NCL

DEC 2016

PROJECT ID: 6998-11-70, 6998-11-71

WITH: N/A

COUNTY: PORTAGE

ORDER OF SHEETS

Section No.	1	Title
Section No.	2	Typical Sections and Details (includes erosion control)
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 = 326



34

DESIGN DESIGNATION

A.A.D.T. (2017)	=	8,600
A.A.D.T. (2037)	=	10,400
D.H.V.	=	1206
D.D.	=	58/42
T.	=	5.8%
DESIGN SPEED	=	40 MPH
ESALS	=	1,200,000

CONVENTIONAL SYMBOLS

PLAN

- CORPORATE LIMITS
- PROPERTY LINE (PL + 58.1)
- LOT LINE
- LIMITED HIGHWAY EASEMENT
- EXISTING RIGHT OF WAY
- PROPOSED OR NEW R/W LINE
- SLOPE INTERCEPT
- REFERENCE LINE
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

PROFILE

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

C STEVENS POINT, COUNTRY CLUB DRIVE

HOOVER ROAD RAIL GRADE SEPARATION

LOCAL STREET

PORTAGE COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
6998-11-70	———	———
6998-11-71	WISC 2016494	1

STATE PROJECT NUMBER	STATE PROJECT NUMBER
6998-11-70	6998-11-71
ROADWAY	STRUCTURES

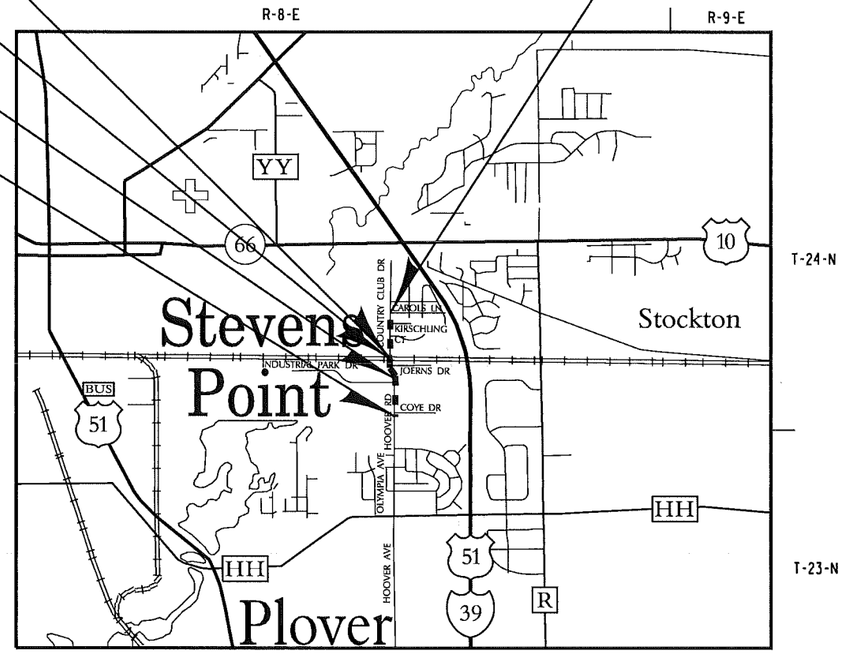
PROPOSED STRUCTURE R-49-27
PROJECT 6998-11-71

PROPOSED STRUCTURE B-49-181
PROJECT 6998-11-71

PROPOSED STRUCTURE R-49-26
PROJECT 6998-11-71

BEGIN PROJECT 6998-11-70
STA. 13+00.00
Y=197,991.230
X=177,507.075

END PROJECT 6998-11-70
STA. 37+90.00



LAYOUT
SCALE 0 1/2 MI.

TOTAL NET LENGTH OF CENTERLINE = 0.472 MI.

Elevations shown on this plan are referenced to the national geodetic vertical datum of 1988, NAVD 88 (91).

Coordinates on this plan are referenced to the Wisconsin County Coordinate System (WCCS), Portage County, NAD 1983 (2007).

ACCEPTED FOR CITY OF STEVENS POINT
BY
7-21-2016 (DATE)
Scott Schatzschneider
DIRECTOR OF PUBLIC WORKS

ORIGINAL PLANS PREPARED BY

AECOM

WISCONSIN
RYAN N. BARZ
E-37634
AMHERST WI
PROFESSIONAL ENGINEER

7/21/16 (Date) (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	POINT OF BEGINNING
Designer	AECOM
Management Consultant	CEDAR CORPORATION

APPROVED FOR THE DEPARTMENT
DATE: 7-29-2016 (Management Consultant Signature)

E

GENERAL NOTES

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

CURVE DATA IS BASED ON THE ARC DEFINITION.

ALL RADIUS DIMENSIONS ON THE PLAN FOR CURB AND GUTTER ARE TO BE FLANGE LINE, UNLESS OTHERWISE NOTED.

THE LOCATION OF SAW CUTS WILL BE DETERMINED BY THE ENGINEER.

NO TREES OR SHRUBS ARE TO REMOVED UNLESS SUCH TREES OR SHRUBS HAVE FIRST BEEN INDICATED FOR REMOVAL IN THE PLANS OR BY THE ENGINEER IN THE FIELD.

FILL AS SHOWN ON THE PLAN SHEETS PERTAINS TO EMBANKMENTS CONSTRUCTED FROM EXCAVATION COMMON OR BORROW. THE SHRINKAGE ALLOWANCE USED TO COMPUTE THE VOLUME OF MATERIAL NECESSARY TO COMPLETE THE FILL IS 25 PERCENT.

WHERE THE QUANTITY OF BASE AGGREGATE DENSE AND HMA PAVEMENT IS MEASURED FOR PAYMENT BY THE TON, THE DEPTH OR THICKNESS OF THE COURSE, AS SHOWN ON THE PLANS, IS APPROXIMATE. THE ACTUAL THICKNESS WILL DEPEND UPON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER.

5.5-INCH HMA PAVEMENT, SHALL BE CONSTRUCTED IN TWO (2) LAYERS.
THE UPPER LAYER SHALL BE 2.25-INCHES HMA PAVEMENT 4 LT 58-28 S.
THE LOWER LAYER SHALL BE 3.25-INCHES HMA PAVEMENT 3 LT 58-28 S.

4.0-INCH HMA PAVEMENT, SHALL BE CONSTRUCTED IN TWO (2) LAYERS.
THE UPPER LAYER SHALL BE 1.5-INCHES HMA PAVEMENT 5 LT 58-28 S.
THE LOWER LAYER SHALL BE 2.5-INCHES HMA PAVEMENT 3 LT 58-28 S.

3.0-INCH ASPHALTIC SURFACE, SHALL BE CONSTRUCTED IN ONE (1) LAYER.

TACK COAT SHALL BE PLACED BETWEEN LAYERS OF ASPHALT. TACK COAT SHALL BE APPLIED TO VERTICAL SAW CUTS PRIOR TO PLACEMENT OF ASPHALTIC PAVEMENT.

SECTIONS AS SHOWN ON THE CROSS SECTION SHEETS INCLUDE THE THICKNESS OF TOPSOIL.

DISTURBED AREAS WITHIN THE RIGHT OF WAY, SHALL BE FERTILIZED, SEEDED AND TEMPORARY SEEDED AS DIRECTED BY THE ENGINEER.

WDNR CONTACT

MARC HERSHFIELD
DNR SERVICE CENTER
473 GRIFFITH AVENUE
WISCONSIN RAPIDS, WI 54494
715-421-7867
EMAIL: marc.hershfield@wisconsin.gov

CITY OF STEVENS POINT

SCOTT SCHATSCHNEIDER
DIRECTOR OF PUBLIC WORKS
1515 STRONGS AVENUE
STEVENS POINT, WI 54481
715-346-1561
sschatschneider@StevensPoint.com

PORTAGE COUNTY HIGHWAY DEPARTMENT

NATHANIEL CHECK, COMMISSIONER
800 PLOVER ROAD
PLOVER, WI 54467
715-345-5230
EMAIL: checkn@co.portage.wi.us

INDEX OF TYPICAL SECTION AND DETAIL SHEETS

- GENERAL NOTES AND UTILITIES
- PROJECT OVERVIEW
- TYPICAL SECTIONS
- CONSTRUCTION DETAILS
- REMOVALS
- INTERSECTION DETAILS
- PAVING GRADES
- EROSION CONTROL
- STORM SEWER
- PERMANENT SIGNING AND PAVEMENT MARKING
- LIGHTING PLAN
- TRAFFIC CONTROL/CONSTRUCTION STAGING
- DETOUR
- ALIGNMENT DIAGRAM

UTILITY CONTACTS

DON LUTZOW
WPS - ELECTRIC
P.O. BOX 1166
WAUSAU, WI 54402
715-848-7487 OFFICE
715-493-7802 CELL
dalutzow@wisconsinpublicservice.com

MATT CURTIN
WPS - GAS
2001 PLOVER ROAD
PLOVER, WI 54467
920-493-0050 CELL
mjcurtin@wisconsinpublicservice.com

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

RICHARD "RUDI" RUDIGER
CHARTER COMMUNICATIONS
5024 HEFFRON STREET
STEVENS POINT, WI 54481
715-204-5339 CELL
715-341-0194 FAX
Rudi.rudiger@chartercom.com

CITY OF STEVENS POINT

STEVENS POINT - FIBER OPTIC
SCOTT SCHATSCHNEIDER
DIRECTOR OF PUBLIC WORKS
1515 STRONGS AVENUE
STEVENS POINT, WI 54481
715-346-1561
sschatschneider@stevenspoint.com

STEVENS POINT - SANITARY SEWER
ROB MOLSKI
300 BLISS AVENUE
STEVENS POINT, WI 54481
715-342-5267
rmolski@stevenspoint.com

STEVENS POINT - WATER
GARY KUPLIC
300 BLISS AVENUE
STEVENS POINT, WI 54481
715-342-4846
gkuplic@stevenspoint.com

**ARE NOT ON DIGGERS HOTLINE

RAILROAD CONTACTS **

JACKIE MODER (MANAGER PUBLIC WORKS)
CANADIAN NATIONAL
1625 DEPOT STREET
STEVENS POINT WI 54481
715-345-2503

FIELD LOCATES REQUIRE A MINIMUM OF FIVE DAYS NOTICE.
BRIAN JOHNSON COORDINATES CANADIAN NATIONAL SIGNAL CABLE LOCATES. CALL 715-572-7825

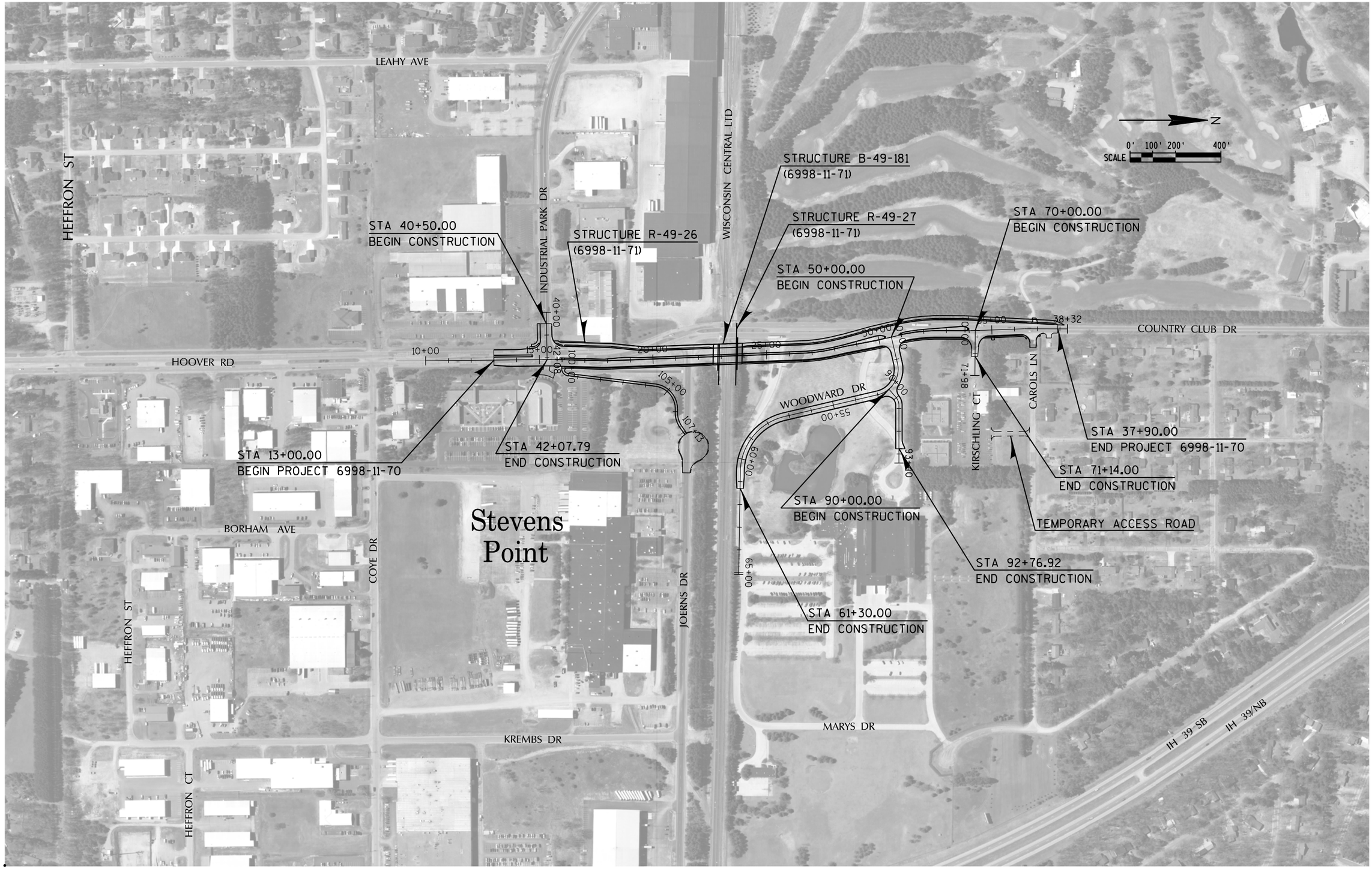
CALL FOR FLAGGING
TOM TUCKER
2800 LIVERNOIS ROAD SUITE 330
TROY MI 48083
248-740-6227

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

RUNOFF COEFFICIENT TABLE

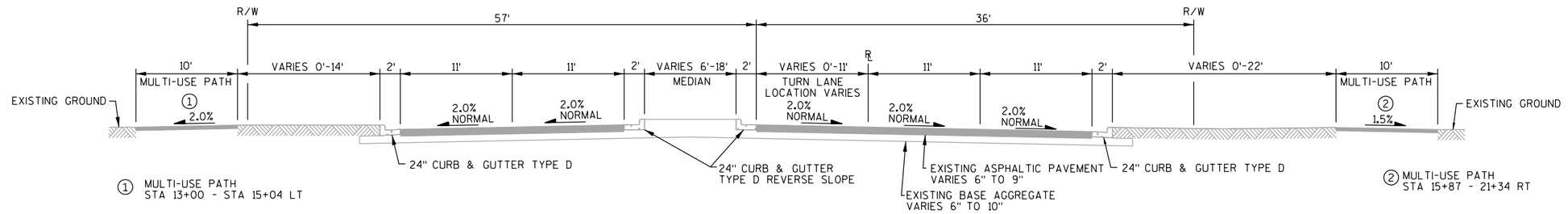
	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER	0-2	2-6	6 & OVER
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33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

TOTAL PROJECT AREA = 18.92 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 14.62 ACRES



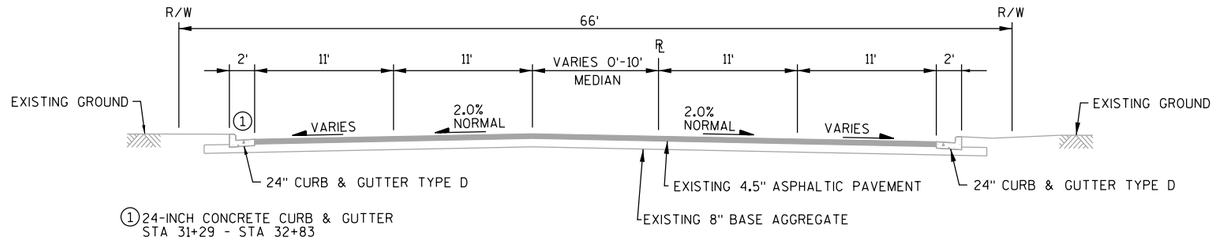
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WISDOT/CADDS SHEET 42



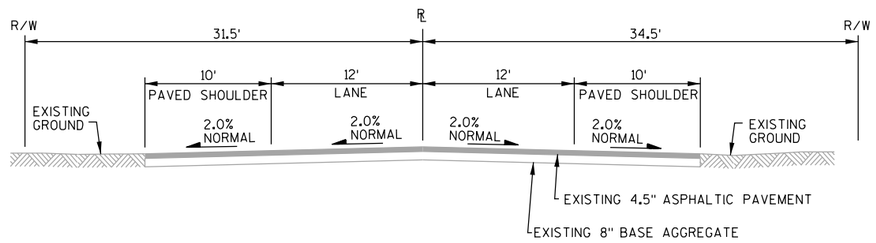
TYPICAL EXISTING SECTION - HOOVER RD / COUNTRY CLUB DR

STA 13+00 - STA 31+29



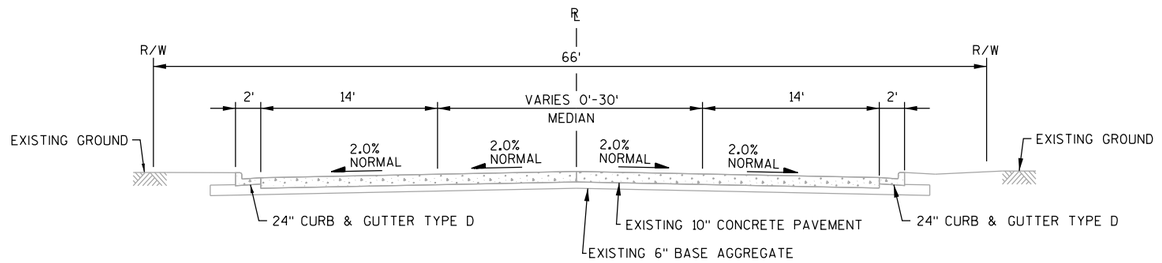
TYPICAL EXISTING SECTION - COUNTRY CLUB DR

STA 31+29 - STA 34+16



TYPICAL EXISTING SECTION - COUNTRY CLUB DR

STA 34+16 - STA 37+90

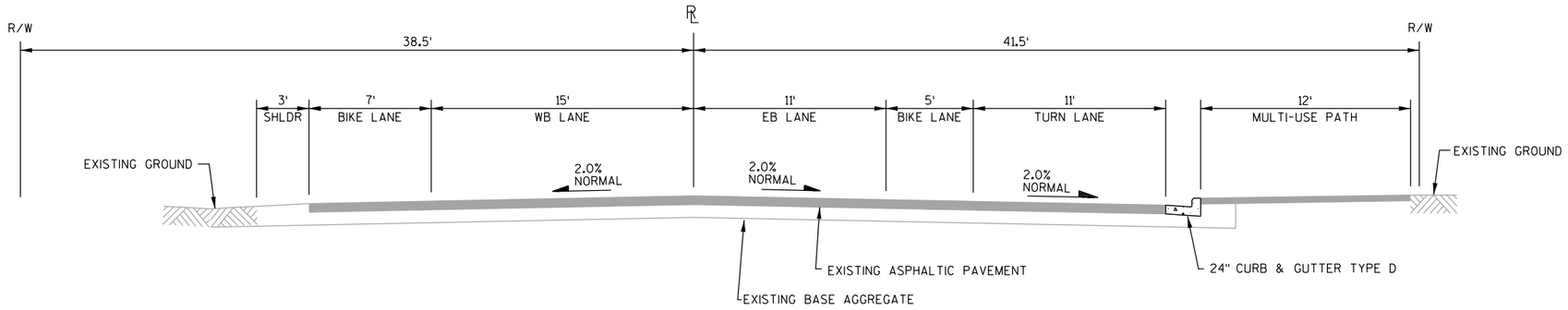


TYPICAL EXISTING SECTION - WOODWARD DR

STA 50+00 - STA 61+30

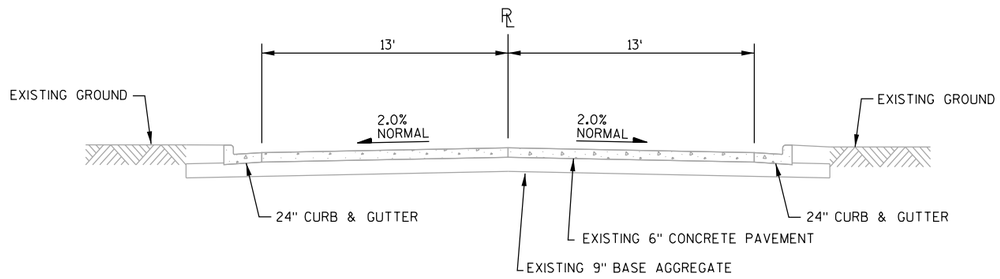
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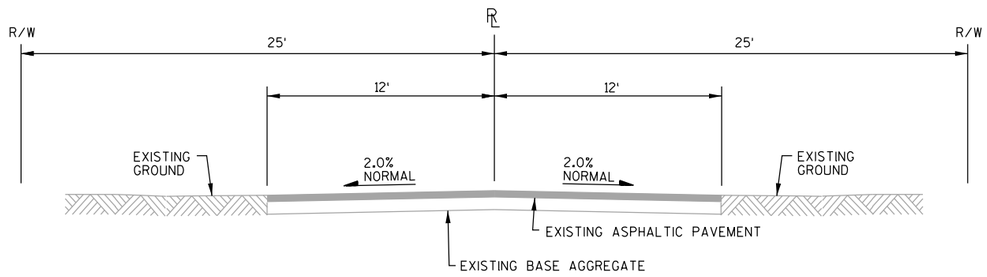
TYPICAL EXISTING SECTION - INDUSTRIAL PARK ROAD

STA 40+50 - STA 42+08



TYPICAL EXISTING SECTION - SPECTRA PRINT DRIVEWAY

STA 90+00 - STA 93+40

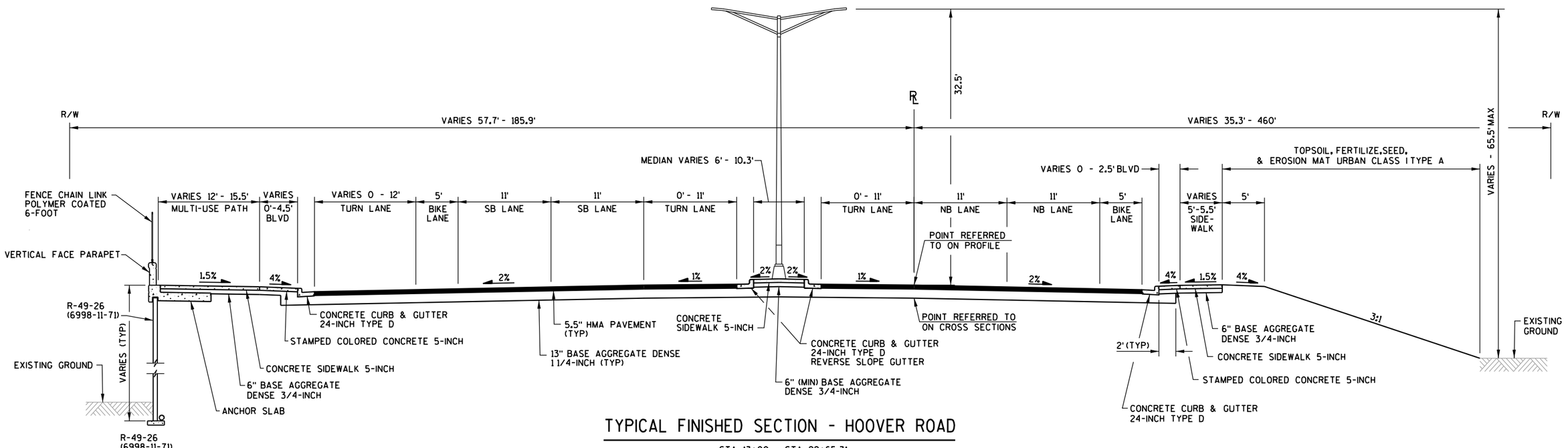


TYPICAL EXISTING SECTION - KIRSCHLING COURT

STA 70+00 - STA 71+98

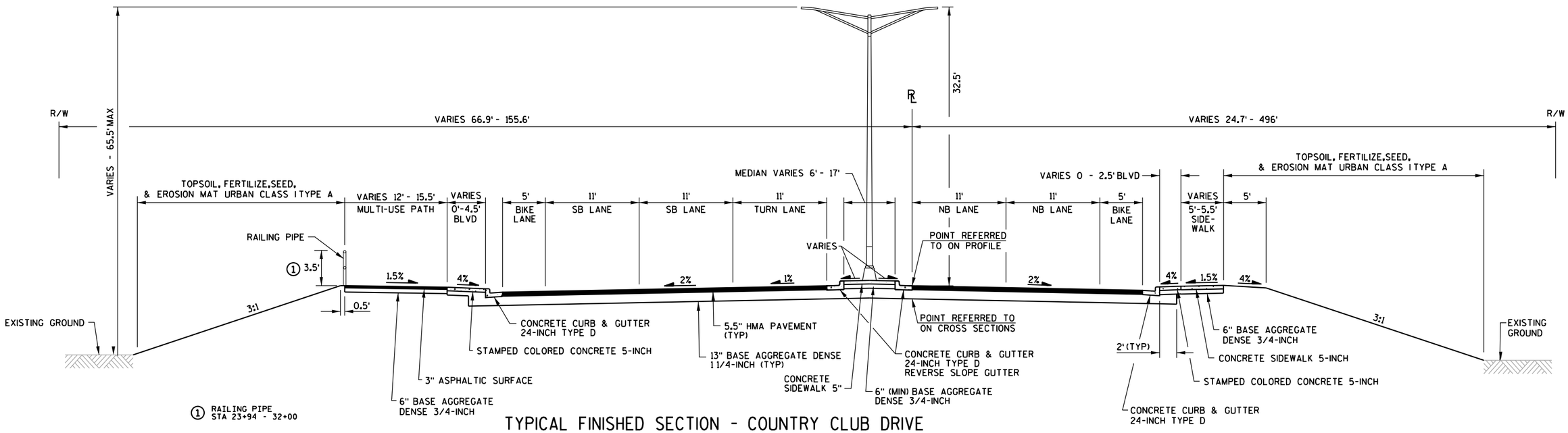
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WISDOT/CADDS SHEET 42



TYPICAL FINISHED SECTION - HOOVER ROAD

STA 13+00 - STA 22+65.31
(STRUCTURE B-49-181 FROM STA 22+65.31 TO STA 23+91.82)

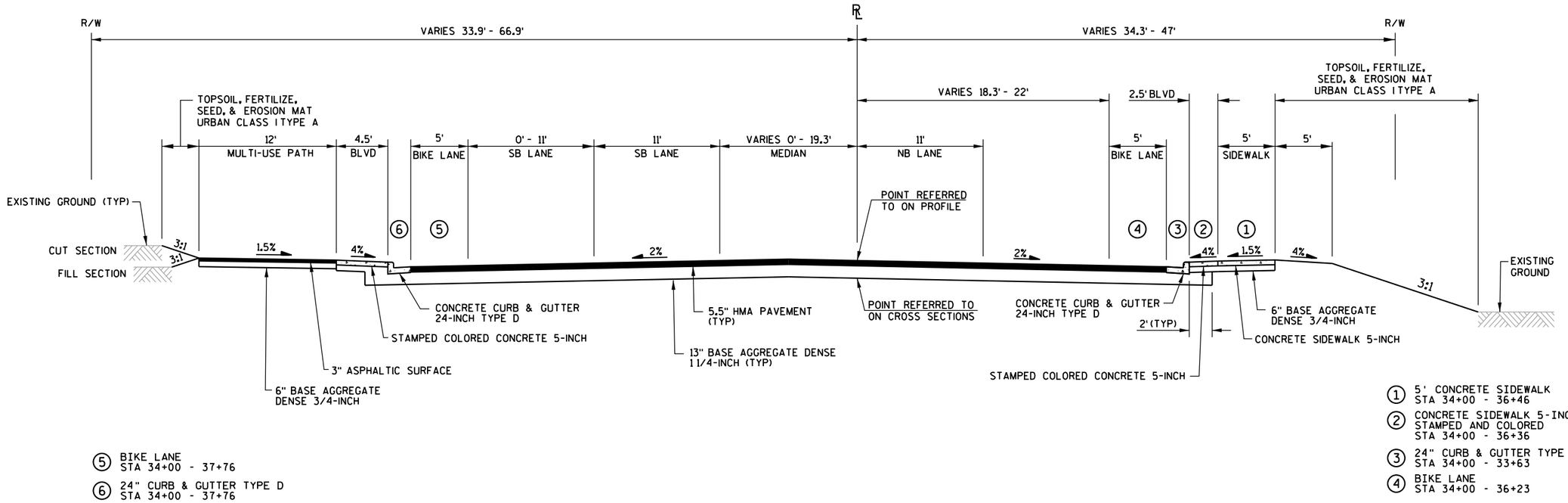


TYPICAL FINISHED SECTION - COUNTRY CLUB DRIVE

STA 23+91.82 - STA 34+00

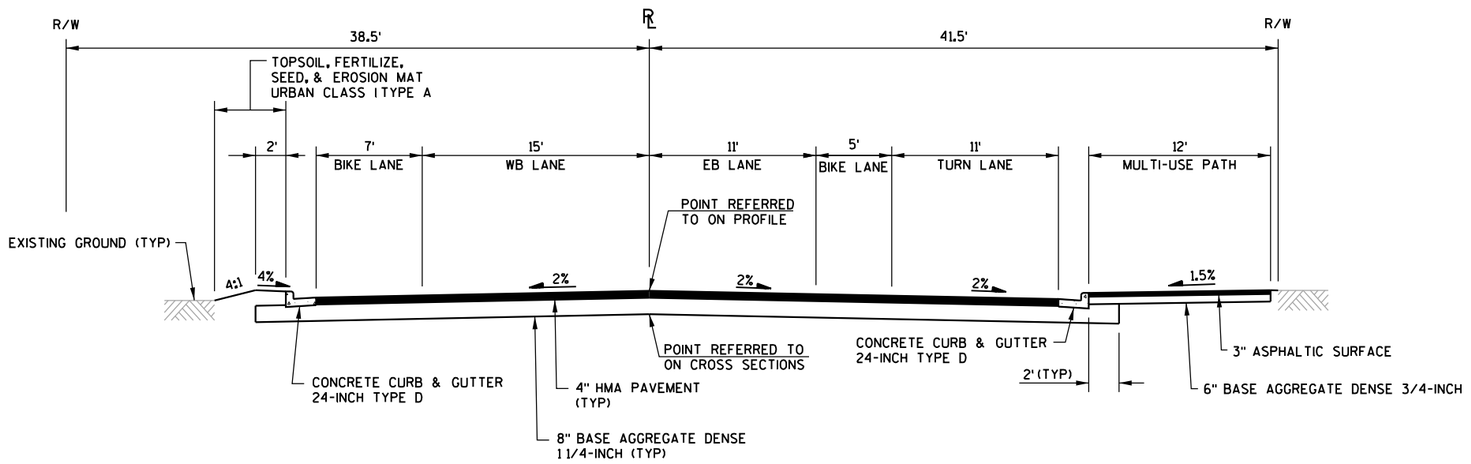
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TYPICAL FINISHED SECTION - COUNTRY CLUB DRIVE

STA 34+00 - STA 37+90

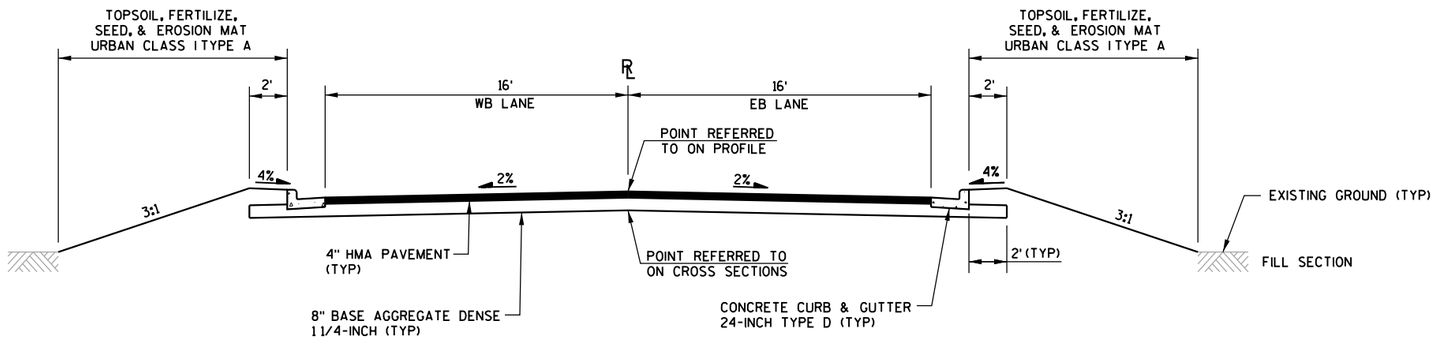


TYPICAL FINISHED SECTION - INDUSTRIAL PARK ROAD

STA 40+50 - STA 42+08

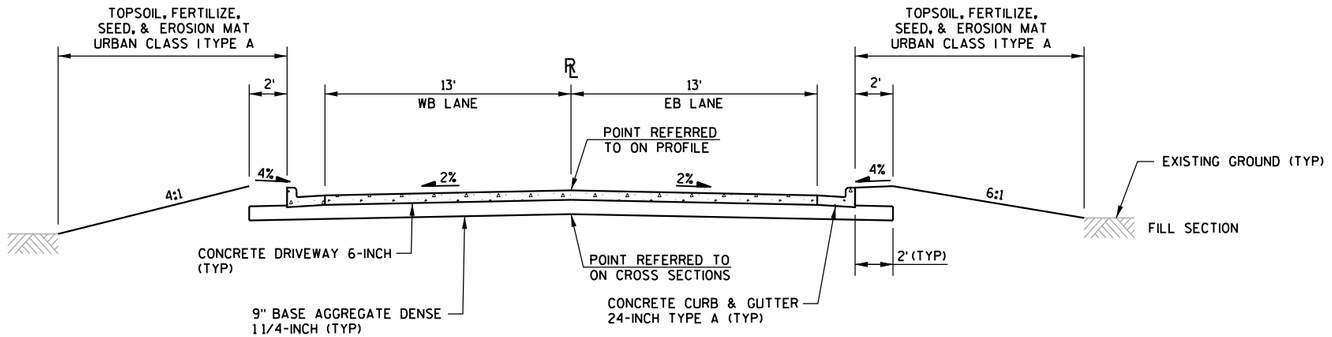
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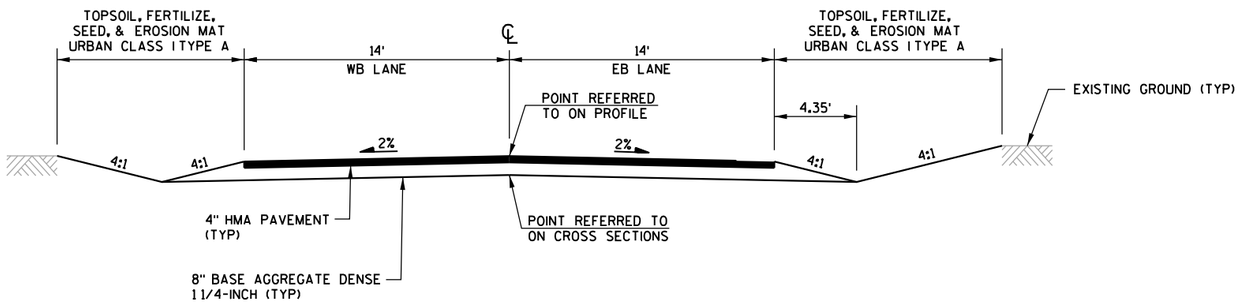
TYPICAL FINISHED SECTION - WOODWARD DRIVE

STA 50+00 - STA 61+30



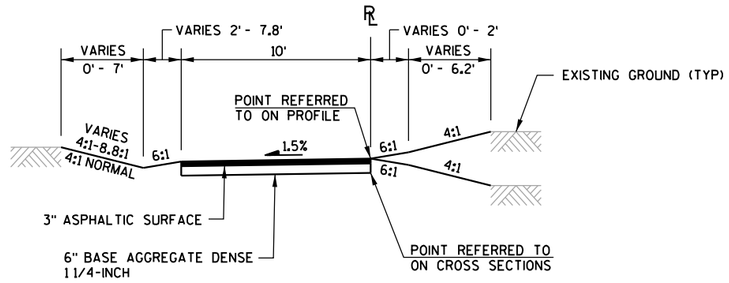
TYPICAL FINISHED SECTION - SPECTRA PRINT DRIVEWAY

STA 90+00 - STA 92+77



TYPICAL FINISHED SECTION - KIRSCHLING COURT

STA 70+00 - STA 71+48

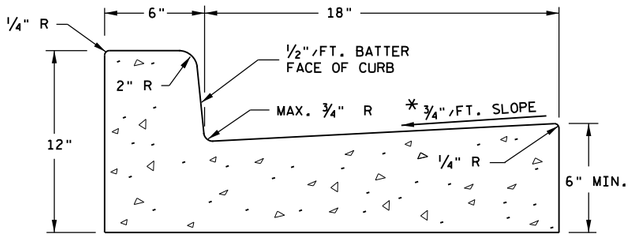


TYPICAL FINISHED SECTION - MULTI-USE PATH

STA 100+00 - STA 107+12.5

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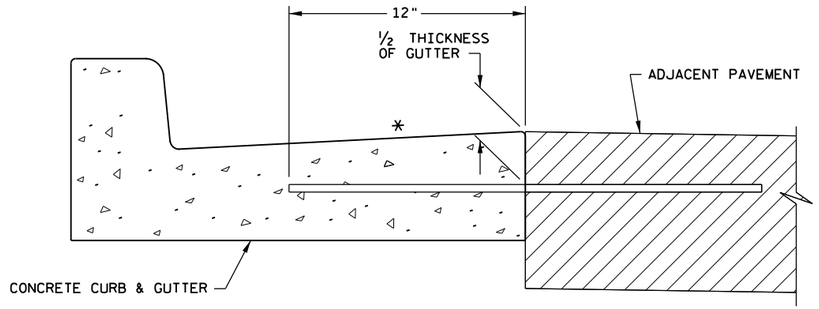


* MATCH ADJACENT PAVEMENT SLOPE FOR REVERSE SLOPE CURB AND GUTTER

TYPES A & D ①

24" CONCRETE CURB AND GUTTER

NTS

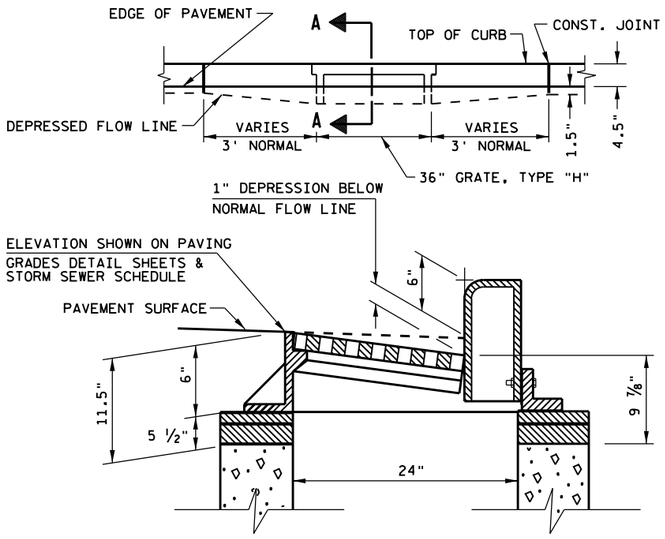


* MATCH ADJACENT PAVEMENT SLOPE FOR REVERSE SLOPE CURB AND GUTTER

① TIE BARS REQUIRED FOR CURB & GUTTER TYPE A

TYPICAL TIE BAR LOCATION

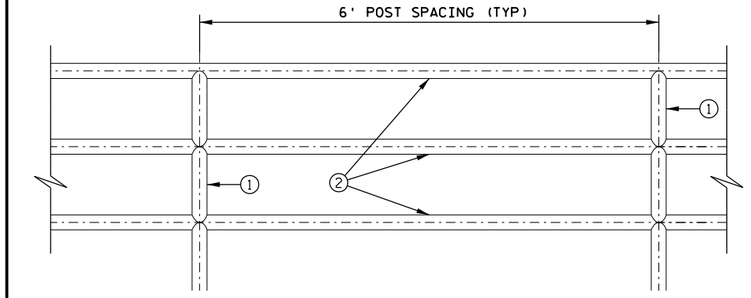
NTS

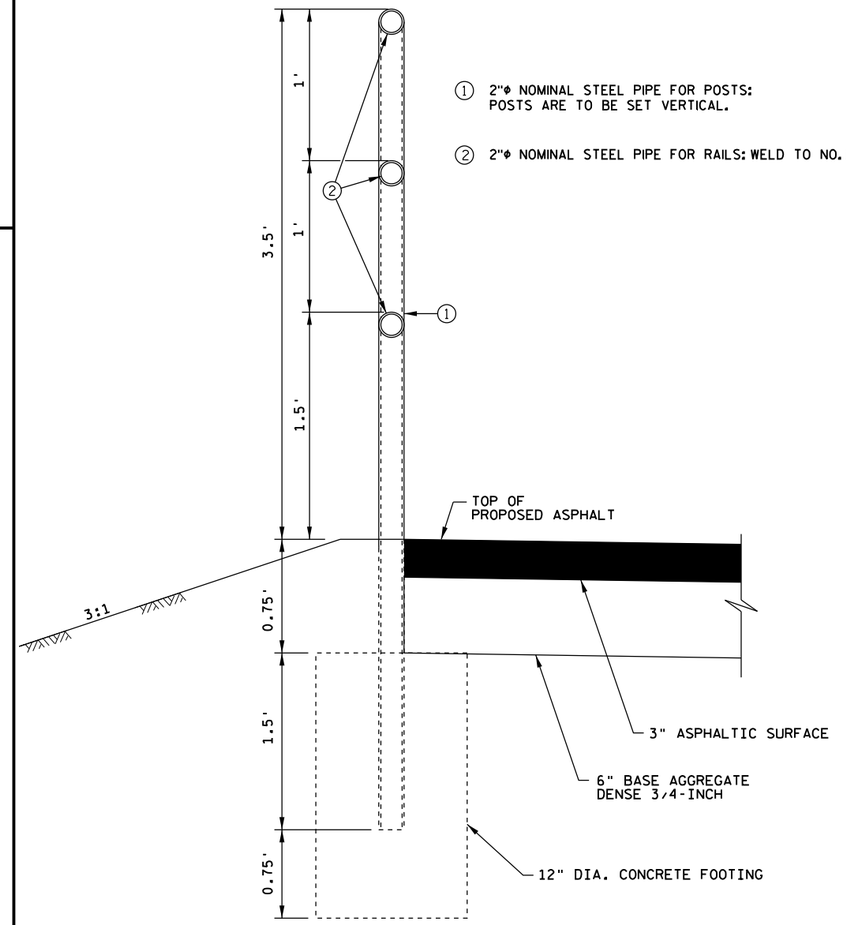


SECTION A-A

DETAIL OF CURB & GUTTER AT INLETS

NTS





① 2"Φ NOMINAL STEEL PIPE FOR POSTS: POSTS ARE TO BE SET VERTICAL.

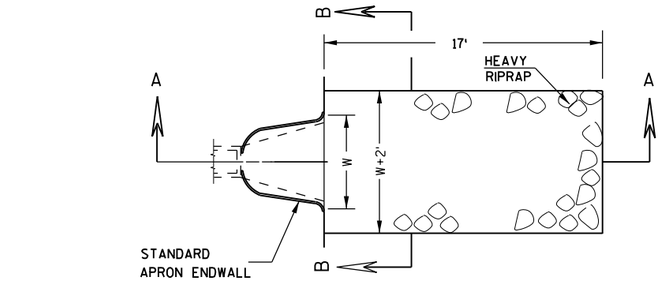
② 2"Φ NOMINAL STEEL PIPE FOR RAILS: WELD TO NO. 1

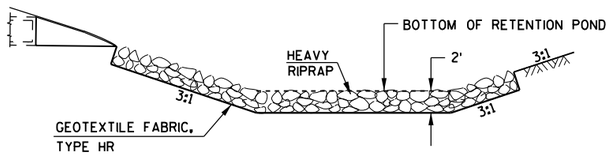
DETAIL OF RAILING PIPE

NTS

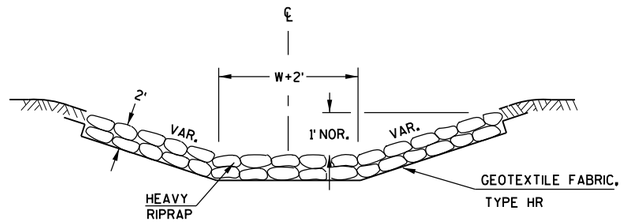
STA 23+94, LT - STA 32+00, LT

FILE NAME: P:\60334255\900-Work\910-CAD\20-Sheets\021001_cd.dgn
BATCH PRINT SHEET 1 OF 5
PRINTER DRIVER: L:\library\TPN_CADstds\Workspace-CLIENTS\WisDOT\MicroStation\Resources\MS_Printing\Printer_Drivers\ET_PDF_11 x 17.plt
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PLOT TIME: 8:55:49 AM
PLOT SCALE: 1:2
WISDOT/CADDS SHEET 42





SECTION A-A

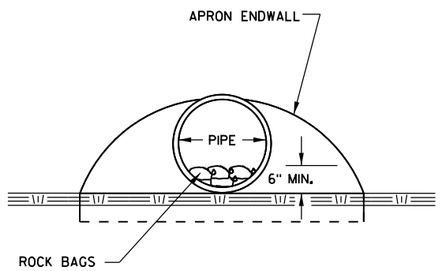


SECTION B-B

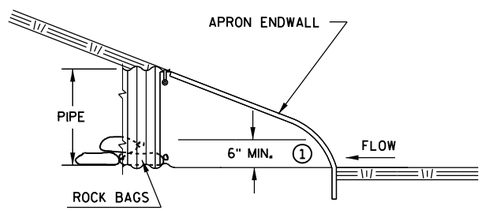
HEAVY RIPRAP AND GEOTEXTILE FABRIC

DETAIL AT APRON ENDWALLS

NTS



END VIEW

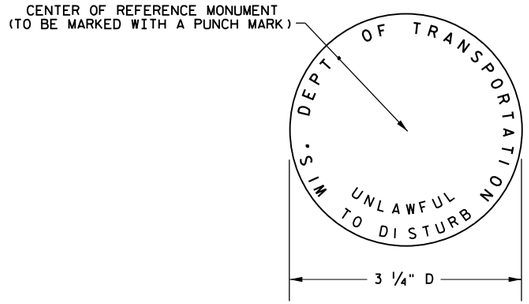


SIDE VIEW

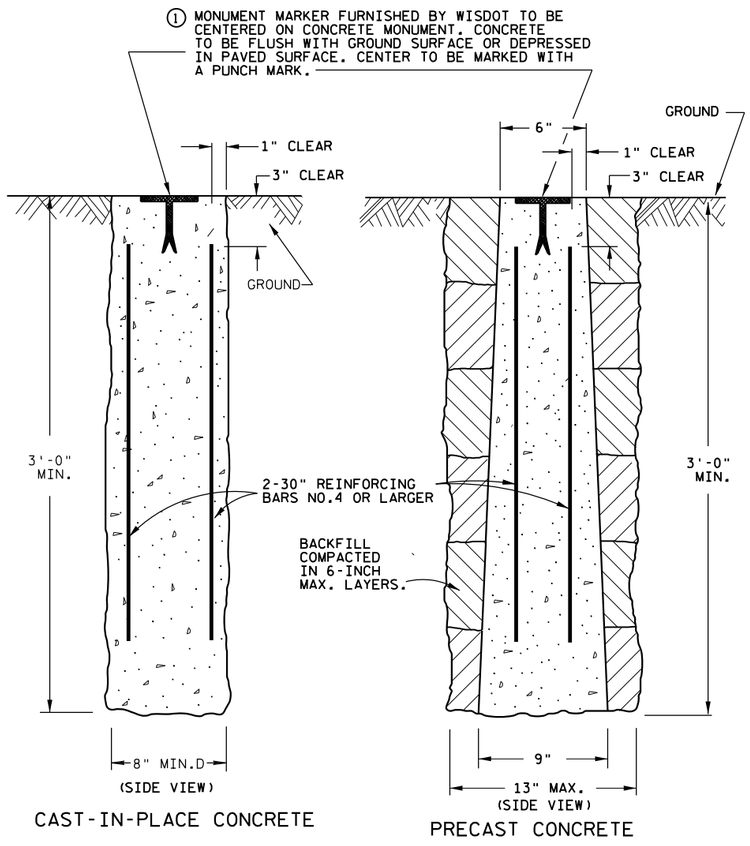
CULVERT PIPE CHECK

NTS

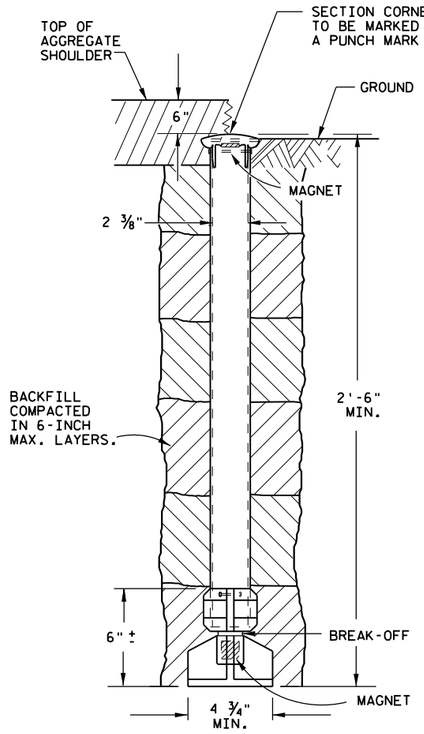
2



① WIS DOT MONUMENT MARKER LOGO

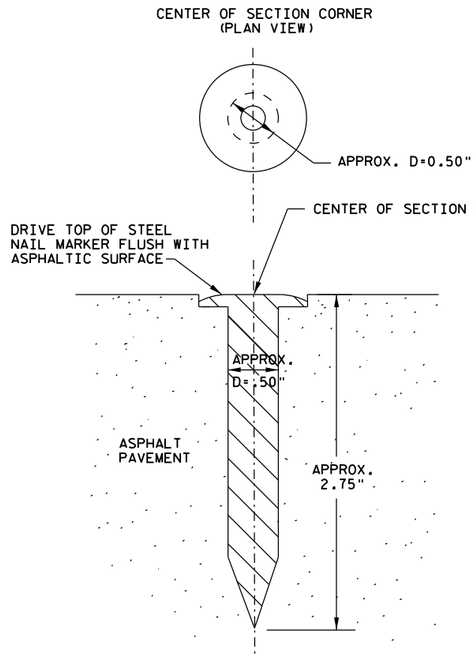


LANDMARK REFERENCE MONUMENTS (TIES ONLY)



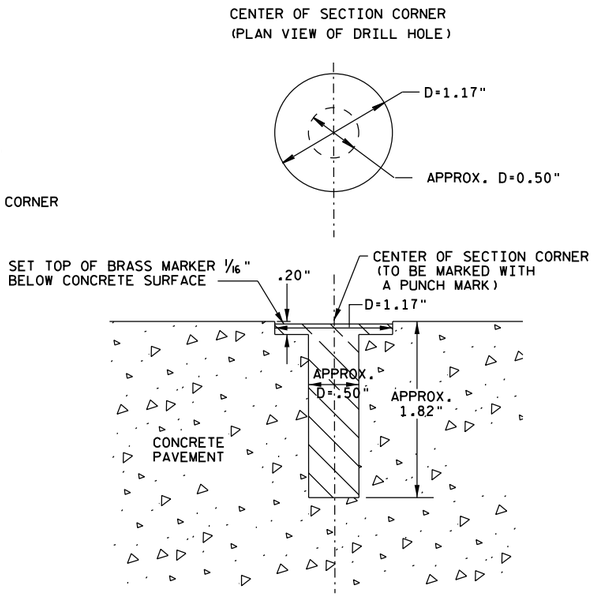
OUTSIDE OF PAVEMENT

① BERNSTEN A1BR30 ALUMINUM BREAK-OFF MONUMENT



IN ASPHALTIC PAVEMENT

① BERNSTEN SNM1 STEEL NAIL MARKER



NOTE: TO DRILL HOLE, USE A "SURVEY MARKER COUNTERSINK DRILL BIT" ITEM *BPMDRL, AVAILABLE FROM BERNTSEN INTERNATIONAL INC.

IN CONCRETE PAVEMENT

① BERNSTEN BP -1 BRASS MARKER WITH ANCHOR PLUG

SECTION CORNER MONUMENTS

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.

LOCATE LANDMARK REFERENCE MONUMENTS OUTSIDE THE CONSTRUCTION LIMITS AND WITHIN WISDOT RIGHT OF WAY. LOCATION TO BE APPROVED BY THE ENGINEER.

① THE DISTRICT SURVEY COORDINATOR WILL SUPPLY.

SECTION CORNER MONUMENT AND LANDMARK REFERENCE MONUMENT DETAIL

HOOVER ROAD

STRUCURE B-49-181
(6998-11-71)

STRUCURE R-49-27
(6998-11-71)

WOODWARD DRIVE

N

SCALE 0' 10' 20' 40'

4-INCHES OF COMPOST,
DEEP TILL 12-INCHES

4-INCHES OF COMPOST,
DEEP TILL 12-INCHES

RETENTION POND 1

RETENTION POND 2

MATCHLINE STA. 57+50

WOODWARD DR

JOERNS DRIVE

106+00

107+00

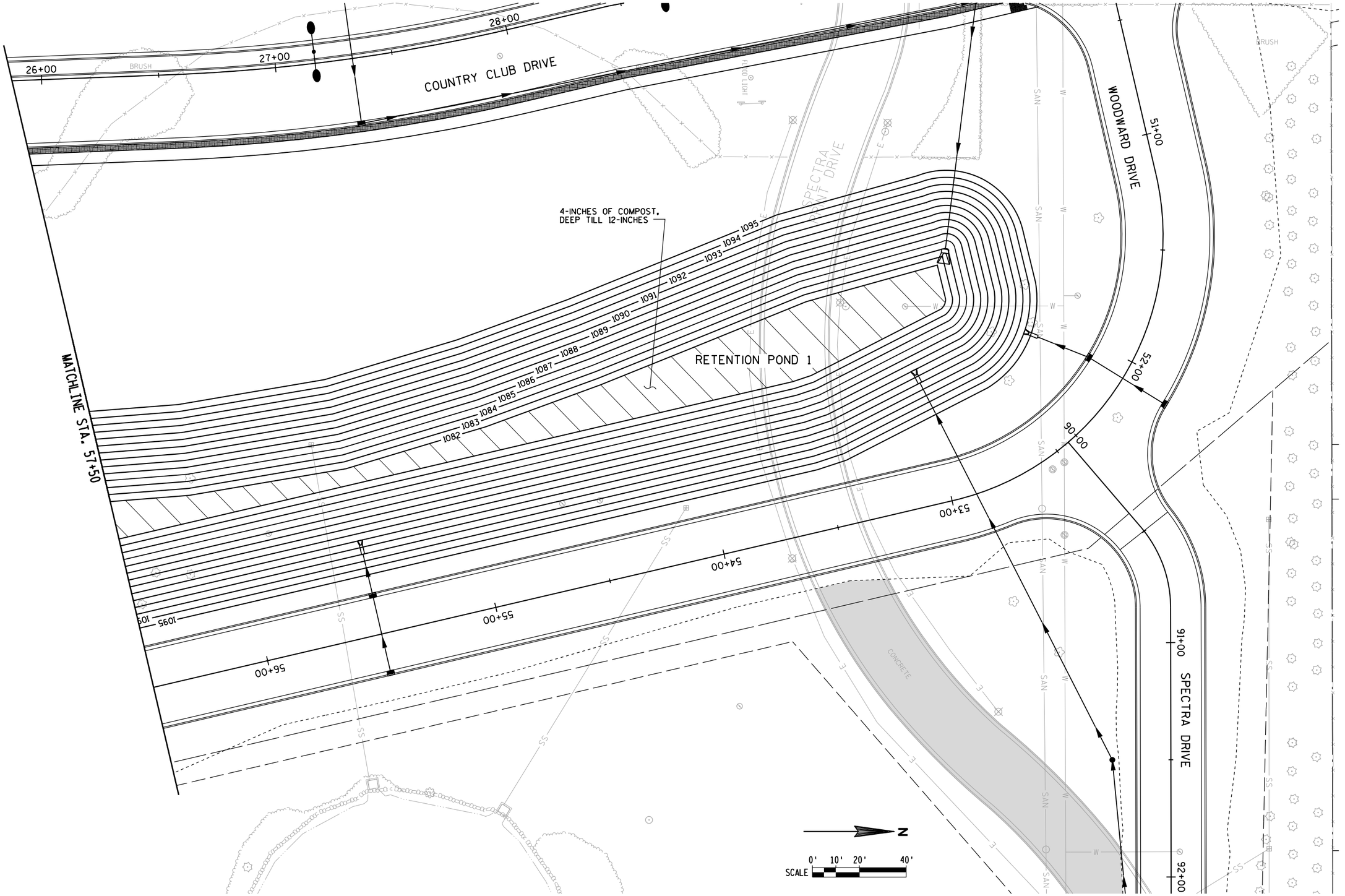
57+00

58+00

59+00

PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	POND DETAIL	SHEET 12	E

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PLOT DATE: 7/22/2016
PLOT TIME: 6:25:56 AM
PLOT SCALE: 1:40



PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	POND DETAIL	SHEET 13	E

FILE NAME: P:\60334255\900-Work\910-CAD\20-Sheets\021005_cd.dgn
BATCH PRINT SHEET 5 OF 5

PRINTER DRIVER: L:\library\TPN_CADstds\Workspace-CLIENTS\WisDOT\MicroStation\Resources\MS_Printing\Printer_Drivers\ET_PDF_11 x 17.plt
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PLOT DATE: 7/22/2016
PLOT TIME: 6:25:57 AM

PLOT SCALE: 1:40

2

N

SCALE 0' 10' 20' 40'

INDUSTRIAL PARK RD

HOOVER ROAD

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

41+00 42+00 42+08 100+00 101+00 102+00

MATCHLINE STA. 18+50

BEGIN PROJECT 6998-11-70
STA 13+00.00

REMOVING CONCRETE SIDEWALK

REMOVING CURB & GUTTER

REMOVING PAVEMENT

REMOVING CONCRETE SIDEWALK

REMOVING CURB & GUTTER

SEALING PIPES

REMOVING CURB & GUTTER

REMOVE SIGN (BY OTHERS)

REMOVING PAVEMENT

REMOVING INLETS

REMOVING STORM SEWER

REMOVING CURB & GUTTER

REMOVING GUTTER

REMOVING CURB & GUTTER

REMOVING STORM SEWER

REMOVING MANHOLES

REMOVING INLETS

REMOVING STORM SEWER

REMOVING STORM SEWER

SLOPE INTERCEPT

SLOPE INTERCEPT

TLE

R/W

ASPHALT

BLDG

GRASS

WOODS

PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	REMOVALS	SHEET 14	E

FILE NAME: P:\60334255\900-Work\910-CAD\20-Sheets\021201_pd_rem.dgn
BATCH PRINT SHEET 1 OF 8
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PLOT DATE: 7/22/2016
PLOT TIME: 6:26:12 AM
PLOT SCALE: 1:40
WISDOT/CADDS SHEET 42

2

N

SCALE 0' 10' 20' 40'

HOOVER ROAD

COUNTRY CLUB DRIVE

JOERNS DRIVE

WISCONSIN CENTRAL LTD

OBLITERATING OLD ROAD

REMOVING CURB & GUTTER

REMOVING INLETS

REMOVING STORM SEWER

REMOVING MANHOLES

REMOVING CONCRETE SIDEWALK

REMOVING FENCE

ABANDONING MANHOLES

ABANDONING SEWER

SLOPE INTERCEPT

MAINTAIN EXISTING FENCE

MATCHLINE STA. 18+50

MATCHLINE STA. 24+00

19+00 20+00 21+00 22+00 23+00 24

103+00 104+00 105+00

R/W PL TLE

ASPHALT GRASS GRAVEL BRUSH WOODS

PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	REMOVALS	SHEET 15	E

FILE NAME: P:\60334255\900-Work\910-CAD\20-Sheets\021202_pd_rem.dgn
BATCH PRINT SHEET 2 OF 8
PRINTER DRIVER: L:\library\TPN_CADstds\Workspace-CLIENTS\WisDOT\MicroStation\Resources\MS_Printing\Printer_Drivers\ET_PDF_11 x 17.plt
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PLOT DATE: 7/22/2016
PLOT TIME: 6:26:14 AM
PLOT SCALE: 1:40

2

N

SCALE 0' 10' 20' 40'

REMOVE SIGN (BY OTHERS)

WOODS

TLE

REMOVING INLETS

SLOPE INTERCEPT

R/W

REMOVING CURB & GUTTER

REMOVING STORM SEWER

REMOVING GUTTER

COUNTRY CLUB DRIVE

ASPHALT

GRASS

CONCRETE

BRUSH

MATCHLINE STA. 24+00

MATCHLINE STA. 29+50

REMOVING MANHOLES

REMOVE SIGN (BY OTHERS)

REMOVING FENCE

REMOVING INLETS

REMOVING UTILITY POLES

REMOVING BUILDING

REMOVING PAVEMENT

REMOVING LIGHT (BY OTHERS)

FLOOD LIGHT

25+00

26+00

27+00

28+00

29+00

2

N

SCALE 0' 10' 20' 40'

WOODS
SLOPE INTERCEPT
TLE
R/W
WOODS
WOODS

MATCHLINE STA. 29+50

REMOVING CURB & GUTTER
REMOVING GUTTER
REMOVING INLETS
REMOVING STORM SEWER
REMOVING MANHOLES
REMOVING CURB & GUTTER
REMOVING STORM SEWER
REMOVING MANHOLES
REMOVING STORM SEWER
REMOVING MANHOLES
REMOVING STORM SEWER
REMOVING CURB & GUTTER
REMOVING STORM SEWER
REMOVING INLETS
REMOVING STORM SEWER
REMOVING CURB & GUTTER

GRASS
ASPHALT
CONCRETE
BRUSH
ASPHALT

30+00
31+00
32+00
33+00
34+00
35+00
50+00
51+00
52+00
70+00
71+00
71+98

COUNTRY CLUB DRIVE

MATCHLINE STA. 35+00

SLOPE INTERCEPT
TLE
R/W
REMOVE SIGN (BY OTHERS)

STA 31+53.0, 43.3'RT - STA 31+49.7, 64.4'RT
REMOVING FENCE

MAINTAIN EXISTING FENCE

PL

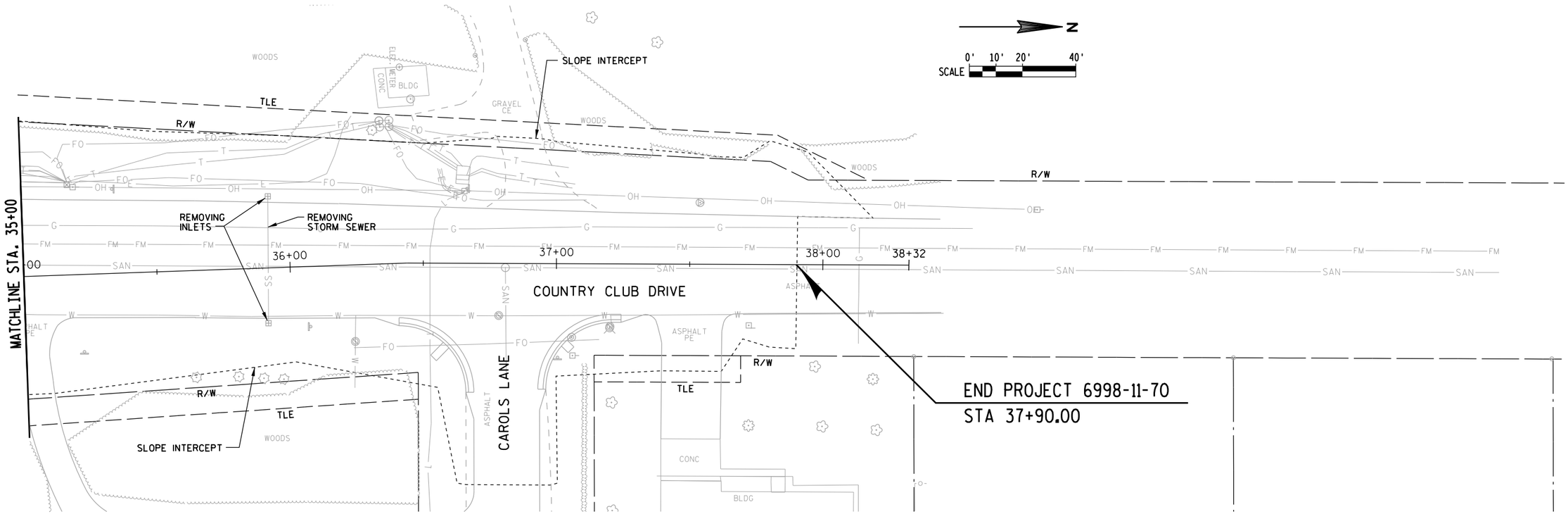
KIRSCHLING COURT

WOODS
ASPHALT
WOODS
TLE
R/W
PL
ELE

PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	REMOVALS	SHEET 17	E

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PLOT DATE: 7/22/2016
PLOT TIME: 6:26:17 AM
PLOT SCALE: 1:40
WISDOT/CADDS SHEET 42

2



PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	REMOVALS	SHEET 18	E

FILE NAME: P:\60334255\900-Work\910-CAD\20-Sheets\021205_pd_rem.dgn
BATCH PRINT SHEET 5 OF 8
PRINTER DRIVER: L:\library\TPN_CADstds\Workspace-CLIENTS\WisDOT\MicroStation\Resources\MS_Printing\Printer_Drivers\ET_PDF_11 x 17.plt
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PLOT DATE: 7/22/2016
PLOT TIME: 6:26:18 AM
PLOT SCALE: 1:40
WISDOT/CADDS SHEET 42

2

2

REMOVING FENCE

MAINTAIN EXISTING FENCE

TLE

SLOPE INTERCEPT

91+00

92+00

93+00

REMOVING STORM SEWER

REMOVING INLETS

REMOVING CURB & GUTTER

REMOVING UTILITY POLES

REMOVING PAVEMENT

TLE

OBLITERATING OLD ROAD

31+00

51+00

52+00

50+00

90+00

53+00

30+00

REMOVING INLETS

REMOVING STORM SEWER

REMOVING UTILITY POLES

REMOVING UTILITY POLES

REMOVING CURB & GUTTER

REMOVING SIGN (BY OTHERS)

REMOVING LIGHT (BY OTHERS)

REMOVING PAVEMENT

REMOVING UTILITY POLES

29+00

54+00

COUNTRY CLUB DRIVE

REMOVING FENCE

28+00

55+00

SLOPE INTERCEPT

N

SCALE 0' 10' 20' 40'

PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	REMOVALS	SHEET 19	E

2

N

0' 10' 20' 40'
SCALE

56+00

57+00

58+00

59+00

60+00

61+00

62+00

SLOPE INTERCEPT

REMOVING
CURB & GUTTER

REMOVING
UTILITY POLES

REMOVING
UTILITY POLES

REMOVING
STORM SEWER

REMOVING
INLETS

REMOVING
STORM SEWER

REMOVING
UTILITY POLES

REMOVING
INLETS

REMOVING
STORM SEWER

REMOVING
INLETS

REMOVING
UTILITY POLES

REMOVING
CURB & GUTTER

REMOVING
FENCE

MAINTAIN EXISTING
FENCE

REMOVING
STORM SEWER

REMOVING
UTILITY POLES

R/W

R/W

RR CONTROL BOX

CONCRETE

ASPHALT

CONCRETE

SS

PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	REMOVALS	SHEET 20	E

FILE NAME: P:\60334255\900-Work\910-CAD\20-Sheets\021207_pd_rem.dgn
BATCH PRINT SHEET 7 OF 8
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PLOT DATE: 7/22/2016
PLOT TIME: 6:26:21 AM
PLOT SCALE: 1:40
WISDOT/CADDS SHEET 42

2

WISCONSIN CENTRAL LTD

23+00

SLOPE INTERCEPT

TLE

R/W

OH

ELEC. METER

GRAVEL

22+00

Y=198860.11
X=177634.70

REMOVING WATER MAIN
(12-INCH)

Y=198851.85
X=177795.21

JOERNS
DRIVE

ASPHALT

SAN

SS

FO

T

G

W

FM

107+00

106+00

105+00

104+00

21+00

20+00

SLOPE INTERCEPT

R/W

TLE

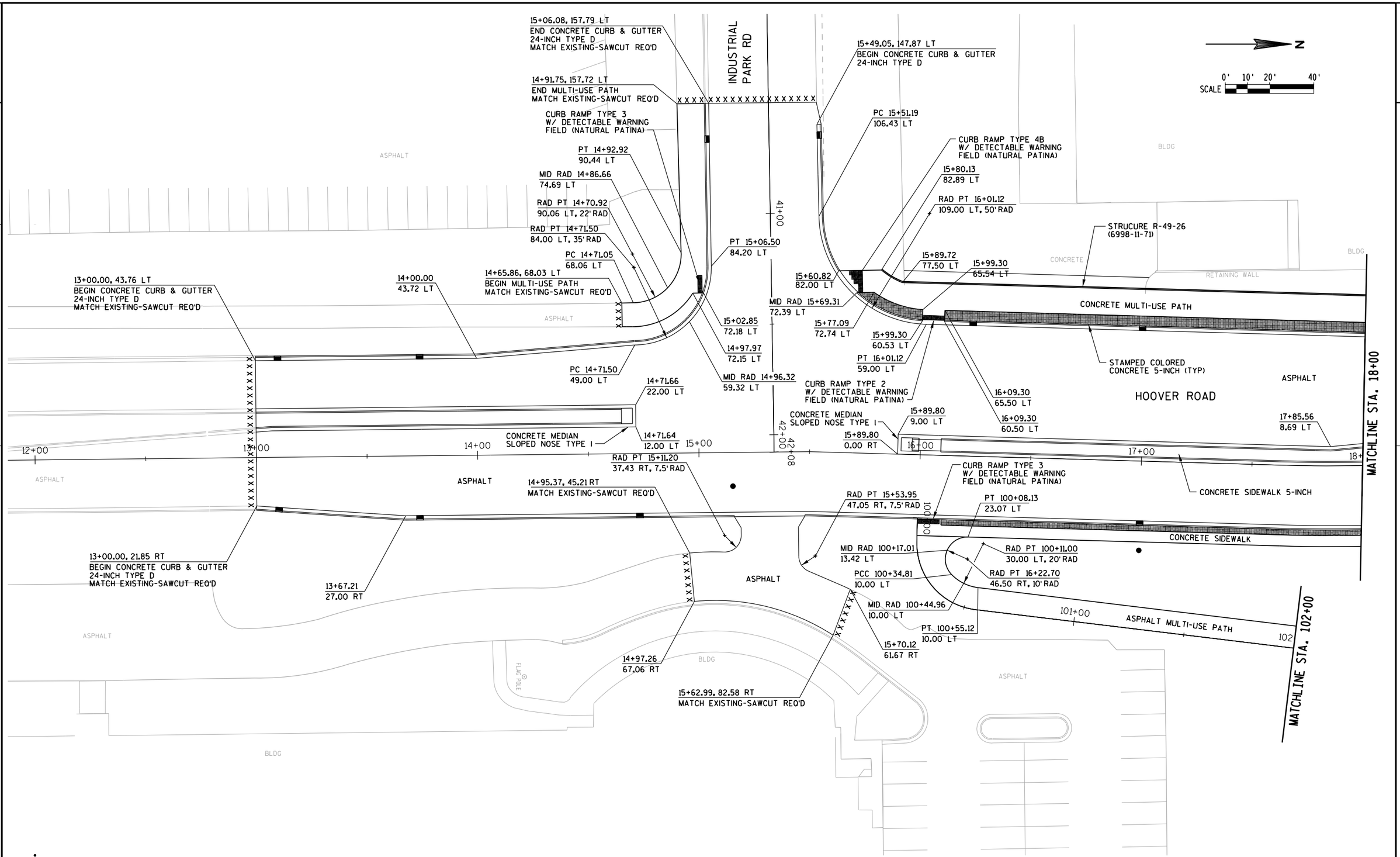
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SCALE 0' 10' 20' 40'

PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	REMOVALS	SHEET 21	E

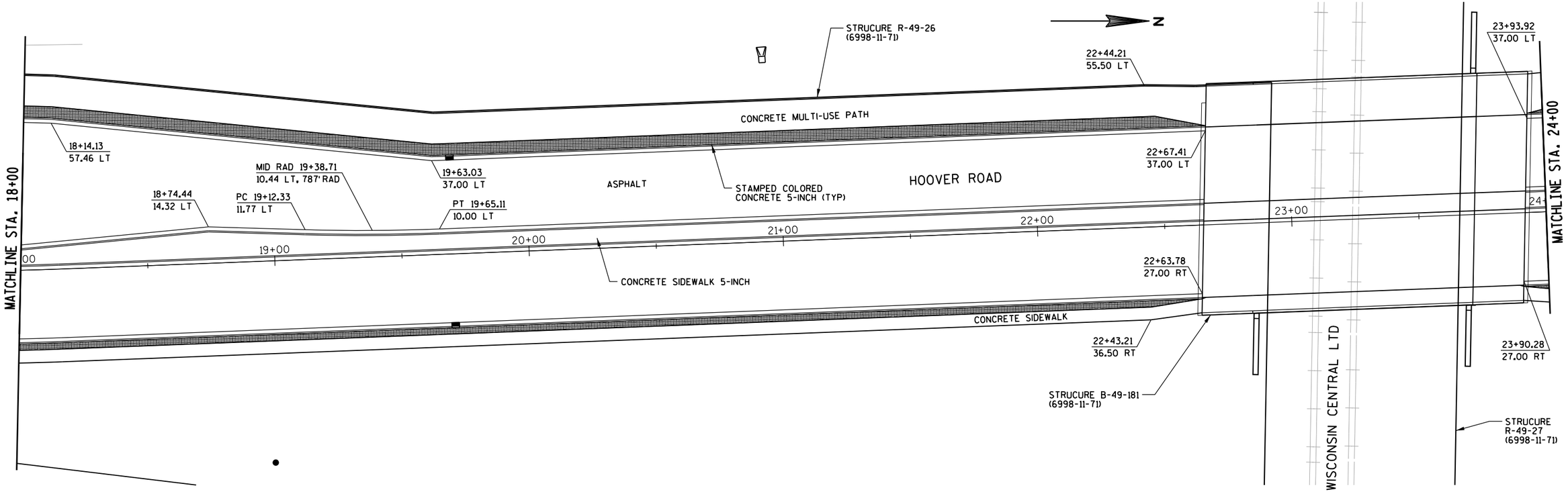
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BATCH PRINT SHEET 8 OF 8
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PLOT DATE: 7/22/2016
PLOT TIME: 6:26:23 AM
PLOT SCALE: 1:40
WISDOT/CADDS SHEET 42

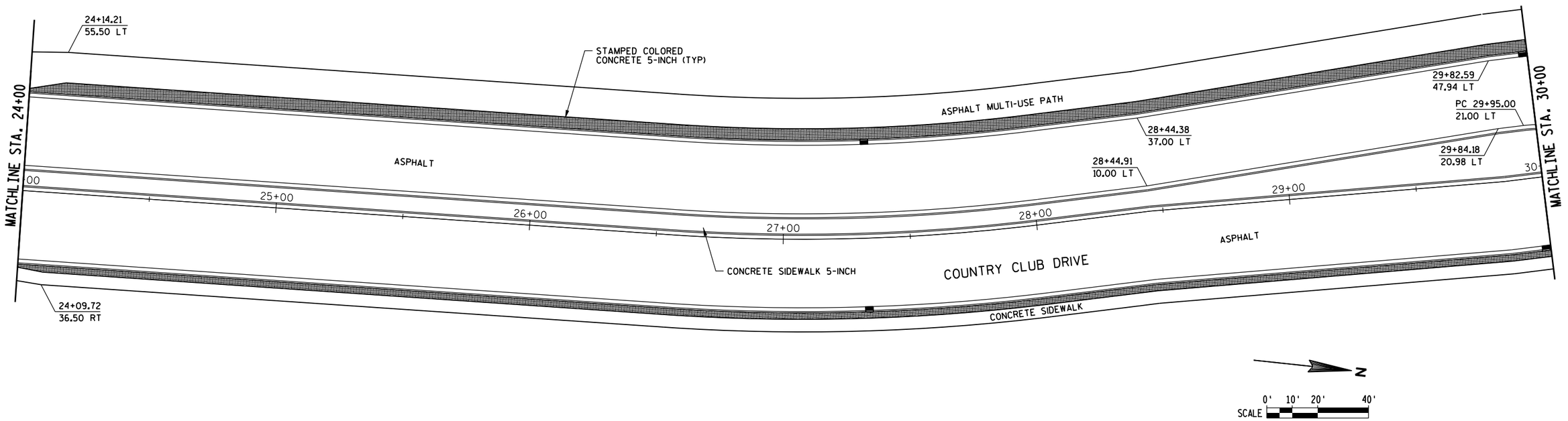
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PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	INTERSECTION DETAILS	SHEET 22	E

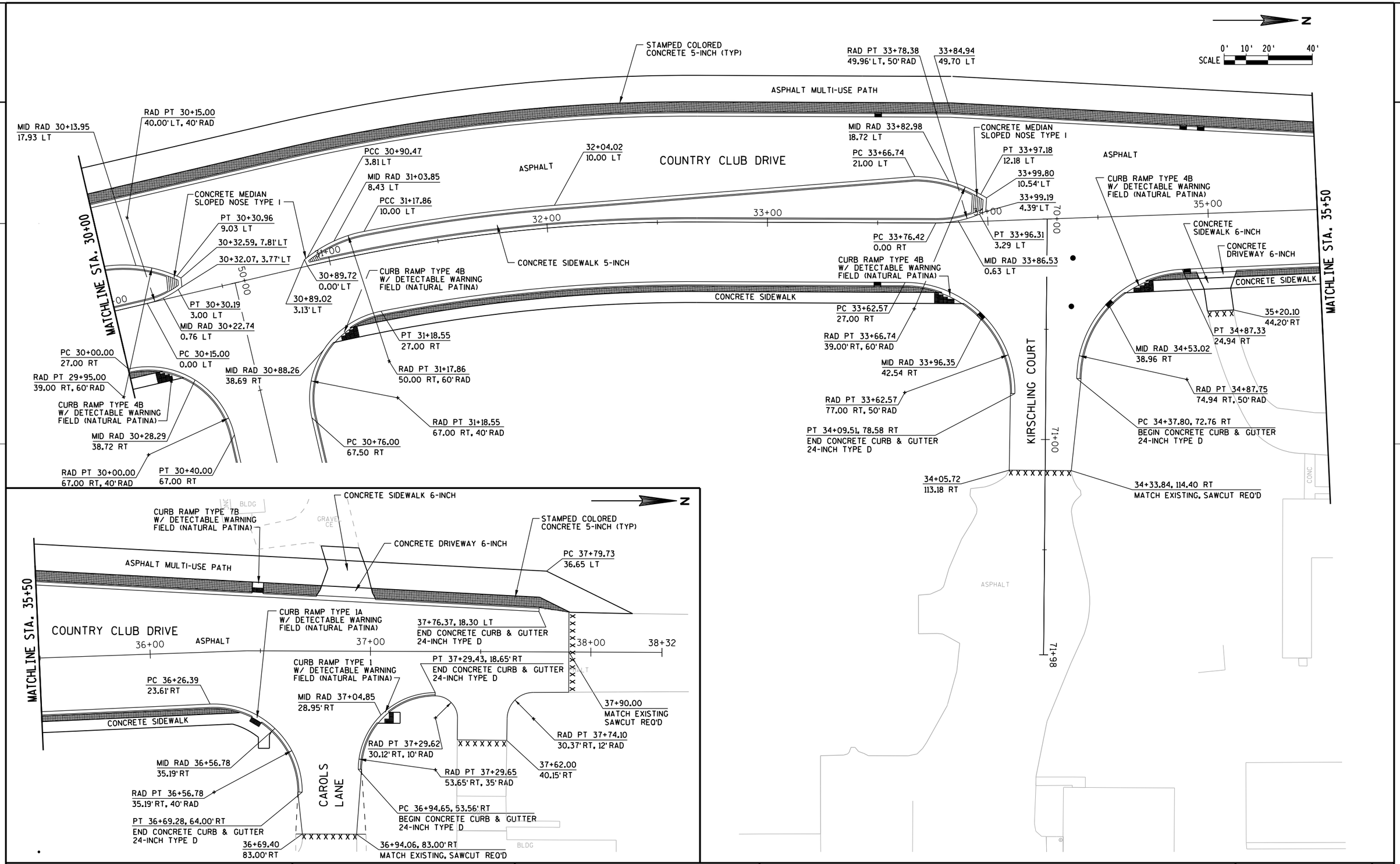
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PLOT TIME: 6:26:34 AM
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WISDOT/CADDS SHEET 42



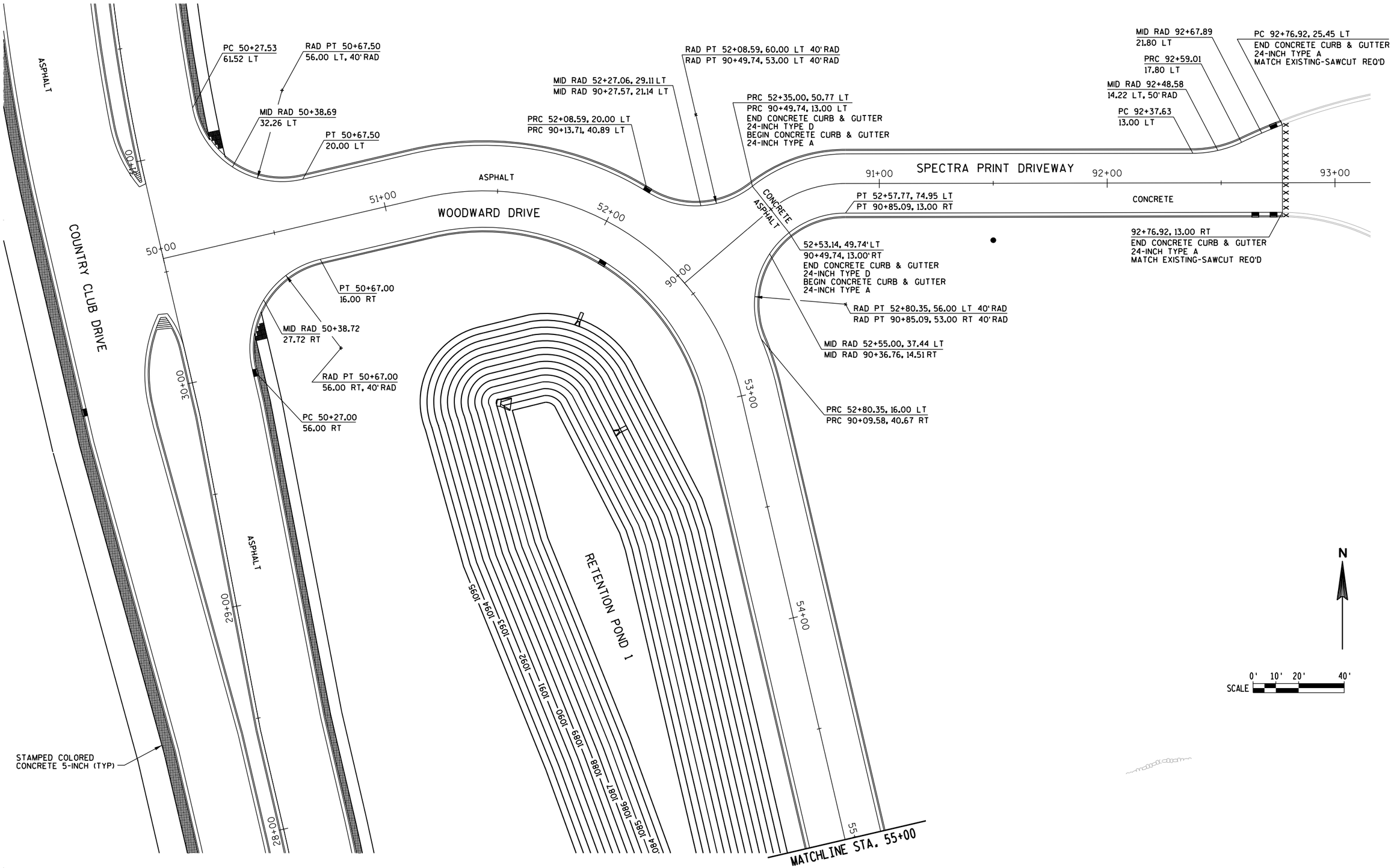


PROJECT NUMBER: 6998-11-70/71	HWY: HOOVER ROAD	COUNTY: PORTAGE	INTERSECTION DETAILS	SHEET 23	E

FILE NAME: P:\60334255\900-Work\910-CAD\20-Sheets\021212_pd.dgn
BATCH PRINT SHEET 2 OF 6
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PLOT DATE: 7/22/2016
PLOT TIME: 6:26:36 AM
PLOT SCALE: 1:40
WISDOT/CADDS SHEET 42



PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	INTERSECTION DETAILS	SHEET 24	E



PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	INTERSECTION DETAILS	SHEET 25	E

FILE NAME: P:\60334255\900-Work\910-CAD\20-Sheets\021214_pd.dgn
BATCH PRINT SHEET 4 OF 6
PRINTER DRIVER: L:\library\TPN_CADstds\Workspace-CLIENTS\WisDOT\MicroStation\Resources\MS_Printing\Printer_Drivers\ET_PDF_11 x 17.plt
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PLOT DATE: 7/22/2016
PLOT TIME: 6:26:42 AM
PLOT SCALE: 1:40
WISDOT/CADDS SHEET 42

2

N

SCALE 0' 10' 20' 40'

61+30.00, 13.00 LT
END CONCRETE CURB & GUTTER
24-INCH TYPE D

61+30.00, 12.97 RT
END CONCRETE CURB & GUTTER
24-INCH TYPE D

60+78.04
16.00 LT

60+78.04
16.00 RT

61+00

60+00

ASPHALT

59+00

58+00

57+00

56+00

ASPHALT

00

MATCHLINE STA. 55+00

WOODWARD DRIVE

1095
1094
1093
1092
1091
1090
1089
1088
1087
1086
1085
1084
1083
1082

RETENTION
POND 1

WISCONSIN CENTRAL LTD

PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	INTERSECTION DETAILS	SHEET 26	E

FILE NAME: P:\60334255\900-Work\910-CAD\20-Sheets\021215_pd.dgn
BATCH PRINT SHEET 5 OF 6
PRINTER DRIVER: L:\library\TPN_CADstds\Workspace-CLIENTS\WisDOT\MicroStation\Resources\MS_Printing\Printer_Drivers\ET_PDF_11 x 17.plt
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PLOT DATE: 7/22/2016
PLOT TIME: 6:26:45 AM
PLOT SCALE: 1:40
WISDOT/CADDS SHEET 42

2

2

MATCHLINE STA. 102+00

+00

103+00

ASPHALT MULTI-USE PATH

104+00

105+00

106+00

107+00

RETENTION POND 2

1087
1088
1089
1090
1091
1092
1093
1094

CONCRETE SIDEWALK 5-INCH DETECTABLE WARNING FIELD (NATURAL PATINA)

Y=198831.52
X=177834.87
EL=1095.93

ASPHALT

Y=198933.40
X=177896.95
EL=1094.46

Y=198804.64
X=177878.98
EL=1095.76

1.0%

RAD PT, 65' RAD
Y=198869.02
X=177887.97

0.8%

JOERNS DRIVE

PRC
Y=198812.99
X=177920.92
EL=1095.37

MID RAD, 60' RAD
Y=198819.30
X=177936.08
EL=1095.18

PC
Y=198821.27
X=177952.39
EL=1095.02

PRC
Y=198892.39
X=177948.62
EL=1094.37

MID RAD, 60' RAD
Y=198864.81
X=177970.18
EL=1094.45

PC (MATCH EXISTING SAWCUT REQUIRED)
Y=198853.96
X=178003.46
EL=1094.49

PI (MATCH EXISTING SAWCUT REQUIRED)
Y=198820.41
X=178002.89
EL=1094.60

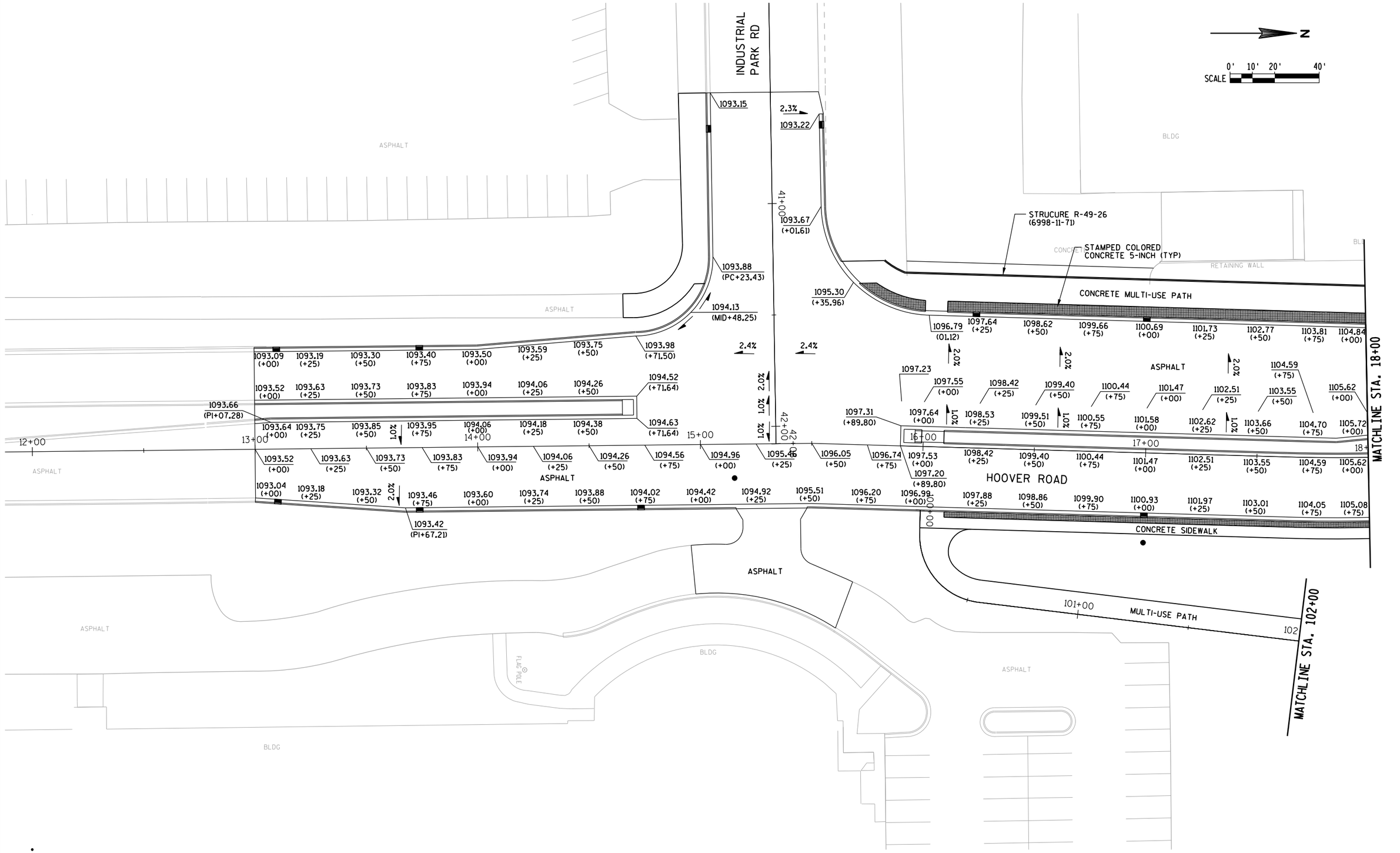
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SCALE 0' 5' 10' 20'

PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	INTERSECTION DETAILS	SHEET 27	E

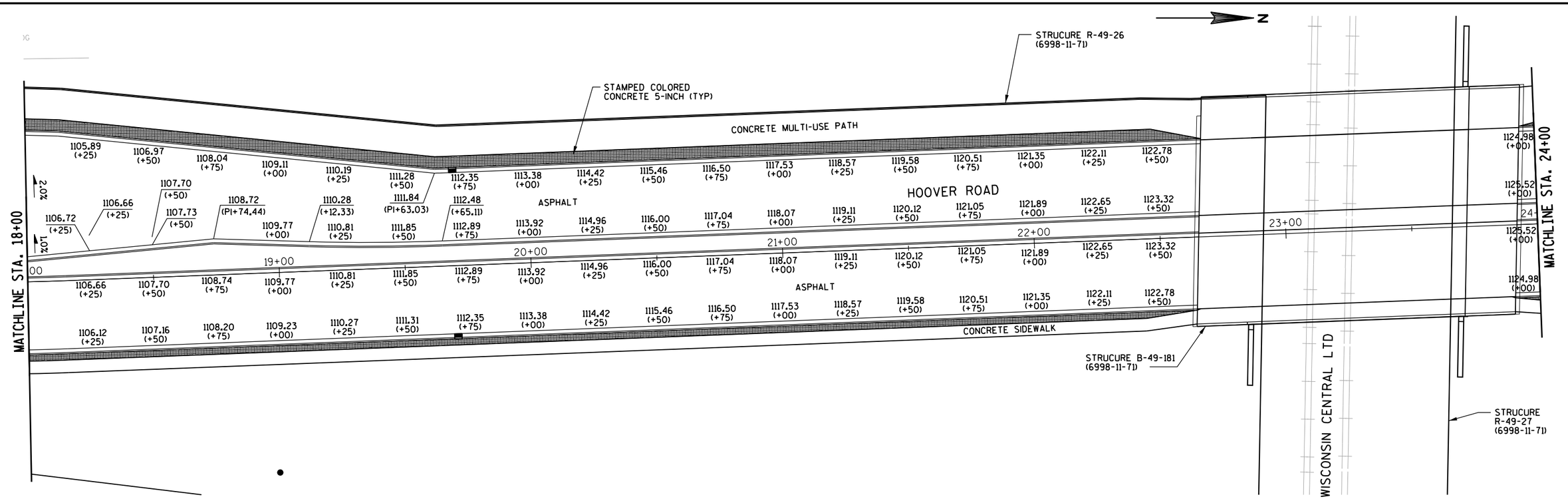
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PLOT TIME: 6:26:46 AM
PLOT SCALE: 1:40
WISDOT/CADDS SHEET 42

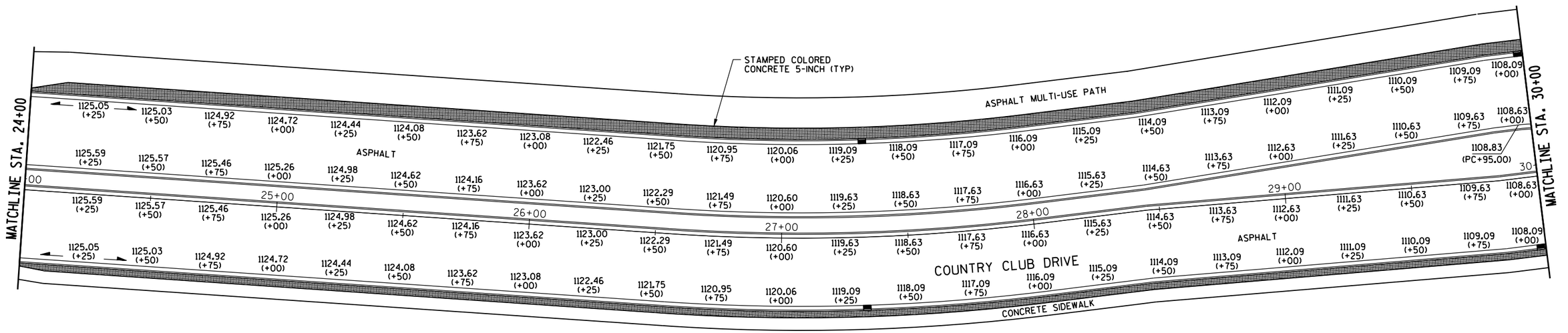
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PROJECT NUMBER: 6998-11-70/71	HWY: HOOVER ROAD	COUNTY: PORTAGE	PAVING GRADES	SHEET 28	E

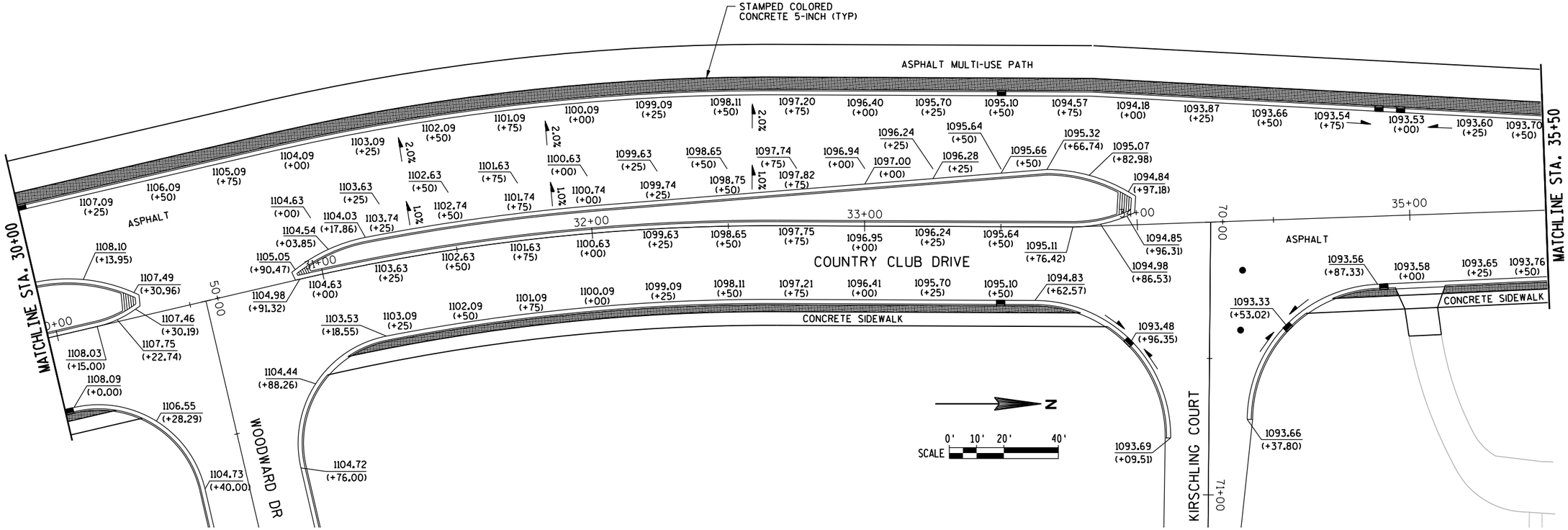
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BATCH PRINT SHEET 1 OF 5
PRINTER DRIVER: L:\library\TPN_CADstds\Workspace-CLIENTS\WisDOT\MicroStation\Resources\MS_Printng\Printer_Drivers\ET_PDF_11 x 17.plt
PEN TABLE: P:\60334255\900-Work\910-CAD\20-Sheets\MS_Printng\Pen_Tables\ET_WisDOT_fade159.tbl
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PLOT TIME: 6:27:14 AM
PLOT SCALE: 1:40
WISDOT/CADDS SHEET 42

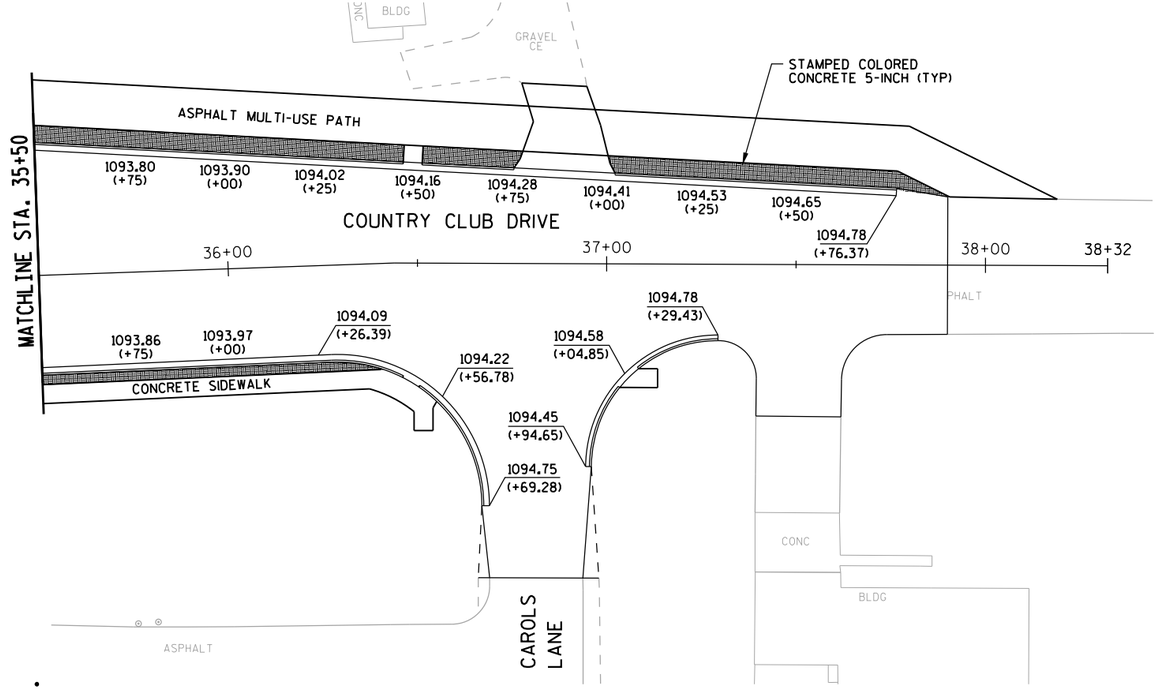




PROJECT NUMBER: 6998-11-70/71	HWY: HOOVER ROAD	COUNTY: PORTAGE	PAVING GRADES	SHEET 29	E

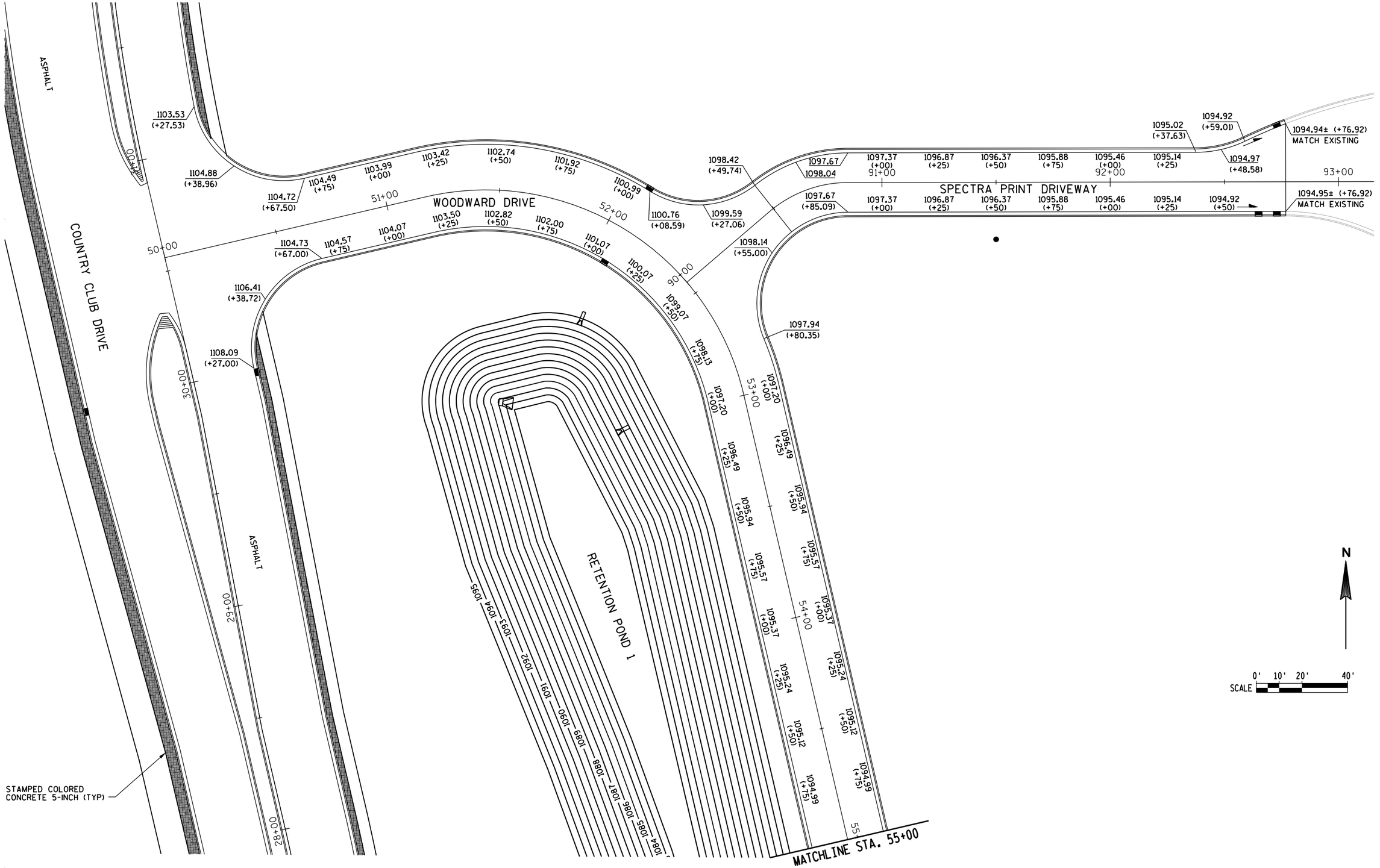
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BATCH PRINT SHEET 2 OF 5
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PLOT DATE: 7/22/2016
PLOT TIME: 6:27:16 AM
PLOT SCALE: 1:40
WISDOT/CADDS SHEET 42


STAMPED COLORED
CONCRETE 5-INCH (TYP)
ASPHALT MULTI-USE PATH
MATCHLINE STA. 30+00
MATCHLINE STA. 35+50
ASPHALT
COUNTRY CLUB DRIVE
CONCRETE SIDEWALK
WOODWARD DR
KIRSCHLING COURT
ASPHALT
CONCRETE SIDEWALK
N
SCALE 0' 10' 20' 40'


BLDG
GRAVEL
CE
STAMPED COLORED
CONCRETE 5-INCH (TYP)
ASPHALT MULTI-USE PATH
MATCHLINE STA. 35+50
COUNTRY CLUB DRIVE
CONCRETE SIDEWALK
CONC
BLDG
ASPHALT
CAROLS
LANE


N

2



PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	PAVING GRADES	SHEET 31	E

FILE NAME: P:\60334255\900-Work\910-CAD\20-Sheets\021224_pg.dgn
BATCH PRINT SHEET 4 OF 5
PRINTER DRIVER: L:\library\TPN_CADstds\Workspace-CLIENTS\WisDOT\MicroStation\Resources\MS_Printing\Printer_Drivers\ET_PDF_11 x 17.plt
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PLOT DATE: 7/22/2016
PLOT TIME: 6:27:22 AM
PLOT SCALE: 1:40
WISDOT/CADDS SHEET 42

2

N

SCALE 0' 10' 20' 40'

1094.55± (+30)
MATCH EXISTING

1094.65± (+30)
MATCH EXISTING

WISCONSIN CENTRAL LTD

WOODWARD DRIVE

MATCHLINE STA. 55+00

RETENTION POND 1

PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	PAVING GRADES	SHEET 32	E

FILE NAME: P:\60334255\900-Work\910-CAD\20-Sheets\021225_pg.dgn
BATCH PRINT SHEET 5 OF 5
PRINTER DRIVER: L:\library\TPN_CADstds\Workspace-CLIENTS\WisDOT\MicroStation\Resources\MS_Printing\Printer_Drivers\ET_PDF_11 x 17.plt
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PLOT DATE: 7/22/2016
PLOT TIME: 6:27:24 AM
PLOT SCALE: 1:40
WISDOT/CADDS SHEET 42

2

N

SCALE 0' 10' 20' 40'

ASPHALT

INDUSTRIAL PARK RD

41+00

SLOPE INTERCEPT

TLE

R/W

ASPHALT

R/W

BLDG

R/W

SLOPE INTERCEPT

TLE

CONCRETE

STRUCTURE R-49-26 (6998-11-71)

BLDG

R/W

CONCRETE MULTI-USE PATH

HOOVER ROAD

13+00

14+00

15+00

42+00

42+08

16+00

17+00

18+00

MATCHLINE STA. 18+50

100+00

CONCRETE SIDEWALK

R/W

TLE

SLOPE INTERCEPT

BEGIN PROJECT 6998-11-70
STA 13+00.00

101+00

ASPHALT MULTI-USE PATH

102

R/W

MATCHLINE STA. 102+00

BLDG

FLAG POLE

TLE

ASPHALT

SLOPE INTERCEPT

PL

BLDG

EROSION CONTROL LEGEND

- ######## EROSION MAT URBAN CLASS 1 TYPE A
- MULCHING, FERTILIZER TYPE A AND SEEDING MIXTURE NO. 20
- HEAVY RIPRAP
- SILT FENCE
- INLET PROTECTION TYPE A PRIOR TO CURBING TYPE C AFTER CURBING
- CULVERT PIPE CHECK

PROJECT NUMBER: 6998-11-70/71	HWY: HOOVER ROAD	COUNTY: PORTAGE	EROSION CONTROL	SHEET 33	E

FILE NAME: P:\60334255\900-Work\910-CAD\20-Sheets\022001_ec.dgn
BATCH PRINT SHEET 1 OF 8
PRINTER DRIVER: L:\library\TPN_CADstds\Workspace-CLIENTS\WisDOT\MicroStation\Resources\MS_Printng\Printer_Drivers\ET_PDF_11 x 17.plt
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PLOT DATE: 7/22/2016
PLOT TIME: 6:27:38 AM
PLOT SCALE: 1:40
WISDOT/CADDS SHEET 42

EROSION CONTROL LEGEND

- EROSION MAT URBAN CLASS 1 TYPE A
- MULCHING, FERTILIZER TYPE A AND SEEDING MIXTURE NO. 20
- HEAVY RIPRAP
- SILT FENCE
- INLET PROTECTION TYPE A PRIOR TO CURBING TYPE C AFTER CURBING
- CULVERT PIPE CHECK

OBLITERATING OLD ROAD

SLOPE INTERCEPT

PL

TLE

R/W

WISCONSIN CENTRAL LTD

STRUCTURE R-49-27 (6998-11-71)

CONCRETE MULTI-USE PATH

HOOVER ROAD

COUNTRY CLUB DRIVE

MATCHLINE STA. 18+50

MATCHLINE STA. 24+00

19+00

20+00

21+00

22+00

23+00

24

CONCRETE SIDEWALK

STRUCTURE B-49-181 (6998-11-71)

STRUCTURE R-49-26 (6998-11-71)

103+00

104+00

MULTI-USE PATH

105+00

SLOPE INTERCEPT

SLOPE INTERCEPT

N

0' 10' 20' 40'

SCALE

PROJECT NUMBER: 6998-11-70/71	HWY: HOOVER ROAD	COUNTY: PORTAGE	EROSION CONTROL	SHEET 34	E

2

EROSION CONTROL LEGEND

- EROSION MAT URBAN CLASS 1 TYPE A
- MULCHING, FERTILIZER TYPE A AND SEEDING MIXTURE NO. 20
- CULVERT PIPE CHECK
- HEAVY RIPRAP
- SILT FENCE
- INLET PROTECTION TYPE A PRIOR TO CURBING TYPE C AFTER CURBING

N

SCALE 0' 10' 20' 40'

TLE

R/W

SLOPE INTERCEPT

ASPHALT MULTI-USE PATH

CONCRETE SIDEWALK

COUNTRY CLUB DR

MATCHLINE STA. 24+00

MATCHLINE STA. 29+50

25+00 26+00 27+00 28+00 29+00

1082 1083 1084 1085 1086 1087 1088 1089 1090 1091 1092 1093 1094 1095

PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	EROSION CONTROL	SHEET 35	E

FILE NAME: P:\60334255\900-Work\910-CAD\20-Sheets\022003.ec.dgn
BATCH PRINT SHEET 3 OF 8
PRINTER DRIVER: L:\library\TPN_CADstds\Workspace-CLIENTS\WisDOT\MicroStation\Resources\MS_Printing\Printer_Drivers\ET_PDF_11 x 17.plt
PEN TABLE: P:\60334255\900-Work\910-CAD\20-Sheets\MS_Printing\Pen_Tables\ET_WisDOT_fadel59.tbl
PLOT DATE: 7/22/2016
PLOT TIME: 7:10:46 AM
PLOT SCALE: 1:40

2

N

SCALE 0' 10' 20' 40'

SLOPE INTERCEPT

TLE

R/W

ASPHALT MULTI-USE PATH

MATCHLINE STA. 29+50

CONCRETE SIDEWALK

WOODWARD DRIVE

30+00

50+00

51+00

52+00

32+00

33+00

34+00

COUNTRY CLUB DR

70+00

35

CONCRETE SIDEWALK

R/W

TLE

SLOPE INTERCEPT

PL

KIRSCHLING COURT

71+00

71+98

ASPHALT

TLE

R/W

PL

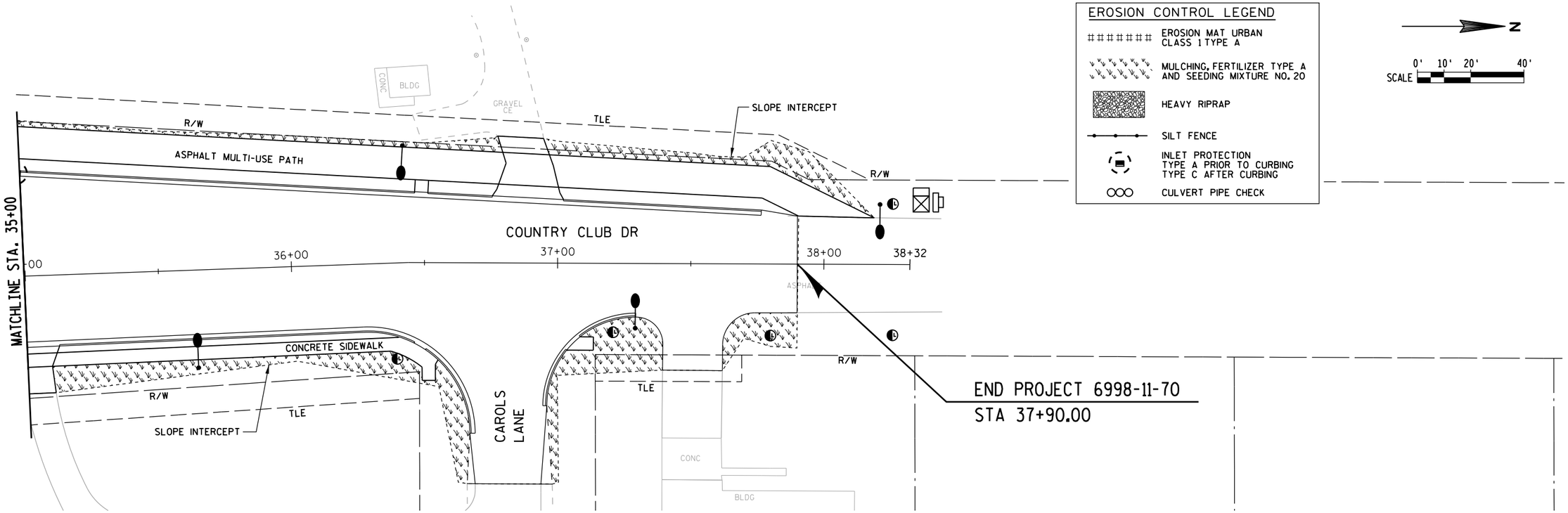
MATCHLINE STA. 35+00

EROSION CONTROL LEGEND

- EROSION MAT URBAN CLASS 1 TYPE A
- MULCHING, FERTILIZER TYPE A AND SEEDING MIXTURE NO. 20
- HEAVY RIPRAP
- SILT FENCE
- INLET PROTECTION TYPE A PRIOR TO CURBING TYPE C AFTER CURBING
- CULVERT PIPE CHECK

PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	EROSION CONTROL	SHEET 36	E

FILE NAME: P:\60334255\900-Work\910-CAD\20-Sheets\022004_ec.dgn
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PLOT DATE: 7/22/2016
PLOT TIME: 6:27:45 AM
PLOT SCALE: 1:40
WISDOT/CADDS SHEET 42



PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	EROSION CONTROL	SHEET 37	E

FILE NAME: P:\60334255\900-Work\910-CAD\20-Sheets\022005_ec.dgn
BATCH PRINT SHEET 5 OF 8
PRINTER DRIVER: L:\library\TPN_CADstds\Workspace-CLIENTS\WisDOT\MicroStation\Resources\MS_Printing\Printer_Drivers\ET_PDF_11 x 17.plt
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PLOT DATE: 7/22/2016
PLOT TIME: 7:30:23 AM
PLOT SCALE: 1:40
WISDOT/CADDS SHEET 42

2

SLOPE INTERCEPT

TLE

91+00

92+00

93+00

SPECTRA PRINT DRIVEWAY

OBLITERATING OLD ROAD

R/W

TLE

WOODWARD DRIVE

51+00

52+00

50+00

90+00

53+00

COUNTRY CLUB DRIVE

30+00

29+00

28+00

54+00

55

SLOPE INTERCEPT

MATCHLINE STA. 55+00

EROSION CONTROL LEGEND

- ####### EROSION MAT URBAN CLASS 1 TYPE A
- MULCHING, FERTILIZER TYPE A AND SEEDING MIXTURE NO. 20
- HEAVY RIPRAP
- SILT FENCE
- INLET PROTECTION TYPE A PRIOR TO CURBING TYPE C AFTER CURBING
- CULVERT PIPE CHECK

N

SCALE 0' 10' 20' 40'

PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	EROSION CONTROL	SHEET 38	E

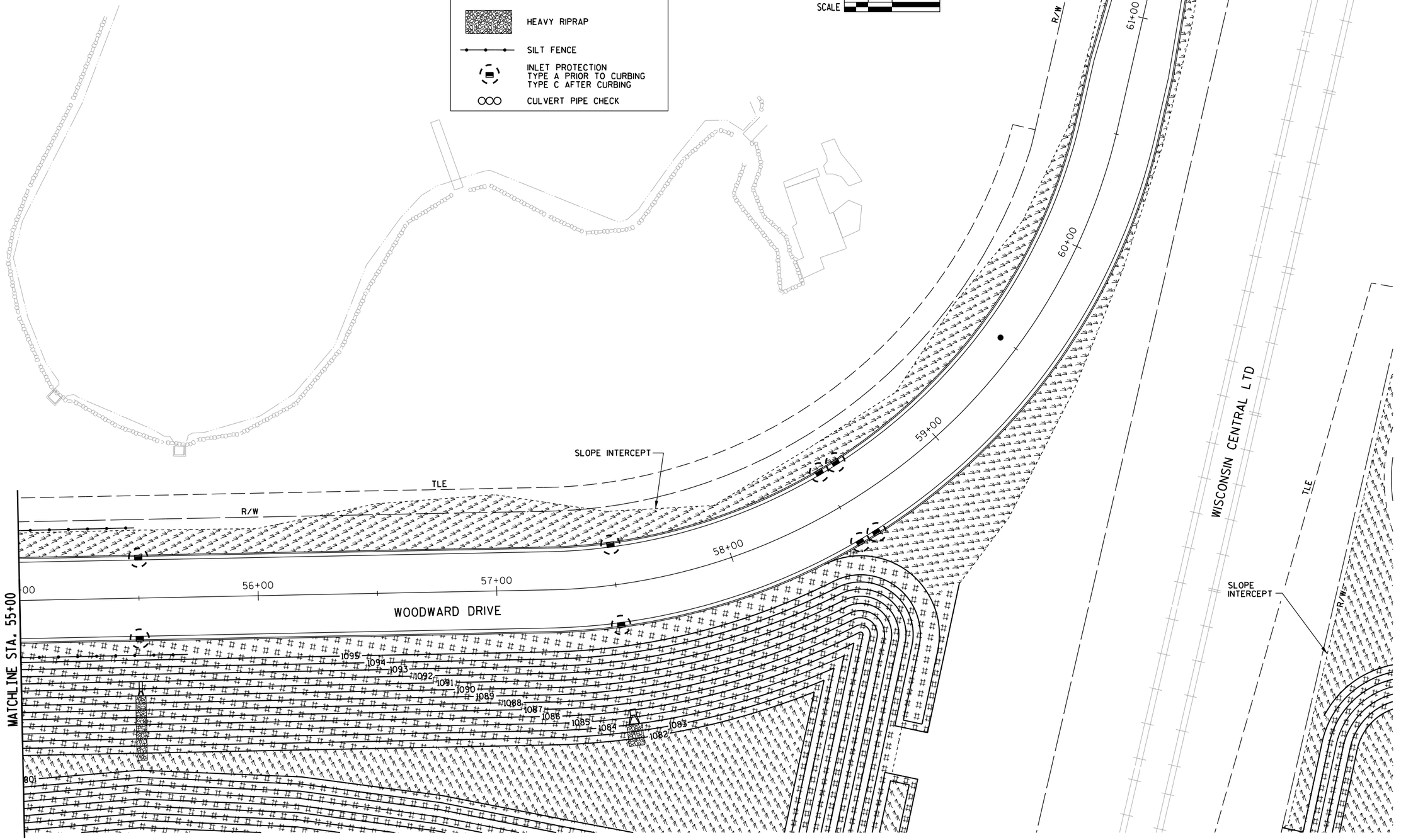
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PLOT DATE: 7/22/2016
PLOT TIME: 6:27:49 AM
PLOT SCALE: 1:40
WISDOT/CADDS SHEET 42

EROSION CONTROL LEGEND

- EROSION MAT URBAN CLASS 1 TYPE A
- MULCHING, FERTILIZER TYPE A AND SEEDING MIXTURE NO. 20
- HEAVY RIPRAP
- SILT FENCE
- INLET PROTECTION TYPE A PRIOR TO CURBING TYPE C AFTER CURBING
- CULVERT PIPE CHECK

N

SCALE 0' 10' 20' 40'

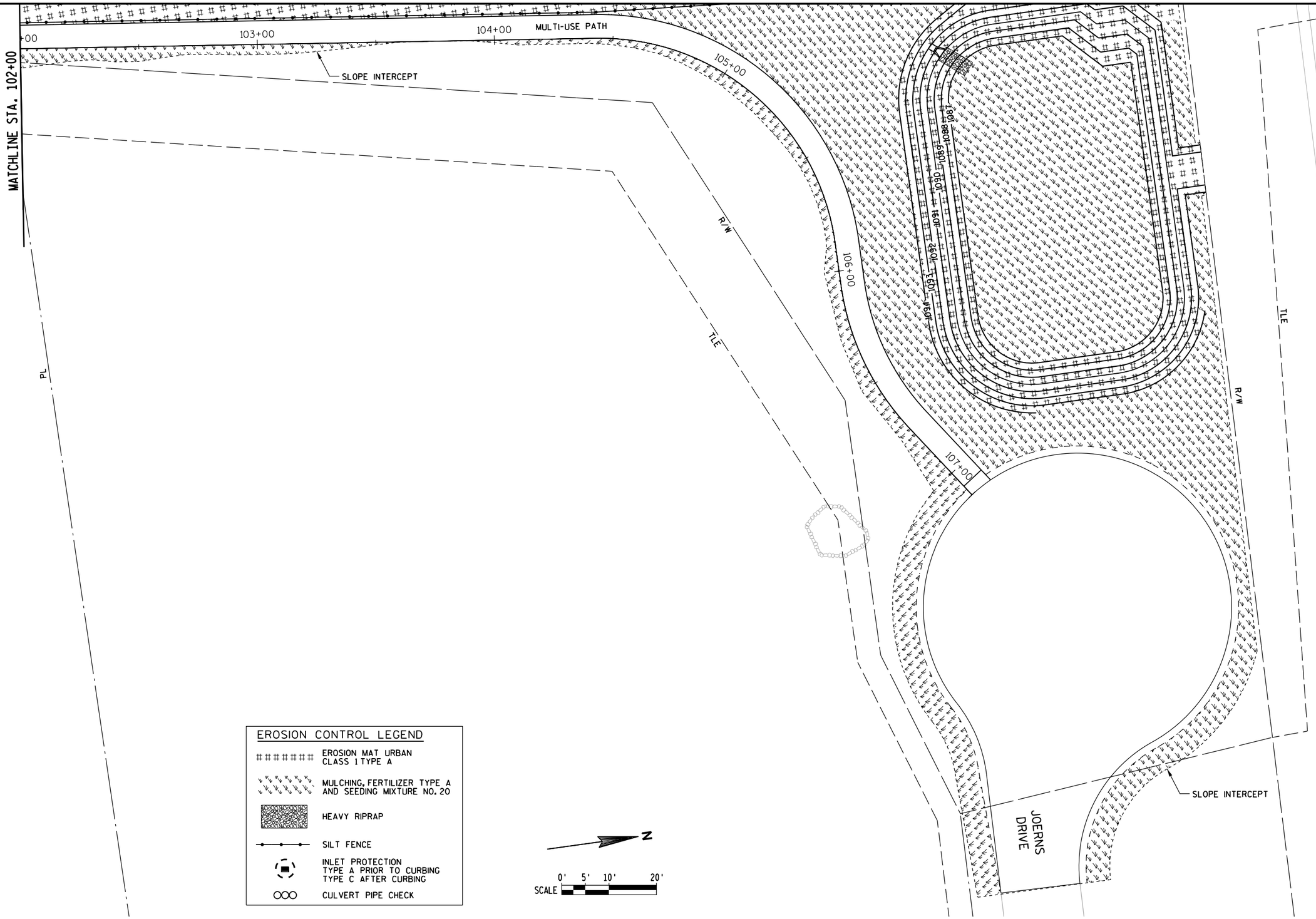


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PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	EROSION CONTROL	SHEET 39	E

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PLOT DATE: 7/22/2016
PLOT TIME: 6:27:52 AM
PLOT SCALE: 1:40
WISDOT/CADDS SHEET 42

2



EROSION CONTROL LEGEND

- EROSION MAT URBAN CLASS 1 TYPE A
- MULCHING, FERTILIZER TYPE A AND SEEDING MIXTURE NO. 20
- HEAVY RIPRAP
- SILT FENCE
- INLET PROTECTION TYPE A PRIOR TO CURBING TYPE C AFTER CURBING
- CULVERT PIPE CHECK

N

SCALE 0' 5' 10' 20'

PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	EROSION CONTROL	SHEET 40	E

FILE NAME: P:\60334255\900-Work\910-CAD\20-Sheets\022008.ec.dgn
BATCH PRINT SHEET 8 OF 8
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PLOT DATE: 7/22/2016
PLOT TIME: 6:27:54 AM
PLOT SCALE: 1:40
WISDOT/CADDS SHEET 42

2

BEGIN PROJECT 6998-11-70
STA 13+00.00

CATCH BASINS 2X3-H
STA 40+66.0, 28.0'RT
401

12"SS

CATCH BASINS 2X3-H
STA 40+65.0, 22.7'LT
406

INDUSTRIAL PARK RD

41+00

N

SCALE 0' 10' 20' 40'

CATCH BASINS 2X3-H
STA 16+15.0, 60.0'LT
306

CATCH BASINS 2X3-H
STA 16+98.8, 60.0'LT
136

STRUCURE R-49-26
(6998-11-71)

CATCH BASINS 2X3-H
STA 13+10.0, 44.8'LT
116

CATCH BASINS 2X3-H
STA 13+74.2, 44.7'LT
112

TLE

R/W

GAS

CAUTION

CONCRETE MULTI-USE PATH

CONNECT 15"SS TO
EXISTING MANHOLE
CONTRACTOR TO VERIFY
HORIZ. AND VERT. LOCATION

EXISTING 48" STORM
SEWER TO REMAIN

HOOVER ROAD

15"SS

42+00

MATCHLINE STA. 18+50

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

CATCH BASINS 2X3-H
STA 14+73.0, 28.0'RT
121

EXISTING STORM MANHOLE
INSTALL TYPE J COVER
STA 15+15.2, 15.2'RT
122

MANHOLES 4-J
STA 17+00.0, 40.3'RT
133

CATCH BASINS 2X3-H
STA 17+00.0, 28.0'RT
134

12"SS

15"SS

100+00

CONCRETE SIDEWALK

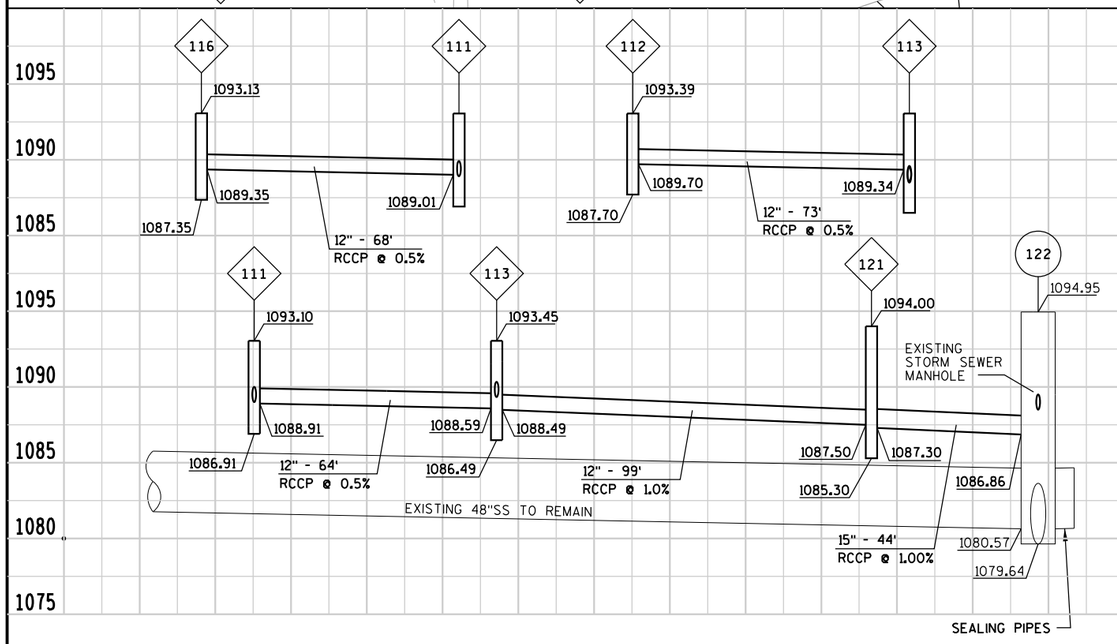
18"SS

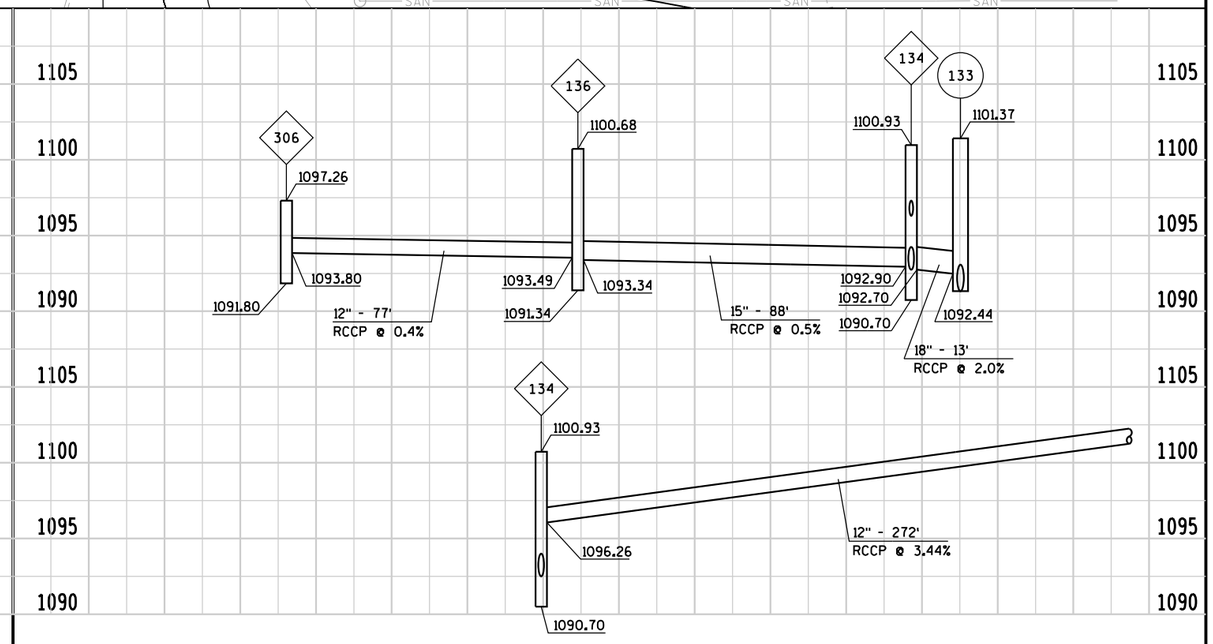
21"SS

CATCH BASINS 2X3-H
STA 13+10.0, 23.6'RT
111

CATCH BASINS 2X3-H
STA 13+73.7, 28.0'RT
113

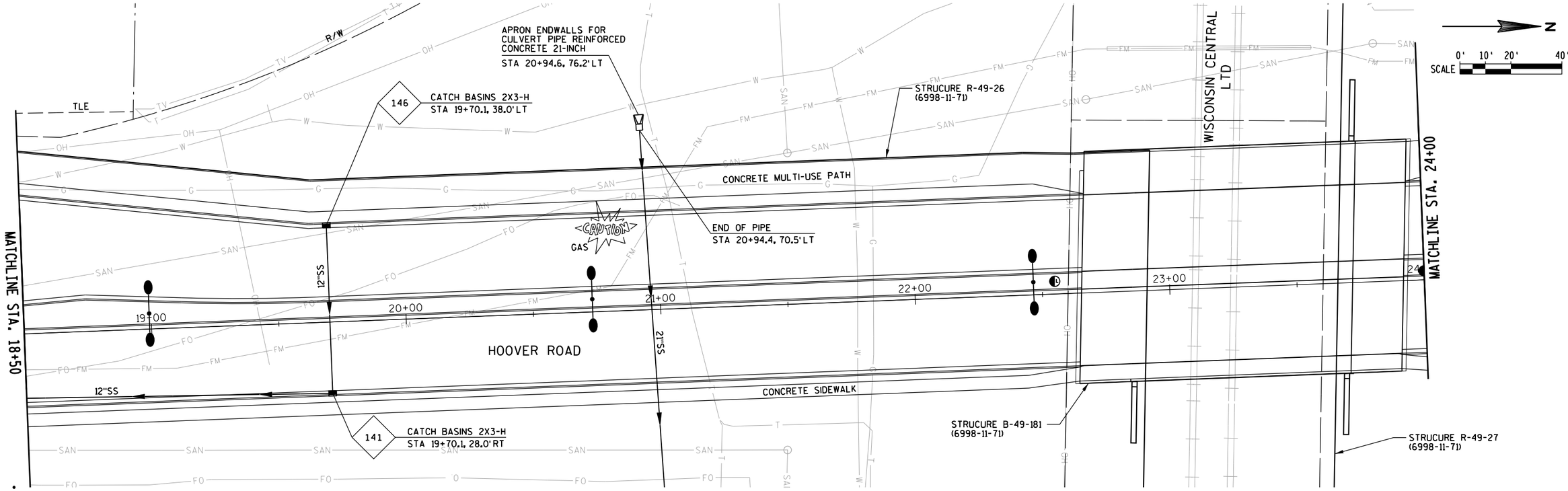
EXISTING 48" STORM
SEWER TO REMAIN

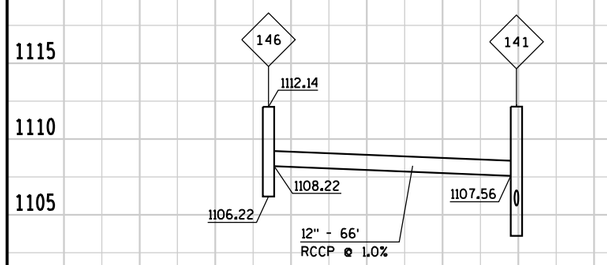


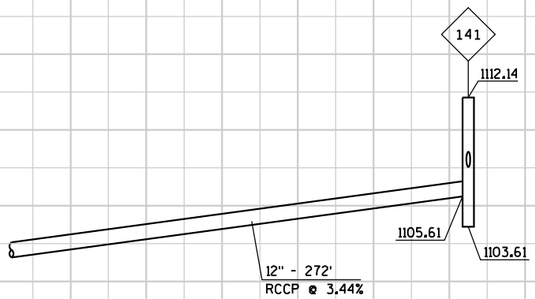


PROJECT NUMBER: 6998-11-70/71	HWY: HOOVER ROAD	COUNTY: PORTAGE	STORM SEWER	SHEET 41	E

FILE NAME: P:\60334255\900-Work\910-CAD\20-Sheets\022501_ss.dgn
BATCH PRINT SHEET 1 OF 9
PRINTER DRIVER: L:\library\TPN_CADstds\Workspace-CLIENTS\WisDOT\MicroStation\Resources\MS_Printing\Printer_Drivers\ET_PDF_11 x 17.plt
PEN TABLE: P:\60334255\900-Work\910-CAD\20-Sheets\MS_Printing\Pen_Tables\ET_WisDOT_fade159.tbl
PLOT DATE: 7/22/2016
PLOT TIME: 6:28:26 AM
PLOT SCALE: 1:39.9999
WISDOT/CADDS SHEET 41

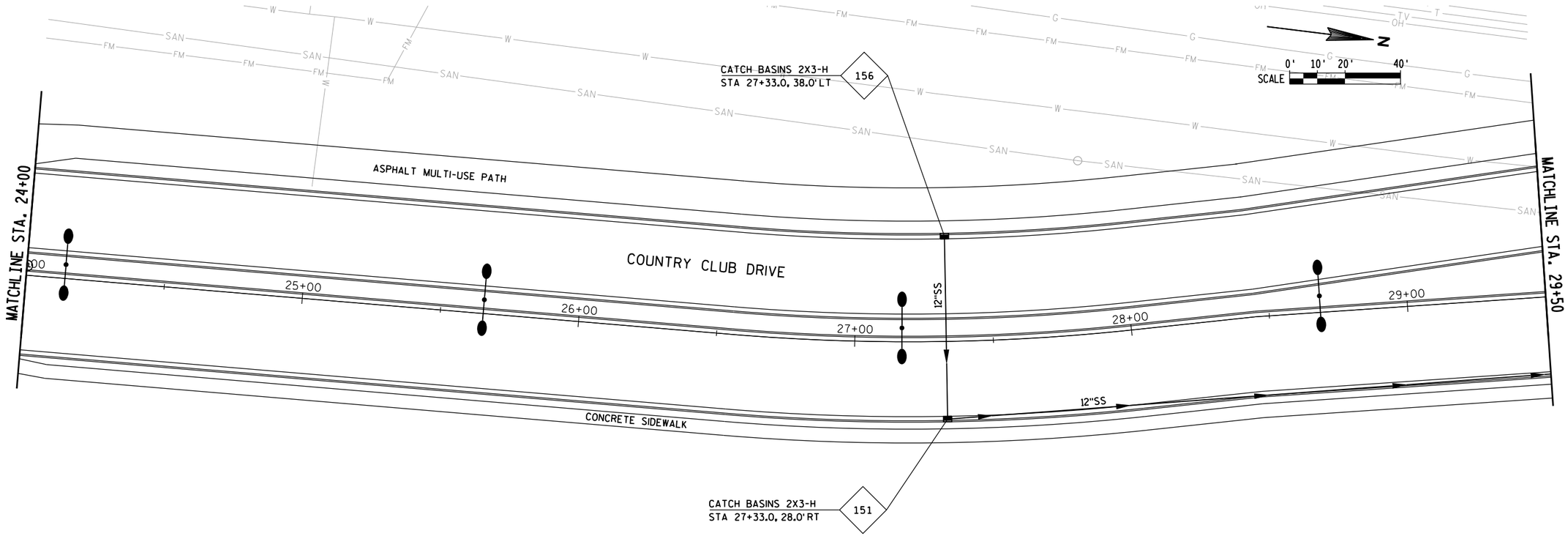


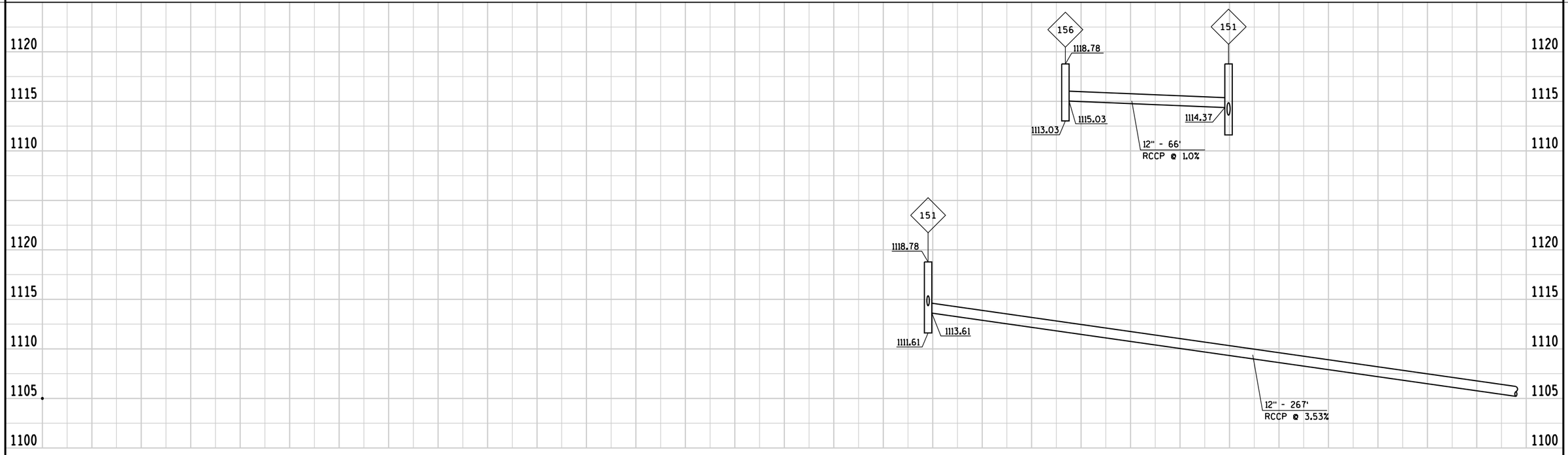




PROJECT NUMBER: 6998-11-70/71	HWY: HOOVER ROAD	COUNTY: PORTAGE	STORM SEWER	SHEET 42	E

FILE NAME: P:\60334255\900-Work\910-CAD\20-Sheets\022502_ss.dgn
BATCH PRINT SHEET 2 OF 9
PRINTER DRIVER: L:\library\TPN_CADstds\Workspace-CLIENTS\WisDOT\MicroStation\Resources\MS_Printing\Printer_Drivers\ET_PDF_11 x 17.plt
PEN TABLE: P:\60334255\900-Work\910-CAD\20-Sheets\MS_Printing\Pen_Tables\ET_WisDOT_fadel59.tbl
PLOT DATE: 7/22/2016
PLOT TIME: 10:13:25 AM
PLOT SCALE: 1:40





PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	STORM SEWER	SHEET 43	E

FILE NAME: P:\60334255\900-Work\910-CAD\20-Sheets\022503.ss.dgn
BATCH PRINT SHEET 3 OF 9
PRINTER DRIVER: L:\library\TPN_CADstds\Workspace-CLIENTS\WisDOT\MicroStation\Resources\MS_Printing\Printer_Drivers\ET_PDF_11 x 17.plt
PEN TABLE: P:\60334255\900-Work\910-CAD\20-Sheets\MS_Printing\Pen_Tables\ET_WisDOT_fadel59.tbl
PLOT DATE: 7/22/2016
PLOT TIME: 10:13:26 AM
PLOT SCALE: 1:40

2

N

SCALE 0' 10' 20' 40'

CATCH BASINS 2X3-H
STA 29+98.0, 49.0'LT
166

CATCH BASINS 2X3-H
STA 33+50.0, 49.0'LT
176

CATCH BASINS 2X3-H-S
STA 34+90.1, 39.4'LT
186

187 CATCH BASINS 2X3-H-S
STA 34+98.0, 38.7'LT

TLE
R/W
ASPHALT MULTI-USE PATH
MATCHLINE STA. 29+50
COUNTRY CLUB DRIVE
CAUTION GAS
CAUTION GAS
CAUTION GAS
12"SS
30+00
31+00
32+00
33+00
34+00
35+00
50+00
70+00
CONCRETE SIDEWALK
30"SS
24"SS
18"SS
12"SS
12"SS
12"SS
12"SS
12"SS
12"SS
R/W
TLE
R/W
TLE
WOODWARD DRIVE
KIRSCHLING COURT

CATCH BASINS 5-H
STA 29+98.0, 28.0'RT
161

CATCH BASINS 5-H
STA 33+50.0, 28.0'RT
171

CATCH BASINS 2X3-H-S
STA 33+95.3, 43.0'RT
184

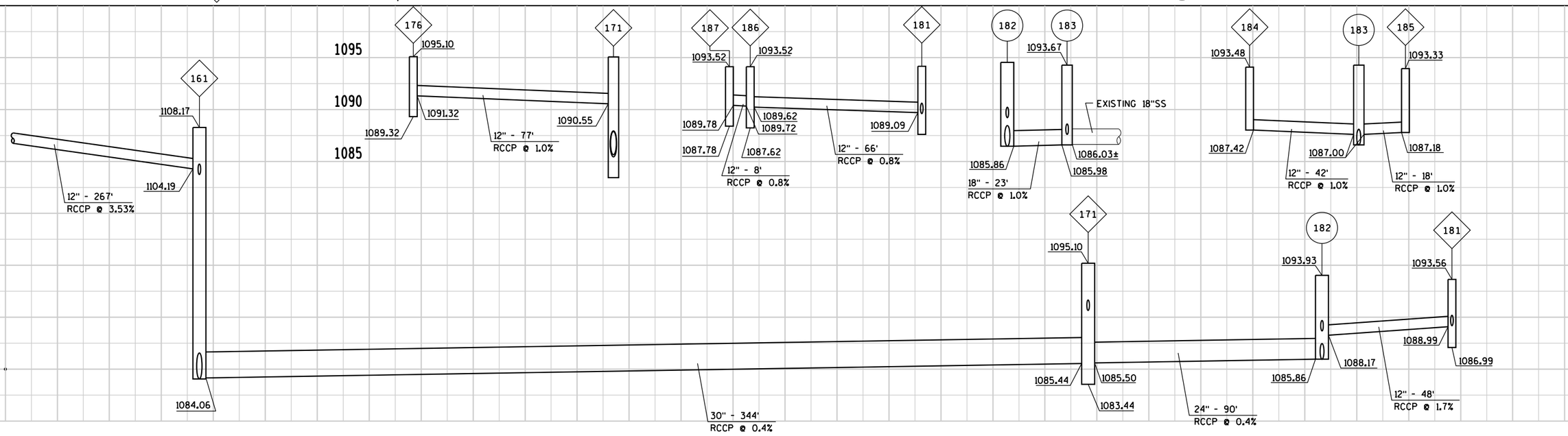
MANHOLES 5-J
STA 34+38.0, 18.1'RT
182

MANHOLES 4-J
STA 34+36.5, 39.9'RT
183

181 CATCH BASINS 2X3-H
STA 34+89.6, 25.9'RT

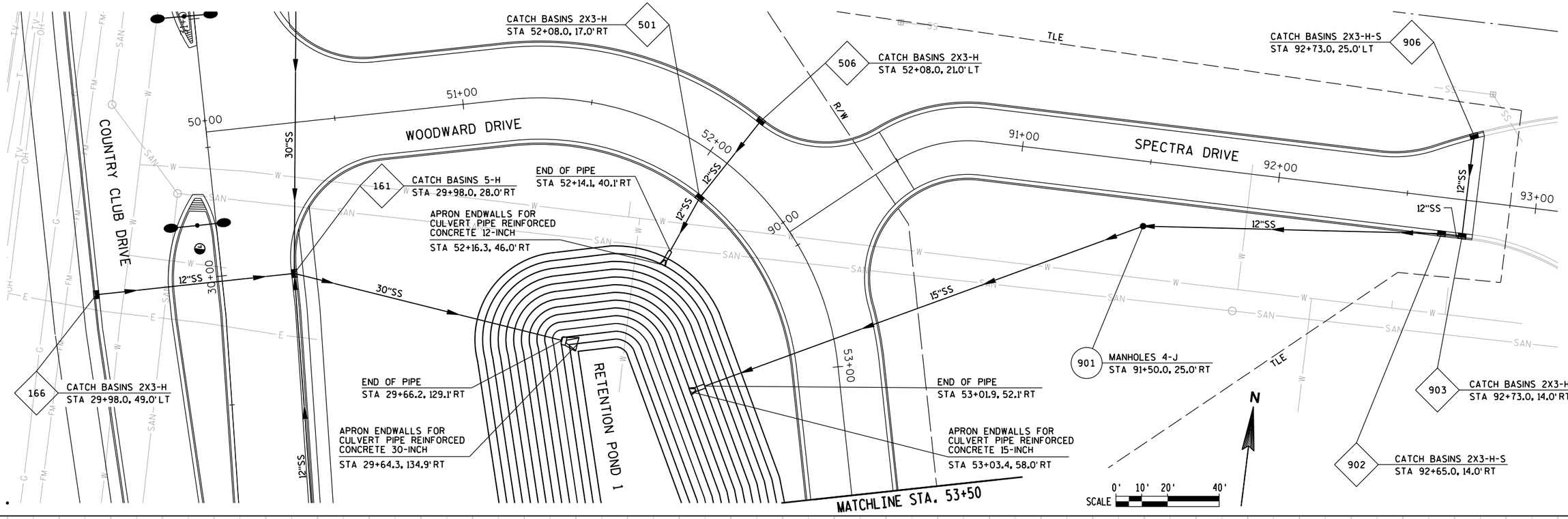
185 CATCH BASINS 2X3-H-S
STA 34+53.9, 39.5'RT

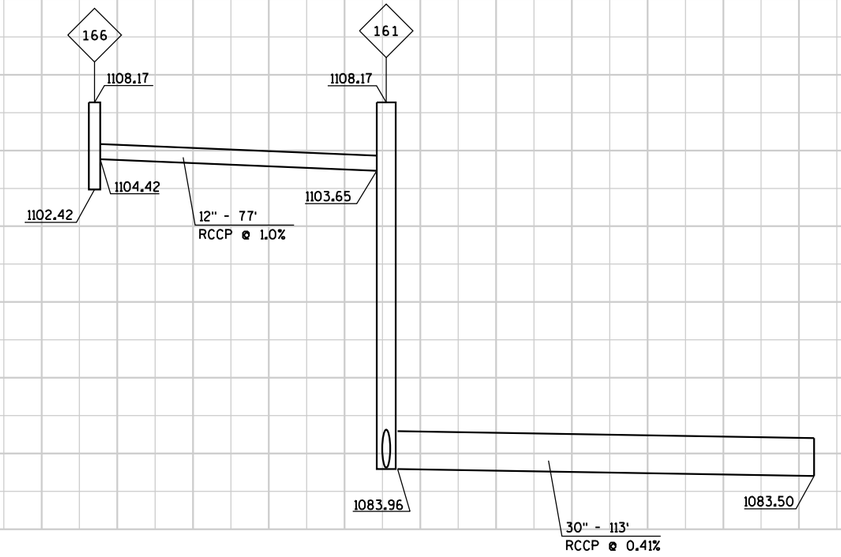
CONNECT EXISTING 18-INCH STORM SEWER TO NEW MANHOLE

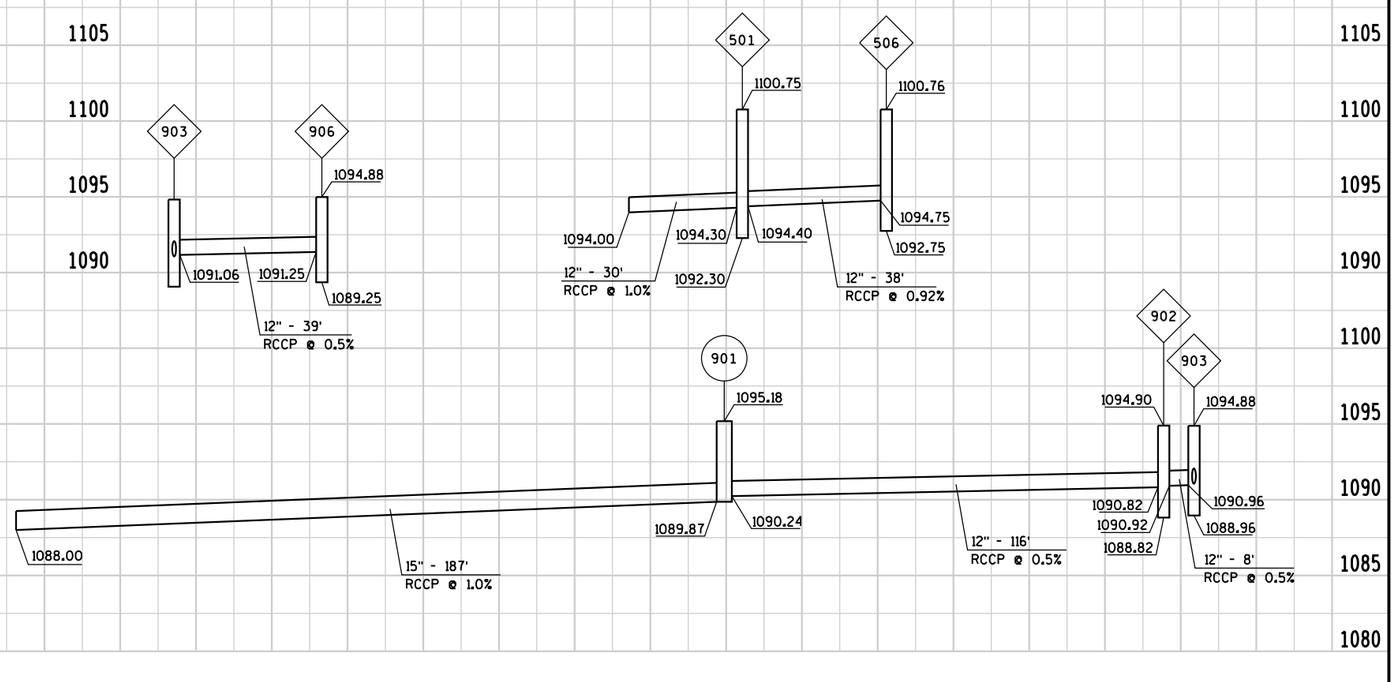


PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	STORM SEWER	SHEET 44	E

FILE NAME: P:\60334255\900-Work\910-CAD\20-Sheets\022504_ss.dgn
BATCH PRINT SHEET 4 OF 9
PRINTER DRIVER: L:\library\TPN_CADstds\Workspace-CLIENTS\WisDOT\MicroStation\Resources\MS_Printing\Printer_Drivers\ET_PDF_11 x 17.plt
PEN TABLE: P:\60334255\900-Work\910-CAD\20-Sheets\MS_Printing\Pen_Tables\ET_WisDOT_fadel59.tbl
PLOT DATE: 7/22/2016
PLOT TIME: 6:28:31 AM
PLOT SCALE: 1:39.9999
WISDOT/CADDS SHEET 41







PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	STORM SEWER	SHEET 45	E

FILE NAME: P:\60334255\900-Work\910-CAD\20-Sheets\022505.ss.dgn
BATCH PRINT SHEET 5 OF 9
PRINTER DRIVER: L:\library\TPN_CADstds\Workspace-CLIENTS\WisDOT\MicroStation\Resources\MS_Printing\Printer_Drivers\ET_PDF_11 x 17.plt
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PLOT DATE: 7/22/2016
PLOT TIME: 12:39:07 PM
PLOT SCALE: 1:40
WISDOT/CADDS SHEET 41

2

CATCH BASINS 2X3-H
STA 55+50.0, 17.0'LT
516

TLE

511
CATCH BASINS 2X3-H
STA 55+50.0, 17.0'RT

R/W

CATCH BASINS 2X3-H
STA 57+50.0, 17.0'LT
527

CATCH BASINS 2X3-H-S
STA 58+50.0, 17.0'LT
526

524
CATCH BASINS 2X3-H-S
STA 58+58.6, 17.0'LT

12"SS
12"SS
15"SS
12"SS
12"SS

N

SCALE 0' 10' 20' 40'

MATCHLINE STA. 58+75

54+00
55+00
56+00
WOODWARD DR
57+00
58+00

MATCHLINE STA. 53+50

12"SS
12"SS
15"SS
15"SS

1095
1094
1093
1092
1091
1090
1089
1088
1087
1086
1085
1084
1083
1082

RETENTION POND 1

1082
1083
1084
1085
1086
1087
1088
1089
1090
1091
1092
1093
1094
1095

CATCH BASINS 2X3-H
STA 57+50.0, 17.0'RT
522

END OF PIPE
STA 57+50.0, 52.7'RT

APRON ENDWALLS FOR
CULVERT PIPE REINFORCED
CONCRETE 15-INCH
STA 57+50.0, 58.8'RT

523
CATCH BASINS 2X3-H-S
STA 58+57.5, 17.0'RT

521
CATCH BASINS 2X3-H-S
STA 58+50.0, 17.0'RT

END OF PIPE
STA 55+50.0, 34.9'RT

APRON ENDWALLS FOR
CULVERT PIPE REINFORCED
CONCRETE 12-INCH
STA 55+50.0, 41.0'RT

R/W

1110
1105
1100
1095
1090
1085
1080

511
516
1094.62
1094.62
1090.00
1090.34
1090.24
1088.24
1090.68
1088.68
12" - 24'
RCCP @ 1.0%
12" - 34'
RCCP @ 1.0%

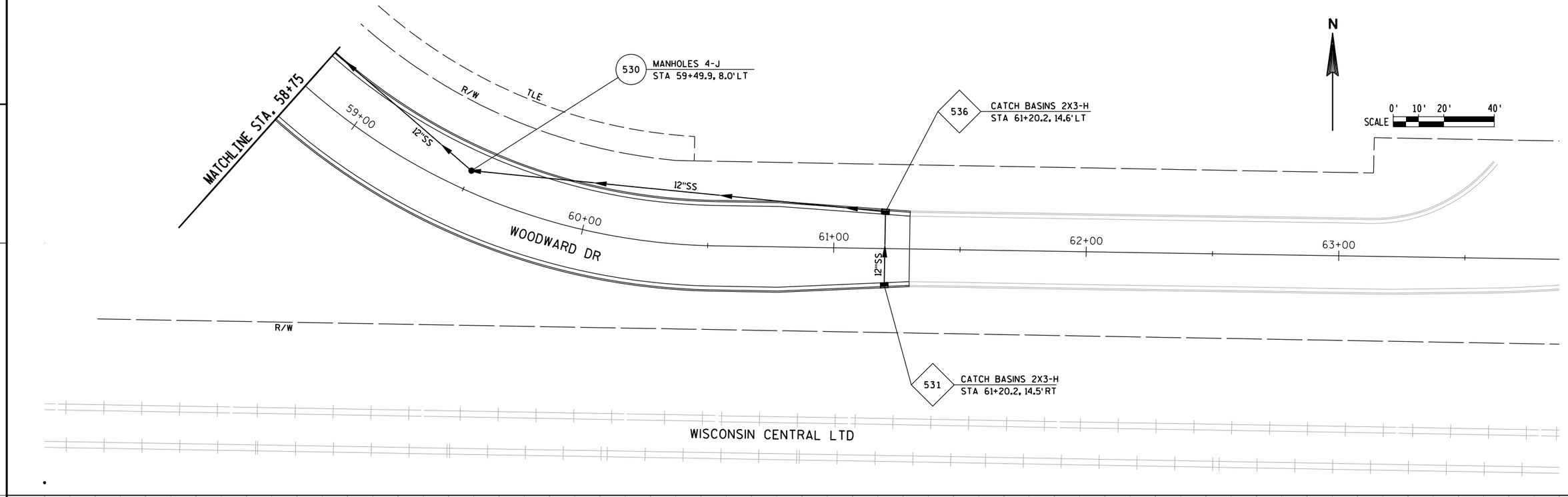
522
527
1093.62
1088.34
1088.55
1084.00
1085.05
1083.05
15" - 42'
RCCP @ 2.5%
15" - 34'
RCCP @ 0.6%

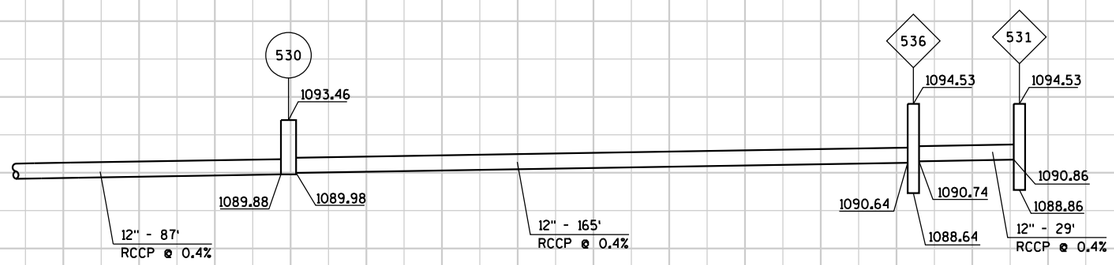
521
526
523
1093.19
1093.21
1089.69
1089.83
1089.93
1087.83
1089.96
1087.96
12" - 34'
RCCP @ 0.4%
12" - 8'
RCCP @ 0.4%

527
526
524
1093.62
1093.19
1093.21
12" - 87'
RCCP @ 0.4%
1088.65
1089.20
1089.30
1087.20
1089.54
1089.34
1087.34
1086.55
15" - 93'
RCCP @ 0.6%
15" - 8'
RCCP @ 0.4%

PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	STORM SEWER	SHEET 46	E

FILE NAME: P:\60334255\900-Work\910-CAD\20-Sheets\022506_ss.dgn
BATCH PRINT SHEET 6 OF 9
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PEN TABLE: P:\60334255\900-Work\910-CAD\20-Sheets\MS_Printing\Pen_Tables\ET_WisDOT_fade159.tbl
PLOT DATE: 7/22/2016
PLOT TIME: 6:28:35 AM
PLOT SCALE: 1:39.9999
WISDOT/CADDS SHEET 41





PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	STORM SEWER	SHEET 47	E

FILE NAME: P:\60334255\900-Work\910-CAD\20-Sheets\022507.ss.dgn
BATCH PRINT SHEET 7 OF 9
PRINTER DRIVER: L:\library\TPN_CADstds\Workspace-CLIENTS\WisDOT\MicroStation\Resources\MS_Printing\Printer_Drivers\ET_PDF_11 x 17.plt
PEN TABLE: P:\60334255\900-Work\910-CAD\20-Sheets\MS_Printing\Pen_Tables\ET_WisDOT_fade159.tbl
PLOT DATE: 7/22/2016
PLOT TIME: 6:28:37 AM
PLOT SCALE: 1:40
WISDOT/CADDS SHEET 41

2

APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 21-INCH
STA 20+94.6, 76.2'LT

END OF PIPE
STA 20+94.4, 70.5'LT

12"SS

CAUTION GAS

15"SS

134 CATCH BASINS 2X3-H
STA 17+00.0, 28.0'RT

21"SS

16+00 17+00 18+00 19+00 20+00 21+00 22+0

100+00

CONCRETE SIDEWALK

18"SS

12"SS

N

SCALE 0' 10' 20' 40'

132 MANHOLES 4-J
STA 103+29.7, 22.5'LT
STA 18+97.3, 79.3'RT

MANHOLES 5-J
STA 105+06.5, 54.6'LT
STA 21+00.0, 110.0'RT 131

APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH
STA 105+44.2, 72.0'LT
STA 21+48.1, 151.5'RT

101+00 MULTI-USE PATH 102+00 103+00 104+00 105+00

MANHOLES 5-J
STA 101+25.3, 35.4'LT
STA 17+00.0, 40.3'RT 133

ASPHALT

R/W

TLE

24"SS

END OF PIPE
STA 105+41.0, 69.3'LT
STA 21+43.5, 147.5'RT

RETENTION POND 2

1095 1090 1085 1100 1095 1090 1085

131 1089.44 1088.72
21" - 181'
RCCP @ 0.4%

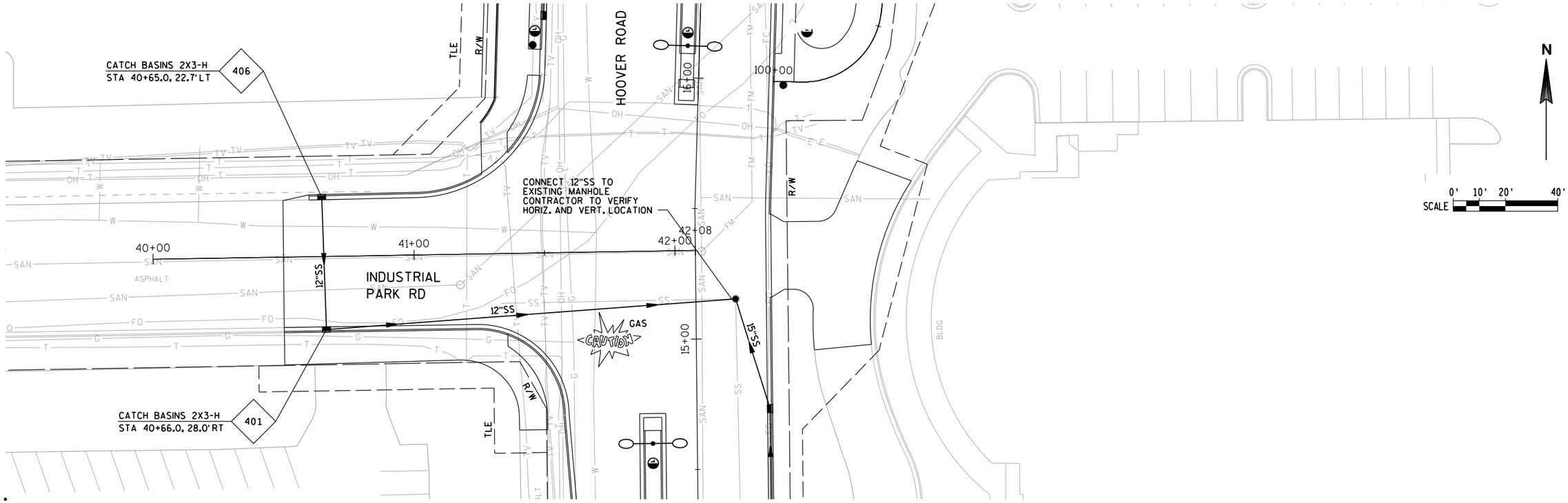
133 1101.37 1091.28
21" - 205'
RCCP @ 0.6%

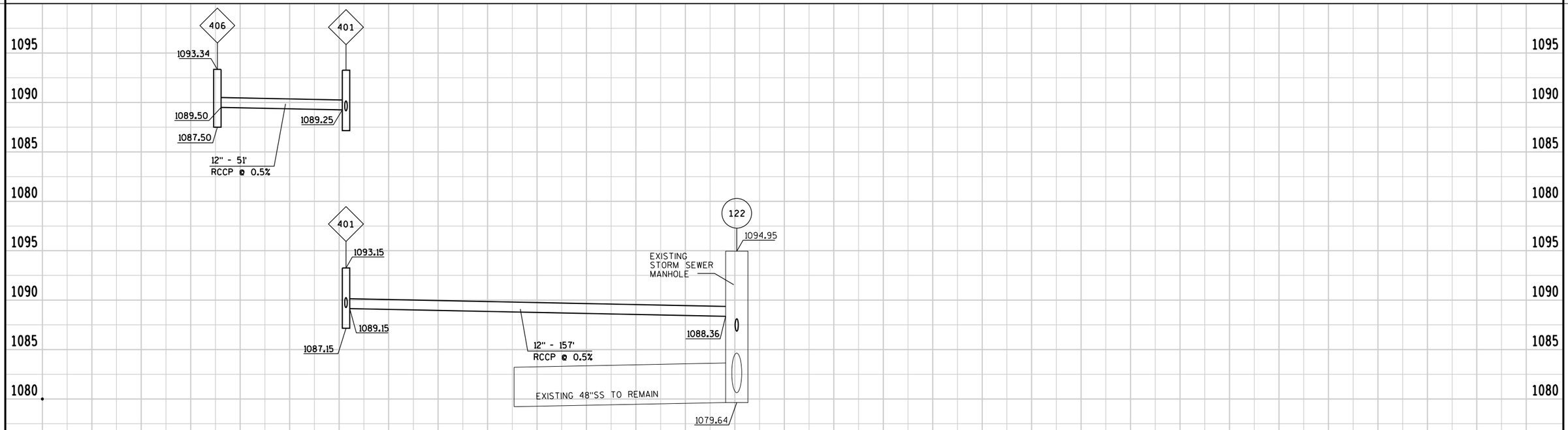
132 1097.11 1090.05 1089.95
21" - 205'
RCCP @ 0.6%

131 1095.07 1088.72 1088.52 1088.26
24" - 64'
RCCP @ 0.4%

PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	STORM SEWER	SHEET 48	E

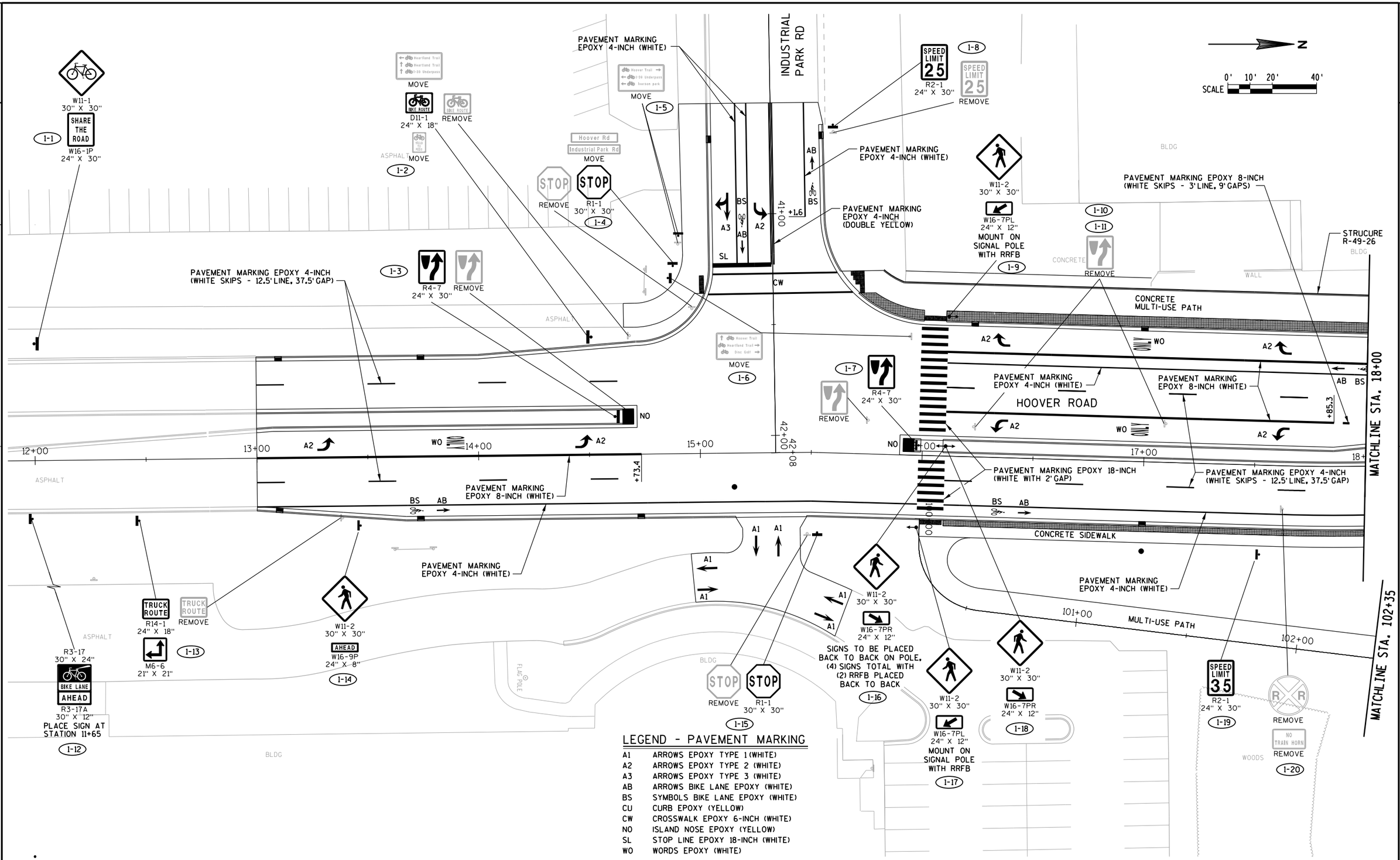
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BATCH PRINT SHEET 8 OF 9
PRINTER DRIVER: L:\library\TPN_CADstds\Workspace-CLIENTS\WisDOT\MicroStation\Resources\MS_Printing\Printer_Drivers\ET_PDF_11 x 17.plt
PEN TABLE: P:\60334255\900-Work\910-CAD\20-Sheets\MS_Printing\Pen_Tables\ET_WisDOT_fade159.tbl
PLOT DATE: 7/22/2016
PLOT TIME: 12:39:12 PM
PLOT SCALE: 1:39.9999
WISDOT/CADDS SHEET 41





PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	STORM SEWER	SHEET 49	E

FILE NAME: P:\60334255\900-Work\910-CAD\20-Sheets\022509_ss.dgn
BATCH PRINT SHEET 9 OF 9
PRINTER DRIVER: L:\library\TPN_CADstds\Workspace-CLIENTS\WisDOT\MicroStation\Resources\MS_Printing\Printer_Drivers\ET_PDF_11 x 17.plt
PEN TABLE: P:\60334255\900-Work\910-CAD\20-Sheets\MS_Printing\Pen_Tables\ET_WisDOT_fadel59.tbl
PLOT DATE: 7/22/2016
PLOT TIME: 6:28:40 AM
PLOT SCALE: 1:40
WISDOT/CADDS SHEET 41



LEGEND - PAVEMENT MARKING

A1	ARROWS EPOXY TYPE 1 (WHITE)
A2	ARROWS EPOXY TYPE 2 (WHITE)
A3	ARROWS EPOXY TYPE 3 (WHITE)
AB	ARROWS BIKE LANE EPOXY (WHITE)
BS	SYMBOLS BIKE LANE EPOXY (WHITE)
CU	CURB EPOXY (YELLOW)
CW	CROSSWALK EPOXY 6-INCH (WHITE)
NO	ISLAND NOSE EPOXY (YELLOW)
SL	STOP LINE EPOXY 18-INCH (WHITE)
WO	WORDS EPOXY (WHITE)

PROJECT NUMBER: 6998-11-70/71	HWY: HOOVER ROAD	COUNTY: PORTAGE	PERMANENT SIGNING AND PAVEMENT MARKING	SHEET 50	E

FILE NAME: P:\60334255\900-Work\910-CAD\20-Sheets\023201_ps.dgn
BATCH PRINT SHEET 1 OF 6
PRINTER DRIVER: L:\library\TPN_CADstds\Workspace-CLIENTS\WisDOT\MicroStation\Resources\MS_Printing\Printer_Drivers\ET_PDF_11 x 17.plt
PEN TABLE: P:\60334255\900-Work\910-CAD\20-Sheets\MS_Printing\Pen_Tables\ET_WisDOT_fade159.tbl
PLOT DATE: 7/22/2016
PLOT TIME: 6:28:52 AM
PLOT SCALE: 1:40
WISDOT/CADDS SHEET 42

2

N

REMOVE (2-1) SPEED LIMIT 35

REMOVE (2-2) Heartland Trail / I-39 Underpass / Iverson park

REMOVE (2-3)

REMOVE (2-4) HOOVER RD / JOERNS DR / STOP

REMOVE (2-5)

REMOVE (2-6) Heartland Trail / Lake Pacawa / Iverson park

REMOVE (2-7) Heartland Trail / I-39 Underpass / Heartland Trail

REMOVE (2-8) R-R / NO TRAIN HORN

REMOVE (2-9) SPEED LIMIT 35

REMOVE (2-10) SPEED LIMIT 25

PAVEMENT MARKING EPOXY 8-INCH (WHITE)

PAVEMENT MARKING EPOXY 4-INCH (WHITE)

STRUCURE R-49-26 (6998-11-71)

STRUCURE B-49-181 (6998-11-71)

CONCRETE MULTI-USE PATH

MATCHLINE STA. 18+00

BS +12.3

PAVEMENT MARKING EPOXY 8-INCH (WHITE SKIPS - 3'LINE, 9'GAPS)

PAVEMENT MARKING EPOXY 4-INCH (WHITE SKIPS - 3'LINE, 9'GAPS)

+65.0 AB BS

HOOVER ROAD

PAVEMENT MARKING EPOXY 4-INCH (WHITE)

AB BS

19+00 20+00 21+00 22+00 23+00 24+00

BS AB

CONCRETE SIDEWALK

PAVEMENT MARKING EPOXY 4-INCH (WHITE SKIPS - 12.5'LINE, 37.5'GAP)

PAVEMENT MARKING EPOXY 4-INCH (WHITE)

MATCHLINE STA. 24+00

MATCHLINE STA. 102+35

103+00 104+00 105+00

STRUCURE R-49-27 (6998-11-71)

WISCONSIN CENTRAL LTD

RETENTION POND 2

1089 1088 1087

0' 10' 20' 40' SCALE

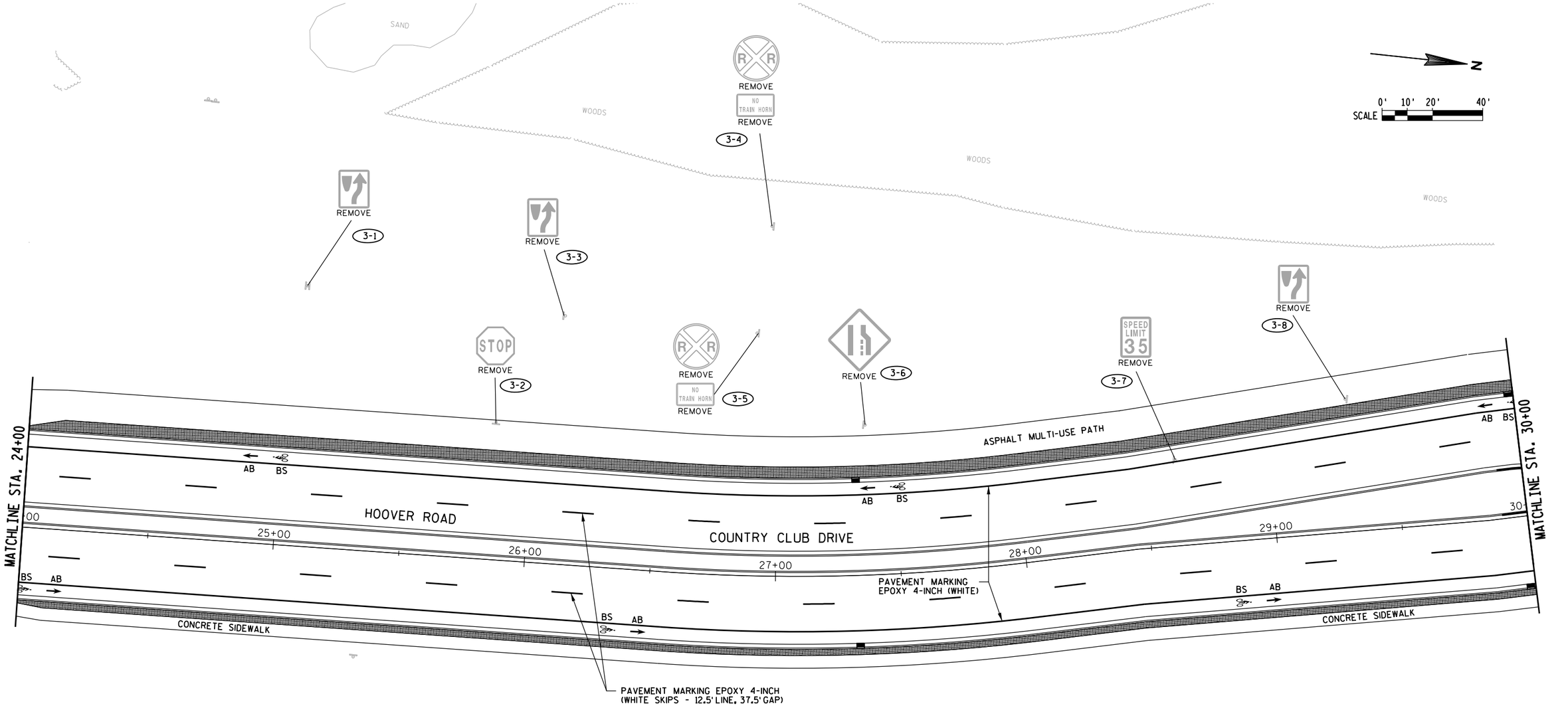
LEGEND - PAVEMENT MARKING

A1	ARROWS EPOXY TYPE 1 (WHITE)
A2	ARROWS EPOXY TYPE 2 (WHITE)
A3	ARROWS EPOXY TYPE 3 (WHITE)
AB	ARROWS BIKE LANE EPOXY (WHITE)
BS	SYMBOLS BIKE LANE EPOXY (WHITE)
CU	CURB EPOXY (YELLOW)
CW	CROSSWALK EPOXY 6-INCH (WHITE)
NO	ISLAND NOSE EPOXY (YELLOW)
SL	STOP LINE EPOXY 18-INCH (WHITE)
WO	WORDS EPOXY (WHITE)

PROJECT NUMBER: 6998-11-70/71	HWY: HOOVER ROAD	COUNTY: PORTAGE	PERMANENT SIGNING AND PAVEMENT MARKING	SHEET 51	E

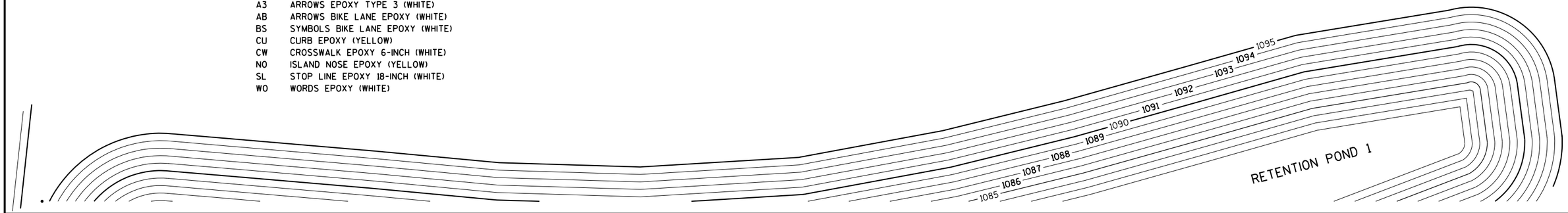
FILE NAME: P:\60334255\900-Work\910-CAD\20-Sheets\023202_ps.dgn
BATCH PRINT SHEET 2 OF 6
PRINTER DRIVER: L:\library\TPN_CADstds\Workspace-CLIENTS\WisDOT\MicroStation\Resources\MS_Printng\Printer_Drivers\ET_PDF_11 x 17.plt
PEN TABLE: P:\60334255\900-Work\910-CAD\20-Sheets\MS_Printng\Pen_Tables\ET_WisDOT_fadel59.tbl
PLOT DATE: 7/22/2016
PLOT TIME: 6:28:54 AM
PLOT SCALE: 1:40
WISDOT/CADDS SHEET 42

2



LEGEND - PAVEMENT MARKING

A1	ARROWS EPOXY TYPE 1 (WHITE)
A2	ARROWS EPOXY TYPE 2 (WHITE)
A3	ARROWS EPOXY TYPE 3 (WHITE)
AB	ARROWS BIKE LANE EPOXY (WHITE)
BS	SYMBOLS BIKE LANE EPOXY (WHITE)
CU	CURB EPOXY (YELLOW)
CW	CROSSWALK EPOXY 6-INCH (WHITE)
NO	ISLAND NOSE EPOXY (YELLOW)
SL	STOP LINE EPOXY 18-INCH (WHITE)
WO	WORDS EPOXY (WHITE)

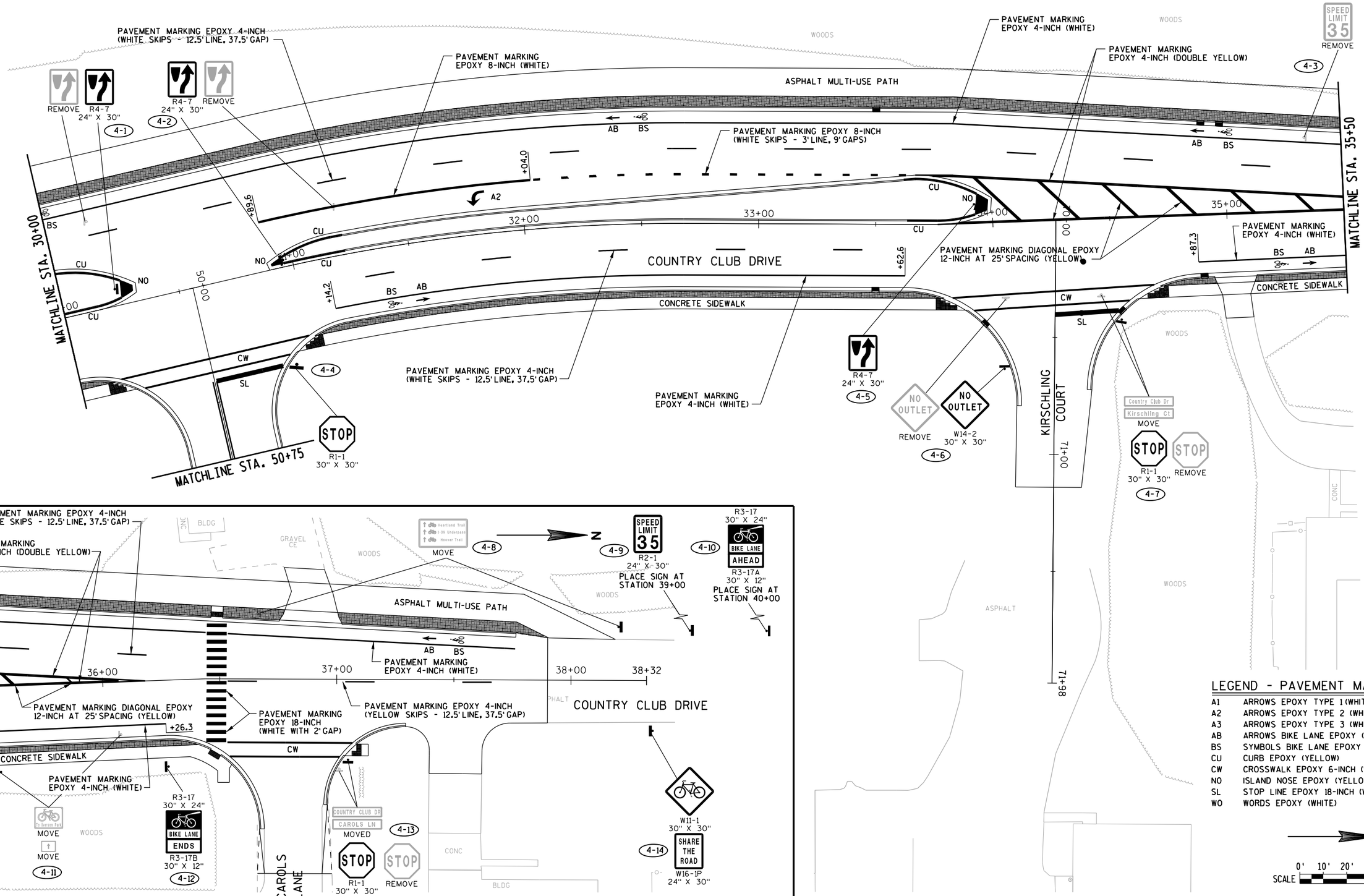


CU

CU

PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	PERMANENT SIGNING AND PAVEMENT MARKING	SHEET 52	E

FILE NAME: P:\60334255\900-Work\910-CAD\20-Sheets\023203_ps.dgn
BATCH PRINT SHEET 3 OF 6
PRINTER DRIVER: L:\library\TPN_CADstds\Workspace-CLIENTS\WisDOT\MicroStation\Resources\MS_Printing\Printer_Drivers\ET_PDF_11 x 17.plt
PEN TABLE: P:\60334255\900-Work\910-CAD\20-Sheets\MS_Printing\Pen_Tables\ET_WisDOT_fade159.tbl
PLOT DATE: 7/22/2016
PLOT TIME: 6:28:56 AM
PLOT SCALE: 1:40
WISDOT/CADDS SHEET 42



LEGEND - PAVEMENT MARKING

A1	ARROWS EPOXY TYPE 1 (WHITE)
A2	ARROWS EPOXY TYPE 2 (WHITE)
A3	ARROWS EPOXY TYPE 3 (WHITE)
AB	ARROWS BIKE LANE EPOXY (WHITE)
BS	SYMBOLS BIKE LANE EPOXY (WHITE)
CU	CURB EPOXY (YELLOW)
CW	CROSSWALK EPOXY 6-INCH (WHITE)
NO	ISLAND NOSE EPOXY (YELLOW)
SL	STOP LINE EPOXY 18-INCH (WHITE)
WO	WORDS EPOXY (WHITE)

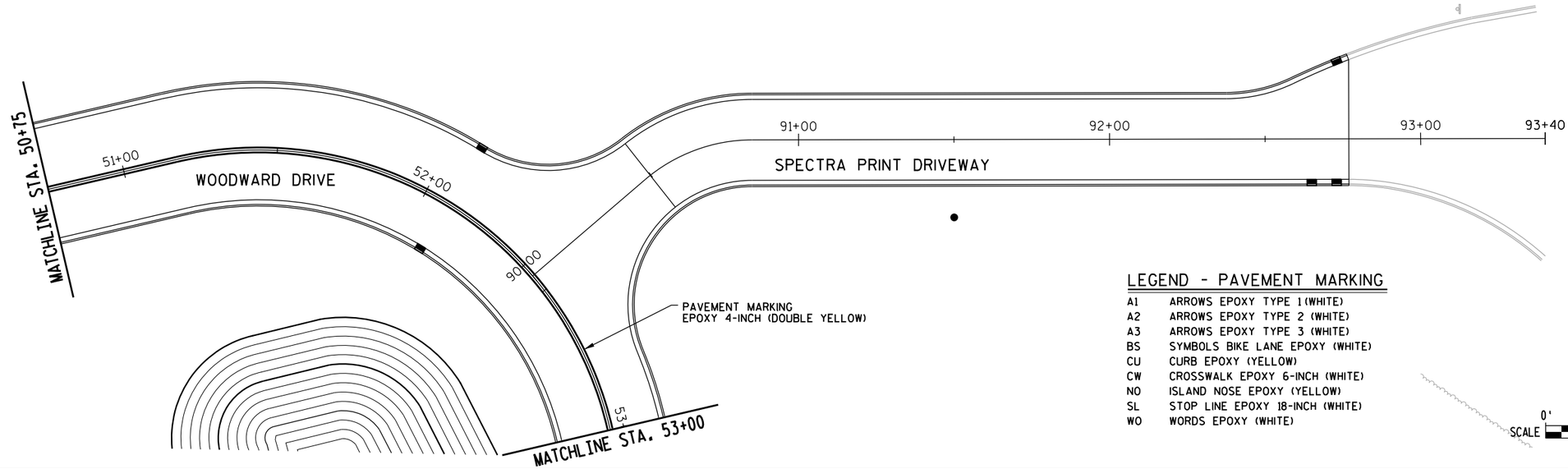
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SCALE 0' 10' 20' 40'

PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	PERMANENT SIGNING AND PAVEMENT MARKING	SHEET 53	E

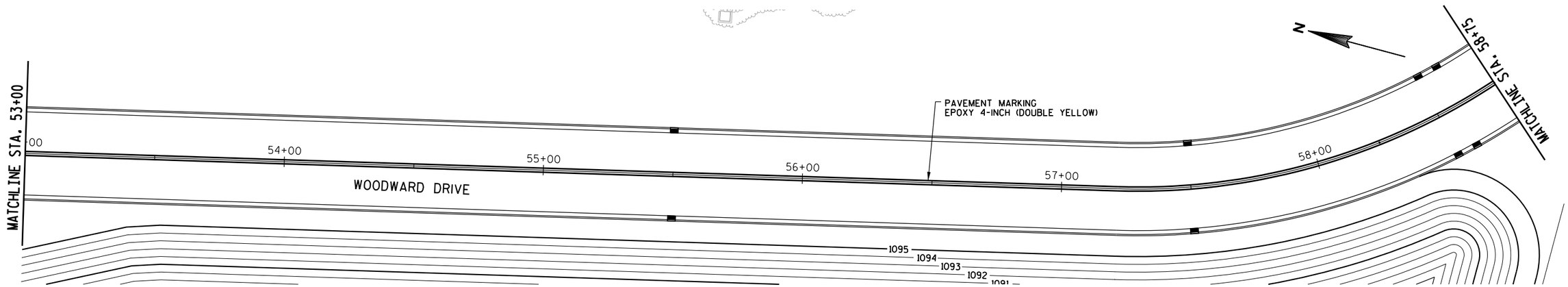
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PLOT SCALE: 1:40
WISDOT/CADDS SHEET 42

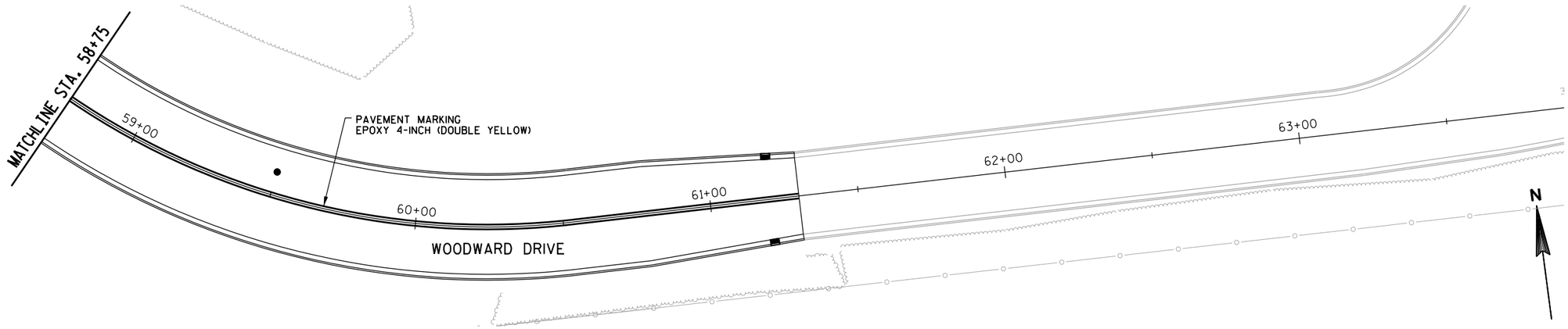
2



LEGEND - PAVEMENT MARKING

A1	ARROWS EPOXY TYPE 1 (WHITE)
A2	ARROWS EPOXY TYPE 2 (WHITE)
A3	ARROWS EPOXY TYPE 3 (WHITE)
BS	SYMBOLS BIKE LANE EPOXY (WHITE)
CU	CURB EPOXY (YELLOW)
CW	CROSSWALK EPOXY 6-INCH (WHITE)
NO	ISLAND NOSE EPOXY (YELLOW)
SL	STOP LINE EPOXY 18-INCH (WHITE)
WO	WORDS EPOXY (WHITE)

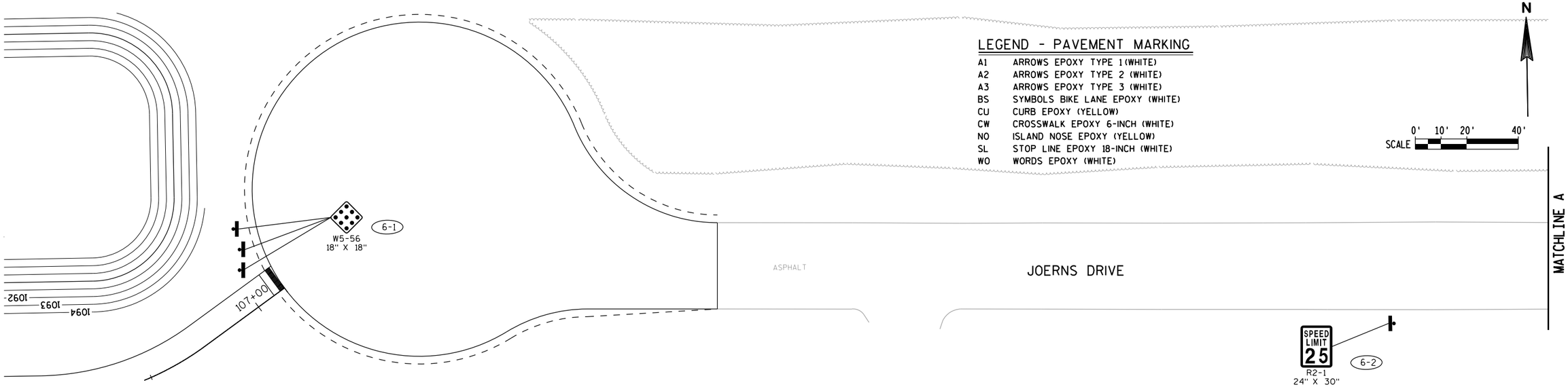


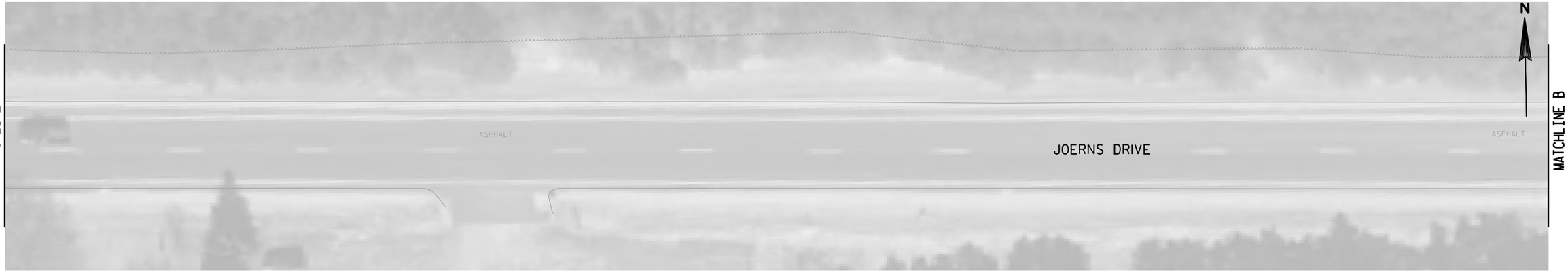


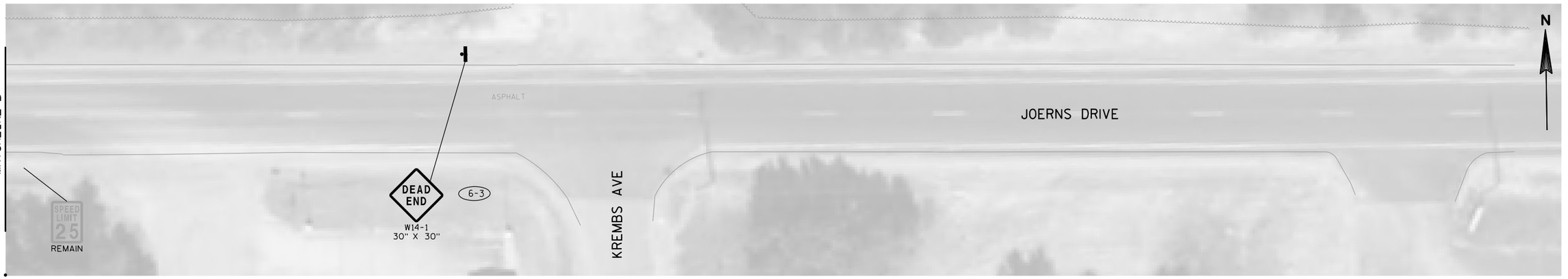
PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	PERMANENT SIGNING AND PAVEMENT MARKING	SHEET 54	E

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PLOT TIME: 6:29:02 AM
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WISDOT/CADDS SHEET 42

2



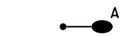




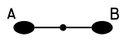
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WISDOT/CADDS SHEET 42

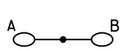
LIGHTING PLAN LEGEND



PROPOSED 120V LED LIGHTING UNIT, TYPE 5 ALUMINUM POLE, SINGLE 10' TRUSS ARM, WITH FESTOON GFCI RECEPTACLE, ON A TYPE 7 CONCRETE BASE WITH TRANSFORMER BASE. CIRCUIT AS SHOWN.



PROPOSED 120V LED LIGHTING UNIT, TYPE 5 ALUMINUM POLE, TWIN TRUSS ARM, LENGTH AS INDICATED ON PLANS, WITH FESTOON GFCI RECEPTACLE, ON A TYPE 7 CONCRETE BASE WITH TRANSFORMER BASE. CIRCUIT AS SHOWN.



PROPOSED 120V LED LIGHTING AND RRFB UNIT, TYPE 4 STEEL POLE, TWIN TRUSS ARM, LENGTH AS INDICATED ON PLANS, WITH FESTOON GFCI RECEPTACLE, ON A TYPE 7 CONCRETE BASE WITH TRANSFORMER BASE. CIRCUIT AS SHOWN.



ELECTRICAL SERVICE METER BREAKER PEDESTAL AS SHOWN ON PLANS



CONTROL CABINET & BASE (L-30) FOR ROUNDABOUT AND LOCAL LIGHTING CONTROL

CONDUIT RIGID NONMETALLIC



24"X42" NON-CONDUCTIVE PULL BOX

STANDARD POLE FOR RRFB EQUIPMENT

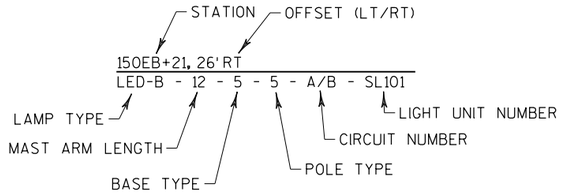
PUSH BUTTON

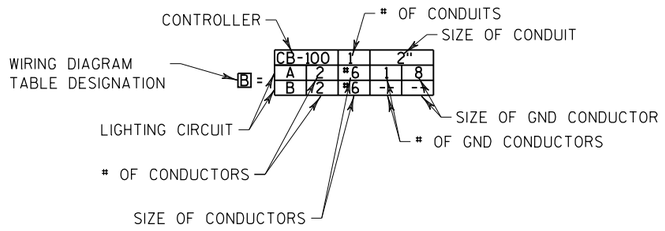


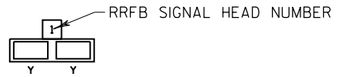
SIGNAL HEAD NUMBER



YELLOW RECTANGULAR RAPID FLASHING BEACON







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

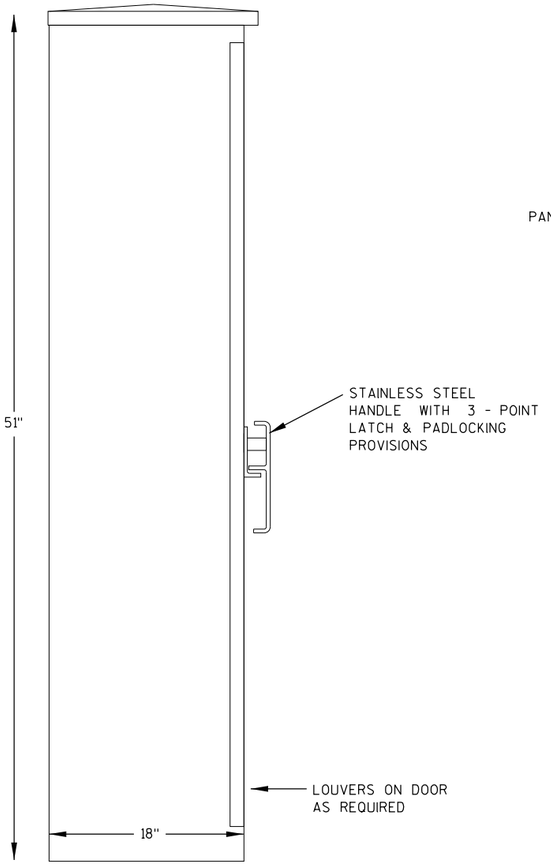
LIGHTING GENERAL NOTES

1. VERIFY ALL OF THE INFORMATION SHOWN ON THE CONTRACT DRAWINGS WHICH WOULD AFFECT THE WORK UNDER THIS CONTRACT.
2. ALL NEW CONDUITS, CABLE DUCTS, DIRECT BURIAL CABLES, AND ACCESSORIES ARE INDICATED DIAGRAMMATICALLY ON THE DRAWINGS. THE ACTUAL LOCATIONS IN THE FIELD SHALL MEET WITH APPROVAL OF THE ENGINEER.
3. PERFORM THE ELECTRICAL WORK IN ACCORDANCE WITH THE CITY OF STEVENS POINT'S LIGHTING STANDARDS AND WISDOT LATEST STANDARDS, THE SPECIAL PROVISIONS AND APPLICABLE SECTIONS OF THE WISDOT STANDARD SPECIFICATIONS (LATEST EDITION).
4. INSTALL ALL FOUNDATIONS IN ORDER FOR THE PROPOSED AND FUTURE LUMINAIRES TO BE ORIENTED WITH THE OPTICS PERPENDICULAR TO THE ROADWAY UNLESS OTHERWISE INDICATED OR DIRECTED BY THE ENGINEER.
5. INSTALL CONDUITS AT A MINIMUM 24" DEPTH BELOW GRADE AND POSITIONED IN THE FIELD TO AVOID CONFLICT WITH ROADWAY UNDERDRAINS AND OTHER EXISTING AND PROPOSED UTILITIES. INCREASE DEPTH OF DUCT AND CONDUIT AS REQUIRED AT NO ADDITIONAL COST. COORDINATE RACEWAY DEPTH WITH THE ELECTRICAL DETAILS AND THE ENGINEER.
6. ALL CONDUITS INSTALLED UNDER PAVED AREAS SHALL BE SCHEDULE 80 PVC. ALL CONDUITS INSTALLED IN NON-PAVED AREAS SHALL BE SCHEDULE 40 PVC.
7. CAP CONDUIT ON BOTH ENDS UNTIL CABLING IS PLACED. FURNISH AND INSTALL A MANUFACTURER APPROVED CAP FOR ALL CONDUITS. DUCT TAPE AND OTHER TAPE IS NOT ACCEPTABLE MEANS OF CONDUIT CAP. EXTEND CONDUIT ONE FOOT BEYOND THE BACK OF CURB EDGE OR TWO FEET BEYOND SHOULDER IF NO CURB.
8. FURNISH AND INSTALL CABLE PULL STRINGS OR WIRES IN ALL CONDUITS. PULL WIRES MUST BE ACCESSIBLE AND ANCHORED AT EACH CONDUIT END FOR EASY FUTURE ACCESS.
9. ALL POLES SHALL BE MOUNTED ON TRANSFORMER TYPE BREAKAWAY BASES AND SHALL BE LOCATED AS SHOWN ON THE PLANS.
10. LIGHTING SYMBOLS ARE ENLARGED FOR CLARITY, USE CENTER OF SYMBOL TO LOCATE EQUIPMENT IN THE FIELD.
11. FESTOON OUTLETS SHALL BE MOUNTED 10 FEET ABOVE TRANSFORMER BASE WITH A 20 AMP/125 VOLT, GFCI TYPE RECEPTACLE AND WEATHERPROOF ENCLOSURE AND COVER.

RECTANGULAR RAPID FLASHING BEACON (RRFB) GENERAL NOTES

1. LENSES ARE MIN. 5"W x 2"H.
2. SEE THE PERMANENT SIGNING PLAN FOR RRFB SIGN DETAILS.
3. SEE RECTANGULAR RAPID FLASHING BEACON DETAIL FOR INFORMATION ON RRFB ASSEMBLIES.

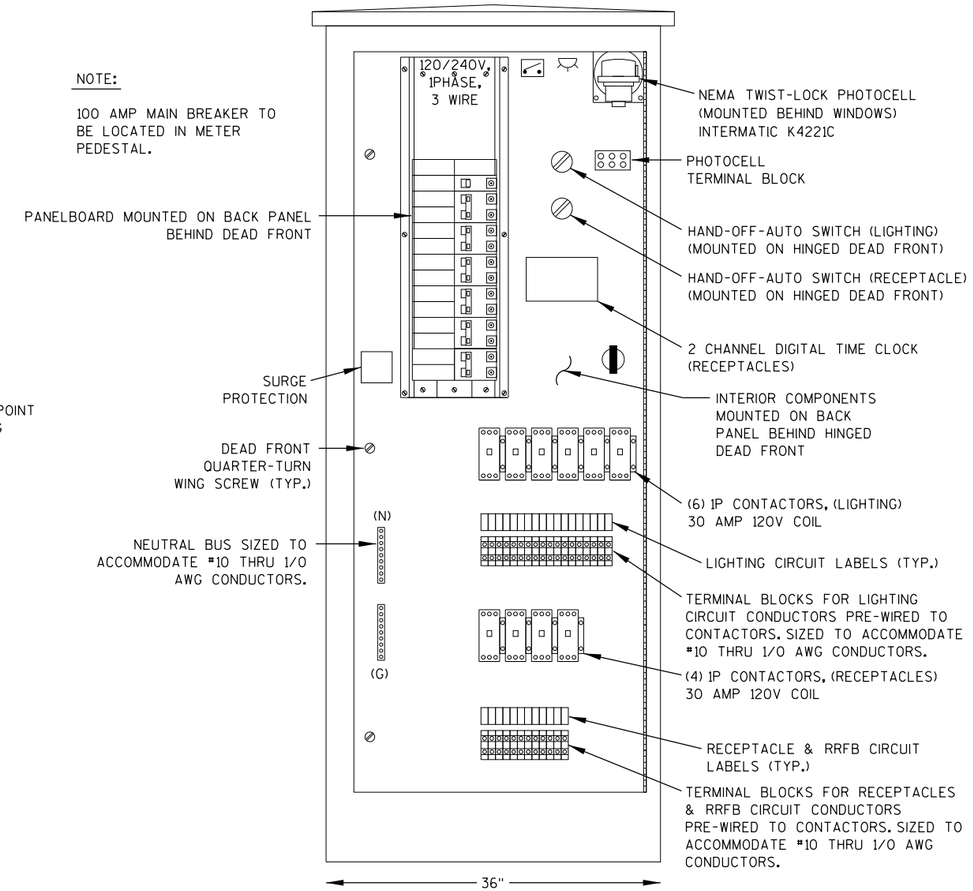
LEFT SIDE VIEW



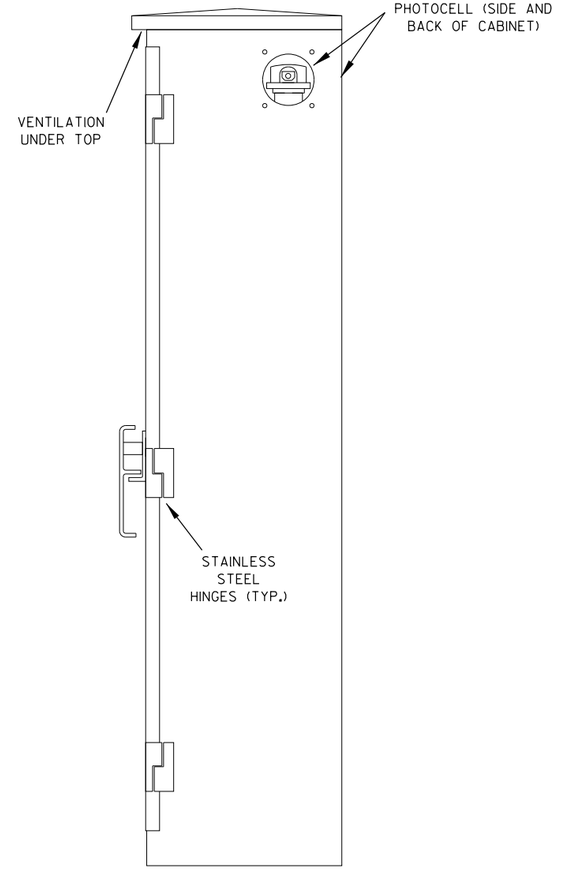
FRONT INTERIOR ELEVATION

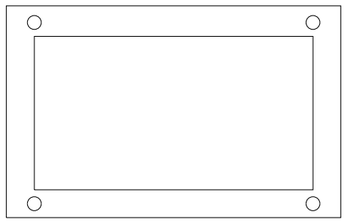
NOTE:

100 AMP MAIN BREAKER TO BE LOCATED IN METER PEDESTAL.



RIGHT SIDE VIEW





BASE FLANGE WITH GASKET

PANELBOARD:

- 30 CIRCUIT MIN.
- 100 AMP MAIN LUGS ONLY
- COPPER BUS
- BOLT-ON BREAKERS
- 22K AIC
- REFER TO SCHEMATICS FOR BREAKERS REQ'D.

NOTES:

1) ALL FEEDER/BRANCH CIRCUITS TO INCLUDE NEC SIZED EQUIPMENT GROUND CONDUCTORS.
2) REFER TO PLAN DRAWINGS FOR FEEDER/BRANCH CIRCUIT WIRE AND CONDUIT SIZES.
3) REFER TO DETAIL DRAWINGS FOR CONCRETE MOUNTING PAD DETAILS.

LEGEND

20 AMP GFCI DUPLEX RECEPTACLE WITH COVER, 120V

SPST, 20 AMP SWITCH ON DOOR, TO TURN ON LIGHT WHEN DOOR IS OPEN

13 LED, 3 WATT, 120V LIGHT BAR

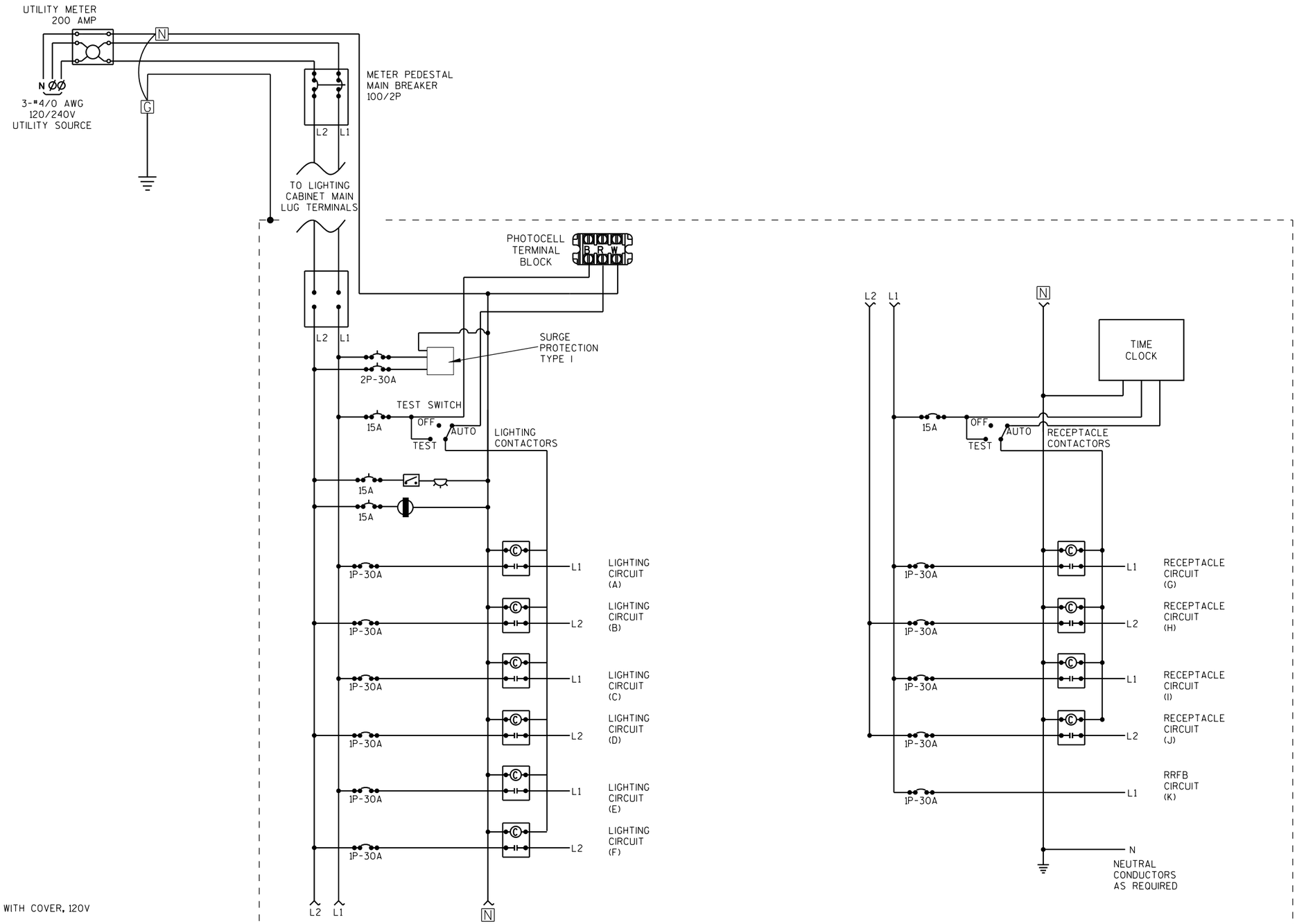
BOX CONSTRUCTION:

- NEMA 3R
- UL 508A LISTED AND LABELED
- 1/8" ALUMINUM 5052-H32 ANODIZED CLEAR
- BENT CONSTRUCTION - ONE PIECE SIDES AND BACK
- NEOPRENE GASKETED DOORS
- STAINLESS STEEL HARDWARE
- ETL LISTED IN ACCORDANCE W/UL508A
- DOOR KEEP TO HOLD DOOR WHILE OPEN

LIGHTING CONTROL CABINET - LAYOUT

NO SCALE SHEET 1 OF 2

E-2



LEGEND

20 AMP GFCI DUPLEX RECEPTACLE WITH COVER, 120V

SPST, 20 AMP SWITCH ON DOOR, TO TURN ON LIGHT WHEN DOOR IS OPEN

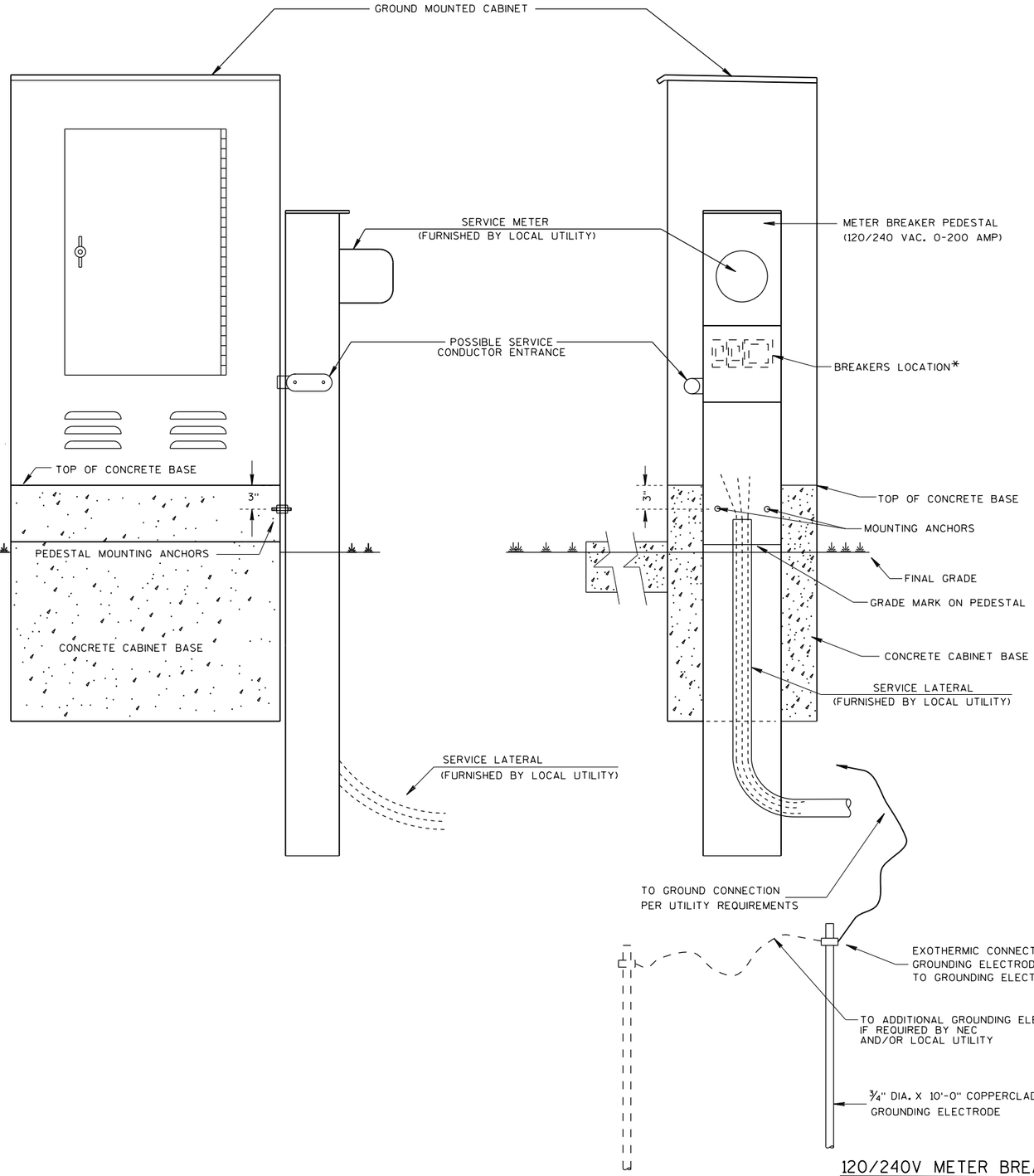
13 LED, 3 WATT, 120V LIGHT BAR

LIGHTING CONTROL CABINET - SCHEMATICS

NO SCALE SHEET 2 OF 2

E-3

PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	LIGHTING - CONSTRUCTION DETAILS-CONTROL CABINET SCHEMATICS	SHEET 58	E



120/240V METER BREAKER PEDESTAL
NOT TO SCALE

NOTES

1. DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.
2. THE EXACT LOCATION OF THE METER BREAKER PEDESTAL SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.
3. THE TYPE OF CONCRETE CABINET BASE TO BE INSTALLED SHALL BE AS CALLED FOR IN THE PLANS.
4. 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.
5. 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.
6. SERVICE CONDUCTOR ENTRANCES SHALL BE RIGID METALLIC CONDUIT OR SCHEDULE 80 PVC, NIPPLES AND/OR CONDULETS AS REQUIRED. CONDUIT LB SHALL BE OF METALLIC SERVICE ENTRANCE TYPE.
7. 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.
8. IF MORE THAN ONE GROUNDING ELECTRODE IS REQUIRED, THE DISTANCE APART SHALL BE 6 FEET OR PER NEC.

* SOME PEDESTAL LIGHTING PLANS SHOW MAIN LUGS ONLY.

2

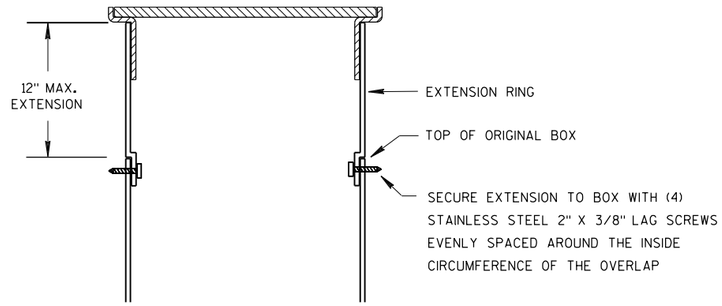
E-4

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

DIMENSION IN INCHES		NON-CONDUCTIVE PULL BOX	
BOX DIAMETER ** (INSIDE)	A	24	24
BOX DIAMETER ** (OUTSIDE)	B	25	25
BOX LENGTH	C	36	42
COVER	D	25 1/2	25 1/2
FRAME	E	27	27
FRAME	F	25 3/4	25 3/4
FRAME	G	22 1/2	22 1/2
WEIGHT IN POUNDS *			
COVER		50	50

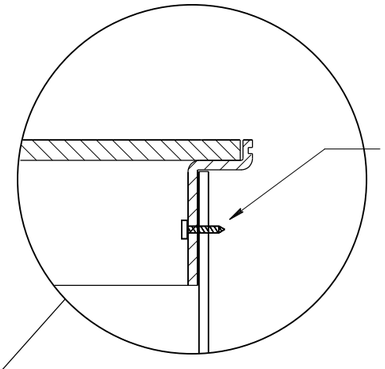
* THE ACTUAL WEIGHT OF THE COVER MAY VARY NOT TO EXCEED 100 LBS.

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

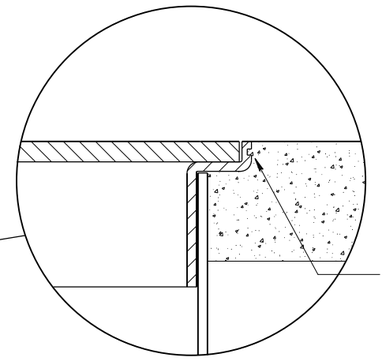


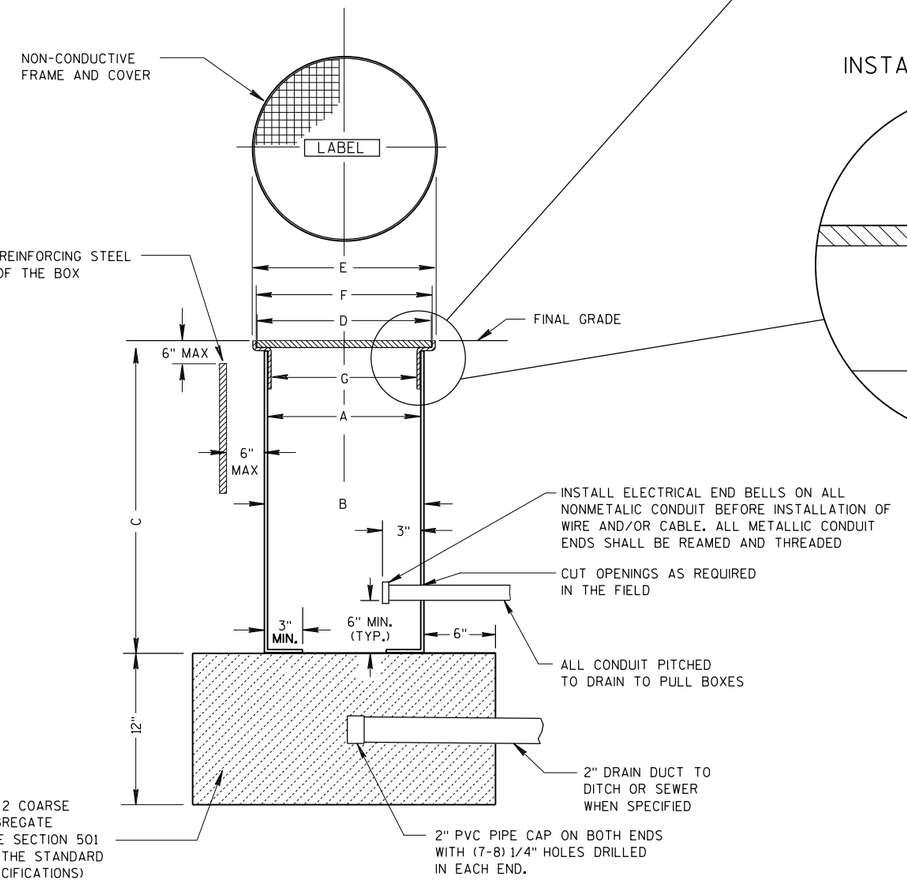
BOX EXTENSION

INSTALLED IN SOD OR CRUSHED AGGREGATE



INSTALLED IN SIDEWALK





NON-CONDUCTIVE PULL BOX

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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 OR LIGHTING SYSTEMS. "WISDOT COMMUNICATIONS" FOR COMMUNICATIONS SYSTEMS.

2

120/240 VOLT, 1-PHASE LIGHTING CONTROLLER CABINET NO. 1

LOCATION: STA: 12+78.0, 54.0' LT

Electrical Panel: NO. 1

NOTE 3

Rating: 100A
Voltage: 120/240 Volts, _1__ Phase __3___ Wire
Feeder Conductors: __2____AWG
Main Brkr: 100 A - 2P

Ckt	Brkr Amps	Brkr Poles 1 or 2	Description	VA		A	B	VA		Description	Brkr Poles 1 or 2	Brkr Amps	Ckt
1	30	1	LIGHTING CIRCUIT A	1071		X		-		LIGHTING CIRCUIT D	1	30	2
3	30	1	LIGHTING CIRCUIT B		1071		X		-	LIGHTING CIRCUIT E	1	30	4
5	30	1	LIGHTING CIRCUIT C	-		X		-		LIGHTING CIRCUIT F	1	30	6
7	30	1	RECEPTACLE CIRCUIT G		1260		X		-	RECEPTACLE CIRCUIT I	1	30	8
9	30	1	RECEPTACLE CIRCUIT H	-		X		-		RECEPTACLE CIRCUIT J	1	30	10
11	15	1	H-O-A SWITCH LIGHTING		60		X		-	SURGE PROTECTION	2	30	12
13	15	1	H O A SWITCH RECEPTACLE	60		X		-					14
15	15	1	CABINET LIGHT		60		X		3600	RRFB SYSTEM	1	30	16
17	15	1	CABINET RECEPTACLE	180		X				SPARE	1	30	18
19	15	1	SPARE				X			SPARE	1	15	20
21			SPACE			X				SPACE			22
23			SPACE				X			SPACE			24
			TOTALS	1311	2451			0	3600	TOTALS			

BUS A: 1311
BUS B: 6051

LOAD: 7362

7.36 KVA DEMAND

120/240 VOLT, 1-PHASE LIGHTING CONTROLLER CABINET NO. 2

LOCATION: STA: 37+31.2, 43.1' LT

Electrical Panel: NO. 2

Rating: 100A
Voltage: 120/240 Volts, _1__ Phase __3___ Wire
Feeder Conductors: __2____AWG
Main Brkr: 100 A - 2P

Ckt	Brkr Amps	Brkr Poles 1 or 2	Description	VA		A	B	VA		Description	Brkr Poles 1 or 2	Brkr Amps	Ckt
1	30	1	LIGHTING CIRCUIT A	1683		X		-		LIGHTING CIRCUIT D	1	30	2
3	30	1	LIGHTING CIRCUIT B		1530		X		-	LIGHTING CIRCUIT E	1	30	4
5	30	1	LIGHTING CIRCUIT C	-		X		-		LIGHTING CIRCUIT F	1	30	6
7	30	1	RECEPTACLE CIRCUIT G		2340		X		-	RECEPTACLE CIRCUIT I	1	30	8
9	30	1	RECEPTACLE CIRCUIT H	-		X		-		RECEPTACLE CIRCUIT J	1	30	10
11	15	1	H-O-A SWITCH LIGHTING		60		X		-	SURGE PROTECTION	2	30	12
13	15	1	H O A SWITCH RECEPTACLE	60		X		-					14
15	15	1	CABINET LIGHT		60		X			SPARE	1	30	16
17	15	1	CABINET RECEPTACLE	180		X				SPARE	1	30	18
19	15	1	SPARE				X			SPARE	1	15	20
21			SPACE			X				SPACE			22
23			SPACE				X			SPACE			24
			TOTALS	1923	3990			0	0	TOTALS			

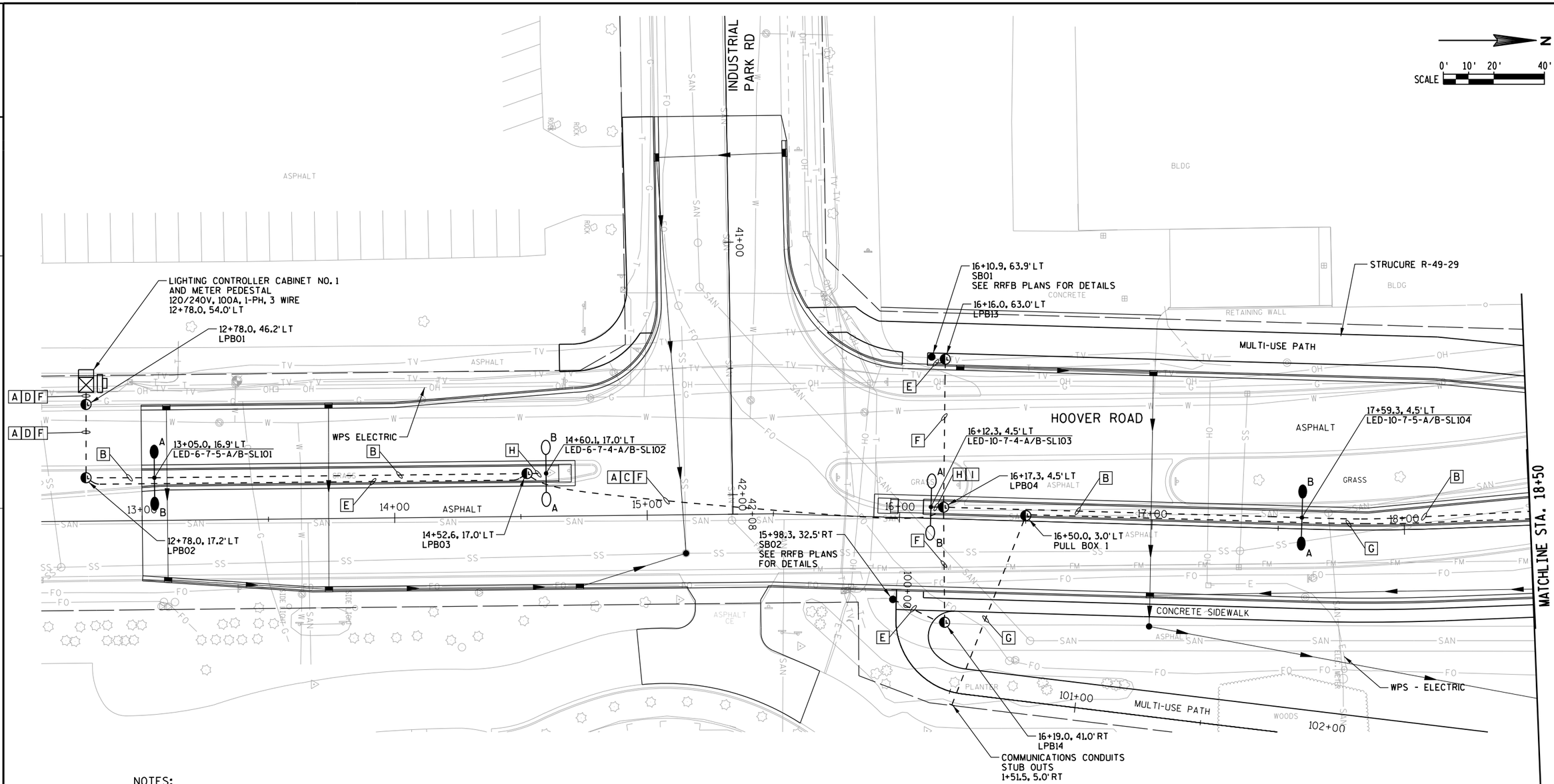
BUS A: 1923
BUS B: 3990

LOAD: 5913

5.91 KVA DEMAND

NOTES:

1. LOADS SHOWN ARE FOR INFORMATION ONLY AND WILL VARY BY FIXTURE AND MANUFACTURER.
2. PROVIDE AND INSTALL ADDITIONAL SPARE CIRCUIT BREAKERS ON EACH SIDE OF EACH PANELBOARD FOR FUTURE USE AS SHOWN.
3. A 1-POLE, 30 AMP CIRCUIT BREAKER FOR THE RRFB SYSTEM WILL BE PROVIDED IN LIGHTING CONTROLLER CABINET NO. 1 ONLY.



NOTES:

1. SEE DRAWING E-1 FOR SYMBOLS AND GENERAL NOTES.
2. THE EXACT LOCATION OF THE METER PEDESTAL SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD. SEE DRAWING E-4 FOR METER PEDESTAL DETAILS.
3. PROVIDE A SEPARATE 120 VOLT FESTOON RECEPTACLE CIRCUIT 'G' TO EACH LIGHT POLE.
4. PROVIDE A SEPARATE 120 VOLT CIRCUIT FOR THE RRFB SYSTEM.
5. PROVIDE THREE 1-1/4" CONDUITS (EMPTY) FOR FUTURE COMMUNICATIONS. CONDUITS SHALL NOT BE ROUTED THROUGH LIGHTING SYSTEM FOUNDATIONS AND PULL BOXES.

A

NO. 1		1	3"	
A	1	#6	1	#6
B	1	#6		
N	1	#6		
G	1	#6	NOTE 3	
N	1	#6		

B

NO. 1		1	2"	
A	1	#6	1	#6
B	1	#6		
N	1	#6		
G	1	#6	NOTE 3	
N	1	#6		

C

NO. 1	1	3"
SPARE CONDUIT		

D

NO. 1	3	3"
SPARE CONDUITS		

E

NO. 1		1	2"	
K	1	#10	1	#10
N	1	#10		
NOTE 4				

F

NO. 1		1	3"	
K	1	#10	1	#10
N	1	#10		
NOTE 4				

G

COMM	3	1-1/4"
SPARE CONDUITS		
NOTE 5		

H

NO. 1		1	3"	
A	2	#6	1	#6
B	2	#6		
N	2	#6		
G	2	#6		
N	2	#6		

I

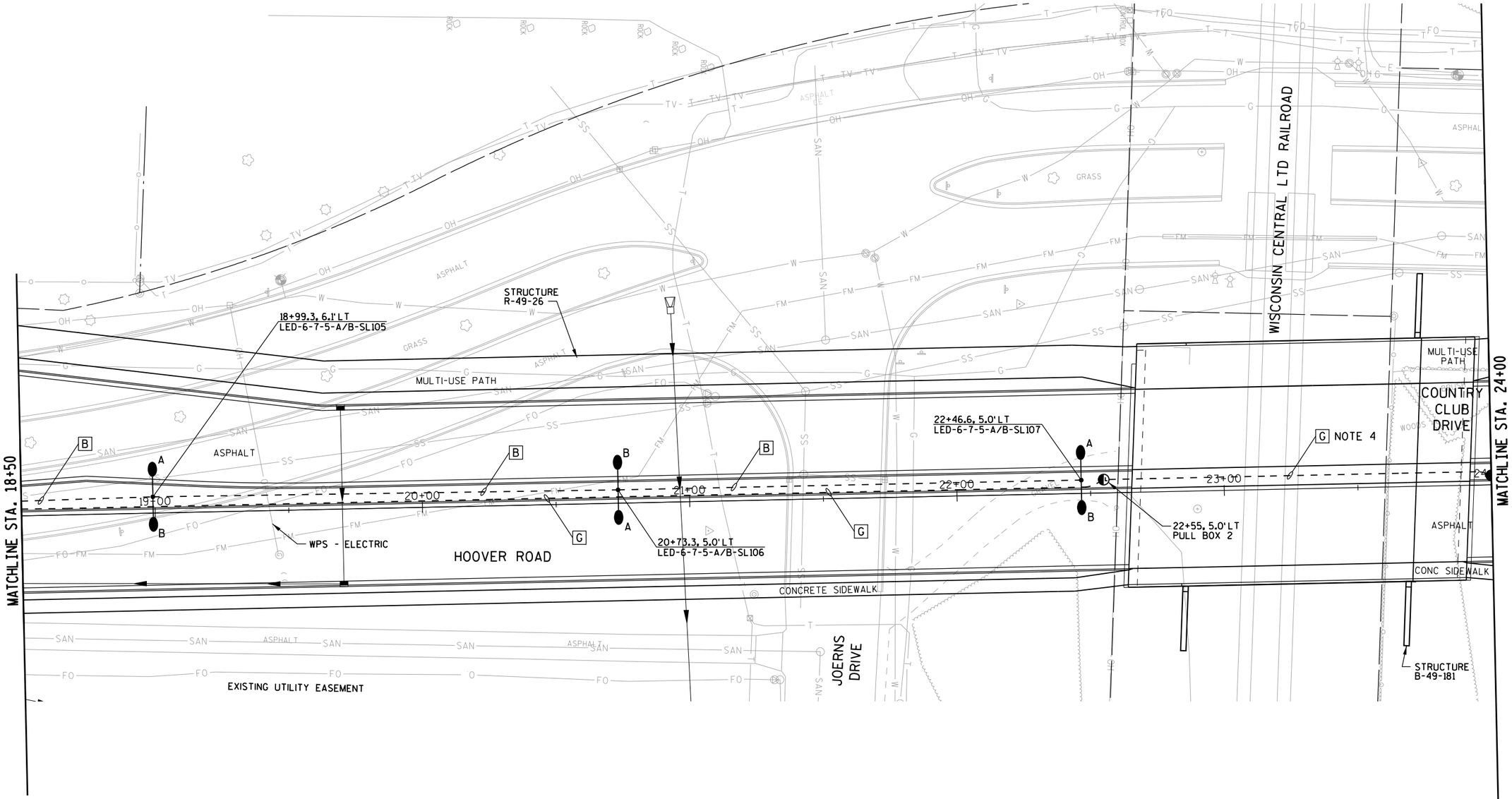
NO. 1		1	2"	
K	3	#10	1	#10
N	3	#10		
NOTE 4				

E-7

PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	LIGHTING PLAN	SHEET 62	E

FILE NAME: P:\60334255\900-Work\910-CAD\20-Sheets\023507_lp.dgn
BATCH PRINT SHEET 1 OF 5
PRINTER DRIVER: L:\library\TPN_CADstds\Workspace-CLIENTS\WisDOT\MicroStation\Resources\MS_Printing\Printer_Drivers\ET_PDF_11 x 17.plt
PEN TABLE: P:\60334255\900-Work\910-CAD\20-Sheets\MS_Printing\Pen_Tables\ET_WisDOT_fade159.tbl
PLOT DATE: 7/22/2016
PLOT TIME: 10:54:44 AM
PLOT SCALE: 1:40
WISDOT/CADDS SHEET 42

2



NOTES:

1. SEE DRAWING E-1 FOR SYMBOLS AND GENERAL NOTES.
2. PROVIDE A SEPARATE 120 VOLT FESTOON RECEPTACLE CIRCUIT 'G' TO EACH LIGHT POLE.
3. PROVIDE THREE 1-1/4" CONDUITS (EMPTY) FOR FUTURE COMMUNICATIONS. CONDUIT SHALL NOT BE ROUTED THROUGH LIGHTING SYSTEM FOUNDATIONS AND PULL BOXES.
4. SEE STRUCTURE PLAN B-49-0181 FOR CONDUIT LOCATION INSTALLED IN RAISED MEDIAN ON THE BRIDGE. COORDINATE WITH STRUCTURE CONTRACTOR.

B

NO. 1		1	2"	
A	1	#6	1	#6
B	1	#6		
N	1	#6		
G	1	#6	NOTE 2	
N	1	#6		

G

COMM	3	1-1/4"
SPARE CONDUITS NOTE 3		

N

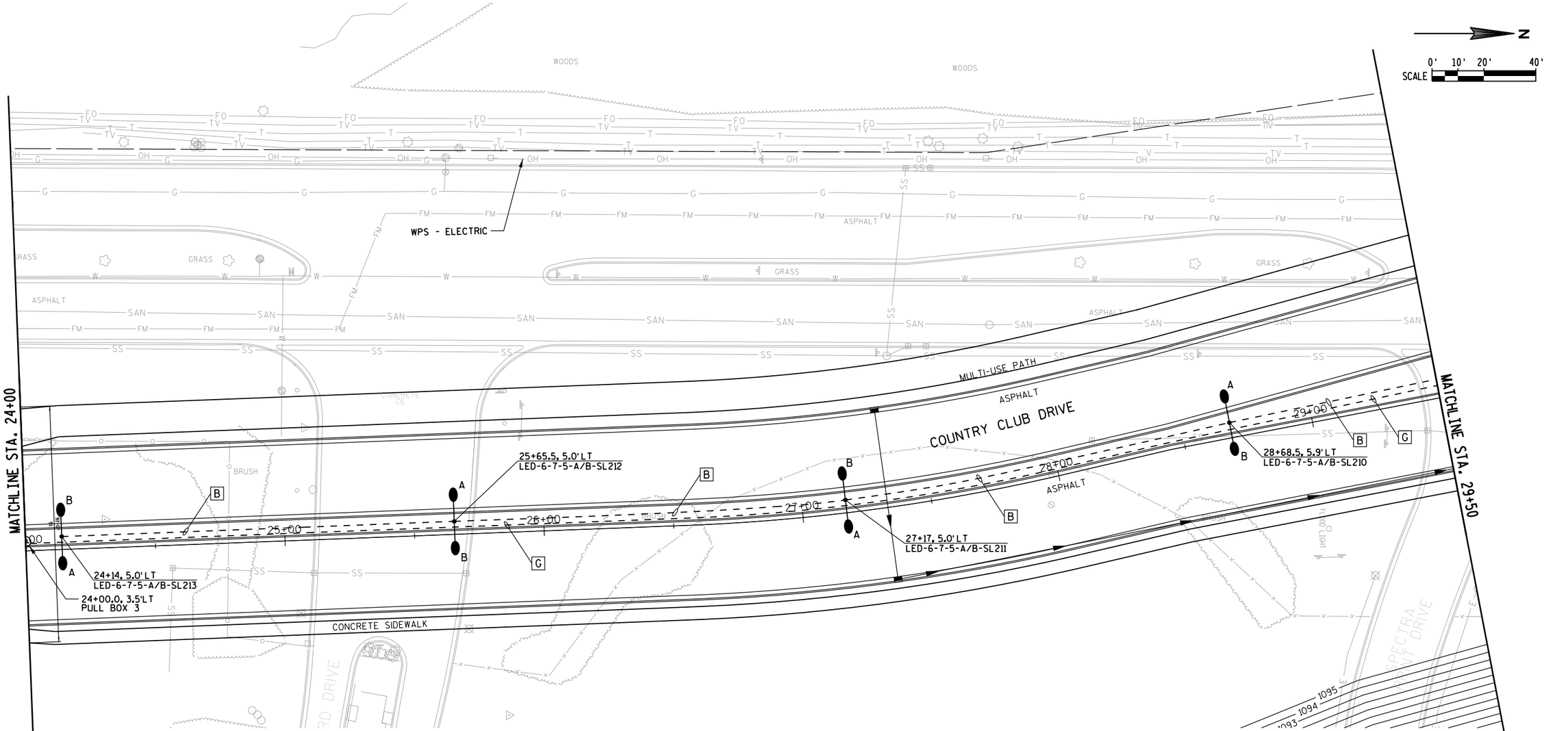
SCALE 0' 10' 20' 40'

E-8

PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	LIGHTING PLAN	SHEET 63	E

FILE NAME: P:\60334255\900-Work\910-CAD\20-Sheets\023508_lp.dgn
BATCH PRINT SHEET 2 OF 5
PRINTER DRIVER: L:\library\TPN_CADstds\Workspace-CLIENTS\WisDOT\MicroStation\Resources\MS_Printing\Printer_Drivers\ET_PDF_11 x 17.plt
PEN TABLE: P:\60334255\900-Work\910-CAD\20-Sheets\MS_Printing\Pen_Tables\ET_WisDOT_fade159.tbl
PLOT DATE: 7/22/2016
PLOT TIME: 10:54:46 AM
PLOT SCALE: 1:40
WISDOT/CADDS SHEET 42

2



NOTES:

1. SEE DRAWING E-1 FOR SYMBOLS AND GENERAL NOTES.
2. PROVIDE A SEPARATE 120 VOLT FESTOON RECEPTACLE CIRCUIT 'G' TO EACH LIGHT POLE.
3. PROVIDE THREE 1-1/4" CONDUITS (EMPTY) FOR FUTURE COMMUNICATIONS. CONDUIT SHALL NOT BE ROUTED THROUGH LIGHTING SYSTEM FOUNDATIONS AND PULL BOXES.

B

NO. 2		1	2"	
A	1	#6	1	#6
B	1	#6		
N	1	#6		
G	1	#6	NOTE 2	
N	1	#6		

G

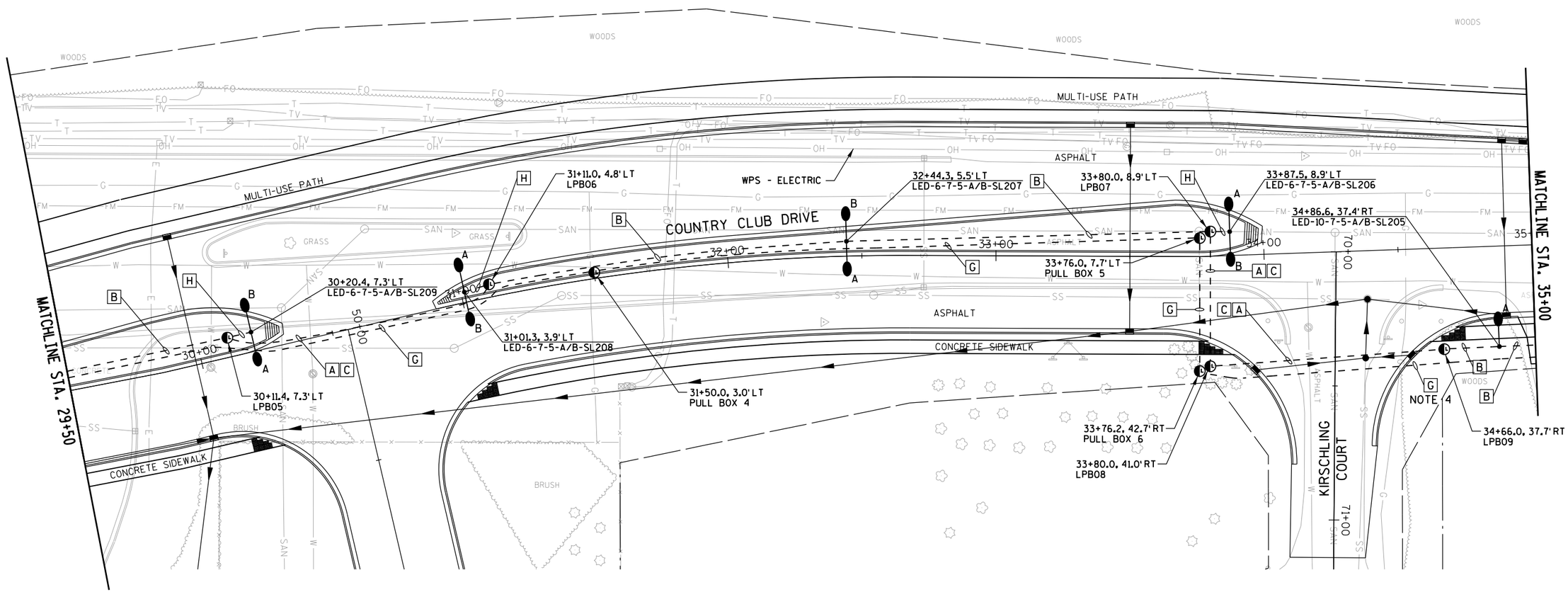
COMM	3	1-1/4"
SPARE CONDUITS NOTE 3		

E-9

PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	LIGHTING PLAN	SHEET 64	E

FILE NAME: P:\60334255\900-Work\910-CAD\20-Sheets\023509_lp.dgn
BATCH PRINT SHEET 3 OF 5
PRINTER DRIVER: L:\library\TPN_CADstds\Workspace-CLIENTS\WisDOT\MicroStation\Resources\MS_Printing\Printer_Drivers\ET_PDF_11 x 17.plt
PEN TABLE: P:\60334255\900-Work\910-CAD\20-Sheets\MS_Printing\Pen_Tables\ET_WisDOT_fade159.tbl
PLOT DATE: 7/22/2016
PLOT TIME: 10:54:47 AM
PLOT SCALE: 1:40
WISDOT/CADDS SHEET 42

2



NOTES:

1. SEE DRAWING E-1 FOR SYMBOLS AND GENERAL NOTES.
2. PROVIDE A SEPARATE 120 VOLT FESTOON RECEPTACLE CIRCUIT 'G' TO EACH LIGHT POLE.
3. PROVIDE THREE 1-1/4" CONDUITS (EMPTY) FOR FUTURE COMMUNICATIONS. CONDUIT SHALL NOT BE ROUTED THROUGH LIGHTING SYSTEM FOUNDATIONS AND PULL BOXES.
4. PROVIDE THREE 1-1/4" PVC CONDUITS BETWEEN PULL BOX 6 AND PULL BOX 7. INSTALL SCHEDULE 80 PVC UNDER PAVED AREAS AND SCHEDULE 40 IN UNPAVED AREAS.

A

NO. 2		1	3"	
A	1	#6	1	#6
B	1	#6		
N	1	#6		
G	1	#6	NOTE 2	
N	1	#6		

B

NO. 2		1	2"	
A	1	#6	1	#6
B	1	#6		
N	1	#6		
G	1	#6	NOTE 2	
N	1	#6		

C

NO. 2	1	3"
SPARE CONDUIT		

G

COMM	3	1-1/4"
SPARE CONDUITS NOTE 3		

H

NO. 1		1	3"	
A	2	#6	1	#6
B	2	#6		
N	2	#6		
G	2	#6		
N	2	#6		

E-10

PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	LIGHTING PLAN	SHEET 65	E

FILE NAME: P:\60334255\900-Work\910-CAD\20-Sheets\023510_lp.dgn
BATCH PRINT SHEET 4 OF 5
PRINTER DRIVER: L:\library\TPN_CADstds\Workspace-CLIENTS\WisDOT\MicroStation\Resources\MS_Printng\Printer_Drivers\ET_PDF_11 x 17.plt
PEN TABLE: P:\60334255\900-Work\910-CAD\20-Sheets\MS_Printng\Pen_Tables\ET_WisDOT_fade159.tbl
PLOT DATE: 7/22/2016
PLOT TIME: 12:28:29 PM
PLOT SCALE: 1:40
WISDOT/CADDS SHEET 42

A	NO. 2		1	3"	
	A	1	#6	1	#6
	B	1	#6		
	N	1	#6		
	G	1	#6	NOTE 3	
	N	1	#6		

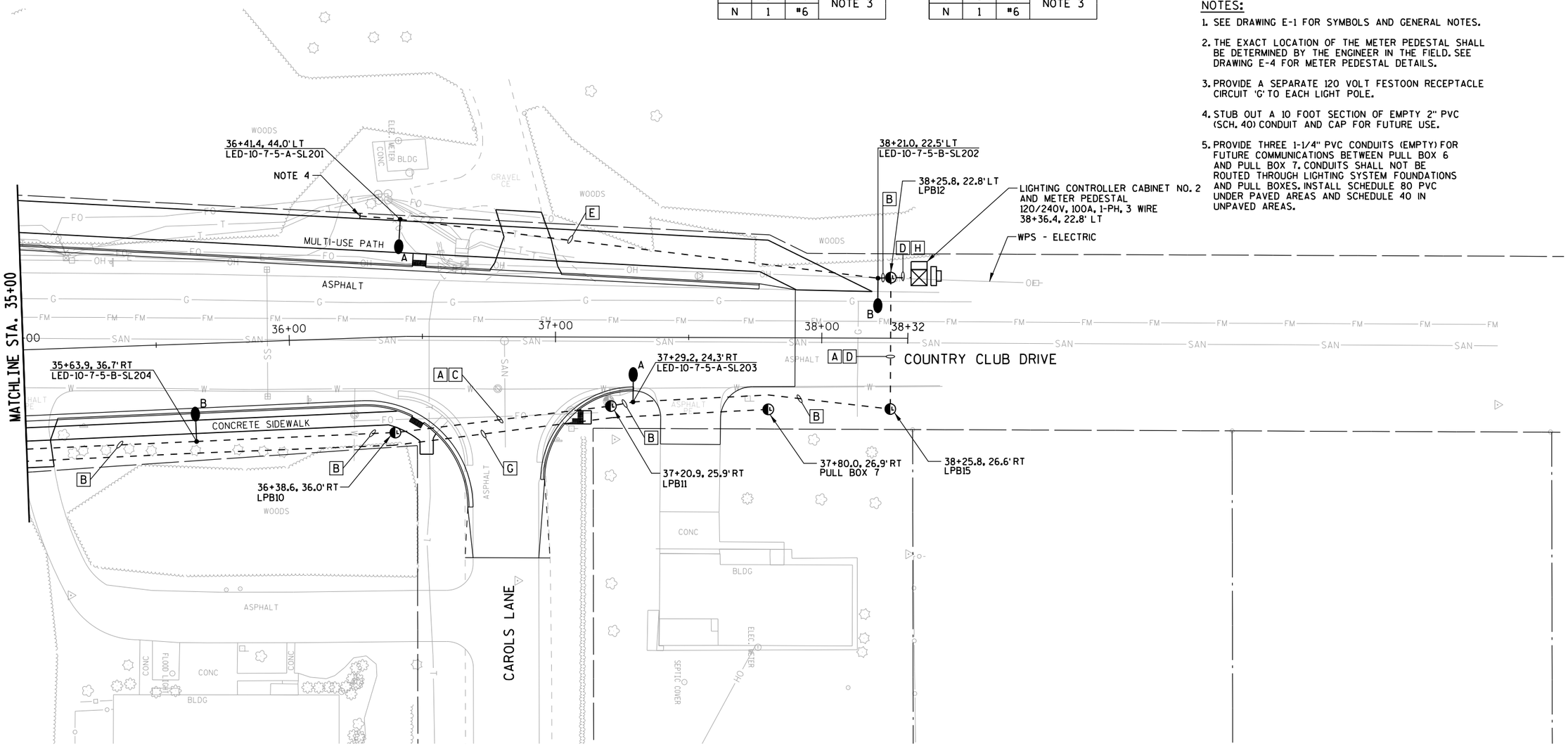
B	NO. 2		1	2"	
	A	1	#6	1	#6
	B	1	#6		
	N	1	#6		
	G	1	#6	NOTE 3	
	N	1	#6		

C	NO. 2	1	3"
	SPARE CONDUIT		

D	NO. 2	3	3"
	SPARE CONDUITS		

NOTES:

1. SEE DRAWING E-1 FOR SYMBOLS AND GENERAL NOTES.
2. THE EXACT LOCATION OF THE METER PEDESTAL SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD. SEE DRAWING E-4 FOR METER PEDESTAL DETAILS.
3. PROVIDE A SEPARATE 120 VOLT FESTOON RECEPTACLE CIRCUIT 'G' TO EACH LIGHT POLE.
4. STUB OUT A 10 FOOT SECTION OF EMPTY 2" PVC (SCH. 40) CONDUIT AND CAP FOR FUTURE USE.
5. PROVIDE THREE 1-1/4" PVC CONDUITS (EMPTY) FOR FUTURE COMMUNICATIONS BETWEEN PULL BOX 6 AND PULL BOX 7. CONDUITS SHALL NOT BE ROUTED THROUGH LIGHTING SYSTEM FOUNDATIONS AND PULL BOXES. INSTALL SCHEDULE 80 PVC UNDER PAVED AREAS AND SCHEDULE 40 IN UNPAVED AREAS.



E	NO. 2		1	2"	
	A	1	#6	1	#6
	N	1	#6		
	G	1	#6		
	N	1	#6	NOTE 3	

F	NO. 2		1	2"	
	B	1	#6	1	#6
	N	1	#6		
	G	1	#6		
	N	1	#6	NOTE 3	

G	COMM	3	1-1/4"
	SPARE CONDUITS		
	NOTE 5		

H	NO. 2		1	3"	
	A	2	#6	1	#6
	B	2	#6		
	N	2	#6		
	G	2	#6		
	N	2	#6		

N

0' 10' 20' 40'
SCALE

E-11

PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	LIGHTING PLAN	SHEET 66	E

FILE NAME: P:\60334255\900-Work\910-CAD\20-Sheets\023511_lp.dgn
BATCH PRINT SHEET 5 OF 5
PRINTER DRIVER: L:\library\TPN_CADstds\Workspace-CLIENTS\WisDOT\MicroStation\Resources\MS_Printing\Printer_Drivers\ET_PDF_11 x 17.plt
PEN TABLE: P:\60334255\900-Work\910-CAD\20-Sheets\MS_Printing\Pen_Tables\ET_WisDOT_fade159.tbl
PLOT DATE: 7/22/2016
PLOT TIME: 12:55:37 PM
PLOT SCALE: 1:40
WISDOT/CADDS SHEET 42

LEGEND: TRAFFIC CONTROL

- TYPE III BARRICADE WTH ATTACHED SIGN W/ TYPE A LIGHT
- TYPE III BARRICADE W/ TYPE A LIGHT
- SIGN ON PERMANENT SUPPORT
- WORK AREA

N

SCALE 0' 200' 400' 800'

Stevens Point

Plover

PATCH STREET

WISCONSIN CENTRAL LTD

HEFFRON ST

INDUSTRIAL PARK RD

HOOVER RD

STH 66

COUNTRY CLUB DR

ROBERTS DR

GRERALD'S RD

WOODWARD DR

CAROL'S LN

MARYS DR

CTH HH

ROAD WORK AHEAD W20-1

ROAD CLOSED R11-2 48" X 30"

ROAD CLOSED 500 FT W20-3

ROAD CLOSED 1000 FT W20-3

ROAD CLOSED AHEAD W20-3

COUNTRY CLUB DRIVE CLOSED AT CAROLS LANE

FIXED MESSAGE 90" X 36"

ROAD CLOSED 1000 FT W20-3

ROAD CLOSED 500 FT W20-3

ROAD CLOSED AHEAD W20-3

COUNTRY CLUB DRIVE CLOSED AT WOODWARD DRIVE

FIXED MESSAGE 90" X 36"

ROAD WORK AHEAD W20-1

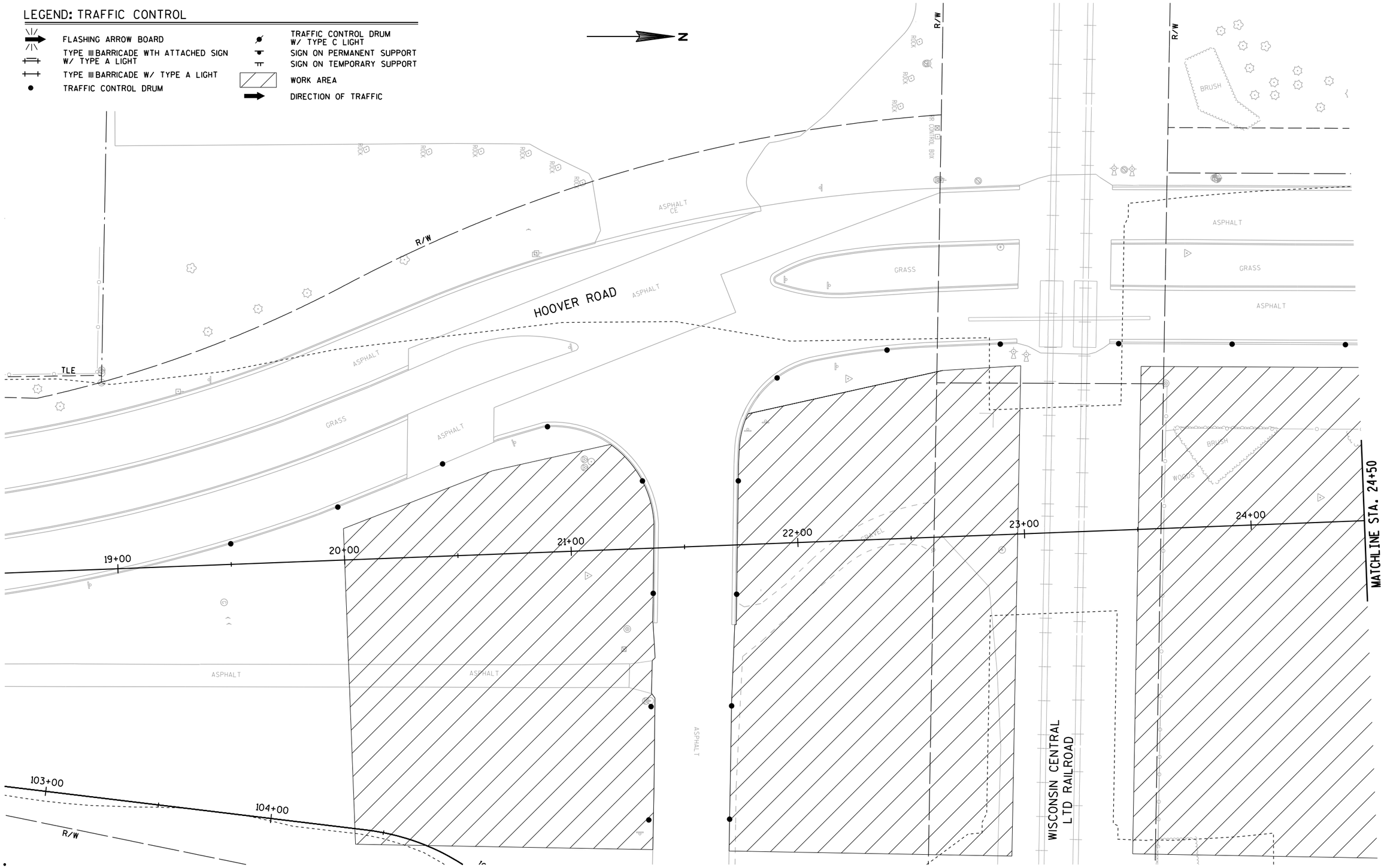
PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	STAGE I ADVANCE WARNING SIGNS	SHEET 67	E

FILE NAME: P:\60334255\900-Work\910-CAD\20-Sheets\026100_S1-adv.dgn
BATCH PRINT SHEET 1 OF 7
PRINTER DRIVER: L:\library\TPN_CADstds\Workspace-CLIENTS\WisDOT\MicroStation\Resources\MS_Printing\Printer_Drivers\ET_PDF_11 x 17.plt
PEN TABLE: P:\60334255\900-Work\910-CAD\20-Sheets\MS_Printing\Pen_Tables\ET_WisDOT_fade159.tbl
PLOT DATE: 7/21/2016
PLOT TIME: 5:00:40 PM
PLOT SCALE: 1:800
WISDOT/CADDS SHEET 42

LEGEND: TRAFFIC CONTROL

- FLASHING ARROW BOARD
- TYPE III BARRICADE WTH ATTACHED SIGN W/ TYPE A LIGHT
- TYPE III BARRICADE W/ TYPE A LIGHT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM W/ TYPE C LIGHT
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- WORK AREA
- DIRECTION OF TRAFFIC

N



PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	TRAFFIC CONTROL/CONSTRUCTION STAGE 1	SHEET 68	E

FILE NAME: P:\60334255\900-Work\910-CAD\20-Sheets\026101_S1.dgn
BATCH PRINT SHEET 2 OF 7
PRINTER DRIVER: L:\library\TPN_CADstds\Workspace-CLIENTS\WisDOT\MicroStation\Resources\MS_Printing\Printer_Drivers\ET_PDF_11 x 17.plt
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PLOT DATE: 7/21/2016
PLOT TIME: 5:02:13 PM
PLOT SCALE: 1:40
WISDOT/CADDS SHEET 42

LEGEND: TRAFFIC CONTROL

- FLASHING ARROW BOARD
- TYPE III BARRICADE WTH ATTACHED SIGN W/ TYPE A LIGHT
- TYPE III BARRICADE W/ TYPE A LIGHT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM W/ TYPE C LIGHT
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- WORK AREA
- DIRECTION OF TRAFFIC

N

SAND

WOODS

WOODS

WOODS

TLE

TLE

R/W

R/W

26+00.0
143.7' LT

ROAD CLOSED
R11-2
48" X 30"

W01-6
48" X 24"

GRASS

COUNTRY CLUB DRIVE

ASPHALT

GRASS

GRASS

ASPHALT

29+00.00
47.96' LT

29+00.00
41.44' LT

29+00.00
14.36' LT

29+00.00
0.00' LT

29+00.00
27.00' RT

29+00.00
31.50' RT

30+00

MATCHLINE STA. 30+00

CONCRETE

CONCRETE
CE

WOODWARD DRIVE

BRUSH

BRUSH

BRUSH

MATCHLINE STA. 24+50

25+00

26+00

27+00

28+00

29+00

R/W

R/W

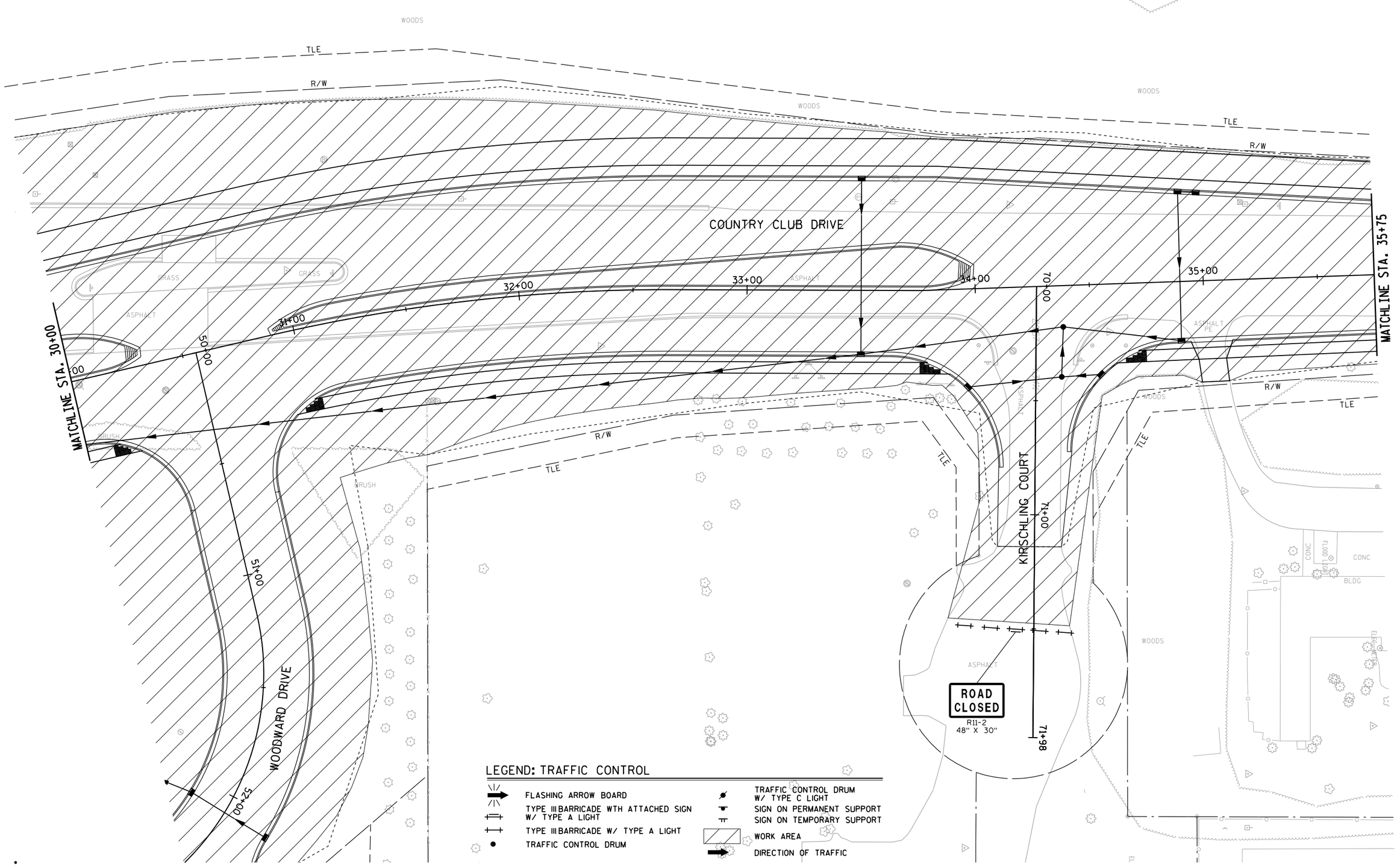
SPECTRA PRINT DRIVE

1089
1090
1091
1092
1093
1094
1095

RETENTION POND 1

PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	TRAFFIC CONTROL/CONSTRUCTION STAGE I	SHEET 69	E

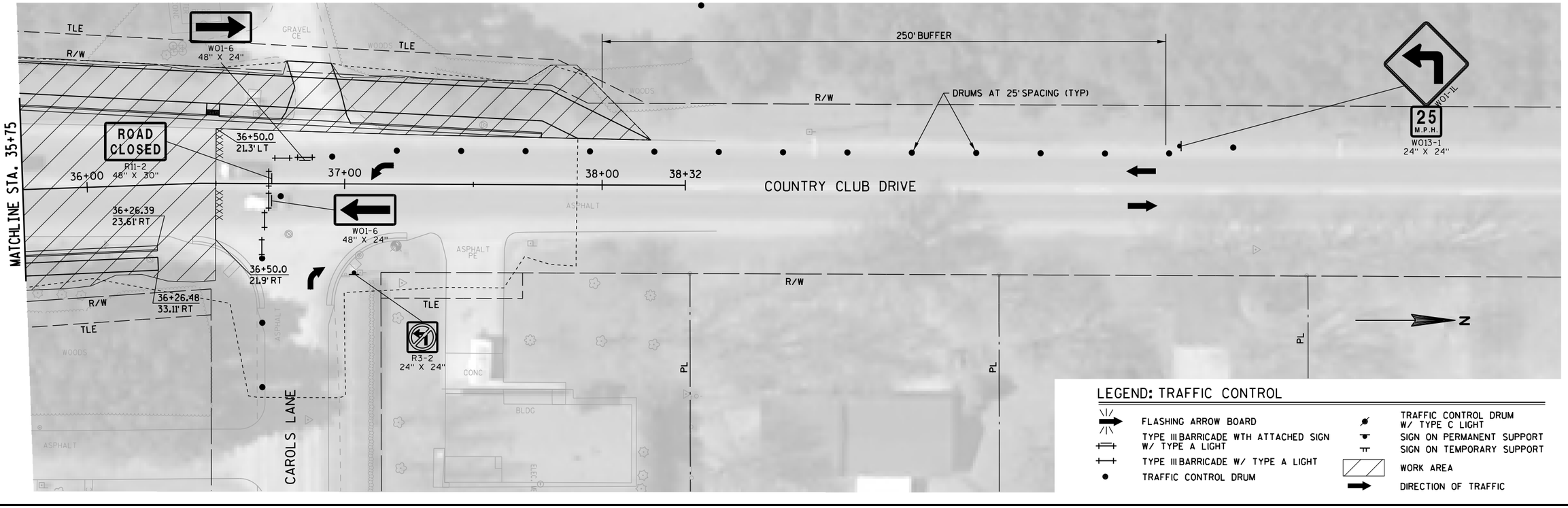
2

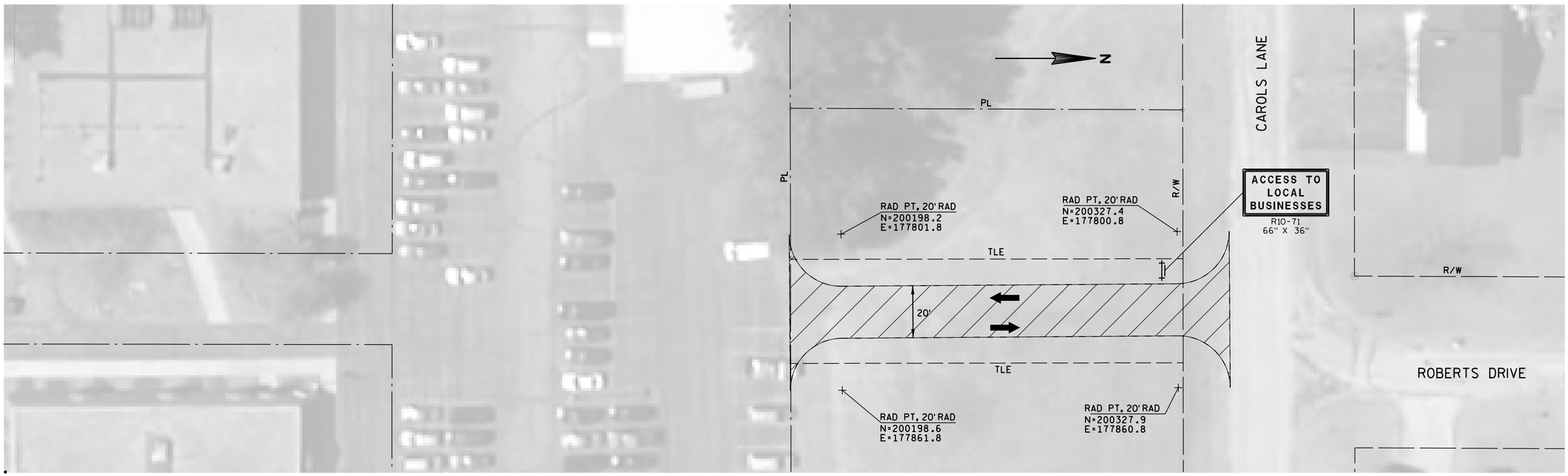


PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	TRAFFIC CONTROL/CONSTRUCTION STAGE 1	SHEET 70	E

FILE NAME: P:\60334255\900-Work\910-CAD\20-Sheets\026103_S1.dgn
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PLOT DATE: 7/21/2016
PLOT TIME: 5:02:16 PM
PLOT SCALE: 1:40
WISDOT/CADDS SHEET 42

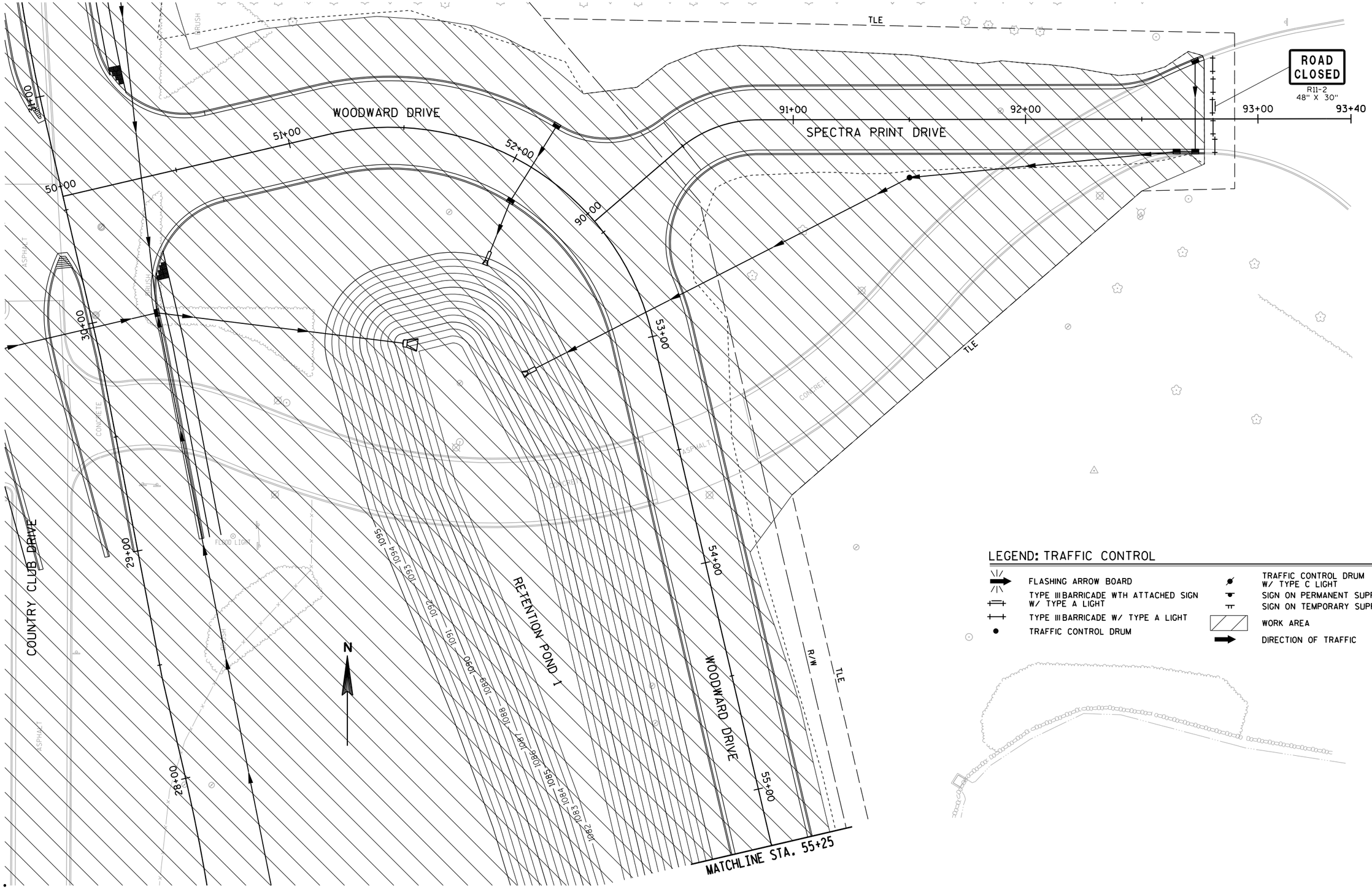
2





PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	TRAFFIC CONTROL/CONSTRUCTION STAGE I	SHEET 71	E

FILE NAME: P:\60334255\900-Work\910-CAD\20-Sheets\026104_SI.dgn
BATCH PRINT SHEET 5 OF 7
PRINTER DRIVER: L:\library\TPN_CADstds\Workspace-CLIENTS\WisDOT\MicroStation\Resources\MS_Printing\Printer_Drivers\ET_PDF_11 x 17.plt
PEN TABLE: P:\60334255\900-Work\910-CAD\20-Sheets\MS_Printing\Pen_Tables\ET_WisDOT_fadel59.tbl
PLOT DATE: 7/21/2016
PLOT TIME: 5:02:30 PM
PLOT SCALE: 1:40
WISDOT/CADDS SHEET 42



LEGEND: TRAFFIC CONTROL

- FLASHING ARROW BOARD
- TYPE III BARRICADE WTH ATTACHED SIGN W/ TYPE A LIGHT
- TYPE III BARRICADE W/ TYPE A LIGHT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM W/ TYPE C LIGHT
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- WORK AREA
- DIRECTION OF TRAFFIC

PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	TRAFFIC CONTROL/CONSTRUCTION STAGE I	SHEET 72	E

FILE NAME: P:\60334255\900-Work\910-CAD\20-Sheets\026105_SI.dgn
BATCH PRINT SHEET 6 OF 7
PRINTER DRIVER: L:\library\TPN_CADstds\Workspace-CLIENTS\WisDOT\MicroStation\Resources\MS_Printing\Printer_Drivers\ET_PDF_11 x 17.plt
PEN TABLE: P:\60334255\900-Work\910-CAD\20-Sheets\MS_Printing\Pen_Tables\ET_WisDOT_fadel59.tbl
PLOT DATE: 7/21/2016
PLOT TIME: 5:02:31 PM
PLOT SCALE: 1:40
WISDOT/CADDS SHEET 42

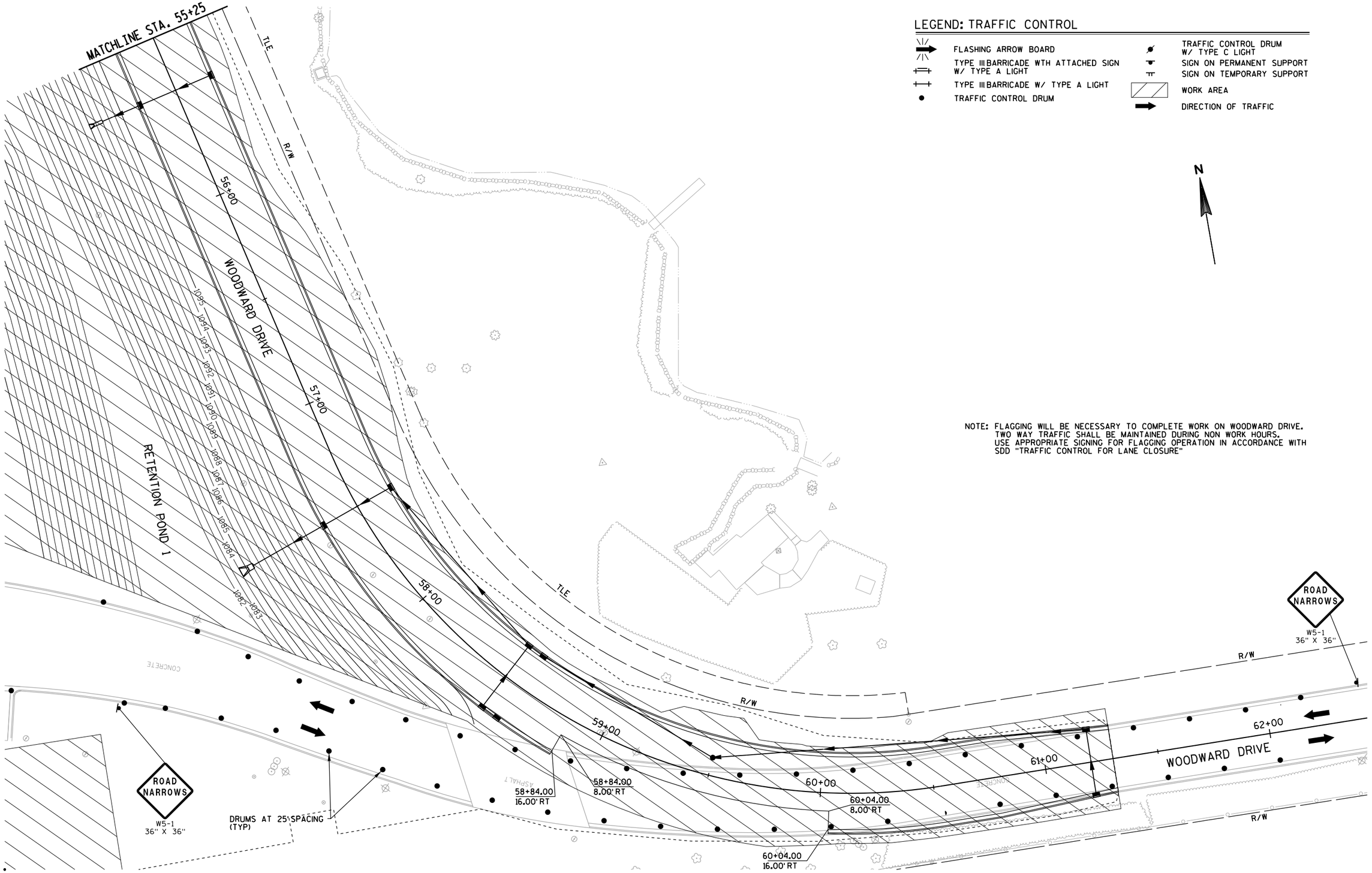
2

LEGEND: TRAFFIC CONTROL

- FLASHING ARROW BOARD
- TYPE III BARRICADE WTH ATTACHED SIGN W/ TYPE A LIGHT
- TYPE III BARRICADE W/ TYPE A LIGHT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM W/ TYPE C LIGHT
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- WORK AREA
- DIRECTION OF TRAFFIC

N

NOTE: FLAGGING WILL BE NECESSARY TO COMPLETE WORK ON WOODWARD DRIVE. TWO WAY TRAFFIC SHALL BE MAINTAINED DURING NON WORK HOURS. USE APPROPRIATE SIGNING FOR FLAGGING OPERATION IN ACCORDANCE WITH SDD "TRAFFIC CONTROL FOR LANE CLOSURE"



PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	TRAFFIC CONTROL/CONSTRUCTION STAGE I	SHEET 73	E

FILE NAME: P:\60334255\900-Work\910-CAD\20-Sheets\026106_SI.dgn
BATCH PRINT SHEET 7 OF 7
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PEN TABLE: P:\60334255\900-Work\910-CAD\20-Sheets\MS_Printing\Pen_Tables\ET_WisDOT_fade159.tbl
PLOT DATE: 7/21/2016
PLOT TIME: 5:02:33 PM
PLOT SCALE: 1:40
WISDOT/CADDS SHEET 42

LEGEND: TRAFFIC CONTROL

- TYPE III BARRICADE WTH ATTACHED SIGN W/ TYPE A LIGHT
- TYPE III BARRICADE W/ TYPE A LIGHT
- SIGN ON PERMANENT SUPPORT
- WORK AREA

N

SCALE 0' 200' 400' 800'

Stevens Point

Plover

PATCH STREET

WISCONSIN CENTRAL LTD

LEAHY AVE

HEFFRON ST

INDUSTRIAL PARK RD

HOOVER RD

CTH HH

COYE DR

KREMBS AVE

COUNTRY CLUB DR

ROBERTS DR

WOODWARD DR

GRERALD'S RD

CAROL'S LN

MARYS DR

JOERNS DR

STH 66

ROAD WORK AHEAD W20-1

ROAD CLOSED 500 FT W20-3

ROAD CLOSED R11-2 48" X 30"

ROAD CLOSED 1000 FT W20-3

ROAD CLOSED AHEAD W20-3

COUNTRY CLUB DRIVE CLOSED AT WOODWARD DRIVE
FIXED MESSAGE 90" X 36"

ROAD CLOSED AHEAD W20-3

HOOVER ROAD CLOSED AT INDUSTRIAL PARK ROAD
FIXED MESSAGE 90" X 36"

ROAD CLOSED AHEAD W20-3

RIGHT LANE CLOSED AHEAD W20-5

ROAD CLOSED 1000 FT W20-3

W04-2R

ROAD CLOSED 500 FT W20-3

ROAD CLOSED R11-2 48" X 30"

ROAD CLOSED 500 FT W20-3

ROAD CLOSED 1000 FT W20-3

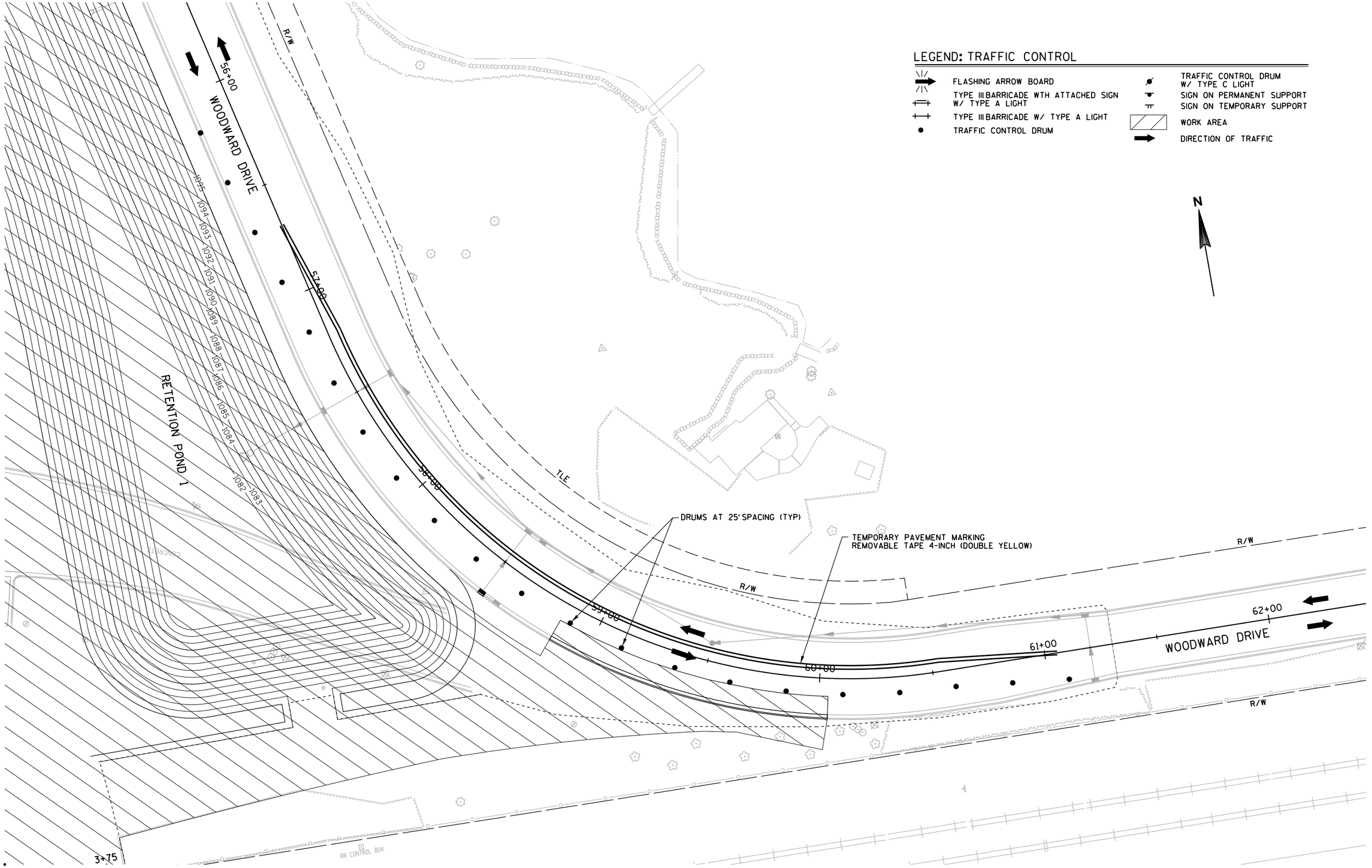
ROAD CLOSED AHEAD W20-3

ROAD WORK AHEAD W20-1

PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	STAGE 2 AND 2A ADVANCE WARNING SIGNS	SHEET 74	E

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WISDOT/CADDS SHEET 42

2



LEGEND: TRAFFIC CONTROL

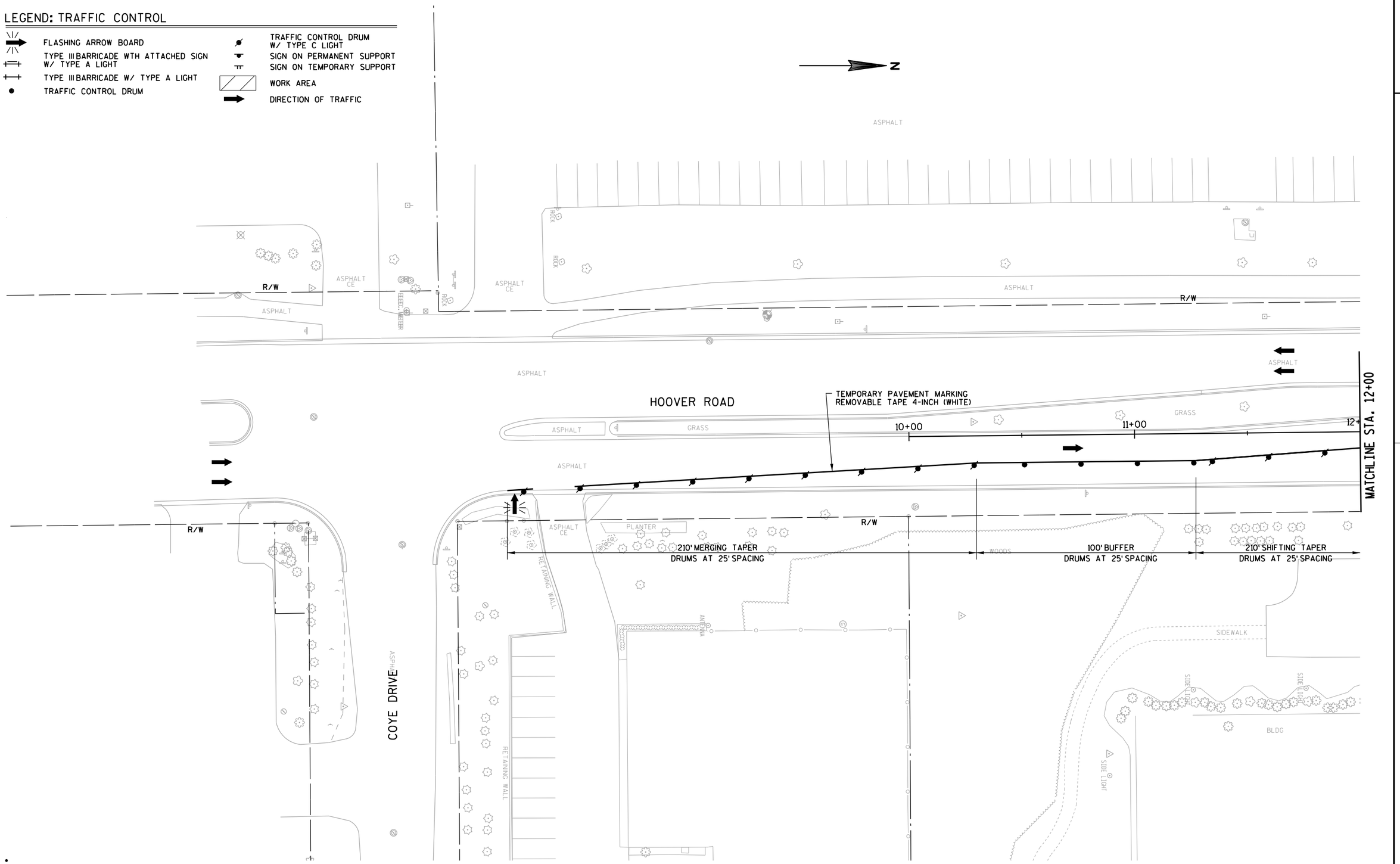
- FLASHING ARROW BOARD
- TYPE III BARRICADE WTH ATTACHED SIGN W/ TYPE A LIGHT
- TYPE III BARRICADE W/ TYPE A LIGHT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM W/ TYPE C LIGHT
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- WORK AREA
- DIRECTION OF TRAFFIC

PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	TRAFFIC CONTROL/CONSTRUCTION STAGE 2A	SHEET 75	E

FILE NAME: P:\60334255\900-Work\910-CAD\20-Sheets\026201_S2A.dgn
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PLOT SCALE: 1:40
WISDOT/CADDS SHEET 42

LEGEND: TRAFFIC CONTROL

- FLASHING ARROW BOARD
- TYPE III BARRICADE WTH ATTACHED SIGN W/ TYPE A LIGHT
- TYPE III BARRICADE W/ TYPE A LIGHT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM W/ TYPE C LIGHT
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- WORK AREA
- DIRECTION OF TRAFFIC

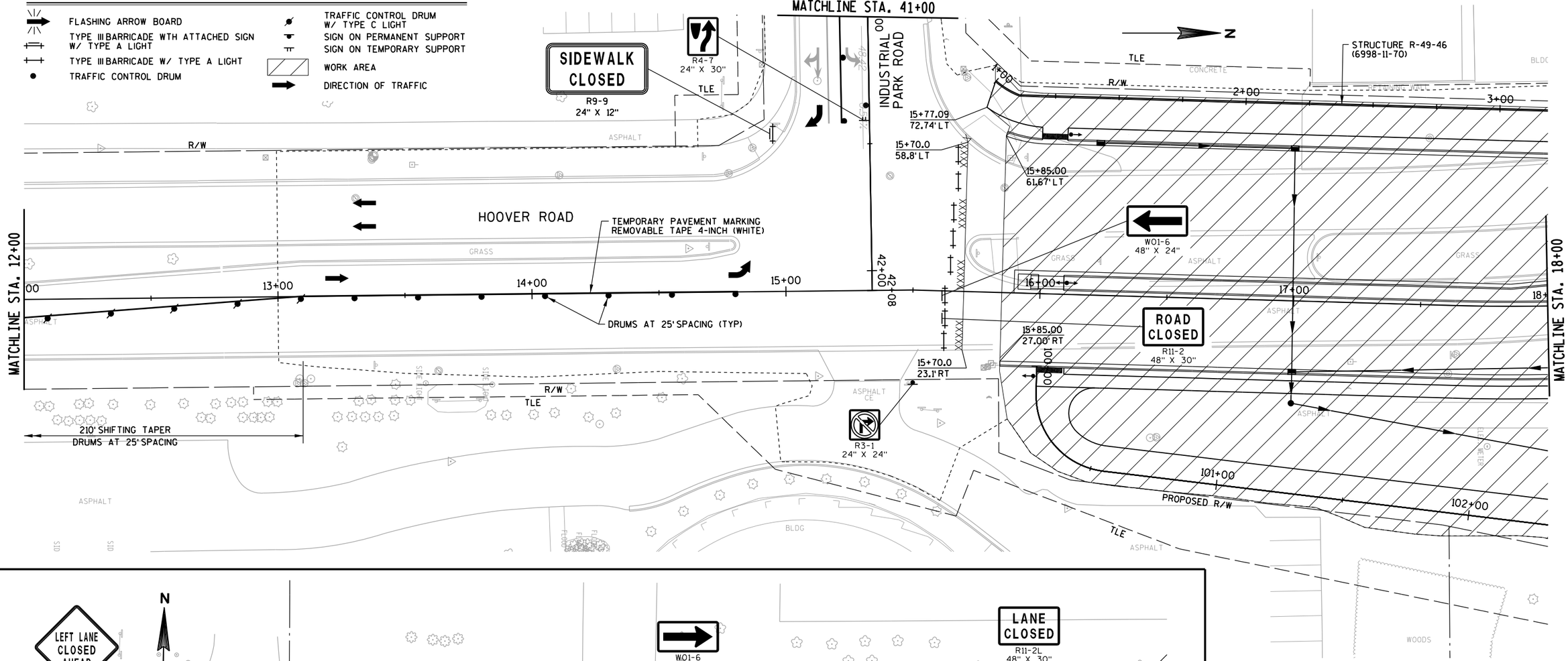


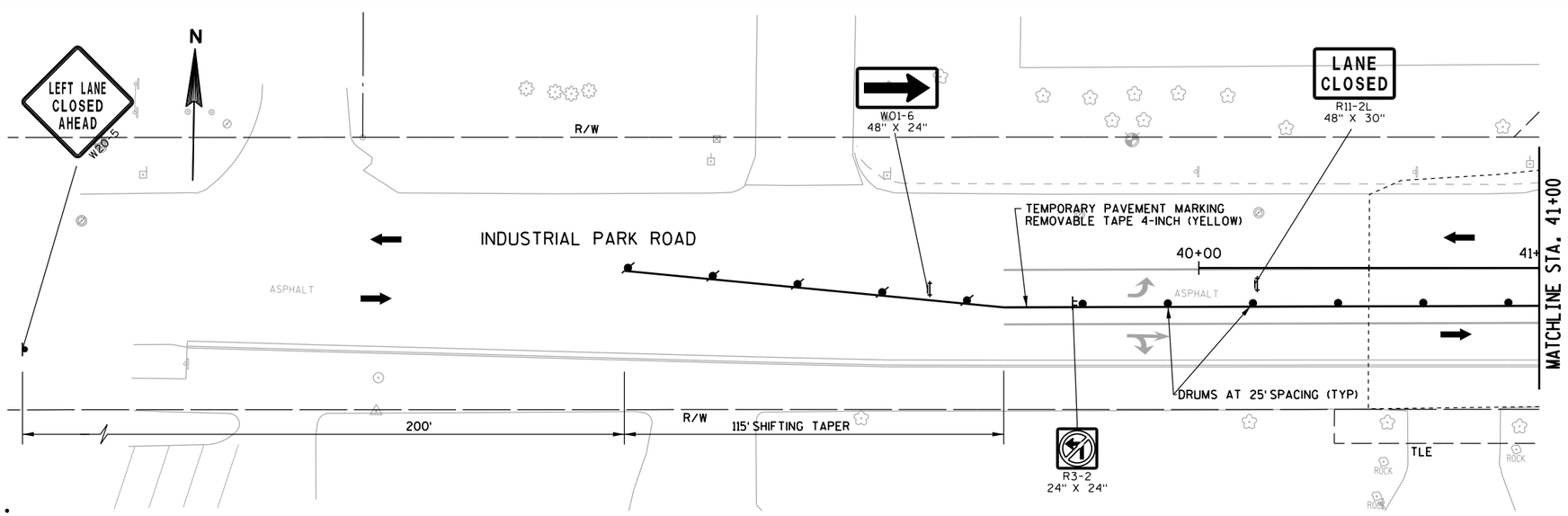
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PLOT DATE: 7/21/2016
PLOT TIME: 5:07:17 PM
PLOT SCALE: 1:40
WISDOT/CADDS SHEET 42

LEGEND: TRAFFIC CONTROL

- FLASHING ARROW BOARD
- TYPE III BARRICADE WTH ATTACHED SIGN W/ TYPE A LIGHT
- TYPE III BARRICADE W/ TYPE A LIGHT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM W/ TYPE C LIGHT
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- WORK AREA
- DIRECTION OF TRAFFIC



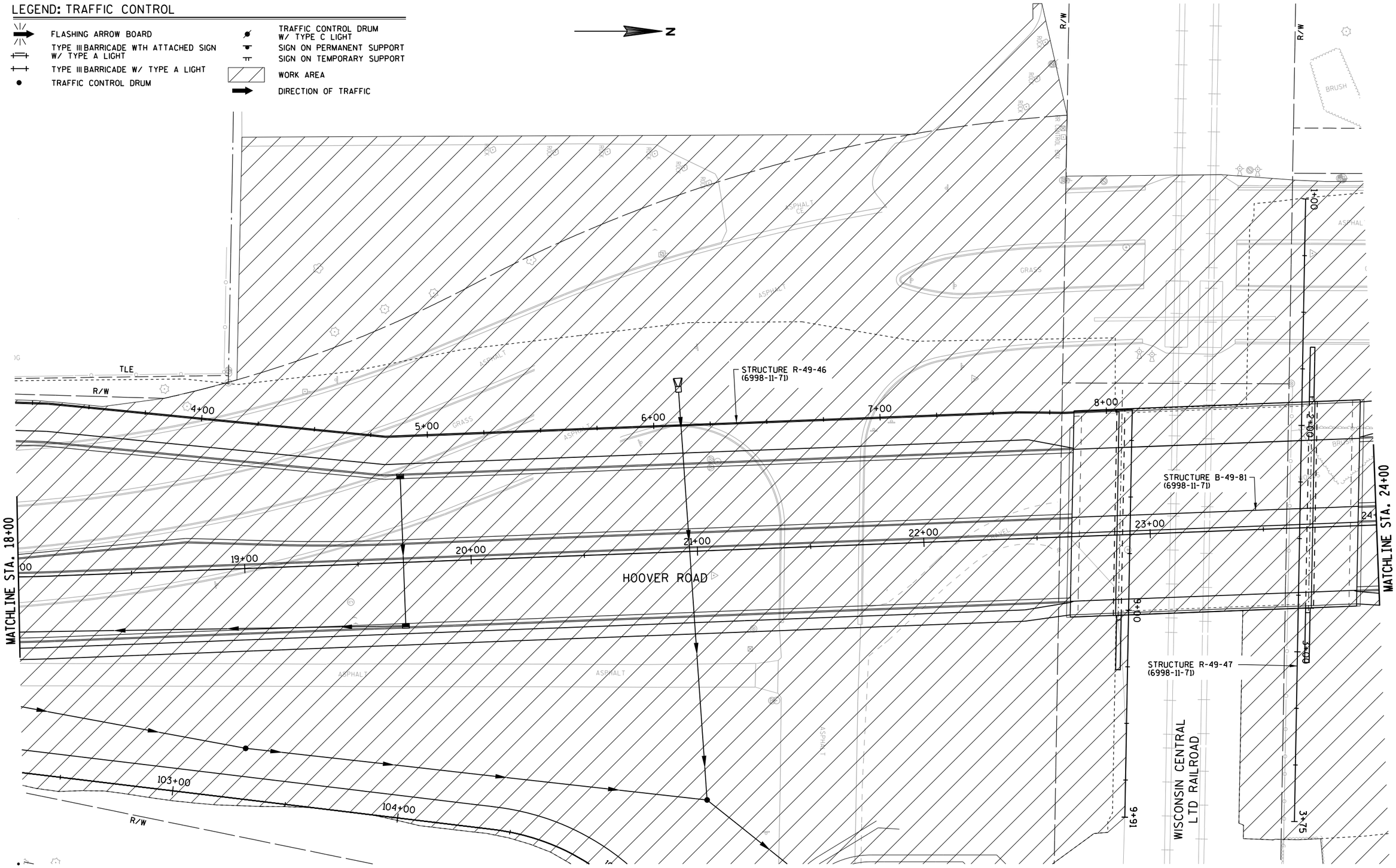


PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	TRAFFIC CONTROL/CONSTRUCTION STAGE 2B	SHEET 77	E

FILE NAME: P:\60334255\900-Work\910-CAD\20-Sheets\026203_S2.dgn
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PLOT TIME: 5:07:19 PM
PLOT SCALE: 1:40
WISDOT/CADDS SHEET 42

LEGEND: TRAFFIC CONTROL

- FLASHING ARROW BOARD
- TYPE III BARRICADE WTH ATTACHED SIGN W/ TYPE A LIGHT
- TYPE III BARRICADE W/ TYPE A LIGHT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM W/ TYPE C LIGHT
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- WORK AREA
- DIRECTION OF TRAFFIC



PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	TRAFFIC CONTROL/CONSTRUCTION STAGE 2B	SHEET 78	E

FILE NAME: P:\60334255\900-Work\910-CAD\20-Sheets\026204_S2.dgn
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PLOT SCALE: 1:40
WISDOT/CADDS SHEET 42

2

LEGEND: TRAFFIC CONTROL

- FLASHING ARROW BOARD
- TYPE III BARRICADE WTH ATTACHED SIGN W/ TYPE A LIGHT
- TYPE III BARRICADE W/ TYPE A LIGHT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM W/ TYPE C LIGHT
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- WORK AREA
- DIRECTION OF TRAFFIC

N

SAND

WOODS

WOODS

TLE

TLE

R/W

R/W

GRASS

GRASS

ASPHALT

CONCRETE

BRUSH

COUNTRY CLUB DRIVE

MATCHLINE STA. 24+00

MATCHLINE STA. 24+00

24+00

25+00

26+00

27+00

28+00

29+00

30+

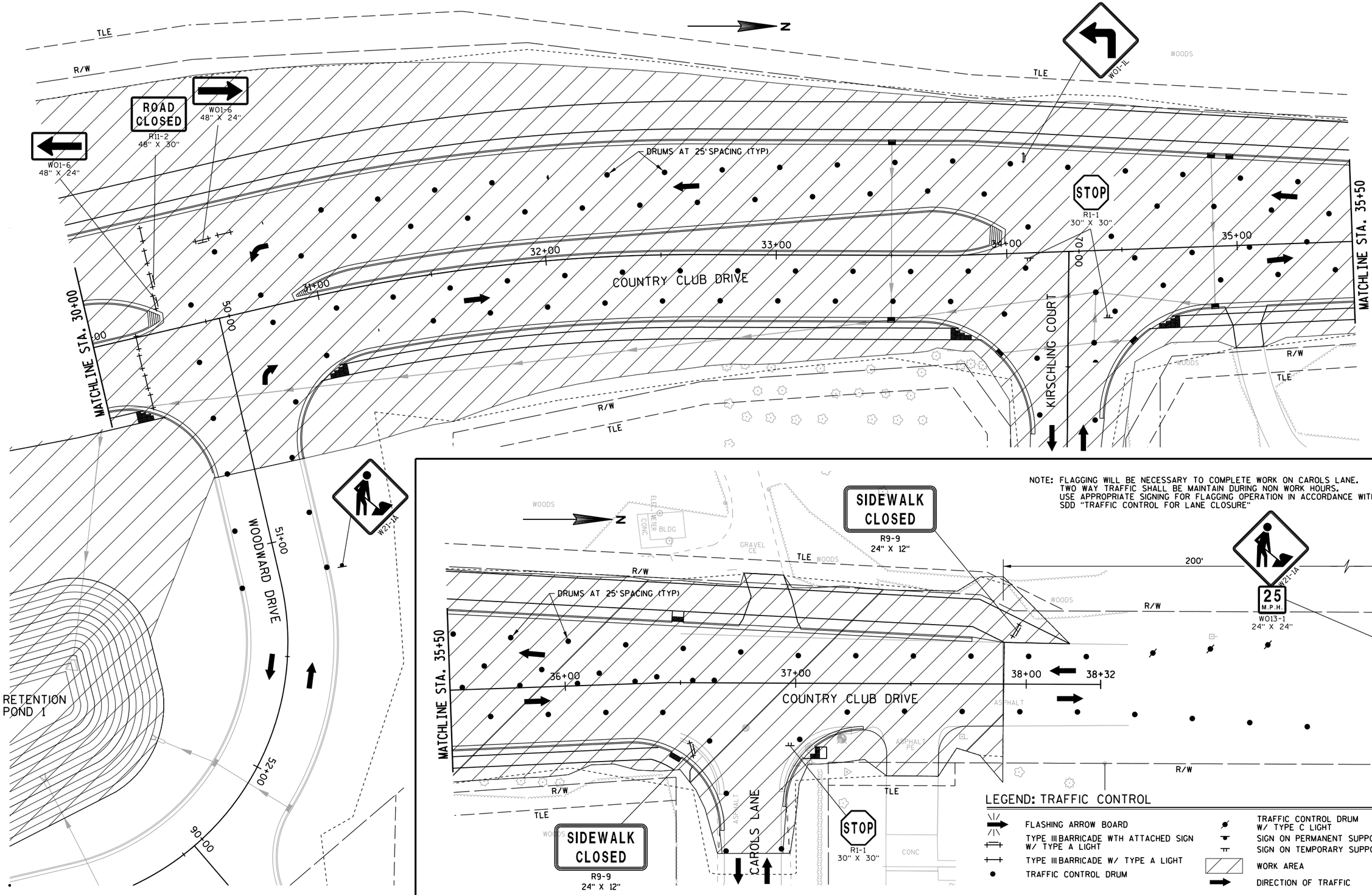
1082 1083 1084 1085 1086 1087 1088 1089 1090 1091 1092 1093 1094 1095

RETENTION POND 1

PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	TRAFFIC CONTROL/CONSTRUCTION STAGE 2B	SHEET 79	E

FILE NAME: P:\60334255\900-Work\910-CAD\20-Sheets\026205_S2.dgn
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PLOT SCALE: 1:40
WISDOT/CADDS SHEET 42

2



PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	TRAFFIC CONTROL/CONSTRUCTION STAGE 2B	SHEET 80	E

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PLOT SCALE: 1:40
WISDOT/CADDS SHEET 42

2

WISCONSIN CENTRAL LTD

STRUCTURE R-49-46
(6998-11-71)

9+91

TLE

R/W

RETENTION POND 2

SEC. METAL

1087
1088
1089
1090
1091
1092
1093
1094

ASPHALT

107+00

106+00

105+00

104+00

ROAD
CLOSED
R11-2
48" X 30"

ASPHALT

JOERNS DRIVE

R/W

TLE

R/W

TLE

N

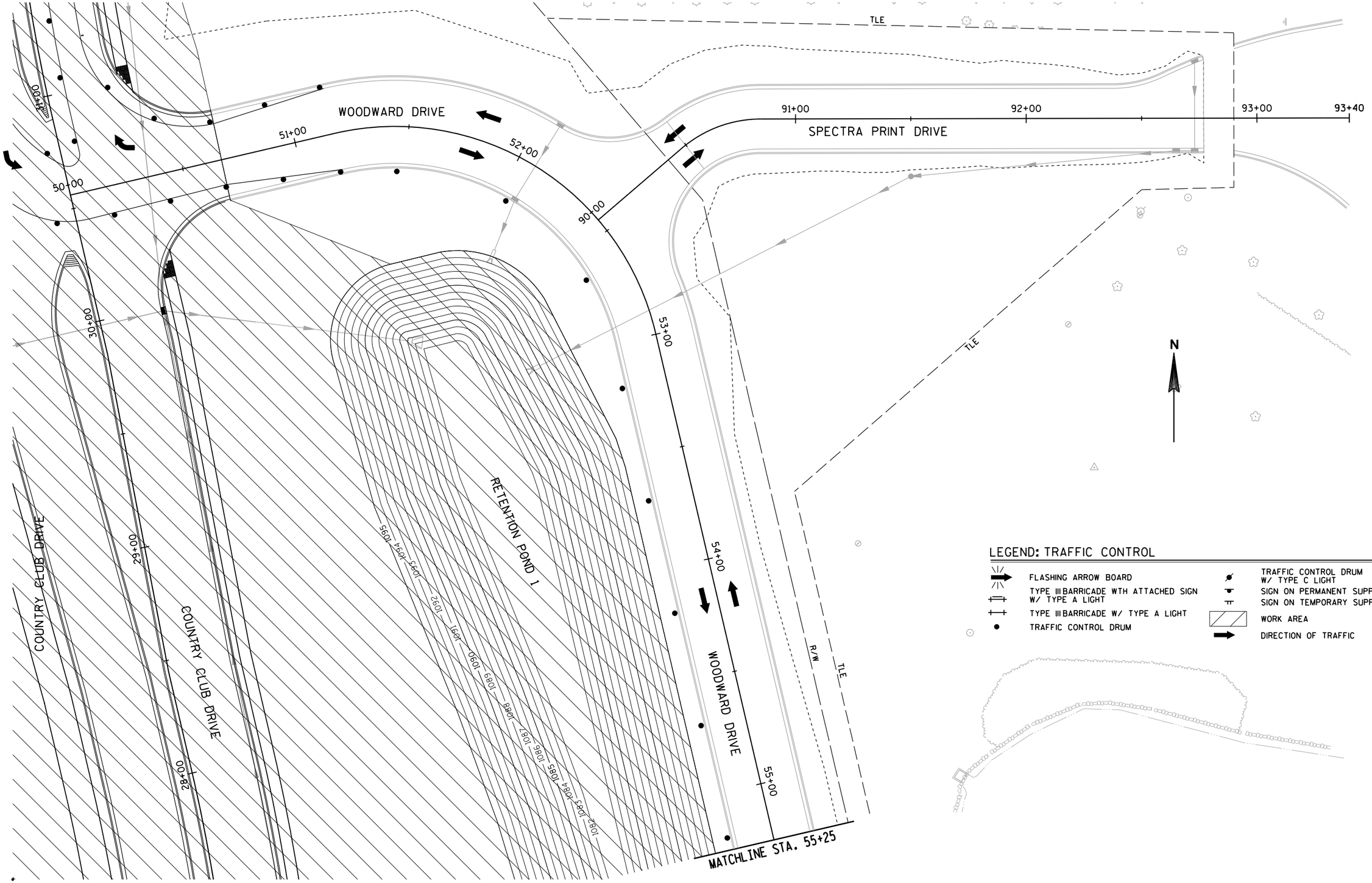
LEGEND: TRAFFIC CONTROL

- FLASHING ARROW BOARD
- TYPE III BARRICADE WTH ATTACHED SIGN W/ TYPE A LIGHT
- TYPE III BARRICADE W/ TYPE A LIGHT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM W/ TYPE C LIGHT
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- WORK AREA
- DIRECTION OF TRAFFIC

PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	TRAFFIC CONTROL/CONSTRUCTION STAGE 2B	SHEET 81	E

FILE NAME: P:\60334255\900-Work\910-CAD\20-Sheets\026207_S2.dgn
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WISDOT/CADDS SHEET 42

2



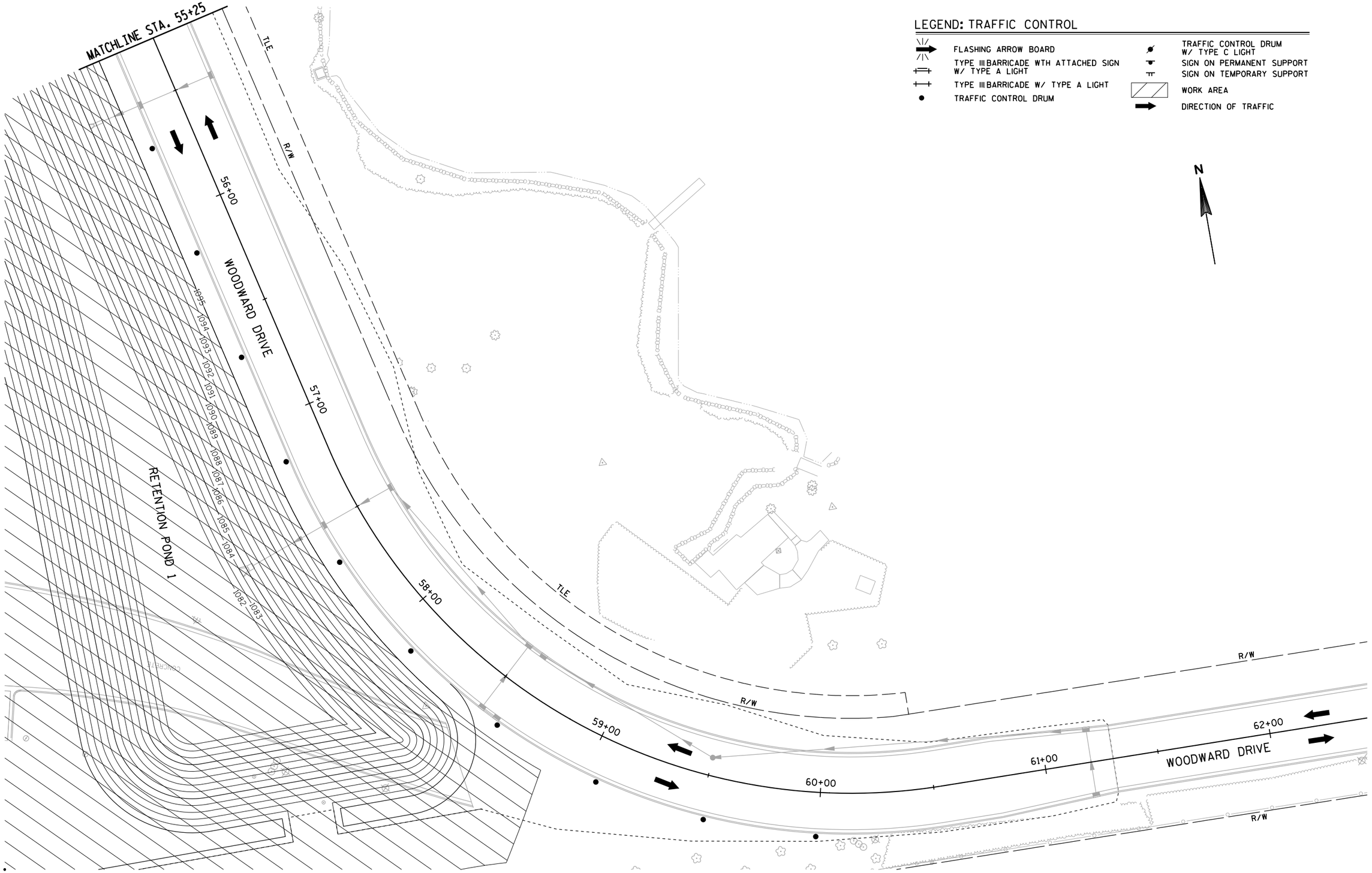
LEGEND: TRAFFIC CONTROL

- FLASHING ARROW BOARD
- TYPE III BARRICADE WTH ATTACHED SIGN W/ TYPE A LIGHT
- TYPE III BARRICADE W/ TYPE A LIGHT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM W/ TYPE C LIGHT
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- WORK AREA
- DIRECTION OF TRAFFIC

PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	TRAFFIC CONTROL/CONSTRUCTION STAGE 2B	SHEET 82	E

FILE NAME: P:\60334255\900-Work\910-CAD\20-Sheets\026208_S2.dgn
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PLOT TIME: 5:07:27 PM
PLOT SCALE: 1:40

2



PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	TRAFFIC CONTROL/CONSTRUCTION STAGE 2B	SHEET 83	E

FILE NAME: P:\60334255\900-Work\910-CAD\20-Sheets\026209_S2.dgn
BATCH PRINT SHEET 10 OF 10

PRINTER DRIVER: L:\library\TPN_CADstds\Workspace-CLIENTS\WisDOT\MicroStation\Resources\MS_Printing\Printer_Drivers\ET_PDF_11 x 17.plt
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PLOT DATE: 7/21/2016
PLOT TIME: 5:07:29 PM

PLOT SCALE: 1:40

WISDOT/CADDS SHEET 42

LEGEND: TRAFFIC CONTROL

- TYPE III BARRICADE WTH ATTACHED SIGN W/ TYPE A LIGHT
- TYPE III BARRICADE W/ TYPE A LIGHT
- SIGN ON PERMANENT SUPPORT
- WORK AREA

N

SCALE 0' 200' 400' 800'

Stevens Point

Plover

PATCH STREET

WISCONSIN CENTRAL LTD

LEAHY AVE

HEFFRON ST

INDUSTRIAL PARK RD

HOOVER RD

CTH HH

COYE DR

KREMBS AVE

JOERNS DR

WOODWARD DR

COUNTRY CLUB DR

ROBERTS DR

GRERALD'S RD

CAROL'S LN

MARYS DR

STH 66

ROAD CLOSED AHEAD W20-3

ROAD CLOSED TO THRU TRAFFIC R11-4 60" X 30"

ROAD CLOSED 1000 FT W20-3

ROAD CLOSED 500 FT W20-3

ROAD CLOSED R11-2 48" X 30"

ROAD CLOSED 1000 FT W20-3

ROAD CLOSED AHEAD W20-3

COUNTRY CLUB DRIVE CLOSED AT WOODWARD DRIVE

FIXED MESSAGE 90" X 36"

ROAD CLOSED AHEAD W20-3

HOOVER ROAD CLOSED AT COYE DRIVE

FIXED MESSAGE 90" X 36"

ROAD CLOSED AHEAD W20-3

ROAD CLOSED 1000 FT W20-3

ROAD CLOSED 500 FT W20-3

ROAD CLOSED TO THRU TRAFFIC R11-4 60" X 30"

ROAD WORK AHEAD W20-1

2

PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	STAGE 3 ADVANCE WARNING SIGNS	SHEET 84	E

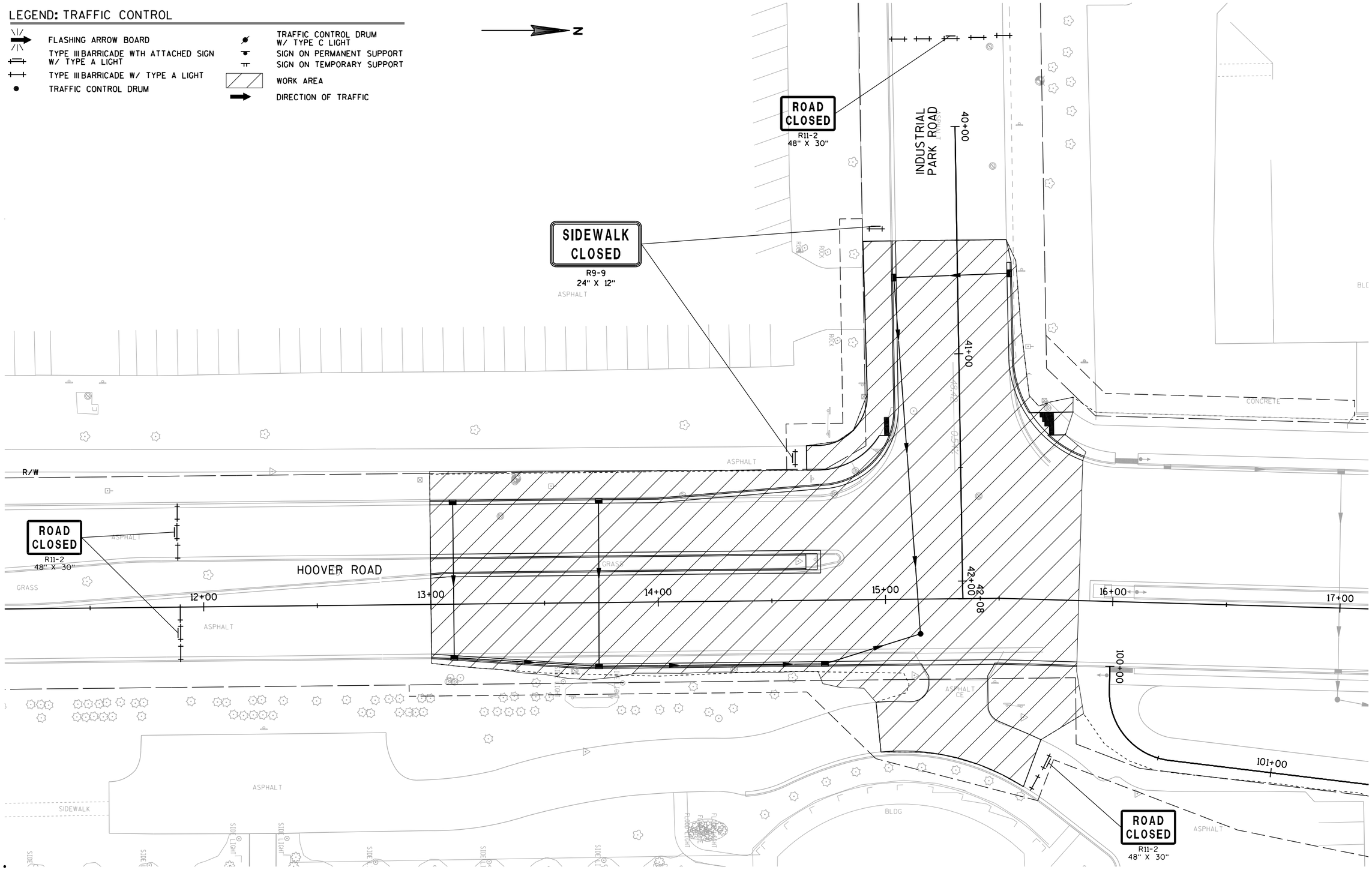
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PLOT DATE: 7/22/2016
PLOT TIME: 6:35:59 AM
PLOT SCALE: 1:800
WISDOT/CADDS SHEET 42

2

LEGEND: TRAFFIC CONTROL

- FLASHING ARROW BOARD
- TYPE III BARRICADE WTH ATTACHED SIGN W/ TYPE A LIGHT
- TYPE III BARRICADE W/ TYPE A LIGHT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM W/ TYPE C LIGHT
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- WORK AREA
- DIRECTION OF TRAFFIC

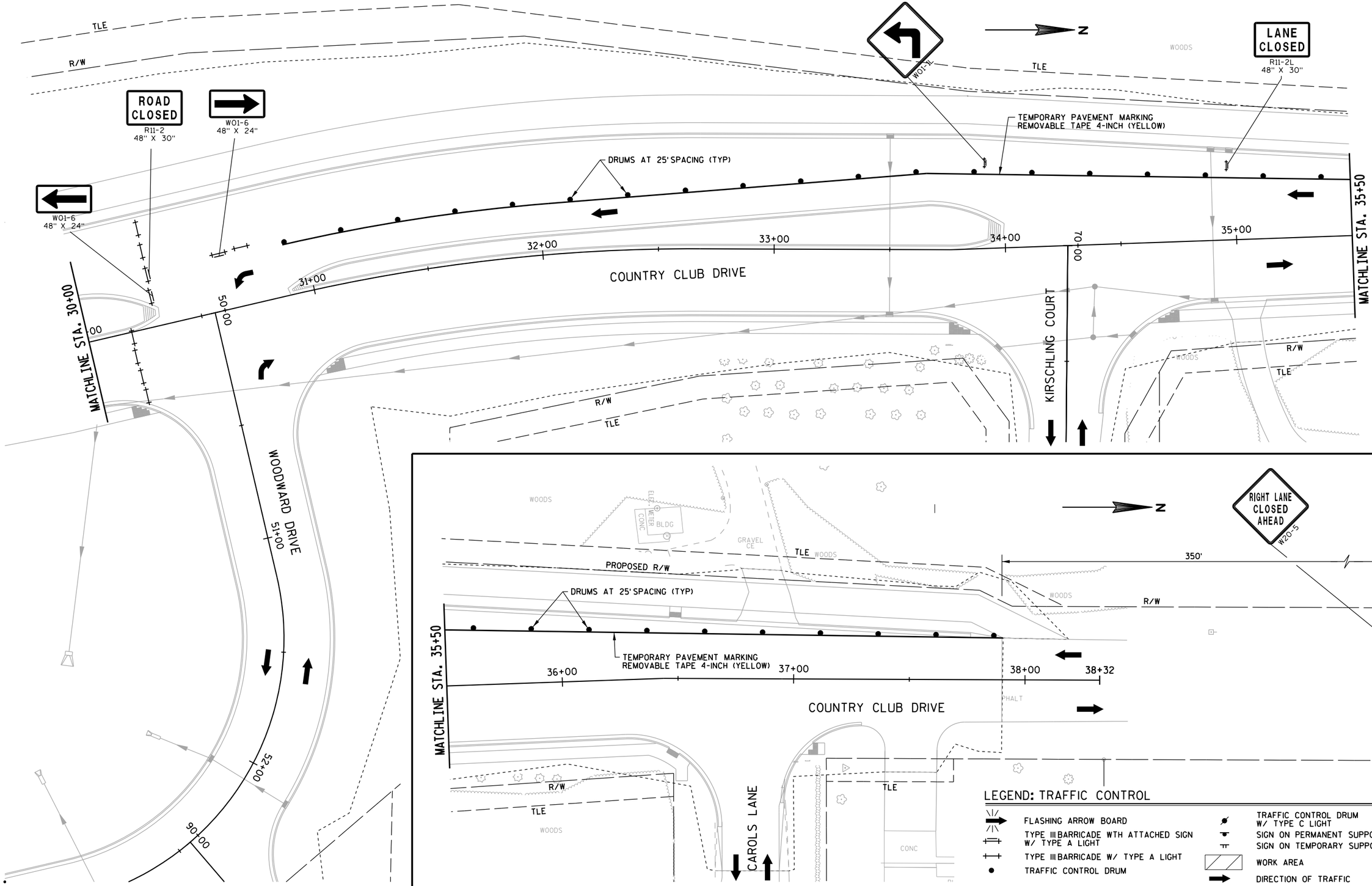
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2

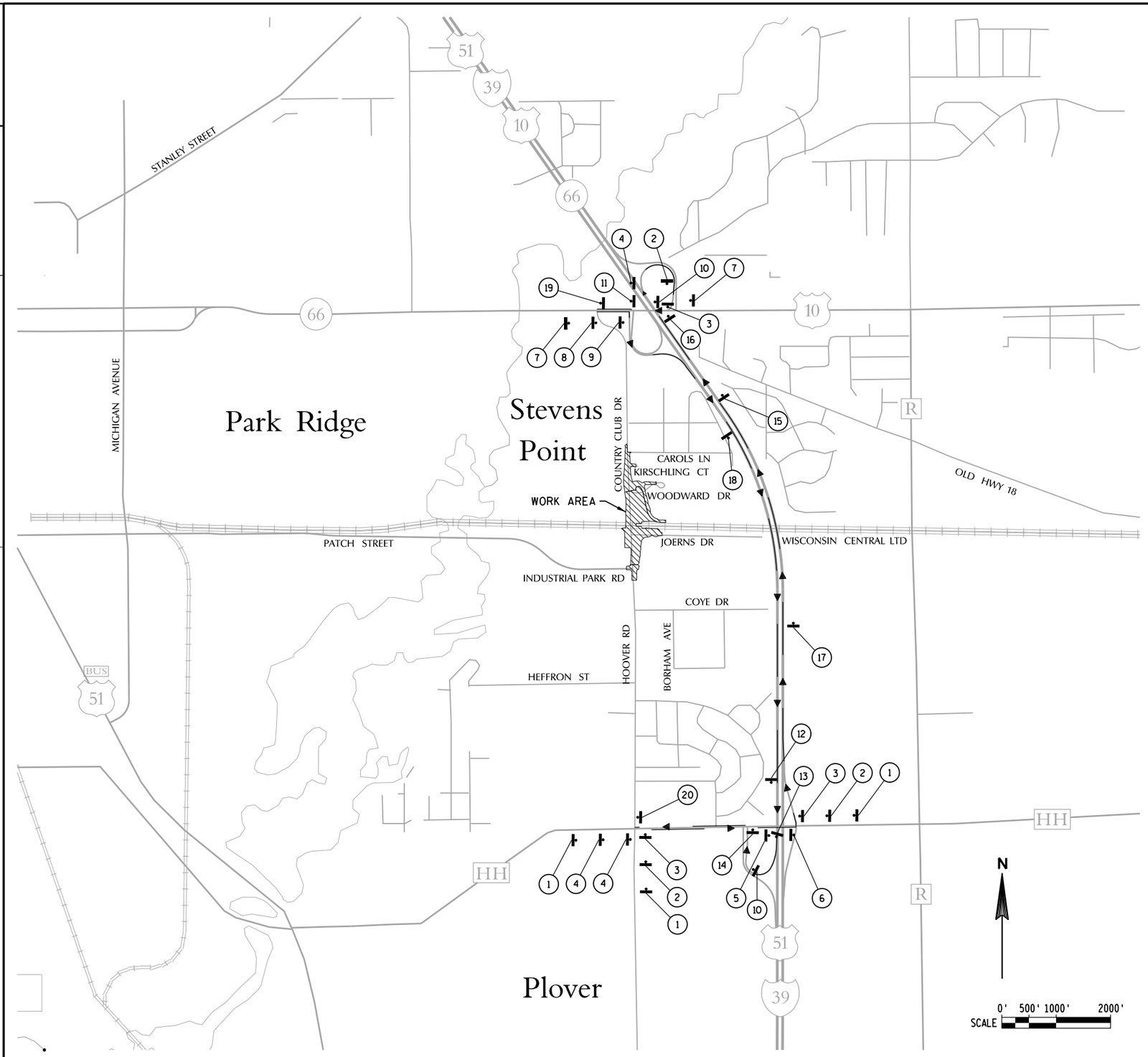
PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	TRAFFIC CONTROL/CONSTRUCTION STAGE 3	SHEET 85	E

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BATCH PRINT SHEET 2 OF 3
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PLOT DATE: 7/22/2016
PLOT TIME: 6:37:32 AM
PLOT SCALE: 1:40



PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	TRAFFIC CONTROL/CONSTRUCTION STAGE 3	SHEET 86 E

FILE NAME: P:\60334255\900-Work\910-CAD\20-Sheets\026302_S3.dgn
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PLOT DATE: 7/22/2016
PLOT TIME: 6:37:34 AM
PLOT SCALE: 1:40
WISDOT/CADDS SHEET 42



NORTH M03-1 24" X 12" / HOOVER ROAD / COUNTRY CLUB DRIVE / DETOUR AHEAD W20-2 — (1)	DETOUR M4-8 24" X 12" / NORTH M03-1 24" X 12" / HOOVER ROAD / COUNTRY CLUB DRIVE — M05-1R 21" X 21" (2)	DETOUR M4-8 24" X 12" / NORTH M03-1 24" X 12" / HOOVER ROAD / COUNTRY CLUB DRIVE — M06-1 21" X 21" (3)	DETOUR M4-8 24" X 12" / NORTH M03-1 24" X 12" / HOOVER ROAD / COUNTRY CLUB DRIVE — M06-1 21" X 21" (4)	DETOUR M4-8 24" X 12" / NORTH M03-1 24" X 12" / HOOVER ROAD / COUNTRY CLUB DRIVE — M 5-1L 21" X 21" (5)
DETOUR M4-8 24" X 12" / NORTH M03-1 24" X 12" / HOOVER ROAD / COUNTRY CLUB DRIVE — M06-1 21" X 21" (6)	SOUTH M03-3 24" X 12" / COUNTRY CLUB DRIVE / HOOVER ROAD / DETOUR AHEAD W20-2 (7)	DETOUR M4-8 24" X 12" / SOUTH M03-3 24" X 12" / COUNTRY CLUB DRIVE / HOOVER ROAD — M05-1R 21" X 21" (8)	DETOUR M4-8 24" X 12" / SOUTH M03-3 24" X 12" / COUNTRY CLUB DRIVE / HOOVER ROAD — M06-1 21" X 21" (9)	DETOUR M4-8 24" X 12" / SOUTH M03-3 24" X 12" / COUNTRY CLUB DRIVE / HOOVER ROAD — M05-1L 21" X 21" (10)
DETOUR M4-8 24" X 12" / SOUTH M03-3 24" X 12" / COUNTRY CLUB DRIVE / HOOVER ROAD — M06-1 21" X 21" (11)	DETOUR M4-8 36" X 18" / SOUTH M03-3 36" X 18" / COUNTRY CLUB DRIVE / HOOVER ROAD — M05-2R 30" X 30" (12)	DETOUR M4-8 36" X 18" / SOUTH M03-3 36" X 18" / COUNTRY CLUB DRIVE / HOOVER ROAD — M06-2 30" X 30" (13)	DETOUR M4-8 24" X 12" / SOUTH M03-3 24" X 12" / COUNTRY CLUB DRIVE / HOOVER ROAD — M06-1 21" X 21" (14)	DETOUR M4-8 36" X 18" / NORTH M03-1 36" X 18" / HOOVER ROAD / COUNTRY CLUB DRIVE — M05-2R 30" X 30" (15)
DETOUR M4-8 36" X 18" / NORTH M03-1 36" X 18" / HOOVER ROAD / COUNTRY CLUB DRIVE — M06-2 30" X 30" (16)	DETOUR M4-8 36" X 18" / NORTH M03-1 36" X 18" / HOOVER ROAD / COUNTRY CLUB DRIVE — M06-1 30" X 30" (17)	DETOUR M4-8 36" X 18" / SOUTH M03-3 36" X 18" / COUNTRY CLUB DRIVE / HOOVER ROAD — M06-1 30" X 30" (18)	END DETOUR M4-8A 24" X 18" / NORTH M03-1 24" X 12" / HOOVER ROAD / COUNTRY CLUB DRIVE (19)	END DETOUR M4-8A 24" X 18" / SOUTH M03-3 24" X 12" / HOOVER ROAD / COUNTRY CLUB DRIVE (20)

PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	DETOUR	SHEET 87	E

FILE NAME: P:\60334255\900-Work\910-CAD\20-Sheets\027001_dt.dgn
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PLOT DATE: 7/22/2016
PLOT TIME: 6:31:54 AM
PLOT SCALE: 1:2000
WISDOT/CADDS SHEET 42

2

STH 66
BIKE ROUTE

GREEN CIRCLE TRAIL
SUNSET AVE
HILLCREST DRIVE
GREEN CIRCLE TRAIL

DETOUR
M4-9aL
30" X 24"

DETOUR
M4-9aR
30" X 24"

DETOUR
M4-9aR
30" X 24"

DETOUR
M4-9aL
30" X 24"

DETOUR
M4-9aR
30" X 24"

DETOUR
M4-9aL
30" X 24"

Westland Trail
I-39 Underpass
Hoover Trail

DETOUR
M4-9aR
30" X 24"

COUNTRY CLUB DRIVE
CLOSED AT
CAROLS LANE
FIXED MESSAGE
36" X 18"

END
DETOUR
M4-8A
24" X 18"

DETOUR
AHEAD
30" X 24"

N

0' 200' 400' 800'
SCALE

COUNTRY CLUB DR

CAROLS LN

Plover R.

Stevens
Point

GREEN CIRCLE TRAIL

DETOUR
M4-9aR
30" X 24"

WISCONSIN CENTRAL LTD

PATCH STREET

HEARTLAND TRAIL

DETOUR
M4-9aL
30" X 24"

DETOUR
M4-9aR
30" X 24"

INDUSTRIAL PARK RD

DETOUR
M4-9aL
30" X 24"

McDill Pond

BIKE ROUTE
LEAHY AVE

DETOUR
M4-9aR
30" X 24"

DETOUR
M4-9aL
30" X 24"

DETOUR
M4-9aL
30" X 24"

HEFFRON ST
BIKE ROUTE

DETOUR
M4-9aL
30" X 24"

DETOUR
AHEAD
30" X 24"

HOOVER RD
CLOSED AT
INDUSTRIAL PARK RD
FIXED MESSAGE
36" X 18"

BIKE ROUTE
HOOVER RD

DETOUR
M4-9aL
30" X 24"

DETOUR
M4-9aR
30" X 24"

DETOUR
M4-9aL
30" X 24"

COYE DR
BIKE ROUTE

DETOUR
M4-9aL
30" X 24"

DETOUR
M4-9aR
30" X 24"

JOERNS DR
HEARTLAND TRAIL

BIKE ROUTE
KREMBS AVE

DETOUR
AHEAD
30" X 24"

END
DETOUR
M4-8A
24" X 18"

DETOUR
M4-9aR
30" X 24"

LEGEND

- DETOUR ROUTE
- SIGN ON PERMANENT SUPPORT
- WORK AREA
- EXISTING SIGN COVERED UP (Westland Trail / I-39 Underpass / Hoover Trail)

PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	BICYCLE/PEDESTRIAN DETOUR MAP - ALL STAGES	SHEET 88	E

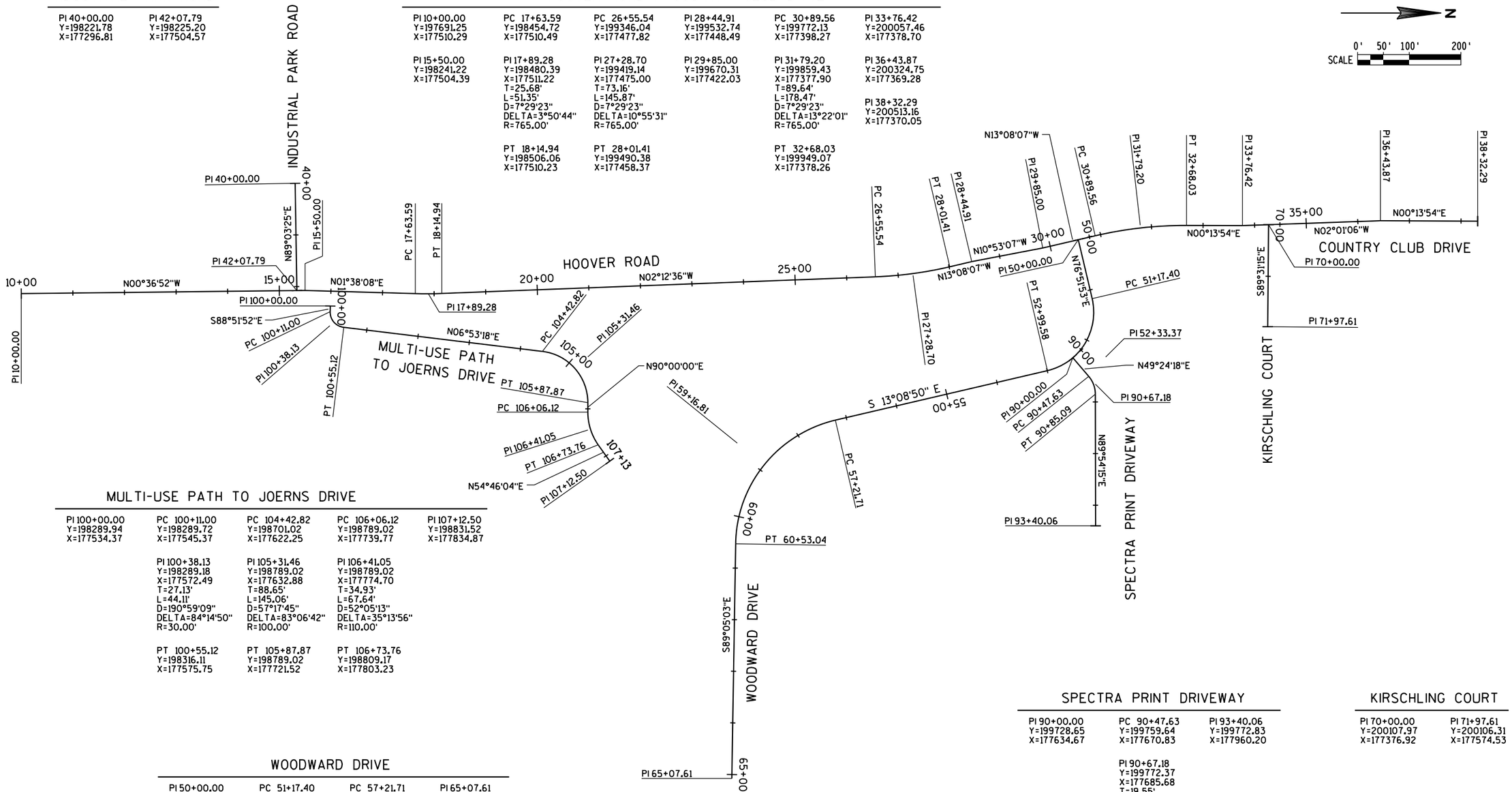
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PLOT TIME: 6:32:03 AM
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WISDOT/CADDS SHEET 42

INDUSTRIAL PARK ROAD

PI 40+00.00 Y=198221.78 X=177296.81	PI 42+07.79 Y=198225.20 X=177504.57

HOOVER ROAD / COUNTRY CLUB DRIVE

PI 10+00.00 Y=197691.25 X=177510.29	PC 17+63.59 Y=198454.72 X=177510.49	PC 26+55.54 Y=199346.04 X=177477.82	PI 28+44.91 Y=199532.74 X=177448.49	PC 30+89.56 Y=199772.13 X=177398.27	PI 33+76.42 Y=200057.46 X=177378.70
PI 15+50.00 Y=198241.22 X=177504.39	PI 17+89.28 Y=198480.39 X=177511.22 T=25.68' L=51.35' D=7°29'23" DELTA=3°50'44" R=765.00'	PI 27+28.70 Y=199419.14 X=177475.00 T=73.16' L=145.87' D=7°29'23" DELTA=10°55'31" R=765.00'	PI 29+85.00 Y=199670.31 X=177422.03	PI 31+79.20 Y=199859.43 X=177377.90 T=89.64' L=178.47' D=7°29'23" DELTA=13°22'01" R=765.00'	PI 36+43.87 Y=200324.75 X=177369.28 PI 38+32.29 Y=200513.16 X=177370.05
	PT 18+14.94 Y=198506.06 X=177510.23	PT 28+01.41 Y=199490.38 X=177458.37		PT 32+68.03 Y=199949.07 X=177378.26	



MULTI-USE PATH TO JOERNS DRIVE

PI 100+00.00 Y=198289.94 X=177534.37	PC 100+11.00 Y=198289.72 X=177545.37	PC 104+42.82 Y=198701.02 X=177622.25	PC 106+06.12 Y=198789.02 X=177739.77	PI 107+12.50 Y=198831.52 X=177834.87
	PI 100+38.13 Y=198289.18 X=177572.49 T=27.13' L=44.11' D=190°59'09" DELTA=84°14'50" R=30.00'	PI 105+31.46 Y=198789.02 X=177632.88 T=88.65' L=145.06' D=57°17'45" DELTA=83°06'42" R=100.00'	PI 106+41.05 Y=198789.02 X=177774.70 T=34.93' L=67.64' D=52°05'13" DELTA=35°13'56" R=110.00'	
	PT 100+55.12 Y=198316.11 X=177575.75	PT 105+87.87 Y=198789.02 X=177721.52	PT 106+73.76 Y=198809.17 X=177803.23	

WOODWARD DRIVE

PI 50+00.00 Y=199739.46 X=177405.90	PC 51+17.40 Y=199766.13 X=177520.22	PC 57+21.71 Y=199268.50 X=177755.56	PI 65+07.61 Y=199068.13 X=178449.52
	PI 52+33.37 Y=199792.49 X=177633.16 T=115.98' L=182.19' D=49°23'34" DELTA=89°59'16" R=116.00'	PI 59+16.81 Y=199078.51 X=177799.93 T=195.10' L=331.34' D=22°55'06" DELTA=75°56'13" R=250.00'	
	PT 52+99.58 Y=199679.55 X=177659.54	PT 60+53.04 Y=199075.39 X=177995.01	

SPECTRA PRINT DRIVEWAY

PI 90+00.00 Y=199728.65 X=177634.67	PC 90+47.63 Y=199759.64 X=177670.83	PI 93+40.06 Y=199772.83 X=177960.20
	PI 90+67.18 Y=199772.37 X=177685.68 T=19.55' L=37.46' D=108°06'19" DELTA=40°29'58" R=53.00'	
	PT 90+85.09 Y=199772.40 X=177705.23	

KIRSCHLING COURT

PI 70+00.00 Y=200107.97 X=177376.92	PI 71+97.61 Y=200106.31 X=177574.53

PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	ALIGNMENT DIAGRAM	SHEET 89	E

					6998-11-70	6998-11-71
Line	**Item**	**Item Description**	**Unit**	**Total**	**Qty**	**Qty**
0010	204.0100	Removing Pavement	SY	4,806.000	4,806.000	
0020	204.0140	Removing Gutter	LF	285.000	285.000	
0030	204.0150	Removing Curb & Gutter	LF	6,636.000	6,636.000	
0040	204.0155	Removing Concrete Sidewalk	SY	228.000	228.000	
0050	204.0170	Removing Fence	LF	835.000	835.000	
0060	204.0205	Removing Utility Poles	EACH	13.000	13.000	
0070	204.0210	Removing Manholes	EACH	8.000	8.000	
0080	204.0220	Removing Inlets	EACH	25.000	25.000	
0090	204.0230	Removing Building (station) 01. 25+30	LS	1.000	1.000	
0100	204.0245	Removing Storm Sewer (size) 01. 12-Inch	LF	610.000	610.000	
0110	204.0245	Removing Storm Sewer (size) 02. 15-Inch	LF	308.000	308.000	
0120	204.0245	Removing Storm Sewer (size) 03. 18-Inch	LF	265.000	265.000	
0130	204.0245	Removing Storm Sewer (size) 04. 24-Inch	LF	40.000	40.000	
0140	204.0245	Removing Storm Sewer (size) 05. 48-Inch	LF	1,955.000	1,955.000	
0150	204.0250	Abandoning Manholes	EACH	2.000	2.000	
0160	204.0280	Sealing Pipes	EACH	1.000	1.000	
0170	204.0291.S	Abandoning Sewer	CY	47.000	47.000	
0180	204.9090.S	Removing (item description) 01. WATER MAIN 12-INCH	LF	161.000	161.000	
0190	205.0100	Excavation Common	CY	29,041.000	29,041.000	
0200	206.1000	Excavation for Structures Bridges (structure) 01. B-49-181	LS	1.000		1.000
0210	208.0100	Borrow	CY	177,017.000	177,017.000	
0220	210.1500	Backfill Structure Type A	TON	1,050.000		1,050.000
0230	213.0100	Finishing Roadway (project) 01. 6998-11-70	EACH	1.000	1.000	
0240	214.0100	Obliterating Old Road	STA	9.000	9.000	
0250	305.0110	Base Aggregate Dense 3/4-Inch	TON	2,750.000	2,750.000	
0260	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	20,560.000	20,000.000	560.000
0270	405.1000	Stamping Colored Concrete	CY	211.000	211.000	
0280	416.0160	Concrete Driveway 6-Inch	SY	695.000	695.000	
0290	440.4410	Incentive IRI Ride	DOL	4,360.000	4,360.000	
0300	450.4000	HMA Cold Weather Paving	TON	900.000	900.000	
0310	455.0605	Tack Coat	GAL	1,200.000	1,200.000	
0320	460.2000	Incentive Density HMA Pavement	DOL	4,200.000	4,200.000	
0330	460.5223	HMA Pavement 3 LT 58-28 S	TON	3,920.000	3,920.000	
0340	460.5224	HMA Pavement 4 LT 58-28 S	TON	2,050.000	2,050.000	
0350	460.5225	HMA Pavement 5 LT 58-28 S	TON	580.000	580.000	
0360	465.0105	Asphaltic Surface	TON	530.000	530.000	
0370	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	70.000	70.000	
0380	502.0100	Concrete Masonry Bridges	CY	799.000		799.000

					6998-11-70	6998-11-71
Line	**Item**	**Item Description**	**Unit**	**Total**	**Qty**	**Qty**
0390	502.3200	Protective Surface Treatment	SY	1,345.000		1,345.000
0400	502.3210	Pigmented Surface Sealer	SY	385.000		385.000
0410	503.0137	Prestressed Girder Type I 36W-Inch	LF	935.000		935.000
0420	504.0500	Concrete Masonry Retaining Walls	CY	305.000		305.000
0430	505.0400	Bar Steel Reinforcement HS Structures	LB	13,750.000		13,750.000
0440	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	130,380.000		130,380.000
0450	505.0800.S	Bar Steel Reinforcement HS Stainless Structures	LB	3,120.000		3,120.000
0460	506.2605	Bearing Pads Elastomeric Non-Laminated	EACH	22.000		22.000
0470	506.4000	Steel Diaphragms (structure) 01. B-49-181	EACH	20.000		20.000
0480	513.2001	Railing Pipe (structure) 01. R-49-26	LF	96.000		96.000
0490	513.2001	Railing Pipe (structure) 02. R-49-27	LF	97.000		97.000
0500	513.2050.S	Railing Pipe	LF	806.000	806.000	
0510	516.0500	Rubberized Membrane Waterproofing	SY	85.000		85.000
0520	522.1012	Apron Endwalls for Culvert Pipe Reinforced Concrete 12-Inch	EACH	2.000	2.000	
0530	522.1015	Apron Endwalls for Culvert Pipe Reinforced Concrete 15-Inch	EACH	2.000	2.000	
0540	522.1021	Apron Endwalls for Culvert Pipe Reinforced Concrete 21-Inch	EACH	1.000	1.000	
0550	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	1.000	1.000	
0560	522.1030	Apron Endwalls for Culvert Pipe Reinforced Concrete 30-Inch	EACH	1.000	1.000	
0570	550.2126	Piling CIP Concrete 12 3/4 X 0.375-Inch	LF	3,875.000		3,875.000
0580	602.0410	Concrete Sidewalk 5-Inch	SF	30,295.000	30,295.000	
0590	602.0415	Concrete Sidewalk 6-Inch	SF	302.000	302.000	
0600	602.0515	Curb Ramp Detectable Warning Field Natural Patina	SF	262.000	262.000	
0610	604.0400	Slope Paving Concrete	SY	80.000		80.000
0620	606.0300	Riprap Heavy	CY	92.000	92.000	
0630	608.0312	Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	LF	1,936.000	1,936.000	
0640	608.0315	Storm Sewer Pipe Reinforced Concrete Class III 15-Inch	LF	762.000	762.000	
0650	608.0318	Storm Sewer Pipe Reinforced Concrete Class III 18-Inch	LF	36.000	36.000	
0660	608.0321	Storm Sewer Pipe Reinforced Concrete Class III 21-Inch	LF	586.000	586.000	
0670	608.0324	Storm Sewer Pipe Reinforced Concrete Class III 24-Inch	LF	179.000	179.000	
0680	608.0330	Storm Sewer Pipe Reinforced Concrete Class III 30-Inch	LF	457.000	457.000	
0690	611.0420	Reconstructing Manholes	EACH	7.000	7.000	

					6998-11-70	6998-11-71
Line	**Item**	**Item Description**	**Unit**	**Total**	**Qty**	**Qty**
0700	611.0530	Manhole Covers Type J	EACH	8.000	8.000	
0710	611.0624	Inlet Covers Type H	EACH	27.000	27.000	
0720	611.0639	Inlet Covers Type H-S	EACH	11.000	11.000	
0730	611.1005	Catch Basins 5-FT Diameter	EACH	2.000	2.000	
0740	611.1230	Catch Basins 2x3-FT	EACH	36.000	36.000	
0750	611.2004	Manholes 4-FT Diameter	EACH	5.000	5.000	
0760	611.2005	Manholes 5-FT Diameter	EACH	2.000	2.000	
0770	611.8110	Adjusting Manhole Covers	EACH	20.000	20.000	
0780	611.8120.S	Cover Plates Temporary	EACH	20.000	20.000	
0790	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	1,515.000		1,515.000
0800	618.0100	Maintenance And Repair of Haul Roads (project) 01. 6998-11-70	EACH	1.000	1.000	
0810	619.1000	Mobilization	EACH	1.000	0.200	0.800
0820	620.0300	Concrete Median Sloped Nose	SF	165.000	165.000	
0830	621.0100	Landmark Reference Monuments	EACH	8.000	8.000	
0840	624.0100	Water	MGAL	120.000	120.000	
0850	625.0100	Topsoil	SY	48,000.000	48,000.000	
0860	627.0200	Mulching	SY	16,300.000	16,300.000	
0870	628.1504	Silt Fence	LF	4,600.000	4,600.000	
0880	628.1520	Silt Fence Maintenance	LF	4,600.000	4,600.000	
0890	628.1905	Mobilizations Erosion Control	EACH	3.000	3.000	
0900	628.1910	Mobilizations Emergency Erosion Control	EACH	3.000	3.000	
0910	628.2006	Erosion Mat Urban Class I Type A	SY	33,500.000	33,500.000	
0920	628.7005	Inlet Protection Type A	EACH	38.000	38.000	
0930	628.7015	Inlet Protection Type C	EACH	38.000	38.000	
0940	628.7555	Culvert Pipe Checks	EACH	3.000	3.000	
0950	628.7560	Tracking Pads	EACH	5.000	5.000	
0960	629.0205	Fertilizer Type A	CWT	30.000	30.000	
0970	630.0120	Seeding Mixture No. 20	LB	810.000	810.000	
0980	630.0171	Seeding Mixture No. 70A	LB	55.000	55.000	
0990	630.0200	Seeding Temporary	LB	1,310.000	1,310.000	
1000	634.0814	Posts Tubular Steel 2x2-Inch X 14-FT	EACH	14.000	14.000	
1010	634.0816	Posts Tubular Steel 2x2-Inch X 16-FT	EACH	8.000	8.000	
1020	634.0818	Posts Tubular Steel 2x2-Inch X 18-FT	EACH	2.000	2.000	
1030	637.2210	Signs Type II Reflective H	SF	117.810	117.810	
1040	637.2220	Signs Type II Reflective SH	SF	6.750	6.750	
1050	637.2230	Signs Type II Reflective F	SF	65.580	65.580	
1060	638.2102	Moving Signs Type II	EACH	13.000	13.000	
1070	638.2602	Removing Signs Type II	EACH	40.000	40.000	
1080	638.3000	Removing Small Sign Supports	EACH	34.000	34.000	

					6998-11-70	6998-11-71
Line	**Item**	**Item Description**	**Unit**	**Total**	**Qty**	**Qty**
1090	642.5201	Field Office Type C	EACH	1.000	1.000	
1100	643.0100	Traffic Control (project) 01. 6998-11-70	EACH	1.000	1.000	
1110	643.0300	Traffic Control Drums	DAY	28,367.000	28,367.000	
1120	643.0420	Traffic Control Barricades Type III	DAY	6,064.000	6,064.000	
1130	643.0705	Traffic Control Warning Lights Type A	DAY	2,375.000	2,375.000	
1140	643.0715	Traffic Control Warning Lights Type C	DAY	12,128.000	12,128.000	
1150	643.0800	Traffic Control Arrow Boards	DAY	95.000	95.000	
1160	643.0900	Traffic Control Signs	DAY	6,849.000	6,849.000	
1170	643.0920	Traffic Control Covering Signs Type II	EACH	1.000	1.000	
1180	643.1000	Traffic Control Signs Fixed Message	SF	435.750	435.750	
1190	643.2000	Traffic Control Detour (project) 01. 6998-11-70	EACH	1.000	1.000	
1200	643.3000	Traffic Control Detour Signs	DAY	35,200.000	35,200.000	
1210	645.0120	Geotextile Type HR	SY	222.000	222.000	
1220	646.0106	Pavement Marking Epoxy 4-Inch	LF	8,712.000	8,712.000	
1230	646.0126	Pavement Marking Epoxy 8-Inch	LF	770.000	770.000	
1240	647.0156	Pavement Marking Arrows Epoxy Type 1	EACH	6.000	6.000	
1250	647.0166	Pavement Marking Arrows Epoxy Type 2	EACH	8.000	8.000	
1260	647.0176	Pavement Marking Arrows Epoxy Type 3	EACH	1.000	1.000	
1270	647.0206	Pavement Marking Arrows Bike Lane Epoxy	EACH	20.000	20.000	
1280	647.0306	Pavement Marking Symbols Bike Lane Epoxy	EACH	20.000	20.000	
1290	647.0356	Pavement Marking Words Epoxy	EACH	3.000	3.000	
1300	647.0456	Pavement Marking Curb Epoxy	LF	212.000	212.000	
1310	647.0566	Pavement Marking Stop Line Epoxy 18-Inch	LF	84.000	84.000	
1320	647.0606	Pavement Marking Island Nose Epoxy	EACH	5.000	5.000	
1330	647.0726	Pavement Marking Diagonal Epoxy 12-Inch	LF	132.000	132.000	
1340	647.0766	Pavement Marking Crosswalk Epoxy 6-Inch	LF	521.000	521.000	
1350	647.0786	Pavement Marking Crosswalk Epoxy 18-Inch	LF	380.000	380.000	
1360	649.0400	Temporary Pavement Marking Removable Tape 4-Inch	LF	3,885.000	3,885.000	
1370	650.4000	Construction Staking Storm Sewer	EACH	53.000	53.000	
1380	650.4500	Construction Staking Subgrade	LF	4,478.000	4,478.000	
1390	650.5000	Construction Staking Base	LF	6,624.000	6,624.000	
1400	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	10,437.000	10,437.000	
1410	650.6500	Construction Staking Structure Layout (structure) 01. B-49-181	LS	1.000		1.000
1420	650.6500	Construction Staking Structure Layout (structure) 02. R-49-26	LS	1.000		1.000
1430	650.6500	Construction Staking Structure Layout (structure) 03. R-49-27	LS	1.000		1.000
1440	650.8500	Construction Staking Electrical Installations (project) 01. 6998-11-70	LS	1.000	1.000	
1450	650.9910	Construction Staking Supplemental Control (project) 01.	LS	1.000	1.000	

					6998-11-70	6998-11-71
Line	**Item**	**Item Description**	**Unit**	**Total**	**Qty**	**Qty**
		6998-11-70				
1460	650.9920	Construction Staking Slope Stakes	LF	4,341.000	4,341.000	
1470	652.0115	Conduit Rigid Metallic 1 1/4-Inch	LF	312.000	156.000	156.000
1480	652.0215	Conduit Rigid Nonmetallic Schedule 40 1 1/4-Inch	LF	242.000		242.000
1490	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	2,380.000	2,380.000	
1500	652.0335	Conduit Rigid Nonmetallic Schedule 80 3-Inch	LF	1,651.000	1,651.000	
1510	654.0101	Concrete Bases Type 1	EACH	2.000	2.000	
1520	654.0107	Concrete Bases Type 7	EACH	20.000	20.000	
1530	654.0205	Concrete Control Cabinet Bases Type 7	EACH	2.000	2.000	
1540	655.0610	Electrical Wire Lighting 12 AWG	LF	5,163.000	5,163.000	
1550	655.0615	Electrical Wire Lighting 10 AWG	LF	1,827.000	1,827.000	
1560	655.0625	Electrical Wire Lighting 6 AWG	LF	18,237.000	18,237.000	
1570	656.0200	Electrical Service Meter Breaker Pedestal (location) 01. 12+78	LS	1.000	1.000	
1580	656.0200	Electrical Service Meter Breaker Pedestal (location) 02. 37+31	LS	1.000	1.000	
1590	657.0100	Pedestal Bases	EACH	2.000	2.000	
1600	657.0420	Traffic Signal Standards Aluminum 13-FT	EACH	2.000	2.000	
1610	658.0500	Pedestrian Push Buttons	EACH	3.000	3.000	
1620	690.0150	Sawing Asphalt	LF	598.000	598.000	
1630	690.0250	Sawing Concrete	LF	238.000	238.000	
1640	715.0502	Incentive Strength Concrete Structures	DOL	6,624.000		6,624.000
1650	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	2,000.000		2,000.000
1660	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	1,260.000		1,260.000
1670	SPV.0035	Special 01. COMPOST FOR PONDS	CY	200.000	200.000	
1680	SPV.0060	Special 01. REESTABLISH SECTION CORNER MONUMENTS	EACH	2.000	2.000	
1690	SPV.0060	Special 41. LIGHTING CONTROL CABINET (STA. 12+78	EACH	1.000	1.000	
1700	SPV.0060	Special 42. LIGHTING CONTROL CABINET (STA. 37+31	EACH	1.000	1.000	
1710	SPV.0060	Special 43. LED STREET LIGHT	EACH	20.000	20.000	
1720	SPV.0060	Special 44. PULL BOX NON-CONDUCTIVE 24x42 INCH	EACH	15.000	15.000	
1730	SPV.0060	Special 45. COMMUNICATIONS PULL BOX 33-INCH DIAMETER	EACH	7.000	7.000	
1740	SPV.0090	Special 01. CONCRETE CURB & GUTTER 24-INCH TYPE D	LF	10,519.000	10,519.000	
1750	SPV.0090	Special 02. CONCRETE CURB & GUTTER 24-INCH TYPE A	LF	456.000	456.000	
1760	SPV.0090	Special 21. FENCE CHAIN LINK POLYMER-COATED 6-FT	LF	1,225.000		1,225.000

					6998-11-70	6998-11-71
Line	**Item**	**Item Description**	**Unit**	**Total**	**Qty**	**Qty**
1770	SPV.0090	Special 22. FENCE CHAIN LINK POLYMER-COATED 4-FT	LF	75.000		75.000
1780	SPV.0090	Special 23. PILE SLEEVES	LF	910.000		910.000
1790	SPV.0090	Special 41. COMMUNICATIONS HDPE CONDUIT 1 1/4-INCH	LF	6,594.000	6,594.000	
1800	SPV.0105	Special 41. RECTANGULAR RAPID FLASHING BEACON SYSTEM	LS	1.000	1.000	
1810	SPV.0165	Special 21. Wall Concrete Panel Mechanically Stabilized Earth LRFD/QMP	SF	22,270.000		22,270.000

REMOVING UTILITY POLES

STAGE	STATION	LOCATION	204.0205 EACH
STAGE 2			
	24+95	HOOVER RD RT	1
	25+05	HOOVER RD RT	1
	25+50	HOOVER RD RT	1
	25+70	HOOVER RD RT	1
	29+13	HOOVER RD RT	1
	29+17	HOOVER RD RT	1
	29+52	HOOVER RD RT	1
	57+56	WOODWARD DRIVE RT	1
	58+13	WOODWARD DRIVE RT	1
	58+40	WOODWARD DRIVE RT	1
STAGE 1			
	53+04	SPECTRA PRINT DRIVE	1
	59+17	WOODWARD DRIVE RT	1
	60+23	WOODWARD DRIVE RT	1
PROJECT 6998-11-70 TOTAL			13

REMOVING CURB & GUTTER

STAGE	STATION	-	STATION	LOCATION	204.0140 REMOVING GUTTER LF	204.0150 REMOVING CURB & GUTTER LF	REMARKS
STAGE 3							
	13+00		15+10	HOOVER RD LT	--	305	HOOVER RD LT EOP/INDUSTRIAL PARK EOP
	13+00		14+85	HOOVER RD LT	--	370	HOOVER RD MEDIAN
	13+00		15+85	HOOVER RD RT	--	285	HOOVER RD RT EOP
	15+50		15+85	HOOVER RD LT	--	70	INDUSTRIAL PARK EOP/HOOVER RD LT EOP
	15+70		15+85	HOOVER RD LT	--	40	HOOVER RD MEDIAN
STAGE 2							
	15+85		21+40	HOOVER RD LT & RT	--	535	HOOVER RD RT EOP/JOERNS DR EOP
	15+85		23+00	HOOVER RD LT	--	730	INDUSTRIAL PARK EOP/HOOVER RD LT EOP
	15+85		21+10	HOOVER RD LT	185	700	HOOVER RD MEDIAN
	21+70		23+00	HOOVER RD LT & RT	--	225	JOERNS DR EOP/HOOVER RD RT EOP
	21+90		23+00	HOOVER RD LT	--	225	HOOVER RD MEDIAN
	23+40		26+00	HOOVER RD RT	100	160	HOOVER RD RT EOP
	23+40		25+15	HOOVER RD LT	--	350	HOOVER RD MEDIAN
	23+40		26+00	HOOVER RD LT	--	255	HOOVER RD LT EOP
	36+41		36+69	HOOVER RD RT	--	44	CAROLS LN SE RADIUS
	36+93		37+24	HOOVER RD RT	--	47	CAROLS LN NE RADIUS
STAGE 1							
	26+00		34+10	HOOVER RD LT & RT	--	730	HOOVER RD RT EOP
	26+00		32+85	HOOVER RD LT	--	680	HOOVER RD LT EOP
	26+00		29+50	HOOVER RD LT	--	665	HOOVER RD MEDIAN
	30+00		31+25	HOOVER RD LT	--	185	HOOVER RD MEDIAN
	34+40		34+70	HOOVER RD RT	--	35	HOOVER RD RT EOP
PROJECT 6998-11-70 TOTAL					285	6,636	

REMOVING PAVEMENT

STAGE	STATION	-	STATION	LOCATION	204.0100 REMOVING PAVEMENT SY	204.0155 REMOVING CONCRETE SIDEWALK SY
STAGE 3						
	15+56		40+50	SW INDUSTRIAL PARK SIDEWALK	---	160
	15+11		15+52	DRIVEWAY RT	43	---
STAGE 2						
	15+68		15+91	NW INDUSTRIAL PARK CURB RAMP	---	23
	15+80		15+92	HOOVER RD MEDIAN	---	17
	15+85		16+01	MULTI-USE PATH RT	---	14
	15+90		17+00	DRIVEWAY LT	300	---
	21+24		21+34	MULTI-USE PATH RT	---	14
	56+28		60+02	WOODWARD DR	2,238	---
STAGE 1						
	28+77		29+98	SPECTRA PRINT DR	873	---
	59+12		61+30	WOODWARD DR	465	---
	90+01		92+77	SPECTRA PRINT DR	888	---
PROJECT 6998-11-70 TOTAL					4,806	228

REMOVING FENCE

STAGE	STATION	-	STATION	LOCATION	204.0170 LF
STAGE 2					
	23+50		25+10	HOOVER RD LT&RT	430
STAGE 1					
	25+60		29+10	HOOVER RD RT	405
PROJECT 6998-11-70 TOTAL					835

ALL ITEMS ARE CATEGORY **0010** UNLESS OTHERWISE SPECIFIED.

REMOVING MANHOLES & INLETS (CATEGORY 0030)

STAGE	STATION	LOCATION	204.0210 REMOVING MANHOLES EACH	204.0220 REMOVING INLETS EACH	204.0250 ABANDONING MANHOLES EACH
STAGE 2					
	17+40	RT	1	1	--
	17+40	LT	--	1	--
	20+75	LT	--	1	--
	21+35	LT	--	1	--
	21+40	LT	2	--	--
	21+70	LT	--	1	--
	22+60	LT	--	--	1
	23+60	LT	--	--	1
	24+55	RT	--	1	--
	25+10	RT	--	1	--
	25+65	RT	--	1	--
	58+55	RT	--	1	--
	59+15	RT	--	1	--
STAGE 1					
	27+50	LT	1	4	--
	28+20	LT	--	1	--
	29+45	RT	--	1	--
	29+70	RT	--	1	--
	30+90	RT	1	--	--
	31+40	RT	1	--	--
	32+55	RT	1	--	--
	32+70	LT & RT	--	2	--
	34+40	RT	1	--	--
	35+90	LT & RT	--	2	--
	59+05	LT	--	1	--
	59+10	RT	--	1	--
	92+20	RT	--	1	--
	92+30	RT	--	1	--
PROJECT 6998-11-70 TOTAL			8	25	2

OBLITERATING OLD ROAD

STAGE	STATION	-	STATION	LOCATION	214.0100 OBLITERATING OLD ROAD STA
STAGE 2					
	19+00		23+00	HOOVER ROAD, SB	4
	20+00		23+00	HOOVER ROAD, NB	3
STAGE 1					
	90+00		92+00	SPECTRA PRINT DRIVE	2
PROJECT 6998-11-70 TOTAL					9

REMOVING BUILDING STA 25+30

STAGE	STATION	LOCATION	204.0230 LS
STAGE 2			
	25+30	HOOVER RD RT	1
PROJECT 6998-11-70 TOTAL			1

ALL ITEMS ARE CATEGORY **0010** UNLESS OTHERWISE SPECIFIED.

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REMOVING STORM SEWER (CATEGORY 0030)

STAGE	STATION	-	STATION	LOCATION	204.0245.01 REMOVING STORM SEWER 12-INCH LF	204.0245.02 REMOVING STORM SEWER 15-INCH LF	204.0245.03 REMOVING STORM SEWER 18-INCH LF	204.0245.04 REMOVING STORM SEWER 24-INCH LF	204.0245.05 REMOVING STORM SEWER 48-INCH LF	204.0291.S ABANDONING SEWER CY	(CAT. 0010) 204.9090.S REMOVING WATER MAIN 12-INCH LF	204.0280 SEALING PIPES EACH
STAGE 2												
	15+15		26+00	LT & RT	--	--	--	--	790	--	--	1
	15+15		26+00	LT & RT	--	--	--	--	--	47	161	--
	15+15		26+00	LT & RT	--	--	--	--	260	--	--	--
	17+35		17+37	LT & RT	--	7	65	--	--	--	--	--
	20+51		21+73	LT & RT	--	--	150	40	85	--	--	--
	24+50		25+05	RT	55	--	--	--	--	--	--	--
	24+55		25+70	RT	95	60	--	--	--	--	--	--
	58+33		59+19	LT & RT	140	--	--	--	--	--	--	--
STAGE 1	26+00		34+46	LT & RT	--	--	--	--	820	--	--	--
	27+41		27+75	LT	100	--	--	--	--	--	--	--
	28+15		29+71	LT & RT	--	158	--	--	--	--	--	--
	32+54		32+74	LT & RT	70	--	--	--	--	--	--	--
	35+91		35+93	LT & RT	--	--	50	--	--	--	--	--
	58+56		59+58	LT & RT	150	--	--	--	--	--	--	--
	91+88		92+31	LT & RT	--	83	--	--	--	--	--	--
	PROJECT 6998-11-70 TOTAL				610	308	265	40	1,955	47	161	1

ALL ITEMS ARE CATEGORY **0030** UNLESS OTHERWISE SPECIFIED.

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Segment	From / To Station	Location	Common Excavation (1) (item # 205.0100) Cut (2)	Available Material (3)	Unexpanded Fill	Expanded Fill (4) Factor 1.25	Mass Ordinate + / - (5)	Waste	Borrow (6) (item #208.0100)	Comment:
North Pond (1) Subtotal		North	17,952	17,952	151	189	17,763			
South Pond (2) Subtotal		South	3,819	3,819	0	0	3,818			
Hoover Road-South Subtotal	13+00 to 22+65	South Mainline	1,036	1,036	50,941	63,676	-62,639			
Country Club Drive-North Subtota	23+92 to 37+90	North Mainline	2,921	2,921	109,174	136,468	-133,547			
Woodward Drive Subtotal	50+50 to 61+30	North Sideroad	2,751	2,751	3,532	4,415	-1,664			
Spectra Print Driveway Subtotal	90+50 to 92+77	North Sideroad	63	63	442	552	-489			
Multi-Use Path Subtotal	100+50 to 107+13	South Path	129	129	543	679	-550			
Industrial Park Road Subtotal	40+50 to 41+50	South Sideroad	172	172	63	79	94			
Kirschling Court Subtotal	70+50 to 71+14	North Sideroad	198	198	0	0	198			
Grand Total			**29,041**	**29,041**	**164,846**	**206,057**	**-177,017**	**0**	**177,017**	

1) Common Excavation is the sum of the Cut and EBS Excavation columns. Item number 205.0100
2) Salvaged/Unsuable Pavement Material is included in Cut.
3) Available Material = Cut
4) Expanded Fill. Factor = 1.25
5) The Mass Ordinate + or - Qty calculated for the Segment. Plus quantity indicates an excess of material within the Segment. Minus indicates a shortage of material within the Segment.
6) Borrow Excavation item number 208.0100

ALL ITEMS ARE CATEGORY **0010** UNLESS OTHERWISE SPECIFIED.

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BASE AGGREGATE

STAGE	STATION	-	STATION	LOCATION	305.0110 3/4-INCH TONS	305.0120 1 1/4-INCH TONS
1	30+00		37+90	HOOVER RD	---	4,800
1	50+50		62+00	WOODWARD DR.	---	2,300
1	70+25		71+50	KIRSCHLING COURT	---	150
1	90+00		92+75	SPECTRA PRINT DRIVEWAY	---	450
1				TEMPORARY ROAD ACCESS	250	---
				STAGE 1 SUB-TOTAL	250	7,700
2	16+01		30+00	HOOVER RD	---	8,000
2				JOERNS DR. CUL DU SAC	---	850
2	16+01		22+65	HOOVER RD MULTI-USE PATH, LT	450	---
2	23+92		38+19	HOOVER RD MULTI-USE PATH, LT	950	---
2	16+00		22+65	SIDEWALK, RT	200	---
2	23+92		30+23	SIDEWALK, RT	200	---
2	30+94		33+87	SIDEWALK, RT	100	---
2	34+62		36+50	SIDEWALK, RT	60	---
2	1+10		8+13	MULTI-USE PATH, RT	300	---
				STAGE 2 SUB-TOTAL	2,260	8,850
3	13+00		16+01	HOOVER RD	---	2,100
3	40+50		41+50	INDUSTRIAL PARK DR.	---	400
3	13+00		16+01	HOOVER RD MULTI-USE PATH, LT	30	---
3	40+50		41+50	INDUSTRIAL PARK DR. MULTI-USE PATH, RT	60	---
				STAGE 3 SUB-TOTAL	90	2,500
				UNDISTRIBUTED	150	950
	PROJECT 6998-11-70 TOTAL				2,750	20,000

FINISHING ROADWAY

LOCATION	213.0100 FINISHING ROADWAY 6998-11-70 EACH
PROJECT	1
PROJECT 6998-11-70 TOTAL	1

CONCRETE DRIVEWAY

STATION	-	STATION	LOCATION	416.0160 CONCRETE DRIVEWAY 6-INCH SY
	35+03		COUNTRY CLUB DR RT	5
	36+90		COUNTRY CLUB DR LT	12
90+50	-	92+49	SPECTRA PRINT DRIVEWAY	678
PROJECT 6998-11-70 TOTAL				695

ALL ITEMS ARE CATEGORY **0010** UNLESS OTHERWISE SPECIFIED.

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ASPHALT PAVEMENT ITEMS

STAGE	STATION	-	STATION	LOCATION	455.0605 TACK COAT GAL	460.5223 HMA PAVEMENT 3 LT 58-28 S TONS	460.5224 HMA PAVEMENT 4 LT 58-28 S TONS	460.5225 HMA PAVEMENT 5 LT 58-28 S TONS	465.0105 ASPHALTIC SURFACE TONS	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TONS
1	50+27	-	61+30	WOODWARD DRIVE	---	550	---	---	---	---
1	70+27	-	71+48	KIRSCHLING COURT	---	---	---	---	---	---
1	36+24	-	37+30	CAROLS LANE	---	---	---	---	---	---
				STAGE 1 SUB-TOTALS	0	550	0	0	0	0
2	16+01		22+65	HOOVER RD	---	840	---	---	---	---
2	23+92		30+00	COUNTRY CLUB DR	---	660	---	---	---	---
2	23+92		29+00	COUNTRY CLUB DR MULTI-USE PATH LT	---	---	---	---	150	---
2	30+00	-	37+90	COUNTRY CLUB DR	---	970	---	---	---	20
2	29+00	-	37+90	COUNTRY CLUB DR MULTI-USE PATH LT	---	---	---	---	200	---
2	50+27	-	61+30	WOODWARD DRIVE	---	---	---	---	---	---
2				JOERNS DR. CUL DE SAC	---	250	---	---	---	---
2	70+27	-	71+48	KIRSCHLING COURT	---	80	---	---	---	---
2	36+24	-	37+30	CAROLS LANE	---	40	---	---	---	---
2	1+75		8+08	MULTI-USE PATH	---	---	---	---	150	---
				STAGE 2 SUB-TOTALS	0	2,840	0	0	500	20
3	13+00	-	16+01	HOOVER RD	140	490	340	---	---	50
3	16+01		22+65	HOOVER RD	240	---	580	---	---	---
3	23+92		30+00	COUNTRY CLUB DR	190	---	460	---	---	---
3	30+00	-	37+90	COUNTRY CLUB DR	270	---	670	---	---	---
3	40+50	-	41+55	INDUSTRIAL PARK RD	20	40	---	30	---	---
3	40+50	-	41+50	INDUSTRIAL PARK MULTI-USE PATH RT	---	---	---	---	30	---
3	50+27	-	61+30	WOODWARD DRIVE	200	---	---	330	---	---
3				JOERNS DR. CUL DE SAC	90	---	---	150	---	---
3	70+27	-	71+48	KIRSCHLING COURT	30	---	---	50	---	---
3	36+24	-	37+30	CAROLS LANE	20	---	---	20	---	---
				STAGE 3 SUBTOTALS	1,200	530	2,050	580	30	50
PROJECT 6998-11-70 TOTAL					1,200	3,920	2,050	580	530	70

ALL ITEMS ARE CATEGORY **0010** UNLESS OTHERWISE SPECIFIED.

CONCRETE CURB & GUTTER

STAGE	STATION	-	STATION	LOCATION	SPV.0090.01 CONCRETE CURB & GUTTER 24-IN TYPE D LF	SPV.0090.02 CONCRETE CURB & GUTTER 24-IN TYPE A LF
3	13+00	-	15+75	HOOVER RD RT	274	---
3	13+00	-	14+65	HOOVER RD MEDIAN EAST	165	---
3	13+00	-	14+65	HOOVER RD MEDIAN WEST	165	---
3	13+00	-	14+72	HOOVER RD LT	172	---
3	14+72	-	41+23	HOOVER/ INDUSTRIAL SW RADIUS	55	---
3	41+02	-	15+75	HOOVER/ INDUSTRIAL NW RADIUS	47	---
3	40+50	-	41+23	INDUSTRIAL PARK RD RT	74	---
3	40+60	-	41+02	INDUSTRIAL PARK RD LT	42	---
				STAGE 3 SUBTOTALS	994	0
2	15+75	-	22+64	HOOVER RD RT	691	---
2	15+96	-	22+65	HOOVER RD MEDIAN EAST	669	---
2	15+96	-	22+65	HOOVER RD MEDIAN WEST	669	---
2	15+75	-	22+67	HOOVER RD LT	690	---
2	23+90	-	29+50	COUNTRY CLUB DR RT	564	---
2	23+92	-	29+50	COUNTRY CLUB DR MEDIAN EAST	558	---
2	23+92	-	29+50	COUNTRY CLUB DR MEDIAN WEST	557	---
2	23+94	-	29+50	COUNTRY CLUB DR LT	551	---
2	36+26	-	36+69	COUNTRY CLUB DR/ CAROLS LANE SE RADIUS	65	---
2	36+95	-	37+30	COUNTRY CLUB DR/ CAROLS LANE NE RADIUS	55	---
2	58+84	-	60+04	WOODWARD DR RT	128	---
				STAGE 2 SUBTOTALS	5,195	0
1	29+50	-	30+01	COUNTRY CLUB DR RT	51	---
1	30+01	-	50+67	COUNTRY CLUB/ WOODWARD SE RADIUS	61	---
1	50+67	-	31+18	COUNTRY CLUB/ WOODWARD NE RADIUS	62	---
1	31+18	-	33+63	COUNTRY CLUB DR RT	239	---
1	33+63	-	70+79	COUNTRY CLUB/ KIRSCHLING SE RADIUS	76	---
1	70+72	-	34+87	COUNTRY CLUB/ KIRSCHLING NE RADIUS	74	---
1	34+87	-	36+26	COUNTRY CLUB DR RT	139	---
1	29+50	-	30+32	COUNTRY CLUB DR MEDIAN EAST	80	---
1	29+50	-	30+32	COUNTRY CLUB DR MEDIAN WEST	82	---
1	30+91	-	33+96	COUNTRY CLUB DR MEDIAN EAST	305	---
1	30+91	-	33+97	COUNTRY CLUB DR MEDIAN WEST	310	---
1	29+50	-	37+76	COUNTRY CLUB DR LT	836	---
1	50+67	-	58+84	WOODWARD DR RT	802	---
1	60+04	-	61+30	WOODWARD DR RT	129	---
1	50+67	-	52+09	WOODWARD DR LT	158	---
1	52+09	-	90+50	WOODWARD/ SPECTRA NE RADIUS	47	---
1	90+50	-	52+80	WOODWARD/ SPECTRA SE RADIUS	50	---
1	52+80	-	61+30	WOODWARD DR LT	830	---
1	90+50	-	92+77	SPECTRA PRINT DR LT	---	239
1	90+50	-	92+77	SPECTRA PRINT DR RT	---	218
				STAGE 1 SUBTOTALS	4,330	456
PROJECT 6998-11-70 TOTAL					10,519	456

COLD WEATHER PAVING

STAGE	LOCATION	450.4000 HMA COLD WEATHER PAVING TON
3	PROJECT LIMITS	900
PROJECT 6998-11-70 TOTAL		900

ALL ITEMS ARE CATEGORY **0010** UNLESS OTHERWISE SPECIFIED.

RAILING PIPE

STAGE	STATION	STATION	LOCATION	513.2050.S RAILING PIPE LF
2	23+94	32+00	COUNTRY CLUB DR LT	806
PROJECT 6998-11-70 TOTAL				806

3

CONCRETE SIDEWALK

STAGE	STATION	-	STATION	LOCATION	602.0410 CONCRETE SIDEWALK 5-INCH SF	602.0415 CONCRETE SIDEWALK 6-INCH SF	620.0300 CONCRETE MEDIAN SLOPED NOSE SF	405.1000 STAMPING COLORED CONCRETE CY
3	41+27	-	41+37	INDUSTRIAL PARK - MULTI-USE PATH LT	141	---	---	---
3	13+00	-	14+65	HOOVER RD MEDIAN	990	---	65	---
				STAGE 3 SUBTOTALS	1,131	0	65	0
2	15+98	-	22+63	HOOVER RD SIDEWALK RT	3,368	---	---	26
2	23+90	-	29+50	COUNTRY CLUB DR SIDEWALK RT	2,840	---	---	22
2	15+75	-	22+68	HOOVER RD MULTI-USE PATH LT	8,302	---	---	48
2	23+94		29+50	COUNTRY CLUB DR MULTI-USE PATH LT	---	---	---	39
2	15+97	-	22+64	HOOVER MEDIAN SIDEWALK	4,114	---	59	---
2	23+92	-	29+50	COUNTRY CLUB DR MEDIAN SIDEWALK	3,780	---	---	---
2	8+03	-	8+13	MULTI-USE PATH @ JOERNS DRIVE	104	---	---	---
				STAGE 2 SUB-TOTALS	22,508	0	59	134
1	29+50	-	30+18	COUNTRY CLUB DR SIDEWALK RT	353	---	---	3
1	31+00	-	33+83	COUNTRY CLUB DR SIDEWALK RT	1,392	---	---	11
1	34+66	-	37+15	COUNTRY CLUB DR SIDEWALK RT	1,018	70	---	3
1	29+50	-	38+20	COUNTRY CLUB DR MULTI-USE PATH LT	---	232	---	60
1	29+50	-	30+30	COUNTRY CLUB DR MEDIAN SIDEWALK	1,159	---	12	---
1	30+92	-	33+97	COUNTRY CLUB DR MEDIAN SIDEWALK	2,735	---	30	---
				STAGE 1 SUB-TOTALS	6,656	302	42	77
PROJECT 6998-11-70 TOTAL					30,295	302	165	211

ALL ITEMS ARE CATEGORY **0010** UNLESS OTHERWISE SPECIFIED.

CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA

STAGE	STATION	LOCATION	LOCATION	602.0515 SF	REMARKS
3	15+03	LT	MULTI-USE PATH @ INDUSTRIAL PARK RD	16	4-2FT x 2FT
3	15+67	LT	MULTI-USE PATH @ INDUSTRIAL PARK RD	38	9-2FT x 2FT, 1-2FT x 1FT
			STAGE 3 SUBTOTALS	54	
2	16+05	RT	MULTI-USE PATH @ HOOVER	20	5-2FT x 2FT
2	16+05	LT	MULTI-USE PATH @ HOOVER	20	5-2FT x 2FT
2	107+10	LT	MULTI-USE PATH @ JOERNS DRIVE	20	5-2FT X 2FT
			STAGE 2 SUBTOTALS	60	
1	30+16	RT	SIDEWALK @ WOODWARD DR	26	5-2FT x 2FT, 3-2FT x 1FT
1	31+00	RT	SIDEWALK @ WOODWARD DR	28	6-2FT x 2FT, 2-2FT x 1FT
1	33+82	RT	SIDEWALK @ KIRSCHLING COURT	30	6-2FT x 2FT, 3-2FT x 1FT
1	34+67	RT	SIDEWALK @ KIRSCHLING COURT	30	6-2FT x 2FT, 3-2FT x 1FT
1	36+48	RT	SIDEWALK @ CAROLS LANE	10	2-2FT x 2FT, 1-2FT x 1FT
1	36+48	LT	SIDEWALK @ CAROLS LANE	10	2-2FT x 2FT, 1-2FT x 1FT
1	37+05	RT	SIDEWALK @ CAROLS LANE	14	3-2FT x 2FT, 1-2FT x 1FT
			STAGE 1 SUBTOTALS	148	
PROJECT 6998-11-70 TOTAL				262	

RIPRAP & GEOTEXTILE FABRIC

STAGE	STATION	OFFSET	LOCATION	606.0300 RIPRAP HEAVY CY	645.0120 GEOTEXTILE FABRIC TYPE HR SY
STAGE 2					
	21+48	152' RT	HOOVER RD	7	20
STAGE 1					
	29+50	145' RT	HOOVER RD	71	158
	55+50	41' RT	WOODWARD DR	9	29
	57+50	59' RT	WOODWARD DR	4	15
PROJECT 6998-11-70 TOTAL				92	222

ALL ITEMS ARE CATEGORY **0010** UNLESS OTHERWISE SPECIFIED.

3

STORM SEWER PIPE (CATEGORY 0030)

STAGE	FROM STRUCTURE NUMBER	TO STRUCTURE NUMBER	INVERT ELEVATION	DISCHARGE ELEVATION	608.0312 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 12-INCH LF	608.0315 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 15-INCH LF	608.0318 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 18-INCH LF	608.0321 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 21-INCH LF	608.0324 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 24-INCH LF	608.0330 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 30-INCH LF
3	CB 116	CB 111	1089.35	1089.01	68	---	---	---	---	---
3	CB 111	CB 113	1088.91	1088.59	64	---	---	---	---	---
3	CB 112	CB 113	1089.70	1089.34	73	---	---	---	---	---
3	CB 113	CB 121	1088.49	1087.50	99	---	---	---	---	---
3	CB 121	EXIST MH	1087.30	1086.86	---	44	---	---	---	---
3	CB 406	CB 401	1089.50	1089.25	51	---	---	---	---	---
3	CB 401	EXIST MH	1089.15	1088.36	157	---	---	---	---	---
				STAGE 3 SUBTOTALS	512	44	0	0	0	0
2	CB 306	CB 136	1093.80	1093.49	77	---	---	---	---	---
2	CB 136	CB 134	1093.34	1092.90	---	88	---	---	---	---
2	CB 146	CB 141	1108.22	1107.56	66	---	---	---	---	---
2	CB 141	CB 134	1105.61	1096.26	---	272	---	---	---	---
2	CB 134	MH 133	1092.70	1092.44	---	---	13	---	17	---
2	MH 133	MH 132	1091.28	1090.05	---	---	---	205	---	---
2	MH 132	MH 131	1089.95	1088.72	---	---	---	205	---	---
2	ENDWALL	MH 131	1089.44	1088.72	---	---	---	181	---	---
2	MH 131	ENDWALL	1088.52	1088.26	---	---	---	---	64	---
2	CB 156	CB 151	1115.03	1114.37	66	---	---	---	---	---
2	CB 151	CB 161	1113.61	1104.19	267	---	---	---	---	---
				STAGE 2 SUBTOTALS	476	360	13	591	81	0
				PAGE SUBTOTALS	988	404	13	591	81	0

ALL ITEMS ARE CATEGORY **0030** UNLESS OTHERWISE SPECIFIED.

STORM SEWER PIPE (CATEGORY 0030) (CONT.)

STAGE	FROM STRUCTURE NUMBER	TO STRUCTURE NUMBER	INVERT ELEVATION	DISCHARGE ELEVATION	608.0312 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 12-INCH LF	608.0315 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 15-INCH LF	608.0318 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 18-INCH LF	608.0321 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 21-INCH LF	608.0324 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 24-INCH LF	608.0330 STORM SEWER PIPE REINFORCED CONCRETE CLASS III 30-INCH LF
1	CB 166	CB 161	1104.42	1103.65	77	---	---	---	---	---
1	CB 187	CB 186	1089.78	1089.72	8	---	---	---	---	---
1	CB 186	CB 181	1089.62	1089.09	66	---	---	---	---	---
1	CB 181	MH 182	1088.99	1088.17	48	---	---	---	---	---
1	CB 185	CB 183	1087.18	1087.00	18	---	---	---	---	---
1	CB 184	CB 183	1087.42	1087.00	42	---	---	---	---	---
1	CB 183	CB 182	1085.98	1085.86	---	---	23	---	---	---
1	MH 182	CB 171	1085.86	1085.50	---	---	---	---	90	---
1	CB 176	CB 171	1091.32	1090.55	77	---	---	---	---	---
1	CB 171	CB 161	1085.44	1084.06	---	---	---	---	---	344
1	CB 161	ENDWALL	1083.96	1083.50	---	---	---	---	---	113
1	CB 506	CB 501	1094.75	1094.40	38	---	---	---	---	---
1	CB 501	ENDWALL	1094.30	1094.00	30	---	---	---	---	---
1	CB 906	CB 903	1091.25	1091.06	39	---	---	---	---	---
1	CB 903	CB 902	1090.96	1090.92	8	---	---	---	---	---
1	CB 902	MH 901	1090.82	1090.24	116	---	---	---	---	---
1	MH 901	ENDWALL	1089.87	1088.00	---	181	---	---	---	---
1	CB 516	CB 511	1090.68	1090.34	34	---	---	---	---	---
1	CB 511	ENDWALL	1090.24	1090.00	24	---	---	---	---	---
1	CB 531	CB 536	1090.86	1090.74	29	---	---	---	---	---
1	CB 536	CB 530	1090.64	1089.98	165	---	---	---	---	---
1	CB 530	CB 524	1089.88	1089.54	87	---	---	---	---	---
1	CB 524	CB 526	1089.34	1089.30	---	8	---	---	8	---
1	CB 523	CB 521	1089.96	1089.93	8					
1	CB 521	CB 526	1089.83	1089.69	34					
1	CB 526	CB 527	1089.20	1088.65	---	93	---	---	---	---
1	CB 527	CB 522	1088.55	1088.34	---	34	---	---	---	---
1	CB 522	ENDWALL	1085.05	1084.00	---	42	---	---	---	---
				STAGE 1 SUBTOTALS	948	358	23	0	98	457
PROJECT 6998-11-70 TOTAL					**1,936**	**762**	**36**	**586**	**179**	**457**

ALL ITEMS ARE CATEGORY **0030** UNLESS OTHERWISE SPECIFIED.

3

APRON ENDWALLS AND CATCH BASINS (CATEGORY 0030)

STAGE	STRUCTURE NUMBER	STATION	OFFSET	LOCATION	522.1012 APRON ENDWALLS FOR CULVERT PIPE RC 12-IN EACH	522.1015 APRON ENDWALLS FOR CULVERT PIPE RC 15-IN EACH	522.1021 APRON ENDWALLS FOR CULVERT PIPE RC 21-IN EACH	522.1024 APRON ENDWALLS FOR CULVERT PIPE RC 24-IN EACH	522.1030 APRON ENDWALLS FOR CULVERT PIPE RC 30-IN EACH	611.1005 CATCH BASINS 5-FT EACH	611.1230 CATCH BASINS 2x3-FT EACH
3	116	13+10.00	44.8	LT	---	---	---	---	---	---	1
3	111	13+10.00	23.6	RT	---	---	---	---	---	---	1
3	112	13+74.20	44.7	LT	---	---	---	---	---	---	1
3	113	13+73.70	28.0	RT	---	---	---	---	---	---	1
3	121	14+73.00	28.0	RT	---	---	---	---	---	---	1
3	406	40+65.00	22.7	LT	---	---	---	---	---	---	1
3	401	40+66.00	28.0	RT	---	---	---	---	---	---	1
3	122	15+15.00	15.0	RT	---	---	---	---	---	---	---
			STAGE 3 SUBTOTALS		0	0	0	0	0	0	7
2	306	16+15.00	60.0	LT	---	---	---	---	---	---	1
2	136	16+98.80	60.0	LT	---	---	---	---	---	---	1
2	134	17+00.00	28.0	RT	---	---	---	---	---	---	1
2	133	17+00.00	40.3	RT	---	---	---	---	---	---	---
2	132	103+29.70	22.5	LT	---	---	---	---	---	---	---
2	131	105+06.50	54.6	LT	---	---	---	---	---	---	---
2	24" AEW	105+44.20	72.0	LT	---	---	---	1	---	---	---
2	146	19+70.10	38.0	LT	---	---	---	---	---	---	1
2	141	19+70.10	28.0	RT	---	---	---	---	---	---	1
2	21" AEW	20+94.60	76.2	LT	---	---	1	---	---	---	---
2	156	27+33.00	38.0	LT	---	---	---	---	---	---	1
2	151	27+33.00	28.0	RT	---	---	---	---	---	---	1
			STAGE 2 SUBTOTALS		0	0	1	1	0	0	7
			PAGE SUBTOTALS		0	0	1	1	0	0	14

ALL ITEMS ARE CATEGORY **0030** UNLESS OTHERWISE SPECIFIED.

3

APRON ENDWALLS AND CATCH BASINS (CATEGORY 0030) (CONT.)

STAGE	STRUCTURE NUMBER	STATION	OFFSET	LOCATION	522.1012 APRON ENDWALLS FOR CULVERT PIPE RC 12-IN EACH	522.1015 APRON ENDWALLS FOR CULVERT PIPE RC 15-IN EACH	522.1021 APRON ENDWALLS FOR CULVERT PIPE RC 21-IN EACH	522.1024 APRON ENDWALLS FOR CULVERT PIPE RC 24-IN EACH	522.1030 APRON ENDWALLS FOR CULVERT PIPE RC 30-IN EACH	611.1005 CATCH BASINS 5-FT EACH	611.1230 CATCH BASINS 2x3-FT EACH
1	166	29+98.00	49.0	LT	---	---	---	---	---	---	1
1	161	29+98.00	28.0	RT	---	---	---	---	---	1	---
1	30" AEW	29+64.30	134.9	RT	---	---	---	---	1	---	---
1	176	33+50.00	49.0	LT	---	---	---	---	---	---	1
1	171	33+50.00	28.0	RT	---	---	---	---	---	1	---
1	182	34+38.00	18.1	RT	---	---	---	---	---	---	---
1	181	34+89.60	25.9	RT	---	---	---	---	---	---	1
1	186	34+90.10	39.4	LT	---	---	---	---	---	---	1
1	187	34+98.00	38.7	LT	---	---	---	---	---	---	1
1	185	34+53.90	39.5	RT	---	---	---	---	---	---	1
1	184	33+95.30	43.0	RT	---	---	---	---	---	---	1
1	183	34+36.50	39.9	RT	---	---	---	---	---	---	---
1	506	52+08.00	21.0	LT	---	---	---	---	---	---	1
1	501	52+08.00	17.0	RT	---	---	---	---	---	---	1
1	12" AEW	52+16.30	46.0	RT	1	---	---	---	---	---	---
1	906	92+73.00	25.0	LT	---	---	---	---	---	---	1
1	903	92+73.00	14.0	RT	---	---	---	---	---	---	1
1	902	92+65.00	14.0	RT	---	---	---	---	---	---	1
1	901	91+50.00	25.0	RT	---	---	---	---	---	---	---
1	15" AEW	53+03.40	58.0	RT	---	1	---	---	---	---	---
1	516	55+50.00	17.0	LT	---	---	---	---	---	---	1
1	511	55+50.00	17.0	RT	---	---	---	---	---	---	1
1	12" AEW	55+50.00	41.0	RT	1	---	---	---	---	---	---
1	536	61+20.20	14.6	LT	---	---	---	---	---	---	1
1	531	61+20.20	14.5	RT	---	---	---	---	---	---	1
1	530	59+49.90	8.0	LT	---	---	---	---	---	---	---
1	524	58+58.60	17.0	LT	---	---	---	---	---	---	1
1	526	58+50.00	17.0	LT	---	---	---	---	---	---	1
1	523	58+57.50	17.0	RT	---	---	---	---	---	---	1
1	521	58+50.00	17.0	RT	---	---	---	---	---	---	1
1	527	57+50.00	17.0	LT	---	---	---	---	---	---	1
1	522	57+50.00	17.0	RT	---	---	---	---	---	---	1
1	15" AEW	57+50.00	58.8	RT	---	1	---	---	---	---	---
				STAGE 1 SUBTOTALS	2	2	0	0	1	2	22
PROJECT 6998-11-70 TOTAL					2	2	1	1	1	2	36

ALL ITEMS ARE CATEGORY **0030** UNLESS OTHERWISE SPECIFIED.

3

MANHOLES AND COVERS (CATEGORY 0030)

STAGE	STRUCTURE NUMBER	STATION	OFFSET	LOCATION	611.2004 MANHOLES 4-FT DIAMETER EACH	611.2005 MANHOLES 5-FT DIAMETER EACH	611.0530 MANHOLE COVERS TYPE J EACH	611.0624 INLET COVERS TYPE H EACH	611.0639 INLET COVERS TYPE H-S EACH	RIM OR FLANGE LINE ELEVATION	STRUCTURE BOTTOM ELEVATION	DEPTH
3	116	13+10.00	44.8	LT	---	---	---	1	---	1093.13	1087.31	4.90
3	111	13+10.00	23.6	RT	---	---	---	1	---	1093.10	1086.91	5.27
3	112	13+74.20	44.7	LT	---	---	---	1	---	1093.39	1087.70	4.77
3	113	13+73.70	28.0	RT	---	---	---	1	---	1093.45	1086.49	6.04
3	121	14+73.00	28.0	RT	---	---	---	1	---	1094.00	1085.30	7.78
3	406	40+65.00	22.7	LT	---	---	---	1	---	1093.34	1087.50	4.92
3	401	40+66.00	28.0	RT	---	---	---	1	---	1093.15	1087.15	5.08
3	122	15+15.00	15.0	RT	---	---	1	---	---	1094.95	1079.64	14.15
			STAGE 3 SUBTOTALS		0	0	1	7	0			
2	306	16+15.00	60.0	LT	---	---	---	1	---	1097.26	1091.80	4.54
2	136	16+98.80	60.0	LT	---	---	---	1	---	1100.68	1091.34	8.42
2	134	17+00.00	28.0	RT	---	---	---	1	---	1100.93	1090.70	9.31
2	133	17+00.00	40.3	RT	1	---	1	---	---	1101.37	1091.28	8.93
2	132	103+29.70	22.5	LT	1	---	1	---	---	1097.11	1089.95	6.00
2	131	105+06.50	54.6	LT	---	1	1	---	---	1095.07	1088.52	5.39
2	24" AEW	105+44.20	72.0	LT	---	---	---	---	---	---	1088.26	---
2	146	19+70.10	38.0	LT	---	---	---	1	---	1112.14	1106.22	5.00
2	141	19+70.10	28.0	RT	---	---	---	1	---	1112.14	1103.61	7.61
2	21" AEW	20+94.30	71.6	LT	---	---	---	---	---	---	1089.42	---
2	156	27+33.00	38.0	LT	---	---	---	1	---	1118.78	1113.03	4.83
2	151	27+33.00	28.0	RT	---	---	---	1	---	1118.78	1111.61	6.25
			STAGE 2 SUBTOTALS		2	1	3	7	0			
			PAGE SUBTOTALS		2	1	4	14	0			

ALL ITEMS ARE CATEGORY **0030** UNLESS OTHERWISE SPECIFIED.

MANHOLES AND COVERS (CATEGORY 0030) (CONT.)

STAGE	STRUCTURE NUMBER	STATION	OFFSET	LOCATION	611.2004 MANHOLES 4-FT DIAMETER EACH	611.2005 MANHOLES 5-FT DIAMETER EACH	611.0530 MANHOLE COVERS TYPE J EACH	611.0624 INLET COVERS TYPE H EACH	611.0639 INLET COVERS TYPE H-S EACH	RIM OR FLANGE LINE ELEVATION	STRUCTURE BOTTOM ELEVATION	DEPTH
1	166	29+98.00	49.0	LT	---	---	---	1	---	1108.17	1102.42	4.83
1	161	29+98.00	28.0	RT	---	---	---	1	---	1108.17	1083.96	23.29
1	30" AEW	29+64.30	134.9	RT	---	---	---	---	---	---	1083.50	---
1	176	33+50.00	49.0	LT	---	---	---	1	---	1095.10	1089.32	4.86
1	171	33+50.00	28.0	RT	---	---	---	1	---	1095.10	1083.44	10.74
1	182	34+38.00	18.1	RT	---	1	1	---	---	1093.93	1085.86	6.91
1	181	34+89.60	25.9	RT	---	---	---	1	---	1093.56	1086.99	5.65
1	186	34+90.10	39.4	LT	---	---	---	---	1	1093.52	1087.62	4.98
1	187	34+98.00	38.7	LT	---	---	---	---	1	1093.52	1087.78	4.82
1	185	34+53.90	39.5	RT	---	---	---	---	1	1093.33	1087.18	5.23
1	184	33+95.30	43.0	RT	---	---	---	---	1	1093.48	1087.42	5.14
1	183	34+36.50	39.9	RT	1	---	1	---	---	1093.67	1085.98	6.53
1	506	52+08.00	21.0	LT	---	---	---	1	---	1100.76	1092.75	7.09
1	501	52+08.00	17.0	RT	---	---	---	1	---	1100.75	1092.30	7.53
1	12" AEW	52+16.30	46.0	RT	---	---	---	---	---	---	1094.00	---
1	906	92+73.00	25.0	LT	---	---	---	---	1	1094.88	1089.25	4.71
1	903	92+73.00	14.0	RT	---	---	---	---	1	1094.88	1088.96	5.00
1	902	92+65.00	14.0	RT	---	---	---	---	1	1094.90	1088.82	5.16
1	901	91+50.00	25.0	RT	1	---	1	---	---	1095.18	1089.87	4.15
1	15" AEW	53+03.40	58.0	RT	---	---	---	---	---	---	1088.00	---
1	516	55+50.00	17.0	LT	---	---	---	1	---	1094.62	1088.68	5.02
1	511	55+50.00	17.0	RT	---	---	---	1	---	1094.62	1088.24	5.46
1	12" AEW	55+50.00	41.0	RT	---	---	---	---	---	---	1090.00	---
1	536	61+20.20	14.6	LT	---	---	---	1	---	1094.53	1088.64	4.97
1	531	61+20.20	14.5	RT	---	---	---	1	---	1094.53	1088.86	4.75
1	530	59+49.90	8.0	LT	1	---	1	---	---	1093.46	1089.88	2.42
1	524	58+58.60	17.0	LT	---	---	---	---	1	1093.21	1087.34	4.95
1	526	58+50.00	17.0	LT	---	---	---	---	1	1093.19	1087.20	5.07
1	523	58+57.50	17.0	RT	---	---	---	---	1	1093.21	1087.96	4.33
1	521	58+50.00	17.0	RT	---	---	---	---	1	1093.19	1087.83	4.44
1	527	57+50.00	17.0	LT	---	---	---	1	---	1093.62	1086.55	6.15
1	522	57+50.00	17.0	RT	---	---	---	1	---	1093.62	1083.05	9.65
1	15" AEW	57+50.00	58.8	RT	---	---	---	---	---	---	1084.00	---
			STAGE 1 SUBTOTALS		3	1	4	13	11			
PROJECT 6998-11-70 TOTAL					5	2	8	27	11			

ALL ITEMS ARE CATEGORY **0030** UNLESS OTHERWISE SPECIFIED.

ADJUSTING MANHOLES AND INLETS

STAGE	STATION	OFFSET	LOCATION	611.0420 RECONSTRUCTING MANHOLES EACH	611.8110 ADJUSTING MANHOLE COVERS EACH	611.8120.S TEMPORARY COVER PLATE EACH
STAGE 3						
	13+31	38' LT	HOOVER RD	---	1	1
	15+15	15' RT	HOOVER RD	1	---	---
	15+34	2' RT	HOOVER RD	1	---	---
	41+00	1' RT	INDUSTRIAL PARK DR	---	1	1
	41+00	12' RT	INDUSTRIAL PARK DR	---	1	1
	41+18	12' RT	INDUSTRIAL PARK DR	---	1	1
	41+25	20' RT	INDUSTRIAL PARK DR	---	1	1
	41+63	8' LT	INDUSTRIAL PARK DR	1		
STAGE 2						
	15+85	41' LT	HOOVER RD	1	---	---
	16+53	47' RT	HOOVER RD	1	---	---
	30+19	14' LT	COUNTRY CLUB DR	1	---	---
	30+70	35' RT	COUNTRY CLUB DR	1	---	---
	33+76	9' LT	COUNTRY CLUB DR	---	1	1
	34+16	28' RT	COUNTRY CLUB DR	---	1	1
	34+27	7' LT	COUNTRY CLUB DR	---	1	1
	36+80	20' RT	COUNTRY CLUB DR	---	1	1
	36+81	2' RT	COUNTRY CLUB DR	---	1	1
	21+29	348' RT	JOERNS DR. CUL DE SAC	---	1	1
	21+44	384' RT	JOERNS DR. CUL DE SAC	---	1	1
	21+67	329' RT	JOERNS DR. CUL DE SAC	---	1	1
STAGE 1						
	52+50	6' LT	WOODWARD DR	---	1	1
	52+56	5' LT	WOODWARD DR	---	1	1
	52+65	32' LT	WOODWARD DR	---	1	1
	52+68	17' LT	WOODWARD DR	---	1	1
	56+63	12' LT	WOODWARD DR	---	1	1
	58+59	12' RT	WOODWARD DR	---	1	1
	91+89	4' LT	SPECTRA PRINT DRIVEWAY	---	1	1
PROJECT 6998-11-70 TOTAL				7	20	20

LANDMARK REFERENCE MONUMENTS

STATION	LOCATION	621.0100 LANDMARK REFERENCE MONUMENTS EACH	SPV.0060.01 REESTABLISH SECTION CORNER MONUMENTS EACH
22+91	7' RT	4	1
22+94	127' LT	4	1
PROJECT 6998-11-70 TOTAL		8	2

WATER

STAGE	STATION	-	STATION	LOCATION	624.0100 MGAL
STAGE 1					
	30+00		37+90	HOOVER RD	18.5
	50+50		62+00	WOODWARD DR.	14.5
	70+25		71+50	KIRSCHLING COURT	0.9
	90+00		92+75	SPECTRA PRINT DRIVEWAY	2.5
				TEMPORARY ROAD ACCESS	1.2
				STAGE 1 SUB-TOTAL	37.5
STAGE 2					
	16+01		30+00	HOOVER RD	30.7
				JOERNS DR. CUL DU SAC	5.3
	16+01		22+65	HOOVER RD MULTI-USE PATH, LT	3.4
	23+92		38+19	HOOVER RD MULTI-USE PATH, LT	7.2
	16+00		22+65	SIDEWALK, RT	1.5
	23+92		30+23	SIDEWALK, RT	1.5
	30+94		33+87	SIDEWALK, RT	0.6
	34+62		36+50	SIDEWALK, RT	0.4
	1+10		8+13	MULTI-USE PATH, RT	2.2
				STAGE 2 SUB-TOTAL	52.9
STAGE 3					
	13+00		16+01	HOOVER RD	7.8
	40+50		41+50	INDUSTRIAL PARK DR.	2.0
	13+00		16+01	HOOVER RD MULTI-USE PATH, LT	0.2
	40+50		41+50	INDUSTRIAL PARK DR. MULTI-USE PATH, RT	0.4
				STAGE 3 SUB-TOTAL	10.4
				UNDISTRIBUTED	19.2
PROJECT 6998-11-70 TOTAL					120.0

ALL ITEMS ARE CATEGORY **0010** UNLESS OTHERWISE SPECIFIED.

INLET PROTECTION

STAGE	STATION	OFFSET	TYPE A 628.7005 EACH	TYPE C 628.7015 EACH
STAGE 3				
	13+10	44.8' LT	1	1
	13+10	23.6' RT	1	1
	13+74	44.7' LT	1	1
	13+74	28.0' RT	1	1
	14+73	28.0' RT	1	1
	40+66	22.8' LT	1	1
	40+65	28.0' RT	1	1
STAGE 2				
	16+22	60.0' LT	1	1
	16+99	60.0' LT	1	1
	17+00	28.0' RT	1	1
	19+70	38.0' LT	1	1
	19+70	28.0' RT	1	1
STAGE 1				
	27+33	38.0' LT	1	1
	27+33	28.0' LT	1	1
	29+98	49.0' LT	1	1
	29+98	28.0' RT	1	1
	33+50	49.0' LT	1	1
	33+50	28.0' RT	1	1
	34+90	39.4' LT	1	1
	34+90	25.9' RT	1	1
	34+98	38.7' LT	1	1
	52+08	21.0' LT	1	1
	52+08	17.0' RT	1	1
	55+50	17.0' LT	1	1
	55+50	17.0' RT	1	1
	57+50	17.0' LT	1	1
	57+50	17.0' RT	1	1
	58+50	17.0' LT	1	1
	58+50	17.0' RT	1	1
	58+57	17.0' RT	1	1
	58+59	17.0' LT	1	1
	61+20	14.6' LT	1	1
	61+20	14.6' RT	1	1
	70+38	28.7' LT	1	1
	70+44	39.7' RT	1	1
	92+65	14.0' RT	1	1
	92+73	25.0' LT	1	1
	92+73	14.0' RT	1	1
PROJECT 6998-11-70 TOTAL			38	38

MOBILIZATIONS EROSION CONTROL

LOCATION	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
PROJECT	3	3
PROJECT 6998-11-70 TOTAL	3	3

TRACKING PADS

LOCATION	628.7560 EACH
UNDISTRIBUTED	5
PROJECT 6998-11-70 TOTAL	5

ALL ITEMS ARE CATEGORY **0010** UNLESS OTHERWISE SPECIFIED.

3

3

LANDSCAPING

STAGE	STATION	-	STATION	LOCATION	625.0100 TOPSOIL SY	SPV.0035.01 COMPOST FOR PONDS CY	627.0200 MULCHING SY	628.2006 EROSION MAT URBAN CLASS I, TYPE A SY	629.0205 FERTILIZER TYPE A CWT	630.0120 SEEDING MIXTURE NO. 20 LB	630.0171 SEEDING MIXTURE NO. 70A LB	630.0200 SEEDING TEMPORARY LB
STAGE 3												
	13+50		15+85	HOOVER RD	500	---	---	0	0.3	9	---	14
	40+50		41+50	INDUSTRIAL DR	100	---	---	0	0.1	2	---	3
STAGE 2												
	15+85		22+85	HOOVER RD	6,700	125	2,300	5,600	4.2	101	20	181
	18+45		31+00	OBLITERATING OLD ROAD	3,800	---	4,200	---	2.4	68	---	103
	23+50		26+00	HOOVER RD	7,100	40	700	6,400	4.5	122	6	192
				JOERNS DR. CUL DE SAC	800	---	800	---	0.5	14	---	22
	100+35		106+75	PATHWAY RT	400	---	400	---	0.3	7	---	11
STAGE 1												
	25+75		38+20	COUNTRY CLUB DR	16,600	---	2,500	14,200	10.5	280	19	448
	50+65		61+30	WOODWARD DR LT	2,000	---	1,500	600	1.3	36	---	54
				OBLITERATING OLD ROAD	700	---	700	---	0.4	13	---	19
				UNDISTRIBUTED	9,300	35	3,200	6,700	5.6	158	10	263
PROJECT 6998-11-70 TOTAL					48,000	200	16,300	33,500	30.0	810	55	1,310

SILT FENCE

STAGE	STATION	-	STATION	LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF
STAGE 3						
	40+89		41+37	INDUSTRIAL PARK RD RT	64	64
STAGE 2						
	16+28		22+60	HOOVER RD RT	645	645
	23+37		26+00	HOOVER RD LT/RT	461	461
STAGE 1						
	25+53		33+97	HOOVER RD LT/RT	1,486	1,486
	50+69		55+70	WOODWARD DR LT/RT	1,517	1,517
UNDISTRIBUTED					427	427
PROJECT 6998-11-70 TOTAL					4,600	4,600

CULVERT PIPE CHECKS

STATION	OFFSET	628.7555 CULVERT PIPE CHECKS EACH
20+94	LT	3
PROJECT 6998-11-70 TOTAL		3

ALL ITEMS ARE CATEGORY **0010** UNLESS OTHERWISE SPECIFIED.

PERMANENT SIGNING

LOCATION	SIGN NO.	SIGN CODE	SIGN MESSAGE	SIGN SIZE IN x IN	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2230 SIGNS TYPE II REFLECTIVE F SF	637.2220 SIGNS TYPE II REFLECTIVE SH SF	634.0814 POSTS TUBULAR STEEL 2X2-INCH 14 FT EACH	634.0816 POSTS TUBULAR STEEL 2X2-INCH 16 FT EACH	634.0818 POSTS TUBULAR STEEL 2X2-INCH 18 FT EACH	638.2102 MOVING SIGNS TYPE II EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	SIGN MOUNTED ON SAME POST AS	REMARKS
PROJECT LIMITS	1-1	W16-1P	SHARE THE ROAD	24 X 30	5.00	---	---	---	---	1	---	---	---		
		W11-1	BICYCLE CROSSING	30 X 30	---	6.25	---	---	---	---	---	---	---	1-1	
	1-2	D11-1	BIKE ROUTE	24 X 18	3.00	---	---	---	---	---	2	1	1		
	1-3	R4-7	KEEP RIGHT	24 X 30	5.00	---	---	1	---	---	---	1	1		
	1-4	R1-1	STOP	30 X 30	6.25	---	---	---	1	---	---	1	1		
			HOOVER RD		---	---	---	---	---	---	1	---	---	1-4	
			INDUSTRIAL PARK RD		---	---	---	---	---	---	1	---	---	1-4	
	1-5		BIKE ROUTES		---	---	---	---	---	---	1	---	---		
	1-6		BIKE ROUTES		---	---	---	---	---	---	1	---	---		
	1-7	R4-7	KEEP RIGHT	24 X 30	5.00	---	---	1	---	---	---	1	1		
	1-8	R2-1	25 MPH	24 X 30	5.00	---	---	1	---	---	---	1	1		
	1-9	W16-7PL	DIAGONAL ARROW	24 X 12	---	2.00	---	---	---	---	---	---	---		MOUNT ON SIGNAL POLE
		W11-2	PEDESTRIAN CROSSING	30 X 30	---	6.25	---	---	---	---	---	---	---	1-9	MOUNT ON SIGNAL POLE
	1-10	R4-7	KEEP RIGHT		---	---	---	---	---	---	---	1	1		
	1-11	R4-7	KEEP RIGHT		---	---	---	---	---	---	---	1	1		
	1-12	R3-17	BIKE LANE	30 X 24	5.00	---	---	---	1	---	---	---	---		PLACE AT STA 11+65
		R3-17A	AHEAD	30 X 12	2.50	---	---	---	---	---	---	---	---	1-12	
	1-13	R14-1	TRUCK ROUTE	24 X 18	3.00	---	---	---	1	---	---	1	1		
		M6-6	LEFT/STRAIGHT	21 X 21	3.06	---	---	---	---	---	---	---	---	1-13	
	1-14	W11-2	PEDESTRIAN CROSSING	30 X 30	---	6.25	---	---	1	---	---	---	---		
		W16-9P	AHEAD	24 X 8	---	1.33	---	---	---	---	---	---	---	1-14	
	1-15	R1-1	STOP	30 X 30	6.25	---	---	1	---	---	---	1	1		
	1-16	W11-2	PEDESTRIAN CROSSING	30 X 30	---	6.25	---	---	---	---	---	---	---		MOUNT ON SIGNAL POLE
		W16-7PR	DIAGONAL ARROW	24 X 12	---	2.00	---	---	---	---	---	---	---	1-16	MOUNT ON SIGNAL POLE
	1-17	W11-2	PEDESTRIAN CROSSING	30 X 30	---	6.25	---	---	---	---	---	---	---		MOUNT ON SIGNAL POLE
		W16-7PL	DIAGONAL ARROW	24 X 12	---	2.00	---	---	---	---	---	---	---	1-17	MOUNT ON SIGNAL POLE
	1-18	W11-2	PEDESTRIAN CROSSING	30 X 30	---	6.25	---	---	---	---	---	---	---		MOUNT ON SIGNAL POLE
		W16-7PL	DIAGONAL ARROW	24 X 12	---	2.00	---	---	---	---	---	---	---	1-18	MOUNT ON SIGNAL POLE
	1-19	R2-1	35 MPH	24 X 30	5.00	---	---	1	---	---	---	---	---		
	1-20	W10-1	RAILROAD CROSSING		---	---	---	---	---	---	---	1	1		
			NO TRAIN HORN		---	---	---	---	---	---	---	1	---		
	2-1	R2-1	35 MPH		---	---	---	---	---	---	---	1	1		
	2-2		BIKE ROUTES		---	---	---	---	---	---	---	1	1		
	2-3	R4-7	KEEP RIGHT		---	---	---	---	---	---	---	1	1		
	2-4	R1-1	STOP		---	---	---	---	---	---	---	1	1		
			HOOVER RD		---	---	---	---	---	---	---	1	---		
			JOERNS DR		---	---	---	---	---	---	---	1	---		
	2-5	R4-7	KEEP RIGHT		---	---	---	---	---	---	---	1	1		
	2-6		BIKE ROUTES		---	---	---	---	---	---	---	1	1		
	2-7		BIKE ROUTES		---	---	---	---	---	---	---	1	1		
	2-8	W10-1	RAILROAD CROSSING		---	---	---	---	---	---	---	1	1		
			NO TRAIN HORN		---	---	---	---	---	---	---	1	---		
PAGE SUBTOTAL					54.06	46.83	0.00	5	4	1	6	22	18		

ALL ITEMS ARE CATEGORY **0010** UNLESS OTHERWISE SPECIFIED.

PERMANENT SIGNING (CONT.)

LOCATION	SIGN NO.	SIGN CODE	SIGN MESSAGE	SIGN SIZE IN x IN	637.2210 SIGNS TYPE II REFLECTIVE H SF	637.2230 SIGNS TYPE II REFLECTIVE F SF	637.2220 SIGNS TYPE II REFLECTIVE SH SF	634.0814 POSTS TUBULAR STEEL 2X2-INCH 14 FT EACH	634.0816 POSTS TUBULAR STEEL 2X2-INCH 16 FT EACH	634.0818 POSTS TUBULAR STEEL 2X2-INCH 18 FT EACH	638.2102 MOVING SIGNS TYPE II EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	SIGN MOUNTED ON SAME POST AS	REMARKS
PROJECT LIMITS	2-9	R2-1	35 MPH		---	---	---	---	---	---	---	1	1		
	2-10	R2-1	25 MPH		---	---	---	---	---	---	---	1	1		
	3-1	R4-7	KEEP RIGHT		---	---	---	---	---	---	---	1	1		
	3-2	R1-1	STOP		---	---	---	---	---	---	---	1	1		
	3-3	R4-7	KEEP RIGHT		---	---	---	---	---	---	---	1	1		
	3-4	W10-1	RAILROAD CROSSING		---	---	---	---	---	---	---	1	1		
			NO TRAIN HORN		---	---	---	---	---	---	---	1	---		
	3-5	W10-1	RAILROAD CROSSING		---	---	---	---	---	---	---	1	1		
			NO TRAIN HORN		---	---	---	---	---	---	---	1	---		
	3-6	W4-2	RIGHT LANE ENDS		---	---	---	---	---	---	---	1	1		
	3-7	R2-1	35 MPH		---	---	---	---	---	---	---	1	1		
	3-8	R4-7	KEEP RIGHT		---	---	---	---	---	---	---	1	1		
	4-1	R4-7	KEEP RIGHT	24 X 30	5.00	---	---	1	---	---	---	1	1		
	4-2	R4-7	KEEP RIGHT	24 X 30	5.00	---	---	1	---	---	---	1	1		
	4-3	R2-1	35 MPH		---	---	---	---	---	---	---	1	1		
	4-4	R1-1	STOP	30 X 30	6.25	---	---	1	---	---	---	---	---		
	4-5	R4-7	KEEP RIGHT	24 X 30	5.00	---	---	1	---	---	---	---	---		
	4-6	W14-2	NO OUTLET	30 X 30	---	6.25	---	1	---	---	---	1	1		
	4-7	R1-1	STOP	30 X 30	6.25	---	---	---	1	---	---	1	1		
			COUNTRY CLUB DR		---	---	---	---	---	---	1	---	---		
			KIRSCHLING CT		---	---	---	---	---	---	1	---	---		
	4-8		BIKE ROUTES		---	---	---	---	---	---	1	---	---		
	4-9	R2-1	35 MPH	24 X 30	5.00	---	---	1	---	---	---	---	---		PLACE AT STA 39+00
	4-10	R3-17	BIKE LANE	30 X 24	5.00	---	---	---	1	---	---	---	---		PLACE AT STA 40+00
		R3-17A	AHEAD	30 X 12	2.50	---	---	---	---	---	---	---	---	4-10	PLACE AT STA 40+00
	4-11		TO IVERSON PARK		---	---	---	---	---	---	1	---	---		
		M7-2	AHEAD		---	---	---	---	---	---	1	---	---	4-11	
	4-12	R3-17	BIKE LANE	30 X 24	5.00	---	---	---	1	---	---	---	---		
		R3-17B	ENDS	30 X 12	2.50	---	---	---	---	---	---	---	---	4-12	
	4-13	R1-1	STOP	30 X 30	6.25	---	---	---	1	---	---	1	1		
			COUNTRY CLUB DR		---	---	---	---	---	---	1	---	---	4-13	
			CAROLS LN		---	---	---	---	---	---	1	---	---	4-13	
	4-14	W11-1	BICYCLE CROSSING	30 X 30	---	6.25	---	---	---	1	---	---	---		
		W16-1P	SHARE THE ROAD	24 X 30	5.00	---	---	---	---	---	---	---	---	4-14	
	6-1	W5-56	END OF ROAD	18 X 18	---	---	6.75	1	---	---	---	---	---		
	6-2	R2-1	25 MPH	24 X 30	5.00	---	---	1	---	---	---	---	---		
	6-3	W14-1	DEAD END	30 X 30	---	6.25	---	1	---	---	---	---	---		
PAGE SUBTOTAL					63.75	18.75	6.75	9	4	1	7	18	16		
PROJECT 6998-11-70 TOTAL					117.81	65.58	6.75	14	8	2	13	40	34		

ALL ITEMS ARE CATEGORY **0010** UNLESS OTHERWISE SPECIFIED.

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TRAFFIC CONTROL

LOCATION	DAYS IN SERVICE	643.0100 TRAFFIC CONTROL PROJECT 6998-11-70 EACH	643.0300 TRAFFIC CONTROL DRUMS NO.	643.0300 TRAFFIC CONTROL DRUMS DAYS	643.0420 TRAFFIC CONTROL BARRICADES TYPE III NO.	643.0420 TRAFFIC CONTROL BARRICADES TYPE III DAYS	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A NO.	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A DAYS	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C NO.	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C DAYS	643.0800 TRAFFIC CONTROL ARROW BOARDS NO.	643.0800 TRAFFIC CONTROL ARROW BOARDS DAYS	643.0900 TRAFFIC CONTROL SIGNS NO.	643.0900 TRAFFIC CONTROL SIGNS DAYS	643.1000* TRAFFIC CONTROL SIGNS FIXED MESSAGE SF
HOOVER ROAD STAGE 1	63	---	93	5,859	23	1,449			46	2,898	----	----	24	1,512	45.0
WOODWARD DRIVE FLAGGING	1	---	----	----	----	----	----	----	----	----	----	----	6	6	---
HOOVER ROAD STAGE 2	95	---	218	20,710	29	2,755	25	2,375	58	5,510	1	95	37	3,515	43.5
CAROLS LANE FLAGGING	2	---	----	----	----	----	----	----	----	----	----	----	9	18	---
HOOVER ROAD STAGE 3	62	---	29	1,798	30	1,860			60	3,720	----	----	29	1,798	37.5
PROJECT 6998-11-70 TOTAL		1		28,367		6,064		2,375		12,128		95		6,849	126

*** QUANTITY SHOWN ELSEWHERE IN PLANS**

ALL ITEMS ARE CATEGORY **0010** UNLESS OTHERWISE SPECIFIED.

TRAFFIC CONTROL DETOUR

SIGN NO.	LOCATION	SIGN CODE	SIGN W x H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD DAYS	643.3000 TRAFFIC CONTROL DETOUR SIGNS DAYS	NUMBER OF COVERING CYCLES	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II EACH	643.1000* TRAFFIC CONTROL SIGNS FIXED MESSAGE SF	REMARKS
	HOOVER ROAD DETOUR									
1		W20-2		3	220	660	---	---	---	
			36"x36"	3	220	660	---	---	9.0	COUNTRY CLUB DRIVE
			36"x24"	3	220	660	---	---	6.0	HOOVER ROAD
		MO3-1	24"x12"	3	220	660	---	---	---	
2		MO5-1R	21"x21"	2	220	440	---	---	---	
			36"x36"	2	220	440	---	---	9.0	COUNTRY CLUB DRIVE
			36"x24"	2	220	440	---	---	6.0	HOOVER ROAD
		MO3-1	24"x12"	2	220	440	---	---	---	
		M4-8	24"x12"	2	220	440	---	---	---	
3		MO6-1	21"x21"	2	220	440	---	---	---	RIGHT
			36"x36"	2	220	440	---	---	9.0	COUNTRY CLUB DRIVE
			36"x24"	2	220	440	---	---	6.0	HOOVER ROAD
		MO3-1	24"x12"	2	220	440	---	---	---	
		M4-8	24"x12"	2	220	440	---	---	---	
4		MO6-1	21"x21"	4	220	880	---	---	---	AHEAD
			36"x36"	4	220	880	---	---	9.0	COUNTRY CLUB DRIVE
			36"x24"	4	220	880	---	---	6.0	HOOVER ROAD
		MO3-1	24"x12"	4	220	880	---	---	---	
		M4-8	24"x12"	4	220	880	---	---	---	
5		MO5-1L	21"x21"	1	220	220	---	---	---	
			36"x36"	1	220	220	---	---	9.0	COUNTRY CLUB DRIVE
			36"x24"	1	220	220	---	---	6.0	HOOVER ROAD
		MO3-1	24"x12"	1	220	220	---	---	---	
		M4-8	24"x12"	1	220	220	---	---	---	
6		MO6-1	21"x21"	1	220	220	---	---	---	LEFT
			36"x36"	1	220	220	---	---	9.0	COUNTRY CLUB DRIVE
			36"x24"	1	220	220	---	---	6.0	HOOVER ROAD
		MO3-1	24"x12"	1	220	220	---	---	---	
		M4-8	24"x12"	1	220	220	---	---	---	
7		W20-2		2	220	440	---	---	---	
			36"x36"	2	220	440	---	---	9.0	COUNTRY CLUB DRIVE
			36"x24"	2	220	440	---	---	6.0	HOOVER ROAD
		MO3-3	24"x12"	2	220	440	---	---	---	
8		MO5-1R	21"x21"	1	220	220	---	---	---	
			36"x36"	1	220	220	---	---	9.0	COUNTRY CLUB DRIVE
			36"x24"	1	220	220	---	---	6.0	HOOVER ROAD
		MO3-3	24"x12"	1	220	220	---	---	---	
		M4-8	24"x12"	1	220	220	---	---	---	
PAGE SUBTOTAL						16,500		0	120	

*** QUANTITY SHOWN ELSEWHERE IN PLANS**

ALL ITEMS ARE CATEGORY **0010** UNLESS OTHERWISE SPECIFIED.

TRAFFIC CONTROL DETOUR (CONT.)

SIGN NO.	LOCATION	SIGN CODE	SIGN W x H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD DAYS	643.3000 TRAFFIC CONTROL DETOUR SIGNS DAYS	NUMBER OF COVERING CYCLES	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II EACH	643.1000* TRAFFIC CONTROL SIGNS FIXED MESSAGE SF	REMARKS
9		MO6-1	21"x21"	1	220	220	---	---	---	RIGHT
			36"x36"	1	220	220	---	---	9.0	COUNTRY CLUB DRIVE
			36"x24"	1	220	220	---	---	6.0	HOOVER ROAD
		MO3-3	24"x12"	1	220	220	---	---	---	
		M4-8	24"x12"	1	220	220	---	---	---	
10		MO5-1L	21"x21"	1	220	220	---	---	---	
			36"x36"	1	220	220	---	---	9.0	COUNTRY CLUB DRIVE
			36"x24"	1	220	220	---	---	6.0	HOOVER ROAD
		MO3-3	24"x12"	1	220	220	---	---	---	
		M4-8	24"x12"	1	220	220	---	---	---	
11		MO6-1	21"x21"	1	220	220	---	---	---	LEFT
			36"x36"	1	220	220	---	---	9.0	COUNTRY CLUB DRIVE
			36"x24"	1	220	220	---	---	6.0	HOOVER ROAD
		MO3-3	24"x12"	1	220	220	---	---	---	
		M4-8	24"x12"	1	220	220	---	---	---	
12		MO5-2R	30"x30"	1	220	220	---	---	---	
			36"x36"	1	220	220	---	---	9.0	COUNTRY CLUB DRIVE
			36"x24"	1	220	220	---	---	6.0	HOOVER ROAD
		MO3-3	36"x18"	1	220	220	---	---	---	
		M4-8	36"x18"	1	220	220	---	---	---	
13		MO6-2	30"x30"	1	220	220	---	---	---	DIAGONAL RIGHT
			36"x36"	1	220	220	---	---	9.0	COUNTRY CLUB DRIVE
			36"x24"	1	220	220	---	---	6.0	HOOVER ROAD
		MO3-3	36"x18"	1	220	220	---	---	---	
		M4-8	36"x18"	1	220	220	---	---	---	
14		MO6-1	21"x21"	1	220	220	---	---	---	LEFT
			36"x36"	1	220	220	---	---	9.0	COUNTRY CLUB DRIVE
			36"x24"	1	220	220	---	---	6.0	HOOVER ROAD
		MO3-3	24"x12"	1	220	220	---	---	---	
		M4-8	24"x12"	1	220	220	---	---	---	
15		MO6-2R	30"x30"	1	220	220	---	---	---	
			36"x36"	1	220	220	---	---	9.0	COUNTRY CLUB DRIVE
			36"x24"	1	220	220	---	---	6.0	HOOVER ROAD
		MO3-1	36"x18"	1	220	220	---	---	---	
		M4-8	36"x18"	1	220	220	---	---	---	
16		MO6-2	30"x30"	1	220	220	---	---	---	DIAGONAL RIGHT
			36"x36"	1	220	220	---	---	9.0	COUNTRY CLUB DRIVE
			36"x24"	1	220	220	---	---	6.0	HOOVER ROAD
		MO3-3	36"x18"	1	220	220	---	---	---	
		M4-8	36"x18"	1	220	220	---	---	---	
PAGE SUBTOTAL						8,800		0	120	

*** QUANTITY SHOWN ELSEWHERE IN PLANS**

ALL ITEMS ARE CATEGORY **0010** UNLESS OTHERWISE SPECIFIED.

TRAFFIC CONTROL DETOUR (CONT.)

SIGN NO.	LOCATION	SIGN CODE	SIGN W x H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD DAYS	643.3000 TRAFFIC CONTROL DETOUR SIGNS DAYS	NUMBER OF COVERING CYCLES	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II EACH	643.1000* TRAFFIC CONTROL SIGNS FIXED MESSAGE SF	REMARKS
17		MO6-1	30"x30"	1	220	220	---	---	---	AHEAD
				1	220	220	---	---	9.0	COUNTRY CLUB DRIVE
				1	220	220	---	---	6.0	HOOVER ROAD
		MO3-1	36"x18"	1	220	220	---	---	---	
		M4-8	36"x18"	1	220	220	---	---	---	
18		MO5-1R	21"x21"	1	220	220	---	---	---	AHEAD
				1	220	220	---	---	9.0	COUNTRY CLUB DRIVE
				1	220	220	---	---	6.0	HOOVER ROAD
		MO3-3	36"x18"	1	220	220	---	---	---	
		M4-8	36"x18"	1	220	220	---	---	---	
19				1	220	220	---	---	9.0	COUNTRY CLUB DRIVE
				1	220	220	---	---	6.0	HOOVER ROAD
		MO3-1	24"x12"	1	220	220	---	---	---	
		M4-8A	24"x18"	1	220	220	---	---	---	
20				1	220	220	---	---	9.0	COUNTRY CLUB DRIVE
				1	220	220	---	---	6.0	HOOVER ROAD
		MO3-3	24"x12"	1	220	220	---	---	---	
		M4-8A	24"x18"	1	220	220	---	---	---	
	BICYCLE/PEDESTRIAN STAGE 2/3						1	1	---	
		M4-9aR	30"x24"	11	220	2,420	---	---	---	
		M4-9aL	30"x24"	11	220	2,420	---	---	---	
		M4-8A	24"x18"	2	220	440	---	---	---	
			30"x24"	3	220	660	---	---	---	DETOUR AHEAD
							---	---	4.5	CLOSED AT CAROLS LN
							---	---	5.3	CLOSED AT INDUSTRIAL PARK
PAGE SUBTOTAL						9,900		1	69.75	
PROJECT 6998-11-70 TOTAL						35,200		1	309.75	

*** QUANTITY SHOWN ELSEWHERE IN PLANS**

ALL ITEMS ARE CATEGORY **0010** UNLESS OTHERWISE SPECIFIED.

3

PAVEMENT MARKING ITEMS

STATION	-	STATION	LOCATION	646.0106 PAVEMENT MARKING EPOXY 4-INCH WHITE LF	646.0106 PAVEMENT MARKING EPOXY 4-INCH YELLOW LF	646.0126 PAVEMENT MARKING EPOXY 8-INCH LF	647.0456 PAVEMENT MARKING CURB EPOXY LF	647.0566 PAVEMENT MARKING STOP LINE EPOXY 18-INCH LF	647.0726 PAVEMENT MARKING DIAGONAL EPOXY 12-INCH LF	647.0766 PAVEMENT MARKING CROSSWALK EPOXY 6-INCH LF	647.0786 PAVEMENT MARKING CROSSWALK EPOXY 18-INCH LF
13+00	-	14+78	HOOVER NB CL SKIPS/ TURN LANE WHITE	50	---	178	---	---	---	---	---
16+10	-	30+00	HOOVER/ COUNTRY CLUB NB CL SKIPS WHITE	350	---	---	---	---	---	---	---
31+15	-	33+62	COUNTRY CLUB NB CL SKIPS WHITE	63	---	---	---	---	---	---	---
36+18	-	37+90	COUNTRY CLUB NB/ SB CL SKIPS WHITE	38	---	---	---	---	---	---	---
13+00	-	30+00	HOOVER/ COUNTRY CLUB NB BIKE LANE WHITE	1,700	---	---	---	---	---	---	---
31+15	-	33+62	COUNTRY CLUB NB BIKE LANE WHITE	247	---	---	---	---	---	---	---
34+82	-	36+24	COUNTRY CLUB NB BIKE LANE WHITE	142	---	---	---	---	---	---	---
	16+04 RT		HOOVER NB CROSSWALK WHITE	---	---	---	---	---	---	---	84
33+72	-	36+18	COUNTRY CLUB SB/ NB MEDIAN GORE YELLOW	---	984	---	---	---	132	---	---
13+00		14+78	HOOVER SB CL SKIPS WHITE	50	---	---	---	---	---	---	---
16+10		36+18	HOOVER/ COUNTRY CLUB SB CL SKIPS WHITE	513	---	---	---	---	---	---	---
	16+04 LT		HOOVER SB CROSSWALK WHITE	---	---	---	---	---	---	---	168
16+10	-	18+75	HOOVER SB LEFT TURN LANE W/ SKIPS WHITE	---	---	197	---	---	---	---	---
16+10	-	19+64	HOOVER SB RIGHT TURN LANE W/ SKIPS WHITE	---	---	236	---	---	---	---	---
16+10	-	19+64	HOOVER SB BIKE LANE W/ SKIPS WHITE	236	---	---	---	---	---	---	---
19+64	-	37+80	COUNTRY CLUB SB BIKE LANE WHITE	1,816	---	---	---	---	---	---	---
30+89	-	33+68	COUNTRY CLUB SB LEFT TURN LANE W/ SKIPS WHITE	---	---	159	---	---	---	---	---
29+90	-	30+30	COUNTRY CLUB SB/ NB MEDIAN CURB YELLOW	---	---	---	80	---	---	---	---
30+91	-	31+23	COUNTRY CLUB SB/ NB MEDIAN CURB YELLOW	---	---	---	64	---	---	---	---
33+63	-	33+97	COUNTRY CLUB SB/ NB MEDIAN CURB YELLOW	---	---	---	68	---	---	---	---
	36+49		HOOVER CROSSWALK WHITE	---	---	---	---	---	---	---	128
36+53	-	37+08	CAROLS LANE CROSSWALK	---	---	---	---	---	---	100	---
40+50	-	41+23	INDUSTRIAL PARK RD EB BIKE LANE	146	---	---	---	---	---	---	---
40+50	-	41+23	INDUSTRIAL PARK RD CL DOUBLE YELLOW	---	146	---	---	---	---	---	---
40+50	-	41+02	INDUSTRIAL PARK RD WB BIKE LANE	52	---	---	---	---	---	---	---
	41+23 RT		INDUSTRIAL PARK RD STOP LINE WHITE	---	---	---	---	27	---	---	---
41+28	-	41+37	INDUSTRIAL PARK RD CROSSWALK WHITE	---	---	---	---	---	---	122	---
50+40	-	61+30	WOODWARD DRIVE CL DOUBLE YELLOW	---	2,180	---	---	---	---	---	---
	50+40 LT		WOODWARD DRIVE STOP LINE WHITE	---	---	---	---	30	---	---	---
50+26	-	50+35	WOODWARD DRIVE CROSSWALK WHITE	---	---	---	---	---	---	146	---
	70+40 RT		KIRSCHLING COURT STOP LINE WHITE	---	---	---	---	27	---	---	---
70+26	-	70+35	KIRSCHLING COURT CROSSWALK WHITE	---	---	---	---	---	---	153	---
PROJECT 6998-11-70 TOTAL				8,712		770	212	84	132	521	380

ALL ITEMS ARE CATEGORY **0010** UNLESS OTHERWISE SPECIFIED.

3

PAVEMENT MARKING ITEMS

STATION	RT/ LT	LOCATION	647.0156 PAVEMENT MARKING ARROWS EPOXY TYPE 1 EACH	647.0166 PAVEMENT MARKING ARROWS EPOXY TYPE 2 EACH	647.0176 PAVEMENT MARKING ARROWS EPOXY TYPE 3 EACH	647.0206 PAVEMENT MARKING ARROWS BIKE LANE EPOXY EACH	647.0306 PAVEMENT MARKING SYMBOLS BIKE LANE EPOXY EACH	647.0356 PAVEMENT MARKING WORDS EPOXY EACH	647.0606 PAVEMENT MARKING ISLAND NOSE EPOXY EACH
13+30	LT	HOOVER NB LEFT TURN LANE	---	1	---	---	---	---	---
13+72	RT	HOOVER NB BIKE LANE	---	---	---	---	1	---	---
13+72	RT	HOOVER NB BIKE LANE	---	---	---	1	---	---	---
13+84	LT	HOOVER NB LEFT TURN LANE	---	---	---	---	---	1	---
14+47	LT	HOOVER NB LEFT TURN LANE	---	1	---	---	---	---	---
14+70	LT	MEDIAN ISLAND NOSE	---	---	---	---	---	---	1
15+30	RT	ASPHALT DRIVEWAY SYMBOLS	6	---	---	---	---	---	---
15+91	LT	MEDIAN ISLAND NOSE	---	---	---	---	---	---	1
16+35	LT	HOOVER SB TURN LANES	---	2	---	---	---	---	---
16+35	RT	HOOVER NB BIKE LANE	---	---	---	---	1	---	---
16+47	RT	HOOVER NB BIKE LANE	---	---	---	1	---	---	---
16+98	LT	HOOVER SB TURN LANES	---	---	---	---	---	2	---
17+62	LT	HOOVER SB TURN LANES	---	2	---	---	---	---	---
17+88	LT	HOOVER SB BIKE LANE	---	---	---	1	---	---	---
18+00	LT	HOOVER SB BIKE LANE	---	---	---	---	1	---	---
18+84	RT	HOOVER NB BIKE LANE	---	---	---	---	1	---	---
18+96	RT	HOOVER NB BIKE LANE	---	---	---	1	---	---	---
19+89	LT	HOOVER SB BIKE LANE	---	---	---	1	---	---	---
20+02	LT	HOOVER SB BIKE LANE	---	---	---	---	1	---	---
21+34	RT	HOOVER NB BIKE LANE	---	---	---	---	1	---	---
21+46	RT	HOOVER NB BIKE LANE	---	---	---	1	---	---	---
22+39	LT	HOOVER SB BIKE LANE	---	---	---	1	---	---	---
22+51	LT	HOOVER SB BIKE LANE	---	---	---	---	1	---	---
24+02	RT	COUNTRY CLUB NB BIKE LANE	---	---	---	---	1	---	---
24+14	RT	COUNTRY CLUB NB BIKE LANE	---	---	---	1	---	---	---
24+89	LT	COUNTRY CLUB SB BIKE LANE	---	---	---	1	---	---	---
25+01	LT	COUNTRY CLUB SB BIKE LANE	---	---	---	---	1	---	---
26+34	RT	COUNTRY CLUB NB BIKE LANE	---	---	---	---	1	---	---
26+46	RT	COUNTRY CLUB NB BIKE LANE	---	---	---	1	---	---	---
27+39	LT	COUNTRY CLUB SB BIKE LANE	---	---	---	1	---	---	---
27+51	LT	COUNTRY CLUB SB BIKE LANE	---	---	---	---	1	---	---
28+34	RT	COUNTRY CLUB NB BIKE LANE	---	---	---	---	1	---	---
28+46	RT	COUNTRY CLUB NB BIKE LANE	---	---	---	1	---	---	---
29+89	LT	COUNTRY CLUB SB BIKE LANE	---	---	---	1	---	---	---
30+01	LT	COUNTRY CLUB SB BIKE LANE	---	---	---	---	1	---	---
		PAGE SUBTOTAL	6	6	0	13	13	3	2

ALL ITEMS ARE CATEGORY **0010** UNLESS OTHERWISE SPECIFIED.

3

3

PAVEMENT MARKING ITEMS

STATION	RT/ LT	LOCATION	647.0156 PAVEMENT MARKING ARROWS EPOXY TYPE 1 EACH	647.0166 PAVEMENT MARKING ARROWS EPOXY TYPE 2 EACH	647.0176 PAVEMENT MARKING ARROWS EPOXY TYPE 3 EACH	647.0206 PAVEMENT MARKING ARROWS BIKE LANE EPOXY EACH	647.0306 PAVEMENT MARKING SYMBOLS BIKE LANE EPOXY EACH	647.0356 PAVEMENT MARKING WORDS EPOXY EACH	647.0606 PAVEMENT MARKING ISLAND NOSE EPOXY EACH
30+32	LT	MEDIAN ISLAND NOSE	---	---	---	---	---	---	1
30+90	LT	MEDIAN ISLAND NOSE	---	---	---	---	---	---	1
31+39	RT	COUNTRY CLUB NB BIKE LANE	---	---	---	---	1	---	---
31+51	RT	COUNTRY CLUB NB BIKE LANE	---	---	---	1	---	---	---
31+80	LT	COUNTRY CLUB SB LT TURN LANE	---	1	---	---	---	---	---
32+51	LT	COUNTRY CLUB SB BIKE LANE	---	---	---	1	---	---	---
32+39	LT	COUNTRY CLUB SB BIKE LANE	---	---	---	---	1	---	---
33+98	LT	MEDIAN ISLAND NOSE	---	---	---	---	---	---	1
34+89	LT	COUNTRY CLUB SB BIKE LANE	---	---	---	1	---	---	---
35+01	LT	COUNTRY CLUB SB BIKE LANE	---	---	---	---	1	---	---
35+22	RT	COUNTRY CLUB NB BIKE LANE	---	---	---	---	1	---	---
35+44	RT	COUNTRY CLUB NB BIKE LANE	---	---	---	1	---	---	---
37+40	LT	COUNTRY CLUB SB BIKE LANE	---	---	---	1	---	---	---
37+52	LT	COUNTRY CLUB SB BIKE LANE	---	---	---	---	1	---	---
41+00	RT/ LT	INDUSTRIAL PARK RD TURN LANES	---	1	1	---	---	---	---
40+78	LT	INDUSTRIAL PARK RD WB BIKE LANE	---	---	---	1	---	---	---
40+90	LT	INDUSTRIAL PARK RD WB BIKE LANE	---	---	---	---	1	---	---
41+02	RT	INDUSTRIAL PARK RD EB BIKE LANE	---	---	---	---	1	---	---
41+14	RT	INDUSTRIAL PARK RD EB BIKE LANE	---	---	---	1	---	---	---
		PAGE SUBTOTAL	0	2	1	7	7	0	3
PROJECT 6998-11-70 TOTAL			6	8	1	20	20	3	5

PAVEMENT MARKING ITEMS

STAGE	STATION	-	STATION	LOCATION	649.0400 TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH LF
2	8+50	-	14+80	HOOVER ROAD NB WHITE EDGELINE	630
2	38+30	-	41+40	INDUSTRIAL PARK RD EB YELLOW EDGELINE	310
2	30+90	-	37+90	COUNTRY CLUB DR SB YELLOW EDGELINE	700
2	56+15	-	61+30	WOODWARD DRIVE EB WHITE EDGELINE	515
2	56+15	-	61+30	WOODWARD DRIVE CL DOUBLE YELLOW	1030
				STAGE 2 SUBTOTAL	3185
3	30+90	-	37+90	COUNTRY CLUB DRIVE SB YELLOW EDGELINE	700
				STAGE 3 SUBTOTAL	700
PROJECT 6998-11-70 TOTAL					**3,885**

ALL ITEMS ARE CATEGORY **0010** UNLESS OTHERWISE SPECIFIED.

3

CONSTRUCTION STAKING

STAGE	STATION	-	STATION	LOCATION	650.4000* STORM SEWER EACH	650.4500 SUBGRADE LF	650.5000 BASE LF	650.5500 CURB GUTTER AND CURB & GUTTER LF	650.8500** ELECTRICAL INSTALLATIONS 6998-11-70 LS	650.9910 SUPPLEMENTAL CONTROL 6998-11-70 LS	650.9920 SLOPE STAKES LF
STAGE 1											
	25+80		37+37	COUNTRY CLUB DR	11	---	2146	3447	---	---	1073
	50+27		61+30	WOODWARD DR	17	1103	1103	2206	---	---	1103
	90+10		92+77	SPECTRA PRINT DWY	4	39	39	128	---	---	267
	70+30		71+48	KIRSCHLING CT	3	118	118	155	---	---	118
STAGE 2											
	15+85		22+65	HOOVER RD	10	1360	1360	2720	---	---	680
	23+92		25+80	COUNTRY CLUB DR	---	376	376	752	---	---	188
	36+53		37+37	COUNTRY CLUB DR	---	84	84	---	---	---	84
	100+00		107+13	MULTI-USE PATH	---	713	713	---	---	---	713
STAGE 3											
	13+00		15+85	HOOVER RD	6	570	570	799	---	---	
	40+50		41+65	INDUSTRIAL DR	2	115	115	230	---	---	115
UNDISTRIBUTED											
					---	---	---	---	1	1	---
				PROJECT 6998-11-70 TOTAL	53	4,478	6,624	10,437	1	1	4,341

*** CATEGORY 0030**
**** CATEGORY 0020**

SAWING PAVEMENT

STAGE	STATION	STATION	LOCATION	690.0150 SAWING ASPHALT LF	690.0250 SAWING CONCRETE LF
STAGE 3					
	13+00	13+00	HOOVER	55	8
	14+66	14+66	MULTI-USE PATH	10	---
	14+95	15+50	DRIVEWAY	44	---
	40+50	40+50	INDUSTRIAL DR	49	2
STAGE 2					
	15+85	15+85	HOOVER	52	8
	15+90	17+01	DRIVEWAY	---	111
	21+15	22+11	DRIVEWAY	96	---
	60+53	60+53	JOERNS	34	---
	36+69	36+94	CAROLS LN	25	---
	37+40	37+62	DRIVEWAY	22	---
	37+90	37+90	COUNTRY CLUB DR	36	---
STAGE 1					
	26+00	26+00	COUNTRY CLUB DR	66	4
	34+98	34+10	DRIVEWAY	12	---
	36+52	36+52	COUNTRY CLUB DR	44	---
	71+45	71+45	KIRSCHLING	53	---
	58+61	58+71	WOODWARD DR	---	33
	61+30	61+30	WOODWARD DR	---	30
	92+77	92+77	SPECTRA PRINT DWY	---	42
PROJECT 6998-11-70 TOTAL				598	238

CONSTRUCTION STAKING STRUCTURE LAYOUT

PROJECT	CATEGORY	01. B-49-181 LS	02. R-49-26 LS	03. R-49-27 LS
6998-11-71	0010	1	---	---
6998-11-71	0020	---	1	---
6998-11-71	0030	---	---	1
PROJECT 6998-11-71 TOTAL		1	1	1

ALL ITEMS ARE CATEGORY **0010** UNLESS OTHERWISE SPECIFIED.

FILE NAME: P:\60334255\900-Work\910-CAD\20-Sheets\030201_mq.pptx ORIGINATOR: MICHAEL SCHNEIDER ORIG. DATE: MAY 31, 2016 PLOTTED DATE: 7/28/2016 10:07 AM

3

LIGHTING CABINETS AND SERVICE PEDESTALS

STATION	LOCATION	654.0205 CONCRETE CONTROL CABINET BASES TYPE 7 EACH	656.0200.01 ELECTRICAL SERVICE METER BREAKER PEDESTAL STA. 12+78 LS	656.0200.02 ELECTRICAL SERVICE METER BREAKER PEDESTAL STA. 37+31 LS	SPV.0060.41 LIGHTING CONTROL CABINET STA. 12+78 EACH	SPV.0060.42 LIGHTING CONTROL CABINET STA. 37+31 EACH
STA 12+78	CABINET NO. 1	1	1	--	1	--
STA 37+31	CABINET NO. 2	1	--	1	--	1
PROJECT 6998-11-70 TOTAL		2	1	1	1	1

BASES AND STREET LIGHTS

STATION	LOCATION	654.0107 CONCRETE BASES TYPE 7 EACH	SPV.0060.43 LED STREET LIGHT EACH
STA 13+05	SL101	1	1
STA 14+60	SL102	1	1
STA 16.12	SL103	1	1
STA 17+59	SL104	1	1
STA 18+99	SL105	1	1
STA 20+73	SL106	1	1
STA 22+46	SL107	1	1
STA 36+41	SL201	1	1
STA 38+21	SL202	1	1
STA 37+29	SL203	1	1
STA 35+63	SL204	1	1
STA 34+86	SL205	1	1
STA 33+87	SL206	1	1
STA 32+44	SL207	1	1
STA 31+01	SL208	1	1
STA 30+20	SL209	1	1
STA 28+68	SL210	1	1
STA 27+17	SL211	1	1
STA 25+65	SL212	1	1
STA 24+14	SL213	1	1
PROJECT 6998-11-70 TOTAL		20	20

PULL BOXES

LIGHTING

DESCRIPTION	STATION	OFFSET		SPV.0060.044 PULL BOX NON-CONDUCTIVE 24x42 INCH EACH
LPB01	STA 12+78	46	LT	1
LPB02	STA 12+78	17	LT	1
LPB03	STA 14+52	17	LT	1
LPB04	STA 16+17	5	LT	1
LPB05	STA 30+11	7	LT	1
LPB06	STA 31+11	5	LT	1
LPB07	STA 33+80	9	LT	1
LPB08	STA 33+80	41	RT	1
LPB09	STA 34+66	37	RT	1
LPB10	STA 36+38	36	RT	1
LPB11	STA 37+20	26	RT	1
LPB12	STA 38+26	22	LT	1
LPB13	STA 16+16	63	LT	1
LPB14	STA 16+19	63	LT	1
LPB15	STA 38+26	27	RT	1
LIGHTING PULLBOX TOTAL				15

COMMUNICATIONS

DESCRIPTION	STATION	OFFSET		SPV.0060.045 COMMUNICATIONS PULL BOX 33-INCH DIAMETER EACH
PULL BOX 1	STA 16+50	3	LT	1
PULL BOX 2	STA 22+55	5	LT	1
PULL BOX 3	STA 24+00	4	LT	1
PULL BOX 4	STA 31+50	3	LT	1
PULL BOX 5	STA 33+76	8	LT	1
PULL BOX 6	STA 33+76	43	RT	1
PULL BOX 7	STA 37+80	27	RT	1
COMMUNICATIONS PULL BOX TOTAL				7

ALL ITEMS ARE CATEGORY **0020** UNLESS OTHERWISE SPECIFIED.

LIGHTING CONDUIT AND WIRING

POLE	FROM (STATION)	POLE	TO (STATION)	NUMBER OF CONDUITS	NUMBER OF PHASE CONDUCTORS	NUMBER OF GROUND CONDUCTORS	652.0225* CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	652.0335* CONDUIT RIGID NONMETALLIC SCHEDULE 80 3-INCH LF	655.0610 ELECTRICAL WIRING LIGHTING 12 AWG LF	655.0625 ELECTRICAL WIRING LIGHTING 6 AWG LF
CAB. NO.1	STA 12+78	LPB01	STA 12+78	4	5	1	--	32	--	132
LPB01	STA 12+78	LPB02	STA 12+78	4	5	1	--	116	--	222
LPB02	STA 12+78	SL101	STA 13+05	1	5	1	27	--	282	204
SL101	STA 13+05	LPB03	STA 14+52	1	5	1	147	--	--	924
LPB03	STA 14+52	SL102	STA 14+60	1	10	1	8	--	282	165
LPB03	STA 14+52	LPB04	STA 16+17	2	5	1	--	330	--	1,038
LPB04	STA 16+17	SL103	STA 16+12	1	10	1	5	--	306	132
LPB04	STA 16+17	SL104	STA 17+59	1	5	1	142	--	306	894
SL104	STA 17+59	SL105	STA 18+99	1	5	1	140	--	282	882
SL105	STA 18+99	SL106	STA 20+73	1	5	1	174	--	282	1,080
SL106	STA 20+73	SL107	STA 22+46	1	5	1	173	--	282	1,074
CAB. NO.2	STA 38+37	LPB12	STA 38+26	4	10	1	--	44	--	275
LPB12	STA 38+26	SL202	STA 38+21	1	5	1	5	--	177	60
SL202	STA 38+21	SL201	STA 36+41	1	4	1	175	--	177	1,086
SL201	STA 36+41	STUB OUT	STA 36+31	1	--	--	10	--	--	--
LPB12	STA 38+26	LPB15	STA 38+26	4	5	1	--	188	--	330
LPB15	STA 38+26	SL203	STA 37+29	1	5	1	95	--	177	612
SL203	STA 37+29	LPB11	STA 37+20	1	5	1	8	--	--	90
LPB11	STA 37+20	LPB10	STA 36+38	2	5	1	--	164	--	540
LPB10	STA 36+38	SL204	STA 35+63	1	5	1	75	--	177	492
SL204	STA 35+63	SL205	STA 34+86	1	5	1	77	--	177	498
SL205	STA 34+86	LPB09	STA 34+66	1	5	1	20	--	--	
LPB09	STA 34+66	LPB08	STA 33+80	2	5	1	--	172	--	564
LPB08	STA 33+80	LPB07	STA 33+80	2	5	1	--	100	--	348
LPB07	STA 33+80	SL206	STA 33+87	1	10	1	7	--	282	154
LPB07	STA 33+80	SL207	STA 32+44	1	5	1	136	--	282	858
SL207	STA 32+44	LPB06	STA 31+11	1	5	1	133	--	--	840
LPB06	STA 31+11	SL208	STA 31+01	1	10	1	10	--	282	187
LPB06	STA 31+11	LPB05	STA 30+11	2	5	1	--	200	--	648
LPB05	STA 30+11	SL209	STA 30+20	1	10	1	9	--	282	176
LPB05	STA 30+11	SL210	STA 28+68	1	5	1	143	--	282	900
SL210	STA 28+68	SL211	STA 27+17	1	5	1	151	--	282	942
SL211	STA 27+17	SL212	STA 25+65	1	5	1	152	--	282	948
SL212	STA 25+65	SL213	STA 24+14	1	5	1	151	--	282	942
PROJECT TOTAL							2,173	1,346	5,163	18,237

*** QUANTITY SHOWN ELSEWHERE IN PLANS**

ALL ITEMS ARE CATEGORY **0020** UNLESS OTHERWISE SPECIFIED.

3

COMMUNICATIONS CONDUIT AND WIRING

LOCATION	FROM (STATION)	LOCATION	TO (STATION)	NUMBER OF CONDUITS	652.0115 CONDUIT RIGID METALLIC 1 1/4-INCH LF	SPV.0090.41 COMMUNICATIONS HDPE CONDUIT 1 1/4-INCH LF
STUB OUT	1+52	PULL BOX 1	16+50	3	--	255
PULL BOX 1	16+50	PULL BOX 2	22+55	3	--	1,815
PULL BOX 2	22+55	PULL BOX 3	24+00	3	156	279
PULL BOX 3	24+00	PULL BOX 4	31+50	3	--	2,250
PULL BOX 4	31+50	PULL BOX 5	33+76	3	--	678
PULL BOX 5	33+76	PULL BOX 6	33+76	3	--	105
PULL BOX 6	33+76	PULL BOX 7	37+80	3	--	1,212
PROJECT 6998-11-70 TOTAL					156	6,594

3

RRFB CONDUIT AND WIRING

LOCATION	FROM (STATION)	LOCATION	TO (STATION)	NUMBER OF CONDUITS	NUMBER OF PHASE CONDUCTORS	NUMBER OF GROUND CONDUCTORS	652.0225* CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	652.0335* CONDUIT RIGID NONMETALLIC SCHEDULE 80 3-INCH LF	655.0615 ELECTRICAL WIRING LIGHTING 10 AWG LF
CAB. NO.1	STA 12+78	LPB01	STA 12+78	1	2	1	--	8	66
LPB01	STA 12+78	LPB02	STA 12+78	1	2	1	--	29	111
LPB02	STA 12+78	LPB03	STA 14+52	1	2	1	175	--	549
LPB03	STA 14+52	LPB04	STA 16+17	1	2	1	--	165	519
LPB04	STA 16+17	SL103	STA 16+12	1	6	1	5	--	84
LPB04	STA 16+17	LPB13	STA 16+16	1	2	1	--	58	198
LPB04	STA 16+17	LPB14	STA 16+19	1	2	1	--	45	159
LPB13	STA 16+16	SB1	STA 16+11	1	2	1	5	--	45
LPB14	STA 16+19	SB2	STA 15+98	1	2	1	22	--	96
PROJECT 6998-11-70 TOTAL							207	305	1,827

*** QUANTITY SHOWN ELSEWHERE IN PLANS**

RRFB SYSTEM

SIGNAL BASE NO.	LOCATION **	654.0101 CONCRETE BASES TYPE 1 EACH	657.0100 PEDESTAL BASES EACH	657.0420 TRAFFIC SIGNALS STANDARDS ALUMINUM 13-FT EACH	658.0500 PEDESTRIAN PUSH BUTTONS EACH	SPV.0105.41 RECTANGULAR RAPID FLASHING BEACON SYSTEM HOOVER RD & INDUSTRIAL PARK DR LS
SB1	16+11, 64' LT	1	1	1	1	
SB2	15+98, 33' RT	1	1	1	1	1
SL103	16+12.3, 4.5' LT				1	
PROJECT 6998-11-70 TOTAL		2	2	2	3	1

**** FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD.**

ALL ITEMS ARE CATEGORY **0020** UNLESS OTHERWISE SPECIFIED.

CONVENTIONAL SIGNS AND ABBREVIATIONS

STATE LINE
COUNTY LINE
TOWNSHIP AND RANGE LINES
SECTION LINE
QUARTER LINE
SIXTEENTH LINE
NEW REFERENCE LINE
NEW R/W LINE
EXISTING R/W LINE
PROPERTY LINE
CORPORATE LIMITS
LOT, TIE AND OTHER MINOR LINES
SLOPE INTERCEPTS
UNDERGROUND FACILITY (Communications, Electric, Etc.)
UTILITY EASEMENT
FENCE
FEE INTEREST
TEMPORARY INTEREST
EASEMENT (Highway, Permanent Limited or Restricted Development)
BEAM GUARD
TRANSMISSION STRUCTURES (Line Optional)
RAIL LINE (SMALL SCALE) (LARGE SCALE)

SECTION CORNER
NOTATION FOR COMBUSTABLE FLUIDS
NOTATION FOR HIGH VOLTAGE TRANSMISSION LINES
BRIDGE
STREAM OR RIVER
LAKE
CULVERT (Box, Pipe Or Cattle Pass)
SIGN

FOUNDATION OR RUIN
BUILDING
CEMETERY
R/W MONUMENT
NON-MONUMENTED R/W POINT
IRON PIN
VALVE
WINDMILL
MANHOLE, SEPTIC VENT, WELL, ETC.
GAS PUMPS
BUSHES
TREES (Deciduous) (Coniferous)
WOODS
ENCROACHING SIGN

	COMPENSABLE	NON-COMPENSABLE
ELECTRIC POLE		
TELEPHONE POLE		
PEDESTAL (Label Type - Communications, Electric)		

ACCESS RESTRICTED (By Acquisition)
ACCESS RESTRICTED (By Previous Acquisition/Control)
NO ACCESS (By Statutory Authority)

P.I. or PI	Point of Intersection	ST.	Street
°.	Deflection Angle	IP	Iron Pipe or Iron Pin
D.	Degree of Curve	C.S.M.	Certified Survey Map
T.	Tangent Length	COR.	Corner
L.	Length	L.C.	Long Chord
R.	Radius	L.C.B.	Long Chord Bearing
CATV	Cable Television Line	MI.	Miles
FO	Fiber Optic Cable	MISC	Miscellaneous
G	Gas Line	N/A	Not Available or Applicable
GUY	Guy Wire	P.L.	Property Line
GV	Gas Valve	P.L.E.	Permanent Limited Easement
SAN	Sanitary Sewer Line	P.O.B.	Point of Beginning
SEPV.	Septic Vent	PC	Point of Curvature
T	Telephone Line	PG.	Page
W	Water Line	PROP	Property Corner
ANT.	Antenna	PT	Point of Tangency
B	Barn or Building	R/W	Right of Way
G	Garage	RD.	Road
H	House	REM.	Remnant
S	Shed	S.F.	Square Feet
C.T.H.	County Trunk Highway	SEC.	Section
CORP	Corporation	STA.	Station
LLC	Limited Liability Corporation	T.L.E. or TLE	Temporary Limited Easement
RR.	Railroad	VOL.	Volume
S.T.H.	State Trunk Highway		

NOTES

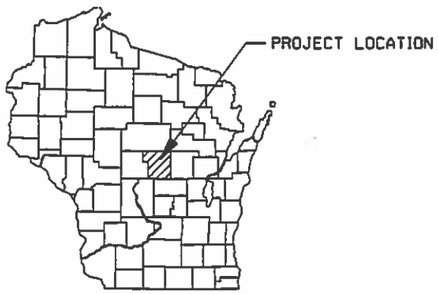
POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, PORTAGE COUNTY, NAD 83 (2011) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS AND GRID DISTANCES. GRID DISTANCES MAY BE USED FOR GROUND DISTANCES.

RIGHT OF WAY MONUMENTS ARE TYPE 2 MONUMENTS (TYPICALLY 3/4 " X 24" REBAR) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

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.

FOR CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE CITY OF STEVENS POINT AND THE TOWN OF HULL.

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



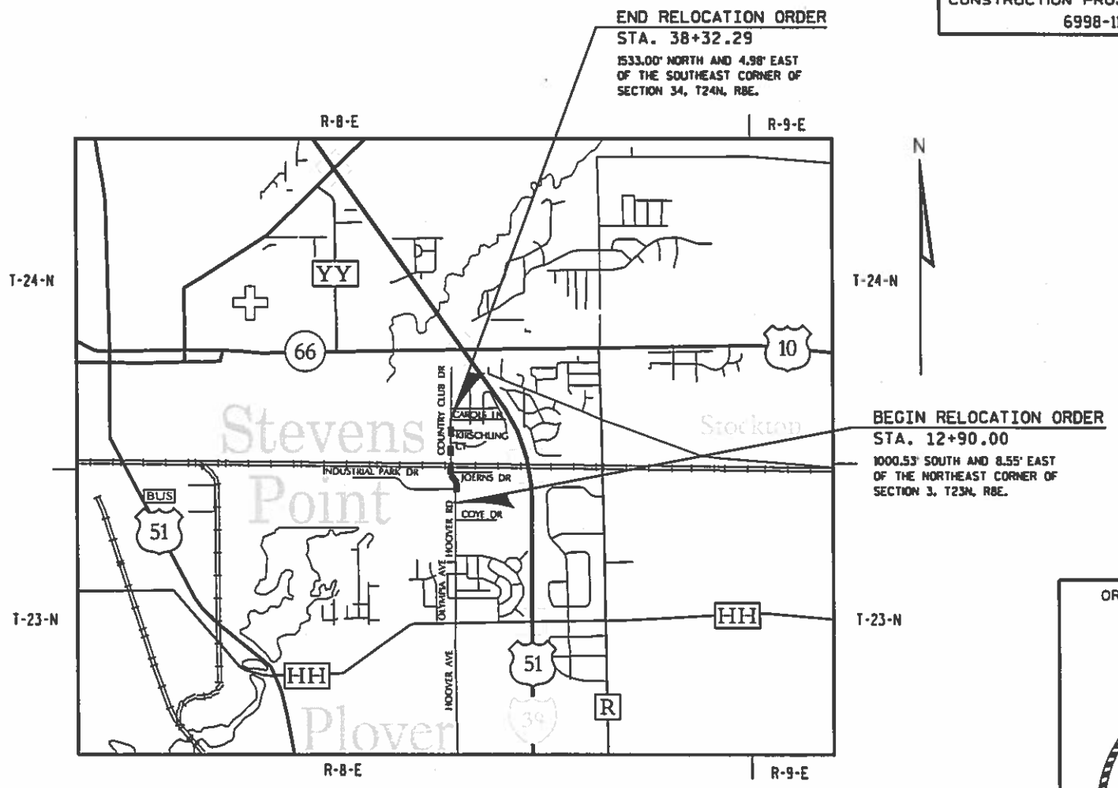
R/W PROJECT NUMBER	SHEET NUMBER	TOTAL SHEETS
6998-11-00	4.01	6
FEDERAL PROJECT NUMBER		

PLAT OF RIGHT-OF-WAY REQUIRED FOR
CITY OF STEVENS POINT,
COUNTRY CLUB DRIVE
HOOVER ROAD RAIL GRADE SEPARATION
LOCAL STREET — PORTAGE COUNTY

CONSTRUCTION PROJECT NUMBER
6998-11-71

END RELOCATION ORDER
STA. 38+32.29
1533.00' NORTH AND 4.98' EAST OF THE SOUTHEAST CORNER OF SECTION 34, T24N, R8E.

BEGIN RELOCATION ORDER
STA. 12+90.00
1000.53' SOUTH AND 8.55' EAST OF THE NORTHEAST CORNER OF SECTION 3, T23N, R8E.



LAYOUT
SCALE 0 1/2 MI.
TOTAL NET LENGTH OF CENTERLINE = 0.442 MI.

ORIGINAL PLAT PREPARED BY
AECOM

WISCONSIN
LANCE J. HABECK
S-1444
PLOVER, WI
LAND SURVEYOR

Lance J. Habeck
DATE: 11/23/2015

REVISION DATE	TOWN OF HULL	CITY OF STEVENS POINT
12/23/15	APPROVED FOR THE TOWN DATE: 12-7-15 (Signature)	APPROVED FOR THE CITY DATE: 12/21/15 (Signature)

E

FILE NAME : P:\60334255\900-Work\910-CAD\20-Sheets\040101_rw.dgn PLOT DATE : 11/24/2015 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : 1:10560 WISDOT/CADDS SHEET 50

SCHEDULE OF LANDS & INTERESTS REQUIRED

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

PARCEL NUMBER	SHEET NUMBER	OWNER(S)	INTEREST REQUIRED	R/W ACRES REQUIRED			TLE ACRES	HE ACRES
				NEW	EXISTING	TOTAL		
1	4.04	NH MANAGEMENT CORP.	FEE & TLE	0.002	-----	0.002	0.035	-----
2	4.04	DELTA DENTAL PLAN OF WISCONSIN, INC.	FEE & TLE	0.193	-----	0.193	0.209	-----
3	4.04	BIG DIRT LLC	FEE & TLE	0.111	-----	0.111	0.061	-----
4	4.04	WAREHOUSE SPECIALISTS, INC.	TLE	-----	-----	-----	0.938	-----
5	4.04	5001 JOERNS DRIVE, LLC & OVERLAND JOERNS, LLC	FEE & TLE	1.076	-----	1.076	0.340	-----
6	4.04 & 4.05	CITY OF STEVENS POINT	FEE	1.811	0.102	1.913	-----	-----
7	4.04 & 4.05	WISCONSIN CENTRAL LTD.	HE & TLE	-----	-----	-----	0.199	0.485
8	4.05	VALLEY SALES CORPORATION	FEE & TLE	5.182	-----	5.182	0.875	-----
9	4.05 & 4.06	ESTATE OF CHESTER J. KIRSCHLING & LORETTA KIRSCHLING	FEE	-----	0.829	-----	-----	-----
10	4.05 & 4.06	THE STEVENS POINT COUNTRY CLUB	FEE & TLE	0.596	1.077	1.673	0.472	-----
11	4.05 & 4.06	MK&K PROPERTIES, LLC	FEE & TLE	0.194	-----	0.194	0.206	-----
12	4.06	KENT S. JAKUSZ, OR HIS SUCCESSORS OF THE KENT S. JAKUSZ REVOCABLE TRUST DATED MAY 21, 2007, VENDOR FP PROPERTIES OF WIS, LLP, PURCHASER	FEE & TLE	0.014	-----	0.014	0.007	-----
13	4.06	LAURA B. BRONK	FEE & TLE	0.056	0.137	0.193	0.044	-----
14	4.06	MARLA RAULS	TLE	-----	-----	-----	0.013	-----

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	OWNER(S)	INTEREST REQUIRED	SHEET NUMBER
50	CITY OF STEVENS POINT	RELEASE OF RIGHTS	4.4 & 4.5
51	CHARTER COMMUNICATIONS INC.	RELEASE OF RIGHTS	4.4, 4.5 & 4.6
52	WISCONSIN PUBLIC SERVICE CORPORATION (GAS)	RELEASE OF RIGHTS	4.4, 4.5 & 4.6
53	WISCONSIN PUBLIC SERVICE CORPORATION (ELECTRIC)	RELEASE OF RIGHTS	4.4 & 4.5
54	AT&T (TELEPHONE)	RELEASE OF RIGHTS	4.4, 4.5 & 4.6

T 23 N

T 24 N

GN

CITY OF STEVENS POINT

TOWN OF HULL

INDUSTRIAL PARK ROAD

WISCONSIN CENTRAL LTD.

NE-NE SEC. 3

SE-SE SEC. 34

NE-SE SEC. 34

4

4

R 8 E

R 8 E

COUNTRY CLUB DRIVE

HOOVER ROAD

KIRSCHLING CT.

CAROL'S LANE

TOWN OF HULL

ROBERT'S DRIVE

NW-NW SEC. 2

NW-SW SEC. 35

JOERNS DRIVE

WISCONSIN CENTRAL LTD.

WOODWARD DRIVE

SW-SW SEC. 35

CITY OF STEVENS POINT

CITY OF STEVENS POINT

T 23 N

T 24 N

REVISION DATE 12-23-15 N.C.	DATE 12-7-15	NOT TO SCALE	HWY: HOOVER ROAD	STATE R/W PROJECT NUMBER 6998-11-00	PLAT SHEET 4.03
			COUNTY: PORTAGE	CONSTRUCTION PROJECT NUMBER 6998-11-71	PS&E SHEET 129 E

FILE NAME : P:\60334255\900-Work\910-CAD\20-Sheets\040103_rw.dgn PLOT DATE : 1/4/2016 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : 1:200

WISDOT/CADDS SHEET 70

NOTE: EXISTING RIGHT OF WAY FOR HOOVER ROAD ESTABLISHED BY CSM 490, CSM 1114, CSM 3332, CSM 4196 AND CSM 6636. EXISTING RIGHT OF WAY FOR INDUSTRIAL PARK ROAD ESTABLISHED BY CSM 3332 AND CSM 6636.

CITY OF STEVENS POINT

NE-NE SEC. 3

NW-NW SEC. 2

BEGIN RELOCATION ORDER
STA. 12+90.00
Y=197981.231
X=177507.183

POINT "A"

POINT "B"

HOOVER ROAD

INDUSTRIAL PARK ROAD

JOERNS DRIVE

R/L=N00°36'52"W

R/L=N01°38'08"E

R/L=N02°12'36"W

PC 17+63.59

PI 17+89.28

PT 18+14.94

PI 15+50.00

POT = 10+00.00
Y 197691.247
X 177510.292

P.I. = 15+50.00
Y 198241.216
X 177504.395
Δ. = 02°14'00" RT.

P.I. = 17+89.28
Y 198480.394
X 177511.225
Δ. = 03°50'44" LT.
D. = 07°29'23"
T. = 25.68'
L. = 51.35'
R. = 765.00'

HARRISON MON.
FOUND
Y=196130.941
X=177529.124

HARRISON MON.
FOUND
Y=198980.168
X=177365.068

HARRISON MON.
FOUND 0.87' SOUTH OF CORNER
Y=198981.762
X=177498.635

HARRISON MON.
FOUND
Y=199011.566
X=179996.319

2" IRON PIPE
FOUND
Y=198945.437
X=174850.548

HIGHWAY EASEMENT

1 NH MANAGEMENT, CORP.
LOT 1 CSM 3332
VOL. 11 PG. 290
DOC. 384914

2 DELTA DENTAL PLAN OF WISCONSIN, INC.

3 BIG DIRT LLC
LOT 2 CSM 6636
VOL. 24 PG. 159
DOC. 528370

4 STEVENS POINT
WAREHOUSE SPECIALISTS, INC.
LOT 3 CSM 1114
VOL. 4 PG 172
DOC. 318326

5 5001 JOERNS DRIVE, LLC & OVERLAND JOERNS, LLC
PARCEL A CSM 490
VOL. 2, PG. 150,
DOC. 292640

6 CITY OF STEVENS POINT

7 WISCONSIN CENTRAL LTD.

LOT 1 & OUTLOT 1 CSM 4196
VOL. 14 PG. 251
DOC. 418161

CITY OF STEVENS POINT (WATER)

CITY OF STEVENS POINT (STORM SEWER)

CHARTER COMMUNICATIONS

AT&T (TELEPHONE)

WISCONSIN PUBLIC SERVICE (GAS)

WISCONSIN PUBLIC SERVICE (ELECTRIC)

TLE FOR SLOPES

TLE FOR DRIVEWAY

TLE FOR SEWER CONSTRUCTION

SIDE LIGHT

ELEC. METER

RR CONTROL BOX

N89°12'31"E 2462.94' QUARTER COR. TO R/W

51.82' N89°12'31"E

126.82'

133.58'

271.87' N89°18'59"E

138.29'

S89°18'59"W 2359.57' QUARTER COR. TO R/W

100'

33'

80'

6.5'

R/W CURVE DATA TABLE

FROM - TO	RADIUS	LENGTH	CHORD	CHORD BEARING
702 - 262	540.00'	145.39'	144.95'	N20°10'40"W
262 - 264	660.00'	275.18'	273.19'	N15°56'47"W

TLE COURSE TABLE

FROM - TO	BEARING	DISTANCE
747 - 800	S00°37'23"E	17.00'
800 - 801	S89°02'25"W	20.00'
801 - 802	N00°37'23"W	25.00'
802 - 803	S89°02'25"W	90.00'
803 - 804	N00°37'23"W	10.00'
804 - 746	N89°02'25"E	100.00'
700 - 805	S89°02'25"W	14.26'
805 - 806	N44°29'53"E	36.37'
806 - 807	N01°37'25"E	110.00'
807 - 808	S88°22'35"E	7.00'
808 - 809	N00°48'23"W	186.38'
809 - 116	N88°56'07"W	177.77'
116 - 810	N00°00'12"E	368.03'
810 - 264	S89°00'27"E	62.77'
707 - 825	S89°00'08"E	46.74'
825 - 824	S00°59'52"W	10.00'
824 - 823	N89°00'08"W	45.00'
823 - 822	S71°15'27"W	74.73'
822 - 821	S90°00'00"W	60.58'
821 - 820	S65°01'14"W	175.21'
820 - 819	S11°33'54"W	361.28'
819 - 817	S20°54'35"W	86.68'
817 - 818	S69°05'25"E	19.30'
818 - 816	S14°31'10"W	73.61'
816 - 815	S44°05'33"W	42.21'
815 - 814	S00°37'23"E	175.00'
814 - 736	S89°23'08"W	5.00'
741 - 709	N02°12'36"W	65.07'
709 - 829	S89°00'27"E	20.03'
829 - 828	S02°12'36"E	70.11'
828 - 827	S86°06'34"E	296.68'
827 - 826	S02°12'36"E	15.02'
826 - 708	N89°00'27"W	315.49'
708 - 741	N02°12'36"W	35.09'
741 - 856	N89°18'59"E	20.01'
856 - 828	S02°12'36"E	5.63'

TLE STATION-OFFSET TABLE

POINT	STATION	OFFSET
116	19+06.24	262.97'
800	14+57.16	57.69'
801	14+57.04	77.69'
802	14+82.04	77.70'
803	14+81.50	167.70'
804	14+91.50	167.70'
805	15+67.26	116.24'
806	15+93.92	91.50'
807	17+03.92	91.52'
808	17+03.93	84.52'
809	18+96.09	85.49'
810	22+74.00	248.76'
814	12+90.00	40.33'
815	14+65.00	40.31'
816	14+95.00	70.00'
817	15+75.92	70.30'
818	15+69.55	88.52'
819	16+57.74	98.91'
820	20+02.27	175.89'
821	20+70.08	337.45'
822	20+67.74	397.99'
823	20+89.01	469.63'
824	20+86.49	514.56'
825	20+96.48	515.12'
826	22+34.34	460.00'
827	22+49.36	460.00'
828	22+80.89	165.00'
829	23+51.00	165.00'
856	22+86.52	165.00'

EASEMENT TABLE

OWNER	RECORDING INFORMATION	PARCEL
CITY OF STEVENS POINT TRAIL AGREEMENT	DOC. 692175	1
CITY OF STEVENS POINT SEWER & TRAIL EASEMENT	DOC. 732430	2
CITY OF STEVENS POINT SEWER & TRAIL EASEMENT	DOC. 735708	5
CHARTER COMMUNICATIONS	NO EASEMENT OF RECORD FOUND	1, 3 & 4
AT&T (TELEPHONE)	NO EASEMENT OF RECORD FOUND	3 & 4

R/W COURSE TABLE

FROM - TO	BEARING	DISTANCE
741 - 708	S02°12'36"E	35.09'
708 - 826	S89°00'27"E	315.49'
826 - 707	S05°47'05"E	135.51'
707 - 706	S71°15'27"W	74.82'
706 - 750	S90°00'00"W	108.51'
750 - 749	S65°01'14"W	149.60'
749 - 748	S11°33'54"W	276.78'
748 - 703	S06°53'18"W	147.66'
703 - 341	S20°54'35"W	30.00'
341 - 340	S89°35'57"W	29.18'
340 - 736	S00°37'23"E	293.27'
736 - 737	S89°23'08"W	93.00'
737 - 747	N00°37'23"W	184.16'
747 - 746	N29°45'25"W	20.54'
746 - 700	N23°23'57"W	86.55'
700 - 701	N44°29'53"E	30.14'
701 - 702	N01°37'25"E	271.94'
702 - 262	CURVE	
262 - 264	CURVE	
264 - 740	N14°26'35"E	26.19'
736 - 742	S89°23'08"W	33.18'
742 - 737	S89°23'08"W	59.82'
709 - 708	S02°12'36"E	100.16'
264 - 233	N14°26'35"E	102.82'
64 - 742	N00°36'46"W	1850.42'
742 - 156	N00°36'46"W	1000.57'

R/W STATION-OFFSET TABLE

POINT	STATION	OFFSET
262	20+05.11	121.21'
264	22+70.49	186.08'
340	15+84.63	33.95'
341	15+85.67	63.12'
700	15+67.91	102.00'
701	15+90.00	81.50'
702	18+67.23	76.50'
703	16+13.99	73.02'
706	20+77.80	396.72'
707	20+99.09	468.45'
708	22+51.96	145.00'
709	23+52.12	145.00'
736	12+90.00	35.33'
737	12+90.00	57.67'
740	22+95.58	178.58'
741	22+87.05	145.00'
746	14+92.10	67.70'
747	14+74.16	57.70'
748	17+61.03	86.54'
749	20+24.09	150.35'
750	20+81.99	288.29'
826	22+34.34	460.00'

R/W POINT COORDINATE TABLE

POINT	Y	X
262	198691.412	177381.777
264	198954.093	177306.721
340	198274.863	177539.324
341	198275.067	177568.503
700	198262.030	177402.948
701	198283.526	177424.070
702	198555.362	177431.775
703	198303.091	177579.210
706	198784.023	177896.524
707	198808.064	177967.377
708	198948.349	177638.274
709	199048.431	177634.411
736	197981.610	177542.512
737	197980.612	177449.518
740	198979.452	177313.253
741	198983.412	177636.921
746	198182.595	177437.321
747	198164.764	177447.515
748	198449.685	177596.920
749	198720.848	177652.408
750	198784.023	177788.014
826	198942.884	177953.719

HIGHWAY EASEMENT STATION-OFFSET TABLE

POINT	STATION	OFFSET
234	23+63.80	63.76'
708	22+51.96	145.00'
709	23+52.12	145.00'
389	22+63.88	68.02'
390	22+92.70	66.79'

HIGHWAY EASEMENT COURSE TABLE

FROM - TO	BEARING	DISTANCE
117 - 390	N89°18'59"E	60.01'
390 - 234	N00°13'58"E	71.17'
234 - 709	S89°00'27"E	209.08'
709 - 708	S02°12'36"E	100.16'
708 - 389	N89°00'27"W	213.35'
389 - 390	N00°13'58"E	28.84'

GN

SCALE, FEET
0 50 100

REVISION DATE 12-23-15	DATE 12-7-15	SCALE, FEET 0 50 100	HWY: HOOVER ROAD	STATE R/W PROJECT NUMBER 6998-11-00	PLAT SHEET 4.04
	GRID FACTOR N/A		COUNTY: PORTAGE	CONSTRUCTION PROJECT NUMBER 6998-11-71	PS&E SHEET 130 E

FILE NAME : P:\60334255\900-Work\910-CAD\20-Sheets\040104_rw.dgn PLOT DATE : 1/4/2016 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : 1:99.9998

WISDOT/CADDS SHEET 75

NOTE: EXISTING RIGHT OF WAY FOR COUNTRY CLUB DRIVE ESTABLISHED BY CSM 2787, CSM 2788, CSM 4704 AND GOVERNMENT LAND LINES. EXISTING RIGHT OF WAY FOR WOODWARD DRIVE ESTABLISHED BY CSM 10030.

EASEMENT TABLE		
OWNER	RECORDING INFORMATION	PARCEL
CITY OF STEVENS POINT 20' WATERMAIN EASEMENT	VOL. 466 PG. 918 DOC. 386551	8
WISCONSIN PUBLIC SERVICE CORP. - 20' EASEMENT	VOL. 471 PG. 207 DOC. 389487	8
AT & T 15' EASEMENT	VOL. 397 PG. 184 DOC. 337263	10
AT & T 10' EASEMENT	VOL. 534 PG. 182 DOC. 431734	11
WISCONSIN PUBLIC SERVICE CORP. - 10' EASEMENT	VOL. 534 PG. 182 DOC. 431734	11
CHARTER COMMUNICATIONS	NO EASEMENT OF RECORD FOUND	10

R/W POINT COORDINATE TABLE

POINT	Y	X
233	199053.664	177332.366
289	199109.046	177986.706
290	199042.348	177985.518
708	198948.349	177638.274
709	199048.431	177634.411
710	199109.225	177979.650
711	199276.002	177787.692
713	199737.282	177679.947
714	199841.097	177590.982
715	199840.821	177455.566
722	199461.365	177334.023
723	199727.634	177293.647
724	199873.066	177286.354
740	198979.452	177313.253
741	198983.412	177636.921
745	199886.658	177446.103
826	198942.884	177953.719

R/W STATION-OFFSET TABLE

POINT	STATION	OFFSET
233	23+69.00	156.62'
289	60+42.84	33.34'
290	60+45.13	33.33'
708	22+51.96	145.00'
709	23+52.12	145.00'
710	60+34.71	33.00'
711	57+21.71	33.00'
713	52+60.93	41.67'
714	51+70.90	77.10'
715	31+48.86	69.31'
722	28+01.41	127.69'
723	30+70.00	112.00'
724	32+00.00	95.00'
740	22+95.58	178.58'
741	22+87.05	145.00'
745	32+00.00	65.33'
826	22+34.34	460.00'

TLE STATION-OFFSET TABLE

POINT	STATION	OFFSET
210	33+97.58	116.96'
827	22+49.36	460.00'
828	22+80.89	165.00'
829	23+51.00	165.00'
830	60+42.39	43.00'
831	57+21.71	43.00'
833	52+98.18	258.48'
834	52+79.02	279.78'
835	51+88.57	59.69'
836	31+47.16	79.41'
848	28+36.13	140.00'
849	30+71.93	126.89'
850	31+76.40	111.37'
856	22+86.52	165.00'
857	32+00.00	105.22'
858	32+00.00	75.40'
863	53+80.00	43.00'
864	52+95.20	219.53'

R/W CURVE DATA TABLE

FROM - TO	RADIUS	LENGTH	CHORD	CHORD BEARING
711 - 710	217.00'	271.69'	254.29'	S49°00'55"E

TLE CURVE DATA TABLE

FROM - TO	RADIUS	LENGTH	CHORD	CHORD BEARING
831 - 830	207.00'	265.52'	247.69'	S49°53'40"E

R/W COURSE TABLE

FROM - TO	BEARING	DISTANCE
117 - 740	S89°12'31"W	51.82'
740 - 233	N14°26'35"E	76.63'
233 - 722	N00°13'58"E	407.70'
722 - 723	N08°37'21"W	269.31'
723 - 724	N02°52'15"W	145.61'
724 - 745	N85°08'12"E	160.33'
745 - 715	S11°39'54"E	46.80'
715 - 714	N89°52'58"E	135.42'
714 - 713	S40°35'42"E	136.72'
713 - 711	S13°08'50"E	473.70'
711 - 710	CURVE	
710 - 289	S88°32'49"E	7.06'
289 - 290	S01°01'12"W	66.71'
290 - 709	N89°00'27"W	351.16'
709 - 741	S02°12'36"E	65.07'
741 - 117	S89°18'59"W	271.87'
716 - 715	S11°39'54"E	110.30'
724 - 744	N85°08'12"E	82.67'
744 - 745	N85°08'12"E	77.66'
117 - 744	N00°13'58"E	899.91'
744 - 63	N00°13'58"E	1762.03'
709 - 708	S02°12'36"E	100.16'
264 - 233	N14°26'35"E	102.82'

TLE COURSE TABLE

FROM - TO	BEARING	DISTANCE
233 - 847	N89°00'27"W	20.00'
847 - 848	N00°13'58"E	438.37'
848 - 849	N08°37'21"W	236.42'
849 - 850	N02°52'15"W	118.80'
850 - 857	N07°06'01"E	27.63'
857 - 724	N85°08'12"E	10.22'
745 - 858	N85°08'12"E	10.07'
858 - 836	S11°39'54"E	47.66'
836 - 715	S89°52'58"W	10.21'
713 - 835	N40°35'42"W	103.72'
835 - 834	S88°47'16"E	297.69'
834 - 833	S00°05'45"E	67.00'
833 - 864	S88°36'08"W	40.00'
864 - 863	S49°01'03"W	199.35'
863 - 831	S13°08'50"E	341.71'
831 - 830	CURVE	
830 - 289	S01°01'12"W	9.67'
741 - 709	N02°12'36"W	65.07'
709 - 829	S89°00'27"E	20.03'
829 - 828	S02°12'36"E	70.11'
828 - 827	S86°06'34"E	296.68'
827 - 826	S02°12'36"E	15.02'
826 - 708	N89°00'27"W	315.49'
708 - 741	N02°12'36"W	35.09'
837 - 836	S11°39'54"E	111.67'
850 - 851	N07°06'01"E	222.56'

HIGHWAY EASEMENT COURSE TABLE

FROM - TO	BEARING	DISTANCE
117 - 390	N89°18'59"E	60.01'
390 - 234	N00°13'58"E	71.17'
234 - 709	S89°00'27"E	209.08'
709 - 708	S02°12'36"E	100.16'
708 - 389	N89°00'27"W	213.35'
389 - 390	N00°13'58"E	28.84'

HIGHWAY EASEMENT STATION-OFFSET TABLE

POINT	STATION	OFFSET
234	23+63.80	63.76'
708	22+51.96	145.00'
709	23+52.12	145.00'
389	22+63.88	68.02'
390	22+92.70	66.79'

P.I. = 52+33.37
Y 199792.489
X 177633.164
Δ. = 89°59'16" RT.
D. = 49°23'34"
T. = 115.98'
L. = 182.19'
R. = 116.00'

P.I. = 59+16.81
Y 199078.510
X 177799.934
Δ. = 75°56'13" LT.
D. = 22°55'06"
T. = 195.10'
L. = 331.34'
R. = 250.00'

POT = 65+07.61
Y 199068.127
X 178449.520

P.I. = 27+28.70
Y 199419.140
X 177474.997
Δ. = 10°55'31" LT.
D. = 07°29'23"
T. = 73.16'
L. = 145.87'
R. = 765.00'

P.I. = 28+44.91
Y 199532.741
X 177448.488
Δ. = 02°15'00" RT.

P.I. = 29+85.00
Y 199670.313
X 177422.033
Δ. = 02°15'00" LT.

P.I. = 31+79.20
Y 199859.427
X 177377.902
Δ. = 13°22'01" RT.
D. = 07°29'23"
T. = 89.64'
L. = 178.47'
R. = 765.00'

SCALE, FEET
0 50 100

REVISION DATE 12-23-15	DATE 12-7-15	SCALE, FEET 0 50 100	HWY: COUNTRY CLUB DRIVE	STATE R/W PROJECT NUMBER 6998-11-00	PLAT SHEET 4.05
	GRID FACTOR N/A		COUNTY: PORTAGE	CONSTRUCTION PROJECT NUMBER 6998-11-71	PS&E SHEET 131 E

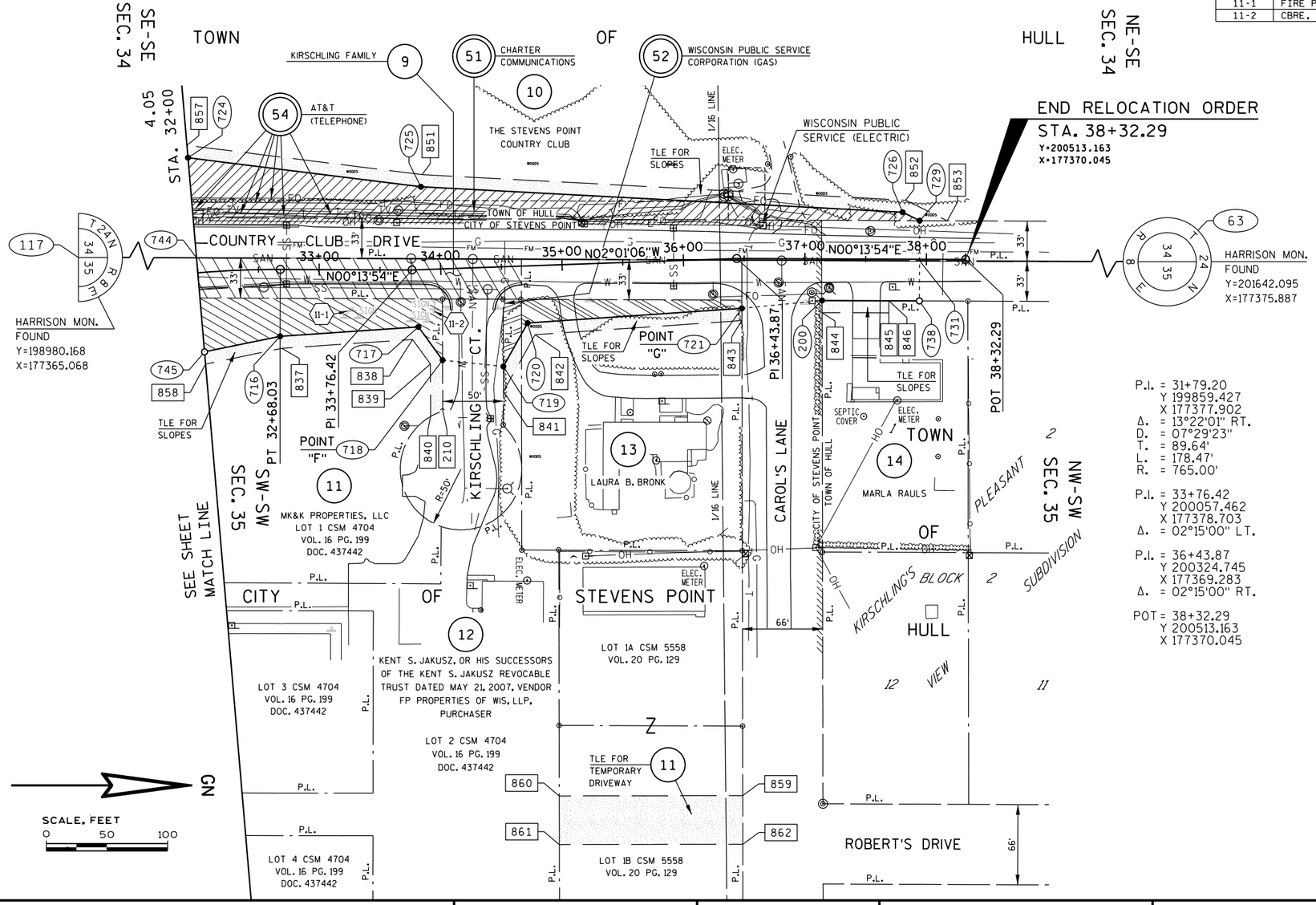
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WISDOT/CADDS SHEET 75

NOTE: EXISTING RIGHT OF WAY FOR HOOVER ROAD ESTABLISHED BY CSM 4704, KIRSCHLING PLEASANT VIEW SUBDIVISION AND GOVERNMENT LAND LINES. EXISTING RIGHT OF WAY FOR KIRSCHLING COURT ESTABLISHED BY CSM 4543. EXISTING RIGHT OF WAY FOR CAROL'S LANE ESTABLISHED BY KIRSCHLING PLEASANT VIEW SUBDIVISION.

EASEMENT TABLE		
OWNER	RECORDING INFORMATION	PARCEL
AT & T 15' EASEMENT	VOL. 397 PG. 184 DOC. 337263	10
AT & T 43' x 30' EASEMENT	VOL. 572 PG. 774 DOC. 501736	10

SIGN SCHEDULE	
SIGN NO.	OWNER
11-1	FIRE PRO INC., MK&K PROPERTIES, LLC
11-2	CBRE, USDA, MK&K PROPERTIES, LLC



P.I. = 31+79.20
Y 199859.427
X 177377.902
Δ. = 13°22'01" RT.
D. = 07°29'23"
T. = 89.64'
L. = 178.47'
R. = 765.00'

P.I. = 33+76.42
Y 200057.462
X 177378.703
Δ. = 02°15'00" LT.

P.I. = 36+43.87
Y 200324.745
X 177369.283
Δ. = 02°15'00" RT.

POT = 38+32.29
Y 200513.163
X 177370.045

R/W POINT COORDINATE TABLE

POINT	Y	X
200	200394.983	177403.819
716	199948.847	177433.264
717	200062.694	177425.547
718	200082.641	177452.862
719	200132.652	177458.104
720	200152.639	177422.378
721	200328.994	177410.301
724	199873.066	177286.354
725	200064.754	177310.231
726	200461.276	177331.204
729	200475.322	177338.145
738	200475.056	177404.144
745	199886.658	177446.103

R/W STATION-OFFSET TABLE

POINT	STATION	OFFSET
200	37+14.25	34.25'
716	32+68.03	55.00'
717	33+80.00	47.00'
718	33+98.97	75.00'
719	34+48.77	82.00'
720	34+70.00	47.00'
721	36+48.28	41.00'
724	32+00.00	95.00'
725	33+86.12	68.17'
726	37+80.25	38.63'
729	37+94.32	31.75'
738	37+94.32	34.25'
745	32+00.00	65.33'

TLE STATION-OFFSET TABLE

POINT	STATION	OFFSET
210	33+97.58	116.96'
837	32+69.42	64.93'
838	33+76.42	57.20'
839	33+88.87	77.92'
840	33+87.44	121.02'
841	34+48.09	102.40'
842	34+75.74	56.82'
843	36+48.34	51.02'
844	37+14.30	44.25'
845	37+69.31	44.25'
846	37+69.25	34.25'
851	33+87.35	78.10'
852	37+82.79	48.52'
853	38+17.08	31.75'
857	32+00.00	105.22'
858	32+00.00	75.40'
859	36+33.25	441.80'
860	34+82.32	436.74'
861	34+80.99	476.72'
862	36+31.91	481.77'

TLE CURVE DATA TABLE

FROM - TO	RADIUS	LENGTH	CHORD	CHORD BEARING
210 - 840	50.00'	10.94'	10.92'	S23°49'51"E

R/W COURSE TABLE

FROM - TO	BEARING	DISTANCE
724 - 725	N07°06'01"E	193.17'
725 - 726	N03°01'40"E	397.08'
726 - 729	N26°17'41"E	15.67'
729 - 738	S89°46'06"E	66.00'
738 - 200	S00°13'58"W	80.07'
200 - 721	S05°36'37"E	66.31'
721 - 720	S03°55'03"E	176.77'
720 - 719	S60°46'32"E	40.94'
719 - 718	S05°59'01"W	50.28'
718 - 717	S53°51'39"W	33.82'
717 - 716	S03°52'39"E	114.11'
716 - 745	S11°39'54"E	63.50'
745 - 724	S85°08'12"W	160.33'
716 - 715	S11°39'54"E	110.30'
729 - 731	S89°46'06"E	33.00'
731 - 738	S89°46'06"E	33.00'
745 - 744	S85°08'12"W	77.66'
744 - 724	S85°08'12"W	82.67'
117 - 744	N00°13'58"E	899.91'
744 - 731	N00°13'58"E	595.12'
731 - 63	N00°13'58"E	1166.92'

TLE COURSE TABLE

FROM - TO	BEARING	DISTANCE
724 - 857	S85°08'12"W	10.22'
857 - 851	N07°06'01"E	194.93'
851 - 852	N03°01'40"E	398.78'
852 - 853	N26°17'41"E	38.17'
853 - 729	S00°13'58"W	22.76'
200 - 846	N00°13'58"E	55.00'
846 - 845	N89°54'01"E	10.00'
845 - 844	S00°13'58"W	55.00'
844 - 200	S89°54'01"W	10.00'
721 - 843	N89°54'01"E	10.02'
843 - 842	S03°55'03"E	170.69'
842 - 841	S60°46'32"E	53.31'
841 - 719	S89°52'58"W	20.41'
718 - 210	N89°52'58"E	41.99'
210 - 840	CURVE	
840 - 839	S89°52'58"W	43.13'
839 - 838	S53°51'39"W	25.06'
838 - 837	S03°52'39"E	107.91'
837 - 858	S11°39'54"E	64.01'
858 - 745	S85°08'12"W	10.07'
837 - 836	S11°39'54"E	111.67'
850 - 851	N07°06'01"E	222.56'
721 - 859	N89°54'01"E	400.88'
859 - 862	N89°54'01"E	40.00'
862 - 861	S00°05'59"E	151.00'
861 - 860	S89°52'53"W	40.00'
860 - 859	N00°05'59"W	151.02'

REVISION DATE 12-23-15 N.C.	DATE 12-7-15	SCALE, FEET 0 50 100	HWY: COUNTRY CLUB DRIVE	STATE R/W PROJECT NUMBER 6998-11-00	PLAT SHEET 4.06
	GRID FACTOR N/A		COUNTY: PORTAGE	CONSTRUCTION PROJECT NUMBER 6998-11-71	PS&E SHEET 132 E

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WISDOT/CADDS SHEET 75

BENCH MARK TABLE

NO.	STATION	DESCRIPTION	ELEV.
9	13+38 LT	TOP OF PS (HYD) ON WEST SIDE OF HOOVER ROAD	1096.81
		150'± SOUTH OF INDUSTRIAL PARK DRIVE	

N

SCALE 0' 10' 20' 40'

INDUSTRIAL PARK RD

SAWCUT REQUIRED MATCH EXISTING

AT&T - TELEPHONE

SLOPE INTERCEPT

BEGIN SAWCUT STA 15+90.83'LT

END SAWCUT STA 17+01.83'LT

CAUTION

WPS - GAS

STRUCURE R-49-26 (6998-11-71)

CONCRETE MULTI-USE PATH

R/W

TLE

BM 9

CHARTER CABLE

WPS ELECTRIC

ADJUSTING MANHOLE COVERS

TRAVERSE PT 9
N=198152.80
E=177488.05

CITY OF STEVENS POINT

RECONSTRUCTING MANHOLE

HOOVER ROAD

WPS - ELECTRIC

ASPHALT

GRASS

CONCRETE

BLDG

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

41+00 42+00 42+08

MATCHLINE STA. 18+50

RECONSTRUCTING MANHOLE

CONCRETE SIDEWALK

RECONSTRUCT MANHOLE

CHARTER CABLE

WPS - ELECTRIC

PLANTER

101+00 102+00

MULTI-USE PATH

WOODS

CITY OF STEVENS POINT

TRAVERSE PT 18
N=198059.23
E=177571.90

SLOPE INTERCEPT

ASPHALT CE

PL

FLOOD LIGHT

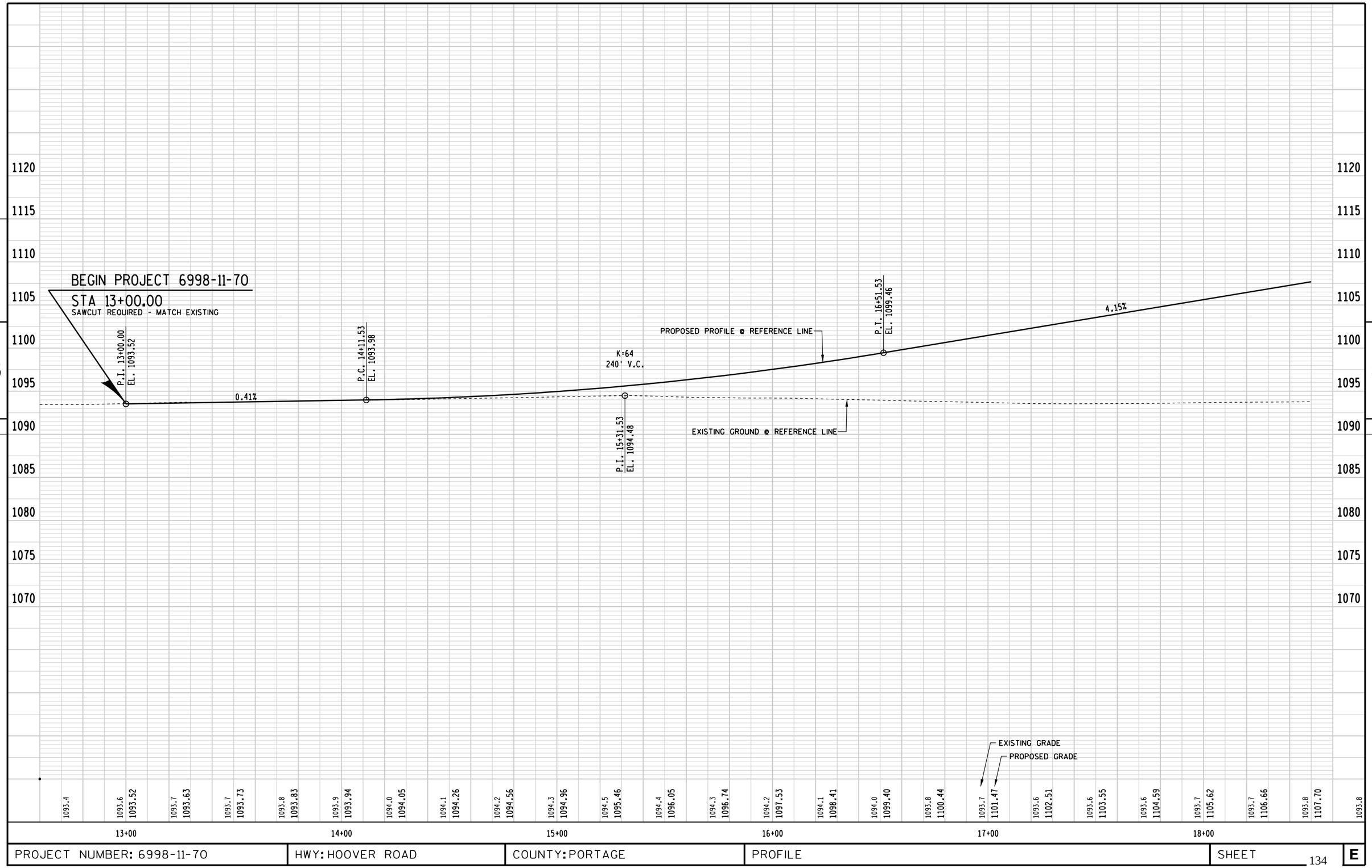
SIDE LIGHT

BEGIN PROJECT 6998-11-70

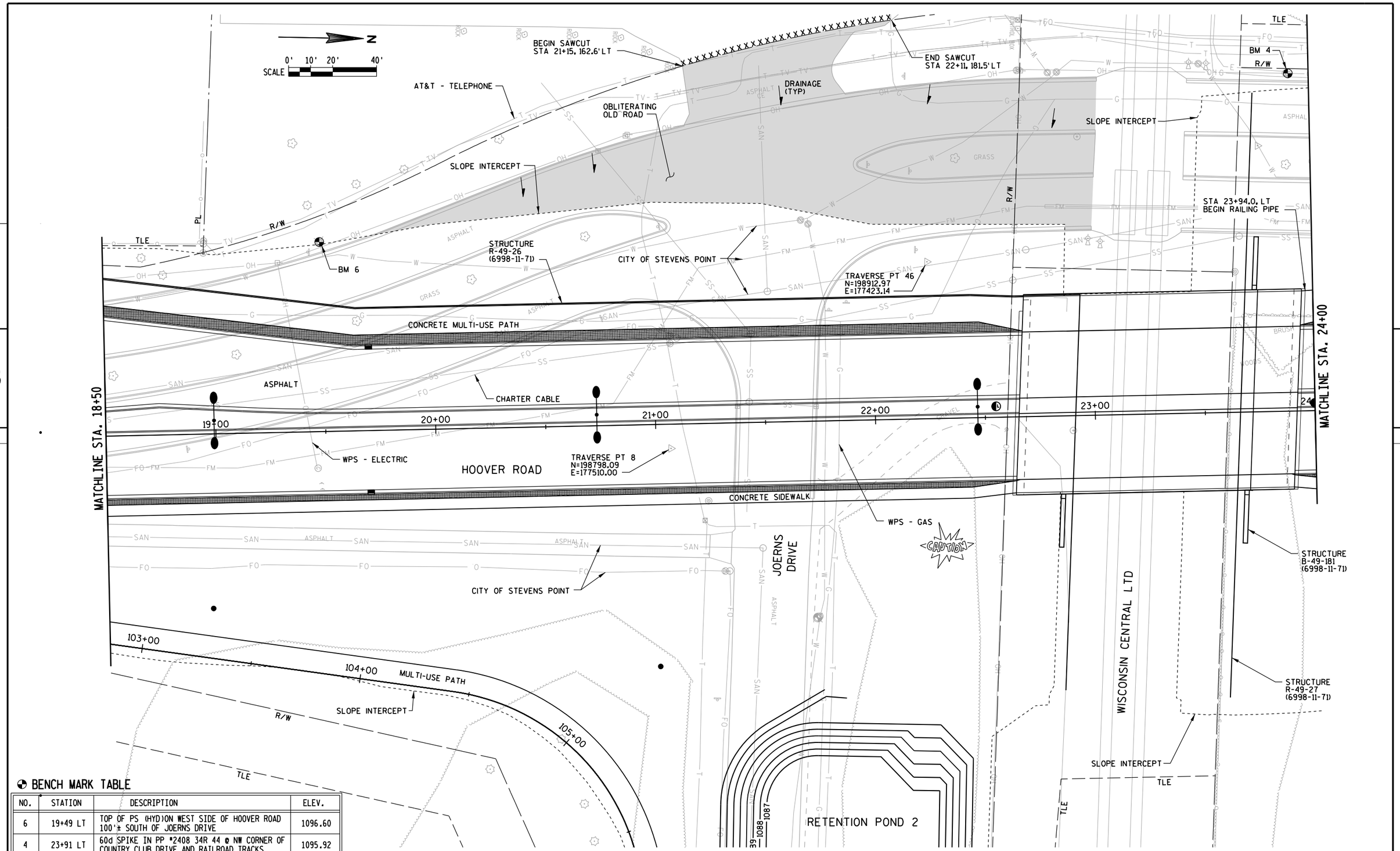
STA 13+00.00
SAWCUT REQUIRED - MATCH EXISTING
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X=177,507.075

STA 15+30, RT
CONSTRUCT ASPHALT PE
SAWCUT REQUIRED

PROJECT NUMBER: 6998-11-70/71	HWY: HOOVER ROAD	COUNTY: PORTAGE	PLAN	SHEET 133	E



PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	PROFILE	SHEET 134	E

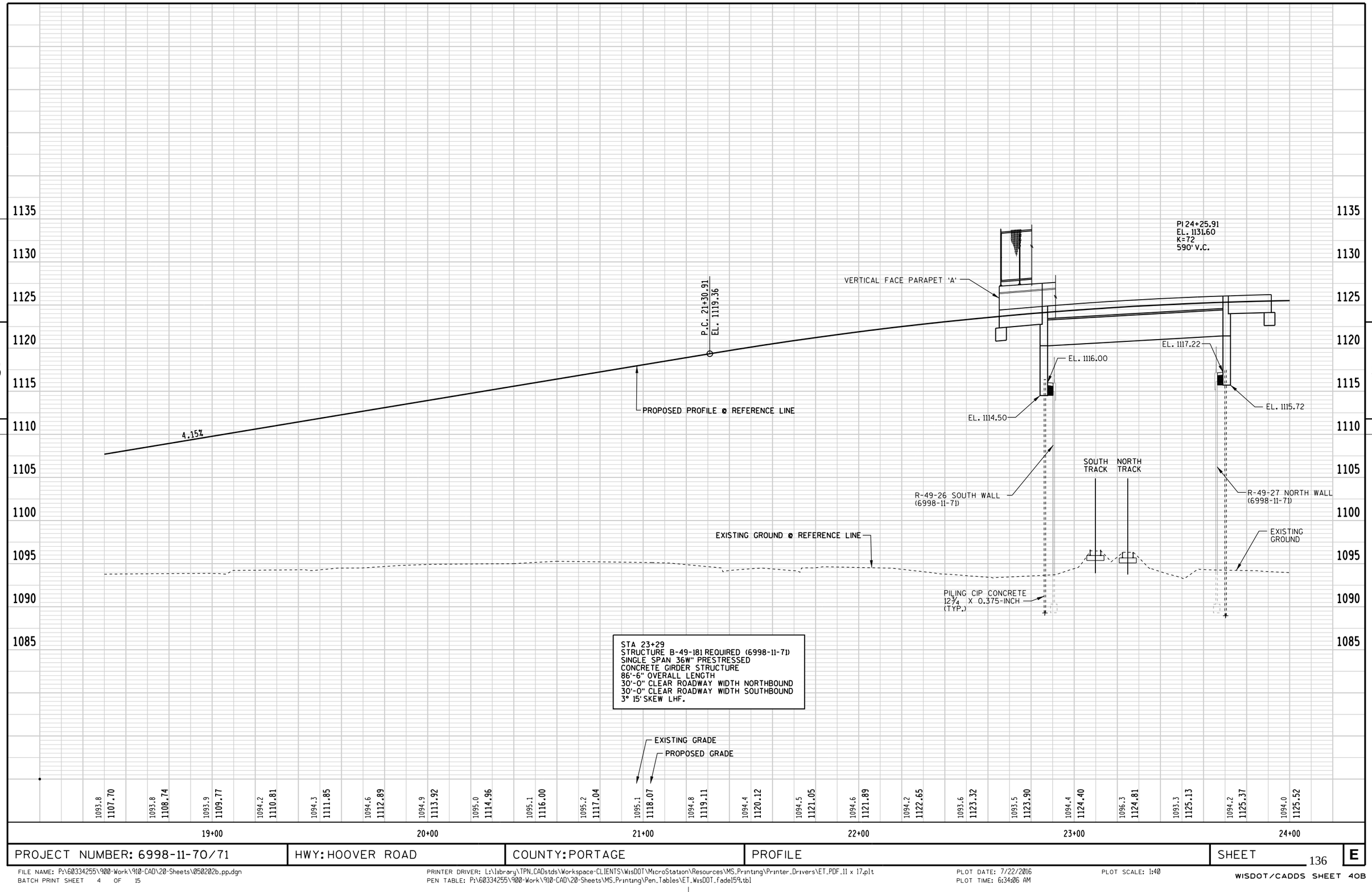


BENCH MARK TABLE

NO.	STATION	DESCRIPTION	ELEV.
6	19+49 LT	TOP OF PS (HYD)ON WEST SIDE OF HOOVER ROAD 100'± SOUTH OF JOERNS DRIVE	1096.60
4	23+91 LT	60d SPIKE IN PP *2408 34R 44 @ NW CORNER OF COUNTRY CLUB DRIVE AND RAILROAD TRACKS	1095.92

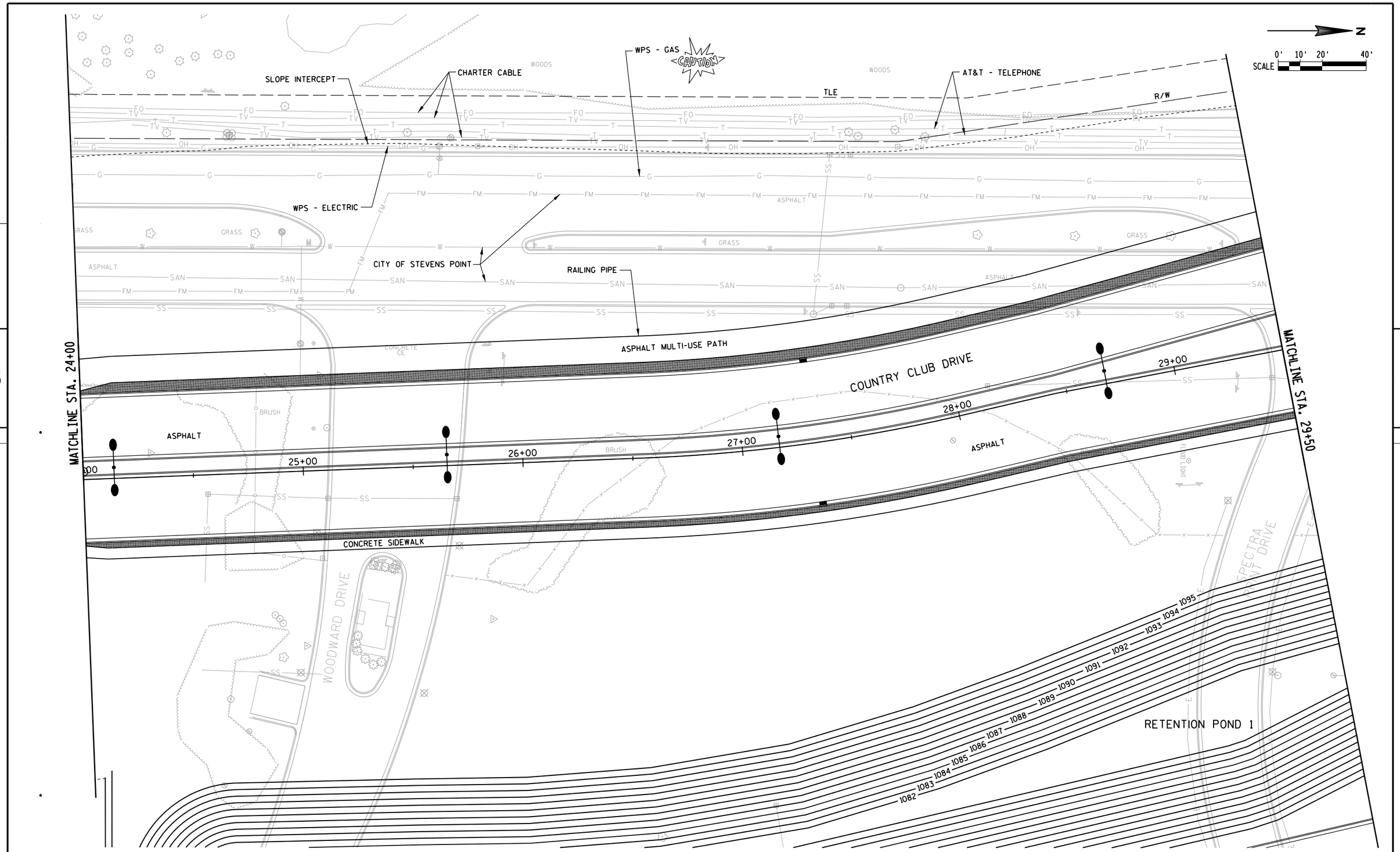
PROJECT NUMBER: 6998-11-70/71	HWY: HOOVER ROAD	COUNTY: PORTAGE	PLAN	SHEET 135 E

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PLOT TIME: 6:34:04 AM
PLOT SCALE: 1:40
WISDOT/CADDS SHEET 40



PROJECT NUMBER: 6998-11-70/71	HWY: HOOVER ROAD	COUNTY: PORTAGE	PROFILE	SHEET	E

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PLOT SCALE: 1:40
WISDOT/CADDS SHEET 40B



PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	PLAN	SHEET 137	E

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PLOT TIME: 6:34:08 AM
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WISDOT/CADDS SHEET 40

1140
1135
1130
1125
1120
1115
1110
1105
1100
1095
1090
1085

P.I. 24+25.91
EL. 1131.60

HIGH PT. 24+31.34
EL. 1125.59

K=72
590' V.C.

P.T. 27+20.91
EL. 1119.80

PROPOSED PROFILE ℄ REFERENCE LINE

-4.00%

EXISTING GROUND ℄ REFERENCE LINE

EXISTING GRADE

PROPOSED GRADE

| | | |

N

0' 10' 20' 40'
SCALE

SLOPE INTERCEPT

CAUTION

WPS - GAS

TLE

R/W

WOODS

CHARTER CABLE

STA 32+00.0, LT
END RAILING PIPE

AT&T - TELEPHONE

ASPHALT MULTI-USE PATH

TRAVERSE PT 6
N=199779.20
E=177369.86

WPS - ELECTRIC

ADJUSTING MANHOLE COVERS

CITY OF STEVENS POINT

MATCHLINE STA. 35+00

32+00

33+00

34+00

70+00

COUNTRY CLUB DRIVE

ASPHALT

GRASS

RECONSTRUCTING MANHOLE

31+00

30+00

50+00

MATCHLINE STA. 29+50

CONCRETE

CONCRETE SIDEWALK

BRUSH

CONCRETE SIDEWALK

R/W

TLE

TRAVERSE PT 37
N=199916.80
E=177403.09

SLOPE INTERCEPT

PL

KIRSCHLING COURT

71+00

R/W

TLE

SLOPE INTERCEPT

WOODS

ASPHALT

71+50

51+00

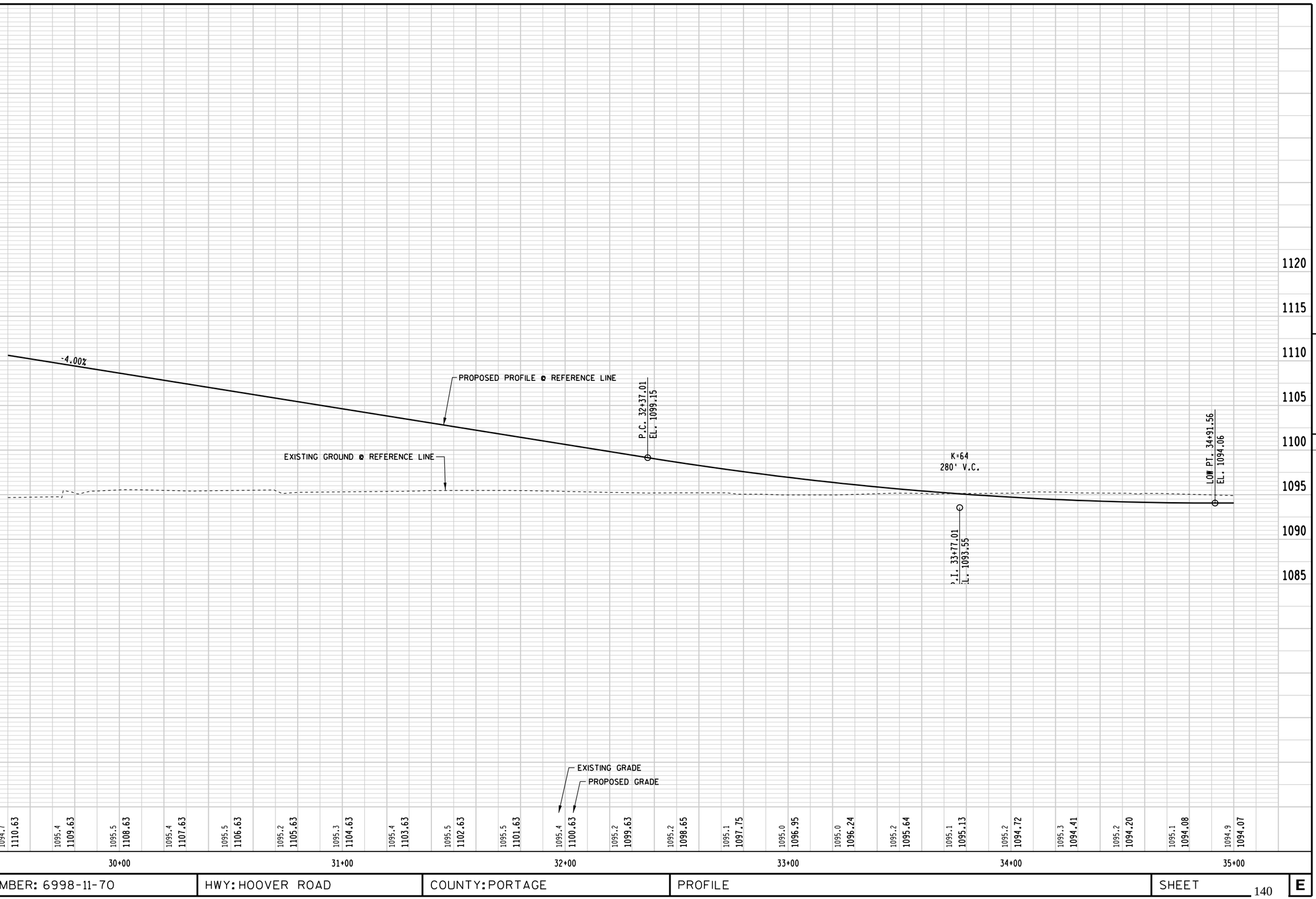
RETENTION POND 1

5

5

PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	PLAN	SHEET 139	E

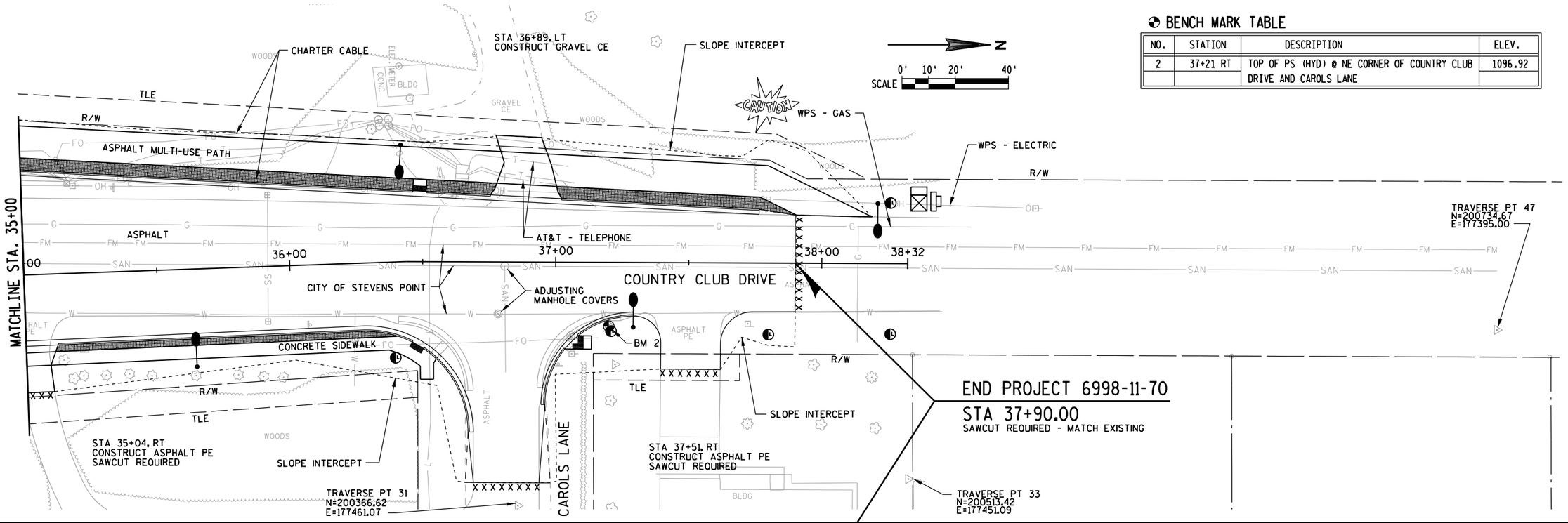
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BATCH PRINT SHEET 7 OF 15
PRINTER DRIVER: L:\library\TPN_CADstds\Workspace-CLIENTS\WisDOT\MicroStation\Resources\MS_Printing\Printer_Drivers\ET_PDF_11 x 17.plt
PEN TABLE: P:\60334255\900-Work\910-CAD\20-Sheets\MS_Printing\Pen_Tables\ET_WisDOT_fade159.tbl
PLOT DATE: 7/22/2016
PLOT TIME: 6:34:13 AM
PLOT SCALE: 1:40



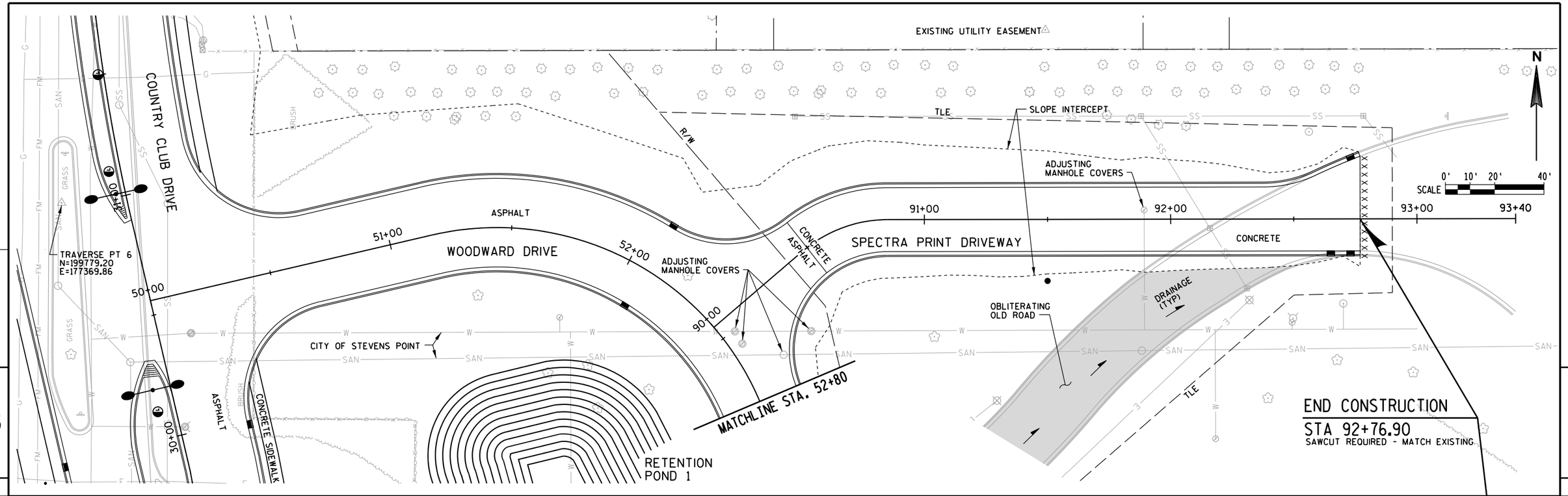
PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	PROFILE	SHEET 140	E

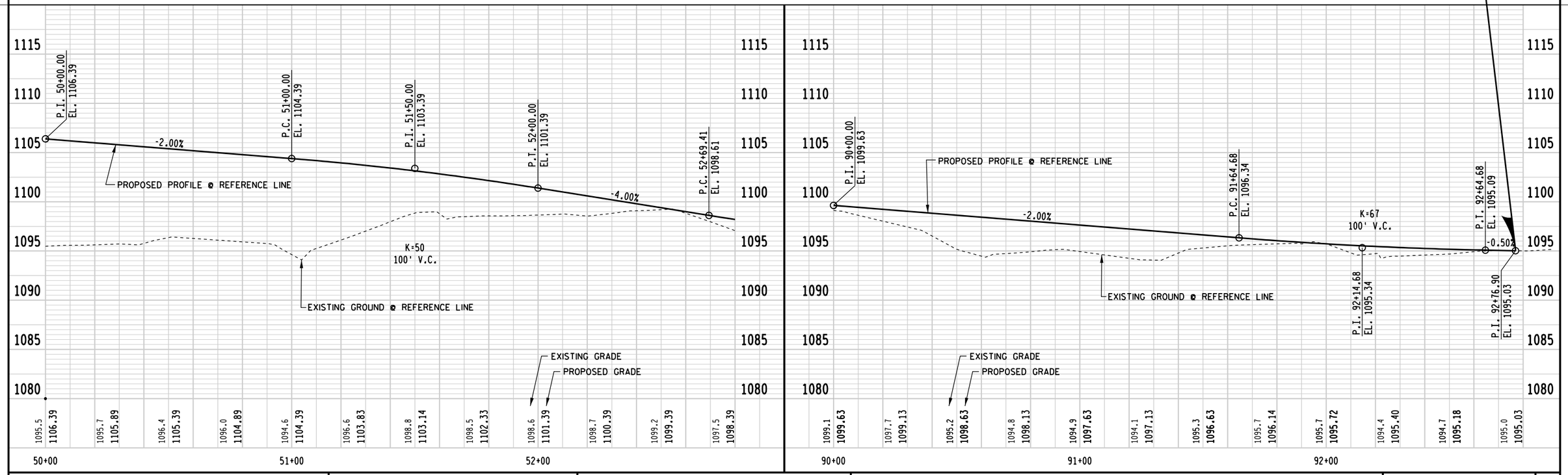
BENCH MARK TABLE

NO.	STATION	DESCRIPTION	ELEV.
2	37+21 RT	TOP OF PS (HYD) @ NE CORNER OF COUNTRY CLUB DRIVE AND CAROLS LANE	1096.92

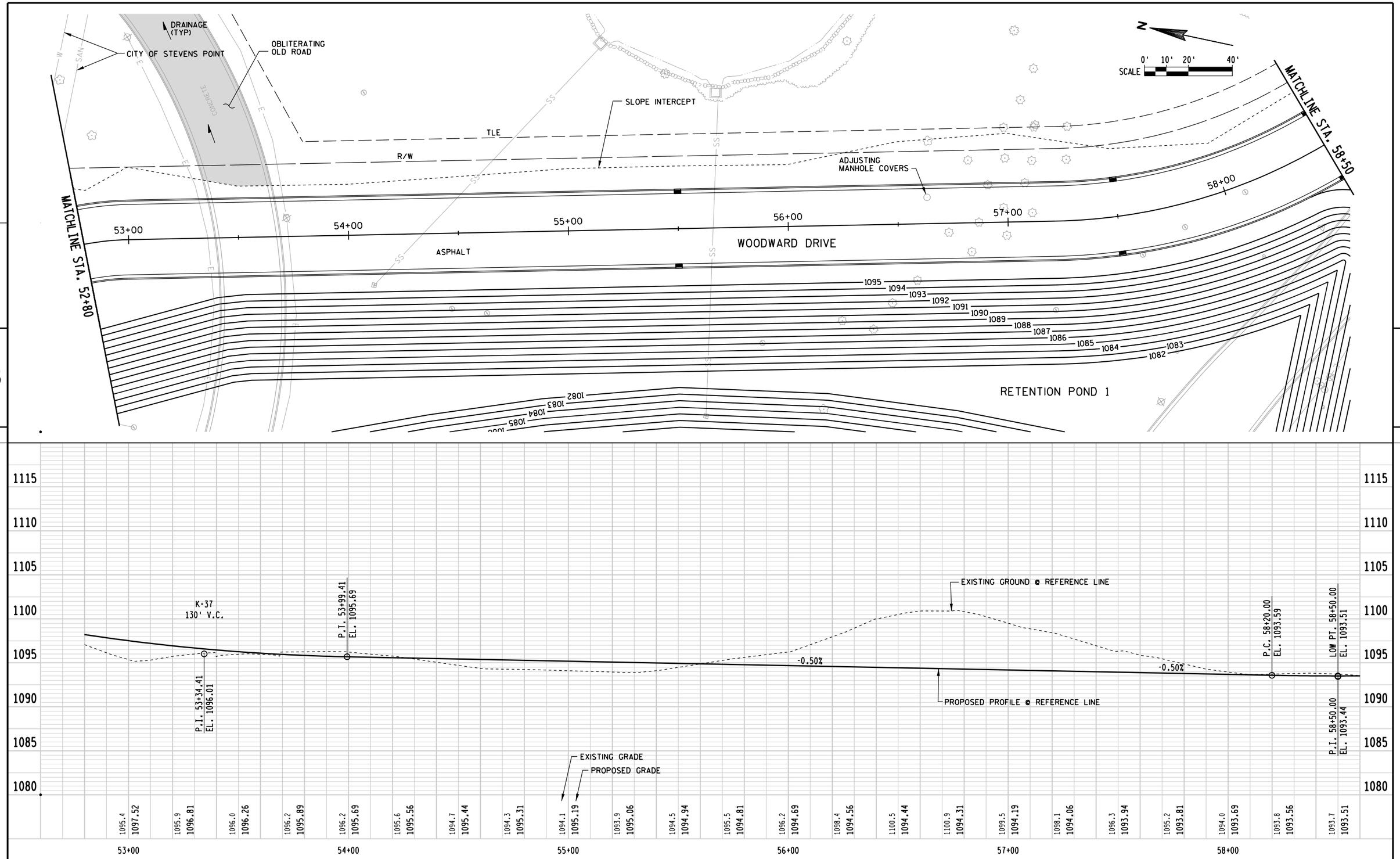


PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	PLAN AND PROFILE	SHEET 141	E



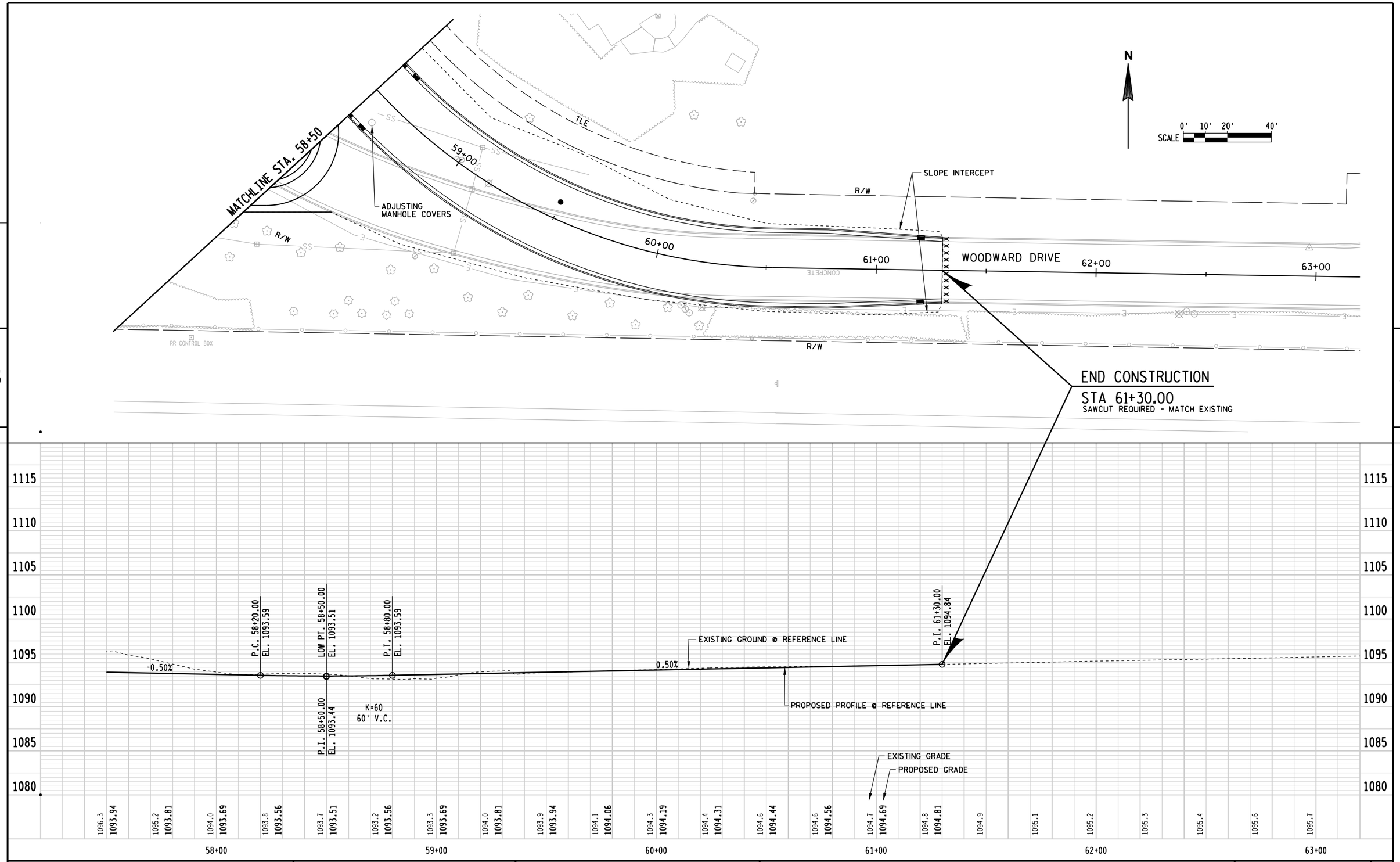


PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	PLAN AND PROFILE	SHEET 142	E



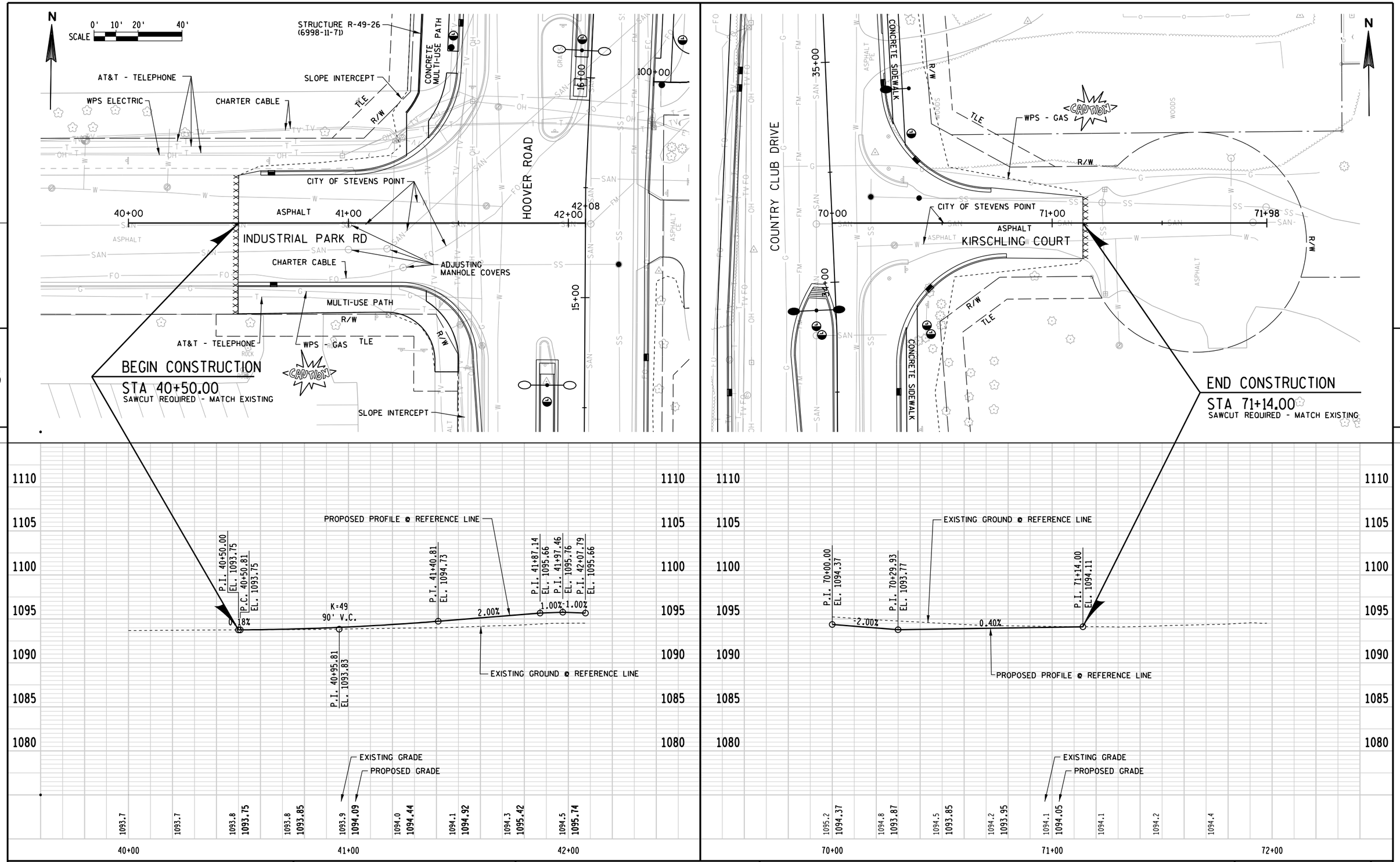
PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	PLAN AND PROFILE	SHEET 143	E

FILE NAME: P:\60334255\900-Work\910-CAD\20-Sheets\050207_pp.dgn
BATCH PRINT SHEET 11 OF 15
PRINTER DRIVER: L:\library\TPN_CADstds\Workspace-CLIENTS\WisDOT\MicroStation\Resources\MS_Printing\Printer_Drivers\ET_PDF_11 x 17.plt
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PLOT TIME: 6:34:21 AM
PLOT SCALE: 1:40
WISDOT/CADDS SHEET 40



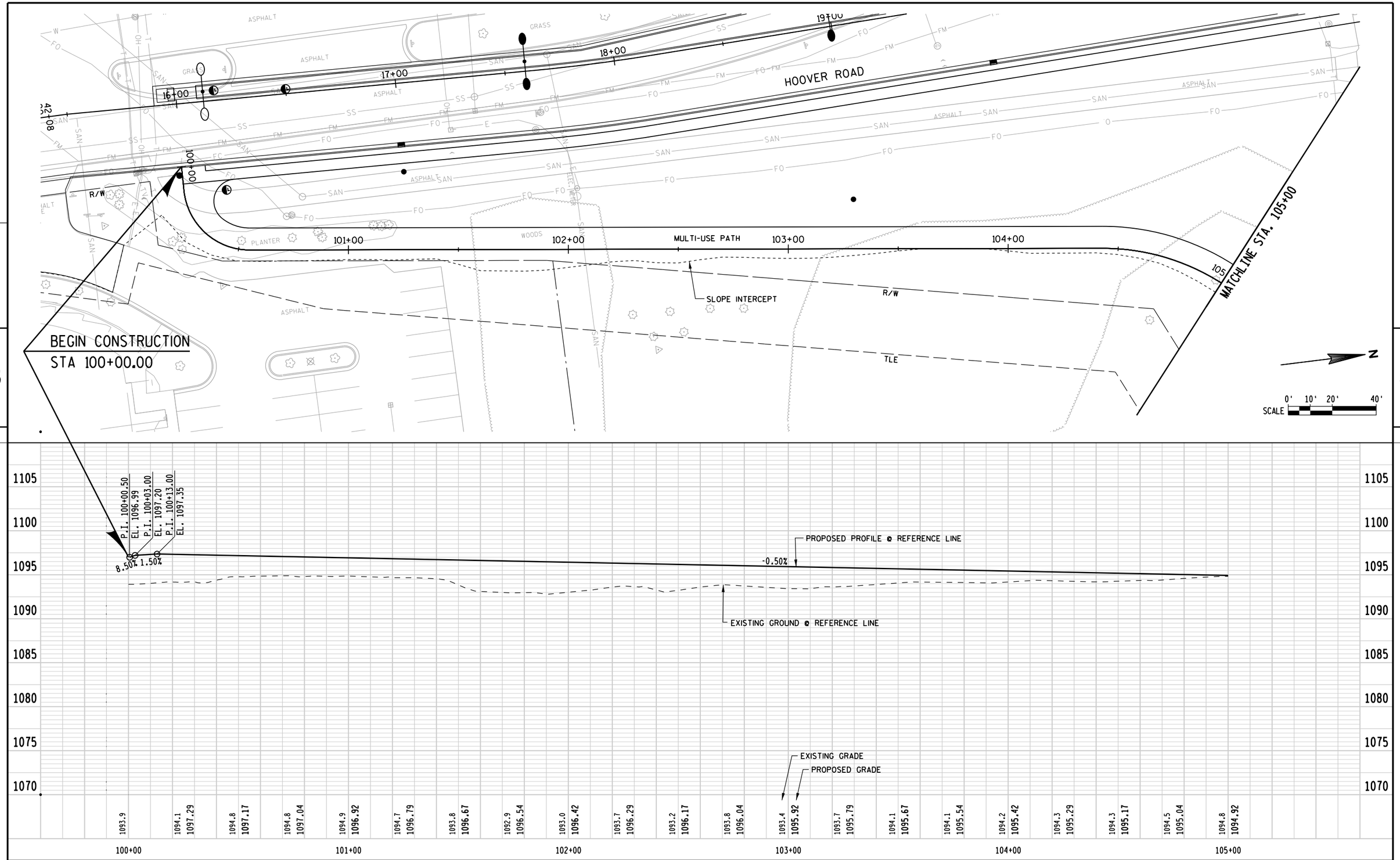
PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	PLAN AND PROFILE	SHEET 144	E

FILE NAME: P:\60334255\900-Work\910-CAD\20-Sheets\050208_pp.dgn
BATCH PRINT SHEET 12 OF 15
PRINTER DRIVER: L:\library\TPN_CADstds\Workspace-CLIENTS\WisDOT\MicroStation\Resources\MS_Printing\Printer_Drivers\ET_PDF_11 x 17.plt
PEN TABLE: P:\60334255\900-Work\910-CAD\20-Sheets\MS_Printing\Pen_Tables\ET_WisDOT_fade159.tbl
PLOT DATE: 7/22/2016
PLOT TIME: 6:34:23 AM
PLOT SCALE: 1:40
WISDOT/CADDS SHEET 40



PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	PLAN AND PROFILE	SHEET 145	E

FILE NAME: P:\60334255\900-Work\910-CAD\20-Sheets\050209_pp.dgn
BATCH PRINT SHEET 13 OF 15
PRINTER DRIVER: L:\library\TPN_CADstds\Workspace-CLIENTS\WisDOT\MicroStation\Resources\MS_Printing\Printer_Drivers\ET_PDF_11 x 17.plt
PEN TABLE: P:\60334255\900-Work\910-CAD\20-Sheets\MS_Printing\Pen_Tables\ET_WisDOT_fade159.tbl
PLOT DATE: 7/22/2016
PLOT TIME: 6:34:24 AM
PLOT SCALE: 1:40
WISDOT/CADDS SHEET 40



PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	PLAN AND PROFILE	SHEET 146	E

FILE NAME: P:\60334255\900-Work\910-CAD\20-Sheets\050210_pp.dgn
BATCH PRINT SHEET 14 OF 15
PRINTER DRIVER: L:\library\TPN_CADstds\Workspace-CLIENTS\WisDOT\MicroStation\Resources\MS_Printing\Printer_Drivers\ET_PDF_11 x 17.plt
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PLOT DATE: 7/22/2016
PLOT TIME: 6:34:27 AM
PLOT SCALE: 1:40
WISDOT/CADDS SHEET 40

RETENTION POND 2

1087 1088 1089 1090 1091 1092 1093 1094

MATCHLINE STA. 105+00

105+00 106+00 107+00

ADJUSTING MANHOLE COVERS

SLOPE INTERCEPT

SLOPE INTERCEPT

R/W

TLE

R/W

TLE

END CONSTRUCTION SAWCUT REQUIRED

JOERNS DRIVE
ASPHALT

N

SCALE 0' 10' 20' 40'

END CONSTRUCTION
STA 107+12.50

P.I. 105+74.32
EL. 1094.55

P.I. 107+12.50
EL. 1095.93

PROPOSED PROFILE ℄ REFERENCE LINE

1.00%

EXISTING GROUND ℄ REFERENCE LINE

EXISTING GRADE

PROPOSED GRADE

1105 1100 1095 1090 1085 1080 1075 1070

1094.8 1094.92 | 1094.8 1094.79 | 1094.5 1094.67 | 1094.5 1094.55 | 1094.5 1094.80 | 1094.9 1095.05 | 1094.2 1095.30 | 1094.1 1095.55 | 1094.6 1095.80

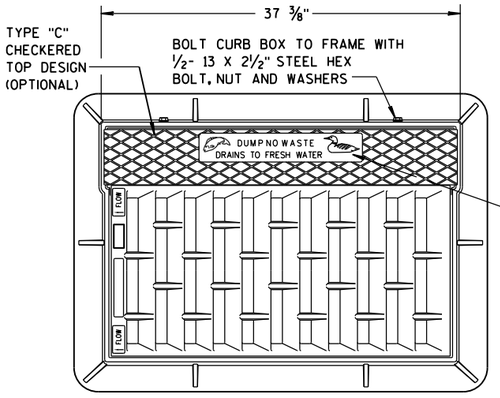
105+00 106+00 107+00

PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	PLAN AND PROFILE	SHEET 147	E

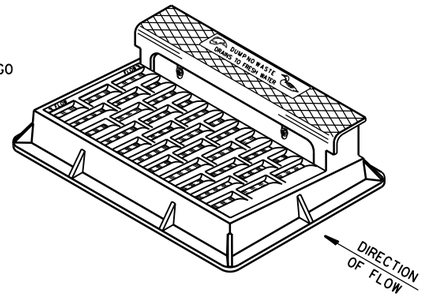
Standard Detail Drawing List

08A05-19A	INLET COVERS TYPE A, H, A-S, H-S & Z
08A05-19D	INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M
08A08-01	CATCH BASINS 3-FT, 4-FT, 5-FT AND 6-FT DIAMETER
08A09-01	CATCH BASINS 2X3-FT AND 2.5X3-FT
08B09-01	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
08D05-16A	CURB RAMPS TYPES 1 AND 1-A
08D05-16B	CURB RAMPS TYPES 2 AND 3
08D05-16C	CURB RAMPS TYPES 4A AND 4A1
08D05-16D	CURB RAMPS TYPE 4B AND 4B1
08D05-16E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E14-01	TRACKING PAD
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09B02-09	CONDUIT
09B04-11	PULL BOX
09C02-07	CONCRETE BASES, TYPES 1, 2, 5, & 6
09C03-04	TRANSFORMER/PEDESTAL BASES
09C05-09	CONCRETE CONTROL CABINET BASES
09C08-05	CONCRETE BASE, TYPE 7
09D01-05	CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)
09D04-02	LIGHTING CONTROL CABINET 120/240 VOLT
09E03-05	NON-FREEWAY LIGHTING UNIT POLE WIRING
09E06-05	TRAFFIC SIGNAL STANDARD POLY BRACKET MOUNTINGS (TYPICAL) 13 FT. OR 15 FT.
11B02-02	CONCRETE MEDIAN NOSE
12A03-10	NAME PLATE (STRUCTURES)
15C02-06A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C03-03	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C05-03	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C07-12A	PAVEMENT MARKING SYMBOLS
15C07-12B	PAVEMENT MARKING WORDS
15C07-12C	PAVEMENT MARKING ARROWS
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C08-16B	PAVEMENT MARKING (INTERSECTIONS)
15C08-16E	PAVEMENT MARKING (LEFT TURN LANE)
15C08-16F	PAVEMENT MARKING (ISLANDS)
15C12-04	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
15C18-03	MEDIAN ISLAND MARKING
15C26-02	END-OF-ROADWAY SIGNING
15C29-03A	BICYCLE LANE MARKING
15C29-03B	BICYCLE LANE MARKING
15C29-03C	URBAN BICYCLE LANE MARKING
15C29-03D	URBAN BICYCLE LANE MARKING
15C29-03E	PAVEMENT MARKING FOR BIKE LANES
15C33-01	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D12-05A	TRAFFIC CONTROL, LANE CLOSURE
15D38-01A	TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS
15D38-01B	ATTACHMENT OF SIGNS TO POSTS
16A01-06	LANDMARK REFERENCE MONUMENTS AND COVERS

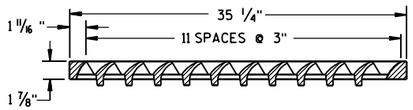
6

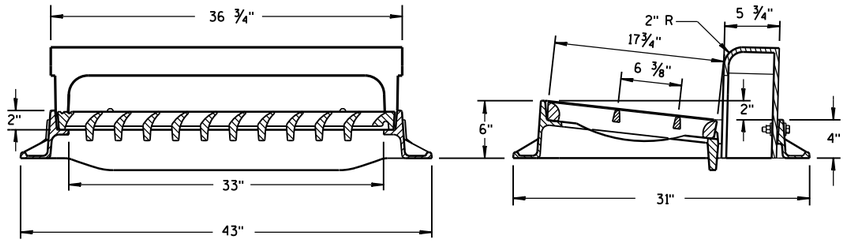


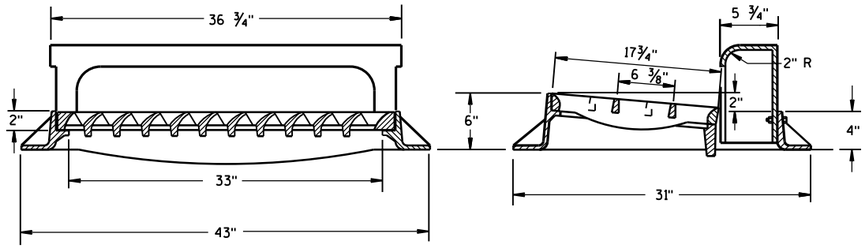
NOTE:
GRATE IS REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

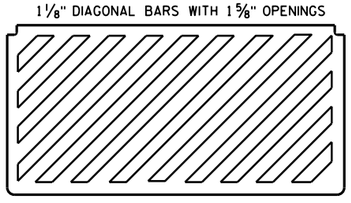






TYPE "H"

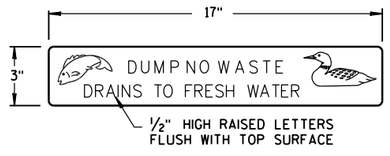
NOTE: EITHER CASTING IS ACCEPTABLE



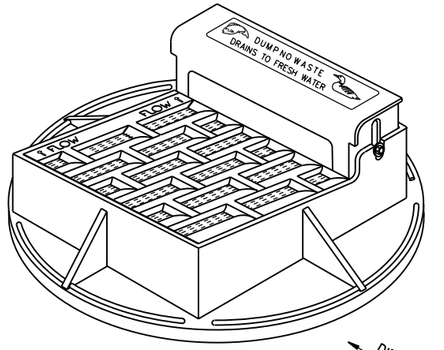
SPECIAL GRATE FOR TYPE "H" COVER

(MEASURES 35 1/4" X 17 3/4" X 2")

(NOTED AS TYPE H-S ON DRAINAGE TABLE)



LOGO DETAIL



NOTE: CURB BOX ADJUSTABLE 4" TO 9"

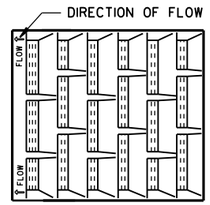
NOTE:
GRATE IS REVERSIBLE.

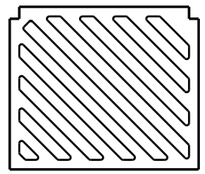
GENERAL NOTES

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.

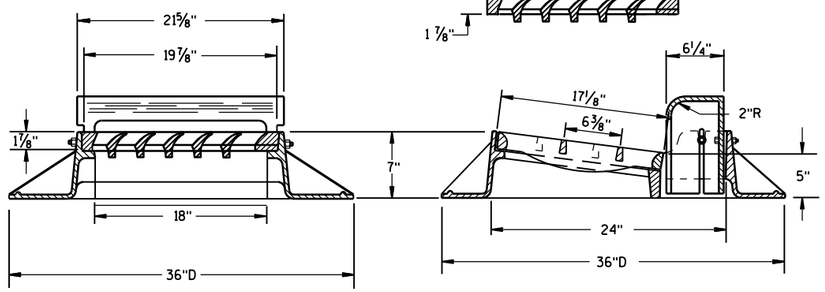




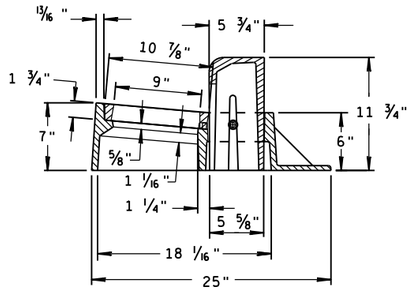
SPECIAL GRATE FOR TYPE "A" COVER

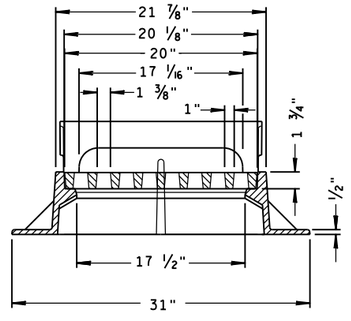
(MEASURES 19 3/4" X 17" X 1 7/8")

(NOTED AS TYPE A-S ON DRAINAGE TABLE)

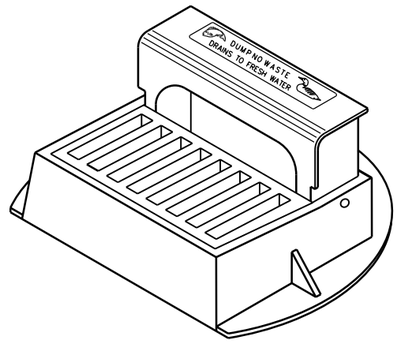


TYPE "A"





TYPE "Z"

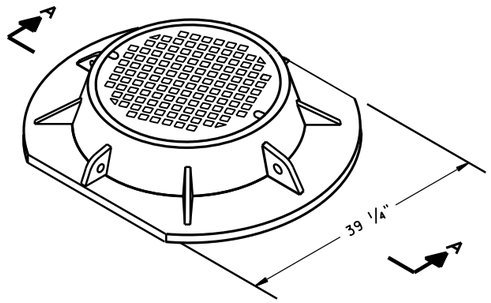


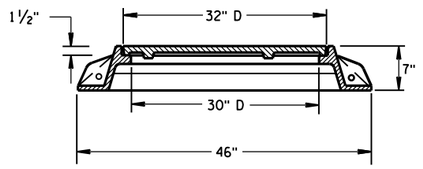
INLET COVERS
TYPE A, H, A-S, H-S & Z

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

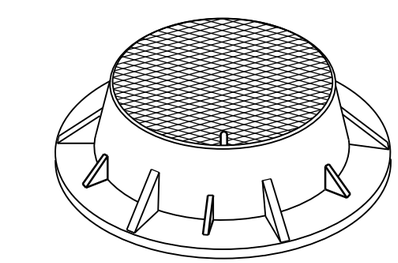
APPROVED
11-27-13 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

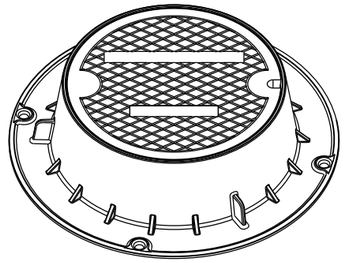
S.D.D. 8 A 5-19a

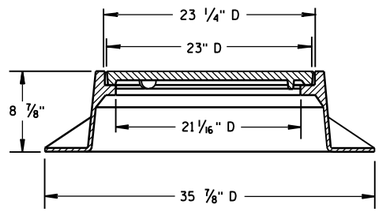


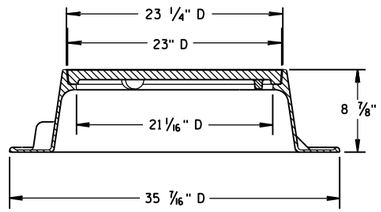


SECTION A-A
TYPE "K"









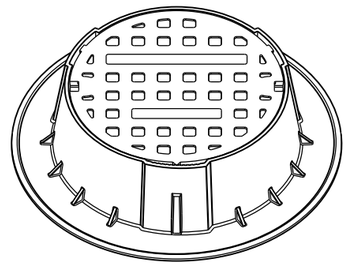
TYPE "J"
NOTE: EITHER CASTING IS ACCEPTABLE

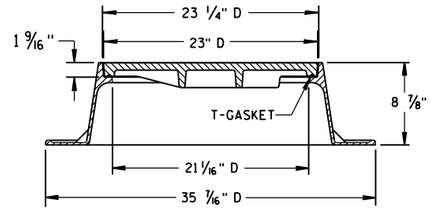
GENERAL NOTES

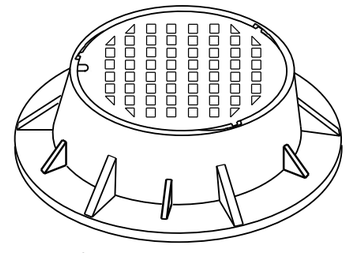
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

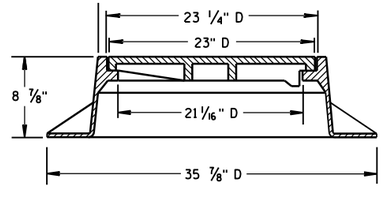
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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

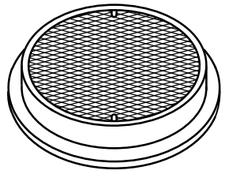


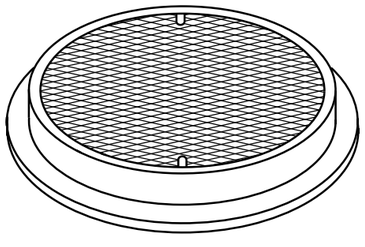


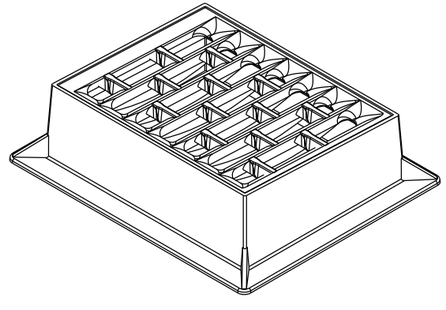


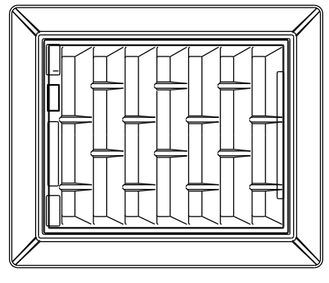


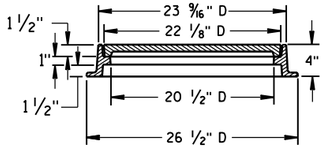
TYPE "J" SPECIAL
TYPE "B" NON-ROCKING SELF-SEAL LID
(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)
NOTE: EITHER CASTING IS ACCEPTABLE



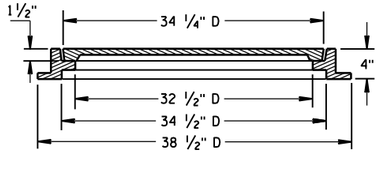




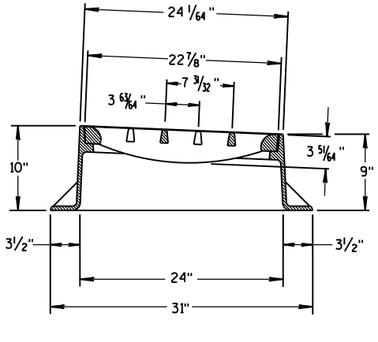


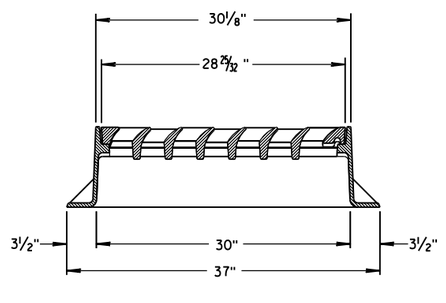


TYPE "L"



TYPE "M"





INLET COVER TYPE "BW"

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

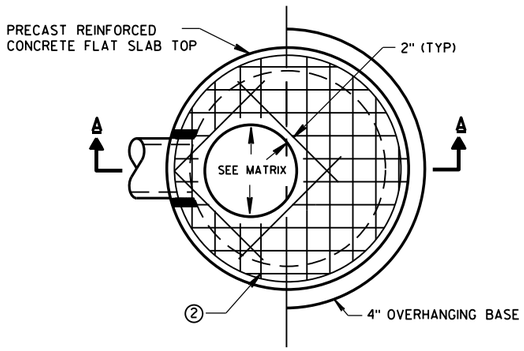
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

6

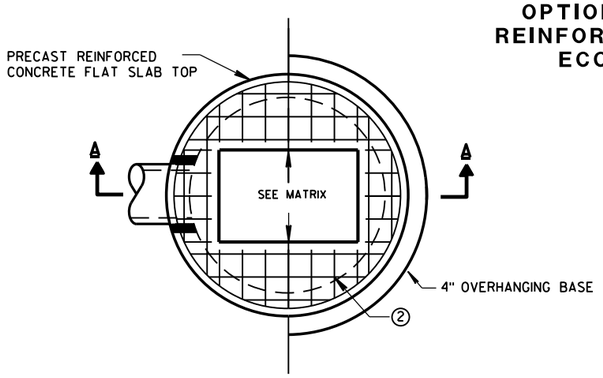
S.D.D. 8 A 5-19d

6

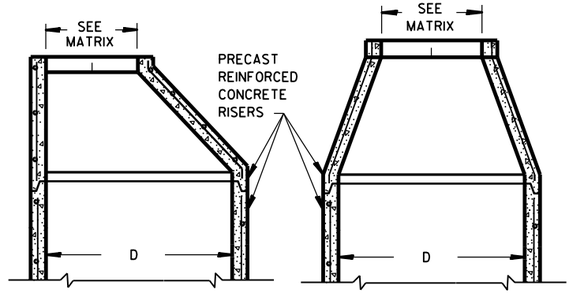
S.D.D. 8 A 5-19d



PLAN VIEW CIRCULAR OPENING

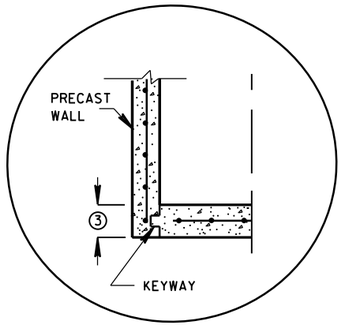


PLAN VIEW RECTANGULAR OPENING

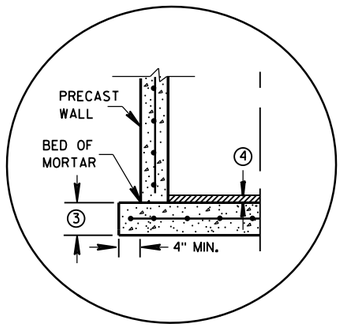


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

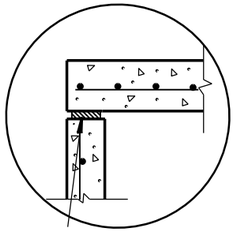


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



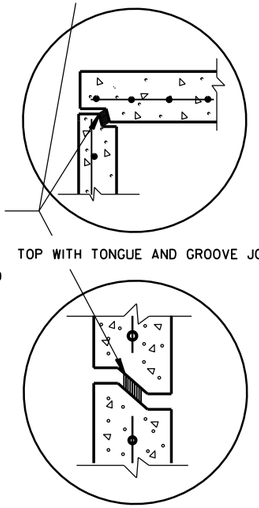
SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



TOP WITH PLAIN END JOINT

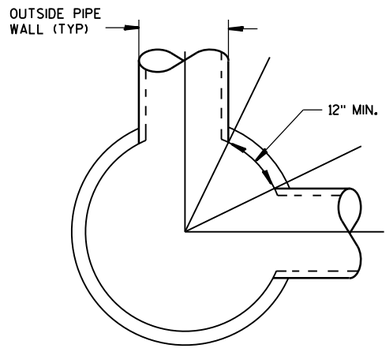
JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)



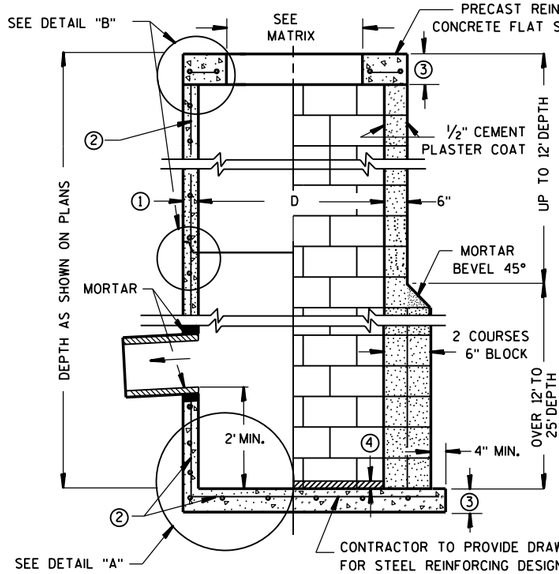
TOP WITH TONGUE AND GROOVE JOINT

RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"



DETAIL "C"



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

SECTION A-A

PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

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

GENERAL NOTES

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

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

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

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

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF GRANULAR 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. THE TOPS SHALL BE INSTALLED ON A BED OF MORTAR.

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

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

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

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

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

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

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

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

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

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

① MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT, 5 INCHES FOR 4-FT, 6 INCHES FOR 5-FT AND 7 INCHES FOR 6-FT DIAMETER PRECAST CATCH BASINS.

② FOR PRECAST CATCH BASINS PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

③ PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER OF 48" AND LESS SHALL HAVE A MINIMUM THICKNESS OF 6". PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER LARGER THAN 48" SHALL HAVE A MINIMUM THICKNESS OF 8".

④ 1" CONCRETE KEY POURED AFTER INSTALLATION. 2' SUMP MEASURED FROM TOP OF KEY.

CATCH BASIN COVER OPENING MATRIX

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

PIPE MATRIX

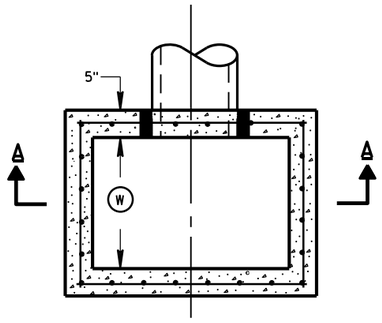
CATCH BASIN SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18
5-FT	36	24
6-FT	42	30

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

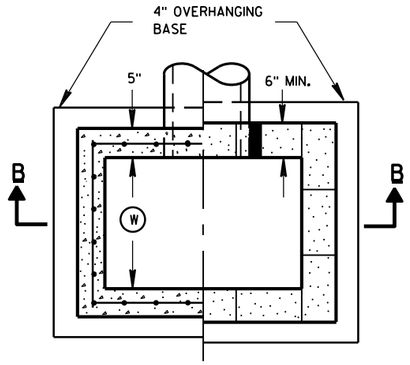
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

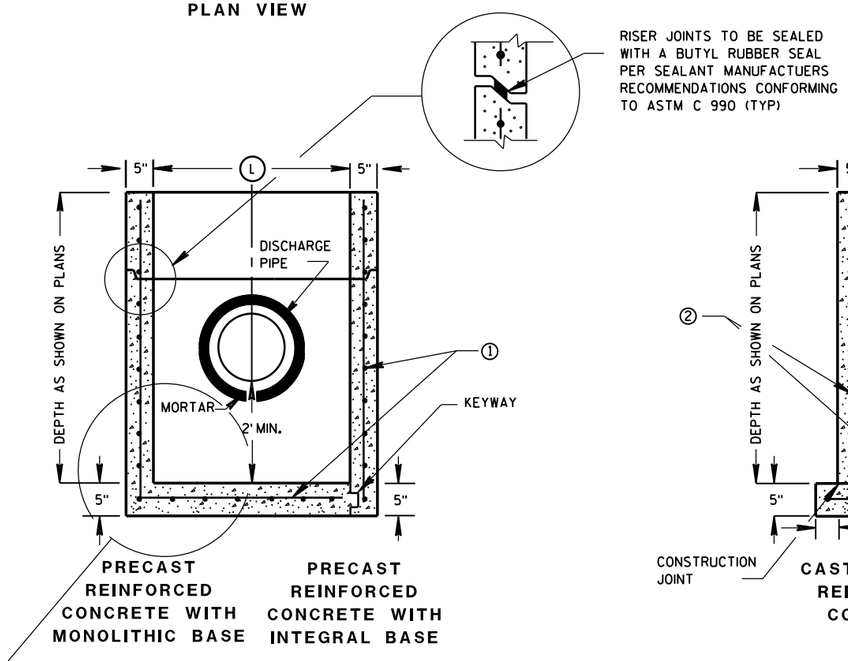
S.D.D. 8 A 8-1



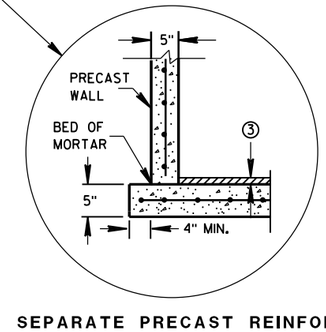
PLAN VIEW



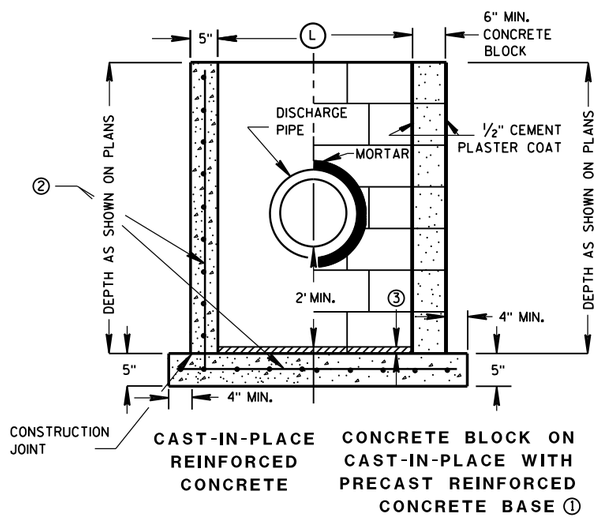
PLAN VIEW



SECTION A-A



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION



SECTION B-B

GENERAL NOTES

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

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

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

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

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

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

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

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

4" OVERHANGING BASES ARE REQUIRED FOR CAST-IN-PLACE REINFORCED CONCRETE AND CONCRETE BLOCK INSTALLATIONS.
4" OVERHANG IS REQUIRED WHEN 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" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST CATCH BASINS 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.

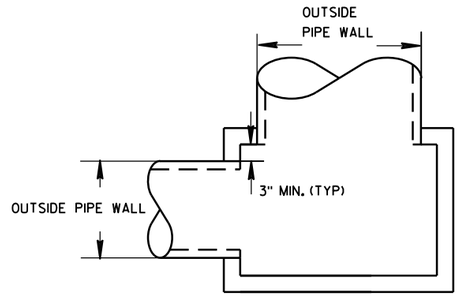
③ 1" CONCRETE KEY POURED AFTER INSTALLATION. 2' SUMP MEASURED FROM TOP OF KEY.

CATCH BASIN COVER MATRIX

CATCH BASIN SIZE		INLET COVER TYPE	F	ALL H'S
	WIDTH (W) (FT)	LENGTH (L) (FT)		
2X3-FT	2	3		X
2.5X3-FT	2.5	3	X	

PIPE MATRIX

CATCH BASIN SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	WIDTH (IN)	LENGTH (IN)
2X3-FT	12	24
2.5X3-FT	18	24



DETAIL "A"

CATCH BASINS 2X3-FT AND 2.5X3-FT

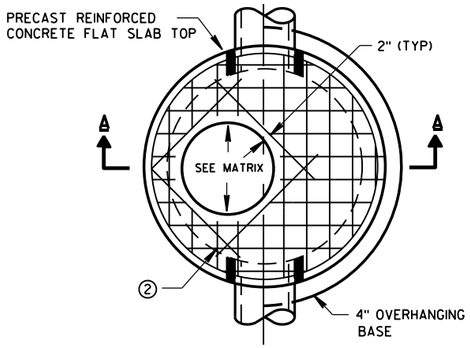
CATCH BASINS 2X3-FT AND 2.5X3-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

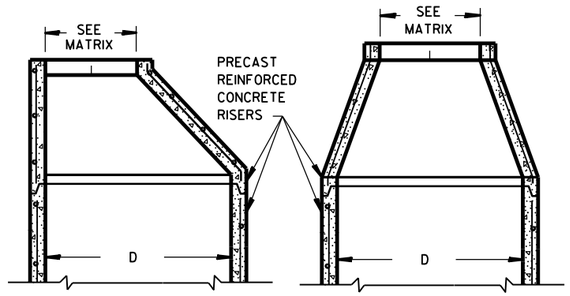
APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

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S.D.D. 8 A 9-1

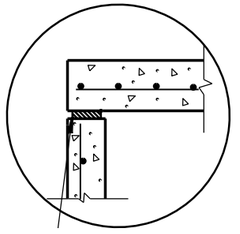


PLAN VIEW CIRCULAR OPENING

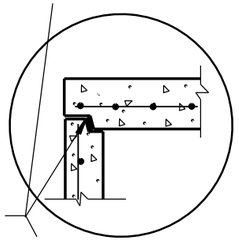


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

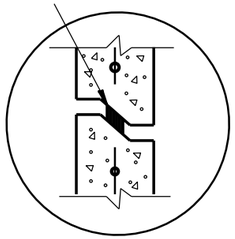


TOP WITH PLAIN END JOINT



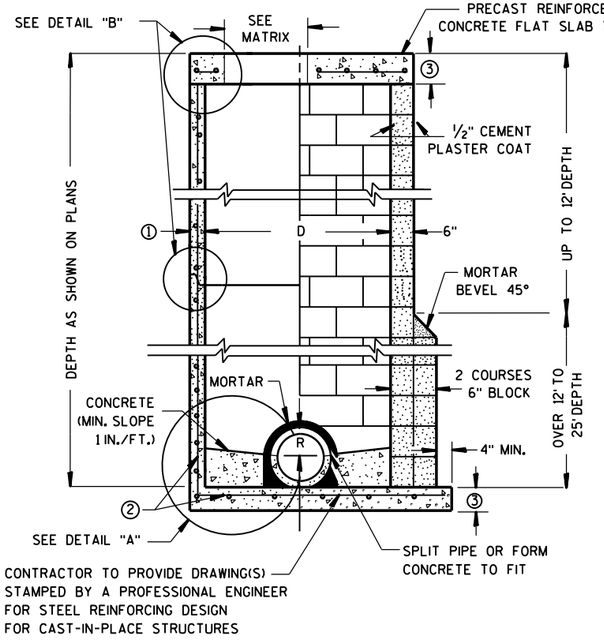
JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C990 (TYP)

TOP WITH TONGUE AND GROOVE JOINT



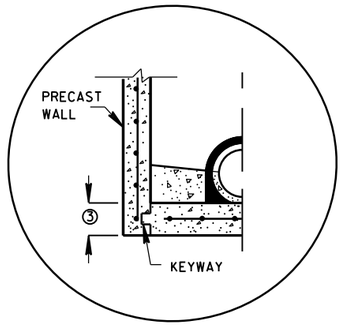
RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

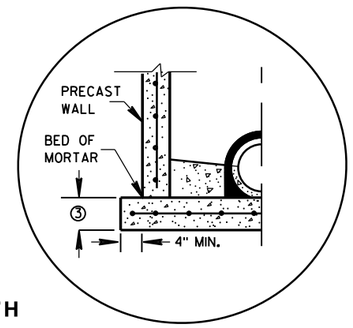


PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

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

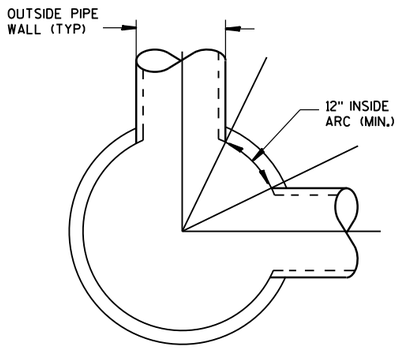


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "C"

GENERAL NOTES

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

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

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

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

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

PRECAST REINFORCED CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES. THE CONE TOPS SHALL BE INSTALLED ON A BED OF MORTAR.

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

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

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF ½" AND MEET THE REQUIREMENTS OF ASTM A615.

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

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

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

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

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

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

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

① MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT, 5 INCHES FOR 4-FT, 6 INCHES FOR 5-FT, 7 INCHES FOR 6-FT, 8 INCHES FOR 7-FT AND 9 INCHES FOR 8-FT DIAMETER PRECAST MANHOLES.

② FOR PRECAST MANHOLES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

③ PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER OF 48" AND LESS SHALL HAVE A MINIMUM THICKNESS OF 6". PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER LARGER THAN 48" SHALL HAVE A MINIMUM THICKNESS OF 8".

MANHOLE COVER OPENING MATRIX

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

PIPE MATRIX

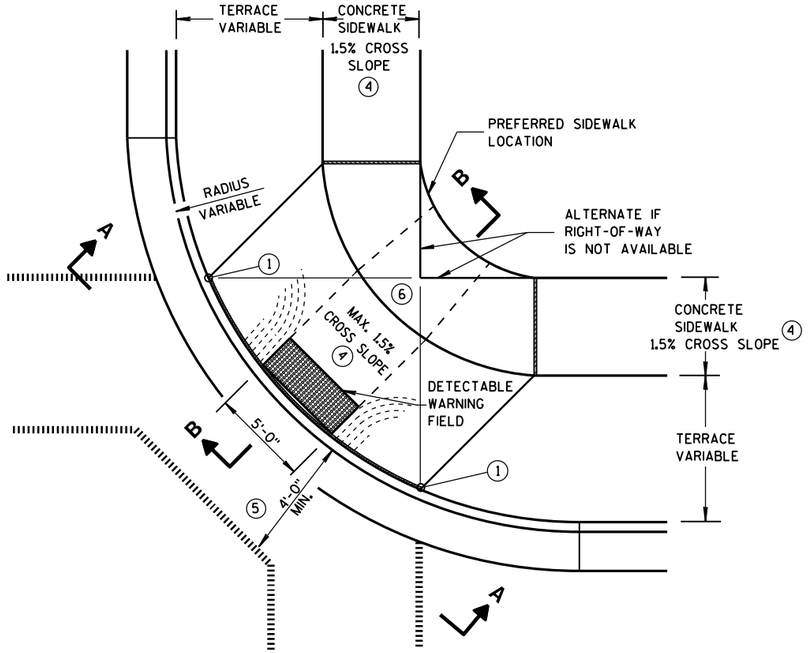
MANHOLE SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18
5-FT	36	24
6-FT	42	36
7-FT	48	36
8-FT	60	42

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

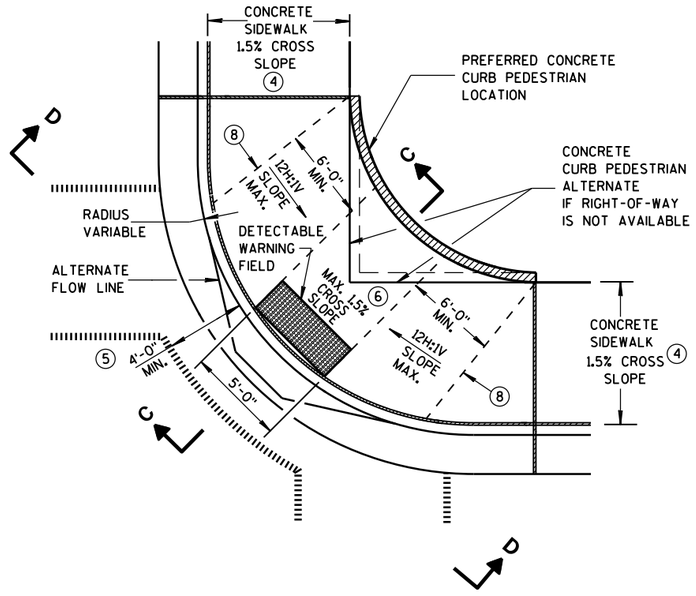
6
S.D.D. 8 B 9-1



PLAN VIEW

TYPE 1 RAMP

(CENTER OF CORNER RADIUS)



PLAN VIEW

TYPE 1-A RAMP

(NO TERRACE)

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.

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

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

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

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

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

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

(1) THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN $\frac{1}{4}$-INCH ARE ALLOWED.

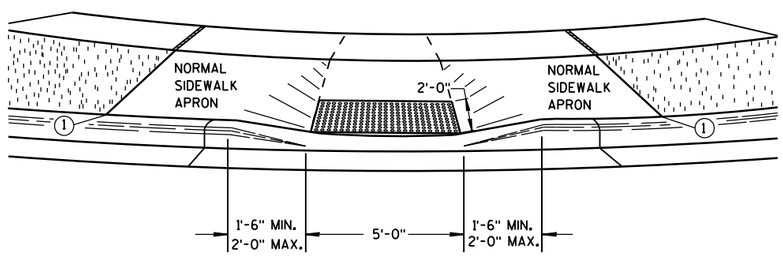
(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(5) PROVIDE A LEVEL LANDING IN THE STREET AND GUTTER AREA. (2% MAXIMUM SLOPE IN ANY DIRECTION). WHEN THE GUTTER SLOPE EXCEEDS 2%, CONSTRUCT THE LEVEL LANDING IN THE STREET AREA.

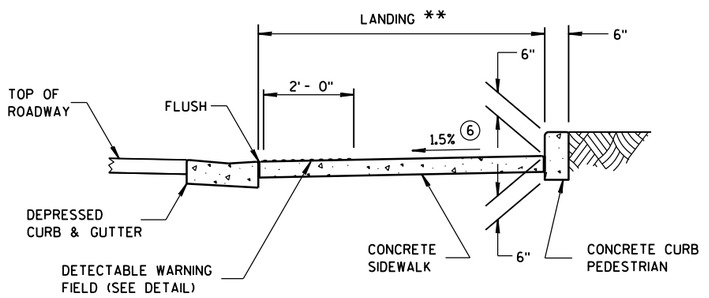
(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.



VIEW A-A

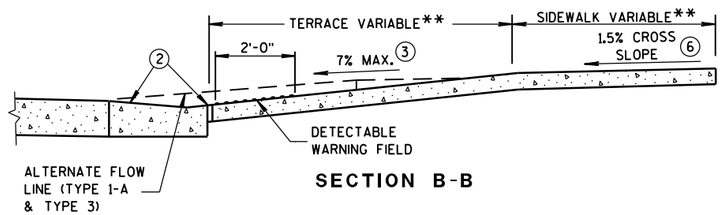
** WIDTH SHOWN ELSEWHERE IN THE PLANS



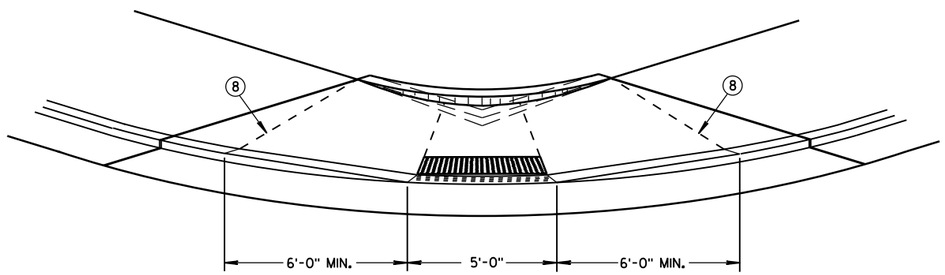
SECTION C-C

LEGEND

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



SECTION B-B



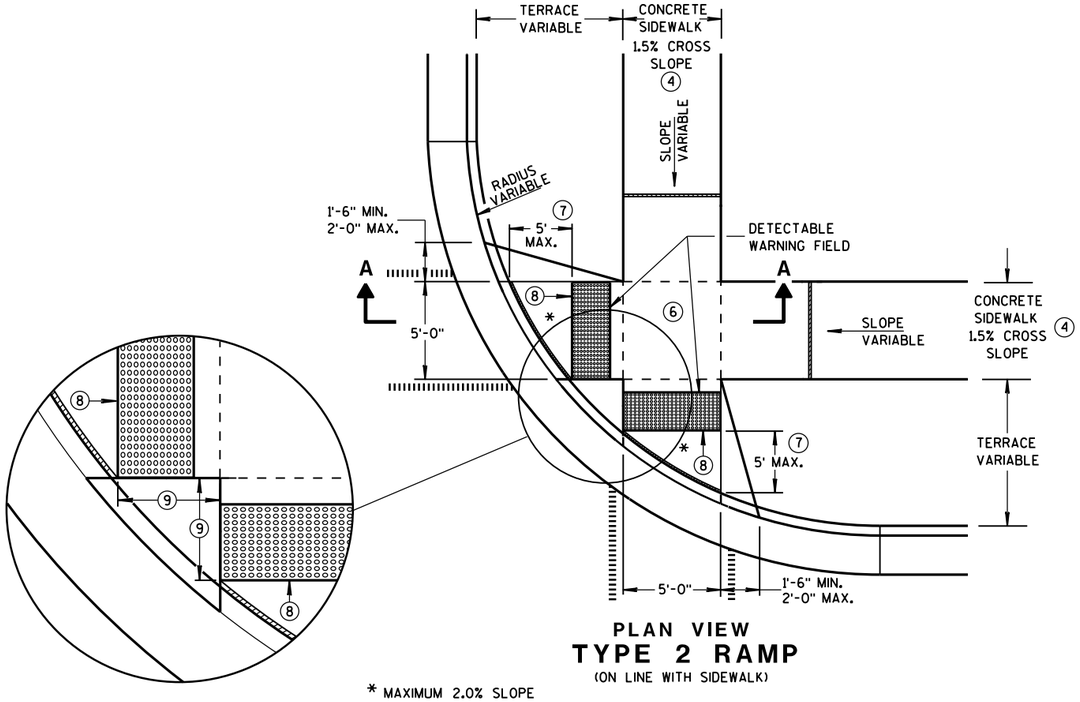
VIEW D-D

CURB RAMPS TYPES 1 AND 1-A

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 8 D 5-16a

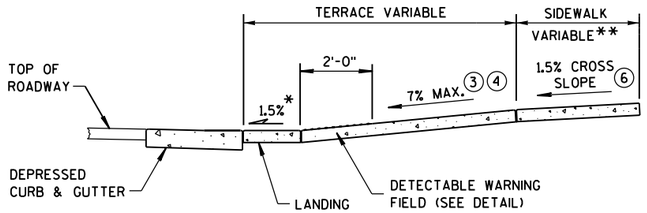


PLAN VIEW

TYPE 2 RAMP

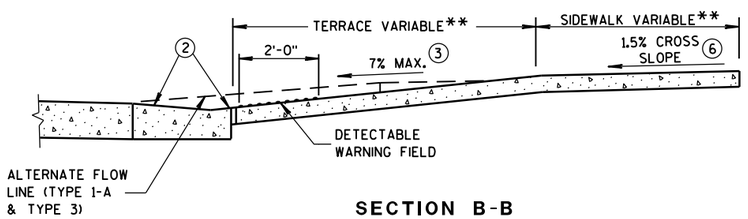
(ON LINE WITH SIDEWALK)

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



SECTION A-A

** WIDTH SHOWN ELSEWHERE IN THE PLANS



SECTION B-B

GENERAL NOTES

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

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 DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

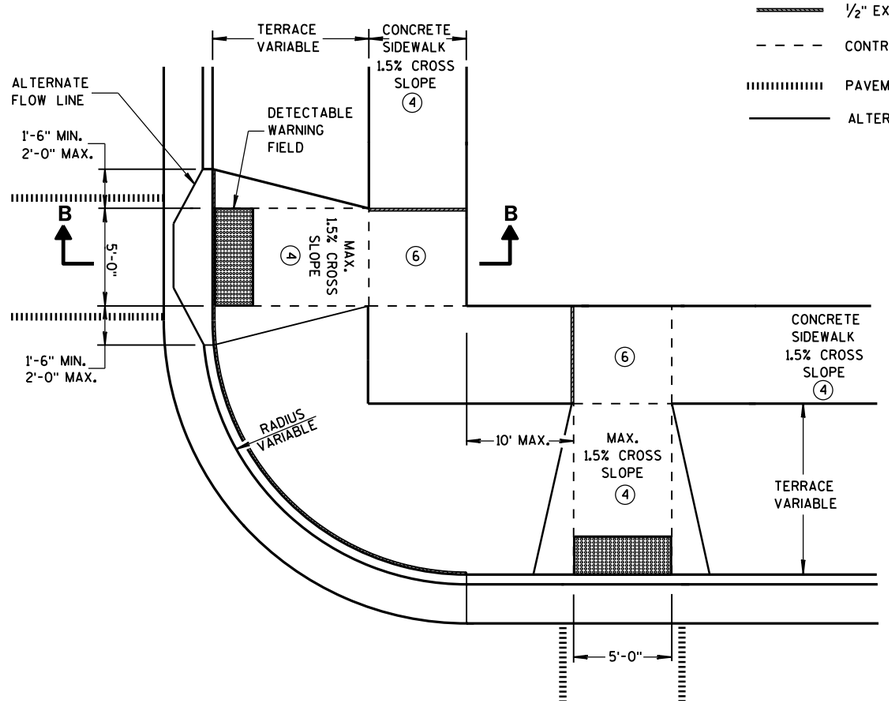
(7) WHEN THIS DISTANCE EXCEEDS 5 FEET, USE MULTIPLE DETECTABLE WARNING PANELS ACROSS THE RAMP AND STAGGER ADDITIONAL DETECTABLE WARNING PANEL(S) FORWARD TO REDUCE THIS DISTANCE.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(9) WHEN THIS DISTANCE IS LESS THAN 6'-0", IT MAY BE DIFFICULT TO ACHIEVE A 7% SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% SLOPE OR FLATTER ON RAMP. 2" MINIMUM CURB HEIGHT.

LEGEND

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



PLAN VIEW

TYPE 3 RAMP

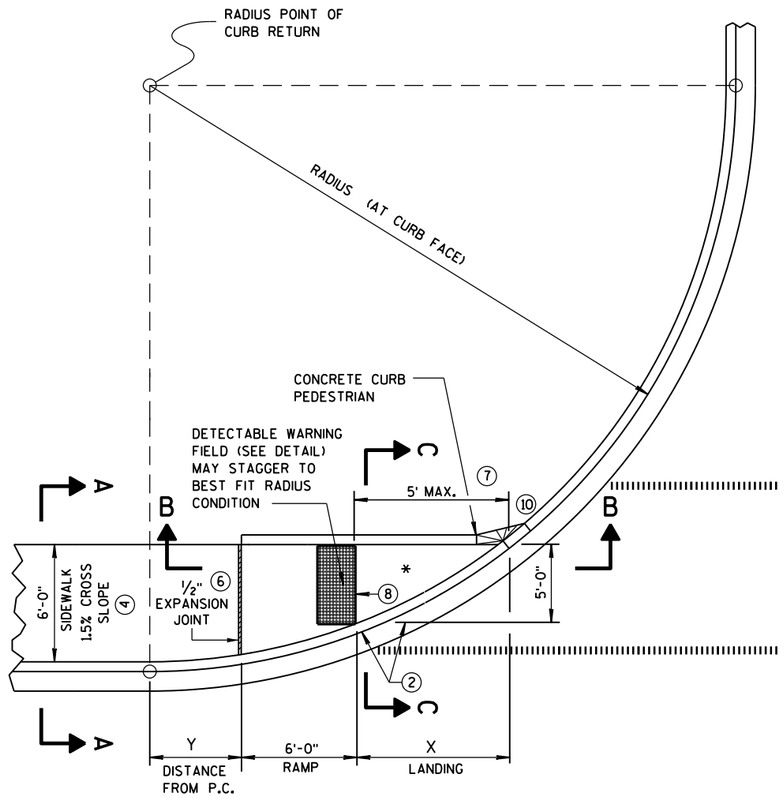
(OUTSIDE OF CROSSWALK AREA)

CURB RAMPS TYPES 2 AND 3

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

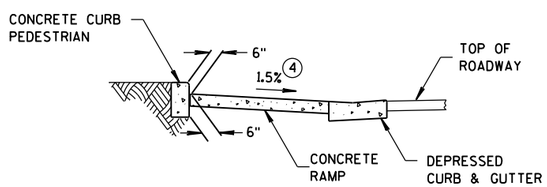
S.D.D. 8 D 5-16b



CURB RAMP TYPE 4A
PLAN VIEW

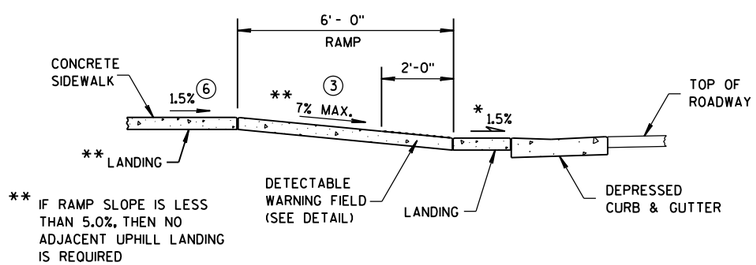
RADIUS (AT CURB FACE)	X	Y
20 FEET	6'-1¾"	2'-7¼"
30 FEET	7'-11¾"	4'-8¼"
40 FEET	9'-5¼"	6'-5"
50 FEET	10'-8¾"	7'-11¼"
60 FEET	11'-10¼"	9'-3½"

INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION C-C FOR TYPE 4A

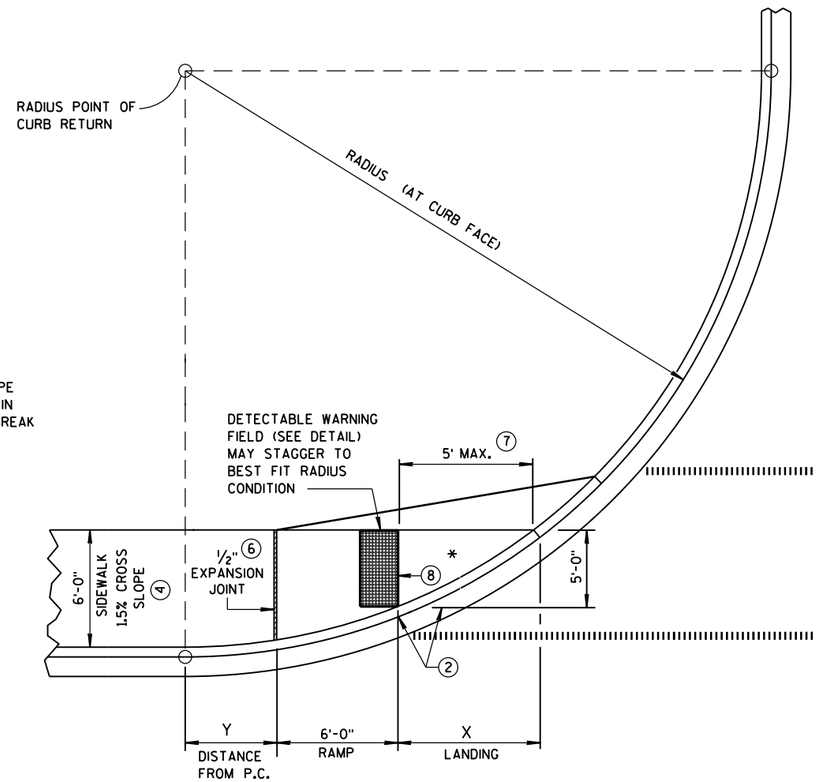
SECTION A-A FOR TYPE 4A



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

SECTION B-B FOR TYPE 4A

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



CURB RAMP TYPE 4A1
PLAN VIEW

GENERAL NOTES

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

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

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

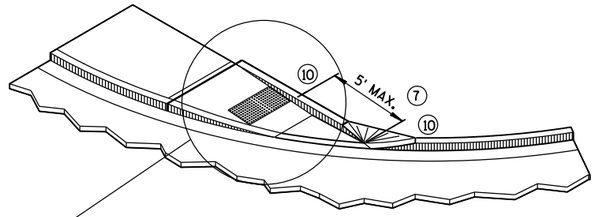
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

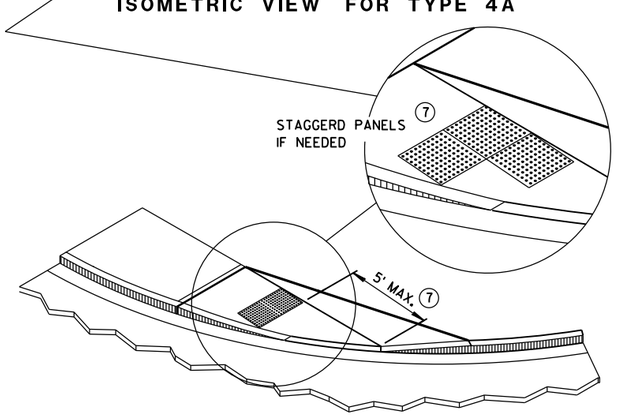
(7) WHEN THIS DISTANCE EXCEEDS 5 FEET, USE MULTIPLE DETECTABLE WARNING PANELS ACROSS THE RAMP AND STAGGER ADDITIONAL DETECTABLE WARNING PANEL(S) FORWARD TO REDUCE THIS DISTANCE.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

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



ISOMETRIC VIEW FOR TYPE 4A



ISOMETRIC VIEW FOR TYPE 4A1

LEGEND

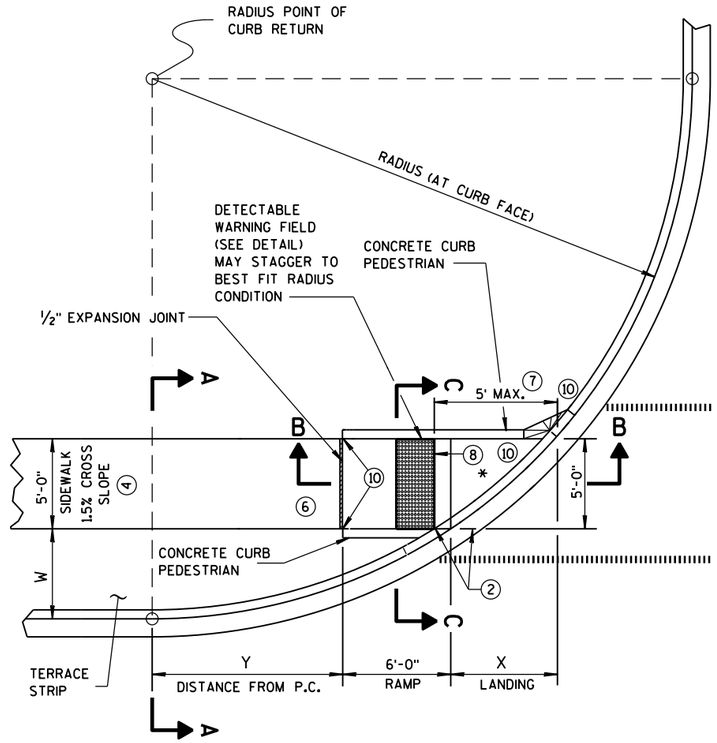
- ½" EXPANSION JOINT-SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS TYPES 4A AND 4A1

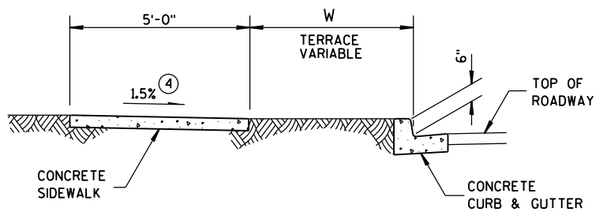
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

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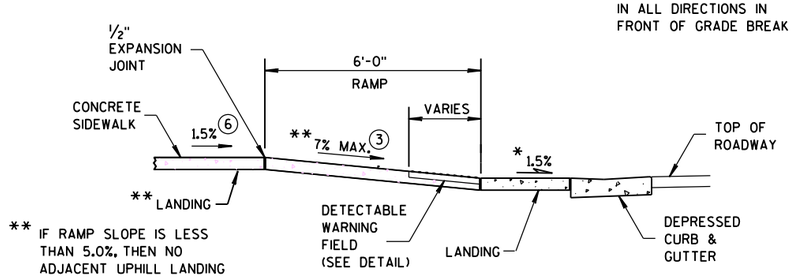
S.D.D. 8 D 5-16c



CURB RAMP TYPE 4B
PLAN VIEW



SECTION A-A FOR TYPE 4B



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

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

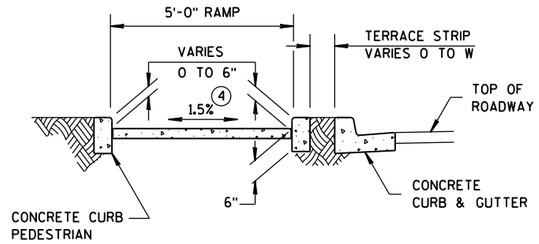
SECTION B-B FOR TYPE 4B

LEGEND

½" EXPANSION JOINT-SIDEWALK

CONTRACTION JOINT FIELD LOCATED

PAVEMENT MARKING CROSSWALK (WHITE)



SECTION C-C FOR TYPE 4B

RADIUS (AT CURB FACE)	W = 3'-0"		W = 4'-0"		W = 5'-0"		W = 6'-0"		W = 7'-0"	
	X	Y	X	Y	X	Y	X	Y	X	Y
20 FEET	5'-5½"	4'-6½"	4'-8½"	6'-0"	4'-1"	7'-2¾"	3'-7"	8'-3½"	3'-1½"	9'-2½"
30 FEET	7'-3¾"	7'-1"	6'-5½"	8'-11½"	5'-9¼"	10'-7"	5'-2½"	12'-0"	4'-8¾"	13'-3¼"
40 FEET	8'-9½"	9'-2½"	7'-10"	11'-5¼"	7'-1"	13'-4½"	6'-5¾"	15'-¾"	5'-11½"	16'-7¼"
50 FEET	10'-¾"	11'-¾"	9'-¼"	13'-7¼"	8'-2½"	15'-9½"	7'-6½"	17'-9"	6'-11¾"	19'-6¼"
60 FEET	11'-2½"	12'-8¾"	10'-¾"	15'-6½"	9'-2¼"	17'-11¾"	8'-5¾"	20'-1¾"	7'-10½"	22'-1½"

INTERMEDIATE RADII CAN BE INTERPOLATED

GENERAL NOTES

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

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

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼-INCH ARE ALLOWED.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

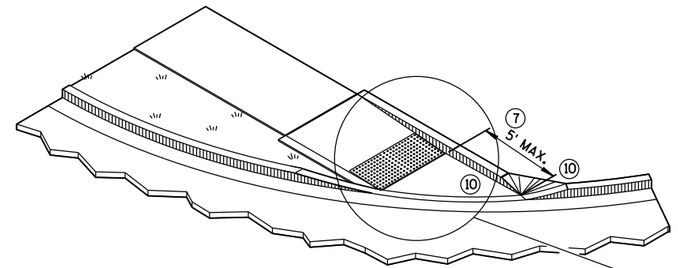
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

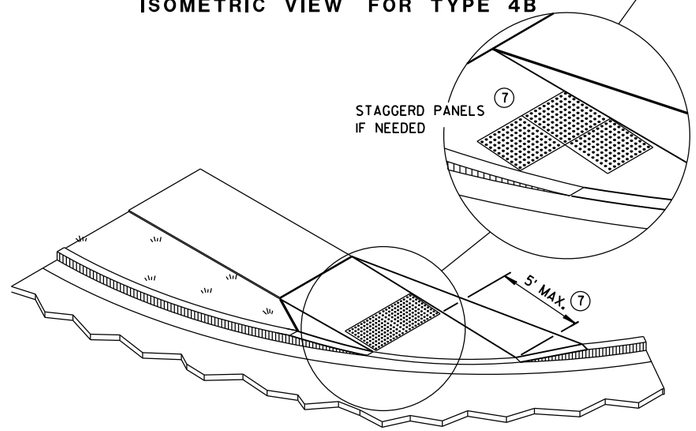
(7) WHEN THIS DISTANCE EXCEEDS 5 FEET, USE MULTIPLE DETECTABLE WARNING PANELS ACROSS THE RAMP AND STAGGER ADDITIONAL DETECTABLE WARNING PANEL(S) FORWARD TO REDUCE THIS DISTANCE.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

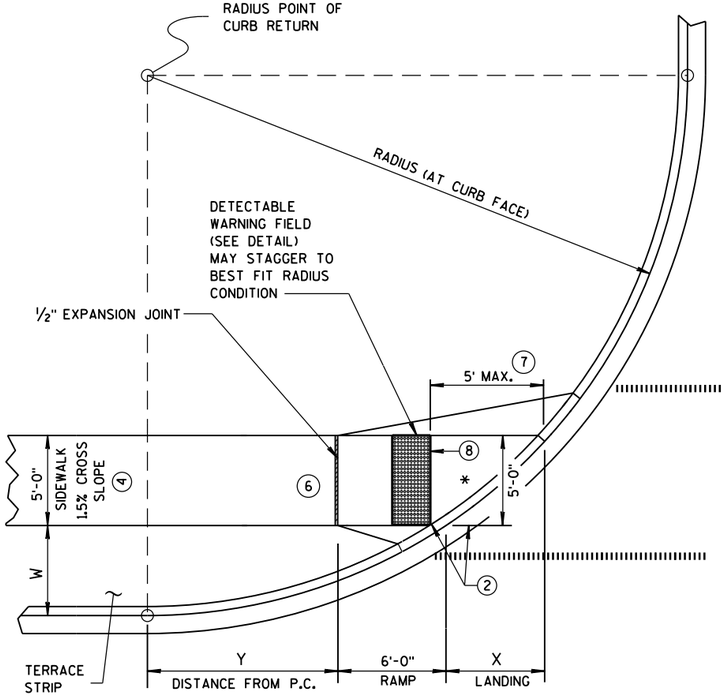
(10) INSTALL TRANSITION NOSE. (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



ISOMETRIC VIEW FOR TYPE 4B



ISOMETRIC VIEW FOR TYPE 4B1



CURB RAMP TYPE 4B1
PLAN VIEW

CURB RAMPS
TYPE 4B AND 4B1

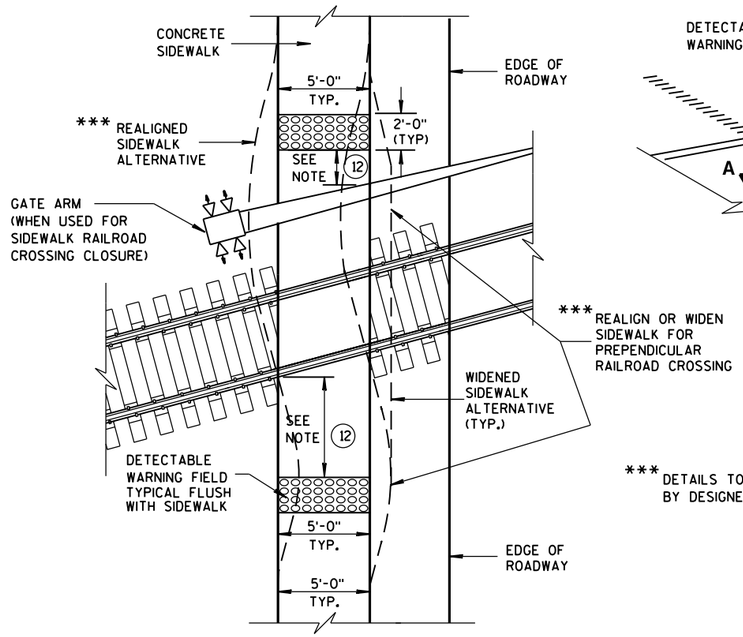
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 8 D 5-16d

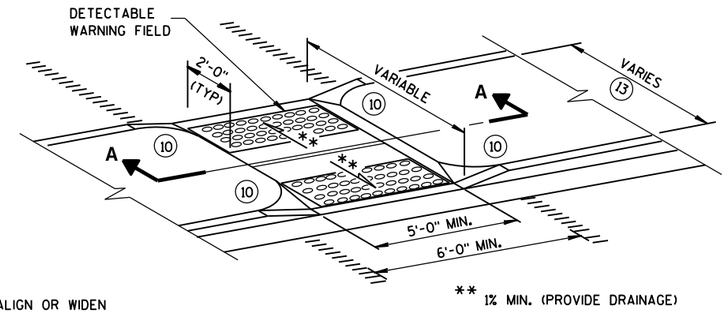
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S.D.D. 8 D 5-16d



TYPE 8
DETECTABLE WARNINGS AT RAILROAD CROSSING

*** DETAILS TO BE DETERMINED BY DESIGNER



** 1% MIN. (PROVIDE DRAINAGE)

MEDIAN ISLAND
NON-ELEVATED CROSSING
TYPE 5

GENERAL NOTES

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 DRAINAGE AWAY FROM CURB RAMP AT GUTTER FLAG INTERFACE. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4-INCH ARE ALLOWED.

(3) ABSOLUTE MAXIMUM 12H:1V (8.33%) CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

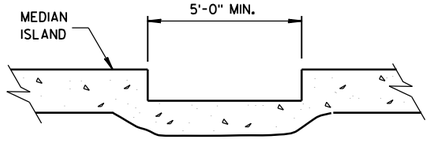
(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET X 5 FEET (MINIMUM 4 FEET X 4 FEET).

(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.

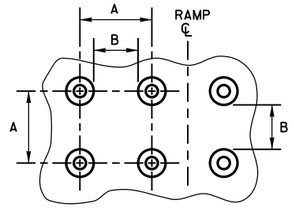
(13) DO NOT INSTALL DETECTABLE WARNING FIELDS IF MEDIAN WIDTH BETWEEN BACK OF CURBS IS LESS THAN 6 FEET.



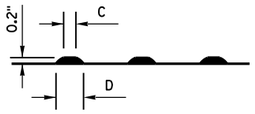
SECTION A-A

	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.

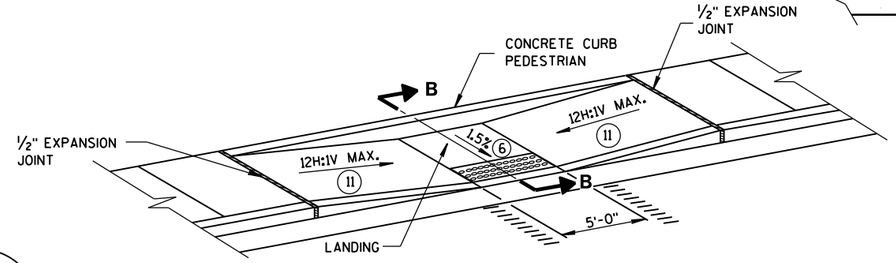


PLAN VIEW

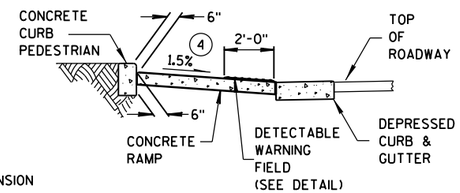


ELEVATION VIEW

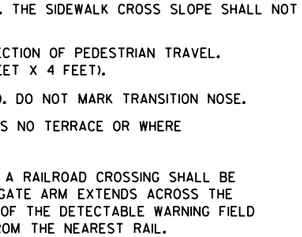
TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL



MID-BLOCK CROSSING
TYPE 7A



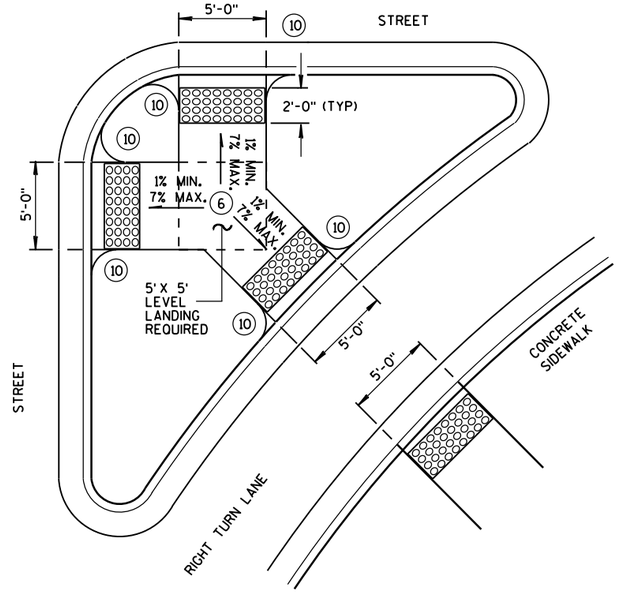
SECTION B-B



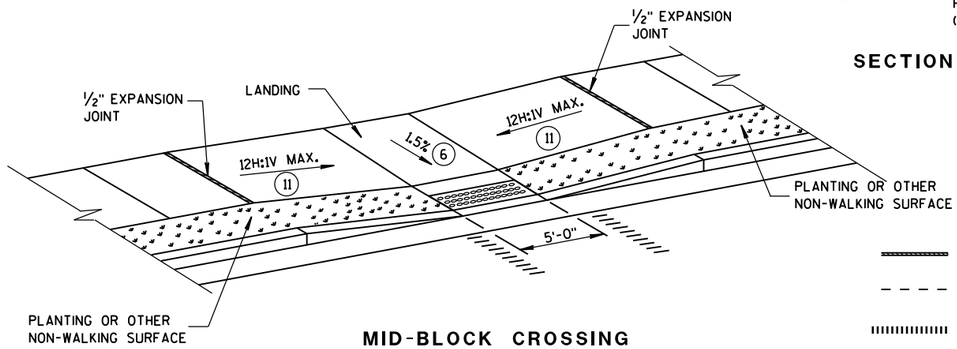
PLAN VIEW

DETECTABLE WARNING FIELD (TYPICAL)

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



TYPE 6
DETECTABLE WARNING AT ISLANDS



MID-BLOCK CROSSING
TYPE 7B

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

LEGEND

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

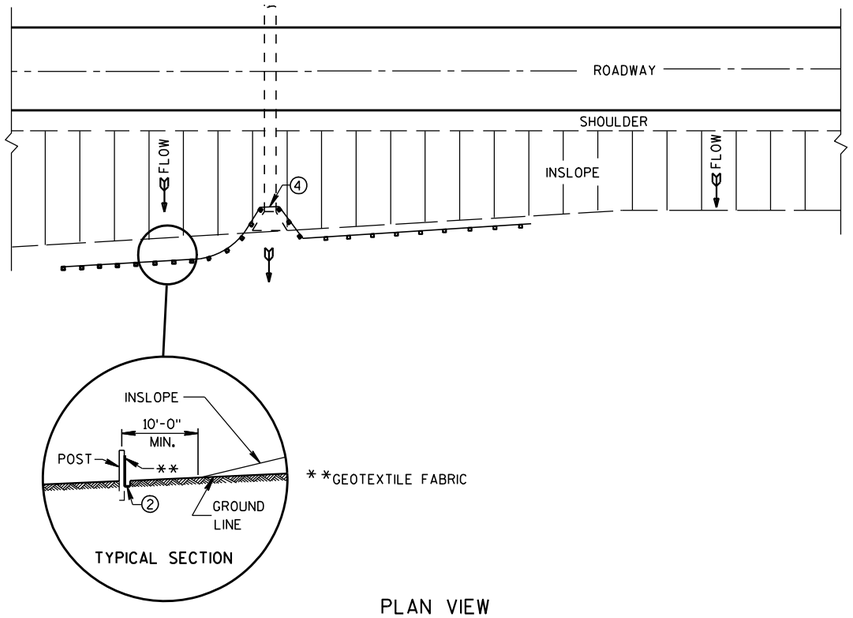
CURB RAMPS
TYPES 5, 6, 7A, 7B & 8

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

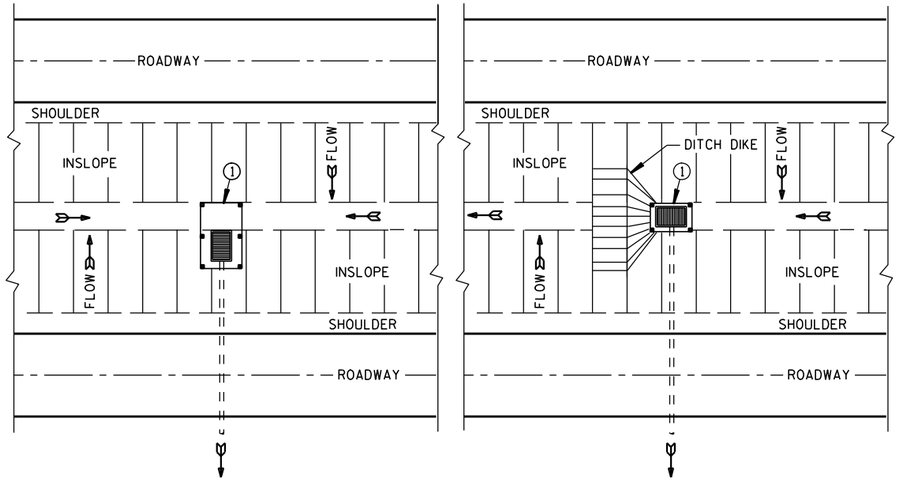
6

S.D.D. 8 D 5-16e



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.

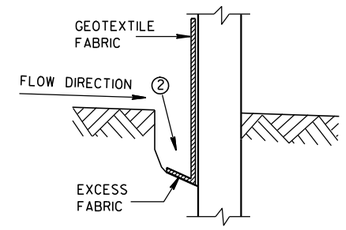
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

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.

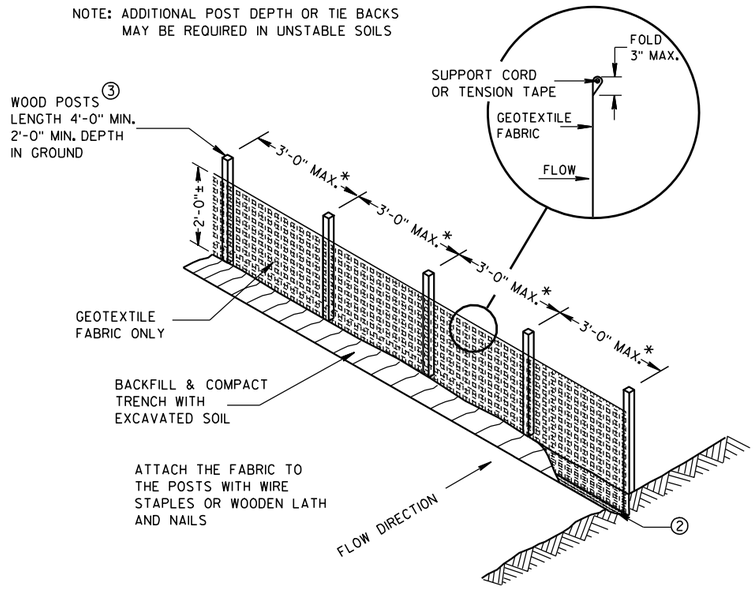
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.

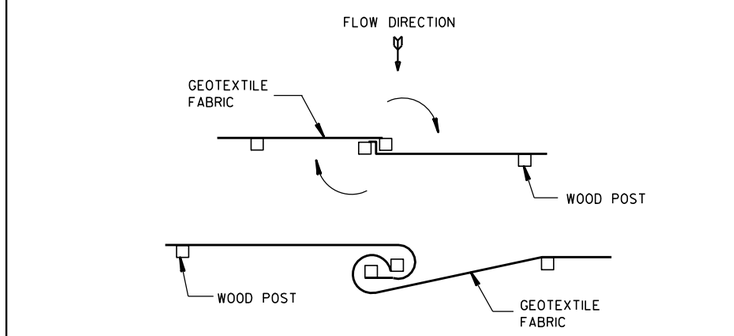
⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



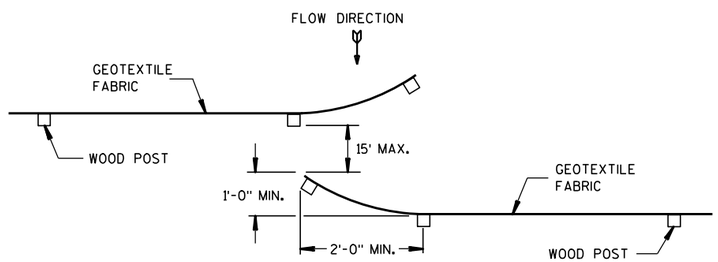
TRENCH DETAIL



SILT FENCE

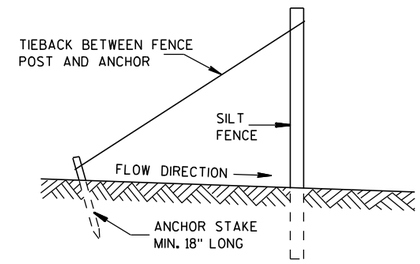


TWIST METHOD



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

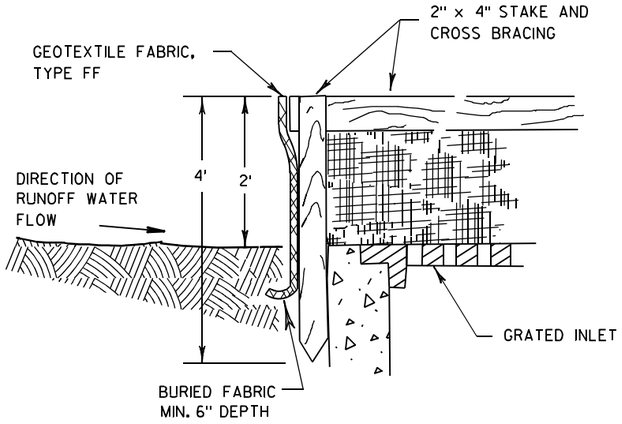
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

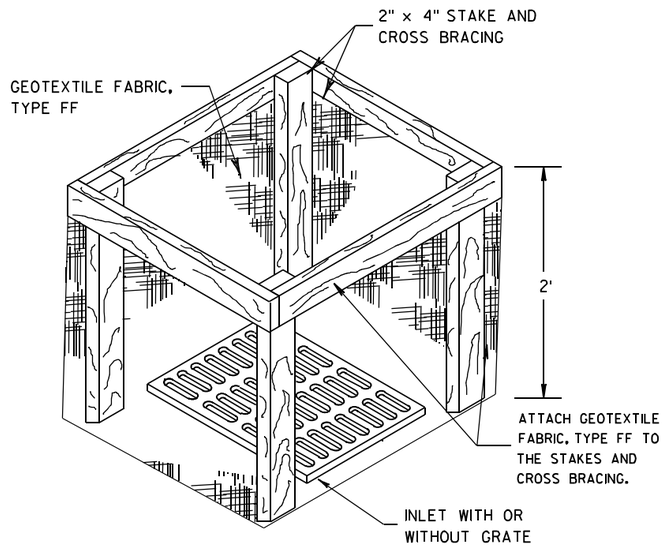
6

S.D.D. 8 E 9-6

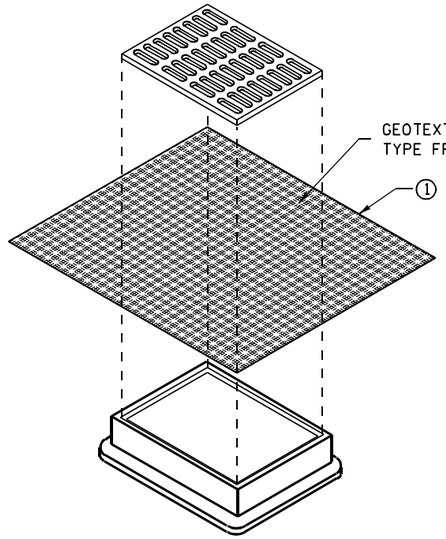
6

S.D.D. 8 E 9-6



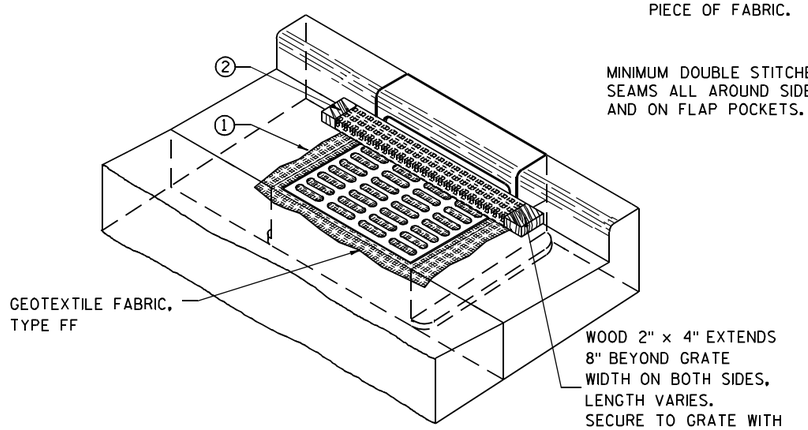


INLET PROTECTION, TYPE A

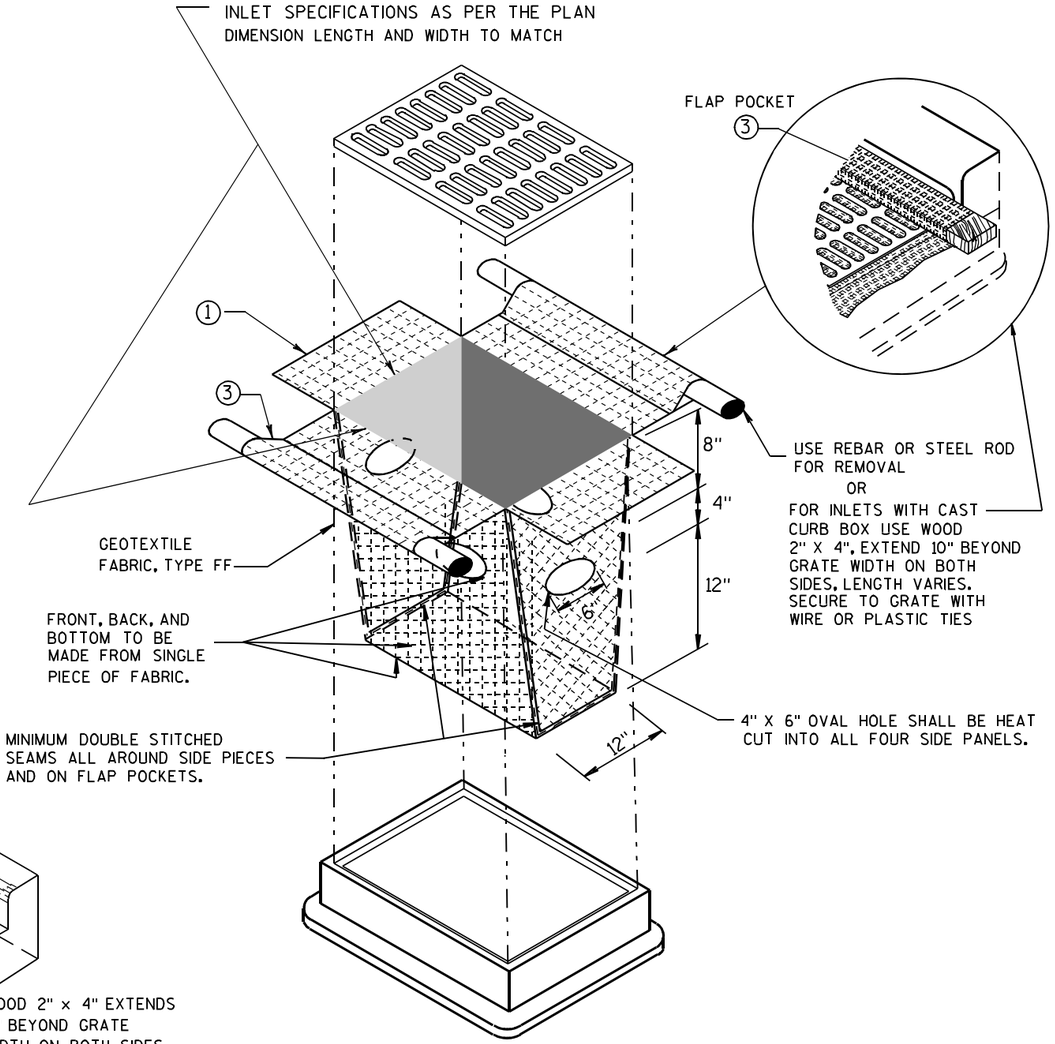


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(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.

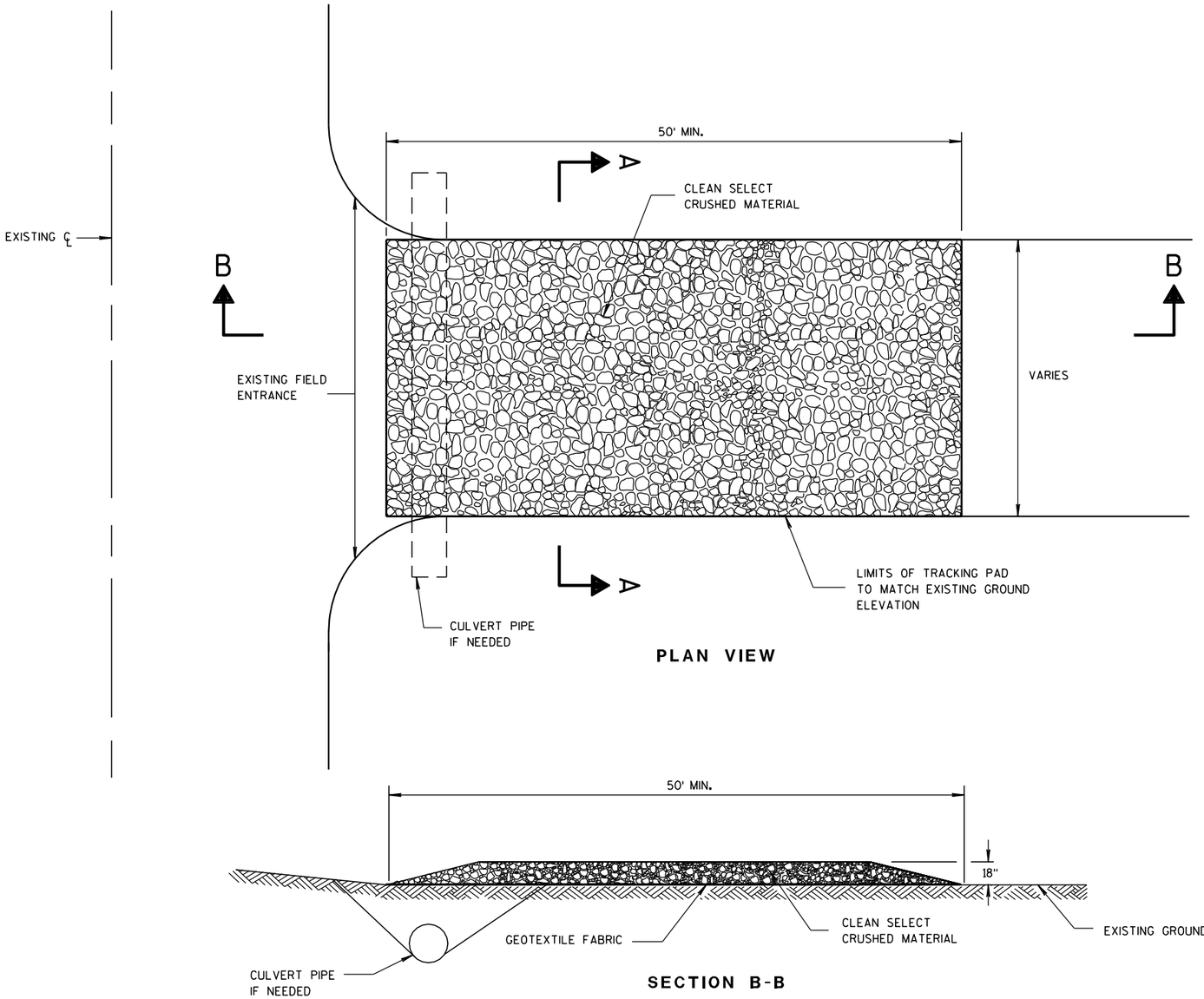
THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE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



PLAN VIEW

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.

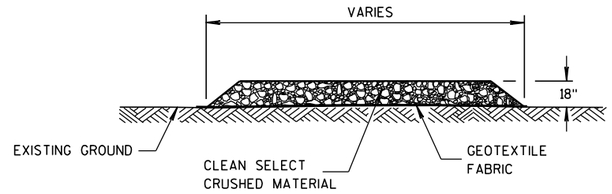
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

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

6

S.D.D. 8 E 14-1

TRACKING PAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/24/2011 DATE
/S/ Jerry H. Zoda ROADWAY STANDARDS ENGINEER
FHWA

ENT

6

S.D.D. 8 E 14-1

METAL APRON ENDWALLS

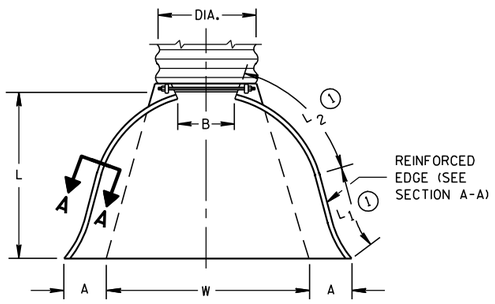
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	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

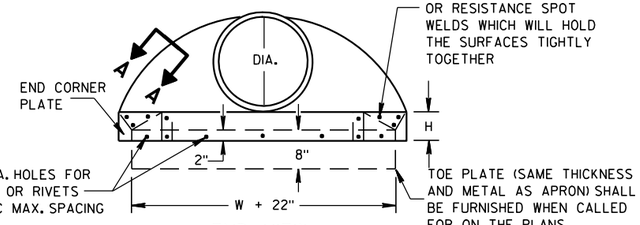
REINFORCED CONCRETE APRON ENDWALLS

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

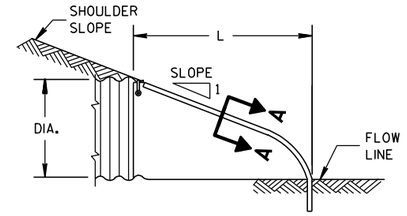
*MINIMUM
**MAXIMUM



PLAN VIEW

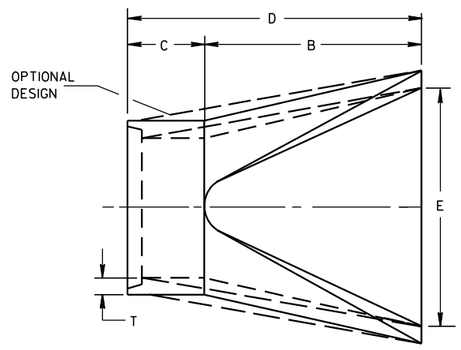


END VIEW

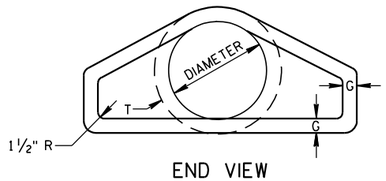


SIDE ELEVATION

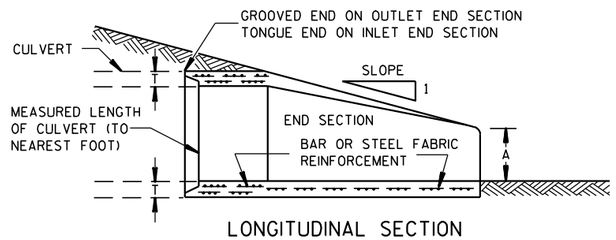
METAL ENDWALLS



PLAN

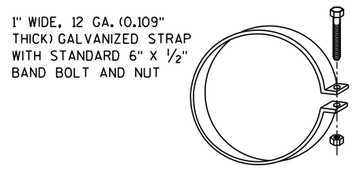


END VIEW



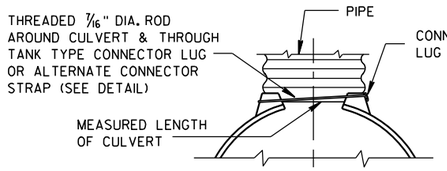
LONGITUDINAL SECTION

CONCRETE ENDWALLS

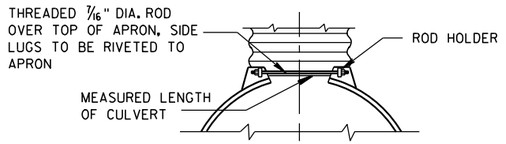


ALTERNATE FOR TYPE 1 CONNECTION

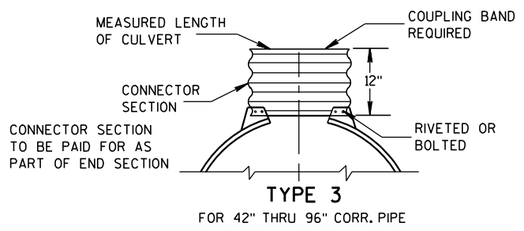
END SECTION CONNECTOR STRAP



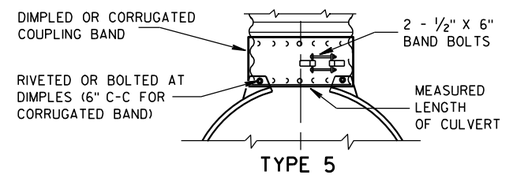
TYPE 1
FOR 12" THRU 24" CORR. PIPE



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

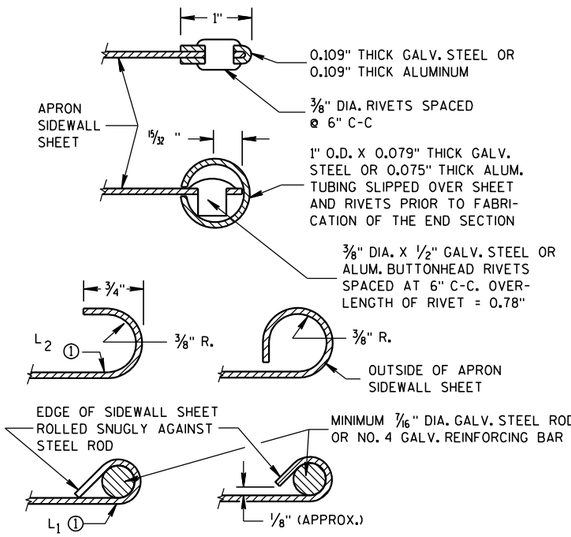
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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.

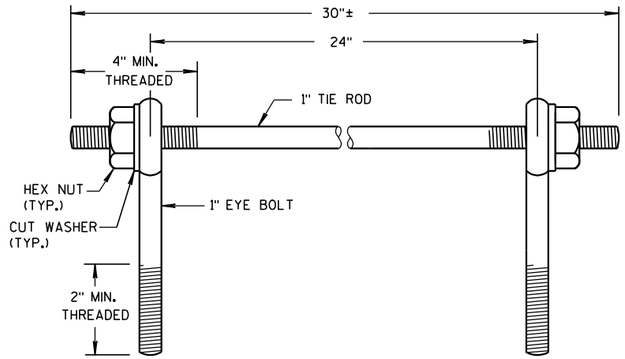
APRON ENDWALLS FOR CULVERT PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

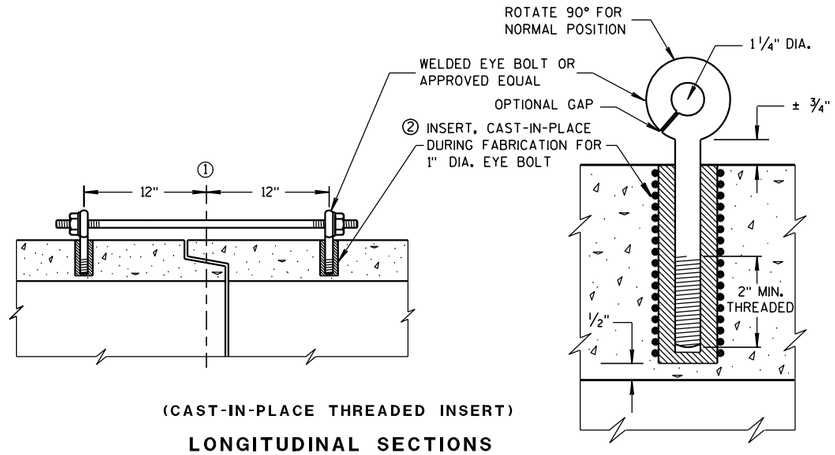
APPROVED
11/30/94 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 F 1-11



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 ℄ OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.

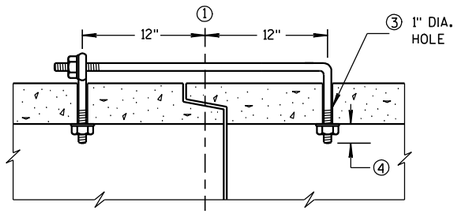
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12 INCHES FROM ℄ OF TONGUE AND GROOVE.

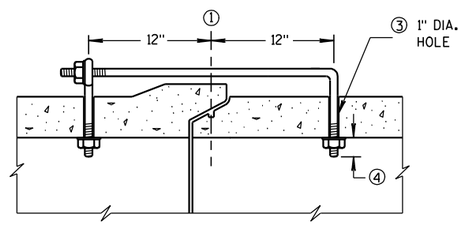
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.

⑥ LENGTH ADEQUATE TO EXTEND TO WITHIN 1/2 INCH OF THE INNER SURFACE OF THE PIPE.



(TONGUE & GROOVE PIPE)

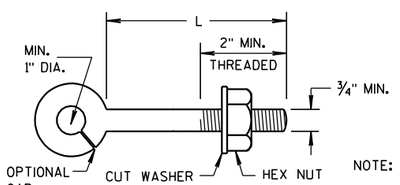


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

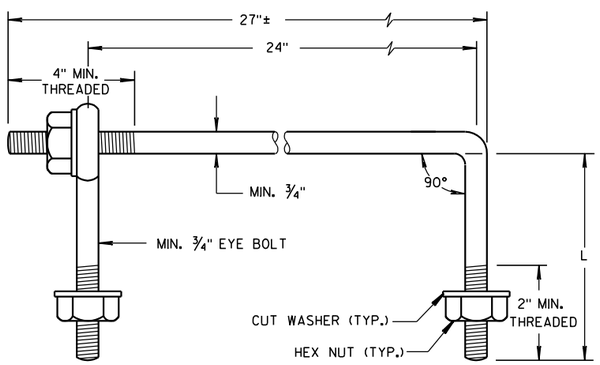
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



NOTE:

EYE BOLT

NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD

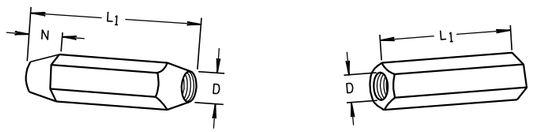
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)

ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12-60	5/8	5/8	5	1/2
66-84	3/4	3/4	5	1/2
90-108	1	1	7	1 1/16

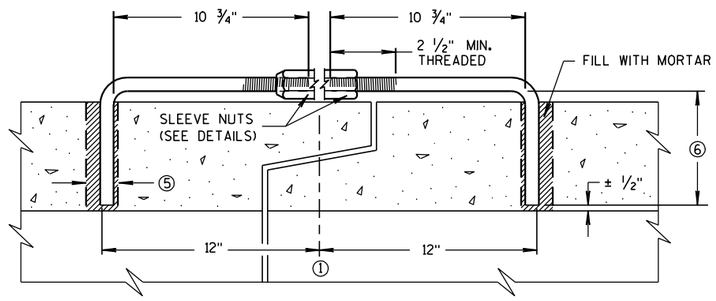
DIMENSIONS SHOWN ARE IN INCHES



TAPERED PLAIN

RIGHT AND LEFT THREADS

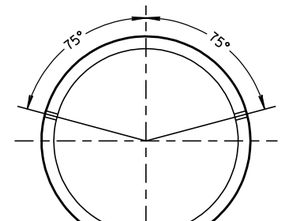
SLEEVE NUTS



LONGITUDINAL SECTION

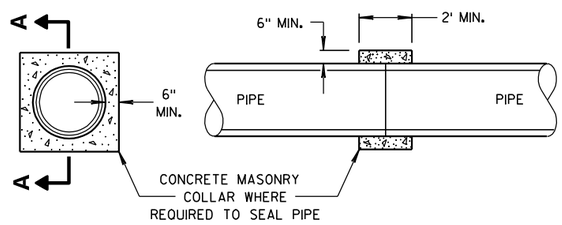
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

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

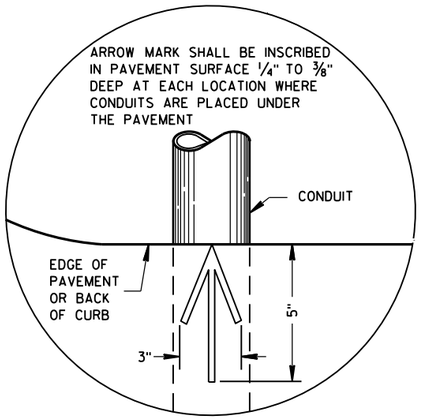
FHWA

6

S.D.D. 8 F 4-7

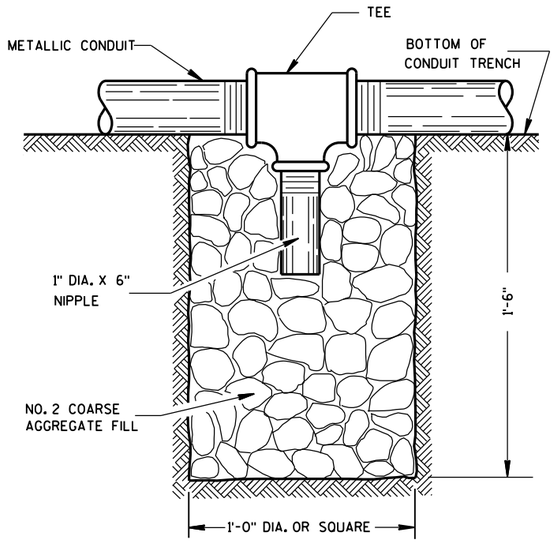
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S.D.D. 8 F 4-7



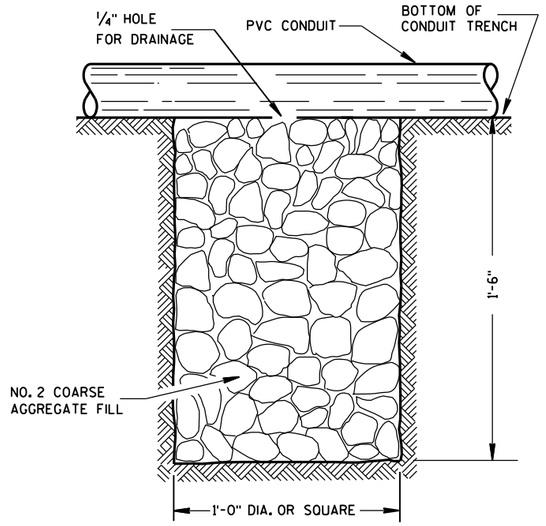
PLAN VIEW

ARROW MARK



NOTE: INSTALL AT LOCATIONS WHERE METALLIC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR METALLIC CONDUIT



NOTE: INSTALL AT LOCATIONS WHERE PVC CONDUITS CANNOT BE PITCHED TO DRAIN INTO A PULL BOX.

DRAIN SUMP FOR PVC CONDUIT

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.

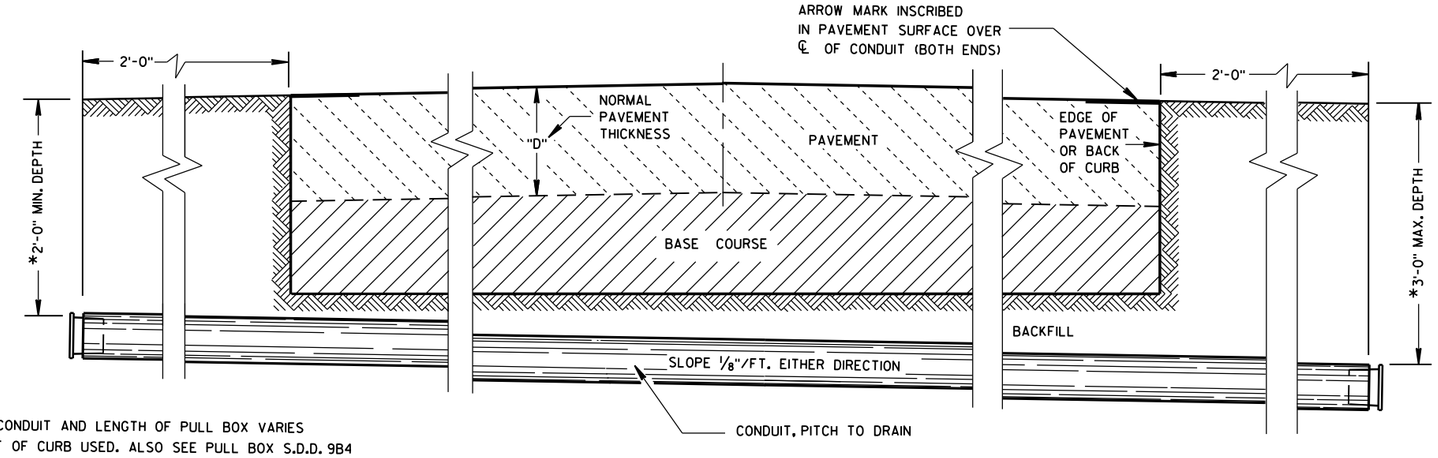
PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

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.



*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

CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6

S.D.D. 9 B 2-9

6

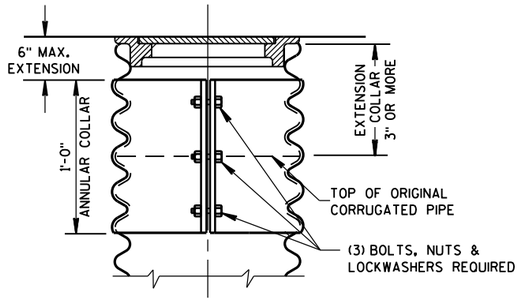
S.D.D. 9 B 2-9

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

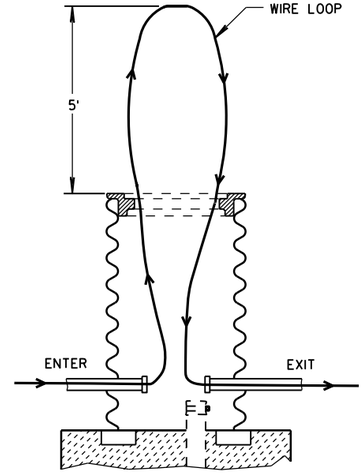
DIMENSION IN INCHES		CORRUGATED STEEL PIPE								
PIPE DIAMETER (INSIDE)	A	12	12	12	18	18	18	24	24	24
PIPE LENGTH **	B	24	30	36	24	30	36	36	42	48
WALL THICKNESS	C	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064
COVER	D	10 1/4	10 1/4	10 1/4	16 1/4	16 1/4	16 1/4	22 1/4	22 1/4	22 1/4
FRAME	E	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2	26 1/2	26 1/2	26 1/2
FRAME	F	8 1/2	8 1/2	8 1/2	14 1/2	14 1/2	14 1/2	20 1/2	20 1/2	20 1/2
FRAME	G	11 1/2	11 1/2	11 1/2	17 1/2	17 1/2	17 1/2	23 1/2	23 1/2	23 1/2
WEIGHT IN POUNDS *										
FRAME AND COVER		60	60	60	110	110	110	155	155	155

* THE ACTUAL WEIGHT OF THE MANHOLE FRAME AND COVER MAY VARY WITHIN 5 PERCENT PLUS OR MINUS OF THE WEIGHTS SHOWN.

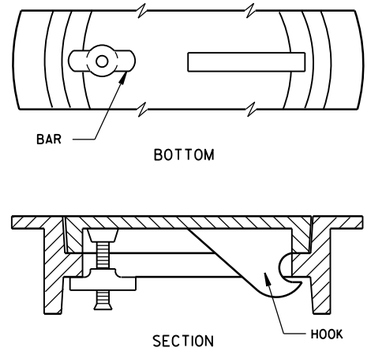
** NORMALLY USED LENGTHS. THE PROJECT ENGINEER SHALL DETERMINE IF PIPE LENGTHS, OTHER THAN THOSE SPECIFIED, SHALL BE USED, TO A MAXIMUM OF 48" (CONTINUOUS LENGTH, NON-SPLICED). THE ADDITIONAL LENGTH SHALL BE INCIDENTAL TO THE PULL BOX BID PRICE.



CORRUGATED PIPE EXTENDER

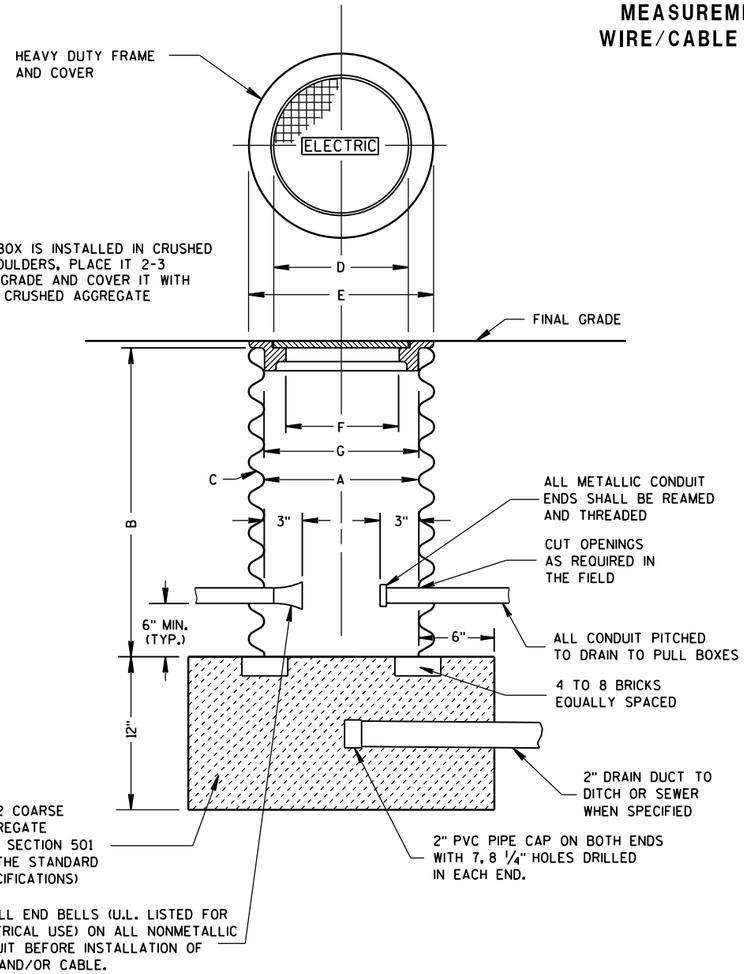


MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX



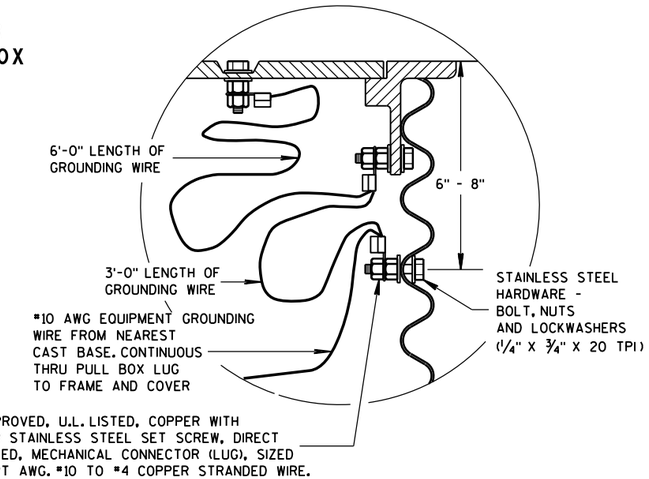
ALTERNATE COVER (LOCKING)

TIGHTENING BAR TYPE



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

PULL BOX



EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES

GENERAL NOTES

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

ALL FRAMES AND COVERS SHALL BE HEAVY DUTY TYPE, SUITABLE FOR VEHICULAR TRAFFIC LOADS.

PULL BOXES LOCATED IN THE ROADWAYS SHALL HAVE LOCKING COVERS.

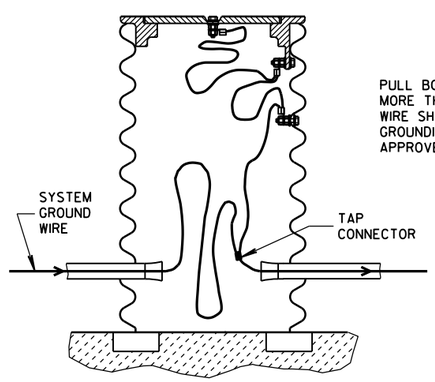
ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN 1/4".

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

GROUNDING LUGS (MECHANICAL CONNECTORS) SHALL BE U.L. LISTED AND APPROVED FOR USE WITH COPPER WIRE.

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

WHEN PULL BOXES ARE INSTALLED FOR FUTURE USE, DO NOT INSTALL THE EQUIPMENT GROUNDING LUG. THE EQUIPMENT GROUNDING LUG, THE EQUIPMENT GROUNDING ELECTRODE AND THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE REQUIRED AND INSTALLED UNDER A FUTURE WIRING CONTRACT.



PULL BOX TO NEAREST BASE DISTANCE MORE THAN 20 FEET. PULL BOX GROUND WIRE SHALL CONNECT AT SYSTEM GROUNDING WIRE. USE DEPARTMENT APPROVED TAP CONNECTOR.

EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES

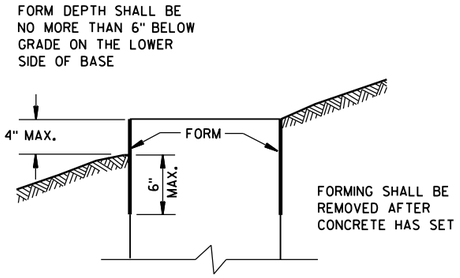
PULL BOX

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

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FORMING DETAIL

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

GENERAL NOTES

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

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

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

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

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

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

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

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

GENERAL NOTES (CONTINUED)

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

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

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

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

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

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

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

WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

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

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

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

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

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

(2) (4) 1" DIA. X 3'-6" ANCHOR RODS.

(3) (4) 1" DIA. X 5'-0" ANCHOR RODS.

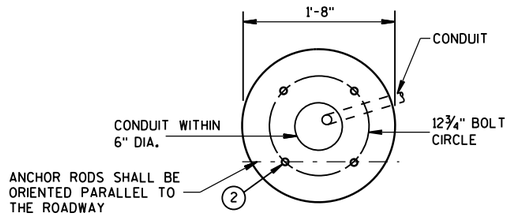
(4) (6) NO. 6 X 6'-8" BAR STEEL REINFORCEMENT.

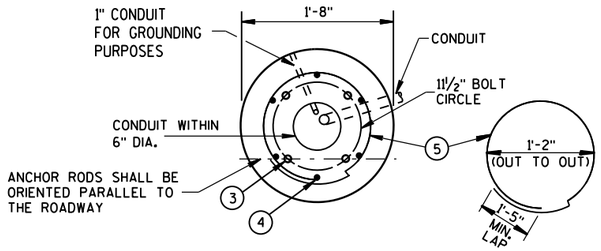
(5) (7) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

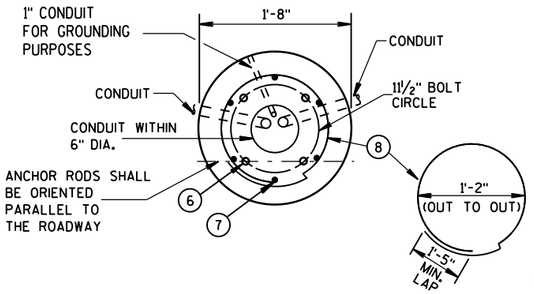
(6) (4) 1" DIA. X 3'-6" ANCHOR RODS.

(7) (6) NO.4 X 4'-8" BAR STEEL REINFORCEMENT.

(8) (5) NO. 4 X 5'-1" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

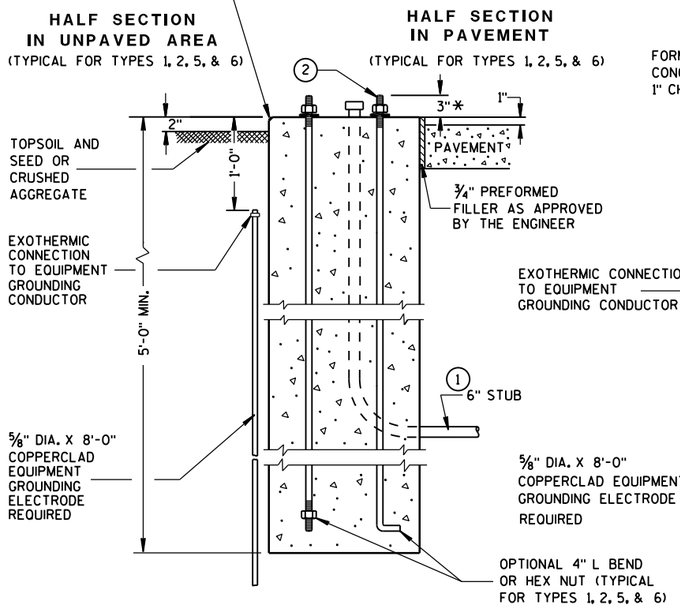






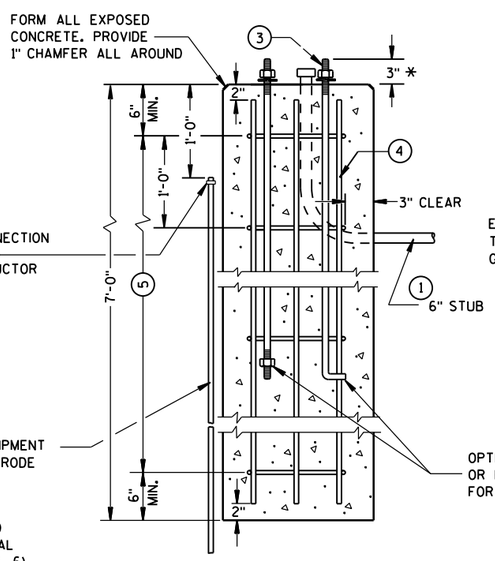
HALF SECTION IN UNPAVED AREA

(TYPICAL FOR TYPES 1, 2, 5, & 6)

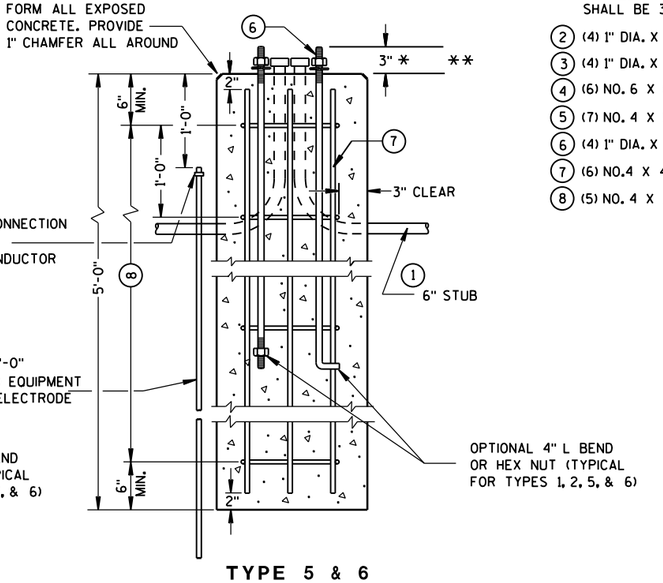


HALF SECTION IN PAVEMENT

(TYPICAL FOR TYPES 1, 2, 5, & 6)



TYPE 2



TYPE 5 & 6

CONCRETE BASES

* ANY ANCHOR ROD PROJECTION SHORTER THAN 2¾" OR LONGER THAN 3¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

** FOR NONBREAKAWAY INSTALLATIONS, 4½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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GENERAL NOTES

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

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

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

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

DOUBLE NUTTING IS NOT ACCEPTABLE FOR LEVELING OR MOUNTING PURPOSES.

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

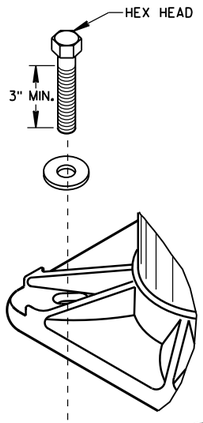
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

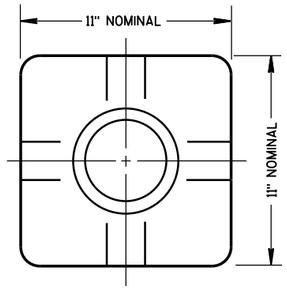
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

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

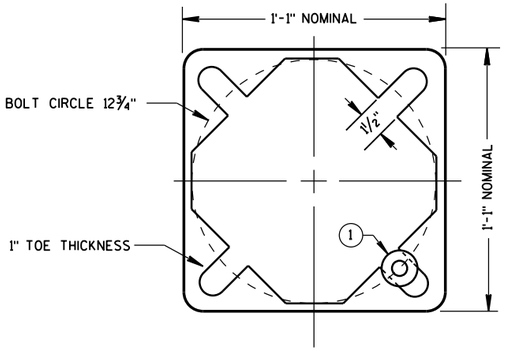
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1 1/2", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

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

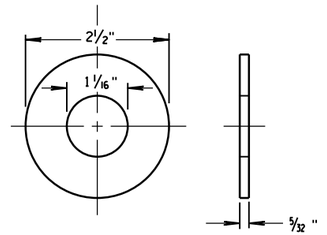




TOP VIEW
(PEDESTAL BASE)

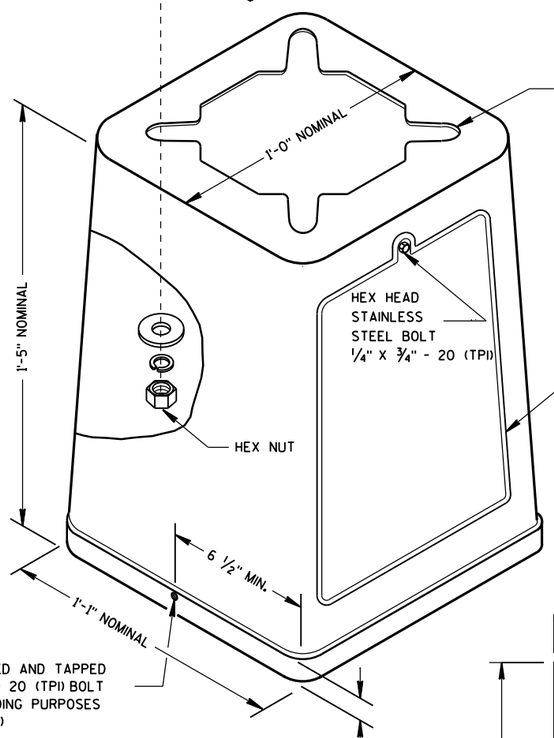


BOTTOM VIEW
(PEDESTAL BASE)

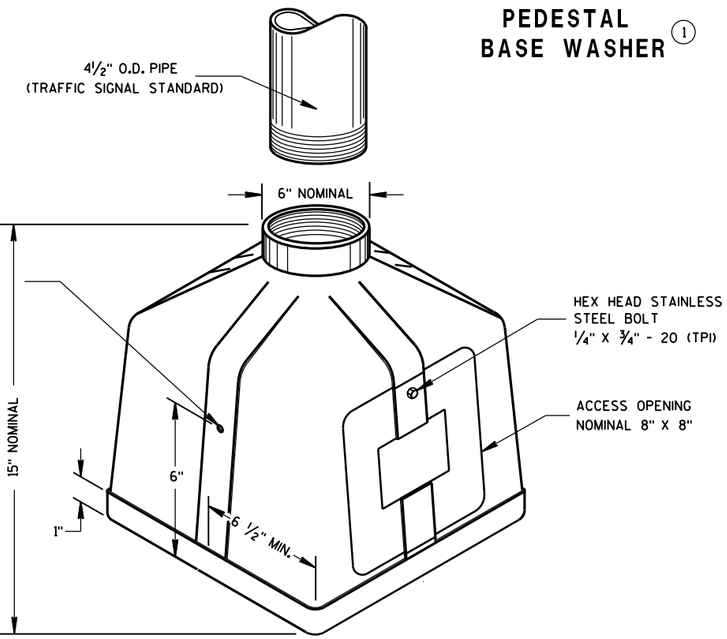


ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

PEDESTAL BASE WASHER (1)

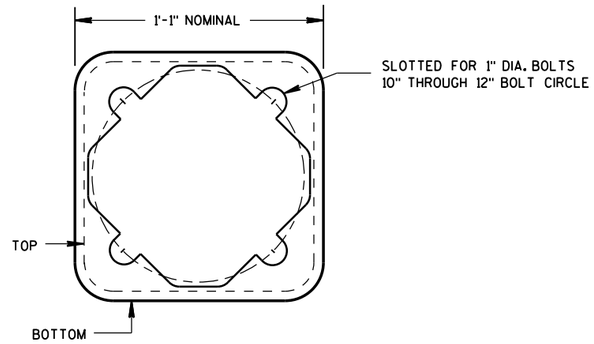


ISOMETRIC VIEW

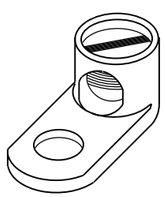


ISOMETRIC VIEW

PEDESTAL BASE



BOTTOM VIEW
(TRANSFORMER BASE)

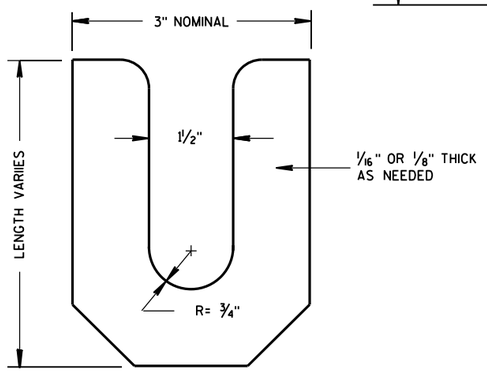


TYPICAL MECHANICAL CONNECTOR LUG

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

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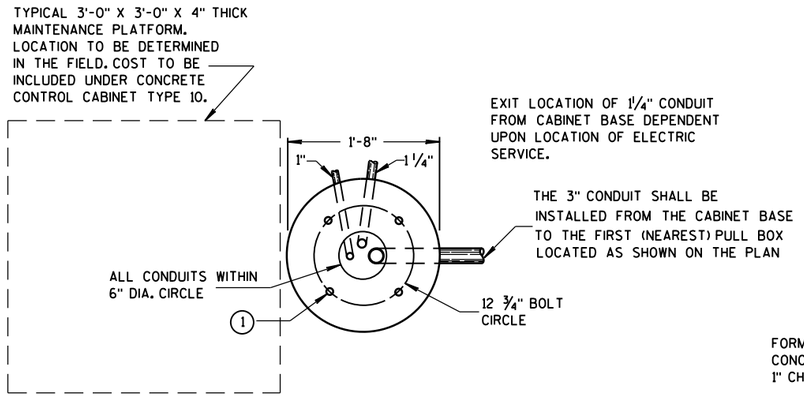
S.D.D. 9 C 3-4

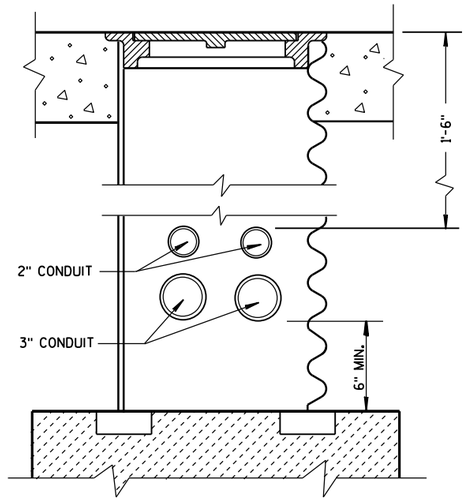
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S.D.D. 9 C 3-4

CONTROL CABINET BASE TYPE	DIMENSIONS				C.Y. CONCRETE (APPROX.)
	H	I	J	K	
TYPE 6 - 30" CABINET	34"	60"	10"	17"	.64
TYPE 7 - 38" CABINET	42"	60"	10"	21"	.93
TYPE 8 - 38" CABINET	42"	72"	12"	21"	1.29
TYPE 9 - VARIABLE	54"	72"	14"	27"	1.56
TYPE 10 - POST MOUNT	AS SHOWN				.65 *

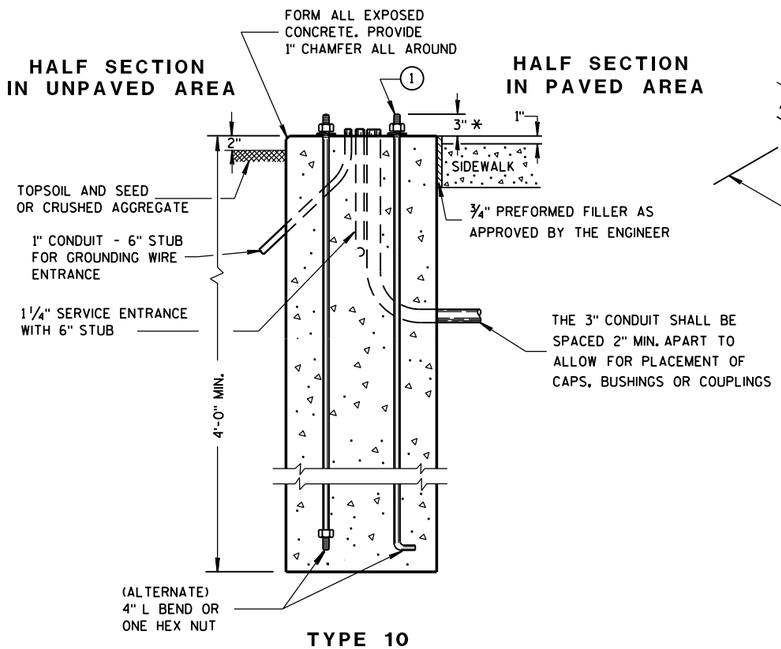
* INCLUDES MAINTENANCE PLATFORM.



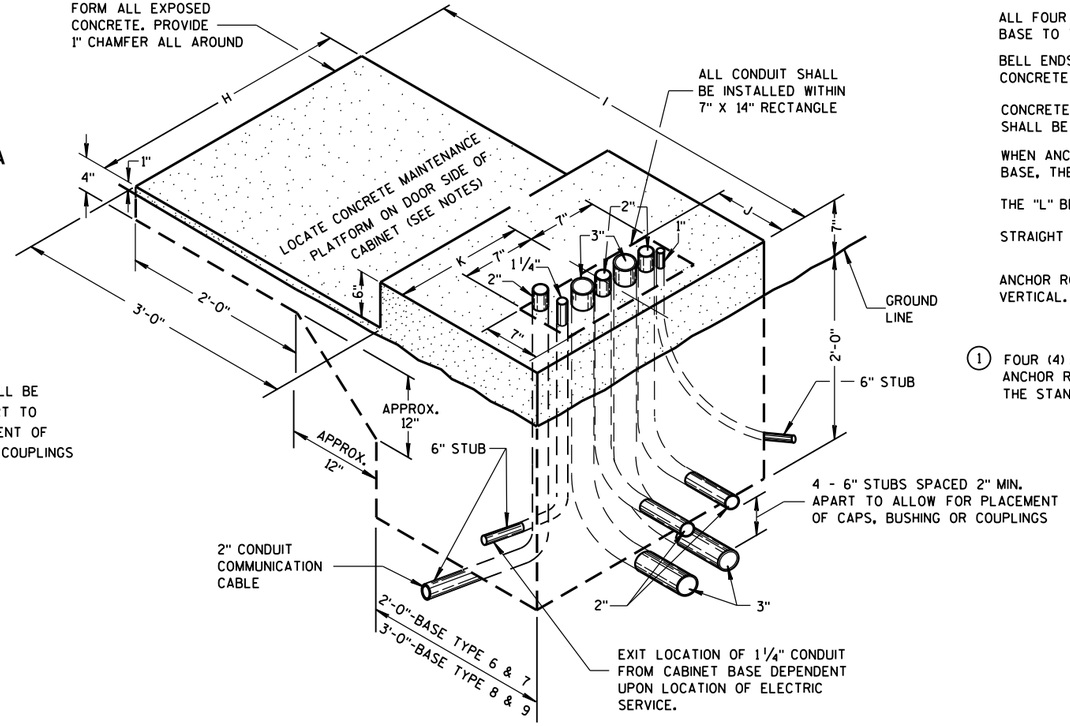


CONDUIT LOCATIONS IN 24" X 36" PULL BOX

(LEADING TO CONTROLLER CABINET BASE TYPE 6, 7, 8 AND 9)



TYPE 10



TYPE 6,7,8 AND 9
(ISOMETRIC VIEW)

* ANY ANCHOR ROD PROJECTION SHORTER THAN 2¾" OR LONGER THAN 3¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

GENERAL NOTES

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

INSTALL FOUR ½ INCH MINIMUM DIAMETER X 4 INCH MINIMUM LENGTH APPROVED CONCRETE MASONRY ANCHORS WITH A PULLOUT STRENGTH OF 9,000 LBS. TO ANCHOR THE CABINET TO TYPE 6, 7, 8, AND 9 BASES. THE ANCHOR STUDS SHALL BE LOCATED AS DIRECTED BY THE ENGINEER TO PROPERLY ANCHOR THE CONTROL CABINET TO THE BASE.

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

CONDUIT HEIGHT ABOVE THE CONCRETE BASE SHALL BE 1 INCH.

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

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

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

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

WHEN A TYPE 10 CONTROL CABINET BASE IS USED TO POST MOUNT A CONTROL CABINET, A 36" SQUARE 4" THICK CONCRETE MAINTENANCE PLATFORM SHALL BE REQUIRED ON THE DOOR SIDE OF THE CABINET. THE TOP 1 INCH SHALL BE ABOVE FINISHED GRADE AND BE BROOM FINISHED AND 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.

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

ALL FOUR (TWO INCH AND THREE INCH) CONDUIT SHALL BE INSTALLED FROM THE CABINET BASE TO THE FIRST (NEAREST PULL BOX LOCATED AS SHOWN ON THE PLANS.

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

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

WHEN ANCHOR RODS USING THE ALTERNATE L BEND ARE FURNISHED FOR THE TYPE 10 BASE, THE 4" L BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH.

THE "L" BEND SHALL NOT BE THREADED.

STRAIGHT ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD.

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

(1) FOUR (4) ANCHOR RODS, 1" DIA. X 3'-6". ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 OF THE STANDARD SPECIFICATIONS.

CONCRETE CONTROL CABINET BASES

CONCRETE CONTROL CABINET BASES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
Sept. 2014 DATE	/S/ Ahmet Demirbilek STATE ELECTRICAL
FHWA	

S.D.D. 9 C 5-9
6
6

GENERAL NOTES

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

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

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

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

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

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

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

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

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

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

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD).

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

ANCHOR RODS SHALL BE 1" X 60".

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

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

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

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

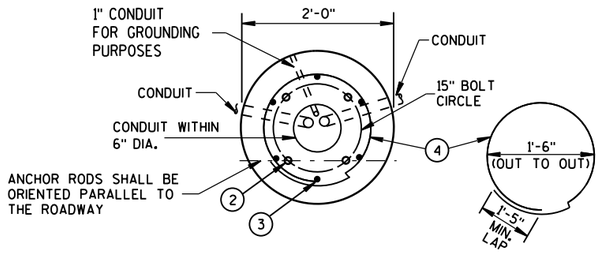
BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).

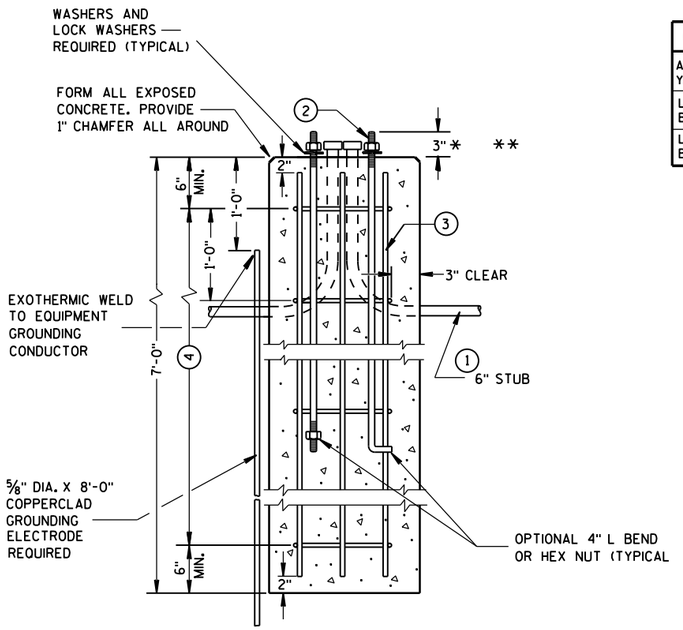
(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN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

(2) (4) 1" DIA. X 5'-0" ANCHOR RODS.

(3) (6) NO. 6 X 6'-8" BAR STEEL REINFORCEMENT.

(4) (7) NO. 4 X 6'-2" BAR STEEL REINFORCEMENT @ 1'-0" C-C.

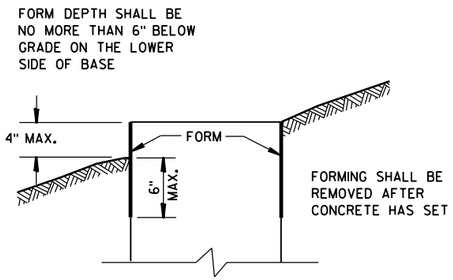




CONCRETE BASE, TYPE 7 (FOR 40' LIGHT POLES)

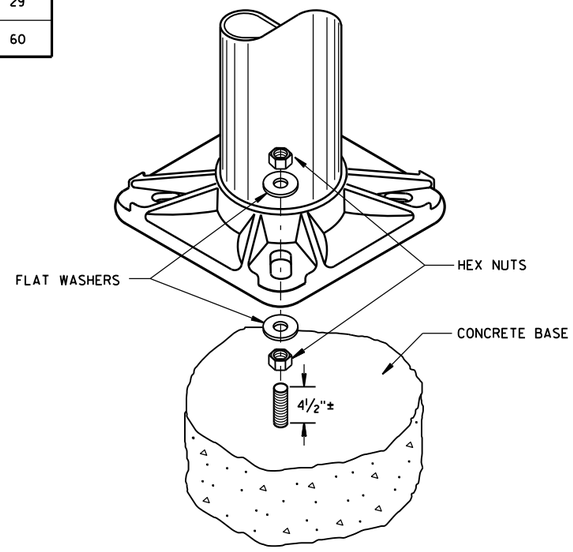
* ANY ANCHOR ROD PROJECTION SHORTER THAN 2¾" OR LONGER THAN 3¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

** FOR NONBREAKAWAY INSTALLATIONS, 4½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.



FORMING DETAIL

QUANTITY REQUIREMENTS	
APPROX. CUBIC YARDS OF CONCRETE	0.8
LBS. OF HOOP BAR STEEL	29
LBS. OF VERTICAL BAR STEEL	60



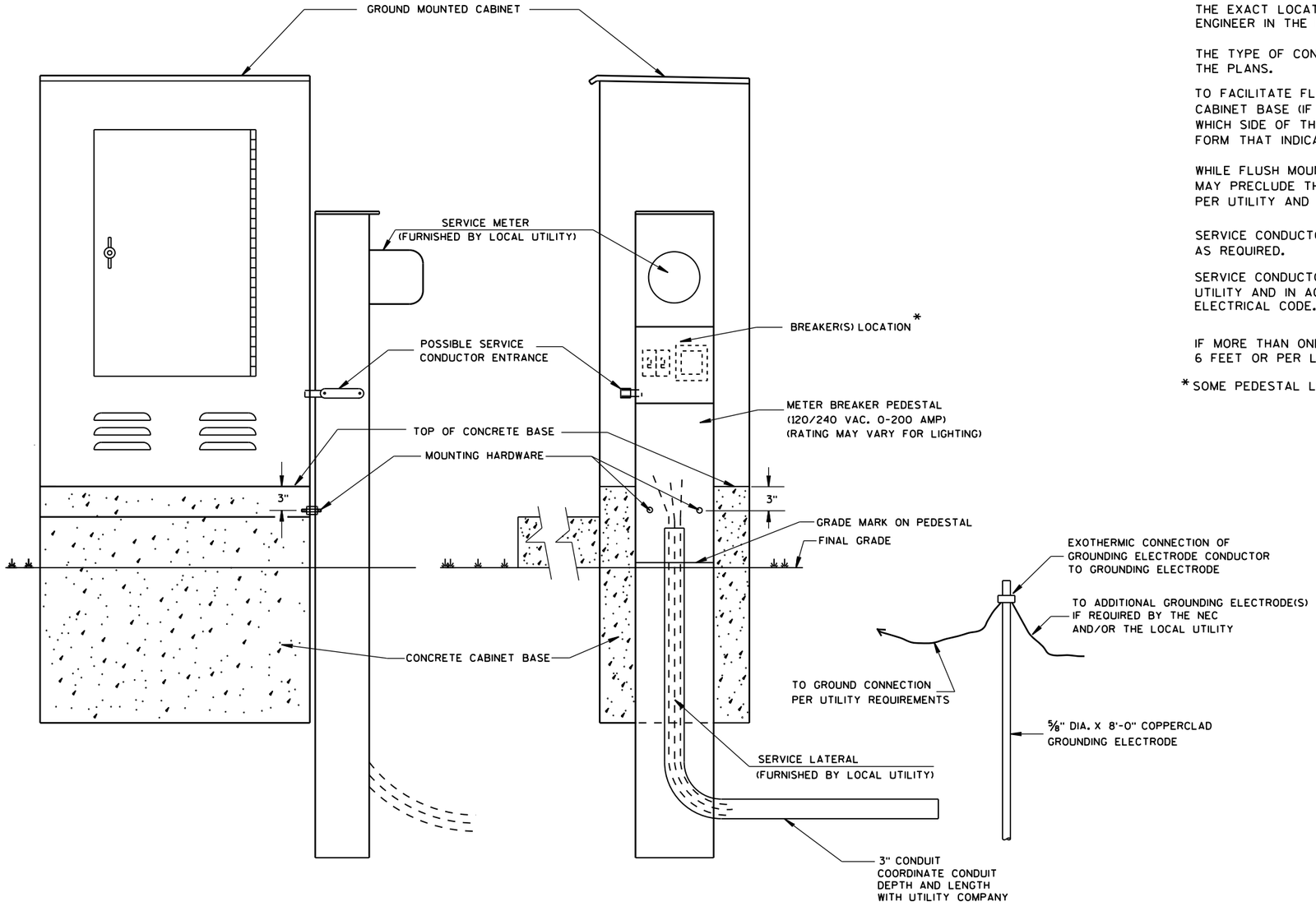
NON-BREAKAWAY INSTALLATION (LEVELING NUT)

CONCRETE BASE, TYPE 7

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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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.

CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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S.D.D. 9 D 1-5

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 CABINET FABRICATOR.

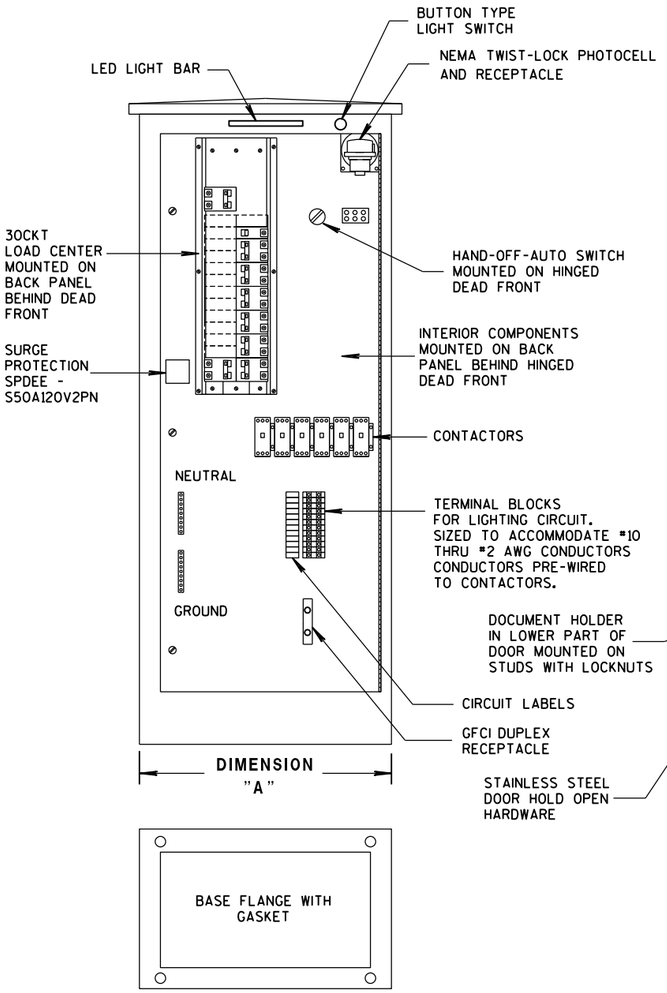
ALL CONDUIT ENTRIES SHALL BE SEALED WITH AN APPROPRIATE DUCT SEALING COMPOUND.

ORIENT PHOTOCELL AWAY FROM AMBIENT LIGHT SOURCES AND ONCOMING TRAFFIC HEADLIGHTS.

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.

FRONT INTERIOR ELEVATION



SIDE VIEW

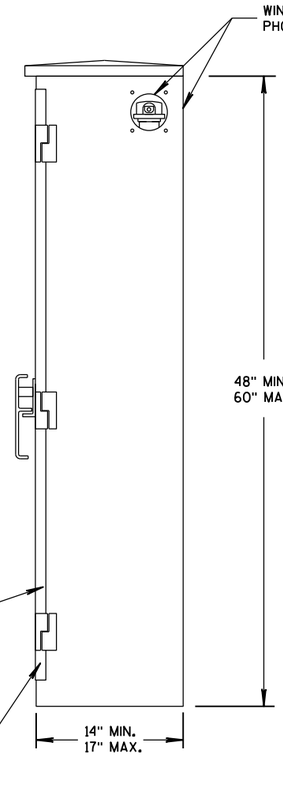
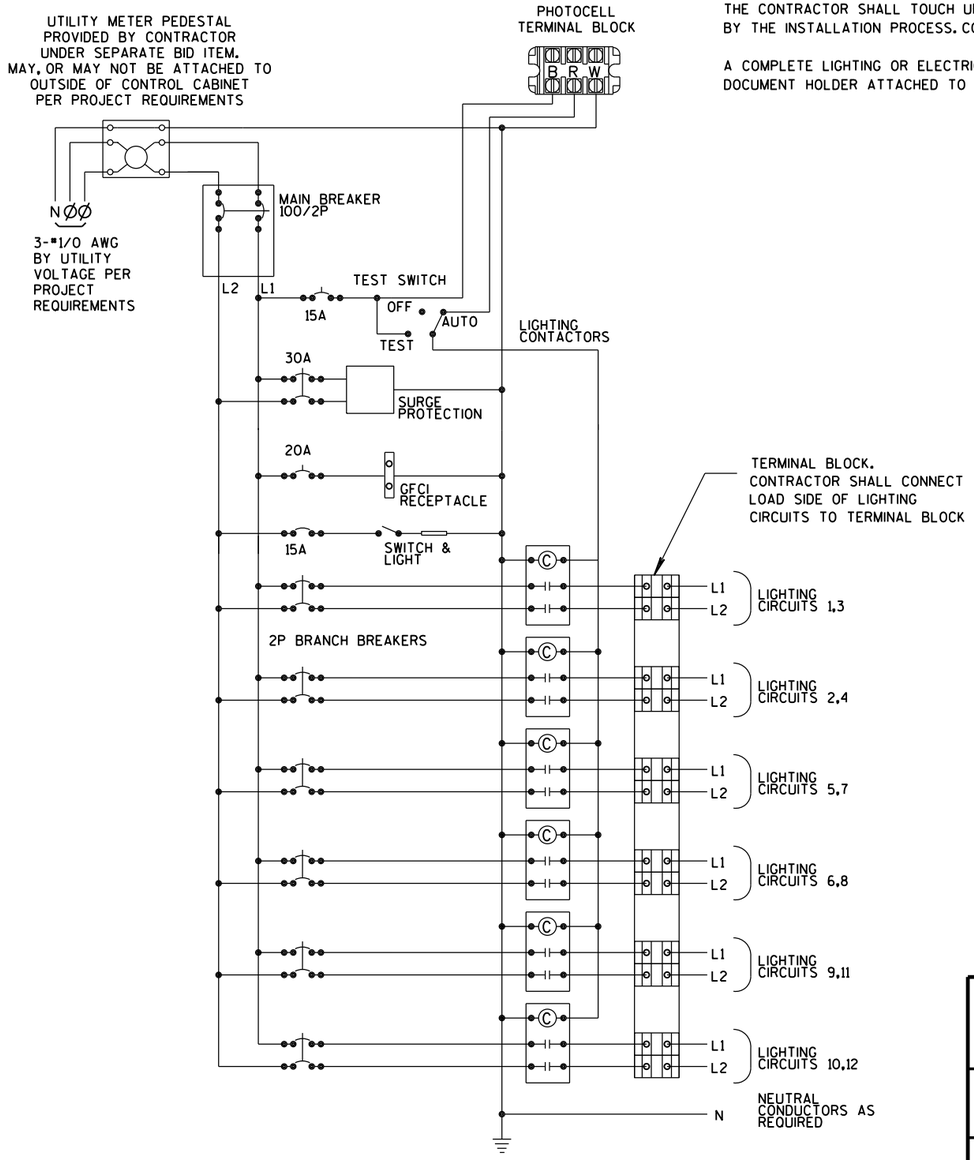


TABLE OF DIMENSIONS (INCHES)

CONCRETE BASE TYPE	CABINET WIDTH	DIMENSION "A"
L24	24"	24"
L30	30"	30"

LIGHTING CONTROL CABINET



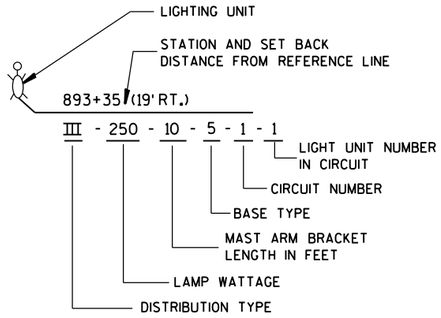
CONTROL CABINET SCHEMATIC

LIGHTING CONTROL CABINET 120/240 VOLT

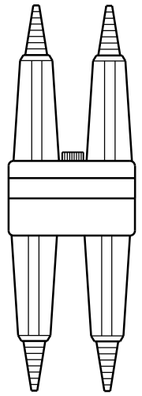
STATE OF WISCONSIN
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APPROVED
Sept. 2014 DATE
/S/ Thomas Gonring STATE LIGHTING ENGINEER
WYS.
FHWA

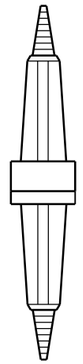
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S.D.D. 9 D 4-2



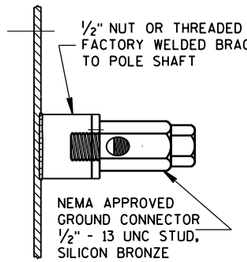
LIGHTING UNIT CODE
(TYPICAL)

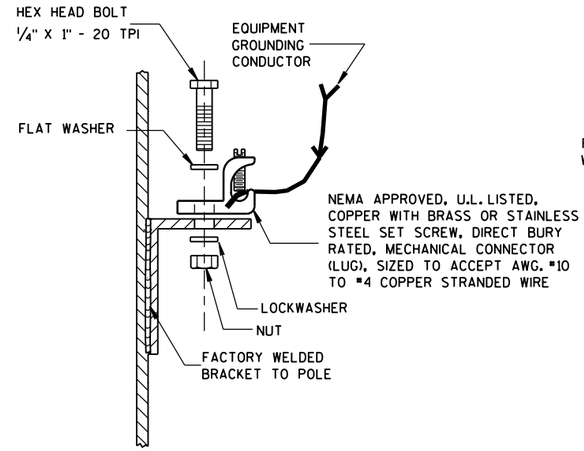


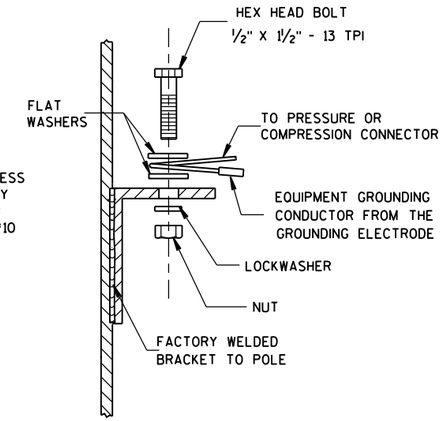
DETAIL "A"
BREAKAWY DOUBLE POLE WITH WATERPROOF INSULATING BOOT



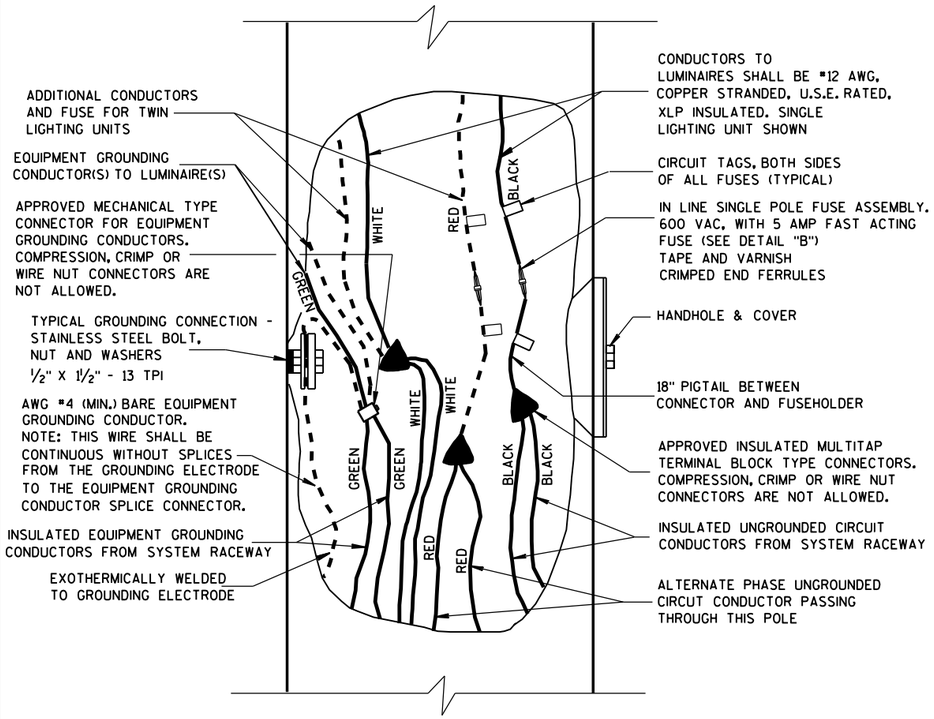
DETAIL "B"
BREAKAWY SINGLE POLE WITH WATERPROOF INSULATING BOOT



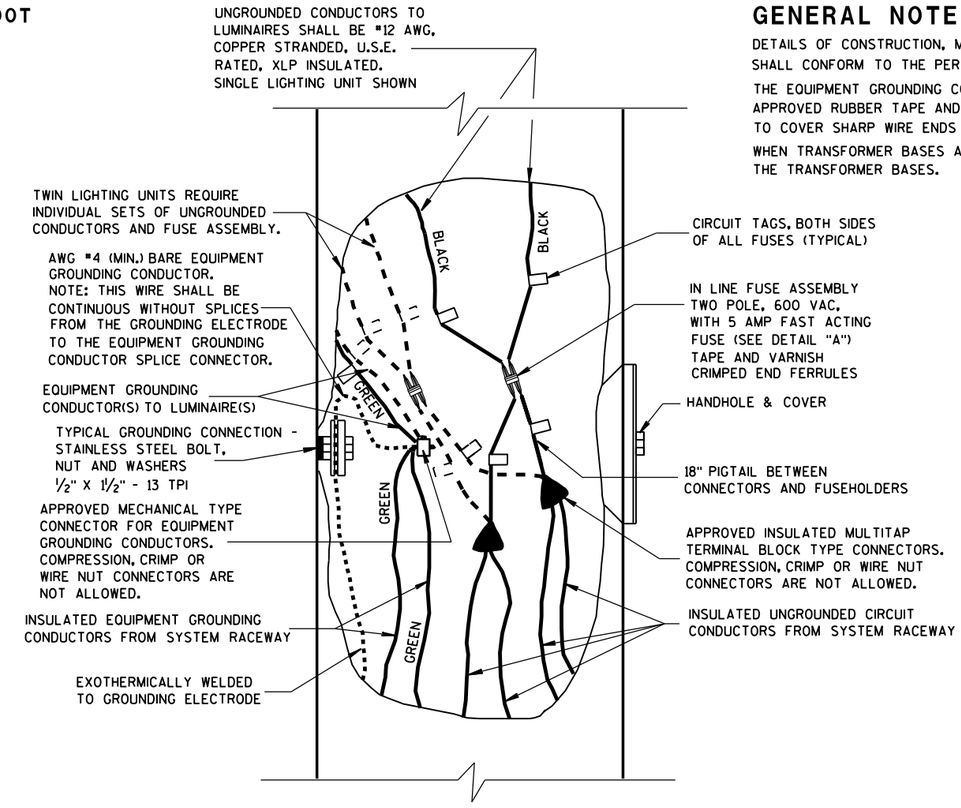




TYPICAL GROUNDING CONNECTIONS
NUT, BOLT, WASHERS AND LOCKWASHERS SHALL BE STAINLESS STEEL



3 WIRE - 120, 240 OR 480 VAC (UNGROUNDED CONDUCTOR) WITH GROUNDED CONDUCTOR AND WITH EQUIPMENT GROUNDING CONDUCTOR



2 WIRE - 240 OR 480 VAC (UNGROUNDED CONDUCTORS) WITH EQUIPMENT GROUNDING CONDUCTOR

GENERAL NOTES

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

THE EQUIPMENT GROUNDING CONNECTOR SHALL BE TAPED WITH 3 WRAPS (MINIMUM) OF APPROVED RUBBER TAPE AND THEN 3 WRAPS (MINIMUM) OF APPROVED VINYL TAPE TO COVER SHARP WIRE ENDS AFTER THE CONNECTION IS COMPLETED.

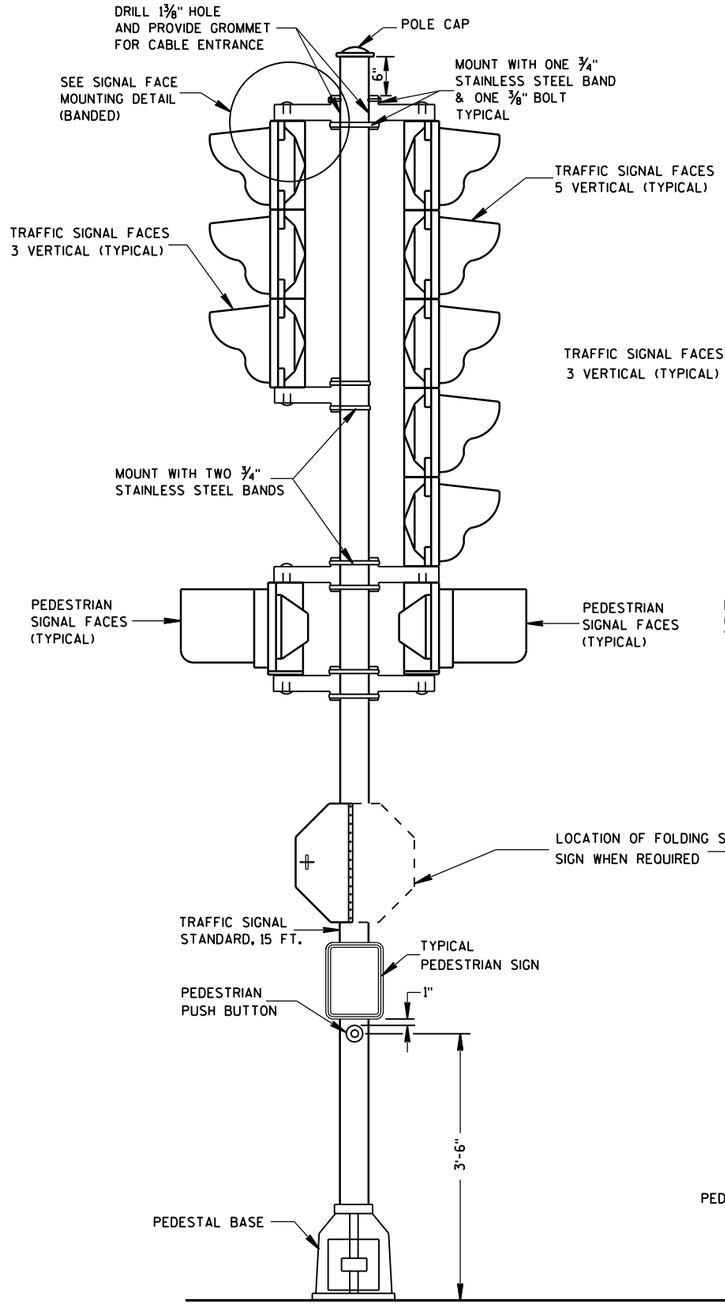
WHEN TRANSFORMER BASES ARE USED, ALL WIRING CONNECTIONS SHALL OCCUR WITHIN THE TRANSFORMER BASES.

NON-FREEWAY LIGHTING UNIT POLE WIRING

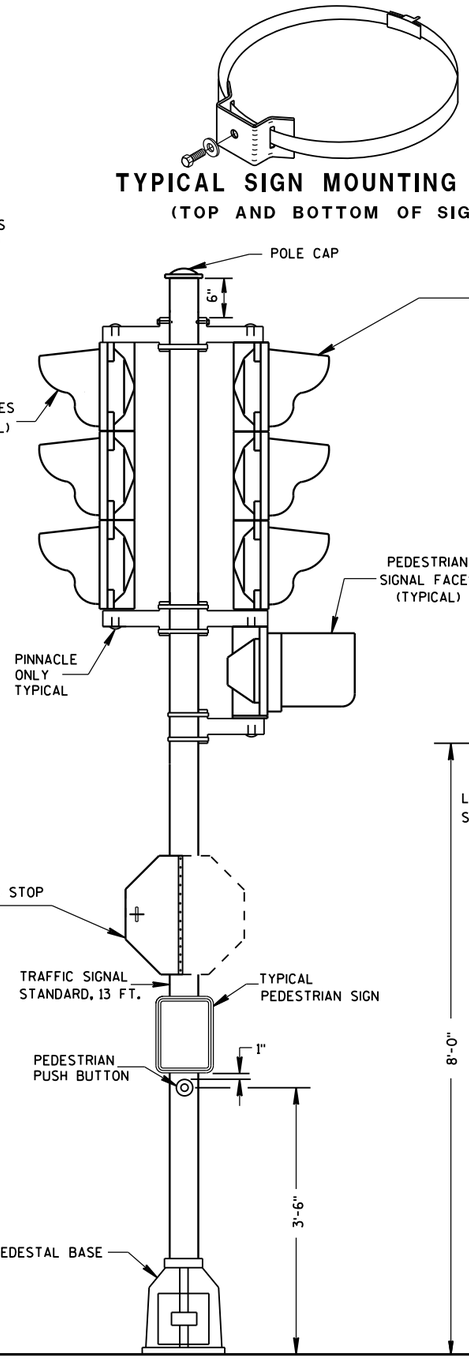
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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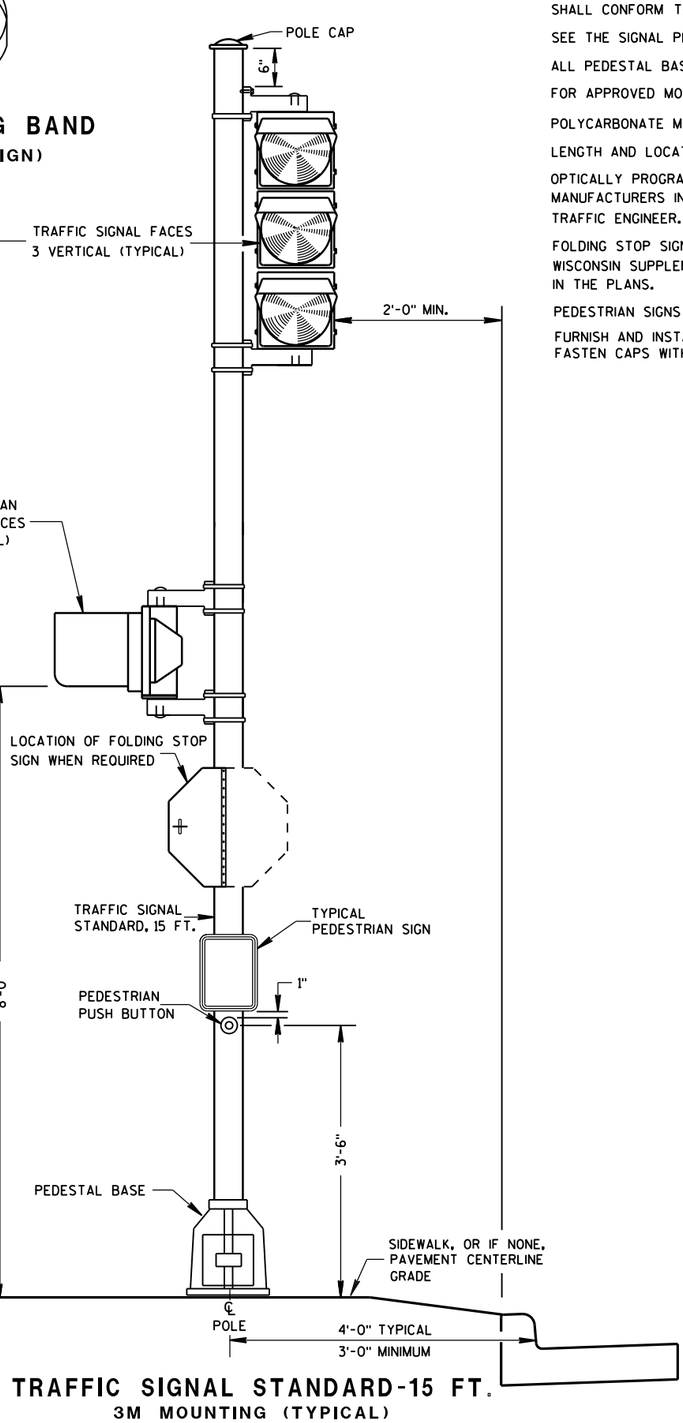


TRAFFIC SIGNAL STANDARD-15 FT.



TRAFFIC SIGNAL STANDARD-13 FT.

TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)



TRAFFIC SIGNAL STANDARD-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.

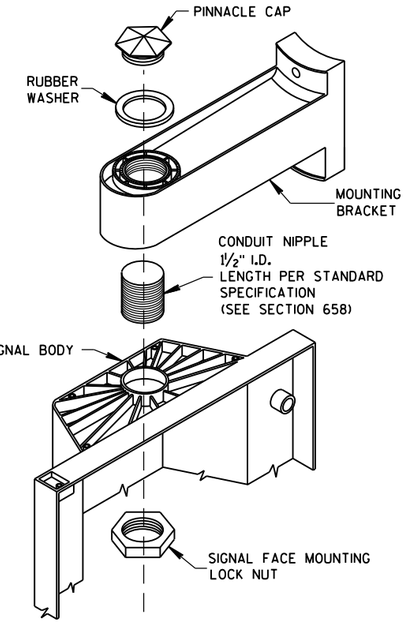
LENGTH AND LOCATION OF TRAFFIC SIGNAL STANDARDS SHALL BE AS SHOWN ON THE PLANS.

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) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.



SIGNAL FACE MOUNTING DETAIL
(BANDED)

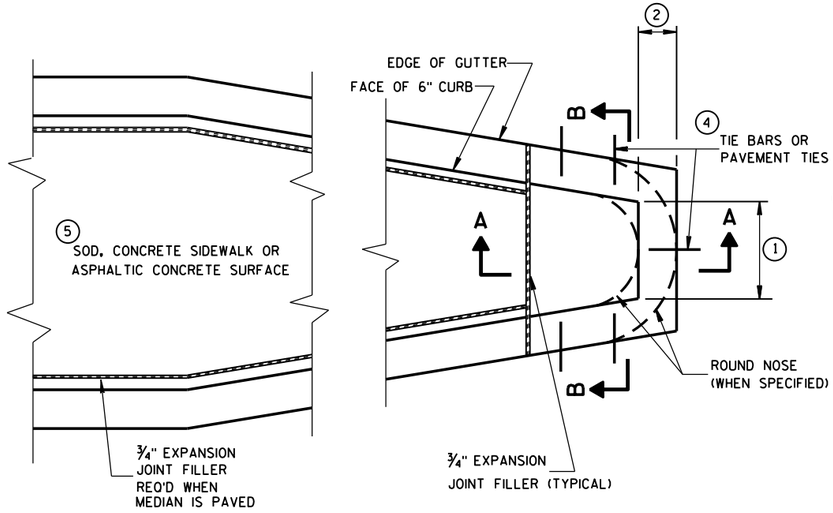
TRAFFIC SIGNAL STANDARD
POLY BRACKET MOUNTINGS
(TYPICAL) 13 FT. OR 15 FT.

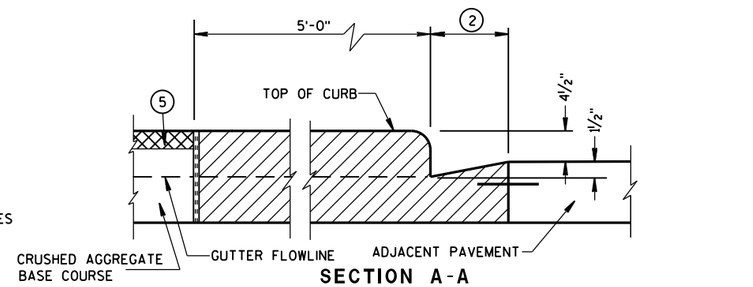
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
2/28/2013 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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S.D.D. 9 E 6-5





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.

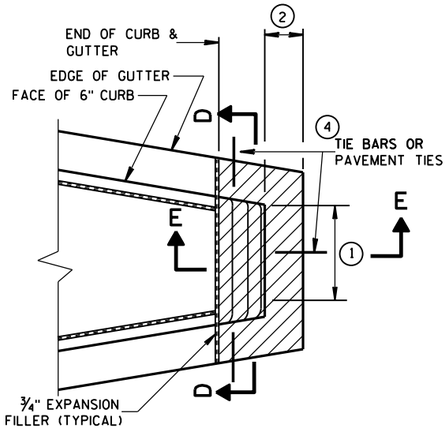
(2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.

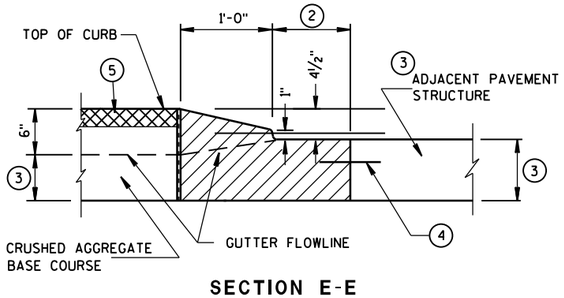
(3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

(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.

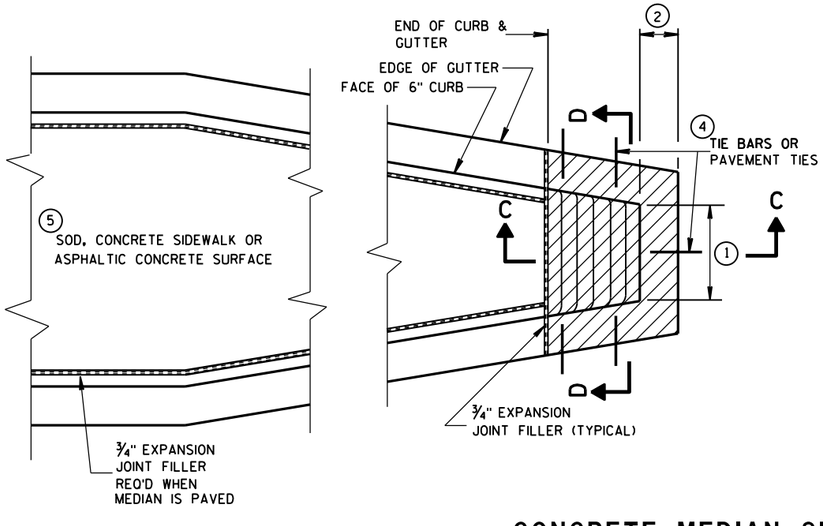
(5) SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.

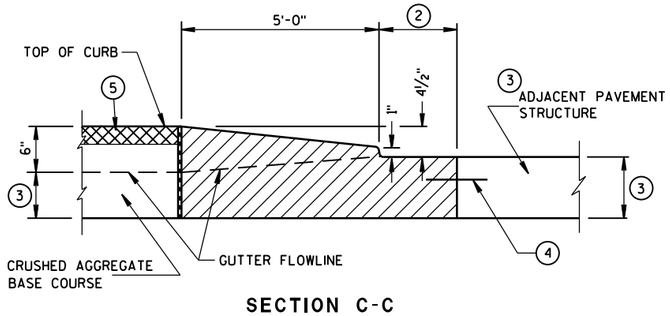




SECTION E-E

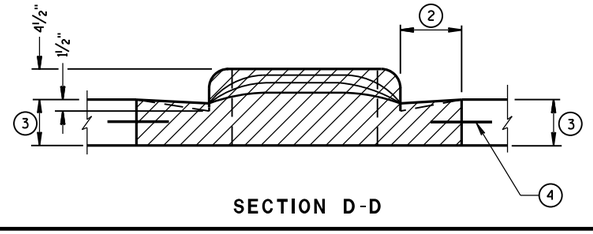
CONCRETE MEDIAN SLOPED NOSE TYPE 2





SECTION C-C

CONCRETE MEDIAN SLOPED NOSE TYPE 1



SECTION D-D

CONCRETE MEDIAN NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

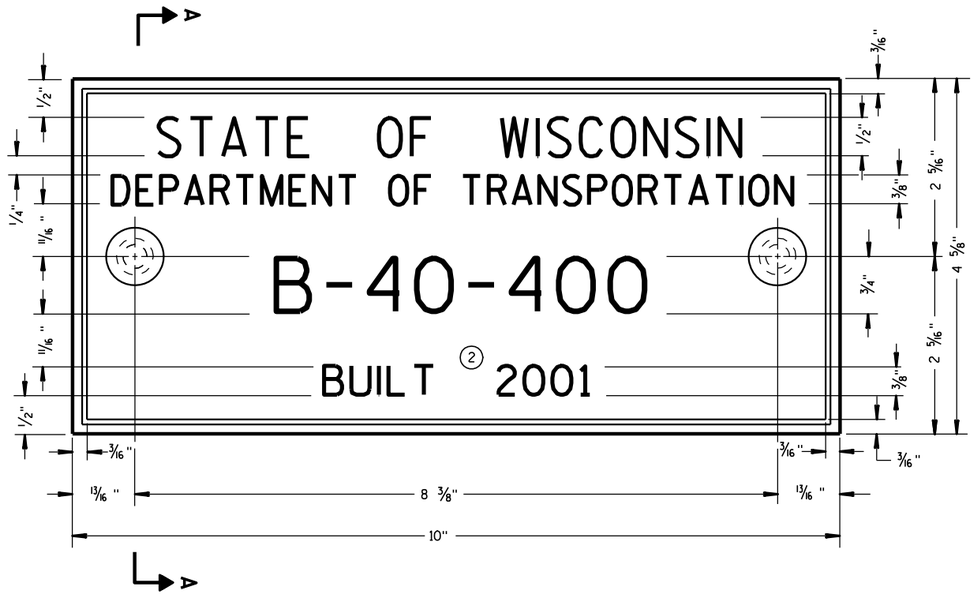
APPROVED
6/8/2006 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

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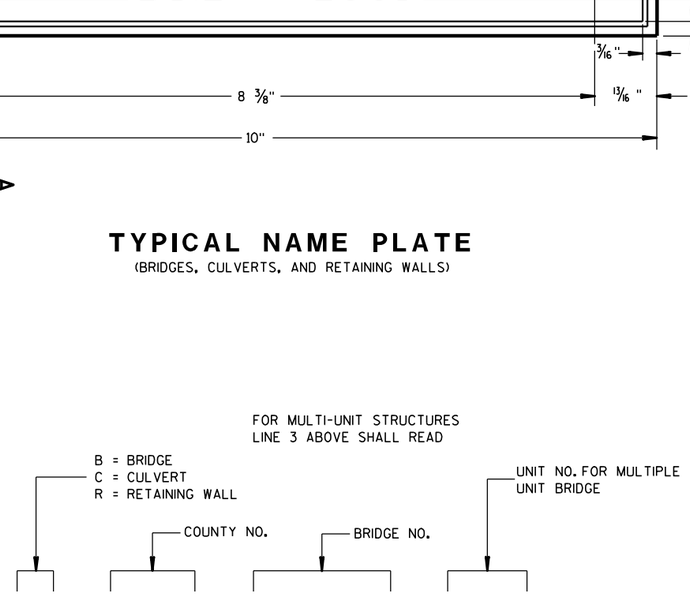
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S.D.D. 11 B 2-2



TYPICAL NAME PLATE
(BRIDGES, CULVERTS, AND RETAINING WALLS)



NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES

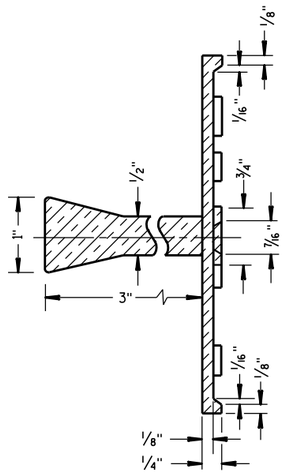
GENERAL NOTES

NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

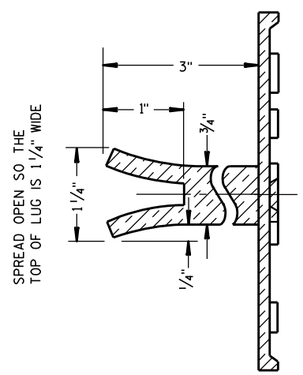
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

(1) EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

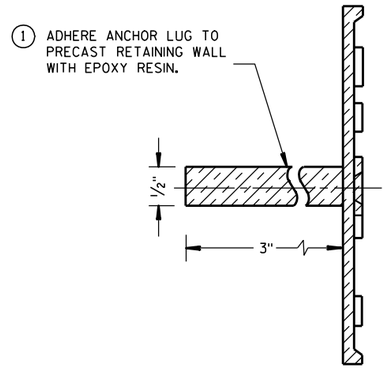
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

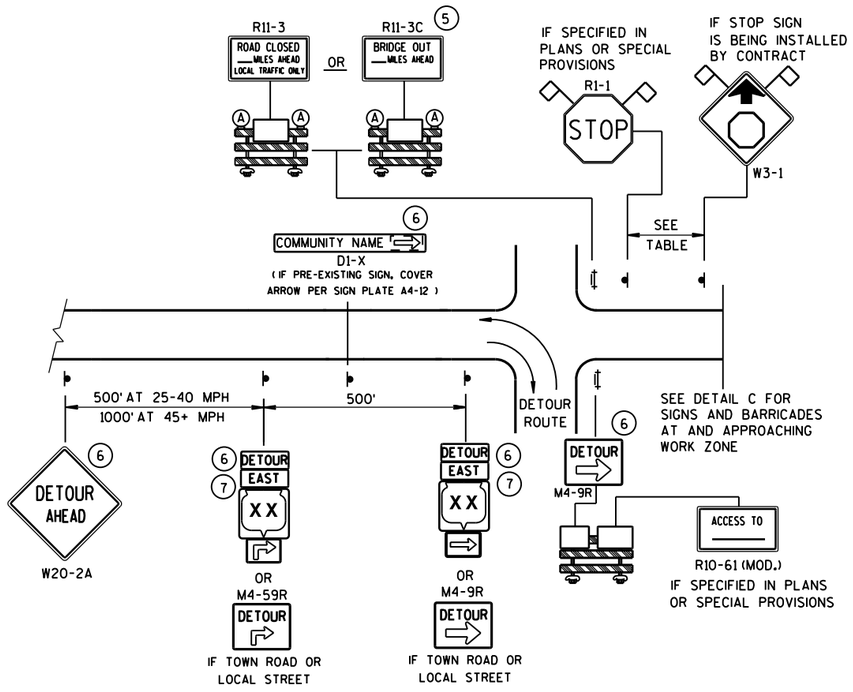
APPROVED

3/26/10 DATE — /S/ Scot Beck-- CHIEF STRUCTURAL DEVELOP ENGINEER

FHWA

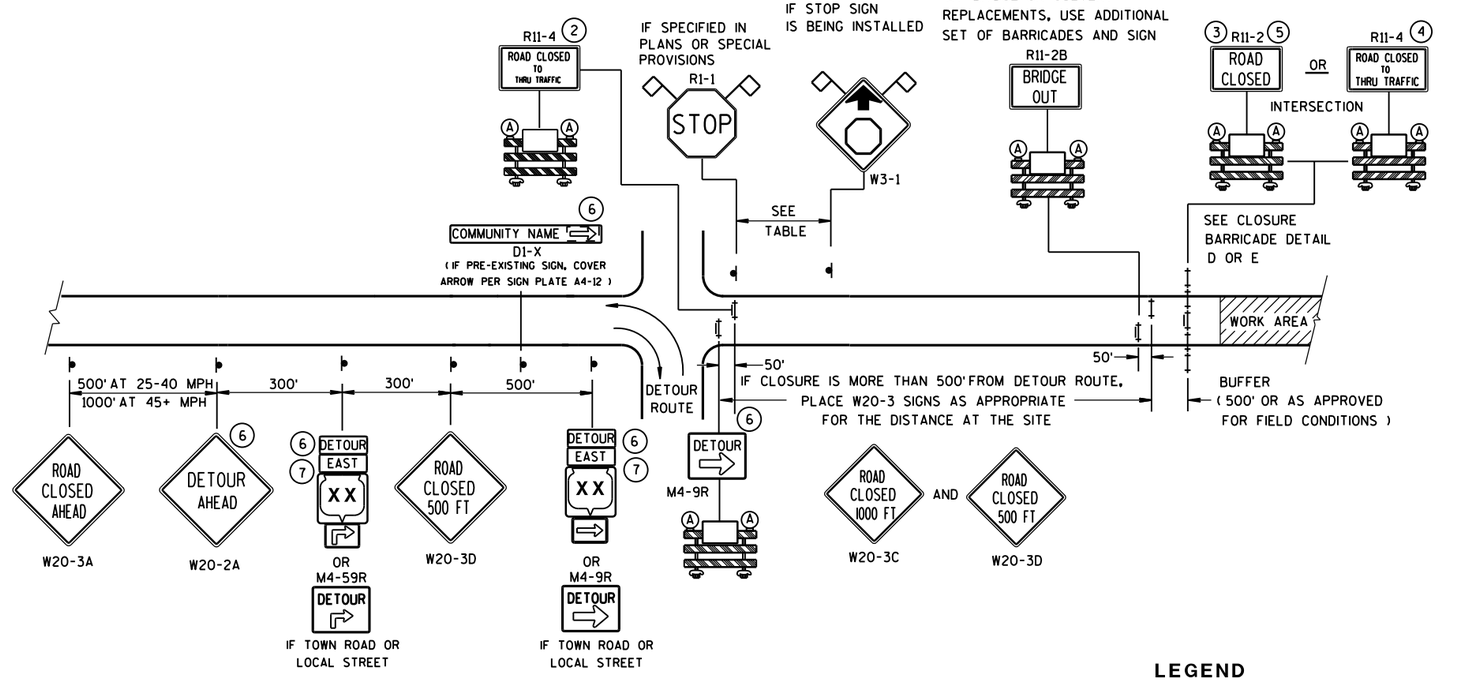
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S.D.D. 12 A 3-10



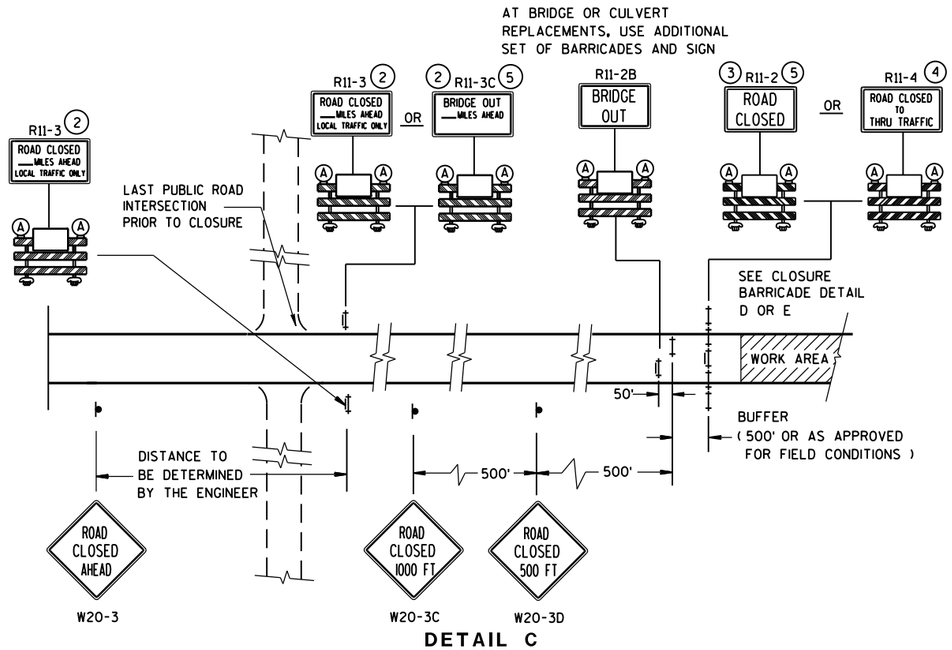
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN 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

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- DETOUR / EAST — M4-8 / M3-X
- XX — M1-4; COUNTY XX — M1-5A; XX — M1-6
- M05-1 OR M06-1
- FLAGS, 16" X 16" MIN., (ORANGE)

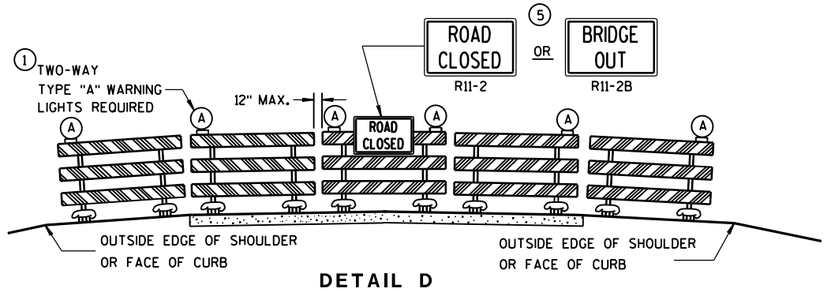
SEE SDD 15C2-SHEET "**b**" FOR GENERAL NOTES AND FOOTNOTES (1) THROUGH (7)

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

Sept. 2015 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA

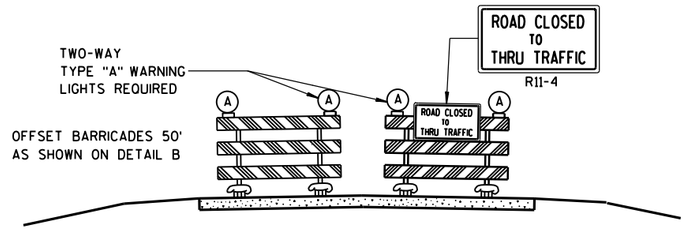
S.D.D. 15 C 2-6a



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 BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
- R11-2 SHALL BE 48" X 30".
- R11-3, R11-4 AND R10-61 SHALL BE 60" X 30".
- M4-9 SHALL BE 30" X 24".
- M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1-1 SHALL BE 36" X 36".

(1) TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8-FOOT LIGHT SPACING).

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL D.

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE LANE CLOSURE BARRICADE DETAIL E.

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11-2 AND R11-3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

Sept. 2015 — DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO SAFETY ENGI — FHWA

6

S.D.D. 15 C 2-6b

THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL DETOUR SIGN LAYOUT AND SPACING. SEE PROJECT DETOUR SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.

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.

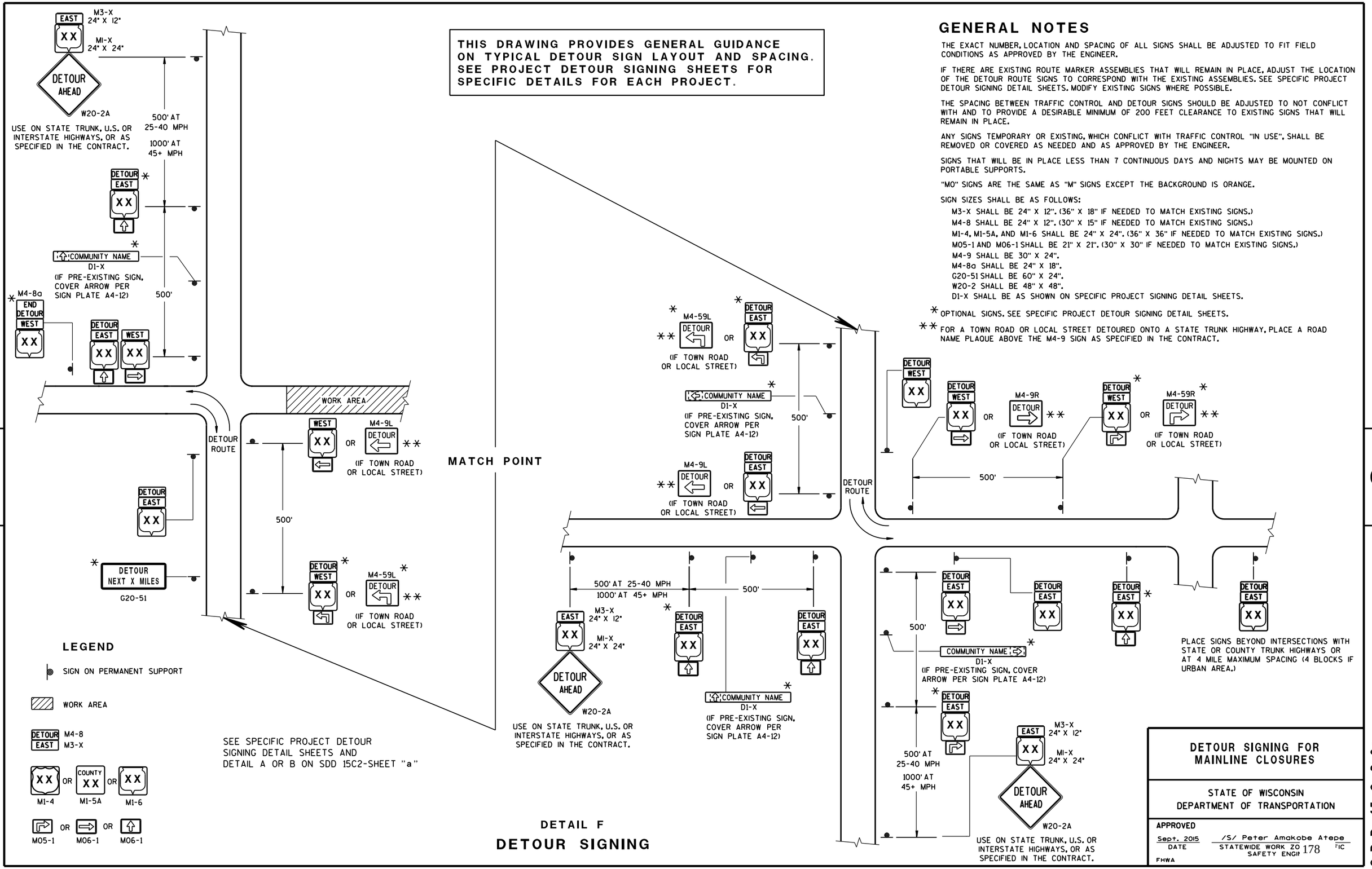
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

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". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- MO5-1 AND MO6-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-9 SHALL BE 30" X 24".
- M4-8a SHALL BE 24" X 18".
- G20-51 SHALL BE 60" X 24".
- W20-2 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.



LEGEND

- SIGN ON PERMANENT SUPPORT
- WORK AREA
- DETOUR EAST — M4-8 / M3-X
- XX OR COUNTY XX OR XX — M1-4 / M1-5A / M1-6
- MO5-1 OR MO6-1 OR MO6-1

SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS AND DETAIL A OR B ON SDD 15C2-SHEET "a"

DETAIL F

DETOUR SIGNING

DETOUR SIGNING FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

Sept. 2015 — DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO[illegible] FIC
SAFETY ENGI[illegible]

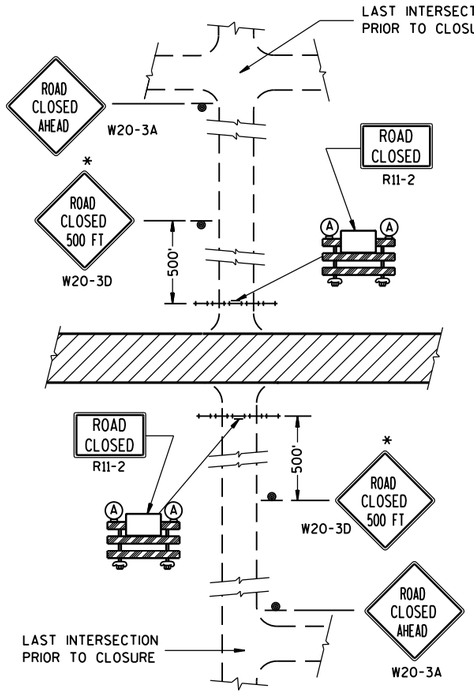
FHWA

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S.D.D. 15 C 2-6c

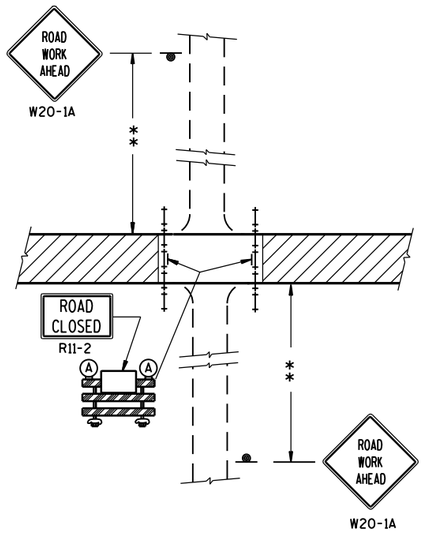
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S.D.D. 15 C 2-6c



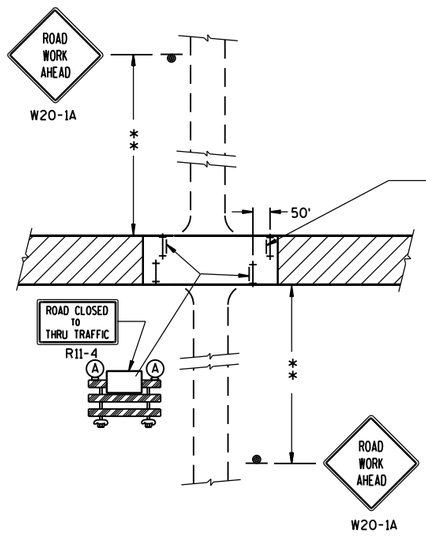
DETAIL 1

(NO ACCESS TO PROJECT)

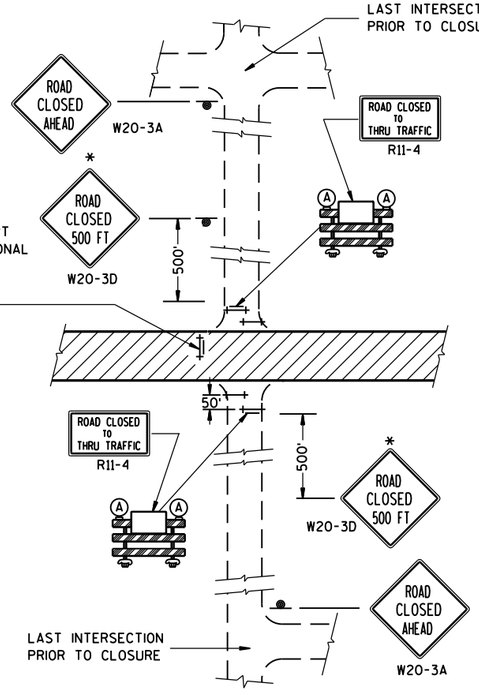


DETAIL 2

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







DETAIL 3

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

DETAIL 4

(CONTRACTOR, LOCAL BUSINESS AND RESIDENT ACCESS TO PROJECT)

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

*OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FT. OR LESS FROM THE WORK ZONE.

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

LEGEND

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

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

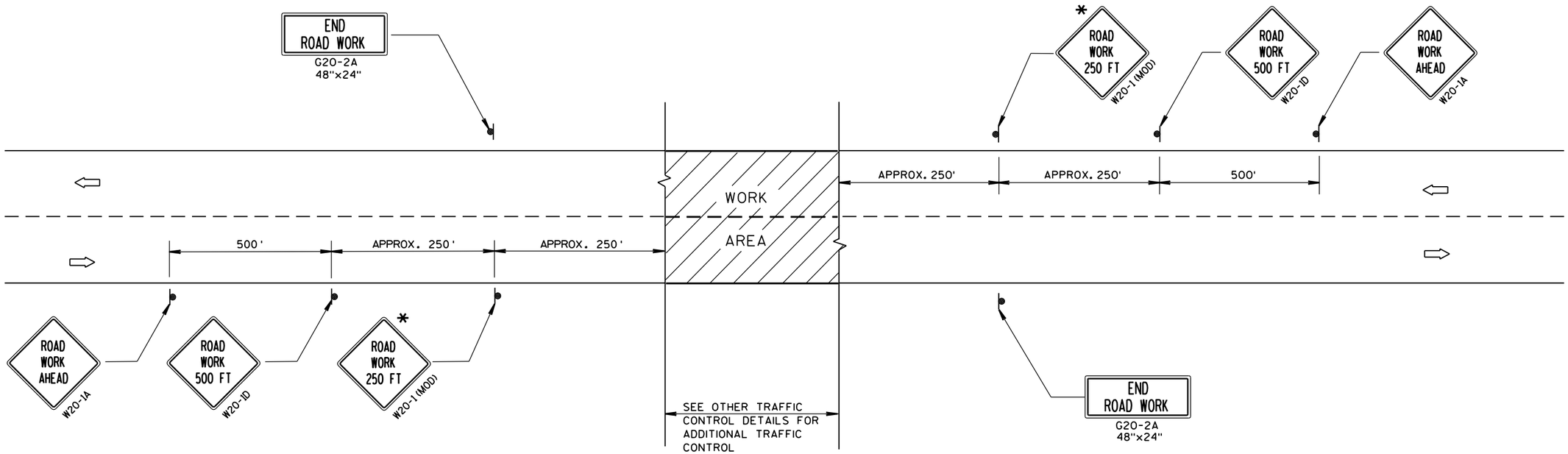
APPROVED
Sept. 2015 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO[illegible]FIC SAFETY ENGI[illegible]
FHWA

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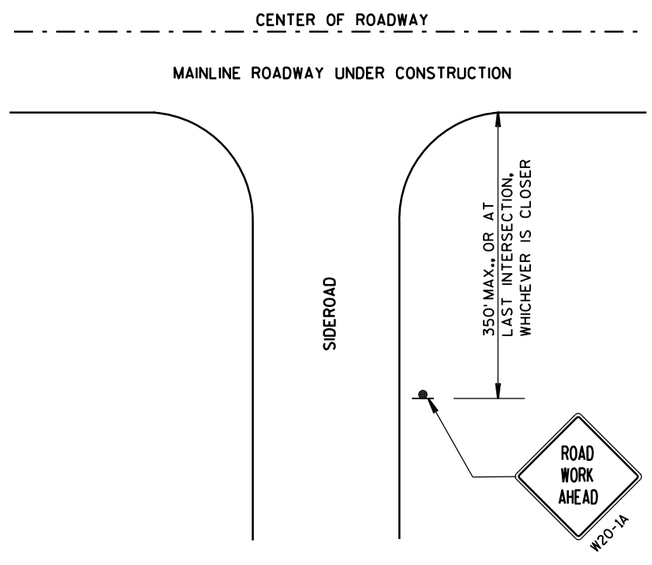
S.D.D. 15 C 3-3

6

S.D.D. 15 C 3-3



TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL



GENERAL NOTES

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

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

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

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

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

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

LEGEND

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

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2015 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZOI SAFETY ENGIN — IC
FHWA

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S.D.D. 15 C 5-3

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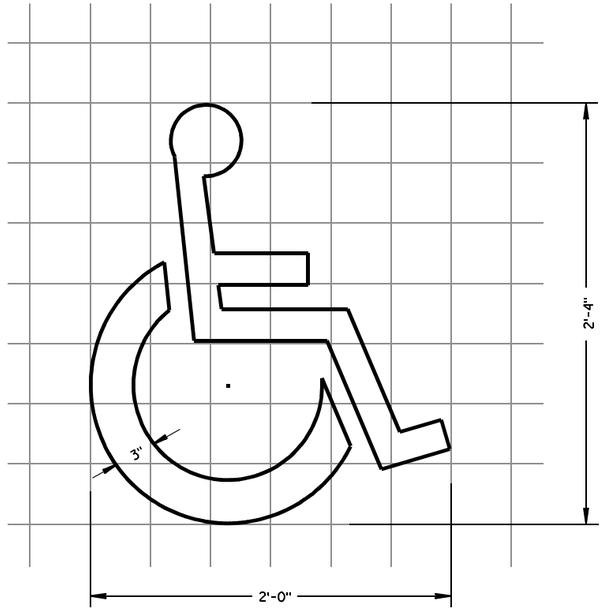
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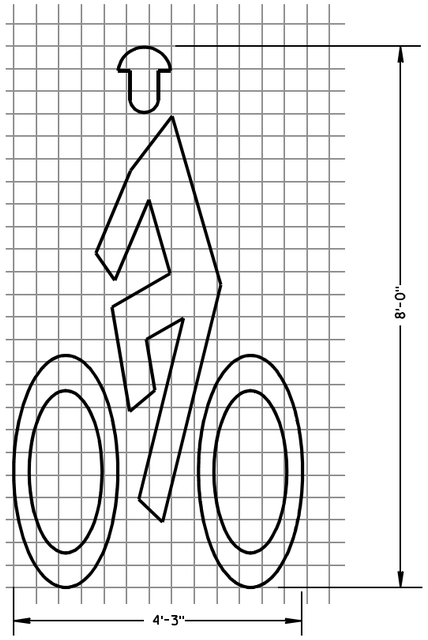
GENERAL NOTES

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.

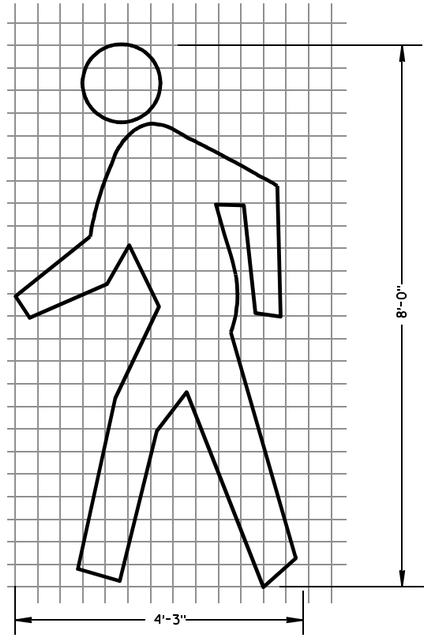
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES OF THAT BOOK ARE ACCEPTABLE.

A DETAILED DRAWING OF THE HANDICAPPED PARKING SYMBOL IS ILLUSTRATED IN THE "STANDARD HIGHWAY SIGNS MANUAL" BY THE FEDERAL HIGHWAY ADMINISTRATION.

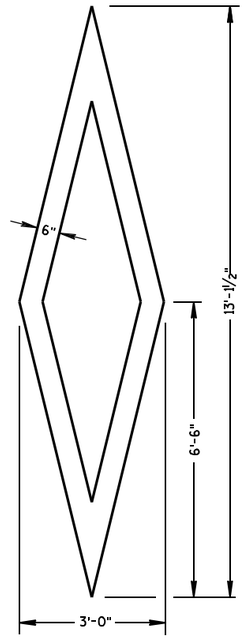




BIKE CROSSING SYMBOL



PEDESTRIAN SYMBOL



PREFERENTIAL LANE SYMBOL

PAVEMENT MARKING SYMBOLS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/1/11 — DATE

/S/ Thomas N Nathan — STATE TRAFFIC ENGINEER

FHWA

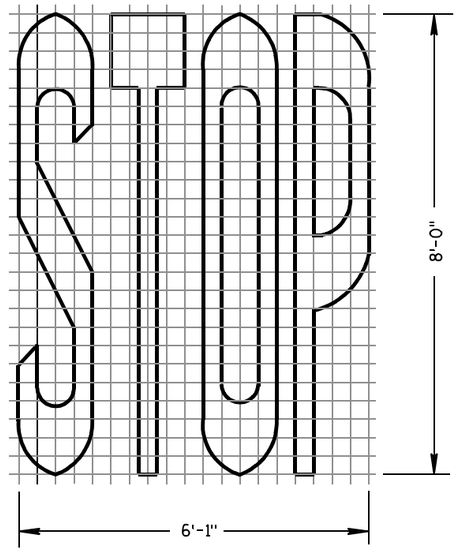
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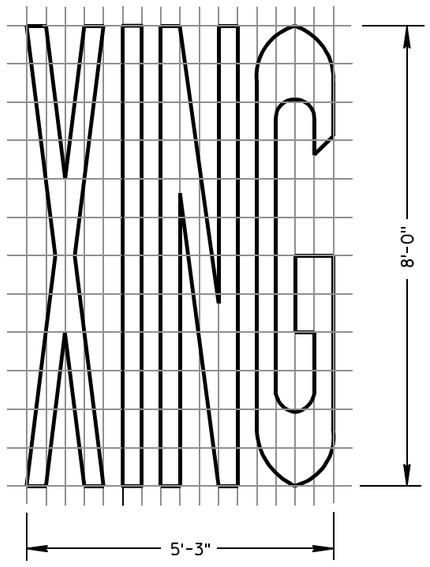
S.D.D. 15 C 7-12a

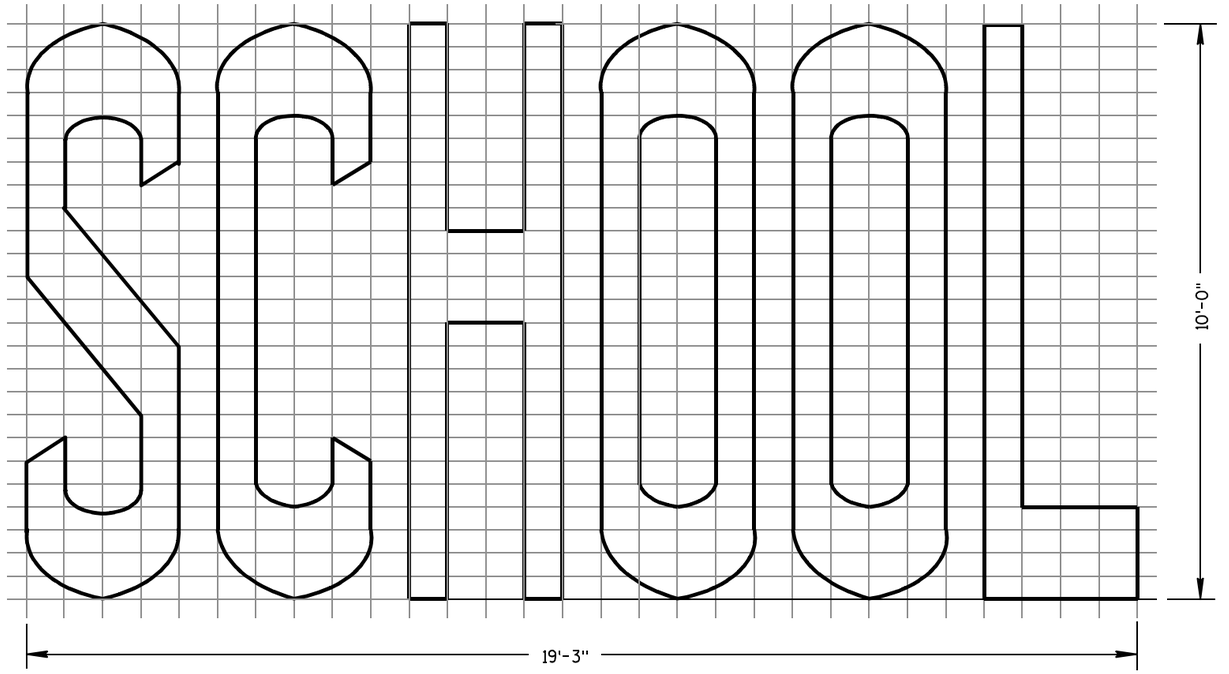
GENERAL NOTES

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.

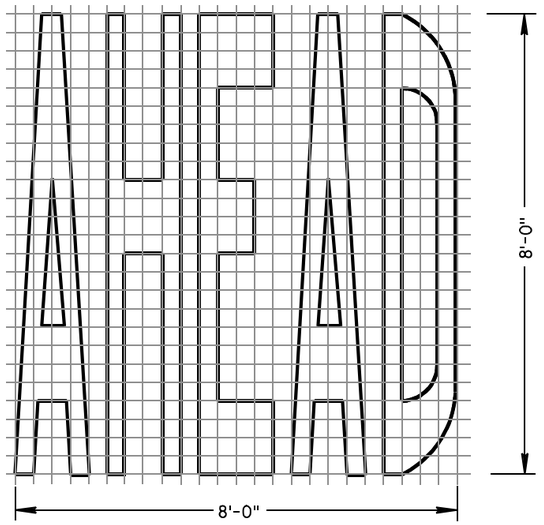
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES OF THAT BOOK ARE ACCEPTABLE.

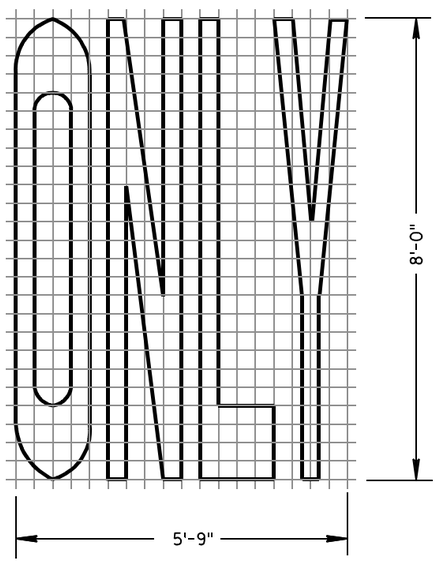


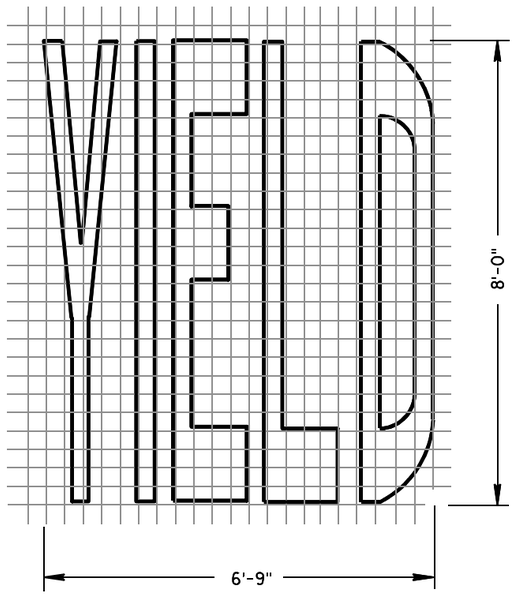


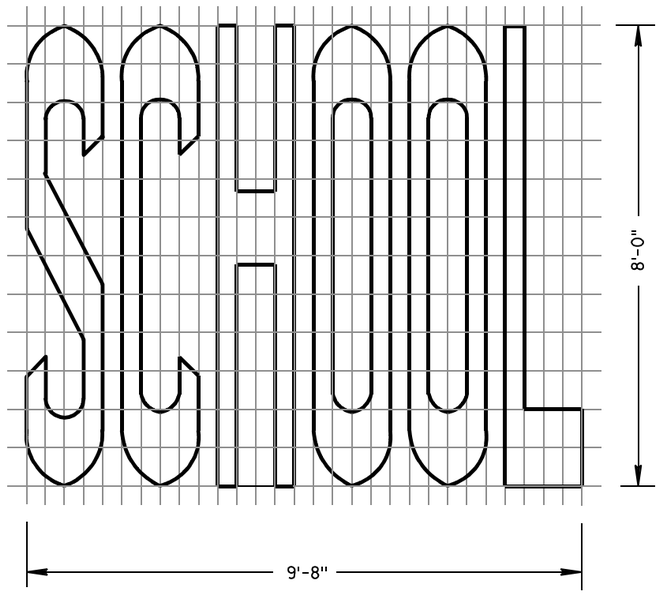


TWO-LANE









SINGLE-LANE

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7-1-11 DATE — /S/ Thomas N. Nothohm STATE TRAFFIC ENGINEER — IGN

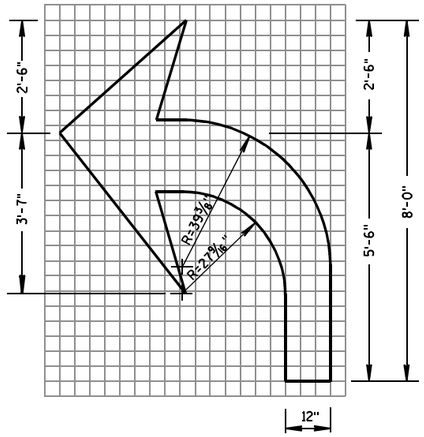
FHWA

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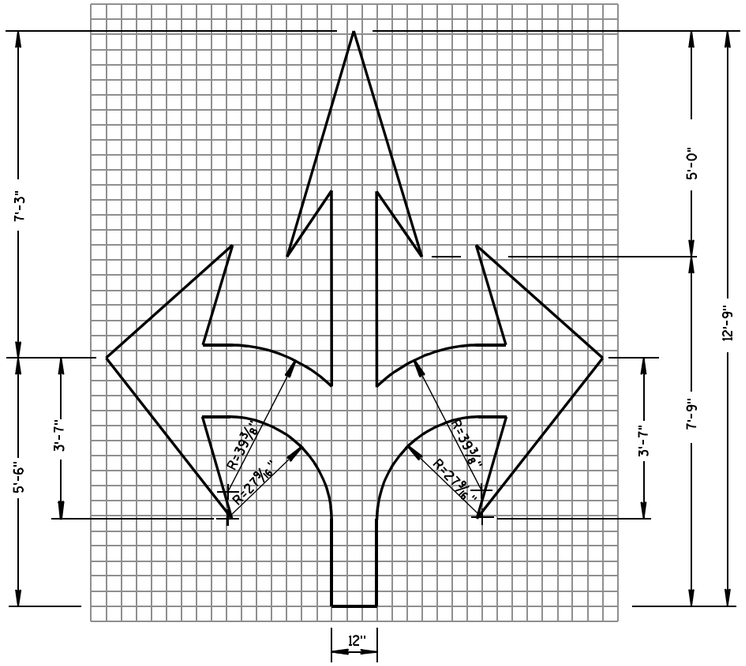
S.D.D. 15 C 7-12b

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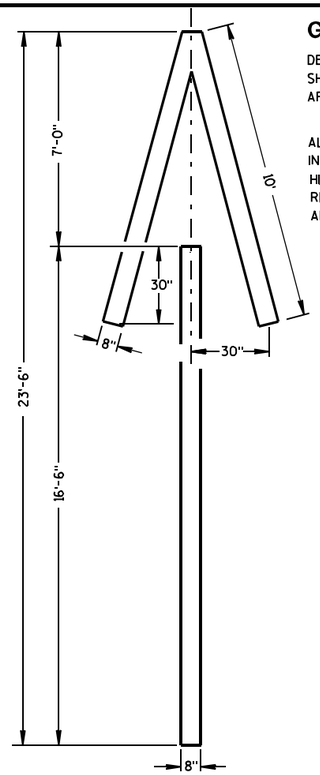
S.D.D. 15 C 7-12b



TYPE 2



TYPE 6

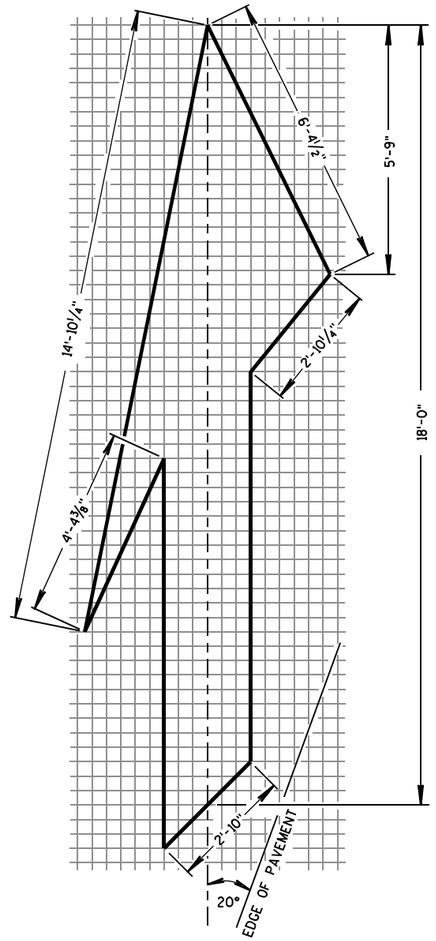


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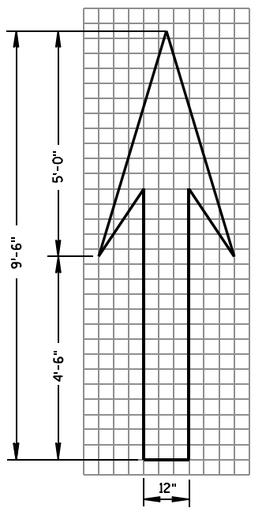
GENERAL NOTES

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.

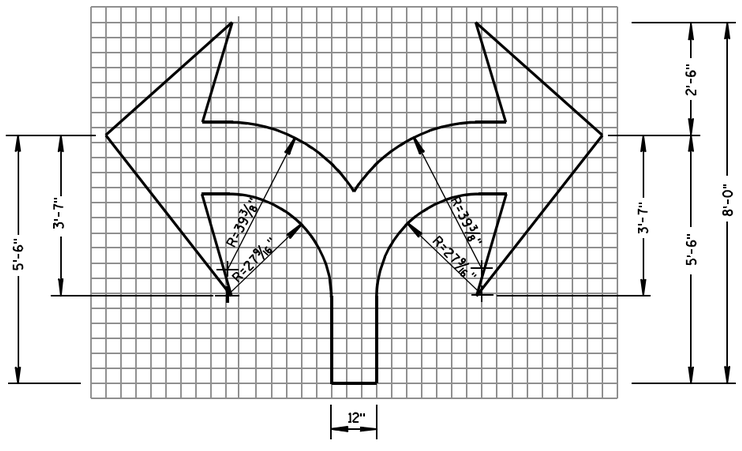
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES OF THAT BOOK ARE ACCEPTABLE.



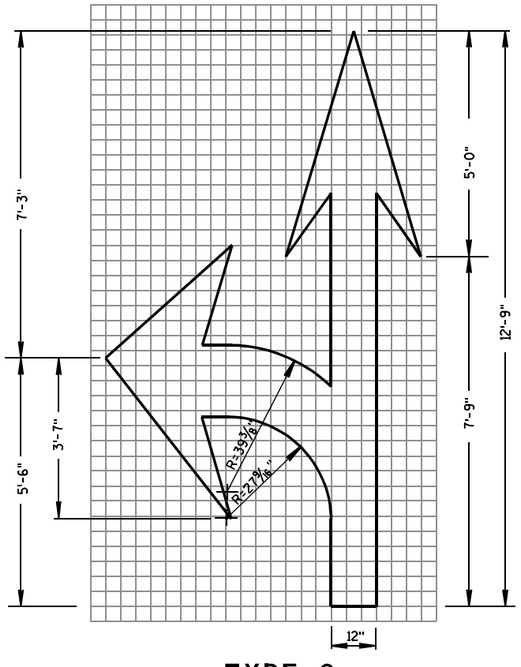
TYPE 5 LANE DROP ARROW



TYPE 1



TYPE 7



TYPE 3

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/1/11 — DATE

/S/ Thomas N. Nathaham — STATE TRAFFIC ENGINEER

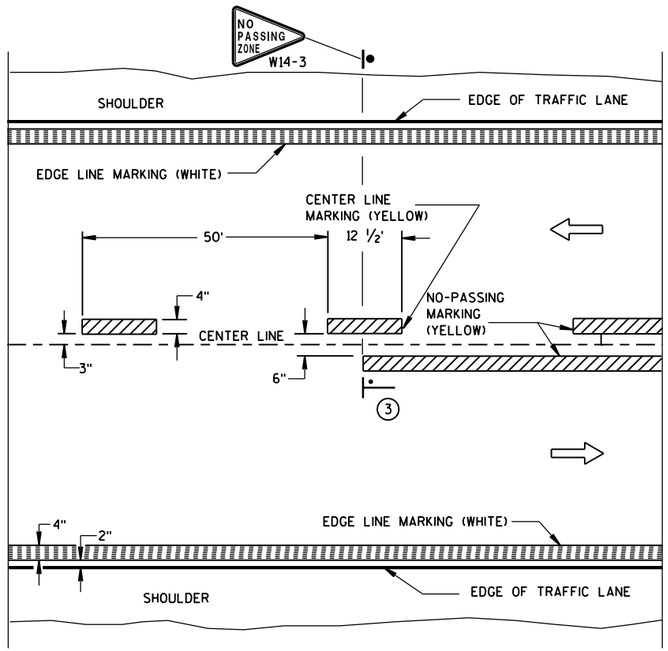
FHWA

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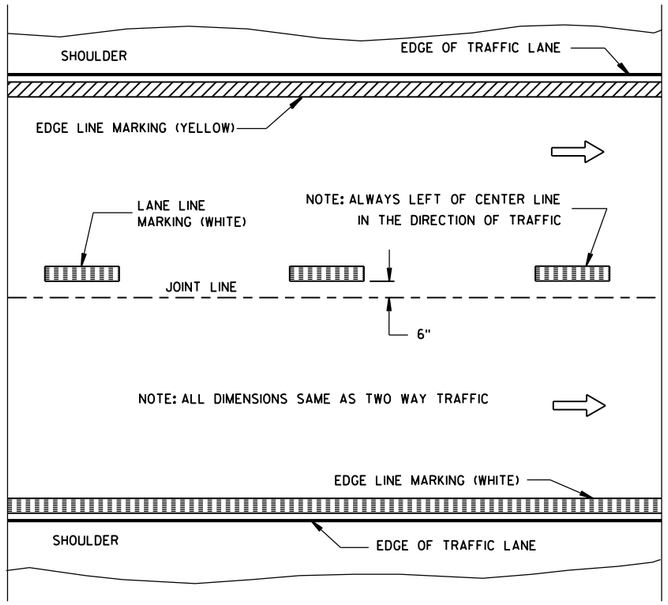
S.D.D. 15 C 7-12c

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S.D.D. 15 C 7-12c

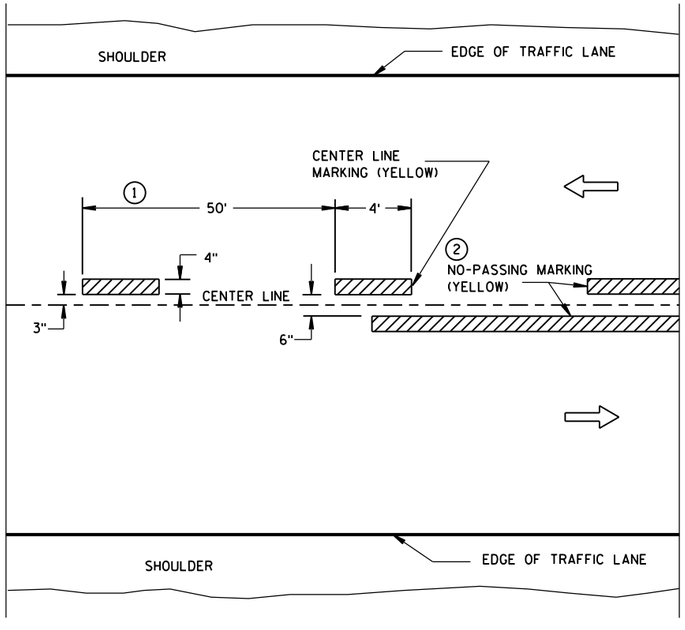


TWO WAY TRAFFIC

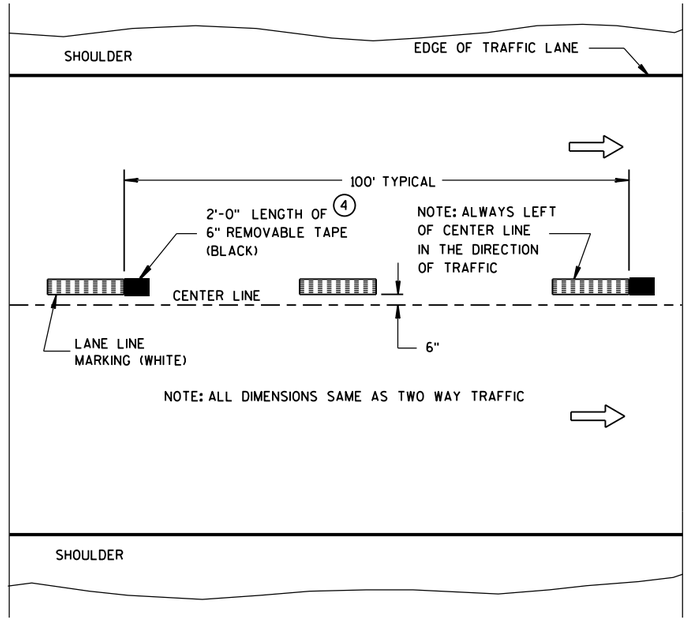


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

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

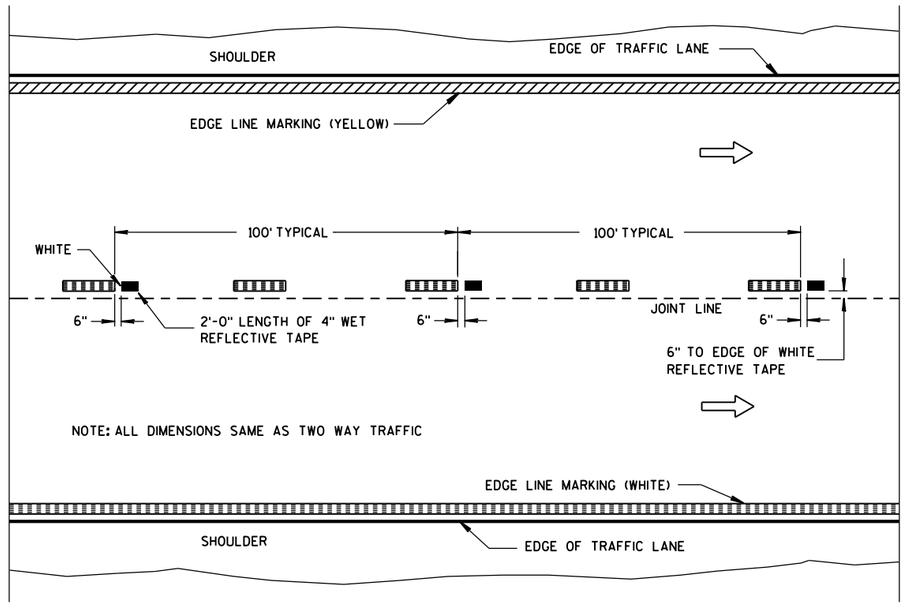
GENERAL NOTES

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

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

NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL



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

LEGEND

"T" MARKING

POST MOUNTED SIGN

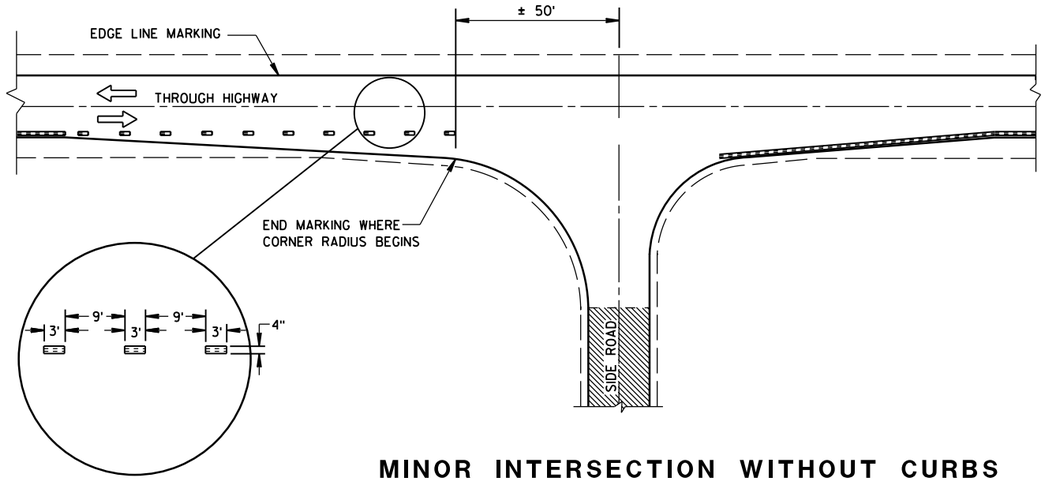
PAVEMENT MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5-13-2013 DATE
/S/ Travis Feltes STATE TRAFFIC E
FHWA

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S.D.D. 15 C 8-16a



MINOR INTERSECTION WITHOUT CURBS

GENERAL NOTES

EDGE LINES SHALL BE OMITTED THROUGH INTERSECTIONS. EDGE LINES SHALL BE CONTINUED 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) ALTERNATIVE MARKING SHALL BE PROVIDED WHEN SPECIFIED IN THE CONTRACT. TYPICAL SITUATIONS WHERE THIS MARKING MAY BE REQUIRED ARE WHERE THE INTERSECTION IS ON A SHARP HORIZONTAL CURVE OR CREST VERTICAL CURVE IN AN UNLIGHTED AREA SUCH THAT THE EDGE LINE MAY BE MISLEADING TO THE MOTORIST OR DISAPPEAR FROM SIGHT.

(4) THE EDGE LINE IN THE TAPER AREAS OF THE BYPASS LANE AND THE BYPASS LANE SHALL BE LOCATED 1-FOOT FROM EDGE OF PAVEMENT TO THE OUTSIDE EDGE OF EDGE LINE.

(5) BARRIER LINE ENDS AT SIDE ROAD PAVEMENT/SURFACE EDGE EXTENSION.

(6) BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.

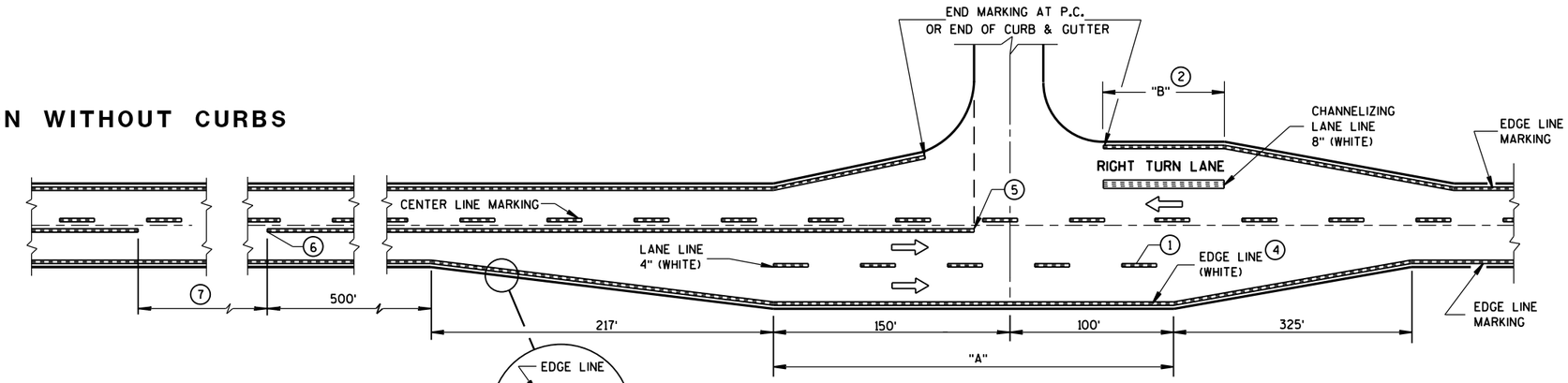
(7) IF THE DISTANCE BETWEEN 2 SUCCESSIVE NO-PASSING ZONES IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES, CONNECT THE 2 ZONES.

(8) 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

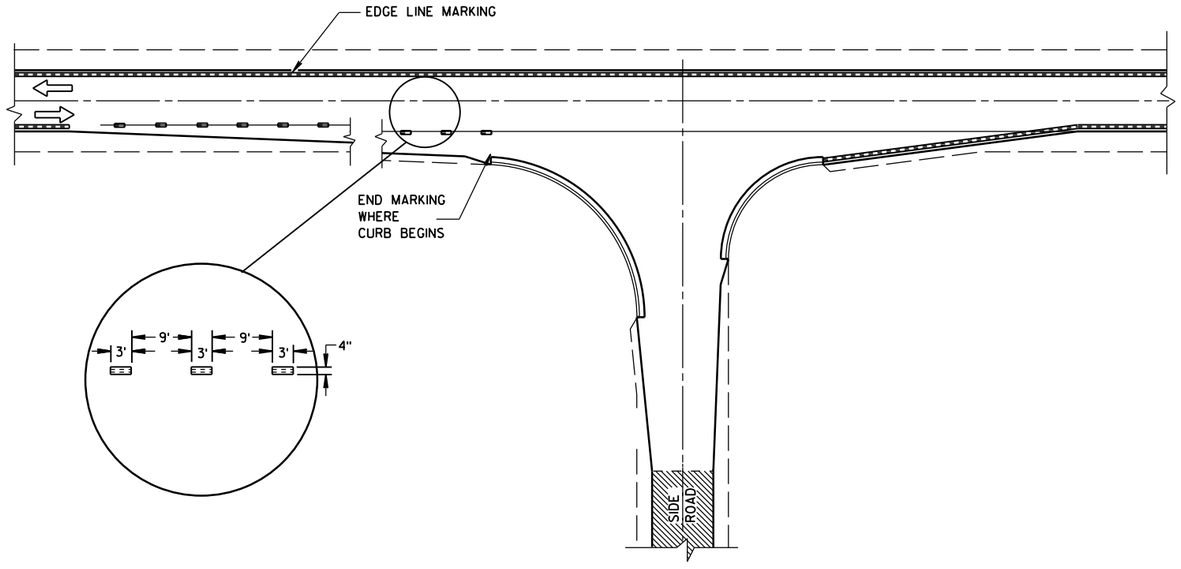
(7)

POSTED SPEED (MPH)	MINIMUM DISTANCE BETWEEN ZONES (FEET)
25 - 30	528
35 - 40	528
45 - 50	686
55	792



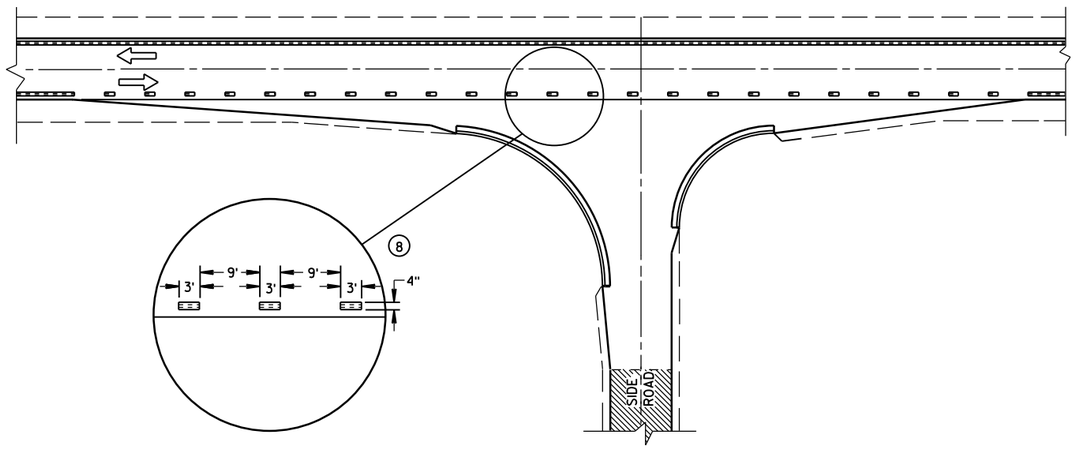
MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANES)



MINOR INTERSECTION WITH CURBS

(TYPICAL MARKING)



MINOR INTERSECTION WITH CURBS

(3) (FOR SPECIAL CONDITIONS AS SPECIFIED)

PAVEMENT MARKING
(INTERSECTIONS)

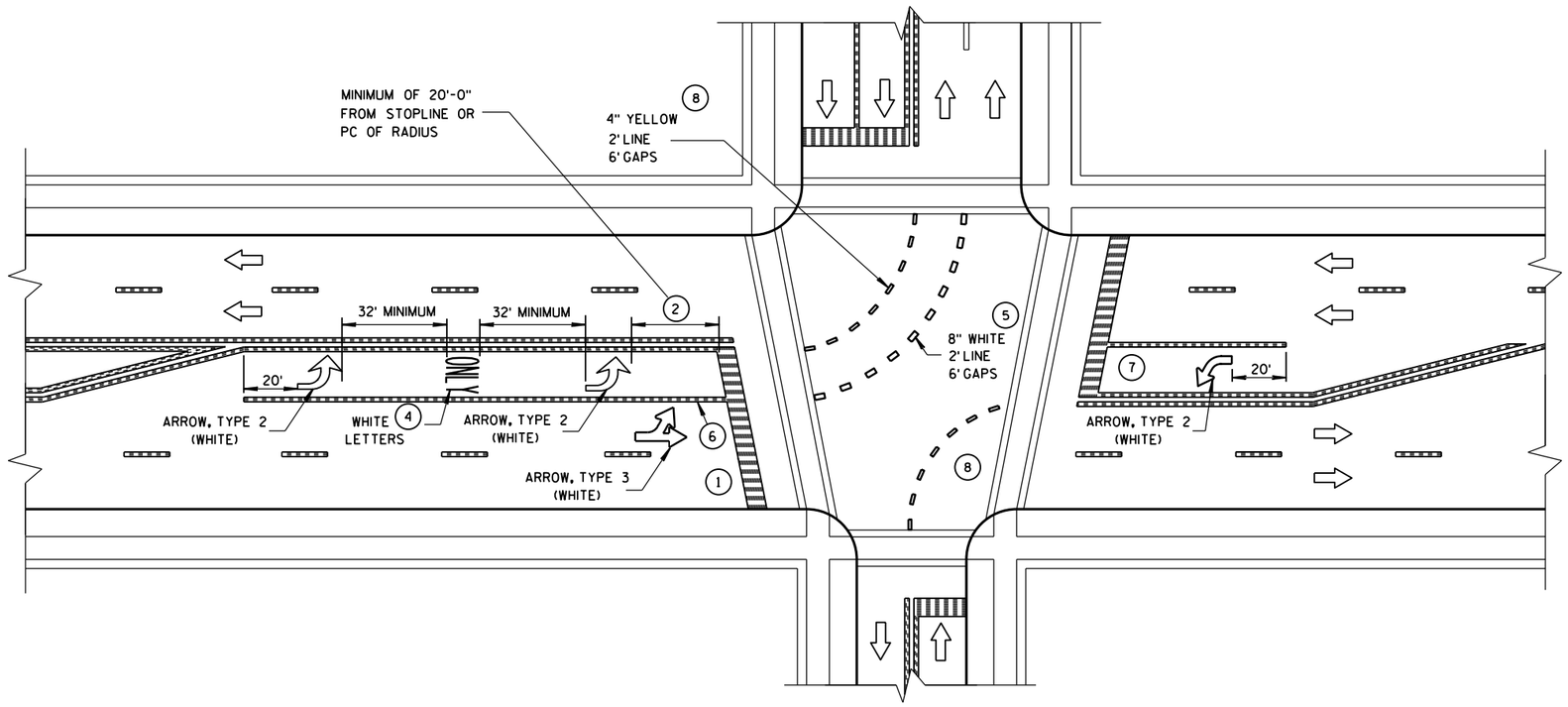
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 15 C 8-16b

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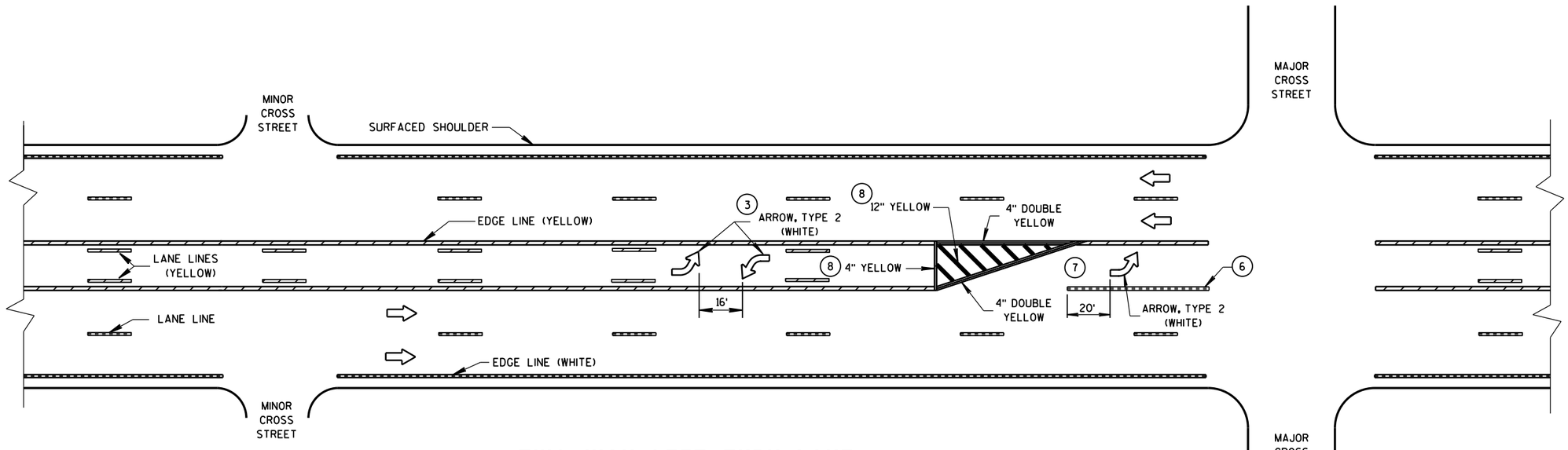
S.D.D. 15 C 8-16b



GENERAL NOTES

1. STOP BAR IS REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.
2. DISTANCE MAY BE ADJUSTED TO ACCOMODATE SHORT LEFT TURN LANES. AS APPROVED BY THE ENGINEER.
3. A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
4. ADD EXTRA SETS OF ONE ARROW AND ONE ONLY PER 160 FEET OR WHEN ON A CURVE.
5. 8" WHITE WITH 2' LINE 6' GAPS FOR DUAL TURN LANE.
6. 8" WHITE
7. ADD SECOND ARROW WHEN TURN BAY IS GREATER THAN OR EQUAL TO 108 FEET.
8. REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.

NOTE:
ARROW SYMBOL (⇨)
SHOWS DIRECTION OF TRAVEL



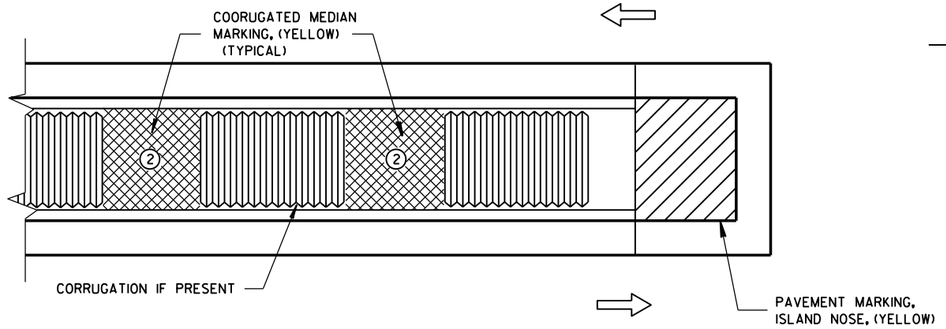
TWO WAY LEFT TURN LANE

PAVEMENT MARKING (LEFT TURN LANE)

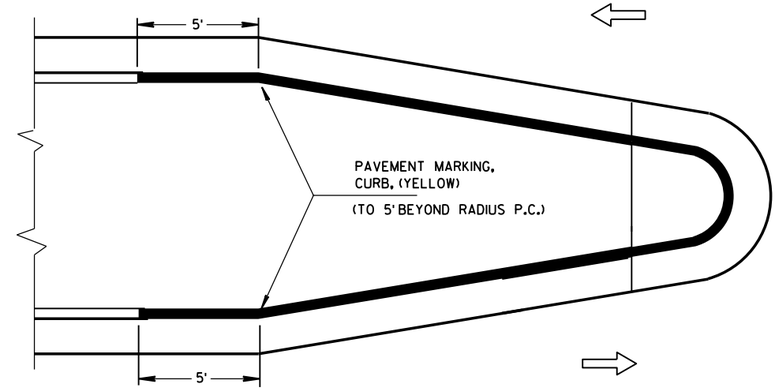
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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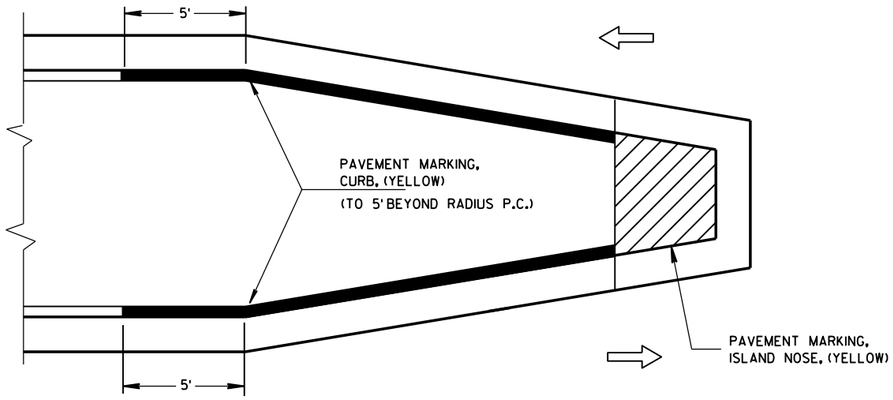
S.D.D. 15 C 8-16e



MEDIAN ISLAND WITH SQUARE BLUNT NOSE

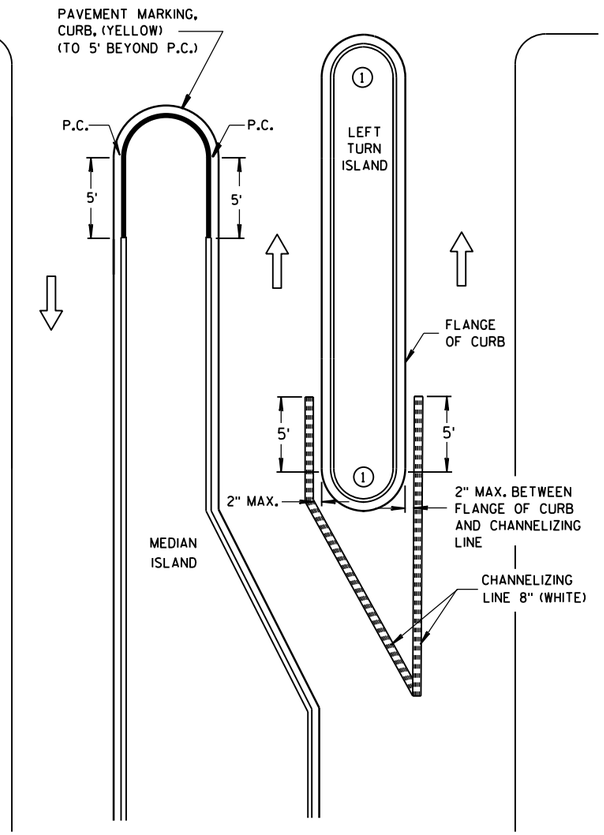


MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

TYPICAL PLACEMENT OF PAVEMENT MARKING ON MEDIAN ISLANDS

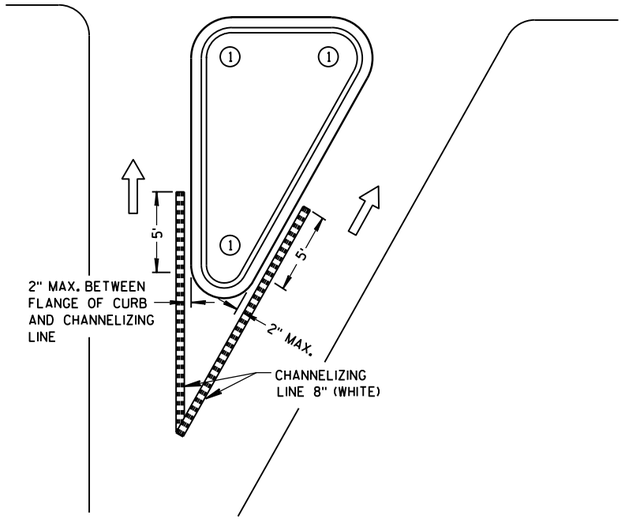


LEFT TURN & MEDIAN ISLAND

GENERAL NOTES

1. DO NOT MARK CURB NOSES THAT SEPARATE LANES OF TRAFFIC TRAVELING IN THE SAME DIRECTION.

2. 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 AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.



RIGHT TURN ISLAND

LEGEND

- ISLAND NOSE MARKING
- CURB MARKING
- CORRUGATED MEDIAN MARKING
- DIRECTION OF TRAVEL

PAVEMENT MARKING
(ISLANDS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 15 C 8-16f

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S.D.D. 15 C 8-16f

LEGEND

SIGN ON PORTABLE OR PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA

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

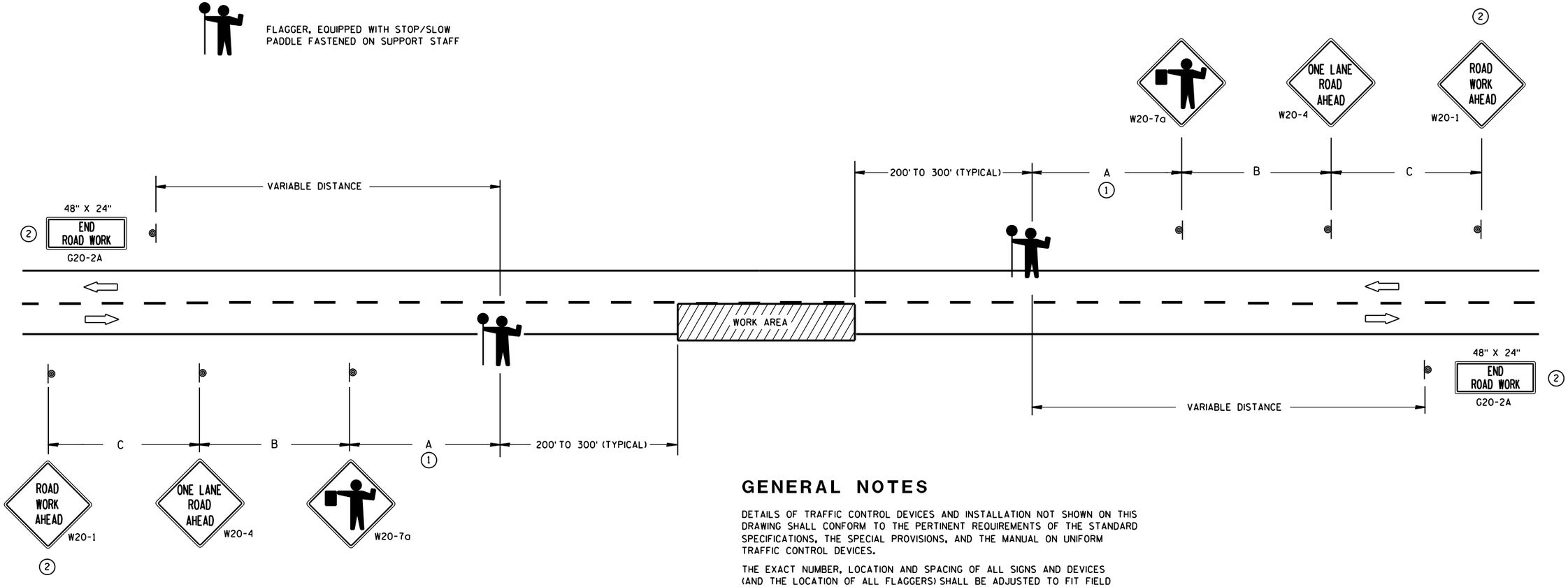
SIGN SPACING TABLE

SPEED LIMIT	SIGN SPACING A,B,C
25-35 MPH	200'
35-40 MPH	350'
45-55 MPH	500'



W3-4

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



(1) FOR A MOVING WORK OPERATION,
SIGNING FOR BOTH DIRECTIONS SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3500 FOOT INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.

(2) SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

GENERAL NOTES

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

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

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

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

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT, COVER OR REMOVE ALL TEMPORARY TRAFFIC CONTROL SIGNS.

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

TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

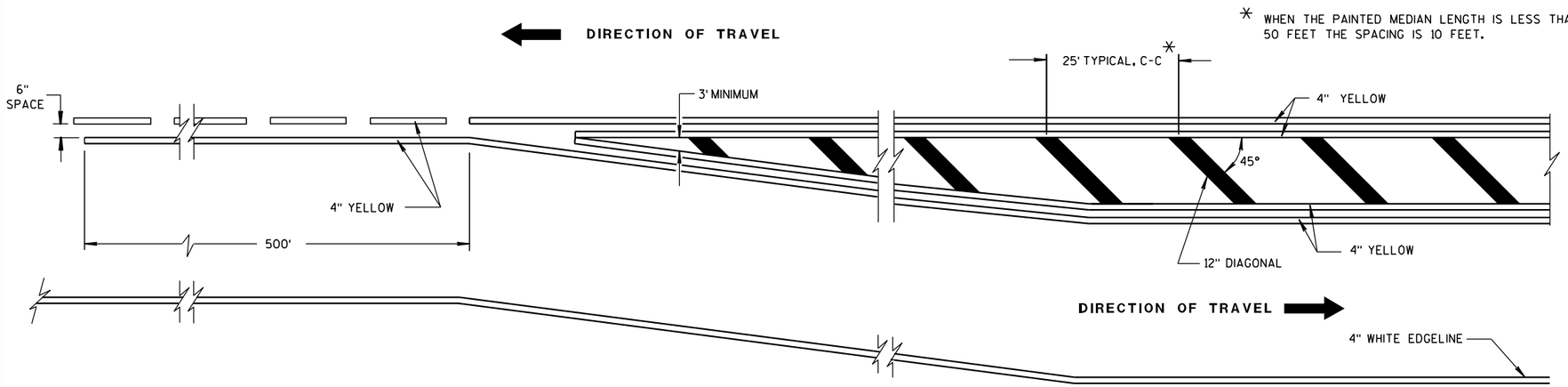
APPROVED
8/2013
DATE
/S/ Travis Feltes
STATE TRAFFIC ENGINEER
DESIGN
FHWA

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S.D.D. 15 C 12-4

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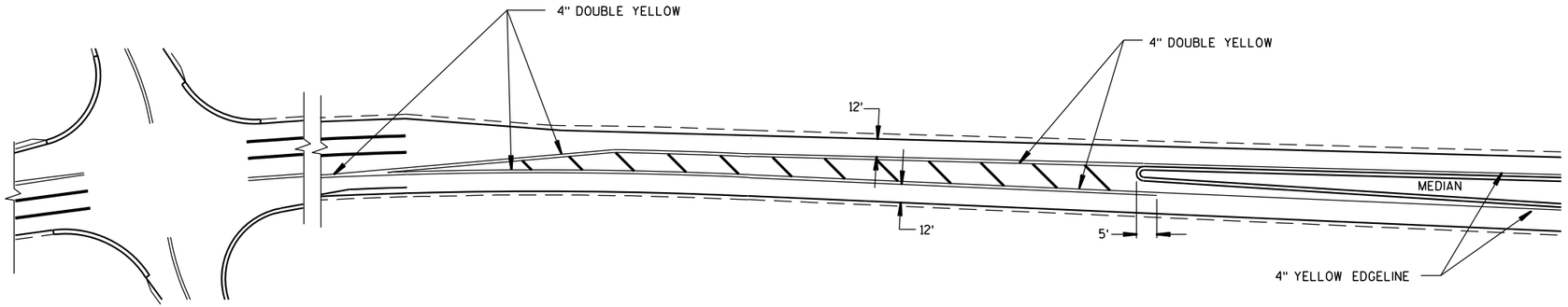
S.D.D. 15 C 12-4



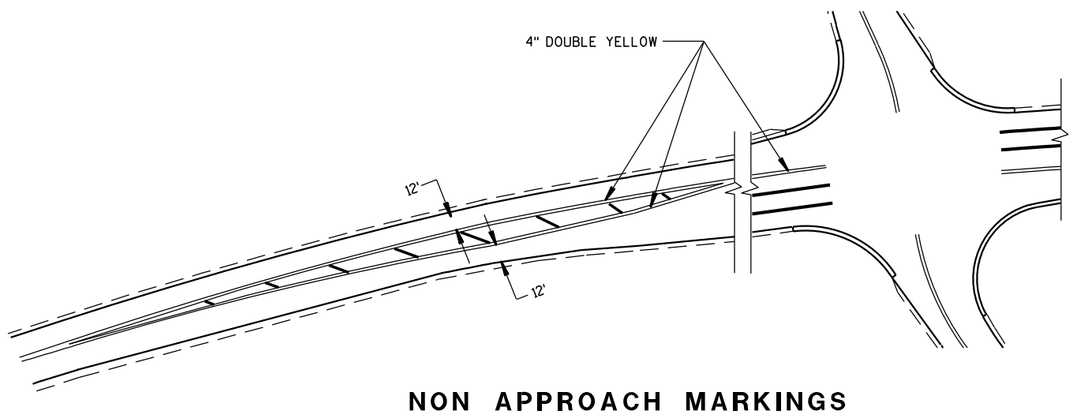
MEDIAN ISLAND DETAIL

GENERAL NOTE

DIAGONALS ARE OPTIONAL WHEN PAINTED ISLAND IS LESS THAN 6 FEET AT WIDEST POINT.



APPROACH MARKINGS FOR OTHER MEDIAN TYPES



NON APPROACH MARKINGS

MEDIAN ISLAND MARKING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 2-5-09 DATE	/S/ Thomas N. Nothohm STATE TRAFFIC ENGINEER
FHWA	189 IGN

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S.D.D. 15 C 18-3

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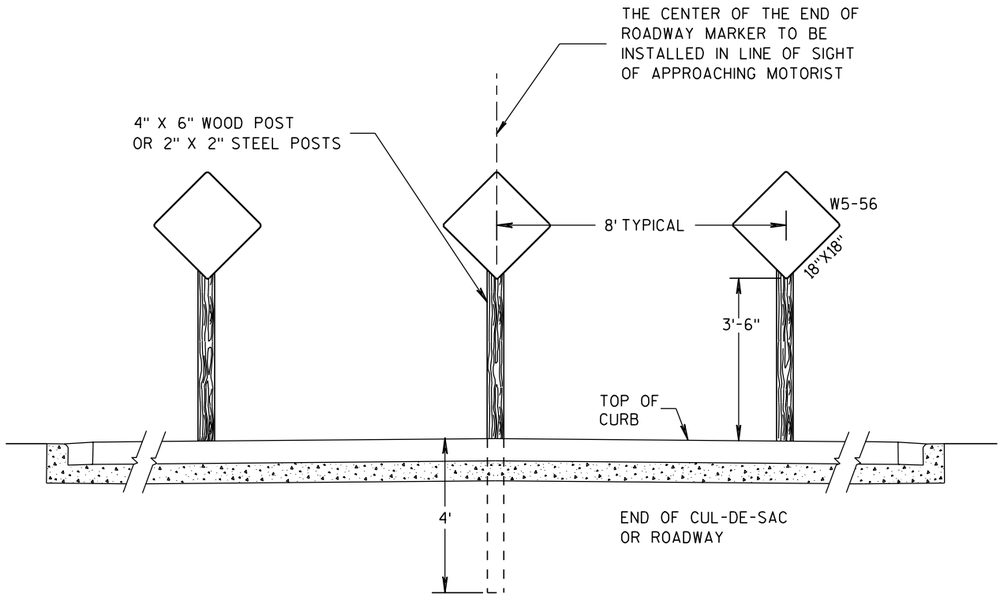
S.D.D. 15 C 18-3

GENERAL NOTES

SIGN LOCATIONS SHOWN ARE TYPICAL PLACEMENT AND MAY BE ADJUSTED BY THE ENGINEER AS FIELD CONDITIONS DICTATE.

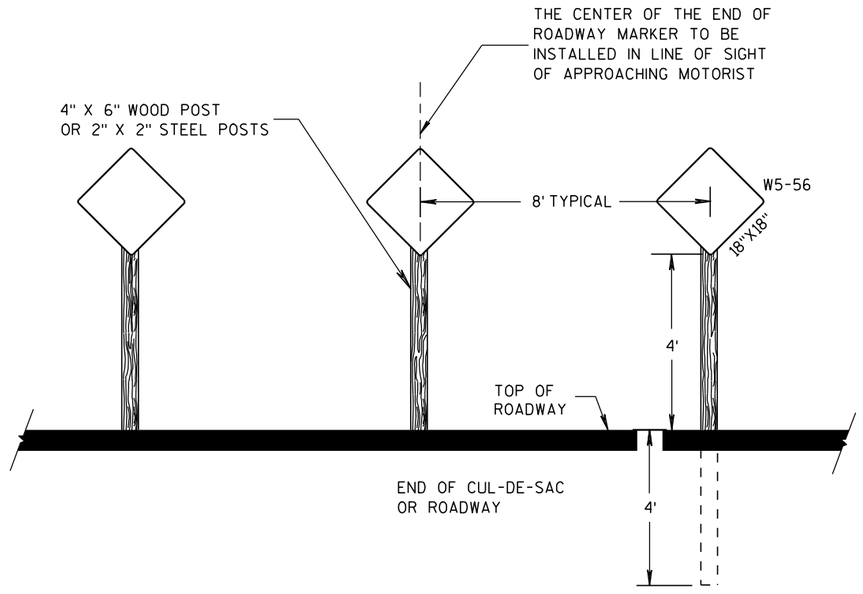
THE MINIMUM NUMBER OF END-OF-ROADWAY SIGNS ARE THREE (AS SHOWN). ADDITIONAL END-OF-ROADWAY SIGNS MAY BE INSTALLED AS FIELD CONDITIONS DICTATE. (SEE SIGNING PLAN).

WHEN BEAMGUARD IS REQUIRED, PLACE END-OF-ROADWAY SIGNING BEHIND BEAMGUARD.



TYPICAL URBAN SIGN INSTALLATION

(WITH CURB & GUTTER)



TYPICAL RURAL SIGN INSTALLATION

(WITHOUT CURB & GUTTER)

END-OF-ROADWAY SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/1/2011 — DATE

/S/ Thomas N. Nothohm — STATE TRAFFIC ENGINEER

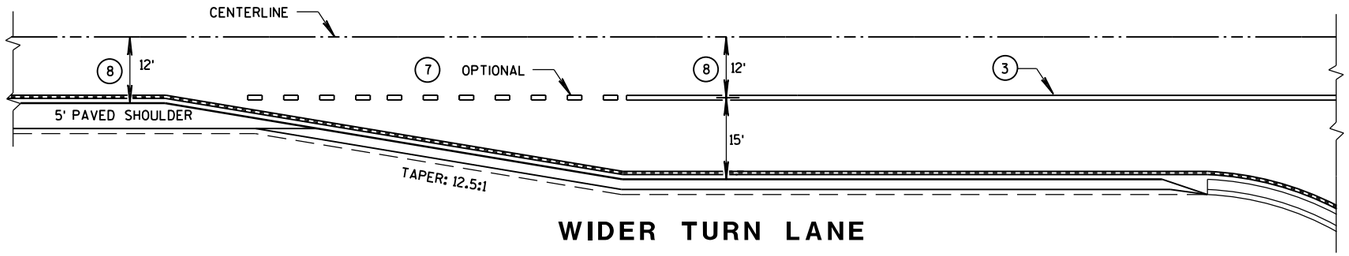
FHWA

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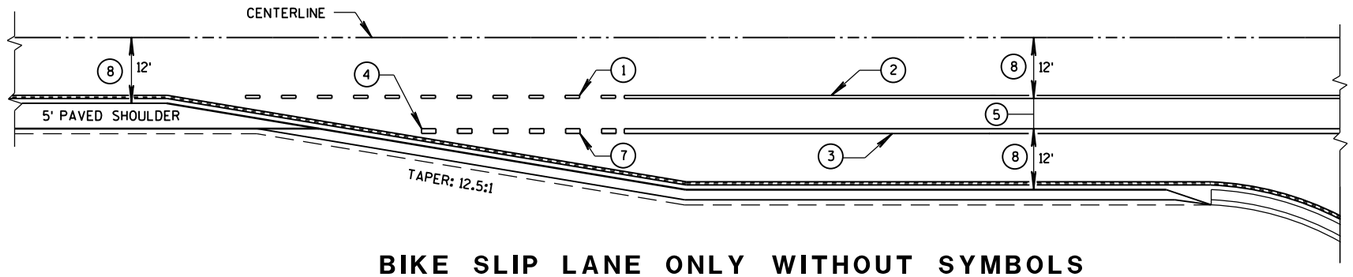
S.D.D. 15 C 26-2

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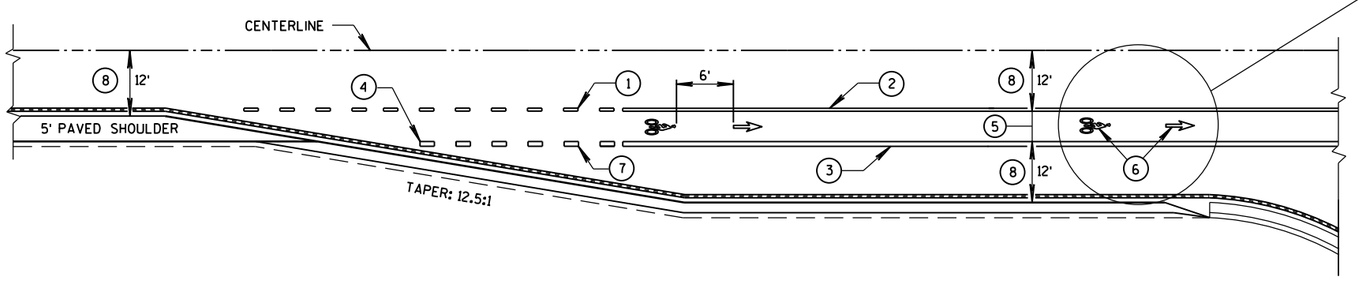
S.D.D. 15 C 26-2



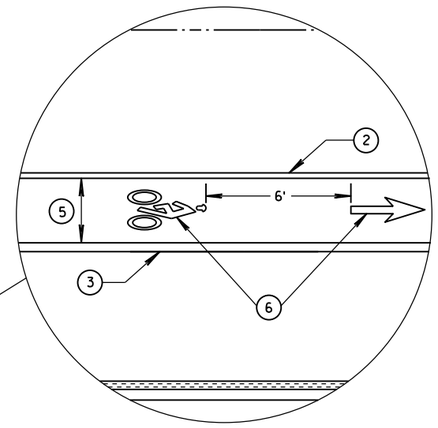
WIDER TURN LANE



BIKE SLIP LANE ONLY WITHOUT SYMBOLS



BIKE LANE WITH SYMBOLS



GENERAL NOTES

1. 3' LINE, 9' GAP - 4-INCH WIDE, WHITE.
2. 4-INCH, WHITE.
3. 8-INCH, WHITE.
4. IF SIGNED AND/OR MARKED AS A BICYCLE FACILITY INCLUDE SECOND LINE OF LINE-SPACE MARKING, OTHERWISE DO NOT.
5. BIKE ACCOMMODATION FOR CONCRETE PAVEMENT IS 5' WIDE. BIKE ACCOMMODATION FOR ASPHALT PAVEMENT IS A MINIMUM OF 4', 5' AT ≥ 45 MPH.
6. REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.
7. 3' LINE, 9' GAP - 8-INCH WIDE, WHITE.
8. REFER TO CONTRACT PLANS.

6

S.D.D. 15 C 29-3a

BICYCLE LANE MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

4/30/2013
DATE

/S/ Travis Feltes
STATE TRAFFIC E

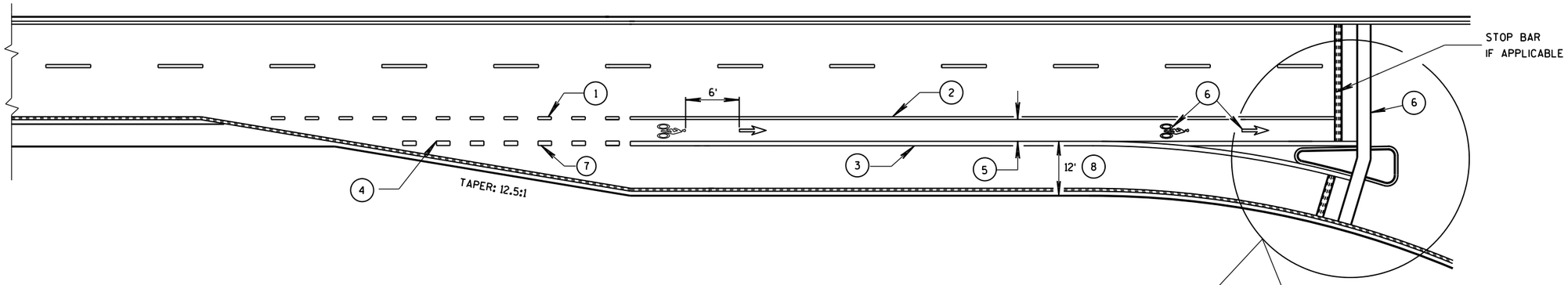
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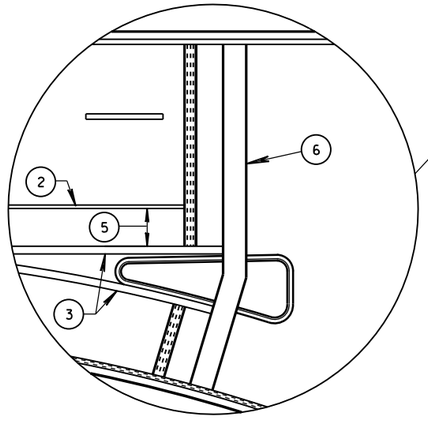
S.D.D. 15 C 29-3a

GENERAL NOTES

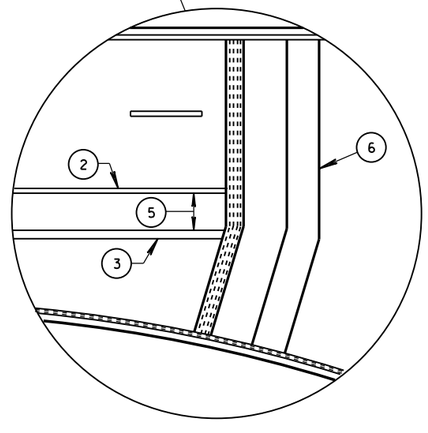
1. 3' LINE, 9' GAP - 4-INCH WIDE, WHITE.
2. 4-INCH, WHITE.
3. 8-INCH, WHITE.
4. IF SIGNED AND/OR MARKED AS A BICYCLE FACILITY INCLUDE SECOND LINE OF LINE-SPACE MARKING, OTHERWISE DO NOT.
5. 5' TYPICAL.
6. REQUIRED ONLY WHEN SPECIFIED IN THE CONTRACT.
7. 3' LINE, 9' GAP - 8-INCH WIDE, WHITE.
8. REFER TO CONTRACT PLANS.



BIKE LANE - 4-LANE DIVIDED WITH RIGHT TURN LANE



4 LANE DIVIDED WITH ISLAND



4 LANE DIVIDED WITHOUT ISLAND

BICYCLE LANE MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

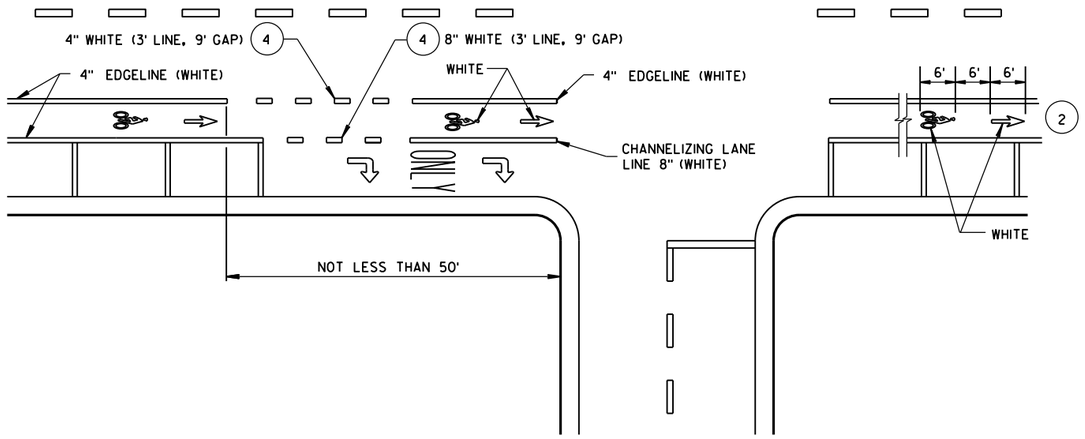
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S.D.D. 15 C 29-3b

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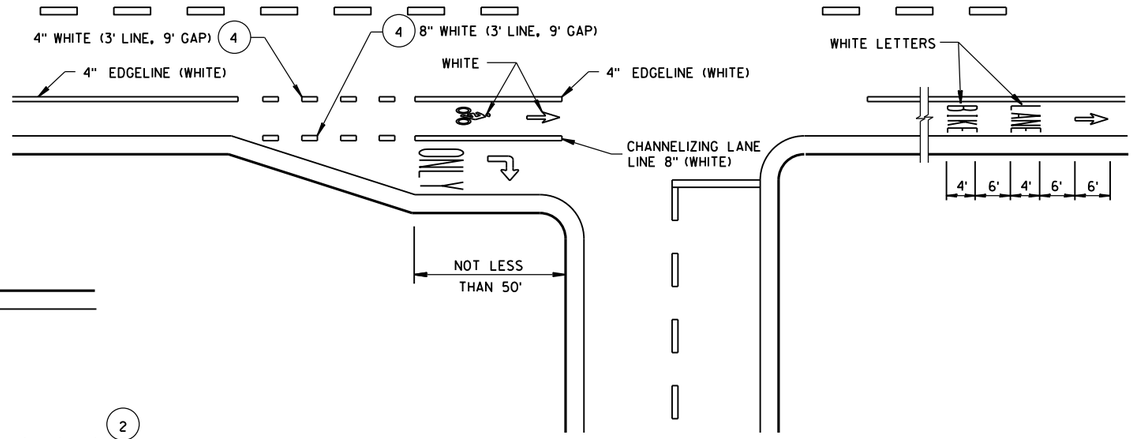
S.D.D. 15 C 29-3b



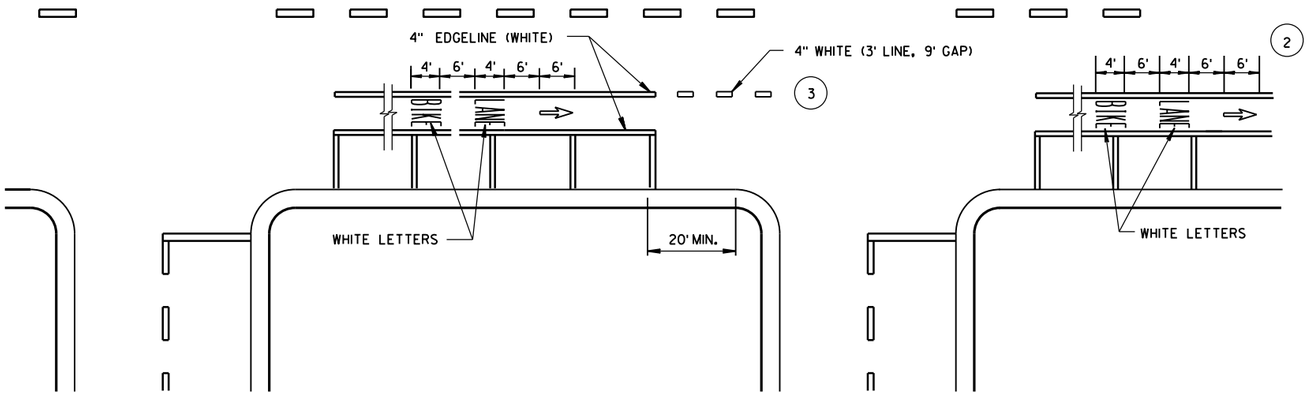
DESIGNATED BICYCLE LANE

GENERAL NOTES

1. DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.
2. THE SERIES OF PAVEMENT MARKING SYMBOLS SHALL BE REPEATED AFTER INTERSECTIONS AND SPACED A MAXIMUM OF 250'. NO PAVEMENT MARKING WILL TAKE PLACE IN THE CROSSWALK.
3. DOTTED LINES SHOULD BE USED 50' TO 200' 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. WHEN SPECIFIED IN THE CONTRACT.



DESIGNATED BICYCLE LANE
NO PARKING, RIGHT TURN LANE



DESIGNATED BICYCLE LANE
WITH PARKING, NO RIGHT TURN LANE

URBAN BICYCLE LANE MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4/30/2013 DATE
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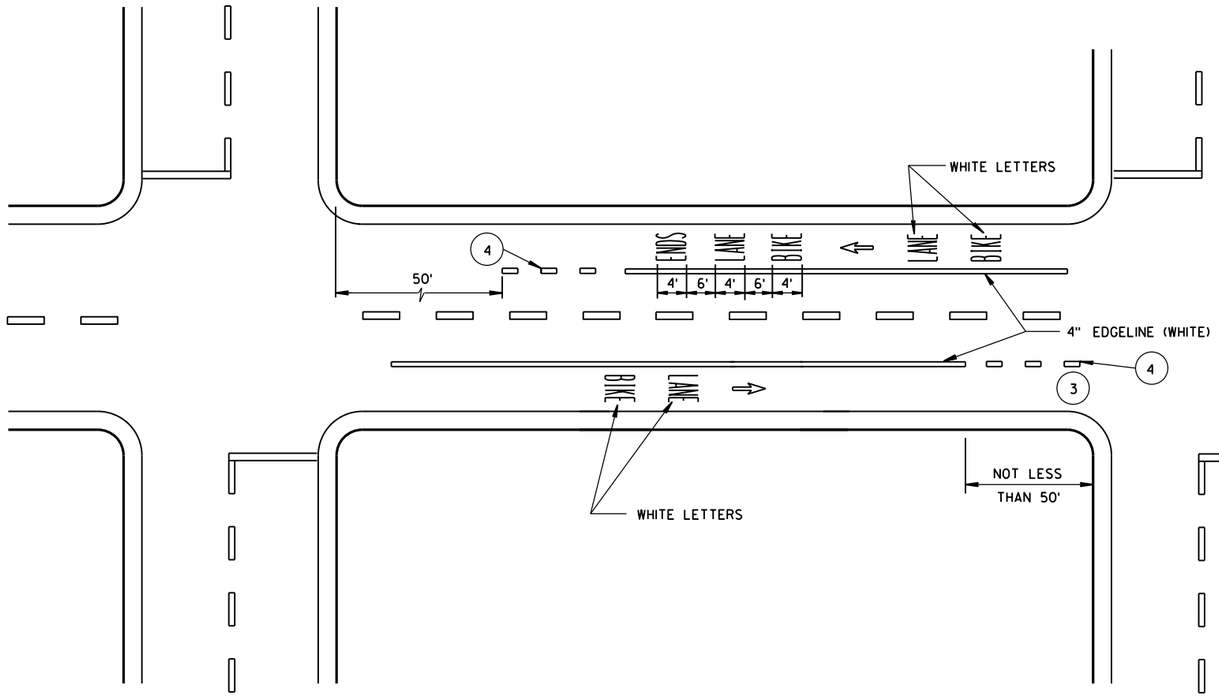
S.D.D. 15 C 29-3c

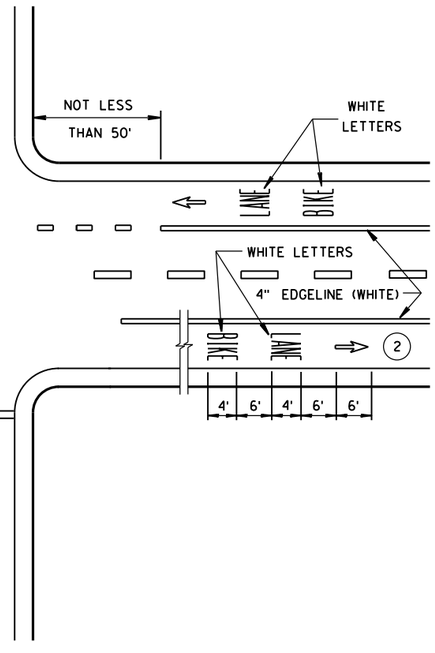
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S.D.D. 15 C 29-3c

GENERAL NOTES

1. DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.
2. THE SERIES OF PAVEMENT MARKING SYMBOLS SHALL BE REPEATED AFTER INTERSECTIONS AND SPACED A MAXIMUM OF 250'. NO PAVEMENT MARKING WILL TAKE PLACE IN THE CROSSWALK.
3. DOTTED LINES SHOULD BE USED 50' TO 200' 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. 3' LINE, 9' GAP - 4" WIDE, WHITE.





DESIGNATED BICYCLE LANE
NO PARKING

URBAN BICYCLE LANE MARKING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
4/30/2013 DATE	/S/ Travis Feltes STATE TRAFFIC EN
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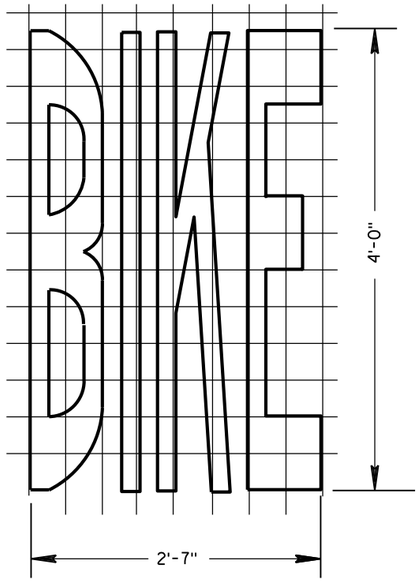
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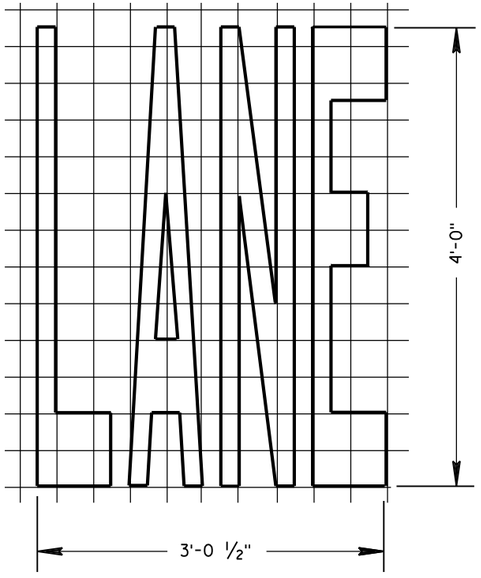
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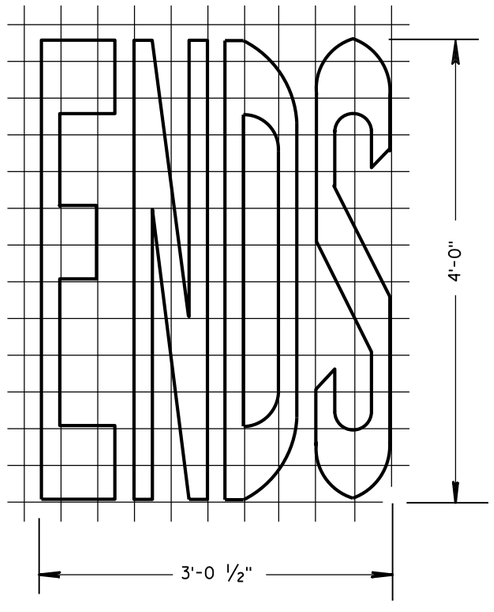
GENERAL NOTES

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.

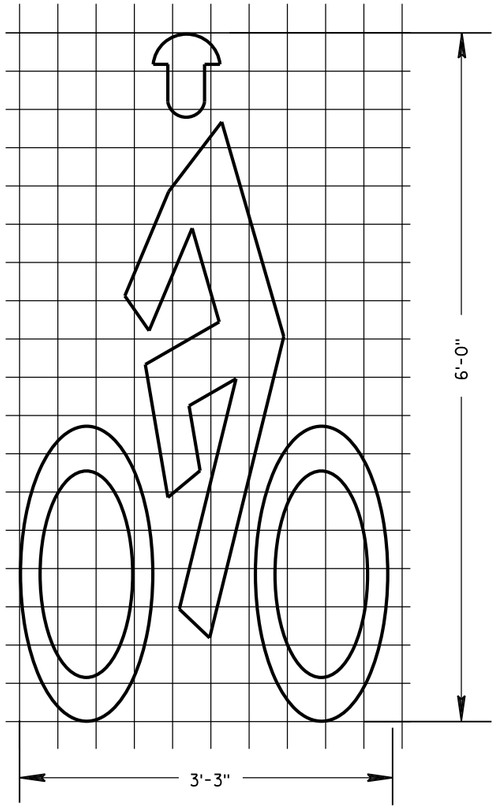
ALL LETTERS, ARROWS AND SYMBOLS SHALL BE IN CONFORMANCE WITH REQUIREMENTS INCLUDED IN "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKING" BOOK BY THE FEDERAL HIGHWAY ADMINISTRATION. ALL LETTERS, ARROWS AND SYMBOLS SHALL BE WHITE AND REFLECTORIZED. SMALL DIFFERENCES IN DIMENSIONS WITHIN THE TOLERANCES OF THAT BOOK ARE ACCEPTABLE.



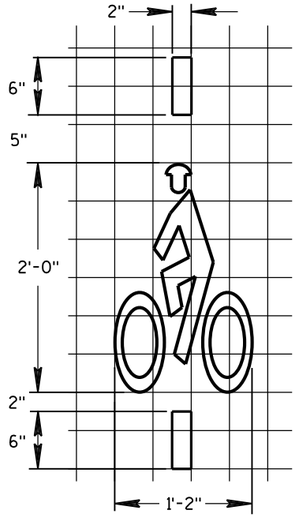




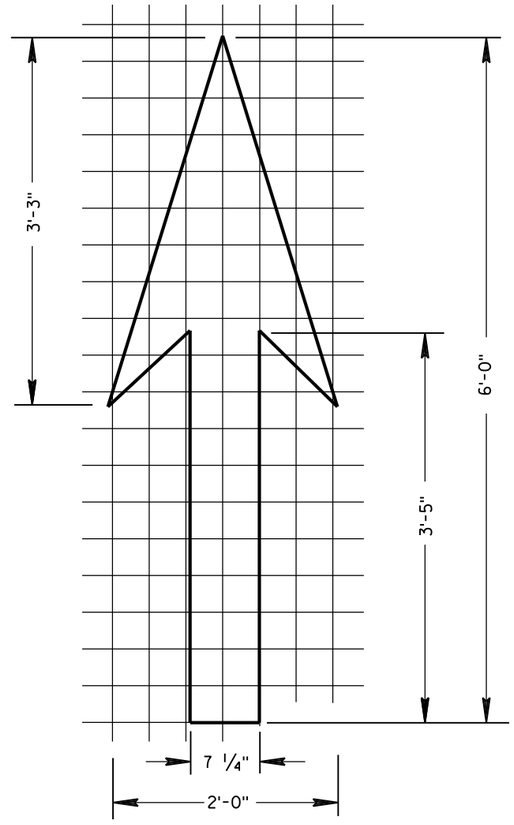
BIKE LANE WORDS



BIKE LANE SYMBOL



BICYCLE DETECTOR PAVEMENT MARKING



BIKE LANE ARROW

PAVEMENT MARKING FOR BIKE LANES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4-30-2013
DATE

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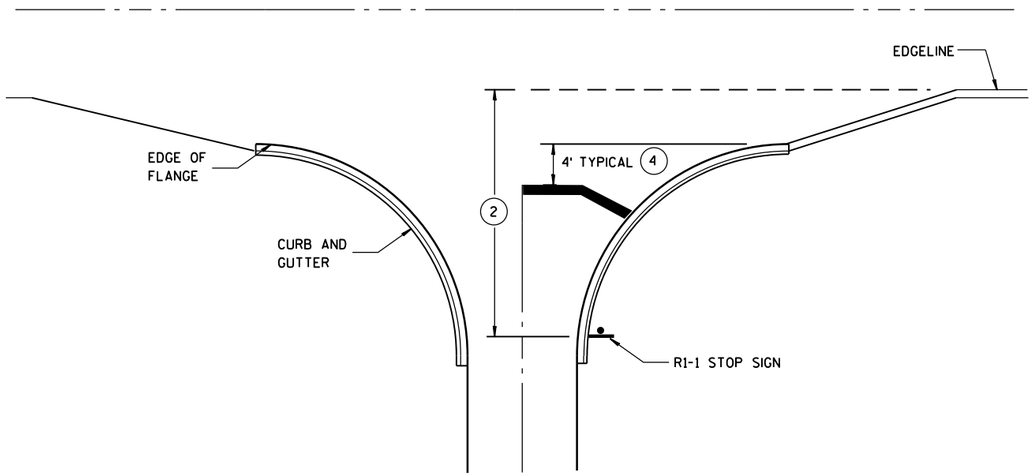
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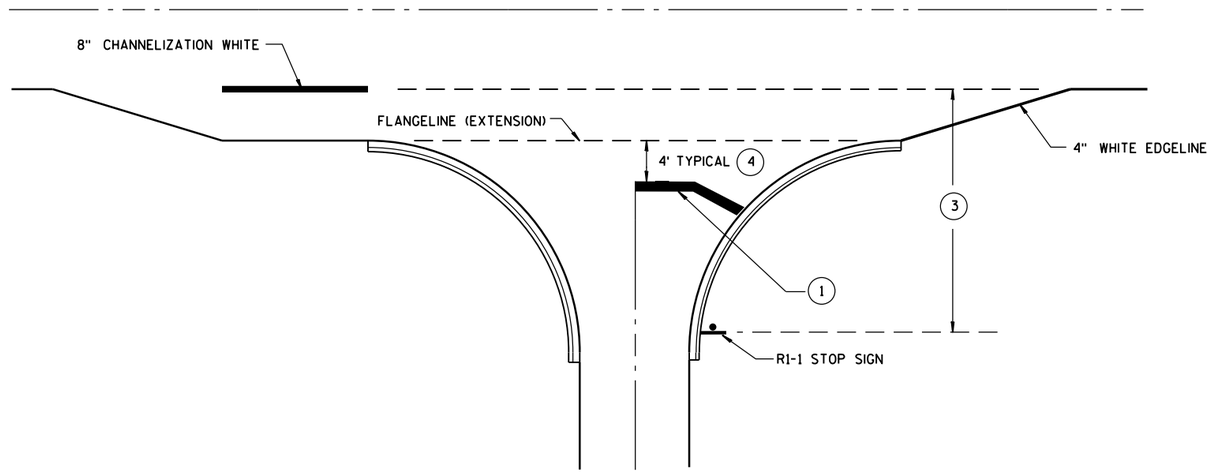
S.D.D. 15 C 29-3e

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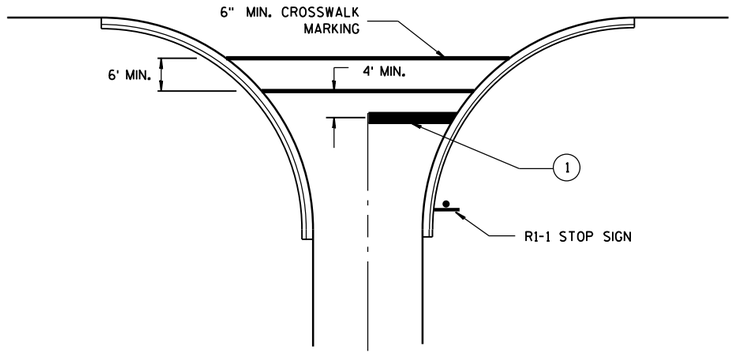
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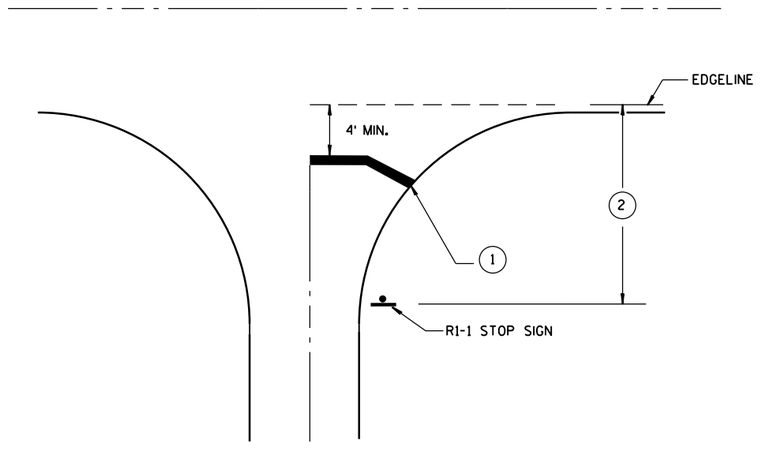
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

GENERAL NOTES

1. 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE PROJECT ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
2. IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE THAN NO STOP LINE IS REQUIRED.
3. IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGELINE EXTENSION THAN NO STOP LINE IS REQUIRED.
4. MOVE CLOSER TO EDGE OF TRAVEL LANE AS NEEDED FOR VISIBILITY AND SIGHT LINES.

STOP LINE AND CROSSWALK PAVEMENT MARKING

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DEPARTMENT OF TRANSPORTATION

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S.D.D. 15 C 33-1

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMENENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC
- WORK AREA

GENERAL NOTES

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

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

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

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 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.

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

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

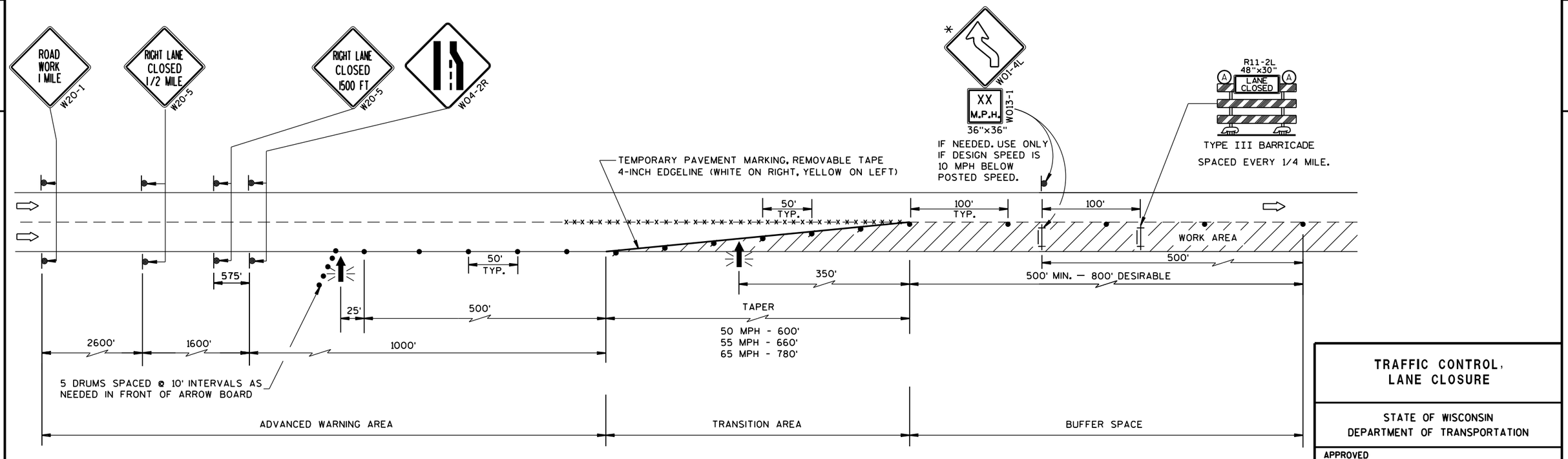
REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 4 OR MORE DAYS AND NIGHTS.

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

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

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE CLOSURE MUST MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

* THE LEFT REVERSE CURVE SIGN (WO1-4L) IS ONLY REQUIRED WHEN THIS DETAIL IS USED IN COMBINATION WITH "SINGLE LANE CROSSOVER" DETAIL.



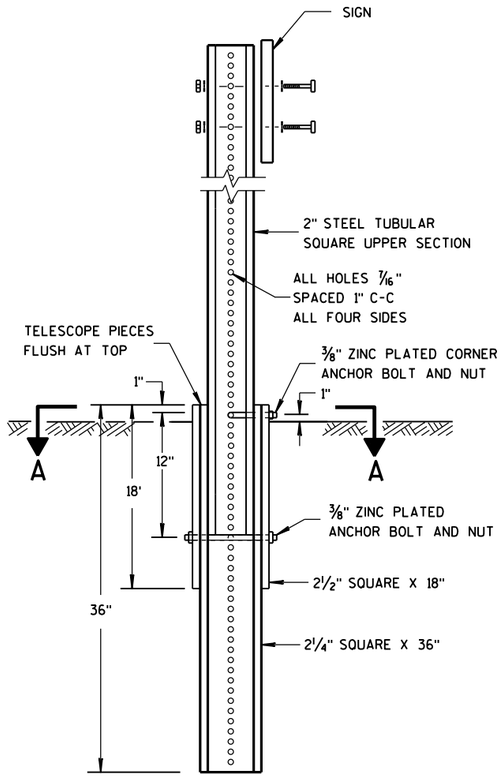
TRAFFIC CONTROL, LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

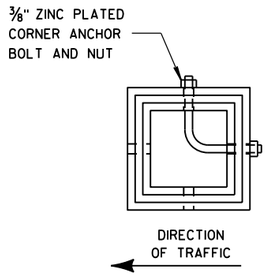
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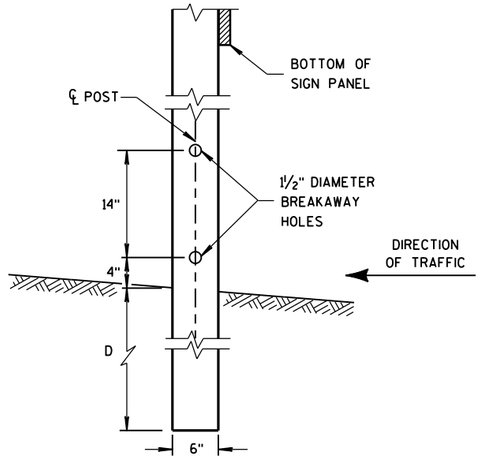
S.D.D. 15 D 12-5a



DETAIL OF TUBULAR STEEL SIGN POST



SECTION A-A



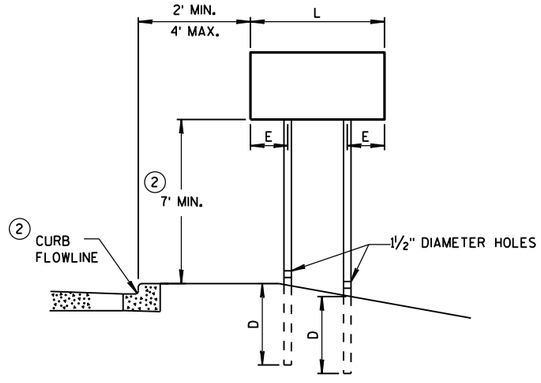
4"x6" WOOD POST MODIFICATION

GENERAL NOTES

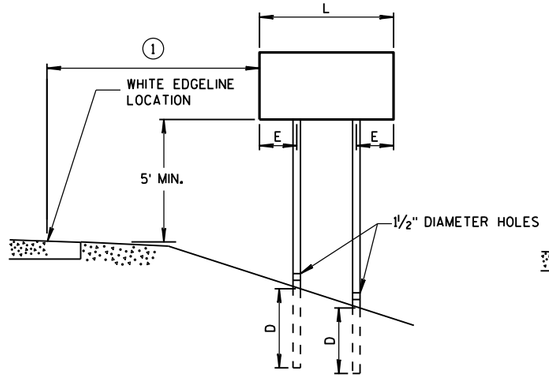
(1) 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.

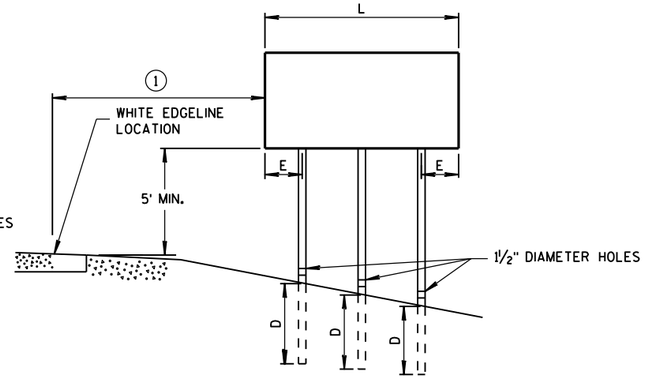
(2) THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.

(3) FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.



URBAN AREA





RURAL AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

TUBULAR STEEL POSTS

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

SIGNS WIDER THAN 3 FEET OR LARGER THAN 9 SQ. FT. SHALL BE MOUNTED ON MULTIPLE POSTS (SEE ABOVE TABLE).

SIGNS LARGER THAN 27 SQ. FT. SHALL NOT BE MOUNTED ON TUBULAR STEEL POSTS.

WOOD POST EMBEDMENT DEPTH

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

4" X 6" WOOD POST

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

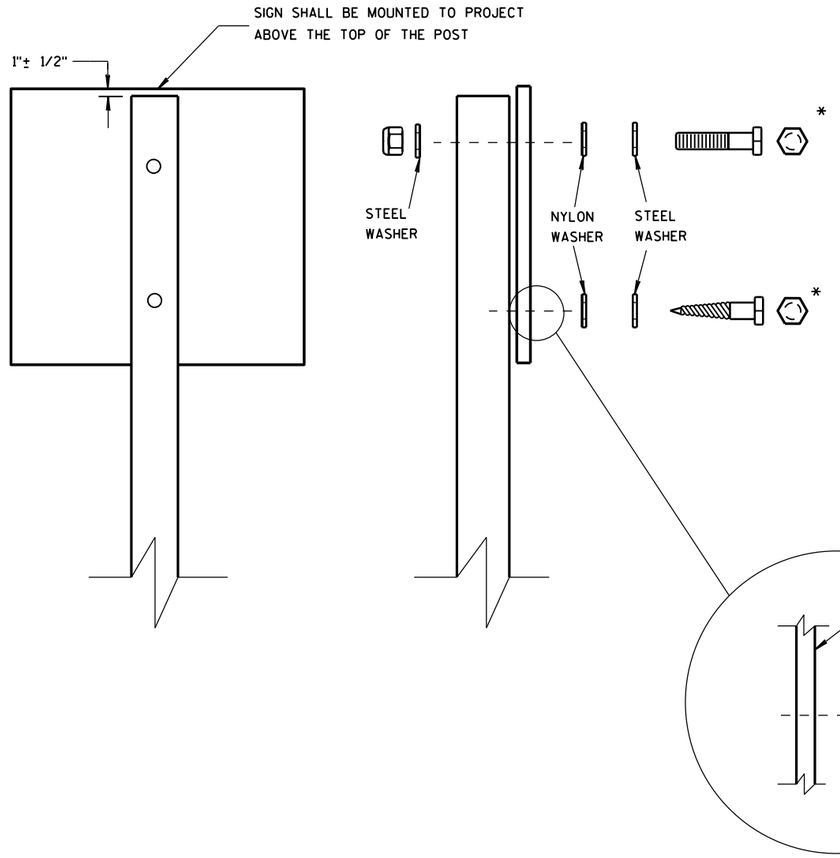
SEE NOTE (3)

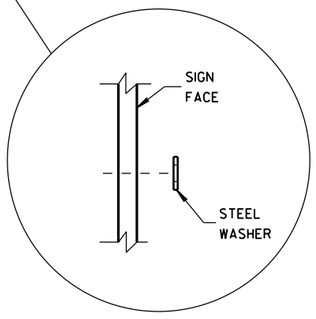
TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

STATE OF WISCONSIN DEPARTMENT OF TRANSPOR

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S.D.D. 15 D 38-1a





WASHER PLACEMENT WHEN SIGN HAS OTHER THAN TYPE H OR TYPE F FACE

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

A. HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: A 153, CLASS D, OR SC 3

B. ELECTRO-GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: B 633, TYPE III, SC 3

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

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

LAG SCREWS - 3/8" X 3"

MACHINE BOLTS - 5/16" X 6-1/2" OR 7" LENGTH W/ NUTS

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" LENGTH W/ NUTS

RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -

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

1-1/4" O.D. X 3/8" I.D. X .080 NYLON FOR ALL TYPE H SIGNS

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

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S.D.D. 15 D 38-1b

S.D.D. 15 D 38-1b

ATTACHMENT OF SIGNS TO POSTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

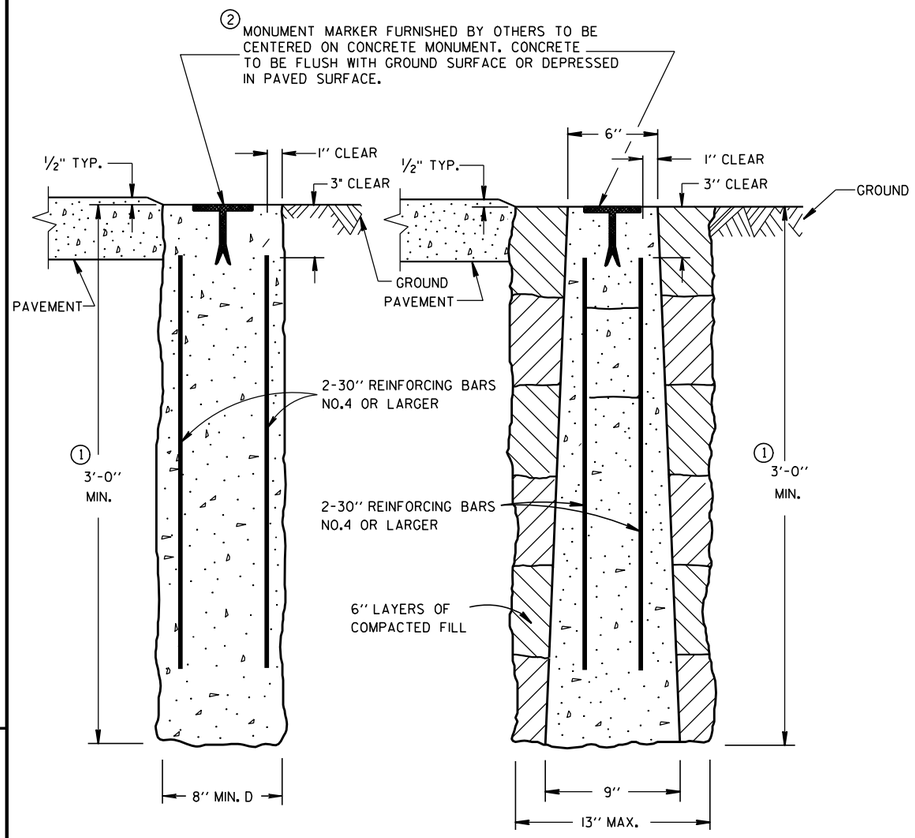
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/S/ Travis Feltes — STATE TRAFFIC ENGINEER

FHWA

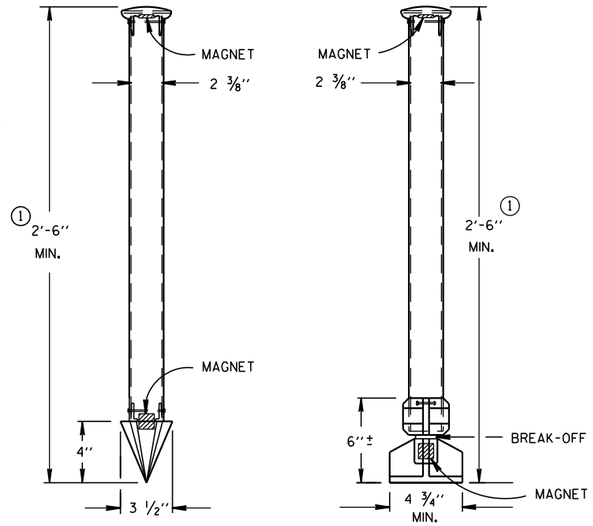
SIGN



CAST-IN-PLACE PRECAST

CONCRETE MONUMENTS

TYPE A



TYPE C DRIVE-IN MONUMENT

TYPE D BREAK-OFF MONUMENT

ALUMINUM MONUMENTS

(INCLUDES MARKER)

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.

INSTALLED METAL MONUMENTS MUST BE EASILY DETECTED WITH A DIP NEEDLE. INSERT PERMANENT MAGNETS SHALL BE ATTACHED NEAR THE TOP AND BOTTOM OF THOSE MONUMENTS CONSTRUCTED OF A METAL ALLOY WHICH IS NOT ATTRACTIVE TO A DIP NEEDLE.

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.

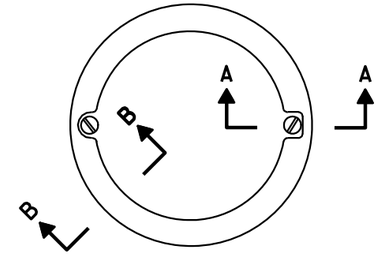
ALUMINUM MONUMENTS AND MONUMENT COVERS SHALL BE MADE FROM AN ALUMINUM AND MAGNESIUM ALLOY AS DETERMINED BY THE MANUFACTURER.

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.

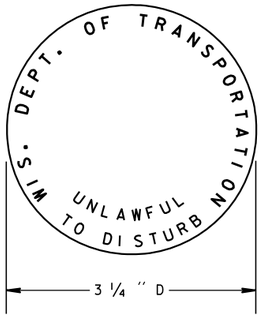
MONUMENT SHALL BE CAST-IN-PLACE CONCRETE UNLESS PRECAST CONCRETE OR ALUMINUM MONUMENTS ARE SPECIFIED IN THE CONTRACT OR PERMITTED BY THE ENGINEER.

① MINIMUM LENGTH SHALL BE 4'-0" FOR MONUMENTS INSTALLED IN PAVED AREAS.

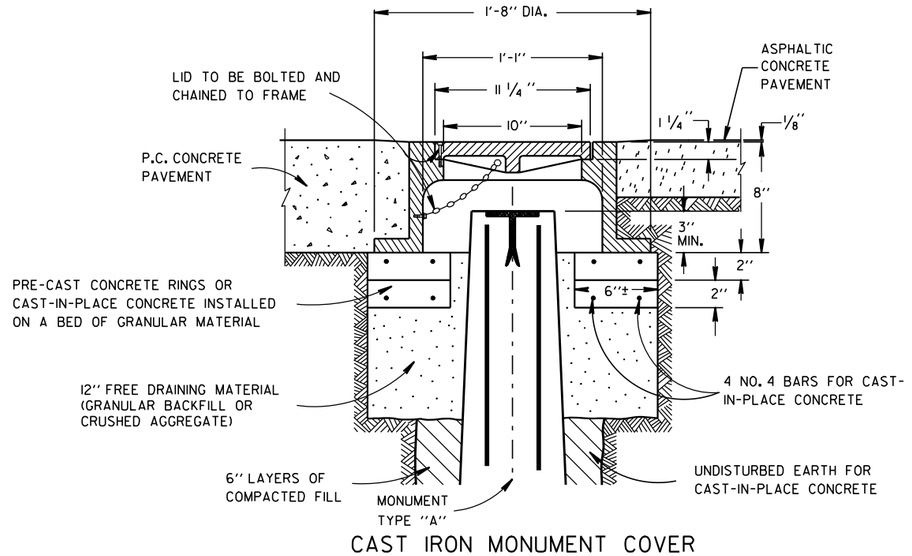
② AN OFFICIAL COUNTY MONUMENT MARKER SUPPLIED BY A COUNTY MAY BE REQUIRED FOR SOME SECTION CORNERS AND WITNESS MONUMENTS INSTEAD OF THIS WIS DOT MARKER.



TOP VIEW

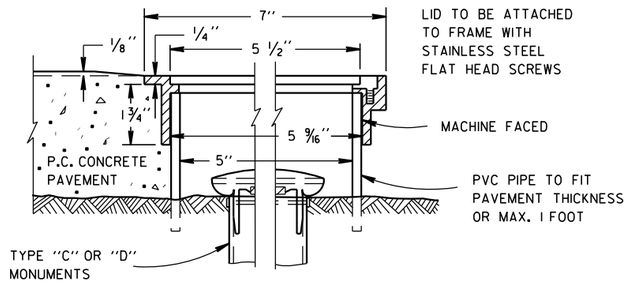


② WIS DOT MONUMENT MARKER LOGO FOR TYPES "A", "C" & "D"



CAST IRON MONUMENT COVER

(APPROXIMATE WEIGHT - 95 LBS.)



SECTION B-B SECTION A-A

ALUMINUM MONUMENT COVER

(APPROXIMATE WEIGHT 2 LBS)

(FOR CONCRETE PAVEMENT ONLY)

LANDMARK REFERENCE MOUNMENTS AND COVERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

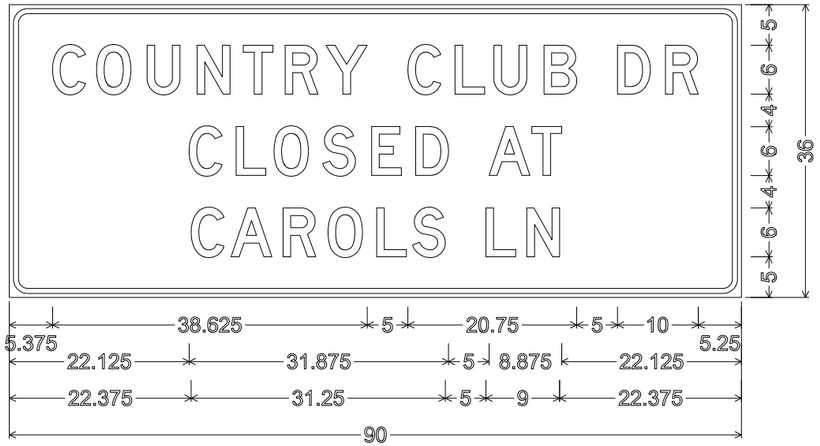
APPROVED
9/22/1999 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

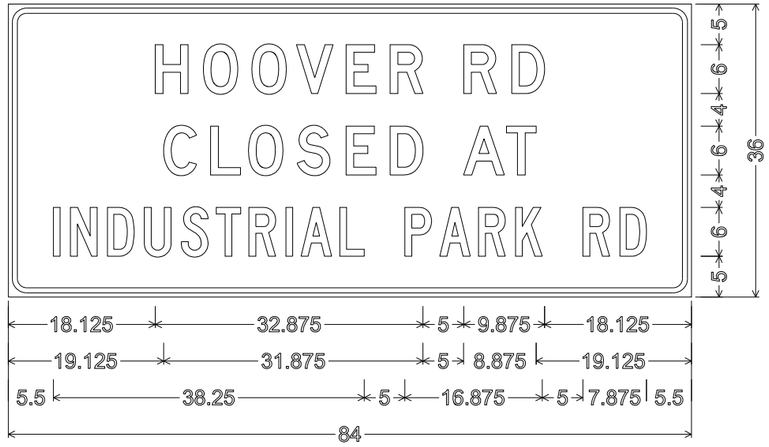
S.D.D. 16 A 1-6

6

S.D.D. 16 A 1-6



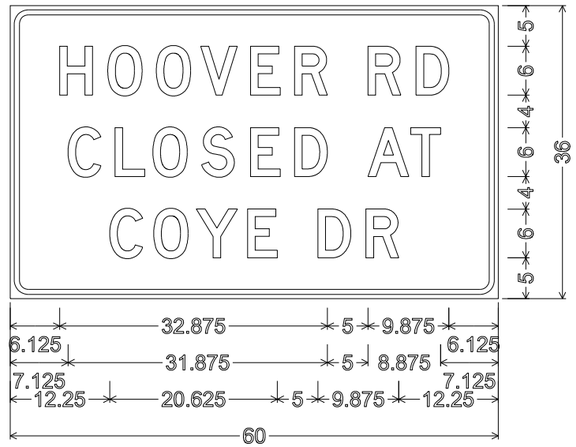
2.250" Radius, 0.625" Border, 0.500" Indent



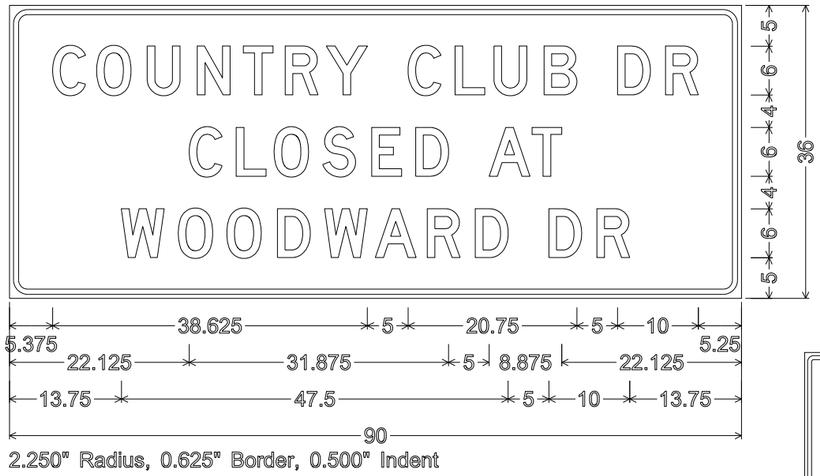
2.250" Radius, 0.625" Border, 0.500" Indent
"INDUSTRIAL" C; "PARK" C; "RD" C

NOTES

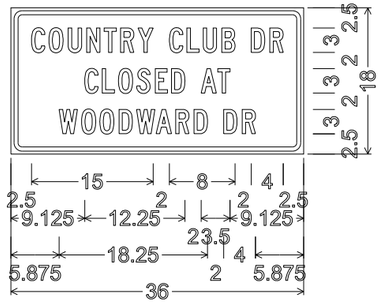
1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - D except as noted



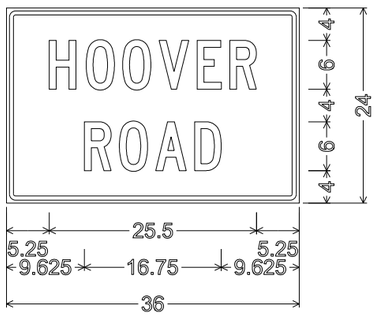
2.250" Radius, 0.625" Border, 0.500" Indent



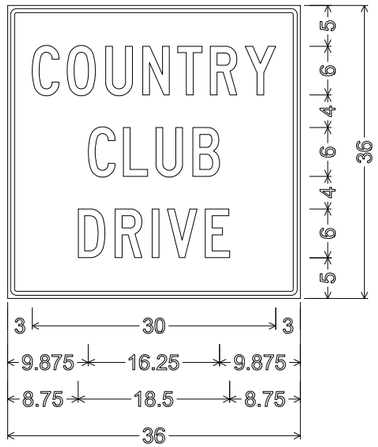
2.250" Radius, 0.625" Border, 0.500" Indent



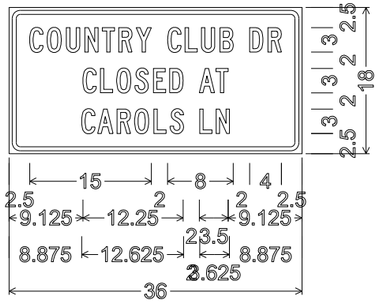
1.375" Radius, 0.500" Border, 0.375" Indent,
"COUNTRY" C; "CLUB" C; "DR" C;
"CLOSED" C; "AT" C;
"WOODWARD" C; "DR" C;



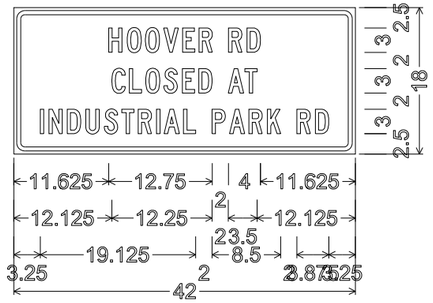
1.125" Radius, 0.500" Border, 0.375" Indent
"HOOVER" C; "ROAD" C;



1.125" Radius, 0.500" Border, 0.375" Indent
"COUNTRY" C; "CLUB" C;
"DRIVE" C;



1.375" Radius, 0.500" Border, 0.375" Indent
"COUNTRY" C; "CLUB" C; "DR" C;
"CLOSED" C; "AT" C;
"CAROLS" C; "LN" C;



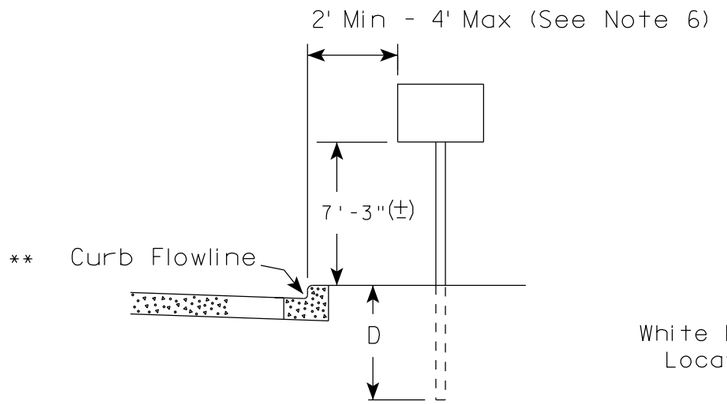
1.375" Radius, 0.500" Border, 0.375" Indent
"HOOVER" C; "RD" C;
"CLOSED" C; "AT" C;
"INDUSTRIAL" C; "PARK" C; "RD" C;

7

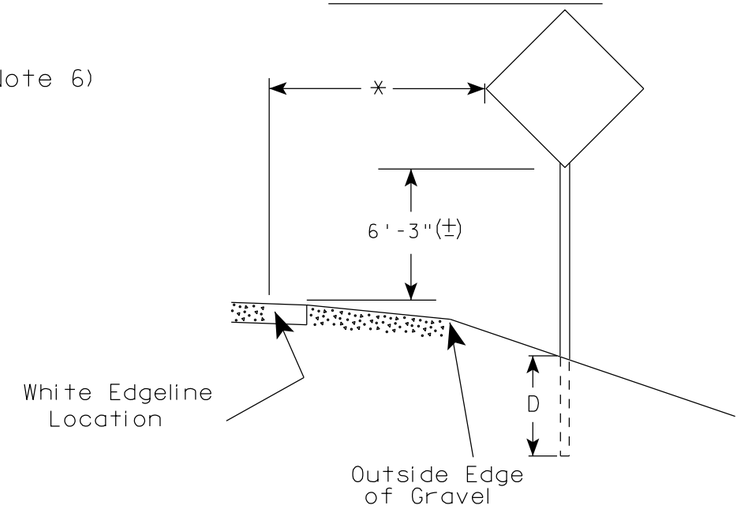
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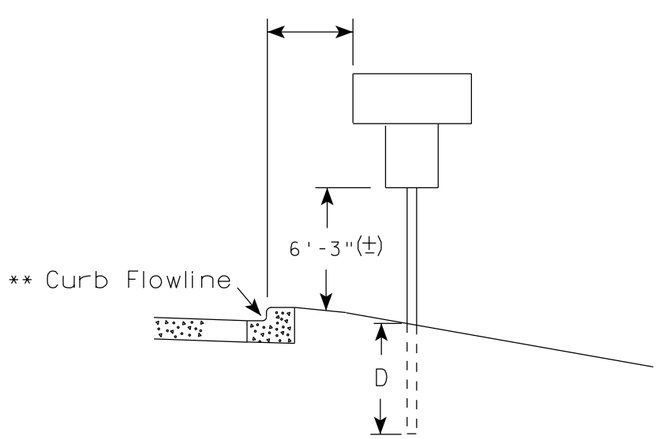
PROJECT NO: 6998-11-70	HWY: HOOVER RD	COUNTY: PORTAGE	TEMPORARY SIGNING	SHEET NO: 201	E

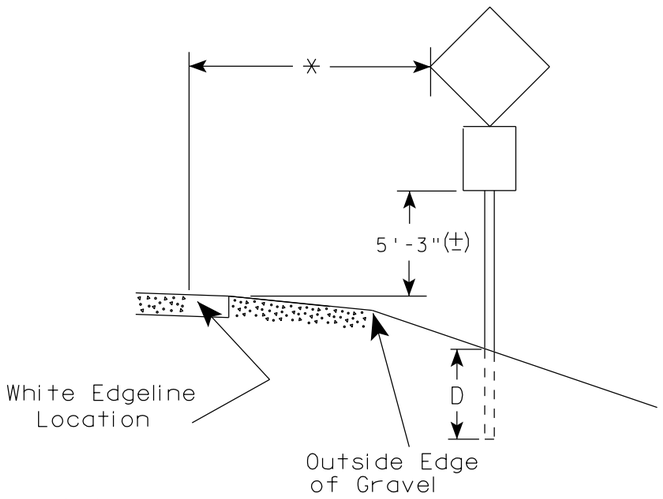
URBAN AREA



RURAL AREA (See Note 2)







GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

POST EMBEDMENT DEPTH

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

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

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

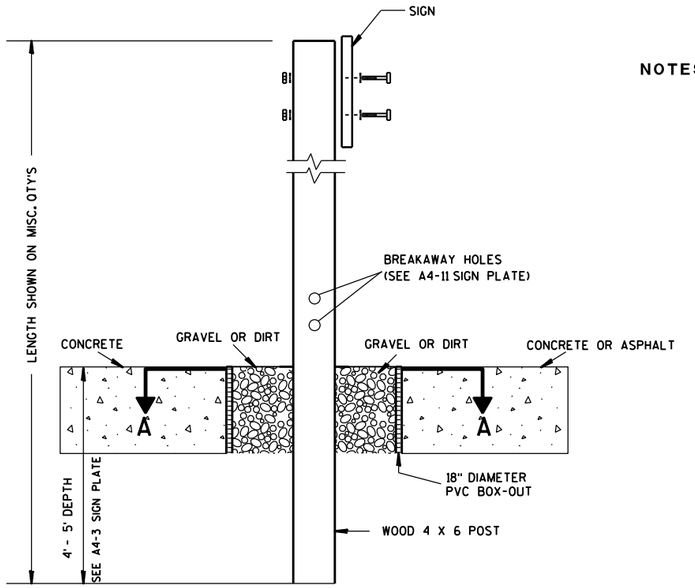
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/23/15 PLATE NO. A4-3.20

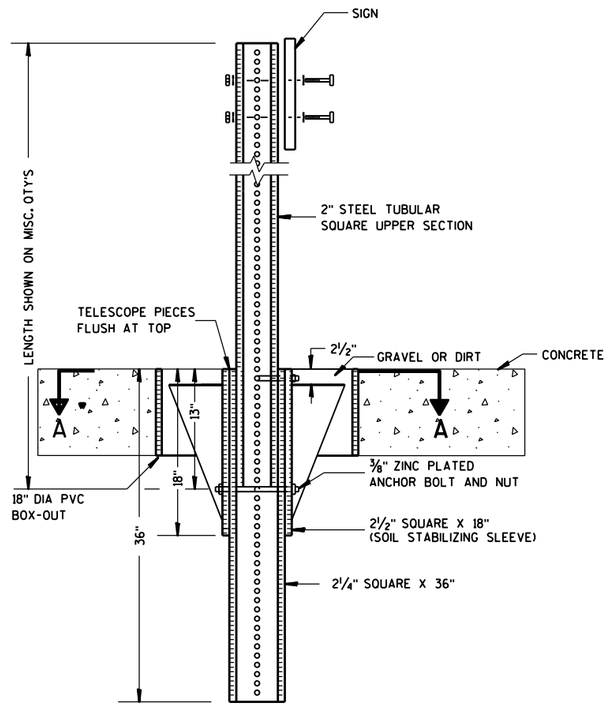
PROJECT NO: 6998-11-70	HWY: HOOVER RD	COUNTY: PORTAGE	SIGNING DETAILS	SHEET NO:	E



ELEVATION VIEW

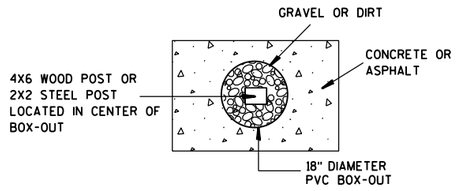
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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

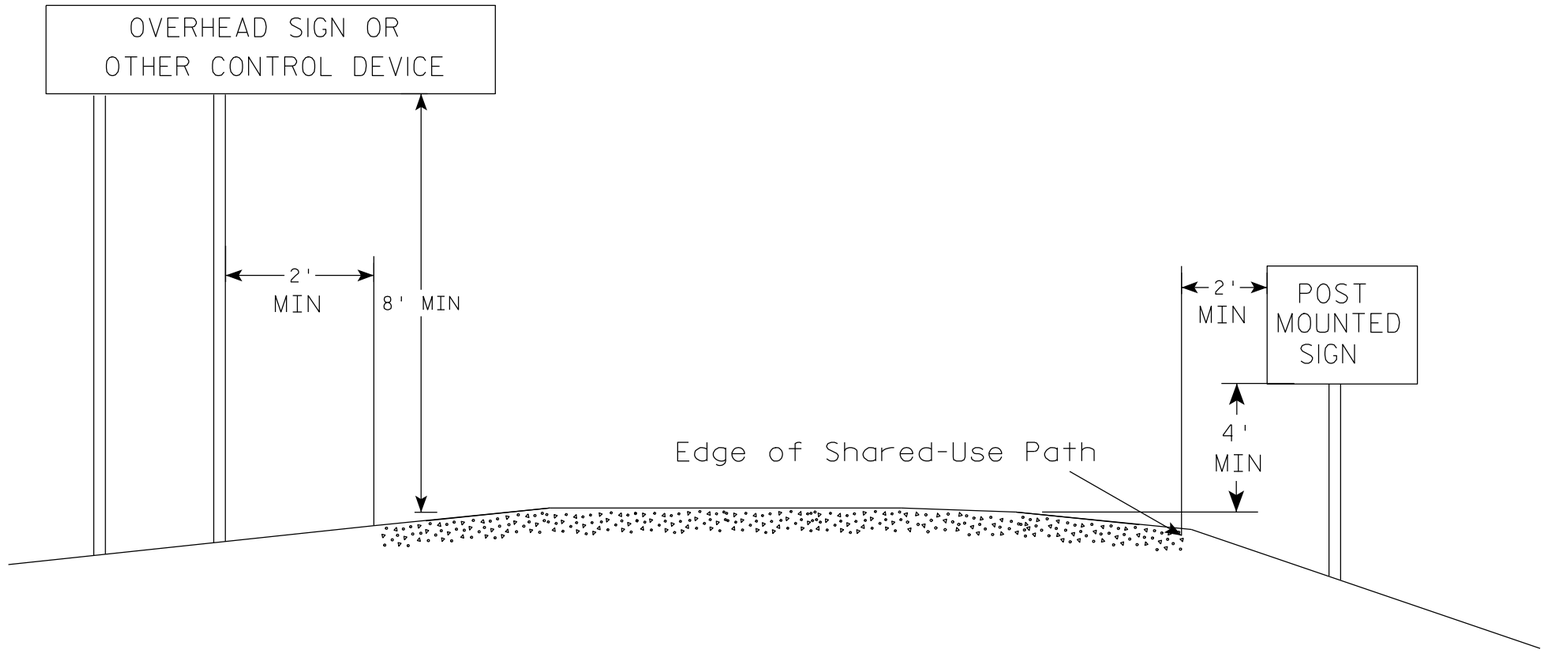
DATE 1/27/14 PLATE NO. A4-3B.1

PROJECT NO: 6998-11-70	HWY: HOOVER RD	COUNTY: PORTAGE	SIGNING DETAILS	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

GENERAL NOTES

1. Signs wider than 4 feet or larger than 20 sq. ft. shall be mounted on multiple posts. Refer to plate A4-4.
2. Offset distance shall be consistent with existing signs or consistent throughout length of project.



POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON MULTI USE PATHS

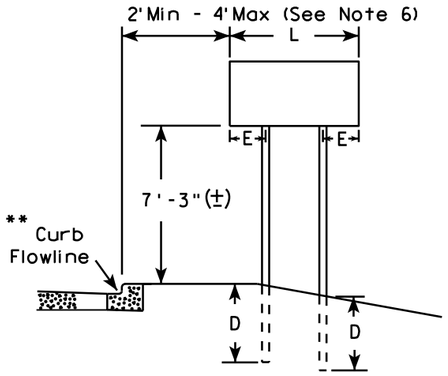
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

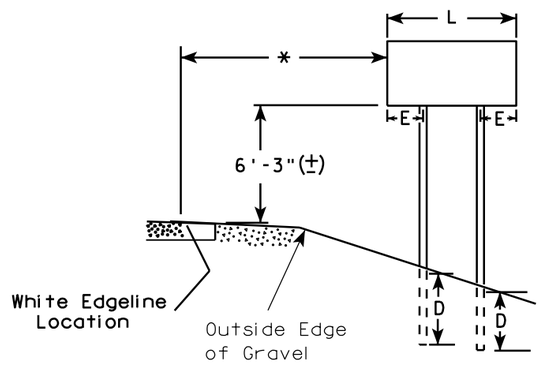
DATE 3/5/2012 PLATE NO. A4-3S.1

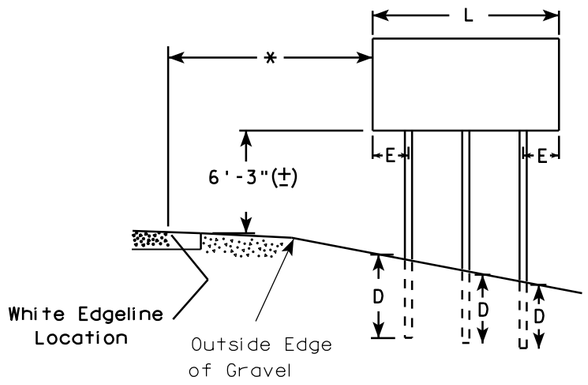
PROJECT NO: 6998-11-70	HWY: HOOVER RD	COUNTY: PORTAGE	SIGNING DETAILS	SHEET NO: 204	E

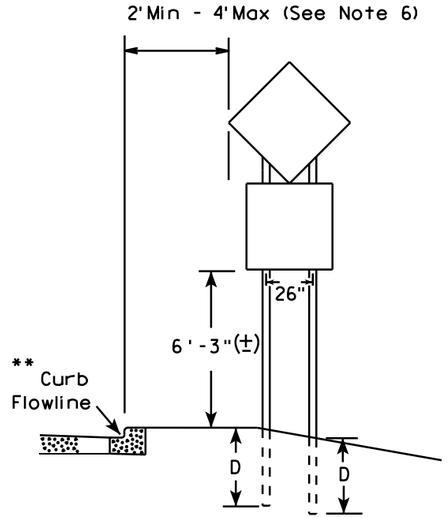
URBAN AREA



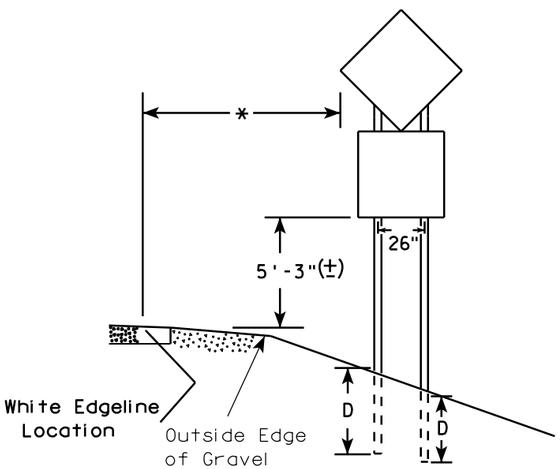
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

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. Minimum mounting height for J assemblies (A2-1S) is 7'-3" (±) or 6'-3" (±) per urban or rural detail respectively.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4"-3" (±).

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

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

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

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
Greater than 48" Less than 60"	12"
60" to 120"	L/5

***

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 120" less than 168"	12"

SIGN SHAPE OTHER THAN DIAMOND (FOUR POSTS REQUIRED)	
L	E
168" and greater	12"

POST EMBEDMENT DEPTH

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

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

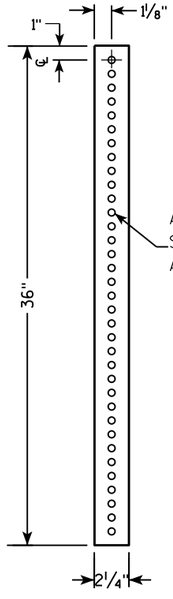
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/23/15 PLATE NO. A4-4 205 14

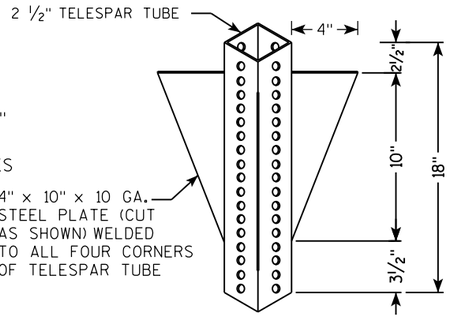
PROJECT NO: 6998-11-70	HWY: HOOVER RD	COUNTY: PORTAGE	SIGNING DETAILS	SHEET NO:	E

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

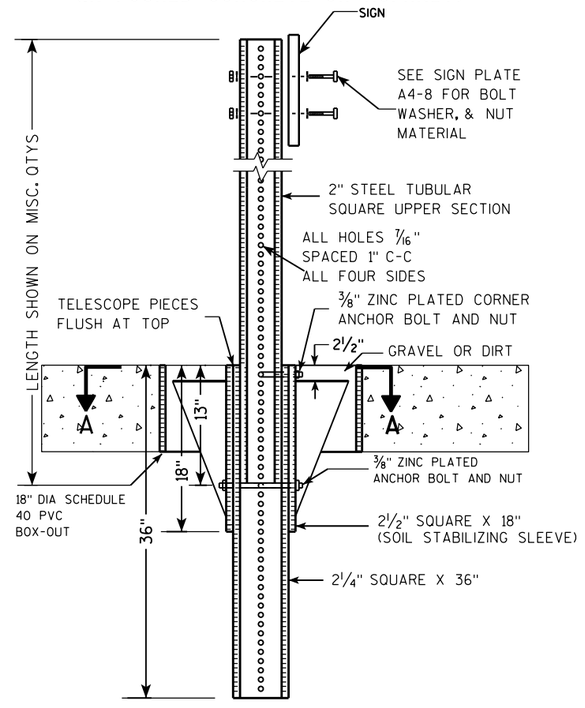
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



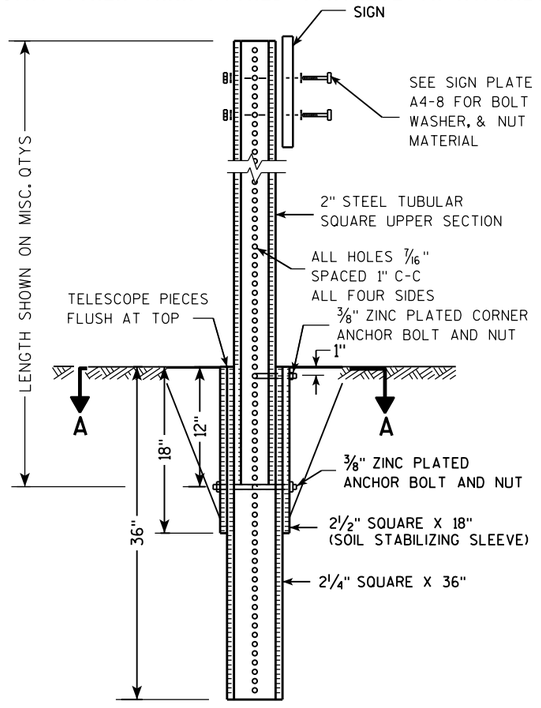
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

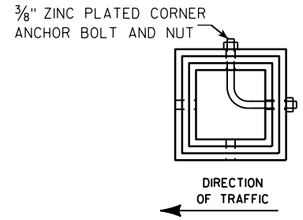


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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).

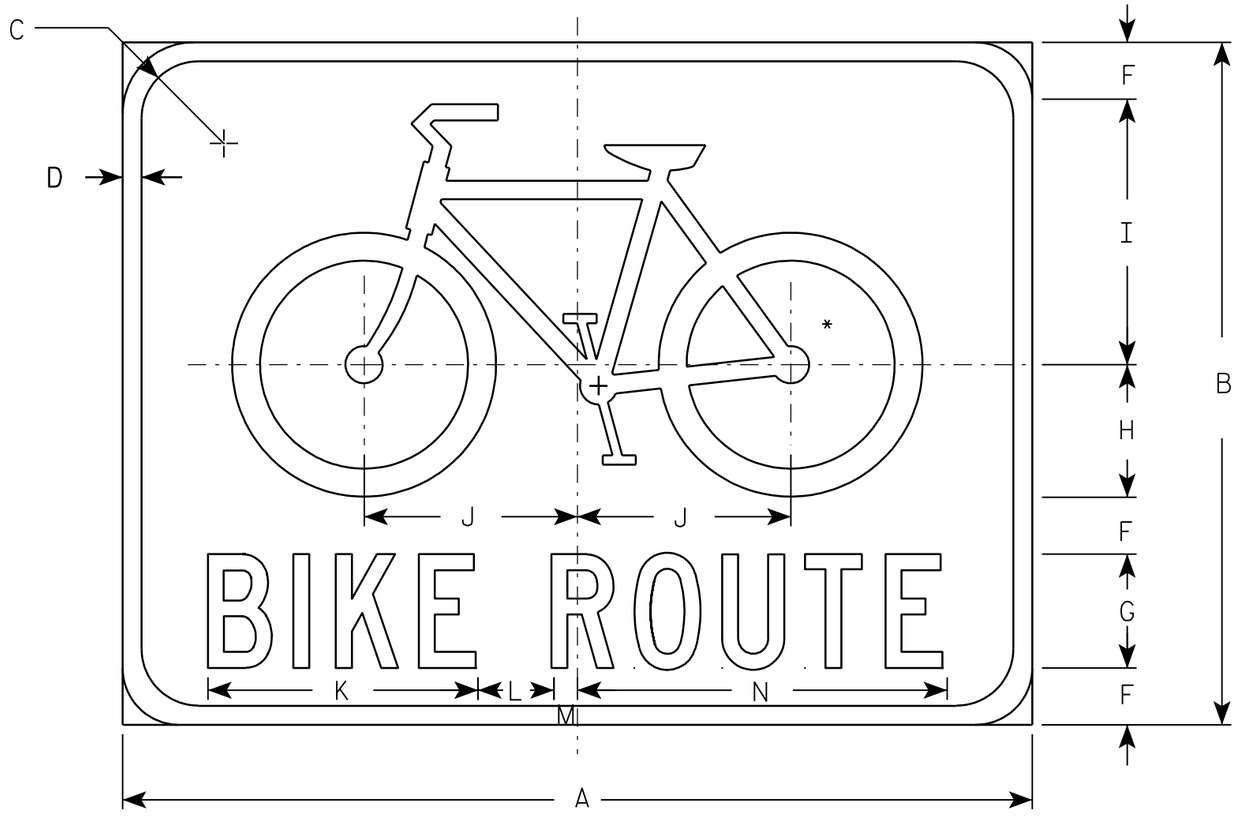
TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 206 A4-9.9

PROJECT NO: 6998-11-70	HWY: HOOVER RD	COUNTY: PORTAGE	SIGNING DETAILS	SHEET NO:	E



D11-1

NOTES

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

* See W11-1 for symbol design

Metric equivalent for this sign is:

SIZE	
1	
2	600 mm X 450 mm
3	750 mm X 600 mm
4	
5	

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	24	18	1 1/2	1/2		1 1/2	3	3 1/2	7	5 5/8	7 1/8	2	5/8	9 3/4													3.0	0.27
3	30	24	1 1/4	5/8		2	4	4 3/4	9 1/4	7 1/2	9 1/2	2 5/8	7/8	13													5.0	0.45
4																												
5																												

STANDARD SIGN
D11-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/24/04 PLATE NO. D11-1.1

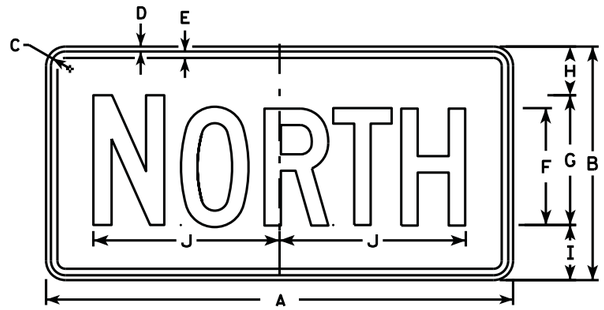
PROJECT NO: 6998-11-70 | HWY: HOOVER RD | COUNTY: PORTAGE | SIGNING DETAILS | SHEET NO: 207 | E

FILE NAME : C:\Users\Projects\tr_stdplate\D111.DGN PLOT DATE : 17-MAR-2005 10:38 PLOT BY : DOTDZK

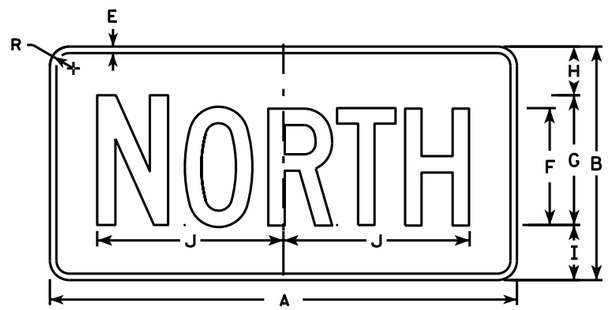
WISDOT/CADDS SHEET 42

7

7



M3-1
MM3-1
MP3-1



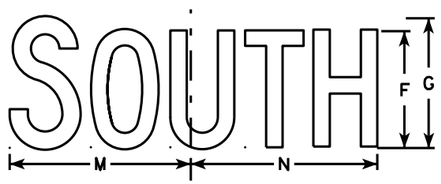
MB3-1
MK3-1
MN3-1



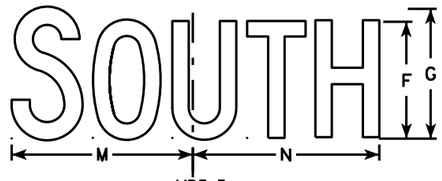
M3-2
MM3-2
MP3-2



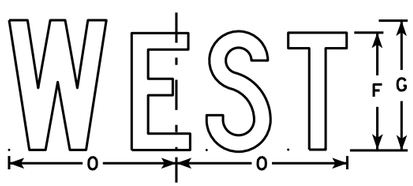
MB3-2
MK3-2
MN3-2



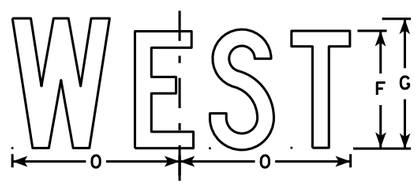
M3-3
MM3-3
MP3-3



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

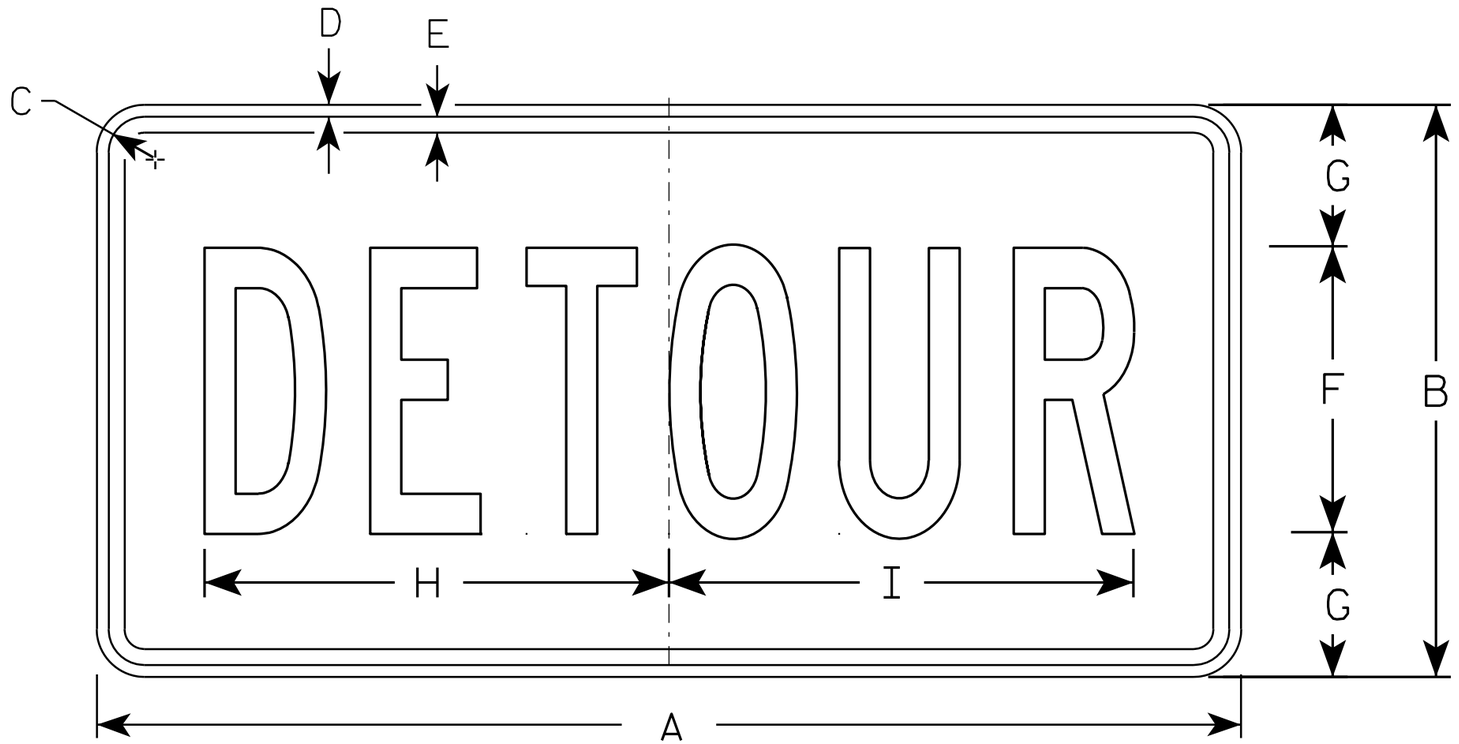
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 10/15/15 PLATE NO. M3-1.14

PROJECT NO: 6998-11-70 | HWY: HOOVER RD | COUNTY: PORTAGE | SIGNING DETAILS | SHEET NO. 208 | E

7

FILE NAME : C:\CAEfiles\Projects\tr_stdplote\M31.DGN PLOT DATE : 15-OCT-2015 12:16 PLOT BY : ss...plotuser...ss PLOT NAME : PLOT SCALE : 18.607113:1.000000 WISDOT/CADDS SHEET 42



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																											

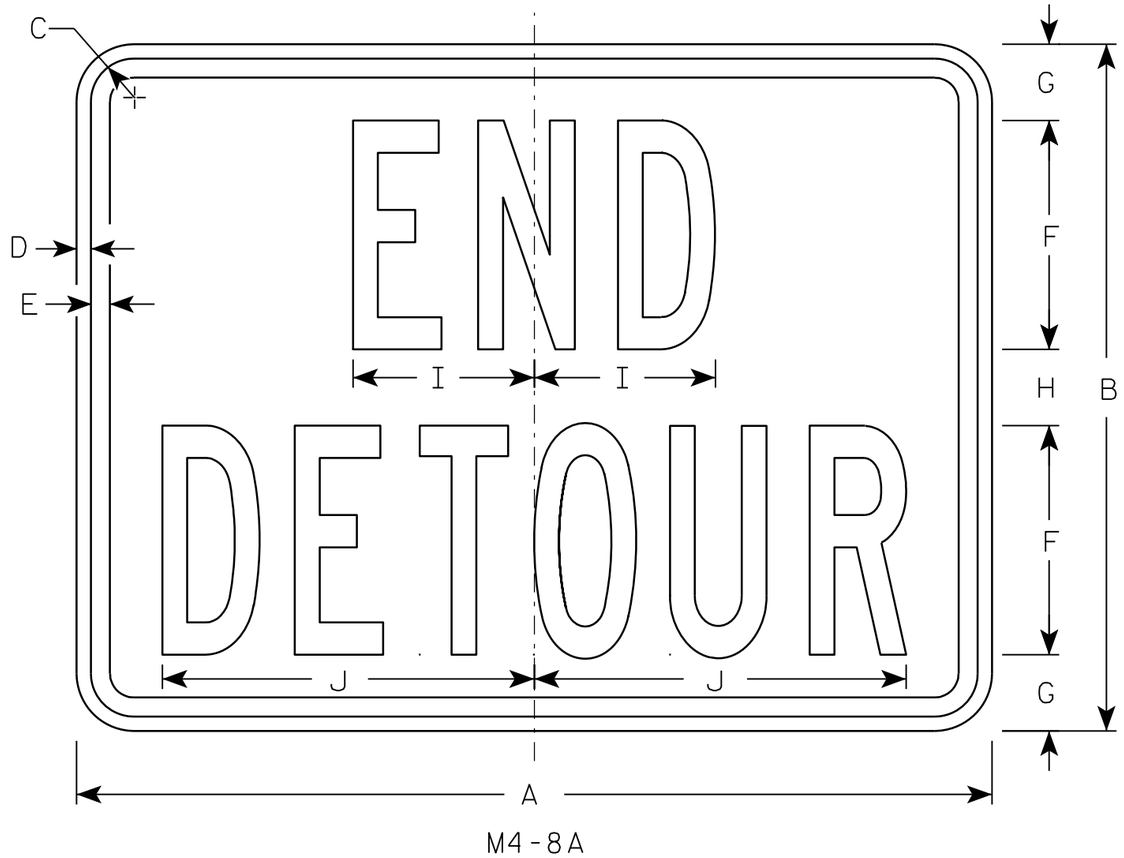
STANDARD SIGN
M4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/10/10 PLATE NO. M4-8.2

PROJECT NO: 6998-11-70 | HWY: HOOVER RD | COUNTY: PORTAGE | SIGNING DETAILS | SHEET NO: 209 | 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																											

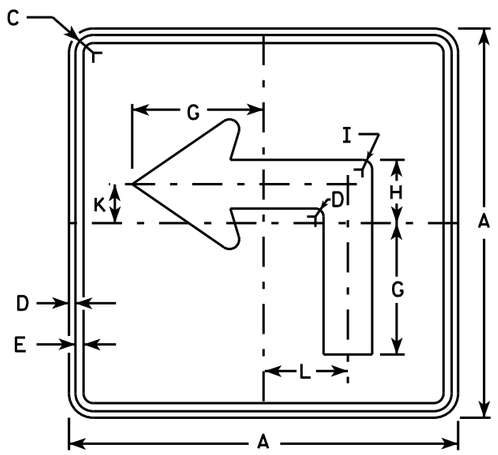
STANDARD SIGN
M4-8A

WISCONSIN DEPT OF TRANSPORTATION

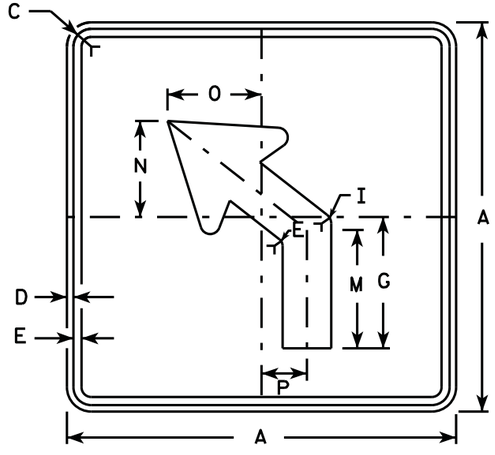
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/9/11 PLATE NO. M4-8A.2

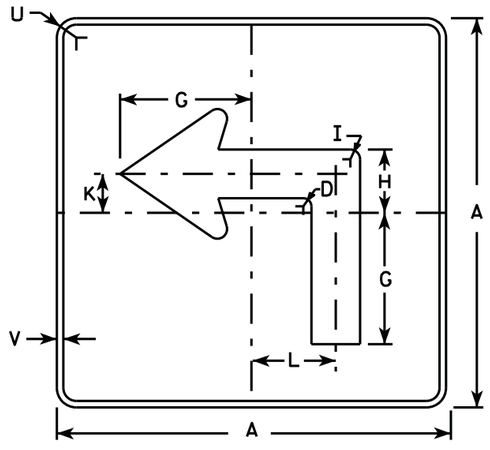
PROJECT NO: 6998-11-70 | HWY: HOOVER RD | COUNTY: PORTAGE | SIGNING DETAILS | SHEET NO: 210 | E



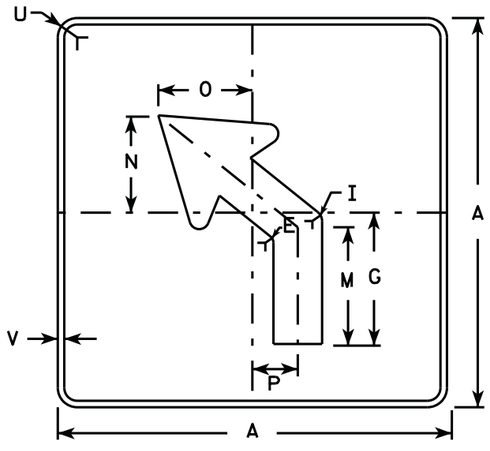
M5-1L
MM5-1L
MO5-1L
MP5-1L



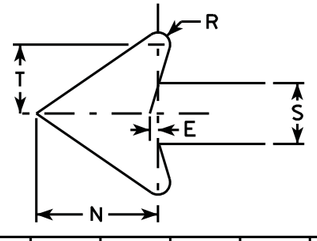
M5-2L
MM5-2L
MO5-2L
MP5-2L



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

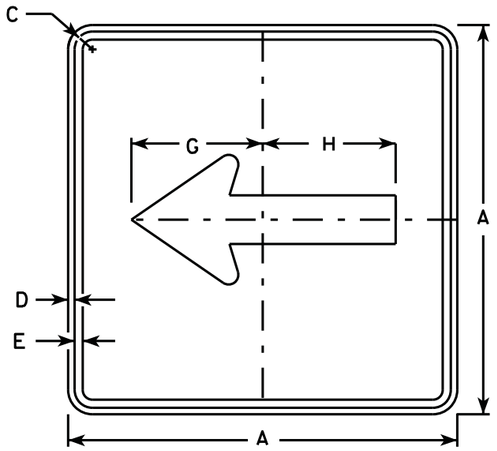
STANDARD SIGN
M5-1 & M5-2

WISCONSIN DEPT OF TRANSPORTATION

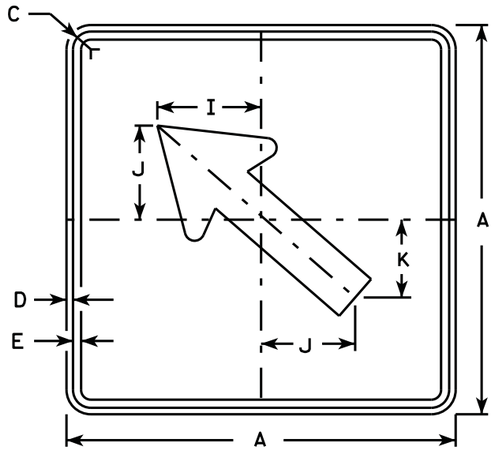
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE NO. M5-1.13

PROJECT NO: 6998-11-70 | HWY: HOOVER RD | COUNTY: PORTAGE | SIGNING DETAILS | SHEET NO. 211 | E



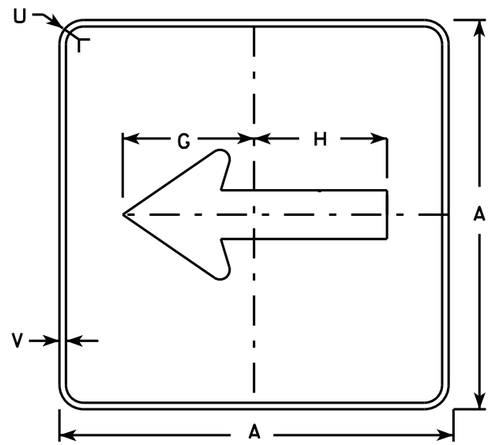
M6-1
MM6-1
MO6-1
MP6-1



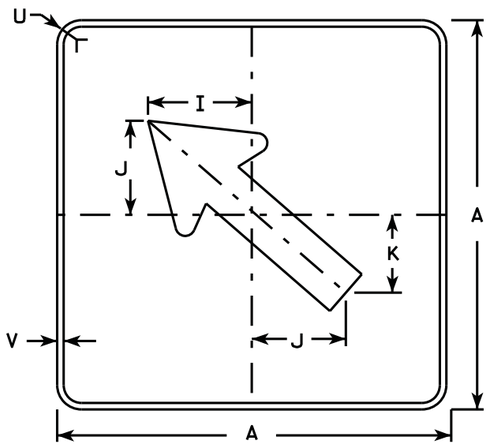
M6-2
MM6-2
MO6-2
MP6-2

NOTES

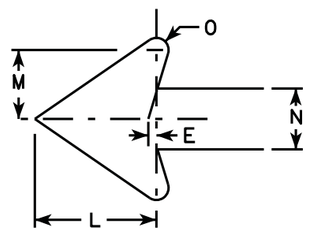
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - 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

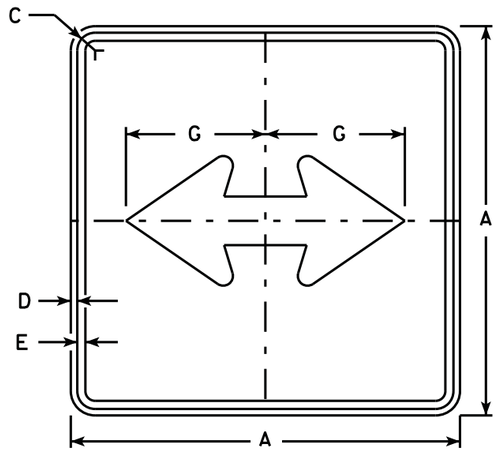
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE NO. M6-1.15

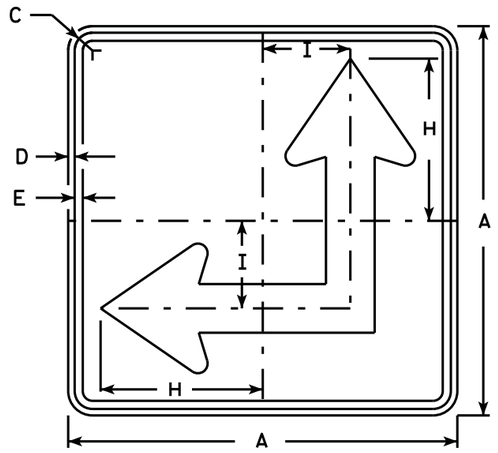
PROJECT NO: 6998-11-70 | HWY: HOOVER RD | COUNTY: PORTAGE | SIGNING DETAILS | SHEET NO. 212 | E

7

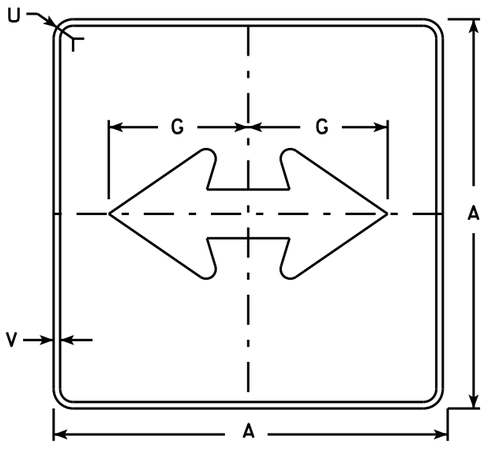
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M61.DGN PLOT DATE : 15-OCT-2015 13:17 PLOT BY : ss...plotuser...ss PLOT NAME : PLOT SCALE : 18.607113:1.000000
WISDOT/CADDS SHEET 42



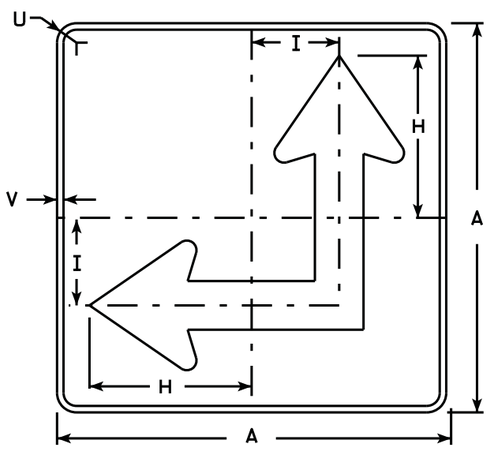
M6-4
MM6-4
MO6-4
MP6-4



M6-6
MM6-6
MO6-6
MP6-6



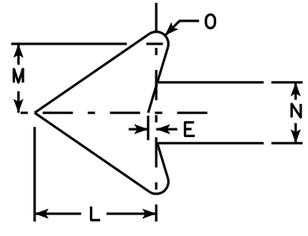
MB6-4
MK6-4
MN6-4
MR6-4



MB6-6
MK6-6
MN6-6
MR6-6

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. M6-4 and M6-6 Background - White
   Message - Black
   MB6-4 and MB6-6 Background - Blue
   Message - White
   MK6-4 and MK6-6 Background - Green
   Message - White
   MM6-4 and MM6-6 Background - White
   Message - Green
   MN6-4 and MN6-6 Background - Brown
   Message - White
   MO6-4 and MO6-6 Background - Orange - Type F Reflective
   Message - Black
   MP6-4 and MP6-6 Background - White
   Message - Blue
   MR6-4 and MR6-6 Background - Brown
   Message - Yellow
5. M6-6R same as M6-6L except arrow points ahead and right.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7 1/2	8 3/4	4 1/4			5 1/4	3	2 5/8	1/2						1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25

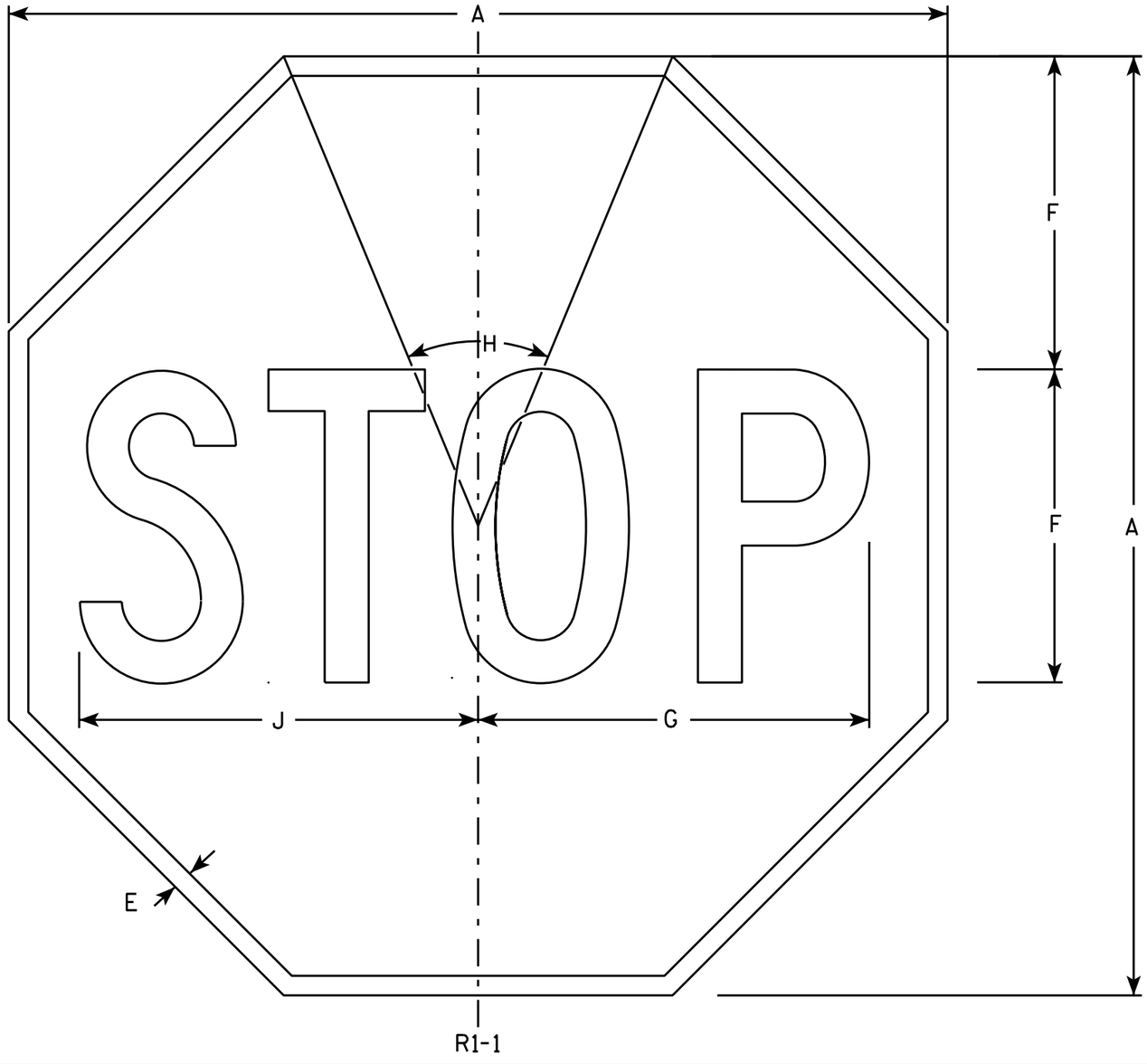
STANDARD SIGN
M6-4 & M6-6
SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 10/15/15 PLATE NO. M6-4.10

PROJECT NO: 6998-11-70 | HWY: HOOVER RD | COUNTY: PORTAGE | SIGNING DETAILS | SHEET NO. 213 | 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

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

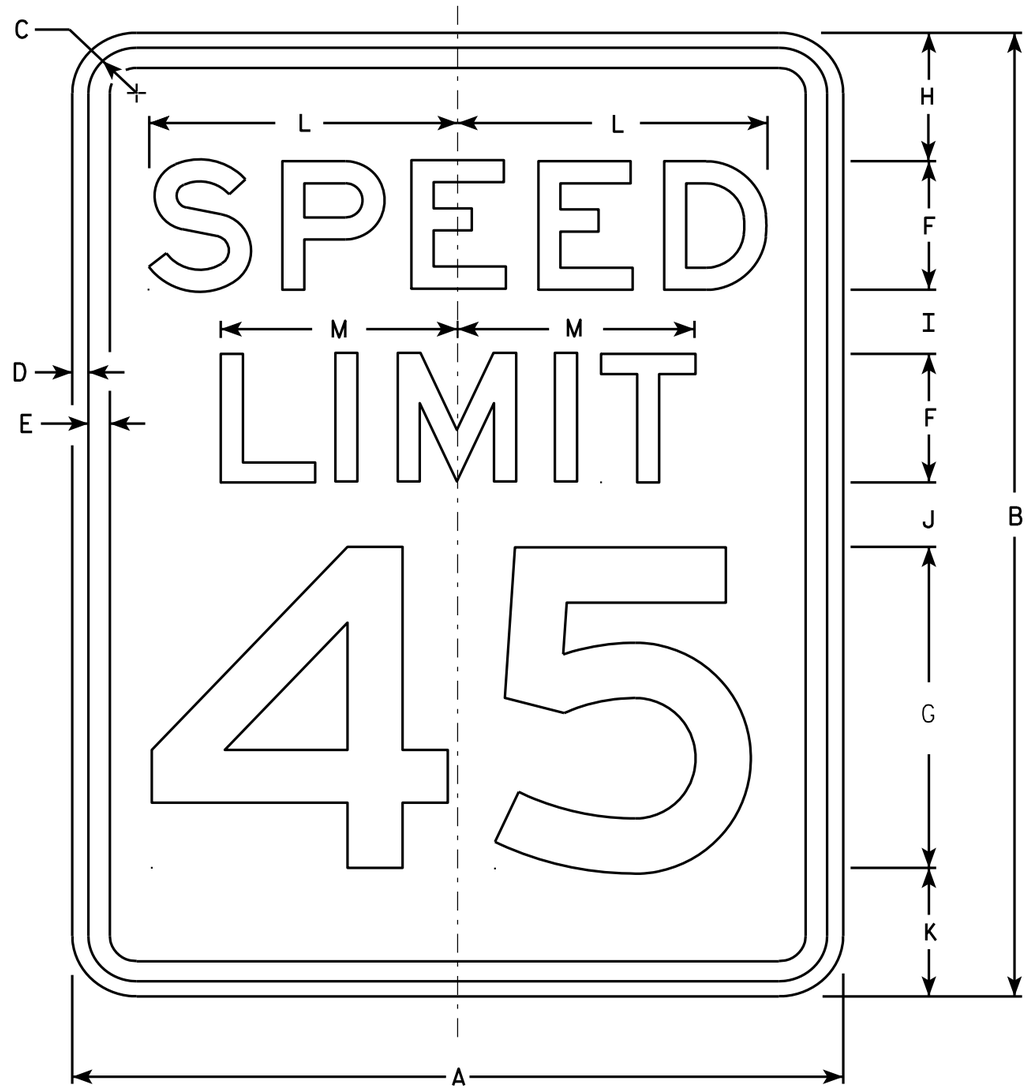
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/12/15 PLATE NO. R1-1.12

PROJECT NO: 6998-11-70 | HWY: HOOVER RD | COUNTY: PORTAGE | SIGNING DETAILS | SHEET NO. 214 | E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\R11.DGN PLOT DATE : 12-NOV-2015 10:32 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : 6.977666:1.000000 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

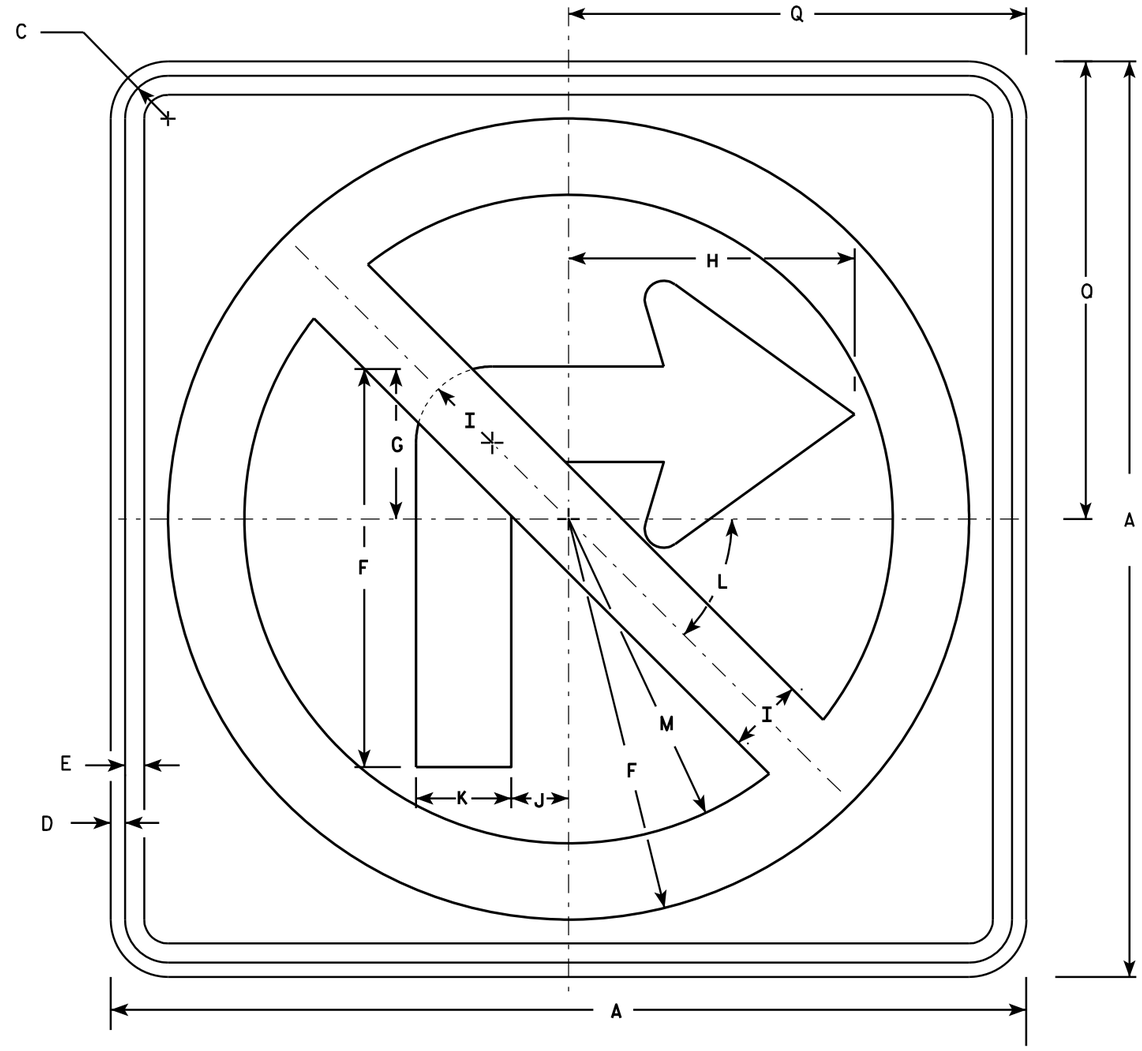
STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/26/10 PLATE NO. R2-1.13

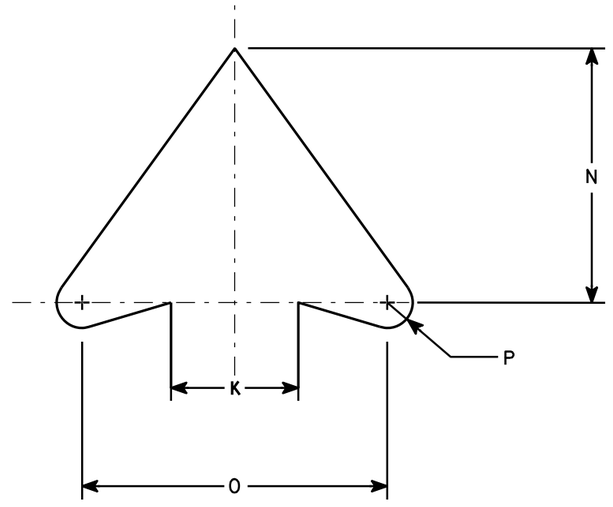
PROJECT NO: 6998-11-70	HWY: HOOVER RD	COUNTY: PORTAGE	SIGNING DETAILS	SHEET NO: 215	E



R3-1

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 - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45	8 1/2	5	6	1/2	12										4.0
2S	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2	12										4.0
2M	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45	12 3/4	7 1/2	9	3/4	18										9.0
3	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45	12 3/4	7 1/2	9	3/4	18										9.0
4	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4	18										9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1	24										16.0

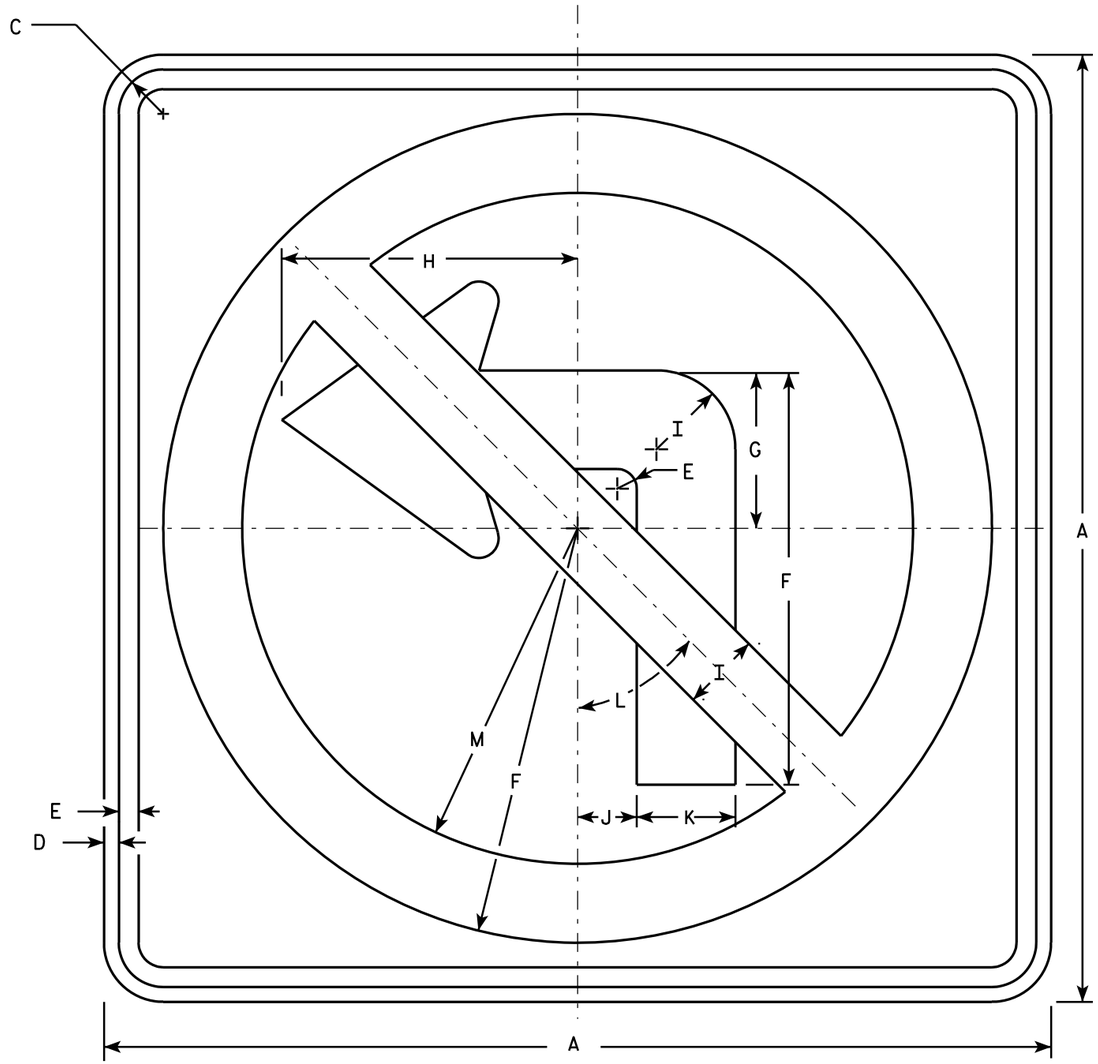
STANDARD SIGN
R3-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-1.5

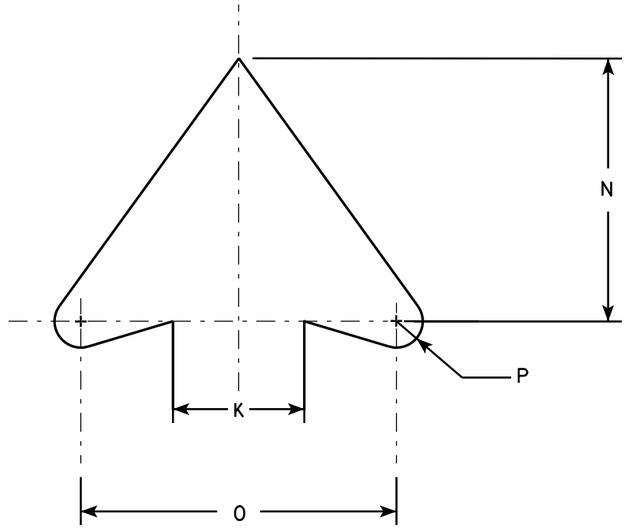
PROJECT NO: 6998-11-70 | HWY: HOOVER RD | COUNTY: PORTAGE | SIGNING DETAILS | SHEET NO: 216 | E



R3-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2S	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2M	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
3	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
4	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1											16.0

STANDARD SIGN
R3-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-2.10

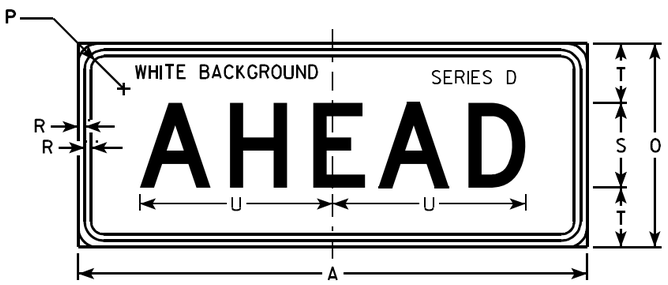
PROJECT NO: 6998-11-70 | HWY: HOOVER RD | COUNTY: PORTAGE | SIGNING DETAILS | SHEET NO: 217 | E



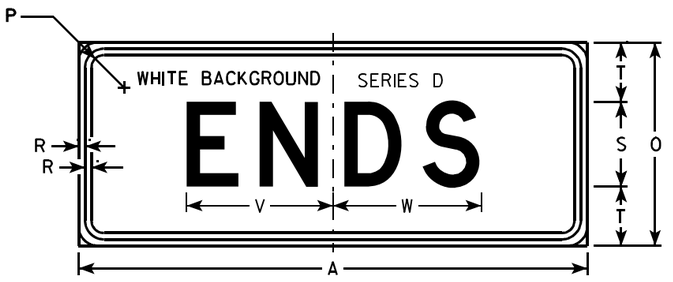
R3-17

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - AS SHOWN
   Message - BLACK
3. Message Series - C or as noted on the Signs.
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.



R3-17ap



R3-17bp

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	R3-17 Area sq. ft.	R3-17ap Area sq. ft.	R3-17bp Area sq. ft.
1																													
2S	30	24	1 1/8	3/8	1/2	2	4	4 1/8	7 7/8	6 3/8	9 1/2	2 5/8	7/8	13	12	1 1/8	3 3/8	3/8	5	3 1/2	11 3/8	8 5/8	8 3/4	2 3/8	15 5/8	8	5.0	2.5	2.5
2M	30	24	1 1/8	3/8	1/2	2	4	4 1/8	7 7/8	6 3/8	9 1/2	2 5/8	7/8	13	12	1 1/8	3 3/8	3/8	5	3 1/2	11 3/8	8 5/8	8 3/4	2 3/8	15 5/8	8	5.0	2.5	2.5
3																													
4																													
5																													

STANDARD SIGN
R3-17 & R3-17a&bp

WISCONSIN DEPT OF TRANSPORTATION

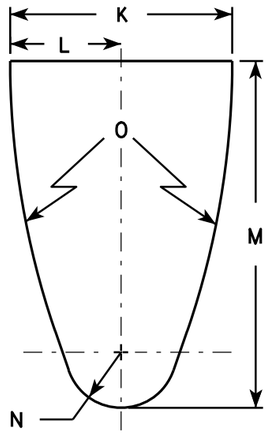
APPROVED Matthew R Rauch
for State Traffic Engineer

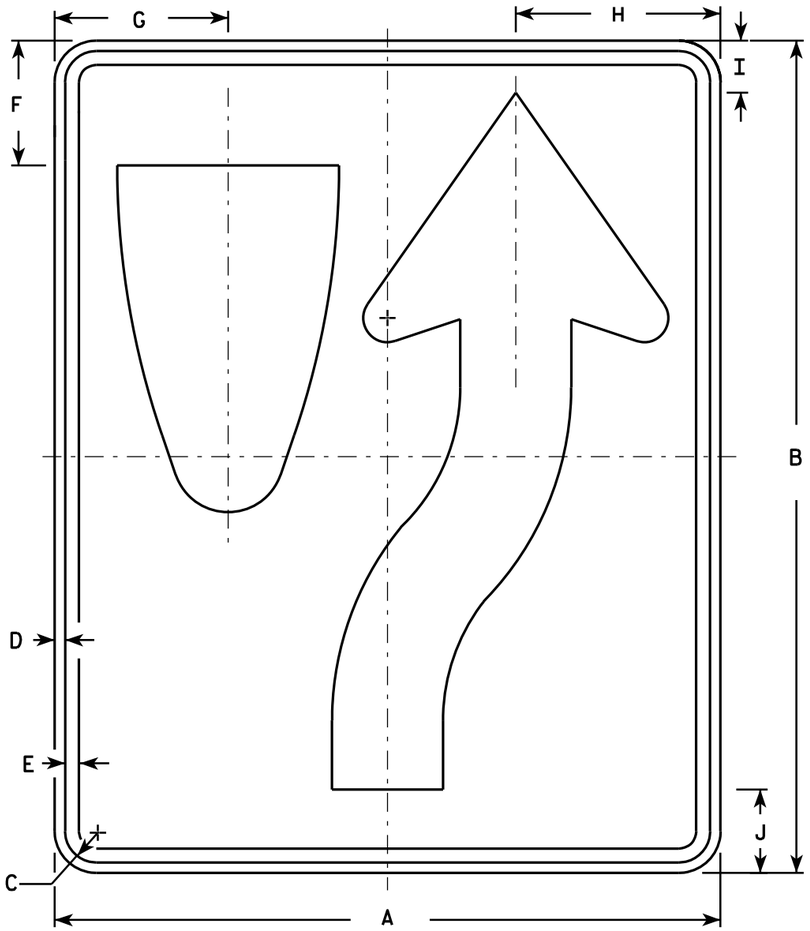
DATE 4/12/2011 PLATE NO. R3-17.2

PROJECT NO: 6998-11-70 | HWY: HOOVER RD | COUNTY: PORTAGE | SIGNING DETAILS | SHEET NO: 218 | E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\R317.DGN PLOT DATE : 02-APR-2013 14:09 PLOT BY : mscj9h

WISDOT/CADDS SHEET 42

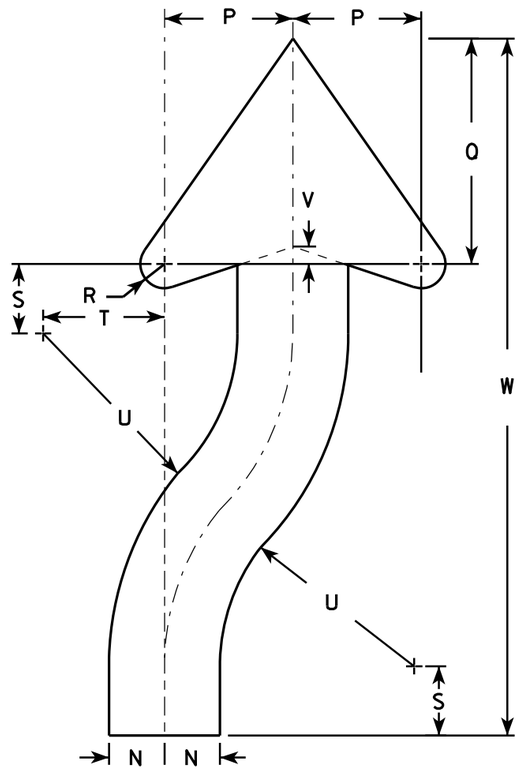




R4-7

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: 6998-11-70	HWY: HOOVER RD	COUNTY: PORTAGE	SIGNING DETAILS	SHEET NO: 219	E



R9-9

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	30	18	1 3/4	1/2	1/2	4	3 1/2	3	10 3/4	8 1/8																	3.75
2M	30	18	1 3/4	1/2	1/2	4	3 1/2	3	10 3/4	8 1/8																	3.75
3																											
4																											
5																											

STANDARD SIGN
R9-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/1/2011 PLATE NO. R9-9.5

PROJECT NO: 6998-11-70 | HWY: HOOVER RD | COUNTY: PORTAGE | SIGNING DETAILS | SHEET NO: 220 | E



R10-71



R10-71L

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.



R10-71R

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	R10-71L&R Area sq. ft.	R10-71 Area sq. ft.
1																												
2S	72	36	2 1/4	3/4	1	18	5	4	6	20 5/8	11 3/4	9 1/8	8 1/2	12 7/8	9 7/8	16 1/8	23 7/8	30	5 5/8	26 3/4	66	23 5/8	8 3/4	13	26 7/8	27	18.0	16.5
2M	72	36	2 1/4	3/4	1	18	5	4	6	20 5/8	11 3/4	9 1/8	8 1/2	12 7/8	9 7/8	16 1/8	23 7/8	30	5 5/8	26 3/4	66	23 5/8	8 3/4	13	26 7/8	27	18.0	16.5
3																												
4																												
5																												

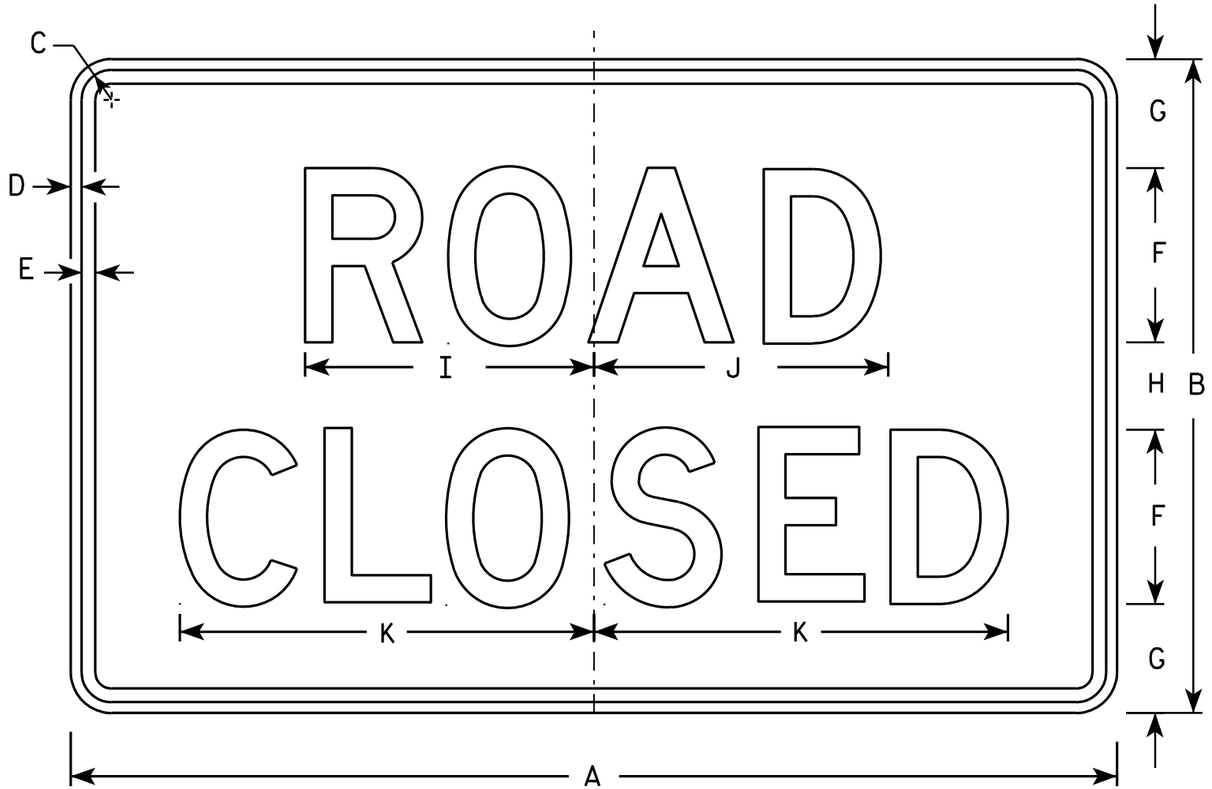
STANDARD SIGN
R10-71

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/4/11 PLATE NO. R10-71.3

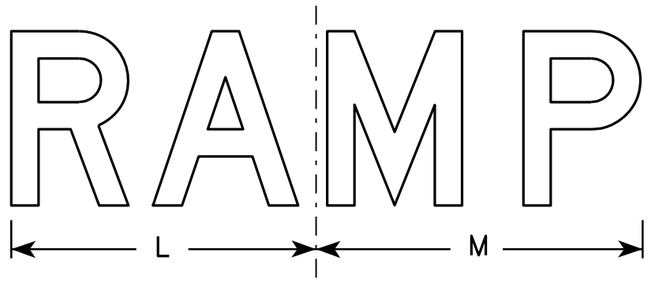
PROJECT NO: 6998-11-70 | HWY: HOOVER RD | COUNTY: PORTAGE | SIGNING DETAILS | SHEET NO: 221 | E



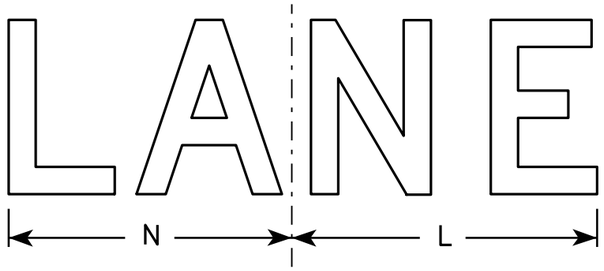
R11-2

NOTES

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



R11-2L

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													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													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													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													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													10.0

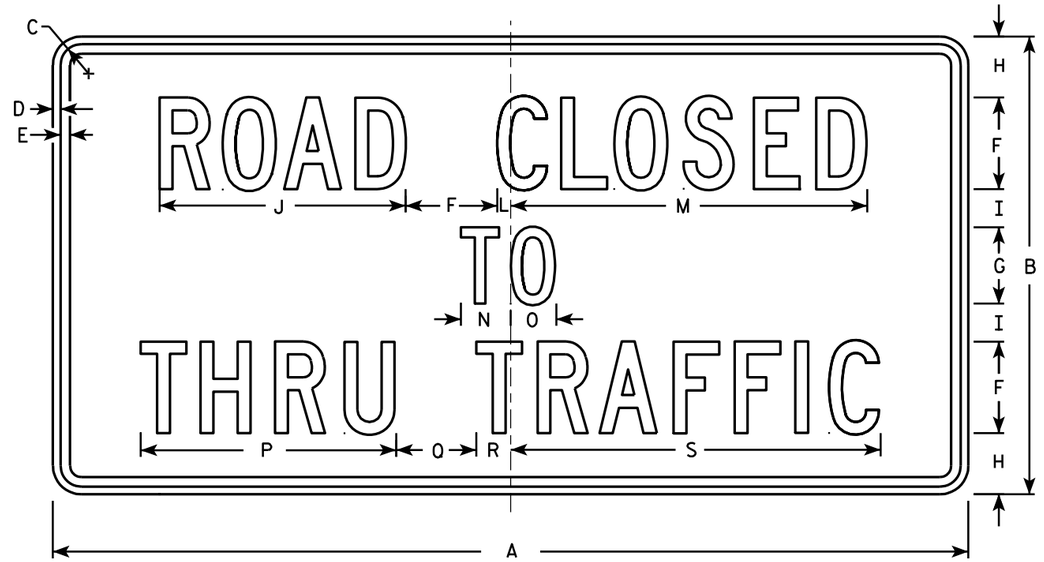
STANDARD SIGN
R11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-2.10

PROJECT NO: 6998-11-70 | HWY: HOOVER RD | COUNTY: PORTAGE | SIGNING DETAILS | SHEET NO: 222 | 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																											

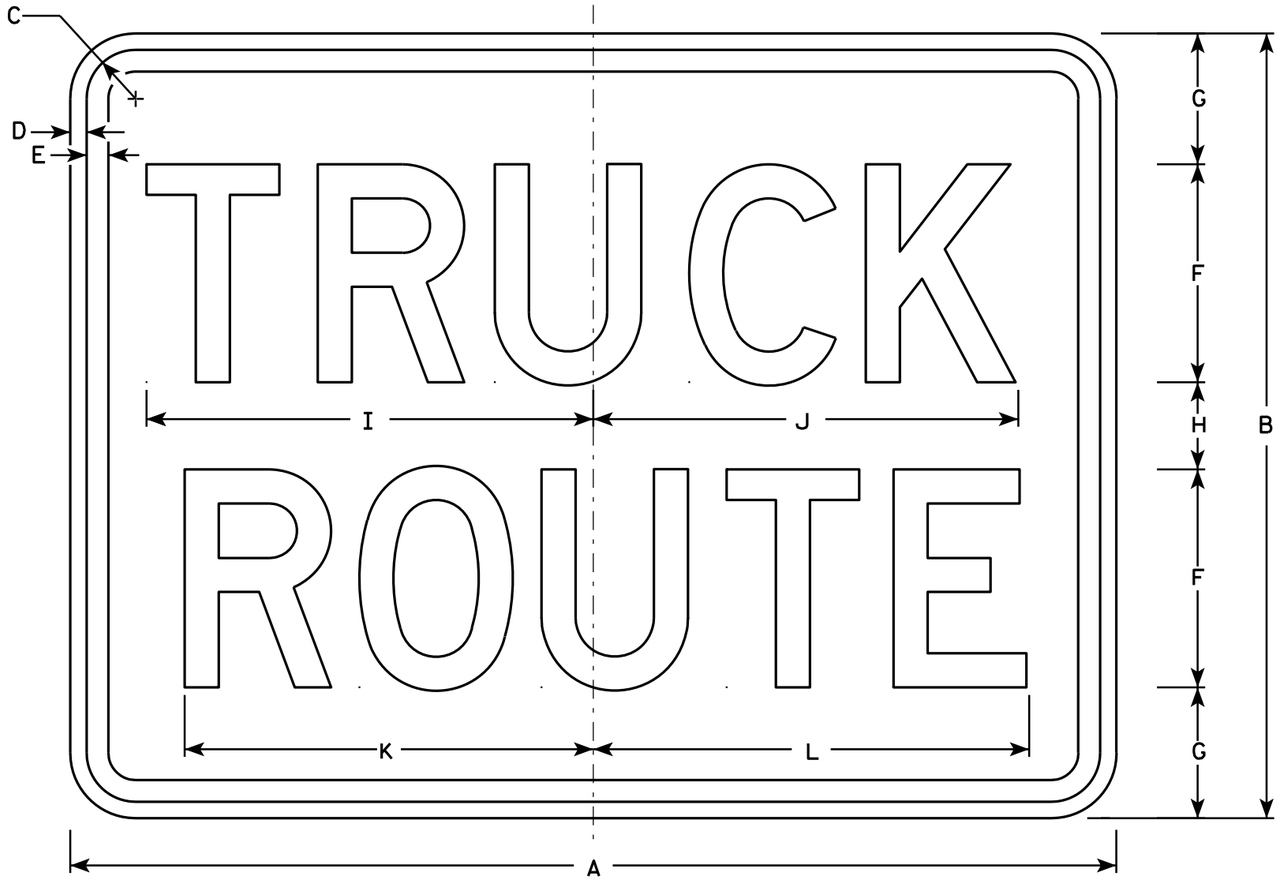
STANDARD SIGN
R11 - 4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-4.3

PROJECT NO: 6998-11-70 | HWY: HOOVER RD | COUNTY: PORTAGE | SIGNING DETAILS | SHEET NO: 223 | E



R14-1

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 - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

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

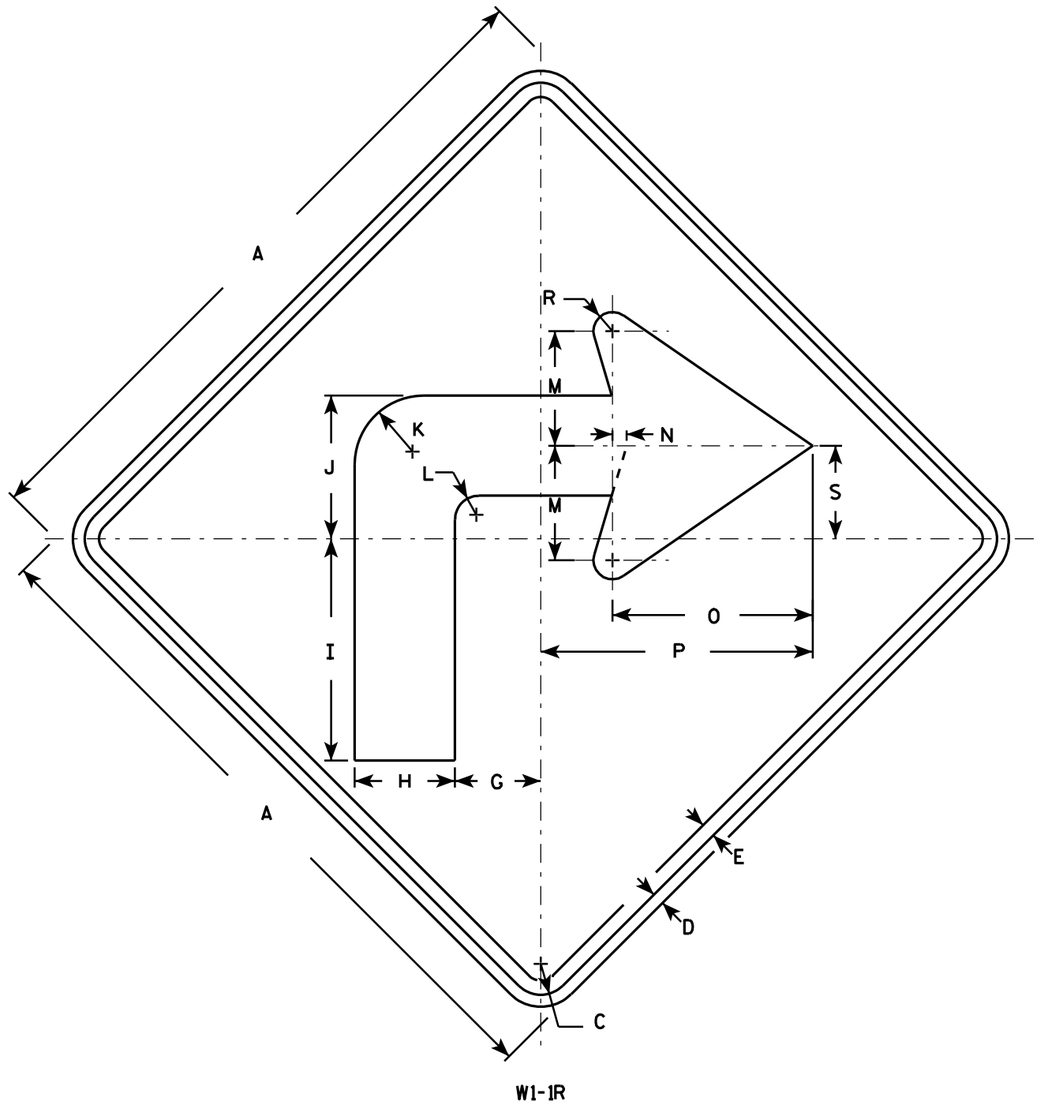
STANDARD SIGN
R14-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/1/11 PLATE NO. R14-1.6

PROJECT NO: 6998-11-70	HWY: HOOVER RD	COUNTY: PORTAGE	SIGNING DETAILS	SHEET NO: 224	E



W1-1R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W1-1L is the same as W1-1R 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	24		1 1/8	3/8	1/2		3	3 1/2	7 3/4	5	2 1/2	7/8	4	1/2	7	9 1/2		5/8	3 1/4								4.0
2S	36		1 5/8	5/8	3/4		4 1/2	5 1/4	11 5/8	7 1/2	3 5/8	1 1/4	6	3/4	10 1/2	14 1/4		1	4 7/8								9.0
2M	36		1 5/8	5/8	3/4		4 1/2	5 1/4	11 5/8	7 1/2	3 5/8	1 1/4	6	3/4	10 1/2	14 1/4		1	4 7/8								9.0
3	36		1 5/8	5/8	3/4		4 1/2	5 1/4	11 5/8	7 1/2	3 5/8	1 1/4	6	3/4	10 1/2	14 1/4		1	4 7/8								9.0
4	48		2 1/4	3/4	1		6	7	15 1/2	10	4 7/8	1 5/8	8	1	14	19		1 1/4	6 1/2								16.0
5	48		2 1/4	3/4	1		6	7	15 1/2	10	4 7/8	1 5/8	8	1	14	19		1 1/4	6 1/2								16.0

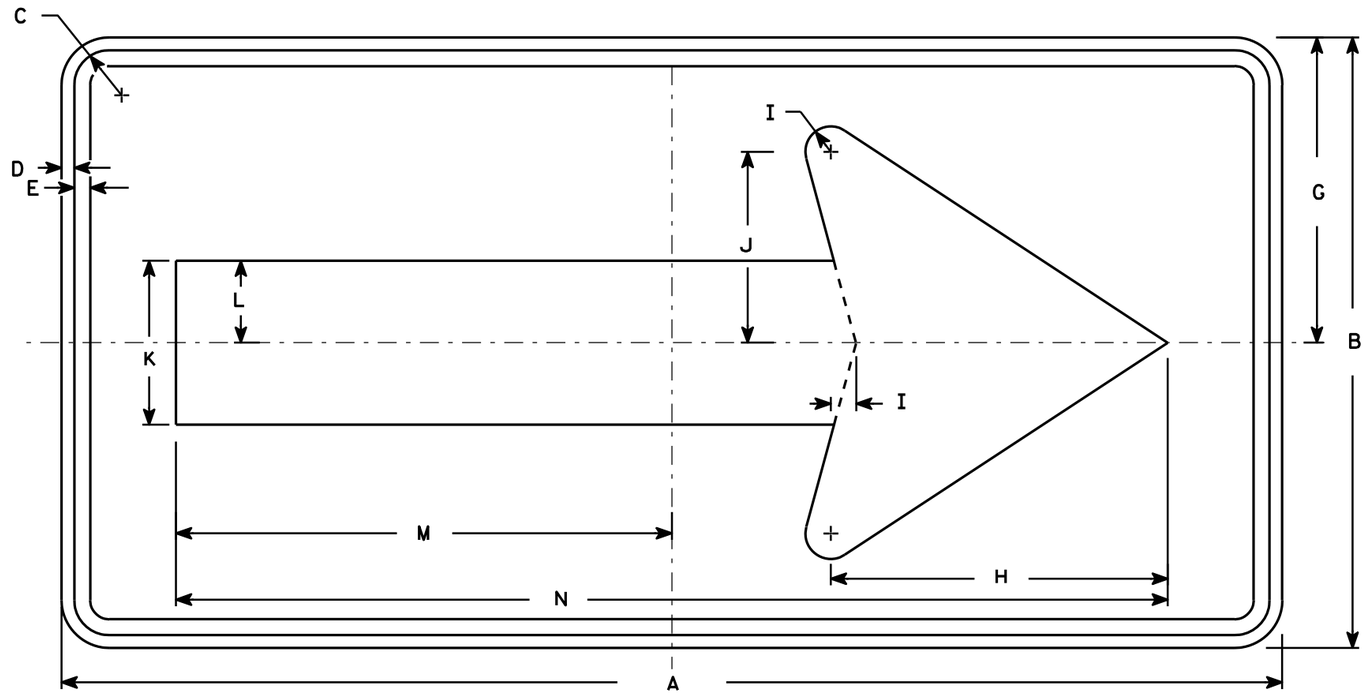
STANDARD SIGN
W1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/15/12 PLATE NO. W1-1.11

PROJECT NO: 6998-11-70 | HWY: HOOVER RD | COUNTY: PORTAGE | SIGNING DETAILS | SHEET NO: 225 | E



W1-6

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 1/8	3/8	3/8		9	10	3/4	5 5/8	4 3/4	2 3/8	14 5/8	29 1/4													4.5
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	96	48	2 1/4	3/4	1		24	26 1/2	2	15	13	6 1/2	39	78													32.0

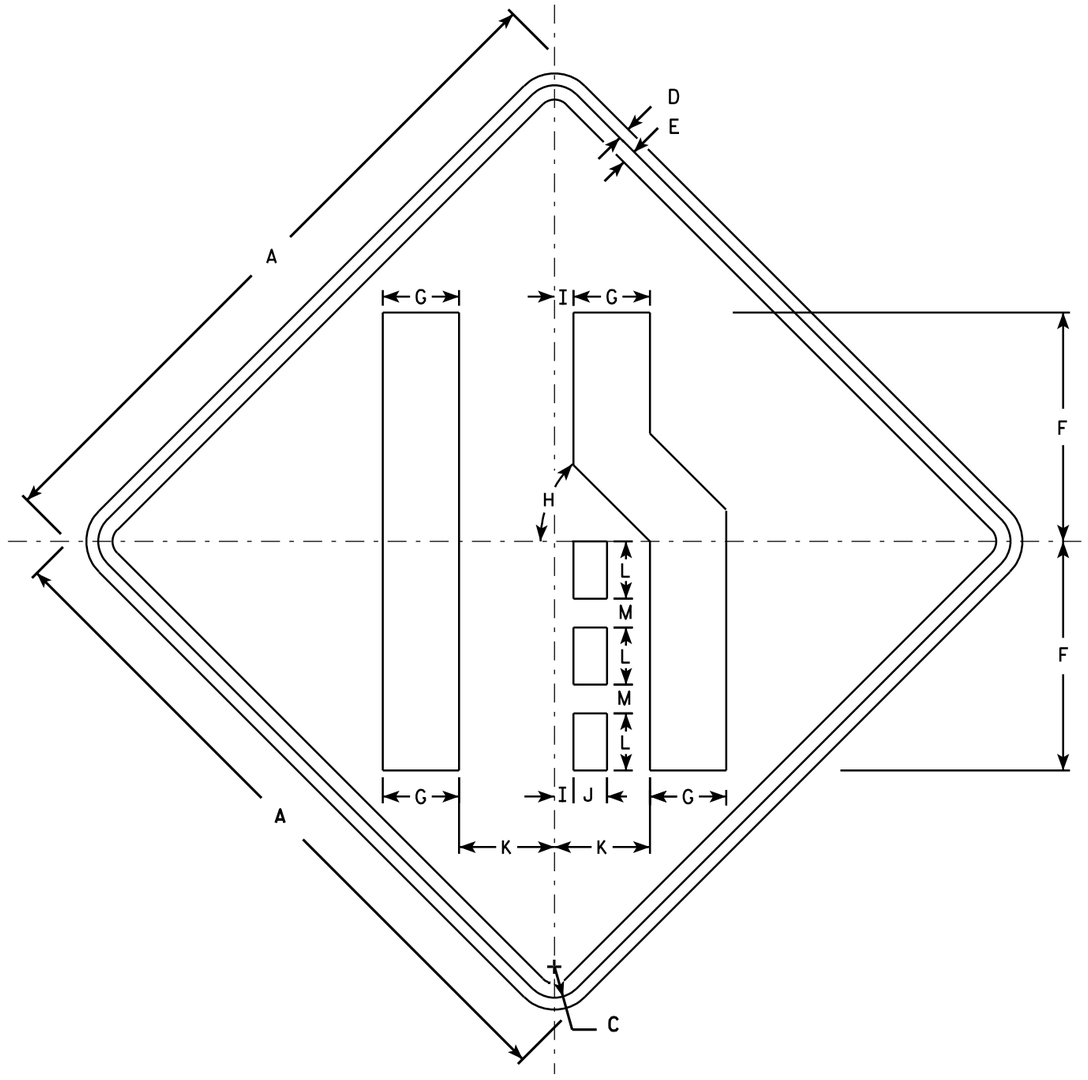
STANDARD SIGN
W1-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W1-6.8

PROJECT NO: 6998-11-70 | HWY: HOOVER RD | COUNTY: PORTAGE | SIGNING DETAILS | SHEET NO: 226



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

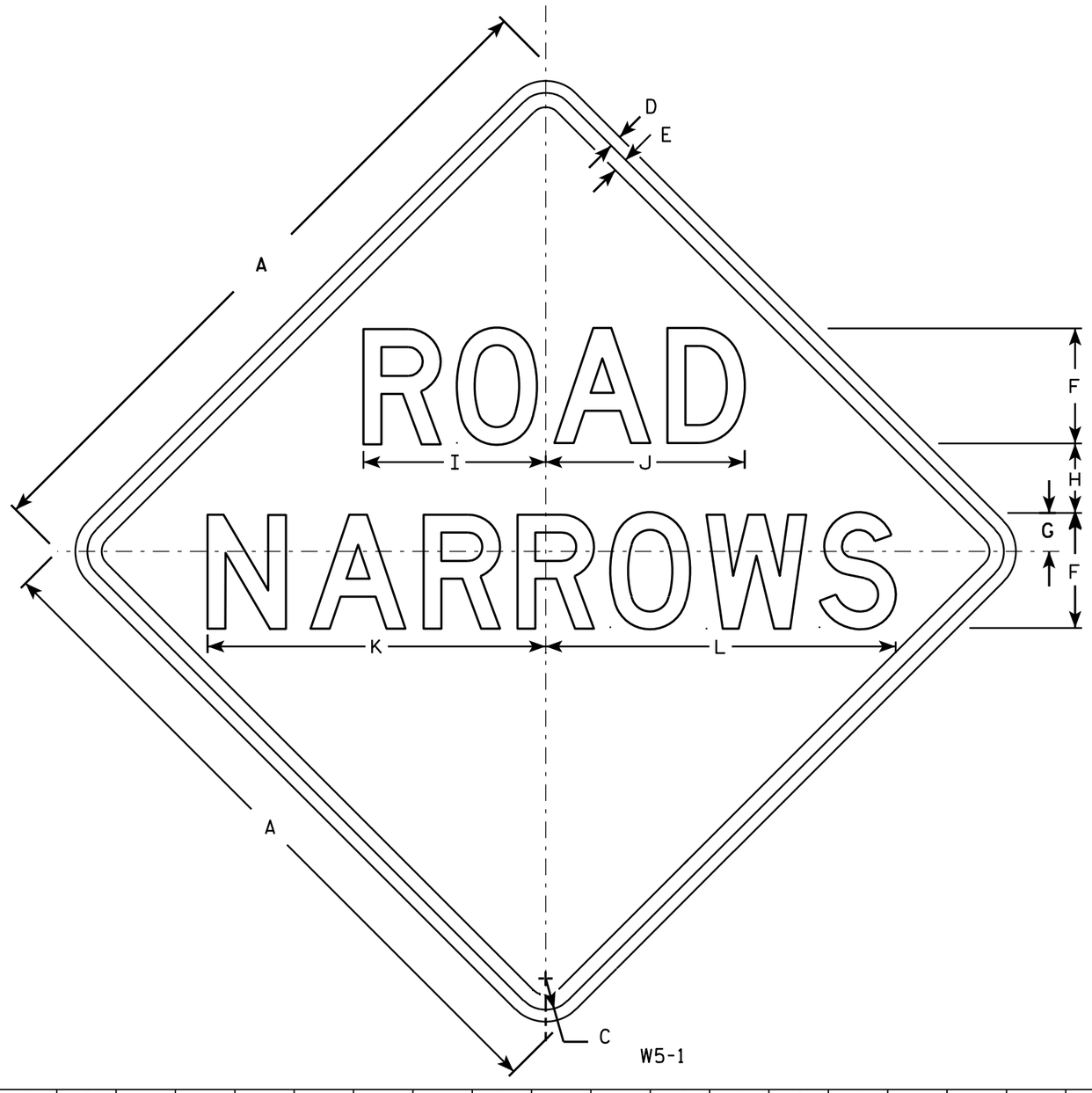
STANDARD SIGN
W4-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/12/13 PLATE NO. W4-2.14

PROJECT NO: 6998-11-70 | HWY: HOOVER RD | COUNTY: PORTAGE | SIGNING DETAILS | SHEET NO: 227 | E



NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	5	1 3/4	3	7 7/8	8 5/8	14 3/4	15 1/8															6.25
2S	36		1 5/8	5/8	3/4	6	2	3 1/2	9 1/2	10 3/8	17 5/8	18 1/4															9.0
2M	36		1 5/8	5/8	3/4	6	2	3 1/2	9 1/2	10 3/8	17 5/8	18 1/4															9.0
3																											
4	48		2 1/4	3/4	1	8	3	4	12 3/4	13 3/4	23 1/2	24 3/8															16.0
5																											

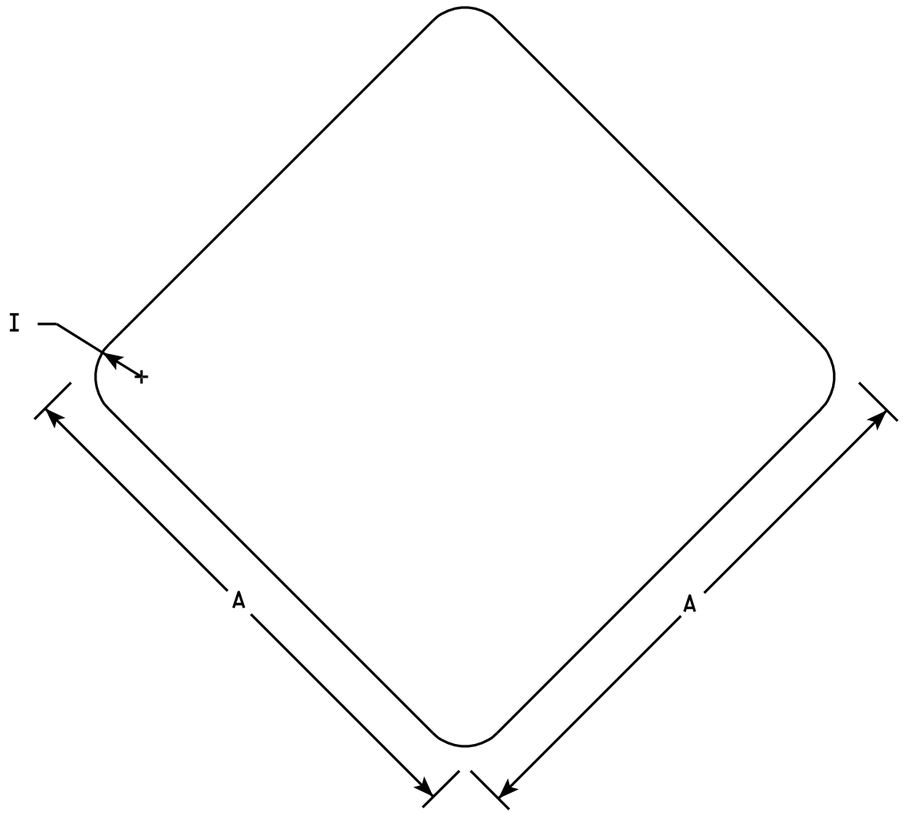
STANDARD SIGN
W5-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 03/12/13 PLATE NO. W5-1.8

PROJECT NO: 6998-11-70 | HWY: HOOVER RD | COUNTY: PORTAGE | SIGNING DETAILS | SHEET NO: 228 | E



W5-56

NOTES

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

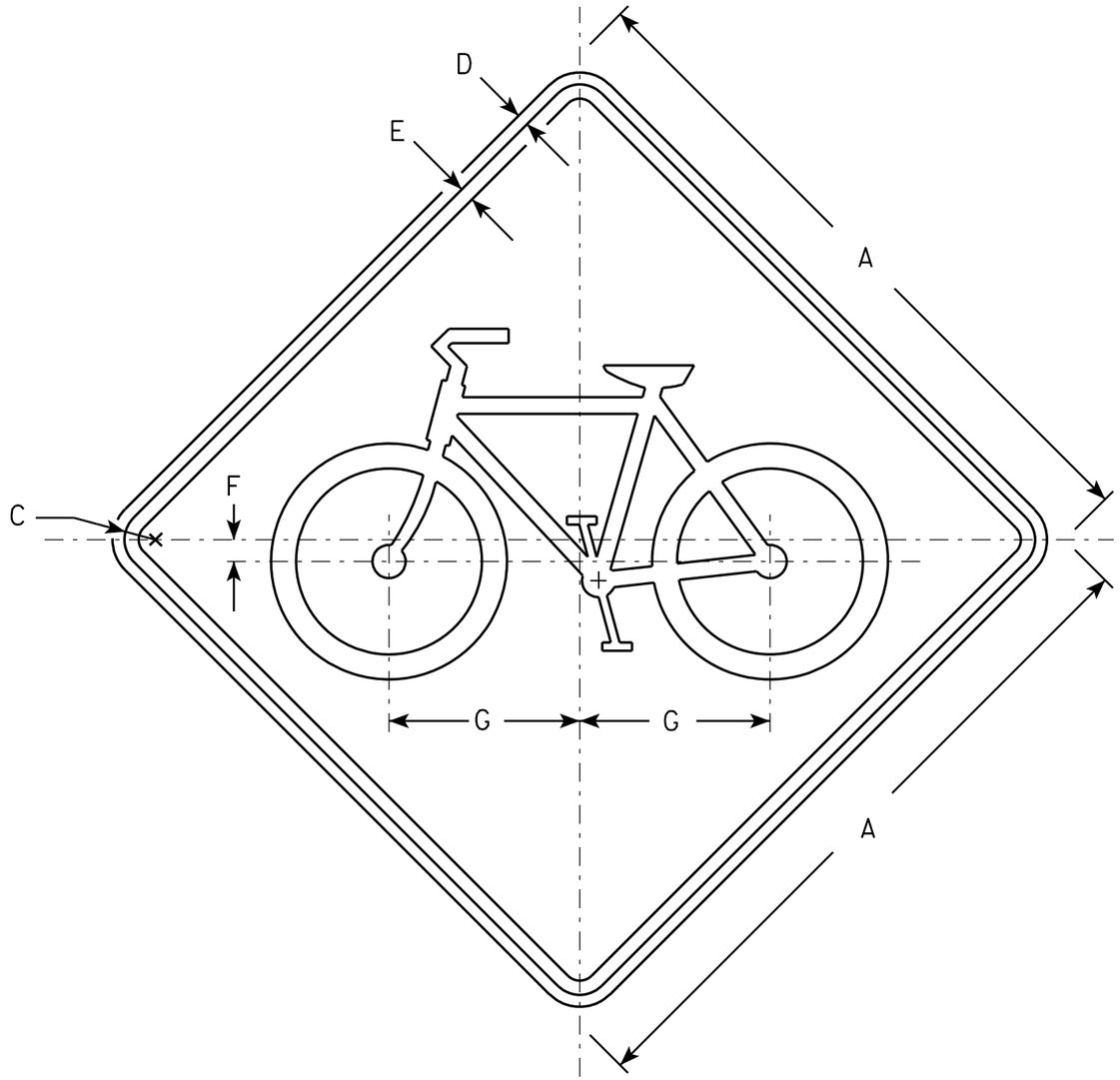
STANDARD SIGN
W5-56

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/2/10 PLATE NO. W5-56.6

PROJECT NO: 6998-11-70	HWY: HOOVER RD	COUNTY: PORTAGE	SIGNING DETAILS	SHEET NO: 229	E



W11-1

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. 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	24		1 1/8	3/4	1/2	3/4	6 5/8																				4.0
2S	30		1 3/8	1/2	5/8	1	8 1/2																				6.25
2M	36		1 5/8	5/8	3/4	1 1/4	10																				9.0
3	36		1 5/8	5/8	3/4	1 1/4	10																				9.0
4	48		2 1/4	3/4	1	1 5/8	13 3/8																				16.0
5																											16.0

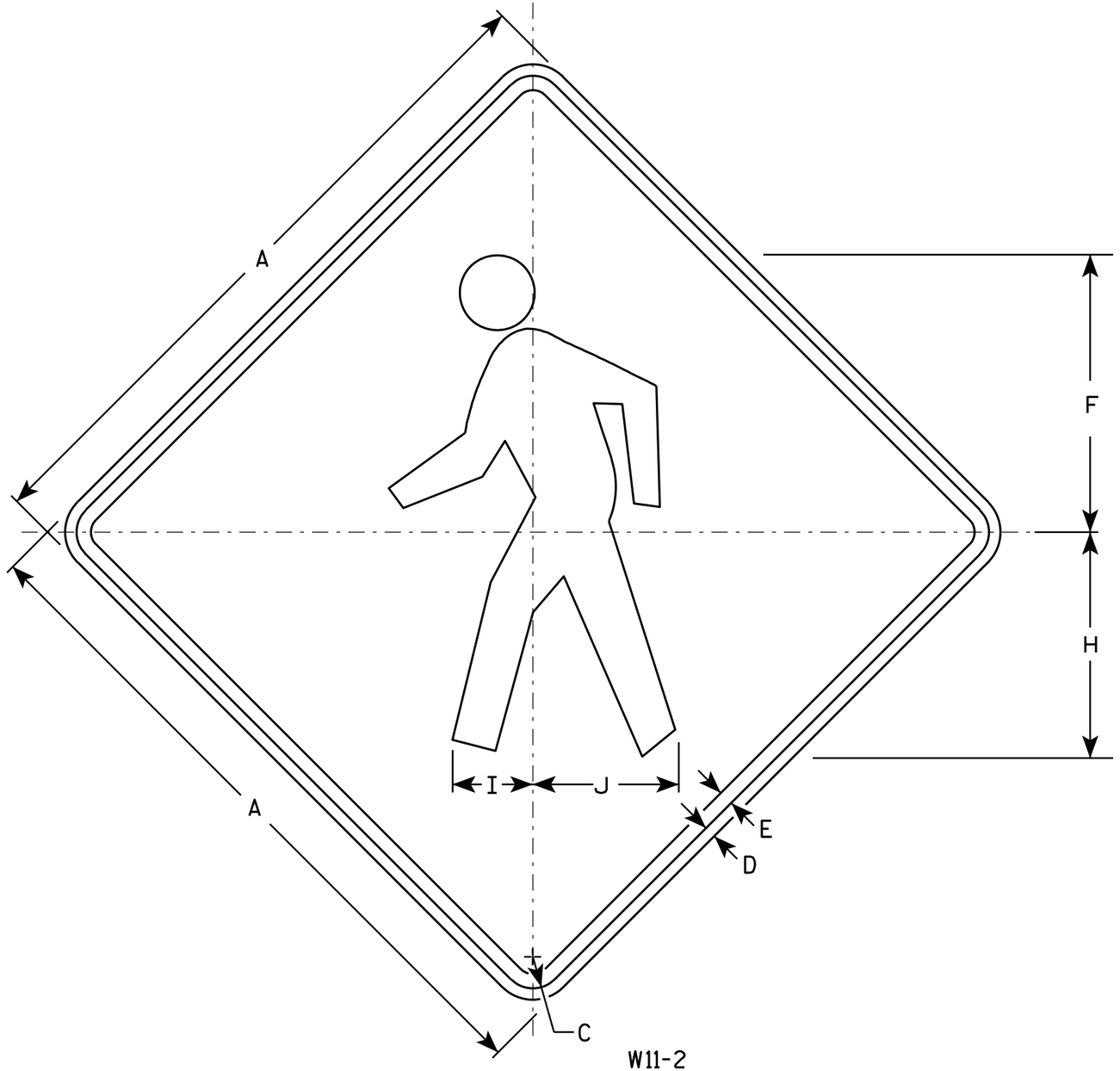
STANDARD SIGN
W11-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/21/10 PLATE NO. W11-1.9

PROJECT NO: 6998-11-70 | HWY: HOOVER RD | COUNTY: PORTAGE | SIGNING DETAILS | SHEET NO: 230 | E



W11-2

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	9 3/4		7 7/8	2 7/8	5 1/8																	4.0
2S	30		1 3/8	1/2	5/8	12 1/8		9 7/8	3 1/2	6 3/8																	6.25
2M	36		1 5/8	5/8	3/4	14 1/2		11 7/8	4 1/4	7 5/8																	9.0
3	36		1 5/8	5/8	3/4	14 1/2		11 7/8	4 1/4	7 5/8																	9.0
4	48		2 1/4	3/4	1	19 3/8		15 3/4	5 5/8	10 1/4																	16.0
5																											

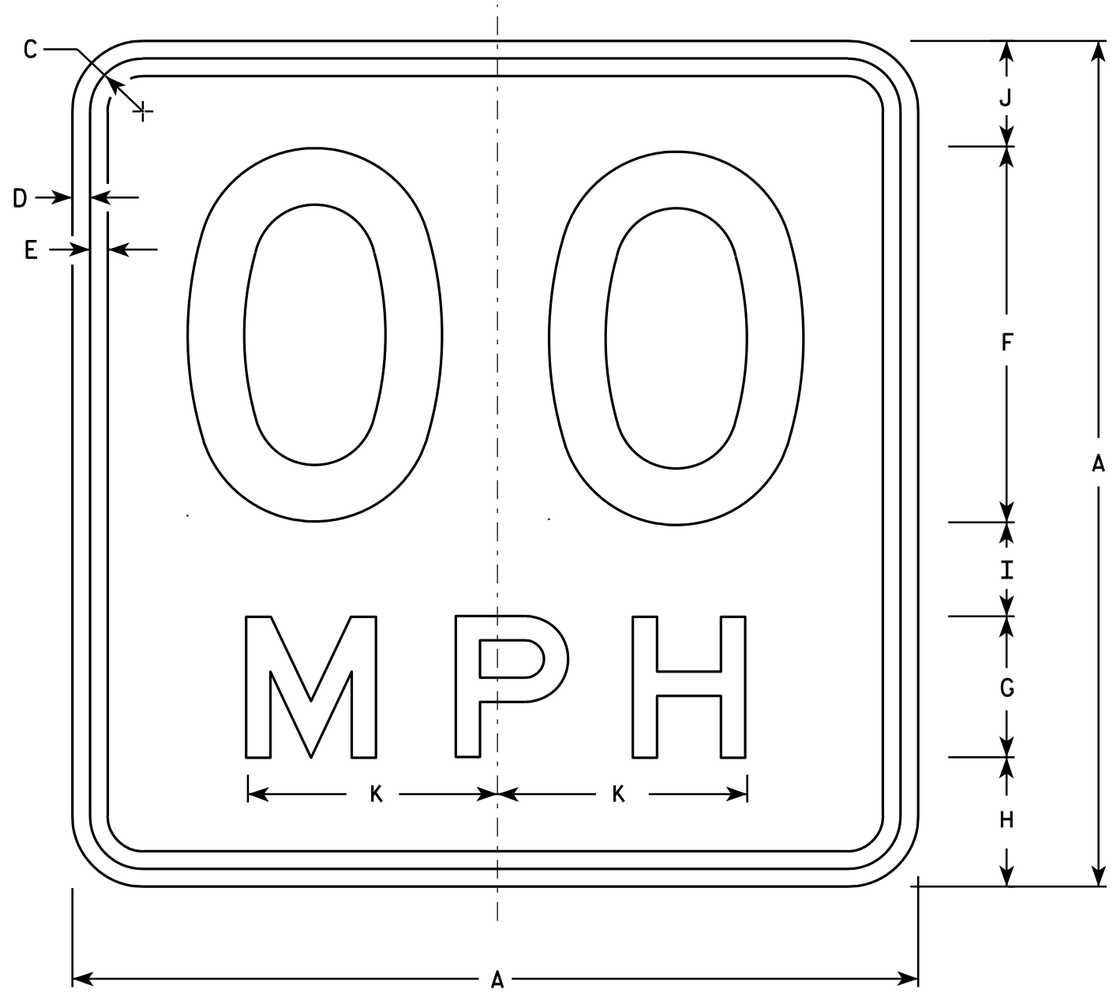
STANDARD SIGN
W11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W11-2.7

PROJECT NO: 6998-11-70 | HWY: HOOVER RD | COUNTY: PORTAGE | SIGNING DETAILS | SHEET NO: 231 | 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

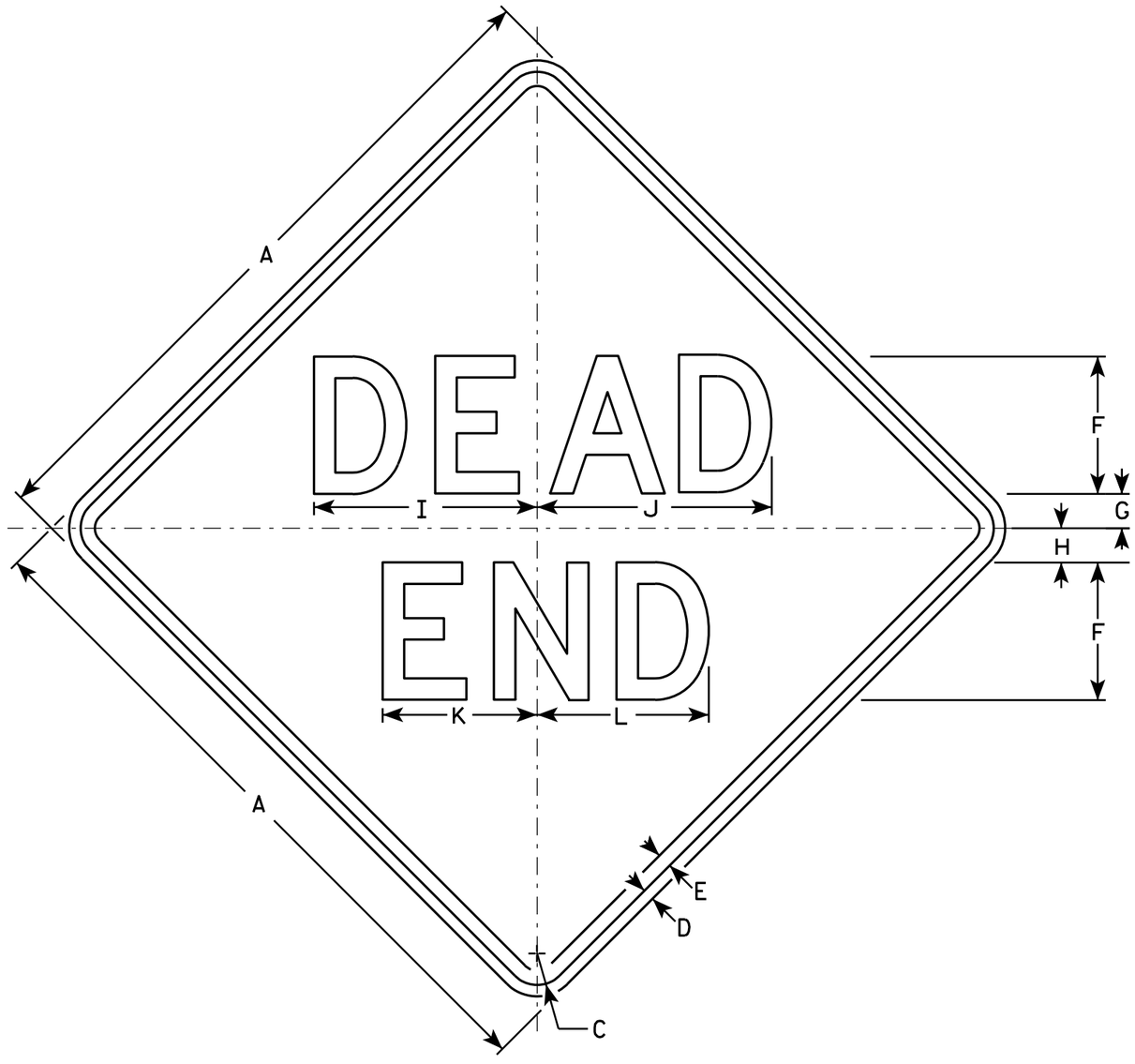
STANDARD SIGN
W13-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 5/31/12 PLATE NO. W13-1.16

PROJECT NO: 6998-11-70 | HWY: HOOVER RD | COUNTY: PORTAGE | SIGNING DETAILS | SHEET NO: 232 | E



W14-1

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	5	1	2	8 1/4	8 5/8	5 5/8	6 1/4															4.0
2S	30		1 3/8	1/2	5/8	6	1 1/2	2 1/2	9 3/4	10 1/4	6 3/4	7 1/2															6.25
2M	30		1 3/8	1/2	5/8	6	1 1/2	2 1/2	9 3/4	10 1/4	6 3/4	7 1/2															6.25
3	36		1 5/8	5/8	3/4	7	2	3	11 3/8	12	7 7/8	8 3/4															9.0
4																											
5																											

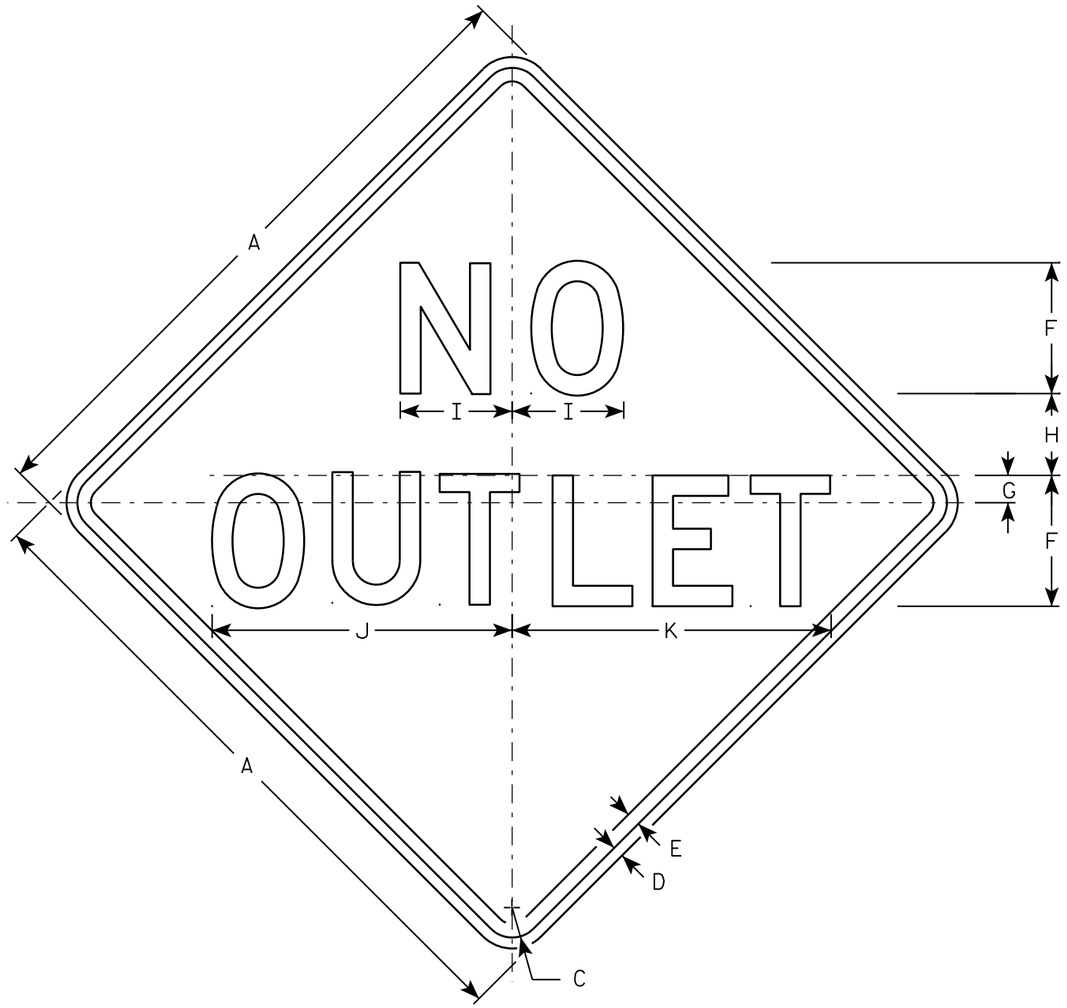
STANDARD SIGN
W14-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/13/13 PLATE NO. W14-1.7

PROJECT NO: 6998-11-70	HWY: HOOVER RD	COUNTY: PORTAGE	SIGNING DETAILS	SHEET NO: 233	E



W14-2

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 - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	5	1	2 3/4	4 1/8	11 3/4	12 3/8																4.0
2S	30		1 3/8	1/2	5/8	6	1 1/4	3 3/4	5 1/8	13 3/4	14 5/8																6.25
2M	30		1 3/8	1/2	5/8	6	1 1/4	3 3/4	5 1/8	13 3/4	14 5/8																6.25
3	36		1 5/8	5/8	3/4	7	1 3/8	4 5/8	6	16 1/8	17 1/8																9.0
4																											
5																											

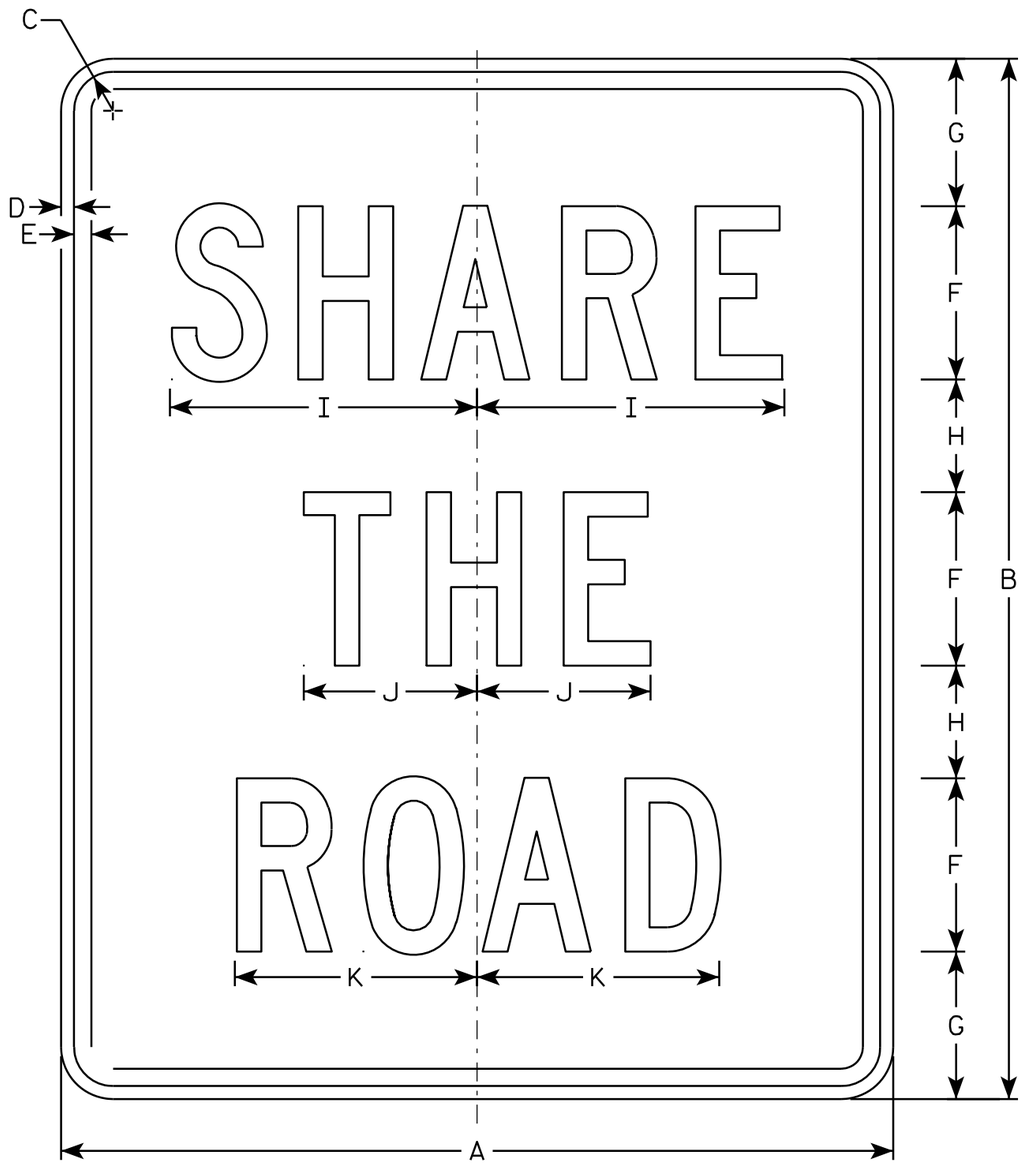
STANDARD SIGN
W14-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/13/13 PLATE NO. W14-2.3

PROJECT NO: 6998-11-70 | HWY: HOOVER RD | COUNTY: PORTAGE | SIGNING DETAILS | SHEET NO: 234 | E



W16-1P

NOTES

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

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	18	24	1 1/8	3/8	1/2	4	3 3/8	2 5/8	6 5/8	3 3/4	5 3/8																3.0
2M	18	24	1 1/8	3/8	1/2	4	3 3/8	2 5/8	6 5/8	3 3/4	5 3/8																3.0
3	24	30	1 1/8	3/8	1/2	5	4 1/4	3 1/4	8 7/8	5	7																5.0
4	24	30	1 1/8	3/8	1/2	5	4 1/4	3 1/4	8 7/8	5	7																5.0
5																											

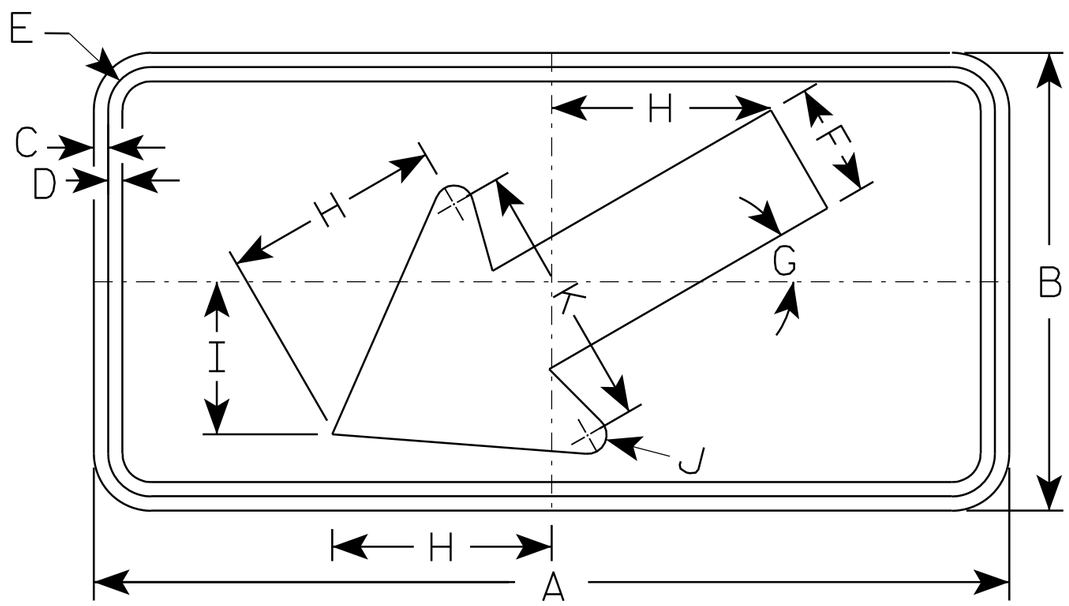
STANDARD SIGN
W16-1P

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/2/10 PLATE NO. W16-1P.1

PROJECT NO: 6998-11-70 | HWY: HOOVER RD | COUNTY: PORTAGE | SIGNING DETAILS | SHEET NO: 235 | E



W16-7L

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. W16-7R is the same as W16-L 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																											
2S	24	12	3/8	3/8	1 1/8	3	30°	5 3/4	4	1/2	7																2.0
2M	30	18	3/8	1/2	1 1/8	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
3	30	18	3/8	1/2	1 1/8	4 1/2	30°	8 1/2	6	5/8	10 1/4																3.75
4																											8
5																											8

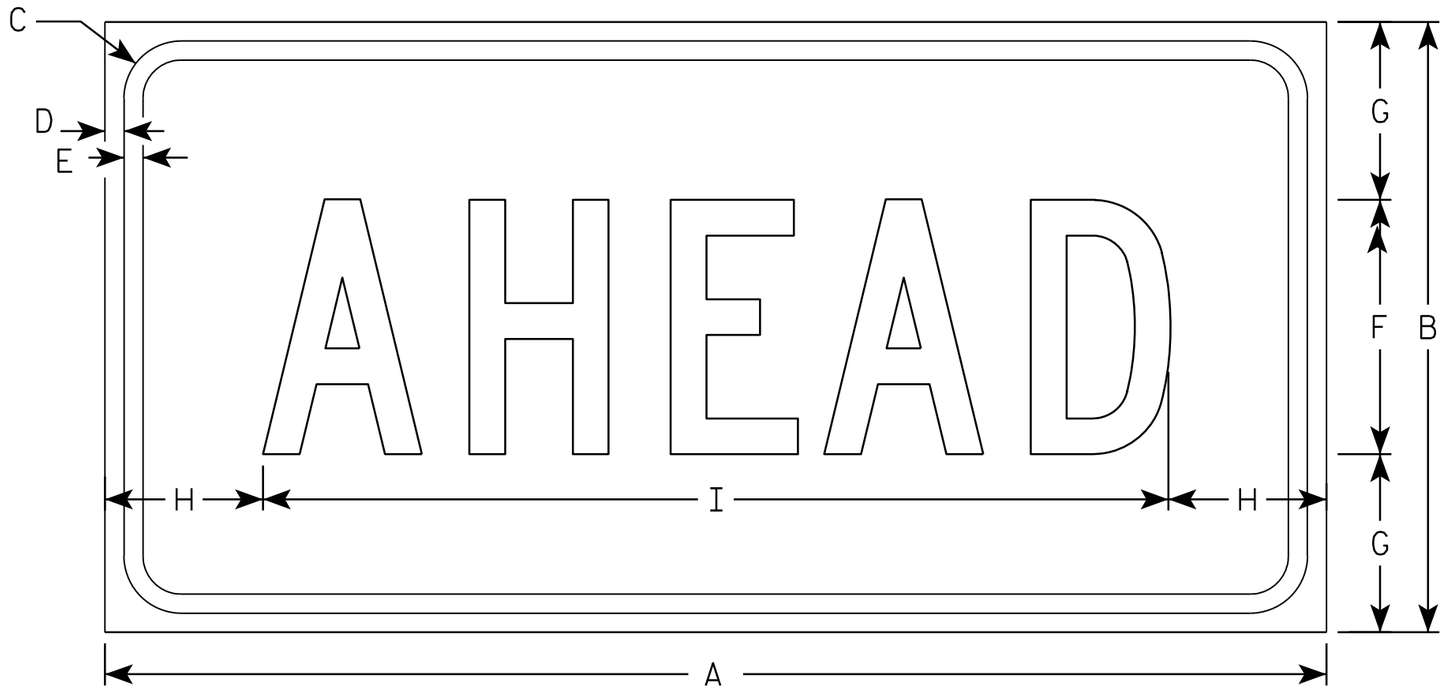
STANDARD SIGN
W16-7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/02/10 PLATE NO. W16-7.5

PROJECT NO:6998-11-70	HWY: HOOVER RD	COUNTY: PORTAGE	SIGNING DETAILS	SHEET NO: 236	E



W16-9P

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 1/8	3/8	3/8	5	3 1/2	3 1/8	17 3/4																		2.0
2M	30	18	1 1/8	3/8	1/2	7	5 1/2	2 3/4	24 1/2																		3.75
3	30	18	1 1/8	3/8	1/2	7	3 1/2	2 3/4	24 1/2																		3.75
4	48	24	1 3/8	1/2	5/8	10	7	6 1/8	35 3/4																		8.0
5																											

STANDARD SIGN
W16-9P

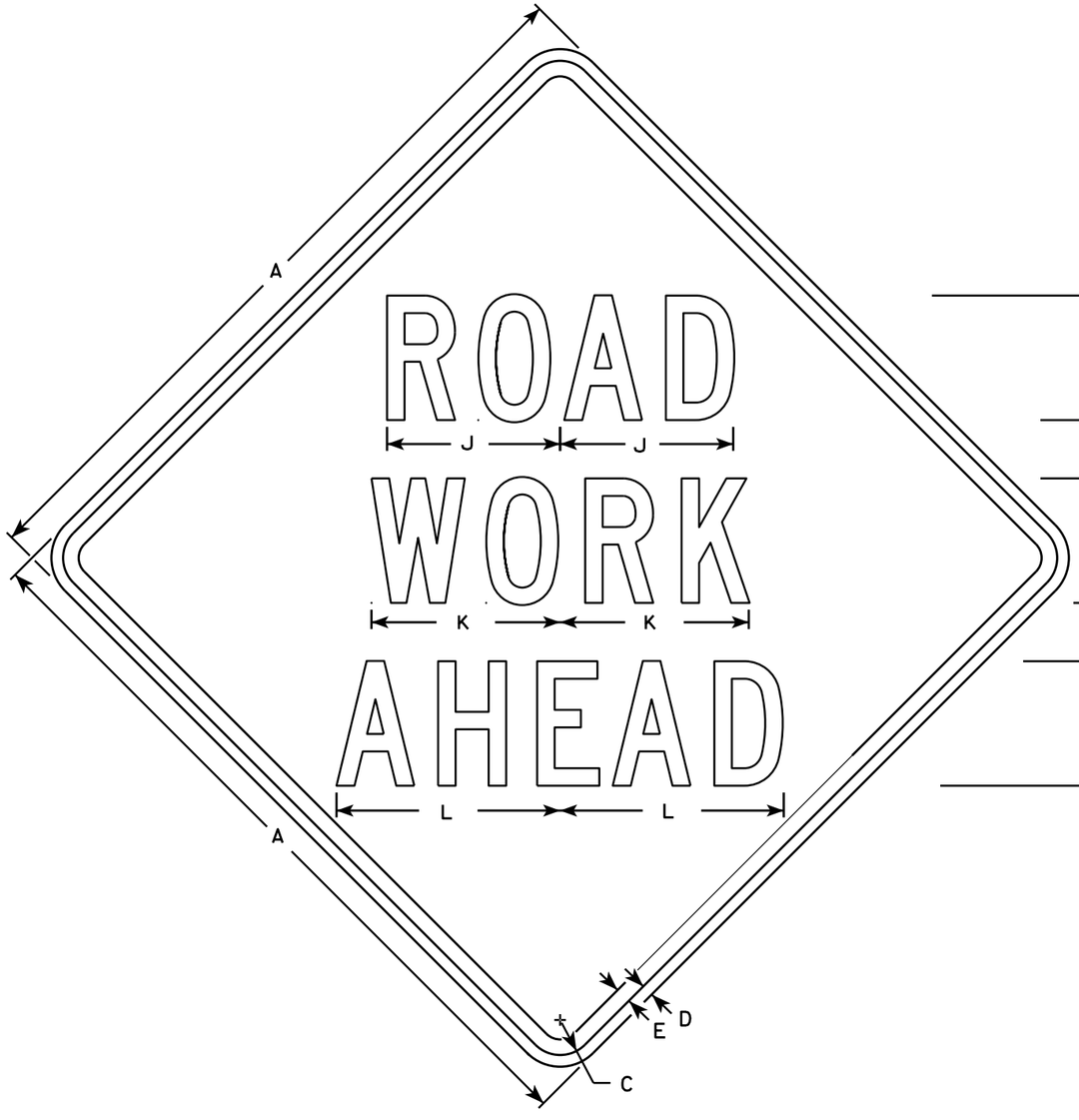
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

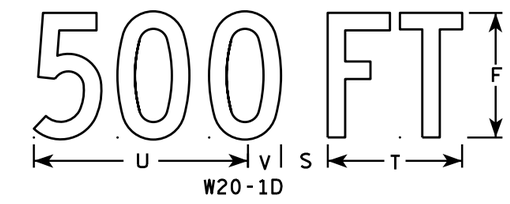
DATE 12/28/10 PLATE NO. W16-9P.6

PROJECT NO: 6998-11-70 | HWY: HOOVER RD | COUNTY: PORTAGE | SIGNING DETAILS | SHEET NO: 237 | E

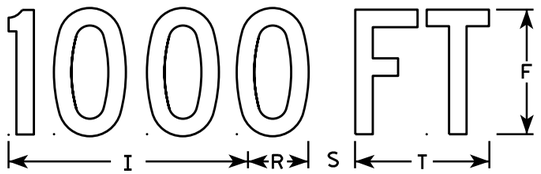
FILE NAME : C:\Users\PROJECTS\tr_stdplate\W169P.DGN PLOT DATE : 28-DEC-2010 13:39 PLOT BY : dotsja PLOT NAME : PLOT SCALE : 2.979524:1.000000
WISDOT/CADDS SHEET 42



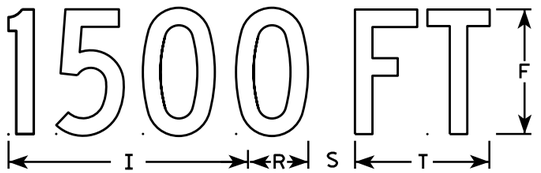
W20-1A



W20-1D



W20-1C



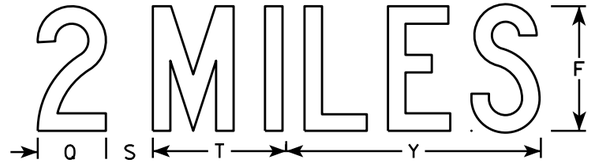
W20-1B



W20-1G



W20-1F



W20-1E

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 3/8	1/2	5/8	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		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, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

State Traffic Engineer

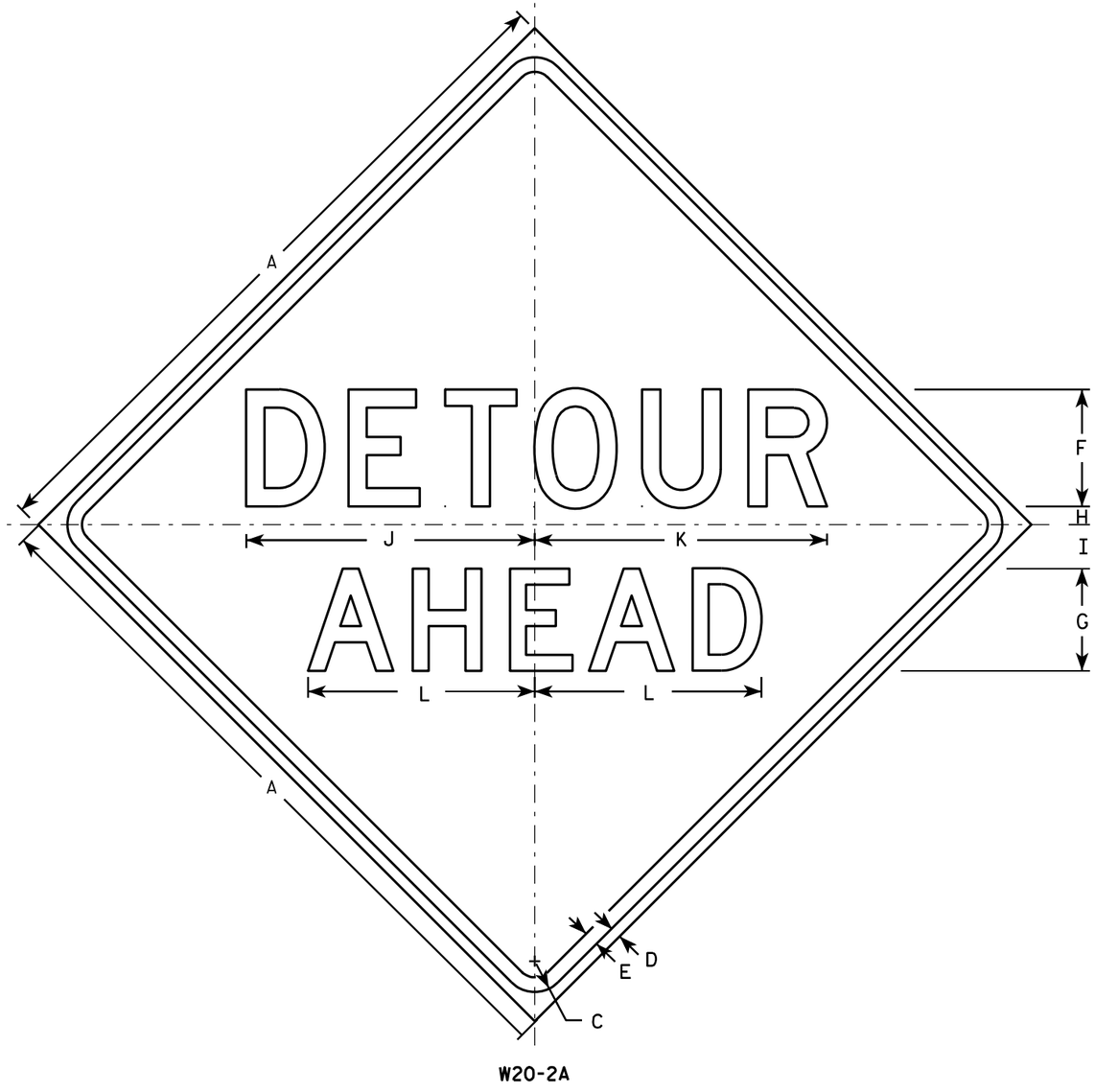
DATE 5/07/15 PLATE NO. W20-1.10

PROJECT NO: 6998-11-70	HWY: HOOVER RD	COUNTY: PORTAGE	SIGNING DETAILS	SHEET NO:	E

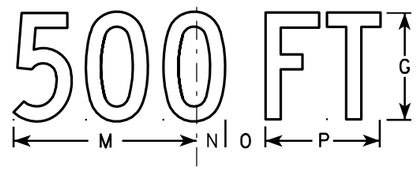
7

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W201.dgn PLOT DATE : 27-MAY-2015 15:58 PLOT BY : mscsja

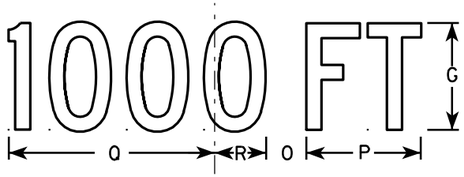
WISDOT/CADDS SHEET 42



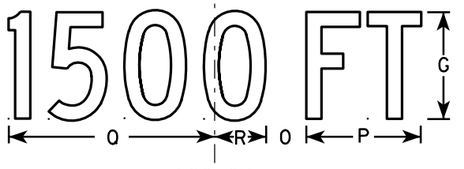
W20-2A



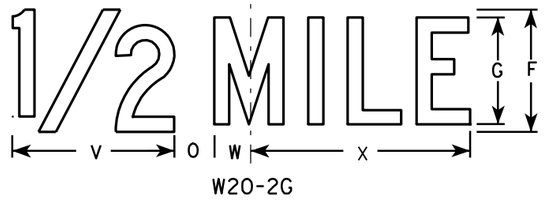
W20-2D



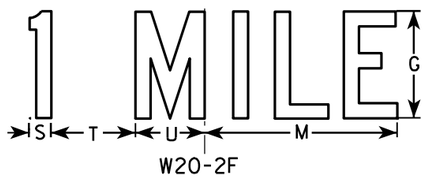
W20-2C



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

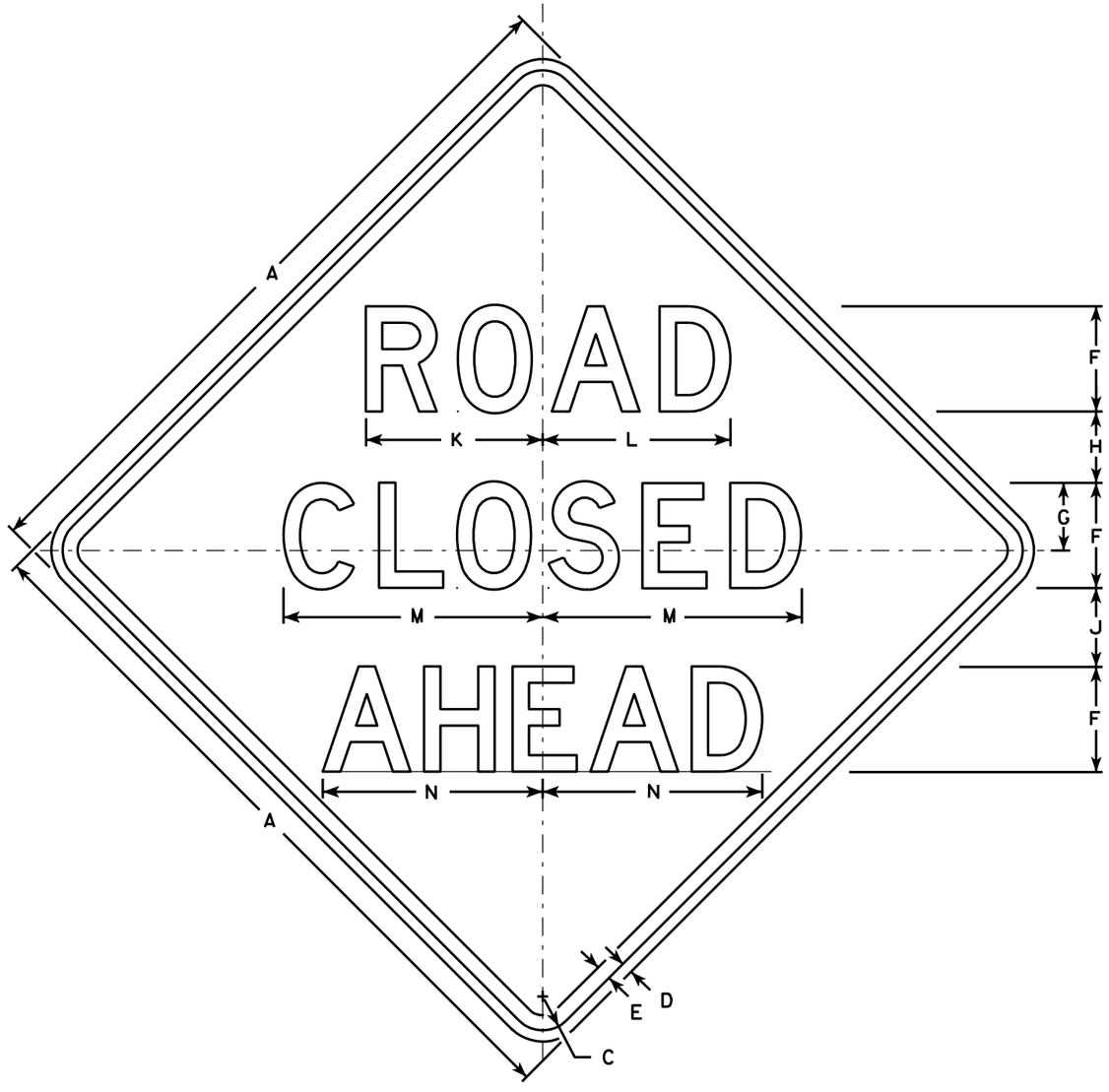
STANDARD SIGN
W20-2A,B,C,D,F & G

WISCONSIN DEPT OF TRANSPORTATION

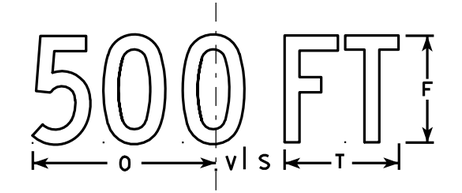
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-2.6

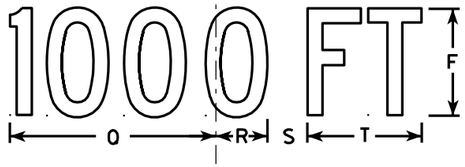
PROJECT NO: 6998-11-70	HWY: HOOVER RD	COUNTY: PORTAGE	SIGNING DETAILS	SHEET NO: 239	E



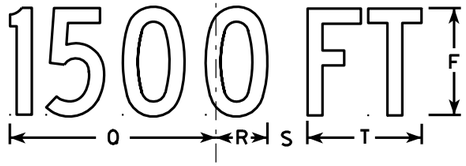
W20-3A



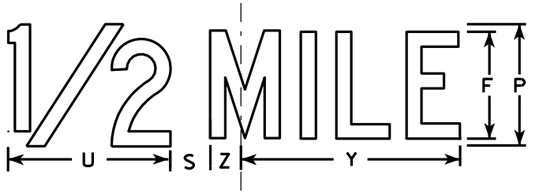
W20-3D



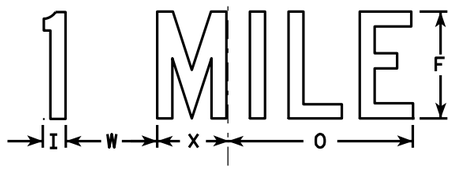
W20-3C



W20-3B



W20-3G



W20-3F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - see note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Lines 1 and 2 are Series D.
   Line 3 is Series D for AHEAD and Series C for all other distances.

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

STANDARD SIGN
W20-3A, B, C, D, F & G

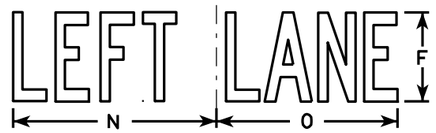
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer
DATE 3/18/11 PLATE NO. W20-3.7

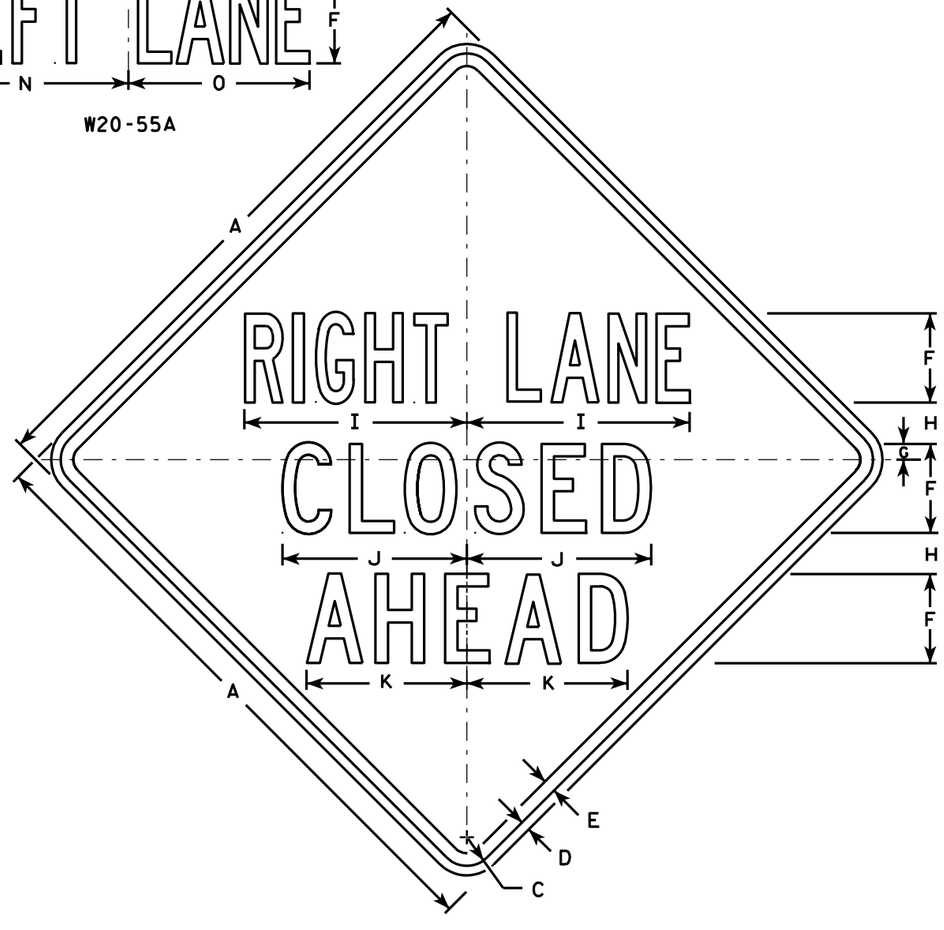
PROJECT NO: 6998-11-70 | HWY: HOOVER RD | COUNTY: PORTAGE | SIGNING DETAILS | SHEET NO: 240 | E



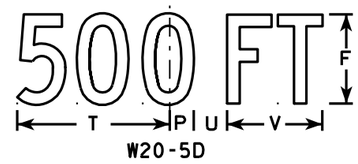
W20-56A



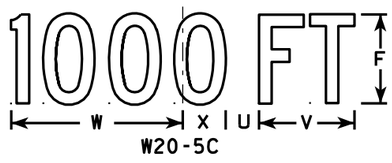
W20-55A



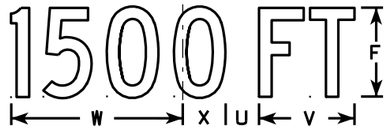
W20-5A



W20-5D



W20-5C



W20-5B



W20-5G



W20-5F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. " _____ LANE" is Series B.
   All other copy is Series C.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	6	1 5/8	5/8	3/4	5	1/8	2 1/2	13 1/8	10 3/4	9 1/2	14 1/4	13 5/8	12	12	1 3/8	1 1/8	4 1/2	3 1/2	9	1 1/8	5 5/8	10 1/8	2 1/2	1 3/4	8	9.0
2S	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
2M	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
3	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
4	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
5	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0

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

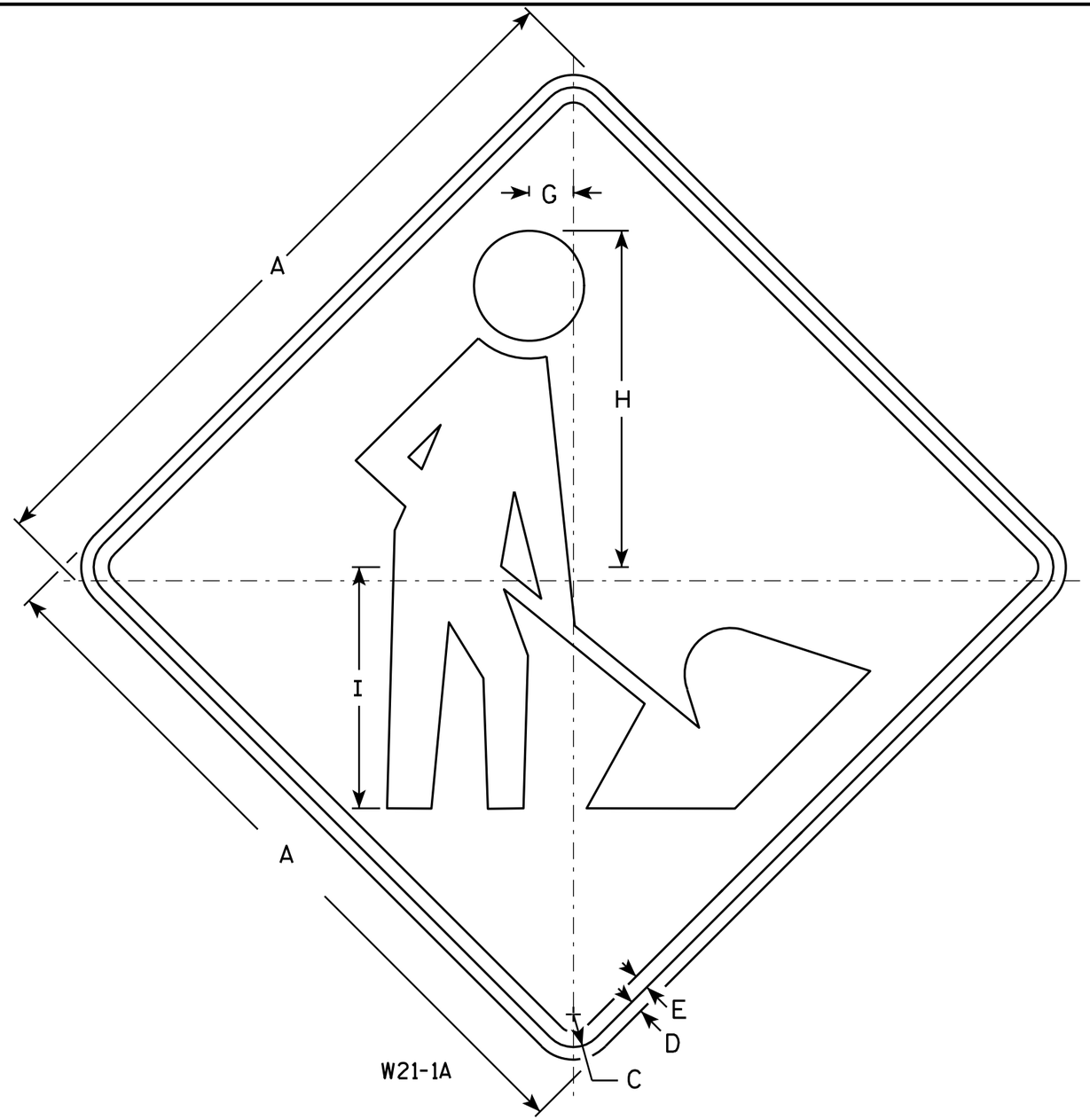
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO: 6998-11-70 | HWY: HOOVER RD | COUNTY: PORTAGE | SIGNING DETAILS | SHEET NO: 241 | E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\W205.DGN PLOT DATE : 18-MAR-2011 12:15 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 11.918087:1.000000
WISDOT/CADDS SHEET 42



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	30		1 3/8	1/2	5/8		1 7/8	14	10																		6.25
2S	36		1 5/8	5/8	3/4		2 1/4	16 7/8	12																		9.00
2M	36		1 5/8	5/8	3/4		2 1/4	16 7/8	12																		9.00
3	36		1 5/8	5/8	3/4		2 1/4	16 7/8	12																		9.00
4	36		1 5/8	5/8	3/4		2 1/4	16 7/8	12																		9.00
5	48		2 1/4	3/4	1		3	22 3/8	16																		16.00

STANDARD SIGN
W21-1A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W21-1A.4

PROJECT NO: 6998-11-70 | HWY: HOOVER RD | COUNTY: PORTAGE | SIGNING DETAILS | SHEET NO: 242 | E

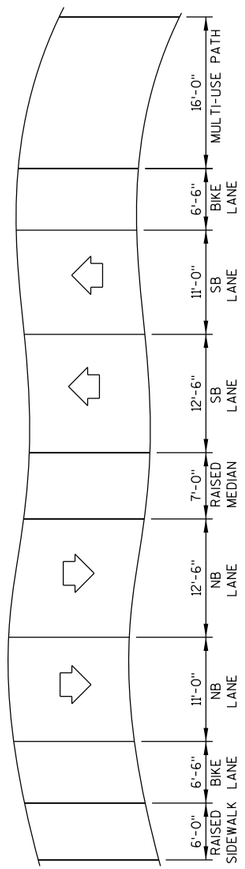
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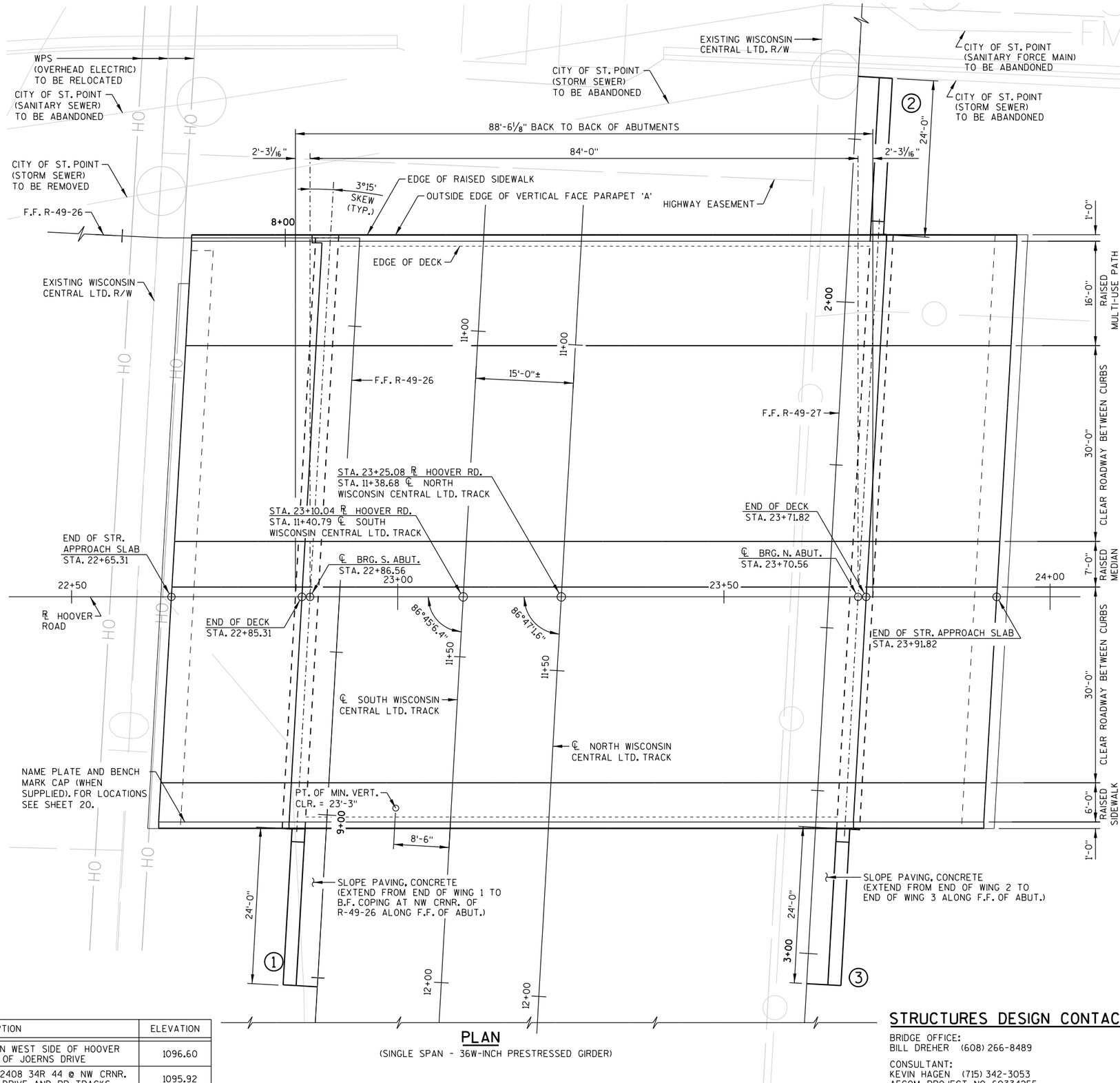
STATE PROJECT NUMBER

6998-11-71

(X) INDICATES WING NUMBER

N





PLAN

(SINGLE SPAN - 36W-INCH PRESTRESSED GIRDER)

LIST OF DRAWINGS

1. GENERAL PLAN
2. PROFILES, QUANTITIES AND NOTES
3. CROSS SECTION AND ELEVATION
4. SUBSURFACE EXPLORATION
5. SOUTH ABUTMENT - 1
6. SOUTH ABUTMENT - 2
7. SOUTH ABUTMENT WING 1
8. SOUTH ABUTMENT DETAILS
9. NORTH ABUTMENT - 1
10. NORTH ABUTMENT - 2
11. NORTH ABUTMENT WINGS 2 & 3
12. NORTH ABUTMENT DETAILS
13. 36W" PRESTRESSED GIRDER DETAILS - 1
14. 36W" PRESTRESSED GIRDER DETAILS - 2
15. INTERMEDIATE STEEL DIAPHRAGM
16. SUPERSTRUCTURE - 1
17. SUPERSTRUCTURE - 2
18. SUPERSTRUCTURE - 3
19. SUPERSTRUCTURE - 4
20. SUPERSTRUCTURE - 5
21. REINFORCEMENT DETAILS
22. SOUTH STRUCTURAL APPROACH SLAB
23. NORTH STRUCTURAL APPROACH SLAB
24. STRUCTURAL APPROACH SLAB DETAILS
25. CHAIN LINK FENCE 6-FT DETAILS
26. CHAIN LINK FENCE 4-FT DETAILS
27. CONDUIT DETAILS

BENCH MARK TABLE

NO.	STATION	DESCRIPTION	ELEVATION
6	19+49 LT	TOP OF PS (HYD) ON WEST SIDE OF HOOVER ROAD 100'± SOUTH OF JOERNS DRIVE	1096.60
4	23+91 LT	60d SPIKE IN PP #2408 34R 44 @ NW CRNR. OF COUNTRY CLUB DRIVE AND RR TRACKS	1095.92

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
BILL DREHER (608) 266-8489

CONSULTANT:
KEVIN HAGEN (715) 342-3053
AECOM PROJECT NO. 60334255

WISCONSIN
KEVIN R. HAGEN
E-38866
STEVENS POINT
WI
PROFESSIONAL ENGINEER

6/14/2016

NO.	DATE	REVISION	BY

AECOM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher SDR 08/09/16
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-49-181

HOOVER RD. OVER WISCONSIN CENTRAL LTD. RAILROAD

COUNTY		~~TOWN~~/CITY/~~VILLAGE~~	
	PORTAGE		STEVENS POINT

DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	CAB	DESIGN CK'D.	KRH	DRAWN BY	KAM	PLANS CK'D.	CAB

GENERAL PLAN

SHEET 1 OF 27
243

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DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING FACTOR : RF = 1.18
OPERATIONAL RATING FACTOR : RF = 2.02
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 250 KIPS

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 PSF.

MATERIAL PROPERTIES

CONCRETE MASONRY -

DECK, PARAPET, RAISED SIDEWALK, MEDIAN, DIAPHRAGMS & APPROACH SLAB ——— f'c = 4,000 P.S.I.

ALL OTHER ——— f'c = 3,500 P.S.I.

BAR STEEL REINFORCEMENT, GRADE 60 ——— fy = 60,000 P.S.I.

36W" PRESTRESSED GIRDER -

CONCRETE MASONRY ——— f'c = 8,000 P.S.I.

STRANDS - 0.6" DIA WITH ULTIMATE TENSILE STRENGTH OF ——— 270,000 P.S.I.

FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON PILING CIP CONCRETE 12¾x0.375-INCH. PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 210 TONS** PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED 125'-0" LONG FOR THE SOUTH ABUTMENT AND 125'-0" LONG FOR THE NORTH ABUTMENT.

PILE SLEEVES FOR ABUTMENT PILING SHALL BE INSTALLED PRIOR TO THE ERECTION OF RETAINING WALLS R-49-26 AND R-49-27. PILES SHALL BE DRIVEN THROUGH THE PILE SLEEVES AFTER MECHANICALLY STABILIZED EARTH BACKFILL IS PLACED TO THE BOTTOM OF ABUTMENT ELEVATIONS. SEE ABUTMENT DETAIL SHEETS AND SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION REGARDING PILE SLEEVES.

** THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.5 USING THE MODIFIED GATES DYNAMIC FORMULA TO DETERMINE DRIVEN PILE CAPACITY.

TRAFFIC VOLUME

HOOVER ROAD

A.D.T. (2017) = 8,600
A.D.T. (2037) = 10,400
R.D.S. = 40 MPH

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

THE CONTRACTOR SHALL DEVELOP A DETAILED CONSTRUCTION PROCEDURE TO BE SUBMITTED TO THE WCL RR FOR APPROVAL PRIOR TO THE BEGINNING OF CONSTRUCTION.

CONSTRUCTION OF THE NEW STRUCTURES, INCLUDING THE INSTALLATION OF PILES, FORMATION OF THE SUBSTRUCTURES AND ERECTION OF THE SUPERSTRUCTURE WILL OCCUR ADJACENT TO AN ACTIVE RAIL LINE. EXTREME CARE MUST BE OBSERVED AT ALL TIMES TO ENSURE SAFETY TO THE CONTRACTOR'S AND RAILROAD OPERATIONS AND TO AVOID DISRUPTIONS TO RAIL TRAFFIC.

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE NOTED.

AT THE BACKFACE OF ABUTMENT ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL.

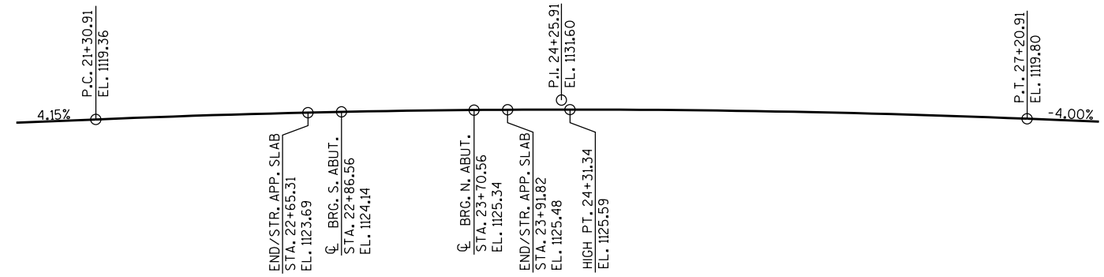
ELASTOMERIC BEARING PADS NEED NOT BE INDIVIDUALLY MOLDED PROVIDED THE CUT EDGES ARE SMOOTH AND TRUE.

PROTECTIVE SURFACE TREATMENT SHALL BE APPLIED TO THE ENTIRE EXPOSED TOP OF DECK SURFACE, MEDIAN SURFACE AND EXPOSED SIDEWALK SURFACE. PIGMENTED SURFACE SEALER SHALL BE APPLIED TO THE FRONT FACE AND TOP OF PARAPETS.

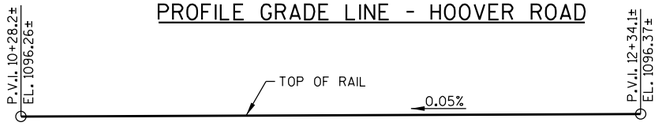
THE AREA IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH SLOPE PAVING MATERIAL TO THE EXTENT SHOWN ON SHEET 1 AND IN THE ABUTMENT DETAILS.

THE HAUNCH CONCRETE QUANTITY IS BASED ON THE AVERAGE HAUNCH SHOWN ON THE PRESTRESSED GIRDER DETAIL SHEET.

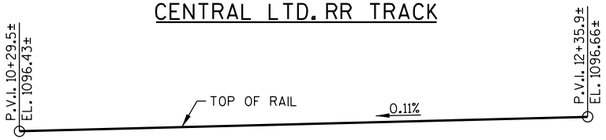
THE QUANTITY FOR BACKFILL STRUCTURE, BID ITEM 210.1500, IS CALCULATED BASED ON THE BACKFILL LIMITS DETAIL ON THIS SHEET. BACKFILL STRUCTURE SHALL BE PLACED BEHIND THE ABUTMENTS AND WING WALLS.



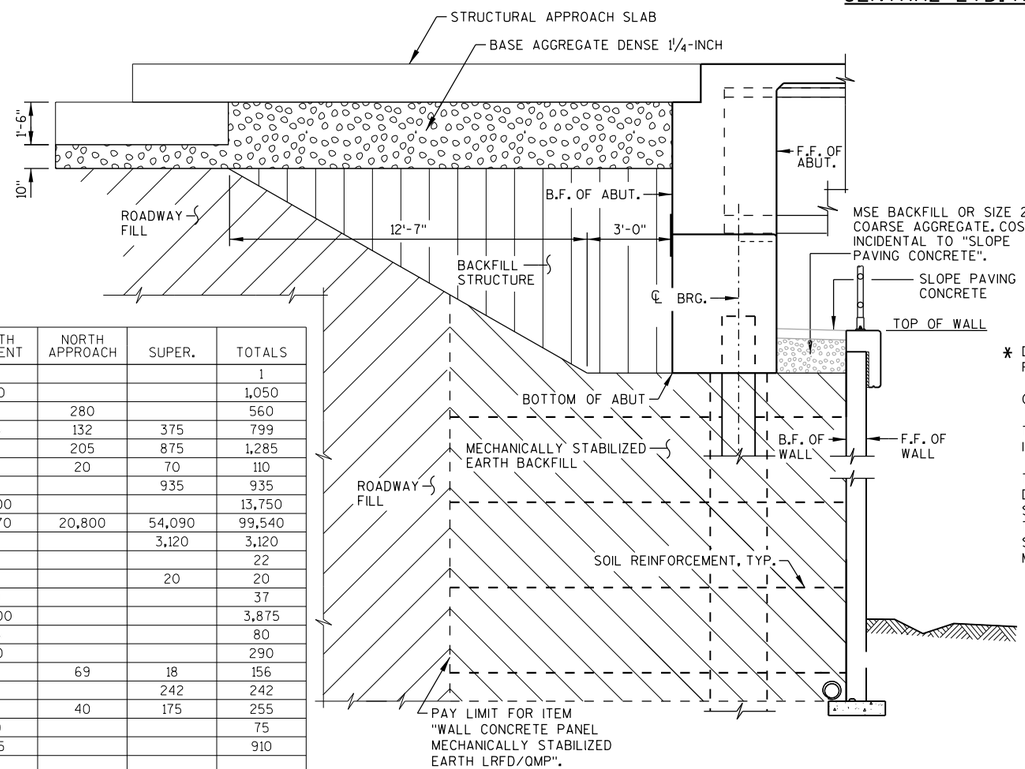
PROFILE GRADE LINE - HOOVER ROAD



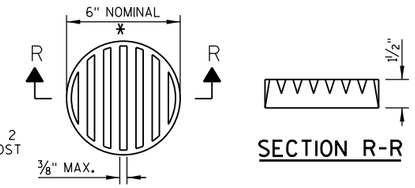
PROFILE GRADE LINE - NORTH WISCONSIN CENTRAL LTD. RR TRACK



PROFILE GRADE LINE - SOUTH WISCONSIN CENTRAL LTD. RR TRACK



BACKFILL LIMITS



SECTION R-R

RODENT SHIELD DETAIL

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

ORIENT SO SLOTS ARE VERTICAL.

THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE INCLUDED IN THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEM	UNIT	SOUTH APPROACH	SOUTH ABUTMENT	NORTH ABUTMENT	NORTH APPROACH	SUPER.	TOTALS
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-49-181	LS						1
210.1500	BACKFILL STRUCTURE TYPE A	TON		430	620			1,050
305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	280			280		560
502.0100	CONCRETE MASONRY BRIDGES	CY	132	74	86	132	375	799
502.3200	PROTECTIVE SURFACE TREATMENT	SY	205			205	875	1,285
502.3210	PIGMENTED SURFACE SEALER	SY	20			20	70	110
503.0137	PRESTRESSED GIRDER TYPE I 36W-INCH	LF					935	935
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB		6,850	6,900			13,750
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	20,650	1,330	2,670	20,800	54,090	99,540
505.0800.S	BAR STEEL REINFORCEMENT HS STAINLESS STRUCTURES	LB					3,120	3,120
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH		11	11			22
506.4000	STEEL DIAPHRAGMS B-49-181	EACH					20	20
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY		18	19			37
550.2126	PILING CIP CONCRETE 12 3/4 X 0.375-INCH	LF		1,875	2,000			3,875
604.0400	SLOPE PAVING CONCRETE	SY		35	45			80
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF		130	160			290
652.0115	CONDUIT RIGID METALLIC 1 1/4-INCH	LF	69			69	18	156
652.0215	CONDUIT RIGID NONMETALLIC SCHEDULE 40 1 1/4-INCH	LF					242	242
SPV.0090.21	FENCE CHAIN LINK POLYMER-COATED 6-FT	LF	40			40	175	255
SPV.0090.22	FENCE CHAIN LINK POLYMER-COATED 4-FT	LF		25	50			75
SPV.0090.23	PILE SLEEVES	LF		425	485			910
	NON-BID ITEMS							
	FILLER	SIZE						1/2" & 3/4"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

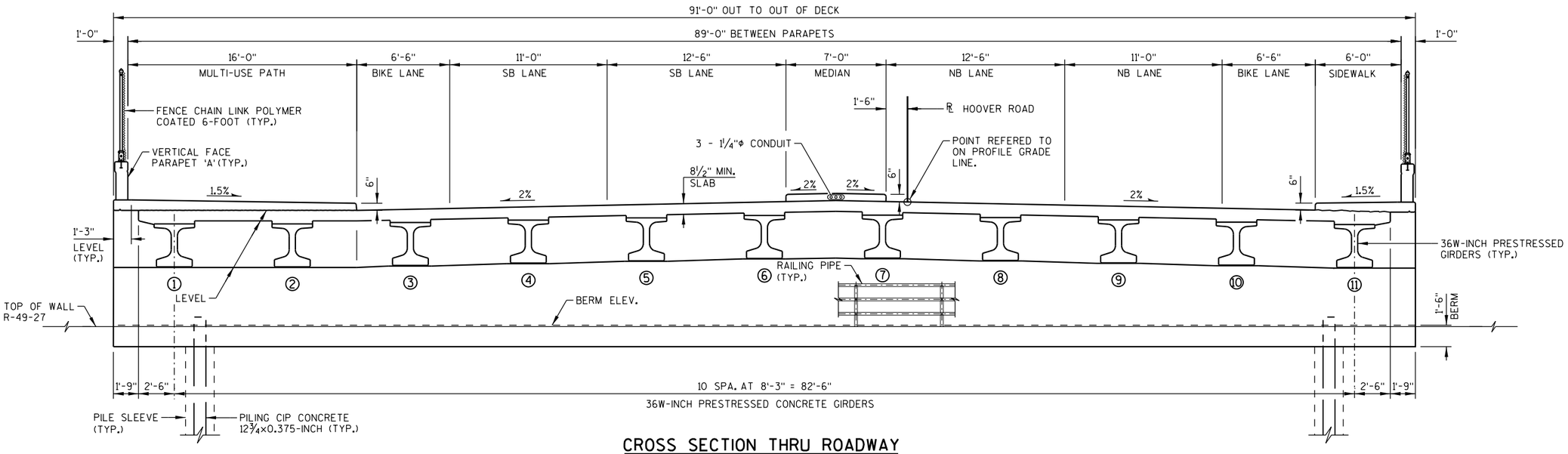
STRUCTURE B-49-181

DRAWN BY KAM | PLANS CK'D. CAB

PROFILES, QUANTITIES AND NOTES

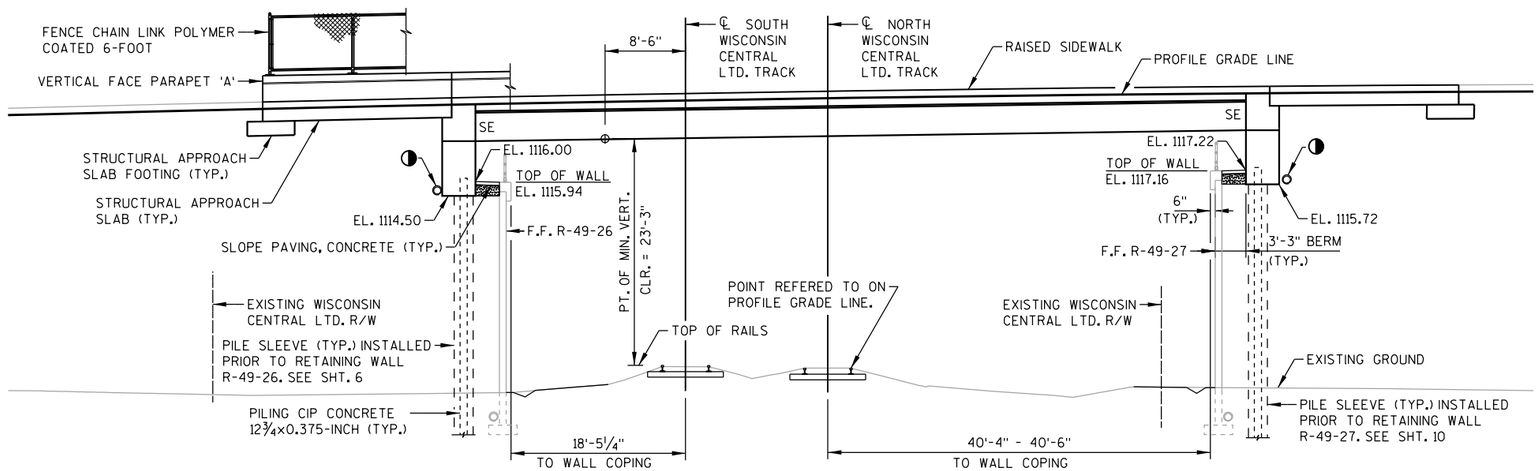
SHEET 2 OF 27
244

STATE PROJECT NUMBER
6998-11-71



CROSS SECTION THRU ROADWAY

(LOOKING NORTH)



ELEVATION

(LOOKING WEST - NORMAL TO TRACKS)

N

LEGEND

◑ PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE, PLACED AT BOTTOM OF ABUTMENT. ATTACH RODENT SHIELD AT EXPOSED ENDS OF PIPE UNDERDRAIN AS DETAILED ON SHEET 2. DISCHARGE LOCATION TO BE DETERMINED BY ENGINEER IN THE FIELD.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-49-181

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CROSS SECTION AND ELEVATION

SHEET 3 OF 27
245

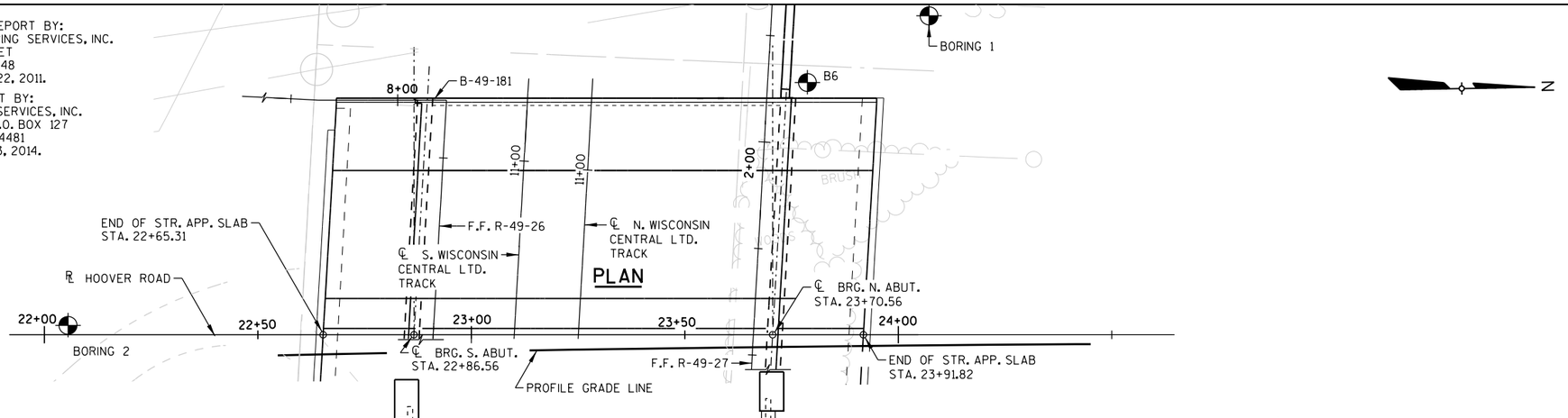
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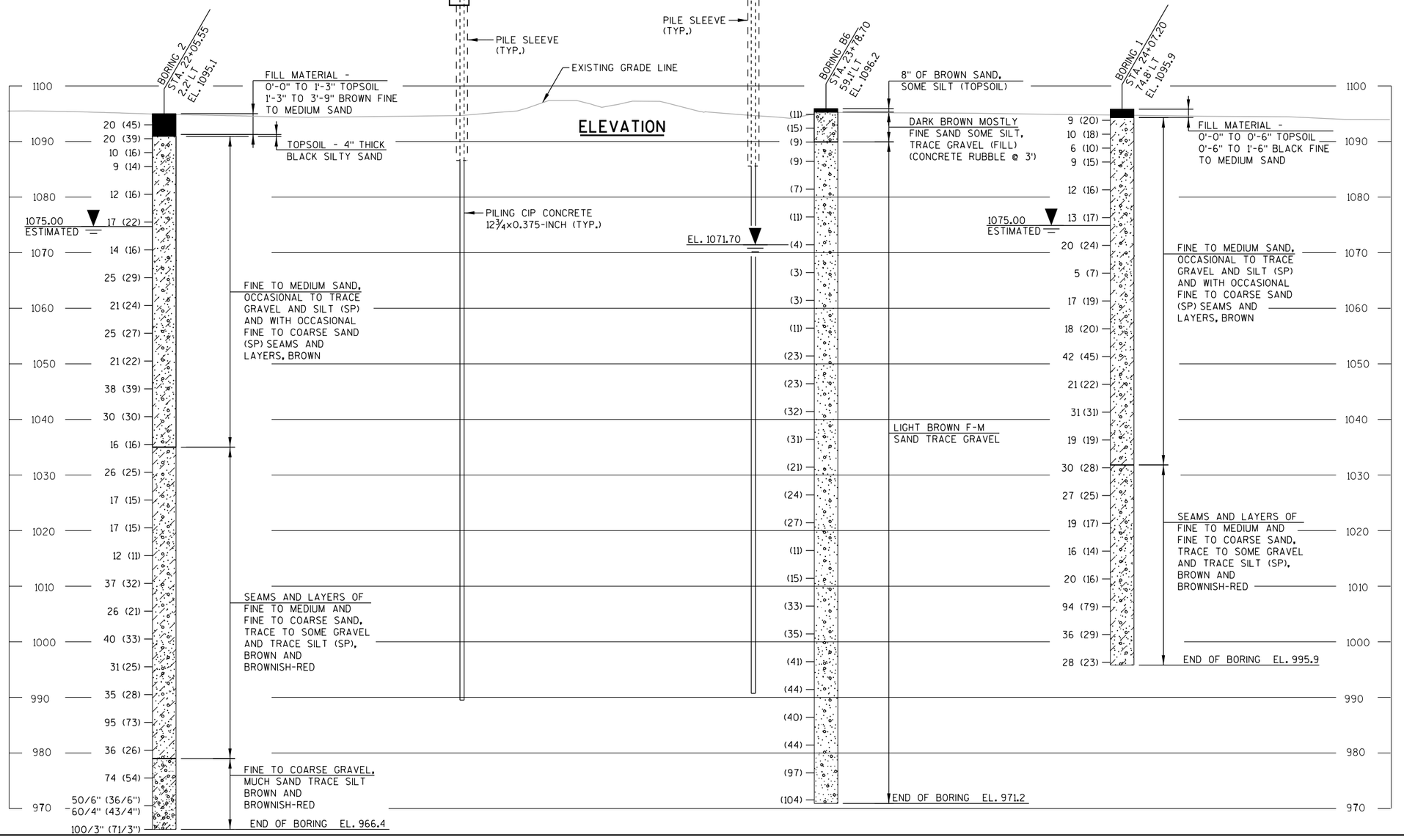
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BATCH PRINT SHEET 3 OF 27

BORINGS 1 & 2 AND REPORT BY:
SOILS AND ENGINEERING SERVICES, INC.
1102 STEWART STREET
MADISON, WI 53713-4648
PERFORMED ON SEPT. 22, 2011.

BORING B6 AND REPORT BY:
NUMMELIN TESTING SERVICES, INC.
3217 WHITING AVE. P.O. BOX 127
STEVENS POINT, WI 54481
PERFORMED ON DEC. 23, 2014.





STATE PROJECT NUMBER

6998-11-71

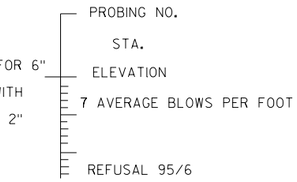
ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

MATERIAL SYMBOLS

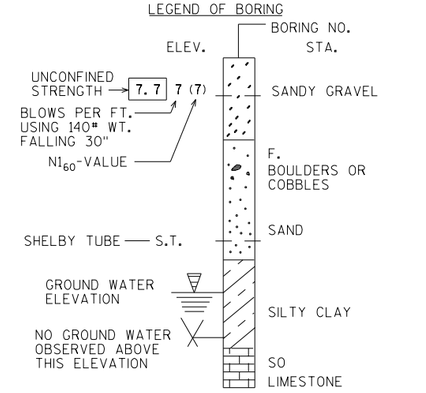
TOPSOIL, SILT, SANDSTONE, SAND, PEAT, LIMESTONE, GRAVEL, CLAY, IGNEOUS ROCK

LEGEND OF PROBING



95/6=95 BLOWS FOR 6" PENETRATION
PROBING TAKEN WITH A 350# WT. FALLING 18" ON A 2" O.D. POINT.

LEGEND OF BORING



UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30", THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-49-181

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SUBSURFACE EXPLORATION

SHEET 4 OF 27
246

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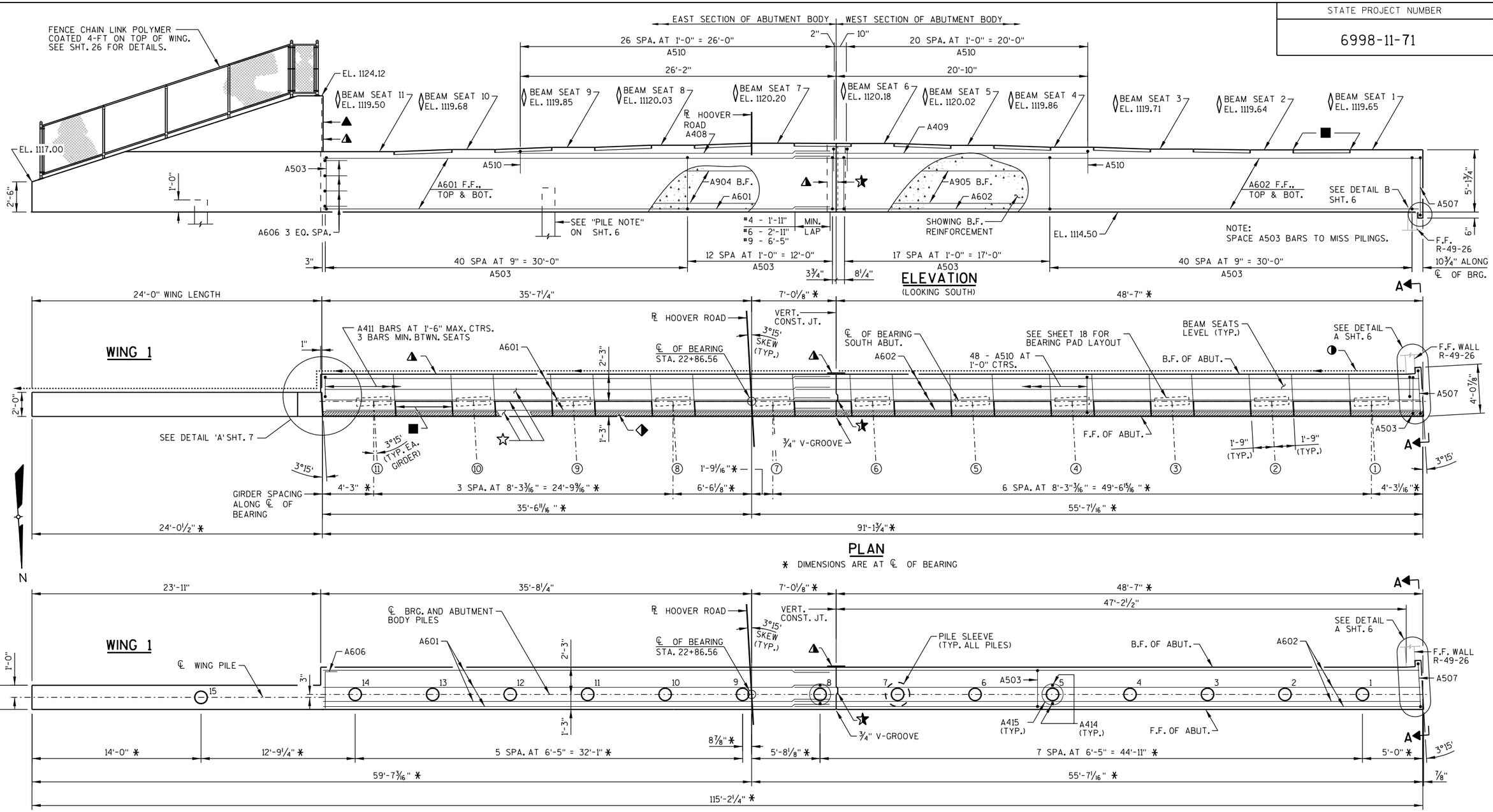
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BATCH PRINT SHEET 5 OF 27

STATE PROJECT NUMBER

6998-11-71



LEGEND

- ◑ PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE, PLACED AT BOTTOM OF ABUTMENT. ATTACH RODENT SHIELD AT EXPOSED ENDS OF PIPE UNDERDRAIN AS DETAILED ON SHT. 2. DISCHARGE LOCATION TO BE DETERMINED BY ENGINEER IN THE FIELD.
- ▲ ½" FILLER TO EXTEND AS SHOWN. SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE).
- ◭ 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACK FACE.
- ■ ¾" CORK FILLER ON VERTICAL BEAM SEAT FACES THAT RUN PARALLEL WITH GIRDER.
- ◆ 4" x ¾" FILLER - TO EXTEND FULL LENGTH OF ABUTMENT BODY.
- ☆ STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHELENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING THE BEARING PADS AND SUPERSTRUCTURE. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".
- ◊ ELEVATIONS ARE GIVEN AT TOP OF CONCRETE, ℄ OF BEARING
- ★ VERTICAL CONSTRUCTION JOINT KEYWAY FORMED BY BEVELED 2" x 8". RUN BAR STEEL THRU JOINT. ¾" "V" GROOVE AT FRONT FACE. SEAL BACKFACE WITH 18" RUBBERIZED MEMBRANE WATERPROOFING. SEE SHT. 7 FOR ALTERNATE CONSTRUCTION JOINT.

NOTES

FOR WING 1 DETAILS SEE SHEET 7.

FOR SECTION A-A SEE SHEET 6.

½" FILLER INCLUDED IN 24'-0" WING LENGTH.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-49-181

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SOUTH ABUTMENT-1

SHEET 5 OF 27
247

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NOTES

SEE SHT. 5 FOR ABUTMENT PLAN AND ELEVATION.

SEE SHT. 18 FOR BEARING PAD LAYOUT.

PILE NOTES

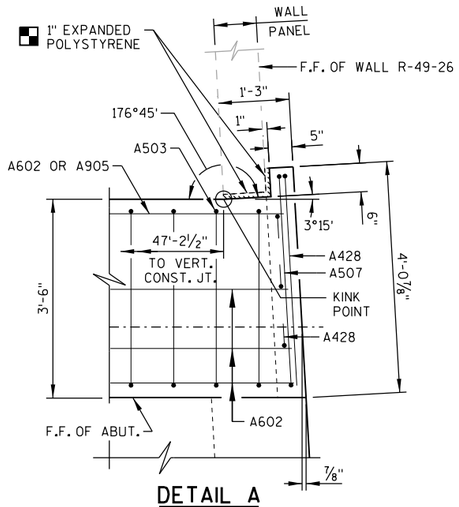
ABUTMENTS TO BE SUPPORTED ON PILING CIP CONCRETE 12¾ ×0.375-INCH. PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 210 TONS** PER PILE. ESTIMATED 125'-0" LONG FOR THE SOUTH ABUTMENT. SEE SHT. 8 FOR PILE SPLICE DETAILS.

PILE SLEEVES ARE INSTALLED PRIOR TO PLACING MECHANICALLY STABILIZED EARTH (MSE) BACKFILL FOR R-49-26. EMBED 5'-0" MIN. BELOW THE BOTTOM OF THE LEVELING PAD OF THE MSE WALLS.

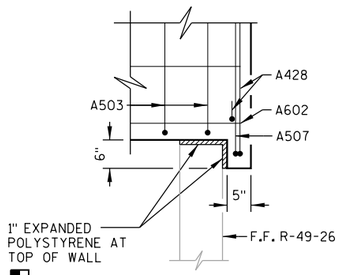
PILE SLEEVES SHALL BE 24" DIA. CORRUGATED STEEL PIPE CONFORMING TO AASHTO M36.

PILE SLEEVES SHALL BE ADEQUATELY BRACED TO MAINTAIN POSITION WITHIN 2"± AS MSE WALL BACKFILL PROCEEDS.

PILES SHALL BE DRIVEN THROUGH THE PILE SLEEVES AFTER MSE BACKFILL FOR R-49-26 IS PLACED TO THE BOTTOM OF ABUTMENT ELEVATION.



DETAIL A
(SEE SHT. 5)
(SW CORNER DIAPHRAGM)

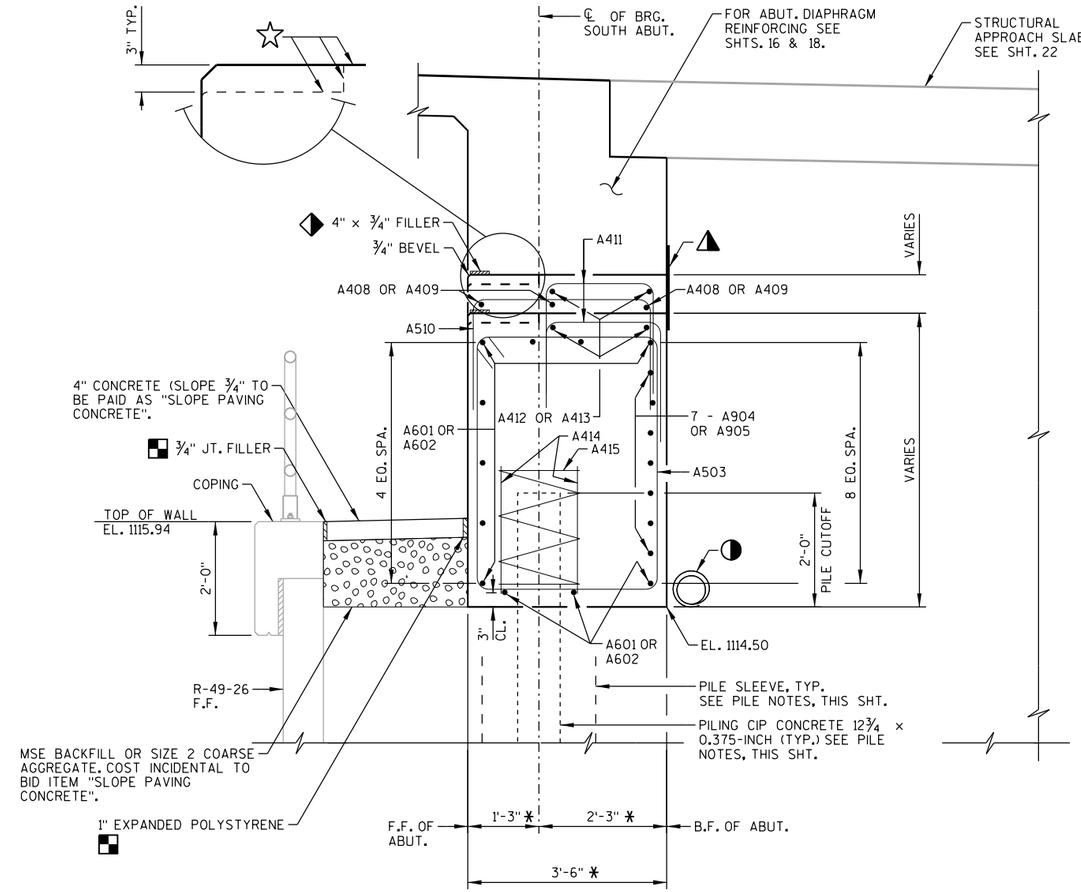


DETAIL B
(SEE SHT. 5)
ELEV. LOOKING SOUTH
(SW CORNER ABUTMENT)

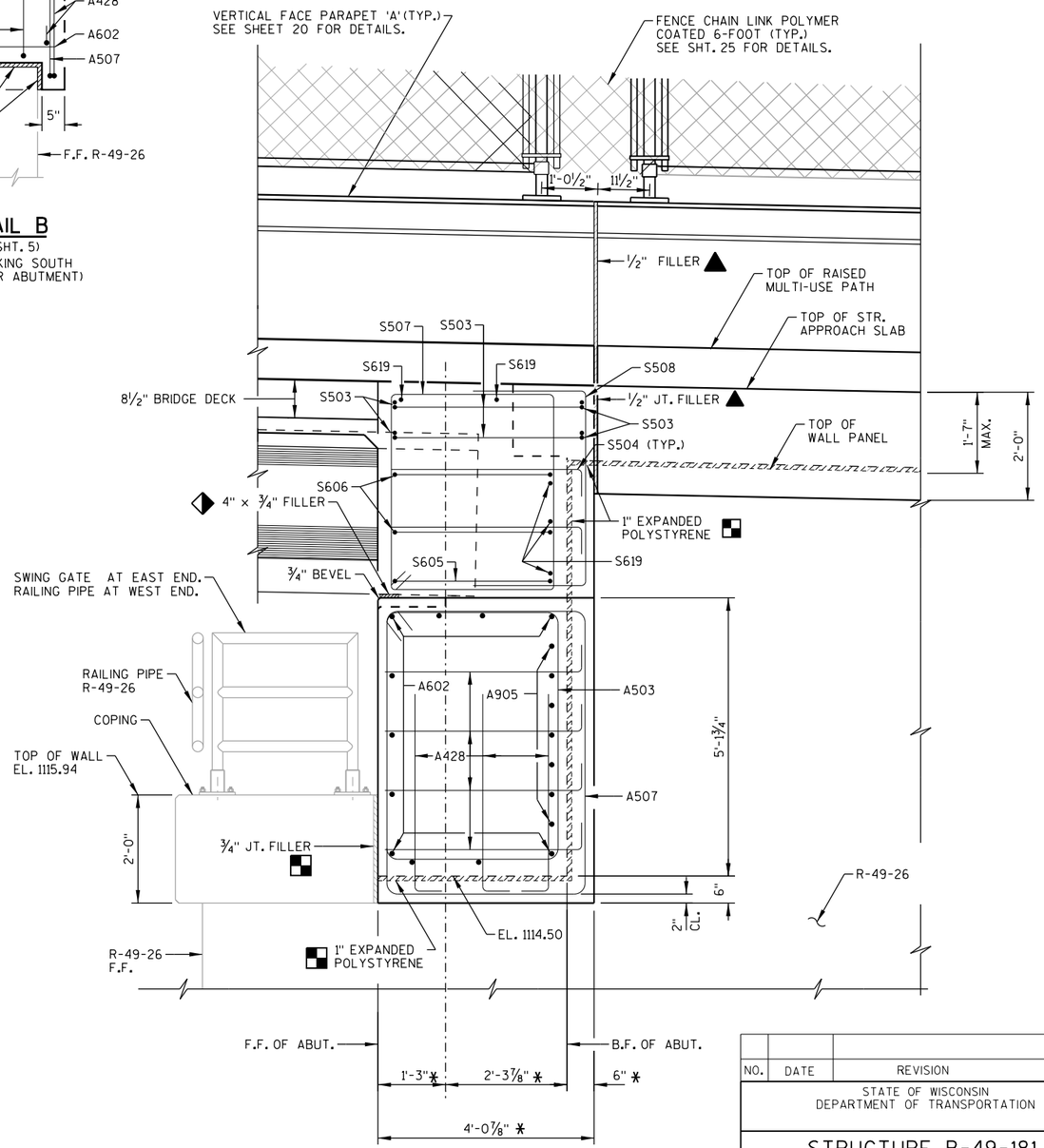
LEGEND

SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF FILLER AND EXPANDED POLYSTYRENE WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE).

FOR ADDITIONAL SYMBOLS SEE SHT. 5.



SECTION THRU BODY
(LOOKING EAST)
* DIMENSIONS MEASURED PERPENDICULAR TO ℄ BEARING



SECTION A - A
(LOOKING EAST)
* DIMENSIONS MEASURED PARALLEL TO REFERENCE LINE

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SOUTH ABUTMENT-2

SHEET 6 OF 27
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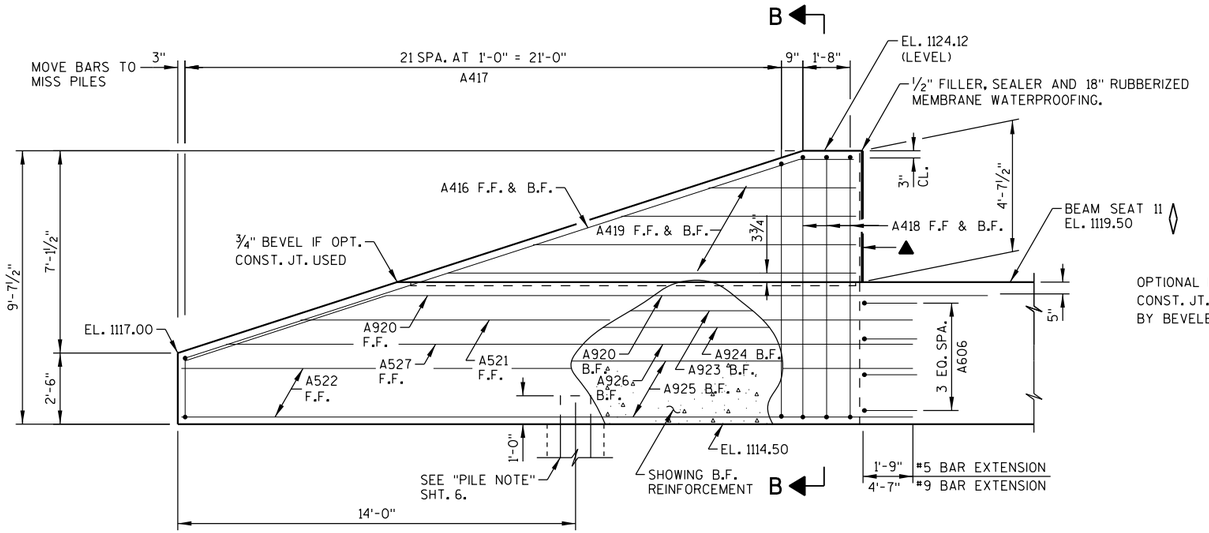
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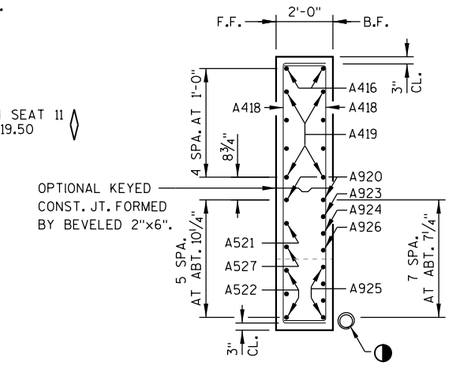
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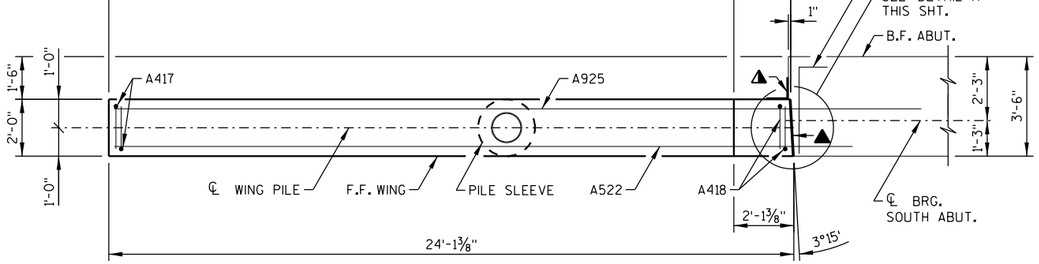


WING 1 ELEVATION

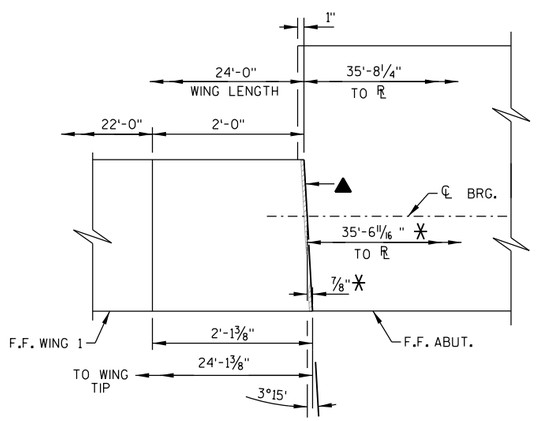
LOOKING SOUTH AT F.F. OF WING



WING 1 SECTION B-B

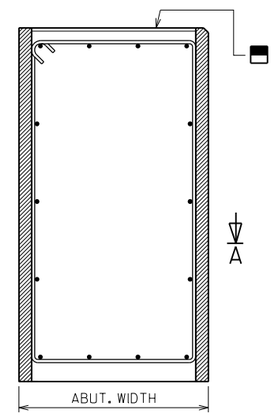


WING 1 PLAN

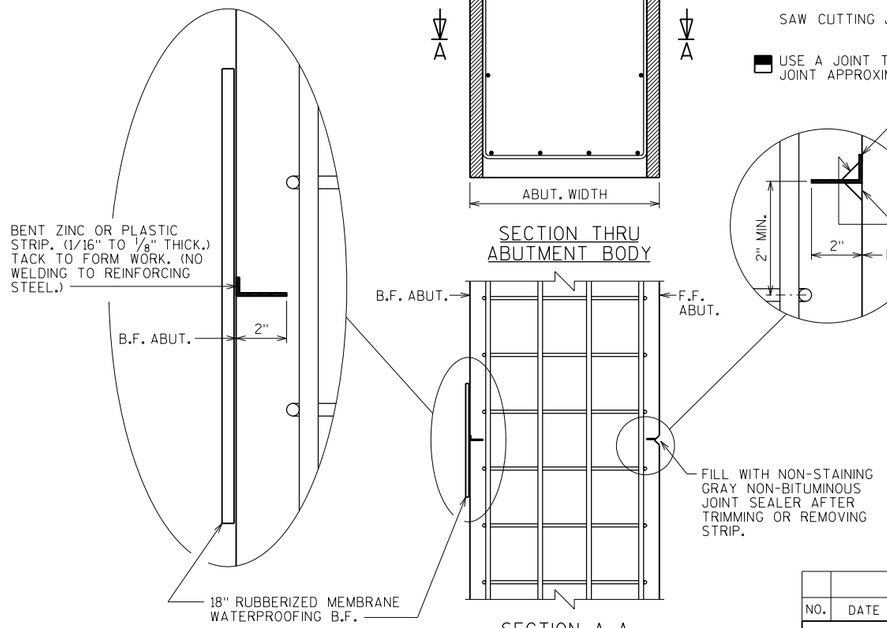


DETAIL A

✳ DIMENSIONS ARE AT ℄ OF BRG.



SECTION THRU ABUTMENT BODY



SECTION A-A

ALTERNATE CONSTRUCTION JOINT AT ABUTMENT

NOTES

PARTIAL ZINC OR PLASTIC BULKHEAD MAY BE USED AS ALTERNATE CONSTRUCTION JOINT, WITH THE PERMISSION OF THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.

VERTICAL CONSTRUCTION JOINT KEYWAY IS NOT REQUIRED WHEN USING ALTERNATE CONSTRUCTION JOINT.

CARE IS TO BE USED IN CASTING CONCRETE AROUND BULKHEAD TO PREVENT DISLOCATION OR MISALIGNMENT OF THE BULKHEAD.

SAW CUTTING JOINT IS NOT ALLOWED.

■ USE A JOINT TOOL TO CONSTRUCT A CONTRACTION JOINT APPROXIMATELY ½" DEEP.

NOTES

½" FILLER INCLUDED IN WING LENGTH.

SEE SHT. 5 FOR SYMBOL DESCRIPTIONS.

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STRUCTURE B-49-181

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SOUTH ABUTMENT WING 1

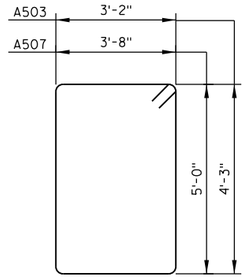
SHEET 7 OF 27

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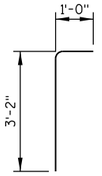
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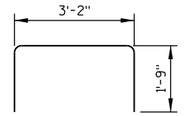
A503, A507



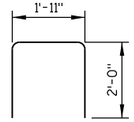
A904



A606



A510



A411

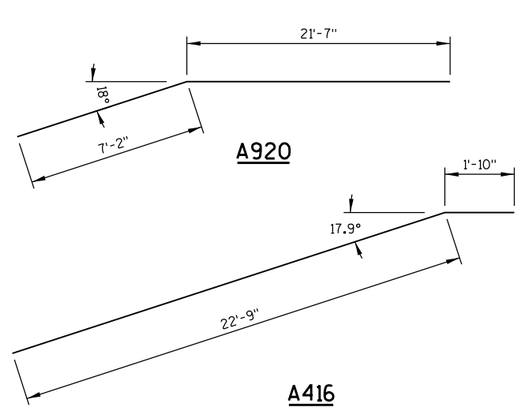
BILL OF BARS

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.
△ LENGTH SHOWN FOR BAR IS AN AVG. LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

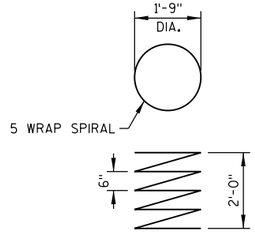
MARK	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION	
NON-COATED BARS					TOTAL WEIGHT = 6,850 LBS	
A601	11	42-3			BODY F.F., TOP & BOT. - EAST SECTION	HORIZ.
A602	11	51-7			BODY F.F., TOP & BOT. - WEST SECTION	HORIZ.
A503	111	15-6	X		BODY STIRRUP	VERT
A904	7	43-7	X		BODY B.F. - EAST SECTION	HORIZ.
A905	7	55-1			BODY B.F. - WEST SECTION	HORIZ.
A606	4	4-0	X		BODY EAST END TIE	HORIZ.
A507	1	18-0	X		BODY STIRRUP AT RETAINING WALL	VERT
A408	3	26-0			BODY TOP AT BEAM SEATS - EAST SECTION	HORIZ.
A409	3	23-0			BODY TOP AT BEAM SEATS - WEST SECTION	HORIZ.
A510	48	6-5	X		BODY TOP	VERT
A411	63	5-9	X		BODY TOP	VERT
A412	2	42-3			BODY TOP - EAST SECTION INSIDE A411 BARS	HORIZ.
A413	4	26-6			BODY TOP - WEST SECTION INSIDE A411 BARS	HORIZ.
A414	28	2-3			BODY AT PILES	VERT
A415	14	28-0	X		BODY AT PILES	VERT
A428	7	4-3	X		BODY - SW CORNER	HORIZ.
COATED BARS					TOTAL WEIGHT =	1,330 LBS
A416	2	24-7	X		WING 1 TOP	HORIZ.
A417	44	7-11	X	△	WING 1 F.F. & B.F.	VERT
A418	6	11-7	X		WING 1 F.F. & B.F.	VERT
A419	8	9-7		△	WING 1 F.F. & B.F.	HORIZ.
A920	2	28-9	X		WING 1 F.F. & B.F.	HORIZ.
A521	1	21-3			WING 1 F.F.	HORIZ.
A522	3	25-8			WING 1 F.F.	HORIZ.
A923	1	23-4			WING 1 B.F.	HORIZ.
A924	1	25-2			WING 1 B.F.	HORIZ.
A925	4	28-4			WING 1 B.F.	HORIZ.
A926	1	27-1			WING 1 B.F.	HORIZ.
A527	1	24-1			WING 1 F.F.	HORIZ.

BAR SERIES

MARK	NO. REQ'D	LENGTH
A417	2 SERIES OF 22	4'-7" TO 11'-4"
A419	2 SERIES OF 4	4'-11" TO 14'-2"

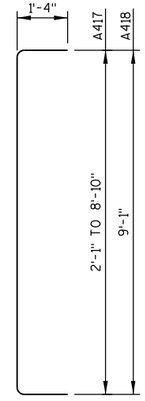


A920

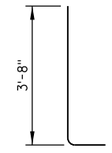


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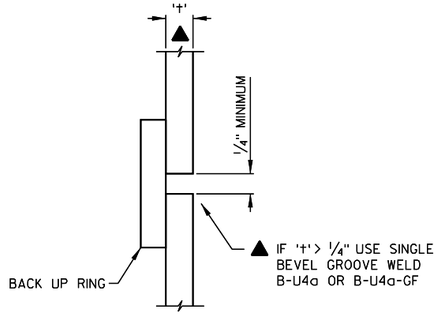
A416



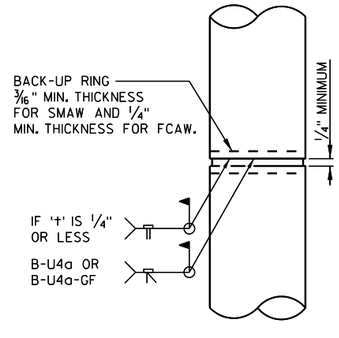
A417, A418



A428



C.I.P. PILE WELD DETAIL



C.I.P. PILE SPLICE DETAIL

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STRUCTURE B-49-181

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SOUTH ABUTMENT DETAILS

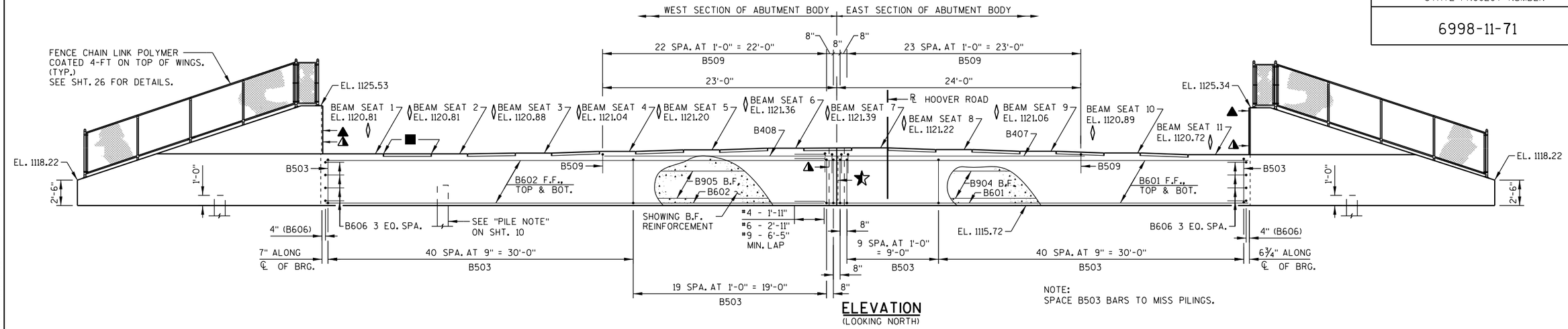
SHEET 8 OF 27
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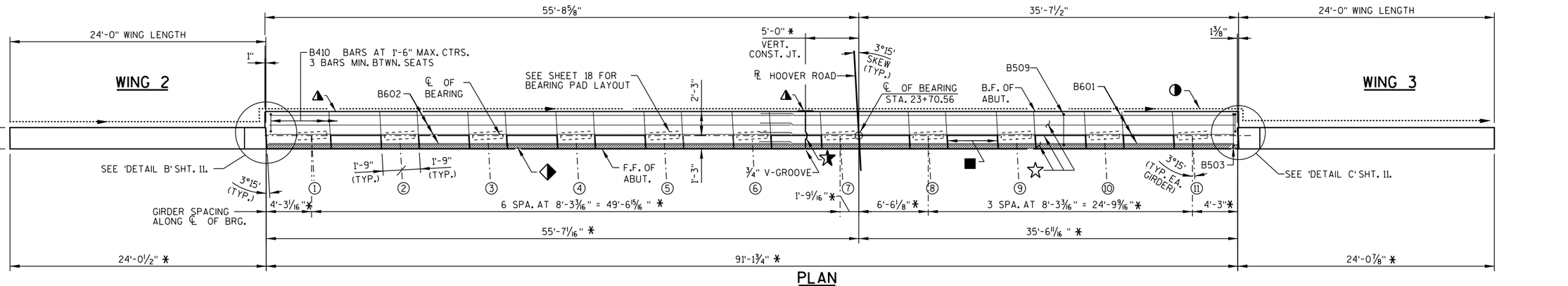
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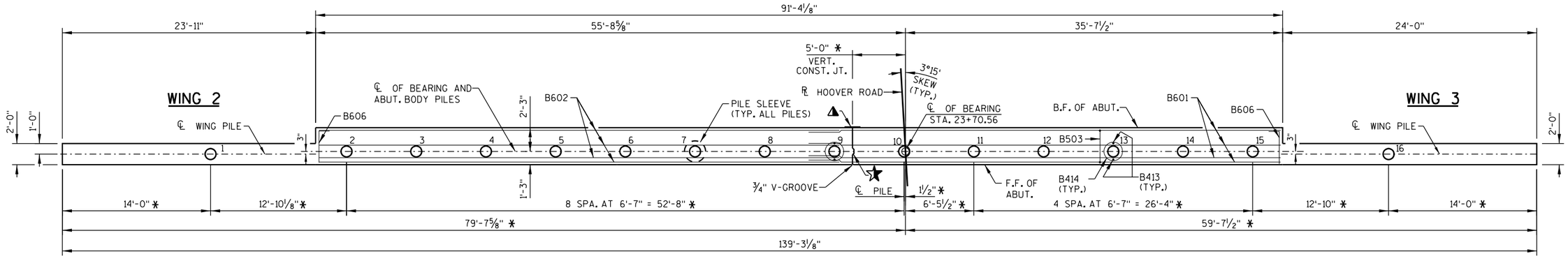


ELEVATION
(LOOKING NORTH)

NOTE:
SPACE B503 BARS TO MISS PILINGS.



PLAN
* DIMENSIONS ARE AT ℄ OF BEARING



PILE PLAN
* DIMENSIONS ARE AT ℄ OF BEARING

NOTES

FOR WINGS 2 & 3 SEE SHEET 11.

FOR SYMBOL DESCRIPTIONS SEE SHT. 5.

½" FILLER INCLUDED IN 24'-0" WING LENGTH.

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DEPARTMENT OF TRANSPORTATION

STRUCTURE B-49-181

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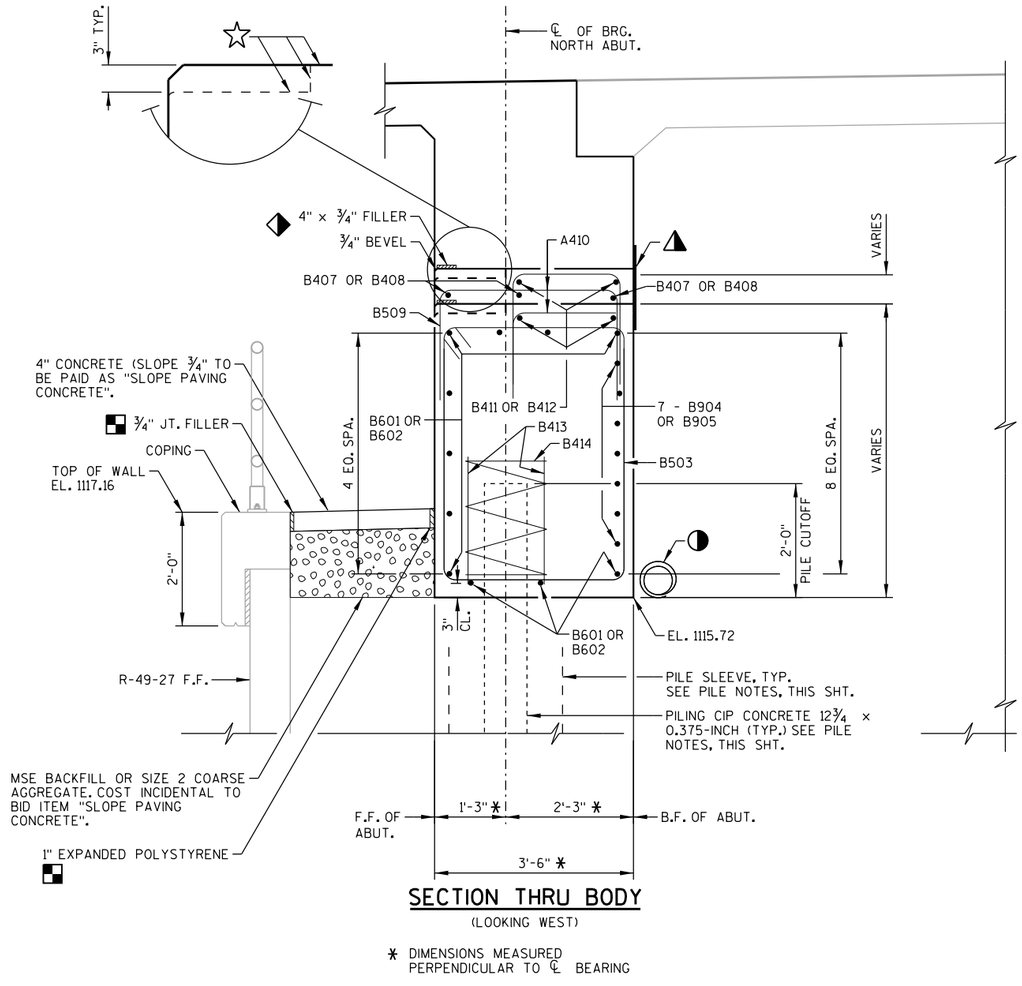
NORTH ABUTMENT-1

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SECTION THRU BODY

(LOOKING WEST)

* DIMENSIONS MEASURED PERPENDICULAR TO ℄ BEARING

NOTES

FOR SYMBOL DESCRIPTIONS SEE SHT'S. 5 & 6.

SEE SHT. 9 FOR ABUTMENT PLAN & ELEVATION.

SEE SHT. 18 FOR BEARING PAD LAYOUT.

PILE NOTES

ABUTMENTS TO BE SUPPORTED ON PILING CIP CONCRETE 12¾×0.375-INCH. PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 210 TONS** PER PILE. ESTIMATED 125'-0" LONG FOR THE NORTH ABUTMENT. SEE SHT. 8 FOR PILE SPLICE DETAILS.

PILE SLEEVES ARE INSTALLED PRIOR TO PLACING MSE BACKFILL FOR R-49-27. EMBED 5'-0" MIN. BELOW THE BOTTOM OF THE LEVELING PAD OF THE MSE WALLS.

PILE SLEEVES SHALL BE 24" DIA. CORRUGATED STEEL PIPE CONFORMING TO AASHTO M36.

PILE SLEEVES SHALL BE ADEQUATELY BRACED TO MAINTAIN POSITION WITHIN 2"± AS MSE WALL BACKFILL PROCEEDS.

PILES SHALL BE DRIVEN THROUGH THE PILE SLEEVES AFTER MSE BACKFILL FOR R-49-27 IS PLACED TO THE BOTTOM OF ABUTMENT ELEVATION.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-49-181

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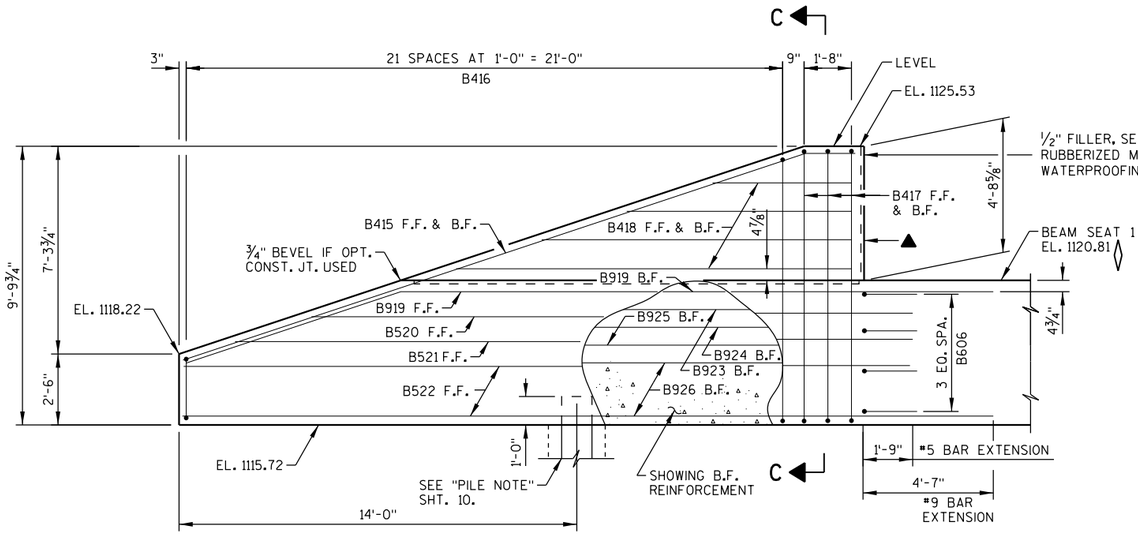
NORTH ABUTMENT-2

SHEET 10 OF 27
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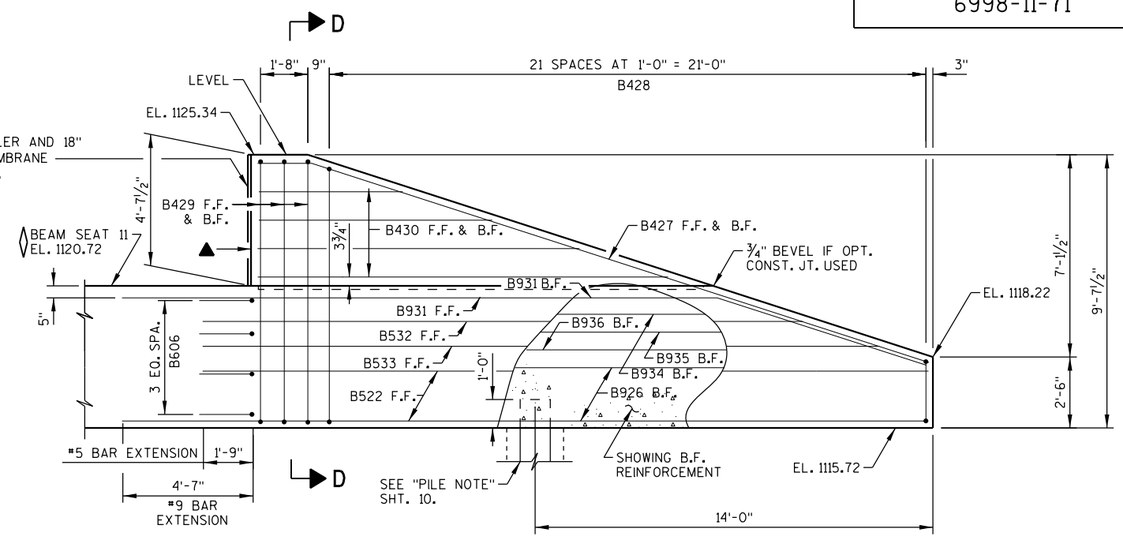
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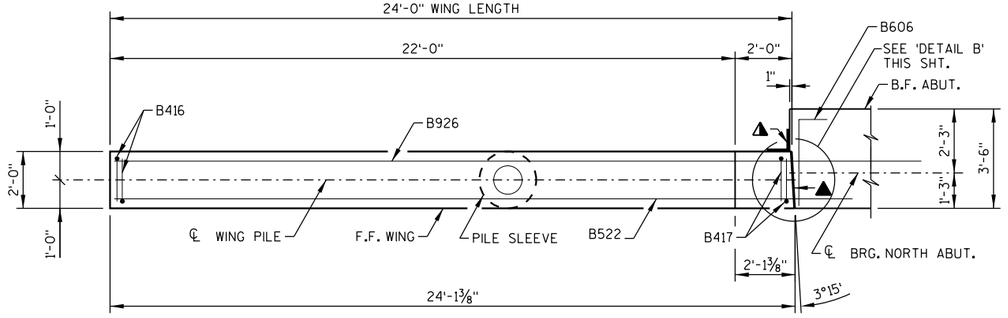
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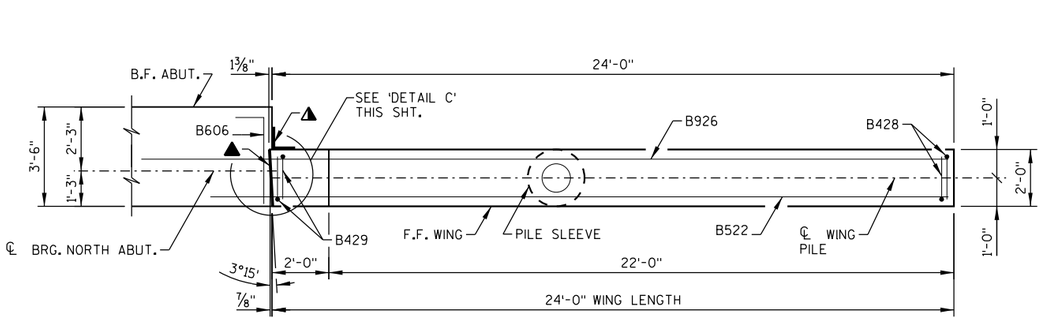
WING 2 ELEVATION



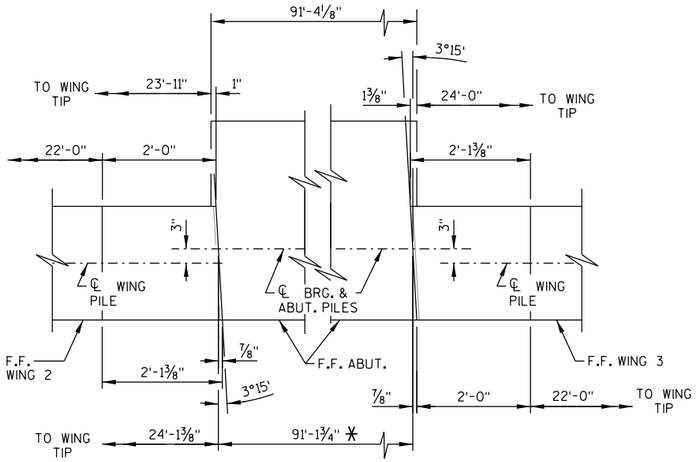
WING 3 ELEVATION



WING 2 PLAN

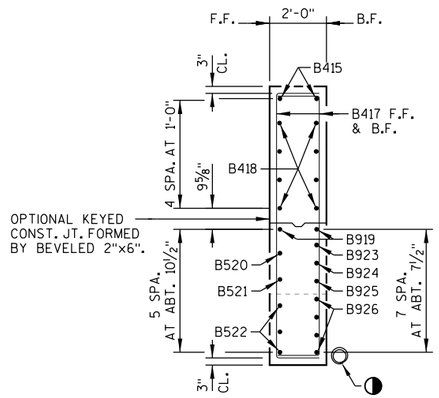


WING 3 PLAN

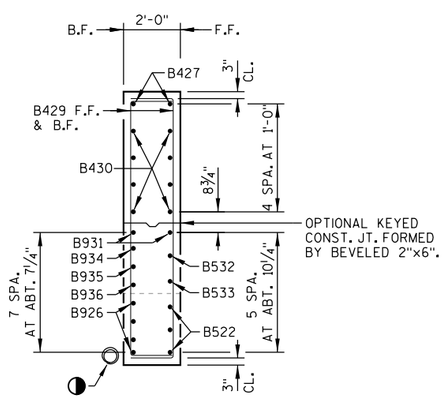


DETAIL B DETAIL C

* DIMENSIONS ARE AT ℄ OF BRG.



WING 2 SECTION C-C



WING 3 SECTION D-D

NOTES

½" FILLER INCLUDED IN WING LENGTH.

SEE SHT. 5 FOR SYMBOL DESCRIPTIONS.

MOVE B416 AND B428 TO MISS PILES.

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STRUCTURE B-49-181

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NORTH ABUTMENT WINGS 2 & 3

SHEET 11 OF 27
253

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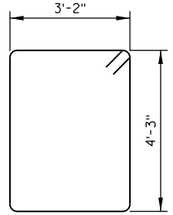
BILL OF BARS

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.
△ LENGTH SHOWN FOR BAR IS AN AVG. LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

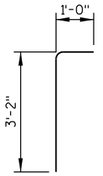
MARK	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION	
NON-COATED BARS					TOTAL WEIGHT = 6,900 LBS	
B601	11	43-8			BODY F.F., TOP & BOT. - EAST SECTION	HORIZ.
B602	11	50-3			BODY F.F., TOP & BOT. - WEST SECTION	HORIZ.
B503	112	15-6	X		BODY STIRRUP	VERT.
B904	7	48-5	X		BODY B.F. - EAST SECTION	HORIZ.
B905	7	51-8	X		BODY B.F. - WEST SECTION	HORIZ.
B606	8	4-0	X		BODY END TIES AT WINGS	HORIZ.
B407	3	26-1			BODY TOP AT BEAM SEATS - EAST SECTION	HORIZ.
B408	3	22-10			BODY TOP AT BEAM SEATS - WEST SECTION	HORIZ.
B509	49	6-5	X		BODY TOP	VERT.
B410	63	5-9	X		BODY TOP	VERT.
B411	4	22-3			BODY TOP - EAST SECTION INSIDE B410 BARS	HORIZ.
B412	4	26-2			BODY TOP - WEST SECTION INSIDE B410 BARS	HORIZ.
B413	28	2-3			BODY AT PILES	VERT.
B414	14	28-0	X		BODY AT PILES	VERT.
COATED BARS					TOTAL WEIGHT = 2,670 LBS	
B415	2	24-7	X		WING 2 TOP	HORIZ.
B416	44	8-1	X	△	WING 2 F.F. & B.F.	VERT.
B417	6	11-10	X		WING 2 F.F. & B.F.	VERT.
B418	8	9-4		△	WING 2 F.F. & B.F.	HORIZ.
B919	2	28-8	X		WING 2 F.F. & B.F.	HORIZ.
B520	1	21-3			WING 2 F.F.	HORIZ.
B521	1	23-11			WING 2 F.F.	HORIZ.
B522	6	25-8			WING 2 & 3 F.F.	HORIZ.
B923	1	23-1			WING 2 B.F.	HORIZ.
B924	1	25-0			WING 2 B.F.	HORIZ.
B925	1	26-10			WING 2 B.F.	HORIZ.
B926	8	28-6			WING 2 & 3 B.F.	HORIZ.
B427	2	24-7	X		WING 3 TOP F.F. & B.F.	HORIZ.
B428	44	7-11	X	△	WING 3 F.F. & B.F.	VERT.
B429	6	11-7	X		WING 3 F.F. & B.F.	VERT.
B430	8	9-7		△	WING 3 F.F. & B.F.	HORIZ.
B931	2	28-9	X		WING 3 F.F. & B.F.	HORIZ.
B532	1	21-1			WING 3 F.F.	HORIZ.
B533	1	24-1			WING 3 F.F.	HORIZ.
B934	1	23-6			WING 3 B.F.	HORIZ.
B935	1	25-4			WING 3 B.F.	HORIZ.
B936	1	27-3			WING 3 B.F.	HORIZ.

BAR SERIES

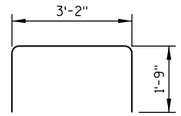
MARK	NO. REQ'D	LENGTH
B416	2 SERIES OF 22	4'-7" TO 11'-7"
B418	2 SERIES OF 4	4'-10" TO 13'-10"
B428	2 SERIES OF 22	4'-7" TO 11'-4"
B430	2 SERIES OF 4	4'-11" TO 14'-2"



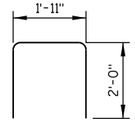
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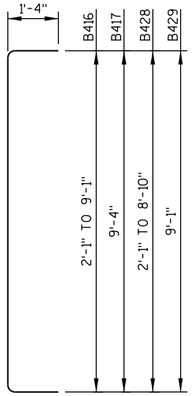
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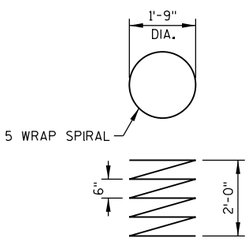
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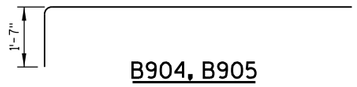
B410



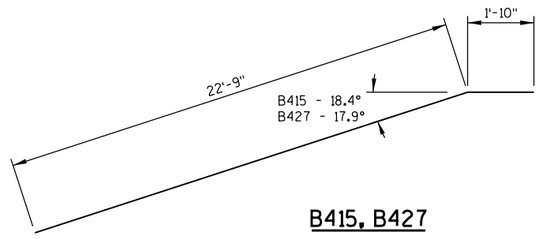
B416, B417, B428, B429



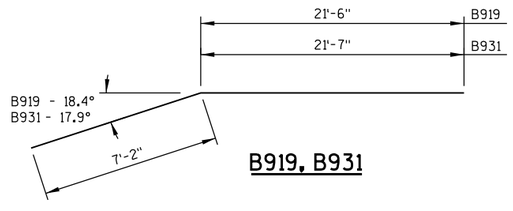
B414



B904, B905



B415, B427



B919, B931

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STATE OF WISCONSIN
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STRUCTURE B-49-181

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NORTH ABUTMENT DETAILS

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254

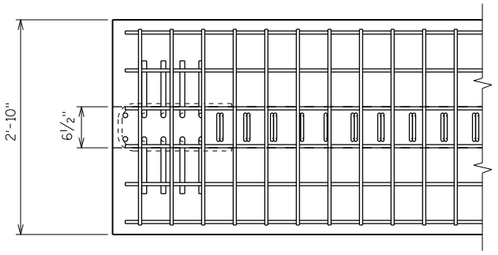
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STATE PROJECT NUMBER

6998-11-71



TOP FLANGE

NOTES

TOP OF GIRDER TO BE ROUGH FLOATED AND BROOMED TRANSVERSELY, EXCEPT THE THE OUTSIDE 8" OF GIRDER, WHICH SHALL RECEIVE A SMOOTH FINISH. AN APPROVED CONCRETE SEALER SHALL BE APPLIED TO ALL SMOOTH SURFACES INCLUDING THE OUTSIDE 8" OF THE TOP FLANGE.

DO NOT APPLY CONCRETE SEALER TO SURFACES RECEIVING APPLICATION OF CONCRETE STAINING.

THE GIRDERS SHALL BE PROVIDED WITH A SUITABLE LIFTING DEVICE FOR HANDLING AND ERECTING THE GIRDERS.

STRANDS SHALL BE FLUSH WITH END OF GIRDER. FOR GIRDER ENDS EMBEDDED COMPLETELY IN CONCRETE, END OF STRANDS SHALL BE COATED WITH NON-BITUMINOUS JOINT SEALER. FOR GIRDER ENDS THAT ARE FINALLY EXPOSED, COAT THE GIRDER ENDS, EXPOSED STRAND ENDS AND ALL NON-BONDING SURFACES WITHIN 2 FEET OF THE GIRDER ENDS WITH A NON-PIGMENTED EPOXY CONFORMING TO AASHTO M-235 TYPE III, GRADE 2, CLASS B OR C. THE EPOXY SHALL BE APPLIED AT LEAST 3 DAYS AFTER MOIST CURING HAS CEASED AND PRIOR TO THE APPLICATION OF THE SEALER.

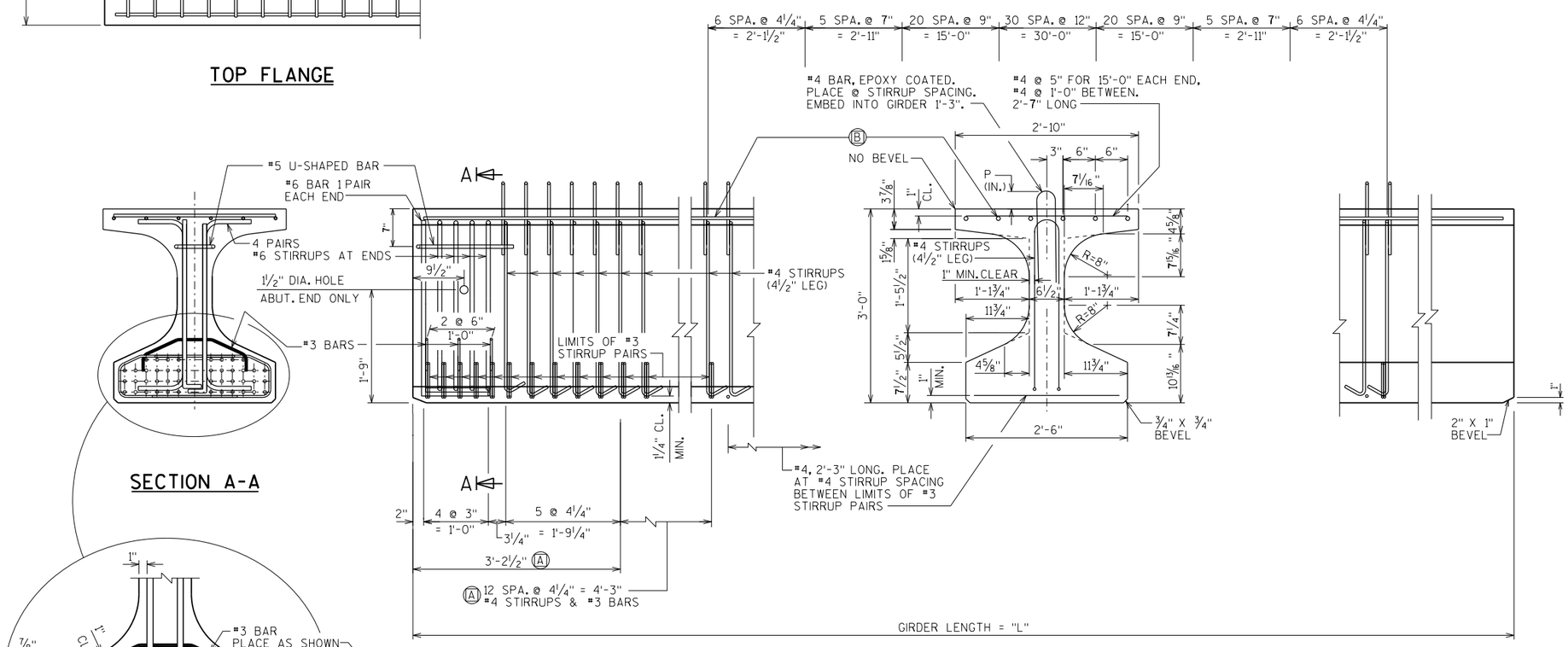
ALL GIRDERS SHALL BE CAST FULL LENGTH AS SHOWN.

SPACING SHOWN FOR #4 STIRRUPS IS FOR GRADE 60 REINFORCEMENT.

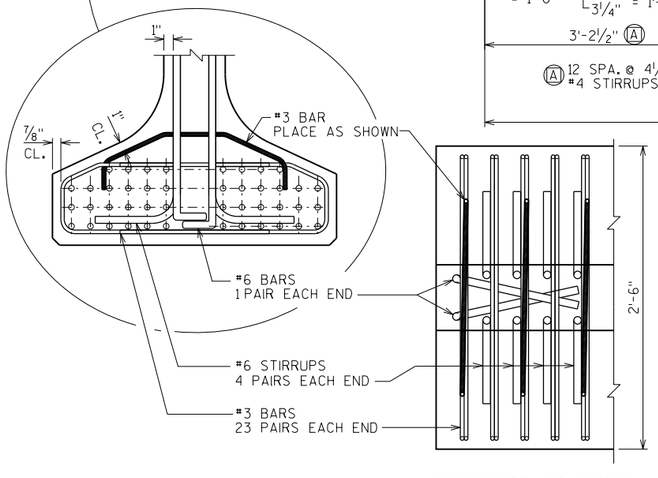
AN ALTERNATE EQUIVALENT OF WELDED WIRE FABRIC (WWF) ASTM A497 MAY BE SUBSTITUTED FOR THE STIRRUP REINFORCEMENT SHOWN, UPON APPROVAL OF THE STRUCTURES DEVELOPMENT SECTION.

PRESTRESSING STRANDS SHALL BE (0.6" DIA.)-7 WIRE LOW-RELAXATION STRANDS WITH AN ULTIMATE STRENGTH OF 270,000 PSI.

FOR DIAPHRAGM INSERT & CONNECTION DETAILS SEE "STEEL DIAPHRAGM" SHEET.



SECTION A-A

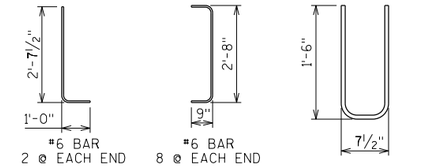


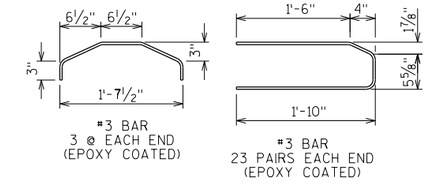
BOTTOM FLANGE

SIDE VIEW & TYPICAL SECTION IN SPAN

(A) DETAIL TYP. AT EACH END

(B) 6 #4 BARS, FULL LENGTH, MIN. LAP = 2'-4"





✳ MINIMUM CYLINDER STRENGTH OF CONCRETE @ TIME OF TRANSFER OF PRESTRESS FORCE.

GIRDER DATA

SPAN	GIRDER	GIRDER LENGTH "L"	DEAD LOAD DEFL. (IN.) 1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	CONC. STRGTH. f'c (p.s.i.)	"P" 1ST 1/3 OF GIRDER	"P" MID 1/3 OF GIRDER	"P" END 1/3 OF GIRDER	DIA. OF STRAND (IN.)	DRAPED PATTERN TOTAL NO. OF STRANDS	f'ci (P.S.I.) ✳	("A"	"B" MIN.	"B" MAX.	"C")
1	1 - 11	85'-0"	0.58	1.14	1.57	1.85	1.94	1.85	1.57	1.14	0.58	8,000	7"	7"	7"	0.6	34	6,800	31	11.5	14.5	5

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STRUCTURE B-49-181

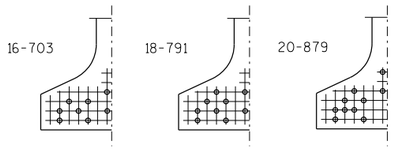
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36W" PRESTRESSED GIRDER DETAILS-1

SHEET 13 OF 27

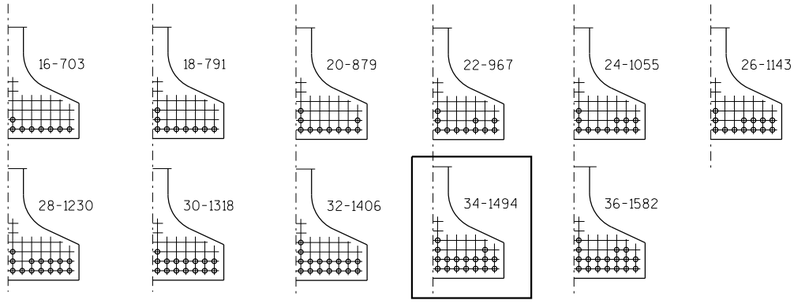
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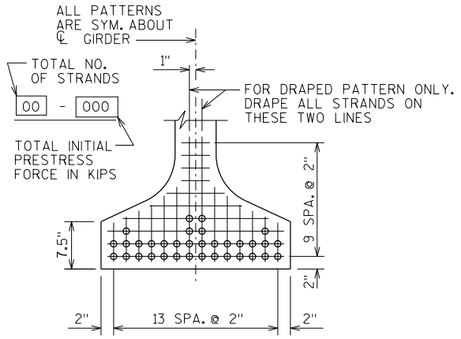
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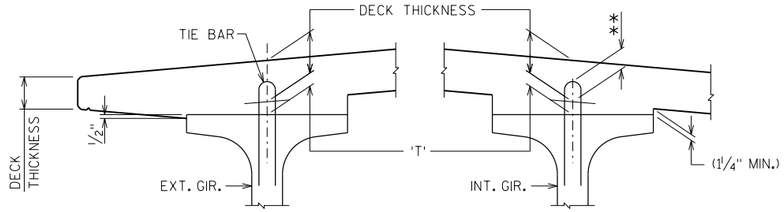
STANDARD ARRANGEMENTS TO RAISE CENTER OF GRAVITY TO AVOID DRAPING OF STRANDS

0.6"Φ STRANDS





TYP. STRAND PATTERN



DECK HAUNCH DETAIL

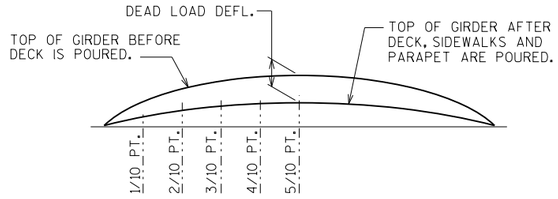
IF 1¼" MINIMUM HAUNCH HEIGHT AT EDGE OF GIRDER CANNOT BE MAINTAINED, THE GRADE LINE MAY BE REVISED BY THE ENGINEER AT THE OPTION OF THE CONTRACTOR. THE PLAN DECK THICKNESS SHALL BE HELD. NOTIFY THE STRUCTURES SECTION IF THE GRADE LINE IS RAISED FROM THE PLAN PROFILE BY MORE THAN ½" OR,

** IF 3" MINIMUM DECK EMBEDMENT OF TIE BAR CANNOT BE OBTAINED.

TO DETERMINE 'T', ELEV. OF TOP OF GIR'S. AT ℄ OF SUBSTRUCTURE UNITS & AT 1/10 POINTS OF EACH SPAN SHALL BE TAKEN. THEN FOLLOW THIS PROCESS:

TOP OF DECK ELEV. AT FINAL GRADE
\- TOP OF GIRDER ELEVATION
\+ DEAD LOAD DEFLECTION
\- DECK THICKNESS
= HAUNCH HEIGHT 'T'

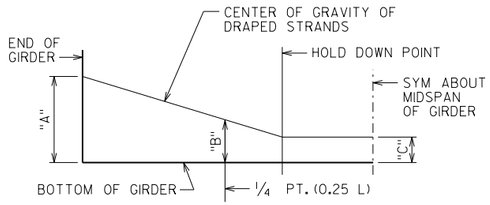
NOTE: AN AVERAGE HAUNCH ('T') OF 2⅝" WAS USED IN THE QUANTITY "CONCRETE MASONRY BRIDGES".



DEAD LOAD DEFLECTION DIAGRAM

ARRANGEMENT AT ℄ SPAN - FOR GIRDERS WITH DRAPED STRANDS

0.6"Φ STRANDS



DRAPED STRAND PROFILE

*THE THEORETICAL INITIAL CAMBER VALUE AT THE TIME OF STRAND RELEASE AT MIDSPAN MULTIPLIED BY A FACTOR OF 1.4 TO ACCOUNT FOR CAMBER GROWTH FROM THE TIME OF STRAND RELEASE TO JOBSITE PLACEMENT.

SPAN	CAMBER (IN.) *
1	3.75

THESE VALUES ARE NOT TO BE USED IN DETERMINING 'T', USE ACTUAL GIRDER SHOTS.

THESE VALUES ARE FOR INFORMATIONAL PURPOSES ONLY.

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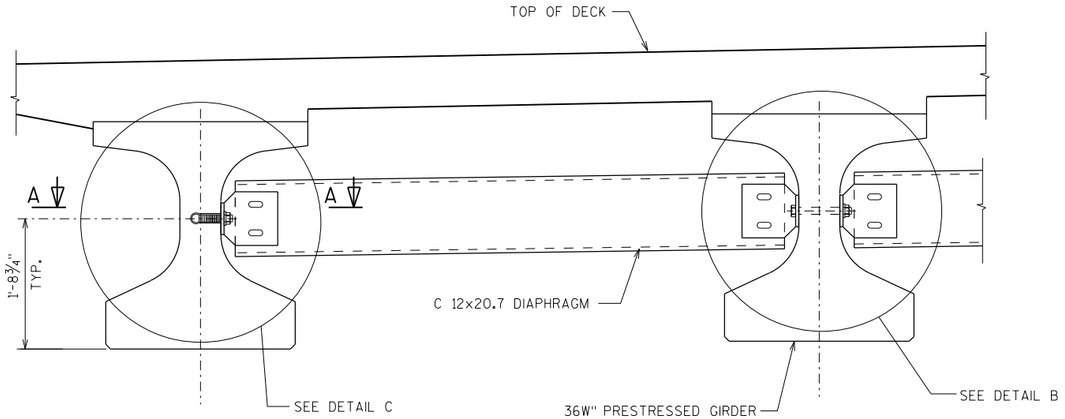
STRUCTURE B-49-181

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36W" PRESTRESSED GIRDER DETAILS-2

SHEET 14 OF 27
256

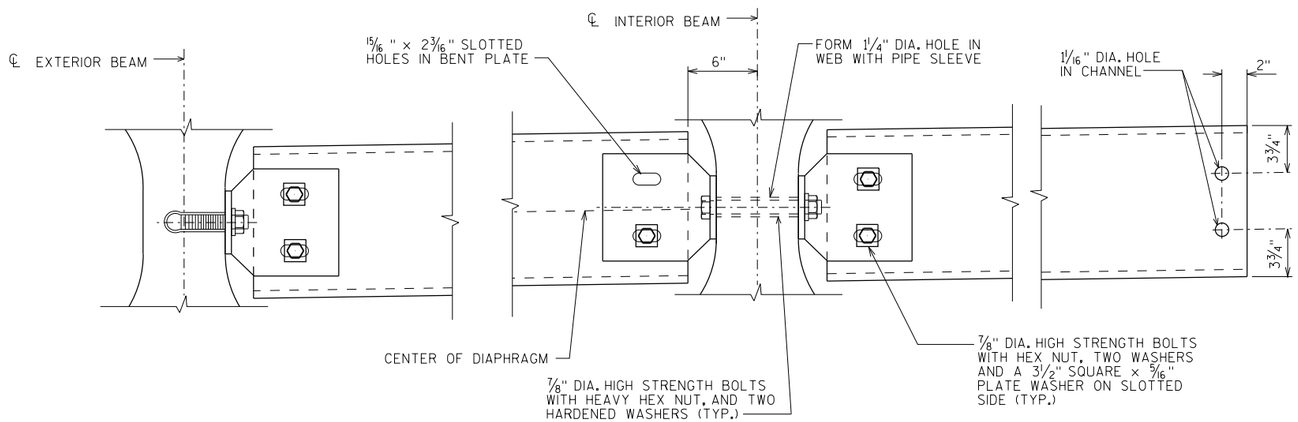
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EXTERIOR GIRDER

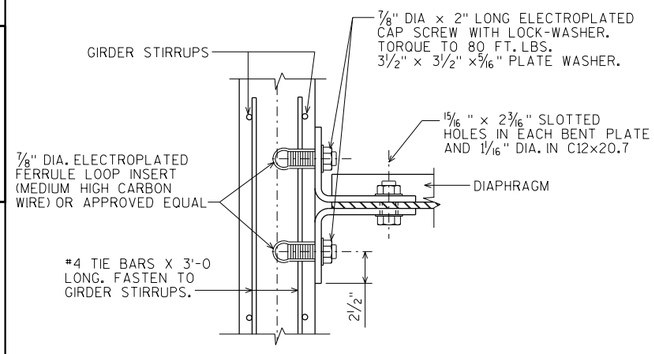
INTERIOR GIRDER

PART TRANSVERSE SECTION AT DIAPHRAGM

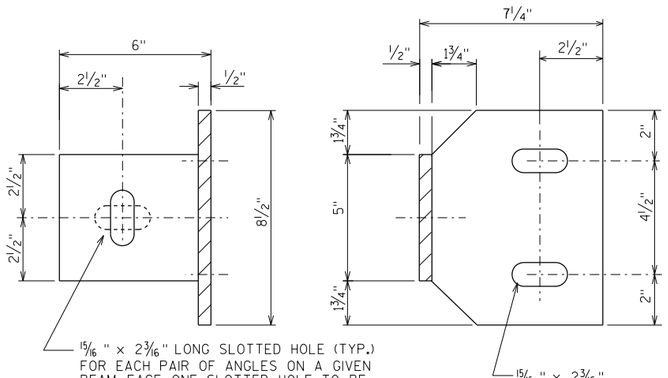


DETAIL C

DETAIL B

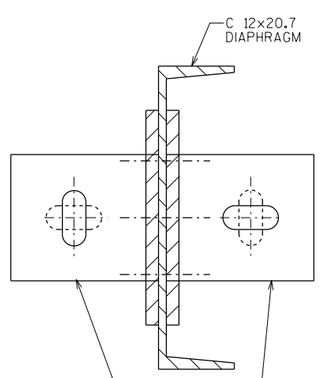


SECTION A-A
(FOR EXTERIOR ATTACHMENT)



BEAM FACE

DIAPHRAGM FACE



ATTACHMENT TO CHANNEL

NOTES

ALL DIAPHRAGM MATERIAL NOT EMBEDDED IN THE CONCRETE GIRDER SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "STEEL DIAPHRAGMS B-49-181", EACH.

EACH DIAPHRAGM BETWEEN GIRDERS SHALL CONSTITUTE ONE UNIT.

ALL DIAPHRAGM STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 36. ALL BOLTS, NUTS AND WASHERS SHALL BE ASTM A325 TYPE 1.

ALL DIAPHRAGM STRUCTURAL STEEL SHOWN SHALL BE HOT-DIPPED GALVANIZED. ALL BOLTS, NUTS AND WASHERS SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C. GALVANIZED NUTS SHALL BE TAPPED OVERSIZE IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM A563 AND SHALL MEET THE REQUIREMENTS OF SUPPLEMENTARY REQUIREMENT S1 OF ASTM A563, LUBRICANT AND TEST FOR COATED NUTS.

SEE SHT. 17 FOR FRAMING PLAN WITH DIAPHRAGM LAYOUT AND SPACING.

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INTERMEDIATE STEEL DIAPHRAGM

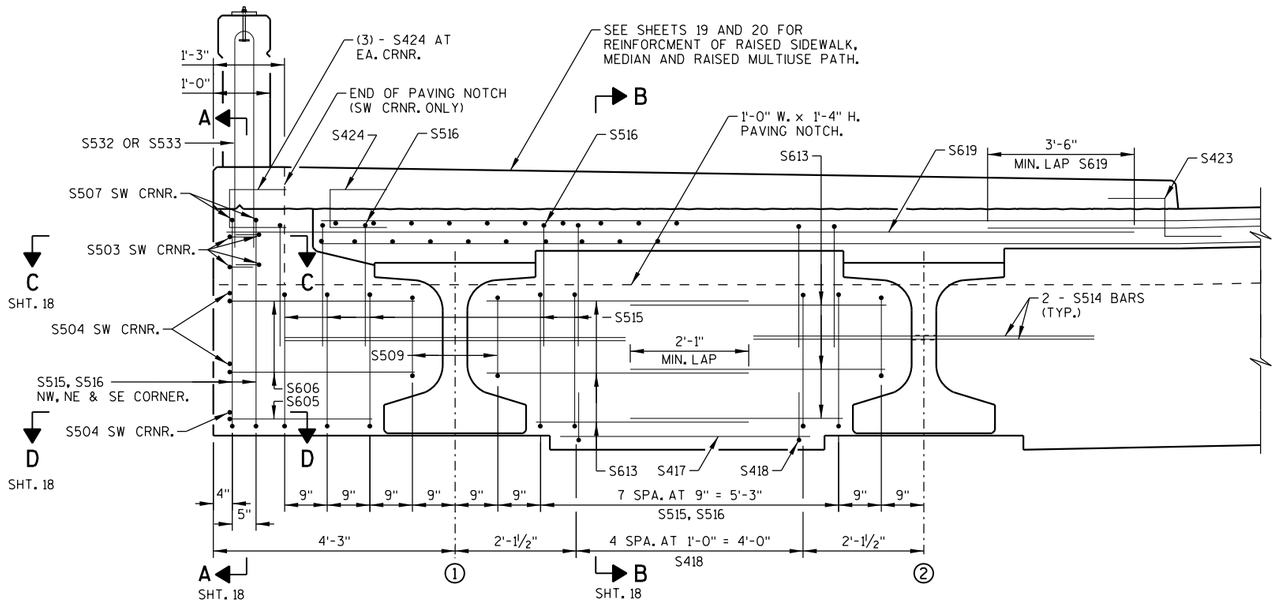
SHEET 15 OF 27
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STATE PROJECT NUMBER

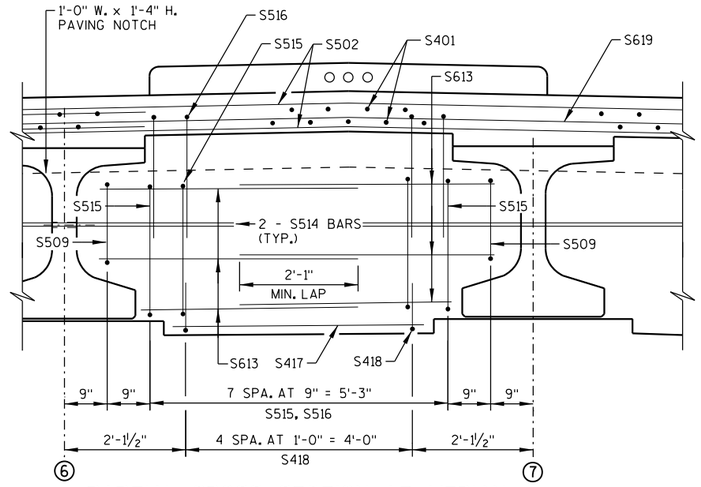
6998-11-71



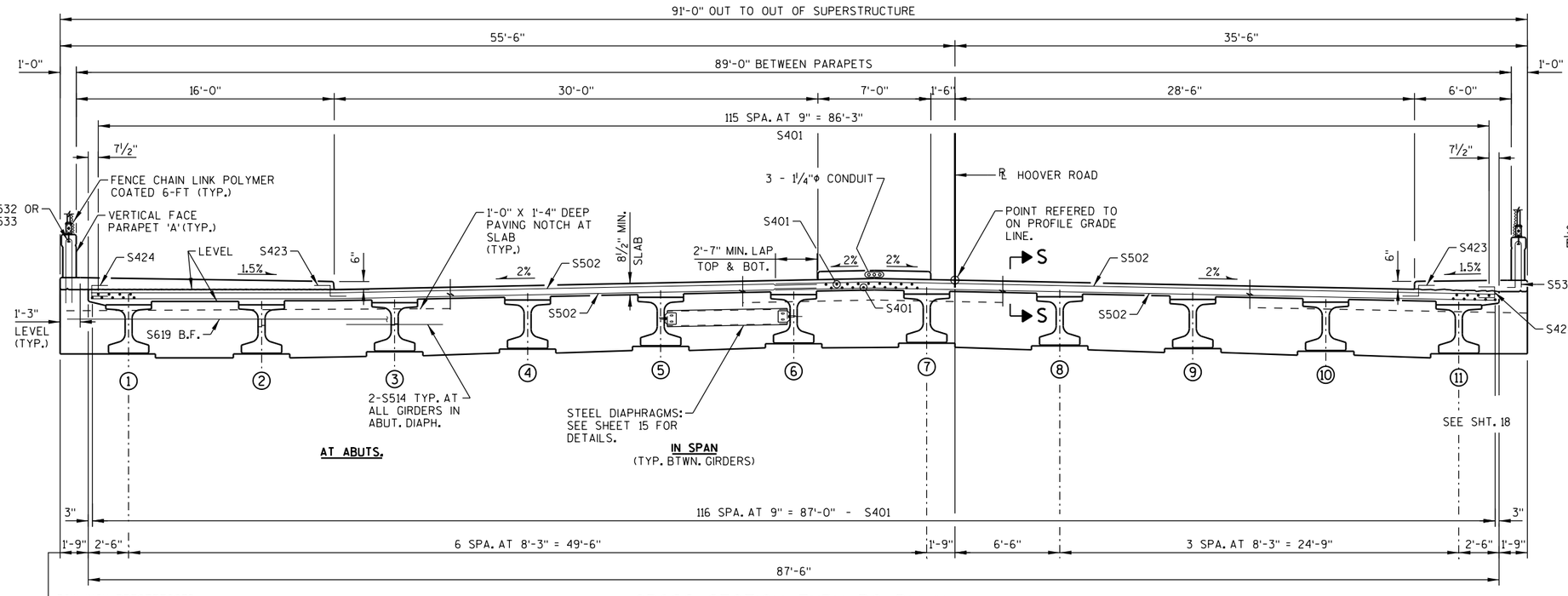
PARTIAL CROSS SECTION

SEE SHT. 18 FOR SECTIONS A, B, C & D

SECTIONS A, C & D ARE FOR SW CRNR. ONLY.



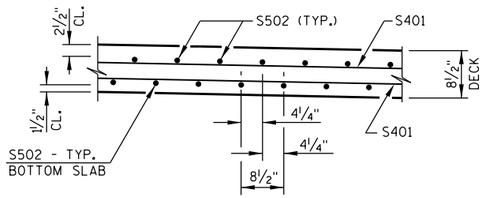
PARTIAL CROSS SECTION AT MEDIAN



36W-INCH PRESTRESSED GIRDER SPACING

CROSS SECTION THRU ROADWAY

(LOOKING NORTH)



SECTION S-S

(LOOKING EAST)

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STATE OF WISCONSIN
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STRUCTURE B-49-181

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SUPERSTRUCTURE-1

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STATE PROJECT NUMBER
6998-11-71

NOTES

THE TOP LONGITUDINAL BAR STEEL REINFORCEMENT SHALL BE SUPPORTED BY CONTINUOUS BAR CHAIRS IN TRANSVERSE DIRECTION ON 4'-0" CENTERS.

THE BOTTOM TRANSVERSE BAR STEEL REINFORCEMENT SHALL BE SUPPORTED BY CONTINUOUS BAR CHAIRS WITH A CENTER TO CENTER SPACING NOT TO EXCEED 4'-0". ONE LINE OF CONTINUOUS BAR CHAIRS SHALL BE PLACED NEAR EACH EDGE OF SLAB TO SUPPORT THE ENDS OF THE BOTTOM TRANSVERSE BAR STEEL.

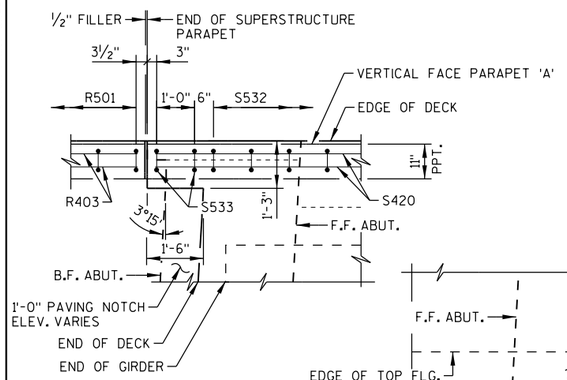
LAP NO. 4 BARS 1'-8" MIN. IN SLAB.

ALL TRANSVERSE BAR STEEL REINFORCEMENT SHALL BE PLACED PARALLEL TO SUBSTRUCTURE UNITS.

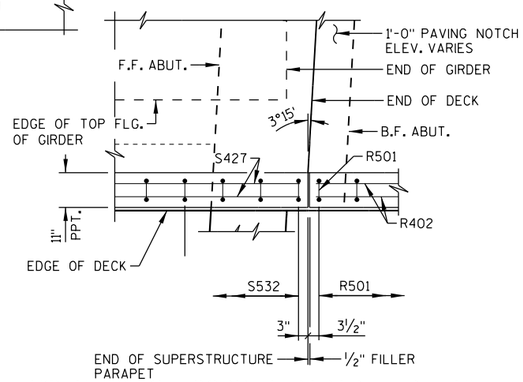
FOR SOUTH STRUCTURAL APPROACH SLAB SEE SHT. 22.

FOR NORTH STRUCTURAL APPROACH SLAB SEE SHT. 23.

FOR RAISED SIDEWALK, RAISED MEDIAN AND RAISED MULTI-USE PATH SEE SHT. 19.



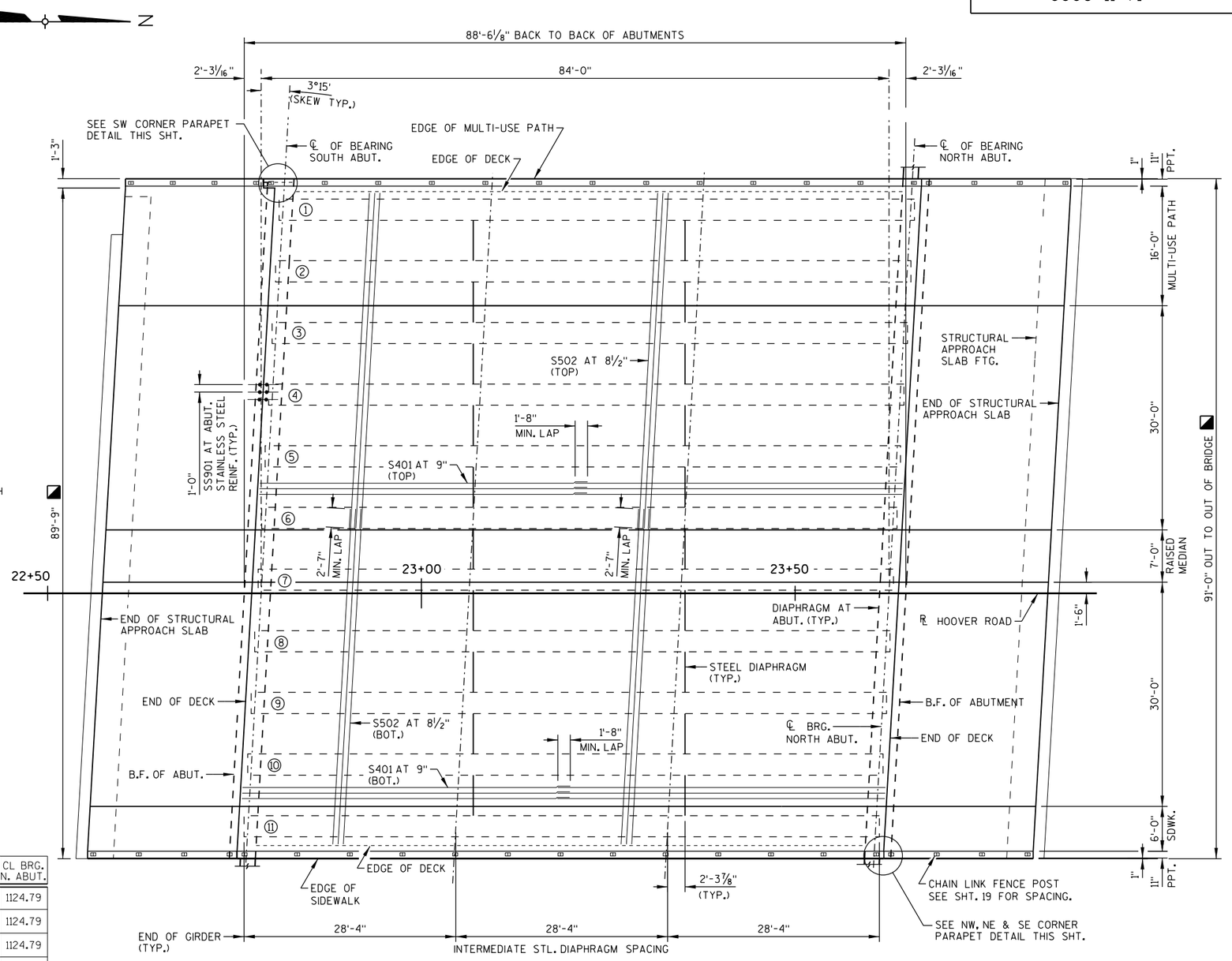
SW CORNER PARAPET DETAIL



NW, NE & SE CORNER PARAPET DETAIL

TOP OF DECK ELEVATIONS

	CL BRG. S. ABUT.	1/10 PT.	2/10 PT.	3/10 PT.	4/10 PT.	5/10 PT.	6/10 PT.	7/10 PT.	8/10 PT.	9/10 PT.	CL BRG. N. ABUT.
EOD	1123.63	1123.79	1123.94	1124.08	1124.21	1124.33	1124.45	1124.55	1124.64	1124.72	1124.79
BEAM 1	1123.63	1123.79	1123.94	1124.08	1124.21	1124.33	1124.44	1124.54	1124.64	1124.72	1124.79
BEAM 2	1123.62	1123.78	1123.93	1124.07	1124.20	1124.33	1124.44	1124.54	1124.63	1124.71	1124.79
BEAM 3	1123.69	1123.85	1124.00	1124.14	1124.27	1124.39	1124.51	1124.61	1124.70	1124.78	1124.86
BEAM 4	1123.84	1124.00	1124.16	1124.30	1124.43	1124.55	1124.67	1124.77	1124.86	1124.95	1125.02
BEAM 5	1124.00	1124.16	1124.31	1124.46	1124.59	1124.71	1124.82	1124.93	1125.02	1125.11	1125.18
BEAM 6	1124.16	1124.32	1124.47	1124.61	1124.75	1124.87	1124.98	1125.09	1125.18	1125.27	1125.34
BEAM 7	1124.18	1124.34	1124.50	1124.64	1124.77	1124.90	1125.01	1125.12	1125.21	1125.30	1125.37
BEAM 8	1124.01	1124.17	1124.32	1124.47	1124.60	1124.73	1124.84	1124.95	1125.04	1125.13	1125.20
BEAM 9	1123.83	1124.00	1124.150	1124.29	1124.43	1124.55	1124.67	1124.78	1124.87	1124.96	1125.03
BEAM 10	1123.66	1123.82	1123.98	1124.12	1124.26	1124.38	1124.50	1124.61	1124.70	1124.79	1124.87
BEAM 11	1123.48	1123.65	1123.80	1123.95	1124.09	1124.21	1124.33	1124.43	1124.53	1124.62	1124.70
EOD	1123.43	1123.60	1123.75	1123.90	1124.03	1124.16	1124.28	1124.38	1124.48	1124.57	1124.64



PLAN

LEGEND

◪ LIMITS OF 1'-0" WIDE x 1'-4" DEEP ROADWAY PAVING NOTCH.

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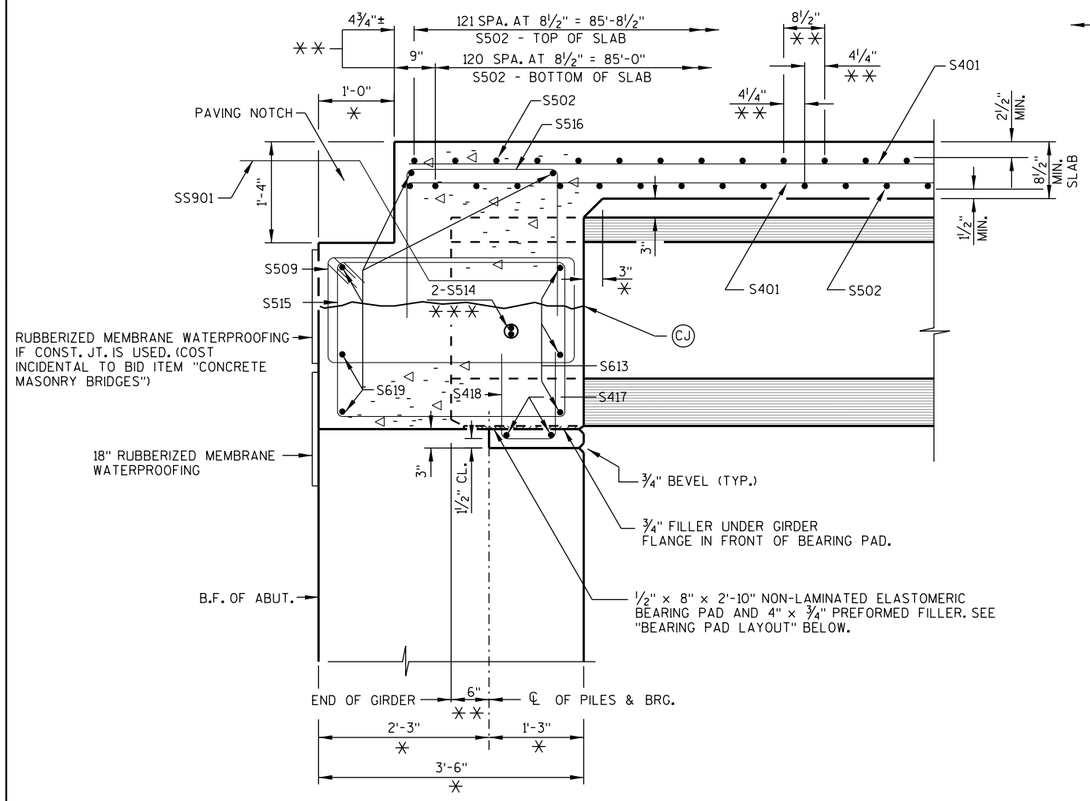
STRUCTURE B-49-181

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SUPERSTRUCTURE-2

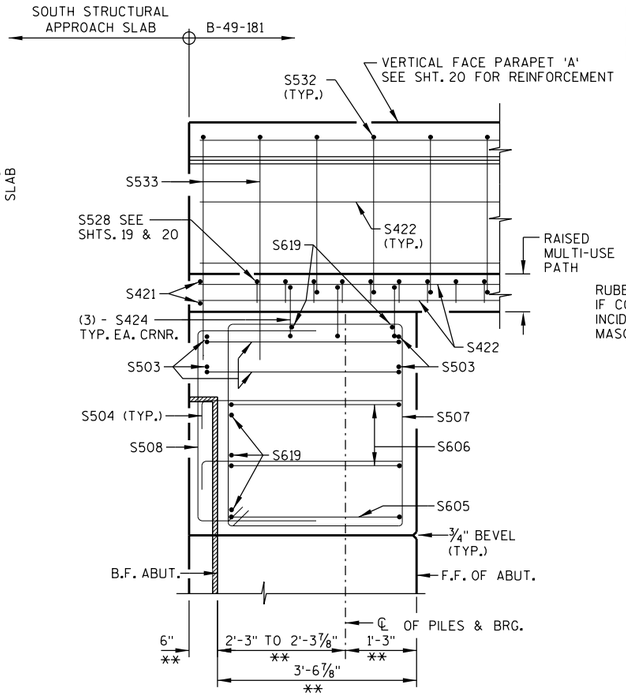
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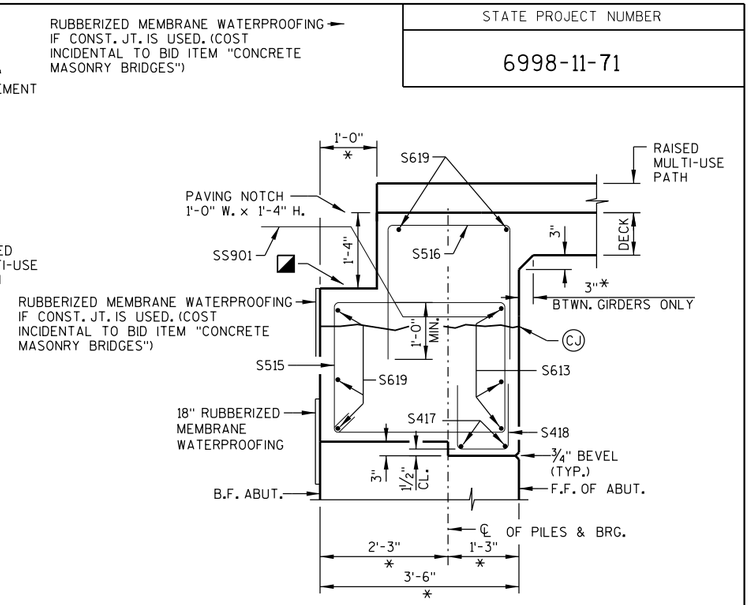
PART LONGITUDINAL SECTION

(AT ROADWAY PAVING NOTCH)



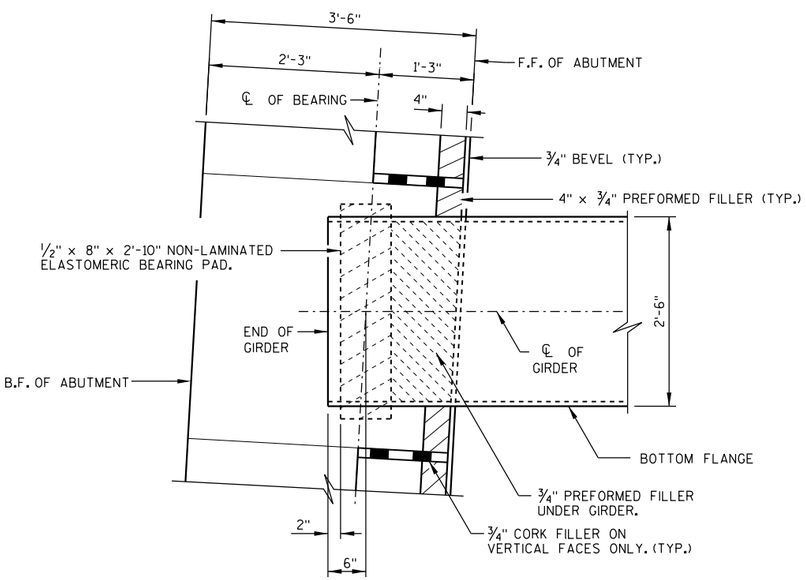
SECTION A-A

(SEE SHT. 16)
(DIAPHRAGM AT SW CORNER)

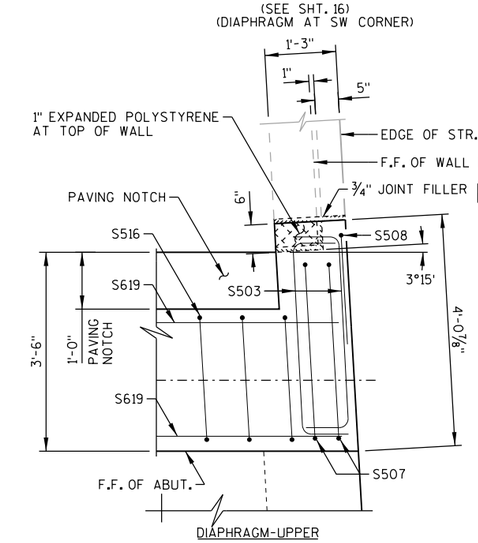


SECTION B-B

(SEE SHT. 16)
SECTION SHOWN AT MULTI-USE PATH. SECTION AT RAISED MEDIAN AND RAISED SIDEWALK SIMILIAR.

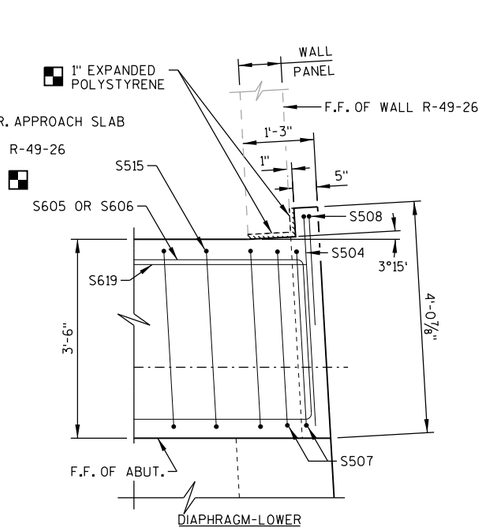


BEARING PAD LAYOUT



SECTION C-C

(SEE SHT. 16)
(SW CORNER DIAPHRAGM)



SECTION D-D

(SEE SHT. 16)
(SW CORNER DIAPHRAGM)

LEGEND

- ✳ DIMENSIONS ARE GIVEN NORMAL TO ℄ OF SUBSTRUCTURE UNITS.
- ✳✳ DIMENSIONS ARE GIVEN PARALLEL TO THE GIRDER ℄.
- ✳✳✳ ½" DIA. HOLE IN WEB FOR S514 BARS. PLACE TWO S514 BARS SYMMETRICAL ABOUT THE ℄ OF EACH GIRDER. FIELD BEND BARS ALONG SKEW.
- ◪ MATCH BOTTOM OF PAVING NOTCH WITH SLOPE OF 'TOP OF DECK'.
- (CJ) OPTIONAL CONSTRUCTION JOINT 1'-2" BELOW TOP OF GIRDER, NORTH ABUT. DIAPHRAGM ONLY. IF USED, DECK POUR MUST BE WITHIN 2 WEEKS FROM THE TIME OF THE DIAPHRAGM POUR.

NOTES

PLACE AND SPACE VERTICAL REINFORCMENT BARS PARALLEL TO THE GIRDER ℄.

LAP S619 BARS IN ABUTMENT DIAPHRAGM 3'-6" MIN.

NO.	DATE	REVISION	BY

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STRUCTURE B-49-181

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SUPERSTRUCTURE-3

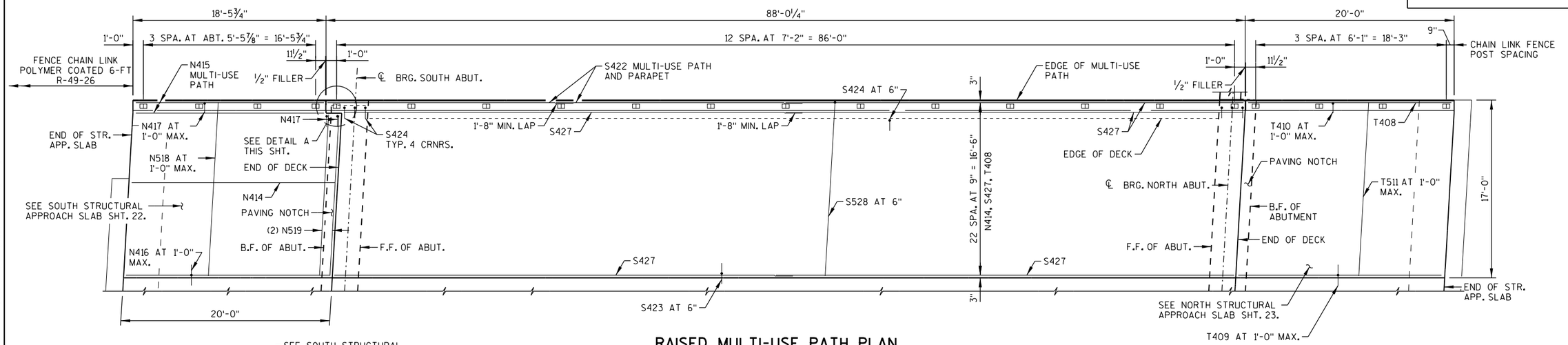
SHEET 18 OF 27
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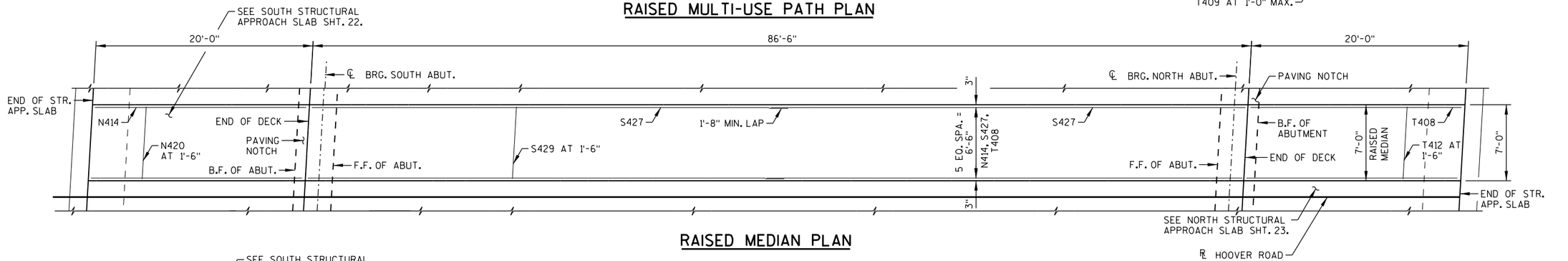
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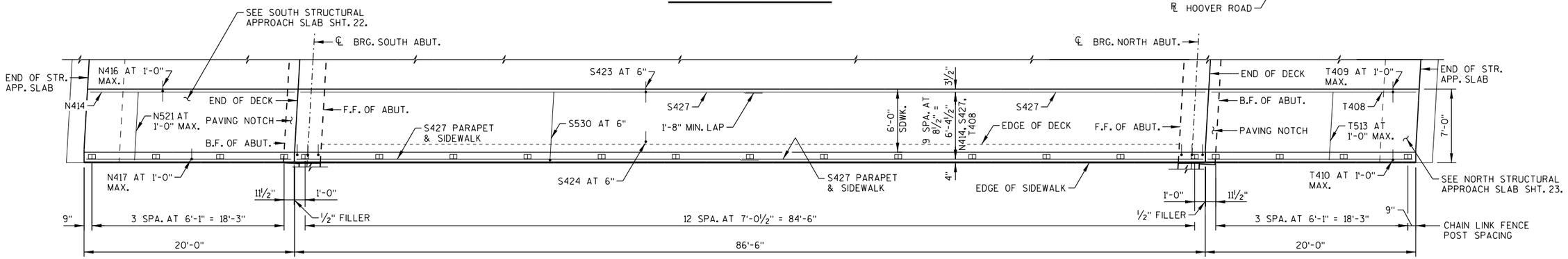
6998-11-71



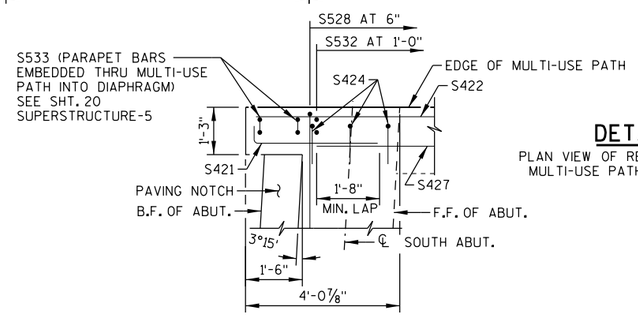
RAISED MULTI-USE PATH PLAN



RAISED MEDIAN PLAN



SIDEWALK PLAN



DETAIL A

PLAN VIEW OF REINFORCEMENT FOR MULTI-USE PATH AT SW CORNER

NOTES

SEE SHT. 20 "SUPERSTRUCTURE-5" FOR CROSS-SECTIONS OF SIDEWALK, MEDIAN AND MULTI-USE PATH DETAILS, INCLUDING VERTICAL FACE PARAPET 'A'.

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STRUCTURE B-49-181

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SUPERSTRUCTURE-4

SHEET 19 OF 27

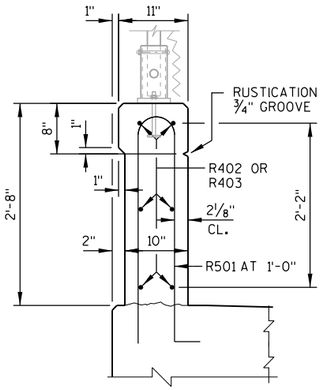
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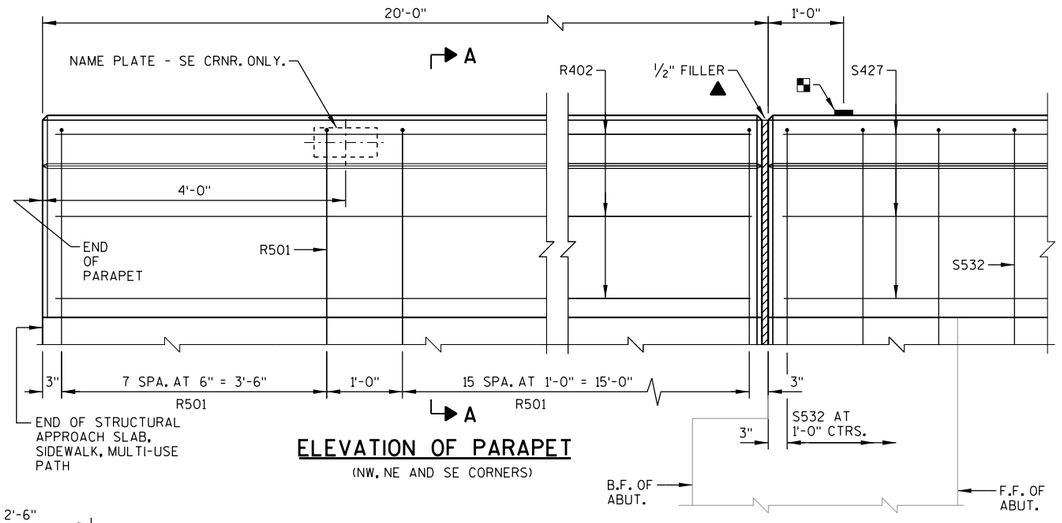
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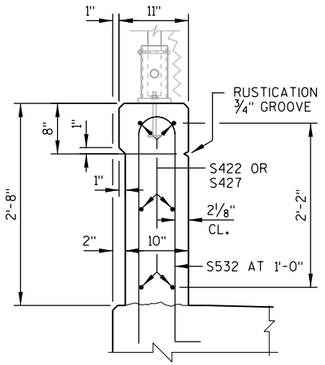


SECTION A-A

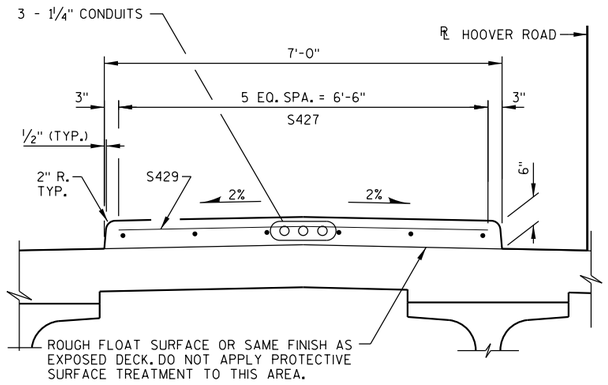


ELEVATION OF PARAPET

(NW, NE AND SE CORNERS)

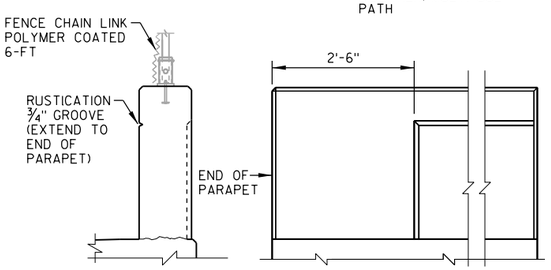


TYP. SECTION ON BRIDGE



TYPICAL SECTION THRU RAISED MEDIAN

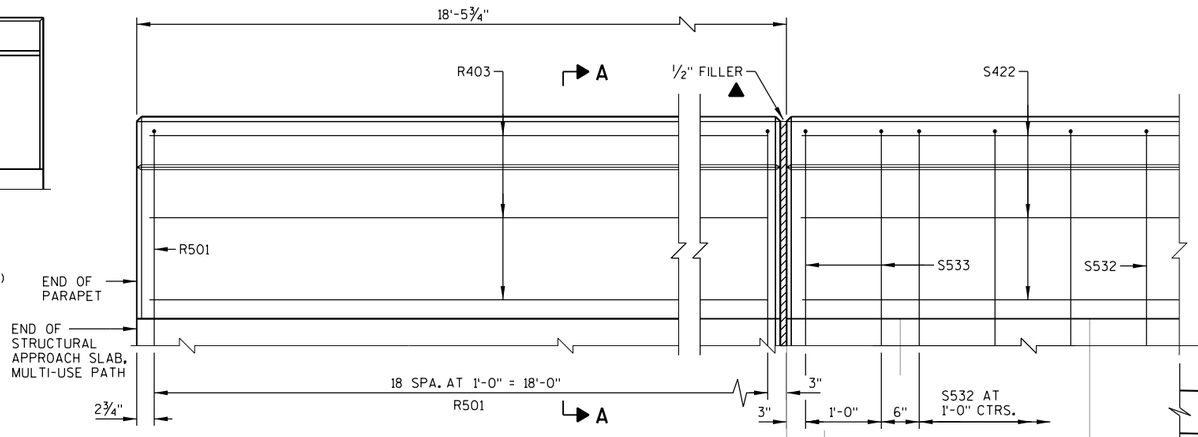
(LOOKING NORTH)



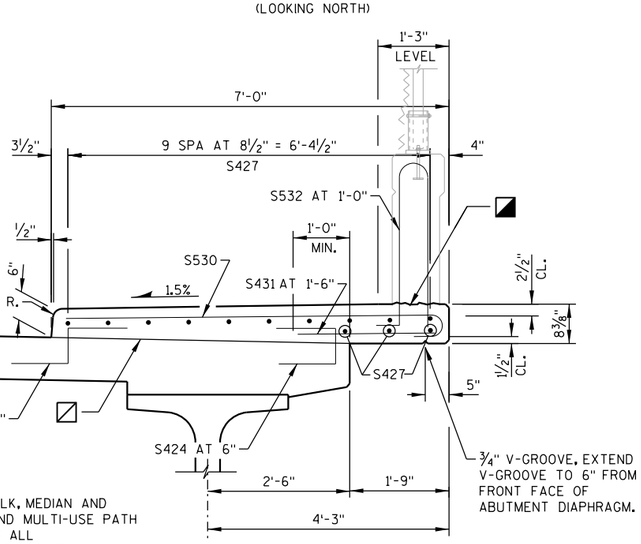
END VIEW

OUTSIDE FACE OF PARAPET

(NW, NE AND SE CORNERS)

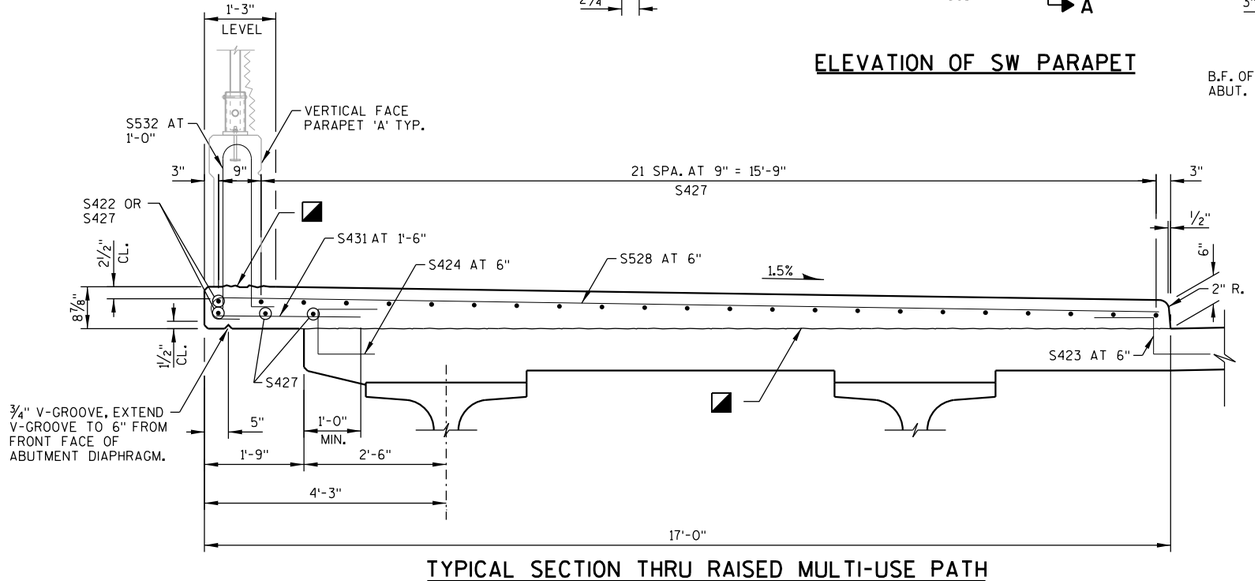


ELEVATION OF SW PARAPET



TYPICAL SECTION THRU RAISED SIDEWALK

(LOOKING NORTH)



TYPICAL SECTION THRU RAISED MULTI-USE PATH

(LOOKING NORTH)

NOTES

CLEAN ALL LOOSE MATERIAL ON THE DECK AT THE SIDEWALK, MEDIAN AND MULTI-USE PATH LOCATIONS PRIOR TO SIDEWALK, MEDIAN AND MULTI-USE PATH PLACEMENT USING HIGH PRESSURE WATER OR AIR. ENSURING ALL FREE-STANDING WATER IS REMOVED PRIOR TO SIDEWALK, MEDIAN AND MULTI-USE PATH PLACEMENT. NEAT CEMENT IS REQUIRED AS PER 509.3.8.2 OF THE STANDARD SPECIFICATIONS UNLESS THE SIDEWALK, MEDIAN OR MULTI-USE PATH ARE POURED WITHIN 45 DAYS OF COMPLETING THE DECK POUR.

SEE SHT. 21 FOR PARAPET BAR LIST.

LEGEND

- ☒ CONST. JOINT - STRIKE OFF AS SHOWN AND LEAVE ROUGH. FOR DECK POUR, MATCH BRIDGE X-SLOPE. DO NOT APPLY PROTECTIVE SURFACE TREATMENT TO THIS AREA.
- ◪ LEVEL CONSTRUCTION JOINT - STRIKE OFF AS SHOWN AND LEAVE ROUGH. DO NOT APPLY PROTECTIVE SURFACE TREATMENT TO THIS AREA.
- ▲ ½" FILLER TO EXTEND AS SHOWN. SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE).
- ◩ BENCH MARK CAP (WHEN SUPPLIED). AVOID PLACING BENCHMARK CAP BELOW A RAIL OF THE FENCE SYSTEM THAT IS ATTACHED TO THE TOP OF THE PARAPET.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
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STRUCTURE B-49-181

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SUPERSTRUCTURE-5

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BATCH PRINT SHEET 21 OF 27

BILL OF BARS - SOUTH APPROACH PARAPET

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

MARK	NO. REQ'D	LENGTH	BENT	LOCATION	
COATED BARS					TOTAL WEIGHT = 450 LBS
R501	43	6 - 8	X	SOUTH APPROACH PARAPET	VERT.
R402	6	19 - 6		SOUTH APPROACH PARAPET - SE	LONG.
R403	6	18 - 0		SOUTH APPROACH PARAPET - SW	LONG.

BILL OF BARS - NORTH APPROACH PARAPET

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

MARK	NO. REQ'D	LENGTH	BENT	LOCATION	
COATED BARS					TOTAL WEIGHT = 500 LBS
R501	48	6 - 8	X	NORTH APPROACH PARAPET	VERT.
R402	12	19 - 6		NORTH APPROACH PARAPET	LONG.

BILL OF BARS - SUPERSTRUCTURE

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.
ALL BAR STEEL REINFORCEMENT SHOWN IN THIS BILL SHALL BE EPOXY COATED.

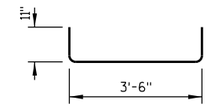
MARK	NO. REQ'D	LENGTH	BENT	LOCATION	TOTAL WEIGHT = 54,090 LBS
S401	466	43 - 11		SLAB - TOP & BOTTOM	LONG.
S502	490	45 - 0		SLAB - TOP & BOTTOM	TRANS.
S503	4	5 - 1	X	ABUT. DIAPHRAGM TIES - SW CRNR.	HORIZ.
S504	2	4 - 4	X	ABUT. DIAPHRAGM SW CORNER	HORIZ.
S605	4	7 - 8	X	ABUT. DIAPHRAGM ENDS	HORIZ.
S606	8	9 - 2	X	ABUT. DIAPHRAGM ENDS	HORIZ.
S507	2	14 - 2	X	ABUT. DIAPHRAGM END FACE -SW CORNER	VERT.
S508	1	10 - 8	X	ABUT. DIAPHRAGM BUMP OUT - SW CORNER	VERT.
S509	44	9 - 8	X	ABUT. DIAPHRAGM NEXT TO GIRDERS	VERT.
S613	120	4 - 8		ABUT. DIAPHRAGM F.F.	HORIZ.
S514	44	6 - 0		ABUT. DIAPHRAGM GIRDER ENDS	HORIZ.
S515	178	11 - 6	X	ABUT. DIAPHRAGM BTWN. GIRDERS	VERT.
S516	178	6 - 3	X	ABUT. DIAPHRAGM BTWN. GIRDERS	VERT.
S417	40	4 - 3		ABUT. DIAPHRAGM BTWN. GIRDERS	HORIZ.
S418	100	3 - 5	X	ABUT. DIAPHRAGM BTWN. GIRDERS	VERT.
S619	20	46 - 6		ABUT. DIAPHRAGM B.F.	HORIZ.
S421	2	4 - 2	X	RAISED SIDEWALK SW CORNER	HORIZ.
S422	16	23 - 7		PARAPET SW & RAISED SIDEWALK - SUPERSTRUCTURE	HORIZ.
S423	346	2 - 6	X	RAISED SIDEWALK/MULTI-USE PATH - SUPERSTRUCTURE	VERT.
S424	338	2 - 8	X	RAISED SIDEWALK/MULTI-USE PATH - SUPERSTRUCTURE	VERT.
S427	106	43 - 11		RAISED SIDEWALK/MULTI-USE PATH/MEDIAN - SUPERSTRUCTURE	LONG.
S528	173	17 - 1	X	RAISED MULTI-USE PATH	TRANS.
S429	59	6 - 6		RAISED MEDIAN	TRANS.
S530	173	7 - 1	X	RAISED SIDEWALK	TRANS.
S431	118	2 - 7		RAISED SIDEWALK/MULTI-USE PATH, OVERHANG OUTER EDGE	TRANS.
S532	174	6 - 8	X	SUPERSTRUCTURE PARAPET	VERT.
S533	2	9 - 11	X	PARAPET - SW CORNER	VERT.

Sx10 - Sx12, Sx20, Sx25, Sx26 NOT USED

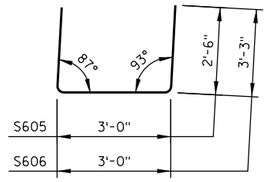
DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

MARK	NO. REQ'D	LENGTH	BENT	LOCATION	
STAINLESS STEEL BARS					TOTAL WEIGHT = 3,120 LBS
SS901	183	5 - 0	X	CONCRETE ABUT. DIAPHRAGM & APPROACH SLAB	VERT.

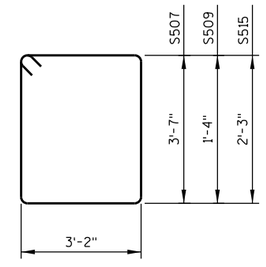
THE BID ITEM FOR SS901 SHALL BE STANDARD SPECIAL PROVISION "BAR STEEL REINFORCEMENT HS STAINLESS STRUCTURES".
SEE SHEETS 17, 18, 22 & 23 FOR PLACEMENT.



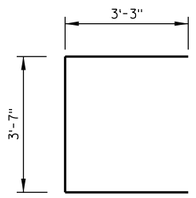
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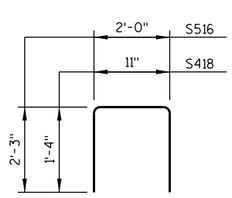
S605, S606



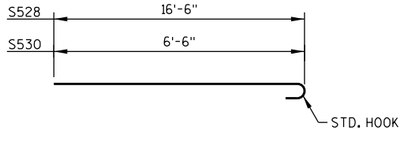
S507, S509, S515



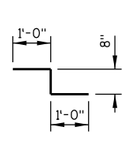
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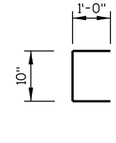
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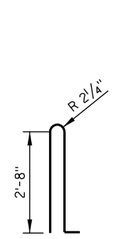
S528, S530



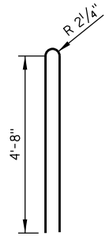
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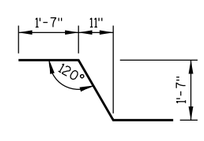
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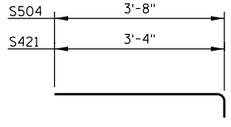
S532, R501



S533



SS901



S504, S421

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-49-181

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REINFORCEMENT DETAILS

SHEET 21 OF 27
263

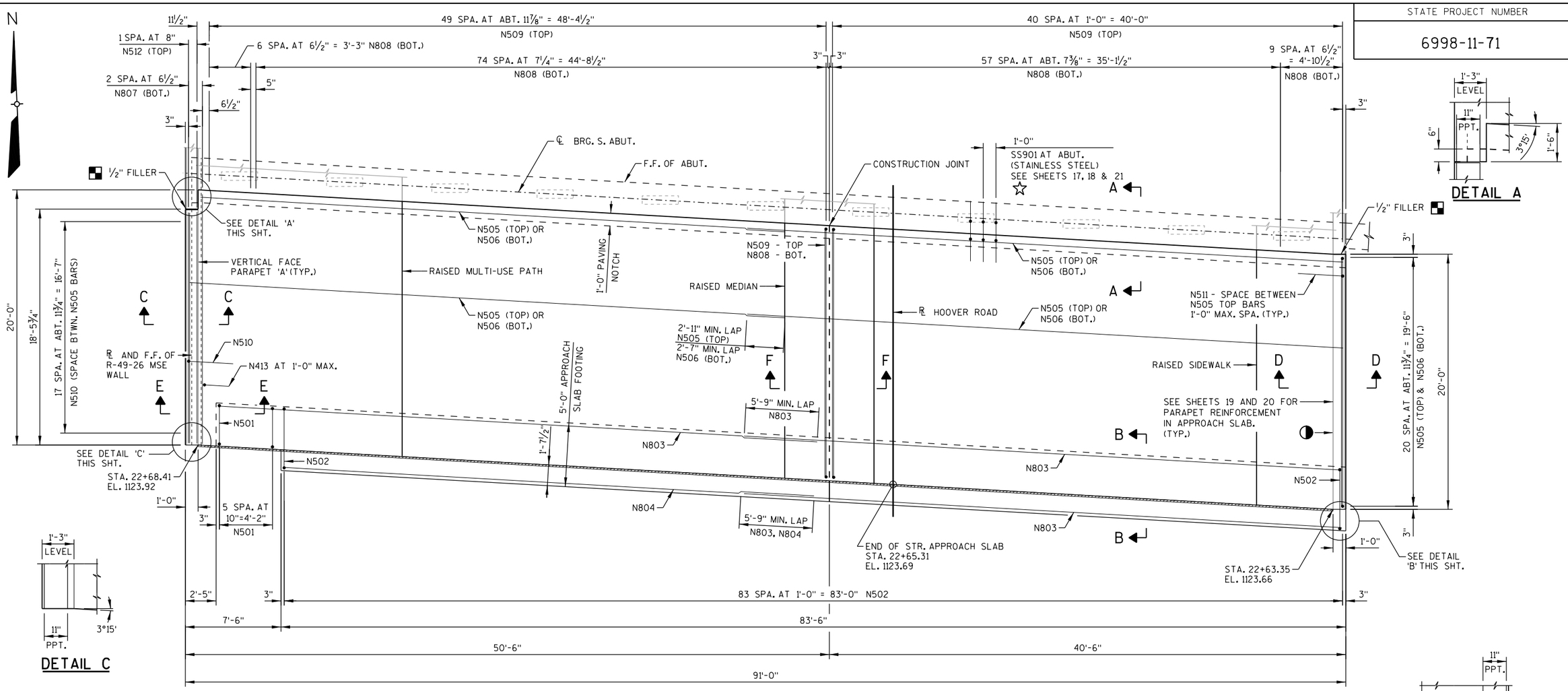
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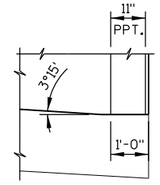
6998-11-71



DETAIL A

DETAIL C

PLAN VIEW

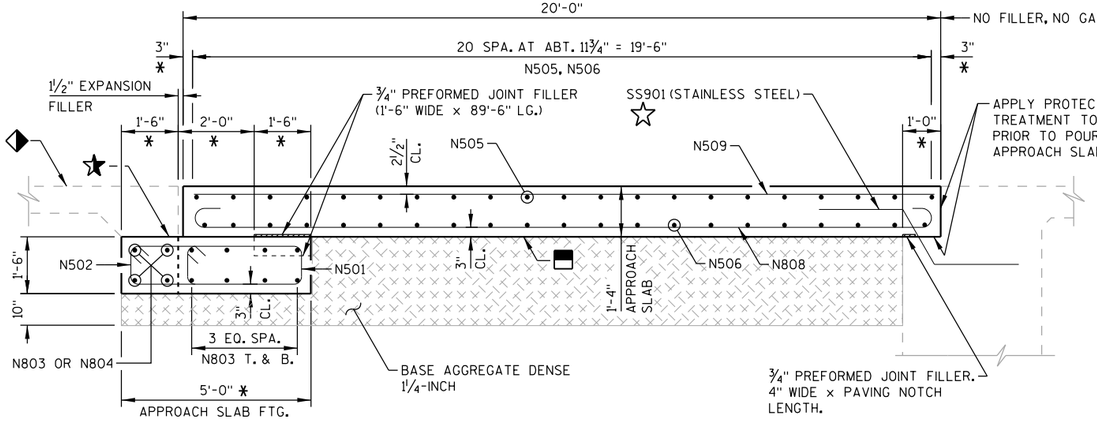


DETAIL B
NORTHEAST CORNER SIMILIAR

BILL OF BARS - SOUTH APPROACH

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR. SEE SHT. 24 FOR BAR BENDING DETAILS

MARK	NO. REQD	LENGTH	BENT	LOCATION
COATED BARS				TOTAL WEIGHT = 20,200 LBS
N501	6	8 - 8	X	APPROACH SLAB FOOTING - STIRRUP VERT.
N502	84	12 - 0	X	APPROACH SLAB FOOTING - STIRRUP VERT.
N803	20	47 - 0		APPROACH SLAB FOOTING TRANS.
N804	4	41 - 11		APPROACH SLAB FOOTING TRANS.
N505	42	46 - 11		APPROACH SLAB - TOP TRANS.
N506	42	46 - 9		APPROACH SLAB - BOTTOM TRANS.
N807	3	18 - 1		APPROACH SLAB - BOTTOM LONG.
N808	149	21 - 4	X	APPROACH SLAB - BOTTOM LONG.
N509	91	19 - 8		APPROACH SLAB - TOP LONG.
N510	18	4 - 10	X	APPROACH SLAB - TOP OUTSIDE EDGE AT WALL TRANS.
N511	20	4 - 1	X	APPROACH SLAB - TOP OUTSIDE EDGE TRANS.
N512	4	18 - 1		APPROACH SLAB - AT WALL LONG.
N413	19	3 - 0	X	APPROACH SLAB - AT WALL TRANS.
N414	37	19 - 8		APPROACH SLAB - RAISED SIDEWALK/MULTI-USE PATH/MEDIAN LONG.
N415	3	18 - 1		APPROACH SLAB - RAISED MULTI-USE PATH LONG.
N416	42	2 - 6	X	APPROACH SLAB - RAISED SIDEWALK/MULTI-USE PATH VERT.
N417	42	3 - 2	X	APPROACH SLAB - RAISED SIDEWALK/MULTI-USE PATH VERT.
N518	19	16 - 6		APPROACH SLAB - RAISED MULTI-USE PATH TRANS.
N519	2	15 - 3		APPROACH SLAB - RAISED MULTI-USE PATH TRANS.
N420	14	6 - 6		APPROACH SLAB - RAISED MEDIAN TRANS.
N521	21	6 - 6		APPROACH SLAB - RAISED SIDEWALK TRANS.



SECTION B - B

SECTION THRU APPROACH SLAB

* DIMENSIONS MEASURED NORMAL TO ABUTMENT

SECTION A - A

NOTES

SEE SHEETS 19, 20 AND 24 FOR REINFORCING DETAILS AND SECTIONS C THRU F.

FOR SYMBOL DESCRIPTIONS SEE SHT. 24.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-49-181

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SOUTH STRUCTURAL APPROACH SLAB

SHEET 22 OF 27
264

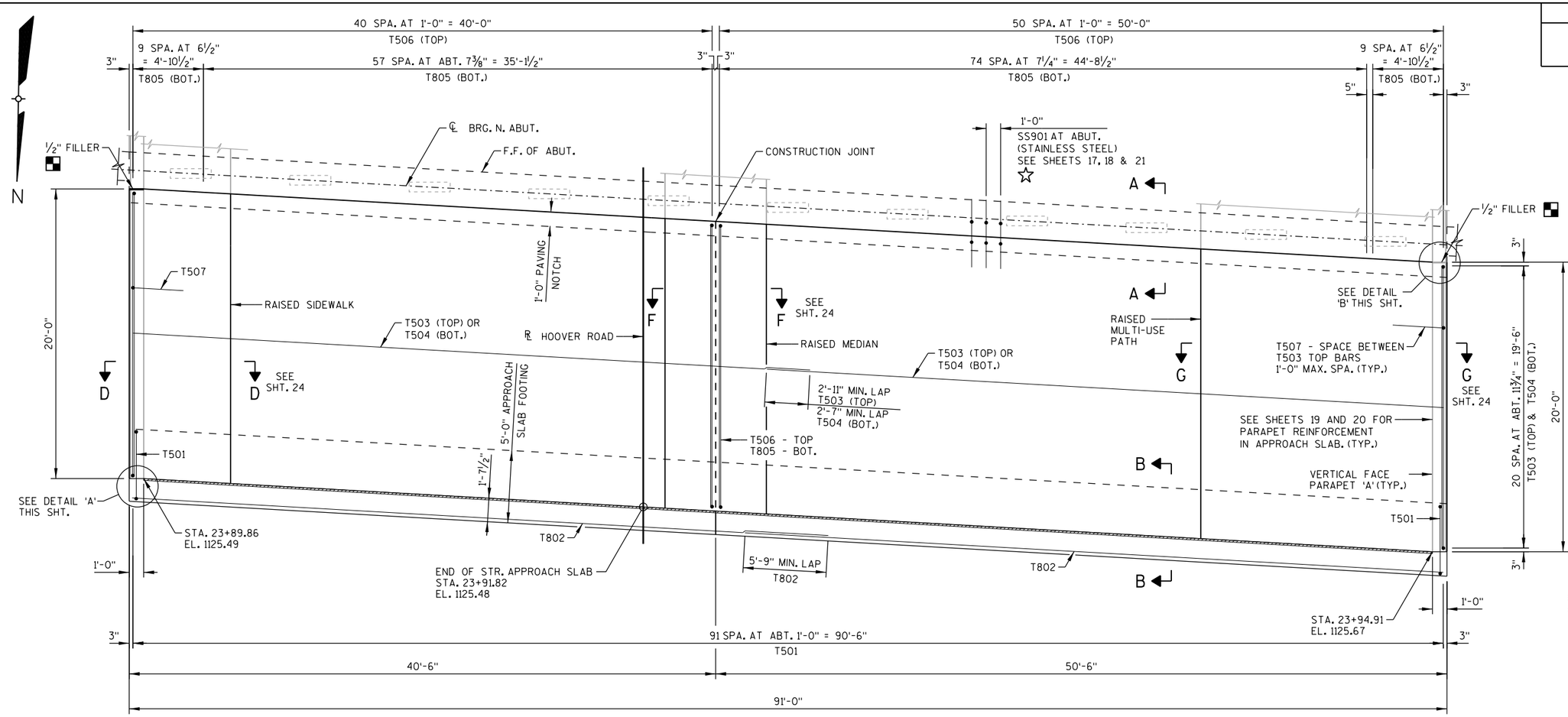
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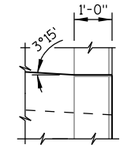
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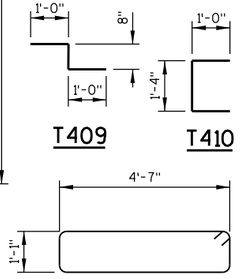


PLAN VIEW

DETAIL A
SOUTHEAST CRNR. SIMILIAR



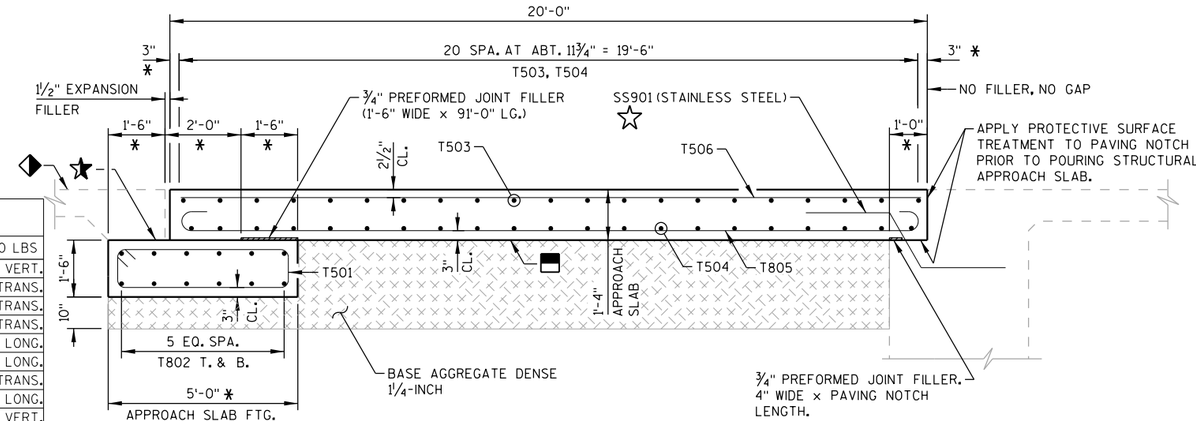
DETAIL B
NORTHWEST CRNR. SIMILIAR



BILL OF BARS - NORTH APPROACH

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

MARK	NO. REQD	LENGTH	BENT	LOCATION
COATED BARS				TOTAL WEIGHT = 20,300 LBS
T501	92	12 - 0	X	APPROACH SLAB FOOTING - STIRRUP VERT.
T802	24	48 - 3		APPROACH SLAB FOOTING TRANS.
T503	42	46 - 11		APPROACH SLAB - TOP TRANS.
T504	42	46 - 9		APPROACH SLAB - BOTTOM TRANS.
T805	152	21 - 4	X	APPROACH SLAB - BOTTOM LONG.
T506	92	19 - 8		APPROACH SLAB - TOP LONG.
T507	40	4 - 1	X	APPROACH SLAB - TOP TRANS.
T408	39	19 - 8		APPROACH SLAB - RAISED SIDEWALK/MULTI-USE PATH/MEDIAN LONG.
T409	42	2 - 6	X	APPROACH SLAB - RAISED SIDEWALK/MULTI-USE PATH VERT.
T410	42	3 - 2	X	APPROACH SLAB - RAISED SIDEWALK/MULTI-USE PATH VERT.
T511	21	16 - 6		APPROACH SLAB - RAISED MULTI-USE PATH TRANS.
T412	14	6 - 6		APPROACH SLAB - RAISED MEDIAN TRANS.
T513	21	6 - 6		APPROACH SLAB - RAISED SIDEWALK TRANS.



SECTION B - B

SECTION THRU APPROACH SLAB
* DIMENSIONS MEASURED NORMAL TO ABUTMENT

SECTION A - A

NOTES

SEE SHEETS 19, 20 AND 24 FOR SECTIONS D, F & G.

FOR SYMBOL DESCRIPTIONS SEE SHT. 24.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-49-181

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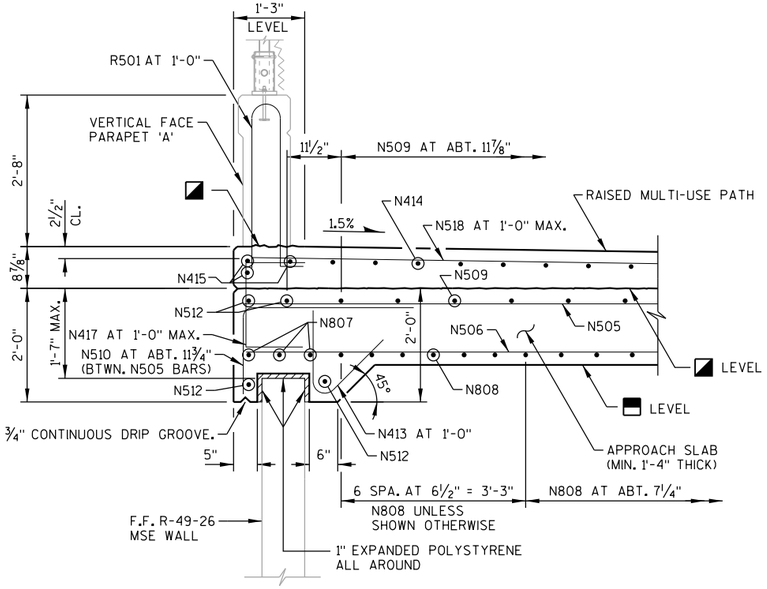
NORTH STRUCTURAL APPROACH SLAB

SHEET 23 OF 27
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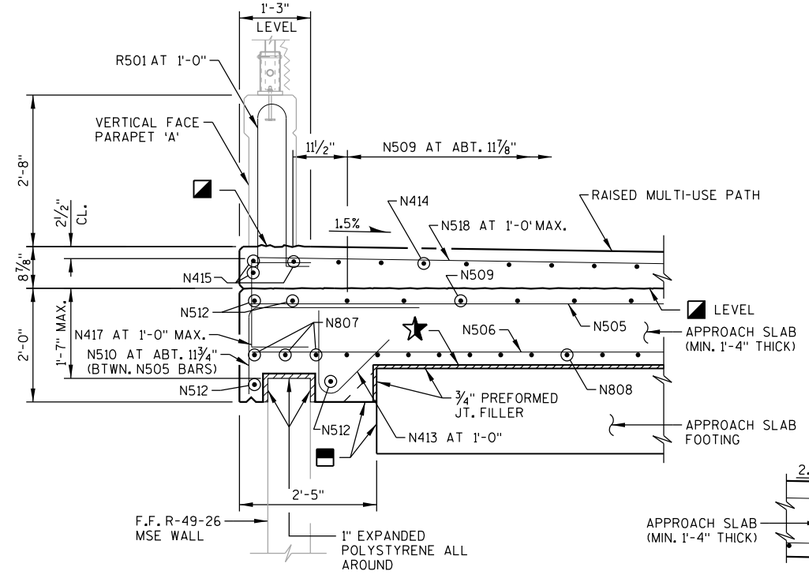
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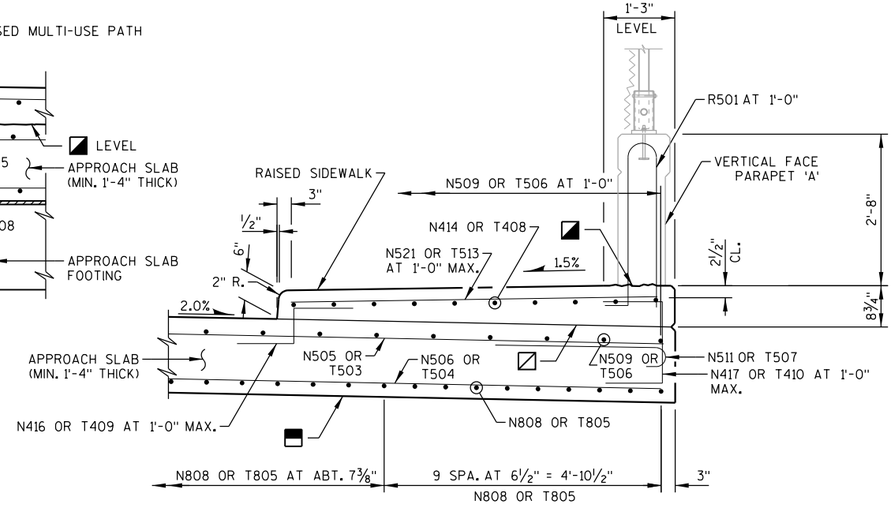
SECTION C - C

SOUTH APPROACH
(LOOKING NORTH)



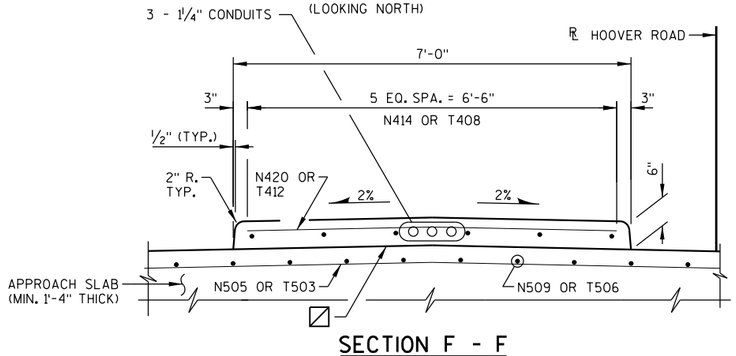
SECTION E - E

SOUTH APPROACH
(LOOKING NORTH)



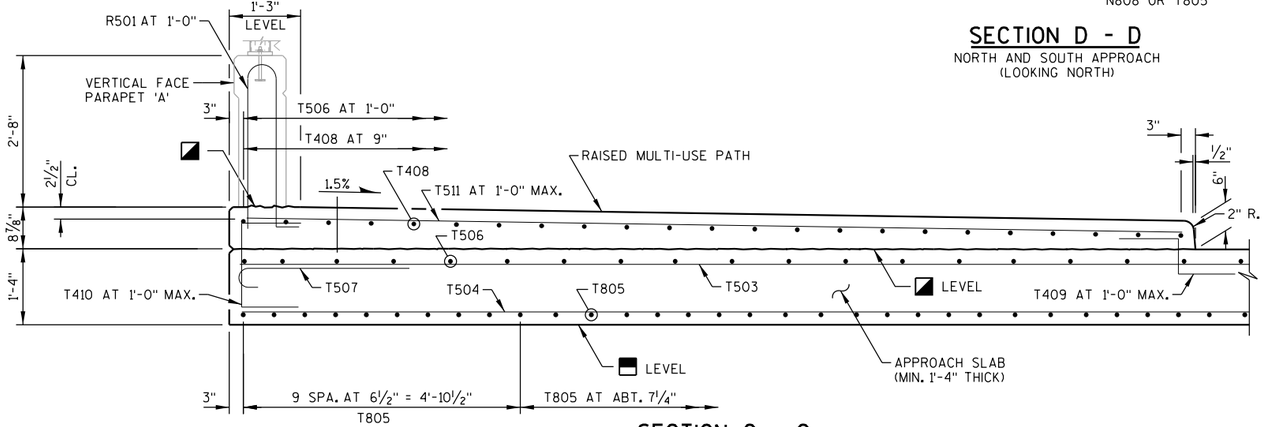
SECTION D - D

NORTH AND SOUTH APPROACH
(LOOKING NORTH)



SECTION F - F

NORTH AND SOUTH APPROACH
(LOOKING NORTH)

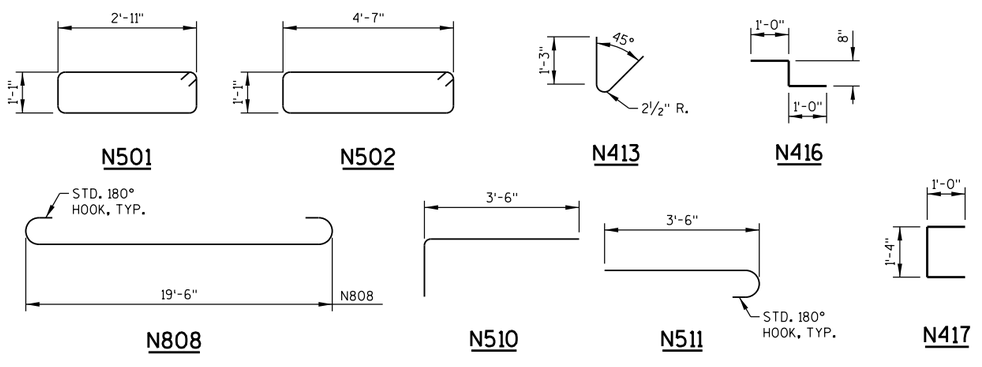


SECTION G - G

NORTH APPROACH
(LOOKING NORTH)

LEGEND

- ★ STEEL TROWEL TOP SURFACE OF FOOTING AND PLACE MULTIPLE LAYERS (0.03" MIN. TOTAL THK.) OF POLYETHLENE SHEETS OVER THE ENTIRE TOP OF FOOTING.
- ▬ PLACE MULTIPLE LAYERS (0.03" MIN. TOTAL THK.) OF POLYETHLENE SHEETS OVER THE ENTIRE TOP OF SUBGRADE.
- ▪ SEAL ALL EXPOSED HORIZ. AND VERT. SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE).
- ◑ SEE SHEET 20 FOR LOCATION OF NAME PLATE AND BENCH MARK WITH RESPECT TO THE END OF PARAPET.
- ◆ CONCRETE PAVEMENT APPROACH SLAB. SEE ROADWAY PLANS FOR DETAILS.
- ▨ CONST. JOINT - STRIKE OFF AS SHOWN AND LEAVE ROUGH. FOR APPROACH SLAB POUR, MATCH BRIDGE X-SLOPE. DO NOT APPLY PROTECTIVE SURFACE TREATMENT TO THIS AREA.
- ◢ LEVEL CONSTRUCTION JOINT - STRIKE OFF AS SHOWN AND LEAVE ROUGH. DO NOT APPLY PROTECTIVE SURFACE TREATMENT TO THIS AREA.
- ☆ THE BID ITEM FOR SS901 SHALL BE STANDARD SPECIAL PROVISION "BAR STEEL REINFORCEMENT HS STAINLESS STRUCTURES".



BAR DETAILS FOR SOUTH STRUCTURAL APPROACH SLAB

SEE SHT. 22 FOR BILL OF BARS

NOTES

FOR RAISED MULTI-USE PATH AND RAISED SIDEWALK REINFORCING SEE SHT. 19.

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-49-181

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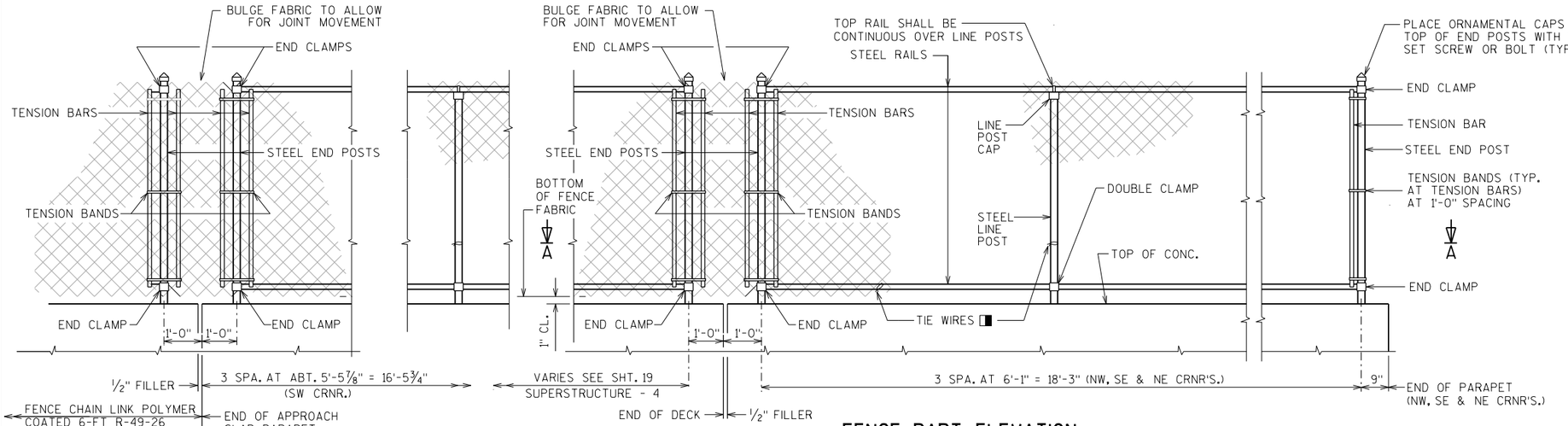
STRUCTURAL APPROACH SLAB DETAILS

SHEET 24 OF 27
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STATE PROJECT NUMBER

6998-11-71



SW CORNER

FENCE PART ELEVATION

(VIEWING FABRIC SIDE)

GENERAL NOTES

POSTS ARE TO BE SET VERTICAL.

ALL FENCE COMPONENTS SHALL BE GALVANIZED STEEL WITH A COLORED POLYMER-COATING ON THE OUTSIDE.

FABRIC SHALL CONFORM TO ASTM F668, CLASS 2B. STEEL RAILS, POSTS AND POST SLEEVES SHALL CONFORM TO ASTM F1083, STANDARD WEIGHT PIPE (SCHEDULE 40). FITTINGS SHALL CONFORM TO ASTM F626. SEE THE "BRIDGE SPECIAL PROVISIONS" FOR ADDITIONAL DETAILS.

THE COLOR OF POLYMER-COATING FOR THIS STRUCTURE SHALL BE BLACK (FEDERAL COLOR NUMBER 27038), IN ACCORDANCE WITH ASTM F934.

THE BID ITEM SHALL BE "FENCE CHAIN LINK POLYMER-COATED 6-FT.", LF.

COMPLETE ANY REQUIRED WELDING OF COMPONENTS BEFORE GALVANIZING.

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.

BASE PLATES, ANCHOR PLATES AND SHIMS SHALL BE ASTM A709, GRADE 36.

ALL POST SPACINGS ARE MEASURED HORIZONTALLY BETWEEN THE C/L OF THE POSTS.

◪ CAULK AROUND PERIMETER OF BASE PLATE AND FILL PORTION OF SLOTTED HOLE AROUND ANCHOR BOLT IN SHIM WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

✳ ALTERNATE TO DOUBLE CLAMP: USE LINE RAIL CLAMP (BOULEVARD) OR 180° BRACE BAND, WHICH MAY BE USED WHEN THE POSTS ARE EITHER BOLTED TO THE POST SLEEVES OR DIRECTLY WELDED TO THE BASE PLATE.

◭ ½" DIA. X 6⅞" LONG GALVANIZED HEX BOLT WITH NUT & WASHER. TYPE "S", ½" DIA. CONCRETE MASONRY ANCHORS (ADHESIVE ONLY) MAY BE SUBSTITUTED FOR ½" DIA. BOLTS. ANCHOR PLATE NOT REQUIRED WHEN TYPE "S" ANCHORS ARE USED. SEE ☆

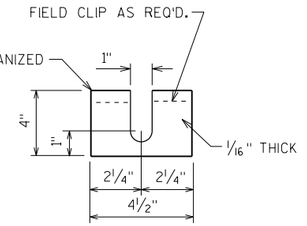
☆ MASONRY ANCHOR TYPE S ½-INCH (ADHESIVE ONLY). EMBED 6" IN CONCRETE. ANCHOR, WASHER, AND NUT SHALL BE GALVANIZED.

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MINIMUM LENGTH OF TOP RAIL BETWEEN SPLICES SHALL BE 20'-0". LOCATE SPLICES NEAR ¼ POINT OF POST SPACING.

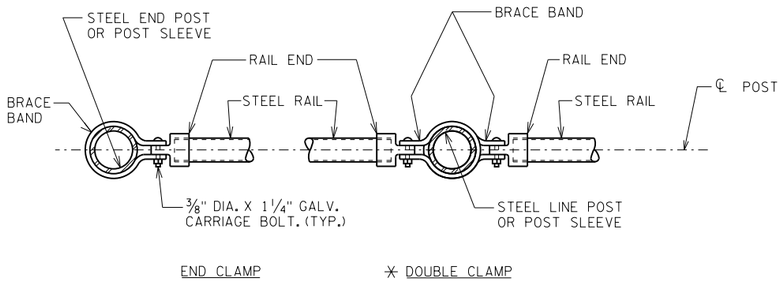
FENCE MEMBER SIZE & WEIGHT

STEEL FENCE MEMBER	OUTSIDE DIAMETER (INCHES)	WEIGHT (LB/FT)
RAILS	1.660	2.27
END POST	2.875	5.80
OVERHANG POST	2.875	5.80
LINE POST	2.375	3.65
POST SLEEVE	4.000	9.12



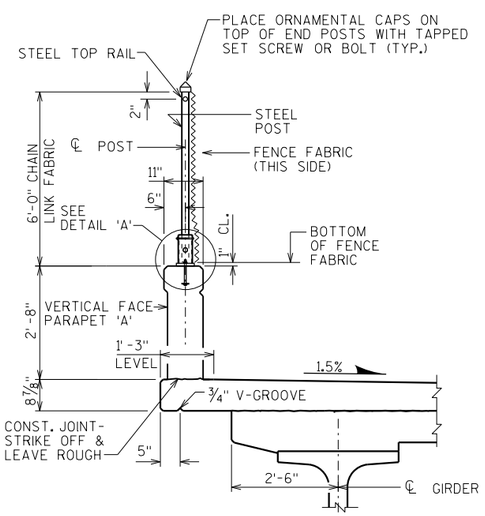
POST SHIM DETAILS

SHIMS REQUIRED ONLY WHEN END POSTS AND LINE POSTS ARE WELDED TO BASE PLATES. PROVIDE 4 SHIMS PER POST. USE WHERE REQUIRED FOR ALIGNMENT.

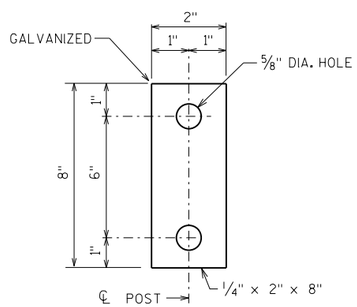


SECTION A-A

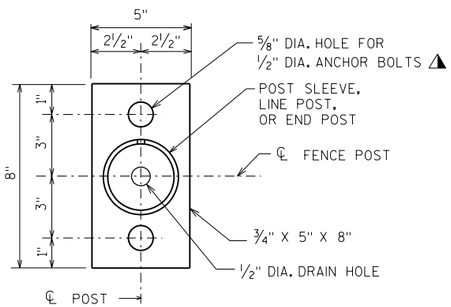
NOTE: PLACE ALL BOLT HEADS ON SIDE OF FENCE ADJACENT TO PEDESTRIANS



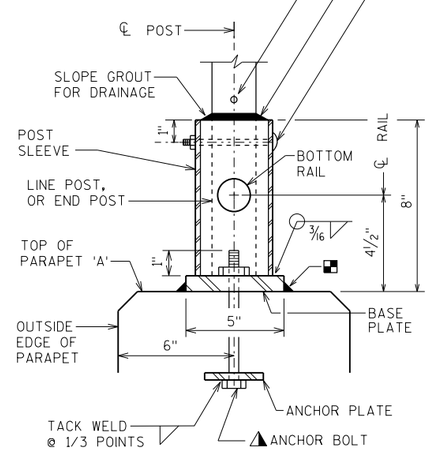
SECTION THRU FENCE



ANCHOR PLATE



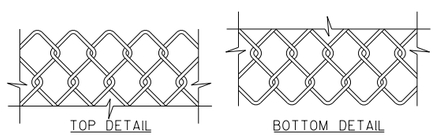
BASE PLATE



DETAIL 'A'

UNIT SHALL BE GALVANIZED AFTER FABRICATION

NOTE: IN LIEU OF USING THE POST SLEEVE, THE FENCE POST MAY BE WELDED TO THE BASE PLATE.



FENCE FABRIC

FENCE FABRIC WOVEN OF 9-GAGE WIRE IN 2" DIAMOND PATTERN MESH WITH BOTH THE TOP AND BOTTOM SELVAGES KNUCKLED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-49-181

DRAWN BY KAM | PLANS CK'D. CAB

CHAIN LINK FENCE 6-FT DETAILS

SHEET 25 OF 27

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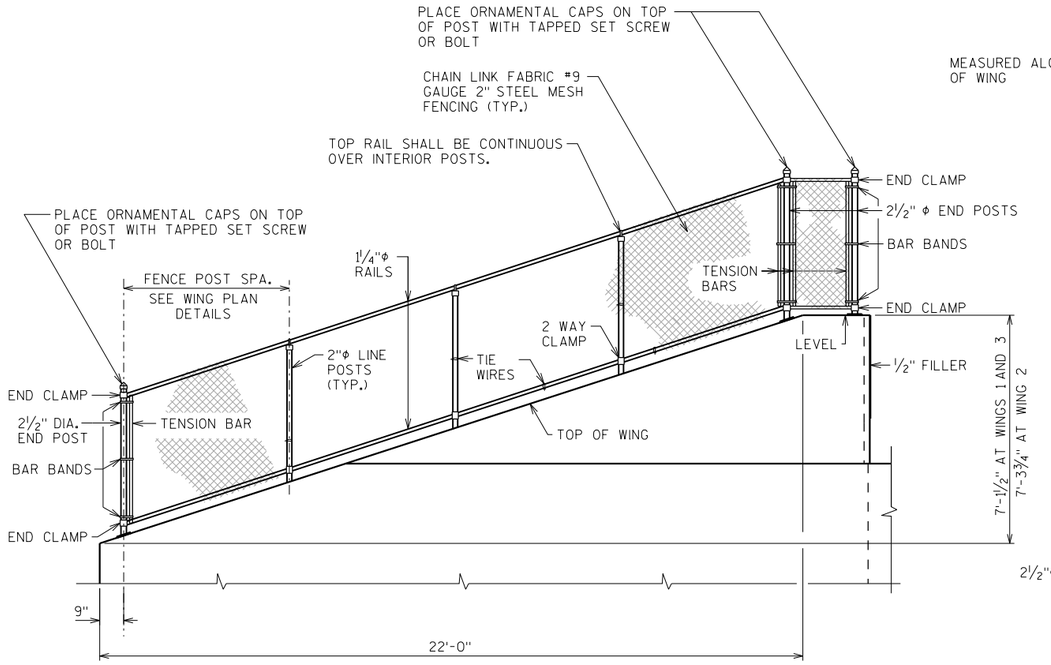
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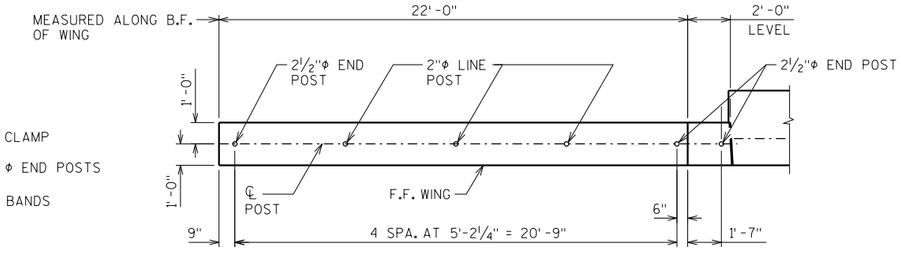
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BATCH PRINT SHEET 26 OF 27

STATE PROJECT NUMBER

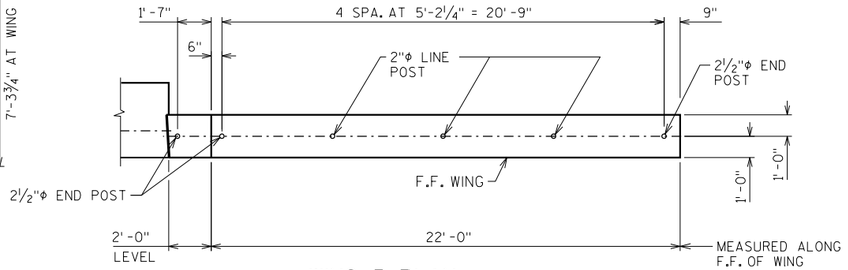
6998-11-71



PARTIAL ELEVATION OF ABUT. WING AND FENCE



WING 1 & 2 PLAN



WING 3 PLAN

GENERAL NOTES

POSTS ARE TO BE SET VERTICAL.

ALL FENCE COMPONENTS SHALL BE GALVANIZED STEEL WITH A COLORED POLYMER-COATING ON THE OUTSIDE.

FABRIC SHALL CONFORM TO ASTM F668, CLASS 2B. STEEL RAILS, POSTS AND POST SLEEVES SHALL CONFORM TO ASTM F1083, STANDARD WEIGHT PIPE (SCHEDULE 40). FITTINGS SHALL CONFORM TO ASTM F626. SEE THE "BRIDGE SPECIAL PROVISIONS" FOR ADDITIONAL DETAILS.

THE COLOR OF POLYMER-COATING FOR THIS STRUCTURE SHALL BE BLACK (FEDERAL COLOR NUMBER 27038), IN ACCORDANCE WITH ASTM F934.

THE BID ITEM SHALL BE "FENCE CHAIN LINK POLYMER-COATED 4-FT.", LF.

COMPLETE ANY REQUIRED WELDING OF COMPONENTS BEFORE GALVANIZING.

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.

BASE PLATES, ANCHOR PLATES AND SHIMS SHALL BE ASTM A709, GRADE 36.

ALL POST SPACINGS ARE MEASURED HORIZONTALLY BETWEEN THE C/L OF THE POSTS.

◪ CAULK AROUND PERIMETER OF BASE PLATE AND FILL PORTION OF SLOTTED HOLE AROUND ANCHOR BOLT IN SHIM WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

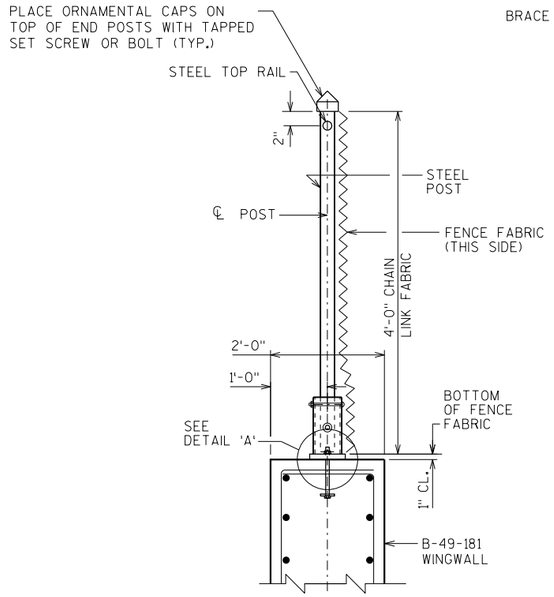
✳ ALTERNATE TO DOUBLE CLAMP: USE LINE RAIL CLAMP (BOULEVARD) OR 180° BRACE BAND, WHICH MAY BE USED WHEN THE POSTS ARE EITHER BOLTED TO THE POST SLEEVES OR DIRECTLY WELDED TO THE BASE PLATE.

⚠ ½" DIA. X 6⅞" LONG GALVANIZED HEX BOLT WITH NUT & WASHER. TYPE "S", ½" DIA. CONCRETE MASONRY ANCHORS (ADHESIVE ONLY) MAY BE SUBSTITUTED FOR ½" DIA. BOLTS. ANCHOR PLATE NOT REQUIRED WHEN TYPE "S" ANCHORS ARE USED. SEE ☆

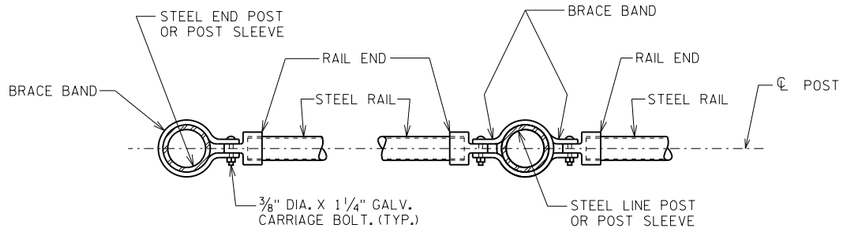
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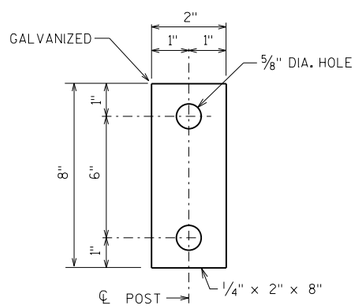


SECTION THRU FENCE

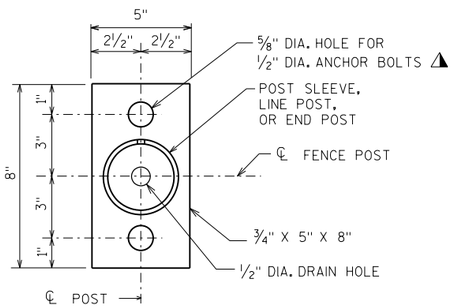


PARTIAL PLAN OF FENCE

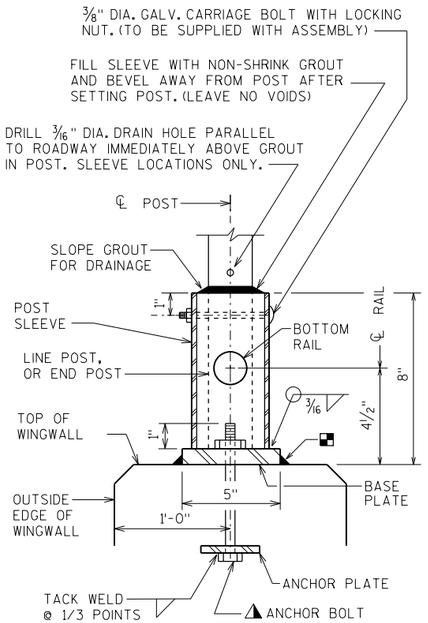
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ANCHOR PLATE



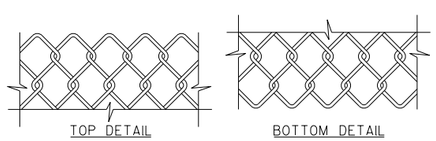
BASE PLATE



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FENCE FABRIC

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STATE OF WISCONSIN
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STRUCTURE B-49-181

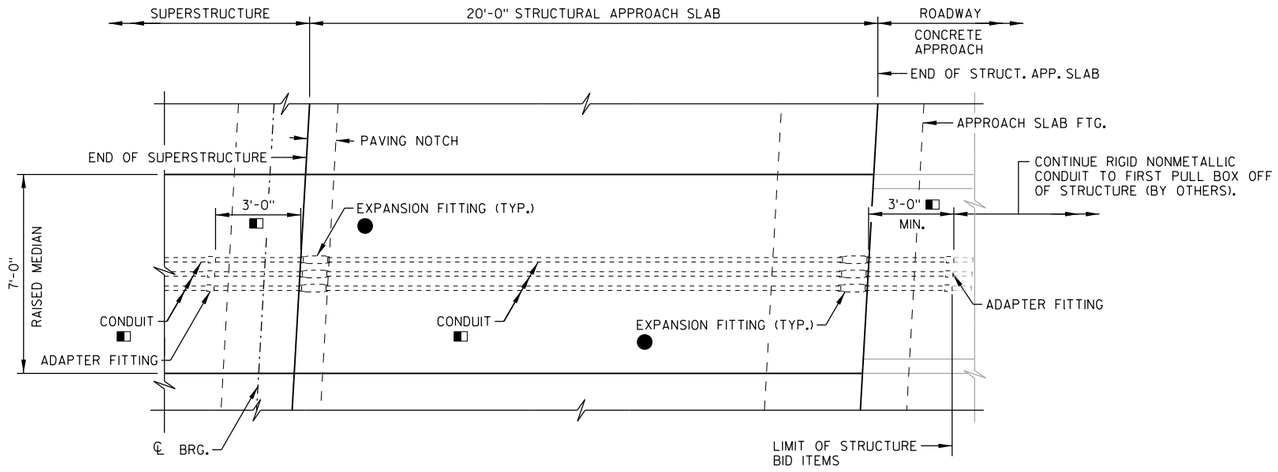
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CHAIN LINK FENCE 4-FT DETAILS

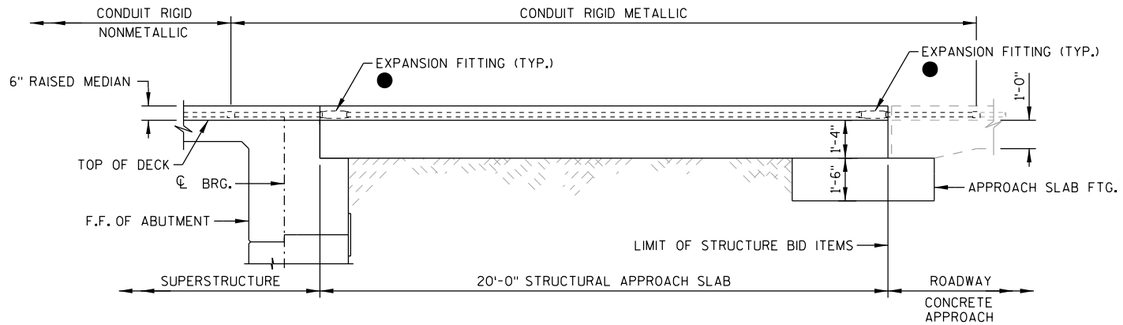
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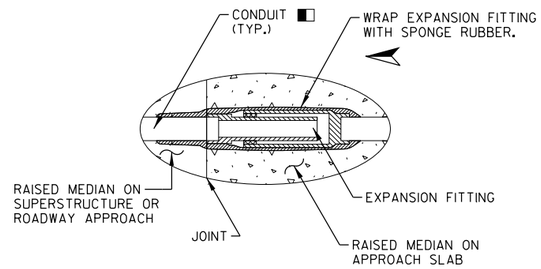
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BATCH PRINT SHEET 27 OF 27



TYPICAL PLAN OF MEDIAN AT APPROACH SLAB



OUTSIDE OF MEDIAN AT APPROACH SLAB



EXPANSION DETAIL

LEGEND

- SPONGE RUBBER WRAP TO BE AASHTO M153 TYPE 1 OR EQUIVALENT - 1/4" MINIMUM THICKNESS. SPONGE RUBBER WRAP INCIDENTAL TO "CONDUIT RIGID METALLIC 1 1/4-INCH".
- POSITION MOVABLE END OF CONDUIT INSIDE EXPANSION FITTING, SUCH THAT IT WILL HAVE THE SAME ALLOWANCE FOR MOVEMENT (EXPANSION/CONTRACTION) AS THE EXPANSION DEVICE SET IN PLACE IN THE DECK BELOW IT. TAKE CARE TO INSTALL EXPANSION FITTING AND CONDUIT EXACTLY PARALLEL TO BRIDGE MOVEMENT.
- USE 1 1/4" DIA. RIGID NONMETALLIC CONDUIT EXCEPT AT EXPANSION FITTING. AT EXPANSION FITTING USE RIGID METALLIC CONDUIT 3'-0" INTO RAISED MEDIAN ON THE SUPERSTRUCTURE AND ROADWAY CONCRETE APPROACH SIDES OF THE JOINT OPENINGS. USE RIGID METALLIC CONDUIT BETWEEN EXPANSION FITTINGS ON STRUCTURAL APPROACH SLAB.

NOTES

BID ITEMS SHALL BE:

"CONDUIT RIGID NONMETALLIC SCHEDULE 40 1 1/4-INCH"
"CONDUIT RIGID METALLIC 1 1/4-INCH"

EXPANSION FITTINGS, ANGLES AND ADAPTER FITTINGS TO BE INCIDENTAL TO "CONDUIT RIGID METALLIC 1 1/4-INCH".

WHEN CONNECTING NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS U.L. OR NRTL LISTED FOR ELECTRICAL USE SHALL BE USED.

APPROVED MANUFACTURER OR EQUIVALENT - EXPANSION FITTING: O-Z/GEDNEY TYPE AX-125 AND BONDING JUMPER (4" TOTAL CONDUIT MOVEMENT).

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-49-181

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CONDUIT DETAILS

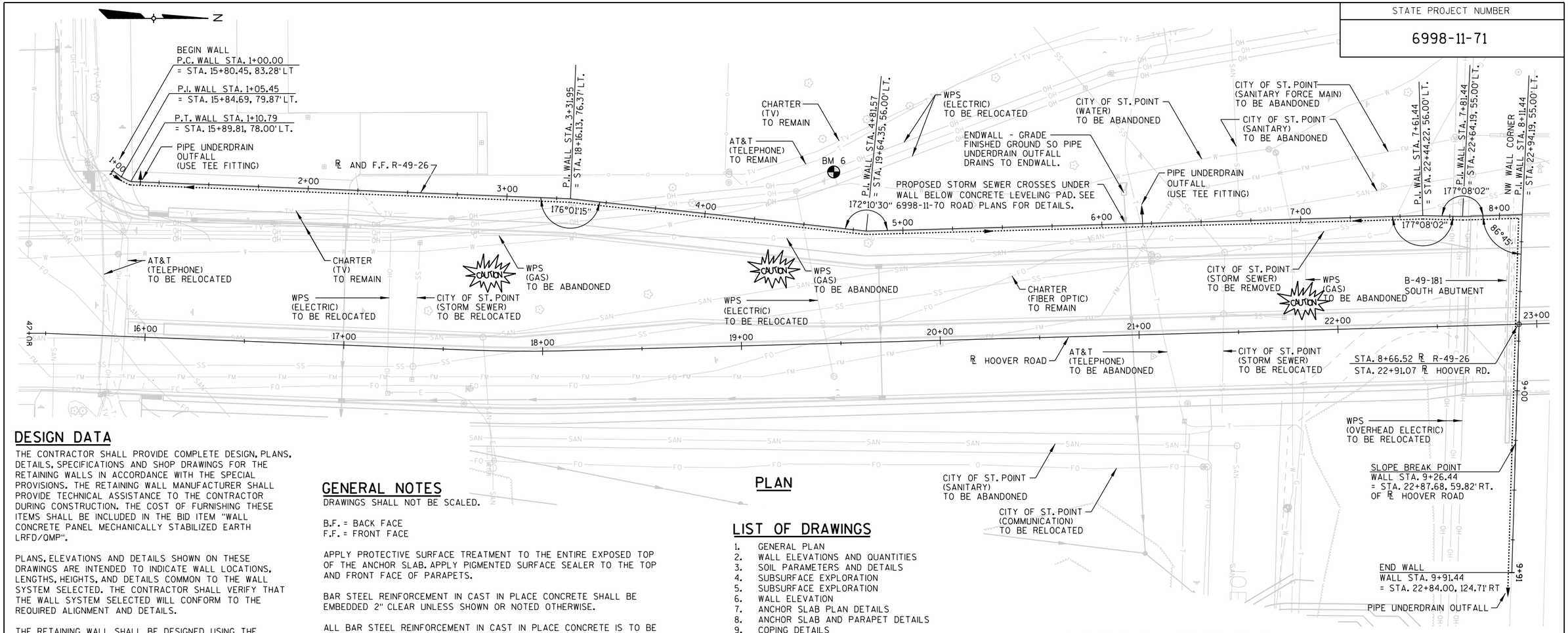
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PLOT DATE: 9/27/2016
BATCH PRINT SHEET 1 OF 12

STATE PROJECT NUMBER
6998-11-71



PLAN

DESIGN DATA

THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN, PLANS, DETAILS, SPECIFICATIONS AND SHOP DRAWINGS FOR THE RETAINING WALLS IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE RETAINING WALL MANUFACTURER SHALL PROVIDE TECHNICAL ASSISTANCE TO THE CONTRACTOR DURING CONSTRUCTION. THE COST OF FURNISHING THESE ITEMS SHALL BE INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP".

PLANS, ELEVATIONS AND DETAILS SHOWN ON THESE DRAWINGS ARE INTENDED TO INDICATE WALL LOCATIONS, LENGTHS, HEIGHTS, AND DETAILS COMMON TO THE WALL SYSTEM SELECTED. THE CONTRACTOR SHALL VERIFY THAT THE WALL SYSTEM SELECTED WILL CONFORM TO THE REQUIRED ALIGNMENT AND DETAILS.

THE RETAINING WALL SHALL BE DESIGNED USING THE ELEVATIONS GIVEN ON THIS PLAN.

DESIGN FOR RETAINING WALL TO PROVIDE FOR FINISHED GRADE SLOPED IN FRONT OF AND BEHIND THE WALL, AS SHOWN.

COORDINATE THE LOCATION OF THE RETAINING WALL REINFORCEMENT STRAPS WITH B-49-181 PILE SLEEVE LOCATIONS.

THE MAXIMUM VALUE OF THE ANGLE OF INTERNAL FRICTION OF THE WALL BACKFILL MATERIAL IN THE REINFORCED ZONE SHALL BE ASSUMED TO BE 30 DEGREES WITHOUT CERTIFIED TEST VALUES.

DESIGN RETAINING WALL FOR A LIVE LOAD SURCHARGE OF 240 PSF.

DESIGN THE MSE WALL IN FRONT OF THE ABUTMENT BODY TO RESIST THE FORCE FROM ALL HORIZONTAL EARTH PRESSURE ACTING ON THE BACK OF THE ABUTMENT BELOW THE BEAM SEATS.

ONLY PANELS OF STD. SIZE 5FT. x 5FT. SHALL BE USED FOR THIS RETAINING WALL. 5FT. x 10FT. PANELS ARE NOT ALLOWED.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

B.F. = BACK FACE
F.F. = FRONT FACE

APPLY PROTECTIVE SURFACE TREATMENT TO THE ENTIRE EXPOSED TOP OF THE ANCHOR SLAB. APPLY PIGMENTED SURFACE SEALER TO THE TOP AND FRONT FACE OF PARAPETS.

BAR STEEL REINFORCEMENT IN CAST IN PLACE CONCRETE SHALL BE EMBEDDED 2" CLEAR UNLESS SHOWN OR NOTED OTHERWISE.

ALL BAR STEEL REINFORCEMENT IN CAST IN PLACE CONCRETE IS TO BE EPOXY COATED.

A NAME PLATE SHALL BE PLACED AS DIRECTED BY THE ENGINEER. CENTER NAME PLATE ON COPING.

A GEOTECHNICAL REPORT HAS BEEN PREPARED FOR THIS STRUCTURE AND IS AVAILABLE UPON REQUEST FROM WISDOT'S NC REGION LOCAL PROGRAM MANAGEMENT CONSULTANT.

THE PLAN QUANTITY FOR THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP" IS BASED ON WALL HEIGHT MEASURED FROM THE TOP OF WALL TO A CONSTANT DEPTH OF 1'-6" BELOW FINISHED GROUND FROM WALL STA. 1+00.00 TO 7+85.65 AND A CONSTANT DEPTH OF 2'-6" BELOW FINISHED GROUND FROM WALL STA. 7+85.65 TO 9+91.44.

THE QUANTITY OF CONCRETE MASONRY AND BAR STEEL REINFORCEMENT FOR THE CAST-IN-PLACE ANCHOR SLAB AND PARAPETS ARE PAID UNDER THE BID ITEMS "CONCRETE MASONRY RETAINING WALLS" AND "BAR STEEL REINFORCEMENT HS COATED STRUCTURES".

THE STANDARD COPING, INCLUDING REINFORCEMENT, IS INCLUDED WITH THE ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP".

BEVEL EXPOSED EDGES OF CONCRETE ¾-INCH, UNLESS OTHERWISE NOTED.

SETTLEMENT OF THE EXISTING GROUND IS ESTIMATED TO BE BETWEEN 1" AT THE MINIMUM WALL HEIGHT AND 4" AT THE MAXIMUM WALL HEIGHT. SETTLEMENT IS ANTICIPATED TO OCCUR IMMEDIATELY AS FILL IS PLACED.

BENCH MARK TABLE

NO.	STATION	DESCRIPTION	ELEVATION
9	13+38 LT	TOP OF PS (HYD) ON WEST SIDE OF HOOVER ROAD 150'± SOUTH OF INDUSTRIAL PARK ROAD	1096.81
6	19+49 LT	TOP OF PS (HYD) ON WEST SIDE OF HOOVER ROAD 100'± SOUTH OF JOERNS DRIVE	1096.60
4	23+91 LT	60d SPIKE IN PP #2408 34R 44 @ NW CRNR. OF COUNTRY CLUB DRIVE AND RR TRACKS	1095.92

LIST OF DRAWINGS

1. GENERAL PLAN
2. WALL ELEVATIONS AND QUANTITIES
3. SOIL PARAMETERS AND DETAILS
4. SUBSURFACE EXPLORATION
5. SUBSURFACE EXPLORATION
6. WALL ELEVATION
7. ANCHOR SLAB PLAN DETAILS
8. ANCHOR SLAB AND PARAPET DETAILS
9. COPING DETAILS
10. PIPE RAILING
11. CHAIN LINK FENCE DETAILS AT COPING
12. CHAIN LINK FENCE DETAILS AT ANCHOR SLAB

WISCONSIN
KEVIN R. HAGEN
E-38866
STEVENS POINT
WI
PROFESSIONAL ENGINEER

9/27/2016

MATERIAL PROPERTIES

CONCRETE MASONRY COPING, ANCHOR SLAB AND PARAPET — f'c= 4,000 P.S.I.

HIGH-STRENGTH BAR STEEL REINFORCEMENT, GRADE 60 — fy= 60,000 P.S.I.

PRECAST WALL PANELS — f'c= 4,000 P.S.I.

ALLOWABLE WALL SYSTEMS

1. WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD

CURVE DATA: HOOVER ROAD

P.I. = 17+89.28
Y = 198,480.39
X = 177,511.22
DELTA = 3° 50' 44"
D = 7° 29' 23"
T = 25.68'
L = 51.35'
R = 765.00'
P.C. = 17+63.59
P.T. = 18+14.94

CURVE DATA: WALL R-49-26

P.I. = 1+05.45
Y = 198,278.17
X = 177,425.55
DELTA = 18° 44' 23"
D = 173° 37' 25"
T = 5.45'
L = 10.79'
R = 33.00'
P.C. = 1+00.00
P.T. = 1+10.79

LEGEND

PIPE UNDERDRAIN WRAPPED 6-INCH

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
BILL DREHER (608) 266-8489

CONSULTANT:
KEVIN HAGEN (715) 342-3053
AECOM PROJECT NO. 60334255

NO.	DATE	REVISION	BY

AECOM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher SDR 10/03/16
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE R-49-26

SOUTH ABUTMENT WALL: STRUCTURE B-49-181

COUNTY	~~TOWN~~/CITY/~~VILLAGE~~
PORTAGE	STEVENS POINT

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	CAB	DESIGN CK'D.	KRH	DRAWN BY	KAM	PLANS CK'D.	CAB

GENERAL PLAN

SHEET 1 OF 12
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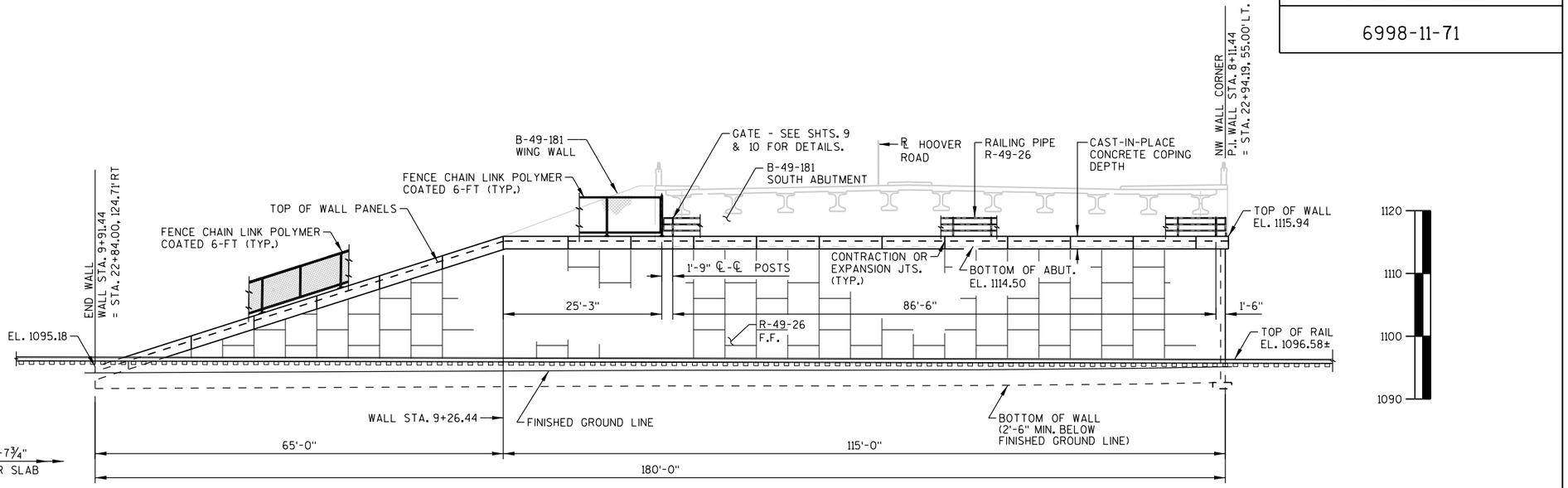
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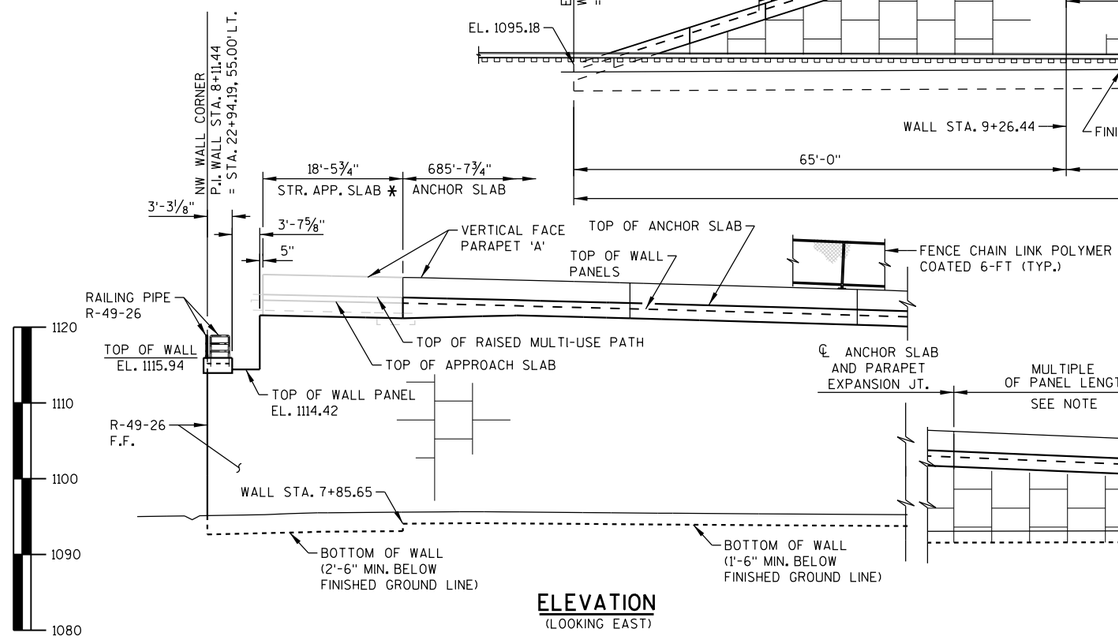
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STATE PROJECT NUMBER

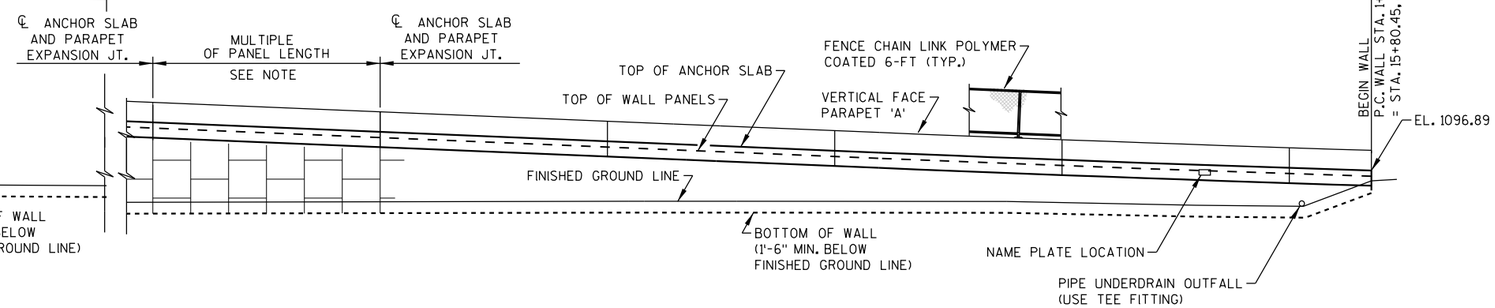
6998-11-71



ELEVATION
(LOOKING SOUTH)



ELEVATION
(LOOKING EAST)



DIMENSIONS ARE ALONG F.F. OF WALL

* STRUCTURAL APPROACH SLAB COPING AND PARAPET PAID FOR SEPARATELY UNDER STRUCTURE B-49-181.

NOTE

ALL EXPANSION JOINTS MUST COINCIDE WITH PANEL JOINT ON FRONT FACE.

SEE SHT. 7 FOR ANCHOR SLAB EXPANSION JOINT DETAIL.

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEM	UNIT	TOTALS
502.3200	PROTECTIVE SURFACE TREATMENT	SY	60
502.3210	PIGMENTED SURFACE SEALER	SY	275
504.0500	CONCRETE MASONRY RETAINING WALLS	CY	305
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	30,840
513.2001	RAILING PIPE R-49-26	LF	96
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	46
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	930
SPV.0090.21	FENCE CHAIN LINK POLYMER COATED 6-FT	LF	780
SPV.0165.21	WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP	SF	16,840
	NON-BID ITEMS		
	EXPANDED POLYSTYRENE	SIZE	1"
	FILLER	SIZE	3/4"

TABLE OF ELEVATIONS

WALL STATION	MAINLINE STATION	MAINLINE OFFSET	TOP OF WALL ELEVATION	FINISHED GROUND ELEVATION
1+00.00	15+80.45	83.28' LT	1096.89	1095.89
1+10.79	15+89.81	78.00' LT	1097.18	1092.55
1+25.00	16+04.01	78.00' LT	1097.65	1092.68
1+50.00	16+29.01	78.00' LT	1098.55	1093.18
1+75.00	16+54.01	78.00' LT	1099.55	1093.27
2+00.00	16+79.01	78.00' LT	1100.59	1093.20
2+25.00	17+04.01	78.00' LT	1101.63	1093.04
2+50.00	17+29.01	78.00' LT	1102.67	1092.88
2+75.00	17+54.01	78.00' LT	1103.70	1092.89
3+00.00	17+80.76	77.83' LT	1104.80	1092.98
3+25.00	18+08.55	76.81' LT	1105.93	1093.23
3+31.95	18+16.13	76.37' LT	1106.24	1093.30
3+50.00	18+34.01	73.91' LT	1106.97	1093.30
3+75.00	18+58.78	70.51' LT	1108.04	1093.48
4+00.00	18+83.54	67.11' LT	1109.10	1094.11
4+25.00	19+08.31	63.70' LT	1110.16	1094.08
4+50.00	19+33.08	60.30' LT	1111.23	1094.41
4+75.00	19+57.84	56.89' LT	1112.31	1095.17
4+81.57	19+64.35	56.00' LT	1112.67	1095.21
5+00.00	19+82.78	56.00' LT	1113.44	1095.25
5+25.00	20+07.78	56.00' LT	1114.47	1095.38
5+50.00	20+32.78	56.00' LT	1115.51	1094.76
5+75.00	20+57.78	56.00' LT	1116.55	1094.64
6+00.00	20+82.78	56.00' LT	1117.59	1094.65

WALL STATION	MAINLINE STATION	MAINLINE OFFSET	TOP OF WALL ELEVATION	FINISHED GROUND ELEVATION
6+25.00	21+07.78	56.00' LT	1118.62	1094.42
6+50.00	21+32.78	56.00' LT	1119.67	1094.58
6+75.00	21+57.78	56.00' LT	1120.66	1094.82
7+00.00	21+82.78	56.00' LT	1121.56	1095.16
7+25.00	22+07.78	56.00' LT	1122.37	1095.41
7+50.00	22+32.78	56.00' LT	1123.10	1095.44
7+61.44	22+44.22	56.00' LT	1123.41	1095.54
7+75.00	22+57.77	55.32' LT	1123.70	1095.65
7+81.44	22+64.19	55.00' LT	1123.84	1095.69
7+85.65	22+68.41	55.00' LT	1123.93	1095.70
8+04.55	22+87.31	55.00' LT	1124.33	1095.26
8+04.55	22+87.31	55.00' LT	1114.42	1095.26
8+08.18	22+90.94	55.00' LT	1114.42	1095.18
8+08.18	22+90.94	55.00' LT	1115.94	1095.18
8+11.44	22+94.19	55.00' LT	1115.94	1095.14
8+25.00	22+93.43	41.46' LT	1115.94	1094.90
8+50.00	22+92.01	16.50' LT	1115.94	1094.79
8+75.00	22+90.59	08.46' RT	1115.94	1094.68
9+00.00	22+89.18	33.42' RT	1115.94	1094.58
9+25.00	22+87.76	58.38' RT	1115.94	1094.47
9+26.44	22+87.68	59.82' RT	1115.94	1094.46
9+50.00	22+86.35	83.34' RT	1108.41	1094.36
9+75.00	22+84.93	108.30' RT	1100.43	1094.25
9+91.44	22+84.00	124.71' RT	1095.18	1094.18

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

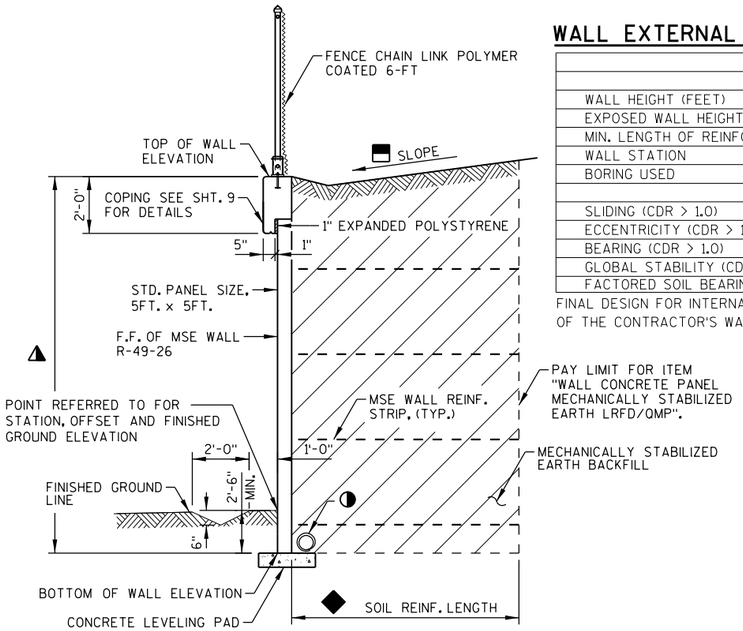
STRUCTURE R-49-26

DRAWN BY KAM | PLANS CK'D. CAB

WALL ELEVATIONS AND QUANTITIES

SHEET 2 OF 12
271

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BATCH PRINT SHEET 3 OF 12



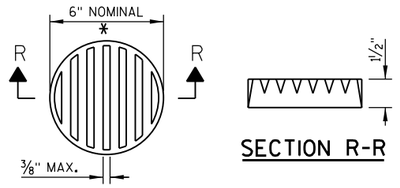
TYPICAL MSE WALL SECTION COPING WITH NO ABUTMENT

LOOKING EAST AT WALL STA. 9+50

WALL EXTERNAL STABILITY EVALUATION

DIMENSIONS						
	WEST WALL				ABUTMENT WALL	
WALL HEIGHT (FEET)	11.3	15.2	20.6	29.5	31.6	24.0
EXPOSED WALL HEIGHT (FEET)	9.8	13.7	19.1	28.0	29.1	21.5
MIN. LENGTH OF REINFORCEMENT (FEET)	9.0	11.0	15.0	21.0	23.0	20.0
WALL STATION	2+50	3+50	5+25	7+75	8+05	9+25
BORING USED	B2	B3	B4	B5	B5	BORING 2
CAPACITY TO DEMAND RATIO (CDR)						
SLIDING (CDR > 1.0)	1.2	1.2	1.3	1.4	1.4	1.3
ECCENTRICITY (CDR > 1.0)	1.6	1.6	1.6	1.8	1.8	1.7
BEARING (CDR > 1.0)	3.9	3.6	3.6	3.6	3.5	3.6
GLOBAL STABILITY (CDR > 1.0)	1.4	1.0	1.0	1.0	1.0	1.0
FACTORED SOIL BEARING RESISTANCE (PSF)	11,400	13,000	16,300	21,400	22,800	20,400

FINAL DESIGN FOR INTERNAL STABILITY AND EXTERNAL SLIDING AND ECCENTRICITY AT OTHER LOCATIONS IS THE RESPONSIBILITY OF THE CONTRACTOR'S WALL DESIGNER AND MAY DIFFER FROM VALUES IN TABLE.



SECTION R-R

RODENT SHIELD DETAIL

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

ORIENT SO SLOTS ARE VERTICAL.

THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE INCLUDED IN THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

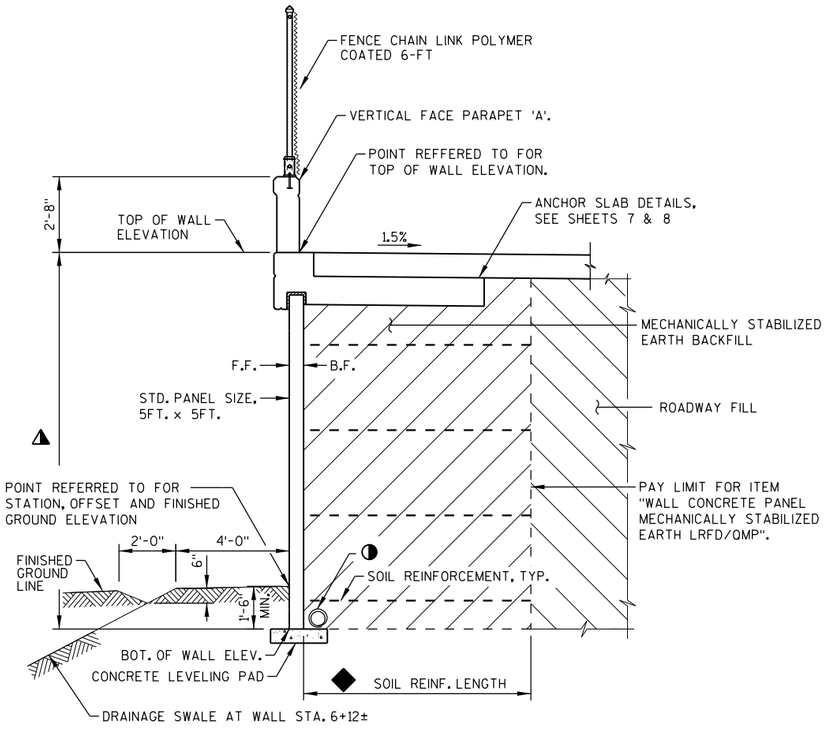
SOIL PARAMETERS

STRATUM LOCATIONS & SOIL DESCRIPTIONS	UNIT WEIGHT (PCF)	FRICTION ANGLE (DEGREES)	COHESION (PSF)
RETAINED SOIL EL. 1102.7 - EL. 1091.40 *	120	30	0
BORING B2			
EL. 1094.4 - EL. 1090.9 SAND, LOOSE (FILL)	120	32	0
EL. 1090.9 - EL. 1084.4 SAND, LOOSE, F-M	110	31	0
EL. 1084.4 - EL. 1069.4 SAND, LOOSE (WATER @ 1071.9)	110	30	0
STRATUM LOCATIONS & SOIL DESCRIPTIONS	**UNIT WEIGHT (PCF)**	**FRICTION ANGLE (DEGREES)**	**COHESION (PSF)**
RETAINED SOIL EL. 1107.0 - EL. 1091.8 *	120	30	0
BORING B3			
EL. 1094.3 - EL. 1087.3 SAND, LOOSE (FILL)	110	29	0
EL. 1087.3 - EL. 1059.3 SAND, LOOSE (WATER @ 1072.3)	110	30	0
STRATUM LOCATIONS & SOIL DESCRIPTIONS	**UNIT WEIGHT (PCF)**	**FRICTION ANGLE (DEGREES)**	**COHESION (PSF)**
RETAINED SOIL EL. 1114.5 - EL. 1093.9 *	120	30	0
BORING B4			
EL. 1094.8 - EL. 1081.3 SAND, LOOSE (FILL)	110	30	0
EL. 1081.3 - EL. 1060.8 SAND, LOOSE (WATER @ 1071.3)	110	30	0
EL. 1060.8 - EL. 1044.8 SAND, MEDIUM DENSE, FINE	115	33	0
STRATUM LOCATIONS & SOIL DESCRIPTIONS	**UNIT WEIGHT (PCF)**	**FRICTION ANGLE (DEGREES)**	**COHESION (PSF)**
RETAINED SOIL EL. 1122.4 - EL. 1093.9 *	120	30	0
BORING B5			
EL. 1095.8 - EL. 1092.3 SAND, MEDIUM DENSE (FILL)	110	30	0
EL. 1092.3 - EL. 1061.8 SAND, LOOSE (WATER @ 1071.8)	110	31	0
EL. 1061.8 - EL. 1045.8 SAND, MEDIUM DENSE, F-M	115	34	0
STRATUM LOCATIONS & SOIL DESCRIPTIONS	**UNIT WEIGHT (PCF)**	**FRICTION ANGLE (DEGREES)**	**COHESION (PSF)**
RETAINED SOIL EL. 1115.9 - EL. 1092.2 *	120	30	0
BORING 2			
EL. 1095.1 - EL. 1091.0 FINE - MEDIUM SAND (FILL)	112	40	0
EL. 1091.0 - EL. 1083.1 F-M SAND, OCC. TO TRACE GRAVEL & SILT (SP)	115	31	0
EL. 1083.1 - EL. 1068.1 F-M SAND, OCC. TO TRACE GRAVEL & SILT (SP)	115	33	0
EL. 1068.1 - EL. 1048.1 F-M SAND, OCC. TO TRACE GRAVEL & SILT (SP)	115	34	0
EL. 1048.1 - EL. 1038.1 F-M SAND, OCC. TO TRACE GRAVEL & SILT (SP)	115	37	0

* DESIGN WALL FOR THESE VALUES

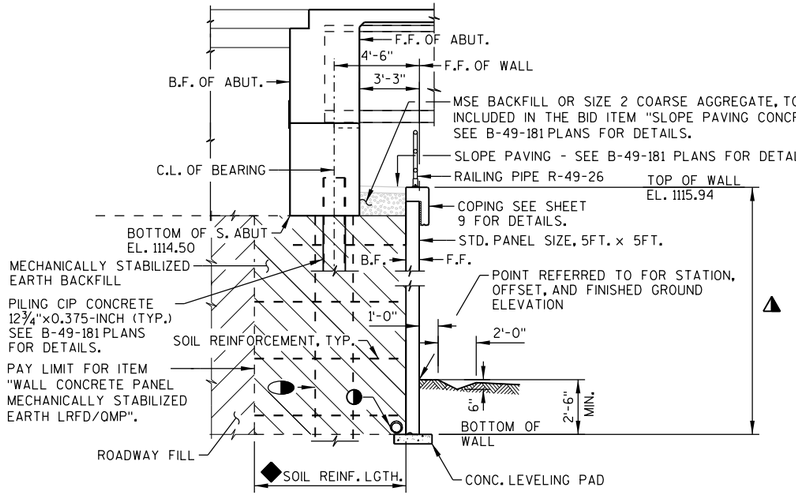
LEGEND

- PAY LIMIT FOR "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP".
- MINIMUM LENGTH OF MSE WALL REINFORCING STRIPS MUST BE 70% THE TOTAL WALL HEIGHT (EXPOSED HEIGHT PLUS EMBEDMENT DEPTH) OR 8.0 FEET, WHICHEVER IS GREATER. SOIL REINFORCEMENT MUST EXTEND A MINIMUM OF 3.0 FEET BEYOND THE FAILURE PLANE FOR INTERNAL STABILITY AS DEFINED BY AASHTO SPECIFICATIONS. ACTUAL CALCULATED LENGTHS OF REINFORCING STRIPS WILL NEED TO MEET OR EXCEED THESE MINIMUMS AT THESE DESIGNATED LOCATIONS IN ORDER TO SATISFY MINIMUM FACTORS OF SAFETY FOR VARIOUS MSE PARAMETERS. SEE GEOTECHNICAL REPORT FOR ADDITIONAL INFORMATION.
- PIPE UNDERDRAIN WRAPPED 6-INCH SLOPE 0.5% MIN. TO SUITABLE DRAINAGE, RODENT SCREEN REQUIRED.
- SLOPE BEHIND MSE WALL VARIES. SEE ROADWAY PLANS FOR MORE INFORMATION.
- PILE SLEEVES - COORDINATE LOCATIONS WITH B-49-181 PLANS AND SPECIAL PROVISIONS. INSTALL PRIOR TO BACKFILLING AND CONSTRUCTING "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP".



TYPICAL MSE WALL SECTION ALONG HOOVER ROAD

LOOKING NORTH ALONG WEST WALL
STA. 1+00 TO STA. 7+85.65



TYPICAL WALL SECTION THRU ABUTMENT

LOOKING WEST AT WALL STA. 8+50

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-49-26

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SOIL PARAMETERS AND DETAILS

SHEET 3 OF 12
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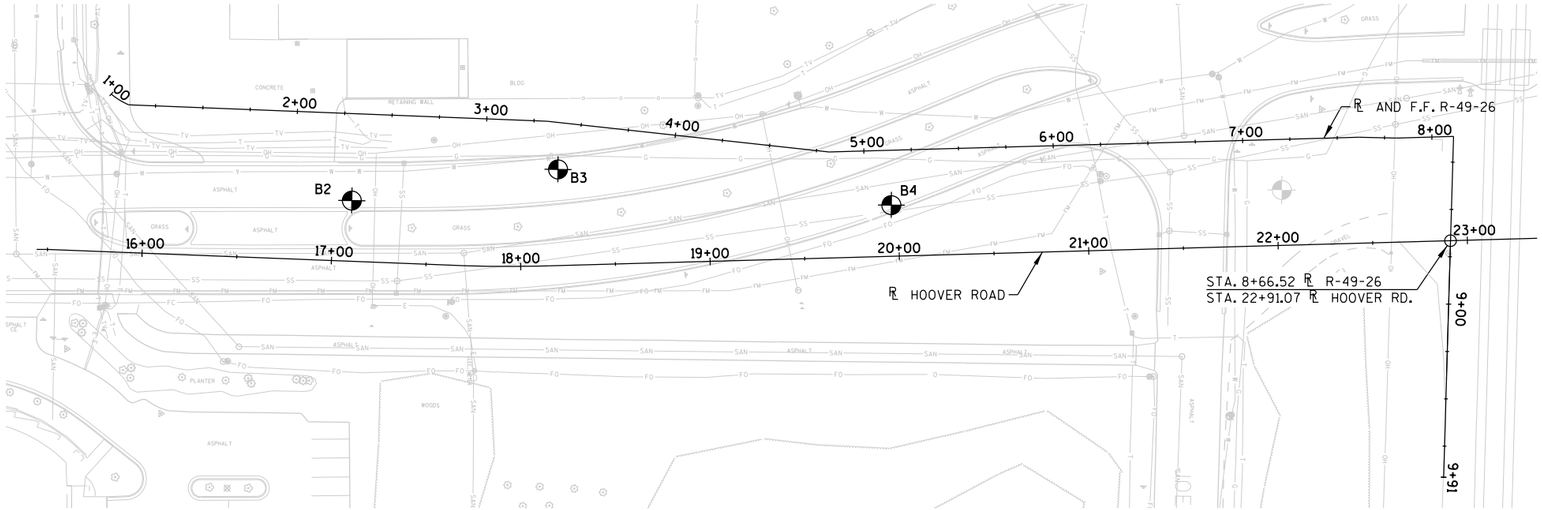
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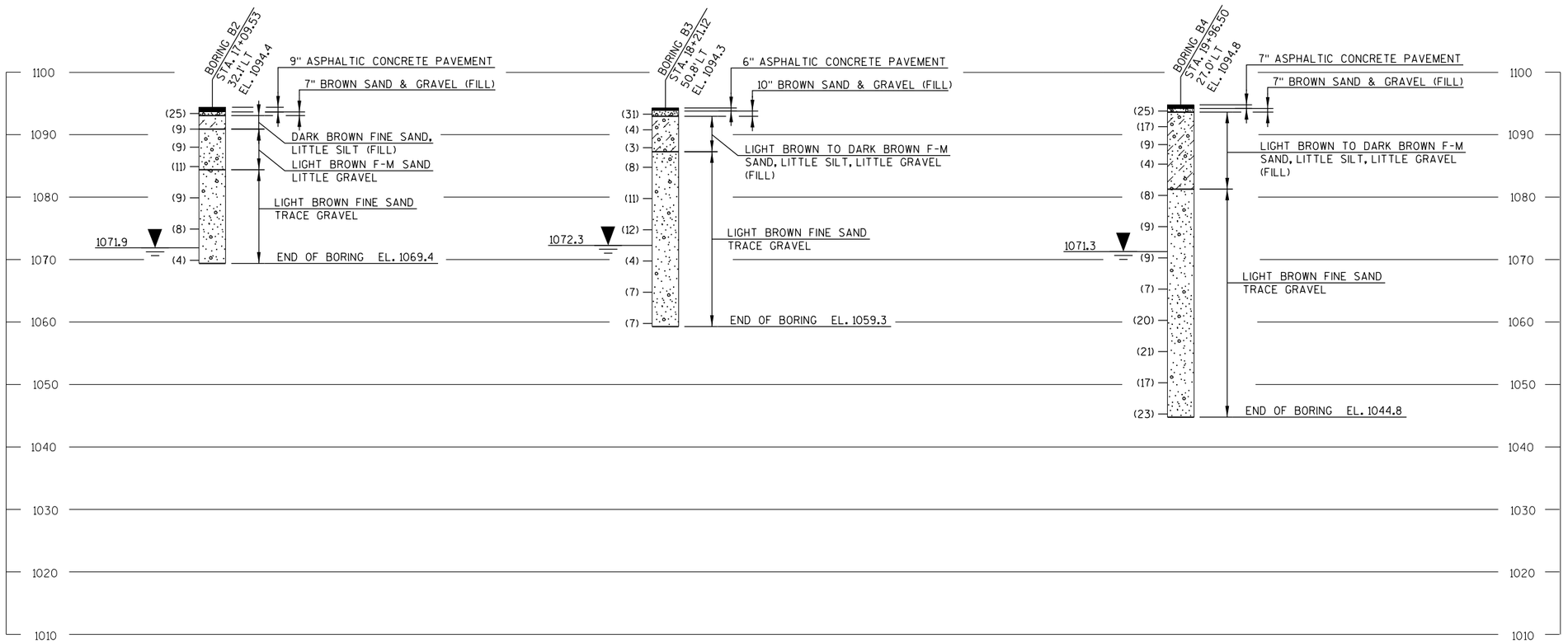
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BATCH PRINT SHEET 4 OF 12

BORINGS AND REPORT BY:
NUMMELIN TESTING SERVICES, INC.
3217 WHITING AVE. P.O. BOX 127
STEVENS POINT, WI 54481

BORINGS B2 & B3 PERFORMED ON DEC. 11, 2014.
BORING B4 PERFORMED ON DEC. 15, 2014



PLAN



STATE PROJECT NUMBER

6998-11-71

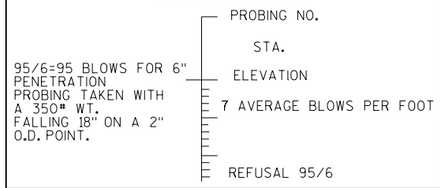
ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

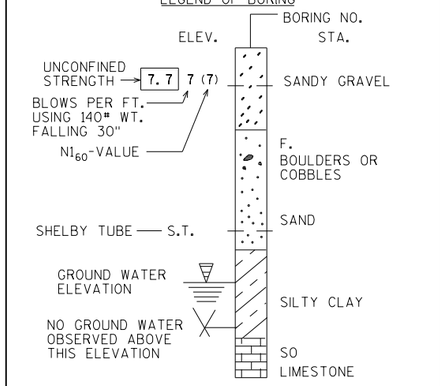
MATERIAL SYMBOLS

TOPSOIL, SILT, SANDSTONE, SAND, PEAT, LIMESTONE, GRAVEL, CLAY, IGNEOUS ROCK

LEGEND OF PROBING



LEGEND OF BORING



UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-49-26

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SUBSURFACE EXPLORATION

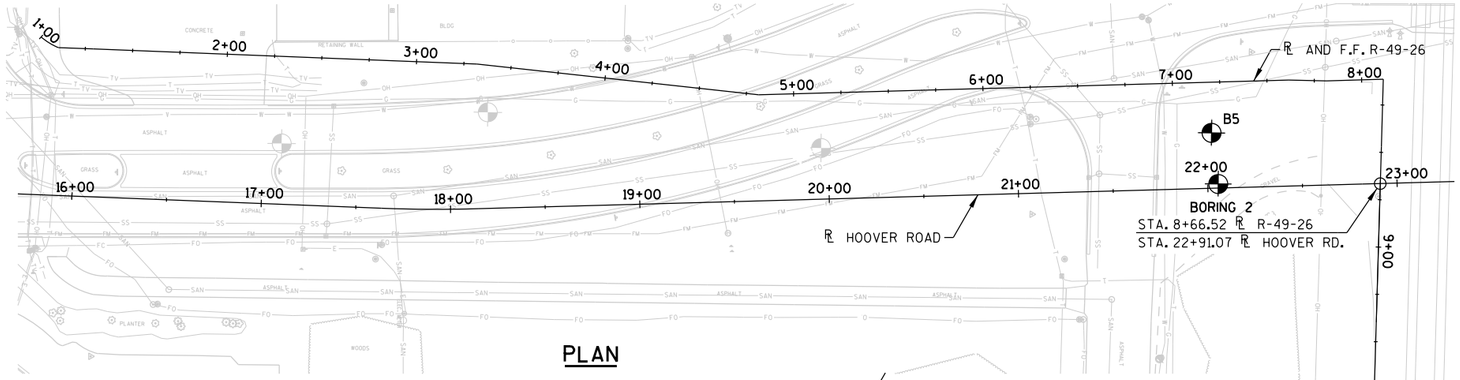
SHEET 4 OF 12
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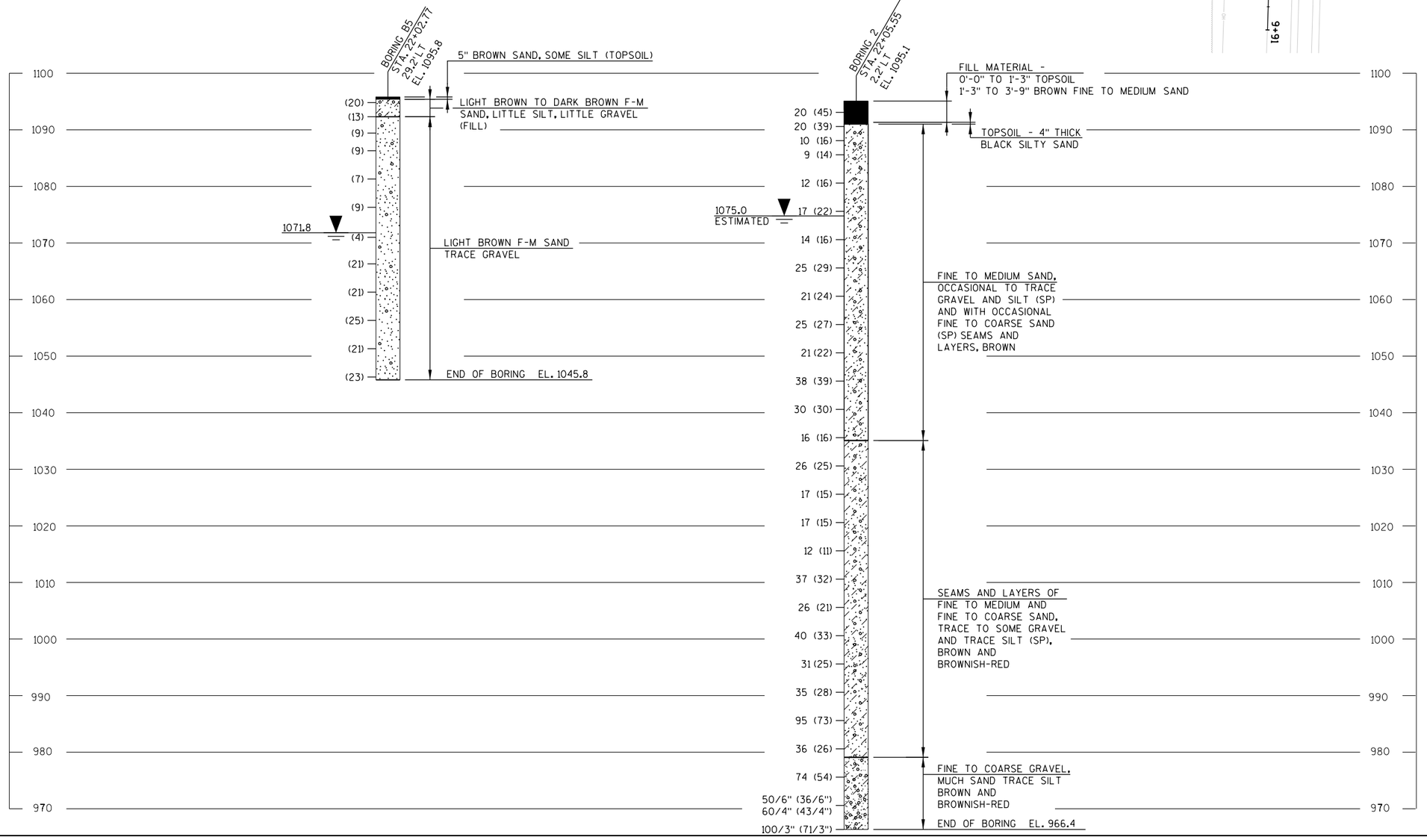
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BORING 2 AND REPORT BY:
SOILS AND ENGINEERING SERVICES, INC.
1102 STEWART STREET
MADISON, WI 53713-4648
PERFORMED ON SEPT. 22, 2011.

BORING B5 AND REPORT BY:
NUMMELIN TESTING SERVICES, INC.
3217 WHITING AVE. P.O. BOX 127
STEVENS POINT, WI 54481
PERFORMED ON DEC. 15, 2014.



PLAN



STATE PROJECT NUMBER

6998-11-71

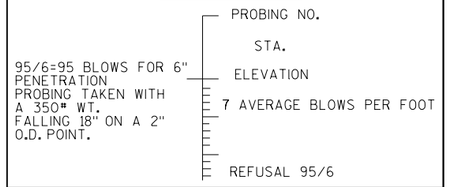
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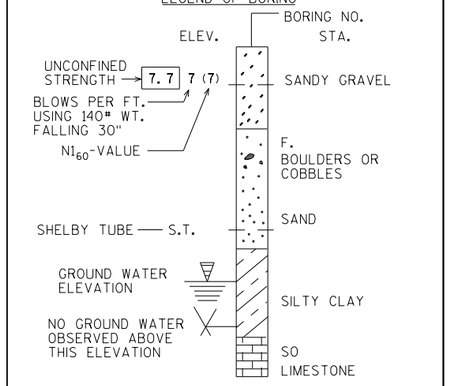
MATERIAL SYMBOLS

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SAND, PEAT, LIMESTONE
GRAVEL, CLAY, IGNEOUS ROCK

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-49-26

DRAWN BY KAM | PLANS CK'D. CAB

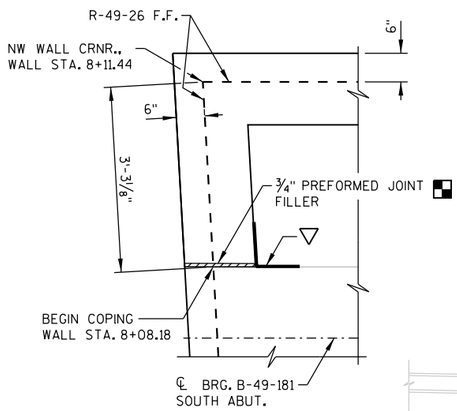
SUBSURFACE EXPLORATION

SHEET 5 OF 12
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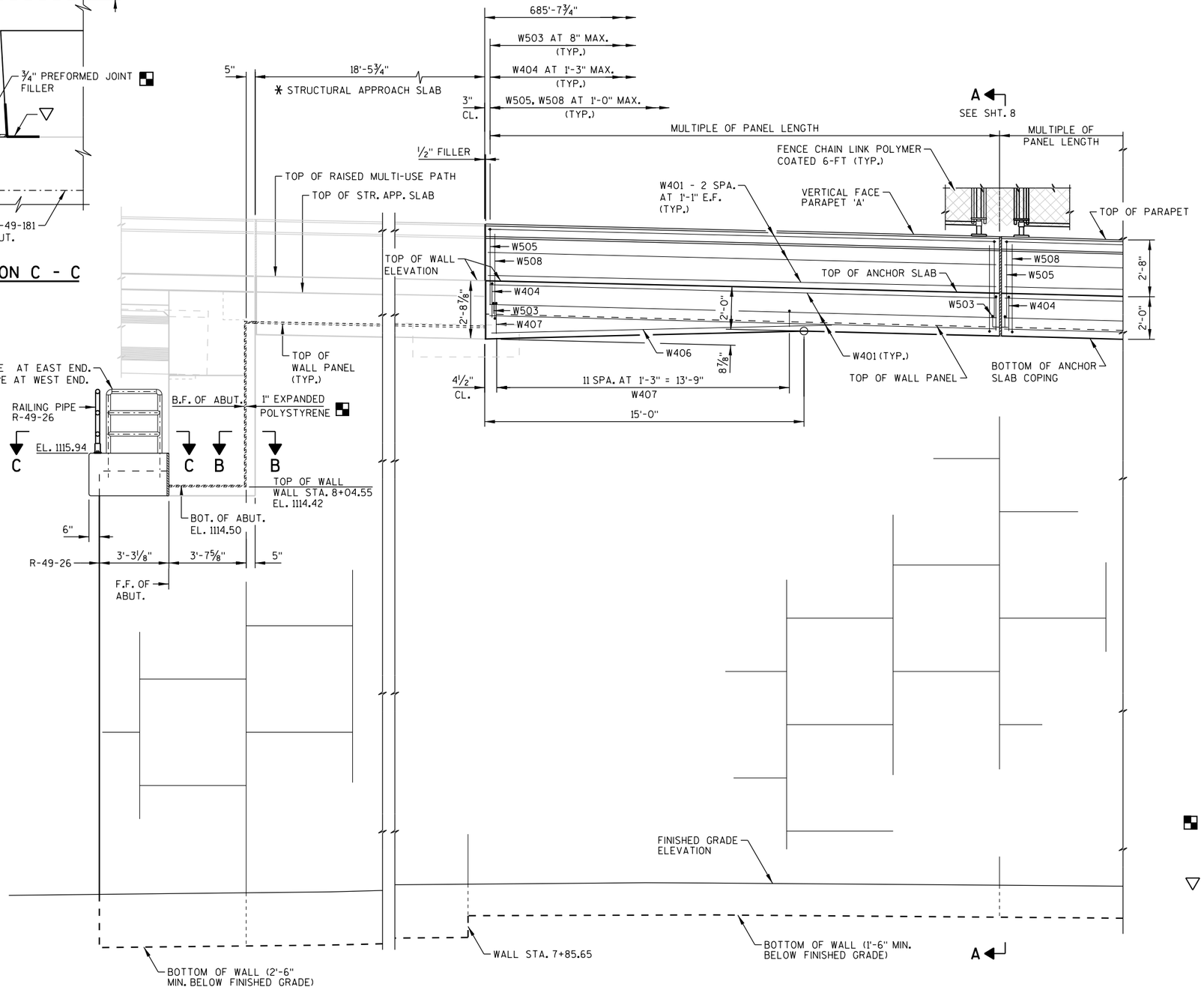
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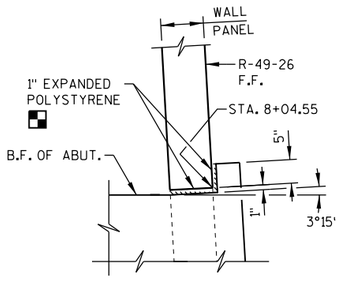
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BATCH PRINT SHEET 6 OF 12



SECTION C - C





SECTION B - B

ELEVATION OF COPING AND PARAPET

LOOKING EAST AT F.F. OF WALL

* STRUCTURAL APPROACH SLAB COPING AND PARAPET PAID FOR SEPERATELY UNDER STRUCTURE B-49-181.

LEGEND

SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF FILLER AND EXPANDED POLYSTYRENE WITH NON-STAINING GRAY, NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE.)

18" RUBBERIZED MEMBRANE WATERPROOFING, TO EXTEND FROM TOP OF COPING TO 6" BELOW TOP OF PANELS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-49-26

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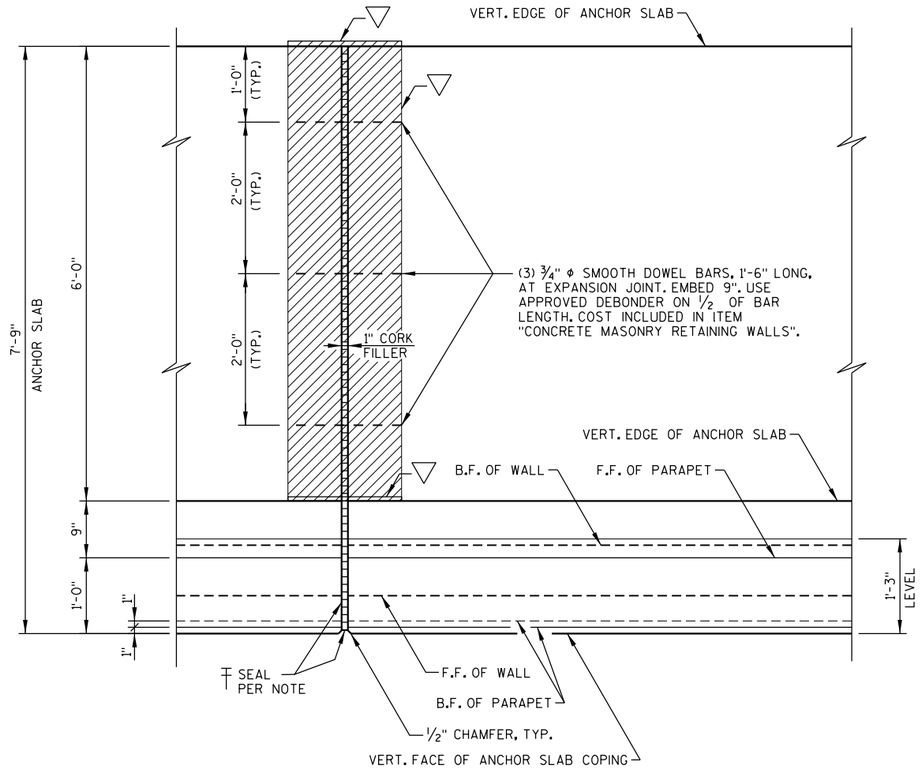
WALL ELEVATION

SHEET 6 OF 12

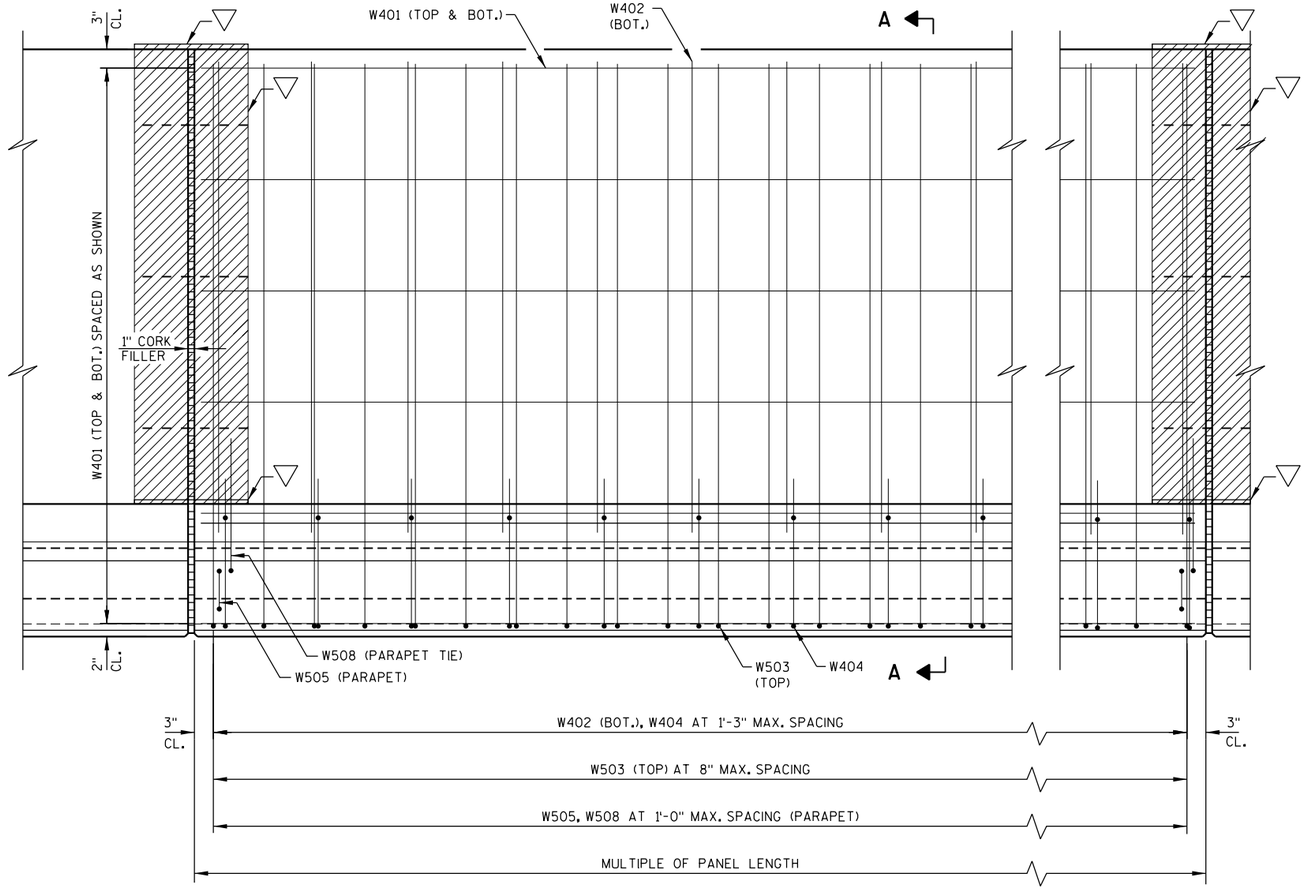
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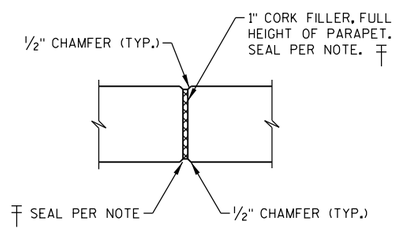
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BATCH PRINT SHEET 7 OF 12



⊛ TYPICAL ANCHOR SLAB EXPANSION JOINT DETAIL



PARAPET AND ANCHOR SLAB PLAN



⊛ TRAFFIC BARRIER EXPANSION JOINT DETAIL

LEGEND

▽ 18" RUBBERIZED MEMBRANE WATERPROOFING TO BE PLACED ON THESE SURFACES AT EACH JOINT.

⊛ EXPANSION JOINTS TO BE SPACED AT A MINIMUM OF 20' AND A MAXIMUM OF 30'. LOCATE EXPANSION JOINTS OVER WALL JOINTS. DO NOT RUN BAR STEEL THRU JOINT, EXCEPT FOR DOWEL BARS AS SHOWN. JOINT TO EXTEND FULL DEPTH OF PARAPET AND ANCHOR SLAB.

⊣ SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONC.)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
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STRUCTURE R-49-26

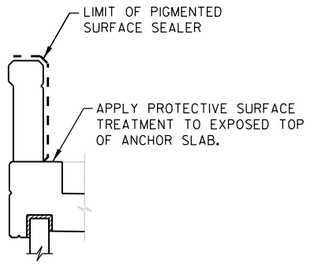
DRAWN BY KAM | PLANS CK'D. CAB

ANCHOR SLAB PLAN DETAILS

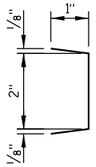
SHEET 7 OF 12
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SURFACE PROTECTION DETAIL



RUSTICATION DETAIL

△ PROVIDE RUSTICATION IF OPT. CONST. JOINT IS USED.

BILL OF BARS

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR. ALL BAR STEEL IN THIS BILL SHALL BE EPOXY COATED.

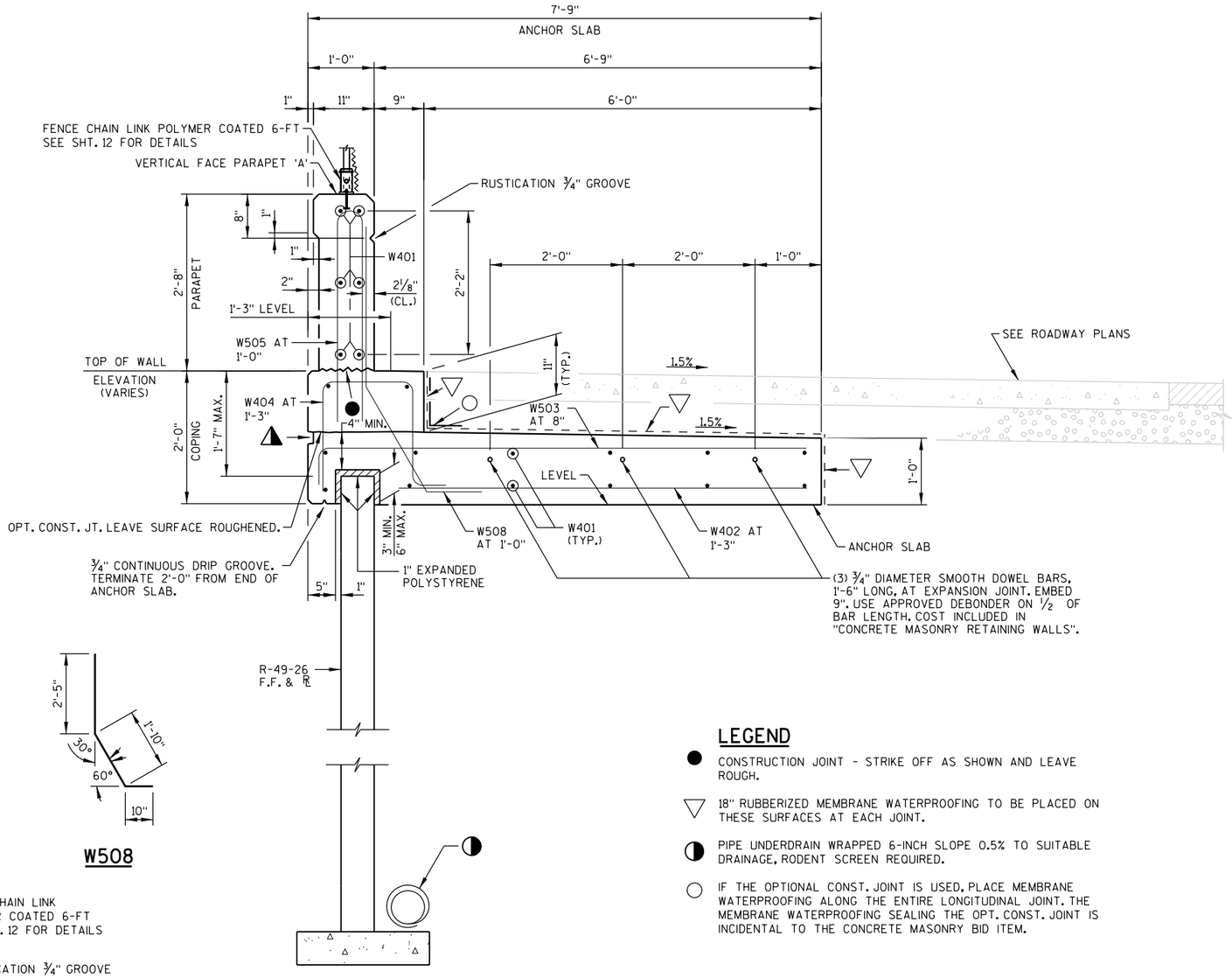
△ LENGTH SHOWN FOR BAR IS AN AVG. LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

	MARK	NO. REQ'D	LENGTH	BENT	BAR SERIES	LOCATION	
	COATED BARS						TOTAL WEIGHT = 30,840 LBS
*	W401	20	685-3			ANCHOR SLAB AND PARAPET	LONG.
	W402	582	6-1			ANCHOR SLAB - BOTTOM	TRANS.
	W503	1062	7-10	X		ANCHOR SLAB - TOP	TRANS.
	W404	582	4-11	X		ANCHOR SLAB	VERT.
	W505	719	6-7	X		ANCHOR SLAB / PARAPET	VERT.
	W406	1	16-0			ANCHOR SLAB AT STR. APP. SLAB	LONG.
	W407	12	3-3	X	△	ANCHOR SLAB AT STR. APP. SLAB	VERT.
	W508	719	5-0	X		PARAPET TIE	VERT.

BAR SERIES

MARK	NO. REQ'D	LENGTH
W407	1 SERIES OF 12	2'-11" TO 3'-7"

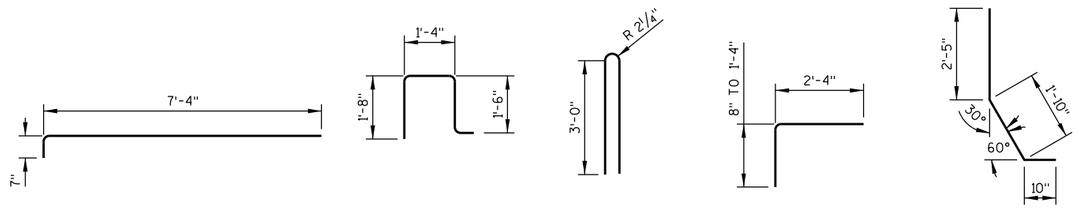
* NUMBER REQUIRED AND LENGTH SHOWN FOR QUANTITY PURPOSES ONLY. CONTRACTOR TO DETERMINE ACTUAL LENGTHS AND NUMBER OF W401 BARS AFTER MSE PANELS HAVE BEEN LAID OUT BY THE WALL SUPPLIER. THE PARAPET AND ANCHOR SLAB EXPANSION JOINTS MUST COINCIDE WITH PANEL JOINTS ON THE FRONT FACE.



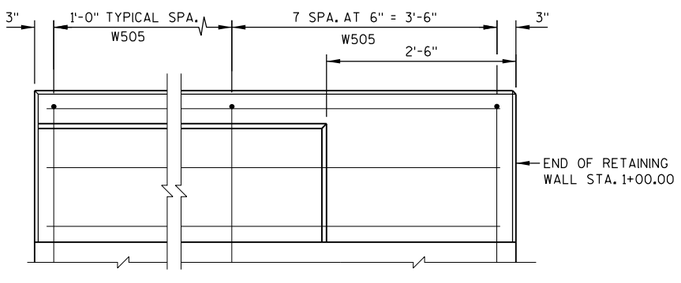
SECTION A-A THRU WALL

LEGEND

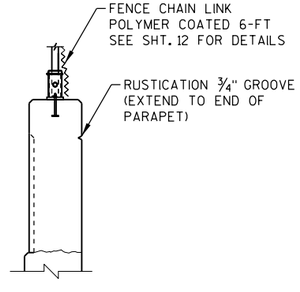
- ● CONSTRUCTION JOINT - STRIKE OFF AS SHOWN AND LEAVE ROUGH.
- ▽ 18" RUBBERIZED MEMBRANE WATERPROOFING TO BE PLACED ON THESE SURFACES AT EACH JOINT.
- ◑ PIPE UNDERDRAIN WRAPPED 6-INCH SLOPE 0.5% TO SUITABLE DRAINAGE, RODENT SCREEN REQUIRED.
- ○ IF THE OPTIONAL CONST. JOINT IS USED, PLACE MEMBRANE WATERPROOFING ALONG THE ENTIRE LONGITUDINAL JOINT. THE MEMBRANE WATERPROOFING SEALING THE OPT. CONST. JOINT IS INCIDENTAL TO THE CONCRETE MASONRY BID ITEM.



W503 W404 W505 W407 W508



VIEW SHOWING OUTSIDE FACE OF PARAPET & REINFORCING



END VIEW

NOTES

ALL BAR STEEL SHALL BE EPOXY COATED.

CONCRETE QUANTITY BASED ON 3" PANEL EMBEDMENT.

LAP LONGITUDINAL #4 BARS A MINIMUM OF 1'-0"

OPT. CONST. JOINTS IN THE PARAPET AND ANCHOR SLAB BETWEEN EXPANSION JOINTS MAY BE USED. RUN BAR REINFORCEMENT THRU THE JOINT. LAP LONGITUDINAL BARS IN PARAPET 1'-5" MIN. DEFINE CONST. JOINT WITH 3/4" 'V' GROOVE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-49-26

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ANCHOR SLAB AND PARAPET DETAILS

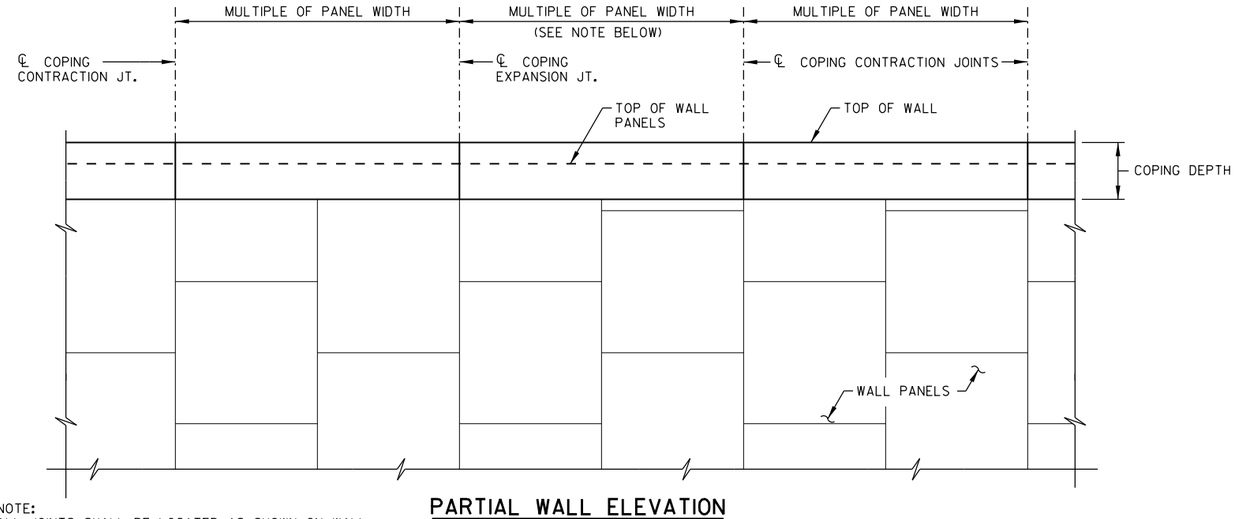
SHEET 8 OF 12

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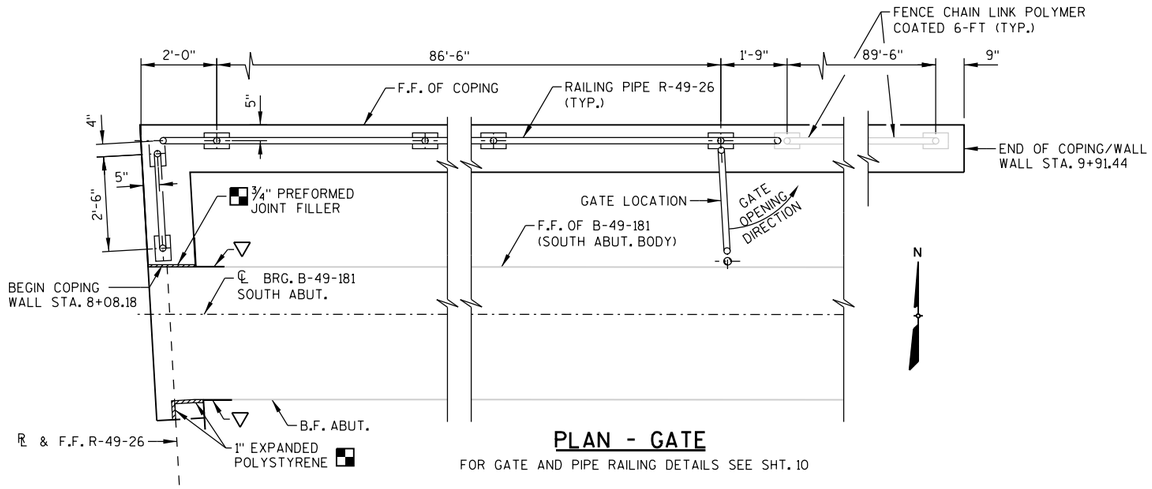
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NOTE:
ALL JOINTS SHALL BE LOCATED AS SHOWN ON WALL ELEVATIONS AND MUST COINCIDE WITH PANEL JOINT ON FRONT FACE.

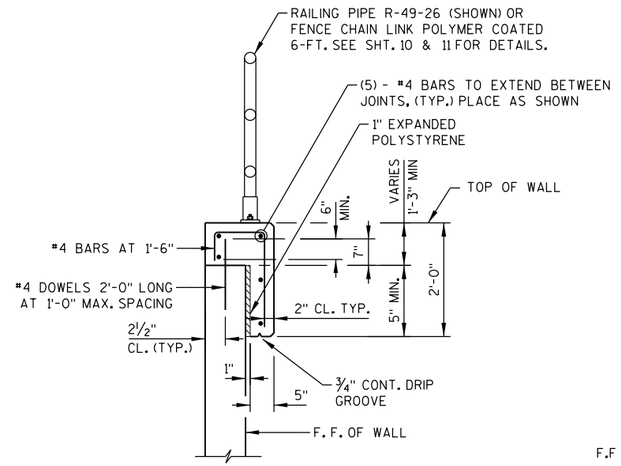
PARTIAL WALL ELEVATION

(LOOKING AT FRONT FACE)



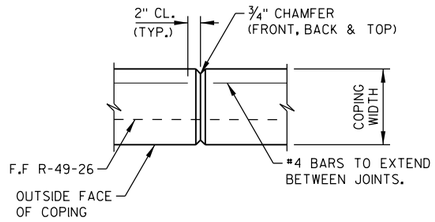
PLAN - GATE

FOR GATE AND PIPE RAILING DETAILS SEE SHT. 10



CAST-IN-PLACE COPING DETAIL

WALL STA. 8+08.18 THRU WALL STA. 9+91.44

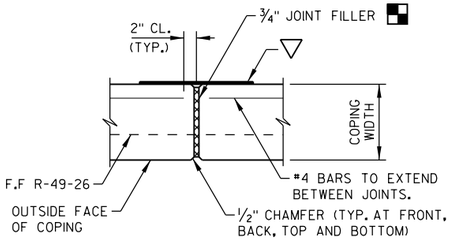


CAST-IN-PLACE COPING CONTRACTION JOINT

DO NOT RUN BAR STEEL THRU JOINT.

MAXIMUM SPACING OF JOINTS SHALL BE 12'-0" AND MUST LINE UP WITH THE WALL PANEL JOINTS.

ALL CONTRACTION JOINTS TO EXTEND THE FULL DEPTH OF COPING.



CAST-IN-PLACE COPING EXPANSION JOINT

DO NOT RUN BAR STEEL THRU JOINT.

MAXIMUM SPACING OF JOINTS SHALL BE 50'-0" AND MUST LINE UP WITH THE WALL PANEL JOINTS.

ALL EXPANSION JOINTS TO EXTEND THE FULL DEPTH OF COPING.

LEGEND

- SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF FILLER AND EXPANDED POLYSTYRENE WITH NON-STAINING GRAY, NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE).
- 18" (R.M.W.) RUBBERIZED MEMBRANE WATERPROOFING, TO EXTEND FROM TOP OF COPING TO 6" BELOW TOP OF PANELS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-49-26

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COPING DETAILS

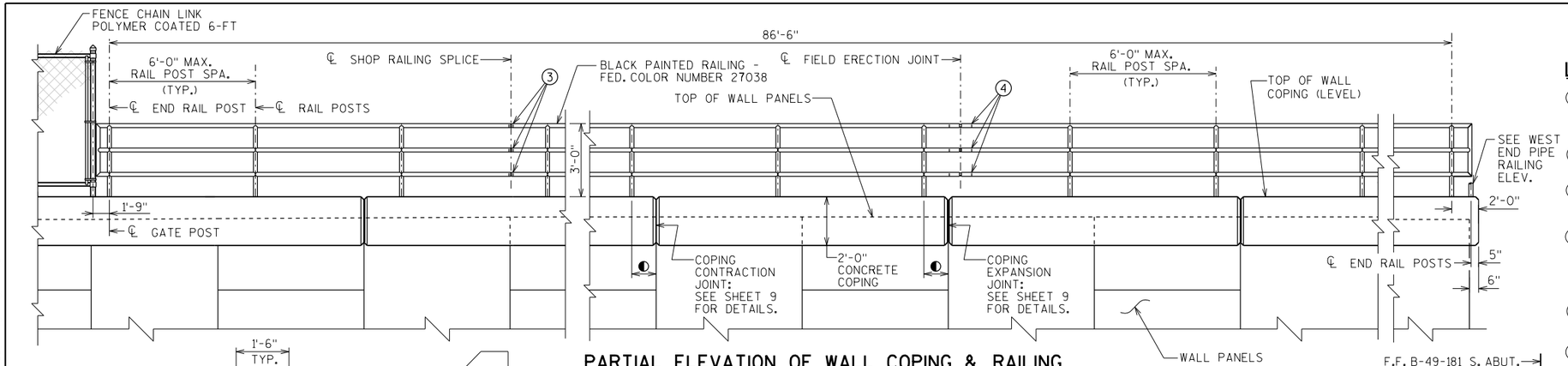
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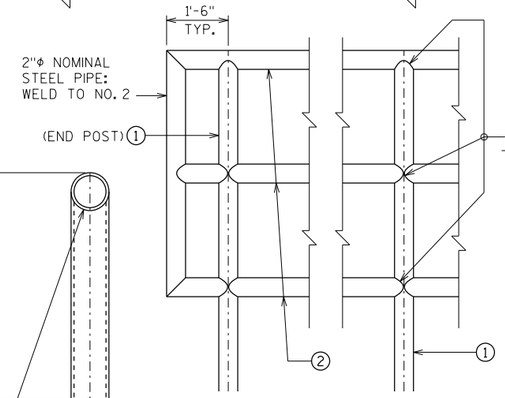
STATE PROJECT NUMBER
6998-11-71



PARTIAL ELEVATION OF WALL COPING & RAILING

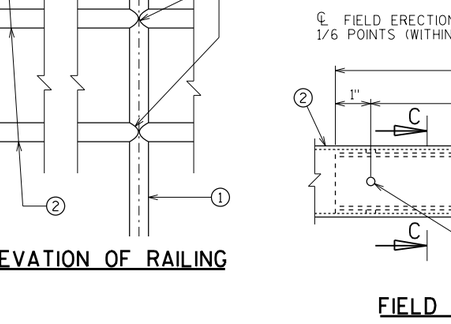
LOOKING SOUTH AT F.F. WALL

◐ 1'-0" MIN. DISTANCE REQUIRED BETWEEN THE ℄ OF COPING JOINTS (BOTH EXPANSION AND CONTRACTION JOINTS) AND THE ℄ OF RAIL POSTS.



PART ELEVATION OF RAILING

SECTION THRU RAILING

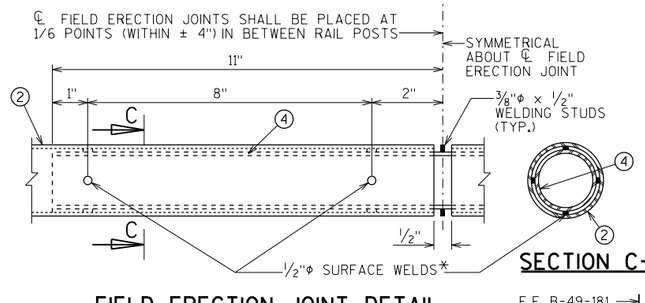


ELEVATION

POST ATTACHMENT

UNIT SHALL BE GALV. AFTER FABRICATION

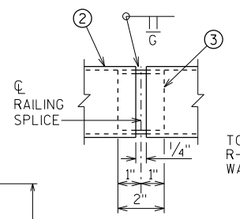
NOTE:
IN LIEU OF USING THE 2½"Φ SLEEVE, THE 2"Φ RAIL POST MAY BE WELDED TO THE BASE PLATE.



FIELD ERECTION JOINT DETAIL

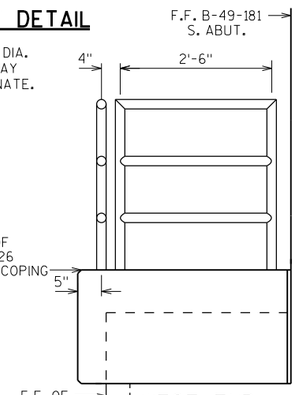
SECTION C-C

*MIN. ⅝" FLAT SURFACE DIA. PUNCHINGS OR STUDS MAY BE USED AS AN ALTERNATE.

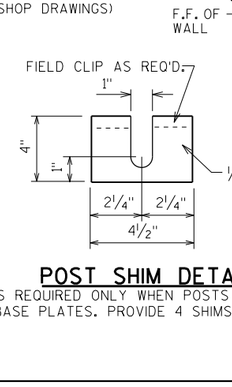


SHOP RAILING SPLICE DETAIL

(LOCATION MUST BE SHOWN ON THE SHOP DRAWINGS)

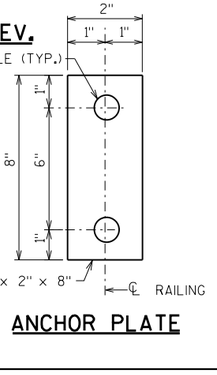


WEST END PIPE RAILING ELEV.

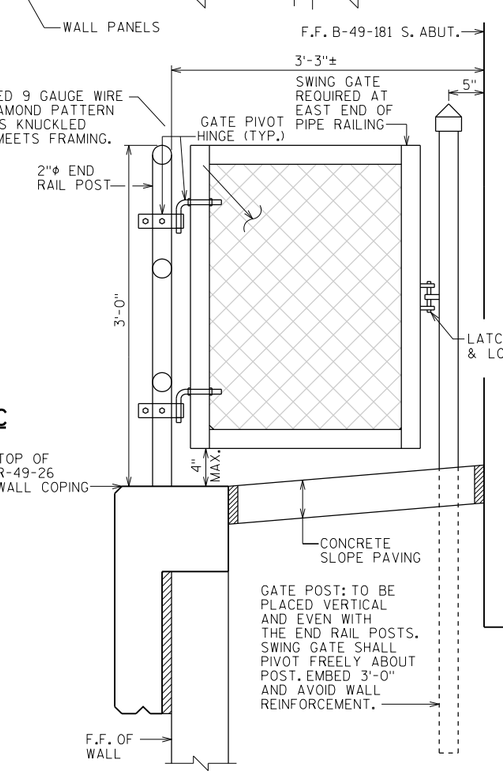


POST SHIM DETAILS

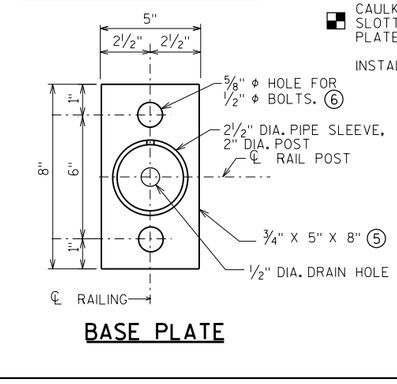
SHIMS REQUIRED ONLY WHEN POSTS ARE WELDED TO BASE PLATES. PROVIDE 4 SHIMS PER POST.



ANCHOR PLATE



EAST END SECTION THRU WALL AT GATE



BASE PLATE

LEGEND

① 2"Φ NOMINAL STEEL PIPE FOR POSTS: CUT BOTTOM OF POST TO MATCH TOP OF CONCRETE. POSTS ARE TO BE SET VERTICAL.

② 2"Φ NOMINAL STEEL PIPE FOR RAILS: WELD TO NO. 1

③ 1½"Φ PIPE SLEEVE FOR NO. 2. PROVIDE "SLIDING FIT" WITH A MINIMUM OUT TO OUT DIMENSION OF 2 1/16".

④ 1½"Φ PIPE SLEEVE x 1'-10" LONG FOR NO. 2. PROVIDE ½"Φ SURFACE WELDS ON ALL SIDES AS SHOWN. GRIND WELDS TO FIT FREE INTO I.D. OF NO. 2. PROVIDE ⅜"Φ x ½" WELDING STUDS ON TOP AND BOTTOM SURFACES AT CENTERLINE.

⑤ PLATE ¾" x 5" x 8", WITH ⅝"Φ HOLE FOR ANCHOR BOLTS NO. 6. WELD TO NO. 1. OR PIPE SLEEVE AS SHOWN.

⑥ ½"Φ x 6⅞" LONG A325 HEX BOLTS (GALVANIZED) WITH A325 NUT AND WASHER. 2 REQ'D. PER POST. THREAD 3" AND PLACE NORMAL TO PLATE NO. 5. CHAMFER TOP OF BOLTS BEFORE THREADING. ALTERNATIVE ANCHORAGE: CONCRETE ADHESIVE ANCHORS ½-INCH. EMBED 7" IN CONCRETE. ADHESIVE ANCHORS SHALL CONFORM TO SECTION 502.2.12 OF THE STANDARD SPECIFICATIONS.

⑦ ¼" x 2" x 8" FLAT BAR, WITH ⅝"Φ HOLES FOR ANCHOR BOLTS NO. 6.

GENERAL NOTES

BID ITEM SHALL BE "RAILING PIPE R-49-26", WHICH INCLUDES ALL ITEMS SHOWN, PAINTING AND POLYMER COATING GATE MESH.

RAILING SHALL BE FABRICATED IN LENGTHS THAT INCLUDE 3 OR 4 POSTS.

FIELD ERECTION JOINTS MUST BE PLACED IN BETWEEN RAIL POSTS WHERE THERE IS ALSO A CAST-IN-PLACE COPING EXPANSION JOINT IN BETWEEN RAIL POSTS.

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.

ALL MATERIAL SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING, ALL STEEL RAILING POSTS AND STEEL TUBING SHALL BE GIVEN A NO. 6 BLAST CLEANING BY S.S.P.C. SPECIFICATIONS.

DRILL DRAIN HOLES PRIOR TO GALVANIZING.

ALL MATERIALS USED IN FABRICATION SHALL BE MADE FROM MATERIALS CONFORMING TO A.S.T.M. DESIGNATION A709 GRADE 36 UNLESS NOTED OTHERWISE.

STEEL POST SHIMS MAY BE USED UNDER POSTS WHERE REQ'D. FOR ALIGNMENT.

ALL RAILS, POSTS AND SLEEVES ARE STANDARD WEIGHT PIPE, SCHEDULE 40.

PLACE ALL NUTS ON OUTSIDE OF POSTS.

ANCHORAGES SHALL BE ACCURATELY PLACED TO PROVIDE CORRECT ALIGNMENT OF RAILING.

ALL RAILINGS, POSTS, GATES AND ASSOCIATED HARDWARE SHALL BE PAINTED BLACK (FEDERAL COLOR NO. 27038)

THE COLOR OF POLYMER-COATING FOR THE GATE FABRIC SHALL BE BLACK FEDERAL COLOR NUMBER 27038 IN ACCORDANCE WITH ASTM 934.

CAULK AROUND PERIMETER OF BASE PLATES AND FILL PORTION OF SLOTTED HOLES AROUND ANCHOR BOLTS IN POST SHIMS AND BASE PLATES WITH NON-STAINING, GRAY, NON-BITUMINOUS JOINT SEALER.

INSTALL GATE PARALLEL TO REFERENCE LINE, AS SHOWN ON SHT. 9.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-49-26

DRAWN BY KAM | PLANS CK'D. CAB

PIPE RAILING

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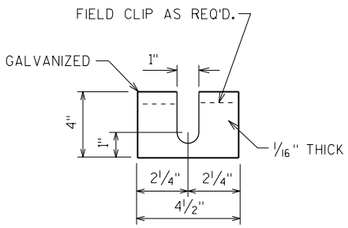
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STATE PROJECT NUMBER
6998-11-71

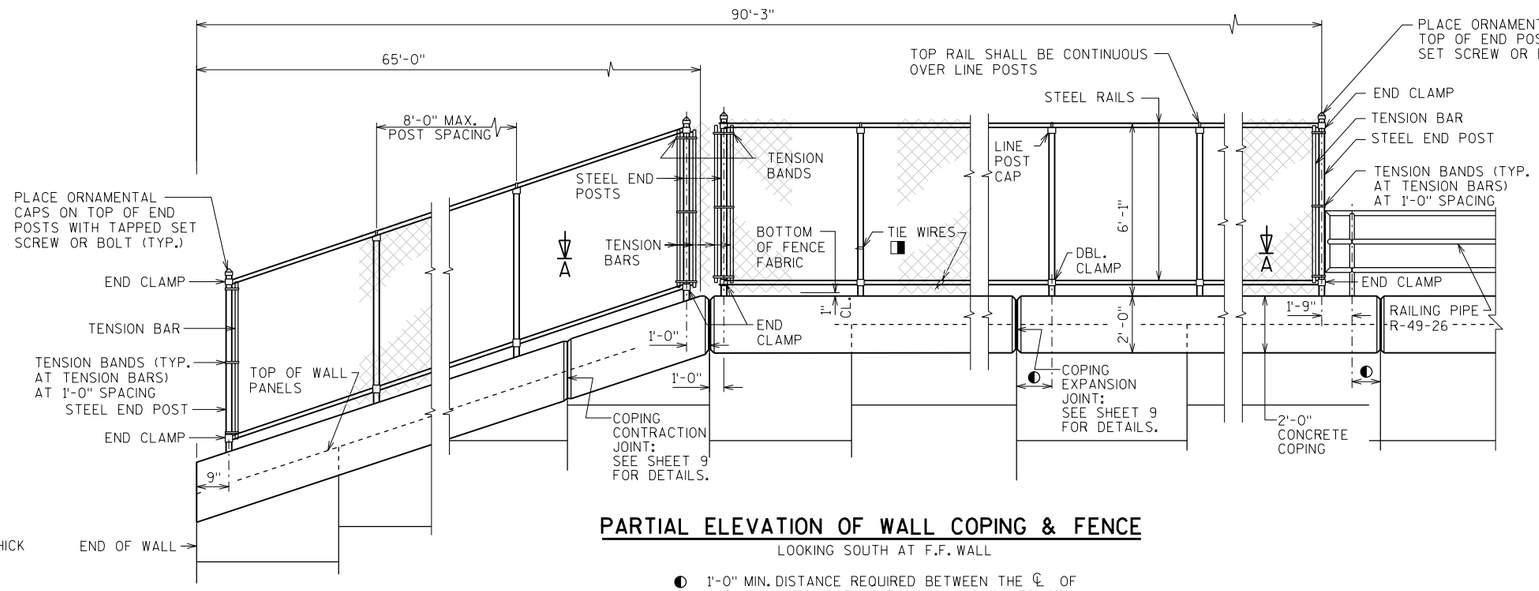
FENCE MEMBER SIZE & WEIGHT

STEEL FENCE MEMBER	OUTSIDE DIAMETER (INCHES)	WEIGHT (LB/FT)
RAILS	1.660	2.27
END POST	2.875	5.80
OVERHANG POST	2.875	5.80
LINE POST	2.375	3.65
POST SLEEVE	4.000	9.12



POST SHIM DETAILS

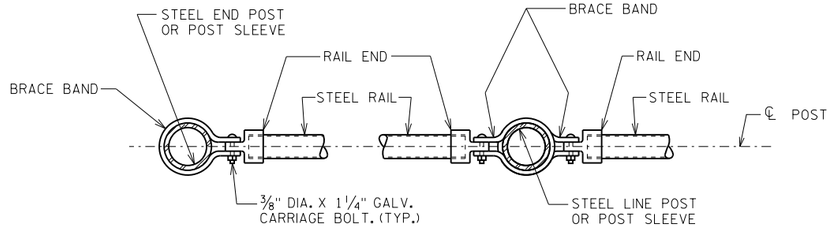
SHIMS REQUIRED ONLY WHEN END POSTS AND LINE POSTS ARE WELDED TO BASE PLATES. PROVIDE 4 SHIMS PER POST. USE WHERE REQUIRED FOR ALIGNMENT.



PARTIAL ELEVATION OF WALL COPING & FENCE

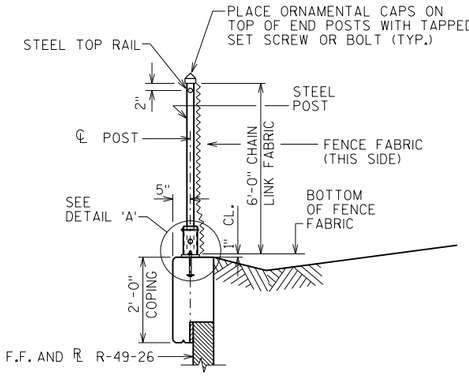
LOOKING SOUTH AT F.F. WALL

◐ 1'-0" MIN. DISTANCE REQUIRED BETWEEN THE ℄ OF COPING JOINTS (BOTH EXPANSION AND CONTRACTION JOINTS) AND THE ℄ OF FENCE POSTS.

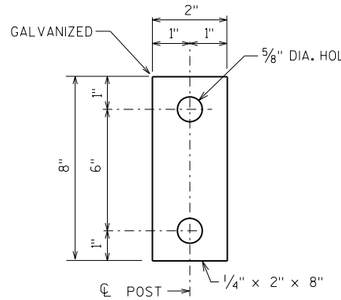


SECTION A-A

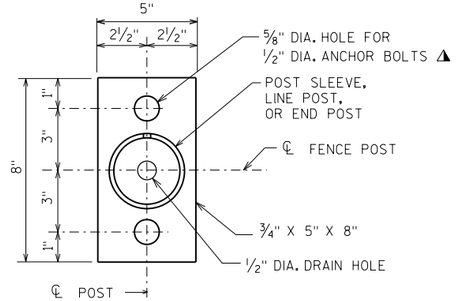
NOTE: PLACE ALL BOLT HEADS ON SIDE OF FENCE ADJACENT TO PEDESTRIANS



SECTION THRU FENCE



ANCHOR PLATE

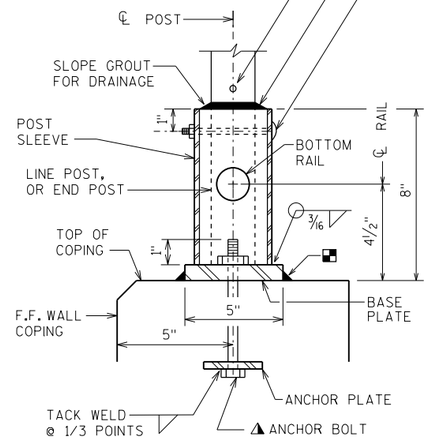


BASE PLATE

3/8" DIA. GALV. CARRIAGE BOLT WITH LOCKING NUT. (TO BE SUPPLIED WITH ASSEMBLY)

FILL SLEEVE WITH NON-SHRINK GROUT AND BEVEL AWAY FROM POST AFTER SETTING POST. (LEAVE NO VOIDS)

DRILL 3/16" DIA. DRAIN HOLE PARALLEL TO COPING IMMEDIATELY ABOVE GROUT IN POST. SLEEVE LOCATIONS ONLY.



DETAIL 'A'

UNIT SHALL BE GALVANIZED AFTER FABRICATION

NOTE: IN LIEU OF USING THE POST SLEEVE, THE FENCE POST MAY BE WELDED TO THE BASE PLATE.

GENERAL NOTES

POSTS ARE TO BE SET VERTICAL.

ALL FENCE COMPONENTS SHALL BE GALVANIZED STEEL WITH A COLORED POLYMER-COATING ON THE OUTSIDE.

FABRIC SHALL CONFORM TO ASTM F668, CLASS 2B. STEEL RAILS, POSTS AND POST SLEEVES SHALL CONFORM TO ASTM F1083, STANDARD WEIGHT PIPE (SCHEDULE 40). FITTINGS SHALL CONFORM TO ASTM F626. SEE THE "BRIDGE SPECIAL PROVISIONS" FOR ADDITIONAL DETAILS.

THE COLOR OF POLYMER-COATING FOR THIS STRUCTURE SHALL BE BLACK FEDERAL COLOR NUMBER 27038 IN ACCORDANCE WITH ASTM F934.

THE BID ITEM SHALL BE "FENCE CHAIN LINK POLYMER-COATED 6-FT.", LF.

COMPLETE ANY REQUIRED WELDING OF COMPONENTS BEFORE GALVANIZING.

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.

BASE PLATES, ANCHOR PLATES AND SHIMS SHALL BE ASTM A709, GRADE 36.

ALL POST SPACINGS ARE MEASURED HORIZONTALLY BETWEEN THE C/L OF THE POSTS.

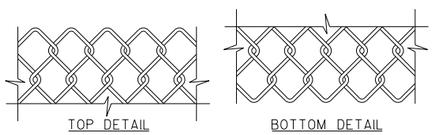
▪ CAULK AROUND PERIMETER OF BASE PLATE AND FILL PORTION OF SLOTTED HOLE AROUND ANCHOR BOLT IN SHIM WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

✳ ALTERNATE TO DOUBLE CLAMP: USE LINE RAIL CLAMP (BOULEVARD) OR 180° BRACE BAND, WHICH MAY BE USED WHEN THE POSTS ARE EITHER BOLTED TO THE POST SLEEVES OR DIRECTLY WELDED TO THE BASE PLATE.

◭ 1/2"Φ x 6 7/8" LONG GALVANIZED HEX BOLT WITH NUT AND WASHER. ALTERNATIVE ANCHORAGE: CONCRETE ADHESIVE ANCHORS 1/2-INCH. EMBED 7" IN CONCRETE. ADHESIVE ANCHORS SHALL CONFORM TO SECTION 502.2.12 OF THE STANDARD SPECIFICATIONS.

◨ ATTACH FABRIC TO RAILS, AND TO POSTS WITHOUT TENSION BANDS, WITH TIE WIRES (ROUND, 9-GAGE) SPACED AT 1'-0".

MINIMUM LENGTH OF TOP RAIL BETWEEN SPLICES SHALL BE 20'-0". LOCATE SPLICES NEAR 1/4 POINT OF POST SPACING.



FENCE FABRIC

FENCE FABRIC WOVEN OF 9-GAGE WIRE IN 2" DIAMOND PATTERN MESH WITH BOTH THE TOP AND BOTTOM SELVAGES KNUCKLED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-49-26

DRAWN BY KAM | PLANS CK'D. CAB

CHAIN LINK FENCE DETAILS AT COPING

SHEET 11 OF 12
280

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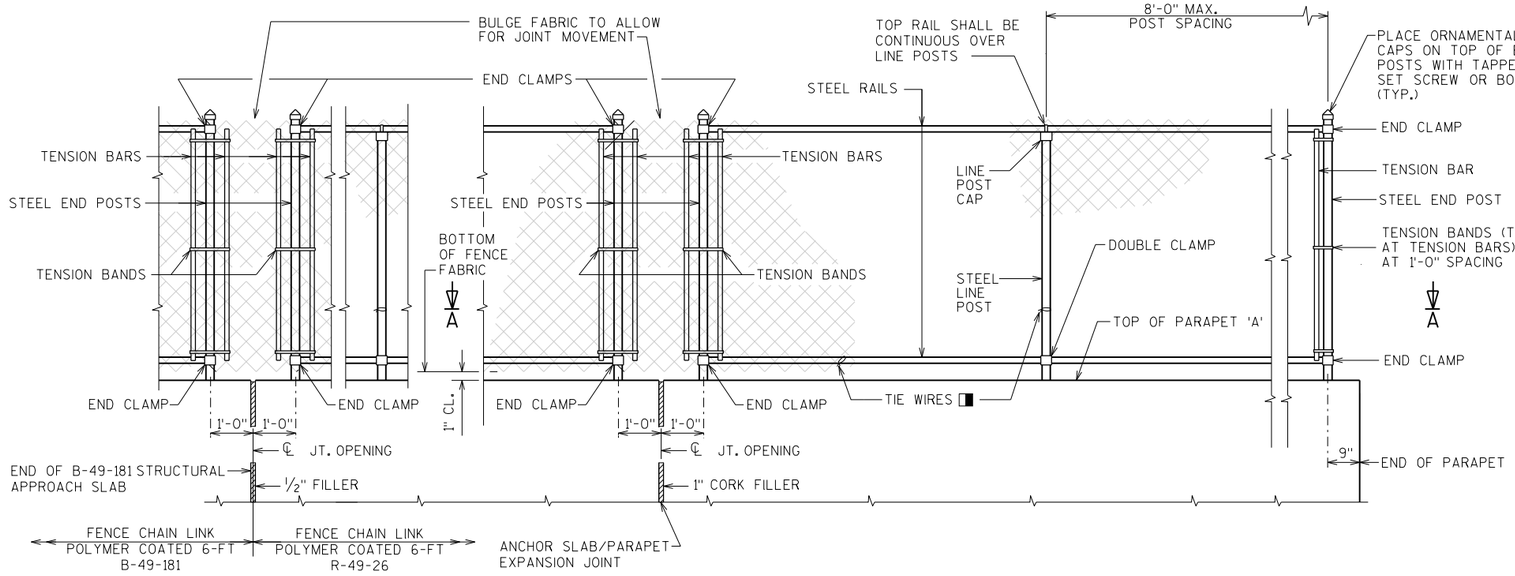
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PLOT TIME: 10:17:43 AM
BATCH PRINT SHEET 12 OF 12

STATE PROJECT NUMBER

6998-11-71

FENCE MEMBER SIZE & WEIGHT

STEEL FENCE MEMBER	OUTSIDE DIAMETER (INCHES)	WEIGHT (LB/FT)
RAILS	1.660	2.27
END POST	2.875	5.80
OVERHANG POST	2.875	5.80
LINE POST	2.375	3.65
POST SLEEVE	4.000	9.12



FENCE PART ELEVATION

LOOKING EAST AT F.F. OF WALL

GENERAL NOTES

POSTS ARE TO BE SET VERTICAL.

ALL FENCE COMPONENTS SHALL BE GALVANIZED STEEL WITH A COLORED POLYMER-COATING ON THE OUTSIDE.

FABRIC SHALL CONFORM TO ASTM F668, CLASS 2B. STEEL RAILS, POSTS AND POST SLEEVES SHALL CONFORM TO ASTM F1083, STANDARD WEIGHT PIPE (SCHEDULE 40). FITTINGS SHALL CONFORM TO ASTM F626. SEE THE "BRIDGE SPECIAL PROVISIONS" FOR ADDITIONAL DETAILS.

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THE BID ITEM SHALL BE "FENCE CHAIN LINK POLYMER-COATED 6-FT.", LF.

COMPLETE ANY REQUIRED WELDING OF COMPONENTS BEFORE GALVANIZING.

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.

BASE PLATES, ANCHOR PLATES AND SHIMS SHALL BE ASTM A709, GRADE 36.

ALL POST SPACINGS ARE MEASURED HORIZONTALLY BETWEEN THE C/L OF THE POSTS.

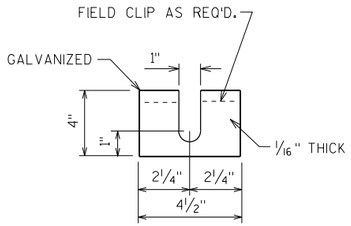
◪ CAULK AROUND PERIMETER OF BASE PLATE AND FILL PORTION OF SLOTTED HOLE AROUND ANCHOR BOLT IN SHIM WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

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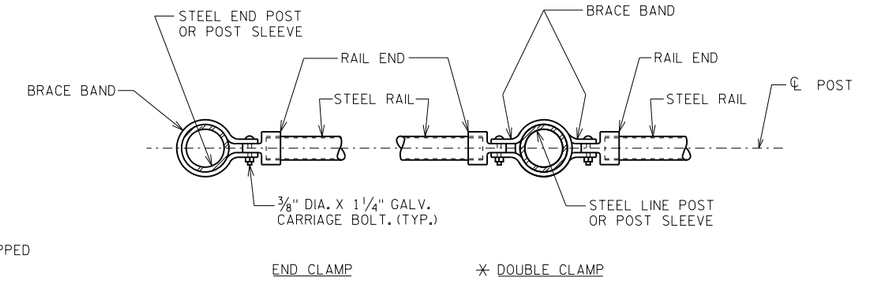
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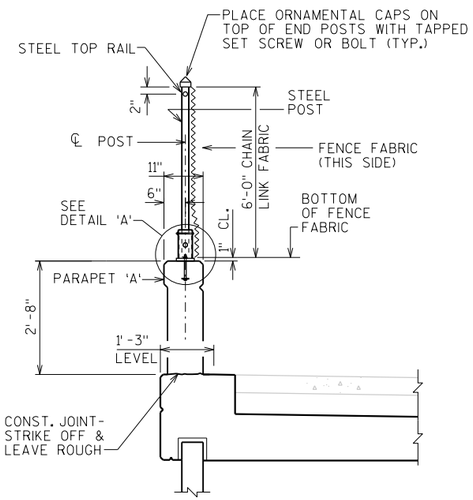
POST SHIM DETAILS

SHIMS REQUIRED ONLY WHEN END POSTS AND LINE POSTS ARE WELDED TO BASE PLATES. PROVIDE 4 SHIMS PER POST. USE WHERE REQUIRED FOR ALIGNMENT.

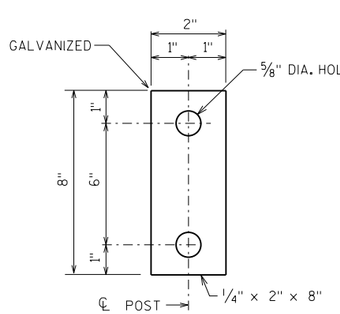


SECTION A-A

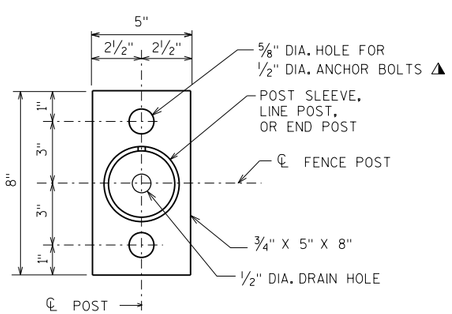
NOTE: PLACE ALL BOLT HEADS ON SIDE OF FENCE ADJACENT TO PEDESTRIANS



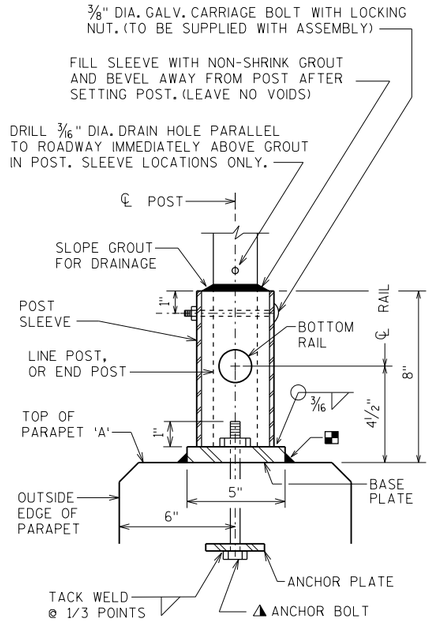
SECTION THRU FENCE



ANCHOR PLATE



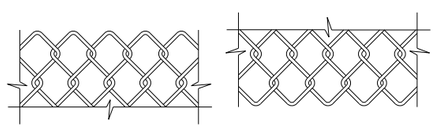
BASE PLATE



DETAIL 'A'

UNIT SHALL BE GALVANIZED AFTER FABRICATION

NOTE: IN LIEU OF USING THE POST SLEEVE, THE FENCE POST MAY BE WELDED TO THE BASE PLATE.



TOP DETAIL BOTTOM DETAIL

FENCE FABRIC

FENCE FABRIC WOVEN OF 9-GAGE WIRE IN 2" DIAMOND PATTERN MESH WITH BOTH THE TOP AND BOTTOM SELVAGES KNUCKLED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-49-26

DRAWN BY KAM | PLANS CK'D. CAB

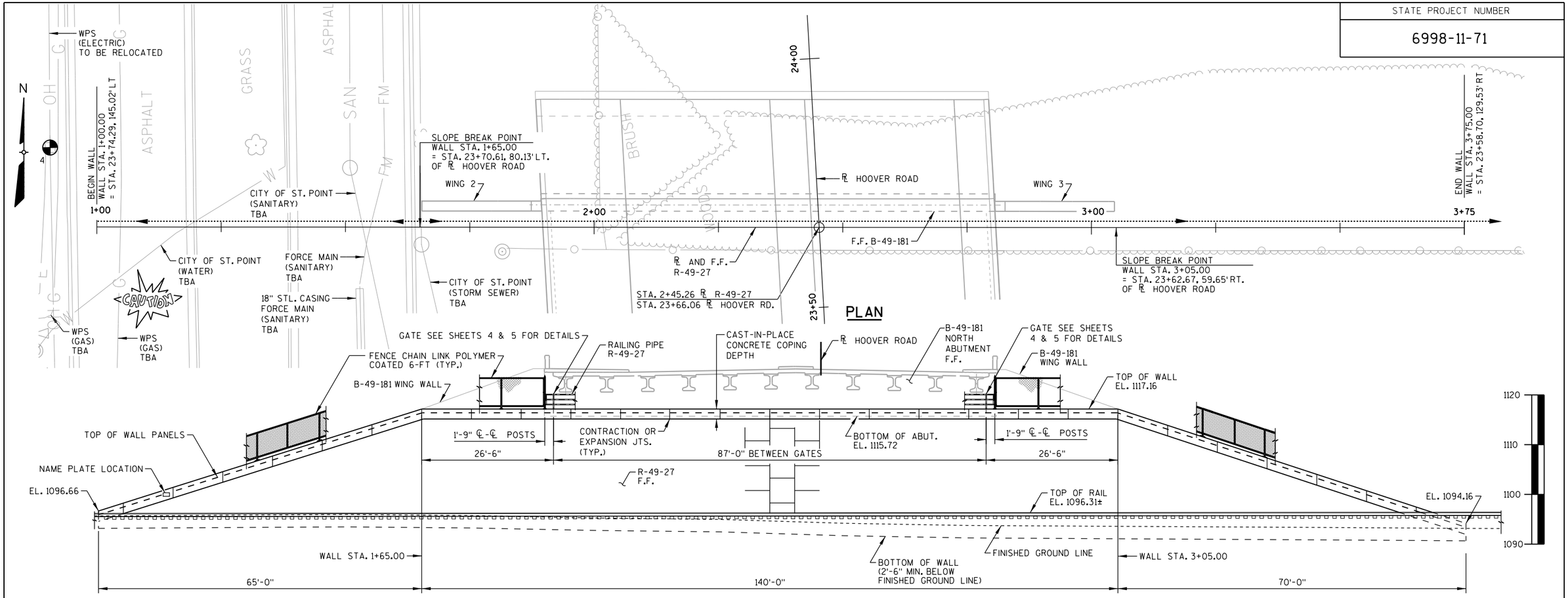
CHAIN LINK FENCE DETAILS AT ANCHOR SLAB

SHEET 12 OF 12
281

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BATCH PRINT SHEET 1 OF 6

STATE PROJECT NUMBER
6998-11-71



ELEVATION
(LOOKING NORTH)

DESIGN DATA

THE CONTRACTOR SHALL PROVIDE COMPLETE DESIGN, PLANS, DETAILS, SPECIFICATIONS AND SHOP DRAWINGS FOR THE RETAINING WALLS IN ACCORDANCE WITH THE SPECIAL PROVISIONS. THE RETAINING WALL MANUFACTURER SHALL PROVIDE TECHNICAL ASSISTANCE TO THE CONTRACTOR DURING CONSTRUCTION. THE COST OF FURNISHING THESE ITEMS SHALL BE INCLUDED IN THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP".

PLANS, ELEVATIONS AND DETAILS SHOWN ON THESE DRAWINGS ARE INTENDED TO INDICATE WALL LOCATIONS, LENGTHS, HEIGHTS, AND DETAILS COMMON TO THE WALL SYSTEM SELECTED. THE CONTRACTOR SHALL VERIFY THAT THE WALL SYSTEM SELECTED WILL CONFORM TO THE REQUIRED ALIGNMENT AND DETAILS.

THE RETAINING WALL SHALL BE DESIGNED USING THE ELEVATIONS GIVEN ON THIS PLAN.

DESIGN FOR RETAINING WALL TO PROVIDE FOR FINISHED GRADE SLOPED IN FRONT OF AND BEHIND THE WALL, AS SHOWN.

COORDINATE THE LOCATION OF THE RETAINING WALL REINFORCEMENT STRAPS WITH B-49-181 PILE SLEEVE LOCATIONS.

THE MAXIMUM VALUE OF THE ANGLE OF INTERNAL FRICTION OF THE WALL BACKFILL MATERIAL IN THE REINFORCED ZONE SHALL BE ASSUMED TO BE 30 DEGREES WITHOUT CERTIFIED TEST VALUES.

DESIGN RETAINING WALL FOR A LIVE LOAD SURCHARGE OF 240 PSF.

DESIGN THE MSE WALL IN FRONT OF THE ABUTMENT BODY TO RESIST THE FORCE FROM ALL HORIZONTAL EARTH PRESSURE ACTING ON THE BACK OF THE ABUTMENT BELOW THE BEAM SEATS.

ONLY PANELS OF STD. SIZE 5FT. x 5FT. SHALL BE USED FOR THIS RETAINING WALL. 5FT. x 10FT. PANELS ARE NOT ALLOWED.

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

B.F. = BACK FACE
F.F. = FRONT FACE

BAR STEEL REINFORCEMENT IN CAST IN PLACE CONCRETE SHALL BE EMBEDDED 2" CLEAR UNLESS SHOWN OR NOTED OTHERWISE.

ALL BAR STEEL REINFORCEMENT IN CAST IN PLACE CONCRETE IS TO BE EPOXY COATED.

A NAME PLATE SHALL BE PLACED AS DIRECTED BY THE ENGINEER. CENTER NAME PLATE ON COPING.

A GEOTECHNICAL REPORT HAS BEEN PREPARED FOR THIS STRUCTURE AND IS AVAILABLE UPON REQUEST FROM WISDOT'S NC REGION LOCAL PROGRAM MANAGEMENT CONSULTANT.

THE PLAN QUANTITY FOR THE BID ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP" IS BASED ON WALL HEIGHT MEASURED FROM THE TOP OF WALL TO A CONSTANT DEPTH OF 2'-6" BELOW FINISHED GROUND.

THE STANDARD COPING, INCLUDING REINFORCEMENT, IS INCLUDED WITH THE ITEM "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP".

BEVEL EXPOSED EDGES OF CONCRETE ¾-INCH, UNLESS OTHERWISE NOTED.

SETTLEMENT OF THE EXISTING GROUND IS ESTIMATED TO BE BETWEEN 1" AT THE MINIMUM WALL HEIGHT AND 4" AT THE MAXIMUM WALL HEIGHT. SETTLEMENT IS ANTICIPATED TO OCCUR IMMEDIATELY AS FILL IS PLACED.

MATERIAL PROPERTIES

CONCRETE MASONRY COPING	f'c= 4,000 P.S.I.
HIGH-STRENGTH BAR STEEL REINFORCEMENT, GRADE 60	fy= 60,000 P.S.I.
PRECAST WALL PANELS	f'c= 4,000 P.S.I.

ALLOWABLE WALL SYSTEMS

1. WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD

LIST OF DRAWINGS

1. GENERAL PLAN
2. SOIL PARAMETERS, ELEVATIONS, QUANTITIES & DETAILS
3. SUBSURFACE EXPLORATION
4. COPING DETAILS
5. PIPE RAILING DETAILS
6. CHAIN LINK FENCE DETAILS

BENCH MARK TABLE

NO.	STATION	DESCRIPTION	ELEVATION
6	19+49 LT	TOP OF PS (HYD) ON WEST SIDE OF HOOVER ROAD 100'± SOUTH OF JOERNS DRIVE	1096.60
4	23+91 LT	60d SPIKE IN PP "2408 34R 44 ⌀ NW CRNR. OF COUNTRY CLUB DRIVE AND RR TRACKS	1095.92



9/27/2016

LEGEND

PIPE UNDERDRAIN WRAPPED 6-INCH

TBA TO BE ABANDONED

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
BILL DREHER (608) 266-8489

CONSULTANT:
KEVIN HAGEN (715) 342-3053
AECOM PROJECT NO. 60334255

NO.	DATE	REVISION	BY

AECOM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher SDR 10/03/16
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE R-49-27

NORTH ABUTMENT WALL: STRUCTURE B-49-181

COUNTY PORTAGE

~~TOWN~~/CITY/~~VILLAGE~~ STEVENS POINT

DESIGN SPEC. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	CAB	DESIGN CK'D.	KRH	DRAWN BY	KAM	PLANS CK'D.	KRH

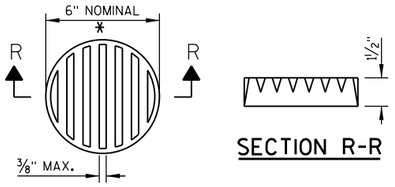
GENERAL PLAN

SHEET 1 OF 6
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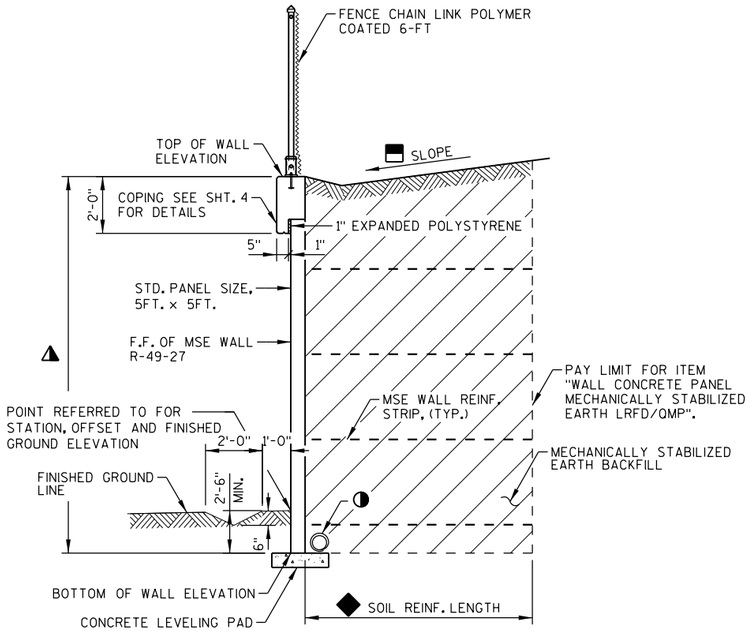
RODENT SHIELD DETAIL

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

ORIENT SO SLOTS ARE VERTICAL.

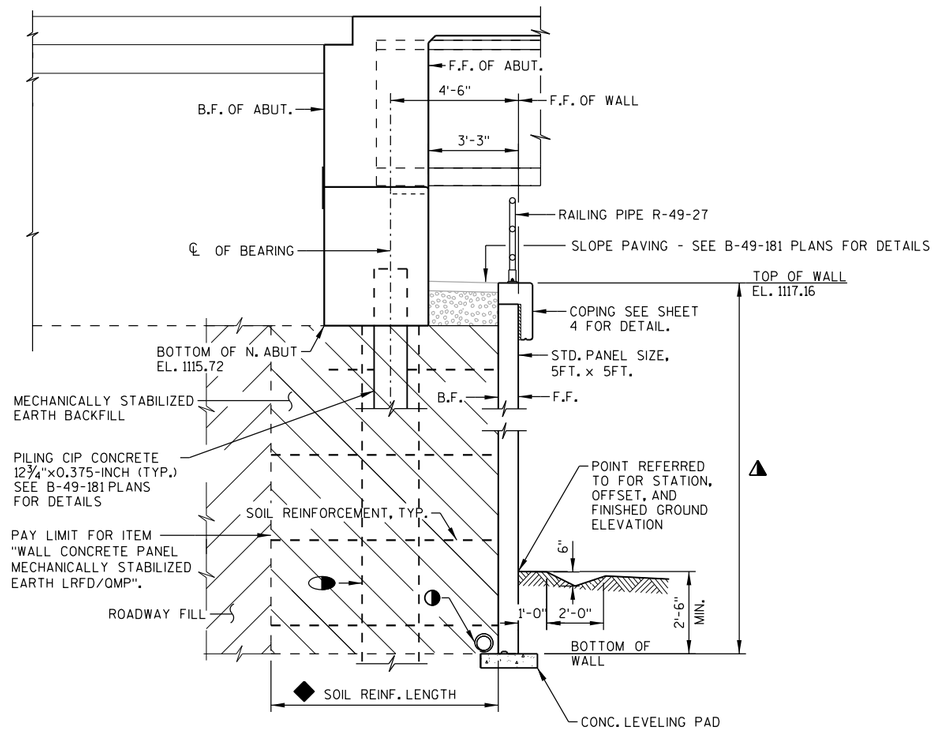
THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE INCLUDED IN THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.



TYPICAL MSE WALL SECTION WITH NO ABUTMENT

LOOKING WEST



TYPICAL WALL SECTION THRU ABUTMENT

LEGEND

◭ PAY LIMIT FOR "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP"

◆ MINIMUM LENGTH OF MSE WALL REINFORCING STRIPS MUST BE 70% THE TOTAL WALL HEIGHT (EXPOSED HEIGHT PLUS EMBEDMENT DEPTH) OR 8.0 FEET, WHICHEVER IS GREATER. SOIL REINFORCEMENT MUST EXTEND A MINIMUM OF 3.0 FEET BEYOND THE FAILURE PLANE FOR INTERNAL STABILITY AS DEFINED BY AASHTO SPECIFICATIONS. ACTUAL CALCULATED LENGTHS OF REINFORCING STRIPS WILL NEED TO MEET OR EXCEED THESE MINIMUMS AT THESE DESIGNATED LOCATIONS IN ORDER TO SATISFY MINIMUM FACTORS OF SAFETY FOR VARIOUS MSE PARAMETERS. SEE GEOTECHNICAL REPORT FOR ADDITIONAL INFORMATION.

◑ PIPE UNDERDRAIN WRAPPED 6-INCH SLOPE 0.5% MIN. TO SUITABLE DRAINAGE, RODENT SCREEN REQUIRED.

▬ SLOPE BEHIND MSE WALL VARIES. SEE ROADWAY PLANS FOR MORE INFORMATION.

◒ PILE SLEEVES - COORDINATE LOCATIONS WITH B-49-181 PLANS AND SPECIAL PROVISIONS. INSTALL PRIOR TO BACKFILLING AND CONSTRUCTING "WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP".

TABLE OF ELEVATIONS

WALL STATION	MAINLINE STATION	MAINLINE OFFSET	TOP OF WALL ELEVATION	FINISHED GROUND ELEVATION
1+00.00	23+74.29	145.02' LT	1096.66	1095.66
1+25.00	23+72.87	120.06' LT	1104.54	1095.81
1+50.00	23+71.46	95.10' LT	1112.43	1095.97
1+65.00	23+70.61	80.13' LT	1117.16	1096.06
1+75.00	23+70.04	70.14' LT	1117.16	1095.74
2+00.00	23+68.62	45.18' LT	1117.16	1095.24
2+25.00	23+67.20	20.22' LT	1117.16	1094.64
2+50.00	23+65.79	04.74' RT	1117.16	1094.18
2+75.00	23+64.38	29.70' RT	1117.16	1093.74
3+00.00	23+62.95	54.66' RT	1117.16	1093.60
3+05.00	23+62.67	59.65' RT	1117.16	1093.57
3+25.00	23+61.54	79.61' RT	1110.59	1093.45
3+50.00	23+60.12	104.57' RT	1102.37	1093.31
3+75.00	23+58.70	129.53' RT	1094.16	1093.16

WALL EXTERNAL STABILITY EVALUATION

DIMENSIONS	
WALL HEIGHT (FEET)	26.1
EXPOSED WALL HEIGHT (FEET)	23.6
MINIMUM LENGTH OF REINFORCEMENT (FEET)	19.0
WALL STATION	3+00
BORING USED	B6
CAPACITY TO DEMAND RATIO (CDR)	
SLIDING (CDR > 1.0)	1.3
ECCENTRICITY (CDR > 1.0)	1.7
BEARING (CDR > 1.0)	3.6
GLOBAL STABILITY (CDR > 1.0)	1.0
FACTORED SOIL BEARING RESISTANCE (PSF)	19,200

FINAL DESIGN FOR INTERNAL STABILITY AND EXTERNAL SLIDING AND ECCENTRICITY AT OTHER LOCATIONS IS THE RESPONSIBILITY OF THE CONTRACTOR'S WALL DESIGNER AND MAY DIFFER FROM VALUES IN TABLE.

SOIL PARAMETERS

STRATUM LOCATIONS & SOIL DESCRIPTIONS	UNIT WEIGHT	FRICTION ANGLE	COHESION (psf)
RETAINED SOIL EL. 1117.16 - EL. 1091.10 *	120	30	0
BORING B6			
EL. 1096.2 - EL. 1090.2 SAND, MED. DENSE (FILL)	110	35	0
EL. 1090.2 - EL. 1051.2 SAND, LOOSE, F-M (WATER @ 1071.70)	110	29	0
EL. 1051.2 - EL. 1006.2 SAND, MED. DENSE, F-M	115	33	0
EL. 1006.2 - EL. 976.2 SAND, DENSE, F-M	120	35	0
EL. 976.2 - EL. 971.2 SAND, VERY DENSE, F-M	120	43	0

* DESIGN WALL FOR THESE VALUES

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEM	UNIT	TOTALS
513.2001	RAILING PIPE R-49-27	LF	97
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	2
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	295
SPV.0090.21	FENCE CHAIN LINK POLYMER COATED 6-FT	LF	190
SPV.0165.21	WALL CONCRETE PANEL MECHANICALLY STABILIZED EARTH LRFD/QMP	SF	5,430
	NON-BID ITEMS		
	EXPANDED POLYSTYRENE	SIZE	1"
	FILLER	SIZE	3/4"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

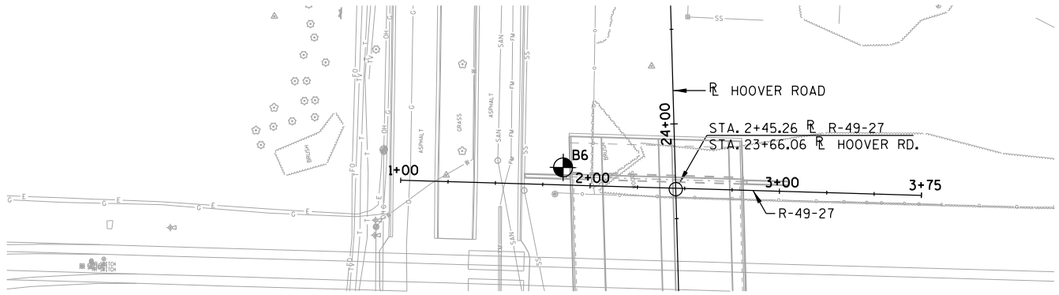
STRUCTURE R-49-27

DRAWN BY KAM | PLANS CK'D. KRH

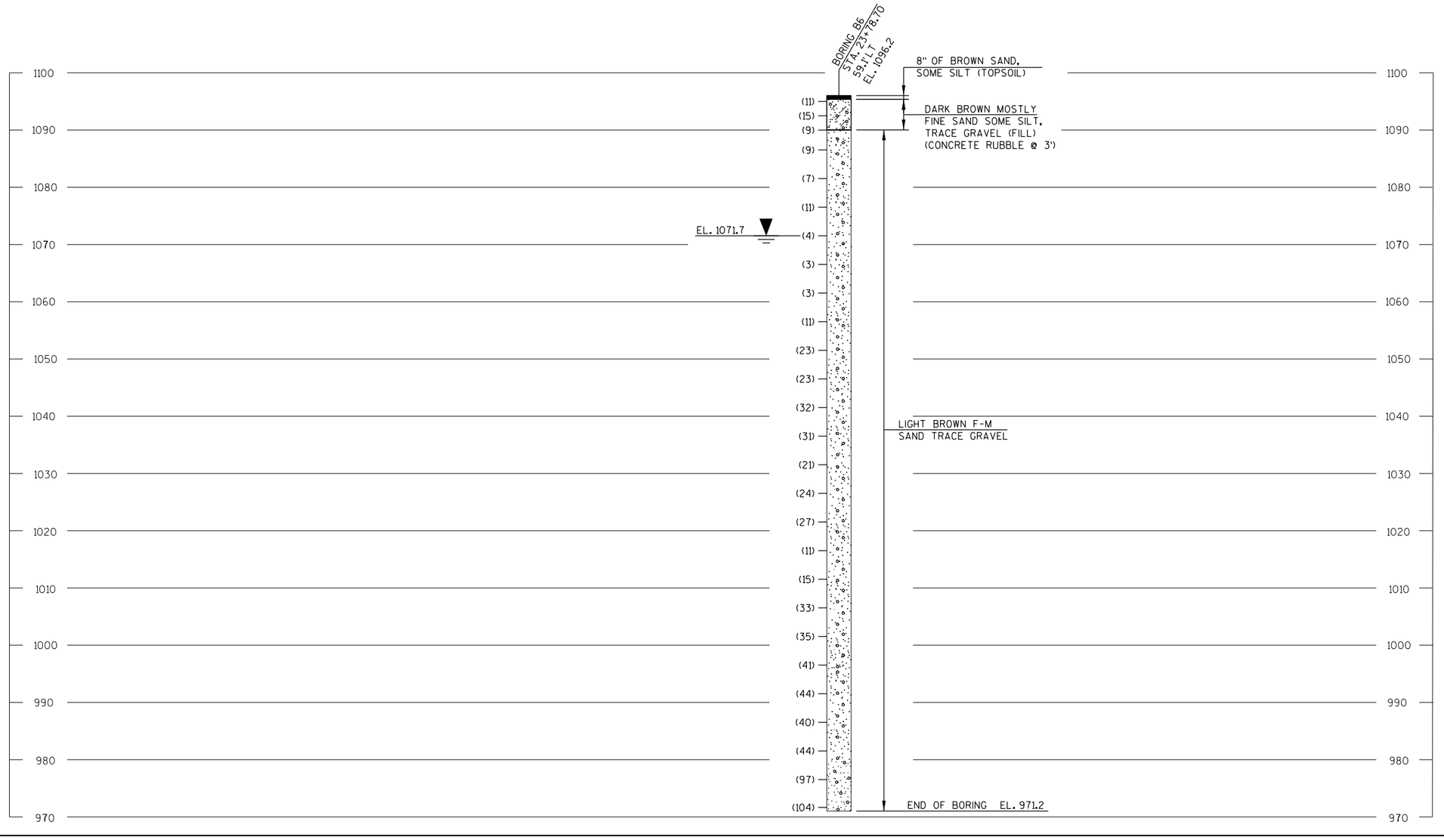
SOIL PARAMETERS, ELEV., QUANTITIES & DETAILS

SHEET 2 OF 6
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BORING B6 AND REPORT BY:
NUMMELIN TESTING SERVICES, INC.
3217 WHITING AVE. P.O. BOX 127
STEVENS POINT, WI 54481
PERFORMED ON DEC. 23, 2014.



PLAN



STATE PROJECT NUMBER

6998-11-71

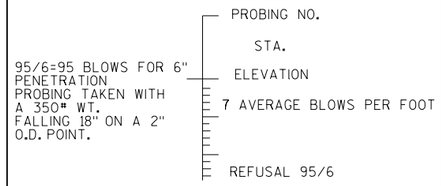
ABBREVIATIONS

F — FINE M — MEDIUM C — COARSE
WS — WEATHERED SO — SOUND

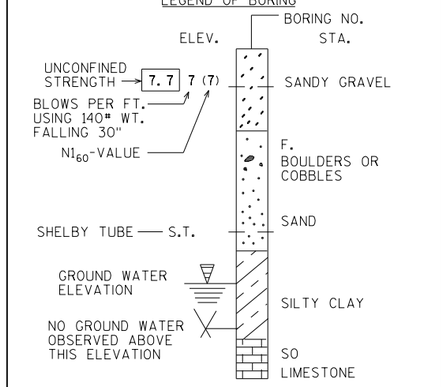
MATERIAL SYMBOLS

TOPSOIL, SILT, SANDSTONE, SAND, PEAT, LIMESTONE, GRAVEL, CLAY, IGNEOUS ROCK

LEGEND OF PROBING



LEGEND OF BORING



UNLESS OTHERWISE SPECIFIED, THE BLOWS PER FOOT AT THE LOCATIONS INDICATED ARE BASED ON DRIVING A 2" O.D. X 1.4" I.D. SPLIT SPOON SAMPLER WITH A 140# HAMMER HAVING A FREE FALL OF 30". THE BLOW COUNT IS TAKEN IN UNDISTURBED SOIL IMMEDIATELY BELOW A CASED OR OPEN HOLE ELIMINATING SIDE FRICTION ON THE DRIVE PIPE.

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

TO OBTAIN RELATIVE DATA CONCERNING THE CHARACTER OF MATERIAL IN AND UPON WHICH THE FOUNDATION MIGHT BE BUILT, BORINGS AND/OR SOUNDINGS WERE MADE AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING. THE DATA PRESENTED HEREIN REPRESENTS THE FINDINGS OF THE SUBSURFACE EXPLORATIONS MADE. HOWEVER, BECAUSE THE DEPTHS INVESTIGATED ARE LIMITED AND THE AREA OF THE BORINGS AND/OR SOUNDINGS IS VERY SMALL IN RELATION TO THE ENTIRE AREA, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT CONDITIONS BELOW THE DEPTHS INVESTIGATED OR THAT THE CLASSIFICATION OF MATERIAL ENCOUNTERED IN THESE INVESTIGATIONS IS NECESSARILY TYPICAL OF THE ENTIRE SITE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-49-27

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SUBSURFACE EXPLORATION

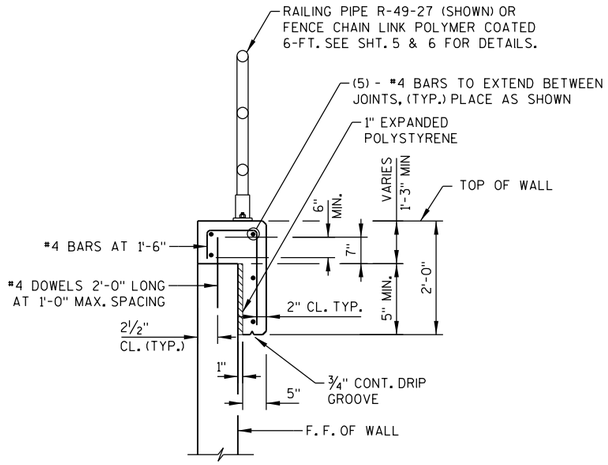
SHEET 3 OF 6
284

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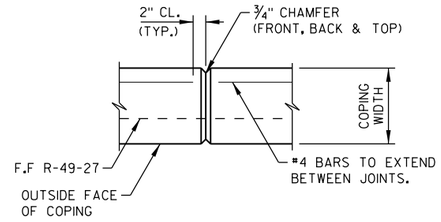
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CAST-IN-PLACE COPING DETAIL

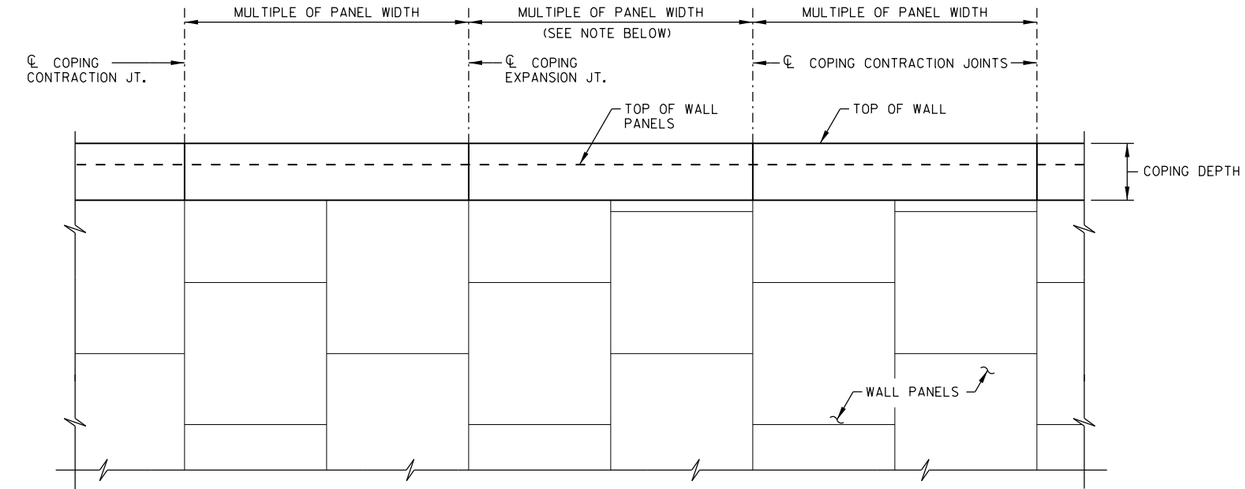


CAST-IN-PLACE COPING CONTRACTION JOINT

DO NOT RUN BAR STEEL THRU JOINT.

MAXIMUM SPACING OF JOINTS SHALL BE 12'-0" AND MUST LINE UP WITH THE WALL PANEL JOINTS.

ALL CONTRACTION JOINTS TO EXTEND THE FULL DEPTH OF COPING.



NOTE:
ALL JOINTS SHALL BE LOCATED AS SHOWN ON WALL ELEVATIONS AND MUST COINCIDE WITH PANEL JOINT ON FRONT FACE.

PARTIAL WALL ELEVATION

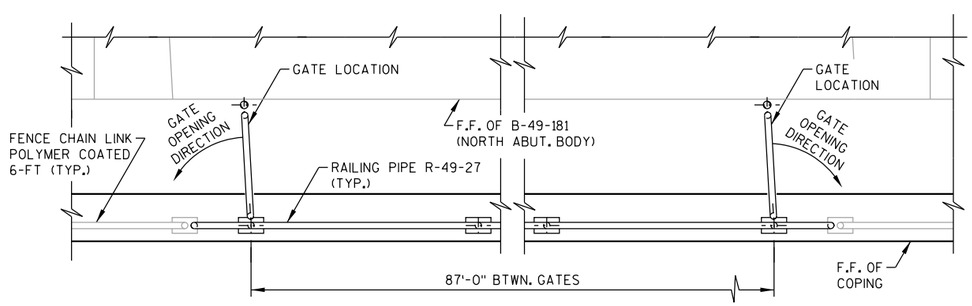
(LOOKING AT FRONT FACE)

CAST-IN-PLACE COPING EXPANSION JOINT

DO NOT RUN BAR STEEL THRU JOINT.

MAXIMUM SPACING OF JOINTS SHALL BE 50'-0" AND MUST LINE UP WITH THE WALL PANEL JOINTS.

ALL EXPANSION JOINTS TO EXTEND THE FULL DEPTH OF COPING.



PLAN - GATES

FOR GATE AND PIPE RAILING DETAILS SEE SHT. 5

LEGEND

- SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF FILLER AND EXPANDED POLYSTYRENE WITH NON-STAINING GRAY, NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE).
- 18" (R.M.W.) RUBBERIZED MEMBRANE WATERPROOFING, TO EXTEND FROM TOP OF COPING TO 6" BELOW TOP OF PANELS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-49-27

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COPING DETAILS

SHEET 4 OF 6
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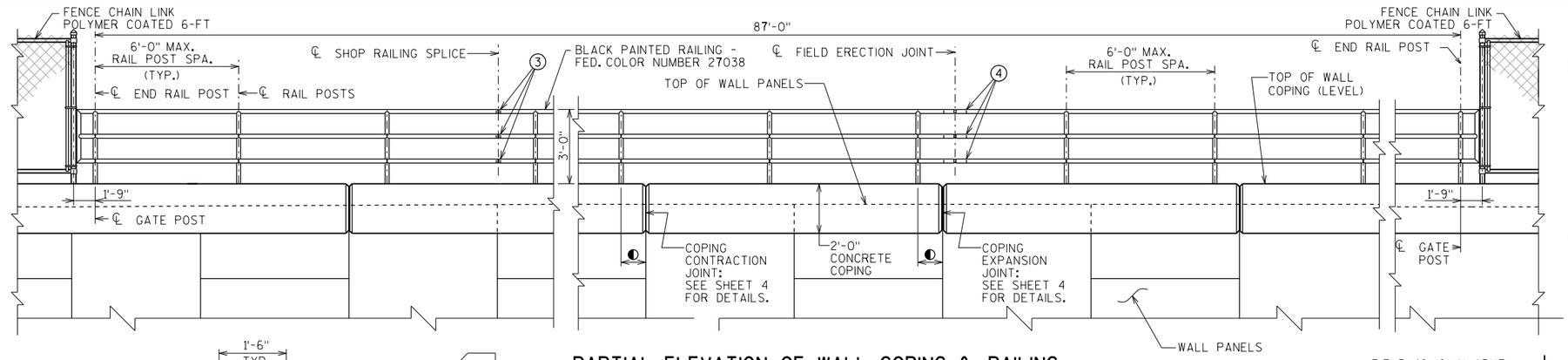
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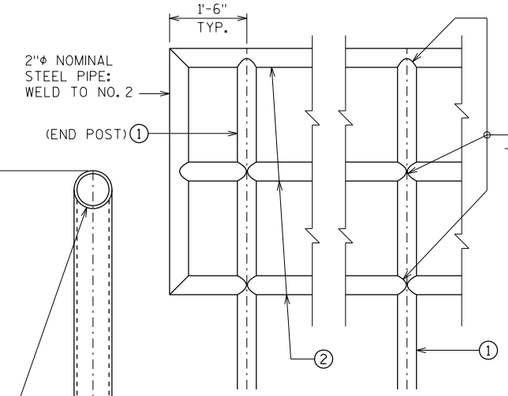
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PARTIAL ELEVATION OF WALL COPING & RAILING

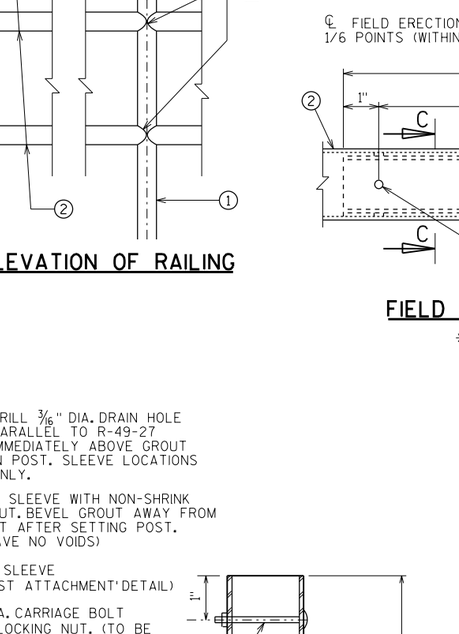
LOOKING NORTH AT F.F. WALL

◐ 1'-0" MIN. DISTANCE REQUIRED BETWEEN THE ℄ OF COPING JOINTS (BOTH EXPANSION AND CONTRACTION JOINTS) AND THE ℄ OF RAIL POSTS.



PART ELEVATION OF RAILING

SECTION THRU RAILING

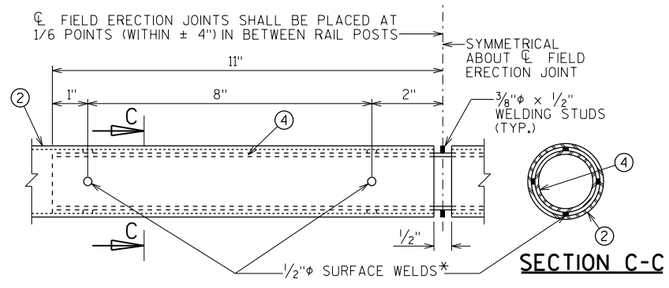


ELEVATION

POST ATTACHMENT

UNIT SHALL BE GALV. AFTER FABRICATION

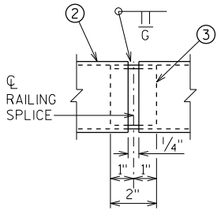
NOTE:
IN LIEU OF USING THE 2½"Φ SLEEVE, THE 2"Φ RAIL POST MAY BE WELDED TO THE BASE PLATE.



FIELD ERECTION JOINT DETAIL

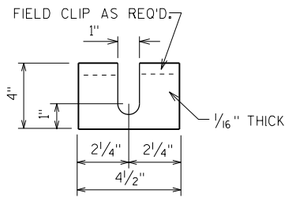
SECTION C-C

*MIN. ⅝" FLAT SURFACE DIA. PUNCHINGS OR STUDS MAY BE USED AS AN ALTERNATE.



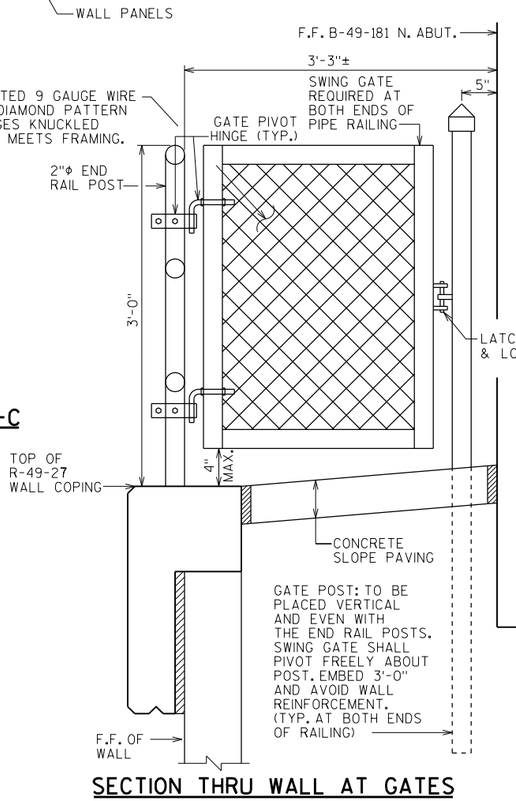
SHOP RAILING SPLICE DETAIL

(LOCATION MUST BE SHOWN ON THE SHOP DRAWINGS)

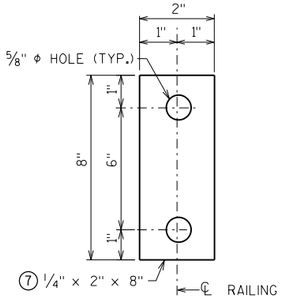


POST SHIM DETAILS

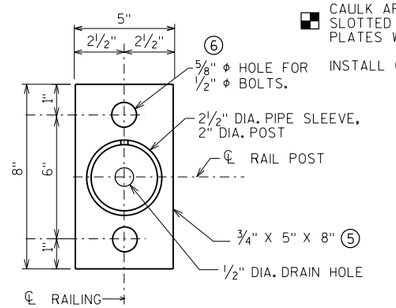
SHIMS REQUIRED ONLY WHEN POSTS ARE WELDED TO BASE PLATES. PROVIDE 4 SHIMS PER POST.



SECTION THRU WALL AT GATES



ANCHOR PLATE



BASE PLATE

LEGEND

① 2"Φ NOMINAL STEEL PIPE FOR POSTS: CUT BOTTOM OF POST TO MATCH TOP OF CONCRETE. POSTS ARE TO BE SET VERTICAL.

② 2"Φ NOMINAL STEEL PIPE FOR RAILS: WELD TO NO. 1

③ 1½"Φ PIPE SLEEVE FOR NO. 2. PROVIDE "SLIDING FIT" WITH A MINIMUM OUT TO OUT DIMENSION OF 2 1/16".

④ 1½"Φ PIPE SLEEVE x 1'-10" LONG FOR NO. 2. PROVIDE ½"Φ SURFACE WELDS ON ALL SIDES AS SHOWN. GRIND WELDS TO FIT FREE INTO I.D. OF NO. 2. PROVIDE ⅜"Φ x ½" WELDING STUDS ON TOP AND BOTTOM SURFACES AT CENTERLINE.

⑤ PLATE ¾" x 5" x 8", WITH ⅝"Φ HOLE FOR ANCHOR BOLTS NO. 6. WELD TO NO. 1. OR PIPE SLEEVE AS SHOWN.

⑥ ½"Φ x 6⅞" LONG A325 HEX BOLTS (GALVANIZED) WITH A325 NUT AND WASHER. 2 REQ'D. PER POST. THREAD 3" AND PLACE NORMAL TO PLATE NO. 5. CHAMFER TOP OF BOLTS BEFORE THREADING. ALTERNATIVE ANCHORAGE: ADHESIVE ANCHORS ½"-INCH. EMBED 7" IN CONCRETE. ADHESIVE ANCHORS SHALL CONFORM TO SECTION 502.2.12 OF THE STANDARD SPECIFICATIONS.

⑦ ¼" x 2" x 8" FLAT BAR, WITH ⅝"Φ HOLES FOR ANCHOR BOLTS NO. 6.

GENERAL NOTES

BID ITEM SHALL BE "RAILING PIPE R-49-27", WHICH INCLUDES ALL ITEMS SHOWN, PAINTING AND POLYMER COATING GATE MESH.

RAILING SHALL BE FABRICATED IN LENGTHS THAT INCLUDE 3 OR 4 POSTS.

FIELD ERECTION JOINTS MUST BE PLACED IN BETWEEN RAIL POSTS WHERE THERE IS ALSO A CAST-IN-PLACE COPING EXPANSION JOINT IN BETWEEN RAIL POSTS.

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.

ALL MATERIAL SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING, ALL STEEL RAILING POSTS AND STEEL TUBING SHALL BE GIVEN A NO. 6 BLAST CLEANING BY S.S.P.C. SPECIFICATIONS.

DRILL DRAIN HOLES PRIOR TO GALVANIZING.

ALL MATERIALS USED IN FABRICATION SHALL BE MADE FROM MATERIALS CONFORMING TO A.S.T.M. DESIGNATION A709 GRADE 36 UNLESS NOTED OTHERWISE.

STEEL POST SHIMS MAY BE USED UNDER POSTS WHERE REQ'D. FOR ALIGNMENT.

ALL RAILS, POSTS AND SLEEVES ARE STANDARD WEIGHT PIPE, SCHEDULE 40.

PLACE ALL NUTS ON OUTSIDE OF POSTS.

ANCHORAGES SHALL BE ACCURATELY PLACED TO PROVIDE CORRECT ALIGNMENT OF RAILING.

ALL RAILINGS, POSTS, GATES AND ASSOCIATED HARDWARE SHALL BE PAINTED BLACK (FEDERAL COLOR NO. 27038)

THE COLOR OF POLYMER-COATING FOR THE GATE FABRIC SHALL BE BLACK FEDERAL COLOR NUMBER 27038 IN ACCORDANCE WITH ASTM 934.

■ CAULK AROUND PERIMETER OF BASE PLATES AND FILL PORTION OF SLOTTED HOLES AROUND ANCHOR BOLTS IN POST SHIMS AND BASE PLATES WITH NON-STAINING, GRAY, NON-BITUMINOUS JOINT SEALER.

INSTALL GATE PARALLEL TO REFERENCE LINE AS SHOWN ON SHT. 4.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-49-27

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PIPE RAILING DETAILS

SHEET 5 OF 6
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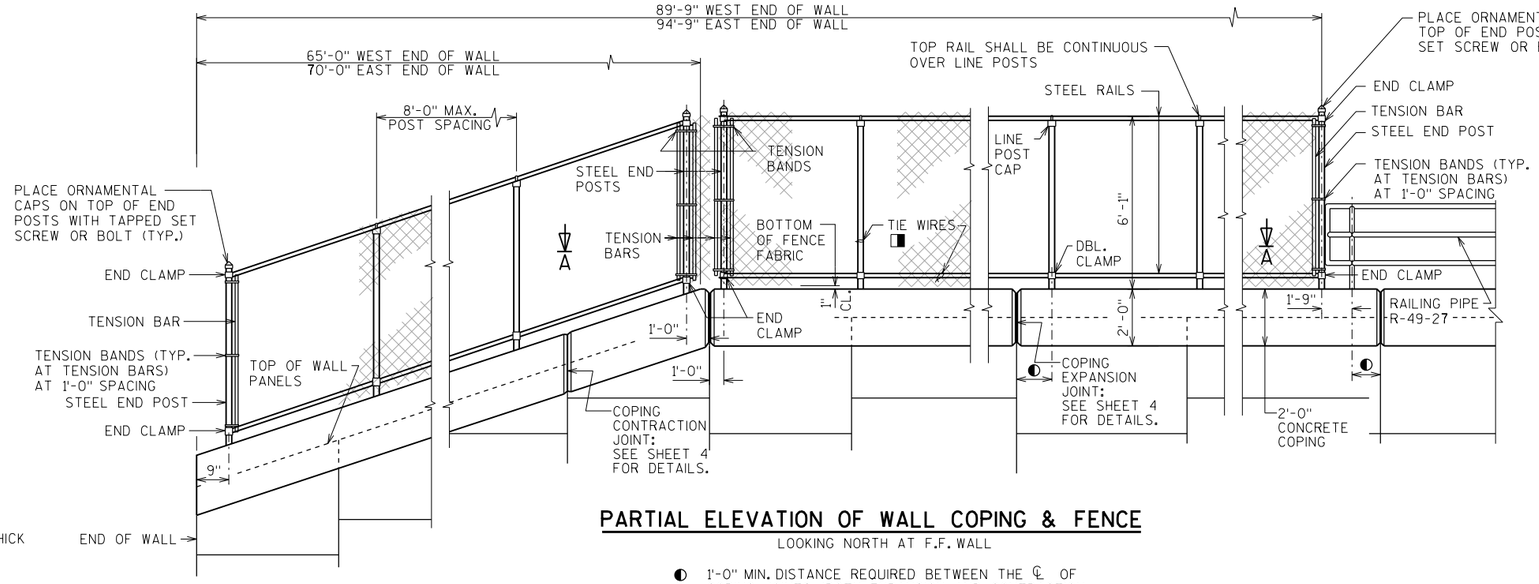
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BATCH PRINT SHEET 6 OF 6

STATE PROJECT NUMBER

6998-11-71

FENCE MEMBER SIZE & WEIGHT

STEEL FENCE MEMBER	OUTSIDE DIAMETER (INCHES)	WEIGHT (LB/FT)
RAILS	1.660	2.27
END POST	2.875	5.80
OVERHANG POST	2.875	5.80
LINE POST	2.375	3.65
POST SLEEVE	4.000	9.12



PARTIAL ELEVATION OF WALL COPING & FENCE

LOOKING NORTH AT F.F. WALL

◐ 1'-0" MIN. DISTANCE REQUIRED BETWEEN THE ℄ OF COPING JOINTS (BOTH EXPANSION AND CONTRACTION JOINTS) AND THE ℄ OF FENCE POSTS.

GENERAL NOTES

POSTS ARE TO BE SET VERTICAL.

ALL FENCE COMPONENTS SHALL BE GALVANIZED STEEL WITH A COLORED POLYMER-COATING ON THE OUTSIDE.

FABRIC SHALL CONFORM TO ASTM F668, CLASS 2B. STEEL RAILS, POSTS AND POST SLEEVES SHALL CONFORM TO ASTM F1083, STANDARD WEIGHT PIPE (SCHEDULE 40). FITTINGS SHALL CONFORM TO ASTM F626. SEE THE "BRIDGE SPECIAL PROVISIONS" FOR ADDITIONAL DETAILS.

THE COLOR OF POLYMER-COATING FOR THIS STRUCTURE SHALL BE BLACK FEDERAL COLOR NUMBER 27038 IN ACCORDANCE WITH ASTM F934.

THE BID ITEM SHALL BE "FENCE CHAIN LINK POLYMER-COATED 6-FT.", LF.

COMPLETE ANY REQUIRED WELDING OF COMPONENTS BEFORE GALVANIZING.

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.

BASE PLATES, ANCHOR PLATES AND SHIMS SHALL BE ASTM A709, GRADE 36.

ALL POST SPACINGS ARE MEASURED HORIZONTALLY BETWEEN THE C/L OF THE POSTS.

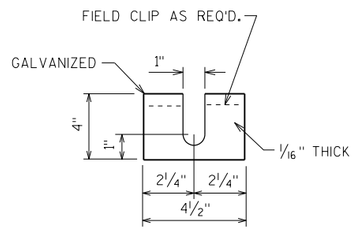
▪ CAULK AROUND PERIMETER OF BASE PLATE AND FILL PORTION OF SLOTTED HOLE AROUND ANCHOR BOLT IN SHIM WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

✳ ALTERNATE TO DOUBLE CLAMP: USE LINE RAIL CLAMP (BOULEVARD) OR 180° BRACE BAND, WHICH MAY BE USED WHEN THE POSTS ARE EITHER BOLTED TO THE POST SLEEVES OR DIRECTLY WELDED TO THE BASE PLATE.

⚠ ½"Φ × 6⅞" LONG GALVANIZED HEX BOLT WITH NUT AND WASHER. ALTERNATIVE ANCHORAGE: ADHESIVE ANCHORS ½"-INCH. EMBED 7" IN CONCRETE. ADHESIVE ANCHORS SHALL CONFORM TO SECTION 502.2.12 OF THE STANDARD SPECIFICATIONS.

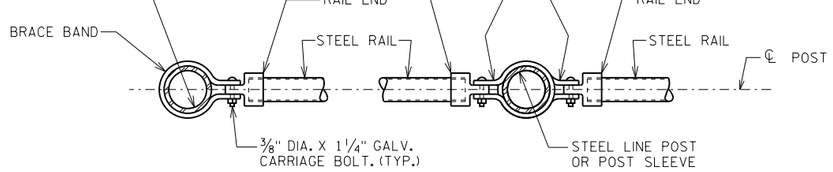
◨ ATTACH FABRIC TO RAILS, AND TO POSTS WITHOUT TENSION BANDS, WITH TIE WIRES (ROUND, 9-GAGE) SPACED AT 1'-0".

MINIMUM LENGTH OF TOP RAIL BETWEEN SPLICES SHALL BE 20'-0". LOCATE SPLICES NEAR ¼ POINT OF POST SPACING.



POST SHIM DETAILS

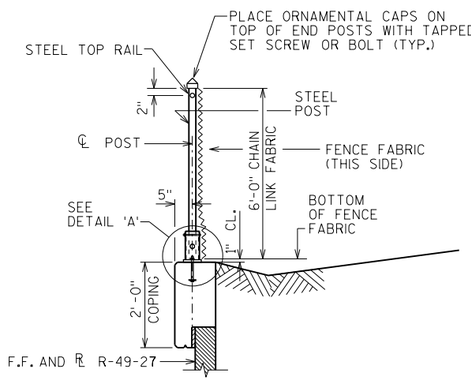
SHIMS REQUIRED ONLY WHEN END POSTS AND LINE POSTS ARE WELDED TO BASE PLATES. PROVIDE 4 SHIMS PER POST. USE WHERE REQUIRED FOR ALIGNMENT.



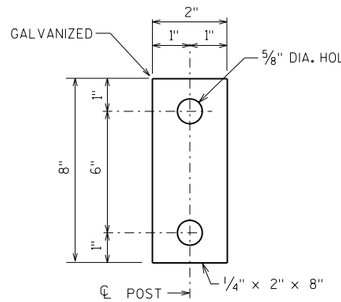
END CLAMP ✳ DOUBLE CLAMP

SECTION A-A

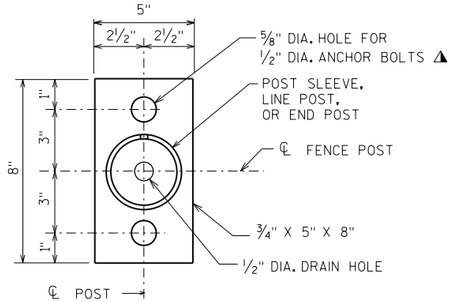
NOTE: PLACE ALL BOLT HEADS ON SIDE OF FENCE ADJACENT TO PEDESTRIANS



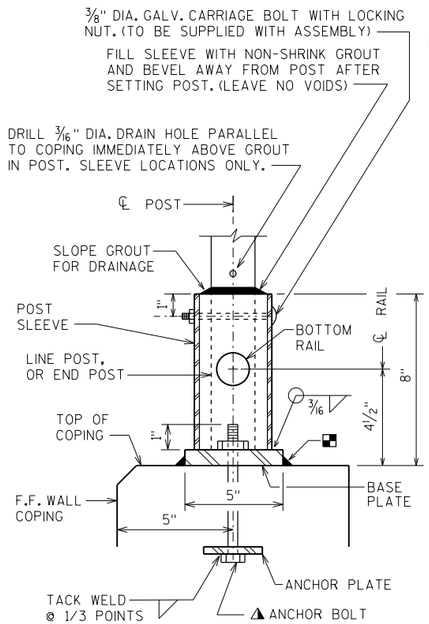
SECTION THRU FENCE



ANCHOR PLATE



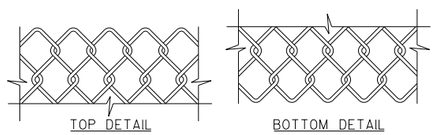
BASE PLATE



DETAIL 'A'

UNIT SHALL BE GALVANIZED AFTER FABRICATION

NOTE: IN LIEU OF USING THE POST SLEEVE, THE FENCE POST MAY BE WELDED TO THE BASE PLATE.



FENCE FABRIC

FENCE FABRIC WOVEN OF 9-GAGE WIRE IN 2" DIAMOND PATTERN MESH WITH BOTH THE TOP AND BOTTOM SELVAGES KNUCKLED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE R-49-27

DRAWN BY KAM | PLANS CK'D. KRH

CHAIN LINK FENCE DETAILS

SHEET 6 OF 6
287

Retention Pond 1	Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)	
LOCATION	**Cut**	**Fill**	**Cut** 1.00	**Expanded Fill** 1.25
Retention Pond 1	0 17952	0 151	0 17952	0 189
Column totals	17952	151		

Retention Pond 2	Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)	
LOCATION	**Cut**	**Fill**	**Cut** 1.00	**Expanded Fill** 1.25
Retention Pond 2	0 3819	0 0	0 3819	0 0
Column totals	3819	0		

Hoover Road-South STATION	Real Station	Distance	AREA (SF) Cut	 Fill	Incremental Vol (CY) (Unadjusted) Cut	 Fill	Cumulative Vol (CY) Cut 1.00	 Expanded Fill 1.25	Mass Ordinate
13+00.00	1300		124.65	0.00	0	0	0	0	0
13+50.00	1350	50	129.76	0.00	236	0	236	0	236
14+00.00	1400	50	126.58	0.67	237	1	473	1	472
14+50.00	1450	50	124.95	0.27	233	1	706	2	704
15+00.00	1500	50	89.97	0.00	199	0	905	2	903
15+29.97	1530	30	63.06	0.00	85	0	990	2	988
15+50.00	1550	20	18.72	21.94	30	8	1020	12	1008
16+00.00	1600	50	0.29	298.70	18	297	1038	383	654
16+50.00	1650	50	0.25	522.07	1	760	1038	1333	-295
17+00.00	1700	50	0.20	831.17	0	1253	1039	2900	-1861
17+50.00	1750	50	0.71	1149.21	1	1834	1039	5192	-4152
18+00.00	1800	50	1.98	1421.87	2	2381	1042	8168	-7126
18+50.00	1850	50	4.36	1636.42	6	2832	1048	11707	-10659
19+00.00	1900	50	12.83	1829.39	16	3209	1064	15719	-14655
19+50.00	1950	50	34.30	2020.06	44	3564	1107	20174	-19067
20+00.00	2000	50	71.03	2245.99	98	3950	1205	25112	-23907
20+50.00	2050	50	108.58	2535.47	166	4427	1371	30646	-29274
21+00.00	2100	50	122.98	2873.99	214	5009	1586	36907	-35321
21+50.00	2150	50	69.74	3286.51	178	5704	1764	44037	-42273
22+00.00	2200	50	36.25	3761.32	98	6526	1862	52194	-50332
22+50.00	2250	50	20.64	4191.05	53	7363	1915	61398	-59483
22+65.21	2265	15	0.00	2580.40	6	1907	1921	63782	-61862
					1921	51026			

PROJECT NUMBER: 6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	EARTHWORK	SHEET NO: 289

FILE NAME: P:\60334255\900-Work\910-CAD\20-Sheets\090101_EW.PPT ORIGINATOR: MICHAEL SCHNEIDER ORIG. DATE: June 15, 2016 PLOTTED DATE: 7/21/2016 4:47 PM

Country Club Drive-North STATION	Real Station	Distance	AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		Mass Ordinate
			Cut	Fill	Cut	Fill	Cut 1.00	Expanded Fill 1.25	
23+91.82	2392		0.00	2780.20	0	0	0	0	0
24+00.00	2400	8	0.00	5742.56	0	1291	0	1614	-1614
24+50.00	2450	50	0.00	5951.58	0	10828	0	15149	-15149
25+00.00	2500	50	0.00	5789.52	0	10871	0	28738	-28738
25+50.00	2550	50	0.00	5715.42	0	10653	0	42054	-42054
26+00.00	2600	50	0.00	5542.63	0	10424	0	55084	-55084
26+50.00	2650	50	0.00	5285.49	0	10026	0	67617	-67617
27+00.00	2700	50	0.00	4839.85	0	9375	0	79336	-79336
27+50.00	2750	50	0.00	4297.70	0	8461	0	89912	-89912
28+00.00	2800	50	0.00	3763.32	0	7464	0	99241	-99241
28+50.00	2850	50	0.00	3160.40	0	6411	0	107255	-107255
29+00.00	2900	50	1.21	2631.01	1	5362	1	113958	-113957
29+50.00	2950	50	0.37	2317.96	1	4582	3	119686	-119683
30+00.00	3000	50	0.00	1895.69	0	3902	3	124563	-124560
30+50.00	3050	50	0.00	1337.86	0	2994	3	128305	-128302
30+55.84	3056	6	0.00	1306.20	0	286	3	128663	-128660
31+00.00	3100	44	0.00	1072.50	0	1945	3	131094	-131091
31+50.00	3150	50	0.00	845.28	0	1776	3	133314	-133311
32+00.00	3200	50	0.00	554.59	0	1296	3	134934	-134931
32+50.00	3250	50	0.00	295.86	0	787	3	135919	-135916
33+00.00	3300	50	1.43	89.34	1	357	4	136364	-136360
33+50.00	3350	50	108.52	9.11	102	91	106	136478	-136372
34+00.00	3400	50	252.25	0.00	334	8	440	136489	-136049
34+26.96	3427	27	274.35	0.00	263	0	703	136489	-135786
34+50.00	3450	23	284.30	0.00	238	0	941	136489	-135548
35+00.00	3500	50	217.02	0.00	464	0	1406	136489	-135083
35+04.11	3504	4	212.06	0.00	33	0	1438	136489	-135051
35+50.00	3550	46	161.78	0.04	318	0	1756	136489	-134733
36+00.00	3600	50	129.91	0.00	270	0	2026	136489	-134463
36+50.00	3650	50	141.40	0.26	251	0	2277	136489	-134212
36+75.91	3676	26	224.86	0.00	176	0	2453	136489	-134037
36+88.57	3689	13	202.58	0.00	100	0	2553	136489	-133936
37+00.00	3700	11	120.91	0.15	68	0	2622	136490	-133868
37+50.00	3750	50	121.87	0.00	225	0	2846	136490	-133643
37+50.79	3751	1	121.87	0.00	4	0	2850	136490	-133640
37+90.00	3790	39	0.00	0.00	88	0	2938	136490	-133551
					2938	109192			

Woodward Drive STATION	Real Station	Distance	AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		Mass Ordinate
			Cut	Fill	Cut	Fill	Cut 1.00	Expanded Fill 1.25	
50+50.00	5050		0	782.53	0	0	0	0	0
51+00.00	5100	50	0	827.37	0	1491	0	1863	-1863
51+50.00	5150	50	0	413.35	0	1149	0	3299	-3299
52+00.00	5200	50	8.79	156.27	8	527	8	3959	-3950
52+50.00	5250	50	34.52	5.61	40	150	48	4146	-4098
53+00.00	5300	50	0.04	73.91	32	74	80	4238	-4158
53+50.00	5350	50	38.97	1.19	36	70	116	4325	-4209
54+00.00	5400	50	75.93	0	106	1	223	4326	-4104
54+50.00	5450	50	17.87	7.22	87	7	310	4335	-4025
55+00.00	5500	50	4.68	12.22	21	18	330	4357	-4027
55+50.00	5550	50	26.04	7.64	28	18	359	4380	-4021
56+00.00	5600	50	116.95	0	132	7	491	4389	-3898
56+50.00	5650	50	330.74	0	415	0	906	4389	-3483
57+00.00	5700	50	337.14	0	618	0	1524	4389	-2865
57+50.00	5750	50	160.38	0	461	0	1985	4389	-2404
58+00.00	5800	50	62.44	0	206	0	2191	4389	-2198
58+50.00	5850	50	57.75	1.1	111	1	2303	4390	-2088
59+00.00	5900	50	28.88	7.21	80	8	2383	4400	-2017
59+50.00	5950	50	56.99	2.02	80	9	2462	4411	-1948
60+00.00	6000	50	49.7	0.9	99	3	2561	4414	-1853
60+50.00	6050	50	48.85	0	91	1	2652	4415	-1763
61+00.00	6100	50	35.8	0	78	0	2731	4415	-1684
61+30.00	6130	30	0	0	20	0	2751	4415	-1664
					2751	3532			

Spectra Print Dwy STATION	Real Station	Distance	AREA (SF) Cut	 Fill	Incremental Vol (CY) (Unadjusted) Cut	 Fill	Cumulative Vol (CY) Cut 1.00	 Expanded Fill 1.25	Mass Ordinate
90+50.00	9050		0	129.21	0	0	0	0	0
91+00.00	9100	50	0	107.87	0	220	0	274	-274
91+50.00	9150	50	0	47.1	0	143	0	454	-454
92+00.00	9200	50	13.95	17.77	13	60	13	529	-516
92+50.00	9250	50	25.84	1.55	37	18	50	551	-501
92+77.00	9277	27	0	0	13	1	63	552	-489
					63	442			

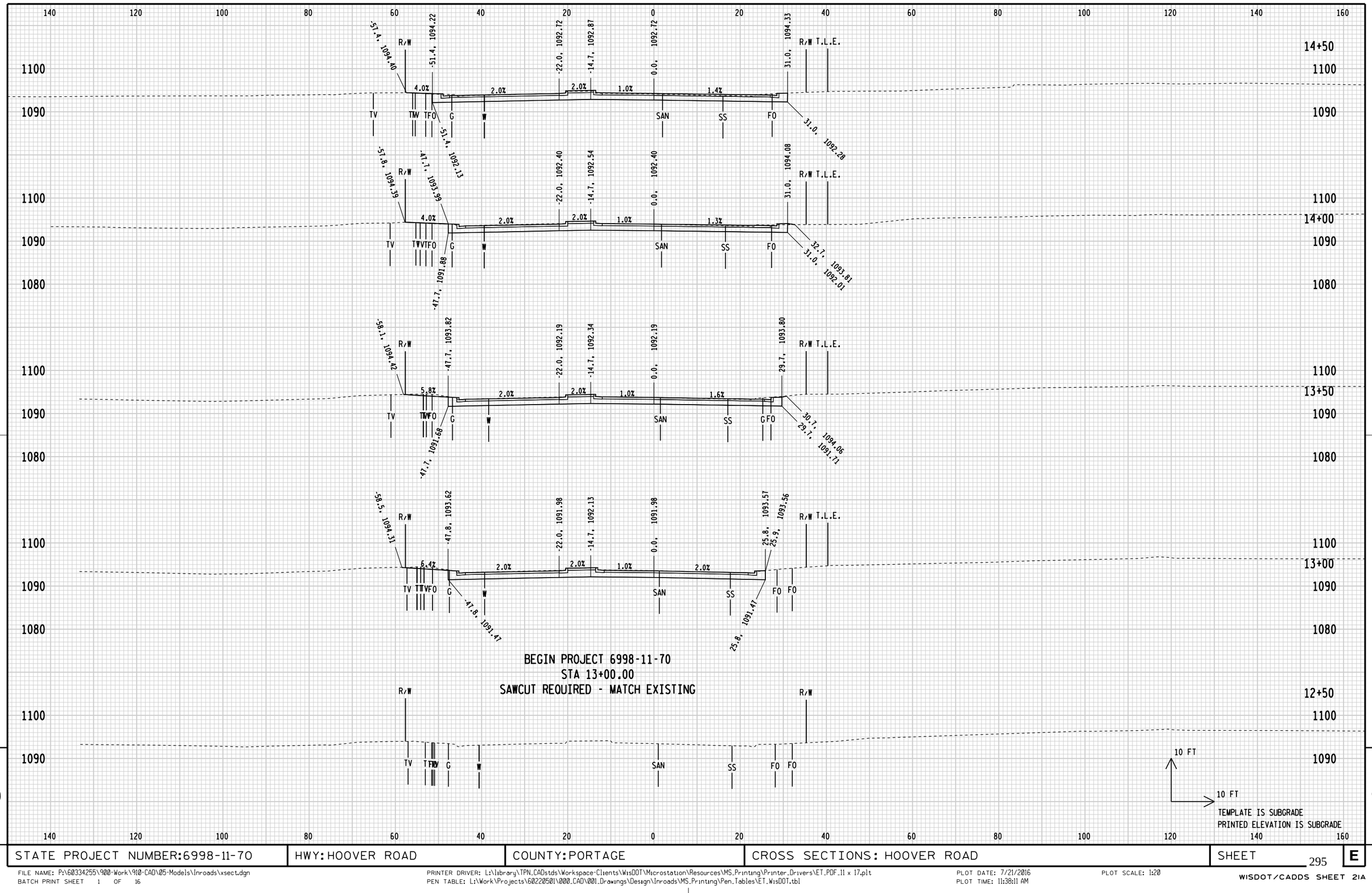
Multi-Use Path STATION	Real Station	Distance	AREA (SF) Cut	 Fill	Incremental Vol (CY) (Unadjusted) Cut	 Fill	Cumulative Vol (CY) Cut 1.00	 Expanded Fill 1.25	Mass Ordinate
100+00.00	10000		0.00	0.00	0	0	0	0	0
100+50.00	10050	50	0.00	38.43	0	36	0	44	-44
101+00.00	10100	50	0.00	31.44	0	65	0	125	-125
101+50.00	10150	50	0.00	47.10	0	73	0	216	-216
102+00.00	10200	50	0.00	60.74	0	100	0	341	-341
102+50.00	10250	50	0.00	47.29	0	100	0	466	-466
103+00.00	10300	50	0.00	36.84	0	78	0	563	-563
103+50.00	10350	50	0.00	18.39	0	51	0	627	-627
104+00.00	10400	50	0.00	9.09	0	25	0	659	-659
104+50.00	10450	50	3.19	3.81	3	12	3	674	-671
105+00.00	10500	50	11.51	0.09	14	4	17	679	-662
105+50.00	10550	50	12.10	0.14	22	0	38	679	-640
106+00.00	10600	50	3.75	3.62	15	3	53	683	-630
106+50.00	10650	50	1.54	5.36	5	8	58	694	-636
107+00.00	10700	50	1.10	6.83	2	11	60	708	-647
107+12.50	10713	13	1.47	6.13	1	3	61	712	-650
					61	569			

Industrial Park Road			AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		
STATION	Real Station	Distance	Cut	Fill	Cut	Fill	Cut 1.00	Expanded Fill 1.25	Mass Ordinate
40+50.00	4050		72.38	0	0	0	0	0	0
41+00.00	4100	50	49.59	3.37	113	3	113	4	109
41+50.00	4150	50	14.63	61.24	59	60	172	79	94
					172	63			

Kirschling Court			AREA (SF)		Incremental Vol (CY) (Unadjusted)		Cumulative Vol (CY)		
STATION	Real Station	Distance	Cut	Fill	Cut	Fill	Cut 1.00	Expanded Fill 1.25	Mass Ordinate
70+50.00	7050		120.19	0	0	0	0	0	0
71+00.00	7100	50	73.39	0	179	0	179	0	179
71+14.00	7114	14	0	0	19	0	198	0	198
					198	0			

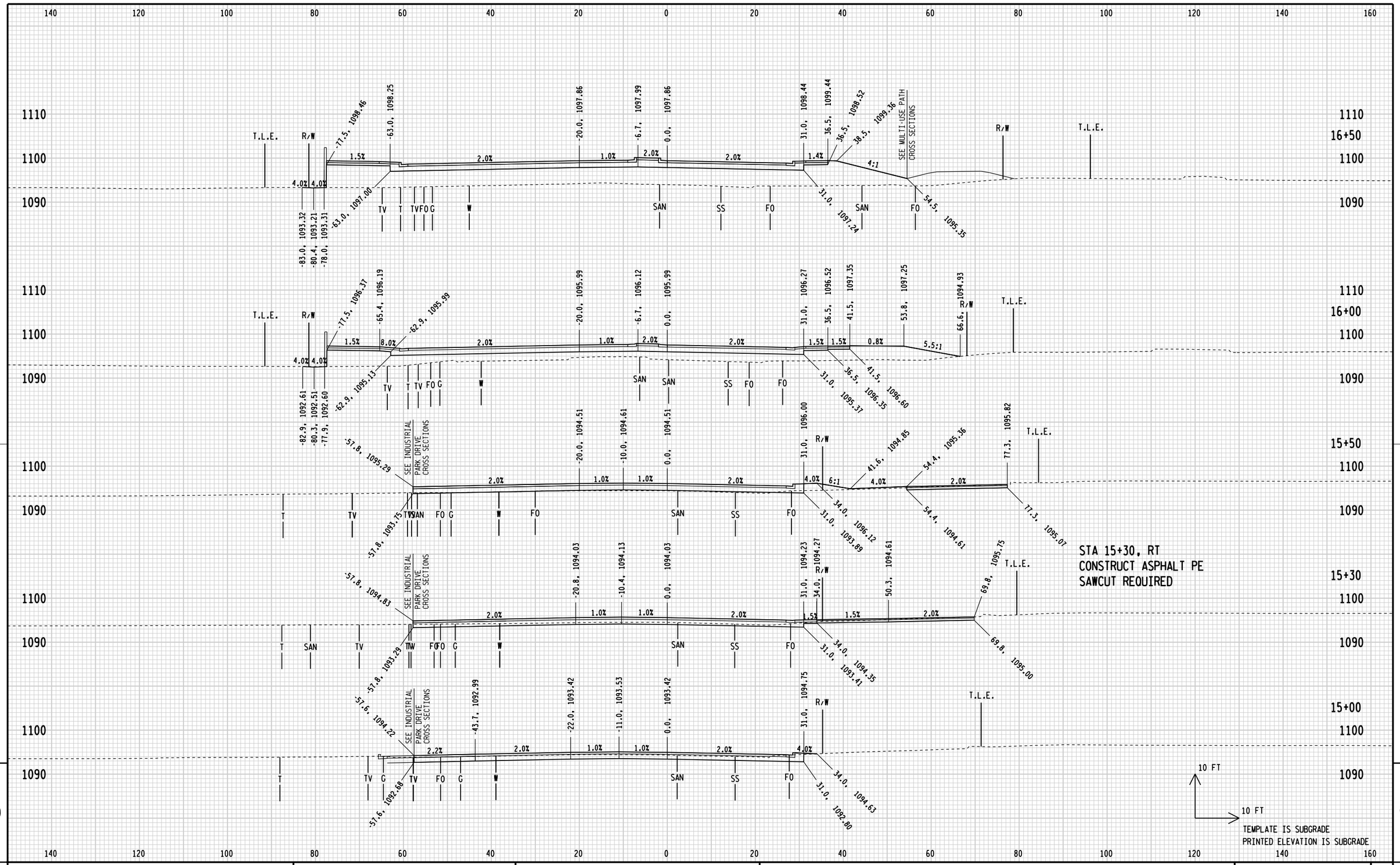
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STATE PROJECT NUMBER:6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	CROSS SECTIONS: HOOVER ROAD	SHEET 295	E

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WISDOT/CADDS SHEET 21A

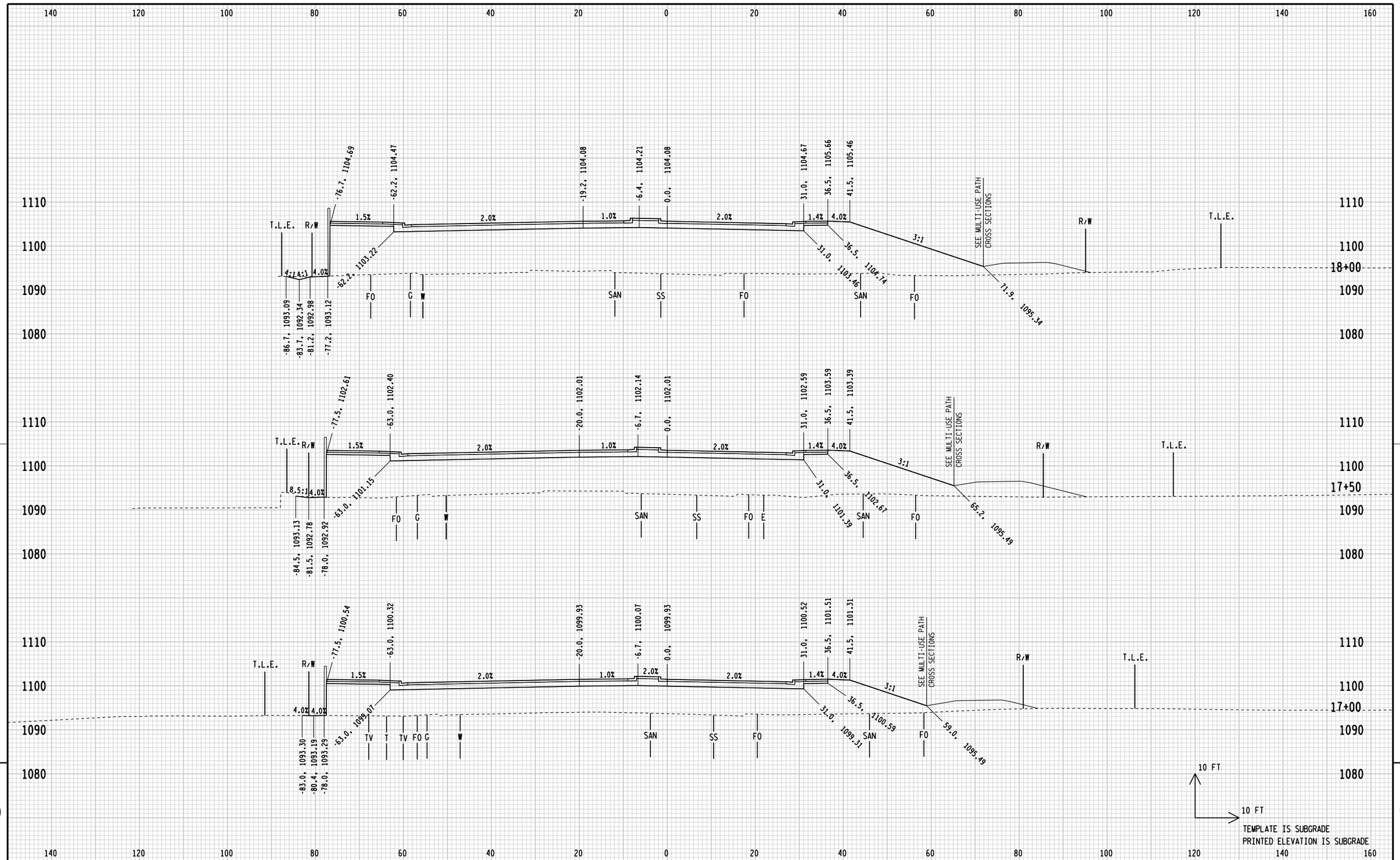


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STATE PROJECT NUMBER: 6998-11-70/71	HWY: HOOVER ROAD	COUNTY: PORTAGE	CROSS SECTIONS: HOOVER ROAD	SHEET 296	E

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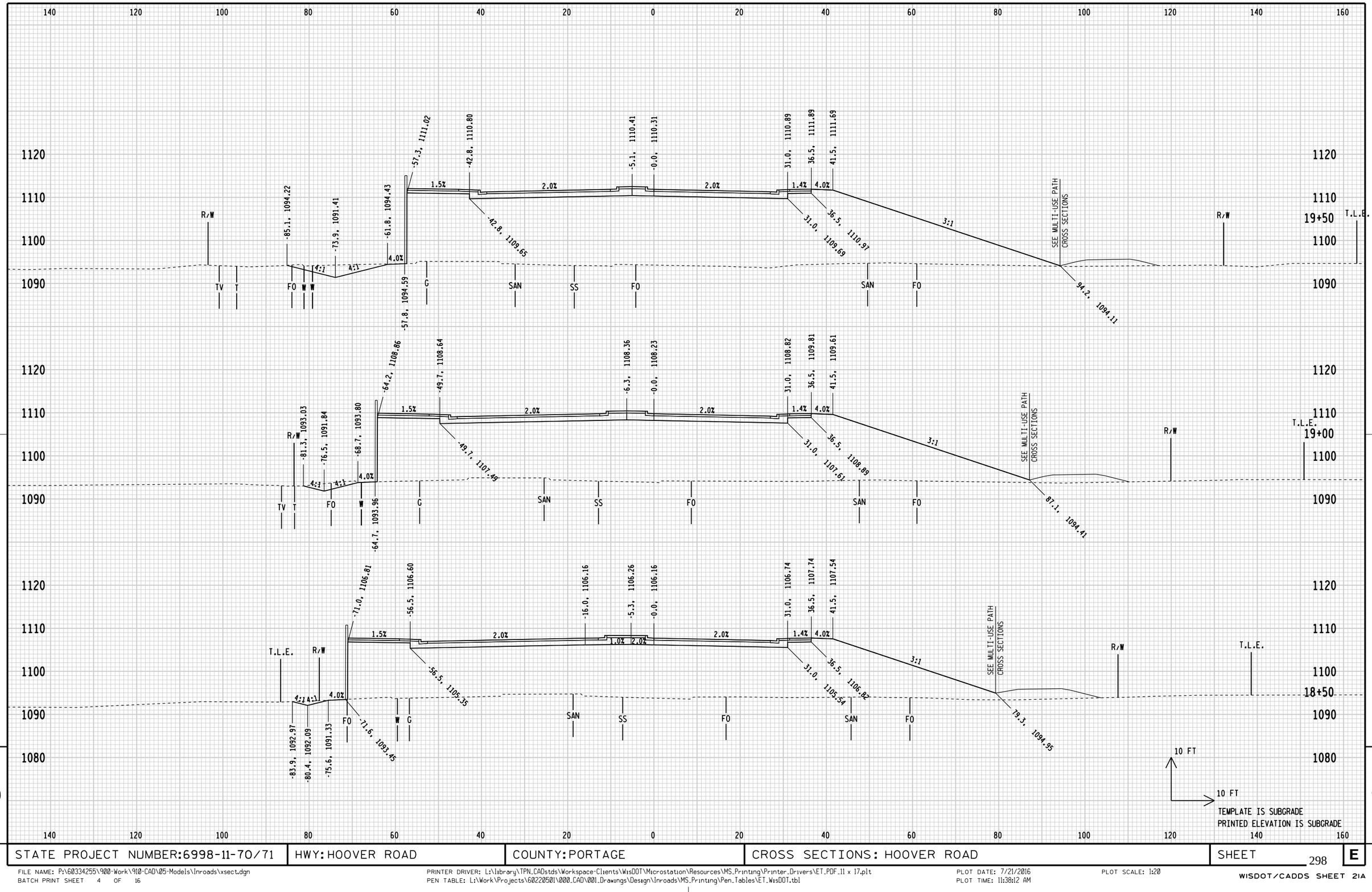


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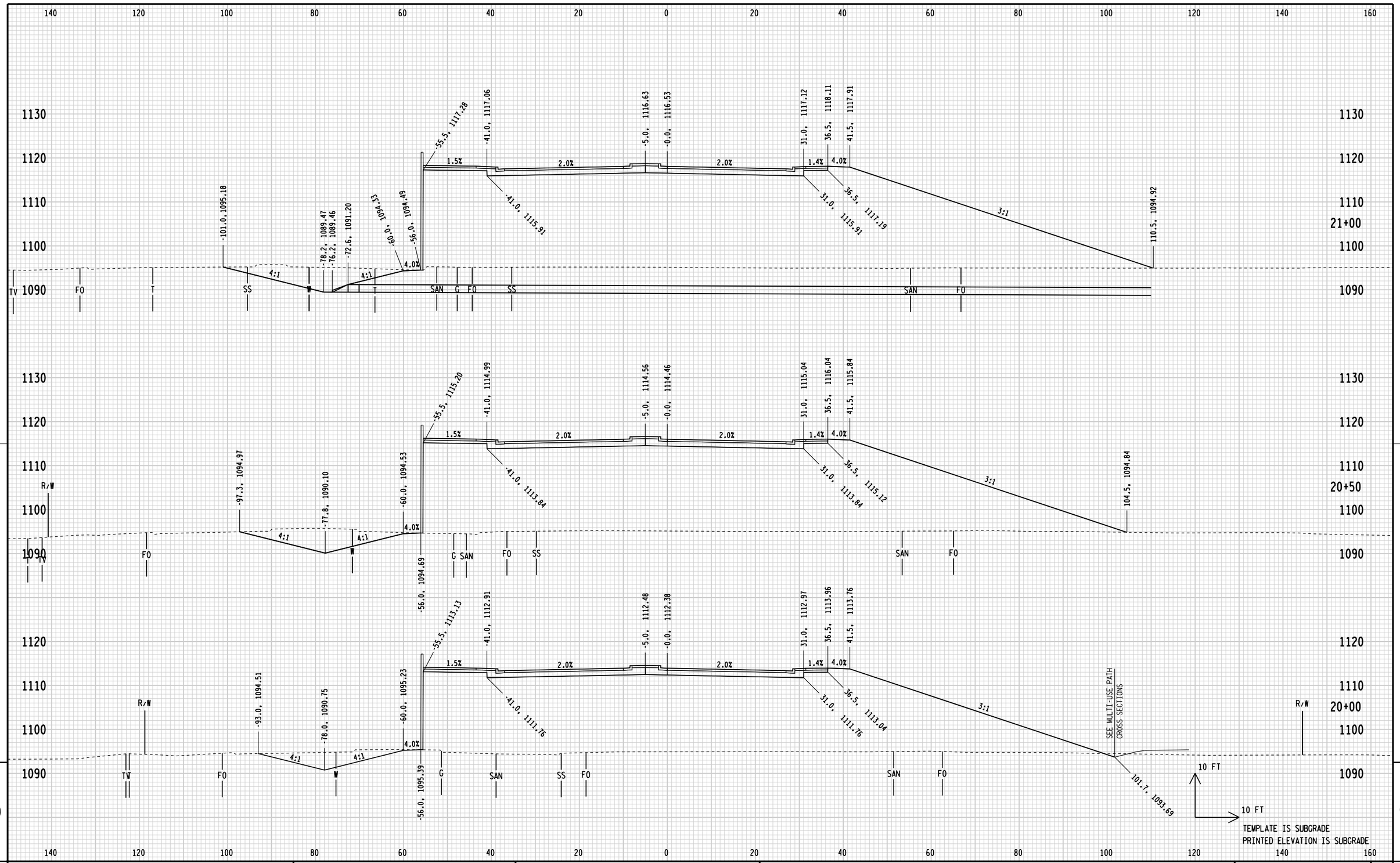
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WISDOT/CADDS SHEET 21A



STATE PROJECT NUMBER: 6998-11-70/71	HWY: HOOVER ROAD	COUNTY: PORTAGE	CROSS SECTIONS: HOOVER ROAD	SHEET 298	E

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WISDOT/CADDS SHEET 21A



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STATE PROJECT NUMBER: 6998-11-70/71	HWY: HOOVER ROAD	COUNTY: PORTAGE	CROSS SECTIONS: HOOVER ROAD	SHEET 299	E

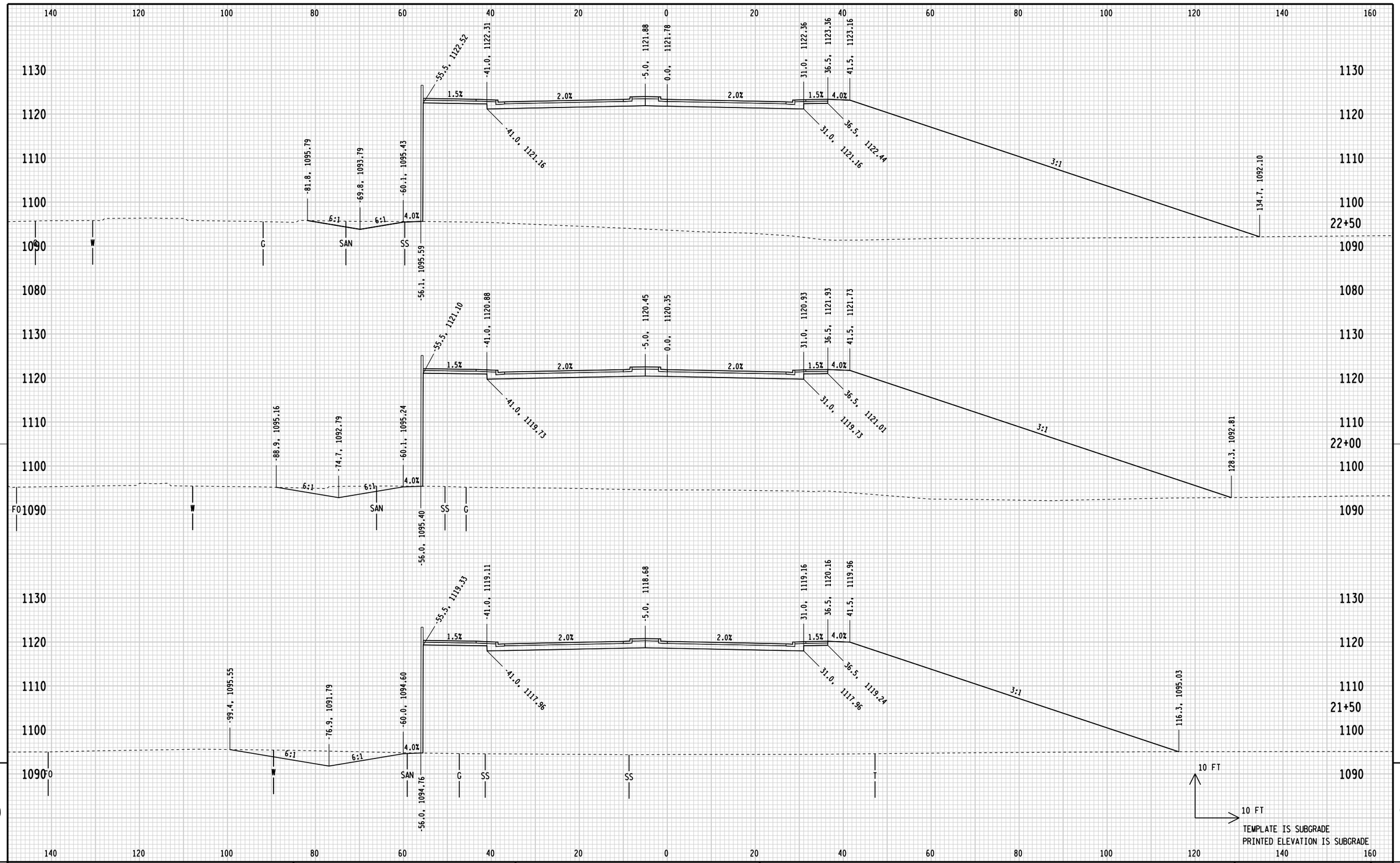
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PLOT TIME: 11:38:12 AM

PLOT SCALE: 1:20

WISDOT/CADDS SHEET 21A



STATE PROJECT NUMBER:6998-11-70/71	HWY:HOOVER ROAD	COUNTY:PORTAGE	CROSS SECTIONS: HOOVER ROAD	SHEET 300	E

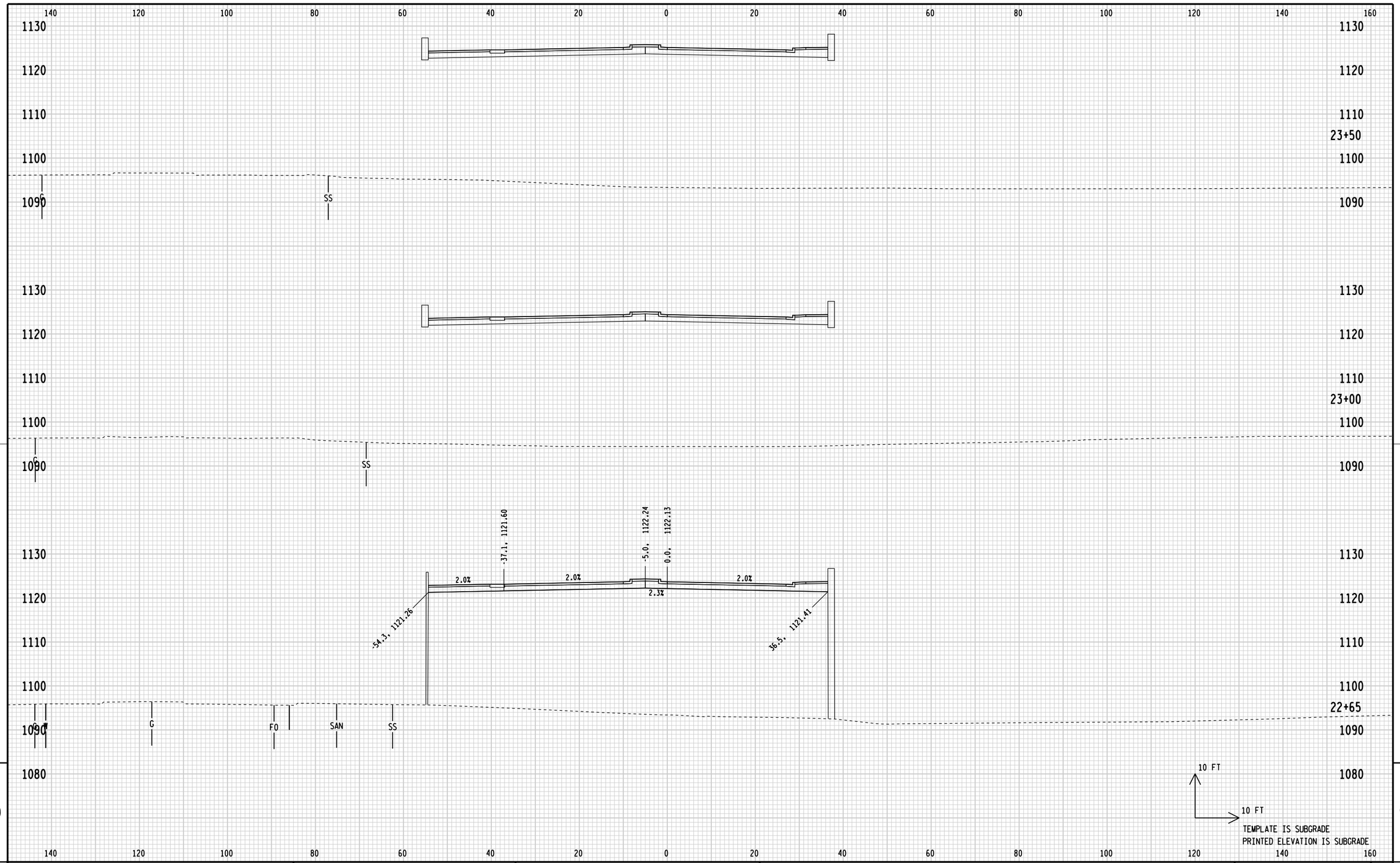
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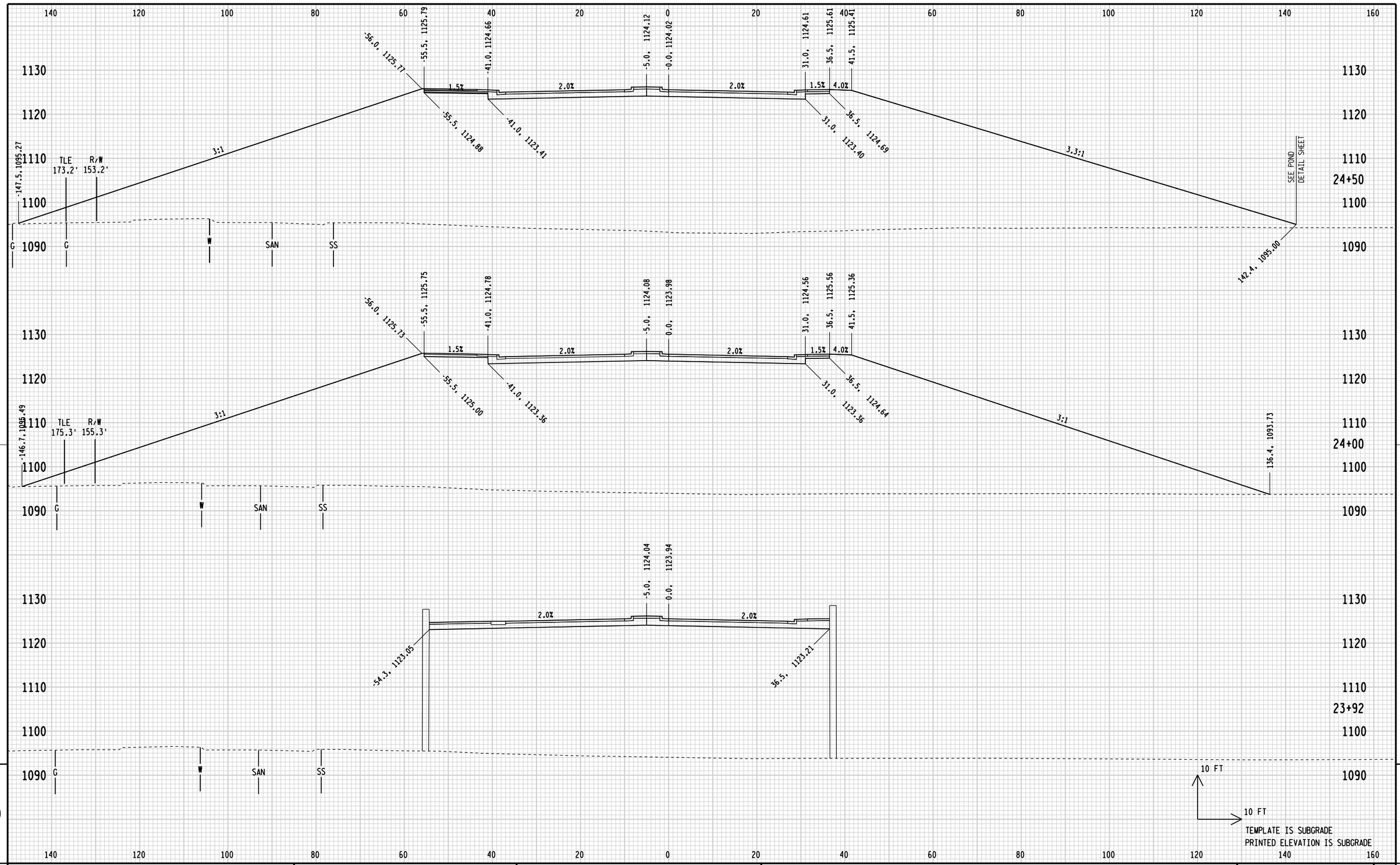
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PLOT TIME: 11:38:13 AM

PLOT SCALE: 1:20

WISDOT/CADDS SHEET 21A

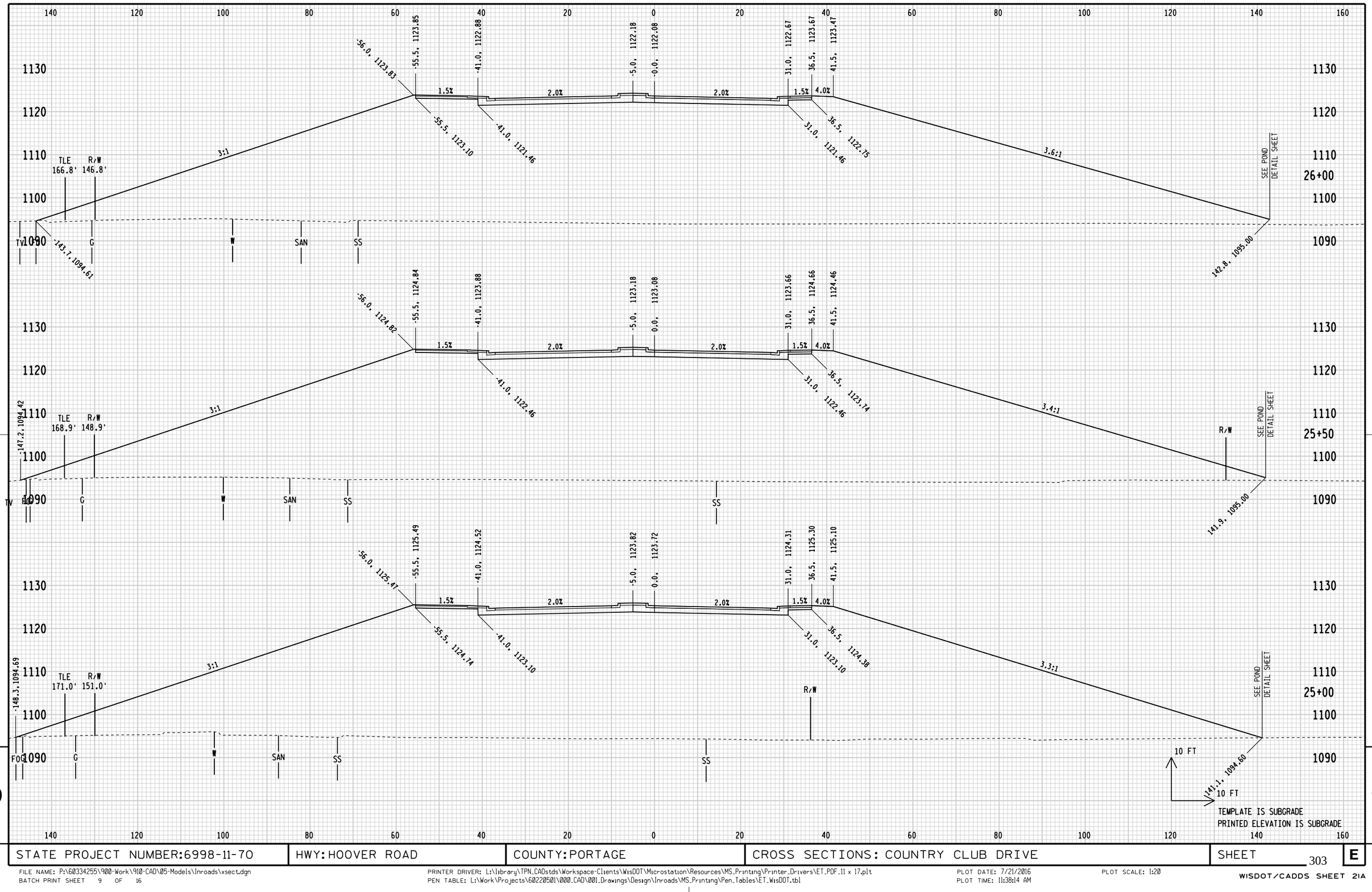


STATE PROJECT NUMBER: 6998-11-70/71	HWY: HOOVER ROAD	COUNTY: PORTAGE	CROSS SECTIONS: COUNTRY CLUB DRIVE	SHEET 301	E



STATE PROJECT NUMBER: 6998-11-70/71	HWY: HOOVER ROAD	COUNTY: PORTAGE	CROSS SECTIONS: COUNTRY CLUB DRIVE	SHEET 302	E

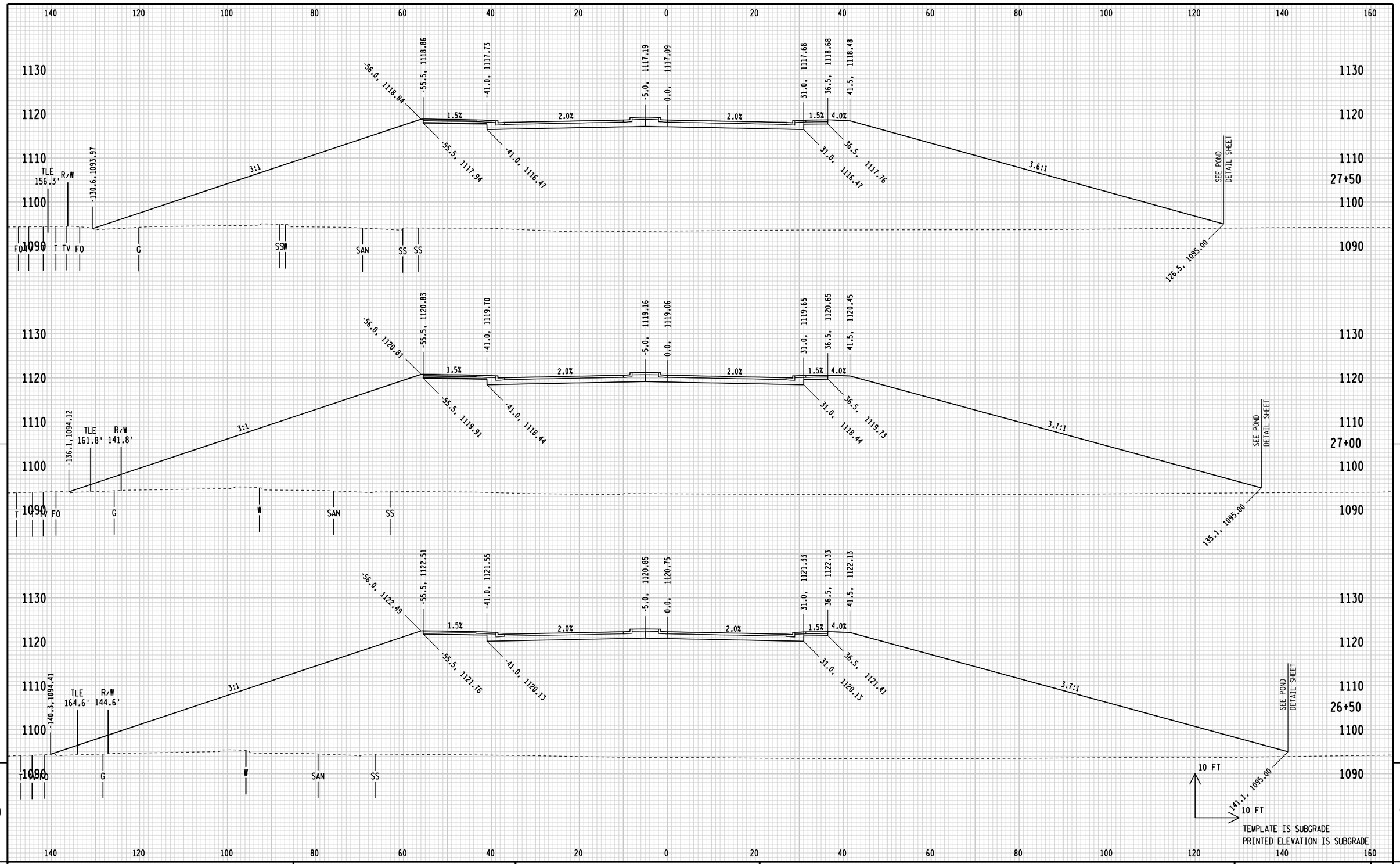
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PLOT DATE: 7/21/2016
PLOT TIME: 11:38:13 AM
PLOT SCALE: 1:20
WISDOT/CADDS SHEET 21A



9

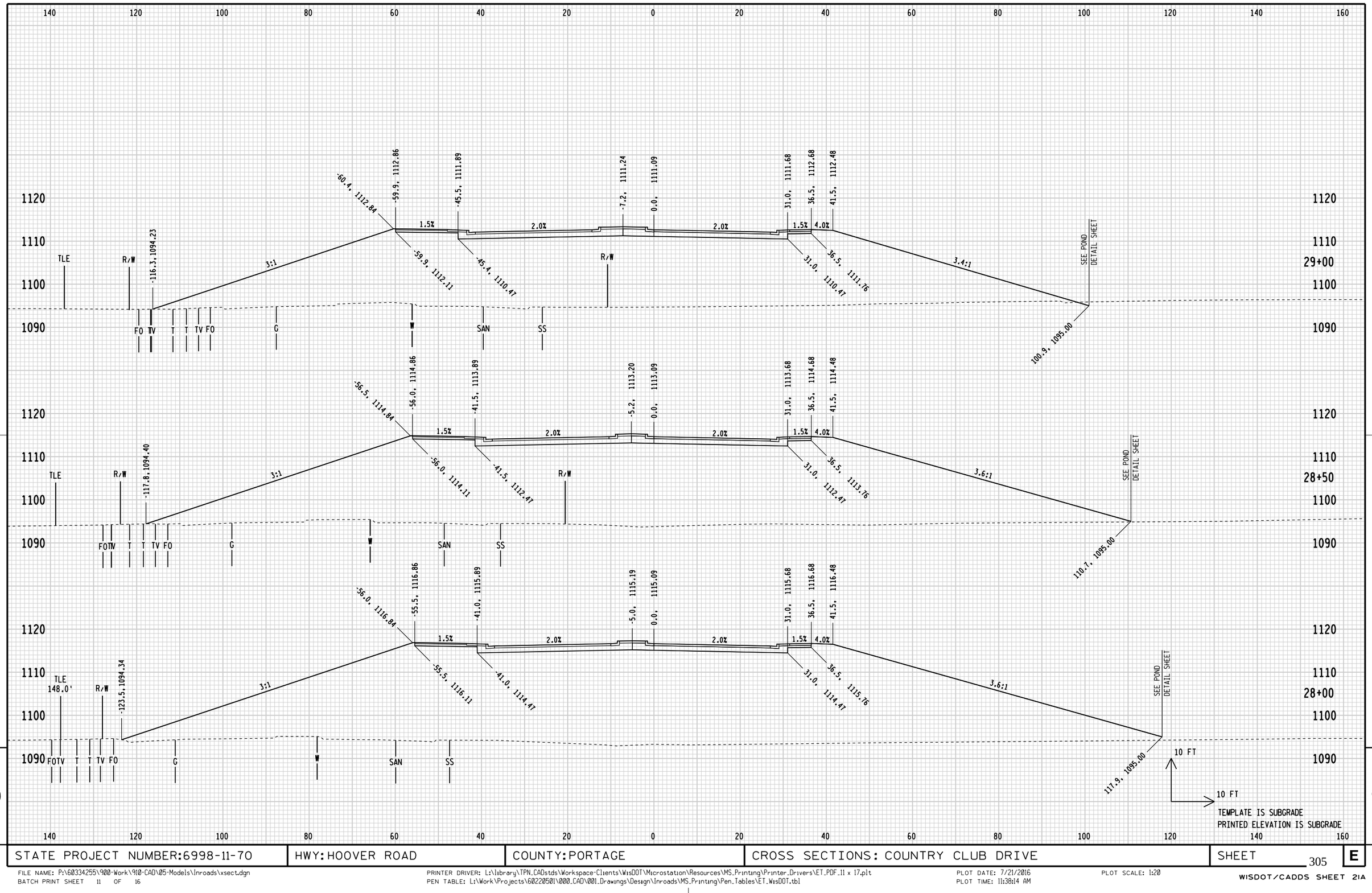
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STATE PROJECT NUMBER:6998-11-70	HWY:HOOVER ROAD	COUNTY:PORTAGE	CROSS SECTIONS: COUNTRY CLUB DRIVE	SHEET 303 E



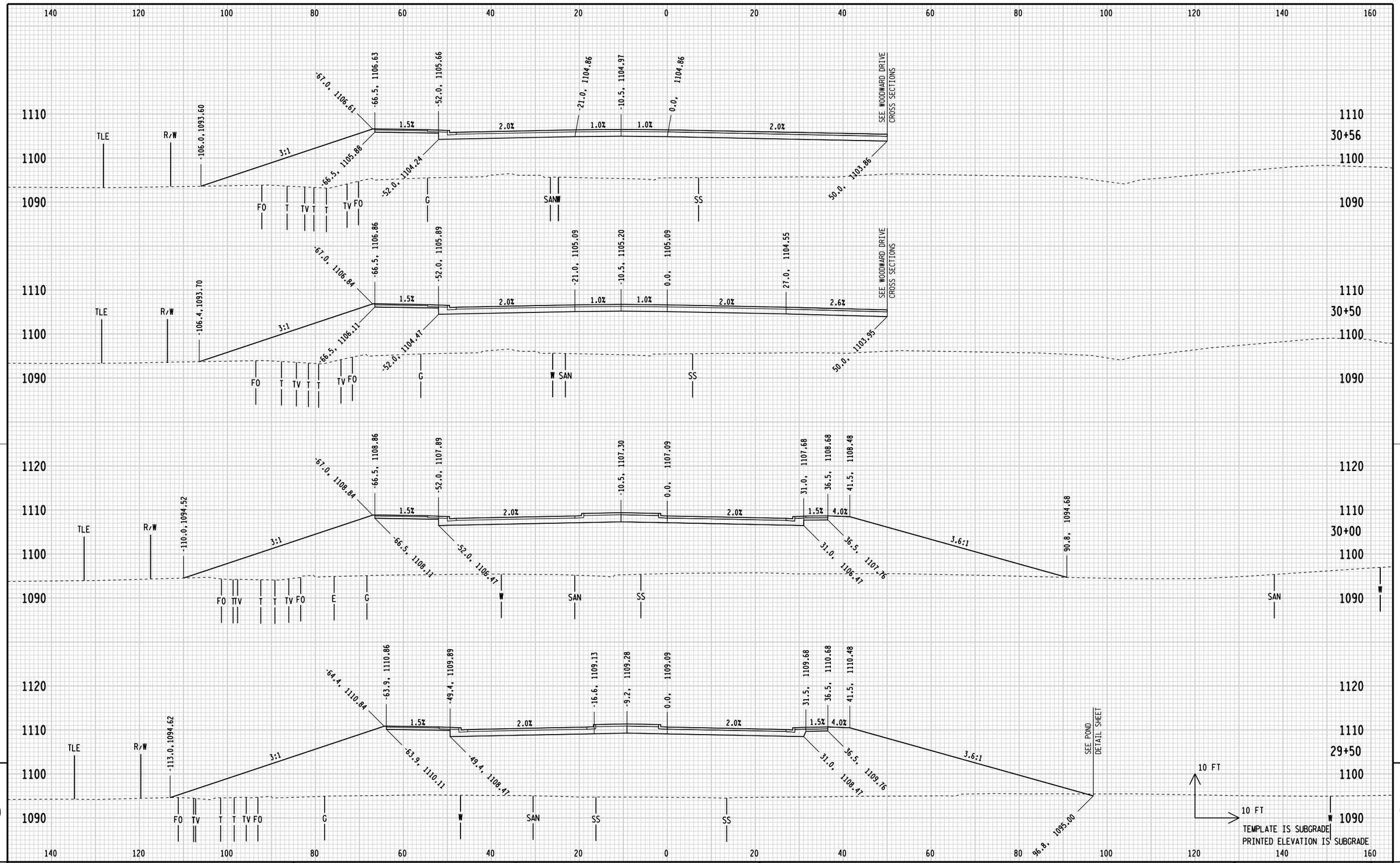
STATE PROJECT NUMBER:6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	CROSS SECTIONS: COUNTRY CLUB DRIVE	SHEET 304	E

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PLOT SCALE: 1:20
WISDOT/CADDS SHEET 21A



STATE PROJECT NUMBER:6998-11-70	HWY:HOOVER ROAD	COUNTY:PORTAGE	CROSS SECTIONS: COUNTRY CLUB DRIVE	SHEET	E

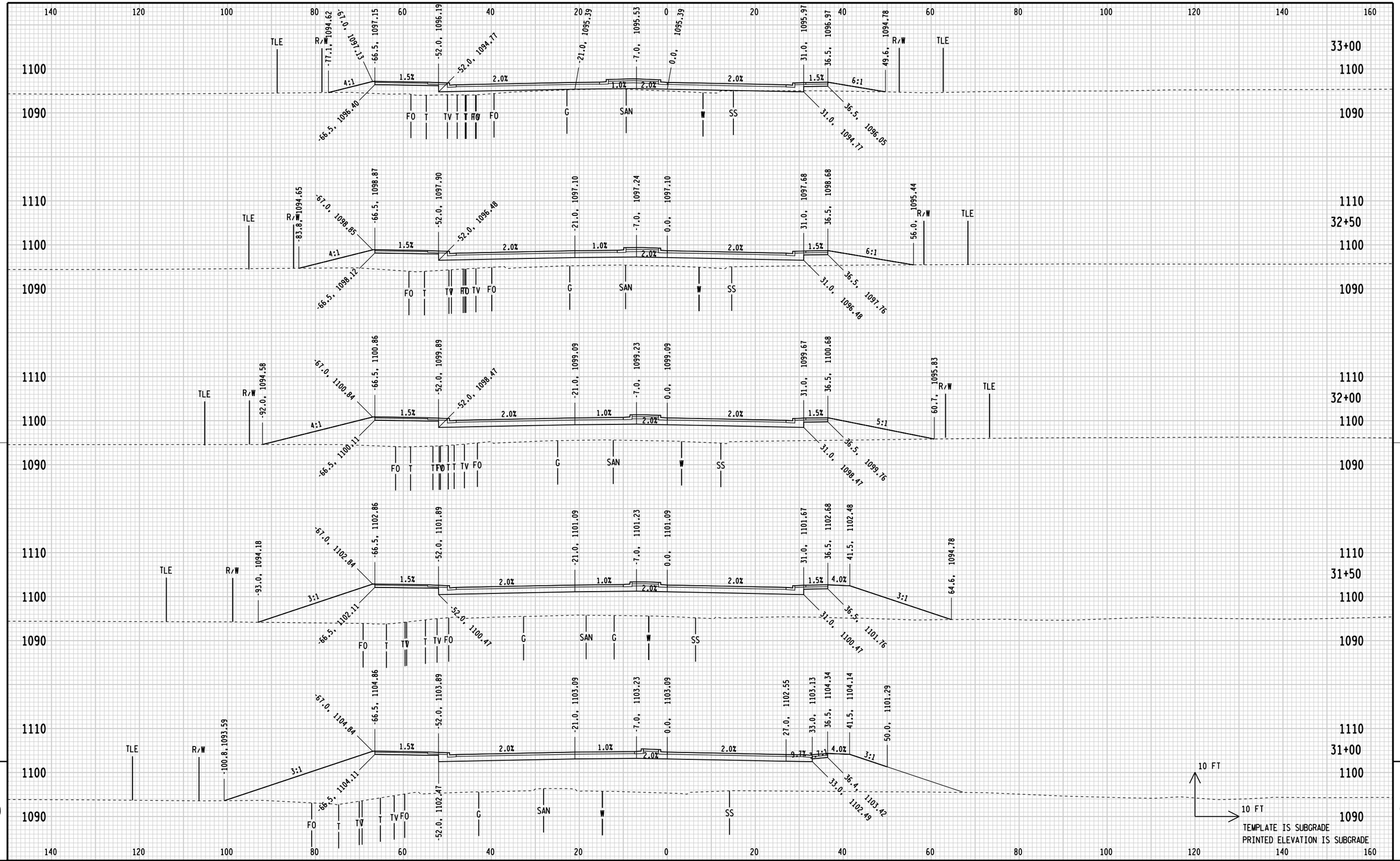
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PLOT TIME: 11:38:14 AM
PLOT SCALE: 1:20
WISDOT/CADDS SHEET 21A



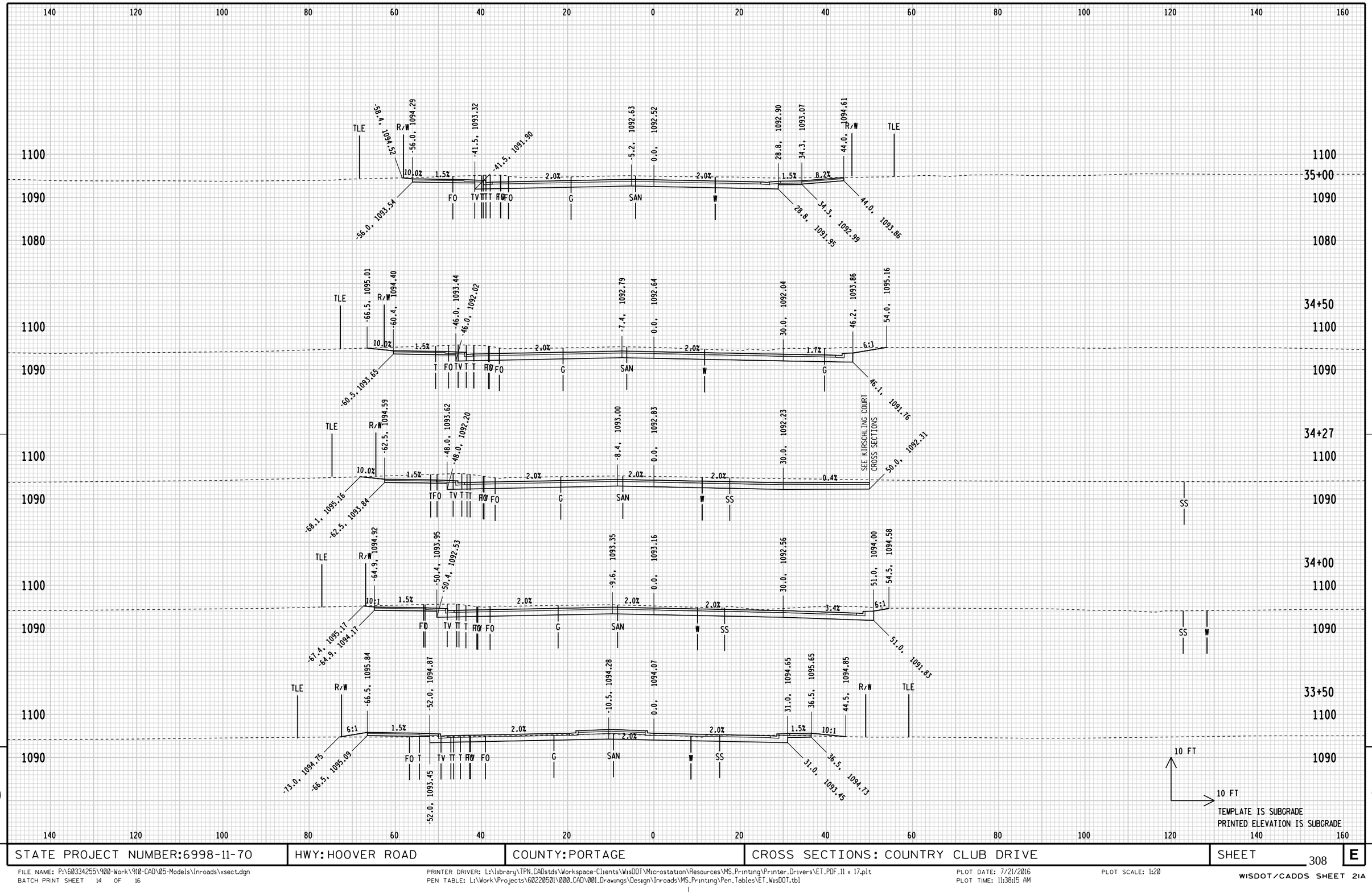
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STATE PROJECT NUMBER:6998-11-70	HWY:HOOVER ROAD	COUNTY:PORTAGE	CROSS SECTIONS: COUNTRY CLUB DRIVE	SHEET E

FILE NAME: P:\60334255\900-Work\910-CAD\05-Models\Inroads\xsect.dgn
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PLOT DATE: 7/21/2016
PLOT TIME: 11:38:15 AM
PLOT SCALE: 1:20
WISDOT/CADDS SHEET 21A



STATE PROJECT NUMBER:6998-11-70	HWY: HOOVER ROAD	COUNTY: PORTAGE	CROSS SECTIONS: COUNTRY CLUB DRIVE	SHEET 307 E

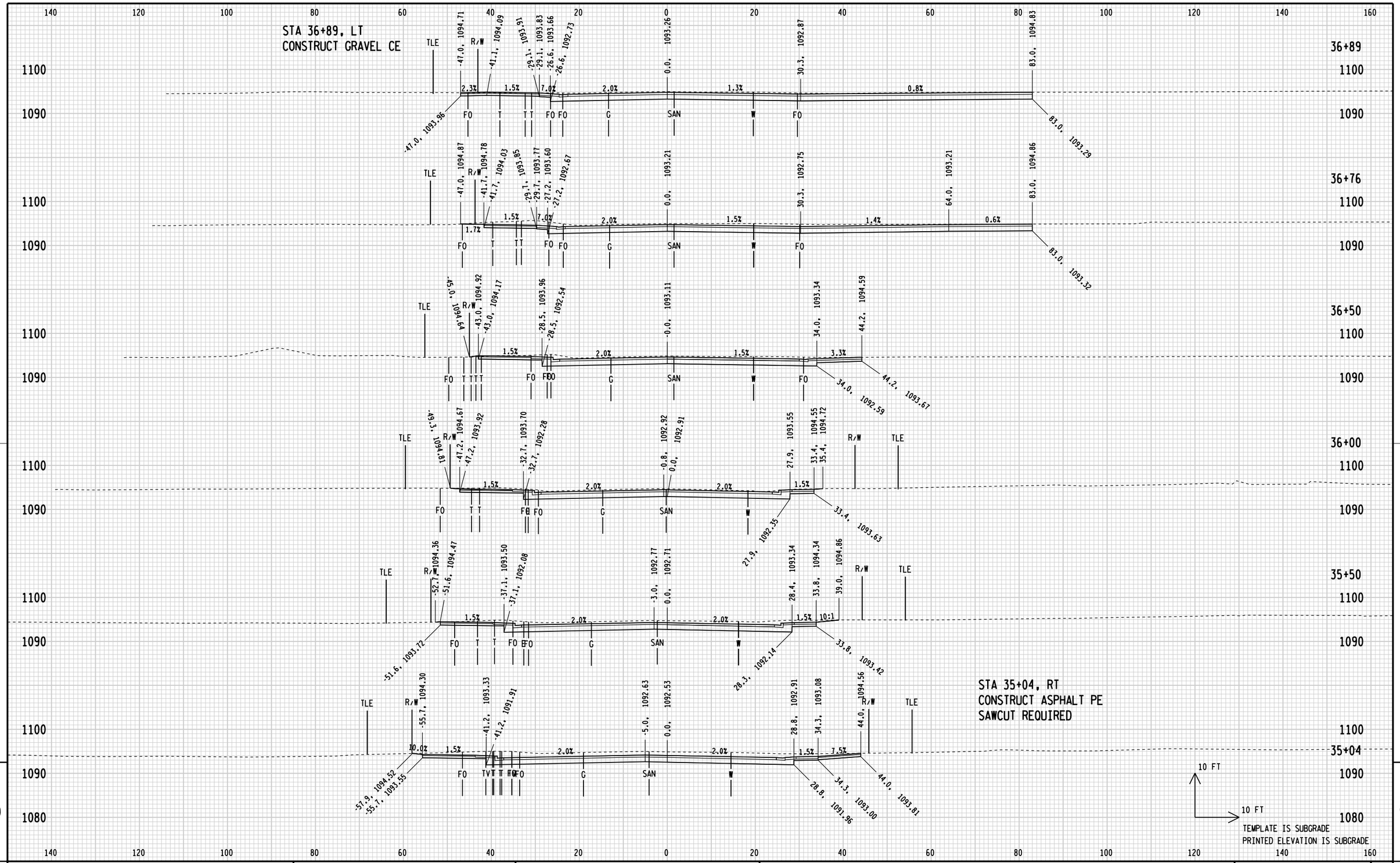


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STATE PROJECT NUMBER:6998-11-70	HWY:HOOVER ROAD	COUNTY:PORTAGE	CROSS SECTIONS: COUNTRY CLUB DRIVE	SHEET 308	E

FILE NAME: P:\60334255\900-Work\910-CAD\05-Models\lnroads\xsect.dgn
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PLOT DATE: 7/21/2016
PLOT TIME: 11:38:15 AM
PLOT SCALE: 1:20
WISDOT/CADDS SHEET 21A



STATE PROJECT NUMBER:6998-11-70	HWY:HOOVER ROAD	COUNTY:PORTAGE	CROSS SECTIONS: COUNTRY CLUB DRIVE	SHEET 309	E

FILE NAME: P:\60334255\900-Work\910-CAD\05-Models\lnroads\xsect.dgn
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PLOT DATE: 7/21/2016
PLOT TIME: 11:38:16 AM
PLOT SCALE: 1:20
WISDOT/CADDS SHEET 21A

END PROJECT 6998-11-70
STA 37+90.00
SAWCUT REQUIRED - MATCH EXISTING

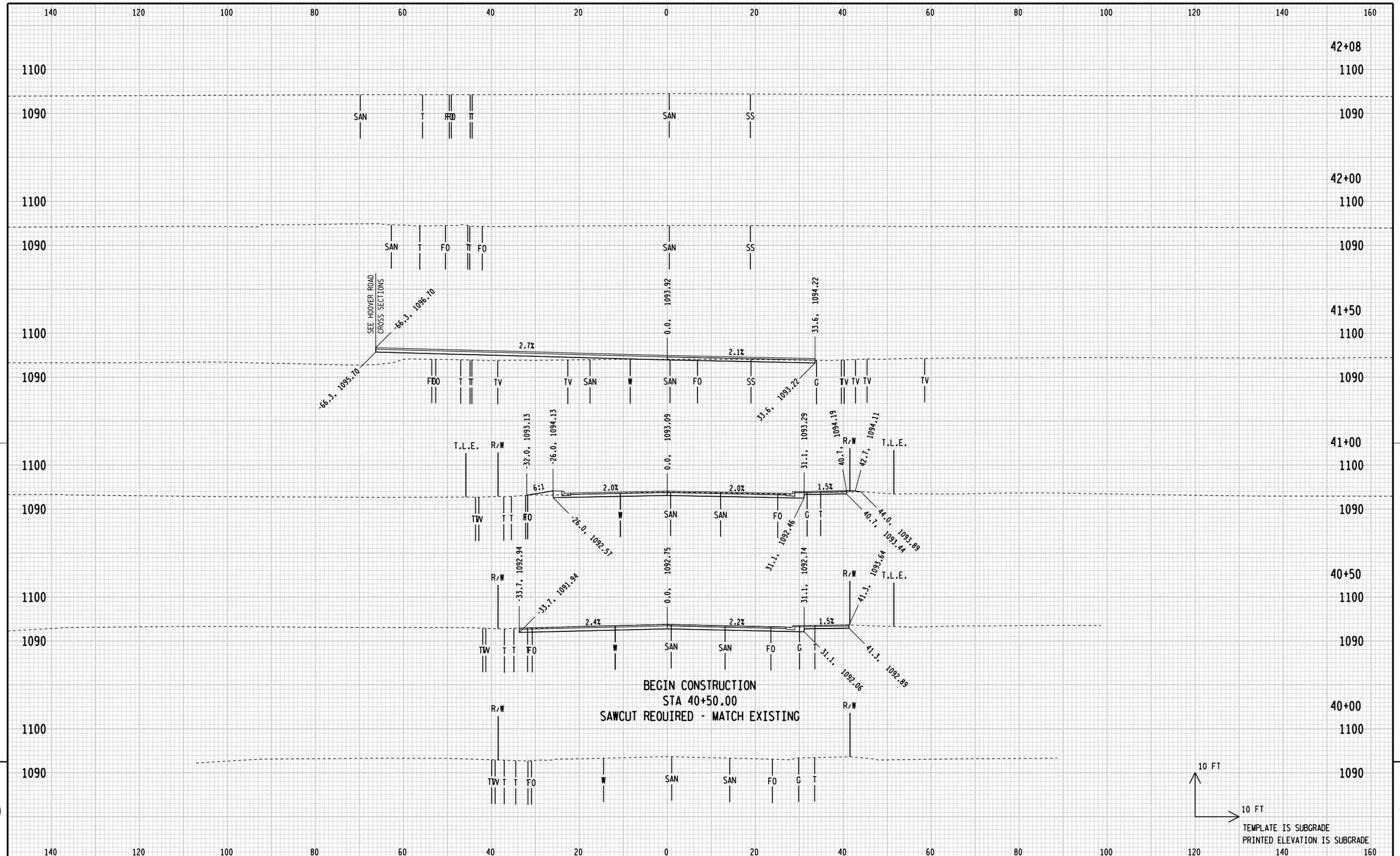
STA 37+51, RT
CONSTRUCT ASPHALT PE
SAWCUT REQUIRED

10 FT
10 FT
TEMPLATE IS SUBGRADE
PRINTED ELEVATION IS SUBGRADE

STATE PROJECT NUMBER:6998-11-70	HWY:HOOVER ROAD	COUNTY:PORTAGE	CROSS SECTIONS: COUNTRY CLUB DRIVE	SHEET 310	E

FILE NAME: P:\60334255\900-Work\910-CAD\05-Models\Inroads\xsect.dgn
BATCH PRINT SHEET 16 OF 16
PRINTER DRIVER: L:\library\TPN_CADstds\Workspace-Clients\WisDOT\Microstation\Resources\MS_Printing\Printer_Drivers\ET_PDF_11 x 17.plt
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PLOT TIME: 11:38:16 AM
PLOT SCALE: 1:20

WISDOT/CADDS SHEET 21A

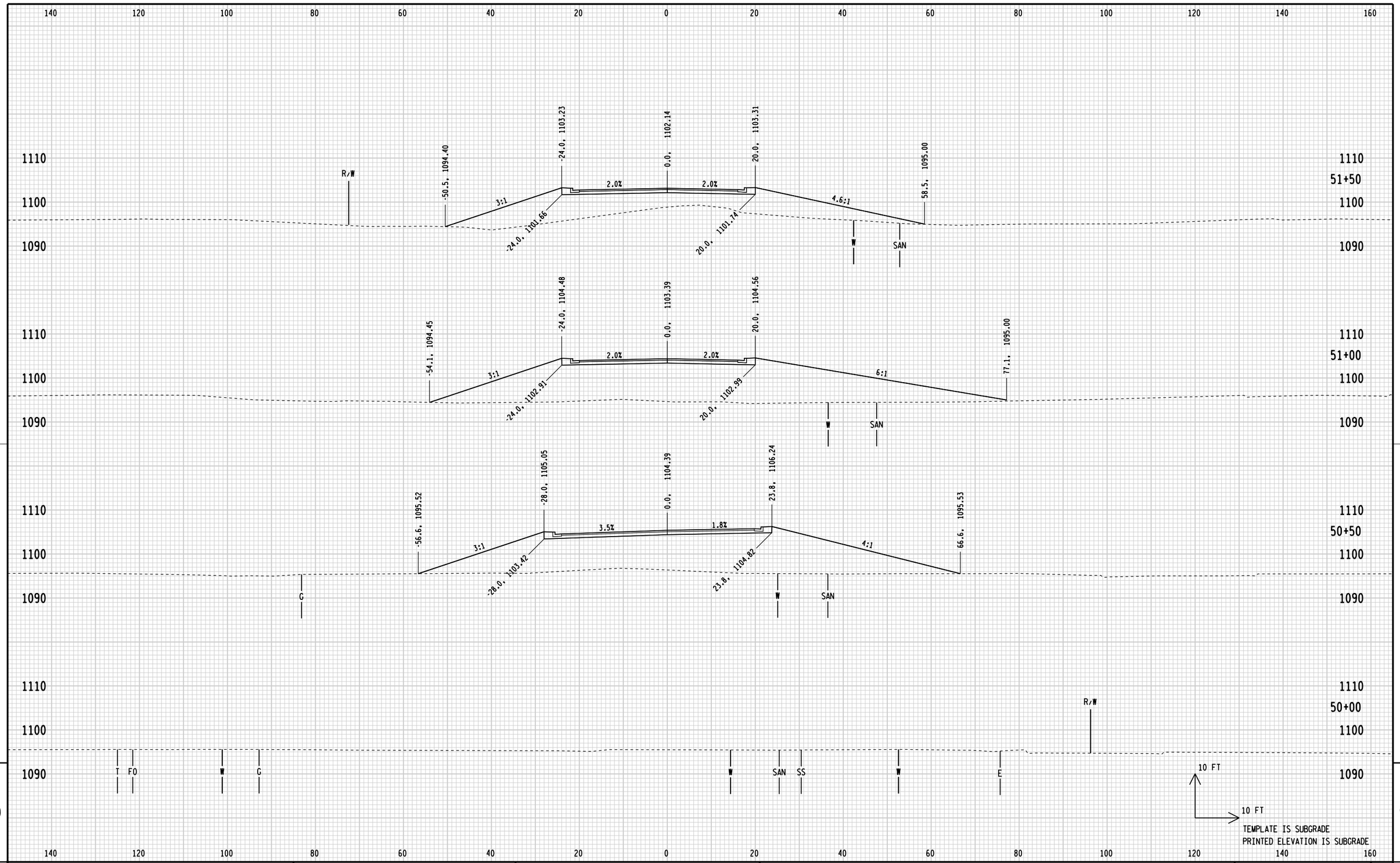


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STATE PROJECT NUMBER:6998-11-70	HWY:HOOVER ROAD	COUNTY:PORTAGE	CROSS SECTIONS: INDUSTRIAL PARK ROAD	SHEET 311	E

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PLOT TIME: 11:40:11 AM
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WISDOT/CADDS SHEET 21A

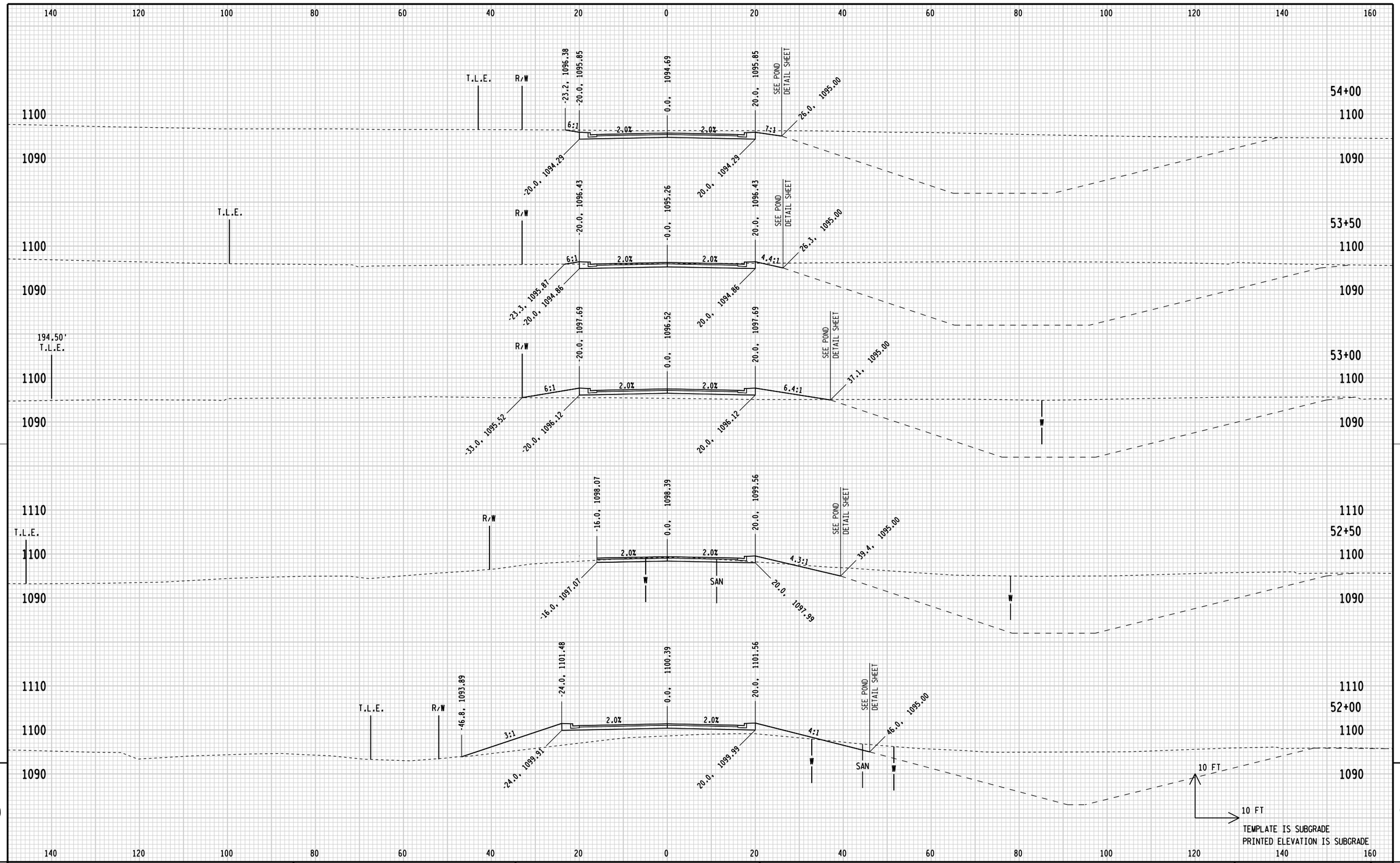


9

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STATE PROJECT NUMBER:6998-11-70	HWY:HOOVER ROAD	COUNTY:PORTAGE	CROSS SECTIONS: WOODWARD DRIVE	SHEET 312	E

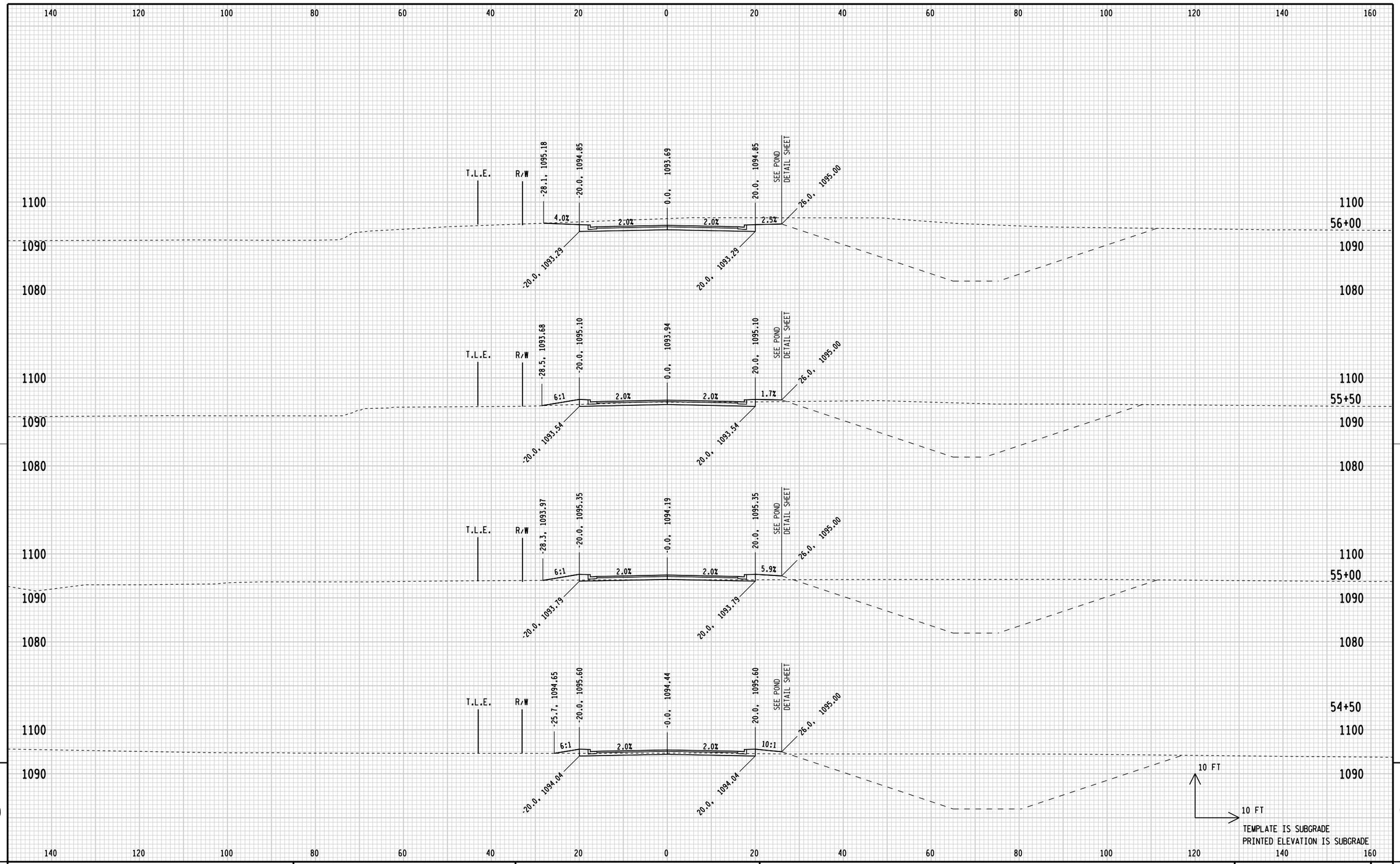
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PLOT DATE: 7/21/2016
PLOT TIME: 11:41:13 AM
PLOT SCALE: 1:20
WISDOT/CADDS SHEET 21A



9

9

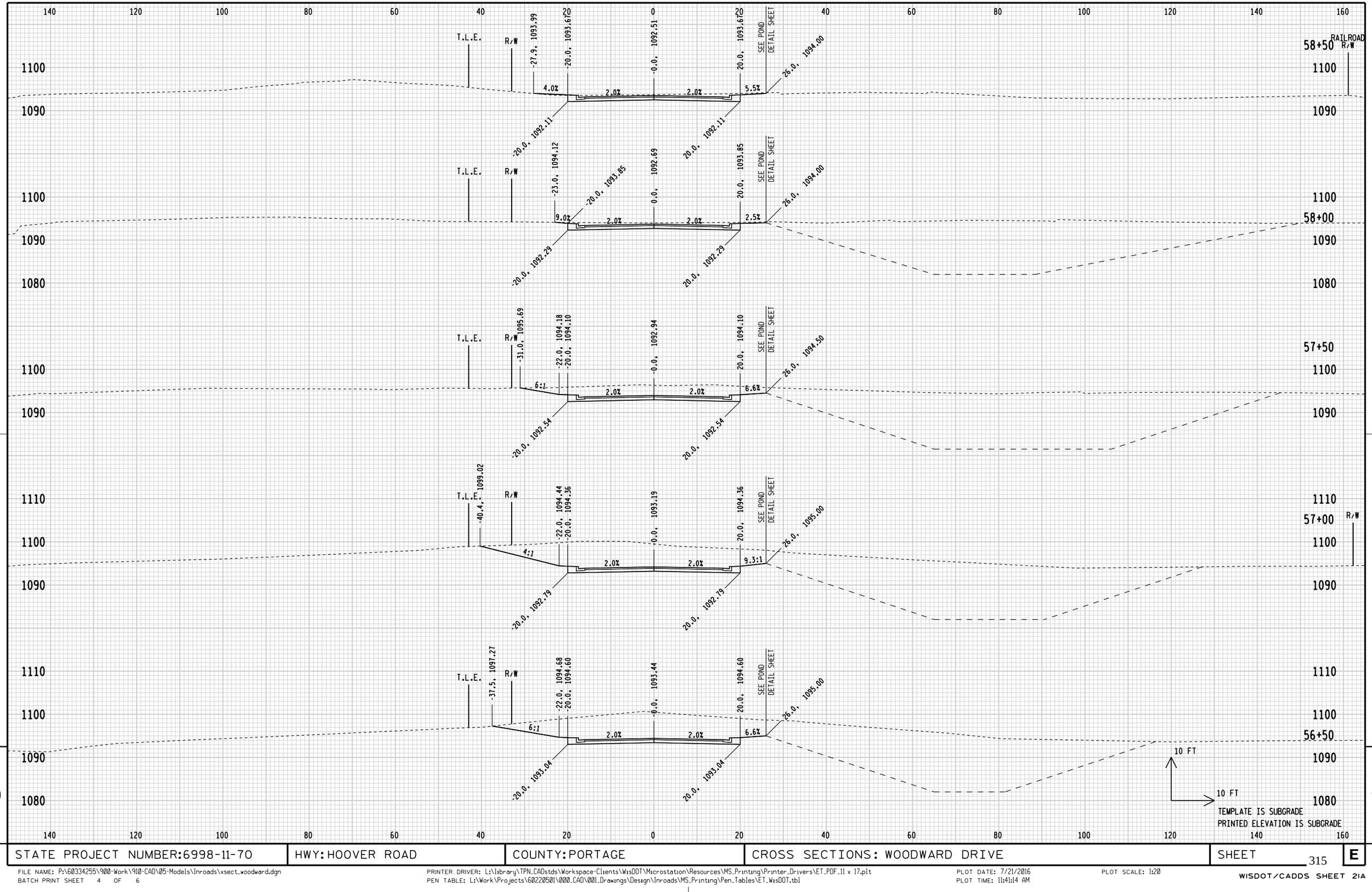
STATE PROJECT NUMBER:6998-11-70	HWY:HOOVER ROAD	COUNTY:PORTAGE	CROSS SECTIONS: WOODWARD DRIVE	SHEET 313	E



9 9

STATE PROJECT NUMBER:6998-11-70	HWY:HOOVER ROAD	COUNTY:PORTAGE	CROSS SECTIONS: WOODWARD DRIVE	SHEET 314	E

FILE NAME: P:\60334255\900-Work\910-CAD\05-Models\lnroads\xsect_woodward.dgn
BATCH PRINT SHEET 3 OF 6
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PLOT DATE: 7/21/2016
PLOT TIME: 11:41:13 AM
PLOT SCALE: 1:20
WISDOT/CADDS SHEET 21A



9

9

STATE PROJECT NUMBER:6998-11-70	HWY:HOOVER ROAD	COUNTY:PORTAGE	CROSS SECTIONS: WOODWARD DRIVE	SHEET 315	E

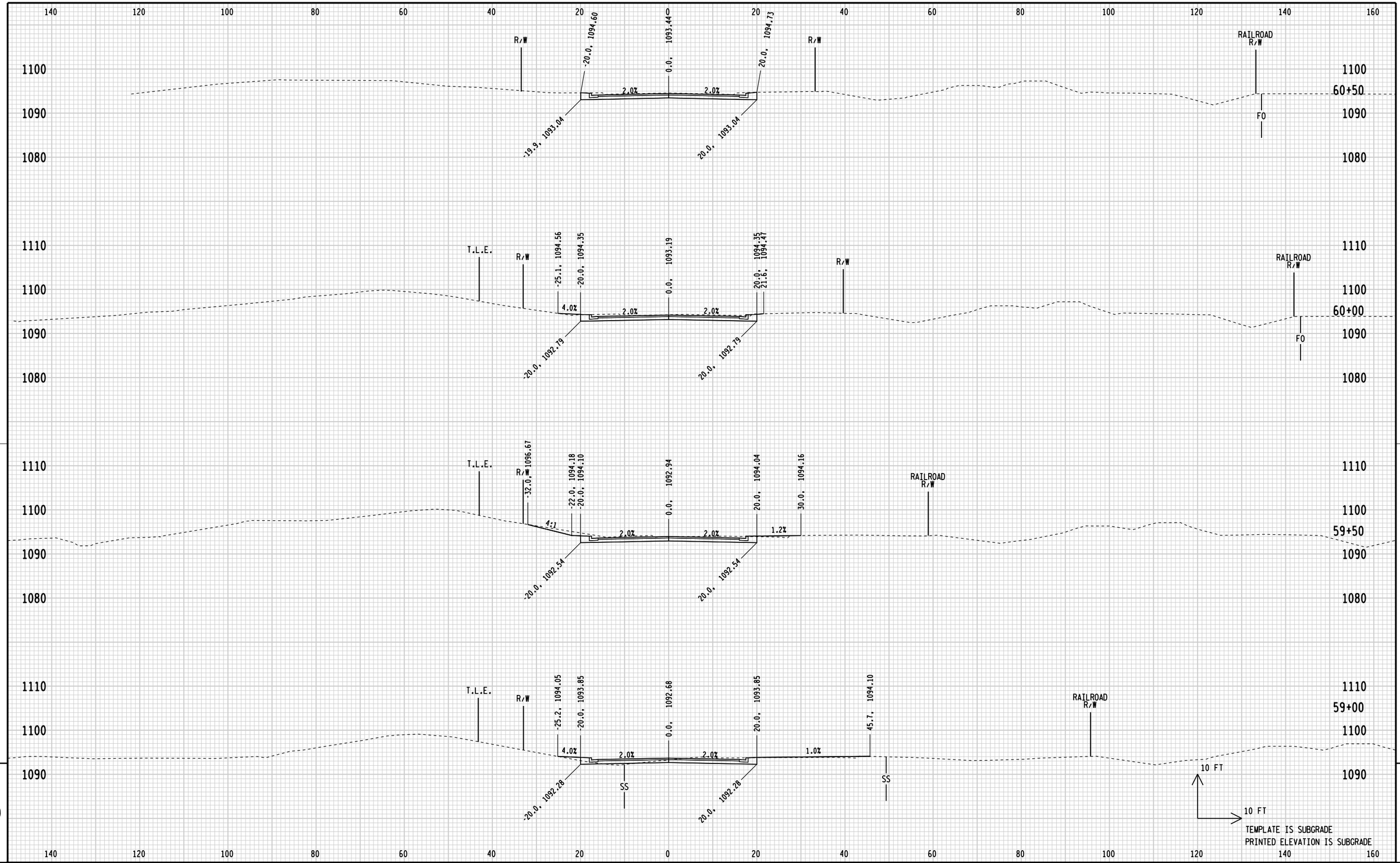
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BATCH PRINT SHEET 4 OF 6

PRINTER DRIVER: L:\library\TPN_CADstds\Workspace-Clients\WisDOT\Microstation\Resources\MS_Printing\Printer_Drivers\ET_PDF_11 x 17.plt
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PLOT DATE: 7/21/2016
PLOT TIME: 11:41:14 AM

PLOT SCALE: 1:20

WISDOT/CADDS SHEET 21A



9

STATE PROJECT NUMBER:6998-11-70	HWY:HOOVER ROAD	COUNTY:PORTAGE	CROSS SECTIONS: WOODWARD DRIVE	SHEET 316	E

FILE NAME: P:\60334255\900-Work\910-CAD\05-Models\Inroads\xsect_woodward.dgn
BATCH PRINT SHEET 5 OF 6
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PLOT DATE: 7/21/2016
PLOT TIME: 11:41:14 AM
PLOT SCALE: 1:20
WISDOT/CADDS SHEET 21A

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160

62+50
1100
1090
R/W
RAILROAD R/W
FO

62+00
1100
1090
R/W
RAILROAD R/W
FO

61+50
1100
1090
R/W
RAILROAD R/W
FO

END CONSTRUCTION
STA 61+30.00
SAWCUT REQUIRED - MATCH EXISTING

61+00
1100
1090
R/W
-18.7, 1094.85
0.0, 1093.69
18.7, 1094.97
20.7, 1095.15
2.0%
2.0%
-18.7, 1093.31
18.7, 1093.31
R/W
RAILROAD R/W
FO
10 FT
10 FT

TEMPLATE IS SUBGRADE
PRINTED ELEVATION IS SUBGRADE

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160

9 9

STATE PROJECT NUMBER:6998-11-70	HWY:HOOVER ROAD	COUNTY:PORTAGE	CROSS SECTIONS: WOODWARD DRIVE	SHEET	E

FILE NAME: P:\60334255\900-Work\910-CAD\05-Models\Inroads\xsect_woodward.dgn
BATCH PRINT SHEET 6 OF 6
PRINTER DRIVER: L:\library\TPN_CADstds\Workspace-Clients\WisDOT\Microstation\Resources\MS_Printing\Printer_Drivers\ET_PDF_11 x 17.plt
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PLOT DATE: 7/21/2016
PLOT TIME: 11:41:14 AM
PLOT SCALE: 1:20
WISDOT/CADDS SHEET 21A

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160

71+98

R/W R/W

1100

1090

G SS SAN

71+50

R/W R/W

1100

1090

G SS SAN W

END CONSTRUCTION
STA 71+14.00
SAWCUT REQUIRED - MATCH EXISTING

-29.1, 1095.11 T.L.E.
R/W
-18.3, 1092.42
0.0, 1092.79
18.9, 1092.41
R/W
26.6, 1094.33
T.L.E.

71+00

1100

4:1 2.0% 2.0% 4:1

1090

G SS SAN W

R/W
-28.8, 1095.04
-25.2, 1093.84
-23.2, 1093.76
0.0, 1092.65
27.5, 1093.67
29.5, 1093.75
33.3, 1095.03
R/W

70+50

1100

3:1 2.0% 2.0% 3:1

1090

G SS SAN W
-23.2, 1092.19
21.4, 1092.11

70+00

1100

1090

G SAN SAN

10 FT
10 FT

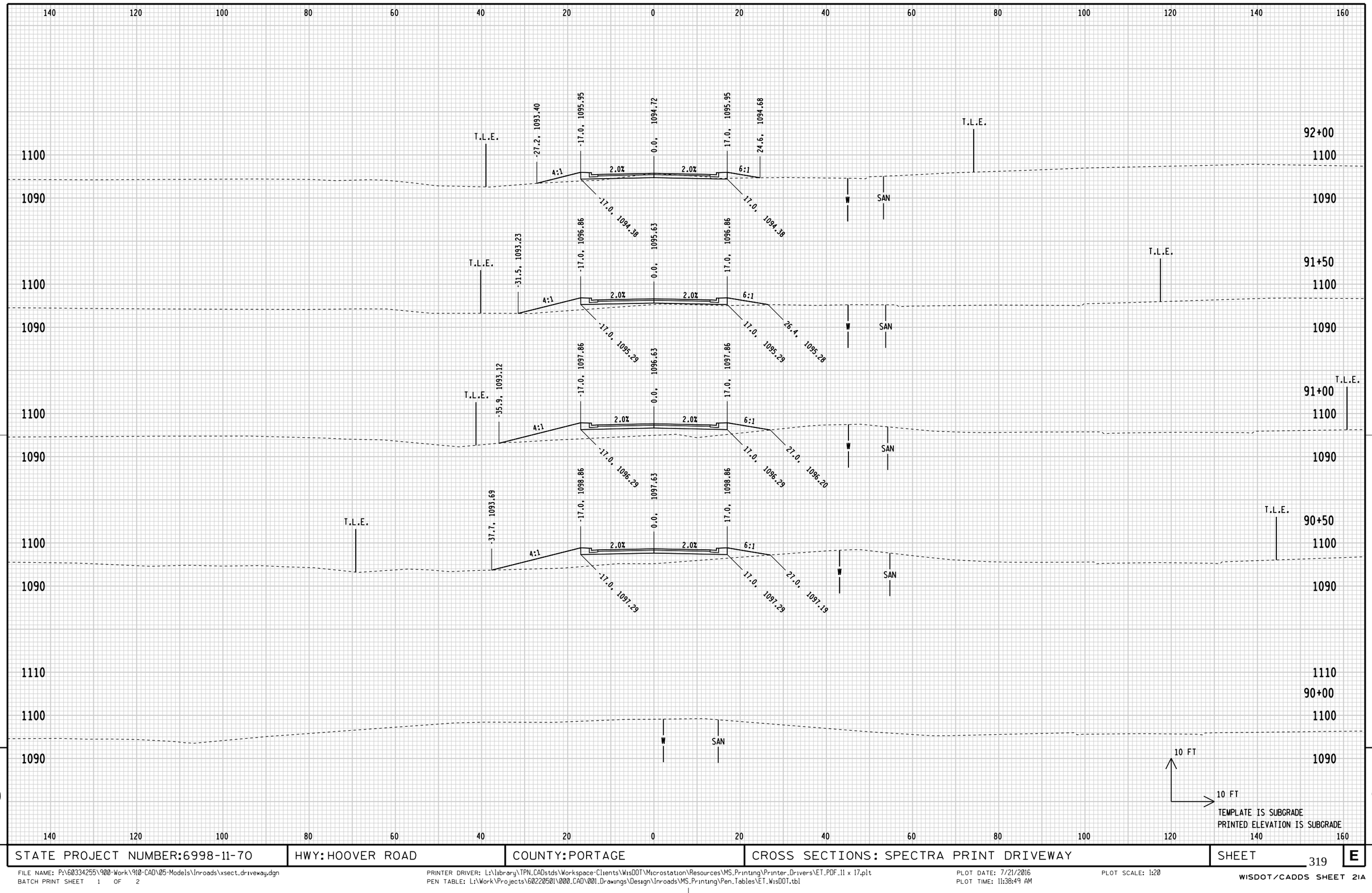
TEMPLATE IS SUBGRADE
PRINTED ELEVATION IS SUBGRADE

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160

9 9

STATE PROJECT NUMBER:6998-11-70	HWY:HOOVER ROAD	COUNTY:PORTAGE	CROSS SECTIONS: KIRSCHLING COURT	SHEET 318	E

FILE NAME: P:\60334255\900-Work\910-CAD\05-Models\lnroads\xsect_kershling.dgn
BATCH PRINT SHEET 1 OF 1
PRINTER DRIVER: L:\library\TPN_CADstds\Workspace-Clients\WisDOT\Microstation\Resources\MS_Printing\Printer_Drivers\ET_PDF_11 x 17.plt
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PLOT DATE: 7/22/2016
PLOT TIME: 6:24:26 AM
PLOT SCALE: 1:20
WISDOT/CADDS SHEET 21A



STATE PROJECT NUMBER:6998-11-70	HWY:HOOVER ROAD	COUNTY:PORTAGE	CROSS SECTIONS: SPECTRA PRINT DRIVEWAY	SHEET 319	E

FILE NAME: P:\60334255\900-Work\910-CAD\05-Models\Inroads\xsect_driveway.dgn
BATCH PRINT SHEET 1 OF 2
PRINTER DRIVER: L:\library\TPN_CADstds\Workspace-Clients\WisDOT\Microstation\Resources\MS_Printing\Printer_Drivers\ET_PDF_11 x 17.plt
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PLOT DATE: 7/21/2016
PLOT TIME: 11:38:49 AM
PLOT SCALE: 1:20
WISDOT/CADDS SHEET 21A

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160

1110
1100
1090

SAN

1110
93+40
1100
1090

1110
1100
1090

W
SAN

END CONSTRUCTION
STA 92+76.90
SAWCUT REQUIRED - MATCH EXISTING

1110
93+00
1100
1090

1110
1100
1090

T.L.E.

-20.5, 1095.05
-18.6, 1095.37
0.0, 1094.18
17.0, 1095.40
19.3, 1095.02

2.0%
2.0%
6:1

T.L.E.

-18.5, 1093.81
17.0, 1093.84

W
SAN

1110
92+50
1100
1090

10 FT
10 FT

TEMPLATE IS SUBGRADE
PRINTED ELEVATION IS SUBGRADE

140 120 100 80 60 40 20 0 20 40 60 80 100 120 140 160

9

9

STATE PROJECT NUMBER:6998-11-70	HWY:HOOVER ROAD	COUNTY:PORTAGE	CROSS SECTIONS: SPECTRA PRINT DRIVEWAY	SHEET 320	E

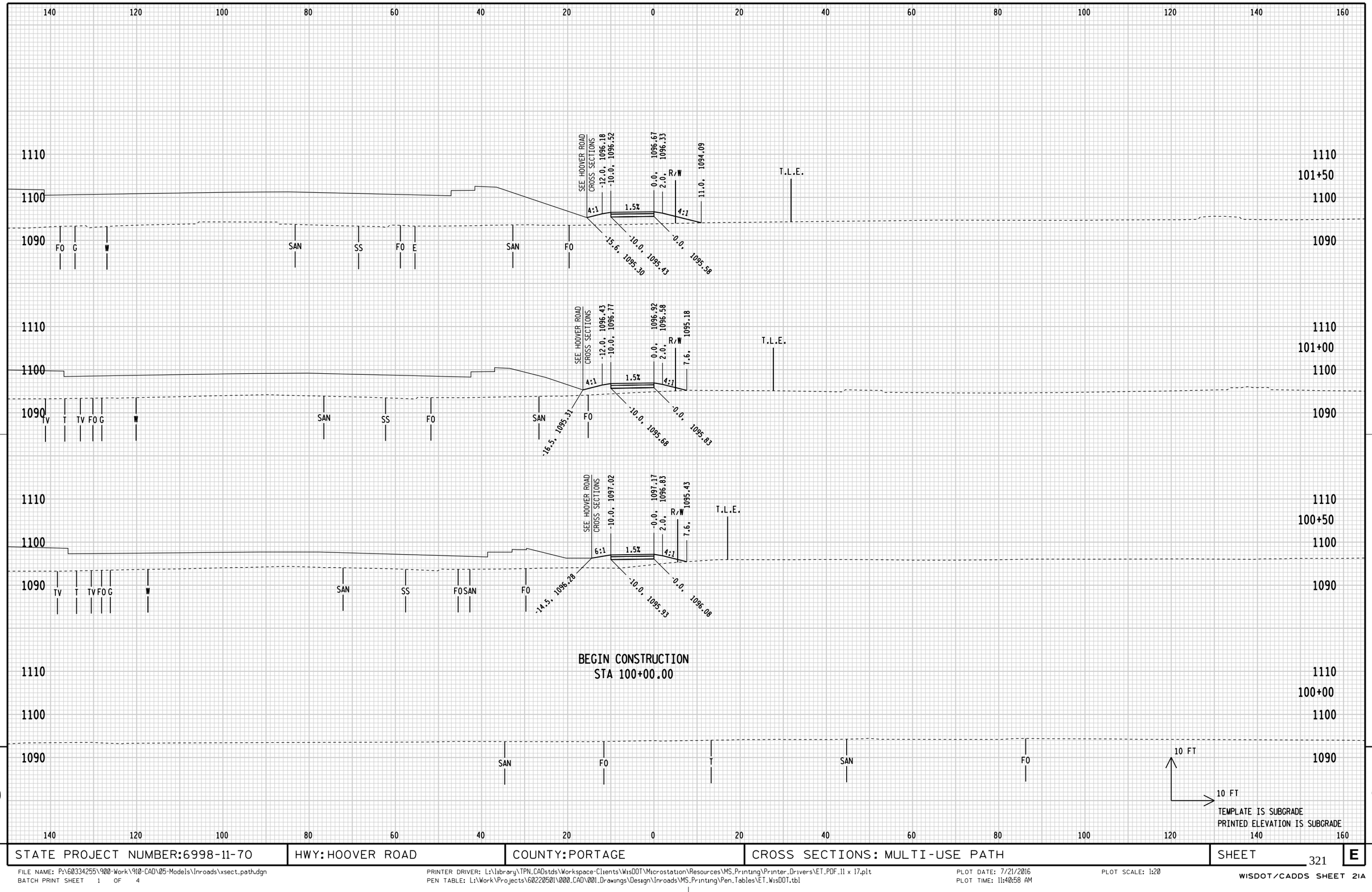
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BATCH PRINT SHEET 2 OF 2

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PLOT TIME: 11:38:49 AM

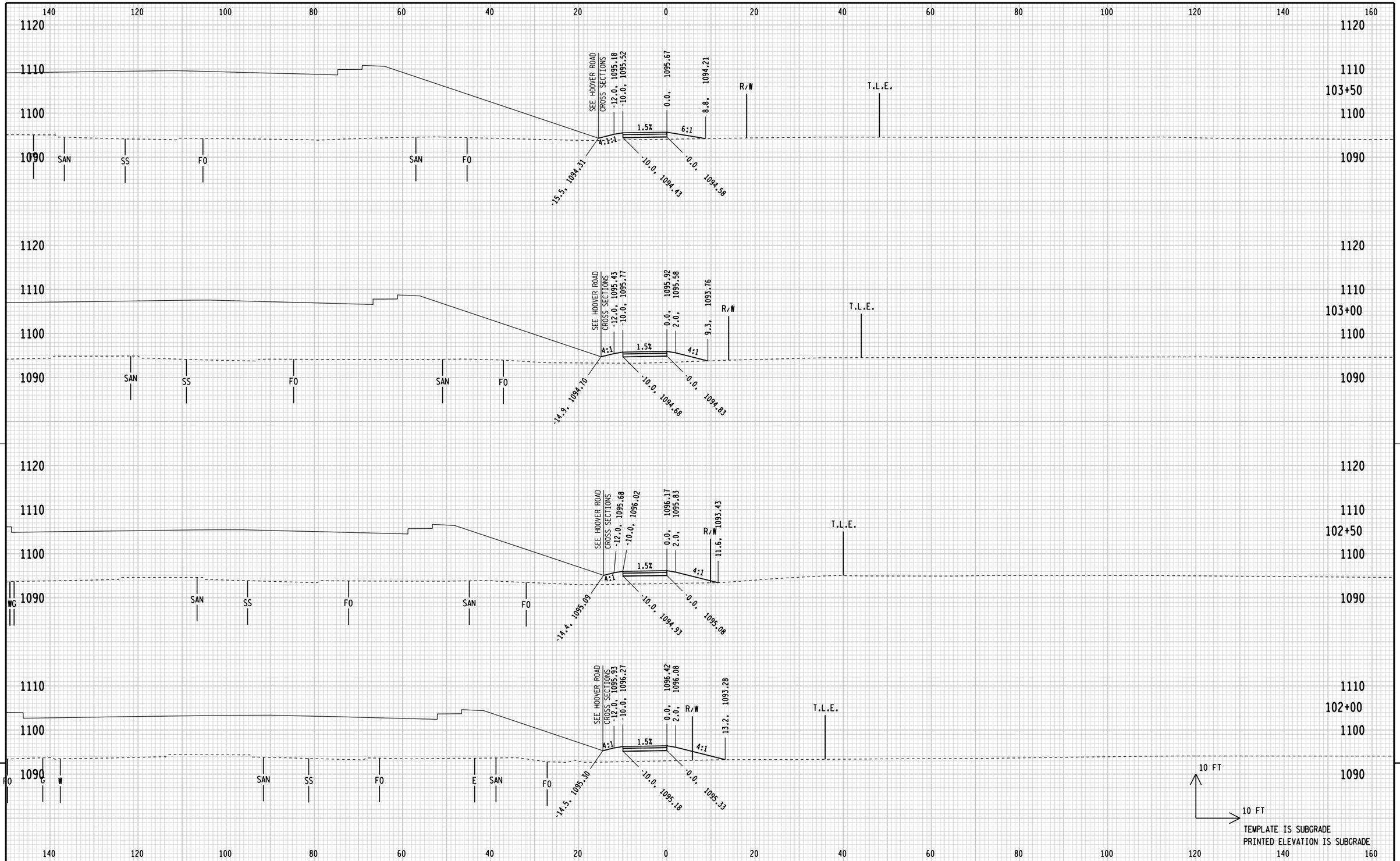
PLOT SCALE: 1:20

WISDOT/CADDS SHEET 21A



STATE PROJECT NUMBER:6998-11-70	HWY:HOOVER ROAD	COUNTY:PORTAGE	CROSS SECTIONS: MULTI-USE PATH	SHEET	E

FILE NAME: P:\60334255\900-Work\910-CAD\05-Models\Inroads\xsect_path.dgn
BATCH PRINT SHEET 1 OF 4
PRINTER DRIVER: L:\library\TPN_CADstds\Workspace-Clients\WisDOT\Microstation\Resources\MS_Printing\Printer_Drivers\ET_PDF_11 x 17.plt
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PLOT DATE: 7/21/2016
PLOT TIME: 11:40:58 AM
PLOT SCALE: 1:20
WISDOT/CADDS SHEET 21A



9

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STATE PROJECT NUMBER:6998-11-70	HWY:HOOVER ROAD	COUNTY:PORTAGE	CROSS SECTIONS: MULTI-USE PATH	SHEET 322	E

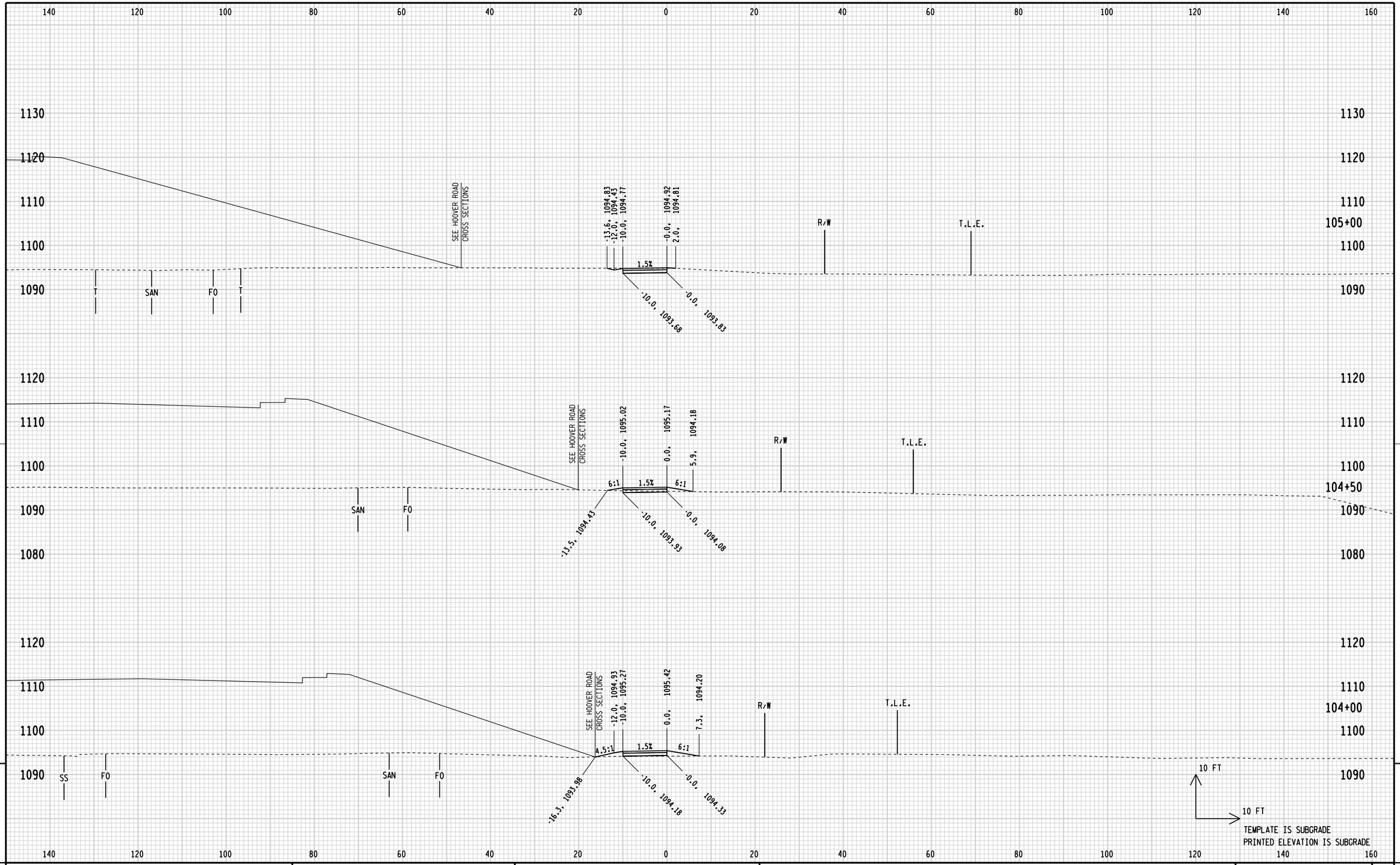
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BATCH PRINT SHEET 2 OF 4

PRINTER DRIVER: L:\library\TPN_CADstds\Workspace-Clients\WisDOT\Microstation\Resources\MS_Printing\Printer_Drivers\ET_PDF_11 x 17.plt
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PLOT DATE: 7/21/2016
PLOT TIME: 11:40:58 AM

PLOT SCALE: 1:20

WISDOT/CADDS SHEET 21A



9

9

STATE PROJECT NUMBER:6998-11-70	HWY:HOOVER ROAD	COUNTY:PORTAGE	CROSS SECTIONS: MULTI-USE PATH	SHEET 323	E

FILE NAME: P:\60334255\900-Work\910-CAD\05-Models\Inroads\xsect_path.dgn
BATCH PRINT SHEET 3 OF 4

PRINTER DRIVER: L:\library\TPN_CADstds\Workspace-Clients\WisDOT\Microstation\Resources\MS_Printing\Printer_Drivers\ET_PDF_11 x 17.plt
PEN TABLE: L:\Work\Projects\60220501\000_CAD\001_Drawings\Design\Inroads\MS_Printing\Pen_Tables\ET_WisDOT.tbl

PLOT DATE: 7/21/2016
PLOT TIME: 11:40:58 AM

PLOT SCALE: 1:20

WISDOT/CADDS SHEET 21A

END CONSTRUCTION
STA 107+12.50

107+12.5

RAILROAD R/W
R/W
T.L.E.
FO
T
G
W
SAN
-15.0, 1094.94
-10.0, 1095.78
0.0, 1095.93
7.5, 1094.68
6:1
1.5%
6:1
-10.0, 1094.69
-0.0, 1094.84

107+00

RAILROAD R/W
R/W
T.L.E.
-14.3, 1094.93
-10.0, 1095.65
0.0, 1095.80
2.0, 1095.47
10.6, 1093.33
6:1
1.5%
4:1
SAN
FO
T
G
W
-10.0, 1094.56
-0.0, 1094.71

106+50

-15.2, 1094.02
-12.0, 1094.82
-10.0, 1095.15
-0.0, 1095.30
6.7, 1094.18
R/W
T.L.E.
4:1
1.5%
6:1
T
G
W
SAN
FO
-10.0, 1094.06
-0.0, 1094.21

106+00

-12.2, 1094.91
-10.0, 1095.28
0.0, 1095.43
6.3, 1094.38
R/W
T.L.E.
6:1
1.5%
6:1
T
G
W
SAN
FO
-10.0, 1094.19
-0.0, 1094.34

105+50

-13.8, 1094.65
-12.0, 1094.18
-10.0, 1094.52
0.0, 1094.67
2.0, 1094.50
R/W
T.L.E.
1.5%
T
G
W
SAN
FO
-10.0, 1093.43
-0.0, 1093.58

10 FT
10 FT
TEMPLATE IS SUBGRADE
PRINTED ELEVATION IS SUBGRADE

9

STATE PROJECT NUMBER:6998-11-70	HWY:HOOVER ROAD	COUNTY:PORTAGE	CROSS SECTIONS: MULTI-USE PATH	SHEET 324	E

FILE NAME: P:\60334255\900-Work\910-CAD\05-Models\Inroads\xsect_path.dgn
BATCH PRINT SHEET 4 OF 4
PRINTER DRIVER: L:\library\TPN_CADstds\Workspace-Clients\WisDOT\Microstation\Resources\MS_Printing\Printer_Drivers\ET_PDF_11 x 17.plt
PEN TABLE: L:\Work\Projects\60220501\000_CAD\001_Drawings\Design\Inroads\MS_Printing\Pen_Tables\ET_WisDOT.tbl
PLOT DATE: 7/21/2016
PLOT TIME: 11:40:59 AM
PLOT SCALE: 1:20
WISDOT/CADDS SHEET 21A

Notes

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

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