1/2	5/8	4	2 1/2	6 3/8	7/8	4	3 5/8																	2.71
2S	36	31	2	3/4	5	3	7 3/4	1 1/4	4 3/4	4 3/8																	3.88
2M	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
3	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	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 279 P1-2.12



R2-1

NOTES

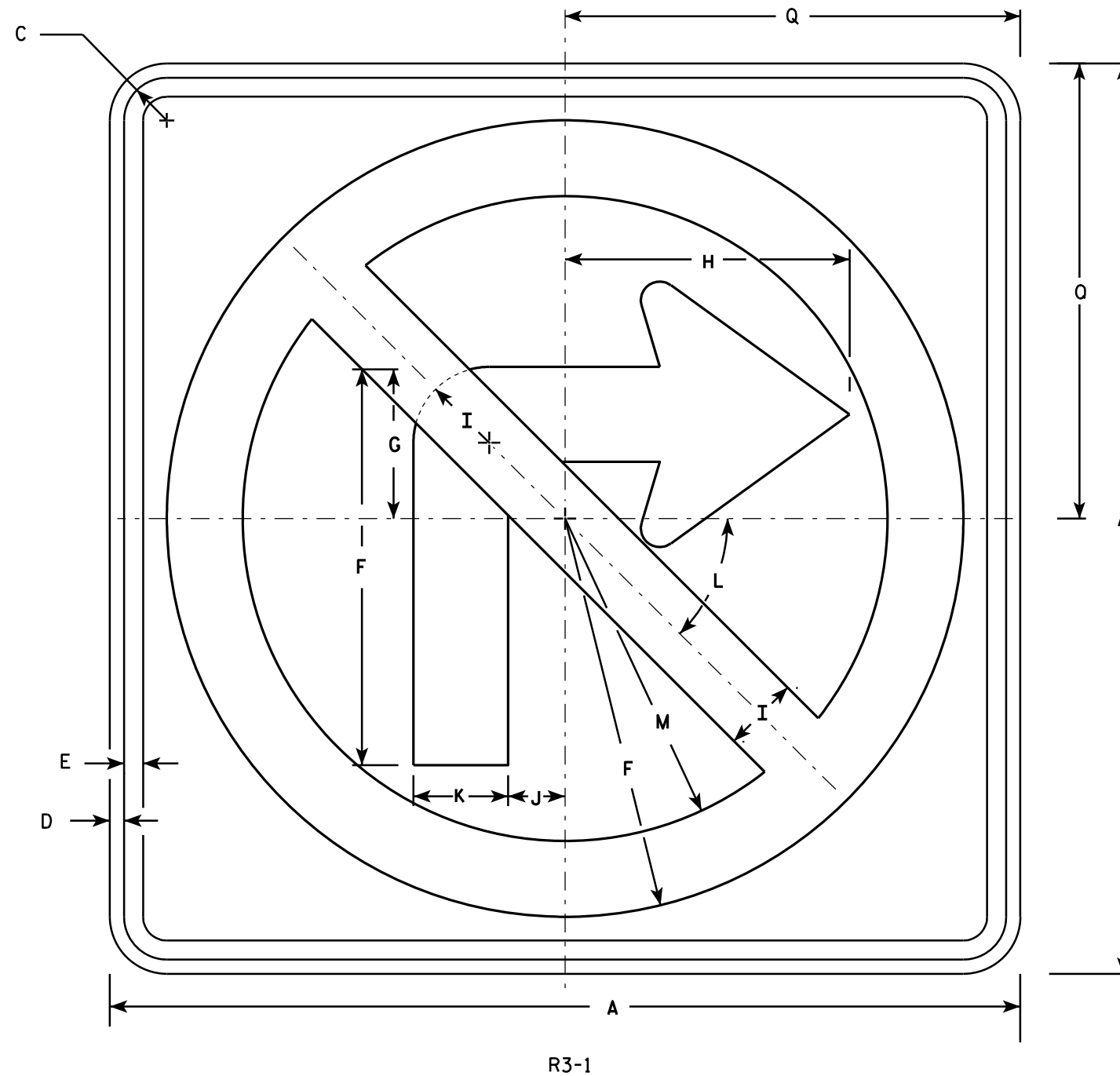
1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Black
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as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

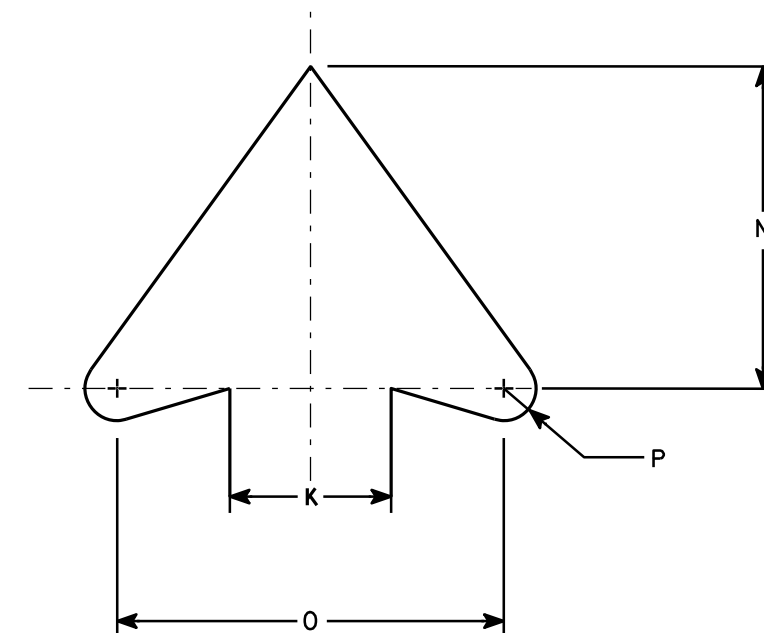
WISCONSIN DEPT OF TRANSPORTATION
APPROVED *Matthew R. Rauch*
For State Traffic Engineer
DATE 5/26/10 PLATE NO. R2-1.13

PROJECT NO: HWY: COUNTY: SHEET NO: 280 E



NOTES

- Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - White
Message - See note 4
- CornerRadius 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.
- 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

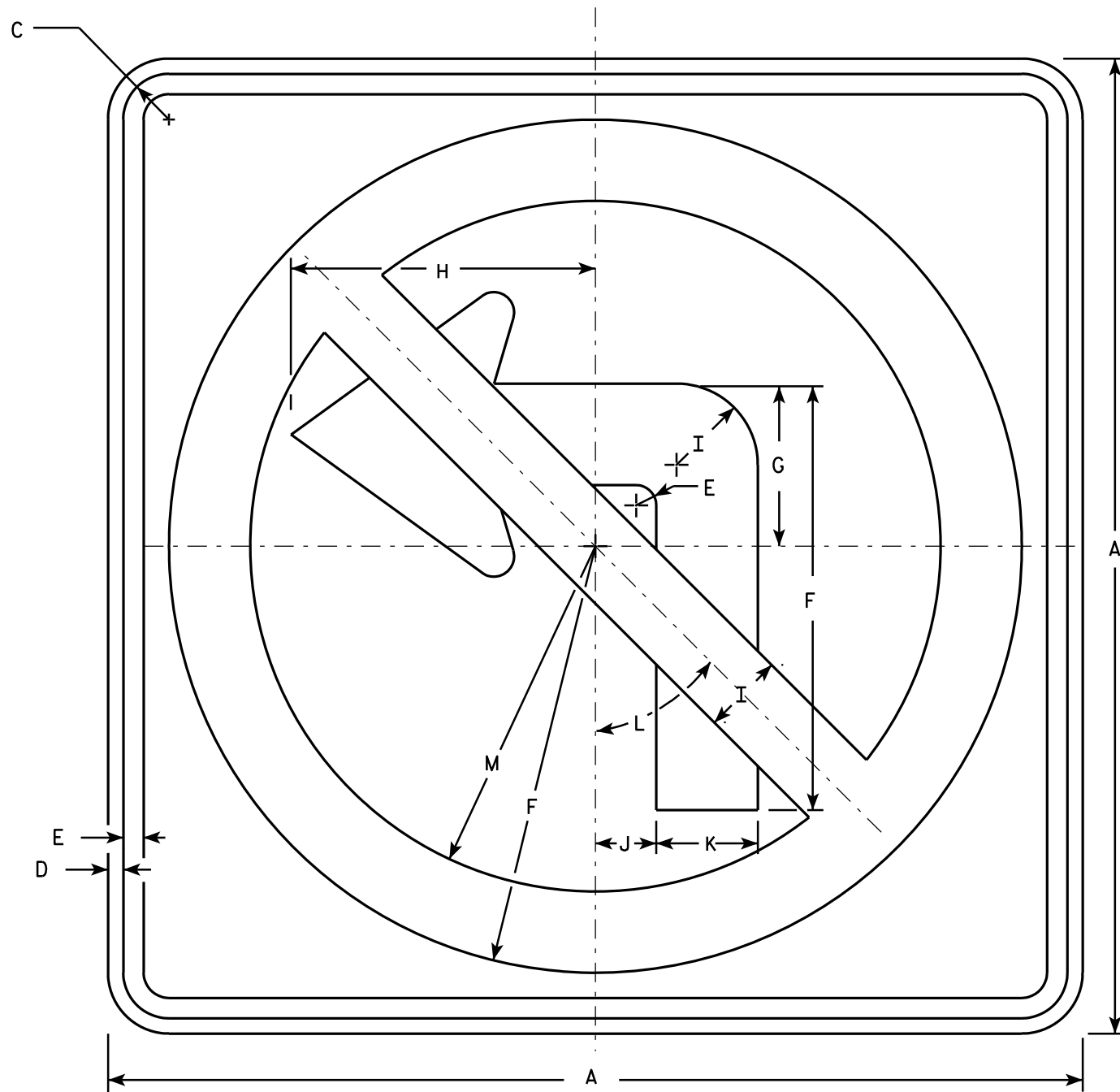
PROJECT NO:

HWY:

COUNTY:

SHEET NO: 281

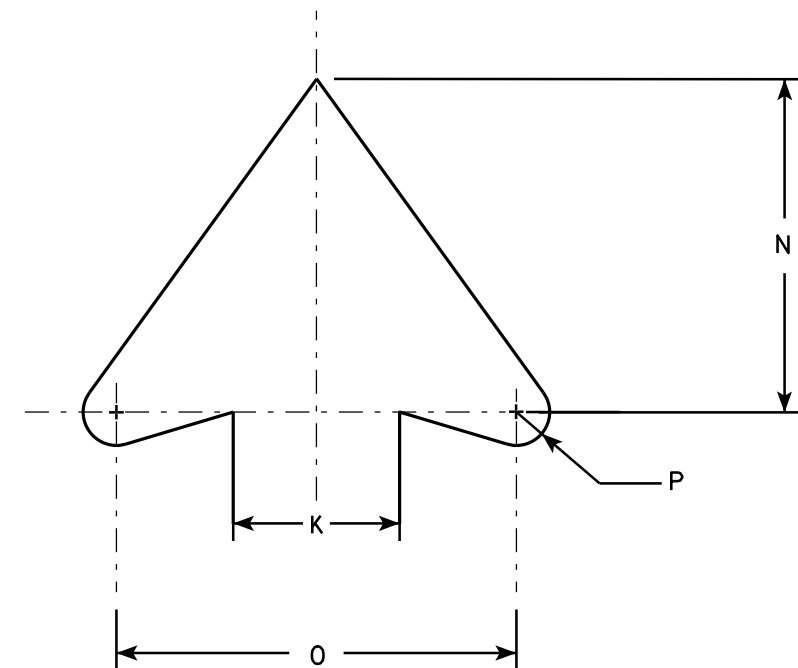
E



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

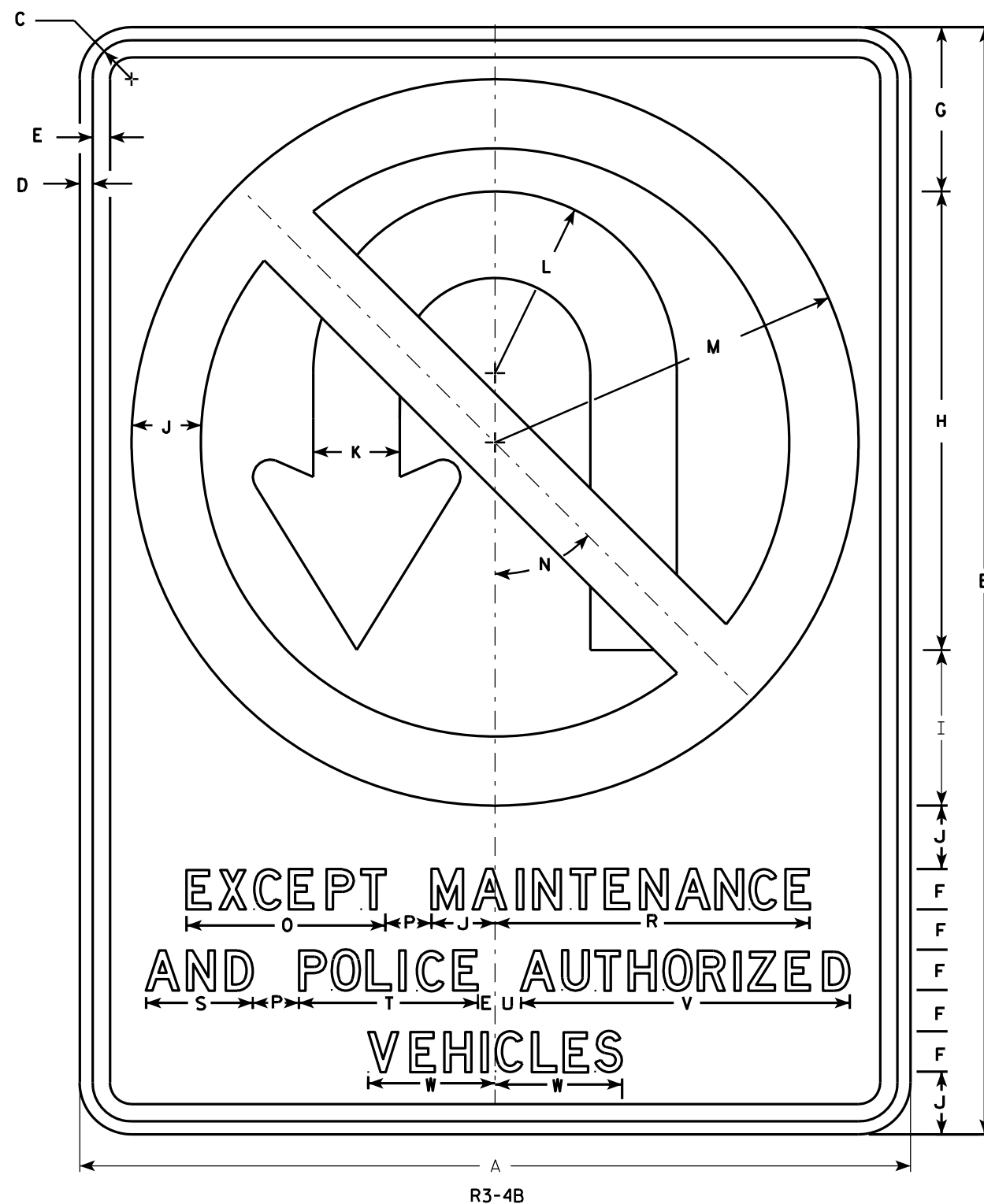
PROJECT NO:

HWY:

COUNTY:

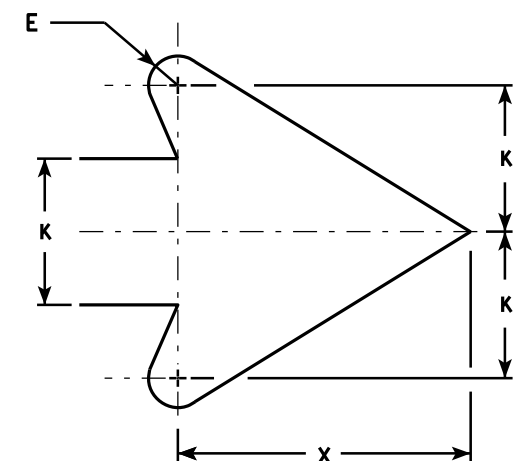
SHEET NO: 282

E



NOTES

- Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - White
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.
- 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																											
2S																											
2M																											
3																											
4	36	48	1 5⁄8	5⁄8	3⁄4	1 3⁄4	7 1⁄8	19 7⁄8	6 3⁄4	2 3⁄4	3 3⁄4	7 7⁄8	15 3⁄4	45°	8 5⁄8	2		13 5⁄8	4 5⁄8	7 3⁄4	1 1⁄8	14 1⁄4	5 1⁄2	7 5⁄8			12.0
5	36	48	1 5⁄8	5⁄8	3⁄4	1 3⁄4	7 1⁄8	19 7⁄8	6 3⁄4	2 3⁄4	3 3⁄4	7 7⁄8	15 3⁄4	45°	8 5⁄8	2		13 5⁄8	4 5⁄8	7 3⁄4	1 1⁄8	14 1⁄4	5 1⁄2	7 5⁄8			12.0

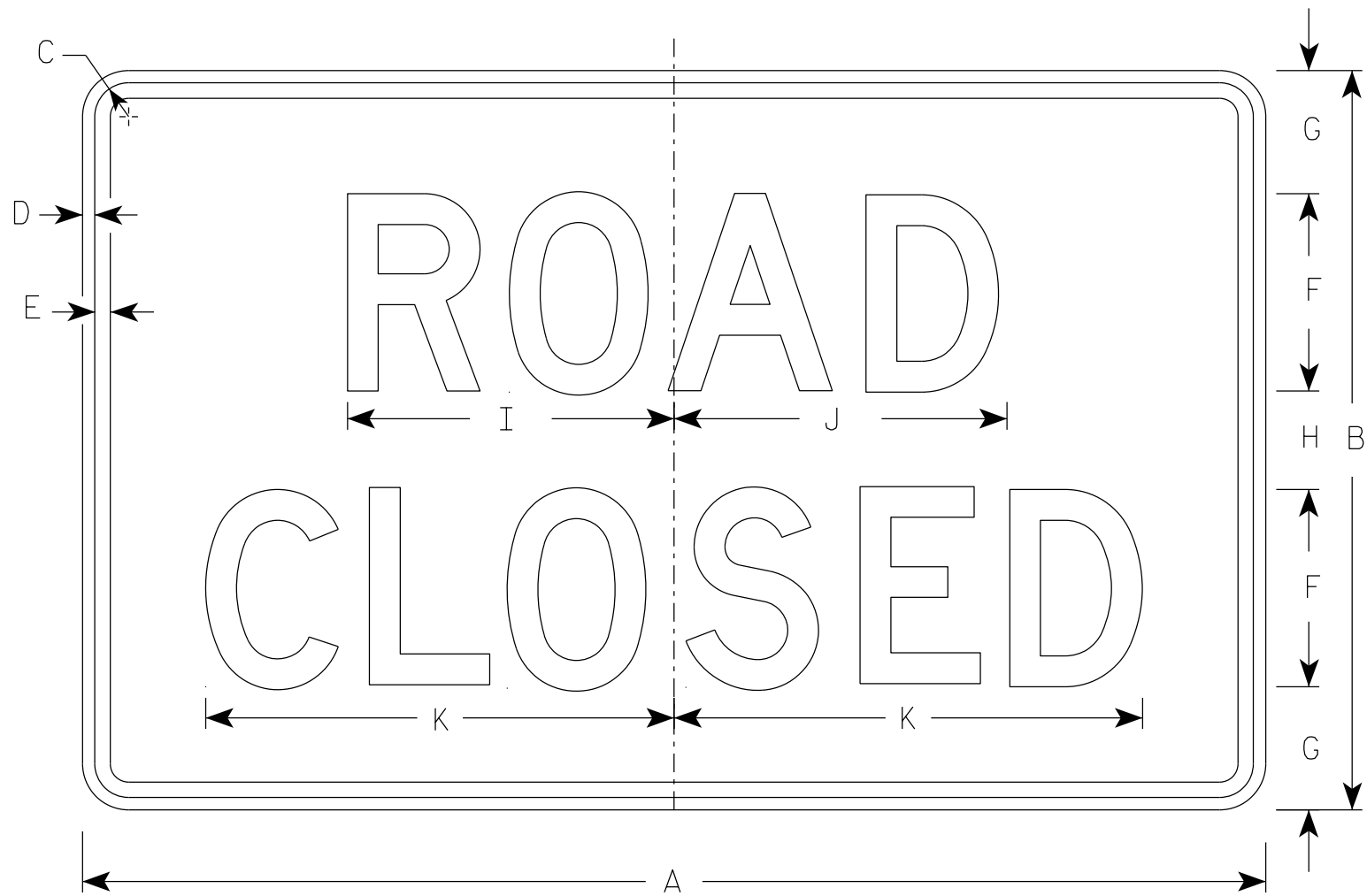
STANDARD SIGN R3-4B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

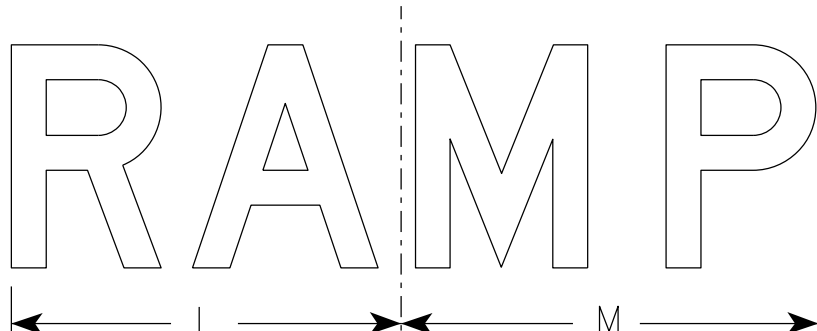
DATE 3/17/2011 PLATE NO. R3-4B.2

PROJECT NO: HWY: COUNTY: SHEET NO: 283

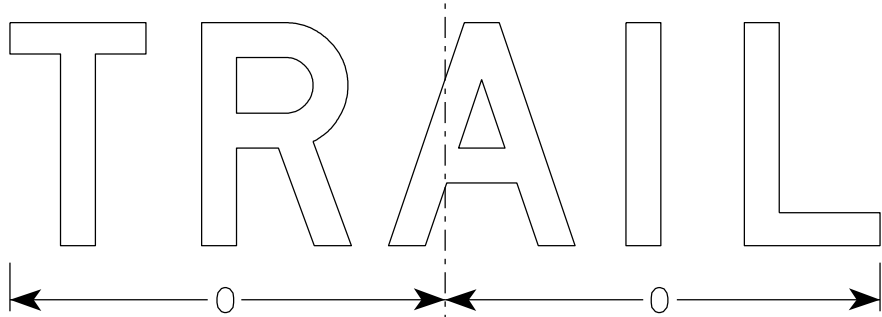


R11-2

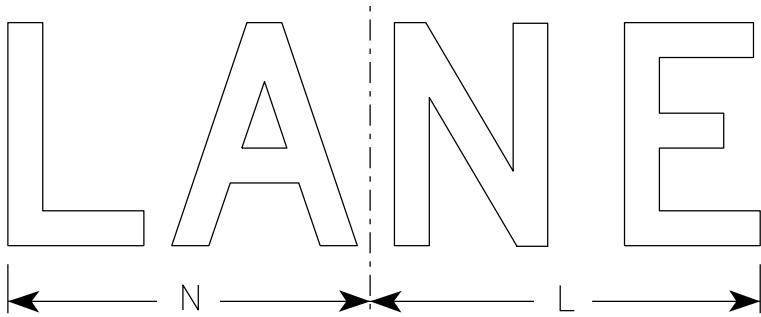
- NOTES
1. Sign is Type II - Type H Reflective
 2. Color:
Background - White
Message - Black
 3. Message Series - D
 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
 5. Modify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



R11-2R



R11-2T



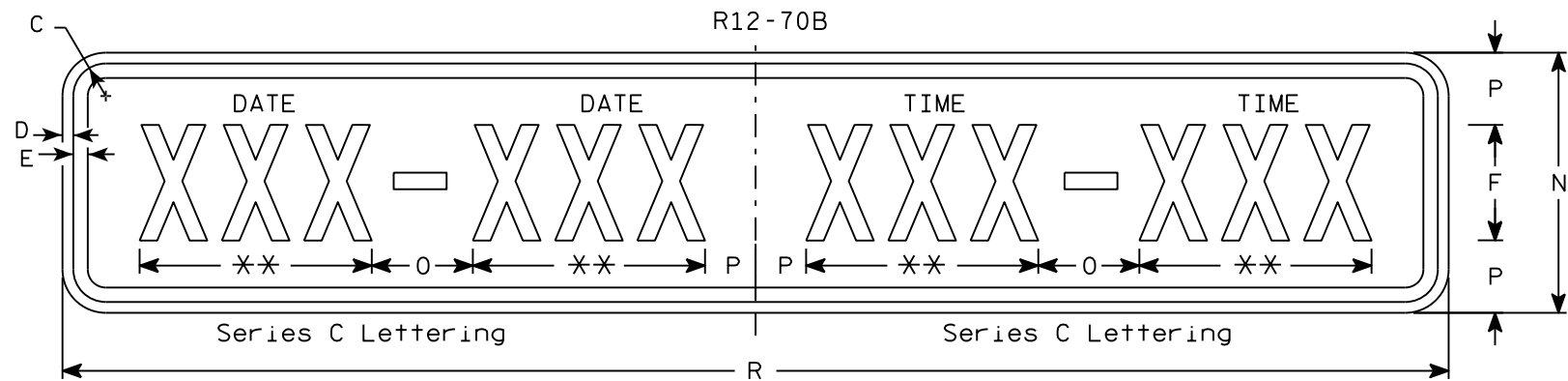
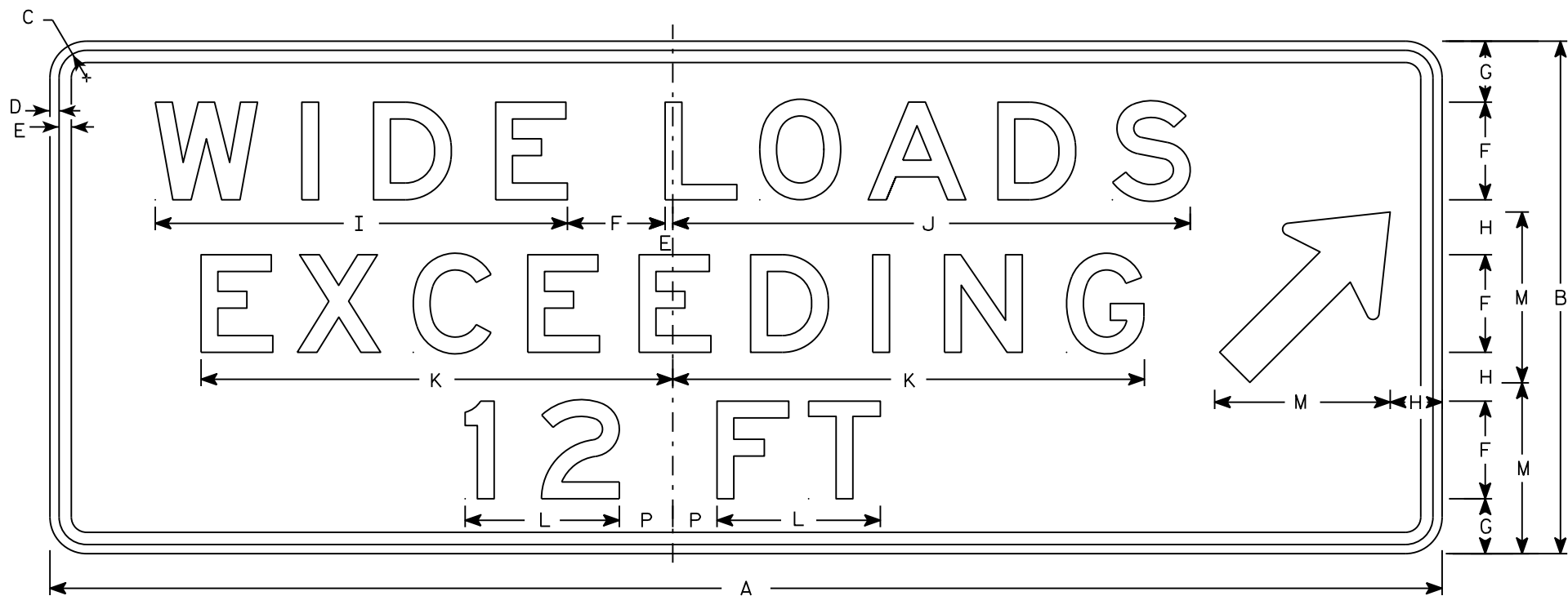
R11-2L

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	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
2M	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
3	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
4	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
5	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0

STANDARD SIGN R11-2	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 3/29/2021	PLATE NO. R11-2.11

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 except as noted
 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.
- ** Substitute appropriate message, optically center message



R12 - 70C																												R12-70	R12-70C
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area sq. ft.	
1																													
2S	90	36	2 1/4	1/2	5/8	6	4	5	20 7/8	28 3/8	24 5/8	8 1/8	12	12	6	3		66									22.5	5.5	
2M	90	36	2 1/4	1/2	5/8	6	4	5	20 7/8	28 3/8	24 5/8	8 1/8	12	12	6	3		66									22.5	5.5	
3																													
4	114	42	2 1/4	3/4	1	8	5	4	34	42	39	13	14	18	7	3 1/2		96									36.75	12.0	
5	114	42	2 1/4	3/4	1	8	5	4	34	42	39	13	14	18	7	3 1/2		96									36.75	12.0	

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

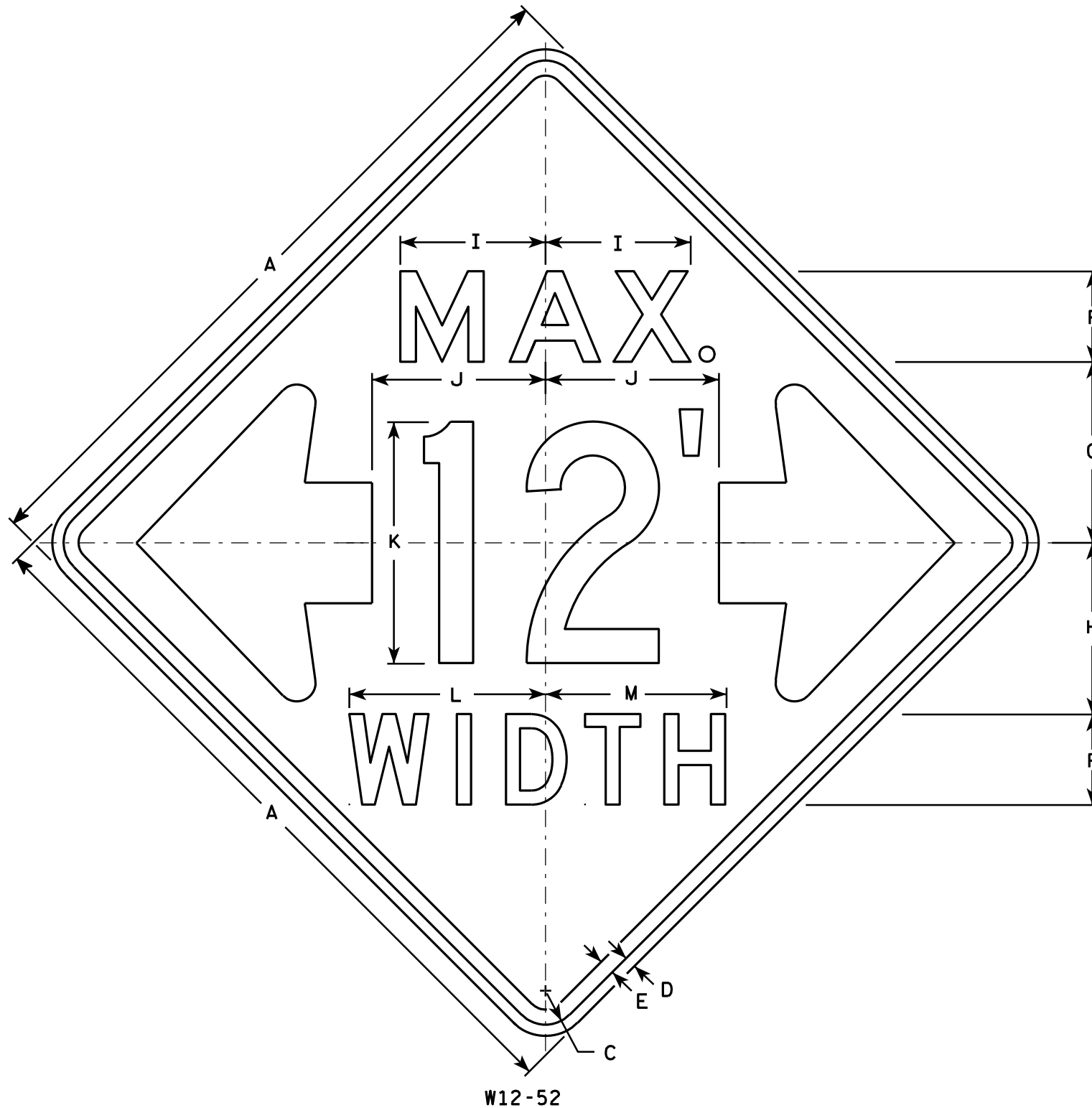
E

TYPICAL SIGN
R12-70B

WISCONSIN DEPT OF TRANSPORTATION

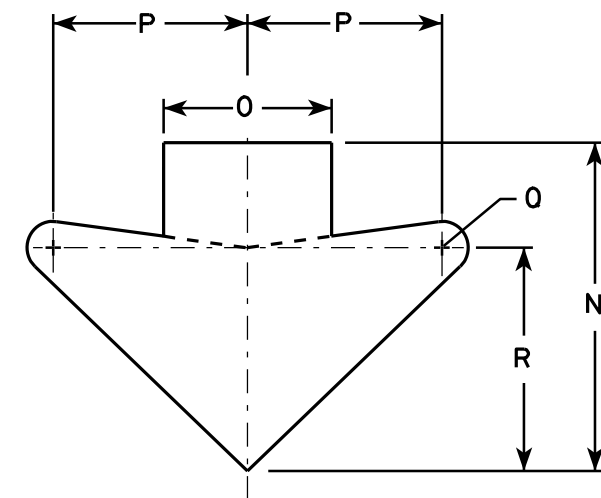
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 11/10/15 PLATE NO. 285 R12-70B.3



NOTES

- Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - Orange
Message - Black
- Message Series - See note 5
- 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.
- The top line is series E, the numerals are series C, and the bottom line is series D.
- Substitute appropriate numerals and adjust spacing as required.



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	48		2 1/4	3/4	1	6	12	11 3/8	9 5/8	11 1/2	16	13	12	15 5/8	8	9 1/4	1 1/4	10 5/8									16.0
2M	48		2 1/4	3/4	1	6	12	11 3/8	9 5/8	11 1/2	16	13	12	15 5/8	8	9 1/4	1 1/4	10 5/8									16.0
3																											
4																											
5																											

STANDARD SIGN W12-52

WISCONSIN DEPT OF TRANSPORTATION

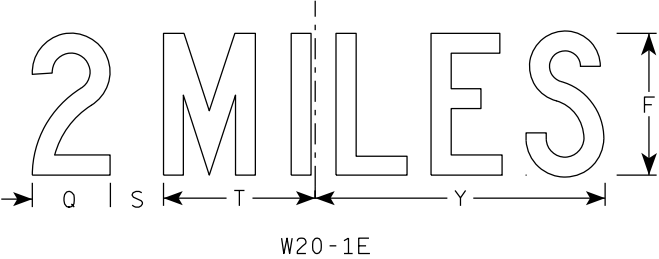
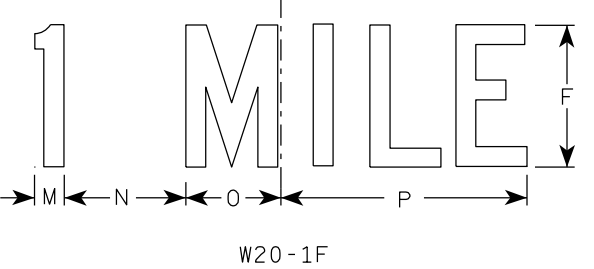
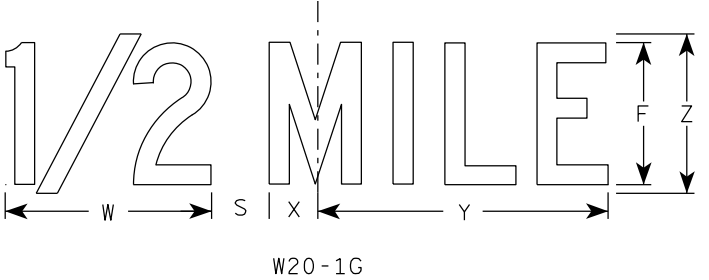
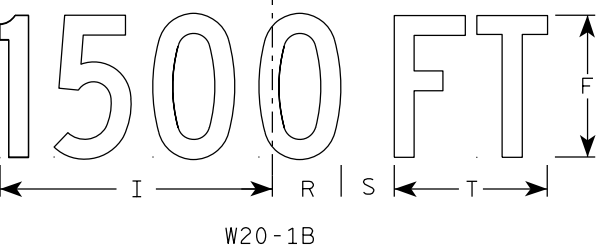
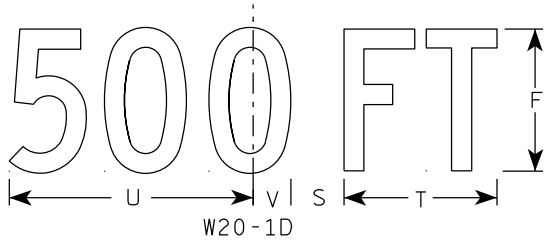
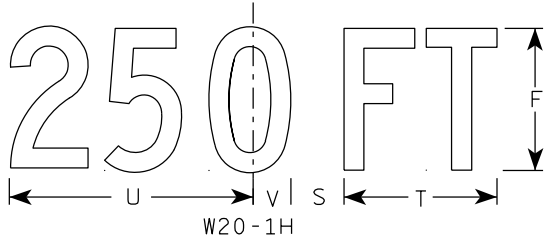
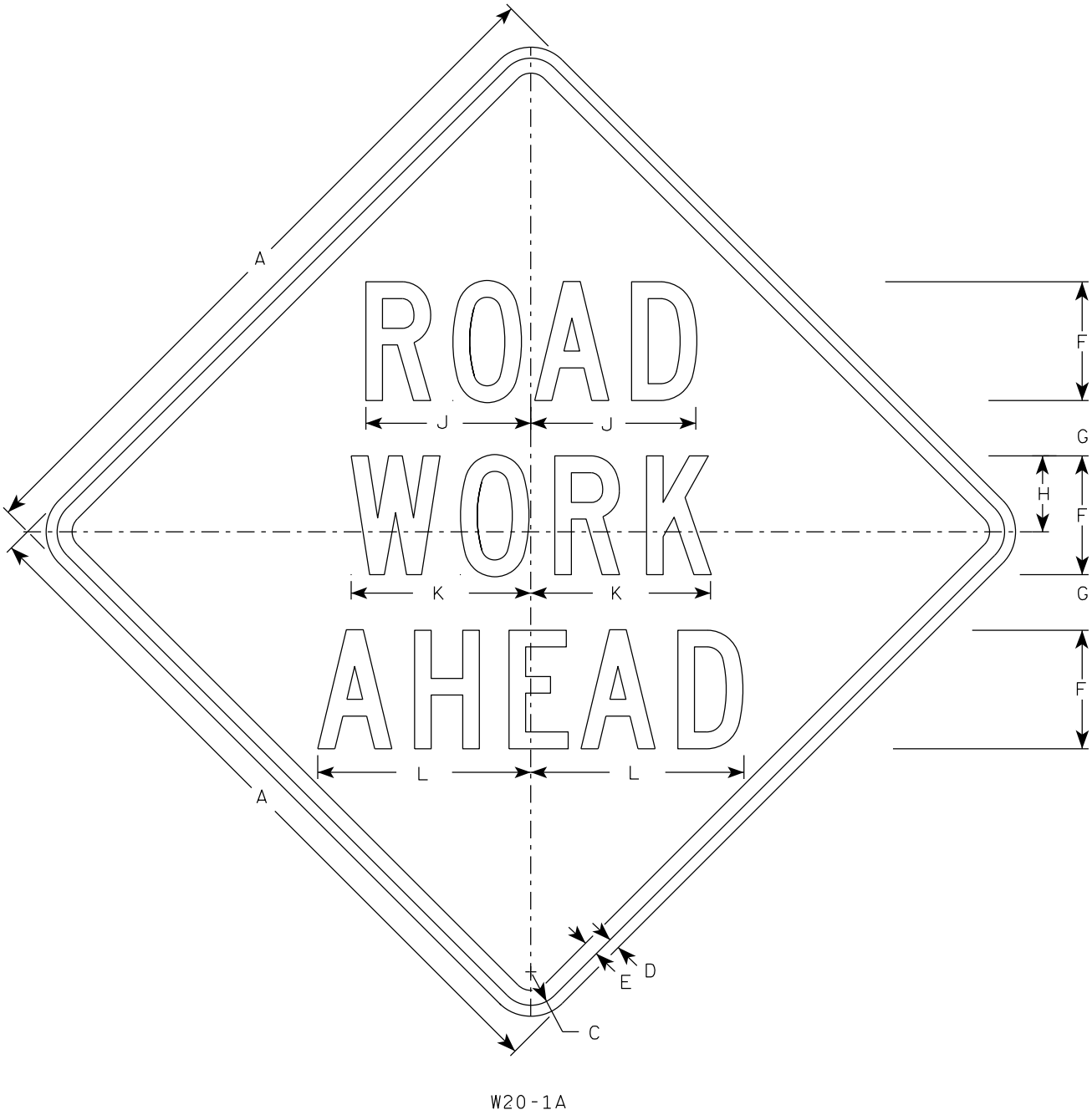
APPROVED
Matthew R. Rauch
For State Traffic Engineer

DATE 3/16/11 PLATE NO. W12-52.7

PROJECT NO: HWY: COUNTY: SHEET NO: 286 E

NOTES

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



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	A _{req} sq. ft.
1	36		1 5/8	5/8	3/4	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9	3 1/4	2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
2M	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
3	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
4	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
5	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0

STANDARD SIGN
W20-1A, B, C, D, E, F, G & H

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

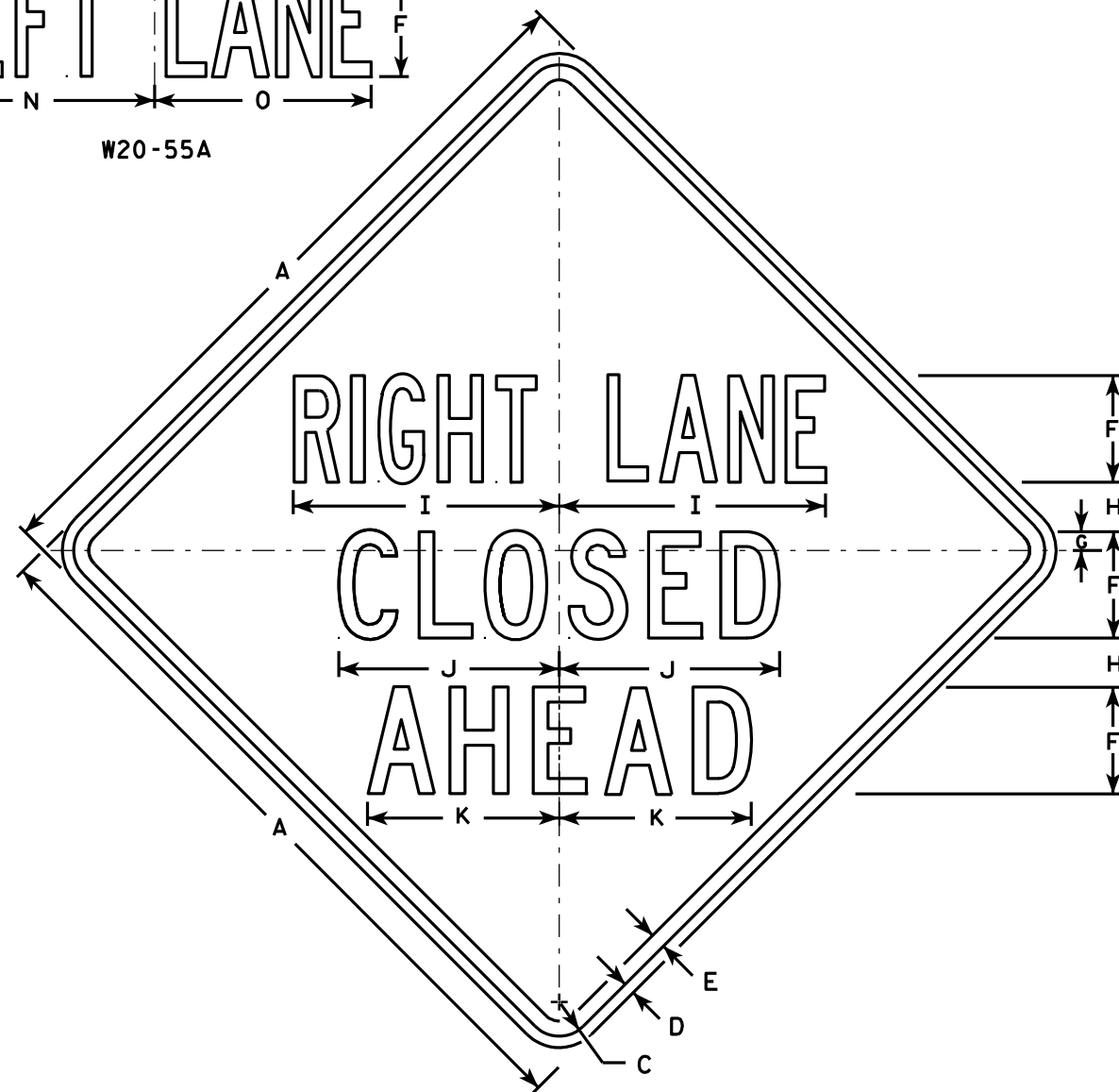
DATE 3/25/2020 PLATE NO. W20-1.11

CENTER LANE

W20-56A

LEFT LANE

W20-55A



W20-5A

500 FT

W20-5D

1000 FT

W20-5C

1500 FT

W20-5B

1/2 MILE

W20-5G

1 MILE

W20-5F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
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. "-----LANE" is Series B.
All other copy is Series C.

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	6	1 5/8	5/8	3/4	5	7/8	2 1/2	13 1/8	10 3/4	9 1/2	14 1/4	13 5/8	12	12	1 3/8	1 1/8	4 1/2	3 1/2	9	1 7/8	5 5/8	10 1/8	2 1/2	1 3/4	8	9.0
2S	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
2M	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
3	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
4	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
5	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0

PROJECT NO:

HWY:

COUNTY:

STANDARD SIGN
W20-5A, B, C, D, F & G

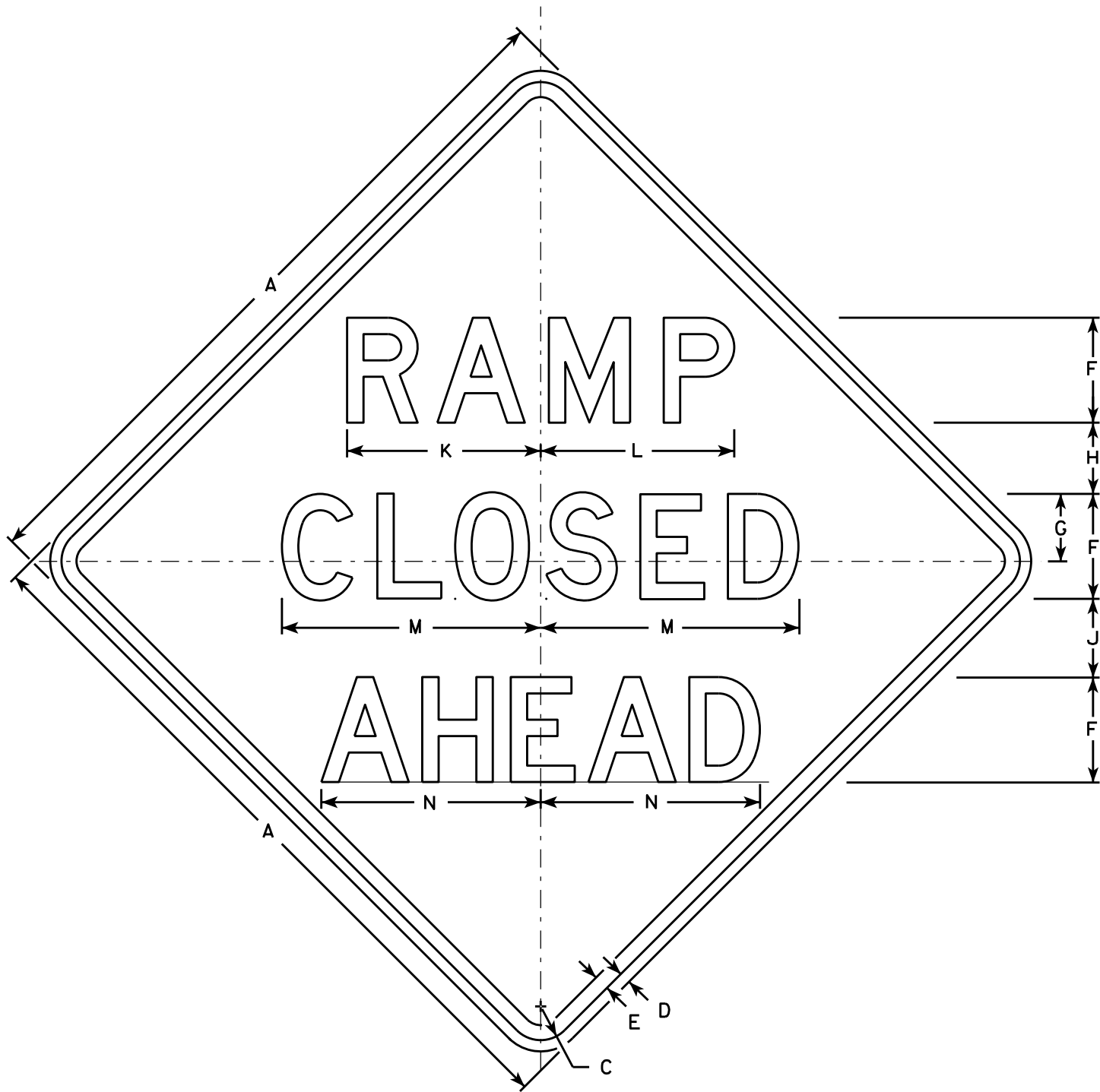
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

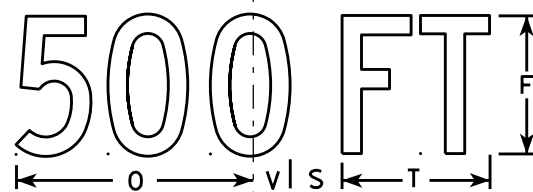
DATE 3/18/11 PLATE NO. W20-5.11

SHEET NO: 288

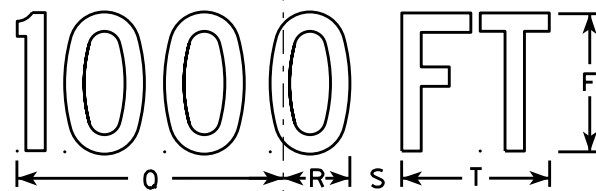
E



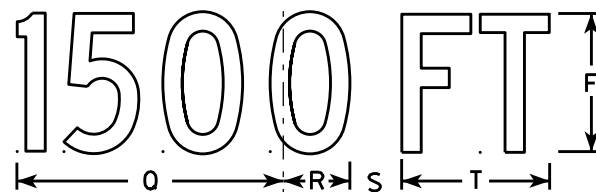
W20-53A



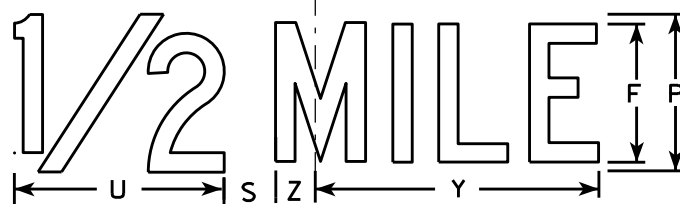
W20-53D



W20-53C



W20-53B



W20-53G



W20-53F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
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. Lines 1 and 2 are Series D.
Line 3 is Series D for AHEAD and Series C for all other distances.

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		1 5/8	5/8	3/4	5	3 3/8	3 1/2	1 1/8	4	9 1/4	9 1/4	12 1/2	11	9	6	10 1/8	2 1/2	1 7/8	5 5/8	8	1 3/8	4 1/2	3 1/2	10 3/4	1 3/4	9.0
2S	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
2M	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
3	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
4	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
5	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0

STANDARD SIGN
W20-53A,B,C,D,F,G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 5/27/15 PLATE NO. W20-53.1

289

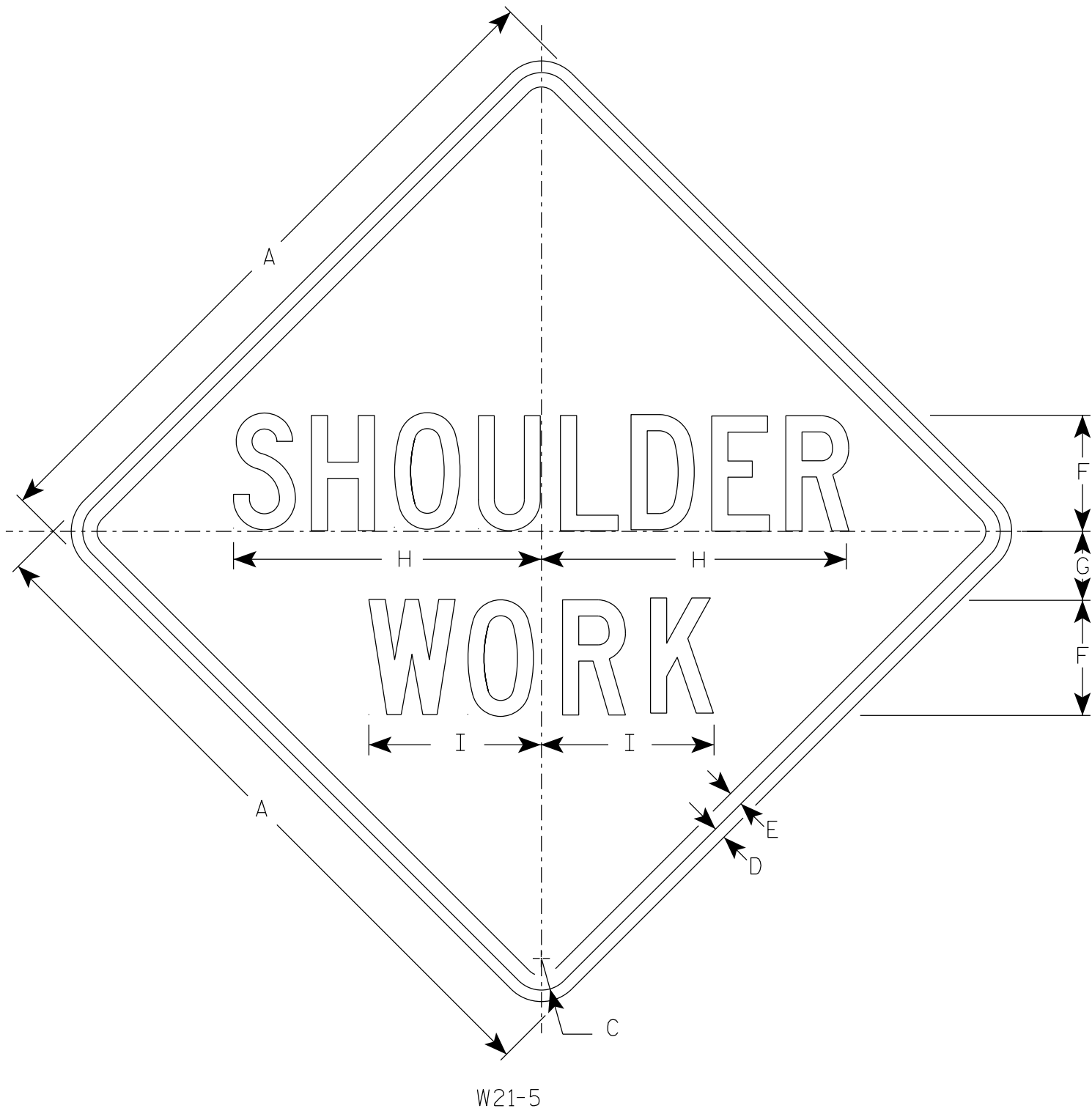
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	6	3 1/2	16	9																		9.0
2S	48		2 1/4	3/4	1	8	5	21 3/8	11 1/4																		16.0
2M	48		2 1/4	3/4	1	8	5	21 3/8	11 1/4																		16.0
3	48		2 1/4	3/4	1	8	5	21 3/8	11 1/4																		16.0
4	48		2 1/4	3/4	1	8	5	21 3/8	11 1/4																		16.0
5	48		2 1/4	3/4	1	8	5	21 3/8	11 1/4																		16.0

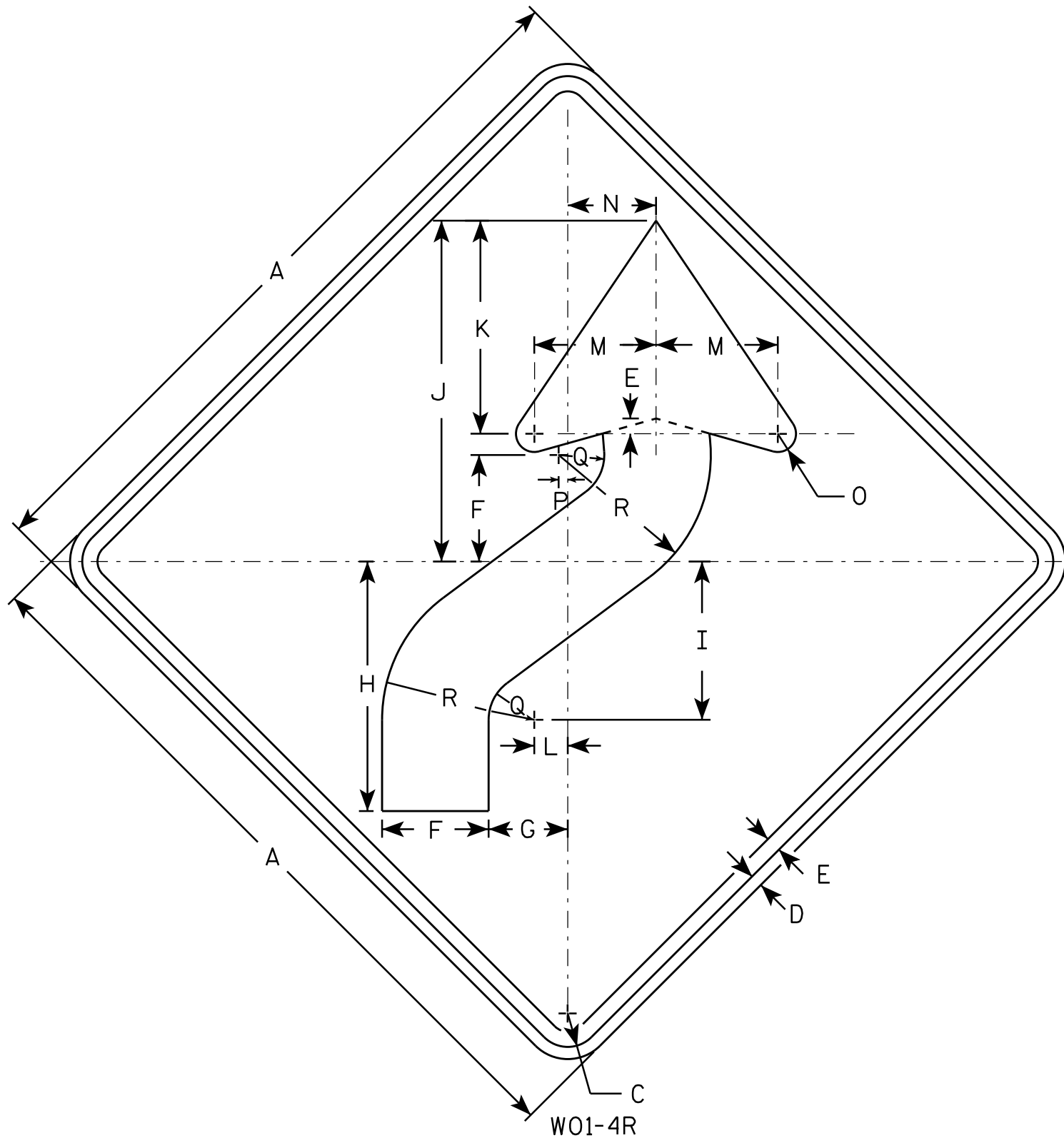
STANDARD SIGN

W21-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 4/30/2020 PLATE NO. W21-5.6



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W01-4L is the same as W01-4R except the arrow is reversed along the vertical centerline.

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		1 5/8	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
2S	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
2M	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
3	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
4	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
5	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0

STANDARD SIGN W01-4

WISCONSIN DEPT OF TRANSPORTATION

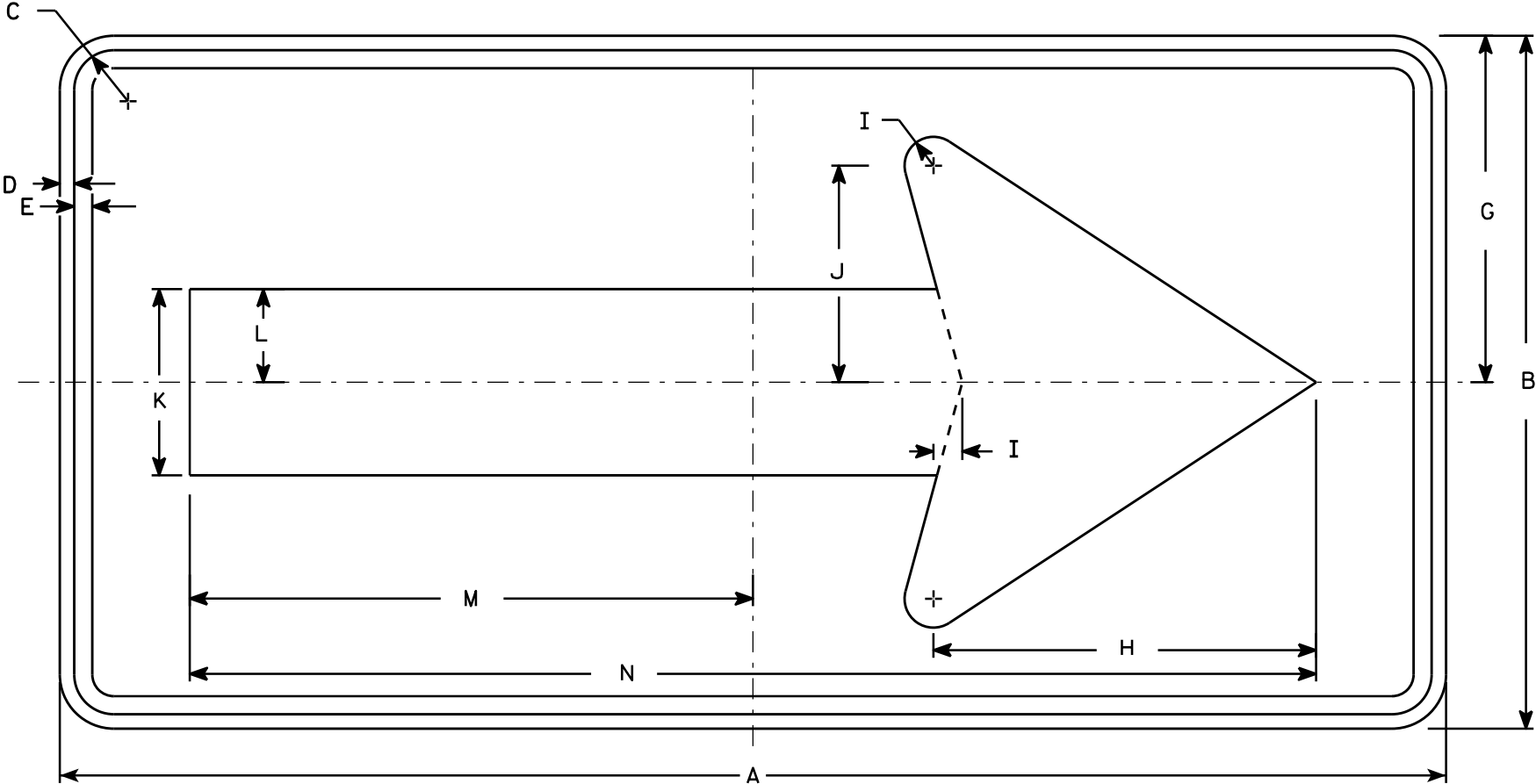
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 11/18/13 PLATE NO. W01-4.1
291

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 - Orange
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.



W01-6

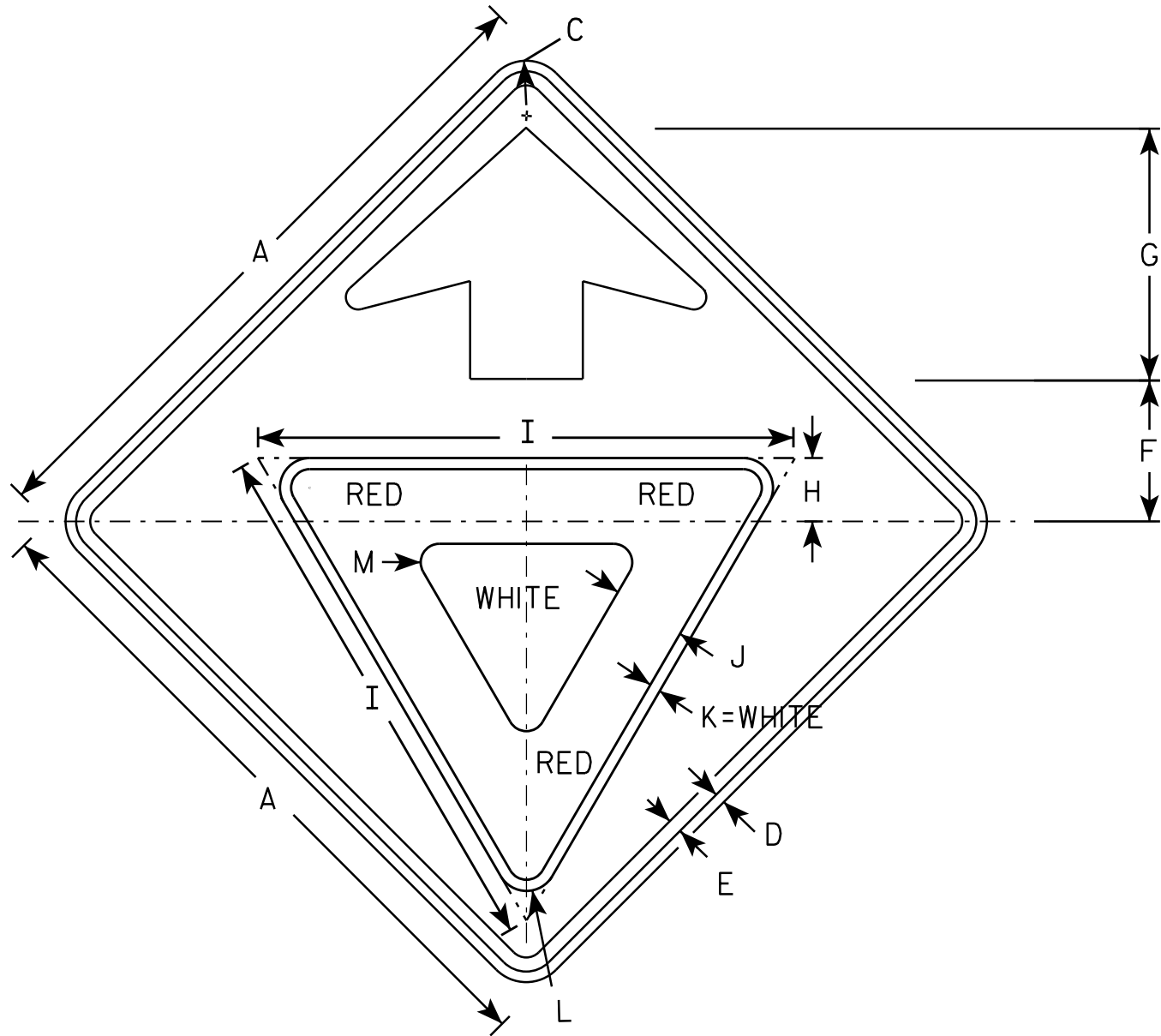
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
2M	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
3	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
4	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
5	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5

STANDARD SIGN
W01-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

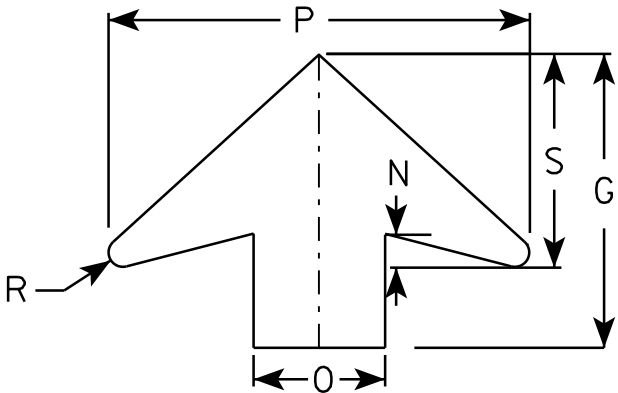
DATE 11/18/13 PLATE NO. 292 W01-6.1



W03-2

NOTES

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



ARROW DETAIL

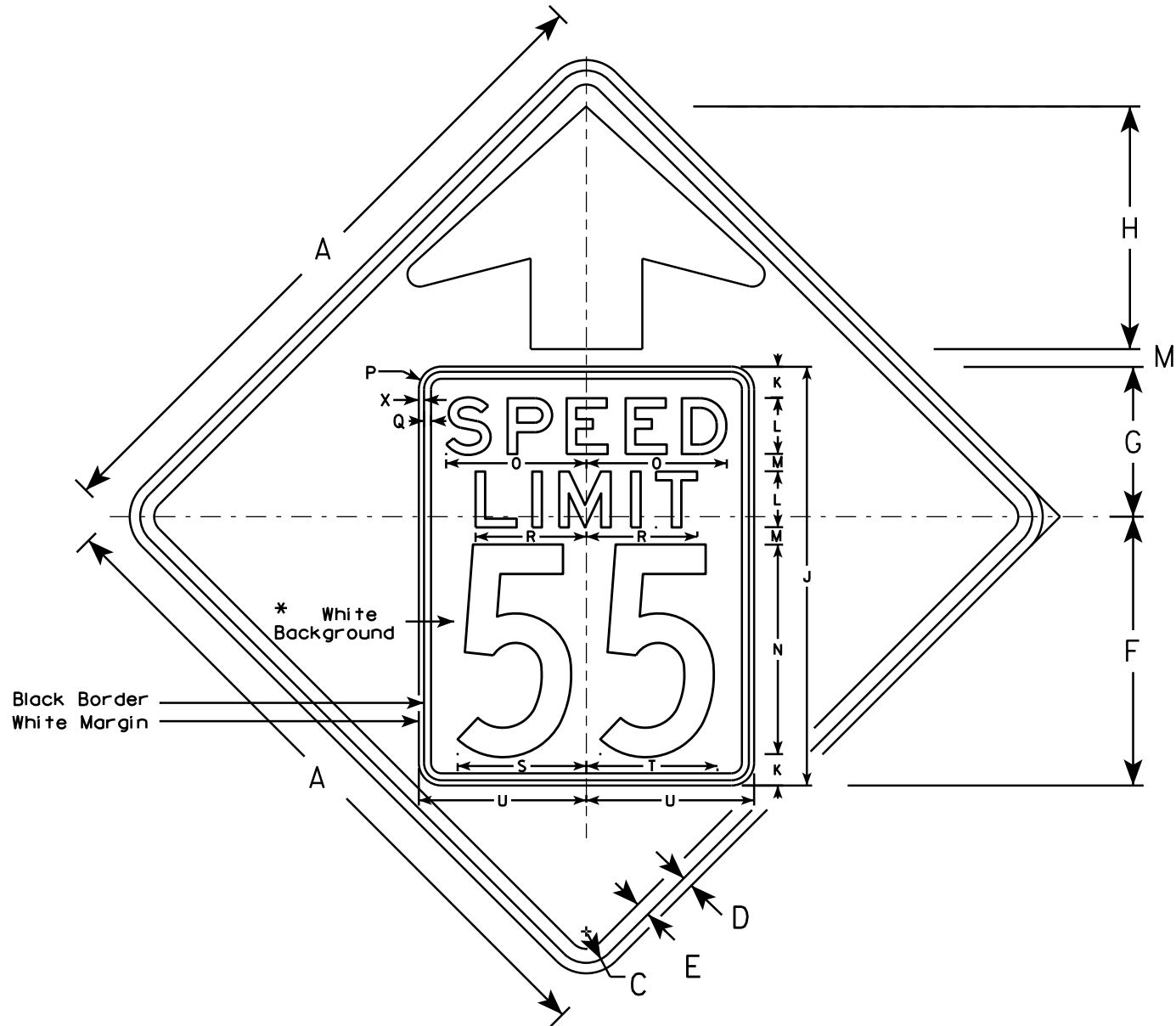
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 3/8	28	3 3/4	5/8	1 1/2	1	1 5/8	6	19 1/4		5/8	9 3/4								9.0
2S	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0
2M	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0
3	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0
4	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0
5	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0

STANDARD SIGN
W03-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE 293 W03-2.1

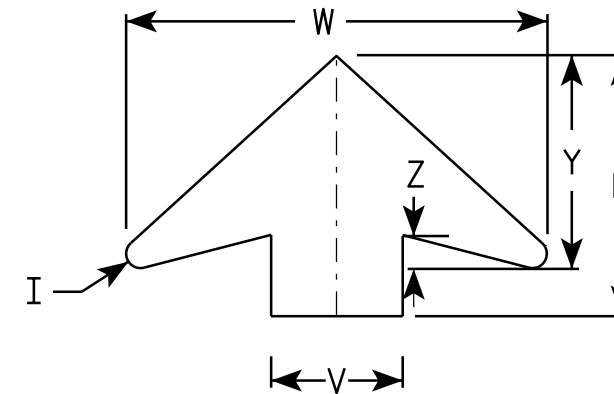


W03-5

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color: *
Background - ORANGE*
Message - BLACK
3. Message Series - C for numbers Series E for wording
4. Substitute appropriate numerals and optically adjust spacing to achieve proper balance

*Speed Limit Sign shall have a White Background



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7 1/4	7 1/8	9	6	19 1/4	3/8	9 3/4	1 5/8	9.0
2S	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
2M	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
3	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
4	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
5	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0

PROJECT NO:

STANDARD SIGN W03-5

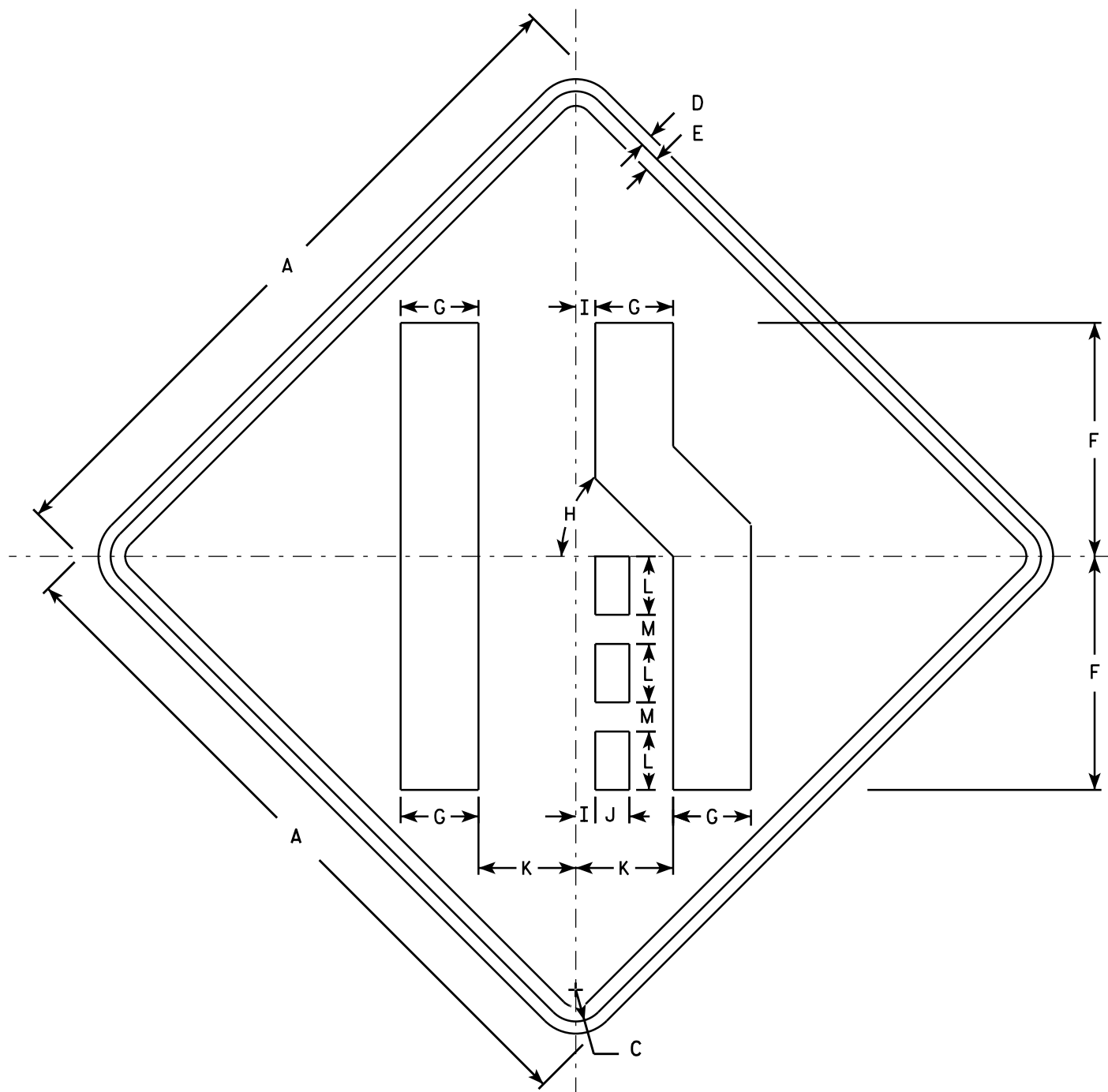
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 11/20/13 PLATE 294 W03-5.1

SHEET NO:

E



W04-2R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W04-2L is the same as W04-2R except the symbol is reversed along the vertical centerline.

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		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2S	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
2M	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
3	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
4	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
5	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0

STANDARD SIGN

W04-2

WISCONSIN DEPT OF TRANSPORTATION

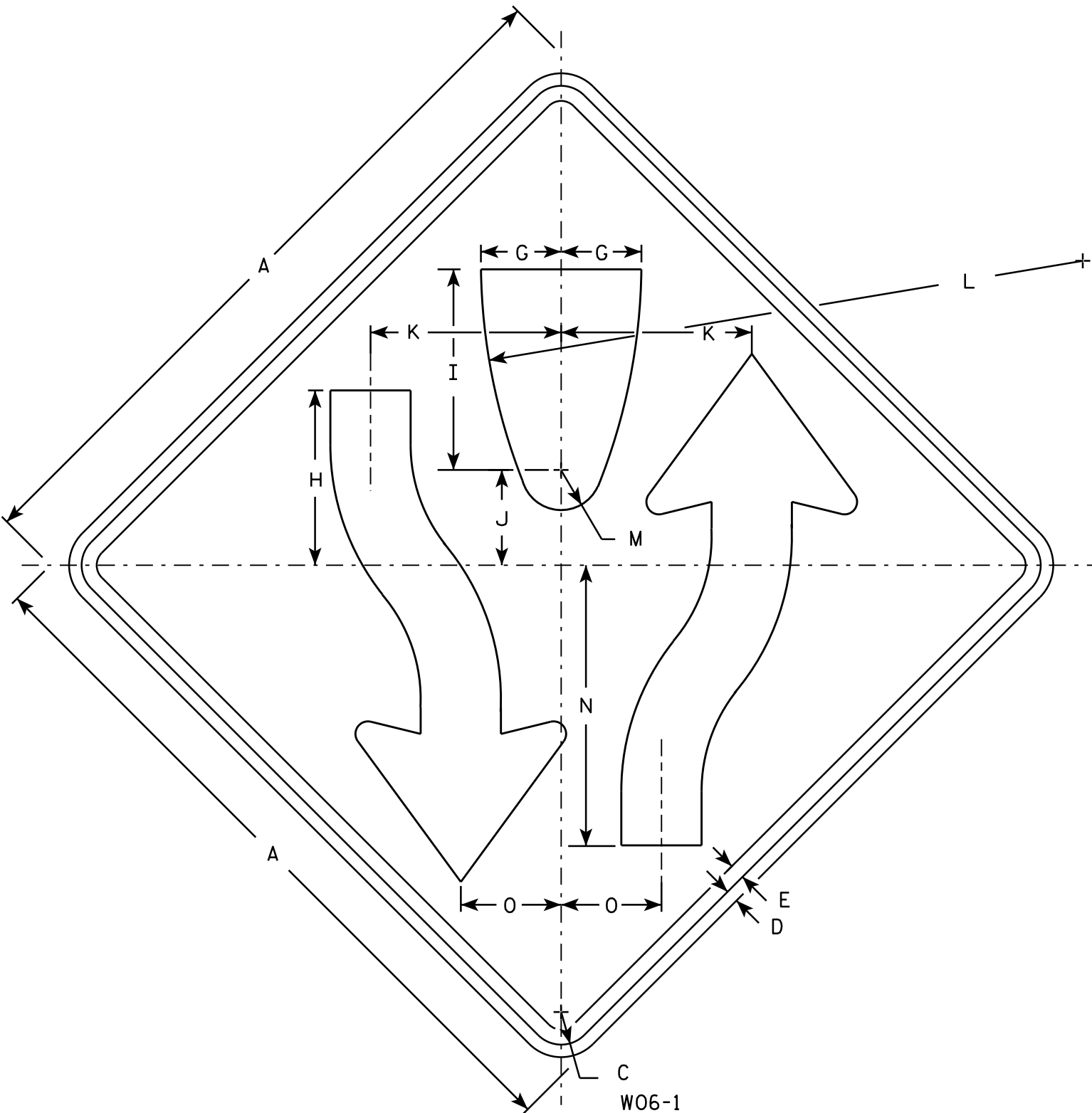
APPROVED

For State Traffic Engineer

DATE 11/20/13

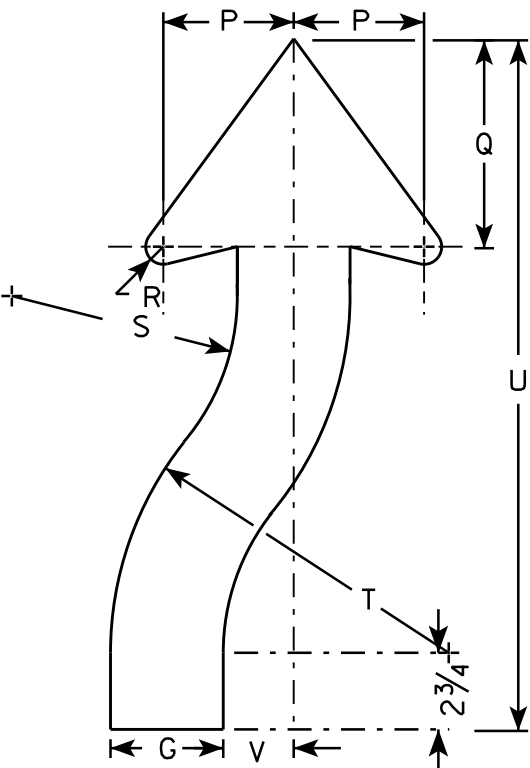
PLATE 295

W04-2.1



NOTES

- 1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
Background - Orange
Message - Black
- 3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 4. W06-2 same as W06-1 but is rotated 180° when mounted.



ARROW DETAIL

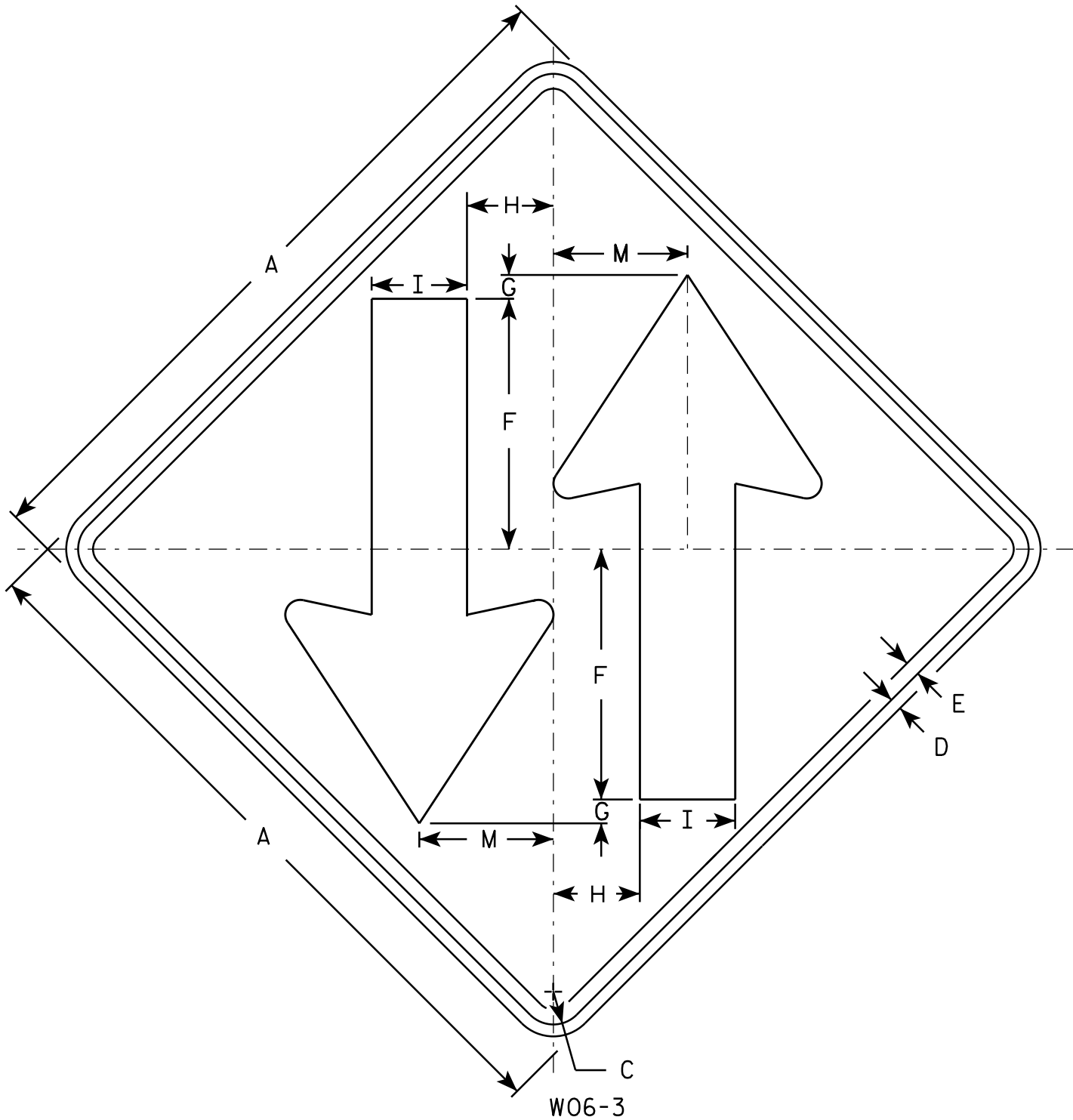
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4		4	8 3/4	10	4 3/4	9 1/2	30	2	14	5	4 5/8	7 3/8	7/8	8	12	24 1/2	2 1/2					9.0
2S	48		2 1/4	3/4	1		5 3/8	11 5/8	13 3/8	6 3/8	12 5/8	40	2 5/8	18 5/8	6 5/8	6 1/4	9 7/8	1 1/4	10 5/8	16	32 5/8	3 3/8					16.0
2M	48		2 1/4	3/4	1		5 3/8	11 5/8	13 3/8	6 3/8	12 5/8	40	2 5/8	18 5/8	6 5/8	6 1/4	9 7/8	1 1/4	10 5/8	16	32 5/8	3 3/8					16.0
3	48		2 1/4	3/4	1		5 3/8	11 5/8	13 3/8	6 3/8	12 5/8	40	2 5/8	18 5/8	6 5/8	6 1/4	9 7/8	1 1/4	10 5/8	16	32 5/8	3 3/8					16.0
4	48		2 1/4	3/4	1		5 3/8	11 5/8	13 3/8	6 3/8	12 5/8	40	2 5/8	18 5/8	6 5/8	6 1/4	9 7/8	1 1/4	10 5/8	16	32 5/8	3 3/8					16.0
5	48		2 1/4	3/4	1		5 3/8	11 5/8	13 3/8	6 3/8	12 5/8	40	2 5/8	18 5/8	6 5/8	6 1/4	9 7/8	1 1/4	10 5/8	16	32 5/8	3 3/8					16.0

STANDARD SIGN
W06-1 & W06-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
For State Traffic Engineer

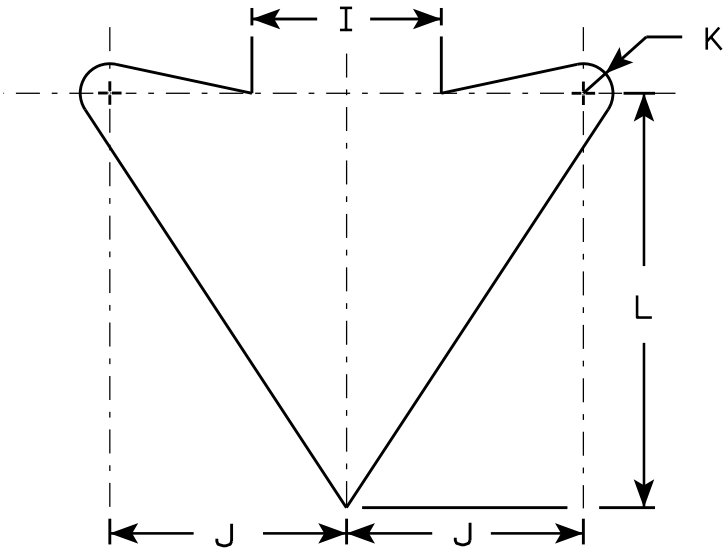
DATE 11/20/13 PLATE NO. W06-1.1
296



W06-3

NOTES

- 1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- 2. Color:
Background - Orange
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	36		1 5⁄8	5⁄8	¾	12	1	4 1⁄4	5	6	¾	10 1⁄2	6 ¾														9.0
2S	48		2 1⁄4	¾	1	15 1⁄2	1	6	6	8	1	14	9														16.0
2M	48		2 1⁄4	¾	1	15 1⁄2	1	6	6	8	1	14	9														16.0
3	48		2 1⁄4	¾	1	15 1⁄2	1	6	6	8	1	14	9														16.0
4	48		2 1⁄4	¾	1	15 1⁄2	1	6	6	8	1	14	9														16.0
5	48		2 1⁄4	¾	1	15 1⁄2	1	6	6	8	1	14	9														16.0

PROJECT NO:

HWY:

COUNTY:

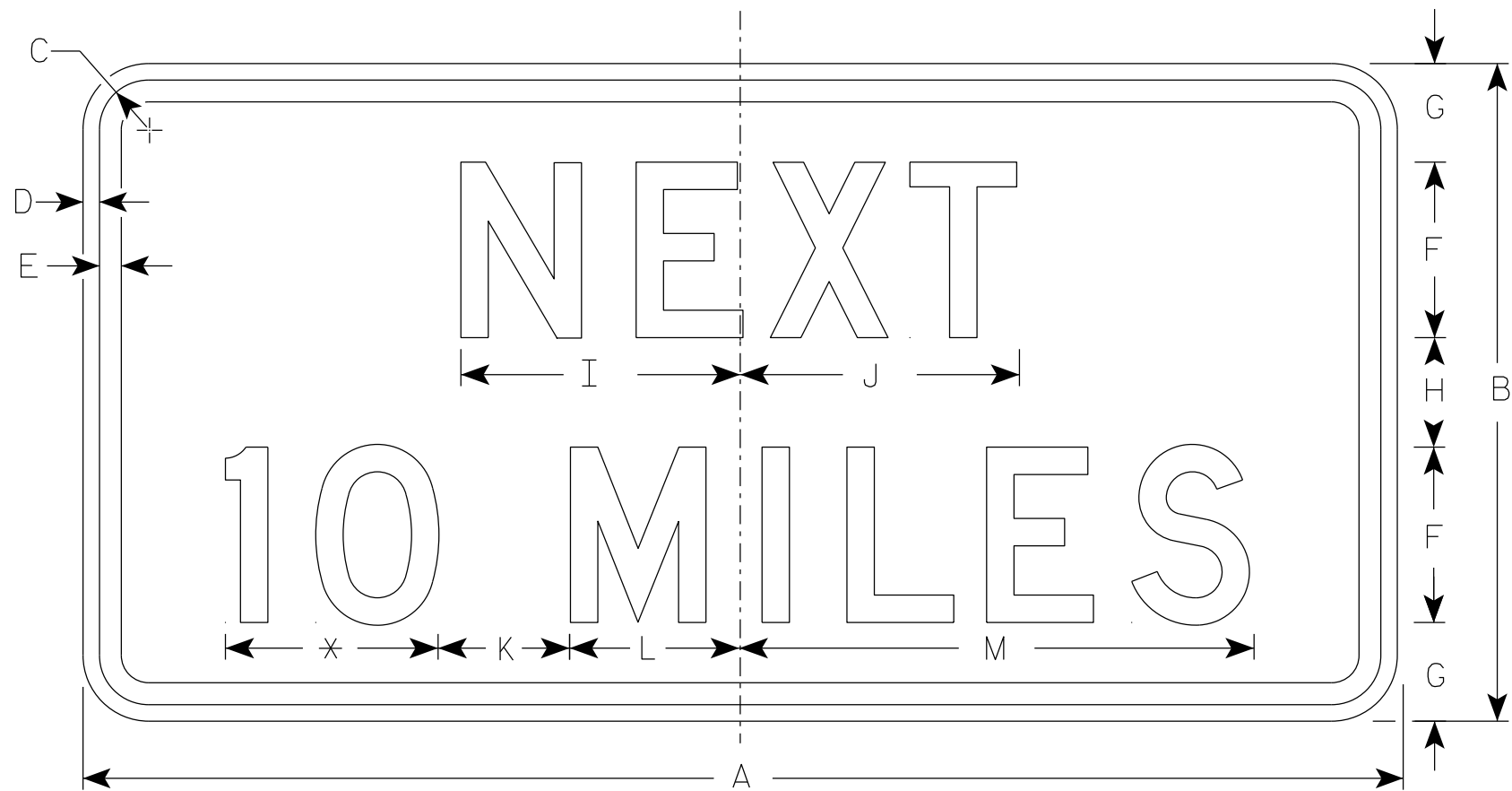
SHEET NO: E

STANDARD SIGN
W06 - 3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 11/20/13 PLATE 297 "06-3.1



W057-51

* See note 5

NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:
 - Background - Orange
 - 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. Round distance to the nearest whole Mile and 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	36	18	1 1/8	3/8	1/2	5	2 3/4	2 1/2	7 7/8	8	5	4 1/8	15 3/8														4.5
2S	48	24	1 3/8	1/2	5/8	6	4	4	10	10 1/8	6	5 5/8	19														8.0
2M	48	24	1 3/8	1/2	5/8	6	4	4	10	10 1/8	6	5 5/8	19														8.0
3	48	24	1 3/8	1/2	5/8	6	4	4	10	10 1/8	6	5 5/8	19														8.0
4	48	24	1 3/8	1/2	5/8	6	4	4	10	10 1/8	6	5 5/8	19														8.0
5	48	24	1 3/8	1/2	5/8	6	4	4	10	10 1/8	6	5 5/8	19														8.0

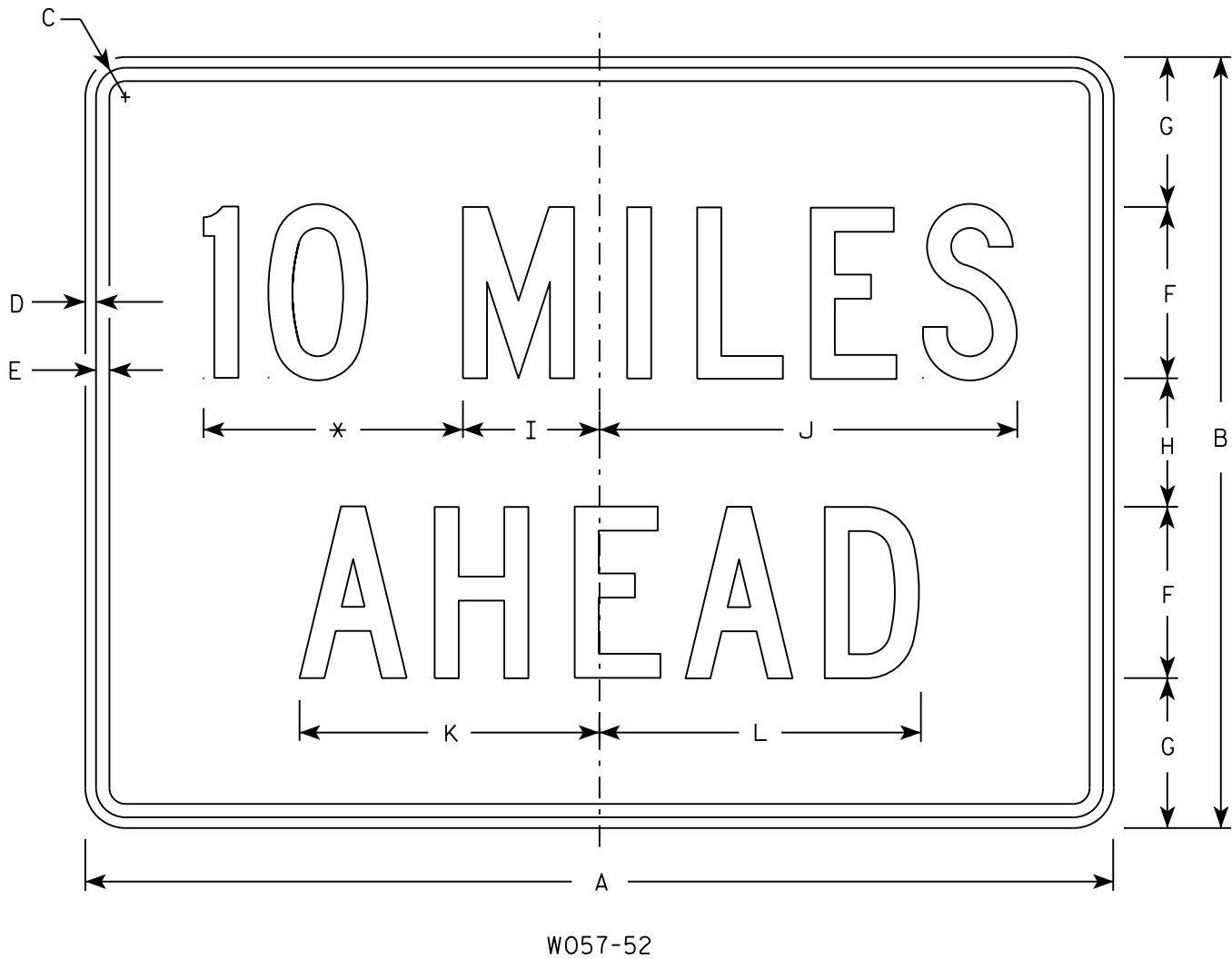
PROJECT NO:

HWY:

COUNTY:

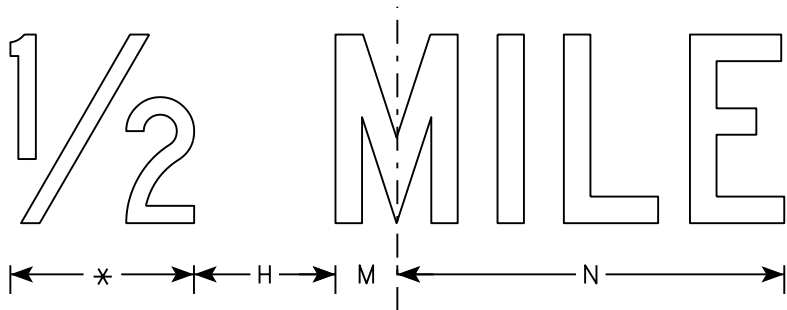
SHEET NO: 298

E



NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:
Background - Orange
Message - Black
- 3. Message Series - C
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 5. Substitute appropriate numerals to the nearest quarter mile and optically adjust spacing to achieve proper balance.



* See note 5

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	24	1 1/8	3/8	1/2	6	4 1/2	3	4 3/4	14 5/8	10 5/8	11 3/8	2	12													6.0
2S	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0
2M	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0
3	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0
4	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0
5	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0

CROSSOVER EARTHWORK

LOCATION	CROSS SECTION VOLUMES			
	CUT (SF)	CUT (CY)	FILL (SF)	FILL (CY)
SOUTH CROSSOVER				
88+40.481	2.26	0	2.89	0
88+50	1.82	1	23.29	5
88+75	1.94	2	22.26	21
89+00	2.35	2	19.38	19
89+25	5.07	3	18.49	18
89+50	4.81	5	19.52	18
89+75	4.48	4	19.96	18
90+00	4.41	4	19.19	18
90+25	4.33	4	20.22	18
90+50	9.84	7	24.10	21
90+75	17.85	13	26.27	23
91+00	22.02	18	26.85	25
91+25	26.33	22	29.16	26
91+50	30.24	26	36.29	30
91+75	34.65	30	37.54	34
92+00	41.47	35	38.95	35
92+25	97.01	64	0.00	18
92+50	102.82	93	0.00	0
92+75	73.14	81	0.00	0
93+00	63.81	63	0.00	0
93+25	56.75	56	0.00	0
93+50	59.16	54	0.00	0
93+75	64.40	57	0.00	0
94+00	65.45	60	0.00	0
94+25	65.45	61	0.00	0
94+50	65.34	61	0.00	0
94+75	65.73	61	0.01	0
95+00	66.02	61	0.00	0
95+25	67.25	62	0.00	0
95+50	64.16	61	0.00	0

LOCATION	CROSS SECTION VOLUMES			
	CUT (SF)	CUT (CY)	FILL (SF)	FILL (CY)
SOUTH CROSSOVER				
95+75	62.36	59	0.00	0
96+00	63.89	58	0.00	0
96+25	67.54	61	0.00	0
96+50	69.53	63	0.00	0
96+75	63.34	62	10.76	5
97+00	58.68	56	14.28	12
97+25	54.89	53	16.17	14
97+50	48.79	48	18.55	16
97+75	42.74	42	19.05	17
98+00	35.31	36	27.52	22
98+25	30.23	30	31.75	27
98+50	25.48	26	13.88	21
98+75	20.83	21	19.63	16
99+00	28.13	23	13.12	15
99+25	7.48	16	21.60	16
99+50	5.08	6	19.82	19
99+50	0.00	0	0.00	0
99+75	5.14	2	18.22	8
100+00	5.23	5	21.06	18
100+25	4.88	5	22.25	20
100+50	4.93	5	15.46	17
100+75	5.83	5	12.57	13
101+00	6.29	6	10.02	10
101+25	4.47	5	10.10	9
101+49.984	3.63	4	1.54	5
SUBTOTAL	1768		647	

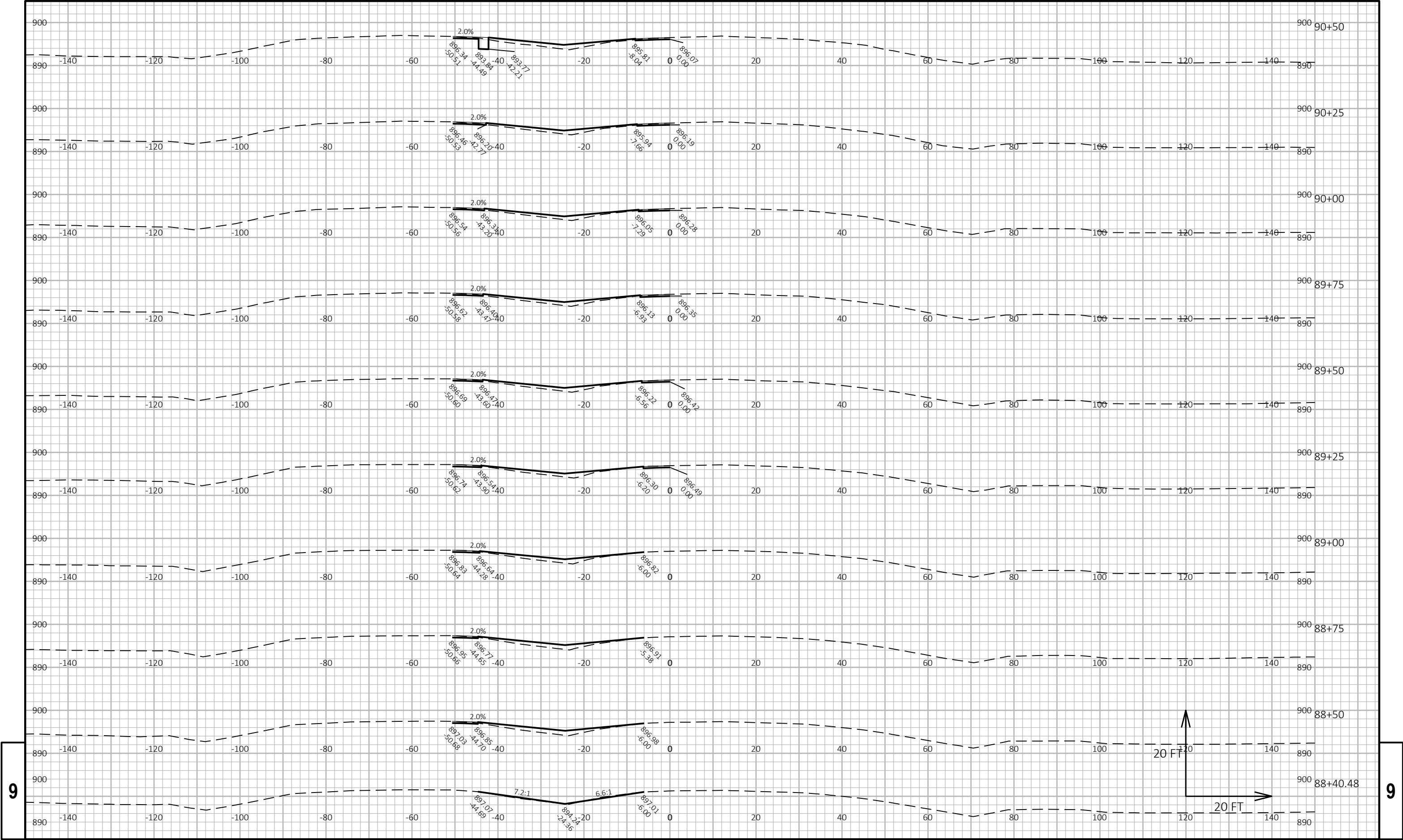
9

CROSSOVER EARTHWORK

LOCATION NORTH CROSSOVER	CROSS SECTION VOLUMES			
	CUT (SF)	CUT (CY)	FILL (SF)	FILL (CY)
140+06	1.30	0	0.89	0
140+25	1.46	1	4.52	2
140+50	0.81	1	8.57	6
140+75	0.41	1	12.74	10
141+00	2.62	1	18.16	14
141+25	2.55	2	22.60	19
141+50	7.40	5	23.00	21
141+75	7.85	7	24.89	22
142+00	7.45	7	26.83	24
142+25	7.35	7	27.92	25
142+50	7.65	7	27.77	26
142+75	7.76	7	28.11	26
143+00	7.60	7	28.36	26
143+25	12.80	9	28.71	26
143+50	14.76	13	30.16	27
143+75	23.77	18	34.07	30
144+00	27.71	24	33.99	32
144+25	32.10	28	34.31	32
144+50	37.46	32	34.99	32
144+75	42.14	37	36.24	33
145+00	46.45	41	35.46	33
145+25	51.10	45	32.74	32
145+50	55.67	49	30.23	29
145+75	59.28	53	27.21	27
146+00	58.95	55	21.26	22
146+25	60.00	55	12.49	16
146+50	65.50	58	0.00	6
146+75	68.24	62	0.00	0
147+00	64.96	62	0.00	0
147+25	62.73	59	0.00	0
147+50	63.00	58	0.26	0

LOCATION NORTH CROSSOVER	CROSS SECTION VOLUMES			
	CUT (SF)	CUT (CY)	FILL (SF)	FILL (CY)
147+75	95.02	73	0.00	0
148+00	122.39	101	0.00	0
148+25	66.05	87	0.71	0
148+50	62.01	59	0.19	0
148+75	67.21	60	0.00	0
149+00	68.45	63	0.00	0
149+25	69.53	64	0.00	0
149+50	65.11	62	11.41	5
149+75	60.37	58	22.28	16
150+00	57.15	54	30.43	24
150+25	53.67	51	37.54	31
150+50	47.71	47	45.35	38
150+75	41.68	41	51.72	45
151+00	37.08	36	57.42	51
151+25	32.54	32	62.43	55
151+50	26.26	27	57.45	56
151+75	23.08	23	53.76	51
152+00	12.84	17	50.44	48
152+25	11.36	11	52.29	48
152+50	5.30	8	53.27	49
152+75	5.22	5	54.63	50
153+00	5.07	5	53.64	50
153+25	5.27	5	52.17	49
153+50	5.57	5	50.72	48
153+75	5.40	5	55.34	49
154+00	2.44	4	57.26	52
154+25	2.60	2	50.43	50
154+50	0.02	1	38.57	41
154+75	0.00	0	0.00	18
155+00	0.00	0	0.00	0
155+11.805	0.00	0	0.00	0
SUBTOTAL	1817		1522	
TOTAL	3585		2169	

9

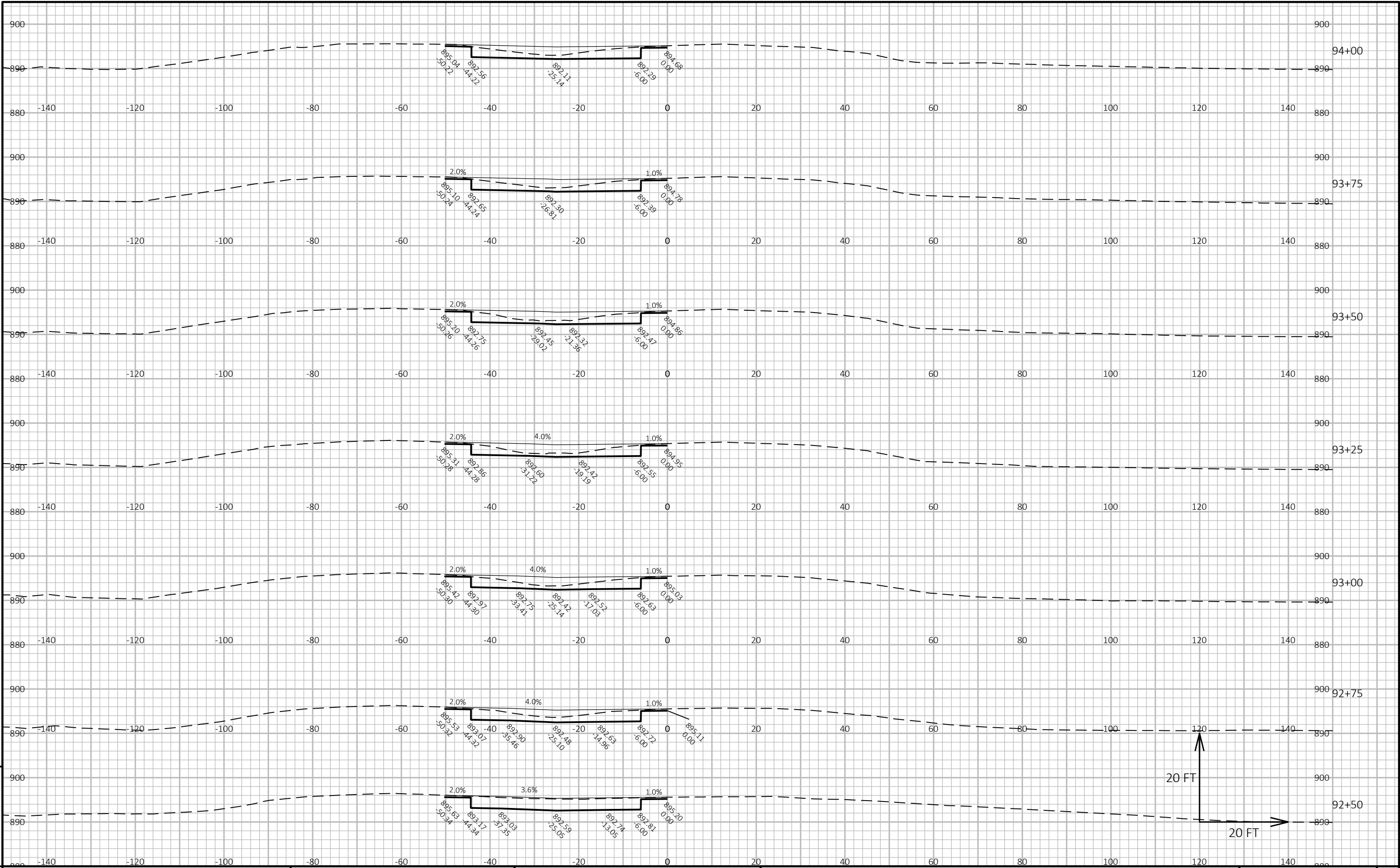


9

9

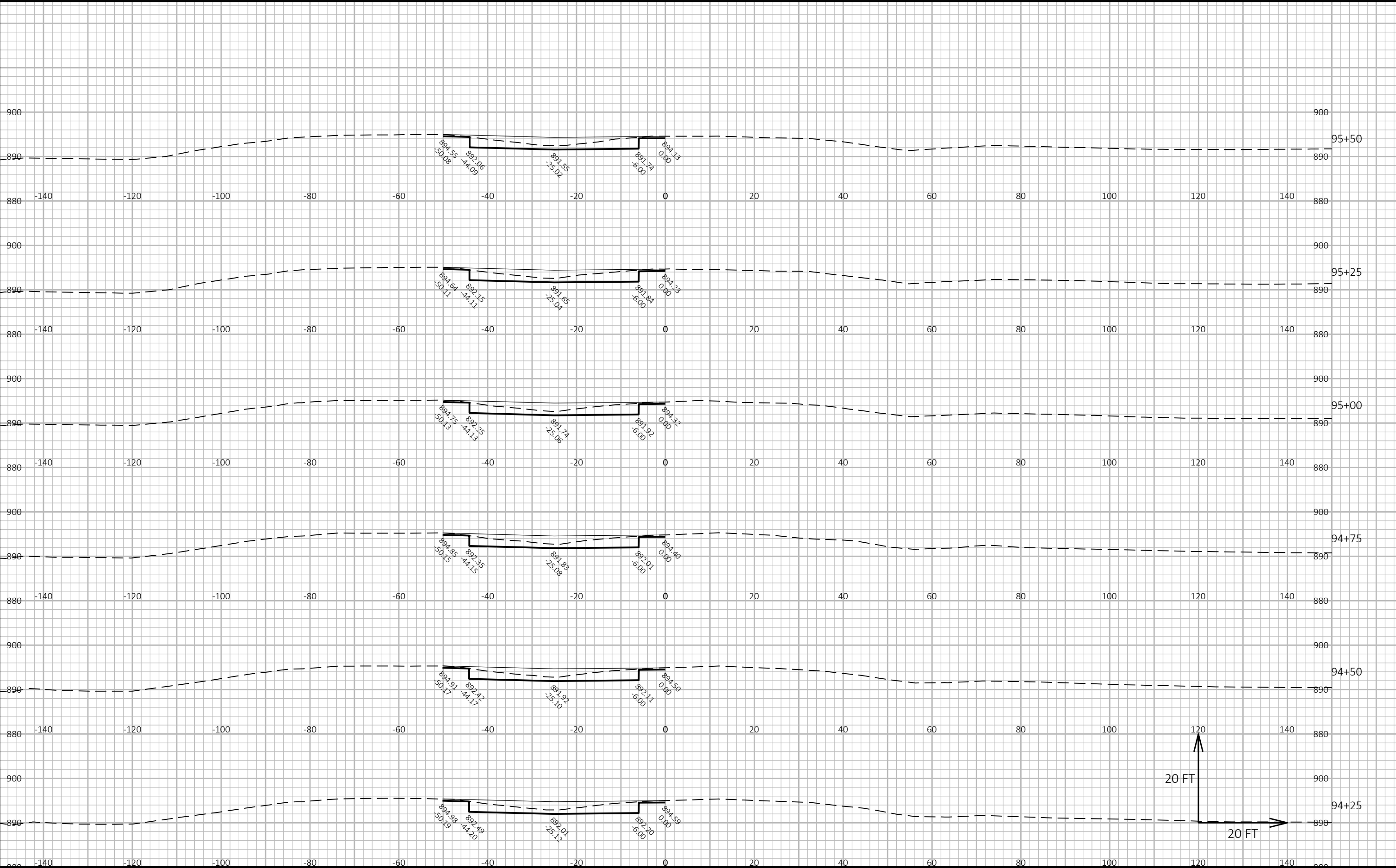
PROJECT NO: 1112-06-74	HWY: USH 151	COUNTY: DODGE & FOND DU LAC	CROSS SECTIONS: USH 151 SOUTH CROSSOVER	SHEET 302	E
------------------------	--------------	-----------------------------	---	-----------	---

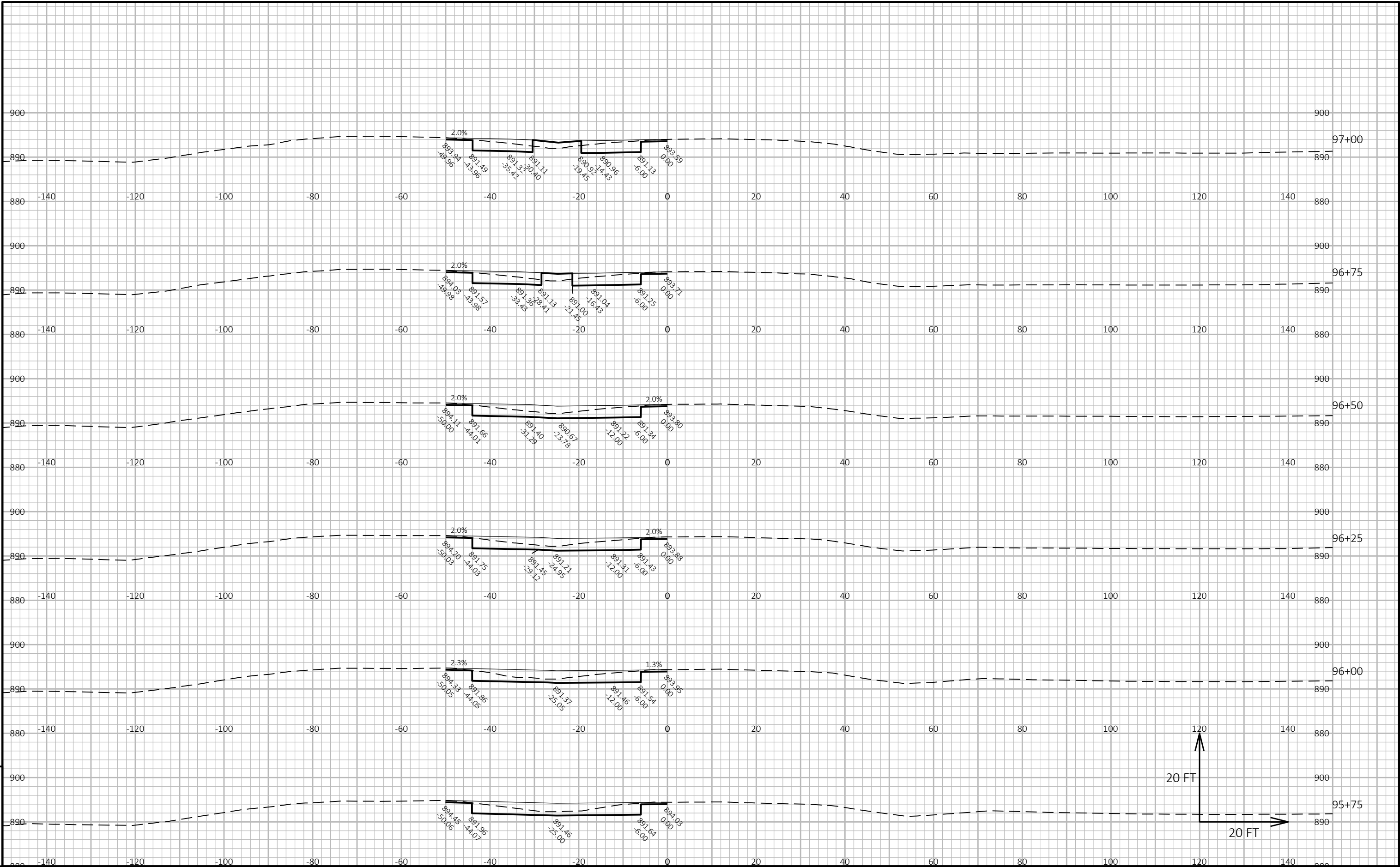


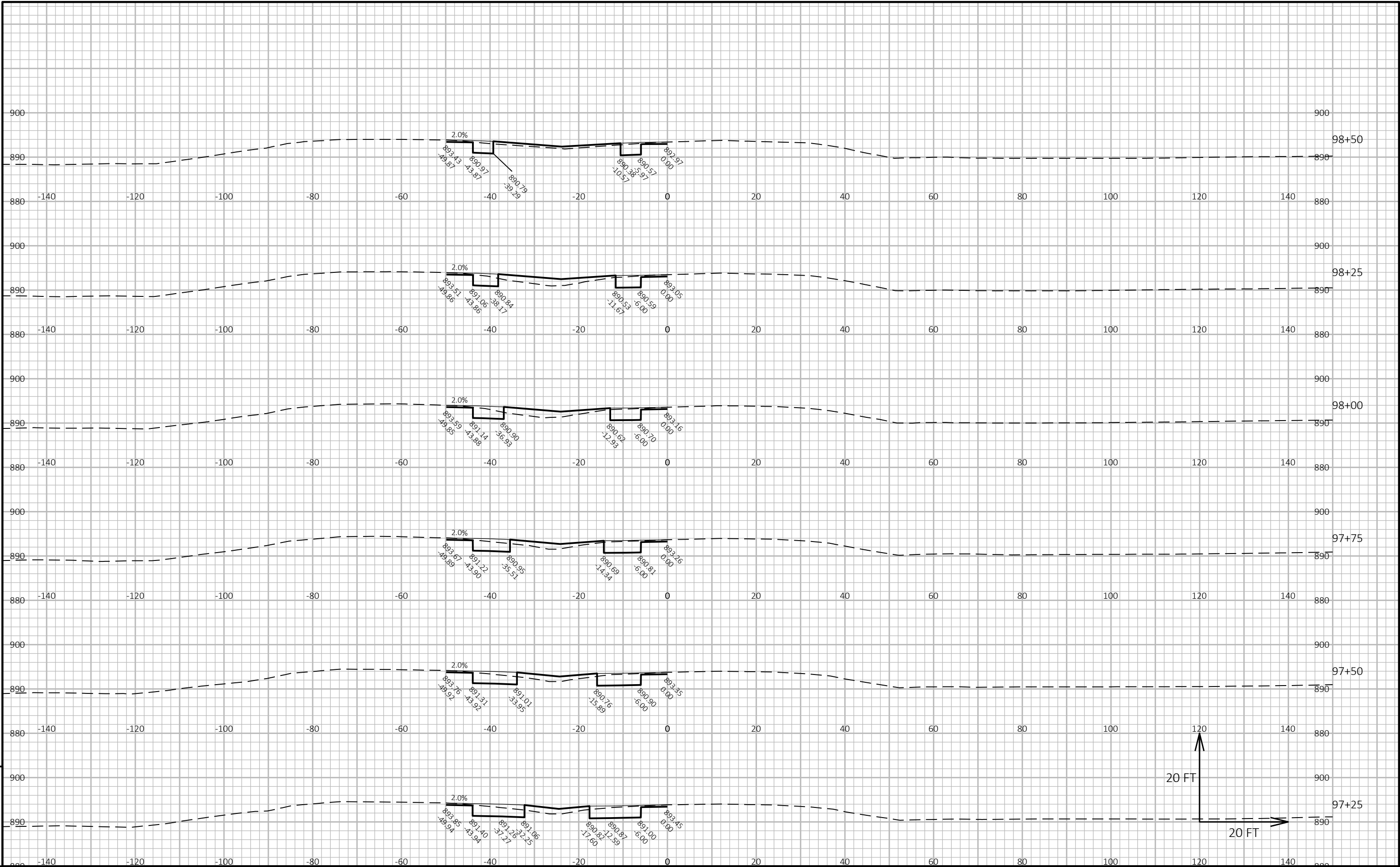


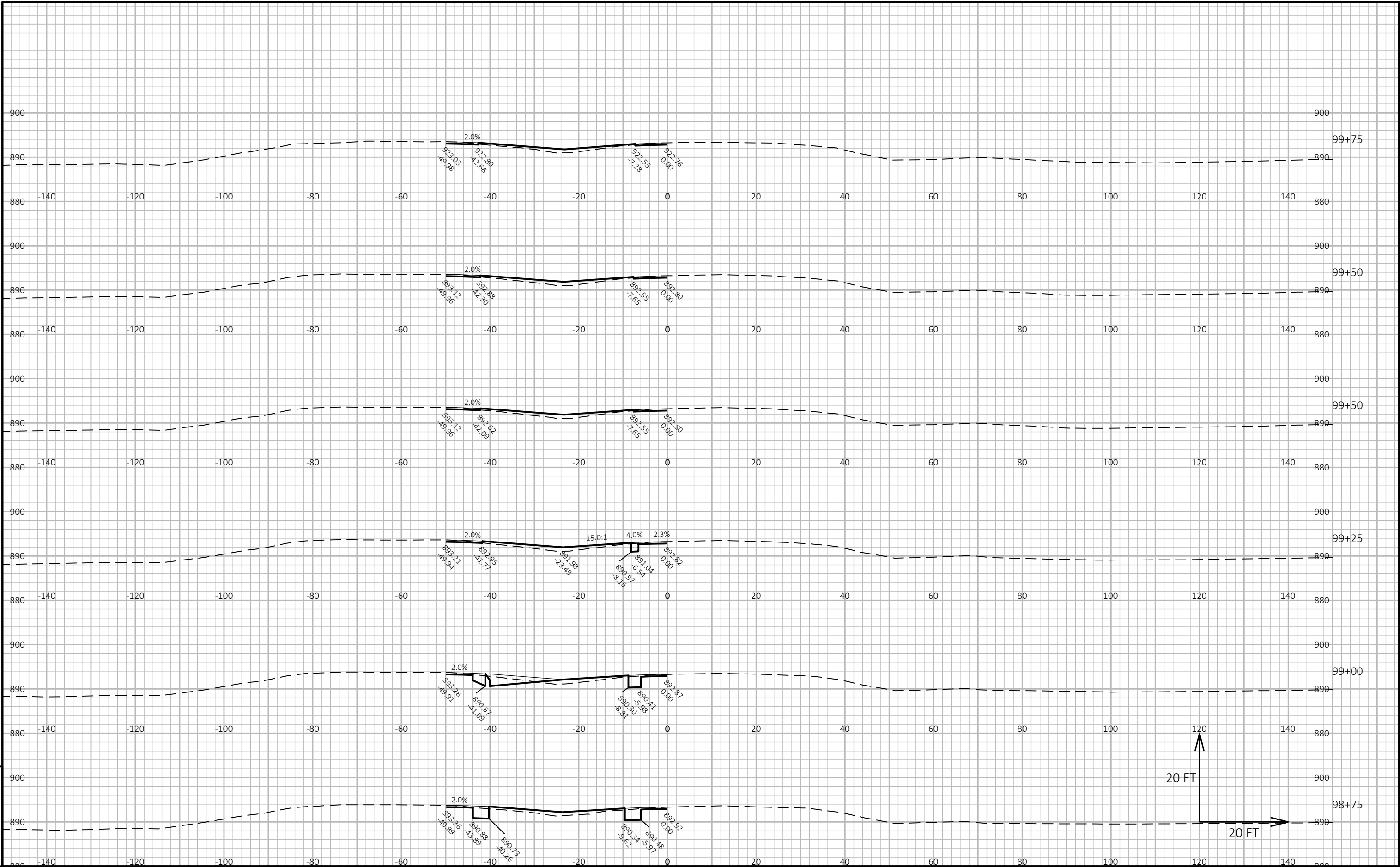
9

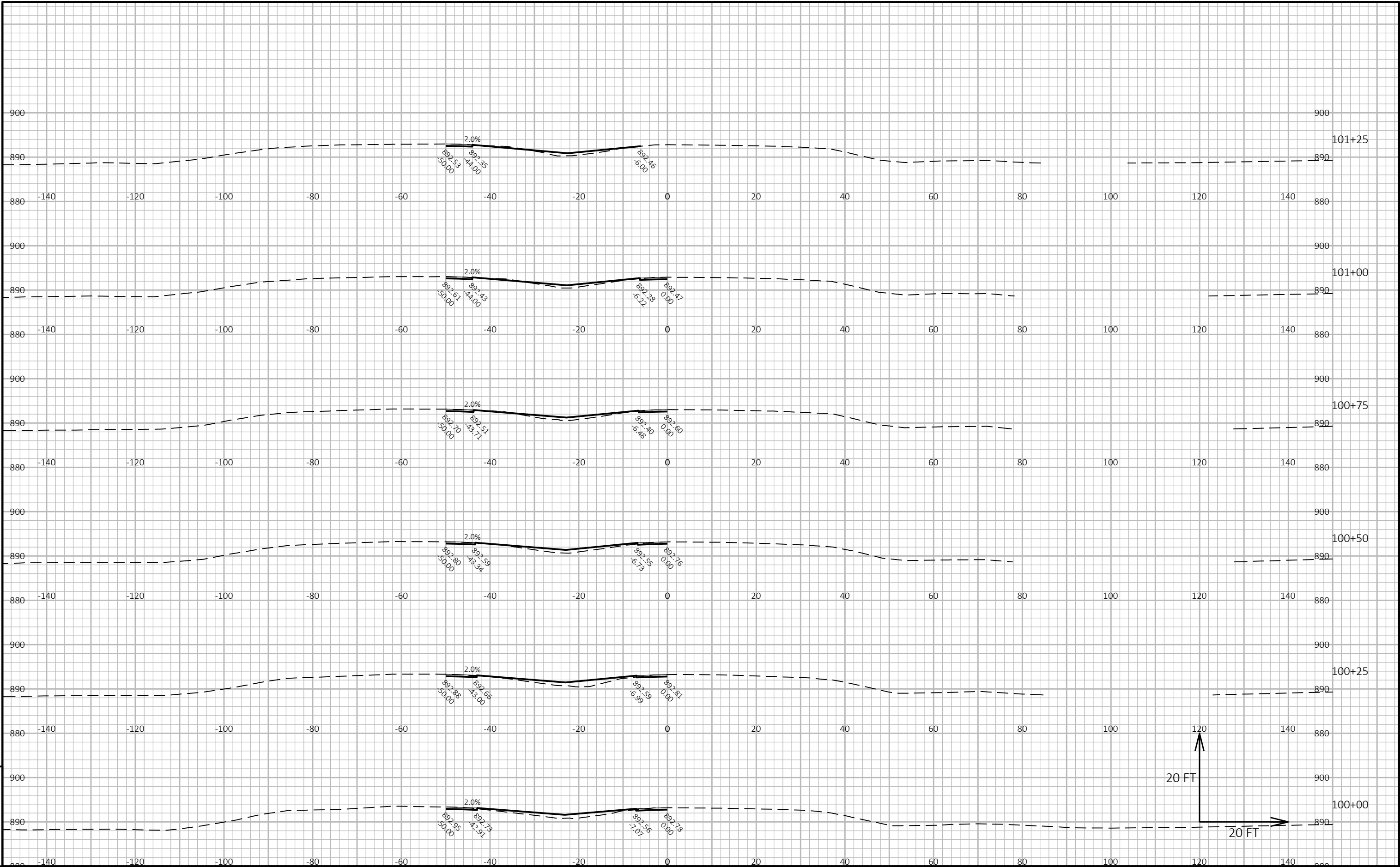
9





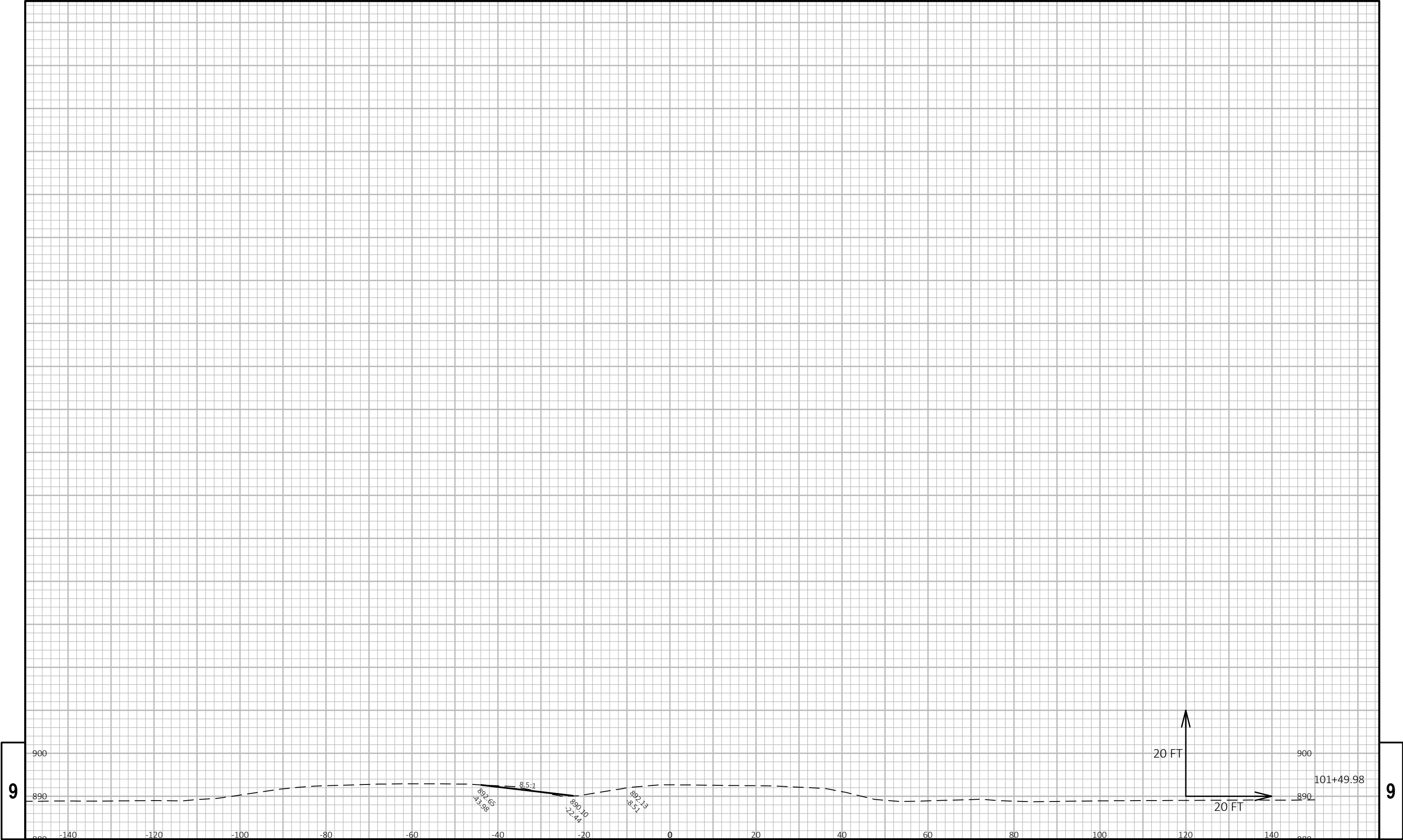






9

9

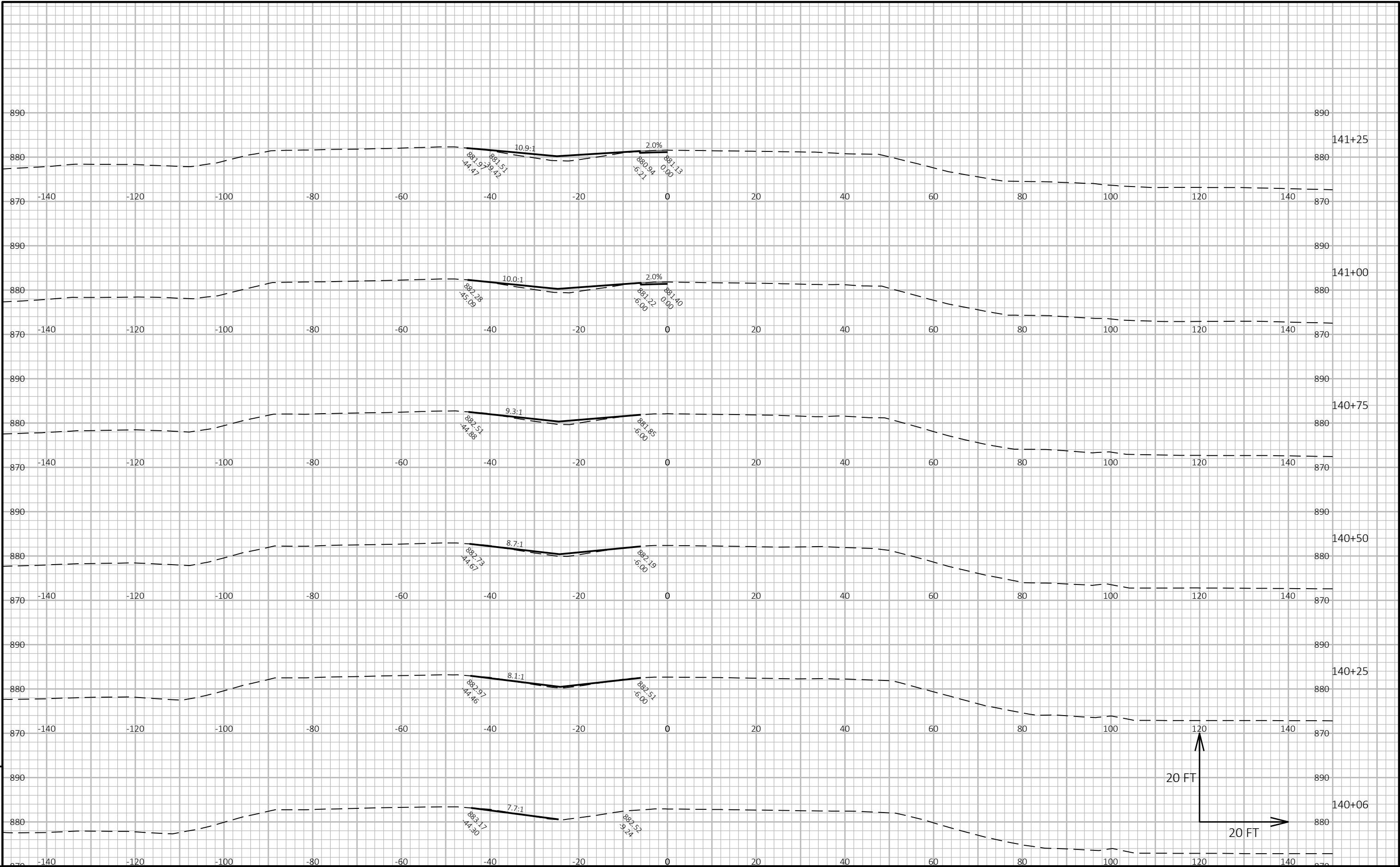


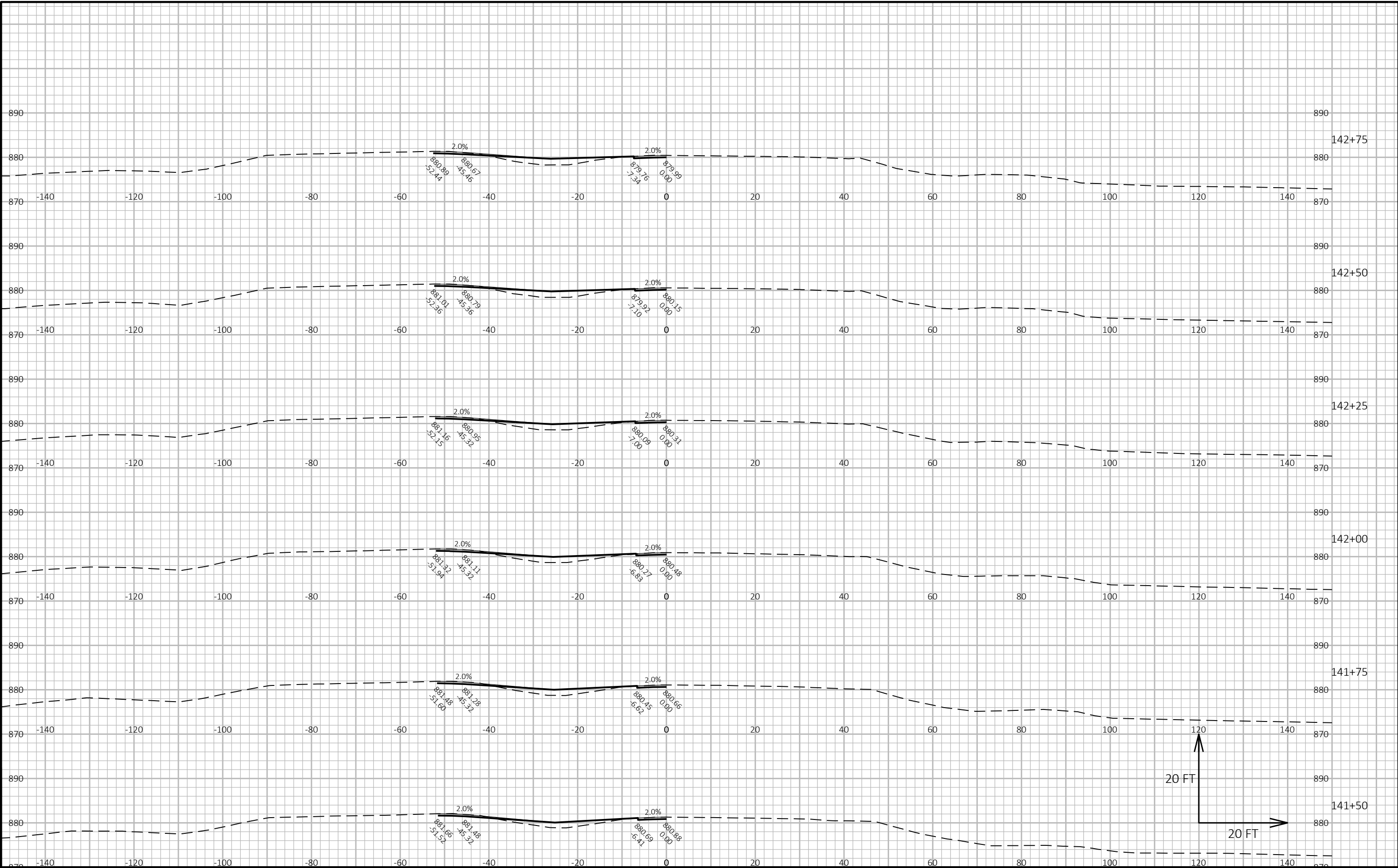
9

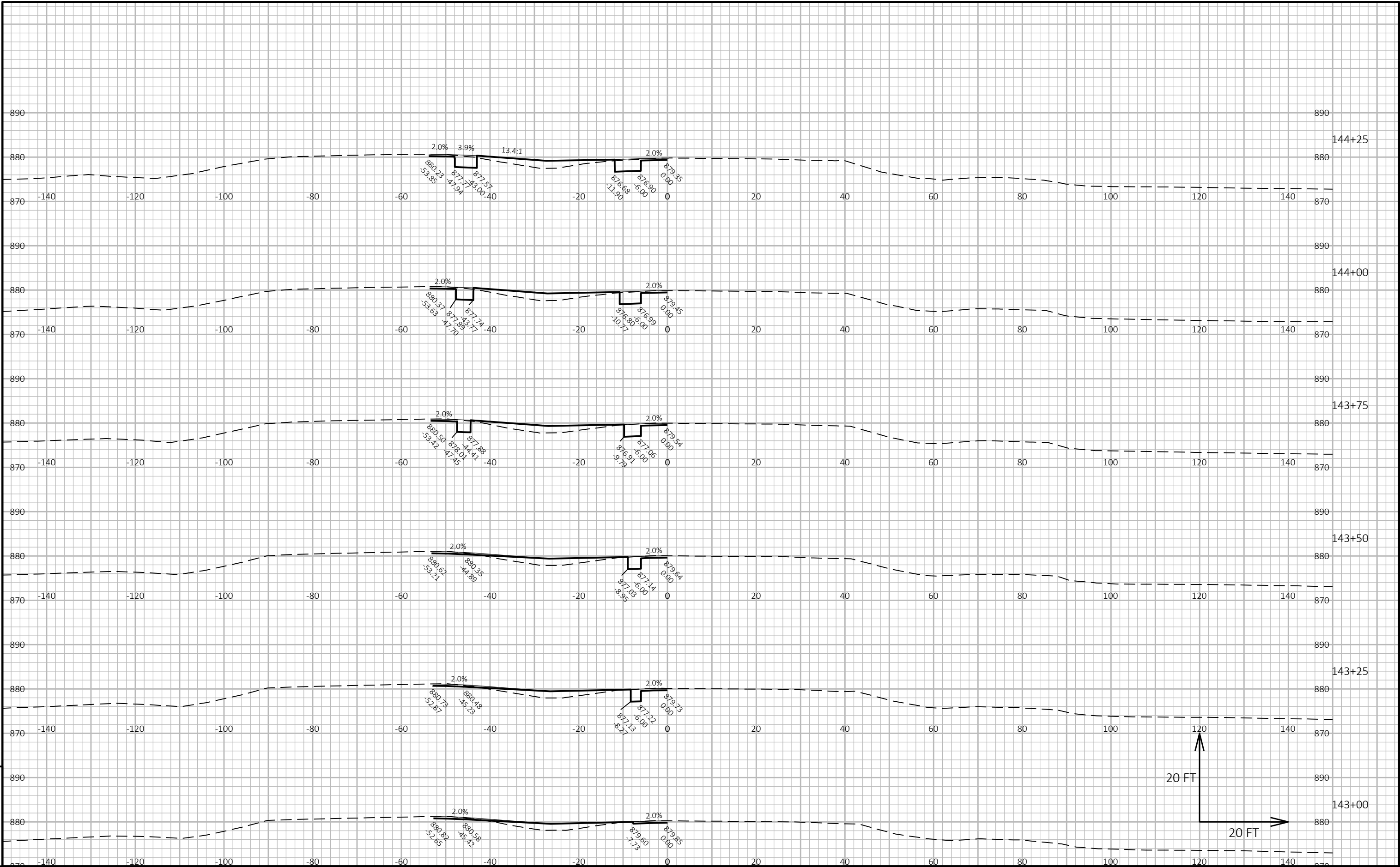
9

PROJECT NO: 1112-06-74	HWY: USH 151	COUNTY: DODGE & FOND DU LAC	CROSS SECTIONS: USH 151 SOUTH CROSSOVER	SHEET 310	E
------------------------	--------------	-----------------------------	---	-----------	---

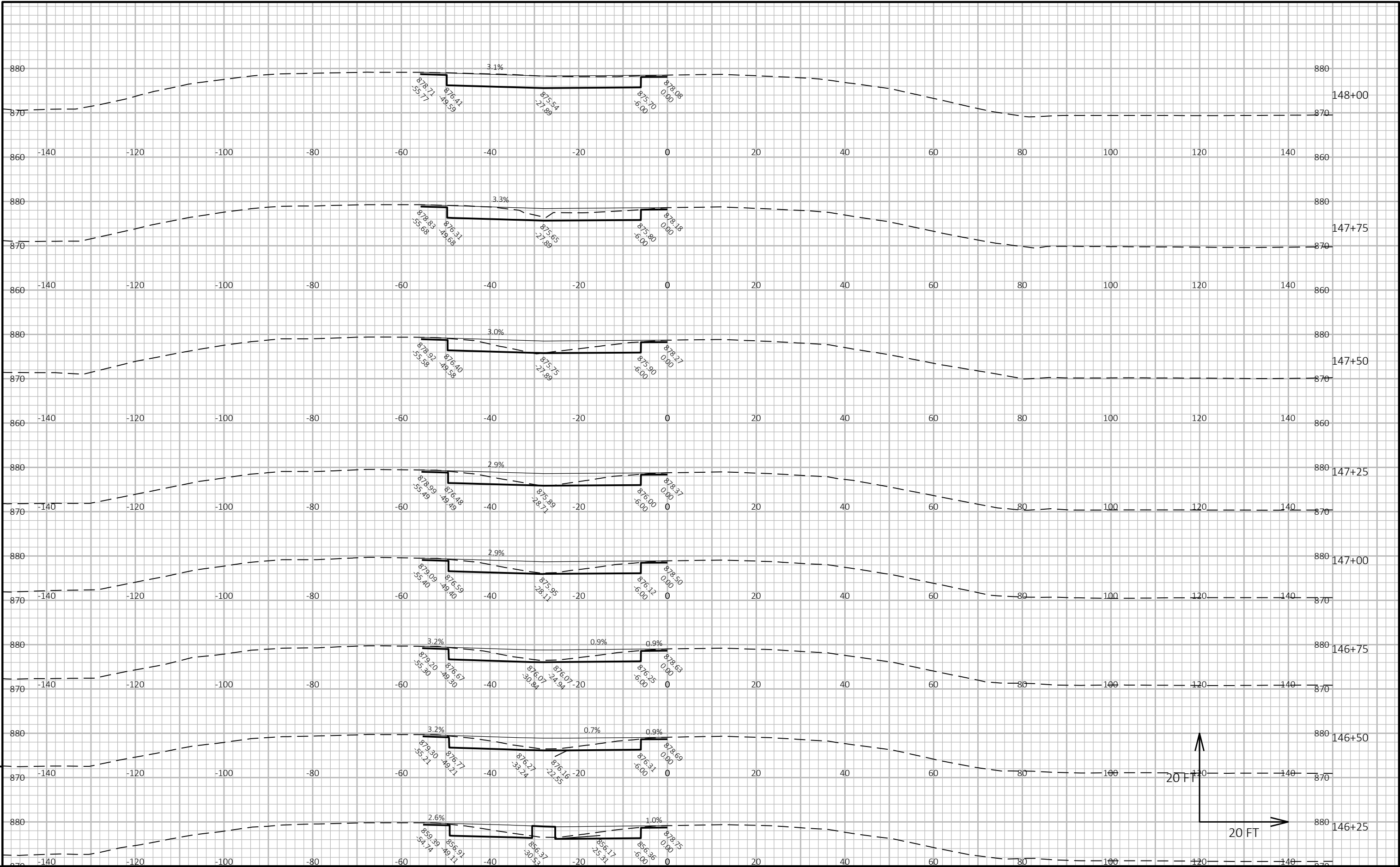
FILE NAME : X:\PROJECTS\DODGE\200093 - 1112-06-03 USH 151 AND STH 49 INTERCHANGE\DESIGN\C3D\SHEETSPLAN\090201-XSECTIONS\090201-XS.DWG	PLOT DATE : 4/16/2021 2:13 PM	PLOT BY : BOB WILSON	PLOT NAME :	PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.	WISDOT/CADD SHEET 49
---	-------------------------------	----------------------	-------------	--	----------------------

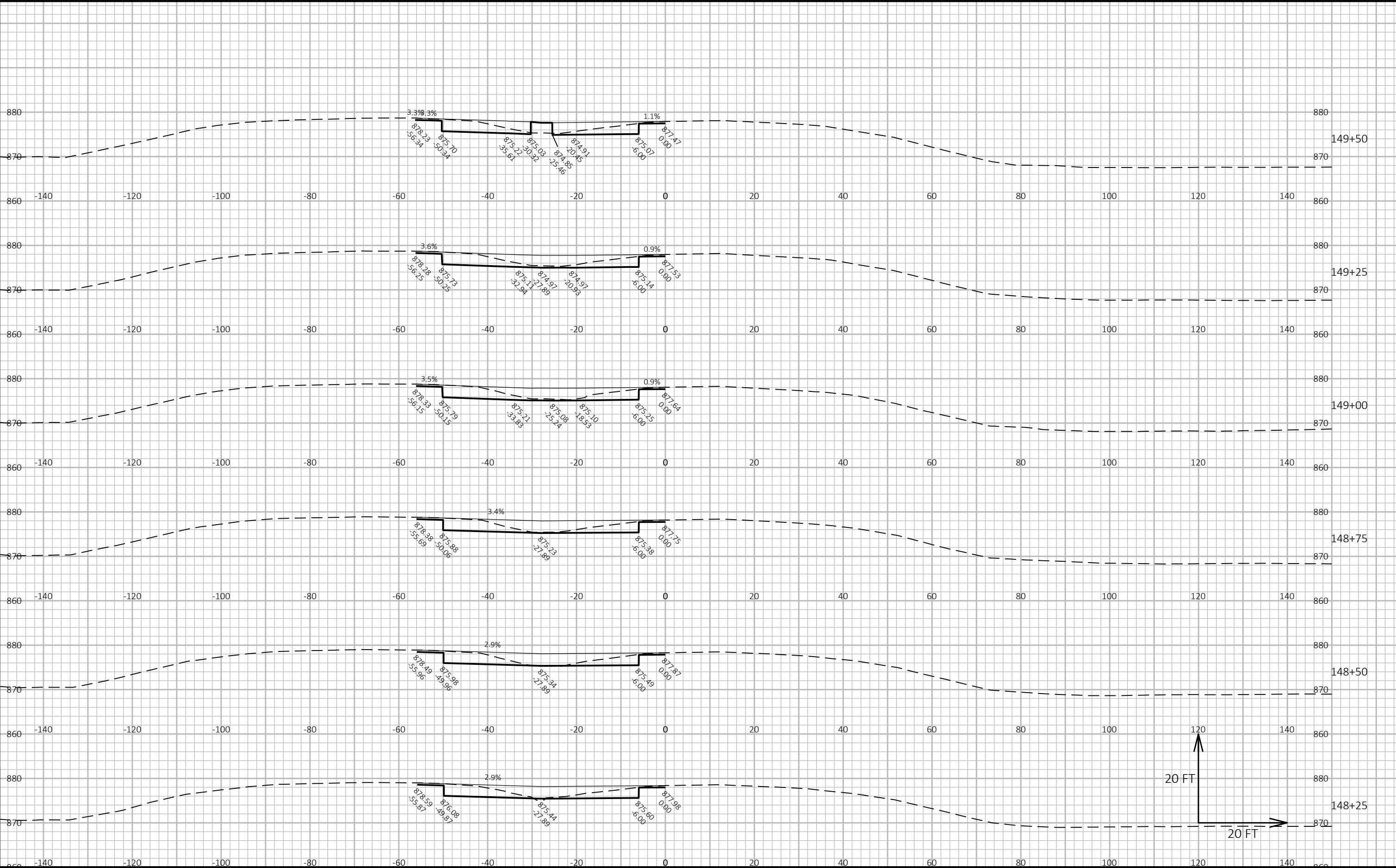


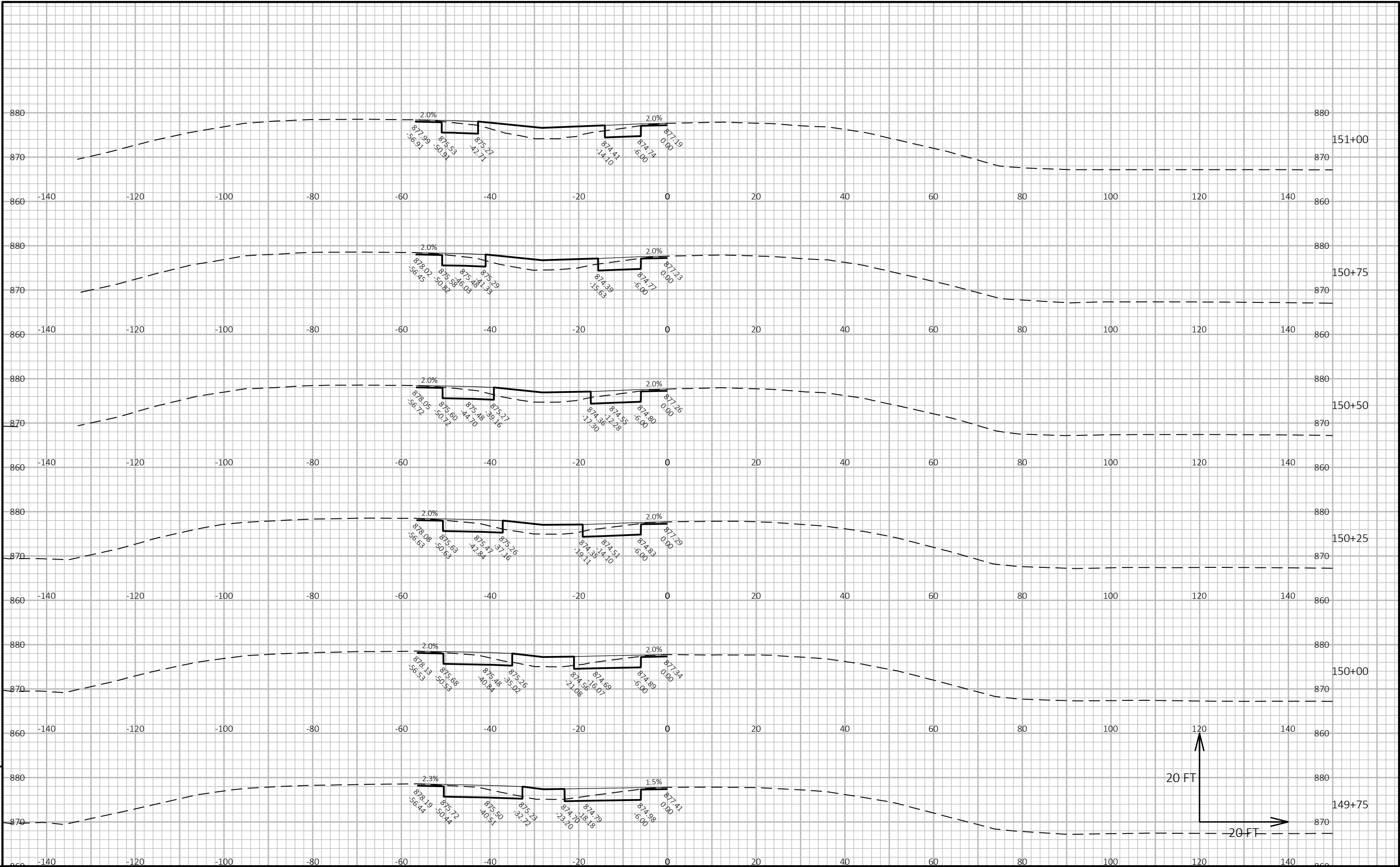


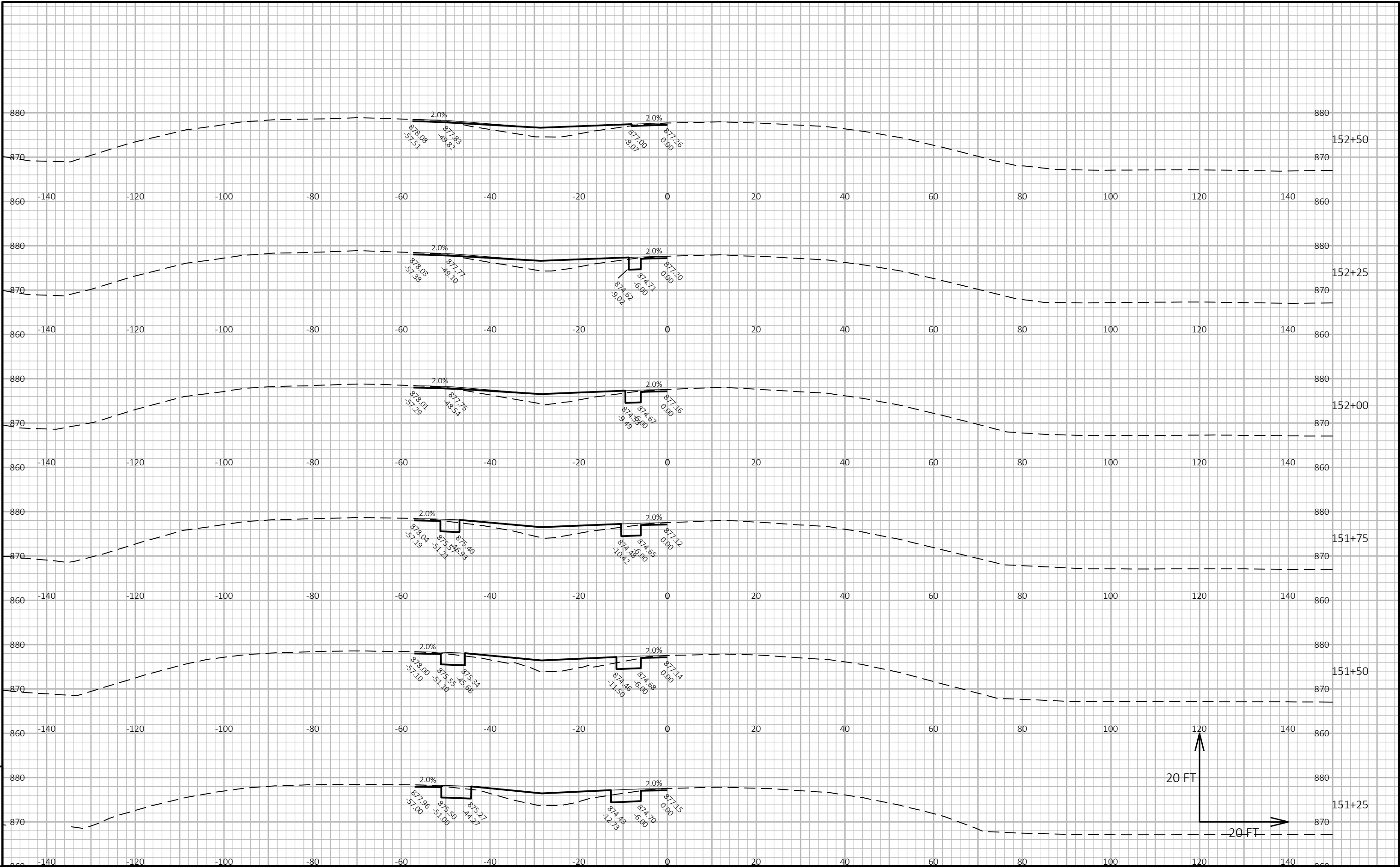


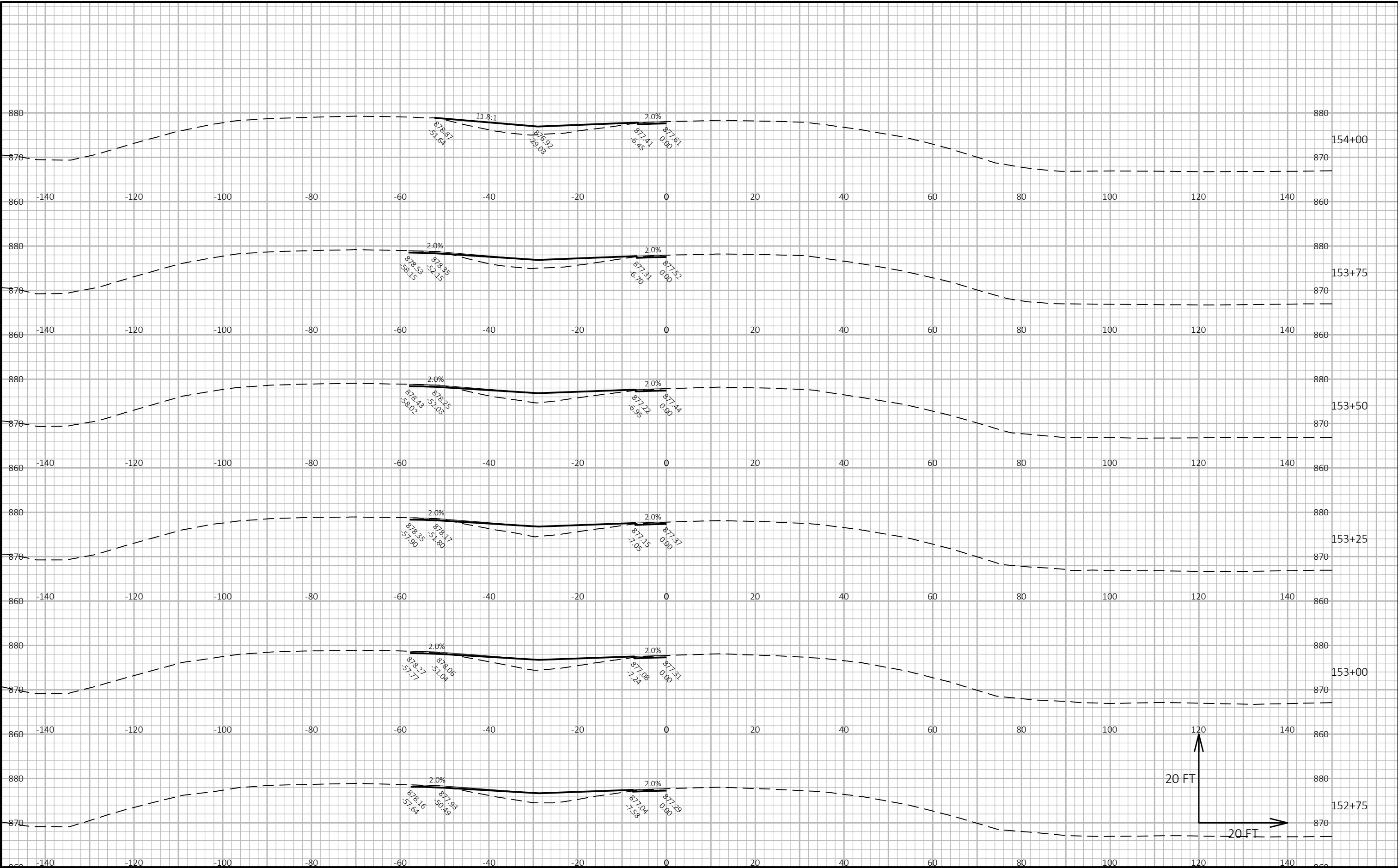






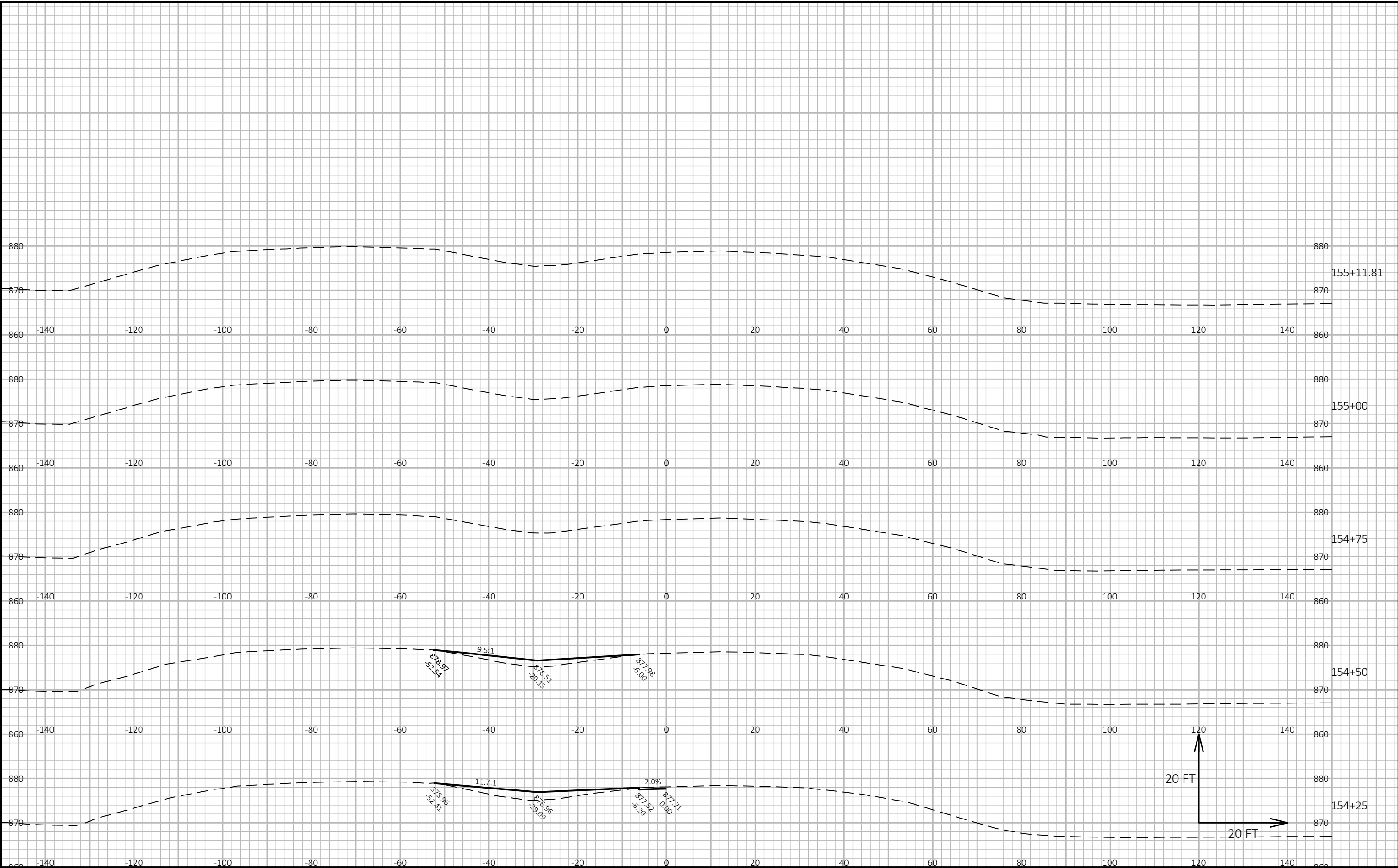


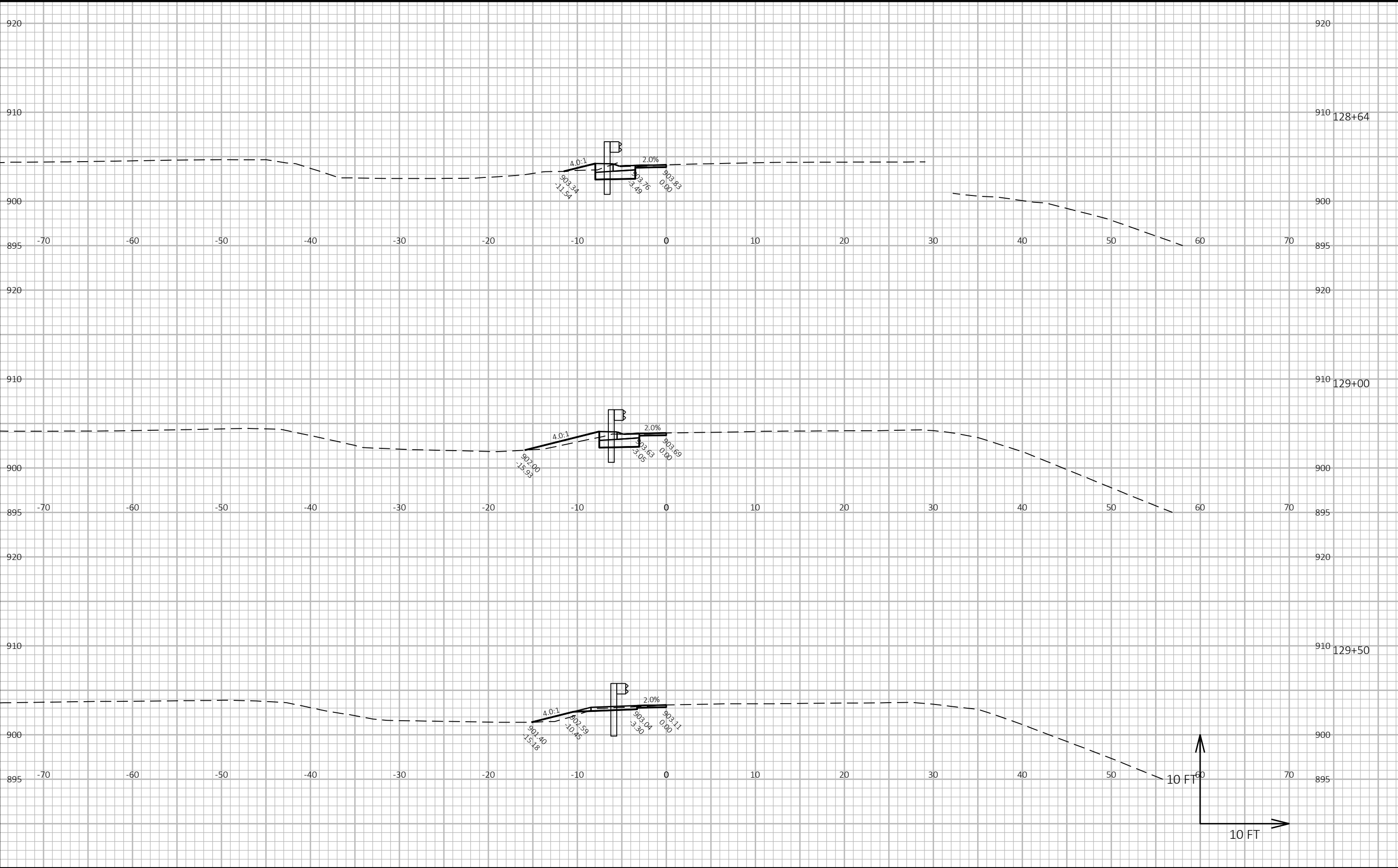


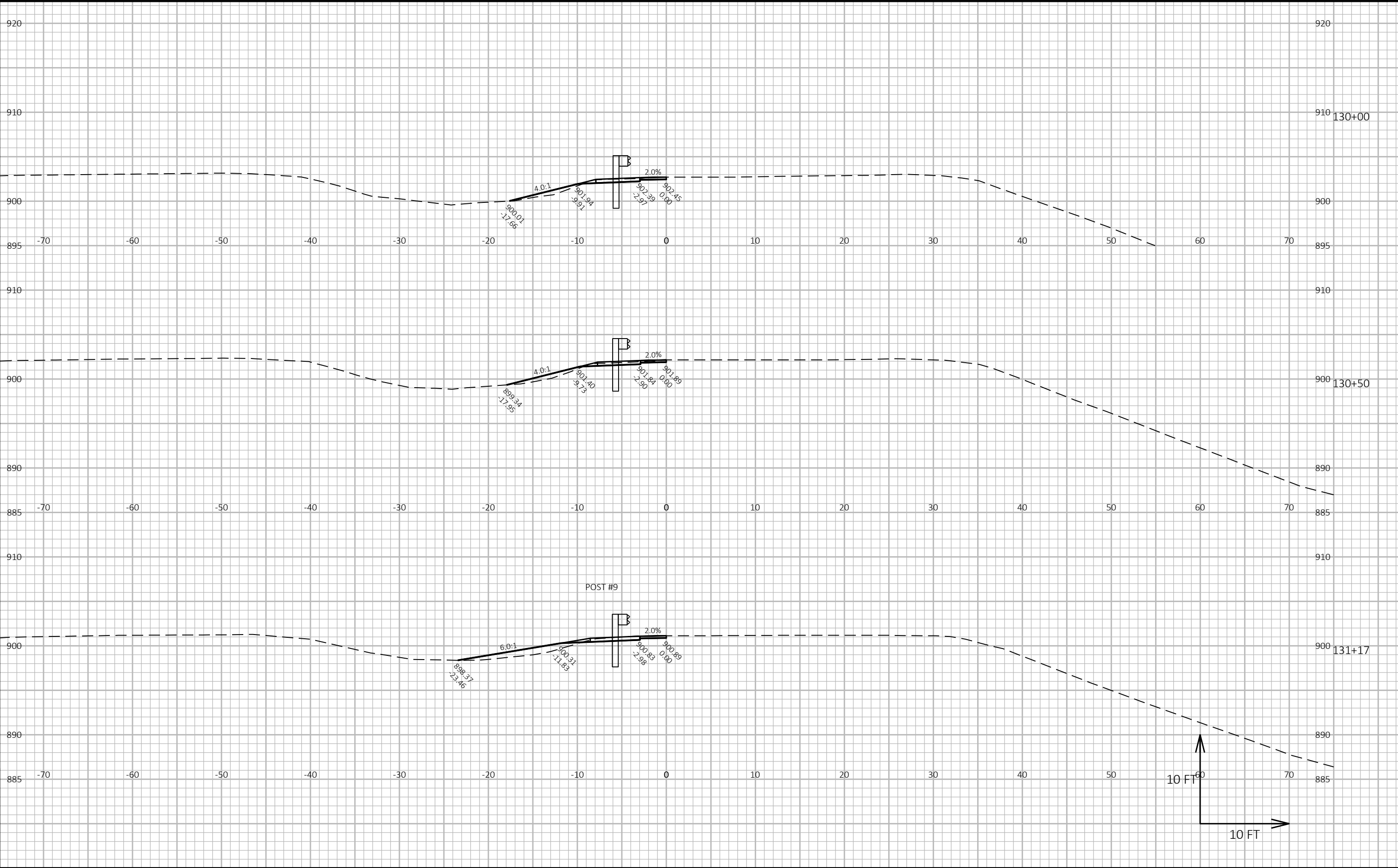


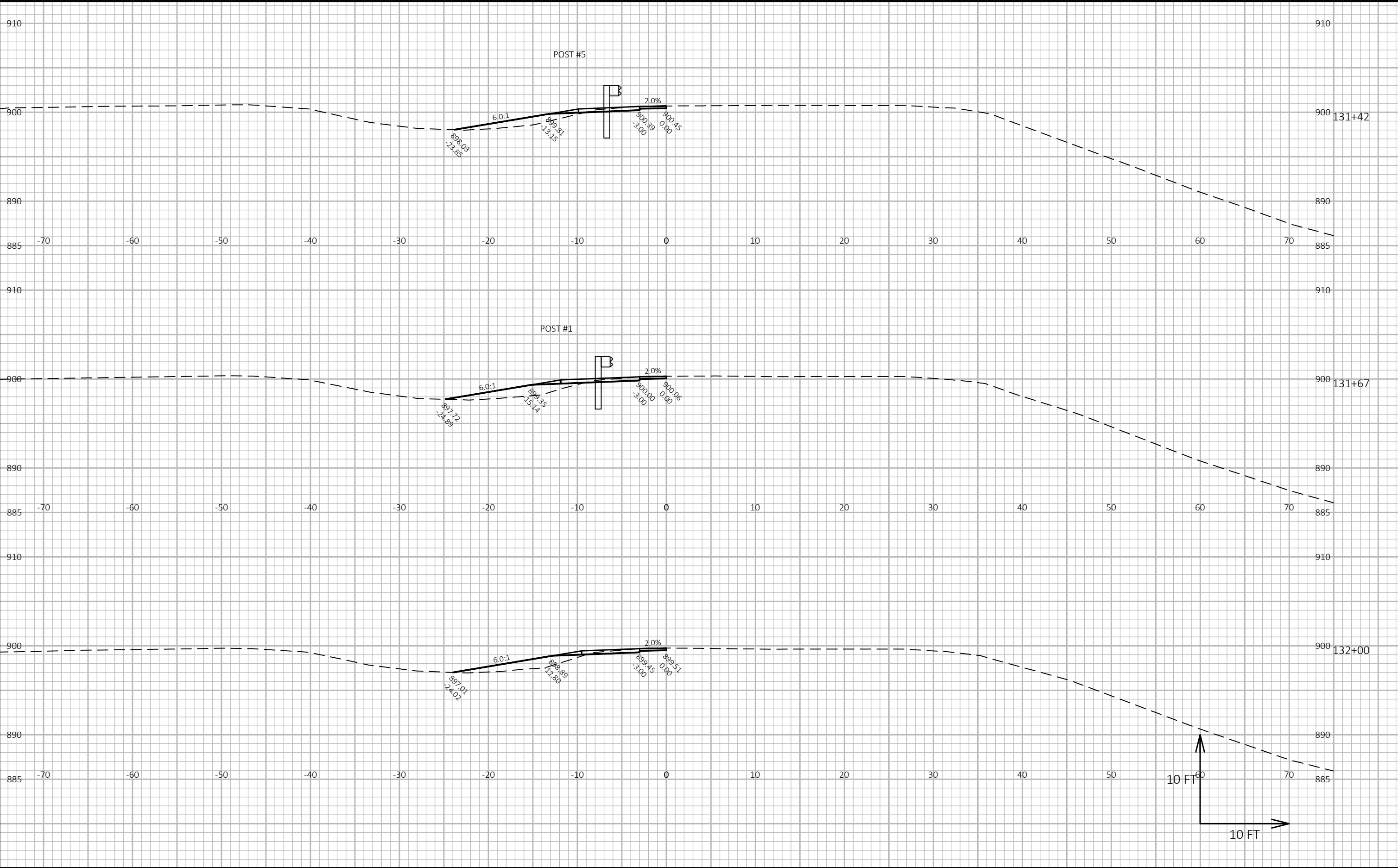
9

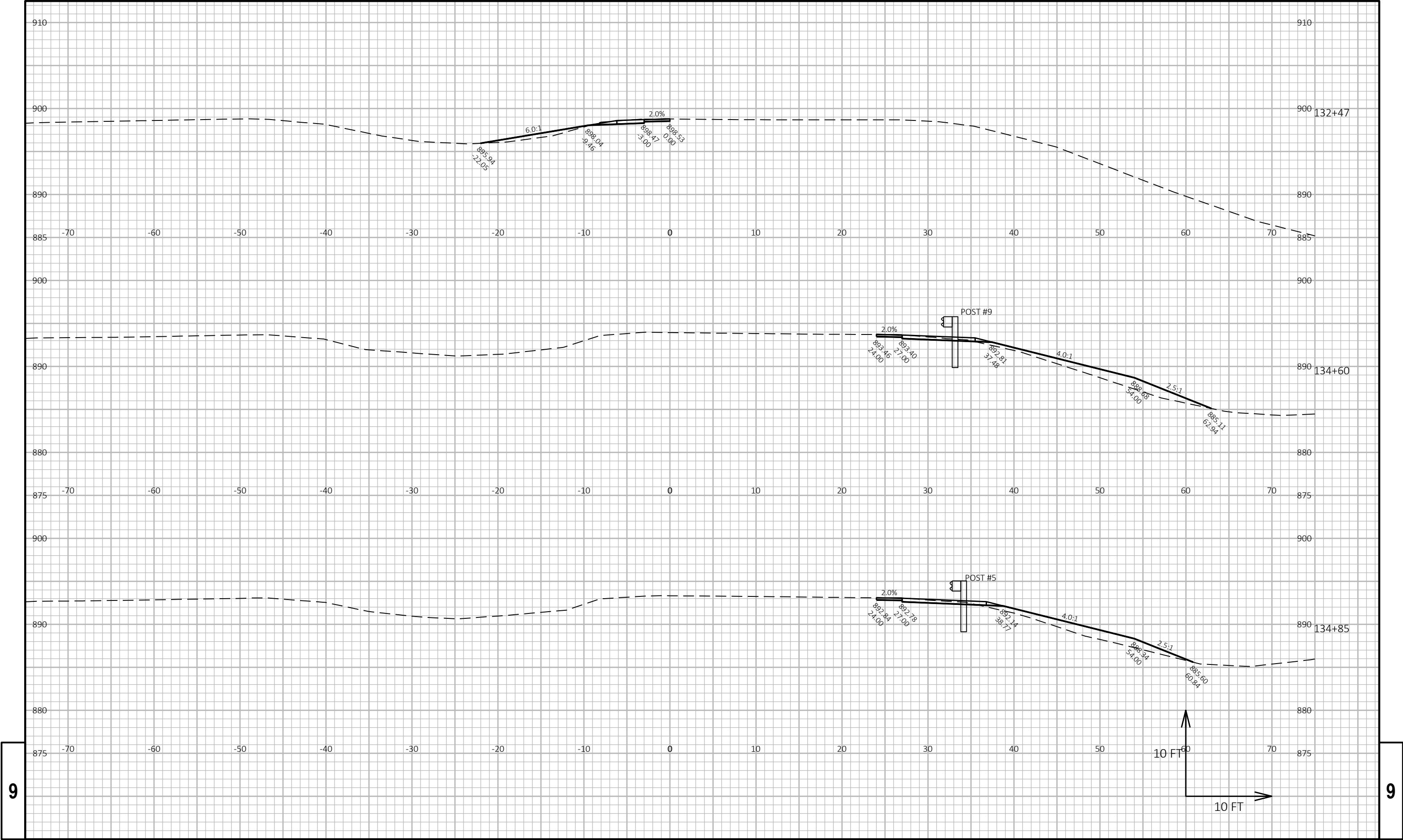
9

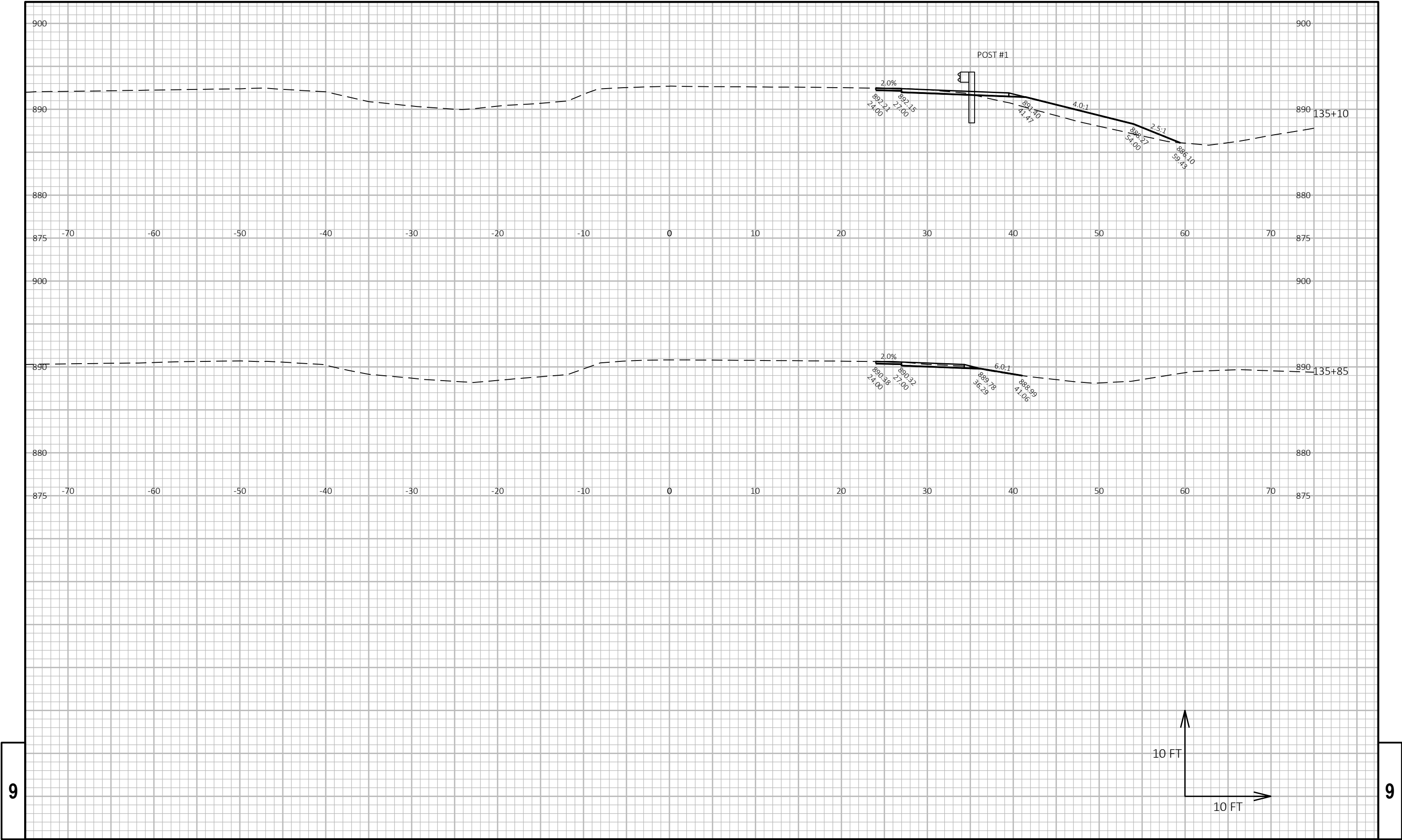






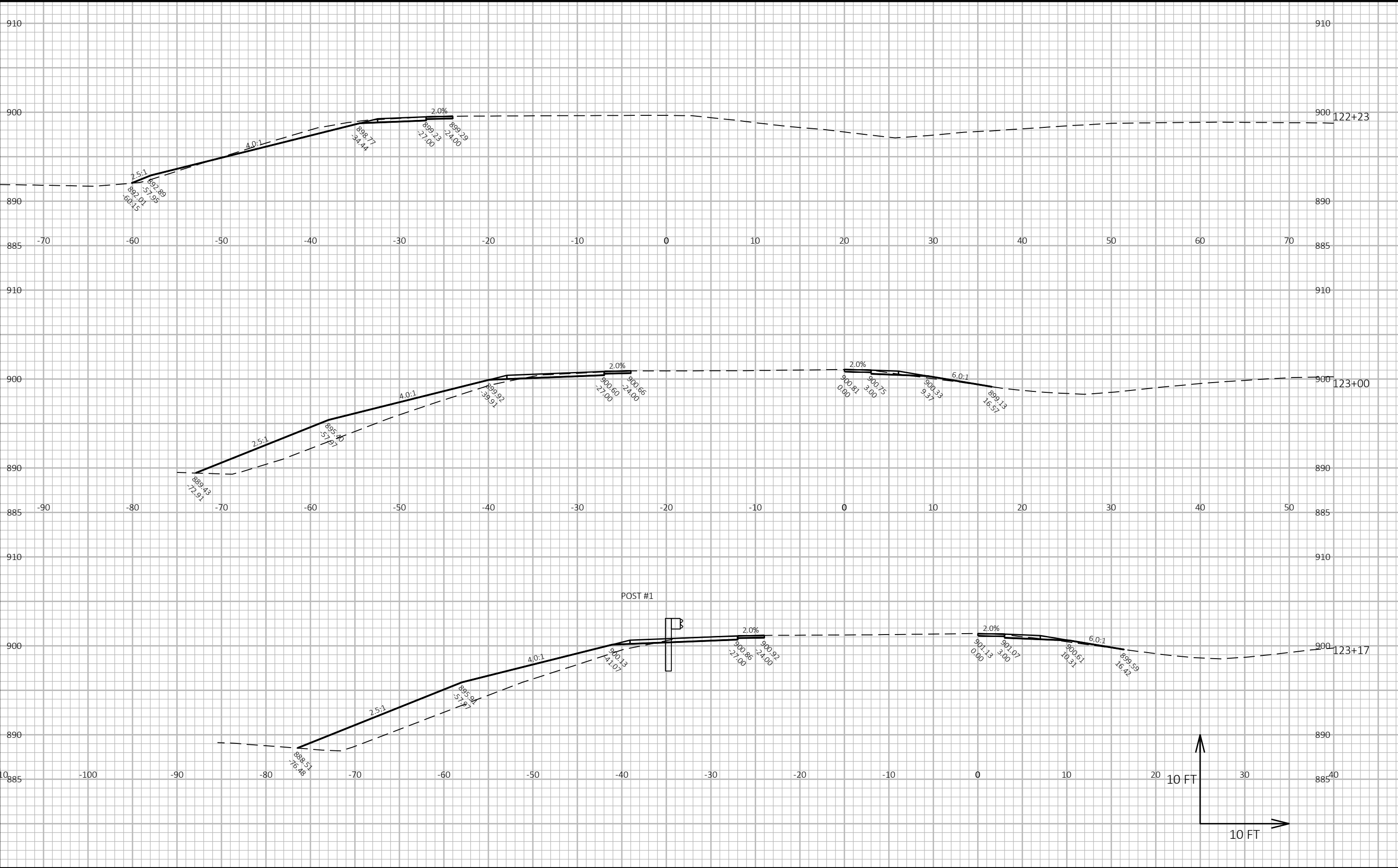


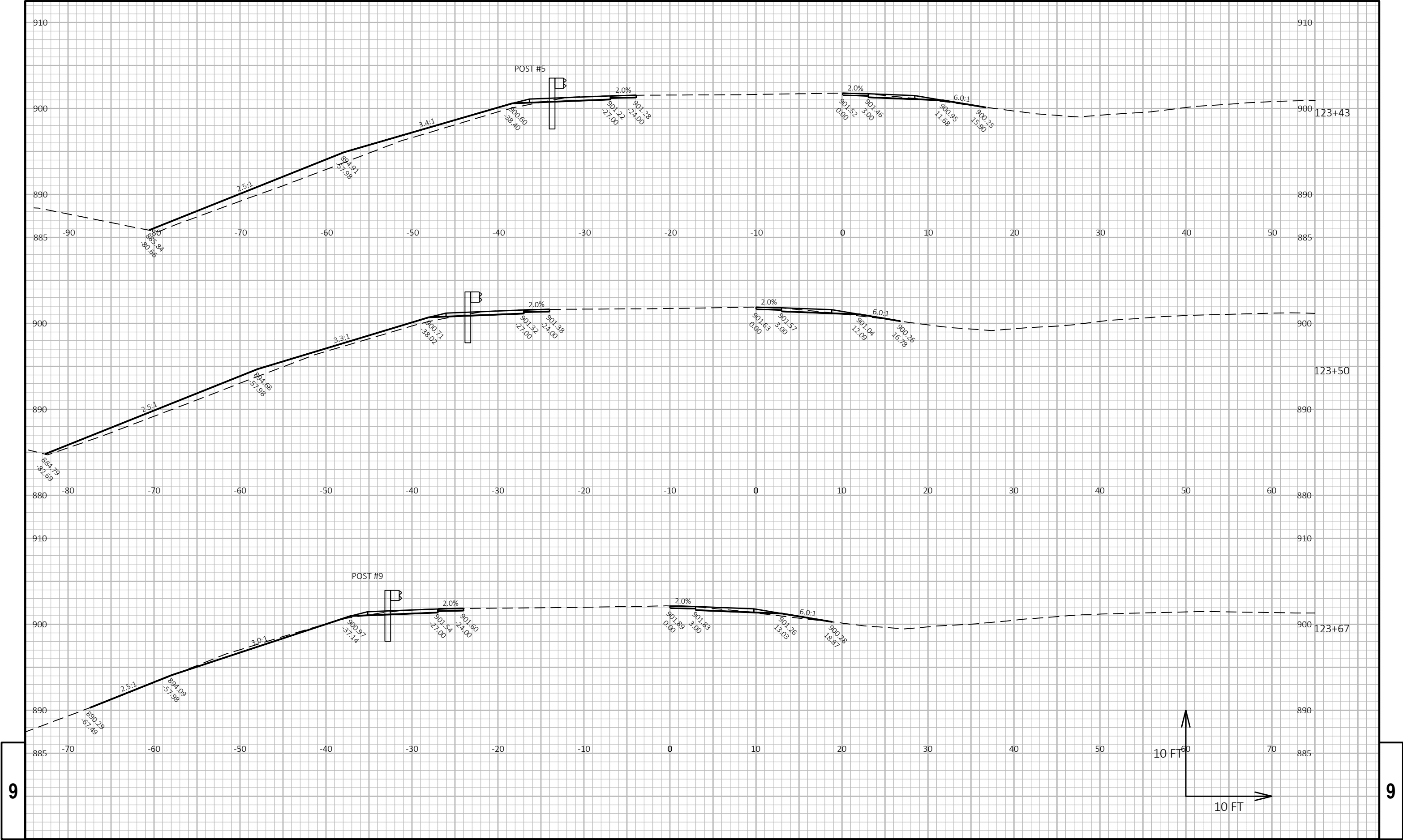


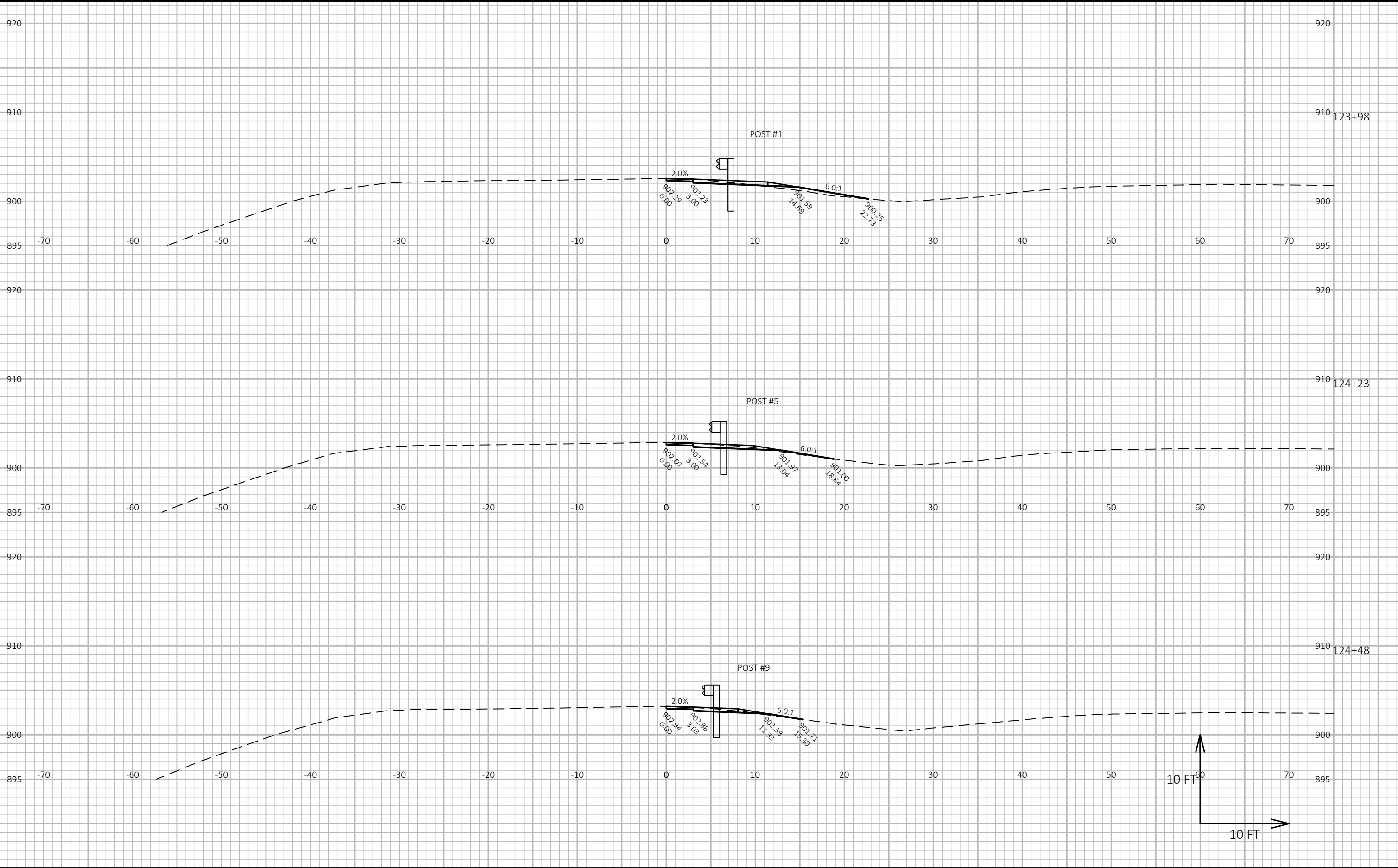


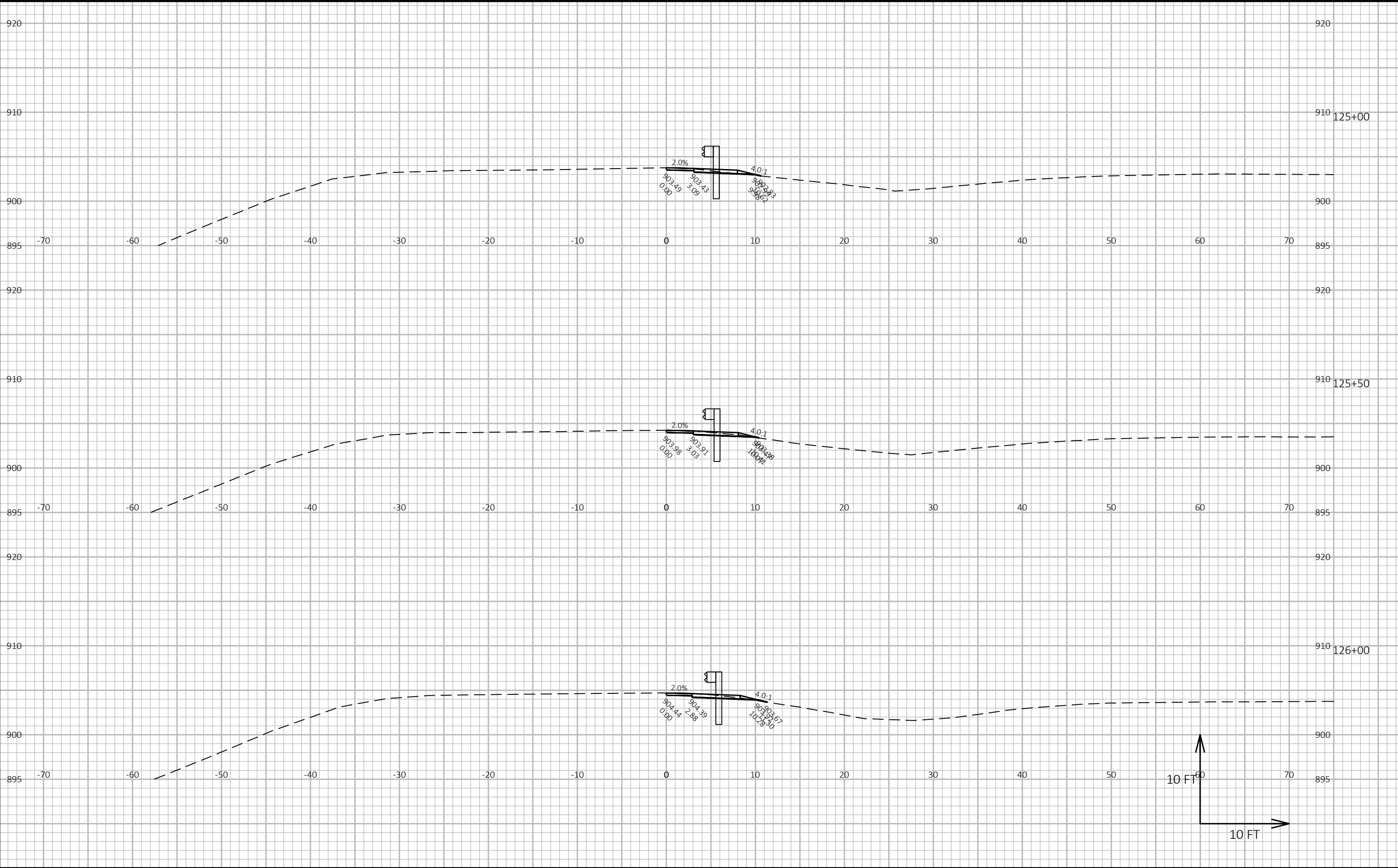
9

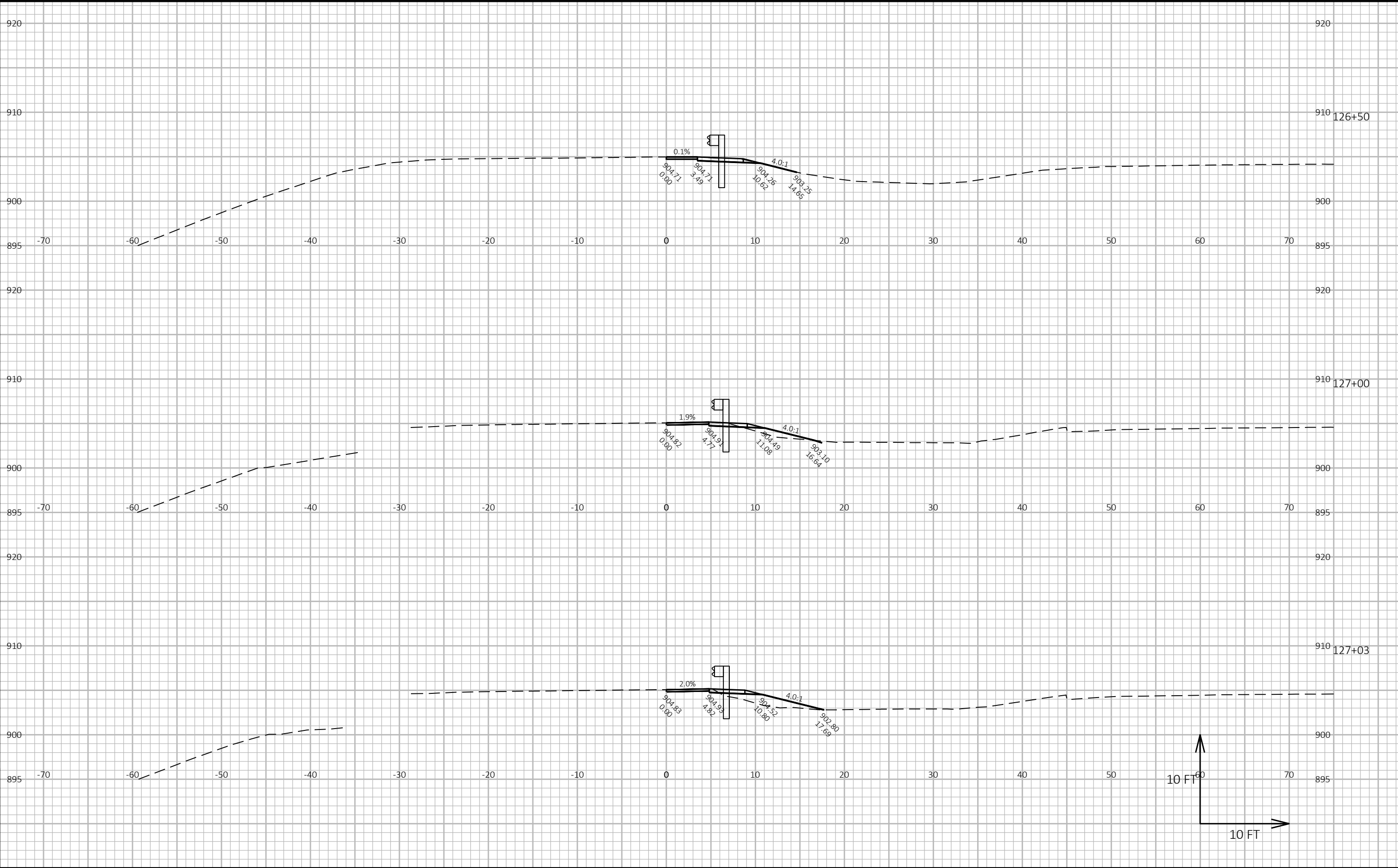
9



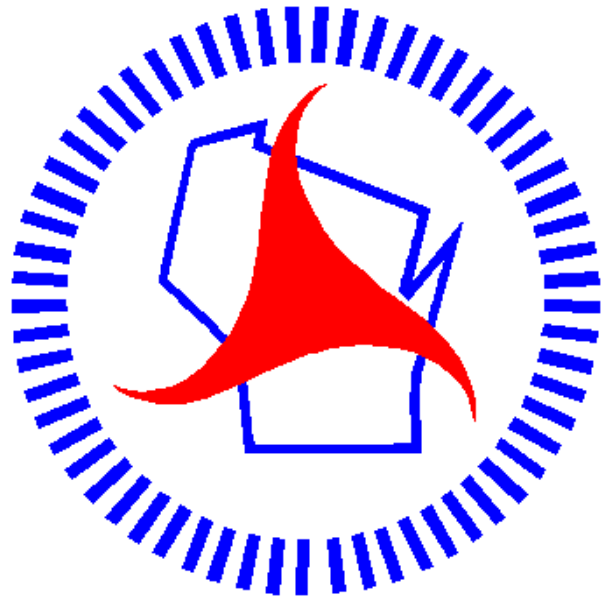








Notes



Wisconsin Department of Transportation

Dedicated people creating transportation solutions through innovation and exceptional service.

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