EAU

Jan 10, 2023

PROJECT ID: 1540-04-73

WITH: N/A

COUNTY: ST. CROIX

ORDER OF SHEETS

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

TOTAL SHEETS = 550

N

DESIGN DESIGNATION

A.A.D.T.	(2023)	=	14,100
A.A.D.T.	(2043)	=	19,800
D.H.V.		=	2,160
D.D.		=	58/42
T.		=	5.4%
DESIGN SPEED		=	50 MPH
ESALS (RIDGED)		=	9,482,700
ESALS (FLEXIBLE)		=	6,168,500

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 (300'EB')
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

PROFILE

- GRADE LINE
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such) (ROCK)
- SPECIAL DITCH (LABEL)
- GRADE ELEVATION (95.36)
- CULVERT (Profile View)

UTILITIES

- ELECTRIC (E)
- FIBER OPTIC (FO)
- GAS (G)
- SANITARY SEWER (SAN)
- STORM SEWER (SS)
- TELEPHONE (T)
- WATER (W)
- UTILITY PEDESTAL
- POWER POLE
- TELEPHONE POLE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

RIVER FALLS - NEW RICHMOND

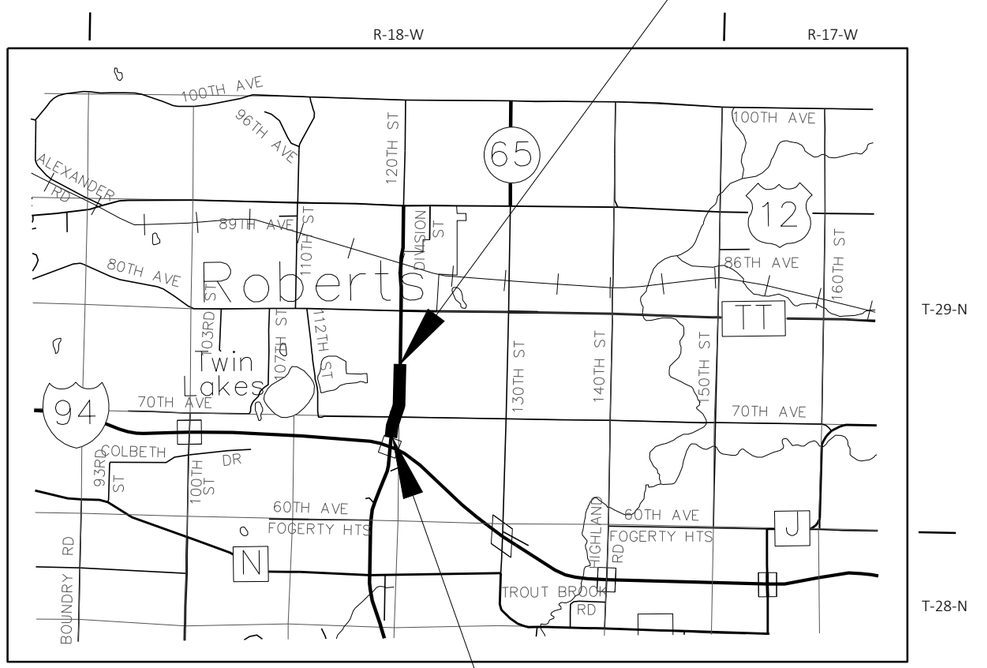
STH 65 EXPANSION/70TH AV INTERSECT

STH 65
ST. CROIX COUNTY

STATE PROJECT NUMBER
1540-04-73

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1540-04-73	WISC 2023167	1

END PROJECT 1540-04-73
STA 82+70 'N'



BEGIN PROJECT 1540-04-73
STA 55+35 'N'
Y = 562,159.7769
X = 337,163.5313

LAYOUT
SCALE 0 1 MI

TOTAL NET LENGTH OF CENTERLINE = 0.518 MI.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), ST. CROIX COUNTY, NAD 83 (1991) VERTICAL DATUM BASED ON USGS (NAVD 88)

ORIGINAL PLANS PREPARED BY

KL Engineering
[A] Better Experience

WISCONSIN
BRAD R. HALVENSLEBEN
34638-006
BELLEVILLE, WI
PROFESSIONAL ENGINEER

9/19/2022 (DATE) (SIGNATURE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	KL ENGINEERING, INC.
Designer	KL ENGINEERING, INC.
Project Manager	JAMES KOENIG
Regional Examiner	NW REGION
Regional Supervisor	JAMES KOENIG

APPROVED FOR THE DEPARTMENT

DATE: 9/20/2022 James Koenig (Signature)

E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\010101-TI.DWG

PLOT DATE : 9/19/2022 3:11 PM PLOT BY : JACK HAFEMANN PLOT NAME :

DESIGN CONTACTS

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ALIGNMENT IDENTIFIERS

N -- STH 65 NORTHBOUND
S -- STH 65 SOUTHBOUND
E -- 70TH AVE EASTBOUND
W -- 70TH AVE WESTBOUND
PNR -- PARK-N-RIDE
TR -- TEMPORARY ROAD
SR – SIDE ROAD

DNR AREA LIAISON

AMY LESIK
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ORDER OF SECTION 2 DETAIL SHEETS

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
REMOVAL PLAN
PLAN DETAILS
PAVING GRADES
EROSION CONTROL PLAN
STORM SEWER PLAN
WATER MAIN PLAN
SIGNING REMOVAL PLAN
PERMANENT SIGNING AND FENCING PLAN
PAVEMENT MARKING PLAN
STREET LIGHTING PLAN
TRAFFIC SIGNAL REMOVAL PLAN
TEMPORARY TRAFFIC SIGNAL PLAN
TRAFFIC SIGNAL PLAN
ITS PLAN
TRAFFIC CONTROL PLAN
TRAFFIC CONTROL DETOUR PLAN
ALIGNMENT DIAGRAM
CONTROL POINT DETAIL

DIGGERS HOTLINE
Dial 811 or (800) 242-8511
www.DiggersHotline.com

UTILITY CONTACTS

COMMUNICATIONS

AT&T WISCONSIN
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MKNEGENDORF@LSWI.NET

CENTURY LINK COMMUNICATIONS
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ABBREVIATIONS

AEW	APRON ENDWALL
AGG	AGGREGATE
ASPH	ASPHALT
BAD	BASE AGGREGATE DENSE
BM	BENCH MARK
C&G	CURB AND GUTTER
C/L	CENTER OR CONSTRUCTION LINE
CMCP	CULVERT PIPE CORRUGATED METAL
CONC	CONCRETE
CP	CULVERT PIPE
CPRC	CULVERT PIPE REINFORCED CONCRETE
CY	CUBIC YARD
D	DEGREE OF CURVE
△	DELTA
EAT	ENERGY ABSORBING TERMINAL
FE	FIELD ENTRANCE
HMA	HOT MIX ASPHALT
INV	INVERT
L	LENGTH OF CURVE
LHF	LEFT HAND FORWARD
LT	LEFT
MIN	MINIMUM
M/L	MATCHLINE
NB	NORTHBOUND
NC	NORMAL CROWN
PAVT	PAVEMENT
PC	POINT OF CURVE
PCC	POINT OF COMPOUND CURVE
PE	PRIVATE ENTRANCE
PI	POINT OF INTERSECTION
PL	PROPERTY LINE
PLE	PERMANENT LIMITED EASEMENT
PRW	PROPOSE RIGHT-OF-WAY
PT	POINT OF TANGENT
R	RADIUS OF CURVE
R/L	REFERENCE LINE
R/W	RIGHT OF WAY
RC	REVERSE CROWN
RCAEW	APRON ENDWALL FOR CULVERT PIPE REINFORCED CONCRETE
REQD	REQUIRED
RHF	RIGHT HAND FORWARD
RO	RUN OFF LENGTH
RRSP	RAILROAD SPIKE
RT	RIGHT
SALV	SALVAGED
SAPBC	SALVAGED ASPHALTIC PAVEMENT BASE COURSE
SB	SOUTHBOUND
SDD	STANDARD DETAIL DRAWINGS
SE	SUPER ELEVATION
SF	SQUARE FOOT
SSPRC	STORM SEWER PIPE REINFORCED CONCRETE
STA	STATION
SY	SQUARE YARD
T	TANGENT LENGTH
TLE	TEMPORARY LIMITED EASEMENT
VCL	VERTICAL CURVE LENGTH
VPC	POINT OF VERTICAL CURVE
VPI	POINT OF VERTICAL INTERSECTION
VPT	POINT OF VERTICAL TANGENT

GENERAL NOTES

THE CONTRACTOR SHALL CONTACT THE UTILITIES AND DIGGERS HOTLINE TO LOCATE AND FIELD VERIFY UTILITIES PRIOR TO THE START OF WORK. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. ANY LOCAL, MUNICIPAL OR OTHER UTILITY THAT IS NOT A MEMBER OF DIGGERS HOTLINE SHALL BE CONTACTED SEPARATELY.

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

RIGHT OF WAY LINES SHOWN ON THE CROSS SECTIONS ARE APPROXIMATE.

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

THE EXACT LOCATIONS OF PRIVATE ENTRANCES ARE TO BE DETERMINED IN THE FIELD BY THE ENGINEER. ALL DRIVEWAYS ARE TO BE REPLACED IN KIND UNLESS OTHERWISE DIRECTED BY THE ENGINEER, OR AS SHOWN ON THE PLANS.

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

PLACE SALVAGED TOPSOIL IN ALL GRADED AREAS AS DESIGNATED BY THE ENGINEER IMMEDIATELY AFTER GRADING HAS BEEN COMPLETED. SEED, MULCH AND FERTILIZE OR SOD AND FERTILIZE ALL AREAS 5 DAYS AFTER PLACEMENT OF SALVAGED TOPSOIL.

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

CURB AND GUTTER GRADES AND LAYOUT DATA ARE GIVEN TO THE FLANGE OF THE CURB.

SAW CUT ASPHALTIC AND CONCRETE DRIVEWAYS AND/OR PARKING LOTS AT THE MATCH LINE AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER

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

EROSION CONTROL DEVICES SHALL BE PLACED IN SEQUENCE WITH CONSTRUCTION OPERATIONS OR AS DETERMINED BY THE ENGINEER.

ALL MANHOLE AND INLET OFFSETS ARE GIVEN TO THE CENTER OF THE STRUCTURE.

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

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

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

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

RUNOFF COEFFICENT TABLE

	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	0.08 0.22	0.16 0.30	0.22 0.38	0.12 0.26	0.20 0.34	0.27 0.44	0.15 0.30	0.24 0.37	0.33 0.50	0.19 0.34	0.28 0.41	0.38 0.56
MEDIAN STRIP-TURB	0.19 0.24	0.20 0.26	0.24 0.30	0.19 0.25	0.22 0.28	0.26 0.33	0.20 0.26	0.23 0.30	0.30 0.37	0.20 0.27	0.25 0.32	0.30 0.40
SIDE SLOPE-TRUF			0.25 0.32			0.27 0.34			0.28 0.36			0.30 0.38
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 = 12.9 ACRES
TOTAL AREA EXPECTED TO BE DISTRIBUTED BY CONSTRUCTION ACTIVITIES = 24.8 ACRES

HMA PAVEMENT, WHEN INDICATED ON THE PLANS, SHALL CONSIST OF COURSE THICKNESS AS FOLLOWS:

TOTAL DEPTH	LAYERS	HMA MIXTURES	LOCATIONS
2-INCH	SINGLE LAYER (MILL & OVERLAY)	5 MT 58-34 V	STH 65 MAINLINE REHABILITATION
5-INCH	3-INCH (LOWER) 2-INCH (UPPER)	3 MT 58-34 V (LOWER) 5 MT 58-34 V (UPPER)	STH 65 MAINLINE REHABILITATION SHOULDER / STH 65 MAINLINE SHOULDER
5-INCH	3.5-INCH (LOWER) 1.5-INCH (UPPER)	3 MT 58-34 V (LOWER) 5 MT 58-34 V (UPPER)	STH 65 RECONSTRUCTION SHOULDER
5-INCH	SINGLE LAYER	ASPHALTIC SURFACE	TEMPORARY ROADWAY
6-INCH	4-INCH (LOWER) 2-INCH (UPPER)	ASHPALTIC SURFACE	PARK AND RIDE
7.75-INCH	3.25-INCH (LOWER) 3-INCH (MIDDLE) 1.5-INCH (UPPER)	3 MT 58-34 V (LOW/MID) 5 MT 58-34 V (UPPER)	STH 65 MAINLINE RECONSTRUCTION

2

N

70TH AVENUE

IH 94 WB ON-RAMP

IH 94 EB OFF-RAMP

STA 18+10E
BEGIN CONSTRUCTION

TRAVEL PLAZA

S-55-053

FUTURE COMMERCIAL DEVELOPMENT

DELINEATED WETLANDS

S-55-054

40'N'

45'N'

50'N'

55'N'

60'N'

65'N'

70'N'

75'N'

80'N'

85'N'

STH 65

STA 55+35N
BEGIN PROJECT

IH 94 EB ON-RAMP

IH 94 WB OFF-RAMP

PARK
& RIDE

R/W (TYP.)

TLE (TYP.)

STA 82+70N
END PROJECT

WAGNER DRIVE

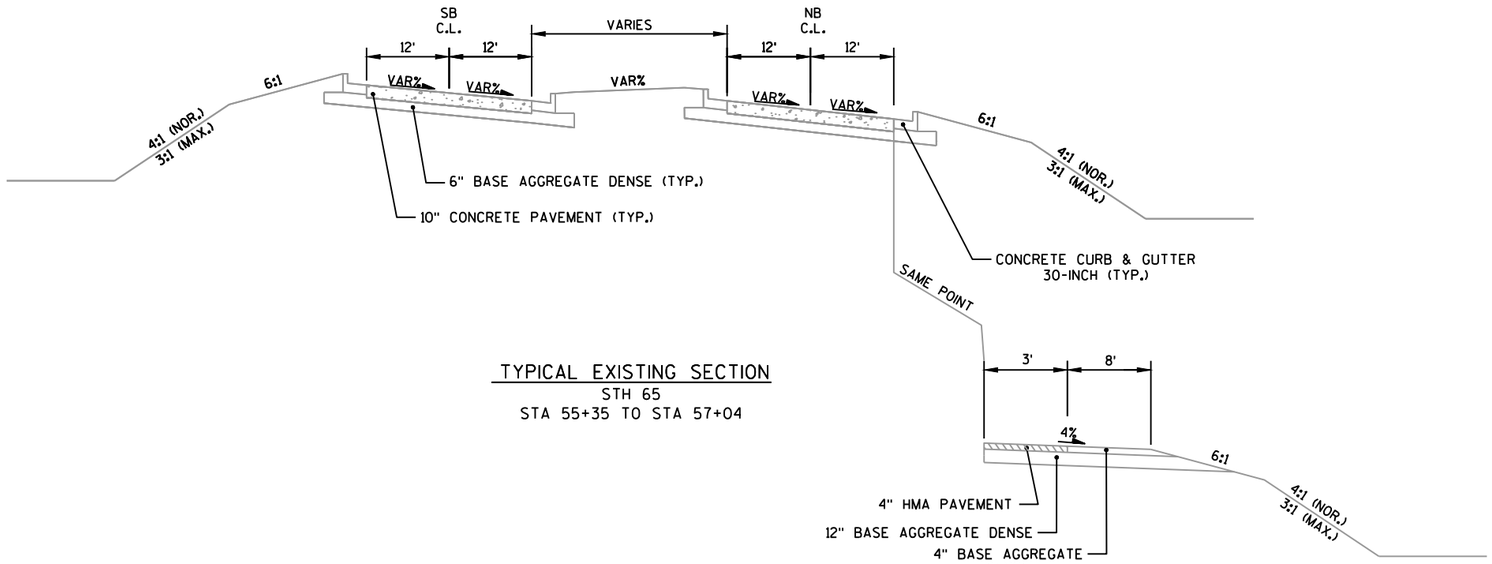
STA 26+50E
END CONSTRUCTION

PRE-CAST CONCRETE
MANUFACTURING FACILITY

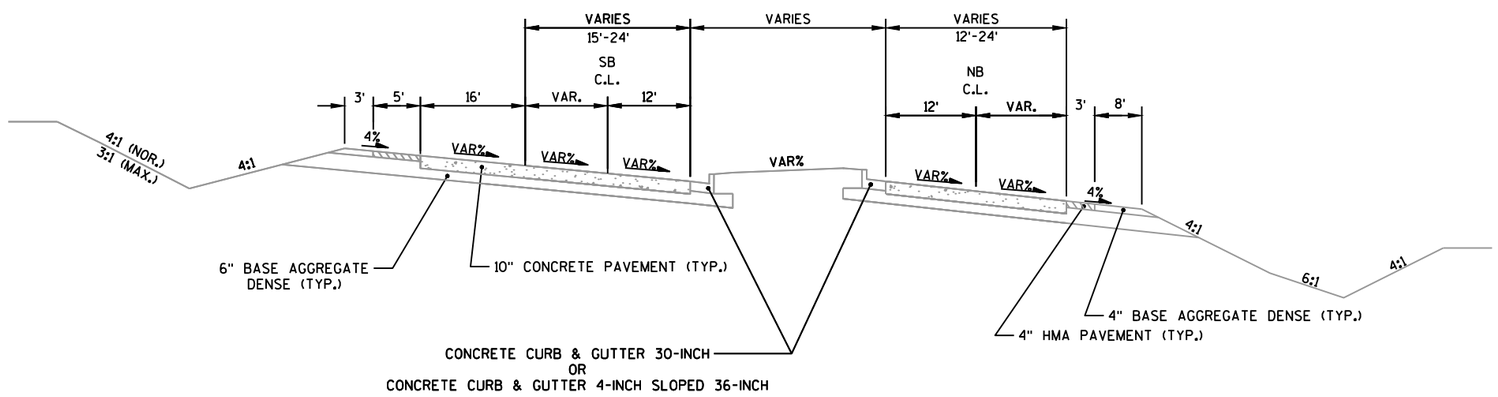
70TH AVENUE

PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	PROJECT OVERVIEW	SHEET 4	E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\020201-PO.DWG PLOT DATE : 9/27/2022 9:07 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:400 FT

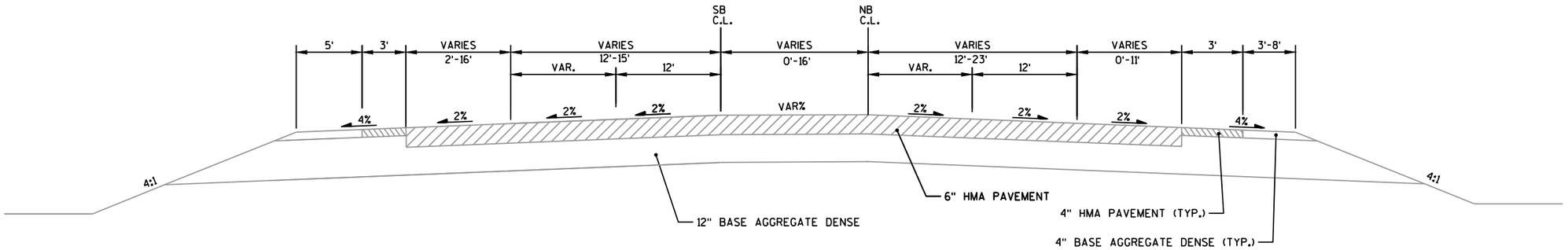


TYPICAL EXISTING SECTION
STH 65
STA 55+35 TO STA 57+04
STA 56+33 TO STA 57+04

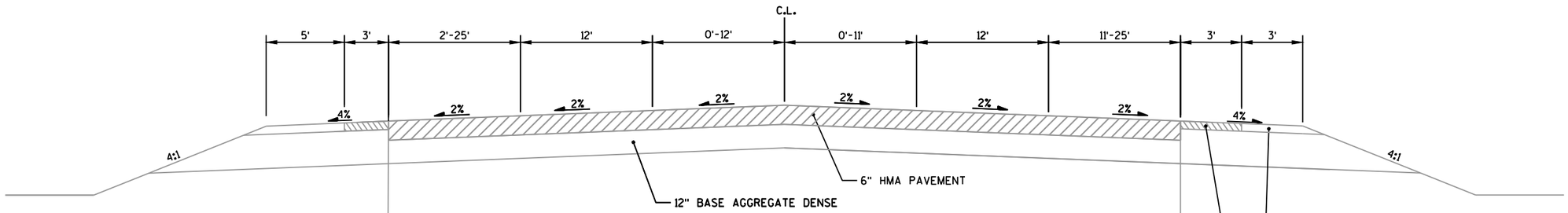


TYPICAL EXISTING SECTION
STH 65
STA 57+04 TO STA 60+36

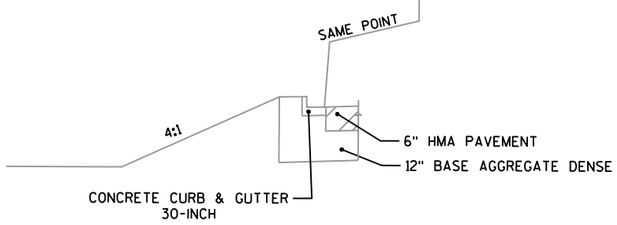
PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	TYPICAL SECTIONS	SHEET 5	E



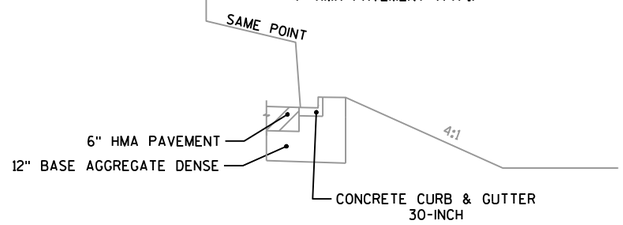
TYPICAL EXISTING SECTION
STH 65
STA 60+36 TO STA 62+35



TYPICAL EXISTING SECTION
STH 65
STA 62+35 TO STA 65+80



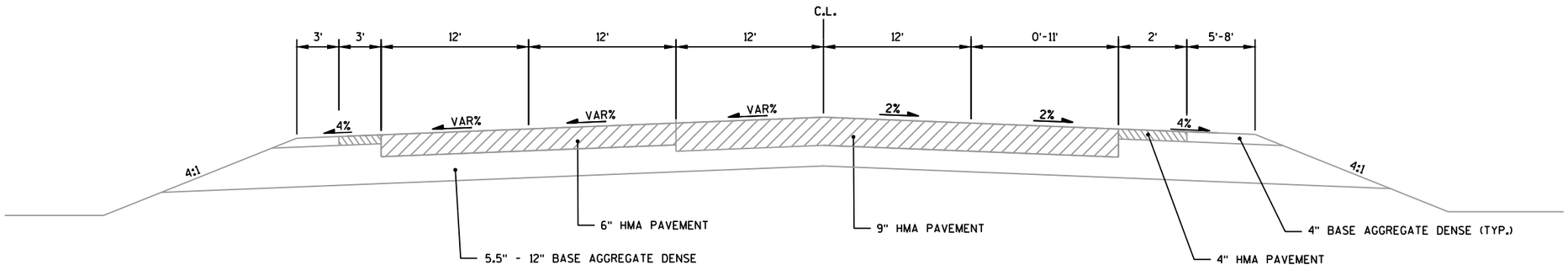
STA 63+84 TO STA 65+59



STA 64+08 TO STA 65+80

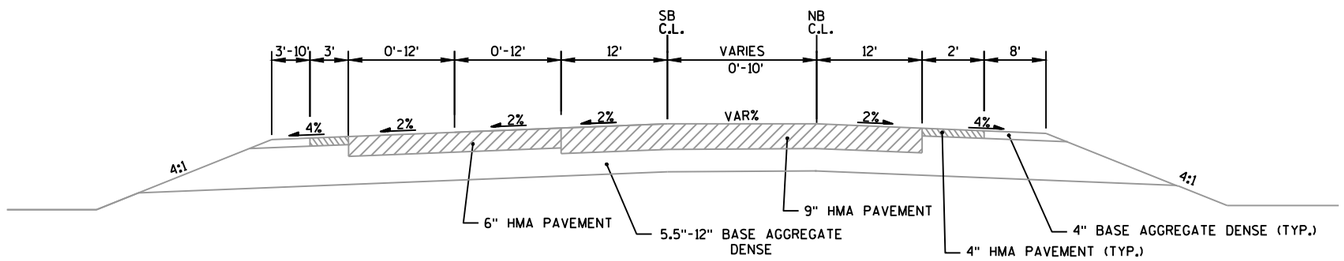
PROJECT NO:1540-04-73	HWY:STH 65	COUNTY:ST. CROIX	TYPICAL SECTIONS	SHEET 6	E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\020301-TS.DWG PLOT DATE : 10/3/2022 PLOT BY : KL ENGINEERING PLOT NAME : 02 - EXISTING PLOT SCALE : 1 IN:40 FT



TYPICAL EXISTING SECTION

STH 65
STA 65+80 TO STA 66+52

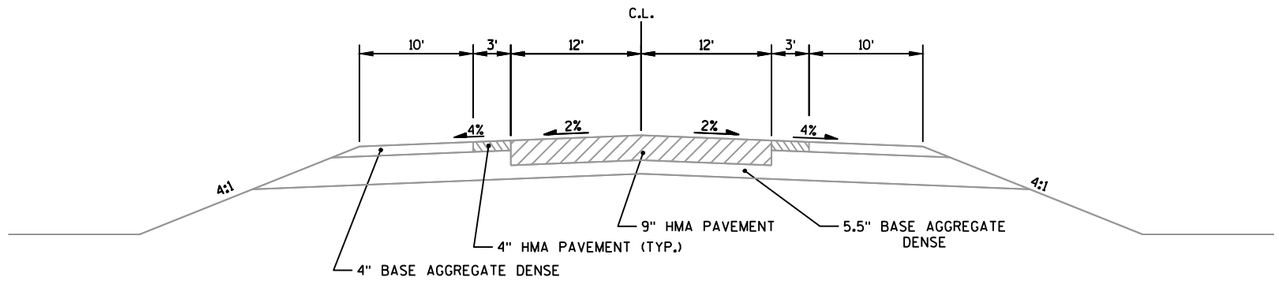


TYPICAL EXISTING SECTION

STH 65
STA 66+52 TO STA 73+79

PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	TYPICAL SECTIONS	SHEET 7	E

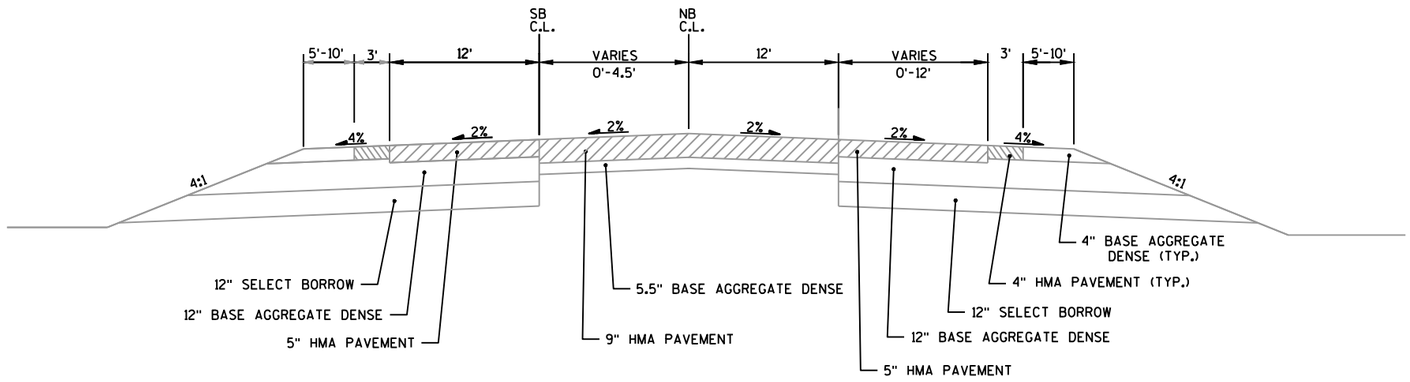
2



TYPICAL EXISTING SECTION

STH 65

STA 73+79 TO STA 80+51

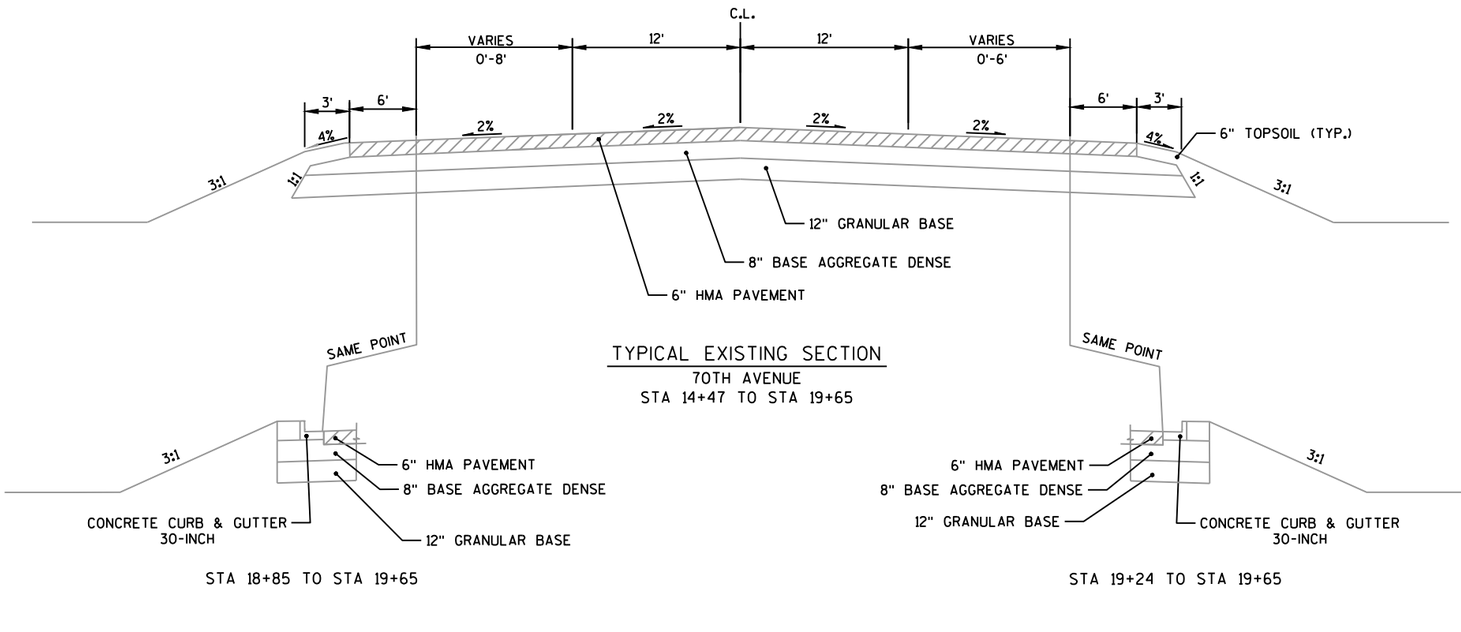


TYPICAL EXISTING SECTION

STH 65

STA 80+51 TO STA 82+70

PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	TYPICAL SECTIONS	SHEET 8	E

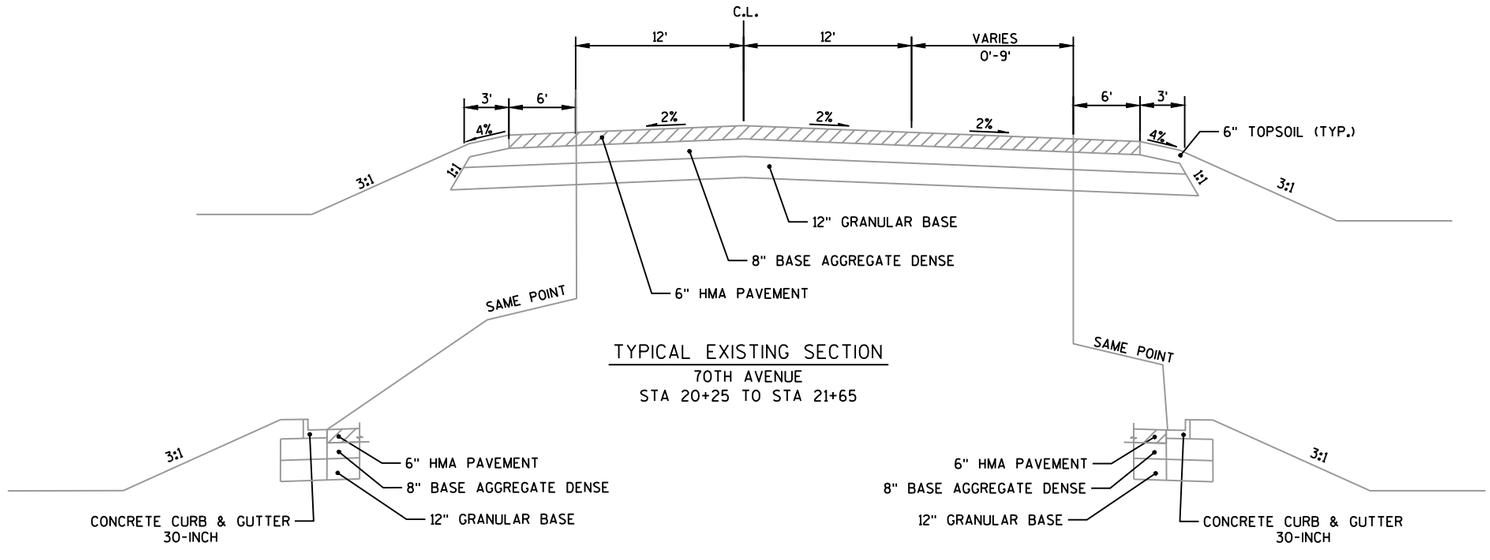


TYPICAL EXISTING SECTION
70TH AVENUE
STA 14+47 TO STA 19+65

STA 18+85 TO STA 19+65

STA 19+24 TO STA 19+65

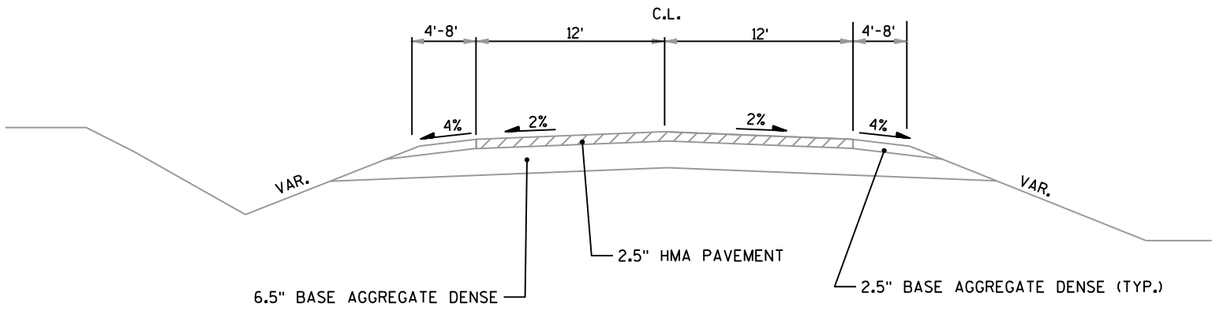
PROJECT NO:1540-04-73	HWY:STH 65	COUNTY:ST. CROIX	TYPICAL SECTIONS	SHEET 9	E



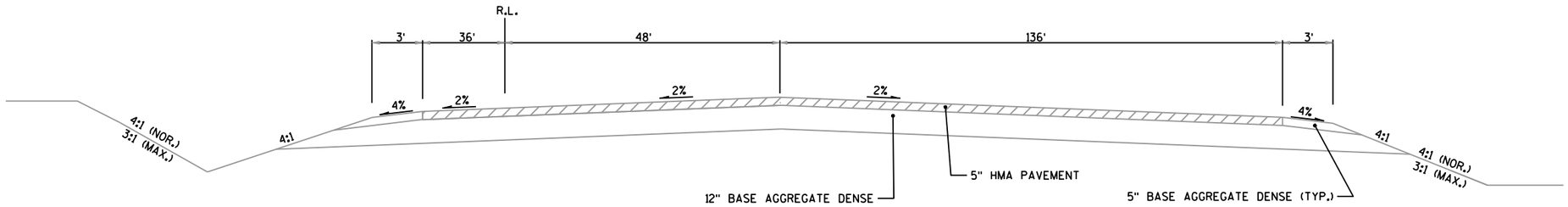
TYPICAL EXISTING SECTION
70TH AVENUE
STA 20+25 TO STA 21+65

STA 20+25 TO STA 21+10

STA 20+25 TO STA 20+65



TYPICAL EXISTING SECTION
70TH AVENUE
STA 21+65 TO STA 26+50

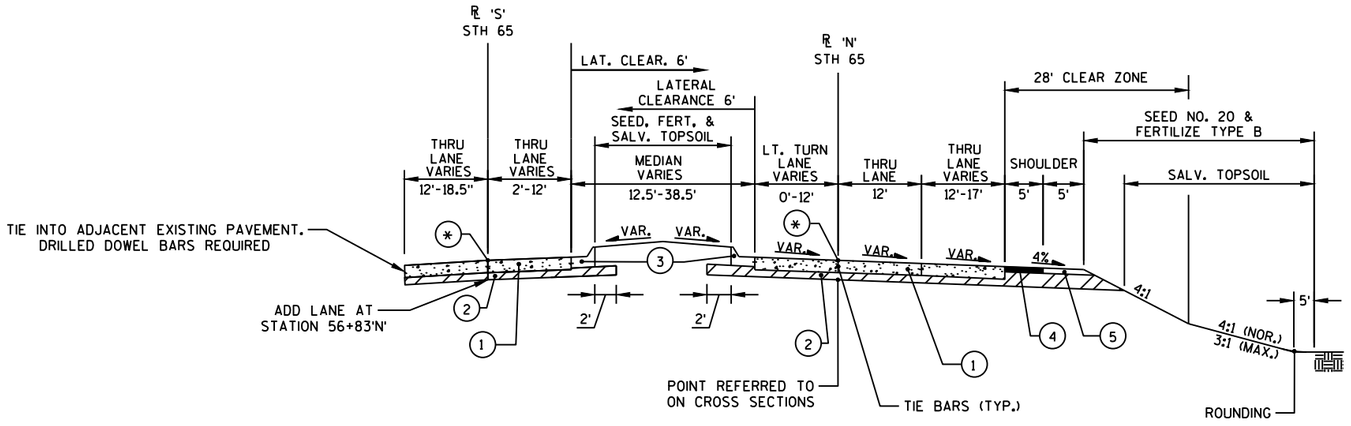


TYPICAL EXISTING SECTION
PARK & RIDE LOT

PROJECT NO:1540-04-73	HWY:STH 65	COUNTY:ST. CROIX	TYPICAL SECTIONS	SHEET 11	E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\020301-TS.DWG PLOT DATE : 10/3/2022 PLOT BY : KL ENGINEERING PLOT NAME : 07 - EXISTING PLOT SCALE : ********
WISDOT/CADDS SHEET 42

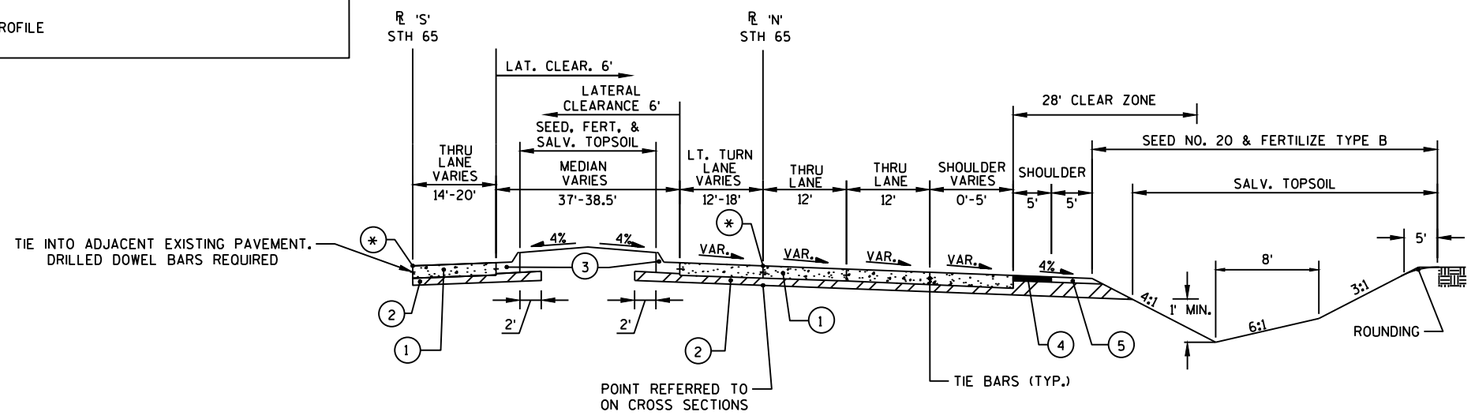
2



TYPICAL FINISHED SECTION
STH 65
STA 55+35'N' TO STA 57+89'N'

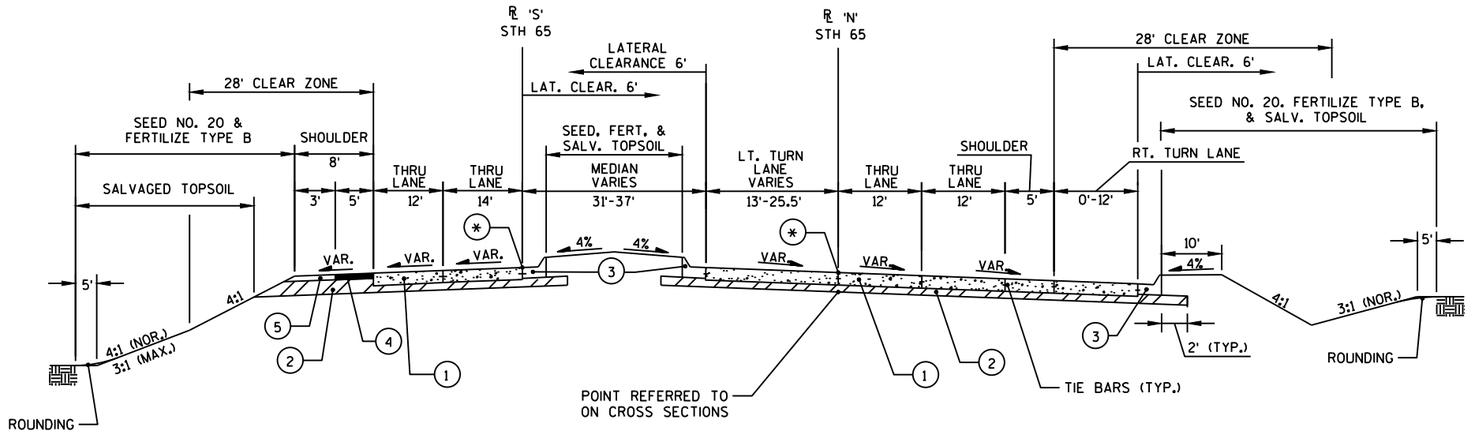
LEGEND

(1)	CONCRETE PAVEMENT 10-INCH (DOWELED AND TINED)
(2)	6-INCH BASE AGGREGATE DENSE 1 1/4-INCH UNDER CONCRETE 12-INCH (MINIMUM) BASE AGGREGATE DENSE 1 1/4-INCH UNDER HMA
(3)	CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE A
(4)	2-INCH HMA PAVEMENT 5 MT 58-34 V (UPPER) 3-INCH HMA PAVEMENT 3 MT 58-34 V (LOWER)
(5)	5-INCH BASE AGGREGATE DENSE 3/4-INCH
(*)	POINT REFERRED TO ON PROFILE



TYPICAL FINISHED SECTION
STH 65
STA 57+89'N' TO STA 59+47'N'

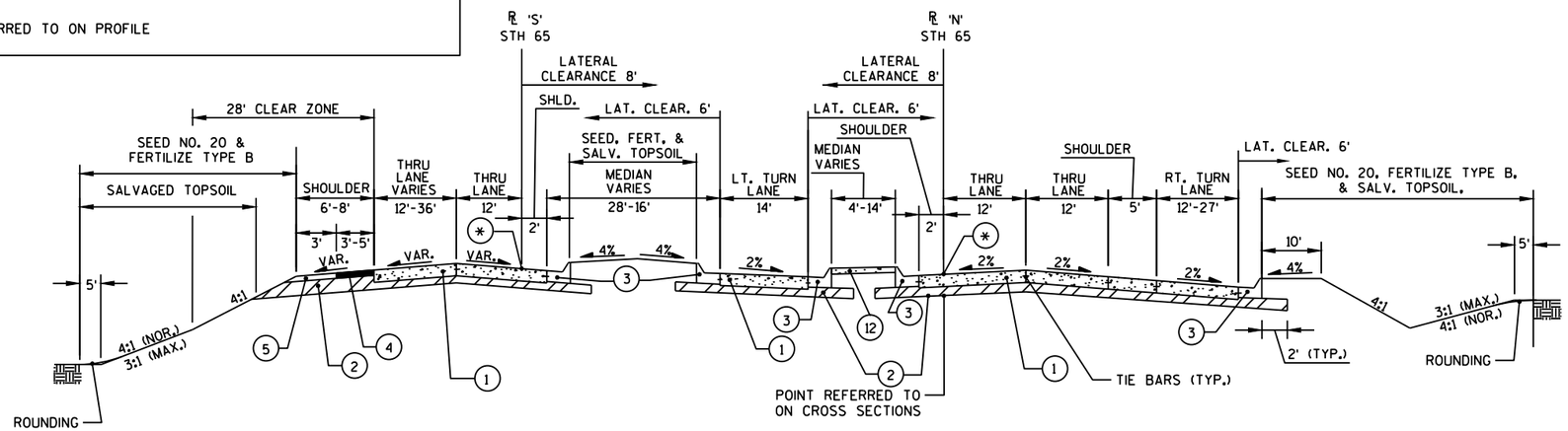
2



TYPICAL FINISHED SECTION
STH 65
STA 59+47'N' TO STA 61+00'N'

LEGEND

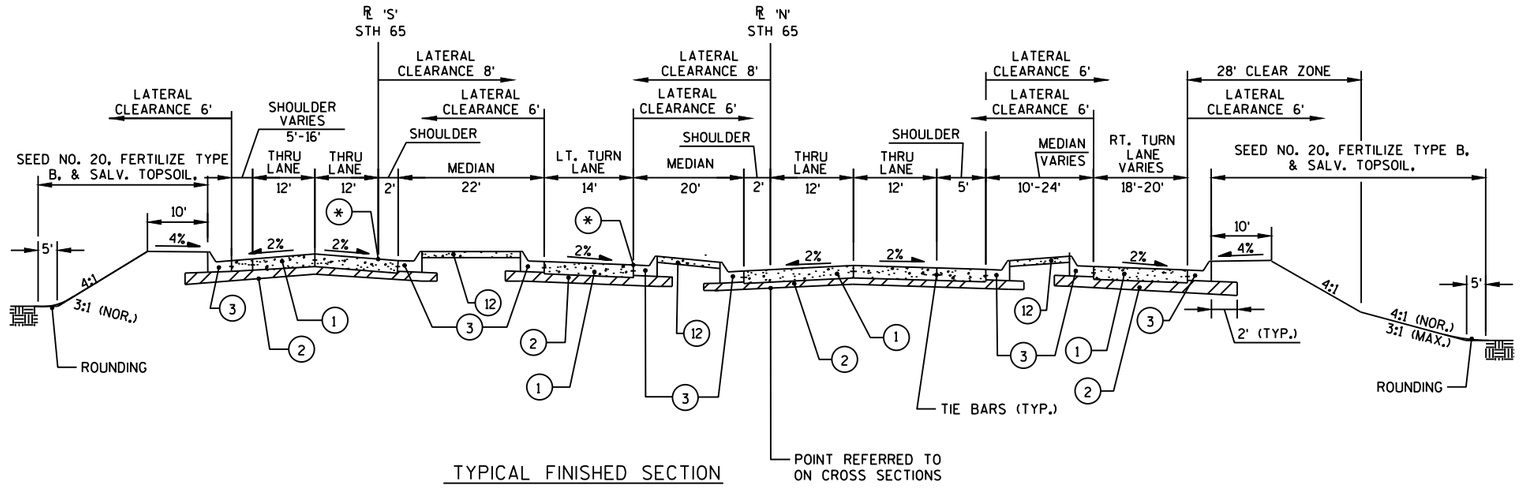
(1)	CONCRETE PAVEMENT 10-INCH (DOWELED AND TINED)
(2)	6-INCH BASE AGGREGATE DENSE 1 1/4-INCH UNDER CONCRETE 12-INCH (MINIMUM) BASE AGGREGATE DENSE 1 1/4-INCH UNDER HMA
(3)	CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE A
(4)	2-INCH HMA PAVEMENT 5 MT 58-34 V (UPPER) 3-INCH HMA PAVEMENT 3 MT 58-34 V (LOWER)
(5)	5-INCH BASE AGGREGATE DENSE 3/4-INCH
(12)	CONCRETE SIDEWALK 5-INCH OVER 4-INCH BASE AGGREGATE DENSE 3/4-INCH
(*)	POINT REFERRED TO ON PROFILE



TYPICAL FINISHED SECTION
STH 65
STA 61+00'N' TO STA 63+71'N'

PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	TYPICAL SECTIONS	SHEET 13	E

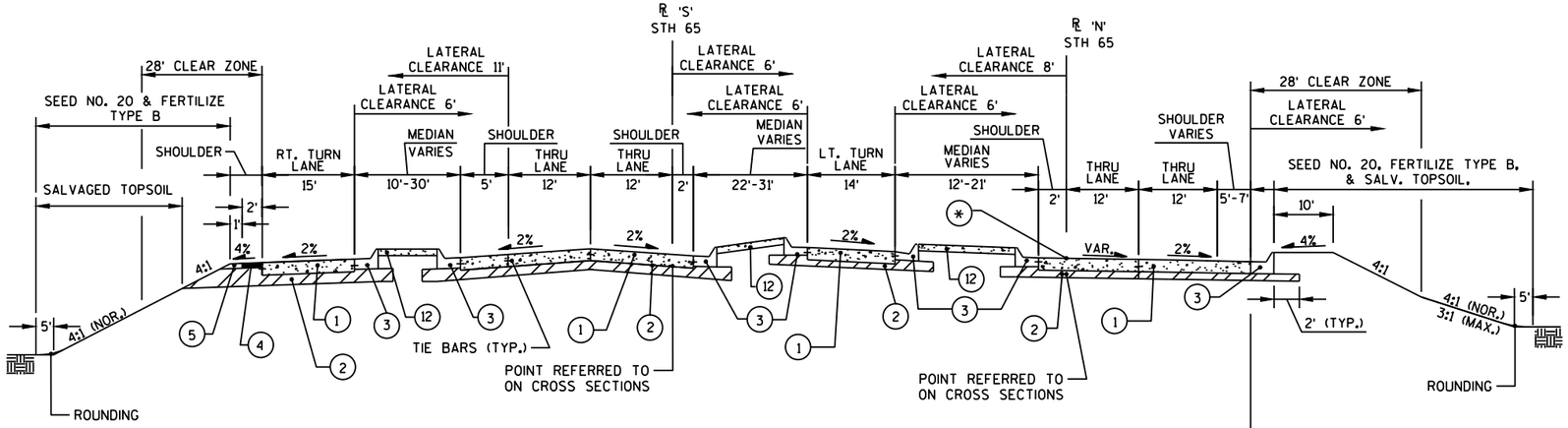
2



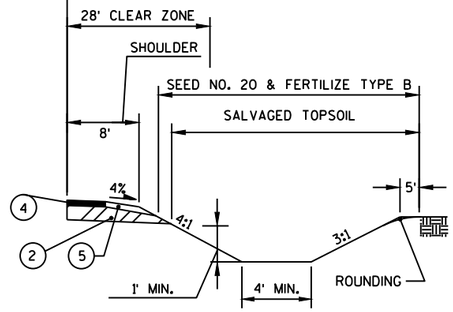
TYPICAL FINISHED SECTION
STH 65
STA 63+71'N' TO STA 65+30'N'

LEGEND

(1)	CONCRETE PAVEMENT 10-INCH (DOWELED AND TINED)
(2)	6-INCH BASE AGGREGATE DENSE 1 1/4-INCH UNDER CONCRETE
(3)	CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE A
(12)	CONCRETE SIDEWALK 5-INCH OVER 4-INCH BASE AGGREGATE DENSE 3/4-INCH
(*)	POINT REFERRED TO ON PROFILE



TYPICAL FINISHED SECTION
STH 65
STA 65+30'N' TO STA 66+66'N'

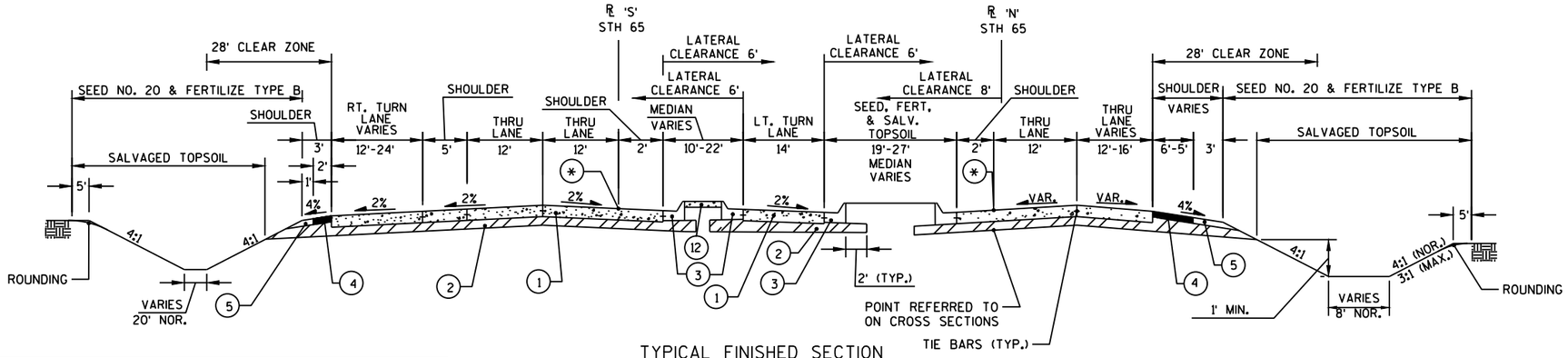


STA 66+25'N' TO STA 66+66'N'

LEGEND

(1)	CONCRETE PAVEMENT 10-INCH (DOWELED AND TINED)
(2)	6-INCH BASE AGGREGATE DENSE 1 1/4-INCH UNDER CONCRETE 12-INCH (MINIMUM) BASE AGGREGATE DENSE 1 1/4-INCH UNDER HMA
(3)	CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE A
(4)	2-INCH HMA PAVEMENT 5 MT 58-34 V (UPPER) 3-INCH HMA PAVEMENT 3 MT 58-34 V (LOWER)
(5)	5-INCH BASE AGGREGATE DENSE 3/4-INCH
(12)	CONCRETE SIDEWALK 5-INCH OVER 4-INCH BASE AGGREGATE DENSE 3/4-INCH
(*)	POINT REFERRED TO ON PROFILE

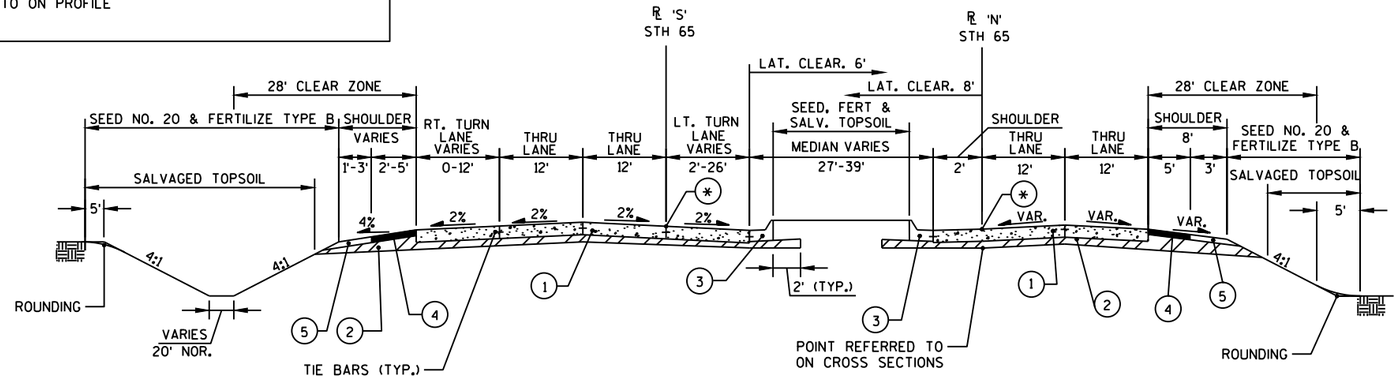
2



TYPICAL FINISHED SECTION
STH 65
STA 66+66'N' TO STA 68+16'N'

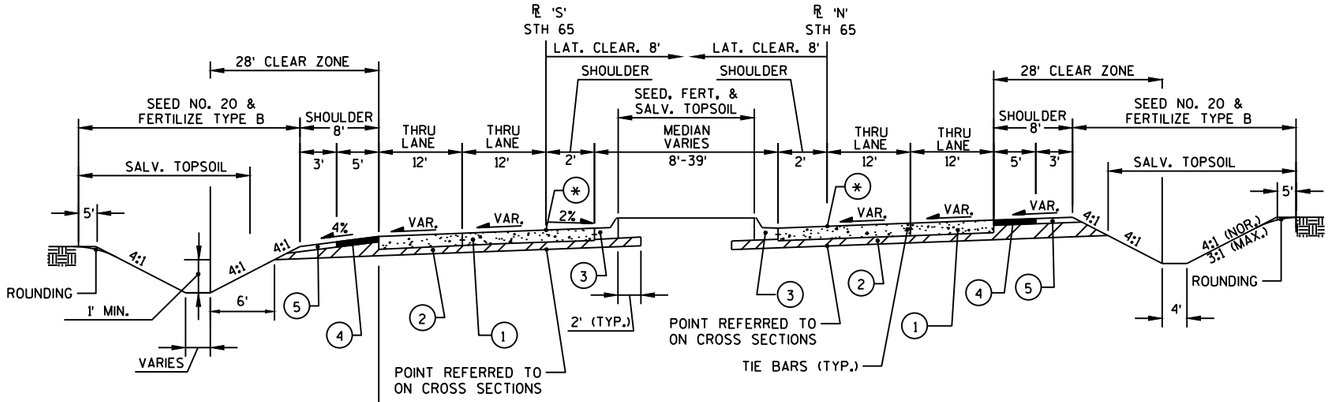
LEGEND

(1)	CONCRETE PAVEMENT 10-INCH (DOWELED AND TINED)
(2)	6-INCH BASE AGGREGATE DENSE 1 1/4-INCH UNDER CONCRETE 12-INCH (MINIMUM) BASE AGGREGATE DENSE 1 1/4-INCH UNDER HMA
(3)	CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE A
(4)	2-INCH HMA PAVEMENT 5 MT 58-34 V (UPPER) 3-INCH HMA PAVEMENT 3 MT 58-34 V (LOWER)
(5)	5-INCH BASE AGGREGATE DENSE 3/4-INCH
(12)	CONCRETE SIDEWALK 5-INCH OVER 4-INCH BASE AGGREGATE DENSE 3/4-INCH
(*)	POINT REFERRED TO ON PROFILE

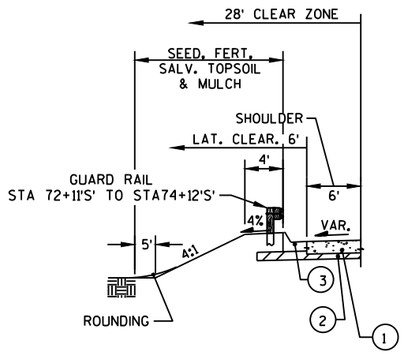


TYPICAL FINISHED SECTION
STH 65
STA 68+16'N' TO STA 71+15'N'

PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	TYPICAL SECTIONS	SHEET 16	E



TYPICAL FINISHED SECTION
STH 65
STA 71+15'N' TO STA 78+04'N'



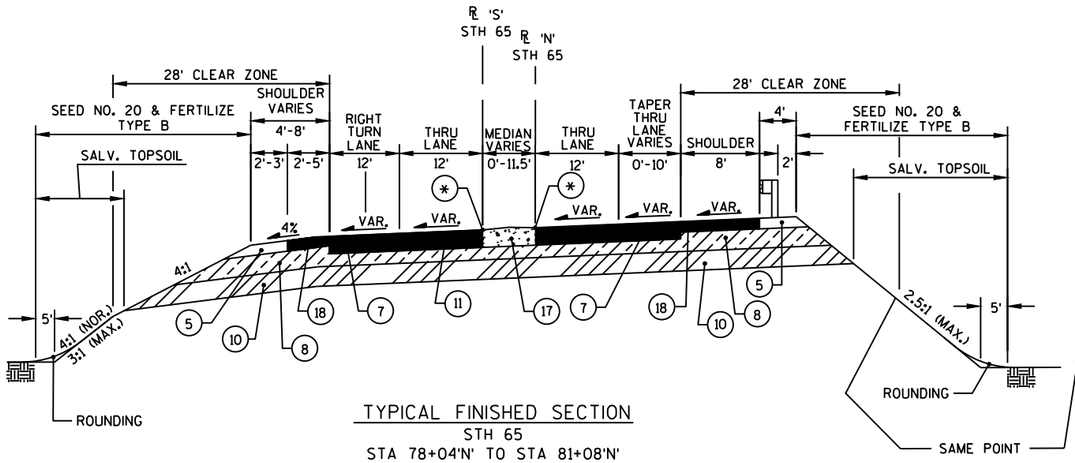
STA 72+00'S' TO STA 76+30'S'

LEGEND

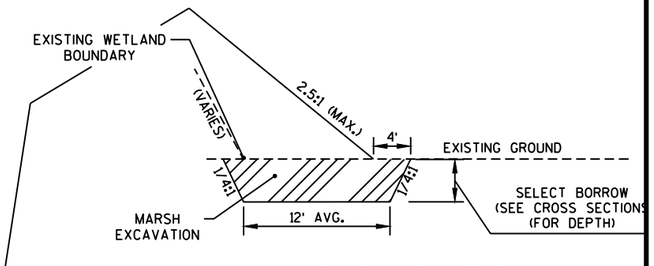
(1)	CONCRETE PAVEMENT 10-INCH (DOWELED AND TINED)
(2)	6-INCH BASE AGGREGATE DENSE 1 1/4-INCH UNDER CONCRETE 12-INCH (MINIMUM) BASE AGGREGATE DENSE 1 1/4-INCH UNDER HMA
(3)	CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE A
(4)	2-INCH HMA PAVEMENT 5 MT 58-34 V (UPPER) 3-INCH HMA PAVEMENT 3 MT 58-34 V (LOWER)
(5)	5-INCH BASE AGGREGATE DENSE 3/4-INCH
(*)	POINT REFERRED TO ON PROFILE

LEGEND

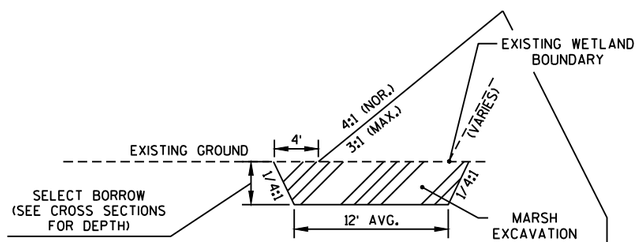
(4)	2-INCH HMA PAVEMENT 5 MT 58-34 V (UPPER) 3-INCH HMA PAVEMENT 3 MT 58-34 V (LOWER)
(5)	5-INCH BASE AGGREGATE DENSE 3/4-INCH
(7)	1.5-INCH HMA PAVEMENT 5 MT 58-34 V (UPPER) 3-INCH HMA PAVEMENT 3 MT 58-34 V (MIDDLE) 3.25-INCH HMA PAVEMENT 3 MT 58-34 V (LOWER)
(8)	12-INCH BASE AGGREGATE DENSE 1 1/4-INCH
(10)	12-INCH SELECT CRUSHED MATERIAL
(11)	2-INCH REMOVING ASPHALTIC SURFACE MILLING 2-INCH HMA PAVEMENT 5 MT 58-34 V
(17)	CORRUGATED CONCRETE MEDIAN
(18)	1.5-INCH HMA PAVEMENT 5 MT 58-34 V (UPPER) 3.5-INCH HMA PAVEMENT 3 MT 58-34 V (LOWER)
(*)	POINT REFERRED TO ON PROFILE



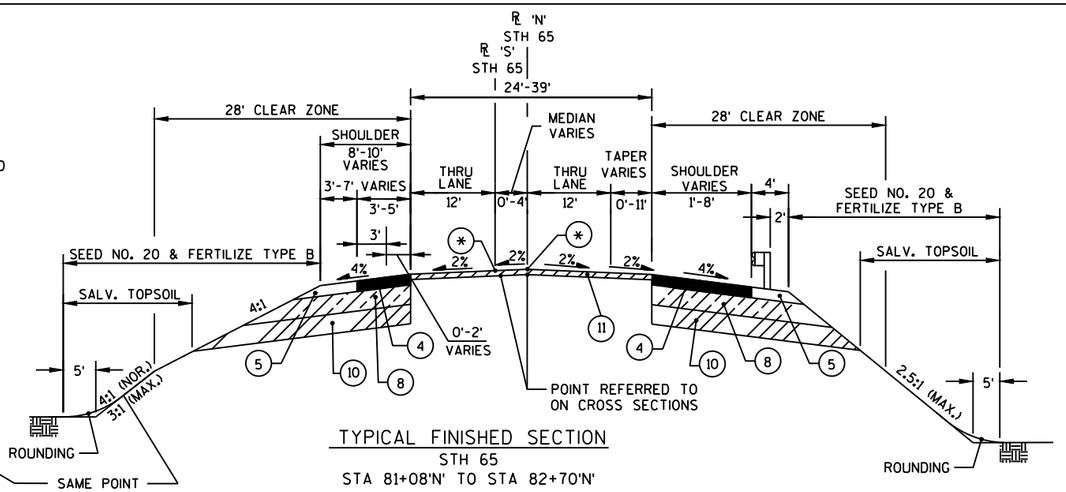
TYPICAL FINISHED SECTION
STH 65
STA 78+04'N' TO STA 81+08'N'



MARSH EXCAVATION REQ'D.
STA 78+50N RT TO STA 81+50N RT

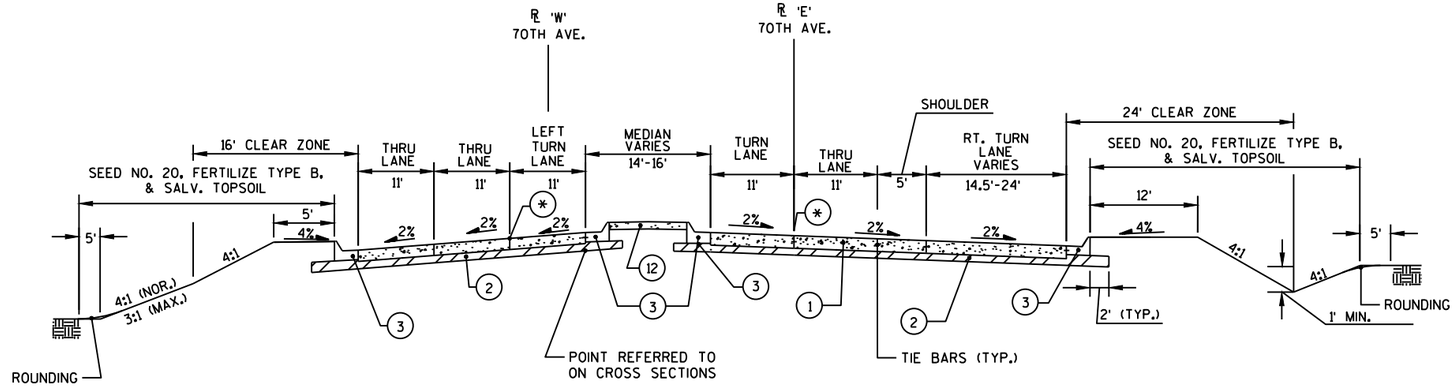


MARSH EXCAVATION REQ'D.
STA 81+00S LT TO STA 82+70S LT



TYPICAL FINISHED SECTION
STH 65
STA 81+08'N' TO STA 82+70'N'

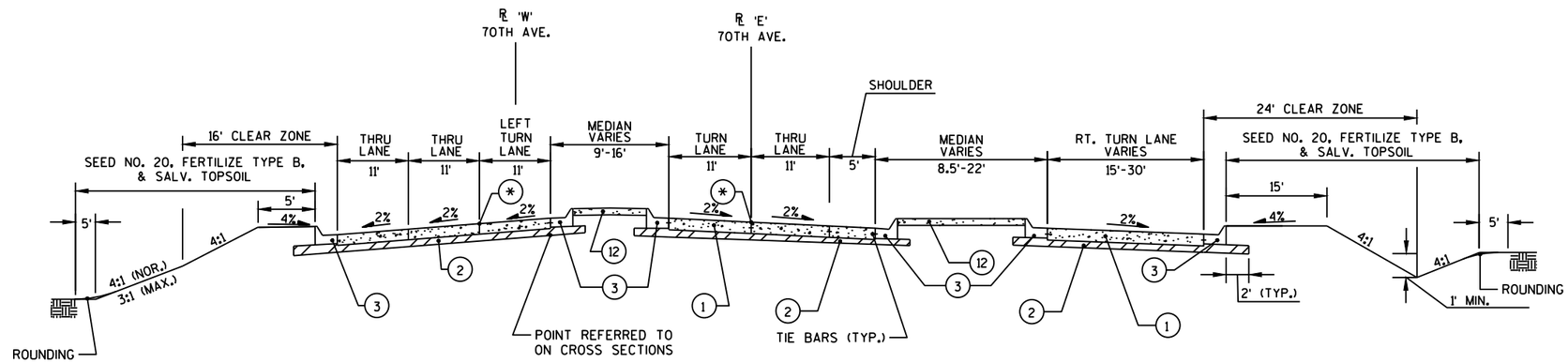
PROJECT NO:1540-04-73	HWY:STH 65	COUNTY:ST. CROIX	TYPICAL SECTIONS	SHEET 18	E



TYPICAL FINISHED SECTION
70TH AVENUE
STA 18+10'E' TO STA 18+65'E'

LEGEND

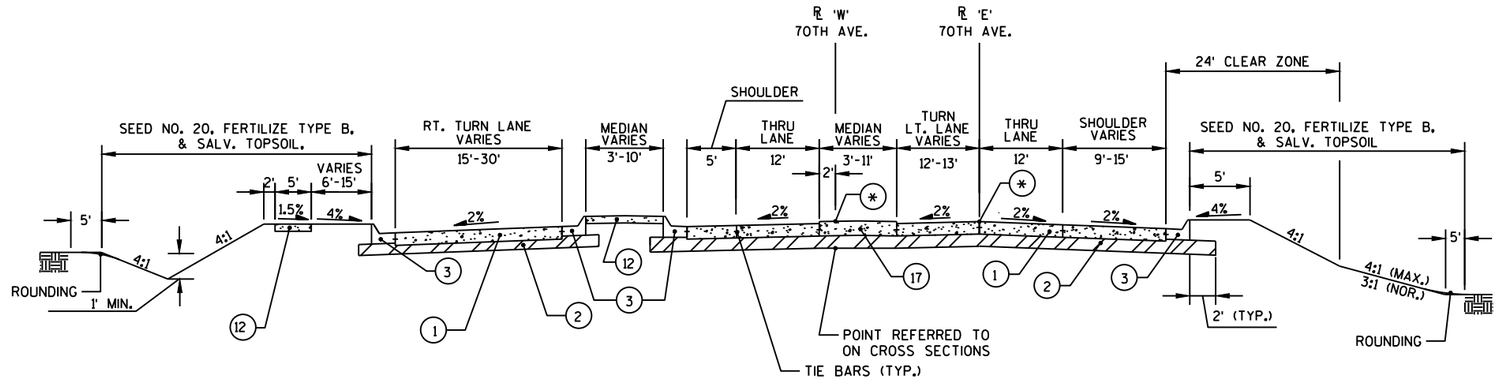
(1)	CONCRETE PAVEMENT 10-INCH (DOWELED AND TINED)
(2)	6-INCH BASE AGGREGATE DENSE 1 1/4-INCH UNDER CONCRETE 12-INCH (MINIMUM) BASE AGGREGATE DENSE 1 1/4-INCH UNDER HMA
(3)	CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE A
(12)	CONCRETE SIDEWALK 5-INCH OVER 4-INCH BASE AGGREGATE DENSE 3/4-INCH
(*)	POINT REFERRED TO ON PROFILE



TYPICAL FINISHED SECTION
70TH AVENUE
STA 18+65'E' TO STA 19+22'E'

LEGEND

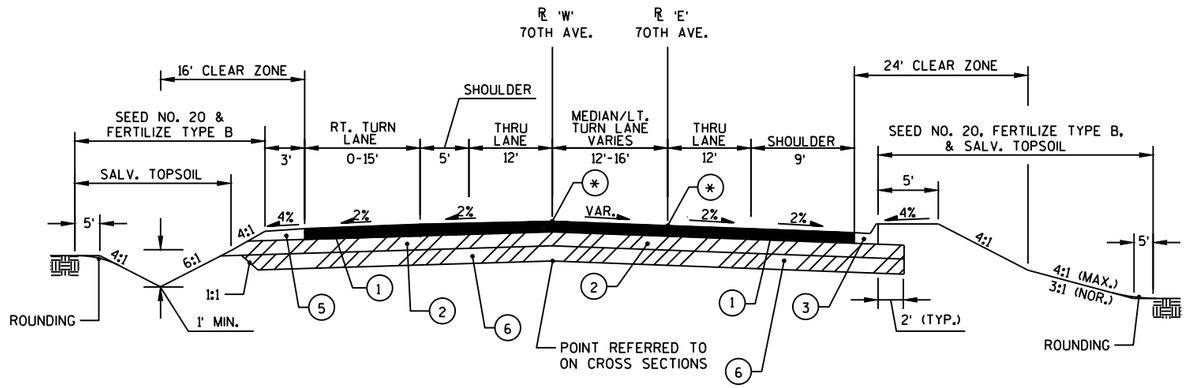
(1)	CONCRETE PAVEMENT 10-INCH (DOWELED AND TINED)
(2)	6-INCH BASE AGGREGATE DENSE 1 1/4-INCH
(3)	CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE A
(12)	CONCRETE SIDEWALK 5-INCH OVER 4-INCH BASE AGGREGATE DENSE 3/4-INCH
(17)	CONCRETE CORRUGATED MEDIAN
(*)	POINT REFERRED TO ON PROFILE



TYPICAL FINISHED SECTION
70TH AVENUE
STA 20+75'E' TO STA 21+57'E'

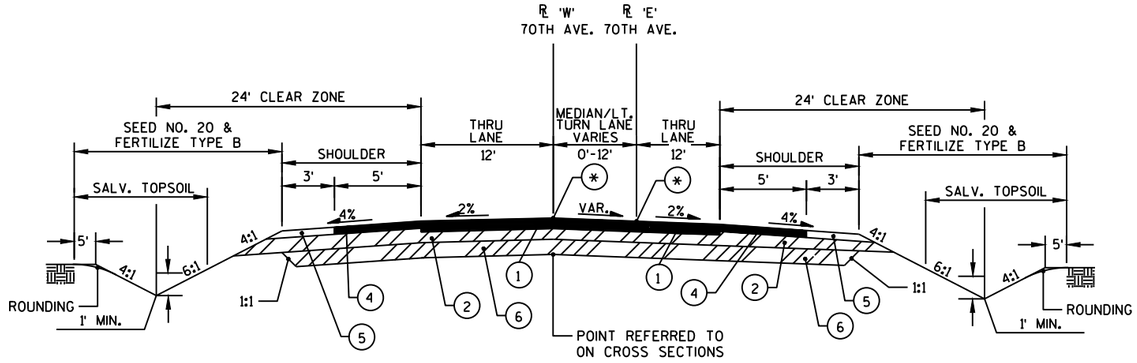
LEGEND

(1)	1.5-INCH HMA PAVEMENT 5 MT 58-34 V (UPPER) 3-INCH HMA PAVEMENT 3 MT 58-34 V (MIDDLE) 3.25-INCH HMA PAVEMENT 3 MT 58-34 V (LOWER)
(2)	12-INCH BASE AGGREGATE DENSE 1 1/4-INCH
(3)	CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D
(4)	2-INCH HMA PAVEMENT 5 MT 58-34 V (UPPER) 3-INCH HMA PAVEMENT 3 MT 58-34 V (LOWER)
(5)	5-INCH BASE AGGREGATE DENSE 3/4-INCH
(6)	12-INCH SELECT CRUSHED MATERIAL
(*)	POINT REFERRED TO ON PROFILE



TYPICAL FINISHED SECTION
70TH AVENUE
STA 21+57'E' TO STA 22+17'E'

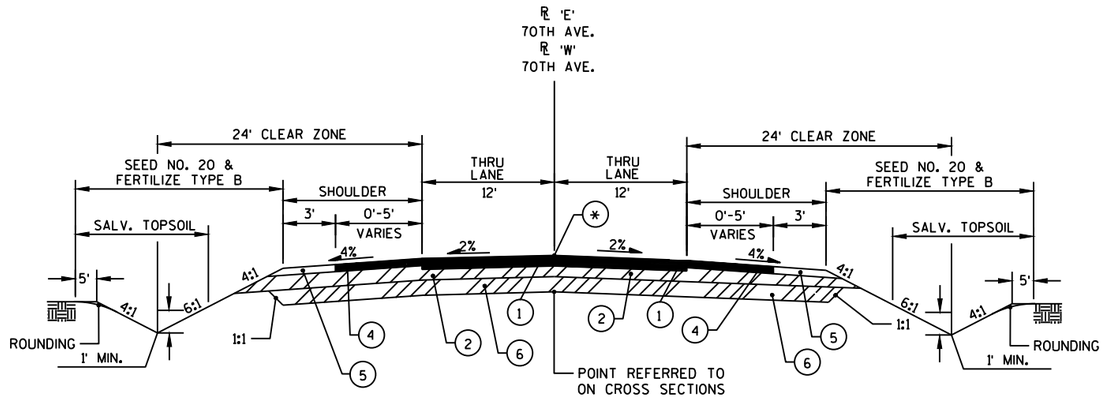
2



TYPICAL FINISHED SECTION
70TH AVENUE
STA 22+17'E' TO STA 26+00'E'

LEGEND

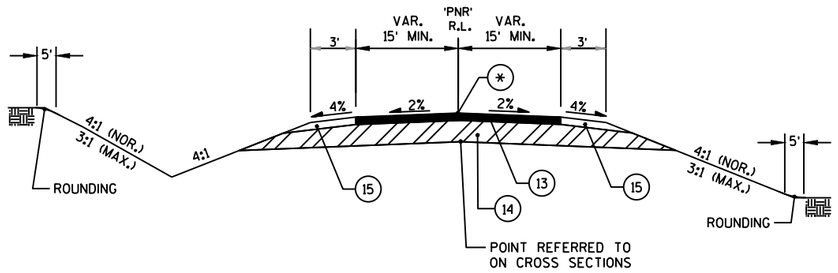
(1)	1.5-INCH HMA PAVEMENT 5 MT 58-34 V (UPPER) 3-INCH HMA PAVEMENT 3 MT 58-34 V (MIDDLE) 3.25-INCH HMA PAVEMENT 3 MT 58-34 V (LOWER)
(2)	12-INCH BASE AGGREGATE DENSE 1 1/4-INCH
(3)	CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D
(4)	2-INCH HMA PAVEMENT 5 MT 58-34 V (UPPER) 3-INCH HMA PAVEMENT 3 MT 58-34 V (LOWER)
(5)	4-INCH BASE AGGREGATE DENSE 3/4-INCH
(6)	12-INCH SELECT CRUSHED MATERIAL
(*)	POINT REFERRED TO ON PROFILE



TYPICAL FINISHED SECTION
70TH AVENUE
STA 26+00'E' TO STA 26+50'E'

PROJECT NO:1540-04-73	HWY:STH 65	COUNTY:ST. CROIX	TYPICAL SECTIONS	SHEET 21	E

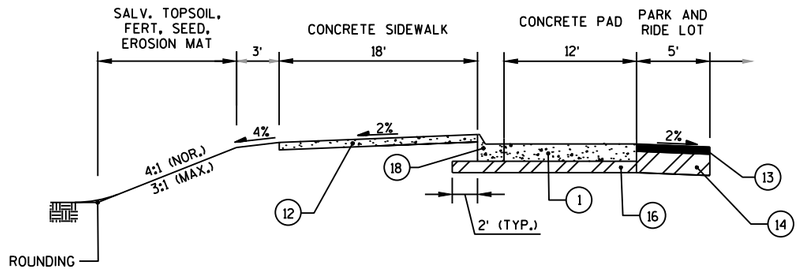
2



TYPICAL FINISHED SECTION
PARK-N-RIDE

LEGEND

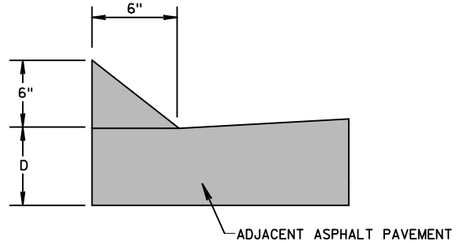
(1)	CONCRETE PAVEMENT 10-INCH (DOWELED AND TINED)
(12)	CONCRETE SIDEWALK 5-INCH OVER 4-INCH BASE AGGREGATE DENSE 3/4-INCH
(13)	6-INCH ASPHALTIC SURFACE
(14)	12-INCH BASE AGGREGATE DENSE 1 1/4-INCH
(15)	5-INCH BASE AGGREGATE DENSE 3/4-INCH, SHOULDER
(16)	7-INCH BASE AGGREGATE DENSE 1 1/4-INCH
(18)	CONCRETE CURB & GUTTER 30-INCH TYPE A
(*)	POINT REFERRED TO ON PROFILE



CONCRETE BUS STOP PAD
LOOKING NORTH
STA 66+25'N'RT TO STA 66+82'N'RT

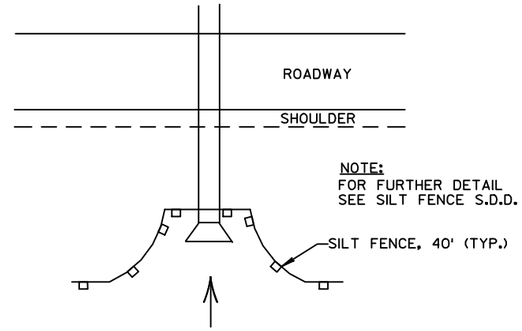
PROJECT NO:1540-04-73	HWY:STH 65	COUNTY:ST. CROIX	TYPICAL SECTIONS	SHEET 22	E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\020301-TS.DWG PLOT DATE : 10/3/2022 PLOT BY : KL ENGINEERING PLOT NAME : 17 - FINISHED PLOT SCALE : **********
WISDOT/CADDS SHEET 42



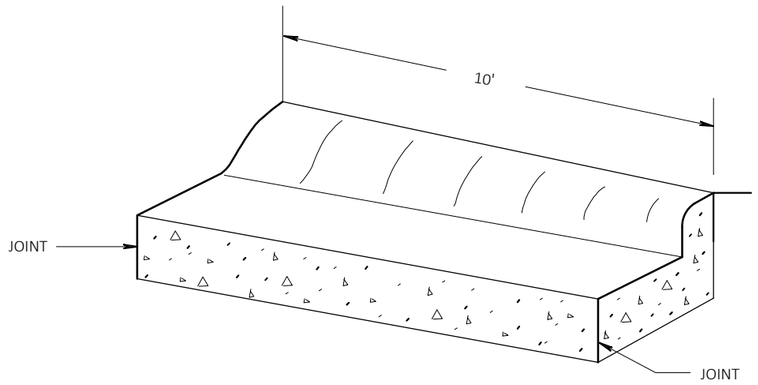
D = DEPTH OF ADJACENT ASPHALT PAVEMENT

TEMPORARY ASPHALTIC CURB DETAIL



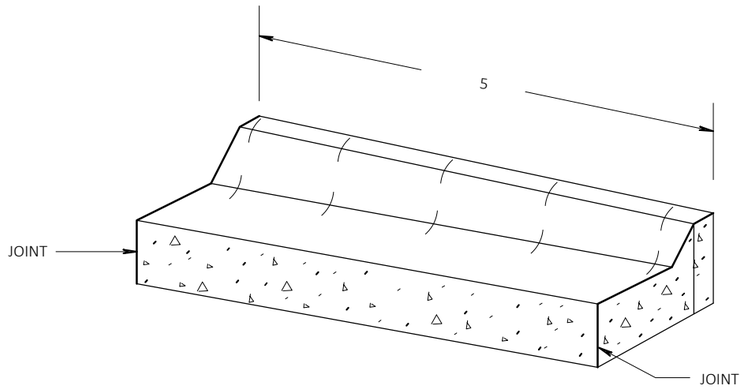
SILT FENCE AT PIPE INLET

SEE EROSION CONTROL PLAN FOR LOCATIONS



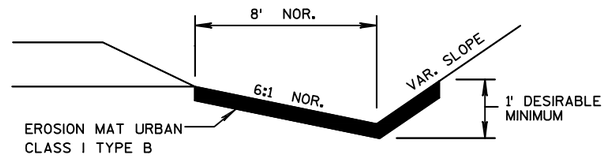
TRANSITION DETAIL

36" CURB & GUTTER TO 30" CURB & GUTTER
(TO BE MEASURED & PAID FOR AS 36" CONC. C&G)



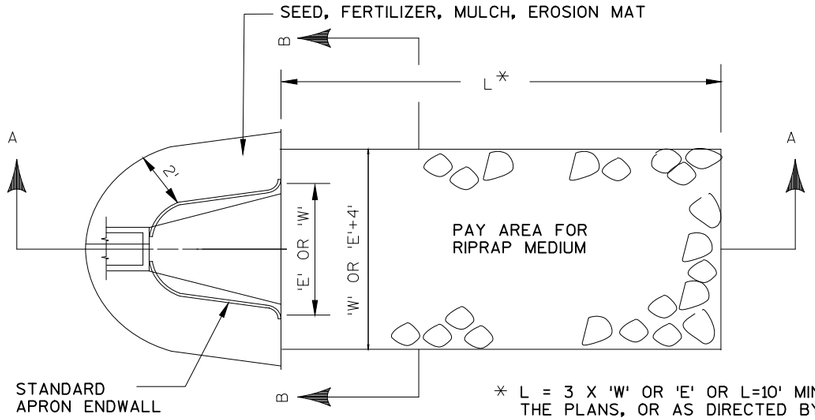
TRANSITION DETAIL

36" 6-INCH SLOPED CURB & GUTTER TO 36" 4-INCH SLOPED CURB & GUTTER
(TO BE MEASURED & PAID FOR AS 36" 6-INCH SLOPED CONC. C&G)

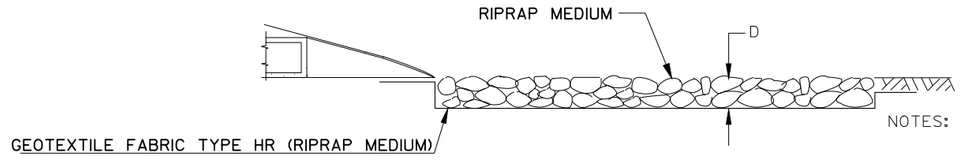


EROSION MAT DETAIL FOR DITCHES

(REQ'D. IN ALL DITCHES)



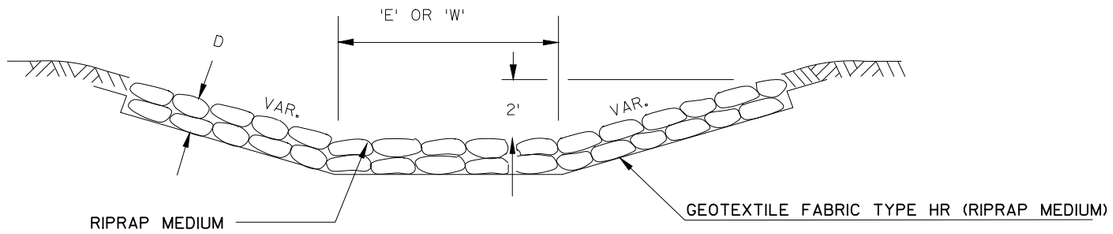
* L = 3 X 'W' OR 'E' OR L=10' MIN. AS INDICATED IN THE PLANS, OR AS DIRECTED BY THE ENGINEER



NOTES: REFER TO S.D.D. FOR 'E' OR 'W' DIMENSIONS

SECTION A-A

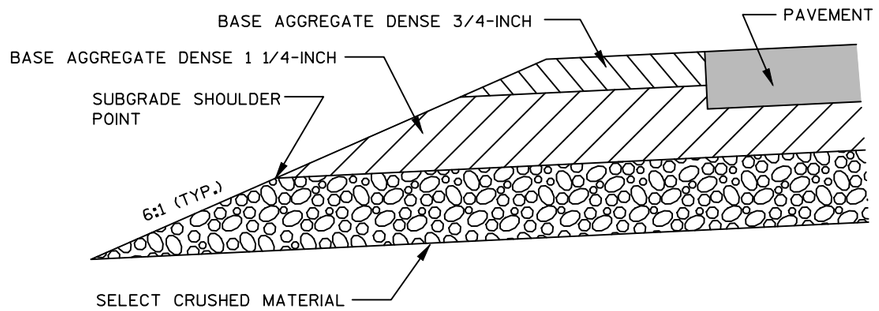
D = 18" (RIPRAP MEDIUM)



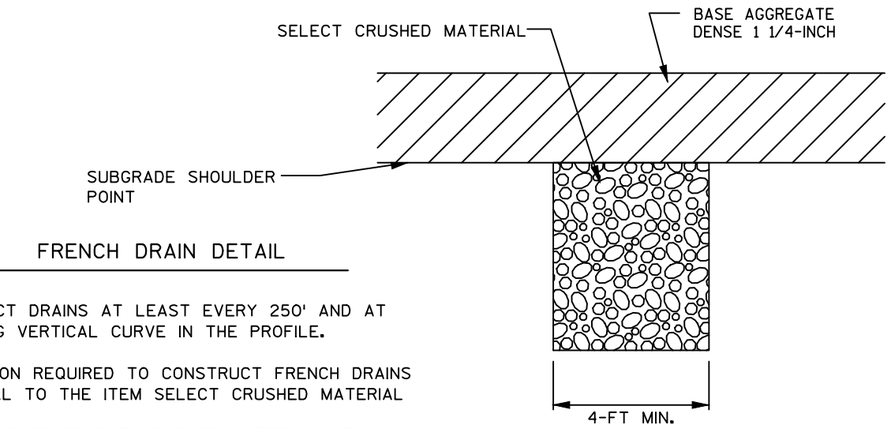
SECTION B-B

RIPRAP TREATMENT AT PIPE ENDWALL DETAIL

SEE EROSION CONTROL PLANS FOR LOCATIONS



SECTION A-A



SECTION B-B

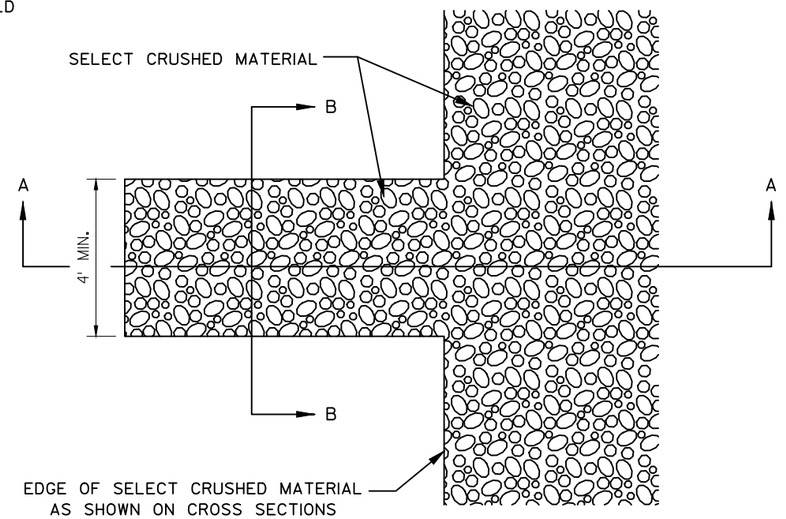
FRENCH DRAIN DETAIL

CONSTRUCT DRAINS AT LEAST EVERY 250' AND AT EACH SAG VERTICAL CURVE IN THE PROFILE.

EXCAVATION REQUIRED TO CONSTRUCT FRENCH DRAINS INCIDENTAL TO THE ITEM SELECT CRUSHED MATERIAL

DO NOT COVER SELECT CRUSHED MATERIAL WITH TOPSOIL

LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

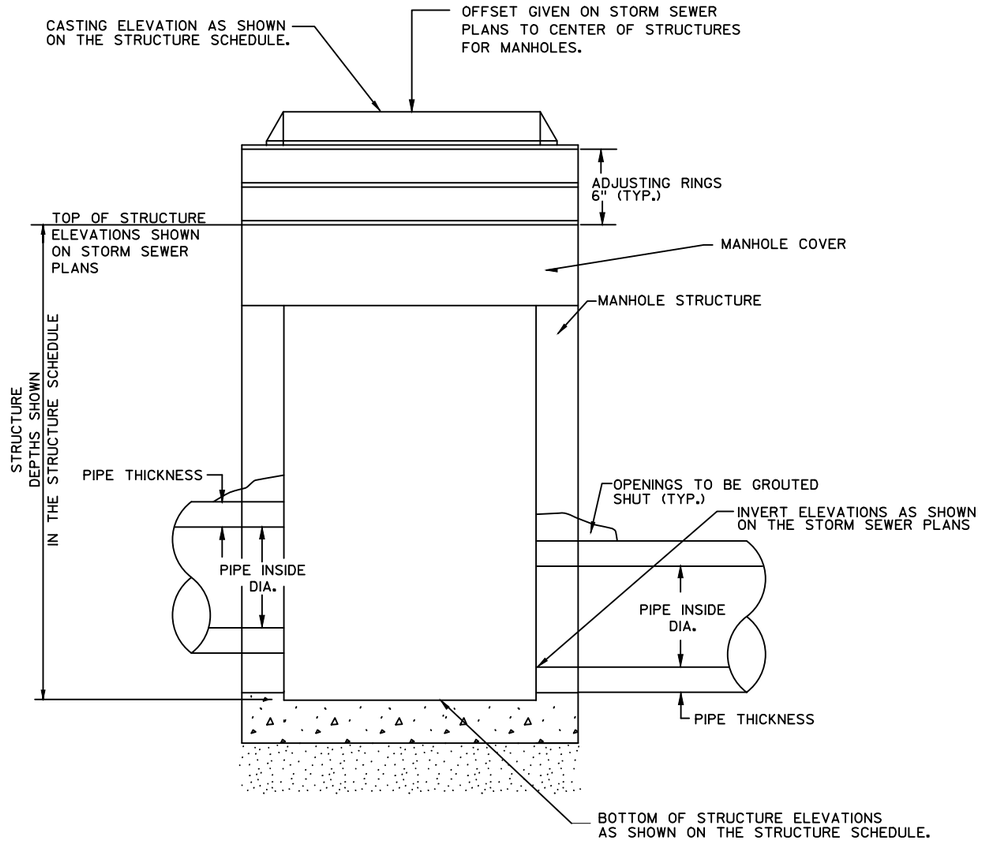


PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CONSTRUCTION DETAILS	SHEET 24 E

GENERAL NOTES:

GRANULAR BACKFILL REQUIRED AROUND MANHOLE
(INCIDENTAL TO CONSTRUCTION OF MANHOLE)

DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, APPLICABLE SPECIAL PROVISIONS, AND S.D.D. FOR MANHOLE 5-FT DIAMETER.

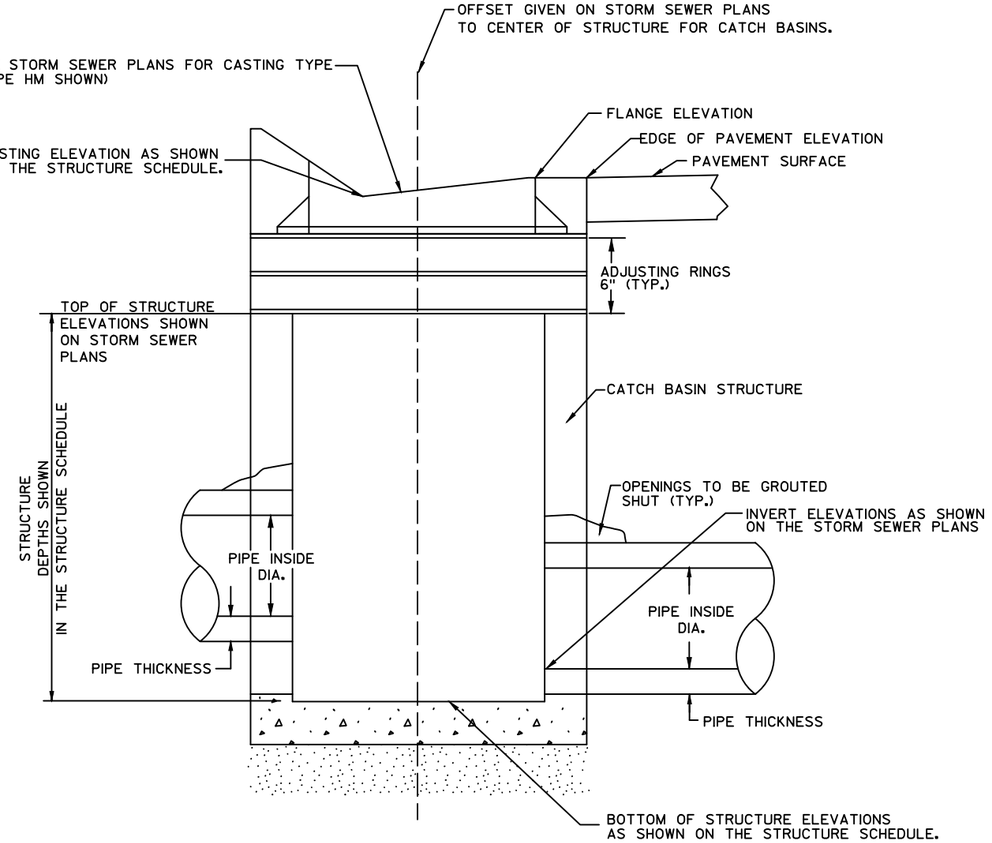


MANHOLE W/CASTING DETAIL

GENERAL NOTES:

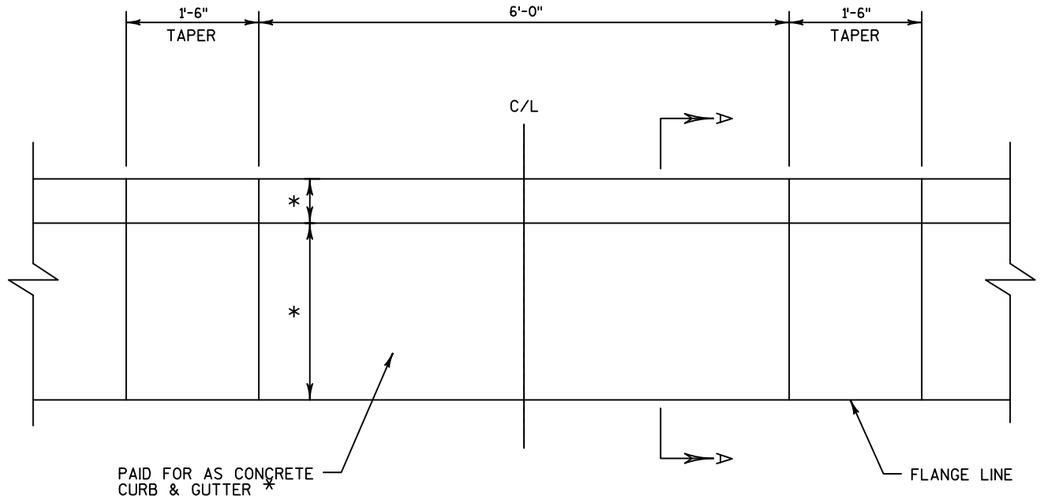
GRANULAR BACKFILL REQUIRED AROUND CATCH BASIN
(INCIDENTAL TO CONSTRUCTION OF CATCH BASIN)

DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, APPLICABLE SPECIAL PROVISIONS, AND S.D.D. FOR INLETS 4-FT DIAMETER AND INLETS 2X3-FT.

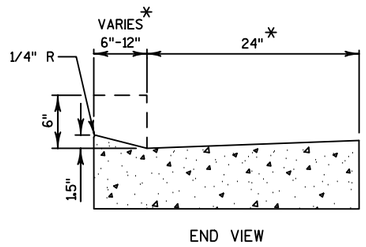


INLET W/CASTING DETAIL

2

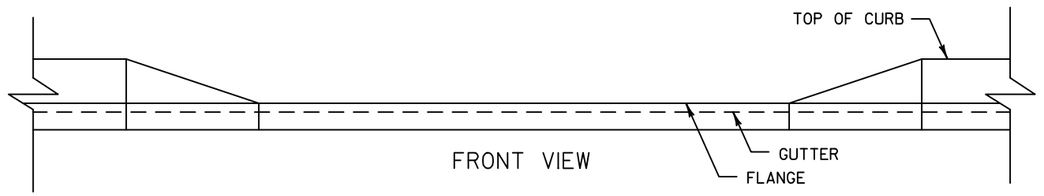


PLAN VIEW



END VIEW

SECTION A-A

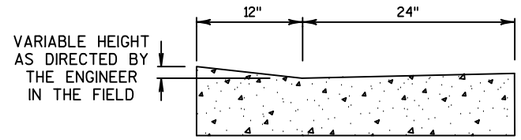


FRONT VIEW

* TYPE AND DIMENSIONS TO MATCH ADJACENT CURB AND GUTTER.

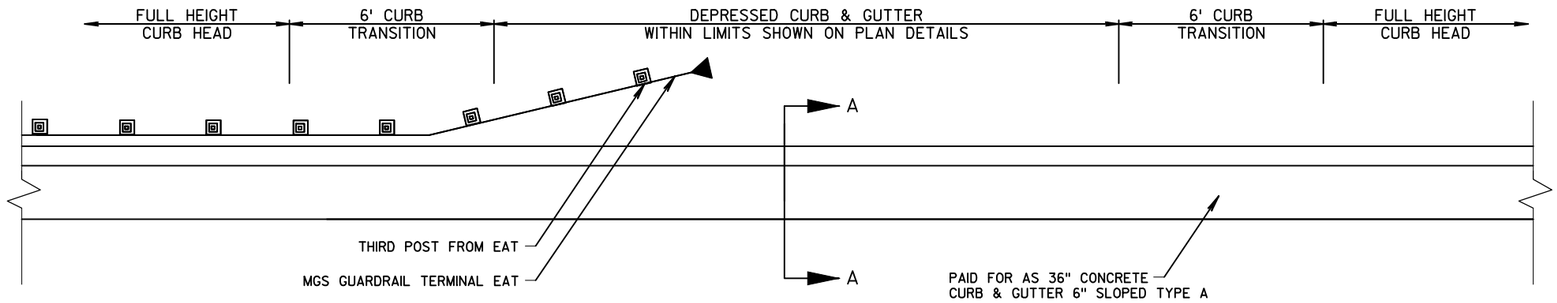
MAINTENANCE ACCESS DETAIL

LOCATIONS SHOWN ON PLAN DETAILS

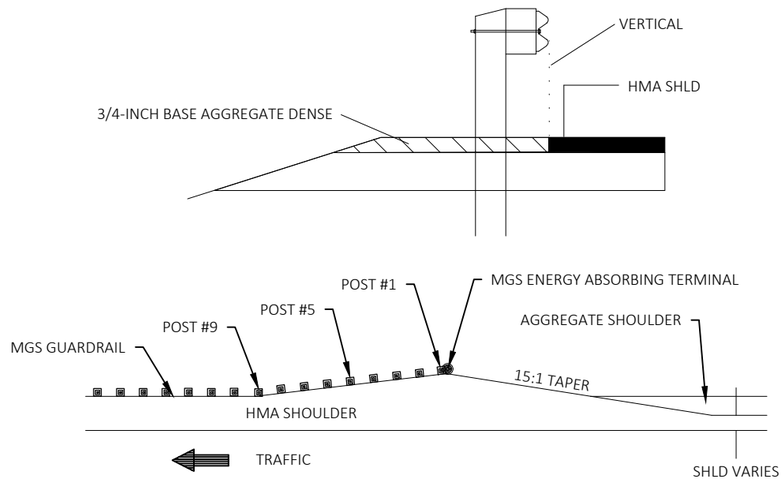


SECTION A-A

DEPRESSED CURB



DEPRESSED CURB HEAD AT BEAM GUARD TERMINAL



DETAIL FOR ASPHALTIC SHOULDER AT BEAM GUARD

(SEE PLAN DETAIL SHEETS FOR LOCATIONS)

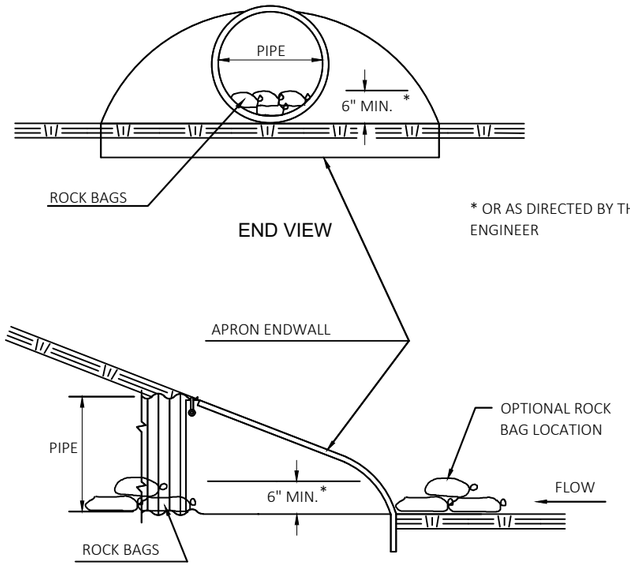
SEE S.D.D. FOR DETAILS NOT SHOWN:
"MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL",
"MIDWEST GUARDRAIL SYSTEM (MGS) ENERGY ABSORBING TERMINAL",
"MIDWEST GUARDRAIL SYSTEM (MGS) THRIE BEAM TRANSITION",

GUARDRAIL TERMINAL POINT TABLE

TERMINAL LOCATION	POST	STATION	OFFSET TO FACE OF BEAM GUARD
62+16'S', LT	1	STA 62+16'S'	34.0' LT
	5	STA 61+91'S'	33.0' LT
	9	STA 61+66'S'	32.0' LT
74+12'S', LT	1	STA 74+12'S'	31.0' LT
	5	STA 73+87'S'	30.0' LT
	9	STA 73+62'S'	29.0' LT
76+18'N', RT	1	STA 76+18'N'	31.0' RT
	5	STA 76+43'N'	30.0' RT
	9	STA 76+68'N'	29.0' RT
81+83'N', RT	1	STA 81+83'N'	22.0' RT
	5	STA 81+58'N'	21.0' RT
	9	STA 81+33'N'	20.0' RT

BEAM GUARD ENERGY ABSORBING TERMINALS - POST DETAILS

(SEE PLAN DETAIL SHEETS FOR LOCATIONS AND STANDARD DETAIL DRAWINGS FOR ADDITIONAL DETAILS)



* OR AS DIRECTED BY THE ENGINEER

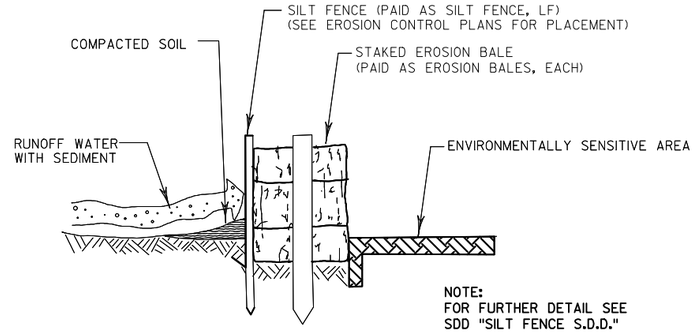
SIDE VIEW

CULVERT PIPE CHECK TEMPORARY

SEE EROSION CONTROL PLANS FOR LOCATIONS

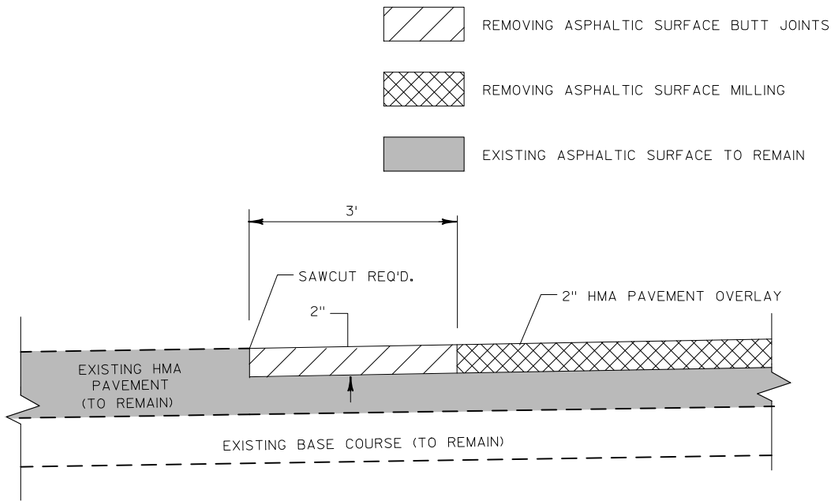
ESTIMATED BAG SIZE = 24" X 12" X 6"	
PIPE SIZE	ESTIMATED NO. OF BAGS
12"	1
15"	2
18"	2
24"	3
30"	5
36"	7
42"	7
48"	10
54"	10
60"	13
72"	16
30"X19"	5
38"X24"	7
53"X34"	10
60"X38"	13
76"X48"	18

NOTE: TO BE PLACED AT INLET END OF CULVERT PIPE.



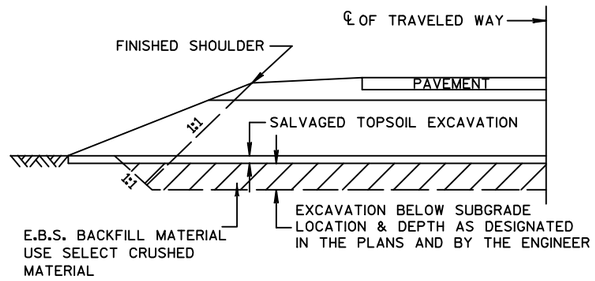
SIILT FENCE AND EROSION BALE OUTLET STRUCTURE DETAIL

SEE EROSION CONTROL PLAN FOR LOCATIONS



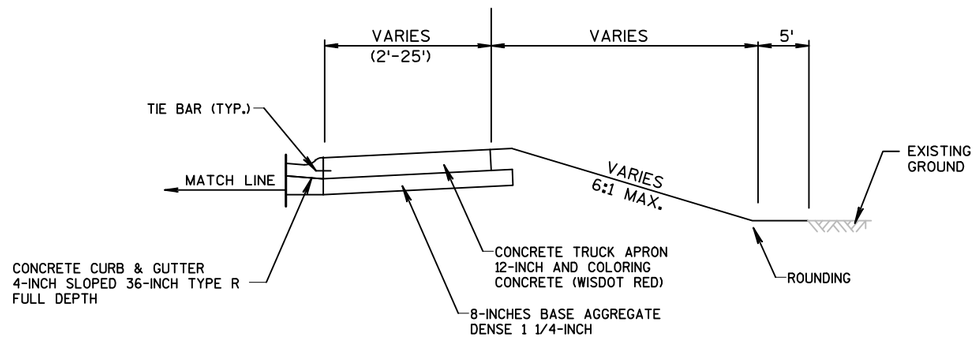
CONSTRUCTION/BUTT JOINT (MILL/OVERLAY) DETAIL

STA 82+70'N'/STA 82+74'S'



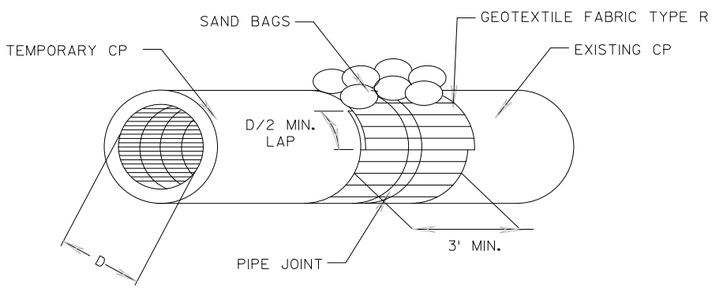
EXCAVATION BELOW SUBGRADE DETAIL

THIS DETAIL TO BE USED FOR REMOVAL OF UNSUITABLE MATERIAL



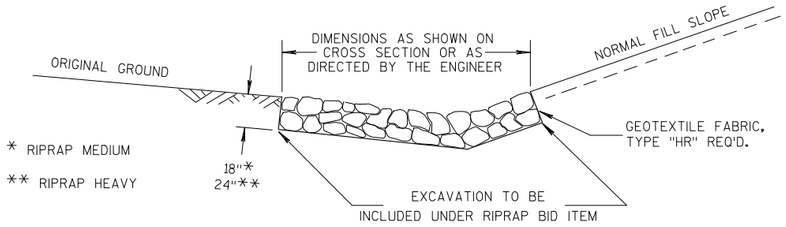
TRUCK APRON DETAIL

STA 63+52'N' (59' RT) - STA 65+01'N' (148' RT)
STA 63+92'S' (5' RT) - STA 64+47'S' (21' RT)
STA 10+75'PNR' (15' LT) - STA 11+34'PNR' (65 LT)
STA 10+67'PNR' (15 RT) - STA 13+31'PNR' (16 RT)
STA 13+39'PNR' (15 RT) - STA 15+28'PNR' (15 RT)

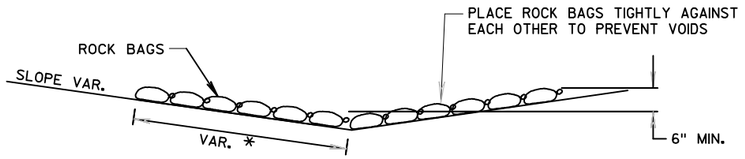


NOTE: ALL LABOR AND MATERIALS TO BE INCLUDED IN THE COST OF TEMPORARY CULVERT PIPE

CONNECTION DETAIL TEMPORARY PIPE TO EXISTING PIPE

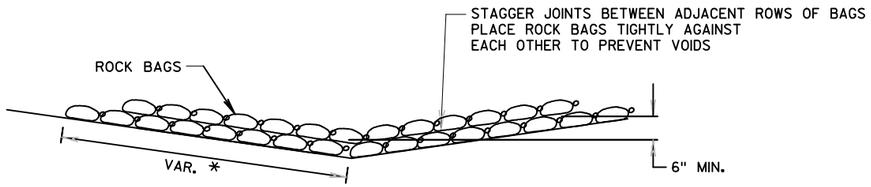


DETAIL FOR RIPRAP IN DITCHES



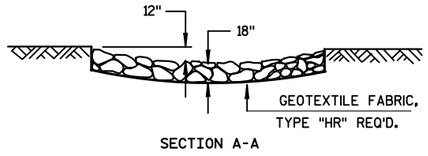
SIDE VIEW (SINGLE LAYER)

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

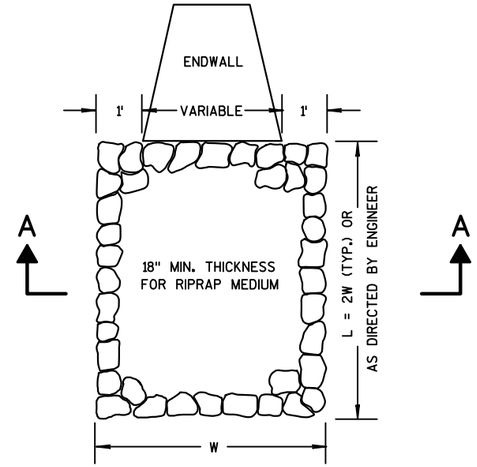


SIDE VIEW (MULTIPLE LAYER)

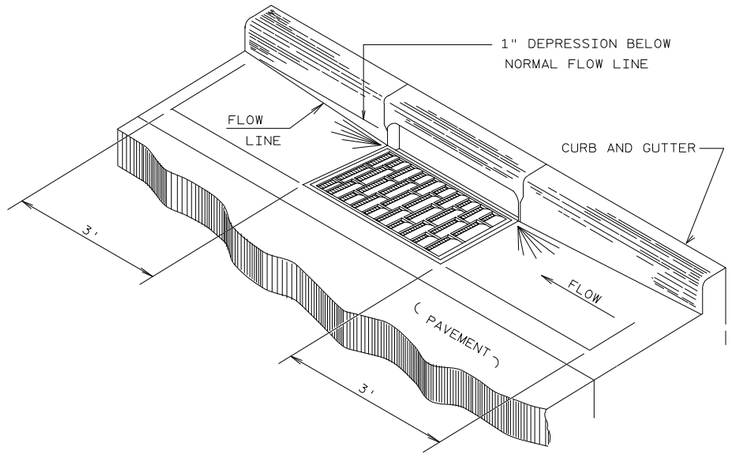
TEMPORARY DITCH CHECKS



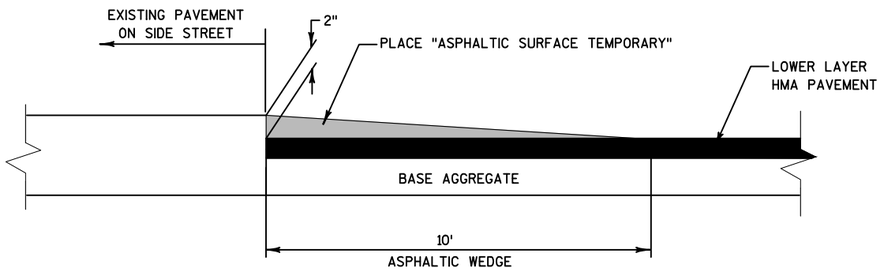
SECTION A-A



RIPRAP MEDIUM TREATMENT AT CULVERTS



INLET FLOW LINE DETAIL (STORM SEWER INLETS)



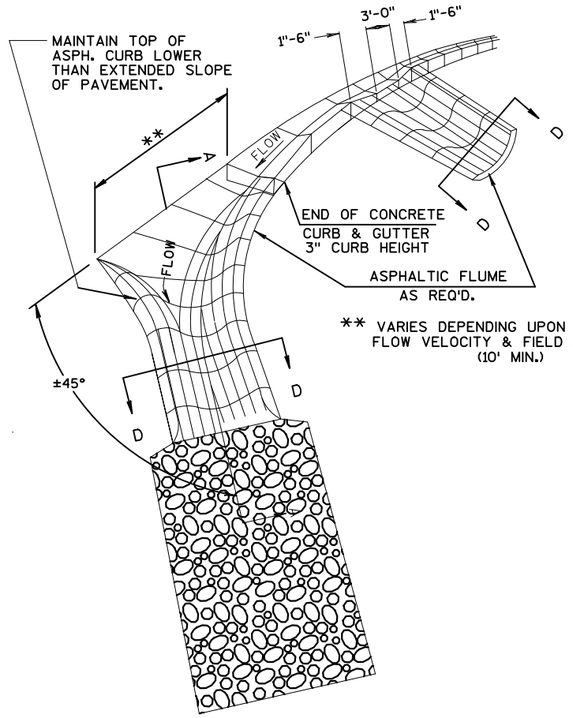
NOTE:

REMOVAL OF ASPHALTIC WEDGES WILL BE PAID FOR AS "REMOVING ASPHALTIC SURFACE BUTT JOINT".

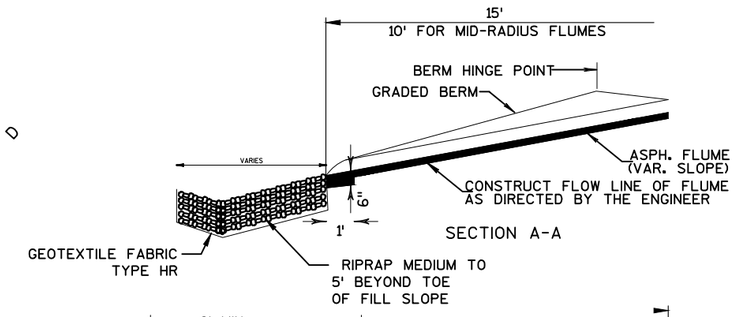
TEMPORARY WEDGES DETAIL (MATCH POINTS)

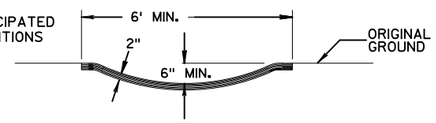
(MATCH POINTS)

NOTE: PROVIDE ASPHALTIC WEDGE PRIOR TO OPENING LANE TO TRAFFIC.



** VARIES DEPENDING UPON ANTICIPATED FLOW VELOCITY & FIELD CONDITIONS (10' MIN.)



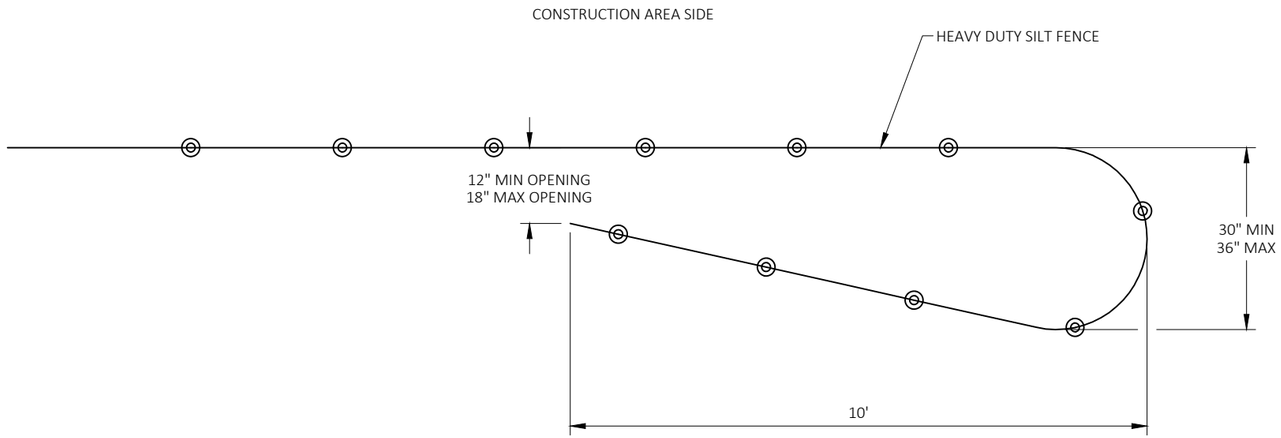


SECTION D-D

ASPHALTIC FLUME DETAIL

SEE EROSION CONTROL AND PLAN & PROFILE SHEETS FOR LOCATIONS

SEE SDD "CONCRETE SURFACE DRAINS AND ASPHALTIC FLUMES" FOR DETAILS NOT SHOWN.



SILT FENCE HEAVY DUTY TURN-AROUND DETAIL

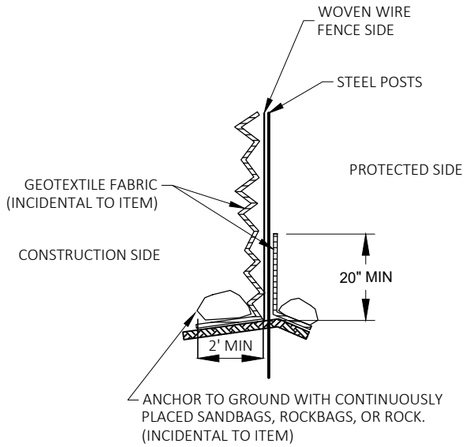
TO BE INSTALLED AT EACH END OF HEAVY DUTY SILT FENCE
(INCIDENTAL TO HEAVY DUTY SILT FENCE ITEM)

NOTES:

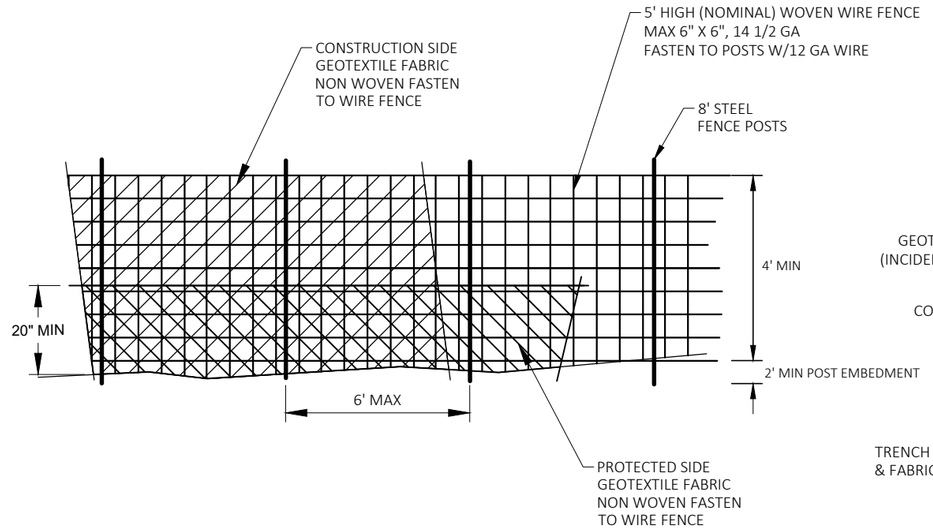
THE NON-CONSTRUCTION SIDE OF THE FENCE SHOULD BE KEPT CLEAR OF TALL VEGETATION THAT COULD ALLOW ANIMALS TO MANEUVER OVER THE FENCING.

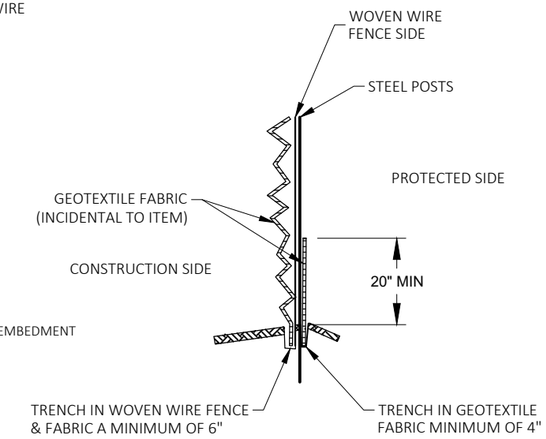
FENCING SHOULD BE INSTALLED WITH TURN-AROUNDS AT THE ENDS AND AT ANY ACCESS OPENINGS NEEDED IN THE FENCING, IN ORDER TO REDIRECT ANIMALS AWAY FROM OPENINGS.

2



ANCHORED INSTALLATION FOR WET CONDITION





TRENCH INSTALLATION FOR DRY CONDITION

SILT FENCE HEAVY DUTY

GENERAL NOTES:

FASTEN THE GEOTEXTILE FABRIC TO THE WOVEN WIRE FENCE EVERY 2-FEET

ADJUST POST EMBEDMENT AND/OR SPACING BASED ON EXISTING SOILS

2

GENERAL NOTES

THE HEAVY DUTY SILT FENCE RELIEF DETAIL IS A SUPPLEMENTAL DETAIL TO THE HEAVY DUTY SILT FENCE DETAILS AND SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

CONSTRUCTION OF THE HEAVY DUTY SILT FENCE OPENING SHALL BE INCIDENTAL TO THE COST OF THE HEAVY DUTY SILT FENCE BID ITEM.

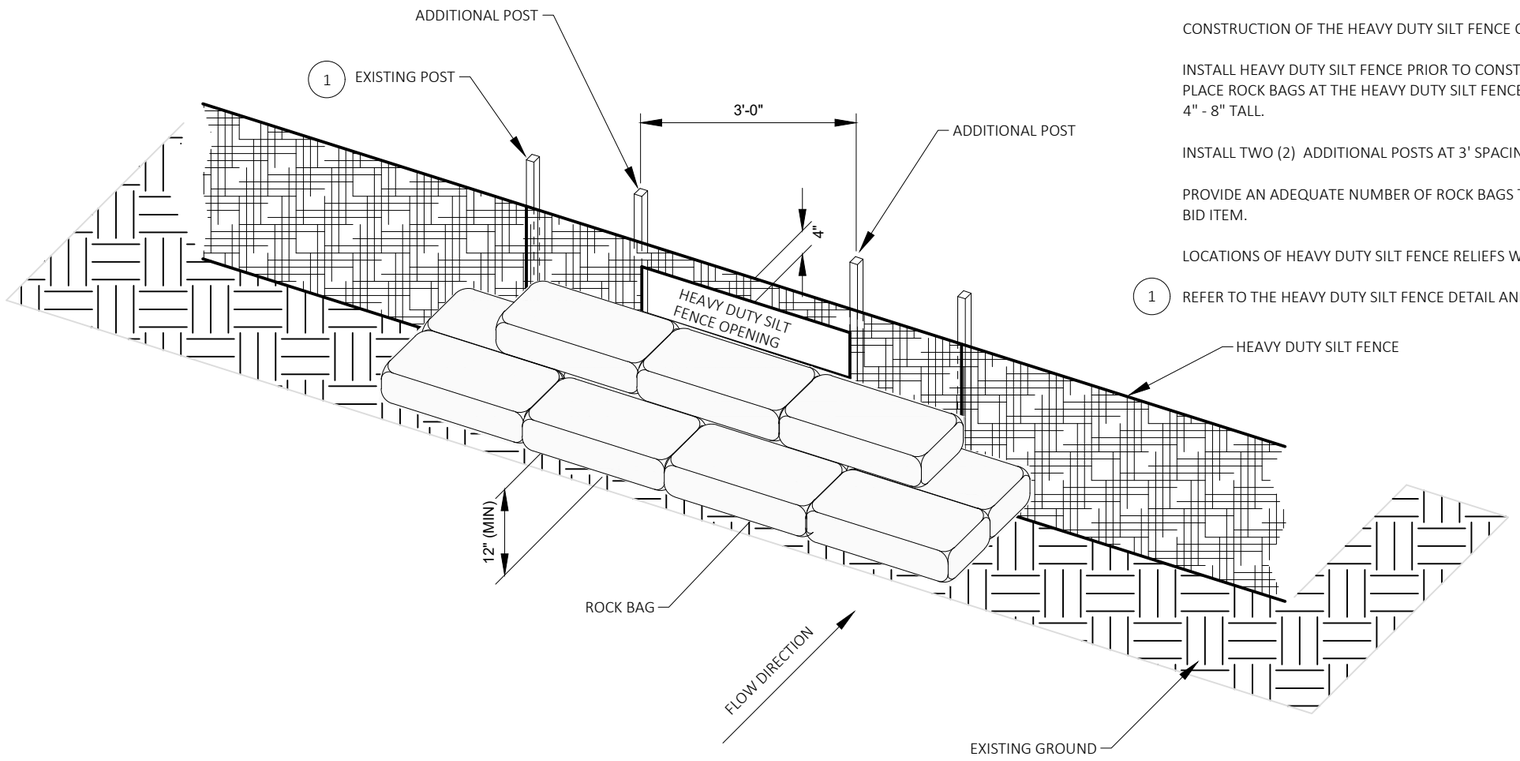
INSTALL HEAVY DUTY SILT FENCE PRIOR TO CONSTRUCTING THE HEAVY DUTY SILT FENCE OPENING. PRIOR TO CUTTING THE HEAVY DUTY SILT FENCE OPENING, PLACE ROCK BAGS AT THE HEAVY DUTY SILT FENCE OPENING AS SHOWN IN THIS DETAIL. HEAVY DUTY SILT FENCE OPENING SHOULD BE BETWEEN 4" - 8" TALL.

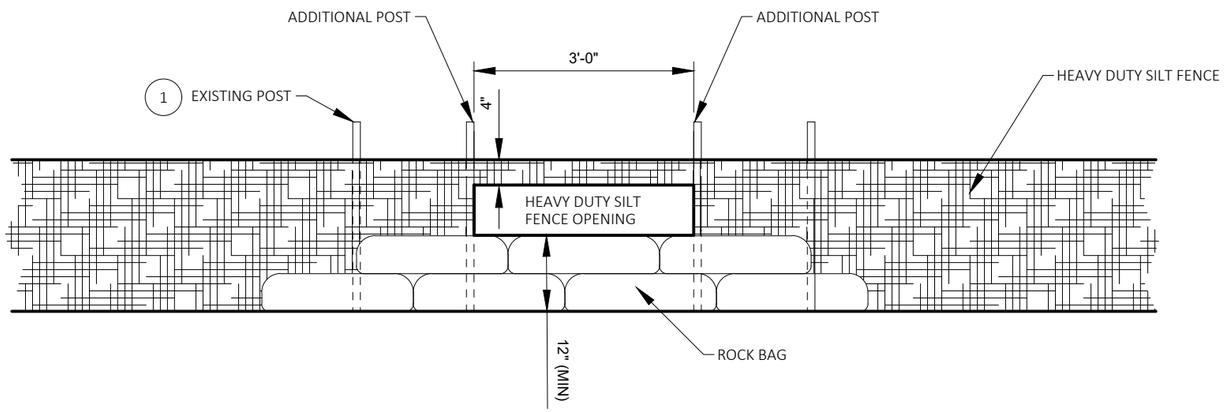
INSTALL TWO (2) ADDITIONAL POSTS AT 3' SPACING AT LOCATION OF OPENING.

PROVIDE AN ADEQUATE NUMBER OF ROCK BAGS TO STACK TO A HEIGHT OF 1' (MINIMUM). ROCK BAGS SHALL BE PAID UNDER THE ROCK BAGS BID ITEM.

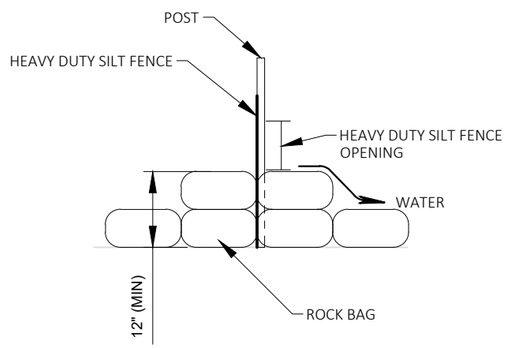
LOCATIONS OF HEAVY DUTY SILT FENCE RELIEFS WILL BE DETERMINED BY THE ENGINEER.

(1) REFER TO THE HEAVY DUTY SILT FENCE DETAIL AND SPECIAL PROVISION FOR ADDITIONAL INFORMATION

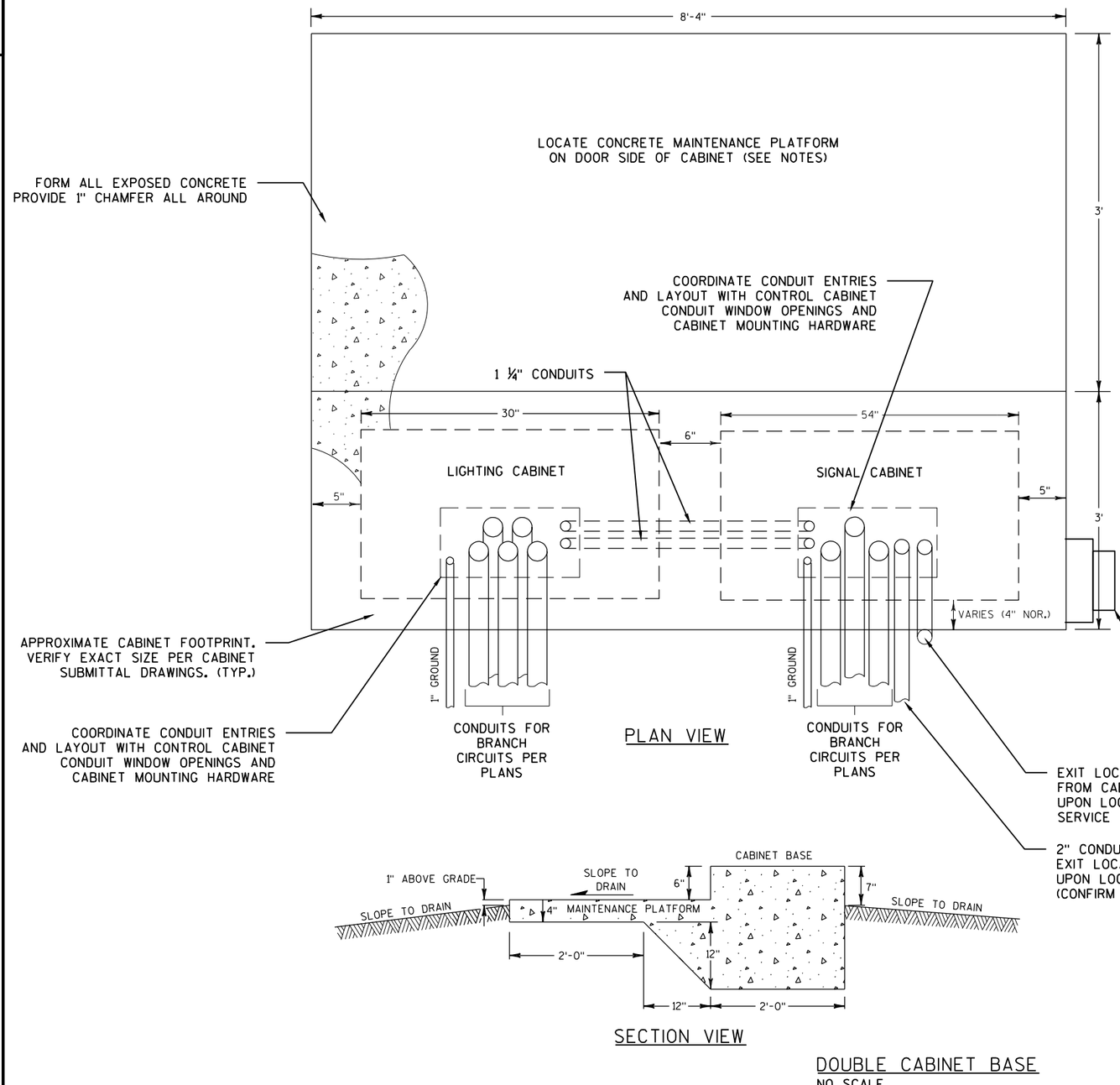




SECTION VIEW



SILT FENCE HEAVY DUTY RELIEF DETAIL



PLAN VIEW

SECTION VIEW

DOUBLE CABINET BASE

NO SCALE

GENERAL NOTES (APPLIES TO THIS CONSTRUCTION DETAIL)

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

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

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

CONDUIT HEIGHT ABOVE THE CONCRETE BASE SHALL BE 1 INCH.

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

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

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

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

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

MINIMUM BENDING RADIUS OF CONDUIT = 6 X THE DIAMETER.

ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

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

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

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

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

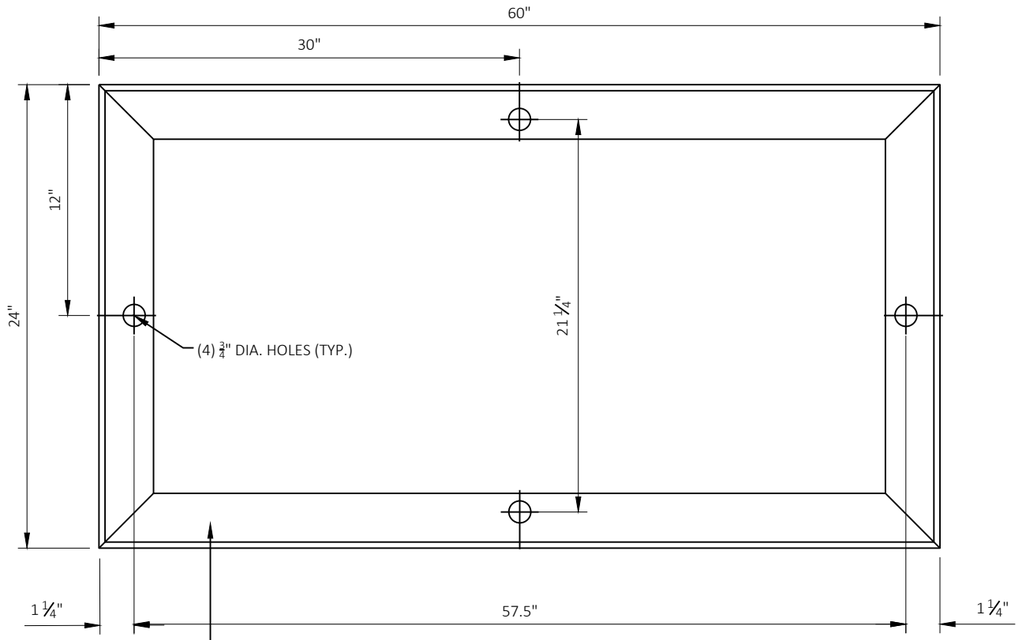
CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6" MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.

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

SIGNAL CABINET FOOTPRINT SHALL REFER TO WISDOT STANDARD DETAIL FOR CONCRETE CONTROL CABINET BASE TYPE L FOR ANY DETAILS NOT SHOWN ON THIS SHEET.

LIGHTING CABINET FOOTPRINT SHALL REFER TO WISDOT STANDARD DETAIL FOR CONCRETE CONTROL CABINET BASE TYPE 9 SPECIAL FOR ANY DETAILS NOT SHOWN ON THIS SHEET.

2



MOUNTING BASE

L 2" X 2" X ¼"

PRIME WITH PHOSPHATE TREATMENT AND PRIMER.

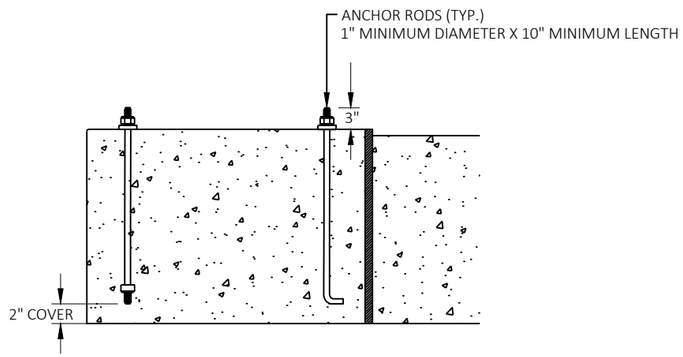
ALL SHEET METAL PARTS SHALL BE 1/8-INCH THICK ALUMINUM.

ALL SEAMS SHALL BE CONTINUOUSLY WELDED.

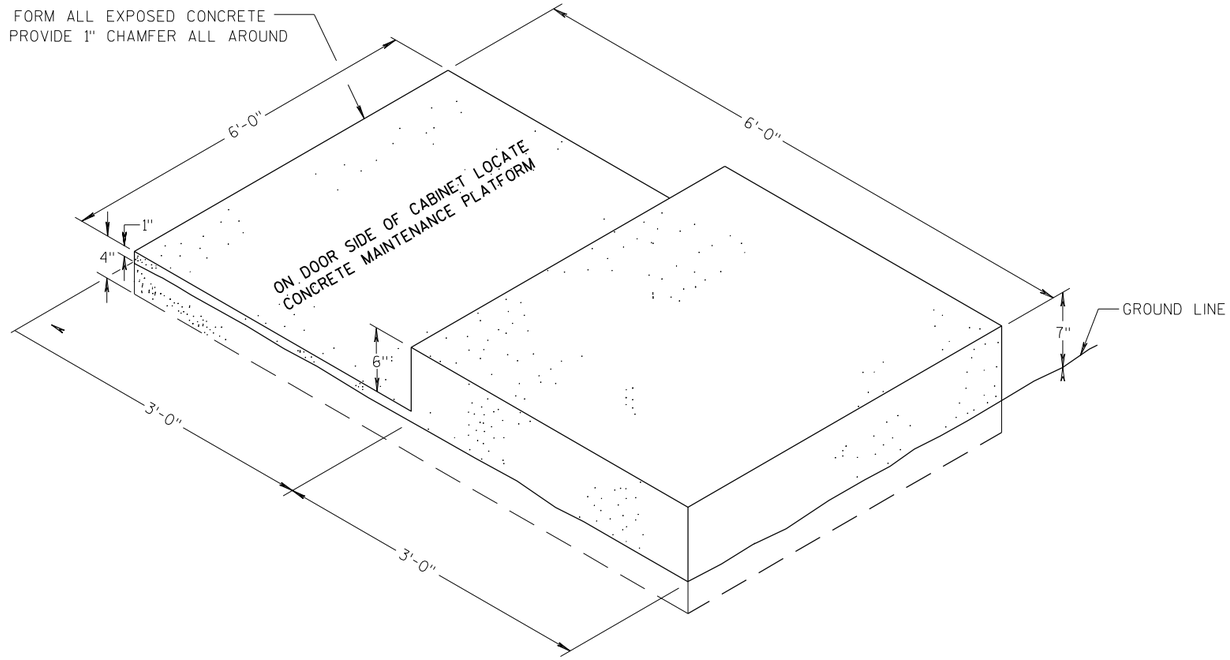
ALUMINUM SHALL BE TYPE 5052-H32.

FINISH EXTERIOR SURFACES WITH RUSTOLEUM #906 SILVER GRAY OR APPROVED EQUAL.

FINISH INTERIOR WITH RUSTOLEUM #2766 HIGH GLOSS WHITE ENAMEL OR APPROVED EQUAL.



CONNECTION DETAIL



ISOMETRIC VIEW OF MOUNTING BASE

GENERAL NOTES:

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

INSTALL FOUR (4) 1-INCH MINIMUM DIAMETER X 10-INCH MINIMUM LENGTH STAINLESS STEEL APPROVED CONCRETE MASONRY ANCHORS WITH A PULLOUT STRENGTH OF 9,000 LBS. TO ANCHOR THE STORAGE CABINET TO THE CONCRETE BASE. ANCHOR RODS TO BE IN ACCORDANCE WITH 654.2 OF THE STANDARD SPECIFICATIONS. THE ANCHOR STUDS SHALL BE LOCATED AS DIRECTED BY THE ENGINEER TO PROPERLY ANCHOR THE STORAGE CABINET TO THE BASE.

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

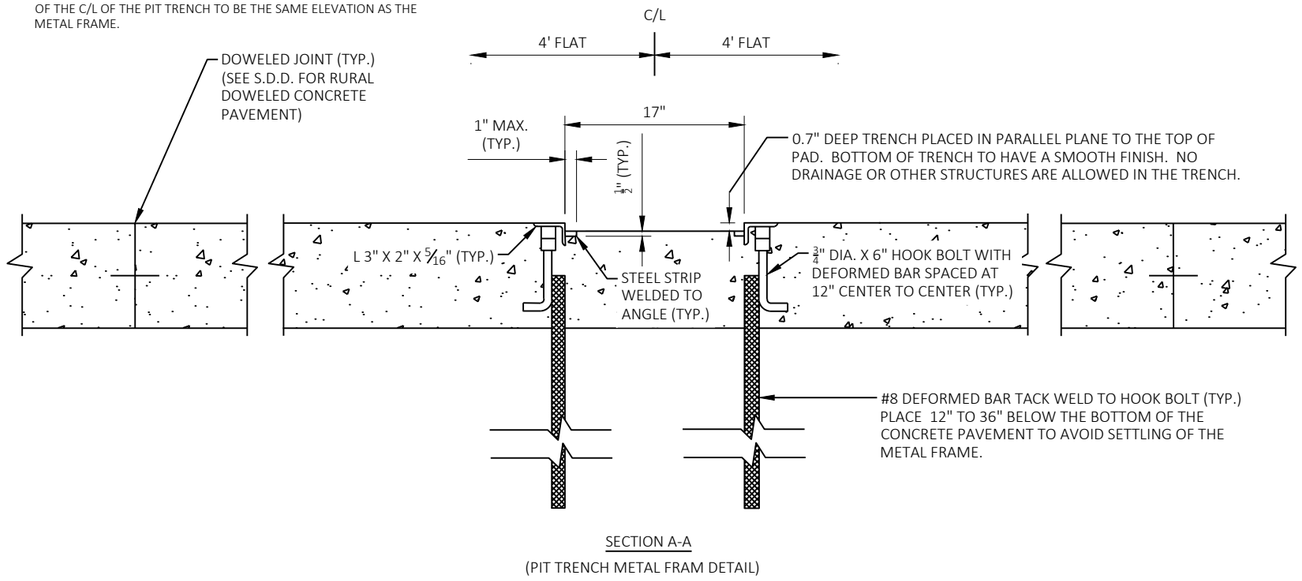
MAINTENANCE PLATFORM SHALL BE FLOAT OR BROOM FINISHED AND LEVEL.

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

CONCRETE PAD FOR STORAGE CABINET DETAIL

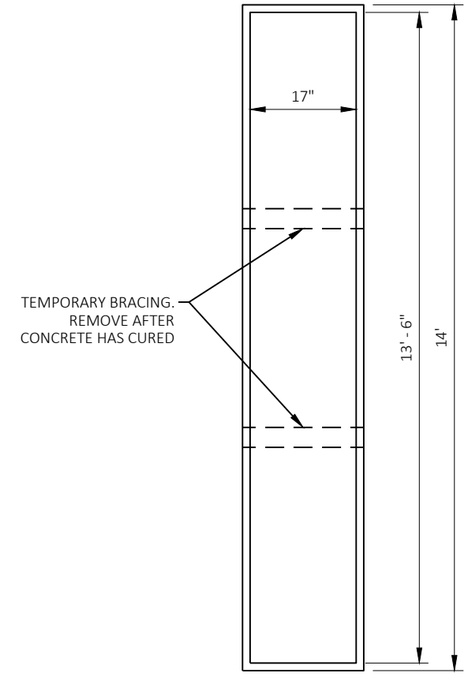
NOTE:

ELEVATION ON THE CONCRETE FOR A DISTANCE 4' FROM EACH SIDE OF THE C/L OF THE PIT TRENCH TO BE THE SAME ELEVATION AS THE METAL FRAME.



SECTION A-A

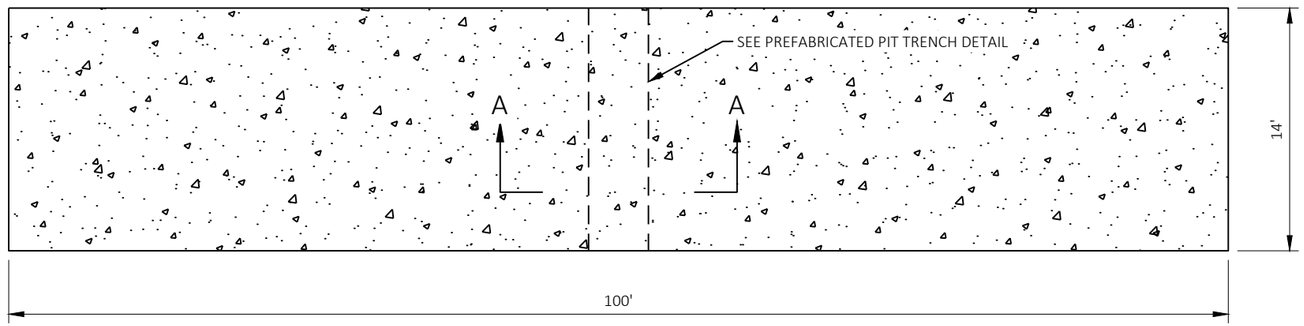
(PIT TRENCH METAL FRAM DETAIL)



PREFABRICATED PIT TRENCH CHANNEL DETAIL

NOTES:

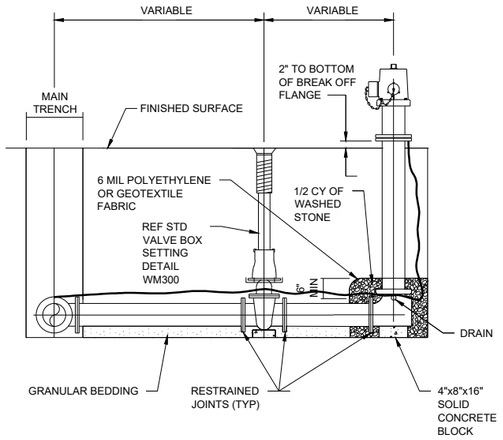
1. SMOOTH FINISH CONCRETE IS REQUIRED INSIDE THE METAL FRAME.



CONCRETE INSPECTION PAD

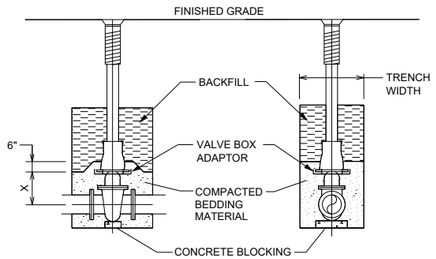
CONCRETE INSPECTION PAD DETAIL

PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CONSTRUCTION DETAILS	SHEET PRE: 37	E



STANDARD HYDRANT SETTING

NOT TO SCALE



SIDE VIEW

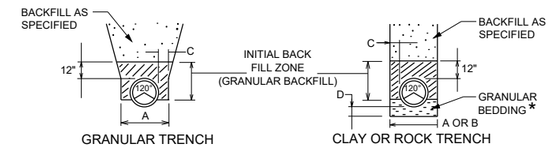
PIPE DIA (INCHES)	X=SETTING (INCHES)
2	6
3	7
4	8
6	12
8	13

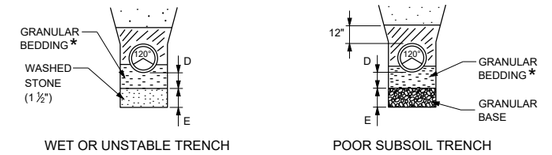
FRONT VIEW

PIPE DIA (INCHES)	X=SETTING (INCHES)
10	17
12	21
14	25
16	30

STANDARD VALVE BOX SETTING

NOT TO SCALE





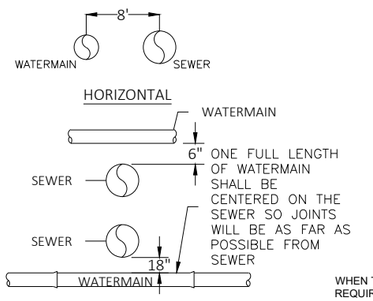
* FOR FLEXIBLE PIPE, BEDDING MATERIAL SHALL EXTEND TO SPRING LINE (MID HEIGHT) OF PIPE.

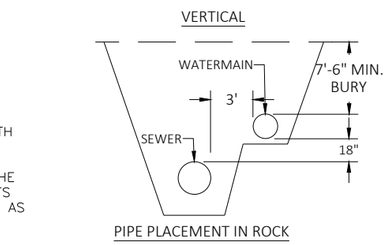
A=O.D. PIPE + 24"(MAX)
B=O.D. PIPE + 18"(MAX) FOR ROCK
C=6" MIN.

D=4" BELOW BARREL FOR CLAY
3" BELOW BELL FOR CLAY
6" BELOW BARREL FOR ROCK
E=DETERMINED BY A/E

TRENCH SECTIONS

NOT TO SCALE





WHEN THE ABOVE SEPARATIONS CANNOT BE MAINTAINED, THE OWNER MAY REQUIRE THE CONTRACTOR TO ENCASE THE SEWER IN CONCRETE.

STORM AND SANITARY SEWER/WATERMAIN SEPARATION DISTANCE

NOT TO SCALE

2

REMOVAL PLAN LEGEND

- REMOVING CONCRETE PAVEMENT
- REMOVING CONCRETE SIDEWALK
- REMOVING ASPHALTIC SURFACE MILLING
- REMOVING STORM SEWER
- CLEARING & GRUBBING (STA.)
- CLEARING & GRUBBING (ID)
- SAWING CONCRETE/ASPHALT
- REMOVING FENCE
- REMOVING CURB & GUTTER
- REMOVING SMALL PIPE CULVERT

N

IH 94 ON-RAMP

EXISTING R/W

POST

REMOVE CONCRETE FROM EXISTING JOINT LINE

STA 56+75'S'
SAWING CONCRETE REQUIRED

STA 54+46'N'
SAWING CONCRETE REQUIRED

SB STH 65

57+00'S'

58+00'S'

59+00'S'

60+00'S'

REMOVING INLETS

56+00'S'

55+00'S'

REMOVING CURB & GUTTER

56+00'N'

57+00'N'

58+00'N'

NB STH 65

59+00'N'

REMOVING CONCRETE SIDEWALK

55+00'N'

54+00'N'

STA 54+05'N'
SAWING CONCRETE REQUIRED

REMOVING CONCRETE SIDEWALK

STA 55+35'N'
BEGIN PROJECT
SAWING CONCRETE REQUIRED

HMA REMOVAL INCIDENTAL TO COMMON EXCAVATION (TYP.)

REMOVING FENCE

REMOVING R/W MARKER

MATCH LINE STA 60+00'N'

SLOPE INTERCEPT (TYP.)

EXISTING R/W

R/W

CLEARING AND GRUBBING
STA. 59+00'N' - STA. 64+50'N'
(REMOVE ALL TREES WITHIN R/W)

NOTE:
SEE LIGHTING, SIGNING, & SIGNAL PLANS
FOR ADDITIONAL REMOVALS.

PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	REMOVAL PLAN	SHEET 39	E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\PLAN DETAILS\023101-REM.DWG PLOT DATE : 9/30/2022 2:42 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : **********
WISDOT/CADDS SHEET 42

REMOVAL PLAN LEGEND

- REMOVING CONCRETE PAVEMENT
- REMOVING CONCRETE SIDEWALK
- REMOVING ASPHALTIC SURFACE MILLING
- REMOVING STORM SEWER
- CLEARING & GRUBBING (STA.)
- CLEARING & GRUBBING (ID)
- SAWING CONCRETE/ASPHALT
- REMOVING FENCE
- REMOVING CURB & GUTTER
- REMOVING SMALL PIPE CULVERT

MATCH LINE STA 60+00'N'

STA 60+24'S'
SAWING CONCRETE
REQUIRED

STA 60+37'S'
SAWING CONCRETE
REQUIRED

REMOVING INLET

SLOPE INTERCEPT (TYP.)

HMA REMOVAL INCIDENTAL TO
COMMON EXCAVATION (TYP.)

CLEARING & GRUBBING (16" ID)

MATCH LINE STA 18+50'E'

EXISTING R/W

R/W

70TH AVENUE

19+00'E'

20+00'E'

21+00'E'

REMOVING CURB & GUTTER

STH 65

61+00'S'
62+00'S'
63+00'S'
64+00'S'
65+00'S'
66+00'S'

61+00'N'
62+00'N'
63+00'N'
64+00'N'
65+00'N'

REMOVING FENCE

REMOVING R/W MARKER

EXISTING R/W

EXISTING UTILITY EASEMENT

R/W

CLEARING AND GRUBBING
STA. 59+00'N' - STA. 64+50'N'
(REMOVE ALL TREES WITHIN R/W)

STA 20+45'E'
REMOVING SMALL PIPE CULVERT

MATCH LINE STA 21+50'E'

MATCH LINE STA 66+00'N'

NOTE:
SEE LIGHTING, SIGNING, & SIGNAL PLANS
FOR ADDITIONAL REMOVALS.

PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	REMOVAL PLAN	SHEET 40	E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\PLAN DETAILS\023101-REM.DWG PLOT DATE : 9/30/2022 2:42 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : **********

2

REMOVAL PLAN LEGEND

- REMOVING CONCRETE PAVEMENT
- REMOVING CONCRETE SIDEWALK
- REMOVING ASPHALTIC SURFACE MILLING
- REMOVING STORM SEWER
- CLEARING & GRUBBING (STA.)
- CLEARING & GRUBBING (ID)
- SAWING CONCRETE/ASPHALT
- REMOVING FENCE
- REMOVING CURB & GUTTER
- REMOVING SMALL PIPE CULVERT

N

R/W

SLOPE INTERCEPT (TYP.)

REMOVING R/W MARKER

REMOVING R/W MARKER

EXISTING R/W

HMA REMOVAL INCIDENTAL TO COMMON EXCAVATION (TYP.)

REMOVING R/W MARKER

MATCH LINE STA 66+00'N'

67+00'S'

68+00'S'

69+00'S'

70+00'S'

71+00'S'

72+00'S'

MATCH STA 72+00'N'

67+00'N'

68+00'N'

69+00'N'

70+00'N'

71+00'N'

STH 65

PARK & RIDE

SLOPE INTERCEPT (TYP.)

EXISTING R/W

REMOVING FENCE

NOTE:
SEE LIGHTING, SIGNING, & SIGNAL PLANS
FOR ADDITIONAL REMOVALS.

PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	REMOVAL PLAN	SHEET 41	E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\PLAN DETAILS\023101-REM.DWG PLOT DATE : 9/30/2022 2:42 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : **********

WISDOT/CADDS SHEET 42

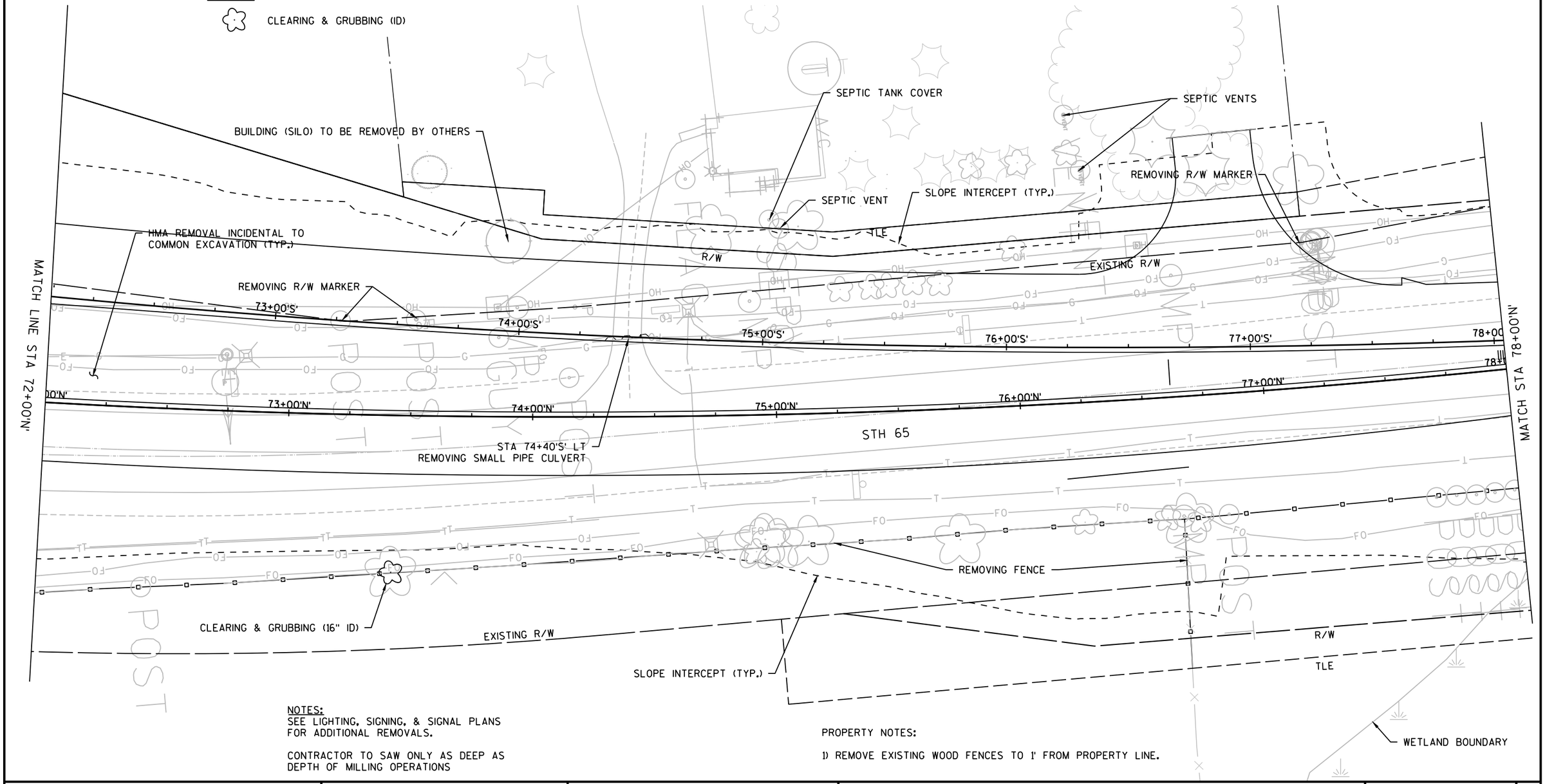
2

REMOVAL PLAN LEGEND

- REMOVING CONCRETE PAVEMENT
- REMOVING CONCRETE SIDEWALK
- REMOVING ASPHALTIC SURFACE MILLING
- REMOVING STORM SEWER
- CLEARING & GRUBBING (STA.)
- CLEARING & GRUBBING (ID)
- SAWING CONCRETE/ASPHALT
- REMOVING FENCE
- REMOVING CURB & GUTTER
- REMOVING SMALL PIPE CULVERT

PROPERTY NOTES:

1) DO NOT DISTURB EXISTING SEPTIC SYSTEM, TREES, LANDSCAPING AT EXISTING RESIDENTIAL PROPERTY.



NOTES:
SEE LIGHTING, SIGNING, & SIGNAL PLANS FOR ADDITIONAL REMOVALS.

CONTRACTOR TO SAW ONLY AS DEEP AS DEPTH OF MILLING OPERATIONS

PROPERTY NOTES:

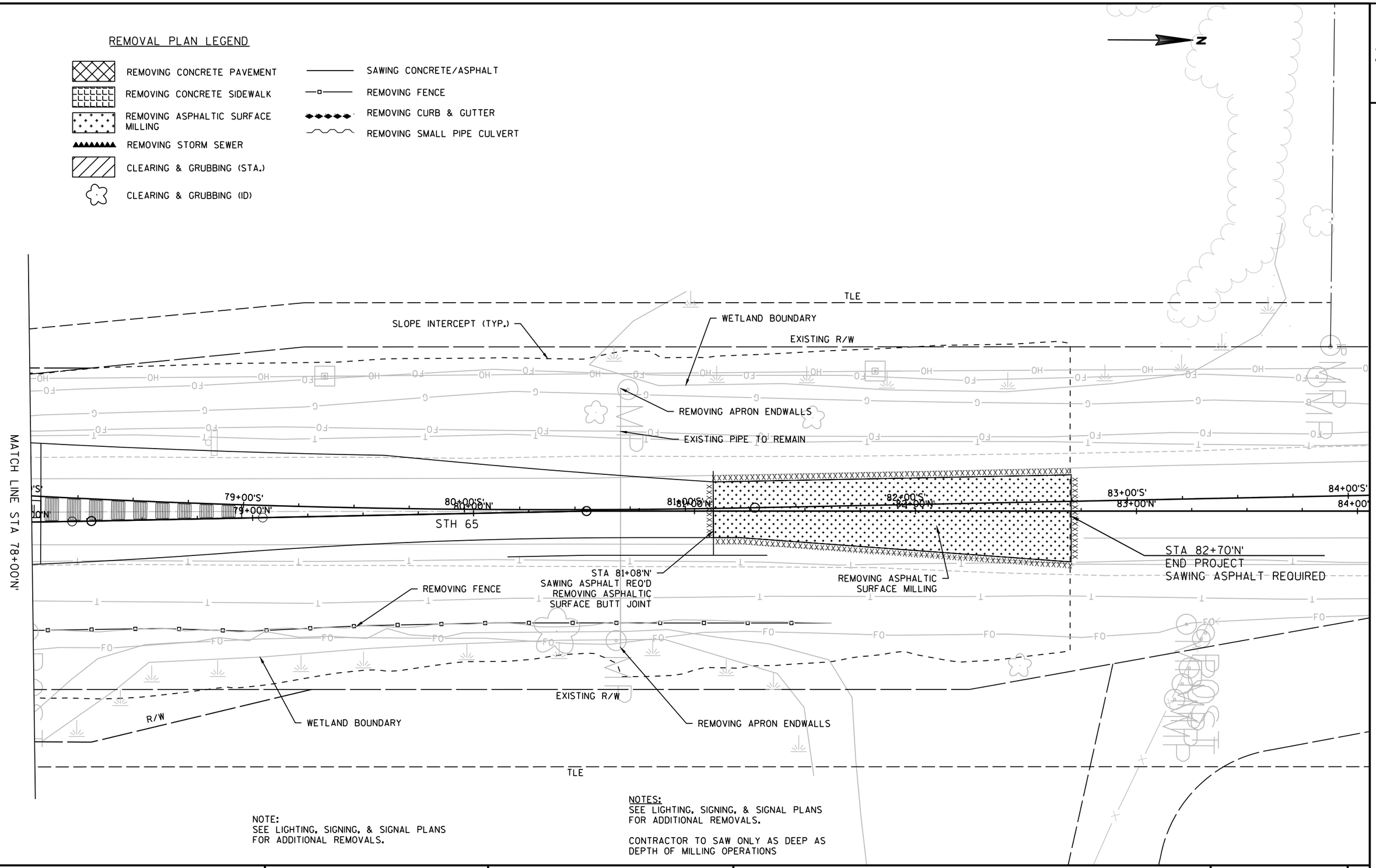
1) REMOVE EXISTING WOOD FENCES TO 1' FROM PROPERTY LINE.

PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	REMOVAL PLAN	SHEET 42	E

2

REMOVAL PLAN LEGEND

- REMOVING CONCRETE PAVEMENT
- REMOVING CONCRETE SIDEWALK
- REMOVING ASPHALTIC SURFACE MILLING
- REMOVING STORM SEWER
- CLEARING & GRUBBING (STA.)
- CLEARING & GRUBBING (ID)
- SAWING CONCRETE/ASPHALT
- REMOVING FENCE
- REMOVING CURB & GUTTER
- REMOVING SMALL PIPE CULVERT



NOTE:
SEE LIGHTING, SIGNING, & SIGNAL PLANS
FOR ADDITIONAL REMOVALS.

NOTES:
SEE LIGHTING, SIGNING, & SIGNAL PLANS
FOR ADDITIONAL REMOVALS.

CONTRACTOR TO SAW ONLY AS DEEP AS
DEPTH OF MILLING OPERATIONS

PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	REMOVAL PLAN	SHEET 43	E

NOTE:
SEE LIGHTING, SIGNING, & SIGNAL PLANS
FOR ADDITIONAL REMOVALS.

REMOVAL PLAN LEGEND

- REMOVING CONCRETE PAVEMENT
- REMOVING CONCRETE SIDEWALK
- REMOVING ASPHALTIC SURFACE MILLING
- REMOVING STORM SEWER
- CLEARING & GRUBBING (STA.)
- CLEARING & GRUBBING (ID)
- SAWING CONCRETE/ASPHALT
- REMOVING FENCE
- REMOVING CURB & GUTTER
- REMOVING SMALL PIPE CULVERT

UTILITY EASEMENT

TLE

SLOPE INTERCEPT (TYP.)

R/W

HMA REMOVAL INCIDENTAL TO COMMON EXCAVATION (TYP.)

EXISTING R/W

STA 16+60'E' RT
REMOVING SMALL PIPE CULVERT

13+00'E' 14+00'E' 15+00'E' 16+00'E' 17+00'E' 18+00'E'

MATCH LINE STA 18+50'E'

70TH AVENUE

STA 18+10'E'
BEGIN CONSTRUCTION
MATCH ADJACENT PROJECT

EXISTING R/W

PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	REMOVAL PLAN	SHEET 44	E

2

PARK & RIDE

REMOVAL PLAN LEGEND

- REMOVING CONCRETE PAVEMENT
- REMOVING CONCRETE SIDEWALK
- REMOVING ASPHALTIC SURFACE MILLING
- REMOVING STORM SEWER
- CLEARING & GRUBBING (STA.)
- CLEARING & GRUBBING (ID)
- SAWING CONCRETE/ASPHALT
- REMOVING FENCE
- REMOVING CURB & GUTTER
- REMOVING SMALL PIPE CULVERT

REMOVING CONCRETE SIDEWALK

REMOVING CURB & GUTTER

STA 22+15'E' LT
REMOVING SMALL PIPE CULVERTS (2 EA)

EXISTING R/W

R/W

TLE

REMOVING R/W MARKER

STA 24+90'E' LT
REMOVING SMALL PIPE CULVERT

STA 26+50'E'
END CONSTRUCTION
SAWING ASPHALT REQUIRED

EXISTING R/W

STA. 23+00'E'
REMOVING SMALL
PIPE CULVERT

REMOVING CURB & GUTTER

MATCH LINE STA 21+50'E'

22+00'E' 23+00'E' 24+00'E' 25+00'E' 26+00'E' 27+00'E'

70TH AVENUE

REESTABLISH SECTION
CORNER MONUMENT

REMOVING R/W MARKER

EXISTING R/W

TLE

SLOPE INTERCEPT (TYP.)

HMA REMOVAL INCIDENTAL TO
COMMON EXCAVATION (TYP.)

R/W

PROPERTY NOTES:

1) REMOVE EXISTING WOOD FENCES TO 1' FROM PROPERTY LINE.

NOTE:
SEE LIGHTING, SIGNING, & SIGNAL PLANS
FOR ADDITIONAL REMOVALS.

PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	REMOVAL PLAN	SHEET 45	E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\PLAN DETAILS\023101-REM.DWG PLOT DATE : 9/30/2022 2:42 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

N

DETAIL 2

DETAIL 3

DETAIL 1

66+00'S'

65+50'S'

65+00'S'

66+00'N'

65+50'N'

65+00'N'

64+50'S'

64+00'S'

64+50'N'

64+00'N'

STH 65 SB

STH 65 NB

70TH AVENUE

18+50'W' 19+00'W' 19+50'W' 20+00'W' 20+50'W' 21+00'W' 21+50'W' 22+00'W'

18+50'E' 19+00'E' 19+50'E' 20+00'E' 20+50'E' 21+00'E' 21+50'E' 22+00'E'

XXXX XXXX

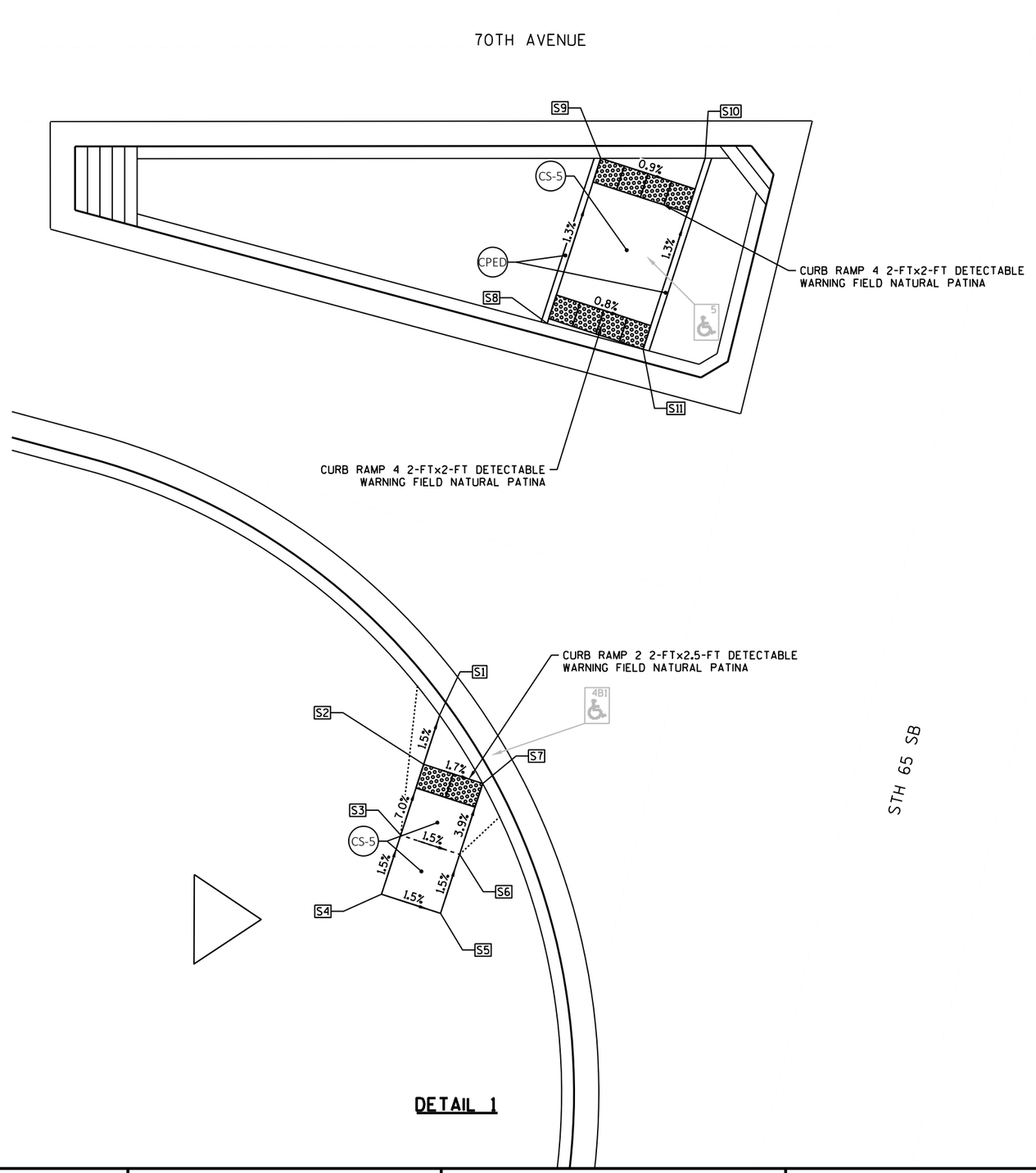
CURB RAMP DETAIL

STH 65 & 70TH AVE.

THIS DETAIL SUPPLEMENTS STANDARD DETAIL DRAWINGS CURB RAMPS TYPES 4B1, 5, AND 6.

PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CURB RAMP DETAILS OVERVIEW	SHEET 46	E

2



DETAIL 1

N

POINT NO.	STATION	OFFSET	ELEVATION
S1	64+08.24'S'	57.55' LT	1003.30
S2	64+04.08'S'	57.86' LT	1003.36
S3	63+98.10'S'	58.30' LT	1003.78
S4	63+93.11'S'	58.67' LT	1003.86
S5	63+92.75'S'	53.69' LT	1003.78
S6	63+97.73'S'	53.32' LT	1003.71
S7	64+03.72'S'	52.87' LT	1003.45

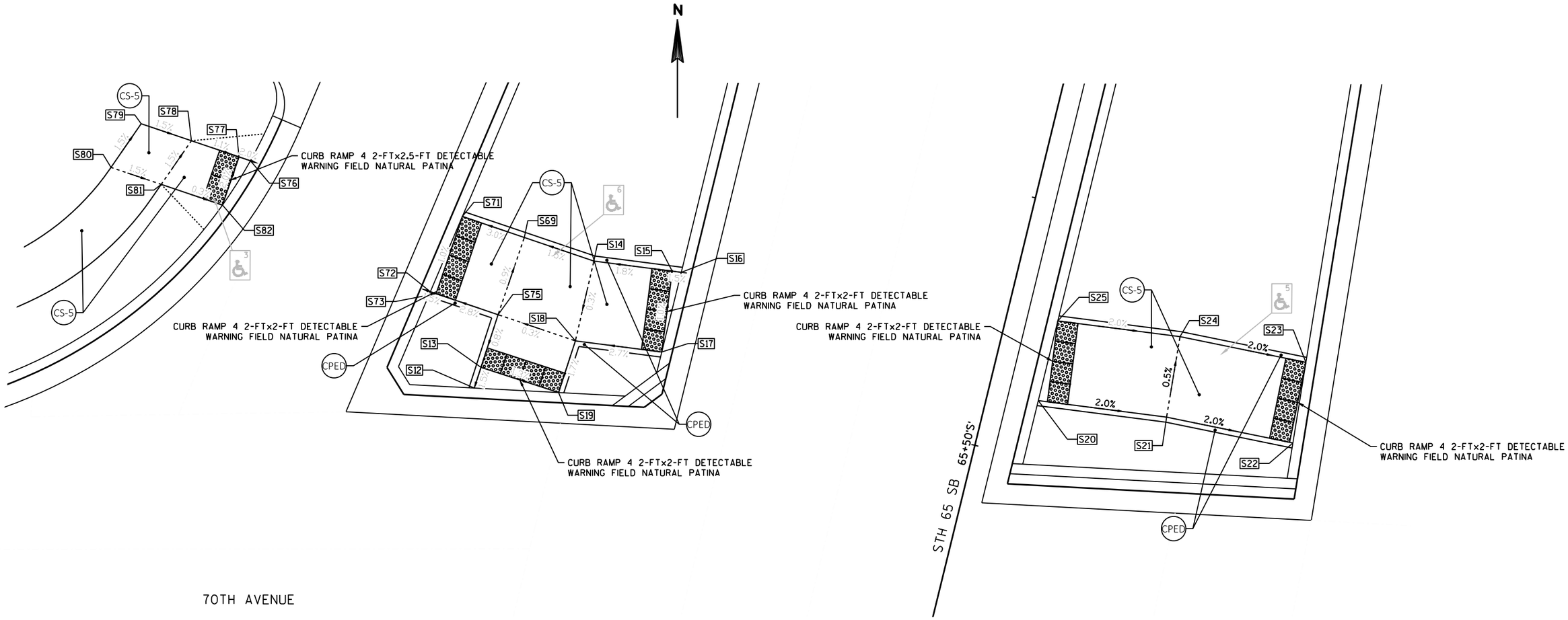
POINT NO.	STATION	OFFSET	ELEVATION
S8	64+40.94'S'	56.64' LT	1003.16
S9	64+54.89'S'	55.60' LT	1002.97
S10	64+56.90'S'	47.43' LT	1003.00
S11	64+40.77'S'	48.63' LT	1003.23

LEGEND

CPED	CONCRETE CURB PEDESTRIAN
CS-5	CONCRETE SIDEWALK 5-INCH

PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CURB RAMP DETAILS	SHEET 47	E

2



DETAIL 2

POINT NO.	STATION	OFFSET	ELEVATION
S76	65+60.23'S'	75.64' LT	1001.82
S77	65+60.34'S'	76.83' LT	1001.84
S78	65+60.77'S'	81.73' LT	1001.89
S79	65+61.22'S'	86.91' LT	1001.97
S80	65+56.35'S'	88.77' LT	1002.04
S81	65+55.91'S'	83.59' LT	1001.96
S82	65+55.36'S'	77.27' LT	1001.94

POINT NO.	STATION	OFFSET	ELEVATION
S12	65+43.79'S'	49.02' LT	1002.44
S13	65+45.92'S'	48.86' LT	1002.40
S14	65+58.68'S'	40.59' LT	1002.40
S15	65+59.55'S'	32.89' LT	1002.54
S16	65+59.65'S'	32.00' LT	1002.55
S17	65+51.60'S'	32.00' LT	1002.61
S18	65+50.64'S'	40.49' LT	1002.38
S19	65+45.33'S'	40.88' LT	1002.30
S69	65+59.31'S'	47.77' LT	1002.29
S71	65+59.89'S'	54.16' LT	1002.10
S72	65+51.95'S'	55.46' LT	1002.17
S73	65+51.90'S'	54.85' LT	1002.18
S75	65+51.34'S'	48.46' LT	1002.36

LEGEND

CPED	CONCRETE CURB PEDESTRIAN
CS-5	CONCRETE SIDEWALK 5-INCH

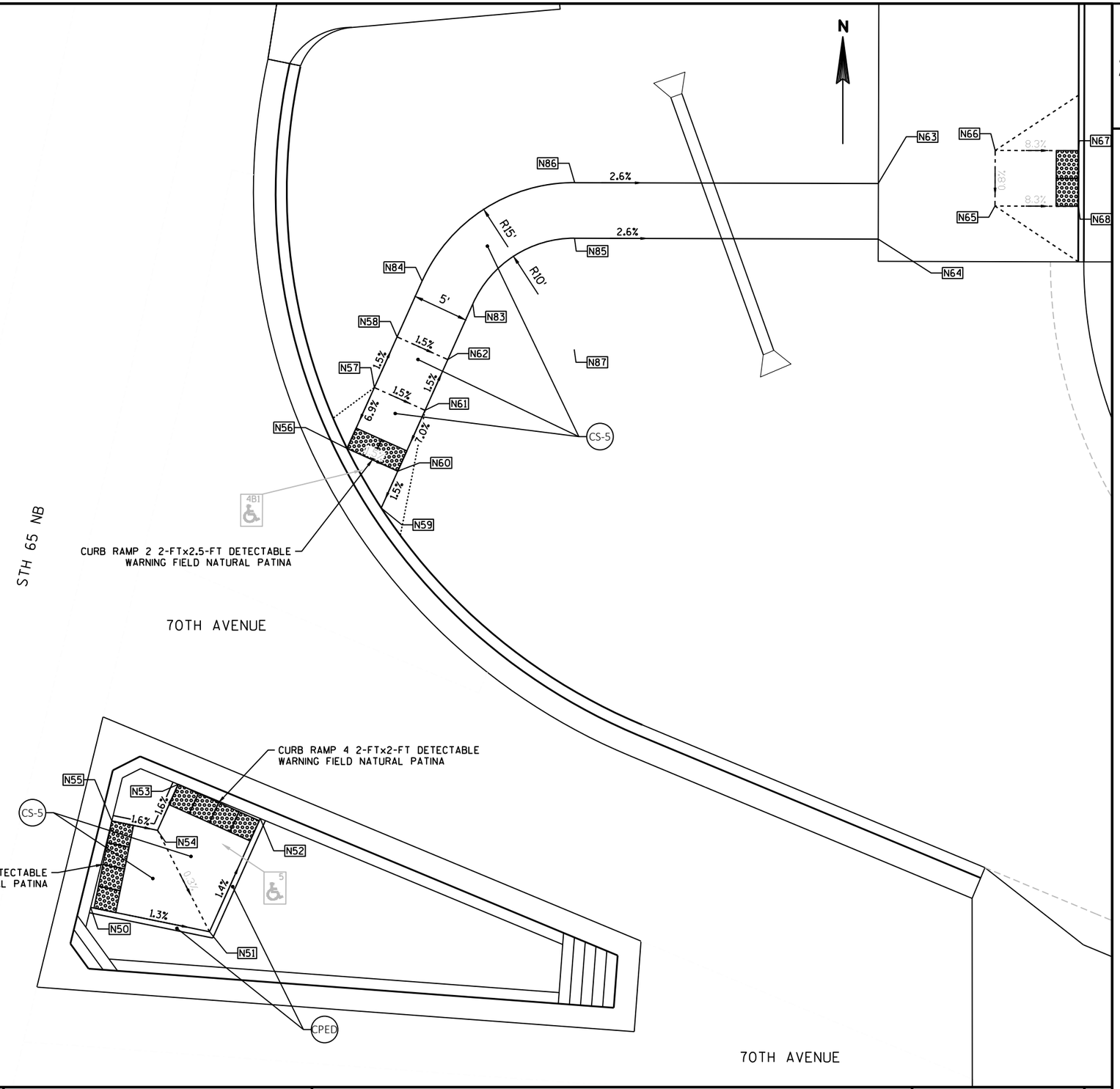
POINT NO.	STATION	OFFSET	ELEVATION
S20	65+55.74'S'	5.00' RT	1002.69
S21	65+57.16'S'	17.60' RT	1002.41
S22	65+57.64'S'	30.24' RT	1002.17
S23	65+65.62'S'	29.60' RT	1002.13
S24	65+65.14'S'	17.00' RT	1002.37
S25	65+63.80'S'	5.00' RT	1002.61

POINT NO.	STATION	OFFSET	ELEVATION
N56	65+93.18'N'	44.59' RT	1000.57
N57	65+98.08'N'	45.75' RT	1000.99
N58	66+02.98'N'	46.76' RT	1000.91
N59	65+88.70'N'	48.85' RT	1000.44
N60	65+92.27'N'	49.51' RT	1000.49
N61	65+97.07'N'	50.64' RT	1000.91
N62	66+01.97'N'	51.65' RT	1000.84
N63	66+25.82'N'	86.04' RT	999.74
N64	66+20.93'N'	87.13' RT	999.70
N65	66+26.11'N'	96.73' RT	999.57
N66	66+31.00'N'	95.66' RT	999.61
N67	66+32.60'N'	102.99' RT	998.99
N68	66+27.72'N'	104.06' RT	998.95
N83	66+07.35'N'	52.76' RT	1000.70
N84	66+08.36'N'	47.87' RT	1000.79
N85	66+15.10'N'	60.42' RT	1000.40
N86	66+19.98'N'	59.35' RT	1000.47
N87	66+05.33'N'	62.62' RT	999.25

LEGEND

CPED	CONCRETE CURB PEDESTRIAN
CS-5	CONCRETE SIDEWALK 5-INCH

DETAIL 3



POINT NO.	STATION	OFFSET	ELEVATION
N50	65+47.58'N'	32.00' RT	1001.06
N51	65+48.00'N'	42.90' RT	1000.91
N52	65+58.98'N'	44.92' RT	1000.75
N53	65+60.21'N'	37.01' RT	1000.87
N54	65+55.75'N'	36.19' RT	1000.94
N55	65+55.59'N'	32.00' RT	1001.01

PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CURB RAMP DETAILS	SHEET 49	E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\PLAN DETAILS\021002-CD.DWG
LAYOUT NAME - ****
PLOT DATE : 9/30/2022 4:37 PM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : **********
WISDOT/CADDS SHEET 42

2

PLAN DETAILS LEGEND

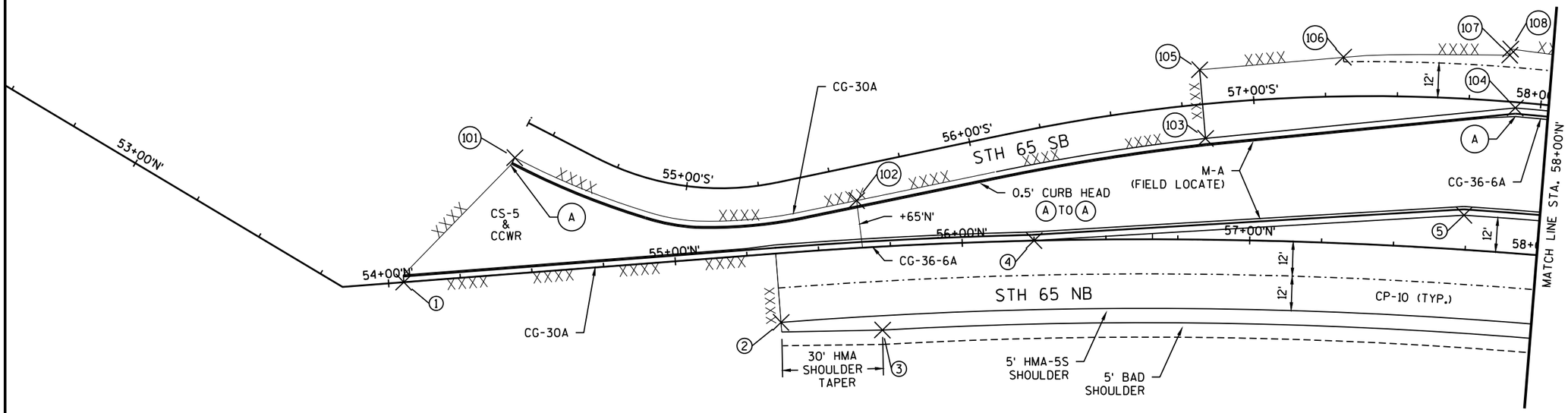
	CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA
	PROPOSED INLET
	PROPOSED MANHOLE
CS-5	CONCRETE SIDEWALK 5-INCH
XXXXXX	SAWING ASPHALT/CONCRETE
XX	LAYOUT POINT NUMBER
CCM	CONCRETE CORRUGATED MEDIAN
SN-1	CONCRETE MEDIAN SLOPED NOSE TYPE 1
SN-2	CONCRETE MEDIAN SLOPED NOSE TYPE 2
BN	CONCRETE MEDIAN BLUNT NOSE
	PROPOSED ENDWALL
ASPH	ASPHALTIC SURFACE
	ANTICIPATED CONCRETE JOINTING

CG-36-4R	CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE R
CG-36-6A	CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE A
CG-36-6D	CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D
CG-30A	CONCRETE CURB & GUTTER 30-INCH TYPE A
M-A	MAINTENANCE ACCESS, SEE CONSTRUCTION DETAIL
CP-10	CONCRETE PAVEMENT 10-INCH
CRTA-12	CONCRETE ROUNDABOUT TRUCK APRON
CCWR	COLORING CONCRETE WISDOT RED
HMA-2	HMA PAVEMENT 5 MT 58-34 V (2-INCH, UPPER)
HMA-5S	HMA PAVEMENT 5 MT 58-34 V (2-INCH, UPPER) HMA PAVEMENT 3 MT 58-34 V (3-INCH, LOWER)
HMA-5	HMA PAVEMENT 5 MT 58-34 V (1.5-INCH, UPPER) HMA PAVEMENT 3 MT 58-34 V (3.5-INCH, LOWER)
HMA-7.75	HMA PAVEMENT 5 MT 58-34 V (1.5-INCH, UPPER) HMA PAVEMENT 3 MT 58-34 V (3-INCH, MIDDLE) HMA PAVEMENT 3 MT 58-34 V (3.25-INCH, LOWER)

SHEET 1 OF 11

PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	PLAN DETAILS	SHEET 50 E

2



STH 65 'S' POINTS

POINT	STATION	OFFSET	DESCRIPTION
101	54+41.65'S'	12.96' RT	EDGE OF CURB & GUTTER
102	55+57.37'S'	11.83' RT	EDGE OF CURB & GUTTER
103	56+82.02'S'	11.92' RT	EDGE OF CURB & GUTTER
104	57+91.24'S'	02.00' RT	EDGE OF CURB & GUTTER
105	56+82.26'S'	12.00' LT	EDGE OF PAVEMENT
106	57+31.47'S'	13.65' LT	EDGE OF PAVEMENT
107	57+87.92'S'	16.12' LT	EDGE OF PAVEMENT
108	57+88.03'S'	18.26' LT	EDGE OF PAVEMENT

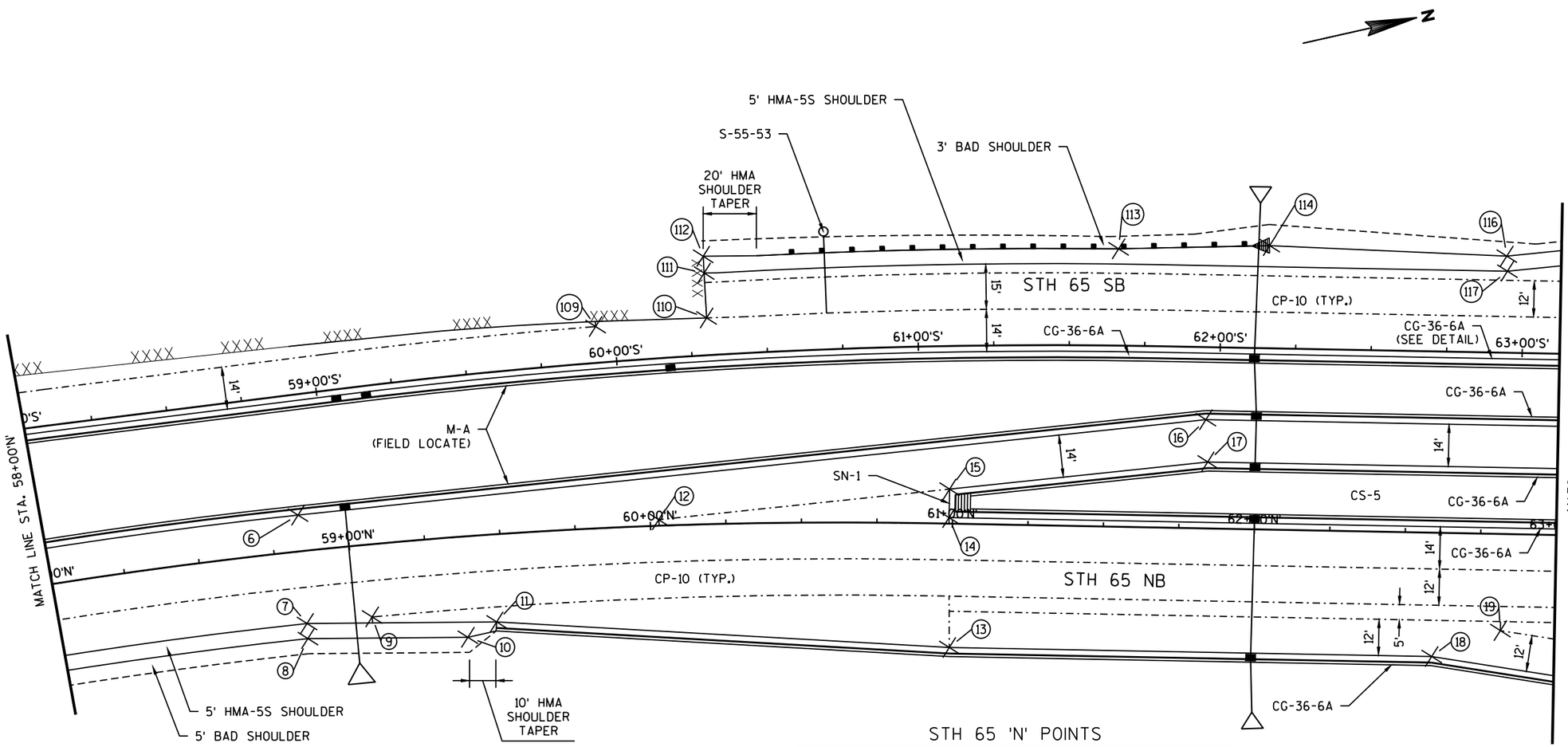
STH 65 'N' POINTS

POINT	STATION	OFFSET	DESCRIPTION
1	54+05.30'N'	00.00' RT	END OF CURB & GUTTER
2	55+35.03'N'	24.00' RT	EDGE OF PAVEMENT
3	55+70.64'N'	29.00' RT	EDGE OF SHOULDER
4	56+25.00'N'	00.03' LT	EDGE OF CURB & GUTTER
5	57+73.83'N'	12.00' LT	EDGE OF CURB & GUTTER

PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	PLAN DETAILS	SHEET 51	E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\PLAN DETAILS\021201-PD.DWG PLOT DATE : 9/30/2022 4:53 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2



STH 65 'S' POINTS

POINT	STATION	OFFSET	DESCRIPTION
109	59+93.94'S'	12.00' LT	JOINT
110	60+30.56'S'	12.33' LT	EDGE OF PAVEMENT
111	60+30.62'S'	27.21' LT	EDGE OF PAVEMENT
112	60+30.64'S'	32.78' LT	EDGE OF SHOULDER
113	61+65.94'S'	32.04' LT	BEGIN OF TAPER
114	62+15.73'S'	34.00' LT	END OF TAPER
116	62+94.32'S'	32.00' LT	EDGE OF SHOULDER
117	62+94.62'S'	27.00' LT	EDGE OF PAVEMENT

STH 65 'N' POINTS

POINT	STATION	OFFSET	DESCRIPTION
6	58+84.23'N'	12.00' LT	EDGE OF CURB & GUTTER
7	58+83.38'N'	24.00' RT	EDGE OF PAVEMENT
8	58+83.13'N'	29.00' RT	EDGE OF SHOULDER
9	59+05.37'N'	24.00' RT	JOINT
10	59+36.93'N'	33.38' RT	EDGE OF SHOULDER
11	59+46.98'N'	29.00' RT	EDGE OF CURB & GUTTER
12	60+02.79'N'	02.00' LT	JOINT
13	60+99.74'N'	41.00' RT	EDGE OF CURB & GUTTER
14	60+98.85'N'	02.00' LT	EDGE OF CURB & GUTTER
15	60+98.85'N'	11.43' LT	EDGE OF CURB & GUTTER
16	61+83.28'N'	36.01' LT	EDGE OF CURB & GUTTER
17	61+84.14'N'	22.01' LT	EDGE OF CURB & GUTTER
18	62+59.51'N'	41.00' RT	EDGE OF CURB & GUTTER
19	62+82.09'N'	32.00' RT	JOINT

SHEET 3 OF 11

PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	PLAN DETAILS	SHEET 52	E

2

SEE SHEET 5 OF 11 FOR STATION/OFFSET INFORMATION

N

MATCH LINE STA. 18+50'E'

10' CURB HEAD TRANS. FROM 12" TO 6"

70TH AVENUE

3' BAD SHOULDER

5' HMA-5S SHOULDER

ASPHALTIC FLUME

2' HMA-5S SHOULDER

1' BAD SHOULDER

CG-36-6A

CS-5

CP-10 (TYP.)

SN-1

SN-2

BN

CG-36-6A (SEE DETAIL)

CG-36-4R (ADJACENT TO CRTA-12)

CRTA-12 & CCWR

CS-5 & CCWR

STH 65 SB

STH 65 NB

MATCH LINE STA. 63+00'N'

MATCH LINE STA. 68+50'N'

MATCH LINE STA. 22+00'E'

64+00'S'

65+00'S'

66+00'S'

67+00'S'

68+00'S'

64+00'N'

65+00'N'

66+00'N'

67+00'N'

68+00'N'

19+00'E'

19+00'W'

20+00'E'

20+00'W'

21+00'E'

21+00'W'

22+00'E'

+25'N'

CCM

HMA-7.75

NOTE: REFER TO CURB RAMP DETAILS FOR SIDEWALK DETAILS.

SHEET 4 OF 11

PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	PLAN DETAILS	SHEET 53	E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\PLAN DETAILS\021201-PD.DWG PLOT DATE : 9/30/2022 4:53 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

STH 65 'S' POINTS

POINT	STATION	OFFSET	DESCRIPTION
119	63+91.49'S'	02.00' RT	TRANS. TO MOUNTABLE CURB
120	64+16.77'S'	24.00' RT	TRANS. TO MOUNTABLE CURB
121	63+59.62'S'	39.84' LT	EDGE OF SHOULDER
122	63+69.62'S'	36.00' LT	EDGE OF CURB & GUTTER
123	63+92.65'S'	39.76' LT	JOINT
124	64+37.57'S'	39.76' LT	EDGE OF CURB & GUTTER
125	64+61.87'S'	39.76' LT	EDGE OF CURB & GUTTER
126	64+49.48'S'	02.00' RT	EDGE OF CURB & GUTTER
127	64+54.88'S'	24.00' RT	EDGE OF CURB & GUTTER
128	64+90.67'S'	39.86' LT	JOINT
129	65+50.69'S'	33.80' RT	EDGE OF CURB & GUTTER
130	65+44.68'S'	02.00' RT	EDGE OF CURB & GUTTER
131	65+44.52'S'	29.00' LT	EDGE OF CURB & GUTTER
132	65+38.54'S'	60.69' LT	EDGE OF CURB & GUTTER
133	65+30.73'S'	90.57' LT	JOINT
134	65+50.78'S'	73.89' LT	JOINT
135	65+64.56'S'	71.63' LT	EDGE OF CURB & GUTTER
136	65+72.67'S'	120.96' LT	RAD 50'
137	66+76.31'S'	38.13' LT	EDGE OF CURB & GUTTER
138	66+76.31'S'	29.00' LT	EDGE OF CURB & GUTTER
139	67+19.81'S'	31.00' LT	JOINT
140	67+51.56'S'	41.00' LT	TAPER POINT
141	68+27.99'S'	02.00' RT	EDGE OF CURB & GUTTER
142	68+27.99'S'	11.62' RT	EDGE OF CURB & GUTTER

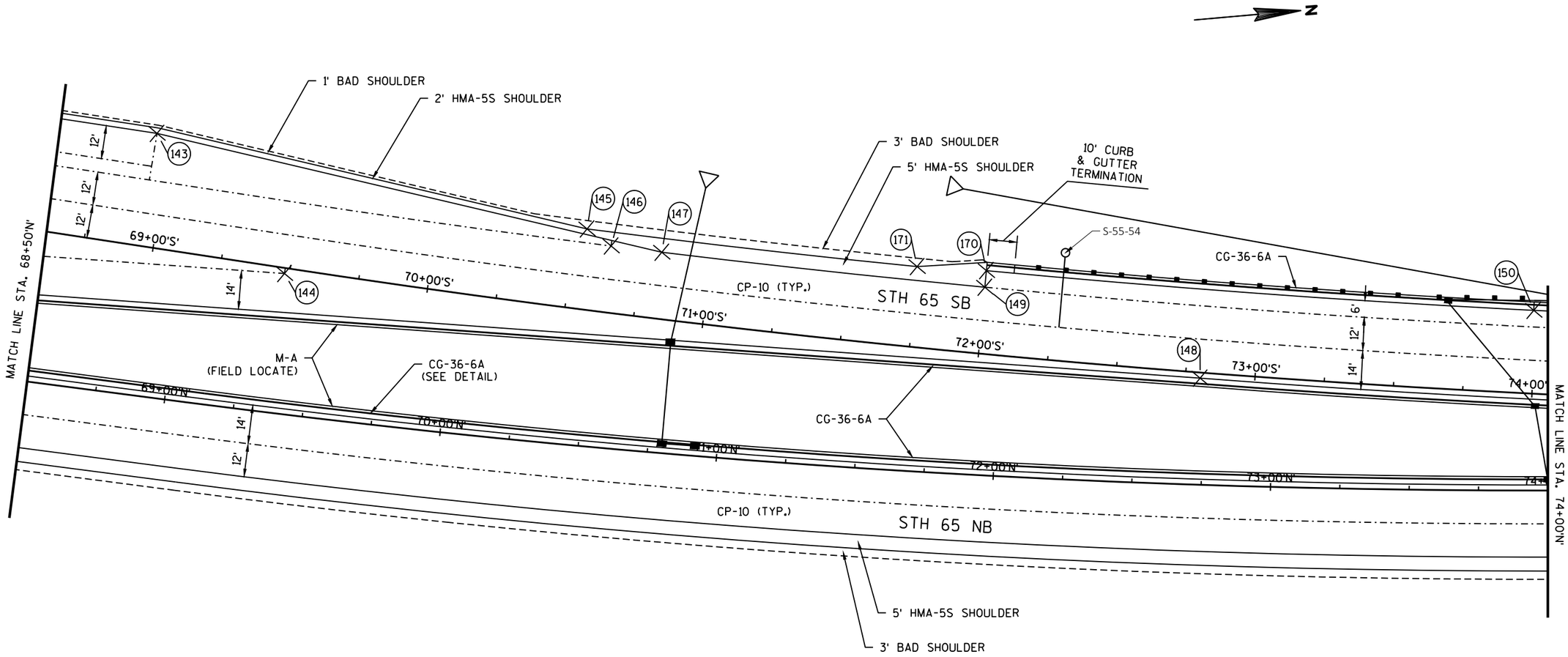
STH 65 'N' POINTS

POINT	STATION	OFFSET	DESCRIPTION
20	63+51.75'N'	58.77' RT	EDGE OF CRTA
21	63+71.45'N'	38.27' RT	EDGE OF CURB & GUTTER
22	63+71.45'N'	29.00' RT	EDGE OF CURB & GUTTER
23	63+83.52'N'	67.65' RT	EDGE OF CRTA
24	64+45.90'N'	22.00' LT	EDGE OF CURB & GUTTER
25	64+50.82'N'	02.00' LT	EDGE OF CURB & GUTTER
26	64+33.85'N'	65.05' RT	EDGE OF CURB & GUTTER
27	64+51.46'N'	67.47' RT	JOINT
28	64+70.79'N'	29.00' RT	EDGE OF CURB & GUTTER
29	64+76.64'N'	52.78' RT	EDGE OF CURB & GUTTER
30	65+39.47'N'	29.00' RT	EDGE OF CURB & GUTTER
31	65+64.50'N'	29.00' RT	EDGE OF CURB & GUTTER
32	65+55.58'N'	13.54' LT	EDGE OF CURB & GUTTER
33	65+57.51'N'	02.00' LT	EDGE OF CURB & GUTTER
34	66+14.42'N'	29.00' RT	JOINT
35	66+24.86'N'	30.00' RT	EDGE OF CURB & GUTTER
36	66+91.53'N'	24.00' RT	EDGE OF CURB & GUTTER
37	67+25.01'N'	29.00' RT	EDGE OF SHOULDER

70TH AVE 'E' POINTS

POINT	STATION	OFFSET	DESCRIPTION
205	18+72.87'E'	59.99' LT	EDGE OF CURB & GUTTER
206	18+89.56'E'	25.80' LT	EDGE OF CURB & GUTTER
207	19+19.32'E'	19.92' LT	EDGE OF CURB & GUTTER
208	19+18.83'E'	11.00' LT	EDGE OF CURB & GUTTER
210	18+64.62'E'	17.00' RT	EDGE OF CURB & GUTTER
211	18+64.62'E'	25.67' RT	EDGE OF CURB & GUTTER
212	18+68.02'E'	42.11' RT	EDGE OF CURB & GUTTER
213	18+82.21'E'	45.92' RT	EDGE OF CURB & GUTTER
214	18+54.26'E'	94.36' RT	RAD 55'
215	20+84.71'E'	21.72' LT	EDGE OF PAVEMENT
216	20+84.21'E'	12.08' LT	EDGE OF PAVEMENT
217	21+25.90'E'	60.46' LT	EDGE OF CURB & GUTTER
218	21+26.92'E'	43.78' LT	EDGE OF CURB & GUTTER
219	21+26.30'E'	35.63' LT	EDGE OF CURB & GUTTER
220	21+21.02'E'	27.00' RT	JOINT
221	21+40.58'E'	49.96' RT	EDGE OF CRTA
222	21+56.71'E'	101.00' RT	RAD 80'
223	21+87.37'E'	51.00' RT	RAD 30'
224	21+78.66'E'	26.00' RT	EDGE OF CRTA
225	21+87.37'E'	21.00' RT	EDGE OF CURB & GUTTER
226	21+56.71'E'	21.00' RT	EDGE OF CURB & GUTTER
227	21+56.71'E'	12.00' RT	EDGE OF PAVEMENT
228	21+56.77'E'	13.83' LT	EDGE OF PAVEMENT
229	21+56.71'E'	16.29' LT	EDGE OF PAVEMENT
230	21+56.71'E'	28.32' LT	EDGE OF PAVEMENT
231	21+56.71'E'	31.33' LT	EDGE OF PAVEMENT
232	21+56.71'E'	47.59' LT	EDGE OF CURB & GUTTER
233	21+66.71'E'	43.41' LT	EDGE OF PAVEMENT
287	21+47.11'E'	111.21' LT	RAD 55'

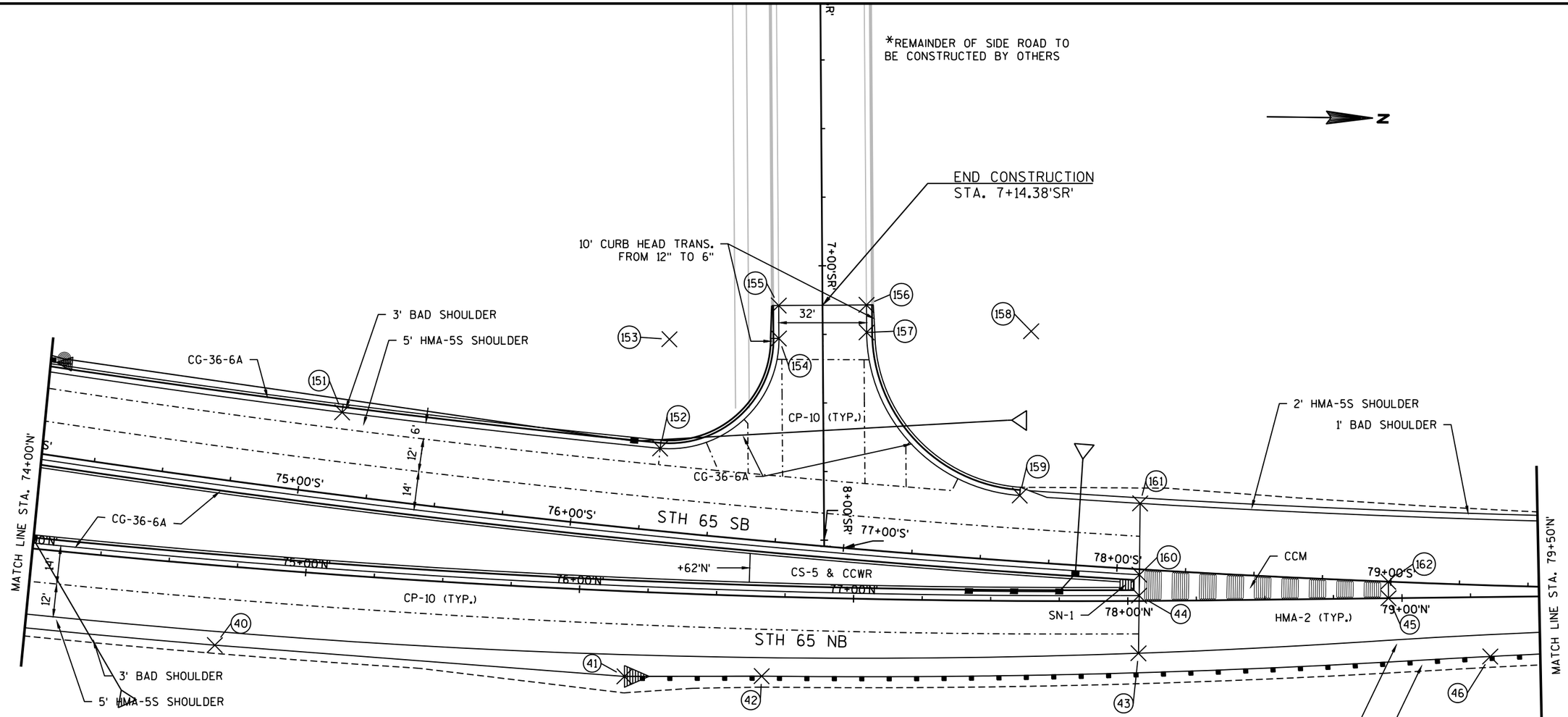
2



STH 65 'S' POINTS

POINT	STATION	OFFSET	DESCRIPTION
143	68+95.20'S'	41.00' LT	EDGE OF PAVEMENT
144	69+48.20'S'	02.00' RT	JOINT
145	70+54.33'S'	29.00' LT	EDGE OF SHOULDER
146	70+63.75'S'	24.00' LT	JOINT
147	70+82.24'S'	24.00' LT	EDGE OF PAVEMENT
148	72+80.29'S'	02.00' RT	TAPER POINT
149	72+00.00'S'	24.00' LT	EDGE OF PAVEMENT
150	73+99.14'S'	30.00' LT	TRANS. TO MOUNTABLE CURB
170	72+00.00'S'	30.00' LT	END OF CURB & GUTTER
171	71+74.84'S'	29.00' LT	TAPER POINT

2



STH 65 'S' POINTS

POINT	STATION	OFFSET	DESCRIPTION
151	75+12.39'S'	30.00' LT	TRANS. TO MOUNTABLE CURB
152	76+29.89'S'	30.00' LT	EDGE OF CURB & GUTTER
153	76+29.28'S'	69.92' LT	RAD 40'
154	76+69.63'S'	74.00' LT	EDGE OF CURB & GUTTER
155	76+68.44'S'	85.95' LT	EDGE OF CURB & GUTTER
156	77+00.93'S'	88.95' LT	EDGE OF CURB & GUTTER
157	77+01.85'S'	79.00' LT	EDGE OF CURB & GUTTER
158	77+62.75'S'	84.00' LT	RAD 60'
159	77+62.80'S'	24.00' LT	EDGE OF CURB & GUTTER
160	78+08.31'S'	01.99' RT	EDGE OF CURB & GUTTER
161	78+07.01'S'	23.99' LT	EDGE OF PAVEMENT
162	78+99.08'S'	00.00' RT	EDGE OF PAVEMENT

STH 65 'N' POINTS

POINT	STATION	OFFSET	DESCRIPTION
40	74+69.11'N'	29.00' RT	EDGE OF SHOULDER
41	76+17.74'N'	31.00' RT	START OF TAPER
42	76+67.35'N'	29.07' RT	END OF TAPER
43	78+03.80'N'	19.06' RT	EDGE OF PAVEMENT
44	78+04.16'N'	01.97' LT	EDGE OF CURB & GUTTER
45	78+95.08'N'	00.00' RT	EDGE OF PAVEMENT
46	79+31.91'N'	21.70' RT	EDGE OF SHOULDER

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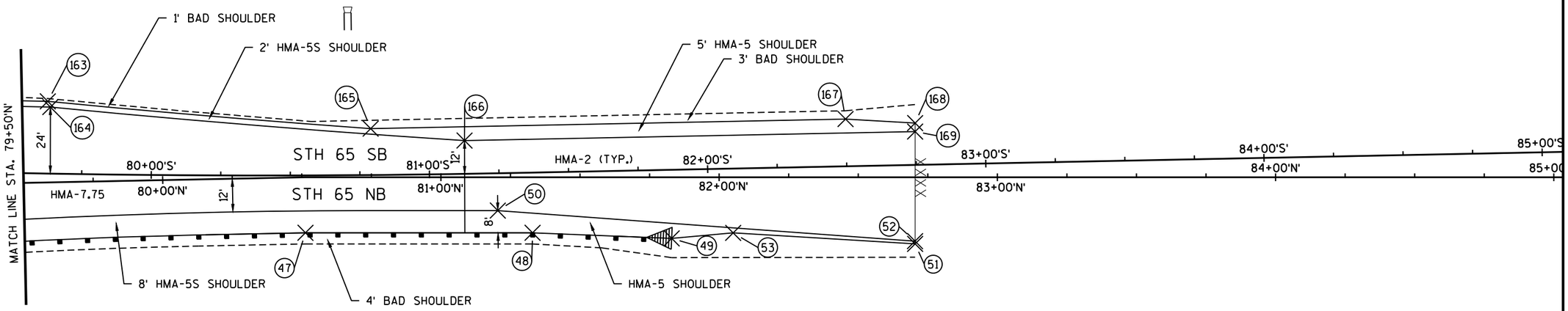


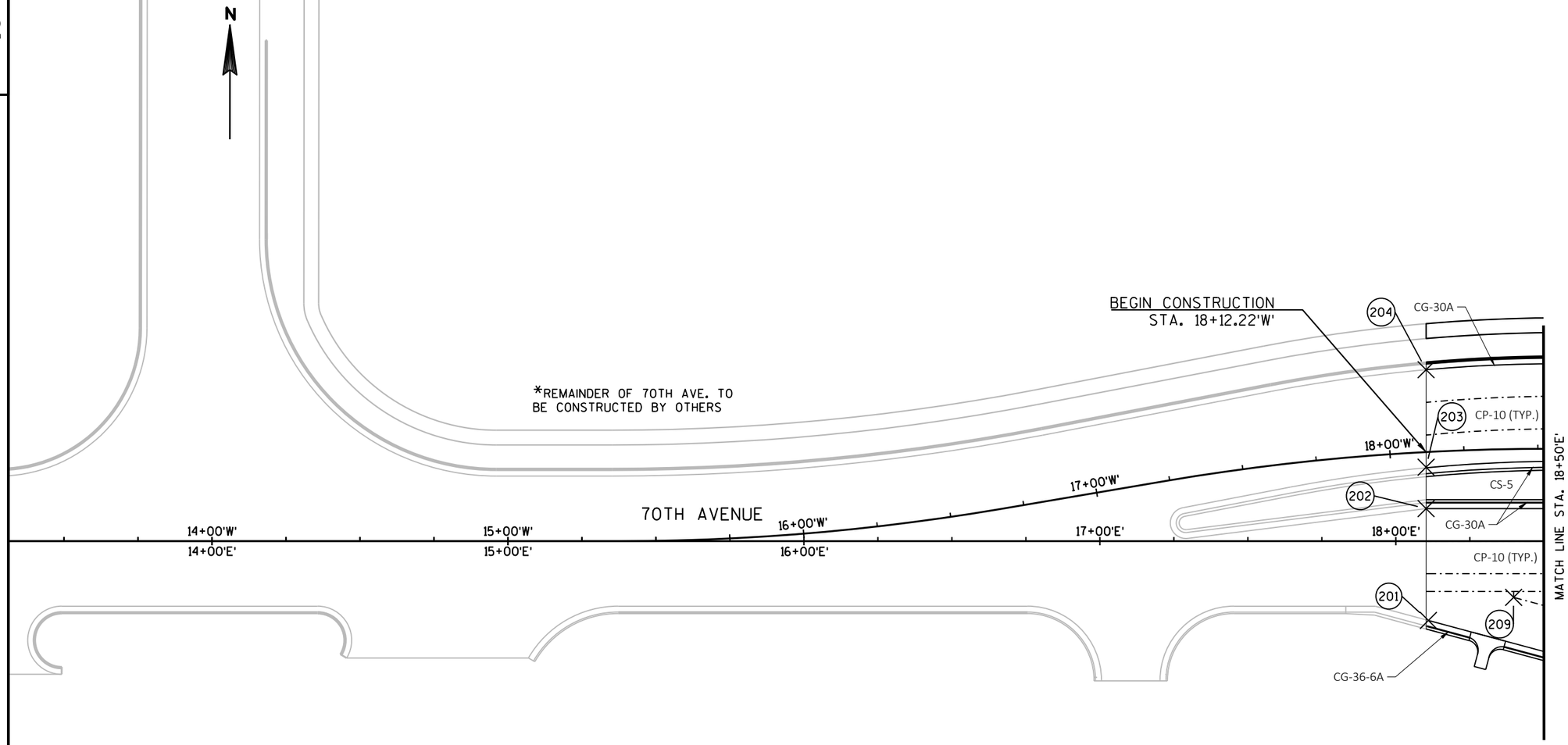
STH 65 'S' POINTS

POINT	STATION	OFFSET	DESCRIPTION
163	79+62.36'S'	26.00' LT	EDGE OF SHOULDER
164	79+63.32'S'	23.96' LT	EDGE OF PAVEMENT
165	80+79.00'S'	16.70' LT	EDGE OF SHOULDER
166	81+12.79'S'	12.00' LT	EDGE OF PAVEMENT
167	82+49.93'S'	17.00' LT	EDGE OF SHOULDER
168	82+74.89'S'	15.06' LT	EDGE OF SHOULDER
169	82+74.83'S'	12.00' LT	EDGE OF PAVEMENT

STH 65 'N' POINTS

POINT	STATION	OFFSET	DESCRIPTION
47	80+50.91'N'	20.00' RT	EDGE OF SHOULDER
48	81+32.94'N'	20.00' RT	START OF TAPER
49	81+82.94'N'	22.00' RT	END OF TAPER
50	81+20.45'N'	12.00' RT	EDGE OF PAVEMENT
51	82+70.45'N'	24.00' RT	EDGE OF SHOULDER
52	82+70.45'N'	23.00' RT	EDGE OF PAVEMENT
53	82+05.05'N'	20.00' RT	EDGE OF SHOULDER

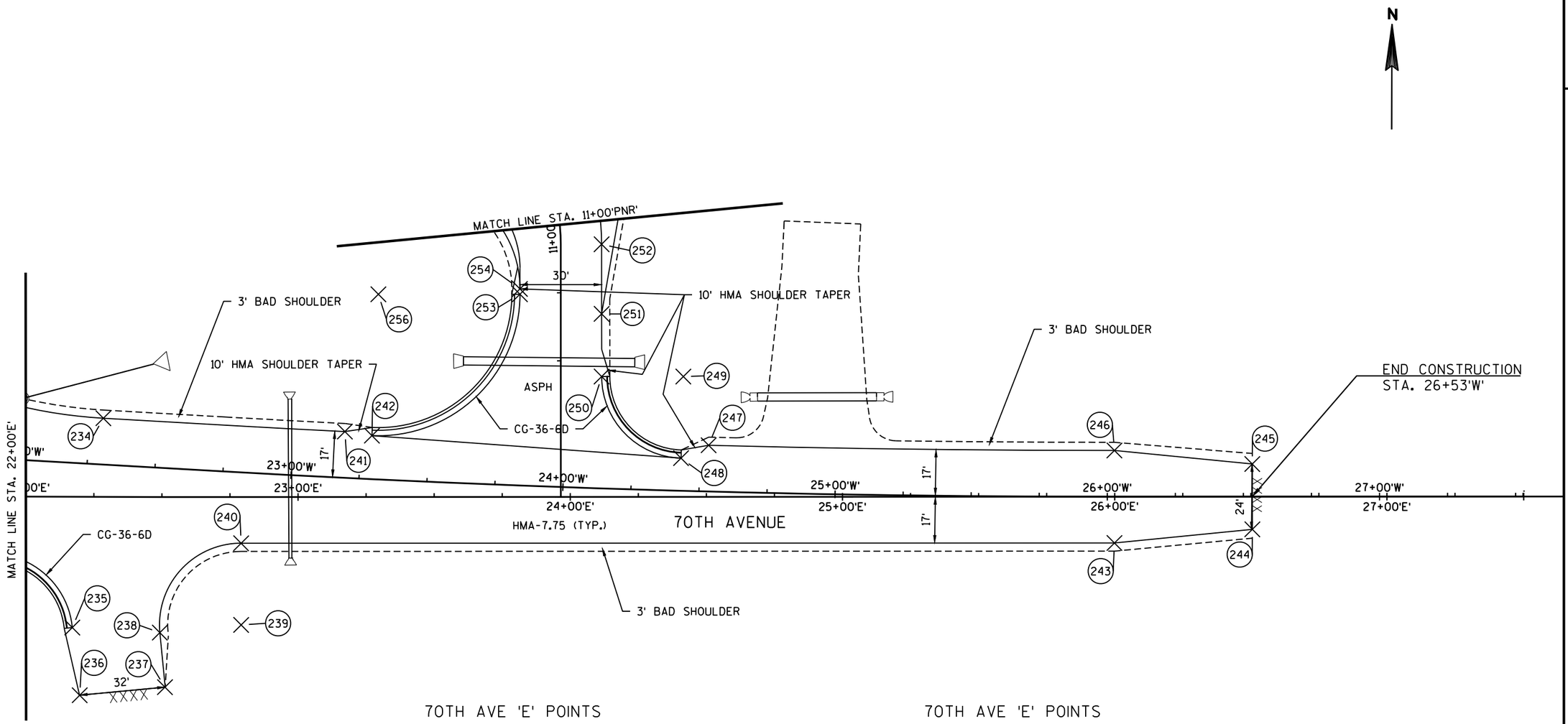
2



70TH AVE 'E' POINTS

POINT	STATION	OFFSET	DESCRIPTION
201	18+11.00'E'	26.80' RT	EDGE OF CURB & GUTTER
202	18+10.22'E'	11.00' LT	EDGE OF CURB & GUTTER
203	18+10.22'E'	25.00' LT	EDGE OF CURB & GUTTER
204	18+10.22'E'	57.95' LT	EDGE OF CURB & GUTTER
209	18+39.79'E'	19.00' RT	JOINT

2

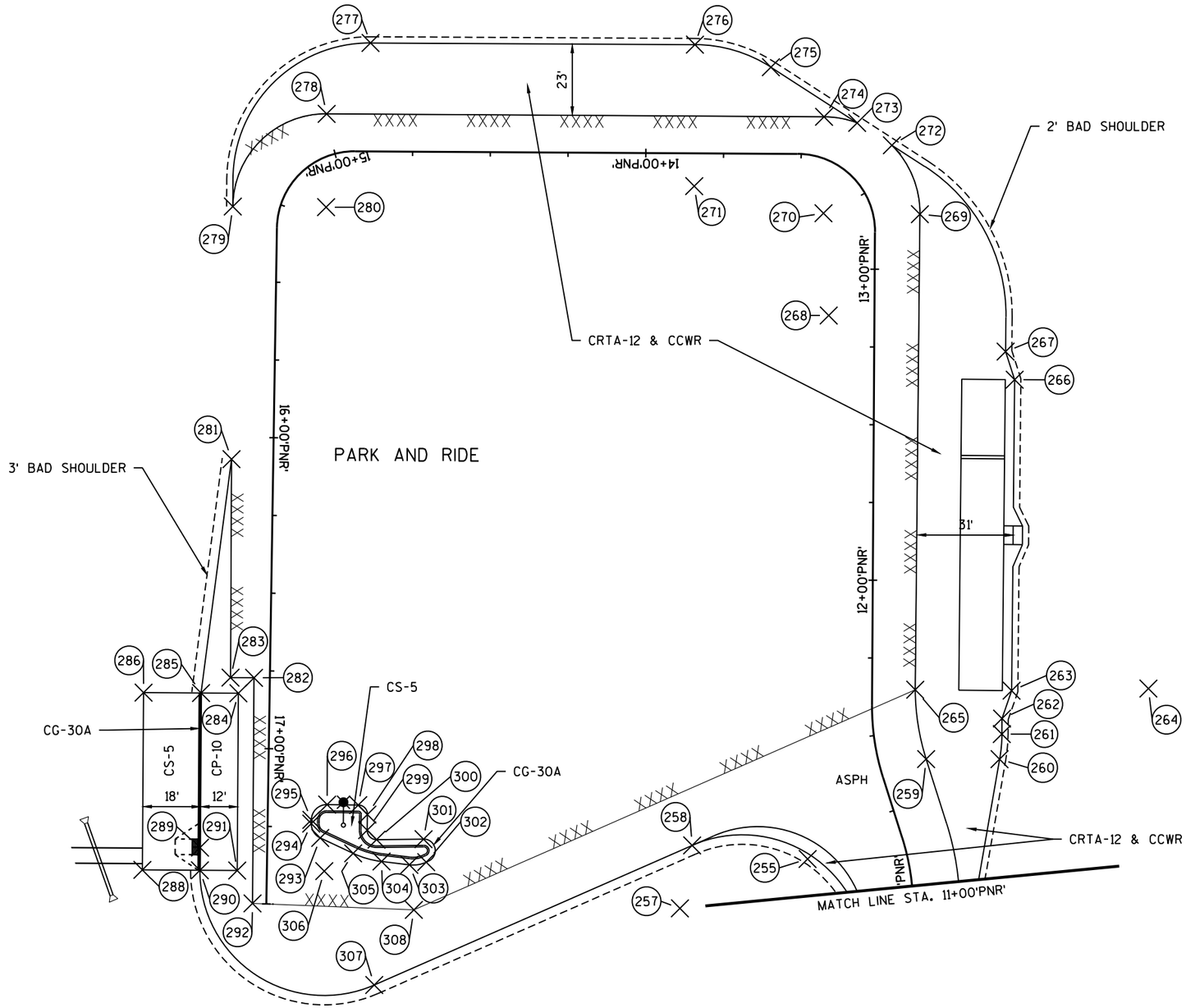


70TH AVE 'E' POINTS

POINT	STATION	OFFSET	DESCRIPTION
234	22+28.41'E'	28.90' LT	EDGE OF PAVEMENT
235	22+17.23'E'	48.08' RT	EDGE OF CURB & GUTTER
236	22+20.02'E'	72.93' RT	EDGE OF PAVEMENT
237	22+51.33'E'	69.87' RT	EDGE OF PAVEMENT
238	22+49.39'E'	49.83' RT	EDGE OF PAVEMENT
239	22+79.09'E'	47.00' RT	RAD 30'
240	22+79.09'E'	17.00' RT	EDGE OF PAVEMENT
241	23+17.21'E'	24.03' LT	EDGE OF PAVEMENT
242	23+27.16'E'	22.53' LT	EDGE OF CURB & GUTTER
243	25+99.88'E'	17.00' RT	EDGE OF PAVEMENT
244	26+50.53'E'	12.00' RT	EDGE OF PAVEMENT

70TH AVE 'E' POINTS

245	26+50.52'E'	12.00' LT	EDGE OF PAVEMENT
246	25+99.88'E'	17.00' LT	EDGE OF PAVEMENT
247	24+50.83'E'	18.96' LT	EDGE OF PAVEMENT
248	24+40.70'E'	14.23' LT	EDGE OF CURB & GUTTER
249	24+41.54'E'	44.22' LT	RAD 30'
250	24+11.54'E'	44.23' LT	EDGE OF CURB & GUTTER
251	24+11.54'E'	67.25' LT	EDGE OF PAVEMENT
252	24+11.54'E'	92.83' LT	EDGE OF CURB & GUTTER
253	23+81.54'E'	74.48' LT	EDGE OF CURB & GUTTER
254	23+81.54'E'	76.43' LT	EDGE OF CRTA
256	23+29.54'E'	74.48' LT	RAD 52'



SHEET 11 OF 11

70TH AVE 'E' POINTS

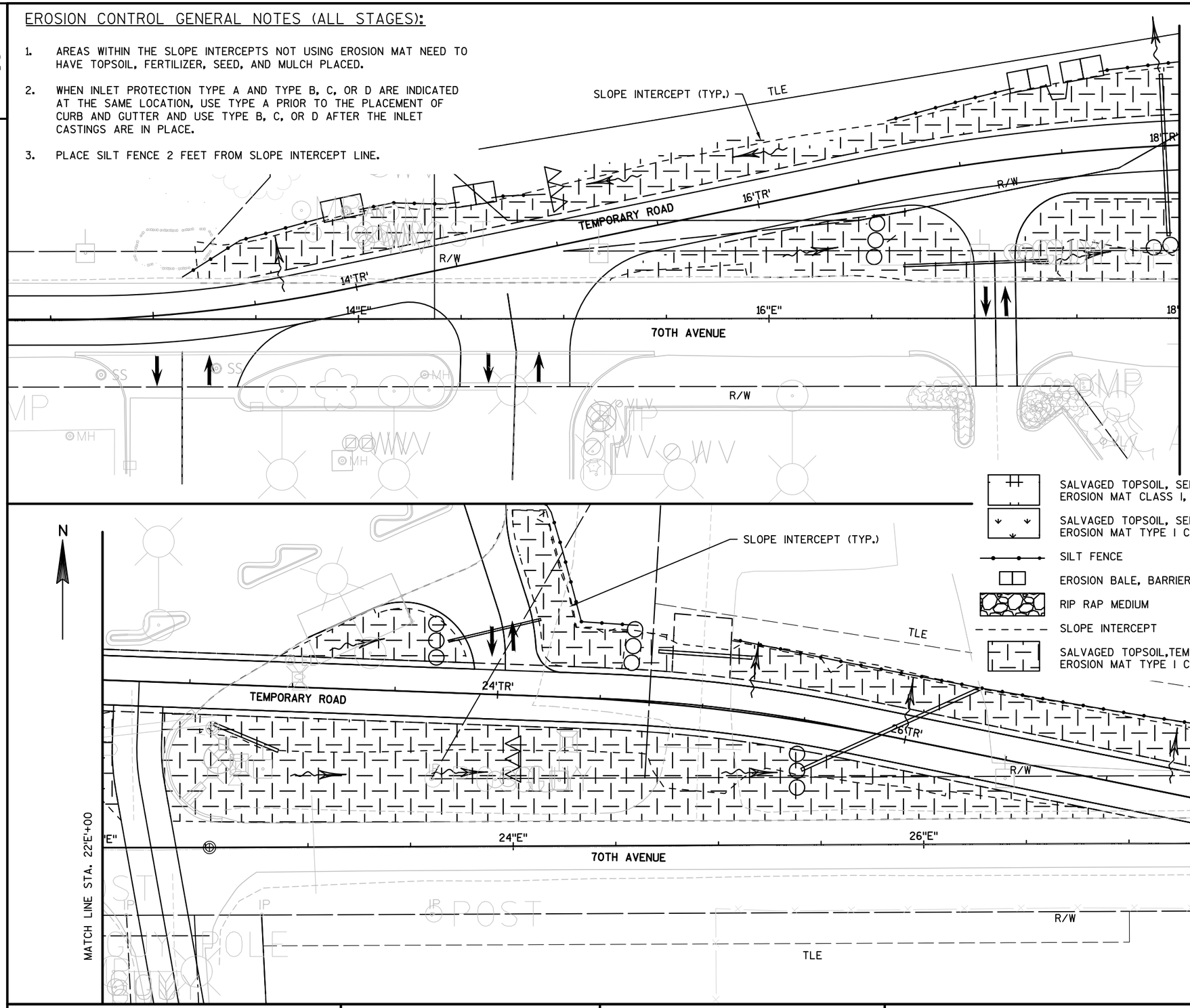
POINT	STATION	OFFSET	DESCRIPTION
255	23+62.61'E'	108.68' LT	RAD 35'
257	23+21.54'E'	92.83' LT	RAD 90'
258	23+25.47'E'	113.06' LT	EDGE OF CRTA
259	24+00.74'E'	140.80' LT	EDGE OF PAVEMENT
260	24+24.35'E'	140.76' LT	EDGE OF OSOW TRUCK PULL-IN
261	24+25.09'E'	148.84' LT	EDGE OF OSOW TRUCK PULL-IN
262	24+25.14'E'	153.82' LT	EDGE OF OSOW TRUCK PULL-IN
263	24+28.24'E'	162.79' LT	EDGE OF OSOW TRUCK PULL-IN
264	24+72.24'E'	163.46' LT	RAD 75'
265	23+97.24'E'	163.11' LT	EDGE OF PAVEMENT
266	24+29.25'E'	262.79' LT	EDGE OF OSOW TRUCK PULL-IN
267	24+26.34'E'	271.82' LT	EDGE OF OSOW TRUCK PULL-IN
268	23+69.46'E'	283.45' LT	RAD 57'
269	23+98.79'E'	316.02' LT	EDGE OF OSOW TRUCK PULL-IN
270	23+67.79'E'	316.33' LT	EDGE OF OSOW TRUCK PULL-IN
271	23+26.22'E'	325.06' LT	RAD 45.5'
272	23+89.80'E'	338.17' LT	EDGE OF OSOW TRUCK PULL-IN
273	23+78.64'E'	345.37' LT	EDGE OF OSOW TRUCK PULL-IN
274	23+67.99'E'	347.33' LT	EDGE OF OSOW TRUCK PULL-IN
275	23+50.90'E'	363.28' LT	EDGE OF OSOW TRUCK PULL-IN
276	23+26.47'E'	370.56' LT	EDGE OF OSOW TRUCK PULL-IN
277	22+20.89'E'	371.03' LT	EDGE OF OSOW TRUCK PULL-IN
278	22+06.85'E'	348.19' LT	EDGE OF OSOW TRUCK PULL-IN
279	21+76.77'E'	318.31' LT	EDGE OF OSOW TRUCK PULL-IN
280	22+06.76'E'	318.19' LT	RAD 30'
281	21+76.58'E'	237.07' LT	EDGE OF PAVEMENT
282	21+84.04'E'	166.79' LT	EDGE OF PAVEMENT
283	21+76.49'E'	166.82' LT	EDGE OF PAVEMENT
284	21+79.02'E'	161.81' LT	EDGE OF PAVEMENT
285	21+67.02'E'	161.85' LT	EDGE OF PAVEMENT
286	21+48.52'E'	161.92' LT	EDGE OF PAVEMENT
288	21+48.31'E'	104.92' LT	EDGE OF PAVEMENT
289	21+66.84'E'	112.13' LT	EDGE OF PAVEMENT
290	21+66.81'E'	104.85' LT	EDGE OF PAVEMENT
291	21+78.81'E'	104.81' LT	EDGE OF PAVEMENT
292	21+83.77'E'	94.25' LT	EDGE OF PAVEMENT
293	22+05.49'E'	115.36' LT	EDGE OF CURB & GUTTER
294	22+02.59'E'	119.96' LT	EDGE OF CURB & GUTTER
295	22+02.61'E'	121.15' LT	EDGE OF CURB & GUTTER
296	22+07.67'E'	126.09' LT	EDGE OF CURB & GUTTER
297	22+17.67'E'	125.96' LT	EDGE OF CURB & GUTTER
298	22+20.63'E'	122.93' LT	EDGE OF CURB & GUTTER
299	22+20.57'E'	117.91' LT	EDGE OF CURB & GUTTER
300	22+23.61'E'	114.87' LT	EDGE OF CURB & GUTTER
301	22+38.71'E'	115.07' LT	EDGE OF CURB & GUTTER
302	22+39.61'E'	107.68' LT	EDGE OF CURB & GUTTER
303	22+34.19'E'	106.80' LT	EDGE OF CURB & GUTTER
304	22+25.22'E'	107.86' LT	EDGE OF CURB & GUTTER
305	22+16.09'E'	110.44' LT	EDGE OF CURB & GUTTER
306	22+06.81'E'	104.70' LT	RAD 40'
307	22+23.00'E'	68.12' LT	EDGE OF PAVEMENT
308	22+35.66'E'	92.32' LT	EDGE OF PAVEMENT

PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	PLAN DETAILS	SHEET 60	E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\PLAN DETAILS\021201-PD.DWG PLOT DATE : 9/30/2022 4:53 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

EROSION CONTROL GENERAL NOTES (ALL STAGES):

1. AREAS WITHIN THE SLOPE INTERCEPTS NOT USING EROSION MAT NEED TO HAVE TOPSOIL, FERTILIZER, SEED, AND MULCH PLACED.
2. WHEN INLET PROTECTION TYPE A AND TYPE B, C, OR D ARE INDICATED AT THE SAME LOCATION, USE TYPE A PRIOR TO THE PLACEMENT OF CURB AND GUTTER AND USE TYPE B, C, OR D AFTER THE INLET CASTINGS ARE IN PLACE.
3. PLACE SILT FENCE 2 FEET FROM SLOPE INTERCEPT LINE.



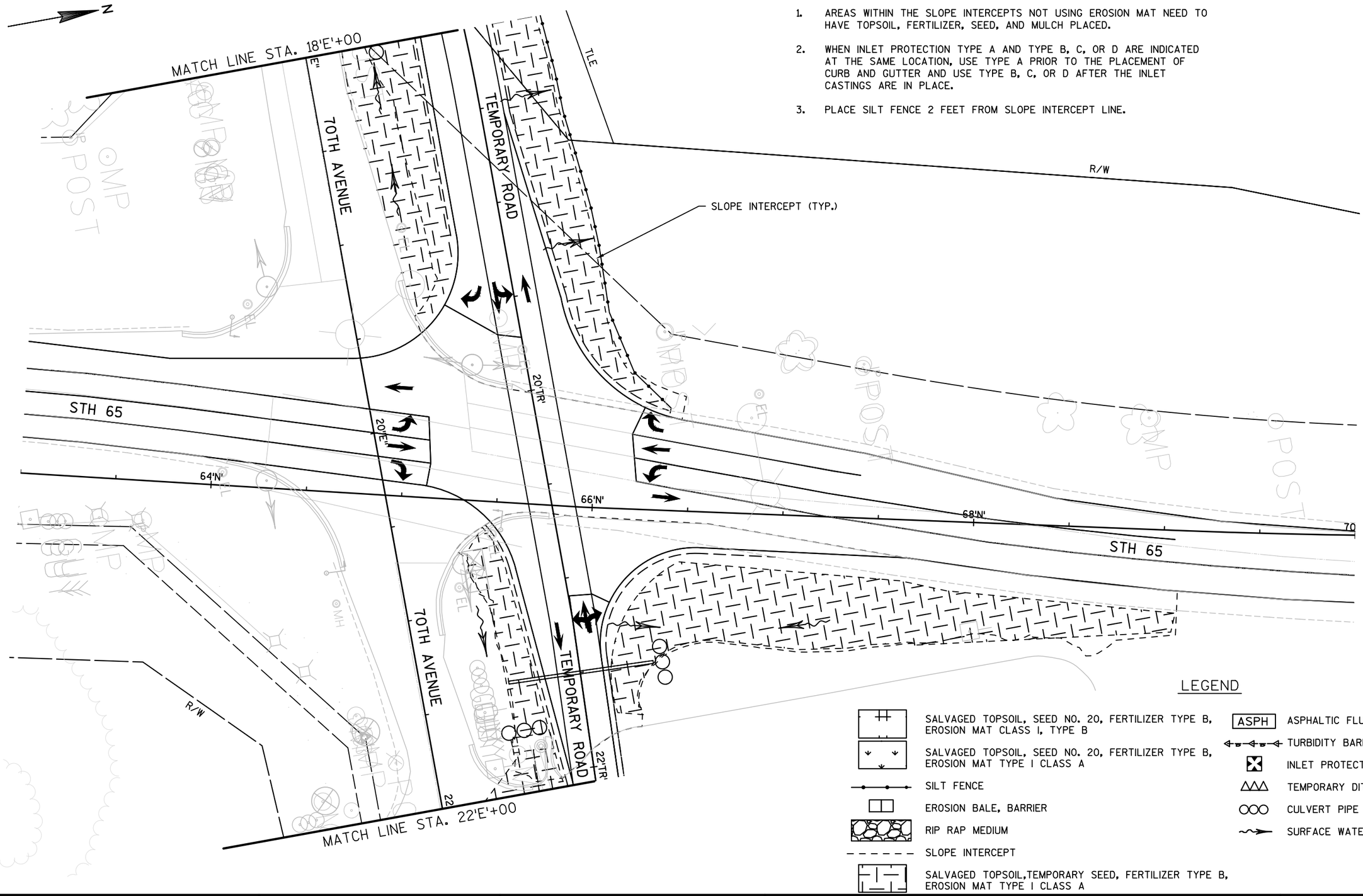
LEGEND

- SALVAGED TOPSOIL, SEED NO. 20, FERTILIZER TYPE B, EROSION MAT CLASS I, TYPE B
- SALVAGED TOPSOIL, SEED NO. 20, FERTILIZER TYPE B, EROSION MAT TYPE I CLASS A
- SILT FENCE
- EROSION BALE, BARRIER
- RIP RAP MEDIUM
- SLOPE INTERCEPT
- SALVAGED TOPSOIL,TEMPORARY SEED, FERTILIZER TYPE B, EROSION MAT TYPE I CLASS A
- ASPH ASPHALTIC FLUME
- TURBIDITY BARRIER
- INLET PROTECTION
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW

PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	EROSION CONTROL PLAN	SHEET 61 E

EROSION CONTROL GENERAL NOTES (ALL STAGES):

1. AREAS WITHIN THE SLOPE INTERCEPTS NOT USING EROSION MAT NEED TO HAVE TOPSOIL, FERTILIZER, SEED, AND MULCH PLACED.
2. WHEN INLET PROTECTION TYPE A AND TYPE B, C, OR D ARE INDICATED AT THE SAME LOCATION, USE TYPE A PRIOR TO THE PLACEMENT OF CURB AND GUTTER AND USE TYPE B, C, OR D AFTER THE INLET CASTINGS ARE IN PLACE.
3. PLACE SILT FENCE 2 FEET FROM SLOPE INTERCEPT LINE.



LEGEND

- SALVAGED TOPSOIL, SEED NO. 20, FERTILIZER TYPE B, EROSION MAT CLASS I, TYPE B
- SALVAGED TOPSOIL, SEED NO. 20, FERTILIZER TYPE B, EROSION MAT TYPE I CLASS A
- SILT FENCE
- EROSION BALE, BARRIER
- RIP RAP MEDIUM
- SLOPE INTERCEPT
- SALVAGED TOPSOIL,TEMPORARY SEED, FERTILIZER TYPE B, EROSION MAT TYPE I CLASS A
- ASPH — ASPHALTIC FLUME
- TURBIDITY BARRIER
- INLET PROTECTION
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW

PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	EROSION CONTROL PLAN	SHEET 62	E

EROSION CONTROL GENERAL NOTES (ALL STAGES):

1. AREAS WITHIN THE SLOPE INTERCEPTS NOT USING EROSION MAT NEED TO HAVE TOPSOIL, FERTILIZER, SEED, AND MULCH PLACED.
2. WHEN INLET PROTECTION TYPE A AND TYPE B, C, OR D ARE INDICATED AT THE SAME LOCATION, USE TYPE A PRIOR TO THE PLACEMENT OF CURB AND GUTTER AND USE TYPE B, C, OR D AFTER THE INLET CASTINGS ARE IN PLACE.
3. PLACE SILT FENCE 2 FEET FROM SLOPE INTERCEPT LINE.

N

R/W

SB STH 65

NB STH 65

58'N'

60'N'

C

AC

SLOPE INTERCEPT (TYP.)

MATCH LINE STA. 63N+00

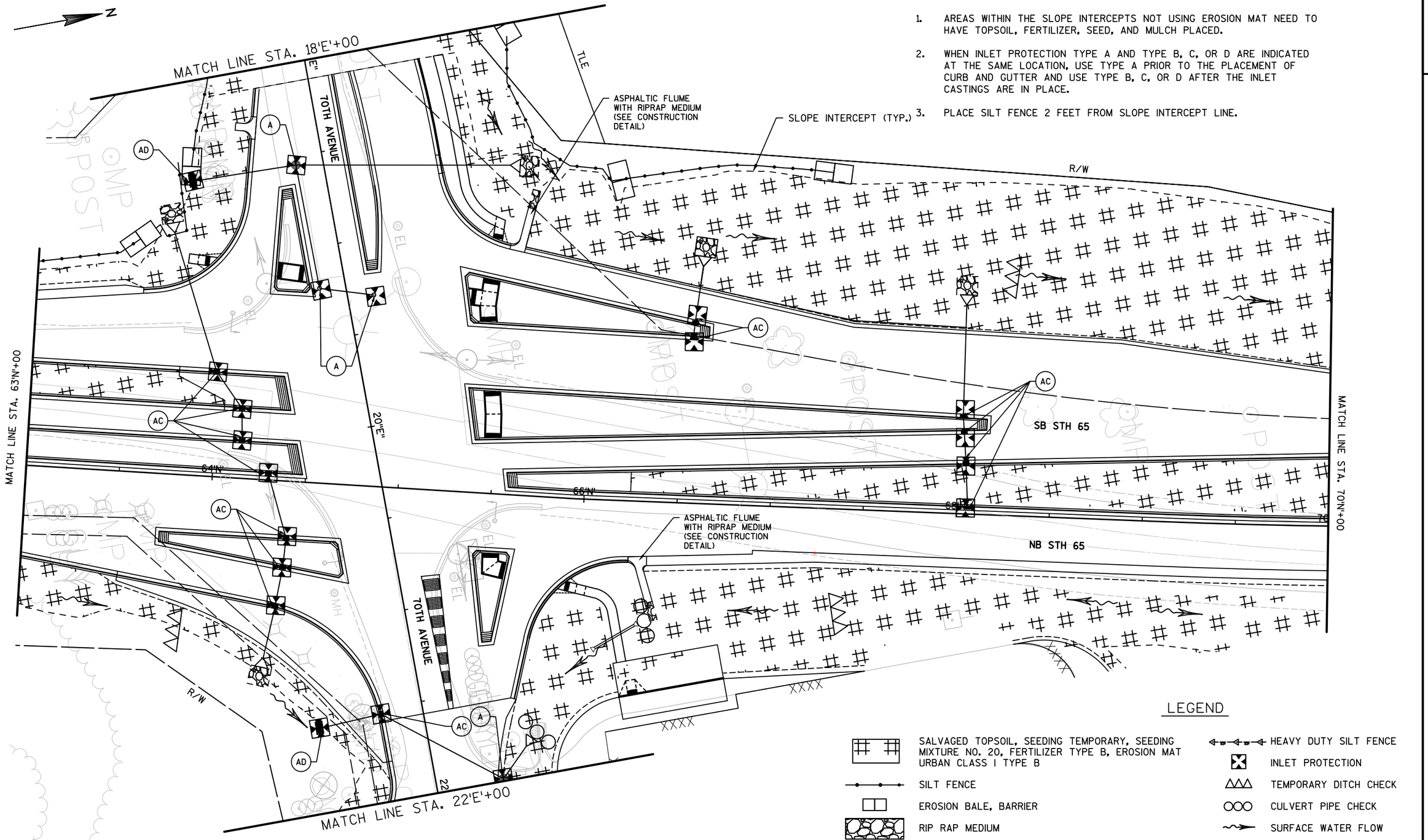
LEGEND

- SALVAGED TOPSOIL, SEEDING TEMPORARY, SEEDING MIXTURE NO. 20, FERTILIZER TYPE B, EROSION MAT URBAN CLASS I TYPE B
- SILT FENCE
- EROSION BALE, BARRIER
- RIP RAP MEDIUM
- SLOPE INTERCEPT
- HEAVY DUTY SILT FENCE
- INLET PROTECTION
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW

PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	EROSION CONTROL PLAN	SHEET 63	E

EROSION CONTROL GENERAL NOTES (ALL STAGES):

1. AREAS WITHIN THE SLOPE INTERCEPTS NOT USING EROSION MAT NEED TO HAVE TOPSOIL, FERTILIZER, SEED, AND MULCH PLACED.
2. WHEN INLET PROTECTION TYPE A AND TYPE B, C, OR D ARE INDICATED AT THE SAME LOCATION, USE TYPE A PRIOR TO THE PLACEMENT OF CURB AND GUTTER AND USE TYPE B, C, OR D AFTER THE INLET CASTINGS ARE IN PLACE.
3. PLACE SILT FENCE 2 FEET FROM SLOPE INTERCEPT LINE.



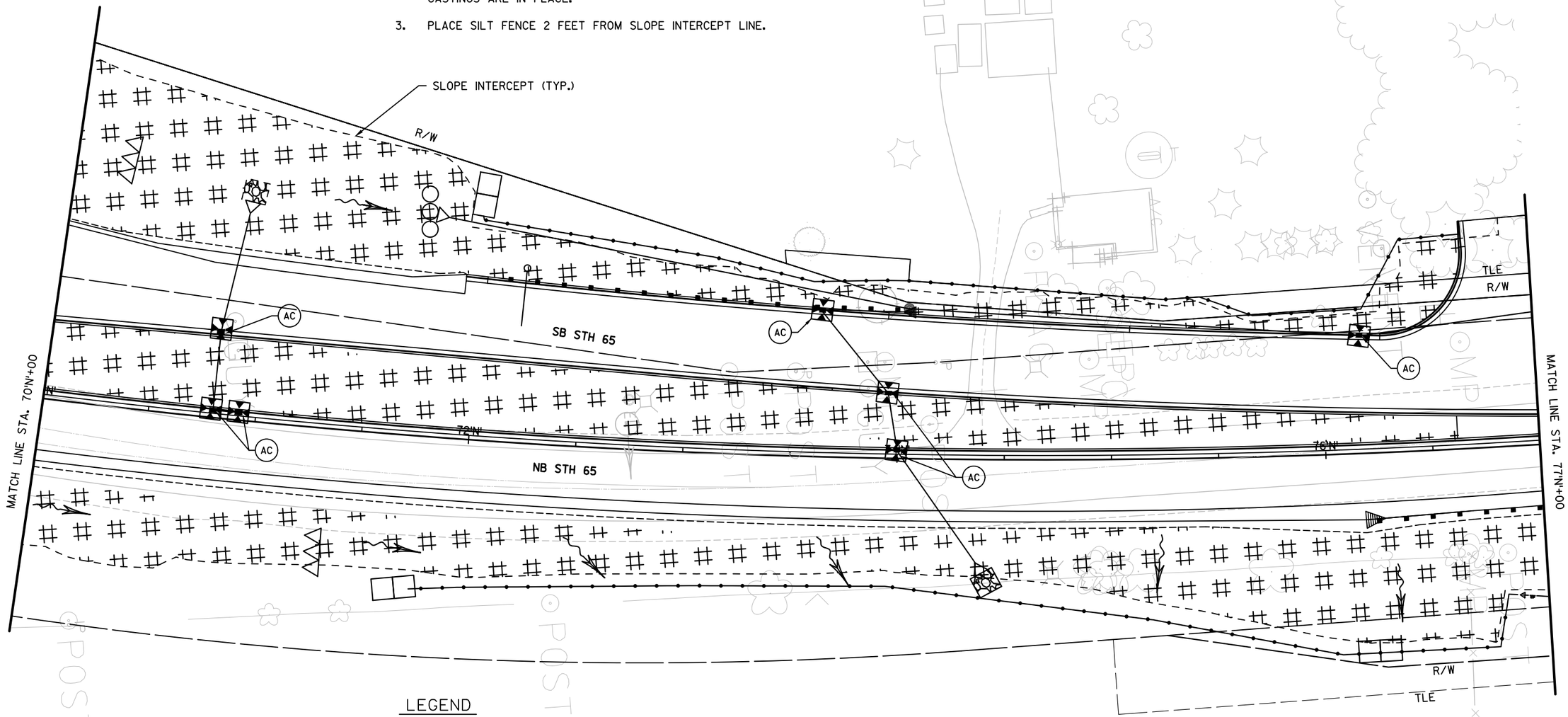
LEGEND

- SALVAGED TOPSOIL, SEEDING TEMPORARY, SEEDING MIXTURE NO. 20, FERTILIZER TYPE B, EROSION MAT URBAN CLASS I TYPE B
- SILT FENCE
- EROSION BALE, BARRIER
- RIP RAP MEDIUM
- SLOPE INTERCEPT
- HEAVY DUTY SILT FENCE
- INLET PROTECTION
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW

PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	EROSION CONTROL PLAN	SHEET 64	E

EROSION CONTROL GENERAL NOTES (ALL STAGES):

1. AREAS WITHIN THE SLOPE INTERCEPTS NOT USING EROSION MAT NEED TO HAVE TOPSOIL, FERTILIZER, SEED, AND MULCH PLACED.
2. WHEN INLET PROTECTION TYPE A AND TYPE B, C, OR D ARE INDICATED AT THE SAME LOCATION, USE TYPE A PRIOR TO THE PLACEMENT OF CURB AND GUTTER AND USE TYPE B, C, OR D AFTER THE INLET CASTINGS ARE IN PLACE.
3. PLACE SILT FENCE 2 FEET FROM SLOPE INTERCEPT LINE.



LEGEND

- SALVAGED TOPSOIL, SEEDING TEMPORARY, SEEDING MIXTURE NO. 20, FERTILIZER TYPE B, EROSION MAT URBAN CLASS I TYPE B
- SILT FENCE
- EROSION BALE, BARRIER
- RIP RAP MEDIUM
- SLOPE INTERCEPT
- HEAVY DUTY SILT FENCE
- INLET PROTECTION
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW

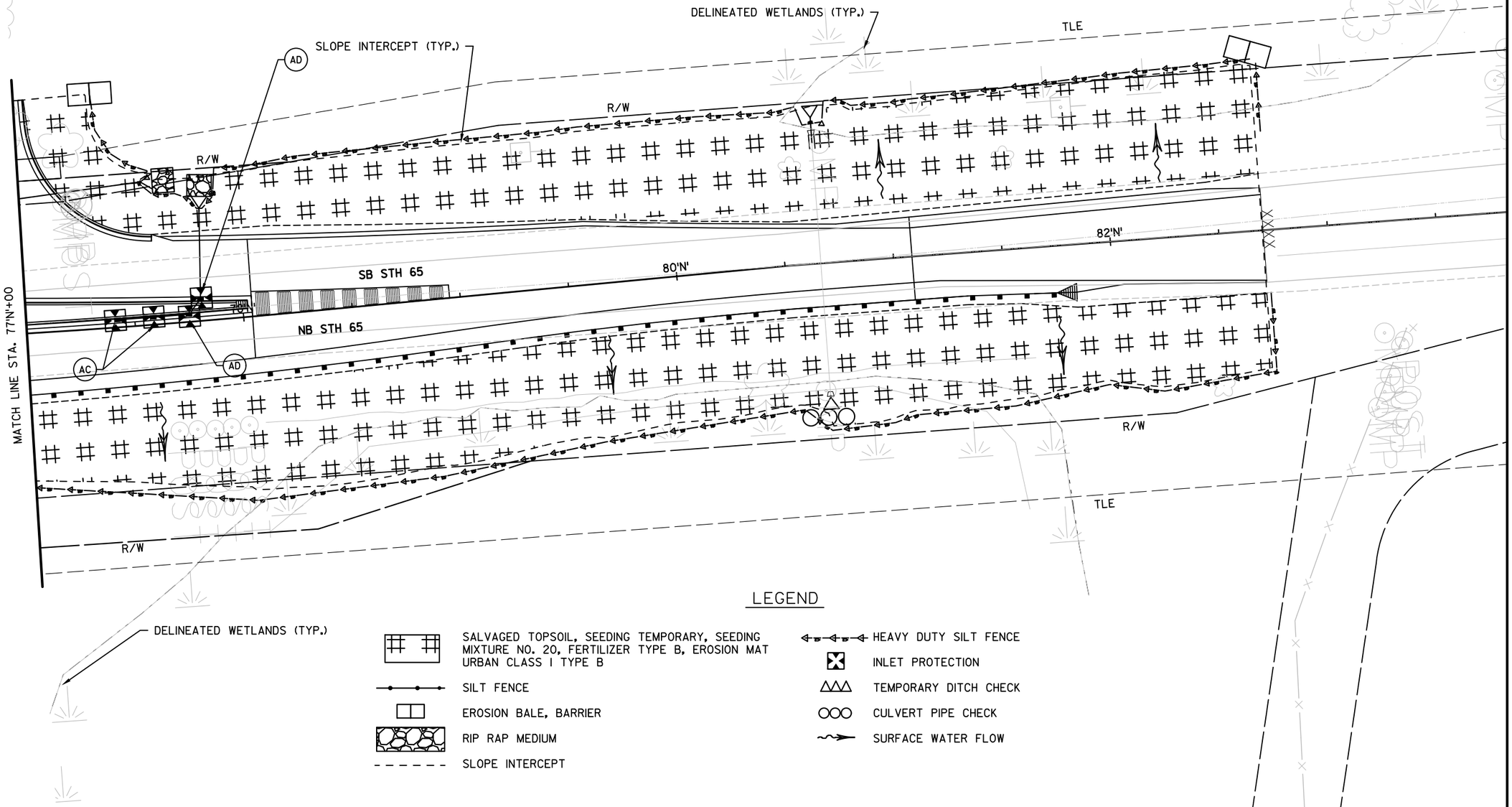
PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	EROSION CONTROL PLAN	SHEET 65 E

EROSION CONTROL GENERAL NOTES (ALL STAGES):

1. AREAS WITHIN THE SLOPE INTERCEPTS NOT USING EROSION MAT NEED TO HAVE TOPSOIL, FERTILIZER, SEED, AND MULCH PLACED.

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

3. PLACE SILT FENCE 2 FEET FROM SLOPE INTERCEPT LINE.



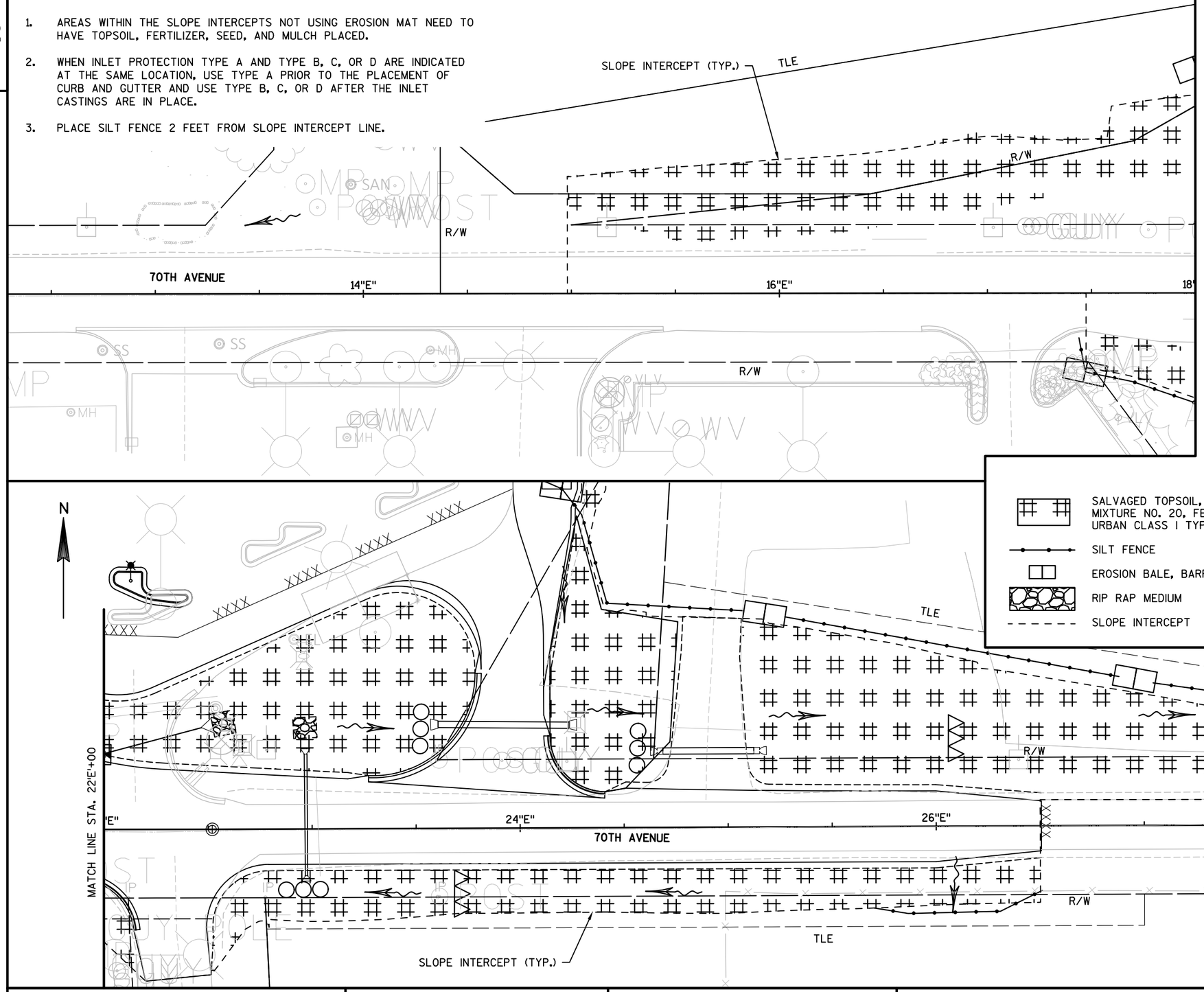
LEGEND

- SALVAGED TOPSOIL, SEEDING TEMPORARY, SEEDING MIXTURE NO. 20, FERTILIZER TYPE B, EROSION MAT URBAN CLASS I TYPE B
- SILT FENCE
- EROSION BALE, BARRIER
- RIP RAP MEDIUM
- SLOPE INTERCEPT
- HEAVY DUTY SILT FENCE
- INLET PROTECTION
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW

PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	EROSION CONTROL PLAN	SHEET 66	E

EROSION CONTROL GENERAL NOTES (ALL STAGES):

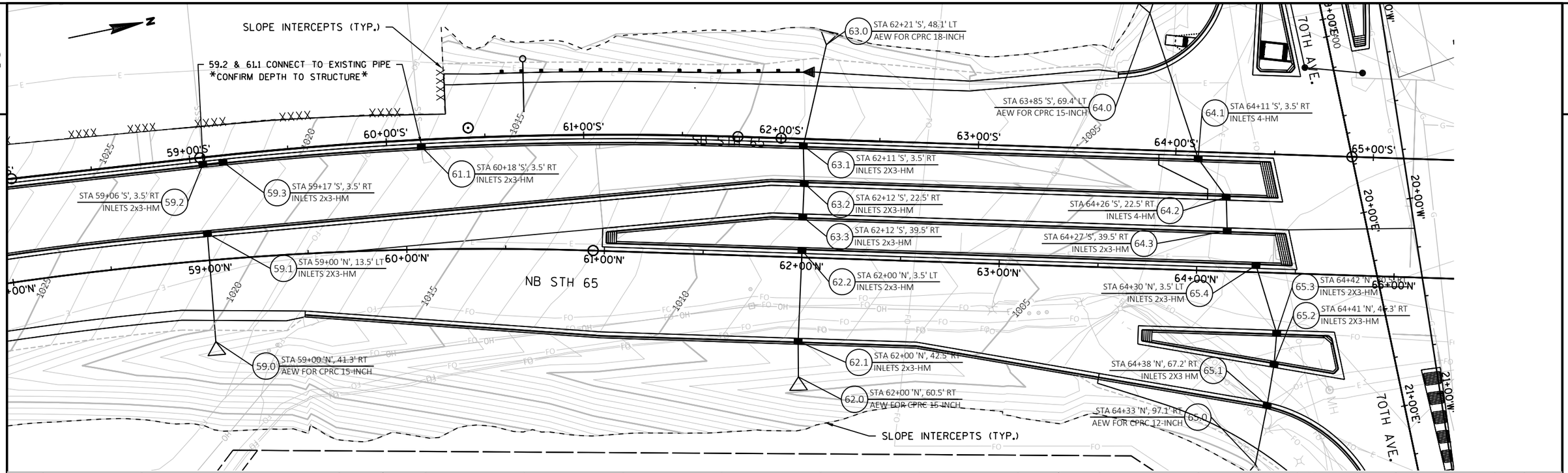
1. AREAS WITHIN THE SLOPE INTERCEPTS NOT USING EROSION MAT NEED TO HAVE TOPSOIL, FERTILIZER, SEED, AND MULCH PLACED.
2. WHEN INLET PROTECTION TYPE A AND TYPE B, C, OR D ARE INDICATED AT THE SAME LOCATION, USE TYPE A PRIOR TO THE PLACEMENT OF CURB AND GUTTER AND USE TYPE B, C, OR D AFTER THE INLET CASTINGS ARE IN PLACE.
3. PLACE SILT FENCE 2 FEET FROM SLOPE INTERCEPT LINE.

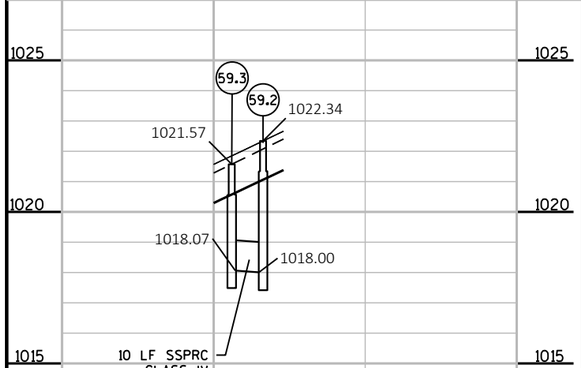


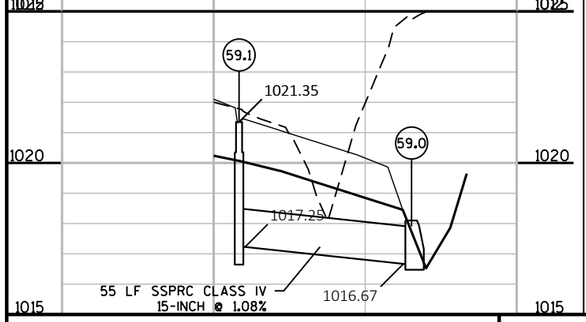
LEGEND

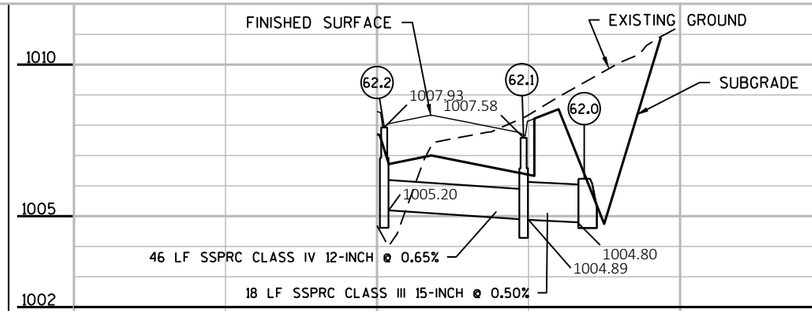
- SALVAGED TOPSOIL, SEEDING TEMPORARY, SEEDING MIXTURE NO. 20, FERTILIZER TYPE B, EROSION MAT URBAN CLASS I TYPE B
- SILT FENCE
- EROSION BALE, BARRIER
- RIP RAP MEDIUM
- SLOPE INTERCEPT
- HEAVY DUTY SILT FENCE
- INLET PROTECTION
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW

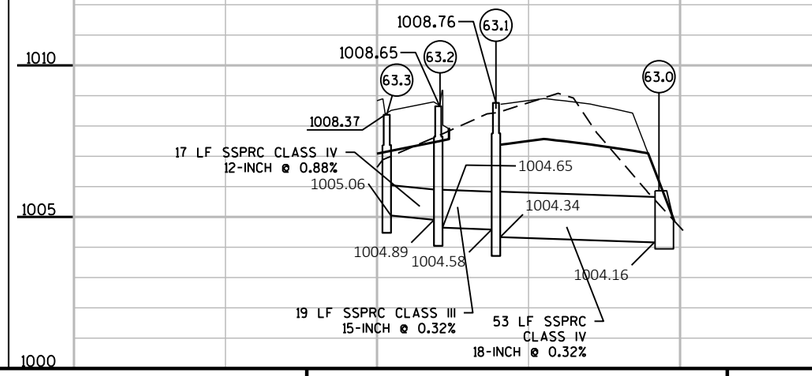
PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	EROSION CONTROL PLAN	SHEET 67 E

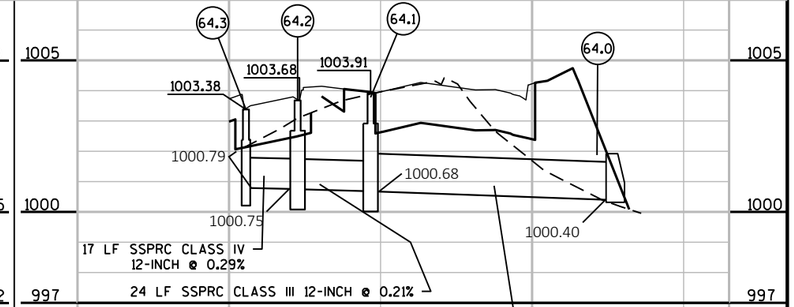


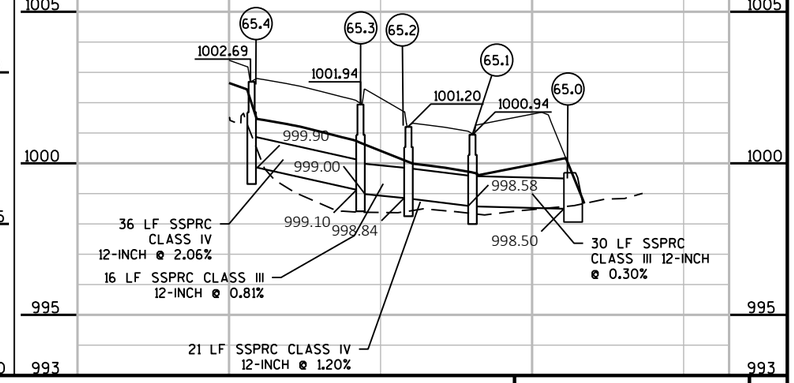






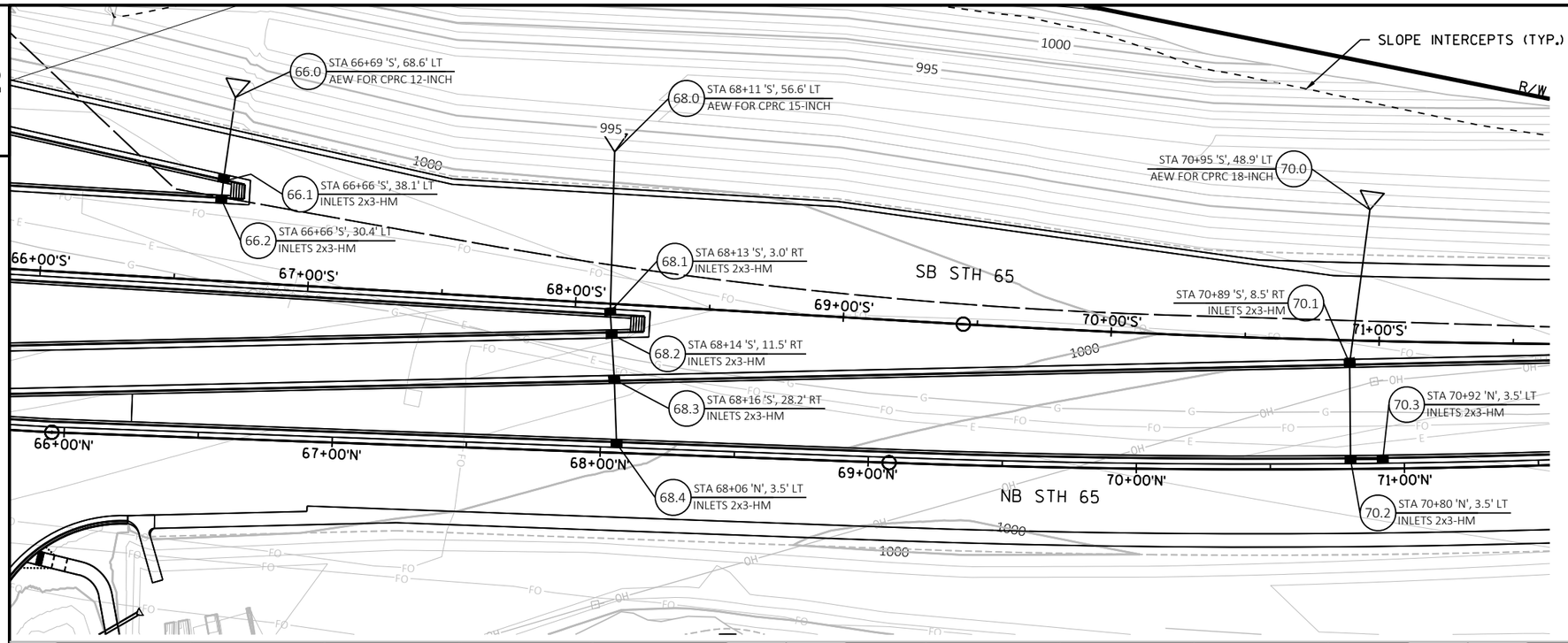


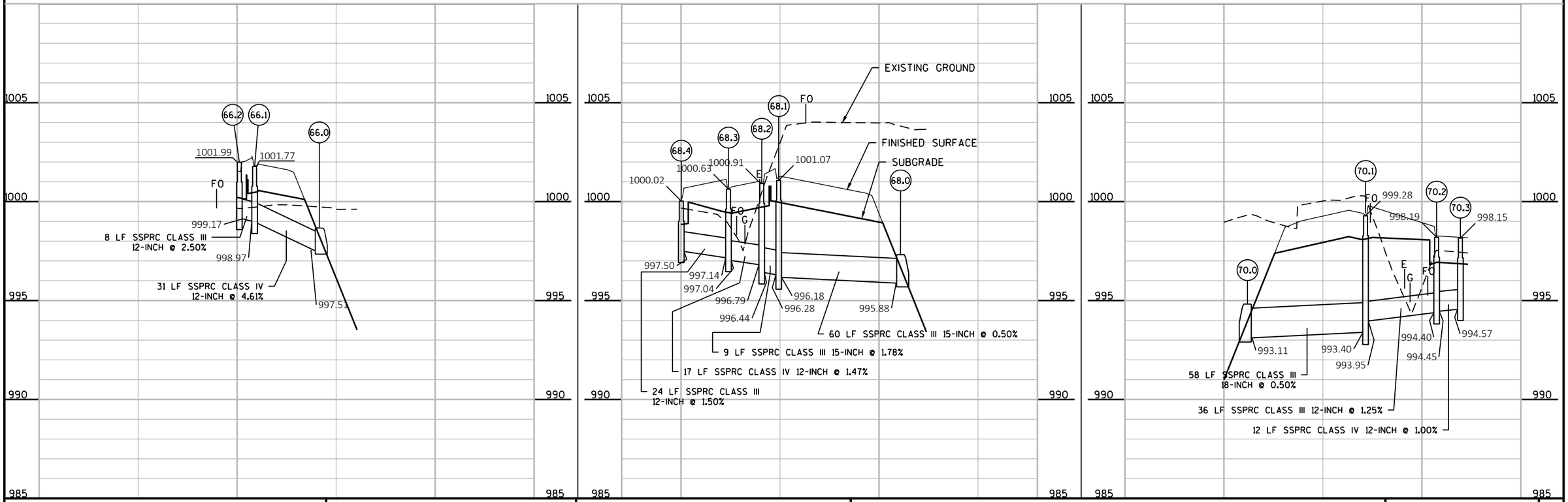




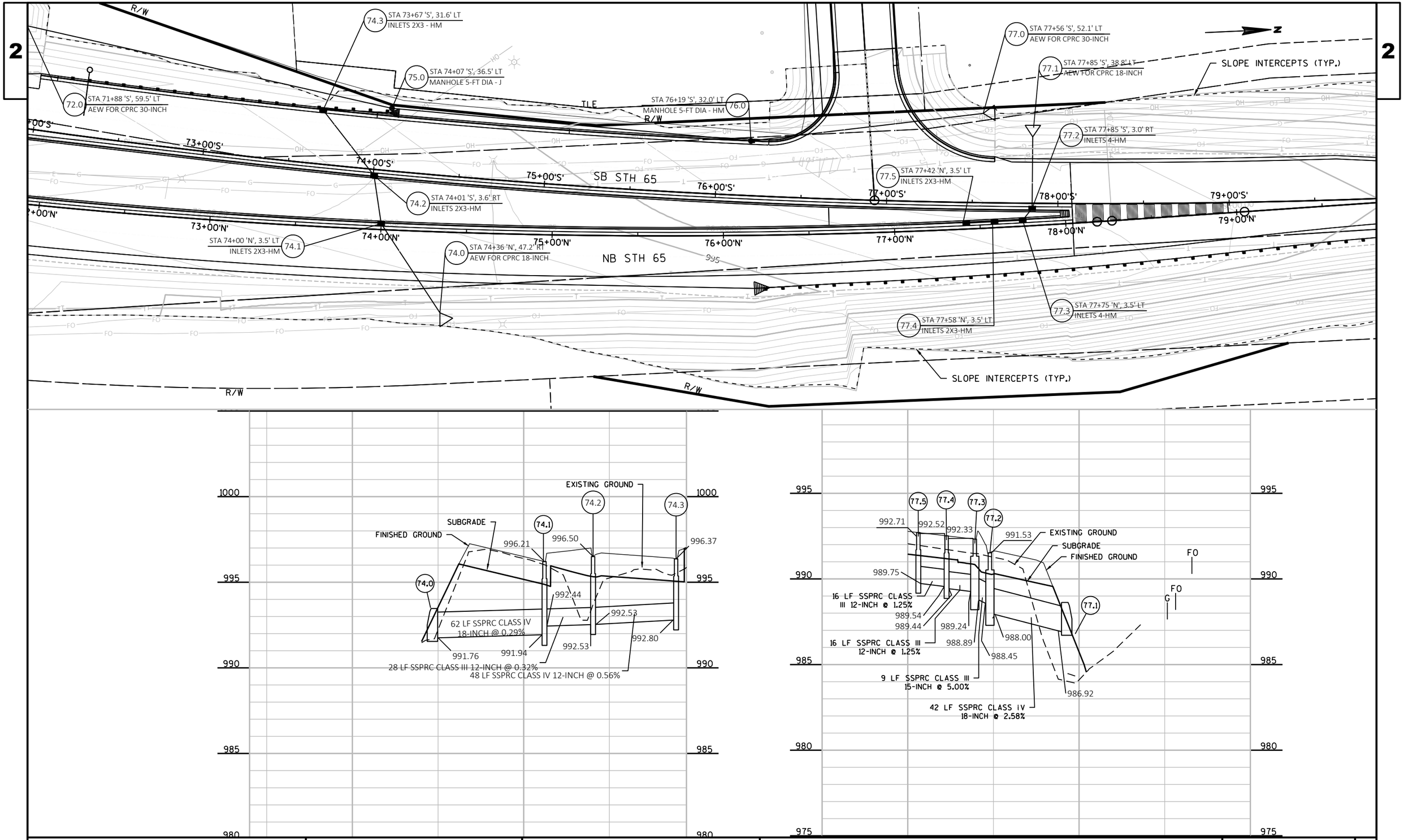
PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	STORM SEWER	SHEET 68	E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\022501-SS_OCT2022.DWG
LAYOUT NAME - 0225 (04)
PLOT DATE : 10/27/2022 10:26 AM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 41



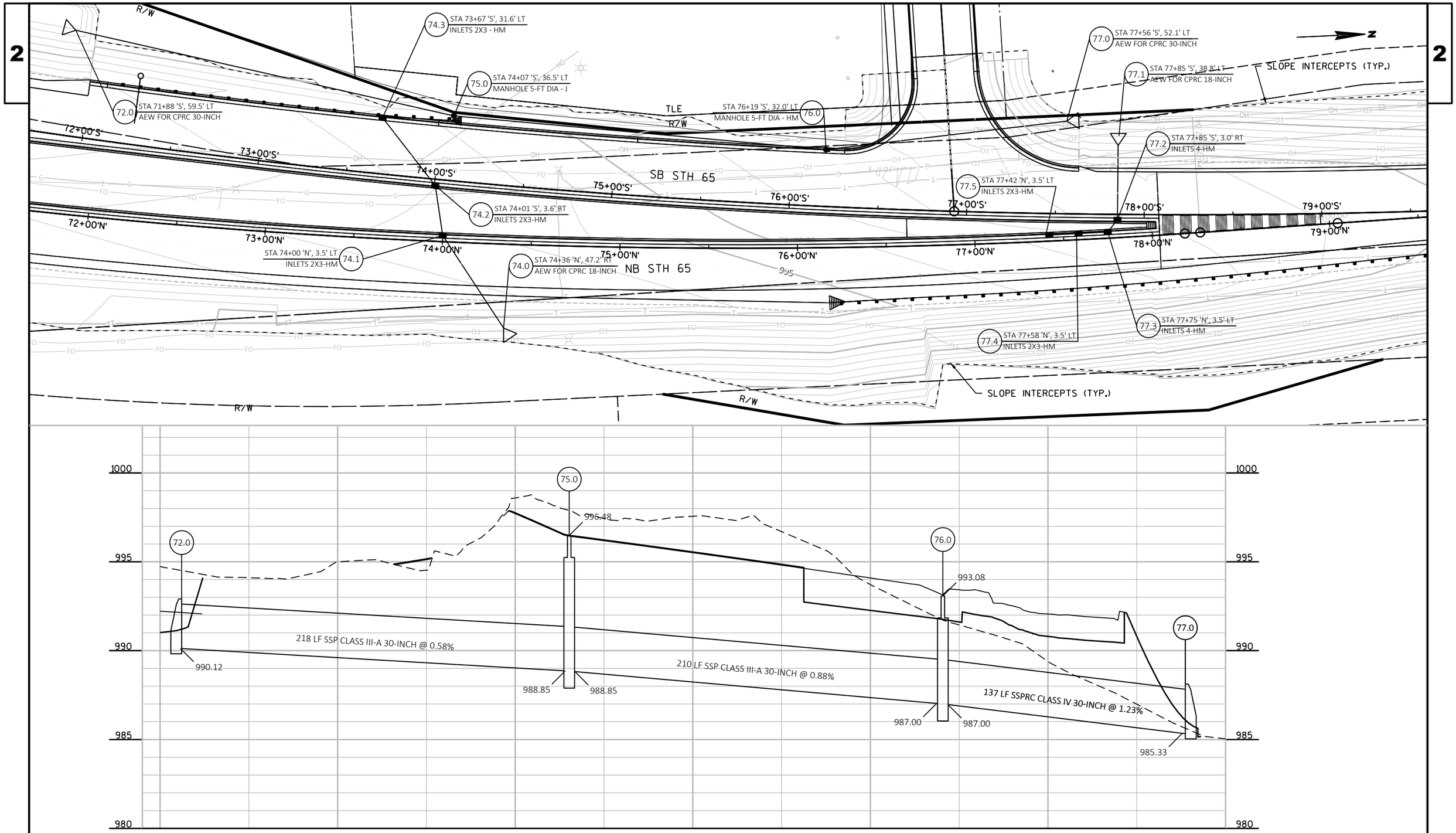


PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	STORM SEWER	SHEET 69	E

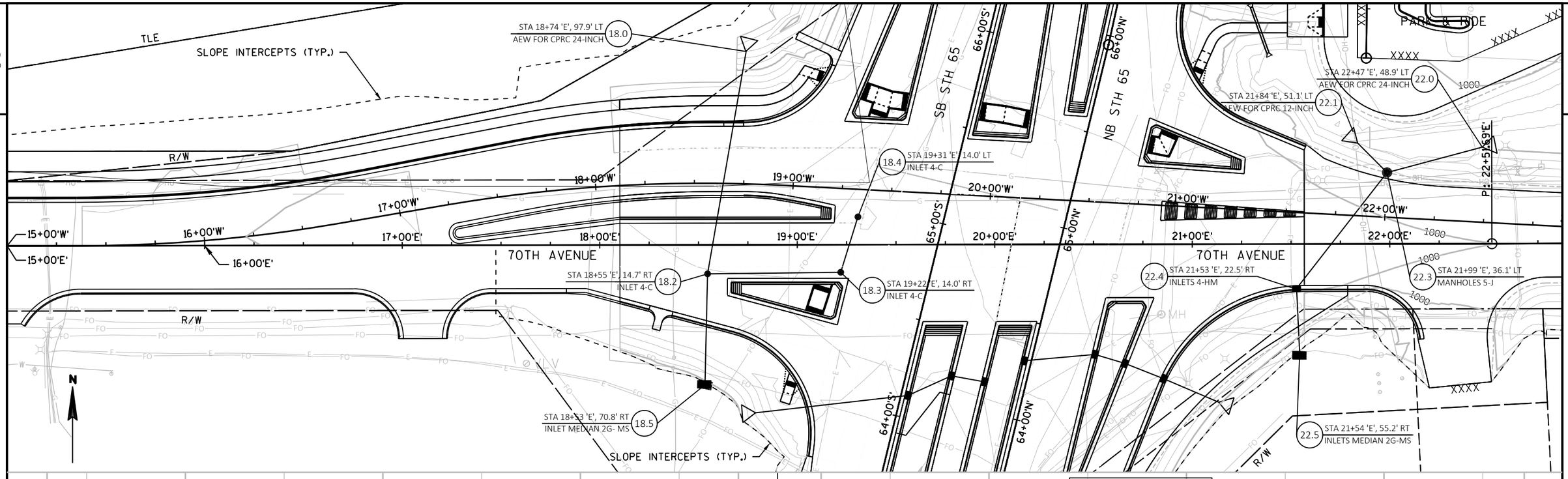


PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	STORM SEWER	SHEET 70	E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\022501-SS_OCT2022.DWG
LAYOUT NAME - 0225 (06)
PLOT DATE : 11/10/2022 2:25 PM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 41



PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	STORM SEWER	SHEET 71	E



PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	STORM SEWER	SHEET 72	E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\022501-SS_OCT2022.DWG
LAYOUT NAME - 022501 (1)
PLOT DATE : 10/27/2022 10:27 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:50 FT
WISDOT/CADDS SHEET 41

HYDRANT
18+37.3"E", 84.2' LT
6" GV
18+37.4"E", 80.2' LT
12" X 6" TEE
18+37.6"E", 72.2' LT
12" GV
18+41.6"E", 72.3' LT

45 DEG BEND
19+07.6"E", 95.4' LT

CONNECT TO EX WM (12")
18+20.2"E", 71.4' LT

18' - 12" WM

32' - 12" WM

45' - 12" WM

22 1/2 DEG BEND
18+69.4"E", 72.6' LT

SB STH 65

66+00"S'

NB STH 65

66+00"N"

232' - 12" WM

11 1/4 DEG BEND
21+57.5"E", 66.0' LT

268' - 12" WM

11+00"P"

HYDRANT
24+32.7"E", 58.6' LT
REDUCER
24+28.7"E", 58.7' LT
12" GATE VALVE
24+24.7"E", 58.8' LT

CAUTION

65+00"S'

65+00"N"

18+00"E" 19+00"E" 20+00"E" 21+00"E" 22+00"E" 23+00"E" 24+00"E" 25+00"E"

10+00"S"

70TH AVE

N

2

2

WISCONSIN
ANGELA M. WEISS GOODWIN
31900
EAU CLAIRE
WI
PROFESSIONAL ENGINEER

FINISHED GROUND AT WATER MAIN

FINISHED GROUND AT CL

STH 65

EXISTING GROUND AT CL

7.5' MIN COVER

STA 18+78'E'
122 LF SSPRC CLASS III 24-INCH REQ'D.
SEE STORM SEWER PLAN

30-INCH CULVERT

FIELD VERIFY EXISTING
WATERMIAN LOCATION

12" WM

1000

990

985

18+00"E" +50"E" 19+00"E" +50"E" 20+00"E" +50"E" 21+00"E" +50"E" 22+00"E" +50"E" 23+00"E" +50"E" 24+00"E" +50"E" 25+00"E"

PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	WATER UTILITY	SHEET 73	E

FILE NAME : I:\23\ROBERTS_GENERAL ENGINEERING\INTERNAL DESIGN\2022 70TH AVENUE WATER MAIN TO DOT\3.PRODUCTION\CIVIL3D\PLANSHEETS\023001-UP.DWG
LAYOUT NAME - 023001-up

PLOT DATE : 10/25/2022 10:18 AM PLOT BY : GONZALEZ, JOSUE PLOT NAME : PLOT SCALE : 1 IN:50 FT

WISDOT/CADDS SHEET 41

2

2

IH 94 WB ON-RAMP

IH 94 WB OFF-RAMP

MATCH LINE STA. 57+25'N'

51+00 'N'

52+00 'N'

53+00 'N'

54+00 'N'

55+00 'S'

55+00 'N'

56+00 'S'

56+00 'N'

57+00 'S'

57+00 'N'

STH 65 SB

STH 65 NB

R1-2

R1-54
TO TRAFFIC FROM LEFT

ESTR

R6-2-R
ONE WAY

J1-2
94 EAST
Eau Claire

J1-2
65 South
River Falls

65 SOUTH
94 WEST

1R01

W4-2R

1R02

W4-2R

65 NORTH
94 WEST

1R03

J1-1
ALTERNATE 94

1R04

J4-1
NORTH 65

1R05

R2-1
SPEED LIMIT 45

1R06

W3-3

FLASHER POLE

N

SIGNING REMOVAL LEGEND

- XRXX — REMOVING SIGN NUMBER
- XMXX — MOVING SIGN NUMBER
- ESTR — EXISTING SIGN TO REMAIN
- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON SIGN BRIDGE OR UTILITY POLE
- * SIGN MOUNTED ON POLE

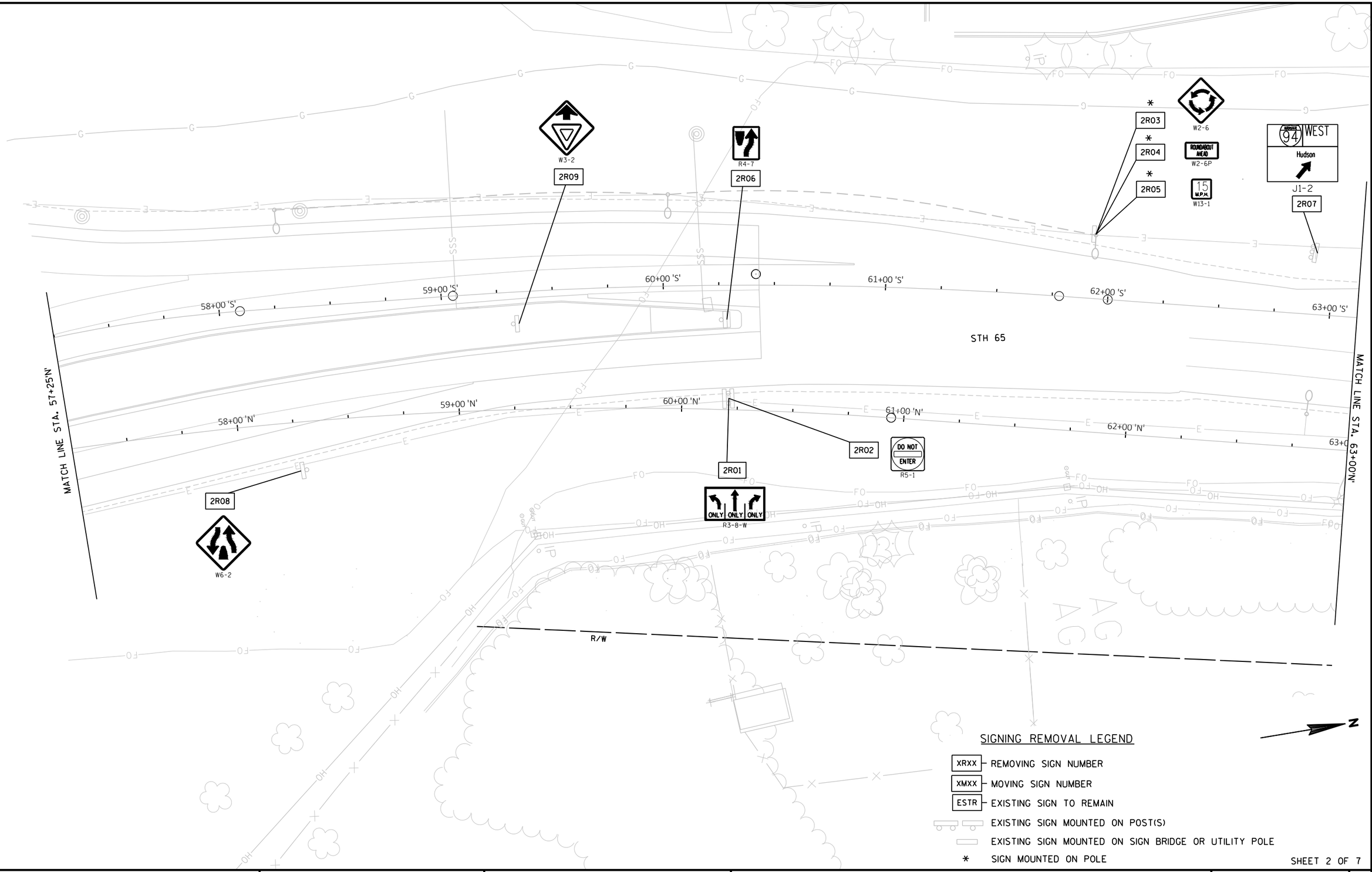
SHEET 1 OF 7

PROJECT NO:1540-04-73	HWY:STH 65	COUNTY:ST. CROIX	SIGNING REMOVALS	SHEET 74	E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\023201-PS (REMOVALS).DWG PLOT DATE : 10/2/2022 1:41 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2



SIGNING REMOVAL LEGEND

- XRXX — REMOVING SIGN NUMBER
- XMXX — MOVING SIGN NUMBER
- ESTR — EXISTING SIGN TO REMAIN
- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON SIGN BRIDGE OR UTILITY POLE
- * SIGN MOUNTED ON POLE

SHEET 2 OF 7

PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	SIGNING REMOVALS	SHEET 75	E

2

SIGNING REMOVAL LEGEND

- XRXX — REMOVING SIGN NUMBER
- XMXX — MOVING SIGN NUMBER
- ESTR — EXISTING SIGN TO REMAIN
- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON SIGN BRIDGE OR UTILITY POLE
- * SIGN MOUNTED ON POLE

MATCH LINE STA. 18+50'E'

70TH AVENUE

R/W

JCT 94 EAST

J1-1

3R03

3R04 STH 65

3R05 70TH AVE

REMOVE BY OTHERS

LAND FOR SALE

W6-2

3R07

18+00 'W'

19+00 'E'

20+00 'W'

20+00 'E'

64+00 'S'

65+00 'S'

66+00 'S'

67+00 'S'

68+00 'S'

69+00 'S'

MATCH LINE STA. 63+00'N'

MATCH LINE STA. 69+00'N'

STH 65

STH 65

64+00 'N'

65+00 'N'

66+00 'N'

67+00 'N'

68+00 'N'

69+00 'N'

PARK & RIDE

D4-5-R

3R01

SPEED LIMIT 45

R2-1

3R02

21+00 'W'

21+00 'E'

70TH AVENUE

R/W

MATCH LINE STA. 21+50'E'

3R06

W6-3

NO PARKING ANY TIME

R7-1-D

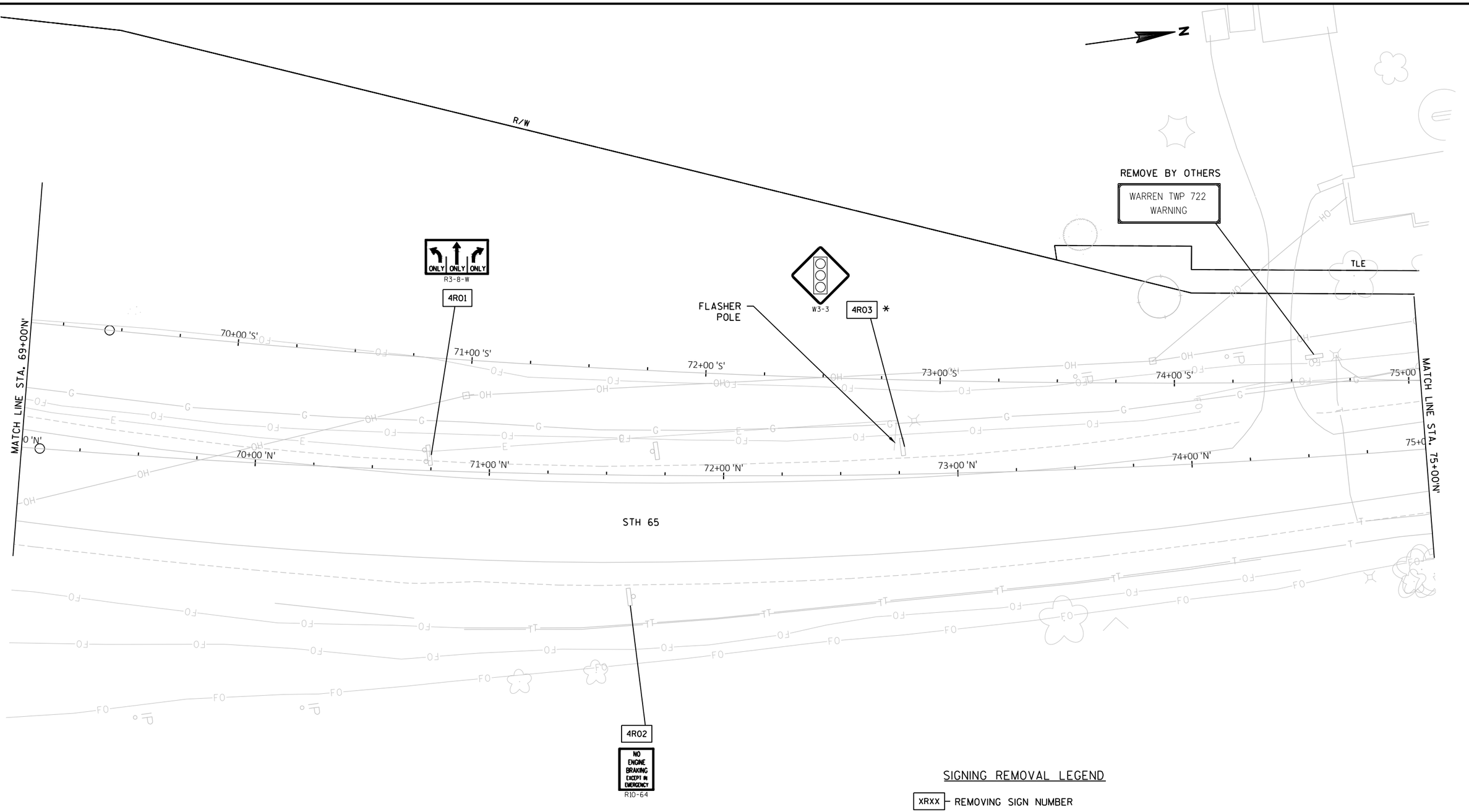
ESTR

PARK & RIDE

SHEET 3 OF 7

PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	SIGNING REMOVALS	SHEET 76	E

2



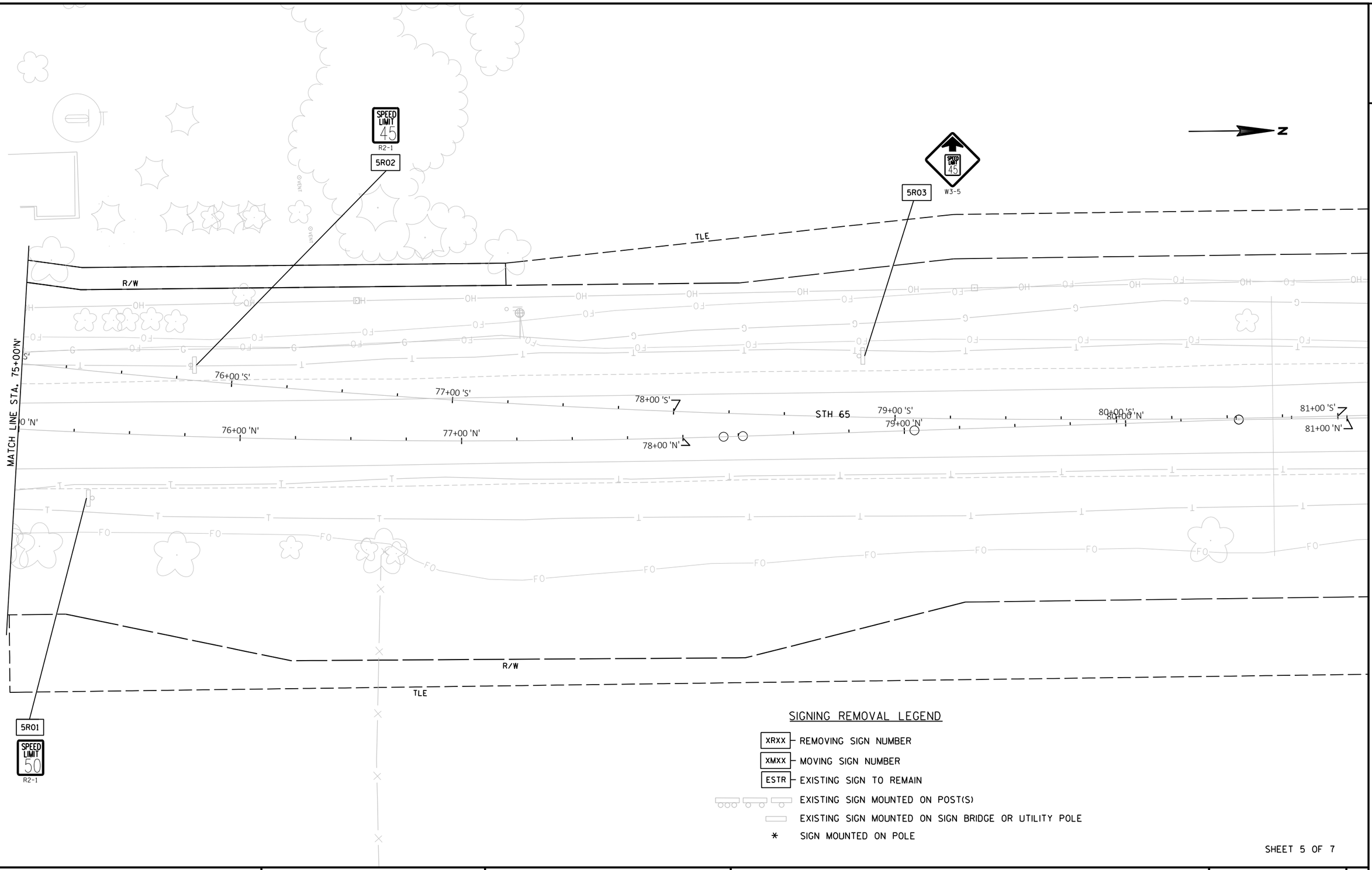
SIGNING REMOVAL LEGEND

- XRXX — REMOVING SIGN NUMBER
- XMXX — MOVING SIGN NUMBER
- ESTR — EXISTING SIGN TO REMAIN
- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON SIGN BRIDGE OR UTILITY POLE
- * — SIGN MOUNTED ON POLE

SHEET 4 OF 7

PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	SIGNING REMOVALS	SHEET 77	E

2



SIGNING REMOVAL LEGEND

- XRXX — REMOVING SIGN NUMBER
- XMXX — MOVING SIGN NUMBER
- ESTR — EXISTING SIGN TO REMAIN
- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON SIGN BRIDGE OR UTILITY POLE
- * SIGN MOUNTED ON POLE

SHEET 5 OF 7

PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	SIGNING REMOVALS	SHEET 78	E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\023201-PS (REMOVALS).DWG PLOT DATE : 10/2/2022 1:46 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

N

NO PARKING R7-1-D 6R01

NO PARKING R7-1-D 6R02

NO PARKING R7-1-D 6R03

SPEED LIMIT 35 R2-1 6R05

NO PARKING R7-1-D 6R06

TLE

R/W

13+00 'W' 13+00 'E'

14+00 'W' 14+00 'E'

15+00 'W' 15+00 'E'

70TH AVENUE

16+00 'W' 16+00 'E'

17+00 'W'

17+00 'E'

18+00 'W'

18+00 'E'

MATCH LINE STA. 18+50E'

ESTR STOP R1-1

ESTR STOP R1-1

ESTR R8-3A

ESTR STOP R1-1

ESTR R8-3A

ESTR NO PARKING R7-1-D

ESTR W3-3

6R04 R3-8 ONLY

ESTR STOP R1-1

GAS PRICES SIGN TO REMAIN IN PLACE

AUTO & RV ENTRY/EXIT TO REMAIN IN PLACE

TRUCK ENTRANCE TO REMAIN IN PLACE

SIGNING REMOVAL LEGEND

- XRXX — REMOVING SIGN NUMBER
- XMXX — MOVING SIGN NUMBER
- ESTR — EXISTING SIGN TO REMAIN
- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON SIGN BRIDGE OR UTILITY POLE
- * SIGN MOUNTED ON POLE

SHEET 6 OF 7

PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	SIGNING REMOVALS	SHEET 79	E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\023201-PS (REMOVALS).DWG PLOT DATE : 10/2/2022 1:46 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

N

R/W

TLE

W3-3

7R08

7R07

R7-1-D

NO PARKING

R7-8-A

ESTR

R7-8-V

VEHICLES LEFT OVER 14 DAYS WILL BE TOWED

7R06

7R05

RIDESHARE INFO CALL
1-800-455-POOL
D12-2A

STOP
R1-1

7R01

7R04

R7-65

MATCH LINE STA. 21+50'E'

22+00 'W'
22+00 'E'
23+00 'W'
23+00 'E'
24+00 'W'
24+00 'E'
25+00 'W'
25+00 'E'
26+00 'W'
26+00 'E'
27+00 'W'
27+00 'E'

7R03

PRIVATE DRIVE

PRIVATE DRIVE
NO PARKING

7R02

PARK & RIDE
D4-5-L

SIGNING REMOVAL LEGEND

- XRXX — REMOVING SIGN NUMBER
- XMXX — MOVING SIGN NUMBER
- ESTR — EXISTING SIGN TO REMAIN
- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING SIGN MOUNTED ON SIGN BRIDGE OR UTILITY POLE
- * SIGN MOUNTED ON POLE

SHEET 7 OF 7

PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	SIGNING REMOVALS	SHEET 80	E

2

LEGEND

PROPOSED SIGN MOUNTED ON POST(S)

PROPOSED SIGN MOUNTED ON LIGHT/SIGNAL POLES

X-XX DENOTES SIGN NUMBER

FENCE WOVEN WIRE 4-FT

ESTR EXISTING SIGN TO REMAIN

N

IH 94 WB ON-RAMP

SIGNS PLACED ON S-55-44

51+00 'N'

52+00 'N'

53+00 'N'

54+00 'N'

55+00 'N'

56+00 'N'

55+00 'S'

56+00 'S'

STH 65 SB

STH 65 NB

MATCH LINE STA. 57+00 'N'

SIGNS PLACED ON S-55-46

ESTR

YIELD

TO TRAFFIC FROM LEFT

ONE WAY

1-01

EAST 94 Eau Claire ONLY

108"X90"

SOUTH 65 River Falls

1-02

ALTERNATE BUSINESS 94 NORTH 65

JV4-2

36"X108"

1-03

BEGIN LEFT TURN LANE

R3-20-L

36"X54"

1-04

SPEED LIMIT 45

R2-1

36"X48"

1-06

W3-3

36"X36"

SB16

WEST 94

NORTH 65

IH 94 WB OFF-RAMP

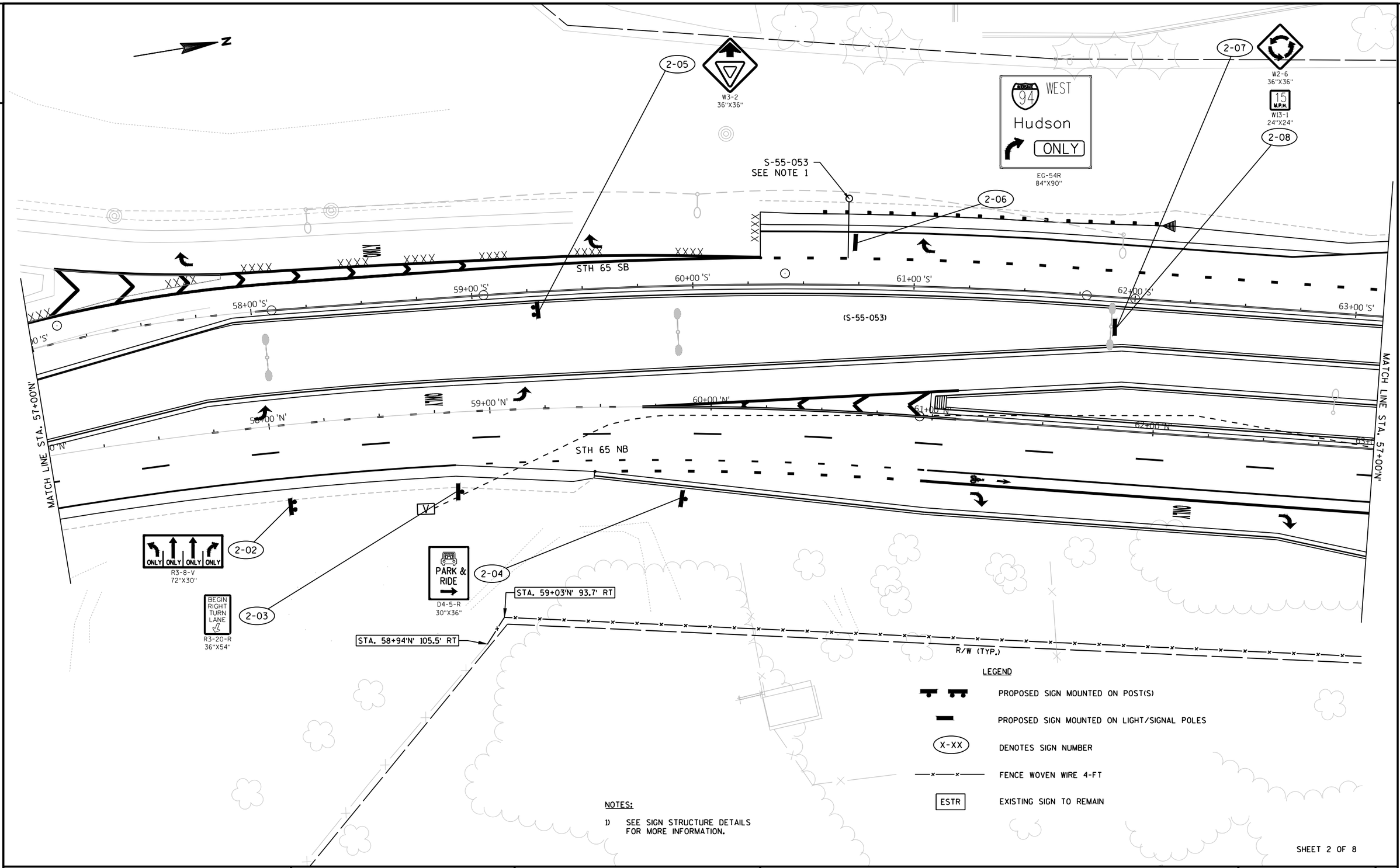
IH 94 WB OFF-RAMP

SHEET 1 OF 8

PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	PERMANENT SIGNING AND FENCING	SHEET 81	E

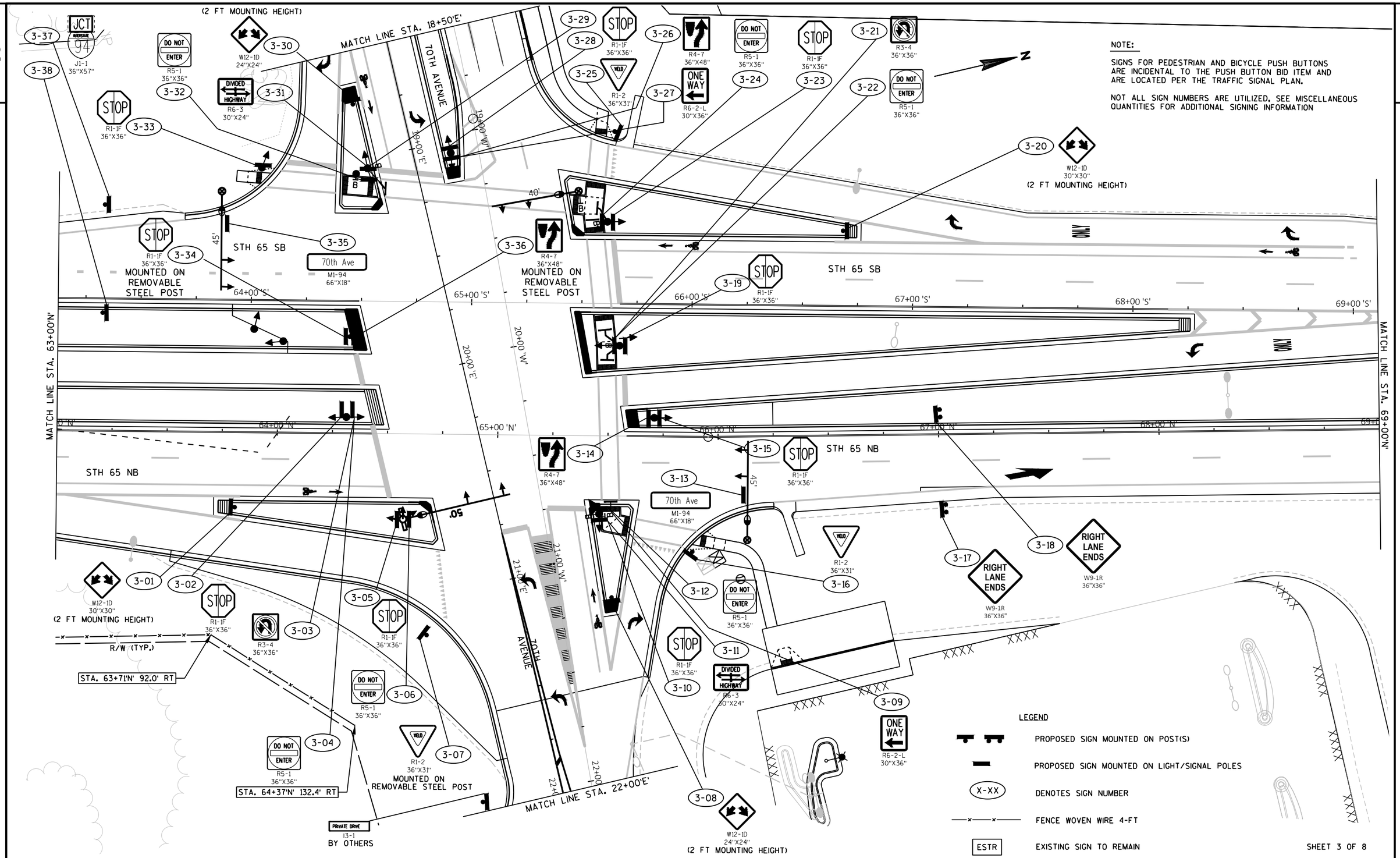
FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\023201-PS.DWG PLOT DATE : 10/28/2022 7:41 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42



SHEET 2 OF 8

PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	PERMANENT SIGNING AND FENCING	SHEET 82	E



PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	PERMANENT SIGNING AND FENCING	SHEET 83	E

LEGEND

- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON LIGHT/SIGNAL POLES
- X-XX — DENOTES SIGN NUMBER
- FENCE WOVEN WIRE 4-FT
- ESTR — EXISTING SIGN TO REMAIN

N

4-03 BEGIN RIGHT TURN LANE R3-20-R 36"X54"

4-04 BEGIN LEFT TURN LANE R3-20-L 36"X54"

4-05 EG-54R 84"X90" — 94 WEST Hudson

4-14 ONLY ONLY ONLY ONLY R3-8-V 72"X30"

4-13 W3-3 36"X36"

S-55-054 SEE NOTE 1

SB17

STH 65 SB

MATCH LINE STA. 69+00'N

70+00 'S' 71+00 'S' 72+00 'S' 73+00 'S' 74+00 'S' 75+00

MATCH LINE STA. 75+00'N

(S-55-054)

70+00 'N' 71+00 'N' 72+00 'N' 73+00 'N' 74+00 'N' 75+0

STH 65 NB

4-02 LANE ENDS MERGE LEFT W9-2L 36"X36"

4-06 W4-2R 36"X36"

4-08 W6-2 36"X36"

4-10 NO ENGINE BRAKING EXCEPT IN EMERGENCY R10-64 30"X36"

4-11 DO NOT ENTER R5-1 36"X36"

4-01 LANE ENDS MERGE LEFT W9-2L 36"X36"

4-07 W4-2R 36"X36"

4-09 WRONG WAY R5-1A 42"X30"

R/W (TYP.)

STA. 70+78'N' 100.7' RT

R = 1988.6'

STA. 74+31'N' 86.3' RT

NOTES:

1) SEE SIGN STRUCTURE DETAILS FOR MORE INFORMATION.

SHEET 4 OF 8

PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	PERMANENT SIGNING AND FENCING	SHEET 84	E

2

N

5-02
SPEED LIMIT 45
R2-1
36"X48"

5-05
W5-54D
18"X18"
MOUNTED UNDER 4-12

5-06
R4-7
36"X48"

5-03
SPEED LIMIT 45
W3-5
36"X36"

MATCH LINE STA. 75+00'N'

75+00 'S'
76+00 'S'
77+00 'S'
78+00 'S'
79+00 'S'
80+00 'S'
81+00

75+00 'N'
76+00 'N'
77+00 'N'
78+00 'N'
79+00 'N'
80+00 'N'

STH 65 SB

STH 65 NB

MATCH LINE STA. 81+00'N'

5-01
SPEED LIMIT 50
R2-1
36"X48"

5-04
W6-3
36"X36"

STA. 75+25'N' 79.3' RT

STA. 76+25'N' 97.0' RT

R/W (TYP.)

STA. 78+25'N' 97.0' RT

STA. 79+25'N' 75.2' RT

LEGEND

PROPOSED SIGN MOUNTED ON POST(S)

PROPOSED SIGN MOUNTED ON LIGHT/SIGNAL POLES

X-XX DENOTES SIGN NUMBER

FENCE WOVEN WIRE 4-FT

ESTR EXISTING SIGN TO REMAIN

SHEET 5 OF 8

PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	PERMANENT SIGNING AND FENCING	SHEET 85	E

2

N

6-01

W6-1
36"X36"

MATCH LINE STA. 81+00'N'

'S'

'00 'N'

STH 65 SB

STH 65 NB

82+00 'S'

82+00 'N'

83+00 'S'

83+00 'N'

84+00 'S'

84+00 'N'

85+00 'S'

85+00 'N'

86+00 'S'

86+00 'N'

R/W (TYP.)

STA. 81+62'N' 77.7' RT

POST

HWY

LEGEND

PROPOSED SIGN MOUNTED ON POST(S)

PROPOSED SIGN MOUNTED ON LIGHT/SIGNAL POLES

X-XX DENOTES SIGN NUMBER

FENCE WOVEN WIRE 4-FT

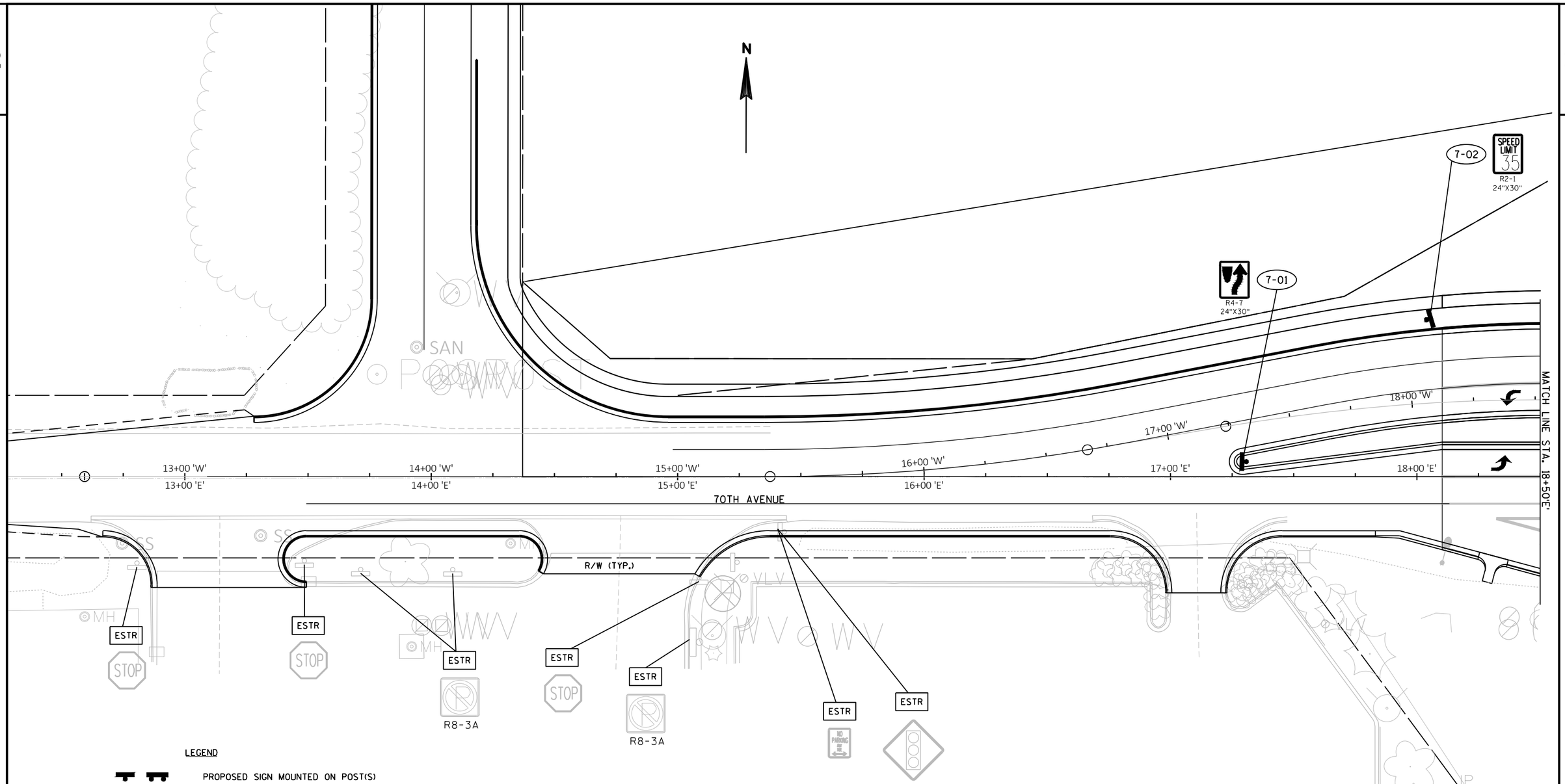
ESTR EXISTING SIGN TO REMAIN

SHEET 6 OF 8

PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	PERMANENT SIGNING AND FENCING	SHEET 86	E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\023201-PS.DWG PLOT DATE : 10/2/2022 2:32 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

2



SHEET 7 OF 8

PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	PERMANENT SIGNING AND FENCING	SHEET 87	E

2

N

8-06
R7-1-D
18"X24"

8-05
R7-1-D
18"X24"

8-07
RIDESHARE
INFO CALL
1-800-455-POOL
D12-2A
60"X42"

8-10
W3-3
36"X36"

STOP
R1-1
30"X30"
8-08

ONLY ONLY ONLY
R3-8-W
54"X30"
8-04

8-09
PARK & RIDE PARKING ONLY
R7-65
30"X24"

MATCH LINE STA. 22+00'E'

'W'
0 'E'
23+00 'W'
23+00 'E'
70TH AVENUE
24+00 'W'
24+00 'E'
25+00 'W'
25+00 'E'
26+00 'W'
26+00 'E'
27+00 'W'
27+00 'E'
28+00

R/W (TYP.)

PARK & RIDE
D4-5-L
36"X48"
8-03

8-02
SPEED LIMIT 45
R2-1
24"X30"

STA. 25+00'E' 30.0' RT

STA. 26+16'E' 30.0' RT

8-01
STOP
R1-1
30"X30"

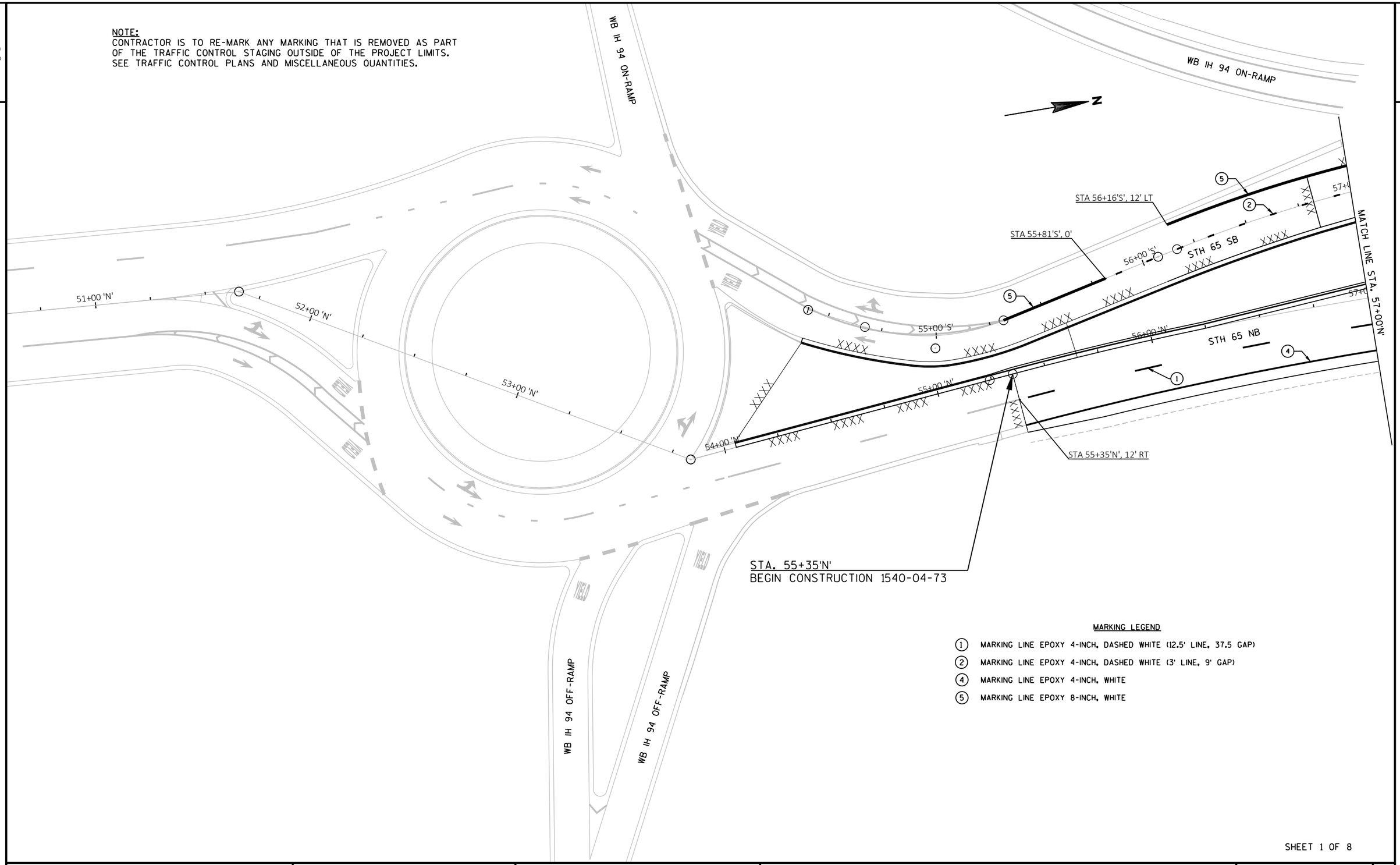
LEGEND

- PROPOSED SIGN MOUNTED ON POST(S)
- PROPOSED SIGN MOUNTED ON LIGHT/SIGNAL POLES
- X-XX — DENOTES SIGN NUMBER
- FENCE WOVEN WIRE 4-FT
- ESTR — EXISTING SIGN TO REMAIN

SHEET 8 OF 8

PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	PERMANENT SIGNING AND FENCING	SHEET 88	E

NOTE:
CONTRACTOR IS TO RE-MARK ANY MARKING THAT IS REMOVED AS PART OF THE TRAFFIC CONTROL STAGING OUTSIDE OF THE PROJECT LIMITS. SEE TRAFFIC CONTROL PLANS AND MISCELLANEOUS QUANTITIES.



MARKING LEGEND

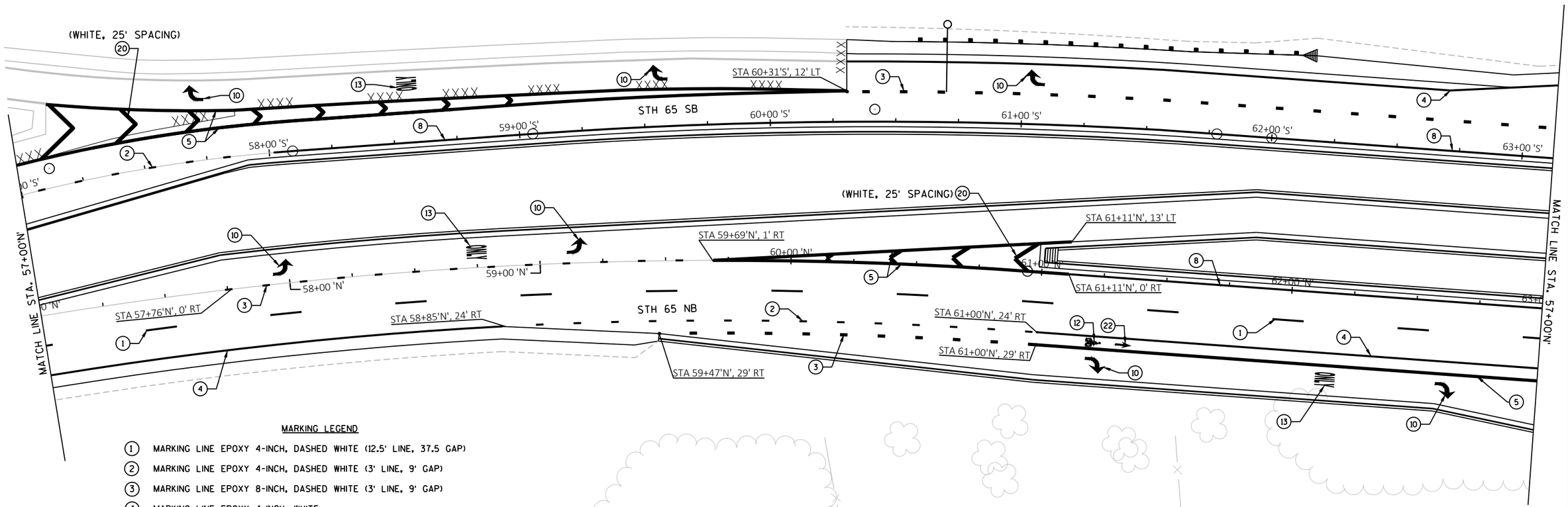
(1) MARKING LINE EPOXY 4-INCH, DASHED WHITE (12.5' LINE, 37.5 GAP)
(2) MARKING LINE EPOXY 4-INCH, DASHED WHITE (3' LINE, 9' GAP)
(4) MARKING LINE EPOXY 4-INCH, WHITE
(5) MARKING LINE EPOXY 8-INCH, WHITE

SHEET 1 OF 8

PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	PAVEMENT MARKING	SHEET 89	E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\024501-PM.DWG PLOT DATE : 10/26/2022 11:15 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

2



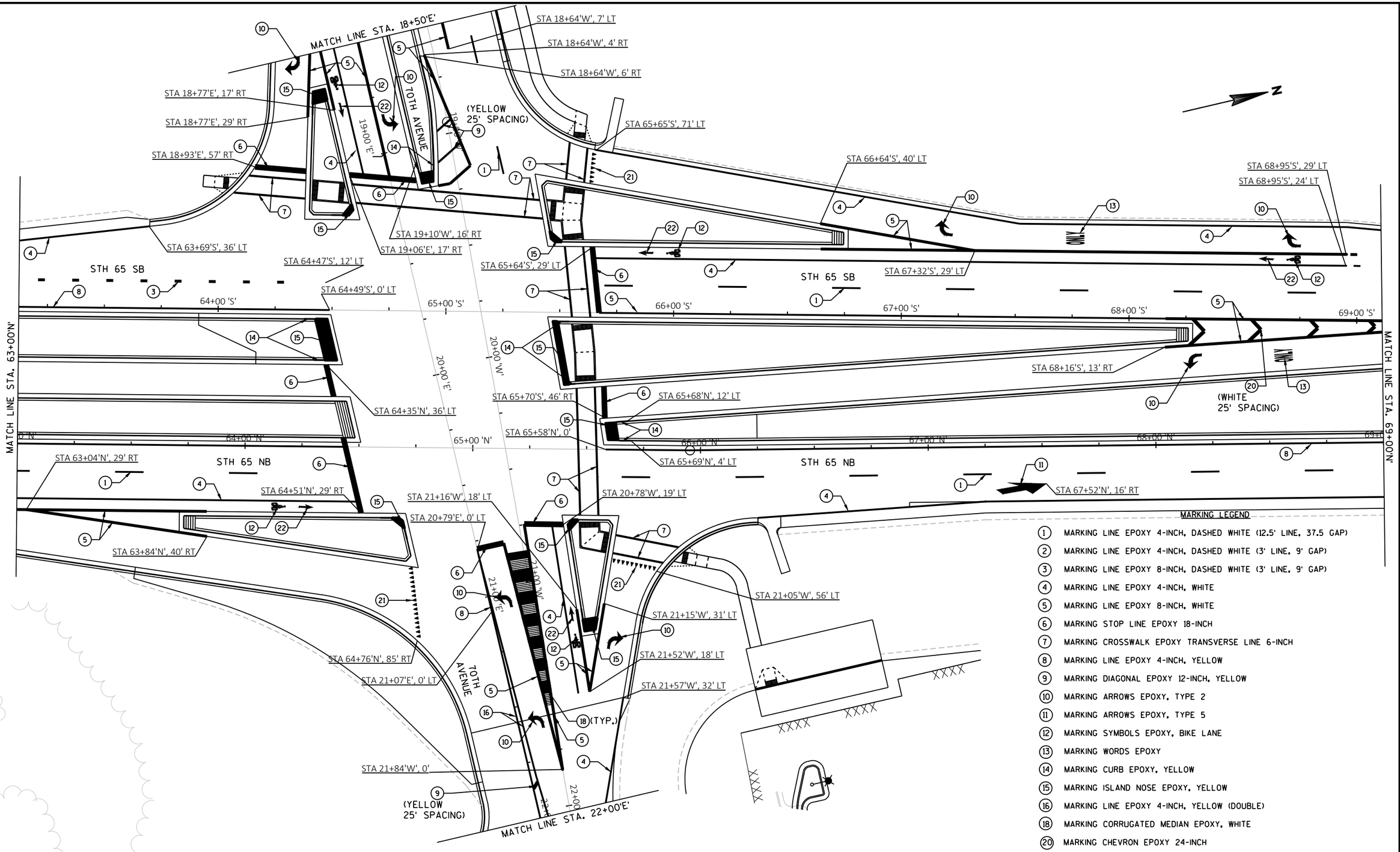
MARKING LEGEND

(1) MARKING LINE EPOXY 4-INCH, DASHED WHITE (12.5' LINE, 37.5 GAP)
(2) MARKING LINE EPOXY 4-INCH, DASHED WHITE (3' LINE, 9' GAP)
(3) MARKING LINE EPOXY 8-INCH, DASHED WHITE (3' LINE, 9' GAP)
(4) MARKING LINE EPOXY 4-INCH, WHITE
(5) MARKING LINE EPOXY 8-INCH, WHITE
(8) MARKING LINE EPOXY 4-INCH, YELLOW
(10) MARKING ARROWS EPOXY, TYPE 2
(12) MARKING SYMBOLS EPOXY, BIKE LANE
(13) MARKING WORDS EPOXY
(20) MARKING CHEVRON EPOXY 24-INCH
(22) MARKING ARROW EPOXY, BIKE LANE

SHEET 2 OF 8

PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	PAVEMENT MARKING	SHEET 90	E

2



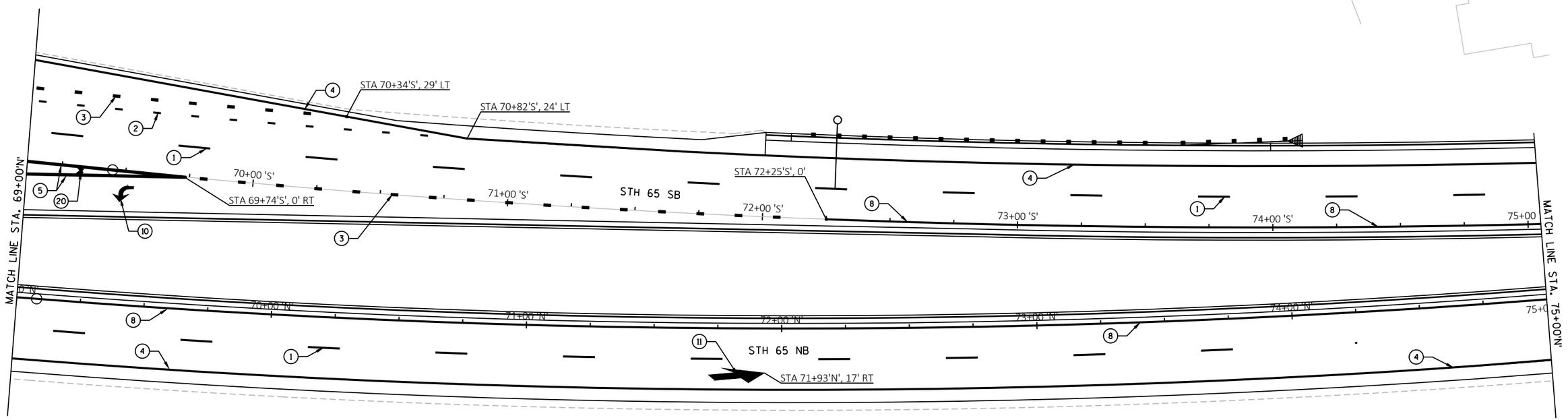
MARKING LEGEND

1. MARKING LINE EPOXY 4-INCH, DASHED WHITE (12.5' LINE, 37.5 GAP)
2. MARKING LINE EPOXY 4-INCH, DASHED WHITE (3' LINE, 9' GAP)
3. MARKING LINE EPOXY 8-INCH, DASHED WHITE (3' LINE, 9' GAP)
4. MARKING LINE EPOXY 4-INCH, WHITE
5. MARKING LINE EPOXY 8-INCH, WHITE
6. MARKING STOP LINE EPOXY 18-INCH
7. MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH
8. MARKING LINE EPOXY 4-INCH, YELLOW
9. MARKING DIAGONAL EPOXY 12-INCH, YELLOW
10. MARKING ARROWS EPOXY, TYPE 2
11. MARKING ARROWS EPOXY, TYPE 5
12. MARKING SYMBOLS EPOXY, BIKE LANE
13. MARKING WORDS EPOXY
14. MARKING CURB EPOXY, YELLOW
15. MARKING ISLAND NOSE EPOXY, YELLOW
16. MARKING LINE EPOXY 4-INCH, YELLOW (DOUBLE)
18. MARKING CORRUGATED MEDIAN EPOXY, WHITE
20. MARKING CHEVRON EPOXY 24-INCH
21. MARKING YIELD LINE EPOXY 18-INCH
22. MARKING ARROW EPOXY, BIKE LANE

SHEET 3 OF 8

PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	PAVEMENT MARKING	SHEET 91	E

2



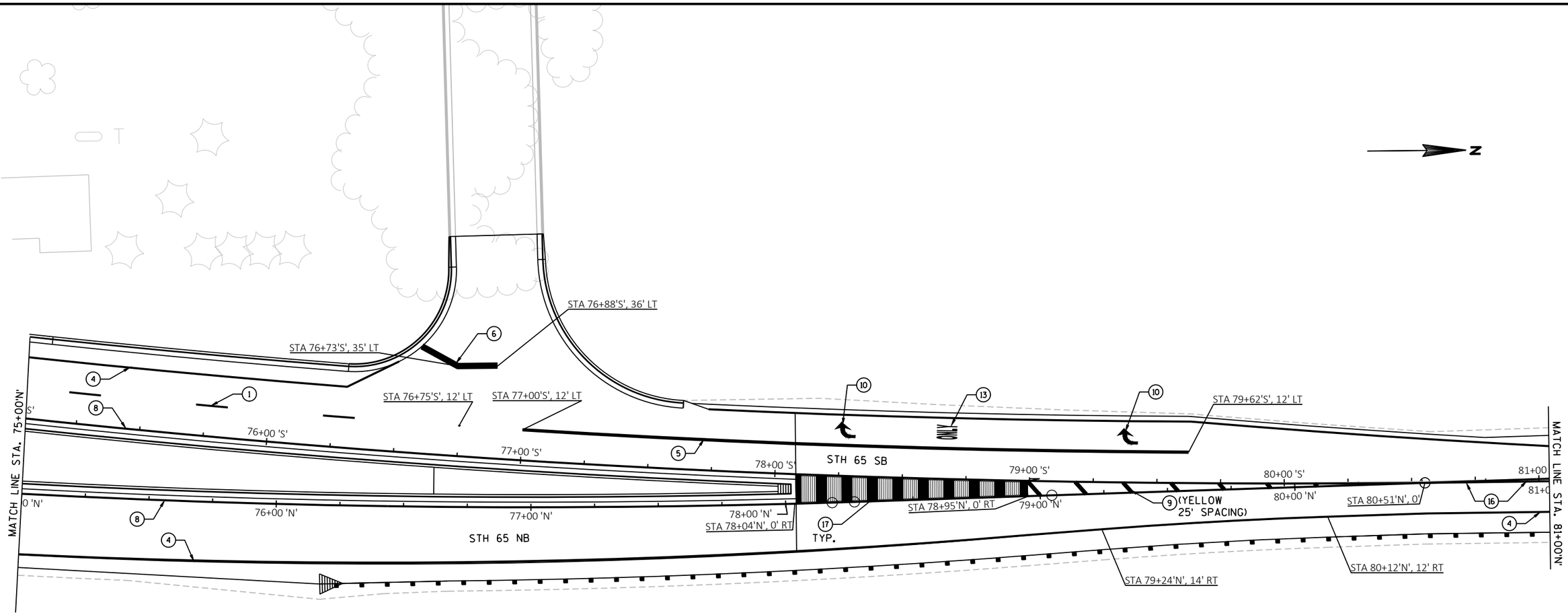
MARKING LEGEND

(1) MARKING LINE EPOXY 4-INCH, DASHED WHITE (12.5' LINE, 37.5 GAP)
(2) MARKING LINE EPOXY 4-INCH, DASHED WHITE (3' LINE, 9' GAP)
(3) MARKING LINE EPOXY 8-INCH, DASHED WHITE (3' LINE, 9' GAP)
(4) MARKING LINE EPOXY 4-INCH, WHITE
(5) MARKING LINE EPOXY 8-INCH, WHITE
(8) MARKING LINE EPOXY 4-INCH, YELLOW
(10) MARKING ARROWS EPOXY, TYPE 2
(11) MARKING ARROWS EPOXY, TYPE 5
(20) MARKING CHEVRON EPOXY 24-INCH

SHEET 4 OF 8

PROJECT NO:1540-04-73	HWY:STH 65	COUNTY:ST. CROIX	PAVEMENT MARKING	SHEET 92	E

2



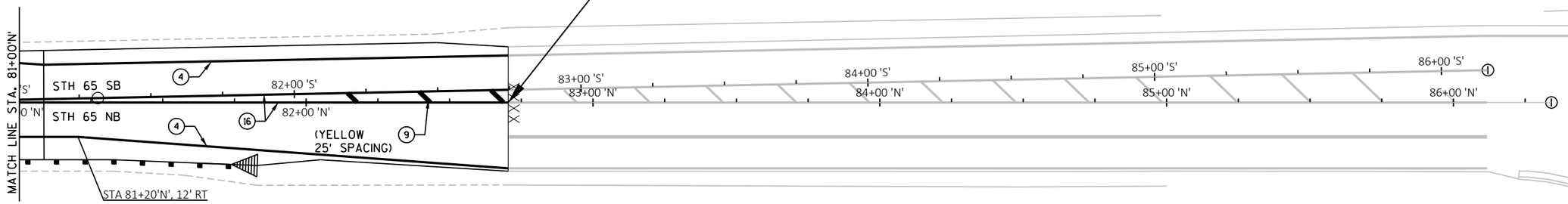
MARKING LEGEND

1. MARKING LINE EPOXY 4-INCH, DASHED WHITE (12.5' LINE, 37.5 GAP)
2. MARKING LINE EPOXY 4-INCH, DASHED WHITE (3' LINE, 9' GAP)
4. MARKING LINE EPOXY 4-INCH, WHITE
5. MARKING LINE EPOXY 8-INCH, WHITE
6. MARKING STOP LINE EPOXY 18-INCH, WHITE
8. MARKING LINE EPOXY 4-INCH, YELLOW
9. MARKING DIAGONAL EPOXY 12-INCH, YELLOW
10. MARKING ARROWS EPOXY, TYPE 2
13. MARKING WORDS EPOXY
16. MARKING LINE EPOXY 4-INCH, YELLOW (DOUBLE)
17. MARKING CORRUGATED MEDIAN EPOXY, YELLOW

SHEET 5 OF 8

PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	PAVEMENT MARKING	SHEET 93	E

NOTE:
CONTRACTOR IS TO RE-MARK ANY MARKING THAT IS REMOVED AS PART OF THE TRAFFIC CONTROL STAGING OUTSIDE OF THE PROJECT LIMITS



MARKING LEGEND

(4) MARKING LINE EPOXY 4-INCH, WHITE
(9) MARKING DIAGONAL EPOXY 12-INCH, YELLOW
(16) MARKING LINE EPOXY 4-INCH, YELLOW (DOUBLE)

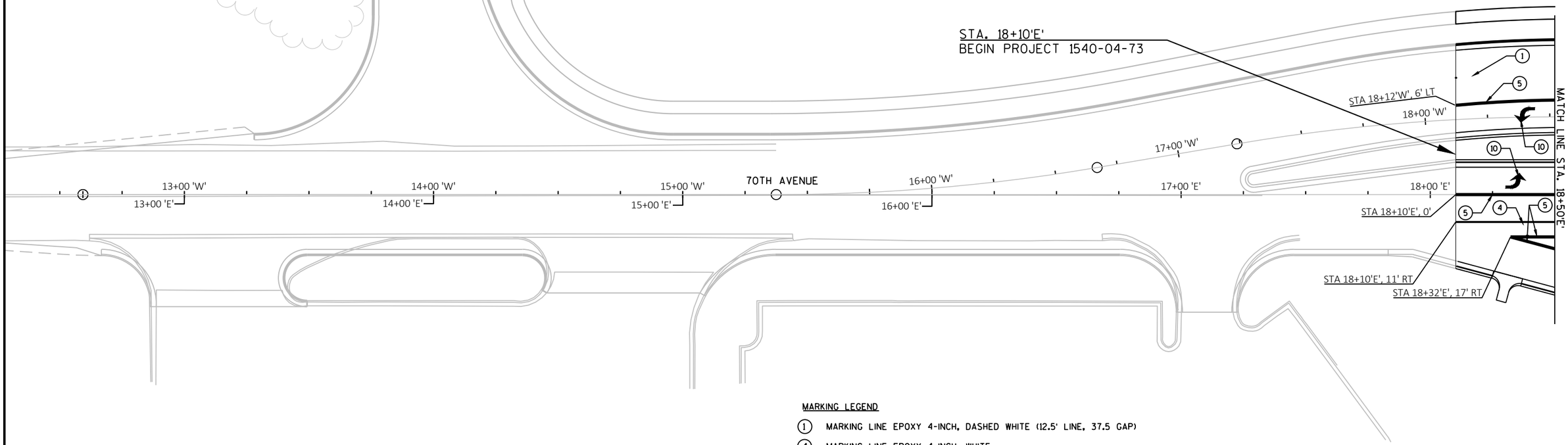
SHEET 6 OF 8

PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	PAVEMENT MARKING	SHEET 94	E

2

NOTE:
CONTRACTOR IS TO RE-MARK ANY MARKING THAT IS REMOVED AS PART OF THE TRAFFIC CONTROL STAGING OUTSIDE OF THE PROJECT LIMITS

N



MARKING LEGEND

(1) MARKING LINE EPOXY 4-INCH, DASHED WHITE (12.5' LINE, 37.5 GAP)
(4) MARKING LINE EPOXY 4-INCH, WHITE
(5) MARKING LINE EPOXY 8-INCH, WHITE
(8) MARKING LINE EPOXY 4-INCH, YELLOW

SHEET 7 OF 8

PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	PAVEMENT MARKING	SHEET 95	E

2

N

NOTE:
CONTRACTOR IS TO RE-MARK ANY MARKING THAT IS REMOVED AS PART OF THE TRAFFIC CONTROL STAGING OUTSIDE OF THE PROJECT LIMITS

STA 23+96'W', 77' LT

STA 22+13'W', 12' LT

STA 23+64'W', 29' LT

STA 23+29'W', 12' LT

STA 24+43'W', 12' LT

STA. 26+50'E'
END CONSTRUCTION 1540-04-73

MATCH LINE STA. 22+00'E'

'W'

STA 22+87'W', 0'

23+00 'W'

(YELLOW, 25' SPACING)

0 'E'

23+00 'E'

STA 23+98'W', 27' LT

24+00 'W'

24+00 'E'

25+00 'W'

25+00 'E'

26+00 'W'

26+00 'E'

STA 25+99'E', 0'

27+00 'W'

27+00 'E'

28+00

STA 22+79'E', 12' RT

STA 23+47'E', 0'

STA 24+25'E', 0'

70TH AVENUE

MARKING LEGEND

4	MARKING LINE EPOXY 4-INCH, WHITE
6	MARKING STOP LINE EPOXY, 18-INCH, WHITE
9	MARKING DIAGONAL EPOXY 12-INCH, YELLOW
10	MARKING ARROWS EPOXY, TYPE 2
15	MARKING ISLAND NOSE EPOXY, YELLOW
16	MARKING LINE EPOXY 4-INCH, YELLOW (DOUBLE)

SHEET 8 OF 8

PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	PAVEMENT MARKING	SHEET	E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\024501-PM.DWG PLOT DATE : 10/26/2022 11:15 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

LIGHTING PLAN LEGEND:

WISDOT STANDARD LED LIGHTING UNIT

WISDOT STANDARD TWIN LED LIGHTING UNIT

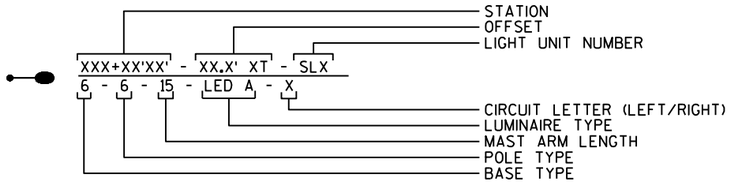
EXISTING WISDOT STANDARD LED LIGHTING UNIT

EXISTING WISDOT STANDARD TWIN LED LIGHTING UNIT

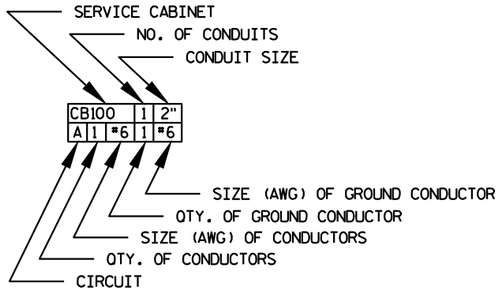
CONCRETE CONTROL CABINET BASE/ELECTRICAL SERVICE

PULL BOX NON-CONDUCTIVE (24"X42")

LIGHTING CONDUIT (2" SCHEDULE 40 PVC UNLESS NOTED)



CONDUIT/CONDUCTOR LEGEND



PWO = PULL WIRE ONLY

CONDUCTOR COLOR LEGEND

EXCB100

LIGHTING CONDUCTORS
A/E - BLACK (MATCH EXIST)
B/F - RED (MATCH EXIST)
C/G - BLUE (MATCH EXIST)
D/H - BROWN (MATCH EXIST)
240V PHASE TO PHASE

CB200

LIGHTING CONDUCTORS
A - BLACK
B - RED
C - BLACK
D - RED
E - BLACK
F - RED
240V PHASE TO PHASE

GENERAL STREET LIGHTING NOTES:

1) THE ENGINEER SHALL APPROVE THE FINAL LOCATION FOR ALL CONCRETE BASES IN THE FIELD PRIOR TO CONSTRUCTION.

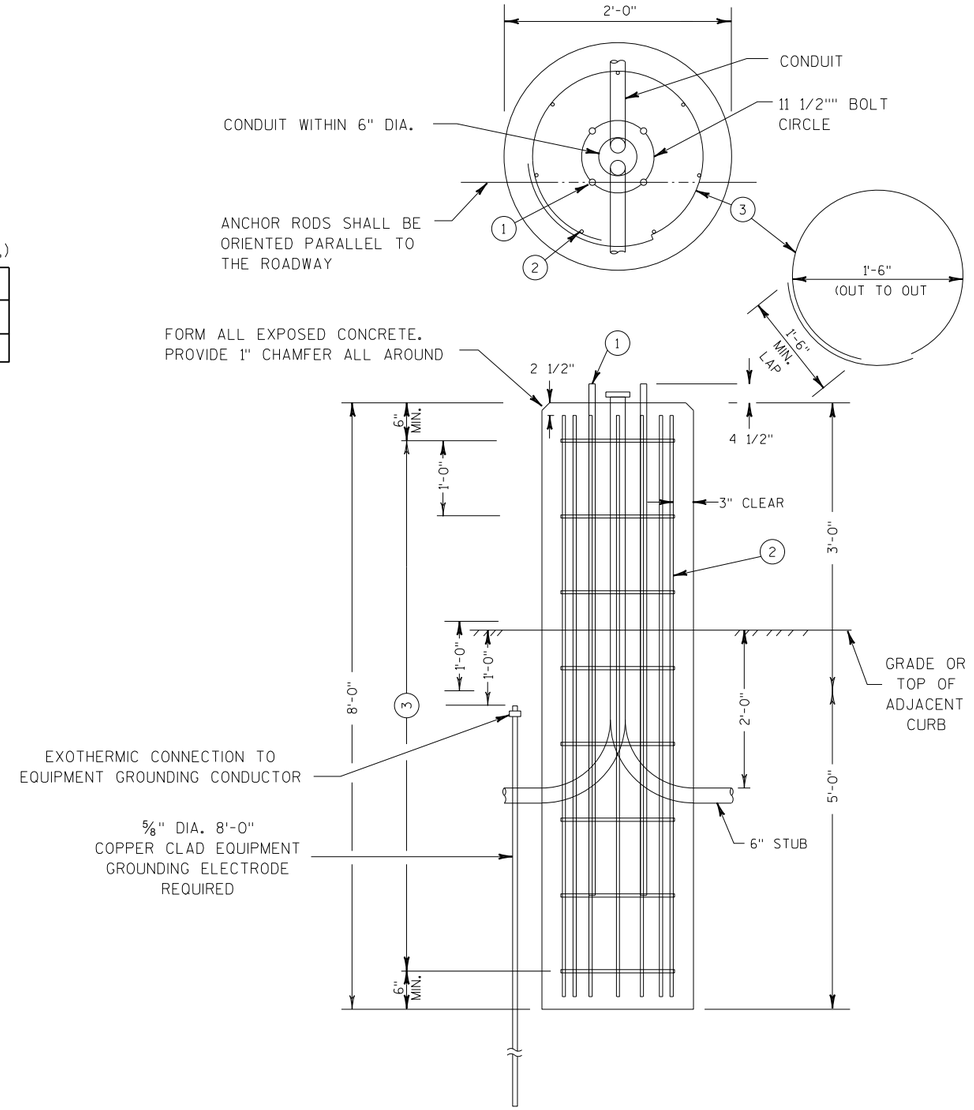
2) THE LOCATION OF EXISTING AND PROPOSED UTILITIES AS SHOWN ON THE PLANS ARE APPROXIMATE. IN ADDITION, THERE MAY BE OTHER UTILITIES WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL UTILITIES PRIOR TO CONSTRUCTION.

3) NO SPLICES ALLOWED IN PULL BOXES.

2

ESTIMATED QUANTITIES PER BASE (APPROX.)

APPROX. CUBIC YARDS OF CONCRETE	0.93
LBS. OF HOOP BAR STEEL	36
LBS. OF VERTICAL BAR STEEL	36



CONCRETE BASE - TYPE 5 BUMPER TYPE

NO SCALE

(1) (4) 1" DIA X 6'-6' ANCHOR RODS

(2) (7) No. 4 x 7'-8" BAR STEEL REINFORCEMENT

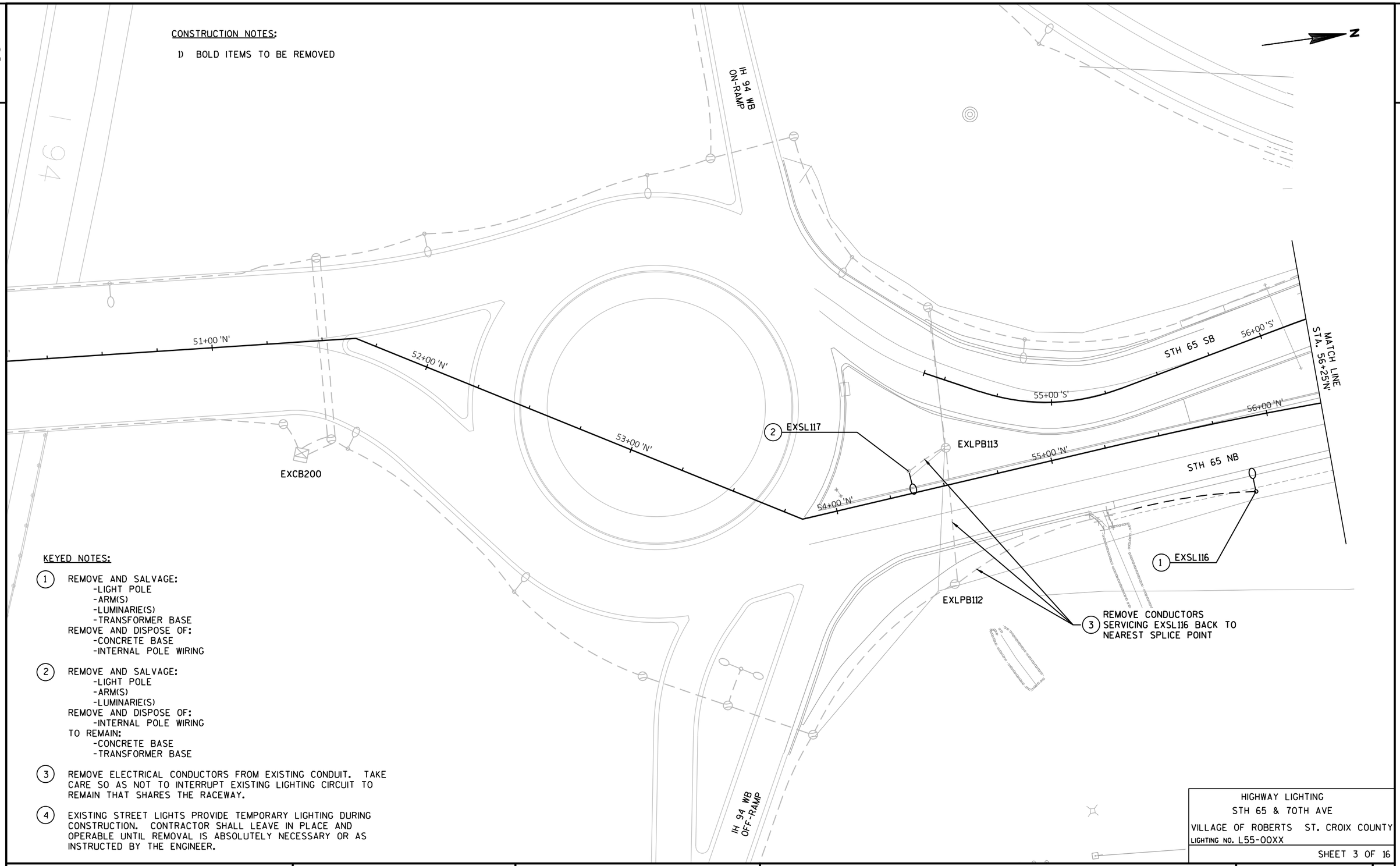
(3) (8) NO. 4 X 1'-6" DIA. BAR STEEL REINFORCEMENT @ 1'-0" C-C WITH 1'6" MINIMUM OVERLAP

NOTE:

REFER TO S.D.D. "CONCRETE BASES TYPES 1, 2, & 5" FOR ADDITIONAL INFORMATION NOT SHOWN ON THIS SHEET.

CONSTRUCTION NOTES:

1) BOLD ITEMS TO BE REMOVED



KEYED NOTES:

(1) REMOVE AND SALVAGE:
- -LIGHT POLE
- -ARM(S)
- -LUMINARIE(S)
- -TRANSFORMER BASE

REMOVE AND DISPOSE OF:
- -CONCRETE BASE
- -INTERNAL POLE WIRING

(2) REMOVE AND SALVAGE:
- -LIGHT POLE
- -ARM(S)
- -LUMINARIE(S)

REMOVE AND DISPOSE OF:
- -INTERNAL POLE WIRING

TO REMAIN:
- -CONCRETE BASE
- -TRANSFORMER BASE

(3) REMOVE ELECTRICAL CONDUCTORS FROM EXISTING CONDUIT. TAKE CARE SO AS NOT TO INTERRUPT EXISTING LIGHTING CIRCUIT TO REMAIN THAT SHARES THE RACEWAY.

(4) EXISTING STREET LIGHTS PROVIDE TEMPORARY LIGHTING DURING CONSTRUCTION. CONTRACTOR SHALL LEAVE IN PLACE AND OPERABLE UNTIL REMOVAL IS ABSOLUTELY NECESSARY OR AS INSTRUCTED BY THE ENGINEER.

HIGHWAY LIGHTING
STH 65 & 70TH AVE
VILLAGE OF ROBERTS ST. CROIX COUNTY
LIGHTING NO. L55-00XX
SHEET 3 OF 16

PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	LIGHTING PLANS - REMOVALS	SHEET 99	E

KEYED NOTES:

(1) REMOVE AND SALVAGE:
-LIGHT POLE
-ARM(S)
-LUMINARIE(S)
-TRANSFORMER BASE
REMOVE AND DISPOSE OF:
-CONCRETE BASE
-INTERNAL POLE WIRING

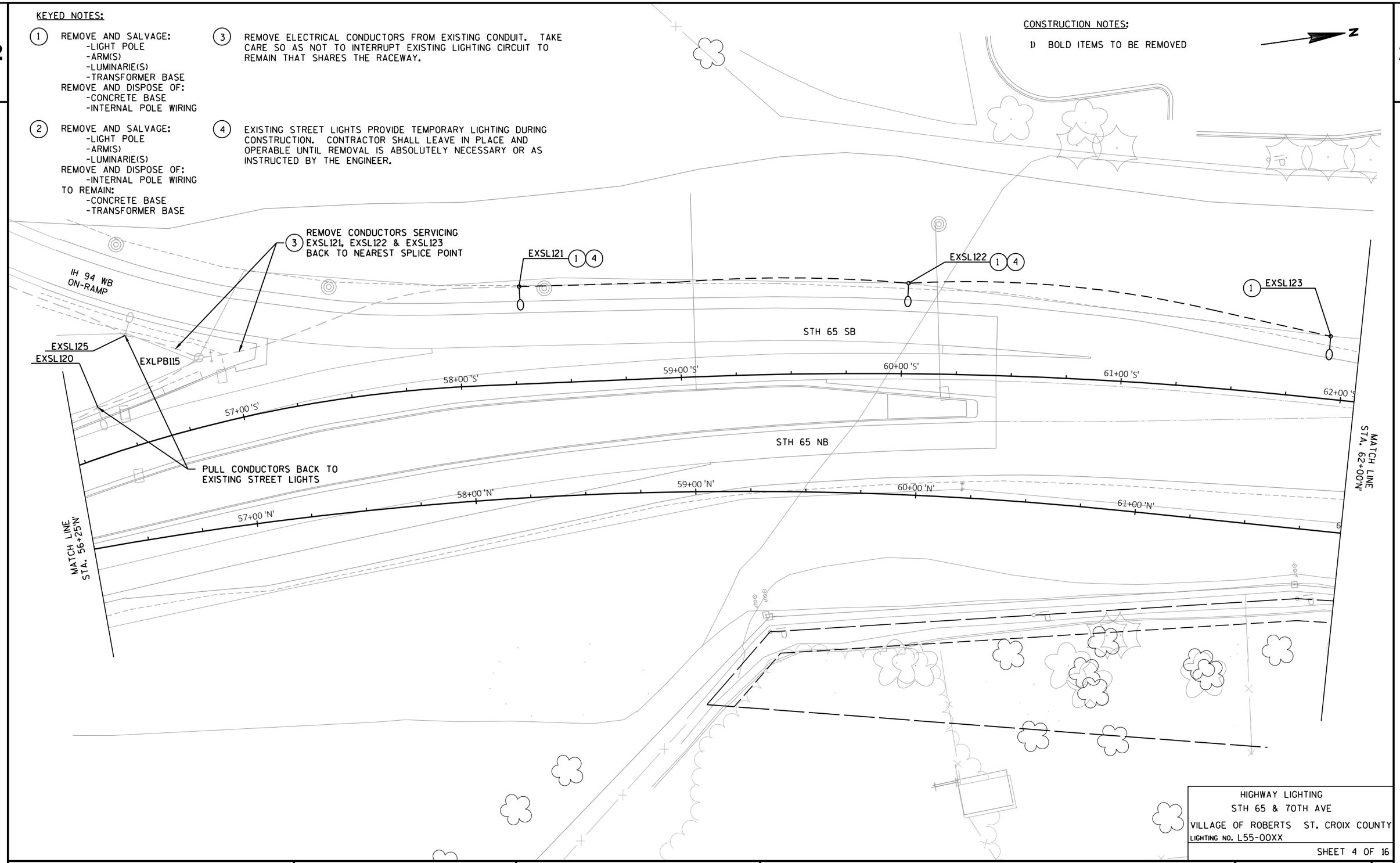
(2) REMOVE AND SALVAGE:
-LIGHT POLE
-ARM(S)
-LUMINARIE(S)
REMOVE AND DISPOSE OF:
-INTERNAL POLE WIRING
TO REMAIN:
-CONCRETE BASE
-TRANSFORMER BASE

(3) REMOVE ELECTRICAL CONDUCTORS FROM EXISTING CONDUIT. TAKE CARE SO AS NOT TO INTERRUPT EXISTING LIGHTING CIRCUIT TO REMAIN THAT SHARES THE RACEWAY.

(4) EXISTING STREET LIGHTS PROVIDE TEMPORARY LIGHTING DURING CONSTRUCTION. CONTRACTOR SHALL LEAVE IN PLACE AND OPERABLE UNTIL REMOVAL IS ABSOLUTELY NECESSARY OR AS INSTRUCTED BY THE ENGINEER.

CONSTRUCTION NOTES:

1) BOLD ITEMS TO BE REMOVED



HIGHWAY LIGHTING
STH 65 & 70TH AVE
VILLAGE OF ROBERTS ST. CROIX COUNTY
LIGHTING NO. L55-00XX

SHEET 4 OF 16

PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	LIGHTING PLANS - REMOVALS	SHEET 100	E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\023603-LP_REMOVALS.DWG PLOT DATE : 9/29/2022 3:09 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : **********

KEYED NOTES:

1. REMOVE AND SALVAGE:
   -LIGHT POLE
   -ARM(S)
   -LUMINARIE(S)
   -TRANSFORMER BASE
   REMOVE AND DISPOSE OF:
   -CONCRETE BASE
   -INTERNAL POLE WIRING

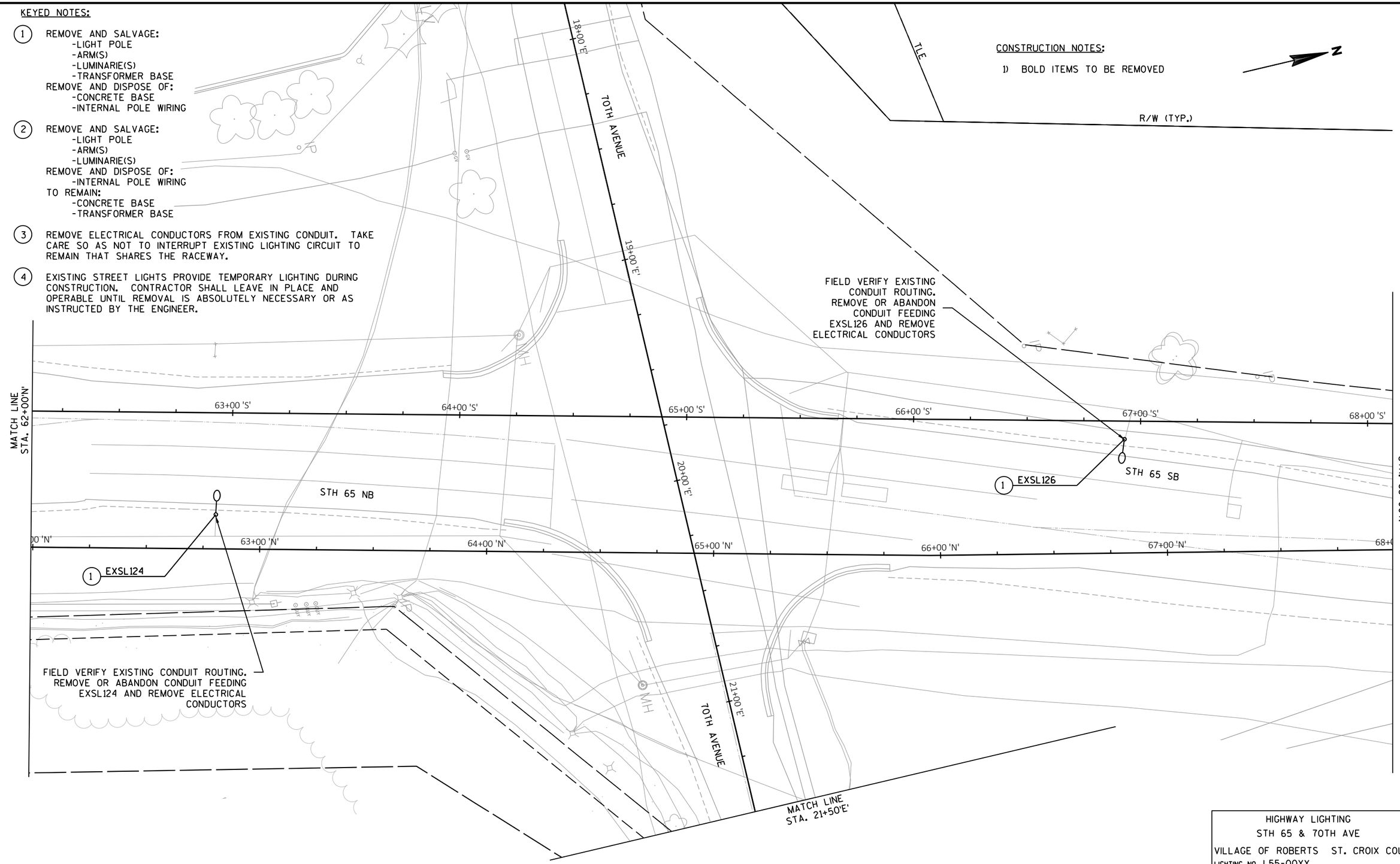
2. REMOVE AND SALVAGE:
   -LIGHT POLE
   -ARM(S)
   -LUMINARIE(S)
   REMOVE AND DISPOSE OF:
   -INTERNAL POLE WIRING
   TO REMAIN:
   -CONCRETE BASE
   -TRANSFORMER BASE

3. REMOVE ELECTRICAL CONDUCTORS FROM EXISTING CONDUIT. TAKE CARE SO AS NOT TO INTERRUPT EXISTING LIGHTING CIRCUIT TO REMAIN THAT SHARES THE RACEWAY.

4. EXISTING STREET LIGHTS PROVIDE TEMPORARY LIGHTING DURING CONSTRUCTION. CONTRACTOR SHALL LEAVE IN PLACE AND OPERABLE UNTIL REMOVAL IS ABSOLUTELY NECESSARY OR AS INSTRUCTED BY THE ENGINEER.

CONSTRUCTION NOTES:

1) BOLD ITEMS TO BE REMOVED



HIGHWAY LIGHTING
STH 65 & 70TH AVE
VILLAGE OF ROBERTS ST. CROIX COUNTY
LIGHTING NO. L55-00XX
SHEET 5 OF 16

PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	LIGHTING PLANS - REMOVALS	SHEET 101	E

KEYED NOTES:

(1) REMOVE AND SALVAGE:
-LIGHT POLE
-ARM(S)
-LUMINARIE(S)
-TRANSFORMER BASE
REMOVE AND DISPOSE OF:
-CONCRETE BASE
-INTERNAL POLE WIRING

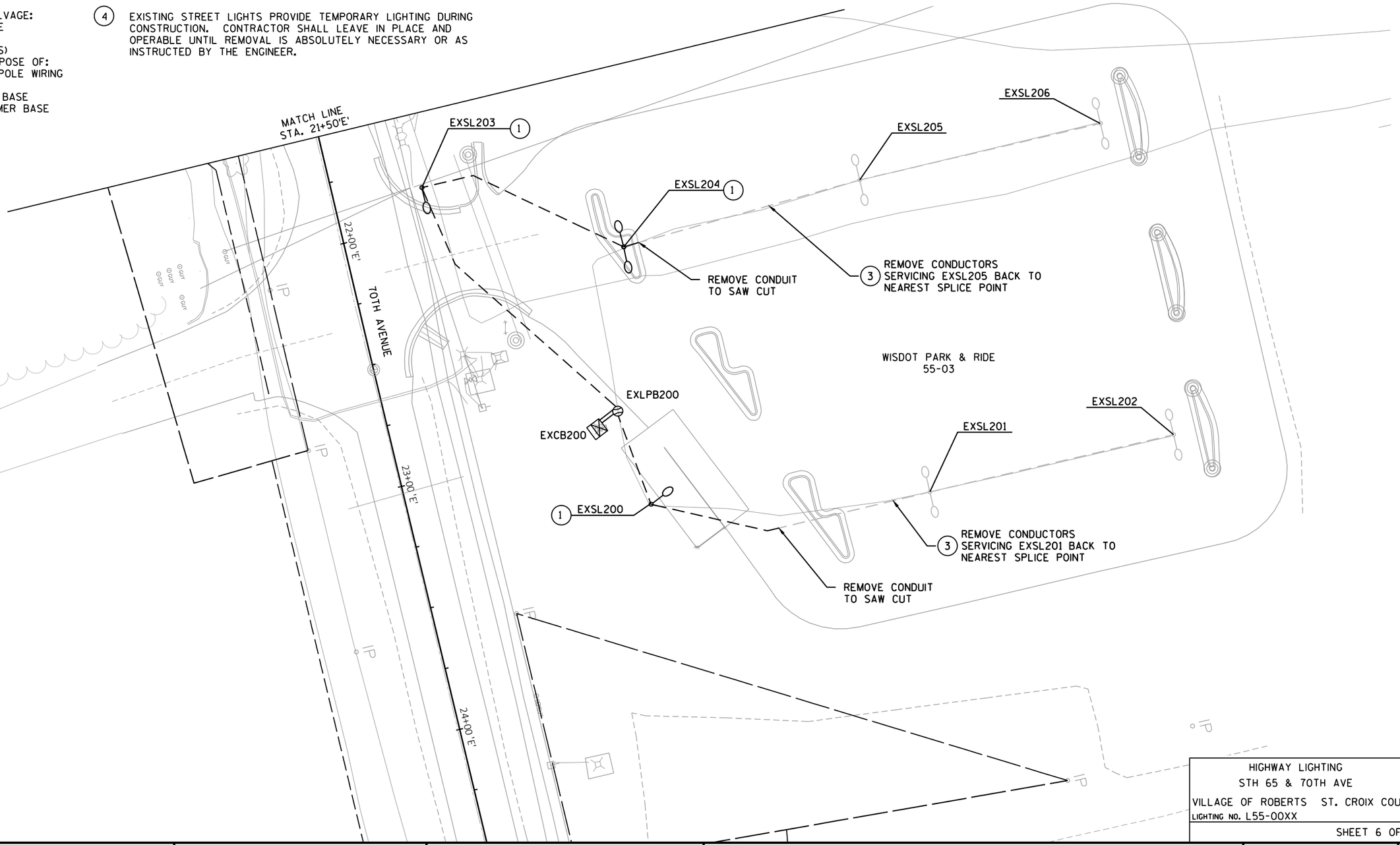
(2) REMOVE AND SALVAGE:
-LIGHT POLE
-ARM(S)
-LUMINARIE(S)
REMOVE AND DISPOSE OF:
-INTERNAL POLE WIRING
TO REMAIN:
-CONCRETE BASE
-TRANSFORMER BASE

(3) REMOVE ELECTRICAL CONDUCTORS FROM EXISTING CONDUIT. TAKE CARE SO AS NOT TO INTERRUPT EXISTING LIGHTING CIRCUIT TO REMAIN THAT SHARES THE RACEWAY.

(4) EXISTING STREET LIGHTS PROVIDE TEMPORARY LIGHTING DURING CONSTRUCTION. CONTRACTOR SHALL LEAVE IN PLACE AND OPERABLE UNTIL REMOVAL IS ABSOLUTELY NECESSARY OR AS INSTRUCTED BY THE ENGINEER.

CONSTRUCTION NOTES:

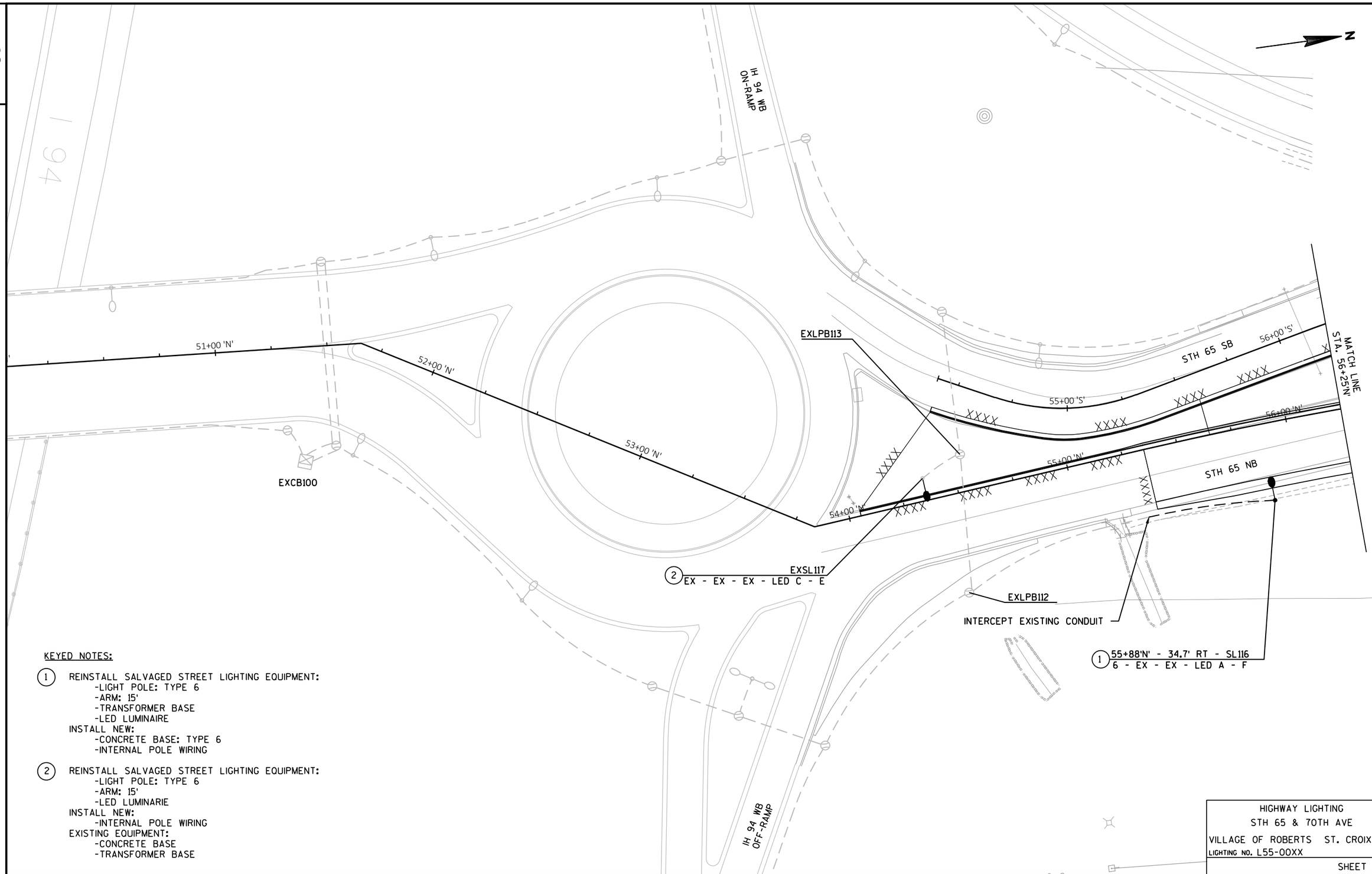
1) BOLD ITEMS TO BE REMOVED



HIGHWAY LIGHTING
STH 65 & 70TH AVE
VILLAGE OF ROBERTS ST. CROIX COUNTY
LIGHTING NO. L55-00XX
SHEET 6 OF 16

PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	LIGHTING PLANS - REMOVALS	SHEET 102	E

2



KEYED NOTES:

(1) REINSTALL SALVAGED STREET LIGHTING EQUIPMENT:
- -LIGHT POLE: TYPE 6
- -ARM: 15'
- -TRANSFORMER BASE
- -LED LUMINAIRE

INSTALL NEW:
- -CONCRETE BASE: TYPE 6
- -INTERNAL POLE WIRING

(2) REINSTALL SALVAGED STREET LIGHTING EQUIPMENT:
- -LIGHT POLE: TYPE 6
- -ARM: 15'
- -LED LUMINARIE

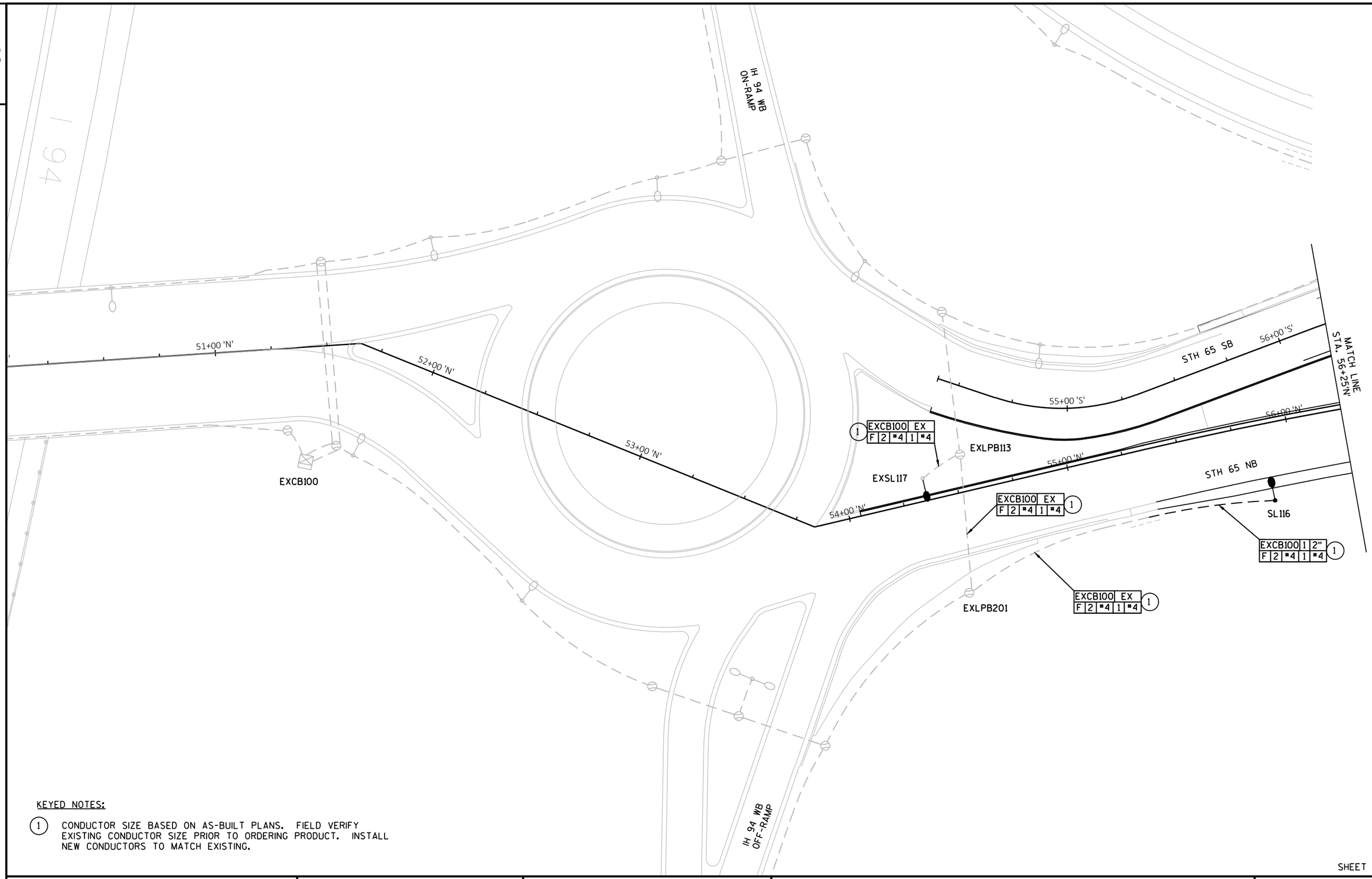
INSTALL NEW:
- -INTERNAL POLE WIRING

EXISTING EQUIPMENT:
- -CONCRETE BASE
- -TRANSFORMER BASE

HIGHWAY LIGHTING
STH 65 & 70TH AVE
VILLAGE OF ROBERTS ST. CROIX COUNTY
LIGHTING NO. L55-00XX
SHEET 7 OF 16

PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	LIGHTING PLANS	SHEET 103	E

2



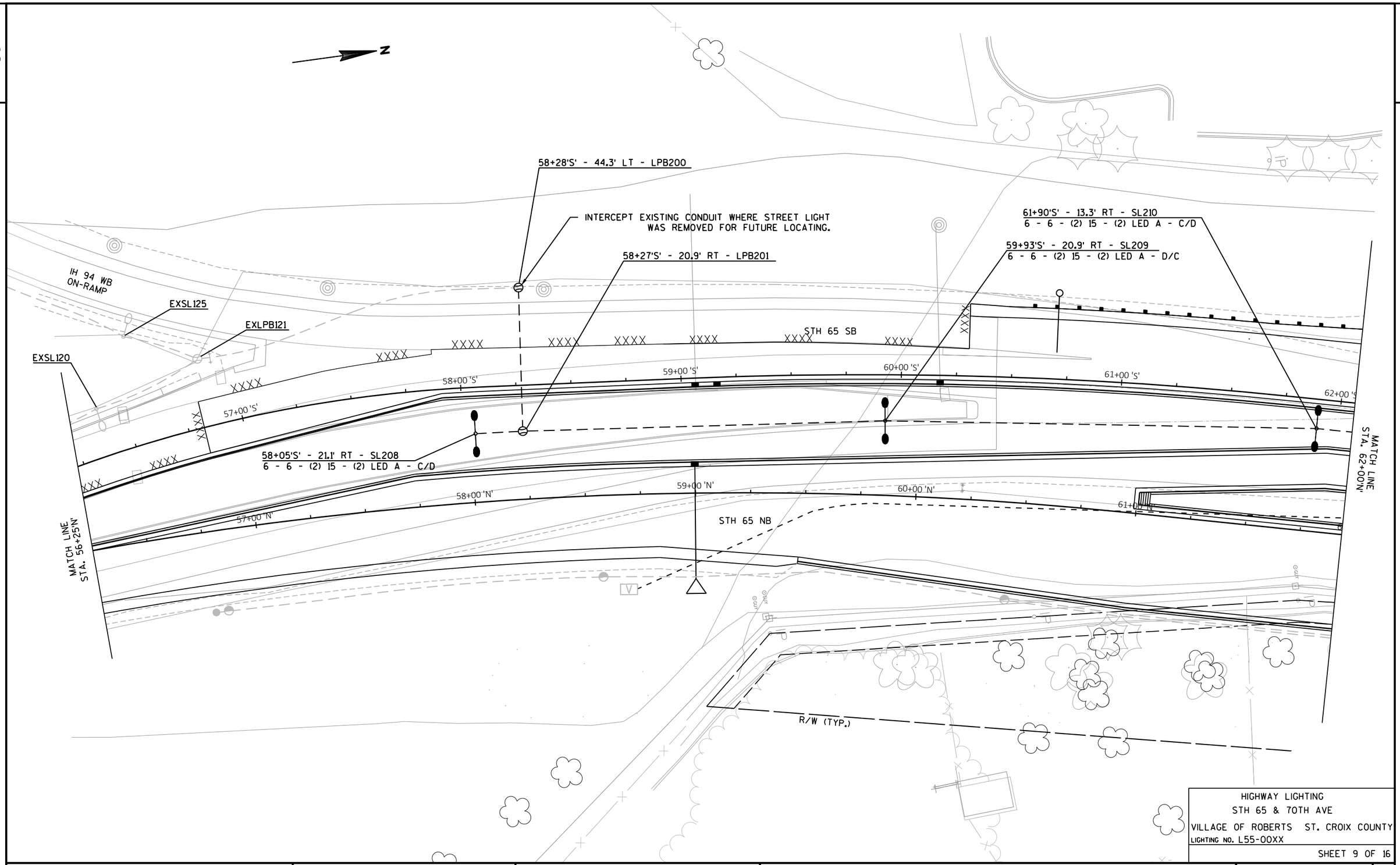
KEYED NOTES:

(1) CONDUCTOR SIZE BASED ON AS-BUILT PLANS. FIELD VERIFY EXISTING CONDUCTOR SIZE PRIOR TO ORDERING PRODUCT. INSTALL NEW CONDUCTORS TO MATCH EXISTING.

SHEET 8 OF 16

PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	LIGHTING PLANS	SHEET 104	E

2



HIGHWAY LIGHTING
STH 65 & 70TH AVE
VILLAGE OF ROBERTS ST. CROIX COUNTY
LIGHTING NO. L55-00XX
SHEET 9 OF 16

PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	LIGHTING PLANS	SHEET 105 E

2

N

PWO 1-2"

LPB200

IH 94 WB
ON-RAMP

EXSL125

PWO 1-2"

STH 65 SB

EXLPB121

58+00 'S'

59+00 'S'

60+00 'S'

61+00 'S'

62+00 'S'

57+00 'S'

B

SL208

LPB201

SL209

SL210

EXSL120

B

B

B

MATCH LINE
STA. 62+00'N'

58+00 'N'

59+00 'N'

60+00 'N'

61+00 'N'

57+00 'N'

STH 65 NB

MATCH LINE
STA. 56+25'N'

B =

CB200		1	2"
C	2	#6	1	#6
D	2	#6	--	--

SHEET 10 OF 16

PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	LIGHTING PLANS	SHEET 106	E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\023602-LP.DWG PLOT DATE : 9/29/2022 1:49 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : **********

WISDOT/CADDS SHEET 42

2

CONSTRUCTION NOTES:

1) SEE TRAFFIC SIGNAL PLANS FOR ADDITIONAL ELECTRICAL INSTALLATIONS.

N

18+05'E' - 35.0' RT - LPB211

(1) 18+10'E' - 35.0' RT - SL212
6 - 6 - 15 - LED A - D

18+00 'E'

70TH AVENUE

TILE

R/W (TYP.)

18+09'E' - 69.9' LT - LPB210

63+51'S' - 45.9' LT - LPB212

63+51'S' - 13.0' LT - LPB202

19+00 'E'

66+75'S' - 61.6' LT - SL213 (1)
6 - 6 - 15 - LED A - C

66+80'S' - 60.8' LT - LPB209

40'

45'

MATCH LINE
STA. 62+00'N'

63+00 'S'

64+00 'S'

65+00 'S'

66+00 'S'

67+00 'S'

68+00 'S'

STH 65 SB

20+00 'E'

63+00 'N'

64+00 'N'

65+00 'N'

66+00 'N'

67+00 'N'

MATCH LINE
STA. 68+00'N'

STH 65 NB

50'

MH

21+00 'E'

70TH AVENUE

66+66'N' - 11.4' LT - LPB208

66+64'N' - 39.7' RT - LPB207

65+95'N' - 57.6' RT - CB200

(1) 63+34'N' - 58.4' RT - SL211
6 - 6 - 15 - LED A - C

63+39'S' - 60.0' RT - LPB203

MATCH LINE
STA. 21+50'E'

KEYED NOTES:

(1) REINSTALL SALVAGED STREET LIGHTING EQUIPMENT:
-LIGHT POLE: TYPE 6
-ARM: 15'
-TRANSFORMER BASE
-LED LUMINAIRE
INSTALL NEW:
-CONCRETE BASE: TYPE 6
-INTERNAL POLE WIRING

HIGHWAY LIGHTING
STH 65 & 70TH AVE
VILLAGE OF ROBERTS ST. CROIX COUNTY
LIGHTING NO. L55-00XX

SHEET 11 OF 16

PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	LIGHTING PLANS	SHEET 107	E

2

CONSTRUCTION NOTES:

1) SEE TRAFFIC SIGNAL PLANS FOR ADDITIONAL ELECTRICAL INSTALLATIONS.

N

LPB210

LPB211

SL212

B

18+00 'E'

19+00 'E'

70TH AVENUE

CB200	1	2"
C	4	#6
D	2	#6

LPB212

SL213

LPB209

STH 65 SB

63+00 'S'

64+00 'S'

65+00 'S'

66+00 'S'

67+00 'S'

68+00 'S'

MATCH LINE
STA. 62+00'N'

LPB202

20+00 'E'

65+00 'N'

63+00 'N'

64+00 'N'

66+00 'N'

67+00 'N'

MATCH LINE
STA. 68+00'N'

A

LPB208

STH 65 NB

CB200	1	2"
C	2	#6

CB200	2	3"
A	2	#6
B	2	#6
C	2	#6
D	2	#6

CB200	2	2"
A	2	#6
B	2	#6
C	2	#6
D	2	#6

LPB207

SL211

LPB203

CB200

21+00 'E'

70TH AVENUE

PWO
1-2"

1

CB200	2	3"
E	2	#8
F	2	#8

MATCH LINE
STA. 21+50'E'

A =

CB200	1	2"
A	2	#6
B	2	#6

B =

CB200	1	2"
C	2	#6
D	2	#6

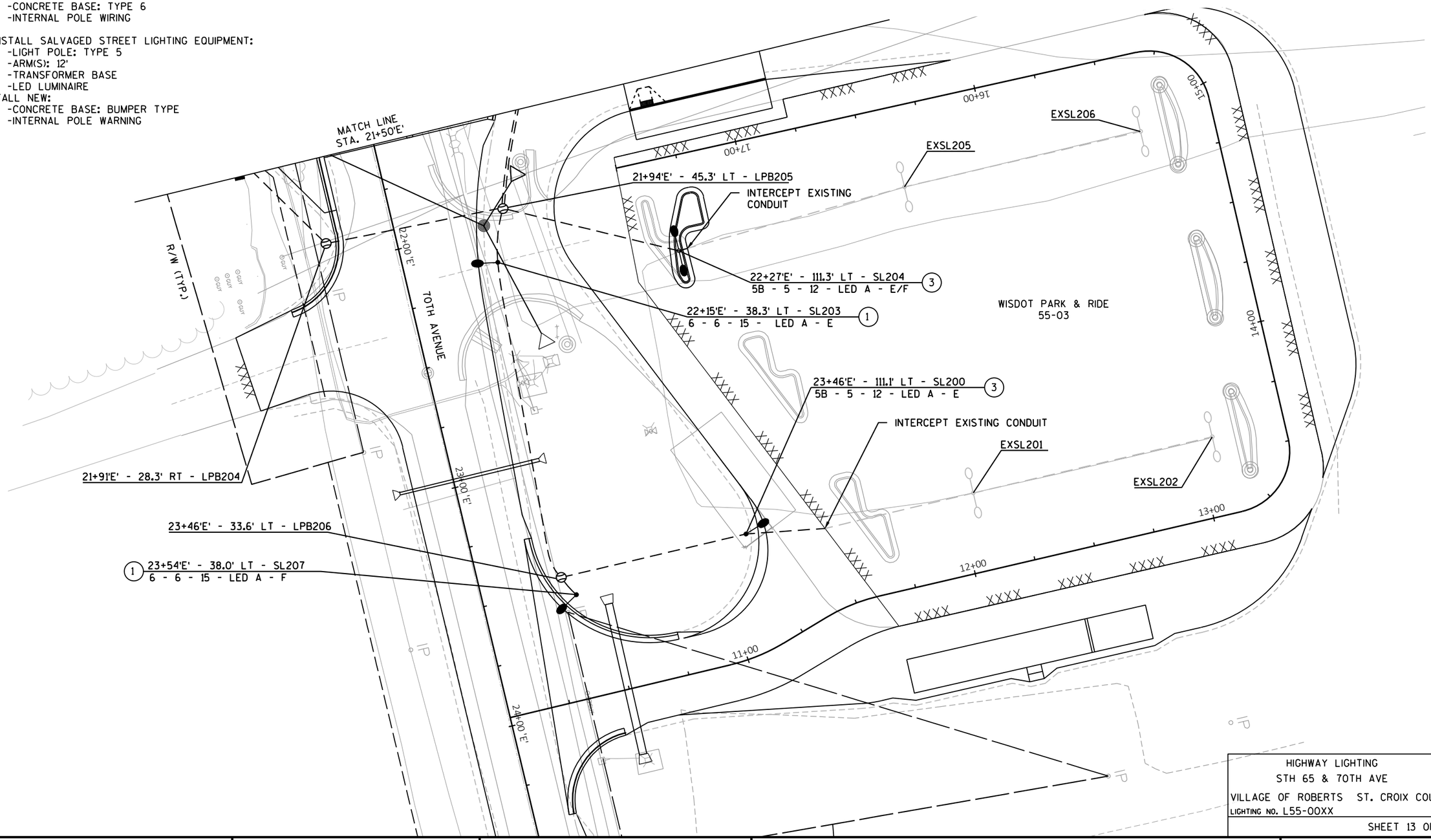
KEYED NOTES:

(1) CONDUCTOR SIZE BASED ON AS-BUILT PLANS. FIELD VERIFY EXISTING CONDUCTOR SIZE PRIOR TO ORDERING PRODUCT. INSTALL NEW CONDUCTORS TO MATCH EXISTING.

KEYED NOTES:

(1) REINSTALL SALVAGED STREET LIGHTING EQUIPMENT:
-LIGHT POLE: TYPE 6
-ARM: 15'
-TRANSFORMER BASE
-LED LUMINAIRE
INSTALL NEW:
-CONCRETE BASE: TYPE 6
-INTERNAL POLE WIRING

(3) REINSTALL SALVAGED STREET LIGHTING EQUIPMENT:
-LIGHT POLE: TYPE 5
-ARM(S): 12'
-TRANSFORMER BASE
-LED LUMINAIRE
INSTALL NEW:
-CONCRETE BASE: BUMPER TYPE
-INTERNAL POLE WARNING



HIGHWAY LIGHTING
STH 65 & 70TH AVE
VILLAGE OF ROBERTS ST. CROIX COUNTY
LIGHTING NO. L55-00XX
SHEET 13 OF 16

PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	LIGHTING PLANS	SHEET 109	E

2

N

CB200	2	3"
E	2	#8	1	#8
F	2	#8	--	--

MATCH LINE
STA. 21+50'E'

PWO
1-2"

PWO
1-2"

LPB204

LPB205

C

SL203

SL204

CB200	EX	
E	2	#8	1	#8
F	2	#8	--	--

SPLICE WITH EXISTING CONDUCTORS
IN STREET LIGHT BASE

EXSL206

EXSL205

WISDOT PARK & RIDE
55-03

CB200	1	2"
E	4	#8	2	#8
F	4	#8	--	--

22+00 'E'

70TH AVENUE

C

23+00 'E'

SL200

C

CB200	EX	
E	2	#8	1	#8
F	2	#8	--	--

SPLICE WITH EXISTING CONDUCTORS
IN STREET LIGHT BASE

EXSL202

EXSL201

LPB206

SL207

C

CB200	1	2"
E	4	#8	2	#8
F	4	#8	--	--

24+00 'E'

KEYED NOTES:

(1) CONDUCTOR SIZE BASED ON AS-BUILT PLANS. FIELD VERIFY EXISTING CONDUCTOR SIZE PRIOR TO ORDERING PRODUCT. INSTALL NEW CONDUCTORS TO MATCH EXISTING.

C = (1)

CB200	1	2"
E	2	#8	1	#8
F	2	#8	--	--

SHEET 14 OF 16

PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	LIGHTING PLANS	SHEET 110	E

2

2

N

R/W (TYP.)

STH 65 SB

69+00 'S'

70+00 'S'

71+00 'S'

72+00 'S'

73+00 'S'

74+00 'S'

MATCH LINE
STA. 68+00'N'

69+00 'N'

70+00 'N'

71+00 'N'

72+00 'N'

73+00 'N'

74+00 'N'

STH 65 NB

68+31'N' - 16.2' LT - SL214
6 - 6 - 15 - (2) LED A - A/B

70+45'N' - 21.1' LT - SL215
6 - 6 - 15 - (2) LED A - B/A

72+99'N' - 19.7' LT - SL216
6 - 6 - 15 - (2) LED A - A/B

15+00

HIGHWAY LIGHTING
STH 65 & 70TH AVE
VILLAGE OF ROBERTS ST. CROIX COUNTY
LIGHTING NO. L55-00XX

SHEET 15 OF 16

PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	LIGHTING PLANS	SHEET 111	E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\023601-LP.DWG PLOT DATE : 10/24/2022 1:33 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

N

MATCH LINE
STA. 68+00'N'

STH 65 SB

69+00 'S' 70+00 'S' 71+00 'S' 72+00 'S' 73+00 'S' 74+00 'S'

A

SL214

SL215

SL216

A

A

74+00 'N'

73+00 'N'

72+00 'N'

71+00 'N'

70+00 'N'

69+00 'N'

STH 65 NB

A	=	CB200		1	2"
		A	2	#6	1	#6
		B	2	#6	--	--

SHEET 16 OF 16

PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	LIGHTING PLANS	SHEET 112	E

2

CONSTRUCTION NOTES:

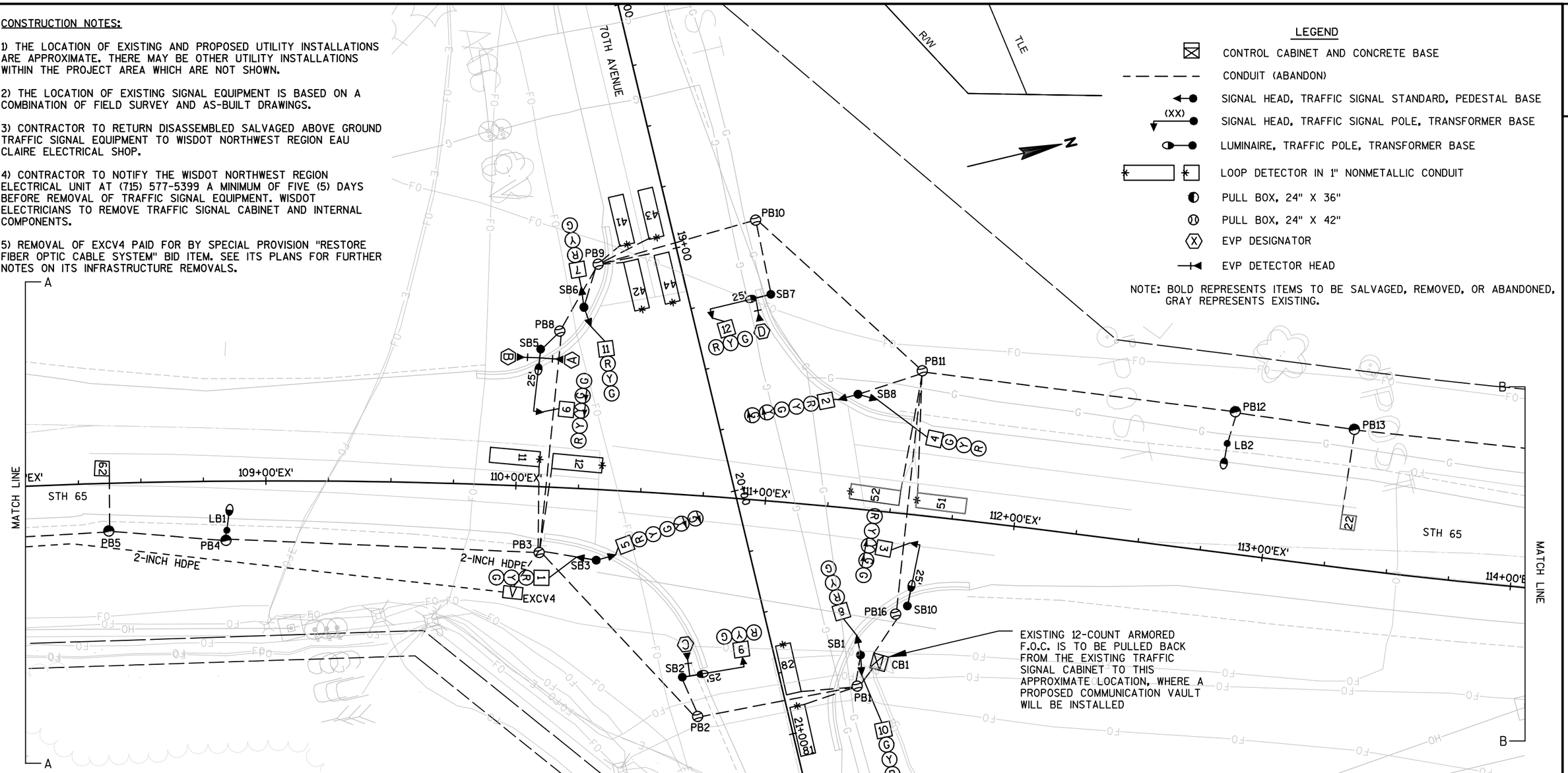
1) THE LOCATION OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN.

2) THE LOCATION OF EXISTING SIGNAL EQUIPMENT IS BASED ON A COMBINATION OF FIELD SURVEY AND AS-BUILT DRAWINGS.

3) CONTRACTOR TO RETURN DISASSEMBLED SALVAGED ABOVE GROUND TRAFFIC SIGNAL EQUIPMENT TO WISDOT NORTHWEST REGION EAU CLAIRE ELECTRICAL SHOP.

4) CONTRACTOR TO NOTIFY THE WISDOT NORTHWEST REGION ELECTRICAL UNIT AT (715) 577-5399 A MINIMUM OF FIVE (5) DAYS BEFORE REMOVAL OF TRAFFIC SIGNAL EQUIPMENT. WISDOT ELECTRICIANS TO REMOVE TRAFFIC SIGNAL CABINET AND INTERNAL COMPONENTS.

5) REMOVAL OF EXCV4 PAID FOR BY SPECIAL PROVISION "RESTORE FIBER OPTIC CABLE SYSTEM" BID ITEM. SEE ITS PLANS FOR FURTHER NOTES ON ITS INFRASTRUCTURE REMOVALS.



LEGEND

- CONTROL CABINET AND CONCRETE BASE
- CONDUIT (ABANDON)
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- PULL BOX, 24" X 36"
- PULL BOX, 24" X 42"
- EVP DESIGNATOR
- EVP DETECTOR HEAD

NOTE: BOLD REPRESENTS ITEMS TO BE SALVAGED, REMOVED, OR ABANDONED, GRAY REPRESENTS EXISTING.

TRAFFIC SIGNAL REMOVAL MAJOR ITEMS SUMMARY	
6	PEDESTAL BASES (SALVAGE)
6	TRANSFORMER BASES (SALVAGE)
12	TRAFFIC SIGNAL / LIGHTING POLES (SALVAGE)
14	TRAFFIC SIGNAL HEADS (SALVAGE)
4	EVP DETECTOR UNITS (SALVAGE)

TRAFFIC CONTROL SIGNAL
STH 65 & 70TH AVENUE
VILLAGE OF ROBERTS
ST. CROIX COUNTY

SIGNAL NO. S-55-1369

REGION CONTACT: --------
DESIGNED BY: KL ENGINEERING
REVISED BY: --------

PAGE 1 OF 2

PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 113 E

2

2

A

A

MATCH LINE

108+00

107+00'EX'

106+00'EX'

105+00'EX'

104+00'EX'

103+00'EX'

102+00'EX'

STH 65

PB6

2-INCH HDPE

EXISTING 12-COUNT ARMORED F.O.C. IS TO BE PULLED BACK FROM THE EXISTING TRAFFIC SIGNAL CABINET TO THIS APPROXIMATE LOCATION, WHERE A PROPOSED COMMUNICATION VAULT WILL BE INSTALLED

PB7

SB4

13

B

B

MATCH LINE

PB14

21

PB15

SB9

14

STH 65

115+00'EX'

116+00'EX'

117+00'EX'

118+00'EX'

119+00'EX'

TRAFFIC CONTROL SIGNAL
STH 65 & 70TH AVENUE
VILLAGE OF ROBERTS
ST. CROIX COUNTY

SIGNAL NO. S-55-1369

REGION CONTACT: --------
DESIGNED BY: KL ENGINEERING
REVISED BY: --------

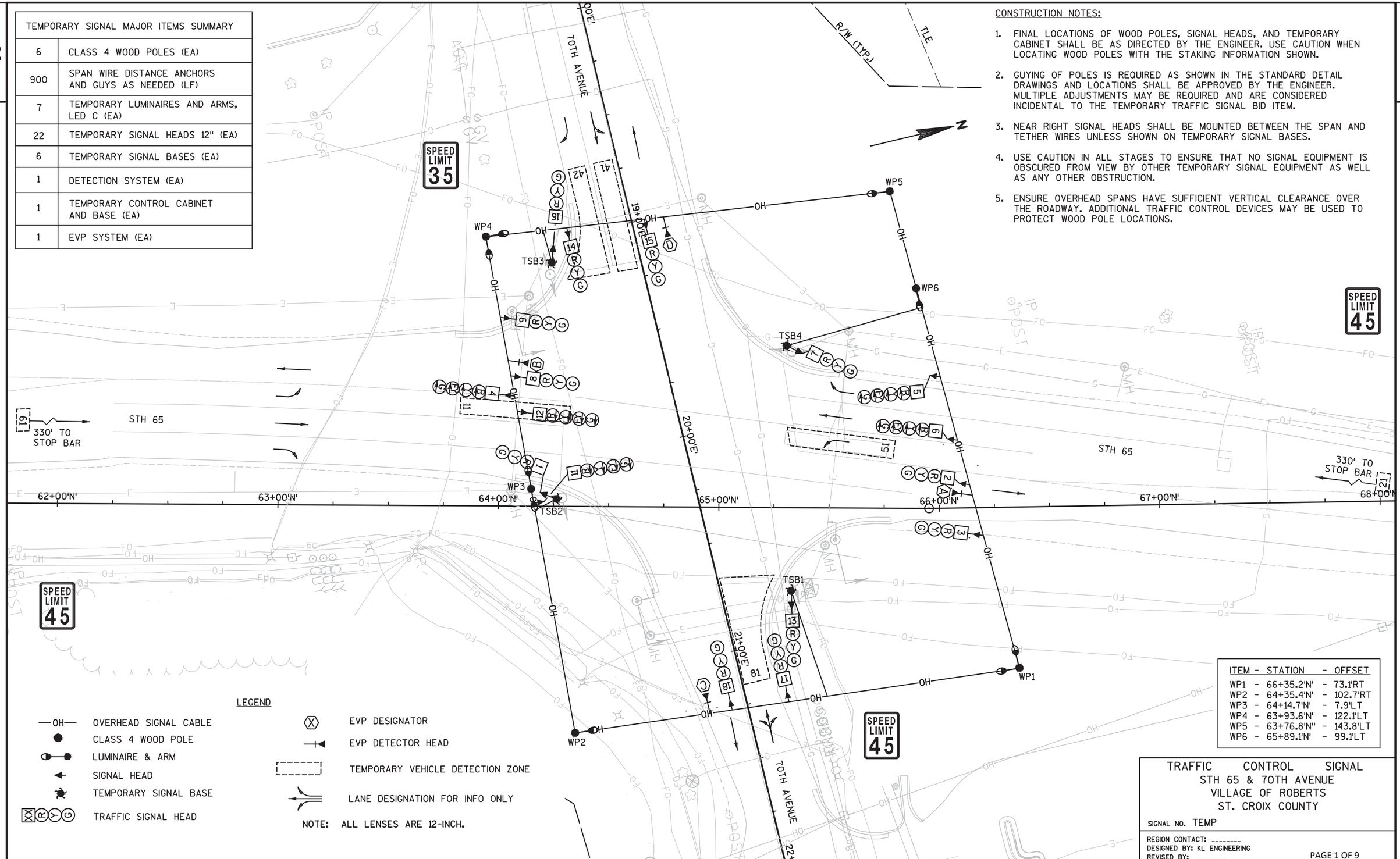
PAGE 2 OF 2

PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 114 E

TEMPORARY SIGNAL MAJOR ITEMS SUMMARY	
6	CLASS 4 WOOD POLES (EA)
900	SPAN WIRE DISTANCE ANCHORS AND GUYS AS NEEDED (LF)
7	TEMPORARY LUMINAIRES AND ARMS, LED C (EA)
22	TEMPORARY SIGNAL HEADS 12" (EA)
6	TEMPORARY SIGNAL BASES (EA)
1	DETECTION SYSTEM (EA)
1	TEMPORARY CONTROL CABINET AND BASE (EA)
1	EVP SYSTEM (EA)

CONSTRUCTION NOTES:

1. FINAL LOCATIONS OF WOOD POLES, SIGNAL HEADS, AND TEMPORARY CABINET SHALL BE AS DIRECTED BY THE ENGINEER. USE CAUTION WHEN LOCATING WOOD POLES WITH THE STAKING INFORMATION SHOWN.
2. GUYING OF POLES IS REQUIRED AS SHOWN IN THE STANDARD DETAIL DRAWINGS AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER. MULTIPLE ADJUSTMENTS MAY BE REQUIRED AND ARE CONSIDERED INCIDENTAL TO THE TEMPORARY TRAFFIC SIGNAL BID ITEM.
3. NEAR RIGHT SIGNAL HEADS SHALL BE MOUNTED BETWEEN THE SPAN AND TETHER WIRES UNLESS SHOWN ON TEMPORARY SIGNAL BASES.
4. USE CAUTION IN ALL STAGES TO ENSURE THAT NO SIGNAL EQUIPMENT IS OBSCURED FROM VIEW BY OTHER TEMPORARY SIGNAL EQUIPMENT AS WELL AS ANY OTHER OBSTRUCTION.
5. ENSURE OVERHEAD SPANS HAVE SUFFICIENT VERTICAL CLEARANCE OVER THE ROADWAY. ADDITIONAL TRAFFIC CONTROL DEVICES MAY BE USED TO PROTECT WOOD POLE LOCATIONS.



LEGEND

—OH— OVERHEAD SIGNAL CABLE	EVP DESIGNATOR
CLASS 4 WOOD POLE	EVP DETECTOR HEAD
LUMINAIRE & ARM	TEMPORARY VEHICLE DETECTION ZONE
SIGNAL HEAD	LANE DESIGNATION FOR INFO ONLY
TEMPORARY SIGNAL BASE	
TRAFFIC SIGNAL HEAD	

NOTE: ALL LENSES ARE 12-INCH.

ITEM -	STATION -	OFFSET
WP1 -	66+35.2'N -	73.1'RT
WP2 -	64+35.4'N -	102.7'RT
WP3 -	64+14.7'N -	7.9'LT
WP4 -	63+93.6'N -	122.1'LT
WP5 -	63+76.8'N" -	143.8'LT
WP6 -	65+89.1'N -	99.1'LT

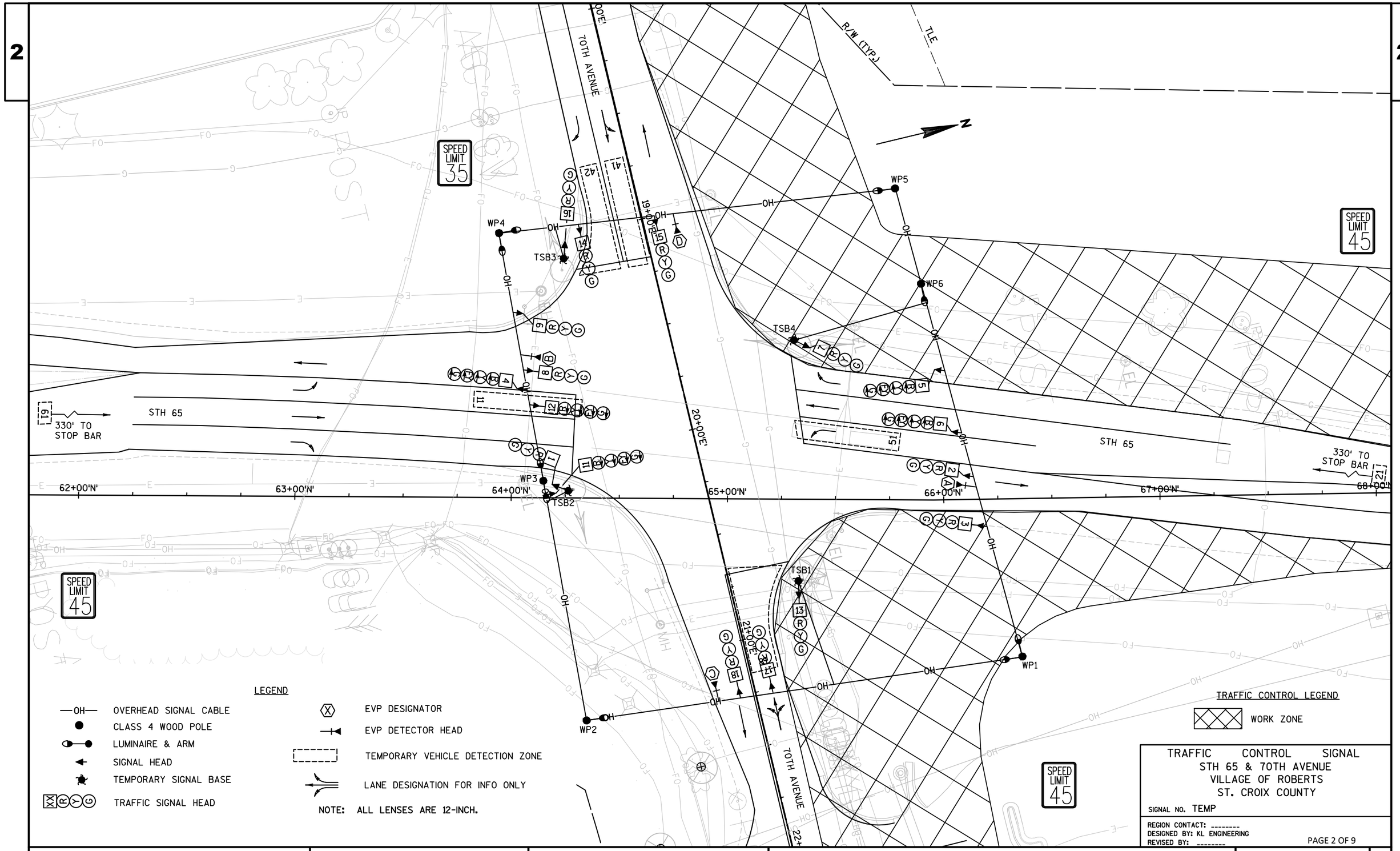
TRAFFIC CONTROL SIGNAL
STH 65 & 70TH AVENUE
VILLAGE OF ROBERTS
ST. CROIX COUNTY

SIGNAL NO. TEMP

REGION CONTACT: --------
DESIGNED BY: KL ENGINEERING
REVISED BY: --------

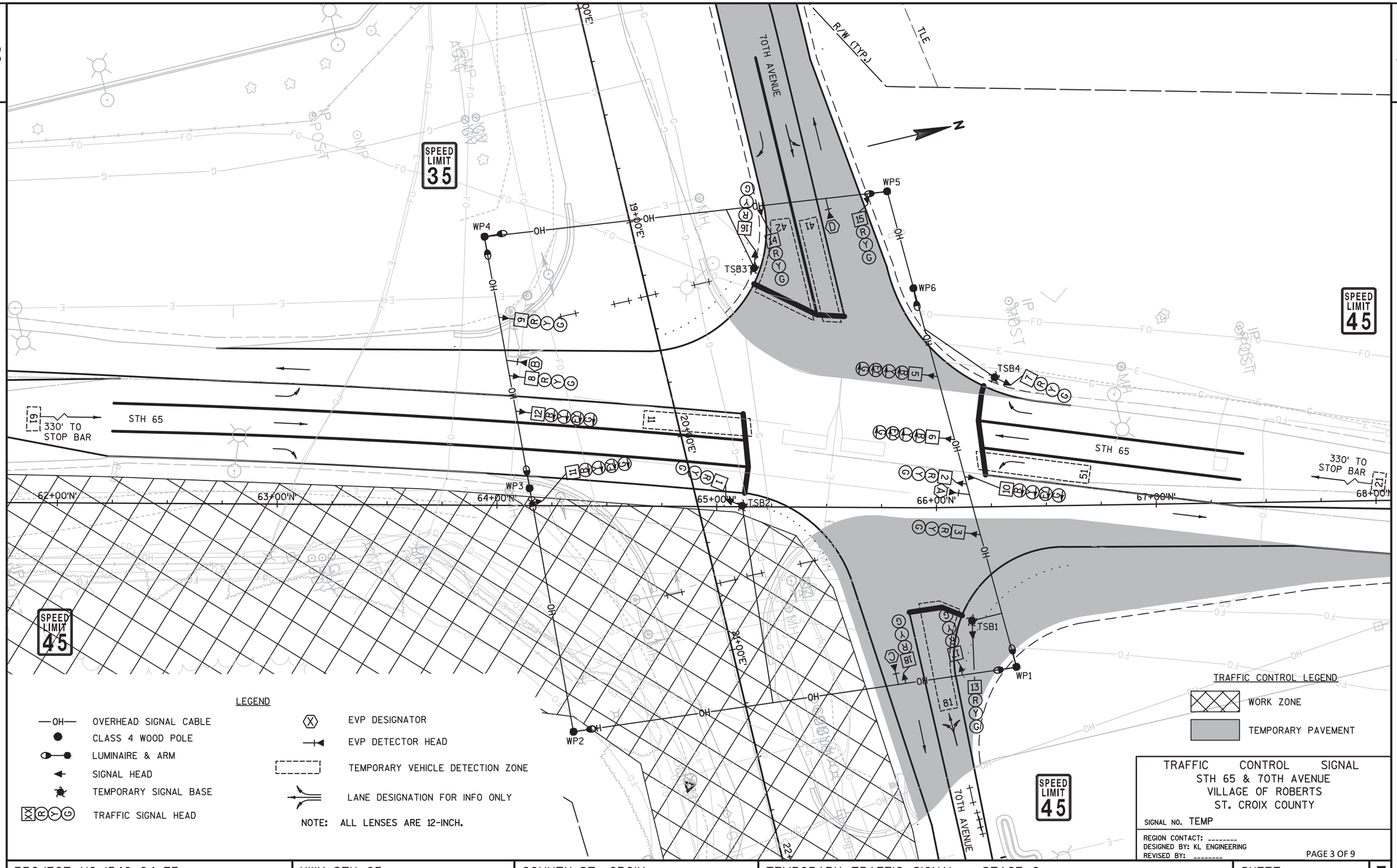
PAGE 1 OF 9

PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	TEMPORARY TRAFFIC SIGNAL - PRE ROADWAY CONSTRUCTION	SHEET 115 E



PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	TEMPORARY TRAFFIC SIGNAL - STAGE 1	SHEET 116 E

2



LEGEND

—OH—	OVERHEAD SIGNAL CABLE
●	CLASS 4 WOOD POLE
●—	LUMINAIRE & ARM
◄	SIGNAL HEAD
●	TEMPORARY SIGNAL BASE
R Y G	TRAFFIC SIGNAL HEAD
X	EVP DESIGNATOR
⊣	EVP DETECTOR HEAD
▭	TEMPORARY VEHICLE DETECTION ZONE
	LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH.

TRAFFIC CONTROL LEGEND

- WORK ZONE
- TEMPORARY PAVEMENT

TRAFFIC CONTROL SIGNAL
STH 65 & 70TH AVENUE
VILLAGE OF ROBERTS
ST. CROIX COUNTY

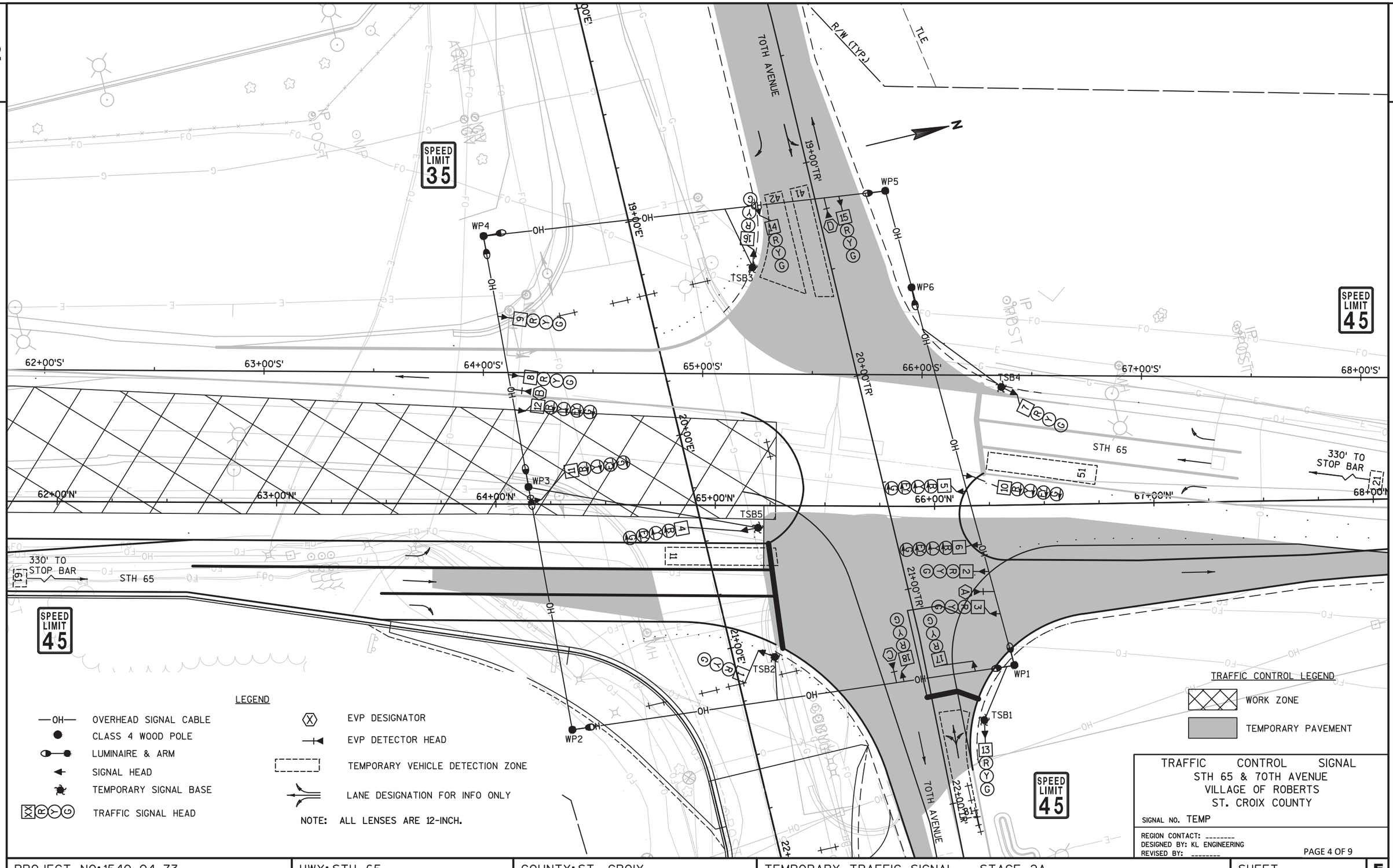
SIGNAL NO. TEMP

REGION CONTACT: --------
DESIGNED BY: KL ENGINEERING
REVISED BY: --------

PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	TEMPORARY TRAFFIC SIGNAL - STAGE 2	SHEET 117	E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\TRAFFIC SIGNALS\024101_S2-ST.DWG PLOT DATE : 10/12/2017 12:48 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

2



TRAFFIC CONTROL SIGNAL
STH 65 & 70TH AVENUE
VILLAGE OF ROBERTS
ST. CROIX COUNTY

SIGNAL NO. TEMP

REGION CONTACT: _____
DESIGNED BY: KL ENGINEERING
REVISED BY: _____

PAGE 4 OF 9

PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	TEMPORARY TRAFFIC SIGNAL - STAGE 2A	SHEET	E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\TRAFFIC SIGNALS\024101_S2A-ST.DWG PLOT DATE : 10/12/2017 12:49 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

70TH AVENUE

R/W (TYP.)

TLE

SPEED LIMIT 35

SPEED LIMIT 45

SPEED LIMIT 45

WP1

WP2

WP3

WP4

WP5

WP6

TSB1

TSB2

TSB3

TSB4

OH

62+00'N

63+00'N

64+00'N

65+00'N

66+00'N

67+00'N

68+00'N

19+00'E

20+00'E

21+00'E

22+

330' TO STOP BAR

STH 65

330' TO STOP BAR

STH 65

70TH AVENUE

LEGEND

—OH— OVERHEAD SIGNAL CABLE	EVP DESIGNATOR
CLASS 4 WOOD POLE	EVP DETECTOR HEAD
LUMINAIRE & ARM	TEMPORARY VEHICLE DETECTION ZONE
SIGNAL HEAD	LANE DESIGNATION FOR INFO ONLY
TEMPORARY SIGNAL BASE	
TRAFFIC SIGNAL HEAD	

NOTE: ALL LENSES ARE 12-INCH.

TRAFFIC CONTROL LEGEND

WORK ZONE

TEMPORARY PAVEMENT

TRAFFIC CONTROL SIGNAL
STH 65 & 70TH AVENUE
VILLAGE OF ROBERTS
ST. CROIX COUNTY

SIGNAL NO. TEMP

REGION CONTACT: _____
DESIGNED BY: KL ENGINEERING
REVISED BY: _____

PAGE 5 OF 9

PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	TEMPORARY TRAFFIC SIGNAL - STAGE 3 AND 3A	SHEET 119	E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\TRAFFIC SIGNALS\024101_S3-ST.DWG PLOT DATE : 10/12/2017 12:51 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

CONSTRUCTION NOTES:

1. STH 65 SB TRAFFIC TO FOLLOW POSTED DETOUR
2. HEADS MOUNTED ON THE OVERHEAD SPANS BUT NOT USED FOR DETOUR WILL BE USED AGAIN IN STAGE 4A

70TH AVENUE

330' TO STOP BAR

R/W (TYP.)

TLE

STH 65

SPEED LIMIT 35

SPEED LIMIT 45

SPEED LIMIT 45

SPEED LIMIT 45

WP1

WP2

WP3

WP4

WP5

WP6

TSB1

TSB2

TSB3

TSB5

TSB6

TSB7

TSB8

OH

19+00'E

20+00'E

21+00'E

61

62+00'N

63+00'N

64+00'N

65+00'N

66+00'N

67+00'N

68+00'N

LEGEND

—OH— OVERHEAD SIGNAL CABLE	EVP DESIGNATOR
CLASS 4 WOOD POLE	EVP DETECTOR HEAD
LUMINAIRE & ARM	TEMPORARY VEHICLE DETECTION ZONE
SIGNAL HEAD	LANE DESIGNATION FOR INFO ONLY
TEMPORARY SIGNAL BASE	
TRAFFIC SIGNAL HEAD	

NOTE: ALL LENSES ARE 12-INCH.

TRAFFIC CONTROL LEGEND

WORK ZONE

TEMPORARY PAVEMENT

TRAFFIC CONTROL SIGNAL
STH 65 & 70TH AVENUE
VILLAGE OF ROBERTS
ST. CROIX COUNTY

SIGNAL NO. TEMP

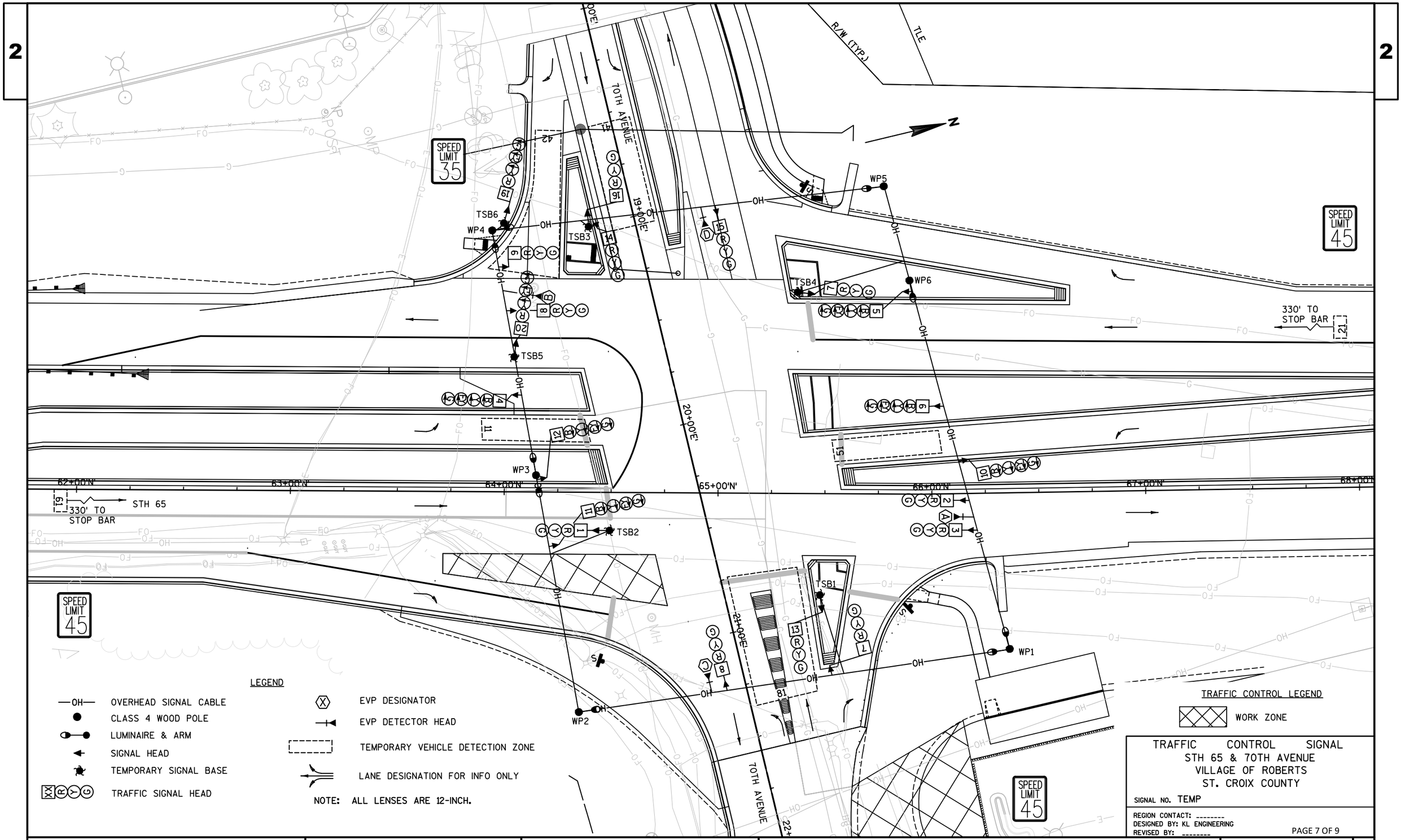
REGION CONTACT: _____
DESIGNED BY: KL ENGINEERING
REVISED BY: _____

PAGE 6 OF 9

PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	TEMPORARY TRAFFIC SIGNAL - STAGE 4	SHEET 120 E

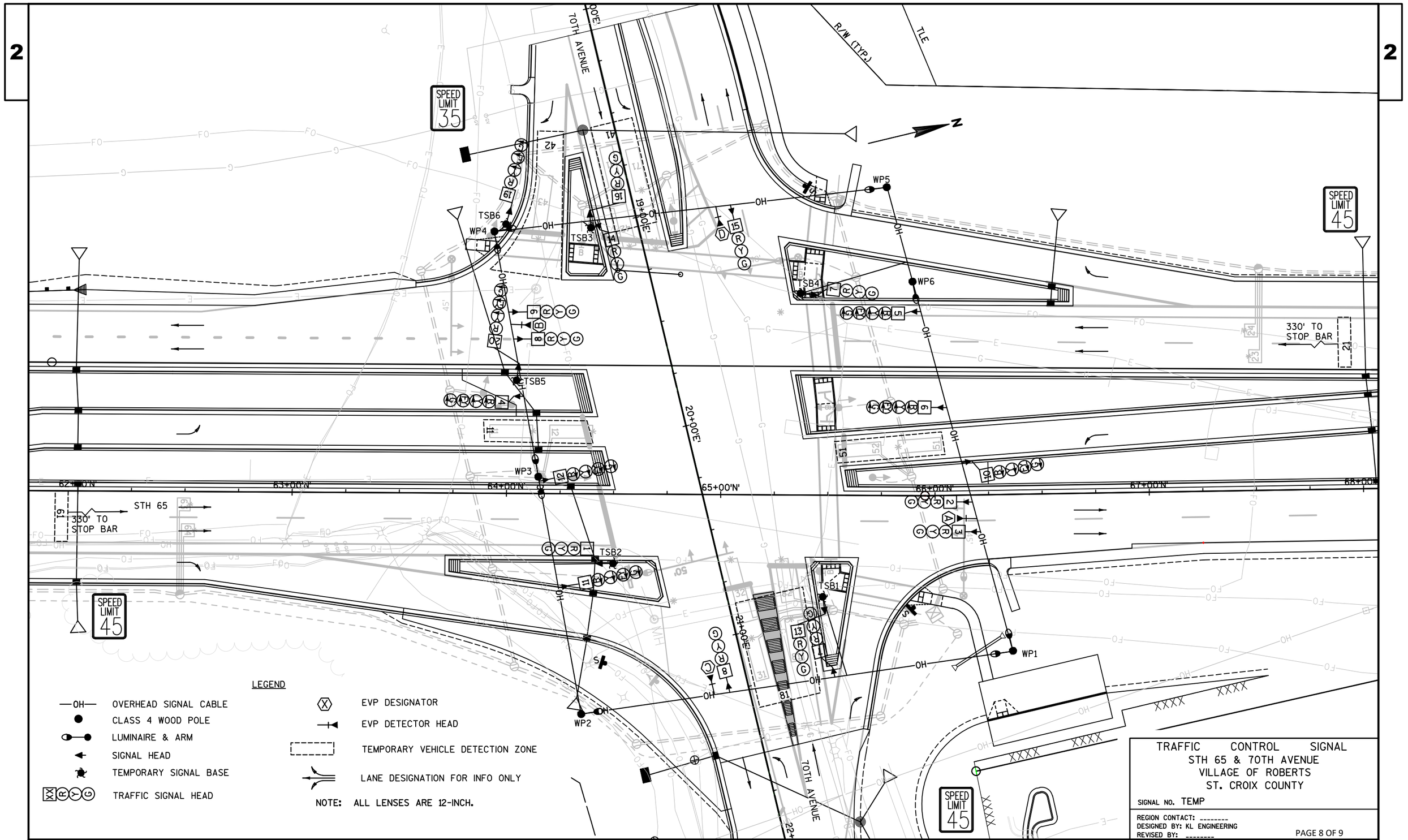
FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\TRAFFIC SIGNALS\024101_S4-ST.DWG PLOT DATE : 10/2/2022 8:08 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42



PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	TEMPORARY TRAFFIC SIGNAL - STAGE 4A	SHEET 121 E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\TRAFFIC SIGNALS\024101_S4A-ST.DWG PLOT DATE : 10/2/2022 8:00 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42



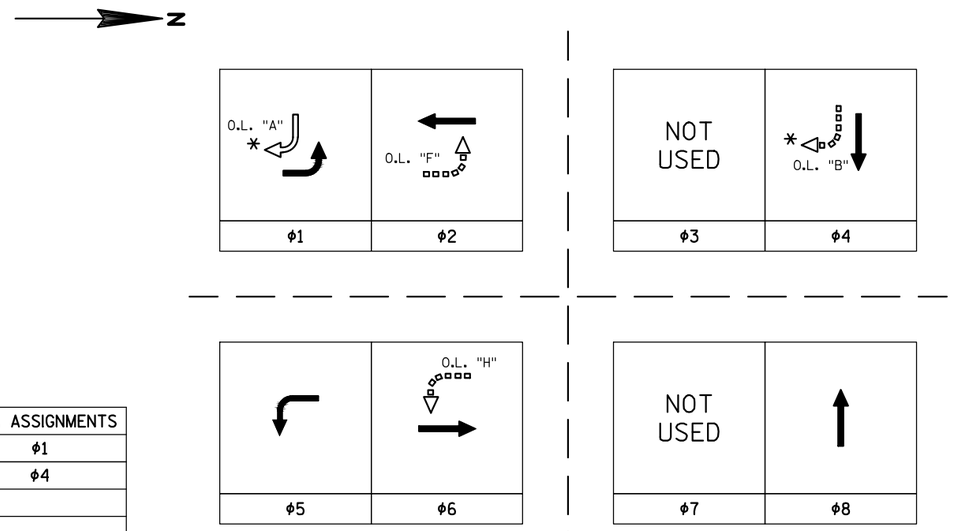
PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	TEMPORARY TRAFFIC SIGNAL - POST STAGE	SHEET 122 E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\TRAFFIC SIGNALS\024101_POST-ST.DWG PLOT DATE : 10/2/2022 7:47 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

	HEAD NUMBERS	FLASH
ϕ1	4-6	-
ϕ2	7-9	R
ϕ3		
ϕ4	16-18	R
ϕ5	10-12	-
ϕ6	1-3	R
ϕ7		
ϕ8	13-15	R
ϕ2 PED		
ϕ4 PED		
ϕ6 PED		
ϕ8 PED		

O.L. ASSIGNMENTS			
O.L.A*	19,20	-	ϕ1
O.L.B*	19,20	R	ϕ4
O.L.C			
O.L.D			
O.L.E			
O.L.F	4-6	R	
O.L.G			
O.L.H	10-12	R	

*ACTIVE DURING PHASE 4A TO POST STAGE ONLY



PHASE 1 & PHASE 5 ARE TO BE LEAD/LAG DURING STAGE 2A

EMERGENCY VEHICLE PREEMPTION ASSIGNMENTS				
EMERGENCY VEHICLE DETECTOR	A	B	C	D
PREEMPTION CHANNEL	3	4	5	6
MOVEMENT			*	
DIRECTION	NB	SB	EB	WB
PHASES	1+6	2+5	4+O.L.A	8

EVP NOTES:

1. FULL CLEARANCE AND MINIMUM GREEN INTERVALS SHALL ALWAYS BE PROVIDED.
2. EACH PREEMPTION SEQUENCE SHALL TERMINATE WITH AN ALL-RED INTERVAL.

GENERAL NOTES:

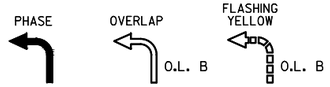
1. O.L.B SHALL TIME CONCURRENTLY WITH PHASE 4 AFTER A DELAY OF 1.0 SECONDS.

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W/ϕ	PHASE RECALL	PHASE ACTIVE
1				X
2	X	6	MIN	X
3				
4				X
5				X
6	X	2	MIN	X
7				
8				X

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

LEGEND



CENTRAL SYSTEM
LOCATION OF MASTER
CONTROLLER NO.: N/A
SIGNAL SYSTEM #: N/A

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC SIGNAL CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13	19	17	23	21	27	25	31	29	DETECTOR INPUT
DETECTOR #(S)	11	21	41	42	61	81											DETECTOR #(S)
PHASE CALLED	1	2	4	4	6	6											PHASE CALLED
PHASE EXTENDED	1	2	4	4	6	6											PHASE EXTENDED
DISCONNECT TIME																	DISCONNECT TIME
CALLING DELAY				10.0													CALLING DELAY
EXTENSION STRETCH																	EXTENSION STRETCH
LOOP FUNCTION																	LOOP FUNCTION

DETECTOR INPUT	4	2	8	6	12	10	16	14	20	18	24	22	28	26	32	30	DETECTOR INPUT
DETECTOR #(S)																	DETECTOR #(S)
PHASE CALLED																	PHASE CALLED
PHASE EXTENDED																	PHASE EXTENDED
DISCONNECT TIME																	DISCONNECT TIME
CALLING DELAY																	CALLING DELAY
EXTENSION STRETCH																	EXTENSION STRETCH
LOOP FUNCTION																	LOOP FUNCTION

TYPE OF INTERCONNECT	
NONE	X
TBC	
CLOSED LOOP TWISTED PAIR	
CLOSED LOOP FIBER OPTIC	

TYPE OF REMOTE COMMUNICATION	
NONE	X
FIBER	
CELL MODEM	
PHONE	

TEMPORARY TRAFFIC CONTROL SIGNAL
STH 65 & 70TH AVENUE
VILLAGE OF ROBERTS
ST. CROIX COUNTY
SIGNAL NO. TEMP

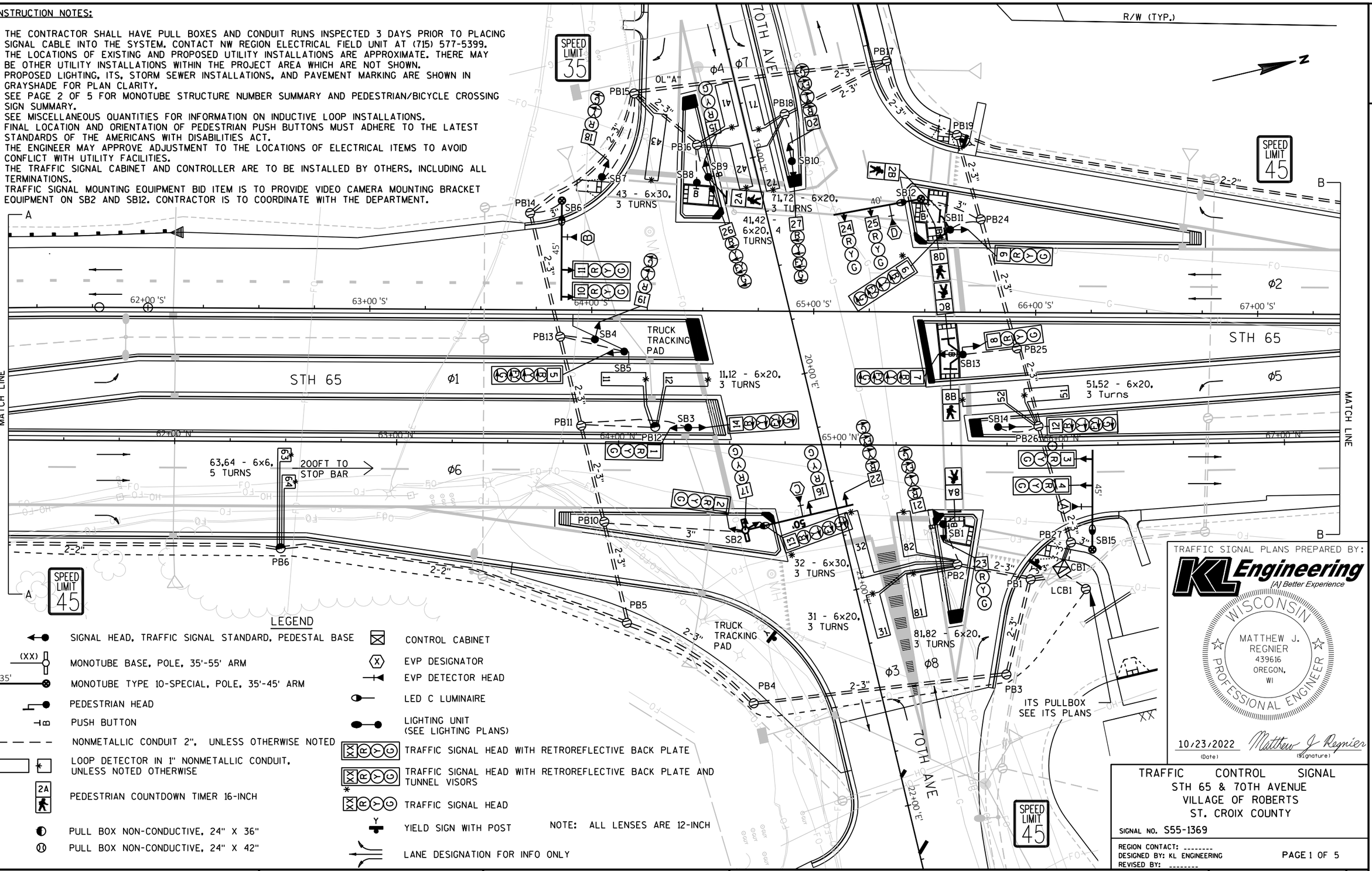
REGION CONTACT:
DESIGNED BY: KL ENGINEERING
REVISED BY:

PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	TEMPORARY SEQ. OF OPERATIONS - STAGE 1-S3A & 4A-POST	SHEET 123 E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\TRAFFIC SIGNALS\024101_PH_ST.DWG PLOT DATE : 7/31/2022 7:26 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : **********
LAYOUT NAME - 024101_PH_ST - N-S SEQUENCE
WISDOT/CADDS SHEET 42

CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL HAVE PULL BOXES AND CONDUIT RUNS INSPECTED 3 DAYS PRIOR TO PLACING SIGNAL CABLE INTO THE SYSTEM. CONTACT NW REGION ELECTRICAL FIELD UNIT AT (715) 577-5399.
2. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN.
3. PROPOSED LIGHTING, ITS, STORM SEWER INSTALLATIONS, AND PAVEMENT MARKING ARE SHOWN IN GRAYSHADE FOR PLAN CLARITY.
4. SEE PAGE 2 OF 5 FOR MONOTUBE STRUCTURE NUMBER SUMMARY AND PEDESTRIAN/BICYCLE CROSSING SIGN SUMMARY.
5. SEE MISCELLANEOUS QUANTITIES FOR INFORMATION ON INDUCTIVE LOOP INSTALLATIONS.
6. FINAL LOCATION AND ORIENTATION OF PEDESTRIAN PUSH BUTTONS MUST ADHERE TO THE LATEST STANDARDS OF THE AMERICANS WITH DISABILITIES ACT.
7. THE ENGINEER MAY APPROVE ADJUSTMENT TO THE LOCATIONS OF ELECTRICAL ITEMS TO AVOID CONFLICT WITH UTILITY FACILITIES.
8. THE TRAFFIC SIGNAL CABINET AND CONTROLLER ARE TO BE INSTALLED BY OTHERS, INCLUDING ALL TERMINATIONS.
9. TRAFFIC SIGNAL MOUNTING EQUIPMENT BID ITEM IS TO PROVIDE VIDEO CAMERA MOUNTING BRACKET EQUIPMENT ON SB2 AND SB12. CONTRACTOR IS TO COORDINATE WITH THE DEPARTMENT.



LEGEND

- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) MONOTUBE BASE, POLE, 35'-55' ARM
- 35' MONOTUBE TYPE 10-SPECIAL, POLE, 35'-45' ARM
- PEDESTRIAN HEAD
- PUSH BUTTON
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT, UNLESS NOTED OTHERWISE
- 2A PEDESTRIAN COUNTDOWN TIMER 16-INCH
- PULL BOX NON-CONDUCTIVE, 24" X 36"
- PULL BOX NON-CONDUCTIVE, 24" X 42"
- CONTROL CABINET
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- LED C LUMINAIRE
- LIGHTING UNIT (SEE LIGHTING PLANS)
- TRAFFIC SIGNAL HEAD WITH RETROREFLECTIVE BACK PLATE
- TRAFFIC SIGNAL HEAD WITH RETROREFLECTIVE BACK PLATE AND TUNNEL VISORS
- TRAFFIC SIGNAL HEAD

NOTE: ALL LENSES ARE 12-INCH

- Y YIELD SIGN WITH POST
- LANE DESIGNATION FOR INFO ONLY

TRAFFIC SIGNAL PLANS PREPARED BY:

KL Engineering
[A] Better Experience

WISCONSIN
MATTHEW J. REGNIER
439616
OREGON, WI
PROFESSIONAL ENGINEER

10/23/2022 (Date)
Matthew J Regnier (Signature)

TRAFFIC CONTROL SIGNAL
STH 65 & 70TH AVENUE
VILLAGE OF ROBERTS
ST. CROIX COUNTY

SIGNAL NO. S55-1369

REGION CONTACT: --------
DESIGNED BY: KL ENGINEERING
REVISED BY: --------

PAGE 1 OF 5

PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	TRAFFIC SIGNAL PLAN	0 20 40 SCALE, FEET	SHEET 124	E

2

LEGEND

NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED

LOOP DETECTOR IN 1" NONMETALLIC CONDUIT, UNLESS NOTED OTHERWISE

PULL BOX NON-CONDUCTIVE, 24" X 36"

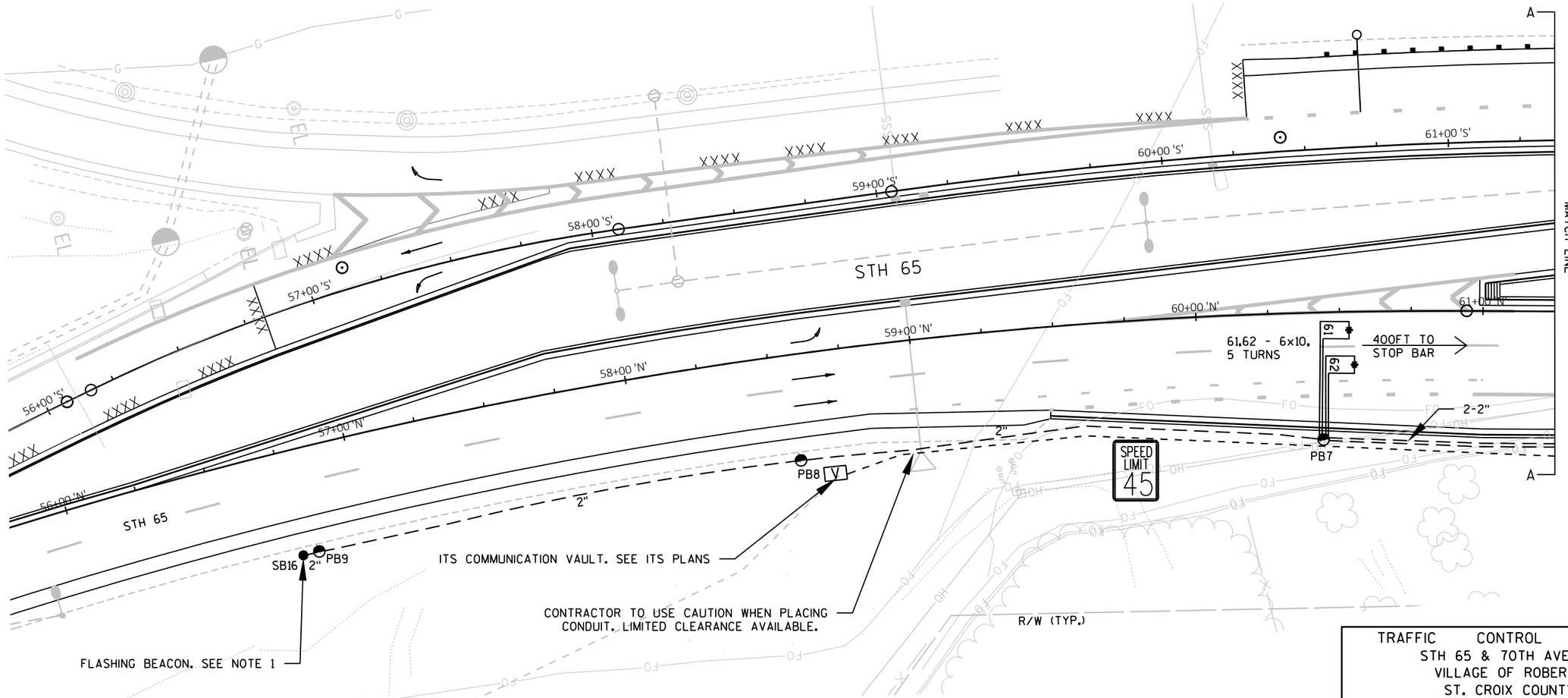
CONSTRUCTION NOTES:

1) SEE MISCELLANEOUS QUANTITIES FOR WORK BY CONTRACTOR, WHICH INCLUDES CONSTRUCTION OF THE CONCRETE BASE, POLE, SIGNING, AND UNDERGROUND WIRING.

WISDOT NORTHWEST REGION STAFF WILL PERFORM WORK BY OTHERS WHICH WILL INCLUDE INSTALLATION OF ABOVE GROUND CABLING AND FLASHING BEACON EQUIPMENT.

SIGNAL BASE	MONOTUBE NO.
SB2	S-53-1369-01
SB6	S-53-1369-02
SB12	S-53-1369-03
SB15	S-53-1369-04

PEDESTRIAN/BICYCLIST CROSSING SIGN SUMMARY		
BASE	SIGN CODE	SIGN TO FACE
SB1	R10-3ER	NORTH
SB1	R10-26	SOUTH
SB8	R10-3ER	EAST
SB9	R10-26	NORTH
SB11	R10-3ER	SOUTH
SB12	R10-3EL	EAST
SB13	R10-3D	SOUTH



TRAFFIC CONTROL SIGNAL
STH 65 & 70TH AVENUE
VILLAGE OF ROBERTS
ST. CROIX COUNTY

SIGNAL NO. S55-1369

REGION CONTACT: --------
DESIGNED BY: KL ENGINEERING
REVISED BY: --------

PAGE 2 OF 5

PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	TRAFFIC SIGNAL PLAN	SHEET 125	E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\TRAFFIC SIGNALS\024201-SP.DWG PLOT DATE : 9/30/2022 5:16 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:40 FT

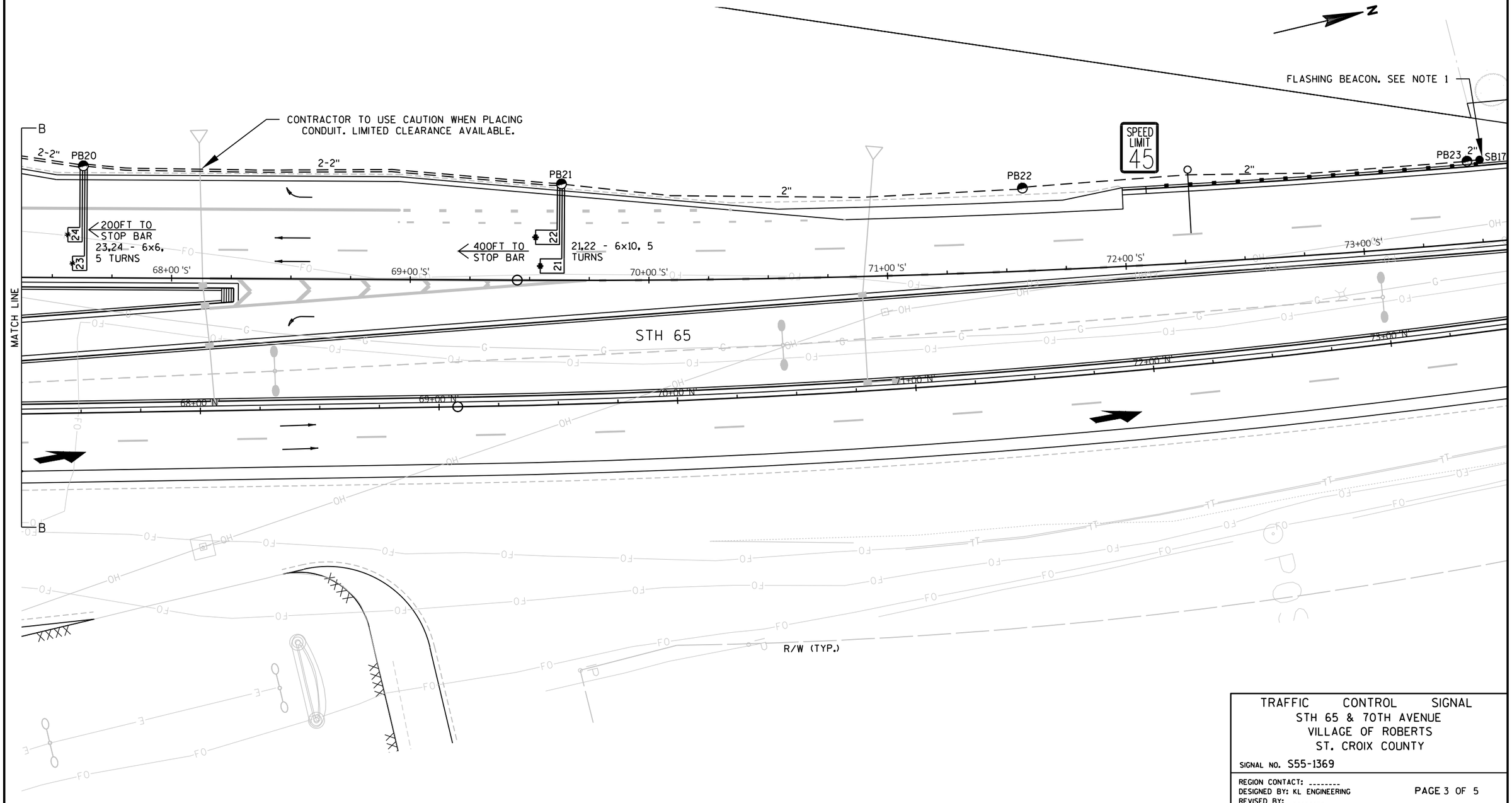
LEGEND

- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT, UNLESS NOTED OTHERWISE
- PULL BOX NON-CONDUCTIVE, 24" X 36"

CONSTRUCTION NOTES:

1) SEE MISCELLANEOUS QUANTITIES FOR WORK BY CONTRACTOR, WHICH INCLUDES CONSTRUCTION OF THE CONCRETE BASE, POLE, SIGNING, AND UNDERGROUND WIRING.

WISDOT NORTHWEST REGION STAFF WILL PERFORM WORK BY OTHERS WHICH WILL INCLUDE INSTALLATION OF ABOVE GROUND CABLING AND FLASHING BEACON EQUIPMENT.



TRAFFIC CONTROL SIGNAL
STH 65 & 70TH AVENUE
VILLAGE OF ROBERTS
ST. CROIX COUNTY

SIGNAL NO. S55-1369

REGION CONTACT: --------
DESIGNED BY: KL ENGINEERING
REVISED BY: --------

PAGE 3 OF 5

PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	TRAFFIC SIGNAL PLAN	SHEET	E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\TRAFFIC SIGNALS\024201-SP.DWG PLOT DATE : 10/24/2022 1:42 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : **********

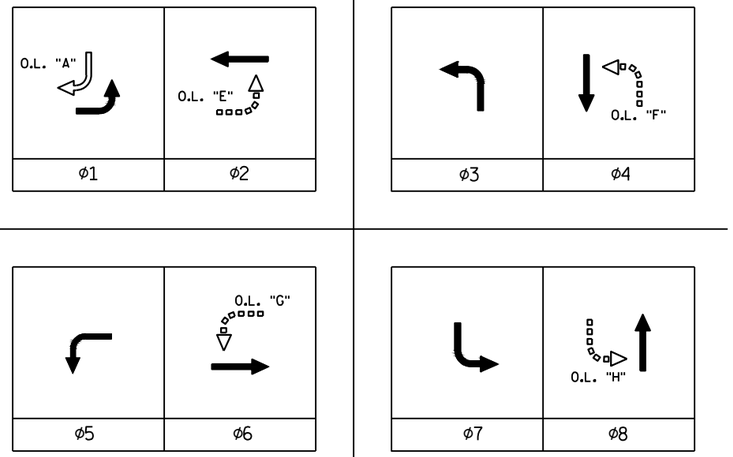
WISDOT/CADDS SHEET 42

	HEAD NUMBERS	FLASH	
ø1	5-7	R	←
ø2	8-11	R	
ø3	26-27	R	←
ø4	15-17	R	
ø5	12-14	R	←
ø6	1-4	R	
ø7	20-22	R	←
ø8	23-25	R	
ø2 PED	2A,2B		
ø4 PED			
ø6 PED			
ø8 PED	8A,8B,8C,8D		

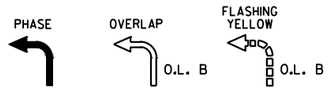
O.L. ASSIGNMENTS			
OLA	18,19	-	1
OLB			
OLC			
OLD			
OLE	4-7	-	1+2
OLF	25,26	-	3+4
OLG	11-13	-	5+6
OLH	19-21	-	7+8

N

THE PHASE DIAGRAMS TO THE RIGHT HAS BEEN ROTATED FROM TRUE NORTH, AS SHOWN ABOVE, FOR THE SAKE OF PLAN CLARITY.



LEGEND



CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / ø	PHASE RECALL	PHASE ACTIVE
1				X
2	X	6	MIN.	X
3				X
4		8		X
5				X
6	X	2	MIN.	X
7				X
8		4		X

EMERGENCY VEHICLE PREEMPTION ASSIGNMENTS				
EMERGENCY VEHICLE DETECTOR	A	B	C	D
PREEMPTION CHANNEL	3	4	5	6
MOVEMENT				
DIRECTION	NB	SB	EB	WB
PHASES	1+6	2+5	4+7+O.L "A"	3+8

EVP NOTES:

1. FULL CLEARANCE AND MINIMUM GREEN INTERVALS SHALL ALWAYS BE PROVIDED.

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	X
TOMAR	
HARDWIRE	
OTHER	
LIFT BRIDGE	
QUEUE DETECTOR	

SPECIAL OVERLAPS

	PROTECTIVE	PERMISSIVE
O.L. "E" =	1	2
O.L. "F" =	3	4
O.L. "G" =	5	6
O.L. "H" =	7	8

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13	19	17	23	21	27	25	31	29
DETECTOR #(S)	11	21	23	31	41	43	52	62	64	72	82					
PHASE CALLED	1	2	2	3	4	4	5	6	6	7	8					
PHASE EXTENDED	1	2	2	3	4	4	5	6	6	7	8					
DISCONNECT TIME																
CALLING DELAY																
EXTENSION STRETCH																
LOOP FUNCTION																

DETECTOR INPUT	4	2	8	6	12	10	16	14	20	18	24	22	28	26	32	30
DETECTOR #(S)	12	22	24	32	42	51	61	63	71	81						
PHASE CALLED	1	2	2	3	4	5	6	6	7	8						
PHASE EXTENDED	1	2	2	3	4	5	6	6	7	8						
DISCONNECT TIME																
CALLING DELAY																
EXTENSION STRETCH																
LOOP FUNCTION																

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC SIGNAL CABINET	X
IN SEPARATE DOT LIGHTING CABINET	X

TYPE OF INTERCONNECT COMMUNICATION	
NONE	
CLOSED LOOP TWISTED PAIR	
FIBER OPTIC NETWORK	X
INTERSECTION ONLY (CELL MODEM)*	
* LOCATION OF CELL MODEM CONTROLLER NO:	
SIGNAL SYSTEM: N/A	

TRAFFIC CONTROL SIGNAL
STH 65 & 70TH AVENUE
VILLAGE OF ROBERTS
ST. CROIX COUNTY

SIGNAL NO. S55-1369

REGION CONTACT: --------
DESIGNED BY: KL ENGINEERING
REVISED BY: ------

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\TRAFFIC SIGNALS\024201-SP.DWG PLOT DATE : 9/30/2022 5:17 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : **********
WISDOT/CADDS SHEET 42

STH 65 & 70TH AVENUE NO. 14 CABLE					
CABLE RUN	CABLE	HEAD NUMBER	MOVEMENT	LENS	CONDUCTOR COLOR
CB-1 TO SB-1	15/C	21	EB LT	◄R	RED/BLK
				◄Y	ORG/BLK
				◄FY	WHT/BLK
				◄G	GRN/BLK
		23	NB	R	RED
				Y	ORG
				G	GRN
		8A	ø8 PED	DW	BLK
				W	BLU
CB-1 TO SB-2	15/C	2	NB	R	RED
				Y	ORG
				G	GRN
		13	SB LT	◄R	RED/WHT
				◄Y	BLK/WHT
				◄FY	WHT/BLK
				◄G	GRN/WHT
		16	EB	R	RED/BLK
				Y	ORG/BLK
				G	GRN/BLK
		17	EB	R	RED/BLK
				Y	ORG/BLK
				G	GRN/BLK
		22	EB LT	◄R	RED/WHT
				◄Y	BLK/WHT
				◄FY	WHT/BLK
				◄G	GRN/WHT
CB-1 TO SB-3	12/C	1	NB	R	RED
				Y	ORG
				G	GRN
		14	SB LT	◄R	RED/BLK
				◄Y	ORG/BLK
				◄FY	WHT/BLK
				◄G	GRN/BLK
CB-1 TO SB-4	5/C	19	EB RT	R	RED
				Y►	ORG
				G►	GRN
CB-1 TO SB-5	5/C	5	NB LT	◄R	RED/BLK
				◄Y	ORG/BLK
				◄FY	WHT/BLK
				◄G	GRN/BLK
CB-1 TO SB-6	7/C	10	SB	R	RED
				Y	ORG
				G	GRN
		11	SB	R	RED
				Y	ORG
				G	GRN
CB-1 TO SB-7	5/C	18	EB RT	R	RED
				Y►	ORG
				G►	GRN
CB-1 TO SB-9	15/C	15	EB	R	RED
				Y	ORG
				G	GRN
		26	WB LT	◄R	RED/BLK
				◄Y	ORG/BLK
				◄FY	WHT/BLK
				◄G	GRN/BLK
		2A	ø2 PED	DW	BLK
				W	BLU

STH 65 & 70TH AVENUE NO. 14 CABLE					
CABLE RUN	CABLE	HEAD NUMBER	MOVEMENT	LENS	CONDUCTOR COLOR
CB-1 TO SB-10	12/C	20	EB LT	◄R	RED
				◄Y	ORG
				◄FY	BLK
				◄G	GRN
		27	WB LT	◄R	RED/BLK
				◄Y	ORG/BLK
				◄FY	WHT/BLK
				◄G	GRN/BLK
CB-1 TO SB-11	12/C	6	NB LT	◄R	RED/BLK
				◄Y	ORG/BLK
				◄FY	WHT/BLK
				◄G	GRN/BLK
		9	SB	R	RED
				Y	ORG
				G	GRN
		2B	ø2 PED	DW	BLK
				W	BLU
CB-1 TO SB-12	9/C	24	WB	R	RED
				Y	ORG
				G	GRN
		25	WB	G	RED
				Y	ORG
				G	GRN
		8D	ø8 PED	DW	BLK
				W	BLU
CB-1 TO SB-13	12/C	7	NB LT	◄R	RED/BLK
				◄Y	ORG/BLK
				◄FY	WHT/BLK
				◄G	GRN/BLK
		8	SB	R	RED
				Y	ORG
				G	GRN
		8B	ø8 PED	DW	BLK
				W	BLU
		8C	ø8 PED	DW	BLK
				W	BLU
CB-1 TO SB-14	5/C	12	SB LT	◄R	RED
				◄Y	ORG
				◄FY	BLK
				◄G	GRN
CB-1 TO SB-15	5/C	3	NB	R	RED
				Y	ORG
				G	GRN
		4	NB	R	RED
				Y	ORG
				G	GRN

EXTRA SIGNAL CABLE AND LOOP LEAD IN CABLE PROVIDED TO SB6 AND SB7 TO ACCOMMODATE FUTURE PEDESTRIAN SIGNALIZATION.

STH 65 & 70TH AVENUE LIGHTING CABLING CHART TYPE UF 12-2 AWG GROUNDED		
CABLE	CABLE RUN	LUMINAIRE LOCATION
2/C WITH GROUND	CABINET TO SB2	SE QUADRANT
	SB2 TO SB6	SW QUADRANT
	SB12 TO SB15	NW QUADRANT
	CABINET TO SB15	NE QUADRANT

STH 65 & 70TH AVENUE CAT-5E CABLE	
FROM	TO
CABINET	SB2
CABINET	SB12

LOOP DETECTOR LEAD IN CABLE	
FROM	TO
CB1	SB1 (PED)
CB1	SB1 (BIKE)
CB1	SB8
CB1	SB9 (BIKE)
CB1	SB11
CB1	SB12
CB1	SB13

2

FTMS STANDARD ABBREVIATIONS

CCTV----------CLOSED CIRCUIT TELEVISION SITE
CB----------CONTROLLER CABINET
PB----------PULL BOX
V----------COMMUNICATIONS VAULT
F.O.C.----------FIBER OPTIC CABLE
S-F----------STATE-FURNISHED
MB----------METER BREAKER
EX----------EXISTING
MD----------MICROWAVE DETECTOR

FTMS LEGEND	EXISTING	PROPOSED
CCTV CAMERA AND POLE		
METER BREAKER PEDESTAL		
PULL BOX NON-CONDUCTIVE 24X36		
ITS CONDUIT HDPE 1-DUCT 2-INCH		
COMMUNICATIONS VAULT		
POLE-MOUNTED CABINET		
MICROWAVE DETECTOR AND POLE		

ITS GENERAL NOTES

THESE PLANS AND THE ASSOCIATED SPECIAL PROVISIONS REFLECT CONDITIONS KNOWN DURING THE DEVELOPMENT OF THE PLAN AND SPECIAL PROVISIONS. ALL SCALES, DIMENSIONS AND LOCATIONS SHOWN IN THESE PLANS ARE APPROXIMATE. ACTUAL PHYSICAL FIELD CONDITIONS SHALL PROVIDE THE BASIS FOR THE APPLICATION OF THE WORK SHOWN IN THE PLANS.

THE CONTRACTOR IS FULLY RESPONSIBLE FOR THE APPLICATION OF ALL THE WORK SHOWN IN THE PLANS TO THE ACTUAL PHYSICAL FIELD CONDITIONS TO PROVIDE A COMPLETE AND ACCEPTED PROJECT. IN THE EVENT THAT ACTUAL PHYSICAL FIELD CONDITIONS AFFECT OR PREVENT THE APPLICATION OR PROGRESSION OF ANY WORK SHOWN IN THE PLANS OR SPECIAL PROVISIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY, AND PRIOR TO ANY FURTHER WORK ACTIVITY, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY LOCATION CHANGES OTHER THAN MINOR ADJUSTMENTS.

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

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

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

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

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

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

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

CONTACT THE WISDOT STATEWIDE TRAFFIC OPERATIONS CENTER AT (414) 227-2166, AND THE WISDOT NORTHEAST REGION ELECTRICAL UNIT AT (715) 577-5399, AT LEAST FIVE (5) WORKING DAYS PRIOR TO ENTERING ANY EXISTING WISDOT FTMS OR ITS VAULT.

HAND DIG TRENCHES CROSSING EXISTING CONDUIT CONTAINING FIBER OPTIC CABLE.

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

PROJECT NO:1540-04-73	HWY:STH 65	COUNTY:ST. CROIX	ITS PLANS	SHEET 129 E

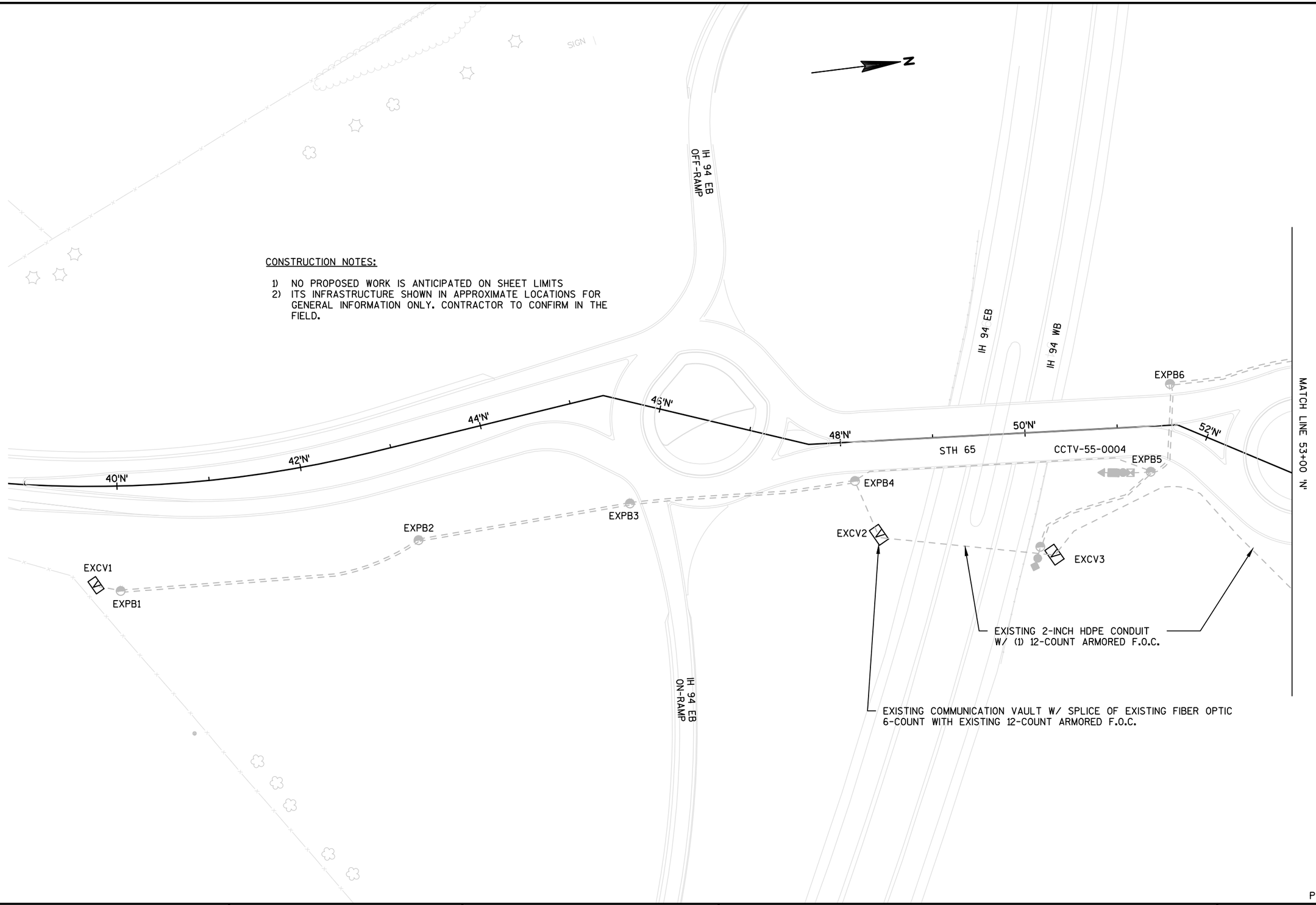
FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\TRAFFIC SIGNALS\024201-ITS.DWG PLOT DATE : 9/30/2022 5:18 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : **********

WISDOT/CADDS SHEET 42

2

CONSTRUCTION NOTES:

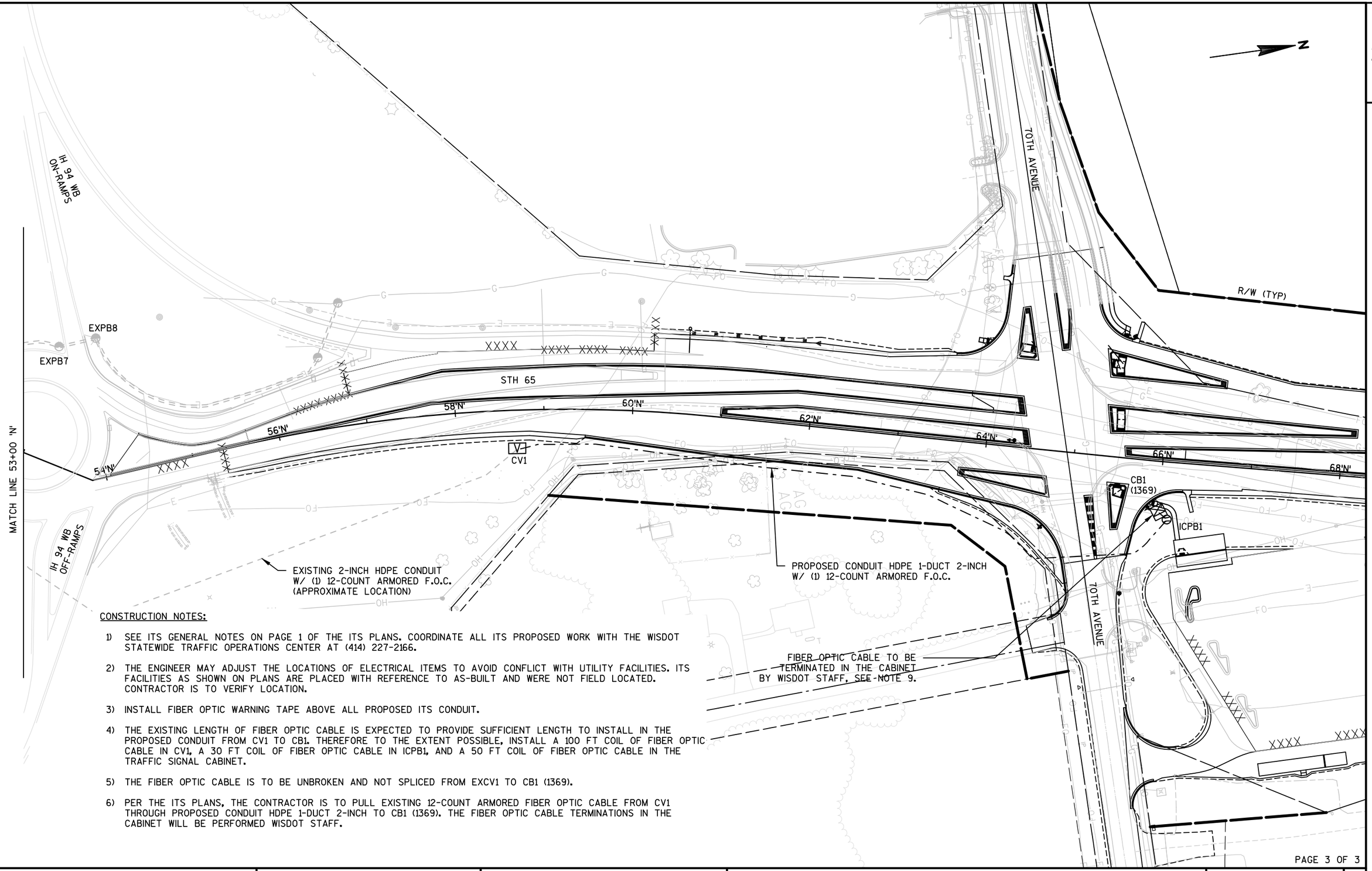
1) NO PROPOSED WORK IS ANTICIPATED ON SHEET LIMITS
2) ITS INFRASTRUCTURE SHOWN IN APPROXIMATE LOCATIONS FOR GENERAL INFORMATION ONLY. CONTRACTOR TO CONFIRM IN THE FIELD.



PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	ITS PLANS	SHEET 130 E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\TRAFFIC SIGNALS\024201-ITS.DWG PLOT DATE : 9/30/2022 5:18 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2



CONSTRUCTION NOTES:

1) SEE ITS GENERAL NOTES ON PAGE 1 OF THE ITS PLANS. COORDINATE ALL ITS PROPOSED WORK WITH THE WISDOT STATEWIDE TRAFFIC OPERATIONS CENTER AT (414) 227-2166.

2) THE ENGINEER MAY ADJUST THE LOCATIONS OF ELECTRICAL ITEMS TO AVOID CONFLICT WITH UTILITY FACILITIES. ITS FACILITIES AS SHOWN ON PLANS ARE PLACED WITH REFERENCE TO AS-BUILT AND WERE NOT FIELD LOCATED. CONTRACTOR IS TO VERIFY LOCATION.

3) INSTALL FIBER OPTIC WARNING TAPE ABOVE ALL PROPOSED ITS CONDUIT.

4) THE EXISTING LENGTH OF FIBER OPTIC CABLE IS EXPECTED TO PROVIDE SUFFICIENT LENGTH TO INSTALL IN THE PROPOSED CONDUIT FROM CV1 TO CB1. THEREFORE TO THE EXTENT POSSIBLE, INSTALL A 100 FT COIL OF FIBER OPTIC CABLE IN CV1, A 30 FT COIL OF FIBER OPTIC CABLE IN ICPB1, AND A 50 FT COIL OF FIBER OPTIC CABLE IN THE TRAFFIC SIGNAL CABINET.

5) THE FIBER OPTIC CABLE IS TO BE UNBROKEN AND NOT SPLICED FROM EXCV1 TO CB1 (1369).

6) PER THE ITS PLANS, THE CONTRACTOR IS TO PULL EXISTING 12-COUNT ARMORED FIBER OPTIC CABLE FROM CV1 THROUGH PROPOSED CONDUIT HDPE 1-DUCT 2-INCH TO CB1 (1369). THE FIBER OPTIC CABLE TERMINATIONS IN THE CABINET WILL BE PERFORMED WISDOT STAFF.

PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	ITS PLANS	SHEET 131 E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\TRAFFIC SIGNALS\024201-ITS.DWG PLOT DATE : 9/30/2022 5:19 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

TRAFFIC CONTROL GENERAL NOTES (ALL STAGES):

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) DISTANCE TO EXISTING SIGNS.

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 TRAFFIC CONTROL SIGNS SHALL BE 48X48 UNLESS OTHERWISE NOTED IN PLANS.

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

CONSIDER GEOMETRICS WHEN LOCATING SIGNS, ARROW BOARDS AND SIGN MESSAGE BOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARDS, SIGN MESSAGE BOARDS, AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF THE DRUMS.

IF SIGNS ARE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS. MOUNT ALL PORTABLE TRAFFIC CONTROL SIGNS AT A MINIMUM HEIGHT OF 5 FEET, MEASURED FROM THE BOTTOM OF THE SIGN, ABOVE THE EDGE OF PAVEMENT.

ALL TRAFFIC CONTROL SIGNING SHALL CONFORM TO: PART VI OF THE WISCONSIN MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, AND OTHER CONTRACT DOCUMENTS.

THE TURNING OF TRAFFIC CONTROL DEVICES WHEN NOT IN USE TO OBSCURE THE MESSAGE WILL NOT BE ALLOWED.

REMOVE PAVEMENT MARKINGS NOT APPROPRIATE FOR THE TRAVEL PATH IN USE.

MOVE, REMOVE OR INSTALL ROUTE MARKER SIGNS AS REQUIRED TO MAINTAIN NECESSARY ROUTE GUIDANCE THROUGHOUT CONSTRUCTION. REFER TO EXISTING SIGN REMOVAL PLANS FOR EXISTING ROUTE GUIDANCE.

CONTRACTORS EQUIPMENT AND MATERIAL STOCKPILES MAY NOT BE STORED WITHIN THE CONSTRUCTION CLEAR ZONE WHILE THE CONTRACTOR IS NOT WORKING, UNLESS THEY ARE PROTECTED BY CONCRETE BARRIER TEMPORARY PRECAST. CONSTRUCTION CLEAR ZONE = 20 FEET MEASURED FROM THE EDGE OF LANE LINE.

PORTABLE CHANGEABLE MESSAGE SIGNS SHALL BE PLACED ON STH 65 AHEAD OF TRAFFIC CONTROL ADVANCED WARNING SIGNS OR AS DIRECTED BY THE ENGINEER. PORTABLE CHANGEABLE MESSAGE SIGNS SHALL BE IN PLACE 1 WEEK PRIOR TO AND DURING CONSTRUCTION AND SHALL BE USED TO INFORM THE PUBLIC OF THE PROJECT.

RESTORE EXISTING PAVEMENT MARKINGS THROUGH THE IH 94 INTERCHANGE WHEN SHOWN ON THE TRAFFIC CONTROL PLANS AS REMOVING PAVEMENT MARKING X-INCH, AND WHEN SHOWN AS OVERLAID WITH TEMPORARY PAVEMENT MARKING REMOVABLE TAPE. REFER TO THE MISCELLANEOUS QUANTITIES FOR THE LOCATION AND TYPE OF RESTORED ID 94 INTERCHANGE PAVEMENT MARKINGS

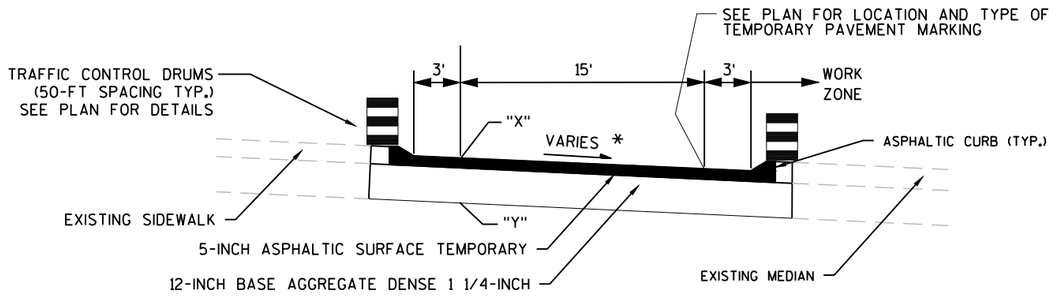
OBSCURE EXISTING PAVEMENT MARKING ARROWS WITH TRAFFIC CONTROL DEVICES THROUGH THE IH 94 INTERCHANGE, WHEN LOCATED IN CLOSED LANES

MOVE EXISTING SIGNS AS SHOWN ON THE TRAFFIC CONTROL PLANS. EXISTING SIGN MOVES ARE SHOWN IN STAGES WHEN MOVES ARE REQUIRED, AND DO NOT APPEAR WHEN MOVES ARE NOT REQUIRED BETWEEN SUBSEQUENT STAGES.

TEMPORARY PAVEMENT MARKING LEGEND

T4W	TEMPORARY MARKING LINE PAINT 4-INCH, WHITE
T4DY	TEMPORARY MARKING LINE PAINT 4-INCH, DOUBLE YELLOW
T8W	TEMPORARY MARKING LINE PAINT 8-INCH, WHITE
T18SW	TEMPORARY MARKING STOP LINE PAINT 18-INCH, WHITE
TAW	TEMPORARY MARKING ARROW PAINT, WHITE
TWW	TEMPORARY MARKING WORD PAINT, WHITE
TR4W	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, WHITE
TR4Y	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, YELLOW
TR4DY	TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH, DOUBLE YELLOW
TR8W	TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH, WHITE
TR8Y	TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH, YELLOW
TR18SW	TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH, WHITE
TRAW	TEMPORARY MARKING ARROW REMOVABLE TAPE, WHITE
TRWW	TEMPORARY MARKING WORD REMOVABLE TAPE, WHITE
RPMA	MARKING REMOVAL SPECIAL MARKING, ARROWS
RPMW	MARKING REMOVAL SPECIAL MARKING, WORDS
RPMX	MARKING REMOVAL LINE WIDE OR X-INCH

* NOTE: VARY SLOPES TO MINIMIZE IMPACTS FROM TEMPORARY ROADWAY

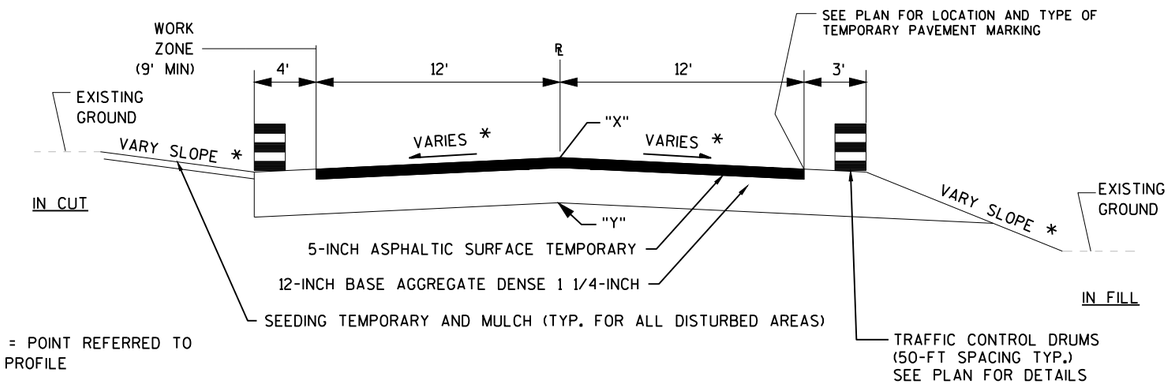


"X" = POINT REFERRED TO ON PROFILE

"Y" = POINT REFERRED TO ON CROSS SECTION

PROPOSED TYPICAL SECTION
STH 65 MEDIAN CROSSOVER TEMPORARY ROADWAY

* NOTE: VARY SLOPES TO MINIMIZE IMPACTS FROM TEMPORARY ROADWAY



"X" = POINT REFERRED TO ON PROFILE

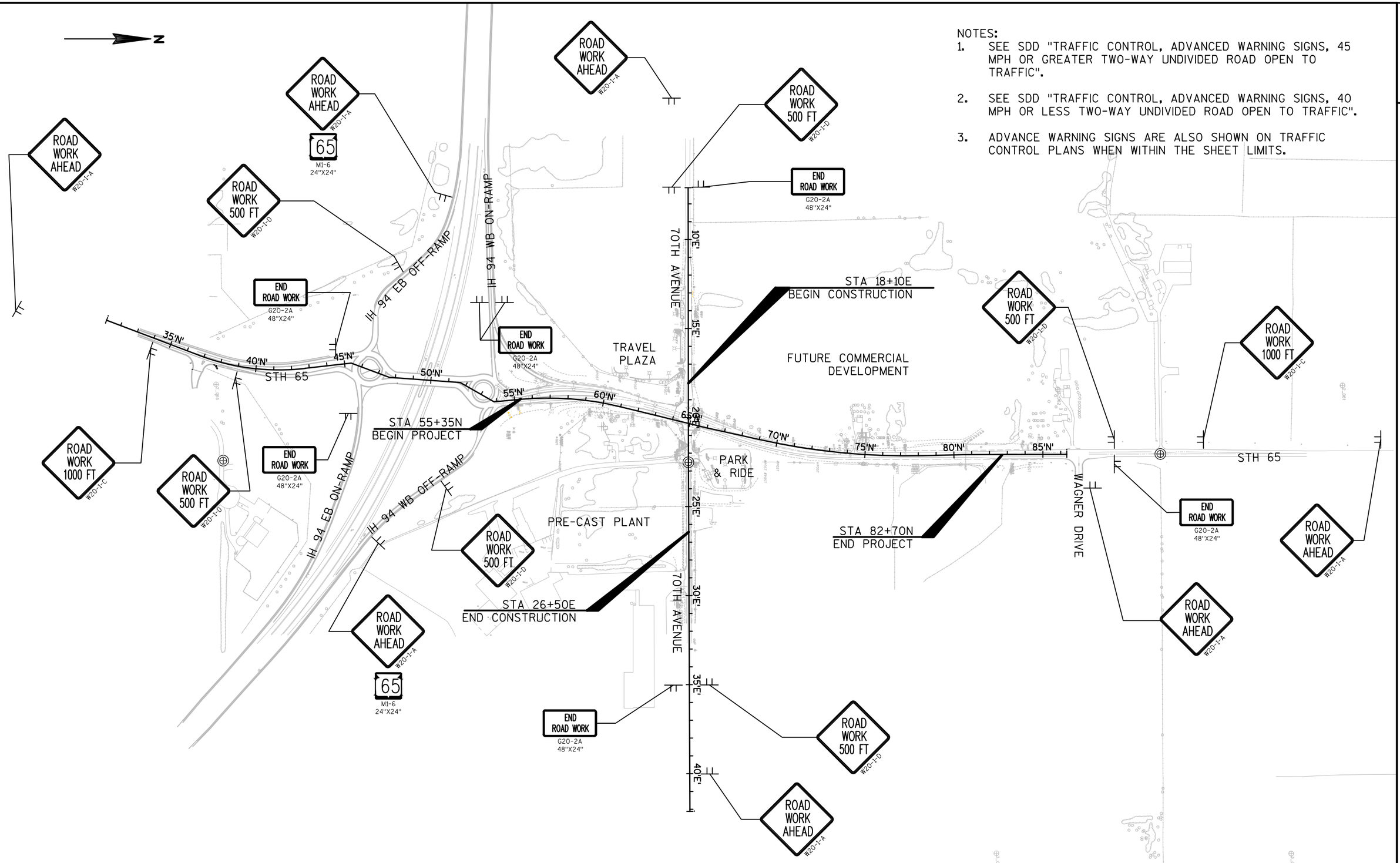
"Y" = POINT REFERRED TO ON CROSS SECTION

PROPOSED TYPICAL SECTION
70TH AVENUE TEMPORARY ROADWAY

PROJECT NO:1540-04-73	HWY:STH 65	COUNTY:ST. CROIX	TRAFFIC CONTROL - OVERVIEW	SHEET 132	E

NOTES:

1. SEE SDD "TRAFFIC CONTROL, ADVANCED WARNING SIGNS, 45 MPH OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC".
2. SEE SDD "TRAFFIC CONTROL, ADVANCED WARNING SIGNS, 40 MPH OR LESS TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC".
3. ADVANCE WARNING SIGNS ARE ALSO SHOWN ON TRAFFIC CONTROL PLANS WHEN WITHIN THE SHEET LIMITS.



PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	TRAFFIC CONTROL - ADVANCED WARNING SIGNAGE	SHEET 133 E

N

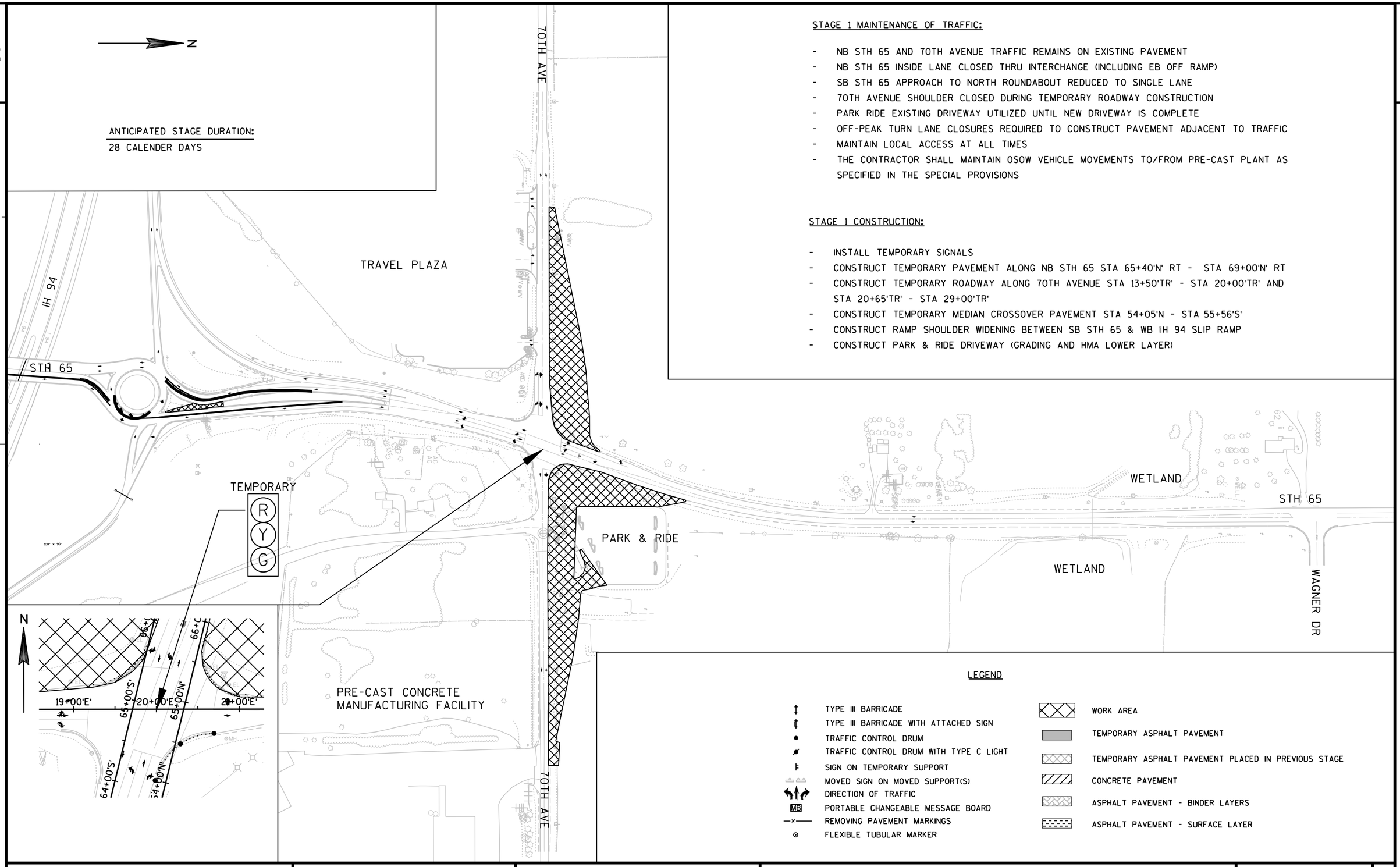
ANTICIPATED STAGE DURATION:
28 CALENDER DAYS

STAGE 1 MAINTENANCE OF TRAFFIC:

- NB STH 65 AND 70TH AVENUE TRAFFIC REMAINS ON EXISTING PAVEMENT
- NB STH 65 INSIDE LANE CLOSED THRU INTERCHANGE (INCLUDING EB OFF RAMP)
- SB STH 65 APPROACH TO NORTH ROUNDABOUT REDUCED TO SINGLE LANE
- 70TH AVENUE SHOULDER CLOSED DURING TEMPORARY ROADWAY CONSTRUCTION
- PARK RIDE EXISTING DRIVEWAY UTILIZED UNTIL NEW DRIVEWAY IS COMPLETE
- OFF-PEAK TURN LANE CLOSURES REQUIRED TO CONSTRUCT PAVEMENT ADJACENT TO TRAFFIC
- MAINTAIN LOCAL ACCESS AT ALL TIMES
- THE CONTRACTOR SHALL MAINTAIN OSOW VEHICLE MOVEMENTS TO/FROM PRE-CAST PLANT AS SPECIFIED IN THE SPECIAL PROVISIONS

STAGE 1 CONSTRUCTION:

- INSTALL TEMPORARY SIGNALS
- CONSTRUCT TEMPORARY PAVEMENT ALONG NB STH 65 STA 65+40'N' RT - STA 69+00'N' RT
- CONSTRUCT TEMPORARY ROADWAY ALONG 70TH AVENUE STA 13+50'TR' - STA 20+00'TR' AND STA 20+65'TR' - STA 29+00'TR'
- CONSTRUCT TEMPORARY MEDIAN CROSSOVER PAVEMENT STA 54+05'N - STA 55+56'S'
- CONSTRUCT RAMP SHOULDER WIDENING BETWEEN SB STH 65 & WB IH 94 SLIP RAMP
- CONSTRUCT PARK & RIDE DRIVEWAY (GRADING AND HMA LOWER LAYER)



PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	TRAFFIC CONTROL OVERVIEW - STAGE 1	SHEET 134	E

2

N

LANE CLOSED
R11-2-L

LANE CLOSED
R11-2-L

EB IH 94 OFF-RAMP

MATCH LINE EB IH 94 OFF-RAMP

EXISTING SIGN

ALTERNATE BUSINE 94

50' (TYP.)

RPM12

RPM8

TR8Y

12'(TYP.)

ROAD WORK 500 FT
W20-1-D

EXISTING SIGN

ALTERNATE BUSINE 94

EXISTING SIGN

65 NORTH
Roberts
New Richmond
SOUTH 65

COVER

228" x 114"

SIGN

114"

PROJECT NO:1540-04-73	HWY:STH 65	COUNTY:ST. CROIX	TRAFFIC CONTROL - STAGE 1	SHEET 135	E

2

N

EXISTING SIGN
EAST
94
65 SOUTH

EXISTING SIGN
WEST NORTH
94 65
Hudson
Roberts
96" × 126"
COVER

END ROAD WORK
G20-2A

LANE CLOSED
R11-2-L

LANE CLOSED
R11-2-L

MATCH LINE EB IH 94 OFF-RAMP

RPM8
RPM12
TR8Y
46+11'N', 102' LT
46+04'N', 95' LT
46+05'N', 64' LT

EXISTING SIGN
TO WEST NORTH
94 65

EXISTING SIGN
65 SOUTH
River Falls
108" × 90"

SB STH 65

45+00'N'
44+00'N'
43+00'N'
50' (TYP.)
TR8Y
NB STH 65
42+49'N', 28' RT
RPM8
44+27'N', 27' RT
RPM12
45+72'N', 61' RT

TR8Y
46+00'N'
47+15'N', 11' RT
47+00'N'
TR8Y

EXISTING SIGN
EAST
94
Eau Claire
108" × 90"

SB STH 65
48+00'N'
49+00'N'
50+
TR4Y
15'(TYP.)
NB STH 65
47+30'N', 41' RT
RPM8

MATCH LINE STA. 50+00 'N'

EXISTING SIGN
65 NORTH
Roberts
94 EAST
Eau Claire
168" × 114"

LANE CLOSED
R11-2-L

WEST
94
Hudson
D1-1
42" × 12"
(SEE SIGN DETAIL)

EXISTING SIGN
65 NORTH
94 EAST

EB IH 94 ON-RAMP

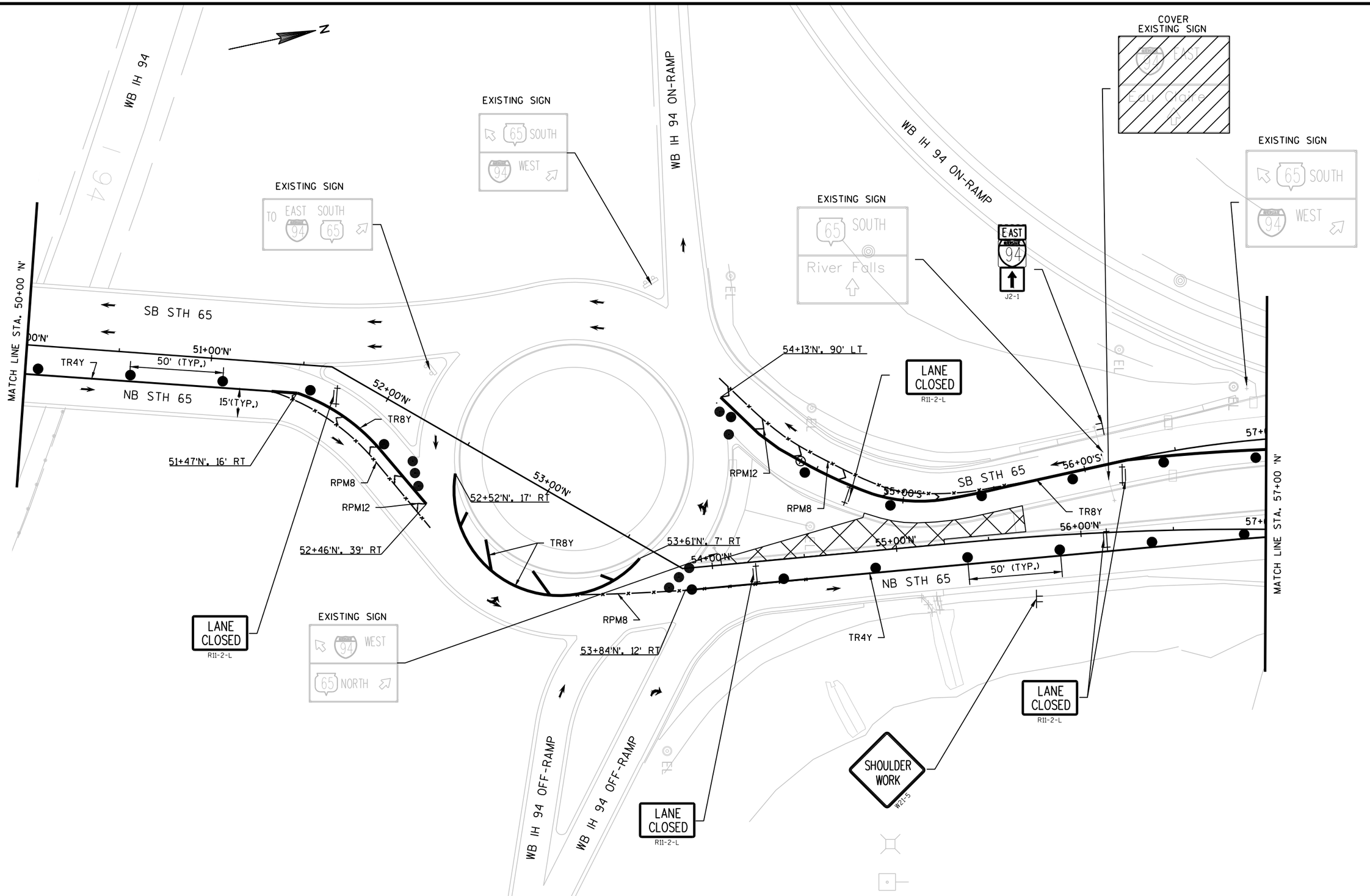
ALTERNATE
94
EXISTING SIGN

EXISTING SIGN
65 NORTH
Roberts
New Richmond
94 WEST
Hudson
168" × 132"
MOVE TO RIGHT LANE

COVER AND TEMPORARILY MOVE TO LEFT LANE
65 NORTH
Roberts
New Richmond
144" × 120"

EB IH 94
WB IH 94

PROJECT NO:1540-04-73	HWY:STH 65	COUNTY:ST. CROIX	TRAFFIC CONTROL - STAGE 1	SHEET 136 E



PROJECT NO:1540-04-73	HWY:STH 65	COUNTY:ST. CROIX	TRAFFIC CONTROL - STAGE 1	SHEET 137 E

2

N

EXISTING SIGN

94 WEST

Hudson

SB STH 65

NB STH 65

MATCH LINE STA. 57+00 'N'

MATCH LINE STA. 63+00 'N'

58+00'S'

58+21'S', 6' RT

59+00'S'

60+00'S'

60+46'N', 47' LT

61+00'S'

62+00'S'

63+00'S'

50' (TYP.)

TR4Y

58+00'N'

59+00'N'

59+05'N', 25' LT

58+85'N', 23' LT

60+00'N'

60+39'N', 11' LT

61+00'N'

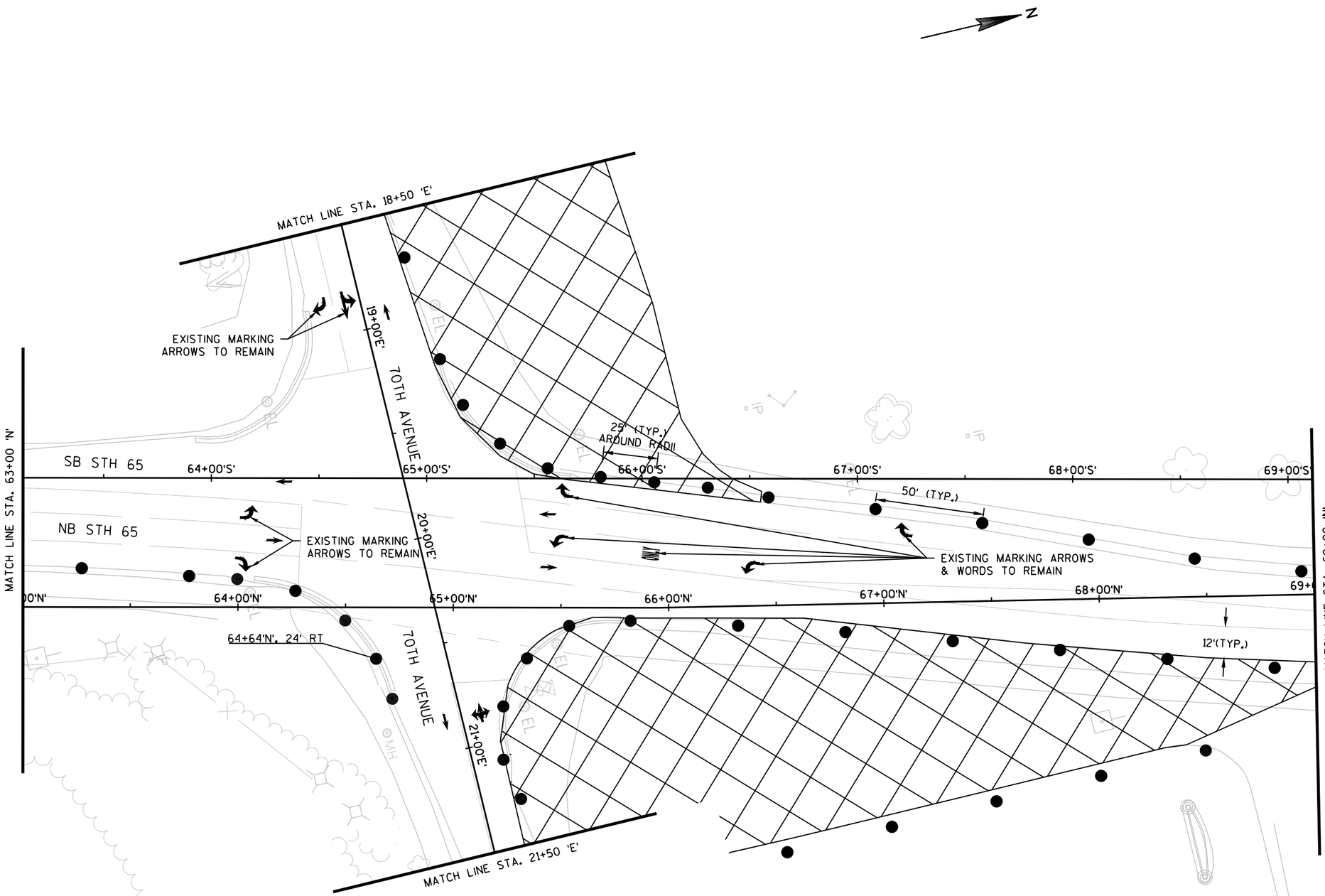
62+00'N'

12'(TYP.)

EXISTING MARKING ARROWS TO REMAIN

PROJECT NO:1540-04-73	HWY:STH 65	COUNTY:ST. CROIX	TRAFFIC CONTROL - STAGE 1	SHEET 138 E

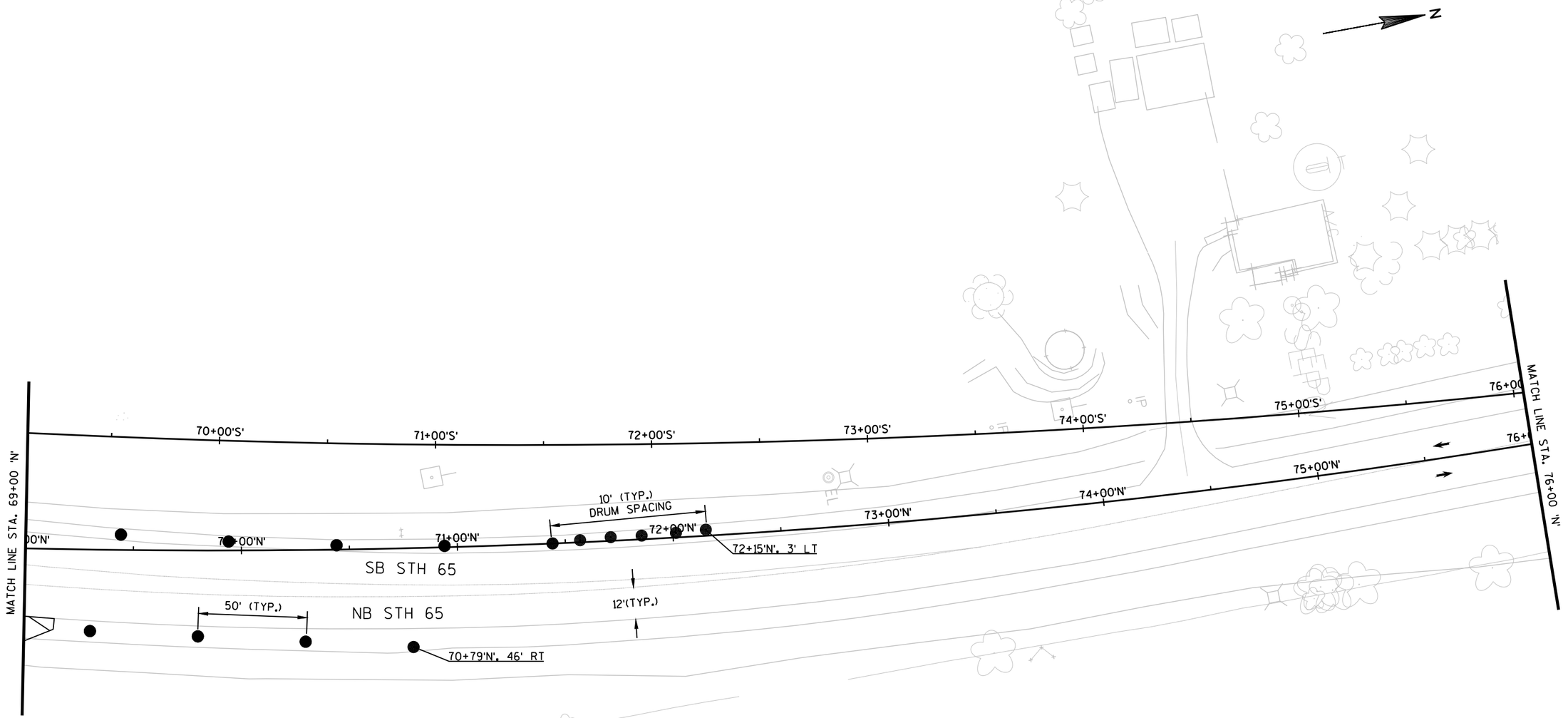
2



PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	TRAFFIC CONTROL - STAGE 1	SHEET 139	E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\TRAFFIC CONTROL\026001-S1.DWG PLOT DATE : 10/19/2022 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : **********

2



PROJECT NO:1540-04-73	HWY:STH 65	COUNTY:ST. CROIX	TRAFFIC CONTROL - STAGE 1	SHEET 140	E

2

N

SHOULDER WORK
W21-5

MATCH LINE STA. 76+00 'N'

'S'

00'N'

77+00'S'

77+00'N'

78+00'S'

78+00'N'

79+00'S'

79+00'N'

SB STH 65

80+00'S'

80+00'N'

81+00'S'

81+00'N'

82+00'S'

82+00'N'

83+00'S'

83+00'N'

12'(TYP.)

NB STH 65

PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	TRAFFIC CONTROL - STAGE 1	SHEET 141	E

2

N

11+67'E', 35' LT

12'(TYP.)

50' (TYP.)

12+00'E' 13+00'E' 14+00'E' 15+00'E' 16+00'E' 17+00'E' 18+00'E'

70TH AVENUE

EXISTING MARKING
ARROWS TO REMAIN

MATCH LINE STA. 18+50 'E'

TRAVEL PLAZA

PROJECT NO:1540-04-73	HWY:STH 65	COUNTY:ST. CROIX	TRAFFIC CONTROL - STAGE 1	SHEET 142	E

2

N

PARK & RIDE

10' (TYP.) DRUM SPACING

MATCH LINE STA. 21+50 'E'

22+00'E' 23+00'E' 12'(TYP.) 24+00'E' 25+00'E' 50' (TYP.) 26+00'E' 27+00'E' 28+00'E'

70TH AVENUE

MATCH LINE STA. 28+50 'E'

MAINTAIN DRIVEWAY ACCESS AT ALL TIMES

NOTE: STAGE THE REMOVAL OF EXISTING PARK & RIDE DRIVEWAY AND CONSTRUCTION OF THE NEW DRIVEWAY. MAINTAIN ACCESS AT ALL TIMES.

PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	TRAFFIC CONTROL - STAGE 1	SHEET 143	E

2

2

N

ROAD
WORK
500 FT
W20-1-D

10' (TYP.)
DRUM SPACING

33+50'E', 20' LT

50' (TYP.)

12'(TYP.)

29+00'E'

30+00'E'

31+00'E'

32+00'E'

33+00'E'

34+00'E'

35+00'E'

70TH AVENUE

MATCH LINE STA. 28+50 'E'

END
ROAD WORK
G20-2A

PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	TRAFFIC CONTROL - STAGE 1	SHEET 144 E

2

N

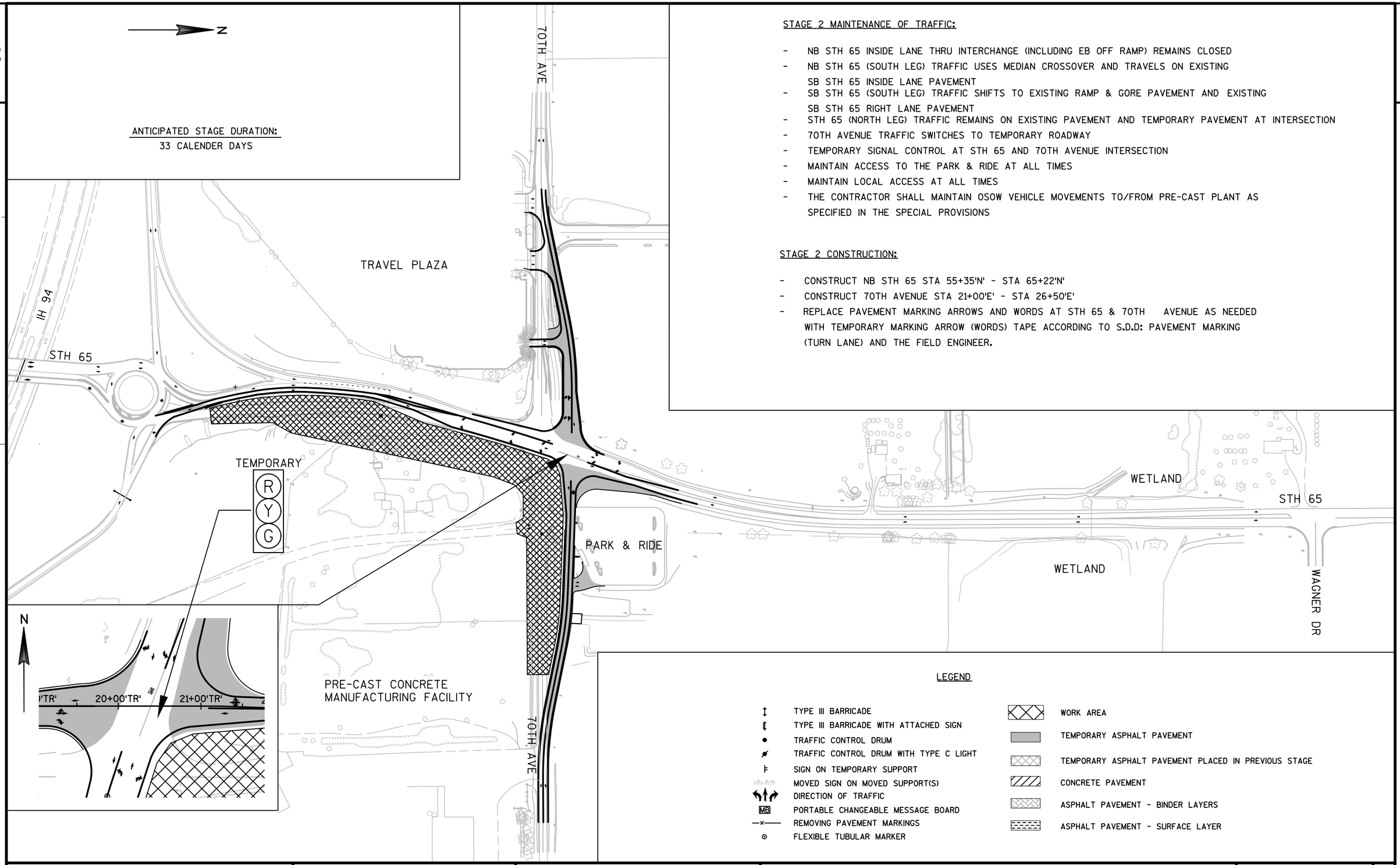
ANTICIPATED STAGE DURATION:
33 CALENDER DAYS

STAGE 2 MAINTENANCE OF TRAFFIC:

- NB STH 65 INSIDE LANE THRU INTERCHANGE (INCLUDING EB OFF RAMP) REMAINS CLOSED
- NB STH 65 (SOUTH LEG) TRAFFIC USES MEDIAN CROSSOVER AND TRAVELS ON EXISTING SB STH 65 INSIDE LANE PAVEMENT
- SB STH 65 (SOUTH LEG) TRAFFIC SHIFTS TO EXISTING RAMP & GORE PAVEMENT AND EXISTING SB STH 65 RIGHT LANE PAVEMENT
- STH 65 (NORTH LEG) TRAFFIC REMAINS ON EXISTING PAVEMENT AND TEMPORARY PAVEMENT AT INTERSECTION
- 70TH AVENUE TRAFFIC SWITCHES TO TEMPORARY ROADWAY
- TEMPORARY SIGNAL CONTROL AT STH 65 AND 70TH AVENUE INTERSECTION
- MAINTAIN ACCESS TO THE PARK & RIDE AT ALL TIMES
- MAINTAIN LOCAL ACCESS AT ALL TIMES
- THE CONTRACTOR SHALL MAINTAIN OSOW VEHICLE MOVEMENTS TO/FROM PRE-CAST PLANT AS SPECIFIED IN THE SPECIAL PROVISIONS

STAGE 2 CONSTRUCTION:

- CONSTRUCT NB STH 65 STA 55+35'N' - STA 65+22'N'
- CONSTRUCT 70TH AVENUE STA 21+00'E' - STA 26+50'E'
- REPLACE PAVEMENT MARKING ARROWS AND WORDS AT STH 65 & 70TH AVENUE AS NEEDED WITH TEMPORARY MARKING ARROW (WORDS) TAPE ACCORDING TO S.D.D: PAVEMENT MARKING (TURN LANE) AND THE FIELD ENGINEER.



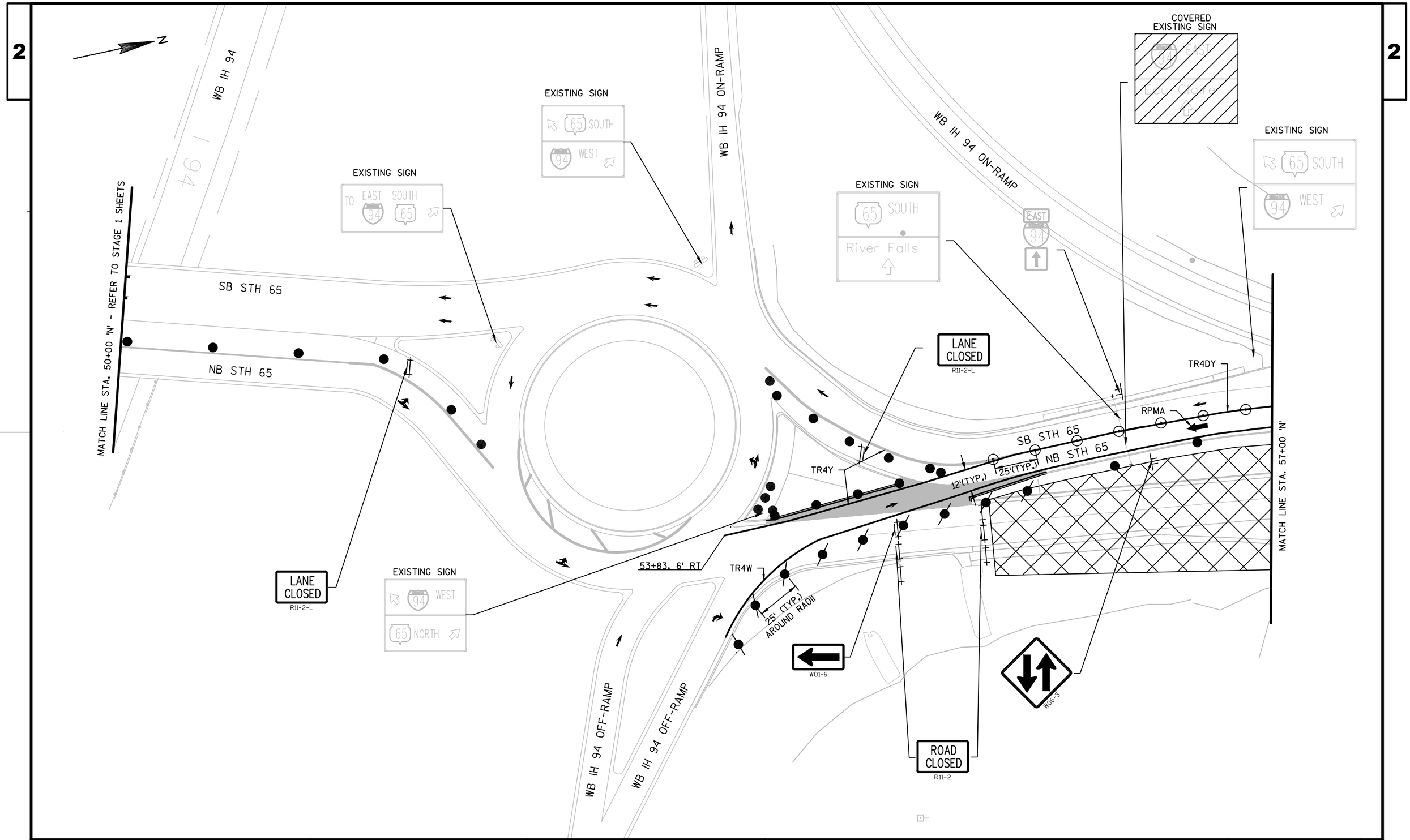
LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C LIGHT
- SIGN ON TEMPORARY SUPPORT
- MOVED SIGN ON MOVED SUPPORT(S)
- DIRECTION OF TRAFFIC
- PORTABLE CHANGEABLE MESSAGE BOARD
- REMOVING PAVEMENT MARKINGS
- FLEXIBLE TUBULAR MARKER
- WORK AREA
- TEMPORARY ASPHALT PAVEMENT
- TEMPORARY ASPHALT PAVEMENT PLACED IN PREVIOUS STAGE
- CONCRETE PAVEMENT
- ASPHALT PAVEMENT - BINDER LAYERS
- ASPHALT PAVEMENT - SURFACE LAYER

PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	TRAFFIC CONTROL OVERVIEW - STAGE 2	SHEET 145	E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\TRAFFIC CONTROL\026001-S2.DWG PLOT DATE : 10/19/2022 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : 1IN:250FT

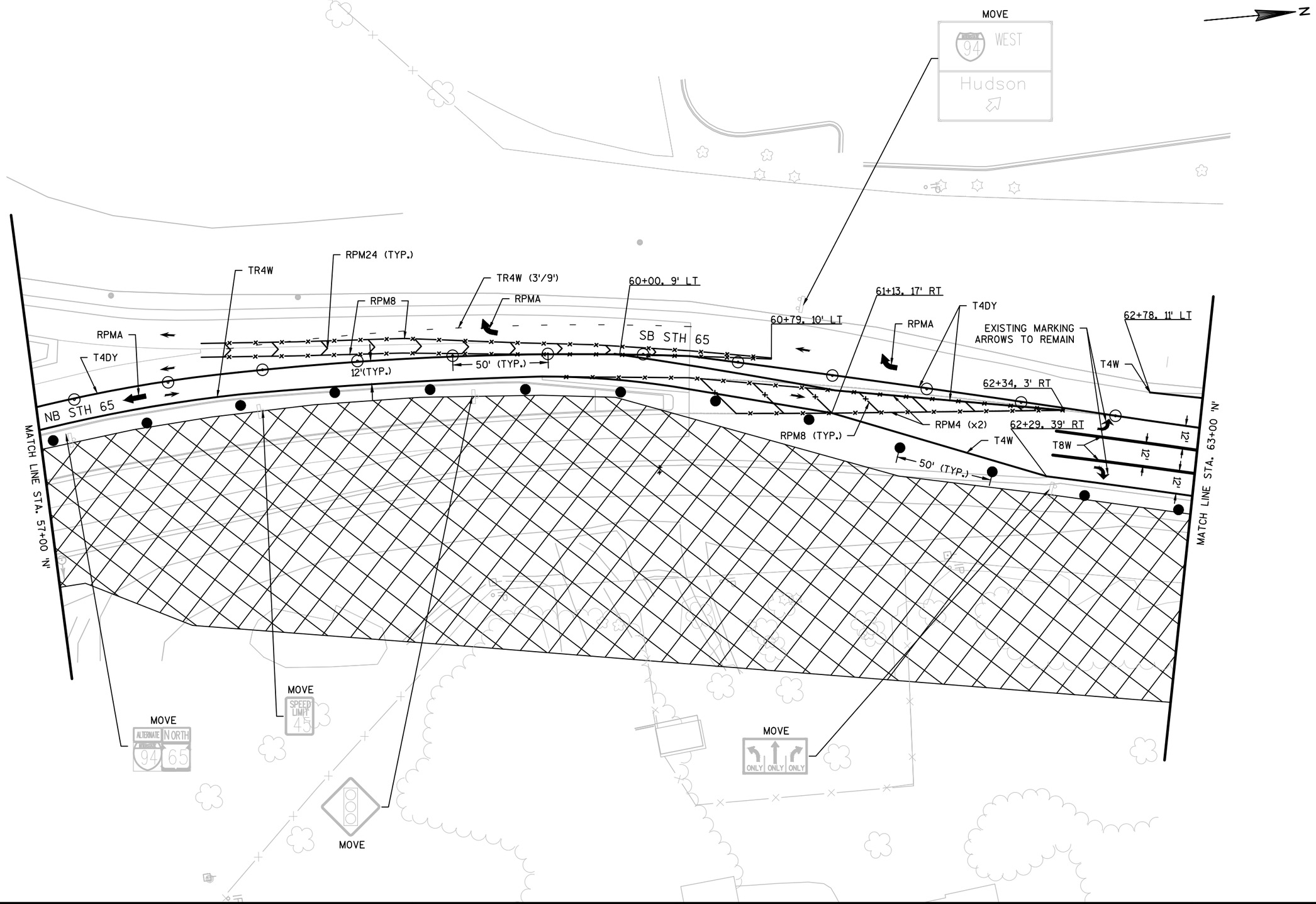
WISDOT/CADDS SHEET 42



PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	TRAFFIC CONTROL - STAGE 2	SHEET 146	E

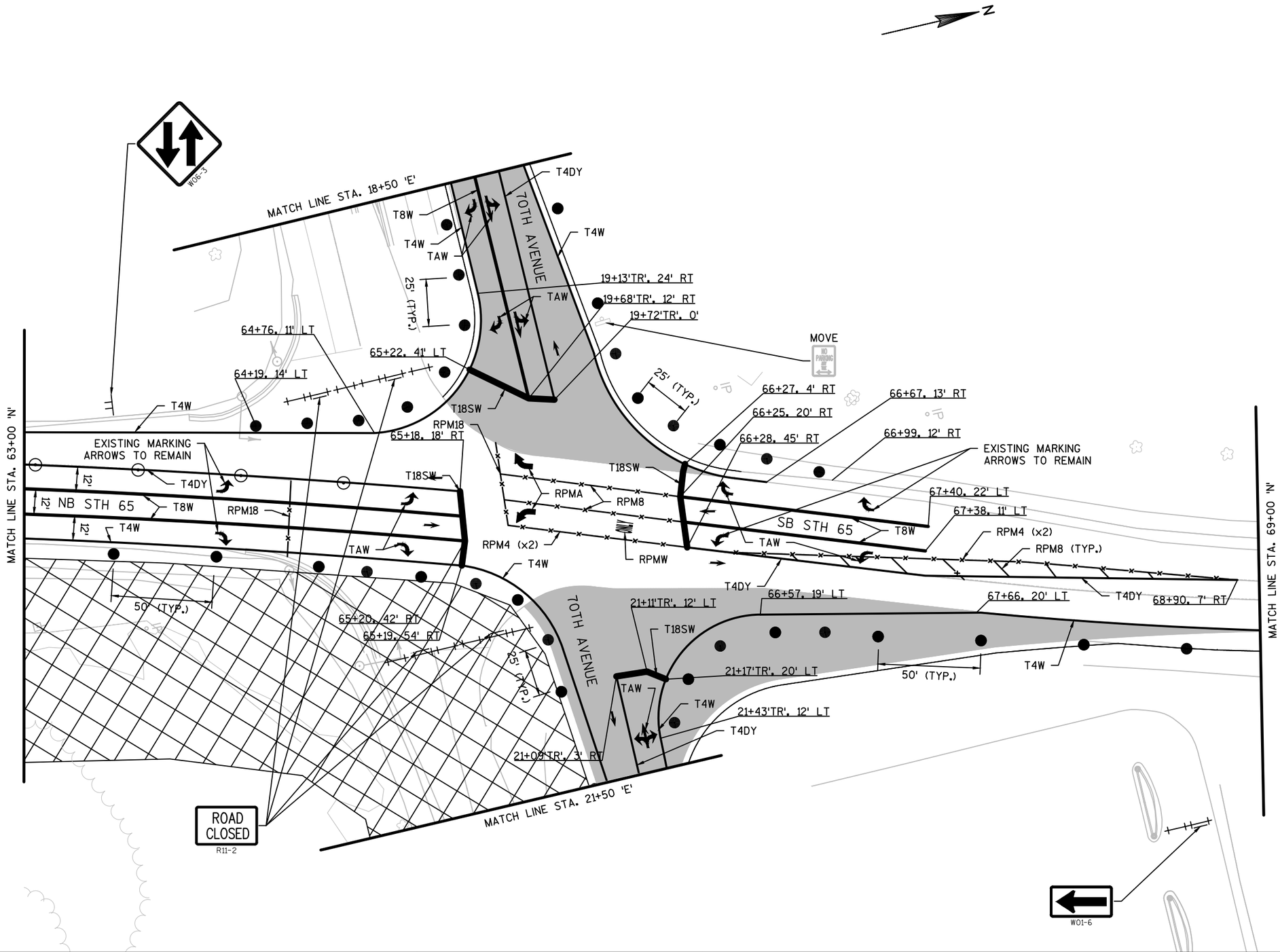
FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\TRAFFIC CONTROL\026001-S2.DWG PLOT DATE : 10/19/2022 PLOT BY : KL ENGINEERING PLOT NAME : _____ PLOT SCALE : **********
WISDOT/CADDS SHEET 42

2



PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	TRAFFIC CONTROL - STAGE 2	SHEET 147 E

2



PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	TRAFFIC CONTROL - STAGE 2	SHEET 148 E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\TRAFFIC CONTROL\026001-S2.DWG PLOT DATE : 10/19/2022 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : **********

2

N

MATCH LINE STA. 69+00 'N'

SB STH 65

NB STH 65

12'(TYP.)

69+50. 34' RT

T4W

PROJECT NO:1540-04-73	HWY:STH 65	COUNTY:ST. CROIX	TRAFFIC CONTROL - STAGE 2	SHEET 149 E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\TRAFFIC CONTROL\026001-S2.DWG PLOT DATE : 10/19/2022 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : **********

WISDOT/CADDS SHEET 42

2

N

MOVE

MOVE

MOVE

MOVE

T4DY

18+00'TR'

17+00'TR'

70TH AVENUE

16+00'TR'

15+00'TR'

50' (TYP.)

25' (TYP.) DRUM SPACING

12'

T4W

18+48'TR', 12' RT

MATCH LINE STA. 18+50 'E'

13+27'TR', 16' LT

T4DY

12+78'TR', 11' LT

14+00'TR'

RPM4

15+42'TR', 22' RT

T4W

16+68'TR', 25' RT

12+00'TR'

13+00'TR'

RPM4 (x2)

TR4W

TR4W

14+34'TR', 26' RT

IP

11+82'TR', 19' RT

13+36'TR', 38' RT

13+45'TR', 36' RT

12+76'TR', 31' RT

14+40'TR', 56' RT

MOVE

14+92'TR', 68' RT

STOP

TR4W

16+91'TR', 107' RT

17+25'TR', 95' RT

17+13'TR', 110' RT

MOVE

STOP

W01-4L

W01-6

ROAD CLOSED

R11-2

MOVE

ROAD CLOSED

R11-2

IP

TRAVEL PLAZA

MOVE

R7-1-D

18"X24"

PROJECT NO:1540-04-73	HWY:STH 65	COUNTY:ST. CROIX	TRAFFIC CONTROL - STAGE 2	SHEET 150 E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\TRAFFIC CONTROL\026001-S2.DWG PLOT DATE : 10/19/2022 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : **********

WISDOT/CADDS SHEET 42

2

2

N

MOVE

STOP

PARK & RIDE

MOVE

RIDESHARE
INFO CALL
1-800-455-POOL

MOVE

PARK & RIDE
PARKING ONLY
VIOLATORS
WILL BE
TOWED
AT OWNER'S
EXPENSE

R7-65
30"X24"

MOVE

MAINTAIN DRIVEWAY ACCESS
AT ALL TIMES

10' (TYP.) DRUM SPACING

22+00'TR'

T4W

T4DY

23+00'TR'

70TH AVENUE

24+00'TR'

50' (TYP.)

25+00'TR'

12'

26+00'TR'

T4DY

T4W

27+00'TR'

25' (TYP.) DRUM SPACING

28+00'TR'

RPM4

26+62'TR', 19' RT

RPM4 (x2)

MATCH LINE STA. 21+50 'E'

MATCH LINE STA. 28+50 'E'

MOVE

SPEED
LIMIT
45

MOVE

PARK &
RIDE

W01-4R

MAINTAIN DRIVEWAY ACCESS
AT ALL TIMES

W01-6

ROAD
CLOSED

R11-2

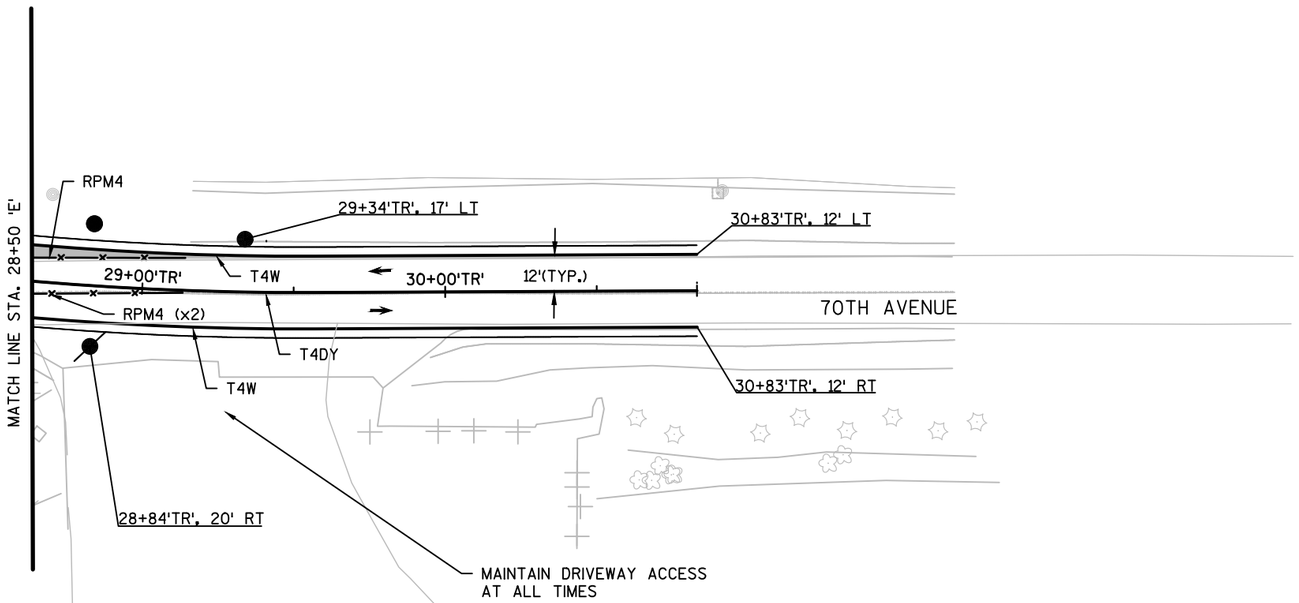
PROJECT NO:1540-04-73	HWY:STH 65	COUNTY:ST. CROIX	TRAFFIC CONTROL - STAGE 2	SHEET 151 E

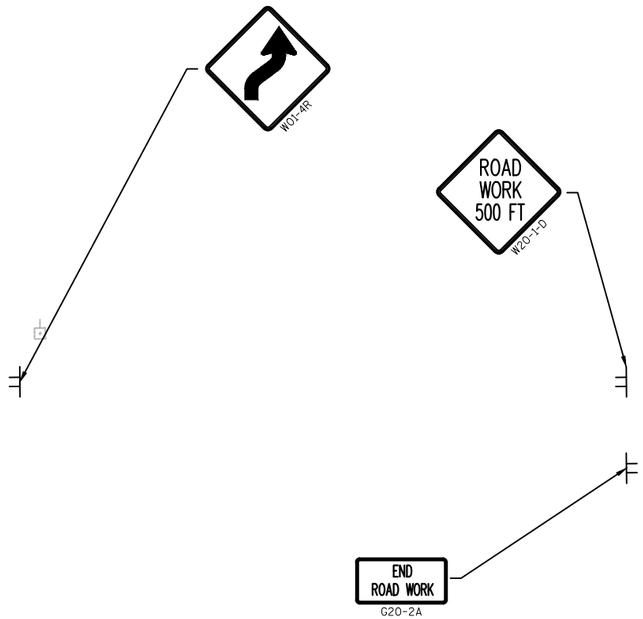
FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\TRAFFIC CONTROL\026001-S2.DWG PLOT DATE : 10/19/2022 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : **********

WISDOT/CADDS SHEET 42

2

N



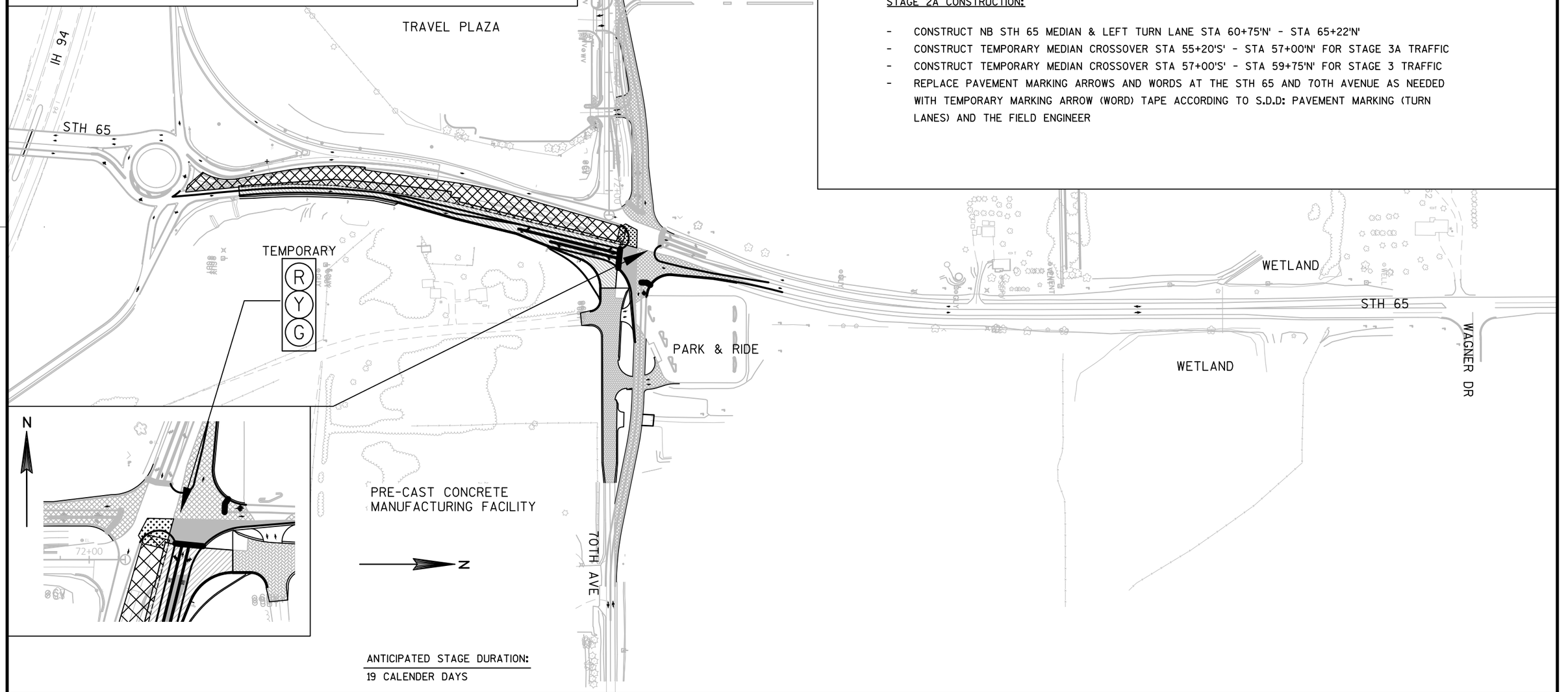


PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	TRAFFIC CONTROL - STAGE 2	SHEET 152 E

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C LIGHT
- SIGN ON TEMPORARY SUPPORT
- MOVED SIGN ON MOVED SUPPORT(S)
- DIRECTION OF TRAFFIC
- PORTABLE CHANGEABLE MESSAGE BOARD (MB)
- REMOVING PAVEMENT MARKINGS
- FLEXIBLE TUBULAR MARKER
- STAGE 2/2A ASPHALTIC SURFACE TEMPORARY WEDGING UNDER TRAFFIC
- WORK AREA
- TEMPORARY ASPHALT PAVEMENT
- TEMPORARY ASPHALT PAVEMENT PLACED IN PREVIOUS STAGES
- CONCRETE PAVEMENT
- ASPHALT PAVEMENT - BINDER LAYERS
- ASPHALT PAVEMENT - SURFACE LAYER



STAGE 2A MAINTENANCE OF TRAFFIC:

- NB STH 65 INSIDE LANES THRU INTERCHANGE (INCLUDING EB OFF RAMP) REMAIN CLOSED
- NB STH 65 (SOUTH LEG) TRAFFIC USES NEW NB LANES TO EXISTING 70TH AVENUE INTERSECTION
- SB STH 65 (SOUTH LEG) TRAFFIC REMAINS SHIFTED TO EXISTING RAMP & GORE PAVEMENT AND EXISTING SB STH 65 RIGHT LANE PAVEMENT
- STH 65 (NORTH LEG) TRAFFIC REMAINS ON EXISTING PAVEMENT AND TEMPORARY PAVEMENT AT INTERSECTION
- 70TH AVENUE TRAFFIC REMAINS ON TEMPORARY ROADWAY
- TEMPORARY SIGNAL CONTROL AT STH 65 AND 70TH AVENUE INTERSECTION
- MAINTAIN ACCESS TO THE PARK & RIDE AT ALL TIMES
- MAINTAIN LOCAL ACCESS AT ALL TIMES
- THE CONTRACTOR SHALL MAINTAIN OSOW VEHICLE MOVEMENTS TO/FROM PRE-CAST PLANT AS SPECIFIED IN THE SPECIAL PROVISIONS

STAGE 2A CONSTRUCTION:

- CONSTRUCT NB STH 65 MEDIAN & LEFT TURN LANE STA 60+75'N' - STA 65+22'N'
- CONSTRUCT TEMPORARY MEDIAN CROSSOVER STA 55+20'S' - STA 57+00'N' FOR STAGE 3A TRAFFIC
- CONSTRUCT TEMPORARY MEDIAN CROSSOVER STA 57+00'S' - STA 59+75'N' FOR STAGE 3 TRAFFIC
- REPLACE PAVEMENT MARKING ARROWS AND WORDS AT THE STH 65 AND 70TH AVENUE AS NEEDED WITH TEMPORARY MARKING ARROW (WORD) TAPE ACCORDING TO S.D.D: PAVEMENT MARKING (TURN LANES) AND THE FIELD ENGINEER

ANTICIPATED STAGE DURATION:
19 CALENDER DAYS

PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	TRAFFIC CONTROL OVERVIEW - STAGE 2A	SHEET 153 E

2

N

WB IH 94

I 94

WB IH 94 ON-RAMP

EXISTING SIGN

65 SOUTH

94 WEST

EXISTING SIGN

TO EAST 94 SOUTH 65

COVERED EXISTING SIGN

EAST 94

River Falls

EXISTING SIGN

65 SOUTH

River Falls

WB IH 94 ON-RAMP

EAST 94

EXISTING SIGN

65 SOUTH

94 WEST

LANE CLOSED

R11-2-L

MATCH LINE STA. 50+00 'N' - REFER TO STAGE 1 SHEETS

SB STH 65

0 'N'

51+00 'N'

NB STH 65

52+00 'N'

53+00 'N'

53+84'N', 0'

54+00 'N'

53+75'N', 20' RT

55+00 'S'

55+00 'N'

56+00 'N'

12'(TYP.)

50' (TYP.)

TR4Y

TR4DY

TR4W

SB STH 65 57+0

MATCH LINE STA. 57+00 'N'

LANE CLOSED

EXISTING SIGN

94 WEST

65 NORTH

LANE CLOSED

R11-2-L

WB IH 94 OFF-RAMP

WB IH 94 OFF-RAMP

PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	TRAFFIC CONTROL - STAGE 2A	SHEET 154	E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\TRAFFIC CONTROL\026001-S2A.DWG PLOT DATE : 10/28/2022 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : **********

WISDOT/CADDS SHEET 42

2

N

SB STH 65

58+00 'S'

59+00

60+00

61+00 'S'

62+00 'S'

63+00 'S'

MATCH LINE STA. 57+00 'N'

MATCH LINE STA. 63+00 'N'

58+83'N', 24' RT

59+06'N', 12' RT

58+00 'N'

59+00 'N'

60+00 'N'

61+00 'N'

62+00 'N'

NB STH 65

12'(TYP.)

TR4DY

TR4W

59+66'N', 12' RT

TR4DY

61+00'N', 29' RT

TRAW

TR8W

62+62'N', 29' RT

MOVE

ALTERNATE NORTH 94 65

MOVE

SPEED LIMIT 45

LANE CLOSED

R11-2-L

MOVE

LANE CLOSED

R11-2-L

PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	TRAFFIC CONTROL - STAGE 2A	SHEET 155 E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\TRAFFIC CONTROL\026001-S2A.DWG PLOT DATE : 10/19/2022 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : **********

STAGE 2/2A ASPHALTIC SURFACE TEMPORARY WEDGING UNDER TRAFFIC

N

MATCH LINE STA. 18+50 'E' - REFER TO STAGE 2 SHEETS

70TH AVENUE

19+00 'TR'

19+00 'E'

EL

ROAD CLOSED

64+25'S', 14' LT

R4-7

25' (TYP.)

66+91'S', 8' RT

LANE CLOSED

R11-2-L

MATCH LINE STA. 63+00 'N'

64+00 'S'

65+00 'S'

66+00 'S'

67+00 'S'

68+00 'S'

69+00 'S'

65+24'S', 18' RT

20+00 'TR'

10' DRUM SPACING AROUND RADII

68+55'N', 16' RT

SB STH 65

67+71'N', 37' RT

24+00 'E'

64+00 'N'

65+00 'N'

66+00 'N'

67+00 'N'

68+00 'N'

69+0

25' (TYP.)

RPM4

TRWW

TR4Y

64+83'N', 53' RT

65+24'N', 17' RT

RPM18

TR8W

63+48'N', 41' RT

NB STH 65

12'(TYP.)

TRAW

T18SW

21+00 'TR'

70TH AVENUE

TRAW

RPM4 (x2)

50' (TYP.)

T4W

T4DY

63+48'N', 53' RT

TR4W

RPM4

T18SW

66+67'N', 50' RT

63+72'N', 59' RT

24+00 'E'

21+55'TR', 21' LT

MOVE

PARK & RIDE

RPMA

65+31'N', 65' RT

21+50'TR', 12' LT

MOVE

ONLY ONLY ONLY

ROAD CLOSED

R11-2

MATCH LINE STA. 21+50 'E'

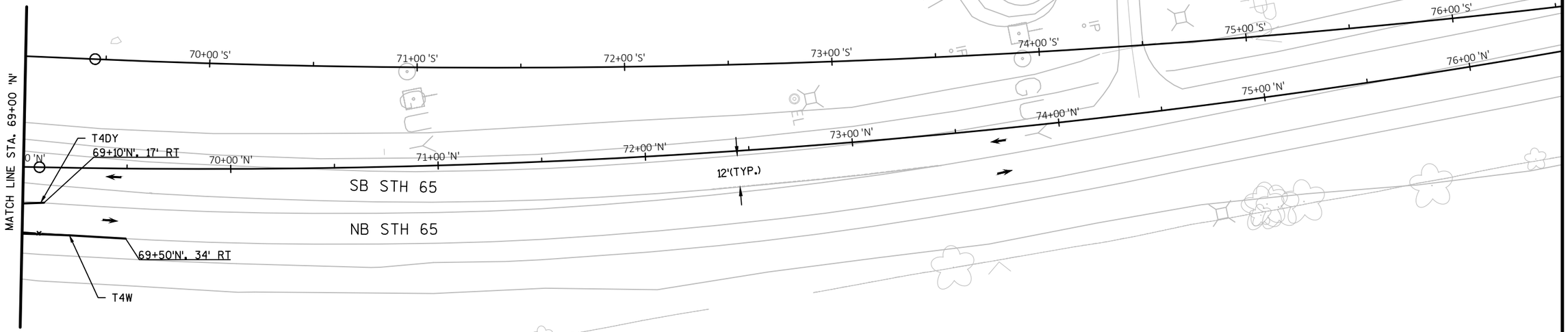
MATCH LINE STA. 69+00 'N'

PROJECT NO:1540-04-73	HWY:STH 65	COUNTY:ST. CROIX	TRAFFIC CONTROL - STAGE 2A	SHEET 156 E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\TRAFFIC CONTROL\026001-S2A.DWG PLOT DATE : 10/19/2022 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : **********

WISDOT/CADDS SHEET 42

2



PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	TRAFFIC CONTROL - STAGE 2A	SHEET 157 E

2

N

PARK & RIDE

IP

67'N', 50' RT

21+87'TR', 12' LT

T4W

TAW

10' (TYP.) DRUM SPACING

22+00 'TR'

23+00 'TR'

24+00 'TR'

25+00 'TR'

RPM4

T4W

70TH AVENUE

23+02'TR', 12' RT

ROAD CLOSED
R11-2
48"X30"

MAINTAIN DRIVEWAY ACCESS AT ALL TIMES

12'(TYP.)

50' (TYP.)

26+00 'TR'

27+00 'TR'

28+00 'TR'

MATCH LINE STA. 21+50 'E'

22+00

23+00 'E'

24+00 'E'

25+00 'E'

26+00 'E'

27+00 'E'

28+00 'E'

22+55'E', 20' RT

ROAD CLOSED
R11-2
48"X30"

22+07'E', 21' RT

ROAD CLOSED

MATCH LINE STA. 28+50 'E' - REFER TO STAGE 2 SHEETS

PROJECT NO:1540-04-73	HWY:STH 65	COUNTY:ST. CROIX	TRAFFIC CONTROL - STAGE 2A	SHEET 158 E

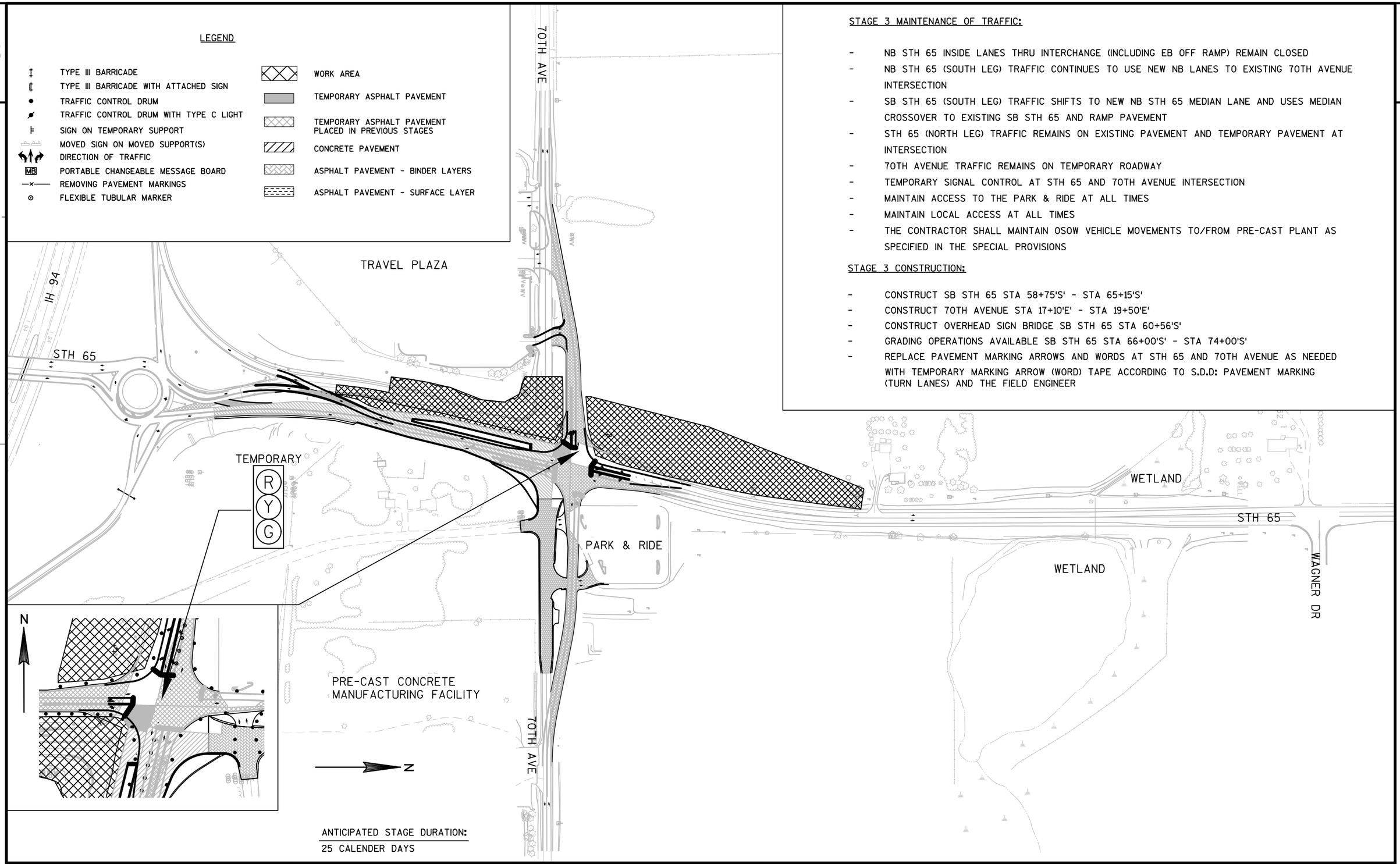
FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\TRAFFIC CONTROL\026001-S2A.DWG PLOT DATE : 10/19/2022 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : **********

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C LIGHT
- SIGN ON TEMPORARY SUPPORT
- MOVED SIGN ON MOVED SUPPORT(S)
- DIRECTION OF TRAFFIC
- PORTABLE CHANGEABLE MESSAGE BOARD
- REMOVING PAVEMENT MARKINGS
- FLEXIBLE TUBULAR MARKER

- WORK AREA
- TEMPORARY ASPHALT PAVEMENT
- TEMPORARY ASPHALT PAVEMENT PLACED IN PREVIOUS STAGES
- CONCRETE PAVEMENT
- ASPHALT PAVEMENT - BINDER LAYERS
- ASPHALT PAVEMENT - SURFACE LAYER



ANTICIPATED STAGE DURATION:
25 CALENDER DAYS

STAGE 3 MAINTENANCE OF TRAFFIC:

- NB STH 65 INSIDE LANES THRU INTERCHANGE (INCLUDING EB OFF RAMP) REMAIN CLOSED
- NB STH 65 (SOUTH LEG) TRAFFIC CONTINUES TO USE NEW NB LANES TO EXISTING 70TH AVENUE INTERSECTION
- SB STH 65 (SOUTH LEG) TRAFFIC SHIFTS TO NEW NB STH 65 MEDIAN LANE AND USES MEDIAN CROSSOVER TO EXISTING SB STH 65 AND RAMP PAVEMENT
- STH 65 (NORTH LEG) TRAFFIC REMAINS ON EXISTING PAVEMENT AND TEMPORARY PAVEMENT AT INTERSECTION
- 70TH AVENUE TRAFFIC REMAINS ON TEMPORARY ROADWAY
- TEMPORARY SIGNAL CONTROL AT STH 65 AND 70TH AVENUE INTERSECTION
- MAINTAIN ACCESS TO THE PARK & RIDE AT ALL TIMES
- MAINTAIN LOCAL ACCESS AT ALL TIMES
- THE CONTRACTOR SHALL MAINTAIN OSOW VEHICLE MOVEMENTS TO/FROM PRE-CAST PLANT AS SPECIFIED IN THE SPECIAL PROVISIONS

STAGE 3 CONSTRUCTION:

- CONSTRUCT SB STH 65 STA 58+75'S' - STA 65+15'S'
- CONSTRUCT 70TH AVENUE STA 17+10'E' - STA 19+50'E'
- CONSTRUCT OVERHEAD SIGN BRIDGE SB STH 65 STA 60+56'S'
- GRADING OPERATIONS AVAILABLE SB STH 65 STA 66+00'S' - STA 74+00'S'
- REPLACE PAVEMENT MARKING ARROWS AND WORDS AT STH 65 AND 70TH AVENUE AS NEEDED WITH TEMPORARY MARKING ARROW (WORD) TAPE ACCORDING TO S.D.D: PAVEMENT MARKING (TURN LANES) AND THE FIELD ENGINEER

2

PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	TRAFFIC CONTROL OVERVIEW - STAGE 3	SHEET 159 E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\TRAFFIC CONTROL\026001-S3.DWG PLOT DATE : 10/19/2022 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : 1IN:250FT
WISDOT/CADDS SHEET 42

2

N

WB IH 94

I 94

EXISTING SIGN
WEST
NORTH

EXISTING SIGN
SOUTH
WEST

EXISTING SIGN
TO EAST SOUTH

WB IH 94 ON-RAMP

COVERED EXISTING SIGN
EAST
Eau Claire

EAST

WB IH 94 ON-RAMP

EXISTING SIGN
SOUTH
River Falls

MATCH LINE STA. 50+00 'N' - REFER TO STAGE 1 SHEETS

SB STH 65

0 'N'

51+00 'N'

NB STH 65

52+00 'N'

53+00 'N'

53+84'N', 0'

54+00 'N'

LANE CLOSED

LANE CLOSED

LANE CLOSED

55+73'S', 12' RT

55+00 'S'

SB STH 65

55+00 'N'

56+55'S', 12' LT

TR8W

RPM12

RPM12

15'(TYP.)

56+00 'S'

RPM8

TR4Y

56+18'S', 0' RT

55+73'S', 12' RT

55+32'S', 12' RT

56+00 'N'

55+80'N', 0'

50' (TYP.)

NB STH 65

57+00'N', 6' LT

MATCH LINE STA. 57+00 'N'

W06-3

WB IH 94 OFF-RAMP

WB IH 94 OFF-RAMP

PROJECT NO:1540-04-73	HWY:STH 65	COUNTY:ST. CROIX	TRAFFIC CONTROL - STAGE 3	SHEET 160 E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\TRAFFIC CONTROL\026001-S3.DWG PLOT DATE : 10/19/2022 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : **********
LAYOUT NAME - STG1 - (3)

2

N

MOVE
65 SOUTH
94 WEST

MOVE
94 WEST
Hudson

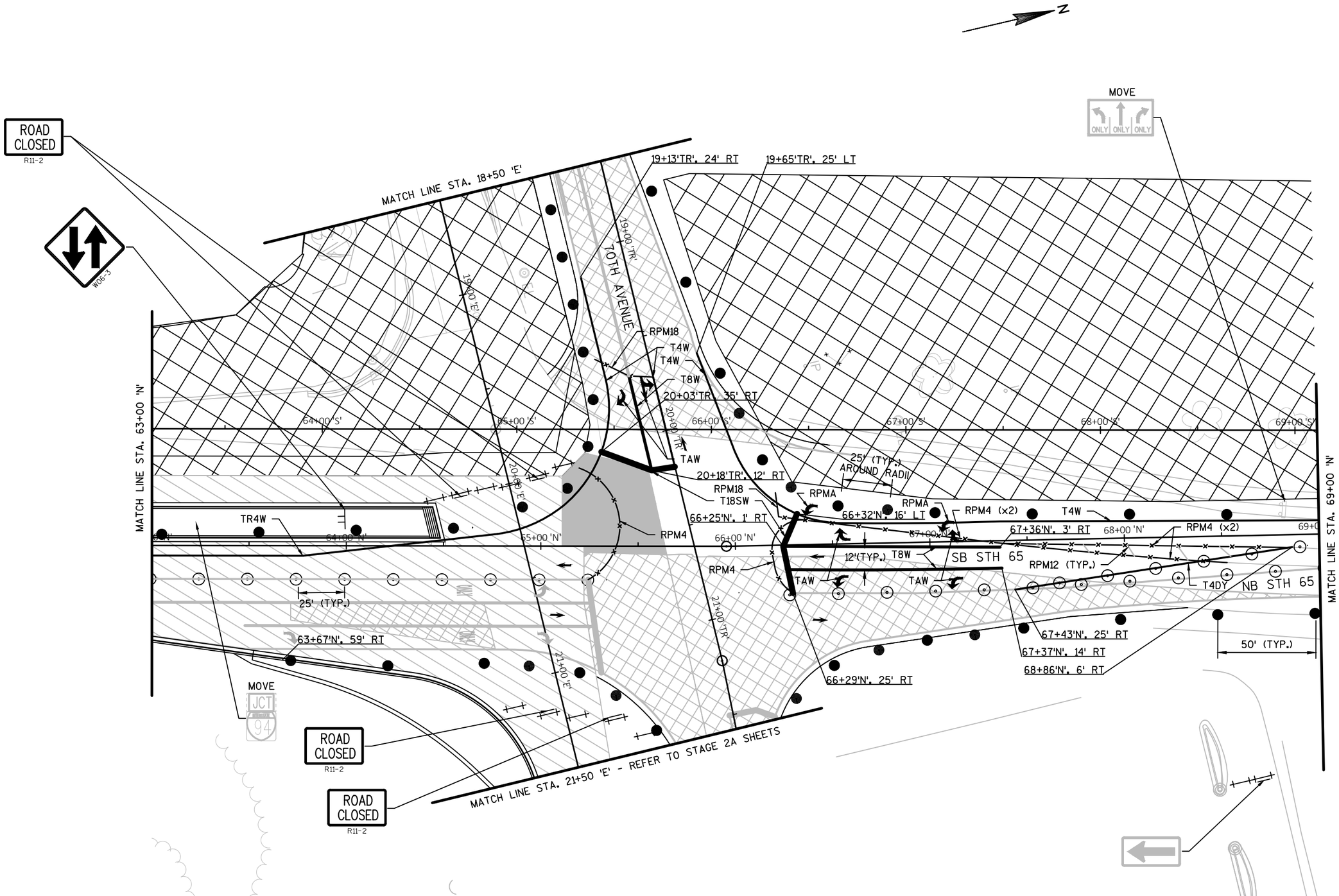
W01-4R

57+17'S', 33' LT
57+19'S', 49' LT
TR4W
58+03'S', 2' RT
58+61'S', 6' RT
59+70'S', 40' RT
RPM12 (TYP.)
TR4W (3'/9')
RPM8
58+00 'S'
59+00 'S'
60+00 'S'
61+00 'S'
62+20 'S'
63+00 'S'
SB STH 65
TR4Y
25'(TYP.)
DRUM SPACING
TR8W
58+97'N', 12' LT
57+16'S', 15' RT
58+00 'N'
59+00 'N'
60+00 'N'
61+00 'N'
62+00 'N'
63+00 'N'
MATCH LINE STA. 57+00 'N'
MATCH LINE STA. 63+00 'N'
NB STH 65
57+08'S', 13' RT
59+35'N', 5' RT
60+49'N', 16' RT
60+72'N', 5' RT
TR4W
12'(TYP.)
25'(TYP.)
W01-6
48"X24"
LANE CLOSED
R11-2-L
MOVE
MOVE
ROUNDABOUT AHEAD
MOVE
15 M.P.H.

PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	TRAFFIC CONTROL - STAGE 3	SHEET 161 E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\TRAFFIC CONTROL\026001-S3.DWG
LAYOUT NAME - STG1 - (4)
PLOT DATE : 10/19/2022
PLOT BY : KL ENGINEERING
PLOT NAME : ----------
PLOT SCALE : **********

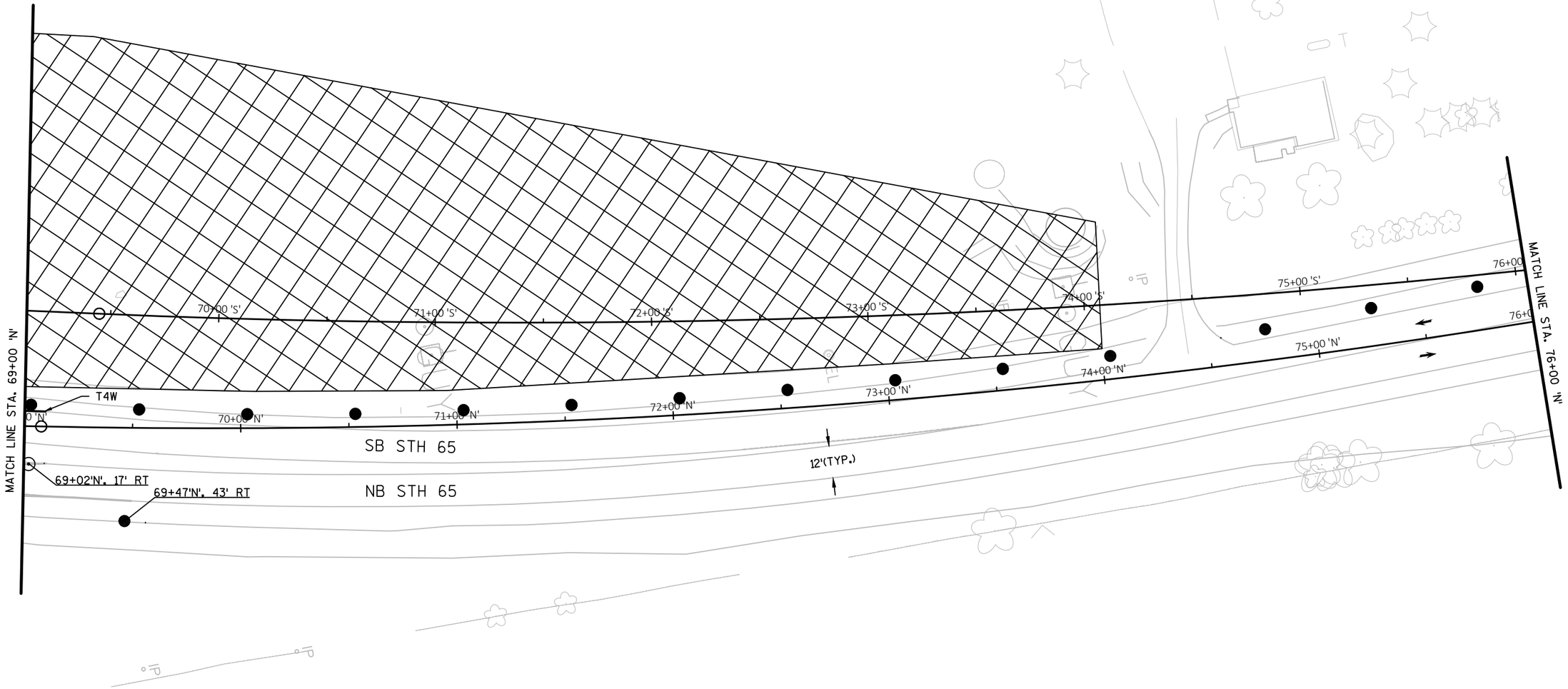
2



PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	TRAFFIC CONTROL - STAGE 3	SHEET 162 E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\TRAFFIC CONTROL\026001-S3.DWG PLOT DATE : 10/19/2022 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : **********
LAYOUT NAME - STG1 - (5)
WISDOT/CADDS SHEET 42

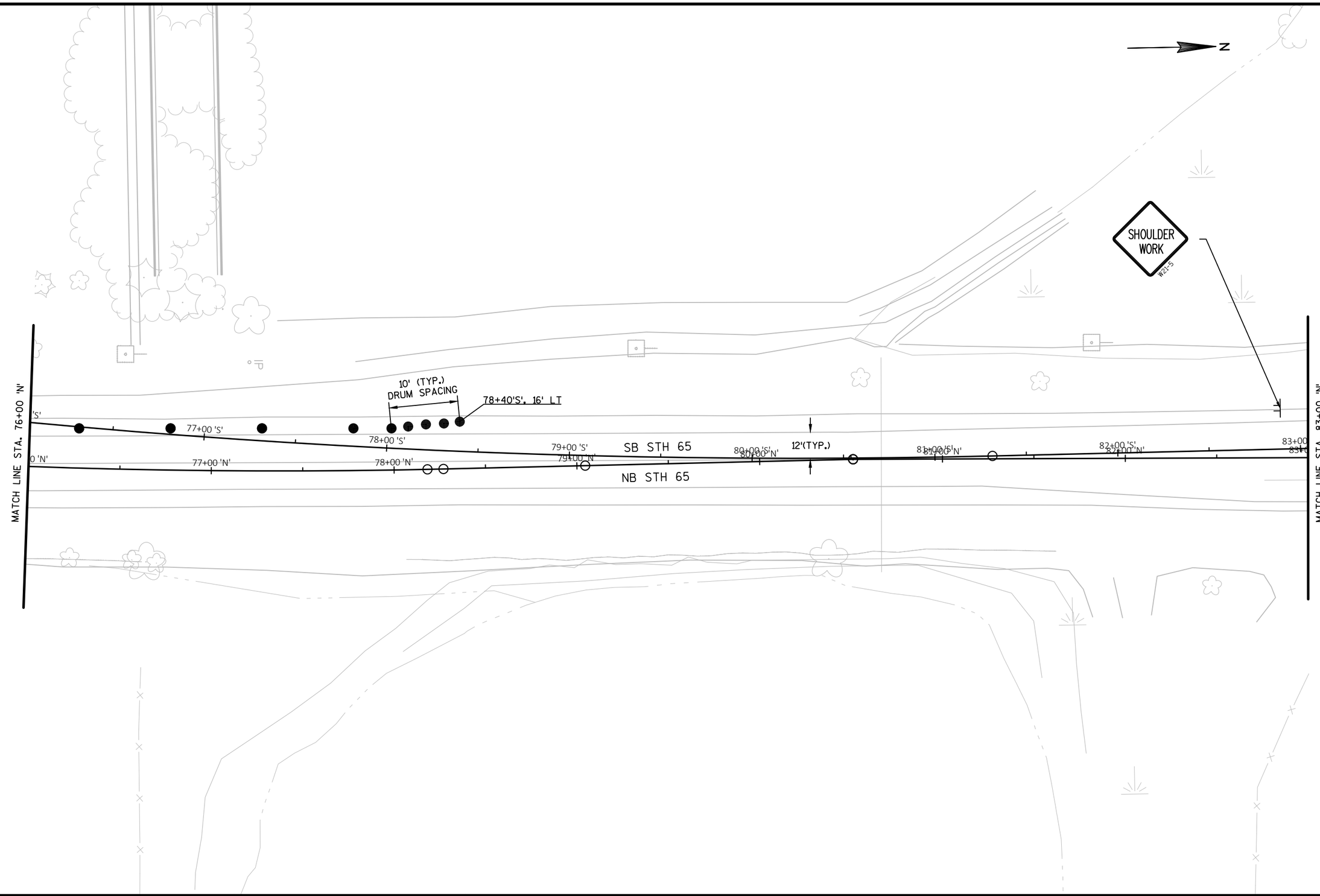
2



PROJECT NO:1540-04-73	HWY:STH 65	COUNTY:ST. CROIX	TRAFFIC CONTROL - STAGE 3	SHEET 163 E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\TRAFFIC CONTROL\026001-S3.DWG PLOT DATE : 10/19/2022 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : **********
LAYOUT NAME - STG1 - (6)

2



PROJECT NO:1540-04-73	HWY:STH 65	COUNTY:ST. CROIX	TRAFFIC CONTROL - STAGE 3	SHEET 164 E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\TRAFFIC CONTROL\026001-S3.DWG
LAYOUT NAME - STG1 - (7)
PLOT DATE : 10/19/2022
PLOT BY : KL ENGINEERING
PLOT NAME : ----------
PLOT SCALE : **********
WISDOT/CADDS SHEET 42

2

N

STOP
R1-1
30"X30"

STOP
R1-1
30"X30"

13+23.76, -16.20' LT

50' (TYP.)

12' (TYP.)

70TH AVENUE

16+53'TR', 14' RT

17+52'TR', 20' RT

RPM4

T4W

T4W

25' DRUM SPACING

15+39'E', 21' LT

TR4W

13+49.22, 28.95' RT

11+82'E', 19' RT

12+78'E', 31' RT

14+37.85, 2.66' RT

16+99'E', 33' RT

17+21'E', 35' RT

ROAD CLOSED
R11-2

ROAD CLOSED

ROAD CLOSED
R11-2

MOVE

STOP

TRAVEL PLAZA

MATCH LINE STA. 18+50 'E'

PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	TRAFFIC CONTROL - STAGE 3	SHEET 165 E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\TRAFFIC CONTROL\026001-S3.DWG
LAYOUT NAME - STG1 - (8)
PLOT DATE : 10/19/2022
PLOT BY : KL ENGINEERING
PLOT NAME : ----------
PLOT SCALE : **********
WISDOT/CADDS SHEET 42

N

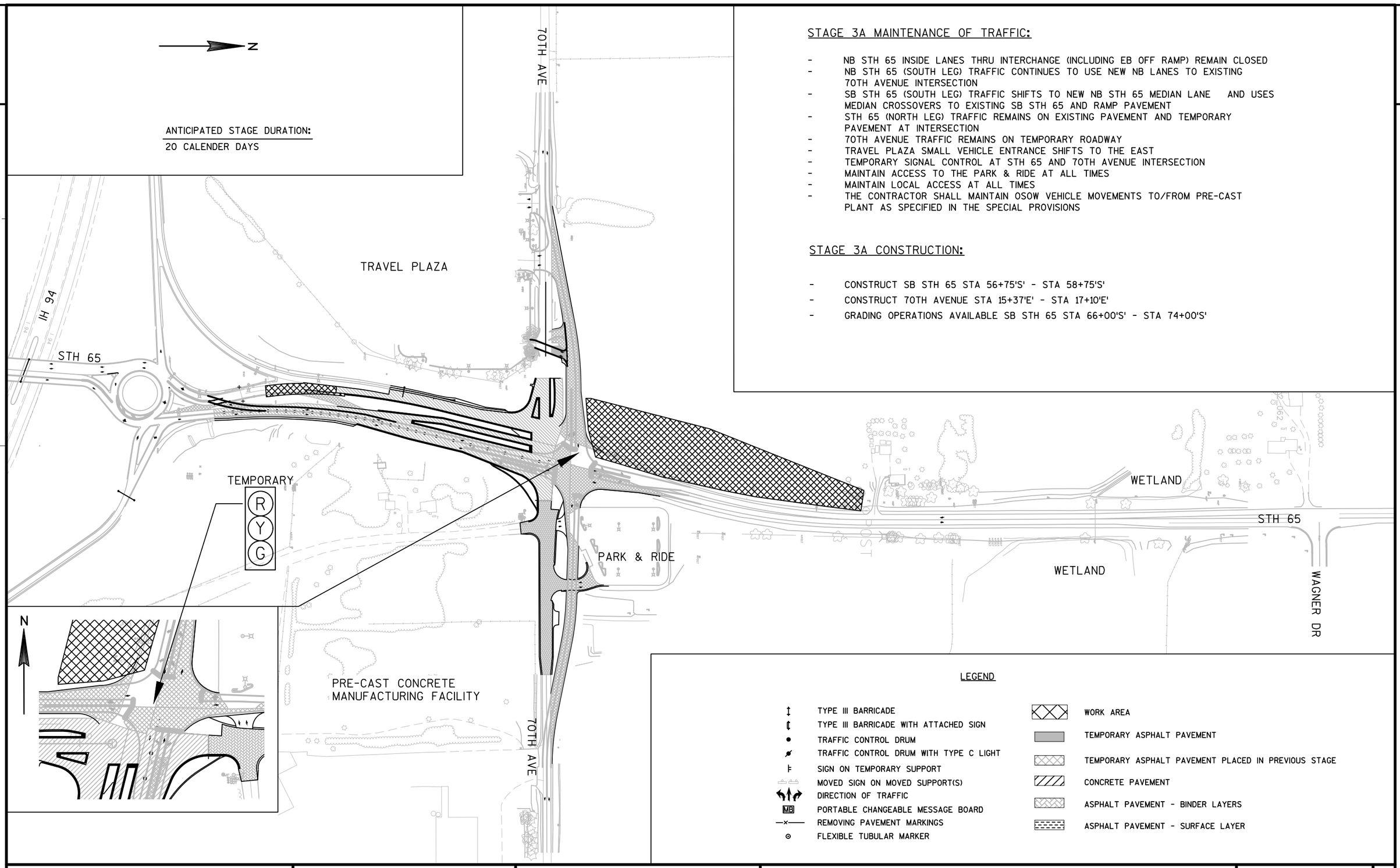
ANTICIPATED STAGE DURATION:
20 CALENDER DAYS

STAGE 3A MAINTENANCE OF TRAFFIC:

- NB STH 65 INSIDE LANES THRU INTERCHANGE (INCLUDING EB OFF RAMP) REMAIN CLOSED
- NB STH 65 (SOUTH LEG) TRAFFIC CONTINUES TO USE NEW NB LANES TO EXISTING 70TH AVENUE INTERSECTION
- SB STH 65 (SOUTH LEG) TRAFFIC SHIFTS TO NEW NB STH 65 MEDIAN LANE AND USES MEDIAN CROSSOVERS TO EXISTING SB STH 65 AND RAMP PAVEMENT
- STH 65 (NORTH LEG) TRAFFIC REMAINS ON EXISTING PAVEMENT AND TEMPORARY PAVEMENT AT INTERSECTION
- 70TH AVENUE TRAFFIC REMAINS ON TEMPORARY ROADWAY
- TRAVEL PLAZA SMALL VEHICLE ENTRANCE SHIFTS TO THE EAST
- TEMPORARY SIGNAL CONTROL AT STH 65 AND 70TH AVENUE INTERSECTION
- MAINTAIN ACCESS TO THE PARK & RIDE AT ALL TIMES
- MAINTAIN LOCAL ACCESS AT ALL TIMES
- THE CONTRACTOR SHALL MAINTAIN OSOW VEHICLE MOVEMENTS TO/FROM PRE-CAST PLANT AS SPECIFIED IN THE SPECIAL PROVISIONS

STAGE 3A CONSTRUCTION:

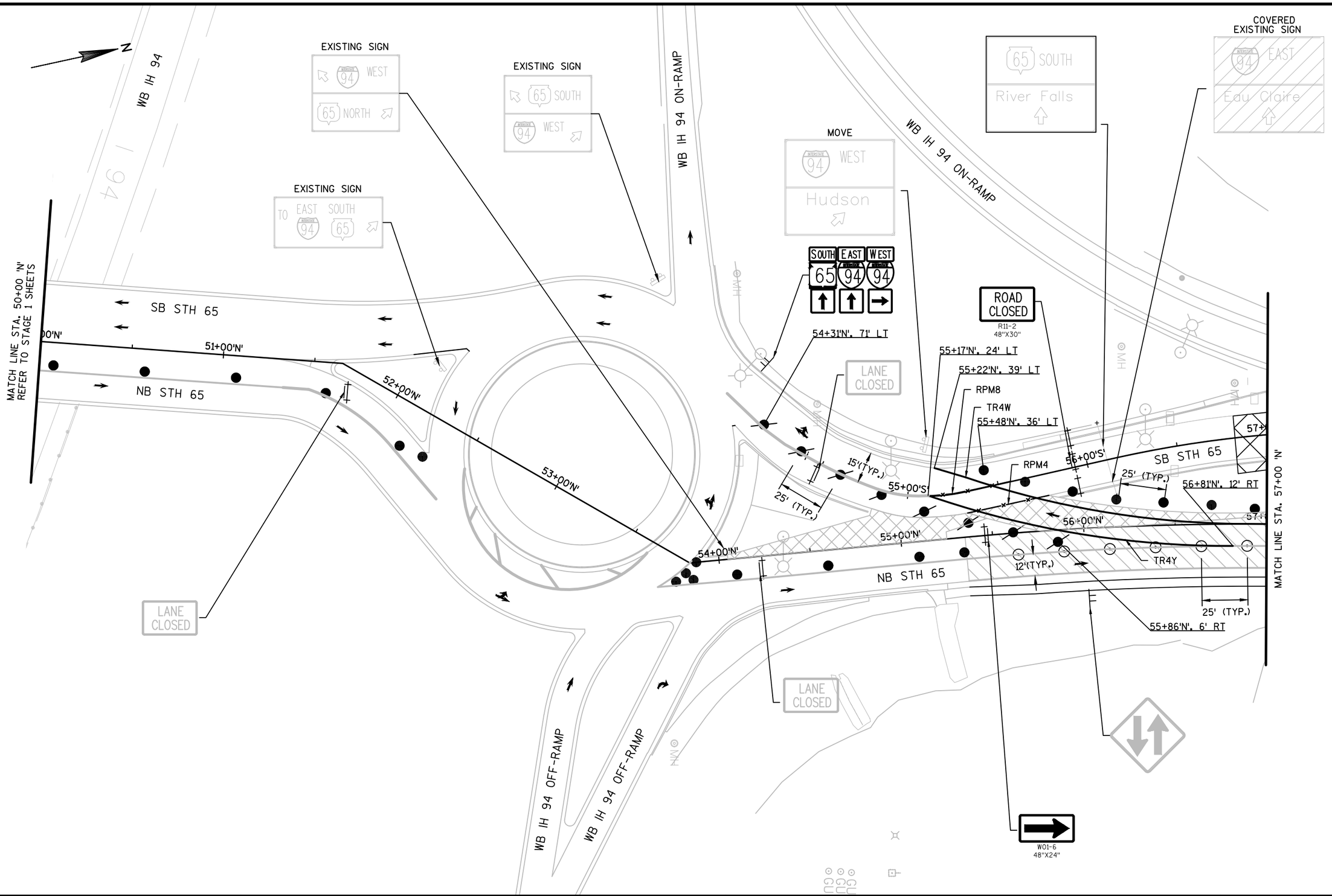
- CONSTRUCT SB STH 65 STA 56+75'S' - STA 58+75'S'
- CONSTRUCT 70TH AVENUE STA 15+37'E' - STA 17+10'E'
- GRADING OPERATIONS AVAILABLE SB STH 65 STA 66+00'S' - STA 74+00'S'



LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C LIGHT
- SIGN ON TEMPORARY SUPPORT
- MOVED SIGN ON MOVED SUPPORT(S)
- DIRECTION OF TRAFFIC
- PORTABLE CHANGEABLE MESSAGE BOARD
- REMOVING PAVEMENT MARKINGS
- FLEXIBLE TUBULAR MARKER
- WORK AREA
- TEMPORARY ASPHALT PAVEMENT
- TEMPORARY ASPHALT PAVEMENT PLACED IN PREVIOUS STAGE
- CONCRETE PAVEMENT
- ASPHALT PAVEMENT - BINDER LAYERS
- ASPHALT PAVEMENT - SURFACE LAYER

PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	TRAFFIC CONTROL OVERVIEW - STAGE 3A	SHEET 166 E



PROJECT NO:1540-04-73	HWY:STH 65	COUNTY:ST. CROIX	TRAFFIC CONTROL - STAGE 3A	SHEET 167 E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\TRAFFIC CONTROL\026001-S3A.DWG
LAYOUT NAME - STG1 - (3)
PLOT DATE : 10/19/2022 PLOT BY : KL ENGINEERING PLOT NAME : _____ PLOT SCALE : **********
WISDOT/CADDS SHEET 42

2

N

MOVE

65 SOUTH

INTERSTATE 94 WEST

COVER/CHANGE ARROW

MOVE

ROUNDABOUT AHEAD

MOVE

15 M.P.H.

MOVE

MP

POST

MP

POST

MP

MATCH LINE STA. 57+00 'N'

58+00'S'

59+00'S'

60+00'S'

61+00'S'

62+00'S'

63+00'S'

MATCH LINE STA. 63+00 'N'
REFER TO STAGE 3 SHEETS

TR4W

50' (TYP.)

60+55'N', 4' RT

50+00'N'

50+00'N'

12'(TYP.)

60+00'N'

TR4W

25' (TYP.)

SB STH 65

NB STH 65

ROAD CLOSED

R11-2
48"X30"

PROJECT NO:1540-04-73	HWY:STH 65	COUNTY:ST. CROIX	TRAFFIC CONTROL - STAGE 3A	SHEET 168 E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\TRAFFIC CONTROL\026001-S3A.DWG
LAYOUT NAME - STG1 - (4)
PLOT DATE : 10/19/2022
PLOT BY : KL ENGINEERING
PLOT NAME : ----------
PLOT SCALE : **********

2

N

70TH AVENUE

50' (TYP.)

12'(TYP.)

25' (TYP.)

14+00'TR'

15+00'TR'

16+00'TR'

16+53'TR', 14' RT

17+00'TR'

18+00'TR'

TR4W

RPM4

17+82'TR', 22' RT

17+70'TR', 35' RT

ROAD CLOSED
R11-2
48"X30"

MATCH LINE STA. 18+50 'E'
REFER TO STAGE 3 SHEETS

14+00'E'

15+00'E'

16+00'E'

17+00'E'

18+00'E'

TR4W

17+01'E', 43' RT

17+24'E', 30' RT

MOVE

STOP

ROAD CLOSED
R11-2
48"X30"

ROAD CLOSED

TRAVEL PLAZA

IP

MP

MH

VLV

WV

POST

AG

PROJECT NO:1540-04-73	HWY:STH 65	COUNTY:ST. CROIX	TRAFFIC CONTROL - STAGE 3A	SHEET 169 E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\TRAFFIC CONTROL\026001-S3A.DWG
LAYOUT NAME - STG1 - (8)

PLOT DATE : 10/19/2022 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : **********

2

N

ANTICIPATED STAGE DURATION:
66 CALENDER DAYS

STAGE 4 MAINTENANCE OF TRAFFIC:

- NB STH 65 INSIDE LANES THRU INTERCHANGE (INCLUDING EB OFF RAMP) REMAIN CLOSED
- NB STH 65 (SOUTH LEG) TRAFFIC CONTINUES TO USE NEW NB LANES TO 70TH AVENUE INTERSECTION
- SB STH 65 (SOUTH LEG) TRAFFIC SHIFTS TO NEW SB STH 65 LANE AND EXISTING RAMP LANE
- STH 65 (NORTH LEG) IS CLOSED AND TRAFFIC USES DETOUR ROUTE
- 70TH AVENUE TRAFFIC SHIFTS TO NEW LANES
- TEMPORARY SIGNAL CONTROL AT STH 65 AND 70TH AVENUE INTERSECTION
- MAINTAIN ACCESS TO THE PARK & RIDE AT ALL TIMES
- MAINTAIN LOCAL ACCESS AT ALL TIMES
- THE CONTRACTOR SHALL MAINTAIN OSOW VEHICLE MOVEMENTS TO/FROM PRE-CAST PLANT AS SPECIFIED IN THE SPECIAL PROVISIONS

STAGE 4 CONSTRUCTION:

- CONSTRUCT STH 65 STA 65+20'N' - STA 82+70'N'; INCLUDING ALL CURB & GUTTER, ISLANDS, MEDIANS, AND PAVEMENT MARKING
- CONSTRUCT STH 65 MEDIAN CURB & GUTTER AND SIDEWALK STA 55+05'N' - STA 61+00'N'
- CONSTRUCT OVERHEAD SIGN BRIDGE SB STH 65 STA 72+29'S'
- CONSTRUCT REMAINING 70TH AVENUE, PARK & RIDE, BUS PAD, AND SIDEWALK
- REMOVE MEDIAN CROSSOVER TEMPORARY PAVEMENT STA 54+05'N' - STA 60+50'N'
- REMOVE TEMPORARY ROADWAY ALONG 70TH AVENUE
- REPLACE PAVEMENT MARKING ARROWS AND WORDS AT STH 65 AND 70TH AVENUE AS NEEDED WITH TEMPORARY MARKING ARROW (WORD) TAPE ACCORDING TO THE S.D.D: PAVEMENT MARKING (TURN LANES) AND THE FIELD ENGINEER

70TH AVE
TRAVEL PLAZA
IH 94
STH 65
TEMPORARY
R
Y
G
PARK & RIDE
WETLAND
WETLAND
STH 65
WAGNER DR
PRE-CAST CONCRETE MANUFACTURING FACILITY
70TH AVE

N

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C LIGHT
- SIGN ON TEMPORARY SUPPORT
- MOVED SIGN ON MOVED SUPPORT(S)
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- REMOVING PAVEMENT MARKINGS
- FLEXIBLE TUBULAR MARKER
- WORK AREA
- TEMPORARY ASPHALT PAVEMENT
- TEMPORARY ASPHALT PAVEMENT PLACED IN PREVIOUS STAGE
- CONCRETE PAVEMENT
- ASPHALT PAVEMENT - BINDER LAYERS
- ASPHALT PAVEMENT - SURFACE LAYER

PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	TRAFFIC CONTROL OVERVIEW - STAGE 4	SHEET 170 E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\TRAFFIC CONTROL\026001-S4.DWG PLOT DATE : 10/19/2022 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : 1IN:250FT

N

WB IH 94

I 94

EXISTING SIGN

65 SOUTH

94 WEST

EXISTING SIGN

TO EAST 94 SOUTH 65

WB IH 94 ON-RAMP

COVERED EXISTING SIGN

94 EAST

Eau Claire

EAST 94

J2-1
24"X57"

MOVE

65 SOUTH

94 WEST

56+82'S', 52' LT

65 SOUTH

River Falls

MATCH LINE STA. 50+00 'N'
REFER TO STAGE 1 SHEETS

SB STH 65

00'N'

51+00'N'

NB STH 65

52+00'N'

LANE CLOSED

R11-2-L
48"X30"

56+08'S', 12' LT

54+40'S', 0'

15'(TYP.)

55+00'S'

TR4Y

56+00'S

SB STH 65

53+00'N'

ROAD CLOSED AHEAD

W20-3-A

56+00'N'

55+00'N'

54+00'N'

12'(TYP.)

50' (TYP.)

NB STH 65

MATCH LINE STA. 57+00 'N'

ROAD CLOSED
.1 MILES AHEAD
LOCAL TRAFFIC ONLY

R11-3
60"X30"

WB IH 94 OFF-RAMP

WB IH 94 OFF-RAMP

LANE CLOSED

NOTE:
SEE DETOUR PLAN FOR SIGNING NOT SHOWN

PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	TRAFFIC CONTROL - STAGE 4	SHEET 171 E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\TRAFFIC CONTROL\026001-S4.DWG
LAYOUT NAME - STG1 - (3)
PLOT DATE : 10/19/2022
PLOT BY : KL ENGINEERING
PLOT NAME : ---------- PLOT SCALE : **********
WISDOT/CADDS SHEET 42

NOTE:
SEE DETOUR PLAN FOR SIGNING NOT SHOWN

MOVE

MOVE

MOVE

MOVE

LANE CLOSED
R11-2-L
48"X30"

LANE CLOSED
R11-2-L
48"X30"

57+62'S, 36' LT

57+74'S, 22' LT

TR8W

TR4W (3'/9')

58+98'S, 29' LT

TR4W

62+70'S, 24' LT

SB STH 65

58+00'S

59+00'S

60+00'S

61+00'S

62+00'S

63+00'S

TR4Y

MATCH LINE STA. 57+00 'N'

58+00'N

59+00'N

60+00'N

61+00'N

62+00'N

63+

50' (TYP.)

12'(TYP.)

TR4Y

TR8W

59+66'N, 12' RT

59+75'N, 23' RT

NB STH 65

TRAW

25' (TYP.)

MATCH LINE STA. 63+00 'N'

LANE CLOSED
R11-2-L
48"X30"

COVER

LANE CLOSED
R11-2-L
48"X30"

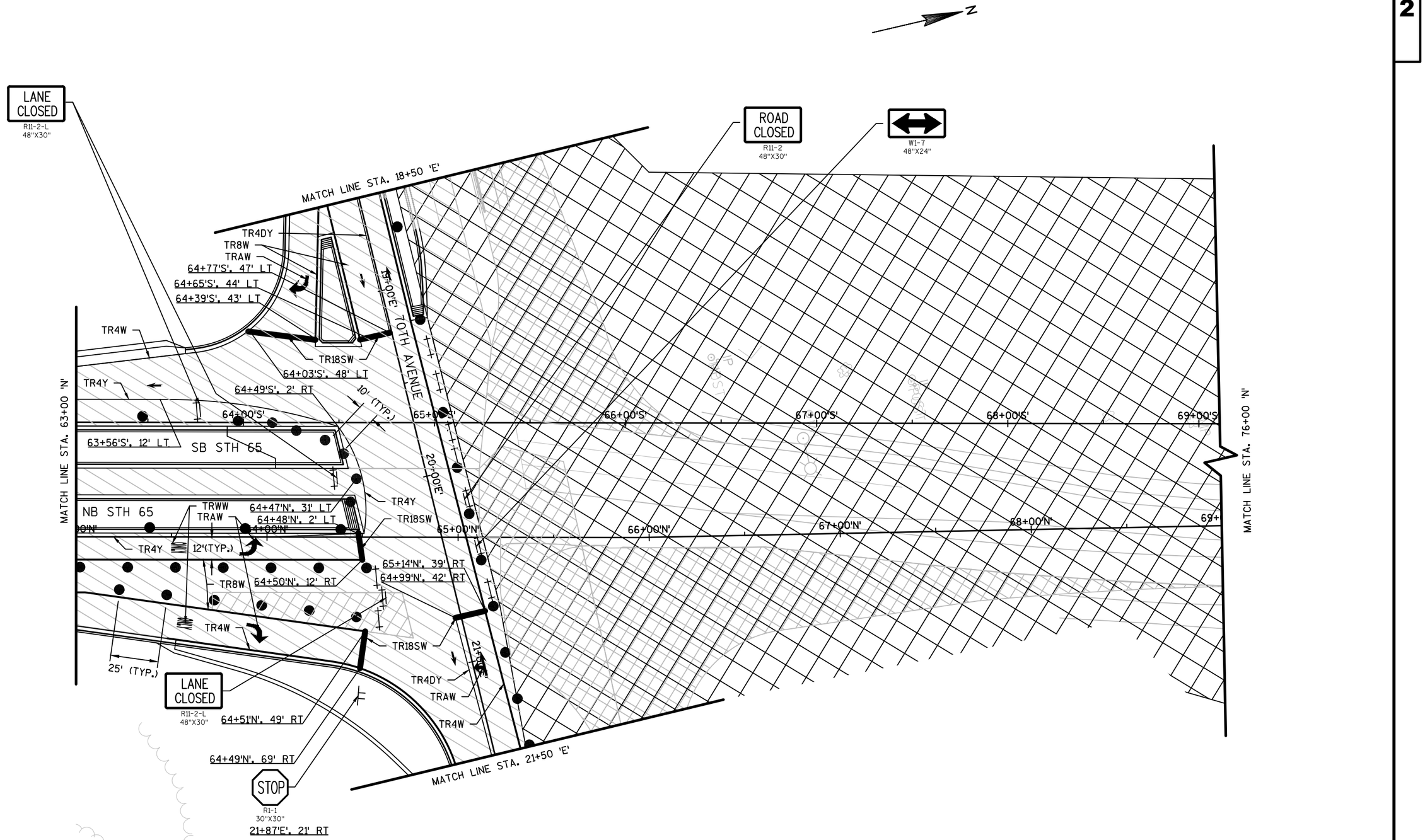
ROAD CLOSED 500 FT
W20-3-D

MOVE

COVER

PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	TRAFFIC CONTROL - STAGE 4	SHEET 172 E

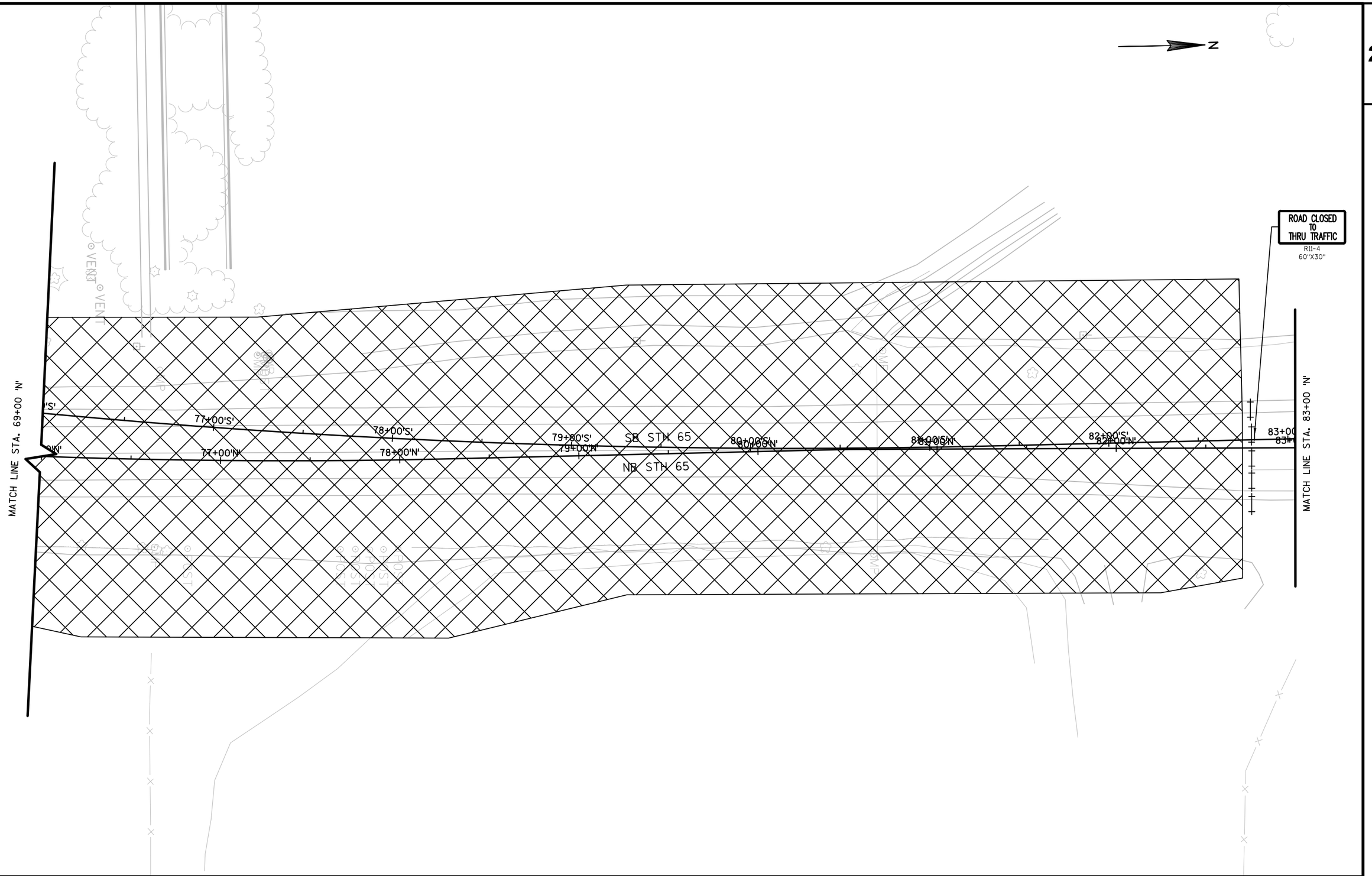
2



PROJECT NO:1540-04-73	HWY:STH 65	COUNTY:ST. CROIX	TRAFFIC CONTROL - STAGE 4	SHEET 173 E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\TRAFFIC CONTROL\026001-S4.DWG
LAYOUT NAME - STG1 - (5)
PLOT DATE : 10/19/2022
PLOT BY : KL ENGINEERING
PLOT NAME : _____ PLOT SCALE : **********
WISDOT/CADDS SHEET 42

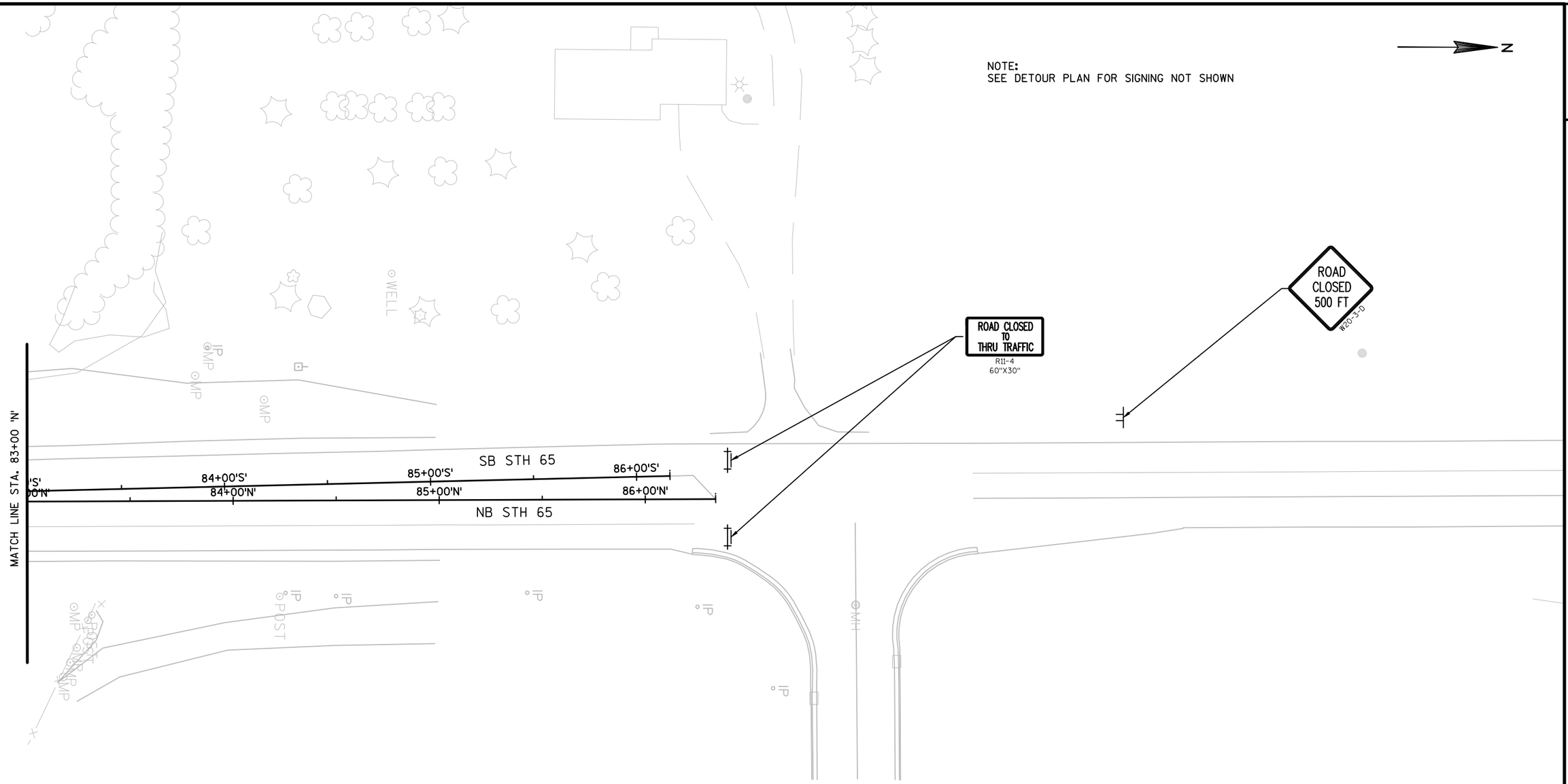
2


N
ROAD CLOSED TO THRU TRAFFIC
R11-4
60"X30"
MATCH LINE STA. 69+00 'N'
MATCH LINE STA. 83+00 'N'
77+00'S'
77+00'N'
78+00'S'
78+00'N'
79+00'S'
79+00'N'
SB STH 65
NB STH 65
80+00'S'
80+00'N'
82+00'S'
82+00'N'
83+00
83+
VENT
VENT
SNP
SNP
SNP

2

NOTE:
SEE DETOUR PLAN FOR SIGNING NOT SHOWN

N



PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	TRAFFIC CONTROL - STAGE 4	SHEET 175 E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\TRAFFIC CONTROL\026001-S4.DWG
LAYOUT NAME - STG1 - (8)
PLOT DATE : 10/19/2022
PLOT BY : KL ENGINEERING
PLOT NAME : _____
PLOT SCALE : **********

2

N

MOVE

MOVE

MOVE

MOVE

11+70'E', 14' LT

50' (TYP.)

12+00'E'

13+00'E'

14+00'E'

15+00'E'

16+00'E'

17+00'E'

18+10'E', 11' LT

18+00'E'

TR4W

12'(TYP.)

TR4DY

TR8W

MATCH LINE STA. 18+50 'E'

18+32'E', 17' RT

ONLY ONLY

R3-8-D

36"X30"

70TH AVENUE

MOVE

MOVE

MOVE

MOVE

TRAVEL PLAZA

IP

MP

MH

WV

VLV

POST

PROJECT NO:1540-04-73	HWY:STH 65	COUNTY:ST. CROIX	TRAFFIC CONTROL - STAGE 4	SHEET 176 E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\TRAFFIC CONTROL\026001-S4.DWG
LAYOUT NAME - STG1 - (8)

PLOT DATE : 10/19/2022 PLOT BY : KL ENGINEERING PLOT NAME : _____ PLOT SCALE : **********

2

N

25' (TYP.)

PARK & RIDE

21+99'E, 20' LT

22+12'E, 30' LT

22+40'E, 11' LT

22+48'E, 23' LT

MOVE

STOP

MAINTAIN DRIVEWAY ACCESS AT ALL TIMES.

MOVE

IP

MATCH LINE STA. 21+50 'E'

T4W

22+00'E

23+00'E

24+00'E

12'(TYP.)

25+00'E

26+00'E

26+51'E, 12' LT

27+00'E

50' (TYP.)

28+00'E

70TH AVENUE

26+51'E, 12' RT

MATCH LINE STA. 28+50 'E'

TR4DY

TR4W

T4W

T4DY

MOVE

RIDESHARE INFO CALL

1-800-455-POOL

MOVE

SPEED LIMIT 45

MOVE

MOVE

PARK & RIDE

21+87'E, 21' RT

22+59'E, 13' RT

MOVE

STOP

NOTE:
STAGE THE REMOVAL OF THE TEMPORARY ROADWAY AND FINAL PARK AND RIDE LOT PAVEMENT SURFACE TO PROVIDE ACCESS AT ALL TIMES.

PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	TRAFFIC CONTROL - STAGE 4	SHEET 177 E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\TRAFFIC CONTROL\026001-S4.DWG PLOT DATE : 10/19/2022 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : **********
LAYOUT NAME - STG1 - (8)

2

N

SHOULDER WORK
W21-5

MATCH LINE STA. 28+50 'E'

50' (TYP.)

12'(TYP.)

29+00'E' 30+00'E' 31+00'E' 32+00'E' 33+00'E' 34+00'E' 35+00'E'

⊙MP

10' (TYP.) (ON TAPER)

33+40'E', 24' LT

70TH AVENUE

MAINTAIN ACCESS FOR OSOW MOVEMENTS AT ALL TIMES

PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	TRAFFIC CONTROL - STAGE 4	SHEET 178 E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\TRAFFIC CONTROL\026001-S4.DWG PLOT DATE : 10/19/2022 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : **********
LAYOUT NAME - STG1 - (8)

WISDOT/CADDS SHEET 42

2

N

ANTICIPATED STAGE DURATION:
17 CALENDER DAYS

STAGE 4A MAINTENANCE OF TRAFFIC:

- NB STH 65 INSIDE LANE THRU INTERCHANGE (INCLUDING EB OFF RAMP) REMAIN CLOSED
- NB STH 65 TRAFFIC TO USE NEW NB LANES
- SB STH 65 TRAFFIC TO USE NEW SB LANES
- 70TH AVENUE TRAFFIC TO USE NEW LANES
- TEMPORARY SIGNAL CONTROL AT STH 65 AND 70TH AVENUE INTERSECTION
- PORTION OF PARK & RIDE CLOSED, MAINTAIN ACCESS AT ALL TIMES
- MAINTAIN LOCAL ACCESS AT ALL TIMES
- THE CONTRACTOR SHALL MAINTAIN OSOW VEHICLE MOVEMENTS TO/FROM PRE-CAST PLANT AS SPECIFIED IN THE SPECIAL PROVISIONS

STAGE 4A CONSTRUCTION:

- CONSTRUCT NB STH 65 RIGHT TURN ISLAND STA 63+70'N' - STA 64+75'N'
- CONSTRUCT SB STH 65 MEDIAN STA 63+75'S' - STA 64+60'S'
- CONSTRUCT 70TH AVENUE HMA PAVEMENT SURFACE LIFT
- CONSTRUCT PERMANENT INTERSECTION SIGNALS
- CONSTRUCT REMAINDER OF PARK & RIDE
- REMOVE TEMPORARY SIGNALS
- REPLACE PAVEMENT MARKING ARROWS AND WORDS AT STH 65 AND 70TH AVENUE AS NEEDED WITH TEMPORARY MARKING ARROW (WORD) TAPE ACCORDING TO S.D.D: PAVEMENT MARKING (TURN LANES) AND THE FIELD ENGINEER

70TH AVE

TRAVEL PLAZA

IH 94

STH 65

TEMPORARY
R
Y
G

PARK &
RIDE

WETLAND

WETLAND

STH 65

WAGNER DR

PRE-CAST CONCRETE
MANUFACTURING FACILITY

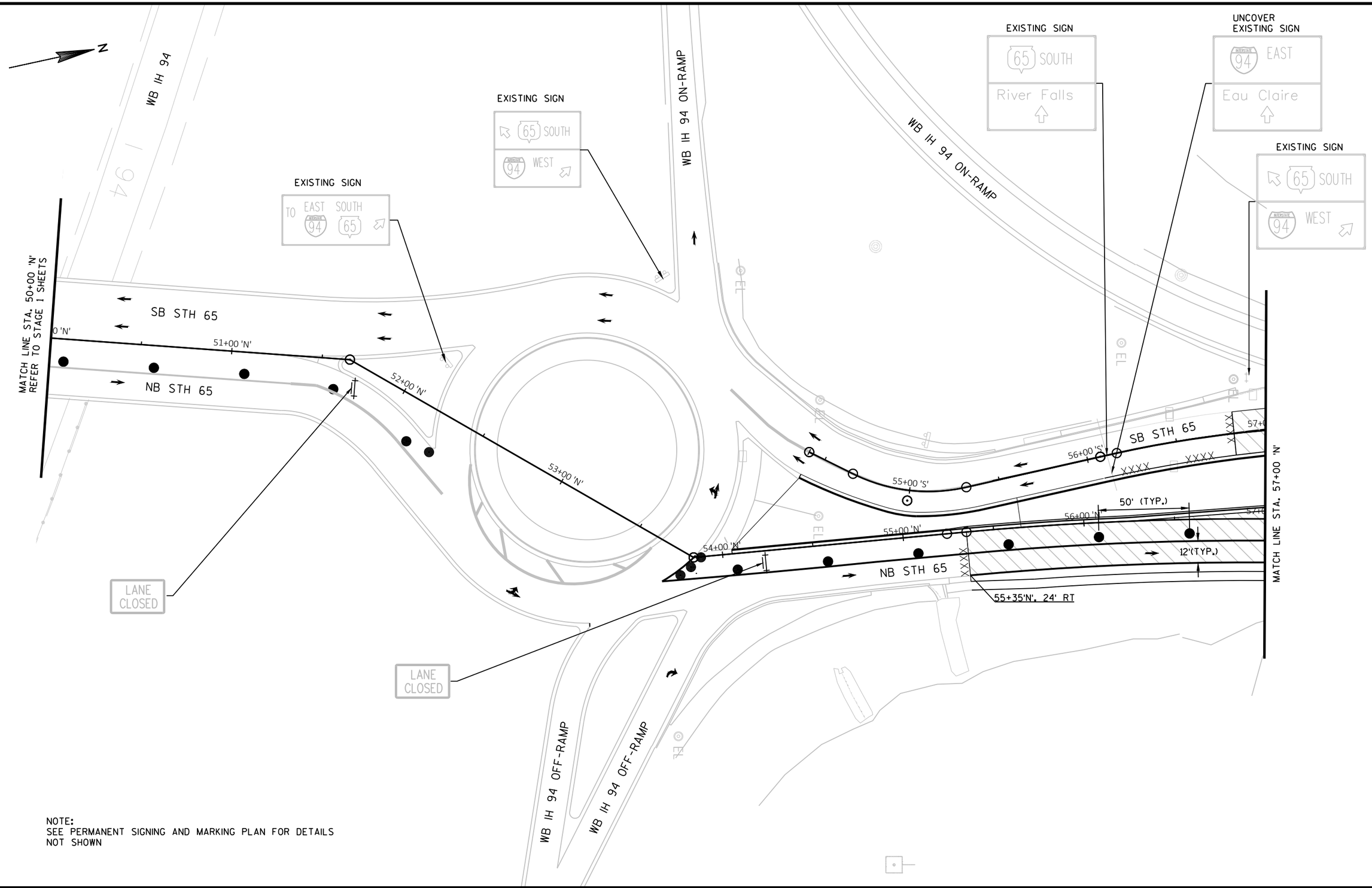
70TH AVE

N

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C LIGHT
- SIGN ON TEMPORARY SUPPORT
- MOVED SIGN ON MOVED SUPPORT(S)
- DIRECTION OF TRAFFIC
- PORTABLE CHANGEABLE MESSAGE BOARD
- REMOVING PAVEMENT MARKINGS
- FLEXIBLE TUBULAR MARKER
- WORK AREA
- TEMPORARY ASPHALT PAVEMENT
- TEMPORARY ASPHALT PAVEMENT PLACED IN PREVIOUS STAGE
- CONCRETE PAVEMENT
- ASPHALT PAVEMENT - BINDER LAYERS
- ASPHALT PAVEMENT - SURFACE LAYER

PROJECT NO:1540-04-73	HWY:STH 65	COUNTY:ST. CROIX	TRAFFIC CONTROL OVERVIEW - STAGE 4A	SHEET 179	E

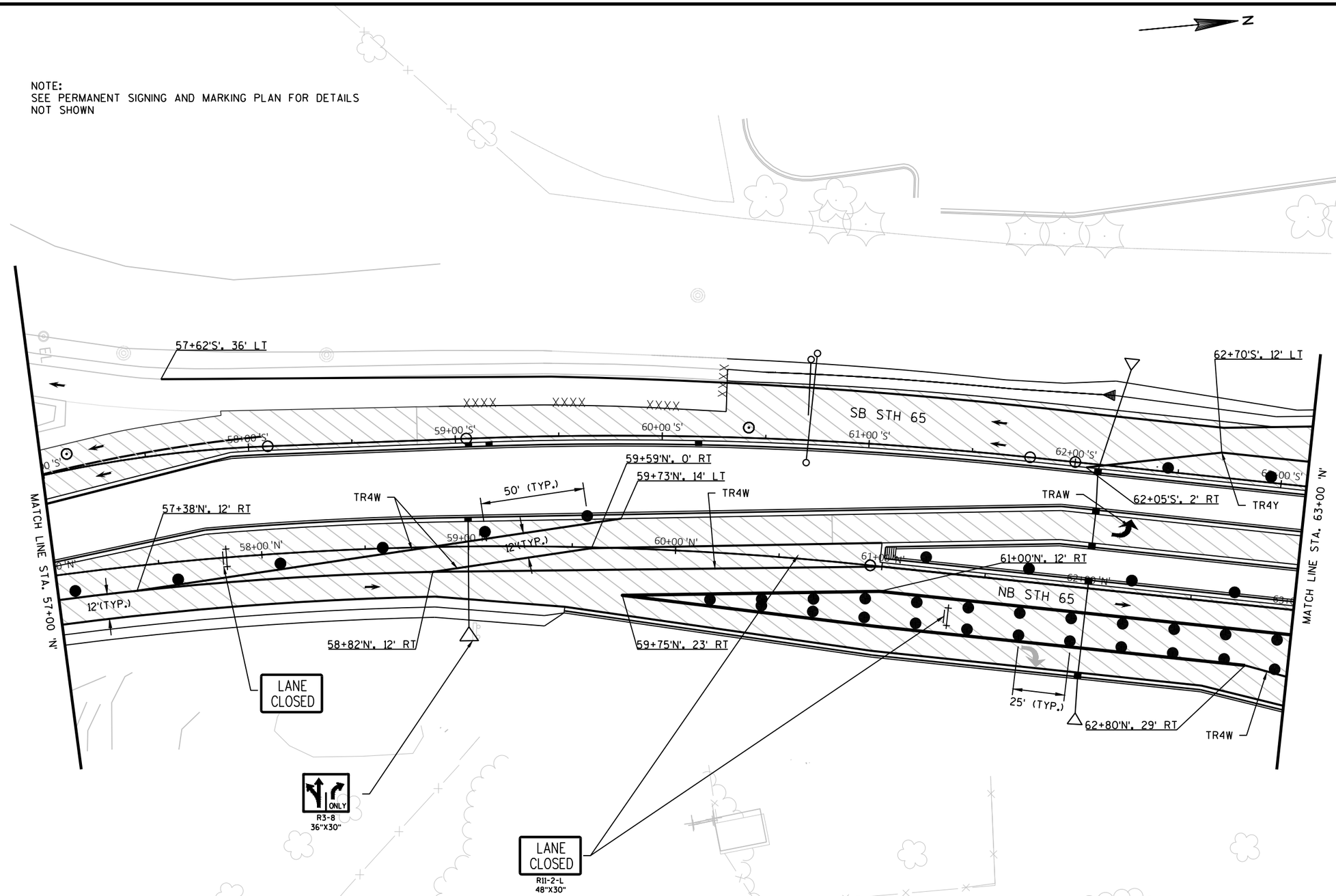


NOTE:
SEE PERMANENT SIGNING AND MARKING PLAN FOR DETAILS NOT SHOWN

PROJECT NO:1540-04-73	HWY:STH 65	COUNTY:ST. CROIX	TRAFFIC CONTROL - STAGE 4A	SHEET 180	E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\TRAFFIC CONTROL\026001-S4A.DWG PLOT DATE : 10/26/2022 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : **********
LAYOUT NAME - STG1 - (3)
WISDOT/CADDS SHEET 42

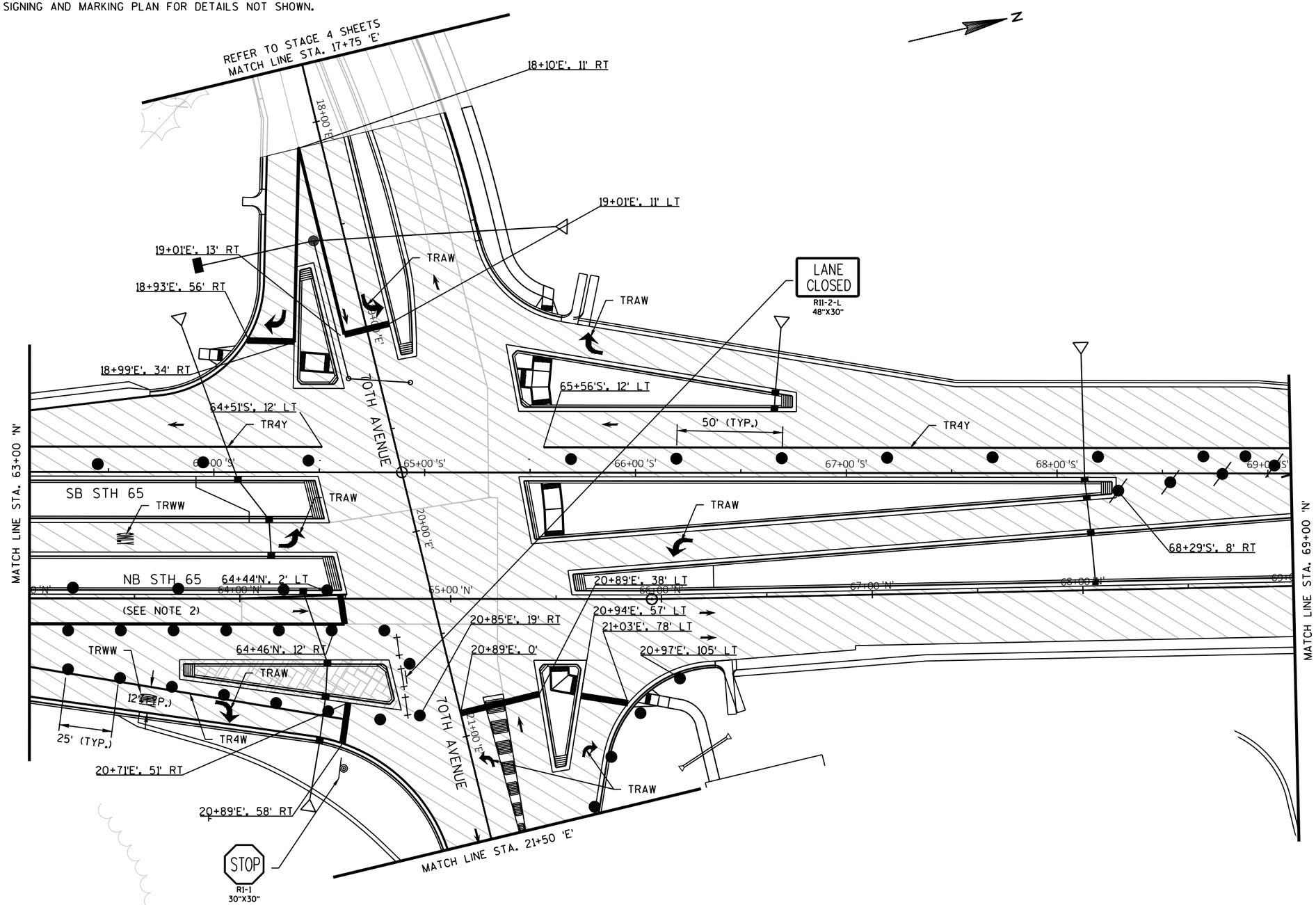
NOTE:
SEE PERMANENT SIGNING AND MARKING PLAN FOR DETAILS
NOT SHOWN



PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	TRAFFIC CONTROL - STAGE 4A	SHEET 181 E

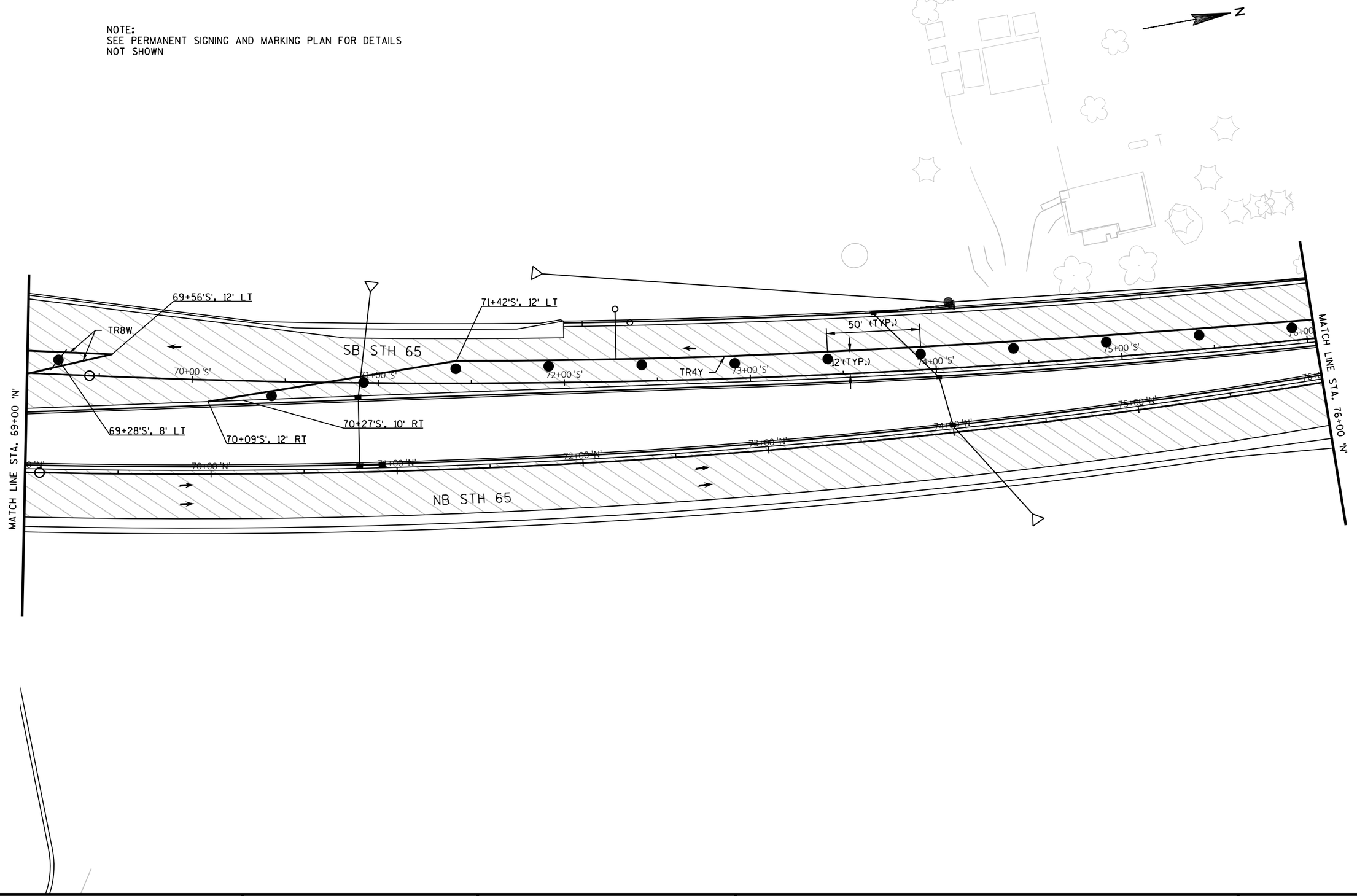
NOTE:

1. SEE PERMANENT SIGNING AND MARKING PLAN FOR DETAILS NOT SHOWN.



PROJECT NO:1540-04-73	HWY:STH 65	COUNTY:ST. CROIX	TRAFFIC CONTROL - STAGE 4A	SHEET 182 E

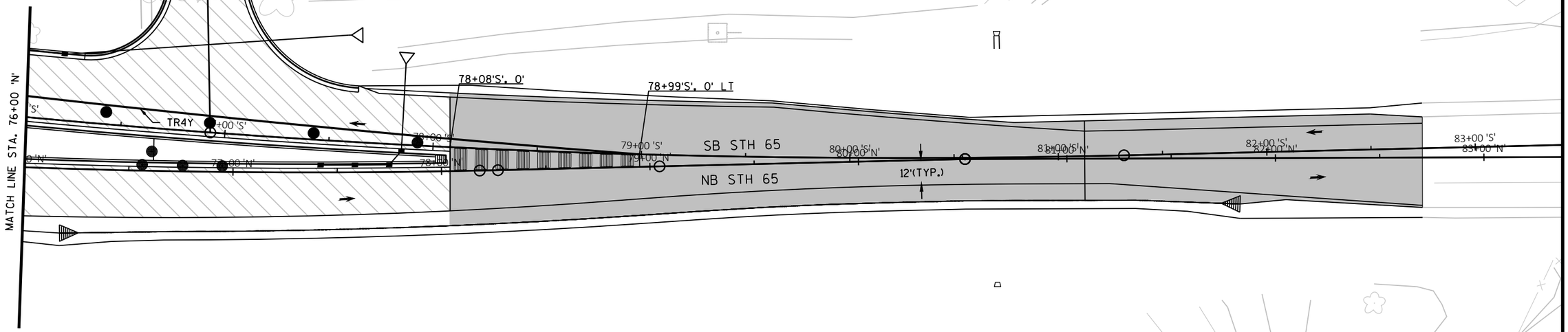
NOTE:
SEE PERMANENT SIGNING AND MARKING PLAN FOR DETAILS
NOT SHOWN



PROJECT NO:1540-04-73	HWY:STH 65	COUNTY:ST. CROIX	TRAFFIC CONTROL - STAGE 4A	SHEET 183	E

NOTE:
SEE PERMANENT SIGNING AND MARKING PLAN FOR DETAILS
NOT SHOWN

N



PROJECT NO:1540-04-73	HWY:STH 65	COUNTY:ST. CROIX	TRAFFIC CONTROL - STAGE 4A	SHEET 184	E

NOTE:
SEE PERMANENT SIGNING AND MARKING PLAN FOR DETAILS
NOT SHOWN

N

PARK & RIDE

21+71'E', 43' LT

23+43'E', 28' LT

24+36'E', 21' LT

MAINTAIN DRIVEWAY ACCESS
AT ALL TIMES

SHOULDER WORK
W21-5

25' (TYP.)

12'(TYP.)

10' SPACING ON TAPER

26+34'E', 24' LT

MATCH LINE STA. 21+50 'E'

22+00 'E'

23+00 'E'

24+00 'E'

25+00 'E'

26+00 'E'

27+00 'E'

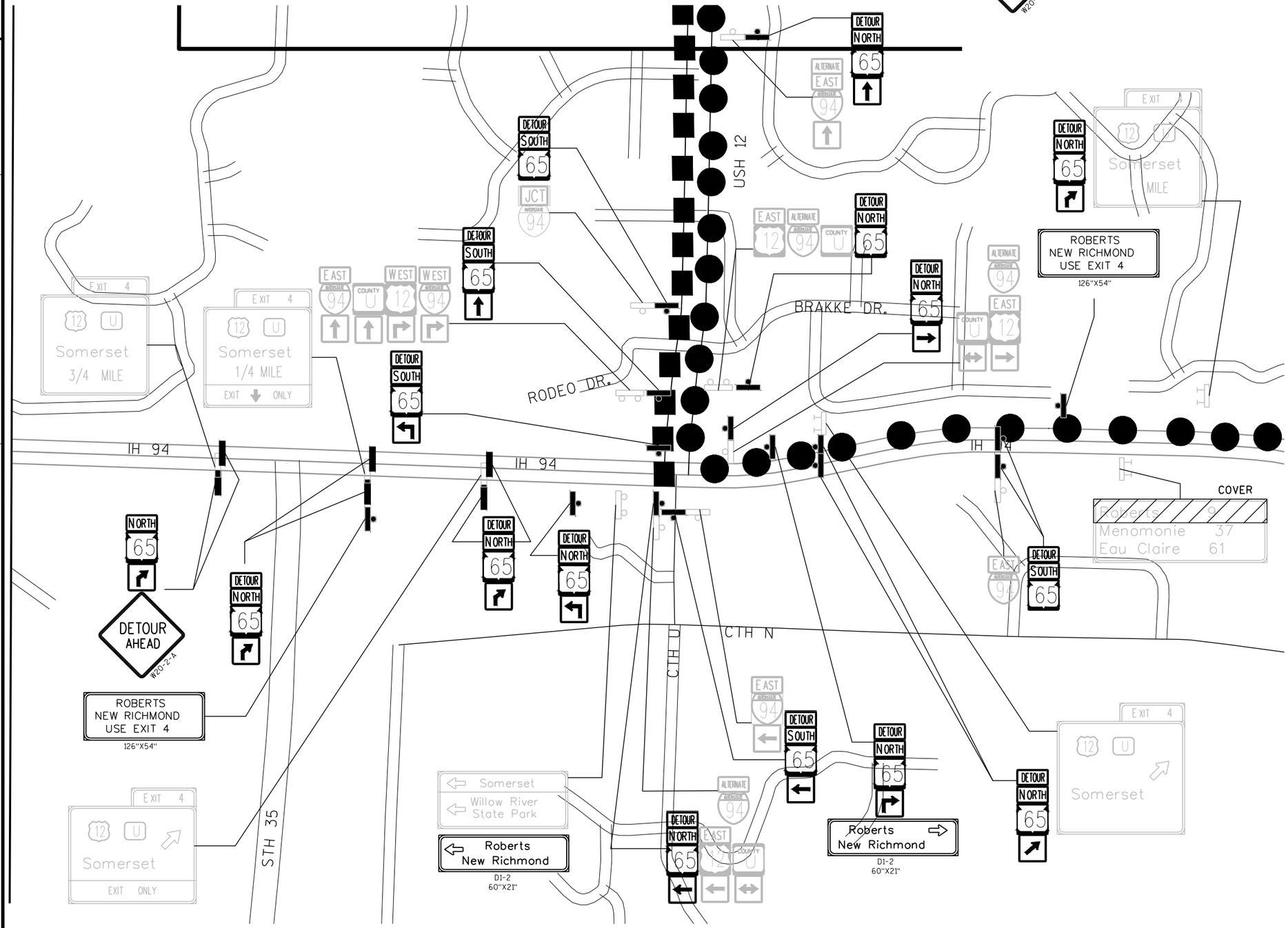
28+00 'E'

70TH AVENUE

PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	TRAFFIC CONTROL - STAGE 4A	SHEET 185	E

SIGN LEGEND

M06-1 21"X21" | M05-1L 21"X21" | M05-1R 21"X21" | M06-4 21"X21" | M06-2 21"X21" | M3-1 NORTH 24"X12" | M3-2 EAST 24"X12" | M3-3 SOUTH 24"X12" | M3-4 WEST 24"X12" | M4-6 END 24"X12" | M4-8 DETOUR 24"X12" | M4-8A END DETOUR 24"X18" | M2-1 JCT 21"X15" | M4-1 ALTERNATE 24"X12" | M1-6 65 36"X36" | M1-5A COUNTY U 24"X24" | M1-1 94 24"X24" | M1-4 12 24"X24" | W20-2-A DETOUR AHEAD | M5-2R 21"X21"



LEGEND

- NB STH 65 DETOUR ROUTE FROM IH 94 EB
- NB STH 65 DETOUR ROUTE FROM IH 94 WB
- NB & SB STH 65 DETOUR ROUTE
- SIGN MOUNTED ON POST
- SIGN MOUNTED ON SIGN BRIDGE OR UTILITY POLE
- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING TYPE I SIGN MOUNTED ON POSTS
- EXISTING SIGN MOUNTED ON SIGN BRIDGE OR UTILITY POLE
- EXISTING SIGN COVERED
- MB PORTABLE CHANGEABLE MESSAGE SIGN

PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	TRAFFIC CONTROL DETOUR PLAN DETAIL SHEET 1 OF 10	SHEET 186 E

SIGN LEGEND

M06-1 21"X21" | M05-1L 21"X21" | M05-1R 21"X21" | M06-4 21"X21" | M06-2 21"X21" | M3-1 24"X12" NORTH | M3-2 24"X12" EAST | M3-3 24"X12" SOUTH | M3-4 24"X12" WEST | M4-6 24"X12" END | M4-8 24"X12" DETOUR | M4-8A 24"X18" END DETOUR | M2-1 21"X15" JCT | M4-1 24"X12" ALTERNATE | M1-6 24"X24" 65 | M1-5A 24"X24" COUNTY U | M1-1 24"X24" 94 | M1-4 24"X24" 12 | W20-2-A DETOUR AHEAD | M5-2R 21"X21"

N

CTH A

CTH A

CTH U

USH 12

USH 12

CTH UU

BADLANDS RD.

Somerset
Roberts
Hammond
New Richmond
D1-1 60"X12"

LEGEND

- NB STH 65 DETOUR ROUTE FROM IH 94 EB
- NB STH 65 DETOUR ROUTE FROM IH 94 WB
- NB & SB STH 65 DETOUR ROUTE
- SIGN MOUNTED ON POST
- SIGN MOUNTED ON SIGN BRIDGE OR UTILITY POLE
- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING TYPE I SIGN MOUNTED ON POSTS
- EXISTING SIGN MOUNTED ON SIGN BRIDGE OR UTILITY POLE
- EXISTING SIGN COVERED
- MB PORTABLE CHANGEABLE MESSAGE SIGN

PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	TRAFFIC CONTROL DETOUR PLAN DETAIL SHEET 2 OF 10	SHEET 187 E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\TRAFFIC CONTROL\027001-DT.DWG PLOT DATE : 9/30/2022 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : 1" = 1000'_XREF

WISDOT/CADDS SHEET 42

SIGN LEGEND

M06-1 21"X21" | M05-1L 21"X21" | M05-1R 21"X21" | M06-4 21"X21" | M06-2 21"X21" | M3-1 24"X12" NORTH | M3-2 24"X12" EAST | M3-3 24"X12" SOUTH | M3-4 24"X12" WEST | M4-6 24"X12" END | M4-8 24"X12" DETOUR | M4-8A 24"X18" END DETOUR | M2-1 21"X15" JCT | M4-1 24"X12" ALTERNATE | M1-6 24"X24" 65 | M1-5A 24"X24" COUNTY U | M1-1 24"X24" 94 | M1-4 24"X24" 12 | W20-2-A DETOUR AHEAD | M5-2R 21"X21"

N

120TH ST.

EAST 12 NORTH 65 — 120th St — SOUTH 65 TO INTERSTATE 94 — COVER

ALTERNATE EAST 94 — COVER

ALTERNATE WEST 12 94 — DETOUR SOUTH 65

DETOUR SOUTH 65

DETOUR SOUTH 65 — ALTERNATE WEST 94 — COVER

COVER — Hudson / River Falls

DETOUR SOUTH 65 — ALTERNATE WEST 94 — COVER

SOUTH 65 — JCT 65 — W20-2-A DETOUR AHEAD

USH 12

USH 12 / STH 65

END DETOUR M4-8A

New Richmond / River Falls

ALTERNATE EAST 94 — COVER

COVER — TO 94 — SOUTH 65 — COVER

ALTERNATE EAST SOUTH 94 65 — COVER

DETOUR SOUTH 65

STH 65

ROAD CLOSED 1.5 MILES AHEAD LOCAL TRAFFIC ONLY R11-3 60"X30"

DETOUR SOUTH 65

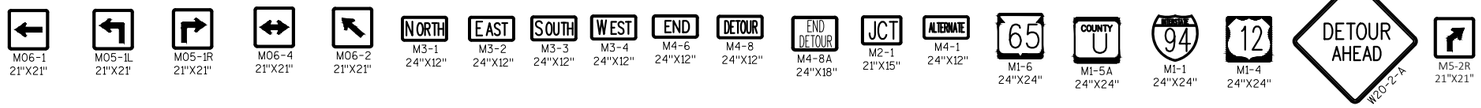
WEST 12 TO I-94 — SOUTH 65 TO INTERSTATE 94 — 120th Street — COVER 252"_X_108"

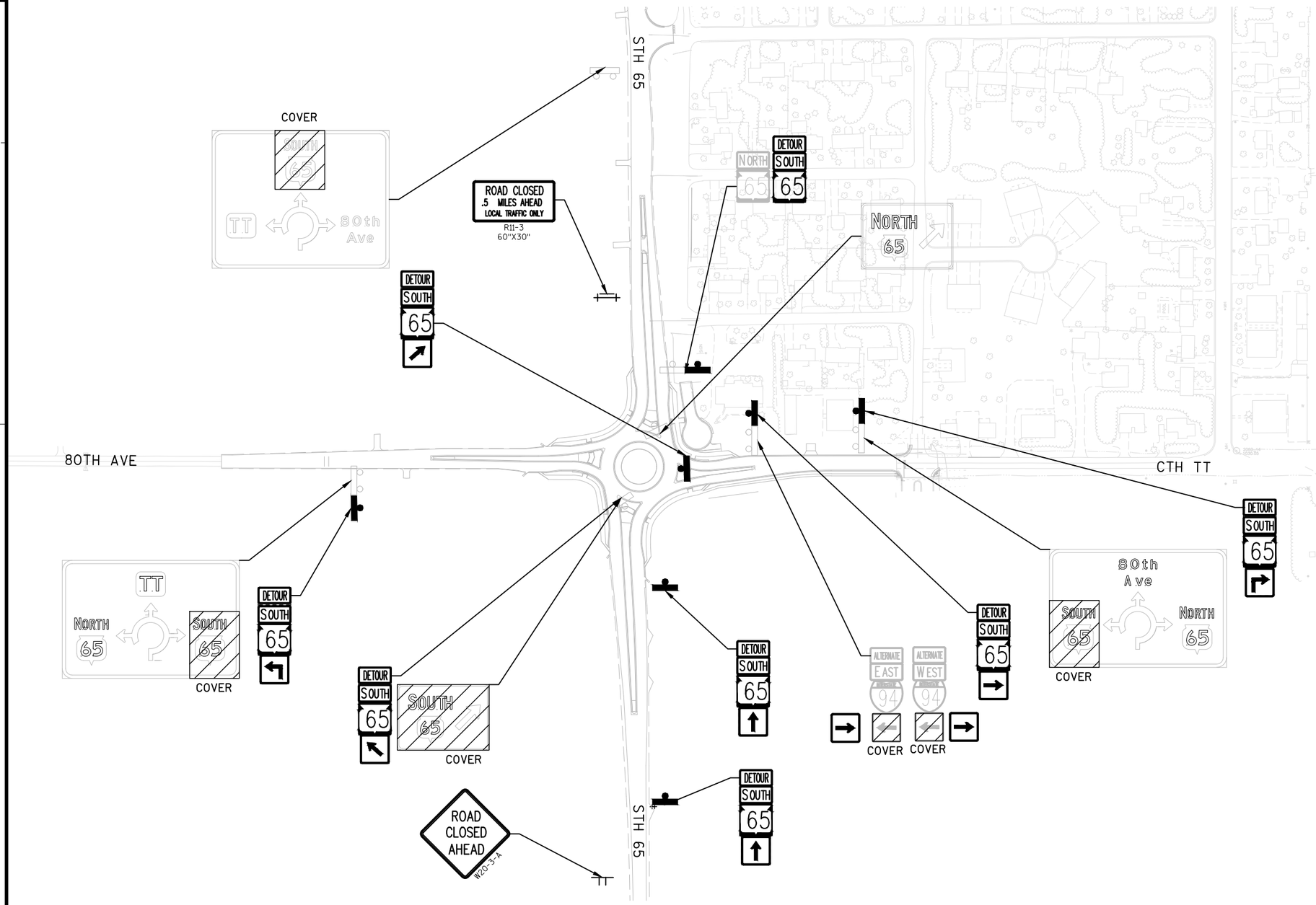
LEGEND

- NB STH 65 DETOUR ROUTE FROM IH 94 EB
- NB STH 65 DETOUR ROUTE FROM IH 94 WB
- NB & SB STH 65 DETOUR ROUTE
- SIGN MOUNTED ON POST
- SIGN MOUNTED ON SIGN BRIDGE OR UTILITY POLE
- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING TYPE I SIGN MOUNTED ON POSTS
- EXISTING SIGN MOUNTED ON SIGN BRIDGE OR UTILITY POLE
- EXISTING SIGN COVERED
- MB — PORTABLE CHANGEABLE MESSAGE SIGN

PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	TRAFFIC CONTROL DETOUR PLAN DETAIL SHEET 3 OF 10	SHEET 188 E

SIGN LEGEND





N

LEGEND

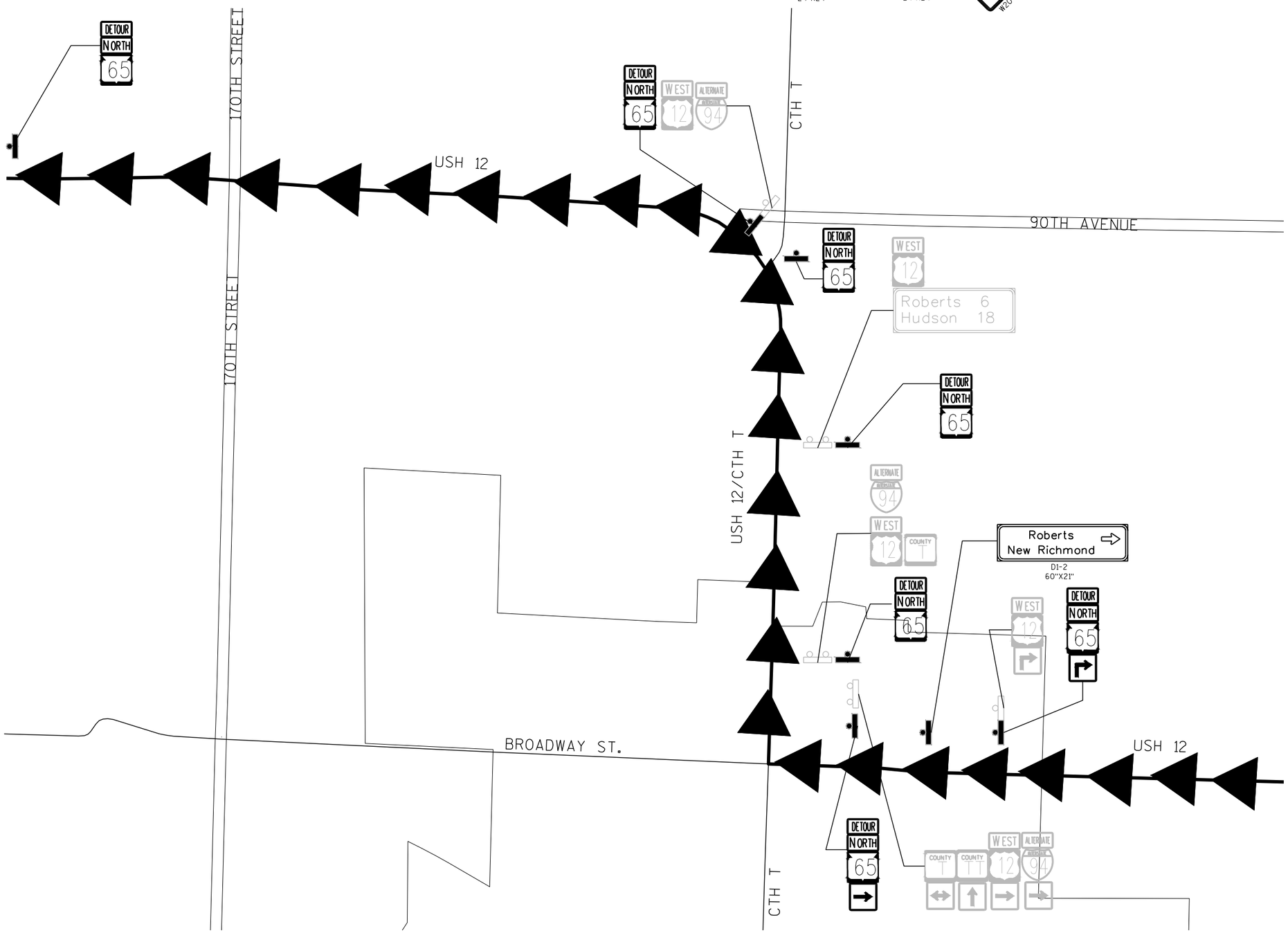
- NB STH 65 DETOUR ROUTE FROM IH 94 EB
- NB STH 65 DETOUR ROUTE FROM IH 94 WB
- NB & SB STH 65 DETOUR ROUTE
- SIGN MOUNTED ON POST
- SIGN MOUNTED ON SIGN BRIDGE OR UTILITY POLE
- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING TYPE I SIGN MOUNTED ON POSTS
- EXISTING SIGN MOUNTED ON SIGN BRIDGE OR UTILITY POLE
- EXISTING SIGN COVERED
- MB PORTABLE CHANGEABLE MESSAGE SIGN

PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	TRAFFIC CONTROL DETOUR PLAN DETAIL SHEET 4 OF 10	SHEET 189 E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\TRAFFIC CONTROL\027001-DT-2.DWG PLOT DATE : 9/30/2022 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : 1IN:250FT
WISDOT/CADDS SHEET 42

SIGN LEGEND

M06-1 21"X21" | M05-1L 21"X21" | M05-1R 21"X21" | M06-4 21"X21" | M06-2 21"X21" | M3-1 24"X12" NORTH | M3-2 24"X12" EAST | M3-3 24"X12" SOUTH | M3-4 24"X12" WEST | M4-6 24"X12" END | M4-8 24"X12" DETOUR | M4-8A 24"X18" END DETOUR | M2-1 21"X15" JCT | M4-1 24"X12" ALTERNATE | M1-6 24"X24" 65 | M1-5A 24"X24" COUNTY U | M1-1 24"X24" WISCONSIN 94 | M1-4 24"X24" 12 | W20-2-A DETOUR AHEAD | M5-2R 21"X21"



N

LEGEND

- NB STH 65 DETOUR ROUTE FROM IH 94 EB
- NB STH 65 DETOUR ROUTE FROM IH 94 WB
- NB & SB STH 65 DETOUR ROUTE
- SIGN MOUNTED ON POST
- SIGN MOUNTED ON SIGN BRIDGE OR UTILITY POLE
- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING TYPE I SIGN MOUNTED ON POSTS
- EXISTING SIGN MOUNTED ON SIGN BRIDGE OR UTILITY POLE
- EXISTING SIGN COVERED
- MB PORTABLE CHANGEABLE MESSAGE SIGN

PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	TRAFFIC CONTROL DETOUR PLAN DETAIL SHEET 5 OF 10	SHEET 190 E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\TRAFFIC CONTROL\027001-DT.DWG PLOT DATE : 9/30/2022 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : 1" = 1000'_XREF

WISDOT/CADDS SHEET 42

SIGN LEGEND

M06-1 21"X21" | M05-1L 21"X21" | M05-1R 21"X21" | M06-4 21"X21" | M06-2 21"X21" | M3-1 24"X12" NORTH | M3-2 24"X12" EAST | M3-3 24"X12" SOUTH | M3-4 24"X12" WEST | M4-6 24"X12" END | M4-8 24"X12" DETOUR | M4-8A 24"X18" END DETOUR | M2-1 21"X15" JCT | M4-1 24"X12" ALTERNATE | M1-6 24"X24" 65 | M1-5A 24"X24" COUNTY U | M1-1 24"X24" 94 | M1-4 24"X24" 12 | W20-2-A 48"X48" DETOUR AHEAD | M5-2R 21"X21"

N

200TH STREET

USH 12

USH 63

80TH AVENUE

CTH J

Hammond 3
Hudson 20

Roberts
New Richmond
D1-2 60"X21"

Amery
Turtle Lake
Hammond
Hudson

Hammond
Hudson
Turtle Lake
Woodville

Roberts
New Richmond
D1-2 60"X21"

LEGEND

- NB STH 65 DETOUR ROUTE FROM IH 94 EB
- NB STH 65 DETOUR ROUTE FROM IH 94 WB
- NB & SB STH 65 DETOUR ROUTE
- SIGN MOUNTED ON POST
- SIGN MOUNTED ON SIGN BRIDGE OR UTILITY POLE
- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING TYPE I SIGN MOUNTED ON POSTS
- EXISTING SIGN MOUNTED ON SIGN BRIDGE OR UTILITY POLE
- EXISTING SIGN COVERED
- MB PORTABLE CHANGEABLE MESSAGE SIGN

PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	TRAFFIC CONTROL DETOUR PLAN DETAIL SHEET 6 OF 10	SHEET 191 E

SIGN LEGEND

M06-1 21"X21" | M05-1L 21"X21" | M05-1R 21"X21" | M06-4 21"X21" | M06-2 21"X21" | M3-1 24"X12" NORTH | M3-2 24"X12" EAST | M3-3 24"X12" SOUTH | M3-4 24"X12" WEST | M4-6 24"X12" END | M4-8 24"X12" DETOUR | M4-8A 24"X18" END DETOUR | M2-1 21"X15" JCT | M4-1 24"X12" ALTERNATE | M1-6 36"X36" 65 | M1-5A 24"X24" COUNTY T | M1-5A 24"X24" COUNTY U | M1-1 24"X24" INTERSTATE 94 | M1-4 24"X24" 12 | M1-4 24"X24" 63 | G20-51 60"X24" DETOUR NEXT XX MILES | W20-2-A DETOUR AHEAD | M5-2R 21"X21"

60TH AVENUE

USH 63

220TH STREET

230TH STREET

NORTH 63 ALTERNATE INTERSTATE 94 DETOUR NORTH 65

NORTH 63 DETOUR NORTH 65

Roberts
New Richmond
D1-2
60"X21"

Ellsworth
Baldwin
Amery

EXIT 19
63
Baldwin
Ellsworth

EXIT 19
63
Baldwin
Ellsworth
1 MILE

NORTH 65
DETOUR AHEAD
W20-2-A

DETOUR NEXT 12 MILES
G20-51

55TH AVENUE

IH 94

DETOUR NORTH 65

Amery
Exit 19

ROBERTS
NEW RICHMOND
USE EXIT 19
126"X54"

50TH AVENUE

NORTH 63 NORTH 63 ALTERNATE INTERSTATE WEST 94 DETOUR NORTH 65

DETOUR NORTH 65

USH 63

47TH AVENUE

N

LEGEND

- NB STH 65 DETOUR ROUTE FROM IH 94 EB
- NB STH 65 DETOUR ROUTE FROM IH 94 WB
- NB & SB STH 65 DETOUR ROUTE
- SIGN MOUNTED ON POST
- SIGN MOUNTED ON SIGN BRIDGE OR UTILITY POLE
- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING TYPE I SIGN MOUNTED ON POSTS
- EXISTING SIGN MOUNTED ON SIGN BRIDGE OR UTILITY POLE
- EXISTING SIGN COVERED
- MB PORTABLE CHANGEABLE MESSAGE SIGN

PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	TRAFFIC CONTROL DETOUR PLAN DETAIL SHEET 7 OF 10	SHEET E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\TRAFFIC CONTROL\027001-DT.DWG PLOT DATE : 10/3/2022 PLOT BY : KL ENGINEERING PLOT NAME : _____ PLOT SCALE : 1" = 1000'_XREF
WISDOT/CADDS SHEET 42

SIGN LEGEND

M06-1 21"X21" | M05-1L 21"X21" | M05-1R 21"X21" | M06-4 21"X21" | M06-2 21"X21" | NORTH M3-1 24"X12" | EAST M3-2 24"X12" | SOUTH M3-3 24"X12" | WEST M3-4 24"X12" | END M4-6 24"X12" | DETOUR M4-8 24"X12" | END DETOUR M4-8A 24"X18" | JCT M2-1 21"X15" | ALTERNATE M4-1 24"X12" | 65 M1-6 36"X36" | COUNTY U M1-5A 24"X24" | WISCONSIN 94 M1-1 24"X24" | 12 M1-4 24"X24" | DETOUR AHEAD W20-2-24

N

107TH STREET

112TH STREET

STH 65

WORK ZONE

EXIT 10
65
Roberts
New Richmond
1 MILE
NEXT EXIT 7 MILES

70TH AVE

DETOUR
NORTH
WEST 94
65

IH 94

EXIT 10
65
Roberts
New Richmond

Wisconsin Indianhead Technical College
EXIT 10

Wisconsin Indianhead Technical College

60TH AVE.

LEGEND

- NB STH 65 DETOUR ROUTE FROM IH 94 EB
- NB STH 65 DETOUR ROUTE FROM IH 94 WB
- NB & SB STH 65 DETOUR ROUTE
- SIGN MOUNTED ON POST
- SIGN MOUNTED ON SIGN BRIDGE OR UTILITY POLE
- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING TYPE I SIGN MOUNTED ON POSTS
- EXISTING SIGN MOUNTED ON SIGN BRIDGE OR UTILITY POLE
- EXISTING SIGN COVERED
- MB PORTABLE CHANGEABLE MESSAGE SIGN

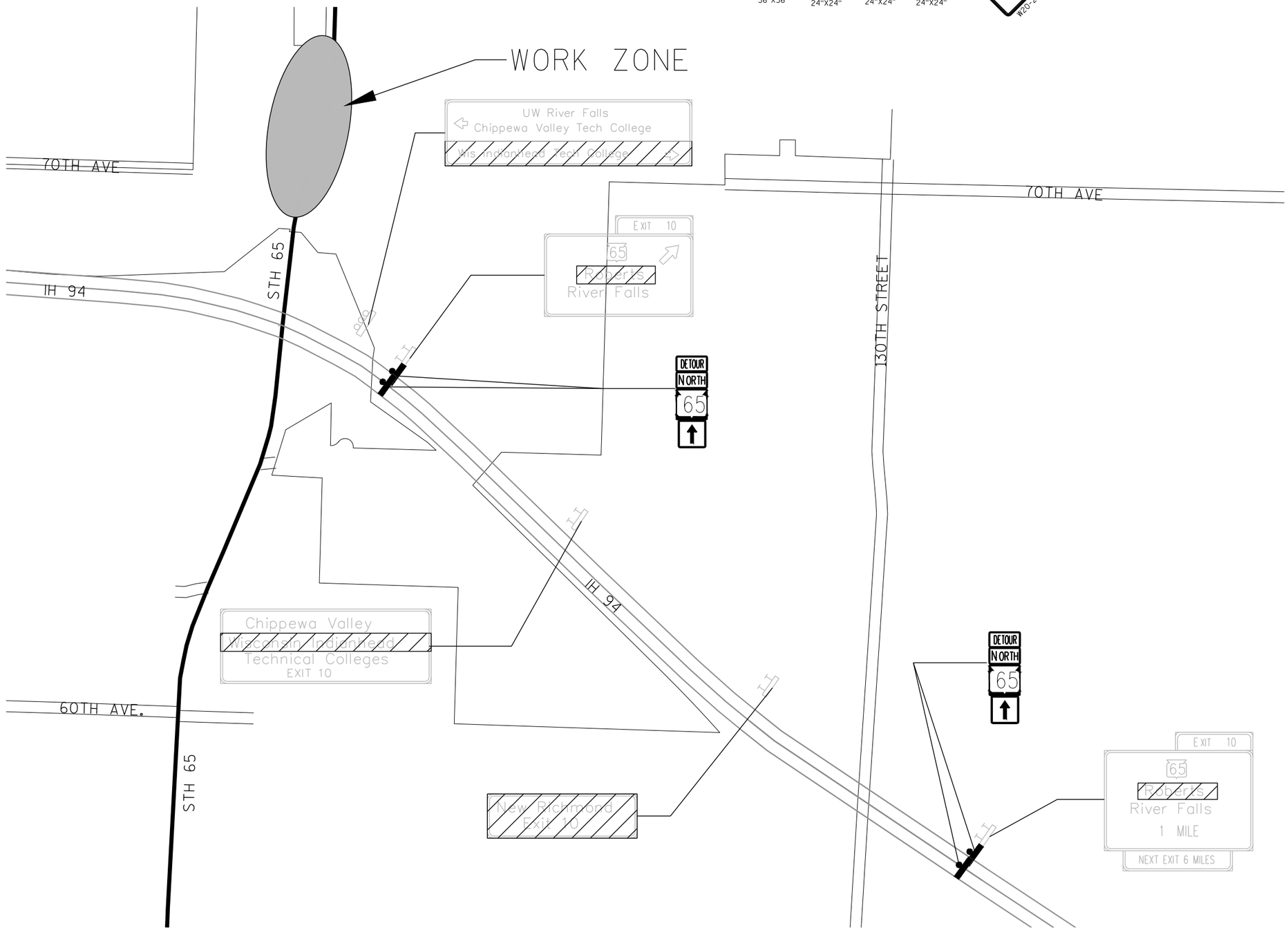
PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	TRAFFIC CONTROL DETOUR PLAN DETAIL SHEET 8 OF 10	SHEET 193 E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\TRAFFIC CONTROL\027001-DT.DWG PLOT DATE : 9/30/2022 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : 1" = 1000'_XREF

WISDOT/CADDS SHEET 42

SIGN LEGEND

M06-1 21"X21" | M05-1L 21"X21" | M05-1R 21"X21" | M06-4 21"X21" | M06-2 21"X21" | NORTH M3-1 24"X12" | EAST M3-2 24"X12" | SOUTH M3-3 24"X12" | WEST M3-4 24"X12" | END M4-6 24"X12" | DETOUR M4-8 24"X12" | END DETOUR M4-8A 24"X18" | JCT M2-1 21"X15" | ALTERNATE M4-1 24"X12" | 65 M1-6 36"X36" | COUNTY U M1-5A 24"X24" | BUSTAX 94 M1-1 24"X24" | 12 M1-4 24"X24" | DETOUR AHEAD W20-2-A



N

LEGEND

- NB STH 65 DETOUR ROUTE FROM IH 94 EB
- NB STH 65 DETOUR ROUTE FROM IH 94 WB
- NB & SB STH 65 DETOUR ROUTE
- SIGN MOUNTED ON POST
- SIGN MOUNTED ON SIGN BRIDGE OR UTILITY POLE
- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING TYPE I SIGN MOUNTED ON POSTS
- EXISTING SIGN MOUNTED ON SIGN BRIDGE OR UTILITY POLE
- EXISTING SIGN COVERED
- MB PORTABLE CHANGEABLE MESSAGE SIGN

PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	TRAFFIC CONTROL DETOUR PLAN DETAIL SHEET 9 OF 10	SHEET 194 E

SIGN LEGEND

M06-1 21"X21" | M05-1L 21"X21" | M05-1R 21"X21" | M06-4 21"X21" | M06-2 21"X21" | NORTH M3-1 24"X12" | EAST M3-2 24"X12" | SOUTH M3-3 24"X12" | WEST M3-4 24"X12" | END M4-6 24"X12" | DETOUR M4-8 24"X12" | END DETOUR M4-8A 24"X18" | JCT M2-1 21"X15" | ALTERNATE M4-1 24"X12" | 65 M1-6 24"X24" | COUNTY U M1-5A 24"X24" | 94 M1-1 24"X24" | 12 M1-4 24"X24" | DETOUR AHEAD W20-2-A | M5-2R 21"X21" | ROAD CLOSED AHEAD W20-3-A

N

COVER

65 NORTH Roberts New Richmond SOUTH 65

228" × 114"

EXISTING COVER

ALTERNATE 94

COVER

ROAD CLOSED AHEAD W20-3-A

ALTERNATE 94

COVER

DETOUR NORTH 65

TO WEST 94 NORTH 65

IH 94

EXISTING SIGN COVERED

DETOUR NORTH 65

65 NORTH Roberts New Richmond WEST 94 Hudson

168" × 132"

65 SOUTH 94 WEST

DETOUR NORTH 65

65 SOUTH 94 WEST

DETOUR NORTH 65

94 WEST Hudson

DETOUR NORTH 65

65 NORTH Roberts New Richmond

144" × 120" COVER

STH 65

END DETOUR M4-8A

EXISTING SIGN COVERED

WEST 94 NORTH 65 Hudson Roberts

96" × 126"

65 NORTH Roberts EAST 94 Eau Claire

168" × 114"

COVER

DETOUR AHEAD W20-2-A

DETOUR NORTH 65

65 NORTH 94 EAST

ALTERNATE 94

COVER

DETOUR NORTH 65

ALTERNATE 94

COVER

NORTH 65

DETOUR AHEAD W20-2-A

IH 94

DETOUR NORTH 65

65 NORTH Roberts New Richmond

144" × 114" COVER

65 SOUTH River Falls

108" × 90"

DETOUR NORTH 65

94 WEST 65 NORTH

COVER

ALTERNATE 94

COVER

STH 65

LEGEND

- NB STH 65 DETOUR ROUTE FROM IH 94 EB
- NB STH 65 DETOUR ROUTE FROM IH 94 WB
- NB & SB STH 65 DETOUR ROUTE
- SIGN MOUNTED ON POST
- SIGN MOUNTED ON SIGN BRIDGE OR UTILITY POLE
- EXISTING SIGN MOUNTED ON POST(S)
- EXISTING TYPE I SIGN MOUNTED ON POSTS
- EXISTING SIGN MOUNTED ON SIGN BRIDGE OR UTILITY POLE
- EXISTING SIGN COVERED
- MB PORTABLE CHANGEABLE MESSAGE SIGN

PROJECT NO:1540-04-73	HWY:STH 65	COUNTY:ST. CROIX	TRAFFIC CONTROL DETOUR PLAN DETAIL SHEET 10 OF 10	SHEET 195 E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\TRAFFIC CONTROL\027001-DT-2.DWG PLOT DATE : 9/30/2022 PLOT BY : KL ENGINEERING PLOT NAME : ---------- PLOT SCALE : 1IN:250FT

WISDOT/CADDS SHEET 42

2

N

STAGE 4 CLOSURE
AND STH 65 DETOUR

70TH AVENUE

80TH AVENUE

CTH TT

120TH STREET

130TH STREET

PACKER DRIVE

VILLAGE OF ROBERTS

INTERSTATE 94

65

12

NO THRU TRUCKS
LOCAL TRAFFIC ONLY

C/L

12' MIN.

FM-01
FIXED MESSAGE SIGN, SEE DETAIL

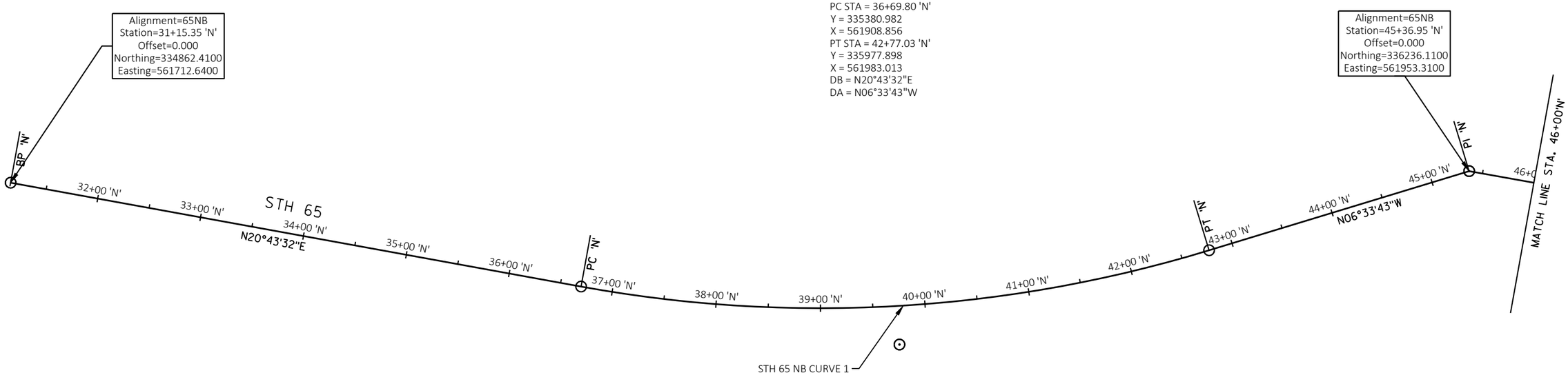
PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	TRAFFIC CONTROL - LOCAL ROAD DIVERSION SIGNING	SHEET E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\TRAFFIC CONTROL\027003-DT.DWG PLOT DATE : 9/30/2022 5:26 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : Custom WISDOT/CAD

2

N

STH 65 NB CURVE 1
PI STA = 39+79.29 'N'
Y = 335670.440
X = 562018.380
DELTA = 27°17'15" LT
D = 4°29'38"
T = 309.49'
L = 607.23'
R = 1275.00'
PC STA = 36+69.80 'N'
Y = 335380.982
X = 561908.856
PT STA = 42+77.03 'N'
Y = 335977.898
X = 561983.013
DB = N20°43'32"E
DA = N06°33'43"W



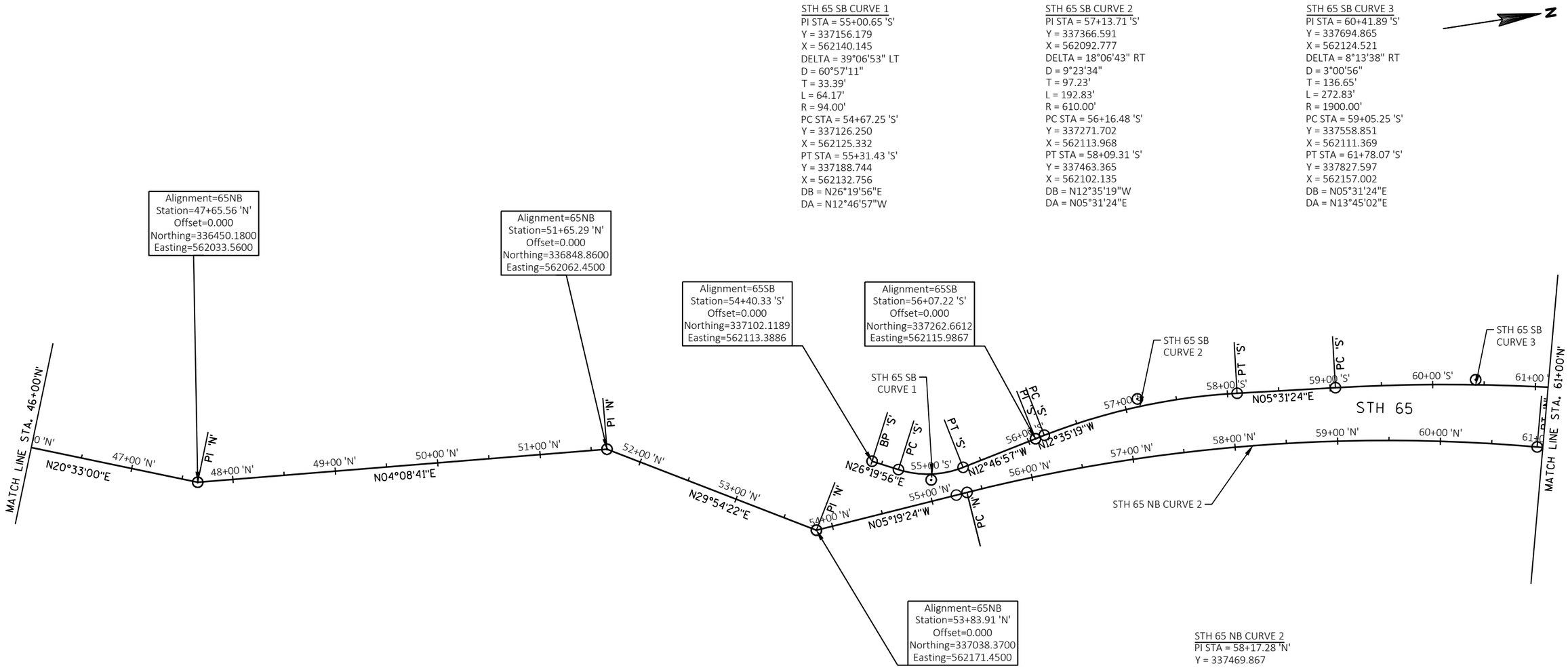
PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	ALIGNMENT DIAGRAM: STH 65	SHEET 197	E

2

STH 65 SB CURVE 1
PI STA = 55+00.65 'S'
Y = 337156.179
X = 562140.145
DELTA = 39°06'53" LT
D = 60°57'11"
T = 33.39'
L = 64.17'
R = 94.00'
PC STA = 54+67.25 'S'
Y = 337126.250
X = 562125.332
PT STA = 55+31.43 'S'
Y = 337188.744
X = 562132.756
DB = N26°19'56"E
DA = N12°46'57"W

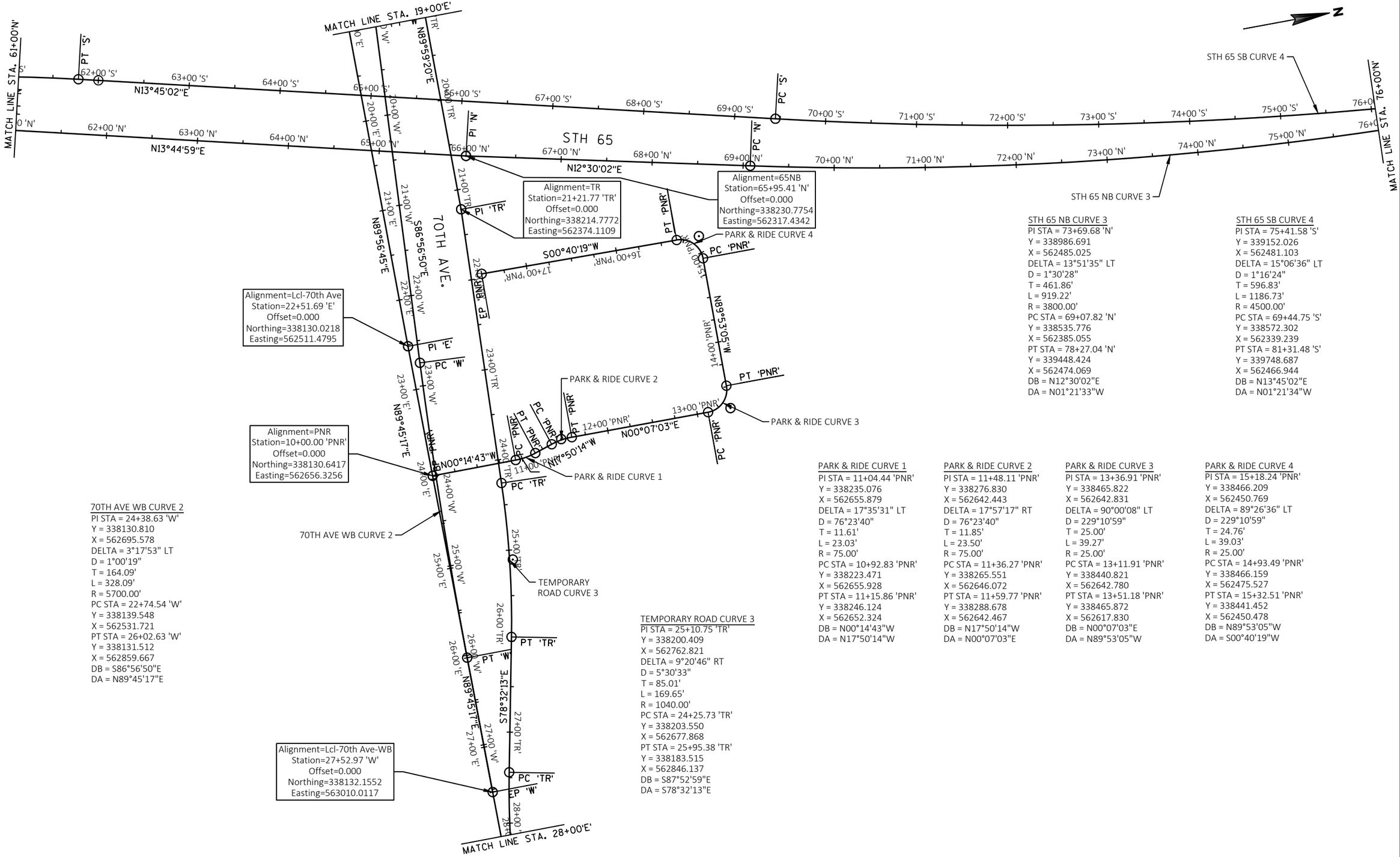
STH 65 SB CURVE 2
PI STA = 57+13.71 'S'
Y = 337366.591
X = 562092.777
DELTA = 18°06'43" RT
D = 9°23'34"
T = 97.23'
L = 192.83'
R = 610.00'
PC STA = 56+16.48 'S'
Y = 337271.702
X = 562113.968
PT STA = 58+09.31 'S'
Y = 337463.365
X = 562102.135
DB = N12°35'19"W
DA = N05°31'24"E

STH 65 SB CURVE 3
PI STA = 60+41.89 'S'
Y = 337694.865
X = 562124.521
DELTA = 8°13'38" RT
D = 3°00'56"
T = 136.65'
L = 272.83'
R = 1900.00'
PC STA = 59+05.25 'S'
Y = 337558.851
X = 562111.369
PT STA = 61+78.07 'S'
Y = 337827.597
X = 562157.002
DB = N05°31'24"E
DA = N13°45'02"E



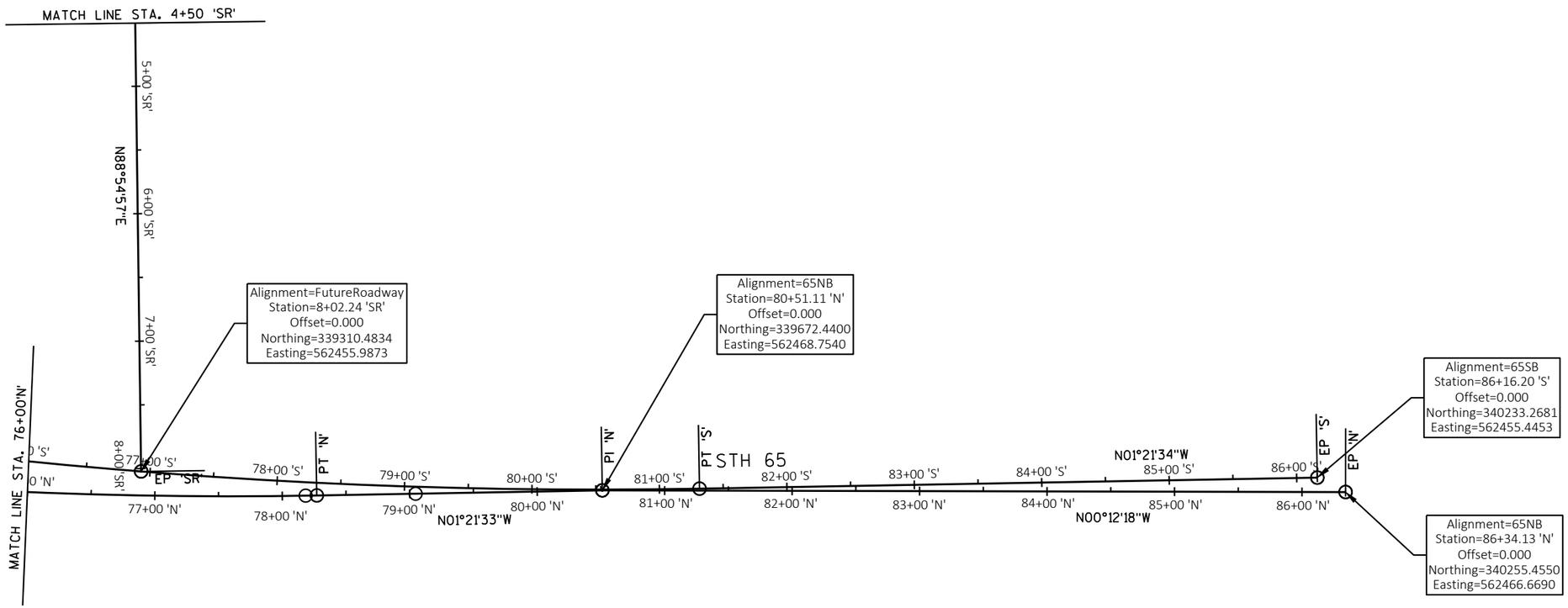
STH 65 NB CURVE 2
PI STA = 58+17.28 'N'
Y = 337469.867
X = 562131.244
DELTA = 19°04'23" RT
D = 3°24'37"
T = 282.25'
L = 559.28'
R = 1680.08'
PC STA = 55+35.03 'N'
Y = 337188.834
X = 562157.430
PT STA = 60+94.30 'N'
Y = 337744.028
X = 562198.330
DB = N05°19'24"W
DA = N13°44'59"E

PROJECT NO:1540-04-73	HWY:STH 65	COUNTY:ST. CROIX	ALIGNMENT DIAGRAM: STH 65	SHEET 198	E



PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	ALIGNMENT DIAGRAM: STH 65	SHEET 199	E

*REMAINDER OF SIDE ROAD ALIGNMENT SUBJECT TO CHANGE DUE TO FUTURE CONSTRUCTION



PROJECT NO:1540-04-73	HWY:STH 65	COUNTY:ST. CROIX	ALIGNMENT DIAGRAM: STH 65	SHEET 200	E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\027201_AD.DWG
LAYOUT NAME - SHEET - (10)
PLOT DATE : 9/30/2022 5:28 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:100 FT

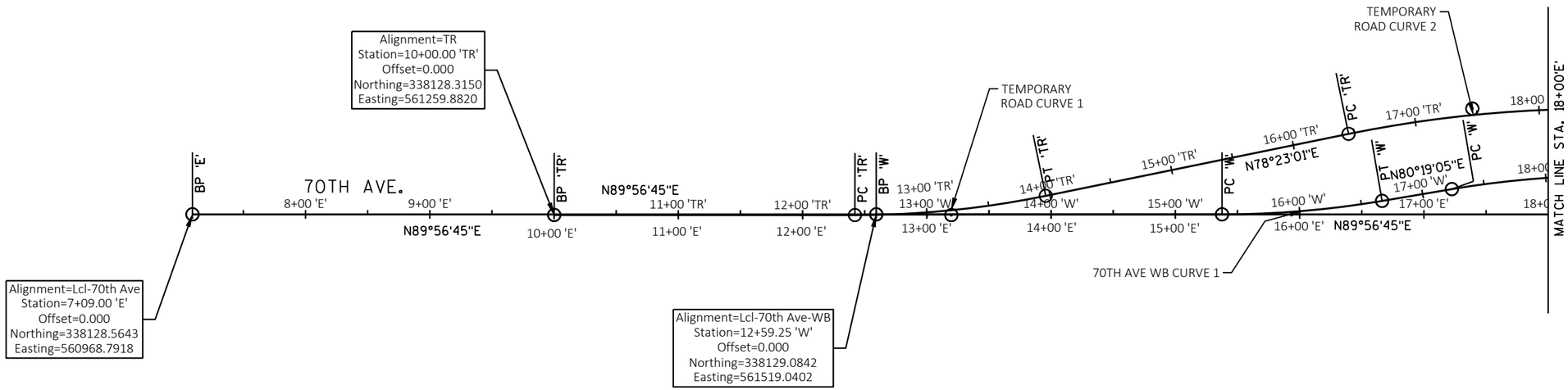
WISDOT/CADDS SHEET 42

2

N

TEMPORARY ROAD CURVE 1
PI STA = 13+19.56 'TR'
Y = 338128.544
X = 561579.445
DELTA = 11°34'31" LT
D = 7°29'23"
T = 77.54'
L = 154.55'
R = 765.00'
PC STA = 12+42.03 'TR'
Y = 338128.489
X = 561501.907
PT STA = 13+96.57 'TR'
Y = 338144.157
X = 561655.396
DB = N89°57'32"E
DA = N78°23'01"E

TEMPORARY ROAD CURVE 2
PI STA = 17+46.93 'TR'
Y = 338214.704
X = 561998.578
DELTA = 11°36'19" RT
D = 5°43'46"
T = 101.62'
L = 202.55'
R = 1000.00'
PC STA = 16+45.31 'TR'
Y = 338194.242
X = 561899.038
PT STA = 18+47.86 'TR'
Y = 338214.724
X = 562100.200
DB = N78°23'01"E
DA = N89°59'20"E



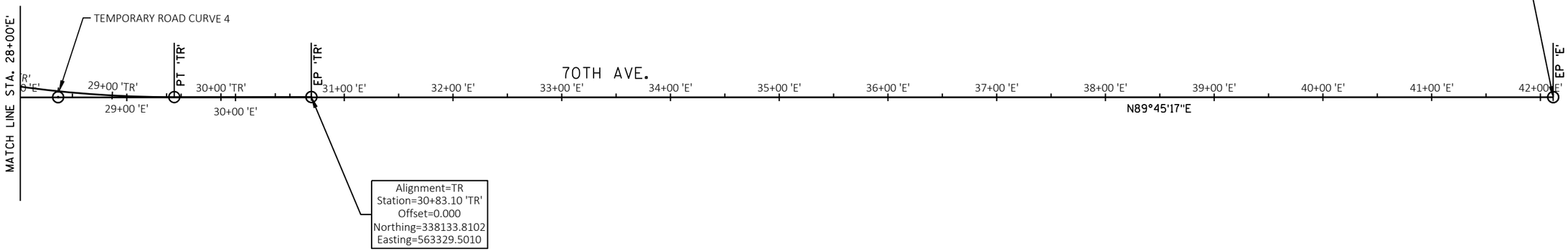
70TH AVE WB CURVE 1
PI STA = 16+02.33 'W'
Y = 338129.408
X = 561862.118
DELTA = 9°37'40" LT
D = 7°26'28"
T = 64.85'
L = 129.39'
R = 770.00'
PC STA = 15+37.48 'W'
Y = 338129.347
X = 561797.272
PT STA = 16+66.87 'W'
Y = 338140.314
X = 561926.041
DB = N89°56'45"E
DA = N80°19'05"E

PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	ALIGNMENT DIAGRAM: STH 65	SHEET 201	E

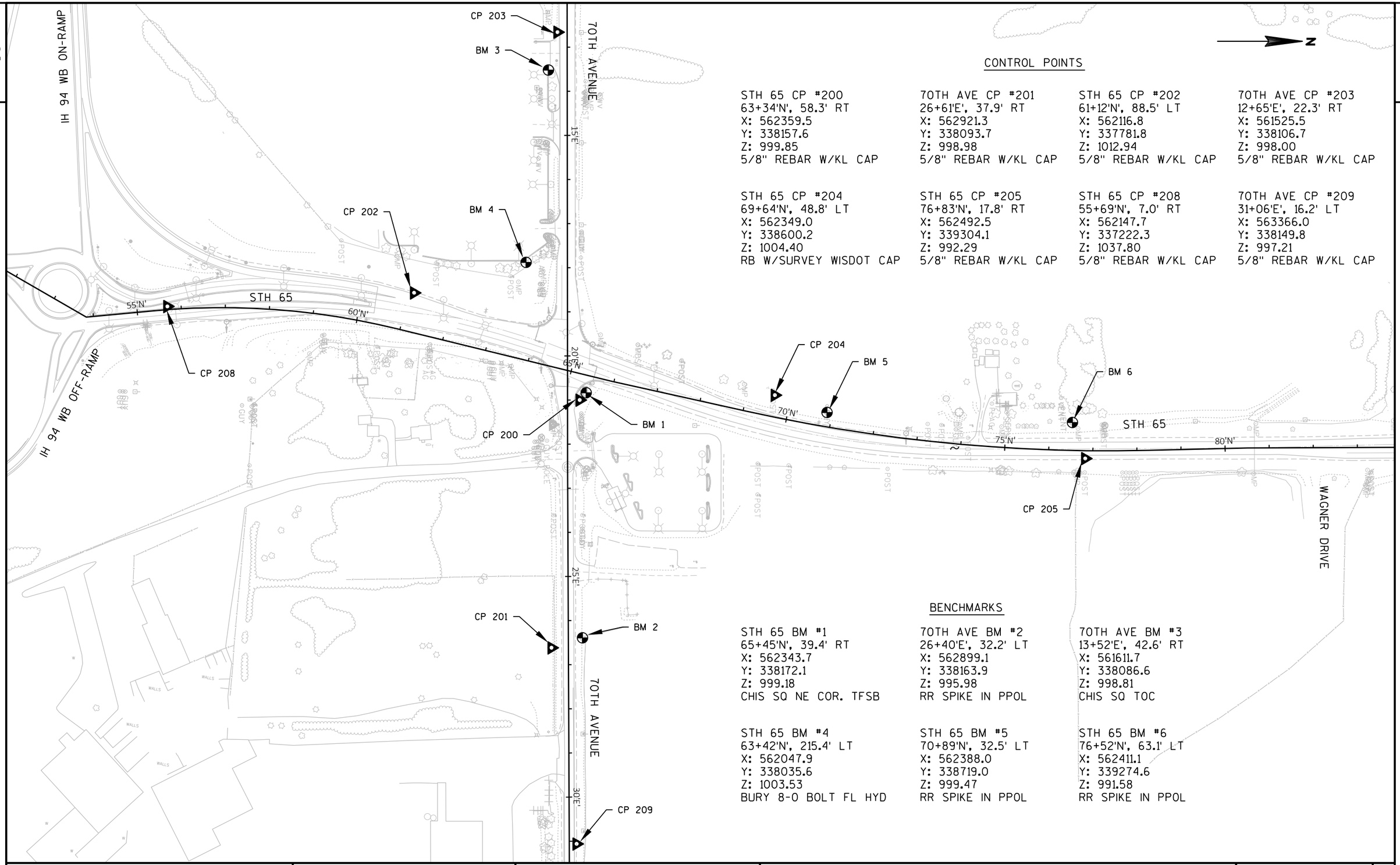
2

N

TEMPORARY ROAD CURVE 4
PI STA = 28+50.98 'TR'
Y = 338132.719
X = 563096.636
DELTA = 11°43'53" LT
D = 5°30'33"
T = 106.84'
L = 212.94'
R = 1040.00'
PC STA = 27+44.13 'TR'
Y = 338153.953
X = 562991.922
PT STA = 29+57.07 'TR'
Y = 338133.220
X = 563203.479
DB = S78°32'13"E
DA = N89°43'53"E



PROJECT NO:1540-04-73	HWY:STH 65	COUNTY:ST. CROIX	ALIGNMENT DIAGRAM: STH 65	SHEET 202	E



CONTROL POINTS

STH 65 CP #200 63+34'N', 58.3' RT X: 562359.5 Y: 338157.6 Z: 999.85 5/8" REBAR W/KL CAP	70TH AVE CP #201 26+61'E', 37.9' RT X: 562921.3 Y: 338093.7 Z: 998.98 5/8" REBAR W/KL CAP	STH 65 CP #202 61+12'N', 88.5' LT X: 562116.8 Y: 337781.8 Z: 1012.94 5/8" REBAR W/KL CAP	70TH AVE CP #203 12+65'E', 22.3' RT X: 561525.5 Y: 338106.7 Z: 998.00 5/8" REBAR W/KL CAP
STH 65 CP #204 69+64'N', 48.8' LT X: 562349.0 Y: 338600.2 Z: 1004.40 RB W/SURVEY WISDOT CAP	STH 65 CP #205 76+83'N', 17.8' RT X: 562492.5 Y: 339304.1 Z: 992.29 5/8" REBAR W/KL CAP	STH 65 CP #208 55+69'N', 7.0' RT X: 562147.7 Y: 337222.3 Z: 1037.80 5/8" REBAR W/KL CAP	70TH AVE CP #209 31+06'E', 16.2' LT X: 563366.0 Y: 338149.8 Z: 997.21 5/8" REBAR W/KL CAP

BENCHMARKS

STH 65 BM #1 65+45'N', 39.4' RT X: 562343.7 Y: 338172.1 Z: 999.18 CHIS SQ NE COR. TFSB	70TH AVE BM #2 26+40'E', 32.2' LT X: 562899.1 Y: 338163.9 Z: 995.98 RR SPIKE IN PPOL	70TH AVE BM #3 13+52'E', 42.6' RT X: 561611.7 Y: 338086.6 Z: 998.81 CHIS SQ TOC
STH 65 BM #4 63+42'N', 215.4' LT X: 562047.9 Y: 338035.6 Z: 1003.53 BURY 8-0 BOLT FL HYD	STH 65 BM #5 70+89'N', 32.5' LT X: 562388.0 Y: 338719.0 Z: 999.47 RR SPIKE IN PPOL	STH 65 BM #6 76+52'N', 63.1' LT X: 562411.1 Y: 339274.6 Z: 991.58 RR SPIKE IN PPOL

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Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	5.000	5.000
0004	201.0120	Clearing	ID	32.000	32.000
0006	201.0205	Grubbing	STA	5.000	5.000
0008	201.0220	Grubbing	ID	32.000	32.000
0010	203.0100	Removing Small Pipe Culverts	EACH	7.000	7.000
0012	204.0100	Removing Concrete Pavement	SY	2,328.000	2,328.000
0014	204.0110	Removing Asphaltic Surface	SY	190.000	190.000
0016	204.0115	Removing Asphaltic Surface Butt Joints	SY	8.000	8.000
0018	204.0120	Removing Asphaltic Surface Milling	SY	575.000	575.000
0020	204.0125	Removing Asphaltic Surface Milling	TON	65.000	65.000
0022	204.0150	Removing Curb & Gutter	LF	940.000	940.000
0024	204.0155	Removing Concrete Sidewalk	SY	398.000	398.000
0026	204.0170	Removing Fence	LF	1,857.000	1,857.000
0028	204.0180	Removing Delineators and Markers	EACH	12.000	12.000
0030	204.0195	Removing Concrete Bases	EACH	23.000	23.000
0032	204.0220	Removing Inlets	EACH	3.000	3.000
0034	204.0245	Removing Storm Sewer (size) 001. 12-Inch	LF	34.000	34.000
0036	204.9060.S	Removing (item description) 001. Apron Endwalls	EACH	2.000	2.000
0038	205.0100	Excavation Common	CY	38,732.000	38,732.000
0040	205.0400	Excavation Marsh	CY	650.000	650.000
0042	208.1100	Select Borrow	CY	650.000	650.000
0044	213.0100	Finishing Roadway (project) 001. 1540-04-73	EACH	1.000	1.000
0046	305.0110	Base Aggregate Dense 3/4-Inch	TON	1,420.000	1,420.000
0048	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	22,150.000	22,150.000
0050	312.0110	Select Crushed Material	TON	15,350.000	15,350.000
0052	405.0100	Coloring Concrete WisDOT Red	CY	208.000	208.000
0054	415.0100	Concrete Pavement 10-Inch	SY	20,679.000	20,679.000
0056	416.0512	Concrete Truck Apron 12-Inch	SY	442.000	442.000
0058	416.0610	Drilled Tie Bars	EACH	375.000	375.000
0060	416.0620	Drilled Dowel Bars	EACH	65.000	65.000
0062	450.4000	HMA Cold Weather Paving	TON	279.000	279.000
0064	455.0605	Tack Coat	GAL	779.000	779.000
0066	460.2000	Incentive Density HMA Pavement	DOL	1,350.000	1,350.000
0068	460.6643	HMA Pavement 3 MT 58-34 V	TON	1,505.000	1,505.000
0070	460.6645	HMA Pavement 5 MT 58-34 V	TON	525.000	525.000
0072	465.0105	Asphaltic Surface	TON	320.000	320.000
0074	465.0125	Asphaltic Surface Temporary	TON	2,200.000	2,200.000
0076	465.0310	Asphaltic Curb	LF	480.000	480.000
0078	465.0315	Asphaltic Flumes	SY	55.000	55.000
0080	520.2012	Culvert Pipe Temporary 12-Inch	LF	248.000	248.000
0082	520.2018	Culvert Pipe Temporary 18-Inch	LF	210.000	210.000
0084	521.1012	Apron Endwalls for Culvert Pipe Steel 12-Inch	EACH	2.000	2.000
0086	521.1030	Apron Endwalls for Culvert Pipe Steel 30-Inch	EACH	2.000	2.000
0088	521.3112	Culvert Pipe Corrugated Steel 12-Inch	LF	25.000	25.000
0090	521.3130	Culvert Pipe Corrugated Steel 30-Inch	LF	14.000	14.000
0092	522.0118	Culvert Pipe Reinforced Concrete Class III 18-Inch	LF	59.000	59.000
0094	522.1012	Apron Endwalls for Culvert Pipe Reinforced Concrete 12-Inch	EACH	3.000	3.000
0096	522.1015	Apron Endwalls for Culvert Pipe Reinforced Concrete 15-Inch	EACH	4.000	4.000
0098	522.1018	Apron Endwalls for Culvert Pipe Reinforced Concrete 18-Inch	EACH	6.000	6.000

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Line	Item	Item Description	Unit	Total	Qty
0100	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	2.000	2.000
0102	522.1030	Apron Endwalls for Culvert Pipe Reinforced Concrete 30-Inch	EACH	2.000	2.000
0104	522.2419	Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 19x30-Inch	LF	103.000	103.000
0106	522.2619	Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 19x30-Inch	EACH	4.000	4.000
0108	531.2048	Drilling Shaft 48-Inch	LF	46.000	46.000
0110	531.5330	Foundation Single-Shaft Type TC-III (structure) 001. S-55-53	EACH	1.000	1.000
0112	531.5330	Foundation Single-Shaft Type TC-III (structure) 002. S-55-54	EACH	1.000	1.000
0114	532.5330	Truss Cantilever 2-Chord Type III (structure) 001. S-55-53	EACH	1.000	1.000
0116	532.5330	Truss Cantilever 2-Chord Type III (structure) 002. S-55-54	EACH	1.000	1.000
0118	601.0409	Concrete Curb & Gutter 30-Inch Type A	LF	219.000	219.000
0120	601.0555	Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type A	LF	8,507.000	8,507.000
0122	601.0557	Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type D	LF	235.000	235.000
0124	601.0580	Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type R	LF	320.000	320.000
0126	601.0600	Concrete Curb Pedestrian	LF	197.000	197.000
0128	602.0410	Concrete Sidewalk 5-Inch	SF	18,938.000	18,938.000
0130	602.0515	Curb Ramp Detectable Warning Field Natural Patina	SF	184.000	184.000
0132	606.0200	Riprap Medium	CY	98.000	98.000
0134	608.0312	Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	LF	327.000	327.000
0136	608.0315	Storm Sewer Pipe Reinforced Concrete Class III 15-Inch	LF	115.000	115.000
0138	608.0318	Storm Sewer Pipe Reinforced Concrete Class III 18-Inch	LF	91.000	91.000
0140	608.0324	Storm Sewer Pipe Reinforced Concrete Class III 24-Inch	LF	219.000	219.000
0142	608.0412	Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	LF	243.000	243.000
0144	608.0415	Storm Sewer Pipe Reinforced Concrete Class IV 15-Inch	LF	133.000	133.000
0146	608.0418	Storm Sewer Pipe Reinforced Concrete Class IV 18-Inch	LF	157.000	157.000
0148	608.0424	Storm Sewer Pipe Reinforced Concrete Class IV 24-Inch	LF	74.000	74.000
0150	608.0430	Storm Sewer Pipe Reinforced Concrete Class IV 30-Inch	LF	137.000	137.000
0152	608.3030	Storm Sewer Pipe Class III-A 30-Inch	LF	428.000	428.000
0154	611.0530	Manhole Covers Type J	EACH	2.000	2.000
0156	611.0612	Inlet Covers Type C	EACH	3.000	3.000
0158	611.0627	Inlet Covers Type HM	EACH	34.000	34.000
0160	611.0642	Inlet Covers Type MS	EACH	4.000	4.000
0162	611.2005	Manholes 5-FT Diameter	EACH	3.000	3.000
0164	611.3004	Inlets 4-FT Diameter	EACH	8.000	8.000
0166	611.3230	Inlets 2x3-FT	EACH	28.000	28.000
0168	611.3902	Inlets Median 2 Grate	EACH	2.000	2.000
0170	611.8120.S	Cover Plates Temporary	EACH	5.000	5.000
0172	614.0396	Guardrail Mow Strip Asphalt	SY	682.000	682.000
0174	614.2300	MGS Guardrail 3	LF	937.500	937.500
0176	614.2610	MGS Guardrail Terminal EAT	EACH	4.000	4.000
0178	614.2620	MGS Guardrail Terminal Type 2	EACH	2.000	2.000
0180	616.0100	Fence Woven Wire (height) 001. 4-Foot	LF	1,780.000	1,780.000
0182	616.0700.S	Fence Safety	LF	500.000	500.000
0184	618.0100	Maintenance And Repair of Haul Roads (project) 001. 1540-04-73	EACH	1.000	1.000
0186	619.1000	Mobilization	EACH	1.000	1.000
0188	620.0100	Concrete Corrugated Median	SF	1,240.000	1,240.000
0190	620.0300	Concrete Median Sloped Nose	SF	1,215.000	1,215.000
0192	621.0100	Landmark Reference Monuments	EACH	1.000	1.000
0194	624.0100	Water	MGAL	534.300	534.300
0196	625.0500	Salvaged Topsoil	SY	45,847.000	45,847.000

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Line	Item	Item Description	Unit	Total	Qty
0198	628.1104	Erosion Bales	EACH	37.000	37.000
0200	628.1504	Silt Fence	LF	6,180.000	6,180.000
0202	628.1520	Silt Fence Maintenance	LF	6,180.000	6,180.000
0204	628.1530.S	Silt Fence Heavy Duty	LF	1,230.000	1,230.000
0206	628.1535.S	Silt Fence Heavy Duty Maintenance	LF	1,230.000	1,230.000
0208	628.1905	Mobilizations Erosion Control	EACH	14.000	14.000
0210	628.1910	Mobilizations Emergency Erosion Control	EACH	6.000	6.000
0212	628.1920	Cleaning Sediment Basins	CY	13.000	13.000
0214	628.2006	Erosion Mat Urban Class I Type A	SY	8,590.000	8,590.000
0216	628.2008	Erosion Mat Urban Class I Type B	SY	37,257.000	37,257.000
0218	628.7005	Inlet Protection Type A	EACH	49.000	49.000
0220	628.7015	Inlet Protection Type C	EACH	46.000	46.000
0222	628.7020	Inlet Protection Type D	EACH	4.000	4.000
0224	628.7504	Temporary Ditch Checks	LF	207.000	207.000
0226	628.7555	Culvert Pipe Checks	EACH	38.000	38.000
0228	628.7560	Tracking Pads	EACH	10.000	10.000
0230	629.0210	Fertilizer Type B	CWT	33.000	33.000
0232	630.0120	Seeding Mixture No. 20	LB	1,012.000	1,012.000
0234	630.0200	Seeding Temporary	LB	1,232.000	1,232.000
0236	630.0500	Seed Water	MGAL	770.000	770.000
0238	633.1100	Delineators Temporary	EACH	100.000	100.000
0240	633.5200	Markers Culvert End	EACH	43.000	43.000
0242	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	8.000	8.000
0244	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	39.000	39.000
0246	634.0618	Posts Wood 4x6-Inch X 18-FT	EACH	4.000	4.000
0248	634.0622	Posts Wood 4x6-Inch X 22-FT	EACH	1.000	1.000
0250	634.0808	Posts Tubular Steel 2x2-Inch X 8-FT	EACH	2.000	2.000
0252	634.0809	Posts Tubular Steel 2x2-Inch X 9.5-FT	EACH	2.000	2.000
0254	634.0814	Posts Tubular Steel 2x2-Inch X 14-FT	EACH	3.000	3.000
0256	637.1220	Signs Type I Reflective SH	SF	172.500	172.500
0258	637.2210	Signs Type II Reflective H	SF	478.960	478.960
0260	637.2215	Signs Type II Reflective H Folding	SF	67.140	67.140
0262	637.2230	Signs Type II Reflective F	SF	139.750	139.750
0264	638.2101	Moving Signs Type I	EACH	4.000	4.000
0266	638.2102	Moving Signs Type II	EACH	67.000	67.000
0268	638.2602	Removing Signs Type II	EACH	42.000	42.000
0270	638.3000	Removing Small Sign Supports	EACH	36.000	36.000
0272	638.4000	Moving Small Sign Supports	EACH	72.000	72.000
0274	642.5201	Field Office Type C	EACH	1.000	1.000
0276	643.0300	Traffic Control Drums	DAY	43,300.000	43,300.000
0278	643.0420	Traffic Control Barricades Type III	DAY	8,300.000	8,300.000
0280	643.0500	Traffic Control Flexible Tubular Marker Posts	EACH	70.000	70.000
0282	643.0600	Traffic Control Flexible Tubular Marker Bases	EACH	70.000	70.000
0284	643.0705	Traffic Control Warning Lights Type A	DAY	13,300.000	13,300.000
0286	643.0715	Traffic Control Warning Lights Type C	DAY	3,000.000	3,000.000
0288	643.0900	Traffic Control Signs	DAY	33,600.000	33,600.000
0290	643.0910	Traffic Control Covering Signs Type I	EACH	23.000	23.000
0292	643.0920	Traffic Control Covering Signs Type II	EACH	46.000	46.000
0294	643.1000	Traffic Control Signs Fixed Message	SF	138.700	138.700

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Line	Item	Item Description	Unit	Total	Qty
0296	643.1050	Traffic Control Signs PCMS	DAY	810.000	810.000
0298	643.3105	Temporary Marking Line Paint 4-Inch	LF	13,500.000	13,500.000
0300	643.3150	Temporary Marking Line Removable Tape 4-Inch	LF	15,165.000	15,165.000
0302	643.3205	Temporary Marking Line Paint 8-Inch	LF	1,450.000	1,450.000
0304	643.3250	Temporary Marking Line Removable Tape 8-Inch	LF	4,160.000	4,160.000
0306	643.3505	Temporary Marking Arrow Paint	EACH	16.000	16.000
0308	643.3550	Temporary Marking Arrow Removable Tape	EACH	18.000	18.000
0310	643.3650	Temporary Marking Word Removable Tape	EACH	6.000	6.000
0312	643.3760	Temporary Marking Raised Pavement Marker Type I	EACH	70.000	70.000
0314	643.3805	Temporary Marking Stop Line Paint 18-Inch	LF	350.000	350.000
0316	643.3850	Temporary Marking Stop Line Removable Tape 18-Inch	LF	100.000	100.000
0318	643.5000	Traffic Control	EACH	1.000	1.000
0320	645.0120	Geotextile Type HR	SY	190.000	190.000
0322	646.1020	Marking Line Epoxy 4-Inch	LF	12,799.000	12,799.000
0324	646.3020	Marking Line Epoxy 8-Inch	LF	4,948.000	4,948.000
0326	646.5020	Marking Arrow Epoxy	EACH	28.000	28.000
0328	646.5120	Marking Word Epoxy	EACH	6.000	6.000
0330	646.5220	Marking Symbol Epoxy	EACH	6.000	6.000
0332	646.6120	Marking Stop Line Epoxy 18-Inch	LF	242.000	242.000
0334	646.6220	Marking Yield Line Epoxy 18-Inch	EACH	34.000	34.000
0336	646.6464	Cold Weather Marking Epoxy 4-Inch	LF	12,799.000	12,799.000
0338	646.6468	Cold Weather Marking Epoxy 8-Inch	LF	4,948.000	4,948.000
0340	646.7120	Marking Diagonal Epoxy 12-Inch	LF	323.000	323.000
0342	646.7220	Marking Chevron Epoxy 24-Inch	LF	200.000	200.000
0344	646.7420	Marking Crosswalk Epoxy Transverse Line 6-Inch	LF	450.000	450.000
0346	646.8020	Marking Corrugated Median Epoxy	SF	1,260.000	1,260.000
0348	646.8120	Marking Curb Epoxy	LF	130.000	130.000
0350	646.8220	Marking Island Nose Epoxy	EACH	10.000	10.000
0352	646.9000	Marking Removal Line 4-Inch	LF	4,570.000	4,570.000
0354	646.9100	Marking Removal Line 8-Inch	LF	1,900.000	1,900.000
0356	646.9200	Marking Removal Line Wide	LF	775.000	775.000
0358	646.9300	Marking Removal Special Marking	EACH	14.000	14.000
0360	650.4000	Construction Staking Storm Sewer	EACH	56.000	56.000
0362	650.4500	Construction Staking Subgrade	LF	10,740.000	10,740.000
0364	650.5000	Construction Staking Base	LF	6,310.000	6,310.000
0366	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	9,761.000	9,761.000
0368	650.6000	Construction Staking Pipe Culverts	EACH	13.000	13.000
0370	650.6501	Construction Staking Structure Layout (structure) 001. S-55-053	EACH	1.000	1.000
0372	650.6501	Construction Staking Structure Layout (structure) 002. S-55-054	EACH	1.000	1.000
0374	650.7000	Construction Staking Concrete Pavement	LF	4,480.000	4,480.000
0376	650.8000	Construction Staking Resurfacing Reference	LF	598.000	598.000
0378	650.8501	Construction Staking Electrical Installations (project) 001. 1540-04-73	EACH	1.000	1.000
0380	650.9000	Construction Staking Curb Ramps	EACH	13.000	13.000
0382	650.9500	Construction Staking Sidewalk (project) 001. 1540-04-73	EACH	1.000	1.000
0384	650.9911	Construction Staking Supplemental Control (project) 001. 1540-04-73	EACH	1.000	1.000
0386	650.9920	Construction Staking Slope Stakes	LF	10,490.000	10,490.000
0388	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	5,607.000	5,607.000
0390	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	2,208.000	2,208.000
0392	652.0800	Conduit Loop Detector	LF	1,930.000	1,930.000

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Line	Item	Item Description	Unit	Total	Qty
0394	653.0154	Pull Boxes Non-Conductive 24x36-Inch	EACH	9.000	9.000
0396	653.0164	Pull Boxes Non-Conductive 24x42-Inch	EACH	32.000	32.000
0398	653.0905	Removing Pull Boxes	EACH	17.000	17.000
0400	654.0101	Concrete Bases Type 1	EACH	13.000	13.000
0402	654.0106	Concrete Bases Type 6	EACH	12.000	12.000
0404	654.0113	Concrete Bases Type 13	EACH	1.000	1.000
0406	654.0120	Concrete Bases Type 10-Special	EACH	3.000	3.000
0408	655.0230	Cable Traffic Signal 5-14 AWG	LF	5,823.000	5,823.000
0410	655.0240	Cable Traffic Signal 7-14 AWG	LF	593.000	593.000
0412	655.0250	Cable Traffic Signal 9-14 AWG	LF	275.000	275.000
0414	655.0260	Cable Traffic Signal 12-14 AWG	LF	1,426.000	1,426.000
0416	655.0270	Cable Traffic Signal 15-14 AWG	LF	1,134.000	1,134.000
0418	655.0305	Cable Type UF 2-12 AWG Grounded	LF	1,083.000	1,083.000
0420	655.0515	Electrical Wire Traffic Signals 10 AWG	LF	5,847.000	5,847.000
0422	655.0610	Electrical Wire Lighting 12 AWG	LF	5,237.000	5,237.000
0424	655.0620	Electrical Wire Lighting 8 AWG	LF	3,945.000	3,945.000
0426	655.0625	Electrical Wire Lighting 6 AWG	LF	12,784.000	12,784.000
0428	655.0630	Electrical Wire Lighting 4 AWG	LF	831.000	831.000
0430	655.0700	Loop Detector Lead In Cable	LF	8,535.000	8,535.000
0432	655.0800	Loop Detector Wire	LF	7,370.000	7,370.000
0434	655.0900	Traffic Signal EVP Detector Cable	LF	1,394.000	1,394.000
0436	656.0201	Electrical Service Meter Breaker Pedestal (location) 001. CB200	EACH	1.000	1.000
0438	657.0100	Pedestal Bases	EACH	13.000	13.000
0440	657.0255	Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	EACH	6.000	6.000
0442	657.0327	Poles Type 6-Aluminum	EACH	6.000	6.000
0444	657.0352	Poles Type 10-Special	EACH	3.000	3.000
0446	657.0360	Poles Type 13	EACH	1.000	1.000
0448	657.0405	Traffic Signal Standards Aluminum 3.5-FT	EACH	1.000	1.000
0450	657.0425	Traffic Signal Standards Aluminum 15-FT	EACH	12.000	12.000
0452	657.0541	Monotube Arms 40-FT-Special	EACH	1.000	1.000
0454	657.0546	Monotube Arms 45-FT-Special	EACH	2.000	2.000
0456	657.0550	Monotube Arms 50-FT	EACH	1.000	1.000
0458	657.0715	Luminaire Arms Truss Type 4 1/2-Inch Clamp 15-FT	EACH	12.000	12.000
0460	657.0808	Luminaire Arms Steel 8-FT	EACH	4.000	4.000
0462	658.0173	Traffic Signal Face 3S 12-Inch	EACH	16.000	16.000
0464	658.0174	Traffic Signal Face 4S 12-Inch	EACH	11.000	11.000
0466	658.0416	Pedestrian Signal Face 16-Inch	EACH	6.000	6.000
0468	658.0500	Pedestrian Push Buttons	EACH	7.000	7.000
0470	658.5070	Signal Mounting Hardware (location) 001. STH 65 & 70th Ave	EACH	1.000	1.000
0472	659.1115	Luminaires Utility LED A	EACH	12.000	12.000
0474	659.1125	Luminaires Utility LED C	EACH	4.000	4.000
0476	659.2130	Lighting Control Cabinets 120/240 30-Inch	EACH	1.000	1.000
0478	661.0201	Temporary Traffic Signals for Intersections (location) 001. STH 65 & 70th Ave	EACH	1.000	1.000
0480	671.0112	Conduit HDPE 1-Duct 2-Inch	LF	800.000	800.000
0482	673.0105	Communication Vault Type 1	EACH	1.000	1.000
0484	690.0150	Sawing Asphalt	LF	2,065.000	2,065.000
0486	690.0250	Sawing Concrete	LF	915.000	915.000
0488	715.0720	Incentive Compressive Strength Concrete Pavement	DOL	6,113.000	6,113.000
0490	740.0440	Incentive IRI Ride	DOL	3,683.000	3,683.000

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Line	Item	Item Description	Unit	Total	Qty
0492	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	2,400.000	2,400.000
0494	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	2,000.000	2,000.000
0496	SPV.0060	Special 001. Remove and Salvage Street Light Equipment	EACH	10.000	10.000
0498	SPV.0060	Special 002. Reinstall Salvaged Street Light Equipment	EACH	9.000	9.000
0500	SPV.0060	Special 003. Remove Existing Lighting Control Cabinet	EACH	1.000	1.000
0502	SPV.0060	Special 004. Bird Deterrent Posts	EACH	200.000	200.000
0504	SPV.0060	Special 006. Temporary Inlet Cover	EACH	5.000	5.000
0506	SPV.0060	Special 007. Hydrant	EACH	2.000	2.000
0508	SPV.0060	Special 008. Gate Valve and Box 6-Inch	EACH	1.000	1.000
0510	SPV.0060	Special 009. Gate Valve and Box 12-Inch	EACH	2.000	2.000
0512	SPV.0060	Special 010. Connect to Existing Water Main	EACH	1.000	1.000
0514	SPV.0060	Special 011. Construction Staking Water Main Structure	EACH	5.000	5.000
0516	SPV.0060	Special 012. Concrete Bases Type 5 Bumper	EACH	2.000	2.000
0518	SPV.0060	Special 013. Storage Cabinet	EACH	1.000	1.000
0520	SPV.0060	Special 014. Concrete Pad	EACH	1.000	1.000
0522	SPV.0060	Special 015. Remove and Salvage Traffic Signals (STH 65 & 70th Avenue)	EACH	1.000	1.000
0524	SPV.0060	Special 016. Install State Furnished EVP System (STH 65 & 70th Avenue)	EACH	1.000	1.000
0526	SPV.0060	Special 017. Restore Fiber Optic Cable System	EACH	1.000	1.000
0528	SPV.0060	Special 018. Furnish and Install Temporary EVP System	EACH	1.000	1.000
0530	SPV.0060	Special 019. Double Cabinet Base	EACH	1.000	1.000
0532	SPV.0090	Special 001. Install CAT-5E Cable	LF	737.000	737.000
0534	SPV.0090	Special 002. Removing Electrical Conductors from Existing Conduit	LF	1,667.000	1,667.000
0536	SPV.0090	Special 004. Water Main 6-Inch	LF	16.000	16.000
0538	SPV.0090	Special 005. Water Main 12-Inch	LF	619.000	619.000
0540	SPV.0090	Special 006. Construction Staking Water Main Pipe	LF	635.000	635.000
0542	SPV.0180	Special 001. Concrete Inspection Pad	SY	156.000	156.000

3

CLEARING & GRUBBING

CATEGORY	STATION	-	STATION	O/S	LOCATION	201.0105 CLEARING (STA)	201.0120 CLEARING (ID)	201.0205 GRUBBING (STA)	201.0220 GRUBBING (ID)
0010									
	59+00'N'	-	64+00'N'	RT	NB STH 65	5	--	5	--
	64+00'S'			LT	SB STH 65	--	16	--	16
	73+50'N'			RT	NB STH 65	--	16	--	16
PROJECT 1540-04-73 TOTAL						**5**	**32**	**5**	**32**

REMOVING CULVERTS AND ENDWALLS

CATEGORY	STATION	O/S	LOCATION	203.0100 REMOVING SMALL PIPE CULVERTS (EACH)	204.9060.001 REMOVING APRON ENDWALL (EACH)
0010					
	74+40'S'	LT	SB STH 65	1	--
	80+75'S'	LT & RT	SB STH 66	--	2
	16+60'E'	LT	70TH AVENUE	1	--
	20+45'E'	LT & RT	70TH AVENUE	1	--
	22+15'E'	LT	70TH AVENUE	2	--
	23+00'E'	---	70TH AVENUE	1	--
	24+90'E'	LT	70TH AVENUE	1	--
PROJECT 1540-04-73 TOTAL				**7**	**2**

REMOVING CONCRETE PAVEMENT

CATEGORY	STAGE	STATION TO STATION	204.0100 REMOVING CONCRETE PAVEMENT (SY)
0010			
	STAGE 1		
		PARK & RIDE	
		PARK & RIDE BUS PAD	68
	STAGE 1 TOTAL		68
	STAGE 2		
		NB STH 65	
		55+35'N' - 60+35'N'	1250
	STAGE 2 TOTAL		1,250
	STAGE 3		
		SB STH 65	
		56+75'S' - 60+37'S'	1010
	STAGE 3 TOTAL		1,010
PROJECT 1540-04-73 TOTAL			**2,328**

3

REMOVING ASPHALTIC SURFACE

CATEGORY	STAGE	STATION TO STATION	LOCATION	204.0110 (SY)
0010				
	STAGE 4A			
		NB STH 65		
		63+70'N' - 64+75'N'	RT	190
PROJECT 1540-04-73 TOTAL				**190**

REMOVING ASPHALTIC SURFACE MILLING

CATEGORY	STATION TO STATION	LOCATION	204.0120 (SY)	204.0125 (TON)	REMARKS
0010					
	NB STH 65				
	81+08'N' - 82+70'N'	LT& RT	575	65	2-INCH MILL DEPTH TYPICAL, DEPTH VARIES
PROJECT 1540-04-73 TOTAL			**575**	**65**	

REMOVING INLETS

CATEGORY	STAGE	STATION	O/S	204.0220 REMOVING INLETS (EACH)
0010				
	STAGE 3			
		SB STH 65		
		59+00'S'	RT	1
		59+10'S'	RT	1
		60+15'S'	RT	1
	STAGE 3 TOTAL			3
PROJECT 1540-04-73 TOTAL				**3**

REMOVING FENCE

CATEGORY	STATION TO STATION	LOCATION	204.0170 (LF)
0010			
	NB STH 65		
	58+90'N' - 64+35'N'	RT	695
	70+75'N' - 81+60'N'	RT	1162
PROJECT 1540-04-73 TOTAL			**1857**

REMOVING CURB & GUTTER

CATEGORY	STAGE	STATION TO STATION	LOCATION	204.0150 REMOVING CURB & GUTTER (LF)	REMARKS
0010					
	STAGE 1				
		NB STH 65			
		54+05'N' - 55+35'N'	LT	130	
		65+20'N' - 65+80'N'	RT	100	
		SB STH 65			
		54+46'N' - 55+55'S'	RT	125	
		65+00'S' - 65+60'S'	LT	85	
		70TH AVENUE			
		21+70'E' - 22+00'E'	LT	42	
		22+30'E' - 22+60'E'	LT	72	
		PARK & RIDE			
		CONCRETE ISLAND		86	
	STAGE 1 TOTAL			640	
	STAGE 2				
		NB STH 65			
		64+07'N' - 64+73'N'	RT	87	
	STAGE 2 TOTAL			87	
	STAGE 3				
		SB STH 65			
		55+55'S' - 56+75'S'	RT	123	
		63+86'S' - 64+40'S'	LT	90	
	STAGE 3 TOTAL			213	
PROJECT 1540-04-73 TOTAL				**940**	

REMOVING DELINEATORS AND MARKERS

CATEGORY	STATION	O/S	LOCATION	204.0180 (EACH)	REMARK
0010					
	59+34'N'	RT	NB STH 65	1	R/W MARKER
	60+58'N'	RT	NB STH 65	1	R/W MARKER
	61+77'N'	RT	NB STH 65	1	R/W MARKER
	63+65'N'	RT	NB STH 65	1	R/W MARKER
	67+50'S'	LT	SB STH 65	1	R/W MARKER
	69+68'S'	LT	SB STH 65	1	R/W MARKER
	73+28'S'	LT	SB STH 65	1	R/W MARKER
	73+58'S'	LT	SB STH 65	1	R/W MARKER
	77+20'S'	LT	SB STH 65	1	R/W MARKER
	21+56'E'	RT	70TH AVENUE	1	R/W MARKER
	23+62'E'	LT	70TH AVENUE	1	R/W MARKER
	23+62'E'	RT	70TH AVENUE	1	R/W MARKER
PROJECT 1540-04-73 TOTAL				**12**	

REMOVING CONCRETE SIDEWALK

CATEGORY	STAGE	STATION TO STATION	204.0155 REMOVING CONCRETE SIDEWALK (SY)
0010			
	STAGE 1		
		NB STH 65	
		54+35'N' - 55+65'N'	265
		PARK & RIDE	
		PARK & RIDE BUS PAD	77
		CONCRETE ISLAND	16
	STAGE 1 TOTAL		358
	STAGE 2		
		NB STH 65	
		59+85'N' - 60+25'N'	40
	STAGE 2 TOTAL		40
PROJECT 1540-04-73 TOTAL			**398**

EARTHWORK

CATEGORY	STAGE	DIVISION	LOCATION	STATION - STATION	205.0100 Excavation Common (1) Cut (2) (CY)	205.0100 Excavation Common (1) EBS Excavation (3) (CY)	Salvaged/ Unusable Pavement Material (4)	Available Material (5)	205.0400 Excavation Marsh (6) (CY)	Reduced EBS in Fill (7) Factor 0.80	Unexpanded Fill	Expanded Fill (8) Factor 1.25	Mass Ordinate +/- (9)	Waste	208.1100 Select Borrow (CY)
0010	1	1	TEMP ROAD	13+24'T' - 20+29'T'	212	36	3	209	---	29	2,924	3,619	-3,409	0	
				20+66'T' - 29+10'T'	1,097	188	1	1,096	---	150	1,609	1,824	-727	0	
			NB STH 65 CROSSOVER	54+05'N' - 55+70'N'	111	19	12	99	---	15	0	-19	118	118	
		Sub-total 1			1,421	243	16	1,405	0	194	4,533	5,424	-4,018	118	0
0010	2	2	NB STH 65	55+35'N' - 65+22'N'	5,681	971	357	5,323	---	777	1,607	1,038	4,286	4,286	
			70TH AVENUE EAST	20+71'W' - 26+53'W'	2,307	395	---	2,307	---	316	583	334	1,973	1,973	
		Sub-total 2			7,988	1,366	357	7,630	0	1,093	2,190	1,372	6,259	6,259	0
0010	2A	3	NB STH 65 LT TURN LANE	60+97'N' - 65+08'N'	112	19	---	112	---	15	156	175	-63	0	
			NB STH 65 SOUTH CROSSOVER	55+40'N' - 57+00'N'	76	13	2	74	---	10	5	-6	80	80	
			NB STH 65 NORTH CROSSOVER	57+10'N' - 59+63'N'	243	42	9	234	---	33	1	-40	274	274	
		Sub-total 3			431	74	11	420	0	59	162	129	291	354	0
0010	3	4	SB STH 65	58+75'S' - 65+14'S'	1,069	183	107	962	---	146	173	33	929	929	
			70TH AVENUE WEST	18+12'W' - 19+39'W'	205	35	53	152	---	28	337	387	-235	0	
		Sub-total 4			1,273	218	160	1,113	0	174	510	420	694	929	0
0010	3A	5	SB STH 65	56+76'S' - 58+75'S'	244	42	148	96	---	33	0	-42	137	137	
		Sub-total 5			244	42	148	96	0	33	0	-42	137	137	0
0010	4	6	NB & SB STH 65	65+08'N' - 82+70'N'	18,727	3,202	1411	17,316	650	2,562	10,022	8,837	8,479	8,479	650
			70TH AVENUE WEST	18+10'W' - 19+41'W'	303	52	---	303	---	41	78	45	257	257	
			70TH AVENUE EAST	20+68'E' - 29+15'E'	2,383	407	---	2,383	---	326	213	-141	2,524	2,524	
			STH 65 MEDIAN	54+05'N' - 60+97'N'	306	52	---	306	---	42	67	31	275	275	
		Sub-total 6			21,718	3,714	1,411	20,307	650	2,971	10,379	8,772	11,535	11,535	650
Grand Totals					**33,076**	**5,656**	**2,104**	**30,972**	**650**	**4,525**	**17,774**	**16,074**	**14,898**	**19,332**	**650**
Total Excavation Common					**38,732**										

1) Common Excavation is the sum of the Cut and EBS Excavation columns
2) Salvaged/Unsuable Pavement Material is included in Cut
3) EBS Excavation to be backfilled with Select Crushed Material. EBS estimated at 17.10% undistributed quantity.
4) Salvaged/Unusable Pavement Material
5) Available Material = Cut - Salvaged/Unusuable Pavement Material
6) Marsh Excavation - to be backfilled with Select Borrow Material
7) Reduced EBS in Fill - Excavated EBS material is usuable in Fills outside the 1:1 slope. EBS in Fill Reduction factor = 0.8
8) Expanded Fill. Factor = 1.25
9) 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 with
10) Excess material from SB STH 65 lanes constructed in Stage 4 to be used in lieu of Borrow for Temp Road construction.

REMOVING ASPHALTIC SURFACE BUTT JOINTS

CATEGORY	LOCATION	204.0115 (SY)
0010		
	NORTH END - STH 65	8
PROJECT 1540-04-73 TOTAL		**8**

REMOVING STORM SEWER

CATEGORY	STAGE	STATION TO STATION	204.0245.001 REMOVING STORM SEWER 12-INCH (LF)
0010			
	STAGE 3		
		SB STH 65	
		59+00'S' - 59+10'S'	10
		60+15'S'	24
	STAGE 3 TOTAL		34
PROJECT 1540-04-73 TOTAL			**34**

BASE AGGREGATE DENSE 3/4-INCH

CATEGORY	STAGE	STATION TO STATION	305.0110 * (TON)	REMARKS
0010				
	STAGE 2			
		NB STH 65		
		55+35'N' - 59+50'N'	60	SHOULDER
		70TH AVENUE		
		22+50'E' - 26+50'E'	70	SHOULDER
	STAGE 2 TOTAL		130	
	STAGE 2A			
		NB STH 65		
		61+00'N' - 64+50'N' LT	110	MEDIAN/SIDEWALK
	STAGE 2A TOTAL		110	
	STAGE 3			
		SB STH 65		
		59+50'S' - 63+75'S' LT	70	SHOULDER
		70TH AVENUE		
		18+25'E' - 19+25'E' LT	40	MEDIAN
		18+75'E' - 19+25'E' RT	25	ISLAND/SIDEWALK
		18+94'E' - 19+00'E' RT	5	SIDEWALK
	STAGE 3 TOTAL		140	
	STAGE 4			
		NB STH 65		
		54+05'N' - 55+65'N' LT	60	MEDIAN/SIDEWALK
		65+50'N' - 66+25'N' LT	20	ISLAND/SIDEWALK
		66+25'N' - 82+70'N' RT	190	SHOULDER
		73+50'N' - 74+25'N' LT	30	MEDIAN/SIDEWALK
		SB STH 65		
		65+50'S' - 73+00'S' LT	85	SHOULDER
		65+50'S' - 66+75'S' LT	70	MEDIAN/SIDEWALK
		65+50'S' - 68+25'S' LT	105	MEDIAN/SIDEWALK
		77+63'S' - 81+12'S' LT	40	SHOULDER
		81+12'S' - 82+75'S' LT	15	SHOULDER
		70TH AVENUE		
		14+36'W' - 18+13'W' LT	50	SIDEWALK
		18+13'W' - 19+14'W' LT	15	SIDEWALK
		24+43'W' - 25+12'W' LT	95	DRIVEWAY
		26+50'E' - 29+00'E' LT	30	SHOULDER
		PARK & RIDE		
		SHOULDER & SIDEWALK	100	
	STAGE 4 TOTAL		905	
	STAGE 4A			
		NB STH 65		
		63+75'N' - 64+75'N' RT	25	ISLAND SIDEWALK
		SB STH 65		
		64+25'S' - 64+50'S' RT	10	ISLAND SIDEWALK
		70TH AVENUE		
		20+75'E' - 21+25'E' LT	15	ISLAND SIDEWALK
		PARK & RIDE		
		SHOULDER	20	
	STAGE 4A TOTAL		35	
CATEGORY 0010 TOTAL			1,320	

CATEGORY	STAGE	STATION TO STATION	305.0110 * (TON)	REMARKS
0030				
		PARK & RIDE		
		10+67'PNR' - 15+28'PNR'	60	PULL OFF SITE
CATEGORY 0030 TOTAL			60	
PROJECT 1540-04-73 TOTAL			**1,380**	

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

BASE AGGREGATE DENSE 1 1/4-INCH

CATEGORY	STAGE	STATION TO STATION	305.0120 * (TON)	REMARKS
0010				
	STAGE 2			
		NB STH 65		
		55+35'N' - 65+25'N'	1890	MAINLINE
		55+35'N' - 59+50'N' RT	400	SHOULDER
		70TH AVENUE		
		20+85'E' - 21+55'E'	440	MAINLINE
		21+55'E' - 26+50'E'	2060	MAINLINE
		PARK & RIDE		
		24+43'W' - 25+22'W'	215	DRIVEWAY
	STAGE 2 TOTAL		5005	
	STAGE 2A			
		NB STH 65		
		60+75'N' - 65+15'N' LT	430	TURN LANE
	STAGE 2A TOTAL		430	
	STAGE 3			
		SB STH 65		
		58+75'S' - 65+15'S'	1000	MAINLINE
		59+40'S' - 63+65'S' LT	490	SHOULDER
		70TH AVENUE		
		18+10'W' - 19+45'W'	225	MAINLINE
		18+10'E' - 19+36'E'	275	MAINLINE
	STAGE 3 TOTAL		1,990	
	STAGE 3A			
		SB STH 65		
		56+75'S' - 58+75'S'	220	MAINLINE
	STAGE 3A TOTAL		220	
	STAGE 4			
		NB STH 65		
		65+25'N' - 74+75'N'	1170	MAINLINE
		66+25'N' - 74+75'N' RT	720	SHOULDER
		74+75'N' - 77+25'N'	1520	MAINLINE
		77+25'N' - 81+08'N' RT	550	MAINLINE
		SB STH 65		
		65+15'S' - 78+04'S'	1655	MAINLINE
		76+30'S' - 77+63'S' LT	165	FUTURE ROAD
		65+65'S' - 76+30'S' LT	325	SHOULDER
		80+79'S' - 82+70'S' LT	115	SHOULDER
		78+04'S' - 81+12'S'	305	MAINLINE
		78+04'S' - 80+79'S' LT	210	RT TURN LANE
		70TH AVENUE		
		14+30'W' - 18+13'W' LT	75	CURB AND GUTTER
		21+00'W' - 21+55'W' LT	100	MAINLINE
		PARK & RIDE		
		PARK & RIDE	635	ENTRY/LOT
		BUS STOP	80	CONCRETE PAD
	STAGE 4 TOTAL		7625	
CATEGORY 0010 TOTAL			15,270	

CATEGORY	STAGE	STATION TO STATION	305.0120 * (TON)	REMARKS
0030				
		PARK & RIDE		
		10+67'PNR' - 15+28'PNR	650	PULL OFF SITE
CATEGORY 0030 TOTAL			650	
PROJECT 1540-04-73 TOTAL			**15,920**	

*ADDITIONAL QUANTITIES LISTED ELSEWHERE

SELECT CRUSHED MATERIAL

CATEGORY	STAGE	STATION TO STATION	312.0110 (TON)	REMARKS
0010				
	STAGE 2			
		70TH AVENUE		
		21+55'E' - 26+50'E'	1880	SUBBASE
	STAGE 2 TOTAL		1880	
	STAGE 4			
		SB STH 65		
		78+08'S' - 81+12'S'	305	MAINLINE
		78+04'S' - 82+70'S'	150	SHOULDER
		78+04'S' - 81+12'S'	215	RT TURN LANE
		76+30'S' - 77+63'S'	295	FUTURE ROADWAY
		NB STH 65		
		78+04'N' - 82+70'N'	400	SHOULDER
		78+04'N' - 81+08'N	380	MAINLINE
		70TH AVENUE		
		14+31'W' - 18+13'W'	150	CURB AND GUTTER
	STAGE 4 TOTAL		1,895	
	UNDISTRIBUTED		11,575	
PROJECT 1540-04-73 TOTAL			**15,350**	

UNDISTRIBUTED QUANTITY MATCHES EBS
ESTIMATE - SEE EARTHWORK TABLE

ASPHALTIC SURFACE TEMPORARY & BASE AGGREGATE DENSE

CATEGORY	STAGE	STATION TO STATION	305.0110 * BASE AGGREGATE DENSE 3/4-INCH (TON)	305.0120 * BASE AGGREGATE DENSE 1 1/4-INCH (TON)	465.0125 ASPHALTIC SURFACE TEMPORARY (TON)	REMARKS
0010						
	STAGE 1					
		NB STH 65				
		54+05'N' - 55+70'N' LT	--	136	50	STAGE 1 CROSSOVER
		TEMPORARY ROAD				
		14+52'TR' - 20+29'TR'	--	1832	627	TEMPORARY ROAD - EAST LEG
		20+62'TR' - 29+27'TR'	--	2922	948	TEMPORARY ROAD - WEST LEG
	STAGE 1 TOTAL		0	4890	1625	
	STAGE 2					
		NB STH 65				
		63+71'N' - 64+77'N' RT	--	124	52	STAGE 2 MEDIAN GORE
		TEMPORARY ROAD				
		20+65'TR' - 23+00'TR' RT	--	467	155	STH 65 NB TO TEMPORARY ROAD
		PARK AND RIDE				
		10+17'PNR' - 10+62'PNR'	--	0	0	DRIVEWAY BINDER
	STAGE 2 TOTAL		0	591	207	
	STAGE 2A					
		NB STH 65				
		55+25'N' - 57+00'N' LT	--	148	47	MEDIAN
		57+00'N' - 59+75'N' LT	--	306	109	STAGE 2 CROSSOVER
		65+11'N' - 65+64'N' LT	--	176	70	EB 70TH TO NB STH 65
	STAGE 2A TOTAL		0	630	226	
	STAGE 3					
		TEMPORARY ROAD				
		17+23'TR' - 17+82'TR' RT	--	54	17	FLYING J ENTRANCE
	STAGE 3 TOTAL		0	54	17	
	STAGE 4					
		SB STH 65	--	--	--	
		SB STH 65	--	--	--	
	STAGE 4 TOTAL		0	0	0	
		UNDISTRIBUTED	40	65	125	
PROJECT 1540-04-73 TOTAL			**40**	**6,230**	**2,200**	

*ADDITIONAL QUANTITIES LISTED ELSEWHERE

CONCRETE SIDEWALK

CATEGORY	STAGE	STATION	O/S	405.0100 * COLORING CONCRETE WISDOT RED (CY)	602.0410 CONCRETE SIDEWALK 5-INCH (SF)	REMARKS
0010						
	STAGE 2A					
		NB STH 65				
		61+05'N' - 64+43'N'	LT	--	4315	MEDIAN
	STAGE 2A TOTAL			0	4315	
	STAGE 3					
		70TH AVENUE				
		18+91'E' - 19+00'E'	RT	--	72	
		18+72'E' - 19+22'E'	RT	--	530	RT TURN ISLAND
		18+10'E' - 19+12'E'	LT	--	905	MEDIAN
	STAGE 3 TOTAL			0	1507	
	STAGE 4					
		NB STH 65				
		54+05'N' - 55+65'N'	LT	38	2430	MEDIAN
		65+60'N' - 66+25'N'	LT	8	520	MEDIAN
		76+62'N' - 77+98'N'	LT	13	860	MEDIAN
		SB STH 65				
		65+50'S' - 66+75'S'	LT	--	1800	RT TURN ISLAND
		65+50'S' - 68+25'S'	RT	--	4025	LT TURN ISLAND
		70TH AVENUE				
		18+14'W' - 19+14'W'	LT	--	550	NORTH SIDE
		20+75'W' - 21+25'W'	LT	--	470	RT TURN ISLAND
		PARK & RIDE				
		PEDESTRIAN BUS PAD		--	1025	
		SIDEWALK CONNECTION		--	305	
		CONCRETE ISLAND		--	161	
	STAGE 4 TOTAL			59	12146	
	STAGE 4A					
		NB STH 65				
		63+75'N' - 64+75'N'	RT	--	970	RT TURN ISLAND
	STAGE 4A TOTAL			0	970	
PROJECT 1540-04-73 TOTAL				**59**	**18938**	

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

DRILLED TIE BARS & DRILLED DOWEL BARS

CATEGORY	STAGE	STATION TO STATION	416.0610 DRILLED TIE BARS (EACH)	416.0620 DRILLED DOWEL BARS (EACH)
0010				
	STAGE 2			
		NB STH 65		
		55+35'N' RT	--	22
		NB STH 65		
		53+50'N' -64+80'N' RT	65	--
	STAGE 2 TOTAL		65	22
	STAGE 3			
		SB STH 65		
		60+24'S' LT	--	16
		59+00'S' - 60+24'S' LT	50	--
	STAGE 3 TOTAL		50	16
	STAGE 3A			
		SB STH 65		
		56+75'S' - 59+00'S' LT	90	--
		56+75'S' LT	--	22
	STAGE 3A TOTAL		90	22
	STAGE 4			
		NB STH 65		
		54+05'N' - 55+35'N' LT	55	--
		SB STH 65		
		54+35'S' - 56+75'S' RT	100	--
	STAGE 4 TOTAL		155	0
	UNDISTRIBUTED		15	5
PROJECT 1540-04-73 TOTAL			**375**	**65**

CONCRETE PAVEMENT 10-INCH

CATEGORY	STAGE	STATION TO STATION	415.0100 CONCRETE PAVEMENT 10-INCH (SY)	405.0100 * COLORING CONCRETE WISDOT RED (CY)	416.0512 CONCRETE TRUCK APRON 12-INCH (SY)
0010					
	STAGE 2				
		NB STH 65			
		55+35'N' - 65+25'N'	4640	18	52
		70TH AVENUE			
		20+85'E' - 21+55'E' RT	--	104	310
		21+00'E' - 21+55'E'	300	--	--
	STAGE 2 TOTAL		4940	122	362
	STAGE 2A				
		NB STH 65			
		60+75'N' - 65+25'N'	850	--	--
	STAGE 2A TOTAL		850	0	0
	STAGE 3				
		SB STH 65			
		58+75'S' - 65+20'S'	2541	--	--
		70TH AVENUE			
		18+10'E' - 19+30'E'	630	--	--
	STAGE 3 TOTAL		3,171	0	0
	STAGE 3A				
		SB STH 65			
		58+75'S' - 65+20'S'	470	27	80
	STAGE 3A TOTAL		470	27	80
	STAGE 4				
		NB STH 65			
		65+15'N' - 78+04'N'	3,842	--	--
		SB STH 65			
		65+15'S' - 78+08'S'	6,570	--	--
		70TH AVENUE			
		18+10'W' - 19+39'W'	527	--	--
		21+00'W' - 21+55'W'	225	--	--
		PARK & RIDE			
		BUS PAD	85	--	--
	STAGE 4 TOTAL		11,248	0	0
PROJECT 1540-04-73 TOTAL			**20,679**	**149**	**442**

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

HMA PAVEMENT

CATEGORY	STAGE	STATION TO STATION	450.4000 HMA COLD WEATHER PAVING (TON)	460.6643 HMA PAVEMENT 3 MT 58-34 V (TON)	460.6645 HMA PAVEMENT 5 MT 58-34 V (TON)	455.0605* TACK COAT (GAL)	REMARKS
0010							
	STAGE 2						
		NB STH 65					
		55+35'N' - 59+50'N'	--	25	--	0	SHOULDER LOWER BINDER
		55+35'N' - 59+50'N'	--	--	15	9	SHOULDER SURFACE
		70TH AVENUE					
		21+55'E' - 26+50'E'	--	425	--	0	LOWER BINDER
		21+55'E' - 26+50'E'	--	390	--	162	MIDDLE BINDER
	STAGE 2 TOTAL		0	840	15	171	
	STAGE 3						
		SB STH 65					
		60+25'S' - 63+70'S'	--	35	--	0	SHOULDER LOWER BINDER
		60+25'S' - 63+70'S'	--	--	25	15	SHOULDER SURFACE
	STAGE 3 TOTAL		0	35	25	15	
	STAGE 4						
		NB STH 65					
		66+25'N' - 78+04'N' RT	25	100	--	0	SHOULDER LOWER BINDER
		66+25'N' - 78+04'N' RT	16	--	65	40	SHOULDER SURFACE
		78+04'N' - 81+08'N'	24	95	--	0	MAINLINE RECONSTRUCTION LOWER BINDER
		78+04'N' - 81+08'N'	23	90	--	36	MAINLINE RECONSTRUCTION MIDDLE BINDER
		78+04'N' - 81+08'N'	11	--	45	36	MAINLINE RECONSTRUCTION SURFACE
		81+08'N' - 82+70'N' RT	1	5	--	0	SHOULDER LOWER BINDER
		81+08'N' - 82+70'N' RT	1	--	5	2	SHOULDER SURFACE
		81+08'N' - 82+70'N'	9	--	35	22	MAINLINE REHABILITATION SURFACE
		SB STH 65					
		65+72'S' - 76+30'S' LT	4	15	--	0	SHOULDER LOWER BINDER
		65+72'S' - 76+30'S' LT	3	--	10	6	SHOULDER SURFACE
		77+66'S' - 78+08'S' LT	1	5	--	0	SHOULDER LOWER BINDER
		77+66'S' - 78+08'S' LT	1	--	5	1	SHOULDER SURFACE
		78+08'S' - 81+13'S' LT	4	15	--	0	SHOULDER LOWER BINDER
		78+08'S' - 81+13'S' LT	3	--	10	6	SHOULDER SURFACE
		78+08'S' - 81+13'S'	34	135	--	0	MAINLINE RECONSTRUCTION LOWER BINDER
		78+08'S' - 81+13'S'	31	125	--	52	MAINLINE RECONSTRUCTION MIDDLE BINDER
		78+08'S' - 81+13'S'	16	--	65	52	MAINLINE RECONSTRUCTION SURFACE
		81+13'S' - 82+74'S' LT	4	15	--	0	SHOULDER LOWER BINDER
		81+13'S' - 82+74'S' LT	3	--	10	7	SHOULDER SURFACE
		81+13'S' - 82+74'S'	8	--	30	19	MAINLINE REHABILITATION SURFACE
	STAGE 4 TOTAL		220	600	280	279	
	STAGE 4A						
		70TH AVENUE					
		21+55'E' - 21+83'E'	4	15	--	0	LOWER BINDER
		21+55'E' - 21+83'E'	4	15	--	6	MIDDLE BINDER
		21+55'E' - 26+50'E'	51	--	205	168	SURFACE
	STAGE 4A TOTAL		59	30	205	174	
CATEGORY 0010 TOTAL			279	1,505	525	639	
PROJECT 1540-04-73 TOTAL			**279**	**1,505**	**525**	**639**	

*ADDITIONAL QUANTITIES LISTED ELSEWHERE

ASPHALTIC FLUMES

CATEGORY	STAGE	STATION	O/S	465.0315 ASPHALTIC FLUMES (SY)
0010				
	STAGE 3			
		70TH AVENUE		
		18+25'E'	RT	15
	STAGE 3 TOTAL			15
	STAGE 4			
		NB STH 65		
		66+25'N'	RT	15
		SB STH 65		
		65+65'S'	LT	15
	STAGE 4 TOTAL			30
	UNDISTRIBUTED			10
PROJECT 1540-04-73 TOTAL				**55**

STORM SEWER STRUCTURES

CATEGORY	STR #	RL	STATION	OFFSET**	RIM ELEV	INVERT ELEV	DEPTH*** FT	522.1012 APRON ENDWALL CULVERT PIPE REINFORCED CONCRETE 12-INCH (EACH)	522.1015 15-INCH (EACH)	522.1018 * 18-INCH (EACH)	522.1024 24-INCH (EACH)	522.1030 30-INCH (EACH)	611.0612 INLET & MANHOLE COVERS TYPE C (EACH)	611.0530 TYPE J (EACH)	611.0627 TYPE HM (EACH)	611.0642 TYPE MS (EACH)	611.3004 INLETS 4-FT DIA (EACH)	611.3230 2x3-FT (EACH)	611.3902 MEDIAN 2-GRATE (EACH)	611.2005 MANHOLE 5-FT DIA (EACH)	633.5200 * MARKERS CULVERT END (EACH)	650.4000 CONSTRUCTION STAKING STORM SEWER (EACH)
0010																						
	59.0	'N'	58+99.70	41.33' RT	--	1016.67	--	--	1	--	--	--	--	--	--	--	--	--	--	--	1	1
	+59.1	'N'	59+00.00	13.50' LT	1021.35	1017.25	3.29	--	--	--	--	--	--	--	1	--	--	1	--	--	--	1
	59.2	'S'	59+06.37	3.50' RT	1022.34	1018.00	3.51	--	--	--	--	--	--	--	1	--	--	1	--	--	--	1
	59.3	'S'	59+16.72	3.50' RT	1021.57	1018.07	2.67	--	--	--	--	--	--	--	1	--	--	1	--	--	--	1
	+61.1	'S'	60+17.60	3.50' RT	1017.04	1014.04	2.00	--	--	--	--	--	--	--	1	--	--	1	--	--	--	1
	62.0	'N'	62+00.27	60.54' RT	--	1004.80	--	--	1	--	--	--	--	--	--	--	--	--	--	--	1	1
	62.1	'N'	61+99.55	42.49' RT	1007.58	1004.89	1.88	--	--	--	--	--	--	--	1	--	--	1	--	--	--	1
	62.2	'N'	62+00.00	3.50' LT	1007.93	1005.20	1.89	--	--	--	--	--	--	--	1	--	--	1	--	--	--	1
	63.0	'S'	62+21.35	48.05' LT	--	1004.16	--	--	--	1	--	--	--	--	--	--	--	--	--	--	1	1
	63.1	'S'	62+11.37	3.50' RT	1008.76	1004.34	3.63	--	--	--	--	--	--	--	1	--	--	1	--	--	--	1
	63.2	'S'	62+12.42	22.50' RT	1008.65	1004.65	3.19	--	--	--	--	--	--	--	1	--	--	1	--	--	--	1
	63.3	'S'	62+12.26	39.50' RT	1008.37	1005.06	2.48	--	--	--	--	--	--	--	1	--	--	1	--	--	--	1
	64.0	'S'	63+84.51	69.43' LT	--	1000.40	--	--	1	--	--	--	--	--	--	--	--	--	--	--	1	1
	64.1	'S'	64+11.37	3.50' RT	1003.91	1000.68	2.41	--	--	--	--	--	--	--	1	--	1	--	--	--	--	1
	64.2	'S'	64+26.20	22.47' RT	1003.68	1000.75	2.09	--	--	--	--	--	--	--	1	--	1	--	--	--	--	1
	64.3	'S'	64+27.26	39.50' RT	1003.38	1000.79	1.75	--	--	--	--	--	--	--	1	--	--	1	--	--	--	1
	65.0	'N'	64+32.96	97.10' RT	--	998.50	--	1	--	--	--	--	--	--	--	--	--	--	--	--	1	1
	65.1	'N'	64+37.90	67.24' RT	1000.94	998.58	1.53	--	--	--	--	--	--	--	1	--	--	1	--	--	--	1
	65.2	'N'	64+40.76	46.31' RT	1001.20	998.84	1.53	--	--	--	--	--	--	--	1	--	--	1	--	--	--	1
	65.3	'N'	64+41.57	30.50' RT	1001.94	999.00	2.10	--	--	--	--	--	--	--	1	--	--	1	--	--	--	1
	65.4	'N'	64+30.00	3.50' LT	1002.69	999.90	1.95	--	--	--	--	--	--	--	1	--	--	1	--	--	--	1
	66.0	'S'	66+68.91	68.62' LT	--	997.51	--	1	--	--	--	--	--	--	--	--	--	--	--	--	1	1
	66.1	'S'	66+66.29	38.11' LT	1001.77	998.97	1.97	--	--	--	--	--	--	--	1	--	--	1	--	--	--	1
	66.2	'S'	66+65.89	30.42' LT	1001.99	999.17	1.99	--	--	--	--	--	--	--	1	--	--	1	--	--	--	1
	68.0	'S'	68+11.27	56.60' LT	--	995.88	--	--	1	--	--	--	--	--	--	--	--	--	--	--	1	1
	68.1	'S'	68+13.08	2.99' RT	1001.07	996.18	4.08	--	--	--	--	--	--	--	1	--	--	1	--	--	--	1
	68.2	'S'	68+14.11	11.50' RT	1000.91	996.44	3.66	--	--	--	--	--	--	--	1	--	--	1	--	--	--	1
	68.3	'S'	68+16.05	28.17' RT	1000.63	997.04	2.75	--	--	--	--	--	--	--	1	--	--	1	--	--	--	1
	68.4	'N'	68+06.00	3.50' LT	1000.02	997.50	1.69	--	--	--	--	--	--	--	1	--	--	1	--	--	--	1
	70.0	'S'	70+95.31	48.87' LT	--	993.11	--	--	--	1	--	--	--	--	--	--	--	--	--	--	1	1
	70.1	'S'	70+89.21	8.54' RT	999.28	993.40	5.09	--	--	--	--	--	--	--	1	--	--	1	--	--	--	1
	70.2	'N'	70+79.96	3.50' LT	998.19	994.40	2.96	--	--	--	--	--	--	--	1	--	--	1	--	--	--	1
	70.3	'N'	70+91.98	3.51' LT	998.15	994.57	2.75	--	--	--	--	--	--	--	1	--	--	1	--	--	--	1
	72.0	'S'	71+87.88	59.5' LT	--	990.12	--	--	--	--	--	1	--	--	--	--	--	--	--	--	1	1
	74.0	'N'	74+36.12	47.19' RT	--	991.76	--	--	--	1	--	--	--	--	--	--	--	--	--	--	1	1
	74.1	'N'	74+00.00	3.50' LT	996.21	991.94	3.48	--	--	--	--	--	--	--	1	--	--	1	--	--	--	1
	74.2	'S'	74+00.51	3.57' RT	996.50	992.53	3.14	--	--	--	--	--	--	--	1	--	--	1	--	--	--	1
	74.3	'S'	73+67.12	31.58' LT	996.33	992.80	2.70	--	--	--	--	--	--	--	1	--	--	1	--	--	--	1
	75.0	'S'	74+07.29	36.48' LT	996.44	988.85	6.64	--	--	--	--	--	--	1	--	--	--	--	--	1	--	1
	76.0	'S'	76+19.31	32.03' LT	993.04	987.00	5.09	--	--	--	--	--	--	--	1	--	--	--	--	1	--	1
	77.0	'S'	77+55.64	52.14' LT	--	985.33	--	--	--	--	--	1	--	--	--	--	--	--	--	--	1	1
	77.1	'S'	77+85.00	38.81' LT	--	986.92	--	--	--	1	--	--	--	--	--	--	--	--	--	--	1	1
	77.2	'S'	77+85.00	3.00' RT	991.53	988.00	2.74	--	--	--	--	--	--	--	1	--	1	--	--	--	--	1
	77.3	'N'	77+75.00	3.50' LT	992.33	988.89	2.63	--	--	--	--	--	--	--	1	--	1	--	--	--	--	1
	77.4	'N'	77+58.50	3.50' LT	992.52	989.44	2.24	--	--	--	--	--	--	--	1	--	--	1	--	--	--	1
	77.5	'N'	77+42.00	3.46' LT	992.71	989.75	2.13	--	--	--	--	--	--	--	1	--	--	1	--	--	--	1
	18.0	'E'	18+74.13	97.90' LT	--	996.13	--	--	--	--	1	--	--	--	--	--	--	--	--	--	1	1
	18.2	'E'	18+54.57	14.66' RT	1002.88	996.80	5.09	--	--	--	--	--	1	--	--	--	1	--	--	--	--	1
	18.3	'E'	19+22.00	14.00' RT	1003.08	998.29	3.71	--	--	--	--	--	1	--	--	--	1	--	--	--	--	1
	18.4	'E'	19+30.73	14.04' LT	1002.89	998.79	3.03	--	--	--	--	--	1	--	--	--	1	--	--	--	--	1
	18.5	'E'	18+53.22	70.78' RT	1000.00	997.00	3.25	--	--	--	--	--	--	--	--	2	--	--	1	--	1	1
	22.0	'E'	22+46.89	48.89' LT	--	995.01	--	--	--	--	1	--	--	--	--	--	--	--	--	--	1	1
	22.1	'E'	21+83.78	51.08' LT	--	996.00	--	1	--	--	--	--	--	--	--	--	--	--	--	--	1	1
	22.3	'E'	21+98.68	36.09' LT	999.49	995.25	3.66	--	--	--	--	--	--	1	--	--	--	--	--	1	--	1
	22.4	'E'	21+52.80	22.49' RT	1000.10	995.50	3.85	--	--	--	--	--	--	--	1	--	1	--	--	--	--	1
	22.5	'E'	21+54.27	55.24' RT	998.50	995.58	3.13	--	--	--	--	--	--	--	--	2	--	--	1	--	1	1
PROJECT 1540-04-73 TOTAL								**3**	**4**	**4**	**2**	**2**	**3**	**2**	**34**	**4**	**8**	**28**	**2**	**3**	**17**	**56**

*ADDITIONAL QUANTITIES LISTED ELSEWHERE
** STATIONS AND OFFSETS ARE TO CENTER OF STRUCTURE, OR ENDWALL MATCH WITH PIPE
*** DEPTH = RIM ELEV - CASTING THICKNESS - 6 -INCH ADJUSTMENT RING - INVERT ELEV. + PIPE THICKNESS
+ FIELD VERIFY DEPTH

3

STORM SEWER PIPES

CATEGORY	FROM	-	TO	LOCATION	INLET	OUTLET	SLOPE FT/FT	608.3030 CLASS III-A 30-INCH LF	608.0312 REINF. CONCRETE CLASS III 12-INCH LF	608.0315 REINF. CONCRETE CLASS III 15-INCH LF	608.0318 REINF. CONCRETE CLASS III 18-INCH LF	608.0324 REINF. CONCRETE CLASS III 24-INCH LF	608.0412 REINF. CONCRETE CLASS IV 12-INCH LF	608.0415 REINF. CONCRETE CLASS IV 15-INCH LF	608.0418 REINF. CONCRETE CLASS IV 18-INCH LF	608.0424 REINF. CONCRETE CLASS IV 24-INCH LF	608.0430 REINF. CONCRETE CLASS IV 30-INCH LF	**JOINT EACH
0010																		
	18.2	-	18.0	70TH WEST	996.80	996.13	0.0060	--	--	--	--	113	--	--	--	--	--	6
	18.3	-	18.2	70TH WEST	998.29	997.94	0.0053	--	67	--	--	--	--	--	--	--	--	--
	18.4	-	18.3	70TH WEST	998.79	998.29	0.0146	--	29	--	--	--	--	--	--	--	--	--
	18.5	-	18.2	70TH WEST	997.00	996.80	0.0030	--	--	--	--	56	--	--	--	--	--	6
	22.1	-	22.3	70TH EAST	996.00	995.49	0.0240	--	21	--	--	--	--	--	--	--	--	--
	22.3	-	22.0	70TH EAST	995.25	995.01	0.0048	--	--	--	--	50	--	--	--	--	--	6
	22.4	-	22.3	70TH EAST	995.50	995.25	0.0031	--	--	--	--	--	--	--	--	74	--	--
	22.5	-	22.4	70TH EAST	995.58	995.50	0.0024	--	--	--	33	--	--	--	--	--	--	--
	59.1	-	59.0	STH 65	1017.25	1016.67	0.0107	--	--	--	--	--	--	55	--	--	--	6
	59.3	-	59.2	STH 65	1018.07	1018.00	0.0068	--	--	--	--	--	10	--	--	--	--	6
	62.1	-	62.0	STH 65	1004.89	1004.80	0.0050	--	--	18	--	--	--	--	--	--	--	6
	62.2	-	62.1	STH 65	1005.20	1004.89	0.0067	--	--	--	--	--	46	--	--	--	--	--
	63.1	-	63.0	STH 65	1004.34	1004.16	0.0034	--	--	--	--	--	--	--	53	--	--	6
	63.2	-	63.1	STH 65	1004.65	1004.58	0.0037	--	--	19	--	--	--	--	--	--	--	--
	63.3	-	63.2	STH 65	1005.06	1004.89	0.0100	--	--	--	--	--	17	--	--	--	--	--
	64.1	-	64.0	STH 65	1000.69	1000.40	0.0037	--	--	--	--	--	--	78	--	--	--	6
	64.2	-	64.1	STH 65	1000.75	1000.68	0.0028	--	24	--	--	--	--	--	--	--	--	--
	64.3	-	64.2	STH 65	1000.79	1000.75	0.0030	--	--	--	--	--	17	--	--	--	--	--
	65.1	-	65.0	STH 65	998.58	998.50	0.0026	--	30	--	--	--	--	--	--	--	--	6
	65.2	-	65.1	STH 65	998.84	998.58	0.0123	--	--	--	--	--	21	--	--	--	--	--
	65.3	-	65.2	STH 65	999.00	998.84	0.0100	--	16	--	--	--	--	--	--	--	--	--
	65.4	-	65.3	STH 65	999.90	999.10	0.0223	--	--	--	--	--	36	--	--	--	--	--
	66.1	-	66.0	STH 65	998.97	997.51	0.0491	--	--	--	--	--	31	--	--	--	--	6
	66.2	-	66.1	STH 65	999.17	998.97	0.0260	--	8	--	--	--	--	--	--	--	--	--
	68.1	-	68.0	STH 65	996.18	995.88	0.0050	--	--	60	--	--	--	--	--	--	--	6
	68.2	-	68.1	STH 65	996.44	996.28	0.0190	--	--	9	--	--	--	--	--	--	--	--
	68.3	-	68.2	STH 65	997.04	996.79	0.0150	--	--	--	--	--	17	--	--	--	--	--
	68.4	-	68.3	STH 65	997.50	997.14	0.0150	--	24	--	--	--	--	--	--	--	--	--
	70.1	-	70.0	STH 65	993.40	993.11	0.0050	--	--	--	58	--	--	--	--	--	--	6
	70.2	-	70.1	STH 65	994.40	993.95	0.0125	--	36	--	--	--	--	--	--	--	--	--
	72.0	-	75.0	STH 65	990.12	988.85	0.0058	218	--	--	--	--	--	--	--	--	--	6
	75.0	-	76.0	STH 65	988.85	987.00	0.0088	210	--	--	--	--	--	--	--	--	--	--
	76.0	-	77.0	STH 65	987.00	985.33	0.0123	--	--	--	--	--	--	--	--	--	137	6
	70.3	-	70.2	STH 65	994.57	994.45	0.0100	--	12	--	--	--	--	--	--	--	--	--
	74.3	-	74.2	STH 65	992.80	992.53	0.0056	--	--	--	--	--	48	--	--	--	--	6
	74.2	-	74.1	STH 65	992.53	992.44	0.0032	--	28	--	--	--	--	--	--	--	--	6
	74.1	-	74.0	STH 65	991.94	991.76	0.0029	--	--	--	--	--	--	--	62	--	--	6
	77.5	-	77.4	STH 65	989.75	989.54	0.0125	--	16	--	--	--	--	--	--	--	--	--
	77.4	-	77.3	STH 65	989.44	989.24	0.0125	--	16	--	--	--	--	--	--	--	--	--
	77.3	-	77.2	STH 65	988.89	988.45	0.0500	--	--	9	--	--	--	--	--	--	--	--
	77.2	-	77.1	STH 65	988.00	986.92	0.0258	--	--	--	--	--	--	--	42	--	--	6
PROJECT 1540-04-73 TOTAL								**428**	**327**	**115**	**91**	**219**	**243**	**133**	**157**	**74**	**137**	

**NON-BID ITEM: FOR INFORMATION ONLY

CULVERT PIPE SCHEDULE

CATEGORY	STA	LOCATION	***ELEVATIONS INLET	***ELEVATIONS OUTLET	520.2012 TEMPORARY 12-INCH LF	520.2018 TEMPORARY 18-INCH LF	521.3112 CORRUGATED STEEL 12-INCH LF	521.3130 CORRUGATED STEEL 30-INCH LF	522.0118 REINF. CONCRETE CLASS III 18-INCH LF	522.2419 REINF. CONCRETE CLASS IV HORIZ ELLIP 19X30-INCH LF	521.1012 APRON ENDWALLS FOR CP STEEL 12-INCH EACH	521.1030 APRON ENDWALLS FOR CP STEEL 30-INCH EACH	522.1018 * APRON ENDWALLS REINF CONC 18-INCH EACH	522.2619 APRON ENDWALLS REINF CONC HE 19X30-INCH EACH	633.5200 * MARKERS CULVERT END EACH	650.6000 CONSTRUCTION STAKING PIPE CULVERTS EACH	STEEL THICKNESS INCHES
0010																	
	22+97	'E'	997.25	995.50	--	--	--	--	59	--	--	--	2	--	2	1	--
	24+00	'W'	994.98	994.82	--	--	--	--	--	58	--	--	--	2	2	1	--
	25+00	'W'	994.10	994.00	--	--	--	--	--	45	--	--	--	2	2	1	--
	66+00	'N'	996.40	996.00	--	--	25	--	--	--	2	--	--	--	2	1	0.064
	80+67	'S'	973.00	973.00	--	--	--	6	--	--	--	1	--	--	2	1	0.064
	80+67	'N'	971.15	971.15	--	--	--	8	--	--	--	1	--	--	2	1	0.064
	17+00	'TR' - PE RT	998.00	997.40	70	--	--	--	--	--	--	--	--	--	2	1	--
	18+00	'TR'	996.25	995.75	--	80	--	--	--	--	--	--	--	--	2	1	--
	21+50	'TR'	995.30	995.00	78	--	--	--	--	--	--	--	--	--	2	1	--
	22+25	'TR' - PE RT	995.20	995.00	--	35	--	--	--	--	--	--	--	--	2	1	--
	24+00	'TR' - PE LT	996.20	996.00	55	--	--	--	--	--	--	--	--	--	2	1	--
	25+00	'TR' - FE LT	994.65	994.65	45	--	--	--	--	--	--	--	--	--	2	1	--
	25+88	'TR'	994.60	994.20	--	95	--	--	--	--	--	--	--	--	2	1	--
PROJECT 1540-04-73 TOTAL					**248**	**210**	**25**	**14**	**59**	**103**	**2**	**2**	**2**	**4**	**26**	**13**	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE
***FIELD VERIFY

CONCRETE CURB PEDESTRIAN

CATEGORY	STAGE	STATION	O/S	601.0600 (LF)
0010				
	STAGE 3			
		70TH AVENUE		
		19+05'E' - 19+18'E'	RT	31
	STAGE 3 TOTAL			31
	STAGE 4			
		70TH AVENUE		
		20+78'W' - 20+94'W'	LT	32
		SB STH 65		
		65+45'S' - 65+60'S'	RT	52
		65+55'S' - 65+65'S'	LT	50
		NB STH 65		
		65+45'S' - 65+60'S'	RT	32
	STAGE 4 TOTAL			166
PROJECT 1540-04-73 TOTAL				**197**

CURB RAMP DETECTABLE WARNING NATURAL PATINA

CATEGORY	STAGE	STATION	O/S	602.0515 (SF)
0010				
	STAGE 3			
		70TH AVENUE		
		18+97'E'	RT	10
		19+11'E'	RT	32
	STAGE 3 TOTAL			42
	STAGE 4			
		70TH AVENUE		
		19+10'W'	LT	10
		20+85'W'	LT	32
		21+00'W'	LT	10
		21+63'W'	LT	10
		STH 65 SB		
		65+54'S'	LT	48
		65+61'S'	RT	32
	STAGE 4 TOTAL			142
PROJECT 1540-04-73 TOTAL				**184**

TEMPORARY COVERS

CATEGORY	LOCATION	611.8120.S COVER PLATES TEMPORARY (EACH)	SPV.0060.006 TEMPORARY INLET COVER (EACH)
0010			
	UNDISTRIBUTED	5	5
PROJECT 1540-04-73 TOTAL		**5**	**5**

MGS GUARDRAIL

CATEGORY	STATION TO STATION	614.2300 MGS GUARDRAIL 3 (LF)	614.2610 TERMINAL EAT (EACH)	614.2620 TERMINAL TYPE 2 (EACH)	614.0396 GUARDRAIL MOW STRIP ASPHALT (SY)
0010					
	NB STH 65				
	76+15'N' - 81+84'N' RT	563	2	--	465
	SB STH 65				
	60+41'S' - 62+16'S' LT	175	1	1	100
	72+10'S' - 74+12'S' LT	200	1	1	117
PROJECT 1540-04-73 TOTAL		**937.5**	**4**	**2**	**682**

CURB & GUTTER

CATEGORY	STAGE	STATION TO STATION	465.0310 ASPHALTIC CURB LF	601.0409 30-INCH TYPE A LF	601.0555 6-INCH SLOPED 36-INCH TYPE A LF	601.0557 6-INCH SLOPED 36-INCH TYPE D LF	601.0580 4-INCH SLOPED 36-INCH TYPE R LF	650.5500 CONSTRUCTION STAKING CURB GUTTER CURB & GUTTER (LF)	REMARKS
0010									
	STAGE 1								
		NB STH 65							
		55+40'N' - 57+05'N' LT	170	--	--	--	--	170	CROSSOVER
	STAGE 1 TOTAL		170	0	0	0	0	170	
	STAGE 2								
		NB STH 65							
		59+50'N' - 64+50'N' RT	--	--	450	--	200	650	
		70TH AVENUE							
		21+00'E' - 21+55'E' RT	--	--	55	--	--	55	
		21+55'E' - 22+17'E' RT	--	--	--	75	--	75	
	STAGE 2 TOTAL		0	0	505	75	200	780	
	STAGE 2A								
		NB STH 65							
		61+06'N' - 64+36'N' LT	--	--	330	--	--	330	
		61+06'N' - 64+36'N' LT	--	--	330	--	--	330	
	STAGE 2A TOTAL		0	0	660	0	0	660	
	STAGE 3								
		NB STH 65							
		60+00'N' - 64+25'N' LT	--	--	425	--	--	425	LT TURN LANE
		SB STH 65							
		59+00'S' - 63+75'S' RT	--	--	360	--	120	480	MEDIAN
		57+00'S' - 59+10'S' RT	310	--	--	--	--	310	CROSSOVER
		70TH AVENUE							
		18+10'E' - 19+08'E' RT	--	--	130	--	--	130	
		18+10'E' - 19+12'E' LT	--	--	160	55	--	215	MEDIAN ISLAND
		18+67'E' - 19+26'E' RT	--	--	129	--	--	129	RT TURN ISLAND
	STAGE 3 TOTAL		310	0	1204	55	120	1689	
	STAGE 4								
		NB STH 65							
		54+05'N' - 55+35'N' LT	--	130	--	--	--	130	MEDIAN
		55+35'N' - 60+00'N' LT	--	--	470	--	--	470	MEDIAN
		65+63'N' - 77+97'N' LT	--	--	1232	--	--	1232	MEDIAN
		65+64'N' - 77+97'N' LT	--	--	1232	--	--	1232	MEDIAN
		SB STH 65							
		54+35'S' - 59+00'S' RT	--	--	470	--	--	470	MEDIAN
		65+35'S' - 66+63'S' LT	--	--	281	--	--	281	RT TURN ISLAND
		65+48'S' - 68+15'S' RT	--	--	530	--	--	530	LT TURN ISLAND
		72+00'S' - 76+30'S' LT	--	--	427	--	--	427	
		76+30'S' - 76+67'S' LT	--	--	82	--	--	82	FUTURE ROADWAY
		77+03'S' - 77+63'S' LT	--	--	97	--	--	97	FUTURE ROADWAY
		70TH AVENUE							
		14+20'W' - 18+13'W' LT	--	--	385	--	--	385	
		15+00'W' - 19+17'W' LT	--	--	432	--	--	432	NW QUAD
		20+75'W' - 21+20'W' LT	--	--	95	--	--	95	RT TURN ISLAND
		20+80'W' - 21+58'W' LT	--	--	110	--	--	110	NE QUAD
		23+40'W' - 23+80'W' LT	--	--	--	60	--	60	PARK & RIDE
		24+15'W' - 24+45'W' LT	--	--	--	45	--	45	PARK & RIDE
		22+00'W' - 22+40'W' LT	--	89	--	--	--	89	PARK & RIDE ISLAND
	STAGE 4 TOTAL		0	219	5843	105	0	6167	
	STAGE 4A								
		NB STH 65							
		63+78'N' - 64+73'N' RT	--	--	190	--	--	190	RT TURN ISLAND
		SB STH 65							
		63+75'S' - 64+50'S' RT	--	--	80	--	--	80	MEDIAN
		64+25'S' - 64+50'S' RT	--	--	25	--	--	25	MEDIAN
	STAGE 4A TOTAL		0	0	295	0	0	295	
PROJECT 1540-04-73 TOTAL			**480**	**219**	**8,507**	**235**	**320**	**9,761**	

FENCING

CATEGORY	LOCATION	STATION - STATION	616.0100 FENCE WOVEN WIRE 4-FT (LF)	616.0700.S FENCE SAFETY (LF)
0010				
	STH 65 SOUTH OF 70TH AVE	58+94'N' - 64+37'N'	550	--
	STH 65 NORTH OF 70TH AVE	70+78'N' - 81+62'N'	1,110	--
	70TH AVE E OF STH 65	25+00'E' - 26+16'E'	120	--
	PROJECT	--	--	500
PROJECT 1540-04-73 TOTAL			**1,780**	**500**

CONCRETE MEDIAN NOSES

CATEGORY	STAGE	STATION	O/S	620.0300 SLOPED NOSE (SF)	REMARKS
0010					
	STAGE 2A				
		NB STH 65			
		61+00'N'	LT	70	TYPE 1
		64+46'N'	LT	160	TYPE 1
		64+50'N'	LT	145	TYPE 1
	STAGE 2A TOTAL			375	
	STAGE 3				
		70TH AVENUE			
		18+65'E'	RT	70	TYPE 1
		19+15'E'	LT	70	TYPE 1
		19+20'E'	RT	40	TYPE 2
	STAGE 3 TOTAL			180	
	STAGE 4				
		NB STH 65			
		65+55'N'	LT	85	TYPE 1
		SB STH 65			
		65+45'S'	LT	40	TYPE 2
		65+45'S'	RT	130	TYPE 2
		66+70'S'	LT	70	TYPE 1
		68+21'S'	RT	70	TYPE 1
		70TH AVENUE			
		20+75'W'	LT	40	TYPE 2
		21+25'W'	LT	65	TYPE 1
	STAGE 4 TOTAL			500	
	STAGE 4A				
		NB STH 65			
		63+75'N'	RT	70	TYPE 1
		64+70'N'	RT	35	TYPE 2
		78+00'N'	LT	55	TYPE 1
	STAGE 4A TOTAL			160	
PROJECT 1540-04-73 TOTAL				**1,215**	

CONCRETE CORRUGATED MEDIAN

CATEGORY	STATION TO STATION	LOCATION	620.0100 (SF)
0010			
	NB STH 65		
	78+04'N' - 78+95'N'	LT	800
	70TH AVENUE		
	20+84'E' - 21+57'E'	LT	440
PROJECT 1540-04-73 TOTAL			**1240**

EROSION CONTROL MOBILZATION

CATEGORY	LOCATION	628.1905 MOBILIZATION EROSION CONTROL (EACH)	628.1910 MOBILIZATION EMERGENCY EROSION CONTROL (EACH)
0010			
	STAGE 1	3	1
	STAGE 2	4	2
	STAGE 3	4	2
	STAGE 4	3	1
PROJECT 1540-04-73 TOTAL		**14**	**6**

WATER

CATEGORY	LOCATION	624.0100 WATER BASE COMPACTION (MGAL)	624.0100 WATER DUST CONTROL (MGAL)
0010	STAGE 1	73.4	2.0
	STAGE 2	78.5	3.3
	STAGE 2A	8.1	0.6
	STAGE 3	32.8	1.1
	STAGE 3A	3.3	0.2
	STAGE 4	136.1	5.4
	STAGE 4A	12.1	2.4
	UNDISTRIBUTED	175.0	--
CATEGORY 0010 SUBTOTAL		519.2	15.1
		534.3	
PROJECT 1540-04-73 TOTAL		**534.3**	

EROSION CONTROL

CATEGORY	STAGE	STATION TO STATION	606.0200 RIPRAP MEDIUM (CY)	628.1104 EROSION BALES (EACH)	628.1504 SILT FENCE (LF)	628.1520 SILT FENCE MAINTENANCE (LF)	628.1530.S SILT FENCE HEAVY DUTY (LF)	628.1535.S SILT FENCE HEAVY DUTY MAINTENANCE (LF)	628.1920 CLEANING SEDIMENT BASIN (CY)	628.7005 INLET PROTECTION TYPE A (EACH)	628.7015 INLET PROTECTION TYPE C (EACH)	628.7020 INLET PROTECTION TYPE D (EACH)	628.7504 TEMPORARY DITCH CHECKS (LF)	628.7555 CULVERT PIPE CHECKS (EACH)	628.7560 TRACKING PADS (EACH)	645.0120 GEOTEXTILE TYPE HR (SY)
0010																
	STAGE 1															
		STH 65 (NORTHBOUND)														
		66+17 'N' - 82+71 'N'	---	---	---	---	---	---	---	---	---	---	---	1	---	---
		70TH AVE. (EASTBOUND)														
		17+41 'E' - 19+04 'E'	---	---	---	---	---	---	---	---	---	---	---	2	---	---
		20+33 'E' - 29+37 'E'	---	---	---	---	---	---	---	---	---	---	8	2	---	---
		70TH AVE. (WESTBOUND)														
		15+00 'E' - 19+25 'E'	4	4	1879	1879	---	---	---	---	---	---	8	---	1	8
		20+33 'E' - 29+37 'E'	4	1	523	523	---	---	---	---	---	---	---	2	1	8
		UNDISTRIBUTED	---	1	601	601	---	---	---	---	---	---	4	2	---	---
	STAGE 1 TOTAL		8	6	3,003	3,003	---	---	---	---	---	---	20	9	2	16
	STAGE 2															
		STH 65 (NORTHBOUND)														
		53+84 'N' - 64+92 'N'	13	1	194	194	---	---	---	16	18	---	88	---	1	26
		70TH AVE. (EASTBOUND)														
		20+33 'E' - 29+37 'E'	---	---	84	84	---	---	---	2	1	1	8	1	1	---
		UNDISTRIBUTED	---		70	70	---	---	---	2	2		24	5	---	---
	STAGE 2 TOTAL		13	1	348	348	---	---	---	20	21	1	120	6	2	26
	STAGE 3															
		STH 65 (SOUTHBOUND)														
		53+84 'N' - 64+92 'N'	9	3	429	429	---	---	---	7	9	---	---	---	1	18
		70TH AVE. (EASTBOUND)														
		13+17 'E' - 20+33 'E'	---	2	179	179	---	---	---	4	---	1	---	---	1	---
		UNDISTRIBUTED	5	2	152	152			---		---		---	---	---	6
	STAGE 3 TOTAL		14	7	760	760	---	---	---	11	9	1	---	---	2	24
	STAGE 4															
		STH 65 (NORTHBOUND)														
		64+92 'N' - 82+71 'N'	24	8	614	614	620	620	---	7	6	1	16	2	1	56
		STH 65 (SOUTHBOUND)														
		64+00 'N' - 82+71 'N'	9	7	510	510	610	610	10	8	9	1	21	1	1	---
		70TH AVE. (WESTBOUND)														
		15+00 'E' - 19+25 'E'	---	---	---	---	---	---	---	---	---	---	---	---	1	---
		20+33 'E' - 29+37 'E'	14	4	525	525	---	---	---	1	---	---	8	11	1	28
		UNDISTRIBUTED	16	3	421	421	---	---	3	2	2		22	9	---	40
	STAGE 4 TOTAL		63	22	2,070	2,070	1230	1230	13	18	17	2	67	23	4	124
PROJECT 1540-04-73 TOTAL			**98**	**37**	**6,180**	**6,180**	**1,230**	**1,230**	**13**	**49**	**46**	**4**	**207**	**38**	**10**	**190**

3

BIRD DETERRENT POSTS

CATEGORY	STATION	LOCATION	SPV.0060.004 (EACH)
0010			
	11+00'PNR' - 15+00'PNR'	PARK AND RIDE	200
PROJECT 1540-04-73 TOTAL			**200**

LANDMARK REFERENCE MONUMENTS

CATEGORY	STATION	LOCATION	621.0100 (EACH)
0010			
	22+52'E'	70TH AVENUE	1
PROJECT 1540-04-73 TOTAL			**1**

PERMANENT SIGNING TYPE I

CATEGORY	SIGN #	SIGN CODE	W IN	SIGN SIZE X	H IN	637.1220 SIGNS TYPE I REFLECTIVE SH SF	MOUNT ON	REMARKS
0010								
	1-01	E6-54L	108	X	90	67.5	S-55-044	"EAST EAU CLAIRE ONLY"
	2-06	--	84	X	90	52.5	S-55-053	OVERHEAD GUIDANCE
	4-05	--	84	X	90	52.5	S-55-054	OVERHEAD GUIDANCE
PROJECT 1540-04-73 TOTAL						**172.5**		

LANDSCAPING

CATEGORY	STAGE	STATION TO STATION	625.0500 SALVAGED TOPSOIL (SY)	628.2006 EROSION MAT URBAN CLASS I TYPE A (SY)	628.2008 EROSION MAT URBAN CLASS I TYPE B (SY)	629.0210 FERTILIZER TYPE B (CWT)	630.0120 SEEDING MIXTURE NO. 20 (LB)	630.0200 SEEDING TEMPORARY (LB)	630.0500 SEED WATER (MGAL)
0010									
	STAGE 1								
		STH 65 (NORTHBOUND)							
		64+92 'N' - 82+71 'N'	1010	1010	---	1	---	27	20
		70TH AVE. (EASTBOUND)							
		13+17 'E' - 20+33 'E'	1180	1180	---	1	---	30	20
		20+33 'E' - 29+37 'E'	2210	2210	---	1	---	60	40
		70TH AVE. (WESTBOUND)							
		13+17 'E' - 20+33 'E'	1340	1340	---	1	---	40	20
		20+33 'E' - 29+37 'E'	1130	1130	---	1	---	30	20
		UNDISTRIBUTED	1720	1720	---	1	---	30	30
	STAGE 1 TOTAL		8590	8590	---	6	---	218	150
	STAGE 2								
		STH 65 (NORTHBOUND)							
		53+84 'N' - 64+92 'N'	5,380	---	5,380	3	145	145	90
		70TH AVE. (EASTBOUND)							
		20+33 'E' - 29+37 'E'	1120	---	1120	1	30	30	20
		UNDISTRIBUTED	1630	---	1630	1	45	45	30
	STAGE 2 TOTAL		8,130	---	8,130	5	220	220	140
	STAGE 3								
		STH 65 (SOUTHBOUND)							
		53+84 'N' - 64+92 'N'	910	---	910	1	25	25	15
		UNDISTRIBUTED	230	---	230	1	10	10	5
	STAGE 3 TOTAL		1,140	---	1,140	2	35	35	20
	STAGE 4								
		STH 65 (NORTHBOUND)							
		64+92 'N' - 82+71 'N'	6,547	---	6,547	4	177	177	110
		STH 65 (SOUTHBOUND)							
		64+92 'N' - 82+71 'N'	7,779	---	7,779	6	210	210	130
		70TH AVE. (WESTBOUND)							
		13+17 'E' - 20+33 'E'	2,400	---	2,400	2	65	65	40
		20+33 'E' - 29+37 'E'	5,413	---	5,413	3	146	146	90
		UNDISTRIBUTED	5847	---	5847	5	159	161	90
	STAGE 4 TOTAL		27,986	---	27,986	20	757	759	460
PROJECT 1540-04-73 TOTAL			**45,847**	**8,590**	**37,257**	**33**	**1,012**	**1,232**	**770**

3

PERMANENT SIGNING TYPE II

CATEGORY	SIGN #	SIGN CODE	SIGN SIZE	SIGN SIZE WXH IN	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F SF	634.0614 POSTS WOOD 4X6-INCH 14 FT EACH	634.0616 POSTS WOOD 4X6-INCH 16 FT EACH	634.0618 POSTS WOOD 4X6-INCH 18 FT EACH	634.0622 POSTS WOOD 4X6-INCH 22 FT EACH	634.0808 POSTS TUBULAR STEEL 2X2-INCH 8 FT EACH	634.0809 POSTS TUBULAR STEEL 2X2-INCH 9.5 FT EACH	634.0814 POSTS TUBULAR STEEL 2X2-INCH 14 FT EACH	SIGN MOUNTED ON / SAME POST AS	REMARKS
0010																
	1-02	JV4-2	(3)	36X108	27	--	--	--	--	--	1	--	--	--		VERTICAL REASSURANCE ASSEMBLY
	1-03	R3-20-L	(3)	36X54	13.5	--	--	--	1	--	--	--	--	--		BEGIN LEFT TURN LANE WITH DOWN RIGHT ARROW
	1-04	R2-1	(3)	36X48	12	--	--	--	1	--	--	--	--	--		SPEED LIMIT 45 MPH
	1-06	W3-3	(3)	36X36	---	--	9	--	---	--	--	--	--	--		SIGNAL AHEAD
	2-02	R3-8V	2M	72X30	15	--	--	1	1	--	--	--	--	--		LEFT ONLY / AHEAD ONLY / AHEAD ONLY / RIGHT ONLY
	2-03	R3-20-R	(3)	36X54	13.5	--	--	--	1	--	--	--	--	--		BEGIN RIGHT TURN LANE WITH DOWN LEFT ARROW
	2-04	D4-5-R	2S	30X36	7.5	--	--	--	1	--	--	--	--	--		PARK AND RIDE (CAR SYMBOL ONLY) RIGHT ARROW
	2-05	W3-2	(3)	36X36	--	--	9	--	2	--	--	--	--	--		YIELD AHEAD
	2-07	W2-6	(3)	36X36	-	--	9	--	--	1	--	--	--	--		CIRCULAR INTERSECTION SIGN
	2-08	W13-1	(3)	24X24	4	--	--	--	--	--	--	--	--	--	2-07	ADVISORY SPEED PLATE (YELLOW BACK)
	3-01	W12-1D	(3)	30X30	-	--	6.25	--	--	--	--	--	1	--		DOUBLE DOWN ARROW
	3-02	R1-1F	2M	36X36	-	7.46	--	--	--	--	--	--	--	--	SIGNAL POLE	STOP SIGN (FOLDING)
	3-03	R3-4	2M	36X36	9	--	--	--	--	--	--	--	--	--	SIGNAL POLE	NO U TURN SYMBOL
	3-04	R5-1	2M	36X36	9	--	--	--	--	--	--	--	--	--	SIGNAL POLE	DO NOT ENTER
	3-05	R1-1F	2M	36X36	-	7.46	--	--	--	--	--	--	--	--	SIGNAL POLE	STOP SIGN (FOLDING)
	3-06	R5-1	2M	36X36	9	--	--	--	--	--	--	--	--	--	SIGNAL POLE	DO NOT ENTER
	3-07	R1-2	2S	36X31	3.88	--	--	--	--	--	--	--	--	1		YIELD
	3-08	W12-1D	2M	24X24	-	--	4	--	--	--	--	1		--		DOUBLE DOWN ARROW
	3-09	R6-2-L	2M	30X36	7.5	--	-	--	--	--	--	--	--	--	SIGNAL POLE	ONE WAY LEFT ARROW
	3-10	R1-1F	2M	36X36	--	7.46	--	--	--	--	--	--	--	--	SIGNAL POLE	STOP SIGN (FOLDING)
	3-11	R6-3	2M	30X24	5	--	--	--	--	--	--	--	--	--	SIGNAL POLE	DIVIDED HIGHWAY SIGN CROSSROAD
	3-12	R5-1	2M	36X36	9	--	--	--	--	--	--	--	--	--	SIGNAL POLE	DO NOT ENTER
	3-13	M1-94	--	66X18	8.25	--	--	--	--	--	--	--	--	--	SIGNAL POLE	CROSS ROAD NAME
	3-14	R4-7	(3)	36X48	12	--	--	--	--	--	--	--	--	--	SIGNAL POLE	KEEP RIGHT
	3-15	R1-1F	2M	36X36	--	7.46	--	--	--	--	--	--	--	--	SIGNAL POLE	STOP SIGN (FOLDING)
	3-16	R1-2	2S	36X31	3.88	--	--	1	--	--	--	--	--	--		YIELD
	3-17	W9-1R	2M	36X36	--	--	9	--	2	--	--	--	--	--		RIGHT LANE ENDS
	3-18	W9-1R	2M	36X36	--	--	9	--	2	--	--	--	--	--		RIGHT LANE ENDS
	3-19	R1-1F	2M	36X36	7.46	--	--	--	--	--	--	--	--	--	SIGNAL POLE	STOP SIGN (FOLDING)
	3-20	W12-1D	(3)	30X30	--	--	6.25	--	--	--	--	--	1	--		DOUBLE DOWN ARROW
	3-21	R3-4	2M	36X36	9	--	--	--	--	--	--	--	--	--	SIGNAL POLE	NO U TURN SYMBOL
	3-22	R5-1	2M	36X36	9	--	--	--	--	--	--	--	--	--	SIGNAL POLE	DO NOT ENTER
	3-23	R1-1F	2M	36X36	--	7.46	--	--	--	--	--	--	--	--	SIGNAL POLE	STOP SIGN (FOLDING)
	3-24	R5-1	2M	36X36	9	--	--	--	--	--	--	--	--	--	SIGNAL POLE	DO NOT ENTER
	3-25	R1-2	2S	36X31	3.88	--	--	1	--	--	--	--	--	--		YIELD
	3-26	R4-7	(3)	36X48	12	--	--	--	--	--	--	--	--	--	SIGNAL POLE	KEEP RIGHT
	3-27	R6-2-L	2M	30X36	7.5	--	--	--	--	--	--	--	--	--	SIGNAL POLE	ONE WAY LEFT ARROW
	3-28	R1-1F	2M	36X36	--	7.46	--	--	--	--	--	--	--	--	SIGNAL POLE	STOP SIGN (FOLDING)
	3-29	R1-1F	2M	36X36	--	7.46	--	--	--	--	--	--	--	--	SIGNAL POLE	STOP SIGN (FOLDING)
	3-30	W12-1D	2M	24X24	-	--	4	--	--	--	--	1	--	--		DOUBLE DOWN ARROW
	3-31	R6-3	2M	30X24	5	--	--	--	--	--	--	--	--	--	SIGNAL POLE	DIVIDED HIGHWAY SIGN CROSSROAD
	3-32	R5-1	2M	36X36	9	--	--	--	--	--	--	--	--	--	SIGNAL POLE	DO NOT ENTER
	3-33	R1-1F	2M	36X36	--	7.46	--	--	--	--	--	--	--	--	SIGNAL POLE	STOP SIGN (FOLDING)
	3-34	R1-1F	2M	36X36	--	7.46	--	--	--	--	--	--	--	--	SIGNAL POLE	STOP SIGN (FOLDING)
	3-35	M1-94	--	66X18	8.25	--	--	--	--	--	--	--	--	--	SIGNAL POLE	CROSS ROAD NAME
	3-36	R4-7	(3)	36X48	12	--	--	--	--	--	--	--	--	--	SIGNAL POLE	KEEP RIGHT
	3-37	J1-1	(3)	36X57	14.25	--	--	--	--	1	--	--	--	--		JUNCTION OR END ASSEMBLY
	3-38	J1-1	(3)	36X57	14.25	--	--	--	1	--	--	--	--	--		JUNCTION OR END ASSEMBLY
SUBTOTAL					**289.60**	**67.14**	**65.50**	**3**	**12**	**2**	**1**	**2**	**2**	**1**		

3

PERMANENT SIGNING TYPE II (CONT.)

CATEGORY	SIGN #	SIGN CODE	SIGN SIZE	SIGN SIZE WXH IN	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2215 SIGNS TYPE II REFLECTIVE H FOLDING SF	637.2230 SIGNS TYPE II REFLECTIVE F SF	634.0614 POSTS WOOD 4X6-INCH 14 FT EACH	634.0616 POSTS WOOD 4X6-INCH 16 FT EACH	634.0618 POSTS WOOD 4X6-INCH 18 FT EACH	634.0622 POSTS WOOD 4X6-INCH 22 FT EACH	634.0808 POSTS TUBULAR STEEL 2X2-INCH 8 FT EACH	634.0809 POSTS TUBULAR STEEL 2X2-INCH 9.5 FT EACH	634.0814 POSTS TUBULAR STEEL 2X2-INCH 14 FT EACH	SIGN MOUNTED ON / SAME POST AS	REMARKS
0010 FROM PREVIOUS SHEET					289.60	67.14	65.50	3.00	12.00	2.00	1.00	2.00	2.00	1.00		
	4-01	W9-2L	2M	36X36	--	--	9	--	2	--	--	--	--	--		LANE ENDS MERGE LEFT
	4-02	W9-2L	2M	36X36	--	--	9	--	2	--	--	--	--	--		LANE ENDS MERGE LEFT
	4-03	R3-20-R	(3)	36X54	13.5	--	--	--	--	1	--	--	--	--		BEGIN RIGHT TURN LANE WITH DOWN LEFT ARROW
	4-04	R3-20-L	(3)	36X54	13.5	--	--	--	1	--	--	--	--	--		BEGIN LEFT TURN LANE WITH DOWN RIGHT ARROW
	4-06	W4-2R	2M	36X36	--	--	9	--	2	--	--	--	--	--		LANE REDUCTION TRANSITION SYMBOL (RIGHT)
	4-07	W4-2R	2M	36X36	--	--	9	--	2	--	--	--	--	--		LANE REDUCTION TRANSITION SYMBOL (RIGHT)
	4-08	W6-2	2M	36X36	--	--	9	--	1	--	--	--	--	--		DIVIDED HIGHWAY ENDS SYMBOL
	4-09	R5-1A	2M	42X30	8.75	--	--	--	--	--	--	--	--	--	4-08	WRONG WAY
	4-10	R10-64	2M	30X36	7.5	--	--	--	1	--	--	--	--	--		NO ENGINE BREAKING EXCEPT IN EMERGENCY
	4-11	R5-1	2M	36X36	9	--	--	--	--	--	--	--	--	--	4-10	DO NOT ENTER
	4-14	R3-8V	2M	72X30	15	--	--	--	2	--	--	--	--	--		LEFT ONLY / AHEAD ONLY / AHEAD ONLY / RIGHT ONLY
	5-01	R2-1	(3)	36X48	12	--	--	--	1	--	--	--	--	--		SPEED LIMIT 50 MPH
	5-02	R2-1	(3)	36X48	12	--		--	1	--	--	--	--	--		SPEED LIMIT 45 MPH
	5-03	W3-5	2S	36X36	--	--	9	--	2	--	--	--	--	--		SPEED LIMIT 45 MPH AHEAD (ARROW)
	5-04	W6-3	2M	36X36	--	--	9	--	1	--	--	--	--	--		TWO WAY TRAFFIC SYMBOL
	5-05	W5-54	2M	18X18	--	--	2.25	--	--	--	--	--	--	--	5-06	CLEARANCE MARKER WITH YELLOW TYPE F SHEETING
	5-06	R4-7	(3)	36X48	12	--	--	--	--	--	--	--	--	1	5-05	KEEP RIGHT
	6-01	W6-1	2M	36X36	--	--	9	--	2	--	--	--	--	--		DIVIDED HIGHWAY AHEAD SYMBOL
	7-01	R4-7	2S	24X30	5	--	--	--	--	--	--	--	--	1		KEEP RIGHT
	7-02	R2-1	2S	24X30	5	--	--	--	1	--	--	--	--	--		SPEED LIMIT 35 MPH
	8-01	R1-1	2S	30X30	5.18	--	--	1	--	--	--	--	--	--		STOP SIGN
	8-02	R2-1	2S	24X30	5	--	--	--	--	1	--	--	--	--		SPEED LIMIT 45 MPH
	8-03	D4-5-L	(3)	36X48	12	--	--	--	--	--	--	--	--	--	8-02	PARK AND RIDE (CAR SYMBOL ONLY) LEFT ARROW
	8-04	R3-8-W	2S	54X30	11.25	--	--	--	2	--	--	--	--	--		LEFT ONLY / AHEAD ONLY / RIGHT ONLY
	8-05	R7-1-D	2S	18X24	3	--	--	1	--	--	--	--	--	--		NO PARKING ANY TIME - DOUBLE ARROW
	8-06	R7-1-D	2S	18X24	3	--	--	1	--	--	--	--	--	--		NO PARKING ANY TIME - DOUBLE ARROW
	8-07	D12-2A	2S	60X42	17.5	--	--	--	2	--	--	--	--	--		RIDESHARE INFO CALL (LOCAL NUMBER)
	8-08	R1-1	2S	30X30	5.18	--	--	1	--	--	--	--	--	--		STOP SIGN
	8-09	R7-65	(3)	30X24	5	--	--	1	--	--	--	--	--	--		PARK & RIDE PARKING ONLY
	8-10	W3-3	2S	36X36	9	--	--	--	2	--	--	--	--	--		SIGNAL AHEAD
PROJECT 1540-04-73 TOTAL					**478.96**	**67.14**	**139.75**	**8**	**39**	**4**	**1**	**2**	**2**	**3**		

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SIGNING REMOVALS

CATEGORY	SIGN #	LOCATION	SIGN CODE	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	SIGN MOUNTED ON SAME POST AS	REMARKS
0010							
	1R01	STH 65	W4-2R	1	1	--	LANE REDUCTION TRANSITION SYMBOL (RIGHT)
	1R02	STH 65	W4-2R	1	1	--	LANE REDUCTION TRANSITION SYMBOL (RIGHT)
	1R03	STH 65	J1-1	1	--	LIGHT POLE	JUNCTION OR END ASSEMBLY
	1R04	STH 65	J4-1	1	--	LIGHT POLE	REASSURANCE ASSEMBLY
	1R05	STH 65	R2-1	1	1	--	SPEED LIMIT 45 MPH
	1R06	STH 65	W3-3	1	--	SIGNAL POLE	SIGNAL AHEAD
	2R01	STH 65	R3-8W	1	2	--	LEFT ONLY / AHEAD ONLY / RIGHT ONLY
	2R02	STH 65	R5-1	1	--	2R01	DO NOT ENTER
	2R03	STH 65	W2-6	1	--	LIGHT POLE	CIRCULAR INTERSECTION SIGN
	2R04	STH 65	W2-6P	1	--	LIGHT POLE	ROUNDABOUT AHEAD PLAQUE
	2R05	STH 65	W13-1	1	--	LIGHT POLE	ADVISORY SPEED (YELLOW BACK)
	2R06	STH 65	R4-7	1	1	--	KEEP RIGHT
	2R07	STH 65	J1-2	1	3	--	JUNCTION OR END ASSEMBLY
	2R08	STH 65	W6-2	1	1	--	DIVIDED HIGHWAY ENDS SYMBOL
	2R09	STH 65	W3-2	1	1	--	YIELD AHEAD
	3R01	STH 65	D4-5R	1	1	--	PARK & RIDE RIGHT ARROW
	3R02	STH 65	R2-1	1	1	--	SPEED LIMIT 45 MPH
	3R03	STH 65	J1-1	1	1	--	JUNCTION OR END ASSEMBLY
	3R04	STH 65		1	1		STH 65
	3R05	STH 65		1	--	3R04	70TH AVENUE
	3R06	STH 65	W6-3	1	1	--	TWO WAY TRAFFIC
	3R07	STH 65	W6-2	1	1	--	DIVIDED HIGHWAY ENDS SYMBOL
	4R01	STH 65	R3-8W	1	2	--	LEFT ONLY / AHEAD ONLY / RIGHT ONLY
	4R02	STH 65	R10-64	1	1	--	NO ENGINE BREAKING EXCEPT IN EMERGENCY
	4R03	STH 65	W3-3	1	--	SIGNAL POLE	SIGNAL AHEAD
	5R01	STH 65	R2-1	1	1	--	SPEED LIMIT 50 MPH
	5R02	STH 65	R2-1	1	1	--	SPEED LIMIT 45 MPH
	5R03	STH 65	W3-5	1	1	--	SPEED LIMIT 45 MPH AHEAD (ARROW)
	6R01	STH 65	R7-1D	1	1	--	NO PARKING ANY TIME (DOUBLE ARROW)
	6R02	STH 65	R7-1D	1	1	--	NO PARKING ANY TIME (DOUBLE ARROW)
	6R03	STH 65	R7-1D	1	1	--	NO PARKING ANY TIME (DOUBLE ARROW)
	6R04	STH 65	R3-8	1	1	--	LEFT, AHEAD / RIGHT ONLY
	6R05	STH 65	R2-1	1	1	--	SPEED LIMIT 35 MPH
	6R06	STH 65	R7-1D	1	--	6R07	NO PARKING ANY TIME (DOUBLE ARROW)
	7R01	STH 65	R1-1	1	--	LIGHT POLE	STOP SIGN
	7R02	STH 65	D4-5L	1	1	--	PARK & RIDE LEFT ARROW
	7R03	STH 65	R1-1	1	1	--	STOP SIGN
	7R04	STH 65	R7-65	1	1	--	PARK & RIDE PARKING ONLY
	7R05	STH 65	D12-2A	1	2	--	RIDESHARE INFORMATION
	7R06	STH 65	R7-1D	1	1	--	NO PARKING ANY TIME (DOUBLE ARROW)
	7R07	STH 65	R7-1D	1	1	--	NO PARKING ANY TIME (DOUBLE ARROW)
	7R08	STH 65	W3-3	1	1	--	SIGNAL AHEAD
PROJECT 1540-04-73 TOTAL				**42**	**36**		

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MOVING SIGNS TYPE II & MOVING SMALL SIGN SUPPORTS

CATEGORY	STAGE	STATION	O/S	LOCATION	SIGN CODE	638.2101 MOVING SIGNS TYPE I EACH	638.2102 MOVING SIGNS TYPE II EACH	638.4000 MOVING SMALL SIGN SUPPORTS EACH	SIGN MOUNTED ON SAME POST AS	REMARKS
0010										
	STAGE 1									
		49+65'N'	RT	NB STH 65		1	--	--	--	ROBERTS/NEW RICHMOND/HUDSON
	STAGE 1 TOTAL					1	0	0		
	STAGE 2									
		57+15'N'	LT	NB STH 65	J4-2	--	1	1	--	REASSURANCE ASSEMBLY
		58+10'N'	LT	NB STH 65	R2-1	--	1	1	--	SPEED LIMIT [__] MPH
		59+25'N'	LT	NB STH 65	W3-3	--	1	1	--	SIGNAL AHEAD
		61+00'S'	LT	SB STH 65	J1-1	--	1	2	--	JUNCTION OR END ASSEMBLY
		62+25'N'	LT	NB STH 65	R3-8W	--	1	2	--	LEFT ONLY / AHEAD ONLY / RIGHT ONLY
		14+50'TR'	LT	TEMP ROAD	R7-1D	--	1	1	--	NO PARKING ANY TIME (DOUBLE ARROW)
		16+00'TR'	RT	TEMP ROAD	W3-3	--	1	1	--	SIGNAL AHEAD
		16+00'TR'	RT	TEMP ROAD	R7-1D	--	1	--	--	NO PARKING ANY TIME (DOUBLE ARROW)
		17+00'TR'	LT	TEMP ROAD	R7-1D	--	1	1	--	NO PARKING ANY TIME (DOUBLE ARROW)
		17+00'TR'	LT	TEMP ROAD	R2-1	--	1	--	--	SPEED LIMIT [__] MPH
		17+35'TR'	RT	TEMP ROAD	R1-1	--	1	1	--	STOP SIGN
		17+60'TR'	RT	TEMP ROAD	R3-8	--	1	1	--	LEFT, AHEAD / RIGHT ONLY
		19+50'TR'	LT	TEMP ROAD	R7-1D	--	1	1	--	NO PARKING ANY TIME (DOUBLE ARROW)
		23+75'TR'	LT	TEMP ROAD	R1-1	--	1	1	--	STOP SIGN
		23+75'TR'	RT	TEMP ROAD	D4-5L	--	1	1	--	PARK & RIDE LEFT ARROW
		24+15'TR'	LT	TEMP ROAD	R7-65	--	1	1	--	PARK & RIDE PARKING ONLY
		24+15'TR'	LT	TEMP ROAD	D12-2A	--	1	2	--	RIDESHARE INFORMATION
		24-90'TR'	RT	TEMP ROAD	R2-1	--	1	1	--	SPEED LIMIT [__] MPH
		27+25'TR'	LT	TEMP ROAD	W3-3	--	1	1	--	SIGNAL AHEAD
	STAGE 2 TOTAL					0	19	20		
	STAGE 2A									
		58+15'N'	RT	NB STH 65	J4-2	--	1	1	--	REASSURANCE ASSEMBLY
		58+10'N'	RT	NB STH 65	R2-1	--	1	1	--	SPEED LIMIT [__] MPH
		59+25'N'	RT	NB STH 65	W3-3	--	1	1	--	SIGNAL AHEAD
		63+50'N'	RT	NB STH 65	R3-8W	--	1	2	--	LEFT ONLY / AHEAD ONLY / RIGHT ONLY
		64+25'N'	RT	NB STH 65	D4-5R	--	1	1	--	PARK & RIDE RIGHT ARROW
	STAGE 2A TOTAL					0	5	6		
	STAGE 3									
		57+50'S'	LT	SB STH 65	J1-1	--	1	2	--	JUNCTION OR END ASSEMBLY
		60+25'N'	LT	SB STH 65	J1-1	--	1	2	--	JUNCTION OR END ASSEMBLY
		63+25'N'	LT	SB STH 65	J1-1	--	1	1	--	JUNCTION OR END ASSEMBLY
		67+40'N'	LT	SB STH 65	R3-8W	--	1	2	--	LEFT ONLY / AHEAD ONLY / RIGHT ONLY
	STAGE 3 TOTAL					0	4	7		

3

MOVING SIGNS TYPE II & MOVING SMALL SIGN SUPPORTS (CONT.)

CATEGORY	STAGE	STATION	O/S	LOCATION	SIGN CODE	638.2101 MOVING SIGNS TYPE I EACH	638.2102 MOVING SIGNS TYPE II EACH	638.4000 MOVING SMALL SIGN SUPPORTS EACH	SIGN MOUNTED ON SAME POST AS	REMARKS
0010										
	STAGE 3A									
		55+00'S'	LT	SB STH 65	J1-1	--	1	2	--	JUNCTION OR END ASSEMBLY
		57+15'N'	LT	SB STH 65	J1-1	--	1	2	--	JUNCTION OR END ASSEMBLY
		58+50'N'	LT	SB STH 65	W2-6	--	3	1	--	CIRCULAR INTERSECTION SIGN
	STAGE 3A TOTAL					0	5	5		
	STAGE 4									
		54+85'S'	LT	SB STH 65	W2-6	--	3	1	--	CIRCULAR INTERSECTION SIGN
		56+90'S'	LT	SB STH 65	J1-1	--	1	2	--	JUNCTION OR END ASSEMBLY
		59+00'S'	LT	SB STH 65	J1-1	--	1	2	--	JUNCTION OR END ASSEMBLY
		59+75'N'	RT	NB STH 65	R3-8W	--	1	2	--	LEFT ONLY / AHEAD ONLY / RIGHT ONLY
		14+50'E'	LT	70TH AVENUE	R7-1D	--	1	1	--	NO PARKING ANY TIME (DOUBLE ARROW)
		16+00'E'	RT	70TH AVENUE	R7-1D	--	1	1	--	NO PARKING ANY TIME (DOUBLE ARROW)
		16+00'E'	RT	70TH AVENUE	W3-3	--	1	--	--	SIGNAL AHEAD
		17+00'E'	LT	70TH AVENUE	R7-1D	--	1	1	--	NO PARKING ANY TIME (DOUBLE ARROW)
		17+00'E'	LT	70TH AVENUE	R2-1	--	1	--	--	SPEED LIMIT [__] MPH
		17+35'E'	RT	70TH AVENUE	R1-1	--	1	1	--	STOP SIGN
		17+75'E'	RT	70TH AVENUE	R3-8	--	1	1	--	LEFT, AHEAD / RIGHT ONLY
		21+90'E'	RT	70TH AVENUE	D4-5L	--	1	1	--	PARK & RIDE LEFT ARROW
		22+00'E'	LT	70TH AVENUE	R1-1	--	1	1	--	STOP SIGN
		22+50'E'	LT	70TH AVENUE	R7-65	--	1	1	--	PARK & RIDE PARKING ONLY
		22+50'E'	LT	70TH AVENUE	D12-2A	--	1	2	--	RIDESHARE INFORMATION
		23+50'E'	RT	70TH AVENUE	R2-1	--	1	1	--	SPEED LIMIT [__] MPH
		26+25'E'	LT	70TH AVENUE	W3-3	--	1	1	--	SIGNAL AHEAD
	STAGE 4 TOTAL					0	19	19		
	STAGE 4A									
		49+65'N'	RT	NB STH 65		1	--	--	--	ROBERTS/NEW RICHMOND/HUDSON
	STAGE 4A TOTAL					1	0	0		
	UNDISTRIBUTED					2	15	15		
PROJECT 1540-04-73 TOTAL						**4**	**67**	**72**		

TRAFFIC CONTROL COVERING SIGNS

CATEGORY	STAGE	STATION	SIGNS	CYCLES	643.0910 TYPE I (EACH)	SIGNS	CYCLES	643.0920 TYPE II (EACH)	REMARKS
0010									
	STAGE 1								
		NB STH 65							
		44+25'N'	1	1	1	--	--	--	
		49+65'N'	1	1	1	--	--	--	
		SB STH 65							
		56+11'S'	1	1	1	--	--	--	
		IH 94 EB OFF-RAMP							
		EB RAMP	1	1	1	--	--	--	
	STAGE 1 TOTAL				4			0	
	STAGE 3A								
		NB STH 65							
		57+15'N'	--	--	--	1	1	1	
	STAGE 3A TOTAL				0			1	
	STAGE 4								
		NB STH 65							
		44+25'N'	1	1	1	--	--	--	DETOUR SHEET 10
		47+50'N'	--	--	--	1	1	1	DETOUR SHEET 10
		49+65'N'	1	1	1	--	--	--	DETOUR SHEET 10
		54+00'N'	--	--	--	1	1	1	DETOUR SHEET 10
		57+25'N'	--	--	--	1	1	1	STAGE 4
		59+00'N'	--	--	--	1	1	1	STAGE 4
		IH 94 / USH 12 EXIT 4							
		IH 94 / USH 12 EXIT 4	1	1	1	--	--	--	DETOUR SHEET 1
		STH 65 / USH 12 ROUNDABOUT							
		STH 65 / USH 12 ROUNDABOUT	2	1	2	9	1	9	DETOUR SHEET 3
		STH 65 / CTH TT ROUNDABOUT							
		STH 65 / CTH TT ROUNDABOUT	--	--	--	6	1	6	DETOUR SHEET 4
		IH 94 / STH 65 EXIT 10 WEST							
		IH 94 / STH 65 EXIT 10 WEST	3	1	3	1	1	1	DETOUR SHEET 8
		IH 94 / STH 65 EXIT 10 WEST							
		IH 94 / STH 65 EXIT 10 WEST	4	1	4	1	1	1	DETOUR SHEET 9
		IH 94 EB OFF-RAMP							
		EB RAMP	1	1	1	2	1	2	DETOUR SHEET 10
		IH 94 WB OFF-RAMP							
		WB RAMP	1	1	1	2	1	2	DETOUR SHEET 10
	STAGE 4 TOTAL				14			25	
	UNDISTRIBUTED				5			20	
PROJECT 1540-04-73 TOTAL					**23**			**46**	

TRAFFIC CONTROL

CATEGORY	LOCATION	STAGE DAYS	643.5000 TRAFFIC CONTROL EACH	643.0300 DRUMS (DAY)	643.0420 BARRICADES TYPE III (DAY)	643.0705 WARNING LIGHTS TYPE A (DAY)	643.0715 WARNING LIGHTS TYPE C (DAY)	643.0900 SIGNS (DAY)	643.1000 SIGNS FIXED MESSAGE (S.F)	643.1050 SIGNS PCMS (DAY)
0010										
	PRE STAGE	21	0.9	1,400	140	280	---	1,008	---	56
	STAGE 1	28	--	5,152	280	560	---	1,204	6	56
	STAGE 2	33	--	6,336	1,683	2,244	1,122	1,947	---	66
	STAGE 2A	19	--	4,218	1,064	1,558	380	1,216	---	38
	STAGE 3	25	--	5,875	1,400	2,150	750	1,600	---	50
	STAGE 3A	20	--	4,180	1,200	1,840	560	1,400	---	40
	STAGE 4	66	--	13,200	2,112	3,960	---	24,090	133	396
	STAGE 4A	17	--	2,703	255	510	85	799	---	34
	UNDISTRIBUTED	--	--	236	166	198	103	336	---	74
CATEGORY 0010 TOTAL			0.9	43,300.0	8,300.0	13,300.0	3,000.0	33,600.0	138.7	810.0
0030										
	PRE STAGE	21	0.1	--	--	--	--	--	--	--
CATEGORY 0030 TOTAL			0.1	--	--	--	--	--	--	--
PROJECT 1540-04-73 TOTAL			**1**	**43,300**	**8,300**	**13,300**	**3,000**	**33,600**	**138.7**	**810**

TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS & BASES

CATEGORY	STAGE	STATION TO STATION	643.0500 POSTS (EACH)	643.0600 BASES (EACH)
0010				
	STAGE 2			
		SB STH 65		
		55+00'S' - 57+00'S'	8	8
		57+00'S' - 65+00'S'	17	17
	STAGE 2 TOTAL		25	25
	STAGE 3			
		NB STH 65		
		58+50'N' - 61+50'N'	12	12
		61+50'N' - 65+00'N'	8	8
		SB STH 65		
		56+75'S' - 58+00'S' LT	10	10
	STAGE 3 TOTAL		30	30
	UNDISTRIBUTED		15	15
PROJECT 1540-04-73 TOTAL			**70**	**70**

3

PAVEMENT MARKING

CATEGORY		646.1020 MARKING LINE EPOXY 4-INCH YELLOW SOLID (LF)	YELLOW 3' SEG, 9' GAP (LF)	YELLOW 12.5 SEG, 37.5 GAP (LF)	WHITE SOLID (LF)	WHITE 12.5 SEG, 37.5 GAP (LF)	WHITE 3' SEG, 9' GAP (LF)	646.3020 MARKING LINE EPOXY 8-INCH WHITE SOLID (LF)	8-INCH WHITE 3' SEG, 9' GAP (LF)	646.5020 MARKING ARROW EPOXY TYPE 2 (EACH)	TYPE 5 (EACH)	BIKE LANE (EACH)	646.5120 MARKING WORD EPOXY (EACH)	646.5220 MARKING SYMBOL EPOXY BIKE LANE (EACH)	646.6464 COLD WEATHER MARKING EPOXY 4-INCH (LF)	646.6468 COLD WEATHER MARKING EPOXY 8-INCH (LF)	646.6120 MARKING STOP LINE EPOXY 18-INCH (LF)	646.6220 MARKING YIELD LINE EPOXY 18-INCH (EACH)	646.7120 MARKING DIAGONAL EPOXY 12-INCH YELLOW (LF)	646.7220 MARKING CHEVRON EPOXY 24-INCH WHITE (LF)	646.7420 MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (LF)	646.8120 MARKING CURB EPOXY YELLOW (LF)	646.8220 MARKING ISLAND NOSE EPOXY YELLOW (EACH)	646.8020 MARKING CORRUGATED MEDIAN EPOXY YELLOW (SF)	WHITE (SF)
0010	STH 65 NB & MEDIAN																									
	SOUTH OF INTERSECTION	333	--	--	695	230	102	650	38	4	--	2	2	2	1360	688	--	--	--	46	--	--	--	--	--	--
	NORTH OF INTERSECTION	1713	--	--	1652	220	--	--	--	--	2	--	--	--	3585	---	--	--	48	--	--	--	--	816	--
	STH 65 SB																									
	SOUTH OF INTERSECTION	636	--	--	342	--	55	839	104	3	--	--	1	--	1033	943	--	--	--	100	--	--	--	--	--	--
	NORTH OF INTERSECTION	1300	--	--	1920	280	47	880	98	6	--	2	3	2	3547	978	32	--	--	54	--	--	--	--	--	--
	INTERSECTION	--	--	--	--	--	--	--	--	--	--	--	--	--	---	---	175	34	--	--	450	130	10	--	--
	70TH AVE WEST OF INTERSECTION	--	--	--	98	30	--	316	--	4	--	1	--	1	128	316	--	--	23	--	--	--	--	--	--	--
	70TH AVE EAST OF INTERSECTION	985	--		845	--	--	410	--	3	--	1	--	1	1830	410	35	--	64	--	--	--	---	--	444	
	TRAFFIC CONTROL PM REPLACEMENT																									
	EB OFF-RAMP	--	--	--	--	--	--	455	30	--	--	--	--	--	---	485	--	--	59	--	--	--	--	--	--	--
	SOUTH OF ROUNDABOUTS	--	--	--	--	--	--	260	40	--	--	--	--	--	---	300	--	--	33	--	--	--	--	--	--	--
	SOUTH ROUNDABOUT	--	--	--	7	--	--	179	--	--	--	--	--	--	7	179	--	--	--	--	--	--	--	--	--	--
	BETWEEN ROUNDABOUTS	--	--	--	--	88	--	232	25	--	--	--	--	--	88	257	--	--	42	--	--	--	--	--	--	--
	NORTH ROUNDABOUT	--	--	--	--	--	--	95	--	--	--	--	--	--	---	95	--	--	--	--	--	--	--	--	--	--
	NORTH OF ROUNDABOUTS	--	--	--	--	34	--	297	--	--	--	--	--	--	34	297	--	--	54	--	--	--	--	--	--	--
	70TH AVE WEST OF INTERSECTION	464	--	--	222	--	--	--	--	--	--	--	--	--	686	---	--	--	--	--	--	--	--	--	--	--
	70TH AVE EAST OF INTERSECTION	300	--	--	201	--	--	--	--	--	--	--	--	--	501	---	--	--	--	--	--	--	--	--	--	--
PROJECT 1540-04-73 TOTAL				**12,799**				**4,948**		**28**			**6**	**6**	**12,799**	**4,948**	**242**	**34**	**323**	**200**	**450**	**130**	**10**	**1,260**		

MARKING REMOVAL LINE

CATEGORY	STAGE	STATION TO STATION	646.9000 4-INCH (LF)	646.9100 8-INCH (LF)	646.9200 WIDE (LF)	DESCRIPTION
0010						
	STAGE 1					
		NB STH 65				
		44+25'N' - 45+55'N'	--	130	--	8-IN CHANNELIZING
		44+25'N' - 45+55'N'	--	--	15	12-IN DIAGONALS
		46+50'N' - 47+40'N'	--	90	--	RAB 8-IN
		51+35'N' - 52+50'N'	--	115	--	8-IN CHANNELIZING
		51+35'N' - 52+50'N'	--	--	45	12-IN DIAGONALS
		53+25'N' - 54+60'N' RT	--	135	--	RAB 8-IN
		SB STH 65				
		53+75'S' - 55+65'S' LT	--	190	--	8-IN CHANNELIZING
		53+75'S' - 55+65'S' LT	--	--	50	12-IN DIAGONALS
		IH 94 EB RAMP				
		IH 94 EB RAMP	--	210	--	8-IN CHANNELIZING
		IH 94 EB RAMP	--	--	50	12-IN DIAGONALS
	STAGE 1 TOTAL		--	870	160	
	STAGE 2					
		NB STH 65				
		64+30'N' LT	--	--	36	STOPLINE
		65+30'N' LT	--	--	40	STOPLINE
		65+30'N' - 66+02'N' LT	--	180	--	8-IN CHANNELIZING
		65+35'N' - 68+90'N'	710	--	--	DOUBLE YELLOW C/L
		66+75'N' - 68+50'N'	--	--	70	12-IN DIAGONALS
		SB STH 65				
		57+75'S' - 60+75'S' LT	--	600	--	8-IN CHANNELIZING
		57+75'S' - 60+75'S' LT	--	--	100	24-IN DIAGONALS
		59+50'S' - 62+35'S' RT	570	--	--	DOUBLE YELLOW C/L
		60+40'S' - 62+15'S' RT	--	--	105	12-IN DIAGONALS
		60+60'S' - 62+35'S' RT	300	--	--	DOUBLE YELLOW C/L
		70TH AVENUE				
		12+90'TR' - 15+20'TR' RT	460	--	--	DOUBLE YELLOW C/L
		13+10'TR' - 15+20'TR'	210	--	--	EDGELINE
		27+15'TR' - 29+15'TR'	200	--	--	EDGELINE
		27+65'TR' - 29+15'TR' RT	300	--	--	DOUBLE YELLOW C/L
	STAGE 2 TOTAL		2750	780	351	

MARKING REMOVAL LINE (CONT.)

CATEGORY	STAGE	STATION TO STATION	646.9000 4-INCH (LF)	646.9100 8-INCH (LF)	646.9200 WIDE (LF)	DESCRIPTION
0010						
	STAGE 2A					
		NB STH 65				
		66+10'N' - 69+10'N' RT	325	--	--	EDGELINE
		70TH AVENUE				
		20+40'TR' - 23+00'TR' RT	280	--	--	EDGELINE
		21+10'TR'	--	--	50	STOPLINE
		21+10'TR' - 21+50'TR' RT	80	--	--	DOUBLE YELLOW C/L
		21+10'TR' - 21+85'TR' LT	75	--	--	EDGELINE
	STAGE 2A TOTAL		760	--	50	
	STAGE 3					
		NB STH 65				
		66+00'N' - 69+00'N'	600	--	--	DOUBLE YELLOW C/L
		67+50'N' - 68+50'N' RT	200	--	--	DOUBLE YELLOW C/L
		67+50'N' - 68+50'N' RT	--	--	35	12-IN DIAGONALS
		SB STH 65				
		56+00'S' - 58+25'S' LT	50	--	--	SKIPS
		56+15'S' - 57+75'S' LT	--	160	--	8-IN CHANNELIZING
		56+50'S' - 57+75'S' LT	--	--	110	24-IN DIAGONALS
		57+10'S' - 57+75'S' LT	--	65	--	8-IN CHANNELIZING
		70TH AVENUE				
		16+50'TR' - 17+00'TR' RT	70	--	--	EDGELINE
		19+60'TR' RT	--	--	64	STOPLINE
		20+10'TR' - 20+65'TR' RT	70	--	--	EDGELINE
	STAGE 3 TOTAL		990	225	209	
	UNDISTRIBUTED		70	25	5	
PROJECT 1540-04-73 TOTAL			**4570**	**1900**	**775**	

MARKING REMOVAL SPECIAL MARKING

CATEGORY	STATION TO STATION	646.9300 (EACH)
0010		
	SB STH 65	
	56+50'S' LT	1
	57+50'S' LT	1
	59+25'S' LT	1
	61+50'S' RT	2
	64+00'S' RT	2
	64+50'S' LT	2
	65+50'S' RT	2
	66+00'S' RT	1
	66+50'S' RT	2
	TOTAL	14
PROJECT 1540-04-73 TOTAL		**14**

TEMPORARY RAISED PAVEMENT MARKERS AND DELINEATORS

CATEGORY	STAGE	STATION TO STATION	633.1100 DELINEATORS TEMPORARY (EACH)	643.3760 RAISED PAVEMENT MARKERS TYPE I (EACH)
0010				
	STAGE 2			
		TEMPORARY ROAD		
		12+00'TR' - 19+50'TR'	45	30
		21+50'TR' - 30+00'TR'	55	34
		UNDISTRIBUTED	--	6
	STAGE 2 TOTAL		100	70
PROJECT 1540-04-73 TOTAL			**100**	**70**

TEMPORARY PAVEMENT MARKING

CATEGORY	STAGE	STATION TO STATION	643.3105 TEMPORARY MARKING LINE PAINT 4-INCH LF	643.3150 TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH LF	643.3205 TEMPORARY MARKING LINE PAINT 8-INCH LF	643.3250 TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH LF	643.3805 TEMPORARY MARKING STOP LINE PAINT 18-INCH LF	643.3850 TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH LF	643.3505 TEMPORARY MARKING ARROW PAINT EACH	643.3550 TEMPORARY MARKING ARROW REMOVABLE TAPE EACH	643.3650 TEMPORARY MARKING WORD REMOVABLE TAPE EACH	DESCRIPTION
0010												
	STAGE 1											
		NB STH 65										
		42+50'N' - 45+60'N' RT	--	--	--	305	--	--	--	--	--	EDGELINE
		47+25'N' - 51+25'N' RT	--	400	--	--	--	--	--	--	--	EDGELINE
		51+25'N' - 52+35'N'	--	--	--	110	--	--	--	--	--	CHANNELIZING
		53+80'N' - 59+00'N'	--	520	--	--	--	--	--	--	--	EDGELINE
		SB STH 65										
		54+00'S' - 58+25'S'	--	--	--	425	--	--	--	--	--	EDGELINE
		SOUTH ROUNDABOUT										
		45+60'N' - 47+25'N'	--	--	--	500	--	--	--	--	--	CHANNELIZING
		NORTH ROUNDABOUT										
		52+40'N' - 53+75'N'	--	--	--	250	--	--	--	--	--	CHANNELIZING
		IH 94 EB RAMP										
		IH 94 EB RAMP	--	--	--	410	--	--	--	--	--	EDGELINE
	STAGE 1 TOTAL		--	920	--	2000	--	--	--	--	--	
	STAGE 2											
		NB STH 65										
		53+75'N' - 54+90'N' RT	--	135	--	--	--	--	--	--	--	EDGELINE
		53+75'N' - 54+15'N' RT	--	40	--	--	--	--	--	--	--	EDGELINE
		54+15'N' - 54+75'N' LT	85	--	--	--	--	--	--	--	--	EDGELINE
		54+90'N' - 55+50'N' LT	85	--	--	--	--	--	--	--	--	EDGELINE
		54+75'N' - 55+50'N' LT	--	75	--	--	--	--	--	--	--	EDGELINE
		64+85'N' LT	--	--	--	--	--	--	2	--	--	ARROWS
		65+15'N' LT	--	--	--	--	36	--	--	--	--	STOPLINE
		66+20'N' - 68+90'N'	540	--	--	--	--	--	--	--	--	DOUBLE YELLOW
		66+20'N' - 69+50'N' RT	330	--	--	--	--	--	--	--	--	EDGELINE
		SB STH 65										
		53+75'S' - 60+40'S' LT	--	1330	--	--	--	--	--	--	--	DOUBLE YELLOW
		55+50'S' - 59+50'S' RT	--	400	--	--	--	--	--	--	--	EDGELINE
		58+00'S' - 60+50'S' LT	--	60	--	--	--	--	--	--	--	3' SKIP - 9' GAP
		59+50'S' - 65+15'S' RT	565	--	--	--	--	--	--	--	--	EDGELINE
		60+00'S' - 62+25'S'	450	--	--	--	--	--	--	--	--	DOUBLE YELLOW
		60+40'S' - 65+15'S'	950	--	--	--	--	--	--	--	--	DOUBLE YELLOW
		62+25'S' - 65+15'S' RT	--	--	580	--	--	--	--	--	--	2 - CHANNELIZING
		62+75'S' - 65+15'S' LT	240	--	--	--	--	--	--	--	--	EDGELINE
		66+30'S' RT	--	--	--	--	40	--	--	--	--	STOPLINE
		66+30'S' - 67+45'S' LT	--	--	230	--	--	--	2	--	--	2 - CHANNELIZING
		70TH AVENUE / TEMPORARY ROAD										
		12+75'TR' - 14+00'TR'	--	250	--	--	--	--	--	--	--	DOUBLE YELLOW
		12+75'TR' - 13+50'TR' LT	--	75	--	--	--	--	--	--	--	EDGELINE
		13+35'TR' - 14+45'TR' RT	--	150	--	--	--	--	--	--	--	EDGELINE
		13+50'TR' - 20+35'TR' LT	710	--	--	--	--	--	--	--	--	EDGELINE
		14+00'TR' - 19+70'TR'	575	--	--	--	--	--	--	--	--	DOUBLE YELLOW
		15+00'TR' RT	--	55	--	--	--	--	--	--	--	EDGELINE
		15+15'TR' - 17+00'TR' RT	210	--	--	--	--	--	--	--	--	EDGELINE
		17+00'TR' - 17+20'TR' RT	--	100	--	--	--	--	--	--	--	EDGELINE
		17+20'TR' - 19+65'TR' RT	275	--	--	--	--	--	--	--	--	EDGELINE
		18+50'TR' - 19+70'TR' RT	--	--	120	--	--	--	4	--	--	CHANNELIZING
		19+70'TR' RT	--	--	--	--	45	--	--	--	--	STOPLINE
		20+50'TR' - 27+25'TR' RT	675	--	--	--	--	--	--	--	--	EDGELINE
		21+00'TR' - 29+15'TR' LT	815	--	--	--	--	--	1	--	--	EDGELINE
		21+10'TR' LT	--	--	--	--	25	--	--	-	--	STOPLINE
		21+10'TR' - 28+00'TR'	1380	--	--	--	--	--	--	--	--	DOUBLE YELLOW
		27+25'TR' - 29+00'TR' RT	175	--	--	--	--	--	--	--	--	EDGELINE
		28+00'TR' - 29+15'TR'	230	--	--	--	--	--	--	--	--	DOUBLE YELLOW
	STAGE 2 TOTAL		8290	2670	930	--	146	--	9	--	--	

3

TEMPORARY PAVEMENT MARKING (CONT.)

CATEGORY	STAGE	STATION TO STATION	643.3105 TEMPORARY MARKING LINE PAINT 4-INCH LF	643.3150 TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH LF	643.3205 TEMPORARY MARKING LINE PAINT 8-INCH LF	643.3250 TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH LF	643.3805 TEMPORARY MARKING STOP LINE PAINT 18-INCH LF	643.3850 TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH LF	643.3505 TEMPORARY MARKING ARROW PAINT EACH	643.3550 TEMPORARY MARKING ARROW REMOVABLE TAPE EACH	643.3650 TEMPORARY MARKING WORD REMOVABLE TAPE EACH	DESCRIPTION
0010												
	STAGE 2A											
		NB STH 65										
		53+75'N' - 65+25'N' RT	--	2300	--	--	--	--	--	--	--	DOUBLE YELLOW CL
		55+35'N' - 65+20'N' RT	--	985	--	--	--	--	--	--	--	EDGELINE
		59+50'N' - 62+50'N' RT	--	600	--	--	--	--	--	--	--	DOUBLE YELLOW CL
		62+75'N' - 65+25'N' RT	--	--	--	250	--	--	--	4	2	
		63+50'N' - 65+25'N' RT	--	--	--	175	--	--	--	--	--	
		65+25'N' - 65+50'N'	80	--	--	--	50	--	--	--	--	EDGELINE
		66+00'N' - 69+50'N' RT	350	--	--	--	--	--	--	--	--	EDGELINE
		66+10'N' - 69+10'N' RT	660	--	--	--	--	--	--	--	--	DOUBLE YELLOW
		SB STH 65										
		57+90'S' - 60+40'S' LT	--	65	--	--	--	--	--	--	--	3' SKIP - 9' GAP
		70TH AVENUE / TEMPORARY ROAD										
		21+00'TR' - 23+00'TR' RT	200	--	--	--	--	--	--	--	--	EDGELINE
		21+50'TR' LT	--	--	--	--	25	--	--	--	--	STOPLINE
		21+75'TR' LT	--	--	--	--	--	--	1	--	--	
	STAGE 2A TOTAL		1290	3950	--	425	75	--	1	4	2	
	STAGE 3											
		NB STH 65										
		66+00'N' - 69+10'N' LT	310	--	--	--	--	--	--	--	--	EDGELINE
		66+25'N' - 67+35'N' RT	--	--	110	--	--	--	2	--	--	CHANNELIZING
		66+25'N' - 67+35'N' RT	--	--	110	--	--	--	2	--	--	CHANNELIZING
		66+25'N'	--	--	--	--	40	--	--	--	--	STOPLINE
		67+40'N' - 68+90'N' RT	300	--	--	--	--	--	--	--	--	DOUBLE YELLOW CL
		SB STH 65										
		56+50'S' - 58+00'S' LT	--	---	--	150	--	--	--	--	--	GORE CHANNELIZING
		57+00'S' - 58+00'S' LT	--	--	--	100	--	--	--	--	--	GORE CHANNELIZING
		56+00'S' - 60+50'N'	--	450	--	--	--	--	--	--	--	EDGELINE
		57+00'S' - 65+25'N'	--	775	--	--	--	--	--	--	--	EDGELINE
		70TH AVENUE / TEMPORARY ROAD										
		16+50'TR' - 16+60'TR' RT	55	--	--	--	--	--	--	--	--	EDGELINE
		16+60'TR' - 17+00'TR RT	--	150	--	--	--	--	--	--	--	DRIVEWAY MARKING
		17+00'TR' - 17+50'TR' RT	80	--	--	--	--	--	--	--	--	EDGELINE
		19+10'TR' - 20+25'TR' RT	115	--	--	--	--	--	--	--	--	EDGELINE
		19+65'TR' - 20+50'TR' LT	85	--	--	--	--	--	--	--	--	EDGELINE
		19+70'TR' - 20+20'TR'	100	--	--	--	--	--	--	--	--	DOUBLE YELLOW CL
		19+70'TR' - 20+20'TR'	--	--	50	--	--	--	2	--	--	CHANNELIZING
		20+20'TR' RT	--	--	--	--	35	--	--	--	--	STOPLINE
	STAGE 3 TOTAL		1045	1375	270	250	75	--	6	--	--	

TEMPORARY PAVEMENT MARKING (CONT.)

CATEGORY	STAGE	STATION TO STATION	643.3105 TEMPORARY MARKING LINE PAINT 4-INCH LF	643.3150 TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH LF	643.3205 TEMPORARY MARKING LINE PAINT 8-INCH LF	643.3250 TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH LF	643.3805 TEMPORARY MARKING STOP LINE PAINT 18-INCH LF	643.3850 TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH LF	643.3505 TEMPORARY MARKING ARROW PAINT EACH	643.3550 TEMPORARY MARKING ARROW REMOVABLE TAPE EACH	643.3650 TEMPORARY MARKING WORD REMOVABLE TAPE EACH	DESCRIPTION
0010												
	STAGE 3A											
		SB STH 65										
		54+75'S' - 56+75'N'	--	200	--	--	--	--	--	--	--	EDGELINE
		55+00'S' - 60+50'N'	--	550	--	--	--	--	--	--	--	EDGELINE
		70TH AVENUE / TEMPORARY ROAD										
		16+50'TR' - 17+50'TR' RT	100	--	--	--	--	--	--	--	--	EDGELINE
		17+00'TR' - 17+75'TR' RT	--	300	--	--	--	--	--	--	--	DRIVEWAY MARKING
	STAGE 3A TOTAL		100	1050	--	--	--	--	--	--	--	
	STAGE 4											
		NB STH 65										
		59+50'N' - 64+50'N'	--	500	--	--	--	--	--	--	--	EDGELINE
		59+75'N' - 64+45'N' RT	--	--	--	470	--	--	--	--	--	CHANNELIZING
		59+75'N' - 64+45'N' RT	--	--	--	470	--	--	--	4	2	CHANNELIZING
		64+45'N' RT	--	--	--	--	--	15	--	--	--	STOPLINE
		64+45'N' RT	--	--	--	--	--	20	--	--	--	STOPLINE
		SB STH 65										
		54+75'S' - 55+50'S'	--	75	--	--	--	--	--	--	--	EDGELINE
		56+00'S' - 64+50'S'	--	850	--	--	--	--	--	--	--	EDGELINE
		56+00'S' - 57+75'S' LT	--	--	--	175	--	--	--	--	--	CHANNELIZING
		56+75'S' - 57+75'S' LT	--	--	--	100	--	--	--	--	--	CHANNELIZING
		57+50'S' - 64+00'S' LT	--	650	--	--	--	--	--	--	--	EDGELINE
		57+75'S' - 59+00'S' LT	--	60	--	--	--	--	--	--	--	3' SKIP - 9' GAP
		70TH AVENUE										
		15+40'E' - 17+50'E'	420	--	--	--	--	--	--	--	--	DOUBLE YELLOW CL
		15+40'E' - 17+50'E' LT	210	--	--	--	--	--	--	--	--	EDGELINE
		17+50'E' - 19+25'E' RT	--	175	--	--	--	--	--	--	--	EDGELINE
		17+50'E' - 19+00'E'	--	150	--	--	--	--	--	--	--	DOUBLE YELLOW CL
		17+50'E' - 21+60'E' LT	--	410	--	--	--	--	--	--	--	EDGELINE
		18+25'E' - 19+00'E' RT	--	--	--	75	--	--	--	--	--	CHANNELIZING
		18+25'E' - 19+00'E' RT	--	--	--	75	--	--	--	--	--	CHANNELIZING
		18+80'E' RT	--	--	--	--	--	--	--	1	--	RT TURN ARROW
		19+00'E' RT	--	--	--	--	--	15	--	--	--	STOPLINE
		19+00'E' RT	--	--	--	--	--	20	--	--	--	STOPLINE
		20+75'E' LT	--	--	--	--	--	15	--	--	--	STOPLINE
		20+75'E' - 21+55'E'	--	160	--	--	--	--	--	--	--	DOUBLE YELLOW CL
		21+00'E' LT	--	--	--	--	--	--	--	1	--	LT TURN ARROW
		21+00'E' - 21+75'E' RT	--	75	--	--	--	--	--	--	--	EDGELINE
		21+55'E' - 26+55'E'	1000	--	--	--	--	--	--	--	--	DOUBLE YELLOW CL
		21+55'E' - 26+55'E' LT	500	--	--	--	--	--	--	--	--	EDGELINE
		22+55'E' - 26+55'E' RT	400	--	--	--	--	--	--	--	--	EDGELINE
	STAGE 4 TOTAL		2530	3105	--	1365	--	85	--	6	2	
	STAGE 4A											
		NB STH 65										
		62+15'N' RT	--	--	--	--	--	--	--	1	--	
		62+75'N' - 64+50'N'	--	450	--	--	--	--	--	2	2	EDGELINE
		SB STH 65										
		62+00'S' - 64+75'S'	--	340	--	--	--	--	--	--	--	EDGELINE
		65+50'S' - 69+00'S' LT	--	350	--	--	--	--	--	2	--	EDGELINE
		69+00'S' - 69+50'S' LT	--	--	--	100	--	--	--	--	--	CHANNELIZING
		70+00'S' - 77+50'S'	--	750	--	--	--	--	--	--	--	EDGELINE
		70TH AVENUE										
		18+90'E' LT	--	--	--	--	--	--	--	1	--	
		21+25'E' LT	--	--	--	--	--	--	--	2	--	
	STAGE 4A TOTAL		--	1890	--	100	--	--	--	8	2	
		UNDISTRIBUTED	245	205	250	20	54	15	0	0	0	
PROJECT 1540-04-73 TOTAL			**13,500**	**15,165**	**1,450**	**4,160**	**350**	**100**	**16**	**18**	**6**	

CONSTRUCTION STAKING

CATEGORY	STATION TO STATION	650.4500 SUBGRADE (LF)	650.5000 BASE (LF)	650.7000 CONCRETE PAVEMENT (LF)	650.8000 RESURFACING REFERENCE (LF)	650.8501 ELECTRICAL INSTALLATIONS (EACH)	650.9000 CURB RAMPS (EACH)	650.9500 SIDEWALK 1540-04-73 (EACH)	650.9911 SUPPLEMENTAL CONTROL (EACH)	650.9920 SLOPE STAKES (LF)	REMARKS
0010											
	NB STH 65										
	55+35'N' - 74+75'N'	1940	--	1940	--	--	--	--	--	1940	
	74+75'N' - 82+70'N'	795	795	--	598	--	--	--	--	795	
	SB STH 65										
	56+75'S' - 74+75'S'	1800	--	1800	--	--	6	--	--	1800	
	74+75'S' - 82+70'S'	795	795	--	--	--	--	--	--	795	
	EB 70TH AVENUE										
	15+35'E' - 17+50'E'	215	215	--	--	--	--	--	--	215	
	17+50'E' - 21+55'E'	405	--	405	--	--	3	--	--	405	
	21+55'E' - 26+50'E'	495	495	--	--	--	--	--	--	495	
	WB 70TH AVENUE										
	15+35'W' - 18+70'W'	335	335	--	--	--	--	--	--	335	
	18+70'W' - 21+55'W'	285	--	285	--	--	3	--	--	285	
	21+55'W' - 26+50'W'	495	495	--	--	--	--	--	--	495	
	PARK & RIDE										
	10+25'PR' - 11+50'PR'	125	125	--	--	--	--	--	--	125	
	PARK & RIDE	350	350	50	--	--	1	--	--	350	
	TEMPORARY ROAD										
	13+50'TR' - 20+00'TR'	650	650	--	--	--	--	--	--	650	
	20+75'TR' - 21+75'TR'	100	100	--	--	--	--	--	--	100	
	22+75'TR' - 29+00'TR'	625	625	--	--	--	--	--	--	625	
	STAGE 1 TEMPORARY										
	54+05'N' - 55+65'N'	160	160	--	--	--	--	--	--	160	
	66+25'N' - 69+00'N'	275	275	--	--	--	--	--	--	275	
	STAGE 2 TEMPORARY										
	63+70'N' - 64+70'N'	100	100	--	--	--	--	--	--	--	
	20+55'TR' - 23+00'TR'	245	245	--	--	--	--	--	--	245	
	STAGE 2A TEMPORARY										
	55+50'N' - 57+00'N'	150	150	--	--	--	--	--	--	150	
	57+00'N' - 59+50'N'	250	250	--	--	--	--	--	--	250	
	STAGE 3 TEMPORARY										
	63+75'S' - 64+50'S'	75	75	--	--	--	--	--	--	--	
	PROJECT (1540-04-73)	75	75	--	--	1	--	1	1	--	
PROJECT 1540-04-73 TOTAL		**10,740**	**6,310**	**4,480**	**598**	**1**	**13**	**1**	**1**	**10,490**	

CONSTRUCTION STAKING STRUCTURE LAYOUT

CATEGORY	STRUCTURE NO.	650.6501.001 CONSTRUCTION STAKING STRUCTURE LAYOUT EACH	650.6501.002 CONSTRUCTION STAKING STRUCTURE LAYOUT EACH
0010			
	S-55-053	1	--
	S-55-054	--	1
PROJECT 1540-04-73 TOTAL		**1**	**1**

SAWING PAVEMENT

CATEGORY	STAGE	STATION TO STATION	O/S	DESCRIPTION	690.0150 SAWING ASPHALT (LF)	690.0250 SAWING CONCRETE (LF)
0010						
	STAGE 1					
		NB STH 65				
		54+05'N' - 55+35'N'		CURB & GUTTER & MAINLINE	--	160
		54+25'N' - 54+75'N'		MEDIAN SIDEWALK REMOVAL	--	55
		65+40'N' - 69+10'N'		EXISTING ASPHALT EDGE	370	--
		SB STH 65				
		54+50'N' - 55+50'S'	RT	CURB & GUTTER REMOVAL	--	125
		65+10'S' - 66+50'S'	LT & RT	EXISTING ASPHALT EDGE	140	--
		70TH AVENUE				
		14+45'E' - 15+20'E'	LT	EXISTING ASPHALT EDGE	175	--
		21+75'E' - 21+95'E'	LT	TEMPORARY MATCH TO EXISTIN	35	--
		22+45'E' - 22+85'E'	LT	TEMPORARY MATCH TO EXISTIN	45	--
		27+10'E' - 29+10'S'	LT	EXISTING ASPHALT EDGE	200	--
		PARK & RIDE				
		PARK & RIDE		ASPHALT REMOVAL	380	--
	STAGE 1 TOTAL				1345	340
	STAGE 2					
		70TH AVENUE				
		18+10'E'	LT & RT	MATCH EXISTING	100	--
		22+35'E'	RT	DRIVEWAY	30	--
		26+50'E'	LT & RT	MATCH EXISTING	25	--
	STAGE 2 TOTAL				155	0
	STAGE 3					
		SB STH 65				
		55+50'S' - 60+36'S'	RT	CURB & GUTTER & MAINLINE	5	525
	STAGE 3 TOTAL				5	525
	STAGE 4					
		NB STH 65				
		82+70'N'	LT & RT	MATCH EXISTING	45	--
		70TH AVENUE				
		14+45'E' - 15+20'E'	LT	TEMPORARY REMOVAL	80	--
		17+00'E' - 17+24'E'	LT	TEMPORARY REMOVAL	35	--
		27+10'E' - 29+10'S'	LT	TEMPORARY REMOVAL	200	--
	STAGE 4 TOTAL				360	0
	UNDISTRBUTED				200	50
PROJECT 1540-04-73 TOTAL					2065	915

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STORAGE CABINET

SPV.0060.013

CATEGORY	STATION	LOCATION	(EACH)
0030			
	12+15'PNR'	PARK AND RIDE	1
PROJECT 1540-04-73 TOTAL			**1**

CONCRETE PAD

SPV.0060.014

CATEGORY	STATION	LOCATION	(EACH)
0030			
	12+15'PNR'	PARK AND RIDE	1
PROJECT 1540-04-73 TOTAL			**1**

SWEF PAVEMENT

CATEGORY	STATION TO STATION	465.0105 ASPHALTIC SURFACE (TON)	455.0605 * TACK COAT (GAL)	REMARKS
0030				
	PARK & RIDE			
	10+67'PNR' - 15+28'PNR'	210	70	BINDER LIFT
		110	70	SURFACE
PROJECT 1540-04-73 TOTAL		**320**	**140**	

*ADDITIONAL QUANTITIES LISTED ELSEWHERE

CONCRETE INSPECTION PAD

SPV.0180.001

CATEGORY	STATION TO STATION	(SY)
0030		
	PARK AND RIDE	
	11+65'PNR' - 12+65'PNI	156
PROJECT 1540-04-73 TOTAL		**156**

TRAFFIC SIGNAL REMOVALS

CATEGORY	LOCATION / ITEM NUMBER	204.0195 * REMOVING CONCRETE BASES EACH	653.0905 * REMOVING PULL BOXES EACH
0010			
	STH 65 & 70TH AVE		
	CB1	1	--
	SB1	1	--
	SB2	1	--
	SB3	1	--
	SB4	1	--
	SB5	1	--
	SB6	1	--
	SB7	1	--
	SB8	1	--
	SB9	1	--
	SB10	1	--
	LB1	1	--
	LB2	1	--
	PB1	--	1
	PB2	--	1
	PB3	--	1
	PB4	--	1
	PB5	--	1
	PB6	--	1
	PB7	--	1
	PB8	--	1
	PB9	--	1
	PB10	--	1
	PB11	--	1
	PB12	--	1
	PB13	--	1
	PB14	--	1
	PB15	--	1
	PB16	--	1
PROJECT 1540-04-73 TOTAL		**13**	**16**

*ADDITIONAL QUANTITIES LISTED ELSEWHERE

TRAFFIC SIGNAL PULL BOXES

CATEGORY	LOCATION / PULL BOX NUMBER	STATION	OFFSET	L/R	653.0154 PULL BOX NON-CONDUCTIVE 24X36-INCH EACH	653.0164 * PULL BOX NON-CONDUCTIVE 24X42-INCH EACH
0010						
	STH 65 & 70TH AVE					
	PB1	21+14'E'	77.4'	LT	--	1
	PB2	21+00'E'	46.8'	LT	--	1
	PB3	21+53'E'	56.8'	LT	--	1
	PB4	21+39'E'	57.0'	RT	--	1
	PB5	64+04'N'	80.7'	RT	--	1
	PB6	62+48'N'	48.0'	RT	1	--
	PB7	60+43'N'	44.3'	RT	1	--
	PB8	58+57'N'	37.0'	RT	1	--
	PB9	56+82'N'	36.8'	RT	1	--
	PB10	63+94'N'	35.3'	RT	--	1
	PB11	63+83'N'	7.9'	LT	--	1
	PB12	64+16'N'	7.6'	LT	1	--
	PB13	63+86'S'	12.1'	RT	--	1
	PB14	63+72'S'	43.5'	LT	--	1
	PB15	18+59'E'	45.3'	RT	--	1
	PB16	18+89'E'	23.2'	RT	--	1
	PB17	18+72'E'	68.8'	LT	--	1
	PB18	18+84'E'	18.5'	LT	--	1
	PB19	65+64'S'	79.7'	LT	--	1
	PB20	67+63'S'	46.8'	LT	1	--
	PB21	69+63'S'	40.3'	LT	1	--
	PB22	71+58'S'	34.7'	LT	1	--
	PB23	73+46'S'	34.3'	LT	1	--
	PB24	65+75'S'	41.8'	LT	--	1
	PB25	65+92'S'	16.2'	RT	--	1
	PB26	65+89'N'	8.8'	LT	--	1
	PB27	66+03'N'	43.5'	RT	--	1
PROJECT 1540-04-73 TOTAL					**9**	**18**

*ADDITIONAL QUANTITIES LISTED ELSEWHERE

TRAFFIC SIGNAL CONDUIT

CATEGORY	LOCATION	FROM	-	TO	652.0225 * CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	652.0235 * CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF
0010						
	STH 65 & 70TH AVE					
		CB1	-	PB1	--	45
		PB1	-	PB2	--	34
		PB2	-	SB1	20	--
		PB1	-	PB3	--	90
		PB3	-	PB4	--	230
		PB4	-	PB5	--	138
		PB5	-	PB6	324	--
		PB6	-	PB7	408	--
		PB7	-	PB8	183	--
		PB8	-	PB9	171	--
		PB9	-	SB16	6	--
		PB5	-	PB10	--	94
		PB10	-	SB2	--	64
		PB10	-	PB11	--	90
		PB11	-	PB12	34	--
		PB11	-	SB3	50	--
		PB11	-	PB13	--	84
		PB13	-	SB4	21	--
		PB13	-	SB5	58	--
		PB13	-	PB14	--	116
		PB14	-	SB6	--	21
		PB14	-	PB15	150	--
		PB15	-	SB7	43	--
		PB15	-	PB16	--	37
		PB16	-	SB8	16	--
		PB16	-	SB9	19	--
		PB15	-	PB17	--	230
		PB17	-	PB18	--	52
		PB18	-	SB10	22	--
		PB17	-	PB19	--	94
		PB19	-	PB20	404	--
		PB20	-	PB21	402	--
		PB21	-	PB22	194	--
		PB22	-	PB23	187	--
		PB23	-	SB17	6	--
		PB19	-	PB24	--	80
		PB24	-	SB11	15	--
		PB24	-	SB12	--	29
		PB24	-	PB25	--	122
		PB25	-	SB13	25	--
		PB25	-	PB26	--	74
		PB26	-	SB14	19	--
		PB26	-	PB27	--	110
		PB27	-	SB15	--	11
		PB27	-	CB1	--	33
PROJECT 1540-04-73 TOTAL					**2,777**	**1,878**

*ADDITIONAL QUANTITIES LISTED ELSEWHERE

TRAFFIC SIGNAL LOOP DETECTORS

CATEGORY	LOCATION / LOOP NO.	STATION **	OFFSET	L/R	SIZE FT X FT	NO. OF TURNS	INSTALLATION METHOD	652.0800 CONDUIT LOOP DETECTOR LF	655.0800 LOOP DETECTOR WIRE LF	655.0700 * LOOP DETECTOR LEAD IN CABLE LF
0010										
	STH 65 & 70TH AVE									
	11	64+12'N'	29'	LT	6 X 20	3	SDD: LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	90	270	377
	12	64+40'N'	29'	LT	6 X 20	3	SDD: LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	90	270	377
	21	69+68'S'	6'	LT	6 X 10	5	SDD: LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	96	480	613
	22	69+69'S'	18'	LT	6 X 10	5	SDD: LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	72	360	613
	23	67+68'S'	6'	LT	6 X 6	5	SDD: LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	100	500	412
	24	67+69'S'	18'	LT	6 X 6	5	SDD: LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	76	380	412
	31	21+04'E'	7'	LT	6 X 20	3	SDD: LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	128	384	59
	32	20+76'E'	6'	LT	6 X 30	3	SDD: LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	148	444	59
	41	18+85'E'	6'	RT	6 X 20	4	SDD: LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	82	328	406
	42	19+13'E'	6'	RT	6 X 20	4	SDD: LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	82	328	406
	43	18+99'E'	47'	RT	6 X 30	3	SDD: LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	100	300	370
	51	65+95'S'	37'	RT	6 X 20	3	SDD: LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	78	234	75
	52	65+67'S'	39'	RT	6 X 20	3	SDD: LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	88	264	75
	61	60+39'N'	6'	RT	6 X 10	5	SDD: LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	102	510	618
	62	60+38'N'	18'	RT	6 X 10	5	SDD: LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	78	390	618
	63	62+43'N'	6'	RT	6 X 6	5	SDD: LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	104	520	414
	64	62+41'N'	18'	RT	6 X 6	5	SDD: LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	80	400	414
	71	18+88'E'	6'	LT	6 X 20	3	SDD: LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	74	222	309
	72	19+16'E'	6'	LT	6 X 20	3	SDD: LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	84	252	309
	81	20+99'E'	27'	LT	6 X 20	3	SDD: LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	88	264	59
	82	20+71'E'	29'	LT	6 X 20	3	SDD: LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)	90	270	59
PROJECT 1540-04-73 TOTAL								**1,930**	**7,370**	**7,054**

** LOCATION IS TO THE FRONT CENTER OF DETECTOR LOOP & FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD.
* ADDITIONAL QUANTITIES LISTED ELSEWHERE

TRAFFIC SIGNAL STRUCTURES

CATEGORY	LOCATION / BASE NUMBER	STATION	OFFSET	L/R	654.0101 CONCRETE BASES TYPE 1 EACH	657.0100 PEDESTAL BASES EACH	657.0405 TRAFFIC SIGNAL STANDARDS ALUMINUM 3.5-FT EACH	657.0425 TRAFFIC SIGNAL STANDARDS ALUMINUM 15-FT EACH
0010								
	STH 65 & 70TH AVE							
	SB1	20+80'E'	44.8'	LT	1	1	--	1
	SB3	64+31'N'	7.3'	LT	1	1	--	1
	SB4	64+01'S'	13.2'	RT	1	1	--	1
	SB5	64+14'S'	18.2'	RT	1	1	--	1
	SB7	18+93'E'	68.2'	RT	1	1	--	1
	SB8	19+05'E'	27.2'	RT	1	1	1	--
	SB9	19+04'E'	21.5'	RT	1	1	--	1
	SB10	19+06'E'	16.7'	LT	1	1	--	1
	SB11	65+61'S'	37.1'	LT	1	1	--	1
	SB13	65+55'N'	40.9'	LT	1	1	--	1
	SB14	65+71'N'	8.4'	LT	1	1	--	1
	SB16	56+76'N'	36.8'	RT	1	1	--	1
	SB17	73+51'S'	34.5'	LT	1	1	--	1
PROJECT 1540-04-73 TOTAL					**13**	**13**	**1**	**12**

PEDESTRIAN PUSH BUTTONS

CATEGORY	LOCATION / BASE NUMBER	658.0500 PEDESTRIAN PUSH BUTTONS EACH
0010		
	STH 65 & 70TH AVE	
	SB1	2
	SB8	1
	SB9	1
	SB11	1
	SB12	1
	SB13	1
PROJECT 1540-04-73 TOTAL		7

3

MONOTUBE STRUCTURES

CATEGORY	LOCATION / BASE NUMBER	STATION	OFFSET	L/R	654.0120 CONCRETE BASES TYPE 10-SPECIAL EACH	654.0113 CONCRETE BASES TYPE 13 EACH	657.0352 POLES TYPE 10-SPECIAL EACH	657.0360 POLES TYPE 13 EACH	657.0541 MONOTUBE ARMS 40-FT-SPECIAL EACH	657.0546 MONOTUBE ARMS 45-FT-SPECIAL EACH	657.0550 MONOTUBE ARMS ARMS 50-FT EACH	657.0808 LUMINAIRE ARMS STEEL 8-FT EACH	659.1125 LUMINAIRES UTILITY LED C EACH
0010													
	STH 65 & 70TH AVE												
	SB2	64+57'N'	38.8'	RT	--	1	--	1	--	--	1	1	1
	SB6	63+86'S'	49.1'	LT	1	--	1	--	--	1	--	1	1
	SB12	65+48'S'	50.9'	LT	1	--	1	--	1	--	--	1	1
	SB15	66+13'N'	47.0'	RT	1	--	1	--	--	1	--	1	1
PROJECT 1540-04-73 TOTAL					3	**1**	**3**	**1**	**1**	**2**	**1**	**4**	**4**

3

TRAFFIC SIGNAL HEADS

CATEGORY	LOCATION	SIGNAL BASE NO.	HEAD NO.	658.0173 TRAFFIC SIGNAL FACE 3S 12-INCH EACH	658.0174 TRAFFIC SIGNAL FACE 4S 12-INCH EACH	658.0416 PEDESTRIAN SIGNAL FACE 16-INCH EACH	INCIDENTAL TO SIGNAL FACE BID ITEM LED MODULES RED BALL EACH	YELLOW BALL EACH	GREEN BALL EACH	RED ARROW EACH	YELLOW ARROW EACH	GREEN ARROW EACH	NOTES
0010	STH 65 & 70TH AVE												
		SB1	21	--	1	--	--	--	--	1	2	1	
			23	1	--	--	1	1	1	--	--	--	
			8A	--	--	1	--	--	--	--	--	--	
		SB2	2	1	--	--	1	1	1	--	--	--	WITH RETROREFLECTIVE BACK PLATE
			13	--	1	--	--	--	--	1	2	1	WITH RETROREFLECTIVE BACK PLATE AND TUNNEL VISORS
			16	1	--	--	1	1	1	--	--	--	
			17	1	--	--	1	1	1	--	--	--	
			22	--	1	--	--	--	--	1	2	1	
		SB3	1	1	--	--	1	1	1	--	--	--	WITH RETROREFLECTIVE BACK PLATE
			14	--	1	--	--	--	--	1	2	1	WITH RETROREFLECTIVE BACK PLATE
		SB4	19	1	--	--	1	--	--	--	1	1	
		SB5	5	--	1	--	--	--	--	1	2	1	WITH RETROREFLECTIVE BACK PLATE
		SB6	10	1	--	--	1	1	1	--	--	--	WITH RETROREFLECTIVE BACK PLATE
			11	1	--	--	1	1	1	--	--	--	WITH RETROREFLECTIVE BACK PLATE
		SB7	18	1	--	--	1	--	--	--	1	1	
		SB9	15	1	--	--	1	1	1	--	--	--	
			26	--	1	--	--	--	--	1	2	1	
			2A	--	--	1	--	--	--	--	--	--	
		SB10	20	--	1	--	--	--	--	1	2	1	
			27	--	1	--	--	--	--	1	2	1	
		SB11	6	--	1	--	--	--	--	1	2	1	WITH RETROREFLECTIVE BACK PLATE AND TUNNEL VISORS
			2B	--	--	1	--	--	--	--	--	--	
			9	1	--	--	1	1	1	--	--	--	WITH RETROREFLECTIVE BACK PLATE
		SB12	24	1	--	--	1	1	1	--	--	--	
			25	1	--	--	1	1	1	--	--	--	
			8D	--	--	1	--	--	--	--	--	--	
		SB13	7	--	1	--	--	--	--	1	2	1	WITH RETROREFLECTIVE BACK PLATE
			8	1	--	--	1	1	1	--	--	--	WITH RETROREFLECTIVE BACK PLATE
			8B	--	--	1	--	--	--	--	--	--	
			8C	--	--	1	--	--	--	--	--	--	
		SB14	12	--	1	--	--	--	--	1	2	1	WITH RETROREFLECTIVE BACK PLATE
		SB15	3	1	--	--	1	1	1	--	--	--	WITH RETROREFLECTIVE BACK PLATE
			4	1	--	--	1	1	1	--	--	--	WITH RETROREFLECTIVE BACK PLATE
PROJECT 1540-04-73 TOTAL				**16**	**11**	**6**	**16**	**14**	**14**	**11**	**24**	**13**	

3

TRAFFIC SIGNAL CABLE AND WIRE - BELOW GROUND

CATEGORY	LOCATION FROM - TO	655.0230 * 5-14 AWG LF	655.0240 7-14 AWG LF	655.0250 CABLE TRAFFIC SIGNAL 9-14 AWG LF	655.0260 12-14 AWG LF	655.0270 15-14 AWG LF	655.0305 CABLE TYPE UF 2-12 AWG GROUNDED LF	655.0515 ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG LF	655.0700* LOOP DETECTOR LEAD IN CABLE LF	655.0900 * TRAFFIC SIGNAL EVP DETECTOR CABLE LF	SPV.0090.001 * INSTALL CAT-5E CABLE LF
0010											
	STH 65 & 70TH AVE										
	CB1 - SB1	--	--	--	--	121	--	121	136	--	--
	CB1 - SB2	--	--	--	--	451	451	--	--	397	397
	CB1 - SB3	--	--	--	510	--	--	--	--	--	--
	CB1 - SB4	523	--	--	--	--	--	--	--	--	--
	CB1 - SB5	560	--	--	--	--	--	--	--	--	--
	CB1 - SB6	--	593	--	--	--	--	--	--	512	--
	CB1 - SB7	533	--	--	--	--	--	--	--	--	--
	CB1 - SB8	562	--	--	--	--	--	--	419	--	--
	CB1 - SB9	--	--	--	--	562	--	--	419	--	--
	CB1 - SB10	--	--	--	450	--	--	--	--	--	--
	CB1 - SB11	--	--	--	270	--	--	--	187	--	--
	CB1 - SB12	--	--	275	--	--	--	--	192	230	230
	CB1 - SB13	--	--	--	196	--	--	--	128	--	--
	CB1 - SB14	138	--	--	--	--	--	--	--	--	--
	CB1 - SB15	62	--	--	--	--	62	62	--	44	--
	CB1 - SB16	1109	--	--	--	--	--	1109	--	--	--
	CB1 - SB17	1153	--	--	--	--	--	1153	--	--	--
	SB1 - SB2	--	--	--	--	--	--	498	--	--	--
	SB2 - SB3	--	--	--	--	--	--	218	--	--	--
	SB2 - SB6	--	--	--	--	--	304	--	--	--	--
	SB3 - SB4	--	--	--	--	--	--	172	--	--	--
	SB4 - SB5	--	--	--	--	--	--	110	--	--	--
	SB5 - SB6	--	--	--	--	--	--	178	--	--	--
	SB6 - SB7	--	--	--	--	--	--	183	--	--	--
	SB7 - SB8	--	--	--	--	--	--	140	--	--	--
	SB8 - SB9	--	--	--	--	--	--	66	--	--	--
	SB9 - SB10	--	--	--	--	--	--	319	--	--	--
	SB10 - SB11	--	--	--	--	--	--	1028	--	--	--
	SB11 - SB12	--	--	--	--	--	--	75	--	--	--
	SB12 - SB13	--	--	--	--	--	--	160	--	--	--
	SB12 - SB15	--	--	--	--	--	266	--	--	--	--
	SB13 - SB14	--	--	--	--	--	--	126	--	--	--
	SB14 - SB15	--	--	--	--	--	--	129	--	--	--
PROJECT 1540-04-73 TOTAL		**4640**	**593**	**275**	**1426**	**1134**	**1083**	**5847**	**1481**	**1183**	**627**

*ADDITIONAL QUANTITIES LISTED ELSEWHERE

TRAFFIC SIGNAL CABLE AND WIRE - ABOVE GROUND

CATEGORY	LOCATION	FROM SIGNAL BASE	-	TO SIGNAL HEAD	655.0230 * CABLE TRAFFIC SIGNAL 5-14 AWG LF	655.0610 ELECTRICAL WIRE LIGHTING 12 AWG LF	655.0900 * TRAFFIC SIGNAL EVP DETECTOR CABLE LF	SPV.0090.001 * INSTALL CAT-5E CABLE LF
0010	STH 65 & 70TH AVE							
		SB1	-	HEAD 21	25	--	--	--
			-	HEAD 23	24	--	--	--
			-	HEAD 8A	18	--	--	--
		SB2	-	HEAD 2	24	--	--	--
			-	HEAD 13	22	--	--	--
			-	HEAD 16	68	--	--	--
			-	HEAD 17	58	--	--	--
			-	HEAD 22	79	--	--	--
			-	LUMINAIRE	--	123	--	--
			-	EVP HEAD 'C'	--	--	65	--
			-	CAMERA (BY OTHERS)	--	--	--	55
		SB3	-	HEAD 1	24	--	--	--
			-	HEAD 14	25	--	--	--
		SB4	-	HEAD 19	25	--	--	--
		SB5	-	HEAD 5	73	--	--	--
		SB6	-	HEAD 10	73	--	--	--
			-	HEAD 11	63	--	--	--
			-	LUMINAIRE	--	123	--	--
			-	EVP HEAD 'B'	--	--	50	--
		SB7	-	HEAD 18	25	--	--	--
		SB9	-	HEAD 15	24	--	--	--
			-	HEAD 26	25	--	--	--
			-	HEAD 2A	18	--	--	--
		SB10	-	HEAD 20	25	--	--	--
			-	HEAD 27	25	--	--	--
		SB11	-	HEAD 6	25	--	--	--
			-	HEAD 9	24	--	--	--
			-	HEAD 2B	18	--	--	--
		SB12	-	HEAD 24	68	--	--	--
			-	HEAD 25	58	--	--	--
			-	HEAD 8D	18	--	--	--
			-	LUMINAIRE	--	123	--	--
			-	EVP HEAD 'D'	--	--	46	--
			-	CAMERA (BY OTHERS)	--	--	--	55
		SB13	-	HEAD 7	25	--	--	--
			-	HEAD 8	24	--	--	--
			-	HEAD 8B	18	--	--	--
			-	HEAD 8C	18	--	--	--
		SB14	-	HEAD 12	18	--	--	--
		SB15	-	HEAD 3	68	--	--	--
			-	HEAD 4	58	--	--	--
			-	LUMINAIRE	--	123	--	--
			-	EVP HEAD 'A'	--	--	50	--
PROJECT 1540-04-73 TOTAL					**1,183**	**492**	**211**	**110**

*ADDITIONAL QUANTITIES LISTED ELSEWHERE

TEMPORARY TRAFFIC SIGNAL

CATEGORY	LOCATION	661.0201.001 TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS (STH 65 & 70TH AVE) EACH
0010	CATEGORY 0010	
	STH 65 & 70TH AVE	1
PROJECT 1540-04-73 TOTAL		**1**

TEMPORARY EVP SYSTEM

CATEGORY	LOCATION	SPV.0060.018 FURNISH AND INSTALL TEMPORARY EVP SYSTEM EACH
0010		
	STH 65 & 70TH AVE	1
PROJECT 1540-04-73 TOTAL		**1**

REMOVE AND SALVAGE TRAFFIC SIGNALS

CATEGORY	LOCATION	SPV.0060.015 REMOVE AND SALVAGE TRAFFIC SIGNALS EACH
0010	CATEGORY 0010	
	STH 65 & 70TH AVE	1
PROJECT 1540-04-73 TOTAL		**1**

TRAFFIC SIGNAL MOUNTING HARDWARE

CATEGORY	LOCATION	658.5070.001 SIGNAL MOUNTING HARDWARE (STH 65 & 70TH AVE) EACH
0010	CATEGORY 0010	
	STH 65 & 70TH AVE	1
PROJECT 1540-04-73 TOTAL		**1**

INSTALL STATE FURNISHED EMERGENCY VEHICLE PREEMPTION EQUIPMENT

CATEGORY	LOCATION	SPV.0060.016 INSTALL STATE FURNISHED EVP SYSTEM (STH 65 & 70TH AVE) EACH
0010	CATEGORY 0010	
	STH 65 & 70TH AVE	1
PROJECT 1540-04-73 TOTAL		**1**

ITS SYSTEM

CATEGORY	FROM	-	TO	671.0112 CONDUIT HDPE 1-DUCT 2-INCH LF	SPV.0060.017 RESTORE FIBER OPTIC CABLE SYSTEM EACH
0010					
	CV1	-	ICPB1	785	--
	ICPB1	-	CB1 (S55-1369)	15	--
	INTERSECTION			--	1
PROJECT 1540-04-73 TOTAL				**800**	**1**

ITS PULLBOXES AND VAULTS

CATEGORY	PULL BOX NUMBER	STATION	OFFSET	L/R	653.0164 * PULL BOXES NON-CONDUCTIVE 24X42-INCH EACH	673.0105 COMMUNICATION VAULT TYPE 1 EACH
0010						
	CV1	58+68'N'	42.8'	R	--	1
	ICPB1	66+09'N'	64.0'	R	1	--
PROJECT 1540-04-73 TOTAL					**1**	**1**

*ADDITIONAL QUANTITIES LISTED ELSEWHERE

3

STREET LIGHTING REMOVALS

LIGHT NUMBER	STATION	OFFSET	R/L	204.0195 * REMOVING CONCRETE BASES EACH	653.0905 * REMOVING PULL BOXES EACH	SPV.0060.001 REMOVE AND SALVAGE STREET LIGHT EQUIPMENT EACH	SPV.0060.003 REMOVE EXISTING LIGHTING CONTROL CABINET EACH
ALL ITEMS CATEGORY 0010							
EXSL116	55+88'N'	34.7'	RT	1	--	1	--
EXSL117	54+36'N'	12.0'	LT	--	--	1	--
EXSL121	58+22'S'	44.3'	LT	1	--	1	--
EXSL122	60+01'S'	40.6'	LT	1	--	1	--
EXSL123	61+84'S'	29.0'	LT	1	--	1	--
EXSL124	62+80'N'	15.1'	LT	1	--	1	--
EXSL126	67+50'S'	4.0'	RT	1	--	1	--
EXSL200	23+30'E'	95.5'	LT	1	--	1	--
EXSL203	21+85'E'	35.6'	LT	1	--	1	--
EXSL204	22+27'E'	108.8'	LT	1	--	1	--
EXLPB200	22+91'E'	91.2'	LT	--	1	--	--
EXCB200	22+96'E'	82.5'	LT	1	--	--	1
PROJECT TOTALS				10	1	10	1

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

LIGHTING CONDUIT AND WIRE

FROM	-	TO	SPV.0090.002 REMOVING ELECTRICAL CONDUCTORS FROM EXISTING CONDUIT LF
ALL ITEMS ARE CATEGORY 0010			
EXSL 116	-	EXLPB 112	90
EXLPB 112	-	EXLPB 113	65
EXLPB 113	-	EXSL 117	20
EXLPB 115	-	EXSL 125	40
EXLPB 115	-	EXSL 121	150
EXSL 121	-	EXSL 122	182
EXSL 122	-	EXSL 123	200
EXSL 124	-	FIELD LOCATE	215
EXSL 125	-	FIELD LOCATE	215
EXSL 203	-	EXSL 204	90
EXSL 204	-	EXSL 205	100
EXSL 203	-	EXLPB 200	125
EXLPB 200	-	EXCB 200	20
EXLPB 200	-	EXSL 200	40
EXSL 200	-	EXSL 201	115
PRJOECT TOTALS			1667

LIGHTING CONDUIT AND WIRE

FROM	-	TO	652.0225 * CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	652.0235 * CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF	655.0610 * ELECTRICAL WIRE LIGHTING 12 AWG LF	655.0620 ELECTRICAL WIRE LIGHTING 8 AWG LF	655.0625 ELECTRICAL WIRE LIGHTING 6 AWG LF	655.0630 ELECTRICAL WIRE LIGHTING 4 AWG LF	REMARKS
ALL ITEMS ARE CATEGORY 0010									
EXLPB 121		LPB 200	--	--	158	--	--	--	EXISTING CONDUIT/PULL WIRE ONLY
LPB 200	-	LPB 201	65	--	81	--	--	--	PULL WIRE ONLY
LPB 201		SL 208	25	--	--	--	190	--	--
LPB 201	-	SL 209	170	--	--	--	915	--	--
SL 209	-	SL 210	200	--	--	--	1,050	--	--
SL 210	-	LPB 202	165	--	--	--	890	--	--
LPB 202	-	LPB 203	110	--	--	--	378	--	--
LPB 203	-	SL 211	10	--	--	--	69	--	--
LPB 203	-	LPB 204	195	--	211	--	--	--	PULL WIRE ONLY
LPB 204	-	LPB 205	75	--	91	--	--	--	PULL WIRE ONLY
LPB 205	-	SL 203	25	--	--	380	--	--	--
SL 203	-	LPB 206	135	--	--	740	--	--	--
LPB 206	-	SL 207	10	--	--	230	--	--	--
LPB 206	-	SL 200	80	--	--	465	--	--	--
SL 200	-	EXSL 201	35	--	--	550	--	--	EXISTING CONDUIT
LPB 205	-	SL 204	75	--	--	440	--	--	--
SL 204	-	EXSL 205	5	--	--	550	--	--	EXISTING CONDUIT
LPB 205	-	CB 200	--	100	--	590	--	--	--
LPB 205	-	CB 200	--	100	118	--	--	--	PULL WIRE ONLY
CB 200	-	LPB 207	--	65	--	--	415	--	--
CB 200	-	LPB 207	--	65	--	--	415	--	--
LPB 207	-	LPB 208	50	--	--	--	330	--	--
LPB 207	-	LPB 208	50	--	--	--	330	--	--
LPB 208	-	SL 214	165	--	--	--	890	--	--
SL 214	-	SL 215	215	--	--	--	1,125	--	--
SL 215	-	SL 216	255	--	--	--	1,325	--	--
LPB 208	-	LPB 209	110	--	--	--	630	--	--
LPB 209	-	SL 213	10	--	--	--	115	--	--
SL 213	-	LPB 210	220	--	--	--	1,165	--	--
LPB 210	-	LPB 211	105	--	--	--	605	--	--
LPB 211	-	SL 212	10	--	--	--	115	--	--
SL 212	-	LPB 212	140	--	--	--	1,224	--	--
LPB 212	-	LPB 202	60	--	--	--	608	--	--
SL 116	-	EXLPB 112	60	--	--	--	--	489	EXISTING CONDUIT
EXLPB 112	-	EXLPB 113	--	--	--	--	--	243	EXISTING CONDUIT
EXLPB 113	-	EXSL 117	--	--	--	--	--	99	EXISTING CONDUIT
PRJOECT TOTALS			2830	330	659	3945	12784	831	

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

LIGHTING PULL BOXES

PULLBOX NUMBER	STATION	OFFSET	R/L	653.0164* PULL BOXES NON-CONDUCTIVE 24X42-INCH EACH
ALL ITEMS ARE CATEGORY 0010				
LPB 200	58+28'S'	44.3'	LT	1
LPB 201	58+27'S'	20.9'	RT	1
LPB 202	63+51'S'	13.0'	RT	1
LPB 203	63+39'N'	60.0'	RT	1
LPB 204	21+91'E'	28.3'	RT	1
LPB 205	21+94'E'	45.3'	LT	1
LPB 206	23+46'E'	33.6'	RT	1
LPB 207	66+64'N'	39.7'	RT	1
LPB 208	66+66'N'	11.4'	LT	1
LPB 209	66+80'S'	60.8'	LT	1
LPB 210	18+09'E'	69.9'	LT	1
LPB 211	18+05'E'	35.0'	RT	1
LPB 212	63+51'S'	45.9'	LT	1
PRJECT TOTALS				13

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

LIGHTING CONTROL

CABINET NUMBER	STATION	OFFSET	R/L	656.0201.001 ELECTRICAL SERVICE METER BREAKER PEDESTAL (CB200) EACH	659.2130 LIGHTING CONTROL CABINETS 120/240 30-INCH EACH	SPV.0060.019 DOUBLE CABINET BASE EACH
ALL ITEMS ARE CATEGORY 0010						
CB200	65+95'N'	60.5'	RT	1	1	1
PROJECT TOTALS				1	1	1

STREET LIGHTING

LIGHT NUMBER	STATION	OFFSET	R/L	654.0106 CONCRETE BASES TYPE 6 EACH	657.0255 TRANSFORMER BASES BREAKAWAY 11 1/2-INCH BOLT CIRCLE EACH	657.0327 POLES TYPE 6 ALUMINUM EACH	657.0715 LUMINAIRE ARMS TRUSS TYPE 4 1/2-INCH CLAMP 15-FT EACH	659.1115 LUMINAIRES UTILITY LED A EACH	SPV.0060.002 REINSTALL SALVAGED STREET LIGHT EQUIPMENT EACH	SPV.0060.012 CONCRETE BASES TYPE 5 BUMPER EACH	655.0610 * ELECTRICAL WIRE LIGHTING 12 AWG LF
ALL ITEMS ARE CATEGORY 0010											
SL 116	55+88'N'	34.7'	RT	1	--	--	--	--	1	--	189
EXSL 117	EXISTING			--	--	--	--	--	1	--	189
SL 200	23+46'E'	111.1'	LT	--	--	--	--	--	1	1	165
SL 201	EXISTING			--	--	--	--	--	--	--	--
SL 202	EXISTING			--	--	--	--	--	--	--	--
SL 203	22+15'E'	38.3'	LT	1	--	--	--	--	1	--	189
SL 204	22+27'E'	111.3'	LT	--	--	--	--	--	1	1	330
SL 205	EXISTING			--	--	--	--	--	--	--	--
SL 206	EXISTING			--	--	--	--	--	--	--	--
SL 207	23+54'E'	38.0'	LT	1	--	--	--	--	1	--	189
SL 208	58+05'S'	21.1'	RT	1	1	1	2	2	--	--	378
SL 209	59+93'S'	20.9'	RT	1	1	1	2	2	--	--	378
SL 210	61+90'S'	13.3'	RT	1	1	1	2	2	--	--	378
SL 211	63+34'N'	58.4'	RT	1	--	--	--	--	1	--	189
SL 212	18+10'E'	35.0'	RT	1	--	--	--	--	1	--	189
SL 213	66+75'S'	61.6'	LT	1	--	--	--	--	1	--	189
SL 214	68+31'N'	16.2'	LT	1	1	1	2	2	--	--	378
SL 215	70+45'N'	21.1'	LT	1	1	1	2	2	--	--	378
SL 216	72+99'N'	19.7'	LT	1	1	1	2	2	--	--	378
PROJECT TOTALS				12	6	6	12	12	9	2	4086

* ADDITIONAL QUANTITIES LISTED ELSEWHERE

3

HYDRANT

CATEGORY	STATION	OFFSET	SPV.0060.007 EACH	BREAKOFF ELEVATION
0020	18+37.3"E"	84.2' LT	1	996.15
0020	24+32.7"E"	58.6' LT	1	995.60
	PROJECT ID 1540-04-73 SUMMARY		2	

GATE VALVE AND BOX

CATEGORY	STATION	OFFSET	SPV.0060.008 6-INCH EACH	SPV.0060.009 12-INCH EACH
0020	18+37.4"E"	80.2' LT	1	--
0020	18+41.6"E"	72.3' LT	--	1
0020	24+24.7"E"	58.8' LT	--	1
	PROJECT ID 1540-04-73 SUMMARY		1	2

CONNECT TO EXISTING WATER MAIN

CATEGORY	STATION	OFFSET	SIZE (IN)	SPV.0060.010 EACH
0020	18+20"E"	71.4' LT	12	1
	PROJECT ID 1540-04-73 SUMMARY			1

3

WATER MAIN

CATEGORY	STATION TO STATION	OFFSET	SPV.0090.004 6-INCH LF	SPV.0090.005 12-INCH LF	SPV.0090.006 CONSTRUCTION STAKING WATER MAIN PIPE LF
0020	18+20"E" - 18+37"E"	71.4' LT - 72.2' LT	--	18	18
0020	18+37"E"	72.2' LT - 84.2' LT	12	--	12
0020	18+37"E" - 18+41"E"	72.2' LT - 72.3' LT	--	4	4
0020	18+41"E" - 18+69"E"	72.3' LT - 72.6' LT	--	28	28
0020	18+69"E" - 19+07"E"	72.6' LT - 95.4' LT	--	45	45
0020	19+07"E" - 21+57"E"	95.4' LT - 66.0' LT	--	252	252
0020	21+57"E" - 24+25"E"	66.0' LT - 58.8' LT	--	268	268
0020	24+25"E" - 24+29"E"	58.8' LT - 58.7' LT	--	4	4
0020	24+29"E" - 24+33"E"	58.7' LT - 58.6' LT	4	--	4
	PROJECT ID 1540-04-73 SUMMARY		16	619	635

CONSTRUCTION STAKING WATER MAIN STRUCTURE

CATEGORY		SPV.0060.011 EACH
0020	HYDRANT	2
0020	VALVE AND BOX	3
	PROJECT ID 1540-04-73 SUMMARY	5

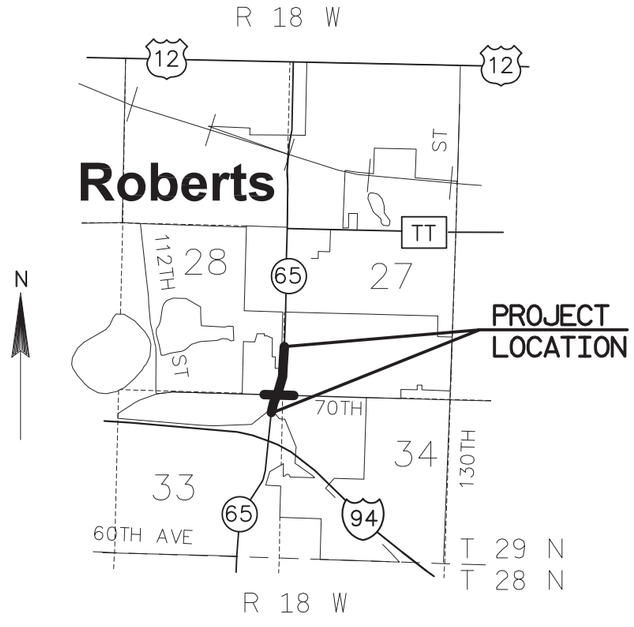
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
TRANSPORTATION PROJECT PLAT TITLE SHEET

PROJECT NO. 1540-04-23

RIVER FALLS - NEW RICHMOND

(STH 65 EXPANSION / 70th AVENUE INTERSECTION)

STH 65
ST. CROIX COUNTY



CONVENTIONAL SYMBOLS

SECTION LINE
QUARTER LINE
SIXTEENTH LINE
NEW REFERENCE LINE
NEW R/W LINE
EXISTING R/W LINE
PROPERTY LINE
LOT, TIE & OTHER MINOR LINES
CORPORATE LIMITS
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC)
FEE ACQUISITION AREA (HATCHING VARIES BY OWNER)
TEMPORARY LIMITED EASEMENT AREA
EASEMENT AREA (HIGHWAY, PERMANENT LIMITED, OR RESTRICTED DEVELOPMENT)
TRANSMISSION STRUCTURES
BUILDING
NATIONAL GEODETIC SURVEY MONUMENT
SIXTEENTH CORNER MONUMENT

SECTION CORNER
NOTATION FOR COMBUSTABLE FLUIDS
NOTATION FOR HIGH VOLTAGE TRANSMISSION LINES
ELECTRIC POLE
TELEPHONE POLE
PEDESTAL (LABEL TYPE) (TV, TEL, ELEC, ETC.)
ACCESS CONTROLLED BY ACQUISITION
NO ACCESS (BY STATUTORY AUTHORITY)
ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)
BRIDGE

R/W MONUMENT
NON-MONUMENTED R/W POINT
FOUND IRON PIN
VALVE (GAS, WATER, ETC.)
SIGN
OFF-PREMISE SIGN

COMPENSABLE / NON-COMPENSABLE

PARCEL NUMBER 25
UTILITY NUMBER 40

CONVENTIONAL ABBREVIATIONS

ACCESS RIGHTS	AR	POINT OF CURVATURE	PC
ACRES	AC	POINT OF COMPOUND CURVE	PCC
AHEAD	AH	POINT OF INTERSECTION	PI
ALUMINUM	ALUM	PROPERTY LINE	PL
AND OTHERS	ET AL	RECORDED AS	(100')
BACK	BK	REFERENCE LINE	R/L
BLOCK	BLK	REMAINING	REM
CENTERLINE	C/L	RIGHT	RT
CERTIFIED SURVEY MAP	CSM	RIGHT OF WAY	R/W
CONCRETE	CONC	SECTION	SEC
COUNTY	CO	SEPTIC VENT	SEPV
COUNTY TRUNK HIGHWAY	CTH	SQUARE FEET	SF
DISTANCE	DIST	SHED	S
CORNER	COR	STATE TRUNK HIGHWAY	STH
DOCUMENT NUMBER	DOC	STATION	STA
EASEMENT	EASE	SUBDIVISION	SUBD
EXISTING	EX	TANGENT	TAN
GAS VALVE	GV	TELEPHONE PEDESTAL	TP
GRID NORTH	GN	TEMPORARY LIMITED EASEMENT	TLE
HIGHWAY EASEMENT	HE	TRANSPORTATION PROJECT PLAT	TPP
HOUSE	H	UNITED STATES HIGHWAY	USH
IDENTIFICATION	ID	VOLUME	V
LAND CONTRACT	LC		
LEFT	LT		
MONUMENT	MON		
NATIONAL GEODETIC SURVEY	NGS		
NUMBER	NO		
OUTLOT	OL		
PAGE	P		
POINT OF TANGENCY	PT		
PERMANENT LIMITED EASEMENT	PLE		
POINT OF BEGINNING	POB		

CURVE DATA

LONG CHORD	LC
LONG CHORD BEARING	LCB
RADIUS	R
DEGREE OF CURVE	D
CENTRAL ANGLE OR DELTA	Δ
LENGTH OF CURVE	L
TANGENT	T
DIRECTION AHEAD	DA
DIRECTION BACK	DB

CONVENTIONAL UTILITY SYMBOLS

WATER —W—
GAS —G—
TELEPHONE —T—
OVERHEAD TRANSMISSION LINES —OH—
ELECTRIC —E—
CABLE TELEVISION —TV—
FIBER OPTIC —FO—
SANITARY SEWER —SAN—
STORM SEWER —SS—

LAYOUT
SCALE 0 0.5 MI.

THE NOTES,CONVENTIONAL SIGNS, AND ABBREVIATIONS ARE ASSOCIATED WITH EACH TRANSPORTATION PROJECT PLAT FOR PROJECT 1540-04-23.

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, ST. CROIX **COUNTY**, NAD83(1991), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY ¾" X 24" IRON REBARS), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

ALL RIGHT-OF-WAY LINES DEPICTED IN THE NON-ACQUISITION AREAS ARE INTENDED TO RE-ESTABLISH EXISTING RIGHT-OF-WAY LINES AS DETERMINED FROM PREVIOUS PROJECTS, OTHER RECORDED DOCUMENTS, OR FROM CENTERLINE OF EXISTING PAVEMENTS.

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

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

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

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

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION NORTHWEST REGION EAU CLAIRE OFFICE.

PARCEL IDENTIFICATION NUMBERS MAY NOT POINT TO ALL AREAS OF ACQUISITION, AS NOTED ON THE SCHEDULE OF LANDS & INTERESTS REQUIRED.

EXISTING ACCESS CONTROL ALONG STH 65 HAS BEEN ESTABLISHED FROM PREVIOUS PROJECTS T0171(4), 1020-07-20 & CA1540-08-29 AND DOC'S 263960, 681112, 723532 & 945533.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:

EXISTING HIGHWAY RIGHT-OF-WAY FOR STH 65 IS ESTABLISHED FROM PREVIOUS PROJECTS T0171(4), 1020-07-20 AND 1540-07-20.

EXISTING HIGHWAY RIGHT-OF-WAY FOR 70th AVENUE IS ESTABLISHED FROM DOC 853576 AND DOC 957770.

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 1540-04-23-4.01
SHEET 2 OF 2

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\RW\1540-04-23-TITLE SHEET 4.01.DWG
APPRAISAL PLAT DATE :
PLOT DATE : 12/14/2012 7:46 PM
PLOT BY : KL ENGINEERING
PLOT NAME : ----------
LAYOUT NAME - ****

TRANSPORTATION PROJECT PLAT NO: 1540-04-23-4.01, AMENDMENT NO. 2

THIS AMENDS UTILITY NUMBER 40 AND ADDS PARCEL 102 TO TRANSPORTATION PROJECT PLAT 1540-04-23-4.01 RECORDED AS DOCUMENT NO. 1025141 IN THE OFFICE OF THE REGISTER OF DEEDS IN ST. CROIX COUNTY, WISCONSIN.

THAT PART OF LOTS 3 AND 4, CSM V 22, P 5412 (AS DOC 853576) ALL LOCATED IN THE NE 1/4 - NE 1/4 OF SECTION 33, AND THE NW 1/4 - NW 1/4 OF SECTION 34, ALL IN T29N, R18W, VILLAGE OF ROBERTS, ST. CROIX COUNTY, WISCONSIN.

RELOCATION ORDER STH 65, RIVER FALLS - NEW RICHMOND (STH 65 EXPANSION/70th AVENUE INTERSECTION)

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

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

1154447
BETH PABST
REGISTER OF DEEDS
ST. CROIX CO., WI
RECEIVED FOR RECORD
06/13/2022 11:38 AM
EXEMPT #
PLAT FEE 25.00
VOLUME: TPP1
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PAGES: 1
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RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 1540-04-23-4.01
AMENDMENT NO. 2

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND INTEREST TO D.O.T.
ALL AREAS SHOWN IN ACRES UNLESS OTHERWISE NOTED

PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	R/W ACRES REQUIRED NEW	EXISTING	TOTAL	TLE ACRES
1	BLUE JAY PROPERTIES, LLC	FEE	0.82	----	0.82	----
2	COUNTY MATERIALS CORPORATION	FEE,TLE	0.04	----	0.04	0.15
102	COUNTY MATERIALS CORPORATION	TLE	----	----	----	0.15

TLE STATION OFFSET TABLE - 70TH ST		
POINT	STATION	OFFSET
T150	27+00.00	48.01' R
T151	22+77.95	48.01' R

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	UTILITY OWNER(S)	INTEREST REQUIRED
40	WISCONSIN BELL, INC d/b/a AT&T WISCONSIN	RELEASE OF RIGHTS
44	BALDWIN TELECOM, INC.	RELEASE OF RIGHTS
41	ST. CROIX ELECTRIC COOPERATIVE	RELEASE OF RIGHTS

STATION OFFSET TABLE - STH 65		
POINT	STATION	OFFSET
100	65+43.73	212.72' R
103	65+17.83	245.25' R
104	64+72.33	258.78' R
105	64+35.00	135.00' R
106	63+70.00	95.00' R
107	59+03.99	96.85' R
108	59+38.62	172.75' L
109	61+44.11	165.50' L
110	63+15.71	177.24' L
111	63+91.53	268.46' L

COURSE TABLE		
COURSE	BEARING	DISTANCE
100-101	N89° 45' 17"E	448.02'
101-102	S00° 14' 43"E	33.00'
102-103	S89° 45' 17"W	422.72'
103-104	S02° 48' 39"E	47.48'
104-105	S86° 58' 08"W	129.28'
105-106	S45° 21' 26"W	76.32'
106-107	S12° 14' 18"W	454.81'
107-108	N74° 40' 04"W	271.90'
108-109	N13° 34' 12"E	221.26'
109-110	N09° 50' 06"E	172.00'
110-111	N36° 31' 02"W	118.61'
111-112	S89° 56' 45"W	245.39'
112-113	N00° 03' 15"W	33.00'
113-100	N89° 56' 45"E	748.98'

STATION OFFSET TABLE - 70TH ST		
POINT	STATION	OFFSET
101	27+00.00	0.00' R
102	27+00.00	33.00' R
112	15+03.00	33.00' R
113	15+03.00	0.00' R

EXISTING POINT TABLE			
POINT	Y	X	DESCRIPTION
3291	337817.184	562248.782	1" IP
3294	337697.534	562239.793	1" IP
3295	337577.837	562230.870	1" IP
3296	337418.792	562369.871	1" IP
3300	337405.394	562549.057	1" IP
3301	337995.849	562285.215	1" IP
3302	338096.424	562415.528	METAL ROD
3304	338097.499	562620.153	3/4" rebar
3320	338097.044	562471.272	spike
3321	338097.231	562537.330	3/4" rebar
3337	338001.189	562078.775	3/4" rebar
3340	338095.983	561425.828	3/4" rebar
51776	337831.550	562049.370	3/4" rebar

UTILITY INTEREST TABLE					
UTIL	OWNER	PARCEL	INTEREST DESCRIPTION	RECORDING INFORMATION	PLAT ID
-	WISCONSIN BELL, INC d/b/a AT&T WISCONSIN	-	CONVEYANCE OF RIGHTS	DOC 985437	1020-07-20
-	ST. CROIX ELECTRIC COOPERATIVE	-	CONVEYANCE OF RIGHTS	DOC 941686	1020-07-20
40	AT&T WISCONSIN	1,2	R.O.W. AUTHORIZATION	DOC 306324 DOC 305106 DOC 394002 DOC 1067353	-
41	ST. CROIX ELECTRIC COOPERATIVE	1,2	R.O.W. AUTHORIZATION	DOC 394325	-
44	BALDWIN TELECOM, INC	1,2	NO EASEMENT OF RECORD FOUND	-	-

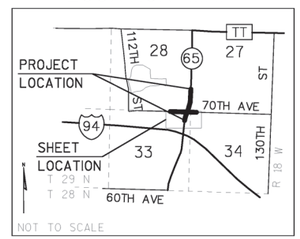
HIGHWAY	BASIS
STH 65	PROJECT T 0171 (4) PROJECT 1020-07-20
70th AVE.	CSM'S 853576 & 957770

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS IN ST. CROIX COUNTY AS SHEET 2 OF 2 OF DOCUMENT NUMBER 1025141.

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, ST. CROIX COUNTY, NAD 83(1991) IN U.S.SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

LOCATION MAP



I, TIMOTHY M. HELD, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT, I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT 1540-04-23-4.01, AMENDMENT NO. 2 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

JUNE 13, 2022
TIMOTHY M. HELD — DATE
AGENT FOR KL ENGINEERING, INC.
P.L.S. NUMBER 2591

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

JUNE 13, 2022
HEATHER L. DRESEL — DATE

KL Engineering
[A] Better Experience

I, TIMOTHY M. HELD, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT, I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT 1540-04-23-4.02, AMENDMENT NO. 4 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

WISCONSIN — TIMOTHY M. HELD — S-2591 — MADISON, WI — LAND SURVEYOR

JULY 28, 2022
TIMOTHY M. HELD — DATE
AGENT FOR KL ENGINEERING, INC.
P.L.S. NUMBER 2591

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

JULY 28, 2022
HEATHER L. DRESEL — DATE

HIGHWAY	BASIS
STH 65	PROJECT T 0171 (4) PROJECT 1020-07-20
70th AVE.	CSM'S 1153590, 853576 & 957770

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	UTILITY OWNER(S)	INTEREST REQUIRED
40	WISCONSIN BELL, INC d/b/a AT&T WISCONSIN	RELEASE OF RIGHTS
41	ST. CROIX ELECTRIC COOPERATIVE	RELEASE OF RIGHTS

1156624
BETH PABST
REGISTER OF DEEDS
ST. CROIX CO., WI
RECEIVED FOR RECORD
07/28/2022 12:32 PM
EXEMPT #
PLAT FEE 25.00
VOLUME: TPP1
PAGES: 215
PAGES: 1
**The above recording information verifies that this document has been electronically recorded & returned to the submitter

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 1540-04-23-4.02
AMENDMENT NO. 4

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS IN ST. CROIX COUNTY AS SHEET 2 OF 2 OF DOCUMENT NUMBER 1025141.

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, ST. CROIX COUNTY, NAD 83(1991) IN U.S.SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

FOUND SURVEY SPIKE
Y = 340,780.727
X = 562,465.302

T 29 N — 28 — 27 — R 18 W

CURVE DATA
220-221
L=446.87'
LC=445.93'
LCB=S06°13'07"W
R=1990.08'

P.I. 22+51.69
Y=338,130.022
X=562,511.480
DELTA=00°11'28" LT

P.I. 65+95.41
Y=338,230.775
X=562,317.434
DELTA=01°14'57" LT

P.I. 80+51.11
Y=339,672.440
X=562,468.754
DELTA=01°09'16" RT

P.I. 73+69.68
Y=338,986.691
X=562,485.025
DELTA=13°51'35" LT
D=01°30'28"
T=461.86'
L=919.22'
R=3800.00'
P.C. 69+07.82
P.T. 78+27.04

STATION OFFSET TABLE - STH 65		
POINT	STATION	OFFSET
200	65+43.73	212.72' R
206	65+76.04	191.55' L
207	69+29.47	180.57' L
208	74+03.51	72.96' L
209	75+25.00	64.24' L
210	78+27.92	69.20' L
211	79+24.84	76.84' L
212	83+87.80	74.36' L
213	84+49.88	44.78' R
214	84+25.29	44.78' R
215	82+24.63	80.67' R
216	79+25.00	78.20' R
217	78+25.00	100.00' R
218	76+25.00	100.00' R
219	75+25.00	82.33' R
220	74+30.76	89.28' R
221	69+95.74	102.35' R
222	69+55.95	111.40' R
223	69+70.29	180.73' R
224	68+65.14	358.30' R
225	68+14.91	379.48' R
226	66+18.13	411.28' R

STATION OFFSET TABLE - 70TH ST		
POINT	STATION	OFFSET
201	14+37.04	0.00' R
202	14+37.04	79.08' L
203	14+72.57	47.94' L
204	16+43.77	47.78' L
205	17+70.48	73.18' L
227	30+00.00	33.00' L
228	30+00.00	0.00' R

COURSE TABLE		
COURSE	BEARING	DISTANCE
200-201	S89° 56' 45"W	814.94'
201-202	N00° 03' 15"W	79.08'
202-203	S48° 49' 29"E	47.25'
203-204	N89° 59' 55"E	171.20'
204-205	N78° 36' 35"E	129.23'
205-206	N60° 27' 09"E	111.00'
206-207	N14° 21' 31"E	348.41'
207-208	N21° 47' 58"E	470.35'
208-209	N08° 17' 32"E	119.61'
209-210	N00° 02' 36"W	297.58'
210-211	N05° 51' 56"W	97.22'
211-212	N00° 12' 52"W	464.48'
212-213	N62° 16' 24"E	134.34'
213-214	S00° 12' 52"E	24.59'
214-215	S10° 20' 41"E	203.85'
215-216	S00° 12' 52"E	298.03'
216-217	S13° 39' 11"E	102.40'
217-218	S00° 10' 45"W	205.24'
218-219	S12° 13' 43"W	103.91'
219-220	S00° 12' 52"E	96.62'
220-221	SEE CURVE TABLE	
221-222	S01° 00' 16"E	41.90'
222-223	N89° 33' 02"E	70.91'
223-224	S46° 14' 27"E	208.35'
224-225	S10° 21' 43"E	54.52'
225-226	S03° 19' 11"W	199.33'
226-227	N89° 45' 17"E	535.76'
227-228	S00° 14' 43"E	33.00'
228-200	S89° 45' 17"W	748.02'

EXISTING POINT TABLE			
POINT	Y	X	DESCRIPTION
3306	338163.480	562619.866	3/4" rebar DOT CAP
3307	338362.916	562735.414	3/4" rebar DOT CAP
3308	338416.593	562725.613	3/4" rebar DOT CAP
3310	338560.628	562575.171	3/4" rebar DOT CAP
3312	338560.124	562504.327	3/4" rebar DOT CAP
3313	338631.247	562510.153	3/4" rebar
3324	340008.797	562393.206	1" IP
3326	339342.303	562415.685	1" IP
3328	339042.931	562416.819	1" IP
3329	338977.720	562416.193	1" IP
3332	338389.133	562273.732	1" IP
3333	338292.155	562237.015	1" IP
3971	340071.301	562513.780	3/4" rebar
3972	340164.065	562512.121	3/4" rebar
3973	340246.690	562518.933	3/4" rebar
3974	340283.399	562558.453	3/4" rebar

UTILITY INTEREST TABLE					
UTIL	OWNER	PARCEL	INTEREST DESCRIPTION	RECORDING INFORMATION	PLAT ID
40	WISCONSIN BELL, INC d/b/a AT&T WISCONSIN	-	CONVEYANCE OF RIGHTS	DOC 985437	1020-07-20
41	ST. CROIX ELECTRIC COOPERATIVE	-	CONVEYANCE OF RIGHTS	DOC 941686	1020-07-20
40	AT&T WISCONSIN	3	NO EASEMENT OF RECORD FOUND	-	-
41	ST. CROIX ELECTRIC COOPERATIVE	3	NO EASEMENT OF RECORD FOUND	-	-
41	ST. CROIX ELECTRIC COOPERATIVE	4,6,7	R.O.W. AUTHORIZATION	DOC 193598A	-

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY, AND ARE SUBJECT TO CHANGE PRIOR TO TRANSFER OF LAND INTEREST TO D.O.T.
ALL AREAS SHOWN IN ACRES UNLESS OTHERWISE NOTED

PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	R/W ACRES REQUIRED NEW	EXISTING	TOTAL	TLE ACRES
3	CRANE 1 HOLDINGS, LLC	FEE,TLE	0.40	----	0.40	1.23
4	FRANK S. PAULICH, SR, MARION A. SWANSON & PATRICIA M. DELANDER	FEE,TLE	1.91	----	1.91	0.66
6	JAMES E. & BETTY J. HILPERT	FEE,TLE	0.15	----	0.15	0.09
7	RICHARD M. RIENHART REVOCABLE TRUST	FEE,TLE	0.01	----	0.01	0.29
103	CRANE 1 HOLDINGS, LLC	TLE	----	----	----	1.23
104	KWIK TRIP, INC.	TLE	----	----	----	0.58
107	RICHARD M. RIENHART REVOCABLE TRUST	TLE	----	----	----	0.29

TLE STATION OFFSET TABLE - STH 65		
POINT	STATION	OFFSET
T251	66+03.75	191.16' L
T252	73+45.54	89.59' L
T253	73+44.76	95.82' L
T254	74+04.68	92.93' L
T255	74+04.09	82.95' L
T256	75+25.17	74.27' L
T257	77+20.23	80.16' L
T258	79+25.24	96.84' L
T259	83+87.80	94.36' L
T260	84+50.07	115.63' R
T261	75+02.20	118.87' R
T262	75+00.08	83.94' R
T263	67+02.15	397.70' R

TRANSPORTATION PROJECT PLAT NO: 1540-04-23-4.02, AMENDMENT NO. 4

THIS AMENDS PARCEL 104 AND REMOVES PARCEL 106 FROM TRANSPORTATION PROJECT PLAT 1540-04-23-4.02 AMENDMENT NO. 3 RECORDED AS DOCUMENT NO. 1154450 AND REMOVES UTILITY NUMBERS 42 AND 43 FROM TRANSPORTATION PROJECT PLAT 1540-04-23-4.02 RECORDED AS DOCUMENT NO. 1025259 IN THE OFFICE OF THE REGISTER OF DEEDS IN ST. CROIX COUNTY, WISCONSIN.

THAT PART OF LOT 1, CSM V 6, P 1655 (AS DOC 412443) LOCATED IN AND INCLUDING PART OF THE SE 1/4 - SE 1/4 AND GOVERNMENT LOT 4 OF SECTION 28, TOWN OF WARREN; THAT PART LOT 2, CSM V 32, P 7117 (AS DOC 1153590) LOCATED IN THE SE 1/4 - SE 1/4 OF SECTION 28, VILLAGE OF ROBERTS AND THAT PART OF THE NW 1/4 - SW 1/4 AND THE SW 1/4 - SW 1/4 OF SECTION 27, VILLAGE OF ROBERTS, ALL IN T29N, R18W, ST. CROIX COUNTY, WISCONSIN.

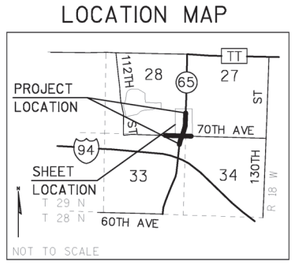
RELOCATION ORDER STH 65, RIVER FALLS - NEW RICHMOND (STH 65 EXPANSION/70th AVENUE INTERSECTION)

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

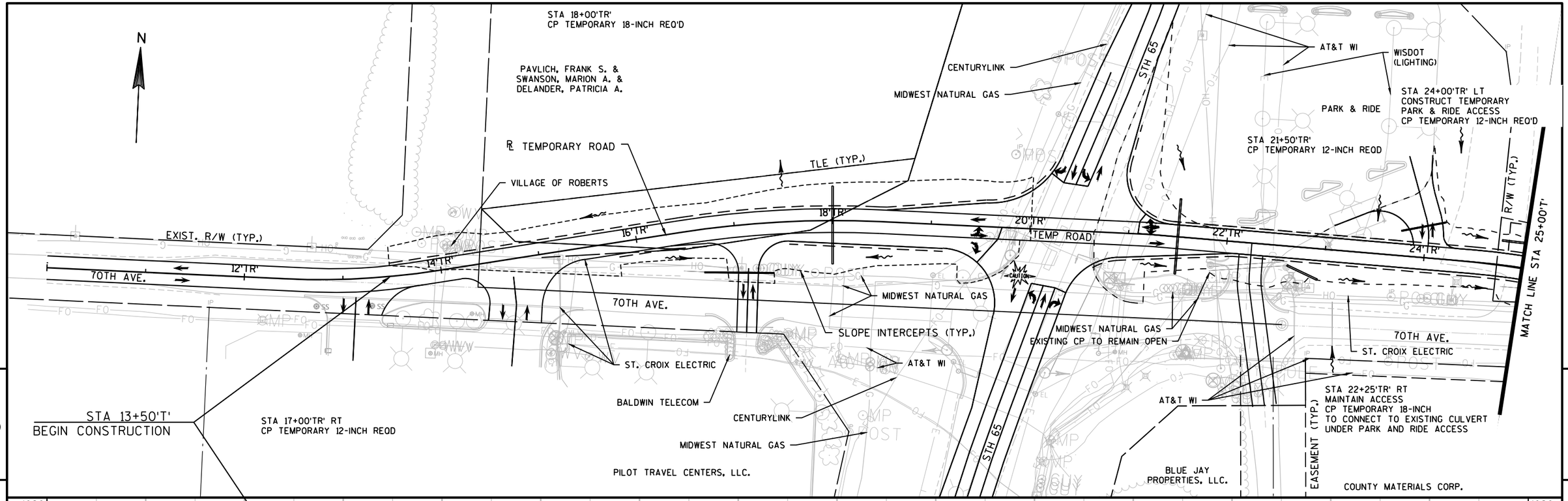
TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3), 84.09, AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE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

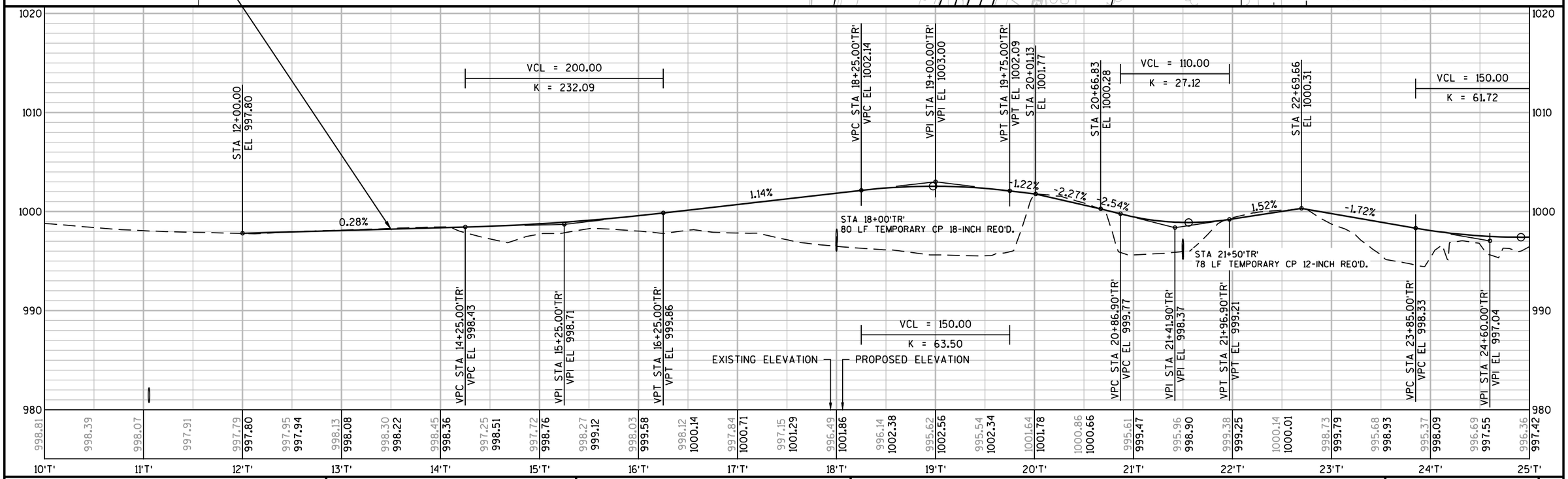
SCALE, FEET
0 — 100 — 200

LOCATION MAP



FILE NAME : G:\WDOT\CV\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETS\PLAN\WO13_STH65_70TH_AMEND_NO_4.DWG PLOT DATE : 7/28/2022 9:14 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 246
1540-04-23-4.02, AMEND NO. 4
APPRAISAL PLAT DATE : 07/28/2022

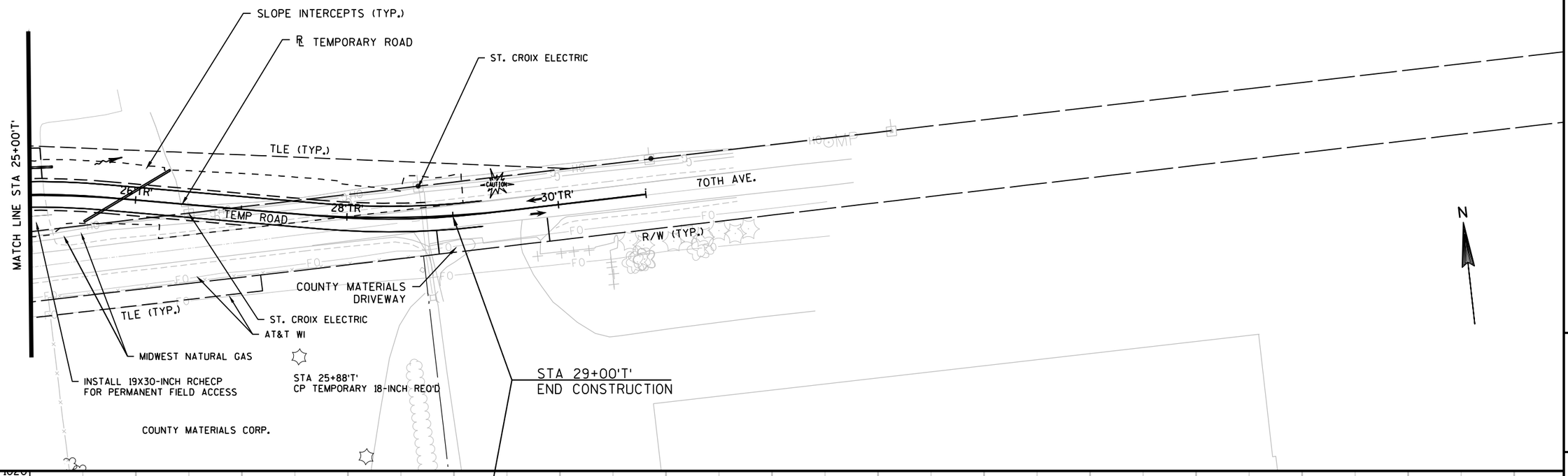


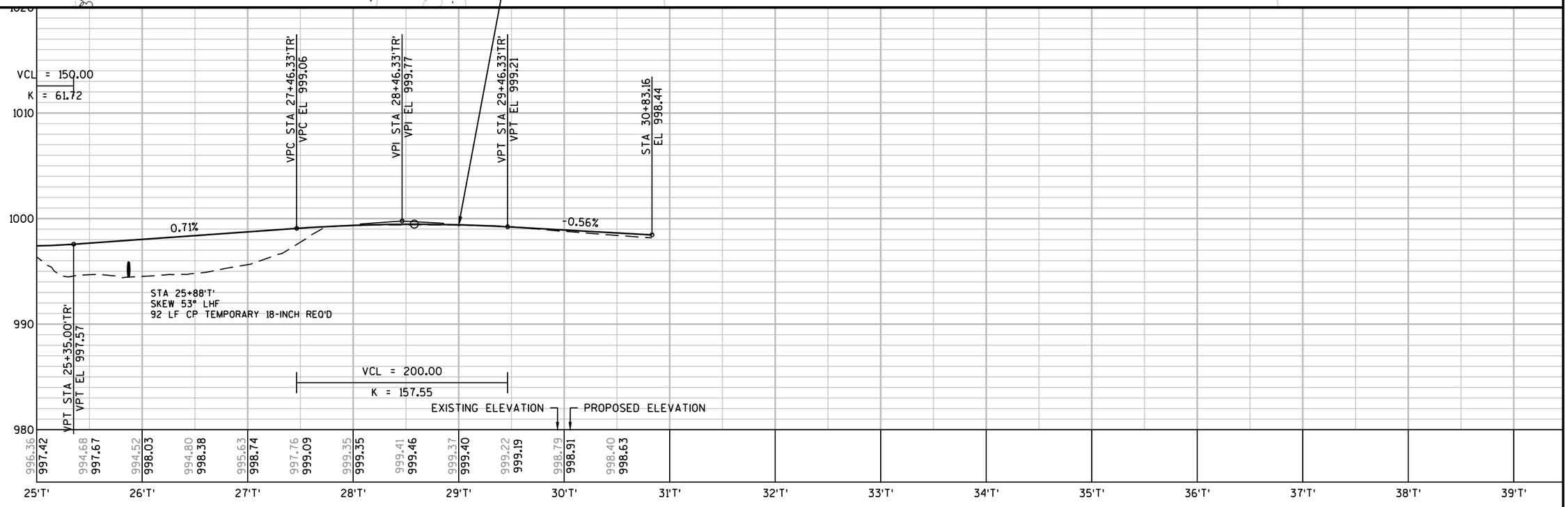


PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	PLAN AND PROFILE: TEMPORARY ROAD	SHEET 247 E

STA 25+00'T' LT
TEMP. FE
1-12" CP TEMPORARY REQ'D.

CRANE 1 HOLDINGS, LLC.





PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	PLAN AND PROFILE: TEMPORARY ROAD	SHEET 248	E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\PLAN AND PROFILE\050106-PP(70TH TEMP ROAD).DWG DATE : 10/3/2022 3:15 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

CENTURYLINK
PAVLICH, FRANK S. & SWANSON, MARION A. & DELANDER, PATRICIA A.
REMAINDER OF 70TH AVE TO BE CONSTRUCTED BY OTHERS
MIDWEST NATURAL GAS
ST. CROIX ELECTRIC
VILLAGE OF ROBERTS
MIDWEST NATURAL GAS
SB STH 65
NB STH 65
66'S'
66'N'
PARK & RIDE
BALDWIN TELECOM
AT&T WI
WISDOT (LIGHTING)
MIDWEST NATURAL GAS
12'PNR'
CRANE 1 HOLDINGS, LLC.
R/W (TYP.)
TLE (TYP.)
MIDWEST NATURAL GAS
ST. CROIX ELECTRIC
AT&T WI
BM-2
WISDOT (SIGNALS)
18'W'
20'W'
22'W'
24'W'
26'W'
14'W'
16'W'
18'E'
20'E'
22'E'
24'E'
26'E'
28'E'
14'E'
16'E'
70TH AVE.
℄ 70TH AVE. WB
AT&T WI
EXIST. R/W (TYP.)
ST. CROIX ELECTRIC
BALDWIN TELECOM
ST. CROIX ELECTRIC
PILOT TRAVEL CENTERS, LLC.
UG GAS TERMINAL
AT&T WI
64'S'
64'N'
AT&T WI
SLOPE INTERCEPTS (TYP.)
STA 21+20'W' LT
1-24 LF CP CLASS II 12-INCH REQ'D.
2-ENDWALLS REQ'D.
AT&T WI
COUNTY MATERIALS CORP.
EASEMENT (TYP.)
STA 22+97'E'
1-58 LF CPCS CLASS III 18-INCH REQ'D.
2-ENDWALLS REQ'D.
SKEW 3.5° RHF
N
STA 18+12'W'
BEGIN CONSTRUCTION
AT&T WI
MIDWEST NATURAL GAS
CENTURYLINK
BALDWIN TELECOM
ST. CROIX ELECTRIC
BALDWIN TELECOM
BLUE JAY PROPERTIES, LLC.
STA 26+53'W'
END CONSTRUCTION

5

5

VCL = 200.00
K = 158.18
VCL = 200.00
K = 153.41
VCL = 105.00
K = 48.48

STA 14+47.82 EL 999.00
VPC STA 15+18.79'W' VPC EL 999.28
VPI STA 16+18.79'W' VPI EL 999.66
VPT STA 17+18.79'W' VPT EL 1001.31
VPC STA 18+05.50'W' VPC EL 1002.74
VPI STA 18+58.00'W' VPI EL 1003.60
VPT STA 19+10.50'W' VPT EL 1003.33
STA 19+39.00 EL 1003.18
STA 19+79.00 EL 1003.18
STA 20+40.00 EL 1001.96
VPC STA 21+00.00'W' VPC EL 1001.00
VPI STA 22+00.00'W' VPI EL 999.67
VPT STA 23+00.00'W' VPT EL 999.64
STA 24+00.00 EL 999.72
STA 24+62.09 EL 999.69
STA 25+39.02 EL 999.64
STA 26+53.00 EL 999.53

0.38% 1.65% +0.52% +2.00% +2.00% -2.00% -2.00% -1.33% -0.03% 0.10% -0.04% -0.07% -0.10%

EXISTING ℄ PROFILE
PROPOSED ℄ PROFILE

STA 22+99'W'
58 LF CPS 18-INCH REQ'D.
2-18-INCH ENDWALLS REQ'D.
SKEW 3.5° RHF

EXISTING ELEVATION
PROPOSED ELEVATION

998.66	999.02	999.23	999.46	999.73
	999.01	999.20	999.43	999.80
1000.03	1000.51	999.69	999.15	999.96
1000.32	1001.01	1001.82	1002.65	1003.27
1002.11	1002.63	1002.28	1000.71	1000.16
1003.38	1003.40	1002.76	1001.76	1001.00
999.67	999.67	999.62	999.66	999.66
1000.42	1000.00	999.74	999.64	999.67
999.61	999.65	999.63	999.59	999.53	999.51	999.64	999.76
999.72	999.70	999.67	999.63	999.58	999.53	

PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	PLAN AND PROFILE: 70TH AVE WB	SHEET 249	E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\PLAN AND PROFILE\050103-PP(70THEB).DWG PLOT DATE : 11/10/2022 2:41 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

SLOPE INTERCEPTS (TYP.)

R/W (TYP.)

MATCH LINE STA 68+00N

BALDWIN TELECOM
CENTURYLINK

MIDWEST NATURAL GAS

S-55-054

70'S'

SB STH 65

72'S'

70'N'

NB STH 65

72'N'

ST. CROIX ELECTRIC

AT&T WI

℄ STH 65 NB

PARK & RIDE

14"PNR"

WISDOT (LIGHTING)

HILPERT, JAMES E. & BETTY J.

SITE TO BE CLEARED BY OTHERS

REMAINDER OF SIDE ROAD TO BE CONSTRUCTED BY OTHERS

RICHARD M. RIENHART REVOCABLE TRUST

STA 80+67'N LT
6' X 30" CPCS EXTENSION REQ'D.
1 ENDWALL REQ'D.

N

DELINEATED WETLANDS

CENTURYLINK

ST. CROIX ELECTRIC

BALDWIN TELECOM

MIDWEST NATURAL GAS

AT&T WI TELEPHONE

74'S'

76'S'

78'S'

80'S'

82'S'

82'N'

80'N'

74'N'

76'N'

78'N'

AT&T WI

STH 65

AT&T WI

TLE (TYP.)

STA 80+67'N RT
6' X 30" CPCS EXTENSION REQ'D.
1 ENDWALL REQ'D.

STA 82+70'N'
END PROJECT

CRANE 1 HOLDINGS, LLC.

DELINEATED WETLANDS

STA 76+18'N' - STA 81+83'N' RT
MGS GUARDRAIL 3
3-MGS GUARDRAIL TERMINAL EAT REQ'D.

5

5

PROPOSED ℄ PROFILE

EXISTING ℄ PROFILE

SPECIAL DITCH RT

-0.63%

-0.98%

-3.30%

-1.16%

END RECONSTRUCTION
BEGIN REHABILITATION
SEE CROSS SECTIONS

STA 81+08.53
EL 988.59

VPC STA 73+26.33'N'
VPC EL 996.84

VPI STA 74+76.33'N'
VPI EL 995.90

VPT STA 76+26.33'N'
VPT EL 994.17

VCL = 300.00
K = 568.72

MARSH EXCAVATION RT

EXISTING PROFILE ABOVE MARSH EXCAVATION

MARSH EXCAVATION BOTTOM

STA 80+67'N' LT & RT
30-INCH CPCS EXTENSION REQD
1-30-INCH ENDWALL REQUIRED

1000
990
980
970
965

68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83

EXISTING ELEVATION — PROPOSED ELEVATION

| | | |

PILOT TRAVEL CENTERS, LLC.
AT&T WI
BM-4
CENTURYLINK
MIDWEST NATURAL GAS
MIDWEST NATURAL GAS
PAVLICH, FRANK S. SR. & SWANSON, MARION A. & DELANDER, PATRICIA A.
N
REMAINDER OF 70TH AVE TO BE CONSTRUCTED BY OTHERS
18'E
18'W
70TH AVE.
TLE (TYP.)
R/W (TYP.)
℄ STH 65 SB
WISDOT (LIGHTING)
S-55-053
ST. CROIX ELECTRIC
BALDWIN TELECOM
CAUTION
SB STH 65
58'S'
60'S'
62'S'
64'S'
AT&T WI
STH 65
56'S'
NB STH 65
58'N'
60'N'
62'N'
64'N'
WISDOT (SIGNALS)
20'E'
20'W'
CENTURYLINK
MIDWEST NATURAL GAS
66'S'
SB STH 65
68'S'
70'S'
MATCH LINE STA 70+10'S'
66'N'
NB STH 65
68'N'
CENTURYLINK
BALDWIN TELECOM
ST. CROIX ELECTRIC
BALDWIN TELECOM
AT&T WI
BALDWIN TELECOM
ST. CROIX ELECTRIC
SLOPE INTERCEPTS (TYP.)
70TH AVE.
16"PVR"
AT&T WI
STA 56+82'S'
BEGIN CONSTRUCTION
EASEMENT (TYP.)
STA 60+70'S'
CANTILEVER OVERHEAD
SIGN SUPPORT REQ'D.
S-55-053
BLUE JAY PROPERTIES, LLC.
STA 60+41'S' LT - STA 62+09'S' LT
MGS GUARDRAIL 3
1-MGS GUARDRAIL TERMINAL EAT REQ'D.
AT&T WI
ST. CROIX ELECTRIC
22'E'
22'W'
PARK & ROAD
MIDWEST NATURAL GAS
5
5

STA 56+81.29
EL 1032.74
-4.45%
STA 59+00'S'
SAME POINT
-4.77%
VCL = 400.00
K = 96.01
PROPOSED ℄ PROFILE
-0.61%
EXISTING ℄ PROFILE
SPECIAL DITCH LT
STA 58+32.01
EL 1026.03
VPC STA 60+84.52'S'
VPC EL 1013.98
VPI STA 62+84.52'S'
VPI EL 1004.44
VPT STA 64+84.52'S'
VPT EL 1003.23
EXISTING ELEVATION
PROPOSED ELEVATION

1040 1030 1020 1010
1020 1010 1000 990
55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70

| | | |

STA 72+11'S' LT - STA 74+12'S' LT
MGS GUARDRAIL 3
1-MGS GUARDRAIL TERMINAL EAT REQ'D.
16-INCH BLOCKOUTS ASSUMED FOR CONSTRUCTION

STA 72+28'S'
CANTILEVER OVERHEAD SIGN SUPPORT REQ'D.
S-55-0054

STA 80+71'S' LT
6' X 30" CPCS EXTENSION REQ'D.
1 ENDWALL REQ'D.

N

HILPERT, JAMES E. & BETTY J.

REMAINDER OF SIDE ROAD TO BE CONSTRUCTED BY OTHERS

RICHARD M. RIENHART REVOCABLE TRUST

ST. CROIX ELECTRIC

DELINEATED WETLANDS

MIDWEST NATURAL GAS

CENTURYLINK

BALDWIN TELECOM

SLOPE INTERCEPTS (TYP.)

SITE TO BE CLEARED BY OTHERS

S-55-054

BM-6

BM-5

℄ STH 65 SB

SB STH 65

AT&T WI TELEPHONE

MATCH LINE STA 70+10'S'

72'S' 74'S' 76'S' 78'S' 80'S' 82'S' 84'S'

72'N' 74'N' 76'N' 78'N' 80'N' 82'N' 84'N'

AT&T WI

STH 65

NB STH 65

ST. CROIX ELECTRIC

AT&T WI

R/W (TYP.)

CRANE 1 HOLDINGS, LLC.

TLE (TYP.)

MARSH EXCAVATION REQUIRED

DELINEATED WETLANDS

STA 80+70'S RT
6' X 30" CPCS EXTENSION REQ'D.
1 ENDWALL REQ'D.

STA 82+74'S'
END CONSTRUCTION

VPC STA 71+06.96'S'
VPC EL 999.46

VPI STA 72+56.96'S'
VPI EL 998.55

VPT STA 74+06.96'S'
VPT EL 996.59

PROPOSED ℄ PROFILE

STA 78+08.21
EL 991.33

END RECONSTRUCTION
BEGIN REHABILITATION
SEE CROSS SECTIONS

STA 81+12.64
EL 988.62

-1.31%

-0.89%

SPECIAL DITCH LT

EXISTING ℄ PROFILE

VCL = 300.00

K = 426.28

STA 80+67'S' LT & RT
30" CPCS EXTENSION REQ'D.

MARSH EXCAVATION LT

EXISTING PROFILE ABOVE MARSH EXCAVATION

MARSH EXCAVATION BOTTOM

EXISTING ELEVATION

PROPOSED ELEVATION

1010 1000 990 980 970

70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85

| | | |

CENTURYLINK
PAVLICH, FRANK S. & SWANSON, MARION A. & DELANDER, PATRICIA A.
SLOPE INTERCEPTS (TYP.)
REMAINDER OF 70TH AVE TO BE CONSTRUCTED BY OTHERS
MIDWEST NATURAL GAS
ST. CROIX ELECTRIC
VILLAGE OF ROBERTS
MIDWEST NATURAL GAS
SB STH 65
NB STH 65
66'S'
66'N'
PNR
PARK & PARK & RIDE
BALDWIN TELECOM
AT&T WI
WISDOT (LIGHTING)
MIDWEST NATURAL GAS
'PNR'-LINE
12'PNR'
R/W (TYP.)
TLE (TYP.)
CRANE 1 HOLDINGS, LLC.
STA 24+89'E' LT
BAD FIELD ENTRANCE REQ'D
44 LF 19X30-INCH HECP-CLASS IV REQD
2-ENDWALLS REQ'D
N
MIDWEST NATURAL GAS
ST. CROIX ELECTRIC
AT&T WI
CAUTION
14'W'
14'E'
16'W'
16'E'
18'W'
18'E'
20'W'
20'E'
22'W'
22'E'
24'W'
24'E'
26'W'
26'E'
28'E'
℄ 70TH AVE. EB
70TH AVE.
70TH AVE.
AT&T WI
ST. CROIX ELECTRIC
BALDWIN TELECOM
ST. CROIX ELECTRIC
64'S'
64'N'
AT&T WI
COUNTY MATERIALS CORP.
AT&T WI
STA 22+97'E'
1-58 LF CPRC CLASS III 18-INCH REQ'D.
2-ENDWALLS REQ'D.
PILOT TRAVEL CENTERS, LLC.
STA 18+10'E'
BEGIN CONSTRUCTION
UG GAS TERMINAL
AT&T WI
MIDWEST NATURAL GAS
CENTURYLINK
CAUTION
BALDWIN TELECOM
ST. CROIX ELECTRIC
BALDWIN TELECOM
BLUE JAY PROPERTIES, LLC.
EASEMENT (TYP.)
STA 26+50'E'
END CONSTRUCTION
5
5

STA 17+47.00 EL 1001.64
VPC STA 18+05.95'E' VPC EL 1002.63
VPI STA 18+58.45'E' VPI EL 1003.60
VPT STA 19+10.95'E' VPT EL 1003.33
STA 19+39.00 EL 1003.18
STA 19+59.00 EL 1003.58
STA 19+71.00 EL 1003.34
STA 20+33.00 EL 1002.10
STA 20+45.00 EL 1001.86
STA 20+57.00 EL 1001.62
VPC STA 21+00.00'E' VPC EL 1001.14
VPI STA 22+00.00'E' VPI EL 1000.00
VPT STA 23+00.00'E' VPT EL 999.90
STA 26+50.00 EL 999.53
VCL = 200.00
K = 193.82
VCL = 105.00
K = 44.32
1.85%
0.52%
-2.00%
-2.00%
-2.00%
-1.14%
2.00%
-2.00%
-0.10%
EXISTING ℄ PROFILE
PROPOSED ℄ PROFILE
STA 22+97'E'
58 LF CPCS 18-INCH REQ'D.
2-18-INCH ENDWALLS REQ'D.
EXISTING ELEVATION
PROPOSED ELEVATION

1050
1020
1010
1000
990
14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29

| | | |

CENTURYLINK
PAVLICH, FRANK S. & SWANSON, MARION A. & DELANDER, PATRICIA A.
REMAINDER OF 70TH AVE TO BE CONSTRUCTED BY OTHERS
MIDWEST NATURAL GAS
ST. CROIX ELECTRIC
VILLAGE OF ROBERTS
MIDWEST NATURAL GAS
SB STH 65
NB STH 65
66'S'
66'N'
PNR
PARK & RIDE
BALDWIN TELECOM
AT&T WI
WISDOT (LIGHTING)
MIDWEST NATURAL GAS
12'PNR'
CRANE 1 HOLDINGS, LLC.
R/W (TYP.)
TLE (TYP.)
MIDWEST NATURAL GAS
ST. CROIX ELECTRIC
AT&T WI
BM-2
CAUTION
WISDOT (SIGNALS)
20'W'
18'W'
16'W'
14'W'
14'E'
70TH AVE.
16'E'
18'E'
20'E'
22'W'
22'E'
24'W'
24'E'
26'W'
26'E'
28'E'
70TH AVE.
R 70TH AVE. WB
AT&T WI
EXIST. R/W (TYP.)
ST. CROIX ELECTRIC
BALDWIN TELECOM
ST. CROIX ELECTRIC
UG GAS TERMINAL
PILOT TRAVEL CENTERS, LLC.
64'S'
64'N'
AT&T WI
SLOPE INTERCEPTS (TYP.)
AT&T WI
STA 21+20'W' LT
1-24 LF CP CLASS II 12-INCH REQ'D.
2-ENDWALLS REQ'D.
COUNTY MATERIALS CORP.
N
AT&T WI
CAUTION
STA 18+12'W'
BEGIN CONSTRUCTION
MIDWEST NATURAL GAS
CENTURYLINK
SB STH 65
NB STH 65
BALDWIN TELECOM
ST. CROIX ELECTRIC
BALDWIN TELECOM
BLUE JAY PROPERTIES, LLC.
EASEMENT (TYP.)
STA 22+97'E'
1-58 LF CPCS CLASS III 18-INCH REQ'D.
2-ENDWALLS REQ'D.
SKEW 3.5° RHF
STA 26+53'W'
END CONSTRUCTION

5

5

VCL = 200.00
K = 158.18
VCL = 200.00
K = 153.41
VCL = 105.00
K = 48.48

STA 14+47.82 EL 999.00
VPC STA 15+18.79'W' VPC EL 999.28
VPI STA 16+18.79'W' VPI EL 999.66
VPT STA 17+18.79'W' VPT EL 1001.31
VPC STA 18+05.50'W' VPC EL 1002.74
VPI STA 18+58.00'W' VPI EL 1003.60
VPT STA 19+10.50'W' VPT EL 1003.33
STA 19+39.00 EL 1003.18
STA 19+79.00 EL 1003.18
STA 20+40.00 EL 1001.96
VPC STA 21+00.00'W' VPC EL 1001.00
VPI STA 22+00.00'W' VPI EL 999.67
VPT STA 23+00.00'W' VPT EL 999.64
STA 24+00.00 EL 999.72
STA 24+62.09 EL 999.69
STA 25+39.02 EL 999.64
STA 26+53.00 EL 999.53

0.38% 1.65% +0.52% +2.00% +2.00% -2.00% -2.00% -1.33% -0.03% 0.10% -0.04% -0.07% -0.10%

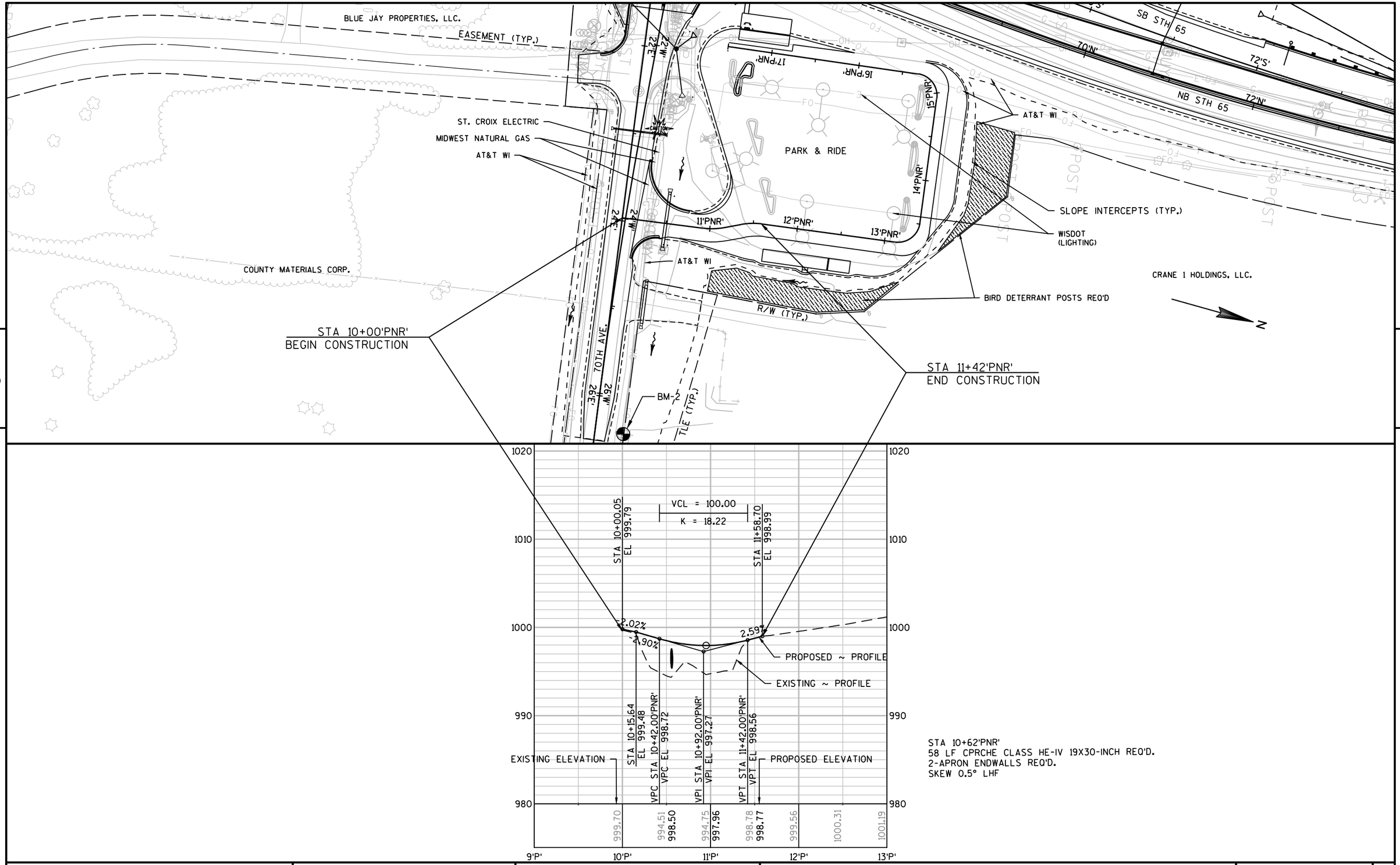
EXISTING R PROFILE
PROPOSED R PROFILE

STA 22+99'W'
58 LF CPS 18-INCH REQ'D.
2-18-INCH ENDWALLS REQ'D.
SKEW 3.5° RHF

EXISTING ELEVATION
PROPOSED ELEVATION

998.66	999.02	999.23	999.46	999.73
999.01	999.20	999.43	999.80	1000.03
				1000.32
1000.51	999.69	999.15	999.96	1002.11
1001.01	1001.82	1002.65	1003.27	1003.38
1002.63	1002.28	1000.71	1000.16	999.67
1003.40	1002.76	1001.76	1001.00	1000.42
999.67	999.62	999.66	999.66	999.61
1000.00	999.74	999.64	999.67	999.72
999.65	999.63	999.59	999.53	999.51
999.70	999.67	999.63	999.58	999.53
999.64	999.76			

PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	PLAN AND PROFILE: 70TH AVE WB	SHEET 254	E



STA 10+62'PNR'
58 LF CPRCHE CLASS HE-IV 19X30-INCH REQ'D.
2-APRON ENDWALLS REQ'D.
SKEW 0.5° LHF

PROJECT NO:1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	PLAN AND PROFILE: PARK & RIDE	SHEET 255	E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\PLAN AND PROFILE\050105-PP(PNR).DWG PLOT DATE : 10/31/2022 12:11 PM PLOT BY : KL ENGINERRING PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

Standard Detail Drawing List

08A05-19B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08A05-19C	INLET COVERS TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S
08A05-19D	INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M
08B09-03	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT, 8-FT, 9-FT, 10-FT DIAMETER
08C06-02	INLETS 3-FT AND 4-FT DIAMETER
08C07-02	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08C08-02	INLETS MEDIAN 1 AND 2 GRATE
08D01-22A	CONCRETE CURB & GUTTER
08D01-22B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D05-20A	CURB RAMPS TYPES 1 AND 1-A
08D05-20B	CURB RAMPS TYPES 2 AND 3
08D05-20C	CURB RAMPS TYPES 4A AND 4A1
08D05-20D	CURB RAMPS TYPE 4B AND 4B1
08D05-20E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D05-20F	CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS
08D05-20G	CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E14-01	TRACKING PAD
08E15-01	CULVERT PIPE CHECK
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F02-01	APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE
08F04-08	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09A01-13A	AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND D AND TEE INTERSECTION BYPASS LANE
09B02-10	CONDUIT
09B16-02	PULL BOX NON-CONDUCTIVE
09C02-09	CONCRETE BASES, TYPES 1, 2, 5, & 6
09C03-04	TRANSFORMER/PEDESTAL BASES
09C12-09A	CONCRETE BASE TYPE 13
09C12-09B	CONCRETE BASE TYPE 13
09C15-01	CONCRETE BASE TYPE 10 SPECIAL
09D01-05	CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)
09D04-03	LIGHTING CONTROL CABINET 120/240 VOLT
09E01-15E	POLE MOUNTINGS FOR LIGHTING UNITS, TYPE 6 (35 FEET)
09E01-15G	HARDWARE DETAILS FOR POLE MOUNTINGS
09E03-06	NON-FREEWAY LIGHTING UNIT POLE WIRING
09E06-05	TRAFFIC SIGNAL STANDARD POLY BRACKET MOUNTINGS (TYPICAL) 13 FT. OR 15 FT.
09E07-06	TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER TYPICAL MOUNTING DETAILS
09E08-09G	TYPE 10 SPECIAL POLE 40' MONOTUBE ARM
09E08-09H	TYPE 10 SPECIAL POLE 45' MONOTUBE ARM
09E08-09J	TYPE 13 POLE 35'-55' MONOTBE ARM
09E08-09K	GENERAL NOTES,HARDWARE DETAILS FOR TYPE 9/10,9/10 SPECIAL,12 & 13 POLES W/MONOTUBE ARMS
09F15-04B	LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)
09G01-04A	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04B	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04C	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04D	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04E	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04F	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04G	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
11B01-05	CONCRETE CORRUGATED MEDIAN
11B02-02	CONCRETE MEDIAN NOSE
12A04-03	STRUCTURE IDENTIFICATION PLAQUES, RAMP GATES, SIGN BRIDGES & OVERHEAD SIGN SUPPORTS & TRAFFIC SIGNALS
13A03-06	CONCRETE PAVEMENT SHOULDERS
13C01-19	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C11-12A	RURAL DOWELED CONCRETE PAVEMENT
13C11-12B	RURAL DOWELED CONCRETE PAVEMENT
13C16-02A	DETAIL FOR RIGHT TURN LANE/TEE INTERSECTION BYPASS LANE ON A CONRETE ROADWAY
13C18-07A	CONCRETE PAVEMENT JOINTING
13C18-07B	CONCRETE PAVEMENT STEEL REINFORCEMENT
13C18-07C	CONCRETE PAVEMENT JOINT TYPES
13C18-07D	CONCRETE PAVEMENT JOINT TYPES AT UTILITY FIXTURES
13C18-07F	CONCRETE PAVEMENT INTERSECTION BOXOUT FOR INTEGRAL CURB AND GUTTER
13C19-03	HMA LONGITUDINAL JOINTS
14B28-04A	GUARDRAIL MOW STRIP
14B28-04B	GUARDRAIL MOW STRIP

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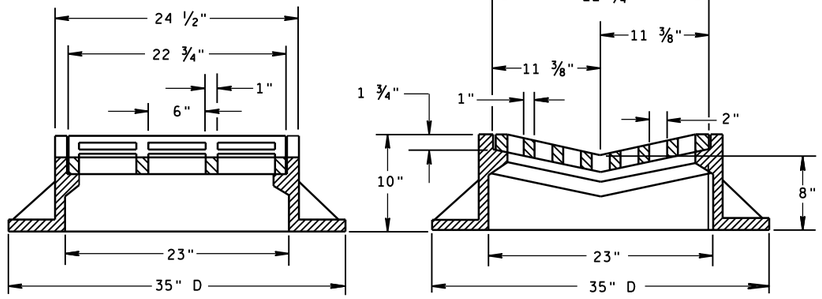
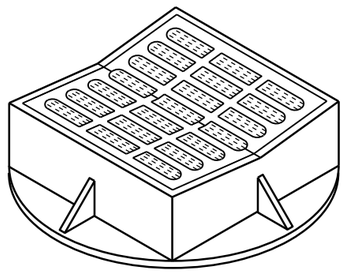
Standard Detail Drawing List

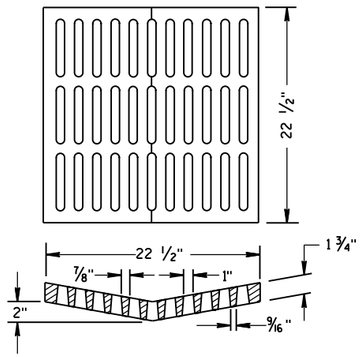
14B42-07A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07D	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-04A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04B	MIDWEST GUARDRAIL SYSTEM 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)
14B45-05E	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05F	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05G	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05H	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05I	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05J	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05K	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05L	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B47-03A	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-03B	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-03C	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-03D	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-03E	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-03F	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
14B47-03G	MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15B01-08A	FENCE WOVEN WIRE
15B01-08B	FENCE WOVEN WIRE
15C02-08A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-08B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-08C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C05-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C07-15A	PAVEMENT MARKING SYMBOLS
15C07-15B	PAVEMENT MARKING WORDS
15C07-15C	PAVEMENT MARKING ARROWS
15C07-15D	ROUNDABOUT ARROWS
15C07-15E	PAVEMENT MARKING FOR BIKE LANES
15C08-21A	LONGITUDINAL MARKING (MAINLINE)
15C08-21B	TEMPORARY LONGITUDINAL PAVEMENT MARKING
15C08-21C	PAVEMENT MARKING (TURN LANES)
15C08-21D	PAVEMENT MARKING (TURN LANES)
15C11-09A	CHANNELIZING DEVICES FLEXIBLE TUBULAR MARKER POST
15C11-09B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C18-06A	MEDIAN ISLAND MARKING PAVEMENT MARKINGS
15C18-06B	MEDIAN ISLAND MARKING MEDIAN ISLAND NOSE
15C18-06C	MEDIAN PAVEMENT MARKINGS DOUBLE ARROW WARNING SIGN PLACEMENT
15C20-02	YIELD MARKING
15C21-10	SIGNING AND MARKING FOR TWO LANE TO FOUR LANE DIVIDED TRANSITIONS
15C29-07A	BICYCLE LANE MARKING
15C33-04	STOP LINE AND CROSSWALK PAVEMENT MARKING
15C34-03	STANDARD APPLICATION FOR TEMPORARY RAISED PAVEMENT MARKER, TYPE 2
15C35-05A	PAVEMENT MARKING (INTERSECTIONS)
15D06-05	TRAFFIC CONTROL, TWO LANE TWO WAY OPERATION
15D11-08	TRAFFIC CONTROL, SINGLE LANE CROSSOVER
15D20-06A	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D27-03	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH
15D28-04	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D31-04	TRAFFIC CONTROL, TEMPORARY BYPASS ROADWAY
16A01-07	LANDMARK REFERENCE MONUMENTS AND COVERS

6



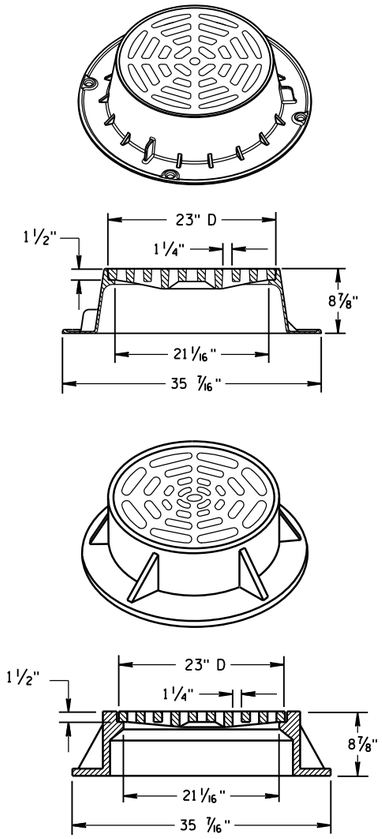


TYPE "B"



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"

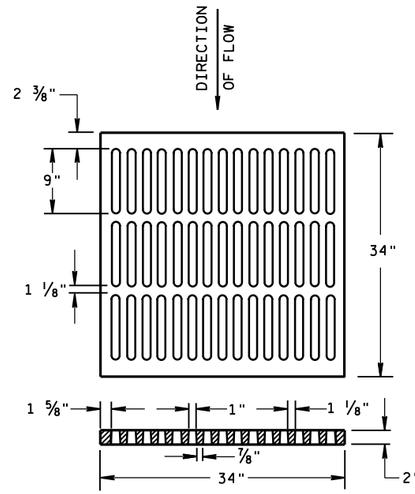
NOTE: EITHER CASTING IS ACCEPTABLE

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.

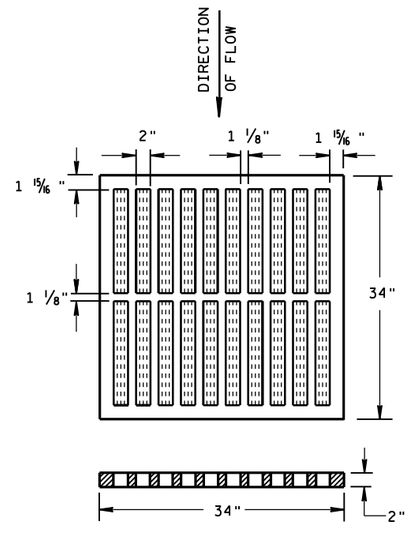
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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



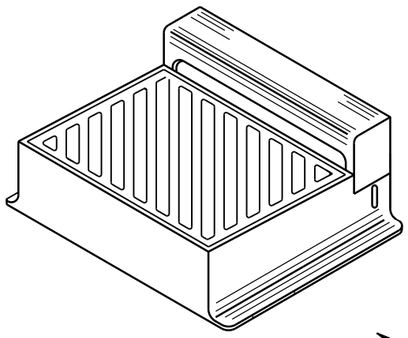
ALTERNATIVE TYPE "MS"

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

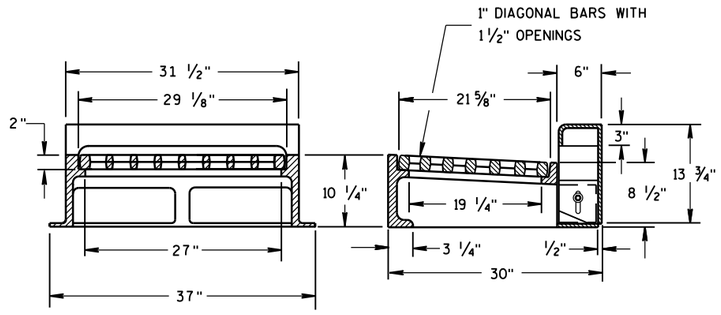


TYPE "MS"

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



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



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

TYPE "WM"

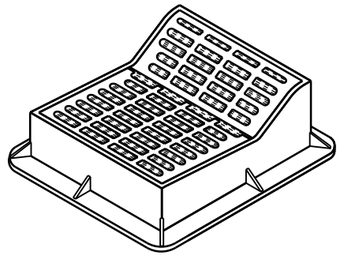
INLET COVERS
TYPE B, B-A, C,
MS, MS-A, & WM

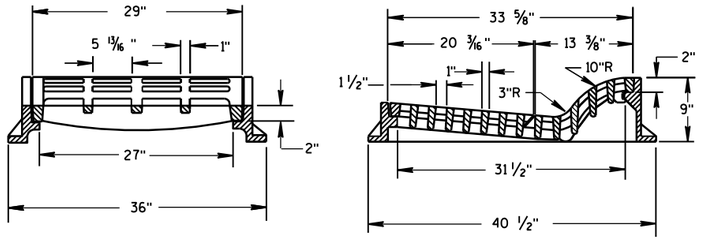
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/27/2013
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

6

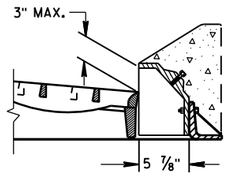
S.D.D. 8 A 5-19b





TYPE "F"

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



ALTERNATIVE CURB BOX FOR TYPE "HM" COVER

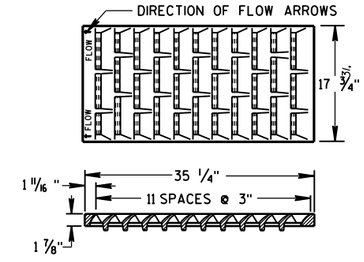
USE WITH TYPES G & J CONCRETE CURB & GUTTER, 30 INCH
NOTED AS TYPE HM-GJ ON DRAINAGE TABLE

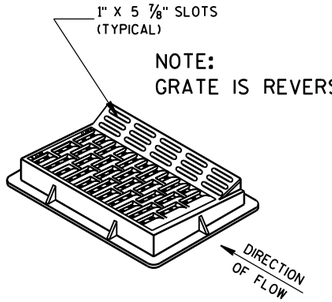
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM-GJ" COVER
NOTED AS TYPE HM-GJ-S ON DRAINAGE TABLE

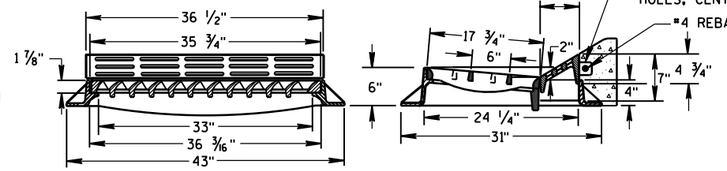
GENERAL NOTES

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

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



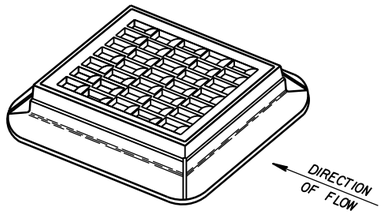


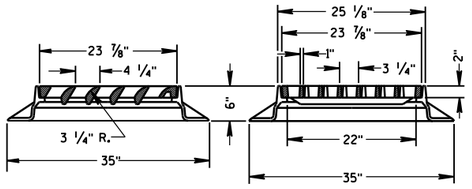


TYPE "HM"

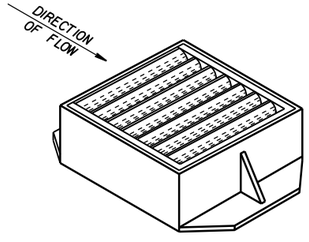
USE WITH TYPES A & D CONCRETE CURB & GUTTER, 36 INCH.

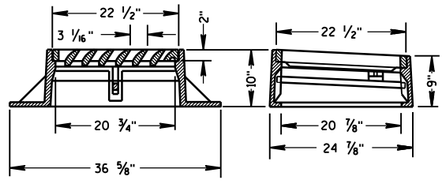
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM" COVER
NOTED AS TYPE HM-S ON DRAINAGE TABLE



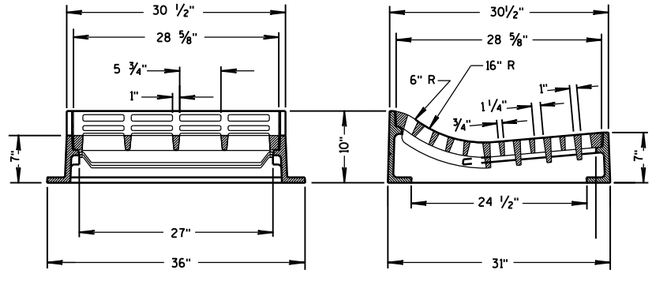


TYPE "S"



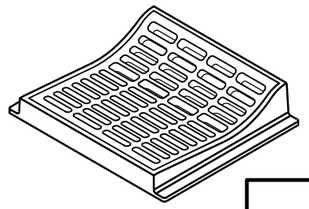


TYPE "V"



TYPE "T"

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



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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

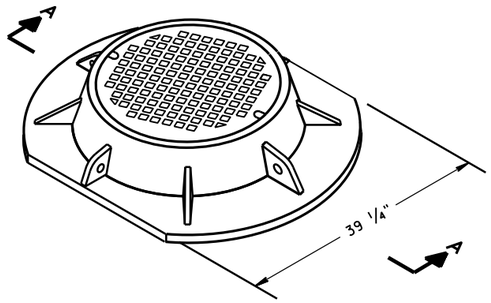
APPROVED
11/27/2013
DATE

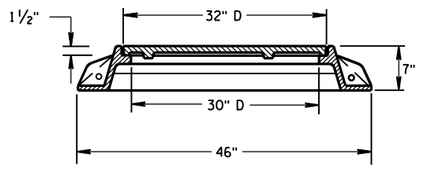
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

FHWA

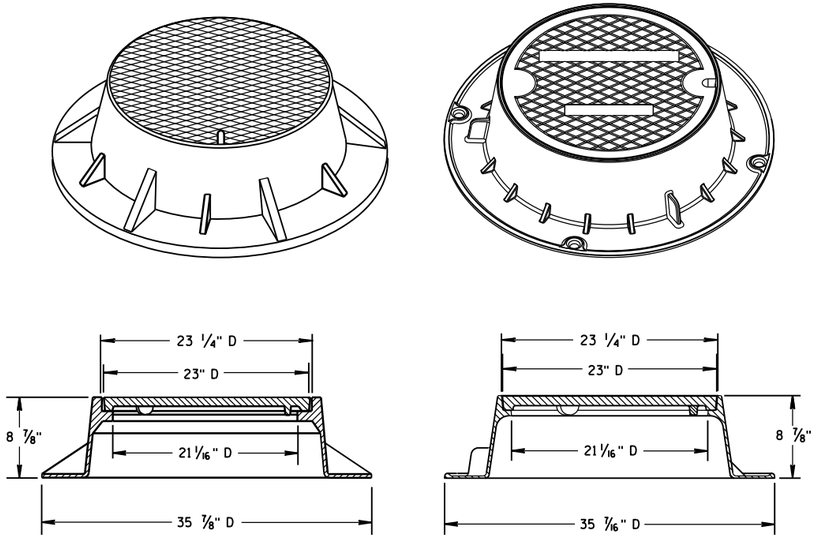
6

S.D.D. 8 A 5-19c





SECTION A-A
TYPE "K"



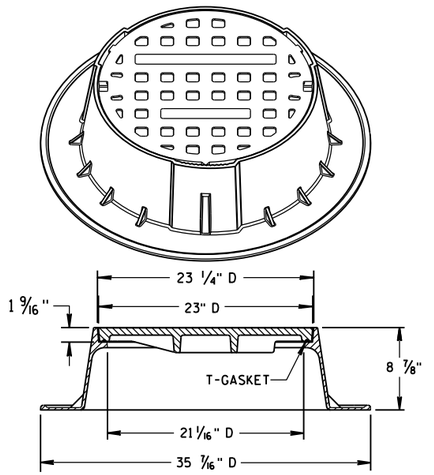
TYPE "J"
NOTE: EITHER CASTING IS ACCEPTABLE

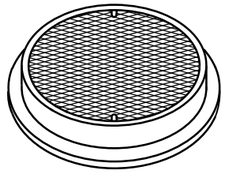
GENERAL NOTES

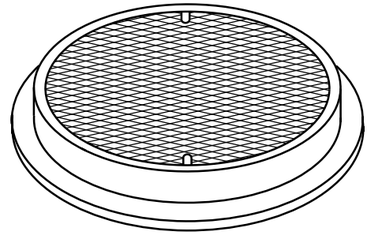
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

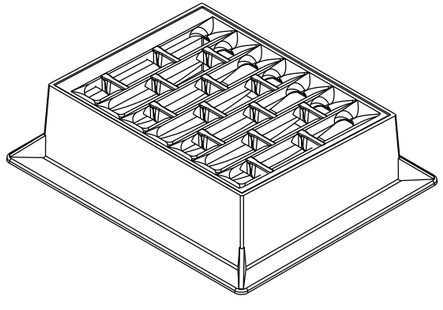
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

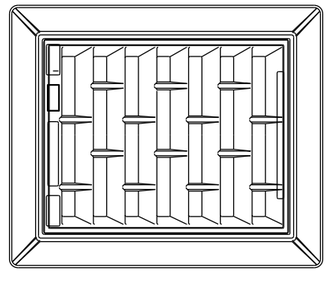
ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

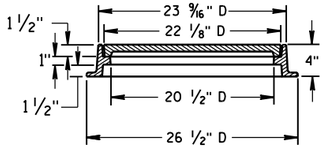




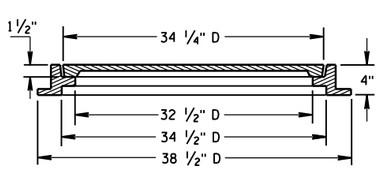




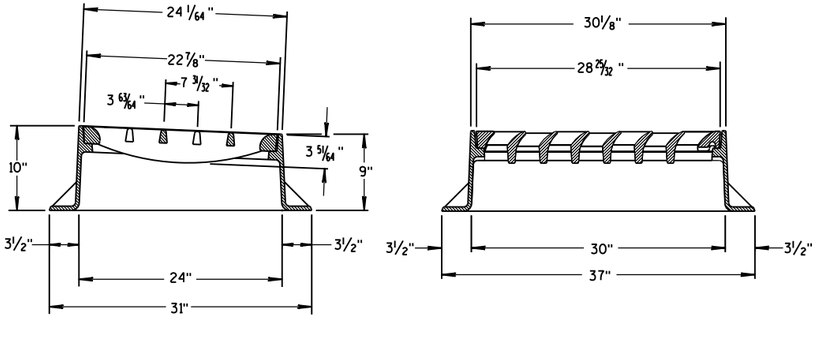




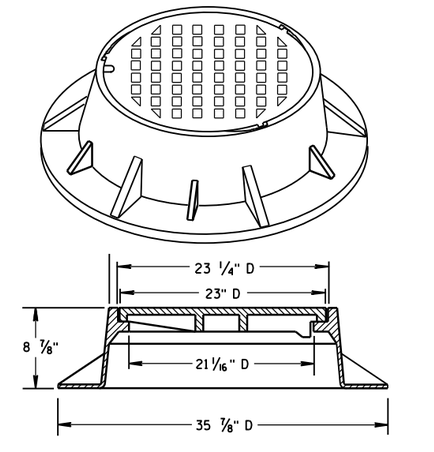
TYPE "L"



TYPE "M"



INLET COVER TYPE "BW"



TYPE "J" SPECIAL
TYPE "B" NON-ROCKING SELF-SEAL LID
(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)
NOTE: EITHER CASTING IS ACCEPTABLE

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/27/2013
DATE
FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

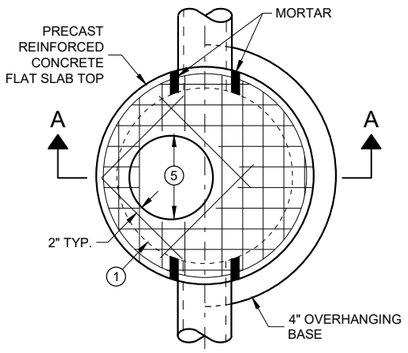
260

6

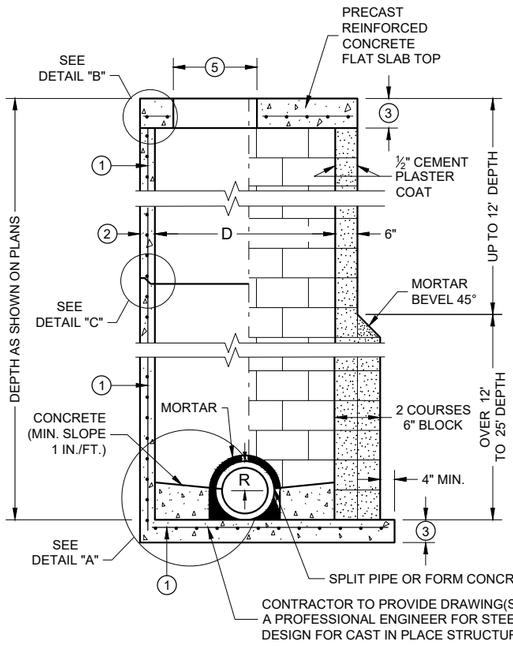
S.D.D. 8 A 5-19d

6

S.D.D. 8 A 5-19d



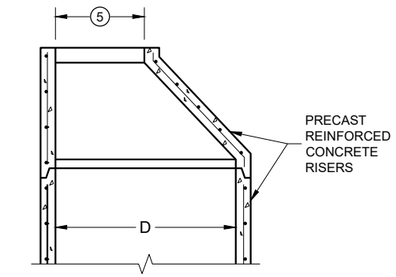
PLAN VIEW
CIRCULAR OPENING



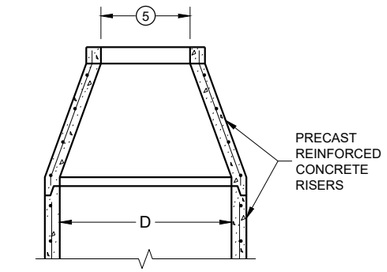
SECTION A - A

PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST IN PLACE OR PRECAST REINFORCED CONCRETE BASE (1)



OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP



OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

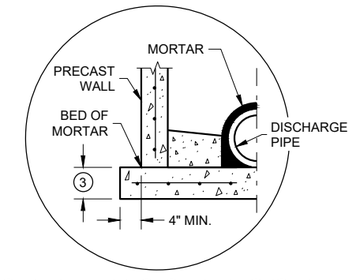
MANHOLE COVER OPENING MATRIX

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

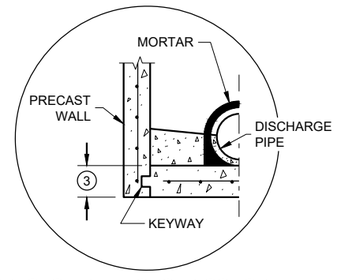
PIPE MATRIX

MANHOLE SIZE (DIA.)	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES		MINIMUM WALL THICKNESS (IN)	MINIMUM PRECAST FLAT SLAB TOP AND BASE THICKNESS
	180° SEPARATION (IN)	90° SEPARATION (IN)		
3-FT	15	12	4	6
4-FT	24	18	4	6
5-FT	36	24	5	8
6-FT	42	36	6	8
7-FT	48	36/42*	7	8
8-FT	60	42	8	8
9-FT	66	54	9	10
10-FT	72	60	10	10

*A 36" PIPE AND A 42" PIPE CAN BE PLACED WITHIN 90 DEGREES. SEE MINIMUM HORIZONTAL PIPE SEPARATION DETAIL.

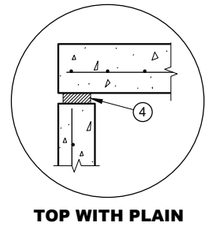


SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

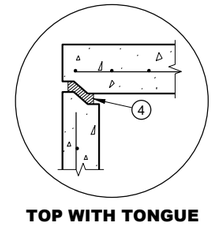


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

DETAIL "A"

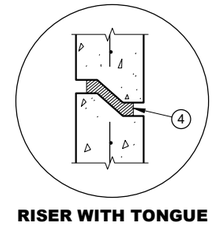


TOP WITH PLAIN END JOINT



TOP WITH TONGUE AND GROOVE JOINT

DETAIL "B"



RISER WITH TONGUE AND GROOVE JOINT

DETAIL "C"

GENERAL NOTES

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

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

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

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

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

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

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

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

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF ½ INCH AND MEET THE REQUIREMENTS OF ASTM A615.

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

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

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

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

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

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

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

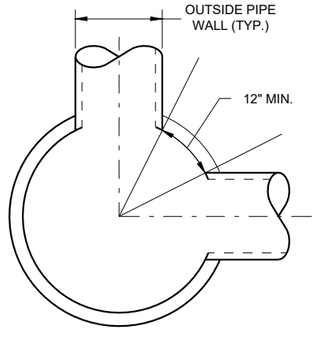
(1) FOR PRECAST MANHOLES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

(2) SEE PIPE MATRIX TABLE FOR MINIMUM WALL THICKNESS FOR PRECAST MANHOLES

(3) SEE PIPE MATRIX TABLE FOR MINIMUM THICKNESS OF PRECAST FLAT SLAB TOPS AND BASES.

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

(5) SEE MANHOLE COVER OPENING MATRIX.



MINIMUM HORIZONTAL PIPE SEPARATION

MANHOLES, 3-FT, 4-FT 5-FT, 6-FT, 7-FT, 8-FT, 9-FT AND 10-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2021 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER

FHWA

MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT, 8-FT, 9-FT AND 10-FT DIAMETER

6

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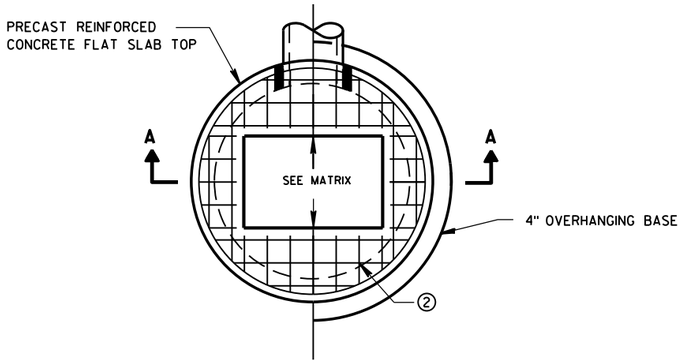
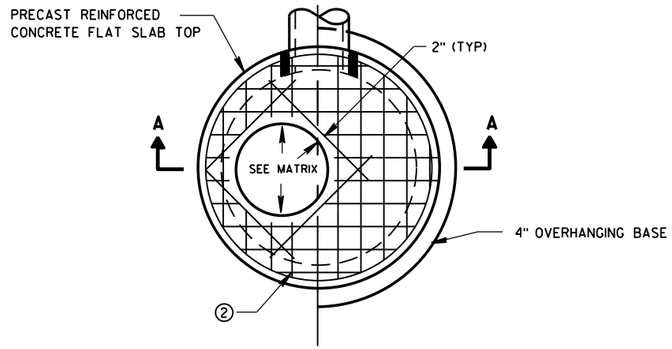
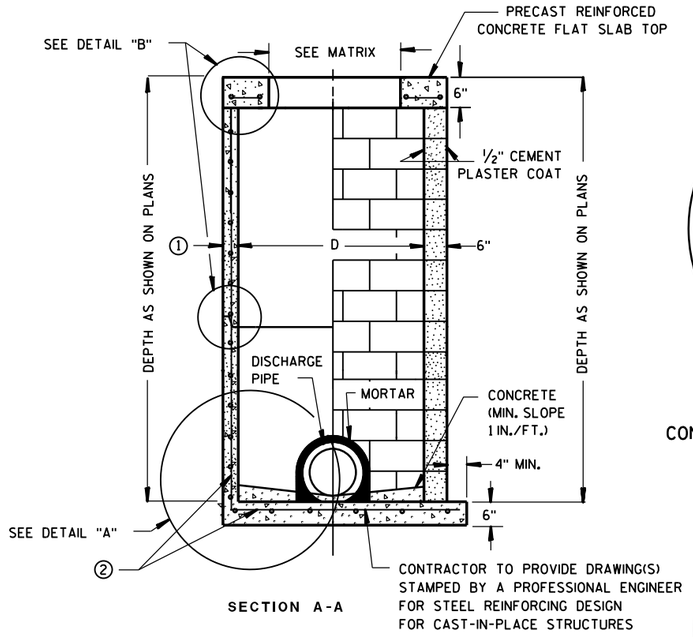


PLAN VIEW RECTANGULAR OPENING



PLAN VIEW CIRCULAR OPENING

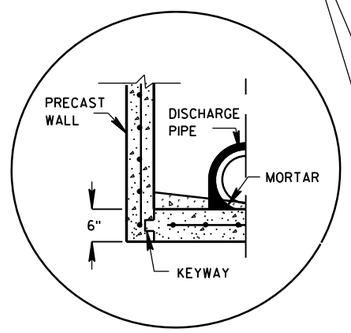


SECTION A-A

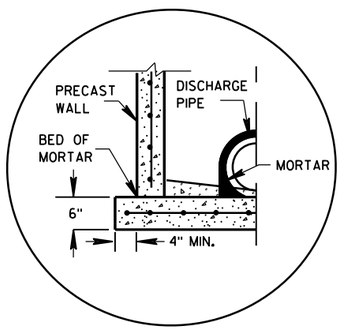
PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

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

CIRCULAR INLETS W/ FLAT TOP

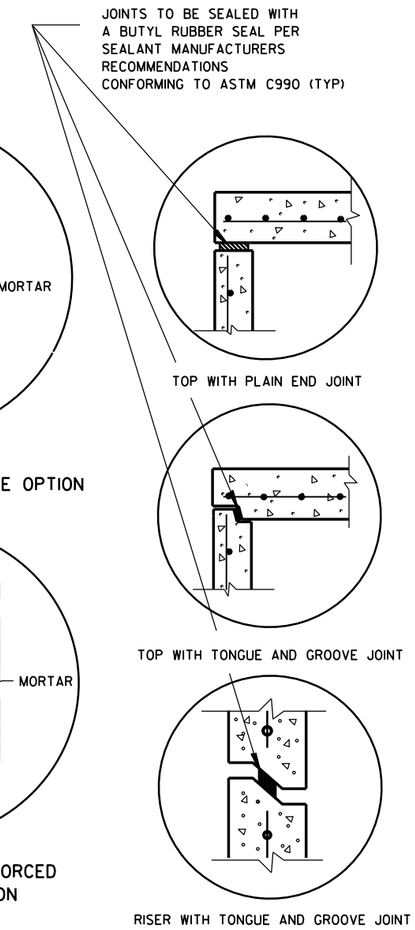


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



TOP WITH PLAIN END JOINT

TOP WITH TONGUE AND GROOVE JOINT

RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

GENERAL NOTES

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

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

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

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

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

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

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

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

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

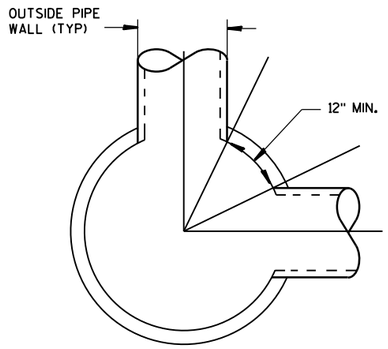
FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

① MINIMUM WALL THICKNESS SHALL BE 4-IN FOR 3-FT DIAMETER AND 5-IN FOR 4-FT DIAMETER PRECAST INLETS.

② FOR PRECAST CATCH BASINS PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

INLET COVER OPENING MATRIX

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



DETAIL "C"

PIPE MATRIX

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

INLETS 3-FT AND 4-FT DIAMETER

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DEPARTMENT OF TRANSPORTATION

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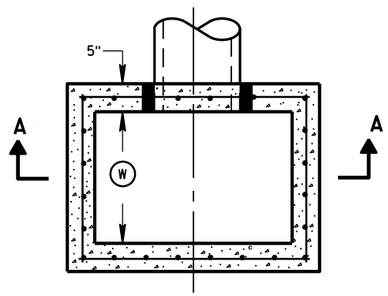
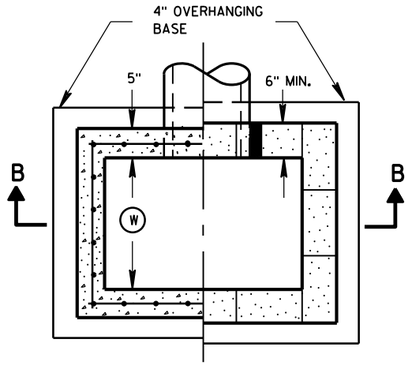
INLETS 3-FT AND 4-FT DIAMETER

6

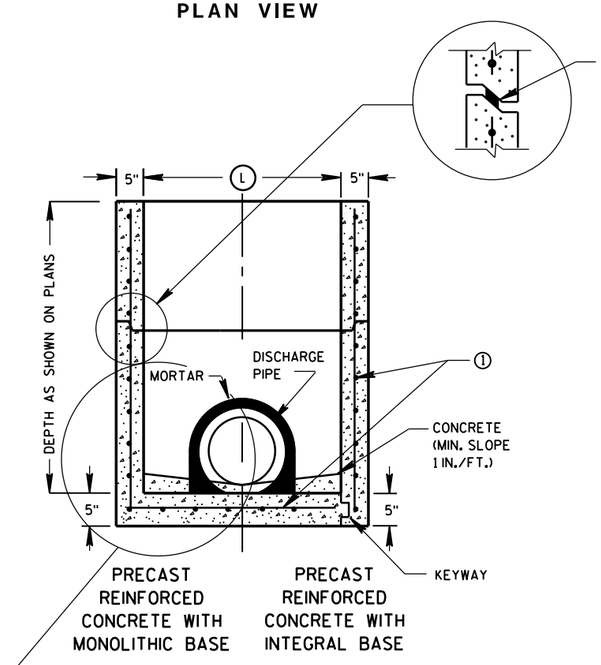
S.D.D. 8 C 6-2



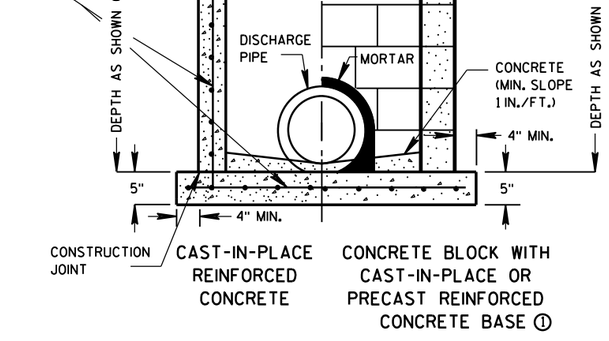
PLAN VIEW



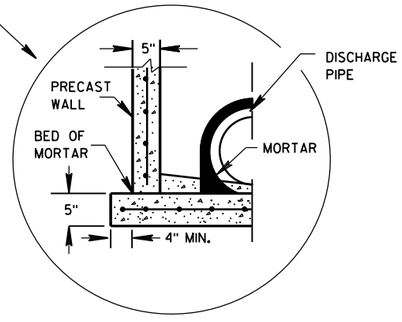
PLAN VIEW



SECTION A-A



SECTION B-B



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

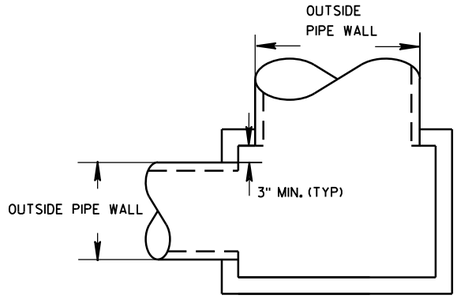
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

INLET COVER MATRIX

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

PIPE MATRIX

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



DETAIL "A"

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

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UNIT SUPERVIS
FHWA

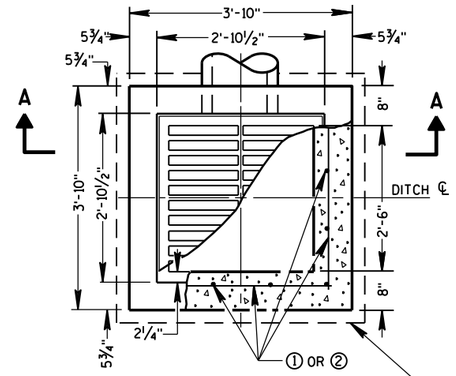
INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

6

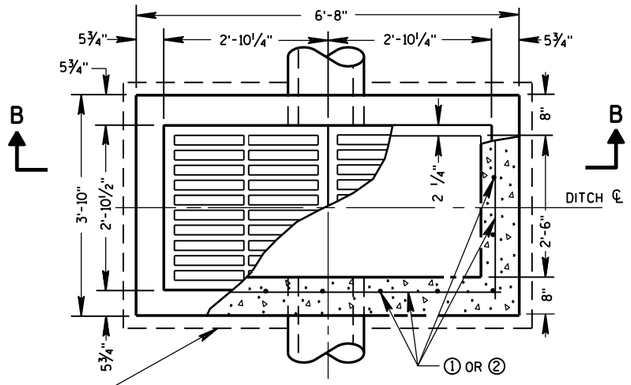
S.D.D. 8 C 7-2

6

S.D.D. 8 C 7-2

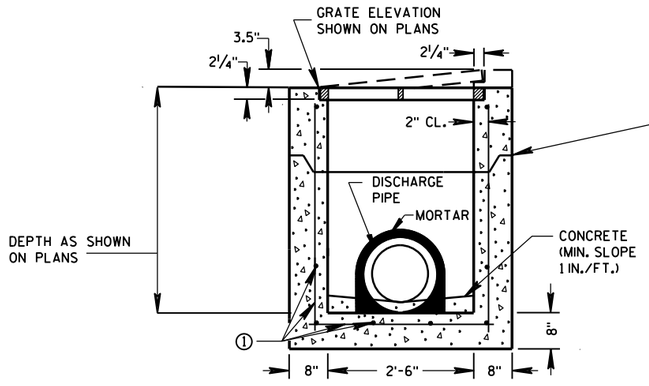


PLAN VIEW

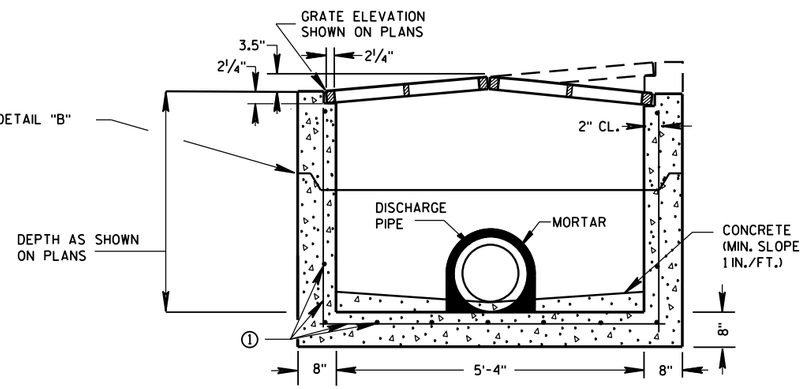


PLAN VIEW

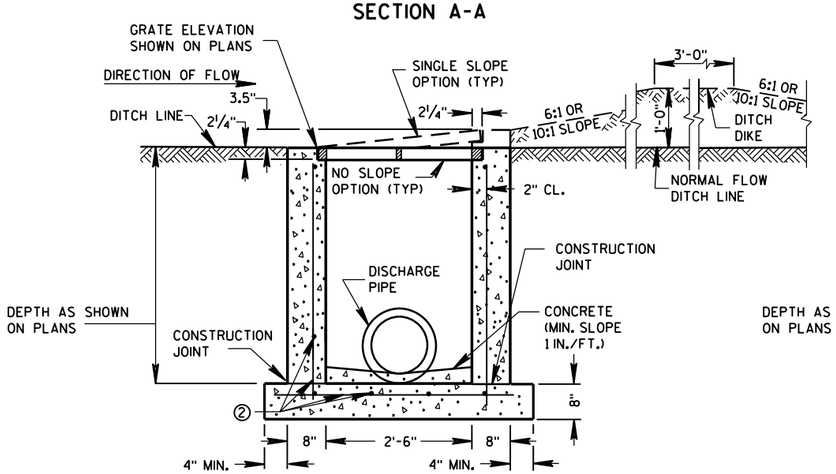
4" OVERHANGING BASE ON REINFORCED CAST-IN-PLACE CONCRETE INLETS



PRECAST REINFORCED CONCRETE SECTION A-A

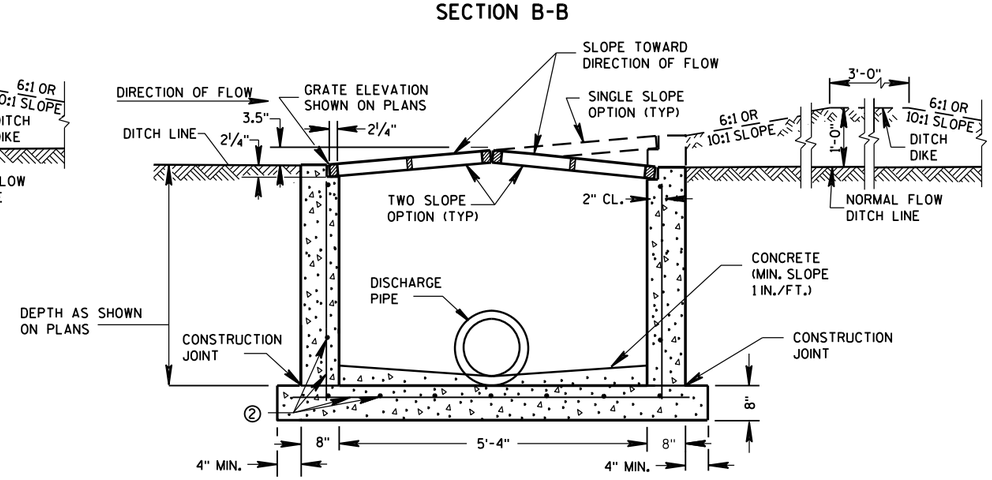


PRECAST REINFORCED CONCRETE SECTION B-B



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, 1G-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.

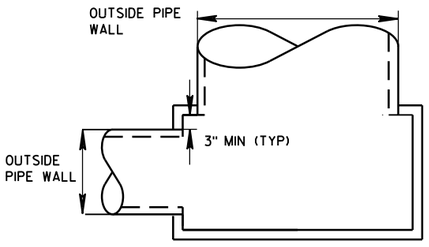
MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

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.

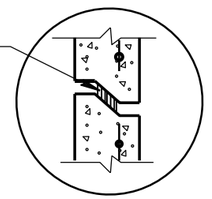
PIPE MATRIX

	MAXIMUM INSIDE PIPE DIAMETER	
INLET SIZE	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

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6
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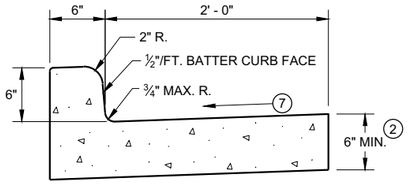
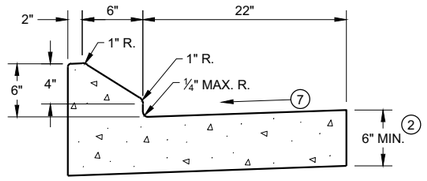
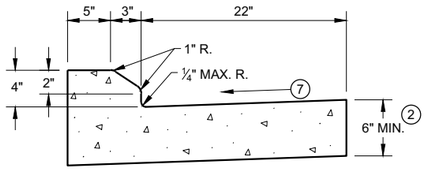


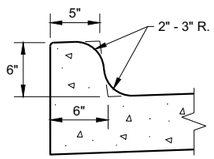
TYPES A (1) & D



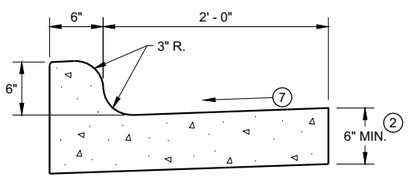
6" SLOPED CURB TYPES G (1) & J



4" SLOPED CURB TYPES G (1) & J

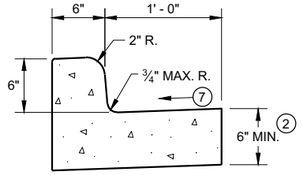


TYPES K (1) & L
(OPTIONAL CURB SHAPE)



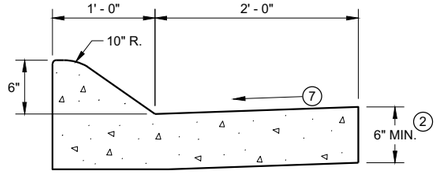
TYPES K (1) & L

CONCRETE CURB AND GUTTER 30"



TYPES A (1) & D

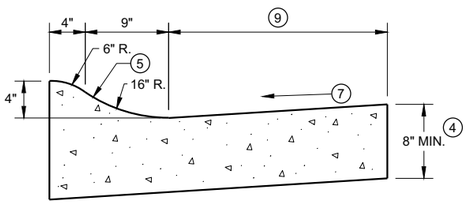
CONCRETE CURB AND GUTTER 18"



6" SLOPED CURB TYPES A (1) & D

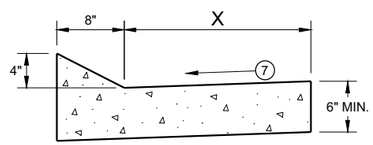
4" SLOPED CURB TYPES A (1) & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R (1) & T

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

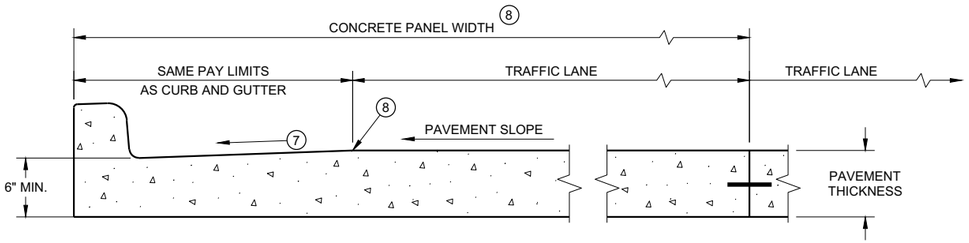


TYPES TBT & TBTT (1)

CONCRETE CURB AND GUTTER

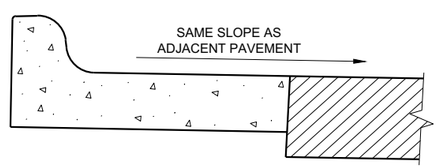
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

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.

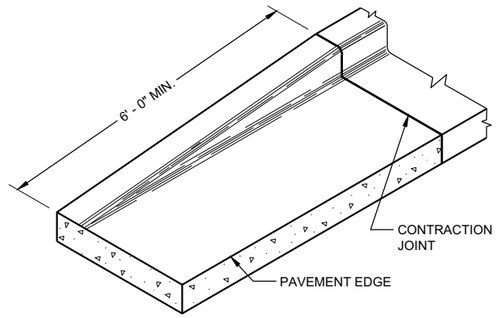
(9) CONCRETE CURB AND GUTTER 4-INCH SLOPED 30-INCH TYPE "R" AND "T" = 17 INCHES
CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE "R" AND "T" = 23 INCHES

CONCRETE CURB AND GUTTER

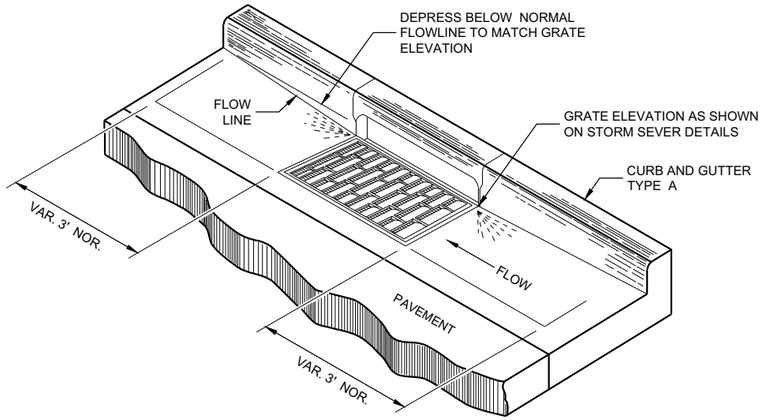
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 08D01 - 22a
SDD 08D01 - 22a



END SECTIONCURB AND GUTTER



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

GENERAL NOTES

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

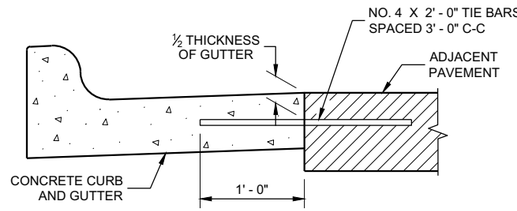
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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

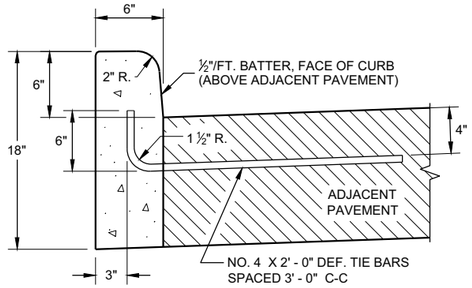
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.

(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.

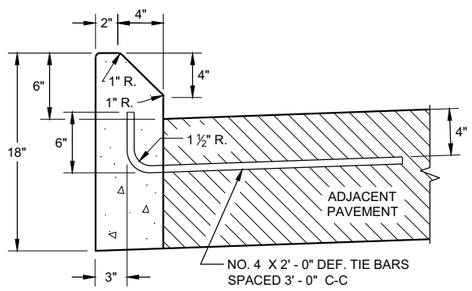
(9) REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.



TYPICAL TIE BAR LOCATION (1)

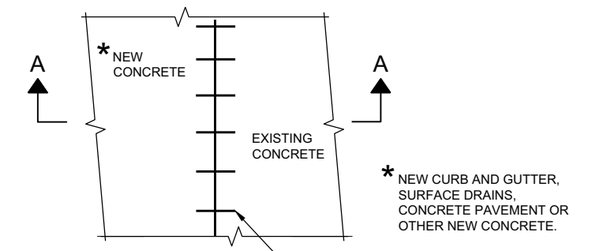


TYPES A (1) & D

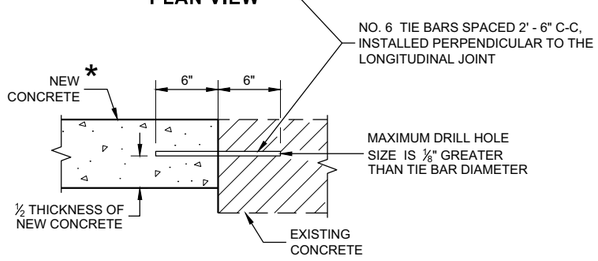


TYPES G (1) & J

CONCRETE CURB

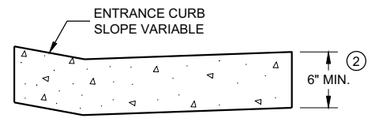


PLAN VIEW



SECTION A - A

TIE BARS DRILLED INTO EXISTING PAVEMENT



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/ Rodnery Taylor — ROADWAY STANDARDS DEVE ENGINEER

FHWA

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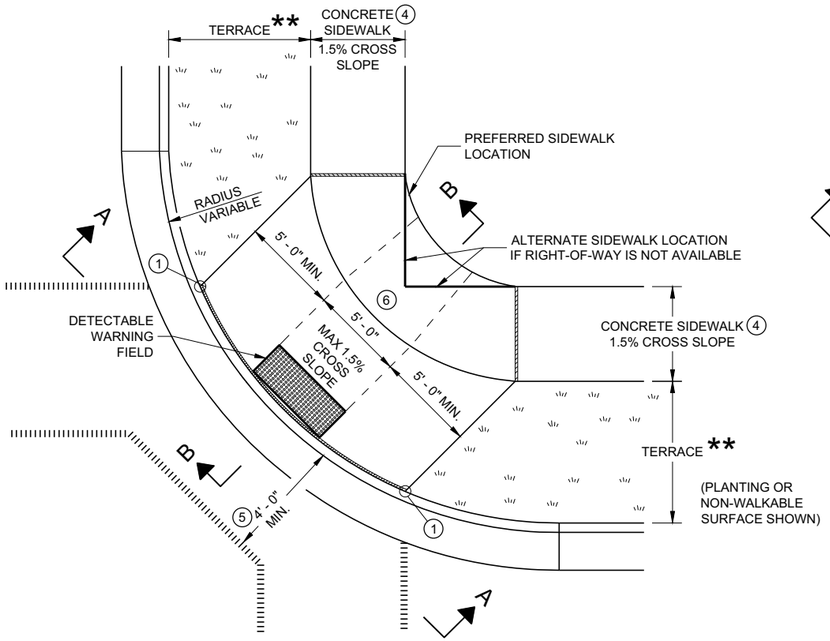
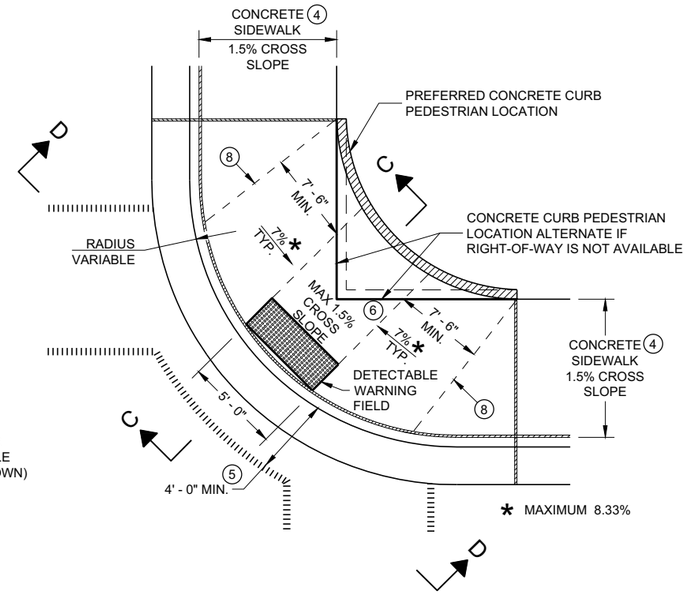
SDD08D01 - 22b



PLAN VIEW

CURB RAMP TYPE 1

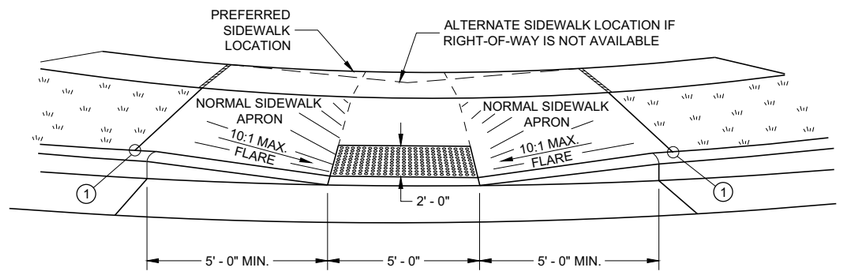
(CENTER OF CORNER RADIUS)



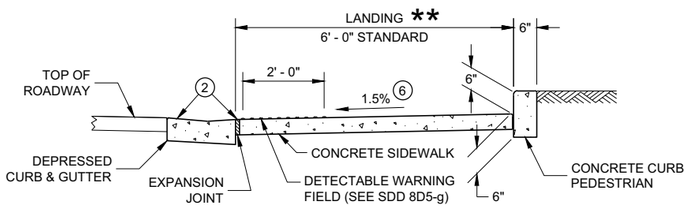
PLAN VIEW

CURB RAMP TYPE 1 - A

(NO TERRACE)

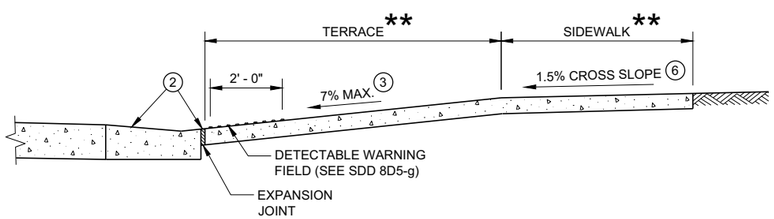


VIEW A - A FOR TYPE 1

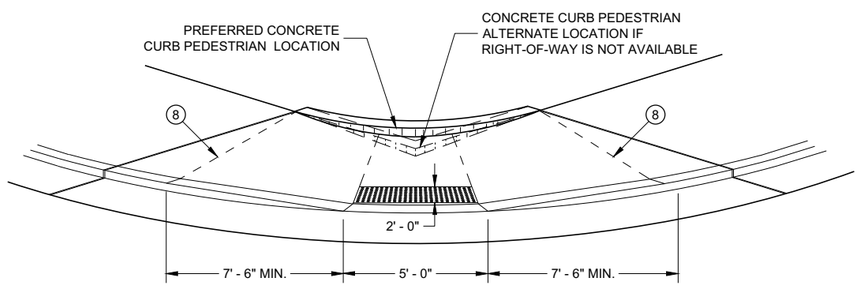


SECTION C - C FOR TYPE 1 - A

** WIDTH SHOWN ELSEWHERE IN THE PLANS



SECTION B - B FOR TYPE 1



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

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

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

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

(1) THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB. POINT LOCATION MAY BE ADJUSTED TO ALIGN WITH BEGINNING OF FULL-HEIGHT CURB IF THIS DISTANCE IS SHORT.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) MAXIMUM 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(5) PROVIDE A LEVEL LANDING IN THE STREET AND GUTTER AREA (2% MAXIMUM SLOPE IN ANY DIRECTION). WHEN THE GUTTER SLOPE EXCEEDS 2%, CONSTRUCT THE LEVEL LANDING IN THE STREET AREA.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

LEGEND

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

CURB RAMPS
TYPE 1 AND 1-A

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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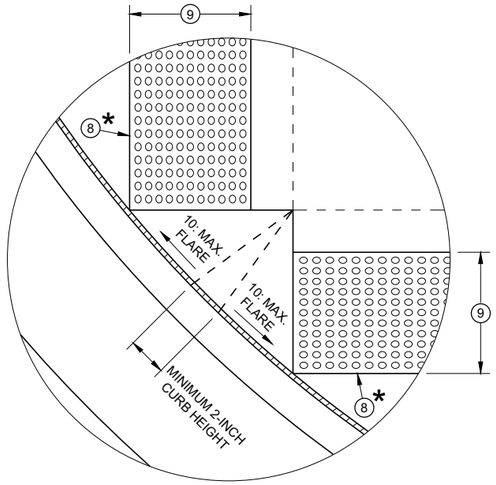
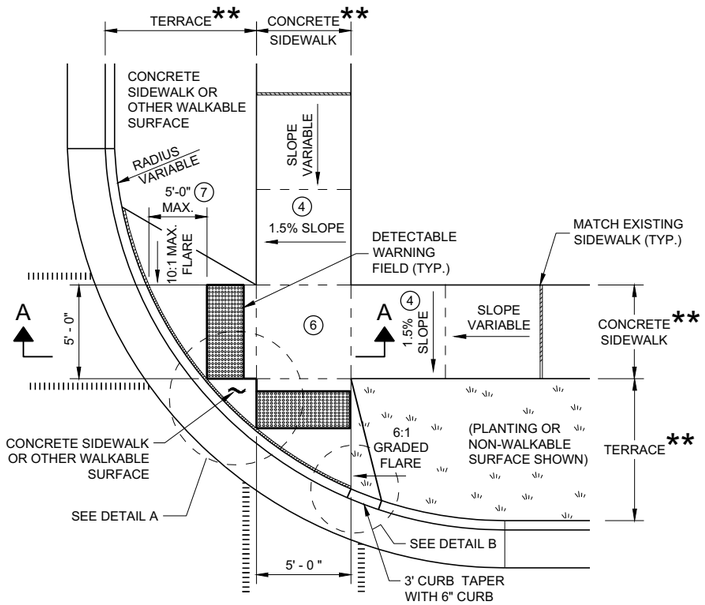
SDD 08D05 - 20a



DETAIL A



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

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 ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE (2.67% OR LESS) AND NOT TO EXCEED 11% GRADE CHANGE.

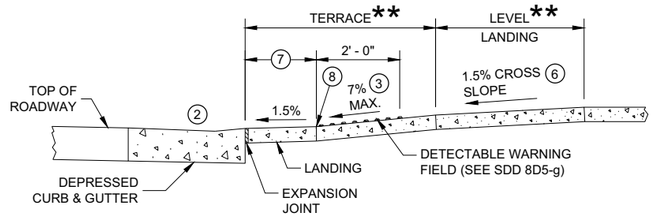
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(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.

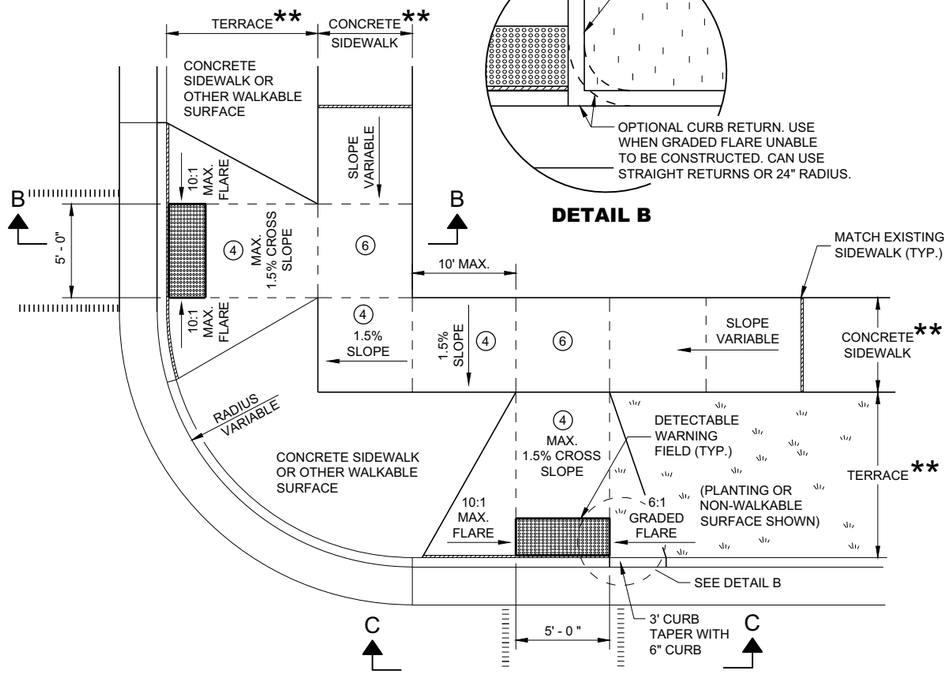
(9) WHEN DISTANCE IS LESS THAN 6' - 0", IT MAY BE DIFFICULT TO ACHIEVE A 7% SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% SLOPE OR FLATTER ON RAMP. CONSTRUCT 2-INCH MINIMUM CURB HEIGHT BETWEEN 10:1 FLARES.



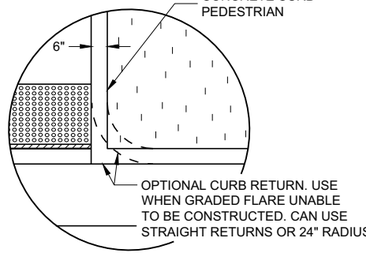
SECTION A - A FOR TYPE 2

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

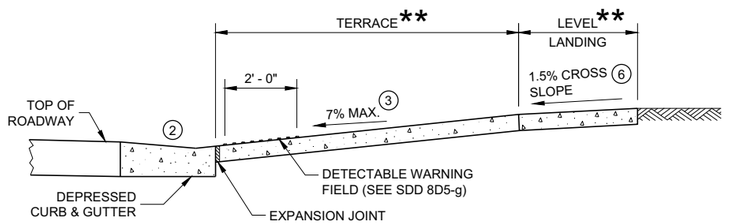
** WIDTH SHOWN ELSEWHERE IN THE PLANS



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



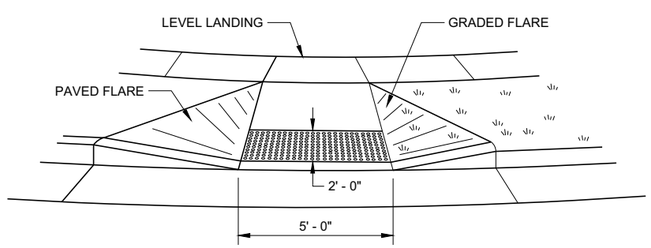
DETAIL B



SECTION B - B FOR TYPE 3

LEGEND

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



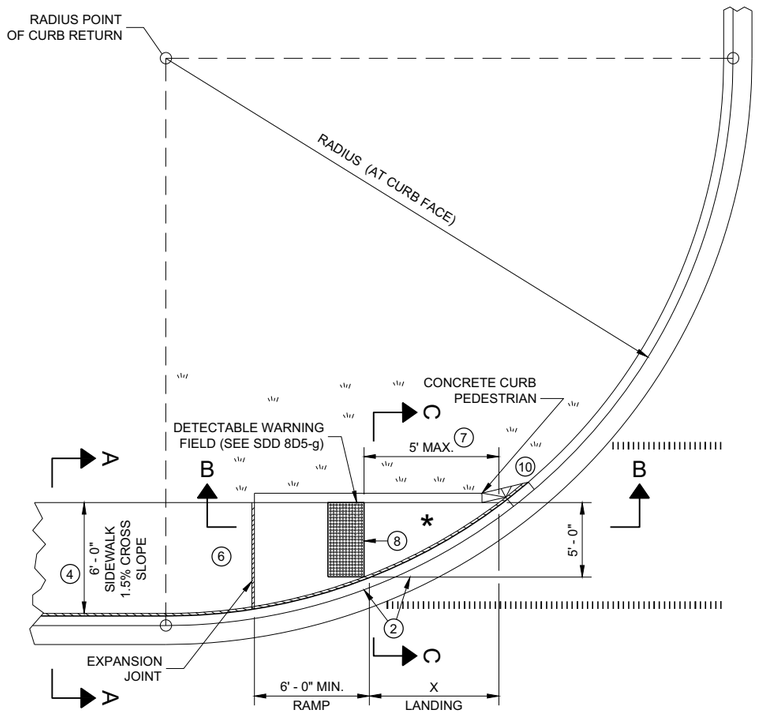
VIEW C - C FOR TYPE 3

CURB RAMPS TYPE 2 AND 3

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 08D05 - 20b

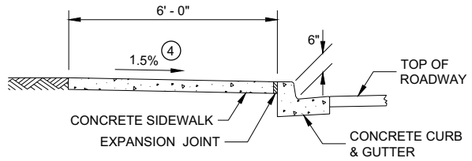


PLAN VIEW

CURB RAMP TYPE 4A

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

INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION A - A FOR TYPE 4A

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 ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) 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.

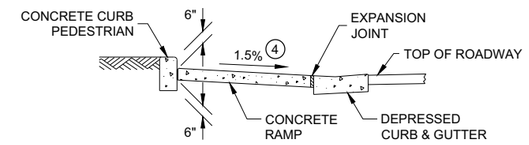
(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

LEGEND

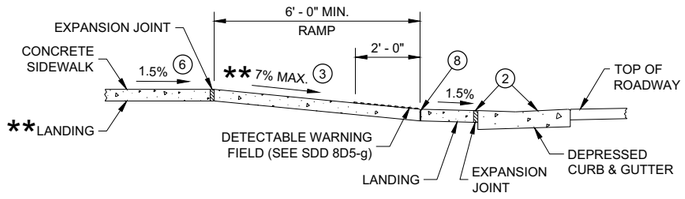
½" EXPANSION JOINT SIDEWALK

CONTRACTION JOINT SIDEWALK

PAVEMENT MARKING CROSSWALK (WHITE)



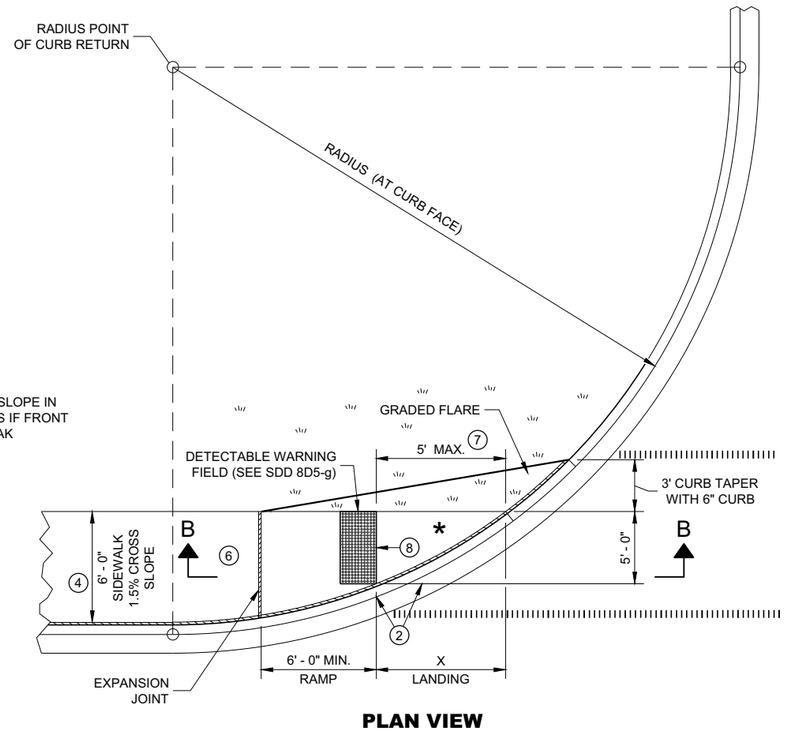
SECTION C - C FOR TYPE 4A



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

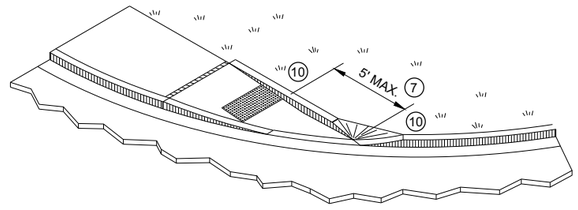
** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

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

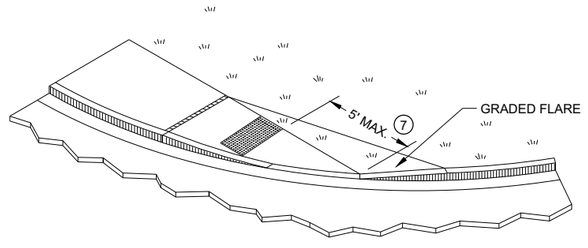


PLAN VIEW

CURB RAMP TYPE 4A1



ISOMETRIC VIEW FOR TYPE 4A



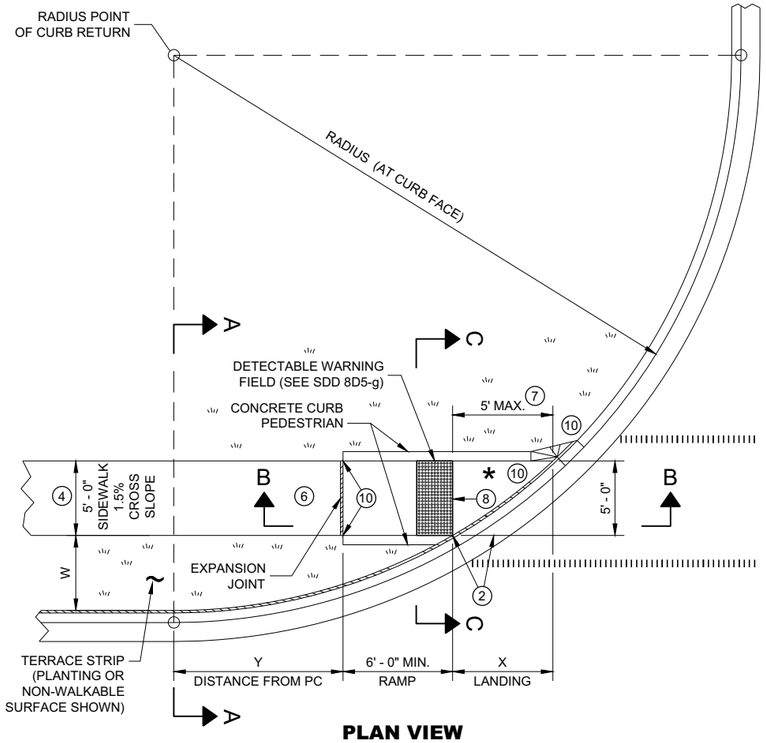
ISOMETRIC VIEW FOR TYPE 4A1

CURB RAMPS
TYPE 4A AND 4A1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 08D05 - 20c

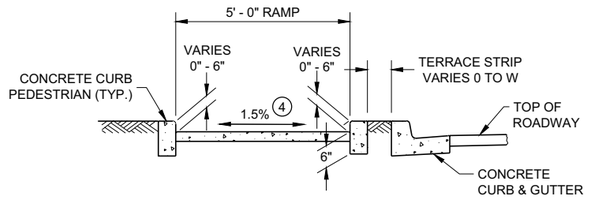


PLAN VIEW

CURB RAMP TYPE 4B

RADIUS (AT CURB FACE)	W = 3' - 0"		W = 4' - 0"		W = 5' - 0"		W = 6' - 0"		W = 7' - 0"		W = 8' - 0"		W = 9' - 0"		W = 10' - 0"	
	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
10 FEET	2' - 10 ¼"	0' - 5"	2' - 1"	1' - 4 ½"	1' - 5"	2' - 1"	0' - 10"	2' - 7 ½"	0' - 3 ¼"	3' - 0 ¼"						
15 FEET	4' - 6 ¾"	2' - 1 ¾"	3' - 9"	3' - 5 ¾"	3' - 1 ¼"	4' - 6"	2' - 6 ¾"	5' - 4 ½"	2' - 1"	6' - 1"	1' - 8"	6' - 8 ½"	1' - 3 ¼"	7' - 2 ½"	0' - 10 ¾"	7' - 7 ¼"
20 FEET	5' - 9 ¾"	3' - 6 ½"	4' - 11 ½"	5' - 1 ¾"	4' - 3 ¼"	6' - 5 ½"	3' - 8 ¾"	7' - 7"	3' - 3"	8' - 6 ½"	2' - 10"	9' - 4 ½"	2' - 5 ½"	10' - 1 ¼"	2' - 1 ¼"	10' - 9"
30 FEET			6' - 9 ¼"	7' - 11 ¼"	6' - 0 ¼"	9' - 8"	5' - 5"	11' - 1 ¾"	4' - 10 ¾"	12' - 5 ¾"	4' - 5 ½"	13' - 7 ¾"	4' - 0 ¾"	14' - 8 ½"	3' - 8 ½"	15' - 8 ¼"
40 FEET									6' - 1 ¾"	15' - 8 ½"	5' - 8"	17' - 2"	5' - 3"	18' - 5 ¾"	4' - 10 ¾"	19' - 8 ¼"
50 FEET															5' - 10 ¼"	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

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

GENERAL NOTES

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

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

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

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

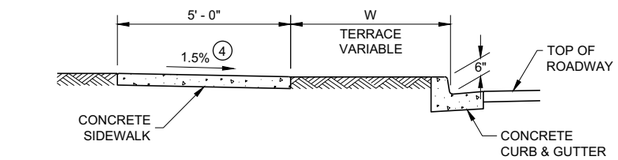
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

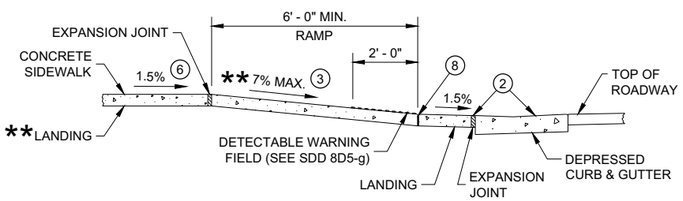
(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

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



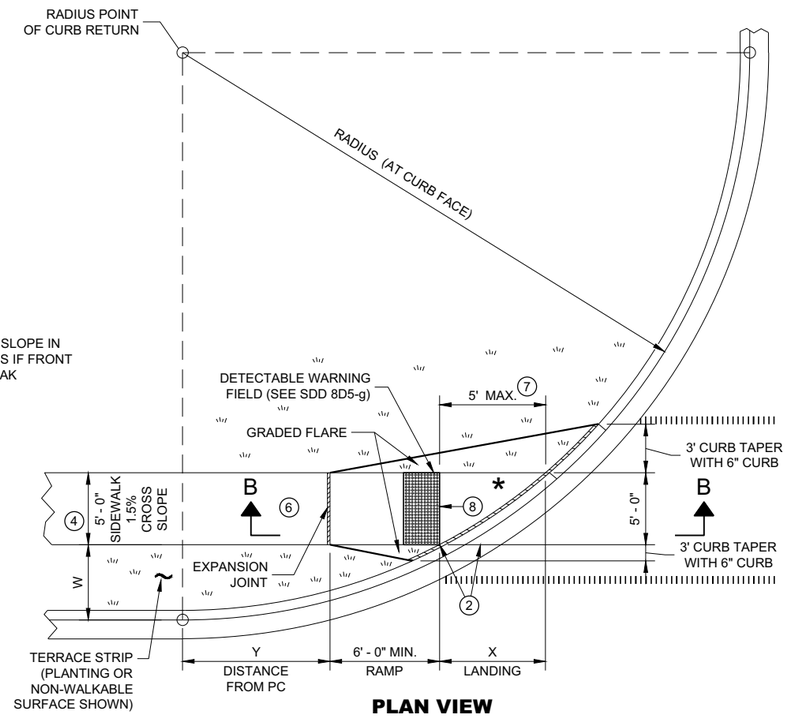
SECTION A - A FOR TYPE 4B



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

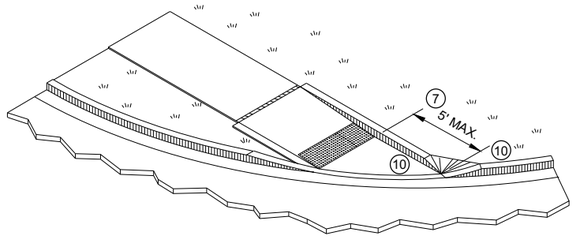
SECTION B - B FOR TYPE 4B AND TYPE 4B1

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

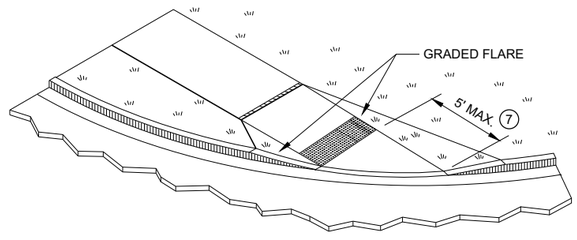


PLAN VIEW

CURB RAMP TYPE 4B1



ISOMETRIC VIEW FOR TYPE 4B



ISOMETRIC VIEW FOR TYPE 4B1

CURB RAMPS TYPE 4B AND 4B1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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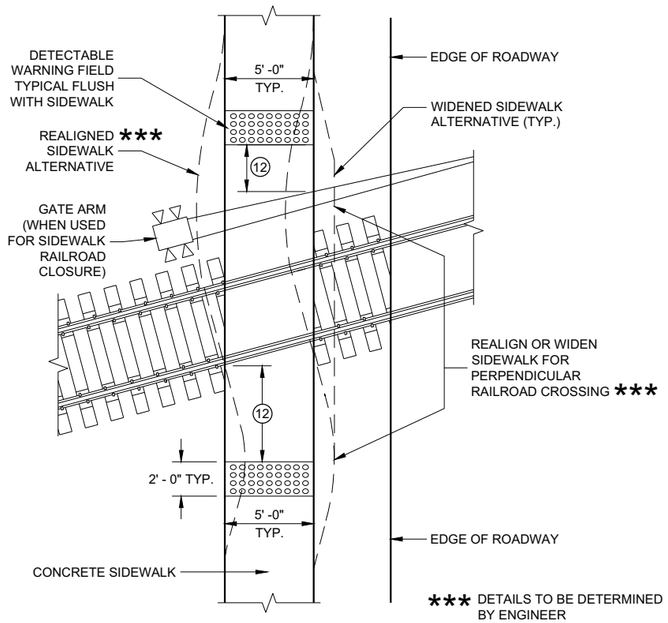
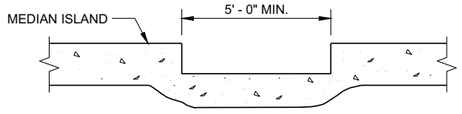
SDD 08D05 - 20d

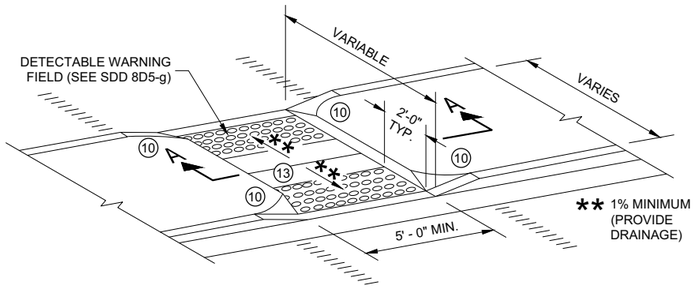


CURB RAMP TYPE 8

DETECTABLE WARNINGS AT RAILROAD CROSSING



SECTION A - A FOR TYPE 5



CURB RAMP TYPE 5

MEDIAN ISLAND NON-ELEVATED PEDESTRIAN CROSSING

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 ½ - 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.

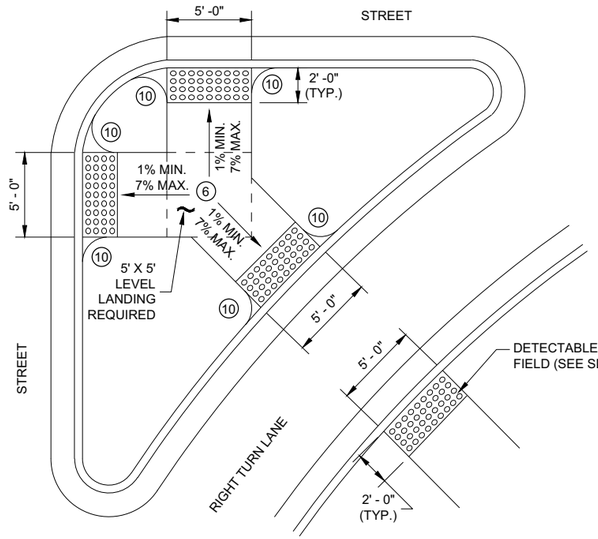
(11) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

(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

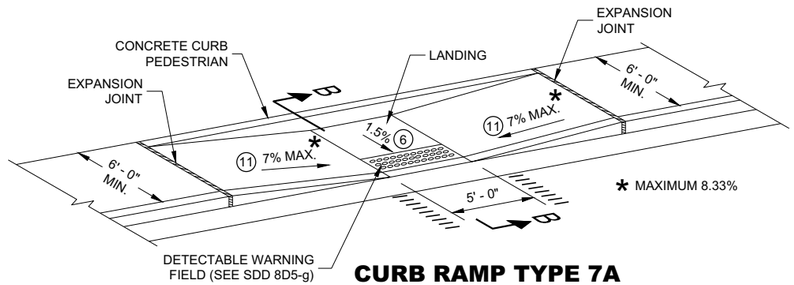
- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)



CURB RAMP TYPE 6

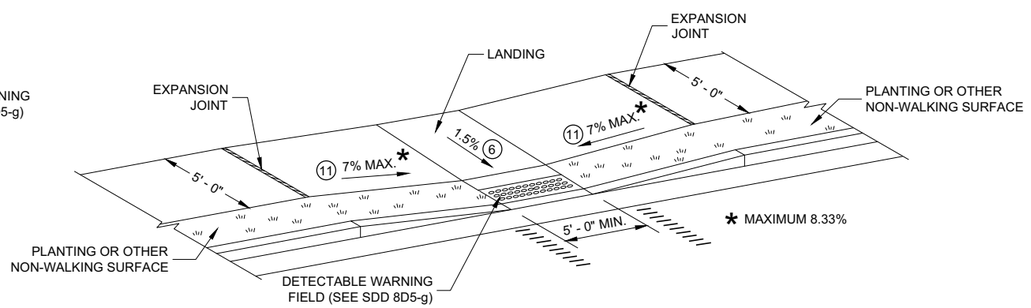
DETECTABLE WARNING AT ISLANDS

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



CURB RAMP TYPE 7A

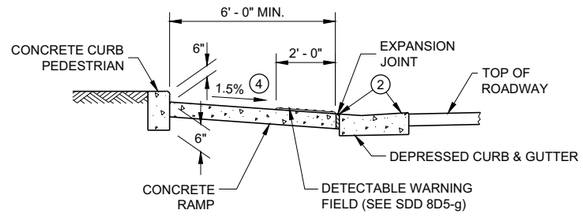
MID BLOCK CROSSING



CURB RAMP TYPE 7B

MID BLOCK CROSSING

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



SECTION B - B FOR TYPE 7A

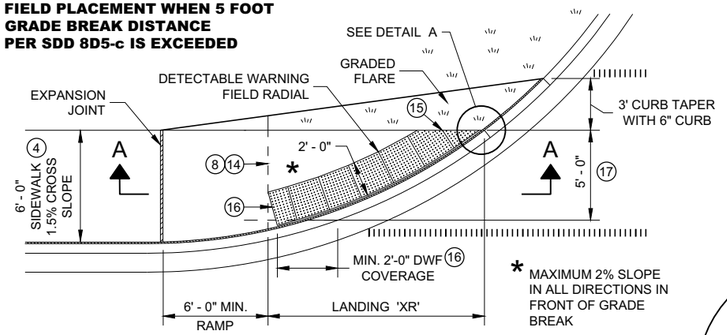
CURB RAMPS TYPE 5, 6, 7A, 7B & 8

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 08D05 - 20e

SDD 08D05 - 20e

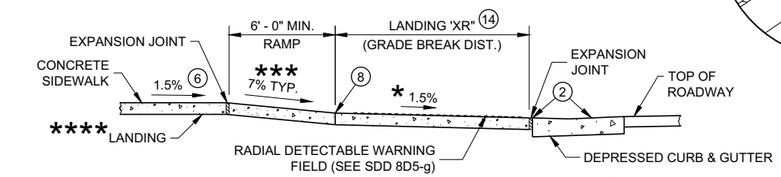
RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-c IS EXCEEDED



PLAN VIEW

CURB RAMP TYPE 4A1

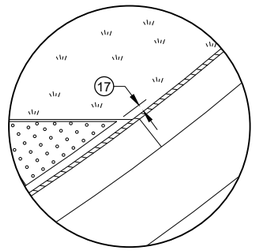
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



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

*** MAXIMUM 8.33%

SECTION A - A FOR TYPE 4A1



DETAIL A

LEGEND

- ½" 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.

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 FILED ARE PROHIBITED.

DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AD 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 ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) 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.

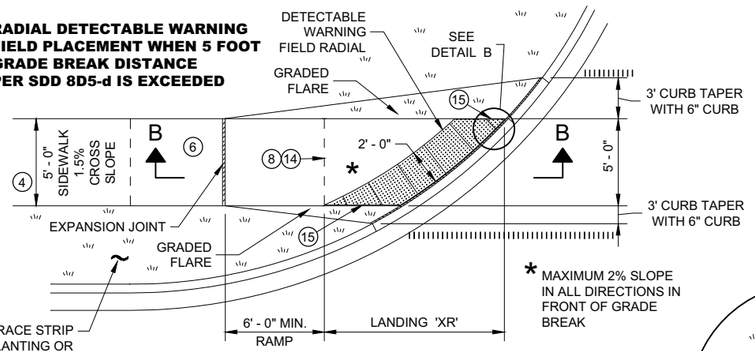
(14) CONSULT ENGINEER IF GRADE BREAK LOCATION (END OF LANDING DIMENSION "XR") REQUIRES FIELD ADJUSTMENT WHEN ESTABLISHING FINAL RADIAL DETECTABLE WARNING FIELD LOCATION.

(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 ⅛" 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.

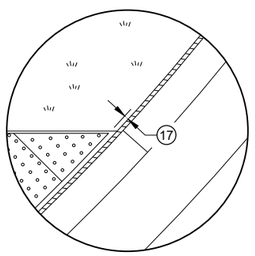
RADIAL DETECTABLE WARNING FIELD PLACEMENT WHEN 5 FOOT GRADE BREAK DISTANCE PER SDD 8D5-d IS EXCEEDED



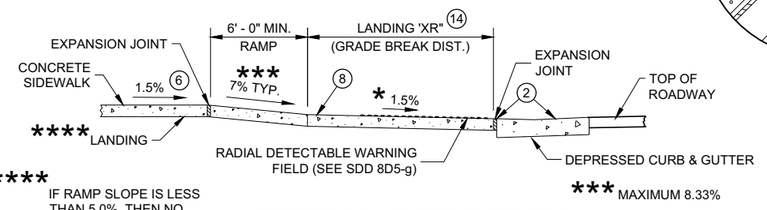
PLAN VIEW

CURB RAMP TYPE 4B1

(GRADE BREAK DISTANCE GREATER THAN 5 FEET)



DETAIL B

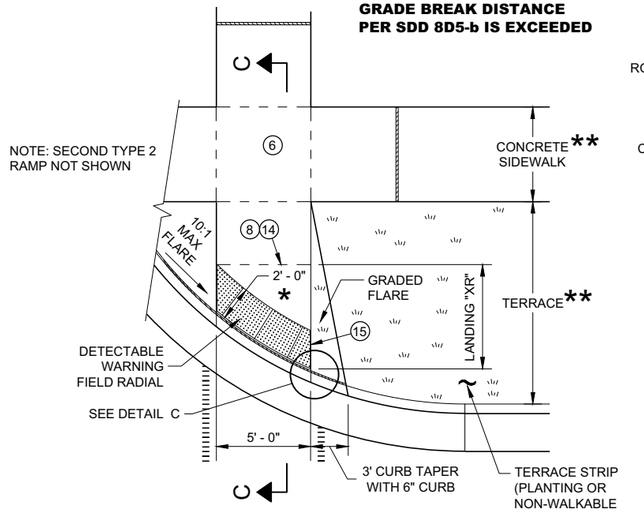


**** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

*** MAXIMUM 8.33%

SECTION B - B FOR TYPE 4B1

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

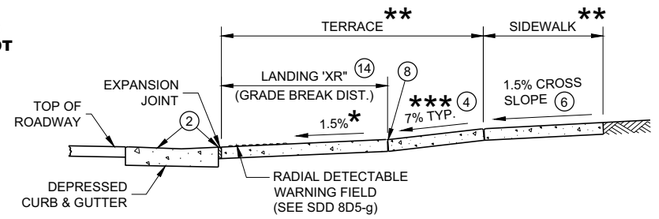


PLAN VIEW

CURB RAMP TYPE 2

(GRADE BREAK DISTANCE GREATER THAN 5 FEET)

(ON LINE WITH SIDEWALK)

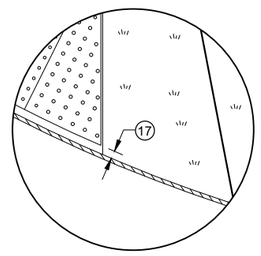


SECTION C - C FOR TYPE 2

* MAXIMUM 2% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

** WIDTH SHOWN ELSEWHERE IN THE PLANS

*** MAXIMUM 8.33%



DETAIL C

CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS

STATE OF WISCONSIN
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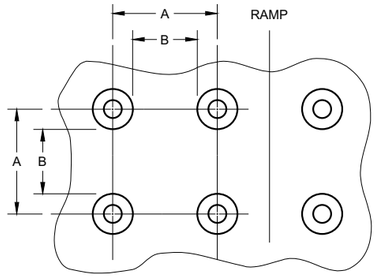
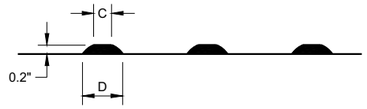
SDD 08D05 - 20f

	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.

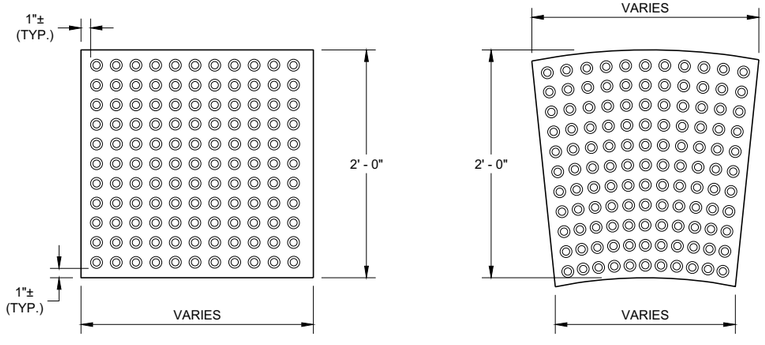


PLAN VIEW



ELEVATION VIEW

TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL



RECTANGULAR PLATES

RADIAL PLATES

PLAN VIEW
DETECTABLE WARNING FIELDS (TYPICAL)

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.

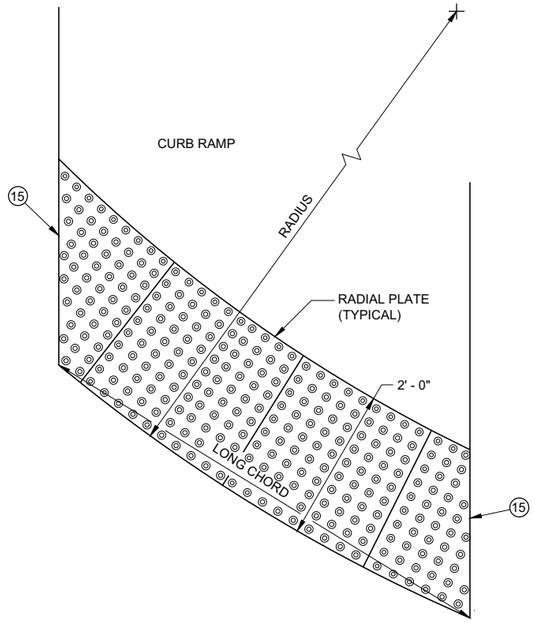
DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

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.

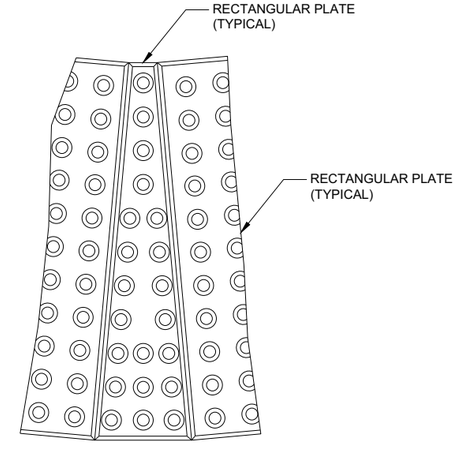
REFER TO CONTRACT AND STANDARD SPECIFICATIONS FOR FIELD CUTTING REQUIREMENTS.

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 ⅛" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.



PLAN VIEW
RADIAL DETECTABLE WARNING FIELD ATTRIBUTES



PLAN VIEW
RADIAL WEDGE PLATE CONNECTION DETAIL

CURB RAMPS
RECTANGULAR AND RADIAL
DETECTABLE WARNING PLATES

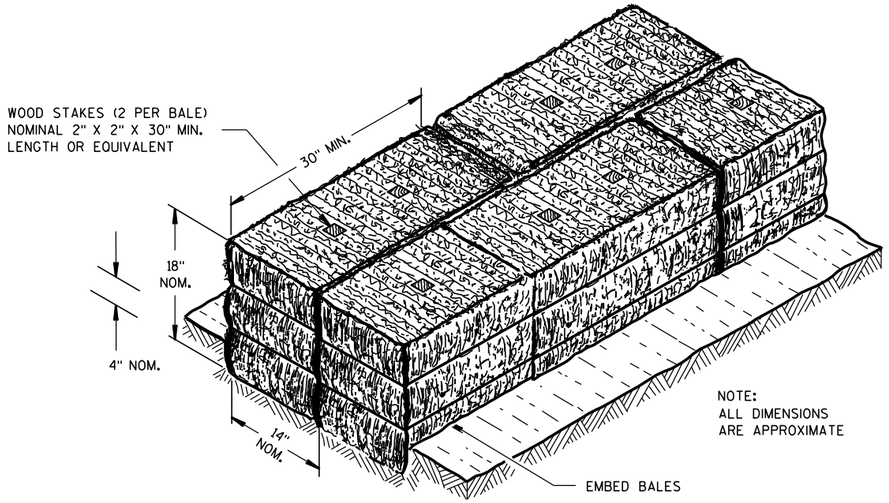
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

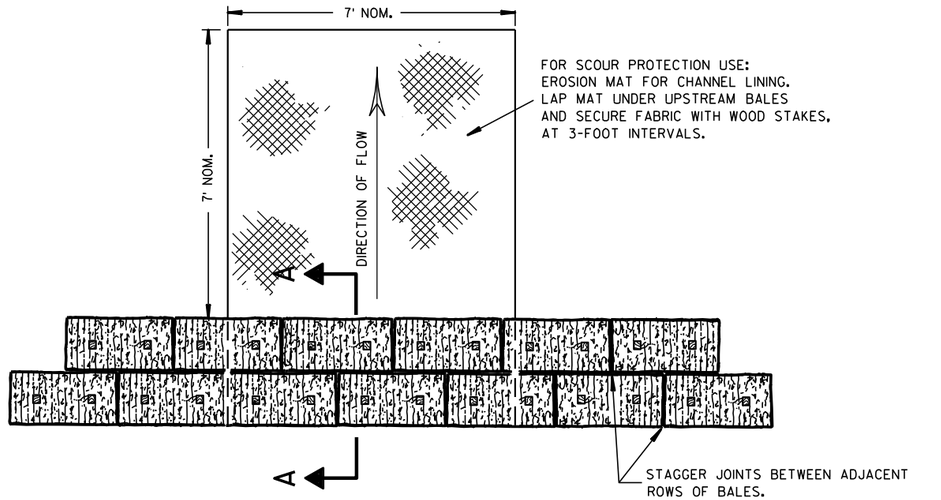
FHWA

6

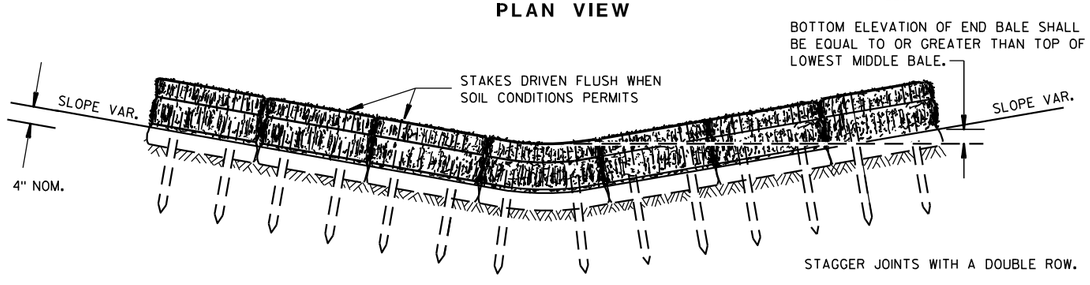
SDD 08D05 - 20g



SECTION A-A



PLAN VIEW



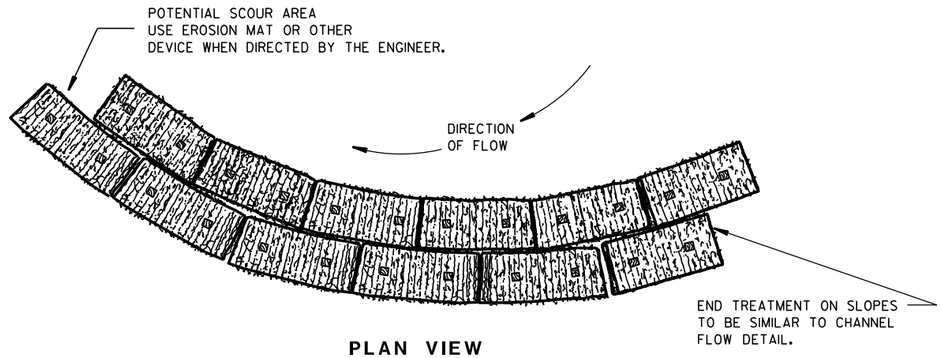
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

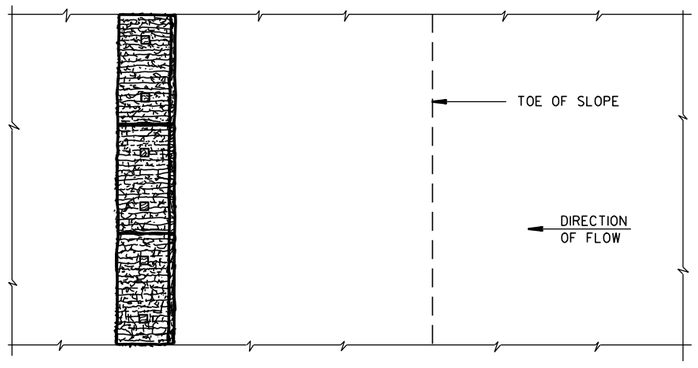
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

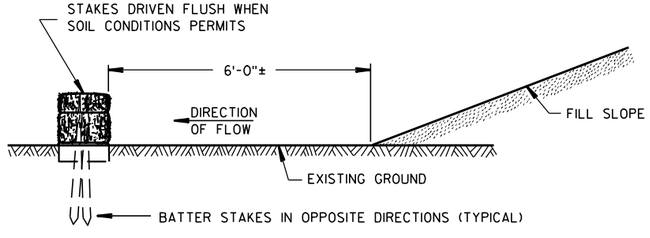


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

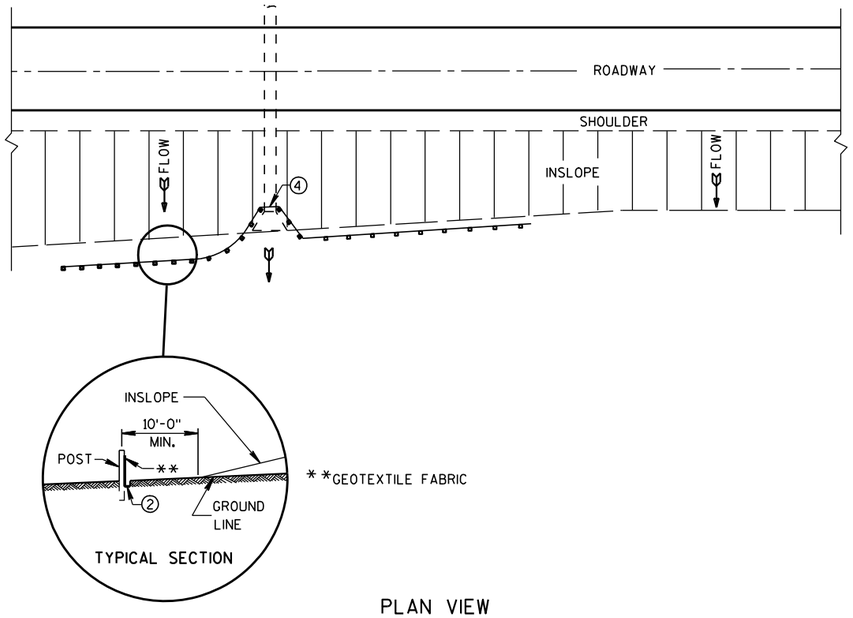
APPROVED

6/04/02 DATE — /S/ Beth Cannestra — CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

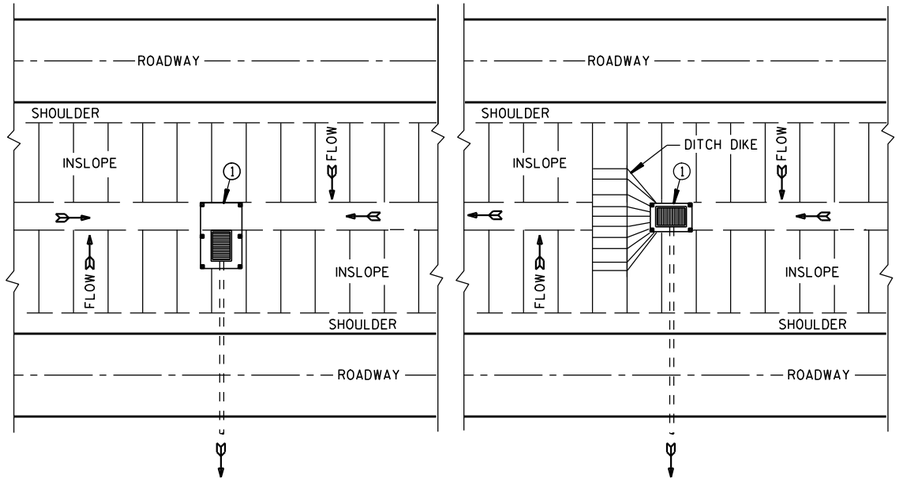
6

S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



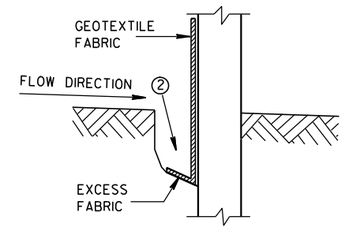
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

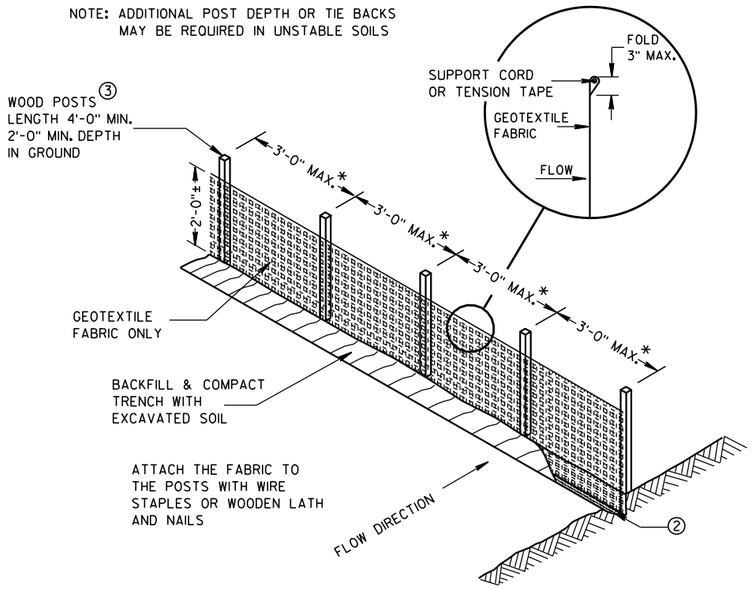
GENERAL NOTES

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

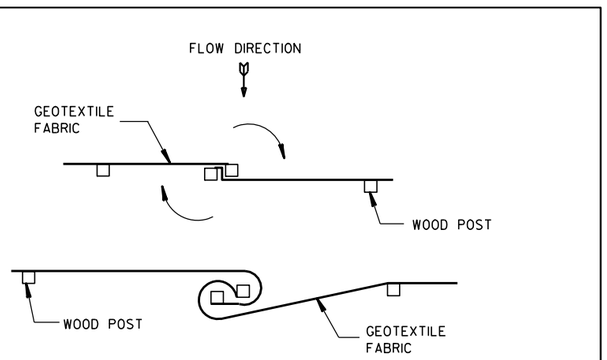
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.
4. SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
5. CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



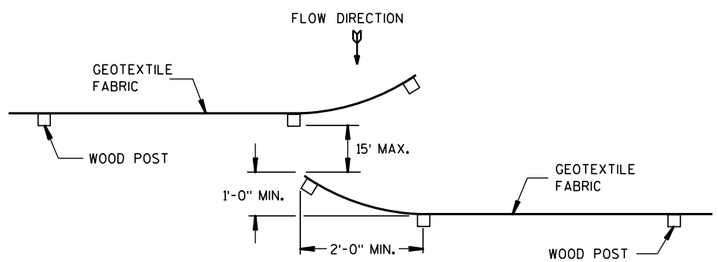
TRENCH DETAIL



SILT FENCE

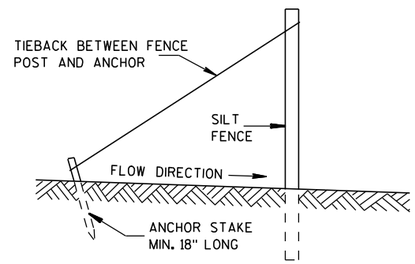


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE 5



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

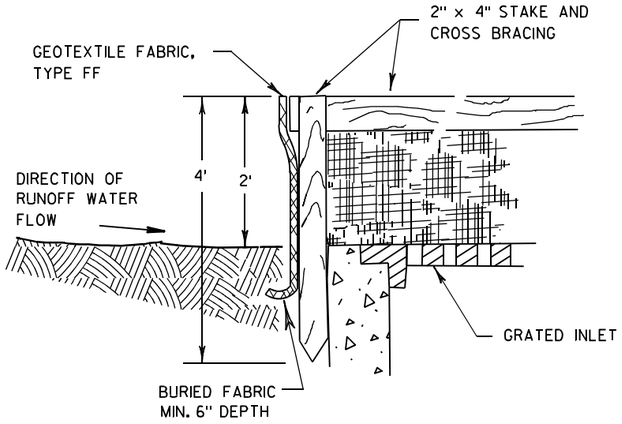
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

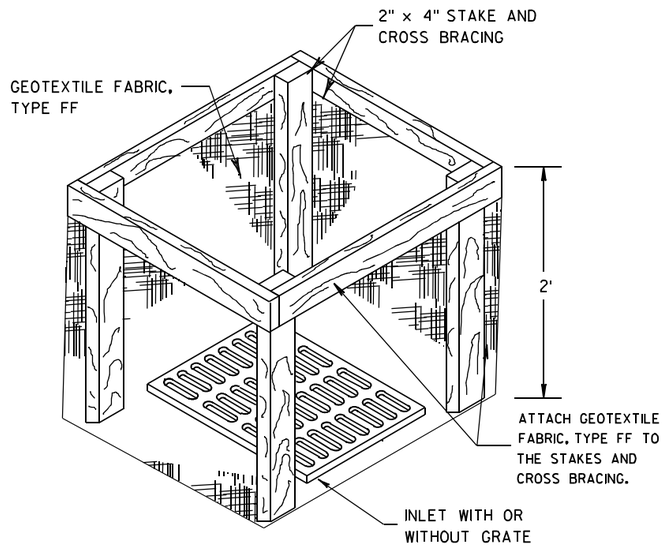
6

S.D.D. 8 E 9-6

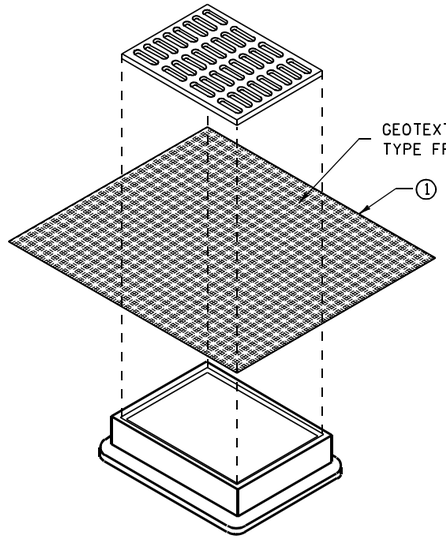
6

S.D.D. 8 E 9-6



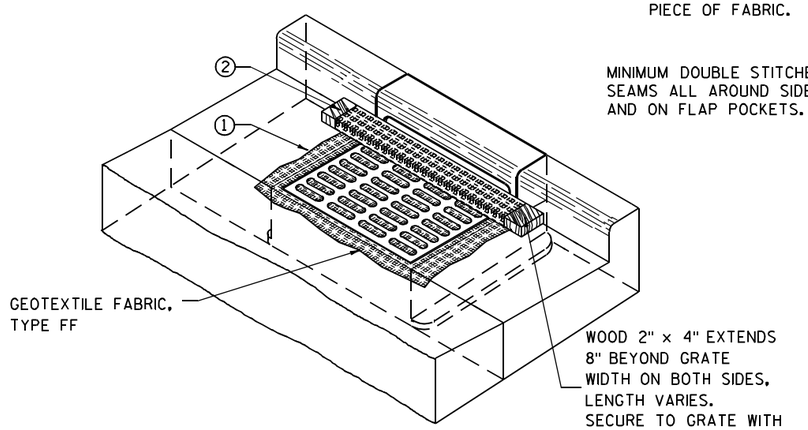


INLET PROTECTION, TYPE A

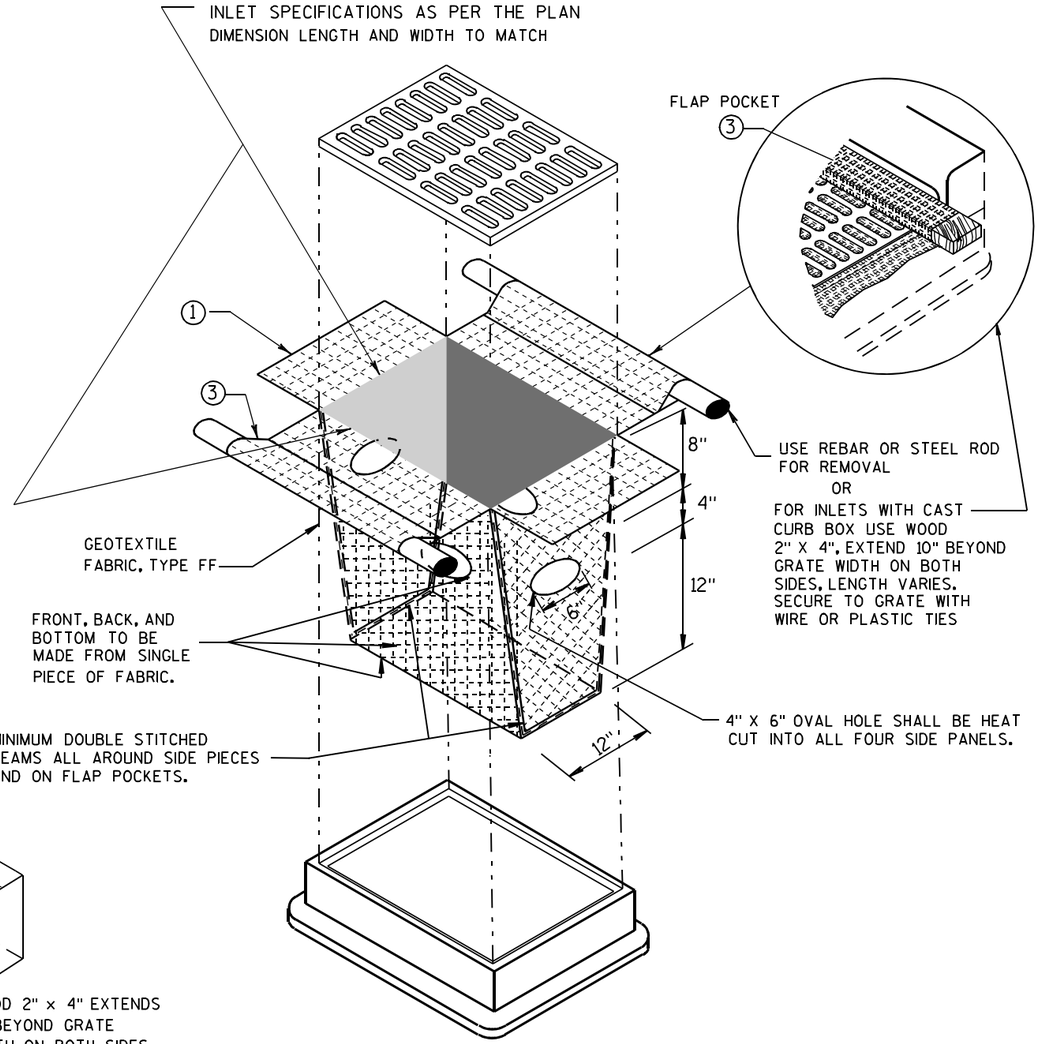


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

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



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

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

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.

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 A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/16/02
DATE

/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

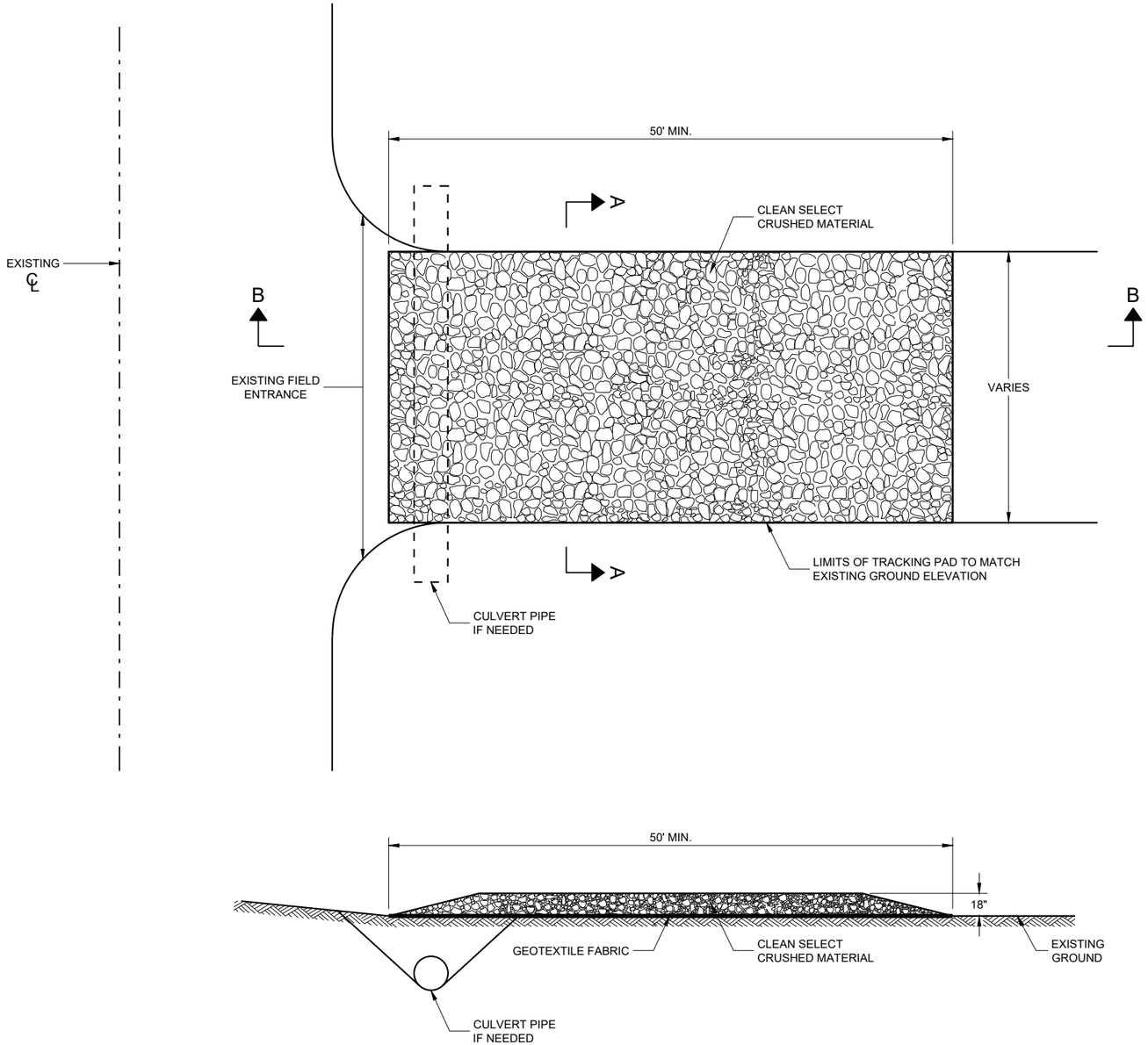
FHWA

6

S.D.D. 8 E 10-2

6

S.D.D. 8 E 10-2



SECTION B - B

GENERAL NOTES

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

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

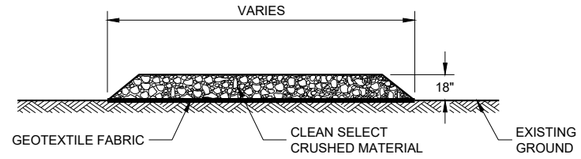
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

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

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

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

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



SECTION A - A

TRACKING PAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/24/2011
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVE ENGINEER
277
FHWA

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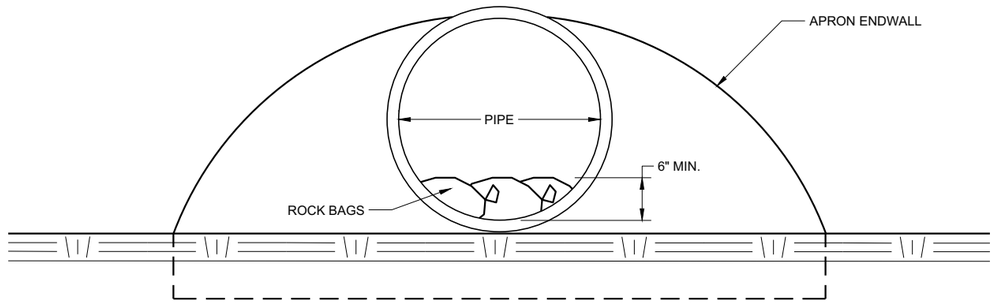
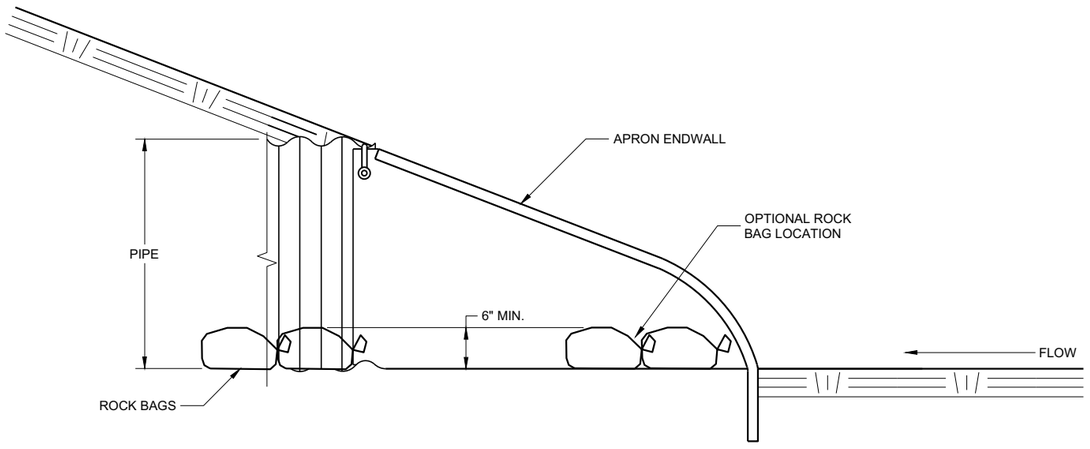
SDD 08E14 - 01



END VIEW



SIDE VIEW

CULVERT PIPE CHECK

(INSTALL ON INLET END ONLY)

CULVERT PIPE CHECK

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019 — DATE
/S/ Daniel Schave — EROSION CONTROL ENGI
FHWA

6

SDD 08E15 - 01

6

SDD 08E15 - 01

METAL APRON ENDWALLS

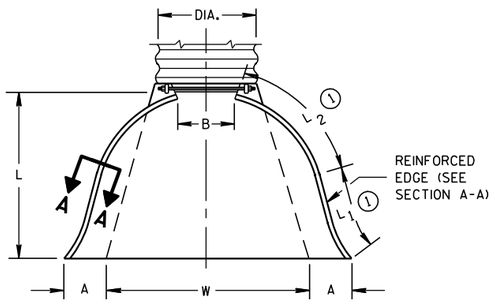
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4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

× EXCEPT CENTER PANEL SEE GENERAL NOTES

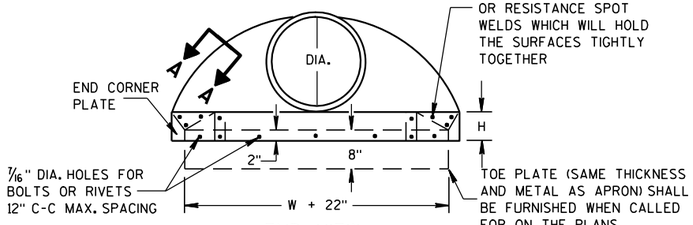
REINFORCED CONCRETE APRON ENDWALLS

PIPE DIA. (IN.)	DIMENSIONS (Inches) T	A	B	C	D	E	G	APPROX. SLOPE
12	2	4	24	48 7/8	72 1/8	24	2	3 to 1
15	2 1/4	6	27	46	73	30	2 1/4	3 to 1
18	2 1/2	9	27	46	73	36	2 1/2	3 to 1
21	2 3/4	9	36	37 1/2	73 1/2	42	2 3/4	3 to 1
24	3	9 1/2	43 1/2	30	73 1/2	48	3	3 to 1
27	3 1/4	10 1/2	49 1/2	24	73 1/2	54	3 1/4	3 to 1
30	3 1/2	12	54	19 3/4	73 1/2	60	3 1/2	3 to 1
36	4	15	63	34 3/4	97 3/4	72	4	3 to 1
42	4 1/2	21	63	35	98	78	4 1/2	3 to 1
48	5	24	72	26	98	84	5	3 to 1
54	5 1/2	27	65	* 33 1/4 - ** 35	* 98 1/4 - ** 100	90	5 1/2	2 2/5 to 1
60	6	* 30 - ** 35	60	39	99	96	5	2 to 1
66	6 1/2	* 24 - ** 30	* 72 - ** 78	* 21 - ** 27	99	102	5 1/2	2 to 1
72	7	* 24 - ** 36	78	21	99	108	6	2 to 1
78	7 1/2	* 24 - ** 36	78	21	99	114	6 1/2	2 to 1
84	8	36	90 1/2	21	111 1/2	120	6 1/2	1 1/2 to 1
90	8 1/2	41	87 1/2	24	111 1/2	132	6 1/2	1 1/2 to 1

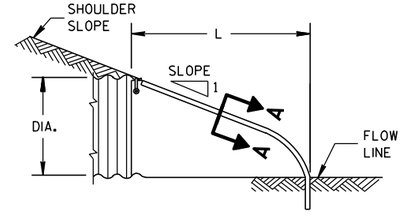
*MINIMUM
**MAXIMUM



PLAN VIEW

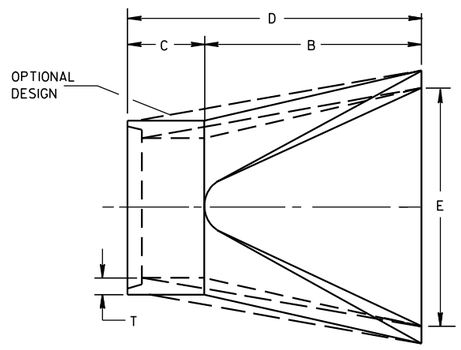


END VIEW

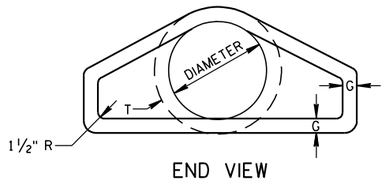


SIDE ELEVATION

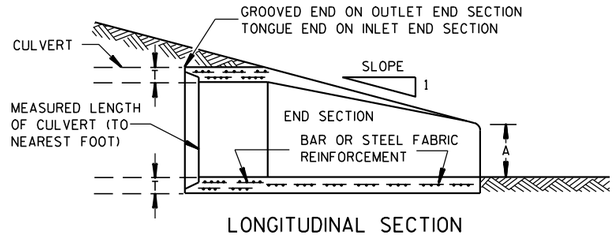
METAL ENDWALLS



PLAN

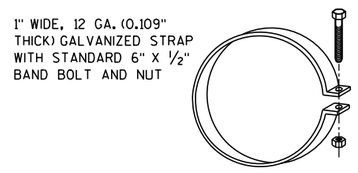


END VIEW



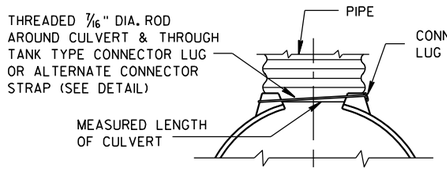
LONGITUDINAL SECTION

CONCRETE ENDWALLS

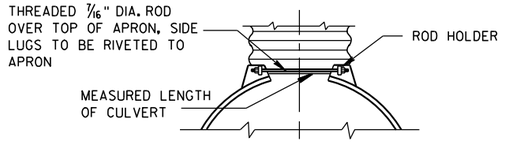


ALTERNATE FOR TYPE 1 CONNECTION

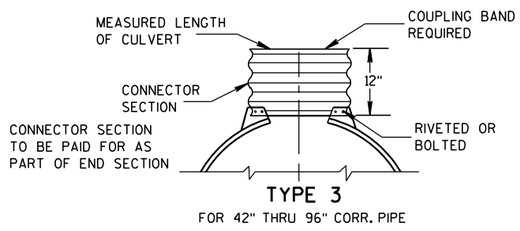
END SECTION CONNECTOR STRAP



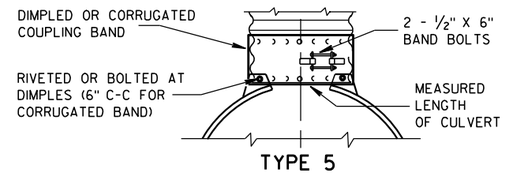
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

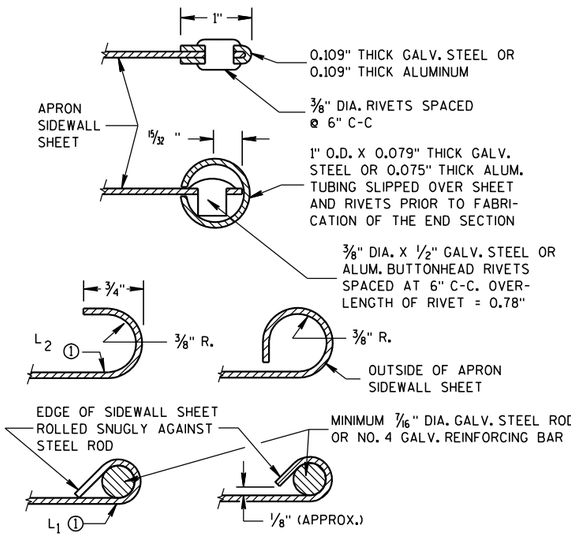
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

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

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

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

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

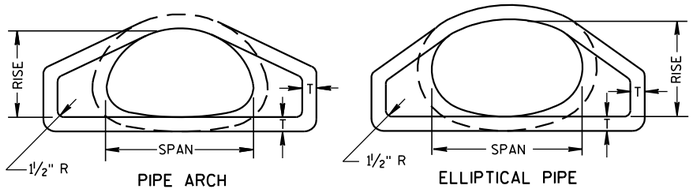
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

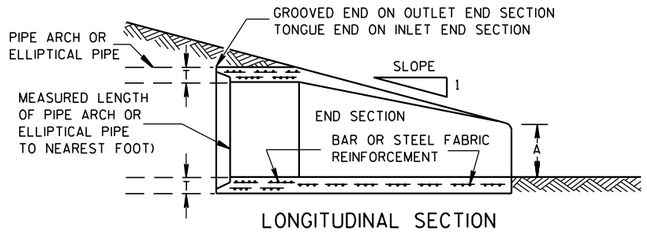
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

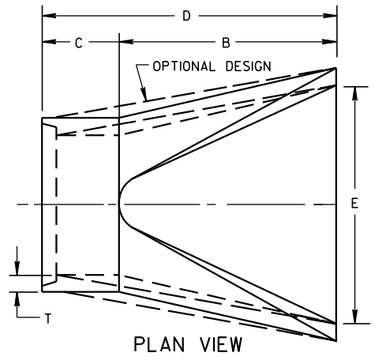
6
S.D.D. 8 F 1-11



END VIEW

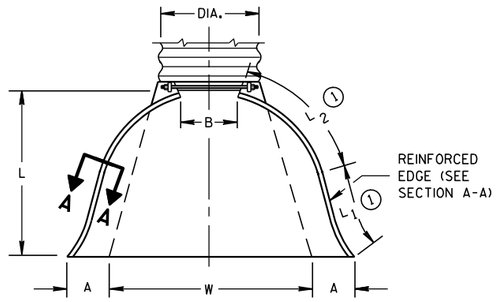


LONGITUDINAL SECTION

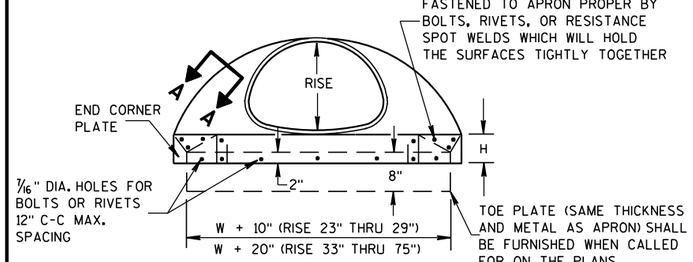


PLAN VIEW

CONCRETE ENDWALLS

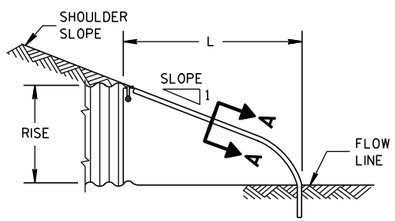


PLAN VIEW



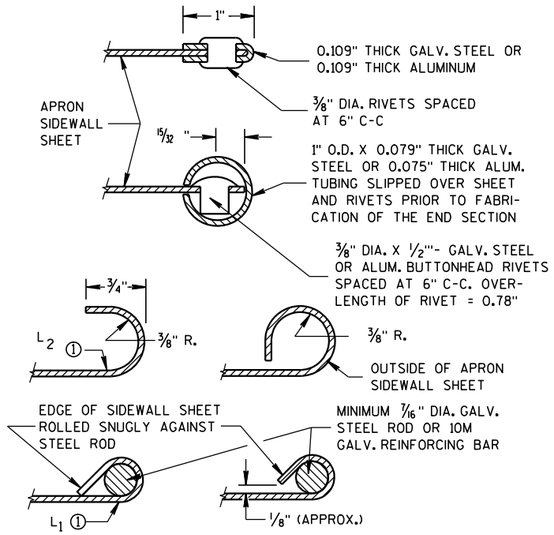
END CORNER PLATES MAY BE FASTENED TO APRON PROPER BY BOLTS, RIVETS, OR RESISTANCE SPOT WELDS WHICH WILL HOLD THE SURFACES TIGHTLY TOGETHER

END VIEW



SIDE ELEVATION

METAL ENDWALLS



SECTION A-A

2- 2/3" X 1/2" CORRUGATIONS

EQUIV. DIA. (Inches)	(Inches) SPAN	(Inches) RISE	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
15	17	13	.064	.060	7	9	6	19	14	16	30	2½ to 1	1 Pc.
18	21	15	.064	.060	7	10	6	23	14	19⅜	36	2½ to 1	1 Pc.
21	24	18	.064	.060	8	12	6	28	18	21¾	42	2½ to 1	1 Pc.
24	28	20	.064	.060	9	14	6	32	18	27½	48	2½ to 1	1 Pc.
30	35	24	.079	.075	10	16	6	39	18	37⅝	60	2½ to 1	1 Pc.
36	42	29	.079	.075	12	18	8	46	24	45⅜	75	2½ to 1	1 Pc.
42	49	33	.109	.105	13	21	9	53	24	54¾	85	2½ to 1	2 Pc.
48	57	38	.109	.105	18	26	12	63	24	68	90	2½ to 1	3 Pc.
54	64	43	.109	.105	18	30	12	70	24	72¾	102	2¼ to 1	3 Pc.
60	71	47	.109*	.105*	18	33	12	77	30	82¼	114	2¼ to 1	3 Pc.
66	77	52	.109*	.105*	18	36	12	77	—	—	126	2 to 1	3 Pc.
72	83	57	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.

3" X 1" CORRUGATIONS

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

NOTE: ALL SPLICES TO BE LAP RIVETED OR BOLTED.

* EXCEPT CENTER PANEL SEE GENERAL NOTES

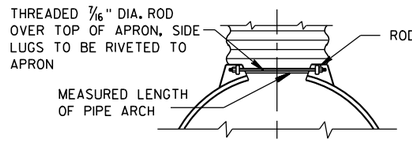
REINFORCED CONCRETE PIPE ARCH

EQUIV. DIA. (Inches)	DIMENSIONS (Inches) ** SPAN	** RISE	T	A	B	C	D	E	APPROX. SLOPE
24	29	18	3	8½	39	33	72	48	3 to 1
30	36	22	3½	9½	50	46	96	60	3 to 1
36	44	27	4	11⅛	60	36	96	72	3 to 1
42	51	31	4½	15 13/16	60	36	96	78	3 to 1
48	58	36	5	21	60	36	96	84	3 to 1
54	65	40	5½	25½	60	36	96	90	3 to 1
60	73	45	6	31	60	36	96	96	3 to 1
72	88	54	7	31	60	39	99	120	2 to 1
84	102	62	8	28½	83	19	102	144	2 to 1

REINFORCED CONCRETE ELLIPTICAL PIPE

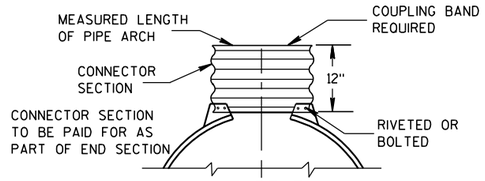
EQUIV. DIA. (Inches)	DIMENSIONS (Inches) ** SPAN	** RISE	T	A	B	C	D	E	APPROX. SLOPE
24	30	19	3¼	8½	39	33	72	48	3 to 1
30	38	24	3¾	9½	54	18	72	60	3 to 1
36	45	29	4½	11⅛	60	24	84	72	2½ to 1
42	53	34	5	15¾	60	36	96	78	2½ to 1
48	60	38	5½	21	60	36	96	84	2½ to 1
54	68	43	6	25½	60	36	96	90	2½ to 1
60	76	48	6½	30	60	36	96	96	2½ to 1

**NOMINAL SIZE



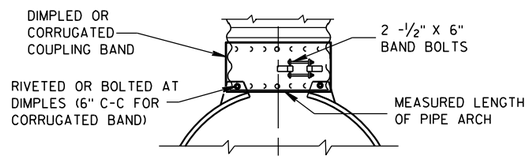
TYPE 2

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



TYPE 3

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



TYPE 5

ALTERNATE FOR:

ALL SIZES CORRUGATED PIPE ARCHES

NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL.

CONNECTION DETAILS

GENERAL NOTES

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

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

ALL THREE PIECE STEEL APRON ENDWALLS FOR 66" X 51" PIPE ARCH AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 66" X 51" PIPE ARCH AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE ARCH PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 77" X 52" THROUGH 112" X 75" APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

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

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

APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

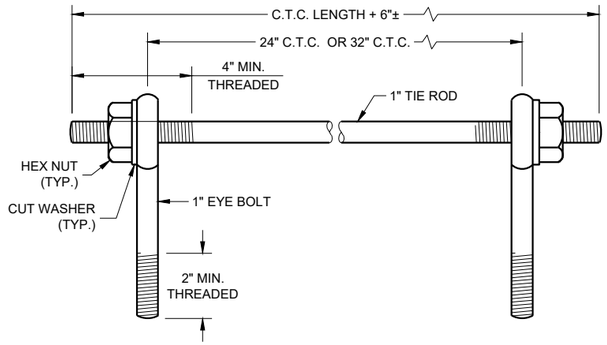
11/30/94 — DATE

/S/ Rory L. Rhinesmith — CHIEF ROADWAY DEVELOPMENT ENGINEER

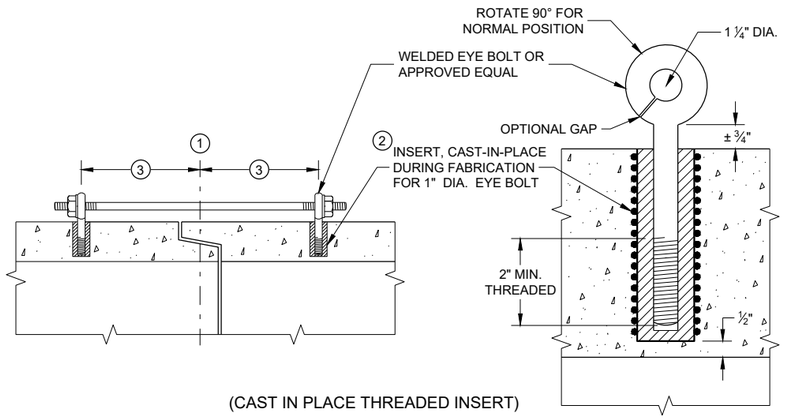
FHWA

6

S.D.D. 8 F 2-1



EYE BOLTS AND TIE ROD



(CAST IN PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 1)

GENERAL NOTES

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

CONCRETE CULVERT AND STORM SEWER PIPE SHALL BE TIED TOGETHER IN THE MANNER ILLUSTRATED BY THIS DETAIL AT LOCATIONS DESIGNATED IN THE STANDARD SPECIFICATIONS AND THE PLAN. THE CONTRACTOR MAY USE EITHER ALTERNATE 1, 2 OR 3 FOR DRAINAGE STRUCTURES. ONLY ALTERNATE 1 AND 3 MAY BE USED FOR CATTLE PASSES, UNLESS OTHERWISE STATED IN THE CONTRACT. THE MATERIALS, FABRICATION AND WORK NECESSARY TO TIE THE PIPE BY THIS DETAIL WILL BE CONSIDERED INCIDENTAL TO THE PIPE AND APRON ENDWALLS IF REQUIRED.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

(1) CENTER LINE OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.

(2) THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

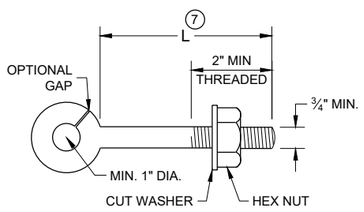
(3) HOLES SHALL BE CAST-IN-PLACE OR DRILLED PER THE APPLICABLE DETAIL, AND EQUAL DISTANCE FROM THE CENTERLINE OF THE JOINT.

(4) BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

(5) OPENING TO BE ROD DIAMETER PLUS 1 INCH.

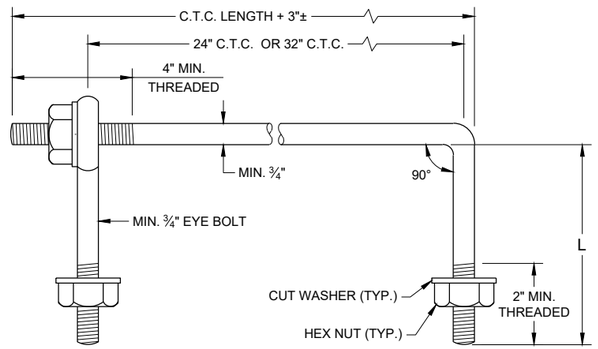
(6) LENGTH ADEQUATE TO EXTEND TO WITHIN ½ INCH OF THE INNER SURFACE OF THE PIPE.

(7) EYE BOLT LENGTH DETERMINED BY WALL THICKNESS, BELL THICKNESS AND BOLT PROJECTION INSIDE PIPE.

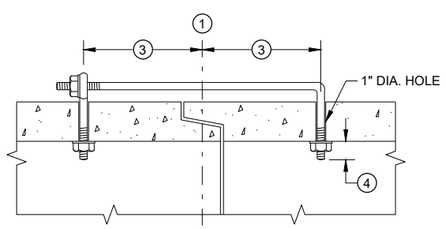


EYE BOLT (7)

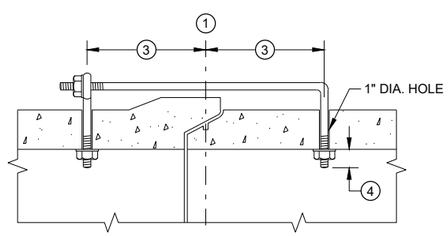
NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" OR 38" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD



(TONGUE AND GROOVE PIPE)



(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

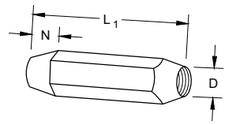
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)

ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12 - 60	⅝	⅝	5	½
66 - 84	¾	¾	5	½
90 - 144	1	1	7	1 7/16

DIMENSIONS SHOWN ARE IN INCHES



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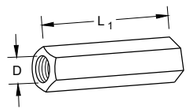
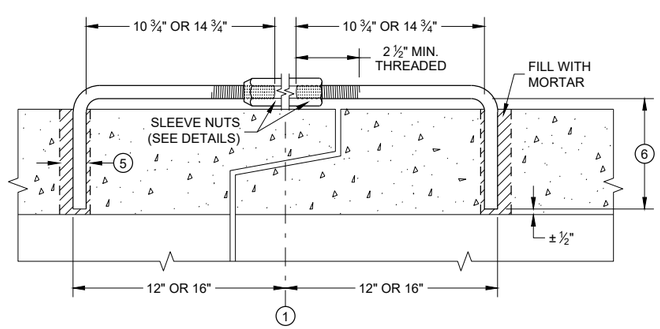


PLAIN

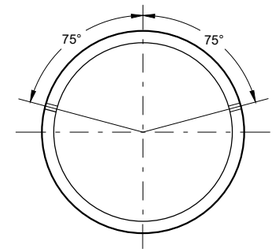
RIGHT AND LEFT THREADS

SLEEVE NUTS



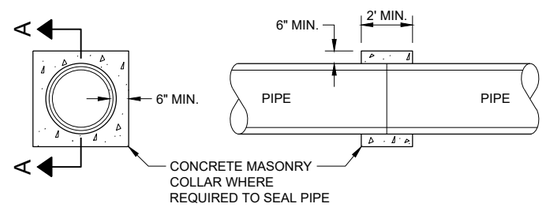
LONGITUDINAL SECTION

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



PLACEMENT OF (2) CAST-IN-PLACE INSERTS OR HOLES DURING FABRICATION FOR PIPE SECTIONS REQUIRING TIE RODS

TRANSVERSE SECTION



SECTION A - A

CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

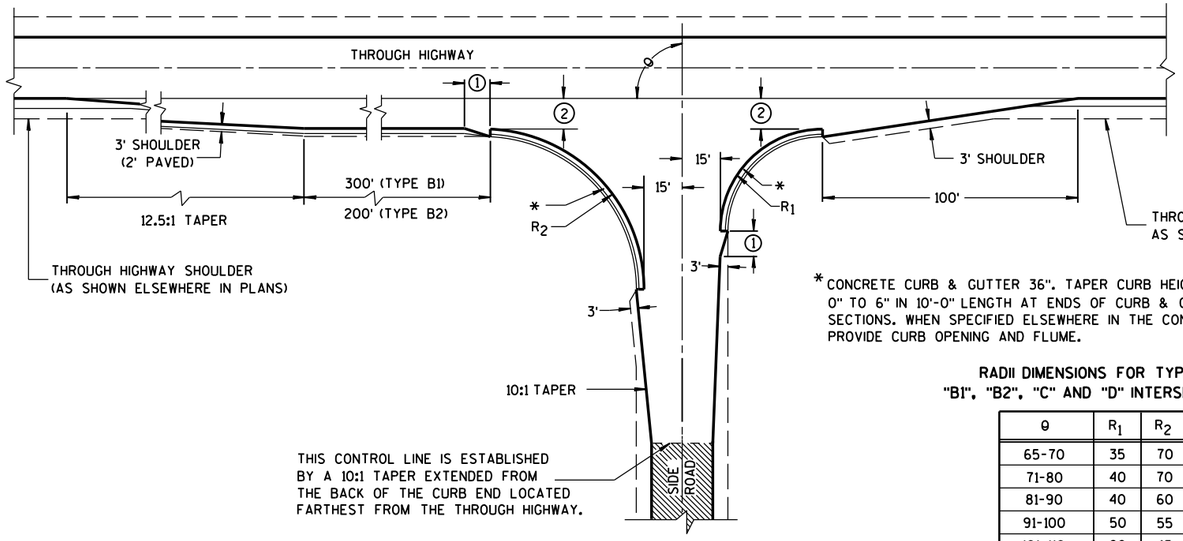
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2021 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER

FHWA

SDD 08F04 - 08

SDD 08F04 - 08

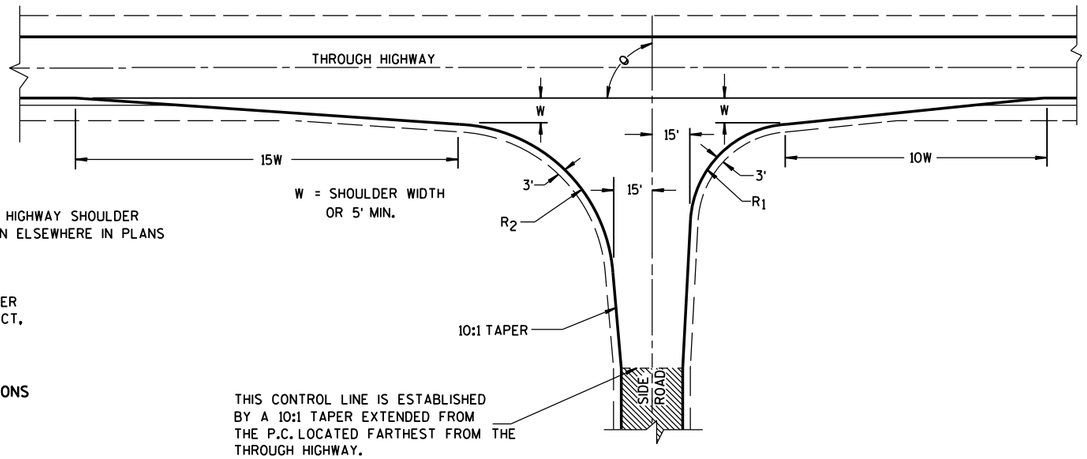


TYPE "B1" AND "B2"

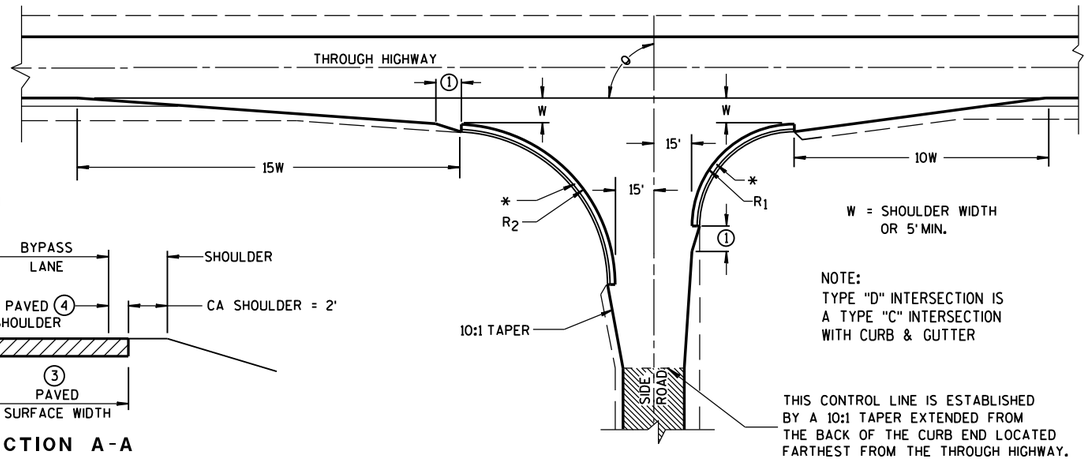
*CONCRETE CURB & GUTTER 36". TAPER CURB HEIGHT 0" TO 6" IN 10'-0" LENGTH AT ENDS OF CURB & GUTTER SECTIONS. WHEN SPECIFIED ELSEWHERE IN THE CONTRACT, PROVIDE CURB OPENING AND FLUME.

RADII DIMENSIONS FOR TYPES "B1", "B2", "C" AND "D" INTERSECTIONS

θ	R_1	R_2
65-70	35	70
71-80	40	70
81-90	40	60
91-100	50	55
101-110	60	45



TYPE "C"



TYPE "D"

GENERAL NOTES

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

SIDE ROAD SURFACING NOTE

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

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

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

EXISTING PAVED SURFACE

BYPASS LANE

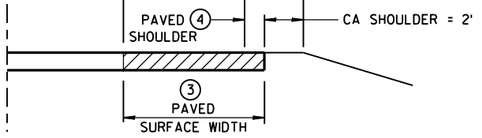
(1) 10-FT TYPICAL.

(2) 12-FT** PLUS ADDITIONAL WIDTH FOR BIKE LANE IF SHOWN ELSEWHERE IN THE PLAN.

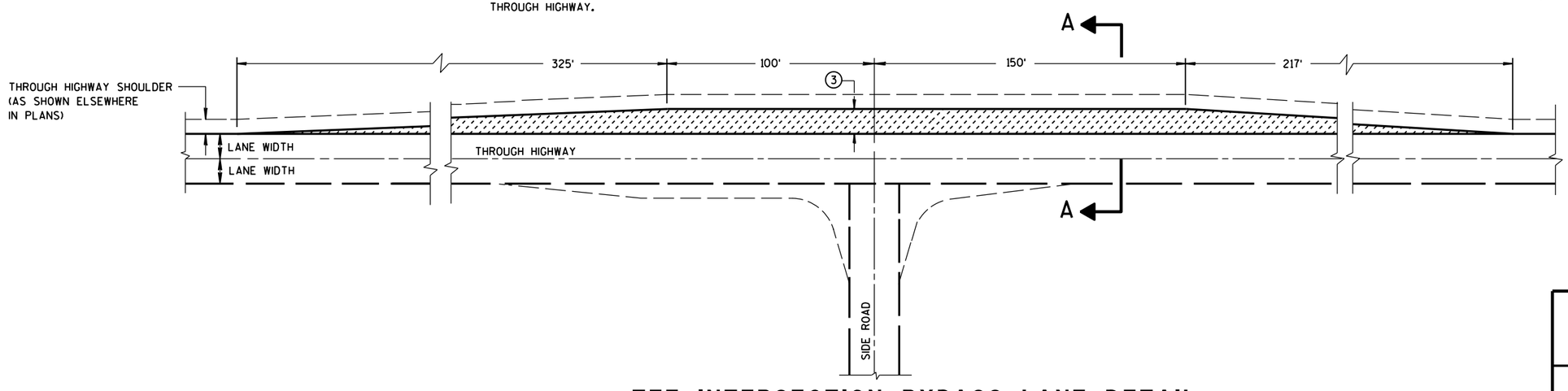
**10-FT MAY BE USED ON TYPE B2 ON RESURFACING PROJECTS IF SPECIFIED IN THE CONTRACT.

(3) BYPASS LANE PAVED SURFACE WIDTH OUTSIDE OF TRAVEL LANE
-ASPHALT = 12-FT PLUS PAVED SHOULDER WIDTH.
-PC CPNCRETE = 13-FT PLUS PAVED SHOULDER WIDTH.

(4) BYPASS LANE PAVED SHOULDER WIDTH = THE GREATER OF 1-FT OR THE PAVED SHOULDER WIDTH OF THE THROUGH HIGHWAY.



SECTION A-A
(SHOWING BYPASS LANE AND SHOULDER)



TEE INTERSECTION BYPASS LANE DETAIL

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

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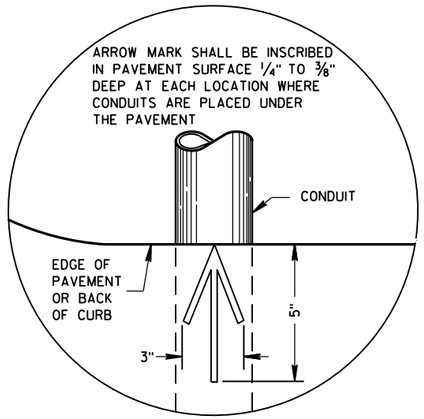
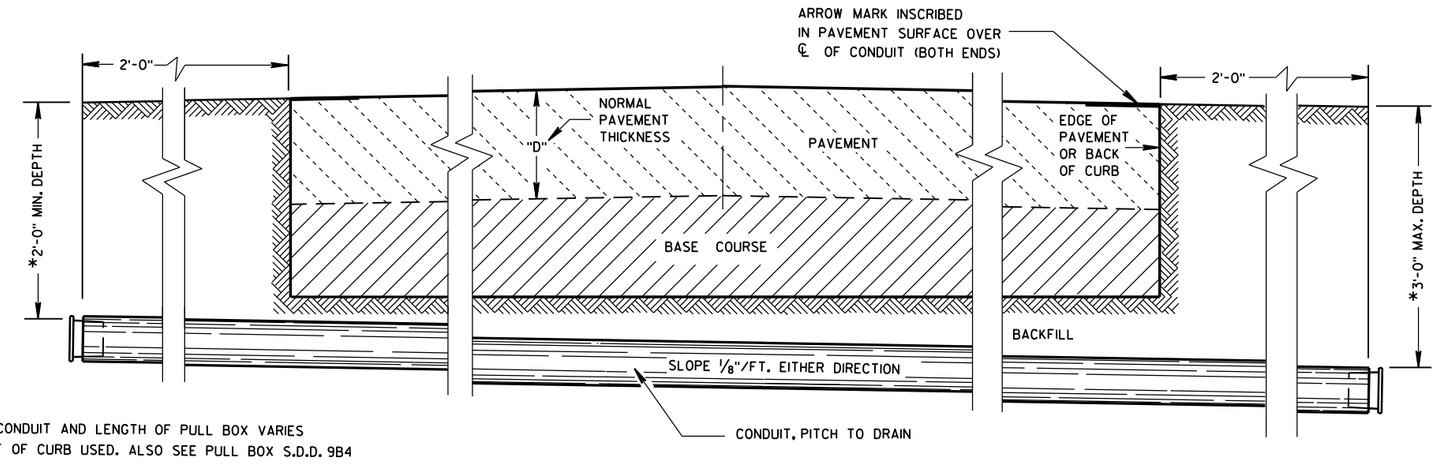
S.D.D. 9 A 1-13a



PLAN VIEW

ARROW MARK



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

SIDE ELEVATION

DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

GENERAL NOTES

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

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

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

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

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

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

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

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

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

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

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

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

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

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

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

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

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

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

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

CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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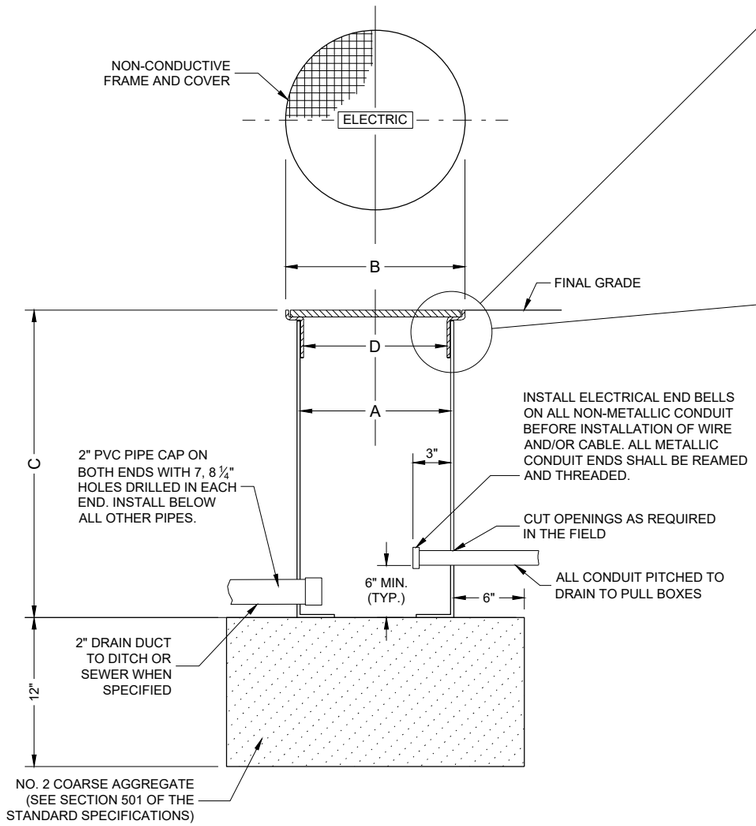
S.D.D. 9 B 2-10

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

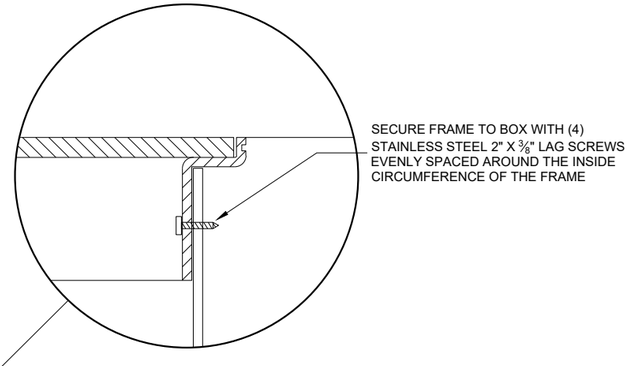
DIMENSION IN INCHES		NON- CONDUCTIVE PULL BOX	
BOX DIAMETER ** (INSIDE)	A	24	24
BOX OVERALL OUTSIDE DIAMETER	B	27	27
BOX LENGTH	C	36	42
FRAME OPENING	D	22 ½	22 ½
WEIGHT IN POUNDS *			
COVER		50	50
BOX ONLY		75	85

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

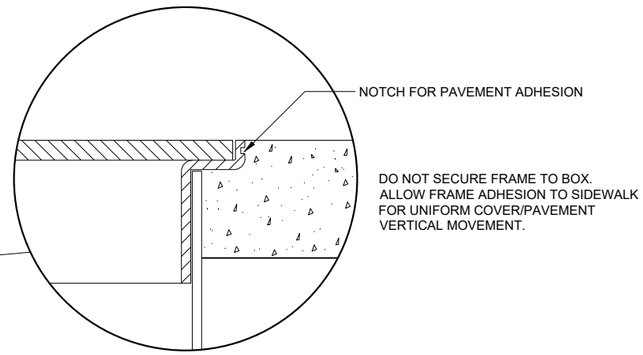
** DIAMETER VARIES FROM TOP TO BOTTOM WITH THE DIAMETER LARGER AT THE BOTTOM TO PREVENT FROST HEAVE.



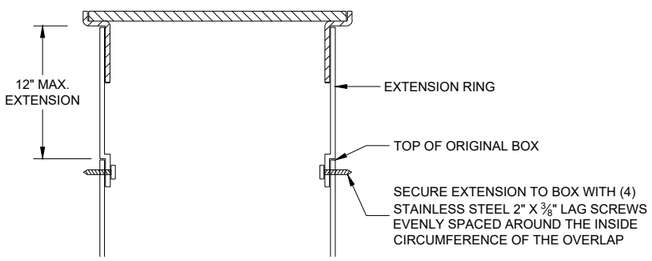
NON-CONDUCTIVE PULL BOX



INSTALLED IN SOD OR CRUSHED AGGREGATE



INSTALLED IN SIDEWALK



BOX EXTENSION

GENERAL NOTES

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

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

PROVIDE AN OPENING FOR TOOL ASSISTED COVER REMOVAL NOT LARGE ENOUGH TO PERMIT PASSAGE OF A SPHERE MORE THAN ½" DIAMETER

ENSURE COVER SURFACE IS SKID RESISTANT WITH A COEFFICIENT OF FRICTION OF AT LEAST 0.5 AND VERTICAL SURFACE DICONTINUITIES LESS THAN ¼".

COVER SHALL BE MAGNETICALLY LOCATABLE.

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

ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN ¼".

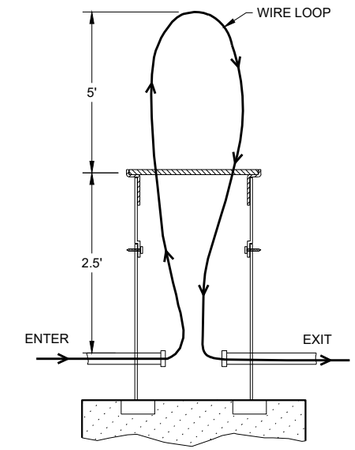
THE CONTRACTOR SHALL NOT INSTALL WIRE IN ANY PULL BOX UNTIL ITS INSTALLATION HAS BEEN INSPECTED AND ACCEPTED BY THE ENGINEER.

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

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

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

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



MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX

PULL BOXES NON-CONDUCTIVE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 284

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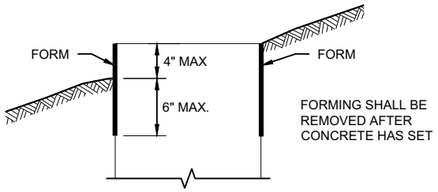
FORM DEPTH SHALL BE NO MORE THAN 6" BELOW GRADE ON THE LOWER SIDE OF BASE



FORMING DETAIL

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

GENERAL NOTES

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

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

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

CONDUIT SIZES AND LOCATIONS SHALL BE SHOWN ON THE PLANS

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

ENDS OF CONDUIT INSTALLED BELOW GRADE FRO FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON-METALLIC.

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

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

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

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

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

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

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

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

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

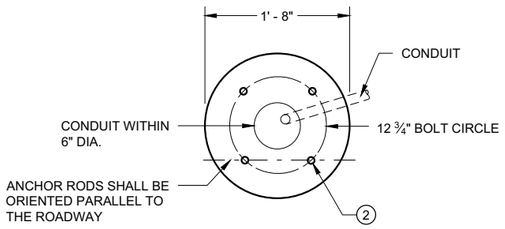
WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

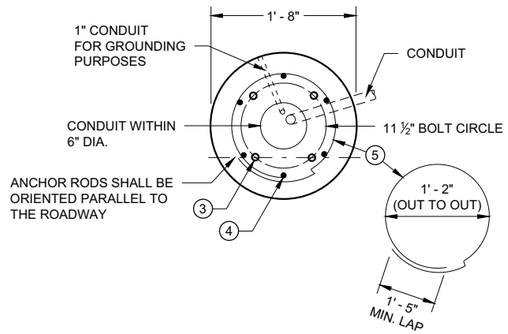
WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4 INCH"L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND SHALL NOT BE THREADED.

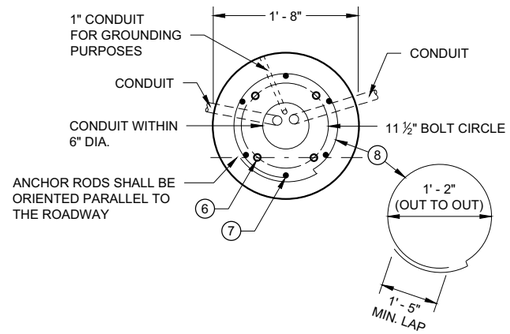
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

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

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







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

2 (4) 1" DIA. X 3' - 6" ANCHOR RODS.

3 (4) 1" DIA. X 5' - 0" ANCHOR RODS.

4 (6) NO. 6 X 6' - 8" BAR STEEL REINFORCEMENT.

5 (7) NO. 4 X 5' - 1" BAR STEEL REINFORCEMENT @ 1' - 0" C - C.

6 (4) 1" DIA. X 3' - 6" ANCHOR RODS.

7 (6) NO. 4 X 4' - 8" BAR STEEL REINFORCEMENT.

8 (5) NO. 4 X 5' - 1" BAR STELL REINFORCEMENT @ 1' - 0" C -C.

9 EXOTHERMIC CONNECTION TO EUIPMENT GROUNDING CONDUCTOR

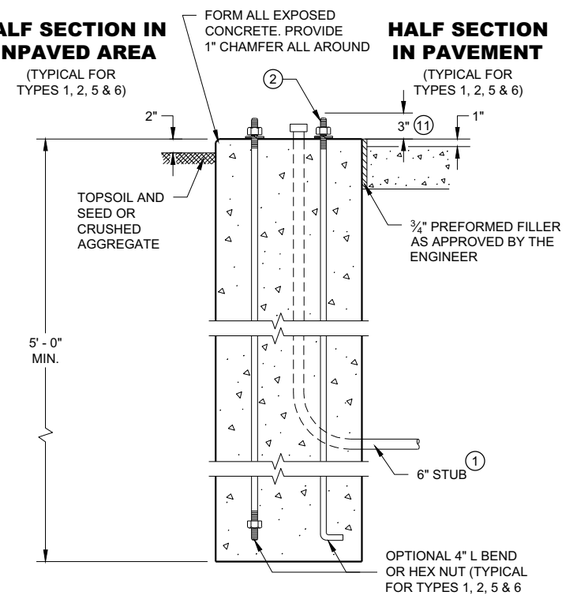
10 ⅝" DIA. X 8' -0" COPPERCLAD EQUIPMENT GROUNDING ELECTRODE REQUIRED

11 ANY ANCHOR ROD PROJECTION SHORTER THAN 2 ¾" OR LONGER THAN 3 ¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

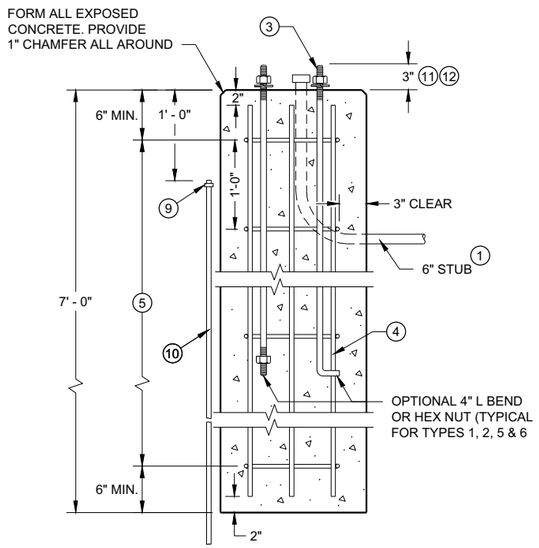
12 FOR NON - BREAKAWAY INSTALLATIONS, 4 ½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

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

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



TYPE 1



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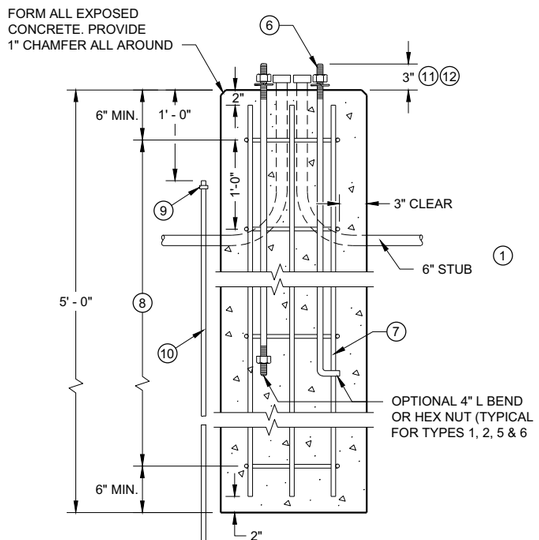


TYPE 5 & 6

CONCRETE BASES

CONCRETE BASES
TYPES 1, 2, 5, & 6

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI

285

FHWA

GENERAL NOTES

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

FOUR (4) BOLTS SHALL BE FURNISHED WITH EACH TRANSFORMER BASE. BOLTS SHALL BE 1" DIAMETER, 4" IN LENGTH, WITH WASHERS, LOCK WASHERS AND NUTS. BOLTS, NUTS AND WASHERS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 531.2.2 OF THE STANDARD SPECIFICATIONS.

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

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

DOUBLE NUTTING IS NOT ACCEPTABLE FOR LEVELING OR MOUNTING PURPOSES.

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

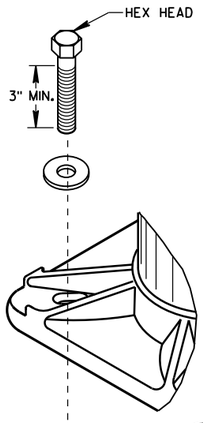
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

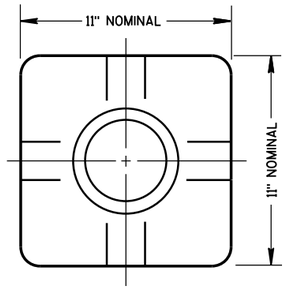
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

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

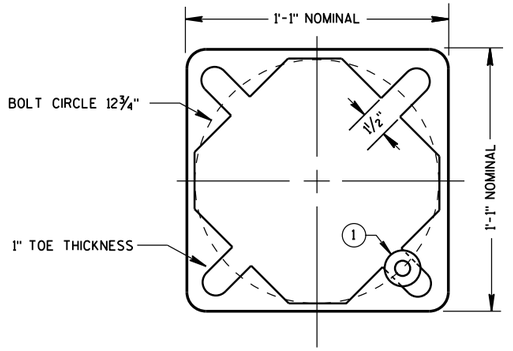
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1 1/2", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

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

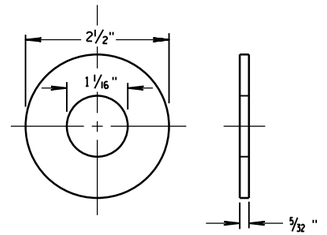




TOP VIEW
(PEDESTAL BASE)

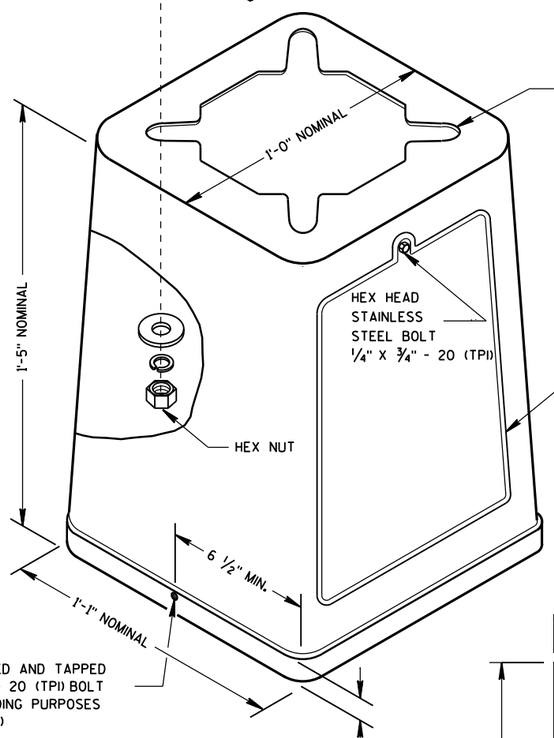


BOTTOM VIEW
(PEDESTAL BASE)

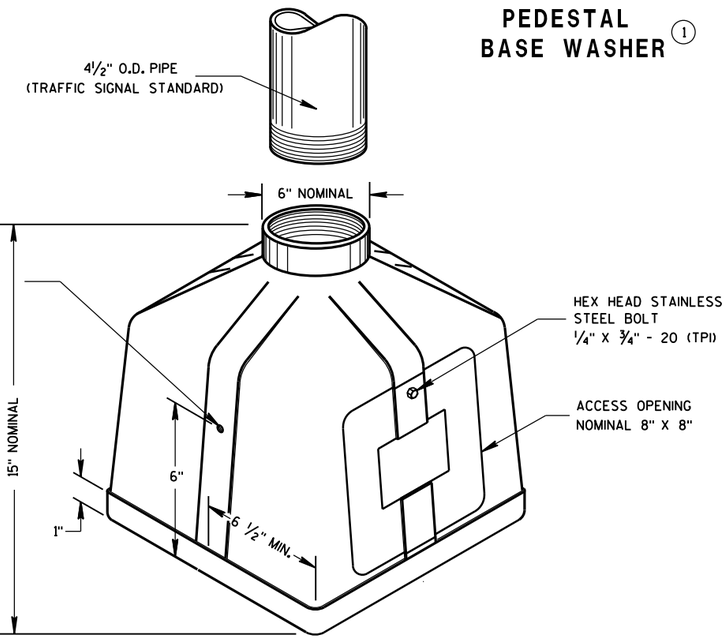


ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

PEDESTAL BASE WASHER (1)

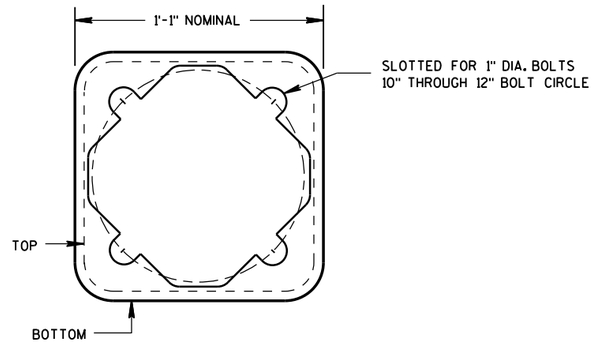


ISOMETRIC VIEW

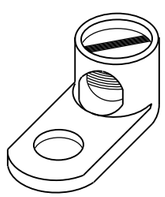


ISOMETRIC VIEW

PEDESTAL BASE



BOTTOM VIEW
(TRANSFORMER BASE)

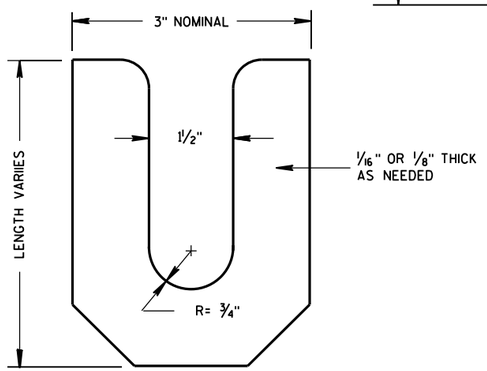


TYPICAL MECHANICAL CONNECTOR LUG

TO BE FURNISHED WITH EACH BASE

TRANSFORMER BASE

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



LEVELING SHIM

TRANSFORMER/PEDESTAL BASES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

S.D.D. 9 C 3-4

6

S.D.D. 9 C 3-4

GENERAL NOTES

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

BASES (SHAFT), BELOW THE WING, SHALL BE EXCAVATED BY THE USE OF A CIRCULAR AUGER. IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE SOIL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

TOP SURFACE OF THE CONCRETE BASE SHALL BE TROWEL FINISHED AND LEVEL.

USE 3" CLEAR FOR ALL REINFORCEMENT UNLESS NOTED OTHERWISE.

BENDING DIMENSIONS FOR REINFORCING BARS ARE OUT TO OUT.

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

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

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

ORIENT ANCHOR RODS IN FOOTING AND PROVIDE ANCHOR ROD PROJECTION ABOVE TOP OF CONCRETE FOOTING BASE PER THIS SHEET.

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

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

CONDUIT HEIGHT ABOVE CONCRETE BASE SHALL BE 4 ½ INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NONMETALLIC CONDUIT SHALL HAVE BELL ENDS INSTALLED. ALL CONDUIT SHALL SLOPE TO PULL BOX.

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

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

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

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD).

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

THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO THE TYPE AND LOCATION OF THE UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO.

(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVEL WAY SHALL BE 24-INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18-INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36-INCHES, (GREATER THAN 36-INCHES IF INSTALLED IN BREAKER-RUN), EXCEPT WITH THE WRITTEN APPROVAL OF THE ENGINEER.

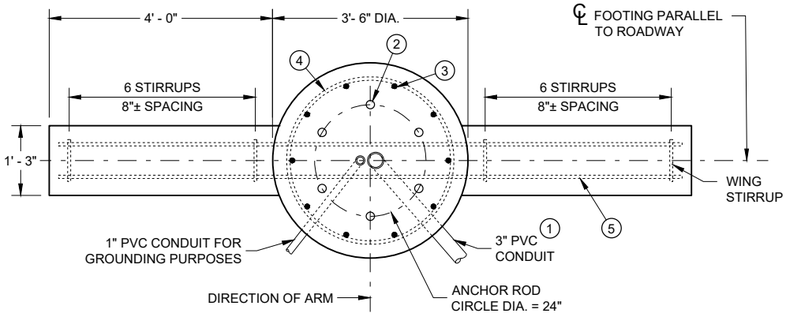
(2) (6) 1 ¾" DIA. X 7' - 2" ANCHOR RODS

(3) (10) NO. 6 X 14' - 1" BAR STEEL VERTICAL REINFORCEMENT.

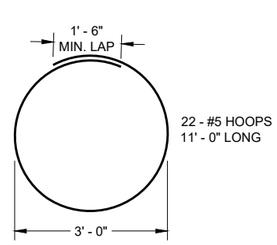
(4) (22) NO. 5 X 11'- 0" BAR STEEL REINFORCEMENT @ 8" MAX. C-C.

(5) (10) NO. 5 X 11' - 0" BAR STEEL HORIZONTAL REINFORCEMENT

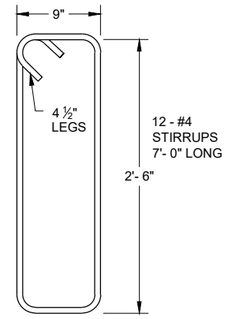
CONCRETE MASONRY.....fc = 3,500 p.s.i
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60.....fy = 60,000 p.s.i.
ANCHOR RODS, ASTM F1554 GRADE 55 (IN ACCORDANCE .....fy = 55,000 p.s.i.
WITH SECTION 531.2.2 OF THE STANDARD SPECIFICATION)
TEMPLATES, ASTM A709, GRADE 36.....fy = 36,000 p.s.i.



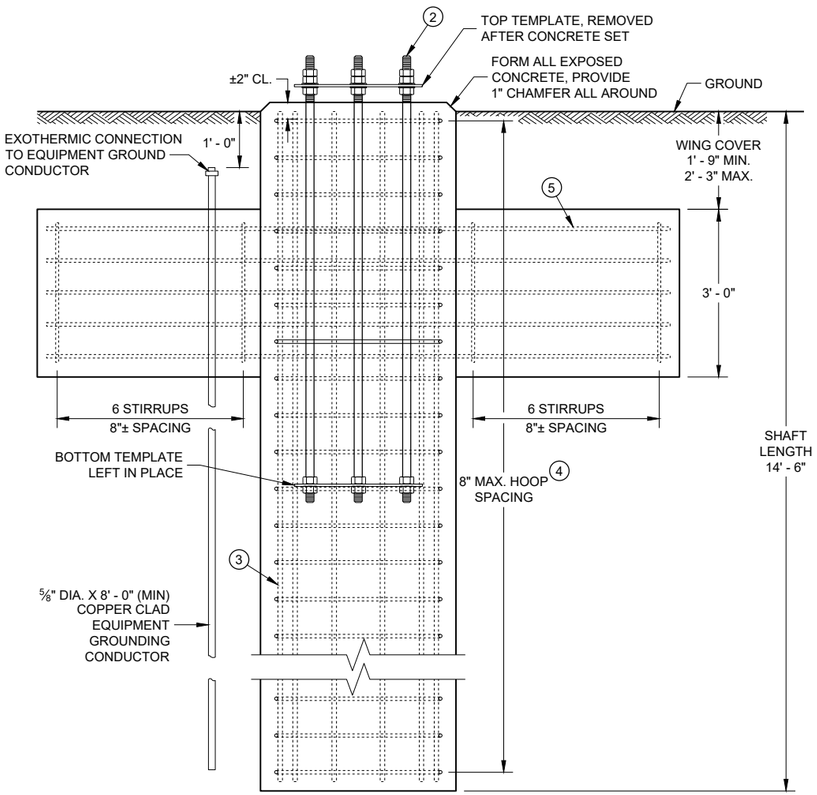
PLAN VIEW



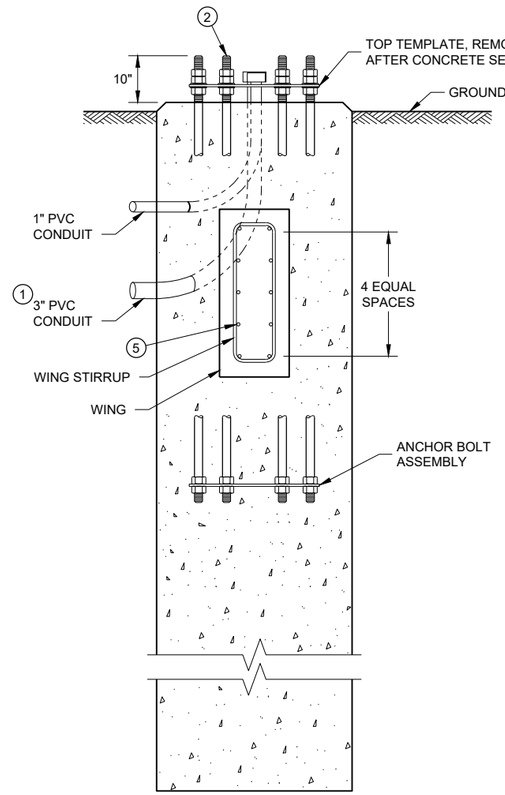
HOOP DETAIL



WING STIRRUP DETAIL



ELEVATION VIEW
(CONDUITS NOT SHOWN ON THIS VIEW FOR CLARITY)



(HOOPS AND VERTICAL SHAFT REINFORCEMENT NOT SHOWN ON THIS VIEW FOR CLARITY)

CONCRETE BASE, TYPE 13
(FOR TYPE 12, TYPE 13 AND OVER HEIGHT (OH) POLES)

CONCRETE = 6.3 CUBIC YARD
H.S. REINFORCEMENT = 635 LBS.

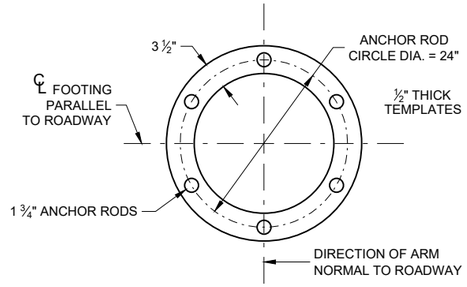
TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION. SEE 9C13 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION

CONCRETE BASE TYPE 13

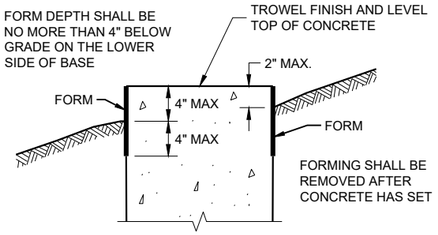
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

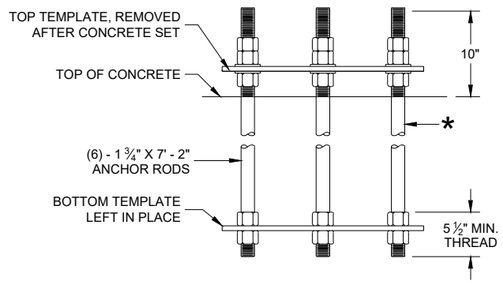
SDD 09C12 - 09a



TOP AND BOTTOM TEMPLATE



FORMING DETAIL



ANCHOR ROD ASSEMBLY DETAILS

* THREAD TOP 11" OF ANCHOR ROD FOR 3 NUTS AND 2 WASHERS AND BOTTOM 5 ½" FOR 2 NUTS PER ANCHOR ROD. HOT DIP GALVANIZE THE ENTIRE LENGTH OF THE ANCHOR ROD (ASTM A123) AND HOT DIP NUTS AND WASHERS (ASTM A153. USE ZINC COATED NUTS MANUFACTURED WITH SUFFICIENT ALLOWANCE TO ALLOW NUTS TO RUN FREELY ON THE THREADS.

CONCRETE BASE TYPE 13

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

May 2017
DATE

/S/ Ahmet Demirbilek
WIND LOADED STRUCTU
PROGRAM LEADER

FHWA

6

SDD 09C12 - 09b

GENERAL NOTES

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

THE CONTRACTOR IS RESPONSIBLE FOR MAKING THEIR OWN DETERMINATION AS TO THE TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO.

BASES (SHAFT) SHALL BE EXCAVATED BY THE USE OF A CIRCULAR AUGER. IF BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE SOIL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING. A STEEL CASING OR CORRUGATED METAL PIPE IS ALLOWED TO REMAIN. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BASE IN LAYERS OF ONE FOOT OR LESS.

TOP SURFACE OF THE CONCRETE BASE SHALL BE TROWEL FINISHED AND LEVEL.

ANY DAMAGE TO THE CONCRETE BASE AND ANCHOR RODS DURING CONSTRUCTION OPERATIONS SHALL BE REPAIRED AT THE ENGINEER'S DIRECTION, AT THE EXPENSE OF THE CONTRACTOR.

THE REINFORCEMENT AND ANCHOR RODS SHALL BE ADEQUATELY SUPPORTED IN THE PROPER POSITIONS SO NO MOVEMENT OCCURS DURING CONCRETE PLACEMENT.

ORIENT ANCHOR RODS IN FOUNDATION AND PROVIDE ANCHOR RODS STICK OUT ABOVE TOP OF CONCRETE FOOTING BASE PER THIS SHEET.

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

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

BENDING DIMENSIONS FOR REINFORCING BARS ARE OUT TO OUT.

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

USE 3" CLEAR FOR ALL REINFORCEMENT UNLESS NOTED OTHERWISE.

FORM ALL EXPOSED CONCRETE CORNERS WITH 1" CHAMFER ALL AROUND. TOP OF THE CONCRETE BASE SHALL BE TROWEL FINISHED AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE SHOWN ON THE PLANS.

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

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 4 ½" INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NON-METALLIC CONDUIT SHALL HAVE BELL ENDS INSTALLED. ALL CONDUIT SHALL SLOPE TO PULL BOX.

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

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

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

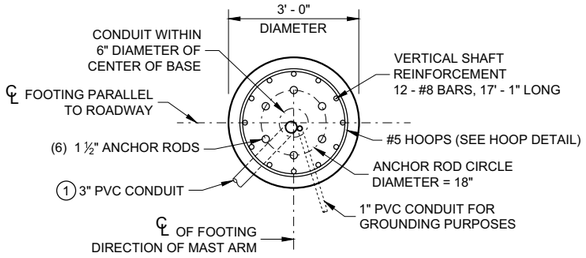
A NO. 4 AWG STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD).

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

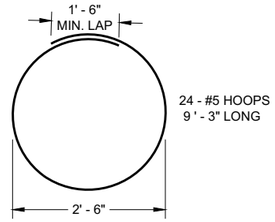
THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN A THE ENTRANCE OF THE BASE.

(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES (GREATER THAN 36 INCHES IF INSTALLED IN BREAKER RUN) EXCEPT WITH WRITTEN APPROVAL OF THE ENGINEER.

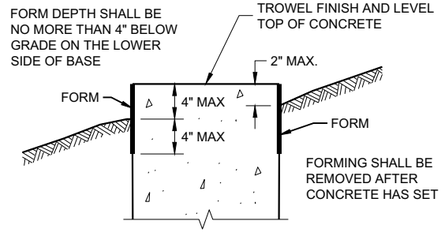
CONCRETE MASONRY.....fc = 3,500 p.s.i
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60.....fy = 60,000 p.s.i.
ANCHOR RODS, ASTM F1554 GRADE 55 (IN ACCORDANCE WITH SECTION 531.2.2 OF THE STANDARD SPECIFICATION).....fy = 55,000 p.s.i.
TEMPLATES, ASTM A709, GRADE 36.....fy = 36,000 p.s.i.



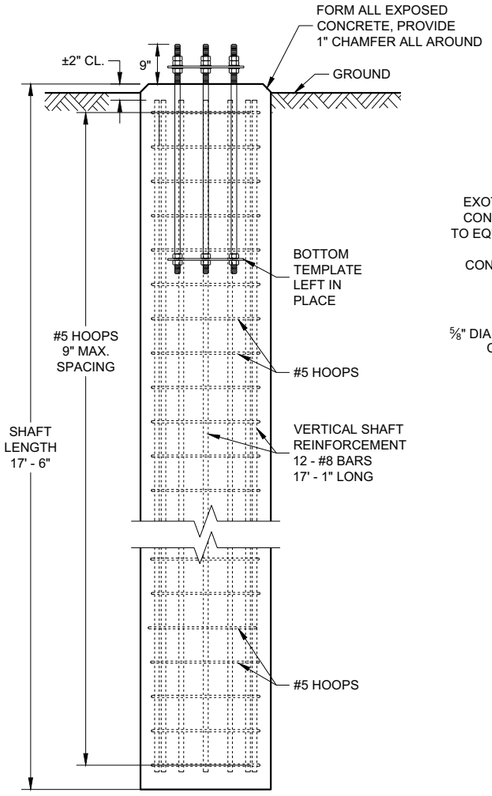
PLAN VIEW



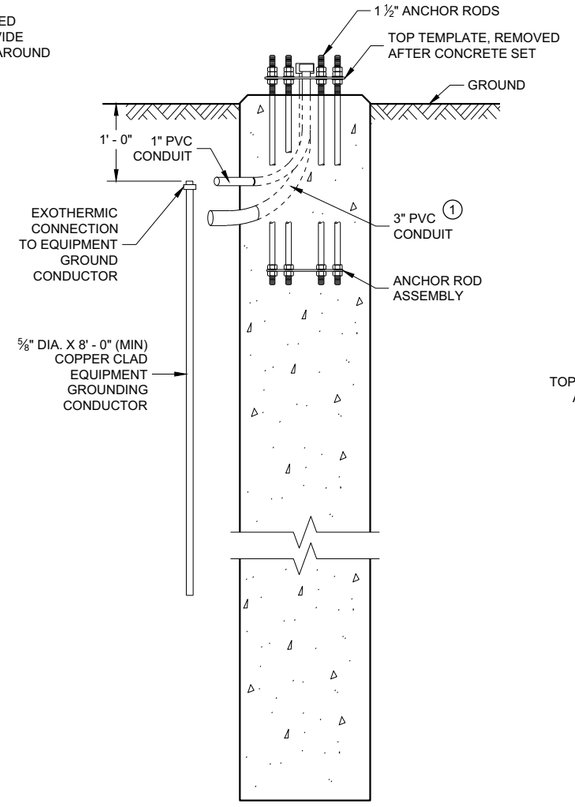
HOOP DETAIL



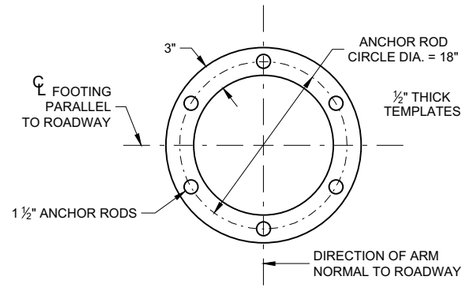
FORMING DETAIL



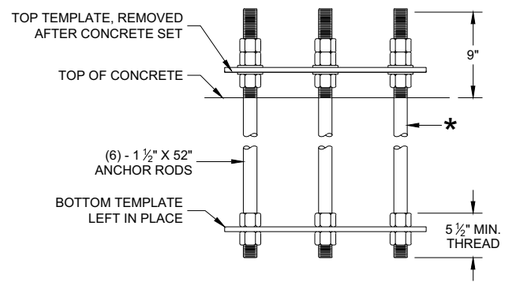
ELEVATION VIEW
(CONDUITS NOT SHOWN ON THIS VIEW FOR CLARITY)



SIDE VIEW
(HOOPS AND VERTICAL SHAFT REINFORCEMENT NOT SHOWN ON THIS VIEW FOR CLARITY)



TOP AND BOTTOM TEMPLATE



ANCHOR ROD ASSEMBLY DETAILS

* THREAD TOP 10" OF ANCHOR ROD FOR 3 NUTS AND 2 WASHERS AND BOTTOM 5 ½" FOR 2 NUTS PER ANCHOR ROD. HOT DIP GALVANIZE THE ENTIRE LENGTH OF THE ANCHOR ROD (ASTM A123) AND HOT DIP NUTS AND WASHERS (ASTM A153. USE ZINC COATED NUTS MANUFACTURED WITH SUFFICIENT ALLOWANCE TO ALLOW NUTS TO RUN FREELY ON THE THREADS.

CONCRETE BASE, TYPE 10 SPECIAL
(FOR TYPE 9 SPECIAL AND TYPE 10 SPECIAL POLES)

CONCRETE = 4.6 CUBIC YARD
H.S. REINFORCEMENT = 779 LBS.

FOR USE WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION.

CONCRETE BASE TYPE 10 SPECIAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

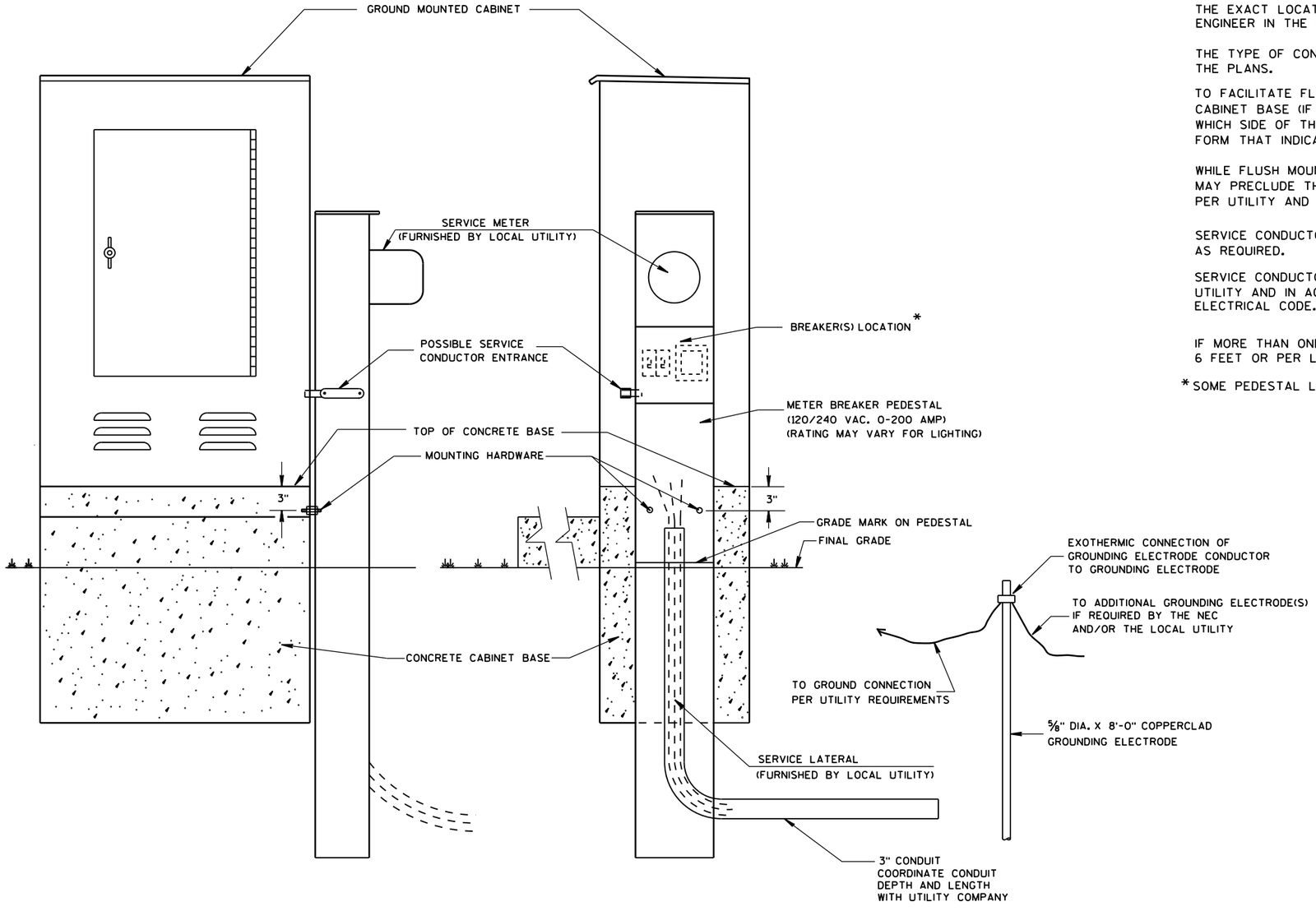
APPROVED
August 2020 — DATE
/S/ Alex Crabtree — WIND LOADED STRUCTU PROGRAM LEADER
FHWA

6

SDD 09C15 - 01

6

SDD 09C15 - 01



TYPICAL CABINET SERVICE INSTALLATION

GENERAL NOTES

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

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

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

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

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

SERVICE CONDUCTOR ENTRANCES SHALL BE RIGID METALLIC CONDUIT, NIPPLES AND/OR CONDULETS AS REQUIRED.

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

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

*SOME PEDESTAL LIGHTING PLANS SHOW MAIN LUGS ONLY.

6

S.D.D. 9 D 1-5

6

S.D.D. 9 D 1-5

CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)

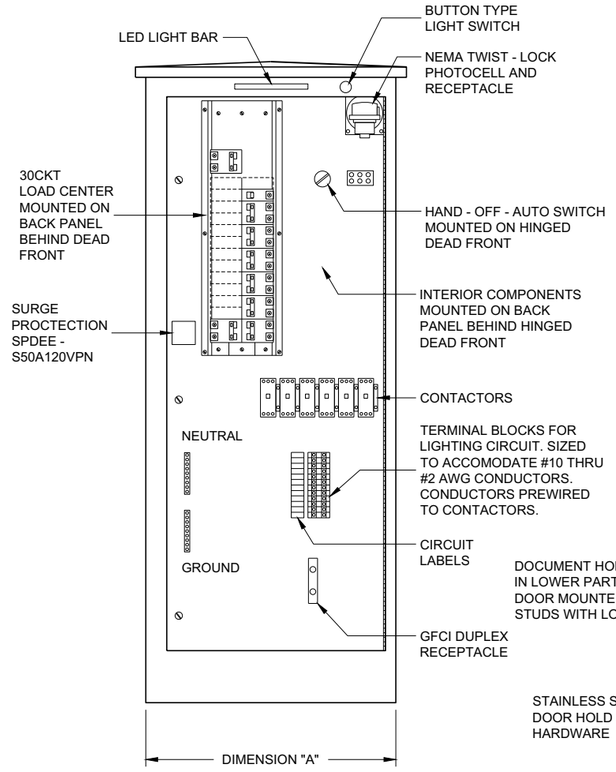
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014
DATE

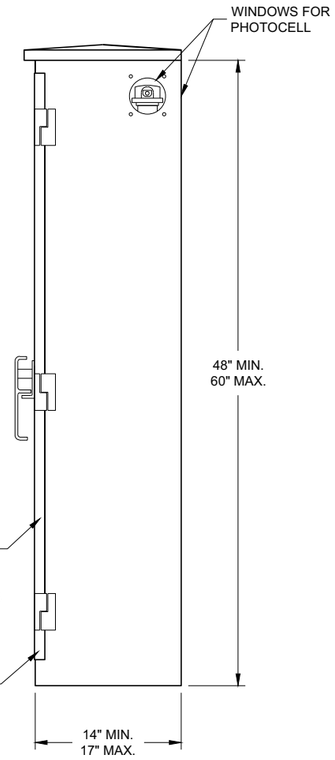
/S/ Ahmet Demirbilek
STATE ELECTRICAL

FHWA

FRONT INTERIOR ELEVATION



SIDE VIEW



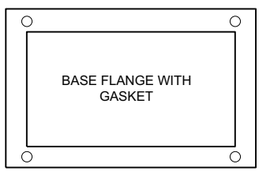
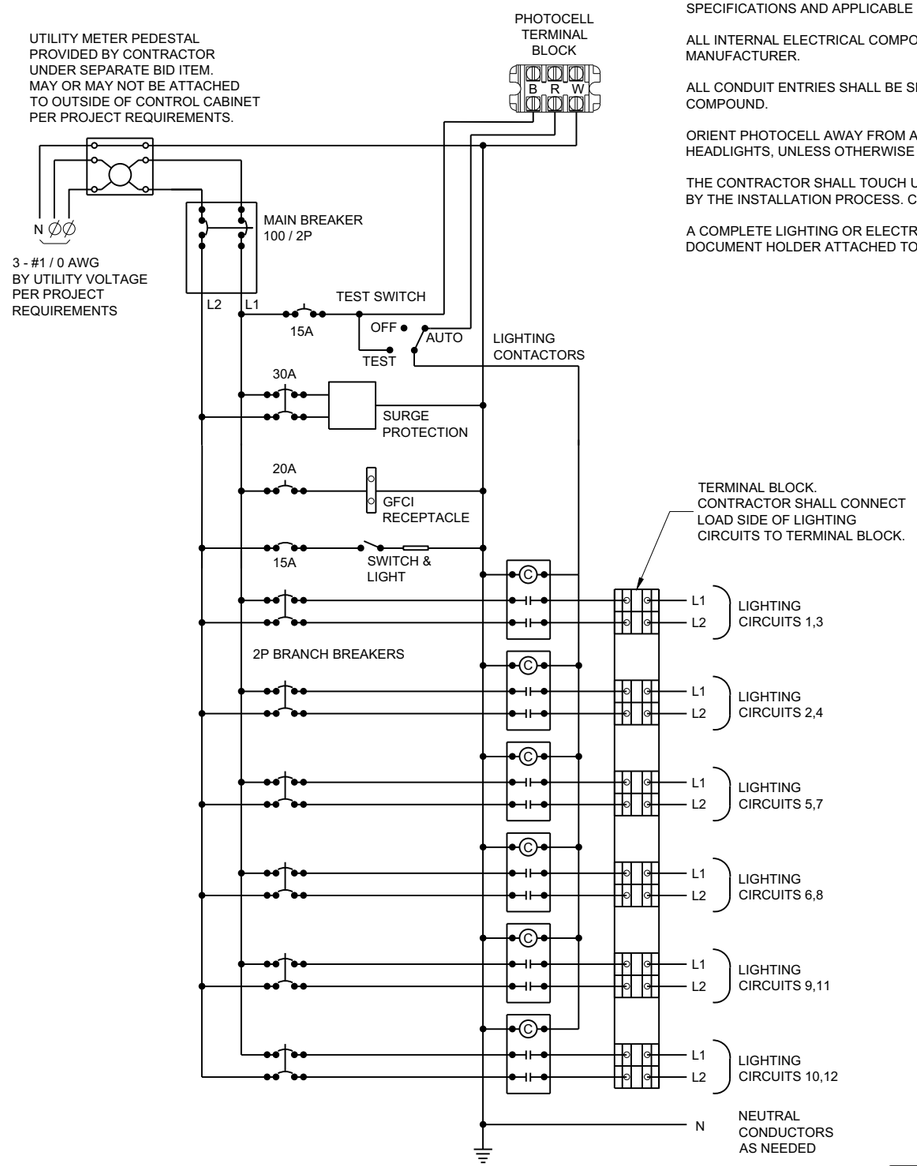


TABLE OF DIMENSIONS (INCHES)		
CONCRETE BASE TYPE	CABINET WIDTH	DIMENSION "A"
L24	24"	24"
L30	30"	30"

LIGHTING CONTROL CABINET



CONTROL CABINET SCHEMATIC

GENERAL NOTES

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

ALL INTERNAL ELECTRICAL COMPONENTS WILL BE PRE - WIRED BY THE CABINENT MANUFACTURER.

ALL CONDUIT ENTRIES SHALL BE SEALED WITH AN APPROPRIATE DUCT SEALING COMPOUND.

ORIENT PHOTOCELL AWAY FROM AMBIENT LIGHT SOURCES AND ONCOMING TRAFFIC HEADLIGHTS, UNLESS OTHERWISE CALLED FOR IN THE SPECIAL PROVISION.

THE CONTRACTOR SHALL TOUCH UP ANY DAMAGE TO THE ANODIZED FINISH CAUSED BY THE INSTALLATION PROCESS. COLOR MATCH PAINT SHALL BE USED.

A COMPLETE LIGHTING OR ELECTRICAL PLAN SHALL BE SECURELY PLACED IN THE DOCUMENT HOLDER ATTACHED TO THE DOOR.

LIGHTING CONTROL CABINET 120 / 240 VOLT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 291

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6
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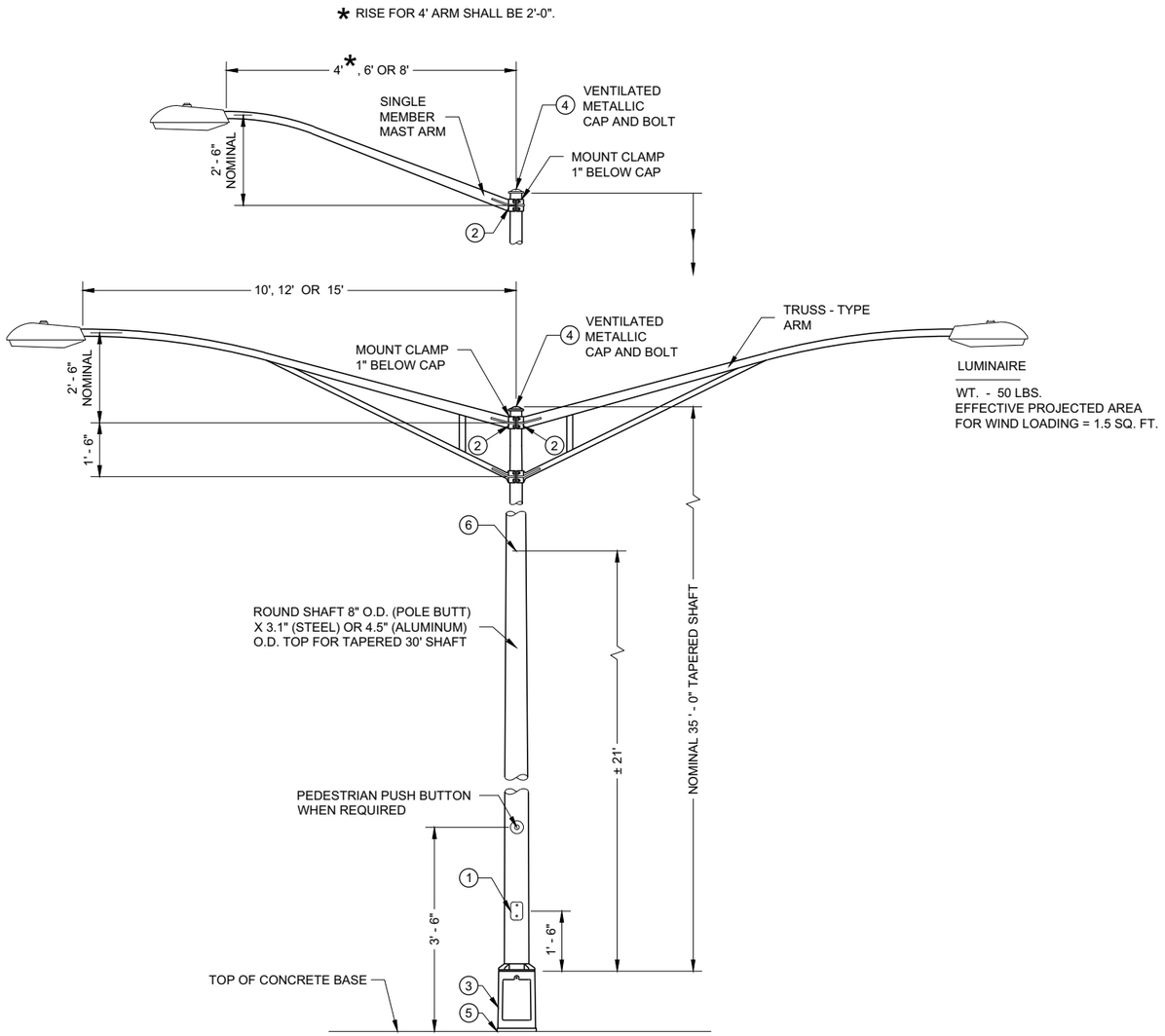


TYPE 6 POLE MOUNTING CONFIGURATION
(MAXIMUM LOAD)
LIGHTING ONLY

GENERAL NOTES

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

SECTION 657, POLES, OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

ALL TYPE 6 POLE MOUNTINGS SHALL BE DESIGNED TO INCLUDE TWIN 15' ARMS WITH LUMINAIRES.

POLES SHALL BE GALVANIZED STEEL OR ALUMINUM, AS CALLED FOR IN THE CONTRACT.

TYPE 6 ALUMINUM POLES SHALL BE CONSTRUCTED OF 6063 - T6 ALUMINUM ALLOY. SLEEVING INSIDE THE POLE IS NOT ACCEPTABLE.

TYPE 6 ALUMINUM POLES SHALL HAVE A MINIMUM WALL THICKNESS OF 0.219".

TYPE 6 STEEL POLES SHALL HAVE A MINIMUM WALL THICKNESS OF U.S. STANDARD 11 GAGE (0.1196").

THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2 ⅜ INCHES IN OUTSIDE DIAMETER. THE STRAIGHT PORTION OF THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 12 INCHES IN LENGTH.

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

(1) 4" X 6" REINFORCED HANDHOLE AND COVER ASSEMBLY WITH TWO (2) ¼" X ¾" - 20 TPI , STAINLESS STEEL, HEX HEAD BOLTS.

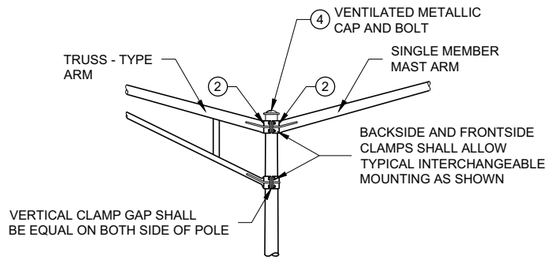
(2) GROMMETS. 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1 ⅜" HOLE IN POLE SHAFT FOR WIRING.

(3) CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.

(4) FURNISH AND INSTALL VENTILATED, CAST METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

(5) SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND POLE.

(6) INTERNAL DUMBBELL - TYPE VIBRATION DAMPER.



INTERCHANGEABLE MOUNTING DETAIL

POLE MOUNTINGS FOR LIGHTING UNITS, TYPE 6 (35 FEET)

6

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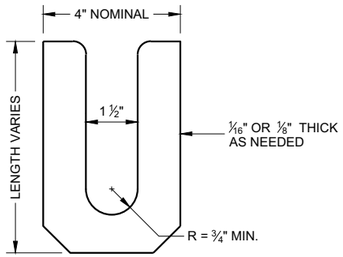
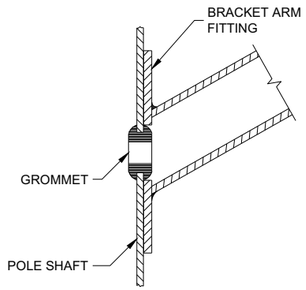
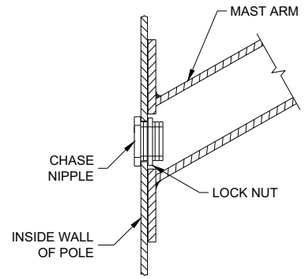


LEVELING SHIM (1)
SHALL BE ALUMINUM



TYPICAL APPLICATION OF GROMMET IN POLE SHAFT



TYPICAL APPLICATION OF CHASE NIPPLE IN POLE SHAFT

GENERAL NOTES

CLAMP BOLT-NUT TIGHTENING TORQUE SHALL BE INDICATED BY INDENT STAMPING (1/2 INCH NUMERALS AND LETTERS) OR WEATHERPROOF PRINTING ON THE INSIDE OF THE CLAMP THAT IS WELDED TO THE ARM MEMBER.

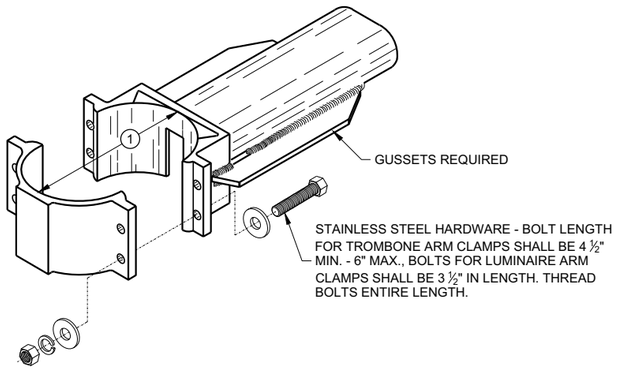
(1) 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP. 6.625" I.D. FOR TROMBONE MAST ARM CLAMP.

(2) INDIVIDUAL BASE PLATE ANCHOR ROD COVERS. (4 REQUIRED)

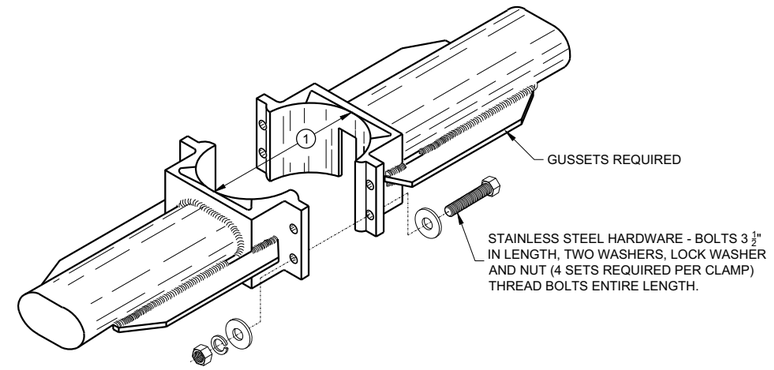
(3) BASE PLATE SLOTTED TO ACCEPT 11" THROUGH 12" BOLT CIRCLE USING 1" DIAMETER ANCHOR RODS.

(4) LEVELING SHIMS, DESIGNED FOR THE PURPOSE, SHALL BE USED WHEN PLUMBING POLES. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE. LEVELING SHIMS SHALL BE USED ONLY BETWEEN THE TOP OF THE CONCRETE BASE AND A METALLIC BASE PLATE.

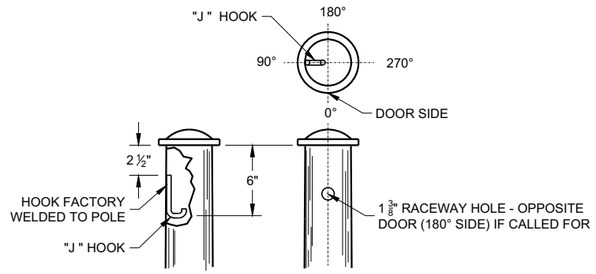
SHIMS SHALL BE LONG ENOUGH AND WIDE ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.



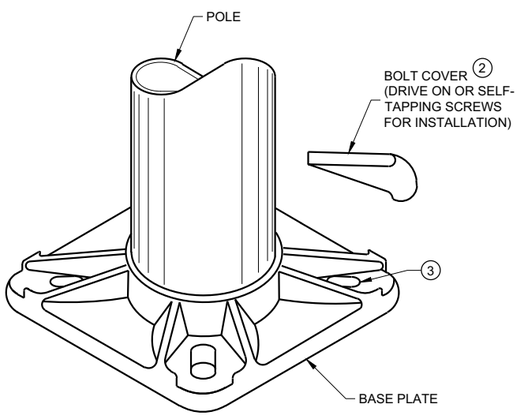
TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP



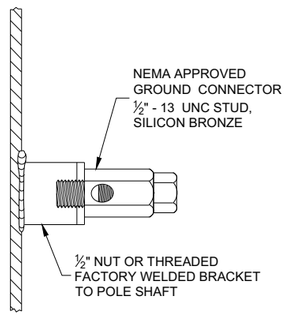
TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS

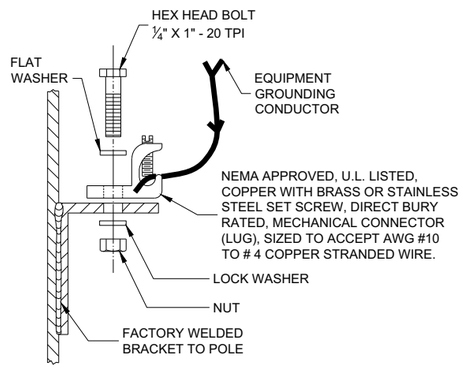


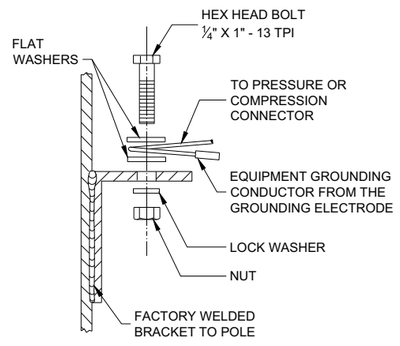
TYPICAL "J" HOOK LOCATION



BASE PLATE







TYPICAL GROUNDING CONNECTIONS
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

HARDWARE DETAILS FOR POLE MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 293

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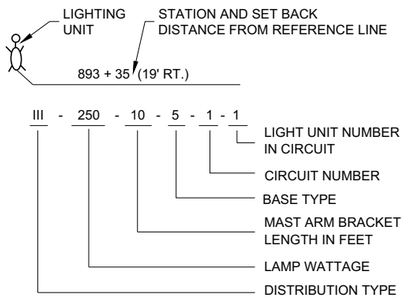
SDD 09E01 - 15g

GENERAL NOTES

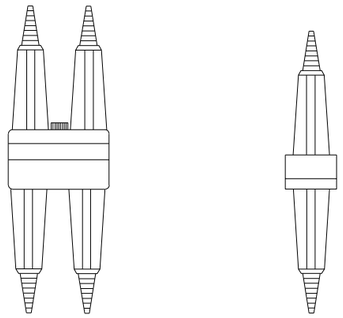
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

THE EQUIPMENT GROUND CONNECTOR SHALL BE TAPED WITH 3 WRAPS (MINIMUM) OF APPROVED RUBBER TAPE AND 3 WRAPS (MINIMUM) OF APPROVED VINYL TAPE TO COVER SHARP WIRE ENDS AFTER THE CONNECTION IS COMPLETED.

WHEN TRANSFORMER BASES ARE USED, ALL WIRING CONNECTIONS SHALL OCCUR WITHIN THE TRANSFORMER BASES.

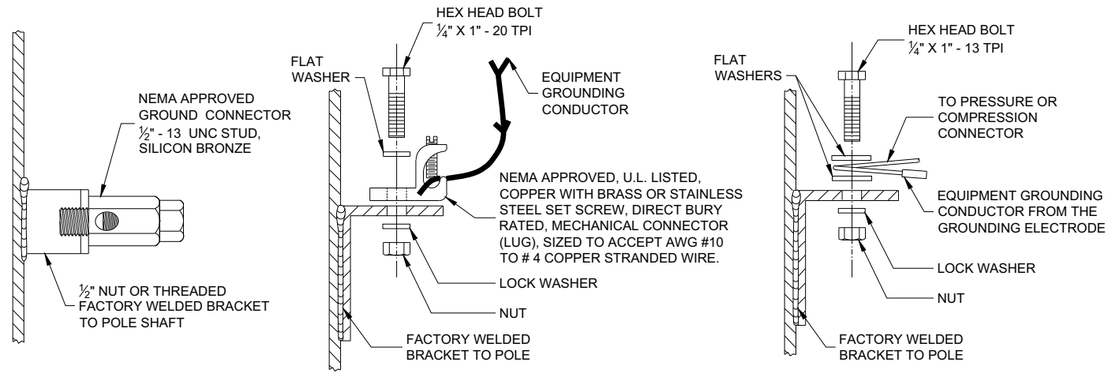


LIGHTING UNIT CODE
(TYPICAL)

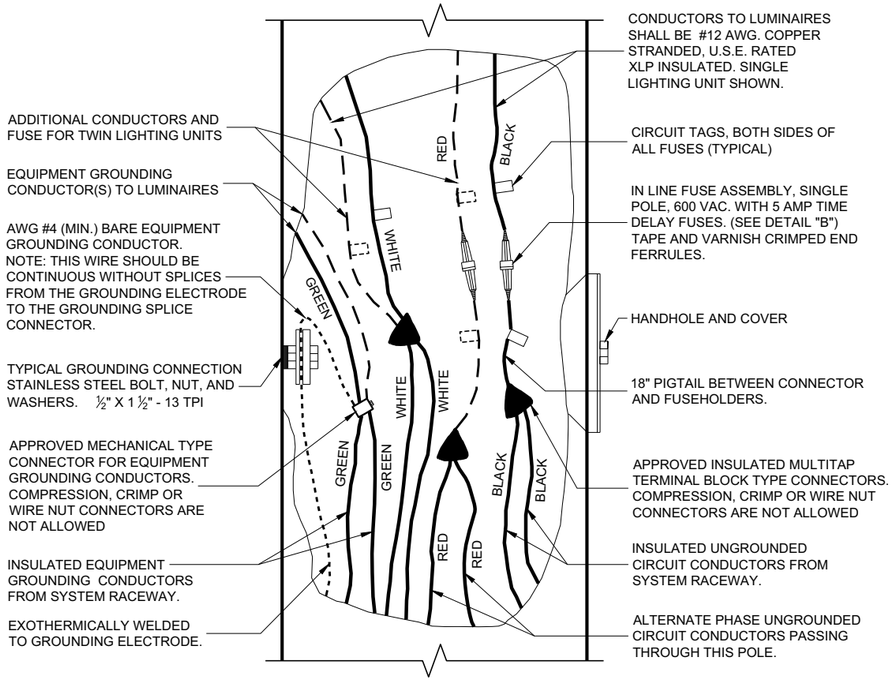


DETAIL "A"
BREAKAWAY DOUBLE POLE WITH WATERPROOF INSULATING BOOT

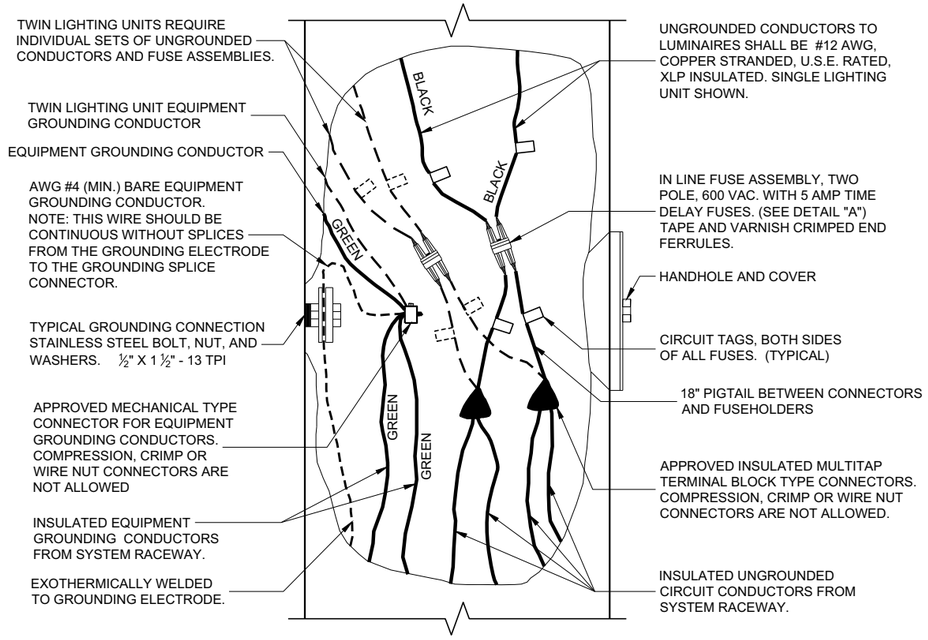
DETAIL "B"
BREAKAWAY SINGLE POLE WITH WATERPROOF INSULATING BOOT



TYPICAL GROUNDING CONNECTIONS
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



3 WIRE - 120, 240 OR 480 VAC (UNGROUNDED CONDUCTORS) WITH GROUNDING CONDUCTOR AND EQUIPMENT GROUNDING CONDUCTOR



2 WIRE - 240 OR 480 VAC (UNGROUNDED CONDUCTORS) WITH EQUIPMENT GROUNDING CONDUCTOR

NON - FREEWAY LIGHTING UNIT POLE WIRING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
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/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 294

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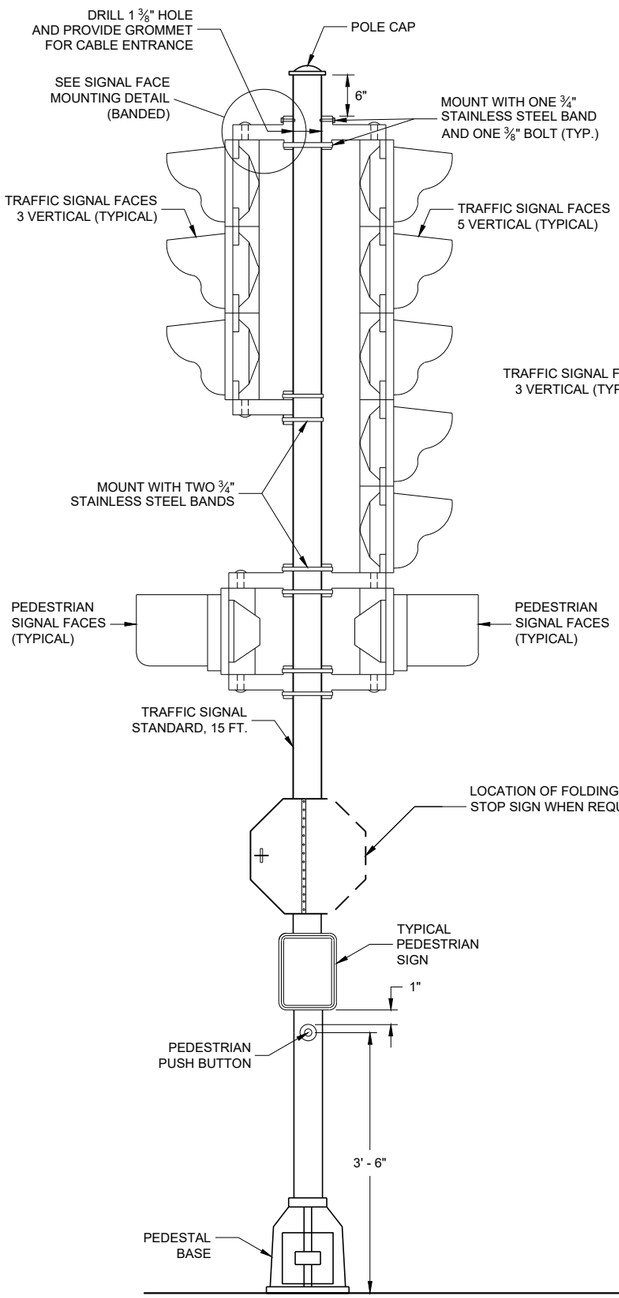
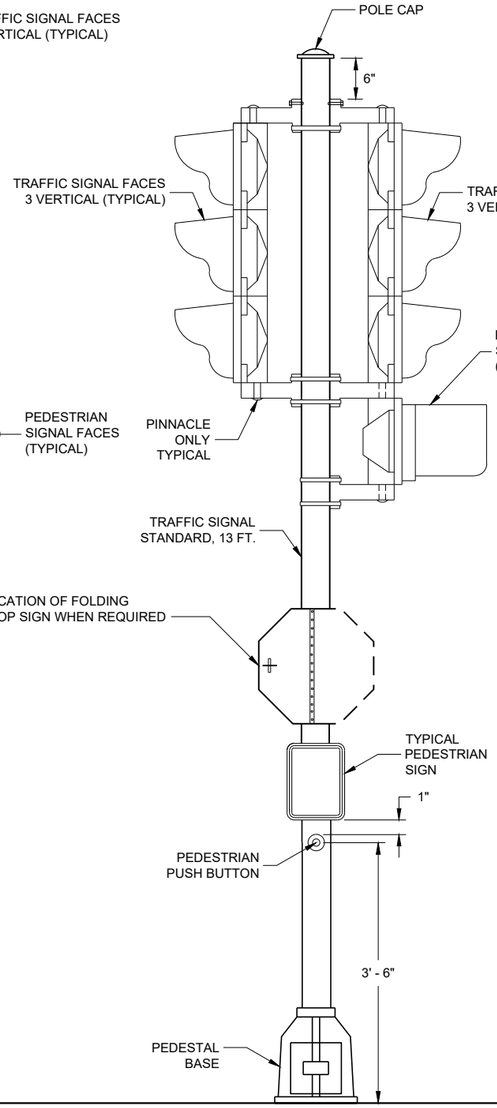
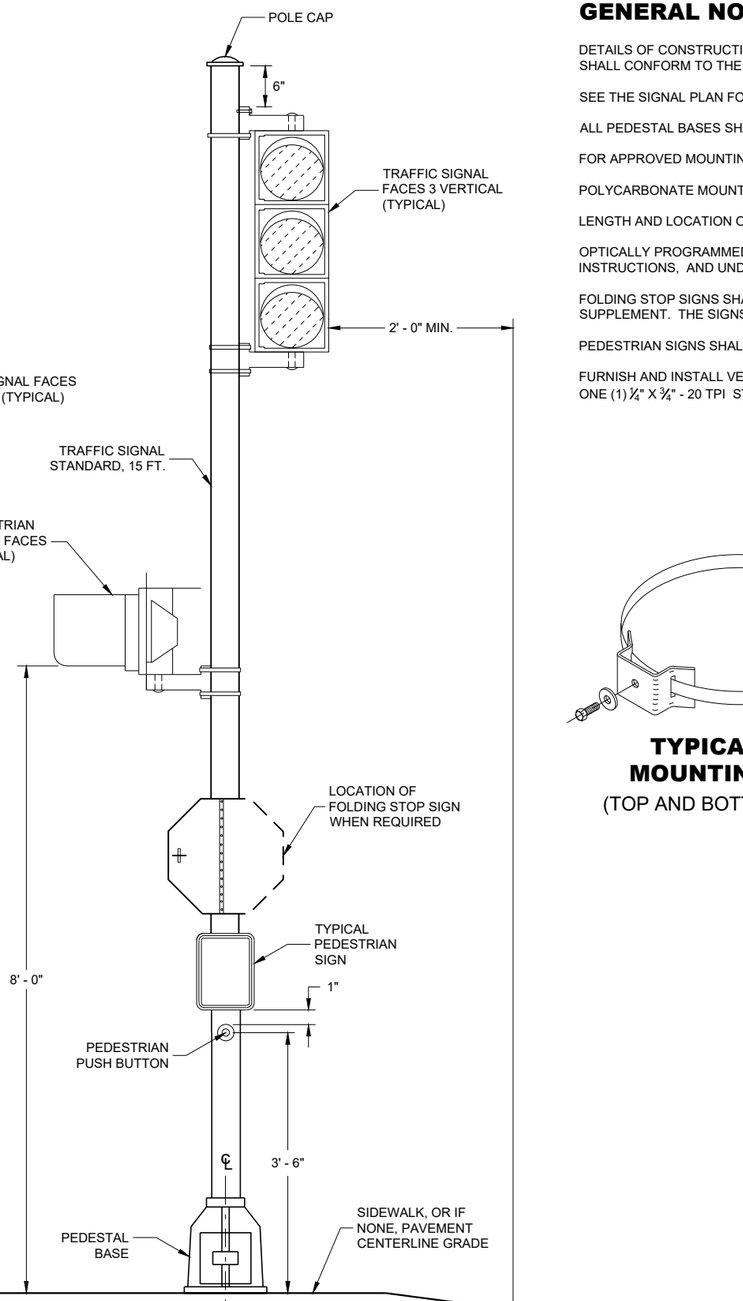


TRAFFIC SIGNAL STANDARD - 15 FT.



TRAFFIC SIGNAL STANDARD - 13 FT.



TRAFFIC SIGNAL TANDARD - 15 FT.
3M MOUNTING (TYPICAL)

GENERAL NOTES

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

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIAL PROVISIONS.

POLYCARBONATE MOUNTING BRACKETS SHALL BE USED.

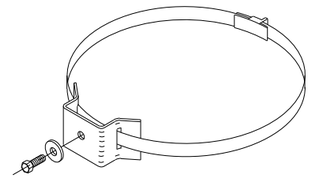
LENGTH AND LOCATION OF TRAFFIC SIGNAL STANDARDS SHALL BE AS SHOWN ON THE PLANS.

OPTICALLY PROGRAMMED SIGNAL FACES SHALL BE MASKED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS, AND UNDER THE DIRECTIONS OF THE REGION TRAFFIC ENGINEER.

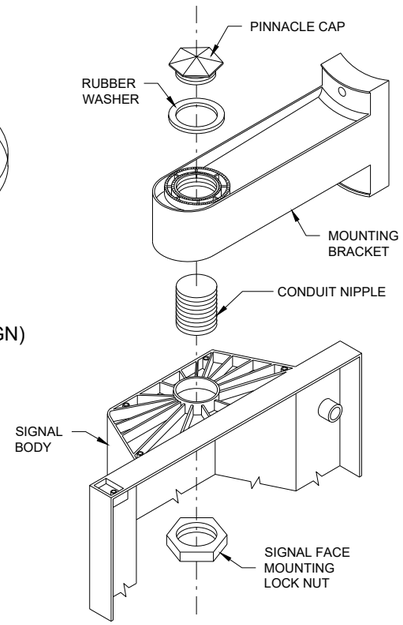
FOLDING STOP SIGNS SHALL BE IN ACCORDANCE WITH THE MUTCD AND/OR THE LATEST WISCONSIN SUPPLEMENT. THE SIGNS SHALL BE SIZED AND LOCATED AS CALLED FOR IN IN THE PLANS.

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) 1/4" X 3/4" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.



TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)



SIGNAL FACE MOUNTING DETAIL (BANDED)

TRAFFIC SIGNAL STANDARD POLY BRACKET MOUNTINGS (TYPICAL) 13 FT. OR 15 FT.

STATE OF WISCONSIN
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2/28/2013
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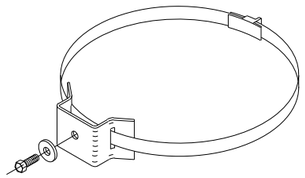
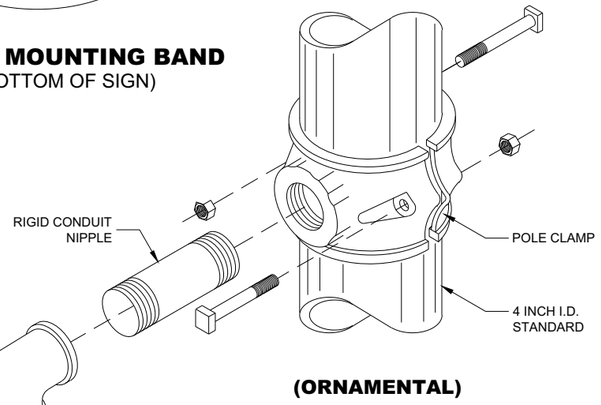
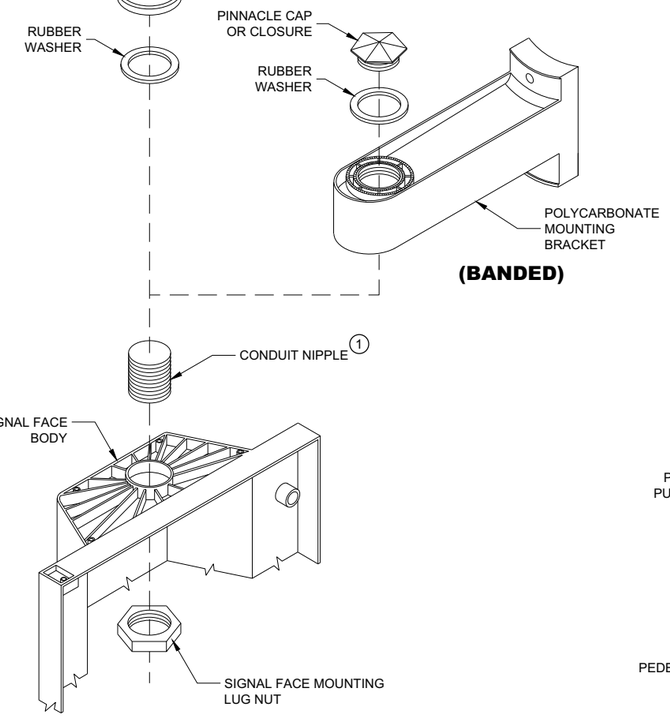


TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)

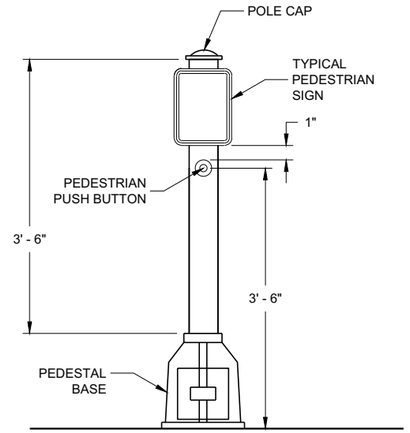


(ORNAMENTAL)



(BANDED)

SIGNAL FACE MOUNTING DETAILS



PEDESTRIAN PUSH BUTTON TYPICAL MOUNTING

GENERAL NOTES

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

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

LOCATIONS SHALL BE AS SHOWN ON THE PLANS, UNLESS APPROVED BY THE ENGINEER IN THE FIELD.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIFICATIONS.

POLYCARBONATE SIGNAL FACE MOUNTING BRACKETS SHALL BE USED UNLESS ORNAMENTAL POLE CLAMPS ARE SPECIFIED.

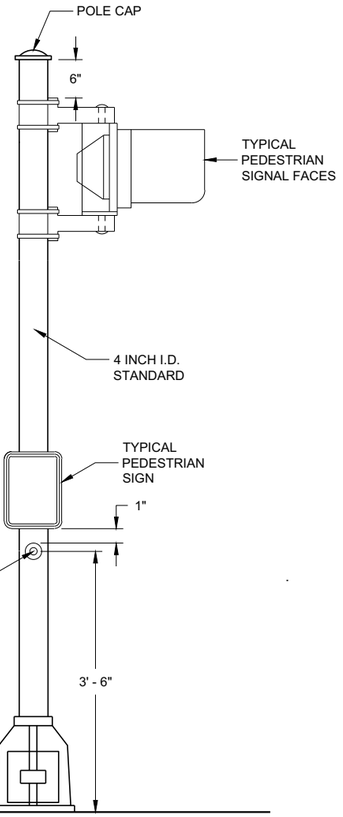
LENGTH OF TRAFFIC STANDARDS SHALL BE AS SHOWN ON THE PLANS.

MOUNTINGS AND BRACKETS SHALL BE AS SHOWN ON THE PLANS OR DESCRIBED IN THE SPECIAL PROVISIONS (BY THE REGION TRAFFIC ENGINEER).

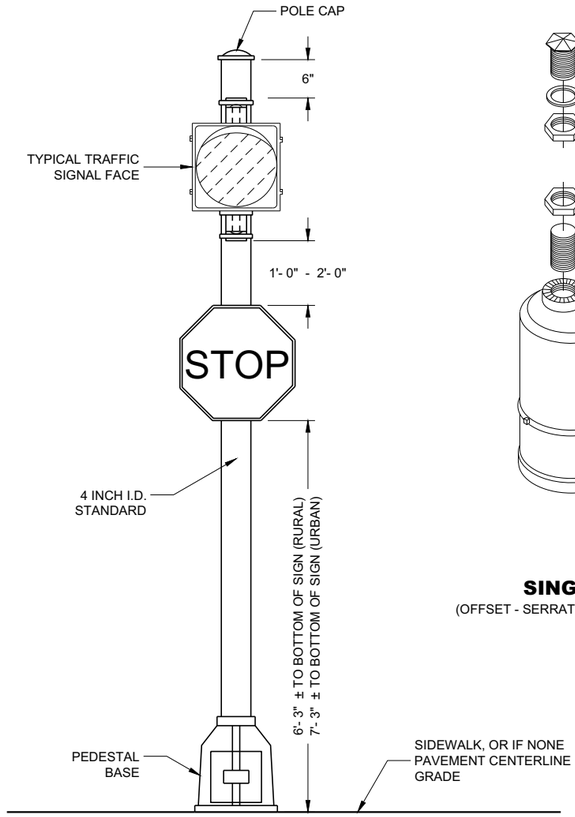
PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

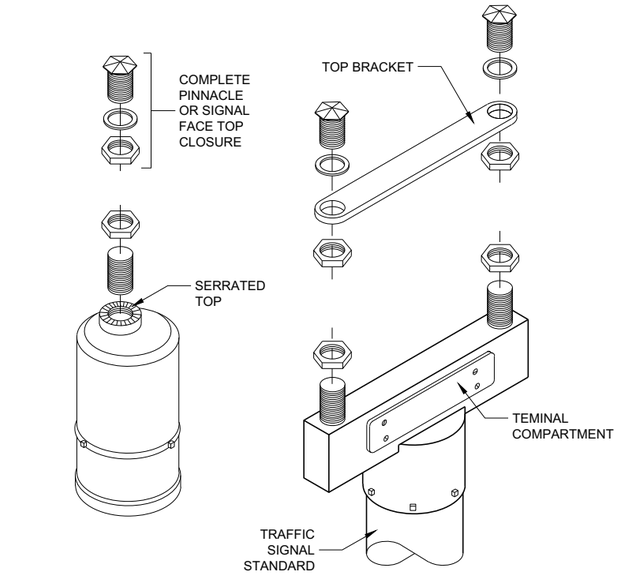
(1) USE 1 ½" ID NIPPLES ZINC-COATED RIGID METAL CONDUIT, LONG ENOUGH TO ACCOMMODATE FULL DEPTH THREADING INTO THE HEAD MOUNTING LOCK NUT IN ORDER TO TIGHTEN THE FACE, BUT THAT DO NOT INTERFERE WITH REFLECTOR CLOSURE. THREAD THE NIPPLE INTO THE MOUNTING BRACKET/ELBOW UNTIL TIGHT. USE APPROVED PINNACLE TYPE HARDWARE FROM A DEPARTMENT APPROVED MANUFACTURER TO CLOSE THE UNUSED 1 ½" OPENING IN SIGNAL FACESAND BRACKET ENDS.



PEDESTRIAN FACE STANDARD - 10 FT.
(WALK - DON'T WALK)



STANDARD FLASHER
10 FOOT, 13 FOOT OR 15 FOOT AS REQUIRED



SINGLE
(OFFSET - SERRATED MOUNTING)

DOUBLE
(SERRATED MOUNTING)

SLIPFITTERS

TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER TYPICAL MOUNTING DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

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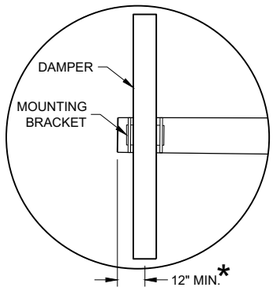
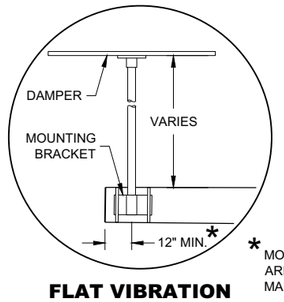
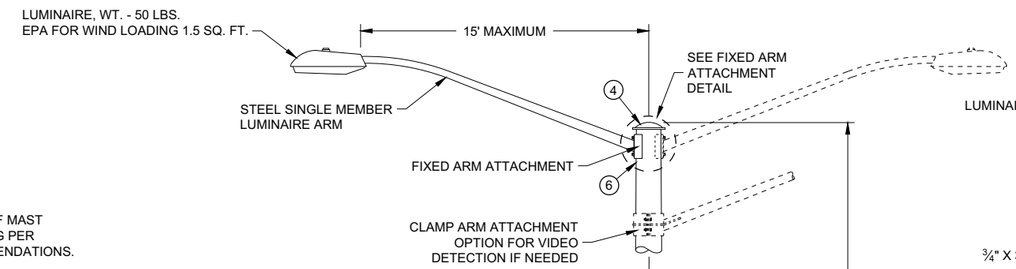


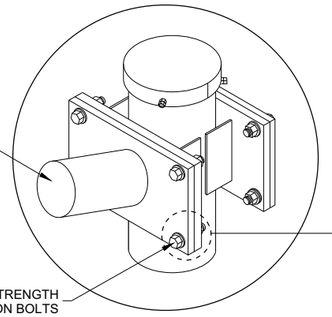
DUMBBELL VIBRATION DAMPER



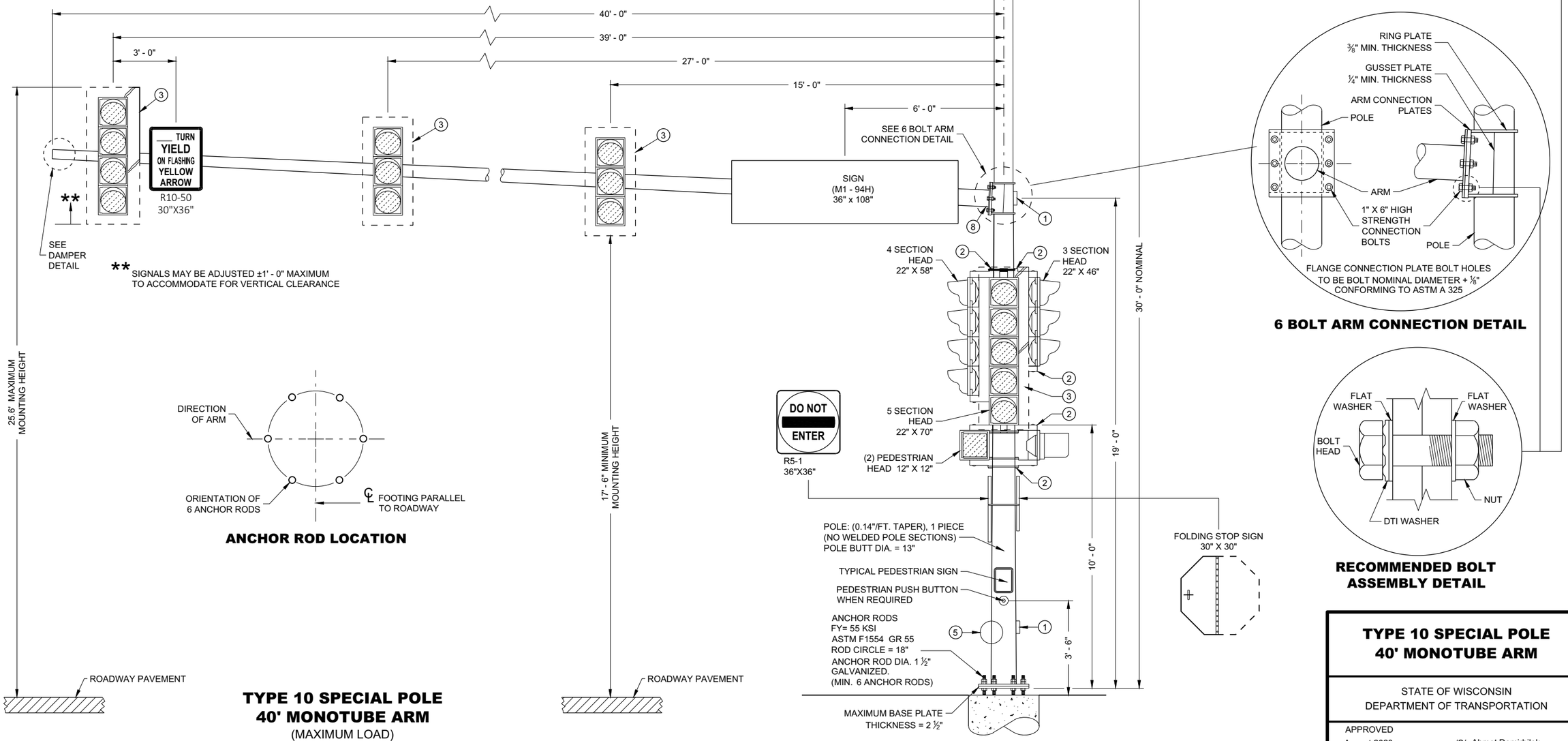
FLAT VIBRATION DAMPER

* MOUNT AS CLOSE TO END OF MAST ARM FOR MAXIMUM DAMPING PER MANUFACTURER'S RECOMMENDATIONS.





FIXED ARM ATTACHMENT DETAIL



** SIGNALS MAY BE ADJUSTED ±1' - 0" MAXIMUM TO ACCOMMODATE FOR VERTICAL CLEARANCE

ANCHOR ROD LOCATION

TYPE 10 SPECIAL POLE
40' MONOTUBE ARM
(MAXIMUM LOAD)

6 BOLT ARM CONNECTION DETAIL

RECOMMENDED BOLT ASSEMBLY DETAIL

TYPE 10 SPECIAL POLE
40' MONOTUBE ARM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2020
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 297

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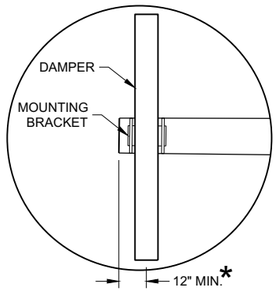
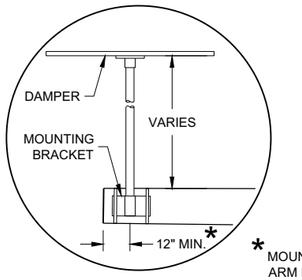
SDD 09E08 - 09g

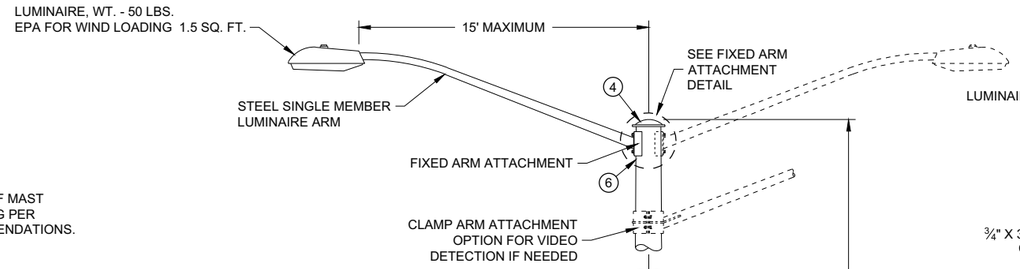


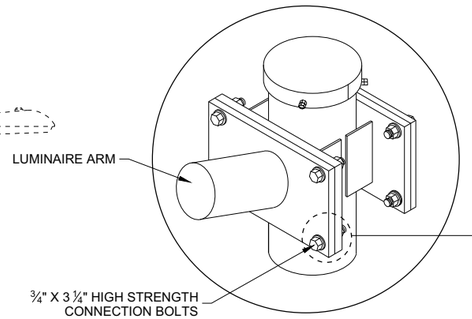
DUMBBELL VIBRATION DAMPER



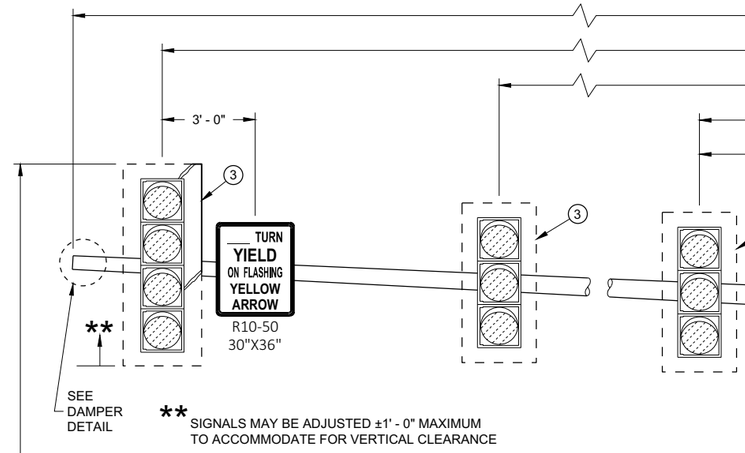
FLAT VIBRATION DAMPER

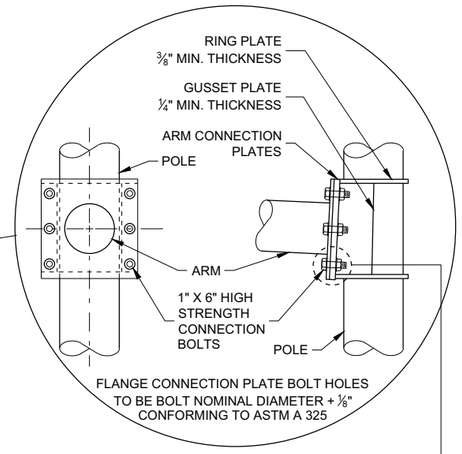
* MOUNT AS CLOSE TO END OF MAST ARM FOR MAXIMUM DAMPING PER MANUFACTURER'S RECOMMENDATIONS.



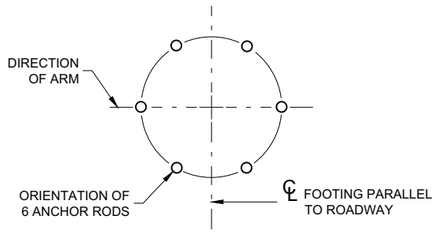


FIXED ARM ATTACHMENT DETAIL

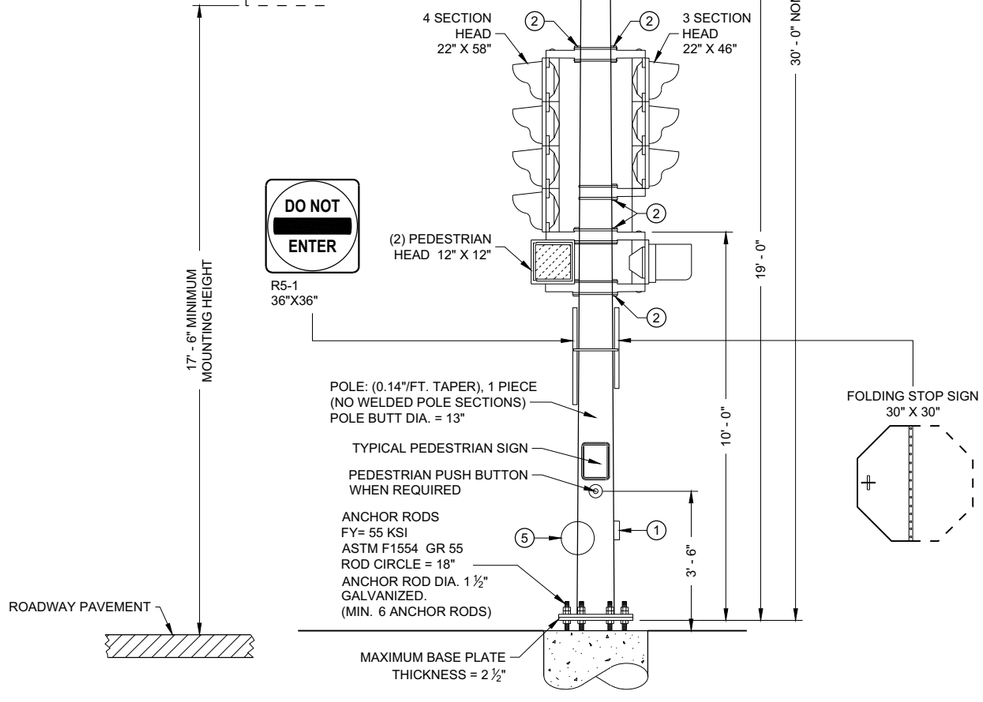


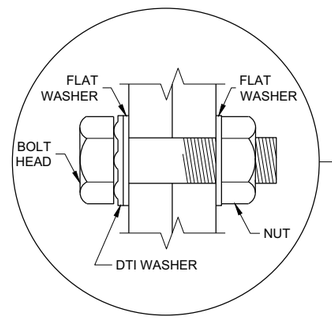


6 BOLT ARM CONNECTION DETAIL



ANCHOR ROD LOCATION





RECOMMENDED BOLT ASSEMBLY DETAIL

TYPE 10 SPECIAL POLE
45' MONOTUBE ARM
(MAXIMUM LOAD)

TYPE 10 SPECIAL POLE
45' MONTUBE ARM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2020
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI

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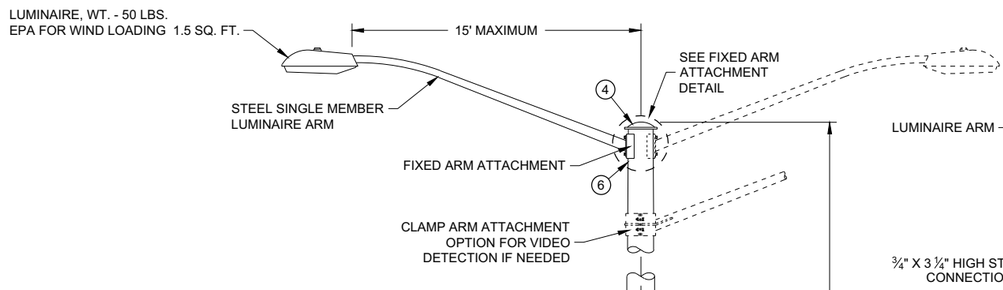
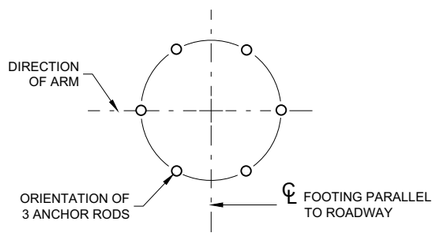
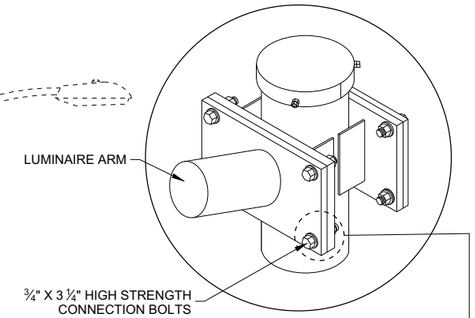


* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

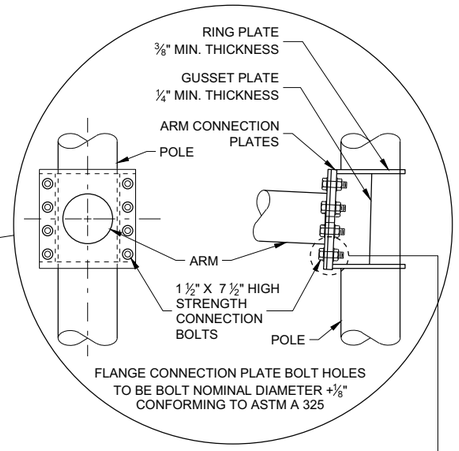
** SIGNALS MAY BE ADJUSTED ±1' - 0" MAXIMUM TO ACCOMMODATE FOR VERTICAL CLEARANCE



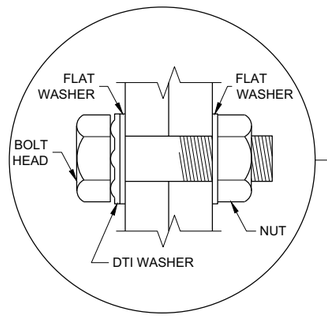
ANCHOR ROD LOCATION



FIXED ARM ATTACHMENT DETAIL



8 BOLT ARM CONNECTION DETAIL



RECOMMENDED BOLT ASSEMBLY DETAIL

TYPE 13 POLE
35' - 55' MONOTUBE ARM
(MAXIMUM LOAD)

TYPE 13 POLE
35' - 55' MONOTUBE ARM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2020
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI

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GENERAL NOTES

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

POLE TYPES 9 AND 10 ARE FOR ARM LENGTHS 15 FOOT TO 30 FOOT.

POLE TYPES 9 SPECIAL AND 10 SPECIAL ARE FOR ARM LENGTHS 35 FOOT, 40 FOOT, AND 45 FOOT.

POLE TYPES 12 AND 13 ARE FOR ARM LENGTHS 35 FOOT TO 55 FOOT.

MONOTUBE POLES AND ARMS SHALL BE GALVANIZED STEEL.

RING STIFFENED BUILT UP BOX TYPE OF ATTACHMENT FOR TRAFFIC SIGNAL ARM.

ONE PIECE POLE CONSTRUCTION (NO WELDED POLE SECTIONS).

STANDARD STRAIGHT ARM DESIGN (3% ± RISE).

SECTION 657, POLES OF THE STANDARD SPECIFICATION SHALL APPLY TO THIS DRAWING.

PROVIDE WIREWAY THRU POLE WALL AND ARM CONNECTION PLATES. PROVIDE ROUND, SMOOTH INSIDE SURFACE.

MANUFACTURER'S SUBMITTED POLE DESIGNS AND DRAWINGS SHALL BE SIGNED AND STAMPED BY A REGISTERED PROFESSIONAL ENGINEER AND CERTIFIED AS BEING IN COMPLIANCE WITH THE AASHTO "LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNAL 2015 1ST EDITION (INCLUDING INTERIM REVISIONS)" AND ALL PERTINENT WISDOT SPECIFICATIONS AND DRAWINGS FOR THE LIGHTING STRUCTURES AS FOLLOWS:

CATEGORY III FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 9 AND TYPE 10 STRUCTURES.

CATEGORY II FATIGUE LOADS OF TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 9 SPECIAL AND TYPE 10 SPECIAL STRUCTURES. IN LIEU OF DESIGNING FOR GALLOPING, A VIBRATION DAMPER MITIGATION DEVICE IS REQUIRED TO BE SUPPLIED AND INSTALLED AT THE END OF THE MAST ARM.

CATEGORY II FATIGUE FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE12 AND TYPE 13 STRUCTURES.

115 MPH (700 YEAR MRI BASIC WIND SPEED).

SECURE THE OPENING BELOW THE BASE PLATE WITH STAINLESS STEEL OR GALVANIZED STEEL MESH AND SECURE THE MESH WITH ¾" STAINLESS STEEL BANDING AROUND THE LEVELING NUTS.

INDENT PRINT (NOMINAL ½" HIGH) THE POLE LENGTH AND FIRST TWO LETTERS OF THE MANUFACTURERS NAME ON TWO SIDES OF THE BASE PLATE 180 DEGREES APART, BEFORE GALVANIZING. THE ARM SHALL BE IDENTIFIED WITH THE SAME INFORMATION BY INDENT PRINT.

SIGNAL FACE SHALL BE MOUNTED 6 INCHES (NOMINAL) FROM THE END OF THE MONOTUBE ARM OR AS SHOWN ON THE PLAN CONSTRUCTION DETAIL OR A S DIRECTED BY THE PROJECT ENGINEER/ELECTRICAL OPERATIONS PERSONNEL. MOUNT ALL LIKE HEAD AT SAME ELEVATION.

SIGN MOUNTING BRACKETS SHALL BE FURNISHED IN ACCORDANCE WITH SECTION 637 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.

(1) DESIGN FOR MAXIMUM ALLOWABLE HAND HOLE WITH COVER ASSEMBLY WITH TWO ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLTS.

(2) SIGNAL MOUNTING BRACKETS FOR POLE MOUNTING, MOUNT WITH CAP SCREW AND BANDING (SEE SPECIFICATION SECTION 658).

(3) SECURELY MOUNT BACK PLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURERS RECOMMENDATIONS.

(4) THE TOP OF THE POLE SHAFT AND THE MONOTUBE ARM SHALL BE EQUIPPED WITH A REMOVABLE, VENTILATED CAP HELD SECURELY IN PLACE WITH SET SCREWS.

(5) FACTORY WELDED BRACKET FOR GROUNDING LUG, OPPOSITE HAND HOLD, (LUG AND HARDWARE PAID UNDER SEPARATE ITEM). PROVIDE HOLE IN BRACKET FOR ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLT.

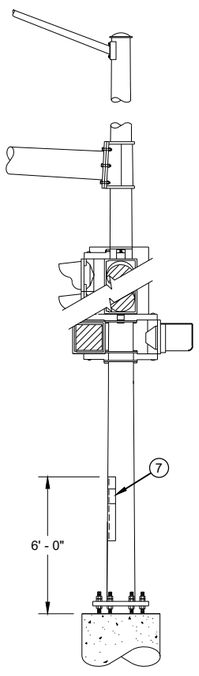
(6) FACTORY WELDED "J" HOOK FOR STRAIN RELIEF FOR POLE LUMINAIRE WIRE.

(7) INSTALL STRUCTURAL IDENTIFICATION PLAQUES.

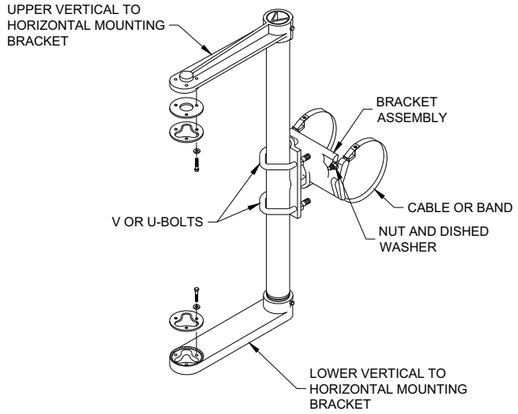
STRUCTURAL IDENTIFICATION PLAQUES SHALL BE PLACED ON THE POLES IN THE SAME DIRECTION AS THE ARM.

MOUNTING HEIGHT SHALL BE 6' - 0" ABOVE THE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL BE OBSTRUCTED.

(8) FACTORY DRILLED ½" DRAIN HOLE 2" FROM FLANGE CONNECTION PLATE.

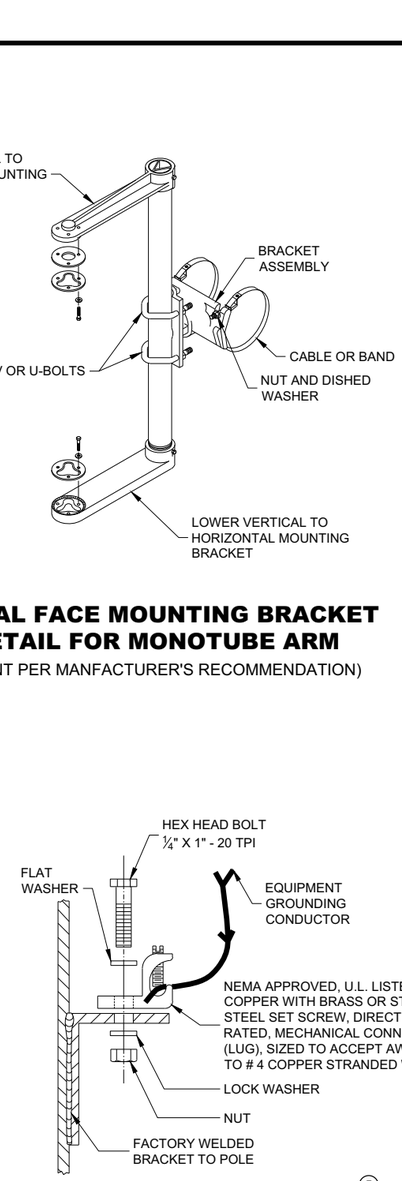


STRUCTURAL IDENTIFICATION PLAQUE PLACEMENT



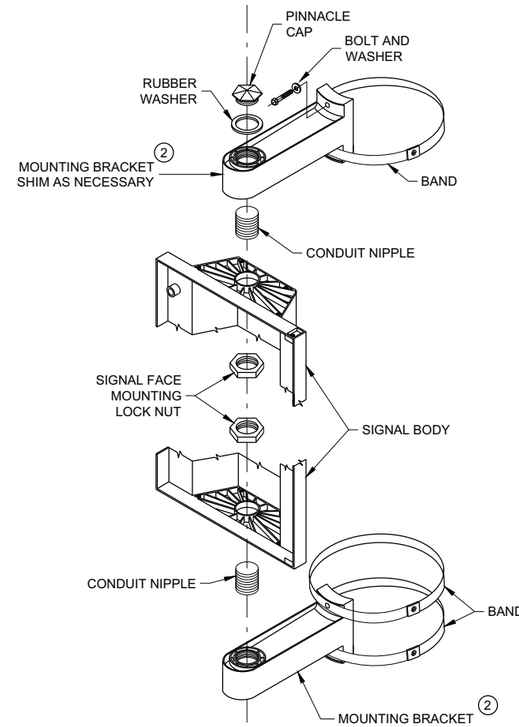
SIGNAL FACE MOUNTING BRACKET DETAIL FOR MONOTUBE ARM

(MOUNT PER MANFACTURER'S RECOMMENDATION)

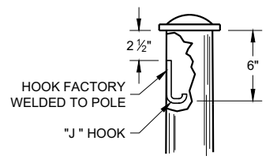


TYPICAL GROUNDING (5) CONNECTIONS

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



SIGNAL FACE VERTICAL MOUNTING DETAIL



TYPICAL "J" HOOK (6) WIRE SUPPORT

GENERAL NOTES AND HARDWARE FOR TYPES 9,10, 9/10 SPECIAL, 12 AND 13 POLES WITH MONOTUBE ARMS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2020 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL ENGINEER

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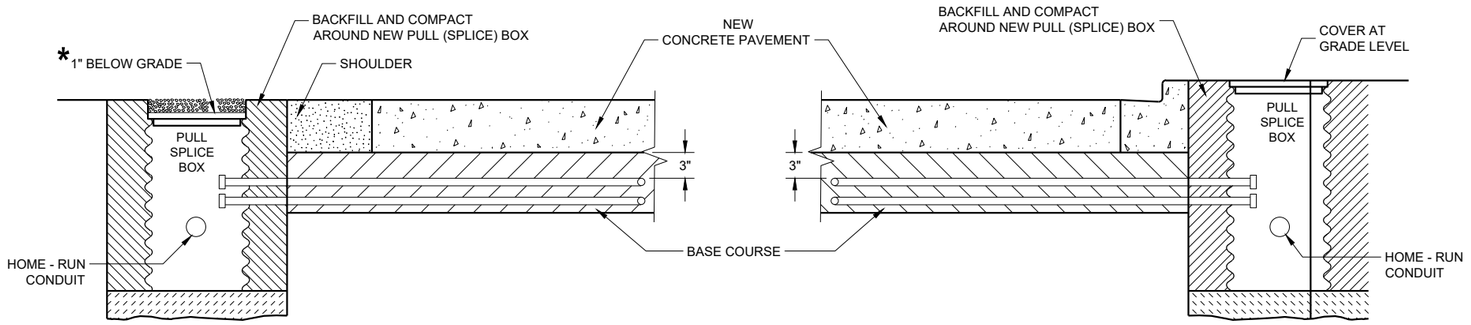


SECTION A - A
NO CURB AND GUTTER

SECTION B - B
CURB AND GUTTER

* RECESS PULL (SPLICE) BOX SO THAT THE COVER IS 3" BELOW GRADE IN SHOULDER AREAS OF CRUSHED AGGREGATE. BACKFILL OVER COVER WITH THE CRUSHED AGGREGATE TO BRING THE AREA TO GRADE LEVEL.

LOOP DETECTOR INSTALLATION DETAIL

GENERAL NOTES

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

PITCH LEAD OUT CONDUIT TO DRAIN TO ROADSIDE PULL (SPLICE) BOX.

LOOP SIZE, LOCATION, NUMBER OF TURNS OF WIRE AND ASSOCIATED SIGNAL PHASE SHALL BE AS SHOWN ON THE PLANS.

SPLICES SHALL BE INSTALLED BY USING CAST IN PLACE SPLICE KITS LISTED ON THE DEPARTMENTS APPROVED PRODUCTS LIST OR AN ENGINEER APPROVED EQUAL. NON-INSULATED BUTT SPLICES TO FIT #12 AWG STRANDED WIRE SHALL BE USED. SPLICES SHALL BE SOLDERED AND INSULATED FROM EACH OTHER AS PER INSTRUCTIONS INCLUDED IN THE SPLICE KIT.

MEASURE GROUND RESISTANCE USING A MEGGER. REPLACE LOOP WIRE NOT ATTAINING A READING OF INFINITY TO GROUND.

AFTER SPLICING THE LOOP WIRE TO THE LOOP LEAD-IN CABLE, THE CONTRACTOR SHALL MEASURE INDUCTANCE, GROUND RESISTANCE AND WIRE RESISTANCE AT THE CABINET END OF THE LEAD-IN CABLE AND FURNISH A COPY OF THE READING TO THE PROJECT ENGINEER FOR EVALUATION.

LOOP DETECTOR LEADS SHALL BE IDENTIFIED WITH THEIR ASSOCIATED LOOP BY USE OF WATERPROOF TAGS AT BOTH ENDS OF THE CABLE. A LISTING OF THE CABLE IDENTIFICATION PER INDIVIDUAL LOOP LEAD-IN SHALL BE PLACED IN THE CABINET.

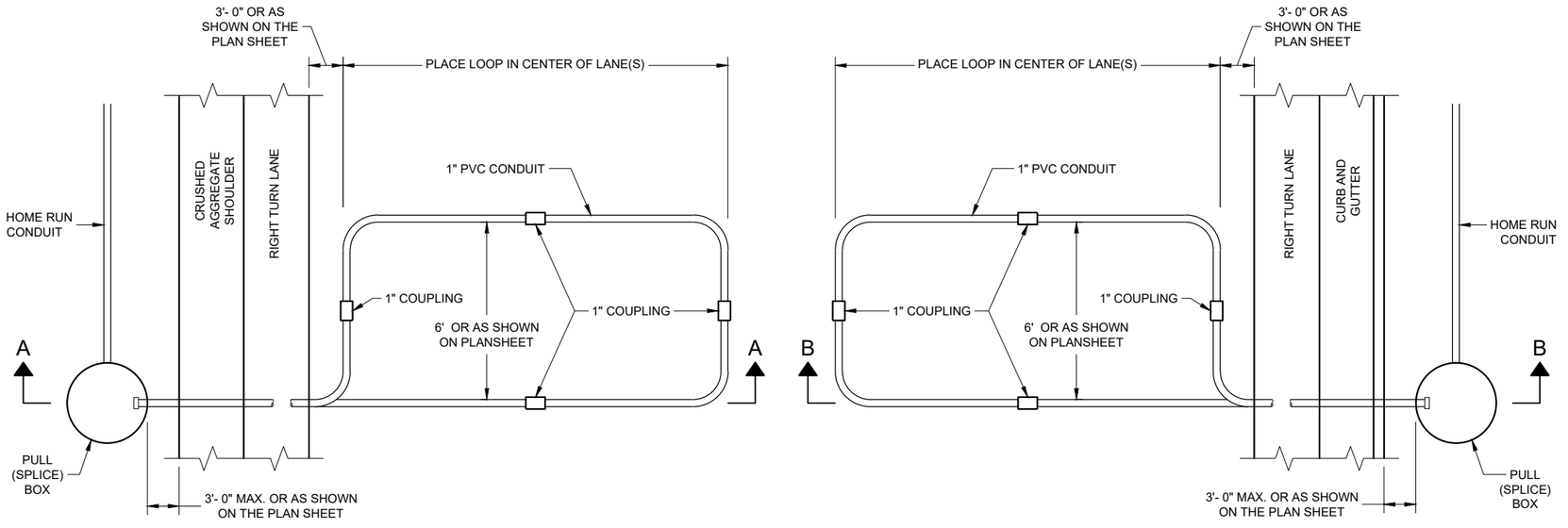
THE #12 AWG LOOP WIRE IN THE PULL (SPLICE) BOX SHALL BE HAND TWISTED AT LEAST 3 TWISTS PER FOOT BEFORE BEING SPLICED TO THE LOOP LEAD-IN CABLE.

SPLICES OF LOOP WIRE TO LEAD-IN CABLE SHALL BE MADE ONLY IN PULL (SPLICE) BOXES AT THE SIDE OF THE ROAD.

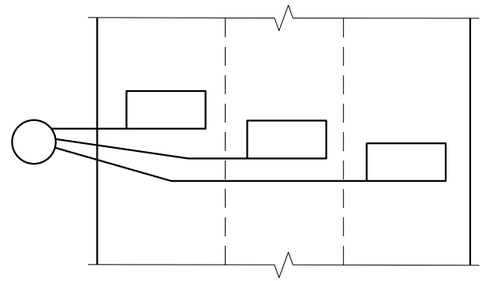
THE #12 AWG LOOP WIRE SHALL BE INSTALLED FROM THE ROADSIDE PULL (SPLICE) BOX, THROUGH THE LOOP CONDUIT, BACK TO THE ROADSIDE PULL (SPLICE) BOX, AND BE INSTALLED IN ONE NON-SPLICED, CONTINUOUS LENGTH.

PROTECTION OF THE CONDUIT IN THE BASE COURSE SHALL BE REQUIRED AFTER INSTALLATION AND BEFORE NEW PAVEMENT IS INSTALLED.

SHOULD INSTALLATION REPAIR BE REQUIRED, IT SHALL BE DONE UNDER THE DIRECTION OF THE PROJECT ENGINEER.



TYPICAL PLAN LOOP DETECTOR WITH 24" PULL (SPLICE) BOX



MULTI-LANE INSTALLATION

LOOP DETECTOR INSTALLED IN BASE COURSE WITH PULL (SPLICE) BOX OFF ROADWAY (OPTION 2)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
September 2014
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 301

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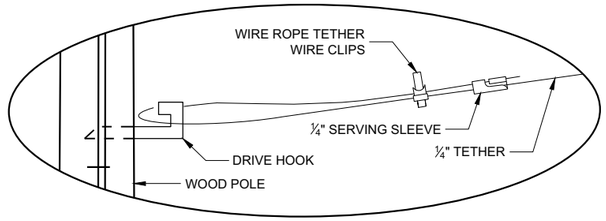
MINIMUM POLE LENGTHS	POLE BURIAL DEPTHS
25'	5'
30'	6'
35'	7'
40'	8'
45'	9'

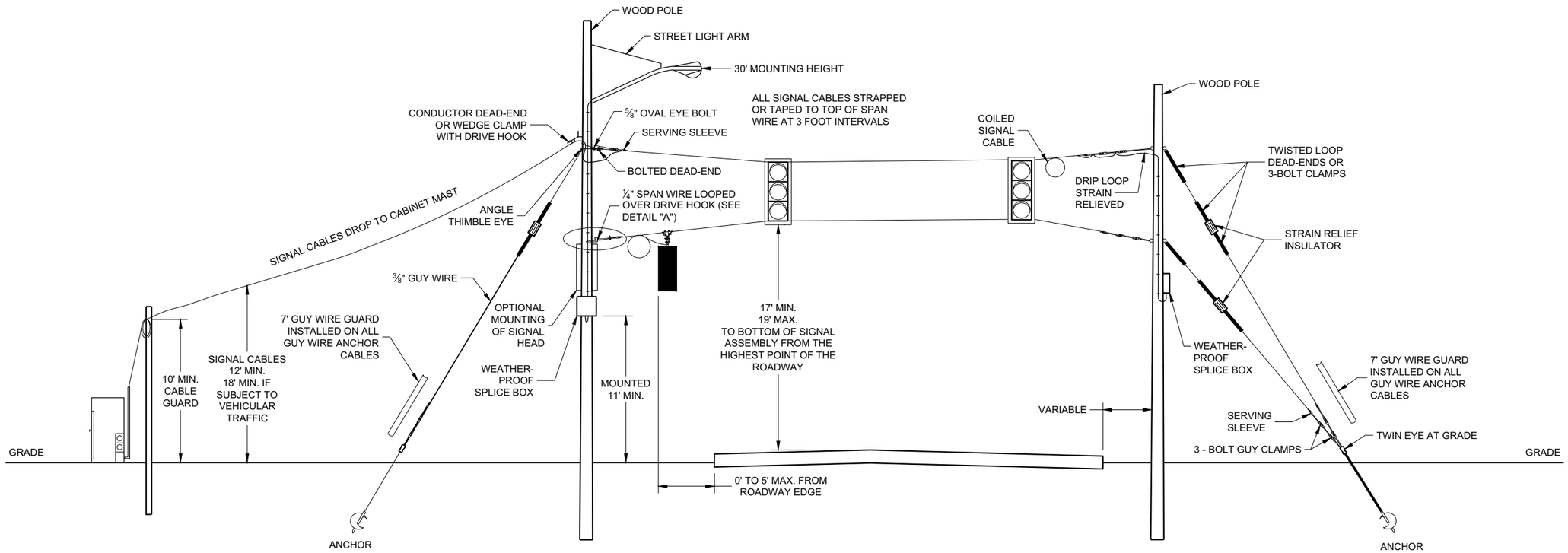


DETAIL "A"

GENERAL NOTES

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

1. WOOD POLES SHALL BE CLASS 4. LENGTH DETERMINED BY SIGNAL PLAN.
2. SIGNAL FACES:
   A. ALL SECTIONS SHALL BE 12" AND POLYCARBONATE.
   B. EACH SHALL CONTAIN A 5" WIDE DULL BLACK POLYCARBONATE BACKPLATE.
   C. EACH SHALL BE WIRED FROM THE TOP SIGNAL MOUNTING BRACKET.
   D. NEAR RIGHT SIGNAL FACE SUSPENDED ON THE TETHER (NO BACKPLATE) SHALL NOT BE OVER THE TRAVELED WAY. IF THE POLE IS WITHIN 5 FEET OF THE TRAVELED WAY MOUNT THE SIGNAL FACE ON THE WOOD POLE WITH BACKPLATE.
3. SPAN WIRE:
   A. EACH SPAN WIRE SHALL BE INDIVIDUALLY DOWN GUYED
   B. SIGNAL AND LIGHTING CABLES SHALL ONLY BE ATTACHED TO THE UPPER SPAN WIRE.
   C. THE SIGNAL ASSEMBLY SHALL HAVE A 17' MIN. HEIGHT ABOVE THE ROADWAY. THIS SHALL BE MEASURED AFTER THE SPAN WIRE INSTALLATION IS COMPLETED WITH ALL CABLES AND SIGNAL FACES IN PLACE. MAINTAIN MINIMUM AND MAXIMUM HEIGHTS AS ROADWAY WORK PROGRESSES.



SPAN WIRE
TEMPORARY SIGNALS

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2015 — DATE
/S/ Ahmet Demerbilek — STATE ELECTRICAL ENGI
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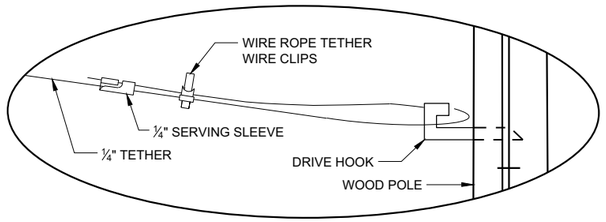
MINIMUM POLE LENGTHS	CLASS	POLE BURIAL DEPTHS
25'	V	5'
30'	V	6'
35'	IV	7'
40'	IV	8'
45'	IV	9'



DETAIL "A"

GENERAL NOTES

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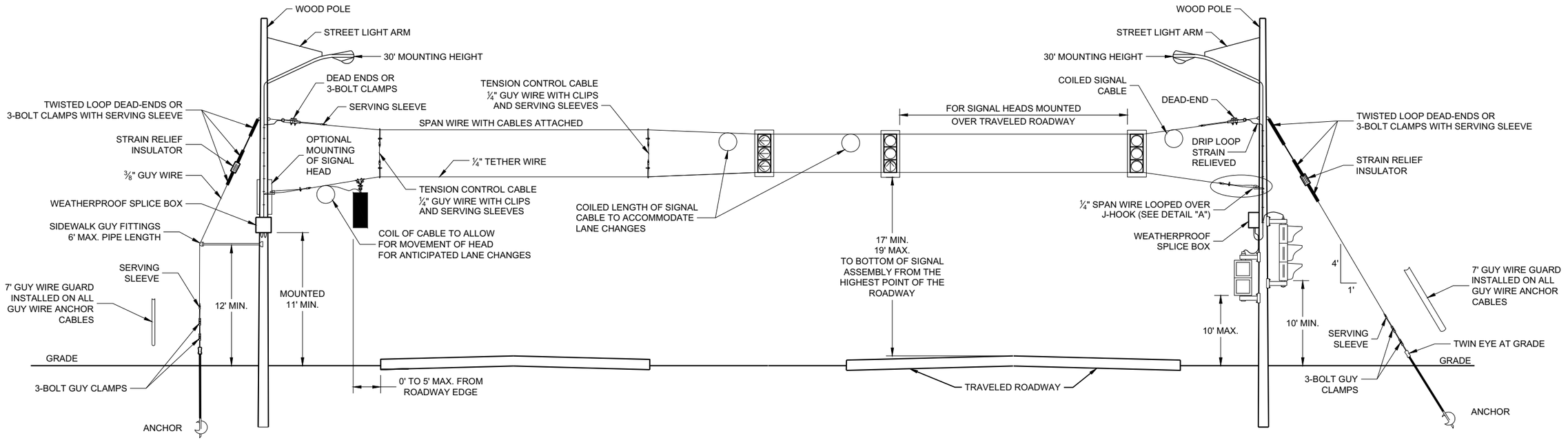
1. WOOD POLES SHALL BE CLASS 4. LENGTH DETERMINED BY SIGNAL PLAN.
2. SIGNAL FACES:
   - A. ALL SECTIONS SHALL BE 12" AND POLYCARBONATE.
   - B. EACH SHALL CONTAIN A 5" WIDE DULL BLACK POLYCARBONATE BACKPLATE.
   - C. EACH SHALL BE WIRED FROM THE TOP SIGNAL MOUNTING BRACKET.
   - D. NEAR RIGHT SIGNAL FACE SUSPENDED ON THE TETHER (NO BACKPLATE) SHALL NOT BE OVER THE TRAVELED WAY. IF THE POLE IS WITHIN 5 FEET OF THE TRAVELED WAY MOUNT THE SIGNAL FACE ON THE WOOD POLE WITH BACKPLATE.
   - E. FAR INDICATION SHALL BE MAINTAINED OVER CENTER OF TRAFFIC LANE.
3. SPAN WIRE:
   - A. EACH SPAN WIRE SHALL BE INDIVIDUALLY DOWN GUYED
   - B. SIGNAL AND LIGHTING CABLES SHALL ONLY BE ATTACHED TO THE UPPER SPAN WIRE.
   - C. THE SIGNAL ASSEMBLY SHALL HAVE A 17' MIN. HEIGHT ABOVE THE ROADWAY. THIS SHALL BE MEASURED AFTER THE SPAN WIRE INSTALLATION IS COMPLETED WITH ALL CABLES AND SIGNAL FACES IN PLACE. MAINTAIN MINIMUM AND MAXIMUM HEIGHTS AS ROADWAY WORK PROGRESSES.



SPAN WIRE
TEMPORARY SIGNALS
4 LANE ROADWAYS

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2015
DATE
/S/ Ahmet Demerbilek
STATE ELECTRICAL ENGI

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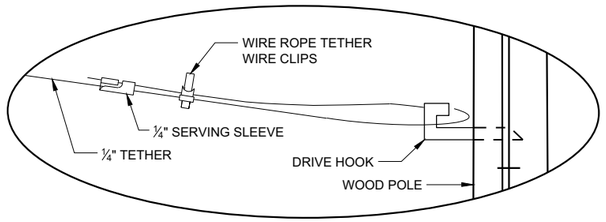
MINIMUM POLE LENGTHS	CLASS	POLE BURIAL DEPTHS
25'	V	5'
30'	V	6'
35'	IV	7'
40'	IV	8'
45'	IV	9'



DETAIL "A"

GENERAL NOTES

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

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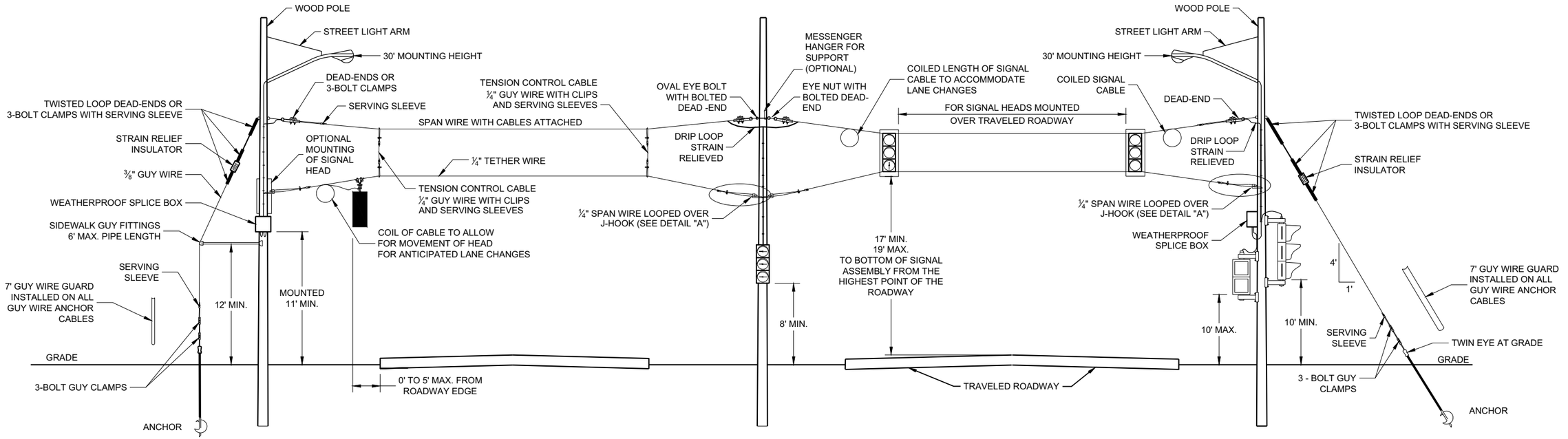
2. SIGNAL FACES:
   - A. ALL SECTIONS SHALL BE 12" AND POLYCARBONATE.
   - B. EACH SHALL CONTAIN A 5" WIDE DULL BLACK POLYCARBONATE BACKPLATE.
   - C. EACH SHALL BE WIRED FROM THE TOP SIGNAL MOUNTING BRACKET.
   - D. NEAR RIGHT SIGNAL FACE SUSPENDED ON THE TETHER (NO BACKPLATE) SHALL NOT BE OVER THE TRAVELED WAY. IF THE POLE IS WITHIN 5 FEET OF THE TRAVELED WAY MOUNT THE SIGNAL FACE ON THE WOOD POLE WITH BACKPLATE.
   - E. FAR INDICATION SHALL BE MAINTAINED OVER CENTER OF TRAFFIC LANE.
3. SPAN WIRE:
   - A. EACH SPAN WIRE SHALL BE INDIVIDUALLY DOWN GUYED
   - B. SIGNAL AND LIGHTING CABLES SHALL ONLY BE ATTACHED TO THE UPPER SPAN WIRE.
   - C. THE SIGNAL ASSEMBLY SHALL HAVE A 17' MIN. HEIGHT ABOVE THE ROADWAY. THIS SHALL BE MEASURED AFTER THE SPAN WIRE INSTALLATION IS COMPLETED WITH ALL CABLES AND SIGNAL FACES IN PLACE. MAINTAIN MINIMUM AND MAXIMUM HEIGHTS AS ROADWAY WORK PROGRESSES.



SPAN WIRE
TEMPORARY SIGNALS
4 LANE ROADWAYS

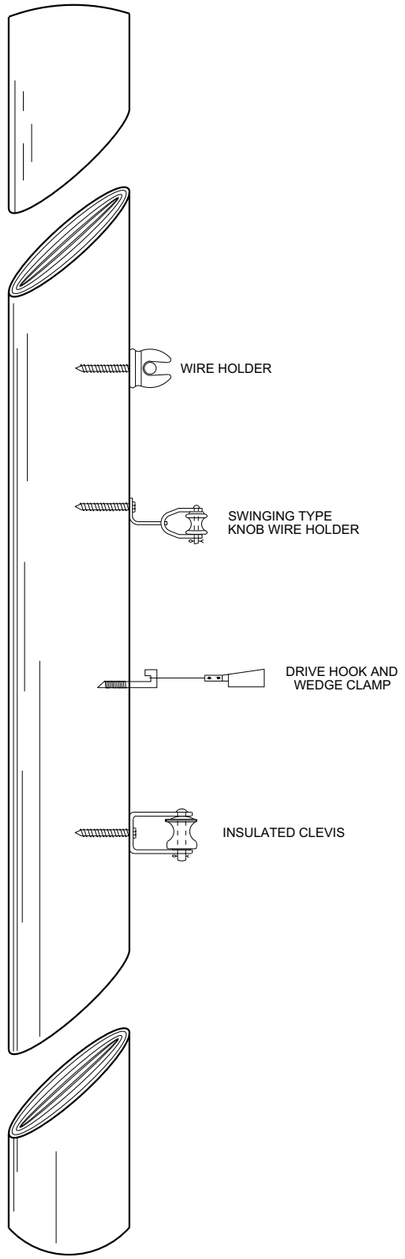
SPAN WIRE TEMPORARY TRAFFIC SIGNAL

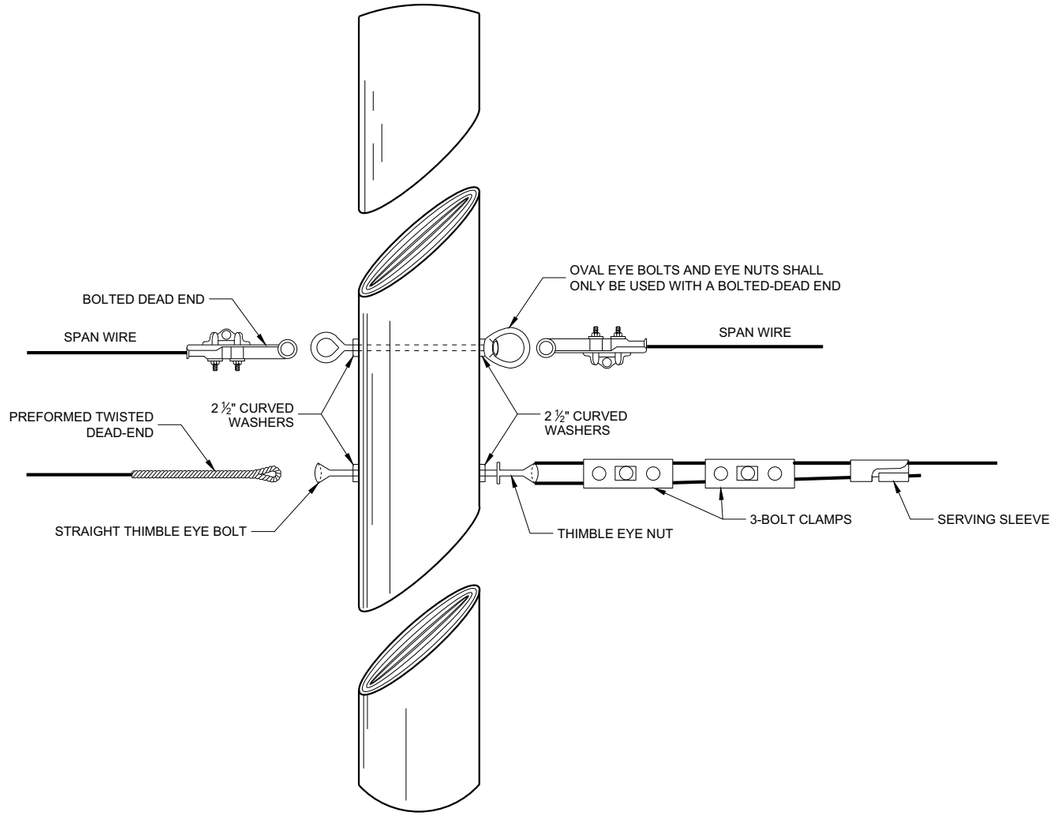
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2015
DATE
/S/ Ahmet Demerbilek
STATE ELECTRICAL ENGI

FHWA

SDD09G01 - 04c





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SDD 09G01 - 4d

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SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

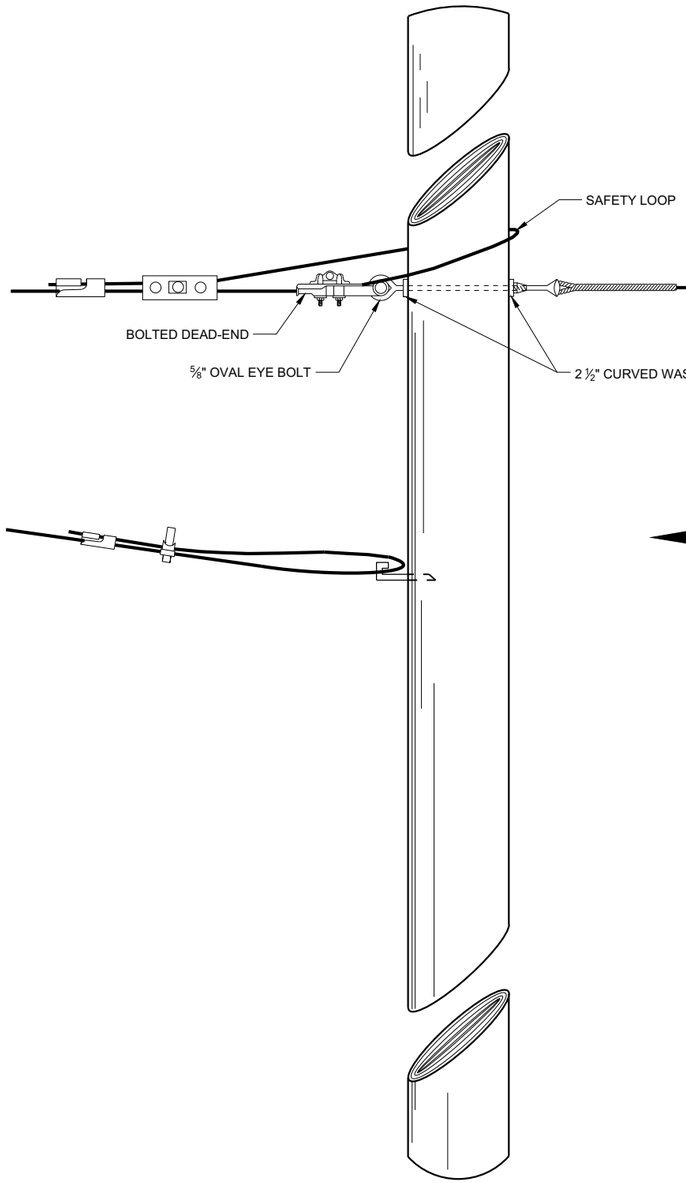
June 2015
DATE

/S/ Ahmet Demerbilek
ROADWAY STANDARDS DEVE ENGINEER

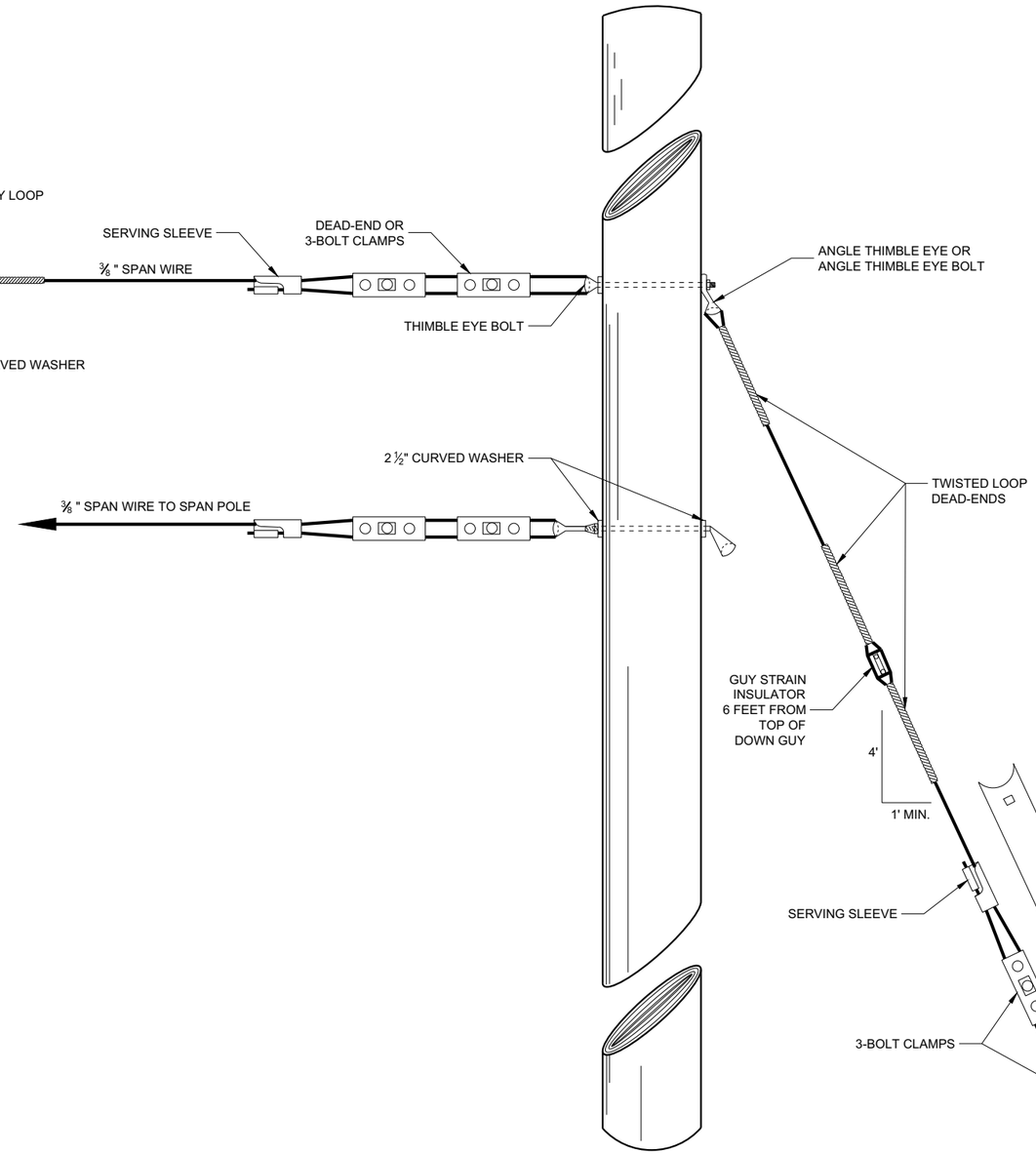
FHWA

GENERAL NOTES

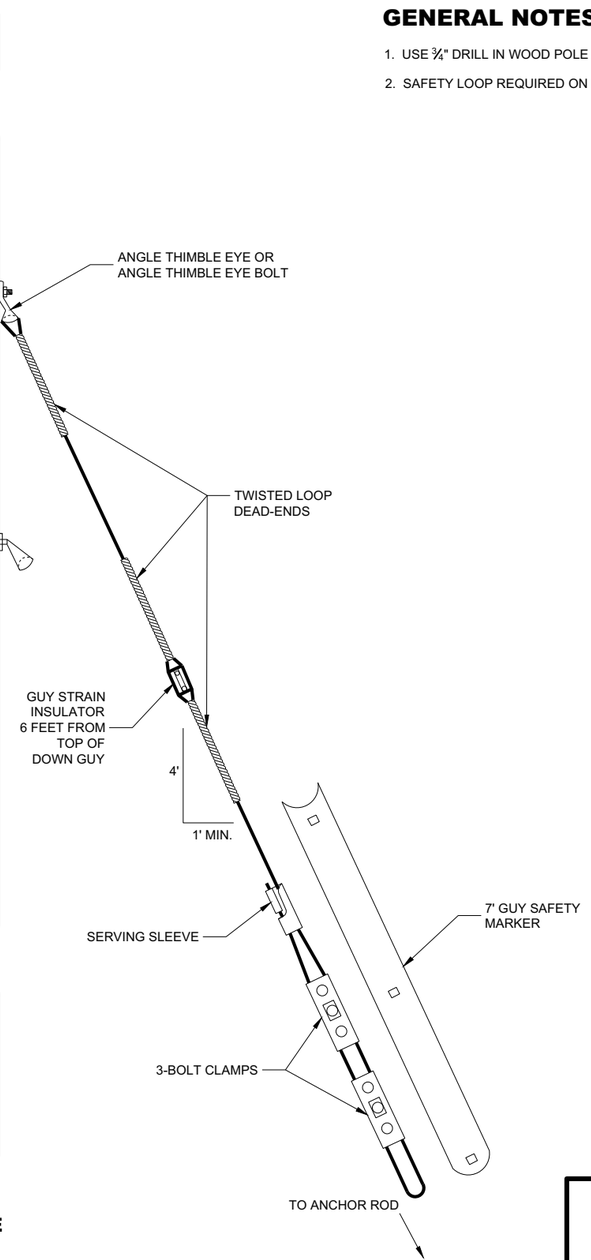
1. USE ¾" DRILL IN WOOD POLE TO PROVIDE FOR ⅝" BOLTS.
2. SAFETY LOOP REQUIRED ON EACH END OF ALL SPAN WIRES.



SPAN WIRE POLE



GUY POLE



TYPICAL DEAD-ENDINGS OR GUYING

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2015
DATE

/S/ Ahmet Demerbilek
ROADWAY STANDARDS DEVE ENGINEER

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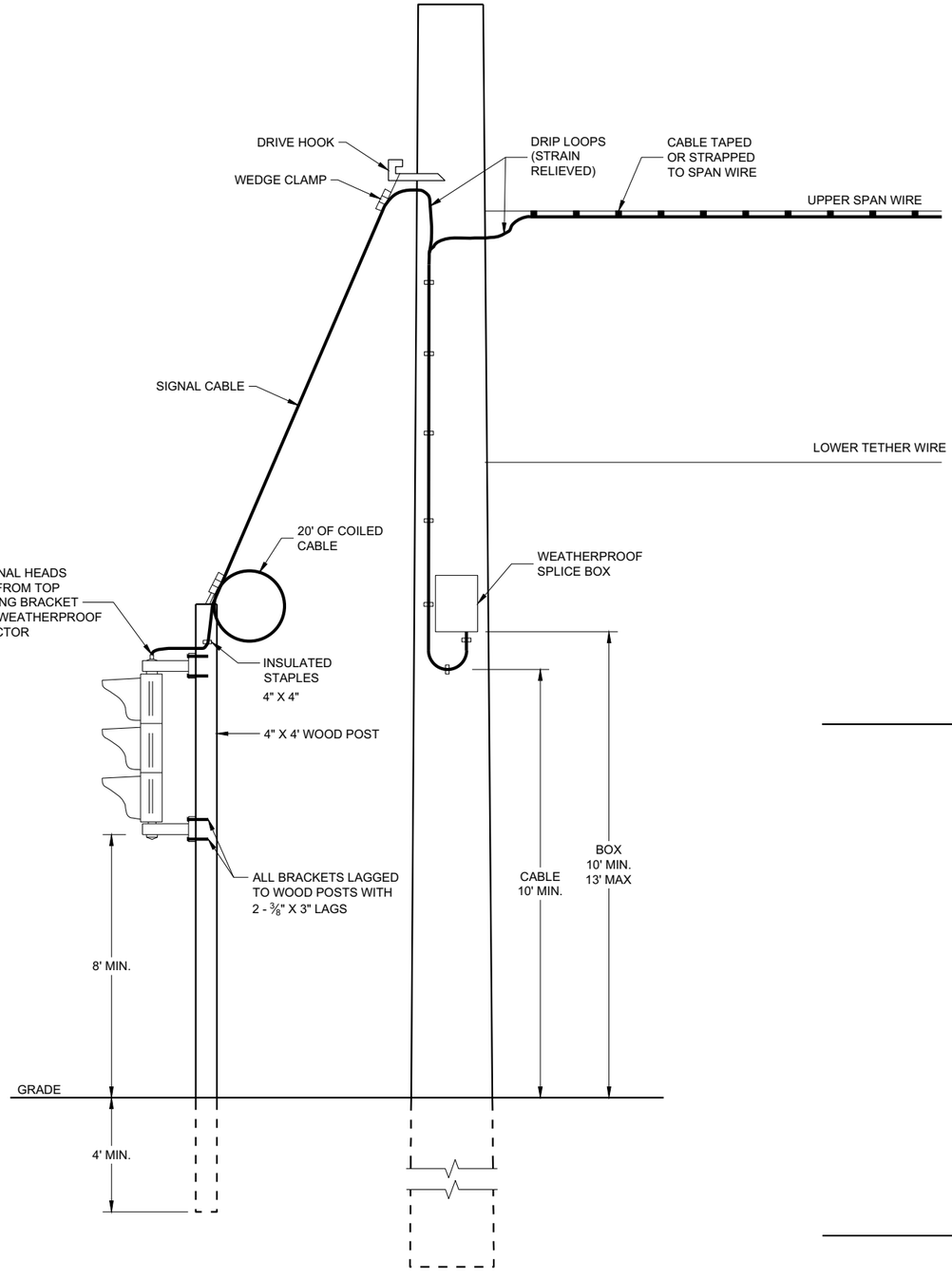
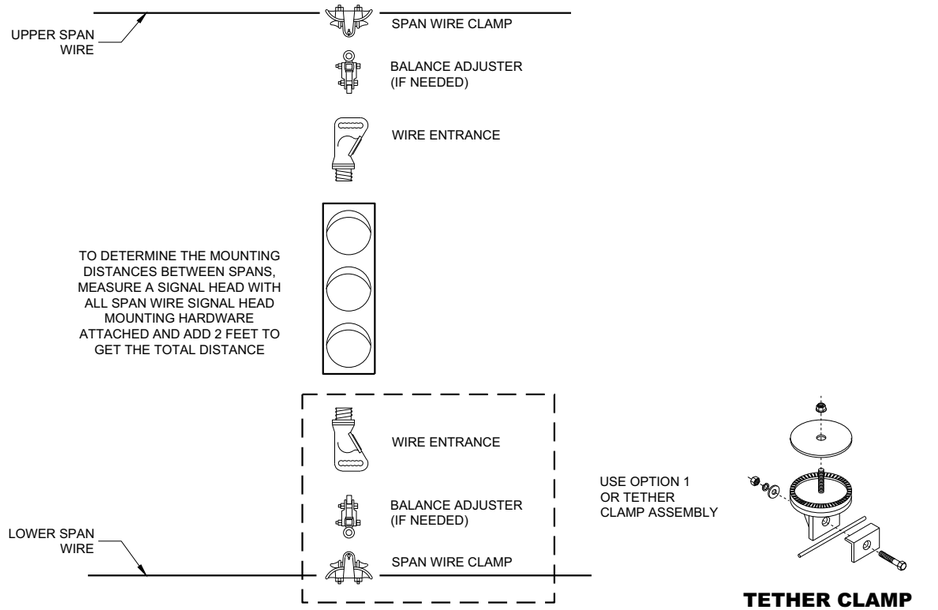
SDD 09G01 - 4e



TYPICAL DROP TO TEMPORARY MOVEABLE SIGNAL

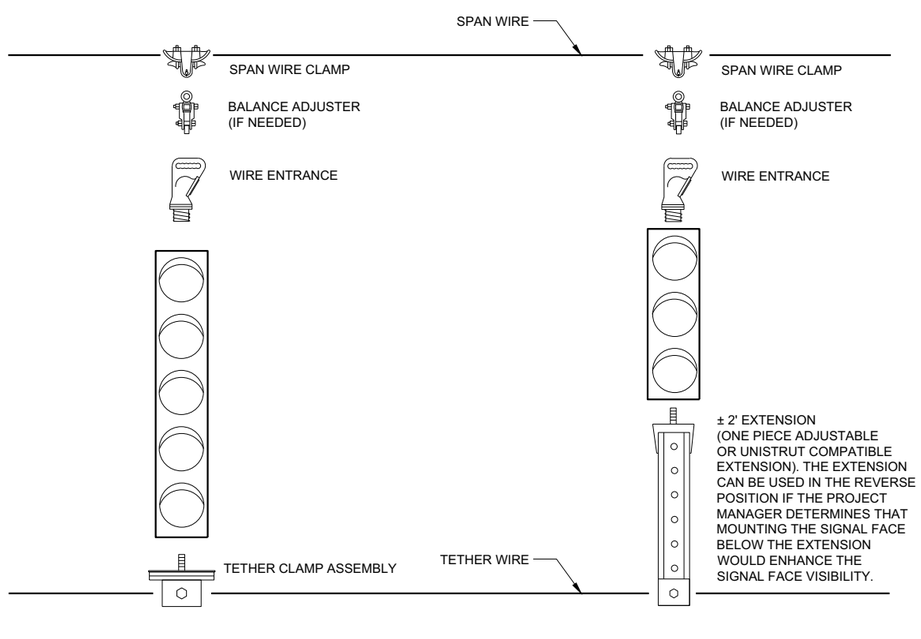


OPTION 1

USE OPTION 1 OR TETHER CLAMP ASSEMBLY

TETHER CLAMP ASSEMBLY OPTION

TYPICAL SPAN WIRE MOUNTING HARDWARE



5 SECTION VERTICAL WITH 3 SECTION VERTICAL ON ONE SPAN WIRE

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2015
DATE

/S/ Ahmet Demerbilek
ROADWAY STANDARDS DEVE ENGINEER

FHWA

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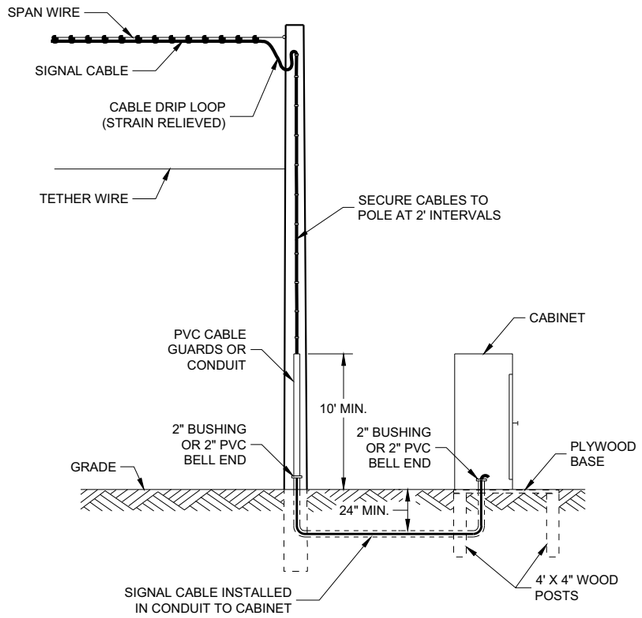
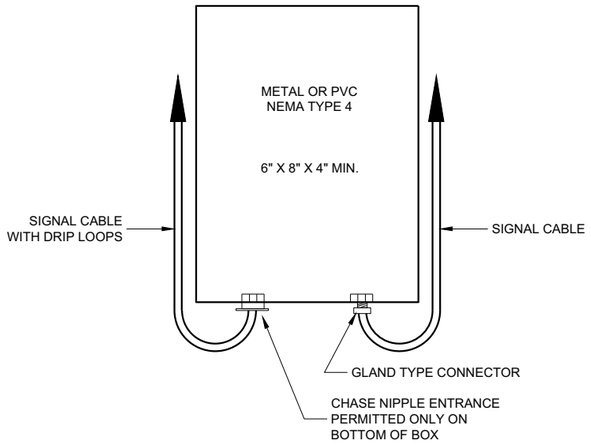
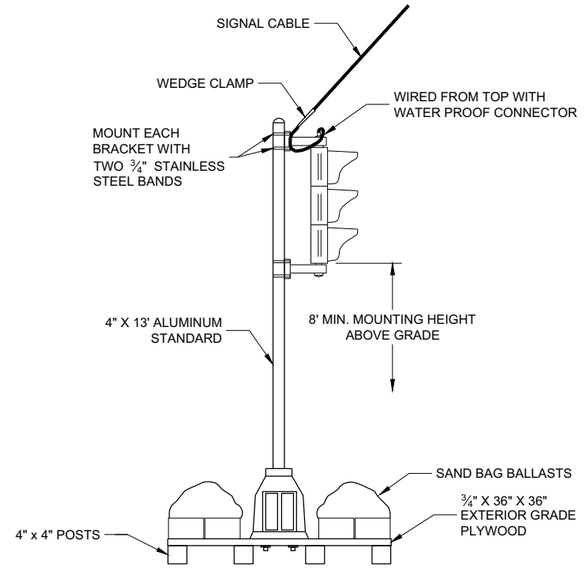
SDD 09G01 - 4f

SDD 09G01 - 4f

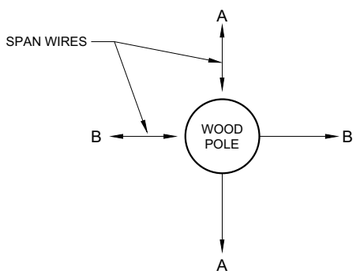




SPLICE BOX

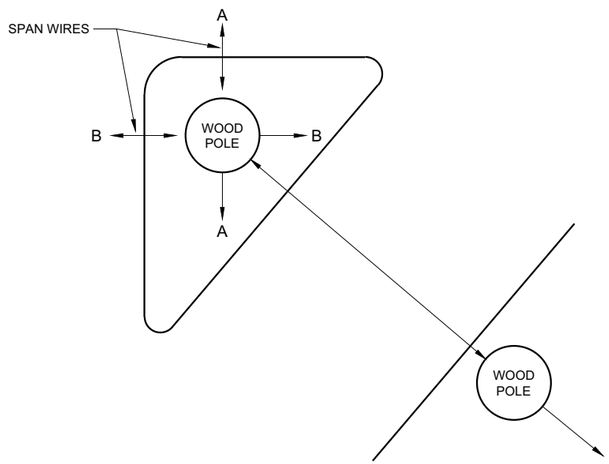


TYPICAL SKID TYPE TEMPORARY

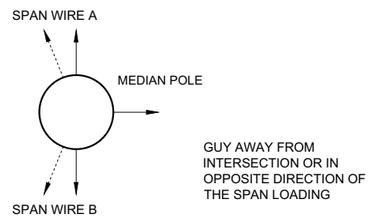


ALL DOWN OR SIDEWALK GUYS
SHALL BE INSTALLED IN THE
OPOSITE DIRECTION OF THE
STRAIN OF THE SPAN WIRE

CORNER POLES



ISLAND POLES



GUY AWAY FROM
INTERSECTION OR IN
OPPOSITE DIRECTION OF
THE SPAN LOADING

MEDIAN POLES

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2015
DATE

/S/ Ahmet Demerbilek
ROADWAY STANDARDS DEVE
ENGINEER

FHWA

SDD 09G01 - 4g

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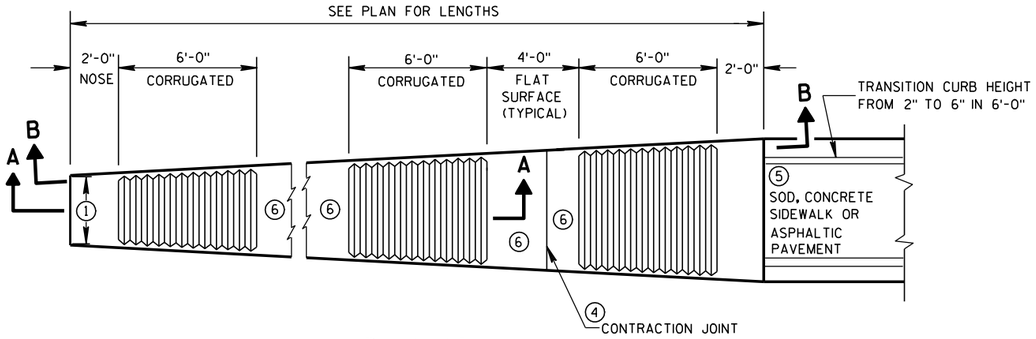
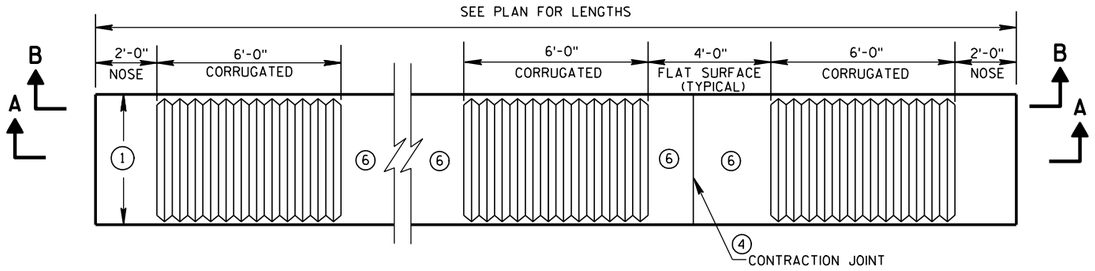


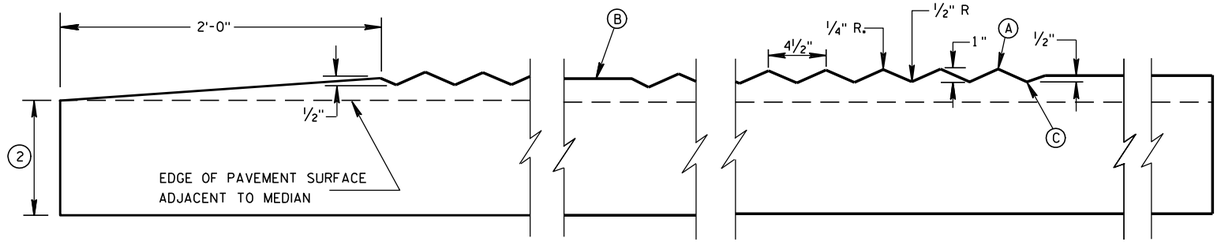
PLAN VIEW

VARIABLE WIDTH CONCRETE CORRUGATED MEDIAN



PLAN VIEW

UNIFORM WIDTH CONCRETE CORRUGATED MEDIAN



SECTION A-A

LONGITUDINAL SECTION

GENERAL NOTES

(1) SEE PLANS FOR CONSTANT OR VARIABLE WIDTH.

(2) THE DEPTH OF THE CONCRETE CORRUGATED MEDIAN SHALL BE 9-INCHES UNLESS SHOWN OTHERWISE IN THE PLAN.

ADJACENT PAVEMENT STRUCTURE DETAILS ARE SHOWN IN THE PLAN. TYPICAL OPTIONS ARE:

(1) NEW OR EXISTING CONCRETE PAVEMENT.

(2) ASPHALTIC CONCRETE OVER NEW OR EXISTING CONCRETE BASE COURSE, OR PAVEMENT.

(3) ASPHALTIC PAVEMENT OVER BASE AGGREGATE DENSE.

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

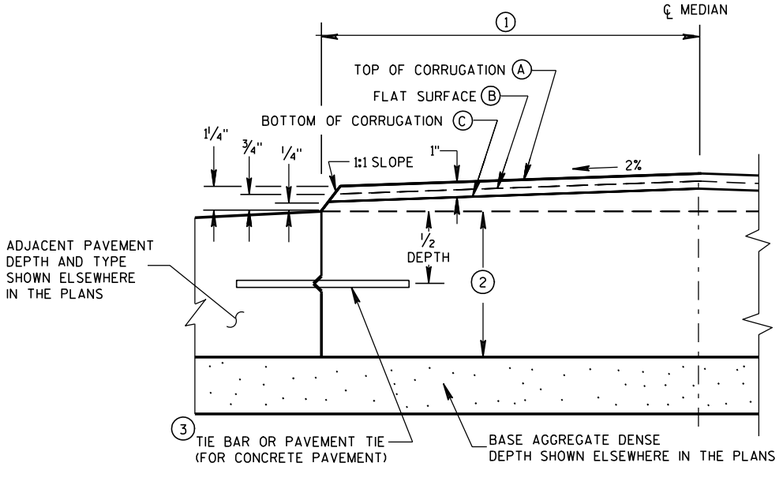
INSTALL TIE BARS TO MAINTAIN A MINIMUM OF 3-INCHES OF COVER BETWEEN THE TIE BAR AND THE CONCRETE SURFACE (BOTTOM AND TOP).

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

(4) CONCRETE CORRUGATED MEDIAN CONTRACTION JOINTS SHALL BE CONSTRUCTED TO MATCH THE JOINTS IN ADJACENT CONCRETE PAVEMENT. WHERE ADJACENT PAVEMENT IS ASPHALT WITH BASE AGGREGATE DENSE. TRANSVERSE CONTRACTION JOINTS SHALL BE PROVIDED AT 20 FOOT INTERVALS.

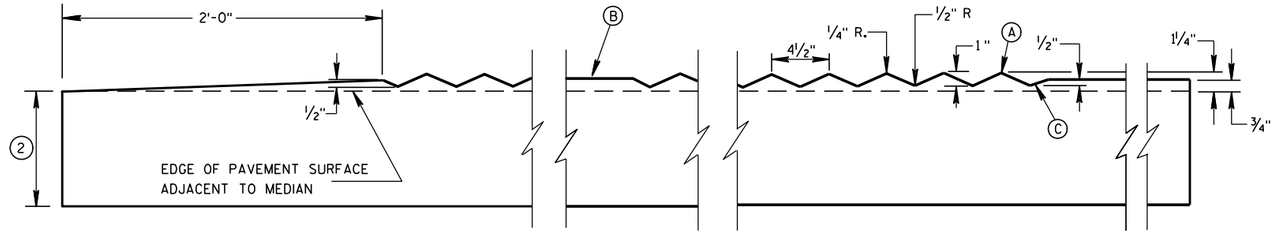
(5) SURFACE TYPE AND DETAILS ARE DEFINED ELSEWHERE IN THE PLAN.

(6) YELLOW MARKING ON FLAT SURFACE WHEN MEDIAN SEPARATES OPPOSING TRAFFIC.



HALF CROSS SECTION

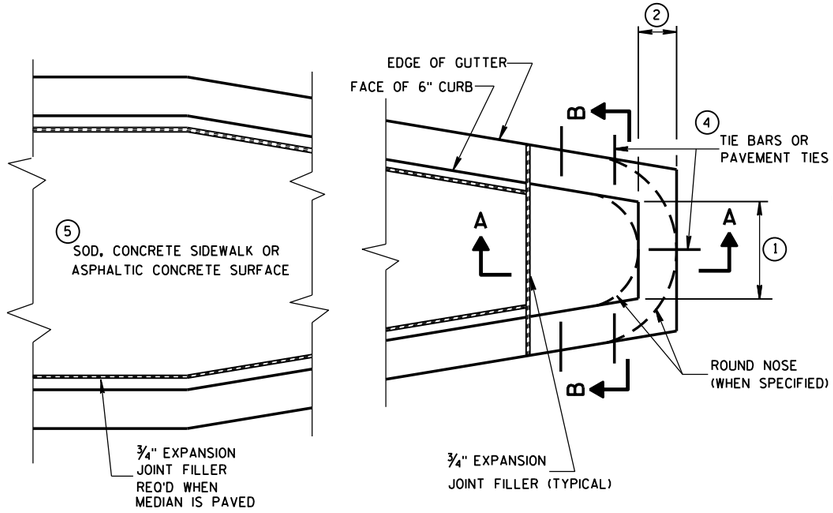
(2) CONCRETE CORRUGATED MEDIAN AND ADJACENT PAVEMENT

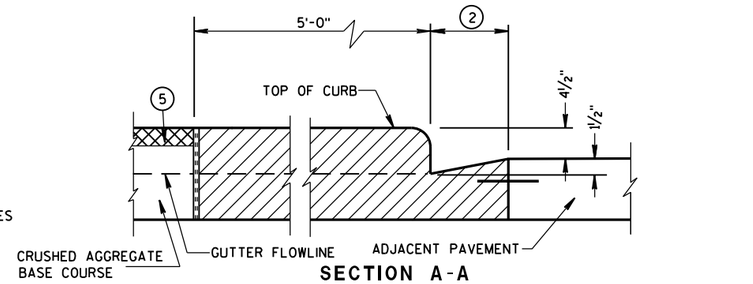


SECTION B-B

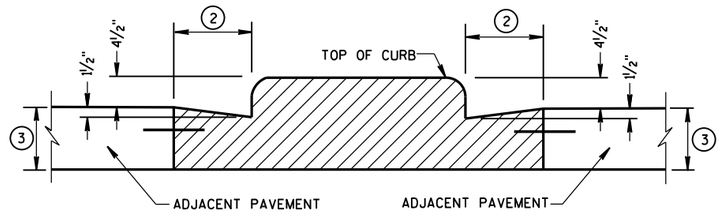
LONGITUDINAL SECTION

CONCRETE CORRUGATED MEDIAN	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
12/17/07 DATE	/S/ Jerry H. Zogg ROADWAY STANDARDS ENGINEER
FHWA	309





SECTION A-A



SECTION B-B

CONCRETE MEDIAN BLUNT NOSE DETAIL

GENERAL NOTES

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

(1) SEE PLAN FOR MEDIAN NOSE WIDTH AND RADIUS (FOR ROUND NOSE ALTERNATE).

(2) WIDTH OF GUTTER TO MATCH EXISTING ADJACENT GUTTER OR AS SPECIFIED ELSEWHERE IN THE PLAN.

(3) DEPTH EQUAL TO ADJACENT PAVEMENT. ADJACENT PAVEMENT STRUCTURE DETAILS ARE SHOWN ON THE PLAN. TYPICAL OPTIONS ARE:

(1) NEW OR EXISTING CONCRETE PAVEMENT.

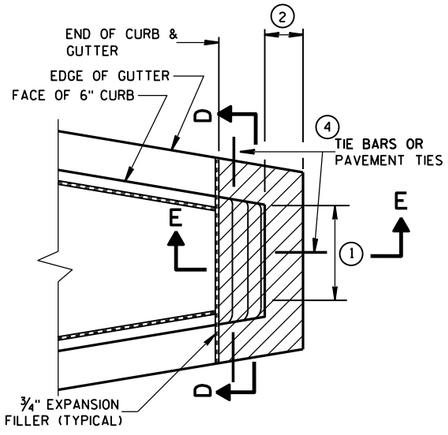
(2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.

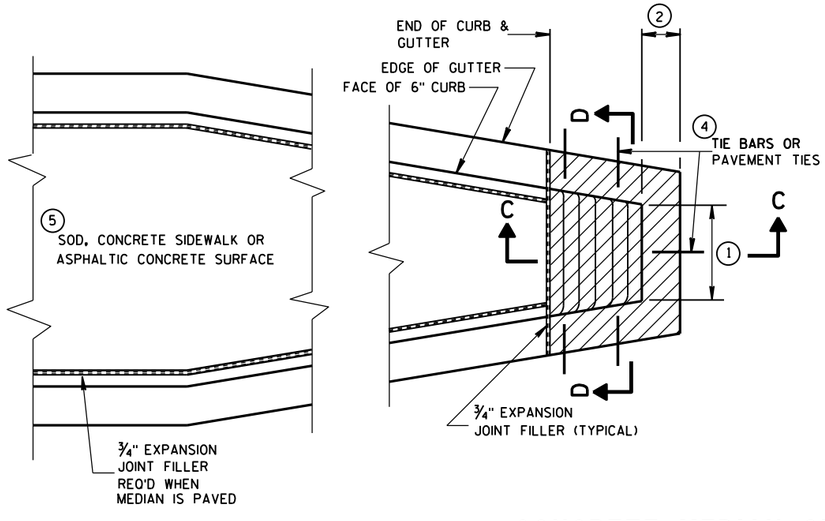
(3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

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

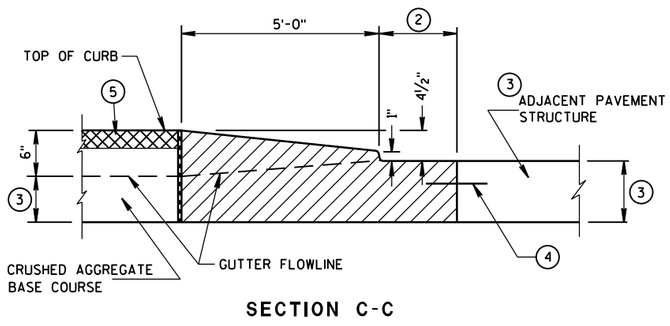
PAVEMENT TIES REQUIRED IN EXISTING CONCRETE BASE COURSE. PAVEMENT TIES SHALL BE NO. 6 X 1'-0" SPACED AT 3'-0" C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1. THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.

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

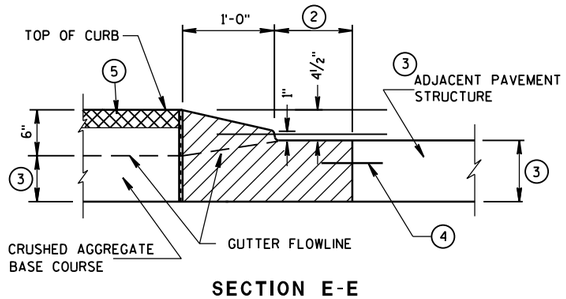




CONCRETE MEDIAN SLOPED NOSE TYPE 1

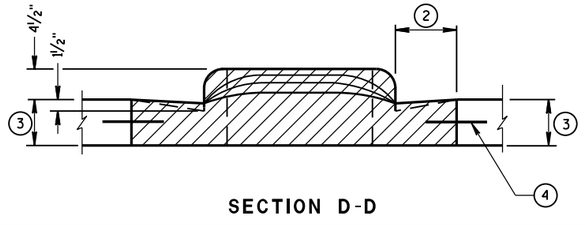


SECTION C-C



SECTION E-E

CONCRETE MEDIAN SLOPED NOSE TYPE 2



SECTION D-D

CONCRETE MEDIAN NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/8/2006
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

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S.D.D. 11 B 2-2

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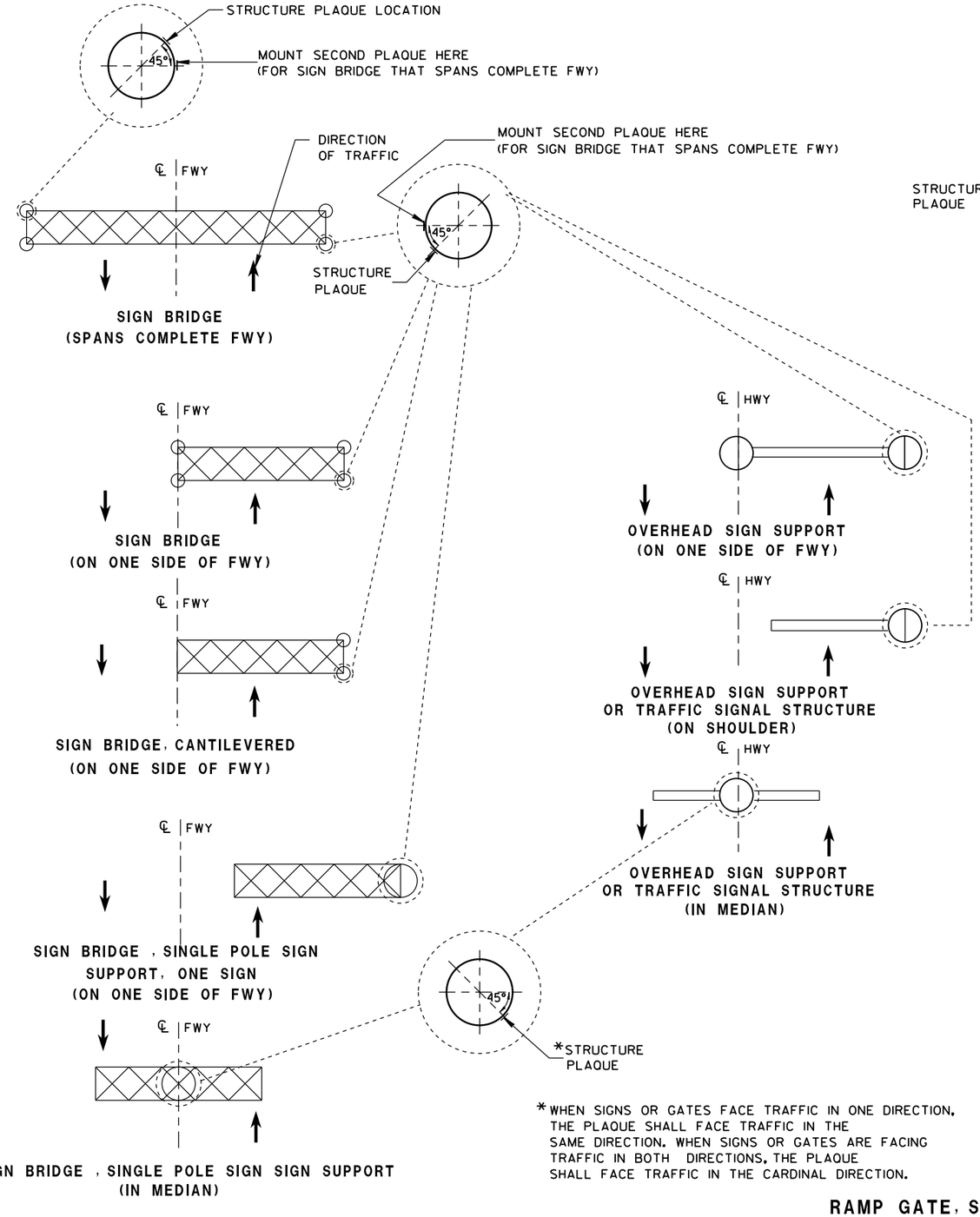
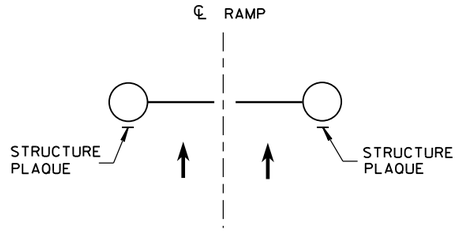
S.D.D. 11 B 2-2

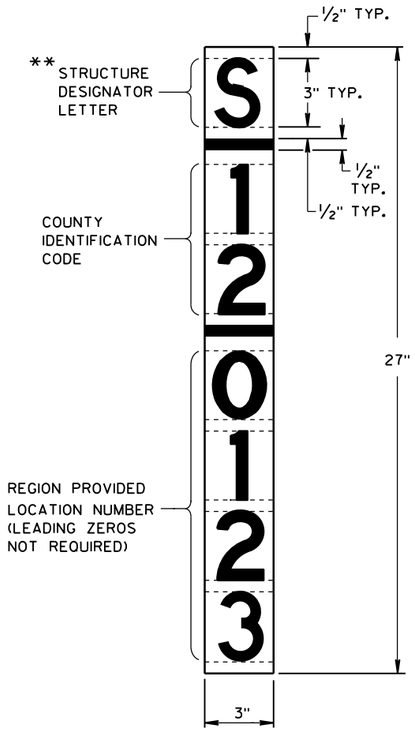


*WHEN SIGNS OR GATES FACE TRAFFIC IN ONE DIRECTION, THE PLAQUE SHALL FACE TRAFFIC IN THE SAME DIRECTION. WHEN SIGNS OR GATES ARE FACING TRAFFIC IN BOTH DIRECTIONS, THE PLAQUE SHALL FACE TRAFFIC IN THE CARDINAL DIRECTION.

LOCATION OF RAMP GATE, SIGN BRIDGE, OVERHEAD SIGN SUPPORT & TRAFFIC SIGNAL STRUCTURE PLAQUES



**RAMP GATE
(ACROSS FWY ON-RAMP)**



RAMP GATE, SIGN BRIDGE, OVERHEAD SIGN SUPPORT AND TRAFFIC SIGNAL STRUCTURE PLAQUE FOR SIGN BRIDGES AND OVERHEAD SIGN SUPPORT WHICH ARE NOT STRUCTURE MOUNTED

** LETTER "G" UTILIZED FOR RAMP GATES. LETTER "S" UTILIZED FOR SIGN BRIDGES, OVERHEAD SIGN SUPPORTS, AND TRAFFIC SIGNALS.

GENERAL NOTES

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

PLAQUES SHALL BE INCIDENTAL TO ALL NEW INSTALLATIONS.

IF THE PROPOSED SIGN BRIDGE OR OVERHEAD SIGN SUPPORT IS REPLACING AN EXISTING SIGN BRIDGE OR OVERHEAD SIGN SUPPORT, A NEW IDENTIFICATION PLAQUE WILL BE REQUIRED.

FASTEN TOP, CENTER AND BOTTOM OF PLAQUE TO POLE OR OTHER LOCATION AS FOLLOWS:

GALVANIZED STEEL SHAFT - 3 STAINLESS STEEL POP RIVETS

A588 STEEL SHAFT - SHIM FOR DRAINAGE WITH STAINLESS WASHERS; FASTEN WITH STAINLESS SELF-TAPPING SCREWS

ALUMINUM SHAFTS - 3 ALUMINUM POP RIVETS

MOUNTING HEIGHT SHALL BE APPROXIMATELY 5.0' ABOVE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL OBSTRUCT.

PLAQUE MATERIALS:

BASE - SHEET ALUMINUM, 0.060" THICK.

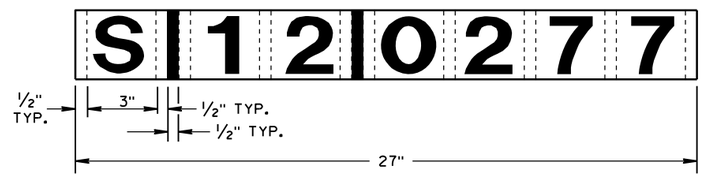
FACE - WHITE, SELF-ADHESIVE VINYL SHEETING, NON-RETROREFLECTIVE

LINES - BLACK, ½" WIDE, SELF-ADHESIVE

CHARACTERS:- BLACK, SELF ADHESIVE, SERIES "D", SIZE AS SHOWN.

FOR SIGN BRIDGES, STRUCTURE MOUNTED, THE STRUCTURE PLAQUE SHALL BE MOUNTED HORIZONTALLY AS SHOWN ON THE DRAWING. THE STRUCTURE PLAQUE SHALL BE MOUNTED HORIZONTALLY TO THE BACK OF THE SIGN, BETWEEN THE ALUMINUM EXTRUSIONS, NEAR THE TOP LEFT HAND CORNER OF THE SIGN. THE BASE MATERIAL SHALL BE OMITTED AND THE FACE ADHERED DIRECTLY TO THE ALUMINUM SURFACE. PRIOR TO ADHERING THE MATERIAL, THE ALUMINUM SURFACE SHALL BE SMOOTH, CLEAN AND DRY.

WHERE SIGN BRIDGE ILLUMINATION IS PROVIDED, THE STRUCTURE MUST ALSO HAVE A SIGN BRIDGE CIRCUIT PLAQUE AS SHOWN IN THE ELECTRICAL DETAILS.



IDENTIFICATION PLAQUE FOR SIGN BRIDGE, STRUCTURE MOUNTED

STRUCTURE IDENTIFICATION PLAQUES, RAMP GATES, SIGN BRIDGES, OVERHEAD SIGN SUPPORTS, & TRAFFIC SIGNALS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
12/4/2012 DATE
/S/ Travis Feltes STATE TRAFFIC ENGINEER
FHWA

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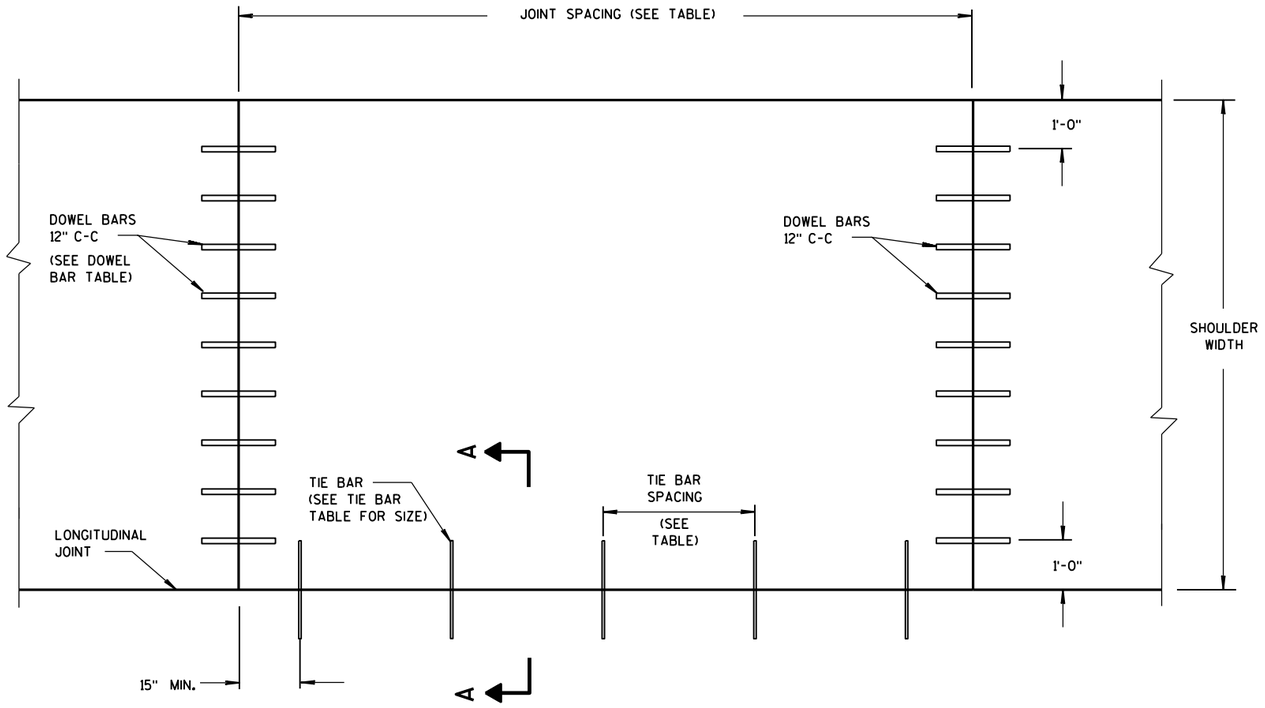
S.D.D. 12 A 4-3



PLAN VIEW

CONCRETE PAVEMENT SHOULDER

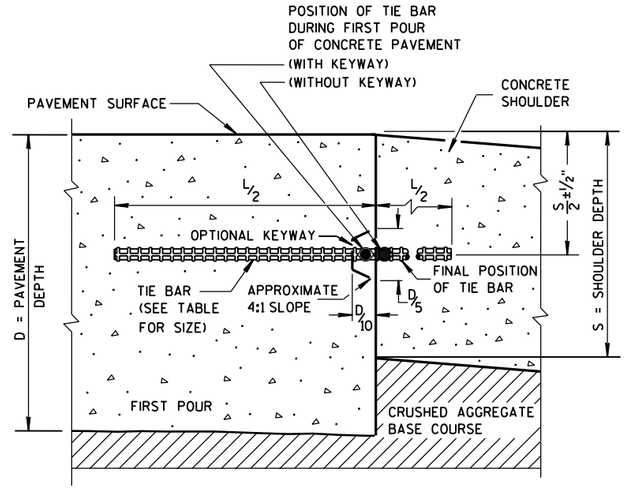
GENERAL NOTES

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.

TRANSVERSE JOINT DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.

FINISH THE SHOULDER PAVEMENT CONFORMING TO SUBSECTION 415.3.8 OF THE STANDARD SPECIFICATIONS.

TIE BARS SHALL CONFORM TO SUBSECTION 505.2.4 OF THE STANDARD SPECIFICATIONS.



SECTION A-A

LONGITUDINAL CONSTRUCTION JOINT

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 ½"	NO. 4	30"	36"
≥ 10 ½"	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" MINUMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER***	CONTRACTION JOINT SPACING
5 ½", 6", 6 ½"	NONE	12'
7", 7 ½"	1"	14'
8", 8 ½"	1 ¼"	15'
9", 9 ½"	1 ¼"	15'
10" & ABOVE	1 ½"	15'

*** FOR DOWELED CONCRETE SHOULDERS WITH TRAPEZOIDAL CROSS SECTIONS, CHOSE THE APPROPRIATE DOWEL BAR DIAMETER BASED ON THE SMALLER PAVEMENT DEPTH (LIKELY THE OUTSIDE EDGE OF THE SHOULDER). IF USING BASKETS, USE BASKETS FOR THE AVERAGE THICKNESS OF THE CROSS SECTION.

CONCRETE PAVEMENT SHOULDERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Peter Kemp, P.E. — PAVEMENT SUPERV
FHWA

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S.D.D. 13 A 3-6

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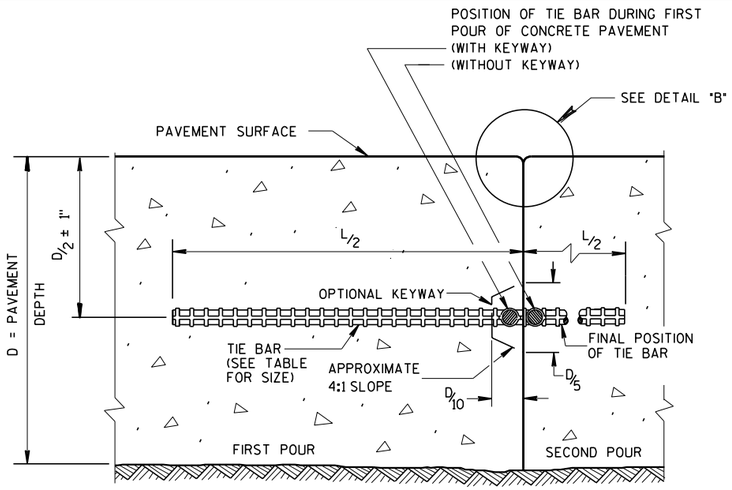
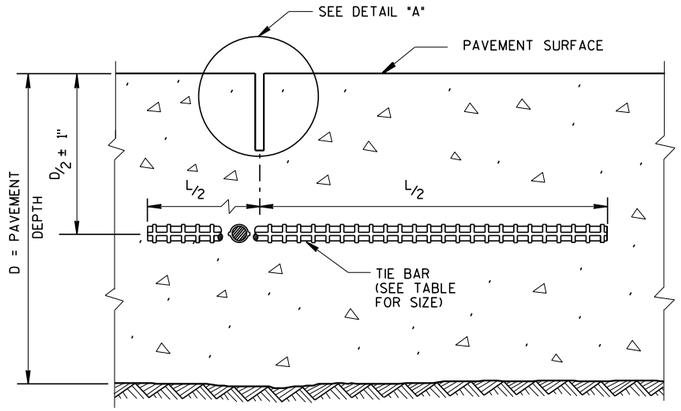
S.D.D. 13 A 3-6



CONSTRUCTION JOINT



SAWED JOINT

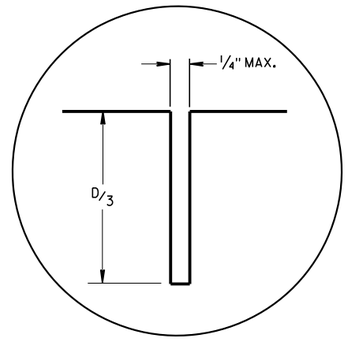
GENERAL NOTES

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

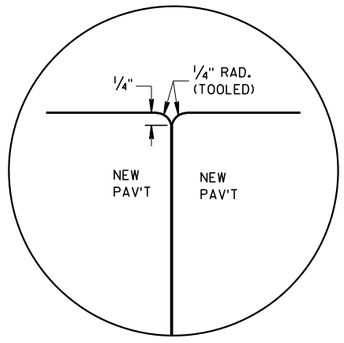
CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

(1) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

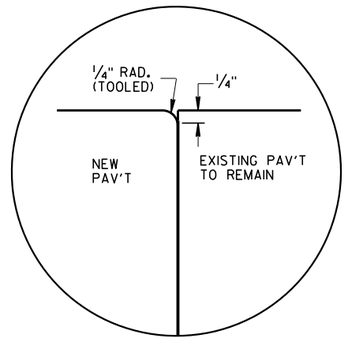
(2) PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.



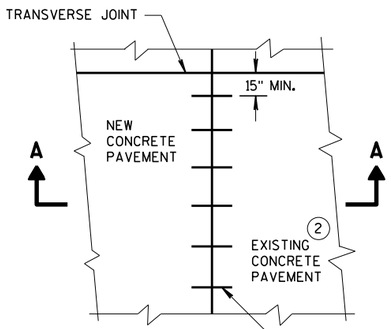
DETAIL "A"



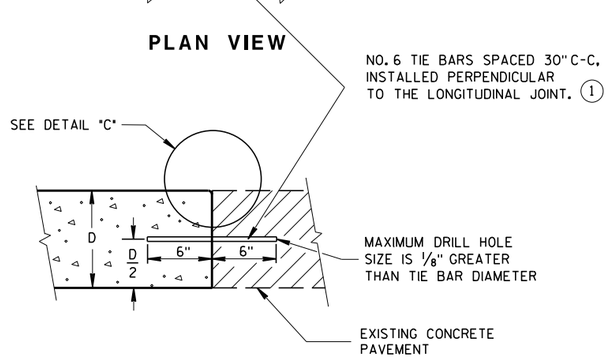
DETAIL "B"



DETAIL "C"



PLAN VIEW



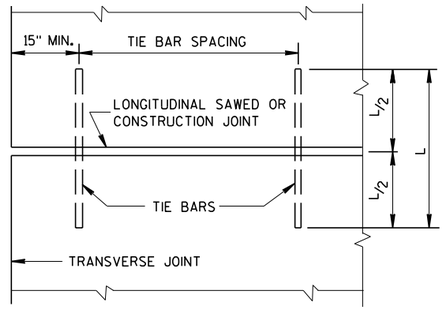
SECTION A-A
LONGITUDINAL CONSTRUCTION JOINT TIE BARS ANCHORED INTO EXISTING PAVEMENT

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" MINUMUM 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 — DATE
/S/ Peter Kemp PE — PAVEMENT SUPE
FHWA

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S.D.D. 13 C 1-19

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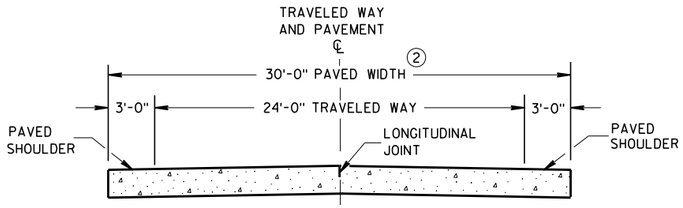
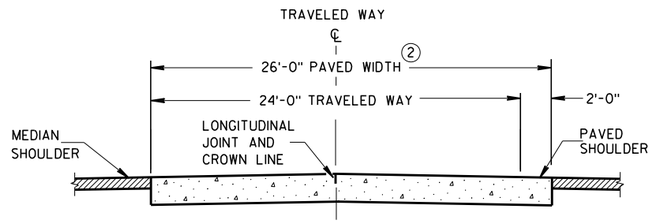
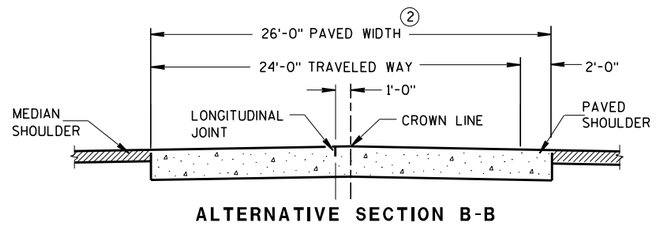
S.D.D. 13 C 1-19



SECTION A-A
TWO-LANE TWO-WAY HIGHWAY ①



SECTION B-B



ALTERNATIVE SECTION B-B
①
DIVIDED HIGHWAY

GENERAL NOTES

CONTRACTION JOINTS

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

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

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

CONSTRUCTION JOINTS

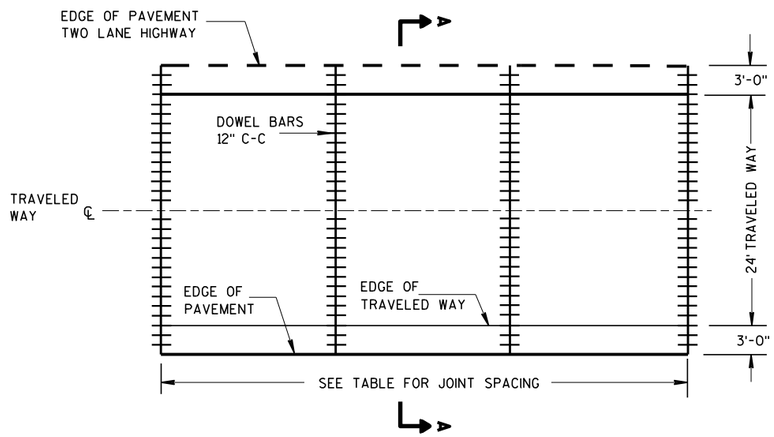
LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.

① REFER TO TYPICAL CROSS SECTIONS FOR ADDITIONAL DETAILS.

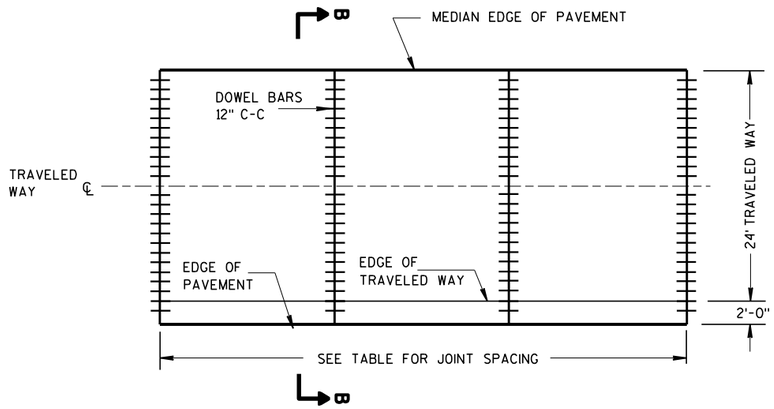
② MEASURE THE ENTIRE PAVED WIDTH INCLUDING THE PORTION(S) LABELED PAVED SHOULDER AS CONCRETE PAVEMENT.

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 ½", 6", 6 ½"	NONE	12'
7", 7 ½"	1"	14'
8", 8 ½"	1 ¼"	15'
9", 9 ½"	1 ¼"	15'
10" & ABOVE	1 ½"	15'



CONTRACTION JOINT LAYOUT
FOR TWO-LANE TWO-WAY HIGHWAY



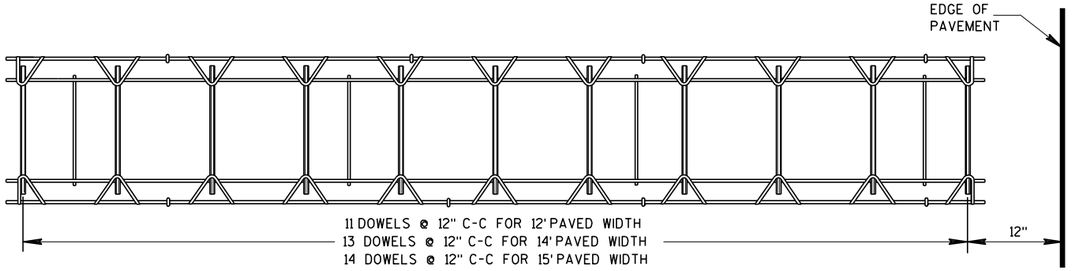
CONTRACTION JOINT LAYOUT
FOR DIVIDED HIGHWAY

RURAL DOWELED CONCRETE PAVEMENT

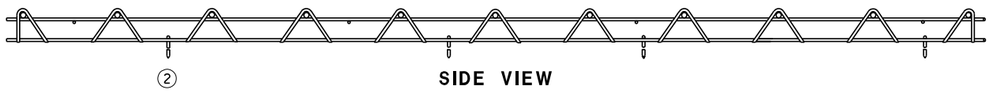
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 13 C 11-12a



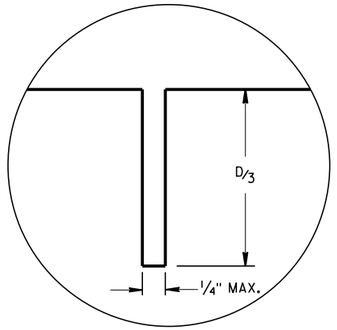
PLAN VIEW



SIDE VIEW

(NORMAL TO CENTERLINE)

CONTRACTION JOINT DOWEL ASSEMBLY ①



JOINT DETAIL

GENERAL NOTES

① OBTAIN THE ENGINEER'S APPROVAL FOR THE USE OF ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY. USE MECHANICAL DOWEL BAR INSERTERS OR DOWEL ASSEMBLIES WHEN CONSTRUCTING CONTRACTION JOINTS.

② SECURE BASKETS WITH ANCHORS TO HOLD DOWEL BARS IN THE CORRECT POSITION AND ALIGNMENT. TYPE, LOCATION, NUMBER AND LENGTH OF ANCHORS ARE DEPENDENT UPON FIELD CONDITIONS.

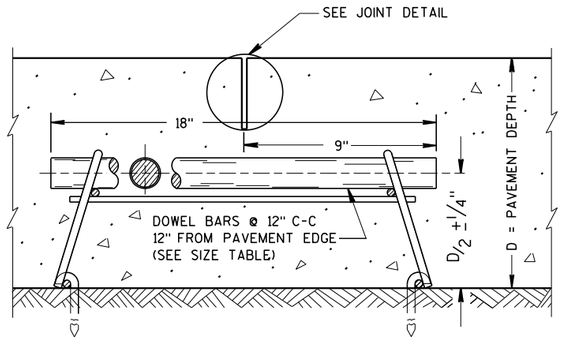
③ FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A 1/4-INCH RADIUS AT FORMED JOINTS.

④ PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS.

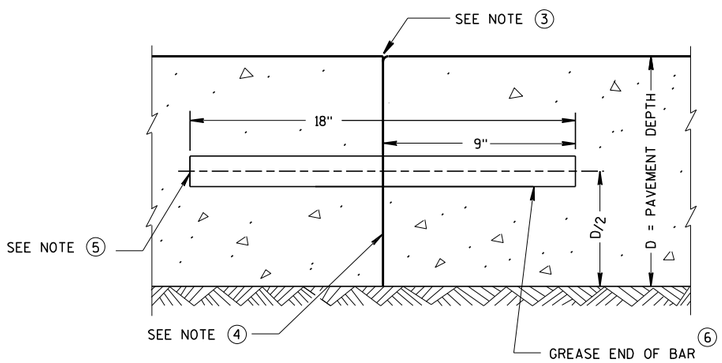
⑤ INSTALL DOWEL BARS AT CONSTRUCTION JOINTS BY FORMING OR DRILLING. INSTALL FORMED DOWEL BARS 12 INCHES C-C AND 12 INCHES FROM PAVEMENT EDGE. REMOVE EXCESS CONCRETE FROM THE FREE END OF THE DOWEL BAR IF DOWEL BARS ARE FORMED THROUGH A HEADER BOARD. INSTALL DRILLED DOWEL BARS ACCORDING TO *DRILLED DOWEL BAR CONSTRUCTION JOINT* DETAIL.

⑥ APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.

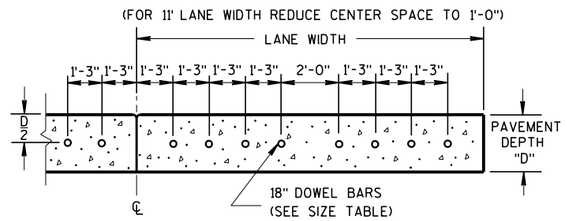
⑦ ANCHOR DOWEL BARS INTO DRILLED HOLES WITH AN EPOXY. MAXIMUM DRILLED HOLE SIZE IS 1/8-INCH GREATER THAN DOWEL BAR DIAMETER, 9 INCHES IN LENGTH.



DOWELED CONTRACTION JOINT



TRANSVERSE CONSTRUCTION JOINT



DRILLED DOWEL BAR CONSTRUCTION JOINT ⑦

RURAL DOWELED CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 — DATE
/S/ Peter Kemp P.E. — PAVEMENT SUP
FHWA

6
S.D.D. 13 C 11-12b

GENERAL NOTES

PCCP = PORTLAND CEMENT CONCRETE PAVEMENT.

SHLDR = SHOULDER.

CONTINUE SAW CUT CONTRACTION JOINT ACROSS TURN LANE, EXIT TAPER AND PASSING LANE.

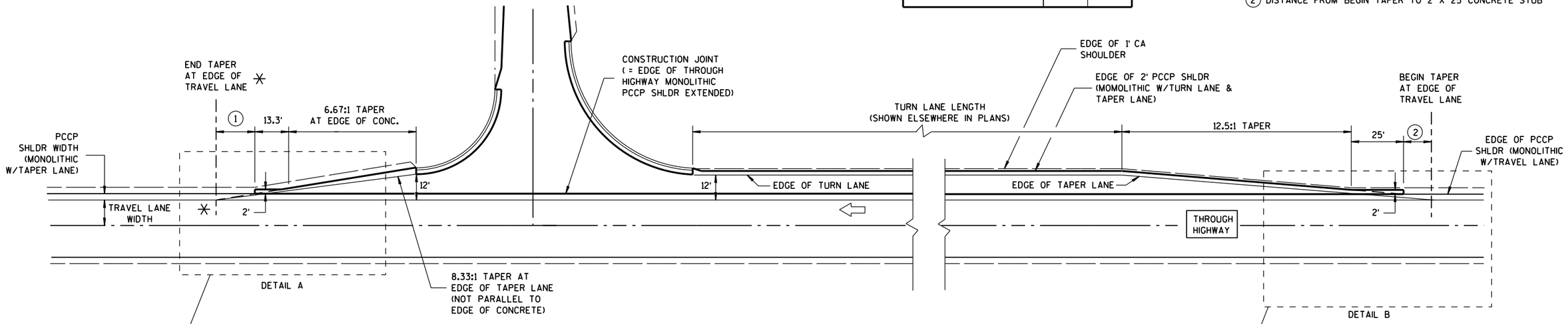
PAVEMENT MARKING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

THROUGH HIGHWAY LANE WIDTH AND PCCP SHOULDER WIDTH ARE SHOWN ELSEWHERE IN PLANS

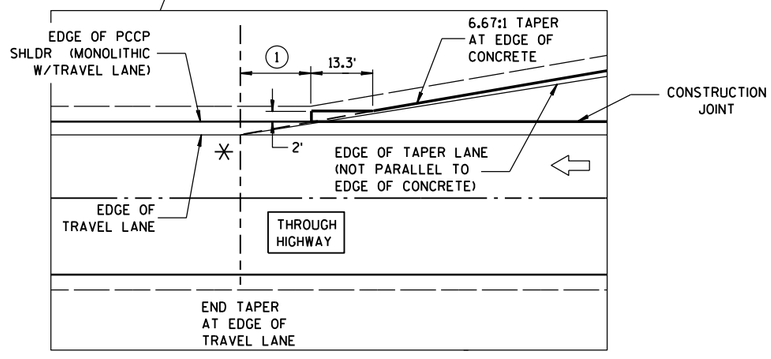
(1) DISTANCE FROM END TAPER TO 2' X 13.3' CONCRETE STUB

(2) DISTANCE FROM BEGIN TAPER TO 2' X 25' CONCRETE STUB

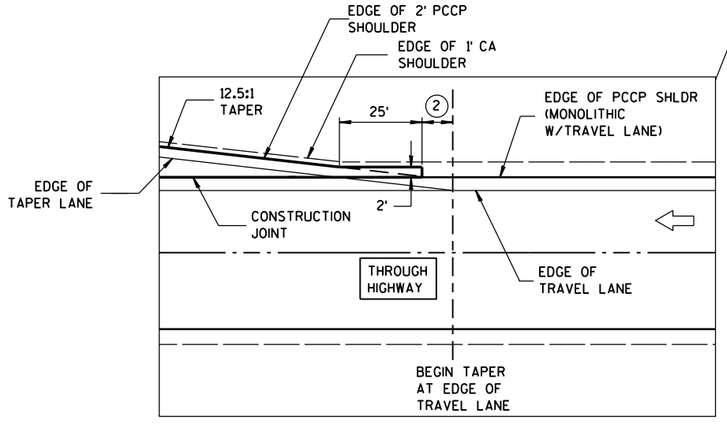
THROUGH HIGHWAY MONOLITHIC PCCP SHOULDER WIDTH (FEET)	DISTANCE (FEET)	
	(1)	(2)
2	13.3	0.0
3	20.0	12.5
TAPER RATE : 1	6.67	12.5



NOTE: EDGE OF CONCRETE TAPER (EXTENDED) & EDGE OF TAPER LANE CONVERGE



DETAIL A



DETAIL B

RIGHT TURN LANE AND EXIT TAPER

DETAIL FOR RIGHT TURN LANE/ TEE INTERSECTION BYPASS LANE ON A CONCRETE ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

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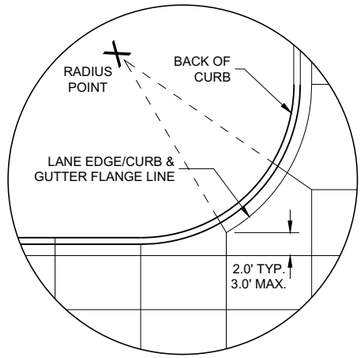
S.D.D. 13 C 16-2a



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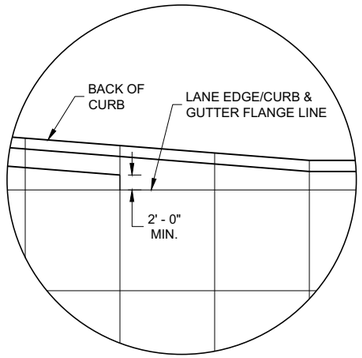
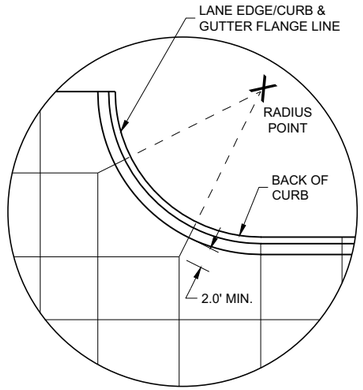
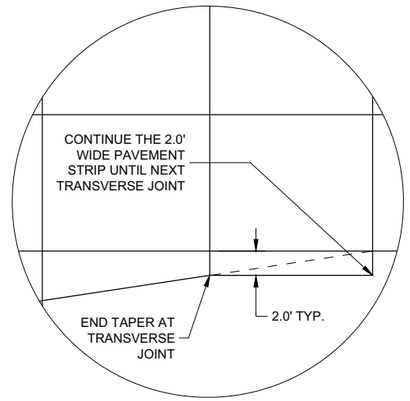


DETAIL "B"



DETAIL "C"



DETAIL "D"

GENERAL NOTES

THE PRIMARY ROADWAY CONTROLS THE TRANSVERSE JOINT PATTERN.

ALIGN NEW JOINTS WITH EXISTING JOINTS OR CRACKS.

CONSTRUCT TRANSVERSE JOINTS PERPENDICULAR TO THE ROADWAY.

ADJUST TRANSVERSE JOINTS TO ALIGN WITH UTILITY FIXTURES (E.G MANHOLES AND INLETS) IN THE PAVEMENT STRUCTURE WHEN POSSIBLE. WATER VALVES DO NOT REQUIRE JOINT ADJUSTMENT.

AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.

SEE TABLE FOR TRANSVERSE JOINT SPACING. JOINT SPACING SPECIFIED IS MAXIMUM AND ACTUAL SPACING CAN BE ADJUSTED TO ACCOMMODATE INTERSECTIONS.

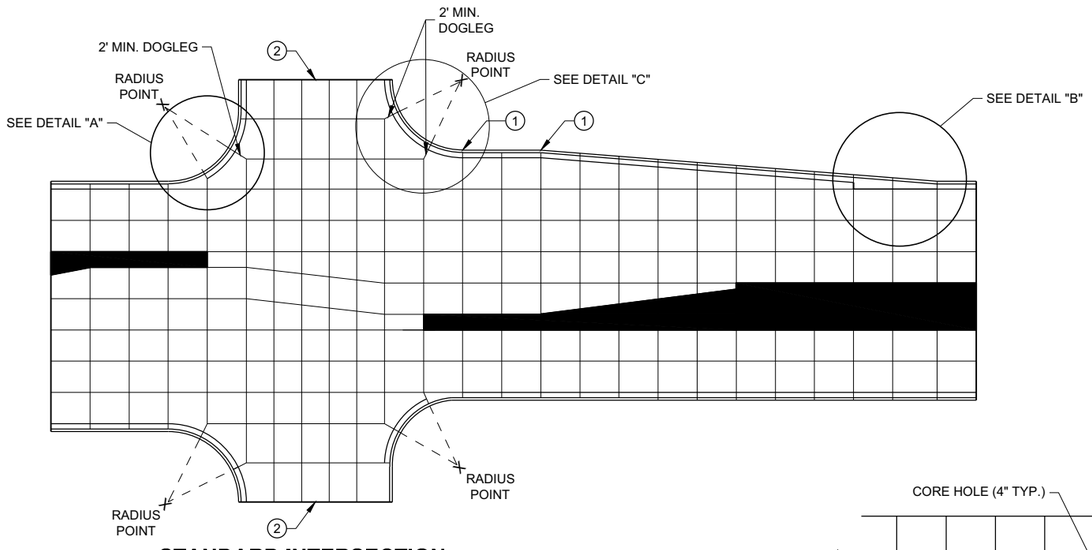
AVOID ANGLES LESS THAN 60° BY DOGLEGGING JOINTS THROUGH CURVE RADIUS POINTS. USE 90° ANGLES WHEN POSSIBLE.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

(1) PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.

(2) CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITHEDGE OF RADIUS.

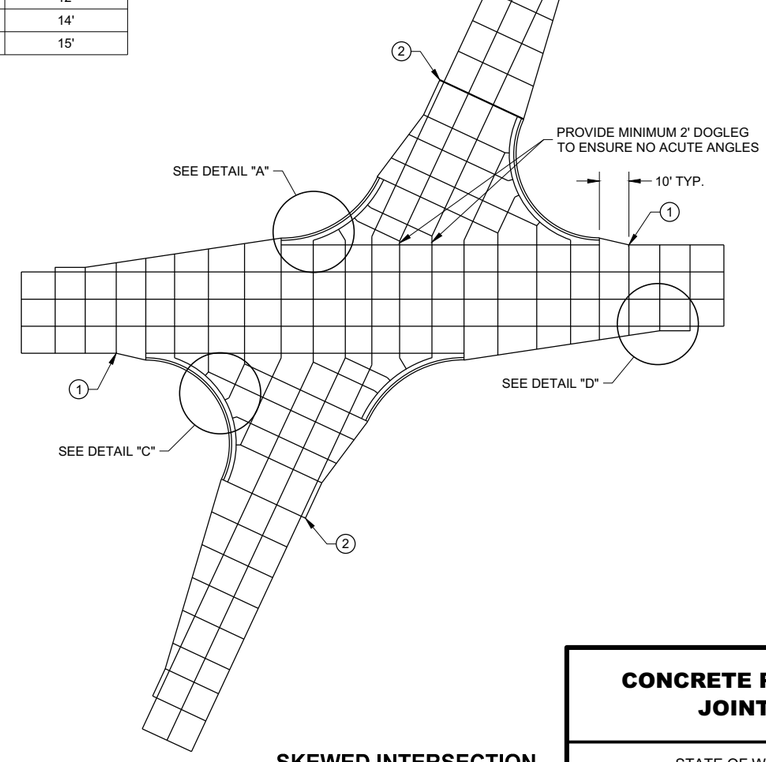
(3) THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.



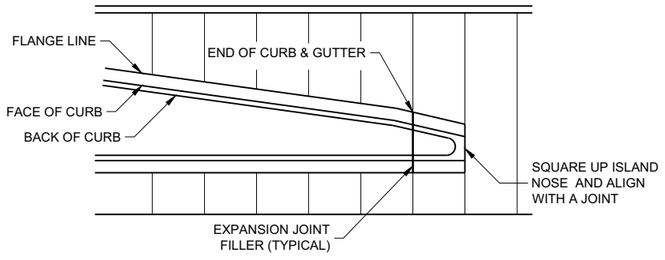
STANDARD INTERSECTION

PAVEMENT DEPTH AND JOINT SPACING TABLE

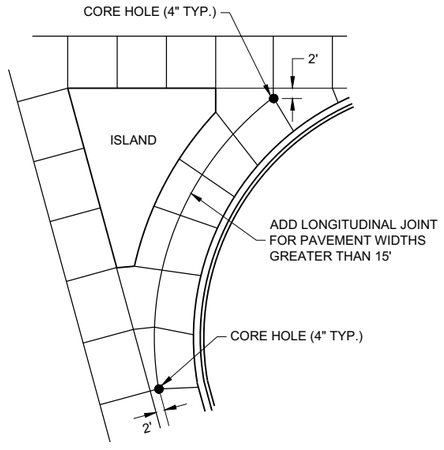
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6 ½"	12'
7", 7 ½"	14'
8" & ABOVE	15'



SKEWED INTERSECTION



APPROACH TO MEDIAN



LARGE RIGHT TURN

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

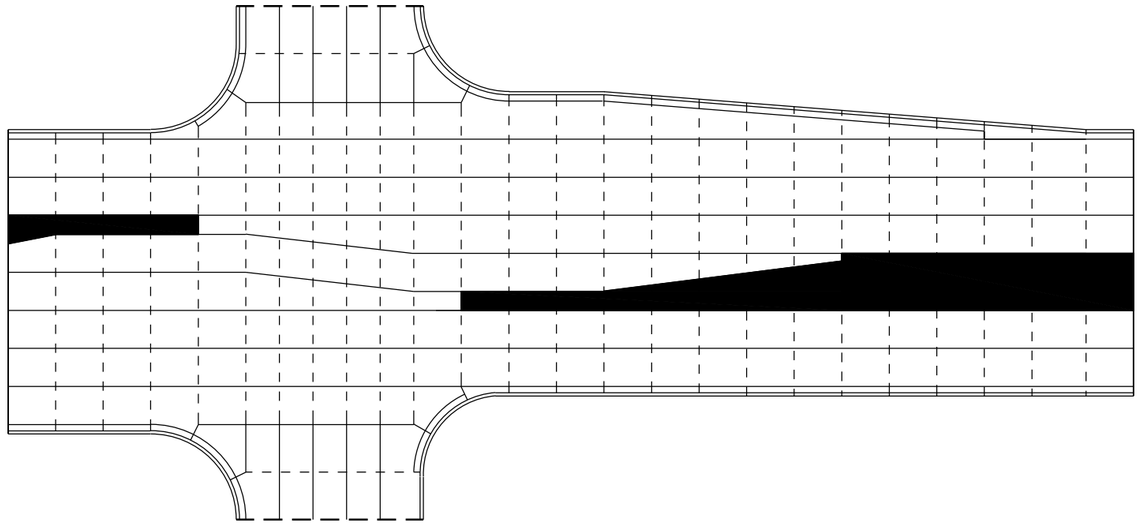
SDD 13C18 - 07a

LEGEND

POTENTIAL DOWELED EXPANSION JOINT

DOWELED JOINT

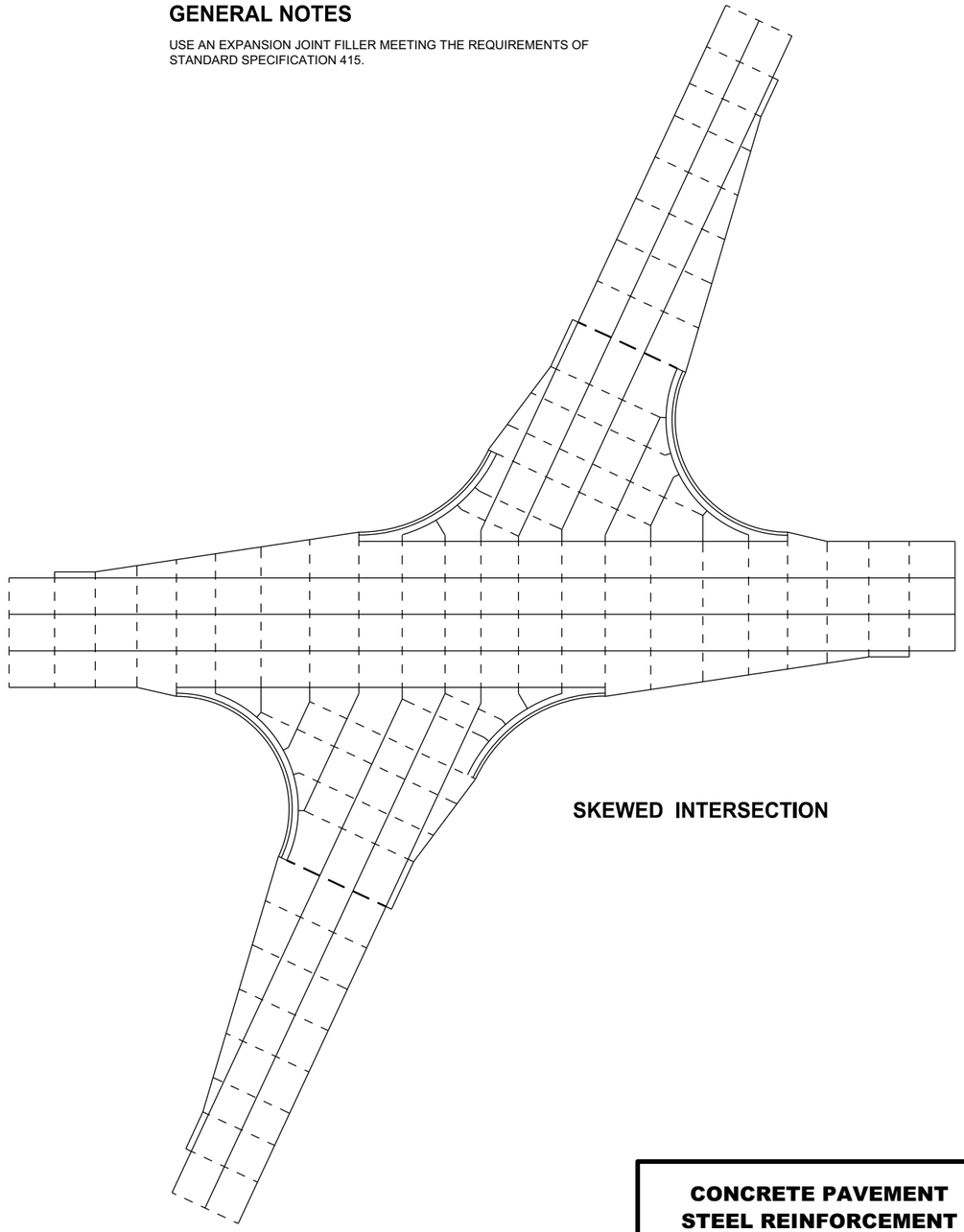
TIED JOINT



STANDARD INTERSECTION

GENERAL NOTES

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



SKEWED INTERSECTION

6

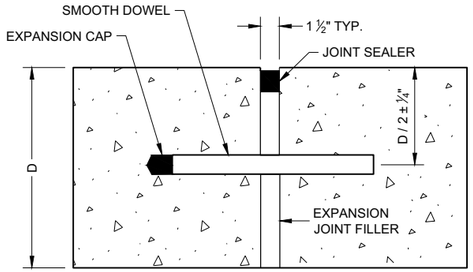
SDD 13C18 - 07b

CONCRETE PAVEMENT
STEEL REINFORCEMENT

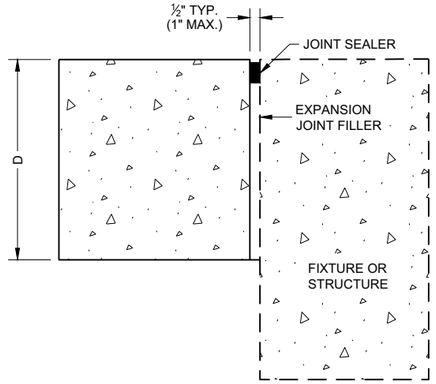
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 13C18 - 07b



DOWELED TRANSVERSE (1)



UNTIED - LONGITUDINAL

EXPANSION JOINTS

TIE BAR TABLE

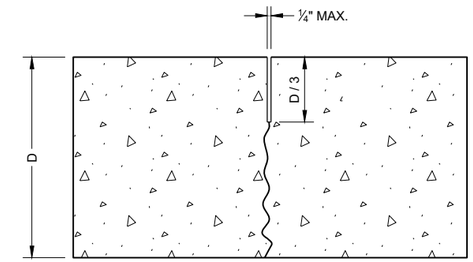
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 ½"	NO. 4	30"	36"
≥ 10 ½"	NO. 5	36"	36"
	NO. 4*	30"	24"**

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

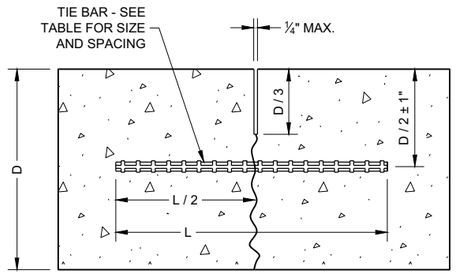
** CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

GENERAL NOTES

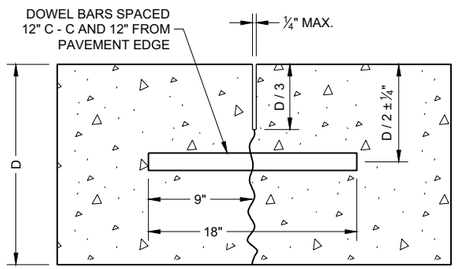
1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATETHE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH SDD 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.
4. CONSTRUCTION JOINTS CAN BE FORMED OR SAWED.
5. IF JOINT IS FORMED, PROVIDE A ¼" RADIUS.
6. ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



UNDOWELED TRANSVERSE

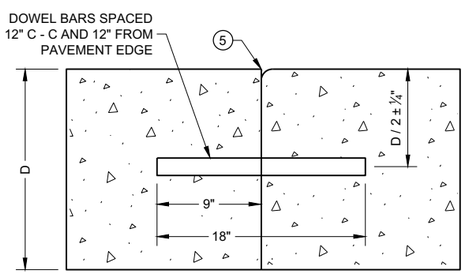


TIED LONGITUDINAL

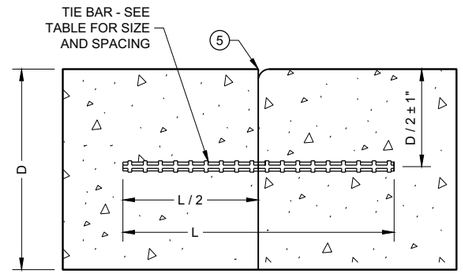


DOWELED TRANSVERSE

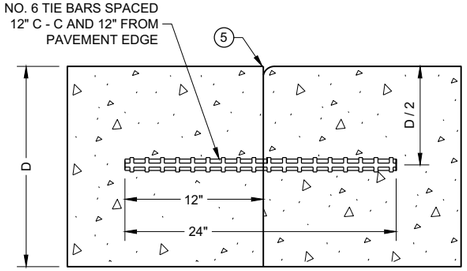
CONTRACTION JOINTS (2)



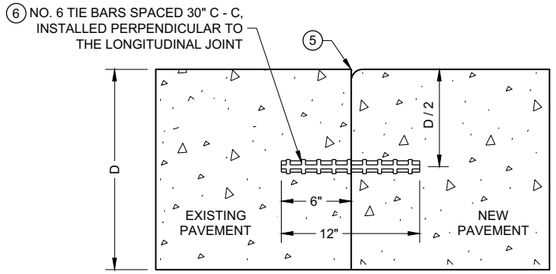
DOWELED TRANSVERSE (3)



TIED LONGITUDINAL



TIED TRANSVERSE (3)
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)



TIED LONGITUDINAL TO EXISTING

CONSTRUCTION JOINTS (4)

CONCRETE PAVEMENT JOINT TYPES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD 13C18 - 07c

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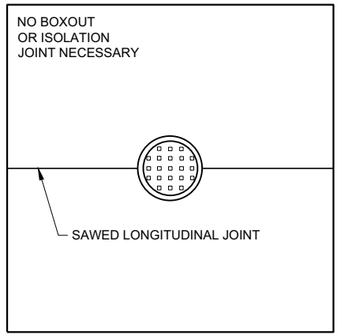
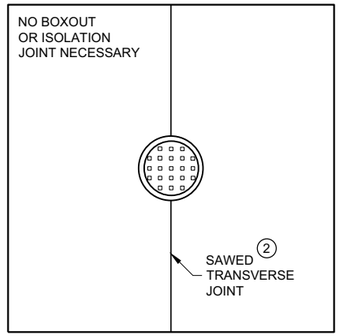
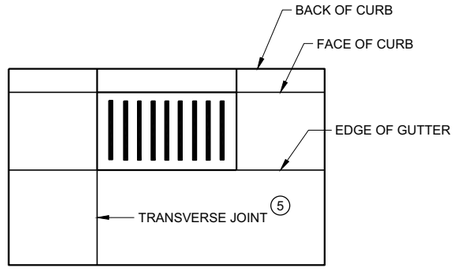


MANHOLE WITH LONGITUDINAL JOINT



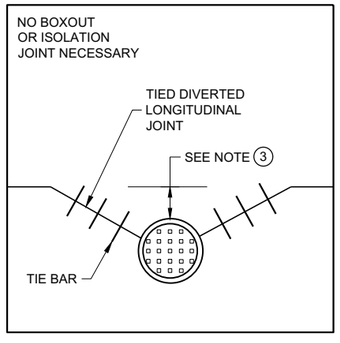
MANHOLE WITH TRANSVERSE JOINT



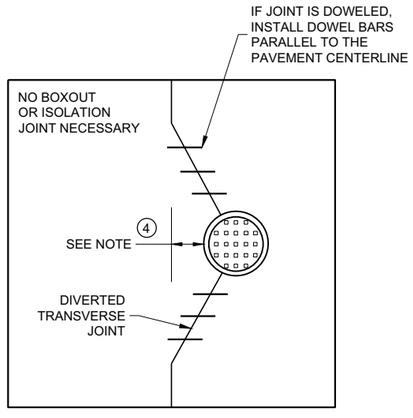
INLET WITH TRANSVERSE JOINT

GENERAL NOTES

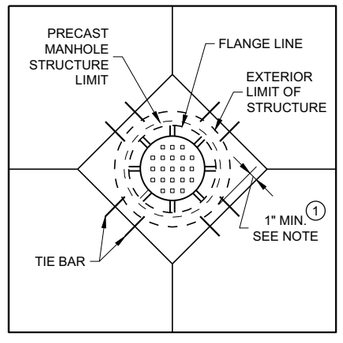
1. USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1 FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.
2. ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.
3. IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE OF MANHOLE IS 2 FEET OR LESS, DIVERT THE LONGITUDINAL JOINT AT A 2:1 TAPER RATE TO THE CENTER OF THE MANHOLE. IF THE DISTANCE IS GREATER THAN 2 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REINFORCEMENT REBAR AROUND THE MANHOLE.
4. IF THE DISTANCE FROM THE EDGE OF THE MANHOLE TO THE NEAREST TRANSVERSE JOINT IS LESS 4 FEET OR LESS, REDIRECT JOINT TO INTERSECT THE CENTER OF THE MANHOLE. IF DISTANCE IS GREATER THAN 4 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REINFORCEMENT REBAR AROUND THE MANHOLE.
5. ALIGN TRANSVERSE JOINT WITH ONE EDGE OF INLET WHEN PRACTICAL.



MANHOLE WITH DIVERTED LONGITUDINAL CONTRACTION JOINT



MANHOLE WITH DIVERTED TRANSVERSE CONTRACTION JOINT



DIAGONAL MANHOLE BOXOUT FOR CONSTRUCTION JOINTS

CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE
/S/ Peter Kemp P.E.
PAVEMENT SUPERVIS
FHWA

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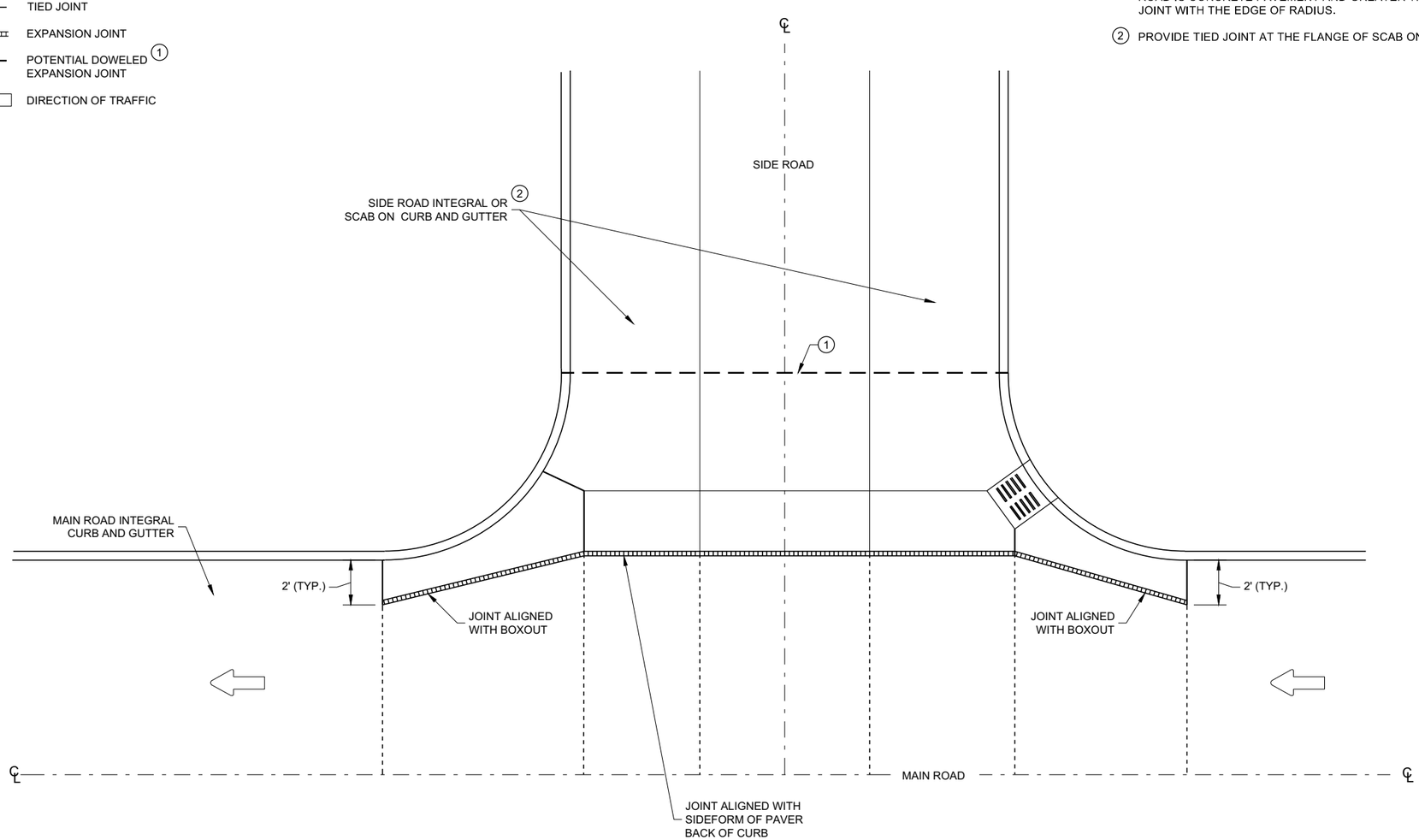
SDD 13C18 - 07d
SDD 13C18 - 07d

LEGEND

- DOWELED JOINT
- TIED JOINT
- EXPANSION JOINT
- POTENTIAL DOWELED EXPANSION JOINT (1)
- DIRECTION OF TRAFFIC



GENERAL NOTES

(1) CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH THE EDGE OF RADIUS.

(2) PROVIDE TIED JOINT AT THE FLANGE OF SCAB ON CURB IF SCAB ON CURB AND GUTTER IS USE.

INTERSECTION BOXOUT FOR INTEGRAL CURB AND GUTTER

CONCRETE PAVEMENT INTERSECTION BOXOUT FOR INTEGRAL CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Peter Kemp P.E.
ROADWAY STANDARDS DEVE ENGINEER

FHWA

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SDD 13C18 - 07f

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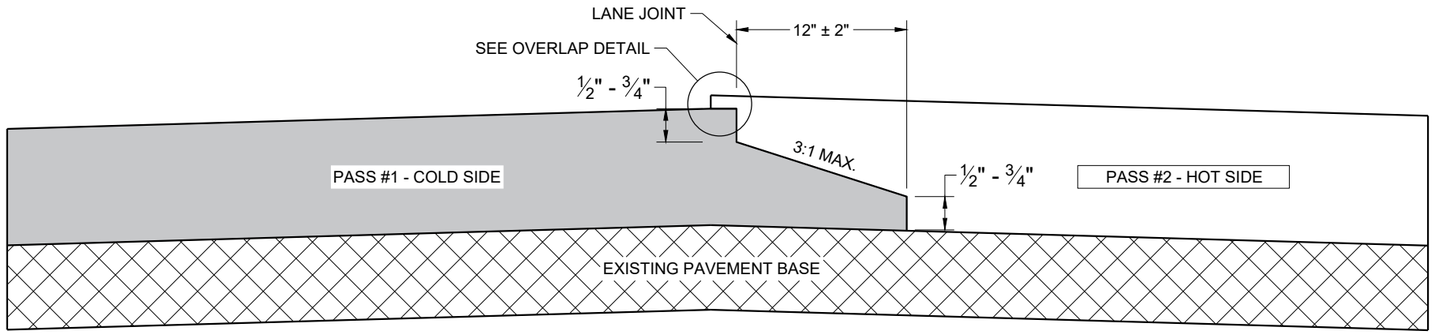
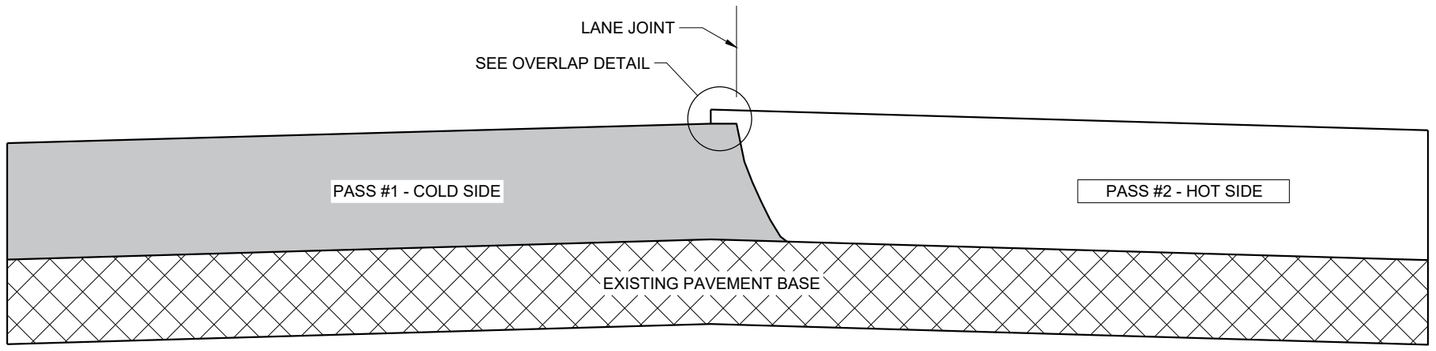
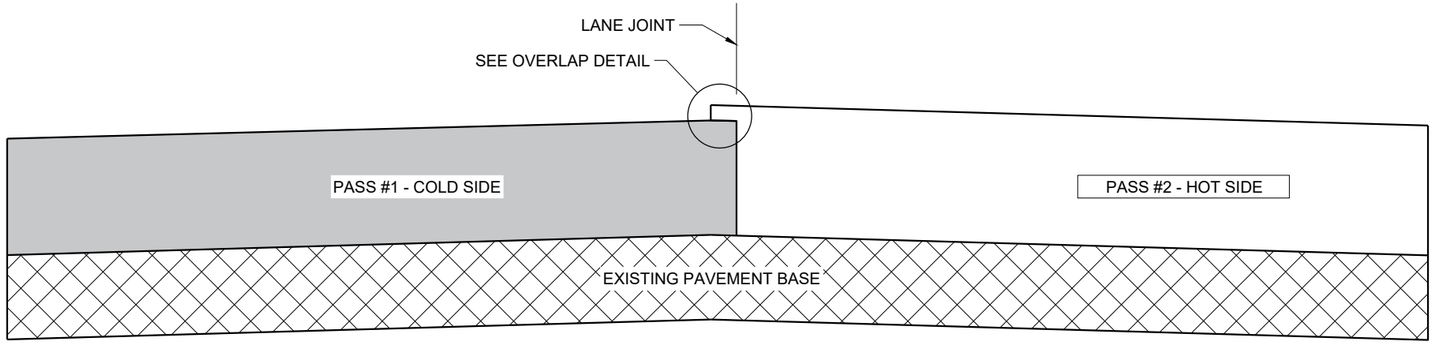
SDD 13C18 - 07f



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

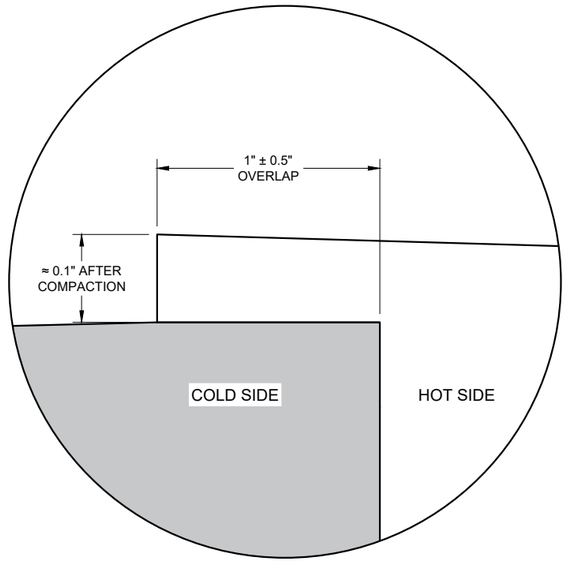
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

FOR ALL LONGITUDINAL JOINTS, ENSURE THE PAVER SCREED OVERLAPS THE PREVIOUSLY PLACED PAVEMENT BY 1" ± 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)

6

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SDD 13C19 - 03

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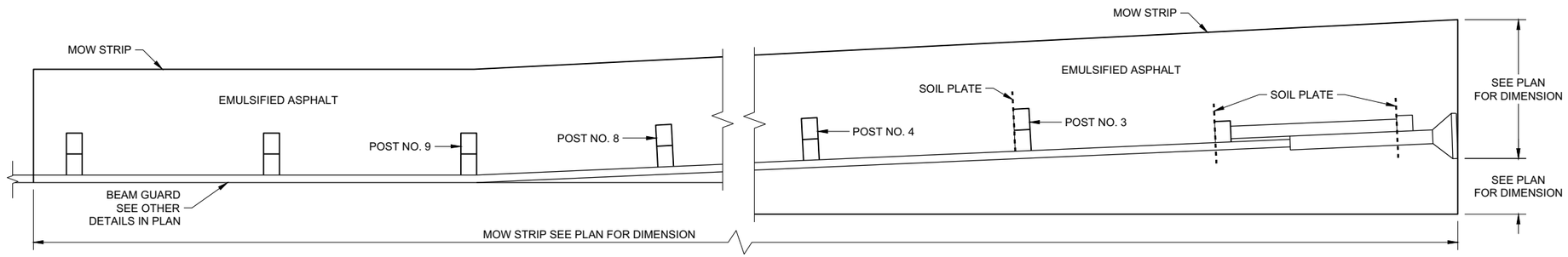
HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2020
DATE

/S/ Steven Hefel
HMA PAVEMENT ENGIN

FHWA



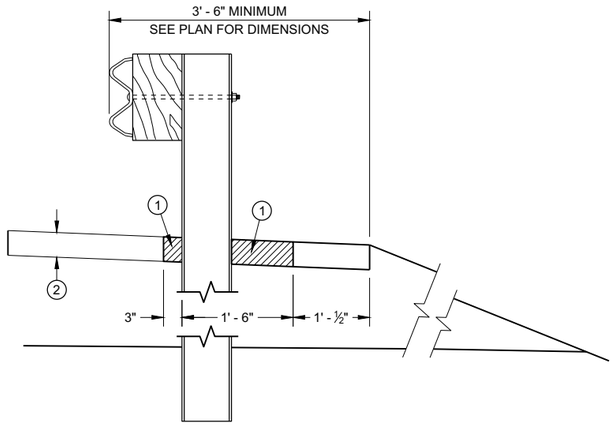
PLAN VIEW

MOW STRIP LAYOUT FOR ENERGY ABSORBING TERMINAL

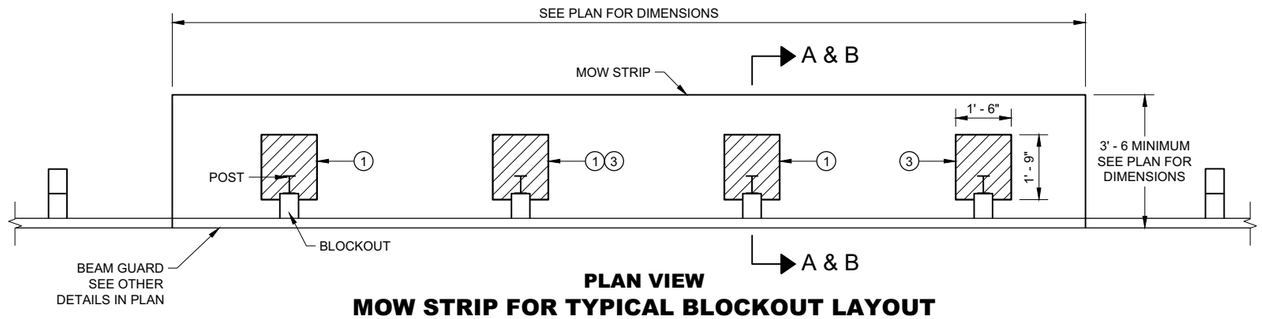
GENERAL NOTES

ONLY USE STEEL POSTS IN CONCRETE AND ASPHALT MOW STRIPS.

1. CONTROLLED LOW-STRENGTH BACKFILL OR EMULSIFIED ASPHALT.
2. DEPTH OF MOW STRIP:
   ASPHALT - 4"
   CONCRETE - 4"
   EMULSIFIED ASPHALT - 1" OR LESS
3. FOR EMULSIFIED ASPHALT, MOW STRIP STRIP LEAVE OUTS NOT REQUIRED. (TYPICAL FOR ALL POSTS)

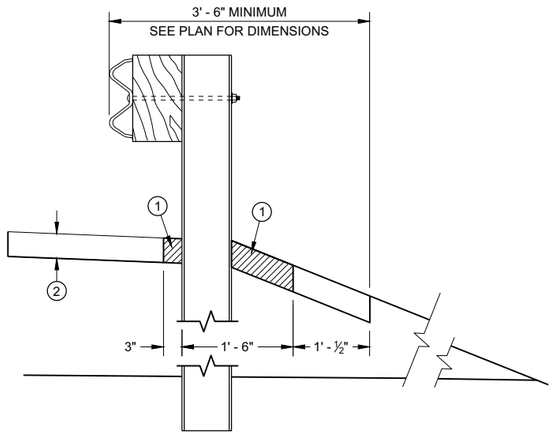


SECTION A - A

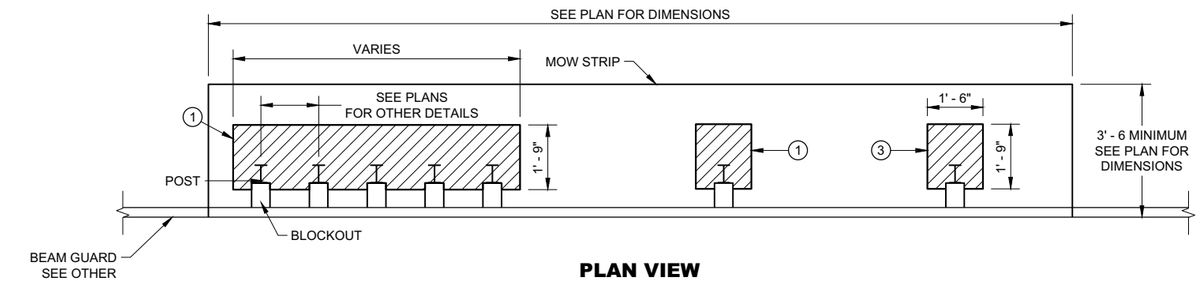


PLAN VIEW

MOW STRIP FOR TYPICAL BLOCKOUT LAYOUT

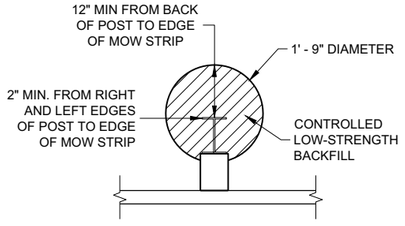


SECTION B - B

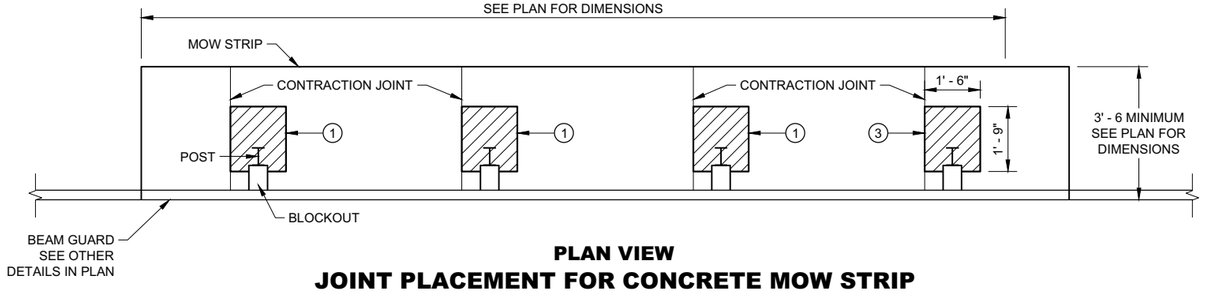


PLAN VIEW

MOW STRIP FOR TIGHT SPACING LAYOUT



ALTERNATIVE HMA MOW STRIP DESIGN



PLAN VIEW

JOINT PLACEMENT FOR CONCRETE MOW STRIP

GUARDRAIL MOW STRIP

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD 14B28 - 04a

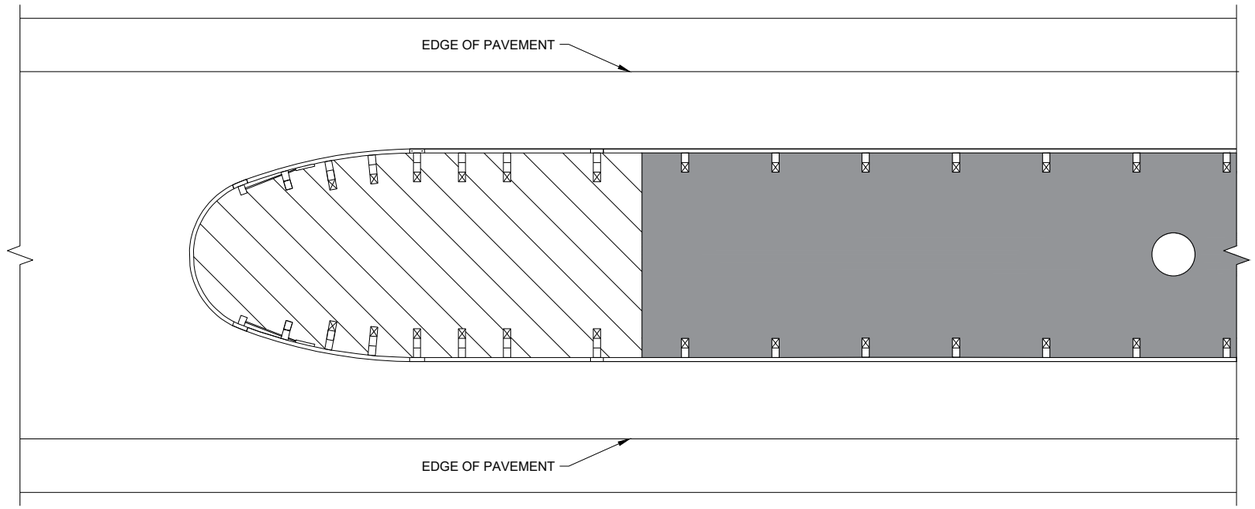
LEGEND

CONCRETE, ASPHALT, OR EMULSIFIED ASPHALT MOW STRIP (SEE OTHER DETAILS)

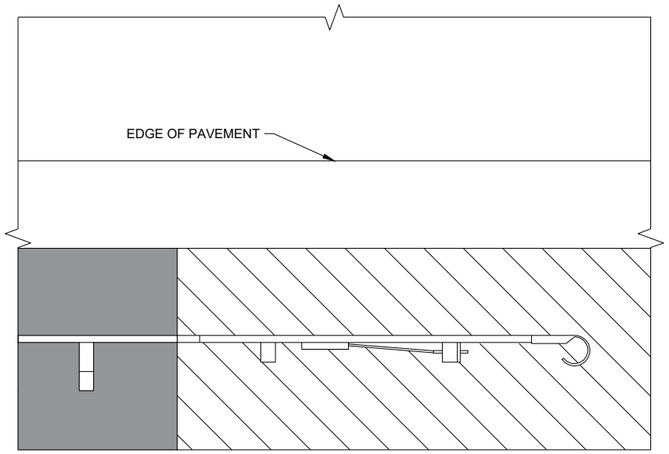
EMULSIFIED ASPHALT MOW STRIP (SEE OTHER DETAILS)

GENERAL NOTES

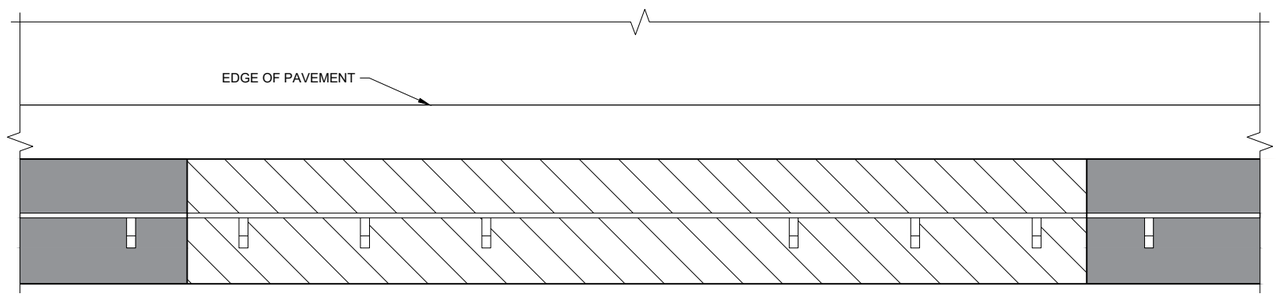
EXISTING THRIE BEAM BULLNOSES MAY HAVE WOOD POSTS. NEW THRIE BEAM BULLNOSE WILL HAVE STEEL POSTS.



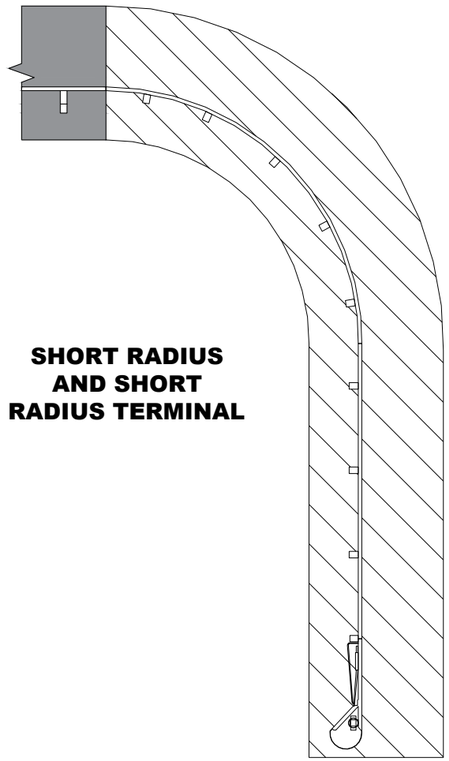
THRIE BEAM BULLNOSE



TYPE 2 TERMINAL



LONG - SPAN



SHORT RADIUS AND SHORT RADIUS TERMINAL

GUARDRAIL MOW STRIP

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2020
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

FHWA

6

SDD 14B28 - 04b

6

SDD 14B28 - 04b

(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.

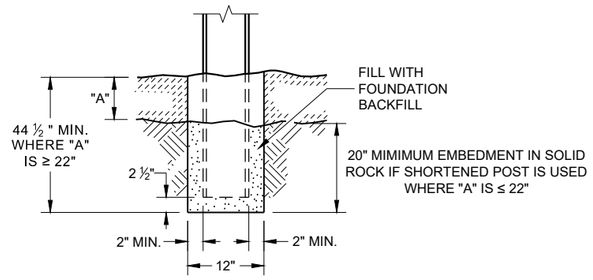
(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL 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).

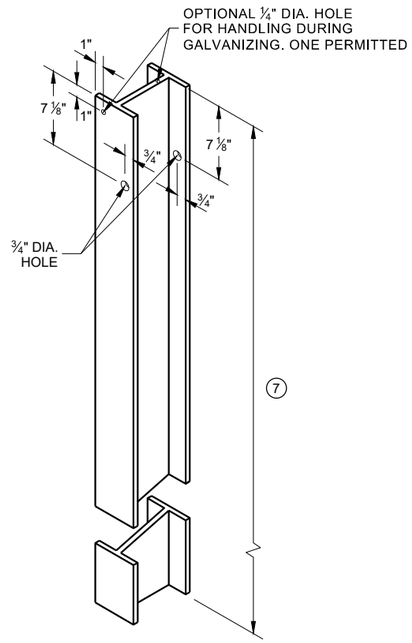
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ±1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ¾" TO 32".

(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.

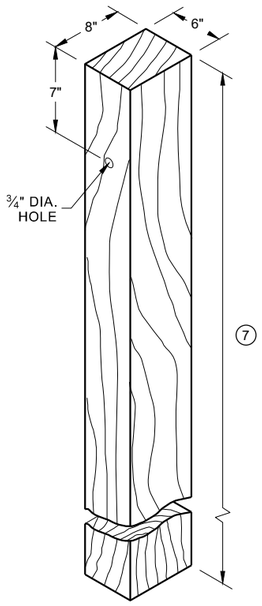
(7) TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



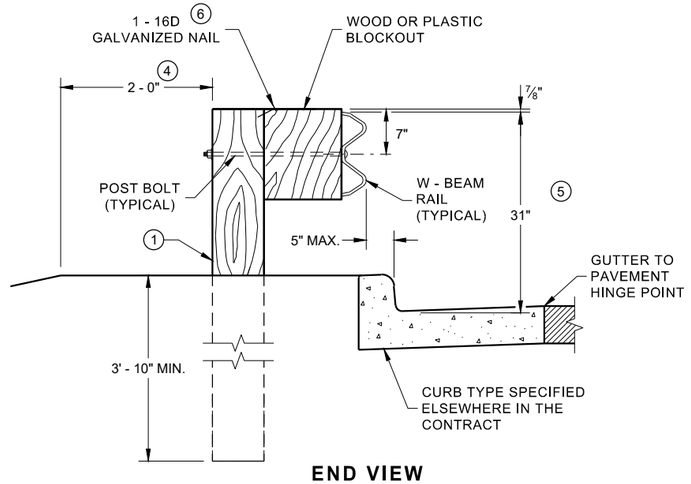
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (3)



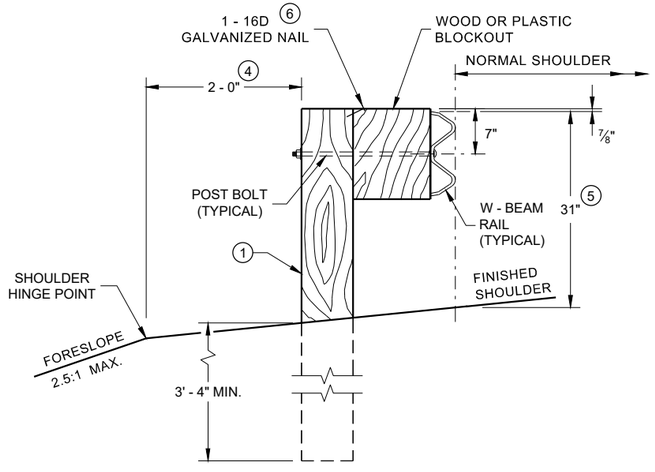
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)



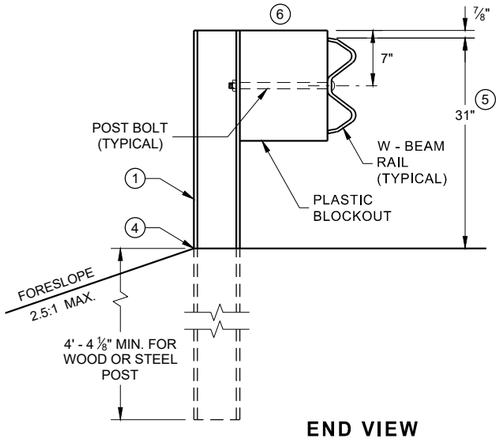
WOOD POST (6" X 8") NOMINAL (1)



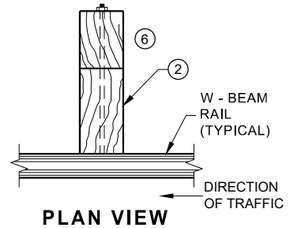
END VIEW
LOCATED ALONG A CURBED ROADWAY



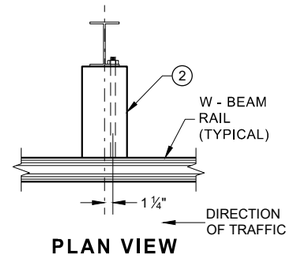
END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



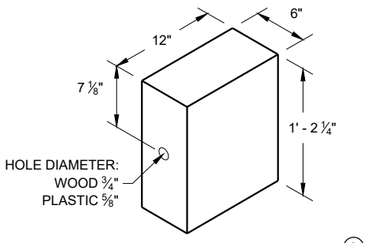
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



PLAN VIEW
STEEL POST, PLASTIC BLOCKOUT & BEAM



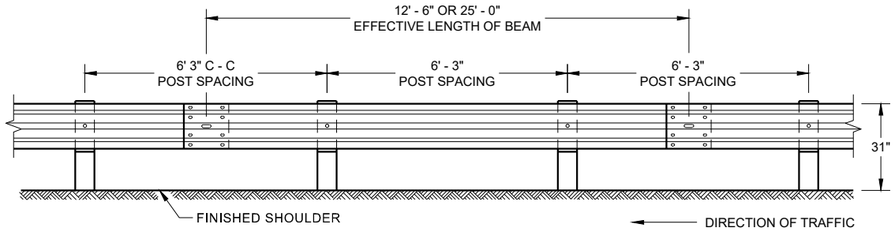
WOOD OR PLASTIC BLOCKOUT (2)

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

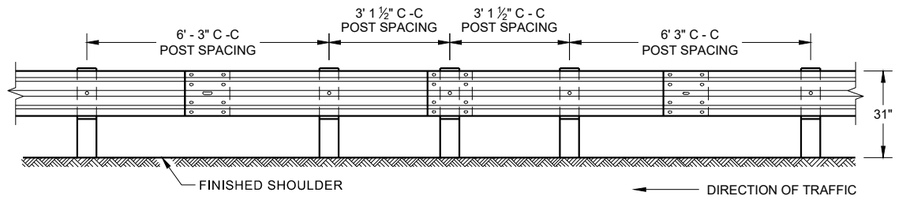
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B42 - 07a

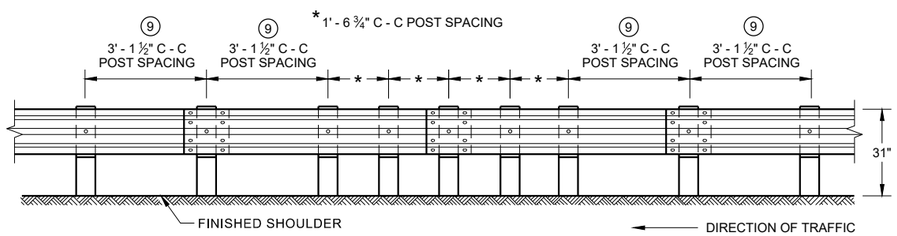
SDD 14B42 - 07a



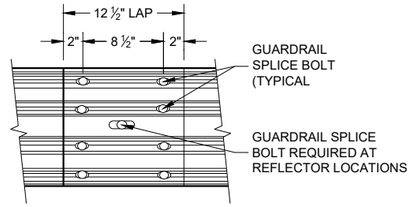
FRONT VIEW
POST SPACING STANDARD INSTALLATION



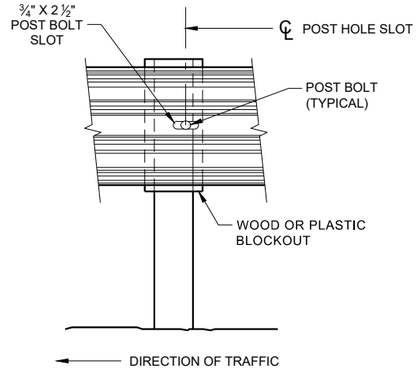
FRONT VIEW
HALF POST SPACING (HS) AND HALF POST SPACING WITH LONGER POSTS (K)



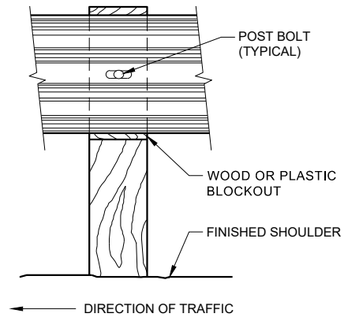
FRONT VIEW
QUARTER POST SPACING (QS)



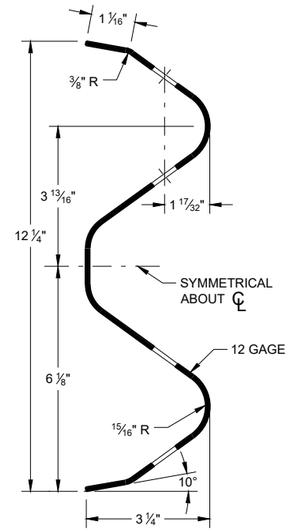
FRONT VIEW
MID-SPAN BEAM SPLICE



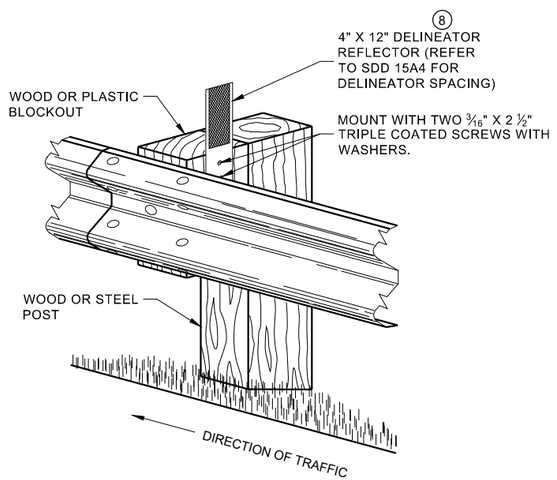
FRONT VIEW AT STEEL POST



FRONT VIEW AT WOOD POST



SECTION THRU W-BEAM RAIL



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 ⅝" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND ⅝" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

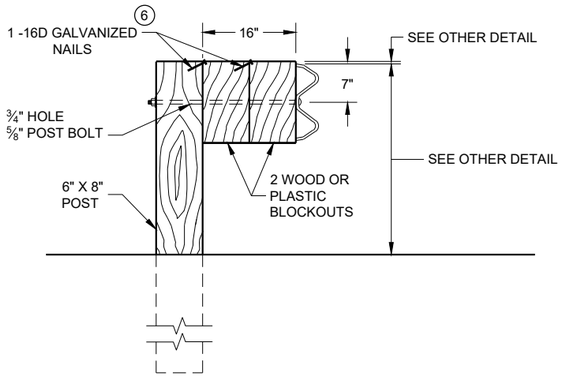
GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B42 - 07b
SDD 14B42 - 07b

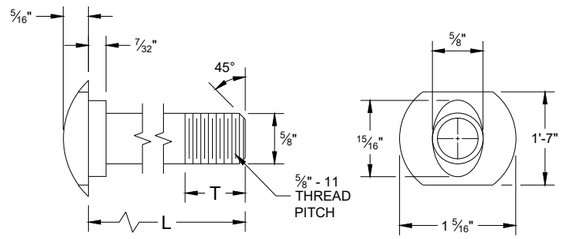


DETAIL FOR 16" BLOCKOUT DEPTH

IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.

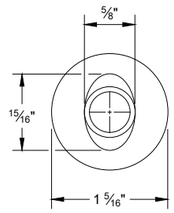
NOTE:

1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 3⁄16".
2. IF THE BOLT EXTENDS MORE THAN ¼" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

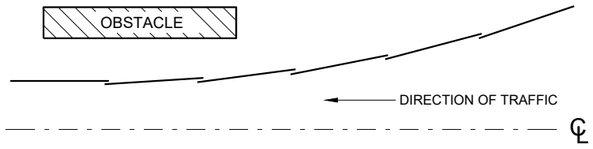


POST BOLT TABLE

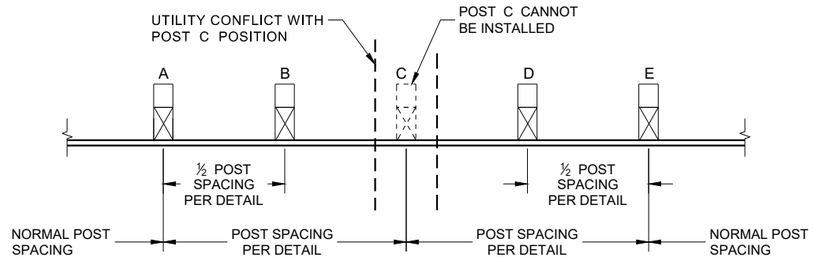
L	T (MIN.)
1 ¼"	1 ⅛"
2"	1 ¾"
10"	4"
14"	4 1⁄16"
18"	4"
21"	4 1⁄16"
25"	4"



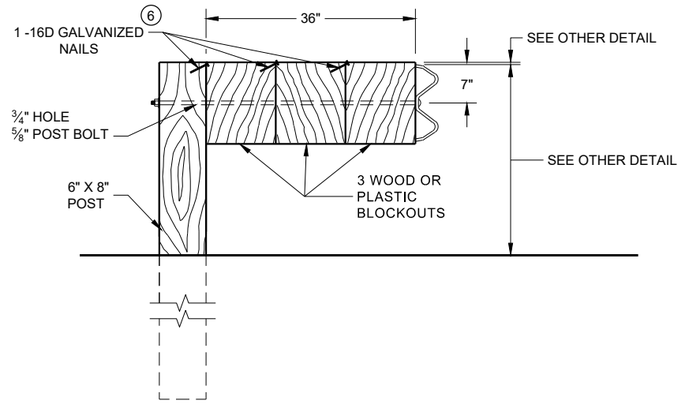
ALTERNATE BOLT HEAD



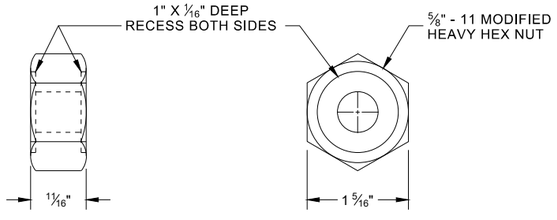
PLAN VIEW
BEAM LAPPING DETAIL



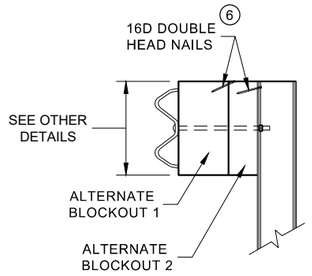
POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



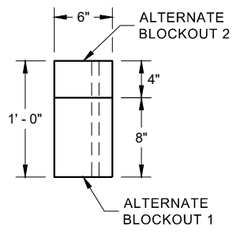
DETAIL FOR 36" BLOCKOUT DEPTH



POST BOLT, SPLICE BOLT AND RECESS NUT



SIDE VIEW



PLAN VIEW

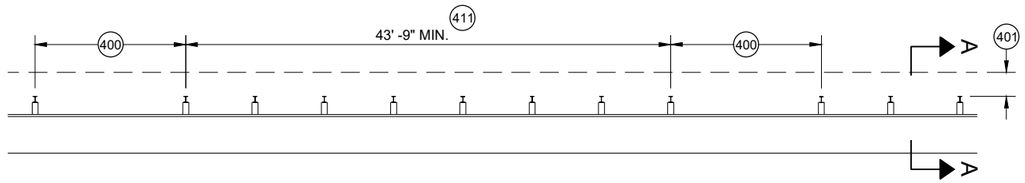
ALTERNATE WOOD BLOCKOUT DETAIL

NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

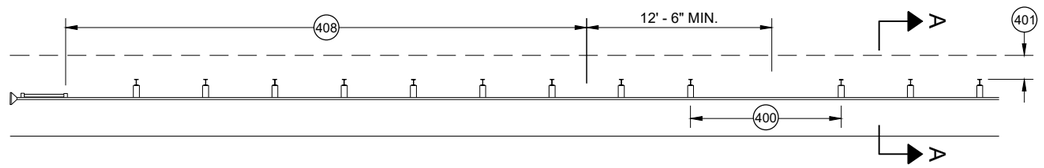
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

(6) WHEN USING STEEL POST AD 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.

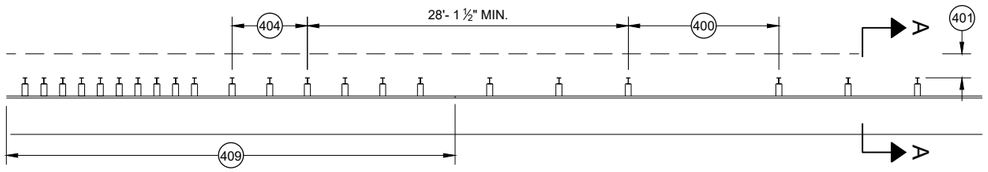
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL



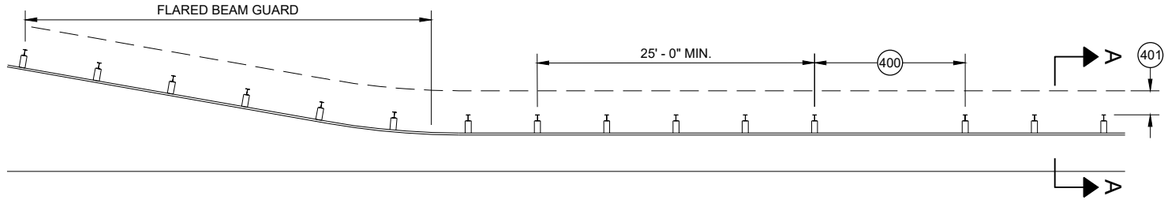
MISSING POST IN MGS GUARDRAIL



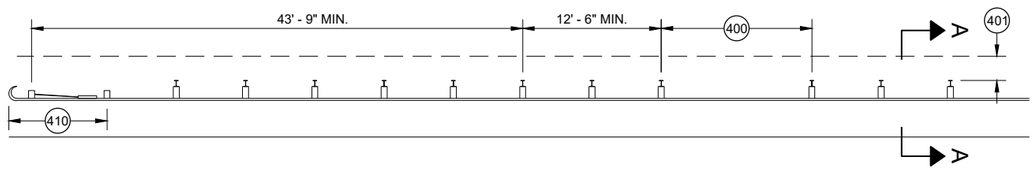
MISSING POST IN MGS GUARDRAIL NEAR EAT



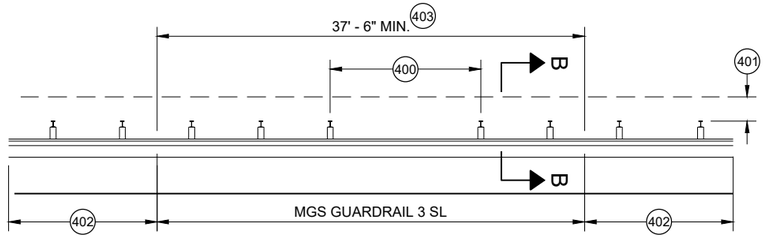
MISSING POST IN MGS GUARDRAIL NEAR AN APPROACH TRANSITION



MISSING POST IN MGS GUARDRAIL NEAR FLARED BEAM GUARD

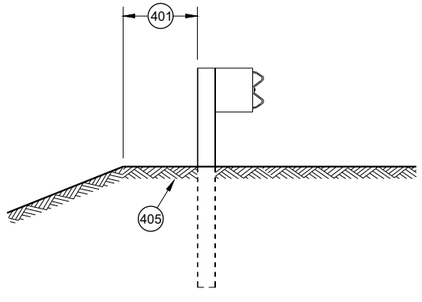


MISSING POST IN MGS GUARDRAIL NEAR A TYPE 2 END TERMINAL

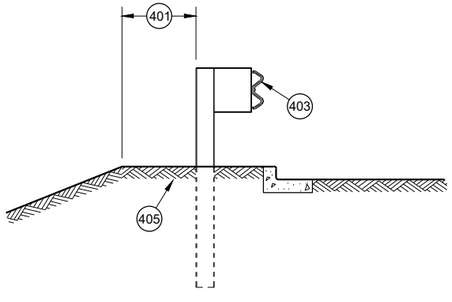


MISSING POST IN SHORT SPAN MGS GUARDRAIL NEAR CURB (SL) 407

(400) MAX SPAN 12' - 6"
(401) 2' MIN.
(402) MGS GUARDRAIL 3
(403) NESTING BEAM GUARD
(404) ASYMMETRIC TRANSITION
(405) SOIL WELL DRAINED AND COMPACTED
(406) SEE OTHER DRAWINGS IN THIS SDD
(407) SEE OTHER DRAWINGS FOR MIN. SPACING BETWEEN SPANS
(408) SEE SDD 14B44
(409) SEE SDD 14B45
(410) SEE SDD 14B47
(411) MINIMUM DISTANCE BETWEEN MISSING POST SPANS.



SECTION A - A 406



SECTION B - B 406

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2021
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE
UNIT SUPERVISOR

FHWA

6

SDD 14B42 - 07d

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.

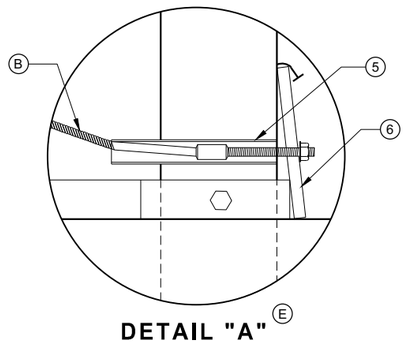
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

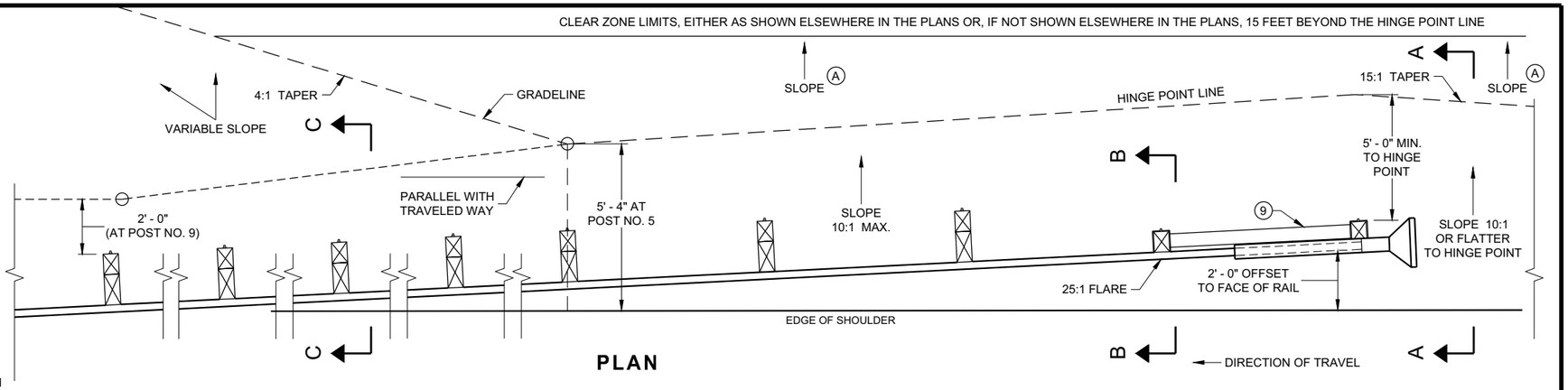
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

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

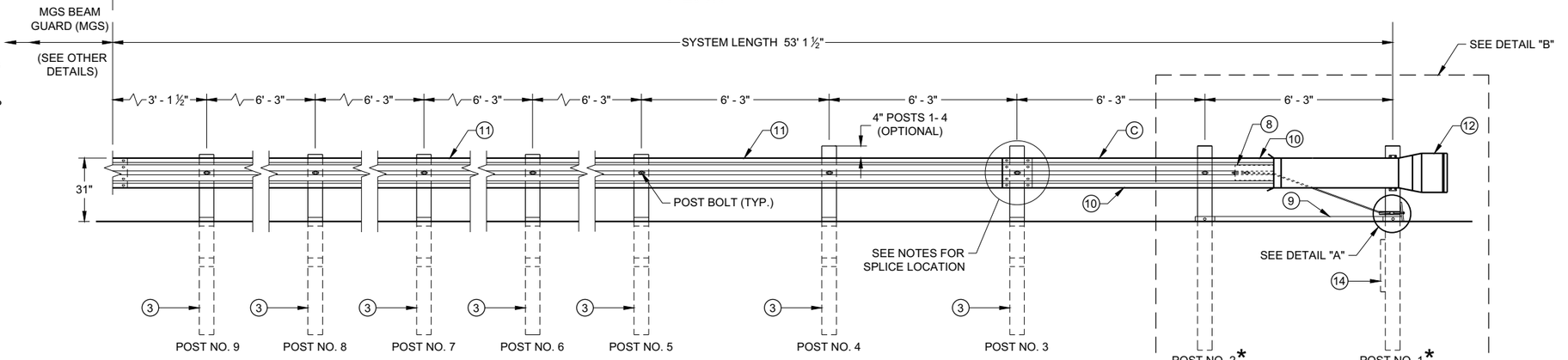
THE CENTER OF THE UPPER 3 ½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.



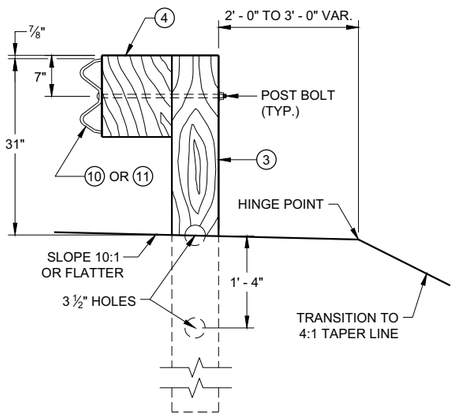
DETAIL "A" (E)



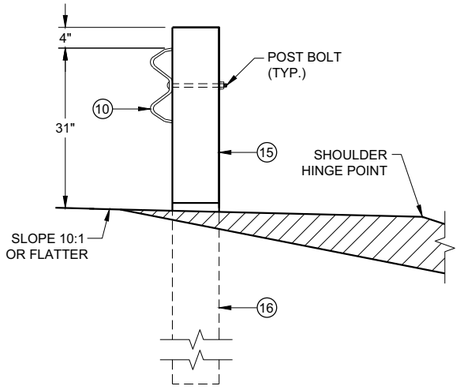
PLAN



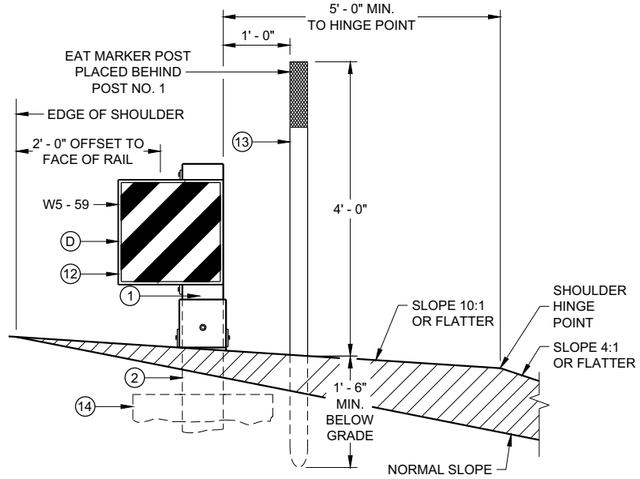
ELEVATION



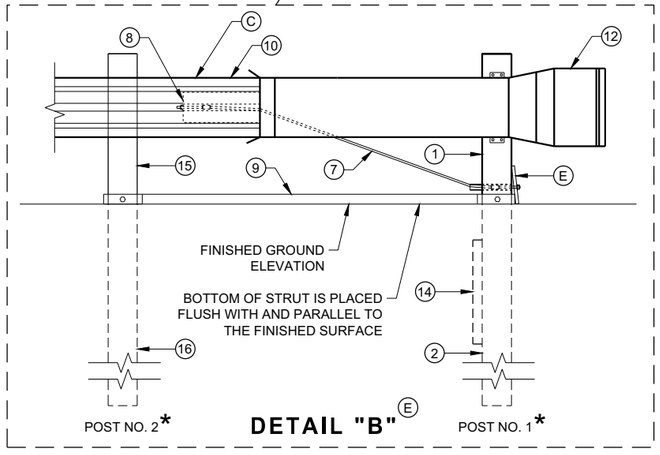
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



SECTION B - B
TYPICAL AT POST NO. 2*



SECTION A - A
TYPICAL AT POST NO. 1*



DETAIL "B" (E)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B44 - 04a

SDD 14B44 - 04a

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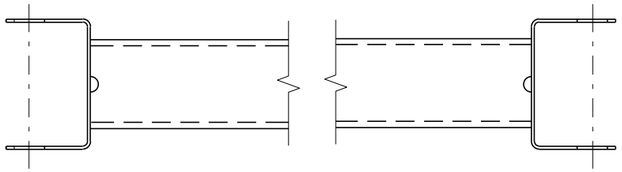
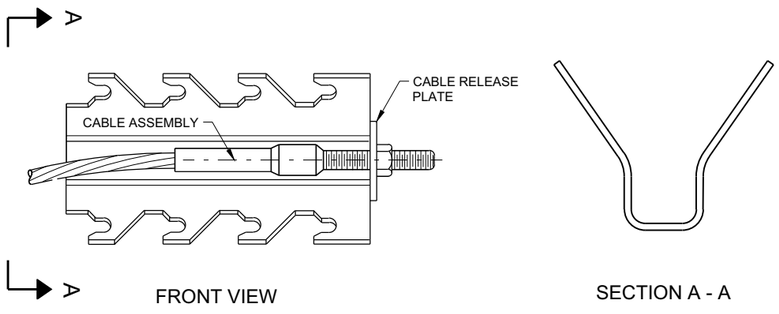


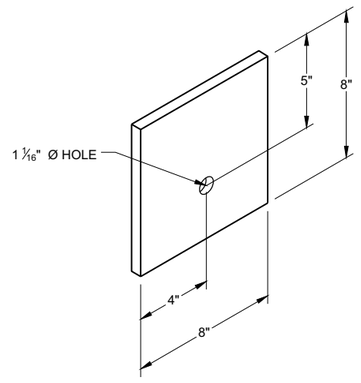
GENERIC GROUND STRUT ⑨ Ⓔ

BILL OF MATERIALS

PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUGACTURER'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 Ⓔ



BEARING PLATE ⑥ Ⓔ

6

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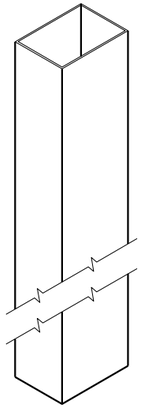
SDD 14B44 - 04b

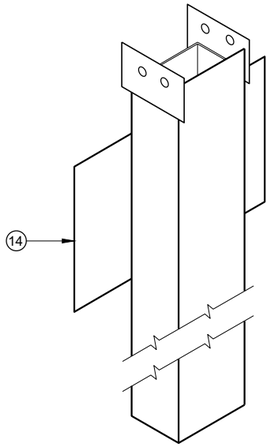
SDD 14B44 - 04b

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

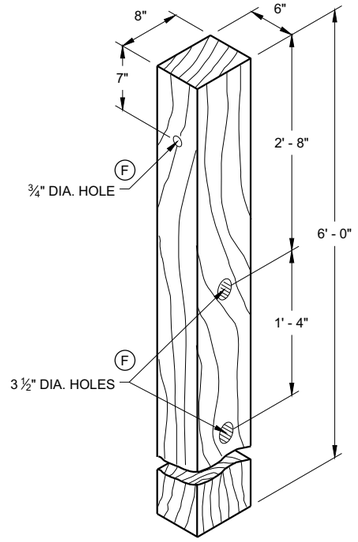
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



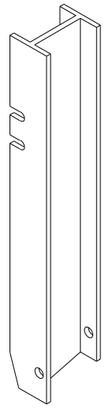
UPPER POST NO. 1 (1) (E)



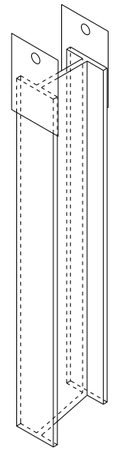
LOWER POST NO. 1 (2) (E)



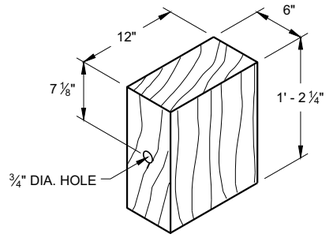
WOOD CRT POST (3) (E)
POSTS NUMBER 3-9



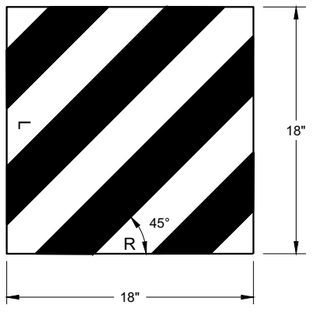
UPPER POST NO. 2 (15) (E)



LOWER POST NO. 2 (16) (E)

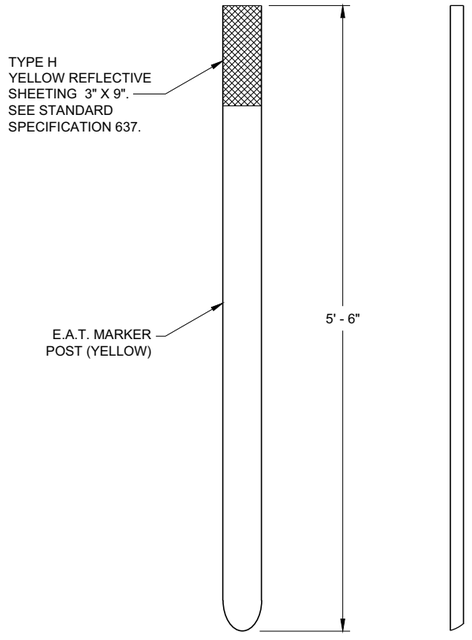


WOOD BLOCKOUT (4)
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



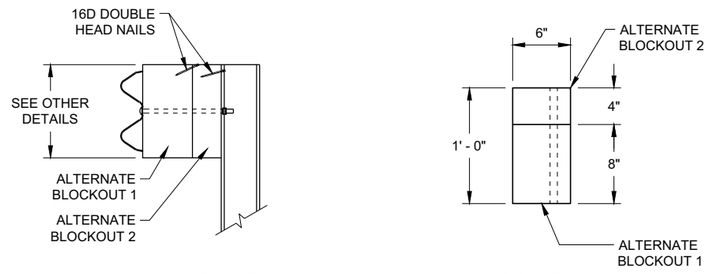
W5 - 59

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)

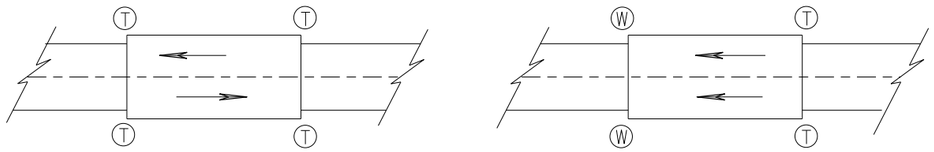
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

6

SDD 14B44 - 04c



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 2½", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

TRANSITION USES STEEL POSTS ONLY.

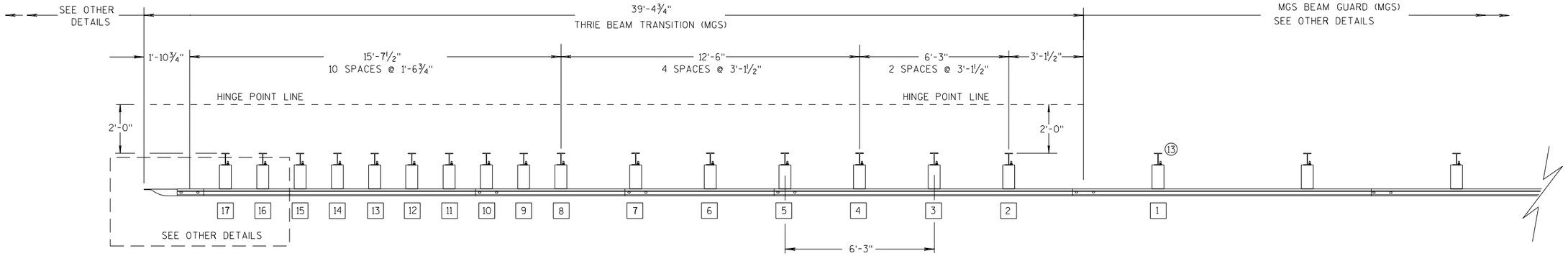
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

POST 2 THROUGH 17 USES STEEL POST ONLY

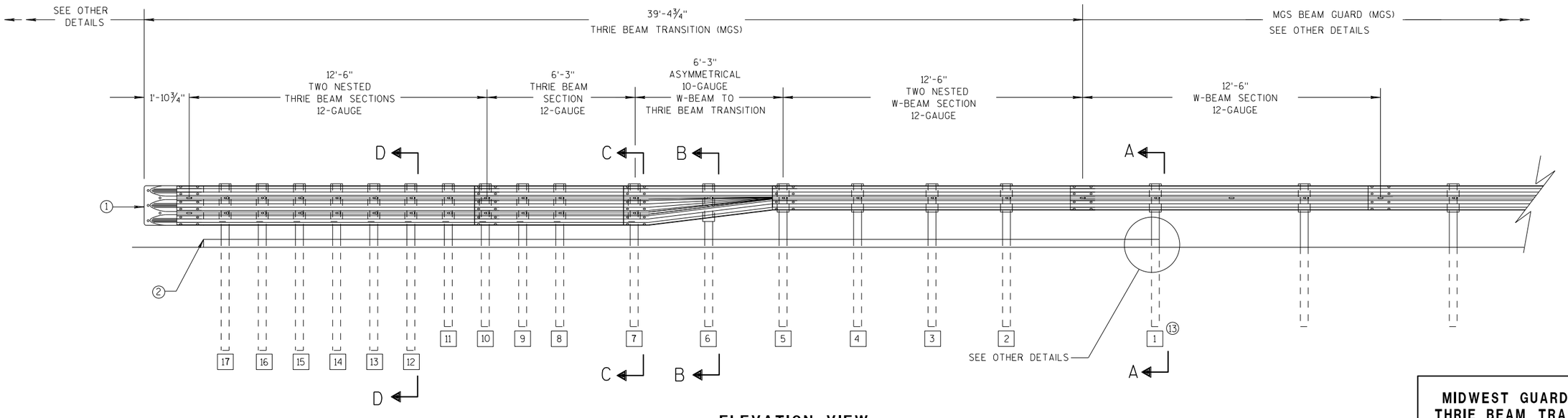
(1) BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

(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 TRANSPOR

6

S.D.D. 14 B 45-5a

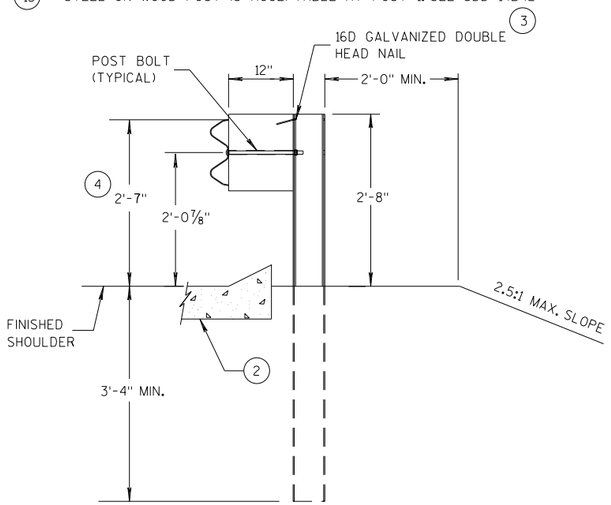
GENERAL NOTES

(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.

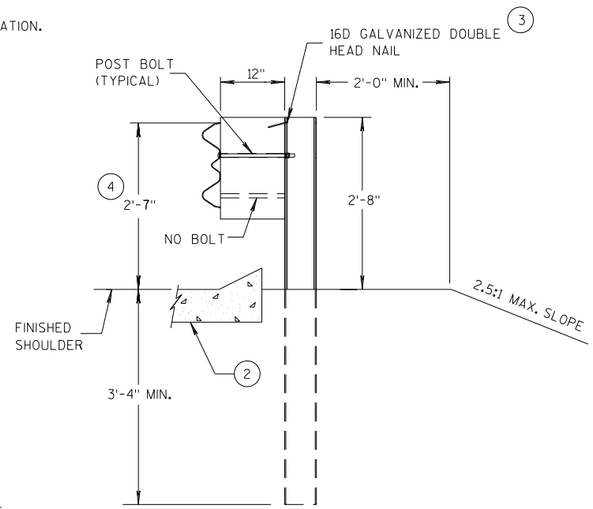
(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

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



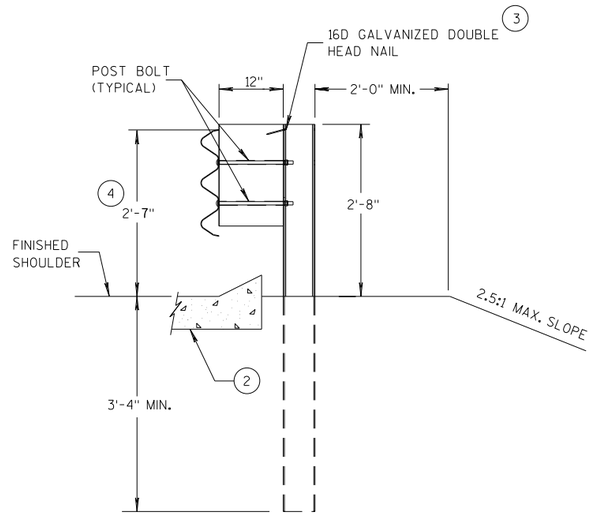
SECTION A-A (13)

POSTS 1-5



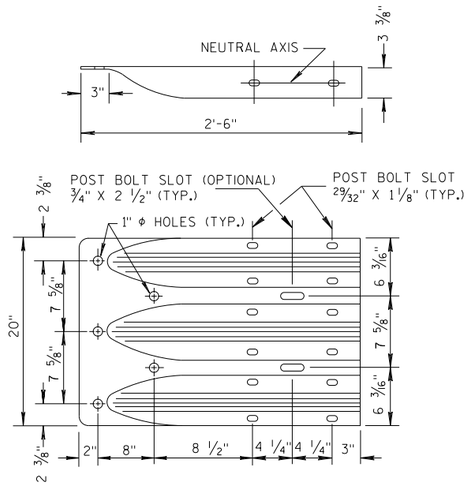
SECTION B-B

POST 6

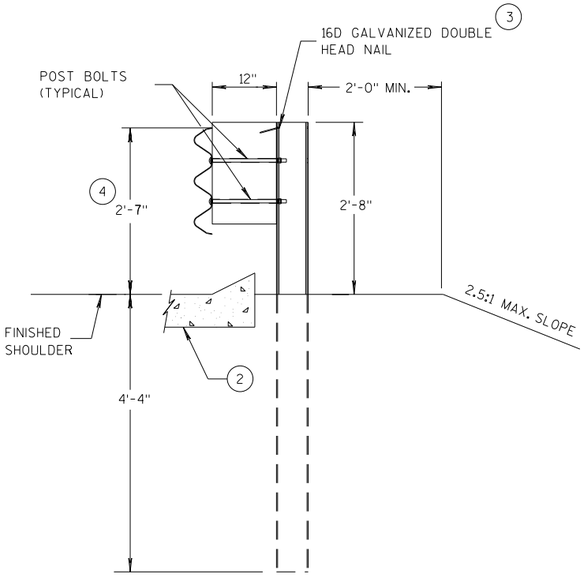


SECTION C-C

POSTS 7-11

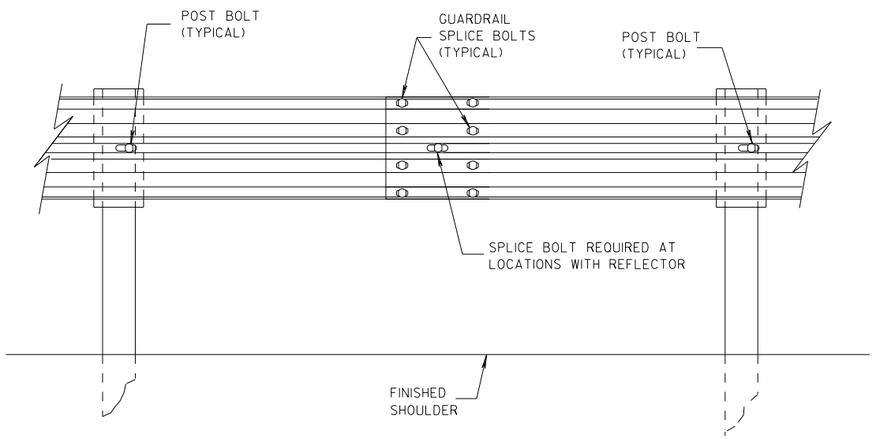


THRIE BEAM TERMINAL CONNECTOR



SECTION D-D

POSTS 12-17



SPLICE DETAIL

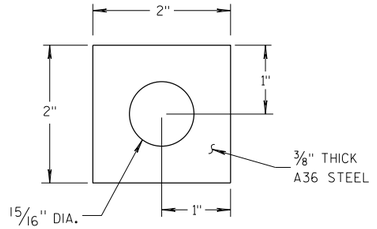
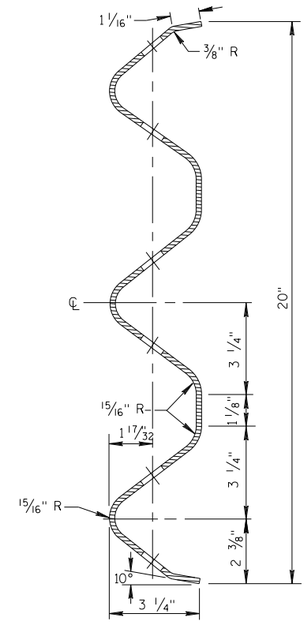


PLATE WASHER DETAIL



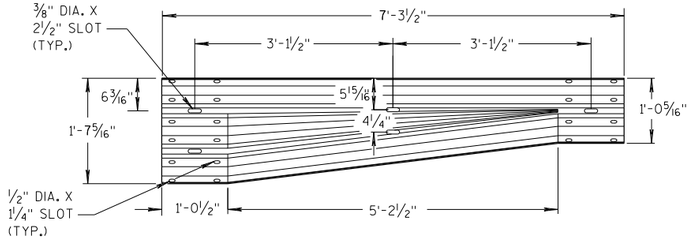
SECTION THRU THRIE BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

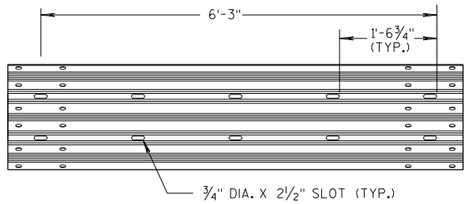
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOF

6

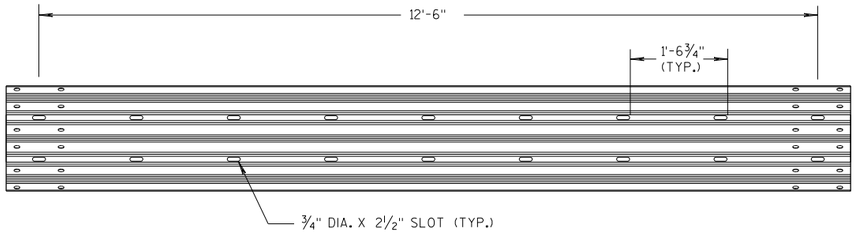
S.D.D. 14 B 45-5b



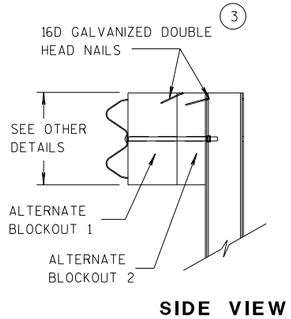
W-BEAM TO THRIE BEAM TRANSITION SECTION



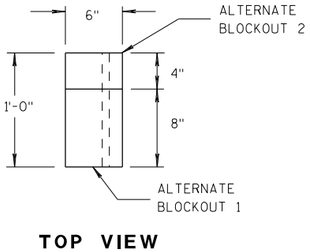
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

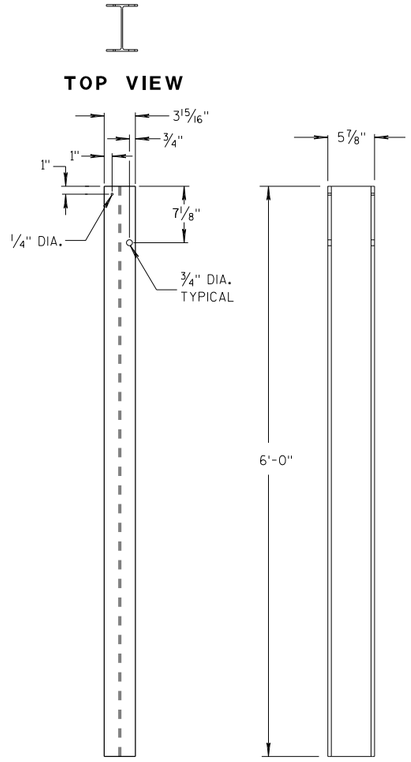


SIDE VIEW



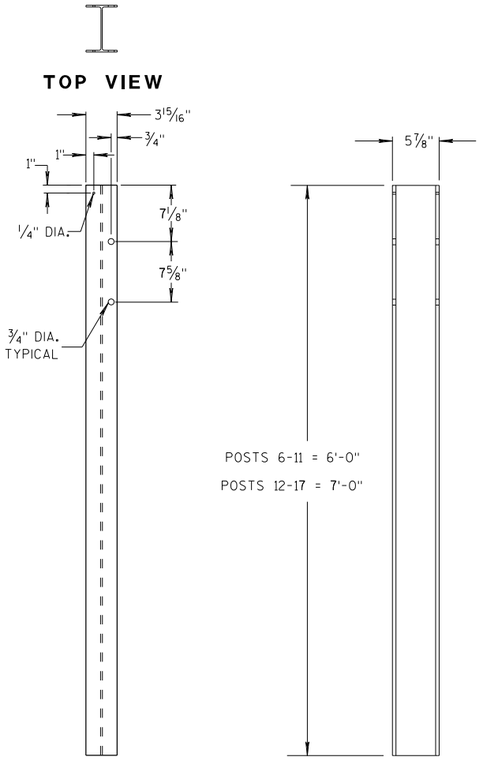
TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL



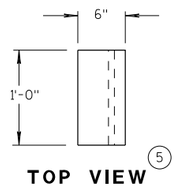
FRONT VIEW SIDE VIEW

STEEL POSTS 1-5 (13)

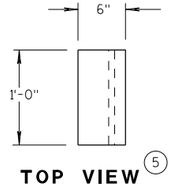


FRONT VIEW SIDE VIEW

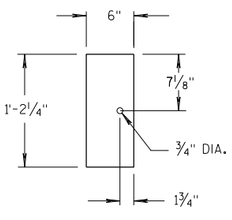
STEEL POSTS 6-17



TOP VIEW (5)

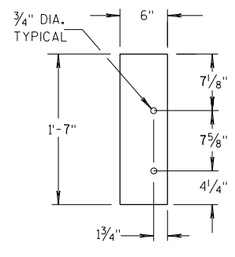


TOP VIEW (5)



FRONT VIEW

BLOCKOUT POSTS 1-5



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)

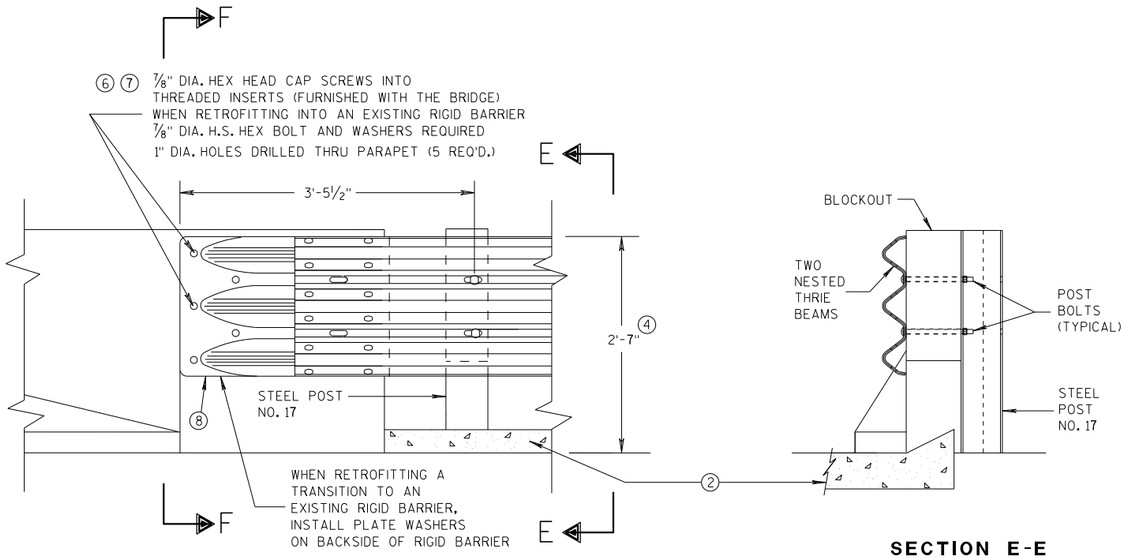
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR 334

6

S.D.D. 14 B 45-5c

6

S.D.D. 14 B 45-5c



FRONT VIEW

SECTION E-E

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS

GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

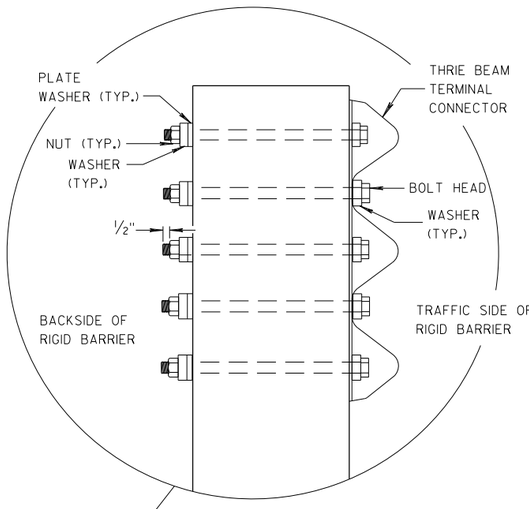
② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

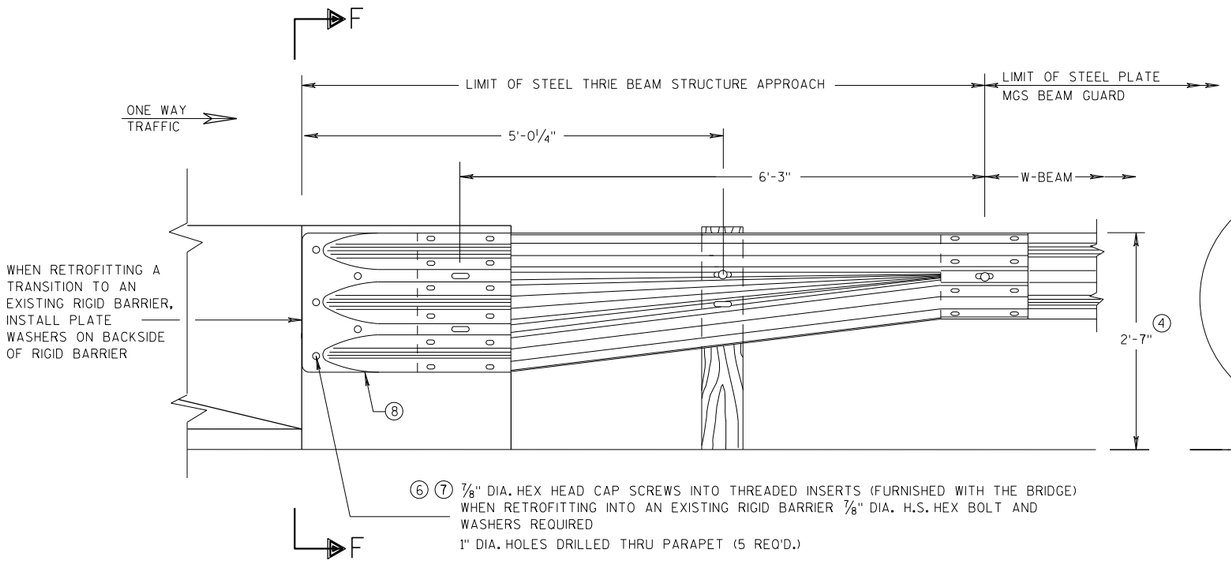
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

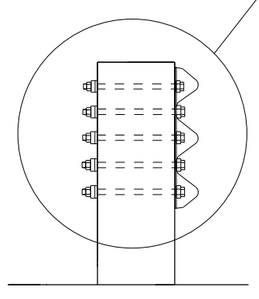
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. 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".

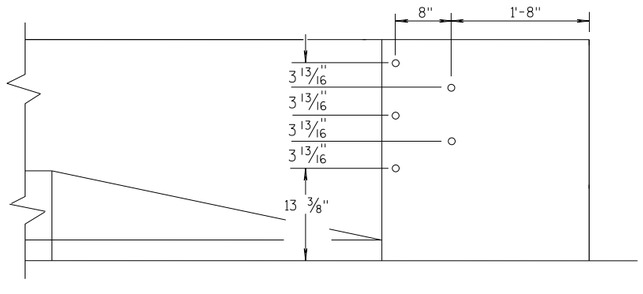




FRONT VIEW



SECTION F-F



DRILL HOLE LOCATION

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
07/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS D UNIT SUPERVI
FHWA

6

S.D.D. 14 B 45-5d

6

S.D.D. 14 B 45-5d

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.

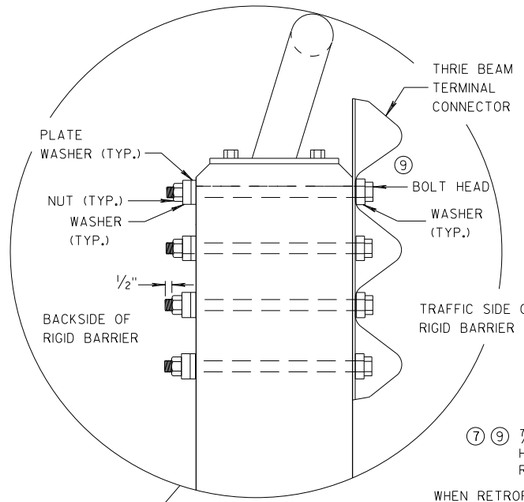
(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

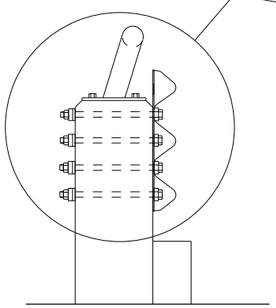
(6) DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(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.

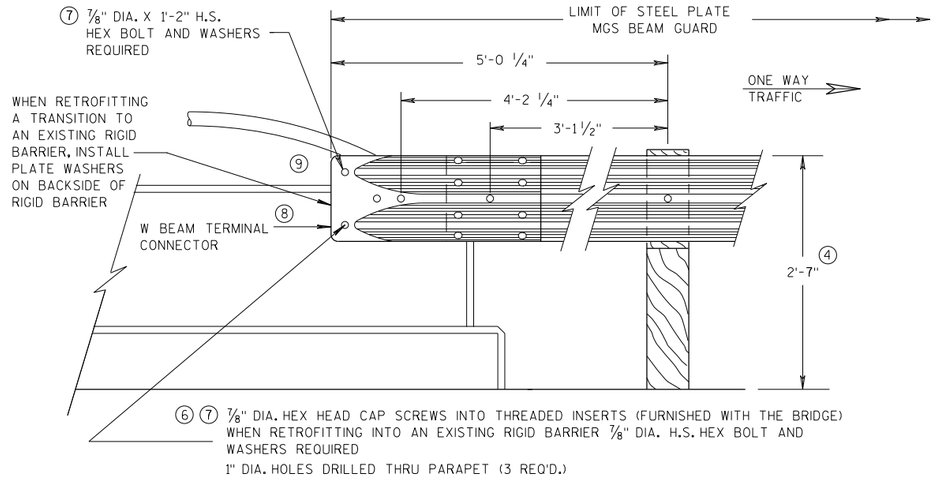
(8) THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 ½".

(9) BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.





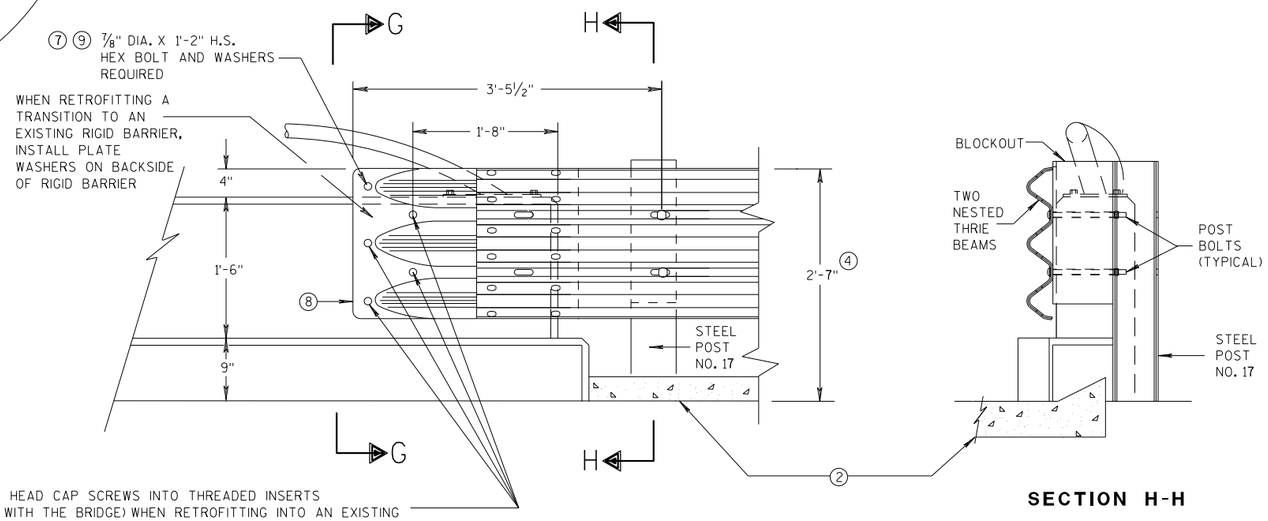
SECTION G-G



FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)



FRONT VIEW

SECTION H-H

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
07/2018 — DATE
/S/ Rodney Taylor
ROADWAY STANDARDS D[illegible] UNIT SUPERVIS[illegible]
FHWA

6

S.D.D. 14 B 45-5e

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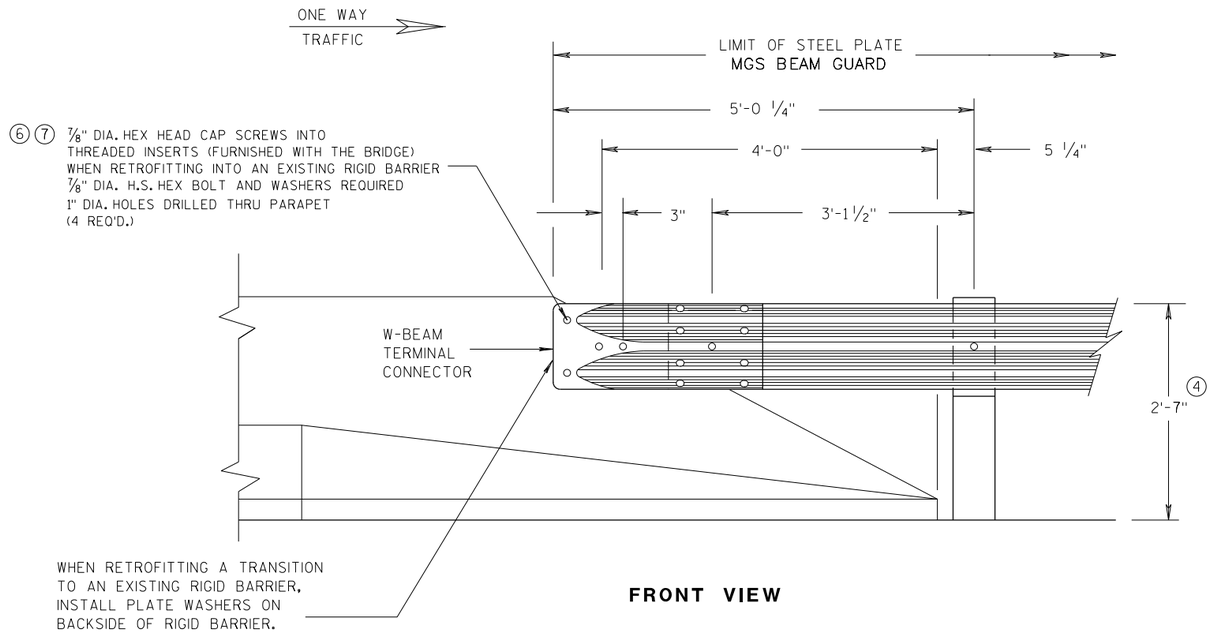
S.D.D. 14 B 45-5e



FRONT VIEW

W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS

(USE ONLY AT TRAFFIC EXIT END OF ONE WAY BRIDGE)

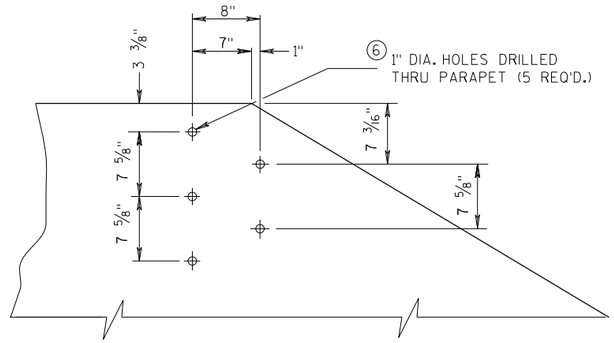
GENERAL NOTES

② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

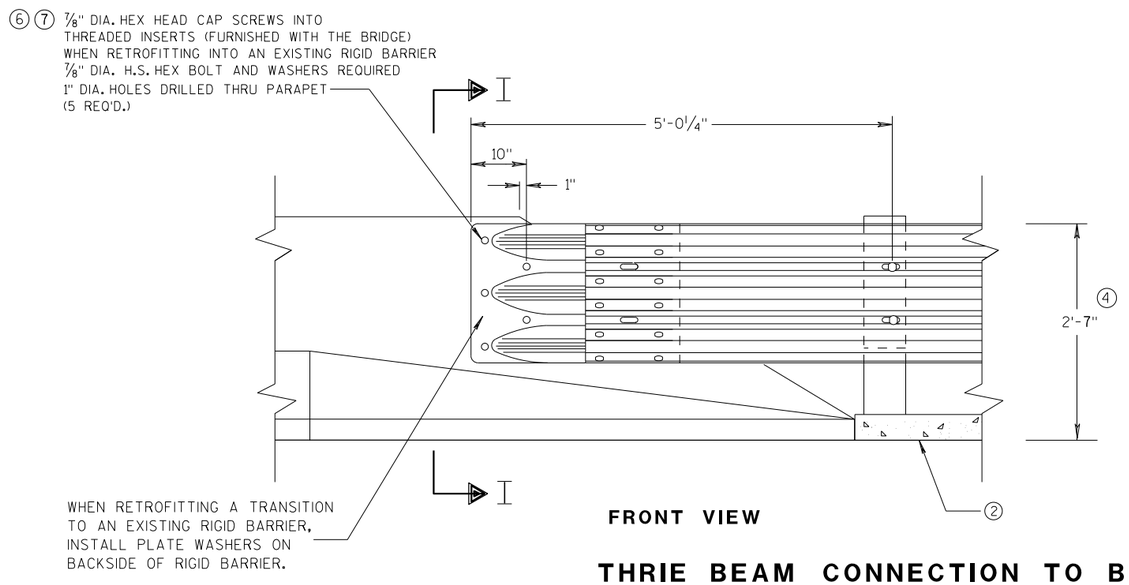
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

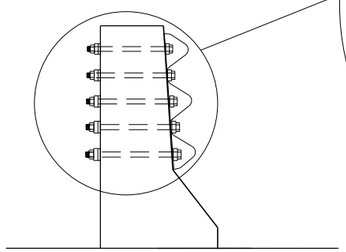
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. 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.



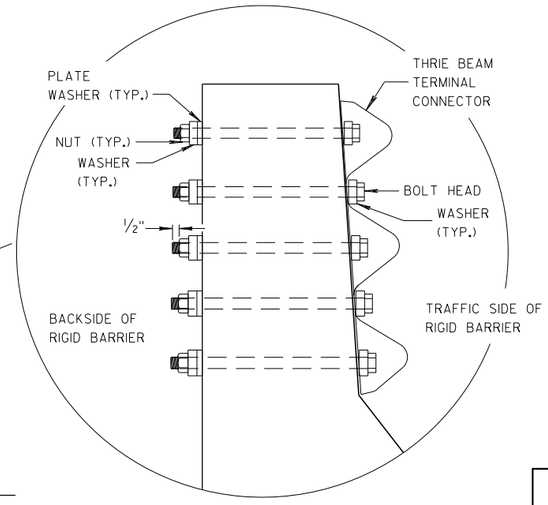
DRILL HOLE LOCATION AND PATTERN
FOR THRIE BEAM CONNECTION



FRONT VIEW



SECTION I-I



THRIE BEAM CONNECTION TO BRIDGE PARAPETS WITH SLOPED ENDS

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
07/2018 — DATE
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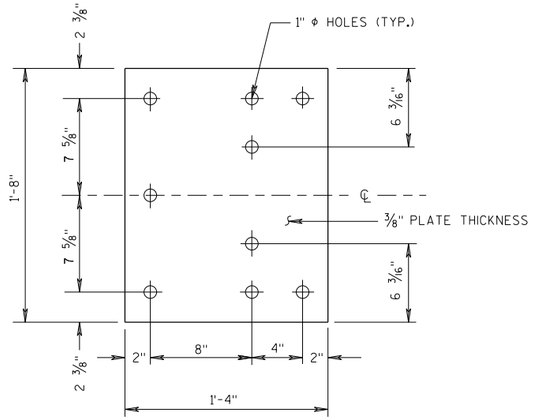
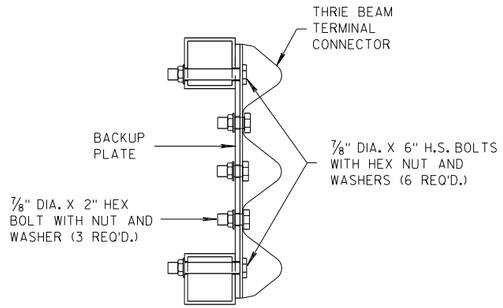
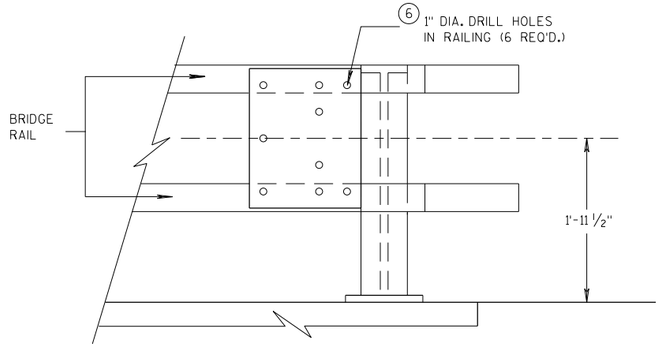


BACK-UP PLATE DETAIL



SECTION J-J

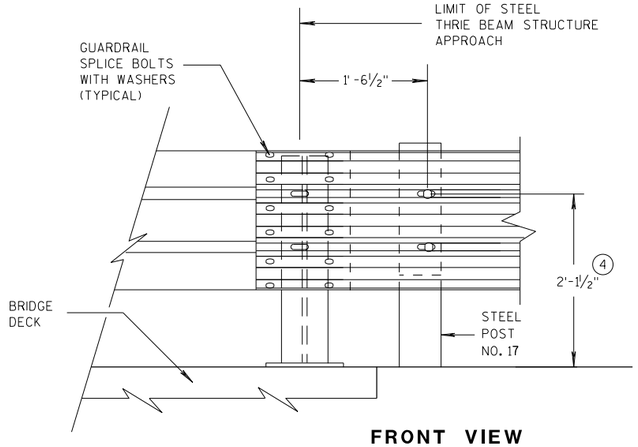


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING

GENERAL NOTES

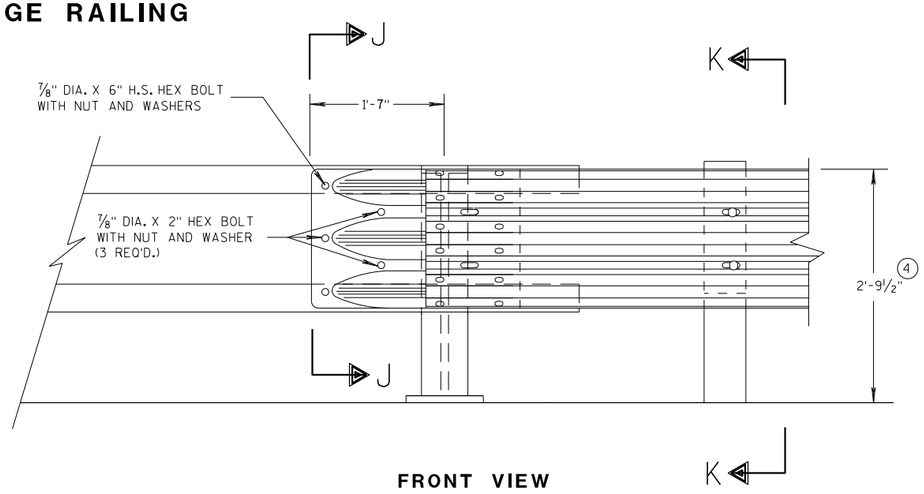
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING HOLES THROUGH THE PAPRPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

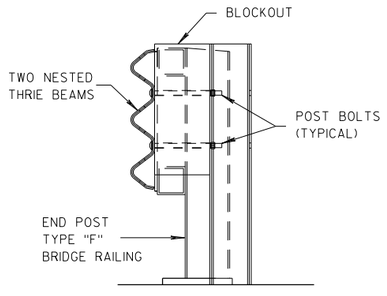


FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"



FRONT VIEW



SECTION K-K

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

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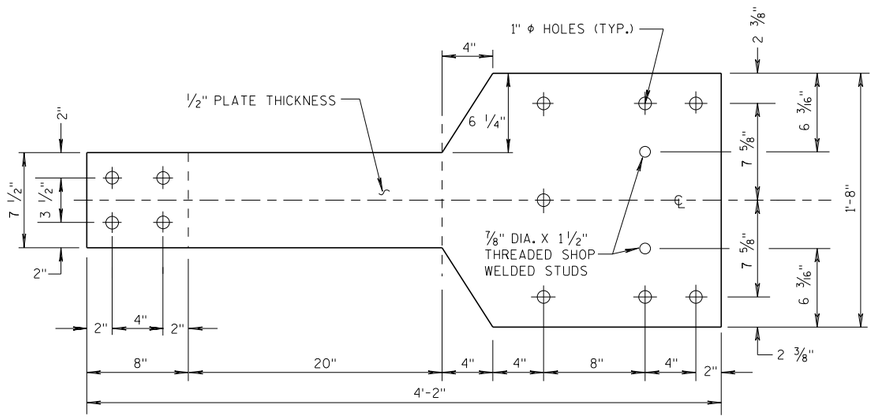
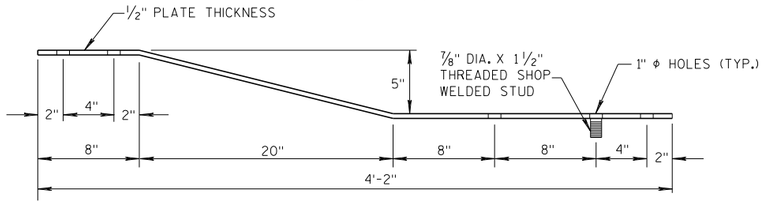
GENERAL NOTES

(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

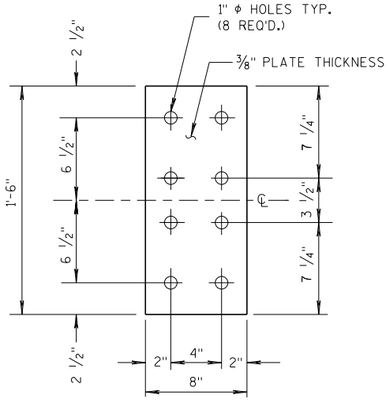


FRONT VIEW



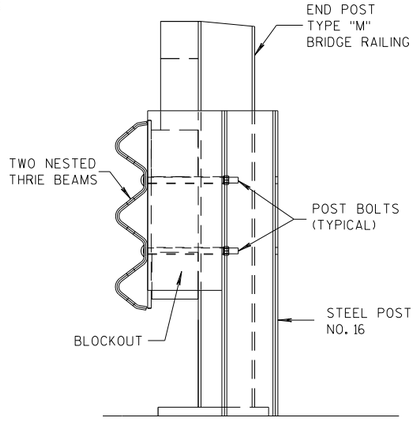
PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

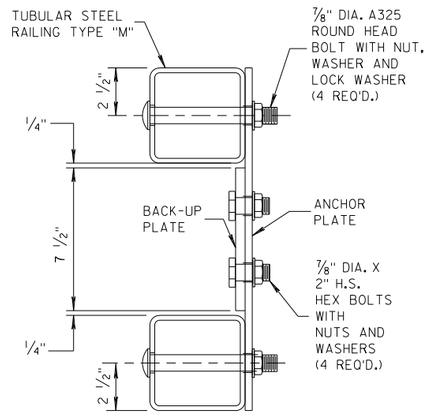


FRONT VIEW

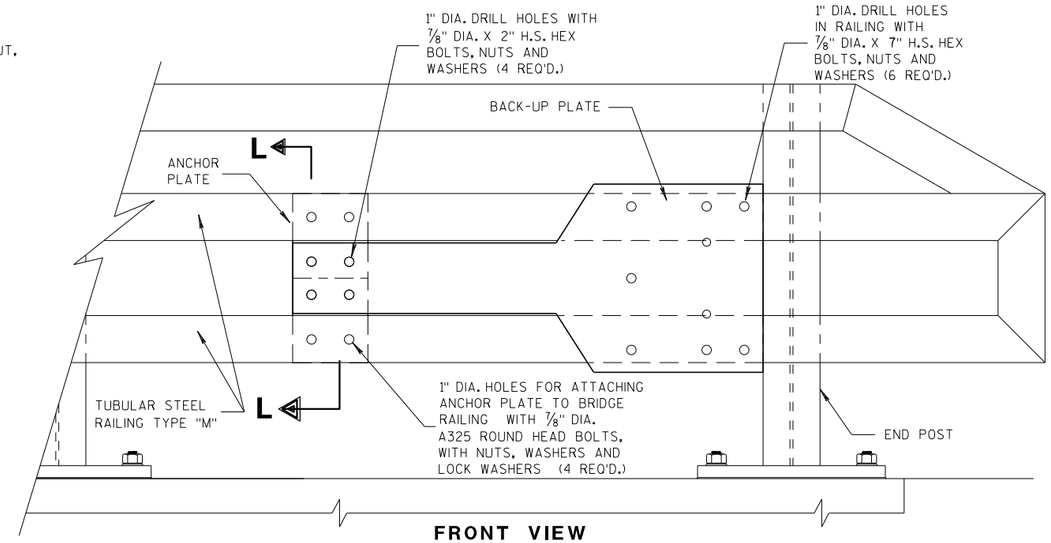
ANCHOR PLATE DETAIL, TYPE "M"



SECTION M-M

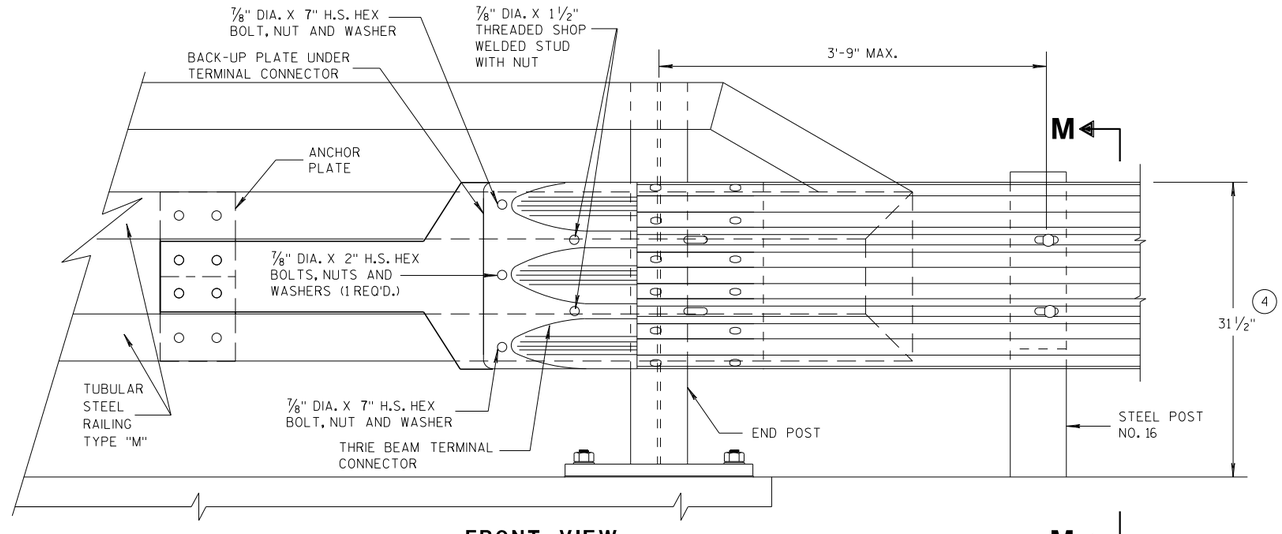


SECTION L-L

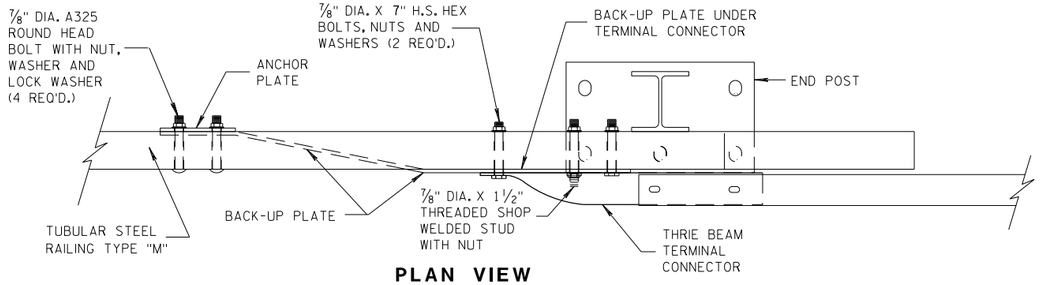


FRONT VIEW

ANCHOR AND BACK-UP PLATE MOUNTING TO BRIDGE RAILING, TYPE "M"



FRONT VIEW



PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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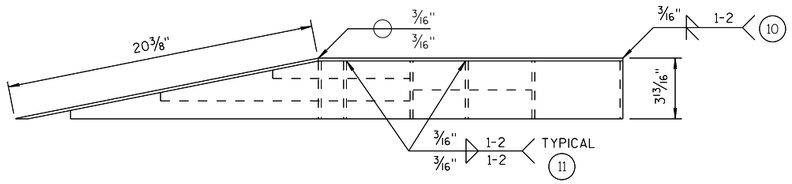

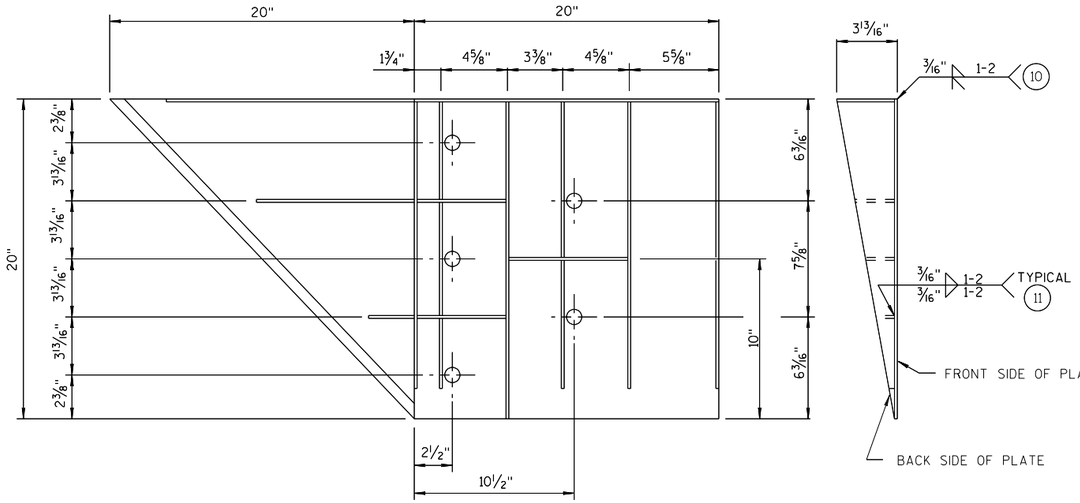

WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)

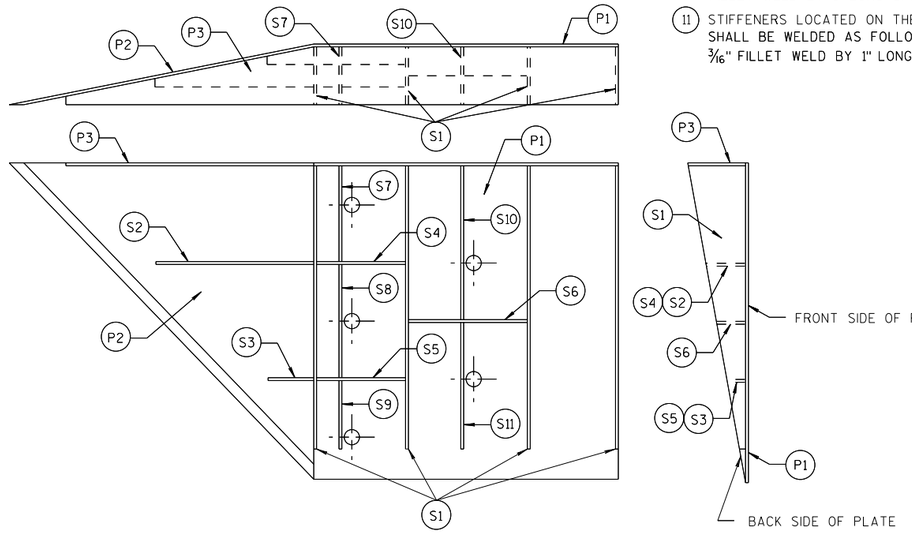

PLATE AND STIFFENER IDENTIFICATION

(VIEWED FROM BACK SIDE OF PLATE)

GENERAL NOTES

COVER PLATE PANELS ARE 3/16" THICK.

ALL STIFFENERS ARE 1/4" THICK.

CONNECTOR PLATE SHALL BE FABRICATED FROM ASTM GRADE A36 STEEL AND GALVANIZED.

FOR GALVANIZED REQUIREMENTS, SEE SECTION 614 OF THE STANDARD SPECIFICATIONS.

ALL HOLE DIAMETERS SHALL BE 1".

FOR OPPOSITE SIDE INSTALLATION MIRROR DRAWINGS.

(10) STIFFENERS LOCATED AT THE OUTSIDE EDGES OF THE COVER PLATES SHALL BE WELDED AS FOLLOWS:
SINGLE BEVEL GROOVE WELD ON EXTERNAL SIDES AND 3/16" FILLET WELD BY 1" LONG SPACED AT 2" ON INTERNAL SIDES.

(11) STIFFENERS LOCATED ON THE INSIDE OF THE COVER PLATE SHALL BE WELDED AS FOLLOWS:
3/16" FILLET WELD BY 1" LONG SPACED AT 2".

CONNECTOR PLATE DIMENSION (PER ASSEMBLY)

PLATE	QUANTITY	SHAPE	SIZE (A x B x C x D)	THICKNESS
P1	1		20" x 20"	3/16"
P2	1		20" x 20" x 28 9/16"	3/16"
P3	1		39" x 3 5/8" x 20" x 19 5/16"	3/16"
S1	4		18 7/16" x 3 5/8" x 18 3/4"	1/4"
S2	1		10 1/4" x 2 7/16" x 10 3/8" x 1/2"	1/4"
S3	1		3" x 1 1/16" x 3 1/8" x 1/2"	1/4"
S4	1		6 1/8" x 2 7/16"	1/4"
S5	1		6 1/8" x 1 1/16"	1/4"
S6	1		7 3/4" x 1 3/4"	1/4"
S7	1		2 9/16" x 6" x 3 5/8" x 5 7/8"	1/4"
S8	1		1 5/32" x 7 1/2" x 2 1/2" x 7 3/8"	1/4"
S9	1		6 1/16" x 6 3/16" x 1 3/32"	1/4"
S10	1		1 7/8" x 9 7/8" x 3 5/8" x 9 11/16"	1/4"
S11	1		8 1/2" x 8 3/4" x 1 13/16"	1/4"

SINGLE SLOPE CONNECTION PLATE

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
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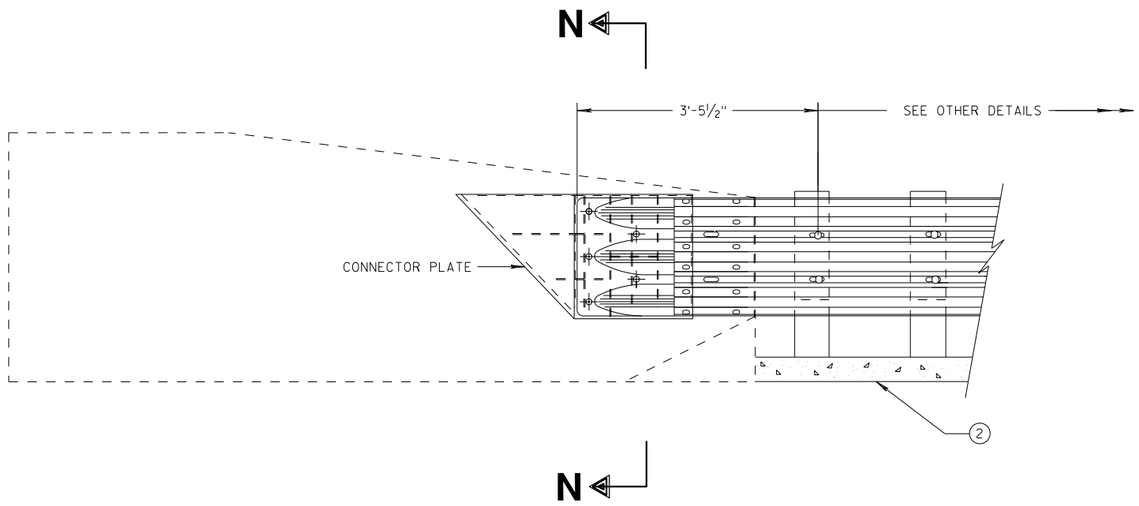
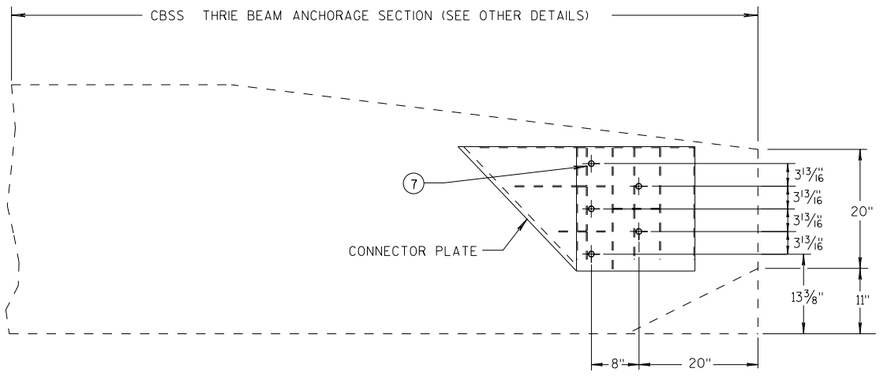


THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER



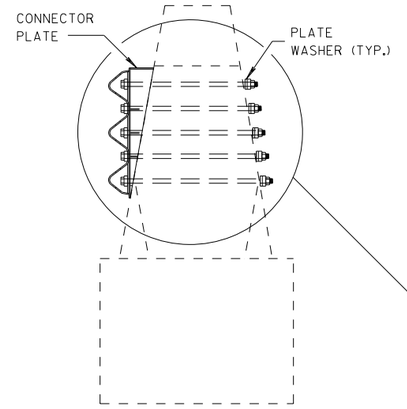
SINGLE SLOPE CONNECTION PLATE PLACEMENT

GENERAL NOTES

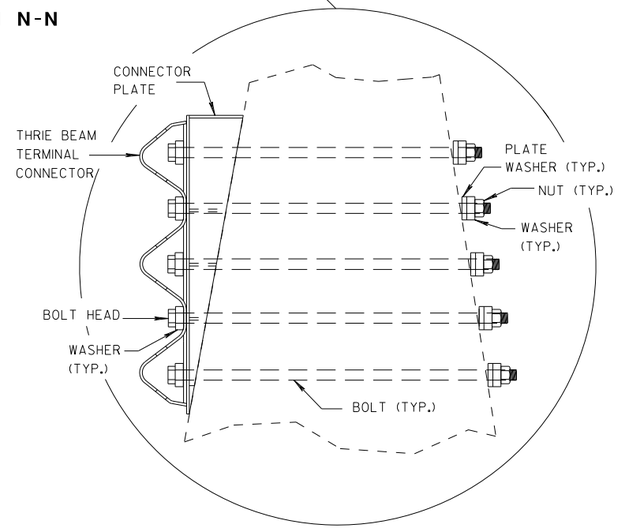
CONNECTOR PLATE, DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

(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.



SECTION N-N



MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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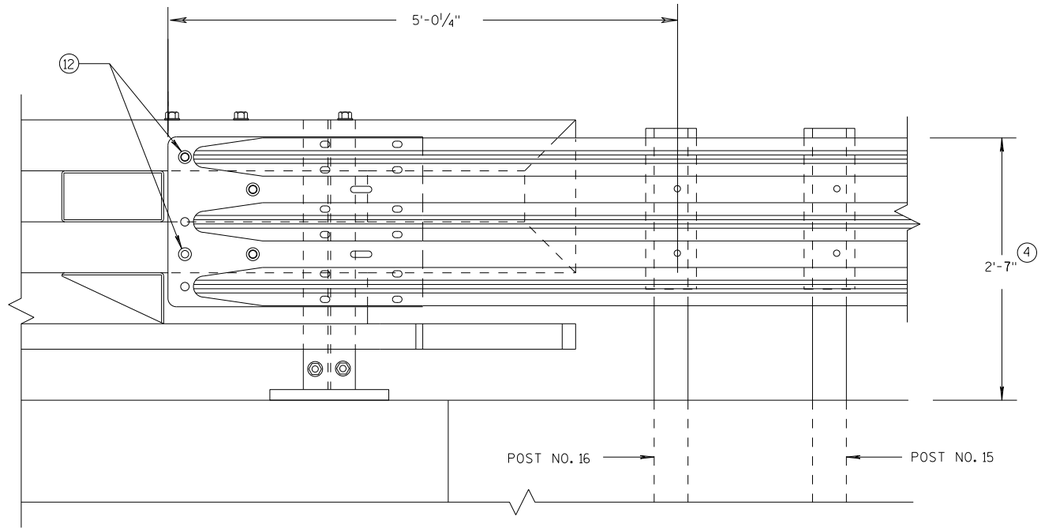
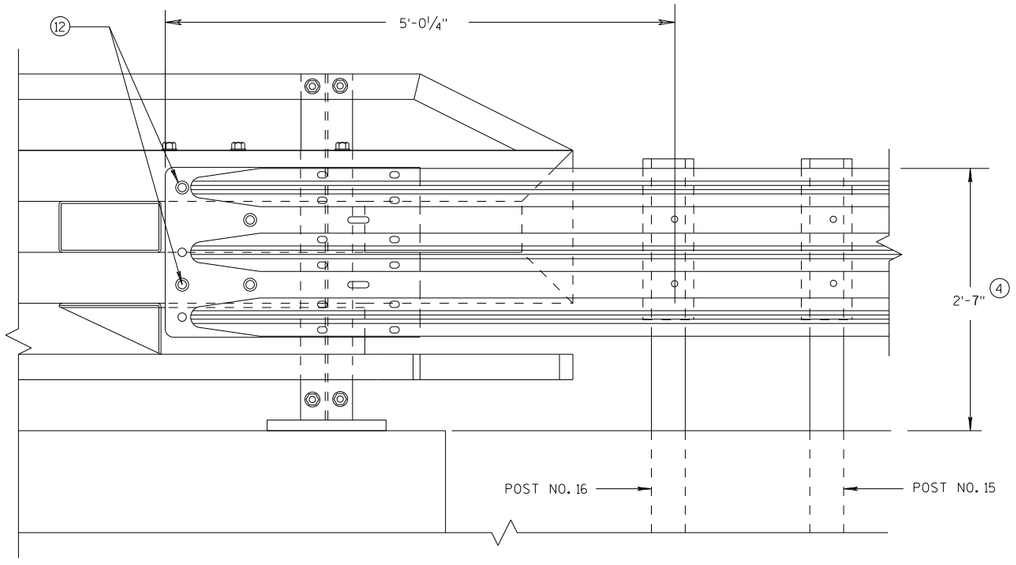


ELEVATION OF DETAIL AT NY3 END POST

THRIE BEAM RAIL ATTACHMENT



ELEVATION OF DETAIL AT NY4 END POST

THRIE BEAM RAIL ATTACHMENT

GENERAL NOTES

(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

(12) 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. ON BACKSIDE OF PARAPET ONE ROUND WASHER, AND NUT REQUIRED. BOLT THREAD IS TO EXTEND 1/2-INCH BEYOND NUT.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
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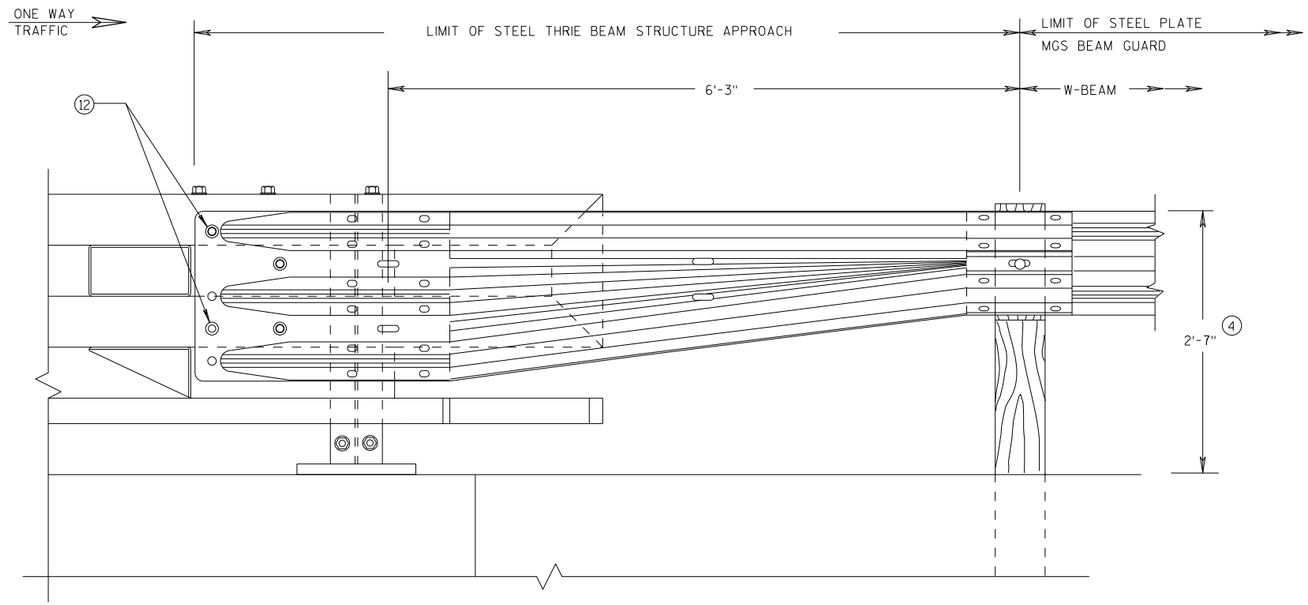


FRONT VIEW

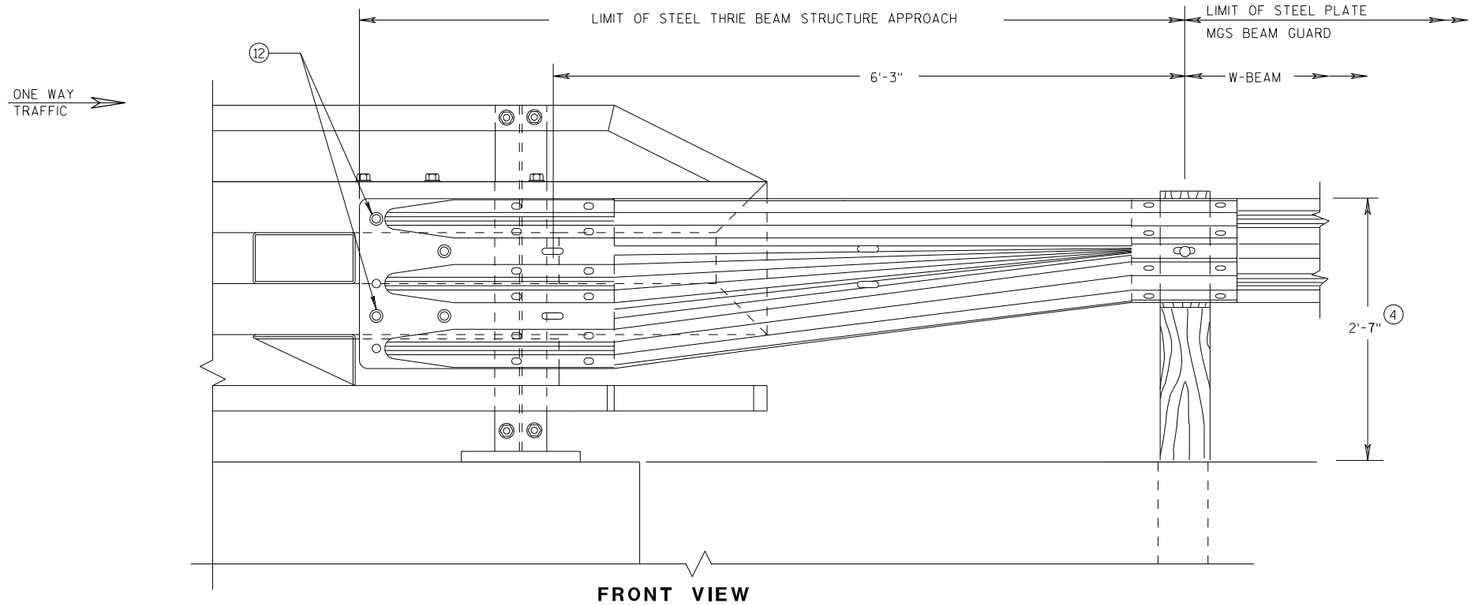
W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY3"

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

GENERAL NOTES

(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

(12) 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. ON BACKSIDE OF PARAPET ONE ROUND WASHER, AND NUT REQUIRED. BOLT THREAD IS TO EXTEND 1/2-INCH BEYOND NUT.



FRONT VIEW

W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY4"

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
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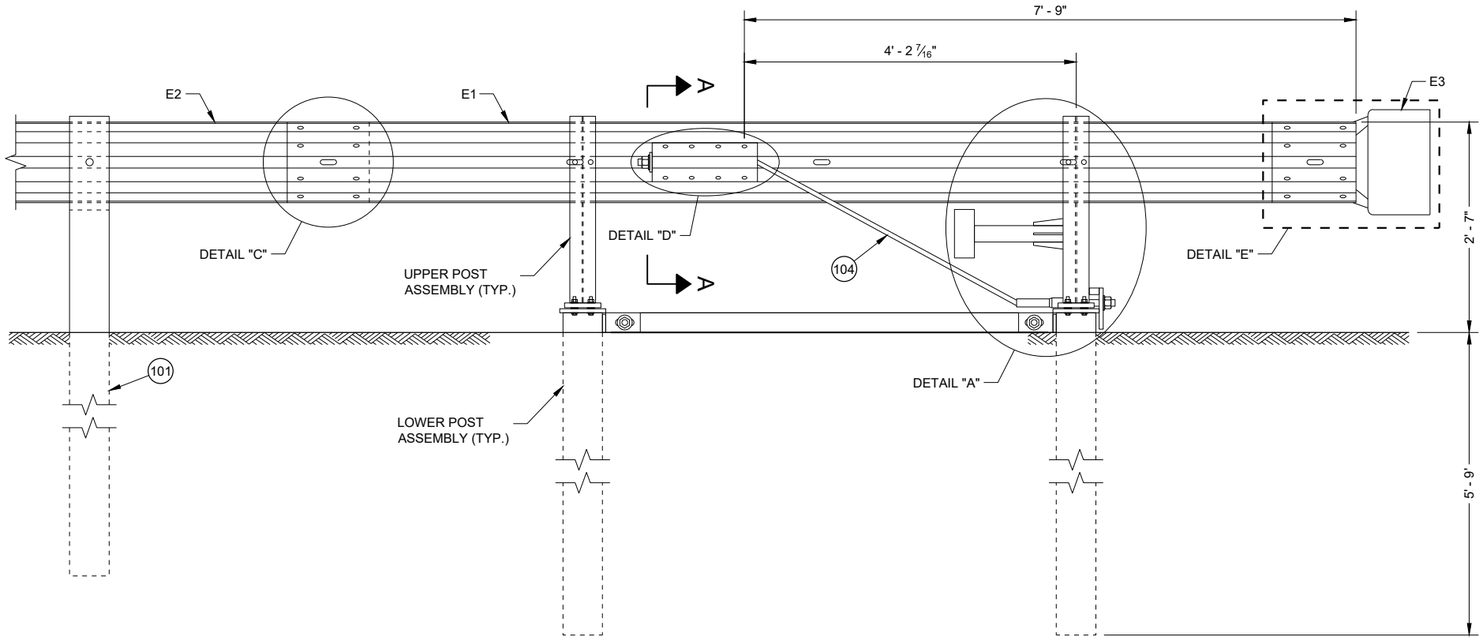
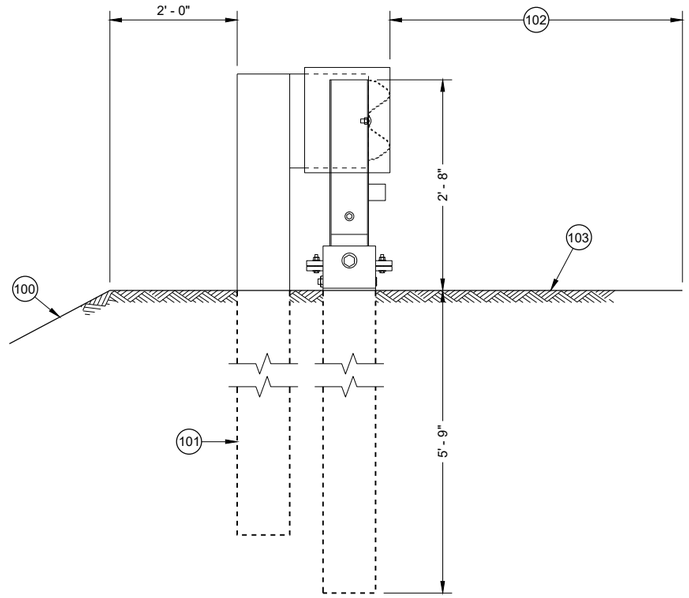
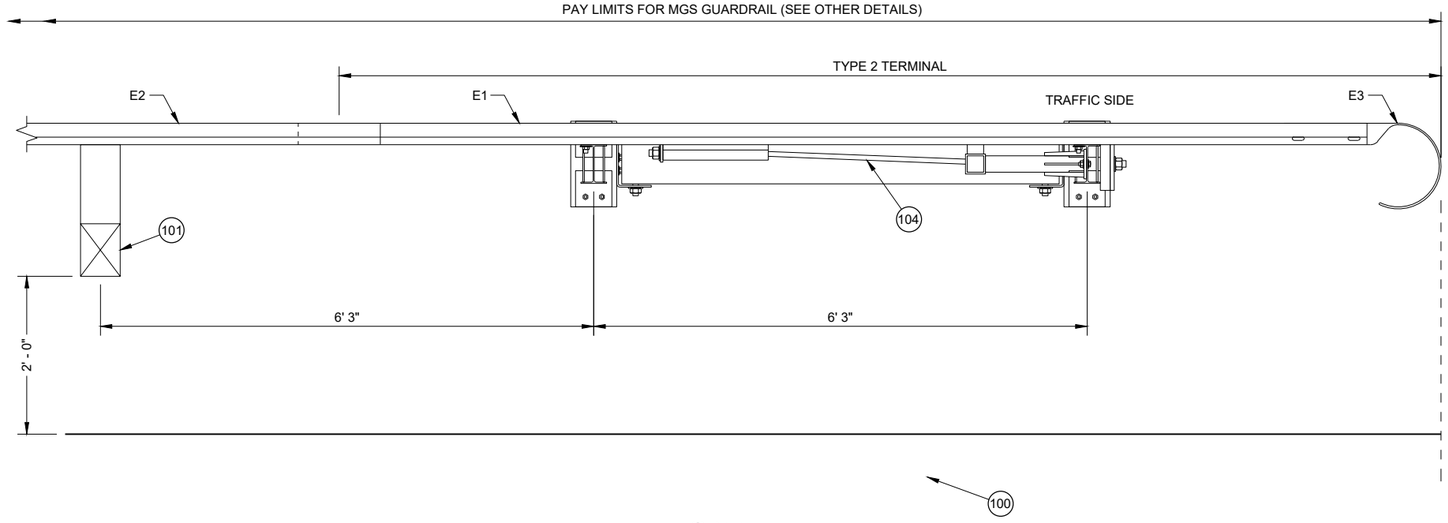


BACK VIEW
TYPE 2 TERMINAL



SIDE VIEW
TYPE 2 TERMINAL



TOP VIEW
TYPE 2 TERMINAL

GENERAL NOTES

(100) MAXIMUM SLOPE IS 2.5:1.

(101) SEE SDD 14B42 FOR MORE INFORMATION.

(102) SHOULDER

(103) MAXIMUM SLOPE IS 10:1.

(104) AFTER ASSEMBLY, CABLE IS TO BE TIGHTENED WITHOUT TWISTING THE CABLE.

MIDWEST GUARDRAIL SYSTEM (MGS)
TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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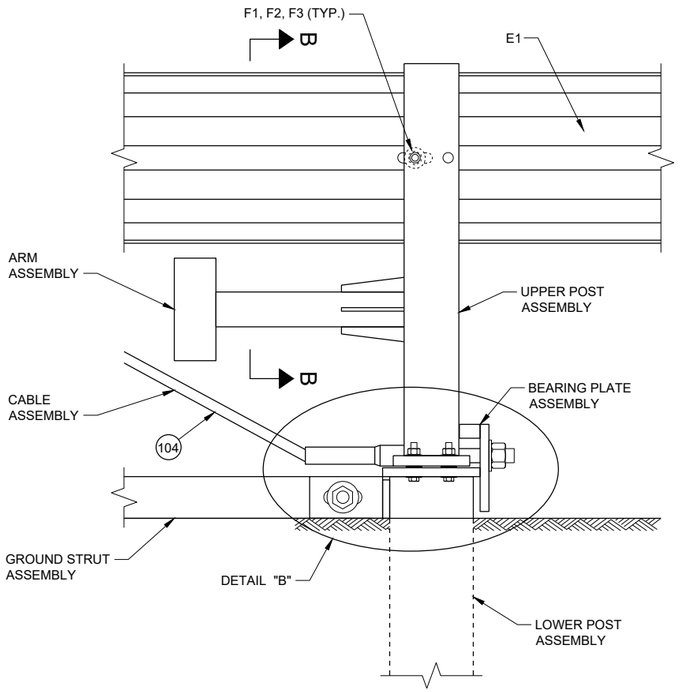
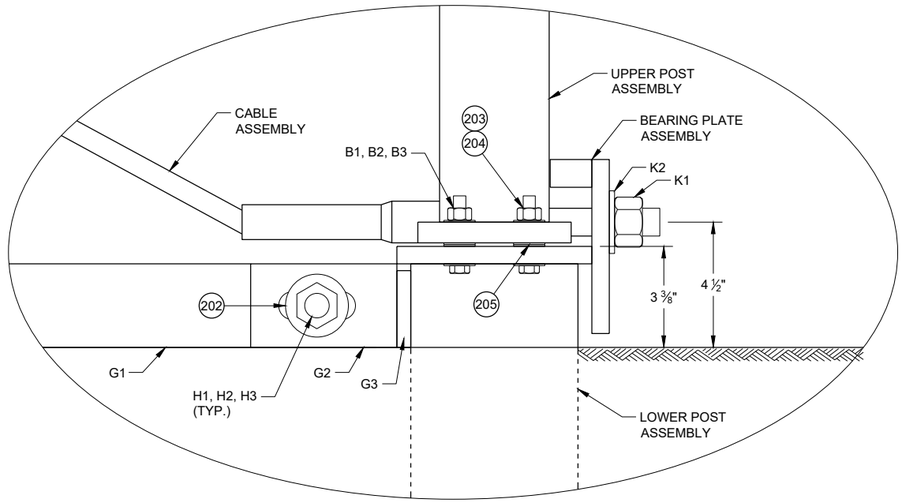
SDD 14B47 - 03a

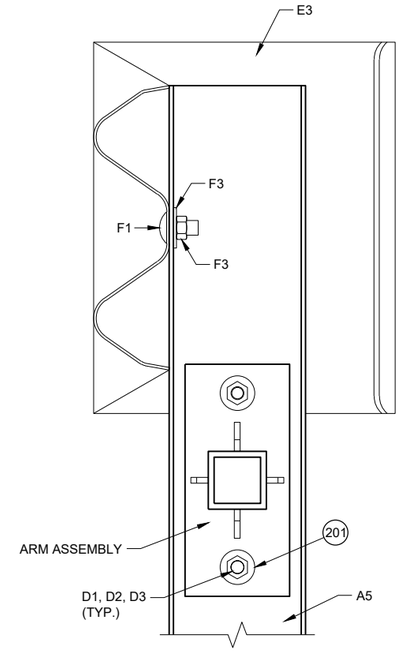
SDD 14B47 - 03a



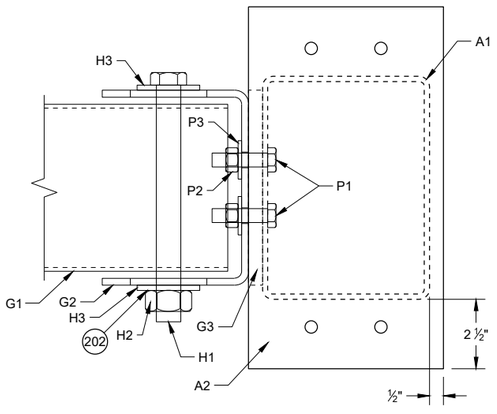
DETAIL "A"



DETAIL "B"

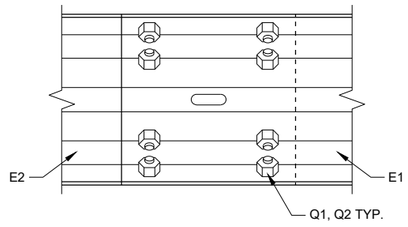


SECTION B - B

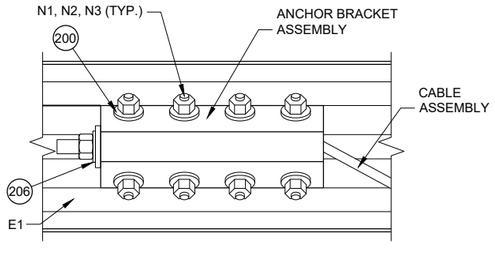


TOP VIEW

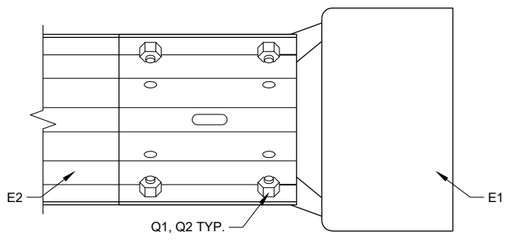
GROUND STRUT CONNECTION DETAIL



DETAIL "C"



DETAIL "D"



DETAIL "E"

GENERAL NOTES

200 INSTALL ONE WASHER UNDER BOLT HEAD AND RAIL AND ON WASHER BETWEEN NUT AND ANCHOR BRACKET ASSEMBLY.

201 INSTALL ONE WASHER UNDER BOLT HEAD AND UPPER POST ASSEMBLY AND ONE WASHER BETWEEN NUT AND ARM PLATE.

202 INSTALL ONE WASHER UNDER BOLT HEAD AND GROUND STRUT CONNECTOR AND ONE WASHER BETWEEN NUT AND GROUND STRUT CONNECTOR.

203 INSTALL ONE WASHER UNDER BOLT HEAD AND LOWER POST ASSEMBLY AND ONE WASHER BETWEEN NUT AND UPPER POST ASSEMBLY.

204 TORQUE VALUE IS BETWEEN 60 - 75 FT-LB.

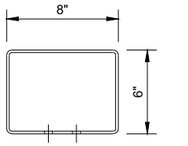
205 TWO WASHERS BETWEEN UPPER AND LOWER POST ASSEMBLY.

206 INSTALL ONE WASHER BETWEEN NUT AND ANCHOR BRACKET ASSEMBLY.

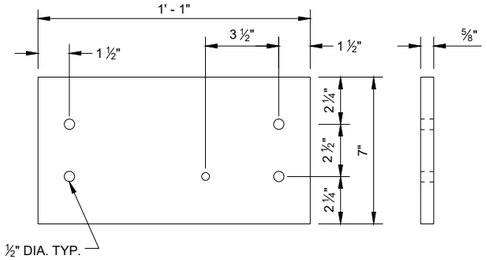
MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

6

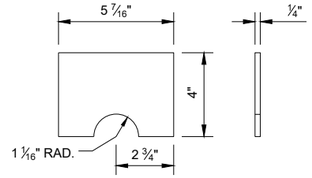
SDD 14B47 - 03b



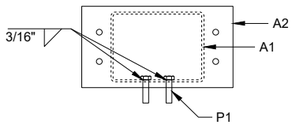
TOP VIEW



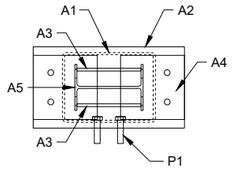
LOWER PLATE (A2)

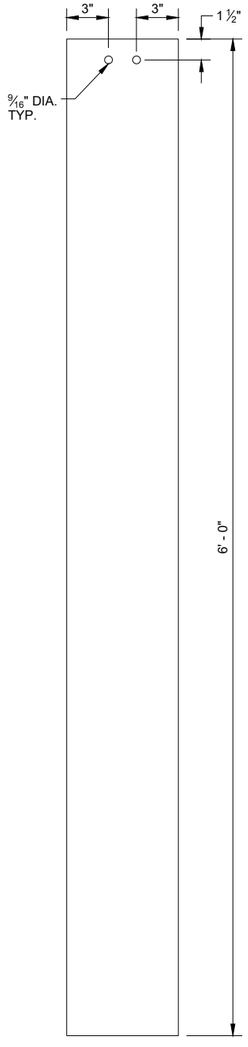


POST GUSSET (A3)



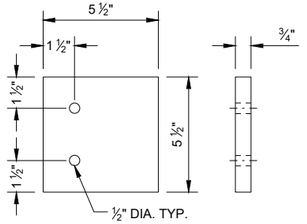
PLAN VIEW



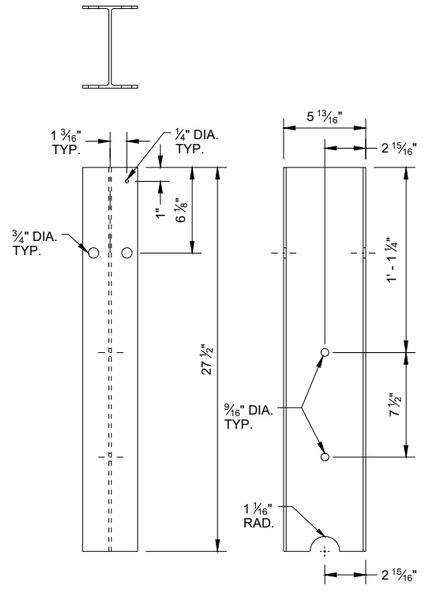


SIDE VIEW

FOUNDATION TUBE (A1)

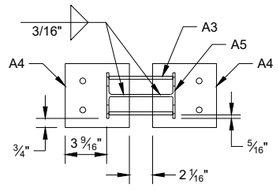


UPPER PLATE (A4)

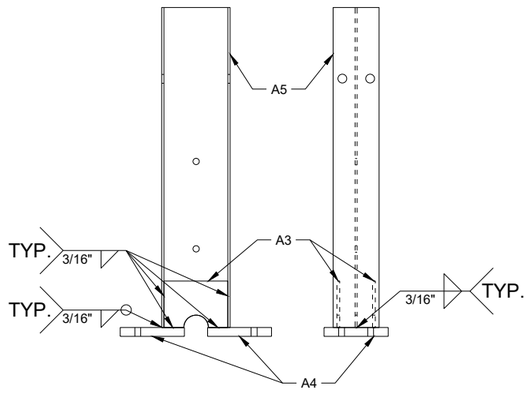


FRONT VIEW SIDE VIEW

TYPE 2 POST (A5)

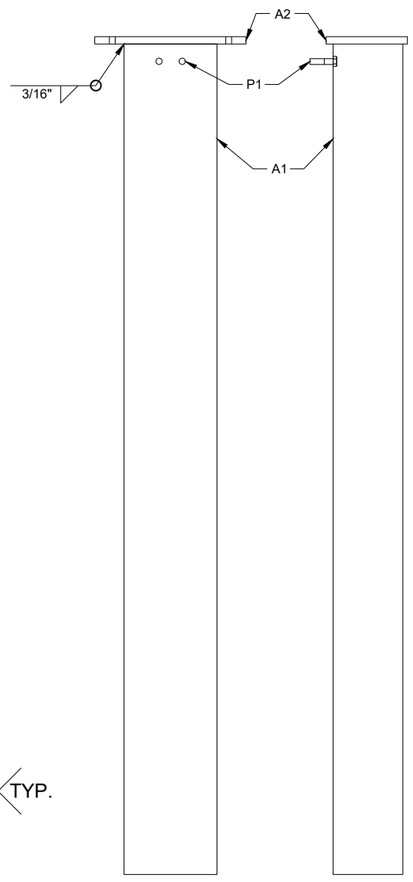


PLAN VIEW



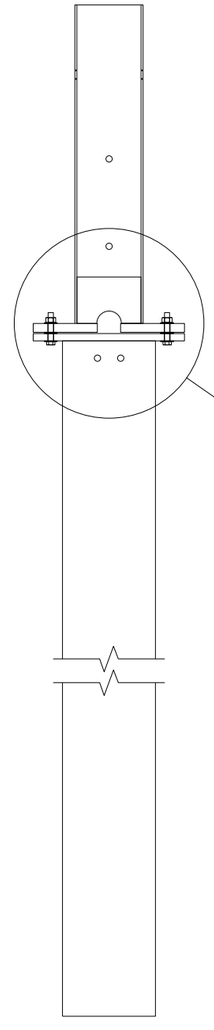
SIDE VIEW FRONT VIEW

UPPER POST ASSEMBLY

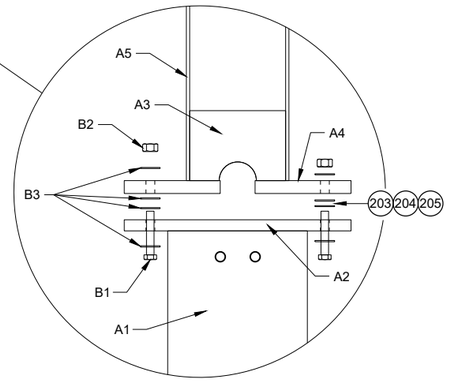


FRONT VIEW SIDE VIEW

LOWER POST ASSEMBLY



ASSEMBLED POST



POST CONNECTION DETAIL

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

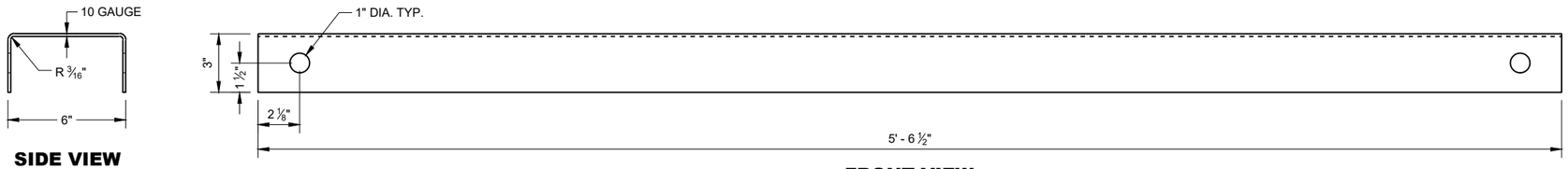
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B47 - 03c

6

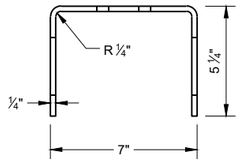
SDD 14B47 - 03c



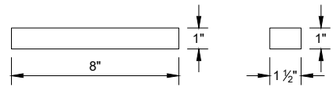
SIDE VIEW

FRONT VIEW

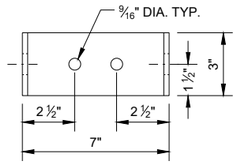
GROUND STRUT CHANNEL (G1)



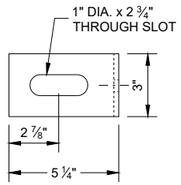
TOP VIEW



BEARING PLATE FLANGE (L2)

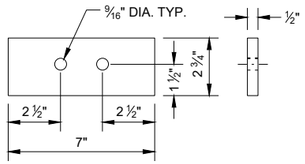


FRONT VIEW

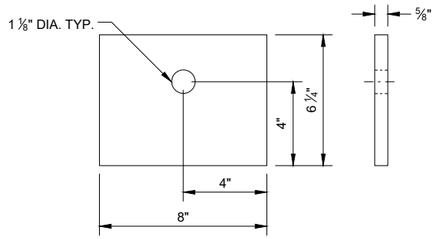


SIDE VIEW

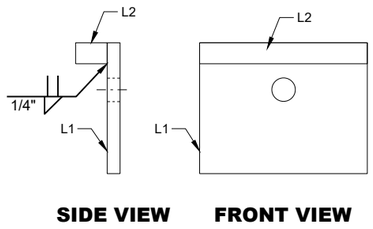
GROUND STRUT CONNECTOR (G2)



GROUND STRUT PLATE (G3)

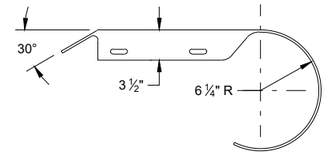


BEARING PLATE (L1)

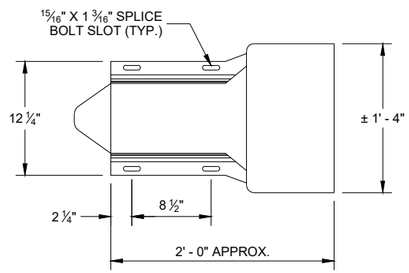


SIDE VIEW FRONT VIEW

BEARING PLATE ASSEMBLY

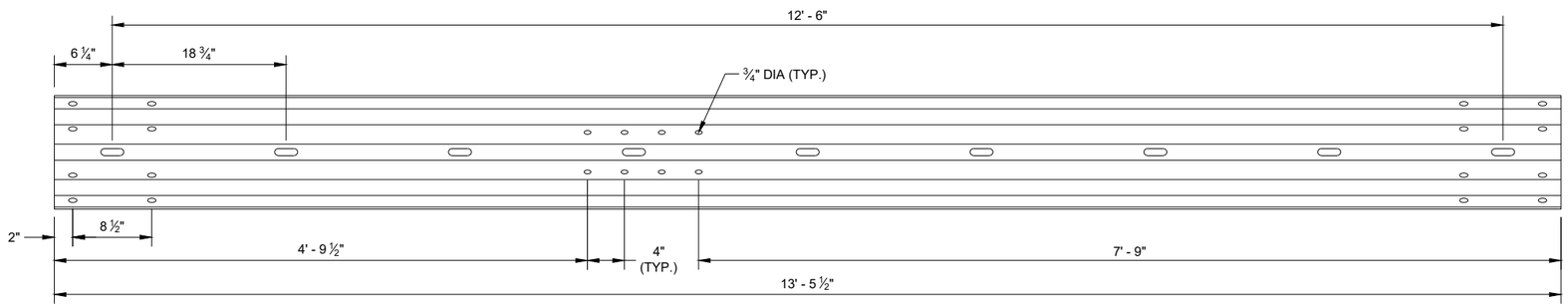


PLAN VIEW

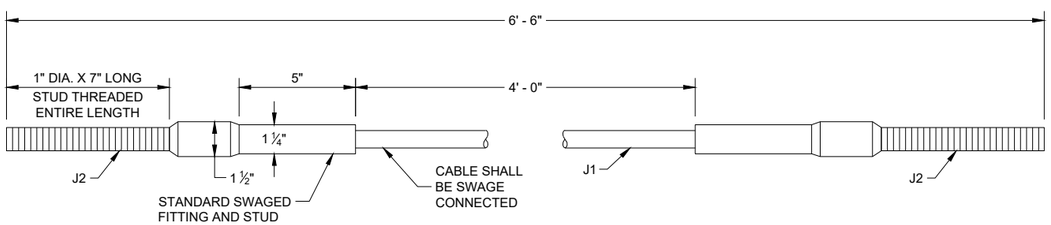


ELEVATION VIEW

ROUNDED BUFFER END (E3)



TYPE 2 GUARDRAIL (E1)



CABLE ASSEMBLY

6

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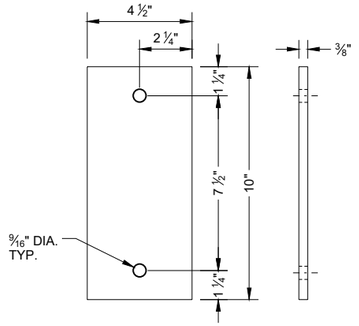
SDD 14B47 - 03d

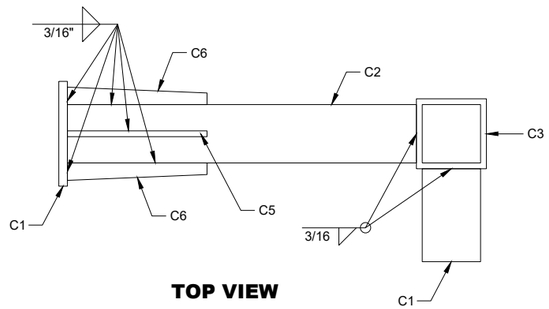
SDD 14B47 - 03d

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

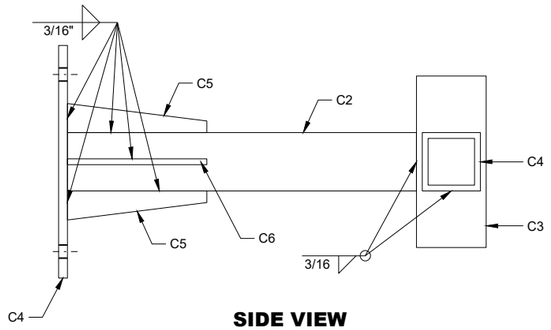
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



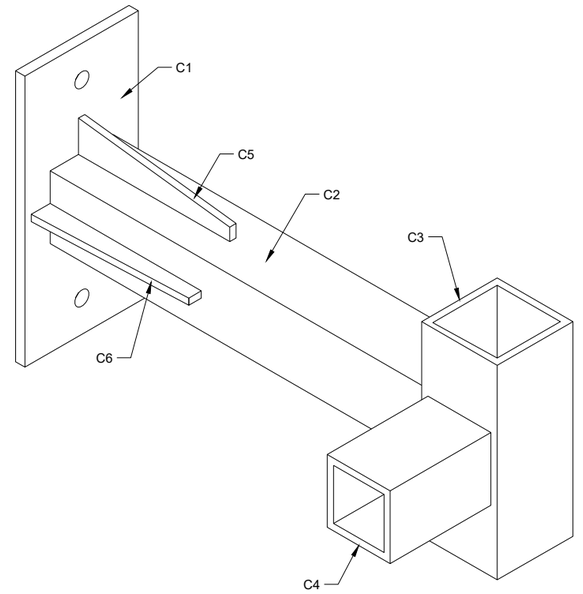
ARM PLATE (C1)



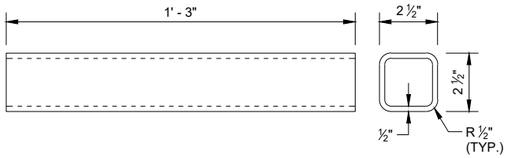
TOP VIEW
ARM ASSEMBLY



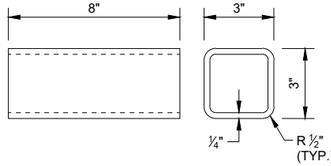
SIDE VIEW
ARM ASSEMBLY



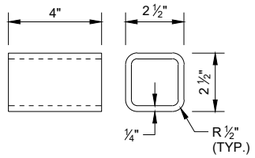
ISOMETRIC VIEW
ARM ASSEMBLY



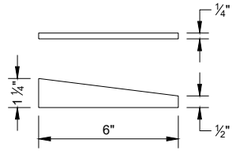
ARM TUBE 1 (C2)



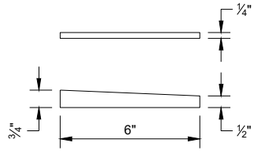
ARM TUBE 2 (C3)



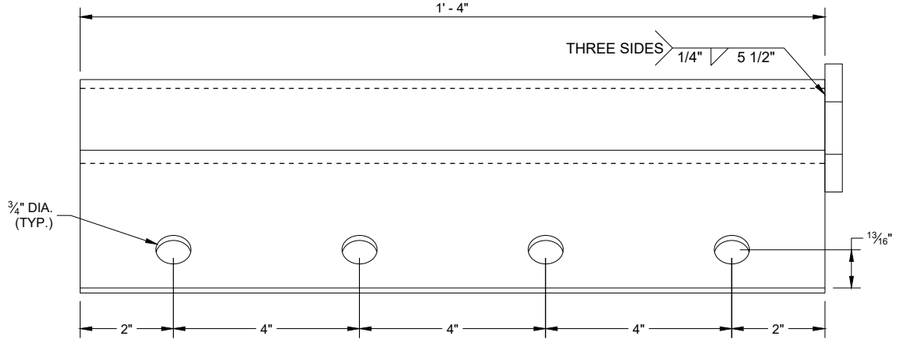
ARM TUBE 3 (C4)

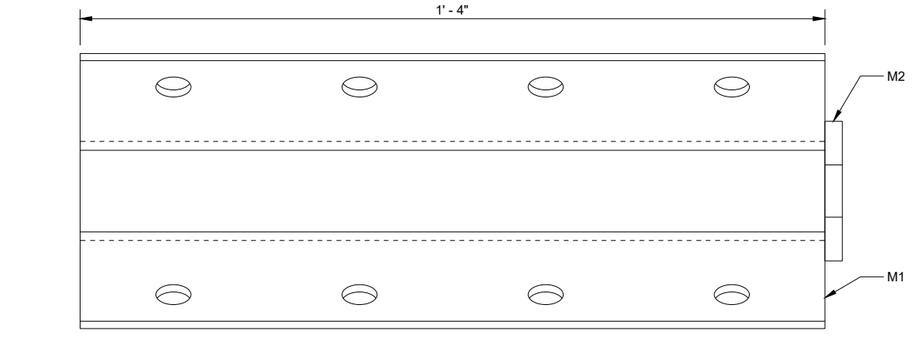


ARM GUSSET PLATE 1 (C5)

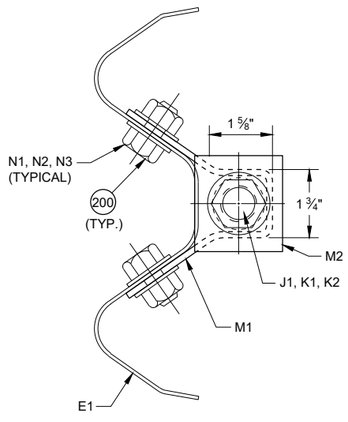


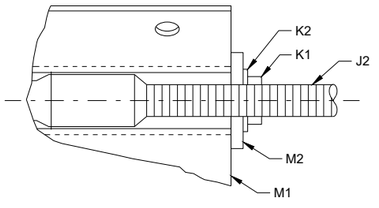
ARM GUSSET PLATE 2 (C6)



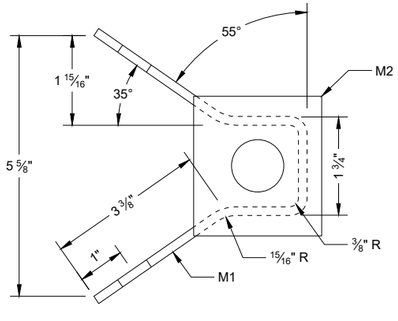


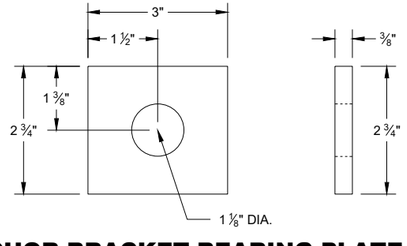
ANCHOR BRACKET (M1, M2)





SECTION A - A





ANCHOR BRACKET BEARING PLATE (M2)

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD14B47 - 03e

BILL OF MATERIALS - TYPE 2 TERMINAL (MGS)

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
A1	TYPE 2 FOUNDATION TUBE	AASHTO M111 / ASTM A123 ASTM A500 GRADE B OR ASTM A-501	TS 8" x 6" x 3/16"
A2	LOWER PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	5/8" THICKNESS
A3	POST GUSSET	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	1/4" THICKNESS
A4	UPPER PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	3/4" THICKNESS
A5	TYPE 2 POST	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	
B1	BREAKAWAY BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC HEAVY HEX HEAD ASTM F3125 GRADE A325 TYPE 1 HEAVY HEX HEAD OR SAE J429 GRADE 5 HEAVY HEX HEAD / ASTM A449 TYPE 1 HEAVY HEX HEAD. BOLTS MAY BE FULLY THREADED . PROVIDE ENOUGH THREADING FOR PROPER TIGHTENING OF BOLT.	7/16" DIA.
B2	BREAKAWAY BOLT WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)	7/16" DIA.
B3	BREAKAWAY BOLT NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291/ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
C1	ARM ASSEMBLY PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	3/8" THICKNESS
C2	ARM ASSEMBLY TUBE 1	AASHTO M111 / ASTM A123 ASTM A500 GRADE B OR ASTM A-501	TS 8" x 6" x 3/16"
C3	ARM ASSEMBLY TUBE 2	AASHTO M111 / ASTM A123 ASTM A500 GRADE B OR ASTM A-501	TS 3" x 3" x 1/4"
C4	ARM ASSEMBLY TUBE 3	AASHTO M111 / ASTM A123 ASTM A500 GRADE B OR ASTM A-501	TS 2 1/2" x 2 1/2" X 1/4"
C5	ARM ASSEMBLY GUSSET PLATE 1	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	1/4" THICKNESS
C6	ARM ASSEMBLY GUSSET PLATE 2	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	1/4" THICKNESS
D1	ARM ASSEMBLY BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC HEAVY HEX HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	1/2" DIA.
D2	ARM ASSEMBLY WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)	1/2" DIA.
D3	ARM ASSEMBLY NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	1/2" DIA.
E1	TYPE 2 GUARD RAIL	AASHTO M180 CLASS A TYPE 2 12 GAUGE APPROVED PRODUCER	
E2	BEAM GUARD RAIL	AASHTO M180 CLASS A TYPE 2 12 GAUGE APPROVED PRODUCER	
E3	BEAM GUARD ROUNDED BUFFER END	AASHTO M180 CLASS A TYPE 2 12 GAUGE APPROVED PRODUCER	
F1	POST BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC UNC HEAVY HEX HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	5/8" DIA.
F2	POST BOLT WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)	5/8" DIA.
F3	POST BOLT NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291/ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
G1	GROUND STRUT CHANNEL	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	1/2" x 11 3/4" x 10 GAUGE
G2	GROUND STRUT CONNECTOR	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	1/4" THICKNESS
G3	GROUND STRUT PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	1/2" THICKNESS

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B47 - 03f

BILL OF MATERIALS - TYPE 2 TERMINAL (MGS)

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
H1	GROUND STRUT BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC HEAVY HEX HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	7/8" DIA.
H2	GROUND STRUT BOLT WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)	7/8" DIA.
H3	GROUND STRUT BOLT NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC HEAVY HEX HEAD 5/8" ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	
J1	BCT CABLE	AASHTO M30 / ASTM A741 6 x 19 INDEPENDENT WIRE CORE (IWRC) IMPROVED PLOW STEEL (IPS), 6 x 19 INDEPENDENT WIRE CORE (IWRC) IMPROVED PLOW STEEL (IPS) TYPE II OR IIC, CLASS C ZINC COATED MIN. BREAKING STRENGTH OF 42.7 KIPS	**3/4" DIA.**
J2	BCT CABLE	UNC 1" ASTM A576 GRADE 1035 SWAGE FITTINGS ARE TO BE FACTORY SWEDGED. MIN BREAKING STRENGTH OF 42.7 KIPS ASME B30.26 "FORGED, CAST, OR DIE STAMPED WITH THE FOLLOWING IN TO CONNECTION: NAME OF MANUFACTURE OR TRADEMARK OF CONNECTION'S MANUFACTURER, SIZE OR RATED LOAD, GRADE FOR ALLOY EYEBOLTS."	
K1	CABLE ASSEMBLY NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	1" DIA.
K2	CABLE ASSEMBLY WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1	1" DIA.
L1	BEARING PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	5/8" THICKNESS
L2	BEARING PLATE FLANGE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	1" THICKNESS
M1	BEAM GUARD ANCHOR BRACKET	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	
M2	BEAM GUARD ANCHOR END PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI, OR ASTM A709 MAX STRENGTH 50 KSI, OR ASTM A992 MAX STRENGTH 50 KSI	3/8" THICKNESS
N1	ANCHOR BRACKET BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC AASHTO M180 HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	5/8" DIA.
N2	ANCHOR BRACKET BOLT WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)	5/8" DIA.
N3	ANCHOR BRACKET BOLT NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 /ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
P1	FOUNDATION TUBE BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 /ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	1/2" DIA.
P2	FOUNDATION TUBE WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 7/8" ASTM F844 TYPE 1 (HARDENED WASHER ONLY)	1/2" DIA.
P3	FOUNDATION TUBE NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
Q1	SPLICE BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC AASHTO M180 HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	
Q2	SPLICE NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	5/8" DIA.

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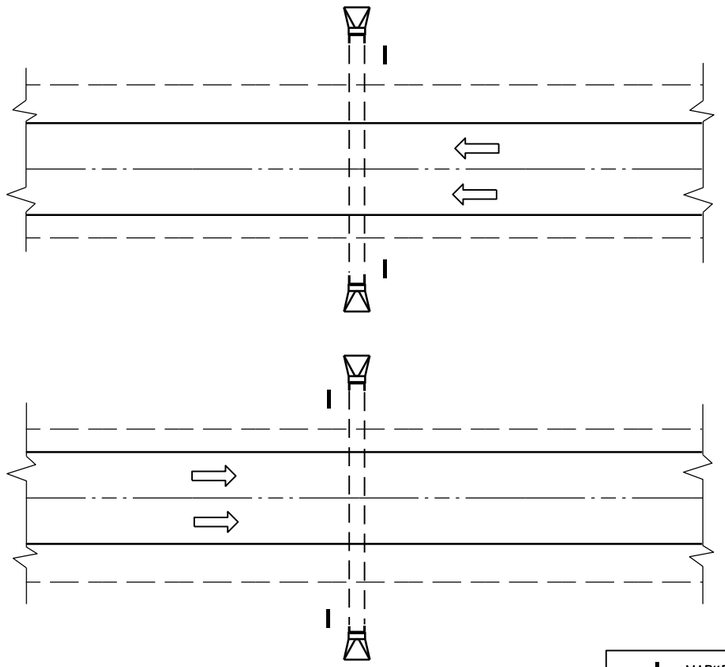
SDD 14B47 - 03g

SDD 14B47 - 03g

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

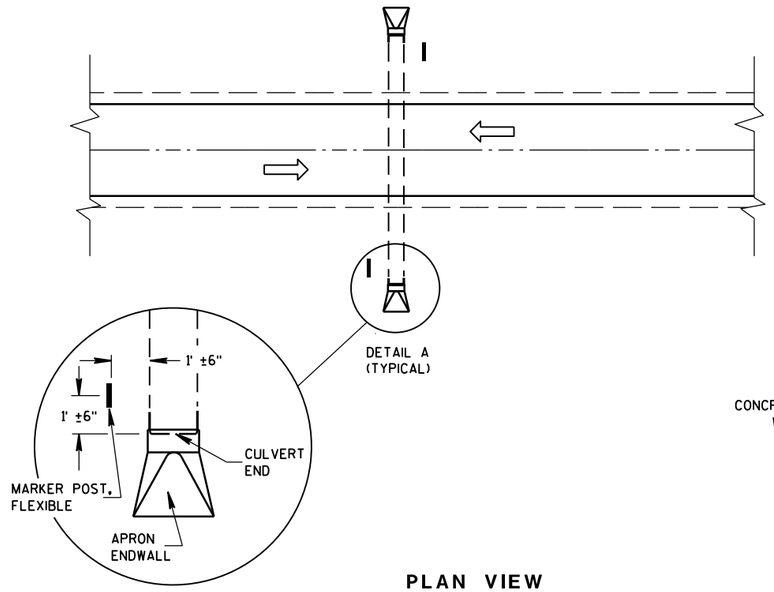
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2021
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER
FHWA



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

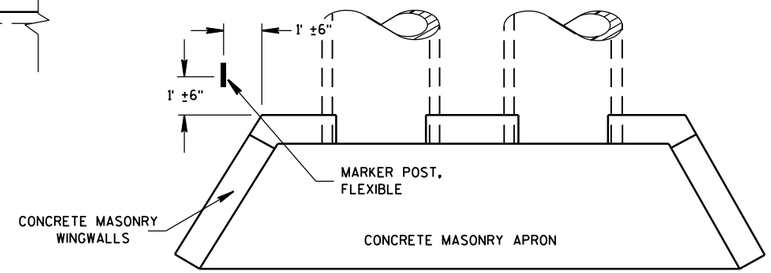
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

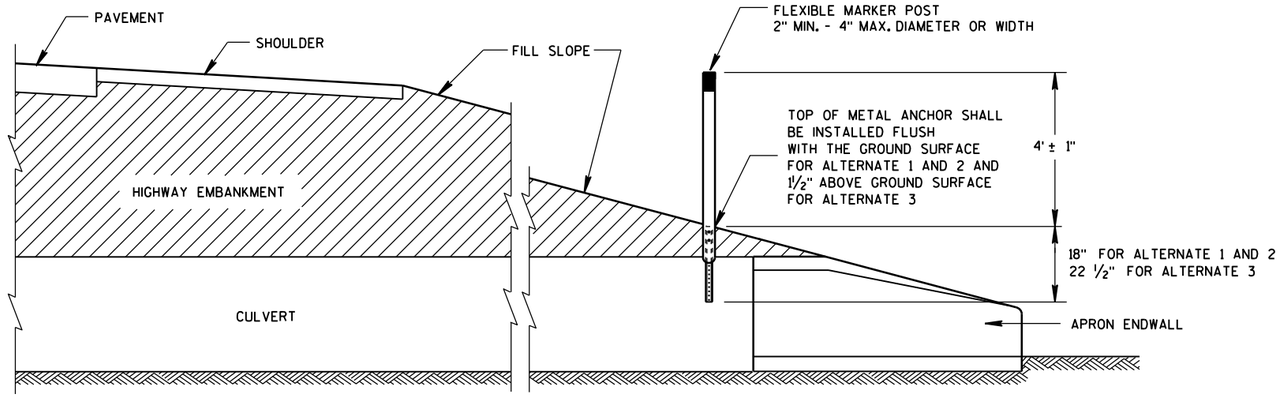
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



CROSS SECTION

FLEXIBLE MARKER POST

FLEXIBLE MARKER POST FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 15 A 3-2a

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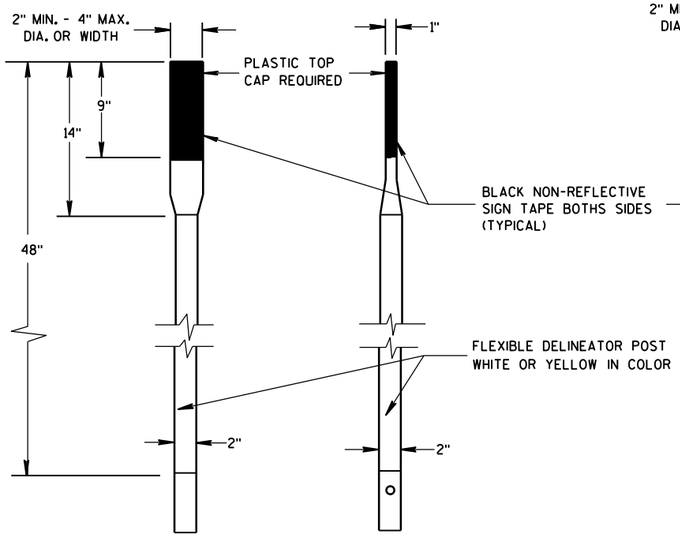
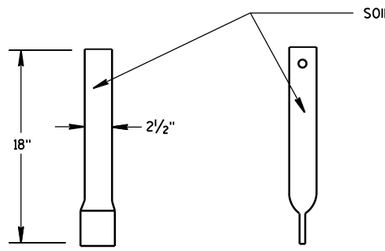
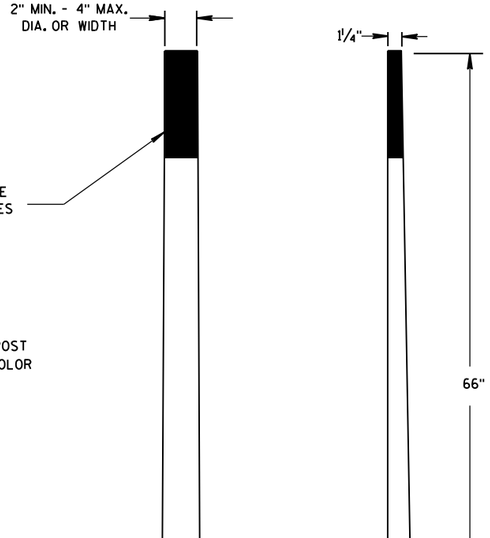
S.D.D. 15 A 3-2a





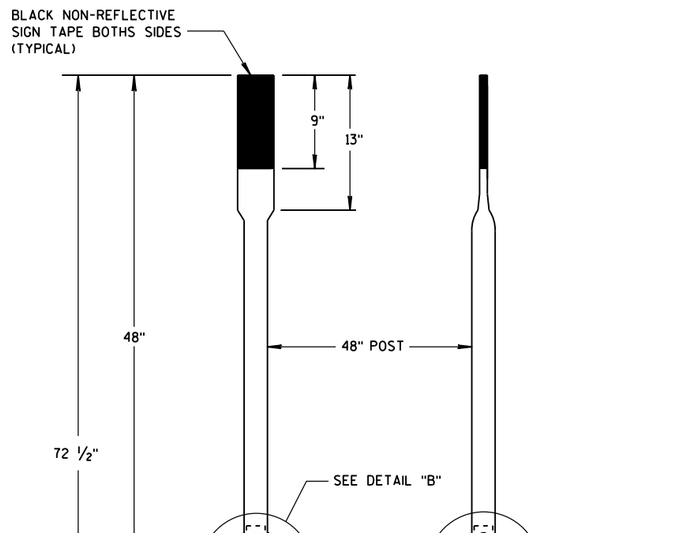
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

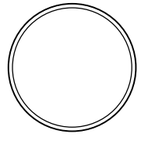
ALTERNATE 2



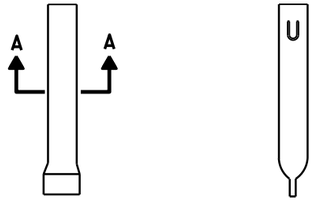
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POSTS

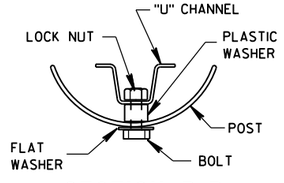


SECTION A-A

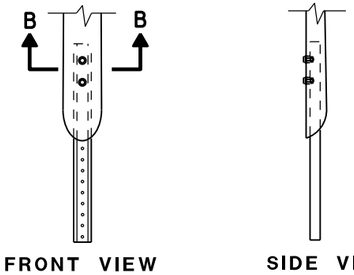


FRONT VIEW SIDE VIEW

ALTERNATE 1

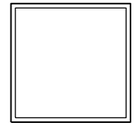


SECTION B-B

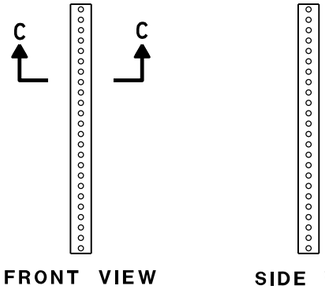


FRONT VIEW SIDE VIEW

ALTERNATE 2



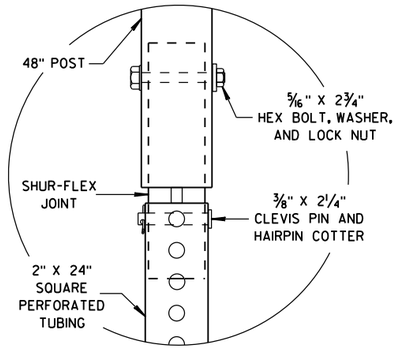
SECTION C-C



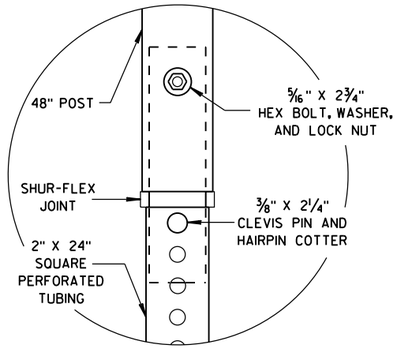
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS



DETAIL B



DETAIL C

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/1/2012
DATE
/S/ Travis Feltes
STATE TRAFFIC ENGINEER
FHWA

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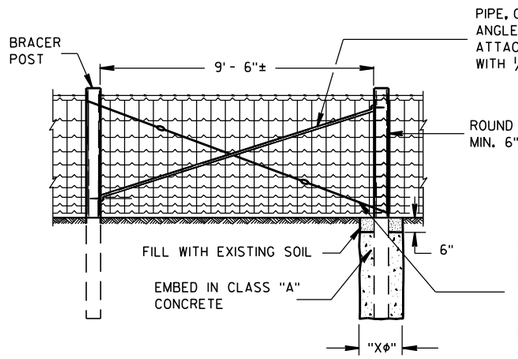
S.D.D. 15 A 3-2b

6

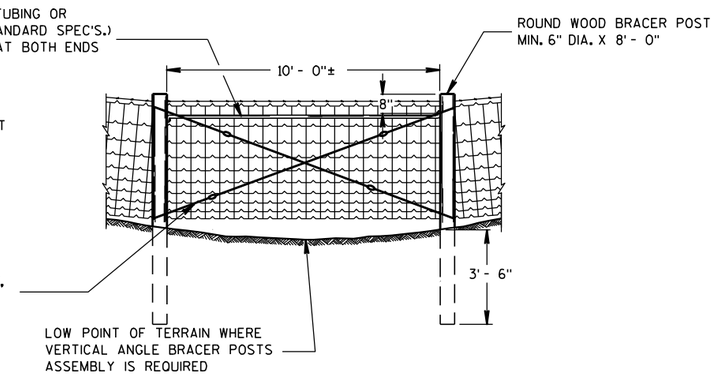
S.D.D. 15 A 3-2b

NOTE: PULL OR STRETCHER POST ASSEMBLIES SHALL BE PLACED MIDWAY BETWEEN END POSTS AND CORNER POSTS WHERE A RUN OF FENCE EXCEEDS 660' BUT IS LESS THAN 1,320'. FOR RUNS OF FENCE IN EXCESS OF 1,320' MAXIMUM SPACING OF PULL OR STRETCHER POST ASSEMBLIES SHALL BE 660'± C-C.

ILLUSTRATION SHOWS POSITION OF STANDARD STEEL BRACE, DOUBLE STRAND GALVANIZED WIRE, AND THE POST TO BE EMBEDDED IN CONCRETE WHEN WIRE FENCE IS INSTALLED FROM LEFT TO RIGHT. THE BRACES SHALL BE POSITIONED ON THE OPPOSITE DIAGONALS AND THE OPPOSITE POST SHALL BE EMBEDDED IN CONCRETE WHEN WIRE FENCE IS INSTALLED FROM RIGHT TO LEFT.



PULL OR STRETCHER POSTS ASSEMBLY



VERTICAL ANGLE BRACER POSTS ASSEMBLY

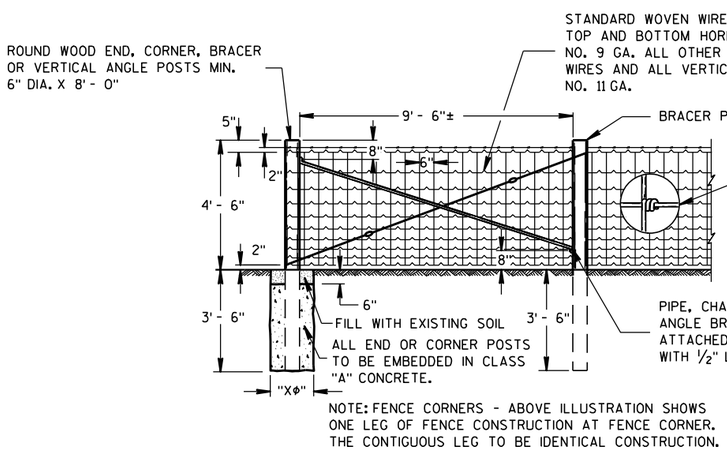
GENERAL NOTES

"XΦ" = DIAMETER OF THE POST PLUS 12".

FENCE STAPLES SHOULD NEVER BE DRIVEN VERTICALLY INTO WOOD POSTS (WITH BOTH LEGS PARALLEL WITH THE WOOD GRAIN). DOING SO CAN SEPARATE THE GRAIN AND SIGNIFICANTLY REDUCE THE HOLDING POWER. ROTATING THE STAPLES SLIGHTLY OFF VERTICAL STRADDLES THE GRAIN AND PROVIDES MORE RESISTANCE TO PULL-OUT.

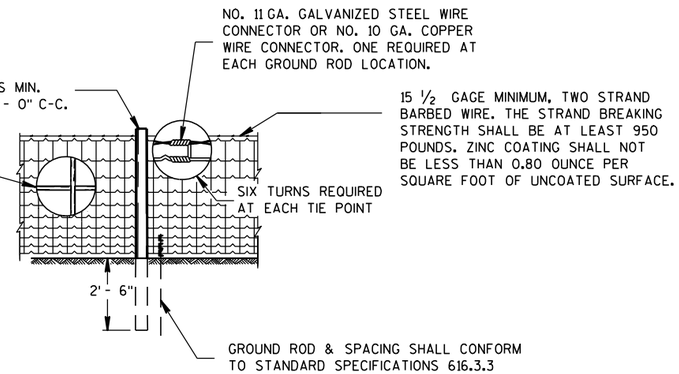
DO NOT STAPLE WIRE TIGHT TO THE LINE POSTS. ALLOW MOVEMENT OF WIRE FOR EXPANSION AND CONTRACTION. STAPLE ARRANGEMENT SHALL BE THE SAME FOR ALL OTHER POSTS EXCEPT THAT THEY SHALL BE DRIVEN TIGHT TO POSTS. ALL STAPLES SHALL BE 2" X 9 GAGE AND SHALL BE MANUFACTURED FROM GALVANIZED WIRE OR HOT DIP GALVANIZED AFTER FORMING. STAPLES SHALL HAVE SLASH-CUT POINTS.

FENCE SHALL BE LOCATED 3'-0" INSIDE THE RIGHT OF WAY LINE UNLESS OTHERWISE INDICATED ON THE PLANS.



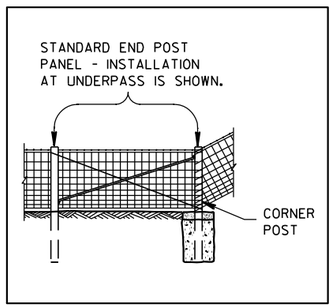
NOTE: FENCE CORNERS - ABOVE ILLUSTRATION SHOWS ONE LEG OF FENCE CONSTRUCTION AT FENCE CORNER. THE CONTIGUOUS LEG TO BE IDENTICAL CONSTRUCTION.

END OR CORNER POSTS ASSEMBLY

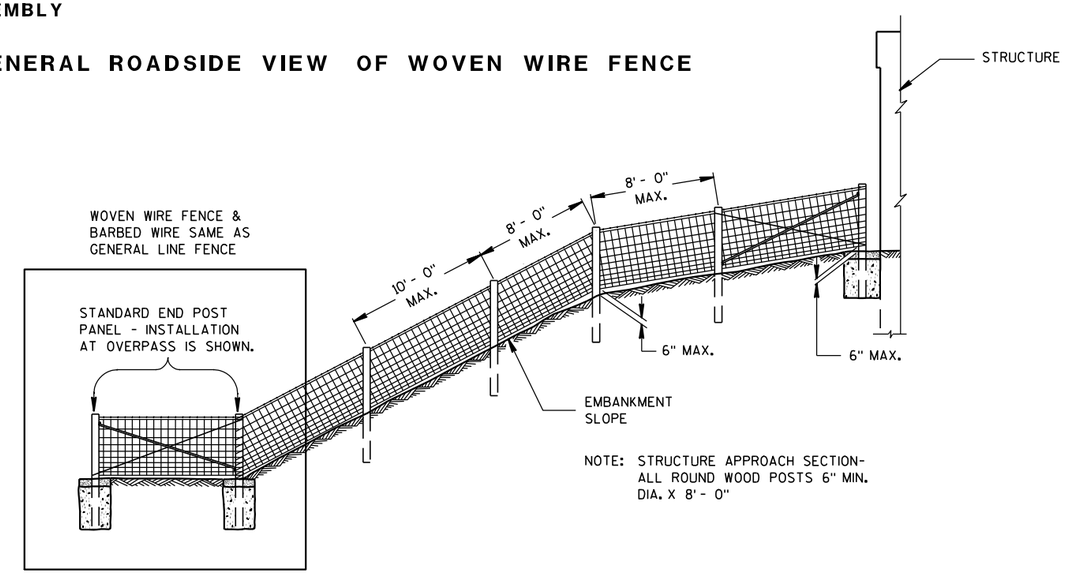


LINE FENCE CONSTRUCTION

GENERAL ROADSIDE VIEW OF WOVEN WIRE FENCE



ALTERNATE FENCE DESIGN AT STRUCTURE



NOTE: STRUCTURE APPROACH SECTION- ALL ROUND WOOD POSTS 6" MIN. DIA. X 8' - 0"

FENCE DESIGN AT STRUCTURE APPROACH

FENCE WOVEN WIRE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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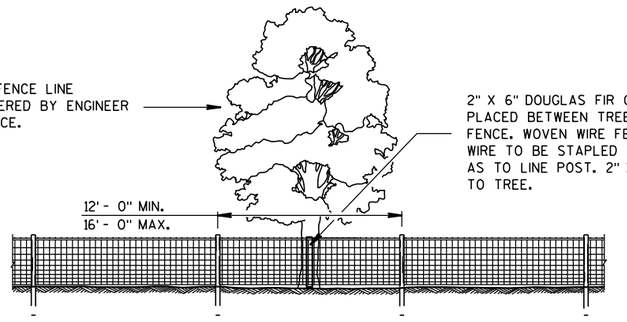
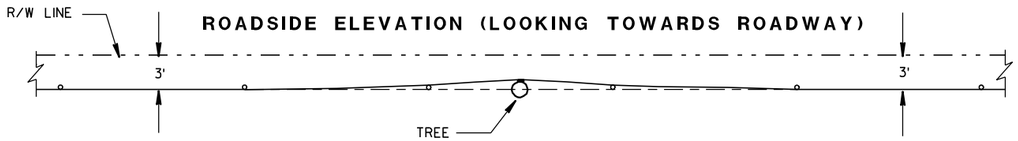
S.D.D. 15 B 1-8a

NOTE: TREE IN NORMAL FENCE LINE SPECIFICALLY ORDERED BY ENGINEER TO REMAIN IN PLACE.

2" X 6" DOUGLAS FIR OR SO. YELLOW PINE PLACED BETWEEN TREE AND WOVEN WIRE FENCE. WOVEN WIRE FENCE AND BARBED WIRE TO BE STAPLED TO 2" X 6" LIKE AS TO LINE POST. 2" X 6" NOT FASTENED TO TREE.

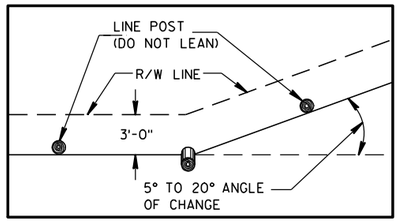


ROADSIDE ELEVATION (LOOKING TOWARDS ROADWAY)

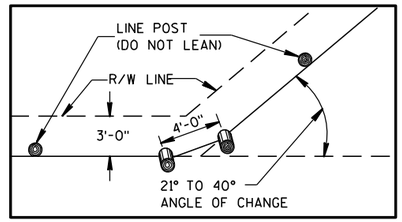


PLAN VIEW

FENCE DESIGN AT TREES REMAINING IN NORMAL FENCE LINE



PLAN VIEW
SINGLE POST CORNER

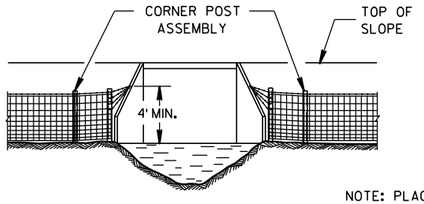


PLAN VIEW
DOUBLE POST CORNER

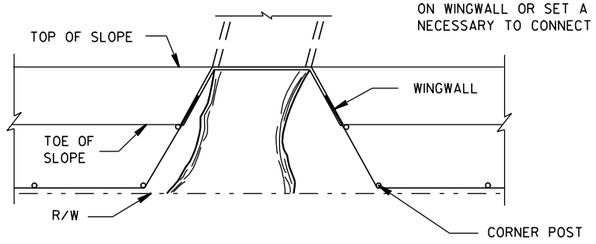
RIGHT OF WAY LINE CHANGE 40° AND LESS

NOTE: SINGLE AND DOUBLE POSTS SHALL BE A MIN. 6" DIA. X 8'-0" WITH A LEAN OF 4" TOWARD THE OUTSIDE OF THE CURVE.

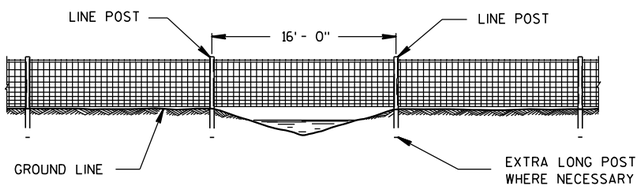
WHEN THE RIGHT OF WAY LINE CHANGE IS MORE THAN 40° USE THE CORNER OR STRETCHER POSTS ASSEMBLY.



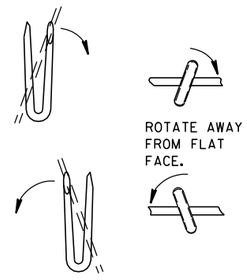
NOTE: PLACE A MINIMUM OF 4 STRANDS OF BARBED WIRE, 6" MAXIMUM CENTERS IN FAN SHAPE CONNECTED TO AN EYE BOLT ON WINGWALL OR SET A LONE POST WHEN NECESSARY TO CONNECT BARBED WIRE.



FENCE INSTALLATION TO WINGWALLS

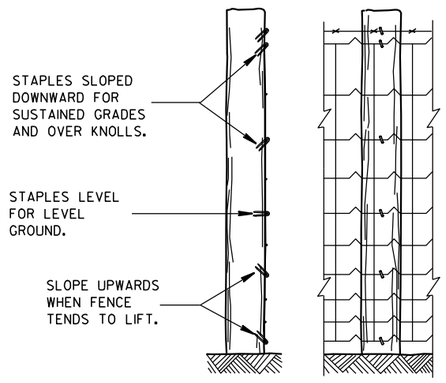


FENCE CONSTRUCTION OVER STREAM COURSES OF 15 FT. OR LESS IN WIDTH



LINE POST

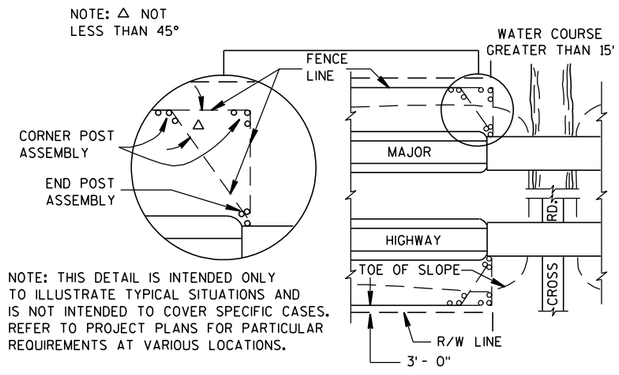
NOTE: WHEN POSTS ARE DRIVEN THE SMALL END SHALL BE DOWN.



END ELEVATION — FARM SIDE ELEVATION

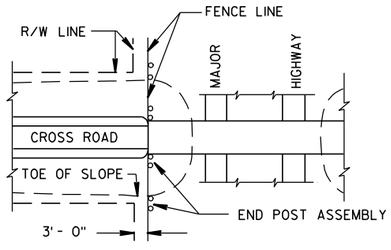
FENCE MOUNTING DETAIL

NOTE: △ NOT LESS THAN 45°



NOTE: THIS DETAIL IS INTENDED ONLY TO ILLUSTRATE TYPICAL SITUATIONS AND IS NOT INTENDED TO COVER SPECIFIC CASES. REFER TO PROJECT PLANS FOR PARTICULAR REQUIREMENTS AT VARIOUS LOCATIONS.

PLAN VIEW
MAJOR HIGHWAY OVERPASS OR STREAM COURSE CROSSING OF GREATER THAN 15 FT. IN WIDTH



PLAN VIEW
MAJOR HIGHWAY UNDERPASS

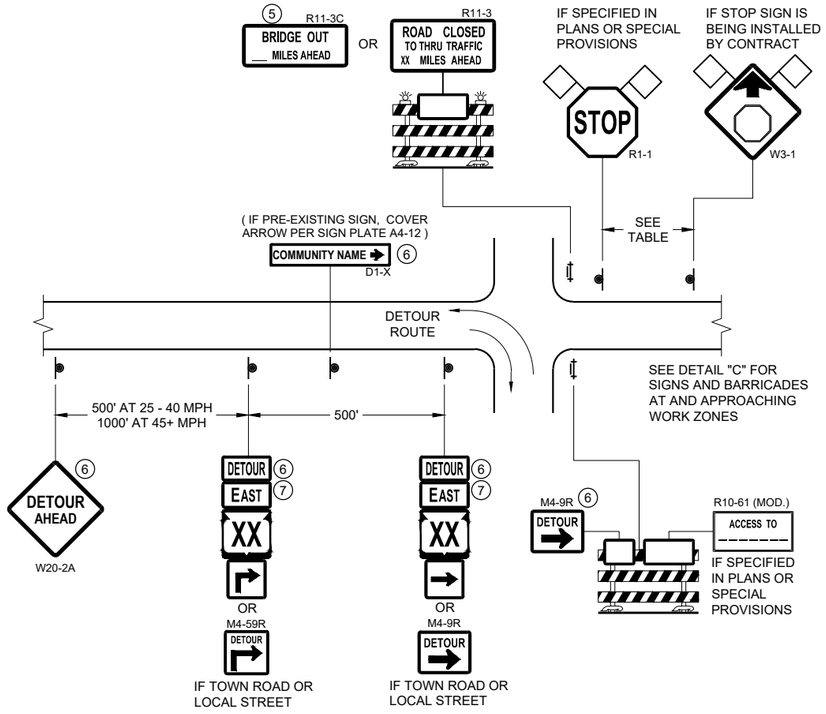
FENCE LOCATION AT STRUCTURES

FENCE WOVEN WIRE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

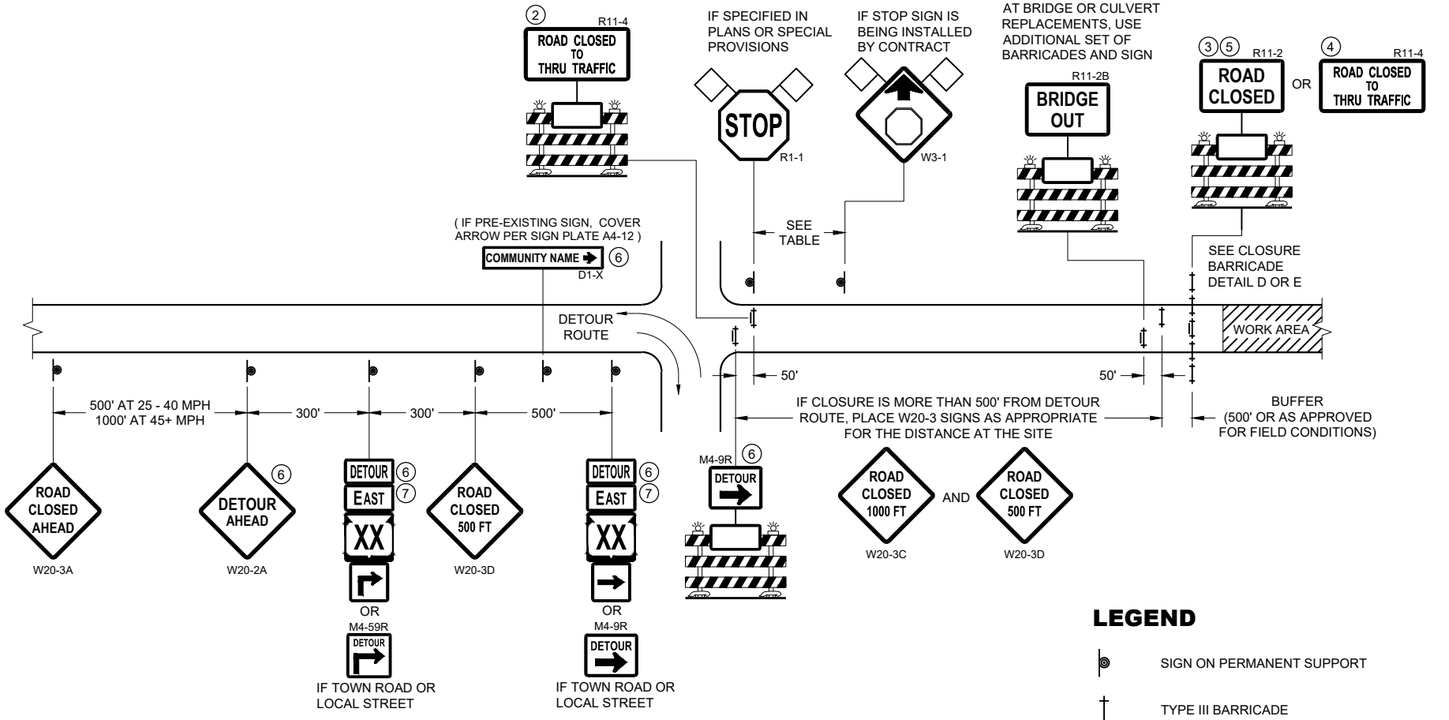
APPROVED
4/4/2008
DATE
/S/ Jerry H. Z---
ROADWAY STANDARDS [354 ENT
ENGINEER
FHWA

6
S.D.D. 15 B 1-8b



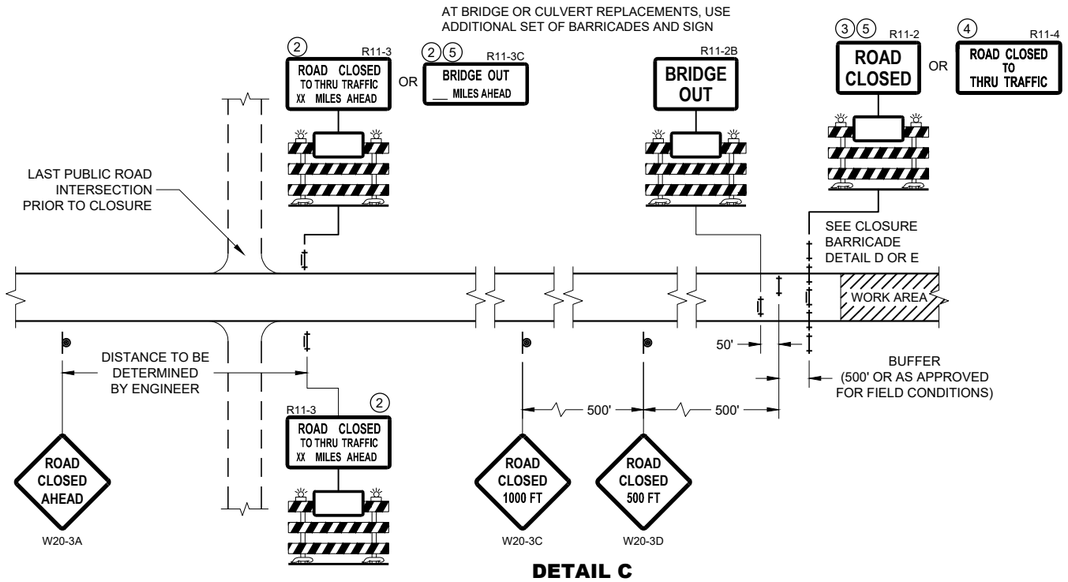
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN OR EQUAL TO ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

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

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

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- FLAGS, 16" X 16" MIN. (ORANGE)

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

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

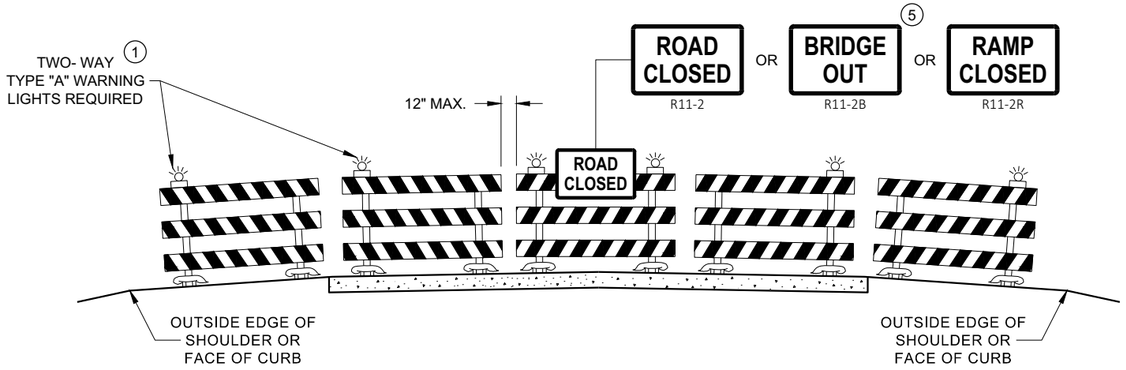
APPROVED
February 2020
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

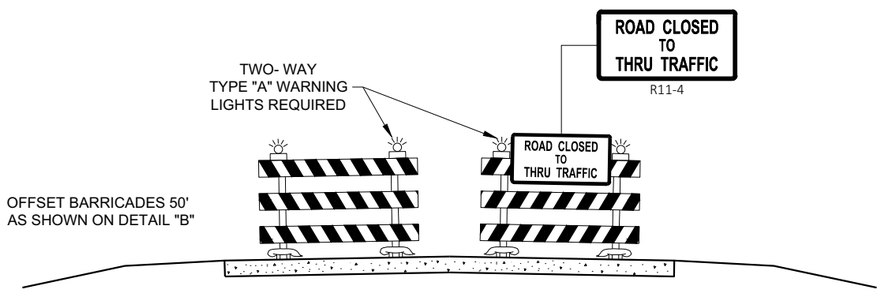
6

SDD 15C02 - 08a

SDD 15C02 - 08a



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
- R11 - 2 SHALL BE 48" X 30"
- R11 - 3 SHALL, R11 - 4 AND R10 - 61 SHALL BE 60 " X 30"
- M4 - 9 SHALL BE 30" X 24"
- M3 - X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4 - 8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1 - 4, M1 - 5A AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- MO5 - 1 AND MO6 - 1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- D1 - X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1 - 1 SHALL BE 36" X 36"

(1) TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING.

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT AN INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "D".

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "E".

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11 - 2 AND R11 - 3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR VARIOUS CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE
FHWA

6

SDD 15C02 - 08b

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

LEGEND

- SIGN ON PERMANENT SUPPORT
- WORK AREA
- DETOUR / EAST — M4 - 8, M3 - X
- XX — M1 - 4
- OR XX — M1 - 6
- OR COUNTY X — M1 - 5A
- M05 - 1
- OR M06 - 1
- OR M06 - 1

GENERAL NOTES

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

IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

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

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

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

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

SIGN SIZES SHALL BE AS FOLLOWS:

M3-X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
M4-8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
M1-4, M1-5A AND M1-6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
M05-1 AND M06-1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
M4-9 AND M4-59 SHALL BE 30" X 24"
M4-8a SHALL BE 24" X 18"
G20-51 SHALL BE 60" X 24"
W20-2A SHALL BE 48" X 48"
D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

* OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.

** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.

M3-X 24" X 12"
M1-X 24" X 24"
DETOUR AHEAD
W20-2A
USE ON STATE TRUNK, U.S. OR INTERSTATE HIGHWAYS, OR AS SPECIFIED IN THE CONTRACT

500' AT 25-40 MPH
1000' AT 45+ MPH

500'

D1-X COMMUNITY NAME *
(IF PRE-EXISTING SIGN, COVER ARROW PER SIGN PLATE A4-12)

M4-8a END DETOUR WEST *

DETOUR ROUTE

WORK AREA

DETOUR NEXT X MILES *
G20-51

M4-9L DETOUR ** OR
IF TOWN ROAD OR LOCAL STREET

M4-59L DETOUR ** OR
IF TOWN ROAD OR LOCAL STREET

MATCH POINT

M4-59L DETOUR ** OR
IF TOWN ROAD OR LOCAL STREET

D1-X COMMUNITY NAME *
(IF PRE-EXISTING SIGN, COVER ARROW PER SIGN PLATE A4-12)

M4-9L DETOUR ** OR
IF TOWN ROAD OR LOCAL STREET

M4-9R DETOUR ** OR
IF TOWN ROAD OR LOCAL STREET

M4-59R DETOUR ** OR
IF TOWN ROAD OR LOCAL STREET

500' AT 25 - 40 MPH
1000' AT 45+ MPH

500'

M3-X 24" X 12"
M1-X 24" X 24"
DETOUR AHEAD
W20-2A
USE ON STATE TRUNK, U.S. OR INTERSTATE HIGHWAYS, OR AS SPECIFIED IN THE CONTRACT

D1-X COMMUNITY NAME *
(IF PRE-EXISTING SIGN, COVER ARROW PER SIGN PLATE A4-12)

DETOUR ROUTE

D1-X COMMUNITY NAME *
(IF PRE-EXISTING SIGN, COVER ARROW PER SIGN PLATE A4-12)

PLACE SIGNS BEYOND INTERSECTIONS WITH STATE OR COUNTY TRUNK HIGHWAYS OR AT 4 MILE MAXIMUM SPACING (4 BLOCKS IF URBAN AREA)

500' AT 25 - 40 MPH
1000' AT 45+ MPH

M3-X 24" X 12"
M1-X 24" X 24"
DETOUR AHEAD
W20-2A
USE ON STATE TRUNK, U.S. OR INTERSTATE HIGHWAYS, OR AS SPECIFIED IN THE CONTRACT

SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS AND DETAIL A OR B ON SDD SHEET 15C02 - SHEET "a"

DETAIL F
DETOUR SIGNING

DETOUR SIGNING FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

SDD 15C02 - 08c

6

GENERAL NOTES

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

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

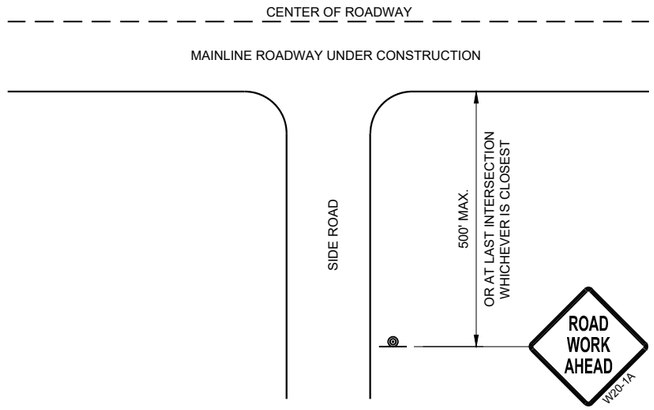
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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

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

* OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS

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



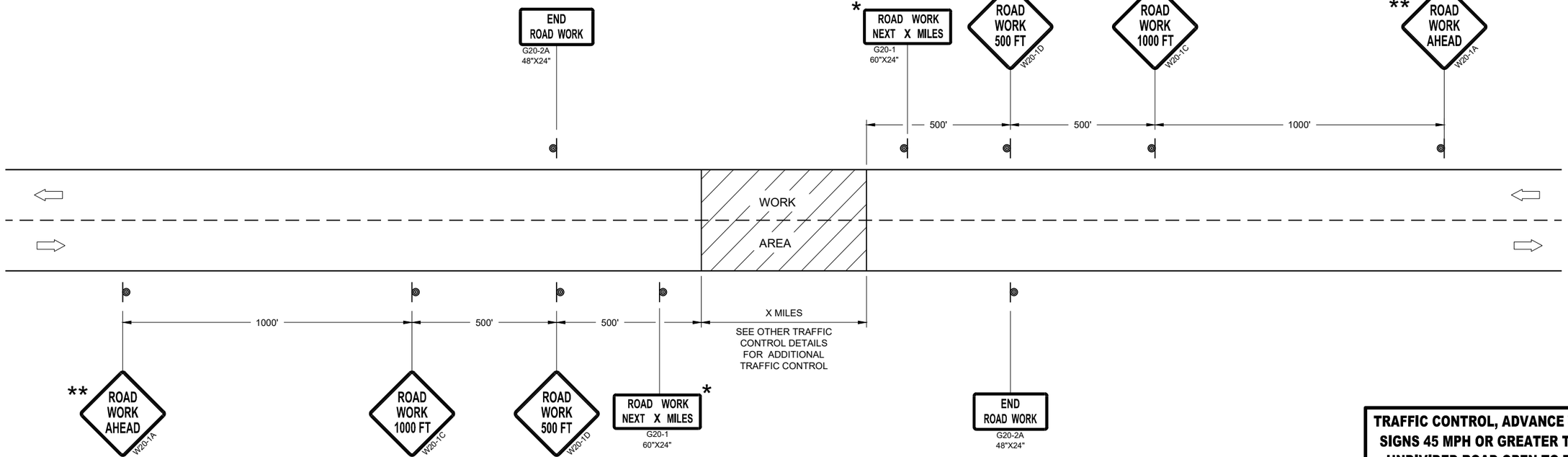
TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL

LEGEND

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA



TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45MPH OR GREATER

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15C04 - 05

GENERAL NOTES

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

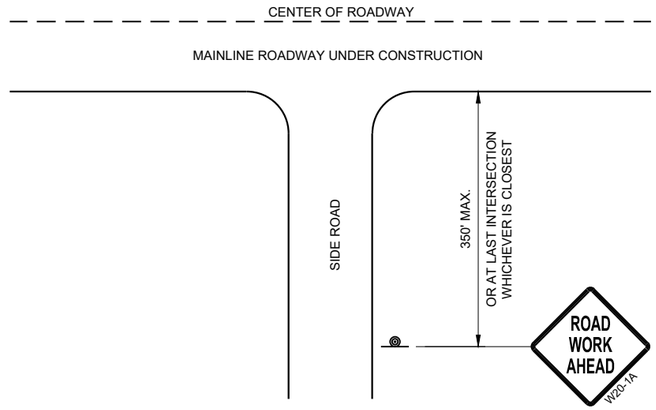
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"X36" SIGNS MAY BE USED INSTEAD OF 48" X 48" SIGNS.

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

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

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



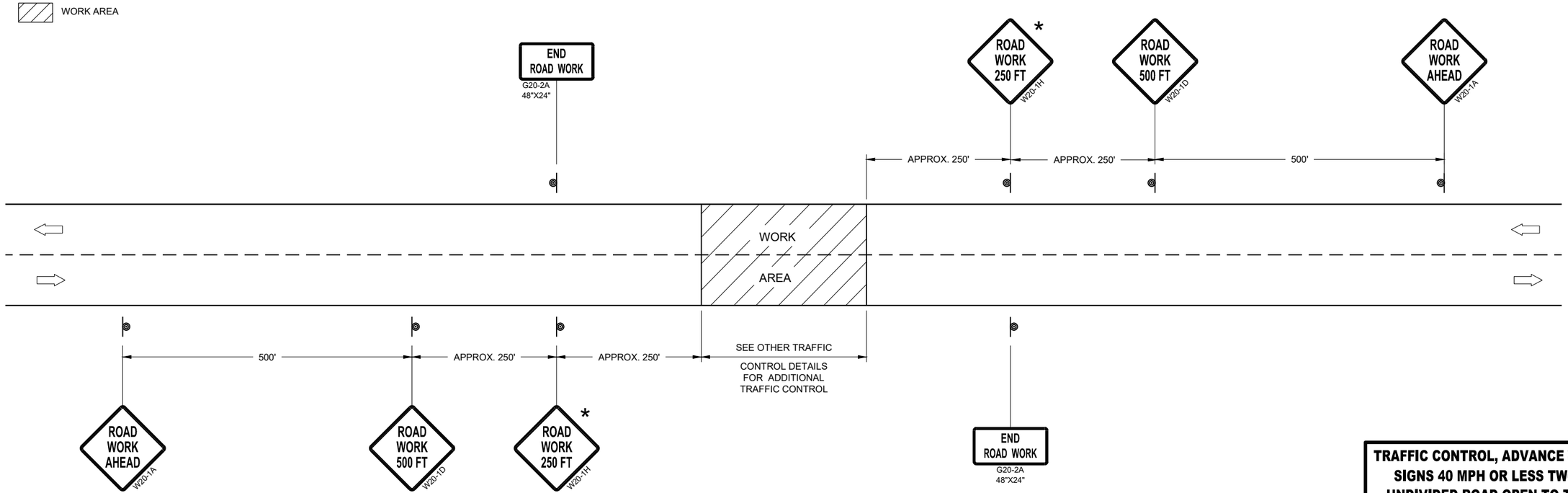
TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL

LEGEND

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA



TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40MPH OR LESS

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 MPH OR LESS TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

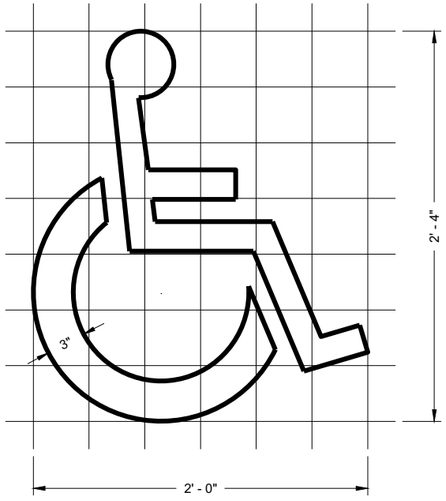
FHWA

6

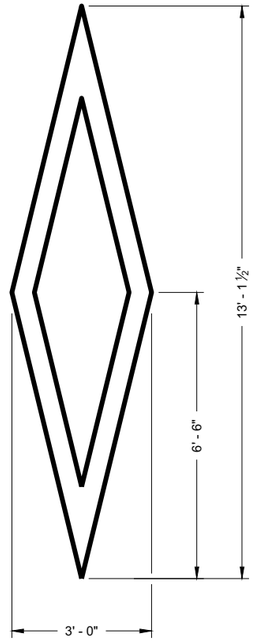
SDD 15C05 - 05

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.



HANDICAP SYMBOL



PREFERENTIAL LANE SYMBOL

6

6

SDD 15C07 - 15a

SDD 15C07 - 15a

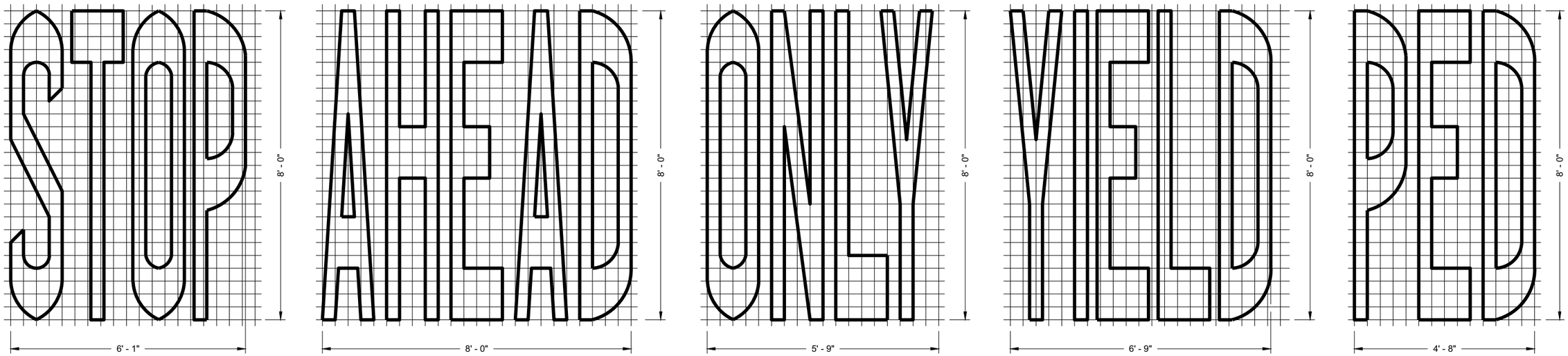
PAVEMENT MARKING SYMBOLS

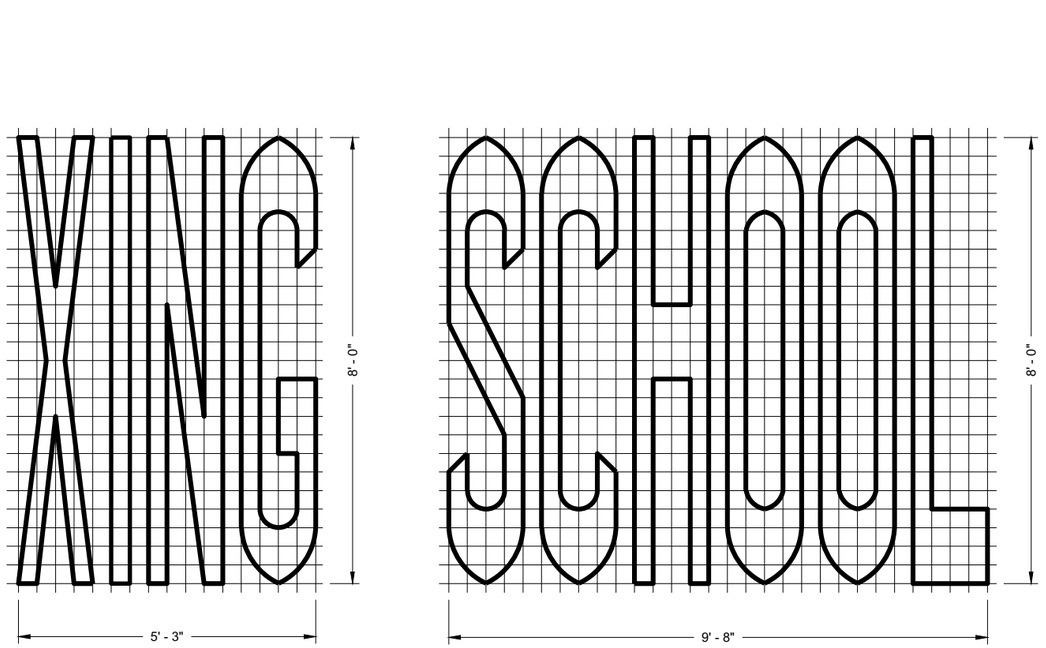
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019
DATE

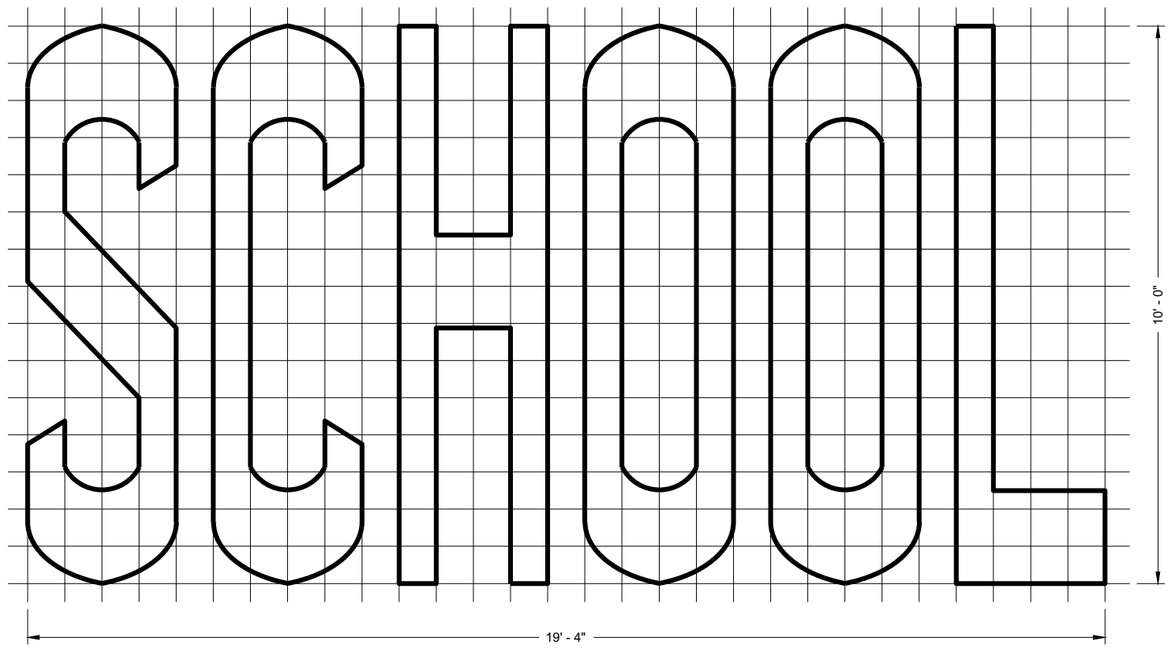
/S/ Matthew Rauch
STATE SIGNING AND MAR ENGINEER

FHWA





SINGLE LANE



TWO - LANE

GENERAL NOTES

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

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019
DATE

/S/ Matthew Rauch
STATE SIGNING AND MAF ENGINEER

FHWA

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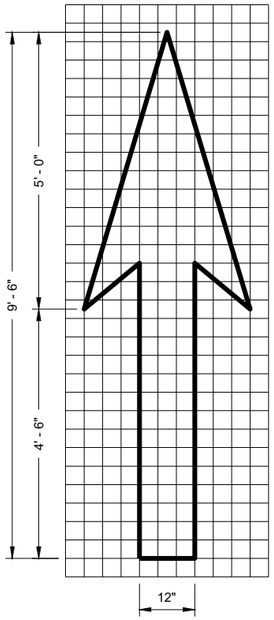
SDD 15C07 - 15b

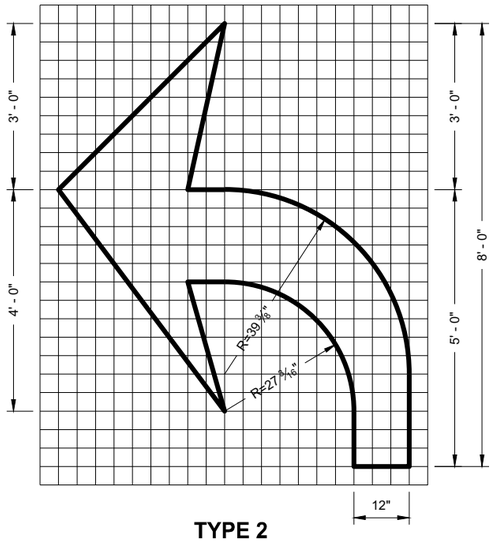
SDD 15C07 - 15b

GENERAL NOTES

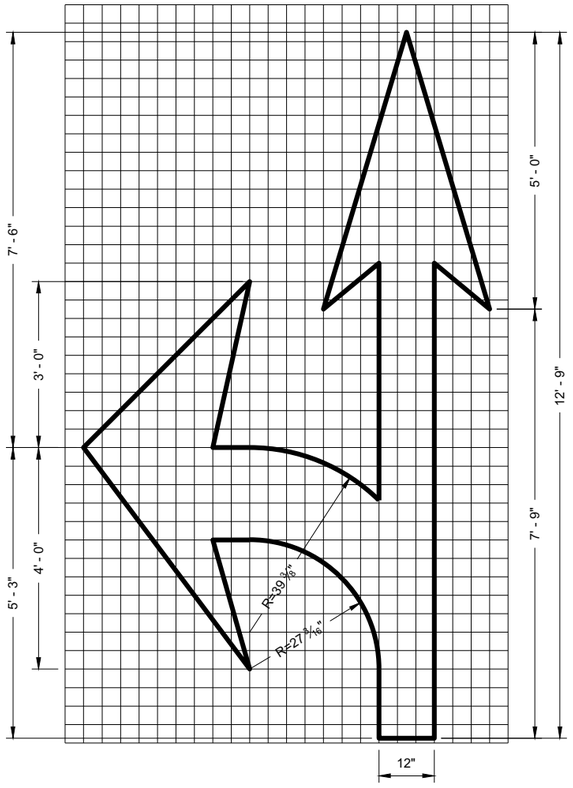
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



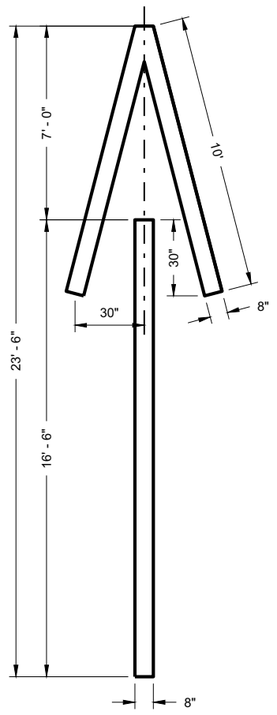
TYPE 1



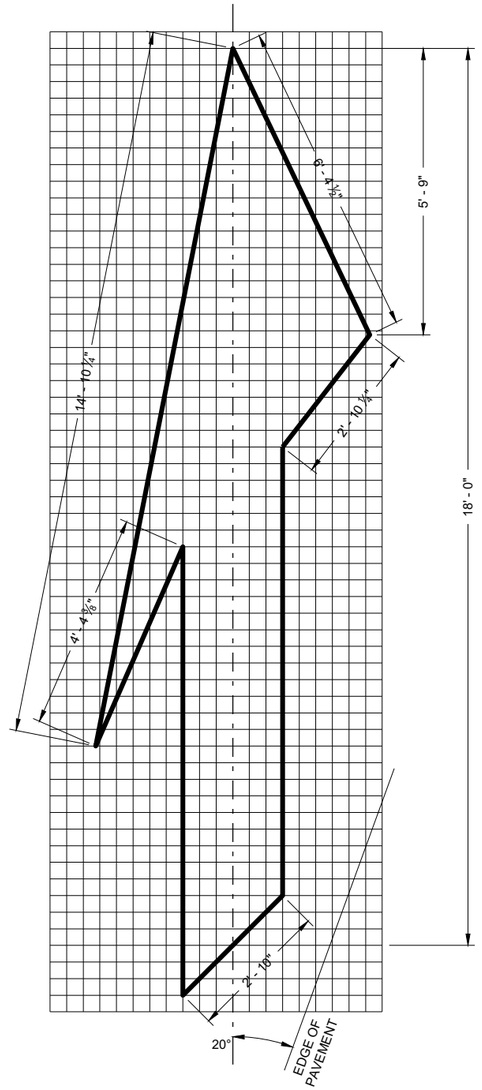
TYPE 2



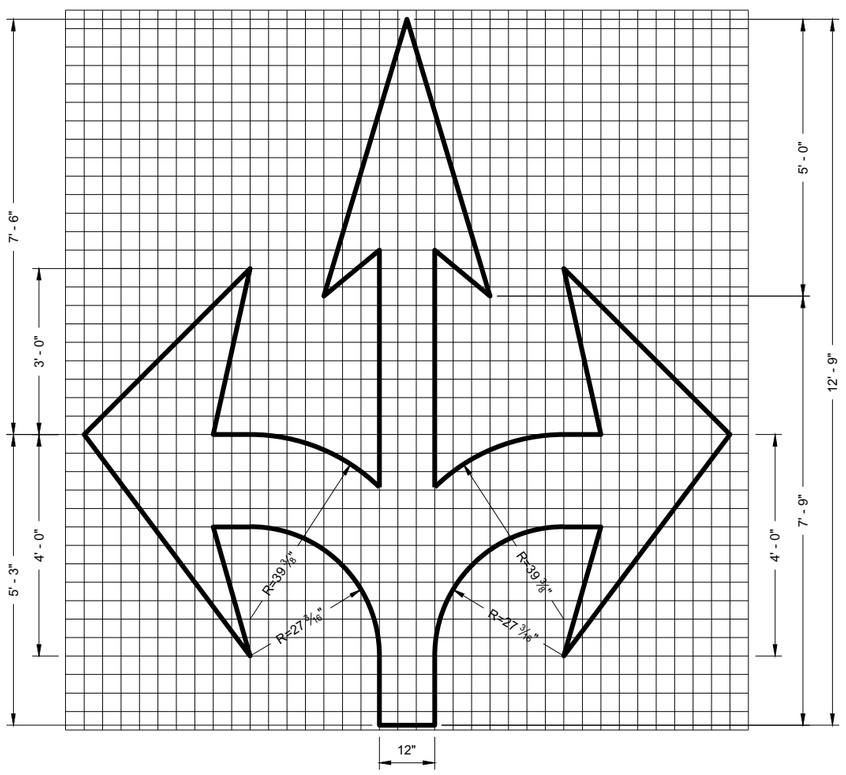
TYPE 3



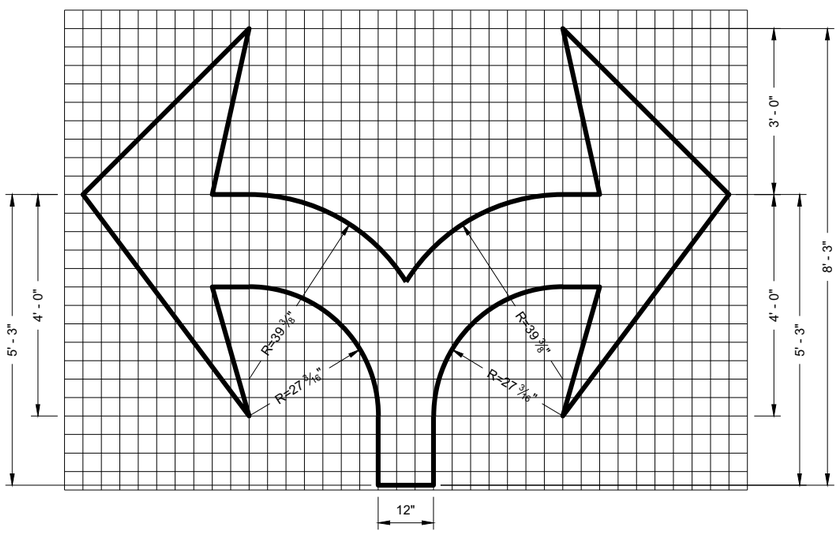
TYPE 4



TYPE 5 LANE DROP ARROW



TYPE 6



TYPE 7

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019 — DATE
/S/ Matthew Rauch — STATE SIGNING AND MARKING ENGINEER

FHWA

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SDD 15C07 - 15c

6

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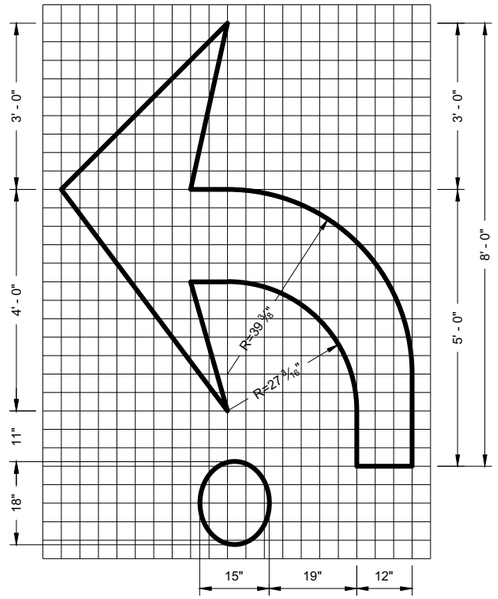
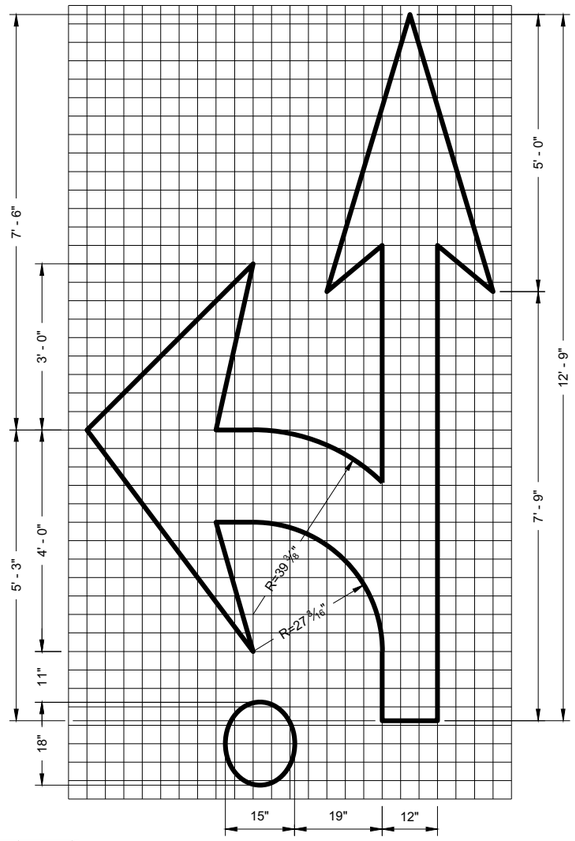
GENERAL NOTES

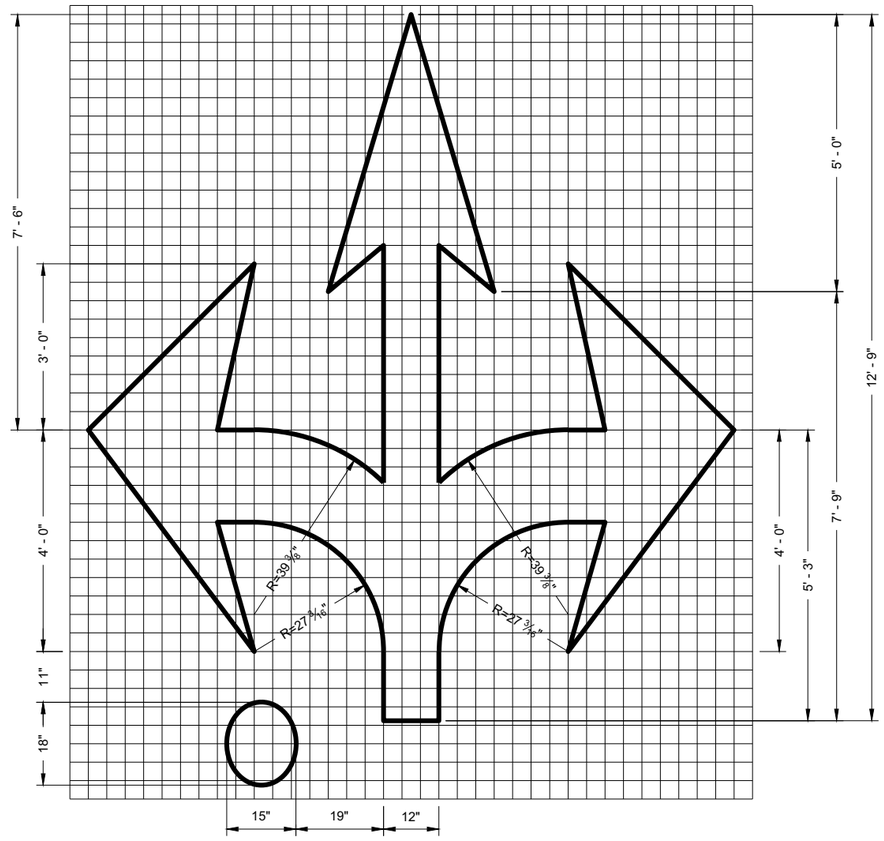
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



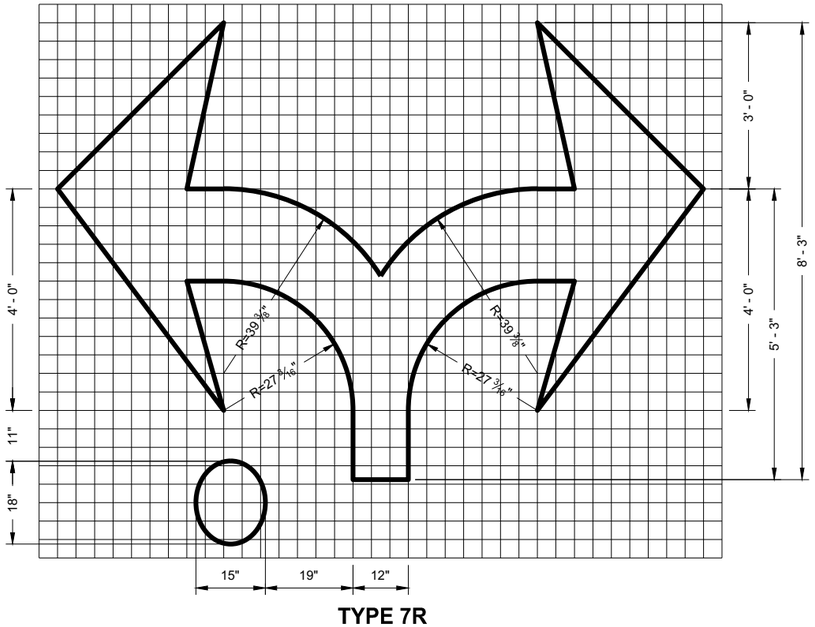
TYPE 2R



TYPE 3R



TYPE 6R



TYPE 7R

ROUNDABOUT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

November 2019
DATE

/S/ Matthew Rauch
STATE SIGNING AND MAF ENGINEER

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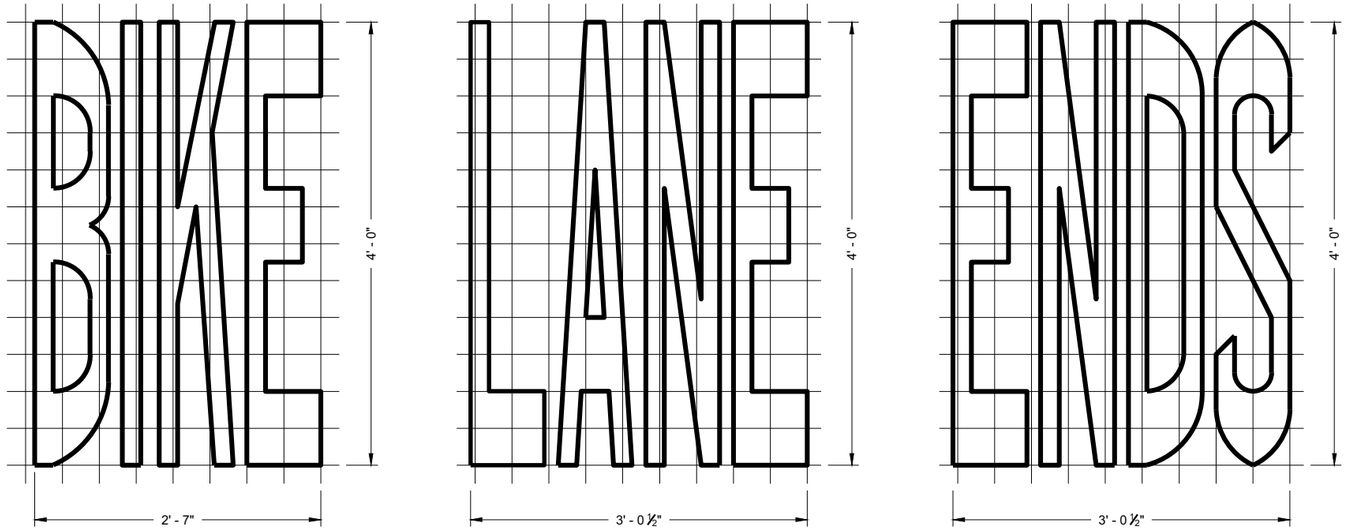
SDD15C07 - 15d

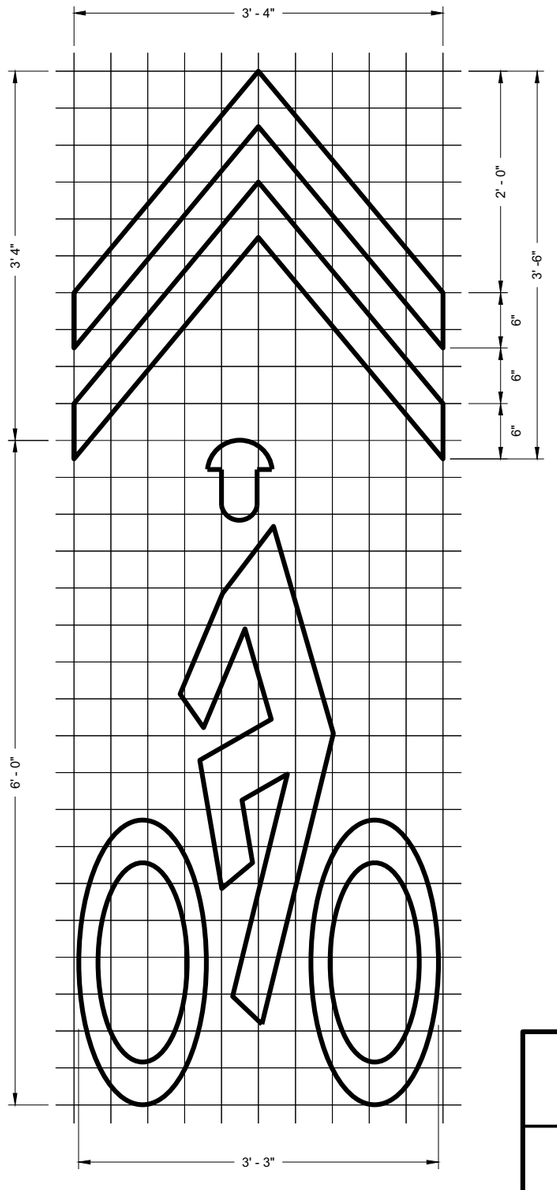
SDD 15C7-e Pavement Marking For Bike Lanes



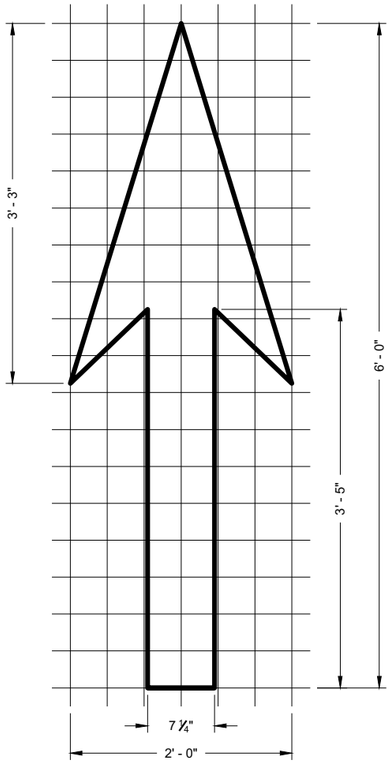
BIKE LANE WORDS

GENERAL NOTES

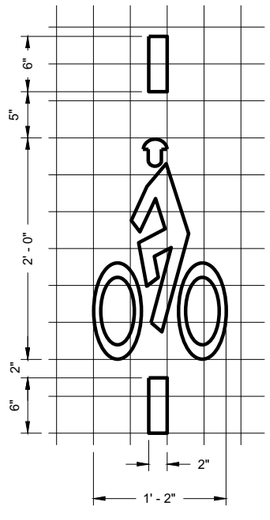
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



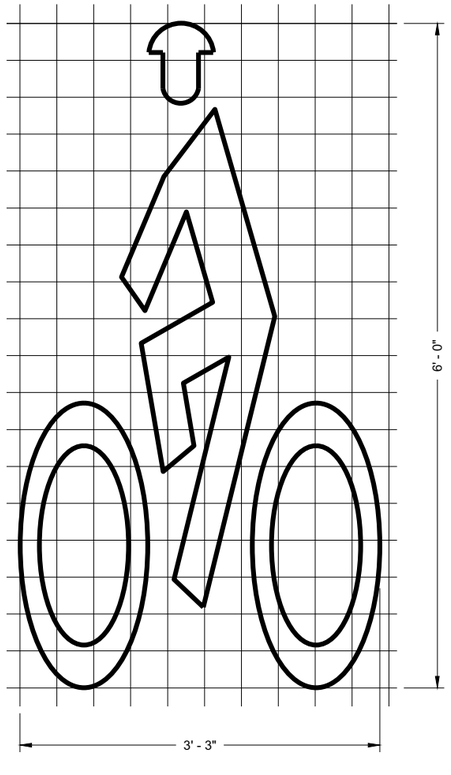
BIKE LANE SYMBOL FOR SHARED LANE



BIKE LANE ARROW



BICYCLE DETECTOR PAVEMENT MARKING



BIKE LANE SYMBOL

PAVEMENT MARKING FOR BIKE LANES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019 — DATE
/S/ Matthew Rauch — STATE SIGNING AND MAF ENGINEER

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SDD15C07 - 15e

GENERAL NOTES

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

(1) LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING

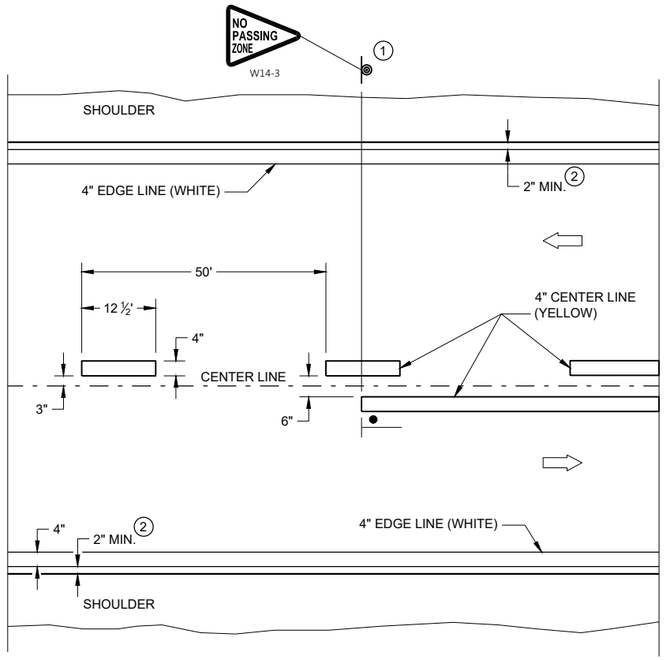
(2) MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

LEGEND

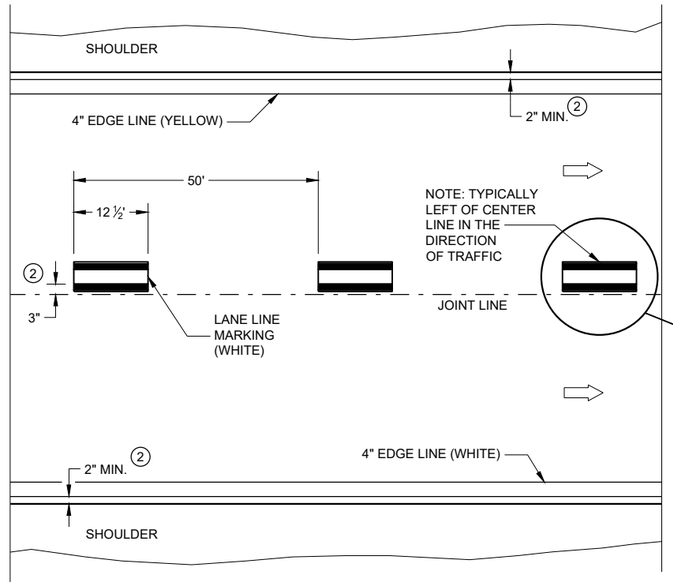
"T" MARKING

SIGN ON PERMANENT SUPPORT

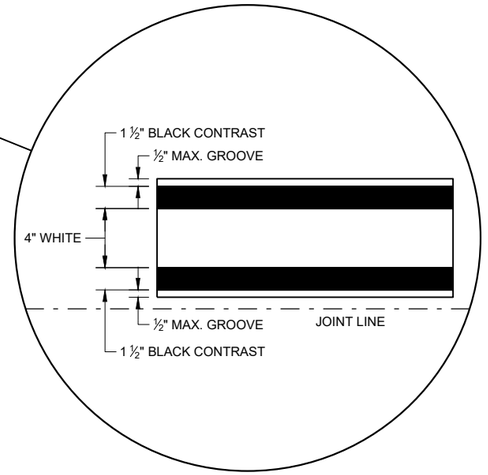
DIRECTION OF TRAFFIC



TWO WAY TRAFFIC



ONE WAY TRAFFIC



PERMANENT PAVEMENT MARKING

PERMANENT LONGITUDINAL PAVEMENT MARKINGS

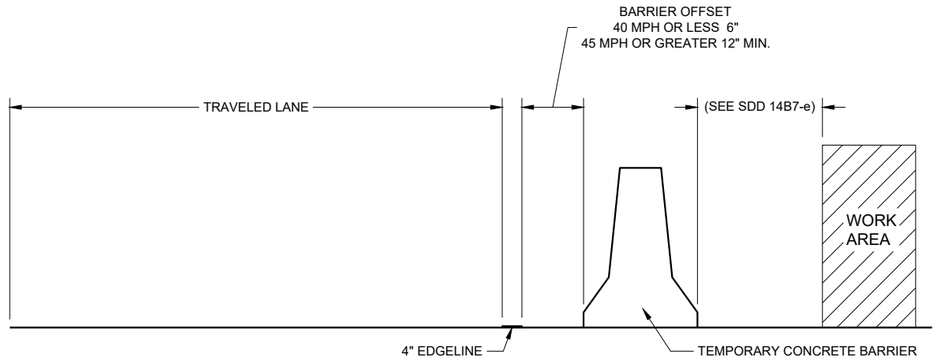
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022 — DATE
/S/ Jeannie Silver — STATEWIDE SIGNING AND M ENGINEER

FHWA

SDD15C08 - 21a

SDD15C08 - 21a



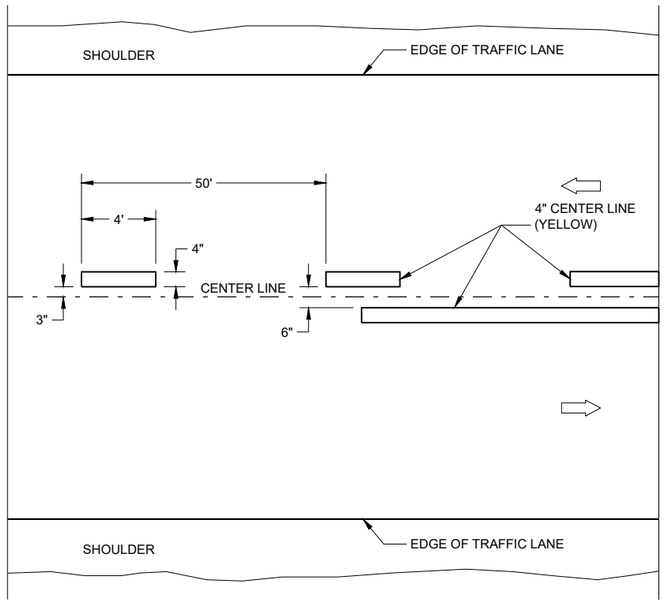
TEMPORARY BARRIER OFFSET FROM EDGELINE

GENERAL NOTES

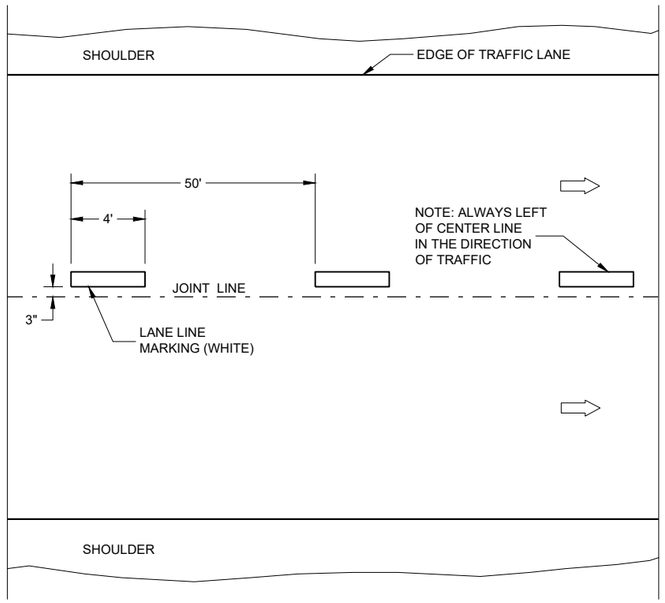
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

LEGEND

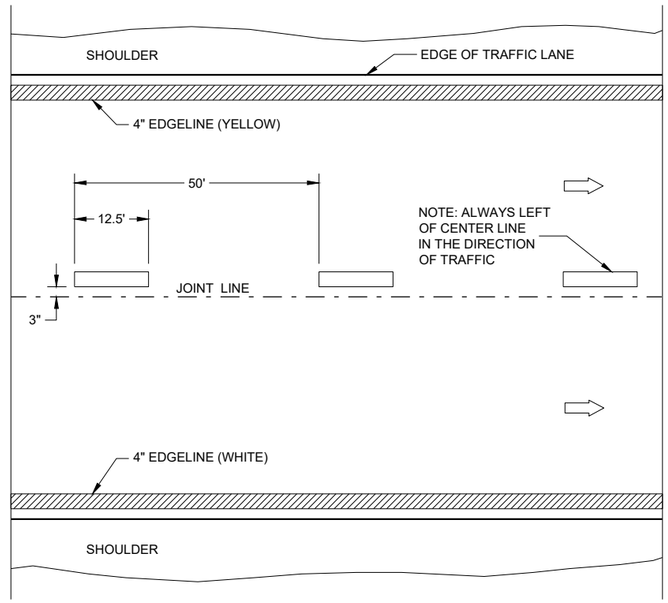
DIRECTION OF TRAFFIC



TWO WAY TRAFFIC



ONE WAY TRAFFIC



FREEWAYS AND EXPRESSWAYS

TEMPORARY PAVEMENT MARKING

TEMPORARY LONGITUDINAL PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022 — DATE
/S/ Jeannie Silver — STATEWIDE SIGNING AND M ENGINEER

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SDD 15C08 - 21b

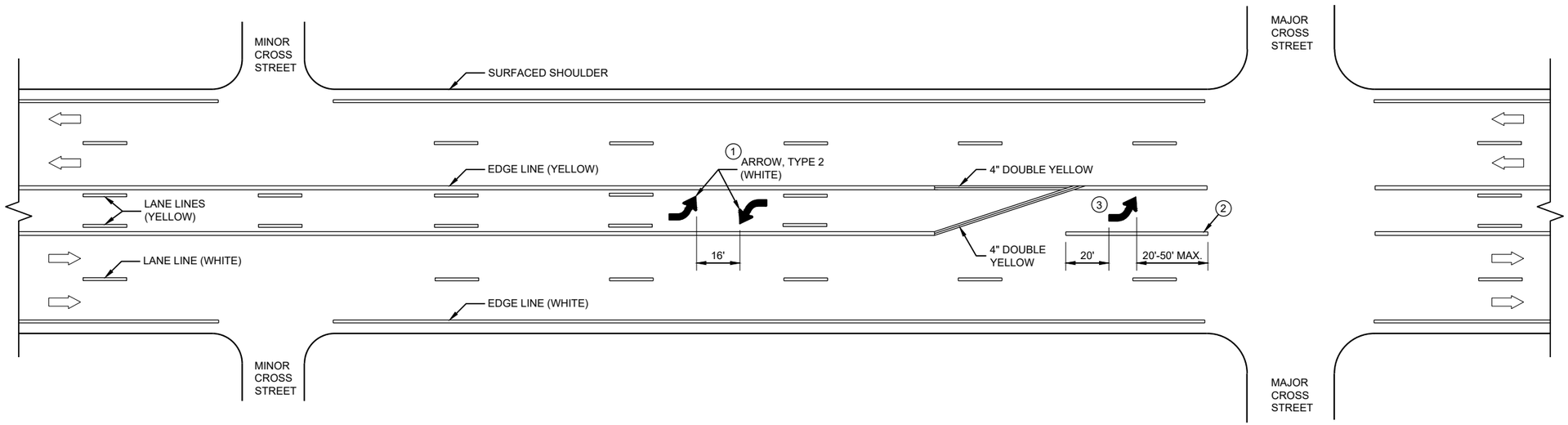
6

SDD 15C08 - 21b

GENERAL NOTES

1. A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
2. 8" WHITE
3. TURN BAY LENGTH OF LESS THAN 48' DOES NOT REQUIRE PAVEMENT ARROWS OR TEXT.

DIRECTION OF TRAFFIC



TWO WAY LEFT TURN LANE

6

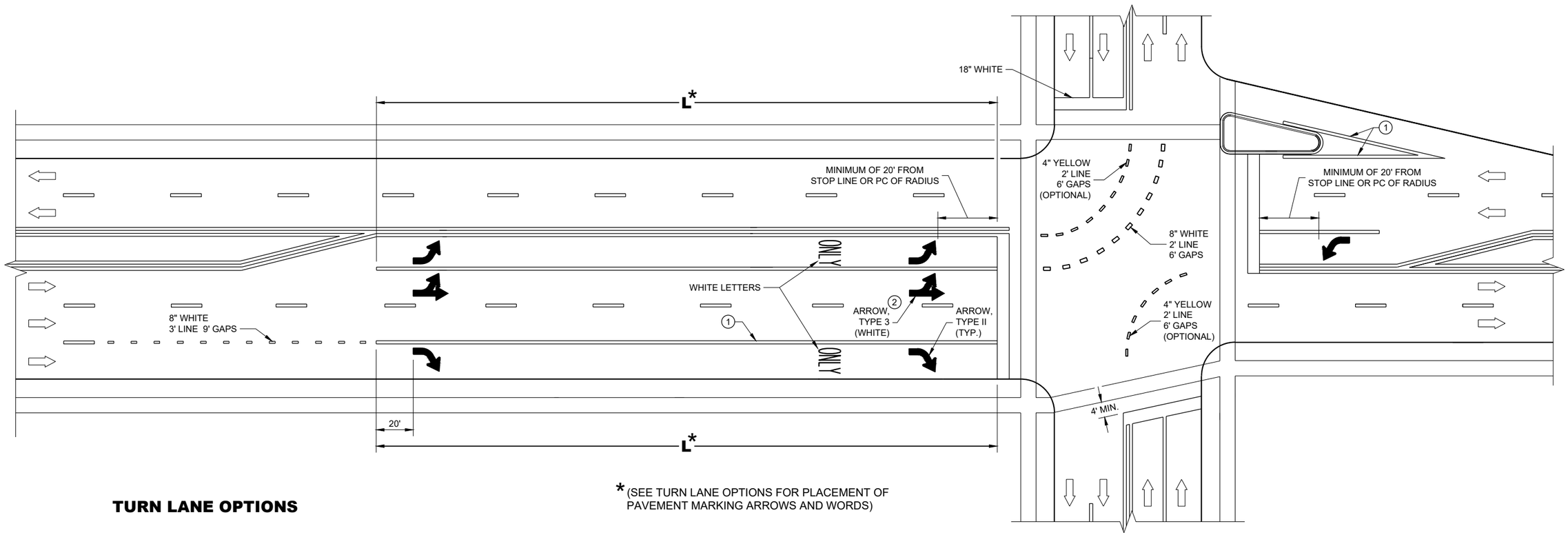
SDD 15C08 - 21c

PAVEMENT MARKING (TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

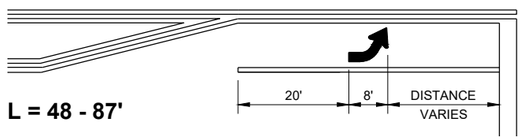
SDD 15C08 - 21c



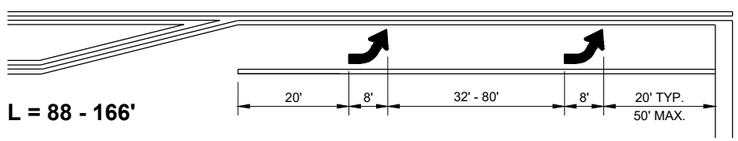
* (SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

TURN LANE OPTIONS

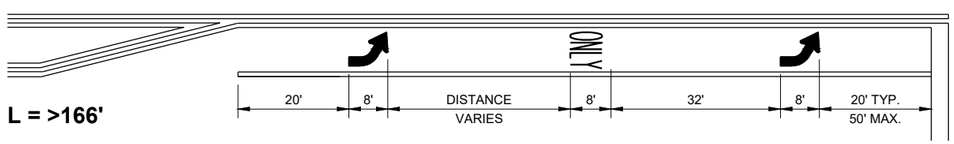
LENGTH OF TURN BAY (**L**) OF 0 - 47' DOES NOT REQUIRE PAVEMENT MARKING ARROWS OR WORDS



L = 48 - 87'



L = 88 - 166'



L = >166'

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

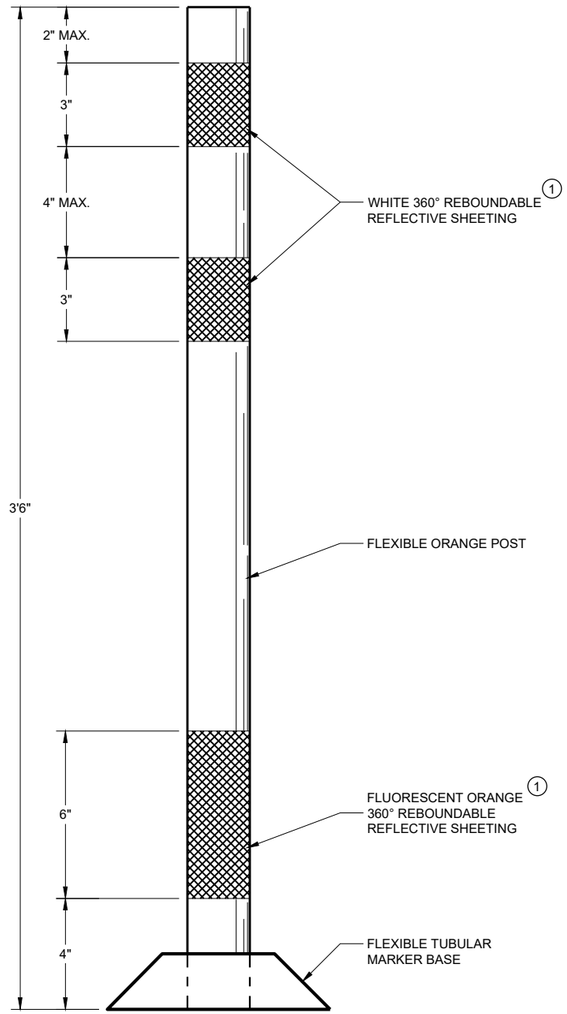
L = LENGTH OF TURN BAY

PAVEMENT MARKING (TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 15C08 - 21d



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.

6

CHANNELIZING DEVICES FLEXIBLE TUBULAR MARKER POST

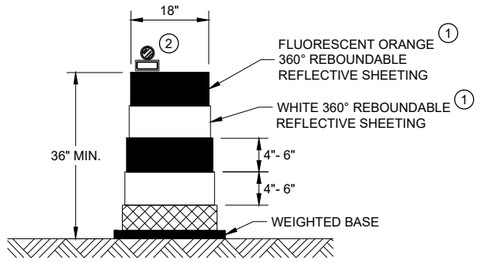
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2021 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER
FHWA

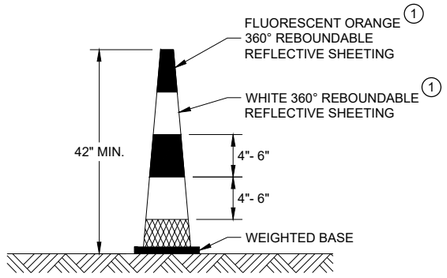
SDD 15C11 - 09a

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.

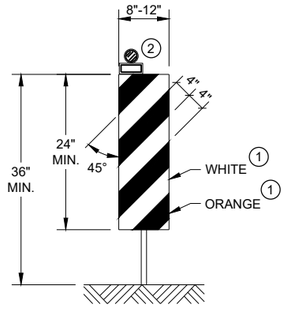


DRUM



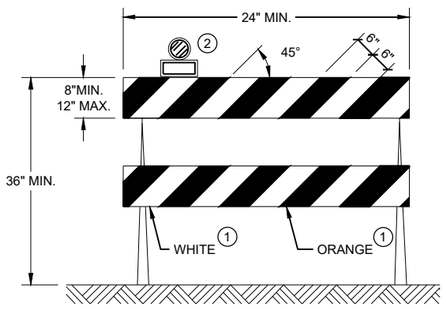
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS



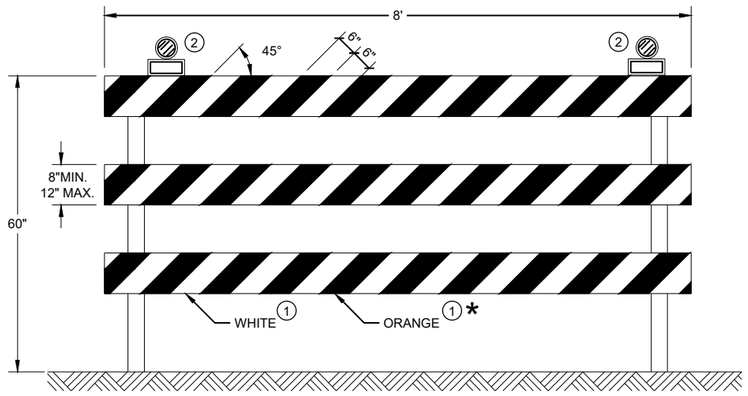
VERTICAL PANEL

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



TYPE II BARRICADE

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



TYPE III BARRICADE

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

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2021 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER
FHWA

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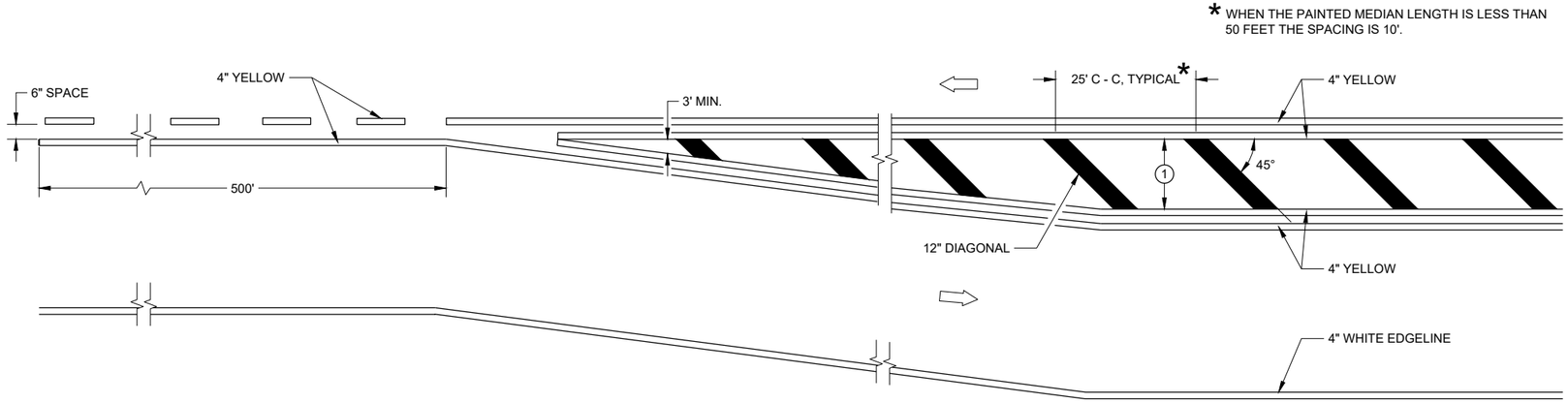
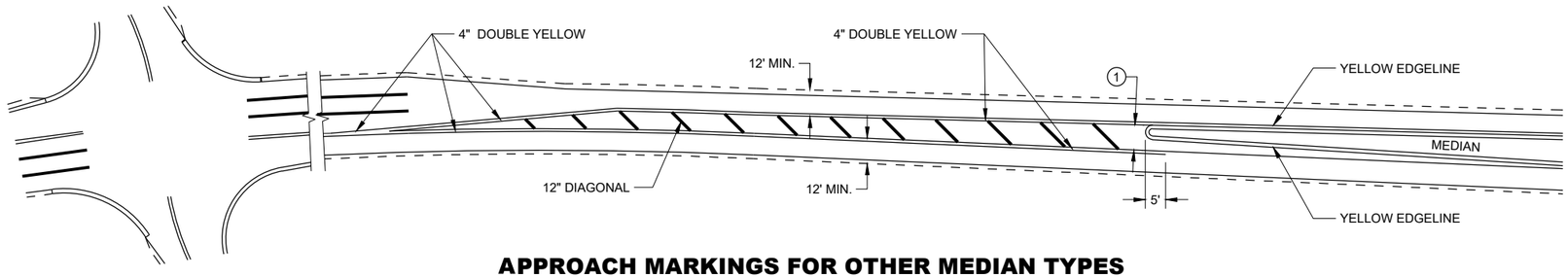
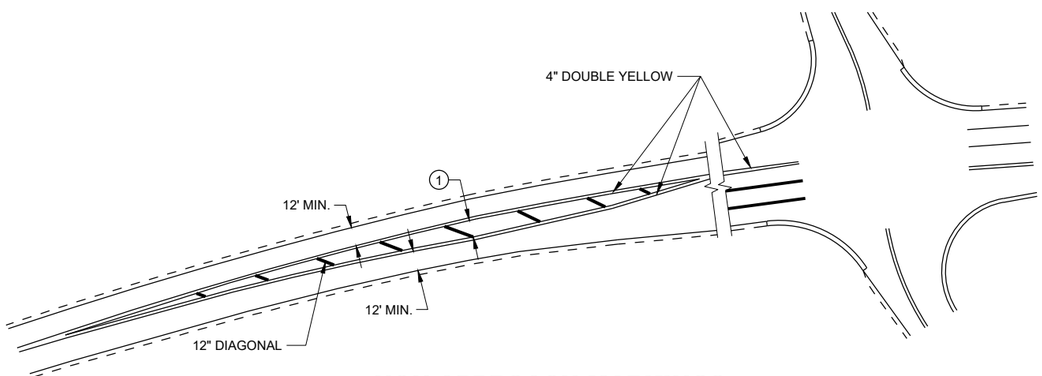
SDD 15C11 - 09b



MEDIAN ISLAND DETAIL



APPROACH MARKINGS FOR OTHER MEDIAN TYPES



NON-APPROACH MARKINGS

GENERAL NOTES

1. DIAGONALS ARE OPTIONAL WHEN PAINTED ISLAND IS LESS THAN 6 FEET AT THE WIDEST POINT. OMIT DIAGONALS IF WIDTH IS LESS THAN 4 FEET.

DIRECTION OF TRAVEL

MEDIAN ISLAND PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022 — DATE
/S/ Jeannie Silver — STATE SIGNING AND MAF ENGINEER
FHWA

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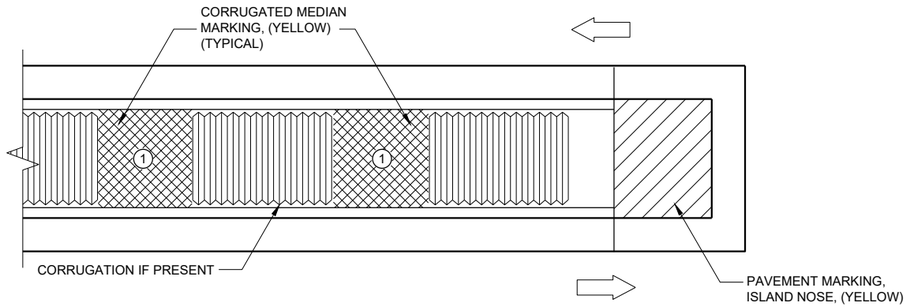
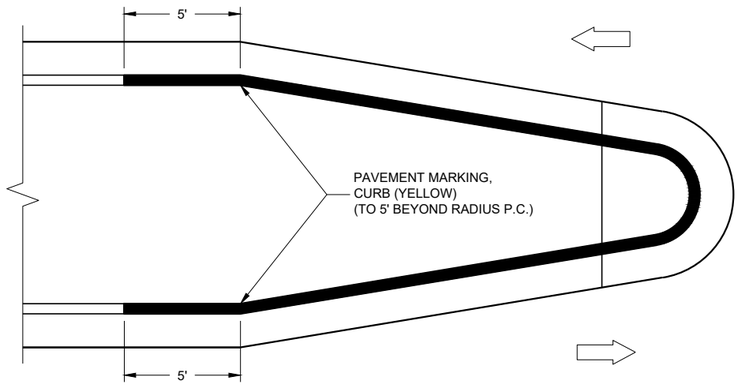
SDD 15C18 - 06a

6

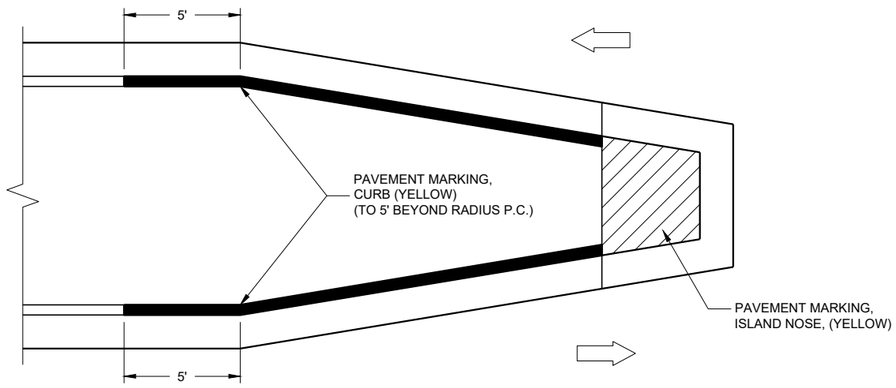
SDD 15C18 - 06a



MEDIAN ISLAND WITH SQUARE BLUNT NOSE



MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS

GENERAL NOTES

WHEN CONCRETE CORRUGATED MEDIAN IS CONSTRUCTED TO SEPARATE TRAFFIC OPERATING IN THE OPPOSING DIRECTION, YELLOW PAVEMENT MARKING SHALL BE APPLIED TO THE FLAT PORTION OF THE CONCRETE CORRUGATED MEDIAN. THE ITEM OF PAVEMENT MARKING, CONCRETE CORRUGATED MEDIAN, WILL BE MEASURED IN PLACE AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.

(1) APPLY PAVEMENT MARKING TO THE FLAT PORTION OF CORRUGATED MEDIAN.

ISLAND NOSE MARKING

CURB MARKING

CORRUGATED MEDIAN MARKING

DIRECTION OF TRAVEL

6

6

SDD 15C18 - 06b

SDD15C18 - 06b

PAVEMENT MARKINGS, MEDIAN ISLAND NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

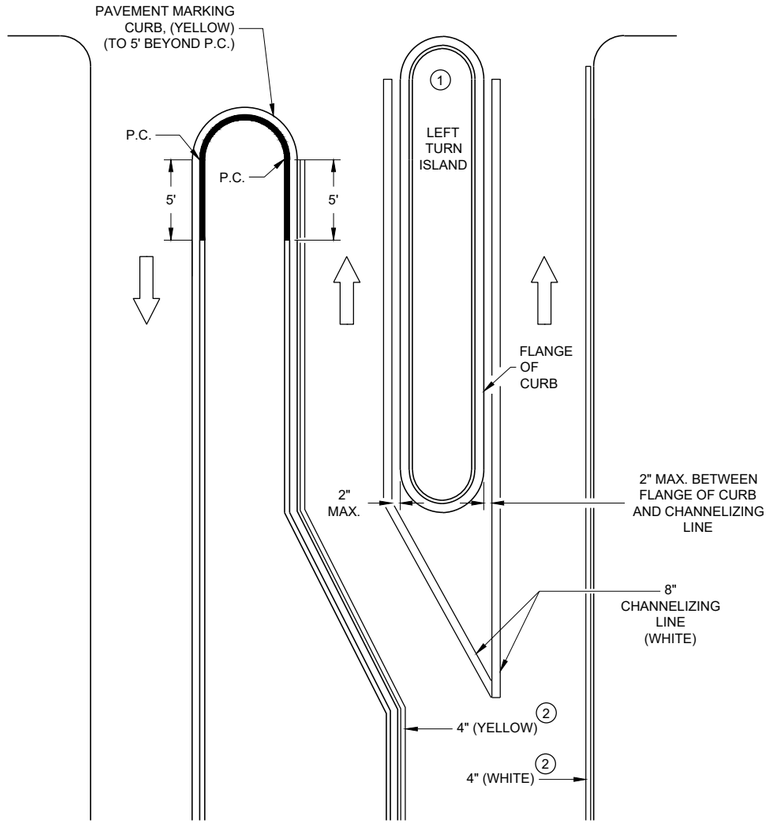
APPROVED

May 2022
DATE

/S/ Jeannie Silver
STATE SIGNING AND MAR ENGINEER

FHWA

REQUIREMENTS FOR EDGE LINES		
POSTED SPEED	IS THERE CONTINUOUS LIGHTING?	
	YES	NO
≤ 30 MPH	NO	OPTIONAL
35 OR 40 MPH	OPTIONAL	RECOMMENDED
≥ 45 MPH	RECOMMENDED	REQUIRED



LEFT TURN & MEDIAN ISLAND

GENERAL NOTES

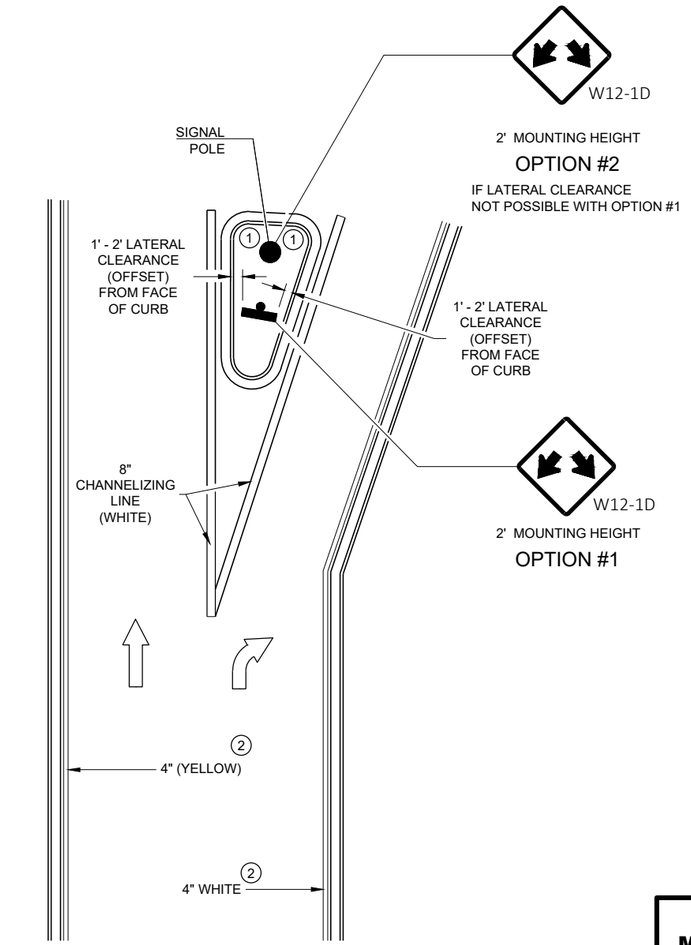
APPLIES TO ISLANDS AT LEFT TURNS AT ONE WAY ROADWAYS AS WELL.

SEE MISCELLANEOUS QUANTITIES FOR SIGN SIZE.

(1) MARK CURB NOSES YELLOW.

(2) MARK ACCORDING TO TABLE.

DIRECTION OF TRAVEL



RIGHT TURN ISLAND

MEDIAN PAVEMENT MARKINGS, DOUBLE ARROW WARNING SIGN PLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

May 2022 — DATE

/S/ Jeannie Silver — STATE SIGNING AND MAF ENGINEER

FHWA

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SDD 15C18 - 06c

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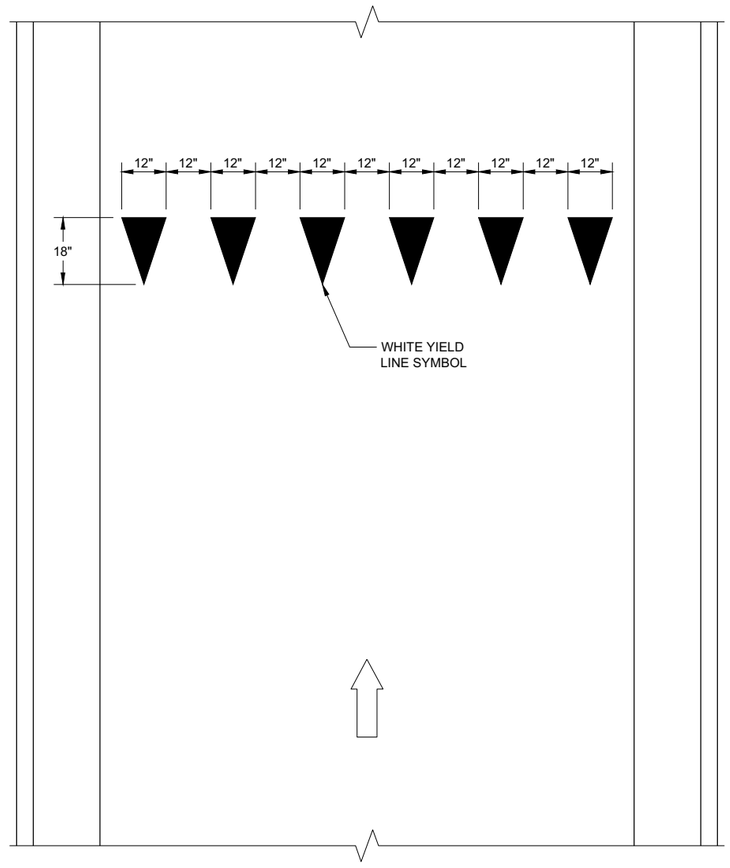
SDD15C18 - 06c

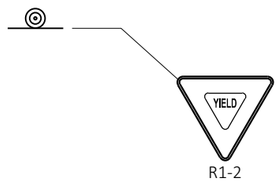


YIELD LINE

LEGEND

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAVEL



R1-2

YIELD MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

4-81-2016
DATE

/S/ Matthew R. Rauch
STATE SIGNING AND MAR ENGINEER

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SDD 15C20 - 02

SDD 15C20 - 02

GENERAL NOTES

SIGNING AND MARKING IS SHOWN AS TYPICAL PLACEMENT. FIELD CONDITIONS MAY DICTATE CHANGES IN SIGNING AND MARKING PLACEMENT.

(1) USED ONLY WHEN APPROVED BY REGION TRAFFIC ENGINEER.

* SIGNS MAY BE OMITTED IF SPACE DOES NOT PERMIT PLACEMENT.

** IF POSTED SPEED IS 45 MPH OR GREATER, PLACE W5-54 SIGN UNDER R4-7 SIGN. MOUNT W5-54 SIGN AT 4' MOUNTING HEIGHT (TOP OF ROADWAY TO BOTTOM OF SIGN).

LEGEND

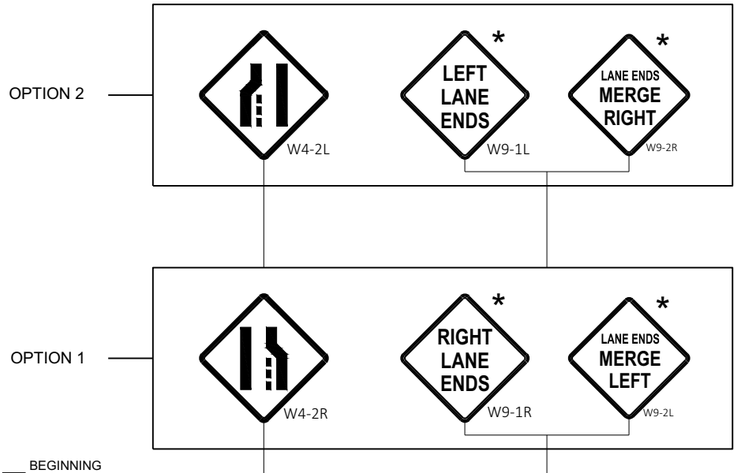
A DISTANCE DEPENDENT ON SPEED (SEE TABLE)

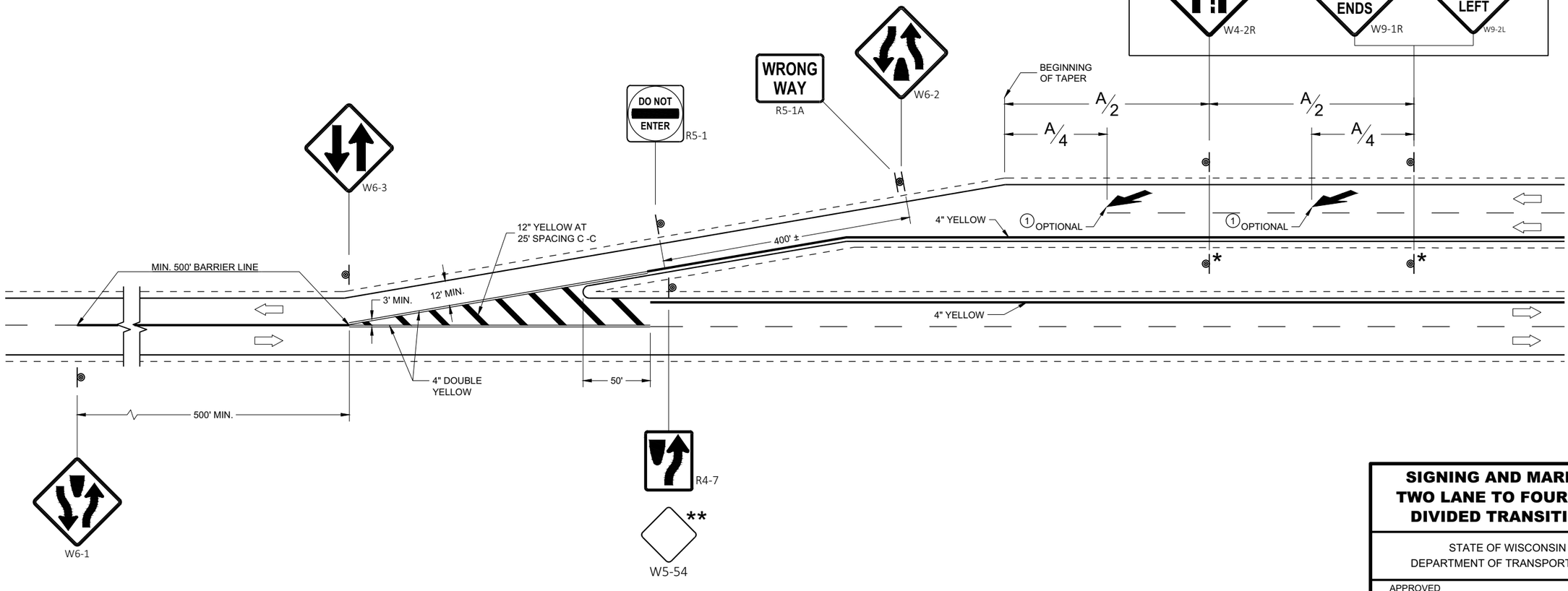
SIGN MOUNTED ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC

DISTANCE TABLE

POSTED OR 85TH PERCENTILE SPEED	DISTANCE "A"
25	325'
30	460'
35	565'
40	670'
45	775'
50	885'
55	990'
65	1200'
70	1250'





SIGNING AND MARKING TWO LANE TO FOUR LANE DIVIDED TRANSITIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2020 — DATE
/S/ Matthew Rauch — STATE SIGNING AND MAR ENGINEER

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SDD 15C21 - 10

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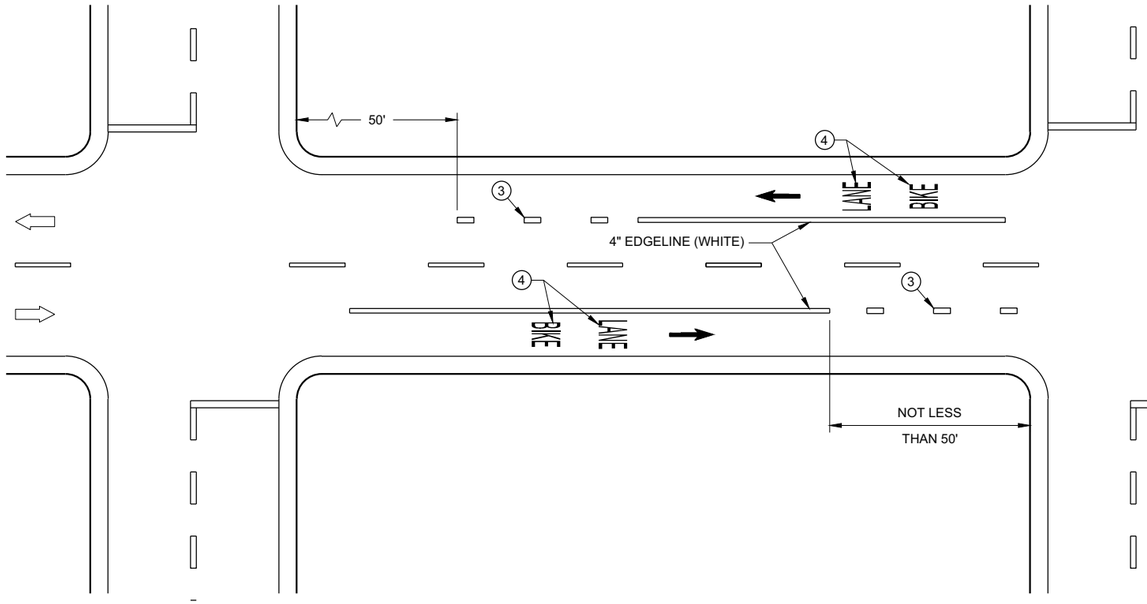
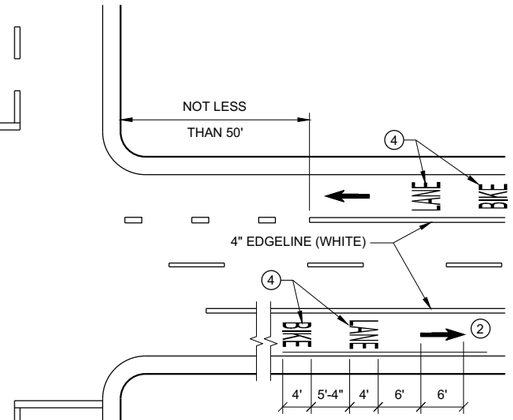


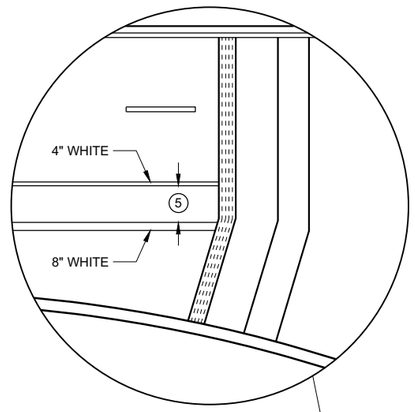


GENERAL NOTES

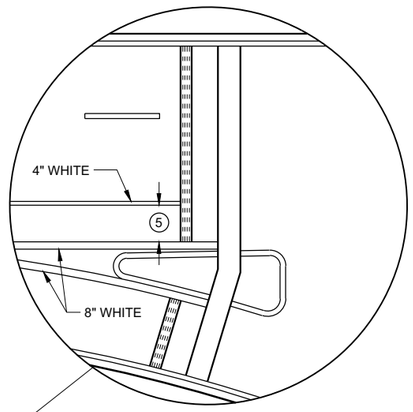
1. DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.
2. MINIMUM OF ONE PER BLOCK. MAXIMUM OF 250 FEET.
3. DOTTED LINES (3' LINE, 9' GAP) SHOULD BE USED 50 FEET TO 200 FEET IN ADVANCE OF AN INTERSECTION WHERE THERE IS NO RIGHT TURN ONLY LANE AND THERE IS HEAVY RIGHT TURN TRAFFIC OR THERE IS A NEAR-SIDE BUS STOP. AT OTHER INTERSECTIONS WHERE RIGHT TURN TRAFFIC IS LIGHT TO MODERATE, A SOLID LINE CAN BE USED UP TO THE INTERSECTION.
4. BIKE SYMBOLS OR WORDS MAY BE USED.
5. BIKE ACCOMMODATION IS TYPICAL 5 FEET WIDE AND MINIMUM OF 4 FEET FROM A LONGITUDINAL JOINT. USE 5 FEET AT ≥ 45 MPH.
6. OMIT THESE MARKINGS FOR WIDER TURN LANE APPLICATIONS (MINIMUM OF 15 FOOT WIDE TURN LANE).
7. REFER TO CONTRACT PLANS FOR LANE WIDTH.

DIRECTION OF TRAVEL

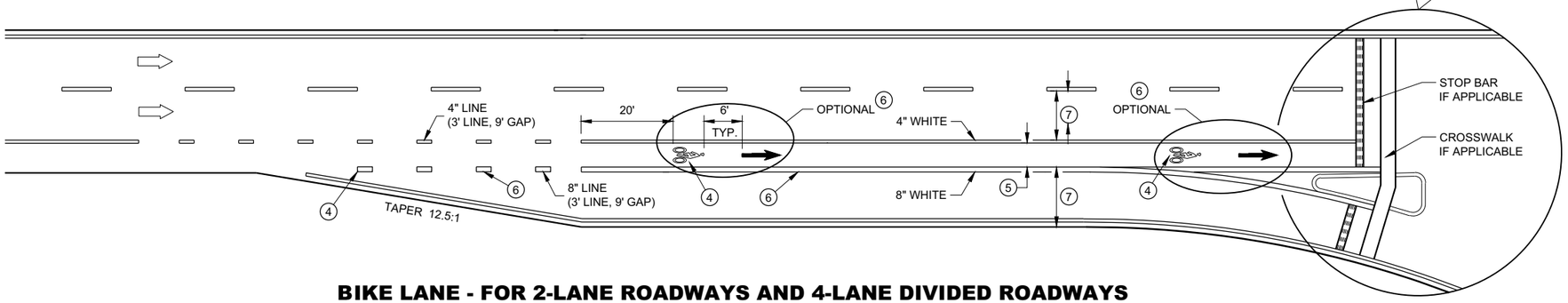
DESIGNATED BIKE LANE - NO PARKING



4 LANE DIVIDED WITHOUT ISLAND



4 LANE DIVIDED WITH ISLAND



BIKE LANE - FOR 2-LANE ROADWAYS AND 4-LANE DIVIDED ROADWAYS
(4-LANE DIVIDED WITH RIGHT TURN LANE SHOWN)

BIKE LANE MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2020 — DATE
/S/ Matthew Rauch — STATE SIGNING AND MAR ENGINEER
FHWA

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SDD 15C29 - 07a

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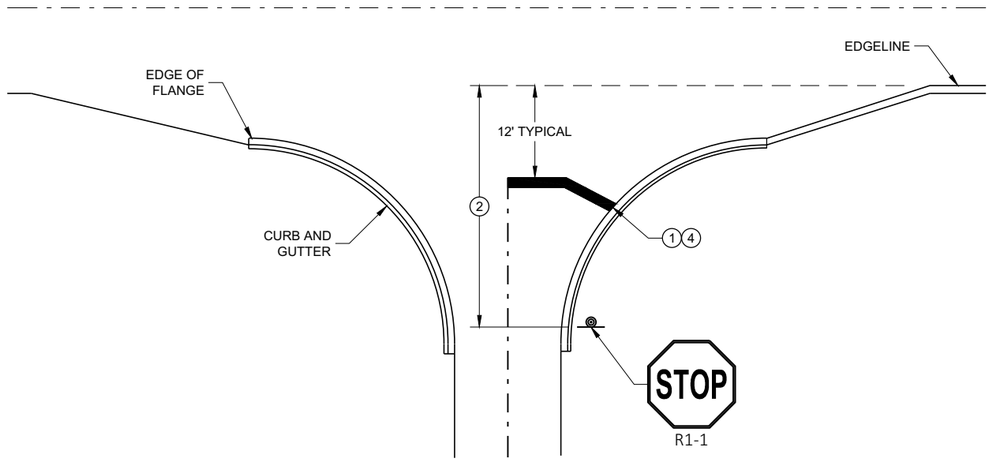
SDD 15C29 - 07a

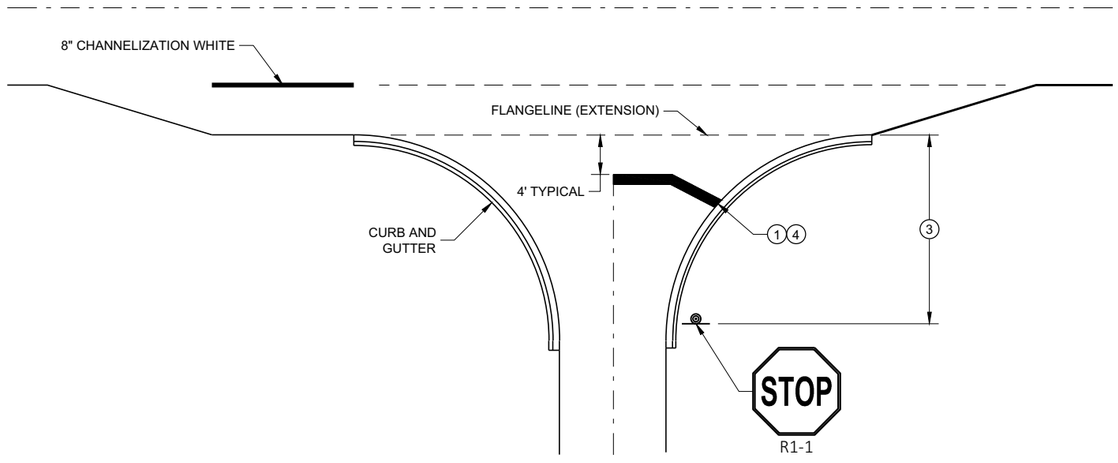
GENERAL NOTES

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

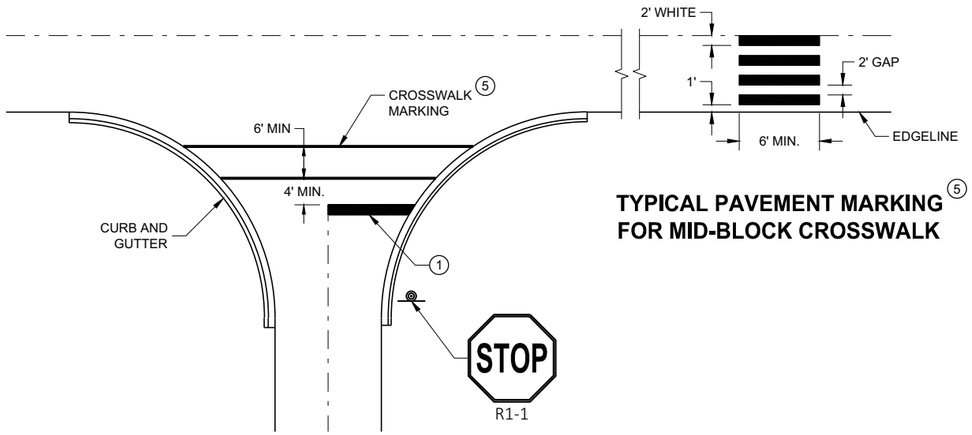
1. 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
2. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
3. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE 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.



TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER

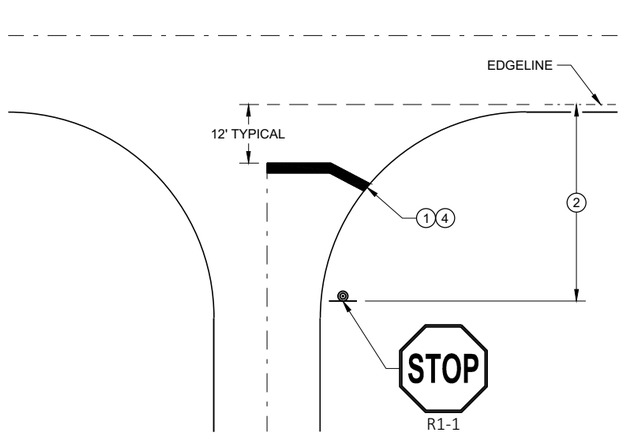


TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING

TYPICAL PAVEMENT MARKING FOR MID-BLOCK CROSSWALK 5



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019 — DATE
/S/ Matthew Rauch — STATE SIGNING AND MARKING ENGINEER

FHWA

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SDD 15C33 - 04

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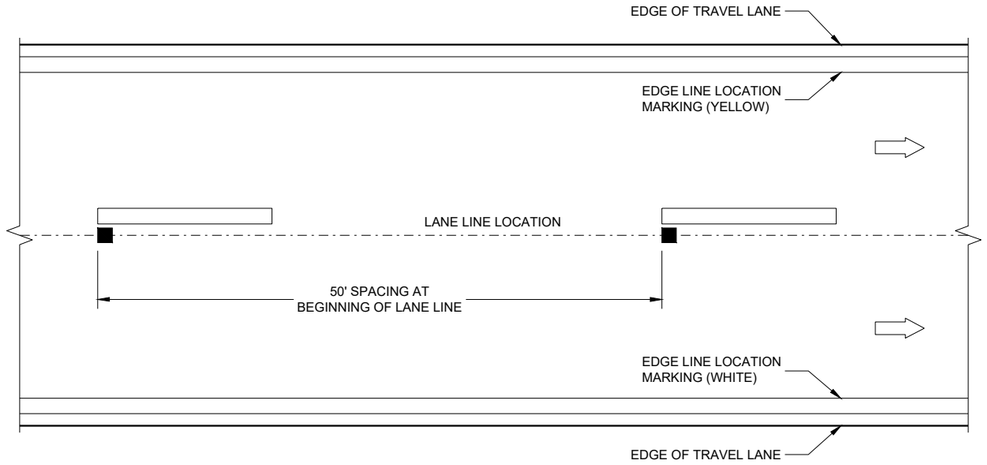
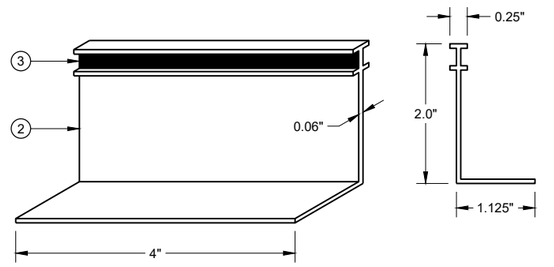
SDD 15C33 - 04



LONGITUDINAL PLACEMENT 4 - INCH LANE LINE



ISOMETRIC VIEW **SIDE VIEW**

TEMPORARY RAISED PAVEMENT MARKER, TYPE II

GENERAL NOTES

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

COLOR OF TEMPORARY RAISED PAVEMENT MARKERS, TYPE II, SHALL MATCH THE COLOR OF THE MARKING THEY SUPPLEMENT.

PLACEMENT OF TEMPORARY RAISED PAVEMENT MARKERS ON EDGE LINES IS OPTIONAL. IF PLACED ON EDGE LINES, MAXIMUM SPACING SHALL BE 50 FEET.

PROVIDE SINGLE OR MULTI-COVER TEMPORARY RAISED PAVEMENT MARKERS AS SHOWN ON PLAN.

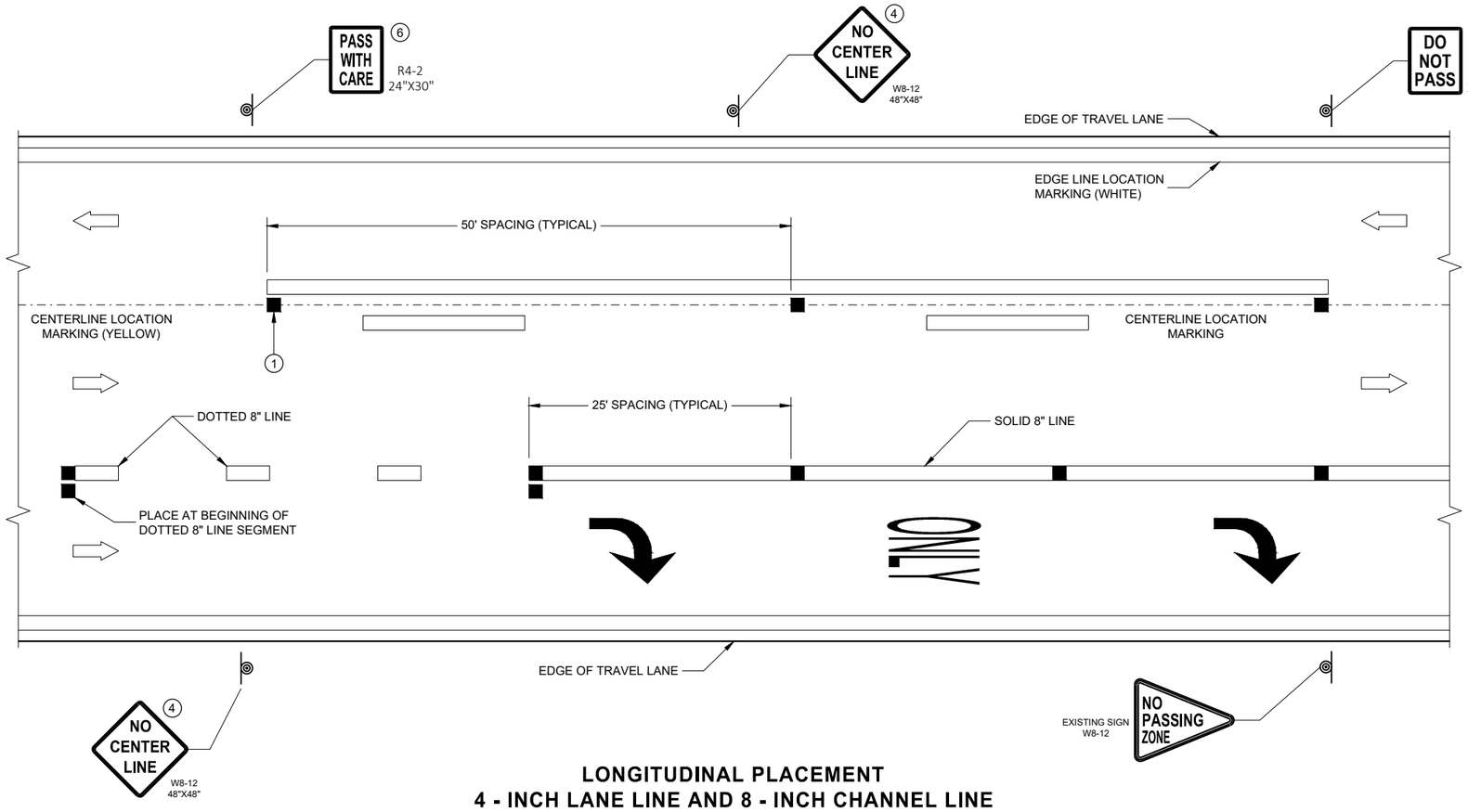
MARK "T"s ON PAVEMENT FOR REESTABLISHING NO PASSING ZONES.

SAME DAY TEMPORARY PAVEMENT MARKING MAY BE USED IN LIEU OF TEMPORARY RAISED PAVEMENT MARKERS, TYPE II.

SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF TEMPORARY SAME DAY PAVEMENT MARKING IS USED, ENSURE PROPOSED PAVEMENT MARKING ARE PLACED IN THE EXACT LOCATIONS AS THE EXISTING MARKINGS, USING A MINIMAL AMOUNT OF TEMPORARY RAISED MARKERS, TYPE II OR OTHER METHODS AS APPROVED BY THE ENGINEER.

IF ROADWAY IS DETOURED DURING CONSTRUCTION, THE "DO NOT PASS, "PASS WITH CARE" AND "NO CENTERLINE" SIGNS MAY BE OMITTED, PROVIDING A LIQUID MARKING IS INSTALLED BEFORE THE ROADWAY IS REOPENED TO TRAFFIC.



LONGITUDINAL PLACEMENT 4 - INCH LANE LINE AND 8 - INCH CHANNEL LINE

1. FOR DOUBLE SOLID YELLOW, PLACE THE MARKERS BETWEEN THE LINES.
2. MARKERS SHALL BE OF POLYURETHANE MATERIAL.
3. MARKERS SHALL HAVE A MINIMUM SIZE REFLECTIVE SURFACE OF 4 INCH WIDTH X 0.25 INCH HEIGHT.
4. "NO CENTER LINE" SIGNS SHALL BE PLACED AT THE BEGINNING OF PROJECT, AT TWO MILE INTERVALS AND AFTER STATE AND COUNTY HIGHWAY INTERSECTIONS.
5. "DO NOT PASS" SIGNS SHALL BE INSTALLED AT THE BEGINNING OF NO PASSING ZONES. ADDITIONAL "DO NOT PASS" SIGNS SHALL BE INSTALLED AT ONE MILE INTERVALS AND AFTER STATE AND COUNTY HIGHWAY INTERSECTIONS WITHIN THE NO PASSING ZONE.
6. "PASS WITH CARE" SIGNS SHALL BE PLACED AT THE DOWNSTREAM END OF NO PASSING ZONES.

LEGEND

- TEMPORARY RAISED PAVEMENT MARKER, TYPE II
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- DIRECTION OF TRAFFIC.

STANDARD APPLICATION FOR TEMPORARY RAISED PAVEMENT MARKERS, TYPE II

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/2017 DATE
/S/ Matthew Rauch
STATE SIGNING AND MAF ENGINEER

FHWA

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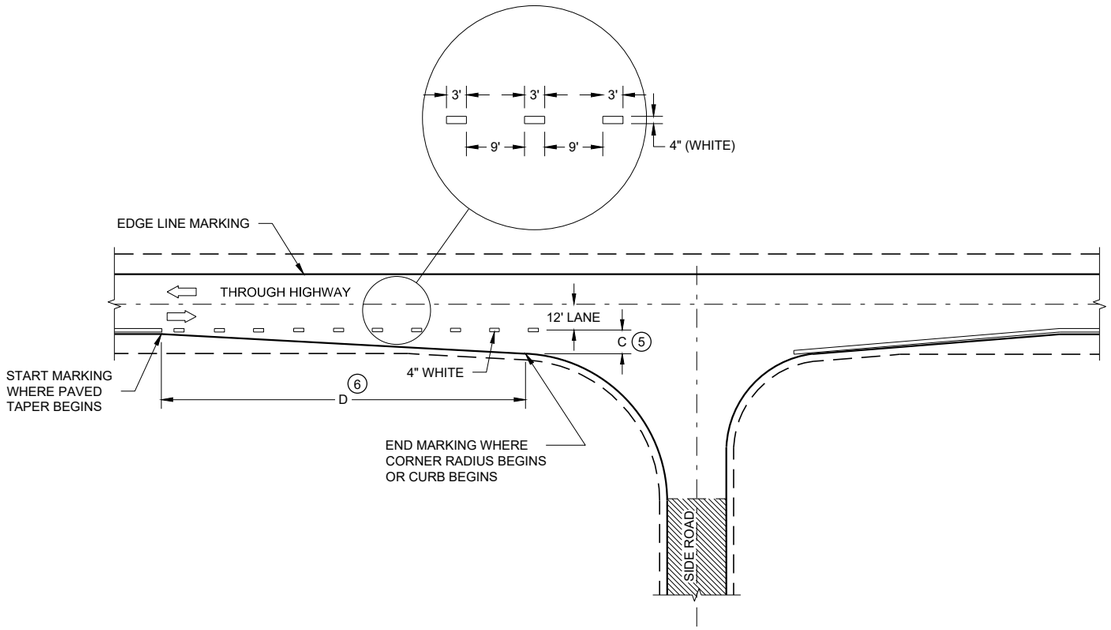
SDD 15C34 - 03



MINOR INTERSECTION

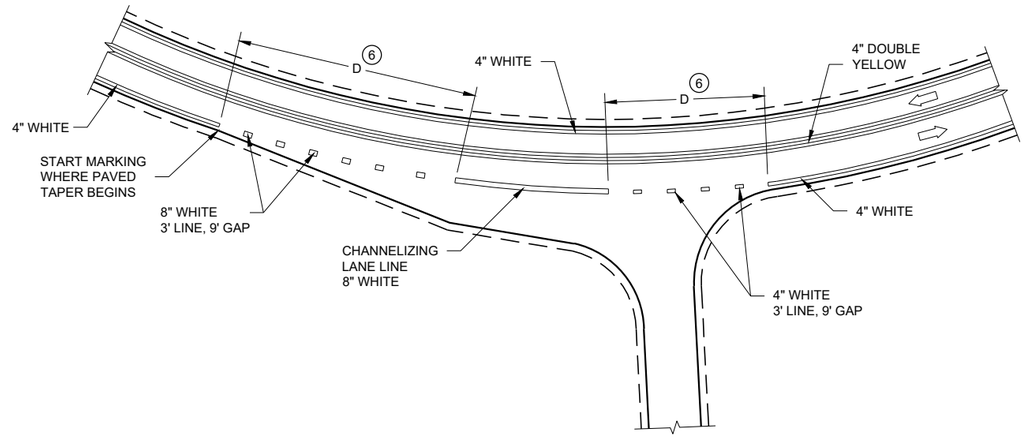
GENERAL NOTES

OMIT EDGE LINES THROUGH INTERSECTIONS. CONTINUE EDGE LINES THROUGH DRIVEWAYS.

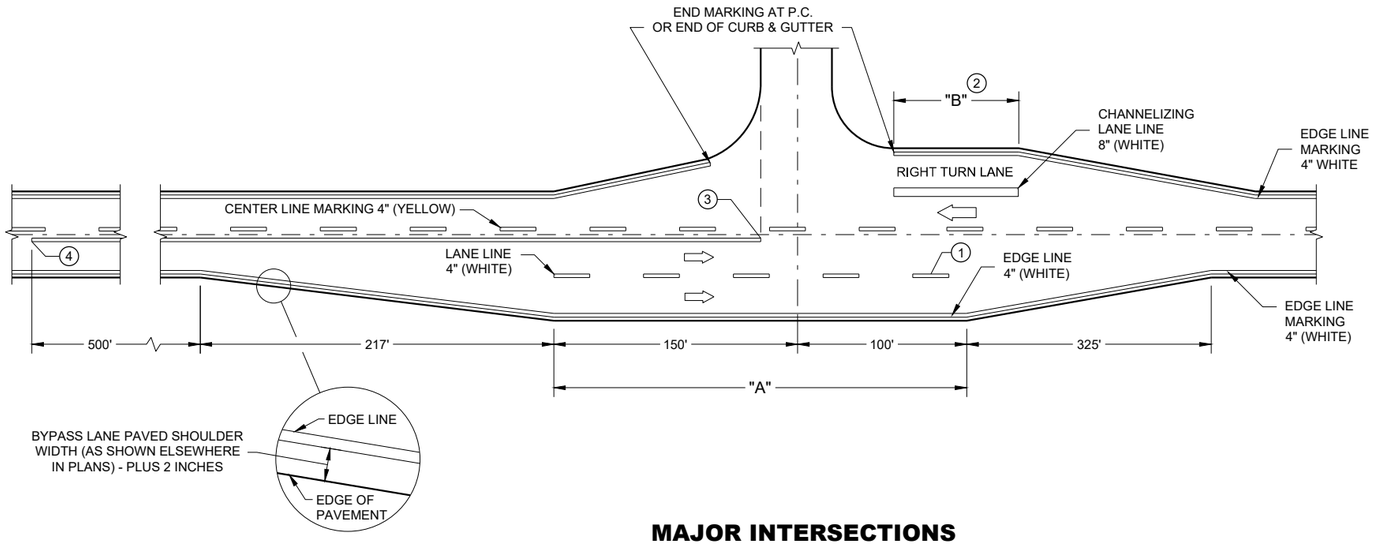
1. WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
2. WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
3. BARRIER LINE ENDS AT SIDE ROAD PAVEMENT / SURFACE EDGE EXTENSION.
4. BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.
5. WHEN DISTANCE "C" IS LESS THAN 4 FEET, OMIT DOTTED EXTENSION.
6. WHEN DISTANCE "D" IS LESS THAN 50 FEET, OMIT DOTTED EXTENSION.

LEGEND

DIRECTION OF TRAVEL



INTERSECTION ON OUTSIDE OF CURVE



MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)

PAVEMENT MARKING (INTERSECTIONS)

SDD 15C35 - 05a

6

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.

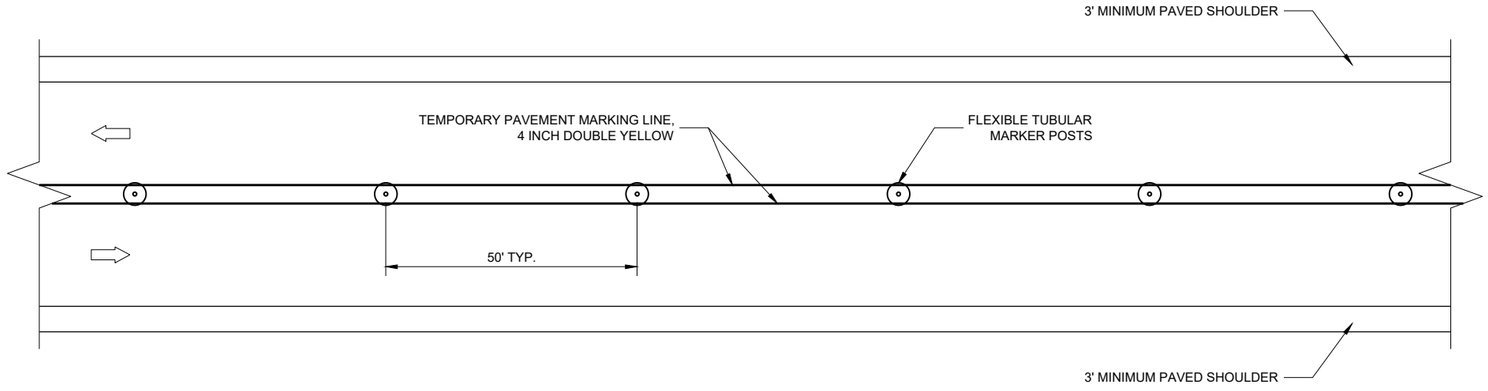
COVER EXISTING CENTERLINE STRIPE WITH TEMPORARY PAVEMENT MARKING LINE, 4 INCH DOUBLE YELLOW.

(1)

(2)

(1) THE WO6-3 AND WO57-51 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 WO6-3 AND THE WO57-51 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

6

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SDD 15D06 - 05

SDD 15D06 - 05

TRAFFIC CONTROL
TWO LANE TWO WAY
OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2022
DATE

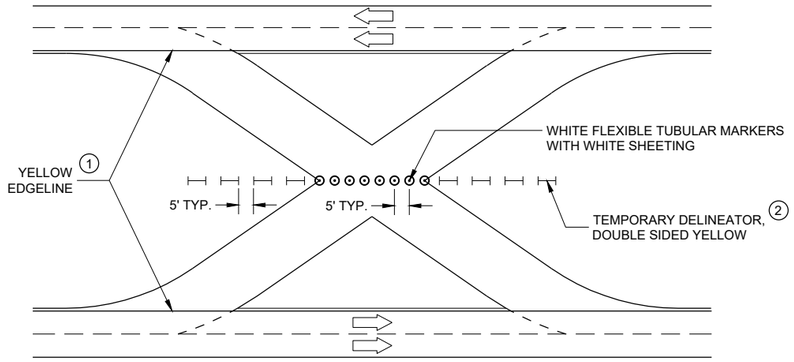
/S/ Andrew Heidtke
WORK ZONE ENGINEE

380

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 EDGELINE 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



TRAFFIC CONTROL FOR CROSSOVER THAT IS NOT IN USE

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.

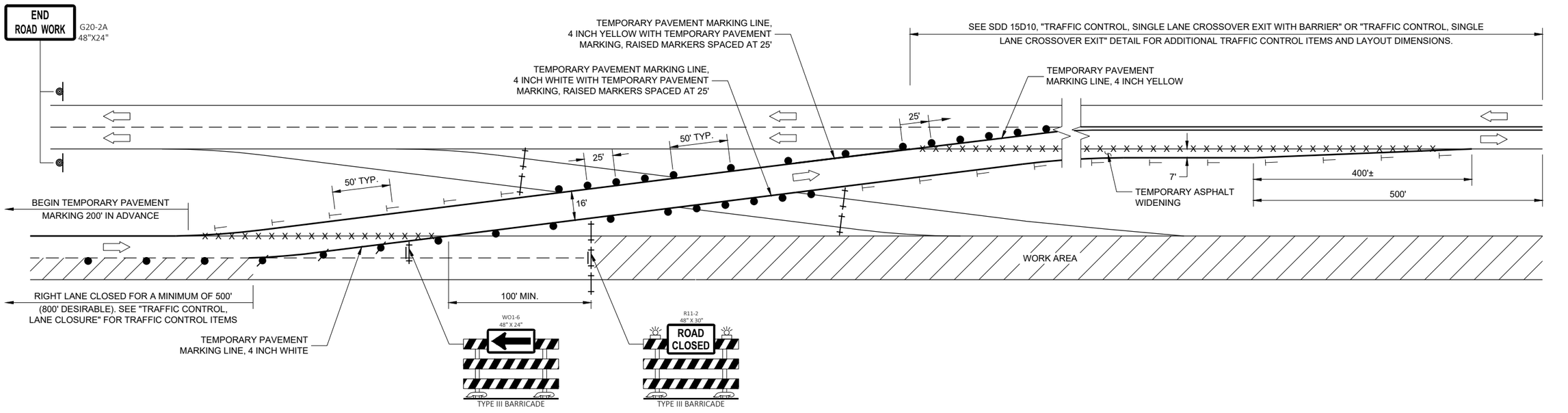
THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

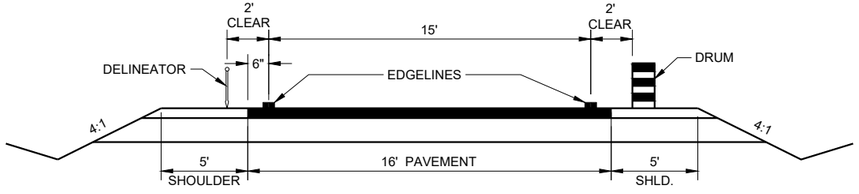
THE SPACING BETWEEN PROPOSED SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500' DESIRABLE) DISTANCE TO EXISTING SIGNS.

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.

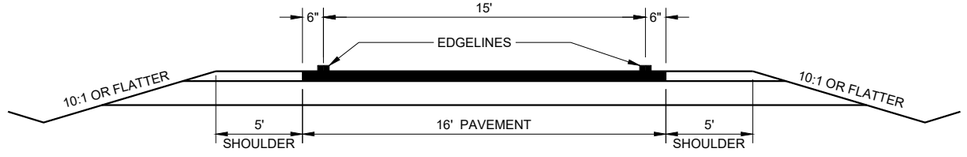
(2) FOR PERMANENT CROSSOVER, INSTALL PERMANENT DELINEATORS ACCORDING TO SECTION 633 OF THE STANDARD SPECIFICATIONS.





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
February 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

SDD 15D11 - 08

SDD 15D11 - 08

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)
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- REMOVE PAVEMENT MARKING (SEE GENERAL NOTES)
- WORK AREA

GENERAL NOTES

FOR WORK ON ROADWAYS WITH SPEEDS GREATER THAN 45MPH, USE SDD 15D12.

THIS LANE CLOSURE DETAIL IS TYPICAL FOR CLOSING THE LEFT LANE. FOR A RIGHT LANE CLOSURE, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36"X 36" SIGNS MAY BE USED IF APPROVED BY REGIONAL TRAFFIC UNIT.

"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.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE MAY BE MOUNTED ON TEMPORARY SUPPORTS.

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 TO PROVIDE A MINIMUM OF 200 FEET (500' DESIRABLE) DISTANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE

W20-1A, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

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

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROW BOARDS AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

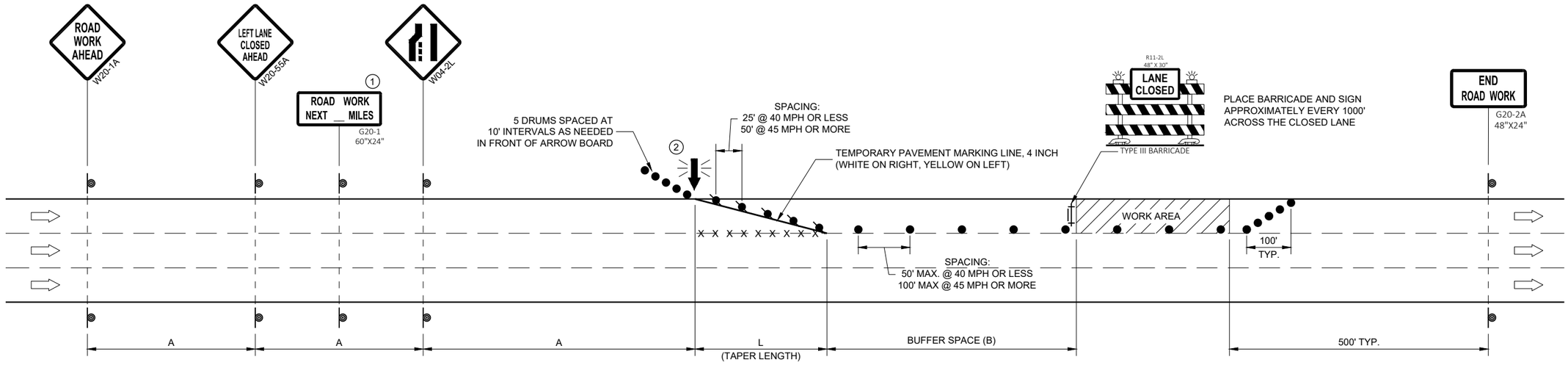
BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

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

(1) OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

(2) WHERE THE SHOULDER OR TERRACE HAS INSUFFICIENT SPACE TO PLACE THE ARROW BOARD AS SHOWN, PLACE THE ARROW BOARD AT THE END OF THE TAPER.



POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	TAPER LENGTH (12 FT. LANE) (L) FEET	BUFFER SPACE (B) FEET
25	200'	125'	55'
30	200'	180'	85'
35	350'	245'	120'
40	350'	320'	170'
45	500'	540'	220'

TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15D20 - 06a

6

SDD15D20 - 06a

LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- FLASHING ARROW BOARD
- WORK AREA

GENERAL NOTES

THIS DETAIL IS TYPICAL FOR CLOSING THE RIGHT SHOULDER. FOR CLOSING THE LEFT SHOULDER, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR DIVIDED ROADWAYS WITH ANY NUMBER OF TRAVEL LANES.

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

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

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

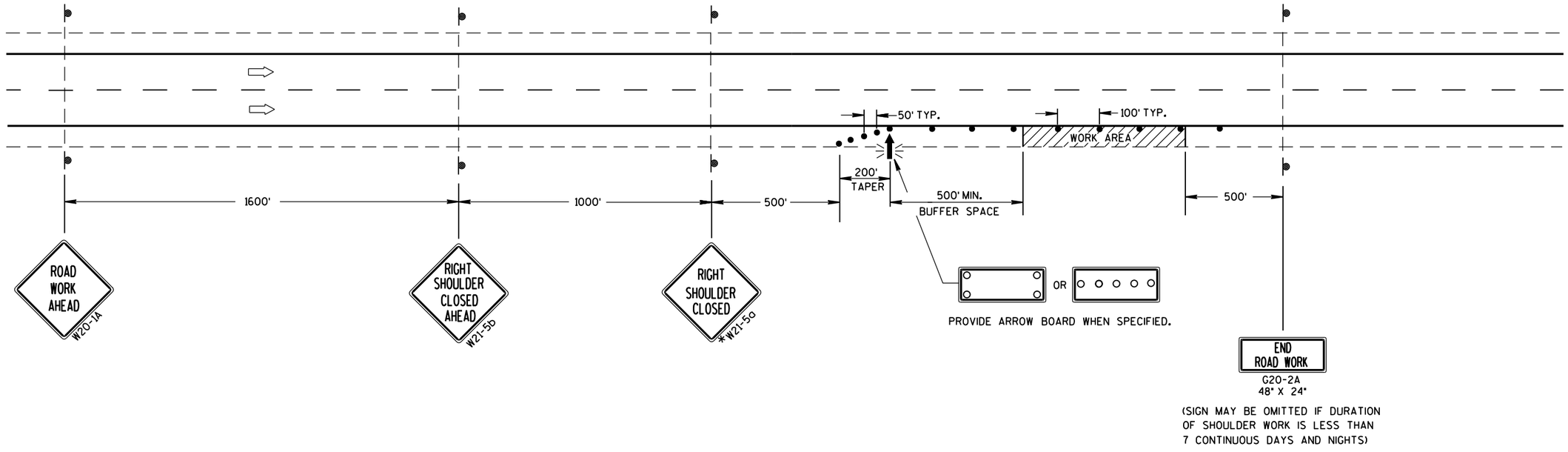
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

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

WHEN A 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.

*FOR SHORT DURATION SHOULDER WORK OF LESS THAN ONE HOUR, THE W21-5a SIGN MAY BE OMITTED.



TRAFFIC CONTROL SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2016 — DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO[illegible] SAFETY ENGI[illegible]

FHWA

6

S.D.D. 15 D 27-3

LEGEND

SIGN ON PERMANENT SUPPORT

TRAFFIC CONTROL DRUM

DIRECTION OF TRAFFIC

WORK ZONE

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY THE REGIONAL TRAFFIC UNIT.

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

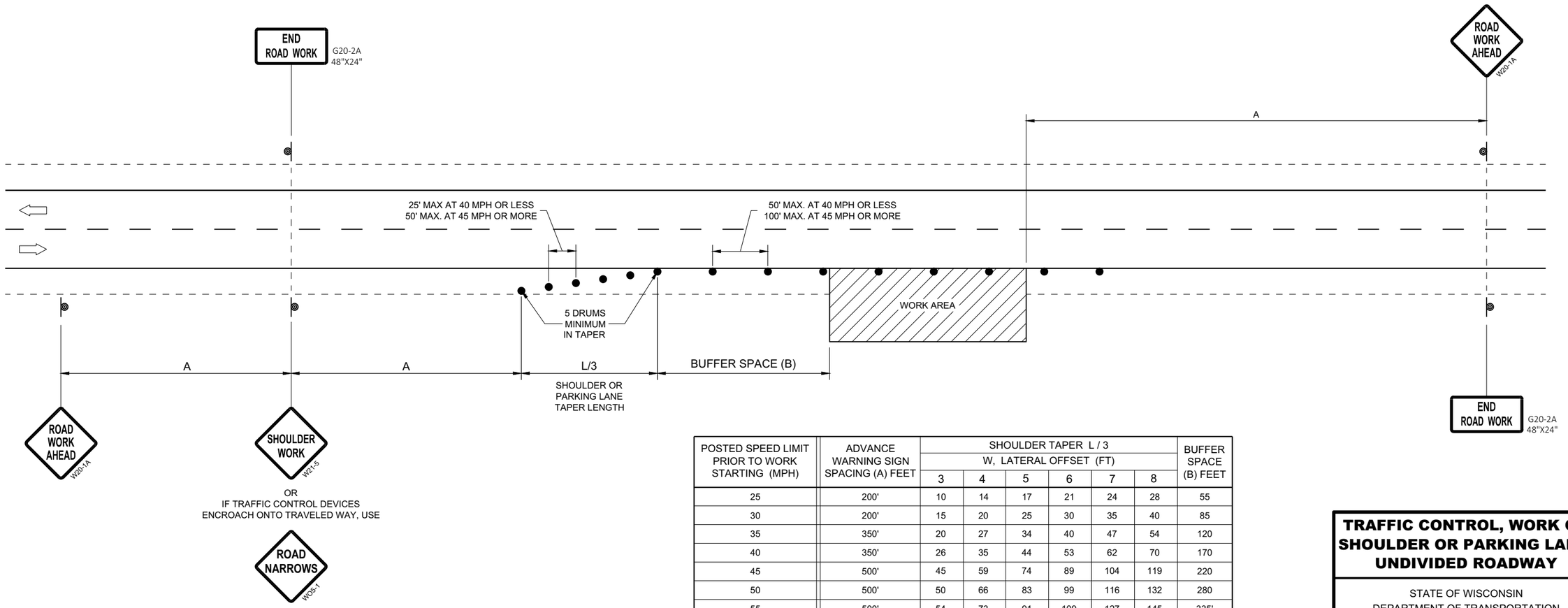
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

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

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

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

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



POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	SHOULDER TAPER L / 3 W, LATERAL OFFSET (FT)						BUFFER SPACE (B) FEET
		3	4	5	6	7	8	
25	200'	10	14	17	21	24	28	55
30	200'	15	20	25	30	35	40	85
35	350'	20	27	34	40	47	54	120
40	350'	26	35	44	53	62	70	170
45	500'	45	59	74	89	104	119	220
50	500'	50	66	83	99	116	132	280
55	500'	54	73	91	109	127	145	335'

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2020
DATE

/S/ Andrew Heidtke
STATEWIDE WORK ZONE T SAFETY ENGINEER

FHWA

6

SDD 15D28 - 04

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TEMPORARY DELINEATOR (WHITE, SINGLE DELINEATOR)
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- TEMPORARY RAISED PAVEMENT MARKERS (TWO WAY YELLOW)
- TEMPORARY STEEL PLATE BEAM GUARD AND END TREATMENT
- DIRECTION OF TRAFFIC
- REMOVE PAVEMENT MARKINGS
- WORK AREA

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" 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.

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.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL ON STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

EQUIPMENT, VEHICLES, OR MATERIAL SHOULD NOT BE STORED IN BUFFER SPACE.

(1) IF ADVISORY SPEED IS GREATER THAN 30 MPH, USE THE WO1-4 SIGN. IF ADVISORY SPEED IS 30 MPH OR LESS, USE THE WO1-3 SIGN.

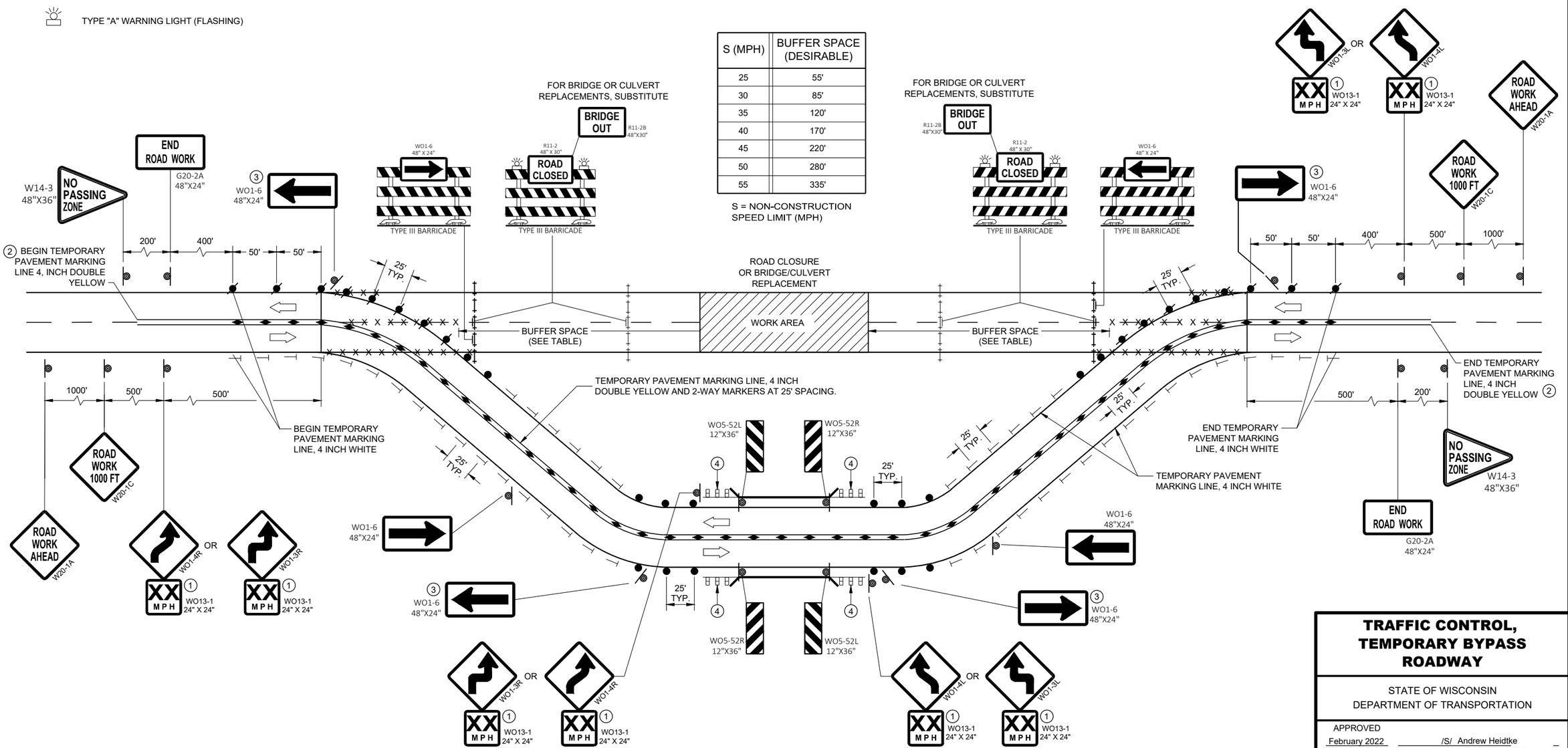
(2) WHEN THE DISTANCE TO / FROM THE NEXT CLOSEST NO-PASSING ZONE IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES AS INDICATED IN THE SPECIFICATIONS, THE TWO ZONES SHALL BE CONNECTED.

(3) OMIT THESE W01-6 SIGNS IF THE ADVISORY SPEED OF THE CURVE IS GREATER THAN 30 MPH.

(4) TEMPORARY STEEL PLATE BEAM GUARD AND END TREATMENT WHEN INCLUDED IN THE CONTRACT. FOR LAYOUT, SEE DETAILS ELSEWHERE IN THE PLAN.

S (MPH)	BUFFER SPACE (DESIRABLE)
25	55'
30	85'
35	120'
40	170'
45	220'
50	280'
55	335'

S = NON-CONSTRUCTION SPEED LIMIT (MPH)



TRAFFIC CONTROL, TEMPORARY BYPASS ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

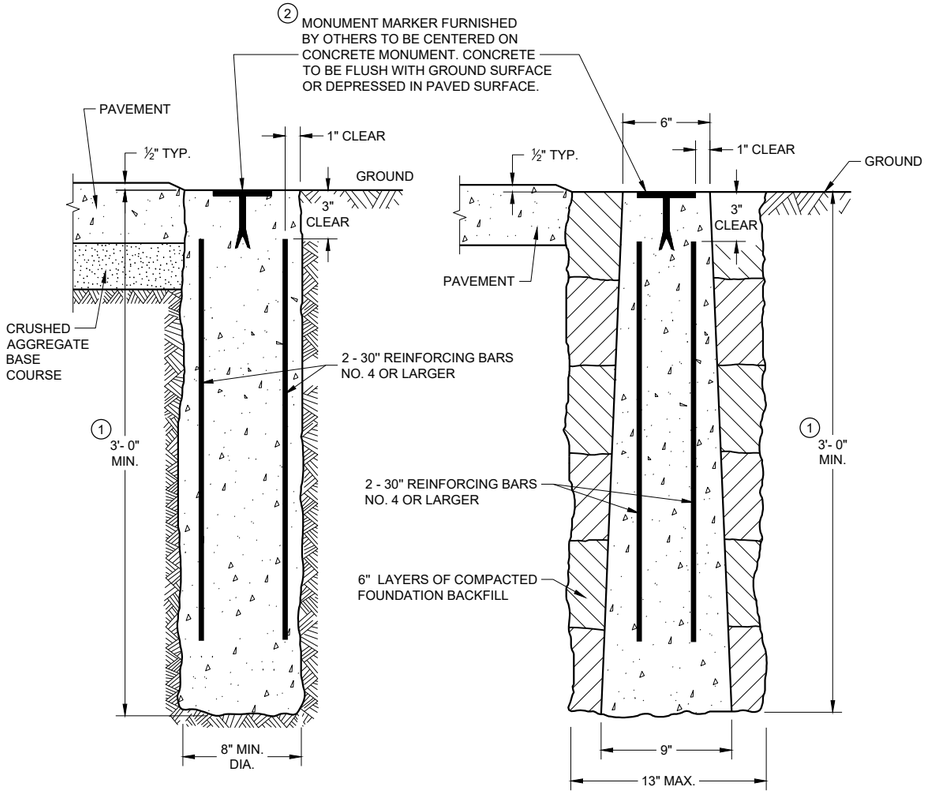
APPROVED
February 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

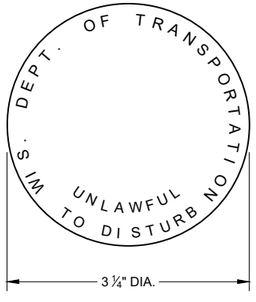
SDD 15D31 - 04

SDD 15D31 - 04



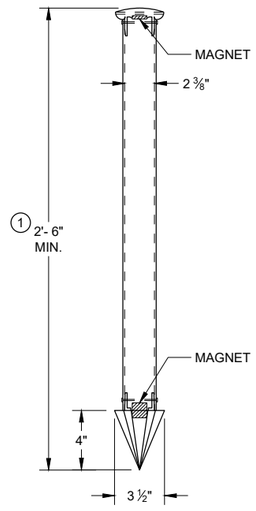
CAST-IN-PLACE **PRECAST**

CONCRETE MONUMENTS
TYPE A

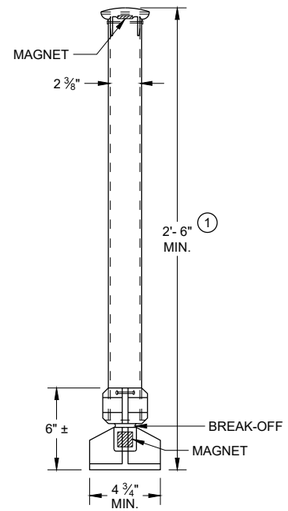


② **WIS DOT MONUMENT MARKER LOGO**

FOR TYPES "A", "C" & "D"

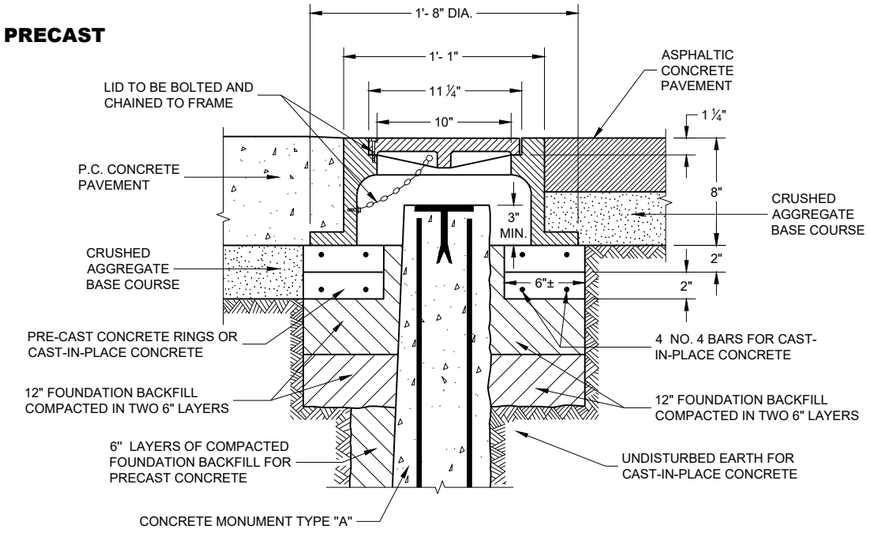


TYPE C
DRIVEN MONUMENT



TYPE D
NON-DRIVEN
BREAK-OFF MONUMENT

ALUMINUM MONUMENTS
(INCLUDES MARKER)



CAST IRON MONUMENT COVER
(APPROXIMATE WEIGHT 95 LBS)

GENERAL NOTES

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

DETAILED DRAWINGS OF PROPOSED ALTERNATE DESIGNS FOR METAL MONUMENTS OR MONUMENT COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

PERMANENT MAGNETS SHALL BE INSERTED NEAR THE TOP AND BOTTOM OF ALL ALUMINUM MONUMENTS SO THE MONUMENT CAN EASILY BE DETECTED BY A METAL DETECTOR.

THE CAST IRON MONUMENT COVER SHALL BE A "NON-ROCKING" TYPE. ADJUSTMENT OF THE COVER TO GRADE MAY BE ACCOMPLISHED BY THE USE OF MORTAR AND BRICK, OR BY EITHER PRECAST OR CAST-IN-PLACE REINFORCED CONCRETE GRADE RINGS.

MONUMENTS SHALL BE LOCATED AND PLACED AT THE DIRECTION OF THE ENGINEER.

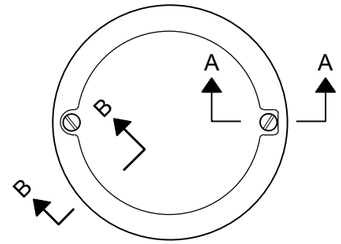
ALUMINUM MONUMENTS AND MONUMENT COVERS SHALL BE MADE FROM AN ALUMINUM AND MAGNESIUM ALLOY AS DETERMINED BY THE MANUFACTURER.

THE MONUMENT COVERS DETAILED ON THIS DRAWING ARE NOT EQUAL ALTERNATES. MONUMENT COVERS SHALL BE CAST IRON UNLESS ALUMINUM IS SPECIFIED ELSEWHERE IN THE CONTRACT.

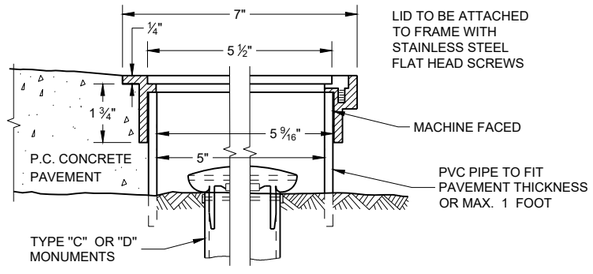
MONUMENT SHALL BE CAST-IN-PLACE CONCRETE UNLESS PRECAST CONCRETE OR ALUMINUM MONUMENTS ARE SPECIFIED IN THE CONTRACT OR PERMITTED BY THE ENGINEER.

① MINIMUM LENGTH SHALL BE 4'-0" FOR MONUMENTS INSTALLED IN PAVED AREAS.

② AN OFFICIAL COUNTY MONUMENT MARKER SUPPLIED BY A COUNTY MAY BE REQUIRED FOR SOME SECTION CORNERS AND WITNESS MONUMENTS INSTEAD OF THIS WISDOT MARKER.



TOP VIEW



SECTION B-B **SECTION A-A**

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
DATE

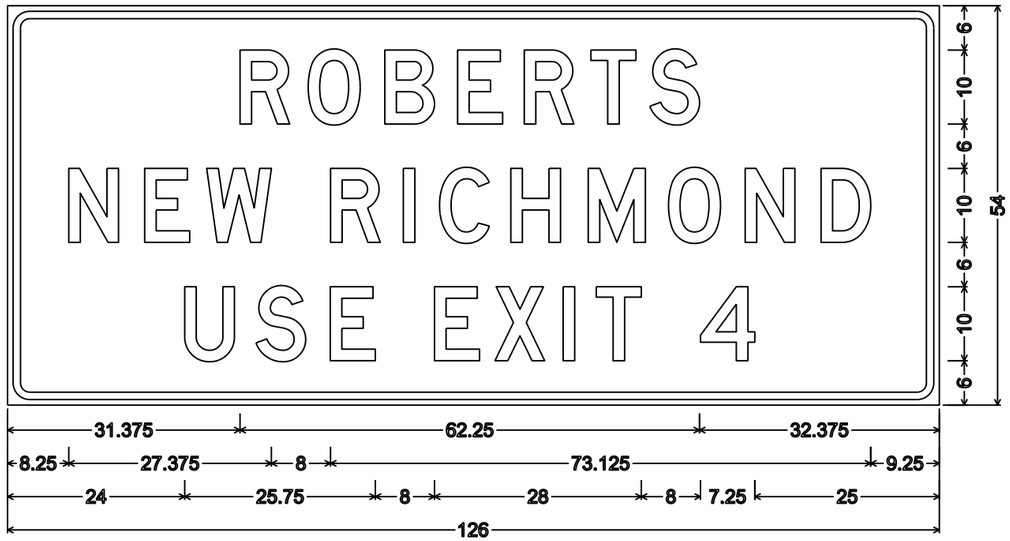
/S/ Raymond A. Kumapayii
CHIEF SURVEYING AND MA
ENGINEER

FHWA

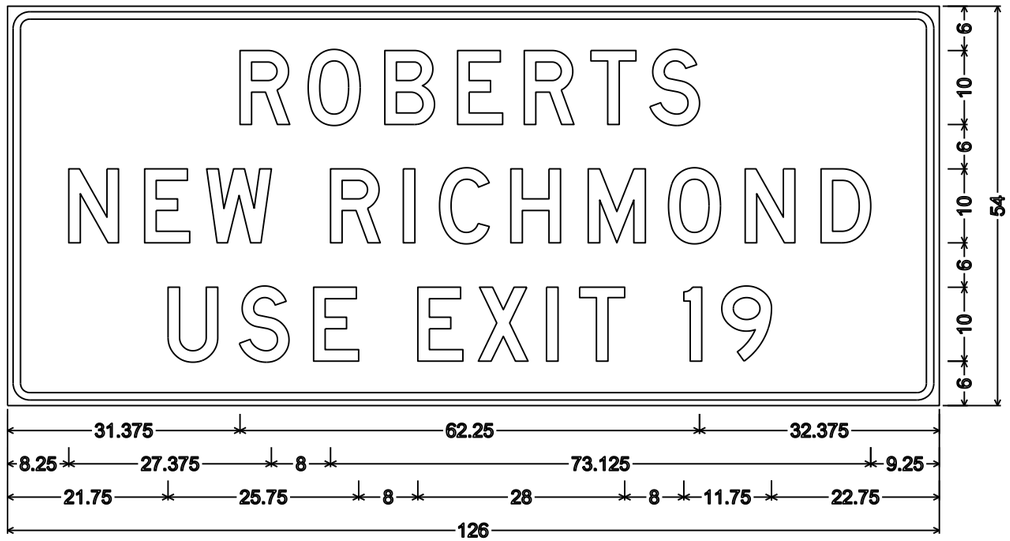
6

SDD 16A01 - 07

SDD 16A01 - 07



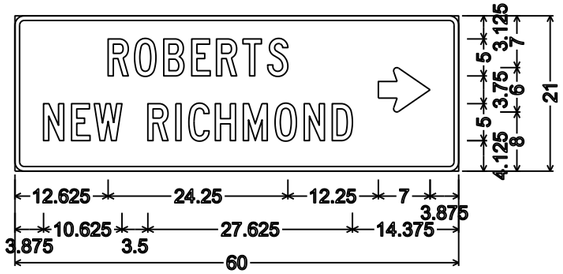
3.000" Radius, 1.000" Border, 0.750" Indent,
"ROBERTS" D; "NEW" D; "RICHMOND" D; "USE" D; "EXIT" D; "4" D



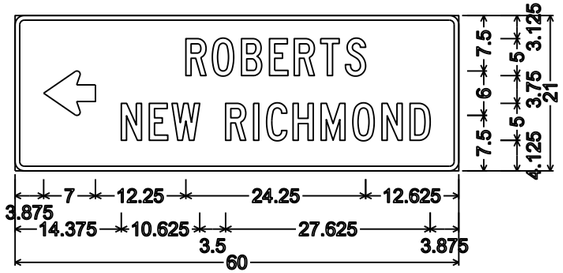
3.000" Radius, 1.000" Border, 0.750" Indent,
"ROBERTS" D; "NEW" D; "RICHMOND" D; "USE" D; "EXIT" D; "19" D

NOTES

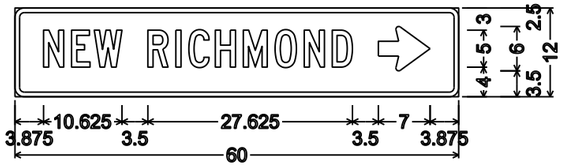
1. Fixed Message Type II Signs - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C except as noted



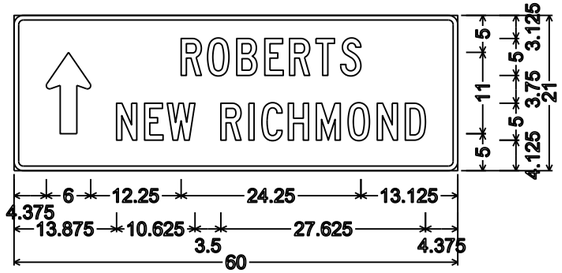
D1-2;
1.250" Radius, 0.625" Border



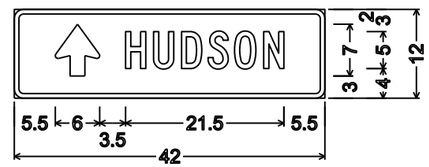
D1-2;
1.250" Radius, 0.625" Border



D1-1;
1.250" Radius, 0.625" Border



D1-2;
1.250" Radius, 0.625" Border



D1-1;
1.250" Radius, 0.625" Border

PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST CROIX	TEMPORARY SIGNING	SHEET NO: PRE2... 387	E

NOTES

1. Fixed Message Type II Signs - Type F Reflective

2. Color:
   Background - Orange
   Message - Black

3. Message Series -C

A= 12.5 SQ. FT.
BORDER= 0.75"
RADIUS= 2"

FM-01

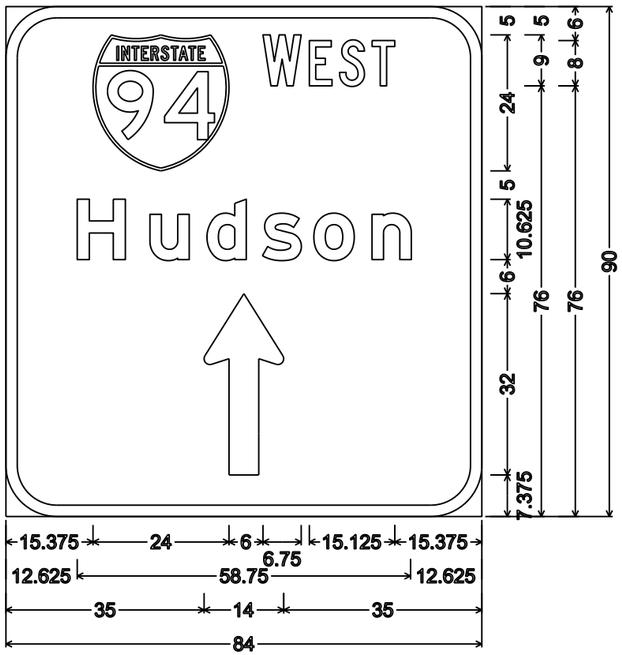
MOUNT ON TYPE III BARRICADE

7

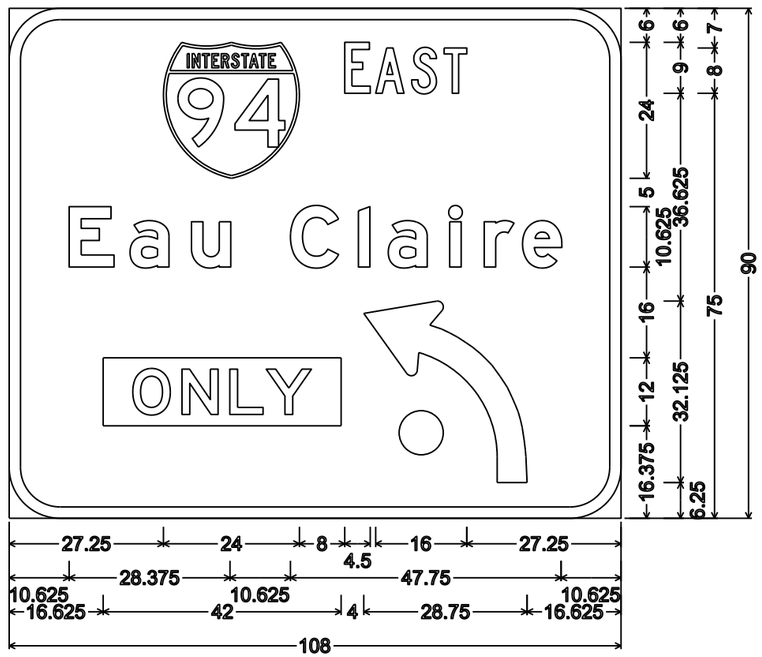
7

NOTES

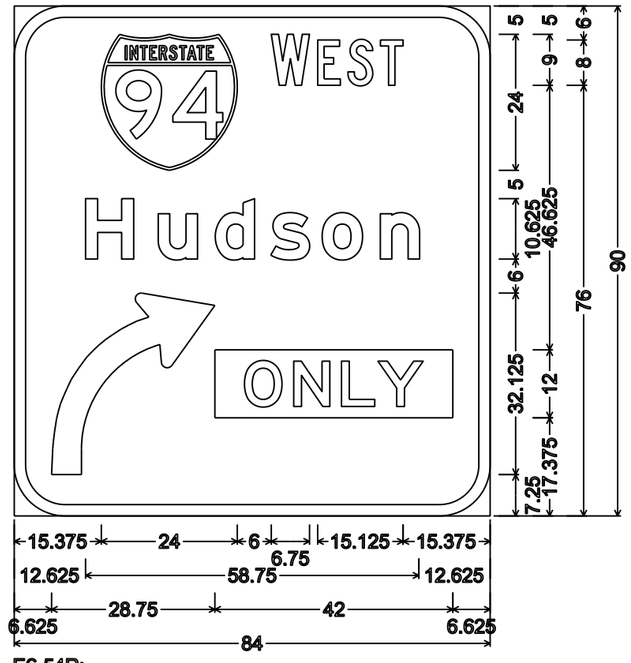
1. Sign is Type I - Type SH Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - As noted
4. Only Panel on .040" aluminum with Type F reflective sheeting with black non-reflective message



E6-54A;
9.000" Radius, 2.000" Border,
"WEST" C; "Hudson" E Mod



9.000" Radius, 2.000" Border,
"EAST" C; "Eau" E Mod; "Claire" E Mod



E6-54R;
9.000" Radius, 2.000" Border,
"WEST" C; "Hudson" E Mod

7

7

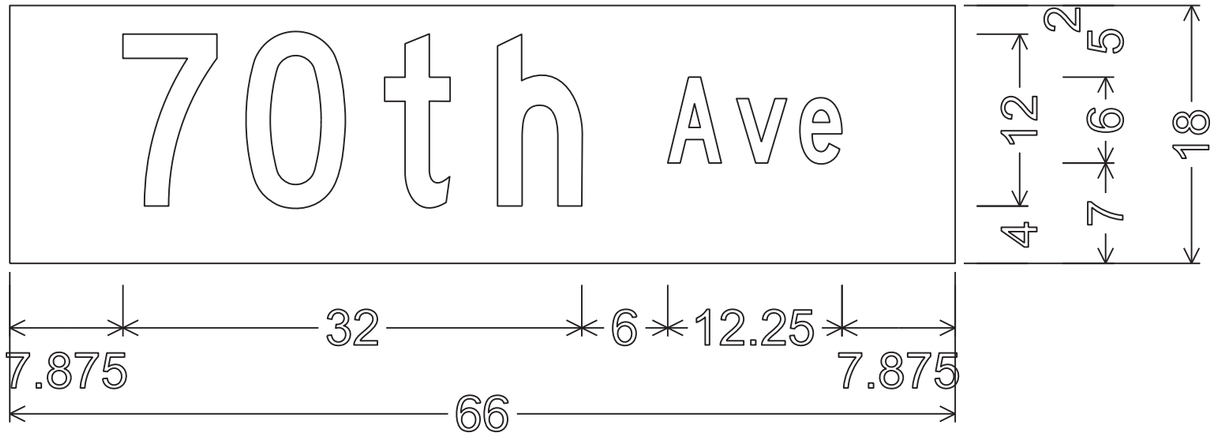
PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST CROIX	PERMANENT SIGNING	SHEET NO: PRE2... 389	E

FILE NAME : C:\CAEfiles\Projects\tr_d6\6552a517.dgn PLOT DATE : 09-MAY-2017 10:16 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : 26.737800:1.000000

WISDOT/CADDS SHEET 42

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - C



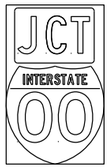
M1-94H; No border

7

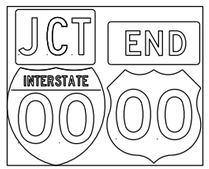
7

PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST CROIX	PERMANENT SIGNING	SHEET NO: 390	E

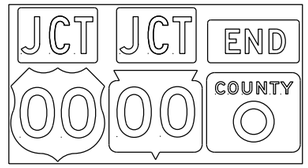
TYPICAL ASSEMBLIES



J1-1



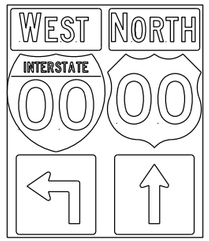
J1-2



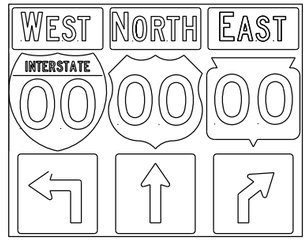
J1-3

JR1-1

J2-1

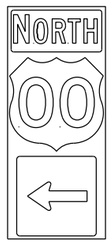


J2-2

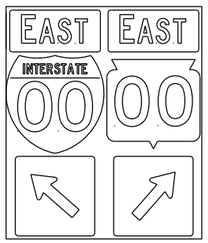


J2-3

JV
(Typical Vertical J-Assembly
See Note 10 and 11)



J3-1



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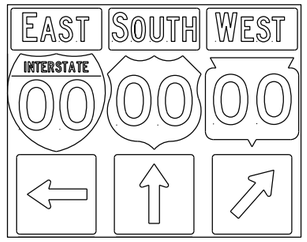

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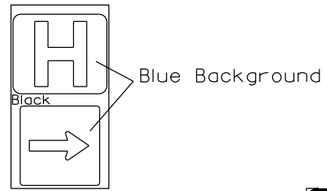
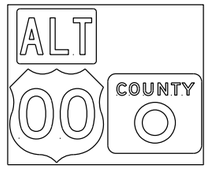


JH-1

J4-1



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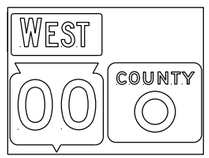

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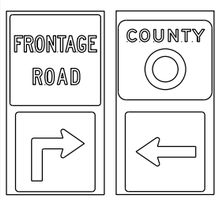
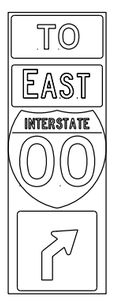
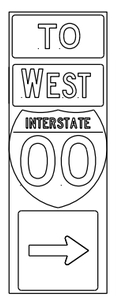


J12-1

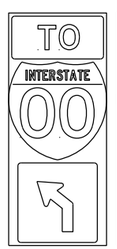
J13-1



J32-1



J33-1



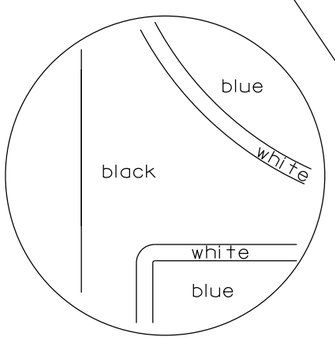
J22-1

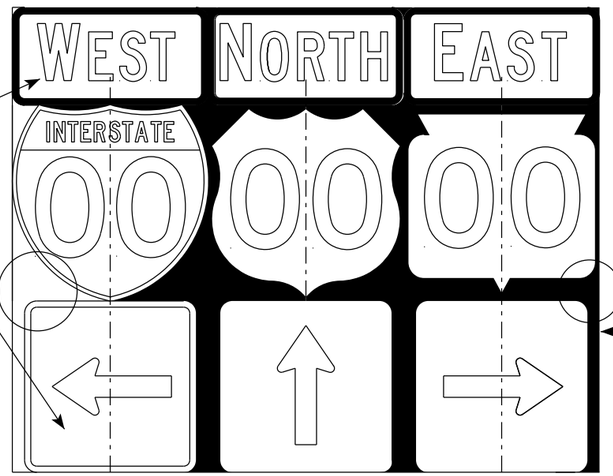
J23-1

JR13-1

JR23-1

JR99-1





NOTES

1. Signs are Type II - Type H Reflective
2. Color:
   Background - Black Non-reflective
   Message - see Note 5
3. Message Series - See Note 5
4. Corners shall be square or rounded if base material is plywood. If base material is metal the corners shall be rounded.
5. The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
6. Certain marker heads require the component pieces to be the same color. As an example, all the components used with an M1-1 Interstate marker shall be blue.
7. Single panel j-assemblies shall only be used with route marker shields that are same size. If the route marker shields are different size use multiple piece component.
8. Route assemblies that have 24 inch route shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have one horizontal splice between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 inches or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
9. Route assemblies that have 36 inch shields and have dimensions greater than 48 inchs (both vertical and horizontal) shall have two horizontal splices. One horizontal splice shall be between the cardinal direction and route shields and the other horizontal splice shall be between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
10. All Vertical J Assemblies are given a Sign Code of JV
11. For JV Assemblies that have a mixture of Interstate and non Interstate shields, arrows and cardinals shall be white on blue.

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

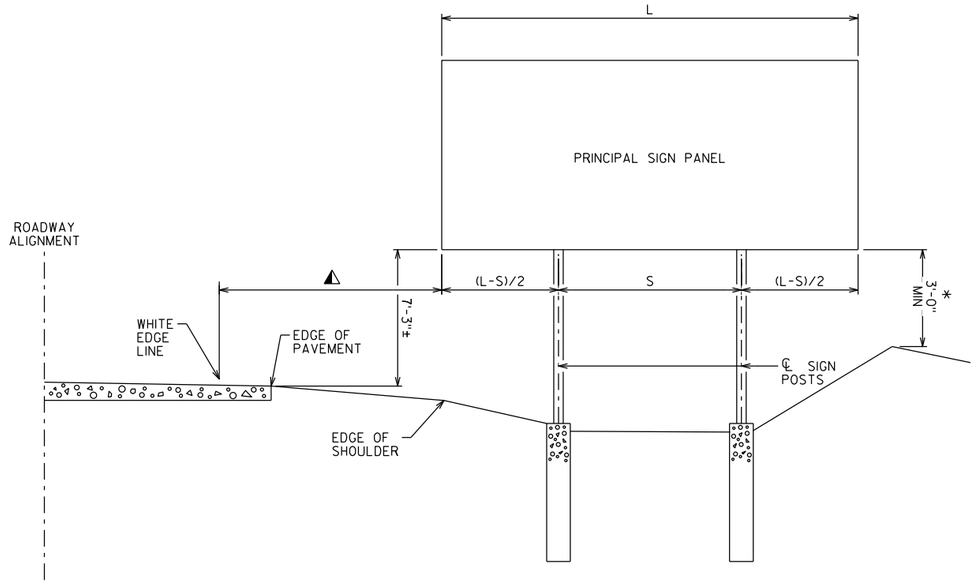
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

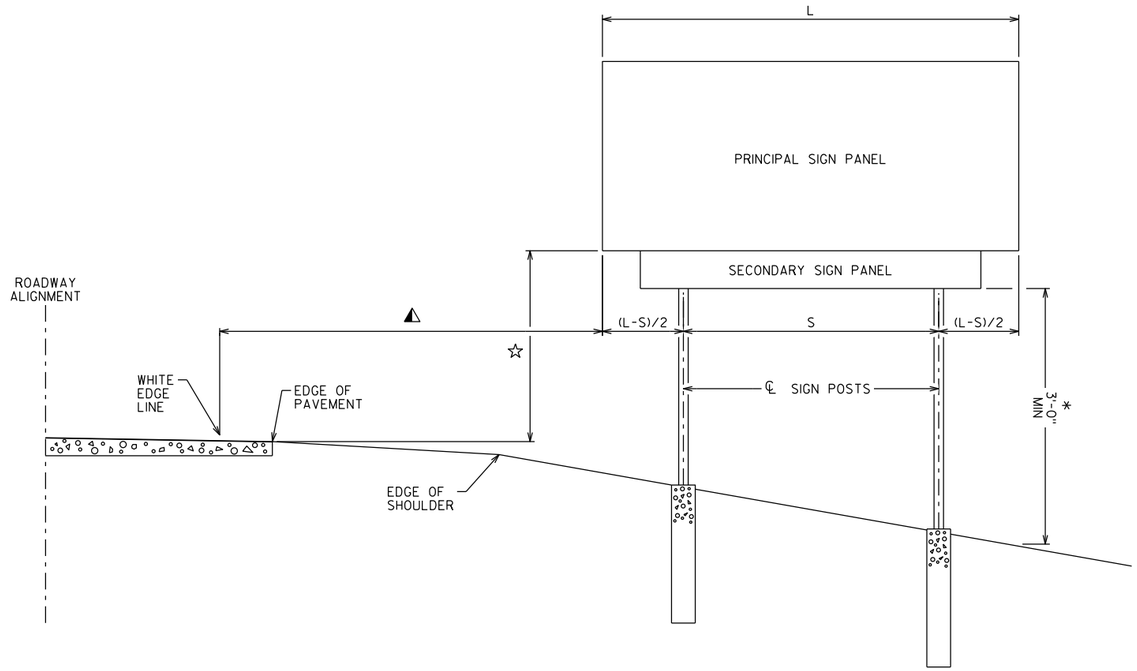
DATE 3/18/21 PLATE NO. A2-1S.9

PROJECT NO:

SHEET NO: 391 **E**



INSTALLATION WITHOUT SECONDARY SIGN



INSTALLATION WITH SECONDARY SIGN

TYPE 1 SIGN INSTALLATION NOTES:

FOR A 2-POST INSTALLATION, "S" EQUALS 3L/5, BUT SHALL NOT BE LESS THAN 6'-0".

FOR A 3-POST INSTALLATION, "S" EQUALS 5L/7, BUT SHALL NOT BE LESS THAN 12'-0". THE SPACING BETWEEN ANY TWO POSTS SHALL NOT BE LESS THAN 6'-0".

⚠ UNLESS NOTED IN THE PLANS, THE SIGN OFFSET DISTANCE SHALL BE A MINIMUM OF 17'-6" FROM THE WHITE EDGE LINE, DESIRABLE 30'-0".

THE ± TOLERANCE SHOWN ON THIS SHEETS IS 3".

THE VERTICAL SIGN HEIGHT CLEARANCES SHOWN ON THIS SHEET ARE MEASURED FROM THE BOTTOM OF THE SIGN PANEL TO THE NEAR EDGE OF PAVEMENT.

☆ THE VERTICAL CLEARANCE SHALL BE 8'-3"± WHEN THE SECONDARY SIGN HEIGHT IS 3'-0" OR LESS. FOR SECONDARY SIGN HEIGHTS LARGER THAN 3'-0", THE VERTICAL CLEARANCE TO THE BOTTOM OF THE SECONDARY SIGN PANEL SHALL BE 5'-3"±.

* THE VERTICAL SIGN GROUND CLEARANCE ON RIGHT END OF SIGN SHALL BE A MINIMUM OF 3'-0"±.

POST LENGTHS SHOWN IN THE MISCELLANEOUS QUANTITIES ARE ESTIMATED LENGTHS. THE CONTRACTOR SHALL VERIFY POST LENGTHS AT THE TIME OF FINAL GRADING.

REFER TO THE TRAFFIC ENGINEERING OPERATIONS AND SAFETY MANUAL FOR FURTHER GUIDANCE ON MINIMUM VERTICAL CLEARANCE REQUIREMENTS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE BTO TYPE I SIGNS

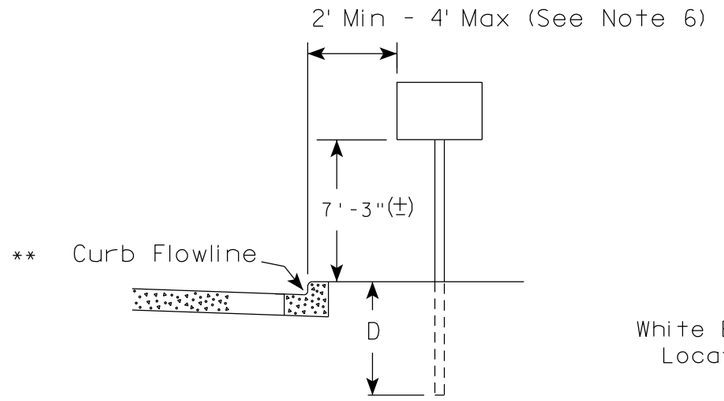
DRAWN BY | PLANS CK'D.

TYPICAL TYPE I SIGN INSTALLATION

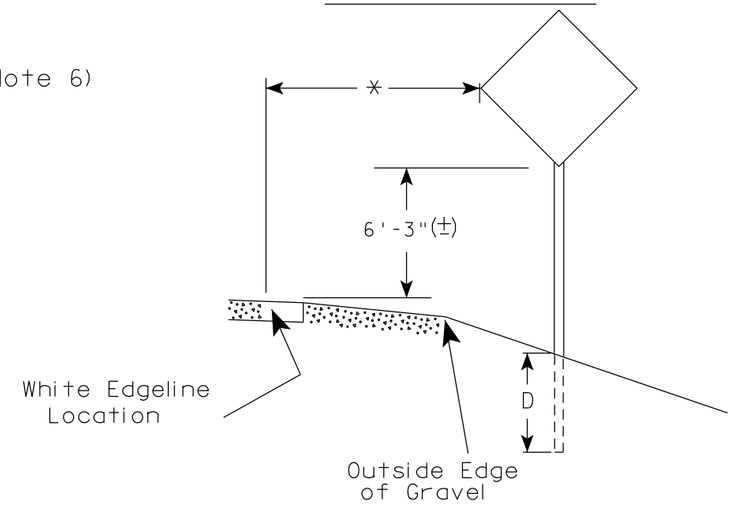
SHEET A4-1.10

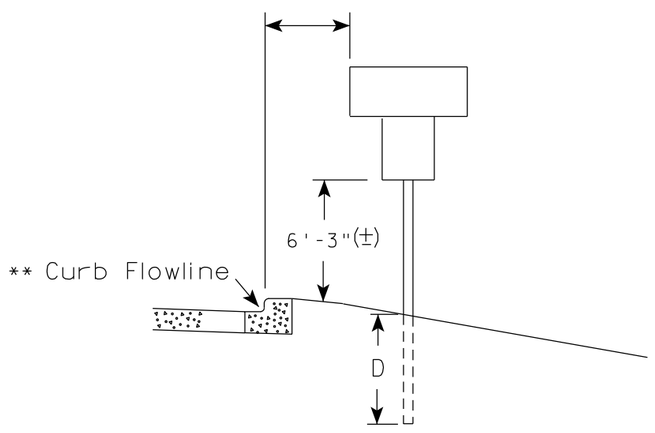
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 392 | E

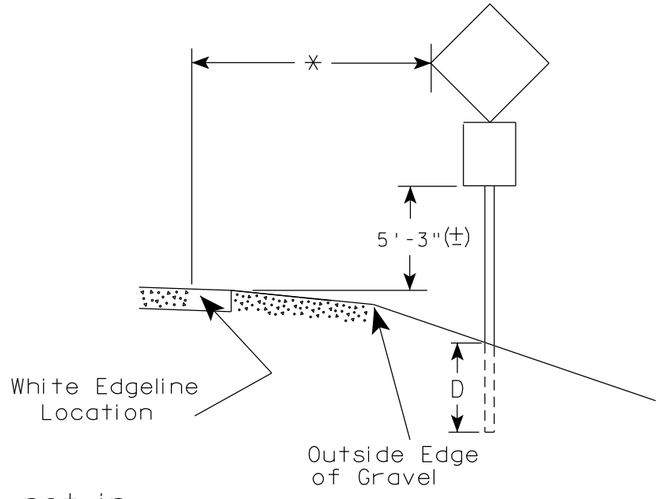
URBAN AREA



RURAL AREA (See Note 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. Offset of signs is measured from the flow line.

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

POST EMBEDMENT DEPTH

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

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 directd by the Engineer.

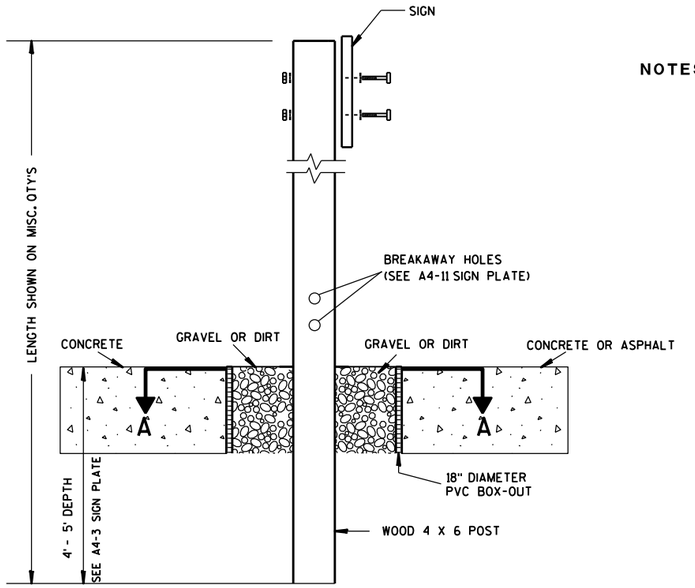
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

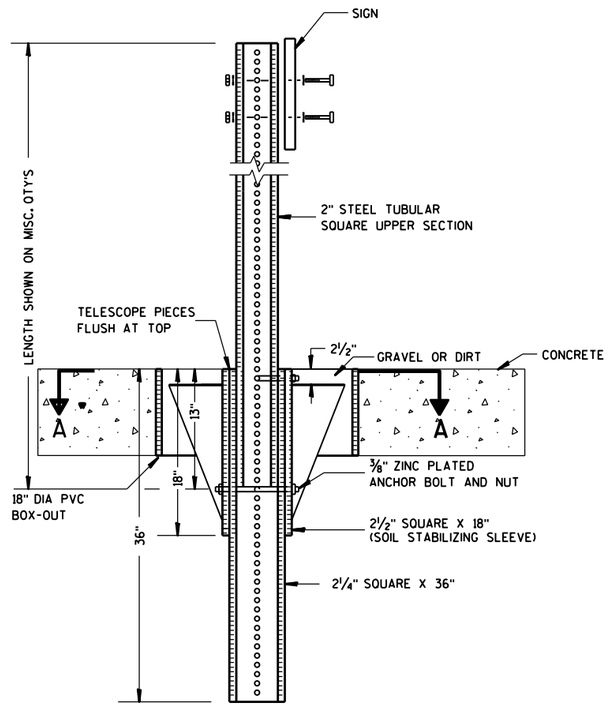
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 393	E



ELEVATION VIEW

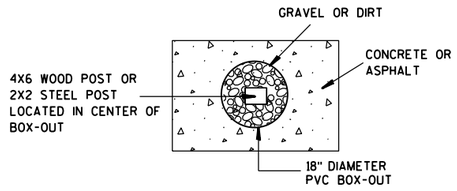
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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

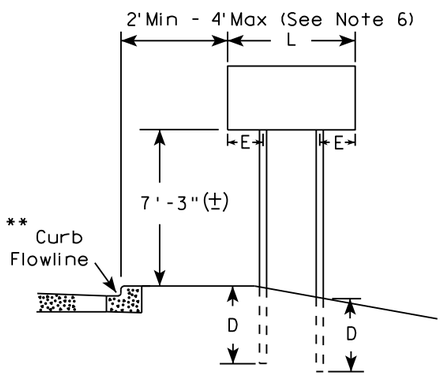
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/27/14 PLATE NO. A4-3B.1

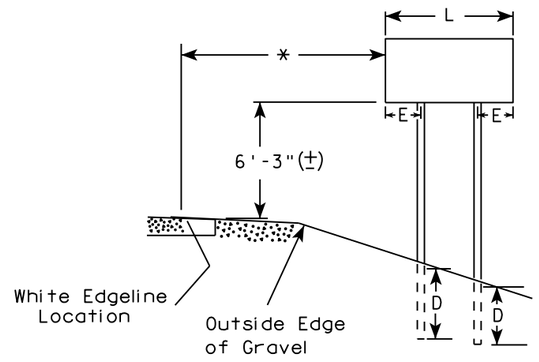
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

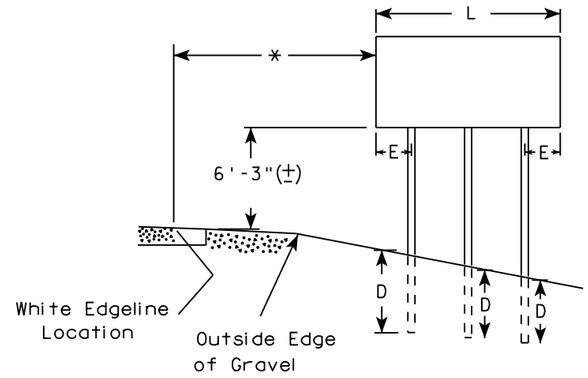
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

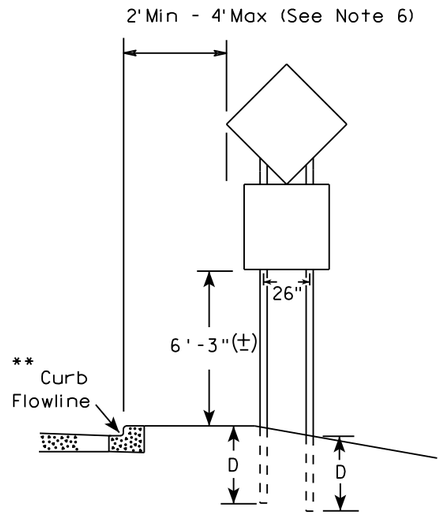
URBAN AREA



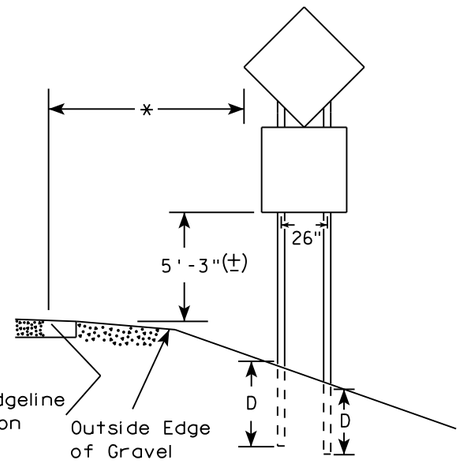
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)		
	L	E
***	Greater than 48" Less than 60"	12"
	60" to 108"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

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.

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

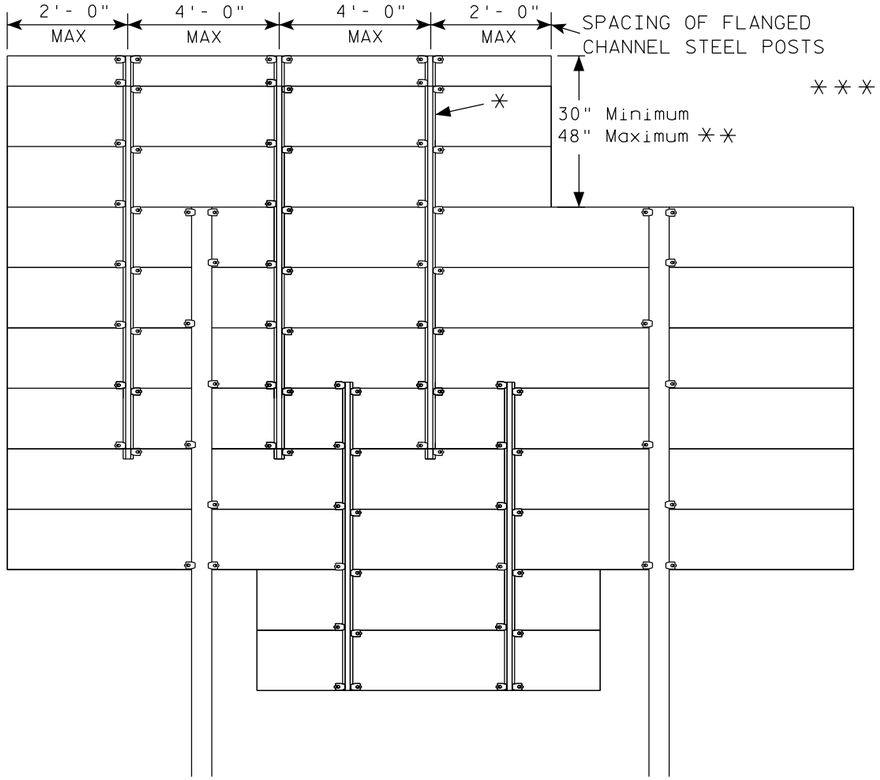
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-4.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 395	E

GROUND MOUNTED SIGN



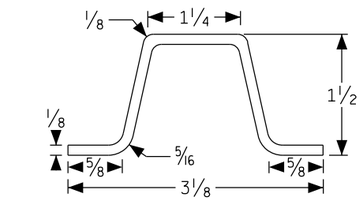
✳=2.00 lb/ft AND 4.00 lb/ft FLANGED CHANNEL, MIN. YIELD STRENGTH = 60,000 PSI (GRADE 60) GALVANIZED

✳✳=FOR 48" HEIGHT PANELS ON OVERHEAD STRUCTURES, ENTIRE SIGN SHALL BE CENTERED VERTICALLY ABOUT THE DEPTH OF THE TRUSS.

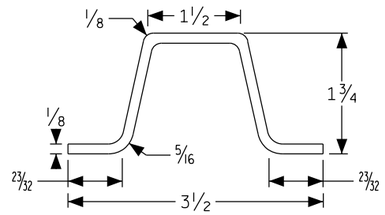
✳✳✳ THESE SPACING DISTANCES SHALL ONLY BE USED WHEN THE MAIN SIGN HAS A MAXIMUM HEIGHT (DIMENSION H) OF 15 FT OR LESS. FOR SIGNS WITH A HEIGHT OF GREATER THAN 15 FT, STRUCTURAL CALCULATIONS SHALL BE PERFORMED.

FLANGE CHANNEL DETAILS

NOT TO SCALE

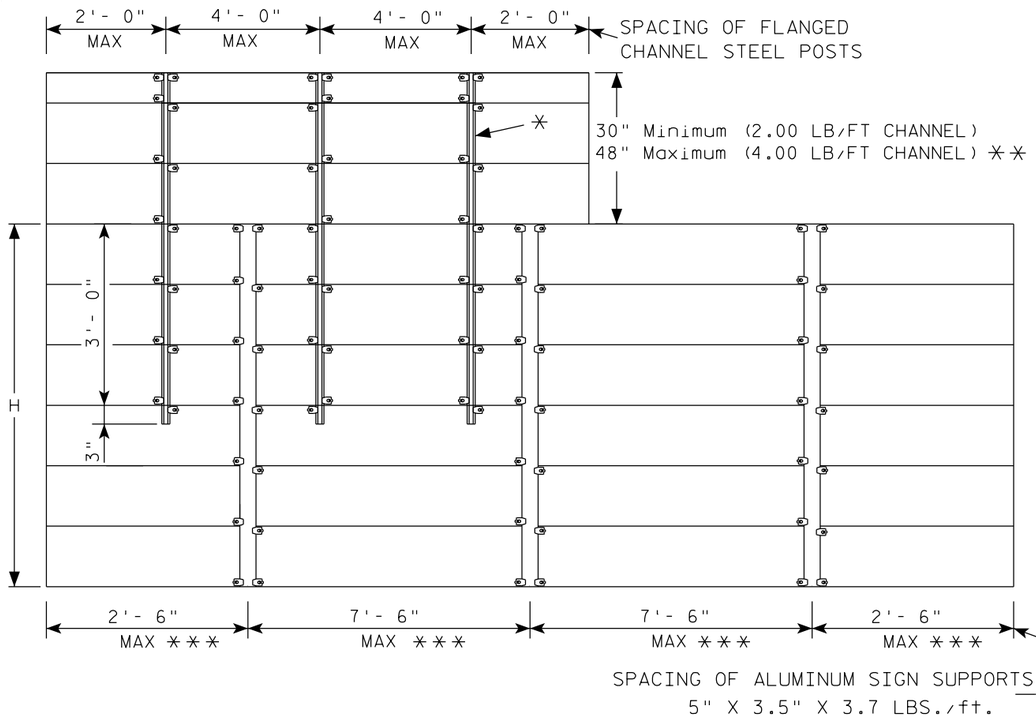


2.00 LB/FT CHANNEL



4.00 LB/FT CHANNEL

SIGN BRIDGE MOUNTED SIGN



GENERAL NOTES

1. Flanged channel steel posts shall conform to size and material above, and shall be considered as incidental to other items in the contract.

2. Number of Flanged channel steel supports varies with length of panel and shall be spaced as shown:

   PANEL LENGTH 8'-0" OR LESS = 2 CHANNELS
   PANEL LENGTH 9'- 0" - 12'- 0" = 3 CHANNELS
   PANEL LENGTH 13'- 0" OR MORE = 4 CHANNELS

   If the flanged channel steel posts can not be horizontally spaced as shown, they can be moved so as to securely hold the sign.

3. The EXIT NUMBER PANEL shall normally be positioned above the guide sign aligned with the right edge of the guide sign. If the guide sign indicates a left exit, the EXIT NUMBER PANEL shall be aligned with the left edge of the guide sign.

4. If the bolt holes in the top panel (EXIT NUMBER), or sub panel (NEXT EXIT) line up with holes in main sign panel, stitch bolts shall be used in addition to the channels.

5. Provide post clips for each sign as shown. (Please note the differences between a ground mounted versus Sign bridge mounted sign as far as number of clips required on the main supports or beams)

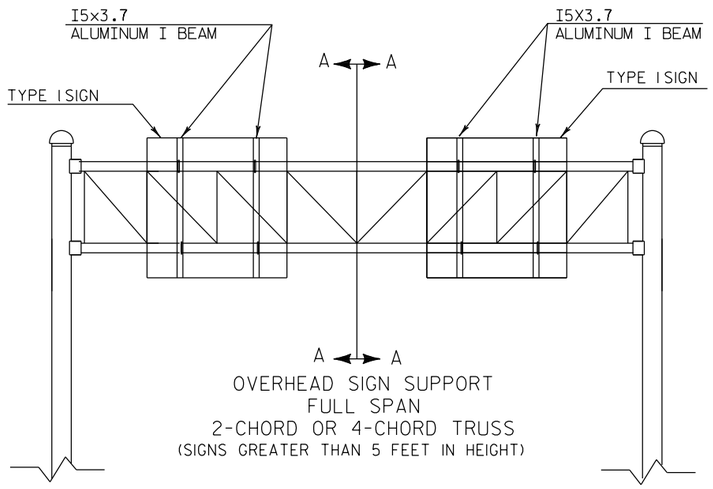
6. Structural steel sign supports shall extend to the top of the main signs, as shown on the above details.

ATTACHMENT OF GUIDE SIGNS TO SUPPORTS

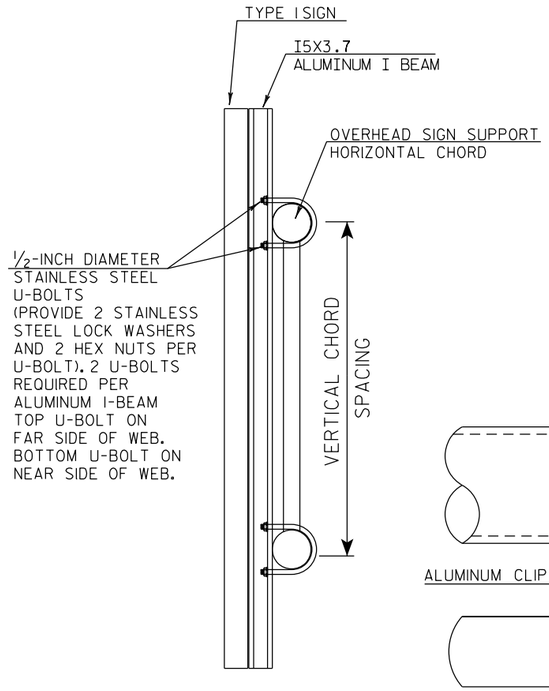
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

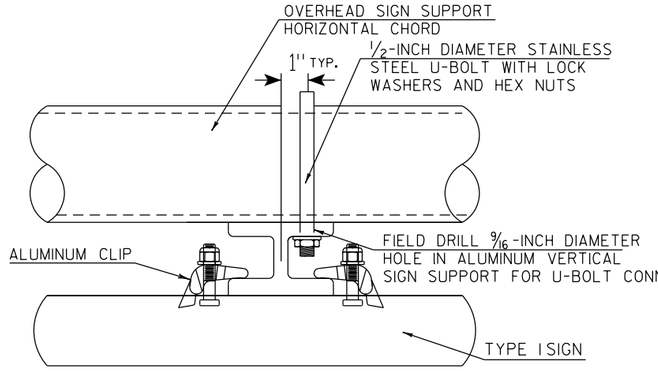
DATE 1/07/20 PLATE NO. A4-6.12



OVERHEAD SIGN SUPPORT
FULL SPAN
2-CHORD OR 4-CHORD TRUSS
(SIGNS GREATER THAN 5 FEET IN HEIGHT)



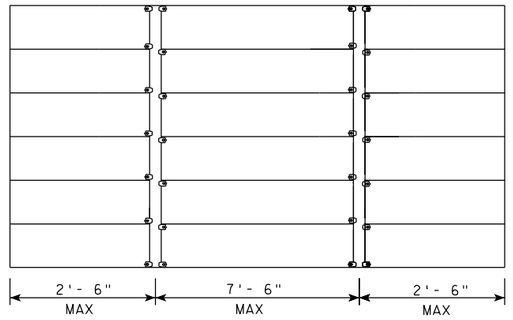
CUT SECTION A-A



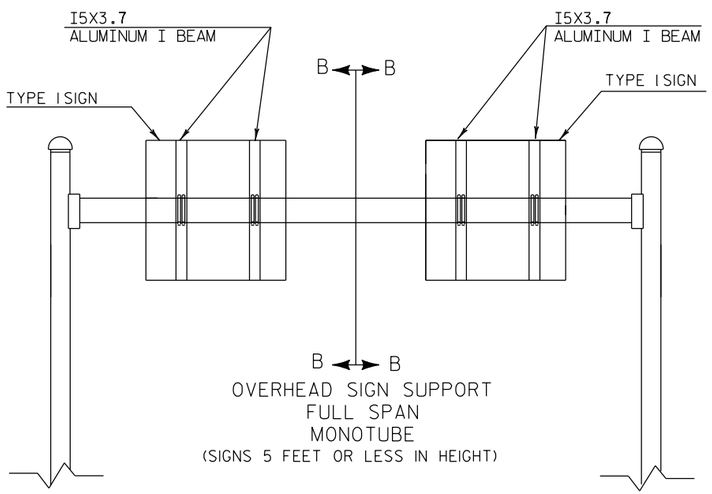
TYPICAL SIGN CONNECTION FOR
2-CHORD OR 4-CHORD TRUSS
PLAN VIEW

GENERAL NOTES

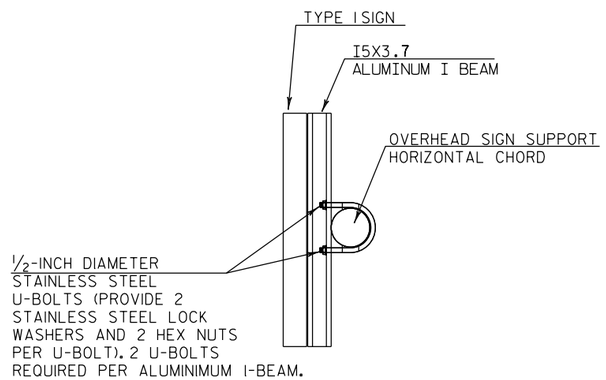
1. USE STAINLESS STEEL U-BOLTS, WASHERS, AND NUTS.
2. USE CLIPS ON EVERY EXTRUDED PANEL JOINT PER SIGN PLATE A4-6.
3. USE ALUMINUM VERTICAL SIGN SUPPORT BEAMS HAVING A 5 INCH BEAM DEPTH AND WEIGHT OF 3.7 LBS PER FOOT.
4. U-BOLTS SHALL BE STAINLESS STEEL AND MANUFACTURED TO THE PROPER SIZE TO FIT THE CHORDS OF THE OVERHEAD SIGN STRUCTURE.
5. DIAMETER OF U-BOLTS SHALL BE AS SHOWN.
6. THE LENGTH OF THE ALUMINUM VERTICAL SIGN SUPPORT BEAMS SHALL BE THE SAME AS THE HEIGHT OF THE SIGN THEY ARE SUPPORTING. BEAM LENGTHS MAY BE LONGER FOR PROPER ATTACHMENT TO CHORDS.
7. MINIMUM NUMBER OF BRACKETS PER SIGN IS TWO. SEE DETAIL BELOW FOR SPACING OF ALUMINUM VERTICAL SIGN SUPPORTS
8. MATERIAL NOTES:
   STAINLESS STEEL U-BOLTS AND LOCKWASHERS ASTM 304.
   STAINLESS STEEL HEX NUTS ASTM A276.
   ALUMINUM I-BEAMS ARE 6061-T6.
9. SLOTTED HOLES IN I-BEAMS ARE NOT ALLOWED



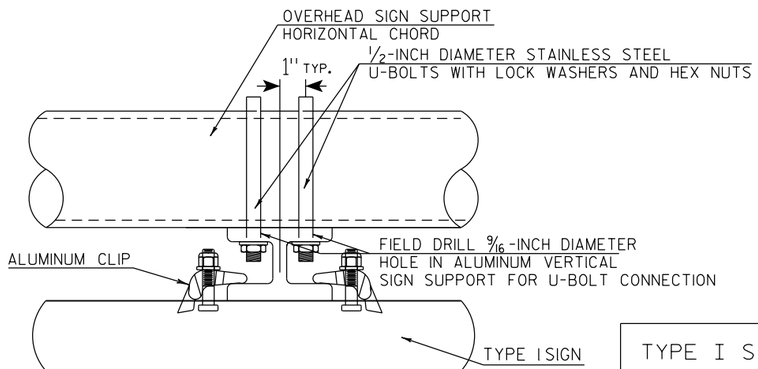
SPACING OF I5X3.7 ALUMINUM
VERTICAL SIGN SUPPORT



OVERHEAD SIGN SUPPORT
FULL SPAN
MONOTUBE
(SIGNS 5 FEET OR LESS IN HEIGHT)



CUT SECTION B-B



TYPICAL SIGN CONNECTION FOR
MONOTUBE
PLAN VIEW

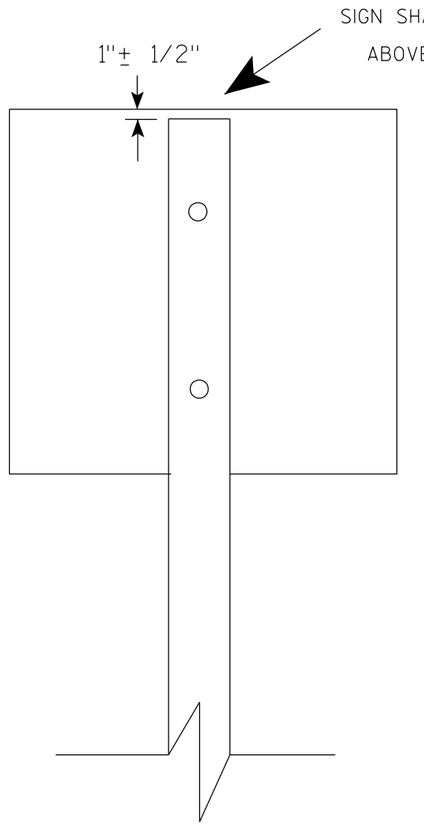
TYPE I SIGN CONNECTION
TO OVERHEAD SIGN SUPPORT

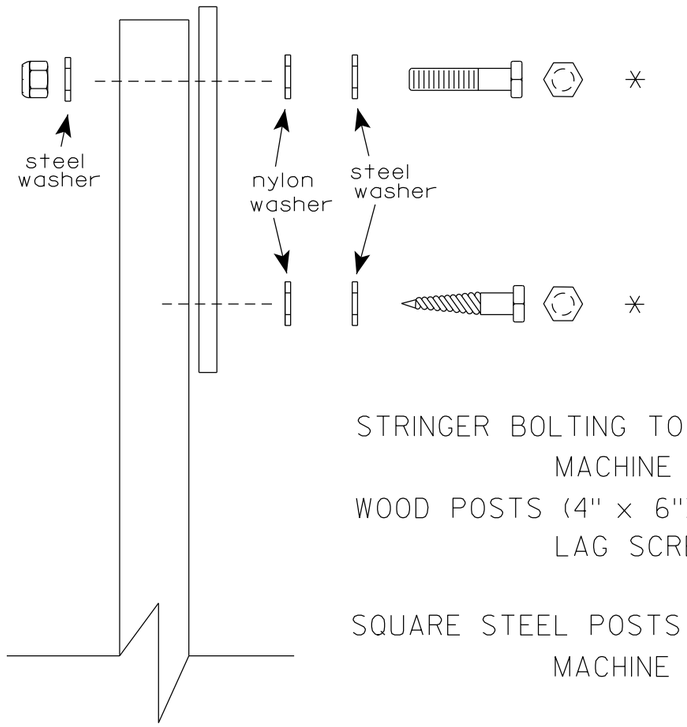
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
State Traffic Engineer

DATE 1/07/20 PLATE NO. A4-7A.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 397	E





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

a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3

b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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

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

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

WOOD POSTS (4" x 6")

LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
3/8" X 4" (STRINGERS ON BACK OF SIGN)

SQUARE STEEL POSTS (2" x 2")

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

RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -

1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON

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

ATTACHMENT OF SIGNS TO POSTS

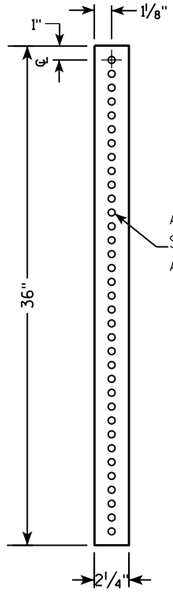
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

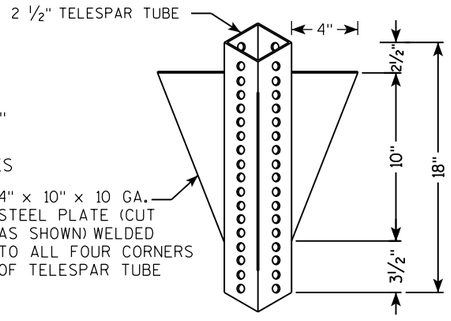
DATE 4/1/2020 PLATE NO. A4-8.9

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

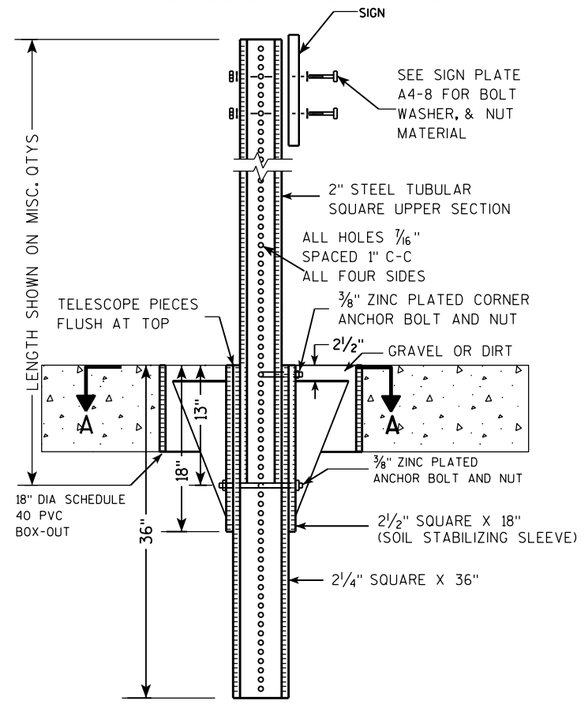
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



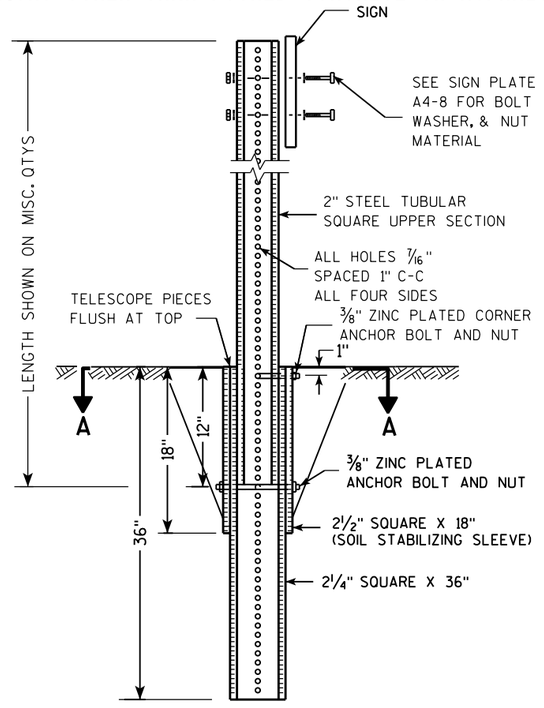
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

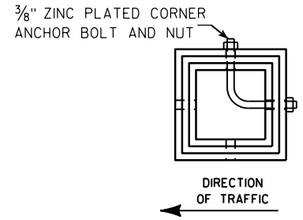


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



DETAIL OF TUBULAR STEEL SIGN POST
(IN LOCATIONS OTHER THAN POURED CONCRETE OR ASPHALT)





SECTION A-A

Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

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

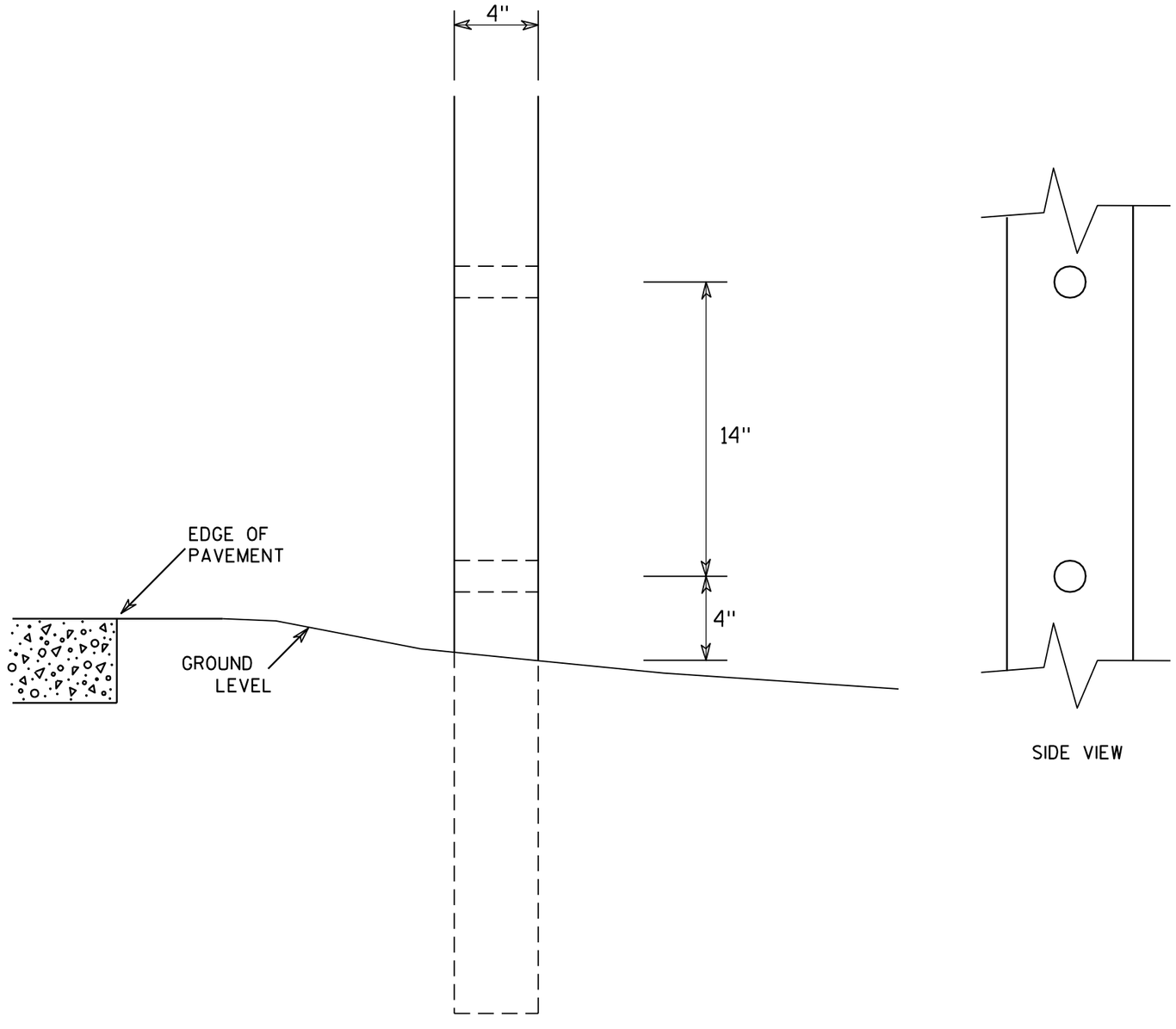
TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 399 A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

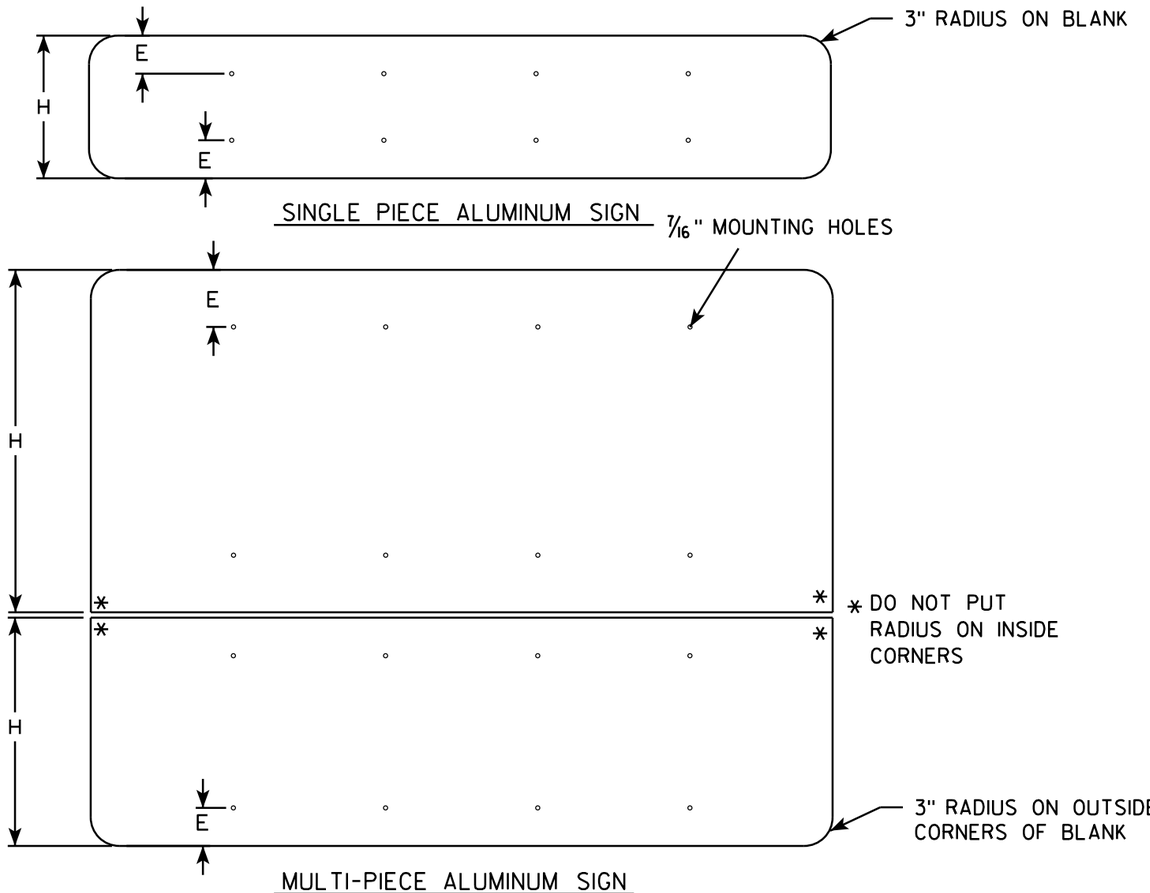
4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

DATE 3/27/97 PLATE NO. A4-11.2

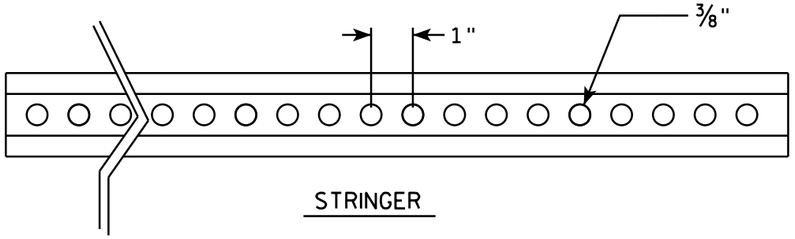
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 400	E



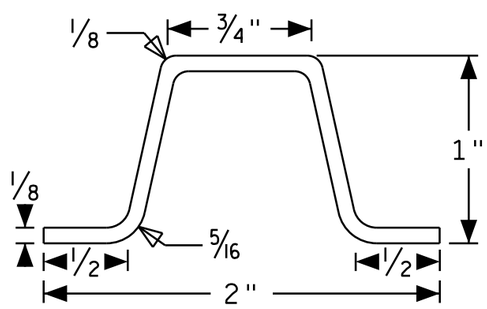
GENERAL NOTES

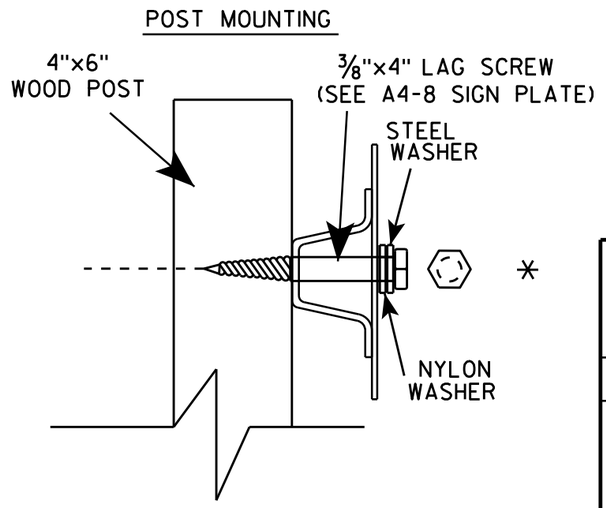
- ALL SIGNS OVER 60" IN WIDTH SHALL HAVE A 3" RADIUS ON THE OUTSIDE CORNERS OF THE ALUMINUM BLANK.
- MOUNTING HOLES SHALL BE 7/16" DIAMETER.
- SEE CHART FOR HOLE SPACING REQUIREMENTS
- FOR SIGN PANELS WITH DIMENSION (H) 36" AND OVER, DIMENSION E SHALL BE 6"
- FOR SIGN PANELS WITH DIMENSION (H) UNDER 36", DIMENSION E SHALL BE 4"
- SIGN STRINGER MATERIAL SHALL CONSIST OF STEEL CHANNEL POST SECTIONS, WEIGHING 1.12 LBS/FT IN ACCORDANCE WITH SECTION 633.2.1 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.
- SEE SIGN PLATE A4-8 FOR SIGN STRINGER BOLTING REQUIREMENTS.

SIGN WIDTH	STRINGER WIDTH	POSTS	HOLE SPACING	MOUNTING HOLES
78"	72"	2	16"	15" 31" 47" 63"
84"	72"	2	17"	16½" 33½" 50½" 67½"
90"	72"	2	18"	18" 36" 54" 72"
96"	90"	2	19"	19½" 38½" 57½" 76½"
102"	90"	2	20"	21" 41" 61" 81"
108"	90"	2	21"	22½" 43½" 64½" 85½"
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





SIGN STRINGER MOUNTING REQUIREMENTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch

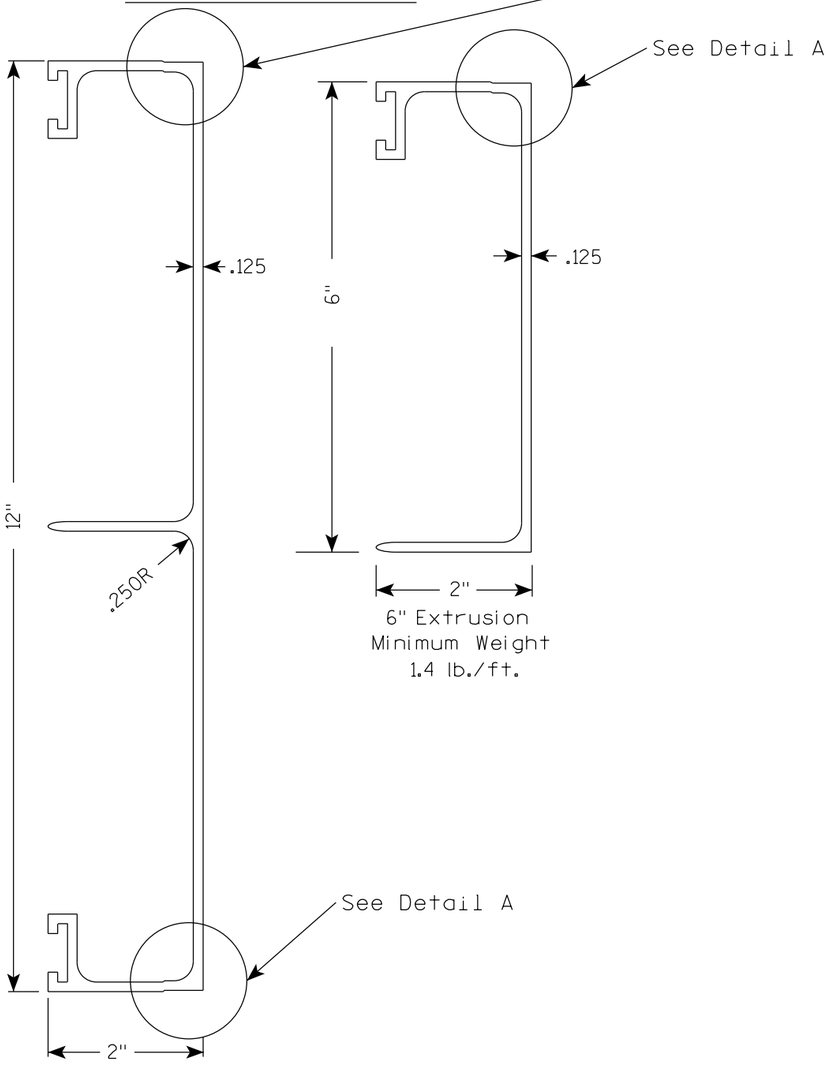
for State Traffic Engineer

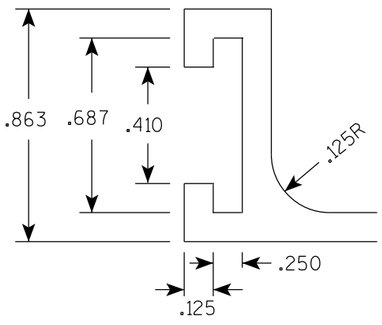
DATE 4/26/16 PLATE NO A4-18.1

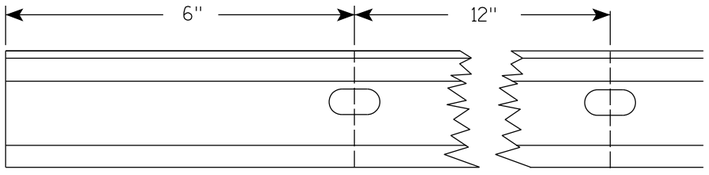
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A418.dgn PLOT DATE : 27-APR-2016 13:56 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 41.805205:1.000000 WISDOT/CADDS SHEET 42

Extruded Shape







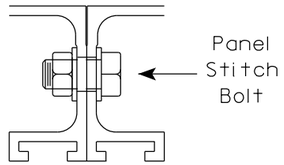
Punch 7/16" x 7/8" oval holes beginning 6" in from end of extrusion 12" CC on both edges of 6" and 12" panels.

Hardware

STITCH BOLT, WASHER & NUT

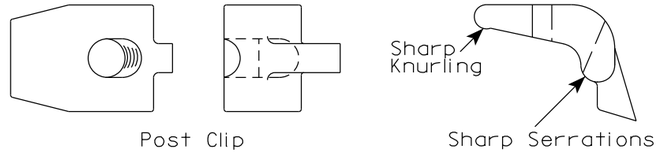
The hardware includes:

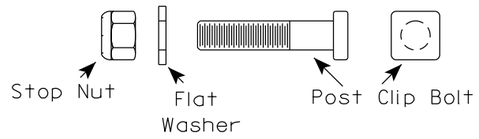
3/8 " - 16 X 3/4 " Economy Bolt 2024-T4 alloy
3/8 " - Stainless steel stop nut
3/8" X .064 Flat Washers, Alclad 2024-T4 alloy



POST CLIP, POST CLIP BOLT, WASHER & NUT

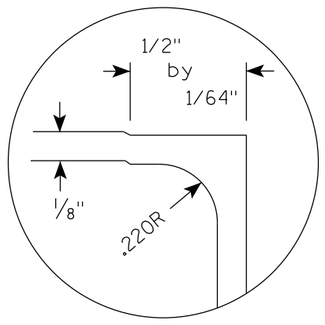
Post Clip shall be Alum. Alloy 356-T6
Post Clip Bolt shall be Stainless Steel.
Flat washer shall be 3/8" X .091, Stainless Steel.
Stop nut shall be stainless steel.





NOTES

1. The contractor may select any brand of extrusion that conforms to the illustrations or meets with the approval of the engineer, but all extrusions used on this contract shall be of the same brand.
2. Panel Stitch Bolts shall be used to assemble adjacent panels. Maximum stitch bolt spacing shall be 24" C-C, and a minimum of 4 bolts shall be used to connect any two extrusions.
3. Post Clips shall be used to attach the sign panel to the sign support.
4. Edge wrapping of sign sheeting required on all extrusions joints shown in Detail A.



DETAIL A (EDGE WRAP JOINT)

ALUMINUM EXTRUSIONS FOR TYPE I SIGNS

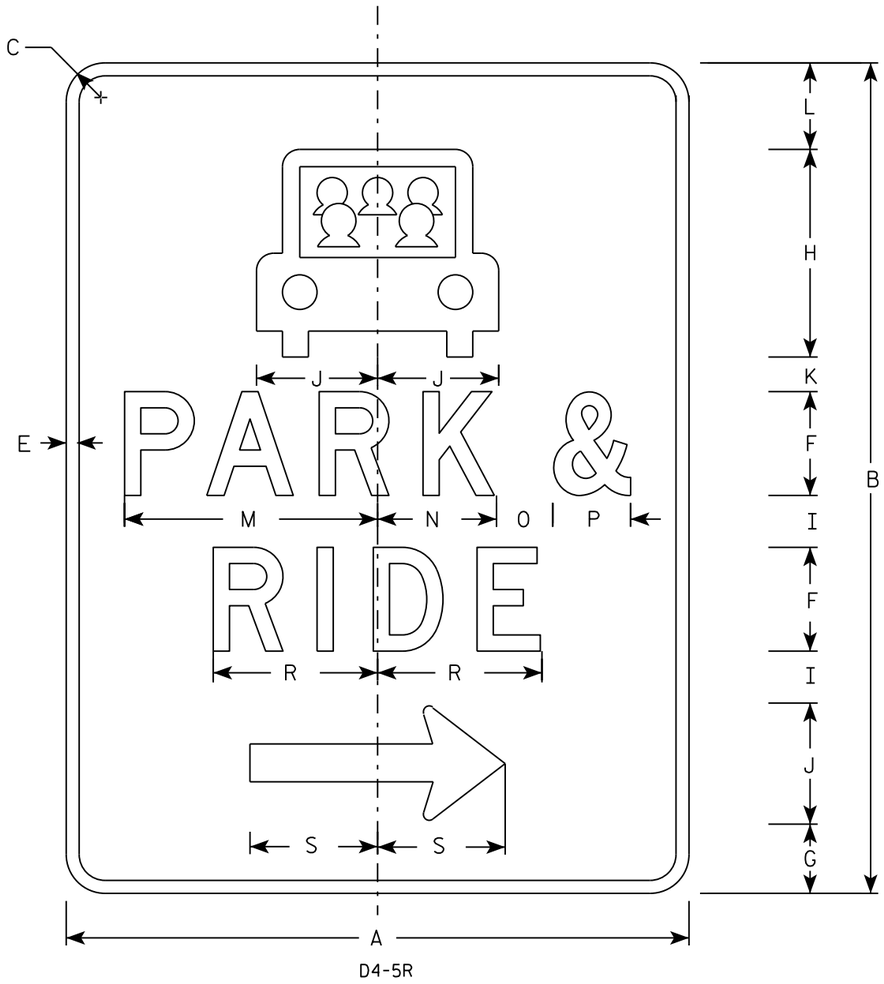
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 1/07/20 PLATE NO. A5-2.10

PROJECT NO:

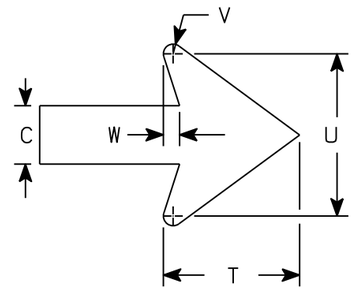
SHEET NO: 402 E



D4-5R

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - D
4. The D4-5L is the same as a D4-5R except the arrow is reversed.



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																											
2	30	36	1 3/8		5/8	5	3 1/8	9	2	5	1 5/8	3 1/4	11 3/4	5 1/2	2 3/4	3 3/4		8	6 1/8	4	4 3/8	3/8	1/2				7.50
3	36	48	2 1/4		3/4	6	4	12	3	7	2	5	14 5/8	6 7/8	3 1/4	4 1/2		9 1/2	7 1/2	5 1/4	6 1/4	3/8	5/8				12.0
4																											
5																											

STANDARD SIGN
D4-5 L&R

WISCONSIN DEPT OF TRANSPORTATION

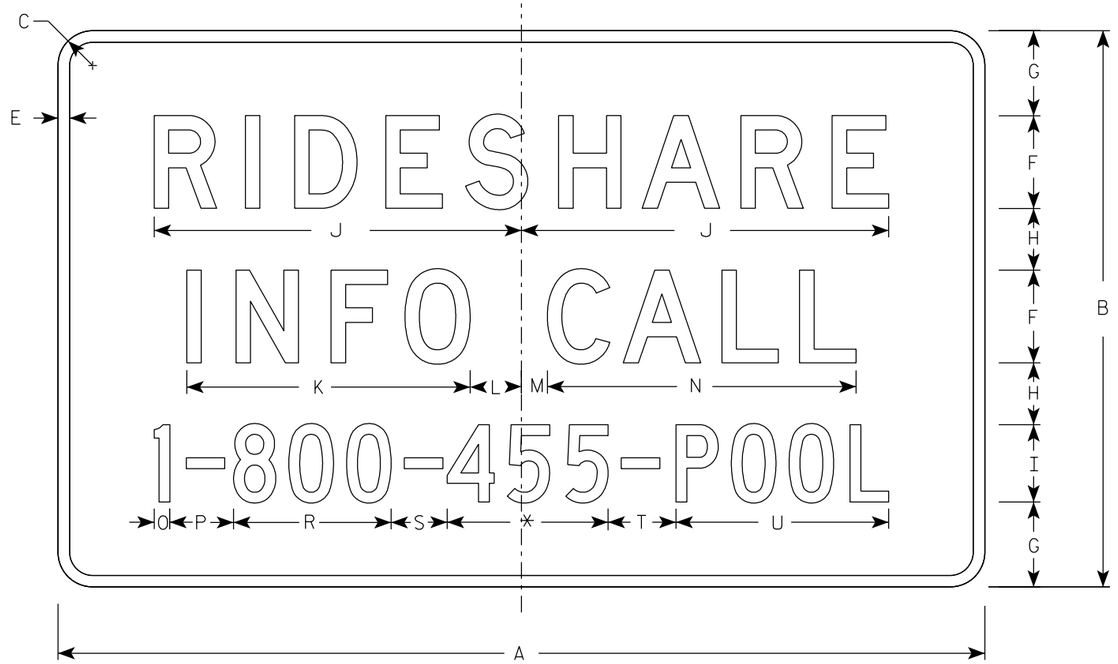
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/7/18 PLATE 403 D4-5.3

PROJECT NO:

SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\D45.DGN PLOT DATE : 07-MAY-2018 10:18 PLOT BY : $$ plotuser $$



D12-2

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - Blue
   Message - White
3. Message Series - Lines 1 & 2 are Series D and Line 3 is Series C
4. Substitute appropriate numerals and adjust spacing as required to achieve proper balance.

* Variable (See note 4)

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	42	24	1 1/2		1/2	4	3 1/2	3	3	15 7/8	12 1/4	2	1	13 3/8	5/8	2 1/2		6 1/8	2 1/8	2 5/8	8 1/4						7.0
2S	60	36	2 1/4		3/4	6	5 1/2	4	5	23 3/4	18 3/8	3 3/8	1 5/8	20	1	4 1/8		10 1/4	3 5/8	4 3/8	13 3/4						15.0
2M	60	36	2 1/4		3/4	6	5 1/2	4	5	23 3/4	18 3/8	3 3/8	1 5/8	20	1	4 1/8		10 1/4	3 5/8	4 3/8	13 3/4						15.0
3	60	36	2 1/4		3/4	6	5 1/2	4	5	23 3/4	18 3/8	3 3/8	1 5/8	20	1	4 1/8		10 1/4	3 5/8	4 3/8	13 3/4						15.0
4	60	36	2 1/4		3/4	6	5 1/2	4	5	23 3/4	18 3/8	3 3/8	1 5/8	20	1	4 1/8		10 1/4	3 5/8	4 3/8	13 3/4						15.0
5	78	48	3		1	8	6 1/2	6	7	31 3/4	24 1/2	4 5/8	2 3/8	26 5/8	1 3/8	5 3/4		14 1/4	5 1/8	6 1/8	19 1/4						26.0

STANDARD SIGN
D12-2A

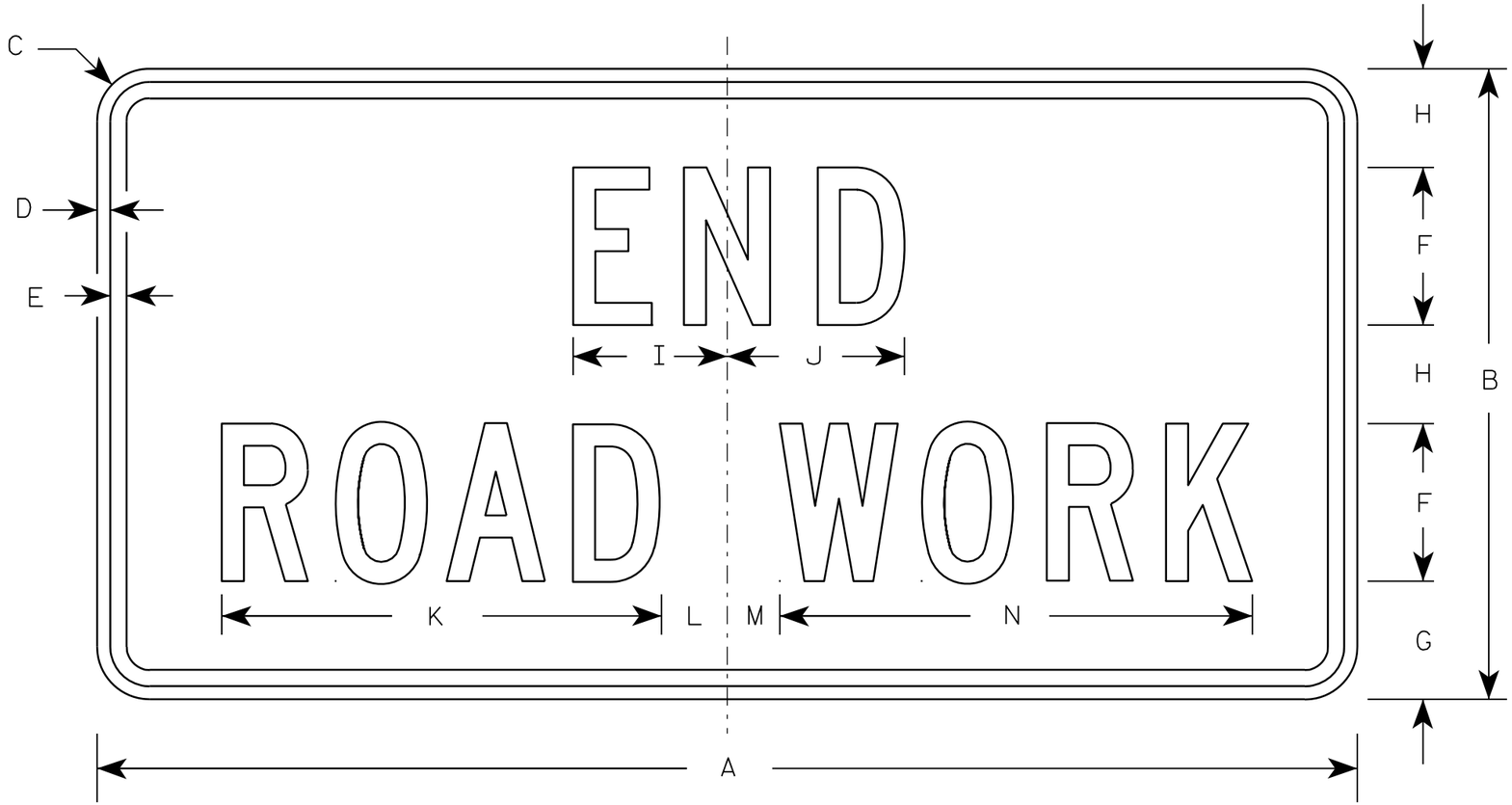
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/25/2021 PLATE NO. D12-2.5

PROJECT NO:

SHEET NO: 404 E



G20-2A

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
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.

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 m2
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

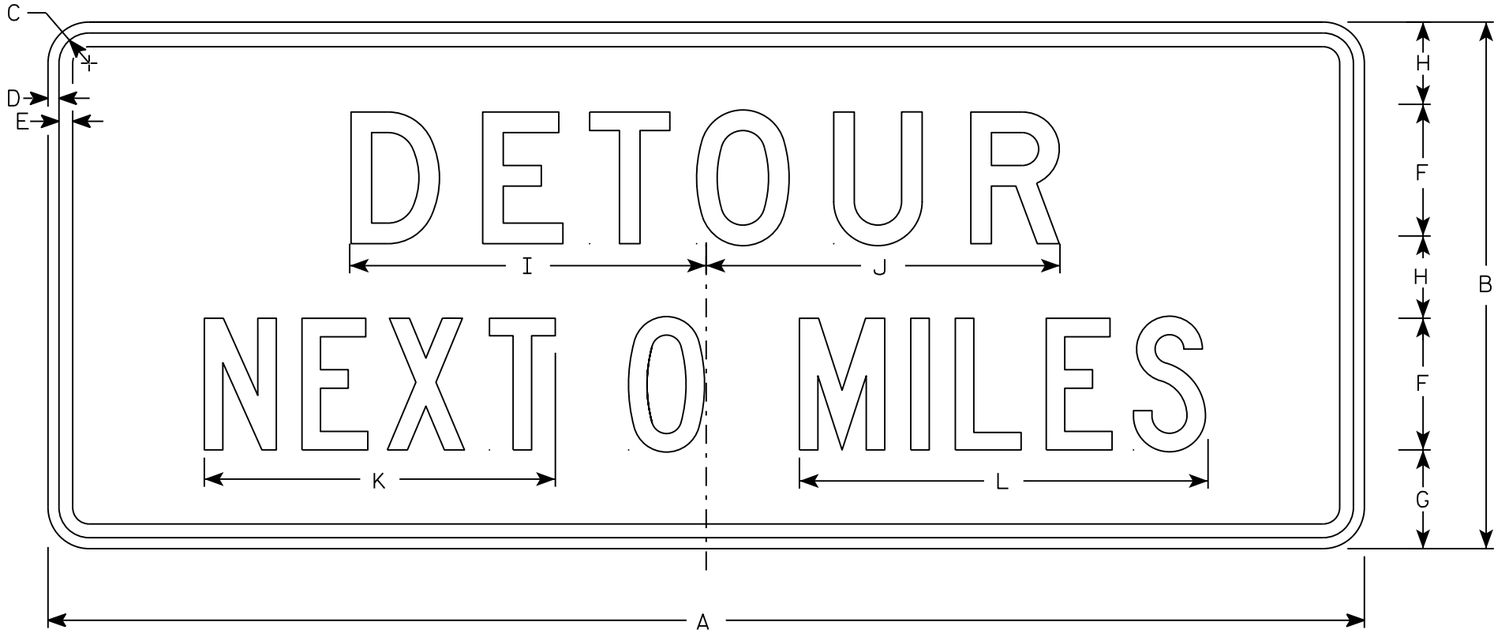
STANDARD SIGN
G20-2A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/30/09 PLATE NO. G20-2A.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 405	E



G20-51

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - Line 1 is D and Line 2 is 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. Round distance to 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																											
2	60	24	1 3/8	1/2	5/8	6	4 1/2	3 3/4	16 1/4	16 1/8	16	18 5/8															10
3																											
4	60	24	1 3/8	1/2	5/8	6	4 1/2	3 3/4	16 1/4	16 1/8	16	18 5/8															10
5																											

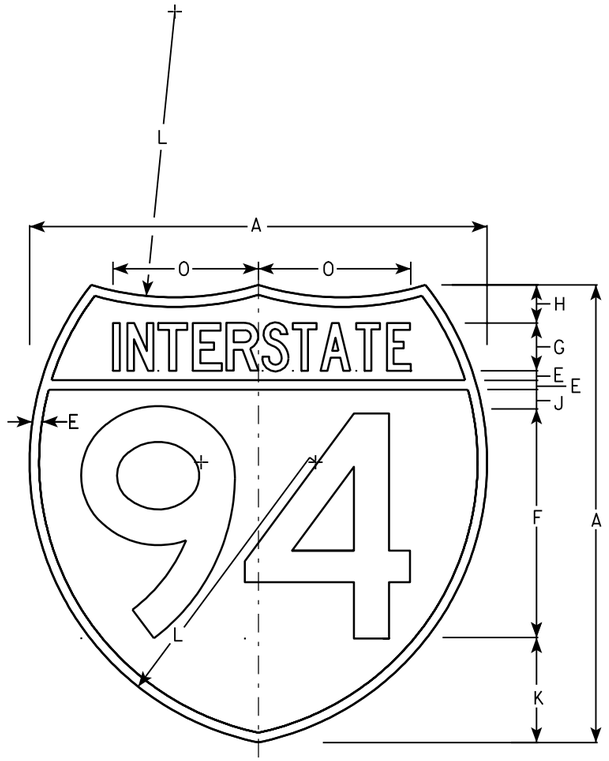
STANDARD SIGN
G20-51

WISCONSIN DEPT OF TRANSPORTATION

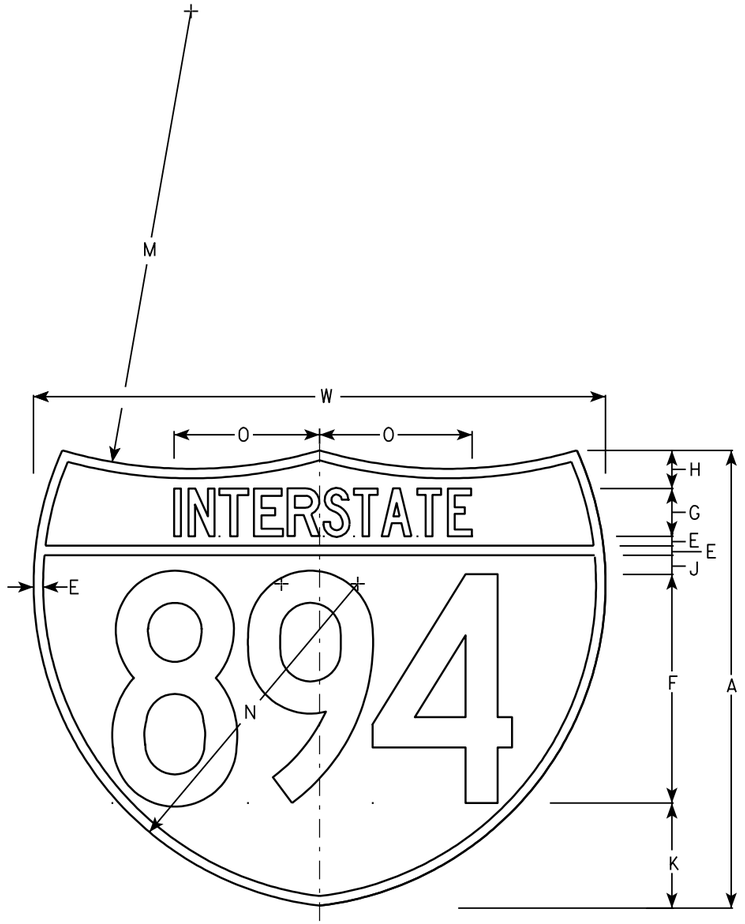
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/14/17 PLATE NO. G20-51.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 406	E



M1-1



M1-1A

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 & ajust 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	M1-1 Area sq. ft.	M1-1A Area sq. ft.	M1-1 Area m2	M1-1A Area m2
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

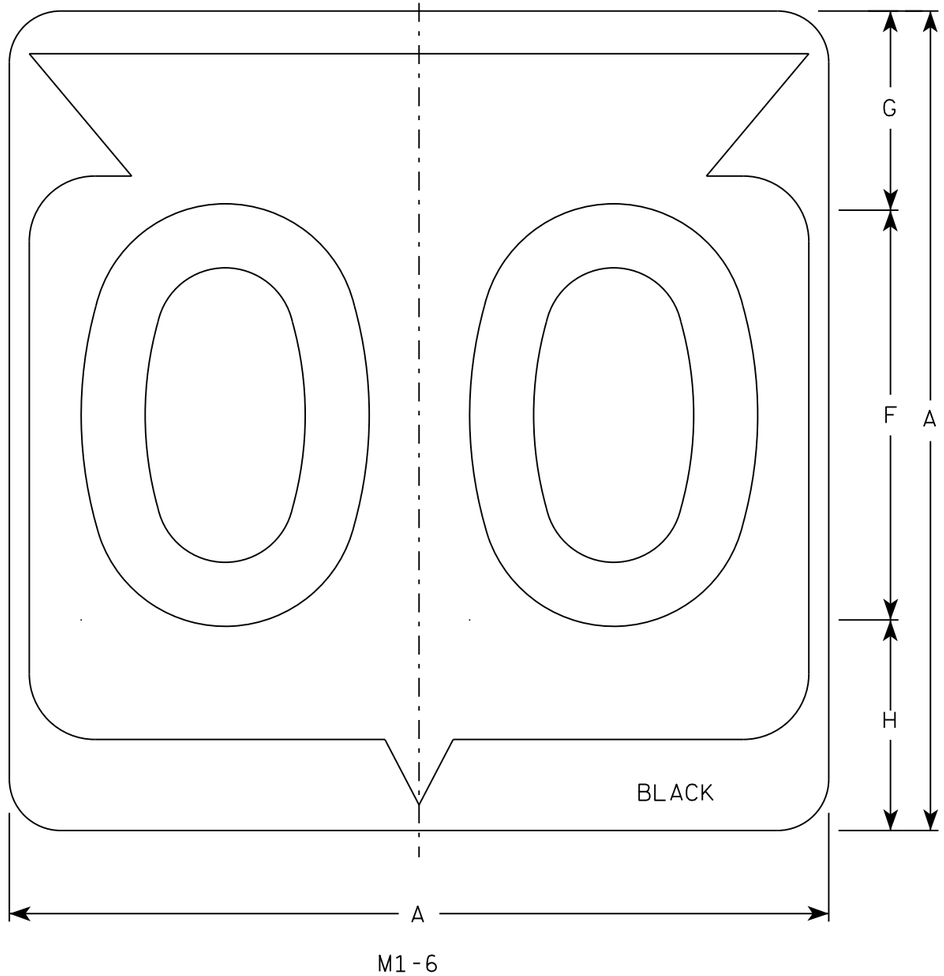
INTERSTATE ROUTE MARKER
M1-1 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

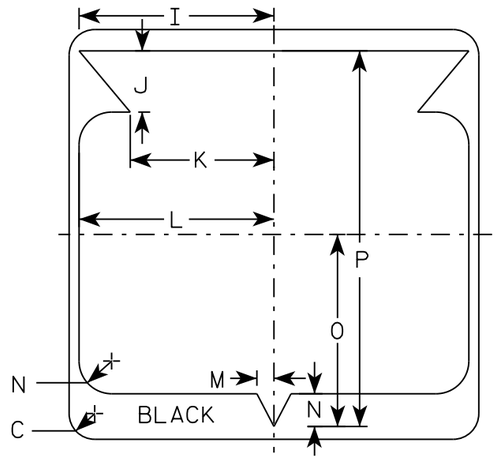
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 407	E



M1-6

NOTES

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



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

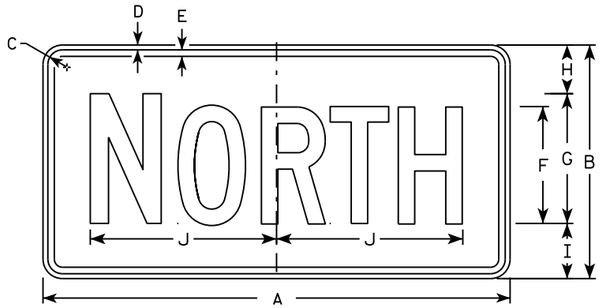
STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

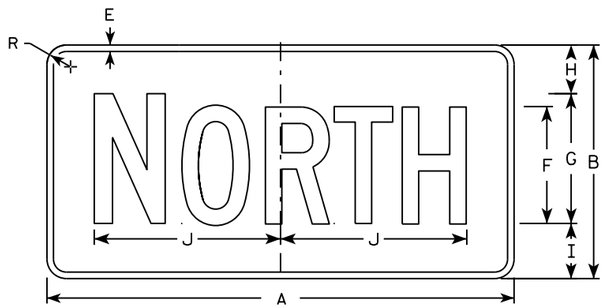
APPROVED Matthew R Rauch for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 408	E



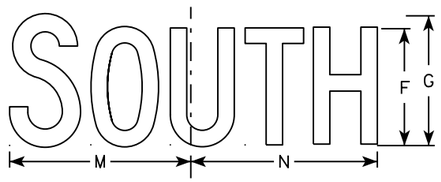
M3-1
MM3-1
MP3-1



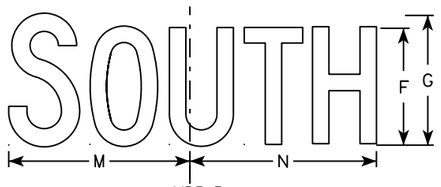
MB3-1
MK3-1
MN3-1

M3-2
MM3-2
MP3-2

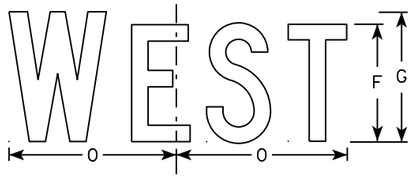
MB3-2
MK3-2
MN3-2



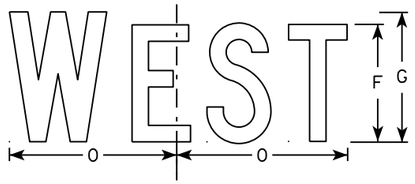
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



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 thur M3-4
SERIES

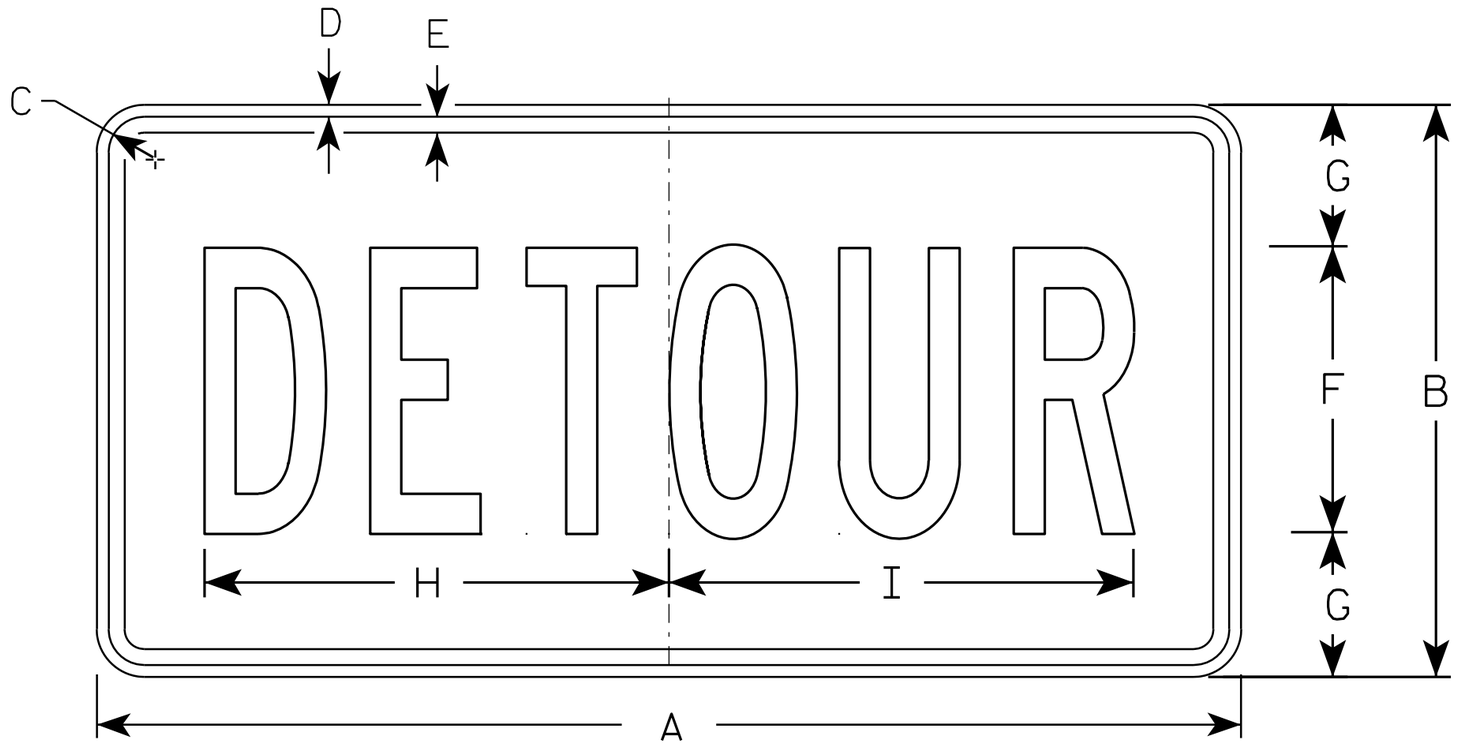
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew P Rauch for State Traffic Engineer

DATE 10/15/15 PLATE NO M3-1.14

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M31.DGN PLOT DATE : 01-DEC-2015 17:54 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



M4-8

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 - 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.

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	10	10 1/4																		2.0
3	36	18	1 1/8	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
4																											
5																											

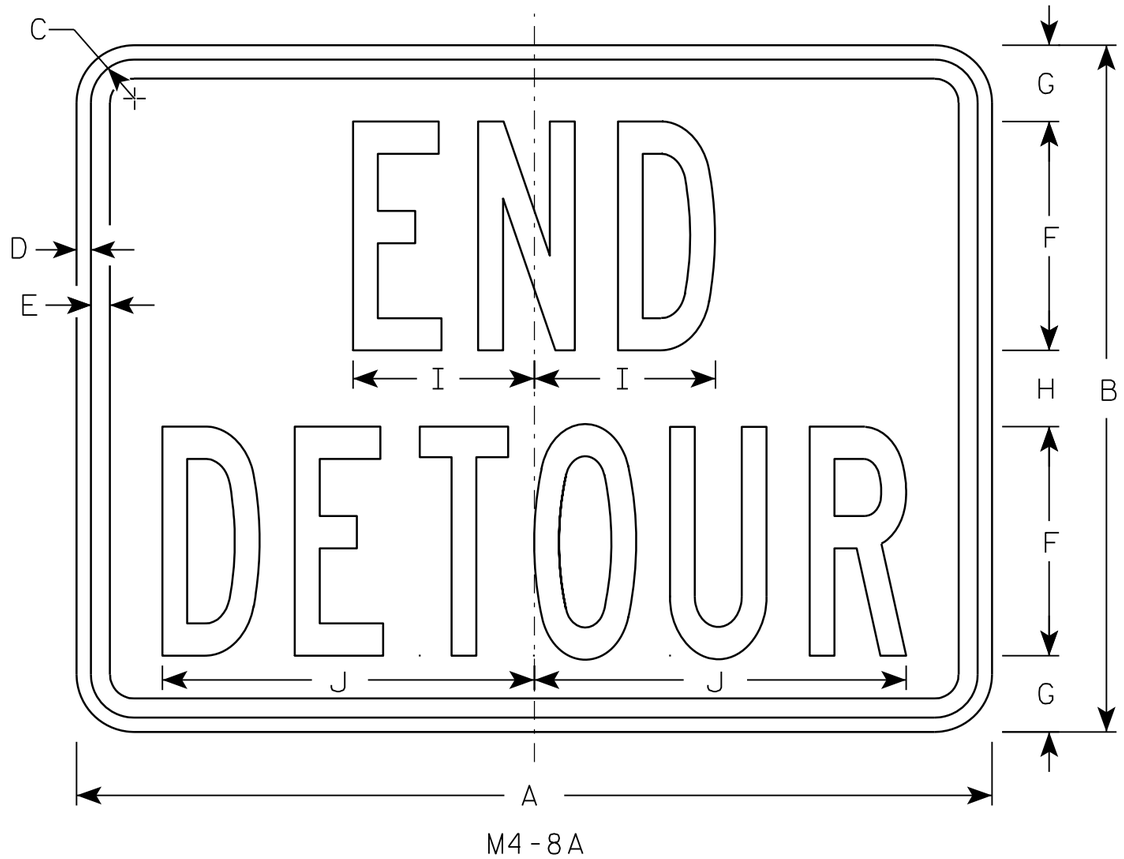
STANDARD SIGN
M4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/10/10 PLATE NO. M4-8.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 410	E



M4-8A

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 - 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.

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	18	1 1/8	3/8	1/2	6	2	2	4 3/4	9 3/4																	3.0
3	30	24	1 1/8	3/8	1/2	8	2 1/2	3	6 3/4	13																	5.0
4																											
5																											

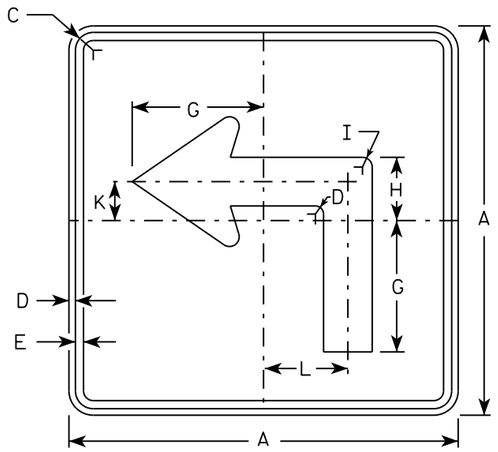
STANDARD SIGN
M4-8A

WISCONSIN DEPT OF TRANSPORTATION

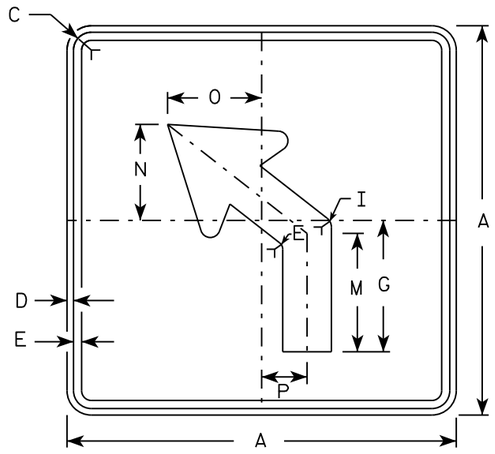
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/9/11 PLATE NO. M4-8A.2

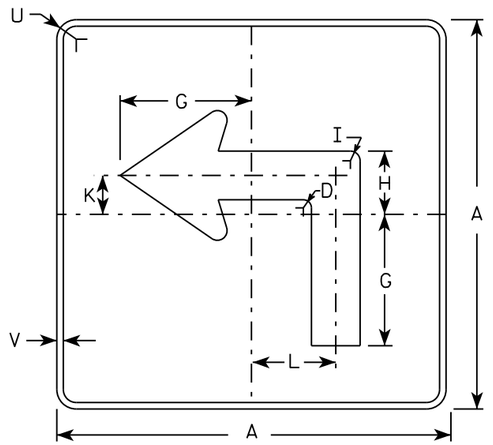
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 411	E



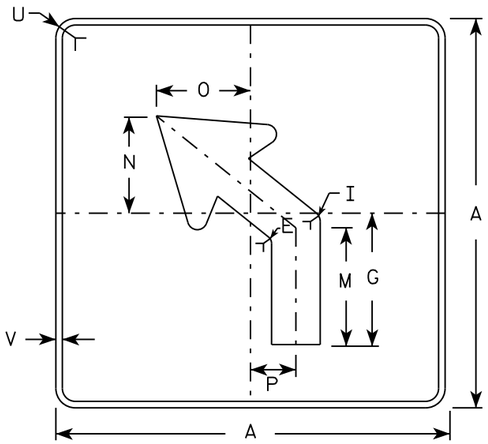
M5-1L
MM5-1L
MO5-1L
MP5-1L



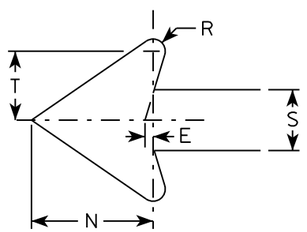
M5-2L
MM5-2L
MO5-2L
MP5-2L



MB5-1L
MK5-1L
MN5-1L
MR5-1L



MB5-2L
MK5-2L
MN5-2L
MR5-2L



NOTES

1. Signs are Type II - Type H reflective except as shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. 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
   MO5-1 and MO5-2 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
5. M5-1R same as M5-1L except arrow points right.
6. 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

STANDARD SIGN
M5-1 & M5-2

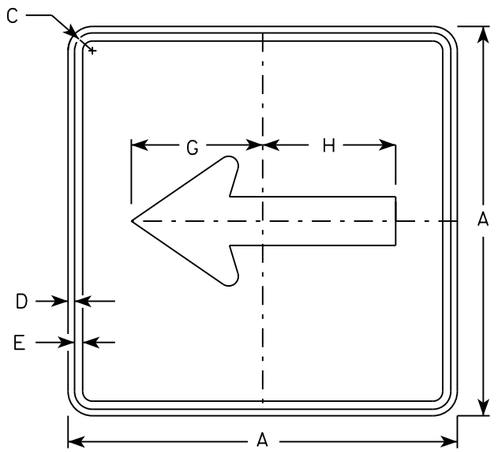
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

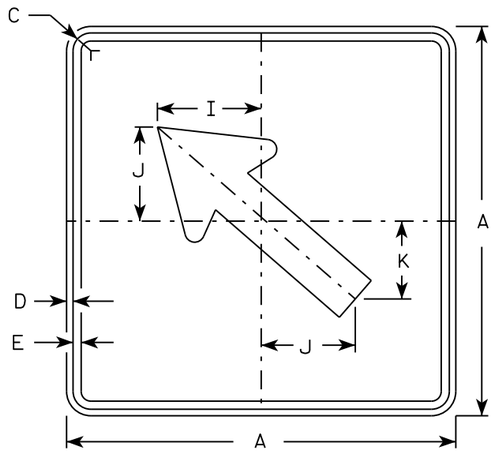
DATE 10/15/15 PLATE NO. M5-1.13

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M51.DGN PLOT DATE : 01-DEC-2015 18:07 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



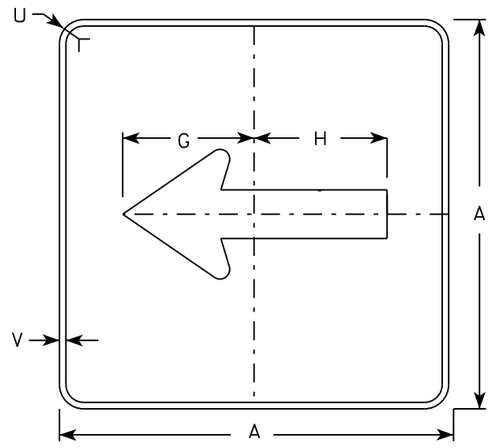
M6-1
MM6-1
MO6-1
MP6-1



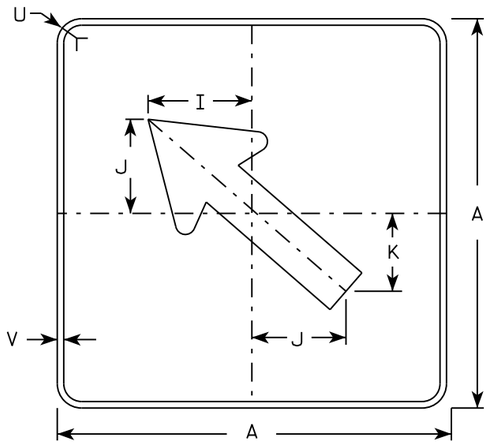
M6-2
MM6-2
MO6-2
MP6-2

NOTES

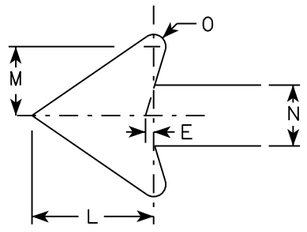
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White
   Message - Black
   MB6-1 and MB6-2 Background - Blue
   Message - White
   MK6-1 and MK6-2 Background - Green
   Message - White
   MM6-1 and MM6-2 Background - White
   Message - Green
   MN6-1 and MN6-2 Background - Brown
   Message - White
   MO6-1 and MO6-2 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



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



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



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

STANDARD SIGN
M6-1 & M6-2
SERIES

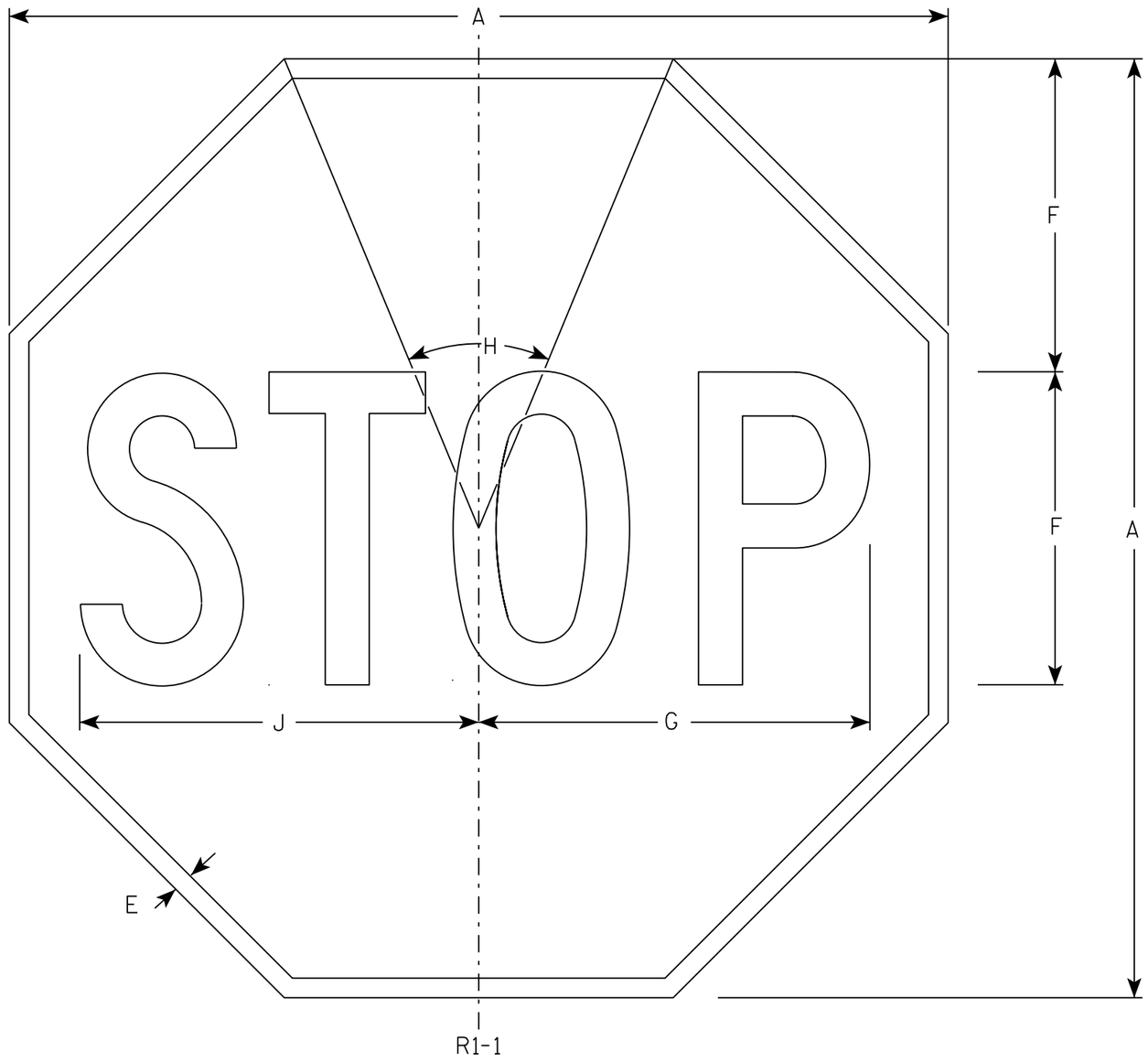
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 413 M6-1.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M61.DGN PLOT DATE : 01-DEC-2015 17:57 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



NOTES

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

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

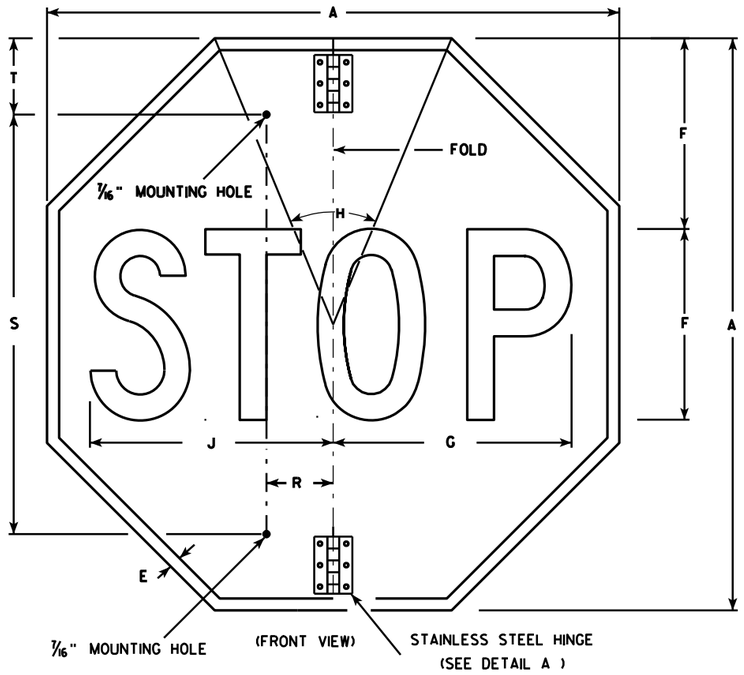
STANDARD SIGN
R1-1

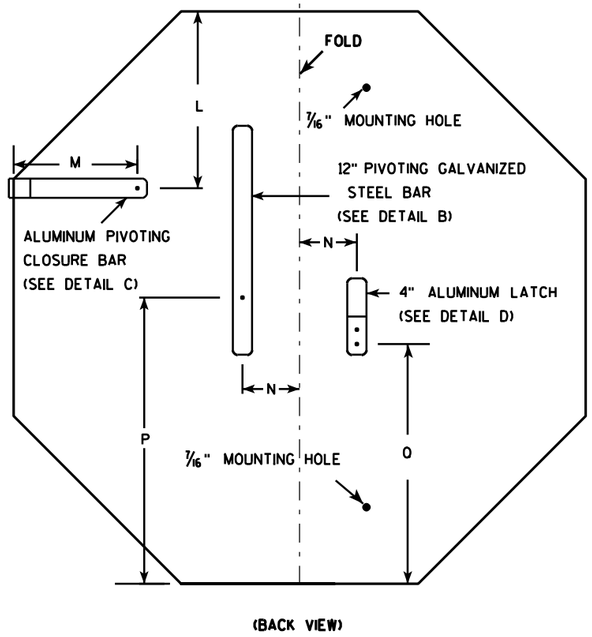
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

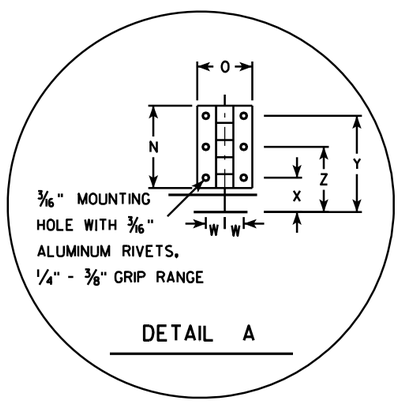
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 414	E



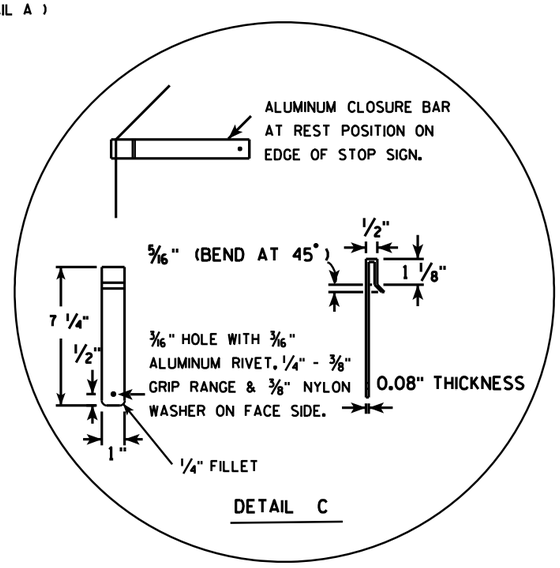


NOTES

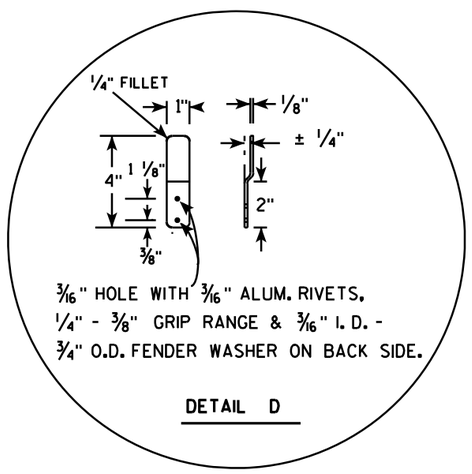
1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C
4. All hardware used on the folding STOP sign installation shall conform to 637.2.4 of the WIS DOT Standard Specification.



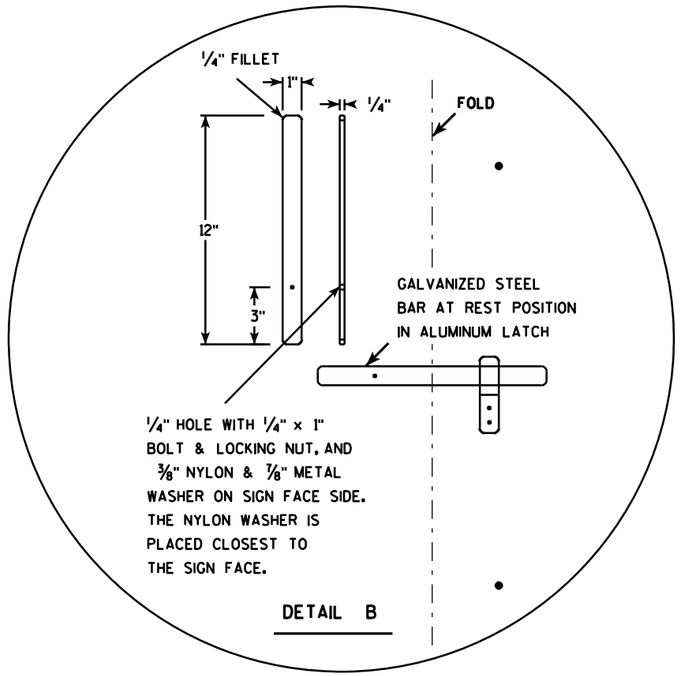
DETAIL A



DETAIL C



DETAIL D



DETAIL B

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																											
2S	30				5/8	10	12 1/2	45		12 3/4		9 1/4	6 1/2	3	2	15	12 3/8	2 1/2	22	5			11/16	1 1/4	3 1/2	2 3/8	5.18
2M	36				3/4	12	15	45		15 3/8		11	6 1/2	3	2	18	15 3/8	2 1/2	26	5			11/16	1 1/4	3 1/2	2 3/8	7.46
3	36				3/4	12	15	45		15 3/8		11	6 1/2	3	2	18	15 3/8	2 1/2	26	5			11/16	1 1/4	3 1/2	2 3/8	7.46
4																											
5																											

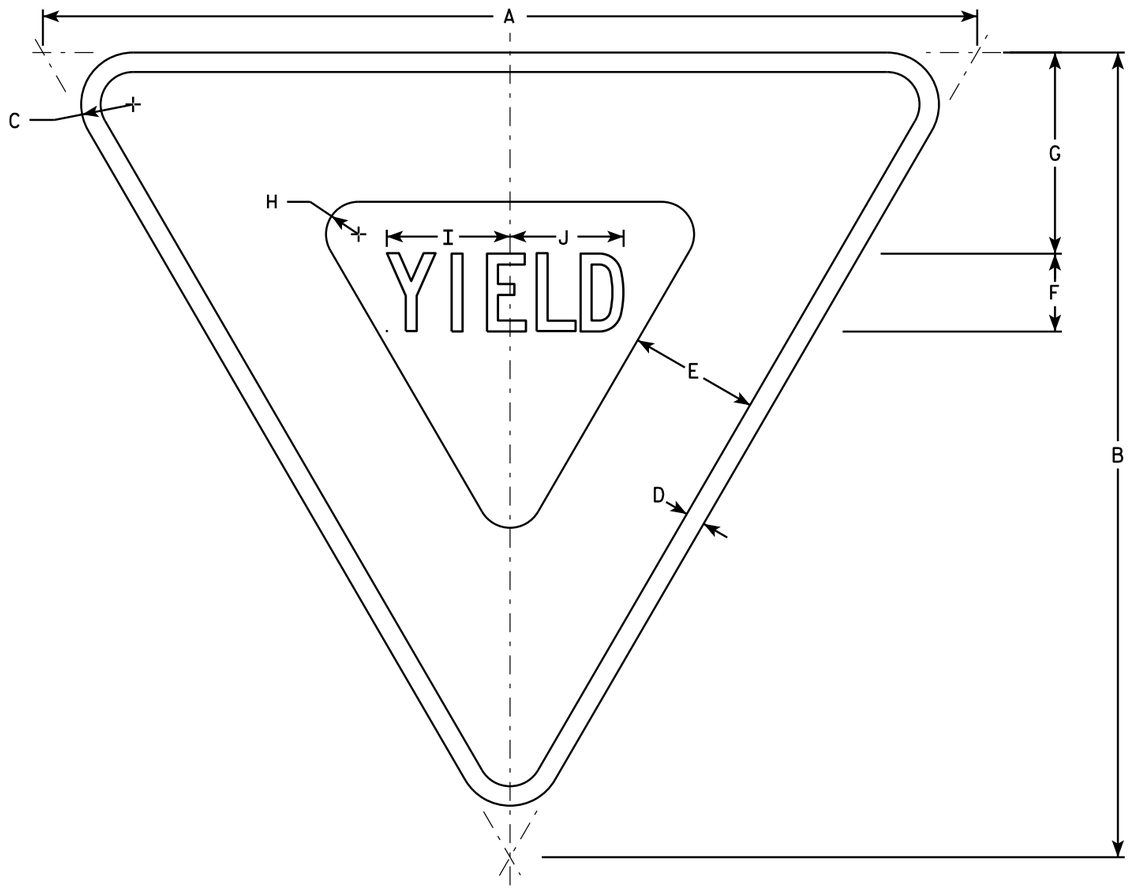
STANDARD SIGN
R1-1F

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-1F.3

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 415 | E



R1-2

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 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

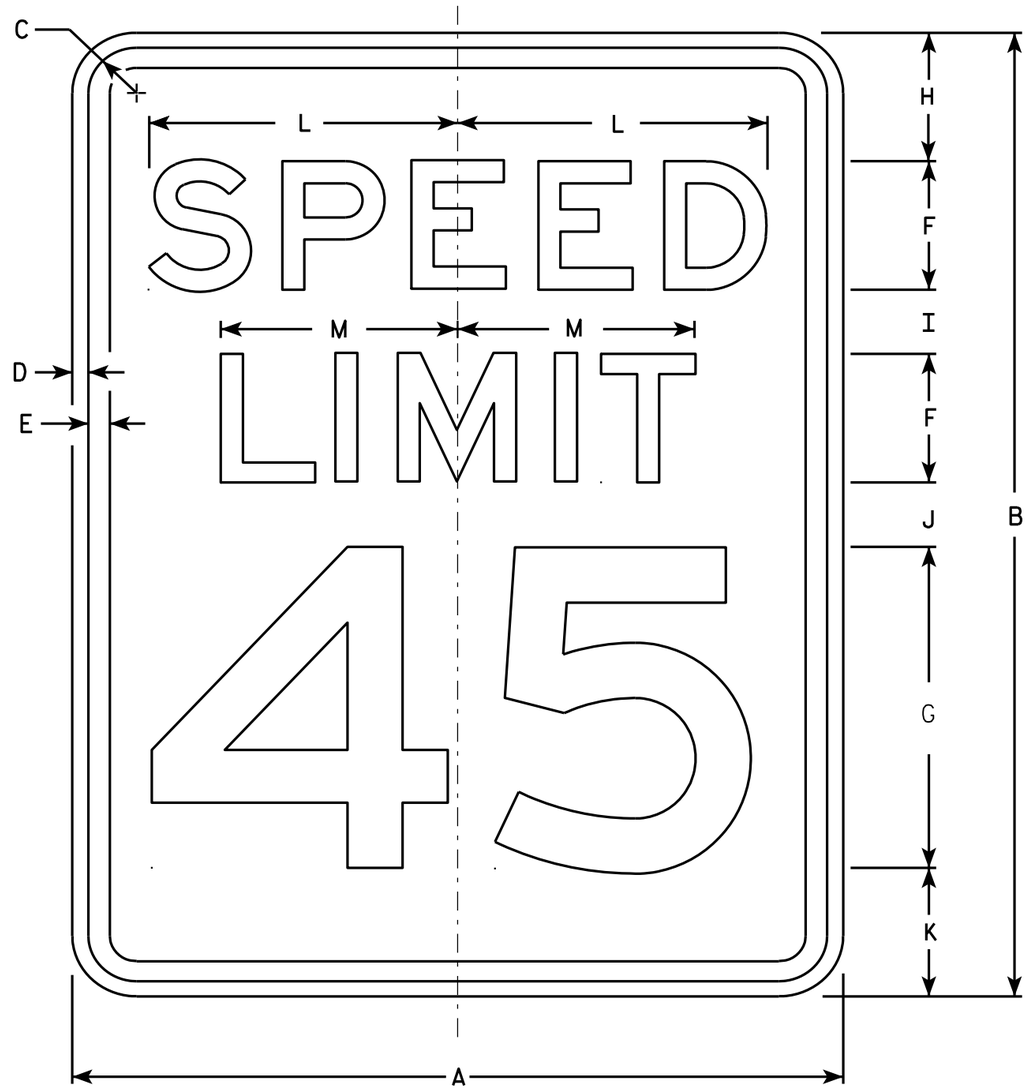
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/13/14 PLATE R1-2.12

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\R12.DGN PLOT DATE : 13-OCT-2014 15:12 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 5.837526:1.000000
WISDOT/CADDS SHEET 42



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

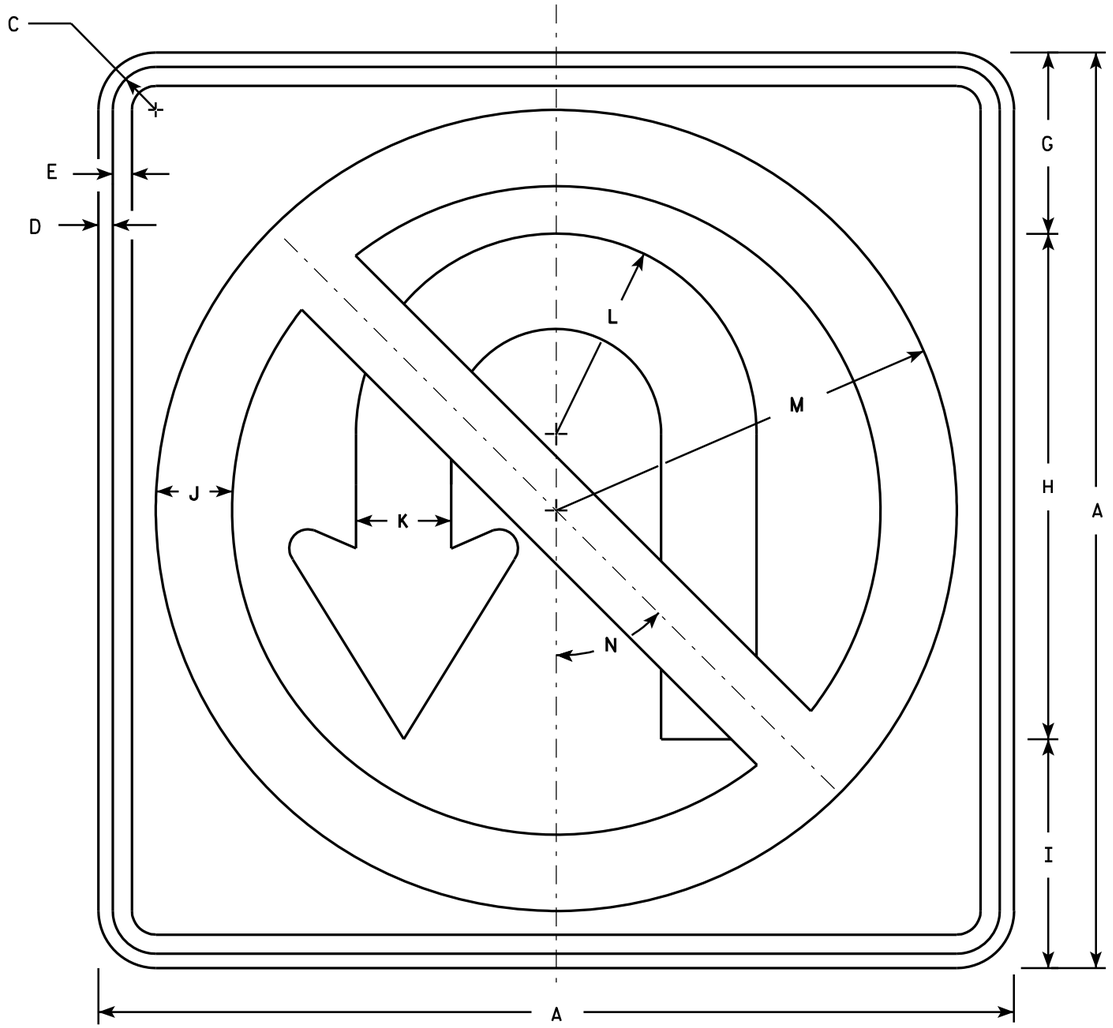
STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/26/10 PLATE NO. R2-1.13

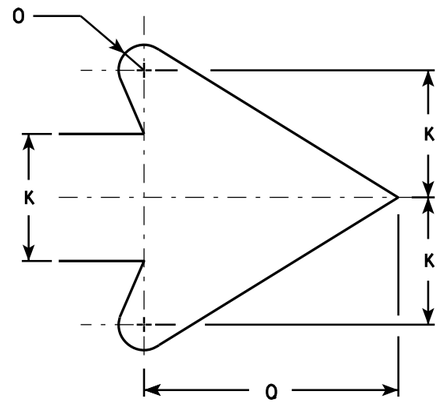
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 417	E



R3-4

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	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24		1 1/8	3/8	1/2		4 3/4	13 1/4	6	2	2 1/2	5 1/4	10 1/2	45°	1/2		5										4.0
2M	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0
3	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0
4	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0
5	36		1 5/8	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0

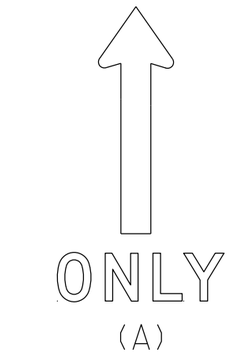
STANDARD SIGN
R3-4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

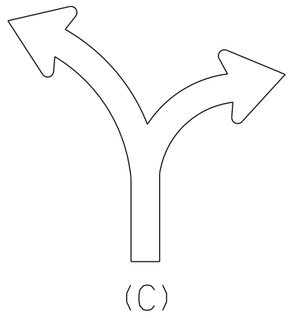
DATE 12/08/10 PLATE NO. R3-4.11

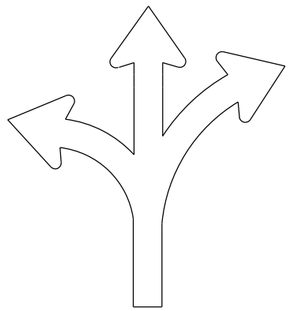
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 418	E

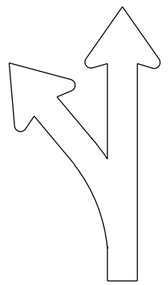


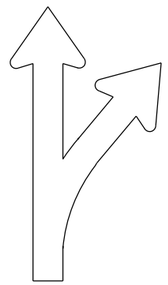
(A)

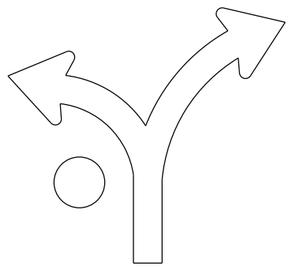
(B)

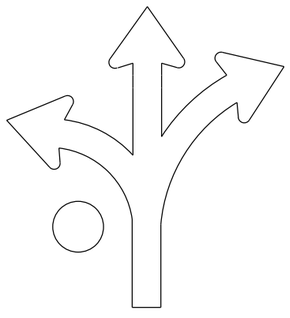

(C)

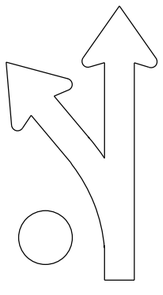

(D)


(E)

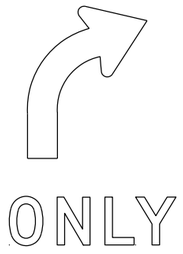

(F)


(G)

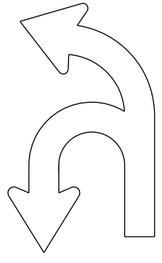

(H)


(I)

(L)



(R)


(U)

NOTES

1. Sigs are Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Use appropriate Letter for Sign Code
   Each letter added makes sign wider. Example R3-8EAR
5. Square footage of sign varies by letters

1	Letter =	3.75 sq ft for Size 2
		6.0 sq ft for Size 3
		10.0 sq ft for Size 4 or 5
2	Letters =	7.5 sq ft for Size 2
		12.0 sq ft for Size 3
		20.0 sq ft for Size 4 or 5
3	Letters =	11.25 sq ft for Size 2
		18.0 sq ft for Size 3
		30.0 sq ft for Size 4 or 5
4	Letters =	15.0 sq ft for Size 2
		24.0 sq ft for Size 3
		40.0 sq ft for Size 4 or 5
5	Letters =	18.75 sq ft for Size 2
		30.0 sq ft for Size 3
		50.0 sq ft for Size 4 or 5
6	Letters =	22.5 sq ft for Size 2
		36.0 sq ft for Size 3
		60.0 sq ft for Size 4 or 5

6. When letters C,D,G,H are used on the Left or Right end of the sign the Sq. Ft. changes.
   Add the amounts when these letters are used:
   1.25 sq ft for Size 2
   1.5 sq ft for Size 3
   2.0 sq ft for Size 4 or 5

STANDARD SIGN
R3-8 Series

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

PROJECT NO:

SHEET NO: 419 E

FILE NAME : C:\CAEfiles\Projects\stdplate_R38.dgn PLOT DATE : 21-MAY 2019 4:37 PLOT BY : mscj9h PLOT NAME :

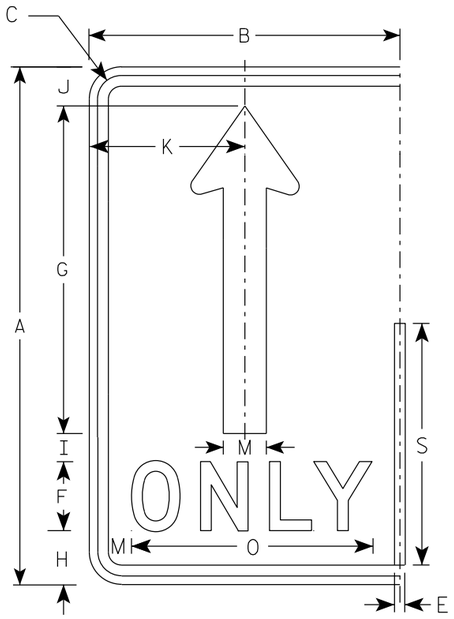
WISDOT/CADDS SHEET 42

7

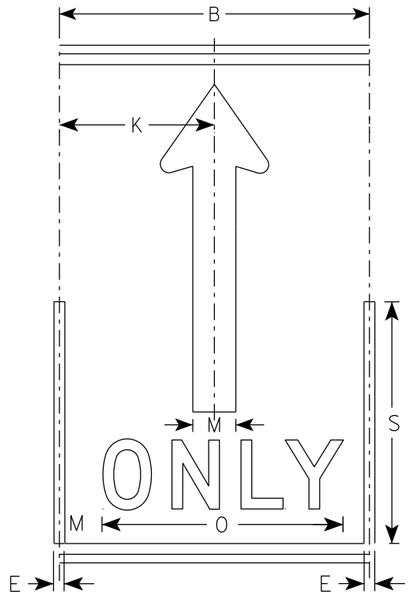
7

NOTES

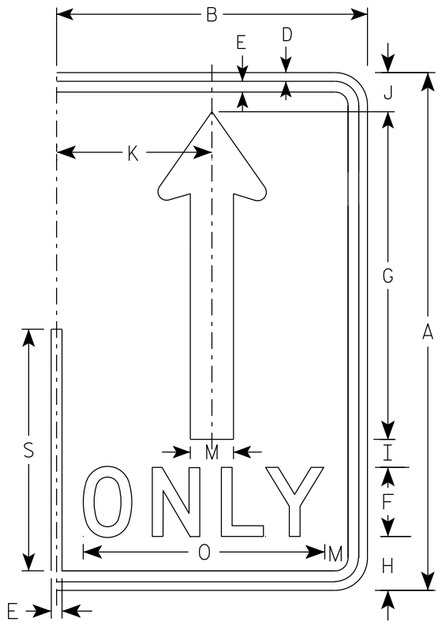
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D



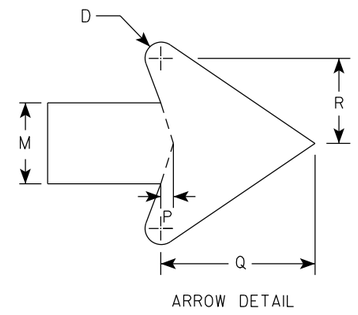
(A)



(A)



(A)



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	30	18	1 3/8	1/2	5/8	4	19	3 1/8	1 5/8	2 1/4	9		2 1/2		14	3/8	4 3/4	2 5/8	14								3.75
2M	30	18	1 3/8	1/2	5/8	4	19	3 1/8	1 5/8	2 1/4	9		2 1/2		14	3/8	4 3/4	2 5/8	14								3.75
3	36	24	1 3/8	1/2	5/8	5	22 3/4	3 3/4	1 3/4	2 3/4	12		3		17 5/8	1/2	5 3/4	3 1/8	16 3/4								6.0
4	48	30	2 1/4	3/4	1	6	30 3/8	5 1/8	2 7/8	3 5/8	15		4		21 3/4	5/8	7 5/8	4 1/4	22 3/8								10.0
5	48	30	2 1/4	3/4	1	6	30 3/8	5 1/8	2 7/8	3 5/8	15		4		21 3/4	5/8	7 5/8	4 1/4	22 3/8								10.0

STANDARD SIGN
R3-8 (A) Arrow

WISCONSIN DEPT OF TRANSPORTATION

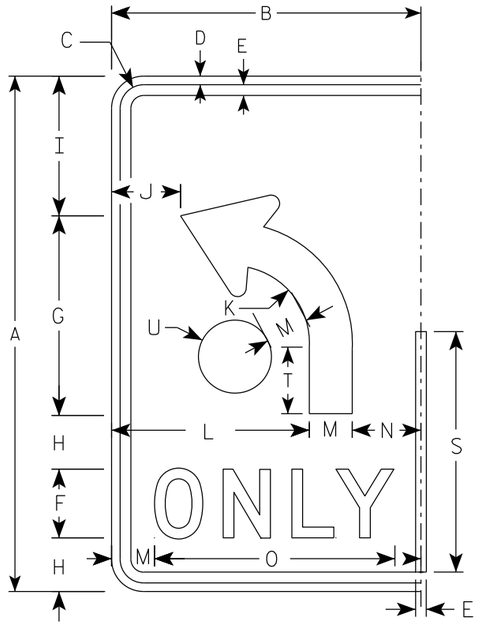
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

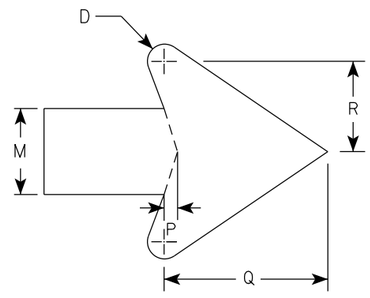
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 420 | E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
   Message Series - D



(B)



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	30	18	1 3/8	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8	2 1/8						3.75
2M	30	18	1 3/8	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8	2 1/8						3.75
3	36	24	1 3/8	1/2	5/8	5	14	3 1/2	9 3/4	6	5 3/8	15	3	6	17 5/8	1/2	5 3/4	3 1/8	16 3/4	4 5/8	2 1/2						6.0
4	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4	3 3/8						10.0
5	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4	3 3/8						10.0

STANDARD SIGN

R3-8 (B) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch

for State Traffic Engineer

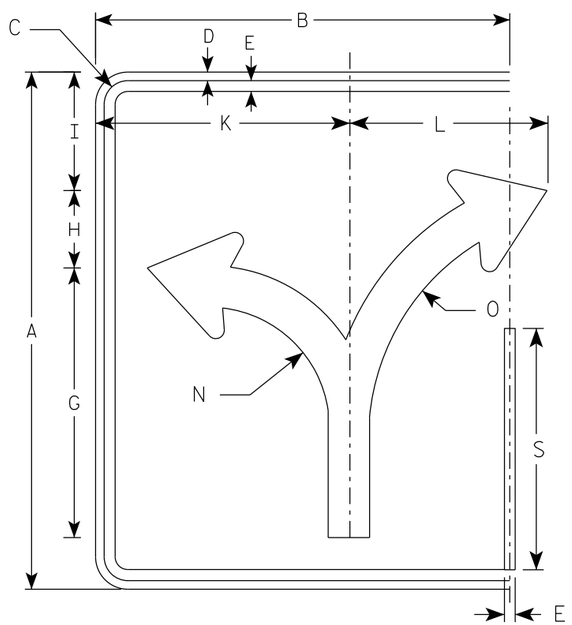
DATE 5/21/19 PLATE NO. R3-8.1

PROJECT NO:

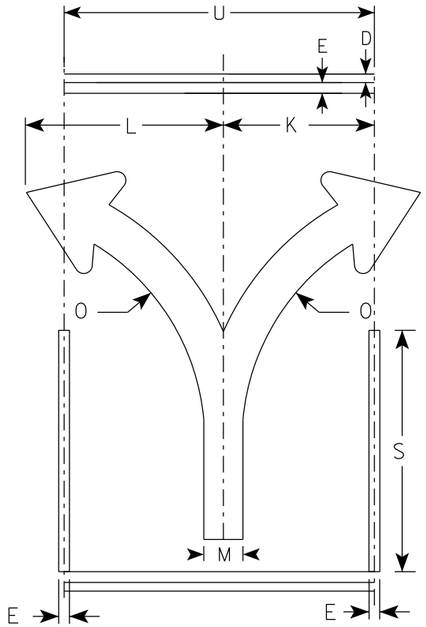
SHEET NO: 421 E

NOTES

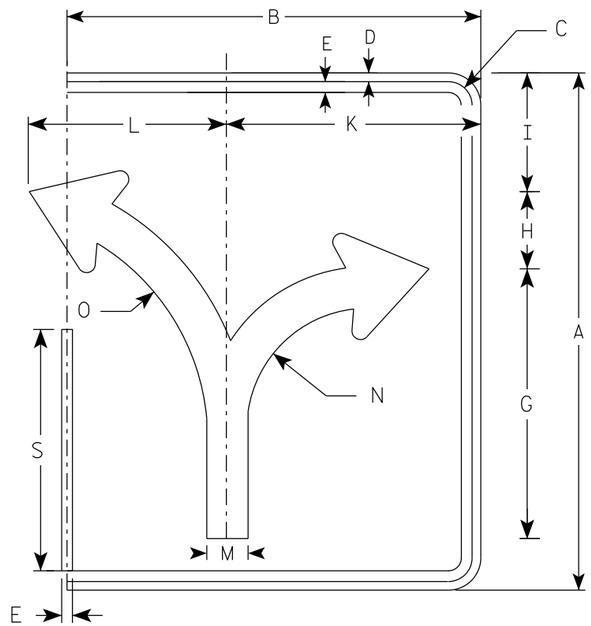
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



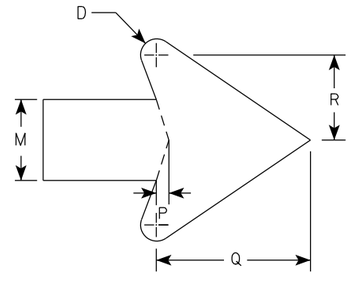
(C)



(C)



(C)



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	ENDS Area sq. ft.	MIDDLE Area sq. ft.
1																												
2S	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	6 7/8		14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		18						5.0	3.75
2M	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	6 7/8		14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		18						5.0	3.75
3	36	30	1 3/8	1/2	5/8		18 3/4	5 1/2	8 1/4		17 1/4	17 1/4	2 7/8	8 3/8	16	1/2	5 1/2	3	16 3/4		24						7.5	6.0
4	48	36	2 1/4	3/4	1		24 7/8	7 1/4	11		23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		30						12.0	10.0
5	48	36	2 1/4	3/4	1		24 7/8	7 1/4	11		23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		30						12.0	10.0

STANDARD SIGN
R3-8 (C) Arrow

WISCONSIN DEPT OF TRANSPORTATION

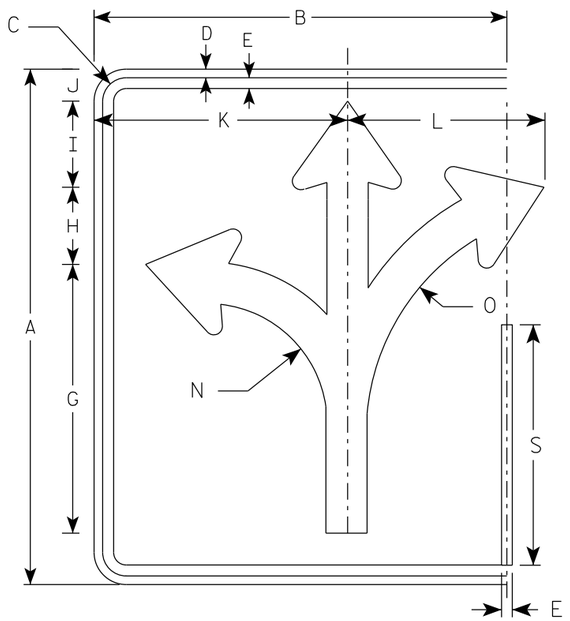
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

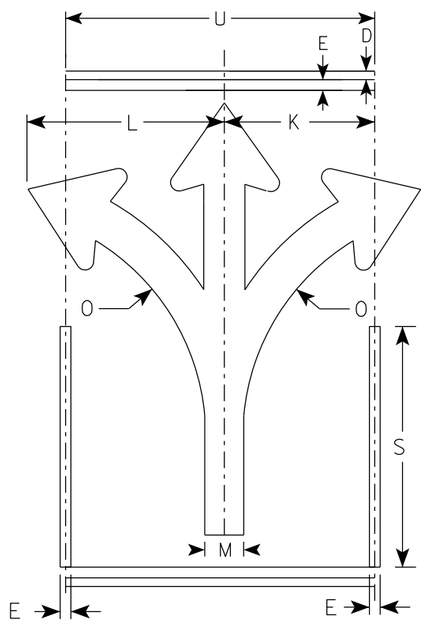
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 422 | E

NOTES

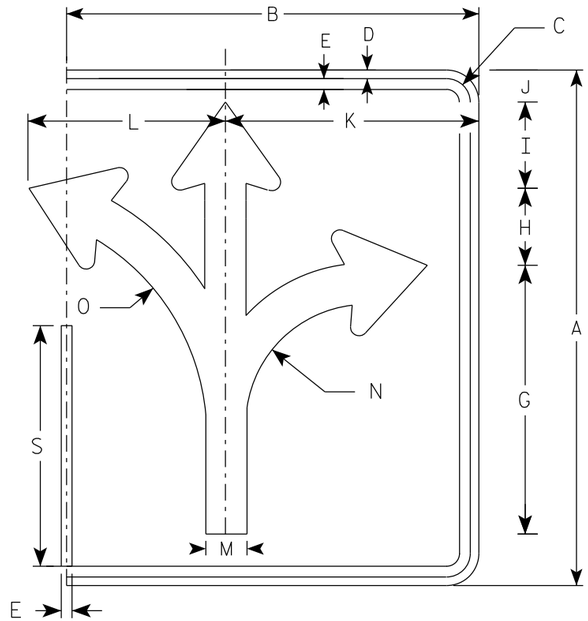
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



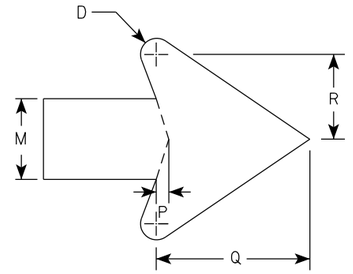
(D)



(D)



(D)



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	ENDS Area sq. ft.	MIDDLE Area sq. ft.
1																												
2S	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	5	1 7/8	14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		18						5.0	3.75
2M	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	5	1 7/8	14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		18						5.0	3.75
3	36	30	1 3/8	1/2	5/8		18 3/4	5 1/2	6	2 1/4	17 1/4	17 1/4	2 7/8	8 3/8	16	1/2	5 1/2	3	16 3/4		24						7.5	6.0
4	48	36	2 1/4	3/4	1		24 7/8	7 1/4	7 7/8	3 1/8	23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		30						12.0	10.0
5	48	36	2 1/4	3/4	1		24 7/8	7 1/4	7 7/8	3 1/8	23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		30						12.0	10.0

STANDARD SIGN
R3-8 (D) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

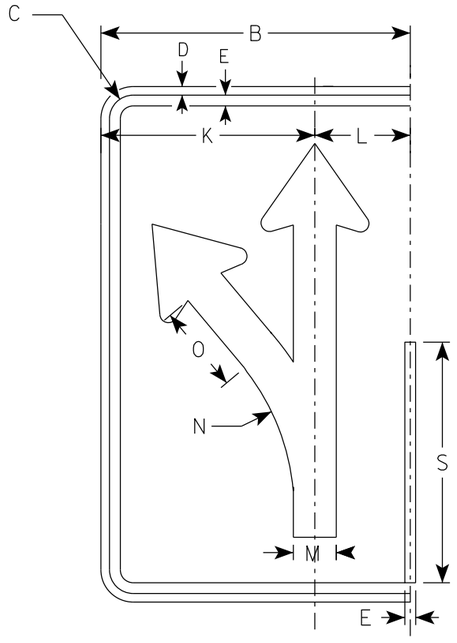
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 423 | E

7

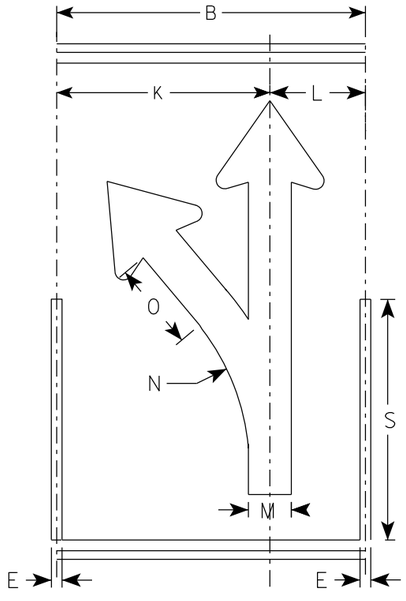
7

NOTES

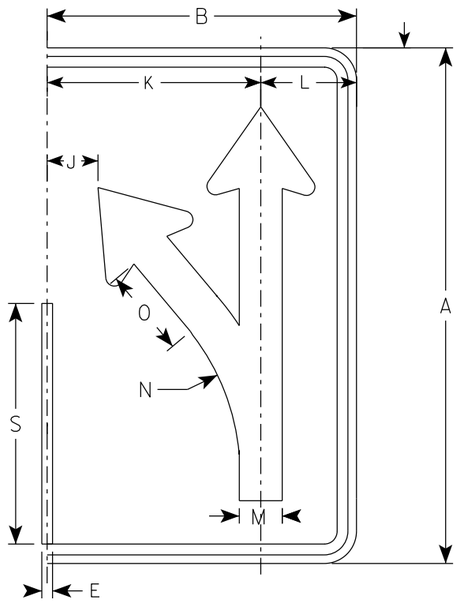
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



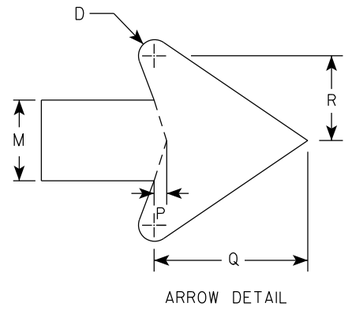
(E)



(E)



(E)



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	30	18	1 3/8	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14								3.75
2M	30	18	1 3/8	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14								3.75
3	36	24	1 3/8	1/2	5/8		21 7/8	5 5/8	4	4 7/8	16 1/8	7 3/4	3	15 7/8	6 1/8	1/2	5 3/4	3 1/8	16 3/4								6.0
4	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8								10.0
5	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8								10.0

STANDARD SIGN
R3-8 (E) Arrow

WISCONSIN DEPT OF TRANSPORTATION

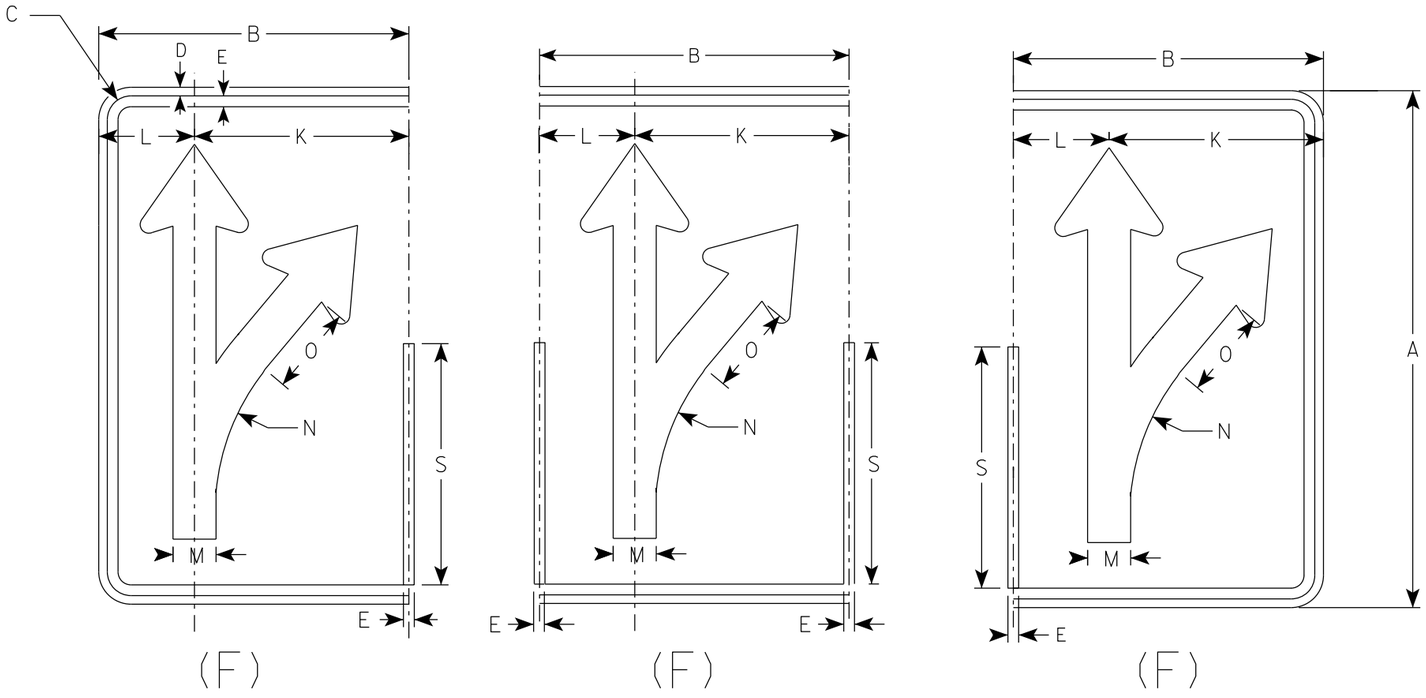
APPROVED Matthew R Rauch
For State Traffic Engineer

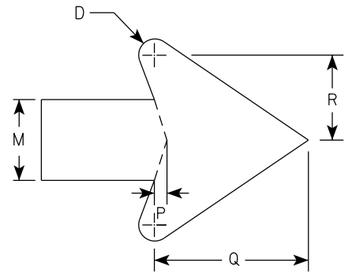
DATE 5/21/19 PLATE NO. R3-8.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 424 | E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None





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	30	18	1 3/8	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14								3.75
2M	30	18	1 3/8	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14								3.75
3	36	24	1 3/8	1/2	5/8		21 7/8	5 5/8	4	4 7/8	16 1/8	7 3/4	3	15 7/8	6 1/8	1/2	5 3/4	3 1/8	16 3/4								6.0
4	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8								10.0
5	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8								10.0

STANDARD SIGN
R3-8 (F) Arrow

WISCONSIN DEPT OF TRANSPORTATION

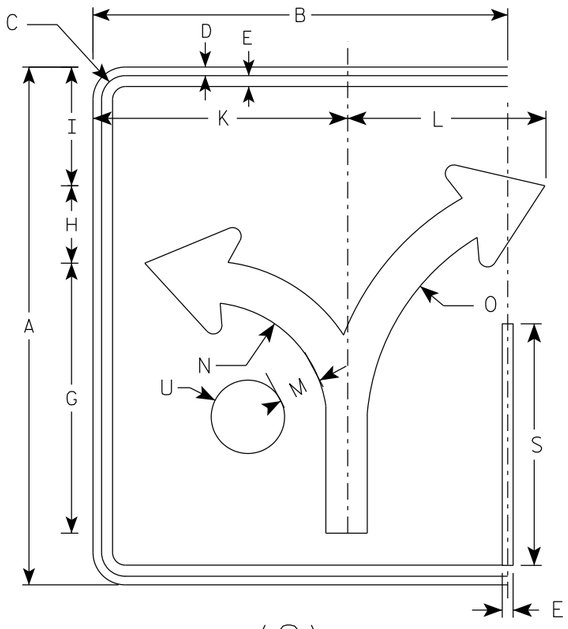
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

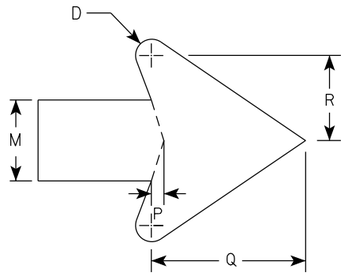
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 425	E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



(G)



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	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	6 7/8		14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		2 1/8						5.0
2M	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	6 7/8		14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		2 1/8						5.0
3	36	30	1 3/8	1/2	5/8		18 3/4	5 1/2	8 1/4		17 1/4	17 1/4	2 7/8	8 3/8	16	1/2	5 1/2	3	16 3/4		2 1/2						7.5
4	48	36	2 1/4	3/4	1		24 7/8	7 1/4	11		23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		3 3/8						12.0
5	48	36	2 1/4	3/4	1		24 7/8	7 1/4	11		23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		3 3/8						12.0

STANDARD SIGN
R3-8 (G) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

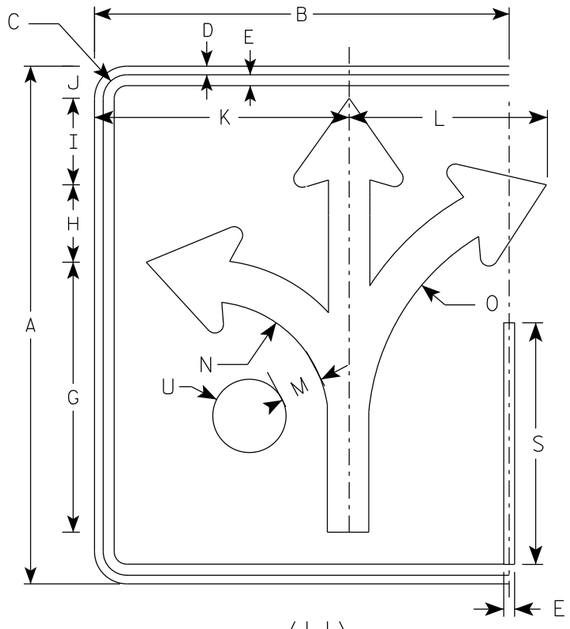
DATE 5/21/19 PLATE NO. R3-8.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 426 | E

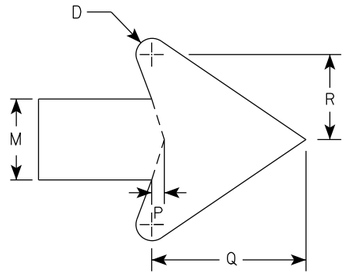
FILE NAME : C:\CAEfiles\Projects\stdplate_R38.dgn PLOT DATE : 21-MAY 2019 4:38 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



(H)



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	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	5	1 7/8	14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		2 1/8						5.0
2M	30	24	1 3/8	1/2	5/8		15 5/8	4 1/2	5	1 7/8	14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		2 1/8						5.0
3	36	30	1 3/8	1/2	5/8		18 3/4	5 1/2	6	3 1/8	17 1/4	17 1/4	2 7/8	8 3/8	16	1/2	5 1/2	3	16 3/4		2 1/2						7.5
4	48	36	2 1/4	3/4	1		24 7/8	7 1/4	7 7/8	3 1/8	23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		3 3/8						12.0
5	48	36	2 1/4	3/4	1		24 7/8	7 1/4	7 7/8	3 1/8	23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		3 3/8						12.0

STANDARD SIGN
R3-8 (H) Arrow

WISCONSIN DEPT OF TRANSPORTATION

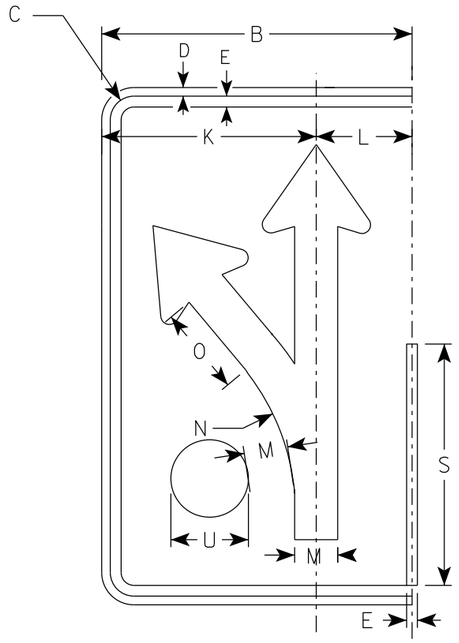
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

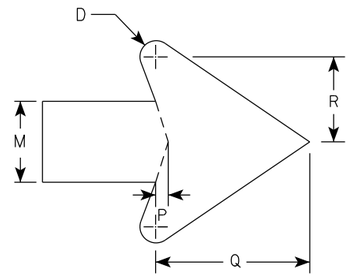
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 427	E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



(I)



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	30	18	1 3/8	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14		2 1/8						3.75
2M	30	18	1 3/8	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14		2 1/8						3.75
3	36	24	1 3/8	1/2	5/8		21 7/8	5 5/8	4	4 7/8	16 1/8	7 3/4	3	15 7/8	6 1/8	1/2	5 3/4	3 1/8	16 3/4		2 1/2						6.0
4	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8		3 3/8						10.0
5	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8		3 3/8						10.0

STANDARD SIGN
R3-8 (I) Arrow

WISCONSIN DEPT OF TRANSPORTATION

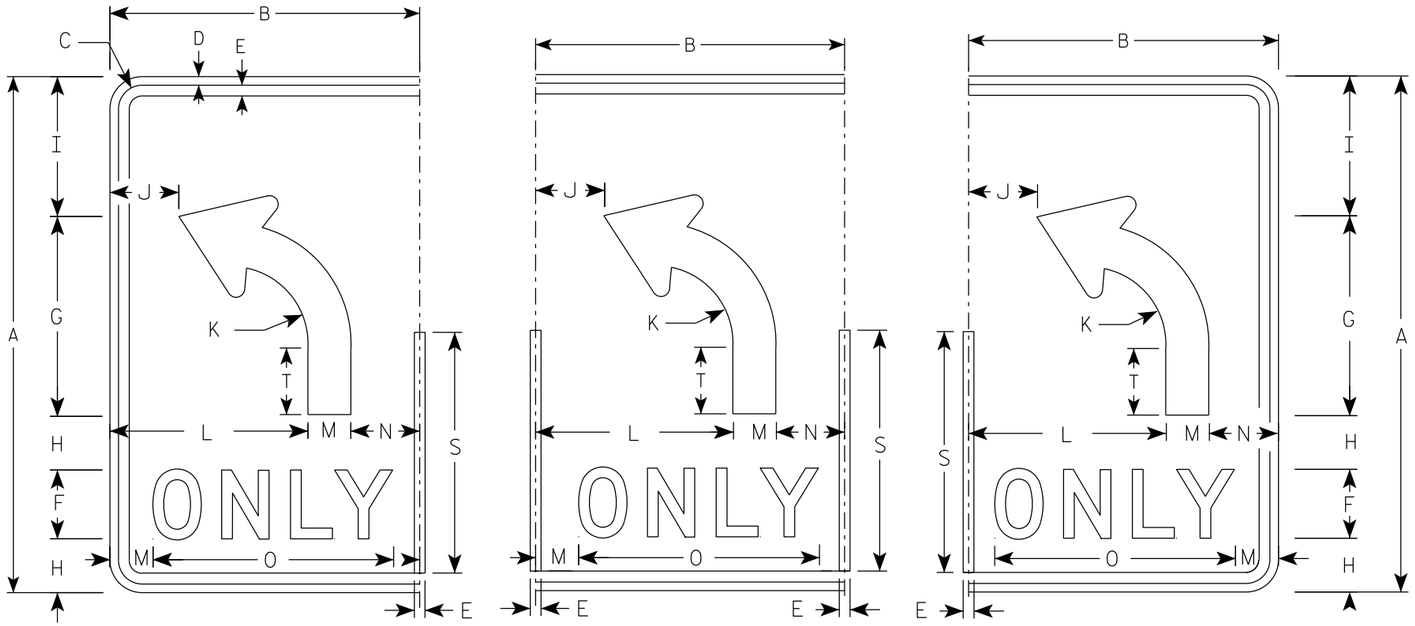
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

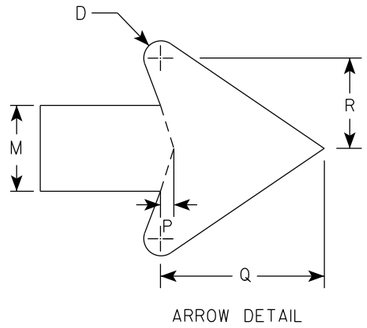
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 428 | E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D



(L) (L) (L)



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	30	18	1 3/8	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8							3.75
2M	30	18	1 3/8	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8							3.75
3	36	24	1 3/8	1/2	5/8	5	14	3 1/2	9 3/4		5 3/8	15	3	6	17 5/8	1/2	5 3/4	3 1/8	16 3/4	4 5/8							6.0
4	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4							10.0
5	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4							10.0

STANDARD SIGN

R3-8 (L) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

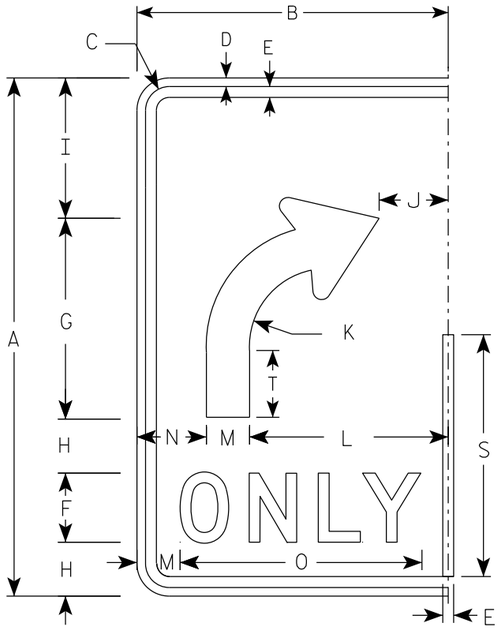
DATE 5/21/19 PLATE NO. R3-8.1

PROJECT NO:

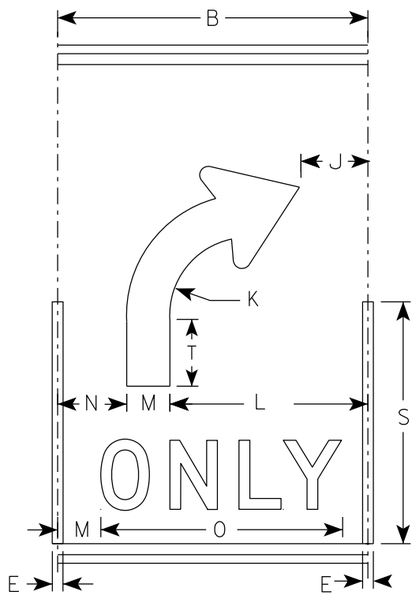
SHEET NO: 429 E

NOTES

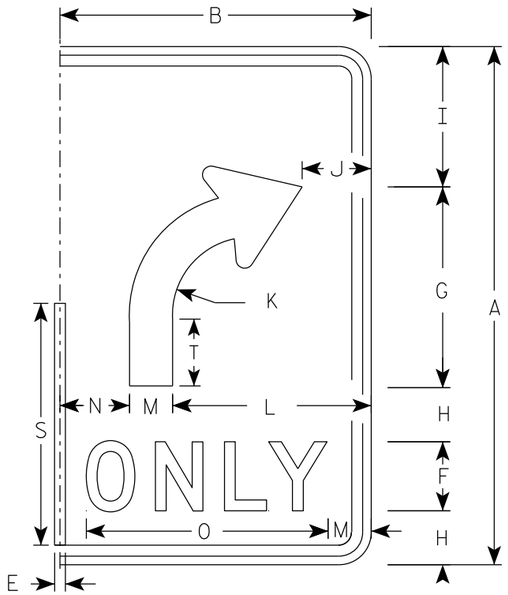
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D



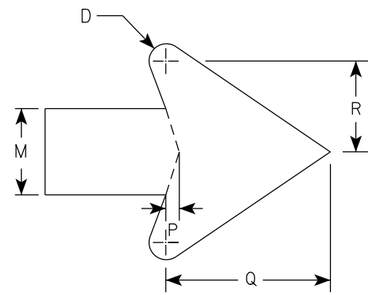
(R)



(R)



(R)



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	30	18	1 3/8	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8							3.75
2M	30	18	1 3/8	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8							3.75
3	36	24	1 3/8	1/2	5/8	5	14	3 1/2	9 3/4	6	5 3/8	15	3	6	17 5/8	1/2	5 3/4	3 1/8	16 3/4	4 5/8							6.0
4	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4							10.0
5	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4							10.0

STANDARD SIGN
R3-8 (R) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

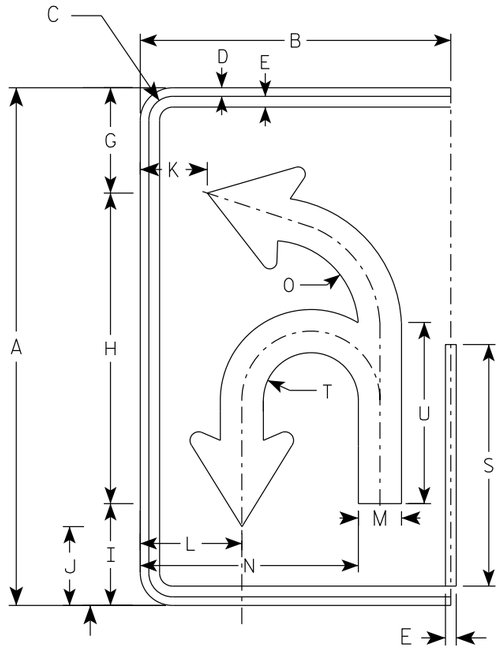
DATE 5/21/19 PLATE NO. R3-8.1

PROJECT NO:

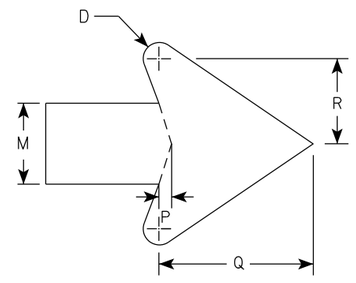
SHEET NO: 430 **E**

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



(U)



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	30	18	1 3/8	1/2	5/8		6 1/8	18	5 7/8	4 5/8	3 7/8	5 7/8	2 1/2	12 5/8	5 1/8	3/8	4 3/4	2 5/8	14	2 3/4	10 1/2						3.75
2M	30	18	1 3/8	1/2	5/8		6 1/8	18	5 7/8	4 5/8	3 7/8	5 7/8	2 1/2	12 5/8	5 1/8	3/8	4 3/4	2 5/8	14	2 3/4	10 1/2						3.75
3	36	24	1 3/8	1/2	5/8		21 7/8	21 5/8	7 1/8	5 1/2	5 7/8	8 1/4	3	16 3/8	6 1/8	1/2	5 3/4	3 1/8	16 3/4	3 1/4	12 5/8						6.0
4	48	30	2 1/4	3/4	1		29 1/8	28 3/4	9 3/8	7 1/4	6 7/8	10	4	20 7/8	8 1/8	5/8	7 5/8	4 1/4	22 3/8	4 3/8	16 3/4						10.0
5	48	30	2 1/4	3/4	1		29 1/8	28 3/4	9 3/8	7 1/4	6 7/8	10	4	20 7/8	8 1/8	5/8	7 5/8	4 1/4	22 3/8	4 3/8	16 3/4						10.0

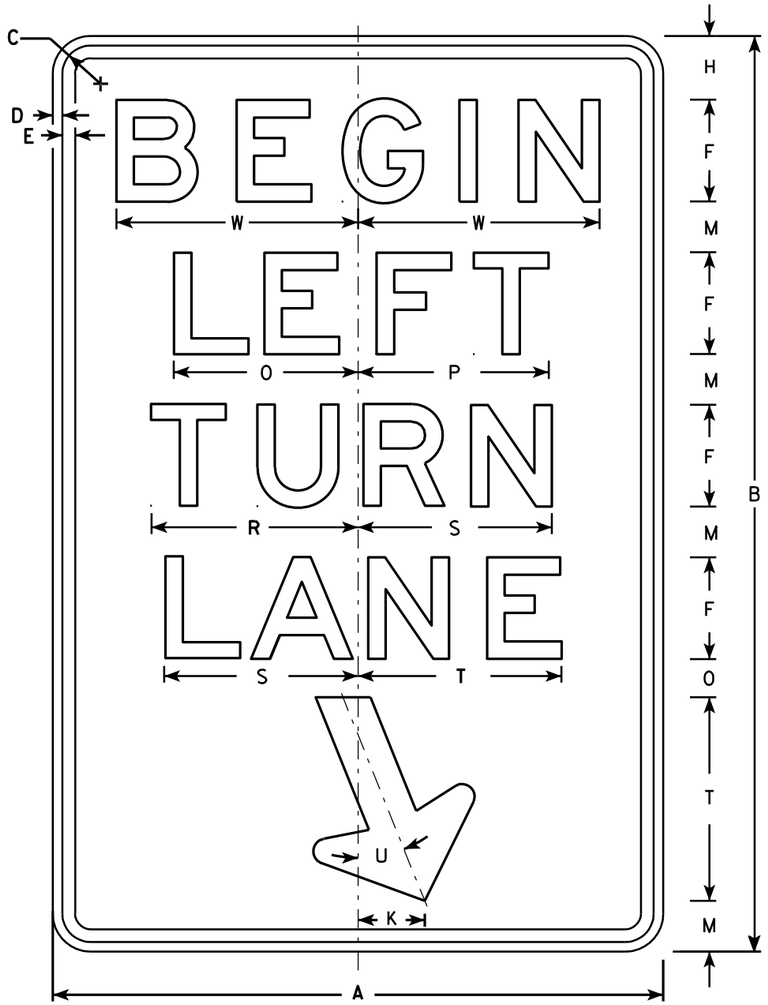
STANDARD SIGN
R3-8 (U) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/21/19 PLATE NO. R3-8.1

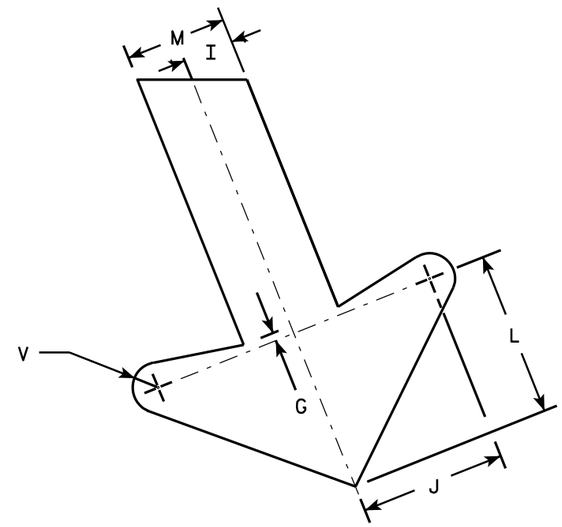
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 431 | E



R3-20L

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.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	7 1/4	7 1/2		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
2M	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	7 1/4	7 1/2		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
3	36	54	1 3/4	1/2	5/8	6	3/8	3 3/4	1 1/2	4 1/4	4	4 7/8	3	2 1/4	10 7/8	11 1/4		12 1/4	11 1/2	12	22°	3/4	13 1/4				13.5
4																											
5																											

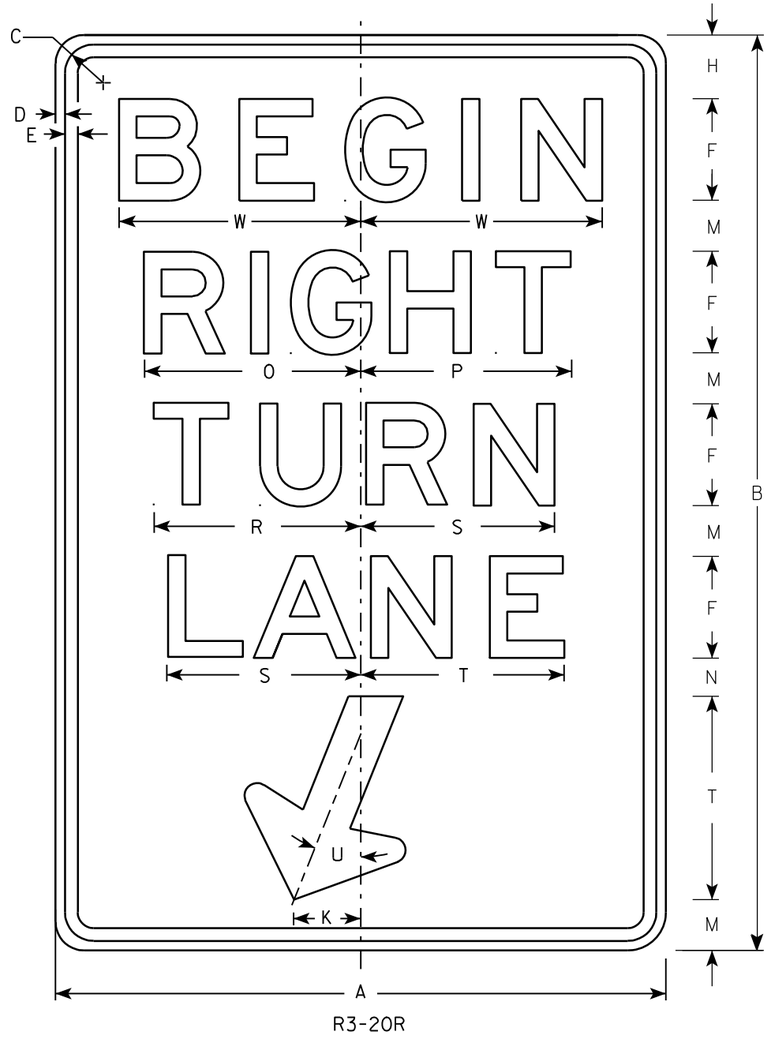
STANDARD SIGN
R3-20L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/18/10 PLATE NO. R3-20L.7

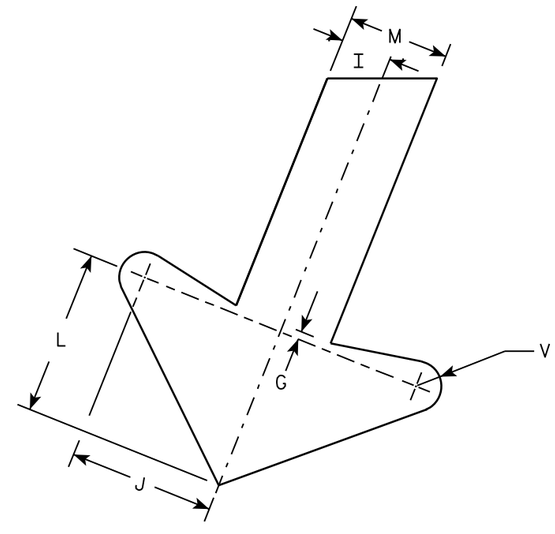
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 432 | E



R3-20R

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.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	8 1/2	8 1/4		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
2M	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	8 1/2	8 1/4		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
3	36	54	1 3/4	1/2	5/8	6	3/8	3 3/4	1 1/2	4 1/4	4	4 7/8	3	2 1/4	12 3/4	12 1/2		12 1/4	11 1/2	12	22°	3/4	13 1/4				13.5
4																											
5																											

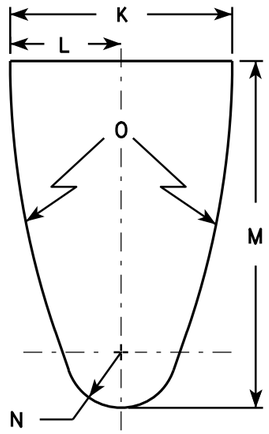
STANDARD SIGN
R3-20R

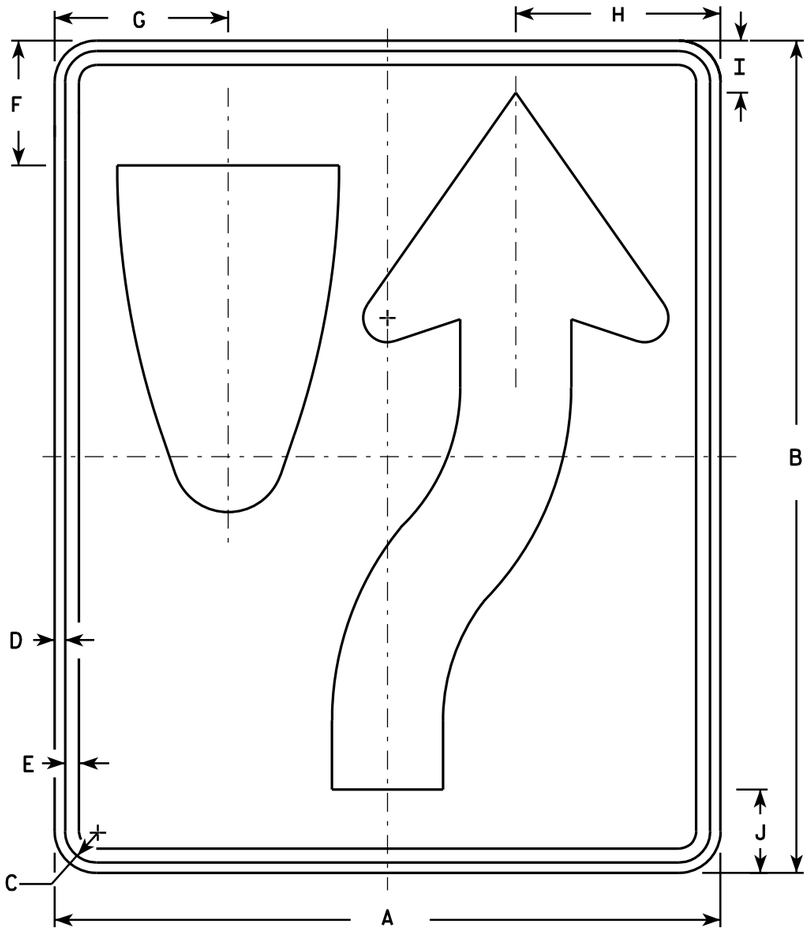
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/18/10 PLATE NO. R3-20R.6

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 433 | E

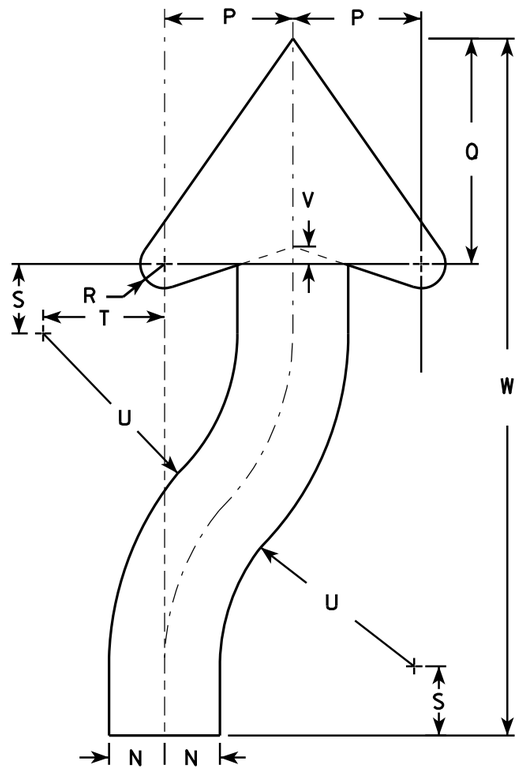




R4-7

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition. material is plywood but borders shall be rounded
2. Color:
   Background - White
   Message - Black
3. Corners may be square or rounded when base as shown. When base material is metal, the corners and borders shall be rounded.
4. R4-8 is the same as R4-7 except Legend is reversed.



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	18	24	1 1/8	3/8	1/2	3 3/8	4 3/4	5 1/2	1 3/8	2 1/4	6	3	9 3/8	1 1/2	22 1/2	3 1/2	6 1/8	5/8	1 7/8	3 1/4	6 3/4	1/2	20 3/8				3.0
2S	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
2M	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
3	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
4	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
5	48	60	2 1/4	3/4	1	9	12 1/2	14 3/4	3 3/4	6	16	8	25	4	60	9 1/4	16 1/4	1 5/8	5	8 3/4	18	1 1/4	50 1/4				20.0

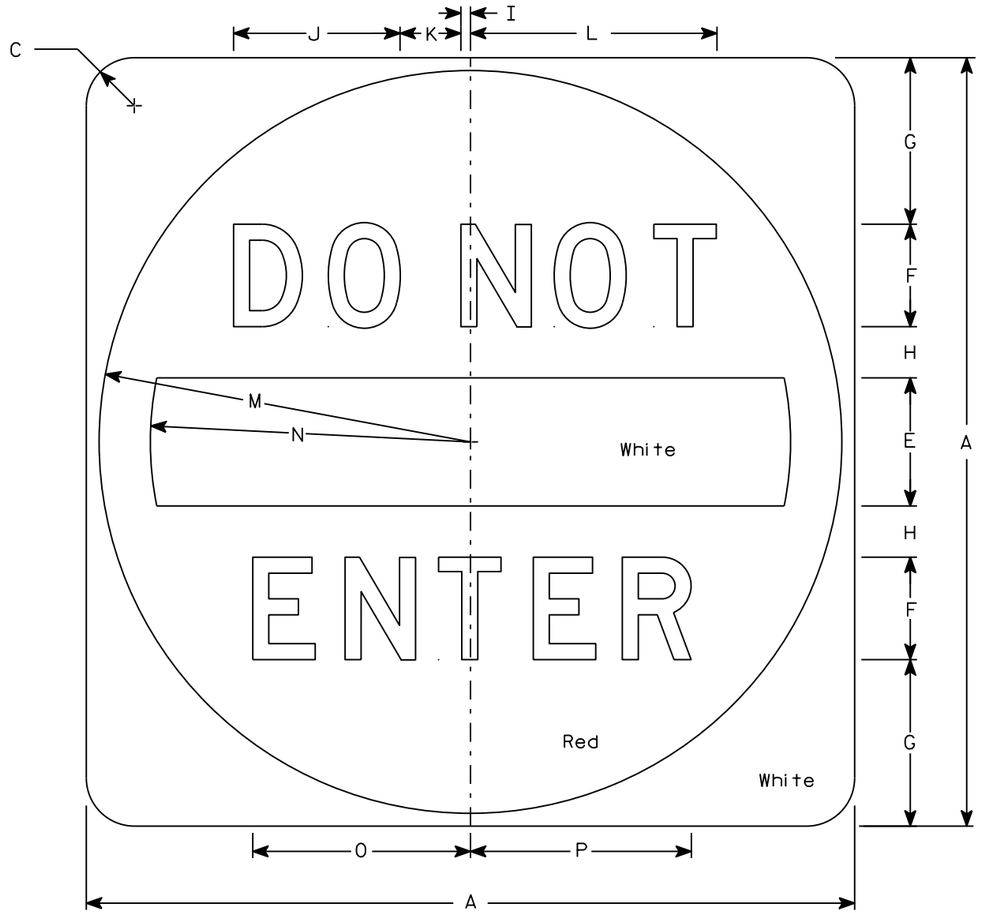
STANDARD SIGN
R4-7 & R4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-7.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 434	E



R5-1

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - See detail
   Message - White
3. Message Series - D

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30		1 7/8		5	4	6 1/2	2	3/8	6 1/2	2 3/8	9 5/8	14 1/2	12 1/2	8 1/2	8 5/8											6.25
2M	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
3	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
4	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
5	48		3		8	6	11	3	5/8	9 3/4	3 5/8	14 1/2	23 1/2	20	12 3/4	12 7/8											16.0

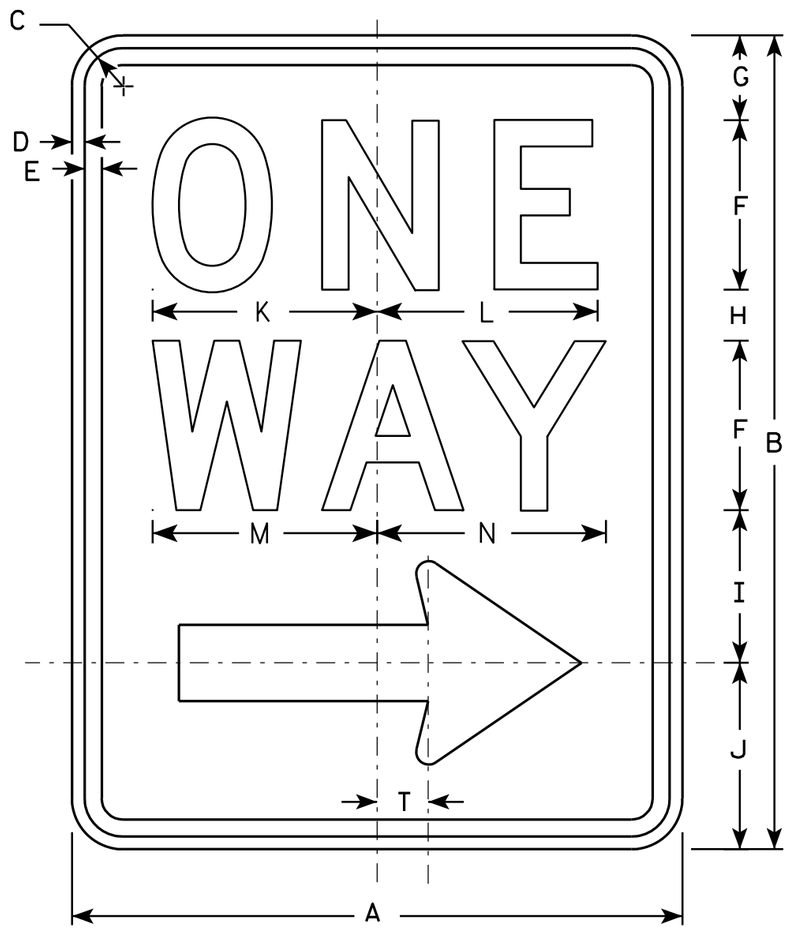
STANDARD SIGN
R5-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/15/18 PLATE NO. R5-1.16

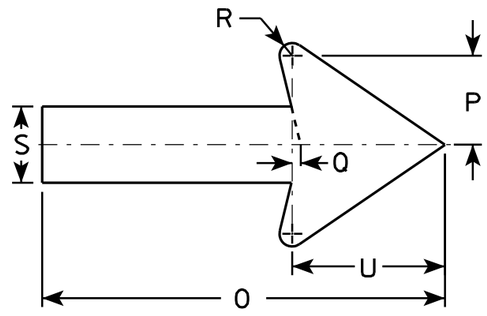
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 435 | E



R6-2R

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. R6-2L same as R6-2R except arrow points to the left.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z
1	18	24	1 1/8	3/8	1/2	5	2 1/2	1 1/2	4 1/2	5 1/2	6 5/8	6 1/2	6 5/8	6 3/4	11 7/8	2 5/8	1/4	3/8	2 1/4	1 1/2	4 1/2					
2S	24	30	1 1/8	3/8	1/2	6	3	2 1/2	5 1/2	7	8 1/8	8 1/8	8 1/2	8 5/8	16	3 1/2	3/8	1/2	3	2	6					
2M	30	36	1 3/8	1/2	5/8	8	2 1/2	2 5/8	6 7/8	8	10 1/2	10 1/2	11 1/4	11 1/4	20	4 3/8	1/2	5/8	3 3/4	2 1/2	7 1/2					
3	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
4	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
5																										

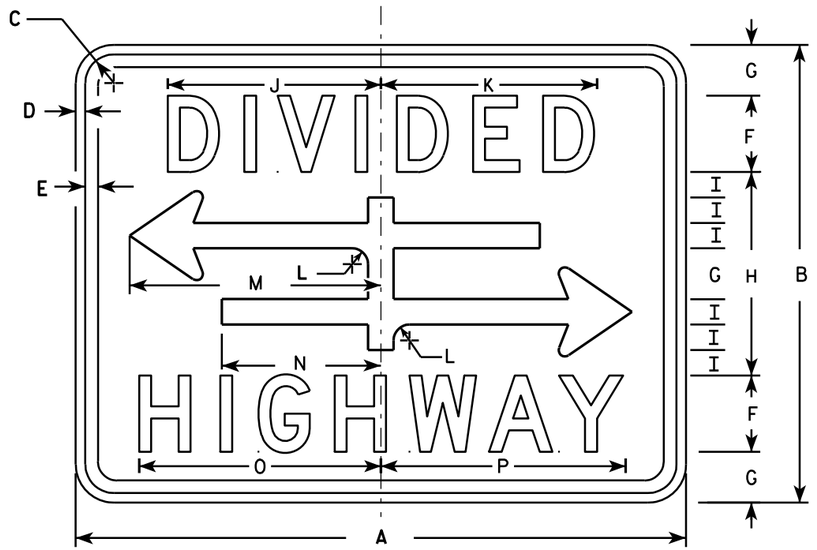
STANDARD SIGN
R6-2 R&L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/2/10 PLATE NO. R6-2.8

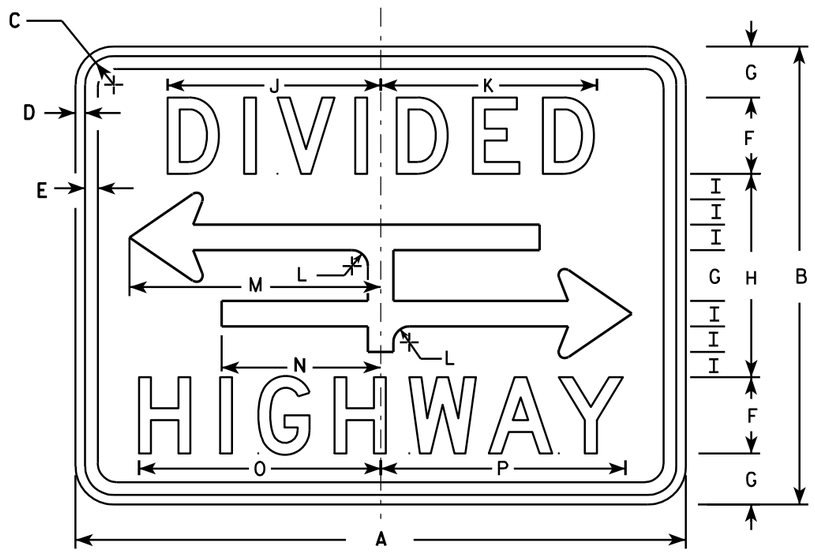
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 436 | E



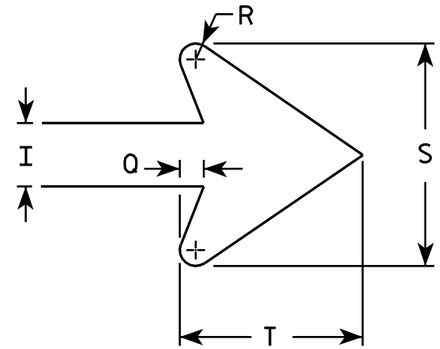
R6-3

NOTES

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



R6-3A



ARROW DETAIL

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

STANDARD SIGN
R6-3 & R6-3A

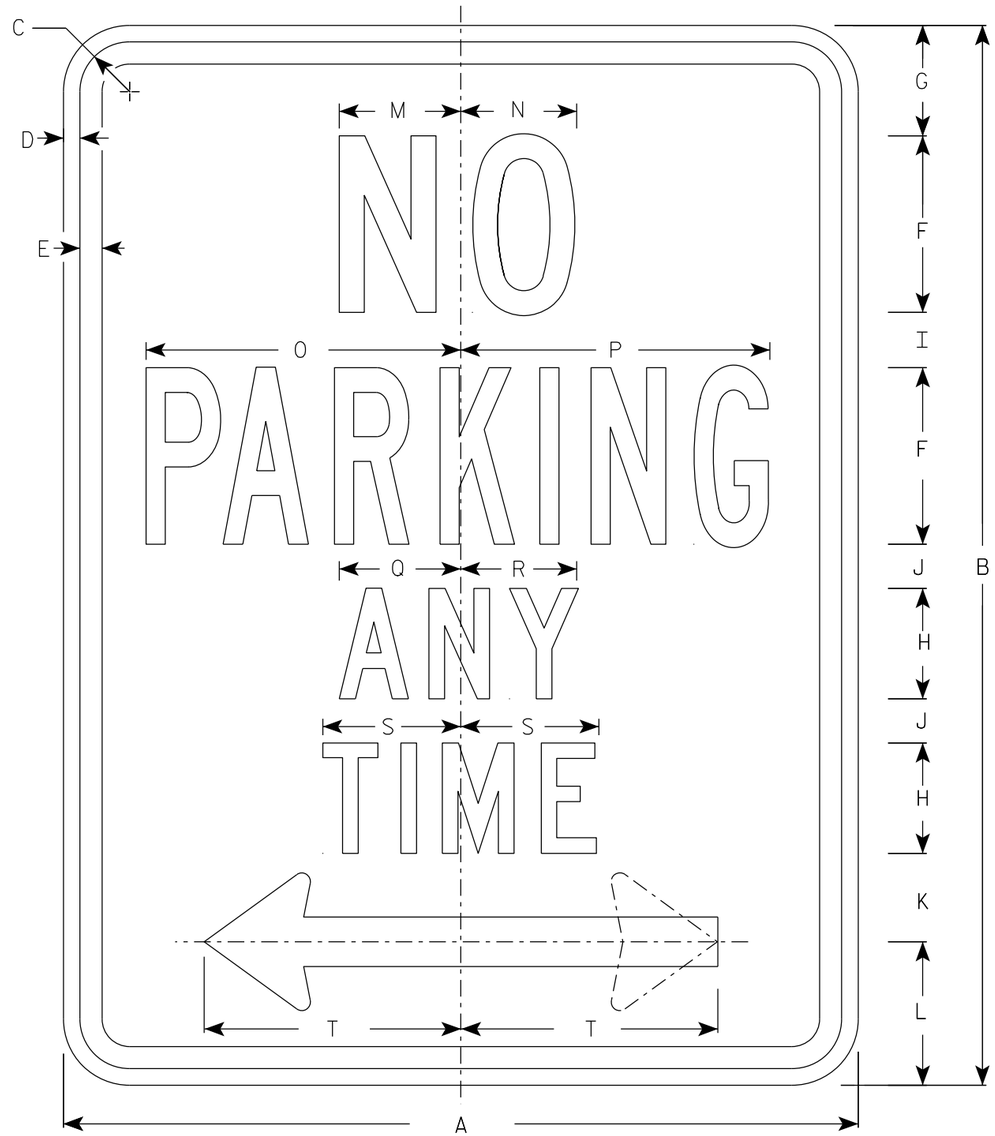
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R6-3.5

PROJECT NO:

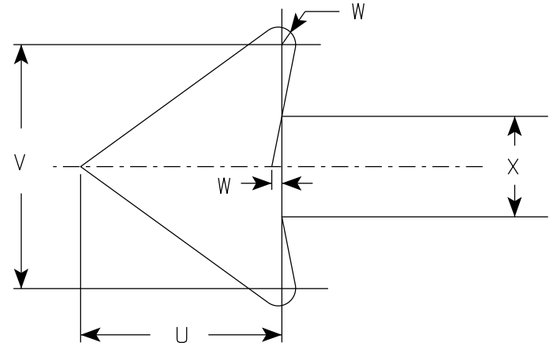
SHEET NO: 437 E



R7-1

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Red
3. Message Series - See Note 5
4. Lines 1, 3 and 4 are series C, line 2 is series B.
5. R7-1D (double arrow)
   R7-1L (left arrow)
   R7-1R (right arrow)



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	12	18	1 1/8	3/8	3/8	3	1 7/8	2	7/8	5/8	1 1/2	2 1/2	2	2	4 7/8	4 7/8	2 1/4	2 1/8	2 1/2	3 7/8	1 1/2	1 3/4	1/8	3/4			1.5
2S	18	24	1 1/8	3/8	1/2	4	2 1/2	2 1/2	1 1/4	1	2	3 1/4	2 3/4	2 5/8	7 1/8	7	2 3/4	2 5/8	3 1/8	5 7/8	2 1/4	2 5/8	1/4	1 1/8			3.0
2M	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	3 1/4	3 1/4	3 3/4	7 3/4	3	3 1/2	1/4	1 1/2			5.0
3	24	30	1 1/8	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	3 1/4	3 1/4	3 3/4	7 3/4	3	3 1/2	1/4	1 1/2			5.0
4																											
5																											

STANDARD SIGN
R7-1

WISCONSIN DEPT OF TRANSPORTATION

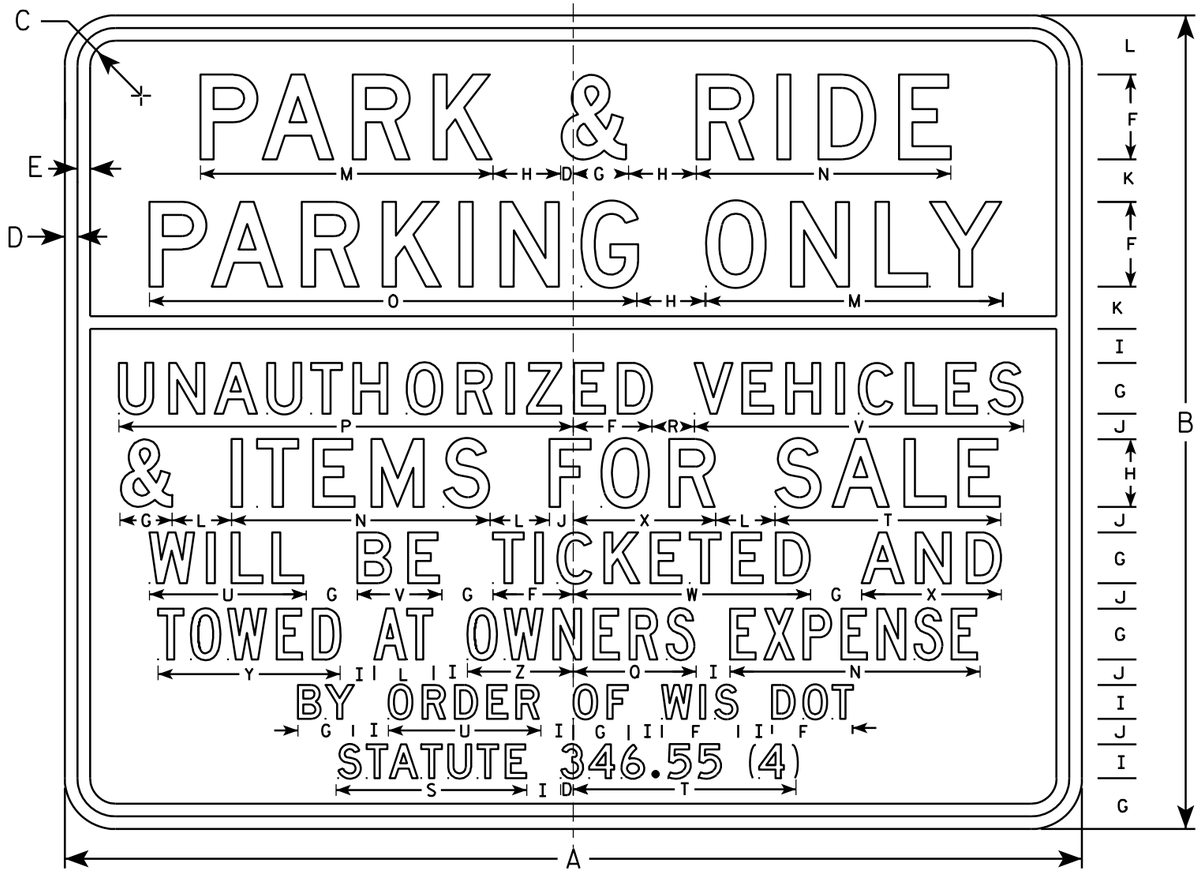
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2021 PLATE NO. R7-1.10

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 438 E

7

7



R7-65

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - WHITE
   Message - Black
3. Message Series - D except Line 6 is 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																											
2S																											
2M																											
3	30	24	1 1/8	3/8	3/8	2 1/2	1 1/2	2	1	3/4	1 1/4	1 3/4	8 5/8	7 1/2	14 3/8	13 3/8	3 5/8	1 1/4	5 3/4	6 5/8	4 5/8	9 3/4	7	4 1/8	5 3/8	3 1/8	5.0
4																											
5																											

STANDARD SIGN
R7-65

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R7-65.3

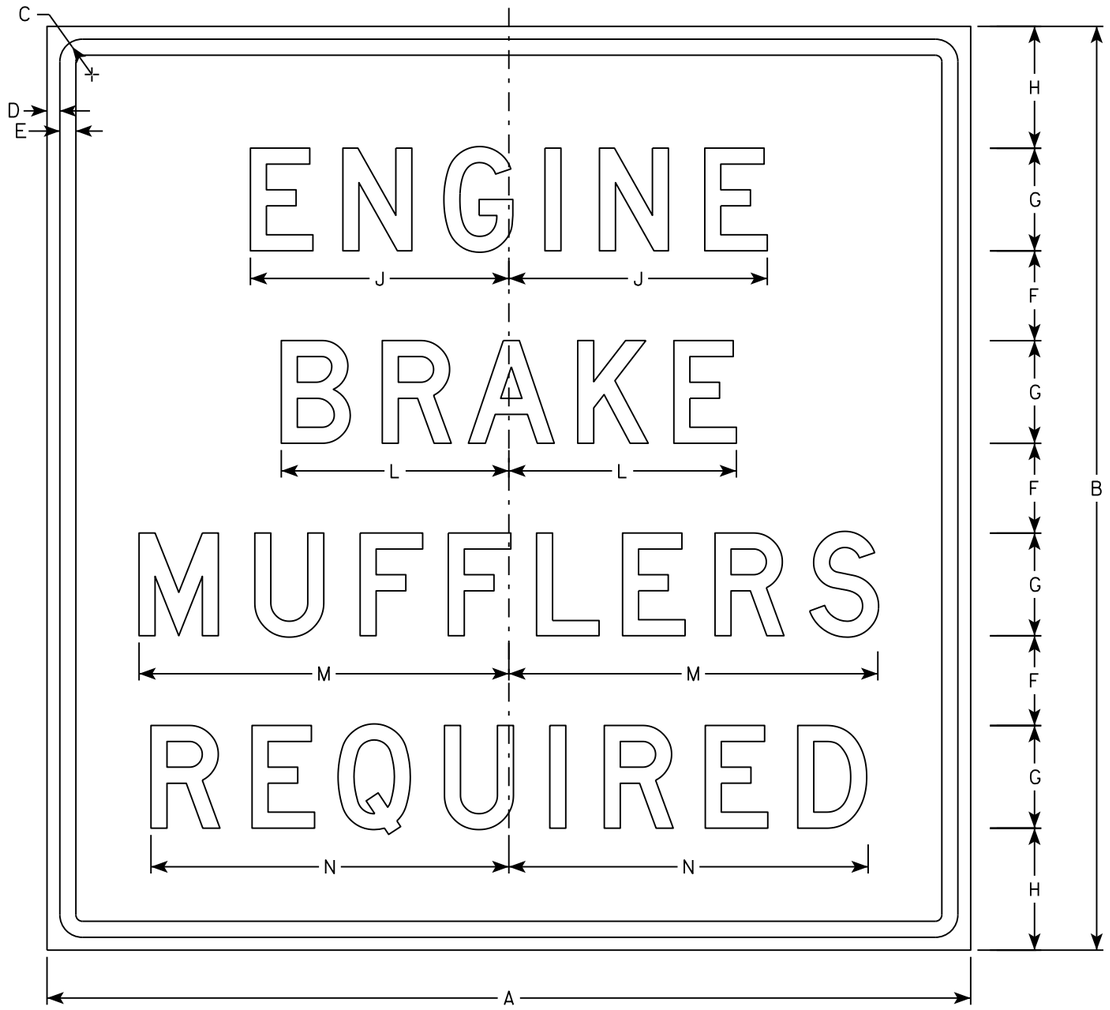
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 439	E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R765.DGN PLOT DATE : 31-MAR-2011 13:54 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 4.469282:1.000000

WISDOT/CADDS SHEET 42

7

7



R10-64

NOTES

1. Signs are Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D See note 5
4. Corners shall be rounded when base material is metal

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	36	1 3/8	1/2	5/8	3 1/2	4	4 3/4	2	10 1/8	3 1/2	8 7/8	14 3/8	14													9.0
2S	36	36	1 3/8	1/2	5/8	3 1/2	4	4 3/4	2	10 1/8	3 1/2	8 7/8	14 3/8	14													9.0
2M	36	36	1 3/8	1/2	5/8	3 1/2	4	4 3/4	2	10 1/8	3 1/2	8 7/8	14 3/8	14													9.0
3	42	42	1 3/8	1/2	5/8	4	5	5	3	12 5/8	4	11 1/8	18	17 3/8													12.25
4																											
5																											

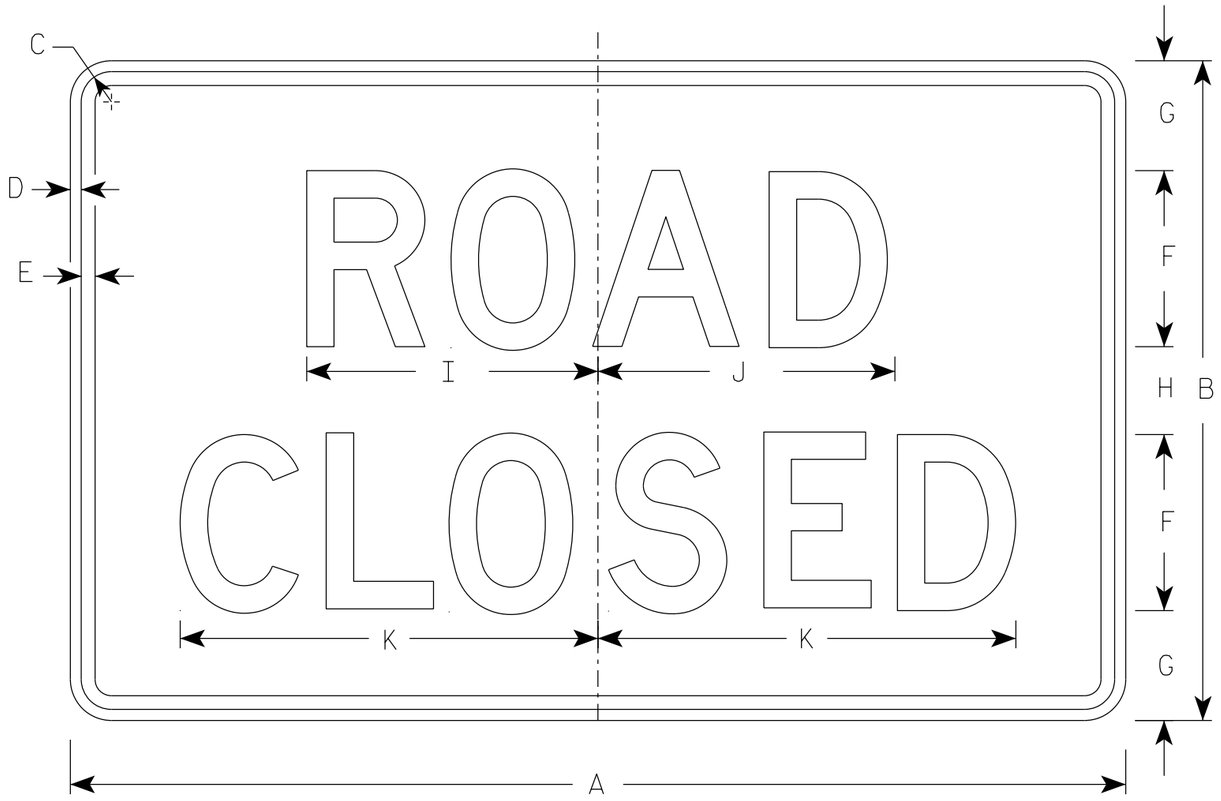
STANDARD SIGN
R10-64

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/3/18 PLATE NO. R10-64.8

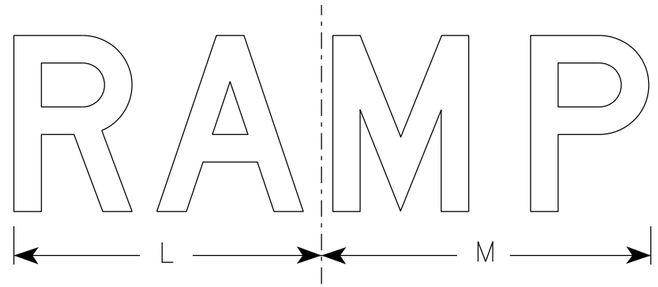
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 440 | E



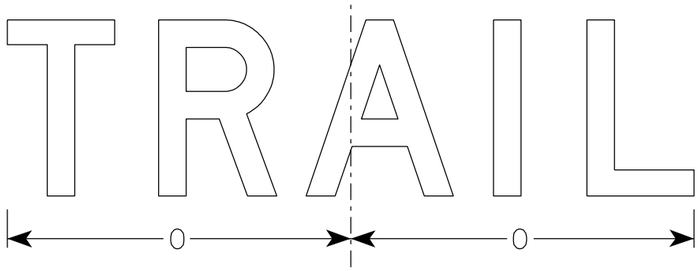
R11-2

NOTES

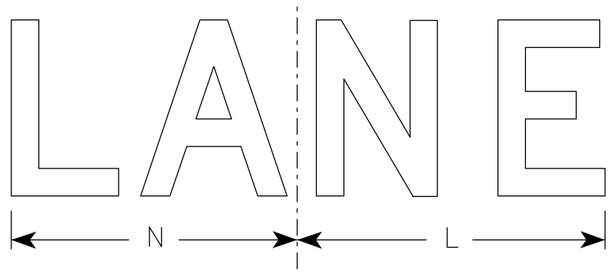
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Modify the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

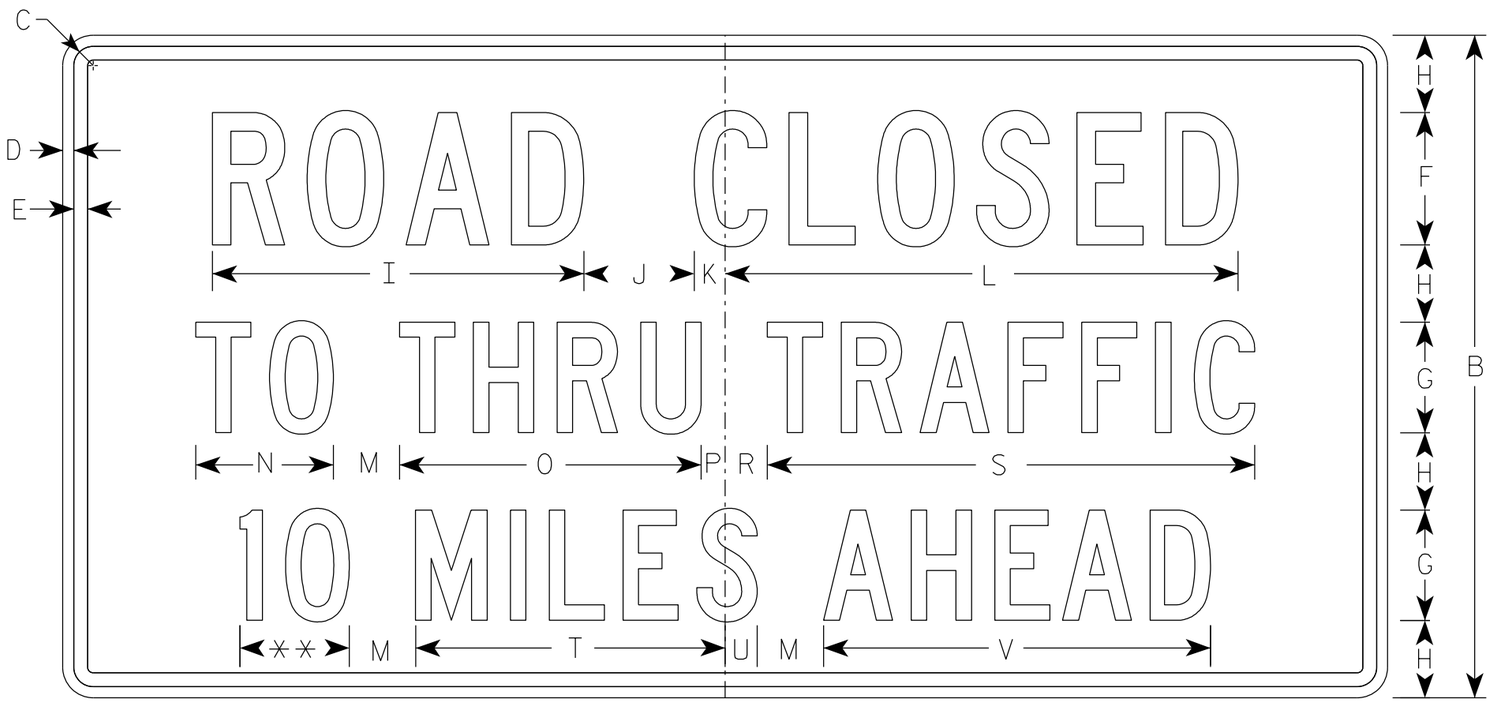
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/29/2021 PLATE NO. R11-2.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 441 E

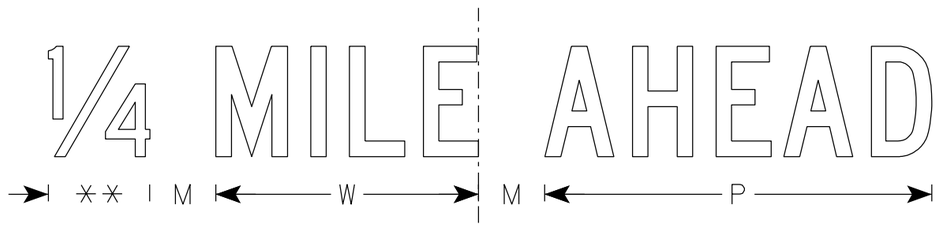
NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   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 nearest quarter mile and optically adjust spacing to achieve proper balance.



R11-3

** See Note 5



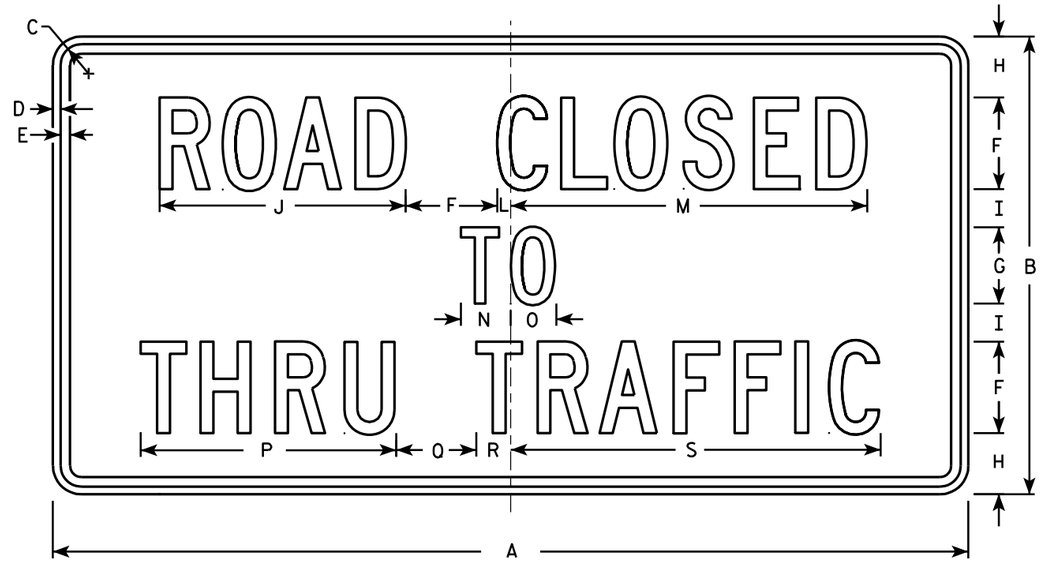
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 1/4	3/8	3/8	4	3	2	11 1/4	3	1 1/8	15 3/8	2	3 3/4	8 1/4	5/8		1 3/8	13 1/4	8 3/8	7/8	10 1/2	7 1/8				4.5
2S	60	30	1 3/8	1/2	5/8	6	5	3 1/2	16 7/8	5	1 3/8	23 1/4	3	6 1/4	13 5/8	1 1/8		1 7/8	22 1/8	14	1 1/2	17 1/2	11 7/8				12.5
2M	60	30	1 3/8	1/2	5/8	6	5	3 1/2	16 7/8	5	1 3/8	23 1/4	3	6 1/4	13 5/8	1 1/8		1 7/8	22 1/8	14	1 1/2	17 1/2	11 7/8				12.5
3																											
4																											
5																											

STANDARD SIGN
R11-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer
DATE 6/14/2021 PLATE NO. R11-3.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 442	E



R11-4

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 - 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																											
2S	60	30	1 3/8	1/2	5/8	6	5	4	2 1/2	16 1/8		7/8	23 3/8	3 1/4	3	16 3/4	5 1/4	2 1/4	24 1/4								12.5
2M	60	30	1 3/8	1/2	5/8	6	5	4	2 1/2	16 1/8		7/8	23 3/8	3 1/4	3	16 3/4	5 1/4	2 1/4	24 1/4								12.5
3																											
4																											
5																											

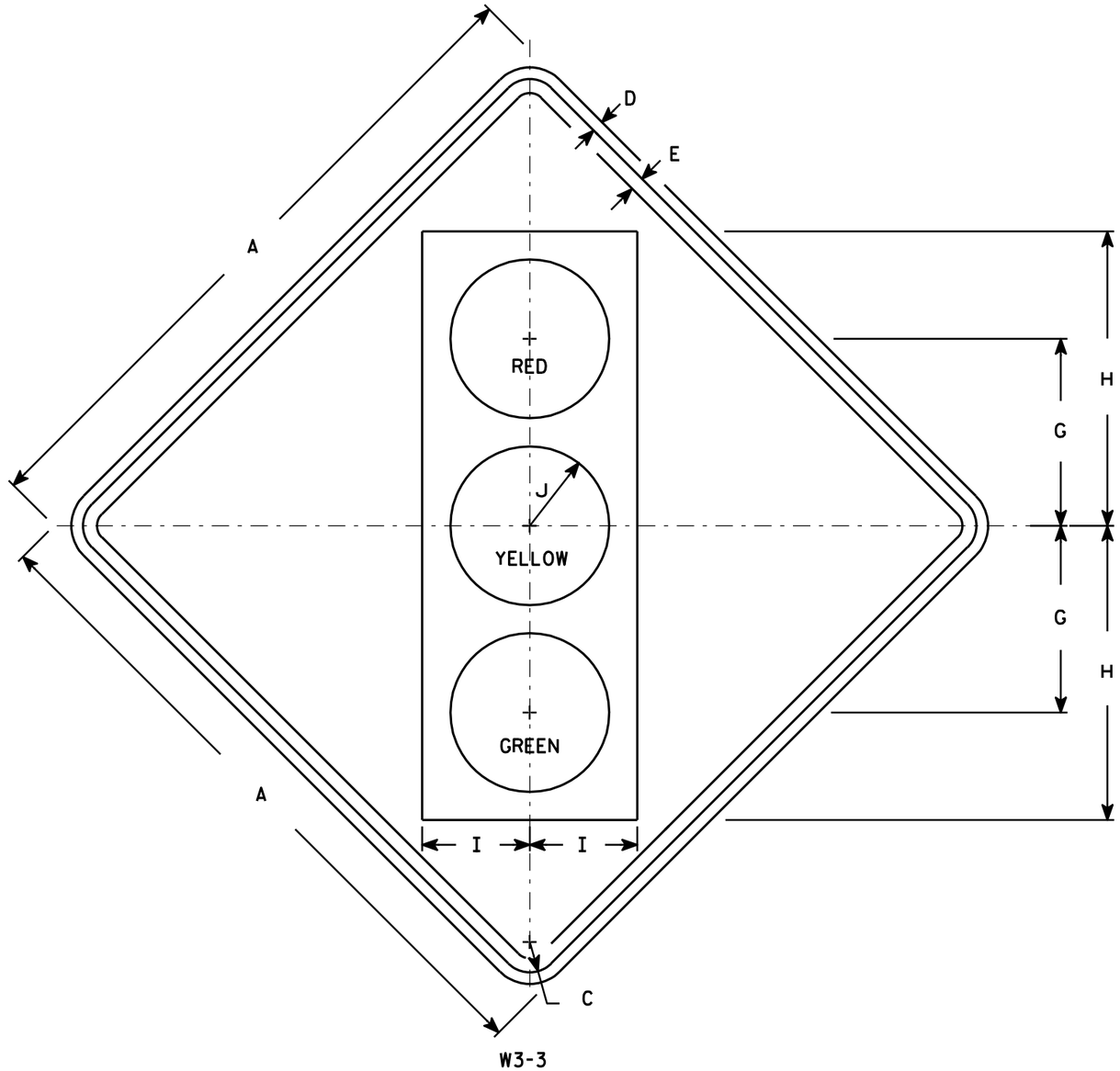
STANDARD SIGN
R11 - 4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-4.3

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 443 | E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - 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. Symbol and border are non-reflective black.
   Top circle - Type H Reflectorized Red
   Center circle - Same as background
   Bottom circle - Type H Reflectorized Green

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8		8 3/4	13 3/4	5	3 3/4																	6.25
2S	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
2M	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
3	36		1 5/8	5/8	3/4		10	15 3/4	5 3/4	4 1/4																	9.0
4	48		2 1/4	3/4	1		12 1/2	20	7 1/2	5																	16.0
5	48		2 1/4	3/4	1		12 1/2	20	7 1/2	5																	16.0

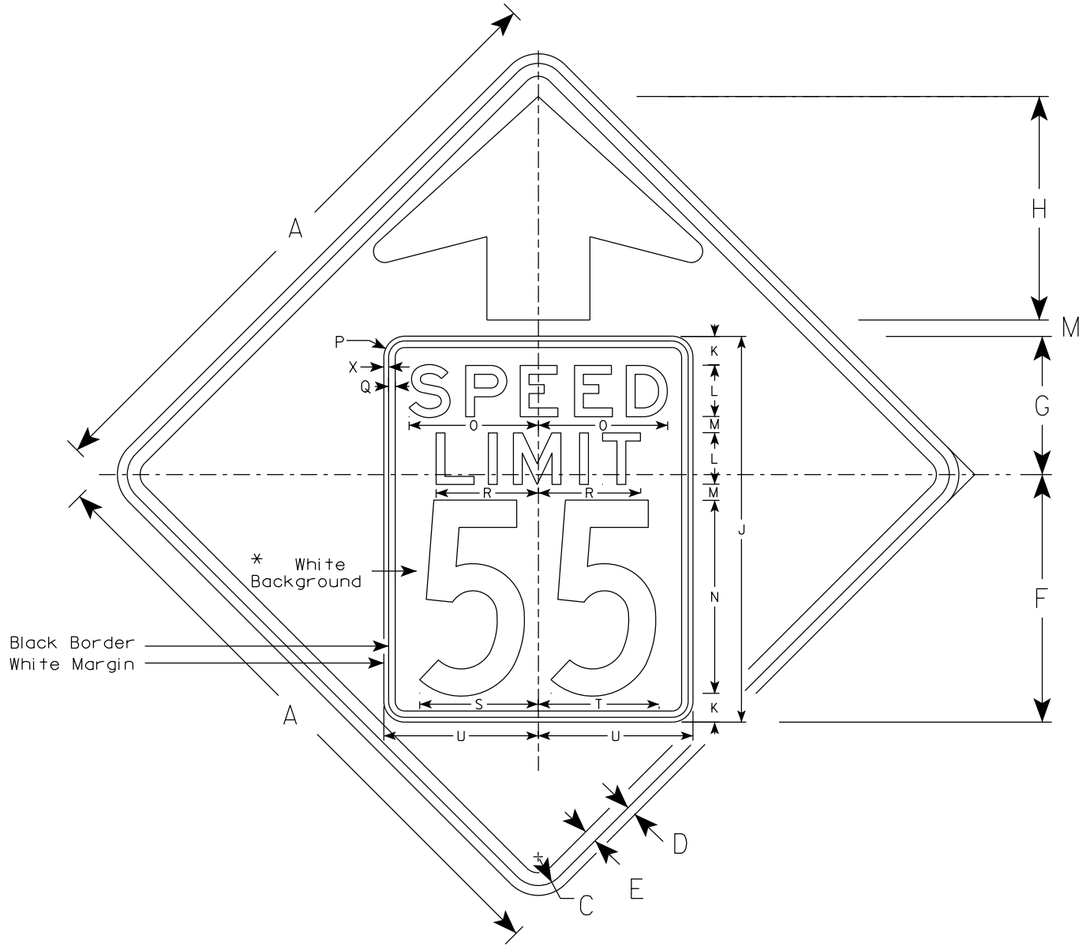
STANDARD SIGN
W3-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 6/7/10 PLATE NO. W3-3.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 444 | E

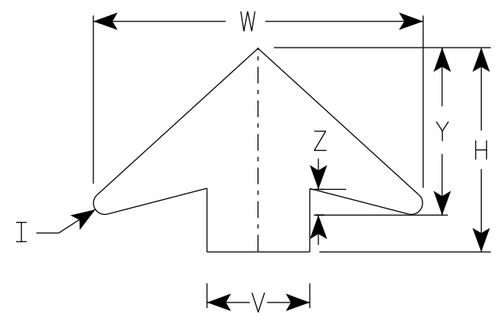


W3-5

NOTES

1. Sign is Type II - See Note 2 for Sheeting Type
2. Color: *
   Background - Yellow* (Type F Reflective)
   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 with black message (Type SH Reflective)



ARROW DETAIL

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

STANDARD SIGN
W3-5

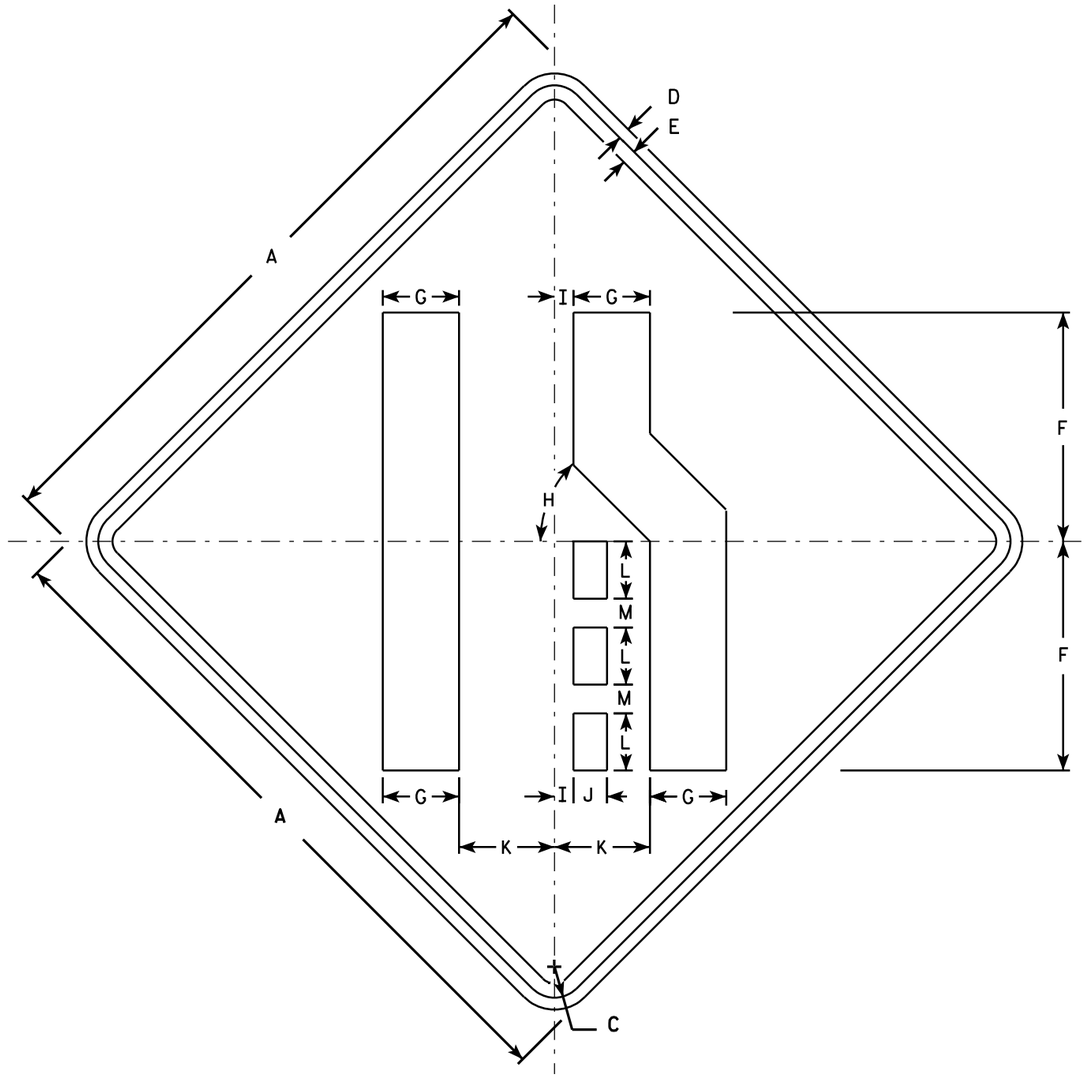
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew L Rauch
for State Traffic Engineer

DATE 7/27/2020 PLATE NO. W3-5.6

PROJECT NO:

SHEET NO: 445 E



W4-2R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W4-2L is the same as W4-2R 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	30		1 3/8	1/2	5/8	10	3 3/8	45°	7/8	1 1/2	4 1/4	2 1/2	1 1/4														6.25
2S	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2M	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
3	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
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
W4-2

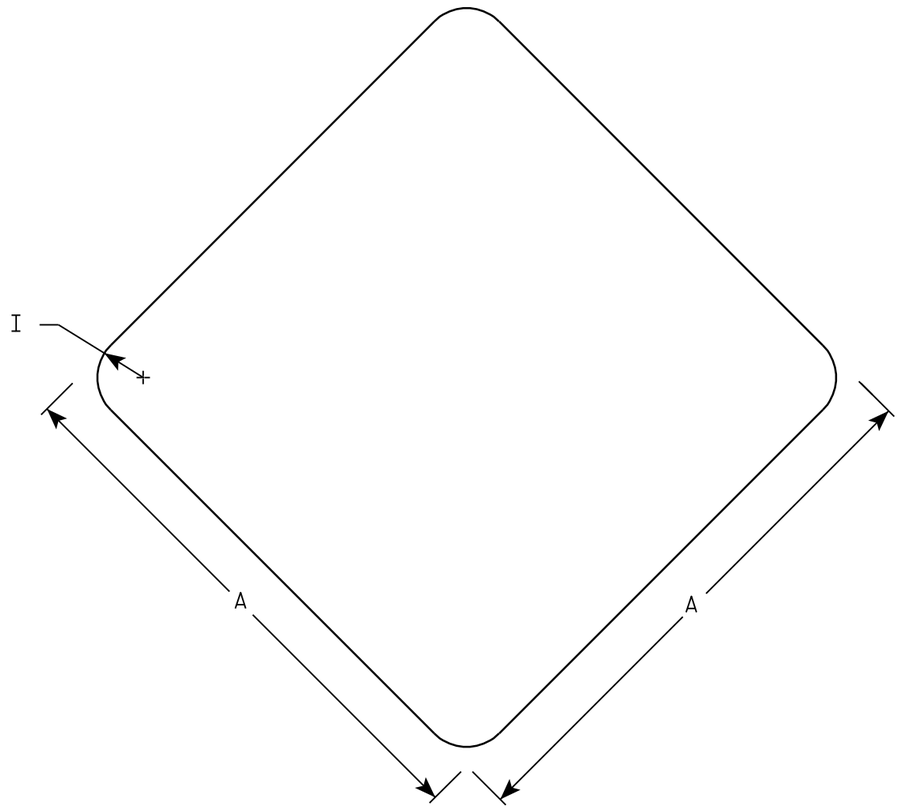
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/12/13 PLATE NO. W4-2.14

PROJECT NO:

SHEET NO: 446 E



W5-54

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	12								1																		1.0
2S	18								1 ½																		2.25
2M	18								1 ½																		2.25
3																											
4																											
5																											

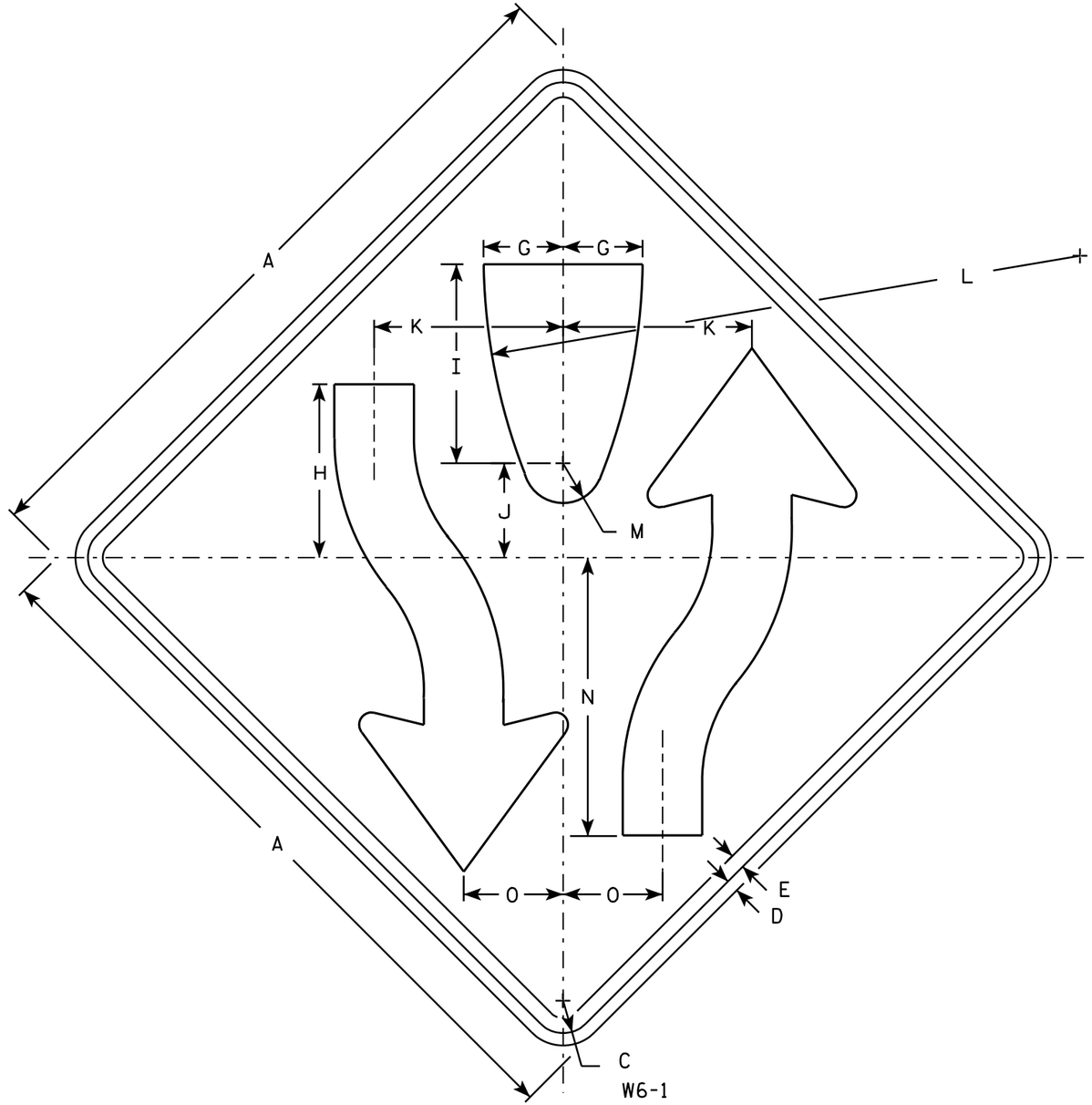
STANDARD SIGN
W5-54

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

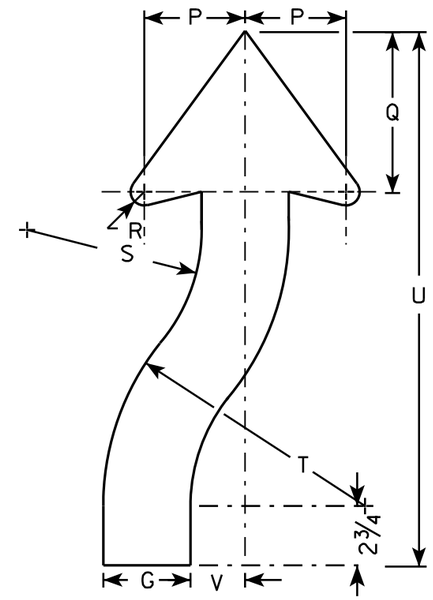
DATE 11/3/10 PLATE NO. W5-54.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 447	E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W6-2 same as W6-1 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	30		1 3/8	1/2	5/8		3 1/4	8	8 1/4	4 1/8	7 7/8	25	1 3/4	11 5/8	4 1/8	3 7/8	6 3/4	5/8	6 5/8	9 7/8	21 5/8	2					6.25
2S	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
2M	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
3																											
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
W6-1 & W6-2

WISCONSIN DEPT OF TRANSPORTATION

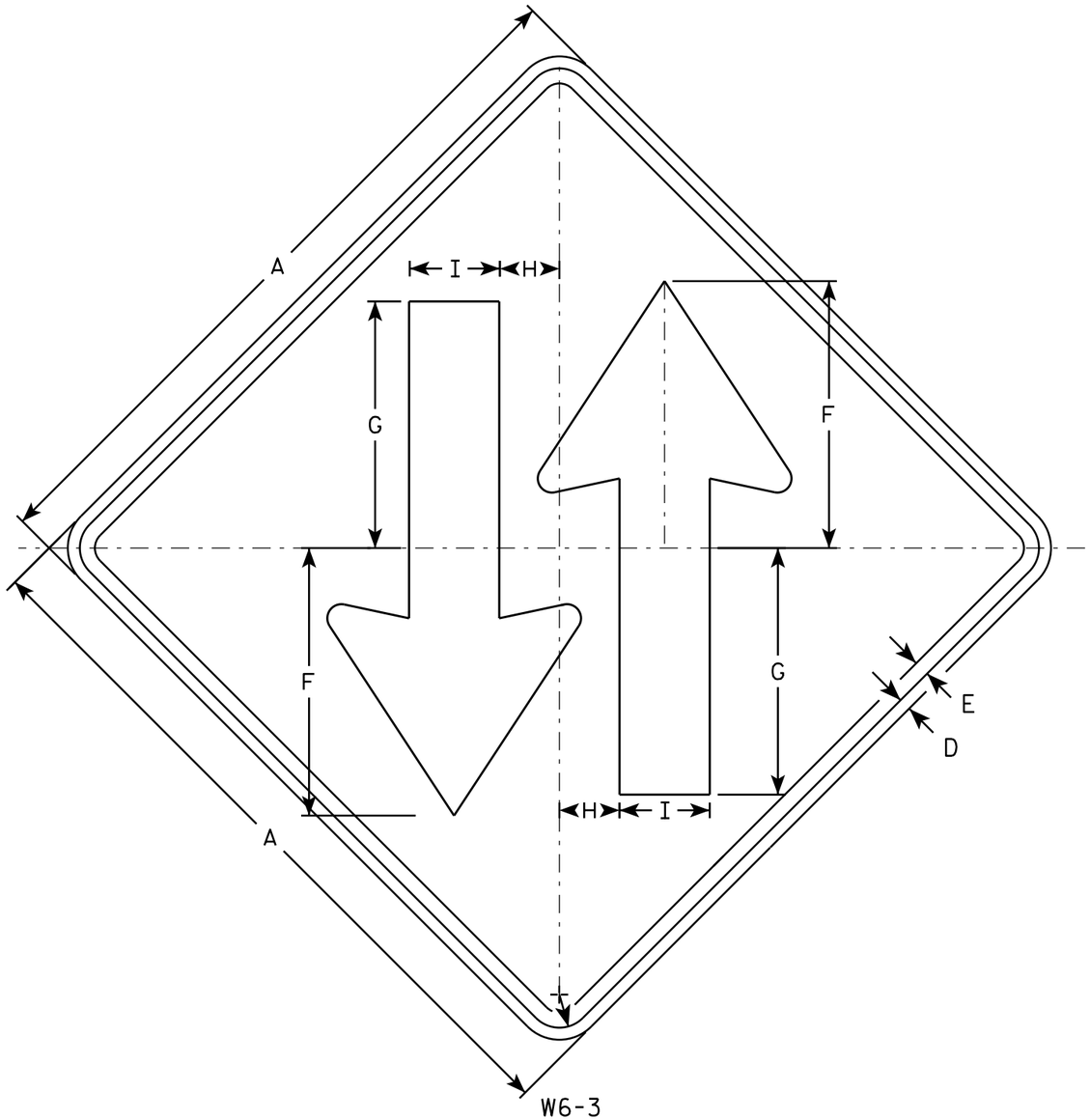
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 03/12/13 PLATE NO. W6-1.14

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 448	E

7

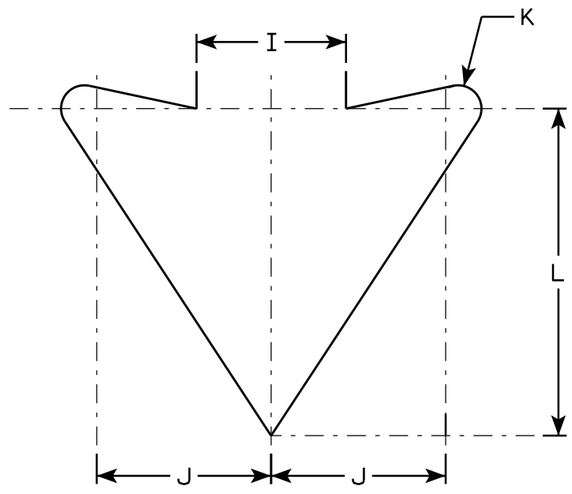
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W61.DGN PLOT DATE : 12-MAR-2013 14:02 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 6.946657:1.000000
WISDOT/CADDS SHEET 42



W6-3

NOTES

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



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	11 1/8	10 1/4	2 1/2	3 3/4	4 3/8	5/8	8 1/4															6.25
2S	36		1 5/8	5/8	3/4	13 3/8	12 1/4	3	4 1/2	5 1/4	3/4	9 7/8															9.0
2M	36		1 5/8	5/8	3/4	13 3/8	12 1/4	3	4 1/2	5 1/4	3/4	9 7/8															9.0
3																											
4	48		2 1/4	3/4	1	17 3/4	16 3/8	4	6	7	1	13 1/8															16.0
5	48		2 1/4	3/4	1	17 3/4	16 3/8	4	6	7	1	13 1/8															16.0

STANDARD SIGN
W6-3

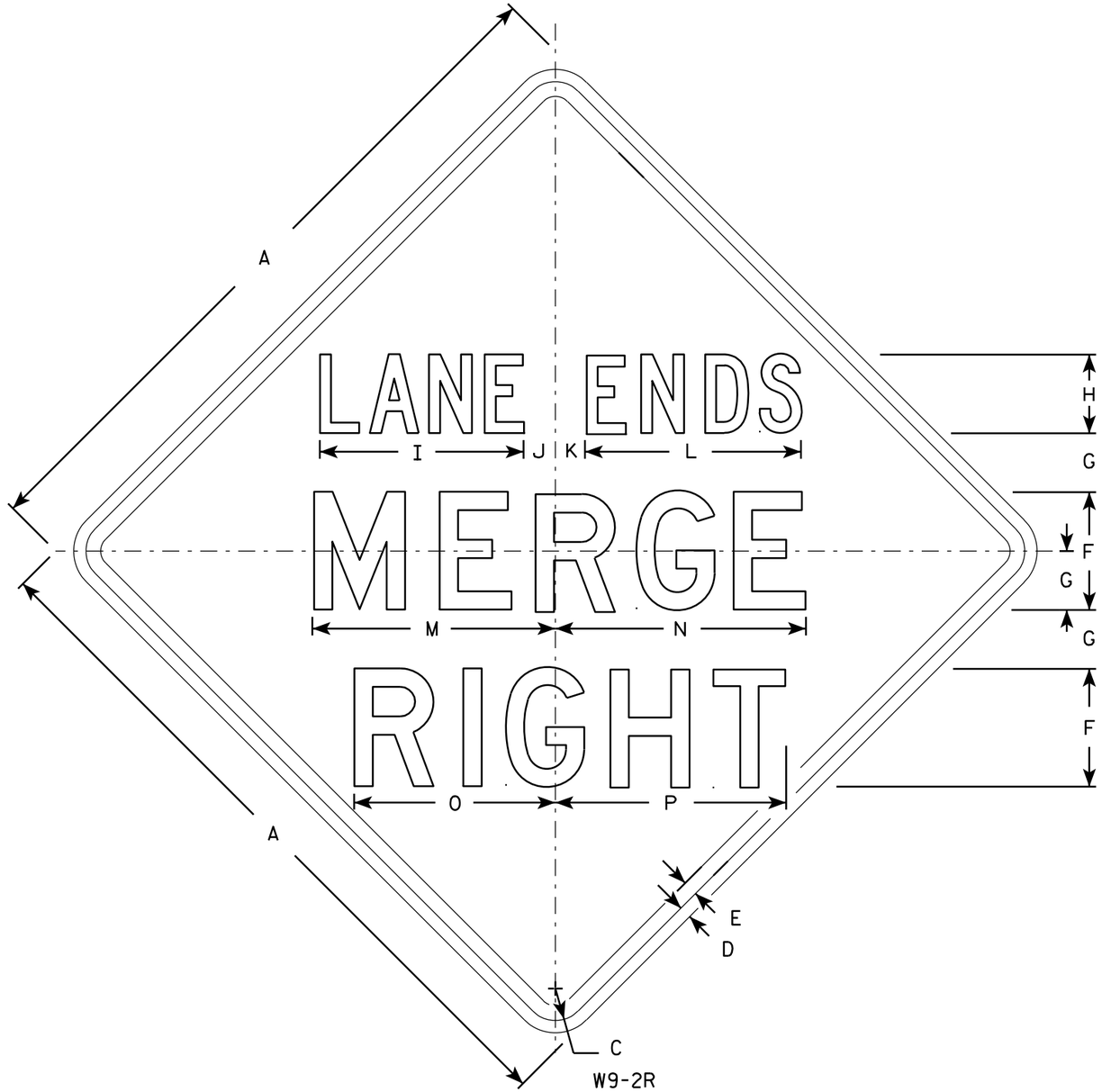
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

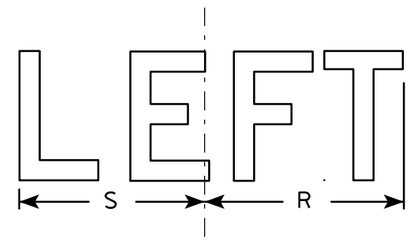
DATE 3/10/16 PLATE W6-3.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W63.DGN PLOT DATE : 10-MAR-2016 14:01 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 6.080757:1.000000
WISDOT/CADDS SHEET 42



W9-2R



W9-2L

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - 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. Line 1 is Series C, lines 2 & 3 are Series D.
6. W9-1L is the same as W9-2R except the word LEFT replaces 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	30		1 3/8	1/2	5/8	5	2 1/2	3	8	1	1 1/8	8 1/4	10 3/8	10 5/8	8 5/8	9 7/8		7 5/8	7 1/8								6.25
2S	36		1 5/8	5/8	3/4	6	3	4	10 3/8	1 5/8	1 1/2	11	12 3/8	12 3/4	10 1/4	11 3/4		9 1/8	8 1/2								9.0
2M	36		1 5/8	5/8	3/4	6	3	4	10 3/8	1 5/8	1 1/2	11	12 3/8	12 3/4	10 1/4	11 3/4		9 1/8	8 1/2								9.0
3																											
4	48		2 1/4	3/4	1	8	4	6	14 1/2	2	3 1/4	13 3/4	16 3/8	17 1/8	13 3/4	15 3/4		12 1/4	11 1/4								16.0
5	48		2 1/4	3/4	1	8	4	6	14 1/2	2	3 1/4	13 3/4	16 3/8	17 1/8	13 3/4	15 3/4		12 1/4	11 1/4								16.0

STANDARD SIGN
W9-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 03/18/13 PLATE NO. W9-2.10

PROJECT NO:

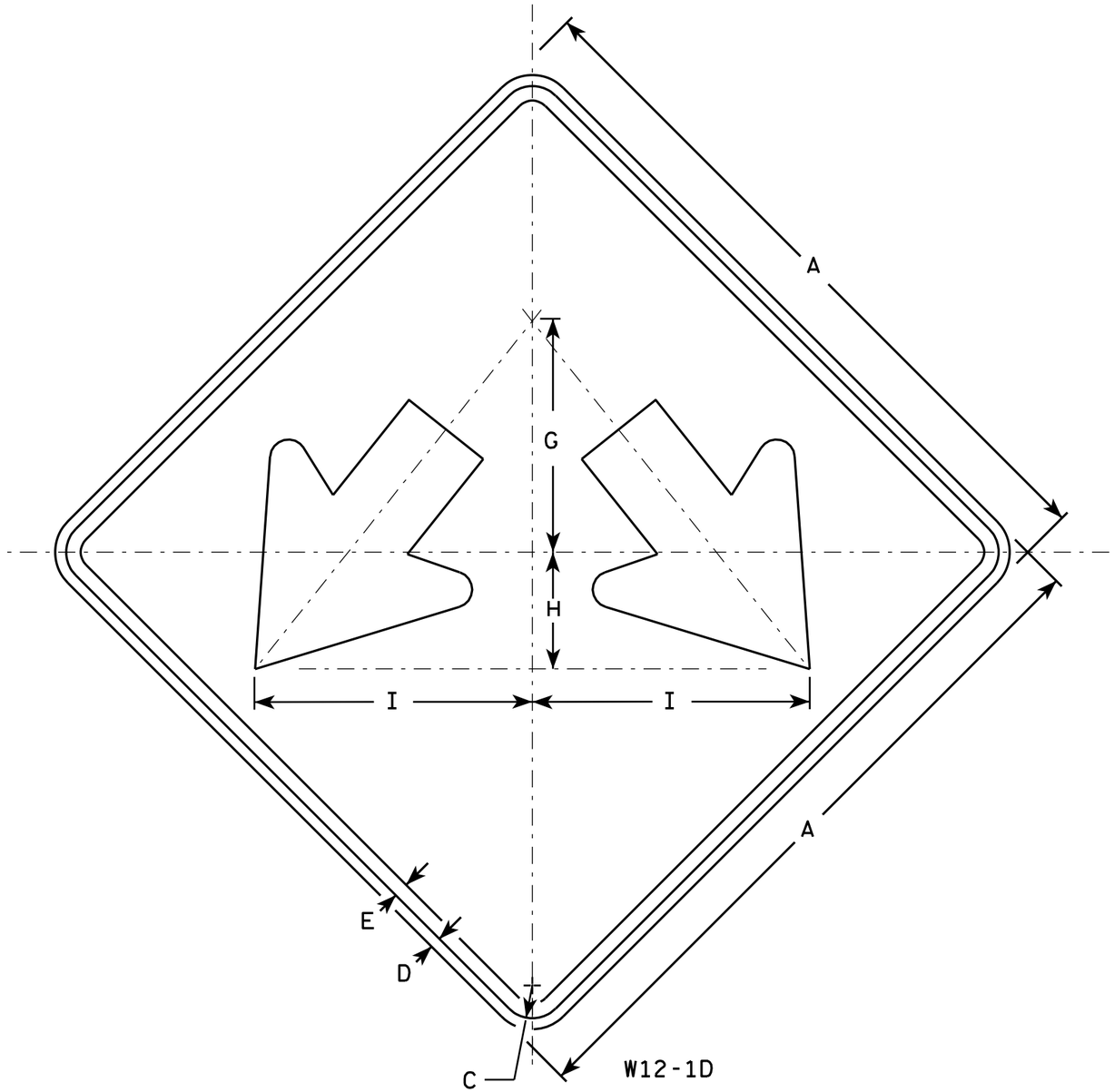
SHEET NO: 450 E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W92.DGN PLOT DATE : 18-MAR-2013 12:01 PLOT BY : mscsja

WISDOT/CADDS SHEET 42

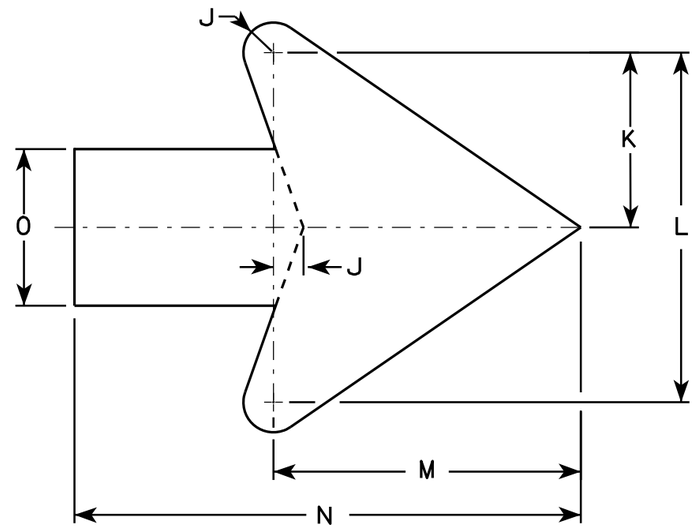
7

7



NOTES

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



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
2M	24		1 1/8	1/2	3/8		8	4	9 1/2	3/8	3 3/8	7 1/4	6 3/8	10 3/8	3 1/4												4.0
3	30		1 3/8	1/2	5/8		10	5	11 7/8	3/4	4 1/2	9	7 7/8	13	4												6.25
4	36		1 3/8	1/2	5/8		12	6	14 1/4	1	5 1/2	10 7/8	9 5/8	15 3/4	4 3/4												9.0
5	48		2 1/4	3/4	1		16	8	19	1 1/4	7 1/4	14 1/2	12 3/4	21	6 1/4												16.0

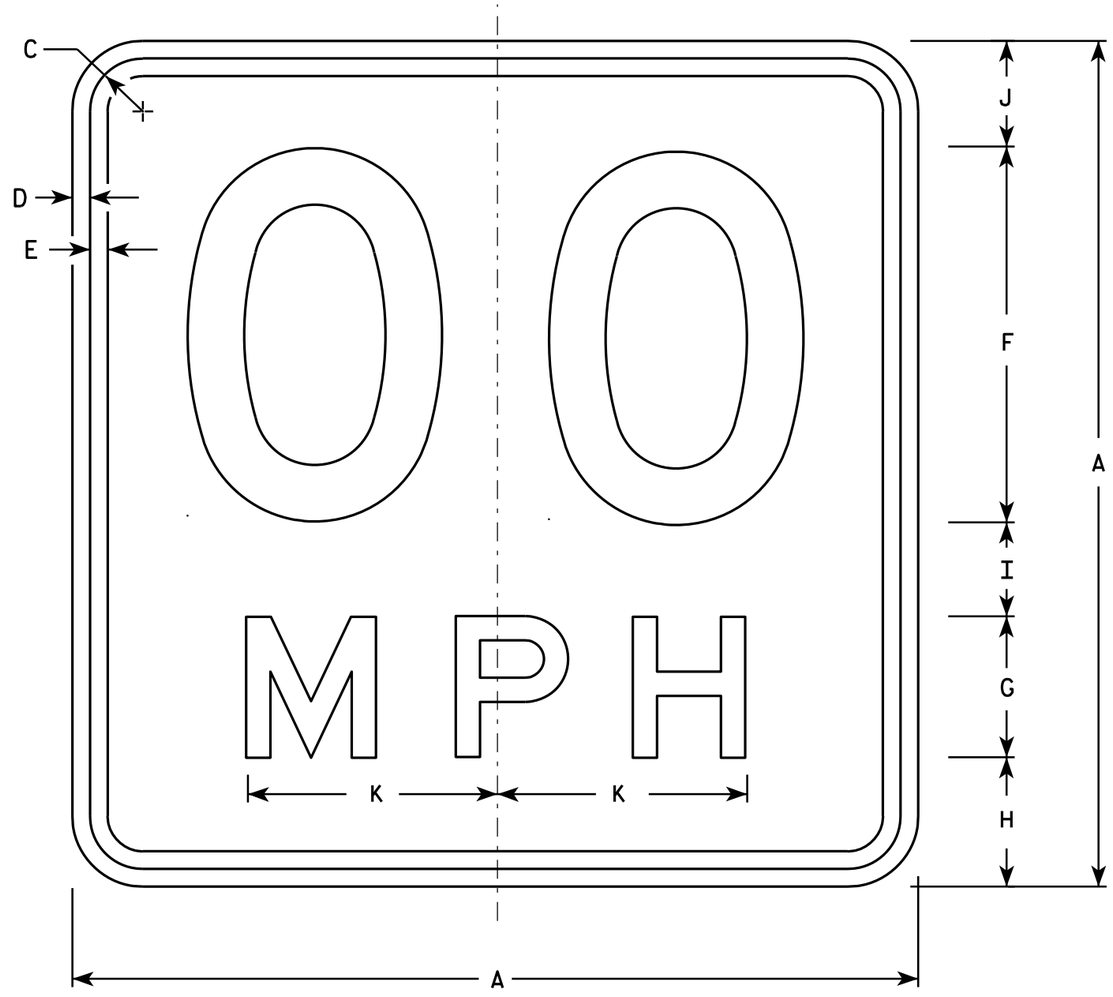
STANDARD SIGN
W12-1D

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/13/13 PLATE NO. W12-1D.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 451	E



W13-1

* For 30" x 30" Warning Signs, use 18" x 18" W13-1 signs.
For 36" x 36" Warning Signs, use 24" x 24" W13-1 signs.

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - See Note 6
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 space about centerline to achieve proper balance.
6. Line 1 is Series D
   Line 2 is Series E

	SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
	1	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
*	2S	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
*	2M	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
	3	24		1 1/8	3/8	1/2	10	4	4	2 3/4	3 1/4	6 5/8																4.00
	4	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
	5	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00

STANDARD SIGN
W13-1

WISCONSIN DEPT OF TRANSPORTATION

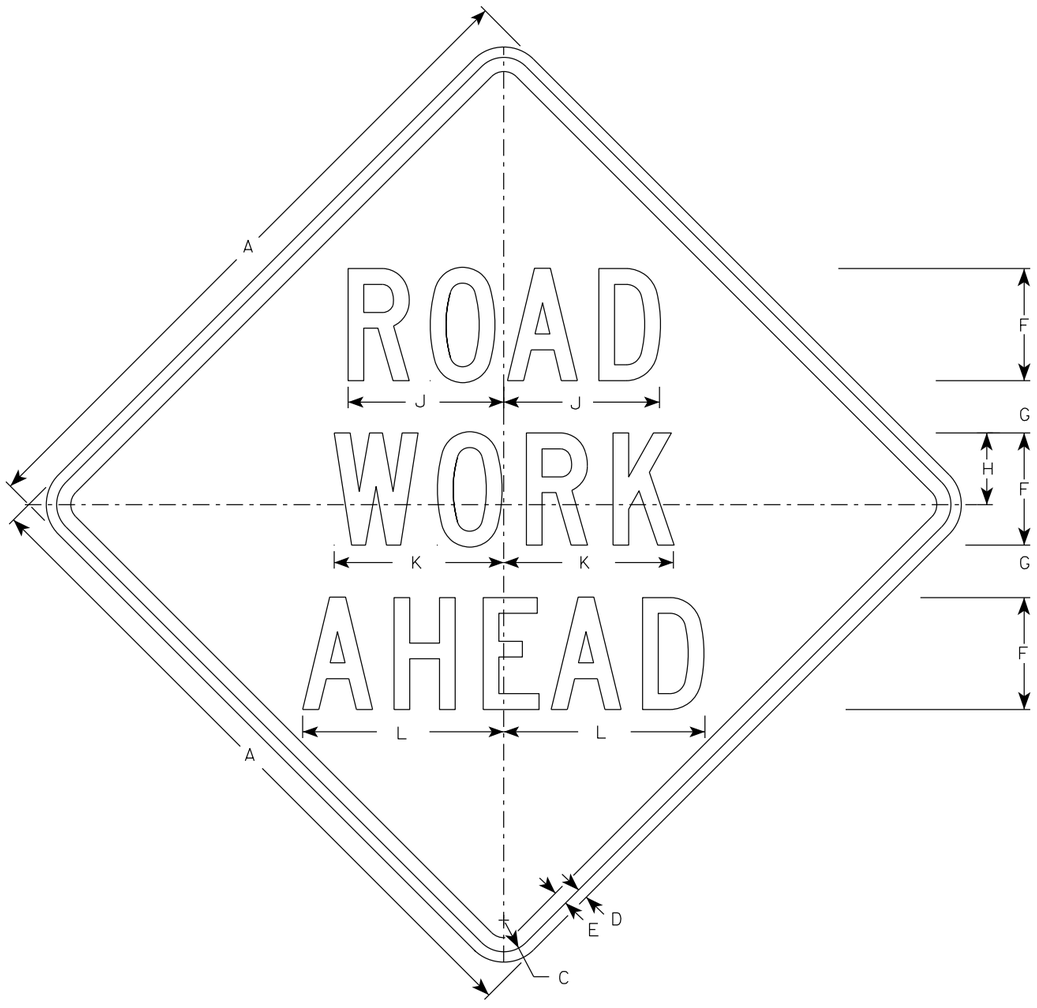
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 5/31/12 PLATE NO. W13-1.16

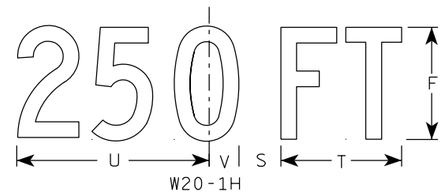
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 452 | E

NOTES

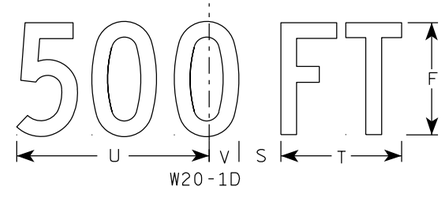
1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



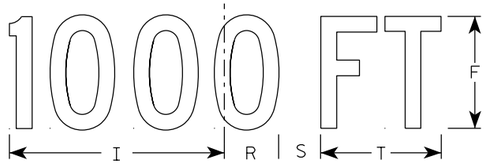
W20-1A



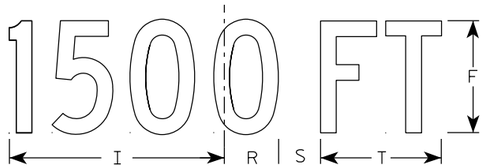
W20-1H



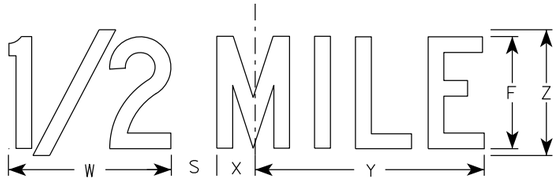
W20-1D



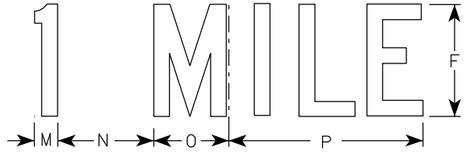
W20-1C



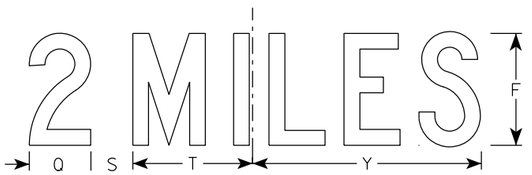
W20-1B



W20-1G



W20-1F



W20-1E

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	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

PROJECT NO:

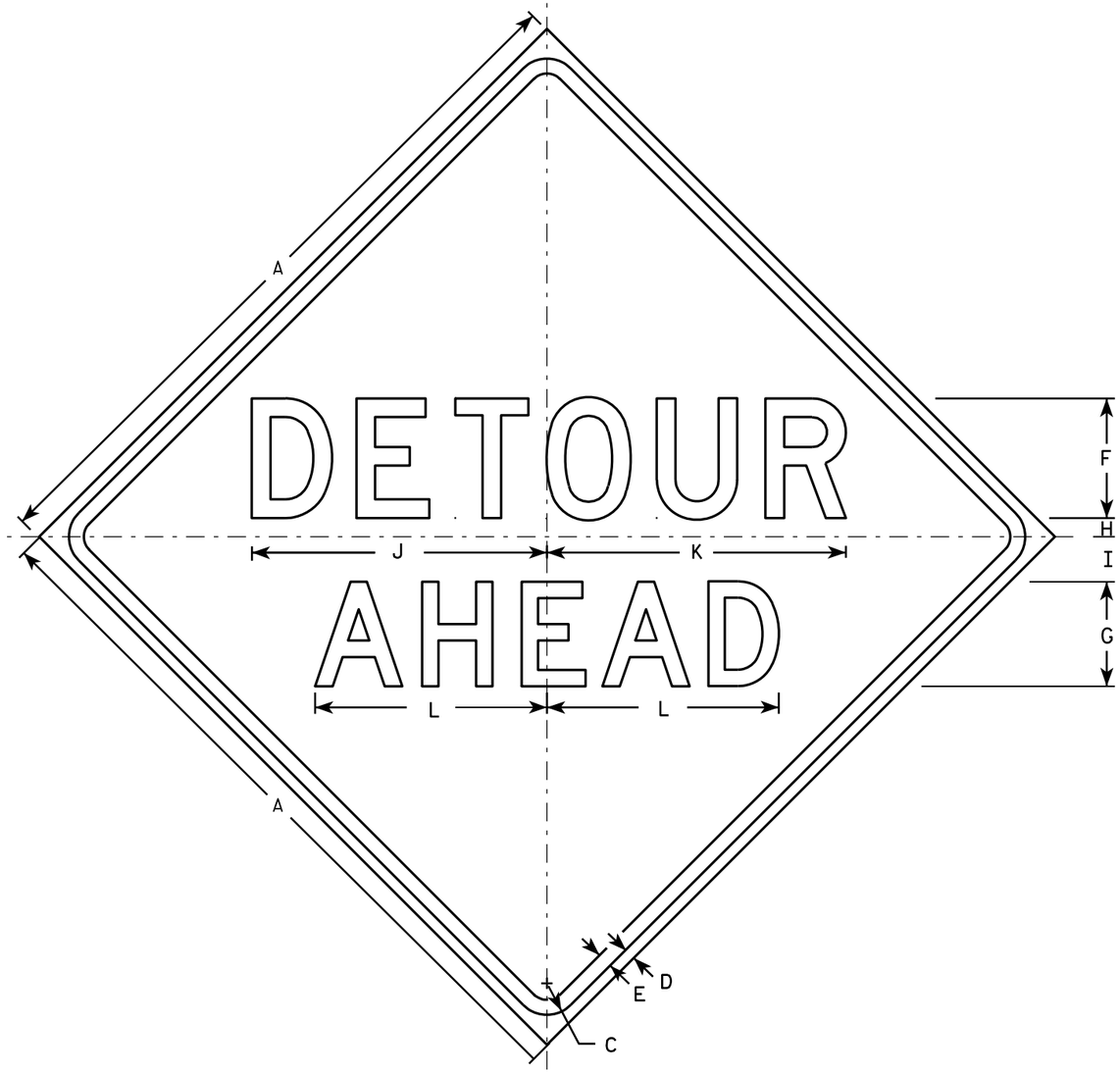
SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W201.DGN PLOT DATE : 25-MARCH-2020 PLOT BY : dotc4c

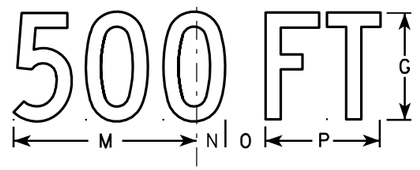
WISDOT/CADDS SHEET 42

7

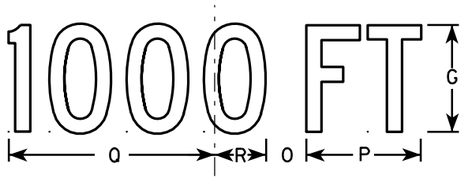
7



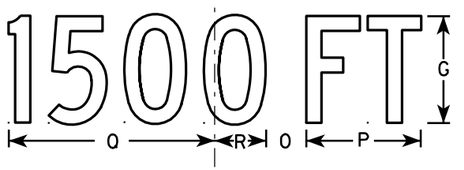
W20-2A



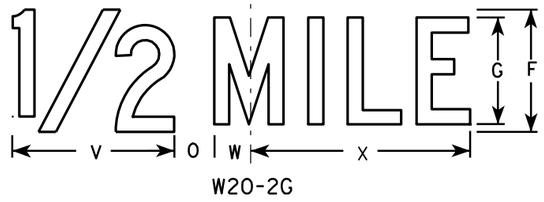
W20-2D



W20-2C



W20-2B



W20-2G

W20-2F

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. Line 1 is Series D.
   Line 2 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	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	6	5	1	2 1/4	14 3/4	15	11 5/8	9	1 3/8	1 7/8	5 5/8	10 1/8	2 1/2	1 1/8	4 1/2	3 1/2	8	1 3/4	10 3/4			9.0
2S	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
2M	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
3	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
4	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
5	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0

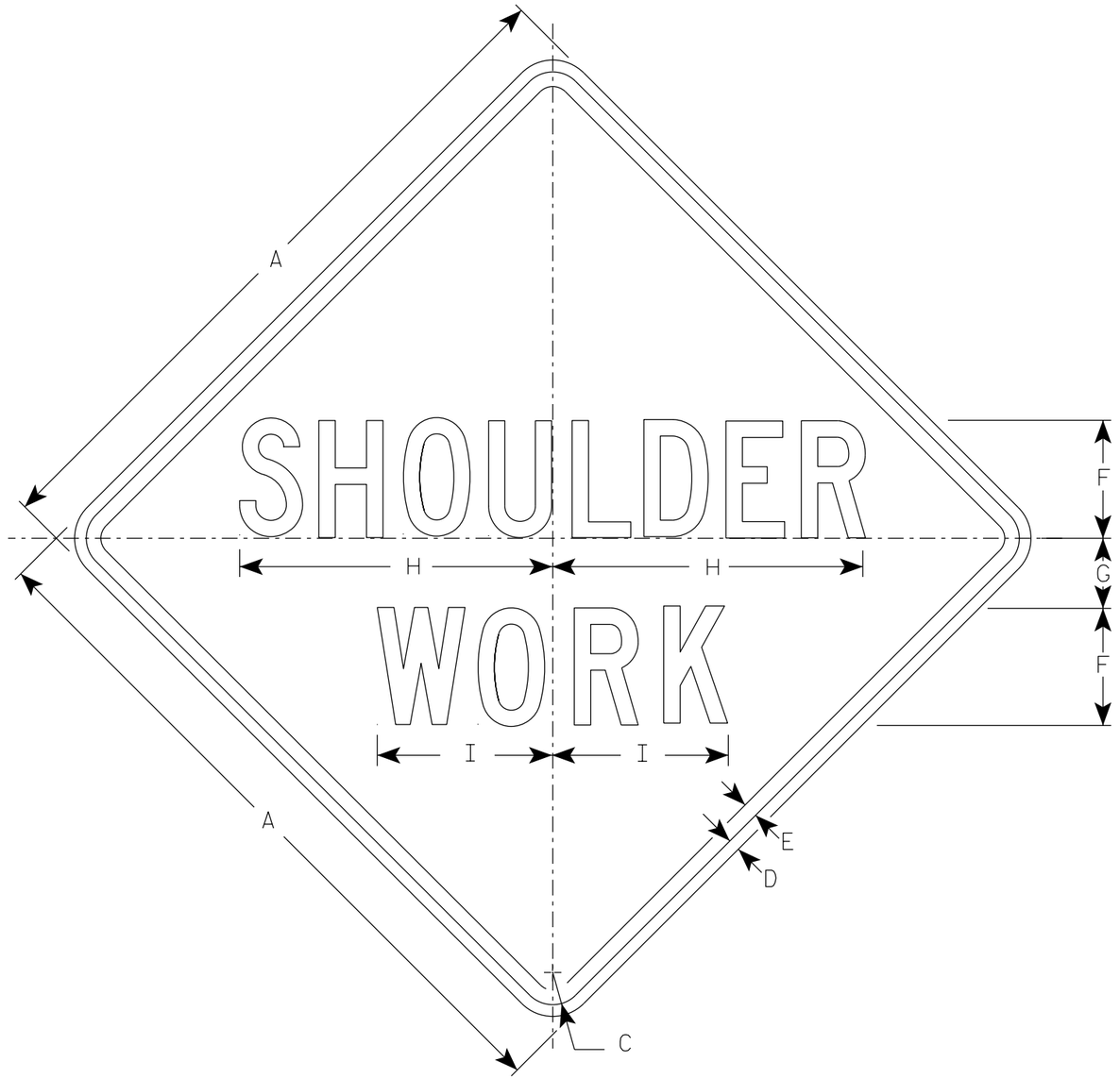
STANDARD SIGN
W20-2A,B,C,D,F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-2.6

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 454	E



W21-5

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

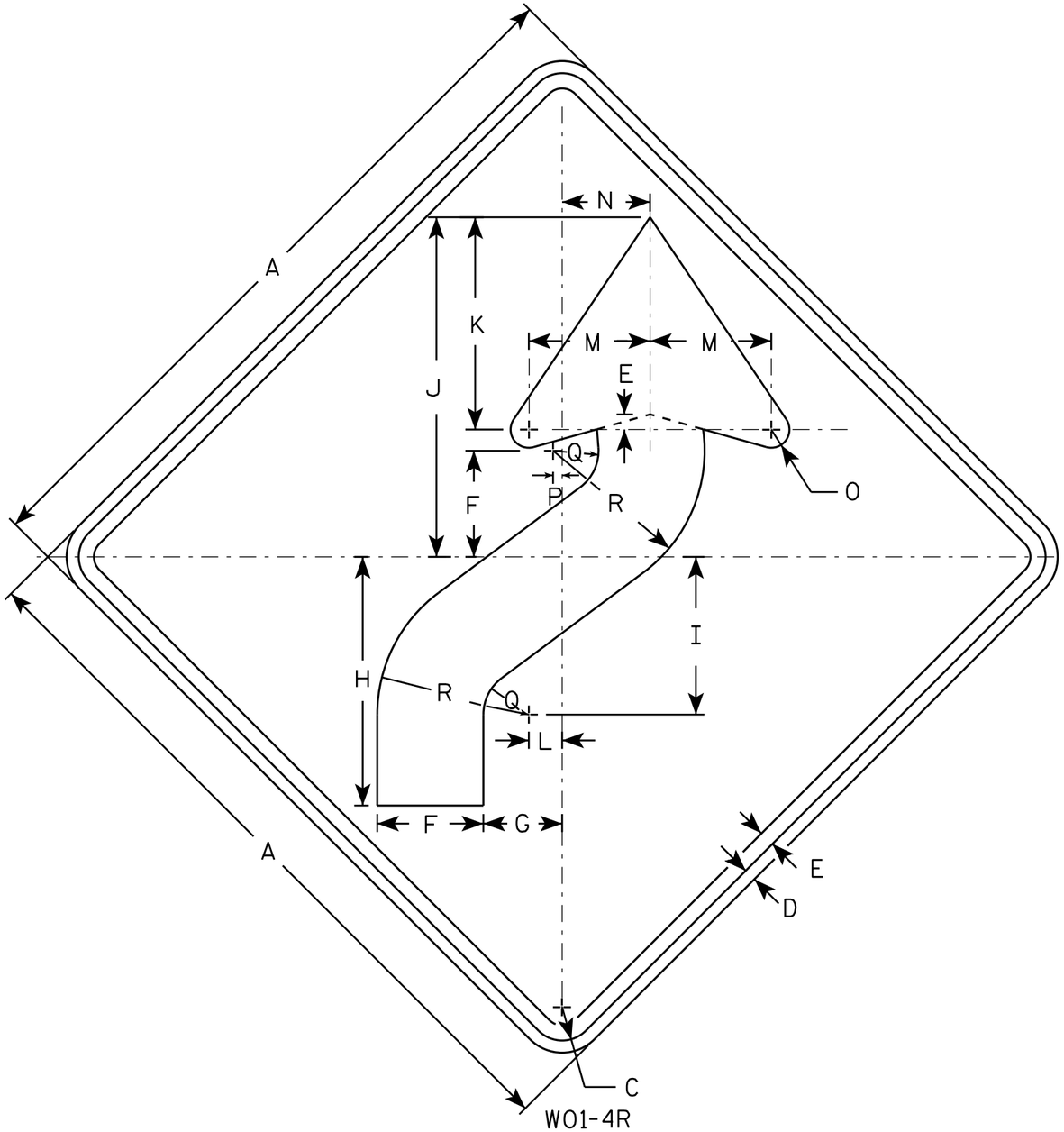
STANDARD SIGN
W21-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 455	E



W01-4R

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

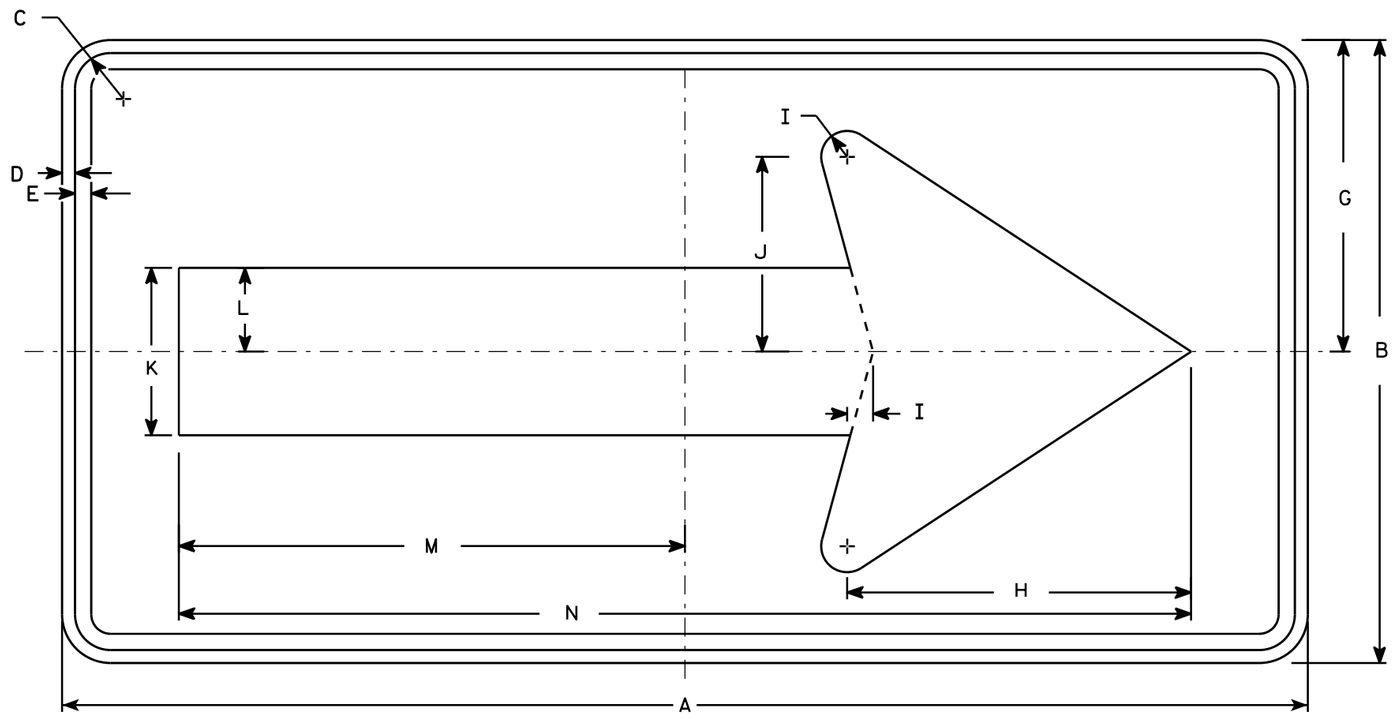
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO W01-4.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W014.DGN PLOT DATE : 28-FEB-2014 11:35 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 6.755110:1.000000
WISDOT/CADDS SHEET 42



W01-6

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.

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

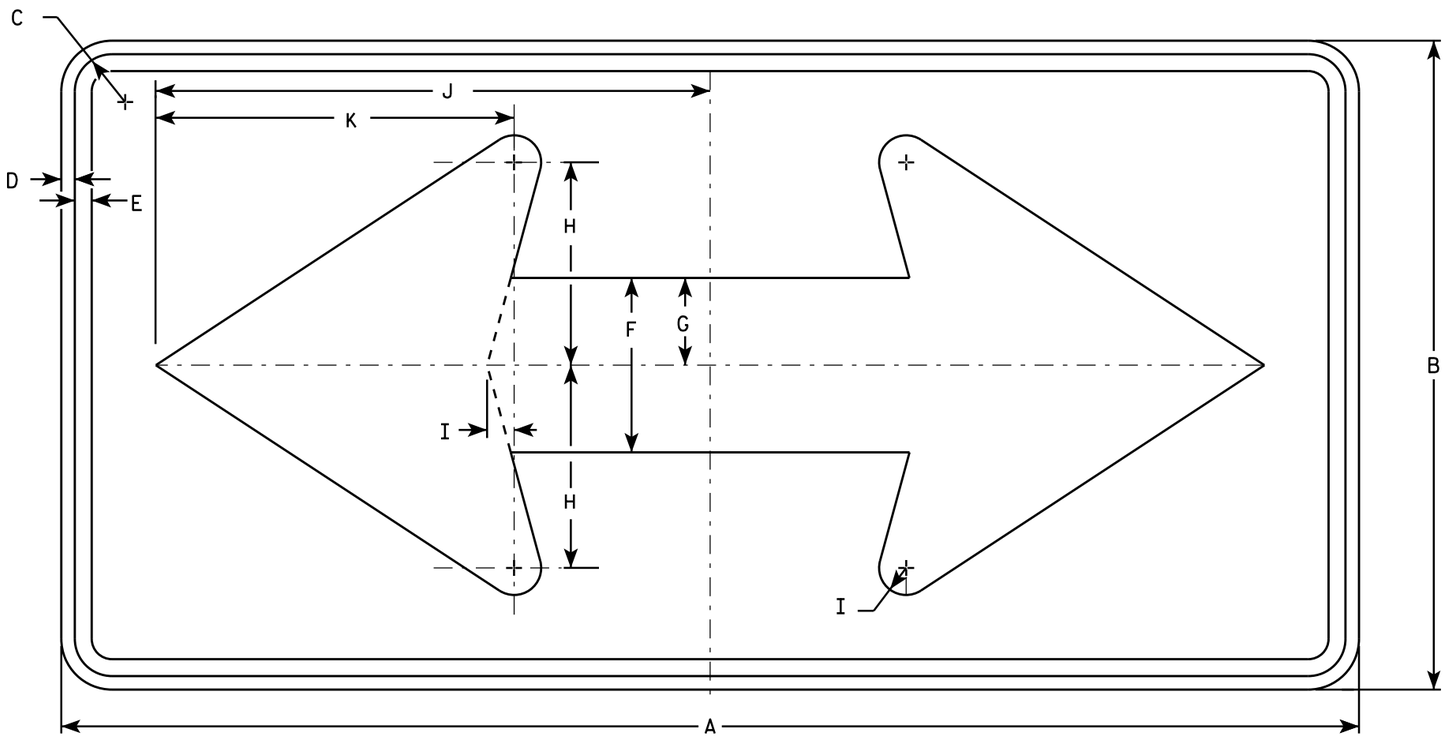
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W016.DGN PLOT DATE : 28-FEB-2014 11:37 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 5.837526:1.000000 WISDOT/CADDS SHEET 42



W01-7

NOTES

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

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	6 1/2	3 1/4	7 1/2	1	20 1/2	13 1/4																8.0
2M	48	24	1 3/8	1/2	5/8	6 1/2	3 1/4	7 1/2	1	20 1/2	13 1/4																8.0
3	60	30	1 3/8	1/2	5/8	8	4	9 1/4	1 1/4	25 3/8	16 1/4																12.5
4	60	30	1 3/8	1/2	5/8	8	4	9 1/4	1 1/4	25 3/8	16 1/4																12.5
5	60	30	1 3/8	1/2	5/8	8	4	9 1/4	1 1/4	25 3/8	16 1/4																12.5

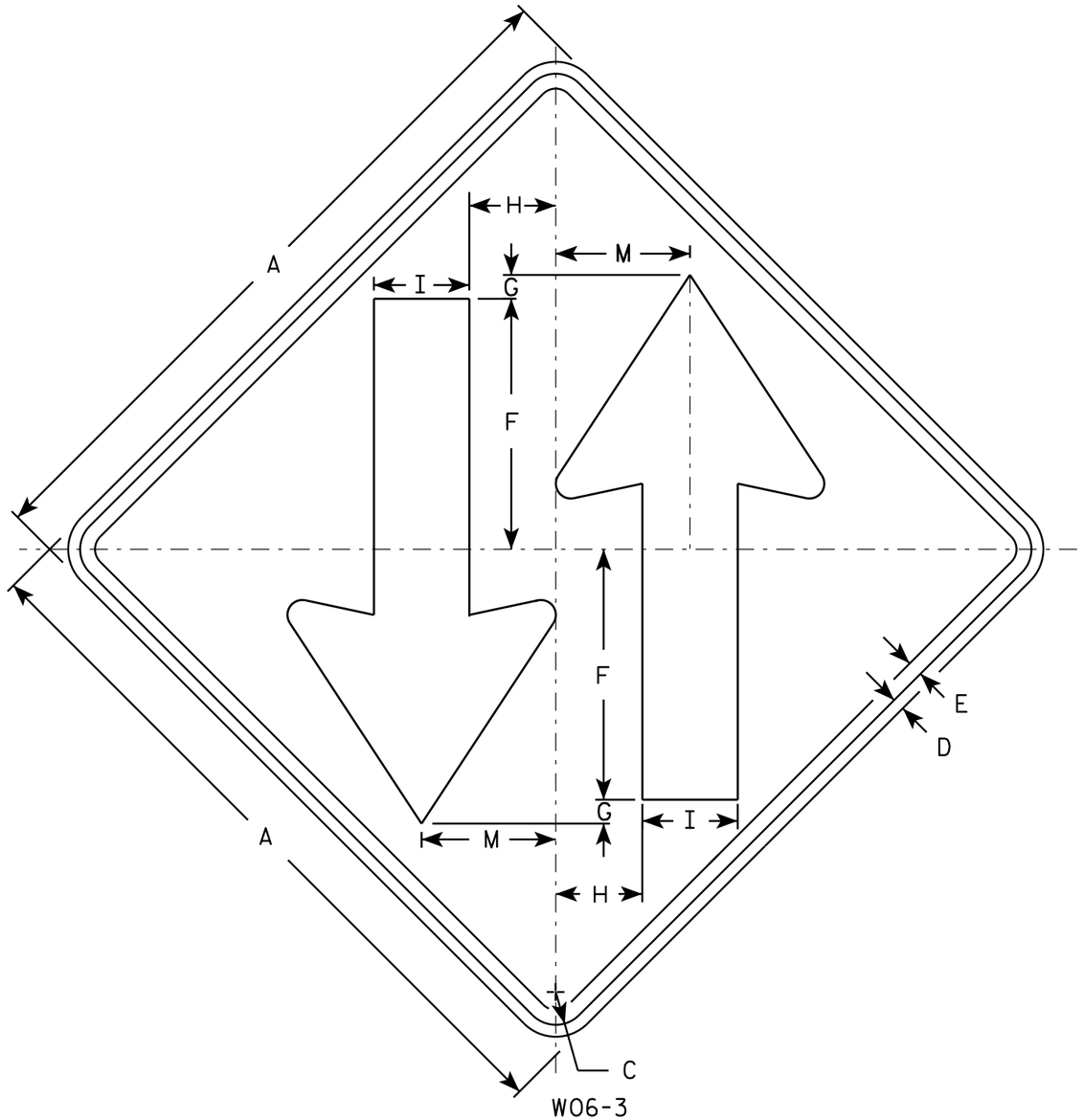
STANDARD SIGN
W01-7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE 1458 W01-7.1

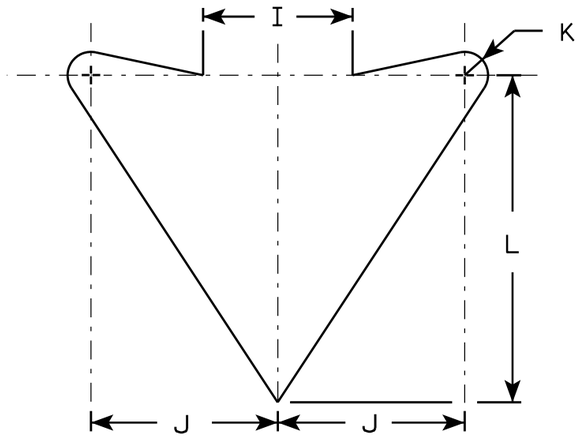
PROJECT NO: | HWY: | COUNTY: | SHEET NO: E



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	3/4	12	1	4 1/4	5	6	3/4	10 1/2	6 3/4														9.0
2S	48		2 1/4	3/4	1	15 1/2	1	6	6	8	1	14	9														16.0
2M	48		2 1/4	3/4	1	15 1/2	1	6	6	8	1	14	9														16.0
3	48		2 1/4	3/4	1	15 1/2	1	6	6	8	1	14	9														16.0
4	48		2 1/4	3/4	1	15 1/2	1	6	6	8	1	14	9														16.0
5	48		2 1/4	3/4	1	15 1/2	1	6	6	8	1	14	9														16.0

STANDARD SIGN
W06-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE 459 W06-3.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

DESIGN DATA

CONTRACTOR DESIGNED OVERHEAD SIGN STRUCTURES SHALL BE DESIGNED ACCORDING TO THE AASHTO "LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS", 1ST EDITION AND INTERIM SPECIFICATIONS, AND THE WISDOT BRIDGE MANUAL.

STANDARD FOUNDATIONS DESIGNED ACCORDING TO THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 8TH EDITION.

DEAD LOAD: WT. OF SIGN AND SUPPORTING STRUCTURE.
ICE LOAD: 3 PSF TO ONE FACE OF SIGN & SURFACE OF MEMBERS.
WIND PRESSURE: 115 MPH (3-SEC. GUST SPEED) TO SIGN AREA & EXPOSED MEMBERS. (700 YEAR MEAN RECURRENCE INTERVAL)

WIND COMPONENTS	NORMAL	TRANSVERSE
LOAD CASE 1:	1.00	0.00
LOAD CASE 2:	0.00	1.00
LOAD CASE 3:	0.75	0.75

LOAD COMBINATIONS

STRENGTH I:	1.25 DC + 1.6 LL
EXTREME I (MAX DC):	1.1 DC + 1.0 W + 1.0 ICE
EXTERME I (MIN DC):	0.9 DC + 1.0 W
SERVICE I:	1.0 DC + 1.0 W
FATIGUE I:	1.0 NWG (NATURAL WIND GUST VIBRATION)
	1.0 TRG (TRUCK INDUCED GUST VIBRATION)
	1.0 GVW (GALLOPING - CANTILEVER ONLY)

MATERIAL PROPERTIES

CONCRETE MASONRY ..... f'c = 3,500 psi

HIGH STRENGTH STEEL REINFORCEMENT, GRADE 60 ..... fy = 60,000 psi

HIGH STRENGTH BOLTS - A325 ..... fy = 92,000 psi

ANCHOR RODS - ASTM F1554 GRADE 55 ..... fy = 55,000 psi

HEAVY HEX NUTS FOR ANCHOR RODS - ASTM A563A

WASHERS FOR ANCHOR RODS - ASTM F436

FOUNDATION DATA

SIGN STRUCTURE FOUNDATIONS ARE SUPPORTED ON DRILLED SHAFTS THAT HAVE BEEN DESIGNED FOR SITES WHERE SOILS EXHIBIT A PHI-ANGLE GREATER THAN OR EQUAL TO 24° (GRANULAR SOILS), OR A COHESION VALUE GREATER THAN OR EQUAL TO 750 PSF (COHESIVE SOILS) AND A UNIT WEIGHT OF 125 PCF. THE GROUND WATER TABLE FOR DESIGN IS ASSUMED TO BE AT A DEPTH OF 10'-0" BELOW THE GROUND SURFACE, ACTUAL WATER LEVEL AT SITE MAY VARY. THE REGION GEOTECHNICAL ENGINEER SHALL VISUALLY INSPECT THE SUBSURFACE SOILS DURING DRILLING OF THE SHAFT HOLE TO CONFIRM THESE PROPERTIES PRIOR TO PLACEMENT OF THE DRILLED SHAFT CONCRETE.

TOTAL ESTIMATED QUANTITIES

BID ITEM NO.	BID ITEM	UNIT	S-55-53	S-55-54
531.2048	DRILLING SHAFT 48-INCH	LF	23	23
531.5330.001	FOUNDATION SINGLE-SHAFT TYPE TC-III S-55-53	EA	1	--
531.5330.002	FOUNDATION SINGLE-SHAFT TYPE TC-III S-55-54	EA	--	1
532.5330.001	TRUSS CANTILEVER 2-CHORD TYPE TC-III S-55-53	EA	1	--
532.5330.002	TRUSS CANTILEVER 2-CHORD TYPE TC-III S-55-54	EA	--	1

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALTERNATE DESIGNS ARE NOT ALLOWED.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), ST. CROIX COUNTY ZONE, NAD 83 (1991). ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM NAVD 88 (1991).

ALL REINFORCING BARS ARE IN ENGLISH UNITS. THE FIRST DIGIT OF A THREE-DIGIT BAR MARK OR THE FIRST TWO DIGITS OF A FOUR-DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

SIGN BRIDGE ID PLAQUES SHALL BE CONSIDERED INCIDENTAL TO THE truss or monotube BID ITEMs FOR EACH APPLICABLE SIGN STRUCTURE IN THE PLAN SET. LOCATE THE ID PLAQUE ON THE FREEWAY SIDE OF THE SUPPORT COLUMN SO THAT IT CAN BE SEEN FROM THE ROADWAY. FABRICATE AND INSTALL THE ID PLAQUE IN ACCORDANCE WITH S.D.D. 12 A 4-3.

UNLESS DETAILED OTHERWISE IN THE PLANS, ALL H.S. BOLTED CONNECTIONS SHALL BE MADE WITH ¾" DIA A325 GALVANIZED BOLTS. FIELD CONNECTIONS SHALL BE INSTALLED WITH DTI WASHERS.

WELDED CONNECTIONS CAN BE USED IN LIEU OF BOLTED CONNECTIONS, IF A TRUSS UNIT CAN BE GALVANIZED IN ONE PIECE.

WELD TEST AS PER AWS D1.1.

SEE SIGN PLATE NO. a4-6, A4-7A & A4-7B OF THE SIGN PLATE MANUAL FOR INSTRUCTIONS ON CENTERING SIGNS VERTICALLY ON THE TRUSS.

SIGNS OR BLANKS SHALL BE INSTALLED ON TRUSS AT TIME OF ERECTION. BLANKS SHALL BE 1/4 THE LENGTH OF THE CANTILEVER SPAN, 2'-0" DEEPER THAN THE C/L TO C/L OF CHORDS, AND SHALL BE CENTERED ON THE BRIDGE. SIGNS SHALL BE AS DESIGNATED ON THE PLANS.

THE INFORMATION SHOWN ON THESE DRAWINGS CONCERNING TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL-INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION OF THE TYPE AND LOCATION OF UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE.

CONTRACTOR SHALL SUBMIT SHOP DRAWINGS PER THE REQUIREMENTS IN THE STANDARD SPECIFICATIONS PRIOR TO FABRICATION OF THE STRUCTURE. CONTRACTOR SHALL SHOW SIGNS ON THE SHOP DRAWINGS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR DRILLING OR EXCAVATING AND MAINTAINING A STABLE AND OPEN HOLE FOR SUBSEQUENT INSTALLATION OF CONCRETE MASONRY FOR THE DRILLED SHAFTS. PARTIAL OR FULL DEPTH TEMPORARY CASING MAY BE REQUIRED TO MAINTAIN THE STABILITY OF THE EXCAVATED HOLE FOR THE SIGN SUPPORT PRIOR TO FILLING THE HOLE WITH CONCRETE. PERMANENT CASING MADE FROM STEEL OR CORRUGATED METAL PIPE MAY BE USED IN LIEU OF TEMPORARY CASING. TEMPORARY/PERMANENT CASING, IF USED, SHALL BE INCIDENTAL TO THE BID ITEM "DRILLING shaft (dia.)".

STRUCTURE DATA

SIGN STR	ACTUAL SIGN AREA	ACTUAL SIGN DEPTH	STANDARD TYPE
S-55-53	52.5 SF	7'-6"	TC-III
S-55-54	52.5 SF	7'-6"	TC-III

LIST OF DRAWINGS

1. GENERAL NOTES & DESIGN DATA
2. GENERAL LAYOUT S-55-53
3. GENERAL LAYOUT S-55-54

LIST OF OSS STANDARD DESIGN DRAWINGS

4. I. MONOTUBE & 2-CHORD TRUSS DETAILS 1
5. II. MONOTUBE & 2-CHORD TRUSS DETAILS 2
6. III. MONOTUBE & 2-CHORD TRUSS ELECTRICAL DETAILS
7. IV. MONOTUBE & 2-CHORD TRUSS FOUNDATIONS

STATE PROJECT NUMBER

1540-04-73

TRAFFIC VOLUME

A.D.T. (2038) = 18,300
R.D.S. = 50 MPH

STRUCTURE DESIGN CONTACTS:
AARON BONK (608) 261-0261
CHAD HALVERSON (608) 663-1218

NO.	DATE	REVISION	BY

THESE ARE STANDARD DESIGN PLANS, DEVELOPED AND MAINTAINED BY THE WISCONSIN DEPARTMENT OF TRANSPORTATION. THE DESIGNER CERTIFIES THAT THE DESIGN AND PLAN DETAILS CHOSEN ARE CONSISTENT WITH THE GUIDANCE PROVIDED IN THE CURRENT WISCONSIN BRIDGE MANUAL CHAPTER 39.

WISCONSIN
CHAD D. HALVERSON
E-34364
MADISON, WI
PROFESSIONAL ENGINEER

October 26, 2022

KL Engineering
(A) Better Experience

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED SDR 10/26/22
CHIEF STRUCTURES DESIGN ENGINEER DATE

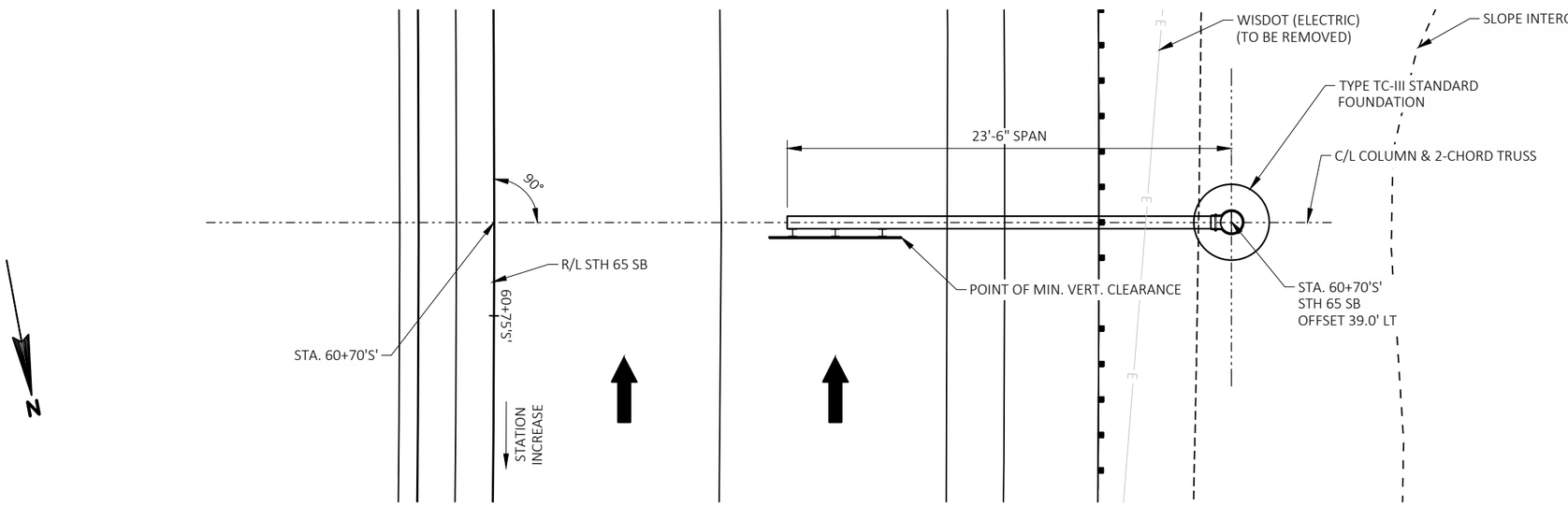
MONOTUBE AND 2-CHORD TRUSS PLANS

COUNTY	ST. CRIOX	TOWN	ROBERTS
DESIGN SPEC.	AASHTO LRFDLTS-1 W/INTERIMS		
DESIGNED BY	BOS	DESIGNED CK'D.	BOS
DRAWN BY	STD	PLANS CK'D.	BOS

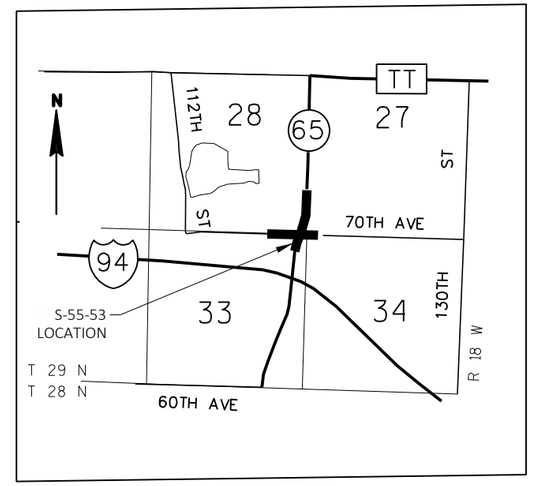
GENERAL NOTES & DESIGN DATA

SHEET 1 OF 7
460

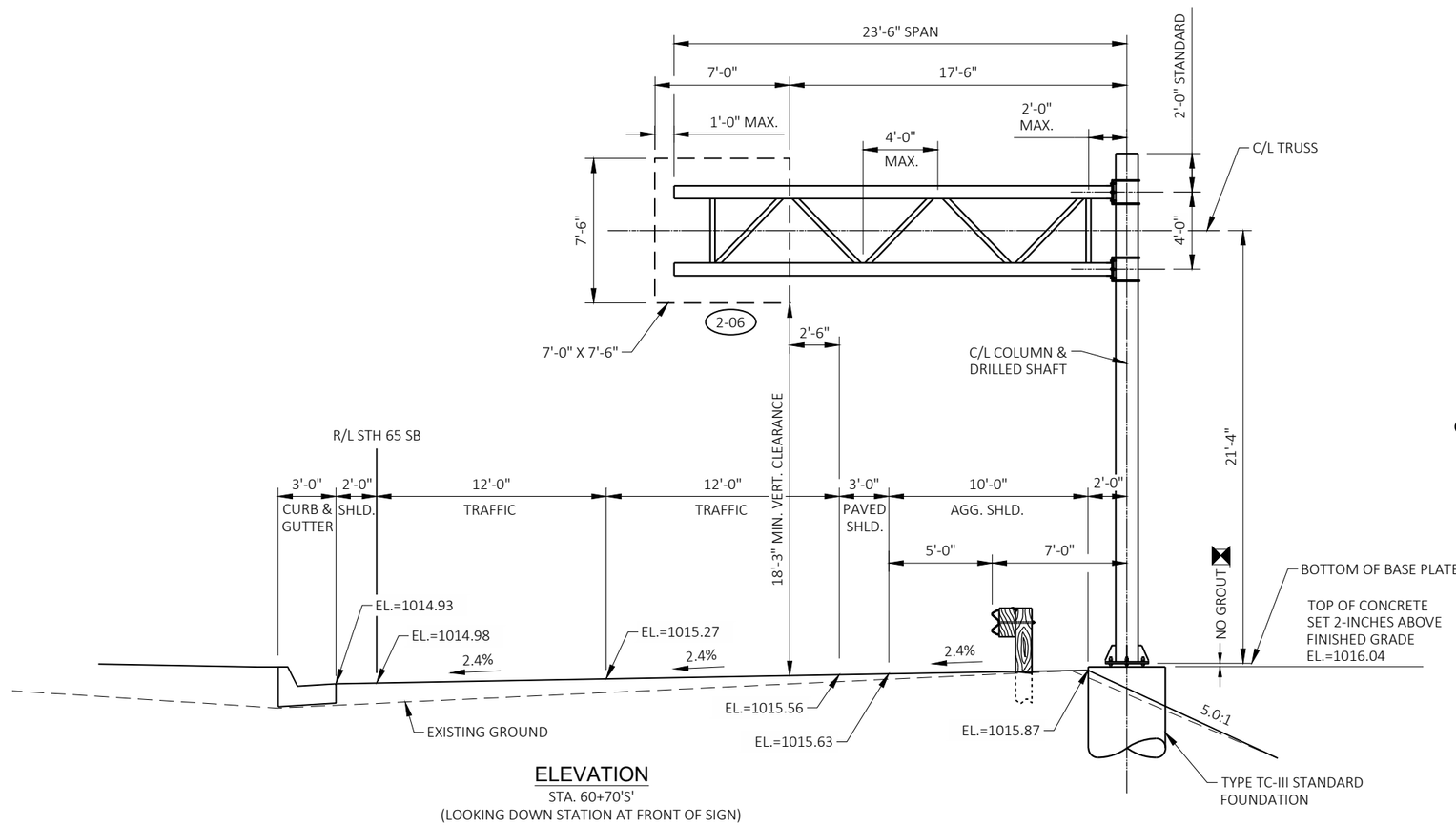
STATE PROJECT NUMBER
1540–04–73



PLAN



LOCATION MAP



ELEVATION
STA. 60+70'S'
(LOOKING DOWN STATION AT FRONT OF SIGN)

NOTES

POINT OF MIN. VERTICAL CLEARANCE
STA. 60+70'S',21'-6" LT
EL. = 1015.50'

CENTER SIGN PANEL OVER LANE.

LEGEND

☆ ELEVATIONS GIVEN ALONG C/L 2-CHORD TRUSS.

(X-XX) SIGN NUMBER (PERMANENT SIGNING PLAN)

STANDOFF DIMENSION IS ASSUMED TO BE 2 ½", BUT IS A MAXIMUM OF 2 X ANCHOR DIMENSION. SEE FOUNDATION DETAILS SHEET AND SHOP DRAWINGS FOR MORE INFORMATION.

NO.	DATE	REVISION	BY

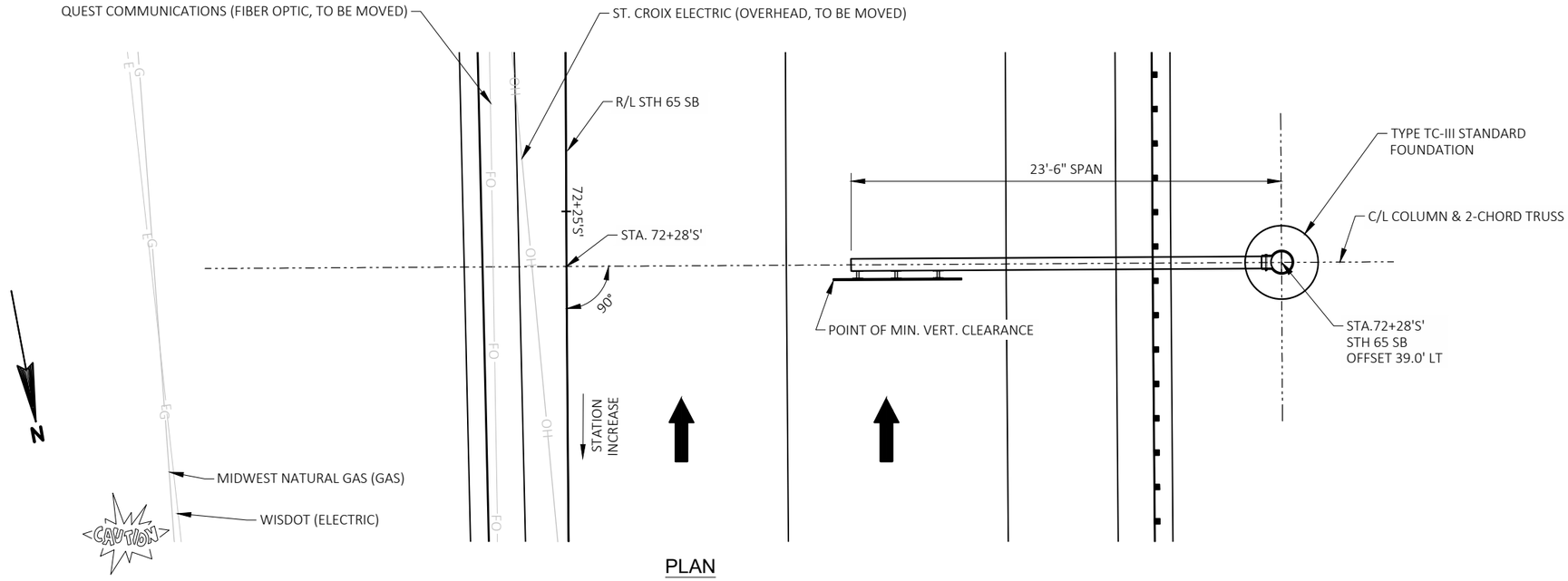
STRUCTURE S–55–53

DRAWN BY STD | PLANS CK'D. CDH

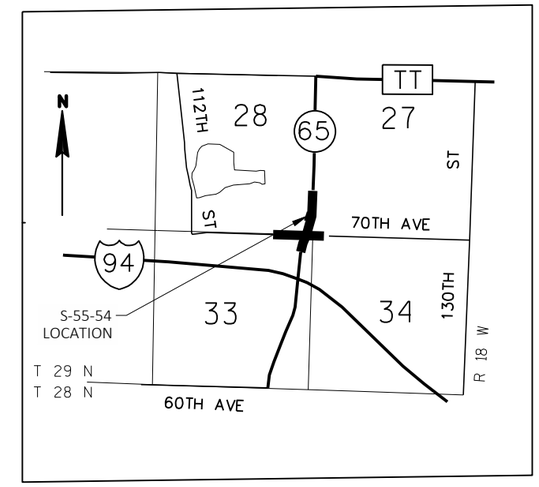
GENERAL LAYOUT
S–55–53

SHEET 2 OF 7
461

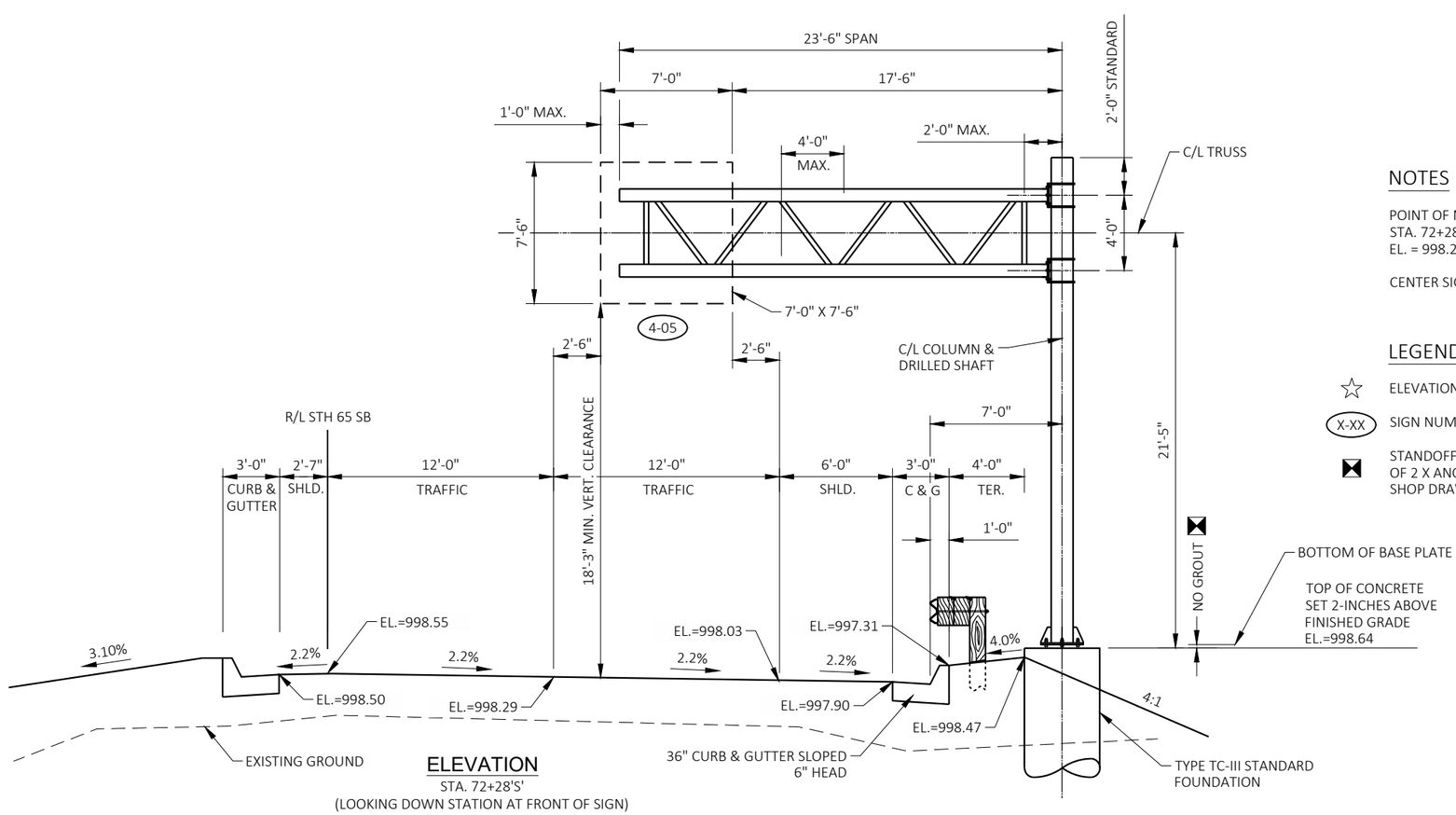
STATE PROJECT NUMBER
1540–04–73



PLAN



LOCATION MAP



ELEVATION
STA. 72+28'S'
(LOOKING DOWN STATION AT FRONT OF SIGN)

NOTES

POINT OF MIN. VERTICAL CLEARANCE
STA. 72+28'S', 14'-6" LT
EL. = 998.23'

CENTER SIGN PANEL OVER LANE.

LEGEND

- ☆ ELEVATIONS GIVEN ALONG C/L 2-CHORD TRUSS.
- (X-XX) SIGN NUMBER (PERMANENT SIGNING PLAN)
- STANDOFF DIMENSION IS ASSUMED TO BE 2 ½", BUT IS A MAXIMUM OF 2 X ANCHOR DIMENSION. SEE FOUNDATION DETAILS SHEET AND SHOP DRAWINGS FOR MORE INFORMATION.

NO.	DATE	REVISION	BY

STRUCTURE S–55–54

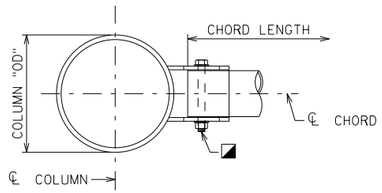
DRAWN BY STD | PLANS CK'D. CDH

GENERAL LAYOUT
S–55–54

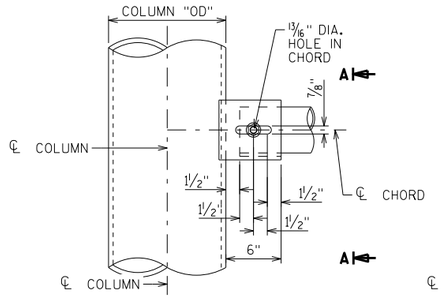
SHEET 3 OF 7
462

STATE PROJECT NUMBER

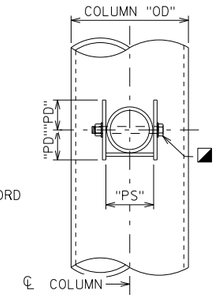
STANDARD



PLAN



ELEVATION



SECTION A-A

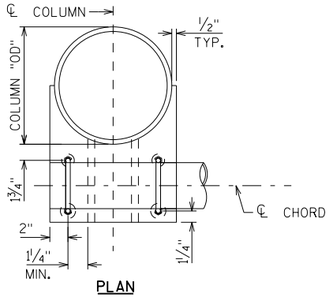
FULL SPAN SADDLE CONNECTION

PREFERRED

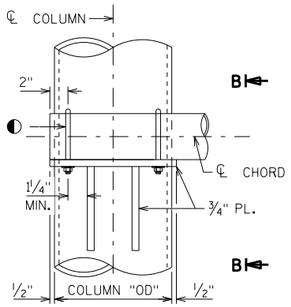
¾" GALVANIZED A325 OR A449 HEAVY HEX BOLT, NUT, WASHER

"PD" = (CHORD "OD")/2 + ¾"

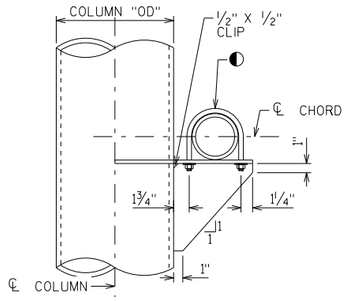
"PS" = CHORD "OD" + 3/16"



PLAN



ELEVATION

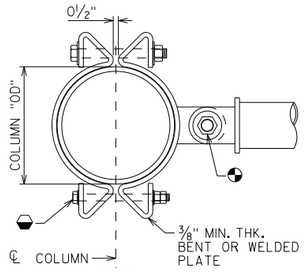


SECTION B-B

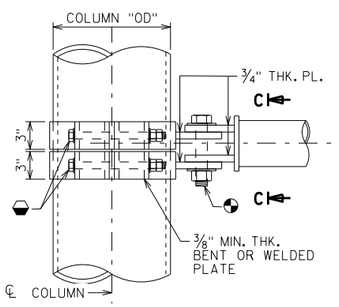
FULL SPAN STIFFENED BEARING CONNECTION

ALTERNATE 1

◐ (2) - ½" MIN. GALVANIZED U-BOLT, NUT, WASHER AND LOCK WASHER



PLAN



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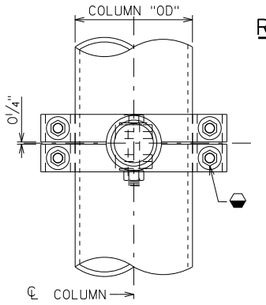


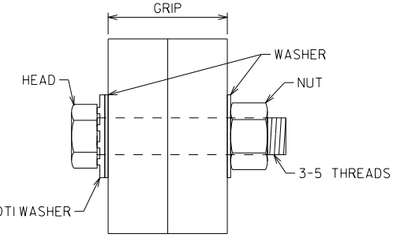
SECTION C-C

FULL SPAN CLAMP CONNECTION

ALTERNATE 2 - TAPERED COLUMNS ONLY

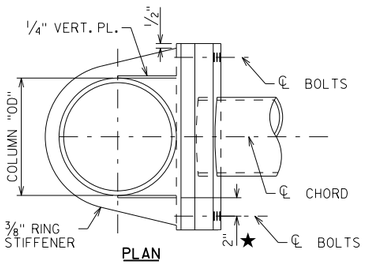
◓ 1¼" GALVANIZED A325 HEAVY HEX BOLT, NUT AND WASHER

⬣ 1" GALVANIZED A449 HEAVY HEX BOLT, NUT AND WASHER

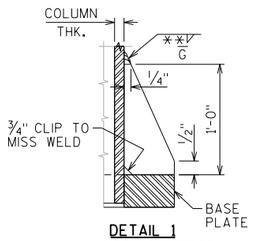


RECOMMENDED BOLT DETAIL WITH DTI

NUT IS THE TURNED ELEMENT

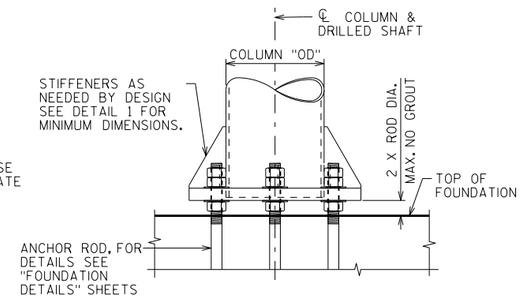


PLAN



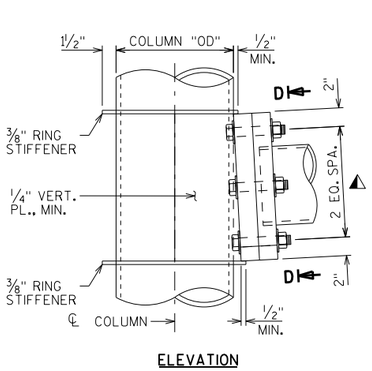
DETAIL 1

** SIZE AS NEEDED



BASE PLATE & COLUMN DETAIL

LOOKING AT FRONT FACE OF STRUCTURE



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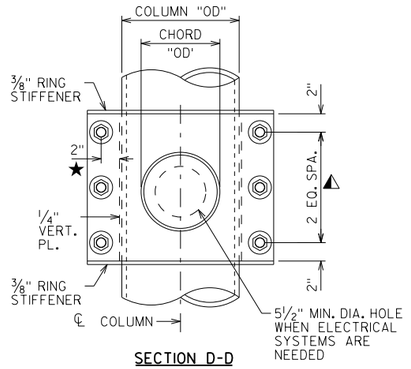
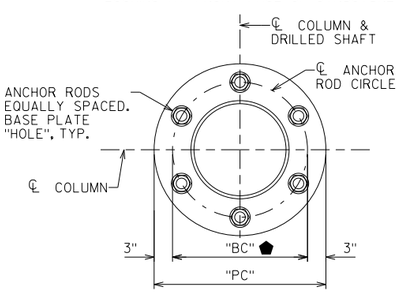


SECTION D-D

CANTILEVER POST TO CHORD CONNECTION

◭ MIN. CONNECTION = (6) - 1" GALVANIZED F3125 GRADE A325 BOLTS, NUT, WASHER AND DTI

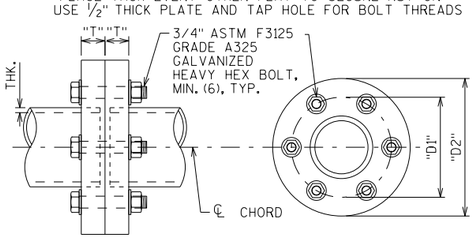
★ MIN. DIMENSION MEASURED FROM EXT. FACE OF VERT. PLATE



BASE PLATE

PLAN

⬟ "BC" = POLE OD + 6"

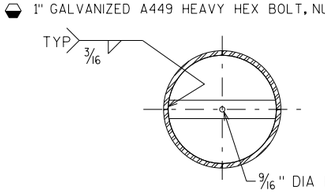


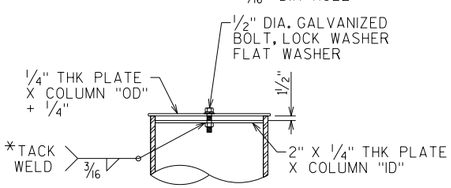
CHORD SPLICE DETAIL

"D1" = CHORD "OD" + 3"

"D2" = CHORD "OD" + 6"

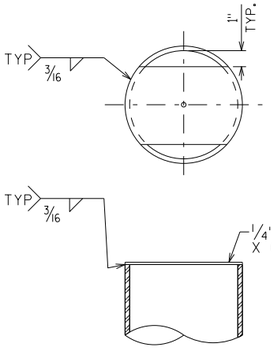
"T" = BY DESIGN





COLUMN/CHORD CAP DETAIL

* PLACE TACK EVERY OTHER FLAT TO SECURE NUT OR USE ½" THICK PLATE AND TAP HOLE FOR BOLT THREADS



CHORD CAP DETAIL

NOTES:

MINIMUM VALUES SHOWN

ALL CONNETIONS ARE TO BE DESIGNED FOR ACTUAL STRUCTURE LOADS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

UPDATED: MARCH 2021

DRAWN BY: BOS | PLANS CK'D.: BOS

MONOTUBE & 2-CHORD TRUSS DETAILS 1

SHEET 1 OF IV

463

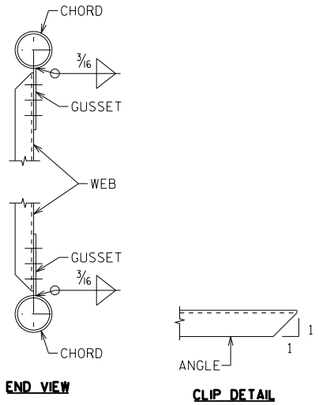
8

8

SCALE = 1.00

STATE PROJECT NUMBER

STANDARD

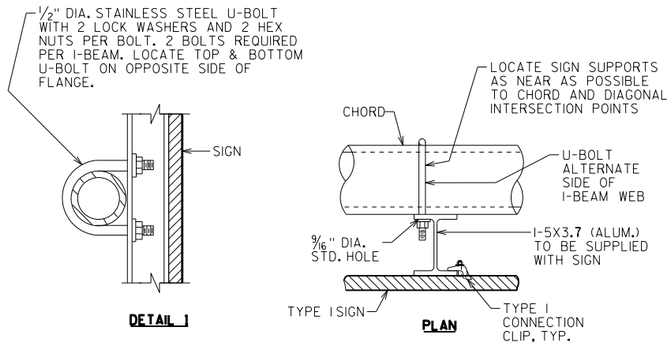


END VIEW

CLIP DETAIL

TRUSS CONNECTION DETAILS

BOLTED CONNECTIONS SHOWN, NUMBER OF BOLTS BY DESIGN
WELDED CONNECTIONS SIMILAR



DETAIL 1

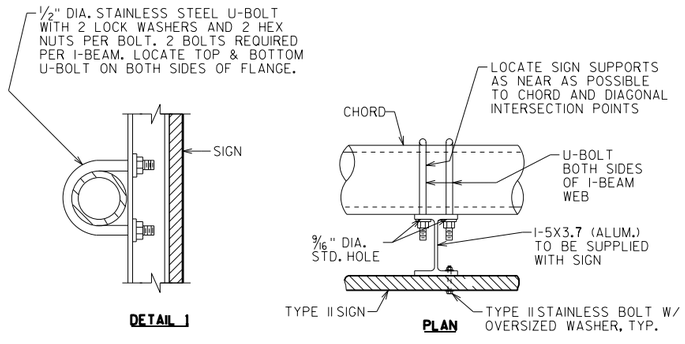
PLAN

2-CHORD TRUSS SIGN CONNECTION

SEE SIGN PLATE MANUAL A4-7A FOR DETAILS

ALUMINUM I-5X3.7 I-BEAMS ARE TO BE SUPPLIED WITH THE SIGN PANEL

HARDWARE TO BE SUPPLIED BY THE CONTRACTOR



DETAIL 1

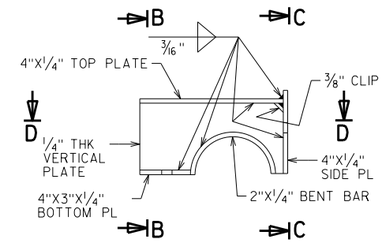
PLAN

MONOTUBE SIGN CONNECTION

SEE SIGN PLATE MANUAL A4-7B FOR DETAILS

ALUMINUM I-5X3.7 I-BEAMS ARE TO BE SUPPLIED WITH THE SIGN PANEL

HARDWARE TO BE SUPPLIED BY THE CONTRACTOR



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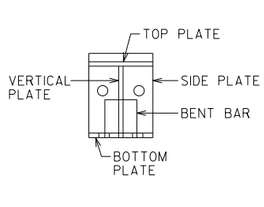
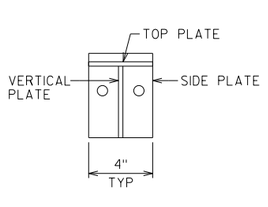
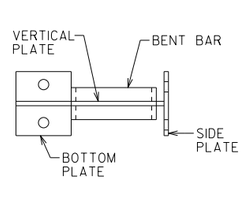


SECTION B-B



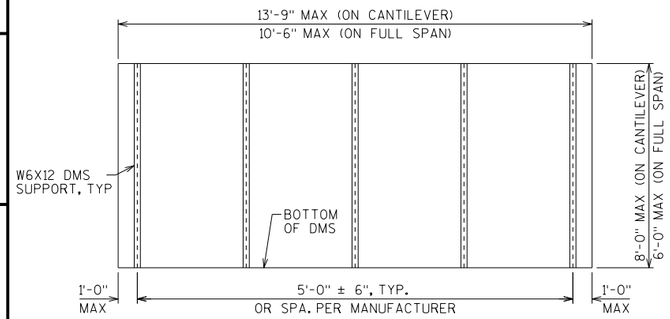
SECTION C-C



SECTION D-D

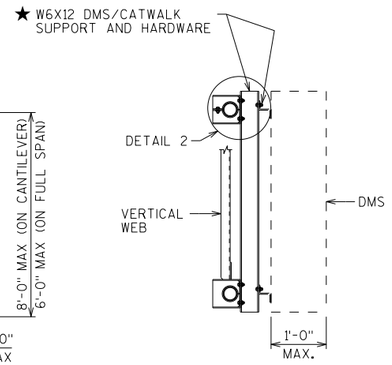
DMS WELDED PLATE CONNECTION DETAILS

TOP PLATE CLAMP SHOWN
BOTTOM PLATE CLAMP SIMILAR



DMS MOUNTING POST SPACING DETAIL

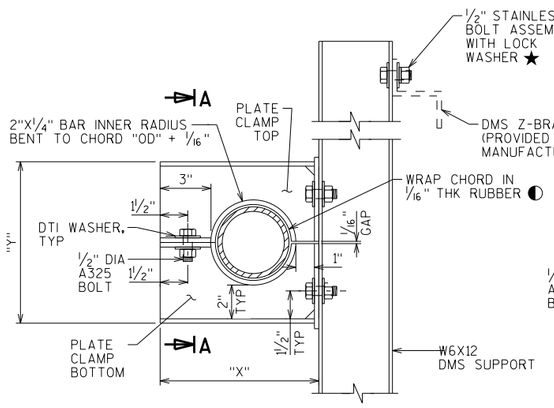
POST SPACING MAY BE ADJUSTED AS REQUIRED IF CONFLICT WITH TRUSS IS ENCOUNTERED.



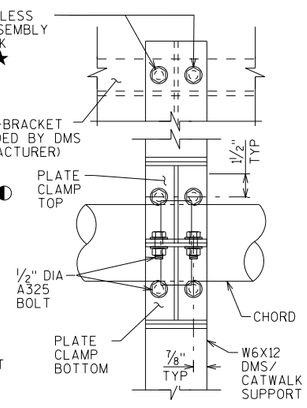
SECTION THRU TRUSS

FOR DMS/CATWALK CONNECTION

★ W6X12 SUPPORTS AND HARDWARE ARE TO BE SUPPLIED BY THE CONTRACTOR. 1/2" STAINLESS BOLT, NUT, WASHER AND LOCK WASHER REQUIRED, 4 PER W6X12.



DETAIL 2

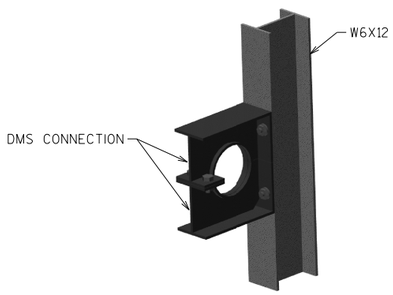


SECTION A-A

CHORD OUTER DIA	"X"	"Y"
"OD"	"OD"+4 13/16"	"OD"+5 1/16"

TYPICAL DMS CONNECTION

◐ NEOPRENE, GRADE 45±5, OTHERWISE MEETING THE REQUIREMENTS OF STD SPEC 506.2.6.1



3-D VIEW DMS CONNECTION

CHORD NOT SHOWN FOR CLARITY

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

UPDATED: APRIL 2021

DRAWN BY BOS | PLANS CK'D. BOS

MONOTUBE & 2-CHORD TRUSS DETAILS 2

SHEET 11 OF IV

464

SCALE = 2.00

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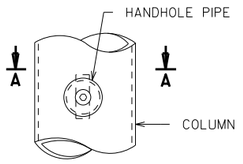
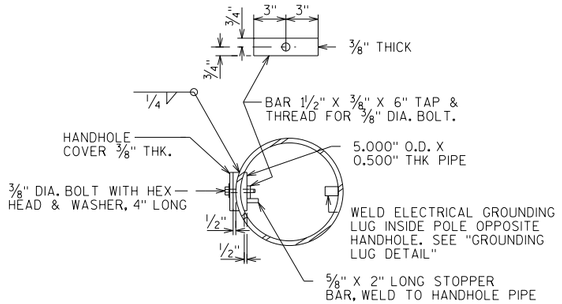
STATE PROJECT NUMBER

STANDARD



HANDHOLE DETAILS

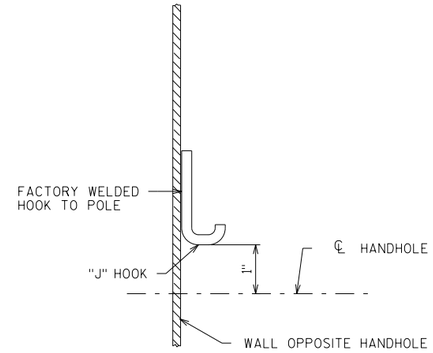


SECTION A-A

HANDHOLE NOTES

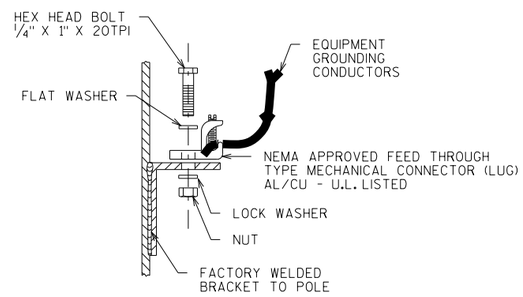
HANDHOLES SHALL BE LOCATED IN ONE COLUMN OF THE SIGN STRUCTURE IF ELECTRICALLY OPERATED DEVICES ARE INSTALLED ON/IN THE STRUCTURE. COLUMNS WITH HANDHOLES SHALL BE NEAR THE ELECTRICAL SERVICE. THE CONTRACTOR SHALL VERIFY THE LOCATION OF THE ELECTRICAL SERVICE ENTRANCE WITH THE REGION TRAFFIC SECTION PRIOR TO FABRICATION OF THE SIGN COLUMNS AND MEMBERS. CONDUIT (AS REQ'D.) SHALL BE LOCATED, PLACED AND SIZED AS SHOWN ON THE ELECTRICAL PLAN DETAIL SHEETS.

UNLESS NOTED OTHERWISE, ALL HANDHOLE ELEMENTS TO BE GALVANIZED PER THE WISDOT STANDARD SPECIFICATIONS.



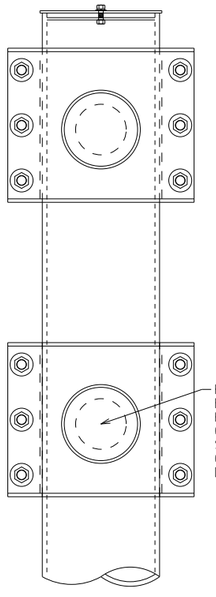
TYPICAL "J" HOOK LOCATION

THE "J" HOOK SHALL BE FACTORY WELDED TO THE INSIDE OF ALL COLUMNS CONTAINING ELECTRICAL WIRING. THE "J" HOOK SHALL BE ATTACHED ABOVE THE CENTERLINE OF THE UPPER HANDHOLE AND MOUNTED DIRECTLY OPPOSITE THE HANDHOLE AS SHOWN IN THE DRAWING.

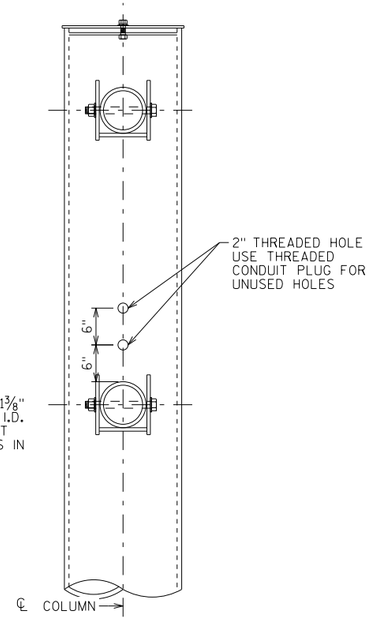


GROUNDING LUG DETAIL

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



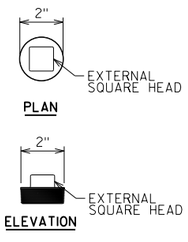
2-CHORD CANTILEVER



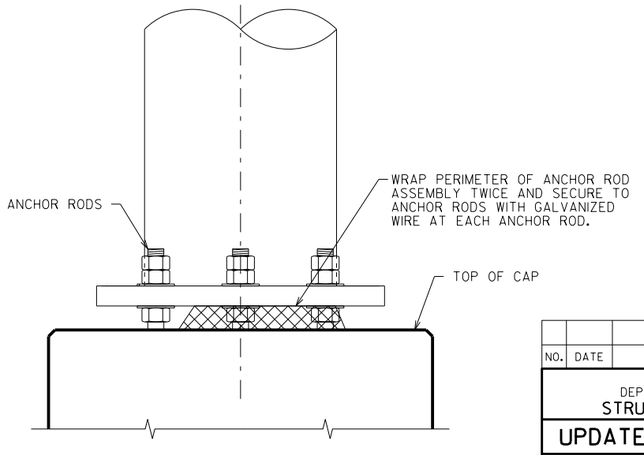
2-CHORD FULL SPAN

SADDLE CONNECTIONS SHOWN, BEARING AND CLAMP CONNECTIONS SIMILAR

CONDUIT HOLE LOCATIONS



CONDUIT PLUG DETAILS



RODENT SCREEN

(ONLY REQ'D. WHEN ELECTRICAL DEVICES ARE INSTALLED)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

UPDATED: MARCH 2021

DRAWN BY BOS | PLANS CK'D. BOS

MONOTUBE & 2-CHORD TRUSS ELECTRICAL DETAILS

SHEET III OF IV

465

SCALE = 1.00

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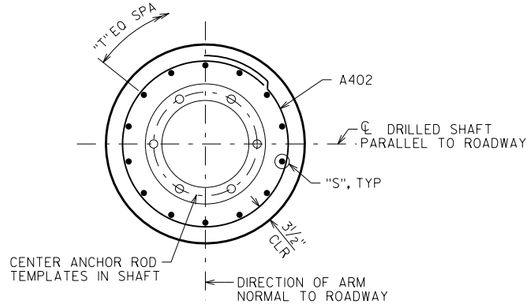
STATE PROJECT NUMBER

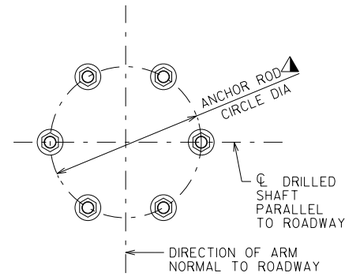
STANDARD

FOUNDATION & REINFORCING DATA

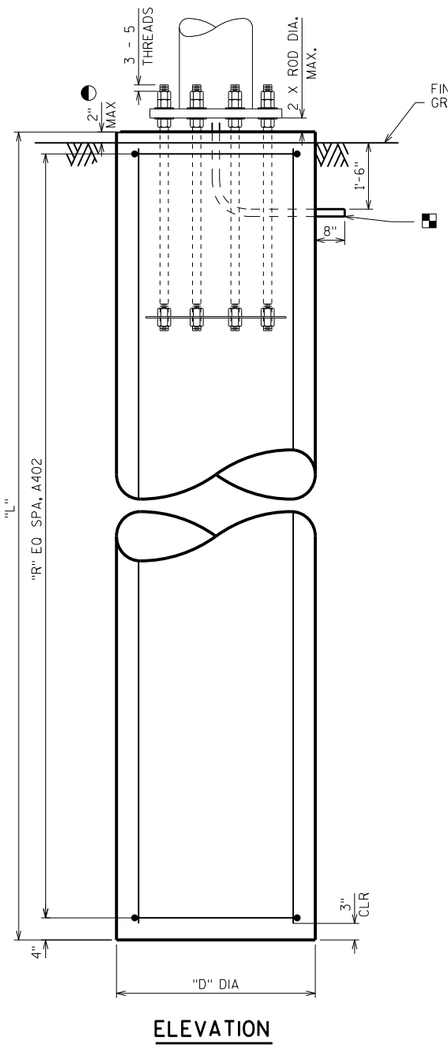
STANDARD FOUNDATION TYPE	SHAFT VARIABLES					
	"D"	"L"	"R"	"S"	"T"	"BC" MAX
MFI	2'-0"	12'-0"	12	A801	6	12"
MFII	2'-6"	13'-0"	13	A801	10	17"
MCI/MCII/TFI	2'-6"	17'-0"	17	A801	10	17"
TCI	3'-0"	18'-0"	18	A801	14	22"
TFII	3'-0"	20'-0"	20	A801	14	22"
MCIII/TCII/TFIII	3'-6"	18'-0"	18	A901	14	28"
MCIV/TFIV	3'-6"	23'-0"	23	A901	14	28"
TCIII	4'-0"	23'-0"	23	A1001	14	34"
TCIV	4'-0"	28'-0"	28	A1001	14	34"



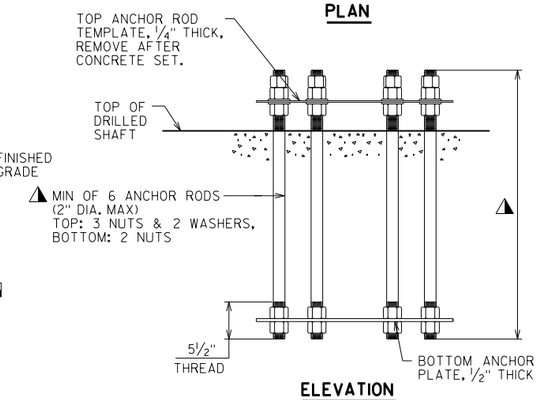
PLAN



PLAN



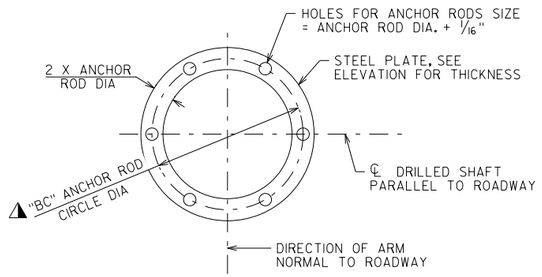
ELEVATION



ELEVATION

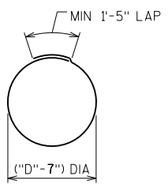
ANCHOR ROD ASSEMBLY DETAILS

△ ANCHOR ROD NUMBER, DIAMETER, LENGTH & ORIENTATION AS SHOWN ON FABRICATION DRAWING.



ANCHOR PLATE/TOP TEMPLATE

PLAN



A402

NOTE:
THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE

BILL OF BARS - STANDARD FOUNDATIONS

STANDARD FOUNDATION MFI

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A801		6	11'-7"			DRILLED SHAFT - VERTICAL
A402		13	5'-10"	X		DRILLED SHAFT - HORIZONTAL

STANDARD FOUNDATION MFII

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A801		10	12'-7"			DRILLED SHAFT - VERTICAL
A402		14	7'-5"	X		DRILLED SHAFT - HORIZONTAL

STANDARD FOUNDATION MCI/MCII/TFI

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A801		10	16'-7"			DRILLED SHAFT - VERTICAL
A402		18	7'-5"	X		DRILLED SHAFT - HORIZONTAL

STANDARD FOUNDATION TCI

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A801		14	17'-7"			DRILLED SHAFT - VERTICAL
A402		19	9'-0"	X		DRILLED SHAFT - HORIZONTAL

STANDARD FOUNDATION TFII

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A801		14	19'-7"			DRILLED SHAFT - VERTICAL
A402		21	9'-0"	X		DRILLED SHAFT - HORIZONTAL

STANDARD FOUNDATION MCIII/TCII/TFIII

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A901		14	17'-7"			DRILLED SHAFT - VERTICAL
A402		19	10'-6"	X		DRILLED SHAFT - HORIZONTAL

STANDARD FOUNDATION MCIV/TFIV

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A901		14	22'-7"			DRILLED SHAFT - VERTICAL
A402		24	10'-6"	X		DRILLED SHAFT - HORIZONTAL

STANDARD FOUNDATION TCIII

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A1001		14	22'-7"			DRILLED SHAFT - VERTICAL
A402		24	12'-2"	X		DRILLED SHAFT - HORIZONTAL

STANDARD FOUNDATION TCIV

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A1001		14	27'-7"			DRILLED SHAFT - VERTICAL
A402		29	12'-2"	X		DRILLED SHAFT - HORIZONTAL

ESTIMATED QUANTITIES - FOUNDATIONS

STANDARD FOUNDATION TYPE	CONCRETE MASONRY (CY)	STEEL REINFORCEMENT HS (LBS)	FOUNDATION DRILLING (LF)				
			24" DIA.	30" DIA.	36" DIA.	42" DIA.	48" DIA.
MFI	2	240	12				
MFII	3	410		13			
MCI/MCII/TFI	4	540		17			
TCI	5	780			18		
TFII	6	860			20		
MCIII/TCII/TFIII	7	970				18	
MCIV/TFIV	9	1,250				23	
TCIII	11	1,560					23
TCIV	13	1,900					28

** QUANTITIES ARE FOR INFORMATION ONLY AND ARE BASED ON STANDARD STRUCTURE DIMENSIONS

NOTES

CENTER ANCHOR ROD ASSEMBLY ON DRILLED SHAFT AND MAKE SURE IT IS PLUMB. MAINTAIN ANCHOR ROD PROJECTION ABOVE FOOTING AS DETAILED. ANCHOR ROD ASSEMBLY SHALL BE RIGIDLY SECURED IN POSITION DURING AND AFTER CONCRETE PLACEMENT. DO NOT WELD THE ANCHOR RODS.

◐ FOR OVERHEAD SIGN STRUCTURES THAT ARE INSTALLED ADJACENT TO SIDEWALKS, THE TOP OF THE SHAFT SHALL BE POURED FLUSH WITH THE FINISHED GRADE.

◪ 2" DIA NONMETALLIC CONDUITS, INSTALL ONLY WITH DMS. EXTEND CONDUITS AS SHOWN AND CAP OR SEAL EACH END WITH A SUITABLE REMOVABLE PLUG. PLACE CONDUITS UNDER COLUMN ADJACENT TO THE DMS. CONDUITS INCIDENTAL TO THE FOUNDATION BID ITEMS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

UPDATED: MARCH 2021

DRAWN BY BOS | PLANS CK'D. BOS

MONOTUBE & 2-CHORD TRUSS FOUNDATIONS

SHEET IV OF IV

466

SCALE = 1.67

8

8

Notes:	
1 - Cut	Cut includes Salvaged/Unusable Pavement material
2 - Salvaged/Unusable Pavement Material	This does not show up in cross sections
3 - Fill	Does not include Unusable Pavement Exc volume
4 - Marsh Backfill	Will be backfilled with Select Borrow
5 - Reduced EBS in Fill	Reduced EBS Excavation that can be used in Fill
6 - Mass Ordinate	If Marsh and EBS to be backfilled with Cut or Borrow: [(Cut) - ((Fill - Expanded Rock) * Fill Factor))]

DIVISION 1 (STA 13+24'T' - STA 20+29'T'): TEMP RD (STAGE 1)

		Area						Incremental Volume (Unadjusted)						Cumulative Vol (CY)			
STATION	Distance	Cut (SF)	Salvaged/Unusable Pavement Material (SF)	Fill (SF)	Marsh Exc (SF)	Rock Exc (SF)	EBS (SF)	Cut Note 1 (CY)	Salvaged/Unusable Pavement Material Note 2 (CY)	Fill Note 3 (CY)	Marsh Exc Note 4 (CY)	Rock Exc (CY)	EBS (CY)	Cut 1.00 Note 1	Expanded Fill 1.25	Reduced EBS In Fill 0.80 Note 5	Mass Ordinate Note 6
13+24		6	0	12	0	0	1										
13+50	26	6	0	3	0	0	1	5	0	7	0	0	1	5	8	1	-3
14+00	50	6	0	31	0	0	1	11	0	31	0	0	2	16	46	2	-29
14+50	50	6	0	27	0	0	1	11	0	53	0	0	2	27	110	4	-83
15+00	50	11	0	5	0	0	2	15	0	30	0	0	3	43	145	6	-102
15+50	50	28	0	0	0	0	5	35	0	5	0	0	6	78	145	11	-67
16+00	50	13	0	3	0	0	2	37	0	3	0	0	6	115	142	16	-27
16+50	50	10	0	23	0	0	2	21	0	24	0	0	4	136	169	19	-32
17+00	50	4	0	89	0	0	1	13	0	104	0	0	2	149	296	20	-147
17+50	50	5	0	140	0	0	1	9	0	212	0	0	1	158	559	22	-401
18+00	50	10	0	228	0	0	2	14	0	340	0	0	2	172	982	24	-810
18+50	50	0	0	303	0	0	0	10	0	491	0	0	2	182	1,595	25	-1,413
19+00	50	0	0	357	0	0	0	0	0	611	0	0	0	182	2,359	25	-2,177
19+50	50	2	2	339	0	0	0	1	1	644	0	0	0	183	3,163	25	-2,981
20+00	50	19	0	37	0	0	3	19	1	348	0	0	3	202	3,595	28	-3,396
20+29	29	0	0	0	0	0	0	10	0	20	0	0	2	212	3,619	29	-3,409
								212	3	2,924	0	0	36				

DIVISION 1 (STA 20+66'T' - STA 29+10'T'): TEMP RD (STAGE 1)

		Area						Incremental Volume (Unadjusted)						Cumulative Vol (CY)			
STATION	Distance	Cut (SF)	Salvaged/Unusable Pavement Material (SF)	Fill (SF)	Marsh Exc (SF)	Rock Exc (SF)	EBS (SF)	Cut Note 1 (CY)	Salvaged/Unusable Pavement Material Note 2 (CY)	Fill Note 3 (CY)	Marsh Exc Note 4 (CY)	Rock Exc (CY)	EBS (CY)	Cut 1.00 Note 1	Expanded Fill 1.25	Reduced EBS In Fill 0.80 Note 5	Mass Ordinate Note 6
20+66		59	2	0	0	0	10										
21+00	34	65	0	186	0	0	11	79	1	118	0	0	13	79	134	11	-56
21+50	50	289	0	99	0	0	49	328	0	264	0	0	56	406	407	56	-2
22+00	50	27	0	0	0	0	5	292	0	92	0	0	50	699	472	96	225
22+03	3	17	0	0	0	0	3	3	0	0	0	0	0	701	472	96	229
22+50	47	0	0	0	0	0	0	14	0	0	0	0	2	716	469	98	245
22+56	6	11	0	0	0	0	2	1	0	0	0	0	0	717	469	98	247
23+00	44	25	0	42	0	0	4	29	0	34	0	0	5	746	507	102	238
23+50	50	61	0	68	0	0	10	80	0	101	0	0	14	826	620	113	205
24+00	50	16	0	136	0	0	3	71	0	188	0	0	12	898	844	123	53
24+50	50	22	0	8	0	0	4	35	0	133	0	0	6	933	1,004	128	-72
25+00	50	27	0	2	0	0	5	46	0	9	0	0	8	979	1,008	134	-30
25+50	50	5	0	58	0	0	1	30	0	55	0	0	5	1,009	1,072	138	-64
26+00	50	2	0	76	0	0	0	6	0	124	0	0	1	1,015	1,226	139	-212
26+50	50	1	0	81	0	0	0	2	0	146	0	0	0	1,017	1,408	139	-392
27+00	50	4	0	68	0	0	1	5	0	138	0	0	1	1,022	1,579	140	-559
27+50	50	9	0	52	0	0	2	12	0	111	0	0	2	1,034	1,716	141	-683
28+00	50	9	0	24	0	0	2	17	0	70	0	0	3	1,051	1,801	144	-750
28+50	50	11	0	2	0	0	2	19	0	23	0	0	3	1,070	1,827	146	-757
29+00	50	13	0	0	0	0	2	22	0	1	0	0	4	1,093	1,825	149	-733
29+10	10	12	0	0	0	0	2	5	0	0	0	0	1	1,097	1,824	150	-727
								1,097	1	1,609	0	0	188				

DIVISION 1 (STA 54+05'N' - STA 55+70'N'): NB STH 65 CROSSOVER (STAGE 1)

STATION	Distance	Area						Incremental Volume (Unadjusted)						Cumulative Vol (CY)			Mass Ordinate
		Cut (SF)	Salvaged/Unusable Pavement Material (SF)	Fill (SF)	Marsh Exc (SF)	Rock Exc (SF)	EBS (SF)	Cut Note 1 (CY)	Salvaged/Unusable Pavement Material Note 2 (CY)	Fill Note 3 (CY)	Marsh Exc Note 4 (CY)	Rock Exc (CY)	EBS (CY)	Cut 1.00 Note 1	Expanded Fill 1.25	Reduced EBS In Fill 0.80 Note 5	Note 6
54+05		6	2	0	0	0	1										
54+50	45	24	2	0	0	0	4	25	2	0	0	0	4	25	-4	3	27
55+00	50	28	3	0	0	0	5	48	4	0	0	0	8	73	-12	10	79
55+50	50	10	2	0	0	0	2	35	4	0	0	0	6	108	-18	15	115
55+70	20	0	2	0	0	0	0	4	1	0	0	0	1	111	-19	15	118
								111	12	0	0	0	19				

DIVISION 2 (STA 55+35'N' - STA 65+22'N'): NB STH 65 (STAGE 2)

STATION	Distance	Area						Incremental Volume (Unadjusted)						Cumulative Vol (CY)			Mass Ordinate
		Cut (SF)	Salvaged/Unusable Pavement Material (SF)	Fill (SF)	Marsh Exc (SF)	Rock Exc (SF)	EBS (SF)	Cut Note 1 (CY)	Salvaged/Unusable Pavement Material Note 2 (CY)	Fill Note 3 (CY)	Marsh Exc Note 4 (CY)	Rock Exc (CY)	EBS (CY)	Cut 1.00 Note 1	Expanded Fill 1.25	Reduced EBS In Fill 0.80 Note 5	Note 6
55+35		53	26	0	0	0	9										
55+50	15	71	27	0	0	0	12	34	15	0	0	0	6	34	-6	5	26
56+00	50	83	23	0	0	0	14	142	46	0	0	0	24	177	-30	24	146
56+50	50	84	23	0	0	0	14	155	43	0	0	0	26	331	-57	45	285
57+00	50	93	23	0	0	0	16	164	43	0	0	0	28	495	-85	68	434
57+50	50	93	23	5	0	0	16	172	42	5	0	0	29	667	-108	91	587
58+00	50	174	21	3	0	0	30	248	41	8	0	0	42	915	-141	125	827
58+50	50	233	18	3	0	0	40	377	37	6	0	0	64	1,292	-198	177	1,225
59+00	50	344	14	5	0	0	59	534	30	8	0	0	91	1,826	-279	250	1,809
59+50	50	375	13	10	0	0	64	666	25	14	0	0	114	2,492	-376	341	2,546
60+00	50	337	13	17	0	0	58	659	24	25	0	0	113	3,151	-458	431	3,263
60+50	50	379	0	24	0	0	65	663	12	38	0	0	113	3,814	-524	522	3,981
60+97	47	394	0	33	0	0	67	666	0	49	0	0	114	4,480	-576	613	4,699
61+00	3	376	0	33	0	0	64	50	0	4	0	0	8	4,530	-579	620	4,751
61+50	50	276	0	37	0	0	47	604	0	65	0	0	103	5,133	-601	702	5,377
62+00	50	129	0	36	0	0	22	376	0	68	0	0	64	5,509	-580	754	5,731
62+50	50	10	0	104	0	0	2	129	0	130	0	0	22	5,638	-440	771	5,720
63+00	50	0	0	177	0	0	0	9	0	260	0	0	2	5,647	-116	773	5,406
63+50	50	0	0	179	0	0	0	0	0	330	0	0	0	5,647	296	773	4,994
64+00	50	0	0	188	0	0	0	0	0	339	0	0	0	5,648	720	773	4,570
64+50	50	0	0	46	0	0	0	0	0	216	0	0	0	5,648	991	773	4,300
65+00	50	23	0	0	0	0	4	21	0	42	0	0	4	5,669	1,040	775	4,271
65+22	22	7	0	0	0	0	1	12	0	0	0	0	2	5,681	1,038	777	4,286
								5,681	357	1,607	0	0	971				

DIVISION 2 (STA 20+71'W' - STA 26+53'W'): 70TH AVENUE EAST (STAGE 2)

STATION	Distance	Area						Incremental Volume (Unadjusted)						Cumulative Vol (CY)			Mass Ordinate
		Cut (SF)	Salvaged/Unusable Pavement Material (SF)	Fill (SF)	Marsh Exc (SF)	Rock Exc (SF)	EBS (SF)	Cut Note 1 (CY)	Salvaged/Unusable Pavement Material Note 2 (CY)	Fill Note 3 (CY)	Marsh Exc Note 4 (CY)	Rock Exc (CY)	EBS (CY)	Cut 1.00 Note 1	Expanded Fill 1.25	Reduced EBS In Fill 0.80 Note 5	Note 6
20+71		28	0	110	0	0	5										
21+00	29	21	0	103	0	0	4	27	0	116	0	0	5	27	141	4	-114
21+50	50	26	0	39.7	0	0	4	44	0	132	0	0	8	71	299	10	-228
21+57	7	43	0	29.7	0	0	7	9	0	10	0	0	2	80	309	11	-229
21+61	4	84	0	24.5	0	0	14	9	0	4	0	0	1	89	312	12	-223
22+00	39	136	0	17.9	0	0	23	159	0	30	0	0	27	248	323	34	-76
22+50	50	263	0	1.36	0	0	45	369	0	18	0	0	63	617	282	84	334
22+98	48	123	0	26.9	0	0	21	343	0	25	0	0	59	960	255	131	704
23+00	2	123	0	28.3	0	0	21	9	0	2	0	0	2	969	256	133	712
23+50	50	106	0	17.6	0	0	18	212	0	42	0	0	36	1,181	273	162	908
24+00	50	97	0	60.8	0	0	17	188	0	73	0	0	32	1,369	332	187	1,037
24+50	50	103	0	21	0	0	18	186	0	76	0	0	32	1,555	395	213	1,160
25+00	50	111	0	0.38	0	0	19	198	0	20	0	0	34	1,753	386	240	1,367
25+50	50	101	0	11.7	0	0	17	196	0	11	0	0	34	1,949	366	267	1,583
26+00	50	95	0	6.47	0	0	16	182	0	17	0	0	31	2,131	356	291	1,774
26+50	50	86	0	0.57	0	0	15	168	0	7	0	0	29	2,298	336	314	1,963
26+53	3	86	0	0.55	0	0	15	9	0	0	0	0	2	2,307	334	316	1,973
								2,307	0	583	0	0	395				

DIVISION 3 (STA 60+97'N' - STA 65+08'N'): NB STH 65 LT TURN LANE (STAGE 2A)

STATION	Distance	Area						Incremental Volume (Unadjusted)						Cumulative Vol (CY)			Mass Ordinate
		Cut (SF)	Salvaged/Unusable Pavement Material (SF)	Fill (SF)	Marsh Exc (SF)	Rock Exc (SF)	EBS (SF)	Cut Note 1 (CY)	Salvaged/Unusable Pavement Material Note 2 (CY)	Fill Note 3 (CY)	Marsh Exc Note 4 (CY)	Rock Exc (CY)	EBS (CY)	Cut 1.00 Note 1	Expanded Fill 1.25	Reduced EBS In Fill 0.80 Note 5	Note 6
60+97		0	0	0	0	0	0										
61+00	3	13	0	0	0	0	2	1	0	0	0	0	0	1	0	0	1
61+50	50	6	0	9	0	0	1	17	0	8	0	0	3	18	7	2	11
62+00	50	2	0	17	0	0	0	7	0	24	0	0	1	25	35	3	-11
62+50	50	2	0	16	0	0	0	3	0	30	0	0	1	28	72	4	-45
63+00	50	3	0	14	0	0	1	5	0	27	0	0	1	33	105	4	-73
63+50	50	3	0	14	0	0	1	6	0	26	0	0	1	39	137	5	-98
64+00	50	6	0	14	0	0	1	8	0	26	0	0	1	47	168	6	-121
64+50	50	14	0	1	0	0	2	18	0	14	0	0	3	65	182	9	-117
65+00	50	27	0	0	0	0	5	38	0	1	0	0	7	103	177	14	-73
65+08	8	33	0	0	0	0	6	9	0	0	0	0	2	112	175	15	-63
								112	0	156	0	0	19				

DIVISION 3 (STA 55+40'N' - STA 57+00'N'): NB STH 65 SOUTH CROSSOVER (STAGE 2A)

STATION	Distance	Area						Incremental Volume (Unadjusted)						Cumulative Vol (CY)			Mass Ordinate
		Cut (SF)	Salvaged/Unusable Pavement Material (SF)	Fill (SF)	Marsh Exc (SF)	Rock Exc (SF)	EBS (SF)	Cut Note 1 (CY)	Salvaged/Unusable Pavement Material Note 2 (CY)	Fill Note 3 (CY)	Marsh Exc Note 4 (CY)	Rock Exc (CY)	EBS (CY)	Cut 1.00 Note 1	Expanded Fill 1.25	Reduced EBS In Fill 0.80 Note 5	Note 6
55+40		3	2	0	0	0	1										
55+50	10	12	2	0	0	0	2	3	1	0	0	0	0	3	0	0	3
56+00	50	25	0	0	0	0	4	34	1	0	0	0	6	37	-6	5	41
56+50	50	8	0	0	0	0	1	30	0	0	0	0	5	67	-11	9	77
57+00	50	1	0	6	0	0	0	8	0	5	0	0	1	76	-6	10	80
								76	2	5	0	0	13				

DIVISION 3 (STA 57+10'N' - STA 59+63'N'): NB STH 65 NORTH CROSSOVER (STAGE 2A)

		Area						Incremental Volume (Unadjusted)						Cumulative Vol (CY)			
STATION	Distance	Cut (SF)	Salvaged/Unusable Pavement Material (SF)	Fill (SF)	Marsh Exc (SF)	Rock Exc (SF)	EBS (SF)	Cut Note 1 (CY)	Salvaged/Unusable Pavement Material Note 2 (CY)	Fill Note 3 (CY)	Marsh Exc Note 4 (CY)	Rock Exc (CY)	EBS (CY)	Cut 1.00 Note 1	Expanded Fill 1.25	Reduced EBS In Fill 0.80 Note 5	Mass Ordinate Note 6
57+10		6	2	0	0	0	1										
57+50	40	10	2	0	0	0	2	12	2	0	0	0	2	12	-2	2	12
58+00	50	30	2	0	0	0	5	37	3	0	0	0	6	49	-8	7	52
58+50	50	53	2	0	0	0	9	77	3	0	0	0	13	126	-21	17	139
59+00	50	35	0	0	0	0	6	82	1	0	0	0	14	208	-36	28	234
59+50	50	2	0	0	0	0	0	35	0	0	0	0	6	242	-41	33	275
59+63	13	0	0	4	0	0	0	1	0	1	0	0	0	243	-40	33	274
								243	9	1	0	0	42				

DIVISION 4 (STA 58+75'S' - STA 65+14'S'): SB STH 65 (STAGE 3)

		Area						Incremental Volume (Unadjusted)						Cumulative Vol (CY)			
STATION	Distance	Cut (SF)	Salvaged/Unusable Pavement Material (SF)	Fill (SF)	Marsh Exc (SF)	Rock Exc (SF)	EBS (SF)	Cut Note 1 (CY)	Salvaged/Unusable Pavement Material Note 2 (CY)	Fill Note 3 (CY)	Marsh Exc Note 4 (CY)	Rock Exc (CY)	EBS (CY)	Cut 1.00 Note 1	Expanded Fill 1.25	Reduced EBS In Fill 0.80 Note 5	Mass Ordinate Note 6
58+75		27	18	0	0	0	5										
59+00	25	26	18	0	0	0	4	24	17	0	0	0	4	24	-4	3	12
59+50	50	26	17	0	0	0	4	48	32	0	0	0	8	73	-12	10	37
60+00	50	25	23	0	0	0	4	47	37	0	0	0	8	120	-20	16	55
60+50	50	59	0	0	0	0	10	78	22	0	0	0	13	197	-34	27	125
61+00	50	62	0	1	0	0	11	112	0	1	0	0	19	310	-52	42	255
61+50	50	49	0	21	0	0	8	103	0	20	0	0	18	413	-45	56	351
61+60	10	46	0	24	0	0	8	17	0	8	0	0	3	429	-38	59	360
61+84	25	40	0	25	0	0	7	40	0	22	0	0	7	469	-17	64	379
61+89	5	41	0	25	0	0	7	8	0	5	0	0	1	477	-12	65	382
62+00	11	43	0	27	0	0	7	17	0	10	0	0	3	493	-2	67	389
62+09	9	45	0	28	0	0	8	15	0	9	0	0	3	508	7	70	394
62+14	5	46	0	25	0	0	8	8	0	5	0	0	1	517	12	71	398
62+39	25	53	0	11	0	0	9	46	0	17	0	0	8	562	25	77	431
62+50	11	53	0	10	0	0	9	21	0	4	0	0	4	583	27	80	450
62+88	38	46	0	10	0	0	8	70	0	13	0	0	12	654	32	89	515
63+00	12	47	0	9	0	0	8	21	0	4	0	0	4	675	33	92	535
63+50	50	47	0	18	0	0	8	87	0	25	0	0	15	761	50	104	605
64+00	50	47	0	6	0	0	8	86	0	23	0	0	15	848	63	116	678
64+50	50	59	0	0	0	0	10	98	0	6	0	0	17	945	54	129	785
65+00	50	49	0	0	0	0	8	100	0	0	0	0	17	1,046	37	143	902
65+14	14	39	0	1	0	0	7	23	0	0	0	0	4	1,069	33	146	929
								1,069	107	173	0	0	183				

DIVISION 4 (STA 18+10'W' - STA 19+39'W'): 70TH AVENUE WEST (STAGE 3)

		Area						Incremental Volume (Unadjusted)						Cumulative Vol (CY)			
STATION	Distance	Cut (SF)	Salvaged/Unusable Pavement Material (SF)	Fill (SF)	Marsh Exc (SF)	Rock Exc (SF)	EBS (SF)	Cut Note 1 (CY)	Salvaged/Unusable Pavement Material Note 2 (CY)	Fill Note 3 (CY)	Marsh Exc Note 4 (CY)	Rock Exc (CY)	EBS (CY)	Cut 1.00 Note 1	Expanded Fill 1.25	Reduced EBS In Fill 0.80 Note 5	Mass Ordinate Note 6
18+12		0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18+50	38	45	10	51	0	0	8	32	14	36	0	0	5	32	39	4	-22
18+71	21	47	11	75	0	0	8	36	8	49	0	0	6	68	94	9	-49
18+71	0	52	11	98	0	0	9	0	0	0	0	0	0	68	94	9	-49
19+00	29	52	12	98	0	0	9	55	13	104	0	0	9	124	215	17	-126
19+39	39	61	13	109	0	0	10	81	18	149	0	0	14	205	387	28	-235
								205	53	337	0	0	35				

DIVISION 5 (STA 56+76'N' - STA 58+75'N'): SB STH 65 (STAGE 3A)

		Area						Incremental Volume (Unadjusted)						Cumulative Vol (CY)			
STATION	Distance	Cut (SF)	Salvaged/Unusable Pavement Material (SF)	Fill (SF)	Marsh Exc (SF)	Rock Exc (SF)	EBS (SF)	Cut Note 1 (CY)	Salvaged/Unusable Pavement Material Note 2 (CY)	Fill Note 3 (CY)	Marsh Exc Note 4 (CY)	Rock Exc (CY)	EBS (CY)	Cut 1.00 Note 1	Expanded Fill 1.25	Reduced EBS In Fill 0.80 Note 5	Mass Ordinate Note 6
56+76		39	22	0	0	0	7										
57+00	24	41	22	0	0	0	7	36	19	0	0	0	6	36	-6	5	22
57+50	50	36	21	0	0	0	6	71	39	0	0	0	12	106	-18	15	66
58+00	50	30	20	0	0	0	5	61	38	0	0	0	10	167	-29	23	100
58+50	50	27	18	0	0	0	5	53	35	0	0	0	9	220	-38	30	126
58+75	25	24	18	0	0	0	4	24	17	0	0	0	4	244	-42	33	137
								244	148	0	0	0	42				

DIVISION 6 (STA 65+08'N' - STA 82+70'N'): NB & SB STH 65 (STAGE 4)

STATION	Distance	Area						Incremental Volume (Unadjusted)						Cumulative Vol (CY)			Mass Ordinate
		Cut (SF)	Salvaged/Unusable Pavement Material (SF)	Fill (SF)	Marsh Exc (SF)	Rock Exc (SF)	EBS (SF)	Cut Note 1 (CY)	Salvaged/Unusable Pavement Material Note 2 (CY)	Fill Note 3 (CY)	Marsh Exc Note 4 (CY)	Rock Exc (CY)	EBS (CY)	Cut 1.00 Note 1	Expanded Fill 1.25	Reduced EBS In Fill 0.80 Note 5	Note 6
65+08		95	88	0	0	0	16										
65+50	42	82	51	0	0	0	14	138	108	0	0	0	24	138	-24	19	53
66+00	50	28	45	218	0	0	5	102	89	202	0	0	17	240	211	33	-169
66+50	50	317	40	104	0	0	54	319	79	299	0	0	55	559	530	76	-247
67+00	50	624	39	35	0	0	107	871	73	129	0	0	149	1,430	542	196	539
67+50	50	755	38	27	0	0	129	1,277	71	57	0	0	218	2,707	395	370	1,892
68+00	50	908	35	21	0	0	155	1,540	67	45	0	0	263	4,247	188	581	3,573
68+50	50	1,073	31	36	0	0	184	1,835	61	53	0	0	314	6,081	-59	832	5,593
69+00	50	1,099	29	43	0	0	188	2,011	56	74	0	0	344	8,092	-311	1,107	7,801
69+50	50	1,042	28	48	0	0	178	1,982	53	84	0	0	339	10,074	-545	1,378	9,963
70+00	50	897	28	51	0	0	153	1,795	52	92	0	0	307	11,870	-737	1,624	11,898
70+27	27	801	27	46	0	0	137	836	27	48	0	0	143	12,705	-820	1,738	12,789
70+50	23	708	27	51	0	0	121	655	24	42	0	0	112	13,360	-879	1,828	13,479
70+52	2	700	27	51	0	0	120	42	2	3	0	0	7	13,401	-882	1,833	13,523
70+77	25	559	26	55	0	0	96	583	25	49	0	0	100	13,984	-921	1,913	14,120
71+00	23	452	26	57	0	0	77	438	23	48	0	0	75	14,423	-935	1,973	14,550
71+50	50	251	26	89	0	0	43	651	48	135	0	0	111	15,073	-877	2,062	15,095
72+00	50	94	25	214	0	0	16	319	47	280	0	0	55	15,393	-581	2,106	15,071
72+50	50	90	24	208	0	0	15	170	46	391	0	0	29	15,563	-122	2,129	14,737
73+00	50	86	23	147	0	0	15	163	44	328	0	0	28	15,726	260	2,151	14,473
73+21	21	72	23	116	0	0	12	61	18	101	0	0	10	15,787	376	2,160	14,400
73+46	25	66	23	85	0	0	11	65	22	94	0	0	11	15,852	483	2,169	14,337
73+50	4	64	23	80	0	0	11	9	3	12	0	0	2	15,861	496	2,170	14,330
73+53	3	63	23	76	0	0	11	8	3	10	0	0	1	15,869	507	2,171	14,324
73+72	18	93	23	49	0	0	16	53	15	42	0	0	9	15,921	551	2,178	14,318
73+78	7	116	23	46	0	0	20	27	6	12	0	0	5	15,948	561	2,182	14,328
74+00	22	113	23	46	0	0	19	91	18	37	0	0	16	16,040	592	2,194	14,371
74+03	3	111	20	47	0	0	19	14	3	6	0	0	2	16,054	597	2,196	14,378
74+40	37	132	36	21	0	0	23	164	38	46	0	0	28	16,218	626	2,219	14,474
74+50	10	119	27	28	0	0	20	46	12	9	0	0	8	16,264	629	2,225	14,506
74+69	19	130	20	59	0	0	22	88	17	31	0	0	15	16,352	653	2,237	14,553
74+76	7	129	20	64	0	0	22	35	5	17	0	0	6	16,387	668	2,242	14,568
75+00	24	126	20	80	0	0	22	111	18	63	0	0	19	16,499	727	2,257	14,602
75+50	50	75	20	154	0	0	13	186	37	217	0	0	32	16,685	967	2,282	14,511
76+00	50	35	20	277	0	0	6	102	37	399	0	0	17	16,786	1,449	2,296	14,094
76+18	18	31	20	327	0	0	5	22	13	199	0	0	4	16,808	1,694	2,299	13,857
76+43	25	164	20	338	0	0	28	89	18	305	0	0	15	16,897	2,060	2,312	13,562
76+50	7	111	20	343	0	0	19	38	6	94	0	0	6	16,935	2,171	2,317	13,483
76+67	17	61	20	356	0	0	10	55	13	225	0	0	9	16,991	2,442	2,324	13,254
77+00	33	42	20	322	0	0	7	62	24	410	0	0	11	17,053	2,944	2,333	12,790
77+25	25	56	20	381	0	0	10	45	19	326	0	0	8	17,098	3,343	2,339	12,418
77+25	0	56	20	381	0	0	10	0	0	0	0	0	0	17,098	3,344	2,339	12,418
77+50	25	29	20	361	0	0	5	39	19	343	0	0	7	17,138	3,766	2,344	12,016
78+00	50	79	20	388	5	0	14	100	37	693	4	0	17	17,238	4,613	2,358	11,232
78+50	50	72	0	417	37	0	12	141	19	745	39	0	24	17,378	5,490	2,377	10,476
79+00	50	77	0	343	60	0	13	138	0	703	90	0	24	17,516	6,278	2,396	9,827
79+50	50	85	0	255	61	0	15	150	0	554	112	0	26	17,666	6,861	2,417	9,394
80+00	50	99	0	201	42	0	17	170	0	423	95	0	29	17,836	7,288	2,440	9,137
80+50	50	120	0	138	30	0	21	202	0	314	67	0	35	18,039	7,597	2,468	9,031
80+67	17	127	0	166	24	0	22	76	0	93	17	0	13	18,115	7,688	2,478	9,016
81+00	33	140	0	112	32	0	24	165	0	172	35	0	28	18,280	7,848	2,501	9,021
81+33	33	74	0	146	50	0	13	131	0	157	50	0	22	18,411	7,985	2,519	9,014
81+50	17	72	0	139	43	0	12	46	0	90	29	0	8	18,457	8,068	2,525	8,978
81+58	8	70	0	147	42	0	12	21	0	42	13	0	4	18,478	8,107	2,528	8,959
81+83	25	63	0	172	20	0	11	61	0	148	29	0	10	18,539	8,260	2,536	8,868
82+00	17	61	0	174	16	0	10	39	0	109	11	0	7	18,578	8,382	2,541	8,785
82+50	50	57	0	160	27	0	10	109	0	310	40	0	19	18,687	8,720	2,556	8,555
82+70	20	54	0	143	30	0	9	41	0	111	21	0	7	18,727	8,837	2,562	8,479
								18,727	1,411	10,022	650	0	3,202				

DIVISION 6 (STA 18+10'W' - STA 19+41'W'): 70TH AVENUE WEST (STAGE 4)

		Area						Incremental Volume (Unadjusted)						Cumulative Vol (CY)			
STATION	Distance	Cut (SF)	Salvaged/Unusable Pavement Material (SF)	Fill (SF)	Marsh Exc (SF)	Rock Exc (SF)	EBS (SF)	Cut Note 1 (CY)	Salvaged/Unusable Pavement Material Note 2 (CY)	Fill Note 3 (CY)	Marsh Exc Note 4 (CY)	Rock Exc (CY)	EBS (CY)	Cut 1.00 Note 1	Expanded Fill 1.25	Reduced EBS In Fill 0.80 Note 5	Mass Ordinate Note 6
18+00		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18+50	50	4	0	14	0	0	1	4	0	13	0	0	1	4	16	1	-12
18+71	21	90	0	11	0	0	15	37	0	10	0	0	6	41	22	6	19
18+71	0	90	0	11	0	0	15	0	0	0	0	0	0	41	22	6	19
19+00	29	129	0	20	0	0	22	116	0	17	0	0	20	158	23	22	135
19+41	41	61	0	29	0	0	10	145	0	37	0	0	25	303	45	41	257
								303	0	78	0	0	52				

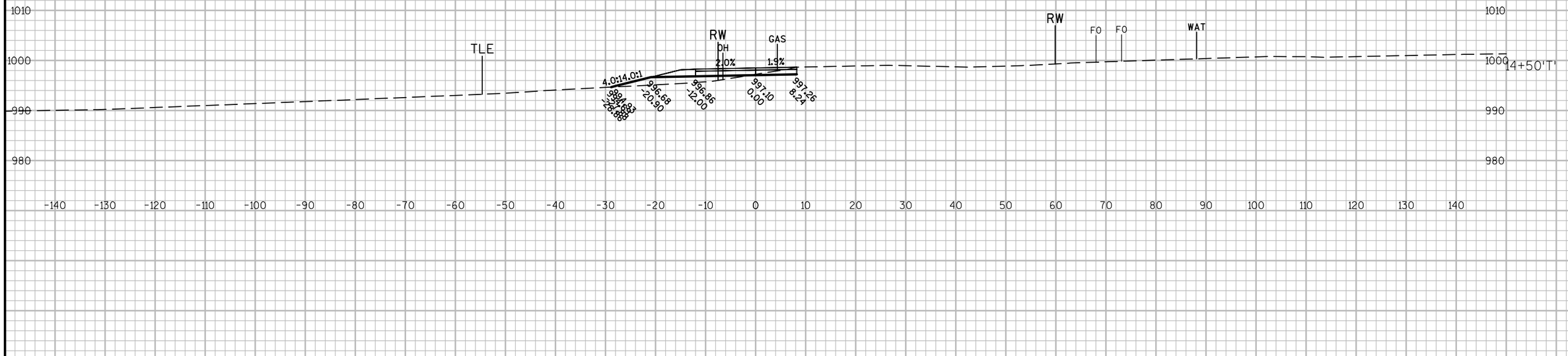
DIVISION 6 (STA 20+68'E' - STA 29+15'E'): 70TH AVENUE EAST (STAGE 4)

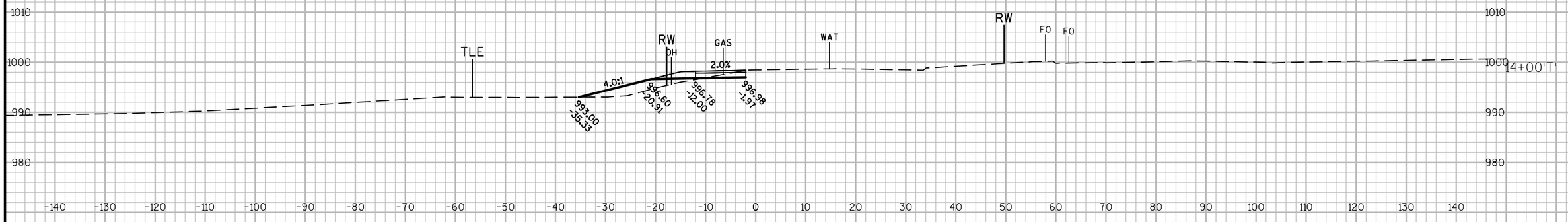
		Area						Incremental Volume (Unadjusted)						Cumulative Vol (CY)			
STATION	Distance	Cut (SF)	Salvaged/Unusable Pavement Material (SF)	Fill (SF)	Marsh Exc (SF)	Rock Exc (SF)	EBS (SF)	Cut Note 1 (CY)	Salvaged/Unusable Pavement Material Note 2 (CY)	Fill Note 3 (CY)	Marsh Exc (CY)	Rock Exc (CY)	EBS (CY)	Cut 1.00 Note 1	Expanded Fill 1.25	Reduced EBS In Fill 0.80 Note 6	Mass Ordinate Note 7
20+68		0	0	0	0	0	0										
21+00	32	33	0	2	0	0	6	19	0	1	0	0	3	19	-2	3	21
21+50	50	77	0	73	0	0	13	101	0	70	0	0	17	121	69	17	52
22+00	50	77	0	0	0	0	13	142	0	68	0	0	24	263	129	36	134
22+50	50	110	0	0	0	0	19	173	0	0	0	0	30	436	100	60	337
22+97	47	138	0	0	0	0	24	216	0	0	0	0	37	653	63	89	590
23+00	3	137	0	0	0	0	24	14	0	0	0	0	2	667	60	91	607
23+50	50	125	0	13	0	0	21	243	0	12	0	0	42	910	34	125	876
24+00	50	64	0	0	0	0	11	175	0	12	0	0	30	1,085	19	148	1,066
24+50	50	52	0	17	0	0	9	107	0	16	0	0	18	1,192	20	163	1,172
25+00	50	34	0	1	0	0	6	79	0	17	0	0	14	1,271	28	174	1,243
25+50	50	95	0	6	0	0	16	119	0	7	0	0	20	1,390	16	190	1,373
26+00	50	116	0	2	0	0	20	195	0	8	0	0	33	1,585	-8	217	1,593
26+50	50	130	0	0	0	0	22	228	0	2	0	0	39	1,813	-45	248	1,858
27+00	50	109	0	0	0	0	19	221	0	0	0	0	38	2,034	-82	278	2,116
27+50	50	73	0	0	0	0	12	168	0	0	0	0	29	2,202	-111	301	2,313
28+00	50	35	0	0	0	0	6	100	0	0	0	0	17	2,302	-128	315	2,430
28+50	50	18	0	0	0	0	3	49	0	0	0	0	8	2,351	-136	322	2,487
29+00	50	11	0	0	0	0	2	27	0	0	0	0	5	2,378	-141	325	2,519
29+15	15	6	0	0	0	0	1	5	0	0	0	0	1	2,383	-141	326	2,524
								2,383	0	213	0	0	407				

DIVISION 6 (STA 54+05'N' - STA 60+97'N'): STH 65 MEDIAN (STAGE 4)

		Area						Incremental Volume (Unadjusted)						Cumulative Vol (CY)			
STATION	Distance	Cut (SF)	Salvaged/Unusable Pavement Material (SF)	Fill (SF)	Marsh Exc (SF)	Rock Exc (SF)	EBS (SF)	Cut Note 1 (CY)	Salvaged/Unusable Pavement Material Note 2 (CY)	Fill Note 3 (CY)	Marsh Exc (CY)	Rock Exc (CY)	EBS (CY)	Cut 1.00 Note 1	Expanded Fill 1.25	Reduced EBS In Fill 0.80 Note 6	Mass Ordinate Note 7
54+05		8	0	0	0	0	1										
54+50	45	30	0	0	0	0	5	31	0	0	0	0	5	31	-5	4	37
55+00	50	14	0	0	0	0	2	41	0	0	0	0	7	72	-12	10	84
55+50	50	9	0	0	0	0	2	21	0	0	0	0	4	93	-16	13	109
56+00	50	14	0	1	0	0	2	22	0	1	0	0	4	115	-19	16	134
56+50	50	23	0	0	0	0	4	35	0	1	0	0	6	150	-24	21	174
57+00	50	24	0	0	0	0	4	43	0	0	0	0	7	193	-31	26	225
57+50	50	15	0	1	0	0	3	36	0	1	0	0	6	229	-37	31	266
58+00	50	12	0	6	0	0	2	25	0	6	0	0	4	254	-33	35	287
58+50	50	3	0	8	0	0	0	13	0	13	0	0	2	267	-19	37	286
59+00	50	8	0	5	0	0	1	10	0	12	0	0	2	277	-6	38	283
59+50	50	10	0	2	0	0	2	16	0	6	0	0	3	293	-1	40	295
60+00	50	2	0	5	0	0	0	11	0	6	0	0	2	304	5	42	299
60+50	50	0	0	9	0	0	0	2	0	13	0	0	0	306	21	42	285
60+97	47	0	0	0	0	0	0	0	0	8	0	0	0	306	31	42	275
								306	0	67	0	0	52				

STA. 14+80 'T'
MAINTAIN EXISTING C.E. RT





BEGIN CONSTRUCTION STA. 13+48 'T'

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PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CROSS SECTIONS: TEMPORARY ROAD	SHEET 475	E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\CROSS SECTIONS\090200-XS(TEMP RD).DWGPLOT DATE : 9/29/2022 9:02 PM
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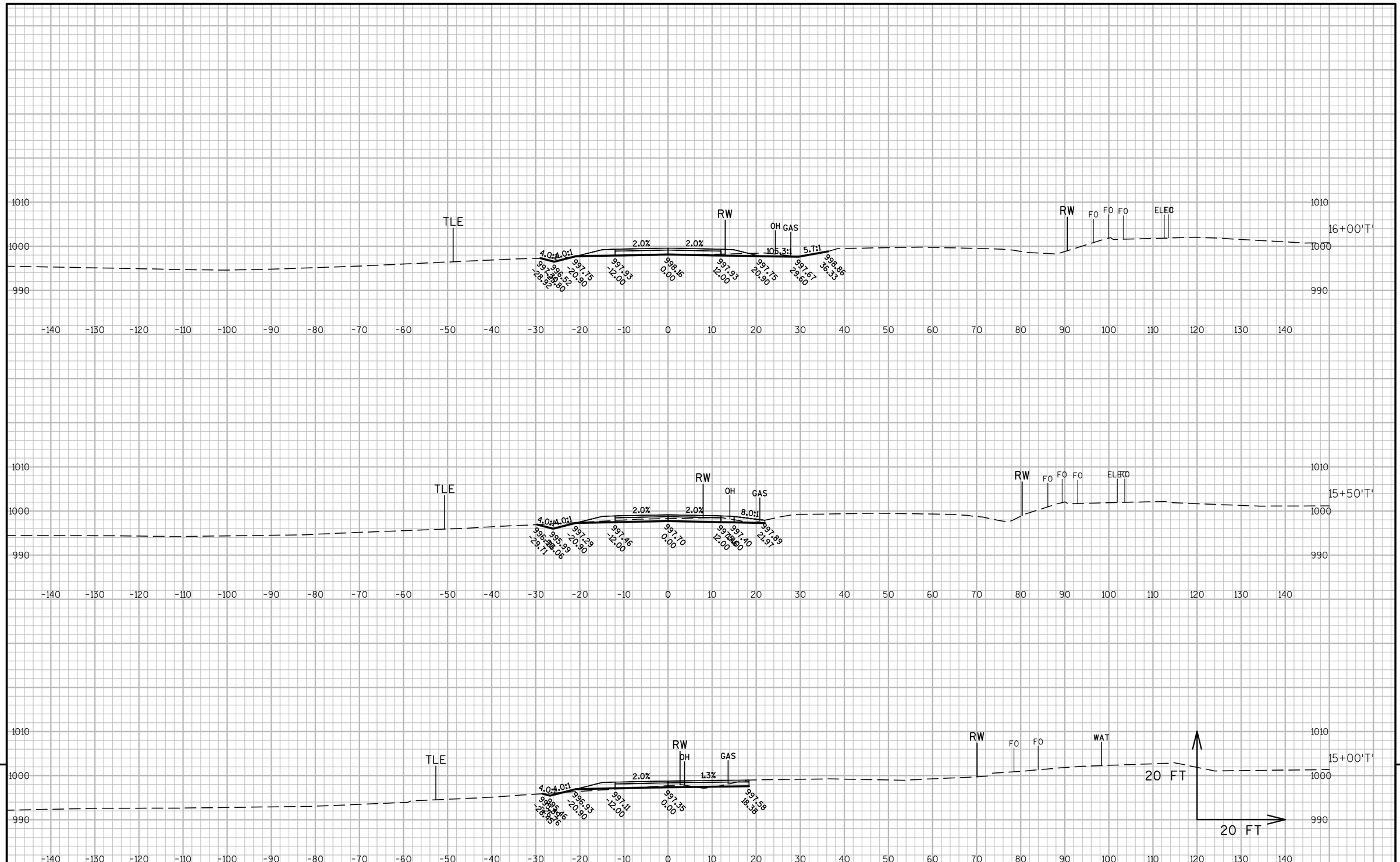
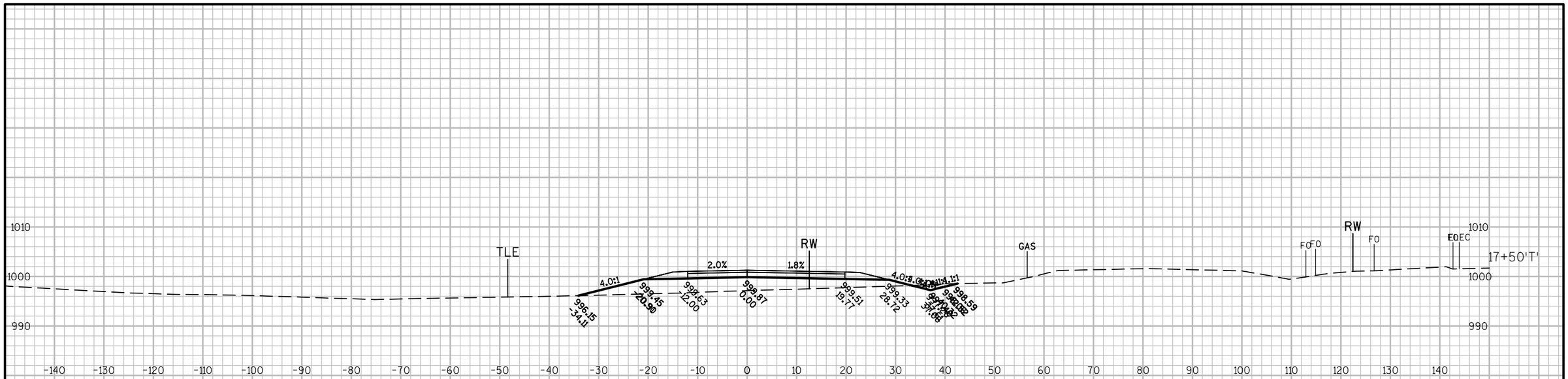
PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT

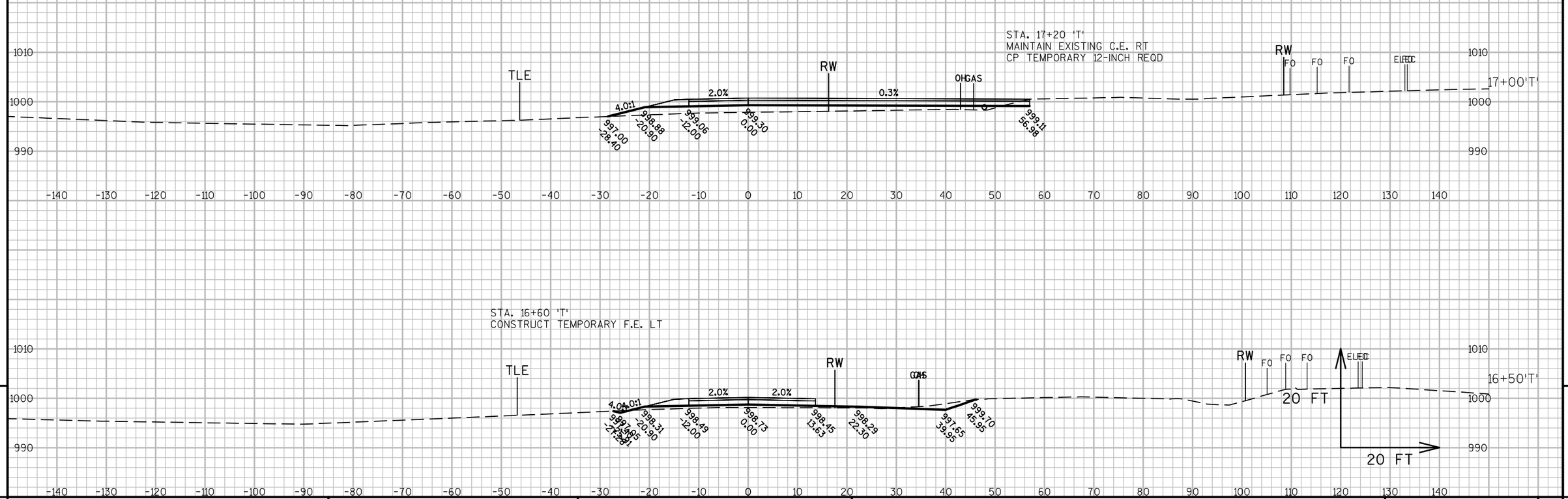


9 9

PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CROSS SECTIONS: TEMPORARY ROAD	SHEET 476 E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\CROSS SECTIONS\090200-XS(TEMP RD).DWGPLOT DATE : 9/29/2022 9:02 PM
LAYOUT NAME - 090206 - (2)
PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 49





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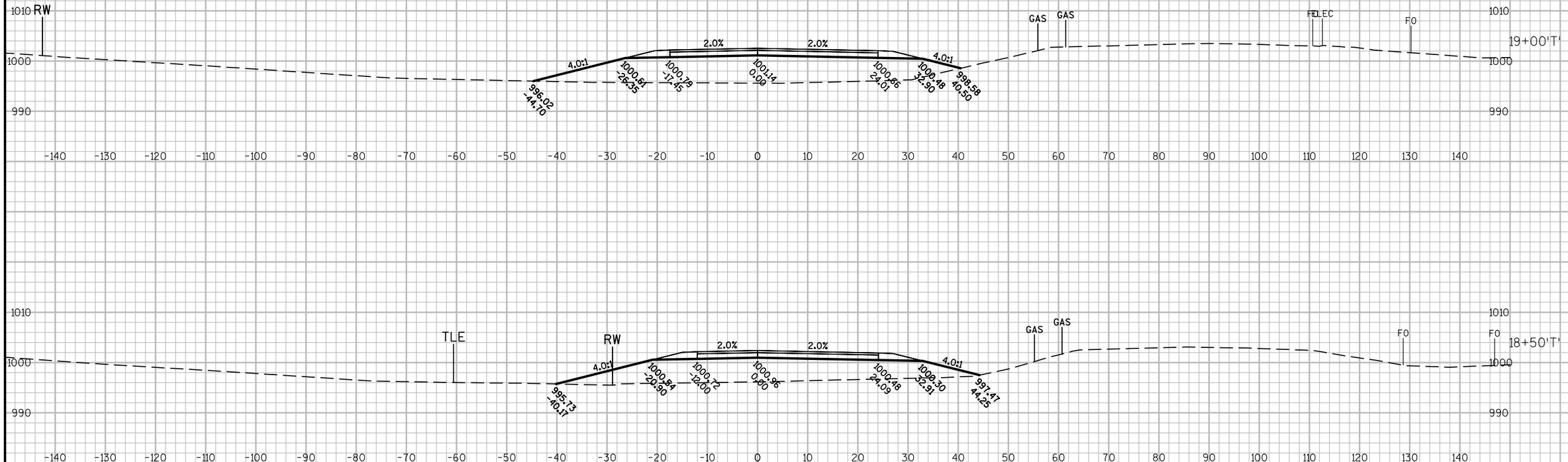
PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CROSS SECTIONS: TEMPORARY ROAD	SHEET 477	E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\CROSS SECTIONS\090200-XS(TEMP RD).DWGPLOT DATE : 9/29/2022 9:02 PM
LAYOUT NAME - 090206 - (3)

PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT



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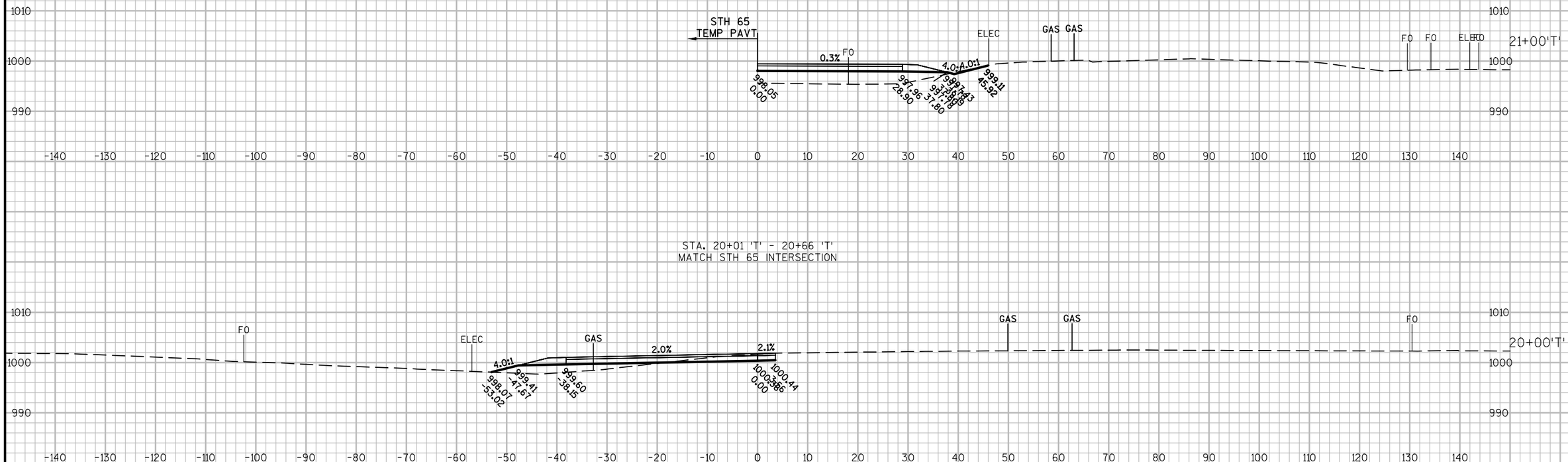
PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CROSS SECTIONS: TEMPORARY ROAD	SHEET 478	E

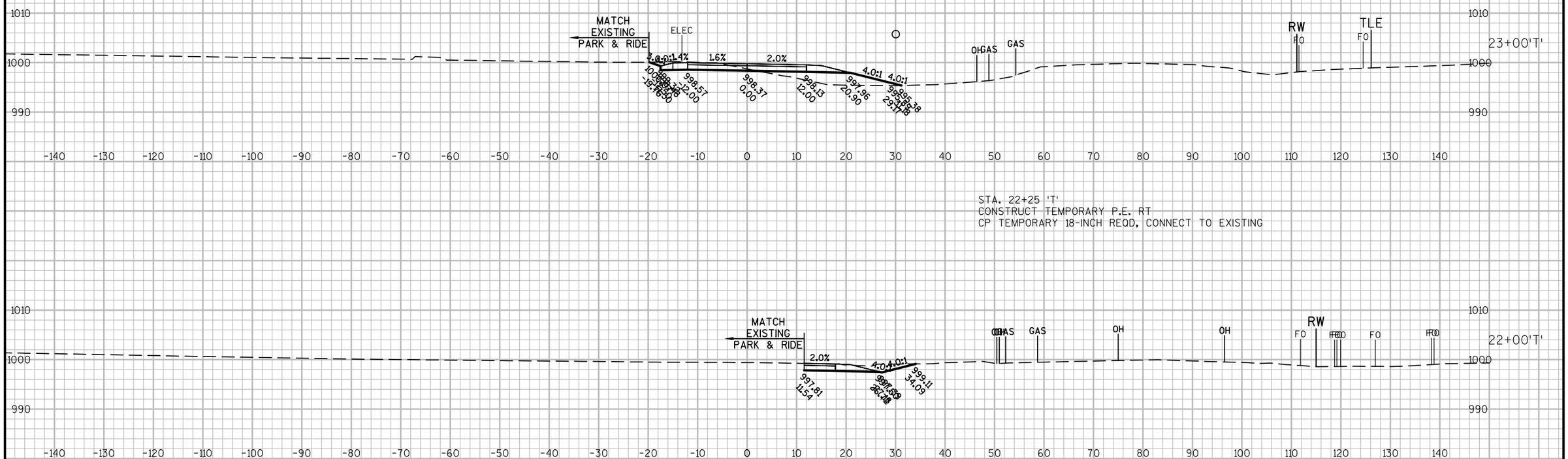


STA. 20+01 'T' - 20+66 'T'
MATCH STH 65 INTERSECTION

9 9

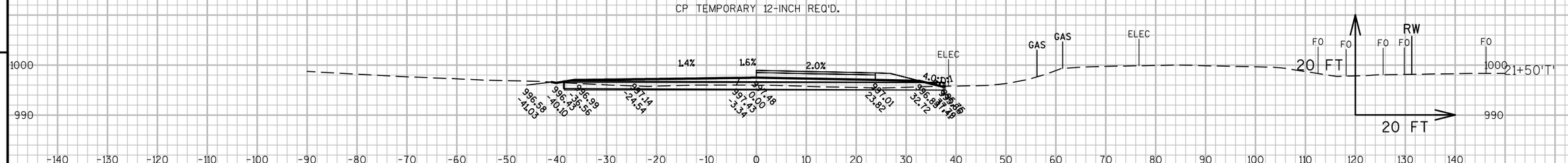
PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CROSS SECTIONS: TEMPORARY ROAD	SHEET 479 E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\CROSS SECTIONS\090200-XS(TEMP RD).DWGPLOT DATE : 9/29/2022 9:02 PM
LAYOUT NAME - 090206 - (5)
PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 49



STA. 22+25 'T'
CONSTRUCT TEMPORARY P.E. RT
CP TEMPORARY 18-INCH REQD, CONNECT TO EXISTING

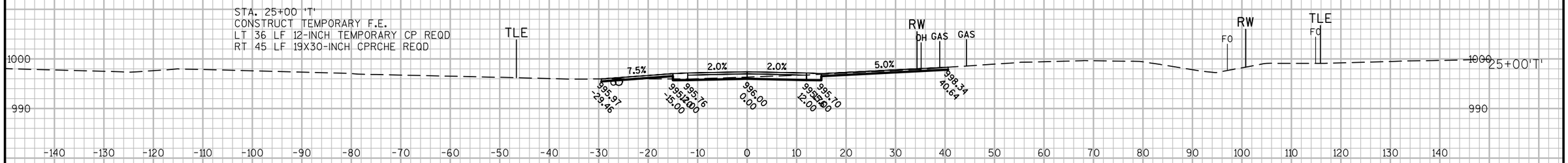
CP TEMPORARY 12-INCH REQ'D.



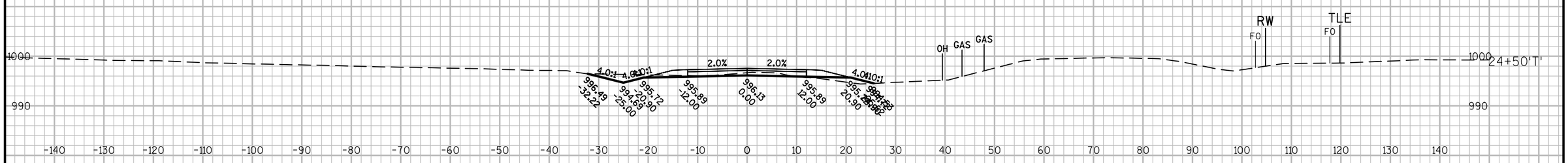
9 9

PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CROSS SECTIONS: TEMPORARY ROAD	SHEET 480	E

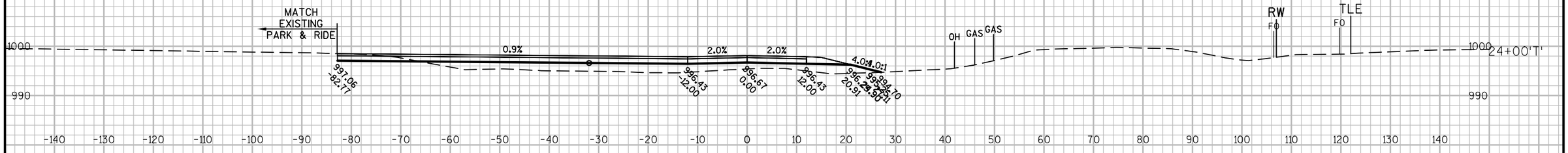
STA. 25+00 'T'
CONSTRUCT TEMPORARY F.E.
LT 36 LF 12-INCH TEMPORARY CP REQD
RT 45 LF 19X30-INCH CPRCHE REQD

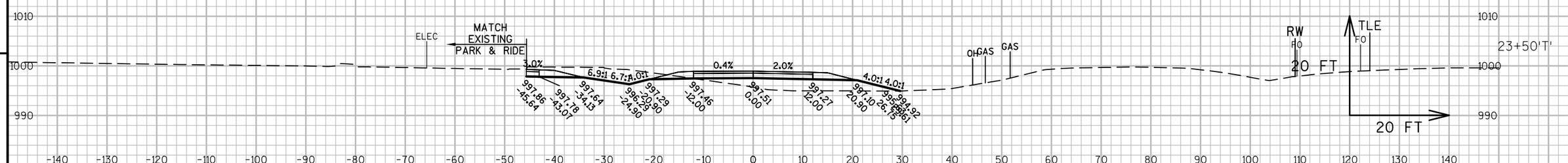


STA. 24+50 'T'



STA. 24+00 'T'
CONSTRUCT PARK AND RIDE ENTRANCE LT
CP TEMPORARY 12-INCH REQ'D





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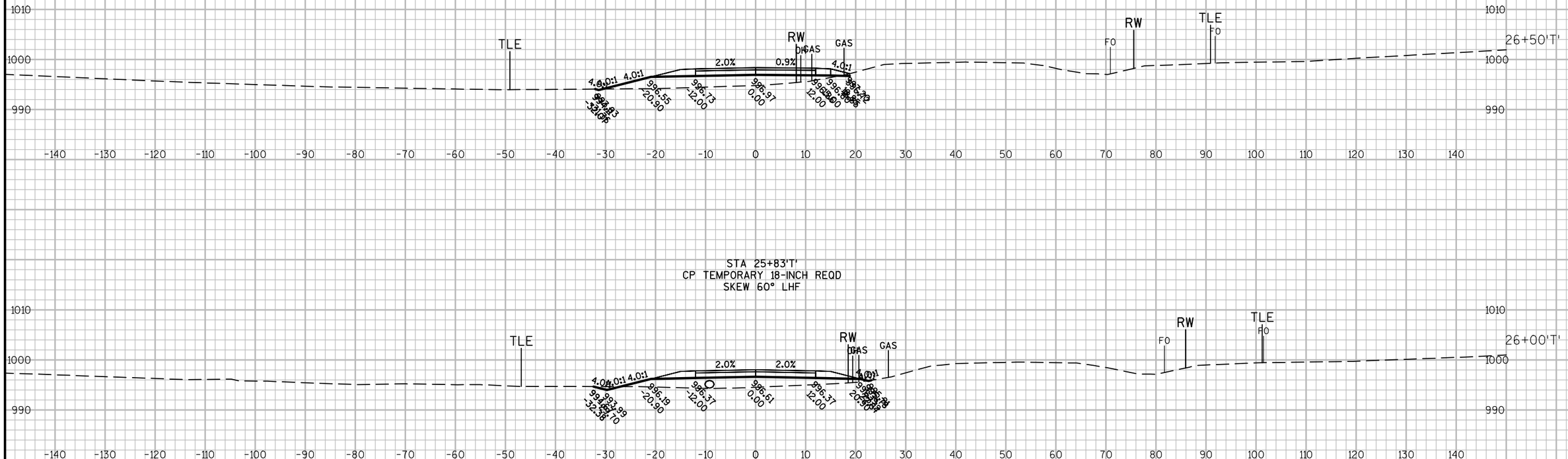
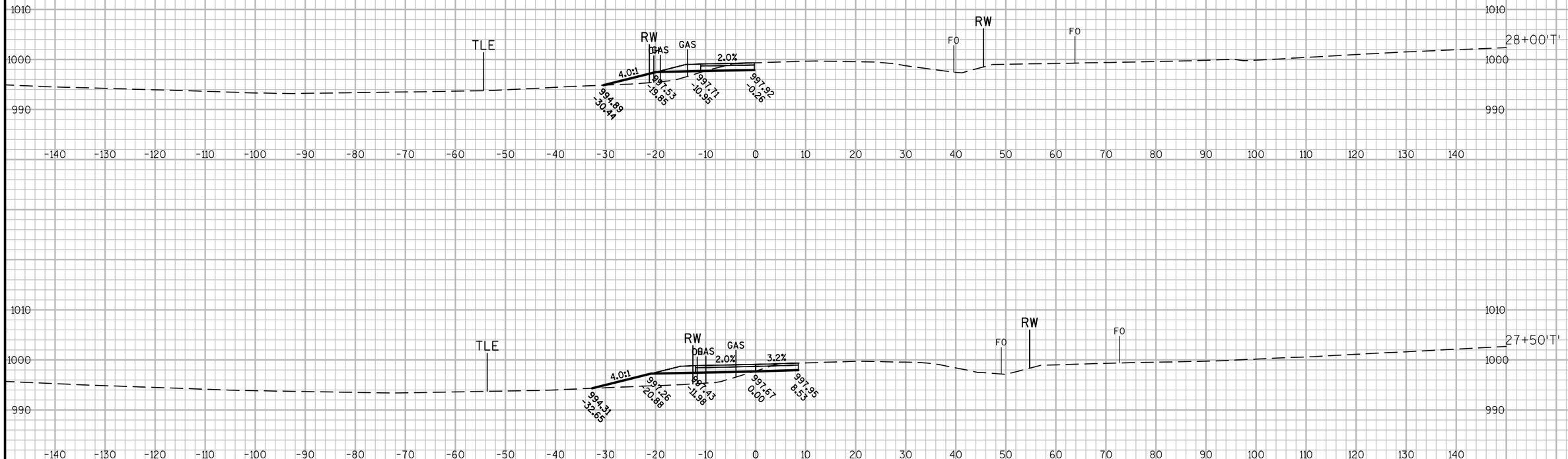
PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CROSS SECTIONS: TEMPORARY ROAD	SHEET 481	E



PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CROSS SECTIONS: TEMPORARY ROAD	SHEET 482 E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\CROSS SECTIONS\090200-XS(TEMP RD).DWGPLOT DATE : 9/29/2022 9:03 PM
LAYOUT NAME - 090206 - (8)
PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 49



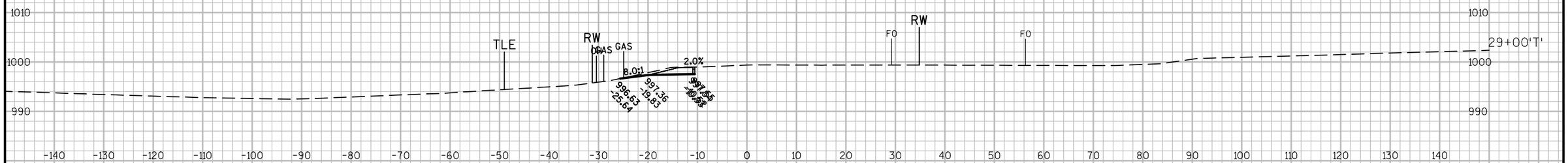
PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CROSS SECTIONS: TEMPORARY ROAD	SHEET 483 E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\CROSS SECTIONS\090200-XS(TEMP RD).DWGPLOT DATE : 9/29/2022 9:03 PM
LAYOUT NAME - 090206 - (9)

PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49

END CONSTRUCTION STA. 29+27 'T'



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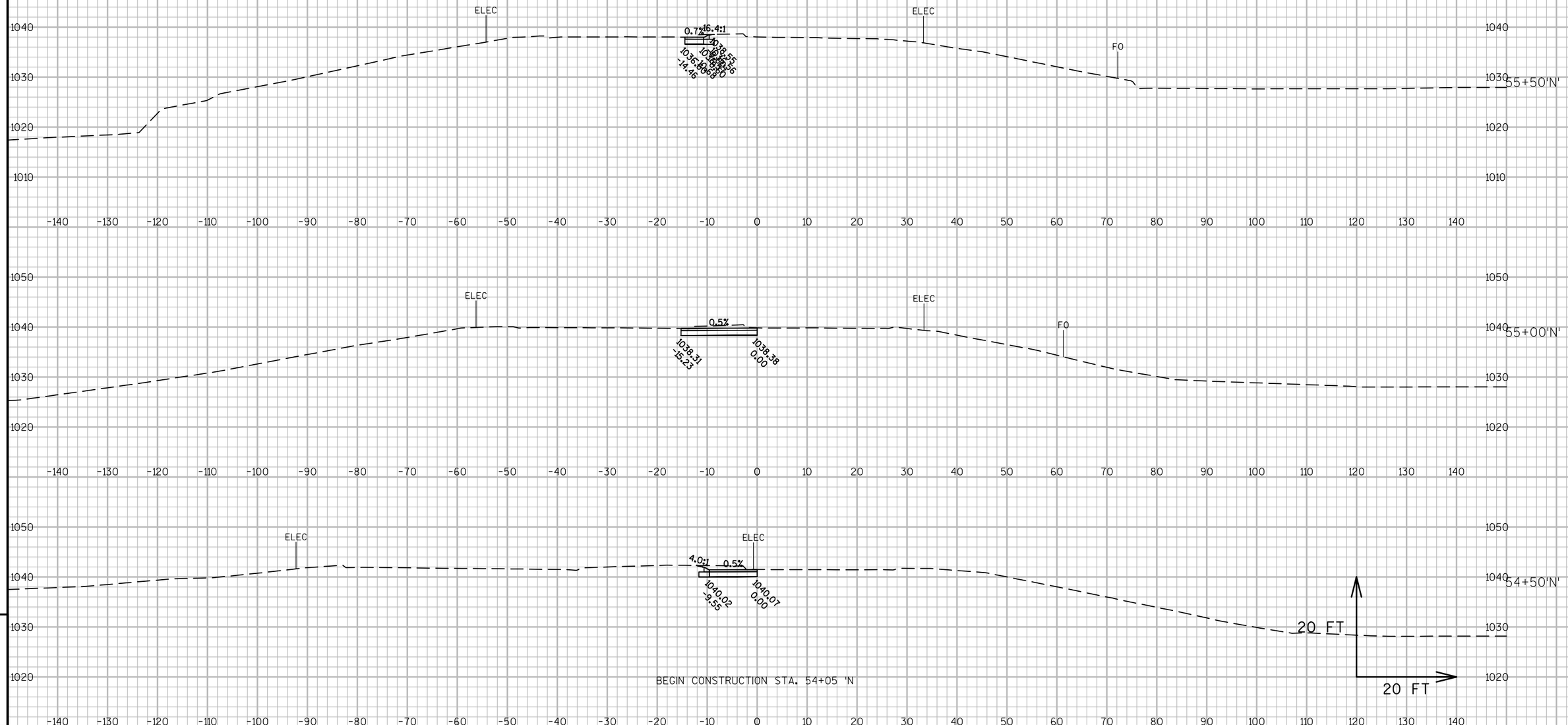
PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CROSS SECTIONS: TEMPORARY ROAD	SHEET 484	E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\CROSS SECTIONS\090200-XS(TEMP RD).DWGPLOT DATE : 9/29/2022 9:03 PM
LAYOUT NAME - 090206 - (9)
PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 49

END CONSTRUCTION STA. 55+70 'N



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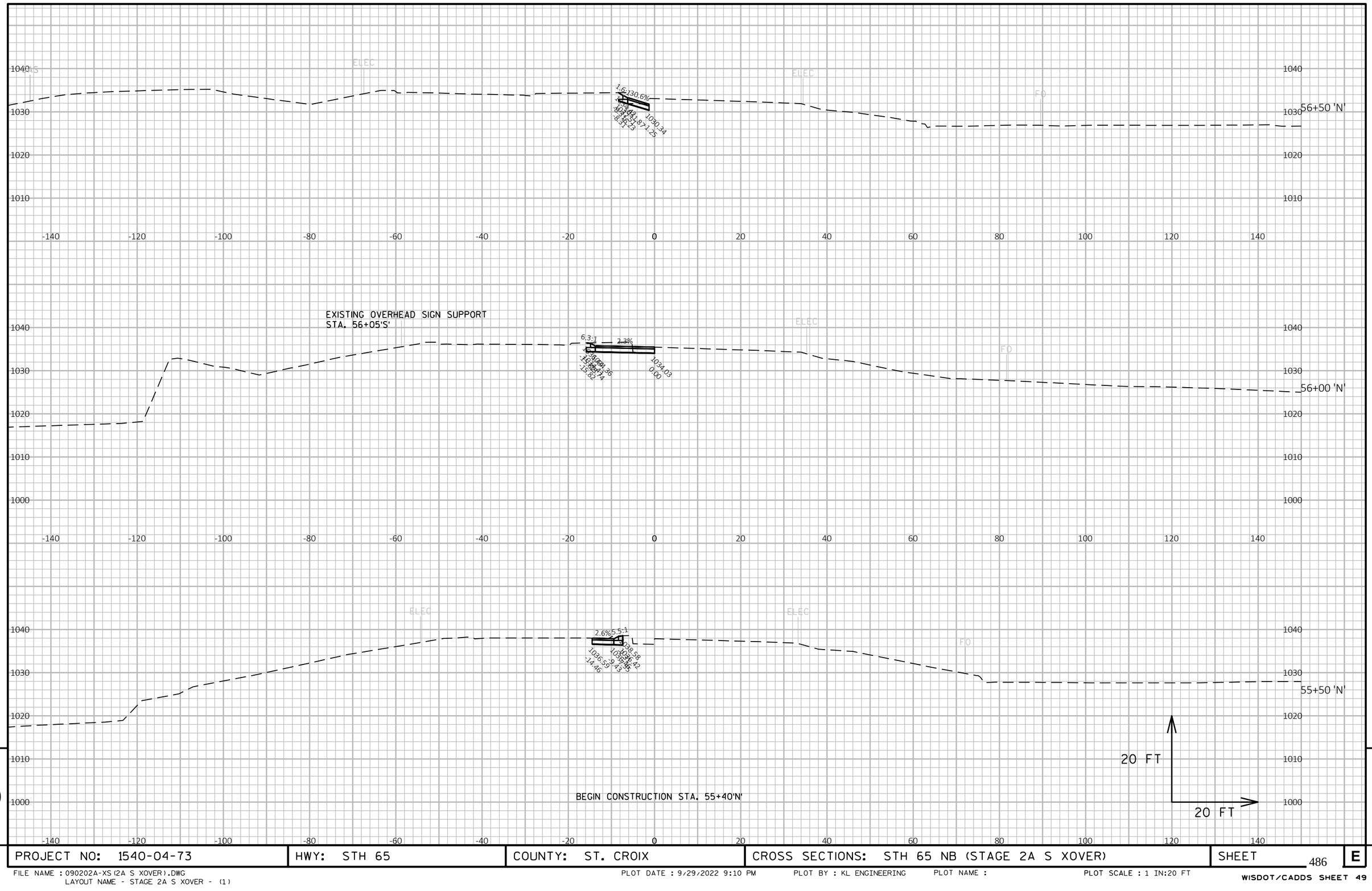
PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CROSS SECTIONS: STH 65 NB (STAGE 1 X-OVER)	SHEET 485	E



PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CROSS SECTIONS: STH 65 NB (STAGE 2A S XOVER)	SHEET 486 E

FILE NAME : 090202A-XS (2A S XOVER).DWG
LAYOUT NAME - STAGE 2A S XOVER - (1)

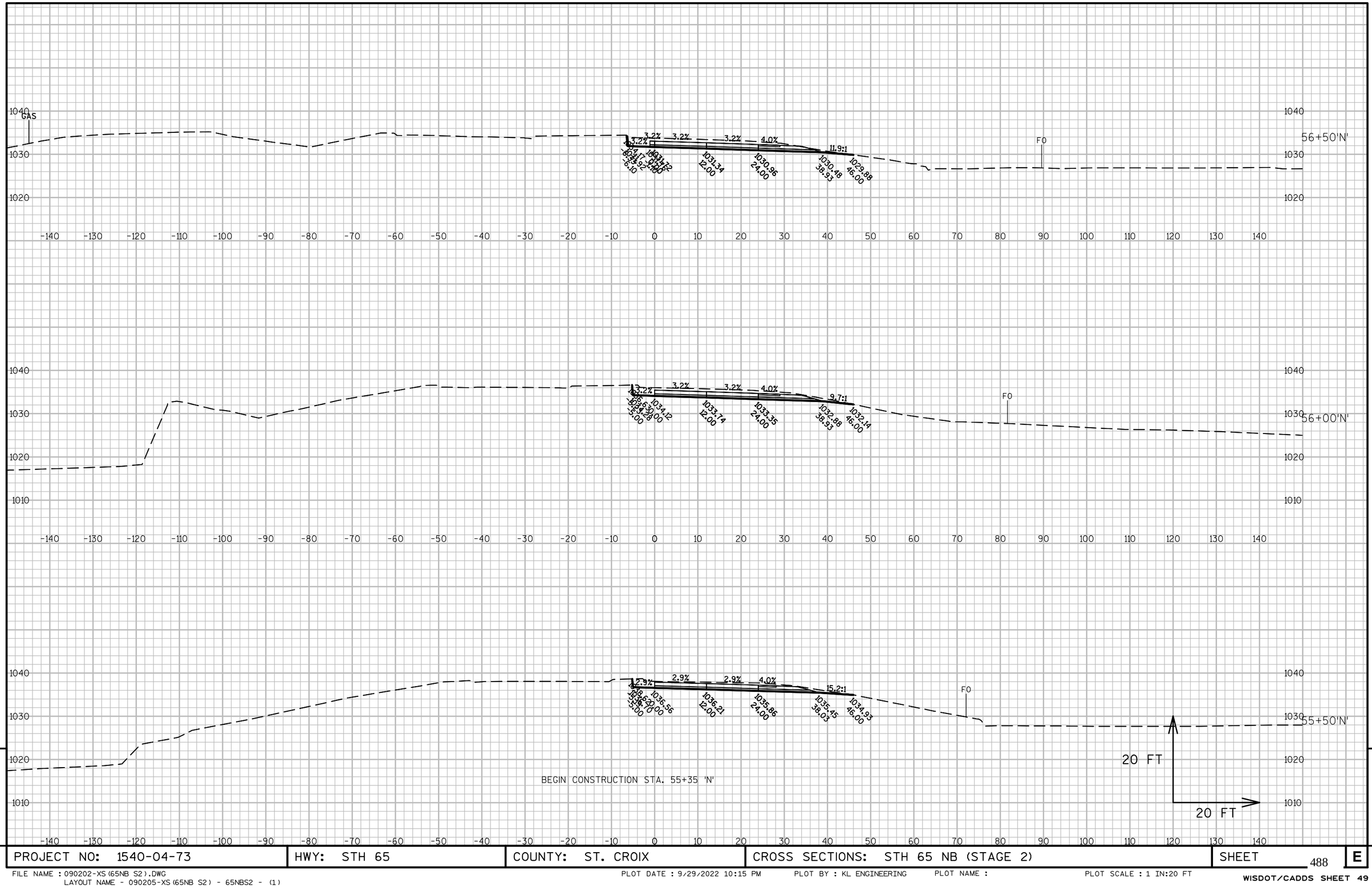
PLOT DATE : 9/29/2022 9:10 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT

END CONSTRUCTION STA. 57+50'N'

PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CROSS SECTIONS: STH 65 NB (STAGE 2A S XOVER)	SHEET 487	E

FILE NAME : 090202A-XS (2A S XOVER).DWG
LAYOUT NAME - STAGE 2A S XOVER - (2)

PLOT DATE : 9/29/2022 9:10 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT

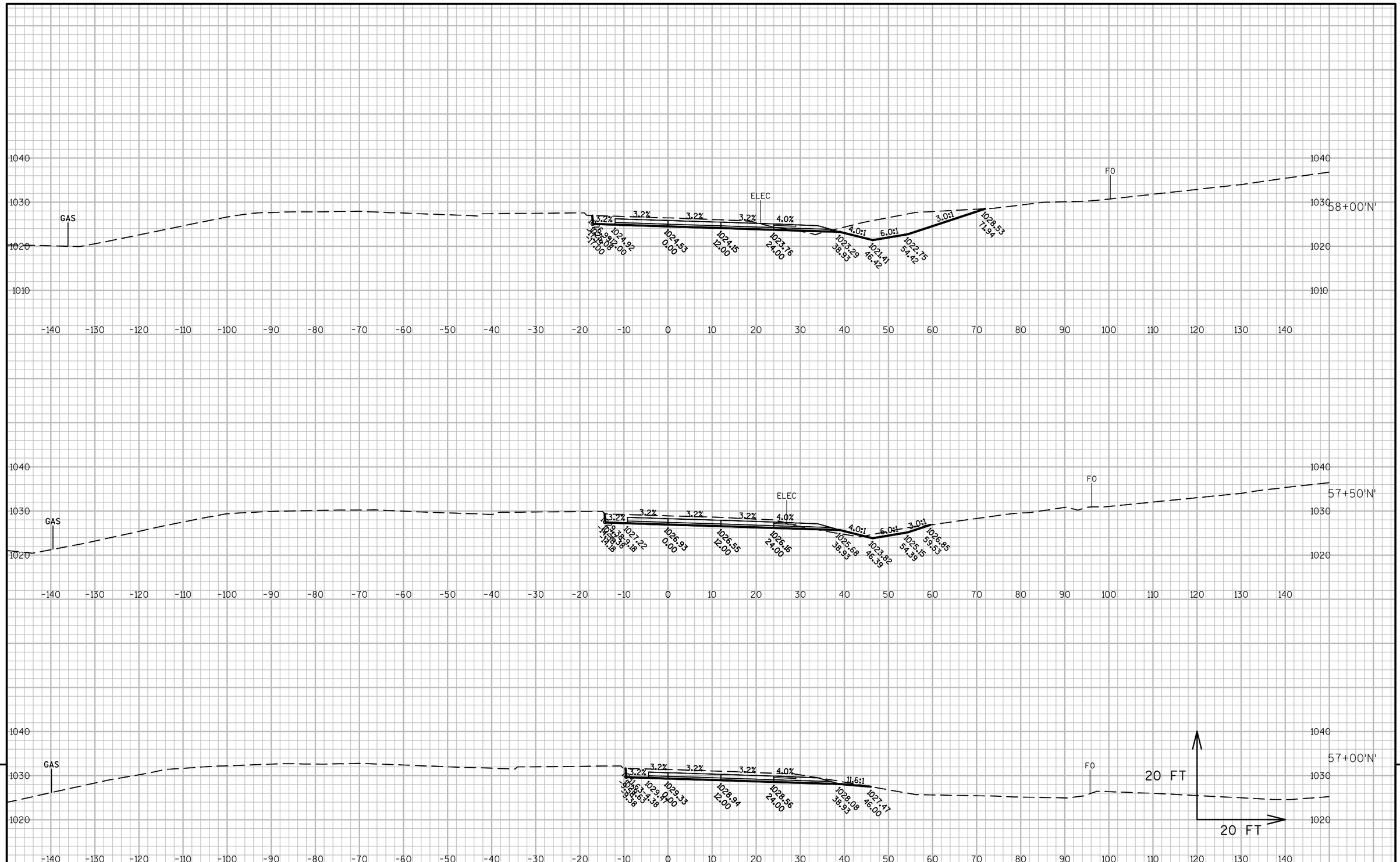


PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CROSS SECTIONS: STH 65 NB (STAGE 2)	SHEET 488 E

FILE NAME : 090202-XS(65NB S2).DWG
LAYOUT NAME - 090205-XS(65NB S2) - 65NBS2 - (1)

PLOT DATE : 9/29/2022 10:15 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT

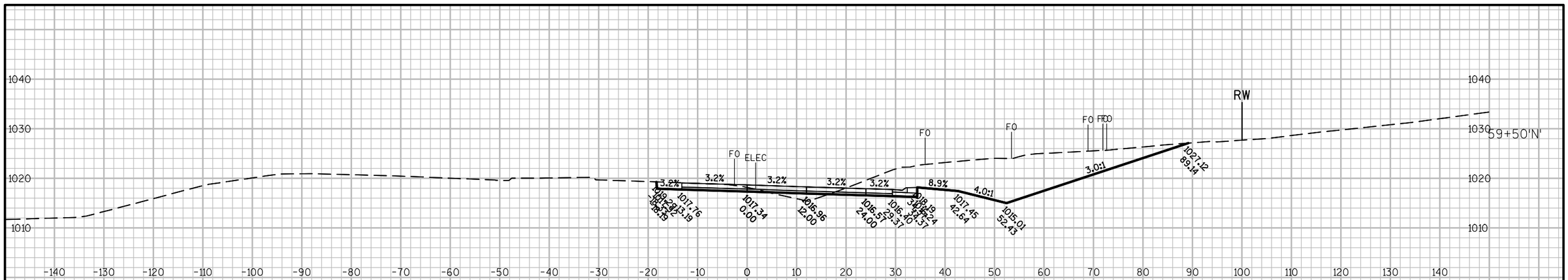
WISDOT/CADDS SHEET 49

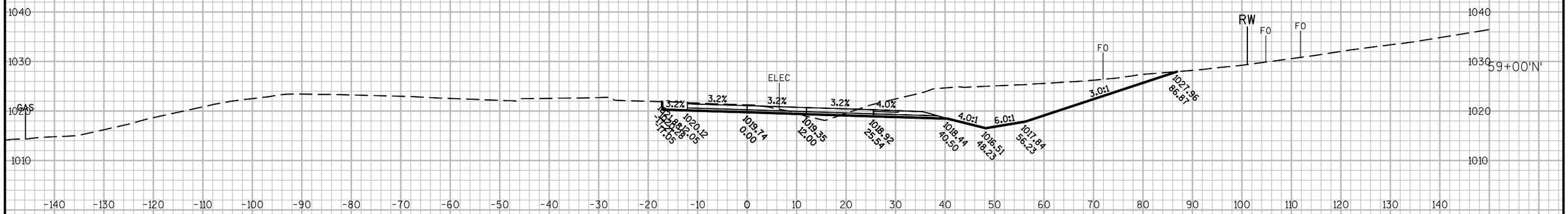


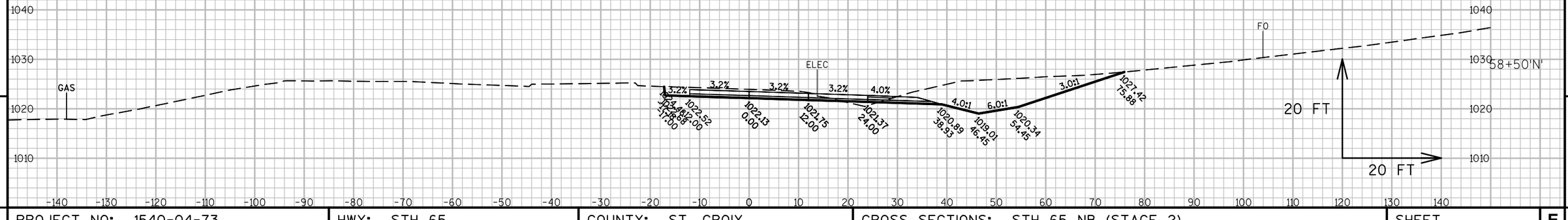
PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CROSS SECTIONS: STH 65 NB (STAGE 2)	SHEET 489 E

FILE NAME : 090202-XS(65NB S2).DWG
LAYOUT NAME - 090205-XS(65NB S2) - 65NBS2 - (2)

PLOT DATE : 9/29/2022 10:15 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT







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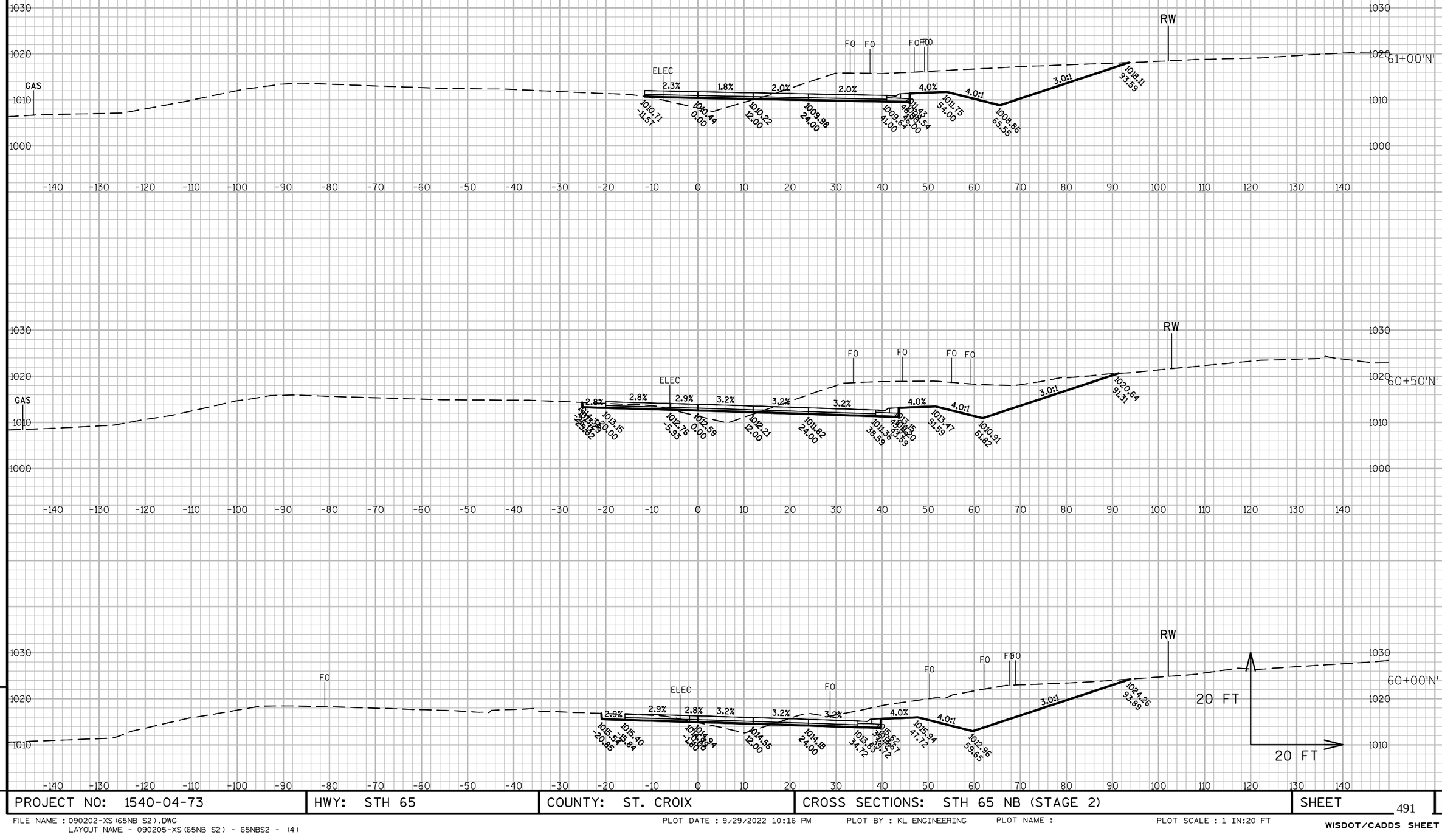
PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CROSS SECTIONS: STH 65 NB (STAGE 2)	SHEET 490	E

FILE NAME : 090202-XS (65NB S2).DWG
LAYOUT NAME - 090205-XS (65NB S2) - 65NBS2 - (3)

PLOT DATE : 9/29/2022 10:15 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT



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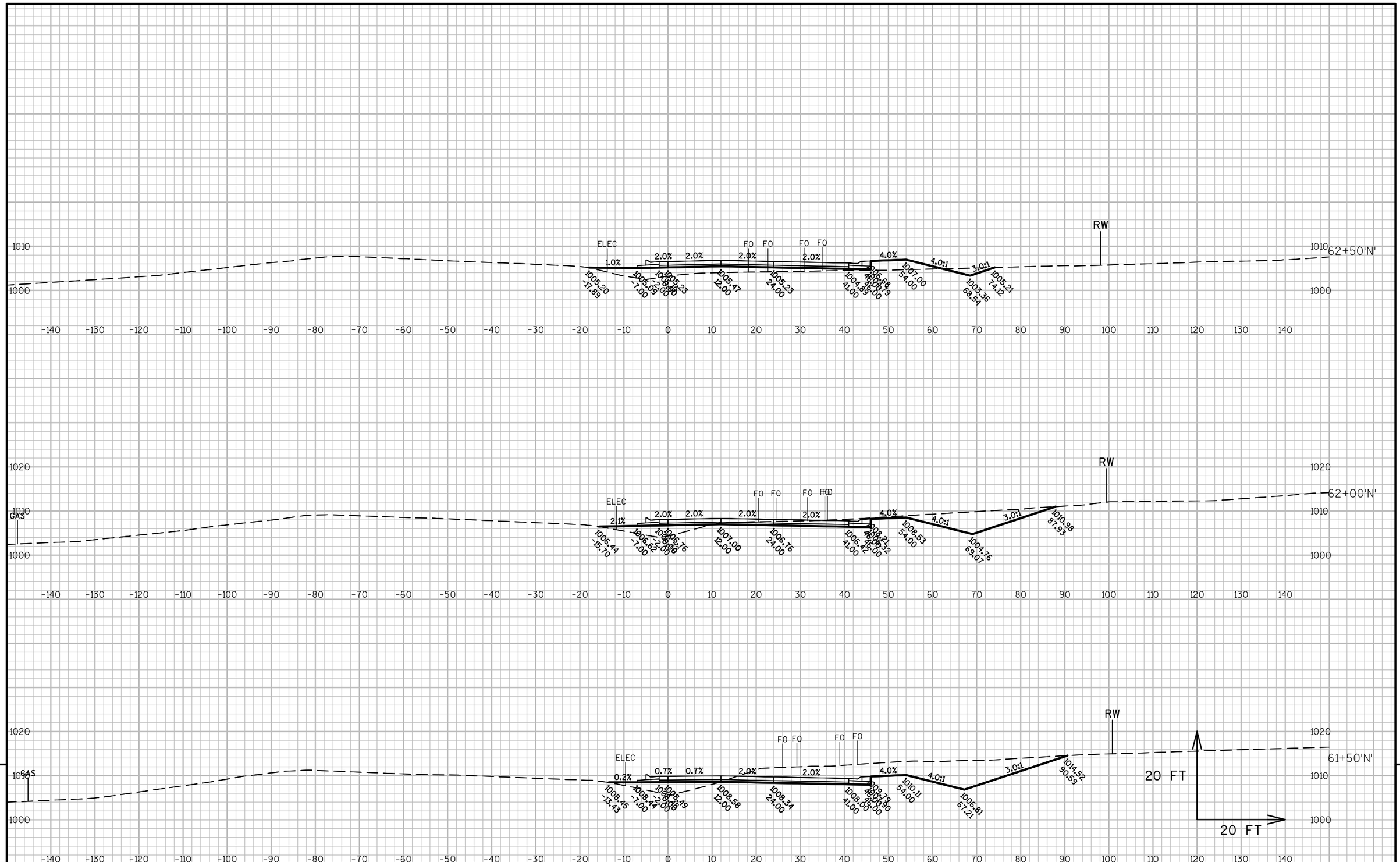
PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CROSS SECTIONS: STH 65 NB (STAGE 2)	SHEET 491	E

FILE NAME : 090202-XS(65NB S2).DWG
LAYOUT NAME - 090205-XS(65NB S2) - 65NBS2 - (4)

PLOT DATE : 9/29/2022 10:16 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT

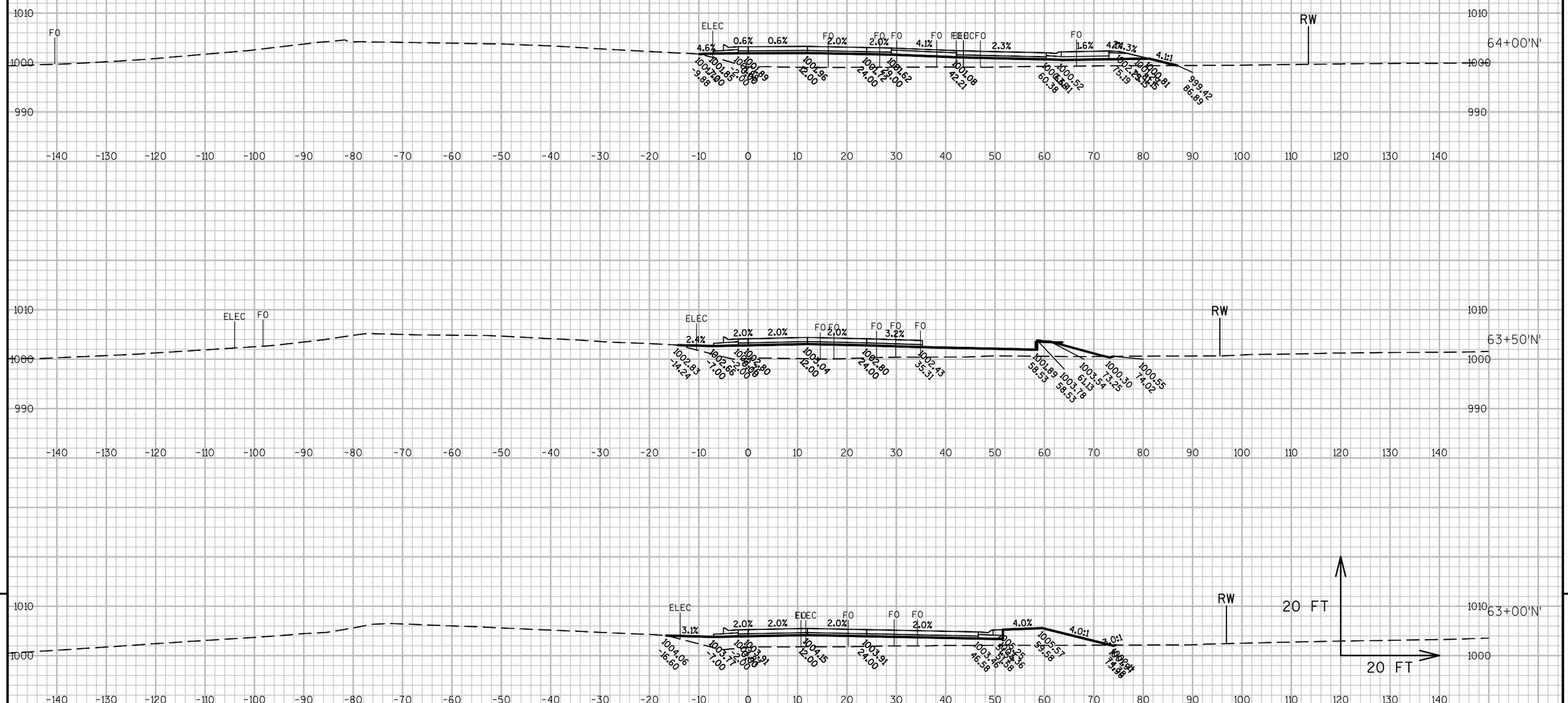


PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CROSS SECTIONS: STH 65 NB (STAGE 2)	SHEET 492 E

FILE NAME : 090202-XS(65NB S2).DWG
LAYOUT NAME - 090205-XS(65NB S2) - 65NBS2 - (5)

PLOT DATE : 9/29/2022 10:16 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



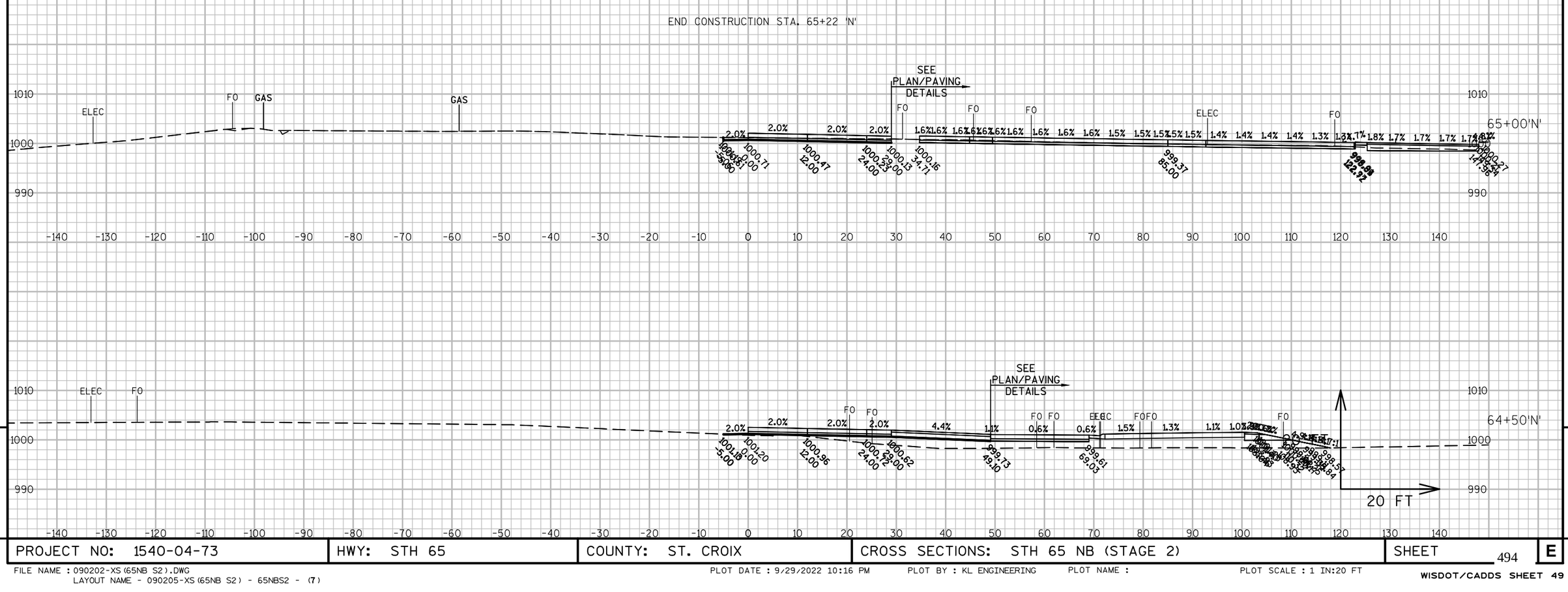
PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CROSS SECTIONS: STH 65 NB (STAGE 2)	SHEET 493 E

FILE NAME : 090202-XS(65NB S2).DWG
LAYOUT NAME - 090205-XS(65NB S2) - 65NBS2 - (6)

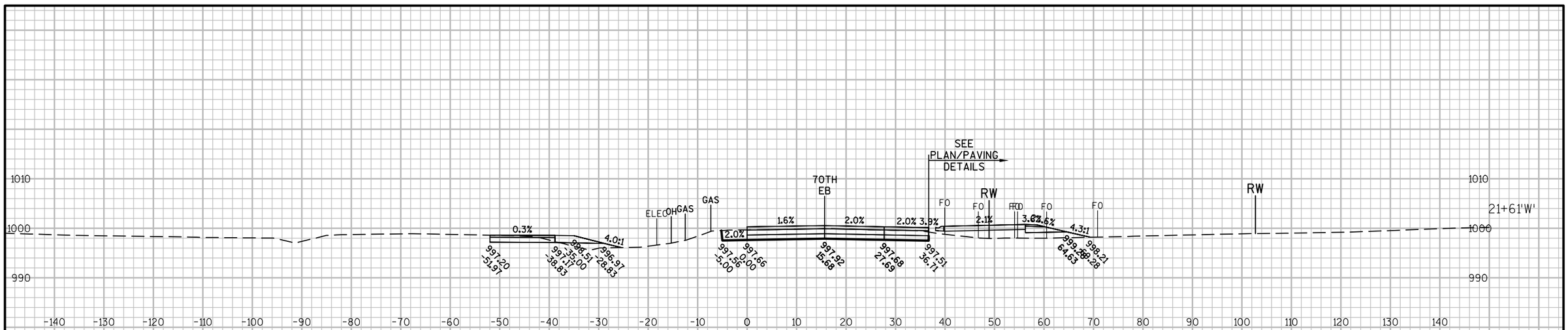
PLOT DATE : 9/29/2022 10:16 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT

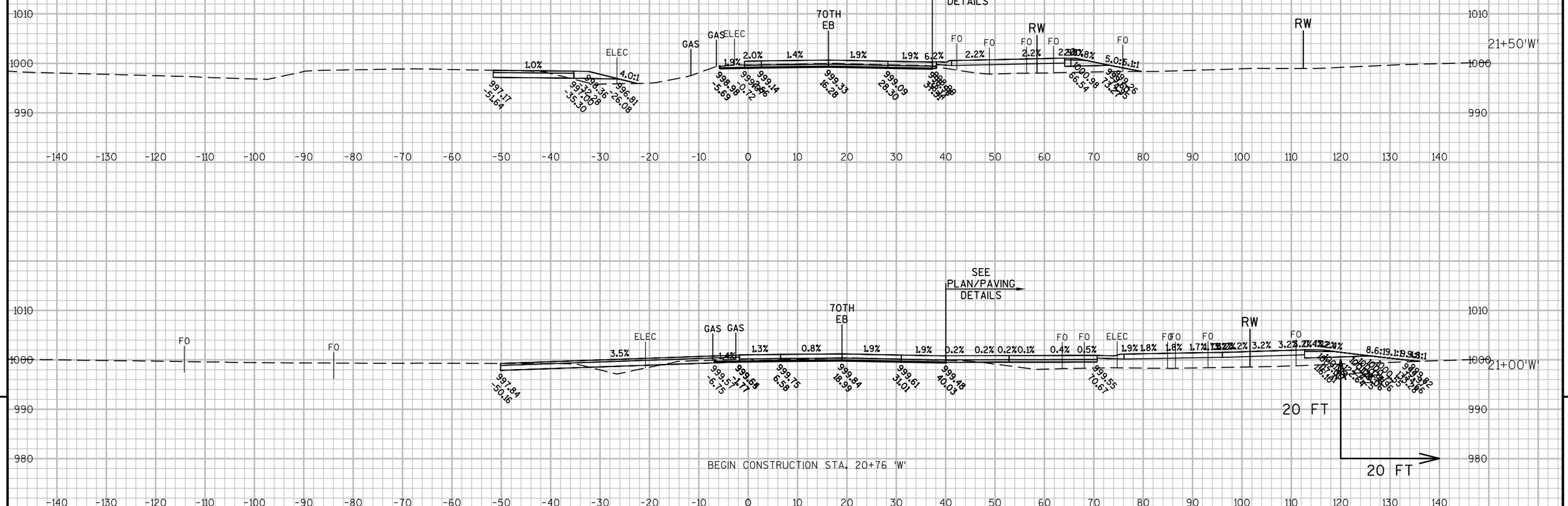
WISDOT/CADDS SHEET 49

END CONSTRUCTION STA. 65+22 'N'



PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CROSS SECTIONS: STH 65 NB (STAGE 2)	SHEET 494 E





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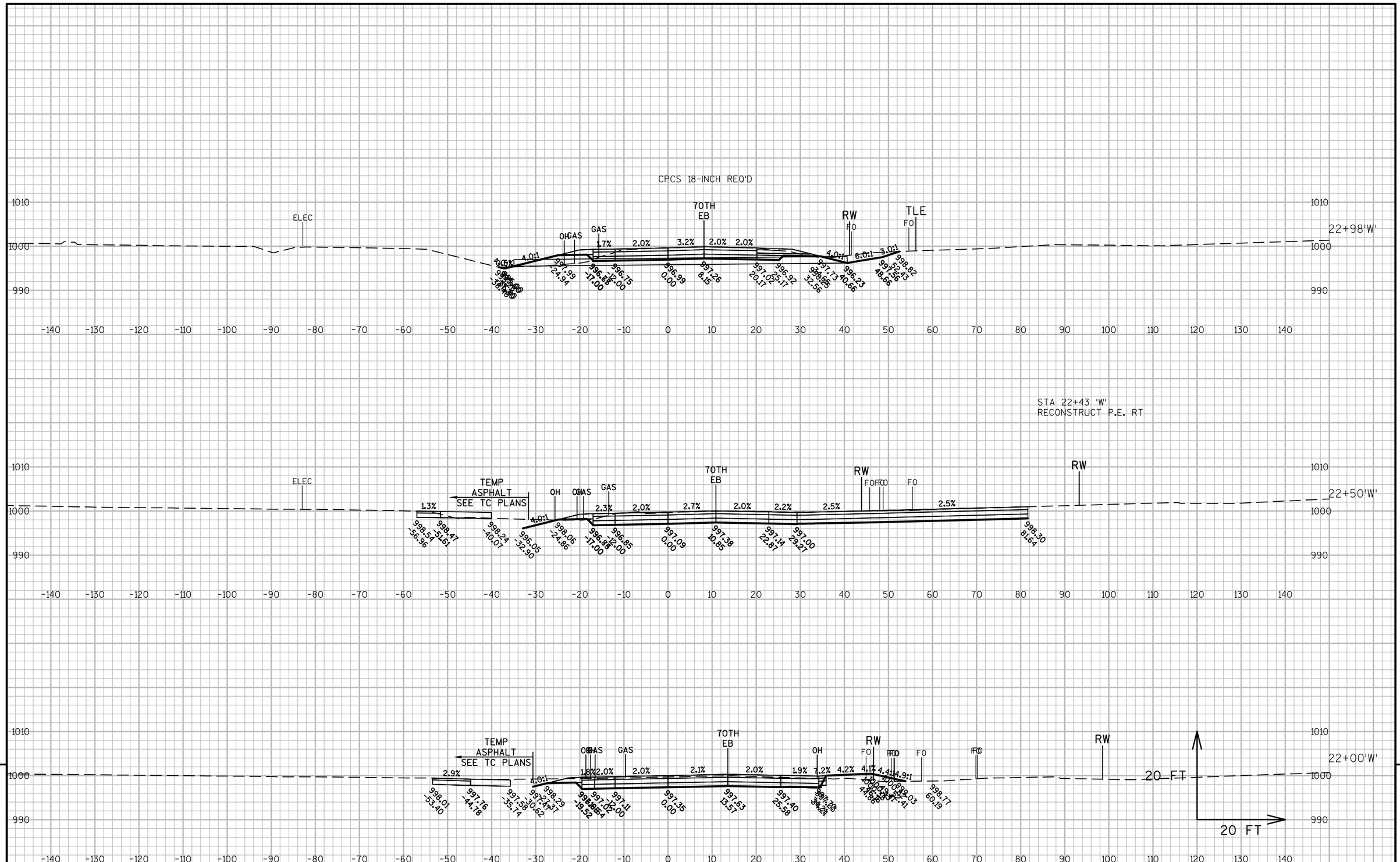
PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CROSS SECTIONS: 70TH WB (STAGE 2)	SHEET 495	E

FILE NAME : 090203-XS(70TH AVE WB S2).DWG
LAYOUT NAME - 70S2 - (1)

PLOT DATE : 9/29/2022 10:23 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



STA 22+43 'W'
RECONSTRUCT P.E. RT

9

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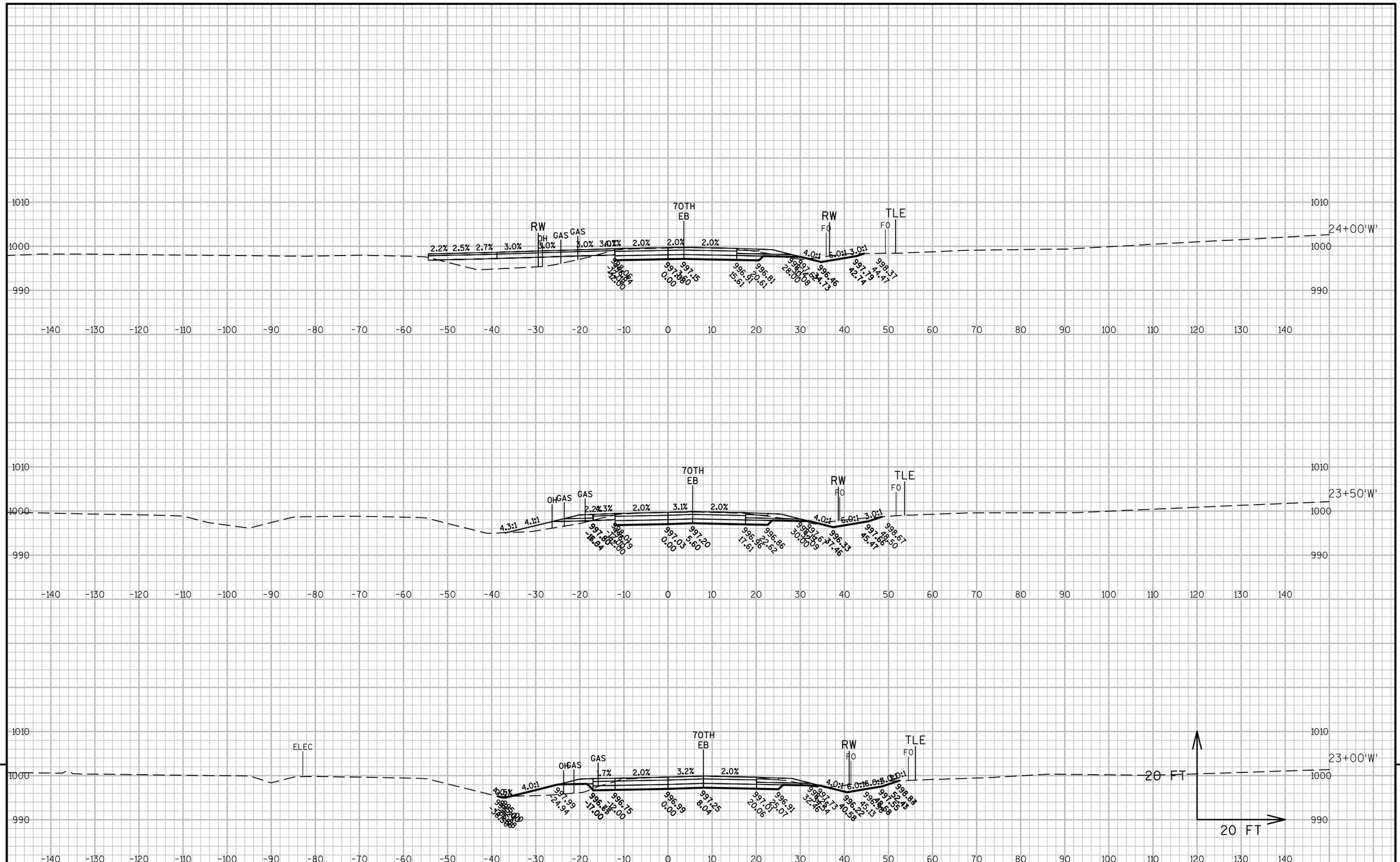
PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CROSS SECTIONS: 70TH WB (STAGE 2)	SHEET 496	E

FILE NAME : 090203-XS(70TH AVE WB S2).DWG
LAYOUT NAME - 70S2 - (2)

PLOT DATE : 9/29/2022 10:24 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



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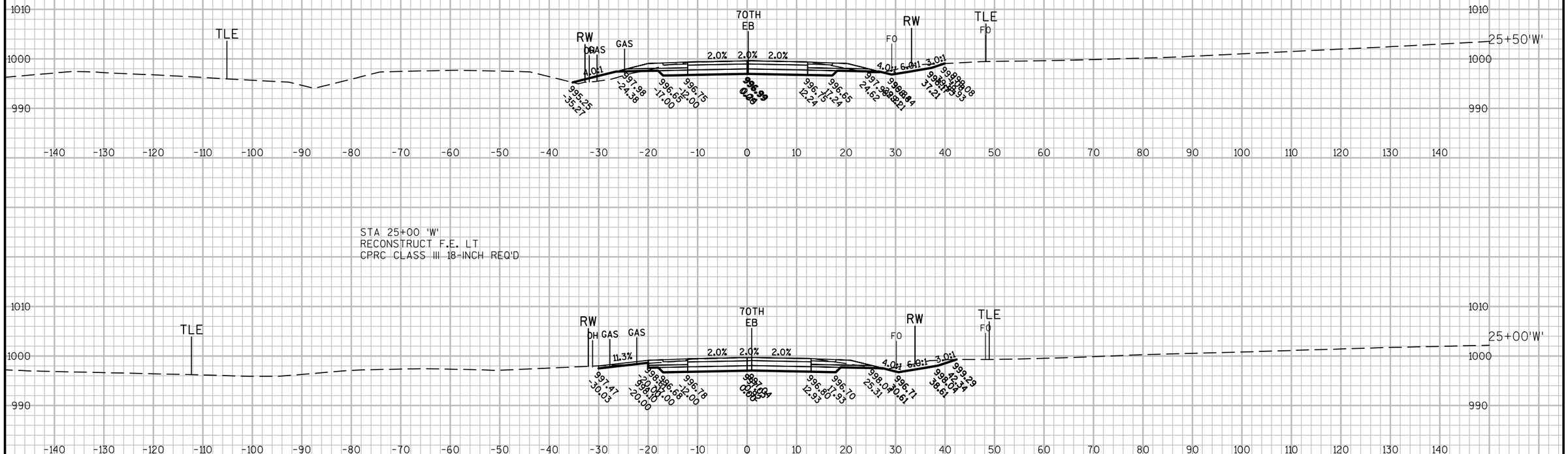
PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CROSS SECTIONS: 70TH WB (STAGE 2)	SHEET 497 E

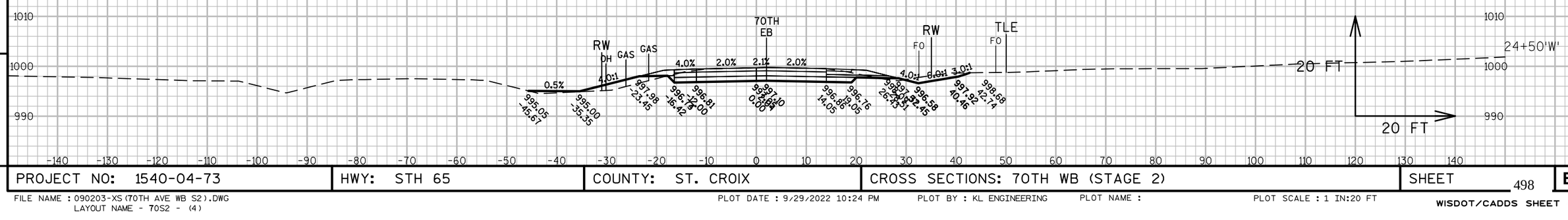
FILE NAME : 090203-XS(70TH AVE WB S2).DWG
LAYOUT NAME - 70S2 - (3)

PLOT DATE : 9/29/2022 10:24 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



STA 25+00 'W'
RECONSTRUCT F.E. LT
CPRC CLASS III 18-INCH REQ'D



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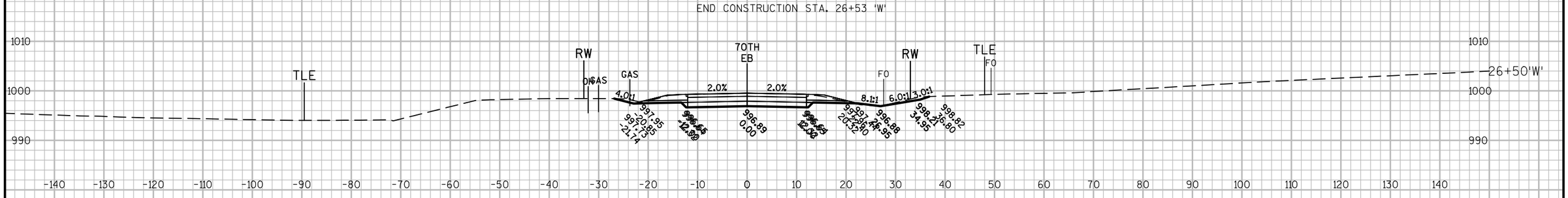
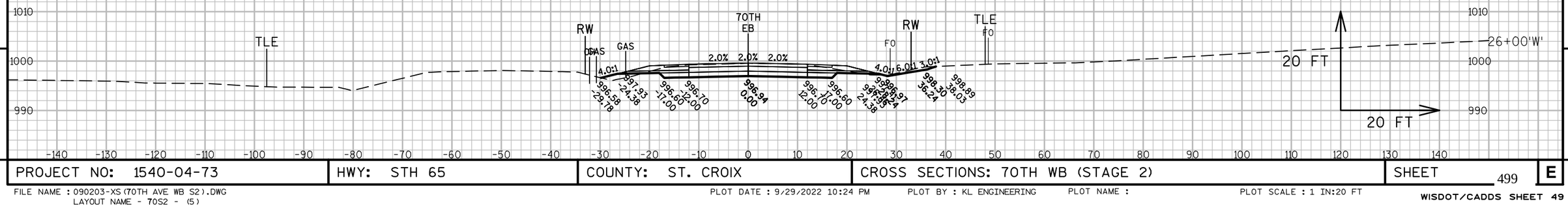
PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CROSS SECTIONS: 70TH WB (STAGE 2)	SHEET 498	E

FILE NAME : 090203-XS(70TH AVE WB S2).DWG
LAYOUT NAME - 70S2 - (4)

PLOT DATE : 9/29/2022 10:24 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT

END CONSTRUCTION STA. 26+53 'W'

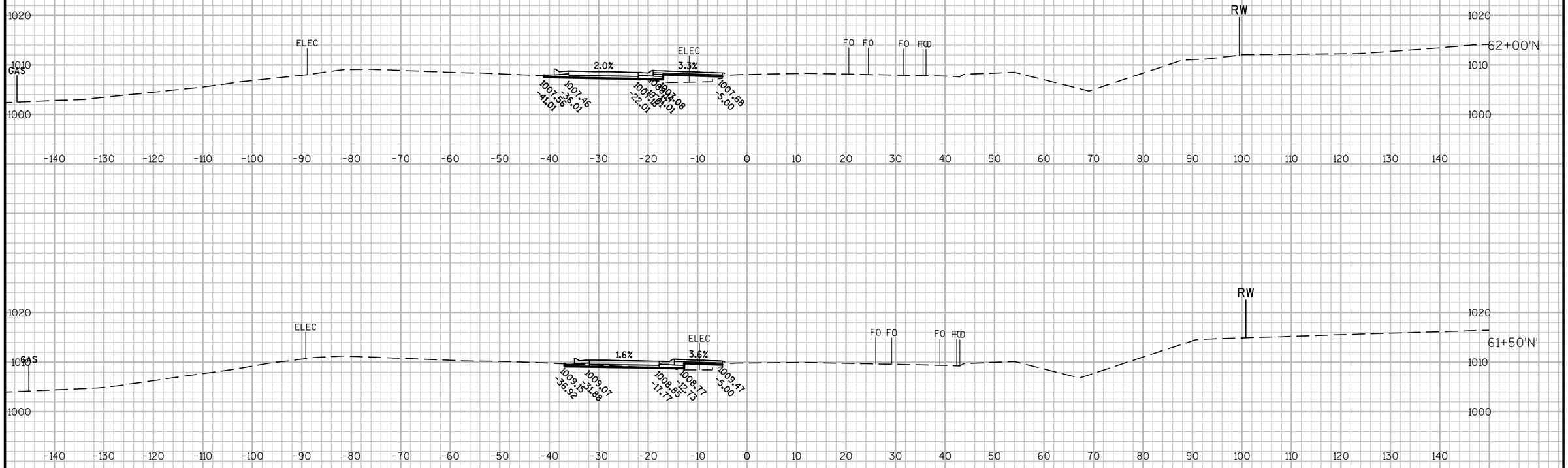


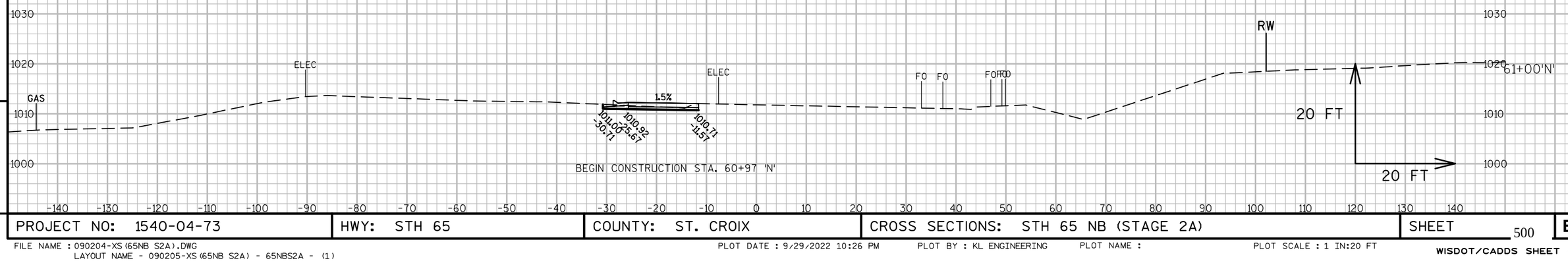


9 9

PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CROSS SECTIONS: 70TH WB (STAGE 2)	SHEET 499	E

FILE NAME : 090203-XS(70TH AVE WB S2).DWG
LAYOUT NAME - 70S2 - (5)
PLOT DATE : 9/29/2022 10:24 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 49





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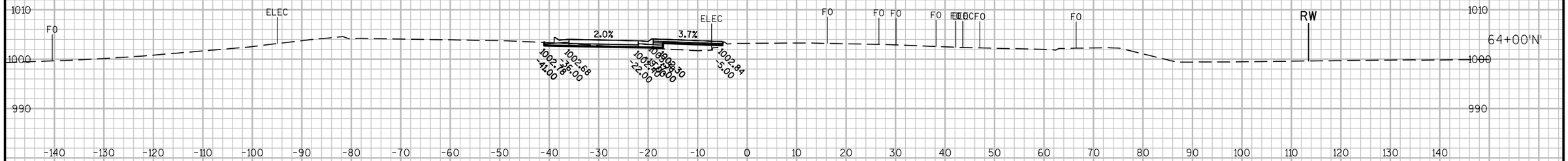
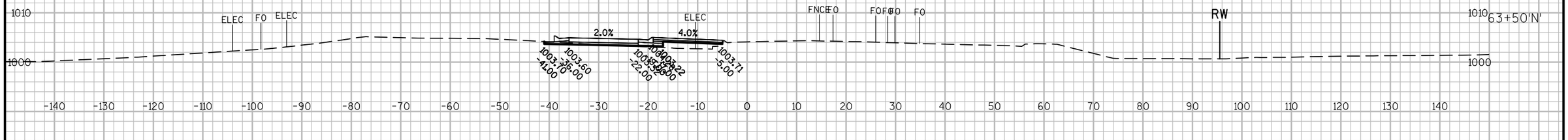
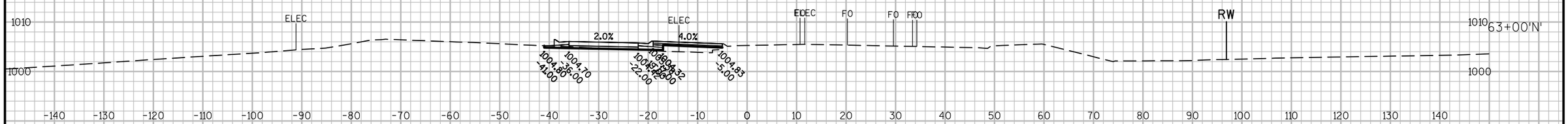
PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CROSS SECTIONS: STH 65 NB (STAGE 2A)	SHEET 500	E

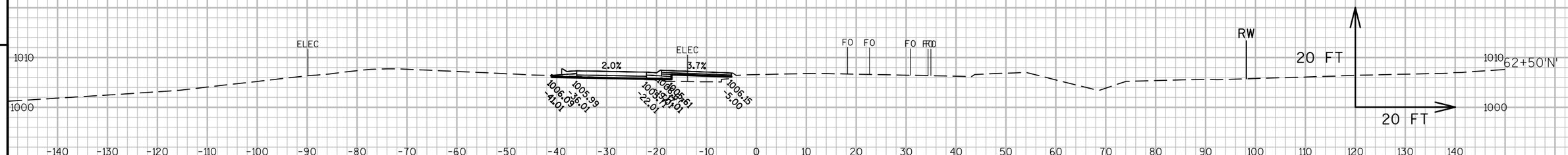
FILE NAME : 090204-XS(65NB S2A).DWG
LAYOUT NAME - 090205-XS(65NB S2A) - 65NBS2A - (1)

PLOT DATE : 9/29/2022 10:26 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT









9

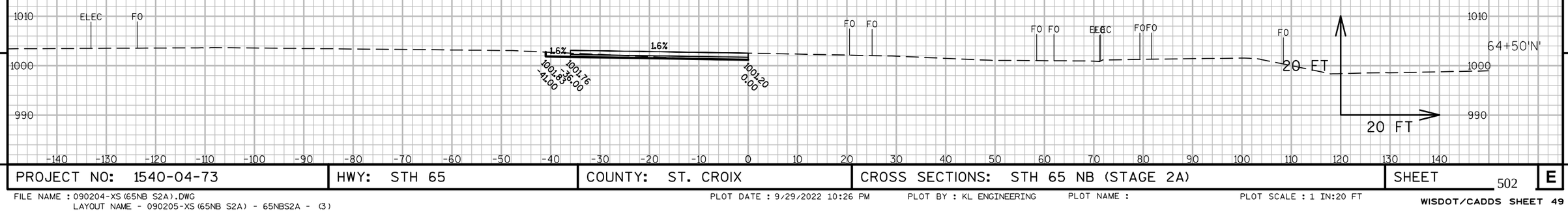
9

PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CROSS SECTIONS: STH 65 NB (STAGE 2A)	SHEET 501	E

FILE NAME : 090204-XS(65NB S2A).DWG
LAYOUT NAME - 090205-XS(65NB S2A) - 65NBS2A - (2)

PLOT DATE : 9/29/2022 10:26 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT

END CONSTRUCTION STA. 65+08 'N'



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PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CROSS SECTIONS: STH 65 NB (STAGE 2A)	SHEET 502	E

FILE NAME : 090204-XS(65NB S2A).DWG
LAYOUT NAME - 090205-XS(65NB S2A) - 65NBS2A - (3)

PLOT DATE : 9/29/2022 10:26 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49

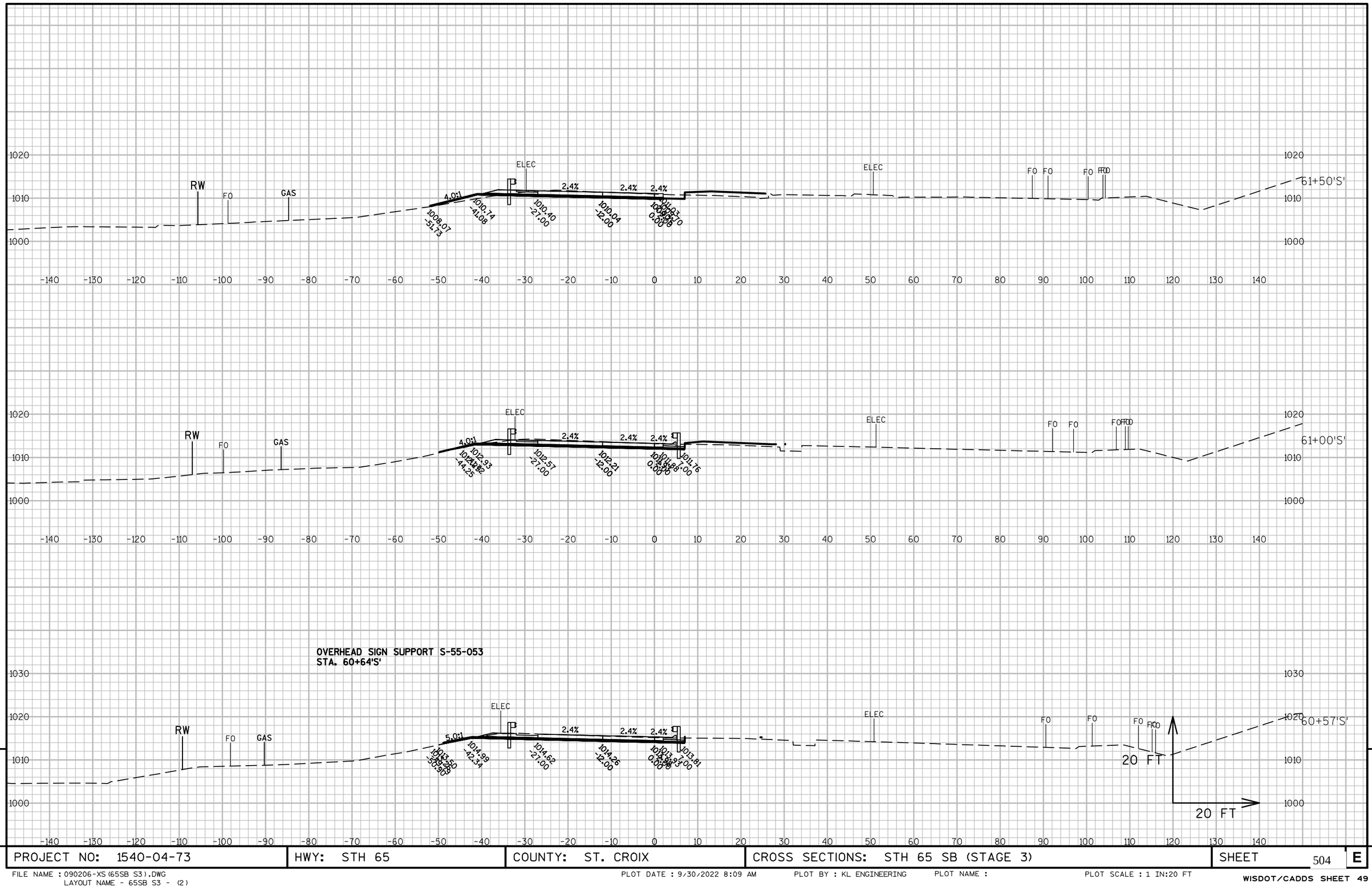
BEGIN CONSTRUCITON STA. 58+75'S'

PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CROSS SECTIONS: STH 65 SB (STAGE 3)	SHEET 503 E

FILE NAME : 090206-XS(65SB S3).DWG
LAYOUT NAME - 65SB S3 - (1)

PLOT DATE : 9/30/2022 8:09 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



9

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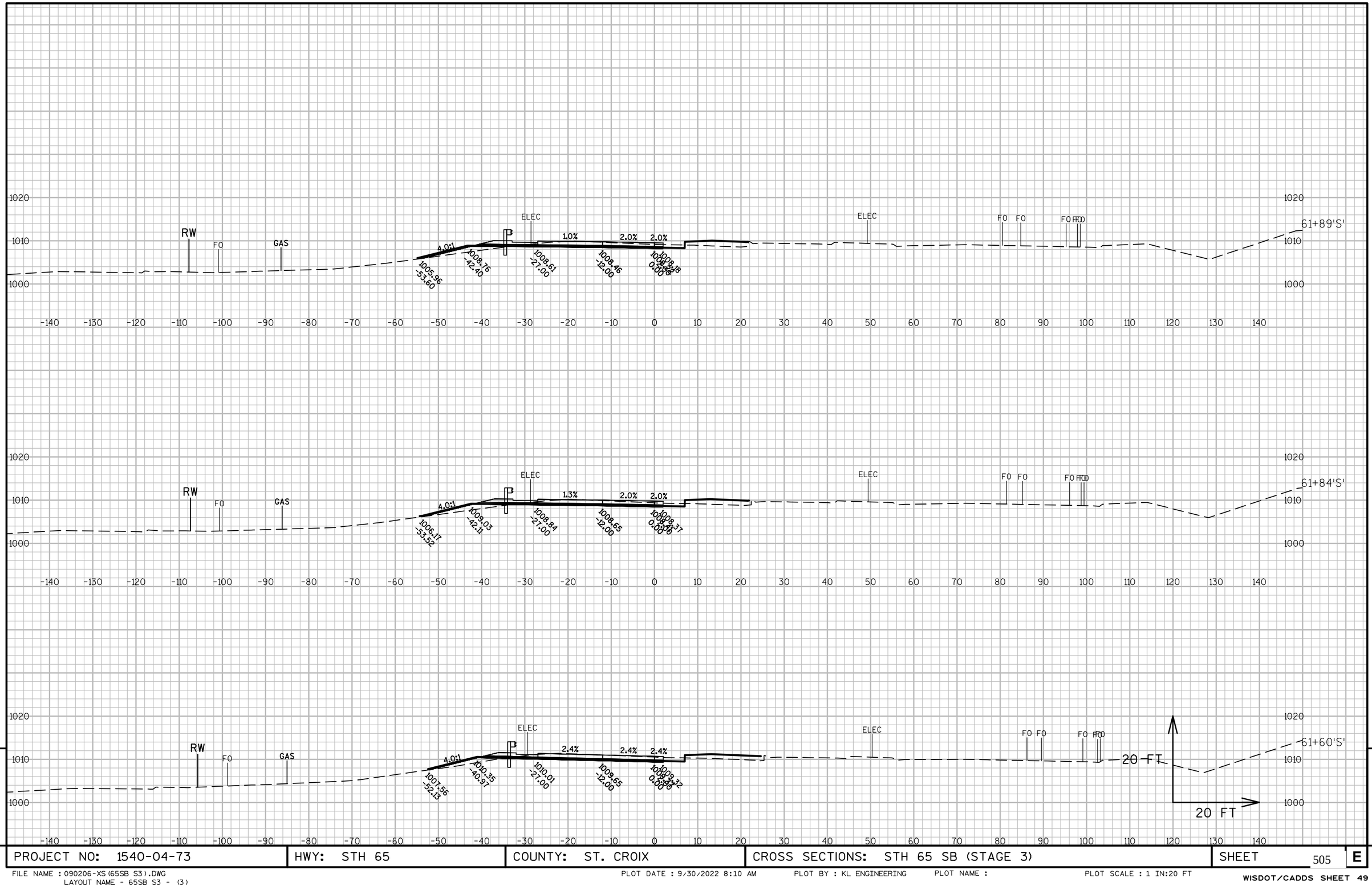
PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CROSS SECTIONS: STH 65 SB (STAGE 3)	SHEET 504 E

FILE NAME : 090206-XS(65SB S3).DWG
LAYOUT NAME - 65SB S3 - (2)

PLOT DATE : 9/30/2022 8:09 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT



9

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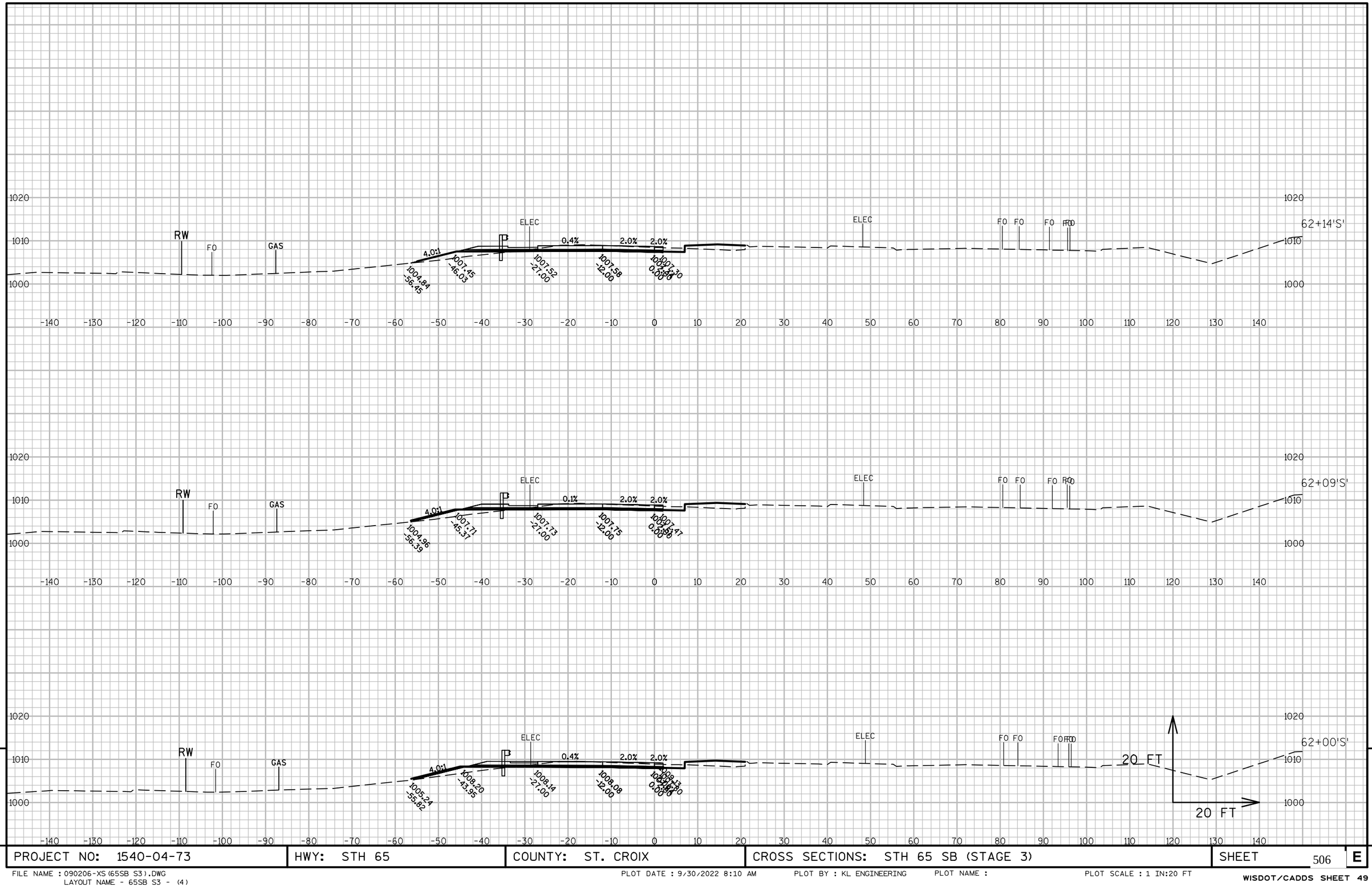
PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CROSS SECTIONS: STH 65 SB (STAGE 3)	SHEET 505 E

FILE NAME : 090206-XS(65SB S3).DWG
LAYOUT NAME - 65SB S3 - (3)

PLOT DATE : 9/30/2022 8:10 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT

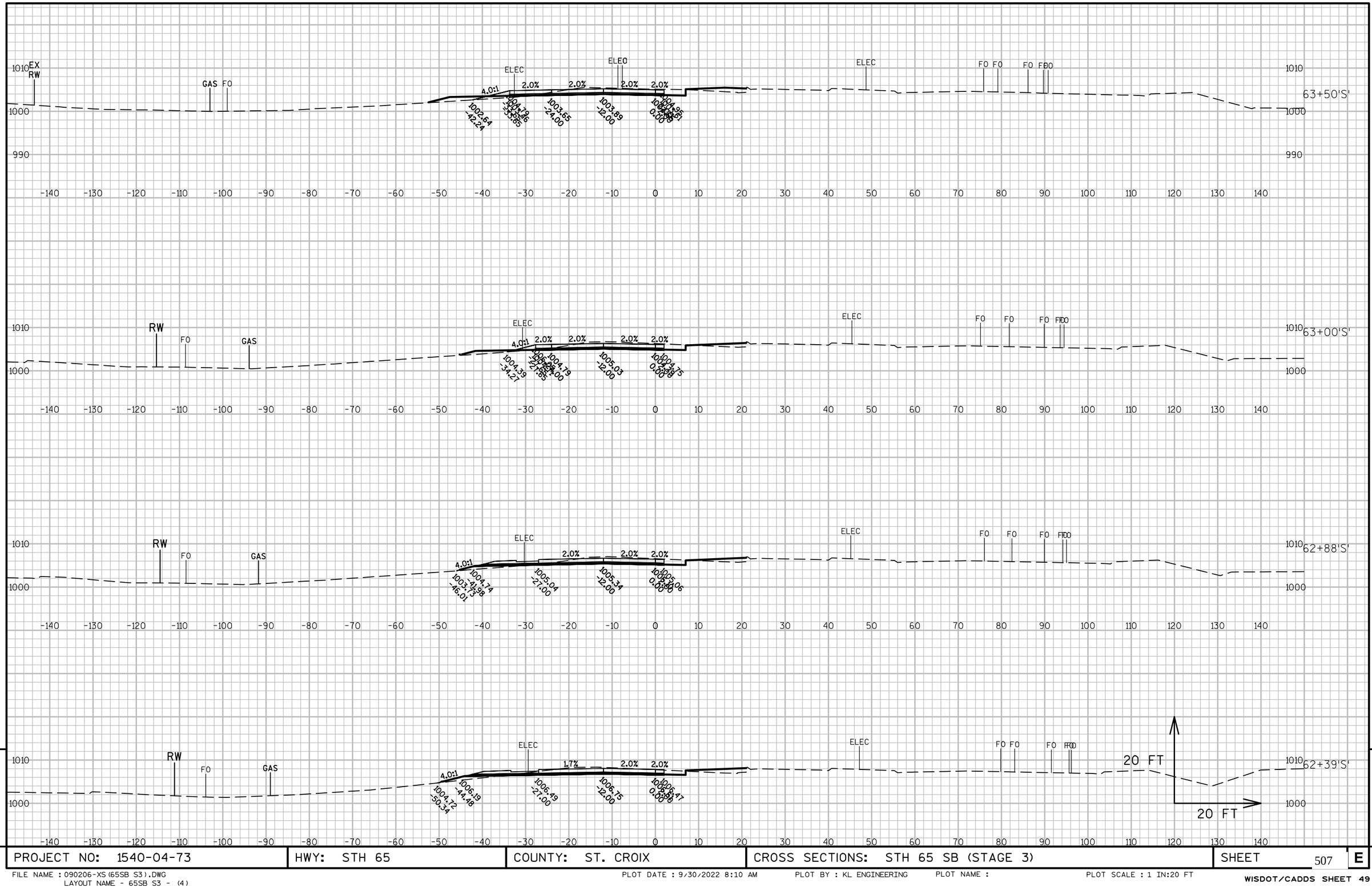


9

PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CROSS SECTIONS: STH 65 SB (STAGE 3)	SHEET 506 E

FILE NAME : 090206-XS(65SB S3).DWG
LAYOUT NAME - 65SB S3 - (4)

PLOT DATE : 9/30/2022 8:10 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT



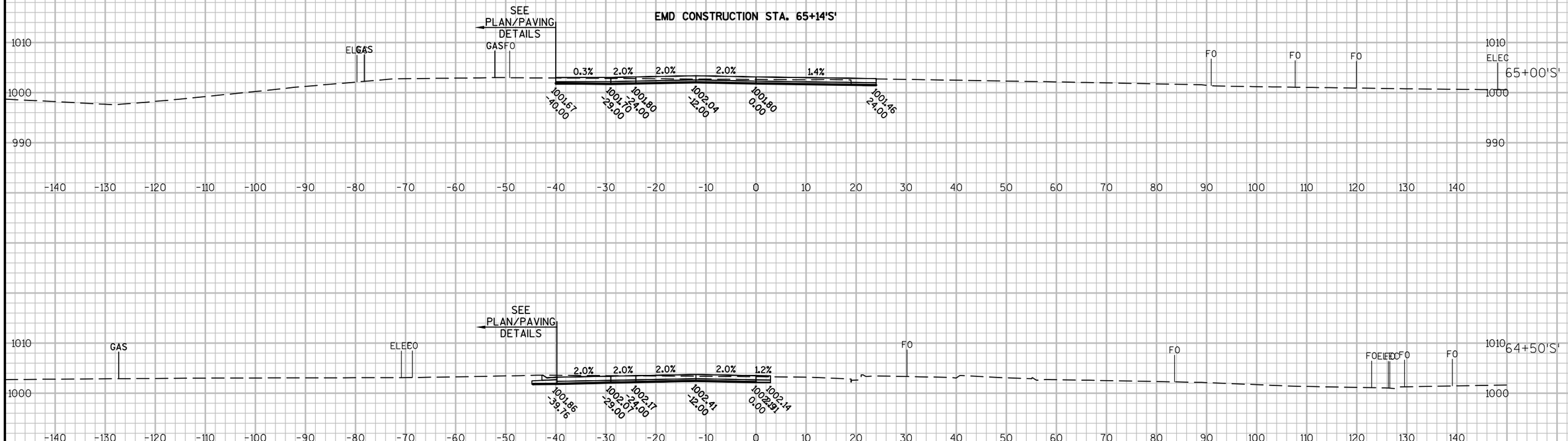
9

PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CROSS SECTIONS: STH 65 SB (STAGE 3)	SHEET 507 E

9

FILE NAME : 090206-XS(65SB S3).DWG
LAYOUT NAME - 65SB S3 - (4)

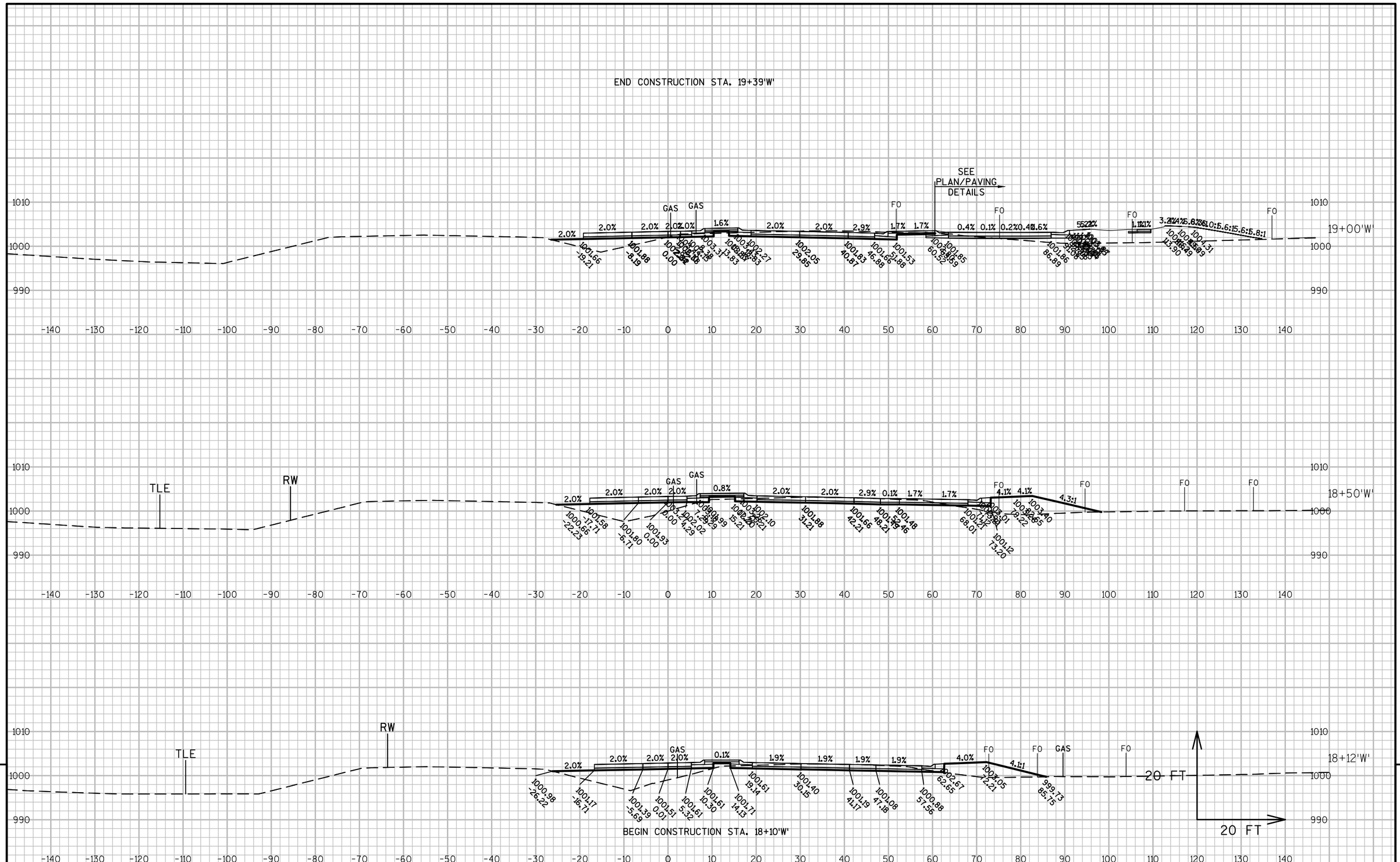
PLOT DATE : 9/30/2022 8:10 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT



PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CROSS SECTIONS: STH 65 SB (STAGE 3)	SHEET 508 E

FILE NAME : 090206-XS(65SB S3).DWG
LAYOUT NAME - 65SB S3 - (4)

PLOT DATE : 9/30/2022 8:11 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT

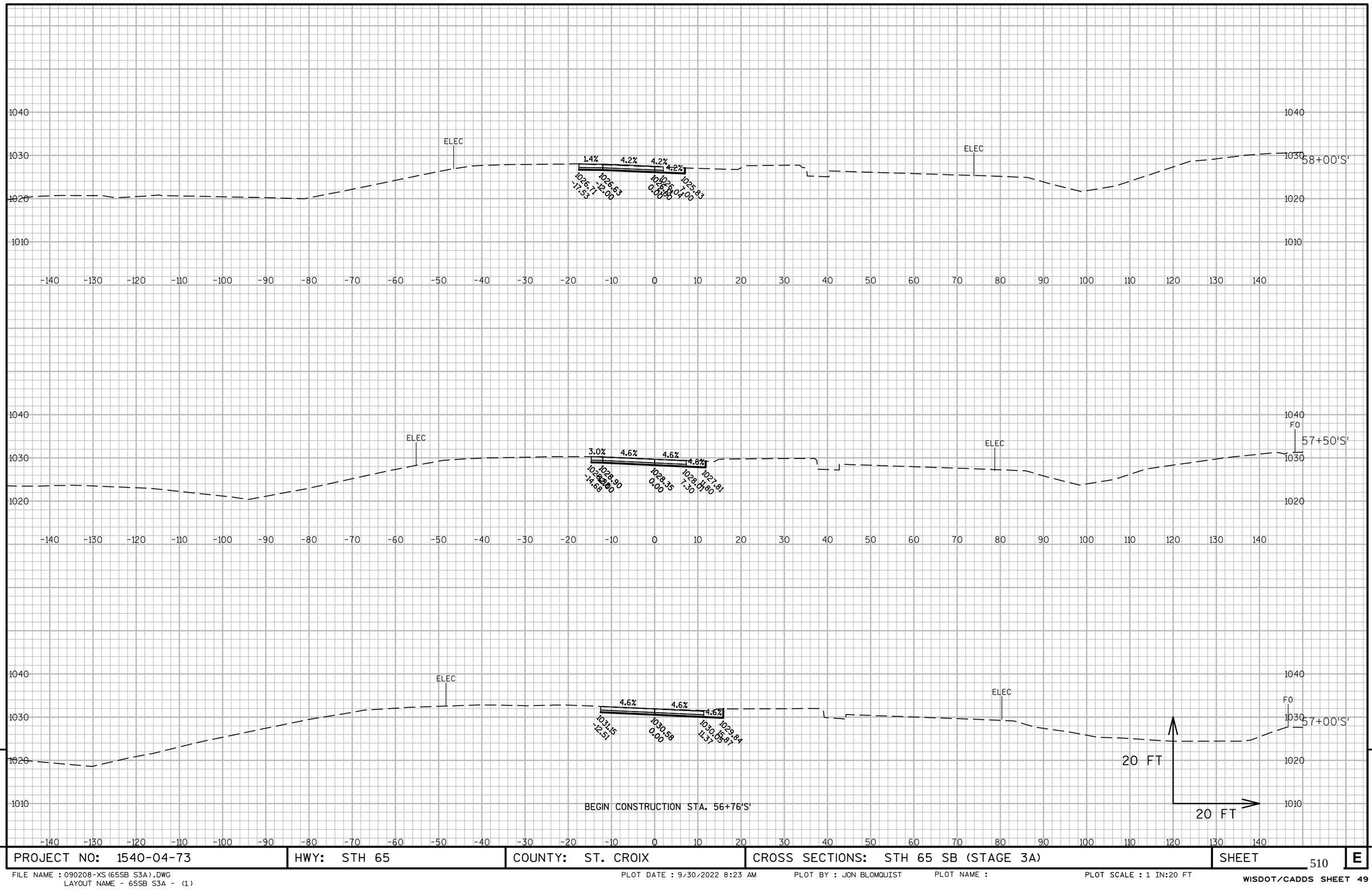


PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CROSS SECTIONS: 70TH AVE WB (STAGE 3)	SHEET 509 E

FILE NAME : 090207-XS(70TH WB S3).DWG
LAYOUT NAME - 70TH WB S3 - (1)

PLOT DATE : 9/30/2022 8:17 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



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PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CROSS SECTIONS: STH 65 SB (STAGE 3A)	SHEET 510	E

FILE NAME : 090208-XS(65SB S3A).DWG
LAYOUT NAME - 65SB S3A - (1)

PLOT DATE : 9/30/2022 8:23 AM PLOT BY : JON BLOMQUIST PLOT NAME : PLOT SCALE : 1 IN:20 FT

END CONSTRUCTION STA. 58+75'S'

9

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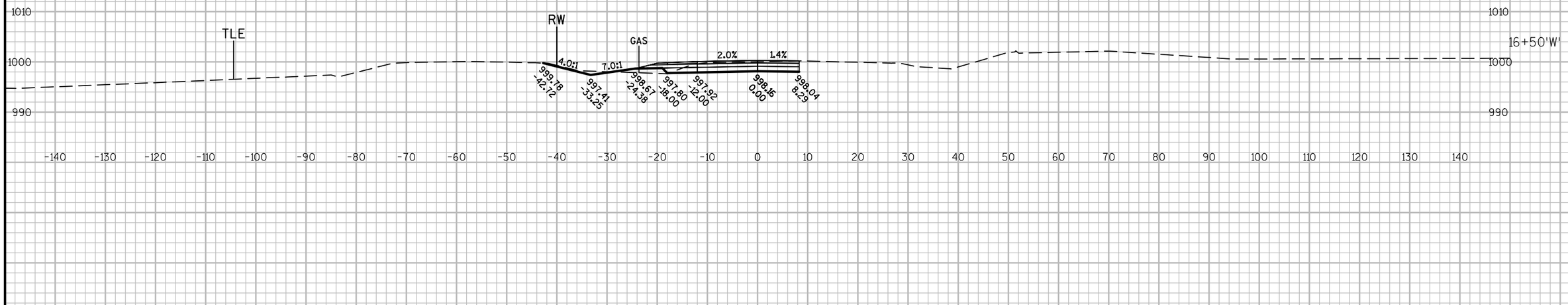
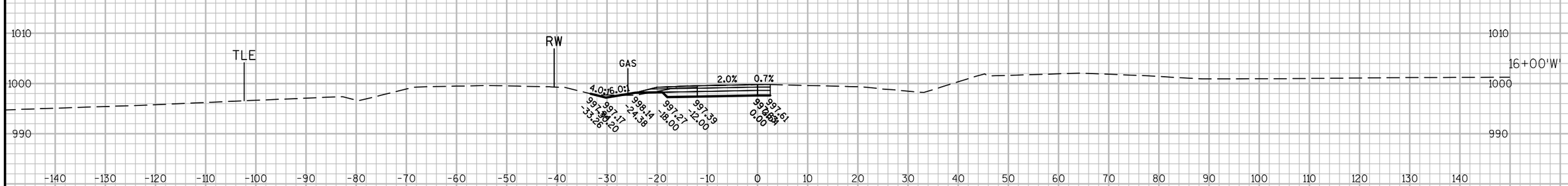
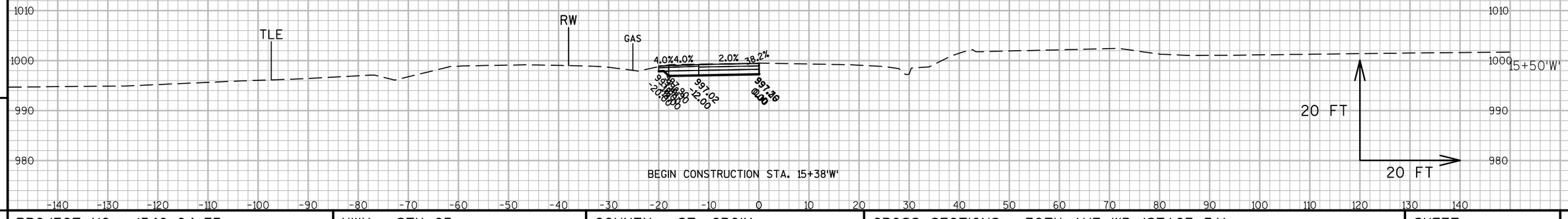
PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CROSS SECTIONS: STH 65 SB (STAGE 3A)	SHEET 511	E

STA. 16+60'W'
MAINTAIN TEMPORARY F.E. LT
MAINTAIN 12-INCH TEMPORARY CP







BEGIN CONSTRUCTION STA. 15+38'W'

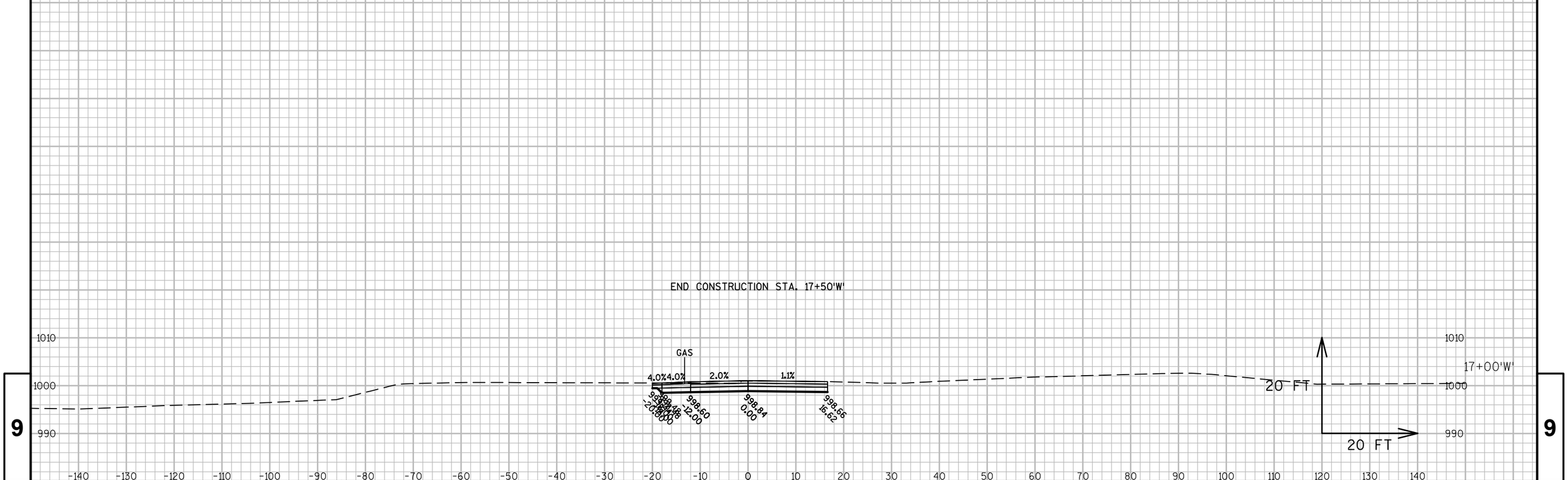
9 9

PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CROSS SECTIONS: 70TH AVE WB (STAGE 3A)	SHEET 512 E

FILE NAME : 090209-XS (W 70TH AVE WB S3A).DWG
LAYOUT NAME - 70 WB STAGE 3A - (1)

PLOT DATE : 9/30/2022 8:30 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT

END CONSTRUCTION STA. 17+50'W'



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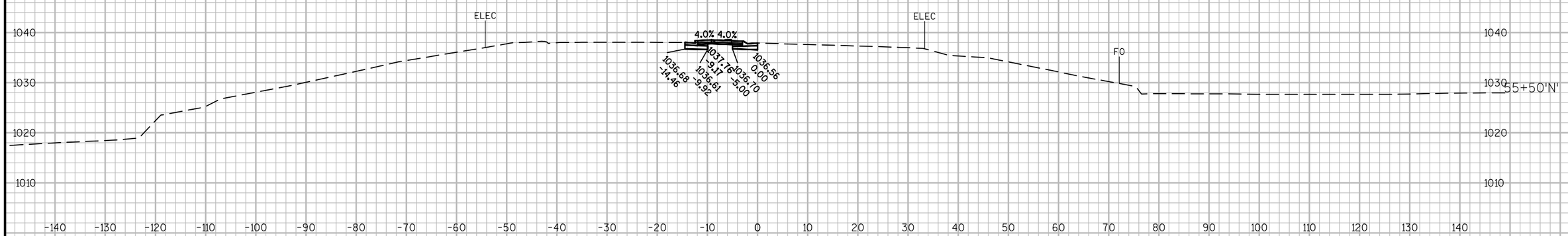
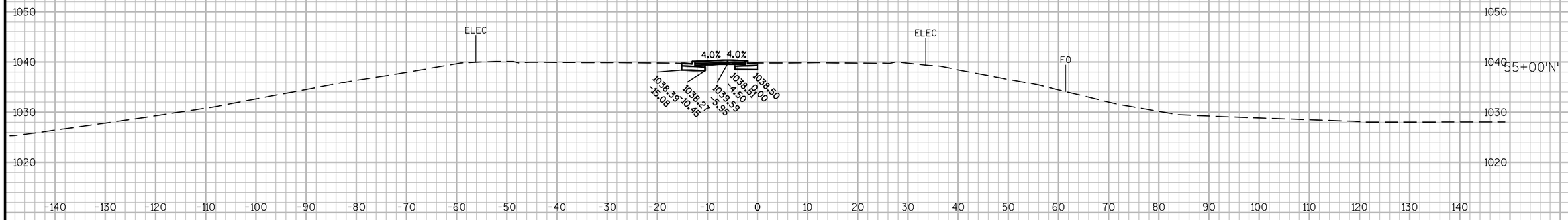
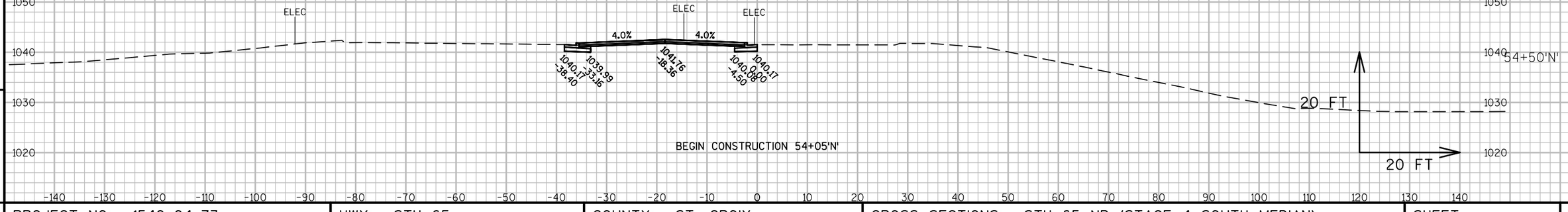
PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CROSS SECTIONS: 70TH AVE WB (STAGE 3A)	SHEET 513	E

FILE NAME : 090209-XS (W 70TH AVE WB S3A).DWG
LAYOUT NAME - 70 WB STAGE 3A - (2)

PLOT DATE : 9/30/2022 8:30 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT





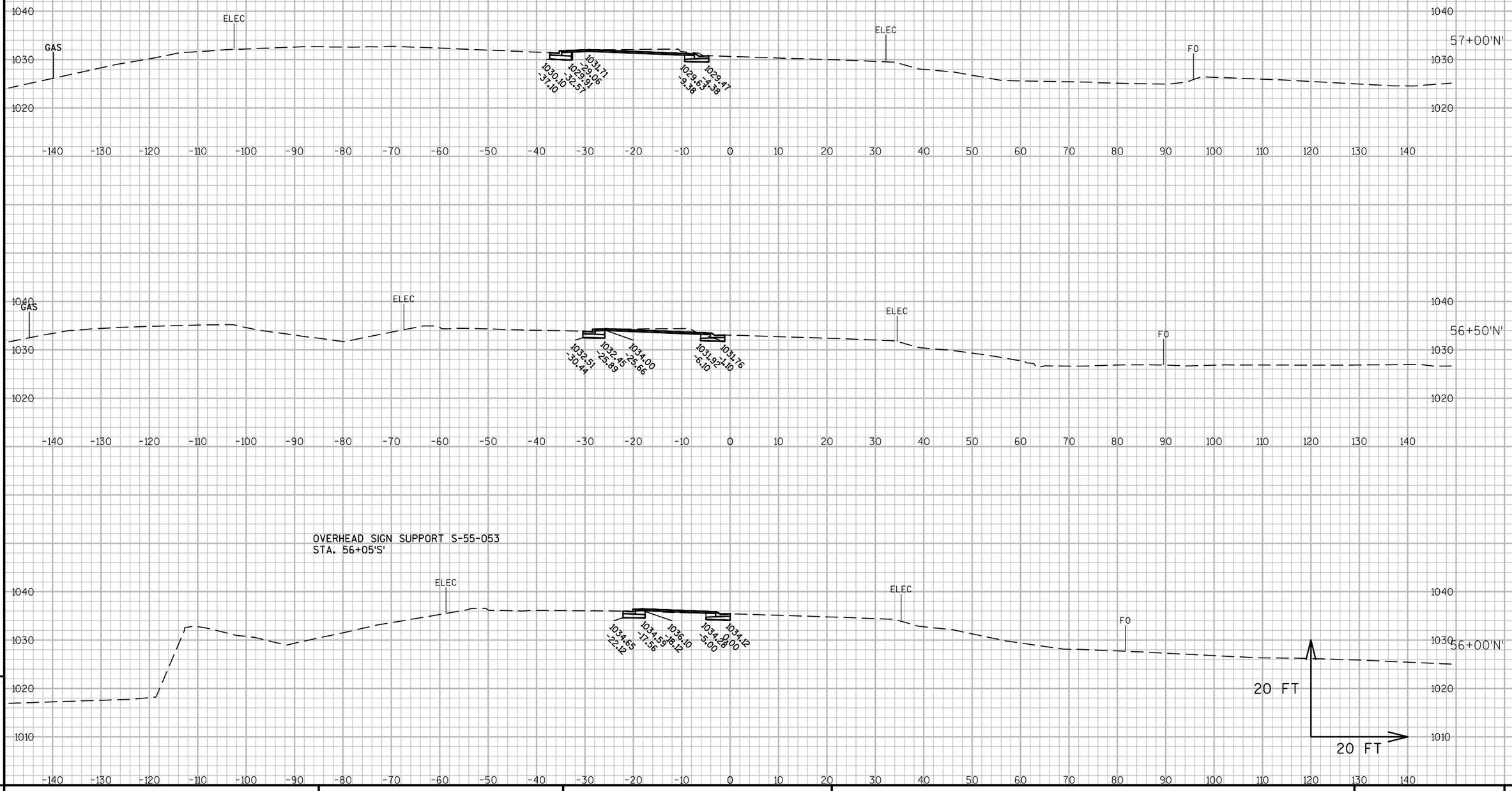


9

9

PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CROSS SECTIONS: STH 65 NB (STAGE 4 SOUTH MEDIAN)	SHEET 514	E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\CROSS SECTIONS\090212-XS(65NB S4S).DWG PLOT DATE : 9/30/2022 9:11 AM
LAYOUT NAME - 65 NB S4S - (1)
PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 49

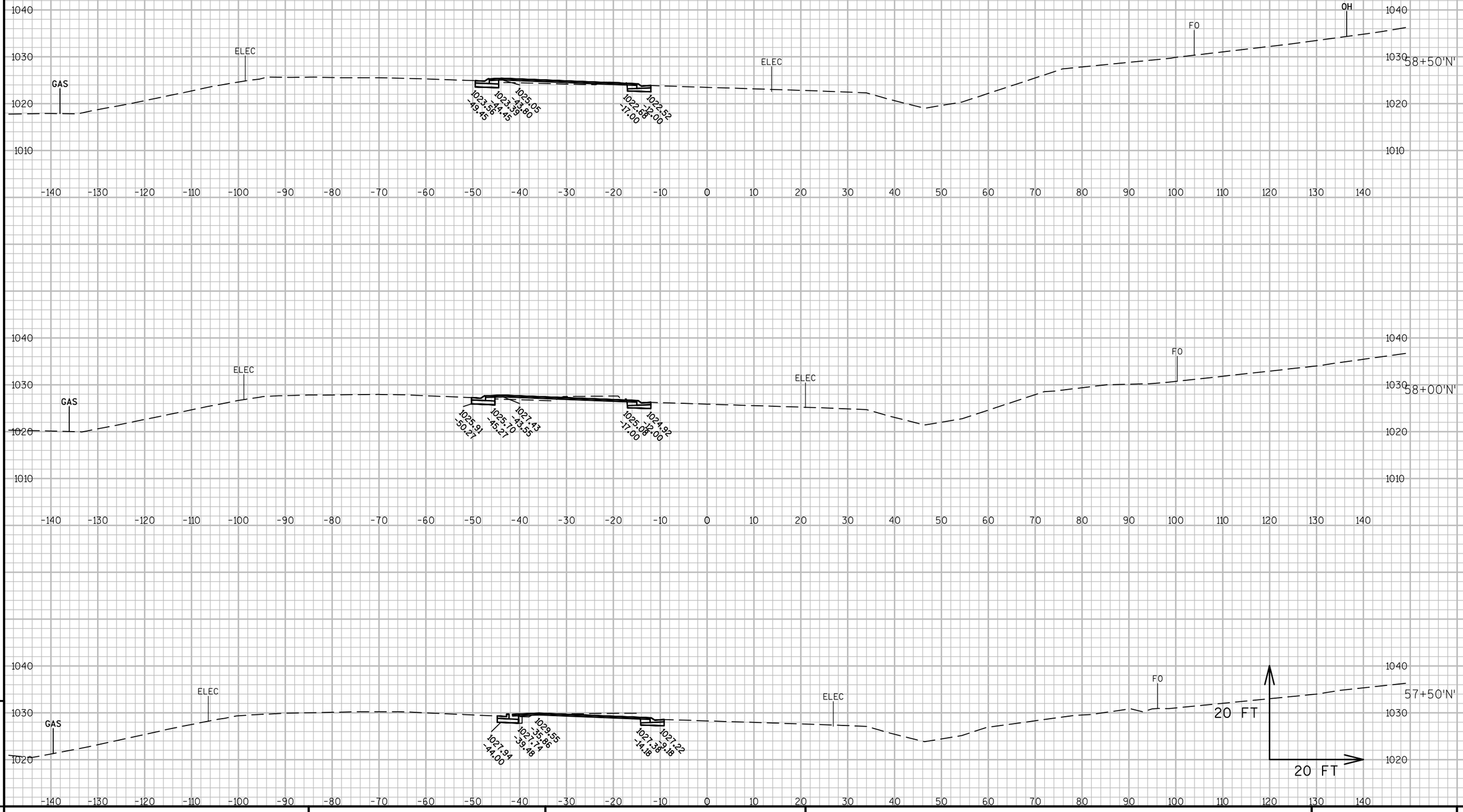


OVERHEAD SIGN SUPPORT S-55-053
STA. 56+05'S'

9 9

PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CROSS SECTIONS: STH 65 NB (STAGE 4 SOUTH MEDIAN)	SHEET 515	E

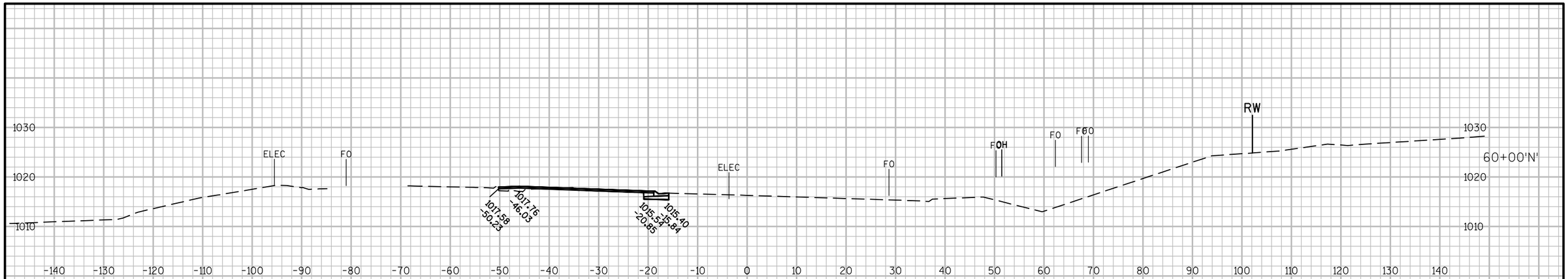
FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\CROSS SECTIONS\090212-XS(65NB S4S).DWG LAYOUT NAME - 65 NB S4S - (2)
PLOT DATE : 9/30/2022 9:11 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT

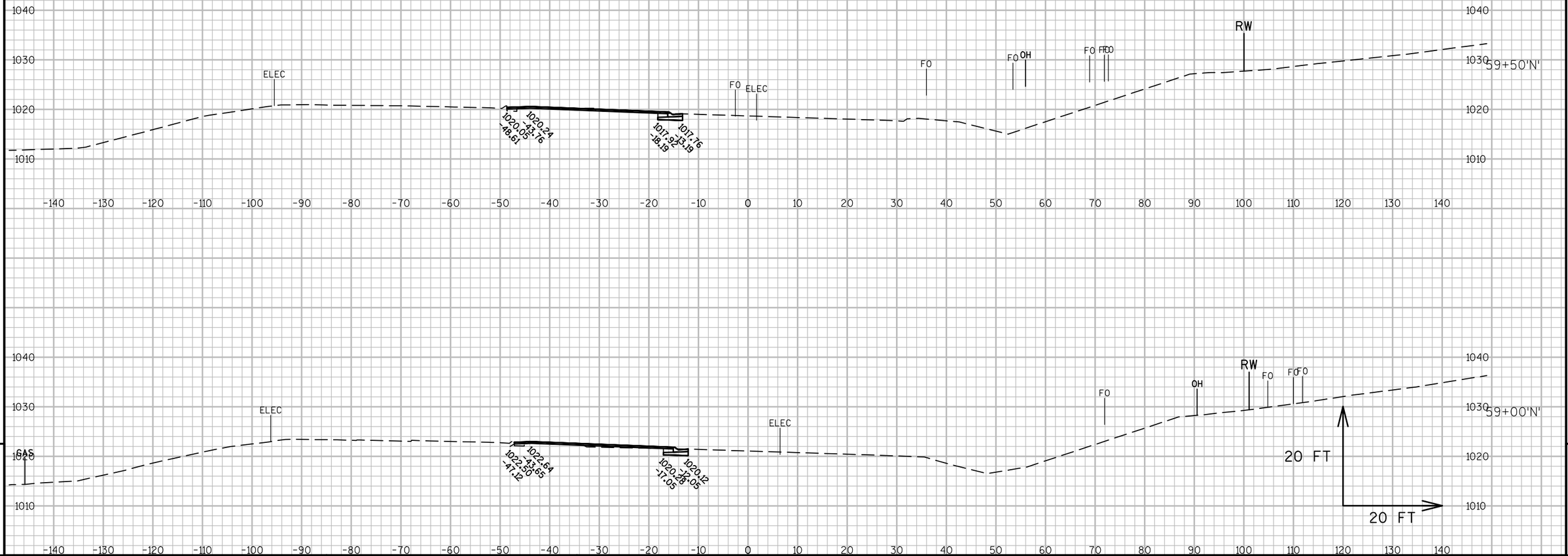


PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CROSS SECTIONS: STH 65 NB (STAGE 4 SOUTH MEDIAN)	SHEET 516	E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\CROSS SECTIONS\090212-XS(65NB S4S).DWG LAYOUT NAME - 65 NB S4S - (3)
PLOT DATE : 9/30/2022 9:11 AM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49





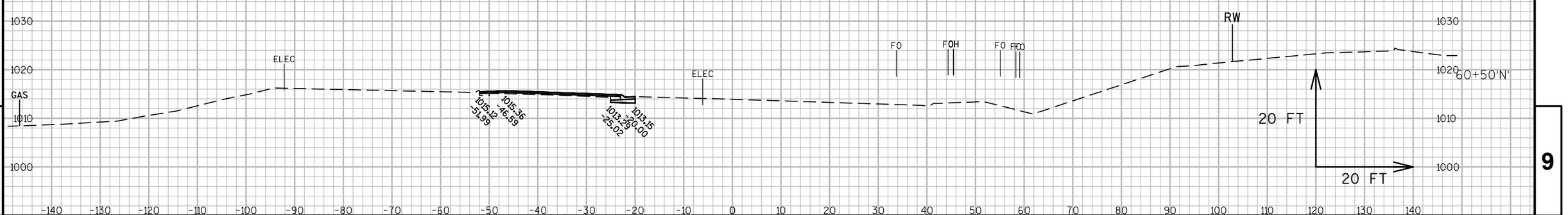
9 9

PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CROSS SECTIONS: STH 65 NB (STAGE 4 SOUTH MEDIAN)	SHEET 517 E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\CROSS SECTIONS\090212-XS(65NB S4S).DWG PLOT DATE : 9/30/2022 9:12 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT
LAYOUT NAME - 65 NB S4S - (4)

WISDOT/CADDS SHEET 49

END CONSTRUCTION STA. 60+97'N'

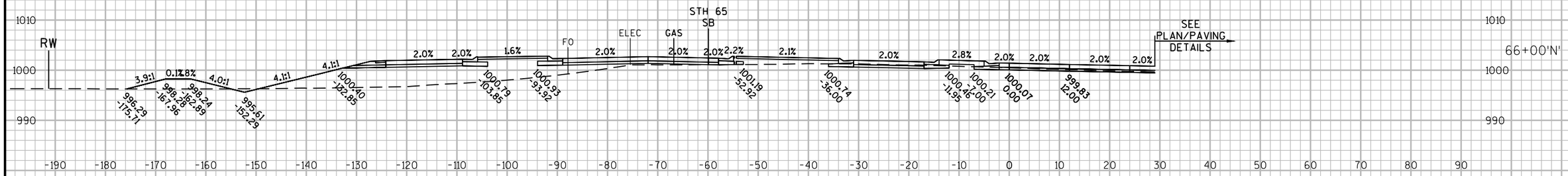


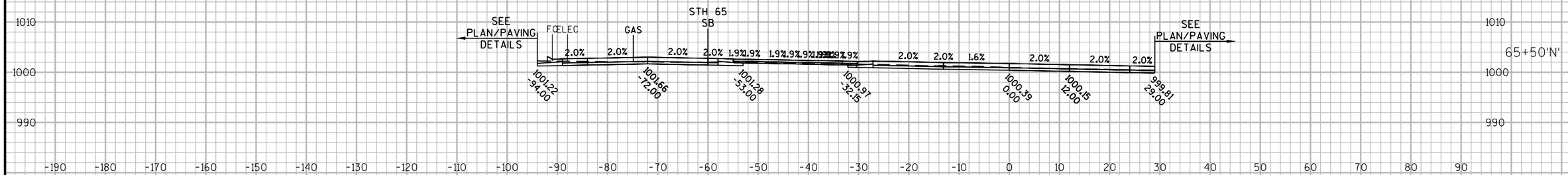
9 9

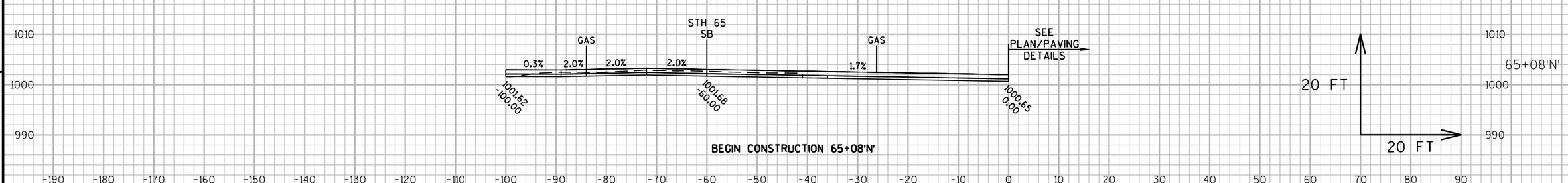
PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CROSS SECTIONS: STH 65 NB (STAGE 4 SOUTH MEDIAN)	SHEET 518 E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\CROSS SECTIONS\090212-XS(65NB S4S).DWG LAYOUT NAME - 65 NB S4S - (5)
PLOT DATE : 9/30/2022 9:12 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT

CONSTRUCT BERM FROM
18+30 'W' - 66+16 'S'
FOR DRAINAGE







BEGIN CONSTRUCTION 65+08'N'

9

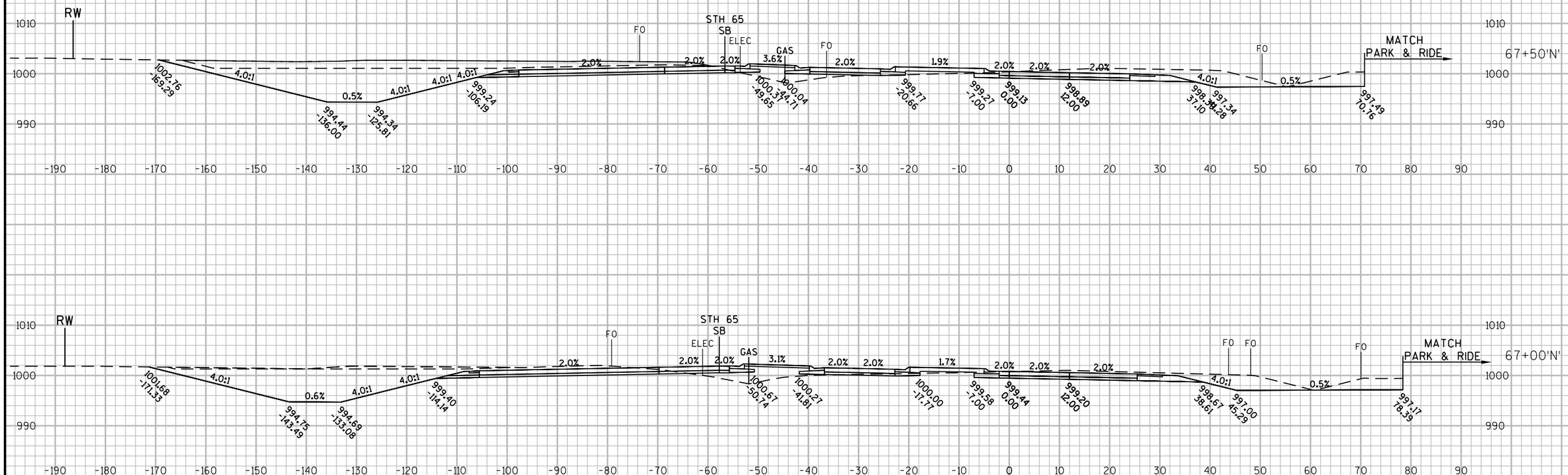
9

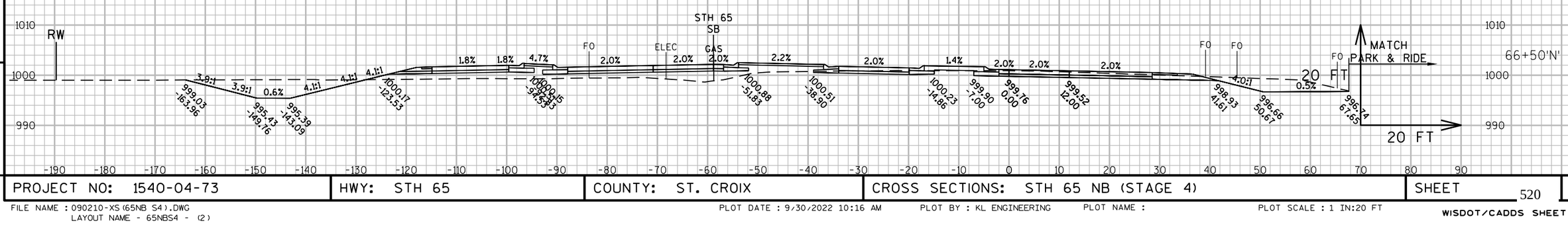
PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CROSS SECTIONS: STH 65 NB (STAGE 4)	SHEET 519	E

FILE NAME : 090210-XS(65NB S4).DWG
LAYOUT NAME - 65NBS4 - (1)

PLOT DATE : 9/30/2022 10:16 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49





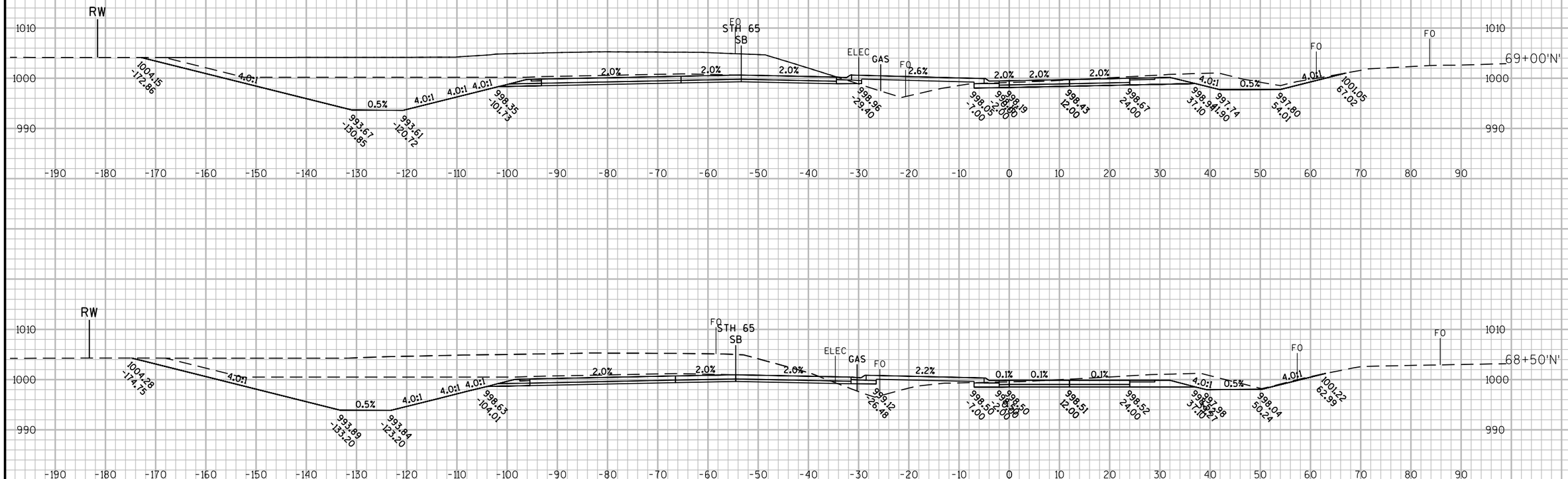
9

9

PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CROSS SECTIONS: STH 65 NB (STAGE 4)	SHEET 520	E

FILE NAME : 090210-XS(65NB S4).DWG
LAYOUT NAME - 65NBS4 - (2)

PLOT DATE : 9/30/2022 10:16 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT



9

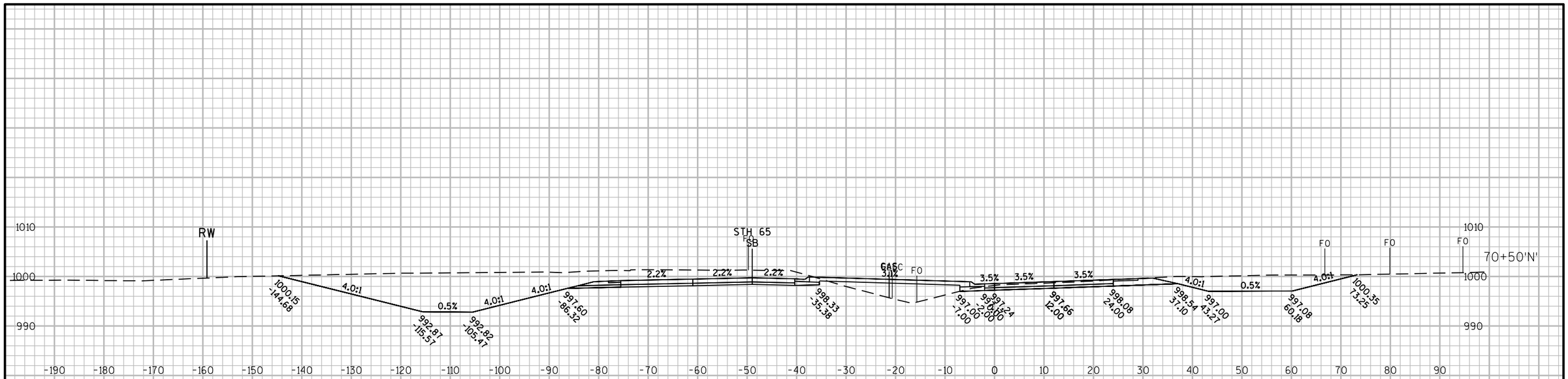
9

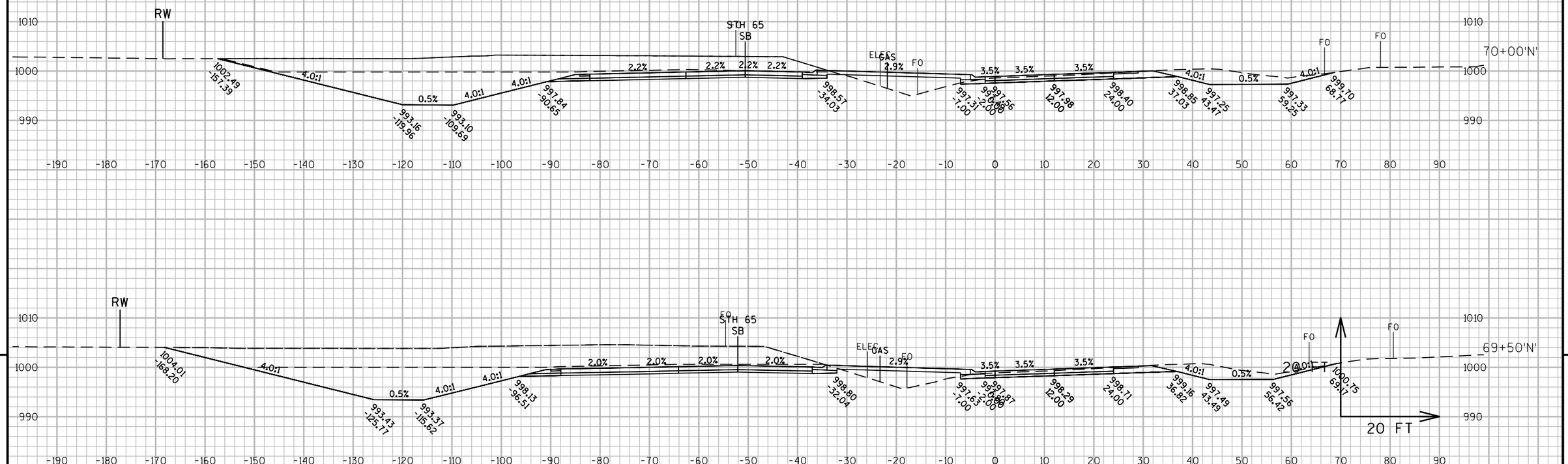
PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CROSS SECTIONS: STH 65 NB (STAGE 4)	SHEET 521	E

FILE NAME : 090210-XS(65NB S4).DWG
LAYOUT NAME - 65NBS4 - (3)

PLOT DATE : 9/30/2022 10:17 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49





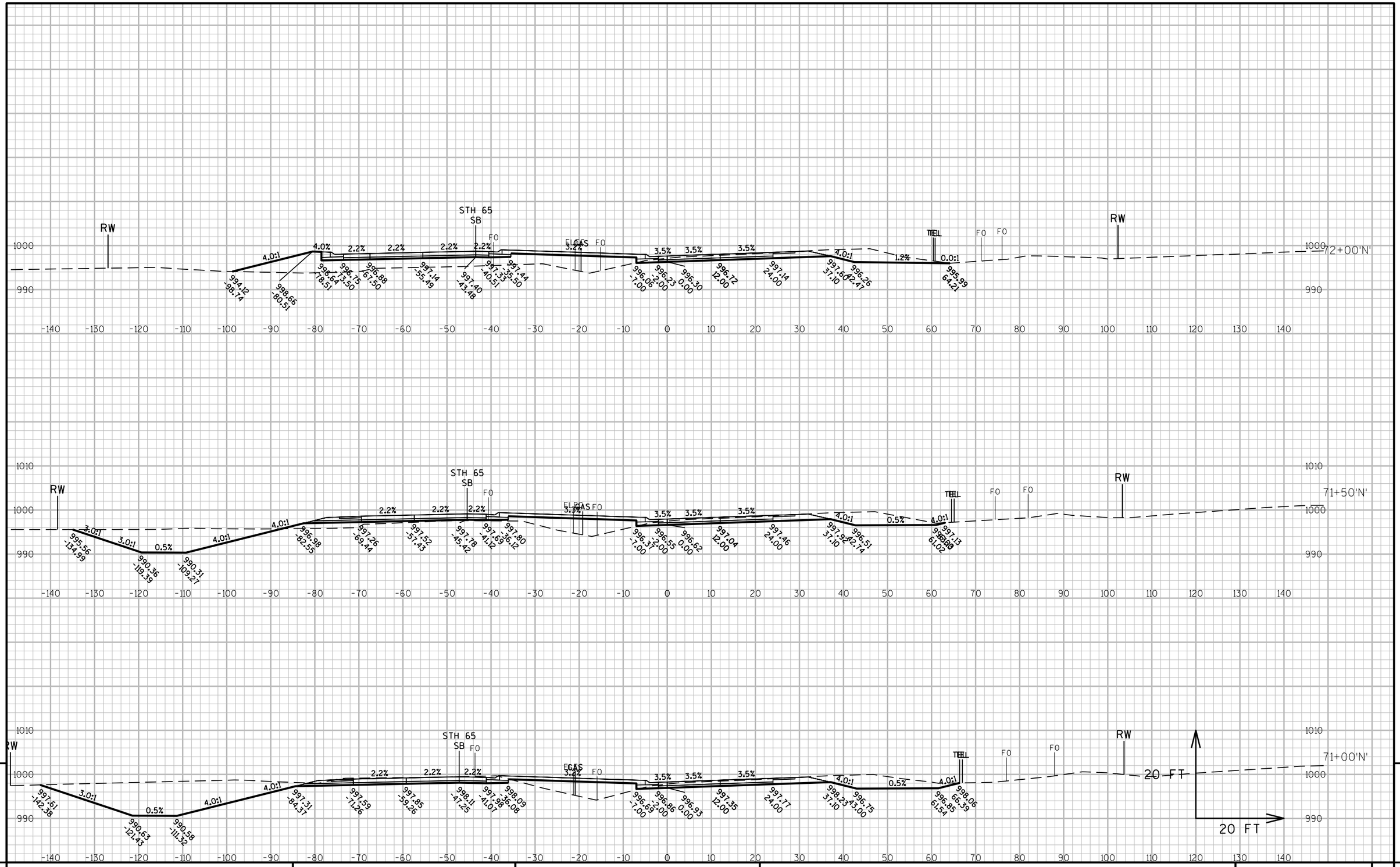
9 9

PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CROSS SECTIONS: STH 65 NB (STAGE 4)	SHEET 522 E

FILE NAME : 090210-XS(65NB S4).DWG
LAYOUT NAME - 65NBS4 - (4)

PLOT DATE : 9/30/2022 10:17 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



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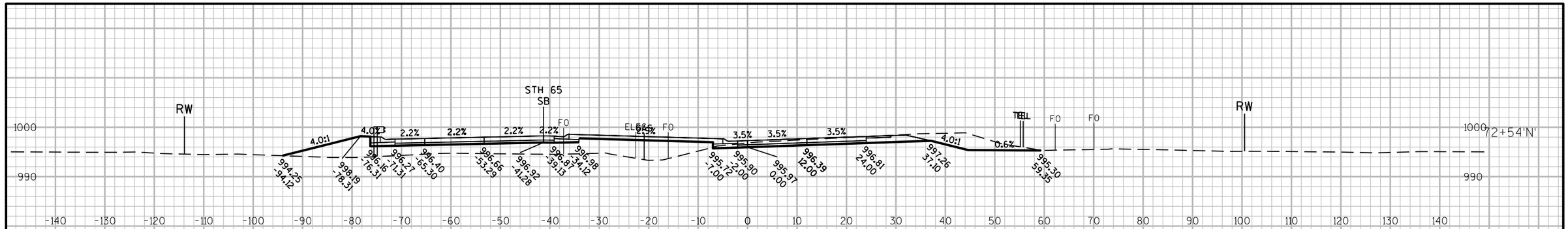
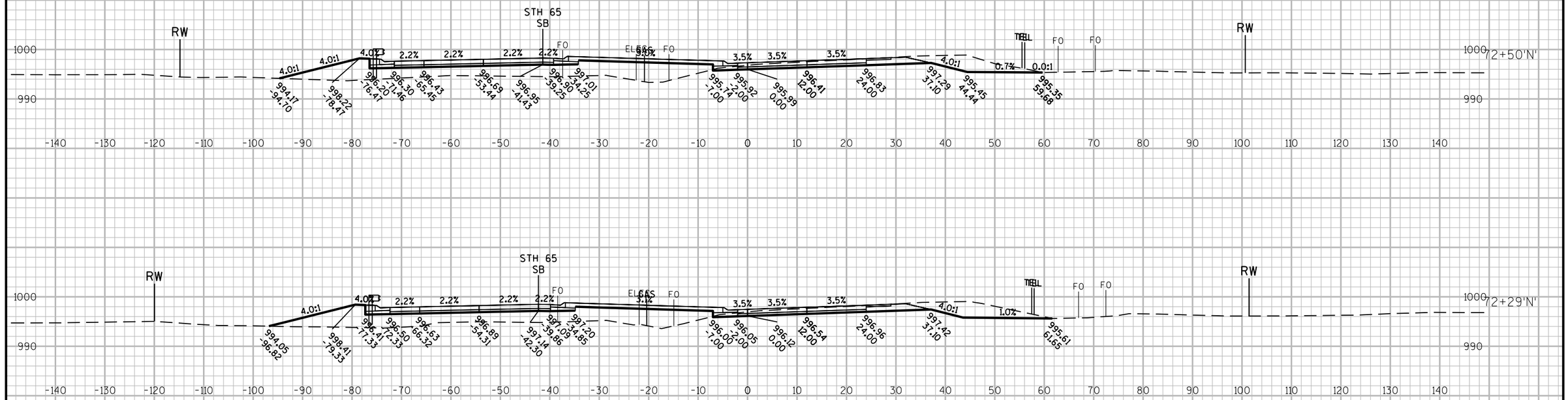
9

PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CROSS SECTIONS: STH 65 NB (STAGE 4)	SHEET 523 E

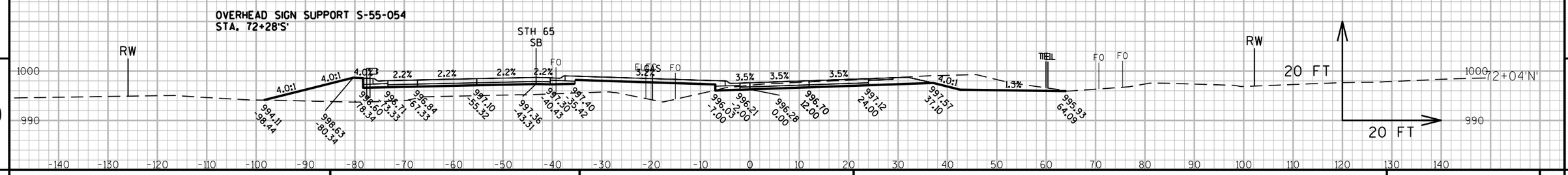
FILE NAME : 090211-XS(65NB S4).DWG
LAYOUT NAME - 65NBS4- (5)

PLOT DATE : 10/26/2022 1:24 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT



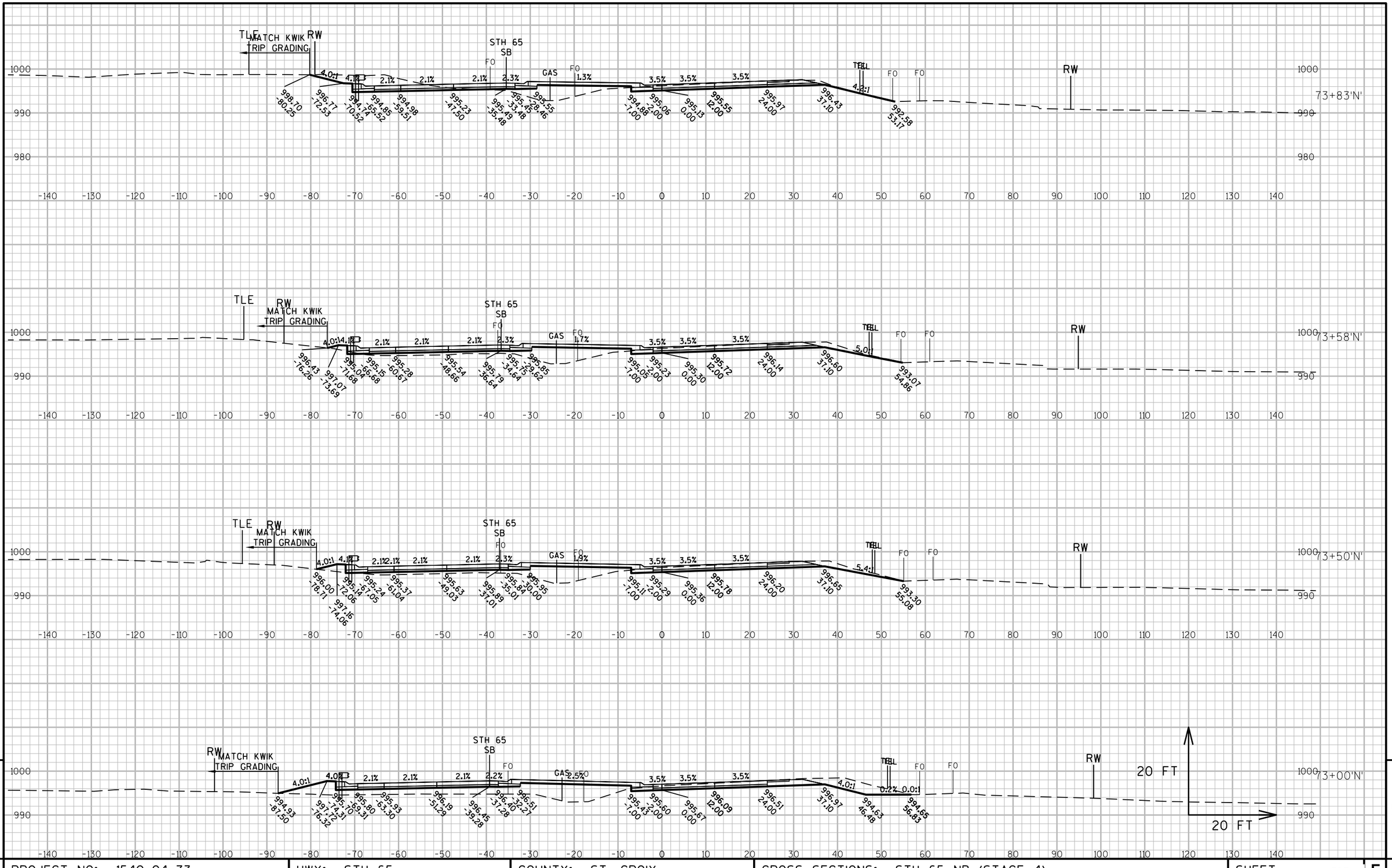


OVERHEAD SIGN SUPPORT S-55-054
STA. 72+28'S'



9 9

PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CROSS SECTIONS: STH 65 NB (STAGE 4)	SHEET 524 E



9

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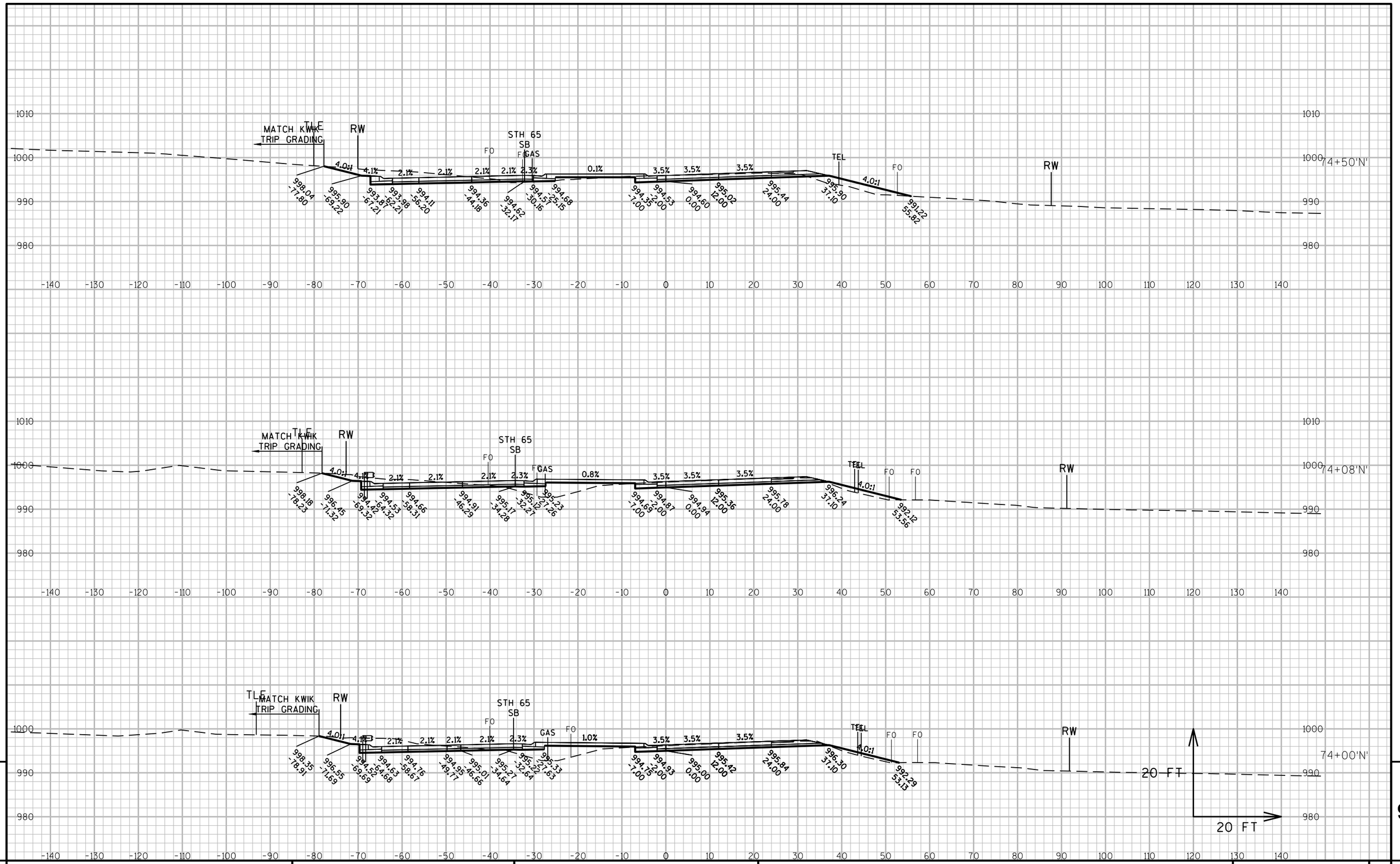
PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CROSS SECTIONS: STH 65 NB (STAGE 4)	SHEET 525 E

FILE NAME : 090211-XS(65NB S4).DWG
LAYOUT NAME - 65NBS4- (7)

PLOT DATE : 10/26/2022 1:25 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT



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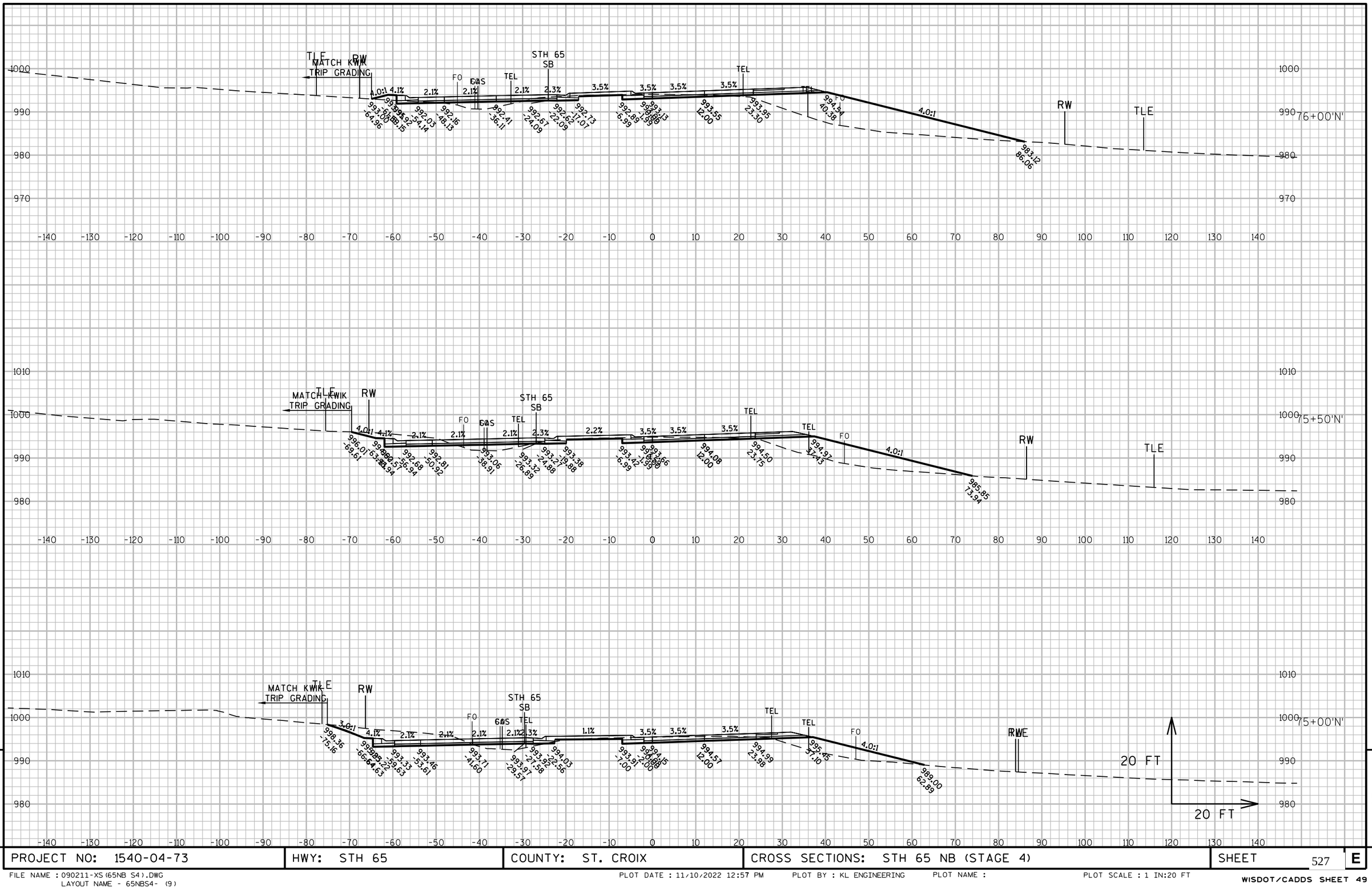
PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CROSS SECTIONS: STH 65 NB (STAGE 4)	SHEET 526 E

FILE NAME : 090211-XS(65NB S4).DWG
LAYOUT NAME - 65NBS4- (8)

PLOT DATE : 10/26/2022 1:26 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



9

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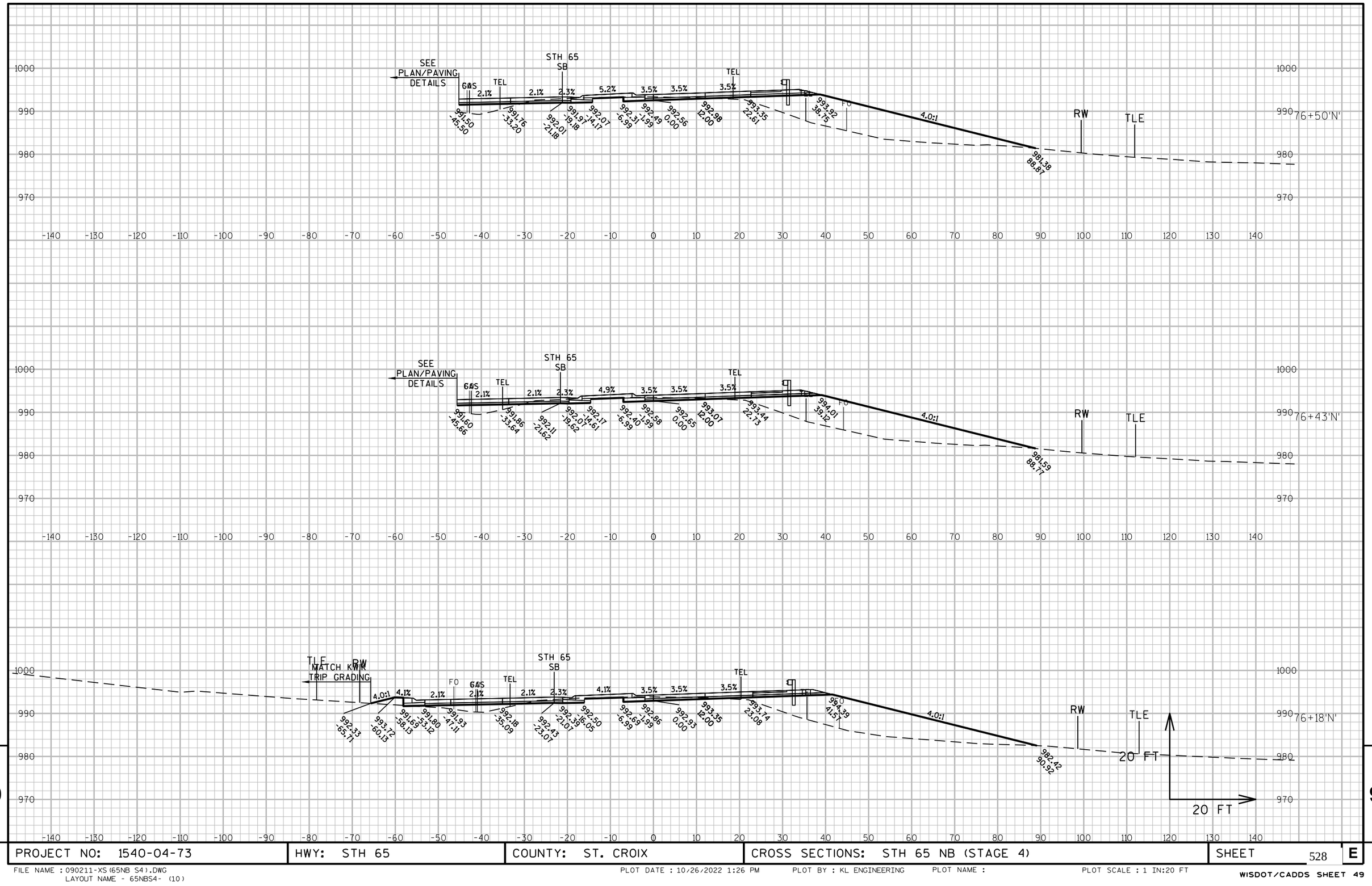
PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CROSS SECTIONS: STH 65 NB (STAGE 4)	SHEET 527 E

FILE NAME : 090211-XS(65NB S4).DWG
LAYOUT NAME - 65NBS4- (9)

PLOT DATE : 11/10/2022 12:57 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT

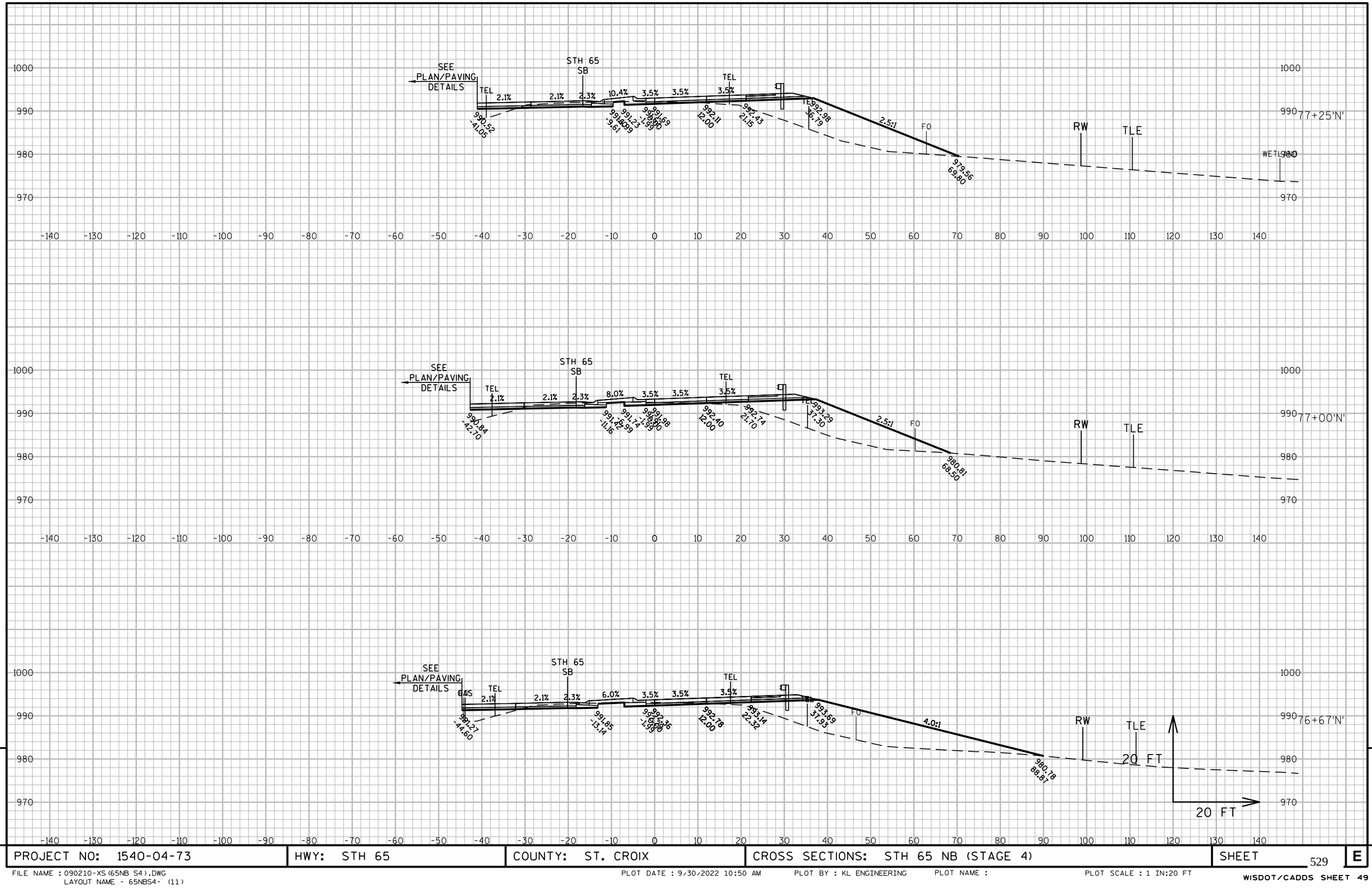


PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CROSS SECTIONS: STH 65 NB (STAGE 4)	SHEET 528 E

FILE NAME : 090211-XS(65NB S4).DWG
LAYOUT NAME - 65NBS4- (10)

PLOT DATE : 10/26/2022 1:26 PM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



9

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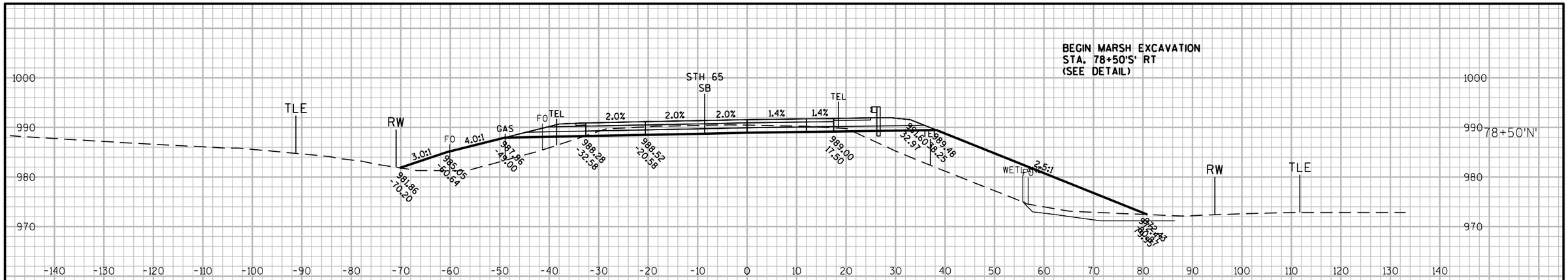
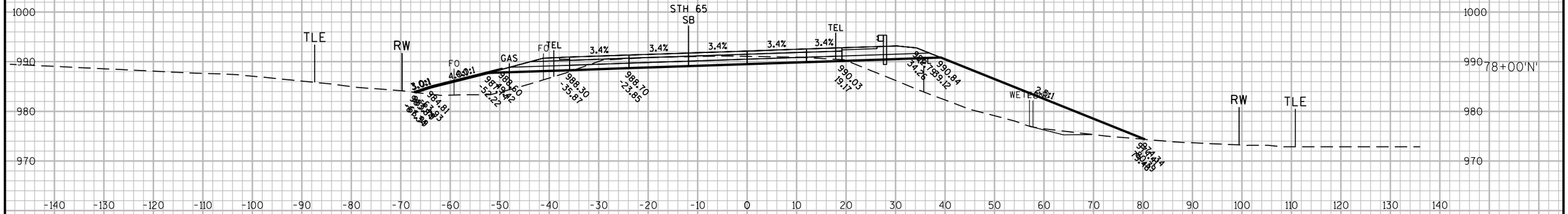
PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CROSS SECTIONS: STH 65 NB (STAGE 4)	SHEET 529	E

FILE NAME : 090210-XS (65NB S4).DWG
LAYOUT NAME - 65NBS4- (11)

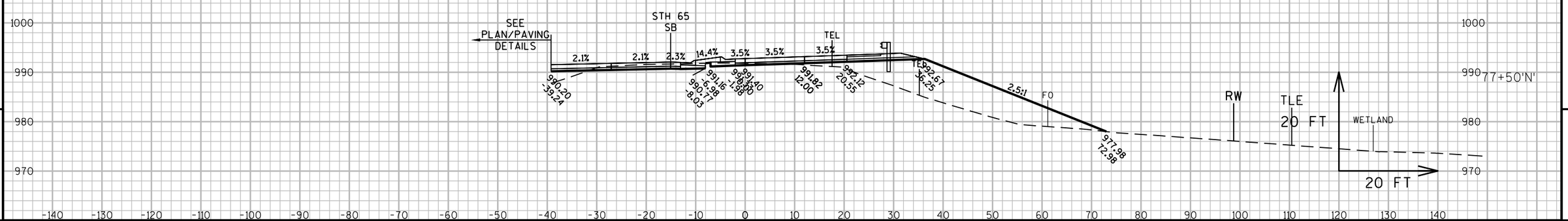
PLOT DATE : 9/30/2022 10:50 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49





PAVEMENT TRANSITION AT STA. 77+97.20 'N'

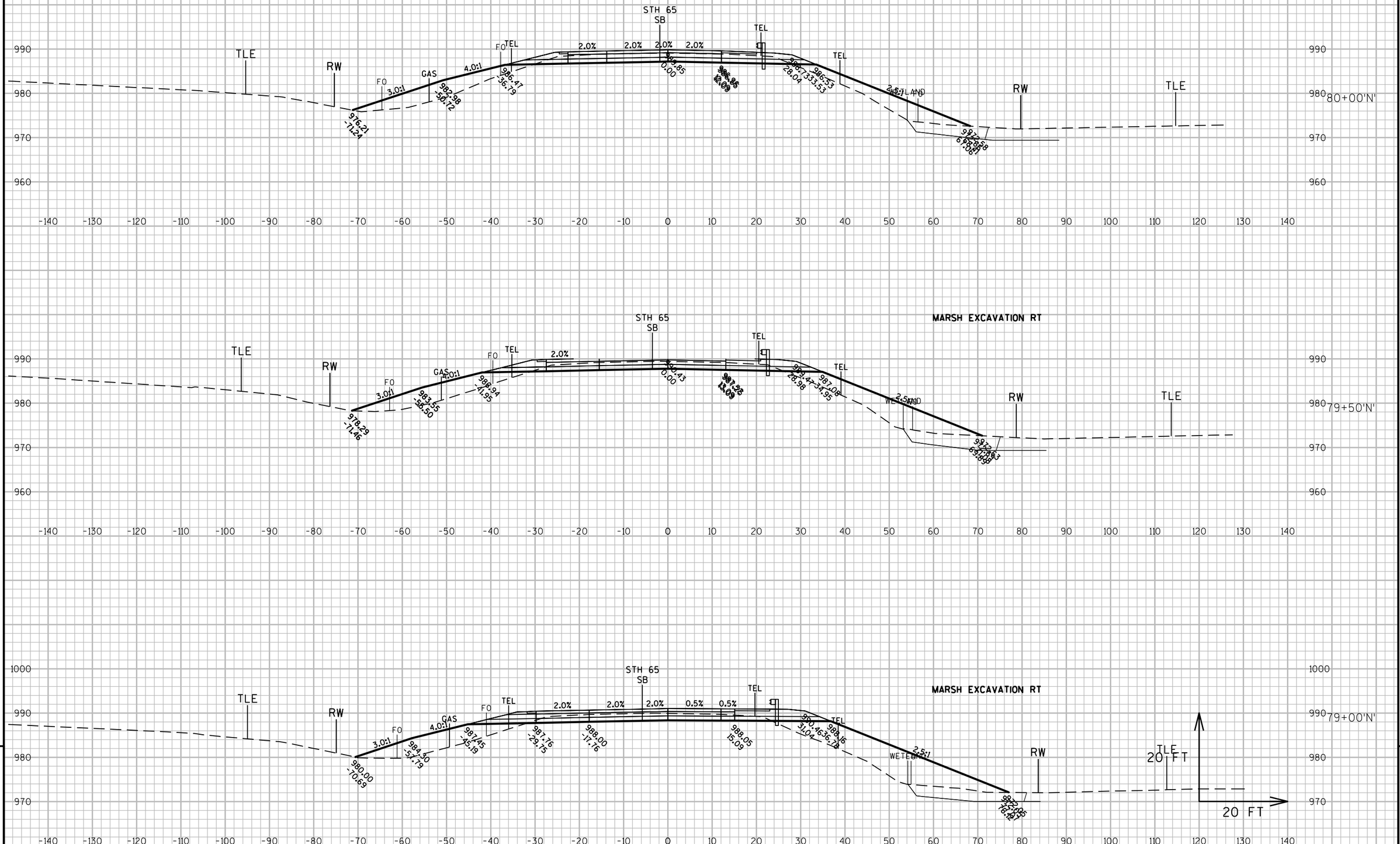


PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CROSS SECTIONS: STH 65 NB (STAGE 4)	SHEET 530	E

FILE NAME : 090210-XS (65NB S4).DWG
LAYOUT NAME - 65NBS4- (12)

PLOT DATE : 9/30/2022 10:46 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CROSS SECTIONS: STH 65 NB (STAGE 4)	SHEET 531 E

FILE NAME : 090210-XS(65NB S4).DWG
LAYOUT NAME - 65NBS4- (13)

PLOT DATE : 9/30/2022 10:46 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT

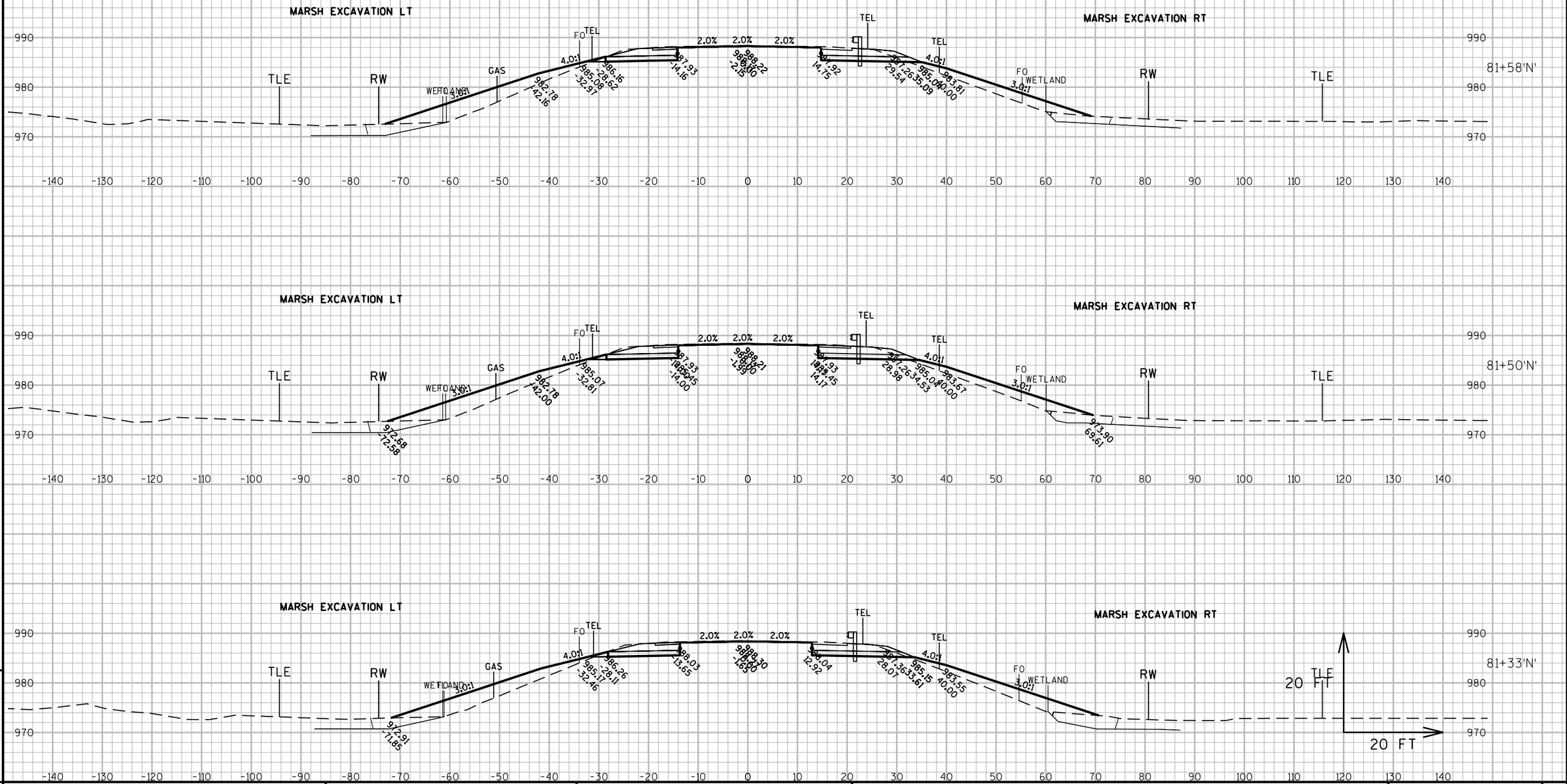
WISDOT/CADDS SHEET 49

PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CROSS SECTIONS: STH 65 NB (STAGE 4)	SHEET 532 E

FILE NAME : 090210-XS(65NB S4).DWG
LAYOUT NAME - 65NBS4- (14)

PLOT DATE : 9/30/2022 10:46 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49



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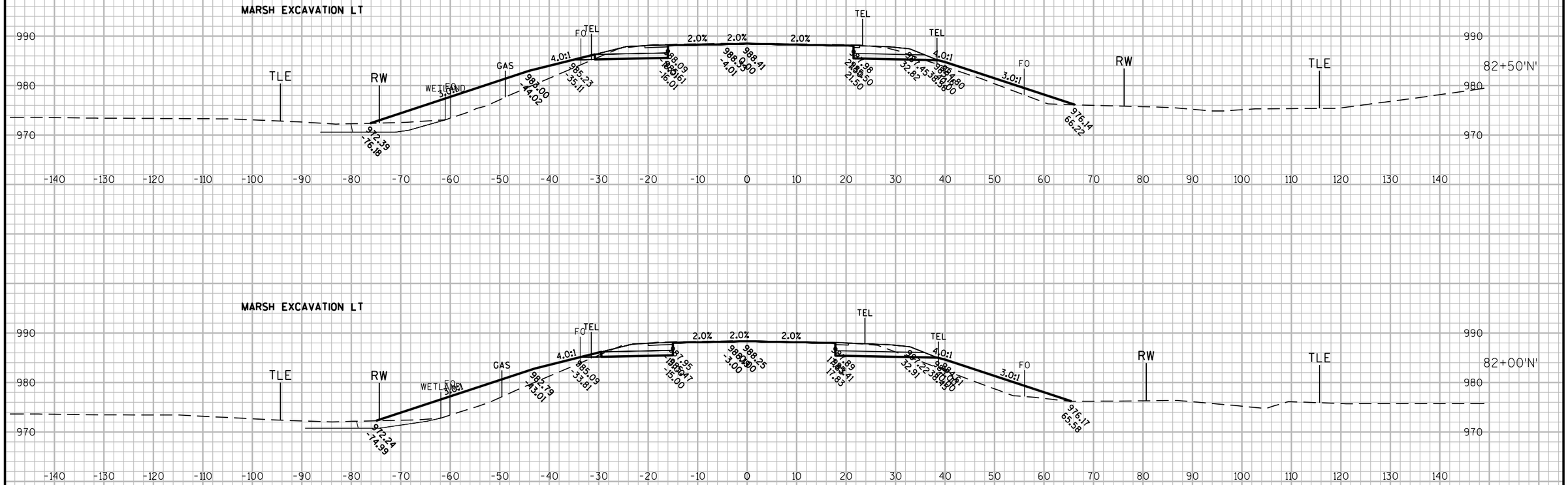
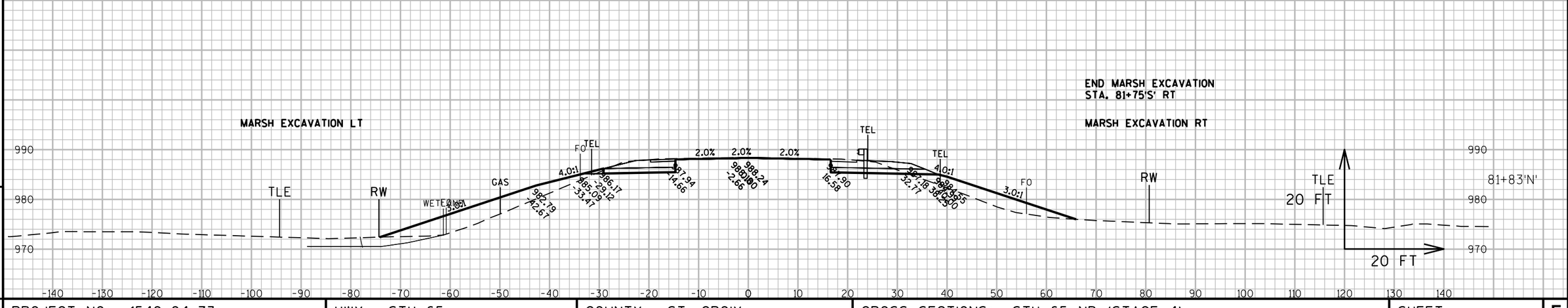
PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CROSS SECTIONS: STH 65 NB (STAGE 4)	SHEET 533	E

FILE NAME : 090210-XS(65NB S4).DWG
LAYOUT NAME - 65NBS4- (15)

PLOT DATE : 9/30/2022 10:47 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49





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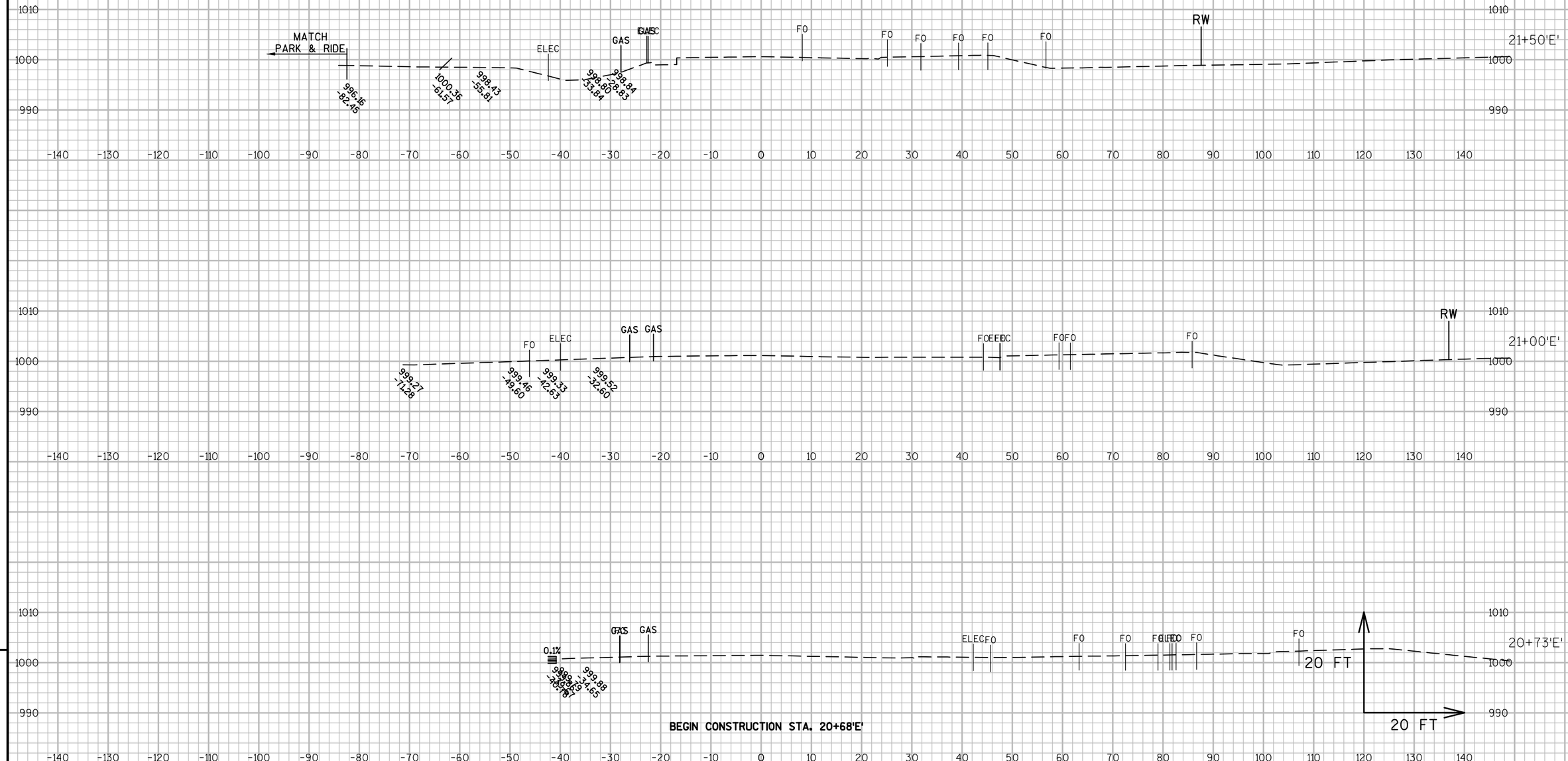
PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CROSS SECTIONS: STH 65 NB (STAGE 4)	SHEET 534	E

FILE NAME : 090210-XS(65NB S4).DWG
LAYOUT NAME - 65NBS4- (16)

PLOT DATE : 9/30/2022 10:47 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT



9

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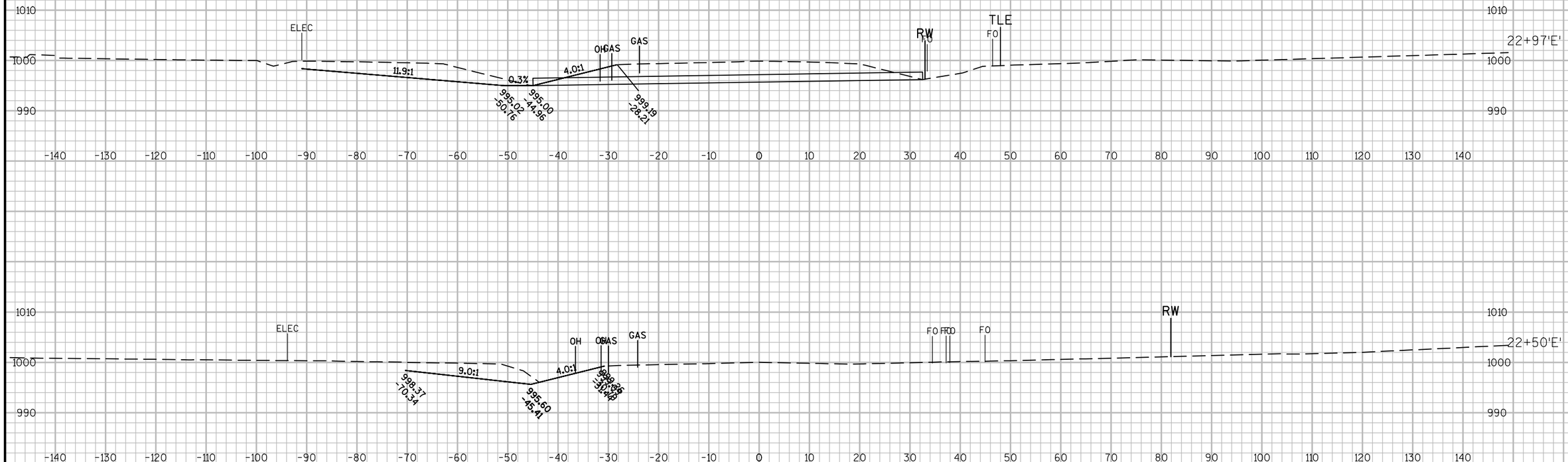
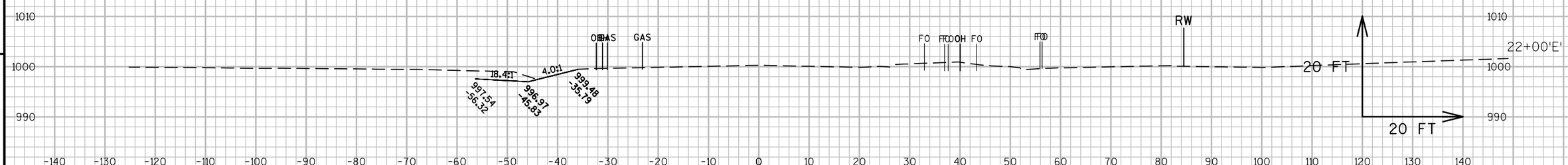
PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CROSS SECTIONS: 70TH AVE EB (STAGE 4)	SHEET 535	E

FILE NAME : 090205-XS (E70TH EB S4).DWG
LAYOUT NAME - E70 S4 - (1)

PLOT DATE : 9/30/2022 7:07 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT





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9

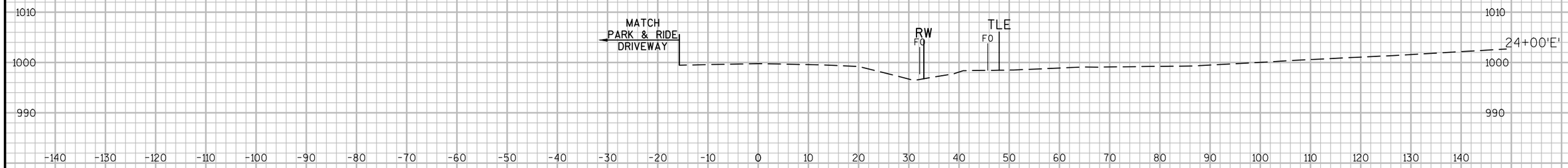
PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CROSS SECTIONS: 70TH AVE EB (STAGE 4)	SHEET 536	E

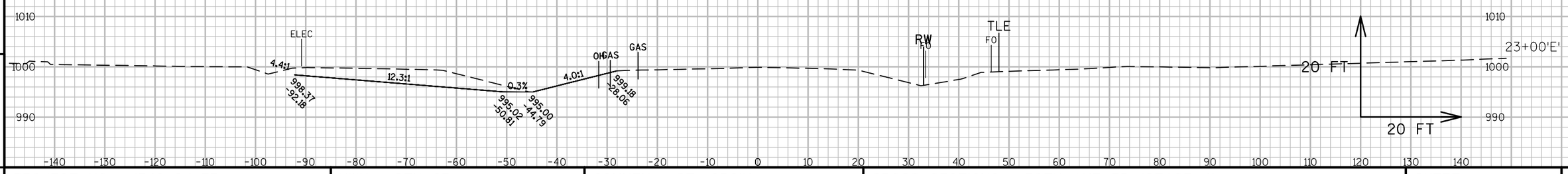
FILE NAME : 090205-XS(E70TH EB S4).DWG
LAYOUT NAME - E70 S4 - (2)

PLOT DATE : 9/30/2022 7:08 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49

STA. 24+00'W'
PARK AND RIDE ENTRANCE LT





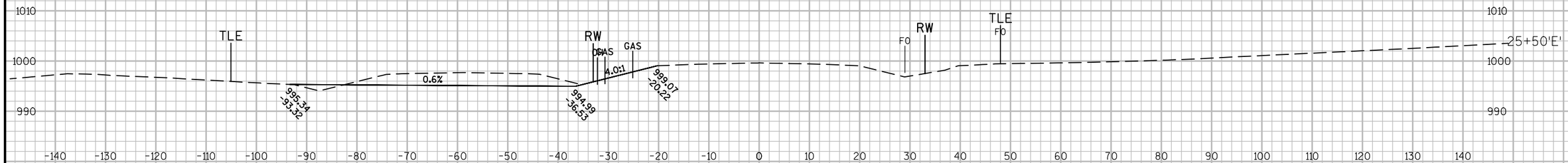
9

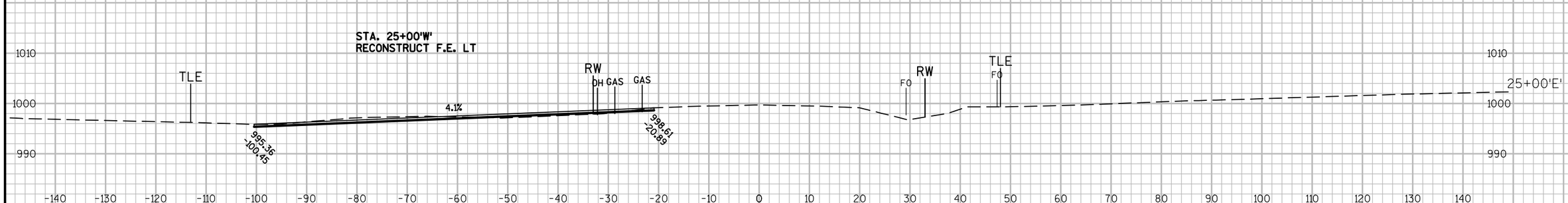
9

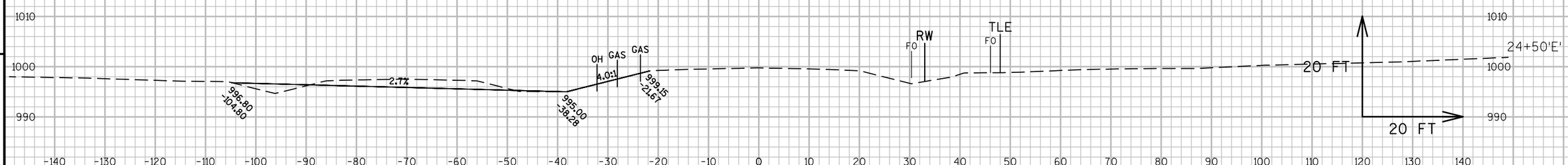
PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CROSS SECTIONS: 70TH AVE EB (STAGE 4)	SHEET 537	E

FILE NAME : 090205-XS (E70TH EB S4).DWG
LAYOUT NAME - E70 S4 - (3)

PLOT DATE : 9/30/2022 7:08 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT







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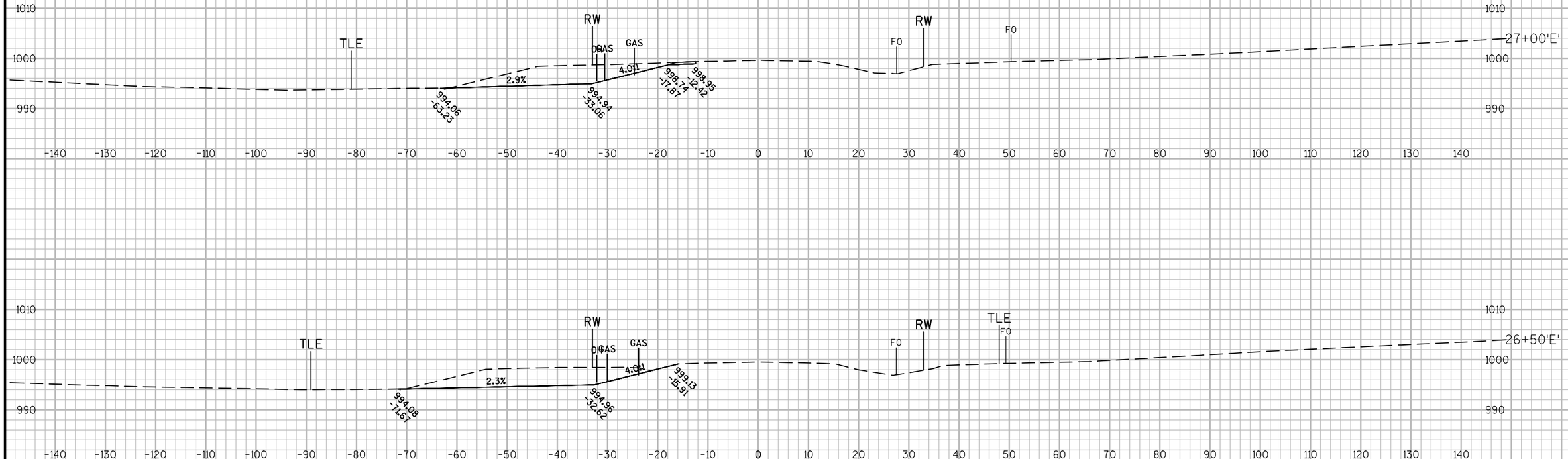
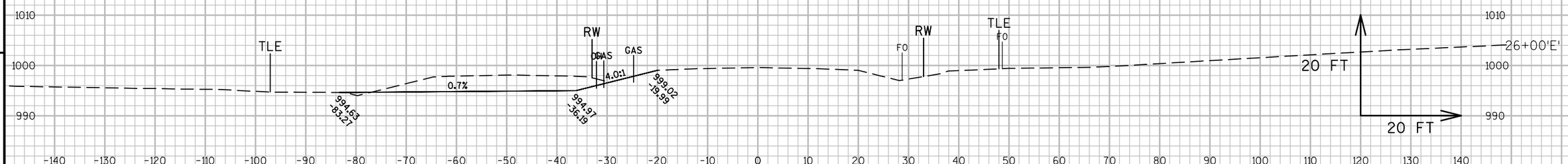
PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CROSS SECTIONS: 70TH AVE EB (STAGE 4)	SHEET 538	E

FILE NAME : 090205-XS (E70TH EB S4).DWG
LAYOUT NAME - E70 S4 - (4)

PLOT DATE : 9/30/2022 7:08 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT





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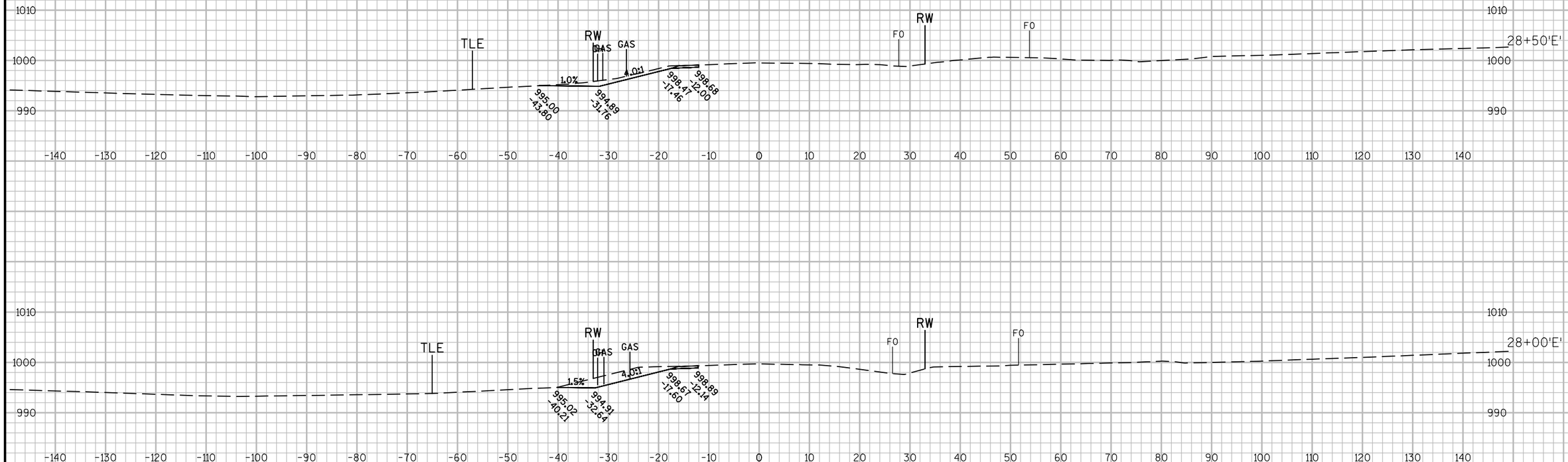
PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CROSS SECTIONS: 70TH AVE EB (STAGE 4)	SHEET 539	E

FILE NAME : 090205-XS (E70TH EB S4).DWG
LAYOUT NAME - E70 S4 - (5)

PLOT DATE : 9/30/2022 7:08 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT



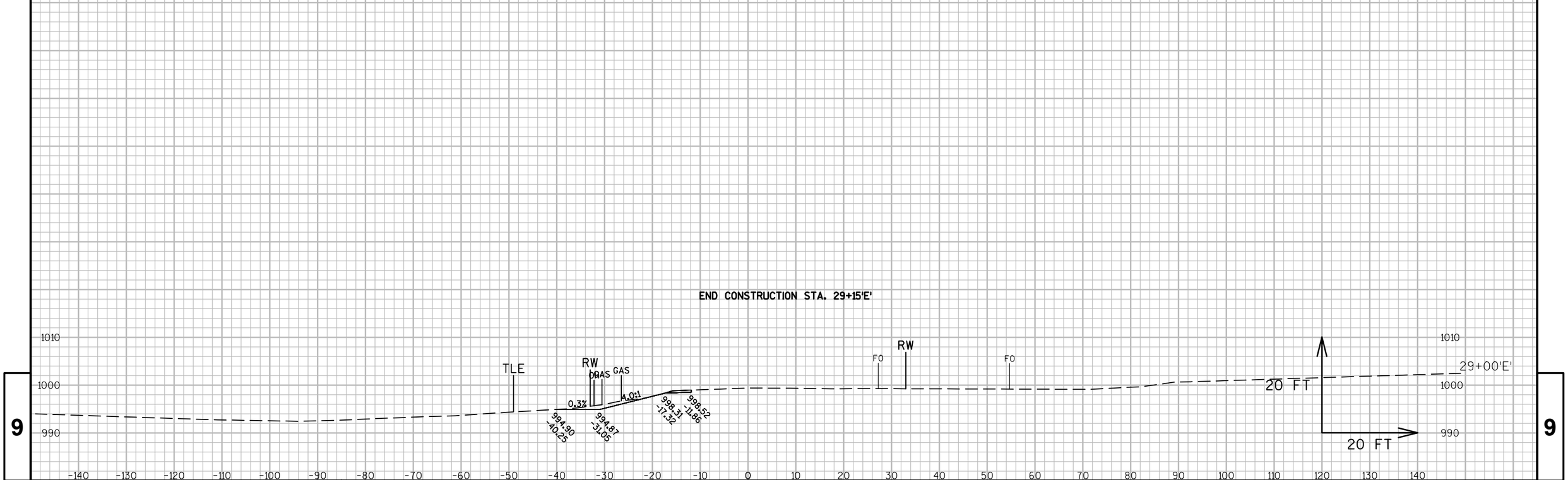
PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CROSS SECTIONS: 70TH AVE EB (STAGE 4)	SHEET 540	E

FILE NAME : 090205-XS (E70TH EB S4).DWG
LAYOUT NAME - E70 S4 - (6)

PLOT DATE : 9/30/2022 7:09 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT

WISDOT/CADDS SHEET 49

END CONSTRUCTION STA. 29+15'E'

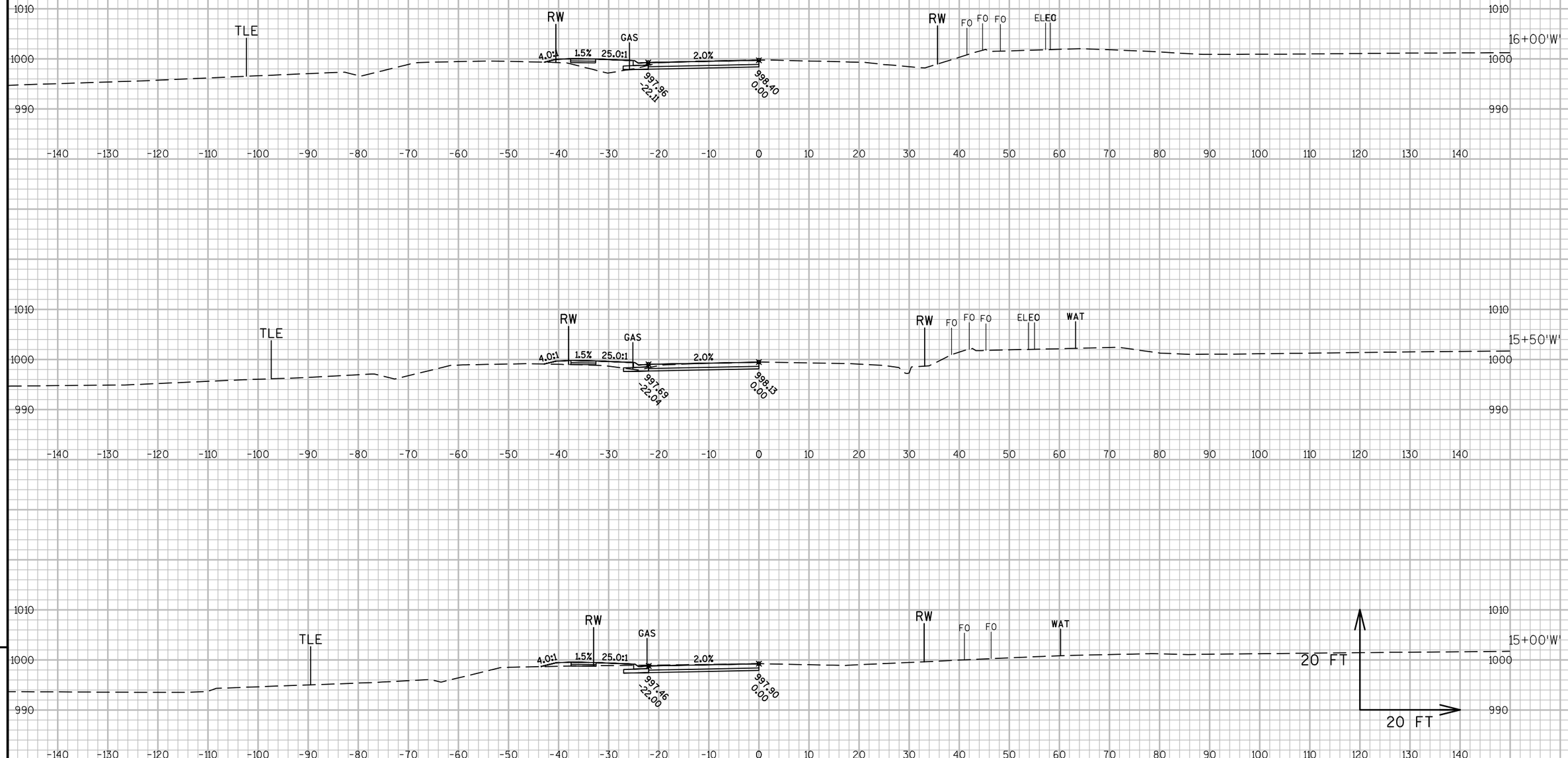


9 9

PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CROSS SECTIONS: 70TH AVE EB (STAGE 4)	SHEET 541	E

FILE NAME : 090205-XS (E70TH EB S4).DWG
LAYOUT NAME - E70 S4 - (7)

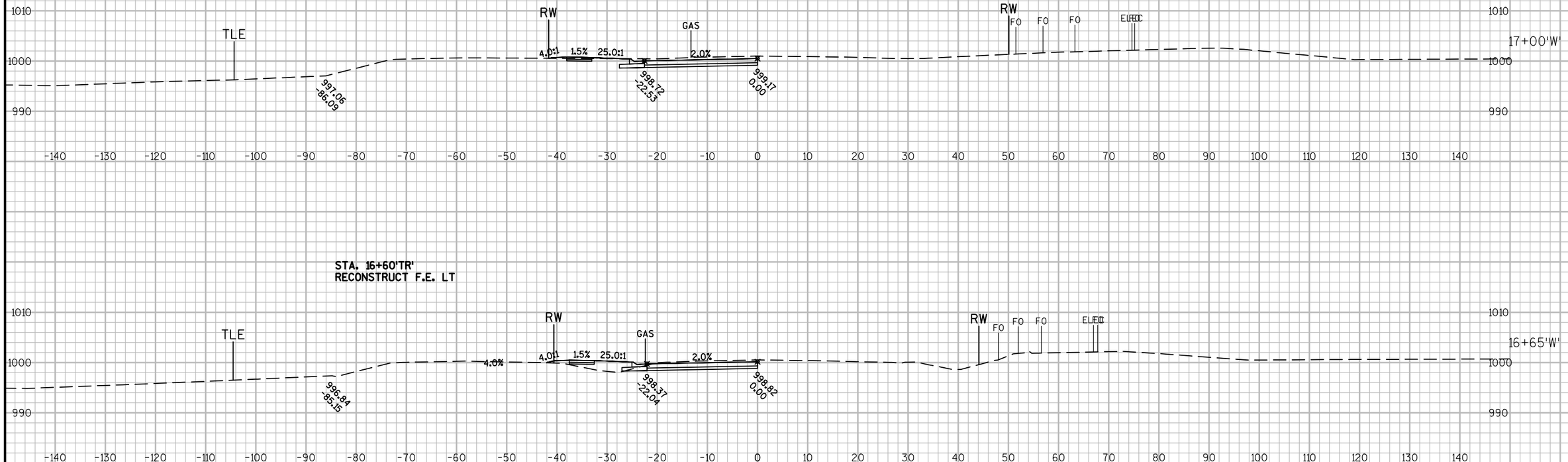
PLOT DATE : 9/30/2022 7:09 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT



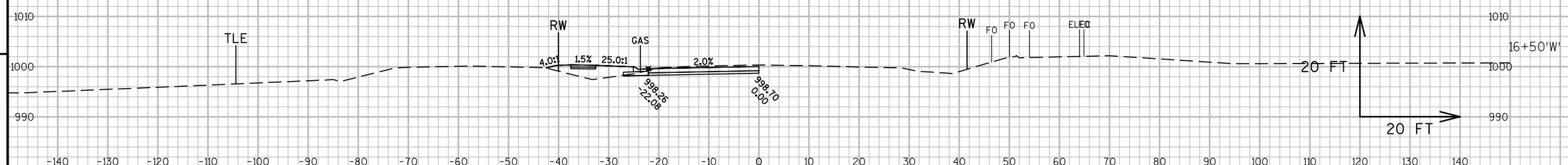
PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CROSS SECTIONS: 70TH AVE WB (STAGE 4)	SHEET 542	E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\CROSS SECTIONS\090211-XS(70TH WB S4).DWG DATE : 9/30/2022 9:07 AM
LAYOUT NAME - 70 WB S4 - (2)

PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT



STA. 16+60'TR'
RECONSTRUCT F.E. LT



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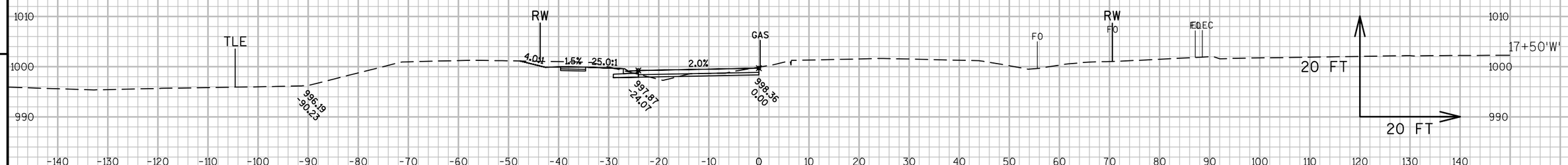
PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CROSS SECTIONS: 70TH AVE WB (STAGE 4)	SHEET 543	E

CONSTRUCT BERM FROM
18+30 'W' - 66+16 'S'
FOR DRAINAGE



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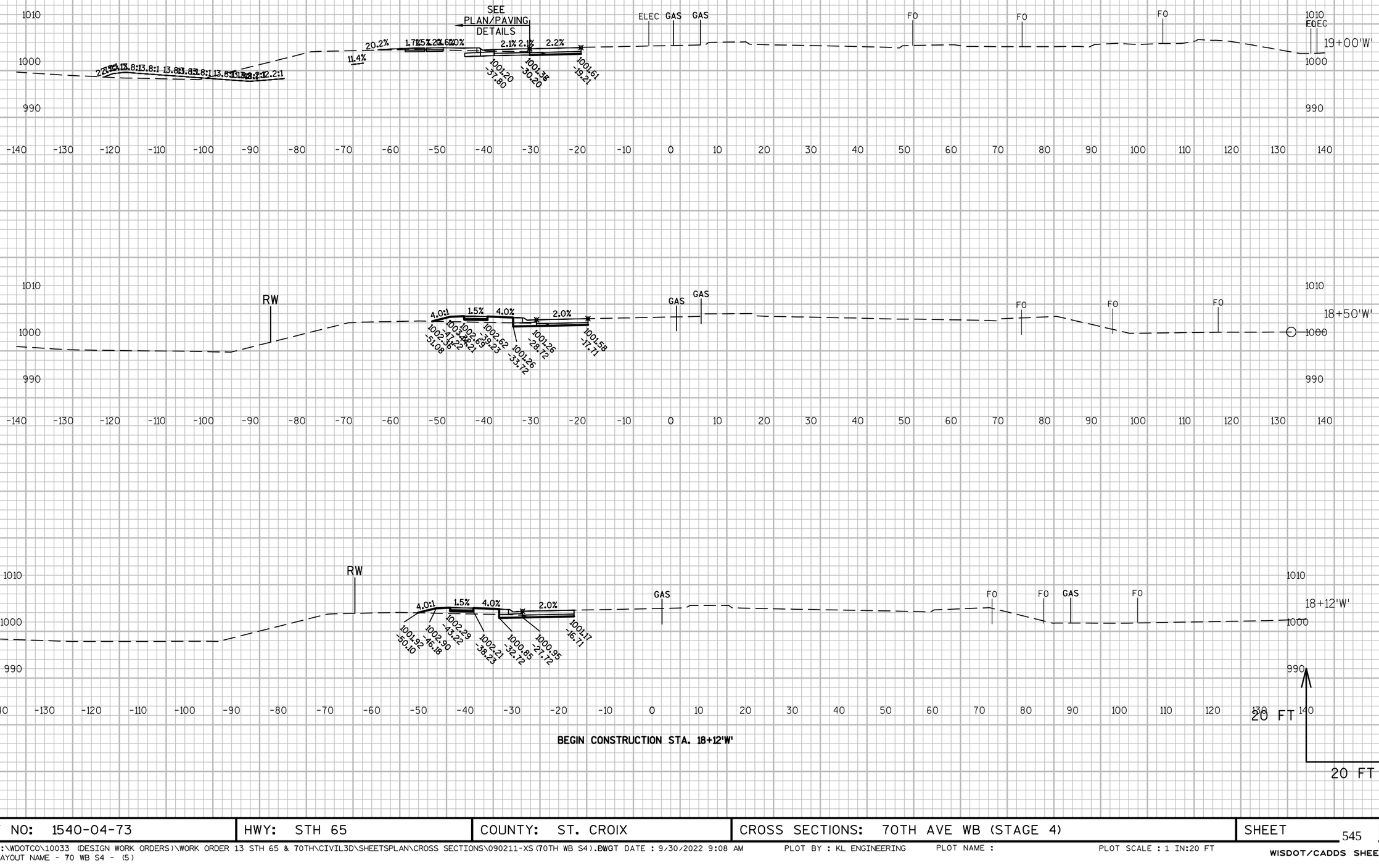
PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CROSS SECTIONS: 70TH AVE WB (STAGE 4)	SHEET 544	E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\CROSS SECTIONS\090211-XS(70TH WB S4).DWG
LAYOUT NAME - 70 WB S4 - (4)
PLOT DATE : 9/30/2022 9:08 AM
PLOT BY : KL ENGINEERING
PLOT NAME :
PLOT SCALE : 1 IN:20 FT



BEGIN CONSTRUCTION STA. 18+12'W'

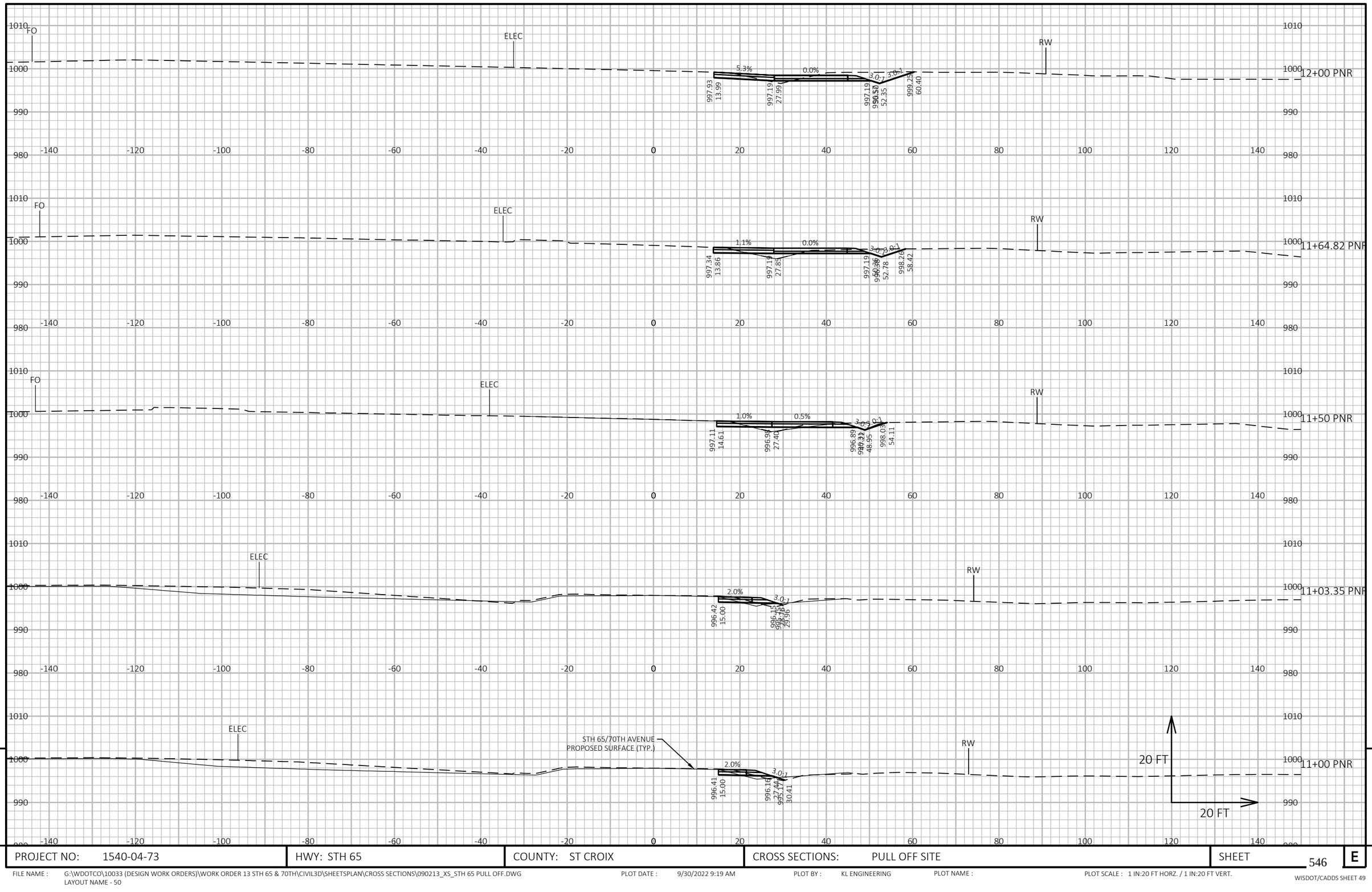
9

9

PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST. CROIX	CROSS SECTIONS: 70TH AVE WB (STAGE 4)	SHEET 545	E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\CROSS SECTIONS\090211-XS(70TH WB S4).DWG DATE : 9/30/2022 9:08 AM
LAYOUT NAME - 70 WB S4 - (5)

PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT

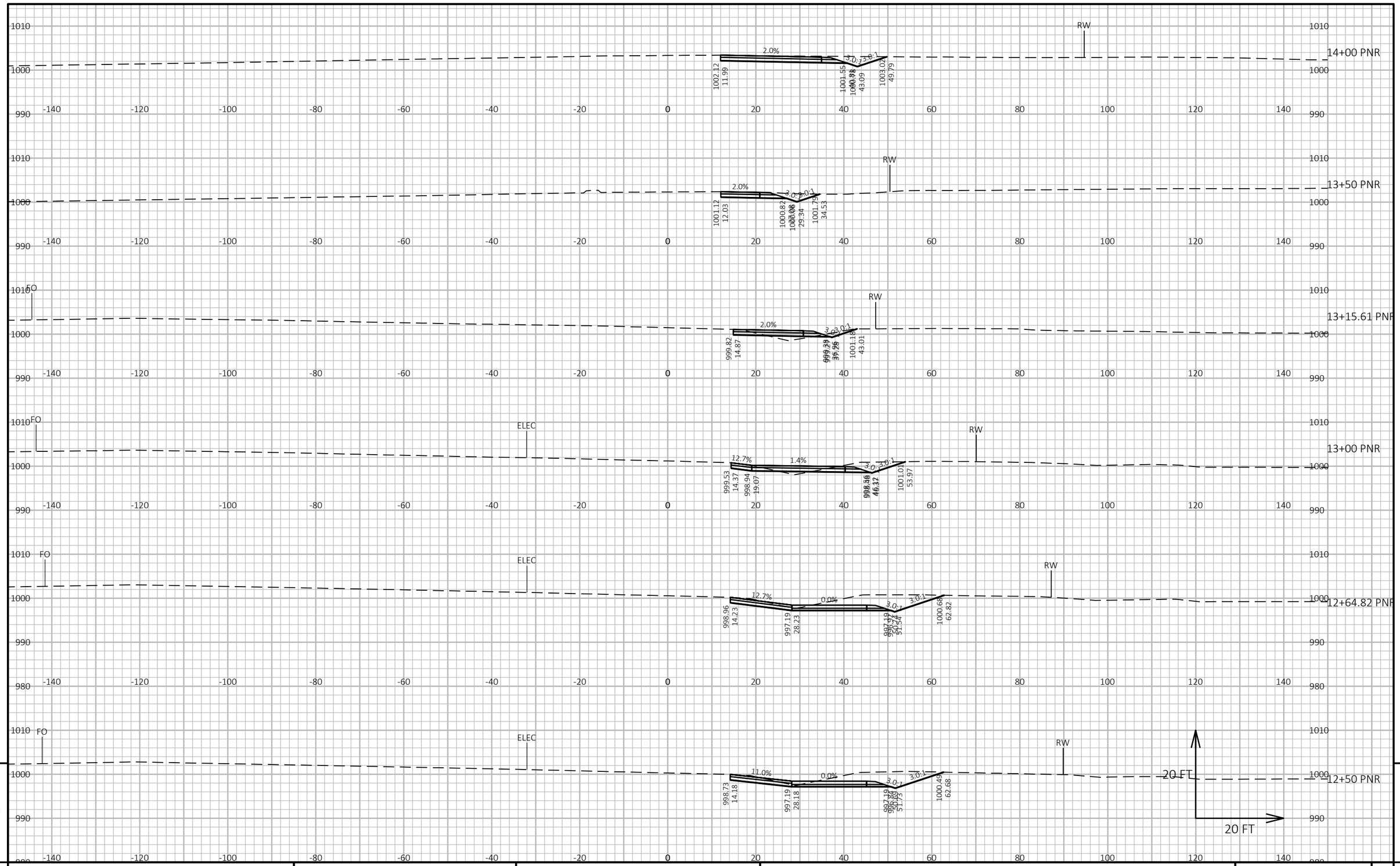


PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST CROIX	CROSS SECTIONS: PULL OFF SITE	SHEET 546	E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\CROSS SECTIONS\090213_XS_STH 65 PULL OFF.DWG
LAYOUT NAME - 50

PLOT DATE : 9/30/2022 9:19 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



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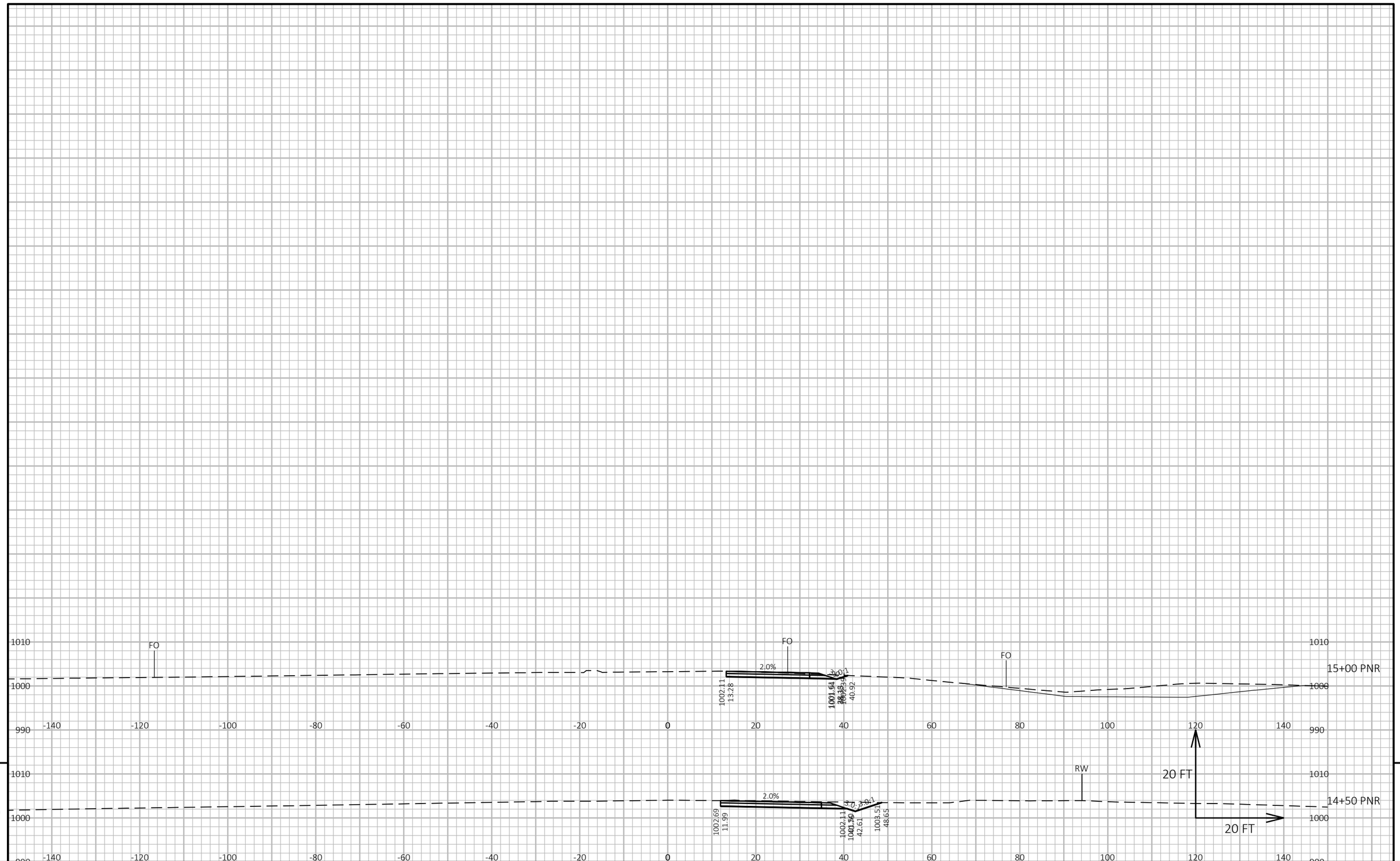
PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST CROIX	CROSS SECTIONS: PULL OFF SITE	SHEET 547	E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\CROSS SECTIONS\090213_XS_STH 65 PULL OFF.DWG
LAYOUT NAME - 51

PLOT DATE : 9/30/2022 9:19 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

WISDOT/CADDS SHEET 49



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PROJECT NO: 1540-04-73	HWY: STH 65	COUNTY: ST CROIX	CROSS SECTIONS: PULL OFF SITE	SHEET 548	E

FILE NAME : G:\WDOTCO\10033 (DESIGN WORK ORDERS)\WORK ORDER 13 STH 65 & 70TH\CIVIL3D\SHEETSPLAN\CROSS SECTIONS\090213_XS_STH 65 PULL OFF.DWG
LAYOUT NAME - 52

PLOT DATE : 9/30/2022 9:19 AM PLOT BY : KL ENGINEERING PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:20 FT VERT.

Notes

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

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