LAX

PROJECT ID: 5682-00-75

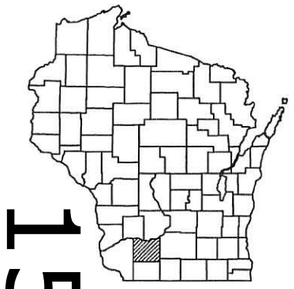
WITH: N/A

COUNTY: IOWA

DECEMBER 2021

ORDER OF SHEETS

TOTAL SHEETS = 106



15

DESIGN DESIGNATION

A.A.D.T.	(2022)	=	185
A.A.D.T.	(2042)	=	275
D.H.V.	(2042)	=	25
D.D.		=	60/40
T.		=	10% (ASSUMED)
DESIGN SPEED		=	40 MPH
ESALS		=	52,000

CONVENTIONAL SYMBOLS

PLAN		PROFILE	
CORPORATE LIMITS		GRADE LINE	
PROPERTY LINE		ORIGINAL GROUND	
LOT LINE		MARSH OR ROCK PROFILE (To be noted as such)	ROCK
LIMITED HIGHWAY EASEMENT		SPECIAL DITCH	LABEL
EXISTING RIGHT OF WAY		GRADE ELEVATION	95.36
PROPOSED OR NEW R/W LINE		CULVERT (Profile View)	
SLOPE INTERCEPT		UTILITIES	
REFERENCE LINE	100 E.B.	ELECTRIC	E
EXISTING CULVERT		FIBER OPTIC	FO
PROPOSED CULVERT (Box or Pipe)		GAS	G
COMBUSTIBLE FLUIDS	CAUTION	SANITARY SEWER	SAN
		STORM SEWER	SS
MARSH AREA		TELEPHONE	T
		WATER	W
		UTILITY PEDESTAL	
		POWER POLE	
WOODED OR SHRUB AREA		TELEPHONE POLE	

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

CTH Q - CTH I

OTTER CREEK BRIDGE (B-25-0191)

CTH II

IOWA COUNTY

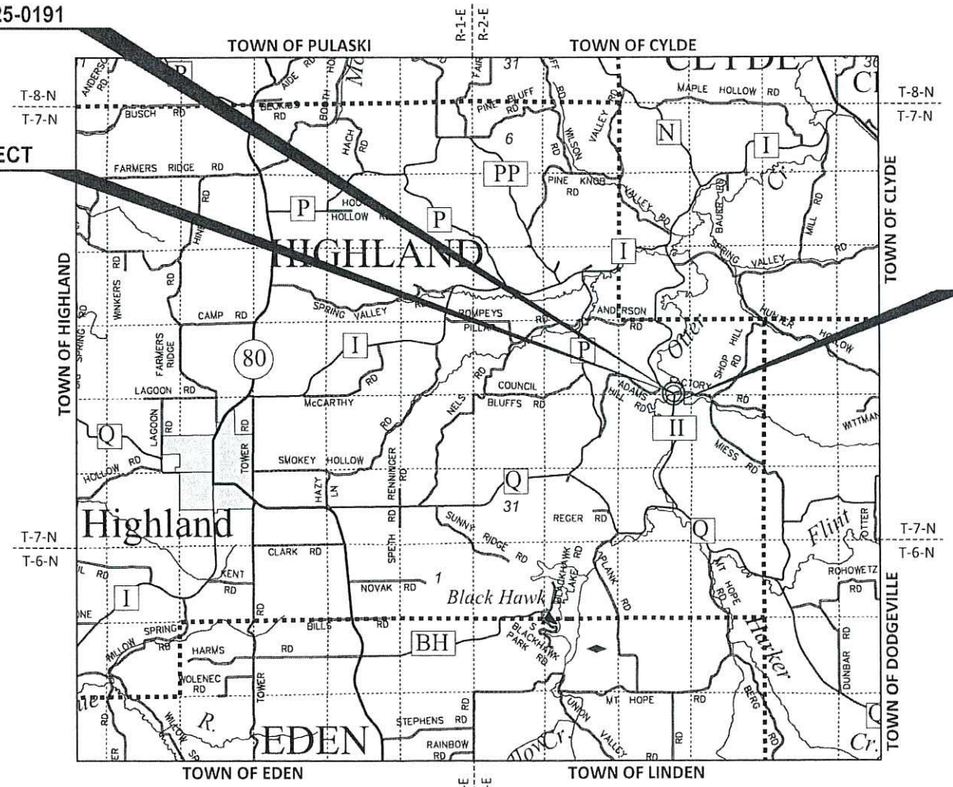
STATE PROJECT NUMBER
5682-00-75

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
5682-00-75	WISC 2022075	1

STRUCTURE B-25-0191

BEGIN PROJECT
STA. 10+00
Y = 190,864.83
X = 345,386.54

END PROJECT
STA. 17+50



LAYOUT

SCALE 0 2 MI

TOTAL NET LENGTH OF CENTERLINE = 0.142

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, IOWA COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCE MAY BE USED AS GROUND DISTANCES.

ELEVATION SHOWN ON THIS PLAN ARE REFERENCE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988, NAVD (2012).

ACCEPTED FOR

COUNTY of IOWA

7/12/21 (Date) (Highway Commissioner)

ORIGINAL PLANS PREPARED BY

JEWELL associates engineers, inc
Engineers - Architects - Surveyors

WISCONSIN
ANGELA L. CLARY
E-32243
LONE ROCK, WI
PROFESSIONAL ENGINEER

7/8/21 Angela L Clary

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY	
Surveyor	JEWELL ASSOCIATES ENGINEERS, INC.
Designer	JEWELL ASSOCIATES ENGINEERS, INC.
Project Manager	ALEIGHA BURG, P.E.
Regional Examiner	SW REGION
Regional Supervisor	OSCAR WINGER, P.E.

APPROVED FOR THE DEPARTMENT

DATE: 7/16/2021 Aleigha Burg, P.E. Digitally signed by Aleigha Burg, P.E. Date: 2021.07.16 07:27:45-05'00' (Signature)

E

2

GENERAL NOTES

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

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

EXCAVATION BELOW SUBGRADE (EBS) IS NOT USED TO BALANCE YARDAGE, AND IS NOT SHOWN ON THE CROSS SECTIONS BUT IS MEASURED AND PAID FOR AS COMMON EXCAVATION (BY OTHERS). EXACT LOCATIONS OF EBS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.

UNLESS SHOWN OTHERWISE, DISTURBED AREAS SHOWN WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS ARE TO BE FERTILIZED (BY OTHERS), SEEDED (BY OTHERS), AND MULCHED (BY OTHERS) AS DIRECTED BY THE ENGINEER. DO NOT FERTILIZE WETLAND AREAS.

WHEN THE QUANTITY OF THE ITEM OF BREAKER RUN (BY OTHERS), BASE AGGREGATE DENSE (BY OTHERS), OR ASPHALTIC SURFACE (BY OTHERS) IS MEASURED FOR PAYMENT BY THE TON, THE DEPTH OR THICKNESS OF THE COURSE SHOWN ON THE PLANS IS APPROXIMATE, AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF MATERIAL AS DIRECTED BY THE ENGINEER IN THE FIELD.

SILT FENCE (BY OTHERS), TEMPORARY DITCH CHECKS (BY OTHERS), CULVERT PIPE CHECKS (BY OTHERS), AND TURBIDITY BARRIER SHALL BE PLACED AS SHOWN ON THE PLAN OR AS DIRECTED BY THE ENGINEER IN THE FIELD. SILT FENCE (BY OTHERS) AND TURBIDITY BARRIER SHALL BE PLACED PRIOR TO CONSTRUCTION AND SHALL BE IN PLACE PRIOR TO STRUCTURE REMOVAL.

MULCH (BY OTHERS) ALL MAINLINE SLOPES AS DIRECTED BY THE ENGINEER IN THE FIELD.

REMOVAL OF ASPHALTIC SURFACES WHERE AN ABUTTING ASPHALTIC SURFACE IS TO REMAIN IN PLACE SHALL REQUIRE A SAWCUT (BY OTHERS) MEETING THE APPROVAL OF THE ENGINEER IN THE FIELD.

THE LOCATION OF ALL PERMANENT SIGNING (BY OTHERS) SHALL BE VERIFIED BY THE ENGINEER IN THE FIELD PRIOR TO PLACEMENT.

WETLANDS ARE PRESENT IN THE PROJECT LIMITS. THE CONTRACTOR SHALL NOT OPERATE EQUIPMENT OR STOCKPILE MATERIALS BEYOND THE EXISTING STREAMBANK FROM STA. 12+14 - STA. 13+21 AND STA. 13+36 - STA. 13+58.

4-INCHES OF ASPHALTIC SURFACE (BY OTHERS) SHALL BE CONSTRUCTED WITH A 2¼ -INCH LOWER LAYER AND A 1¾-INCH UPPER LAYER.

CURVE DATA IS BASED ON THE ARC DEFINITIONS.

CONTACTS

IOWA COUNTY HIGHWAY DEPARTMENT:
CRAIG HARDY, COMMISSIONER
1215 N. BEQUETTE STREET
DODGEVILLE, WI 53533
PH: (608) 935-3381 EX: 605
EMAIL: craig.hardy@iowacounty.org

DESIGN CONSULTANT:
JEWELL ASSOCIATES ENGINEERS, INC.
560 SUNRISE DRIVE
SPRING GREEN, WI 53588
ATTN: ANGIE CLARY, P.E.
PH: (608) 459-6061
CELL: (608) 574-3333
EMAIL: angie.clary@jewellassoc.com

WDNR LIAISON:
WISCONSIN DEPT. OF NATURAL RESOURCES
3911 FISH HATCHERY ROAD
MADISON, WI 53711
ATTN: ANDY BARTA
PH: (608) 235-2955
EMAIL: andrew.barta@wisconsin.gov

UTILITIES

ELECTRICITY
ALLIANT ENERGY
ATTN: JOSH LOBENSTEIN
520 COMMERCE AVENUE
BARABOO, WI 53913
PHONE: (608) 356-0671
CELL: (608) 963-5519
EMAIL: joshualobenstein@alliant energy.com

TELEPHONE
FRONTIER COMMUNICATIONS
ATTN: JERRY MOORE
2222 W WISCONSIN STREET
PORTAGE, WI 53901
PHONE: (608) 742-9507
EMAIL: jerald.moore@ftr.com

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

LIST OF STANDARD ABBREVIATIONS

ABUT	Abutment	INV	Invert	RDWY	Roadway
AC	Acre	IP	Iron Pipe or Pin	SALV	Salvaged
AGG	Aggregate	IRS	Iron Rod Set	SAN S	Sanitary Sewer
AH	Ahead	JT	Joint	SEC	Section
<	Angle	JCT	Junction	SHLDR	Shoulder
ASPH	Asphaltic	LHF	Left-Hand Forward	SHR	Shrinkage
AVG	Average	L	Length of Curve	SW	Sidewalk
ADT	Average Daily Traffic	LIN FT or LF	Linear Foot	S	South
BAD	Base Aggregate Dense	LC	Long Chord of Curve	SQ	Square
BK	Back	MH	Manhole	SF or SQ FT	Square Feet
BF	Back Face	MB	Mailbox	SY or SQ YD	Square Yard
BM	Bench Mark	ML or M/L	Match Line	STD	Standard
BR	Bridge	N	North	SDD	Standard Detail Drawings
C or C/L	Center Line	Y	North Grid Coordinate	STH	State Trunk Highways
CC	Center to Center	OD	Outside Diameter	STA	Station
C.E.	Commercial Entrance	PLE	Permanent Limited Easement	SS	Storm Sewer
CTH	County Trunk Highway	PT	Point	SG	Subgrade
CR	Creek	PC	Point of Curvature	SE	Superelevation
CR	Crushed	PI	Point of Intersection	SL or S/L	Survey Line
CY or CU YD	Cubic Yard	PRC	Point of Reverse Curvature	SV	Septic Vent
CP	Culvert Pipe	PT	Point of Tangency	T	Tangent
C & G	Curb and Gutter	POC	Point On Curve	TEL	Telephone
D	Degree of Curve	POT	Point on Tangent	TEMP	Temporary
DHV	Design Hour Volume	PVC	Polyvinyl Chloride	TI	Temporary Interest
DIA	Diameter	PCC	Portland Cement Concrete	TLE	Temporary Limited Easement
E	East	LB	Pound	t	Ton
X	East Grid Coordinate	PSI	Pounds Per Square Inch	T or TN	Town
ELEC	Electric (al)	P.E.	Private Entrance	TRANS	Transition
EL or ELEV	Elevation	R	Radius	TL or T/L	Transit Line
ESALS	Equivalent Single Axle Loads	RR	Railroad	T	Trucks (percent of)
EBS	Excavation Below Subgrade	R	Range	TYP	Typical
FF	Face to Face	RL or R/L	Reference Line	UNCL	Unclassified
F.E.	Field Entrance	RP	Reference Point	UG	Underground Cable
F	Fill	RCCP	Reinforced Concrete Culvert Pipe	USH	United States Highway
FG	Finished Grade	REQD	Required	VAR	Variable
FL or F/L	Flow Line	RES	Residence or Residential	V	Velocity or Design Speed
FT	Foot	RW	Retaining Wall	VERT	Vertical
FTG	Footing	RT	Right	VC	Vertical Curve
GN	Grid North	RHF	Right-Hand Forward	VOL	Volume
HT	Height	R/W	Right-of-Way	WM	Water Main
CWT	Hundredweight	RD	Road	WV	Water Valve
HYD	Hydrant	R	River	W	West
INL	Inlet			WB	Westbound
ID	Inside Diameter			YD	Yard

ORDER OF SECTION 2 SHEETS:

- WRITTEN MATERIAL
- PROJECT OVERVIEW
- TYPICAL SECTIONS
- CONSTRUCTION DETAILS (INCLUDES EROSION CONTROL PLAN)
- INTERSECTION DETAIL
- EROSION CONTROL
- TRAFFIC CONTROL
- ALIGNMENT PLAN/PERMANENT SIGNING

2

PROJECT NO: 5682-00-75	HWY: CTH II	COUNTY: IOWA	GENERAL NOTES, UTILITIES, CONTACTS, & ABBREVIATIONS	SHEET 2	E

FILE NAME : S:\PROJECTS\W11614 WISDOT - CTH II, IOWA CO\SHEETSPLAN\DETAILS\56820005_GEN NOTES.DWG PLOT DATE : 9/29/2021 8:26:21 AM PLOT BY : ETHAN KAAT PLOT SCALE : 1" = 1' LAYOUT : LAYOUT1

2

2

N

DOUGLAS FINGERSON

DAVID W. MELLUM AND BARBARA E. MELLUM, HUSBAND AND WIFE

FOREST VIEW FARM, INC.

BEGIN PROJECT STA. 10+00.00

PC: 10+00.00

SHOULDER HINGE POINT (TYP.)

EDGE OF ASPHALT (TYP.)

EXISTING C/L CTH II

FINISHED C/L CTH II

WETLAND DETERMINATION (TYP.)

OTTER CREEK FISHERY EASEMENT

FOREST VIEW FARM, INC., A WISCONSIN CORPORATION

OTTER CREEK

STRUCURE B-25-191 (REQ'D)

OTTER CREEK FISHERY EASEMENT

STA. 15+29.90 (CTH II) = STA. 50'A'+00 (FACTORY ROAD) MODIFIED TYPE C INTERSECTION REQ'D.

SLOPE INTERCEPTS (TYP.)

REMOVING STRUCTURE OVER WATERWAY
MINIMAL DEBRIS
(P-25-75)
THREE SPAN STEEL DECK GIRDER STRUCTURE
22.1' OVERALL DECK WIDTH
125.5' OVERALL LENGTH

OTTER CREEK

EXISTING C/L A-LINE (FACTORY ROAD)

PT: 54+07.04

END CONSTRUCTION STA. 54'A'+08

ALLIANT ENERGY (TYP.)

FRONTIER COMMUNICATIONS (TYP.)

SLOPE INTERCEPTS (TYP.)

FINISHED C/L A-LINE (FACTORY ROAD)

PC: 52+20.86

PT: 51+64.67

PT: 13+04.51

PC: 14+56.71

PC: 50+21.14

RICHARD C. STRAKA AND DIANE M. STRAKA, HUSBAND AND WIFE, AS SURVIVORSHIP MARITAL PROPERTY

BEGIN CONSTRUCTION STA. 50'A'+16

SLOPE INTERCEPTS (TYP.)

PT: 17+50.00

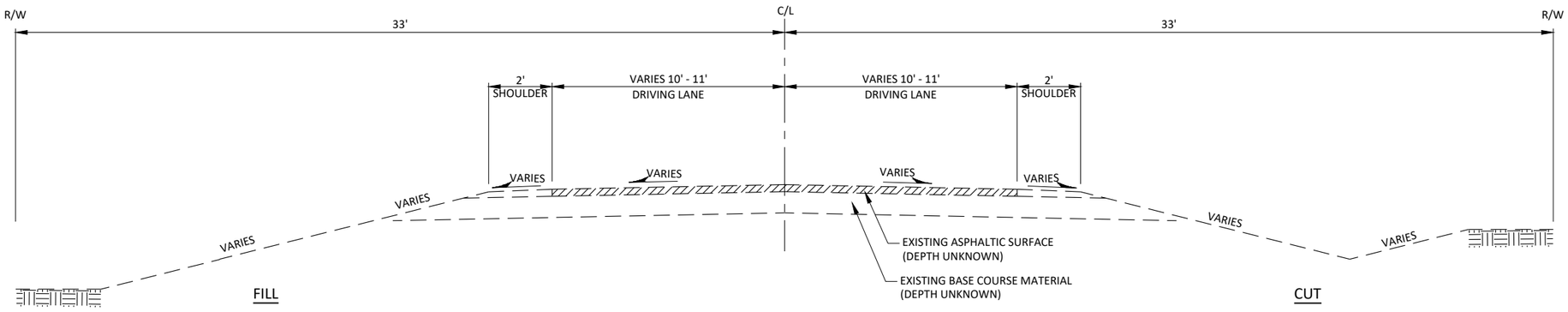
END PROJECT STA. 17+50.00

10+00 11+00 12+00 13+00 14+00 15+00 16+00 17+00 50+00 51+00 52+00 53+00 54+00

R/W

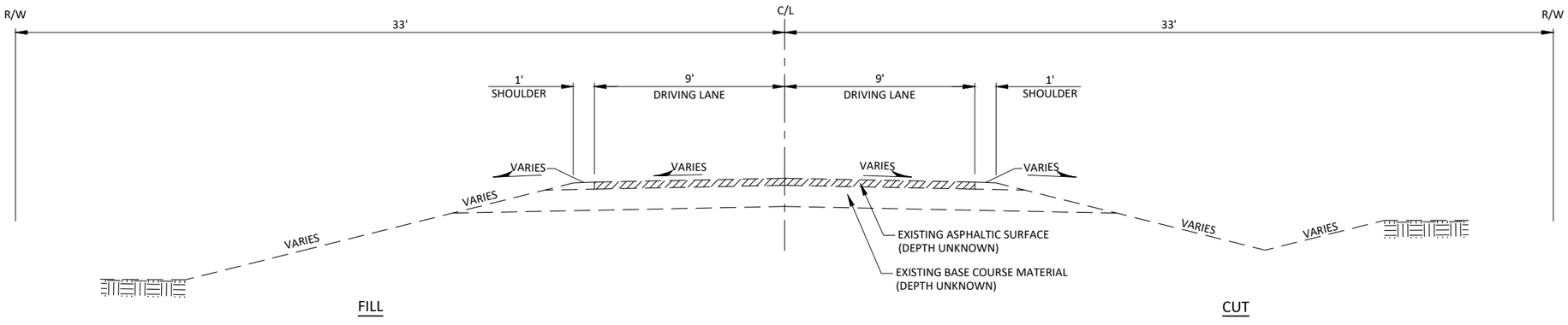
PROJECT NO: 5682-00-75	HWY: CTH II	COUNTY: IOWA	PROJECT OVERVIEW	SHEET 3	E

FILE NAME : S:\PROJECTS\W11614 WISDOT - CTH II, IOWA CO\SHEETSPLAN\DETAILS\56820005_PROJECT OVERVIEW.DWG PLOT DATE : 8/5/2021 2:36:13 PM PLOT BY : ETHAN KAAT PLOT SCALE : 1" = 1' LAYOUT : LAYOUT1



TYPICAL EXISTING SECTION

MAINLINE (CTH II)



TYPICAL EXISTING SECTION

A-LINE (FACTORY ROAD)

PROJECT NO: 5682-00-75	HWY: CTH II	COUNTY: IOWA	TYPICAL EXISTING SECTIONS	SHEET 4	E

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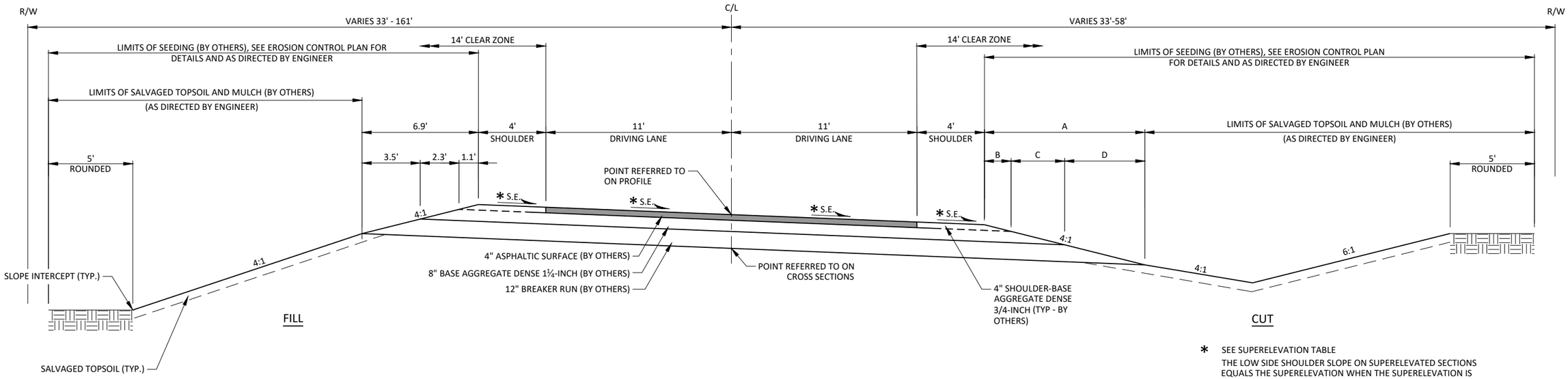
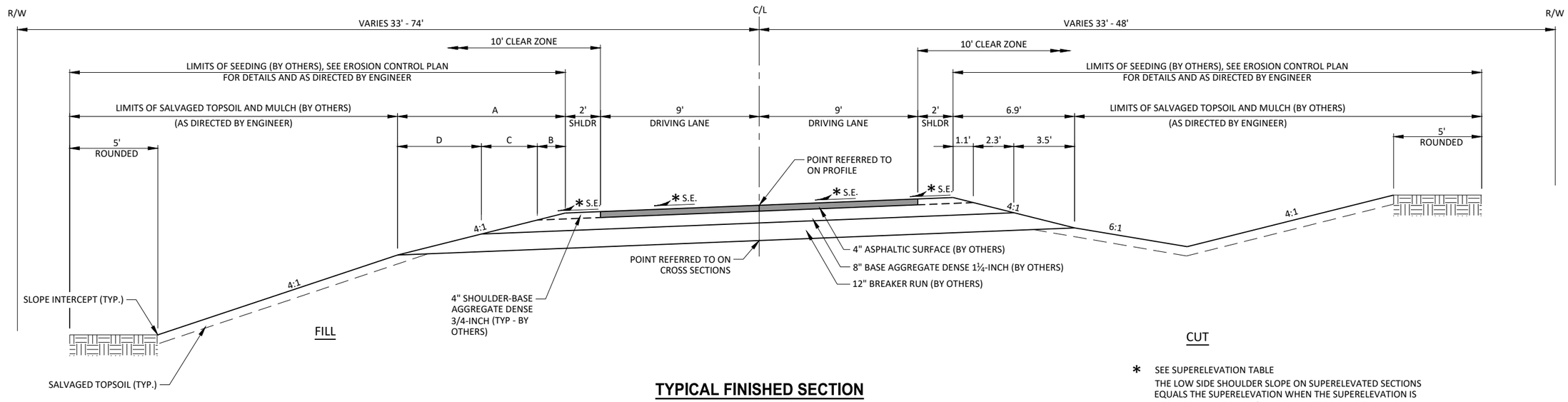
2



* SEE SUPERELEVATION TABLE
THE LOW SIDE SHOULDER SLOPE ON SUPERELEVATED SECTIONS EQUALS THE SUPERELEVATION WHEN THE SUPERELEVATION IS GREATER THAN 0.04 FT./FT. IF THE SUPERELEVATION IS LESS THAN OR EQUALS 0.04 FT./FT., THEN THE LOW SIDE SHOULDER SLOPE IS 0.04 FT./FT. THE HIGH SIDE SHOULDER SLOPE ON THE SUPERELEVATED SECTIONS EQUALS THE SUPERELEVATION.

TYPICAL FINISHED SECTION

MAINLINE (CTH II)

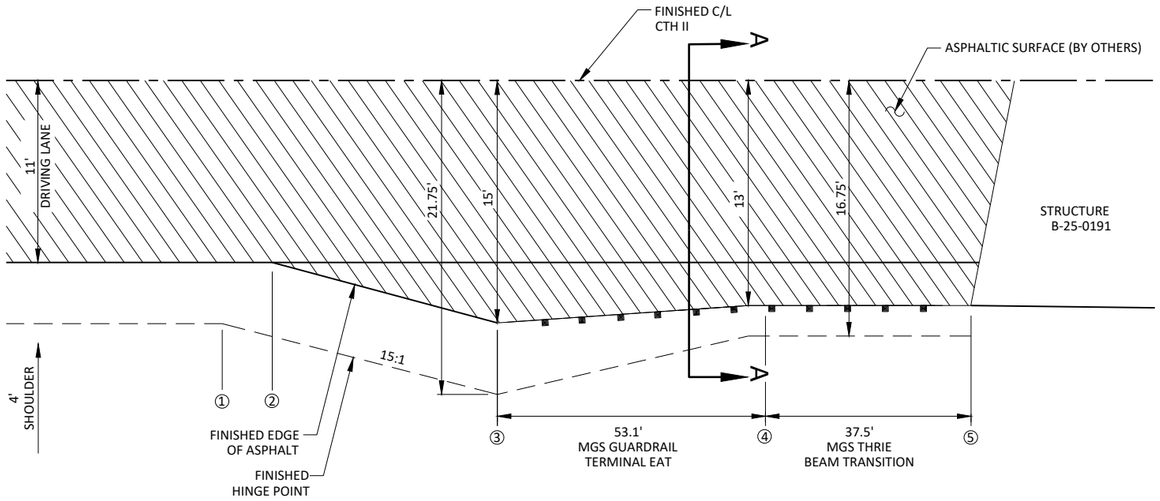


* SEE SUPERELEVATION TABLE
THE LOW SIDE SHOULDER SLOPE ON SUPERELEVATED SECTIONS EQUALS THE SUPERELEVATION WHEN THE SUPERELEVATION IS GREATER THAN 0.04 FT./FT. IF THE SUPERELEVATION IS LESS THAN OR EQUALS 0.04 FT./FT., THEN THE LOW SIDE SHOULDER SLOPE IS 0.04 FT./FT. THE HIGH SIDE SHOULDER SLOPE ON THE SUPERELEVATED SECTIONS EQUALS THE SUPERELEVATION.

TYPICAL FINISHED SECTION

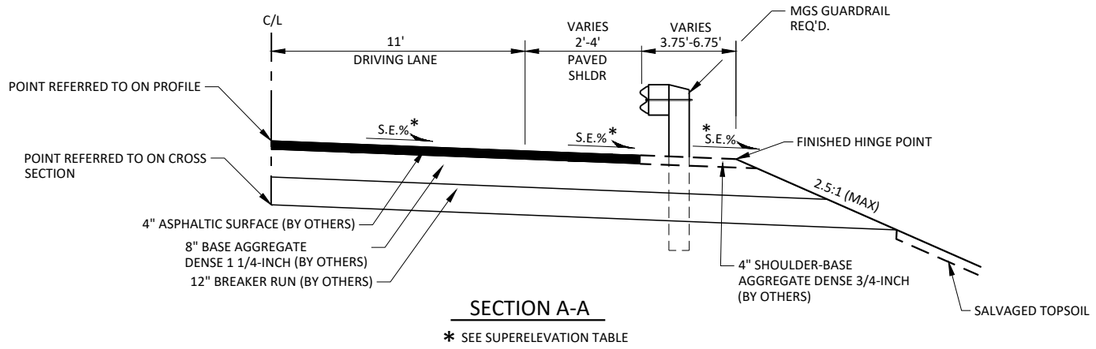
A-LINE (FACTORY ROAD)

PROJECT NO: 5682-00-75	HWY: CTH II	COUNTY: IOWA	TYPICAL FINISHED SECTIONS	SHEET 5	E



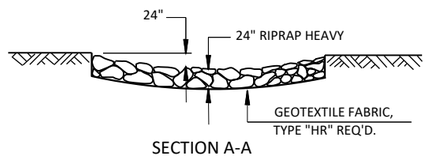
		STATION				
QUADRANT	LOCATION	①	②	③	④	⑤
NORTHWEST	MAINLINE, RT.	11+08	11+51	12+12	12+67	13+05
NORTHEAST	MAINLINE, LT.	11+26	11+63	12+22	12+73	13+10
SOUTHWEST	MAINLINE, RT.	16+27	15+86	15+24	14+70	14+32

BEAMGUARD LAYOUT DETAIL

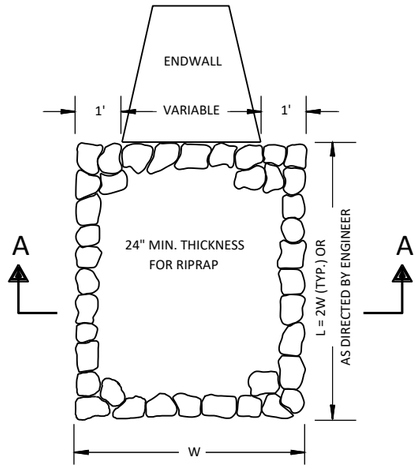


SECTION A-A

* SEE SUPERELEVATION TABLE



SECTION A-A



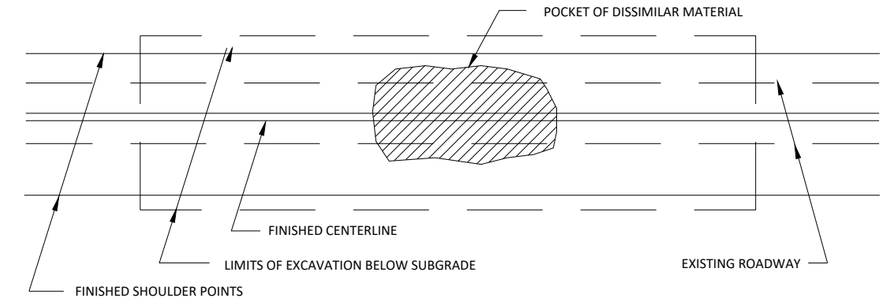
RIPRAP HEAVY TREATMENT AT CULVERTS

SUPERELEVATION MAINLINE - CTH II

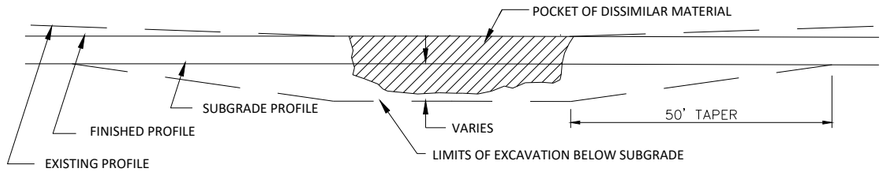
STATION	LEFT(%)	RIGHT(%)	A (FT)	B (FT)	C (FT)	D (FT)
10+00	MATCH EXISTING	MATCH EXISTING	--	--	--	--
10+50	0.4 →	2.8 →	8.8	1.3	3.0	4.5
11+00	2.8 →	3.6 →	9.3	1.5	3.2	4.6
11+25 (FULL S.E.)	4.0 →	4.0 →	9.5	1.6	3.1	4.8
FULL SUPERELEVATION						
16+25 (FULL S.E.)	4.0 →	4.0 →	9.5	1.6	3.1	4.8
16+27	3.9 →	3.9 →	9.6	1.6	3.2	4.8
16+50	2.8 →	2.8 →	8.8	1.3	3.0	4.5
17+00	0.4 →	2.0 →	8.3	1.1	2.9	4.3
17+50	MATCH EXISTING	MATCH EXISTING	--	--	--	--

SUPERELEVATION SIDEROAD - FACTORY ROAD

STATION	LEFT(%)	RIGHT(%)	A (FT)	B (FT)	C (FT)	D (FT)
50'A'+16 (MATCH MAINLINE PROFILE)	← 0.26	← 0.26	--	--	--	--
50'A'+47	← 1.0	← 1.0	8.6	1.1	3.0	4.5
50'A'+50	← 1.0	← 1.0	--	--	--	--
51'A'+00	← 2.0	← 2.0	8.4	1.1	2.9	4.4
51'A'+50	← 0.9	← 0.9	8.0	1.0	2.8	4.2
51'A'+92.77 (MID PT. BETWEEN CURVES)	0.0	0.0	--	--	--	--
52'A'+00	0.2 →	0.2 →	7.7	1.0	2.7	4.0
52'A'+50	1.4 →	1.4 →	8.2	1.2	2.8	4.2
53'A'+00	2.7 →	2.7 →	8.9	1.4	3.0	4.5
53'A'+14 (CURVE 4 MID PT., FULL S.E.)	3.0 →	3.0 →	9.0	1.4	3.0	4.6
53'A'+50	1.1 →	2.0 →	8.6	1.3	2.9	4.4
54'A'+00	← 1.6	2.0 →	8.6	1.3	2.9	4.4
54'A'+08	MATCH EXISTING	MATCH EXISTING	--	--	--	--

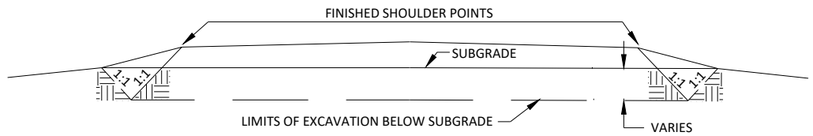


PLAN VIEW



PROFILE VIEW

RURAL EXCAVATION BELOW SUBGRADE (E.B.S.)

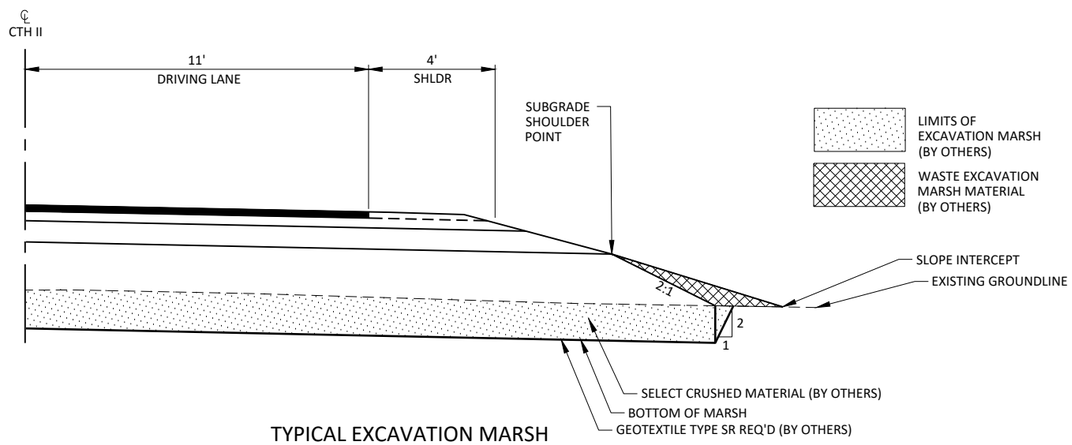


CROSS SECTION VIEW

1. EXACT LOCATION OF E.B.S. (EXCAVATION BELOW SUBGRADE) SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

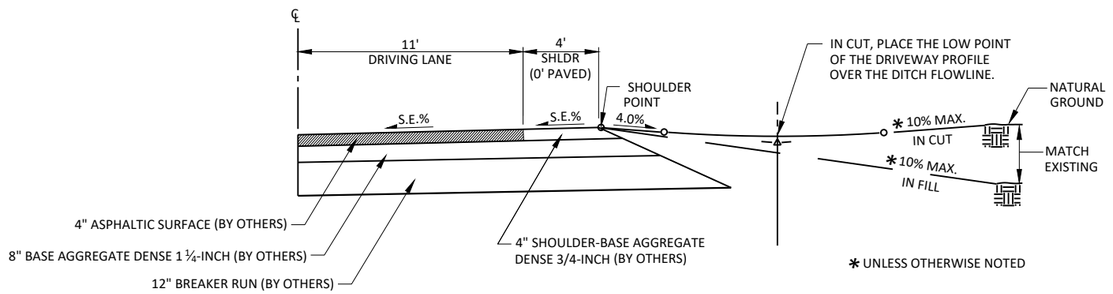
2. E.B.S. AREA TO BE BACKFILLED WITH MATERIAL ACCEPTABLE TO THE ENGINEER. BACKFILL MUST BE HOMOGENEOUS WITH ADJOINING FILL MATERIAL.

3. THE FILL SECTION WITHIN 100' OF THE MOUTH OF THE CUT MUST BE KEPT 2' BELOW SUBGRADE UNTIL E.B.S. IS COMPLETED. LATERAL LIMITS OF EXCAVATION SHALL BE THE SUBGRADE SHOULDER POINTS.

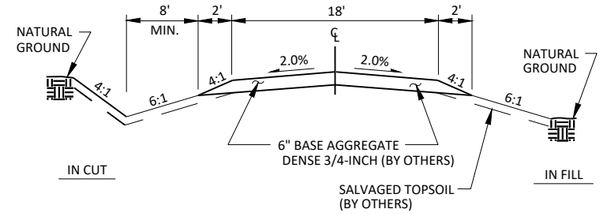


TYPICAL EXCAVATION MARSH

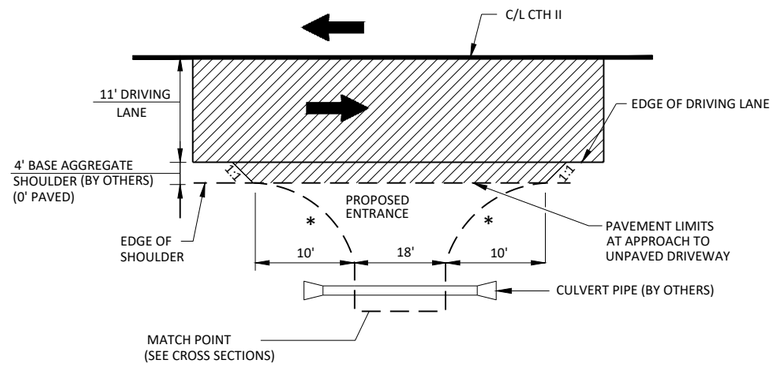
SEE CROSS SECTIONS FOR ADDITIONAL INFORMATION



TYPICAL F.E. PROFILE



TYPICAL CROSS-SECTION FOR F.E.



PLAN VIEW

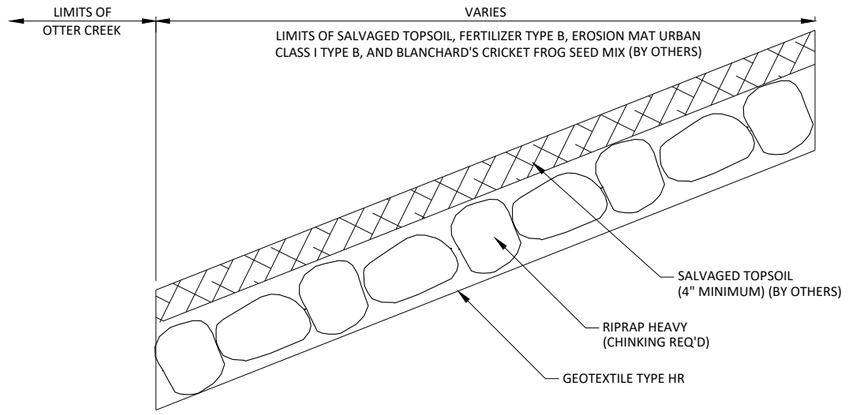
APPROACH AT F.E.

TYPICAL FIELD ENTERANCE (F.E.) DETAILS

LIMITS OF ASPHALTIC SURFACE (BY OTHERS)

* RADIUS = 10'

PROJECT NO: 5682-00-75	HWY: CTH II	COUNTY: IOWA	CONSTRUCTION DETAILS	SHEET 7	E



VEGETATED RIPRAP DETAIL

(STA. 50'A'+04, 140' LT. - 52'A'+54, -125' LT.)

	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= 3.46 ACRES

TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 2.69 ACRES

2

LEGEND

DIRECTION OF FLOW

EDGE OF WATER

* PAY LIMITS MGS GUARDRAIL SHORT RADIUS

① DO NOT INSTALL THE HEIGHT TRANSITION BETWEEN THE MGS THRIE BEAM TRANSITION AND THE MGS GUARDRAIL SHORT RADIUS.

N

OTTER CREEK

R/W

EXISTING C/L CTH II

STA. 14+73.35, 53.0' LT. (CTH II) =
STA. 50'A'+68.99, 58.0' LT.
('A'-LINE (FACTORY RD))
Y = 190,539.63
X = 345,737.04

STRUCURE B-25-0191 REQ'D.

14+00

S29°28'08"E

37.5' MGS THRIE BEAM TRANSITION

28.13' MGS GUARDRAIL 3/ MGS SHORT RADIUS TERMINAL

STA. 51'A'+01.14

10:1

10:1

18'

51'A'+00

CURVE 3

CURVE 4

PC: 52+20.86

52'A'+00

N12°12'26"E

2'

9'

9'

2'

PT: 51+64.67

FINISHED C/L 'A'-LINE (FACTORY ROAD)

STA. 14+56.71

PC: 14+56.71

STA. 14+73.40

PC: 50+21.14

R=40'

15+00

CURVE 2

25:1

25:1

15'

STA. 50'A'+54.81

90°0'0"

R=60'

BEGIN CONSTRUCTION
STA. 50'A'+16

STA. 15+29.90 (CTH II) =
STA. 50'A'+00 (FACTORY ROAD)
MODIFIED TYPE C INTERSECTION REQ'D.

STA. 15+89.89

STA. 15+89.89, 76.0' LT. (CTH II) =
STA. 50'A'+54.81, 75.0' RT. ('A'-LINE (FACTORY RD))
Y = 190,424.39
X = 345,804.80

11'

16'

3'

16+00

FINISHED C/L CTH II

EDGE OF ASPHALT (TYP.)

SHOULDER HINGE POINT (TYP.)

4'

11'

4'

17+00

SLOPE INTERCEPTS (TYP.)

FOREST VIEW FARM, INC., A WISCONSIN CORPORATION

RICHARD C. STRAKA AND DIANE M. STRAKA, HUSBAND AND WIFE, AS SURVIVORSHIP MARITAL PROPERTY

PROJECT NO: 5682-00-75	HWY: CTH II	COUNTY: IOWA	INTERSECTION DETAIL	SHEET 9	E

FILE NAME : S:\PROJECTS\W11614 WISDOT - CTH II, IOWA CO\SHEETSPLAN\DETAILS\56820005_INTERSECTION DETAIL.DWG PLOT DATE : 8/5/2021 2:37:57 PM PLOT BY : ETHAN KAAT PLOT SCALE : 1" = 1' LAYOUT : LAYOUT1

2

DOUGLAS FINGERSON

DAVID W. MELLUM AND BARBARA E. MELLUM, HUSBAND AND WIFE

N

BEGIN PROJECT
STA. 10+00.00

END CONSTRUCTION
STA. 54'A'+08

FOREST VIEW FARM INC.,
A WISCONSIN CORPORATION

FINISHED C/L CTH II

EXISTING C/L CTH II

EXISTING C/L A-LINE (FACTORY ROAD)

FINISHED C/L A-LINE (FACTORY ROAD)

SLOPE INTERCEPTS (TYP.)

WETLAND DETERMINATION (TYP.)

LIMITS OF VEGETATED RIPRAP (SEE CONSTRUCTION DETAILS)

FISHING EASEMENT

OTTER CREEK

6'x12'

10'x10'

12'x10'

RICHARD C. STRAKA & DIANE M. STRAKA, HUSBAND AND WIFE, AS SURVIVORSHIP MARITAL PROPERTY

BEGIN CONSTRUCTION
STA. 50'A'+16

END PROJECT
STA. 17+50.00

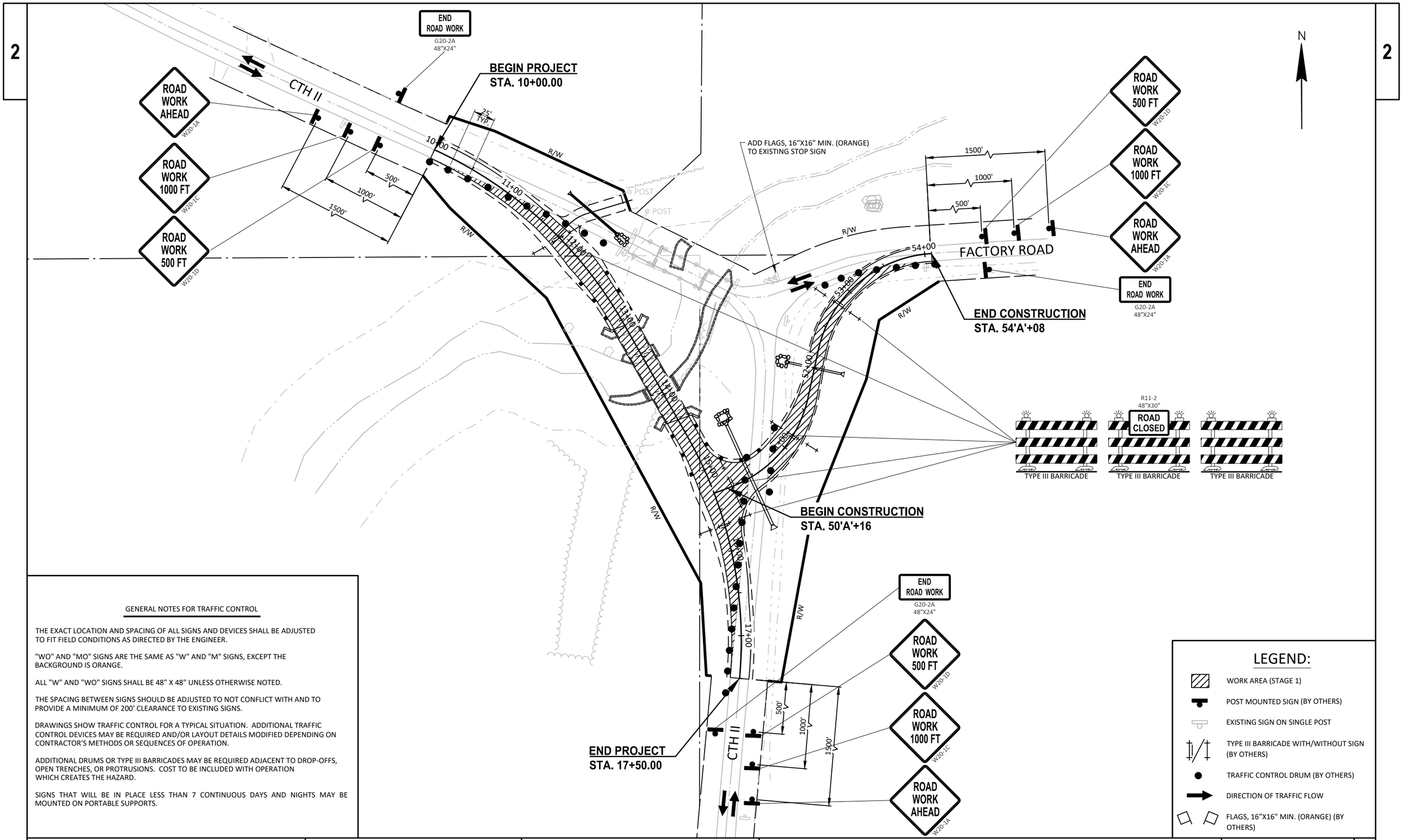
FOREST VIEW FARM INC.,
A WISCONSIN CORPORATION

LEGEND

- DIRECTION OF FLOW
- TEMPORARY DITCH CHECK (BY OTHERS)
- CULVERT PIPE CHECK (BY OTHERS)
- SILT FENCE (BY OTHERS)
- TURBIDITY BARRIER
- EDGE OF WATER
- WETLANDS
- HEAVY RIPRAP OVER GEOTEXTILE TYPE HR
- LIMITS OF SPV.0005.01 WETLAND BLANCHARD'S CRICKET FROG SEED MIX (BY OTHERS)
- LIMITS OF SEED MIX NO. 20 (BY OTHERS)
- LIMITS OF SPV.0085.01 BLANCHARD'S CRICKET FROG SEED MIX (BY OTHERS)
- PORTION OF RIPRAP HEAVY TO BE INCLUDED IN STRUCTURE QUANTITIES

RIPRAP HEAVY LAYOUT TABLE

POINT	STATION	OFFSET
A	13+75	60' RT.
B	13+70	55' RT.
C	13+83	18' RT.
D	13+99	18' RT.
E	14+05	18' LT.
F	13+84	18' LT.
G	13+09	138' LT.
H	13+29	132' LT.
I	12+88	91' LT.
J	12+78	80' LT.
K	12+61	110' LT
L	12+73	115' LT



GENERAL NOTES FOR TRAFFIC CONTROL

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

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

ALL "W" AND "WO" SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200' CLEARANCE TO EXISTING SIGNS.

DRAWINGS SHOW TRAFFIC CONTROL FOR A TYPICAL SITUATION. ADDITIONAL TRAFFIC CONTROL DEVICES MAY BE REQUIRED AND/OR LAYOUT DETAILS MODIFIED DEPENDING ON CONTRACTOR'S METHODS OR SEQUENCES OF OPERATION.

ADDITIONAL DRUMS OR TYPE III BARRICADES MAY BE REQUIRED ADJACENT TO DROP-OFFS, OPEN TRENCHES, OR PROTRUSIONS. COST TO BE INCLUDED WITH OPERATION WHICH CREATES THE HAZARD.

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

LEGEND:

- WORK AREA (STAGE 1)
- POST MOUNTED SIGN (BY OTHERS)
- EXISTING SIGN ON SINGLE POST
- TYPE III BARRICADE WITH/WITHOUT SIGN (BY OTHERS)
- TRAFFIC CONTROL DRUM (BY OTHERS)
- DIRECTION OF TRAFFIC FLOW
- FLAGS, 16"X16" MIN. (ORANGE) (BY OTHERS)

PROJECT NO: 5682-00-75	HWY: CTH II	COUNTY: IOWA	TRAFFIC CONTROL - STAGE 1	SHEET 11	E

2

2

END ROAD WORK
G20-2A
48"X24"

BEGIN PROJECT
STA. 10+00.00

CTH II

ROAD WORK AHEAD
W20-1A

ROAD WORK 1000 FT
W20-1C

ROAD WORK 500 FT
W20-1D

25' TYP

10+00

11+00

12+00

13+00

14+00

15+00

16+00

17+00

500'

1000'

1500'

R/W

POST

51+00

52+00

53+00

54+00

FACTORY ROAD

END CONSTRUCTION
STA. 54'A'+08

ROAD WORK 500 FT
W20-1D

ROAD WORK 1000 FT
W20-1C

ROAD WORK AHEAD
W20-1A

END ROAD WORK
G20-2A
48"X24"

N

R11-2
48"X30"
ROAD CLOSED

TYPE III BARRICADE

TYPE III BARRICADE

TYPE III BARRICADE

STOP
R1-1
30"X30"

BEGIN CONSTRUCTION
STA. 50'A'+16

END PROJECT
STA. 17+50.00

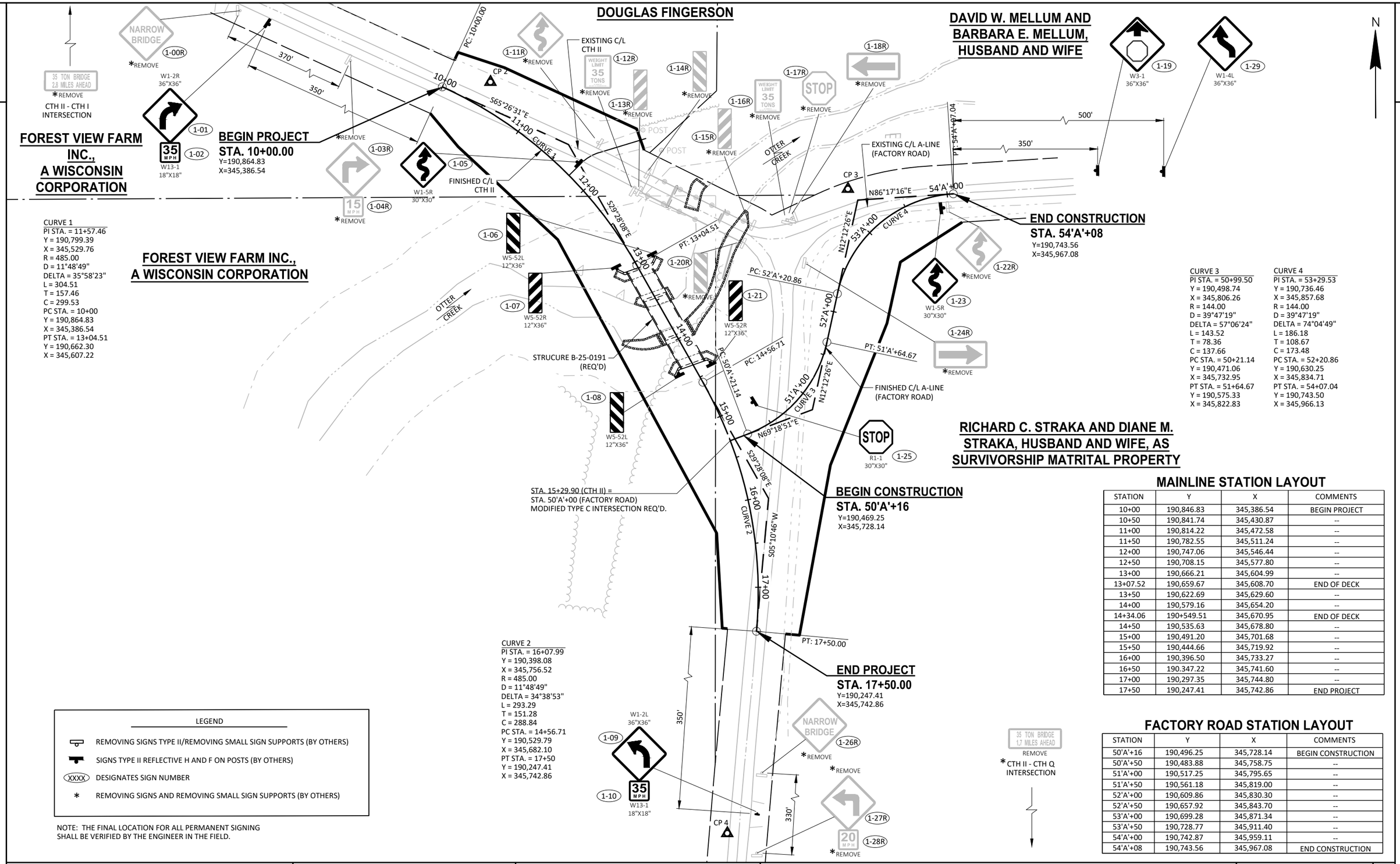
CTH II

LEGEND:

- WORK AREA (STAGE 1)
- POST MOUNTED SIGN (BY OTHERS)
- EXISTING SIGN ON SINGLE POST
- TYPE III BARRICADE WITH/WITHOUT SIGN (BY OTHERS)
- TRAFFIC CONTROL DRUM (BY OTHERS)
- DIRECTION OF TRAFFIC FLOW
- FLAGS, 16"X16" MIN. (ORANGE) (BY OTHERS)

PROJECT NO: 5682-00-75	HWY: CTH II	COUNTY: IOWA	TRAFFIC CONTROL - STAGE 2	SHEET 12	E

FILE NAME : S:\PROJECTS\W11614 WISDOT - CTH II, IOWA CO\SHEETSPLAN\DETAILS\56820005_TRAFFIC CONTROL.DWG
PLOT DATE : 8/5/2021 2:38:52 PM
PLOT BY : ETHAN KAAT
PLOT SCALE : 1" = 1'
LAYOUT : LAYOUT2



CURVE 1
PI STA. = 11+57.46
Y = 190,799.39
X = 345,529.76
R = 485.00
D = 11°48'49"
DELTA = 35°58'23"
L = 304.51
T = 157.46
C = 299.53
PC STA. = 10+00
Y = 190,864.83
X = 345,386.54
PT STA. = 13+04.51
Y = 190,662.30
X = 345,607.22

CURVE 2
PI STA. = 16+07.99
Y = 190,398.08
X = 345,756.52
R = 485.00
D = 11°48'49"
DELTA = 34°38'53"
L = 293.29
T = 151.28
C = 288.84
PC STA. = 14+56.71
Y = 190,529.79
X = 345,682.10
PT STA. = 17+50
Y = 190,247.41
X = 345,742.86

CURVE 3
PI STA. = 50+99.50
Y = 190,498.74
X = 345,806.26
R = 144.00
D = 39°47'19"
DELTA = 57°06'24"
L = 143.52
T = 78.36
C = 137.66
PC STA. = 50+21.14
Y = 190,471.06
X = 345,732.95
PT STA. = 51+64.67
Y = 190,575.33
X = 345,822.83

CURVE 4
PI STA. = 53+29.53
Y = 190,736.46
X = 345,857.68
R = 144.00
D = 39°47'19"
DELTA = 74°04'49"
L = 186.18
T = 108.67
C = 173.48
PC STA. = 52+20.86
Y = 190,630.25
X = 345,834.71
PT STA. = 54+07.04
Y = 190,743.50
X = 345,966.13

LEGEND

- REMOVING SIGNS TYPE II/REMOVING SMALL SIGN SUPPORTS (BY OTHERS)
- SIGNS TYPE II REFLECTIVE H AND F ON POSTS (BY OTHERS)
- (XXXX) DESIGNATES SIGN NUMBER
- * REMOVING SIGNS AND REMOVING SMALL SIGN SUPPORTS (BY OTHERS)

NOTE: THE FINAL LOCATION FOR ALL PERMANENT SIGNING SHALL BE VERIFIED BY THE ENGINEER IN THE FIELD.

MAINLINE STATION LAYOUT

STATION	Y	X	COMMENTS
10+00	190,846.83	345,386.54	BEGIN PROJECT
10+50	190,841.74	345,430.87	--
11+00	190,814.22	345,472.58	--
11+50	190,782.55	345,511.24	--
12+00	190,747.06	345,546.44	--
12+50	190,708.15	345,577.80	--
13+00	190,666.21	345,604.99	--
13+07.52	190,659.67	345,608.70	END OF DECK
13+50	190,622.69	345,629.60	--
14+00	190,579.16	345,654.20	--
14+34.06	190+549.51	345,670.95	END OF DECK
14+50	190,535.63	345,678.80	--
15+00	190,491.20	345,701.68	--
15+50	190,444.66	345,719.92	--
16+00	190,396.50	345,733.27	--
16+50	190.347.22	345,741.60	--
17+00	190,297.35	345,744.80	--
17+50	190,247.41	345,742.86	END PROJECT

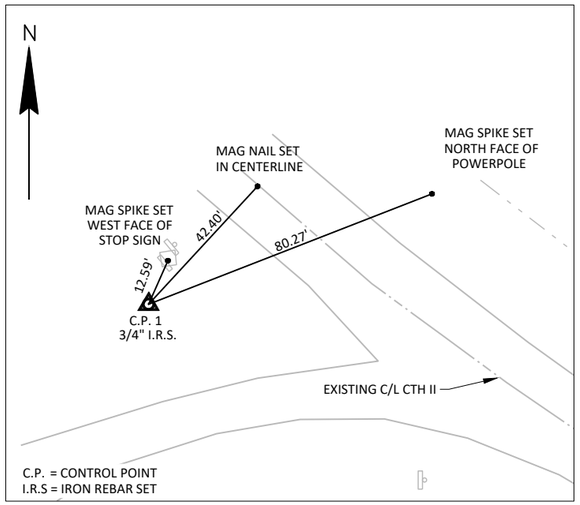
FACTORY ROAD STATION LAYOUT

STATION	Y	X	COMMENTS
50'A'+16	190,496.25	345,728.14	BEGIN CONSTRUCTION
50'A'+50	190,483.88	345,758.75	--
51'A'+00	190,517.25	345,795.65	--
51'A'+50	190,561.18	345,819.00	--
52'A'+00	190,609.86	345,830.30	--
52'A'+50	190,657.92	345,843.70	--
53'A'+00	190,699.28	345,871.34	--
53'A'+50	190,728.77	345,911.40	--
54'A'+00	190,742.87	345,959.11	--
54'A'+08	190,743.56	345,967.08	END CONSTRUCTION

PROJECT NO: 5682-00-75	HWY: CTH II	COUNTY: IOWA	ALIGNMENT PLAN/ PERMANENT SIGNING	SHEET 13	E

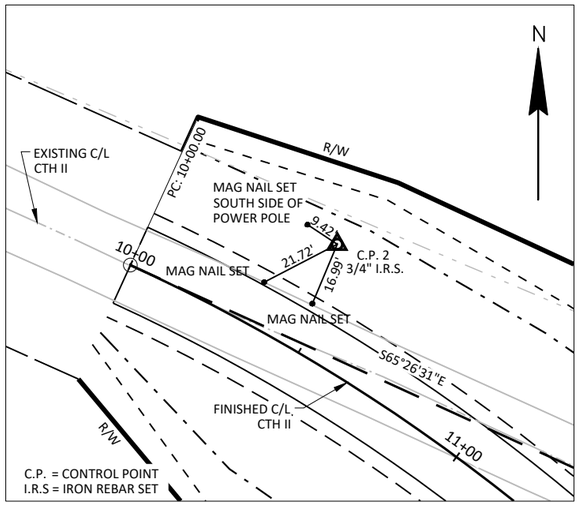
CONTROL POINTS

NO.	STA.	DESCRIPTION	Y	X
1	3+79.07	¾" I.R.S., 42.72' RT.	191,125.42	344,813.61
2	10+44.67	¾" I.R.S., 29.89' LT.	190,870.35	345,441.13
3	53+13.82	¾" I.R.S., 53.25' LT.	190,749.11	345,846.56
4	19+81.32	60D SPIKE, 13.12' RT.	190,018.27	345,709.76



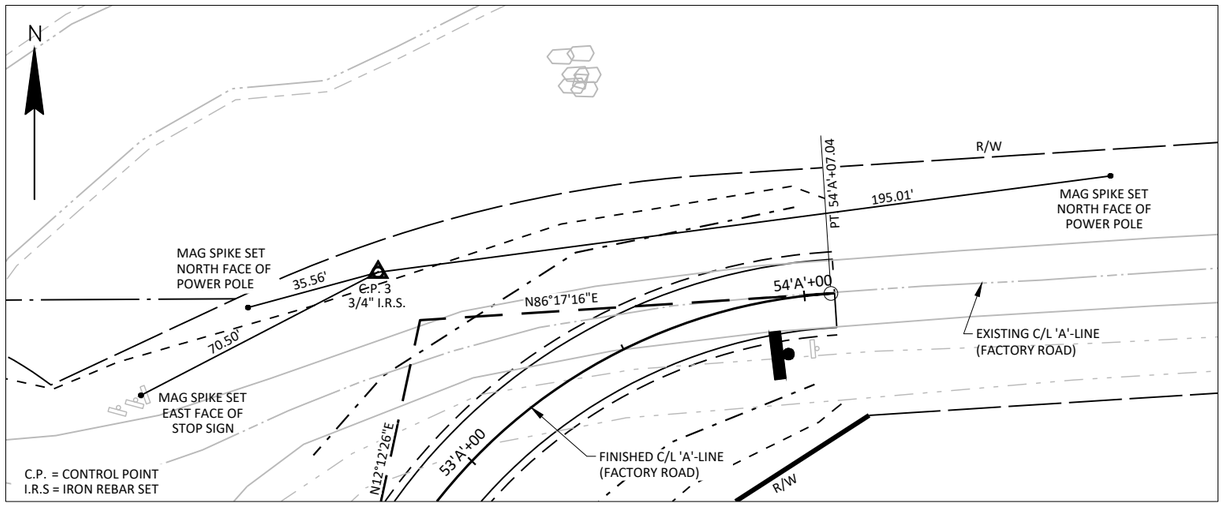
TIES TO C.P.#1

STA. 3+79.07, 42.72' RT
Y = 191,125.42
X = 344,813.61



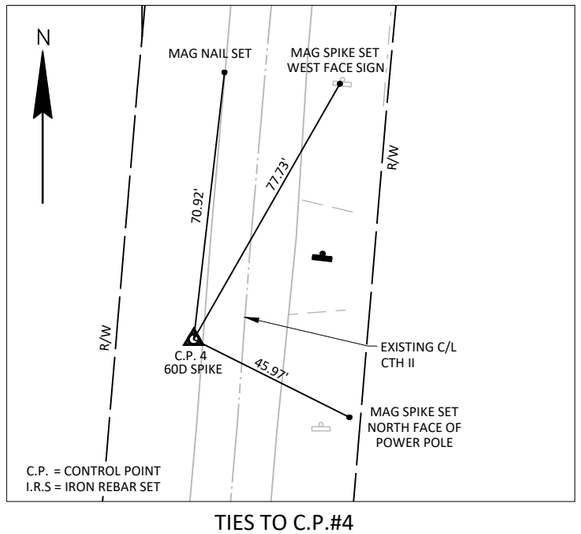
TIES TO C.P.#2

STA. 10+44.67, 29.89' LT
Y = 190,870.35
X = 345,441.13



TIES TO C.P.#3

STA. 53'A'+13.82, 53.25' LT
Y = 190,749.11
X = 345,846.56



TIES TO C.P.#4

STA. 19+81.32, 13.12' RT
Y = 190,018.27
X = 345,709.76

Estimate Of Quantities

5682-00-75

Line	Item	Item Description	Unit	Total	Qty
0002	203.0260	Removing Structure Over Waterway Minimal Debris (structure) 01. P-25-75	EACH	1.000	1.000
0004	206.1000	Excavation for Structures Bridges (structure) 01. B-25-191	LS	1.000	1.000
0006	210.1500	Backfill Structure Type A	TON	330.000	330.000
0008	502.0100	Concrete Masonry Bridges	CY	351.000	351.000
0010	502.3200	Protective Surface Treatment	SY	480.000	480.000
0012	505.0400	Bar Steel Reinforcement HS Structures	LB	7,720.000	7,720.000
0014	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	53,240.000	53,240.000
0016	513.4061	Railing Tubular Type M	LF	258.000	258.000
0018	516.0500	Rubberized Membrane Waterproofing	SY	12.000	12.000
0020	550.2104	Piling CIP Concrete 10 3/4 X 0.25-Inch	LF	870.000	870.000
0022	606.0300	Riprap Heavy	CY	505.000	505.000
0024	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	150.000	150.000
0026	614.2300	MGS Guardrail 3	LF	15.000	15.000
0028	614.2350	MGS Guardrail Short Radius	LF	72.000	72.000
0030	614.2500	MGS Thrie Beam Transition	LF	160.000	160.000
0032	614.2610	MGS Guardrail Terminal EAT	EACH	3.000	3.000
0034	614.2630	MGS Guardrail Short Radius Terminal	EACH	1.000	1.000
0036	618.0100	Maintenance And Repair of Haul Roads (project) 01. 5682-00-75	EACH	1.000	1.000
0038	619.1000	Mobilization	EACH	1.000	1.000
0040	628.6005	Turbidity Barriers	SY	1,000.000	1,000.000
0042	642.5001	Field Office Type B	EACH	1.000	1.000
0044	643.0300	Traffic Control Drums	DAY	4,910.000	4,910.000
0046	643.0420	Traffic Control Barricades Type III	DAY	2,080.000	2,080.000
0048	643.0705	Traffic Control Warning Lights Type A	DAY	4,160.000	4,160.000
0050	643.0900	Traffic Control Signs	DAY	2,080.000	2,080.000
0052	643.5000	Traffic Control	EACH	1.000	1.000
0054	645.0111	Geotextile Type DF Schedule A	SY	100.000	100.000
0056	645.0120	Geotextile Type HR	SY	970.000	970.000
0058	650.6500	Construction Staking Structure Layout (structure) 01. B-25-191	LS	1.000	1.000
0060	650.9910	Construction Staking Supplemental Control (project) 01. 5682-00-75	LS	1.000	1.000
0062	715.0502	Incentive Strength Concrete Structures	DOL	2,106.000	2,106.000
0064	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	2,400.000	2,400.000
0066	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	600.000	600.000
0068	SPV.0060	Special 01. Site Mowing Project 5682-00-75	EACH	1.000	1.000
0070	SPV.0090	Special 01. Flashing Stainless Steel	LF	243.000	243.000

ALL BID ITEMS ARE BY OTHERS UNLESS OTHERWISE NOTED AS CATEGORY 010 OR 020

3

CLEARING & GRUBBING

STATION - STATION	LOCATION	201.0105 CLEARING (STA)	201.0205 GRUBBING (STA)
12+00-15+00	MAINLINE	3	3
	TOTALS =	3	3

EARTHWORK SUMMARY

STAGE	STATION - STATION	LOCATION	205.0100 COMMON EXCAVATION CUT (1) (CY)		AVAILABLE MATERIAL (CY) (2)	205.0400 EXCAVATION MARSH (3) (CY)	UNEXPANDED FILL (CY)	EXPANDED FILL (CY) FACTOR 1.25	MASS ORDINATE +/- (4) (CY)	208.0100 BORROW (5) (CY)		WASTE (CY)
STAGE 1	12+57-14+84	MAINLINE	160	0	160	0	741	926	-766	600	0	0
	10+00-17+50	MAINLINE	0	285	285	0	847	1059	-774	0	625	0
	12+50-14+50 (MARSH)	MAINLINE	0	0	360	560	0	0	360	0	0	360
	50'A'+16 - 54'A'+00	'A'-LINE	0	1090	1090	0	620	775	315	0	0	0
STAGE 1 SUBTOTAL			160	1375	1895	560	2208	2760	-865	600	625	360
STAGE 2	12+57-14+84	MAINLINE	0	0	0	0	0	0	0	0	0	0
	10+00-17+50	MAINLINE	0	1615	1615	0	7	9	1606	0	0	1606
	50'A'+16 - 54'A'+00	'A'-LINE	0	6070	6070	0	24	30	6040	0	0	6040
STAGE 2 SUBTOTAL			0	7685	7685	0	31	39	7646	0	0	7646
		TOTALS =	9220		9580	560	2239	2799	6781	1225		8006

NOTES:
1.) COMMON EXCAVATION IS THE SUM OF THE CUT, ITEM NUMBER 205.0100
2.) AVAILABLE MATERIAL = CUT
3.) MARSH EXCAVATION - AREA TO BE WRAPPED WITH GEOTEXTILE TYPE SR AND BACKFILLED WITH SELECT CRUSHED MATERIAL. USE 200 CY OF MARSH MATERIAL FOR HYDRIC SOIL OF BLANCHARD'S CRICKET FROG SCRAPE AREA, AND WASTE 360 CY IN SLOPE AREAS.
4.) THE MASS ORDINATE + OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION
5.) USE 315 CY OF MATERIAL FROM 'A'-LINE FOR MAINLINE FILL.

3

BASE AGGREGATE DENSE / BREAKER RUN

STATION - STATION	LOCATION	DESCRIPTION	305.0110 BASE AGGREGATE DENSE 3/4-INCH (TON)		305.0120 BASE AGGREGATE DENSE 1 1/4-INCH (TON)		311.0110 BREAKER RUN (TON)	
			STAGE 1	STAGE 2	STAGE 1	STAGE 2	STAGE 1	STAGE 2
12+57 - 14+84	MAINLINE	-	27	-	200	-	246	-
10+00 - 12+57 & 14+84 -17+50	MAINLINE	-	108	34	810	250	1292	457
11+60	MAINLINE	F.E.	10	61	-	-	-	-
50'A'+16 - 54'A'+08	FACTORY ROAD	-	55	15	505	210	822	343
		SUBTOTALS =	200	110	1,515	460	2,360	800
		TOTALS =	310		1,975		3,160	

MARSH BACKFILL

STATION - STATION	LOCATION	DESCRIPTION	312.0110 SELECT CRUSHED MATERIAL (TON)	645.0135 GEOTEXTILE TYPE SR (SY)
12+50 - 14+50	MAINLINE	MARSH BACKFILL	1410	1010
		TOTALS =	1410	1010

ASPHALTIC SURFACE

STATION - STATION	LOCATION	455.0605 TACK COAT (GAL)		465.0105 ASPHALTIC SURFACE (TON)	
		STAGE 1	STAGE 2	STAGE 1	STAGE 2
12+57 - 14+84	MAINLINE	15	-	68	-
11+44 - 12+57 & 14+84 - 15+89	MAINLINE	53	-	241	-
50'A'+16 - 50'A'+32	FACTORY RD	10	-	46	-
50'A'+59 - 53'A'+26	FACTORY RD	36	-	165	-
10+00 - 11+44	MAINLINE	-	13	-	57
15+89 - 17+50	MAINLINE	-	13	-	61
50'A'+32 - 50'A'+59	FACTORY RD	-	6	-	26
53'A'+23 - 54'A'+08	FACTORY RD	-	6	-	26
	SUBTOTALS =	114	38	520	170
	TOTALS =	152		690	

CULVERT PIPES

STATION - STATION	LOCATION	520.1018 APRON ENDWALLS 18-INCH (EACH)	520.3318 CLASS III-A 18-INCH (LF)	520.1024 APRON ENDWALLS 24-INCH (EACH)	520.3324 CLASS III-A 24-INCH (LF)	520.1036 APRON ENDWALLS 36-INCH (EACH)	520.3336 CLASS III-A 36-INCH (LF)
11+84	MAINLINE,F.E.	2	70	-	-	-	-
52'A'+00	FACTORY RD	-	-	2	66	-	-
50'A'+47	FACTORY RD	-	-	-	-	2	128
	TOTALS =	2	70	2	66	2	128

PIPE SIZE	MINIMUM THICKNESS (IN.) STEEL	ALUMINUM
18-INCH	0.064	0.060
24-INCH	0.064	0.075
36-INCH	0.079	0.105

ALL BID ITEMS ARE BY OTHERS UNLESS OTHERWISE NOTED AS CATEGORY 010 OR 020

3

RIPRAP HEAVY/GEOTEXTILE TYPE HR

		CATEGORY 010	
		606.0300 RIPRAP HEAVY	645.0120 GEOTEXTILE TYPE HR
STATION - STATION	LOCATION	(CY)	(SY)
12+78 - 12+87	MAINLINE, LT	44	93
13+84 - 14+04	MAINLINE, LT	182	360
13+84 - 13+97	MAINLINE, RT	44	95
12+21 - 12+32	MAINLINE, LT	6	20
50'A'+47	FACTORY RD, LT	10	28
52'A'+00	FACTORY RD, LT	9	24
	TOTALS =	295	620

MGS GUARDRAIL

		CATEGORY 010				
		614.2300 MGS GUARDRAIL 3	614.2350 MGS GUARDRAIL SHORT RADIUS	614.2500 MGS THRIE BEAM TRANSITION	614.2610 MGS GUARDRAIL TERMINAL EAT	614.2630 MGS GUARDRAIL SHORT RADIUS TERMINAL
STATION - STATION	LOCATION	(LF)	(LF)	(LF)	(EACH)	(EACH)
12+73 - 13+10	MAINLINE, LT.	-	-	40	1	-
12+67 - 13+05	MAINLINE, RT.	-	-	40	1	-
14+36 - 14+73	MAINLINE, LT.	-	-	40	-	-
14+32 - 14+70	MAINLINE, LT.	-	-	40	1	-
14+73 - 15+08	MAINLINE, LT.	-	72	-	-	-
11+75 - 12+66	MAINLINE, LT.	-	-	-	-	-
50'A'+69 - 51'A'+01	FACTORY RD., LT.	15	-	-	-	1
	TOTALS =	15	72	160	3	1

WATER

	624.0100
LOCATION	(MGAL)
PROJECT	35
TOTAL =	35

3

FINISHING ITEMS

		625.0500 SALVAGED TOPSOIL	627.0200 MULCHING	629.0210 FERTILIZER TYPE B	630.0120 SEEDING MIXTURE NO. 20	630.0200 SEEDING TEMPORARY	630.0300 SEEDING BORROW PIT	630.0500 SEED WATER	SPV.0005.01 WETLAND BLANCHARD'S CRICKET FROG SEED MIX	SPV.0085.01 BLANCHARD'S CRICKET FROG SEED MIX
STATION - STATION	LOCATION	(SY)	(SY)	(CWT)	(LB)	(LB)	(LB)	(MGAL)	(ACRE)	(LB)
10+00 - 17+50	MAINLINE	3940	3940	3.1	110	-	-	110	0.05	4.0
50'A'+16 - 54'A'+08	FACTORY RD.	4540	4540	1.6	50	-	-	90	0.35	8.0
50'A'+04 - 52'A'+54	VEGETATED RIPRAP	250	-	0.2	-	-	-	-	-	2.0
-	BORROW PIT	-	920	0.5	-	-	20	20	-	-
-	UNDISTRIBUTED	2170	2230	1.6	40	290	5	50	0.10	4.0
	TOTALS=	10900	11630	7.0	200	290	25	270	0.50	18.0

SILT FENCE

		628.1504 SILT FENCE	628.1520 SILT FENCE MAINTENANCE
STATION - STATION	LOCATION	(LF)	(LF)
11+48-12+73	MAINLINE, LT.	170	340
10+00 - 12+50	MAINLINE, LT.	175	350
	UNDISTRIBUTED	85	170
	TOTALS =	430	860

MOBILIZATION EROSION CONTROL

	628.1905 MOBILIZATION EROSION CONTROL	628.1910 MOBILIZATION EMERGENCY EROSION CONTROL
PROJECT	(EACH)	(EACH)
5682-00-75	5	6
TOTALS =	5	6

EROSION MAT URBAN CLASS I TYPE B

STATION - STATION	LOCATION	628.2008 URBAN CLASS I TYPE B (SY)
13+84 - 14+04	MAINLINE, LT.	248
-	UNDISTRIBUTED	62
	TOTAL =	310

TEMPORARY DITCH CHECKS

STATION	LOCATION	628.7504 (LF)
10+48	MAINLINE, LT	8
12+00	MAINLINE, RT	8
13+00	MAINLINE, RT	8
14+35	MAINLINE, RT	8
15+50	MAINLINE, RT	8
16+95	MAINLINE, LT	8
50'A'+75	FACTORY ROAD, RT	8
51'A'+30	FACTORY ROAD, LT	8
51'A'+85	FACTORY ROAD, RT	8
53'A'+10	FACTORY ROAD, RT	8
53'A'+15	FACTORY ROAD, LT	8
	TOTAL =	88

TUBIDITY BARRIER

	CATEGORY 010
	628.6005
LOCATION	(SY)
WEST BANK	400
EAST BANK	390
UNDISTRIBUTED	210
TOTAL =	1000

CULVERT PIPE CHECKS

STATION	LOCATION	628.7555 (EACH)
11+50	MAINLINE, LT	2
50'A'+47	FACTORY ROAD, RT	7
52'A'+00	FACTORY ROAD, RT	3
	UNDISTRIBUTED	3
	TOTAL =	15

ALL BID ITEMS ARE BY OTHERS UNLESS OTHERWISE NOTED AS CATEGORY 010 OR 020

3

3

PERMANENT SIGNING

APPROX. STATION	POSITION	SITE ID	SIGN CODE	SIGN DESCRIPTION	ORDER LINES	SIGN SIZE (INXIN)	634.0614 POSTS WOOD 4X6 INCH 14 FT (EACH)	634.0618 POSTS WOOD 4X6 INCH 18 FT (EACH)	637.2210 SIGNS TYPE II REFLECTIVE H (S.F.)	637.2230 SIGNS TYPE II REFLECTIVE F (S.F.)	638.2602 REMOVING SIGNS TYPE II (EACH)	638.3000 REMOVING SMALL SIGN SUPPORTS (EACH)
CTH II - CTH I INTERSECTION	RIGHT	MAINLINE	R12-55	__ TON BRIDGE __ MILES AHEAD	---	---	---	---	---	---	1	1
5+20	RIGHT	MAINLINE	W5-2	NARROW BRIDGE	---	---	---	---	---	---	1	1
6+50	RIGHT	MAINLINE	W1-2-R	RIGHT CURVE	---	36X36	---	1	---	9.00	---	---
6+50	RIGHT	MAINLINE	W13-1	ADVISORY SPEED	35 MPH	18X18	---	---	---	2.25	---	---
8+90	RIGHT	MAINLINE	W1-1-R	RIGHT TURN	---	---	---	---	---	---	1	1
8+90	RIGHT	MAINLINE	W13-1	ADVISORY SPEED: 15 MPH	---	---	---	---	---	---	1	---
11+78	LEFT	MAINLINE	W1-5-R	RIGHT WINDING ROAD	---	---	---	---	---	---	1	1
12+00	LEFT	MAINLINE	W1-5-R	RIGHT WINDING ROAD	---	30X30	---	1	---	6.25	---	---
12+32	LEFT	MAINLINE	W5-52-L	BRIDGE HASH MARKS	---	---	---	---	---	---	1	1
12+38	LEFT	MAINLINE	R12-1	WEIGHT LIMIT __ TONS	---	---	---	---	---	---	1	1
12+41	LEFT	MAINLINE	W5-52-R	BRIDGE HASH MARKS	---	---	---	---	---	---	1	1
12+95	RIGHT	MAINLINE	W5-52-R	BRIDGE HASH MARKS	---	12X36	1	---	---	3.00	---	---
13+03	LEFT	MAINLINE	W5-52-L	BRIDGE HASH MARKS	---	12X36	1	---	---	3.00	---	---
14+38	RIGHT	MAINLINE	W5-52-L	BRIDGE HASH MARKS	---	12X36	1	---	---	3.00	---	---
14+44	LEFT	MAINLINE	W5-52-R	BRIDGE HASH MARKS	---	12X36	1	---	---	3.00	---	---
19+13	LEFT	MAINLINE	W5-2	NARROW BRIDGE	---	---	---	---	---	---	1	1
21+00	LEFT	MAINLINE	W1-2-L	LEFT CURVE	---	36X36	---	1	---	9.00	---	---
21+00	LEFT	MAINLINE	W13-1	ADVISORY CURVE	35 MPH	18X18	---	---	---	2.25	---	---
22+43	LEFT	MAINLINE	W1-1-L	LEFT TURN	---	---	---	---	---	---	1	1
22+43	LEFT	MAINLINE	W13-1	ADVISORY CURVE: 20 MPH	---	---	---	---	---	---	1	---
CTH II - CTH Q INTERSECTION	RIGHT	MAINLINE	R12-55	__ TON BRIDGE __ MILES AHEAD	---	---	---	---	---	---	1	1
50'A'+47	LEFT	FACTORY ROAD	R1-1	STOP SIGN	---	30X30	---	1	5.18	---	---	---
52'A'+40	LEFT	FACTORY ROAD	W5-52-L	BRIDGE HASH MARKS	---	---	---	---	---	---	1	1
52'A'+41	LEFT	FACTORY ROAD	W1-6	ONE-DIRECTION RIGHT	---	---	---	---	---	---	1	1
52'A'+50	LEFT	FACTORY ROAD	W5-52-R	BRIDGE HASH MARKS	---	---	---	---	---	---	1	1
52'A'+64	LEFT	FACTORY ROAD	R12-1	WEIGHT LIMIT __ TONS	---	---	---	---	---	---	1	1
52'A'+67	LEFT	FACTORY ROAD	R1-1	STOP SIGN	---	---	---	---	---	---	1	1
52'A'+70	LEFT	FACTORY ROAD	W1-6	ONE-DIRECTION LEFT	---	---	---	---	---	---	1	1
53'A'+91	RIGHT	FACTORY ROAD	W1-5R	RIGHT WINDING ROAD	---	30X30	---	1	---	6.25	---	---
53'A'+97	RIGHT	FACTORY ROAD	W1-5R	RIGHT WINDING ROAD	---	---	---	---	---	---	1	1
57'A'+50	LEFT	FACTORY ROAD	W3-1	STOP AHEAD	---	36X36	---	1	---	9.00	---	---
59'A'+00	LEFT	FACTORY ROAD	W1-4L	LEFT REVERSE CURVE	---	36X36	---	1	---	9.00	---	---
PROJECT TOTALS							4	7	5.18	65.00	19	17

TRAFFIC CONTROL

	CATEGORY 010								
	643.0300 DRUMS (DAYS)		643.0420 BARRICADES TYPE III (DAYS)		643.0705 WARNING LIGHTS TYPE A (DAY)		643.0900 SIGNS (DAYS)		643.5000 TRAFFIC CONTROL (EACH)
LOCATION	STAGE 1	STAGE 2	STAGE 1	STAGE 2	STAGE 1	STAGE 2	STAGE 1	STAGE 2	
PROJECT	-	-	-	-	-	-	-	-	1.0
MAINLINE	3,530	1,380	1,285	795	2,570	1,590	1390	690	-
SUBTOTALS =	3,530	1,380	1,285	795	2,570	1,590	1,390	690	1.0
TOTALS=	4,910		2,080		4,160		2,080		1.0

CONSTRUCTION STAKING

		CATEGORY 010		CATEGORY 020	CATEGORY 010		
		650.4500 SUBGRADE	650.5000 BASE	650.6500 STRUCTURE	650.9910 SUPPLEMENTAL CONTROL 01. 5682-00-75	650.9920 SLOPE STAKES	650.6000 PIPE CULVERTS
STATION - STATION	LOCATION	(LF)	(LF)	(LS)	(LS)	(LF)	(EACH)
50'A'+47	FACTORY ROAD	-	-	-	-	-	1
52'A'+00	FACTORY ROAD	-	-	-	-	-	1
10+00 - 13+10	MAINLINE	308	308	-	-	308	-
14+38 - 17+50	MAINLINE	316	316	-	-	316	-
50'A'+16 - 54'A'+08	MAINLINE	392	392	-	-	392	-
	PROJECT	-	-	1	1	-	-
	TOTALS =	1,016	1,016	1	1	1,016	2

PAVEMENT MARKING

STATION - STATION	DESCRIPTION	LOCATION	646.1020 MARKING LINE EPOXY 4-INCH (LF)	646.6105 MARKING STOP LINE EPOXY 18-INCH (LF)
12+57-14+84	DOUBLE YELLOW	MAINLINE	227	-
11+44 - 12+57 & 14+84 - 15+89	DOUBLE YELLOW	MAINLINE	1,273	-
50'A'+28	WHITE	FACTORY RD	-	30
		TOTALS =	1,500	30

SAWING ASPHALT

STATION	LOCATION	690.0150 (LF)
10+00	MAINLINE	22
17+50	MAINLINE	22
54'A'+08	FACTORY RD	18
	TOTAL =	62

SITE MOWING PROJECT 5682-00-75

	CATEGORY 010 SPV.0060.01 (EACH)
	1
TOTAL =	1

CONVENTIONAL ABBREVIATIONS

ACCESS POINT/ DRIVEWAY CONNECTION	AP	PROPERTY LINE	PL
ACCESS RIGHTS	AR	RECORDED AS	(100')
ACRES	AC.	REFERENCE LINE	R/L
AND OTHERS	ET.AL.	RELEASE OF RIGHTS	ROR
BARN	B.	REMAINING	REM.
CENTERLINE	C/L	RIGHT-OF-WAY	R/W
CERTIFIED SURVEY MAP	CSM	SECTION	SEC.
CORNER	COR.	SHED	S.
CONVEYANCE OF RIGHTS	CR	STATION	STA.
DOCUMENT	DOC.	TEMPORARY LIMITED EASEMENT	TLE
EASEMENT	EASE.	VOLUME	V.
GARAGE	G.		
HIGHWAY EASEMENT	H.E.	CURVE DATA	
HOUSE	H.	LONG CHORD	LCH
HOUSE TRAILER	H.T.	LONG CHORD BEARING	LCB
LAND CONTRACT	LC	RADIUS	R
MONUMENT	MON.	DEGREE OF CURVE	D
PAGE	P.	CENTRAL ANGLE OR DELTA	DELTA
PERMANENT LIMITED EASEMENT	PLE	LENGTH OF CURVE	L
		TANGENT	TAN

CONVENTIONAL SYMBOLS

FOUND SURVEY MONUMENT (WITH POINT NUMBER)	o1040	PROPOSED R/W LINE	
R/W MONUMENT	○ ● (SET)	EXISTING H.E. LINE	
R/W STANDARD	△ ▲ (SET)	PROPERTY LINE	
SIGN	ISIGN	LOT & TIE LINES	
SECTION CORNER MONUMENT	⊕	SLOPE INTERCEPTS	
SECTION CORNER SYMBOL		CORPORATE LIMITS	
FEE (HATCH VARIES)		NO ACCESS (BY PREVIOUS ACQUISITION/CONTROL)	
TEMPORARY LIMITED EASEMENT		NO ACCESS (BY ACQUISITION)	
PERMANENT LIMITED EASEMENT		NO ACCESS (BY STATUTORY AUTHORITY)	
R/W BOUNDARY POINT	RWB20	SECTION LINE	
PARCEL NUMBER	8	QUARTER LINE	
UTILITY PARCEL NUMBER	92	SIXTEENTH LINE	
SIGN NUMBER (OFF PREMISE)	21-1	EXISTING CENTERLINE	
BUILDING		PROPOSED REFERENCE LINE	
		PARALLEL OFFSET	
		ENCROACHMENT	E-D/TYPE
		HIGHWAY EASEMENT	

CONVENTIONAL UTILITY SYMBOLS

				NON COMPENSABLE	COMPENSABLE
WATER	W	SANITARY SEWER	SAN		
GAS	G	STORM SEWER	SS		
TELEPHONE	T				
OVERHEAD TRANSMISSION LINES	OH	POWER POLE		○	●
ELECTRIC	E	TELEPHONE POLE		⌀	⌀
CABLE TELEVISION	TV	TELEPHONE PEDESTAL		⌑	⌑
FIBER OPTIC	FO	ELECTRIC TOWER		⊠	

BEGIN RELOCATION ORDER

STA. 10+00.00

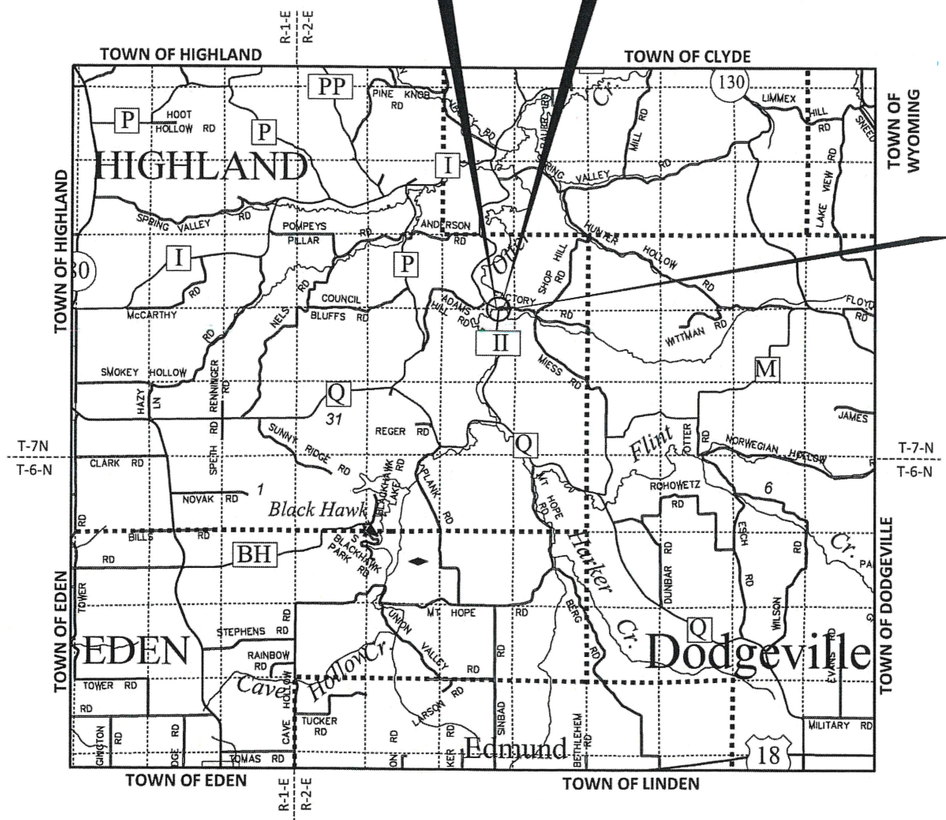
130.57' NORTH AND 1012.97' EAST OF THE N¼ CORNER OF SECTION 28, T.7N., R.2E., TOWN OF HIGHLAND, IOWA COUNTY, WI
Y= 190864.83
X= 345386.54

STRUCTURE B-25-0191

END RELOCATION ORDER

STA. 17+50.00

486.85' SOUTH AND 1369.29' EAST OF THE N½ CORNER OF SECTION 28, T.7N., R.2E., TOWN OF HIGHLAND, IOWA COUNTY, WI
Y= 190247.41
X= 345742.86



LAYOUT

SCALE 0 — 2 MI.

TOTAL NET LENGTH OF CENTERLINE = 0.142 MI.

NOTES

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

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 MONUMENTS (TYPICALLY ¾ X 24" IRON REBARS), UNLESS OTHERWISE NOTED, 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 PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN MADISON.

ALL RIGHT-OF-WAY LINES DEPICTED IN THE NON-ACQUISITION AREAS ARE INTENDED TO RE-ESTABLISH EXISTING RIGHT-OF-WAY LINES AS DETERMINED FROM PREVIOUS PROJECTS, OTHER RECORDED DOCUMENTS, OR FROM CENTERLINE OF EXISTING PAVEMENTS.

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

A TEMPORARY LIMITED EASEMENT (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON, THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE. ALL (TLEs) ON THIS PLAT EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

THIS PLAT IS A GRAPHIC REPRESENTATION AND IS FOR REFERENCE PURPOSE ONLY. DEEDS MUST BE CHECKED TO DETERMINE PROPERTY BOUNDARIES AND ACCESS RIGHTS.

R/W PROJECT NUMBER	SHEET NUMBER	TOTAL SHEETS
5682-00-05		
FEDERAL PROJECT NUMBER	4.01	2

PLAT OF RIGHT-OF-WAY REQUIRED FOR

CTH Q – CTH I

(OTTER CREEK BRIDGE B-25-0191)

CTH II — IOWA COUNTY

CONSTRUCTION PROJECT NUMBER

5682-00-75

JEWELL
associates engineers, inc.
Engineers - Architects - Surveyors
560 SUNRISE DRIVE
SPRING GREEN, WI 53588
PHONE : 608.588.7484
www.jewellssoc.com

I HEREBY CERTIFY THAT THIS PLAT WAS MADE FOR IOWA COUNTY, WISCONSIN AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

WISCONSIN
WESLEY L KRAEMER
S-3026
SPRING GREEN WIS.
4-2-2021
LAND SURVEYOR

REVISION DATE

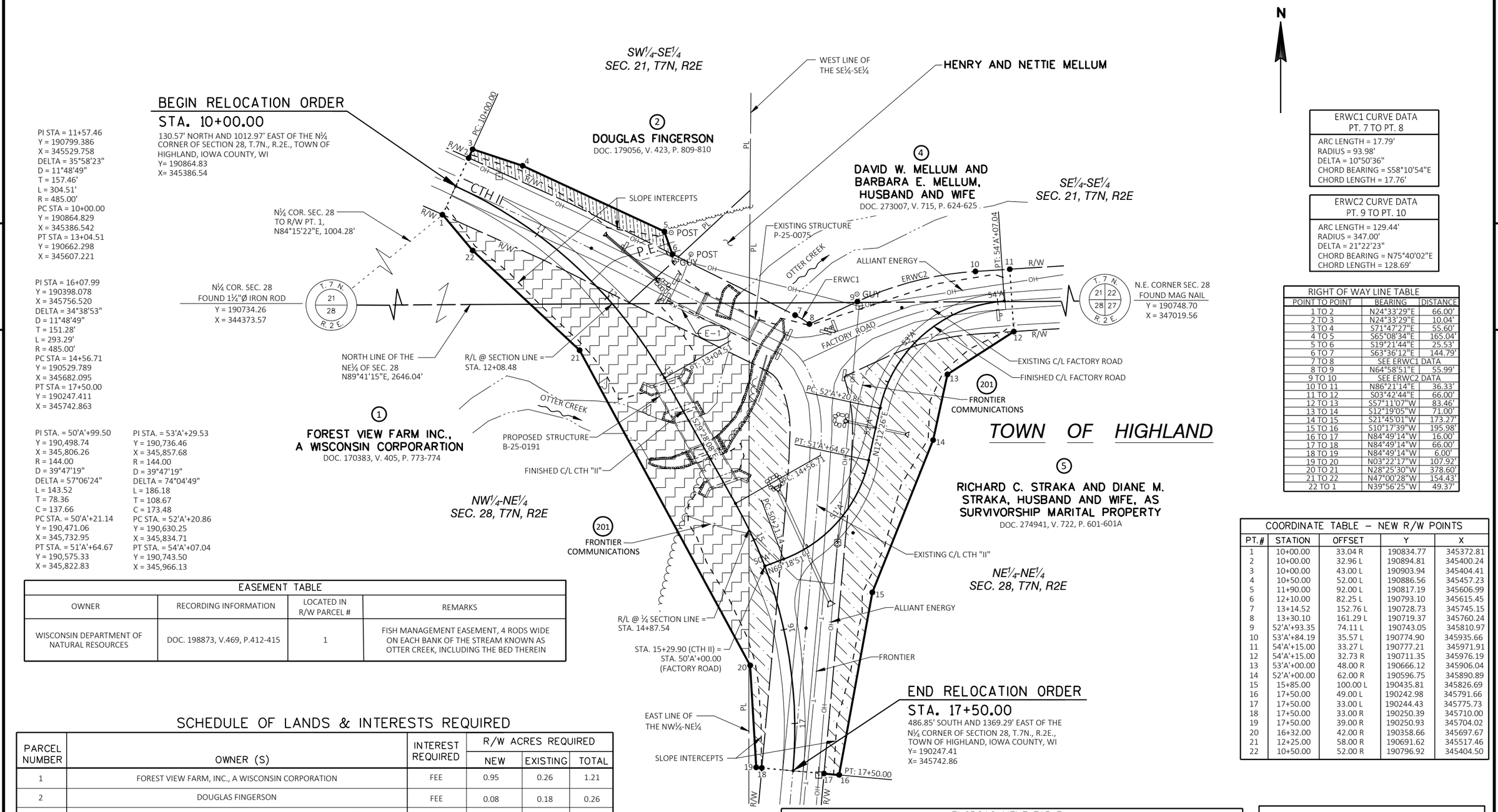
7-19-2021 (NC)

APPROVED FOR IOWA COUNTY

DATE: 4/12/21 (NAME/TITLE)

COMMISSIONER

FILE NAME : S:\Projects\W11614 WisDOT – CTH II, Iowa Co\RW\W11614 CTH II Iowa Co RW Plat.dwg
PLOT DATE : 4/2/2021 1:16 PM
PLOT BY : Kraemer, Wes
PLOT NAME :
PLOT SCALE : 1:1
WISDOT/CADDS SHEET 50



PI STA = 11+57.46
Y = 190799.386
X = 345529.758
DELTA = 35°58'23"
D = 11°48'49"
T = 157.46'
L = 304.51'
R = 485.00'
PC STA = 10+00.00
Y = 190864.829
X = 345386.542
PT STA = 13+04.51
Y = 190662.298
X = 345607.221

PI STA = 16+07.99
Y = 190398.078
X = 345756.520
DELTA = 34°38'53"
D = 11°48'49"
T = 151.28'
L = 293.29'
R = 485.00'
PC STA = 14+56.71
Y = 190529.789
X = 345682.095
PT STA = 17+50.00
Y = 190247.411
X = 345742.863

PI STA. = 50'A'+99.50
Y = 190,498.74
X = 345,806.26
R = 144.00
D = 39°47'19"
DELTA = 57°06'24"
L = 143.52
T = 78.36
C = 137.66
PC STA. = 50'A'+21.14
Y = 190,471.06
X = 345,732.95
PT STA. = 51'A'+64.67
Y = 190,575.33
X = 345,822.83

PI STA. = 53'A'+29.53
Y = 190,736.46
X = 345,857.68
R = 144.00
D = 39°47'19"
DELTA = 74°04'49"
L = 186.18
T = 108.67
C = 173.48
PC STA. = 52'A'+20.86
Y = 190,630.25
X = 345,834.71
PT STA. = 54'A'+07.04
Y = 190,743.50
X = 345,966.13

ERWC1 CURVE DATA
PT. 7 TO PT. 8

ARC LENGTH	= 17.79'
RADIUS	= 93.98'
DELTA	= 10°50'36"
CHORD BEARING	= S58°10'54"E
CHORD LENGTH	= 17.76'

ERWC2 CURVE DATA
PT. 9 TO PT. 10

ARC LENGTH	= 129.44'
RADIUS	= 347.00'
DELTA	= 21°22'23"
CHORD BEARING	= N75°40'02"E
CHORD LENGTH	= 128.69'

RIGHT OF WAY LINE TABLE

POINT TO POINT	BEARING	DISTANCE
1 TO 2	N24°33'29"E	66.00'
2 TO 3	N24°33'29"E	10.04'
3 TO 4	S71°47'27"E	55.60'
4 TO 5	S65°08'34"E	165.04'
5 TO 6	S19°21'44"E	25.53'
6 TO 7	S63°36'12"E	144.79'
7 TO 8	SEE ERWC1 DATA	
8 TO 9	N64°58'51"E	55.99'
9 TO 10	SEE ERWC2 DATA	
10 TO 11	N86°21'14"E	36.33'
11 TO 12	S03°42'44"E	66.00'
12 TO 13	S57°11'07"W	83.46'
13 TO 14	S12°19'05"W	71.00'
14 TO 15	S21°45'01"W	173.27'
15 TO 16	S10°17'39"W	195.98'
16 TO 17	N84°49'14"W	16.00'
17 TO 18	N84°49'14"W	66.00'
18 TO 19	N84°49'14"W	6.00'
19 TO 20	N03°22'17"W	107.92'
20 TO 21	N28°25'30"W	378.60'
21 TO 22	N47°00'28"W	154.43'
22 TO 1	N39°56'25"W	49.37'

COORDINATE TABLE – NEW R/W POINTS

PT.#	STATION	OFFSET	Y	X
1	10+00.00	33.04 R	190834.77	345372.81
2	10+00.00	32.96 L	190894.81	345400.24
3	10+00.00	43.00 L	190903.94	345404.41
4	10+50.00	52.00 L	190886.56	345457.23
5	11+90.00	92.00 L	190817.19	345606.99
6	12+10.00	82.25 L	190793.10	345615.45
7	13+14.52	152.76 L	190728.73	345745.15
8	13+30.10	161.29 L	190719.37	345760.24
9	52'A'+93.35	74.11 L	190743.05	345810.97
10	53'A'+84.19	35.57 L	190774.90	345935.66
11	54'A'+15.00	33.27 L	190777.21	345971.91
12	54'A'+15.00	32.73 R	190711.35	345976.19
13	53'A'+00.00	48.00 R	190666.12	345906.04
14	52'A'+00.00	62.00 R	190596.75	345890.89
15	15+85.00	100.00 L	190435.81	345826.69
16	17+50.00	49.00 L	190242.98	345791.66
17	17+50.00	33.00 L	190244.43	345775.73
18	17+50.00	33.00 R	190250.39	345710.00
19	17+50.00	39.00 R	190250.93	345704.02
20	16+32.00	42.00 R	190358.66	345697.67
21	12+25.00	58.00 R	190691.62	345517.46
22	10+50.00	52.00 R	190796.92	345404.50

EASEMENT TABLE

OWNER	RECORDING INFORMATION	LOCATED IN R/W PARCEL #	REMARKS
WISCONSIN DEPARTMENT OF NATURAL RESOURCES	DOC. 198873, V.469, P.412-415	1	FISH MANAGEMENT EASEMENT, 4 RODS WIDE ON EACH BANK OF THE STREAM KNOWN AS OTTER CREEK, INCLUDING THE BED THEREIN

SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	OWNER (S)	INTEREST REQUIRED	R/W ACRES REQUIRED		
			NEW	EXISTING	TOTAL
1	FOREST VIEW FARM, INC., A WISCONSIN CORPORATION	FEE	0.95	0.26	1.21
2	DOUGLAS FINGERSON	FEE	0.08	0.18	0.26
4	DAVID W. MELLUM AND BARBARA E. MELLUM, HUSBAND AND WIFE	FEE	---	0.09	0.09
5	RICHARD C. STRAKA AND DIANE M. STRAKA, HUSBAND AND WIFE , AS SURVIVORSHIP MARITAL PROPERTY	FEE	0.85	0.98	1.83
201	FRONTIER COMMUNICATIONS	RELEASE OF RIGHTS			

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

ENCROACHMENT TABLE

ENCROACHMENT	PROPERTY OWNER	LOCATION (STATION/OFFSET)	ENCROACHMENT TYPE
E-1	FOREST VIEW FARM, INC., A WISCONSIN CORPORATION	STA. 12+40 - STA.12+80, 45' LT. - 76' LT.	FENCE

NOTE: EXISTING C/L OF CTH II AND FACTORY ROAD BASED ON CENTERLINE OF EXISTING PAVEMENT.

EXISTING RIGHT-OF-WAY FOR CTH II AND FACTORY ROAD BASED ON THE CENTERLINE OF EXISTING PAVEMENT AND WIS. STATUTE 82.31(2).

REVISION DATE 7-19-2021	DATE: APRIL 2, 2021	SCALE, FEET 0 50 100	HWY: CTH II	R/W PROJECT NUMBER: 5682-00-05	PLAT SHEET 4.02
	GRID FACTOR N/A		COUNTY: IOWA	CONSTRUCTION PROJECT NUMBER: 5682-00-75	PS&E SHEET 20 E

S:\Projects\W11614 WisDOT – CTH II, Iowa Co\RW\W11614 CTH II Iowa Co RW Plat.dwg PLOT DATE : 7/19/2021 1:02 PM PLOT BY : Anliker, Noah PLOT NAME : PLOT SCALE : 1:1

WISDOT/CADDS SHEET 75

LEGEND

- DIRECTION OF FLOW
- XXXXXXXXX SAWING ASPHALT (BY OTHERS)
- EDGE OF WATER
- WETLANDS
- HEAVY RIPRAP OVER GEOTEXTILE TYPE HR
- PORTION OF RIPRAP HEAVY TO BE INCLUDED IN STRUCTURE QUANTITIES

CURVE 1
PI STA. = 11+57.46
Y = 190,799.39
X = 345,529.76
R = 485.00
D = 11°48'49"
DELTA = 35°58'23"
L = 304.51
T = 157.46
C = 299.53
PC STA. = 10+00
Y = 190,864.83
X = 345,386.54
PT STA. = 13+04.51
Y = 190,662.30
X = 345,607.22
SE = SEE S.E. TABLE
RO = SEE S.E. TABLE
TRANS = SEE S.E. TABLE

REMOVING STRUCTURE OVER WATERWAY
MINIMAL DEBRIS (P-25-75)
THREE SPAN STEEL DECK GIRDER STRUCTURE
22.1' OVERALL DECK WIDTH
125.5' OVERALL LENGTH

STA. 11+76, LT.
CONSTRUCT F.E. (B.A.D.) (BY OTHERS)
(1) CULVERT PIPE CLASS III-A 18-INCH (BY OTHERS)
(2) APRON ENDWALLS REQ'D (BY OTHERS)

CTH II EXISTING

STA. 12+40 - STA. 12+80, LT.
REMOVING FENCE BY OTHERS

CURVE 2
PI STA. = 16+07.99
Y = 190,398.08
X = 345,756.52
R = 485.00
D = 11°48'49"
DELTA = 34°38'53"
L = 293.29
T = 151.28
C = 288.84
PC STA. = 14+56.71
Y = 190,529.79
X = 345,682.10
PT STA. = 17+50
Y = 190,247.41
X = 345,742.86
SE = SEE S.E. TABLE
RO = SEE S.E. TABLE
TRANS = SEE S.E. TABLE

STA. 12+24.17, 21.93' LT.
Y = 190,742.44
X = 345,579.15

FINISHED C/L CTH II

PT: 13+04.51

OTTER CREEK

RICHARD C. STRAKA AND DIANE M. STRAKA, HUSBAND AND WIFE, AS SURVIVORSHIP MARITAL PROPERTY

FRONTIER COMMUNICATIONS (TYP.)

N12°12'26"E

N69°18'51"E

51+00

R=50'

15:1

15:1

S65°26'31"E

S29°28'08"E

CURVE 1

12+00

13+00

14+00

15+00

CTH II

DOUGLAS FINGERSON

ALLIANT ENERGY (TYP.)

BM 2

PC: 10+00.00

11+00

15:1

15:1

33'

(ASPHALT)

33'

BEGIN PROJECT
STA. 10+00.00
Y=190,864.83
X=345,386.54

SLOPE INTERCEPTS (TYP.)

FOREST VIEW FARM, INC., A WISCONSIN CORPORATION

R/W

MGS GUARDRAIL (TYP.)

HINGE PIONT (TYP.)

WETLAND DETERMINATION (TYP.)

FISHING EASEMENT (TYP.)

STA. 12+00 - STA. 15+00,
CLEARING & GRUBBING REQ'D
(BY OTHERS)

STRUCURE B-25-0191
(REQ'D)

FOREST VIEW FARM, INC., A WISCONSIN CORPORATION

FISHING EASEMENT (TYP.)

PC: 14+56.71

PC: 50+21.14

CURVE 2

90°0'0"

MATCHLINE STA. 15+50

STA. 15+29.90 (CTH II) =
STA. 50'A'+00 (FACTORY ROAD)
MODIFIED TYPE C INTERSECTION REQ'D.

R/W

FINISHED C/L PROFILE CTH II

0.26%

HIGH WATER100
EL = 772.21

PC STA 15+40.00
EL 773.85

EXISTING C/L PROFILE CTH II

STA. 10+00.00
EL. 772.46
MATCH EXISTING

STA. 13+71
STRUCTURE B-25-0191
THREE SPAN REINFORCED CONCRETE HAUNCHED SLAB
CLEAR ROADWAY WIDTH = 26.0'
O.A.L. = 126.54'
SKEW = 10° LHF
OBSERVED WATER EL. = 762.80 (1/28/20)
STREAMBED EL. = 759.67

EXISTING GROUND PROFILE AT PROPOSED CTH II C/L

OBSERVED WATER
EL. 762.80
(1-27-2020)

STREAMBED
EL. 759.67

EARTHWORK SUMMARY
SEE MISCELLANEOUS QUANTITIES
SHEET FOR EARTHWORK QUANTITIES
(BY OTHERS)

BENCH MARKS

NO.	STA.	DESCRIPTION	ELEV.
2	10+45	3/4" IRON REBAR SET, 29.9' LT.	769.54

EXISTING GROUND ELEVATION
FINISHED C/L ELEVATION

9+80	10+00	10+20	10+40	10+60	10+80	11+00	11+20	11+40	11+60	11+80	12+00	12+20	12+40	12+60	12+80	13+00	13+20	13+40	13+60	14+00	14+20	14+40	14+60	14+80	15+00	15+20	15+40
772.46	772.42 772.46	772.38 772.51	772.36 772.56	772.36 772.61	772.36 772.67	772.48 772.72	771.11 772.77	768.92 772.82	768.84 772.87	768.76 772.92	769.03 772.98	768.30 773.03	767.57 773.08	767.08 773.13	767.05 773.18	767.04 773.23	767.00 773.29	766.37 773.34	761.85 773.39	760.29 773.44	768.01 773.49	770.01 773.54	769.98 773.59	769.85 773.65	769.82 773.70	769.99 773.75	770.16 773.80	770.12 773.85

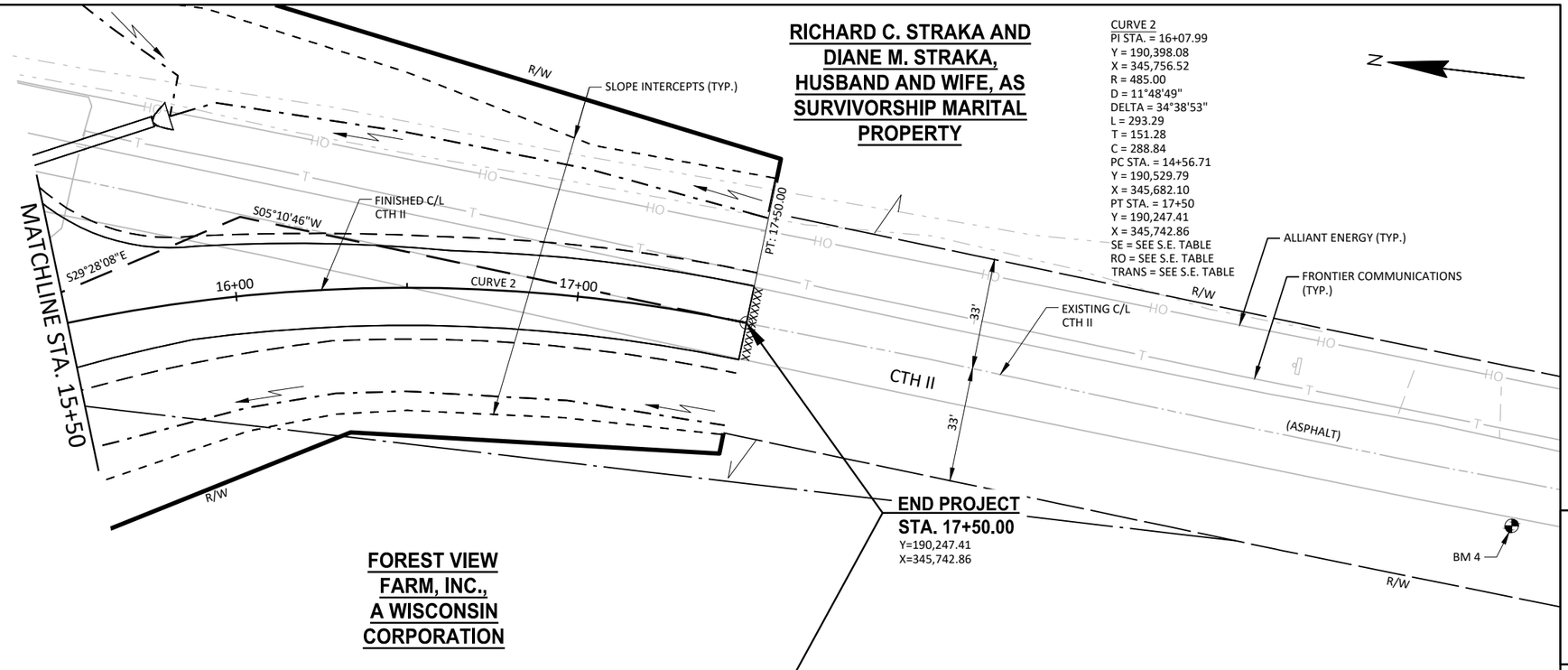
PROJECT NO: 5682-00-75	HWY: CTH II	COUNTY: IOWA	PLAN AND PROFILE: MAINLINE	SHEET	E

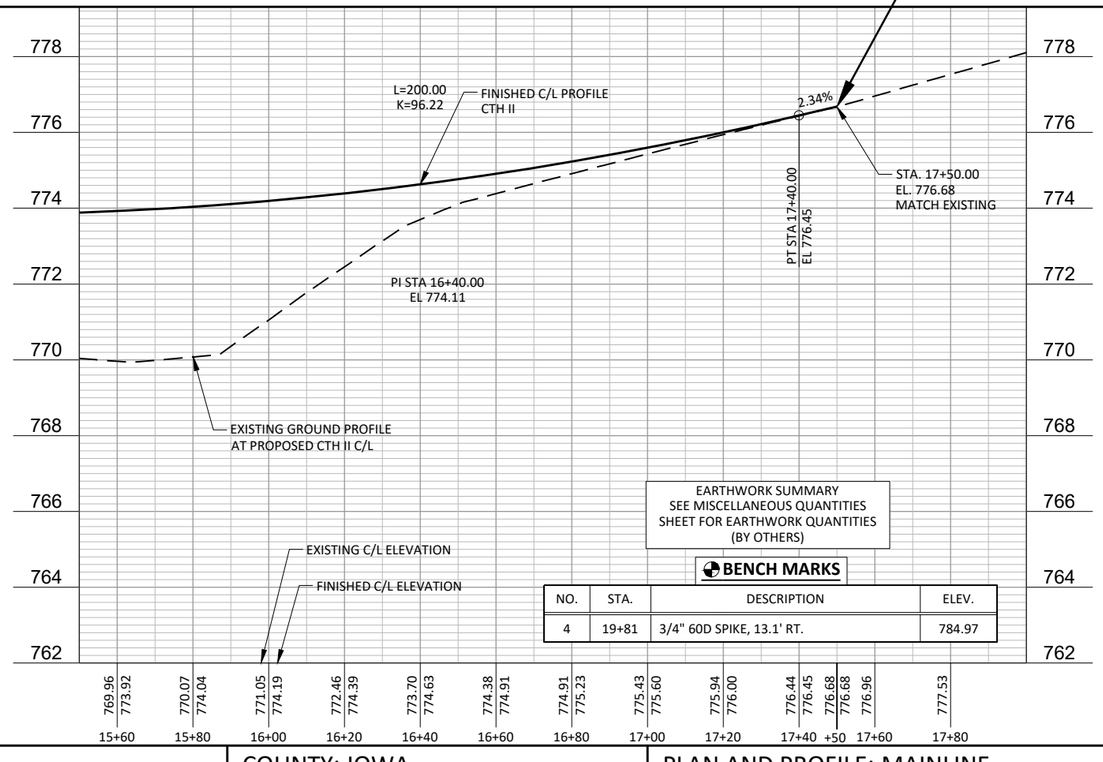
FILE NAME : S:\PROJECTS\W11614 WISDOT - CTH II, IOWA CO\SHEETSPLAN\PLAN & PROFILE SHEETS\56820005_P&P.DWG
PLOT DATE : 9/29/2021 8:31:41 AM
PLOT BY : ETHAN KAAT
PLOT SCALE : 1" = 1'
LAYOUT : LAYOUT1

LEGEND

DIRECTION OF FLOW

XXXXXXXXX SAWING ASPHALT (BY OTHERS)





EARTHWORK SUMMARY
SEE MISCELLANEOUS QUANTITIES SHEET FOR EARTHWORK QUANTITIES (BY OTHERS)

BENCH MARKS

NO.	STA.	DESCRIPTION	ELEV.
4	19+81	3/4" 60D SPIKE, 13.1' RT.	784.97

PROJECT NO: 5682-00-75	HWY: CTH II	COUNTY: IOWA	PLAN AND PROFILE: MAINLINE	SHEET 22	E

LEGEND

- DIRECTION OF FLOW
- XXXXXXXXX SAWING ASPHALT (BY OTHERS)
- EDGE OF WATER
- WETLANDS
- HEAVY RIPRAP OVER GEOTEXTILE TYPE HR
- PORTION OF RIPRAP HEAVY TO BE INCLUDED IN STRUCTURE QUANTITIES

FISHING EASEMENT (TYP.)

PC: 14+56.71

CTH II

15+00

STA. 15+29.90 (CTH II) =
STA. 50'A'+00 (FACTORY ROAD)
MODIFIED TYPE C INTERSECTION REQ'D

90°00'06"

R/W

S29°28'08"E

16+00

CURVE 2

S05°10'46"W

PC STA 50+21.14
EL 774.54

PC STA 50+30.00
EL 774.54

PI STA 50+80.00
EL 774.79

0.50%

4.00%

L=100.00
K=25.26

PT STA 51+30.00
EL 773.06

-3.46%

PC STA 51+40.00
EL 772.71

EXISTING GROUNDLINE PROFILE

L=150.00
K=49.20

FINISHED C/L PROFILE
A-LINE (FACTORY ROAD)

PI STA 52+15.00
EL 770.12

PT STA 52+90.00
EL 769.81

-0.41%

STA. 54'A'+08.00
EL. 769.33
MATCH EXISTING

EXISTING C/L ELEVATION

FINISHED C/L ELEVATION

EARTHWORK SUMMARY
SEE MISCELLANEOUS QUANTITIES
SHEET FOR EARTHWORK QUANTITIES
(BY OTHERS)

49+20	49+40	49+60	49+80	50+00	50+20	50+40	50+60	50+80	51+00	51+20	51+40	51+60	51+80	52+00	52+20	52+40	52+60	52+80	53+00	53+20	53+40	53+60	53+80	54+00	+08	54+20	54+40	54+60	54+80
				770.21	769.56	771.45	772.24	771.15	769.11	769.02	769.00	768.94	768.86	768.81	768.81	768.80	768.85	768.95	769.04	768.74	768.57	769.27	769.36	769.37	769.33	769.26		769.18	769.13	769.05	
				773.83	774.49	774.57	774.51	774.29	773.92	773.38	772.71	772.06	771.49	771.00	770.59	770.27	770.02	769.86	769.77	769.69	769.60	769.52	769.44	769.36	769.33						

DAVID W. MELLUM AND BARBARA E. MELLUM, HUSBAND AND WIFE

RICHARD C. STRAKA AND DIANE M. STRAKA, HUSBAND AND WIFE, AS SURVIVORSHIP MARITAL PROPERTY

STA. 52'A'+00
(1) CULVERT PIPE CLASS III-A 24-INCH (BY OTHERS)
(2) APRON ENDWALLS REQ'D (BY OTHERS)

ALLIANT ENERGY (TYP.)

FRONTIER COMMUNICATIONS (TYP.)

PC: 52+20.86

PT: 51+64.67

FINISHED C/L 'A'-LINE (FACTORY ROAD)

52+00

CURVE 3

51+00

N69°18'51"E

N12°12'26"E

STA. 50'A'+47
(1) CULVERT PIPE CLASS III-A 36-INCH (BY OTHERS)
(2) APRON ENDWALLS REQ'D (BY OTHERS)

CURVE 4

53+00

'A'-LINE (FACTORY ROAD)

N12°12'26"E

N86°17'16"E

PT: 54+07.04

54+00

XXXXXXXX

SLOPE INTERCEPTS (TYP.)

33'

33'

EXISTING C/L 'A'-LINE (FACTORY ROAD)

END CONSTRUCTION
STA. 54'A'+08
Y=190,743.56
X=345,967.08

CURVE 3	CURVE 4
PI STA. = 50+99.50	PI STA. = 53+29.53
Y = 190,498.74	Y = 190,736.46
X = 345,806.26	X = 345,857.68
R = 144.00	R = 144.00
D = 39°47'19"	D = 39°47'19"
DELTA = 57°06'24"	DELTA = 74°04'49"
L = 143.52	L = 186.18
T = 78.36	T = 108.67
C = 137.66	C = 173.48
PC STA. = 50+21.14	PC STA. = 52+20.86
Y = 190,471.06	Y = 190,630.25
X = 345,732.95	X = 345,834.71
PT STA. = 51+64.67	PT STA. = 54+07.04
Y = 190,575.33	Y = 190,743.50
X = 345,822.83	X = 345,966.13
SE = SEE S.E. TABLE	SE = SEE S.E. TABLE
RO = SEE S.E. TABLE	RO = SEE S.E. TABLE
TRANS = SEE S.E. TABLE	TRANS = SEE S.E. TABLE

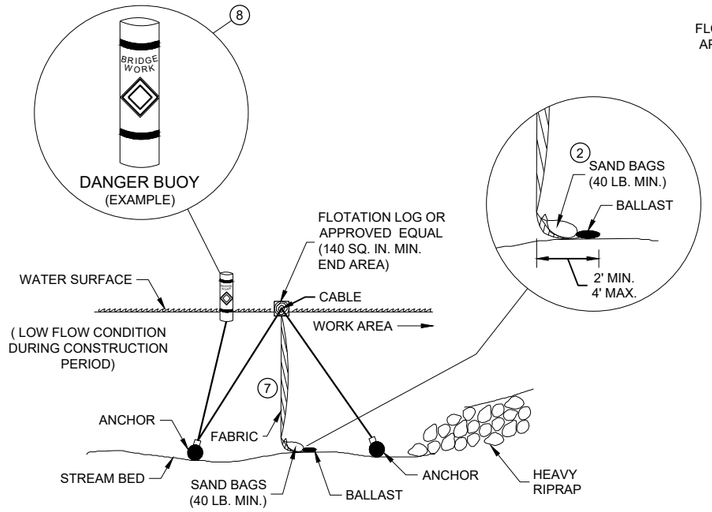
BEGIN CONSTRUCTION
STA. 50'A'+16
Y=190,469.25
X=345,728.14
ELEV.=774.47

PROJECT NO: 5682-00-75	HWY: CTH II	COUNTY: IOWA	PLAN AND PROFILE: 'A'-LINE (FACTORY ROAD)	SHEET 23	E

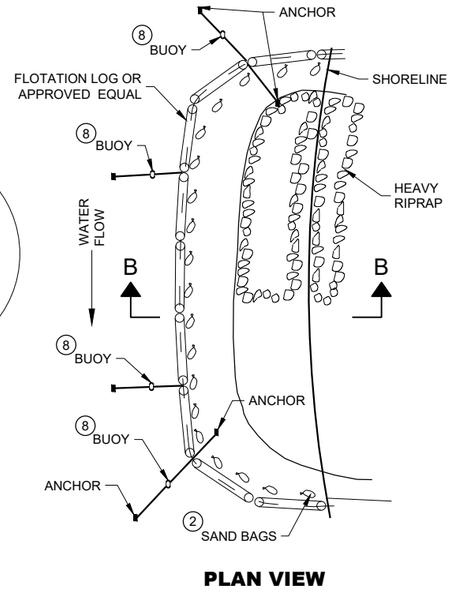
FILE NAME : S:\PROJECTS\W11614 WISDOT - CTH II, IOWA CO\SHEETSPLAN\PLAN & PROFILE SHEETS\56820005_P&P.DWG PLOT DATE : 9/29/2021 8:30:33 AM PLOT BY : ETHAN KAAT PLOT SCALE : 1" = 1' LAYOUT : LAYOUT3

Standard Detail Drawing List

08E11-02	TURBIDITY BARRIER
12A03-10	NAME PLATE (STRUCTURES)
14B42-07A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07D	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-04A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-05A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05H	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B53-01A	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-01B	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-01C	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-01D	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-01E	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-01F	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-01G	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-01H	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
14B53-01I	SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)
15C02-08A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-08B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C11-09B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS
15D45-03	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH LOOSE GRAVEL

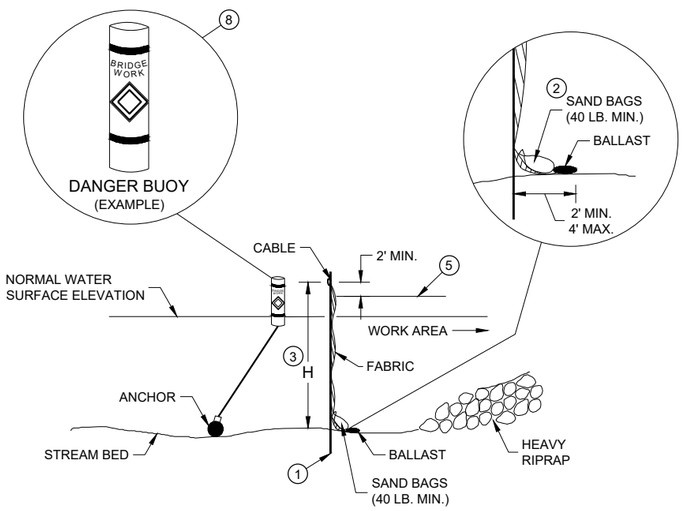


SECTION B - B

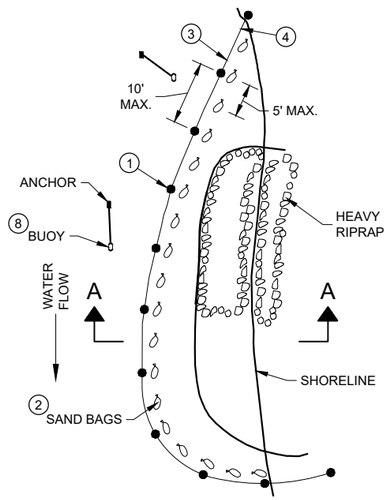


PLAN VIEW

TURBIDITY BARRIER - FLOAT ALTERNATIVE
CAUTION - SEE NOTE 6



SECTION A - A



PLAN VIEW

TURBIDITY BARRIER - STANDARD POST INSTALLATION

TURBIDITY BARRIER PLACEMENT DETAILS

GENERAL NOTES

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

TURBIDITY BARRIER MAY BE REMOVED AT THE ENGINEERS DISCRETION, WHEN PERMANENT EROSION CONTROL MEASURES HAVE BEEN ESTABLISHED.

(1) DRIVEN STEEL POSTS, PIPES, OR CHANNELS. LENGTH SHALL BE SUFFICIENT TO SECURELY SUPPORT BARRIER AT HIGH WATER ELEVATIONS.

(2) SAND BAGS TO BE USED AS ADDITIONAL BALLAST WHEN ORDERED BY THE ENGINEER TO MEET ADVERSE FIELD CONDITIONS. SPACE AS APPROPRIATE FOR SITE CONDITIONS.

(3) WHEN BARRIER HEIGHT "H" EXCEEDS 8 FEET, POST SPACING MAY NEED TO BE DECREASED.

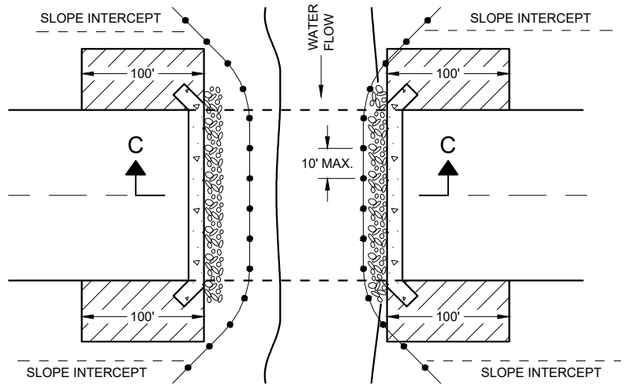
(4) IN WATERWAYS SUBJECT TO FLUCTUATING WATER ELEVATIONS, PROVISIONS SHOULD BE MADE TO ALLOW THE WATER TO EQUALIZE ON EACH SIDE OF THE BARRIER. THIS MAY BE ACCOMPLISHED BY LEAVING A PORTION OF THE BARRIER OPEN ON THE UPSTREAM END.

(5) ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION PERIOD. MINIMUM BARRIER HEIGHT SHALL BE 2' GREATER THAN EITHER THE Q2 ELEVATION OR THE ESTIMATED HIGH WATER ELEVATION DURING CONSTRUCTION, WHICHEVER IS GREATER.

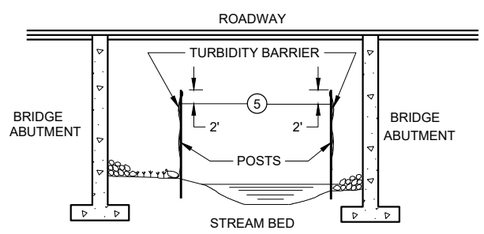
(6) FLOAT ALTERNATIVE WILL ONLY BE ALLOWED WITH WRITTEN APPROVAL OF THE ENGINEER, AND IS MEANT FOR LOCATIONS WHERE BEDROCK PREVENTS THE INSTALLATION OF POSTS.

(7) ALLOW SUFFICIENT SLACK VERTICALLY AND HORIZONTALLY SO THAT SEDIMENT BUILD UP WILL NOT SEPARATE OR LOWER THE TURBIDITY BARRIER.

(8) USE AS DIRECTED BY COAST GUARD OR DNR PERMIT WHEN WORKING IN NAVIGABLE WATERWAYS.



PLAN VIEW



SECTION C - C

TURBIDITY BARRIER DETAIL SHOWING TYPICAL PLACEMENT AT STRUCTURES

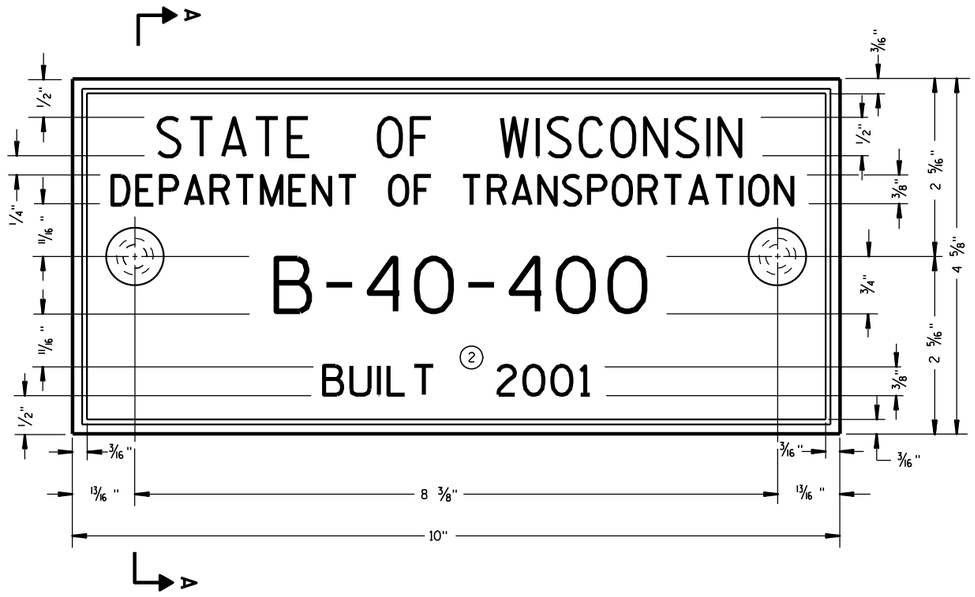
TURBIDITY BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/4/02
DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOI
ENGINEER

FHWA

6
SDD 08E11 - 02



TYPICAL NAME PLATE

(BRIDGES, CULVERTS, AND RETAINING WALLS)

FOR MULTI-UNIT STRUCTURES
LINE 3 ABOVE SHALL READ

B = BRIDGE
C = CULVERT
R = RETAINING WALL

COUNTY NO.

BRIDGE NO.

UNIT NO. FOR MULTIPLE UNIT BRIDGE

B-40-400-1A

NUMBERING DESIGNATION MULTI-UNIT STRUCTURES

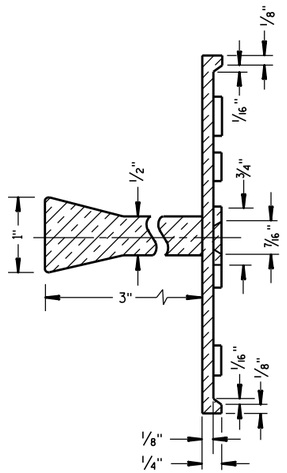
GENERAL NOTES

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.

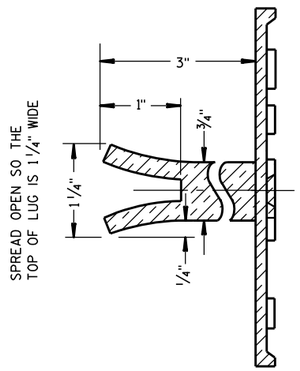
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

(1) EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

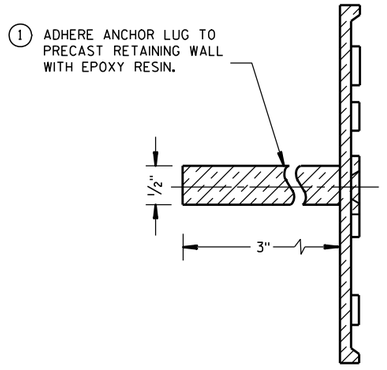
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



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 DEVELOPMENT ENGINEER

FHWA

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S.D.D. 12 A 3-10

(1) WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

(2) USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.

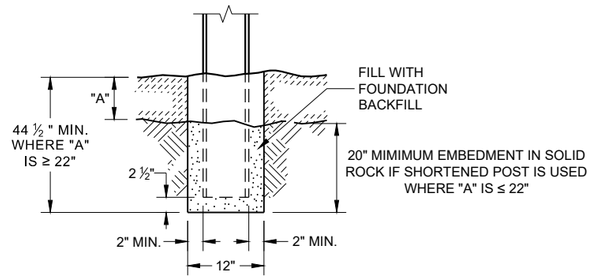
(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS TO BE FREE OF LARGE ROCKS.

(4) WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).

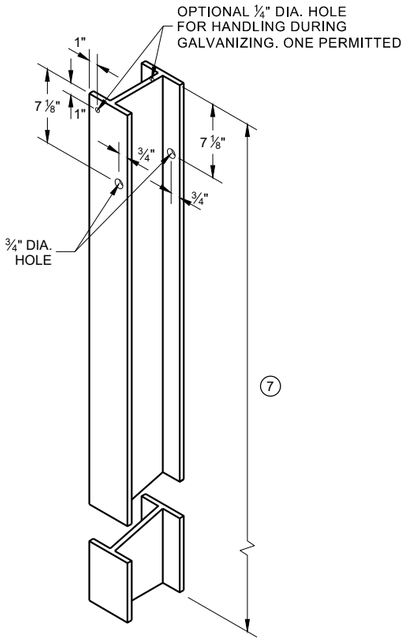
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ±1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ¾" TO 32".

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

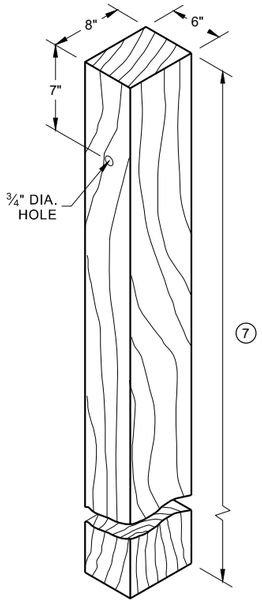
(7) TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



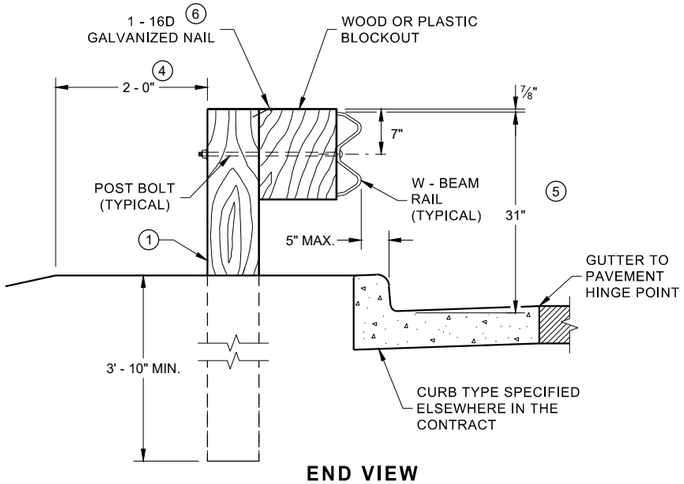
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (3)



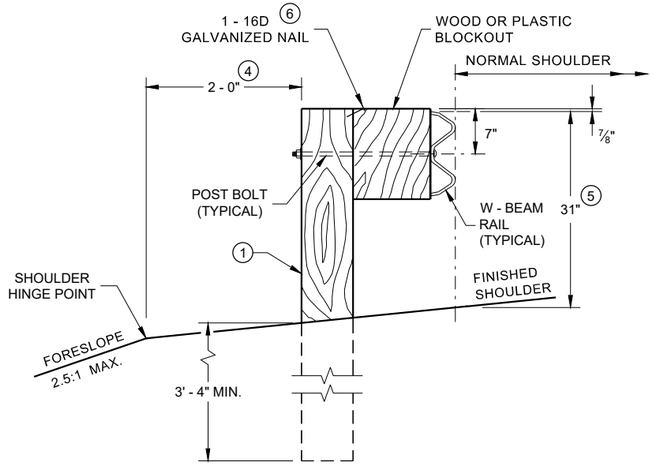
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)



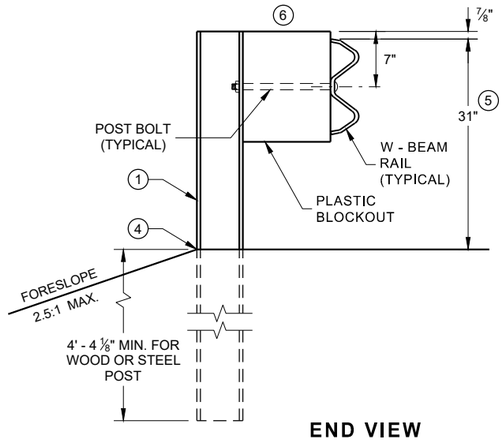
WOOD POST (6" X 8") NOMINAL (1)



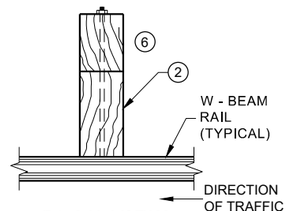
END VIEW
LOCATED ALONG A CURBED ROADWAY



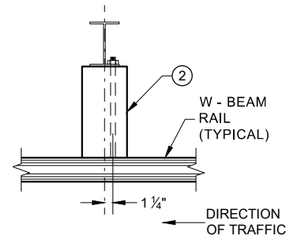
END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



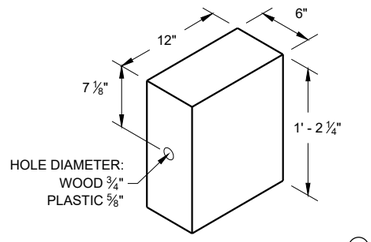
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



PLAN VIEW
STEEL POST, PLASTIC BLOCKOUT & BEAM



WOOD OR PLASTIC BLOCKOUT (2)

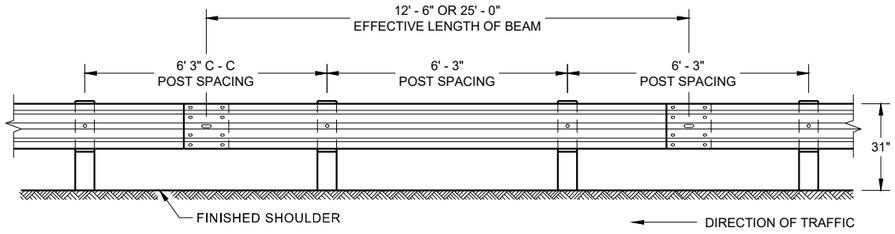
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

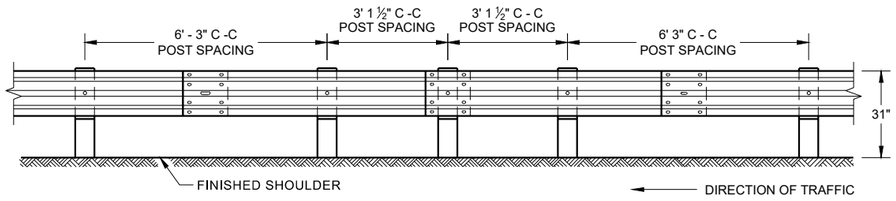
SDD 14B42 - 07a

6

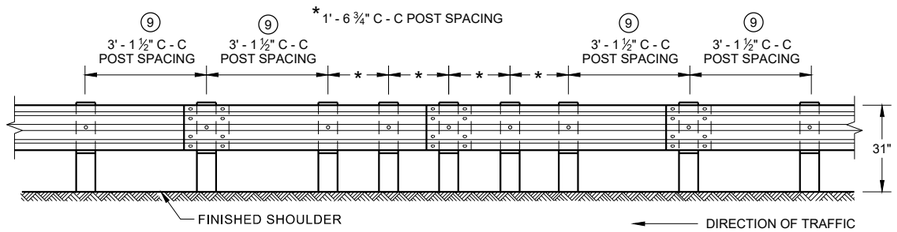
SDD 14B42 - 07a



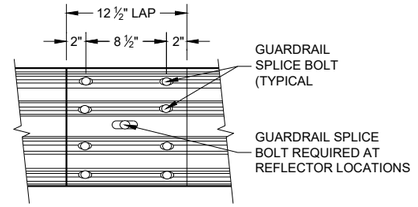
FRONT VIEW
POST SPACING STANDARD INSTALLATION



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



FRONT VIEW
QUARTER POST SPACING (QS)



FRONT VIEW
MID-SPAN BEAM SPLICE

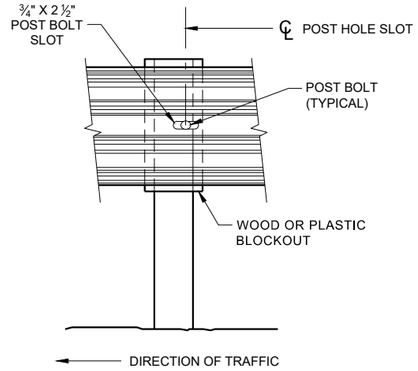
GENERAL NOTES

⑧ DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

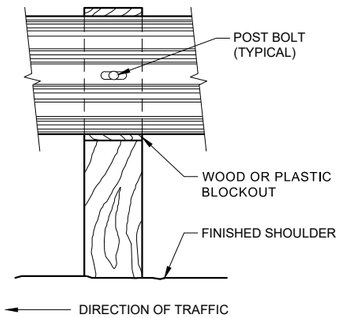
⑨ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

POST BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND ⅝" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

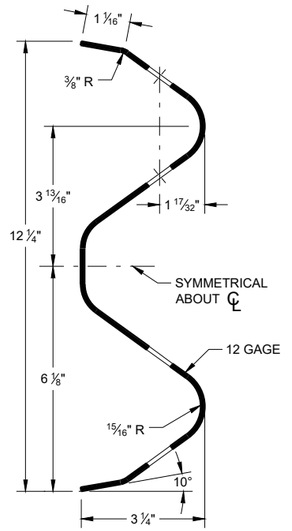
GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.



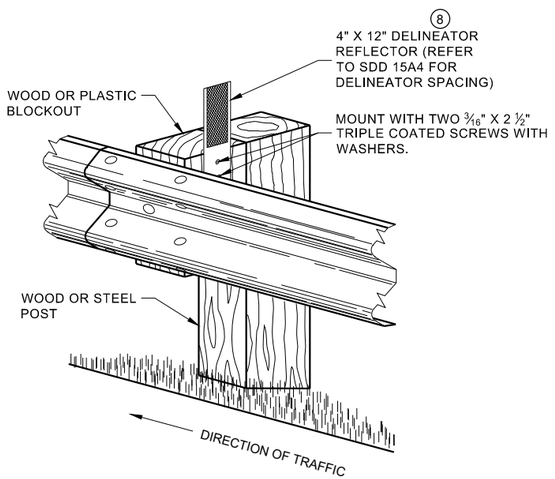
FRONT VIEW AT STEEL POST



FRONT VIEW AT WOOD POST



SECTION THRU W-BEAM RAIL



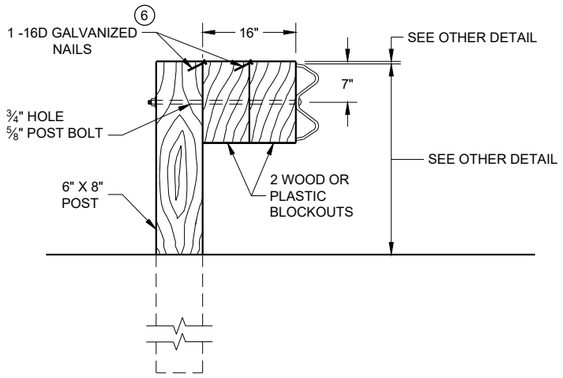
ONE SIDED REFLECTOR DETAIL
AND TYPICAL INSTALLATION

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B42 - 07b

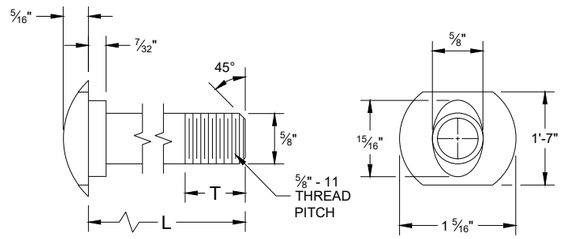


DETAIL FOR 16" BLOCKOUT DEPTH

IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.

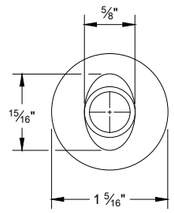
NOTE:

1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 3⁄16".
2. IF THE BOLT EXTENDS MORE THAN ¼" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

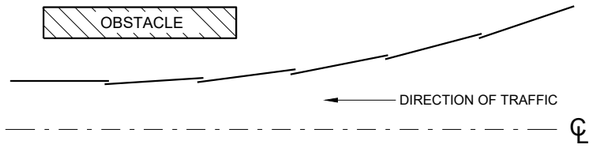


POST BOLT TABLE

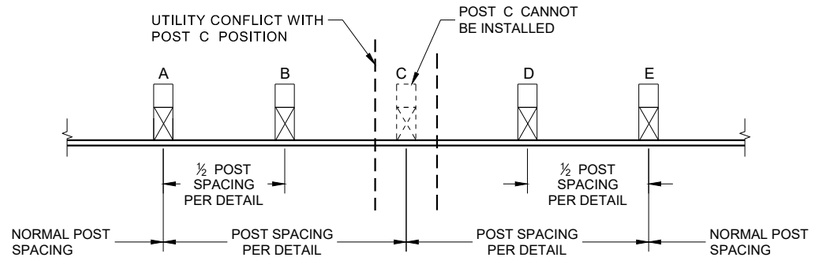
L	T (MIN.)
1 ¼"	1 ⅛"
2"	1 ¾"
10"	4"
14"	4 1⁄16"
18"	4"
21"	4 1⁄16"
25"	4"



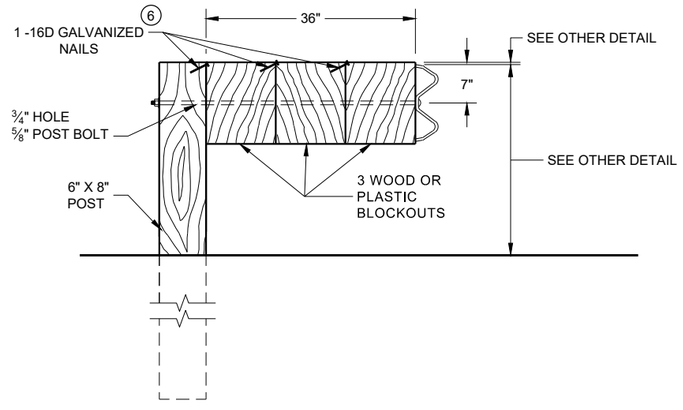
ALTERNATE BOLT HEAD



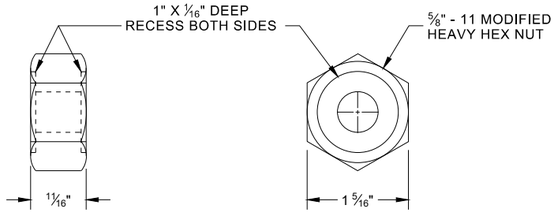
PLAN VIEW
BEAM LAPPING DETAIL



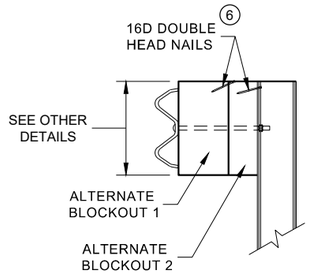
POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



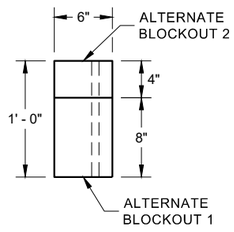
DETAIL FOR 36" BLOCKOUT DEPTH



POST BOLT, SPLICE BOLT AND RECESS NUT



SIDE VIEW



PLAN VIEW

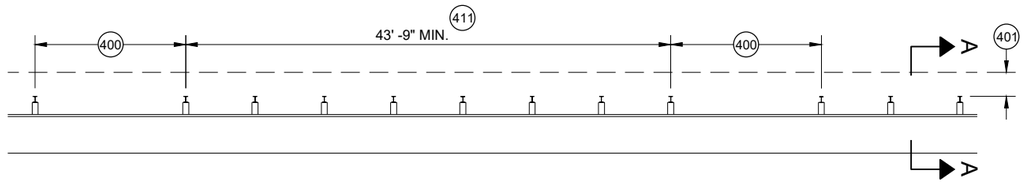
ALTERNATE WOOD BLOCKOUT DETAIL

NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

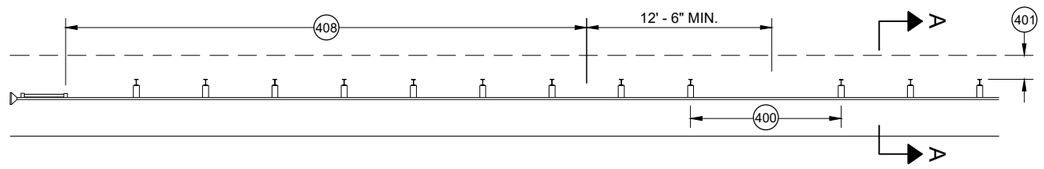
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

(6) WHEN USING STEEL POST AD WOOD BLOCKOUTS, INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

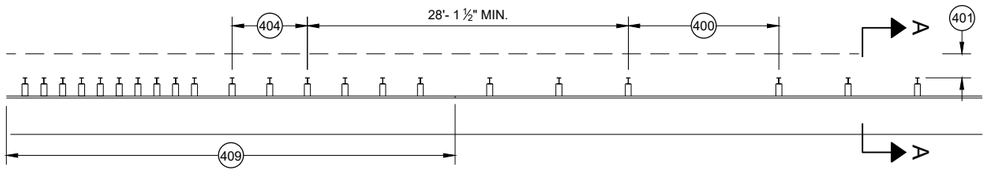
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL



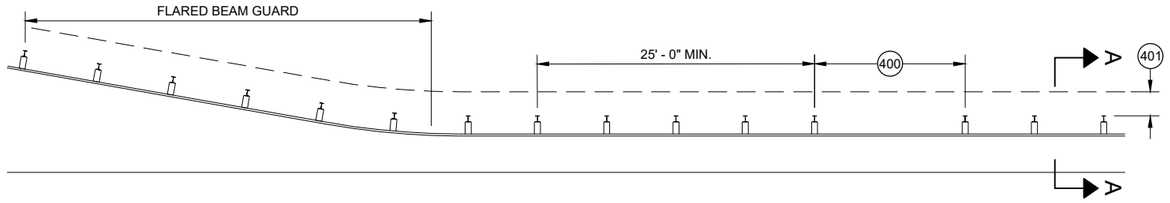
MISSING POST IN MGS GUARDRAIL



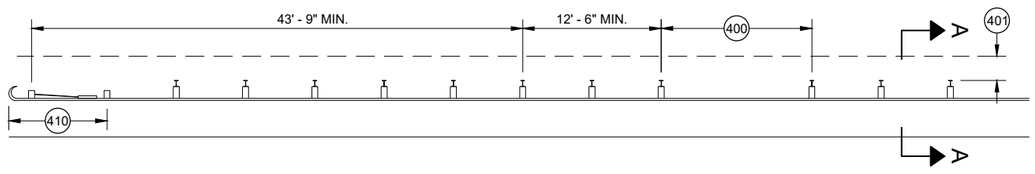
MISSING POST IN MGS GUARDRAIL NEAR EAT



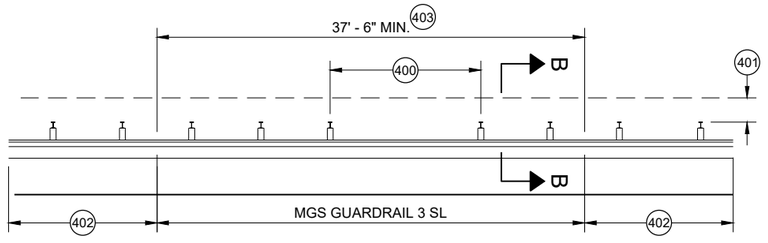
MISSING POST IN MGS GUARDRAIL NEAR AN APPROACH TRANSITION



MISSING POST IN MGS GUARDRAIL NEAR FLARED BEAM GUARD

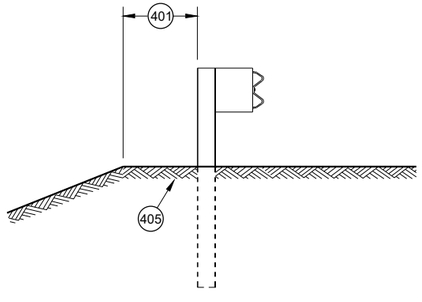


MISSING POST IN MGS GUARDRAIL NEAR A TYPE 2 END TERMINAL

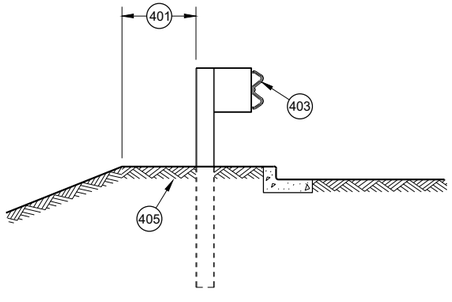


MISSING POST IN SHORT SPAN MGS GUARDRAIL NEAR CURB (SL) 407

(400) MAX SPAN 12' - 6"
(401) 2' MIN.
(402) MGS GUARDRAIL 3
(403) NESTING BEAM GUARD
(404) ASYMMETRIC TRANSITION
(405) SOIL WELL DRAINED AND COMPACTED
(406) SEE OTHER DRAWINGS IN THIS SDD
(407) SEE OTHER DRAWINGS FOR MIN. SPACING BETWEEN SPANS
(408) SEE SDD 14B44
(409) SEE SDD 14B45
(410) SEE SDD 14B47
(411) MINIMUM DISTANCE BETWEEN MISSING POST SPANS.



SECTION A - A 406



SECTION B - B 406

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2021 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE UNIT SUPERVISOR

FHWA

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SDD 14B42 - 07d

GENERAL NOTES

(A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, THE HINGE POINT LINE (HPL) AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.

(B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED

(C) DIFFERENT MANUFACTURERS REQUIRE DIFFERENT PERFORATED W - BEAM RAIL END PANELS. SEE MANUFACTURER'S INFORMATION.

(D) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF - TAPPING SCREWS. ONE SCREW PER CORNER.

(E) HARDWARE MAY VARY BETWEEN MANUFACTURER. SEE MANUFACTURER'S DRAWING FOR INFORMATION.

DIMENSIONS MAY VARY, MANUFACTURER'S INFORMATION.

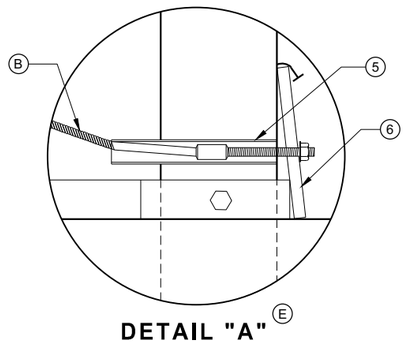
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

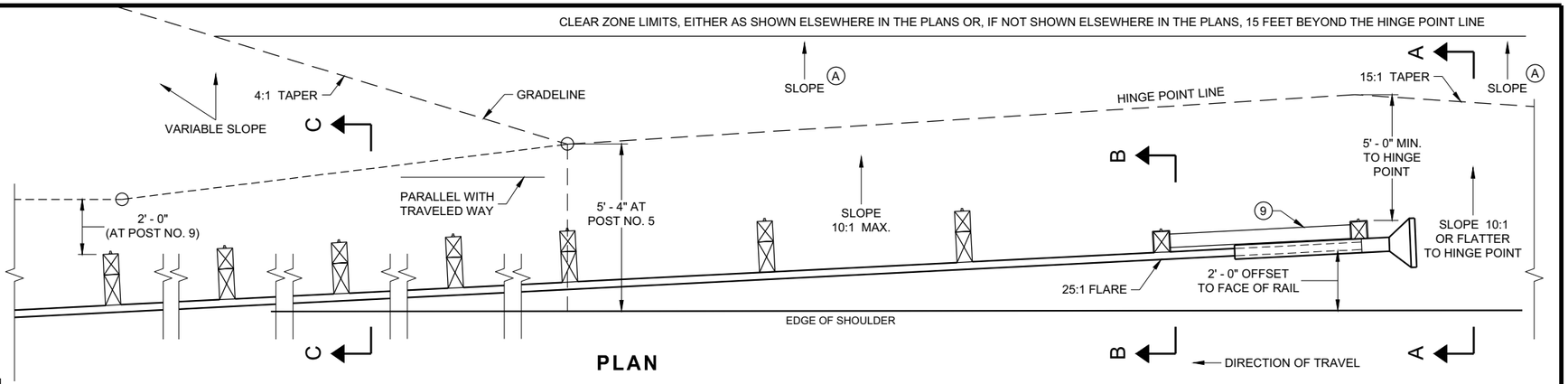
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

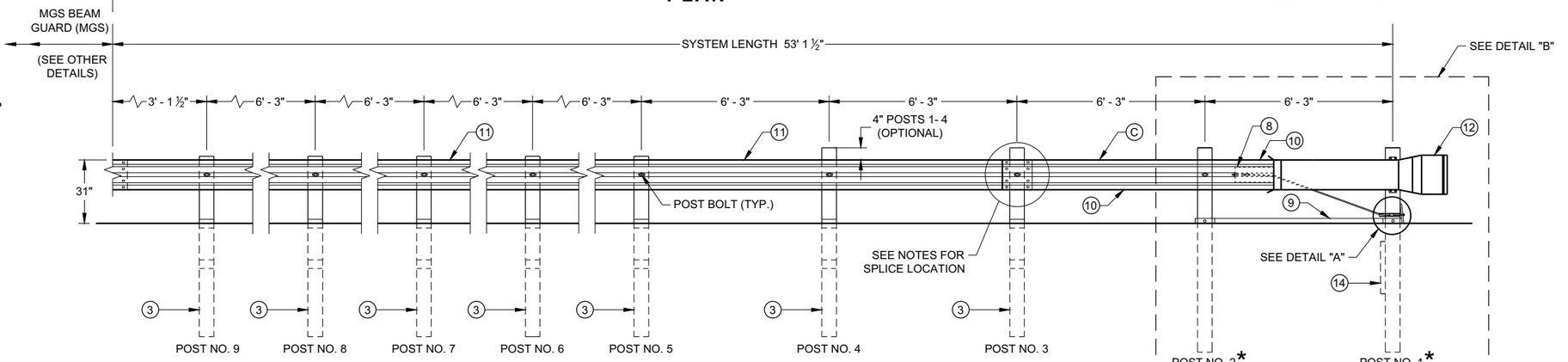
SEE MANUFACTURER'S DRAWING FOR SPLICE LOCATION, HARDWARE DIMENSIONS AND INSTALLATION INSTRUCTIONS.

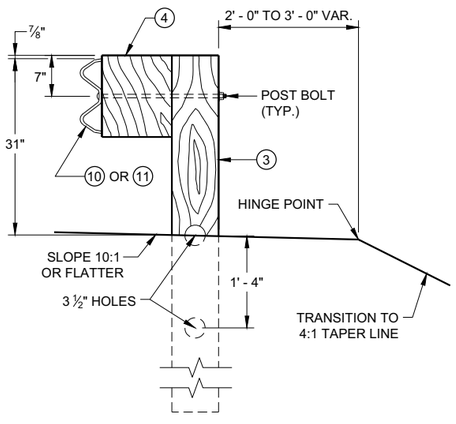
THE CENTER OF THE UPPER 3 ½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.



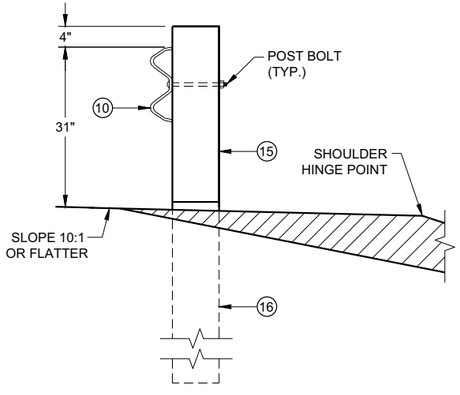
DETAIL "A" (E)



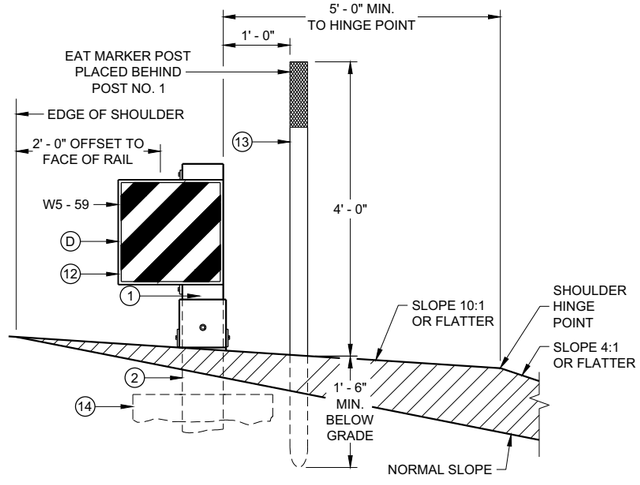




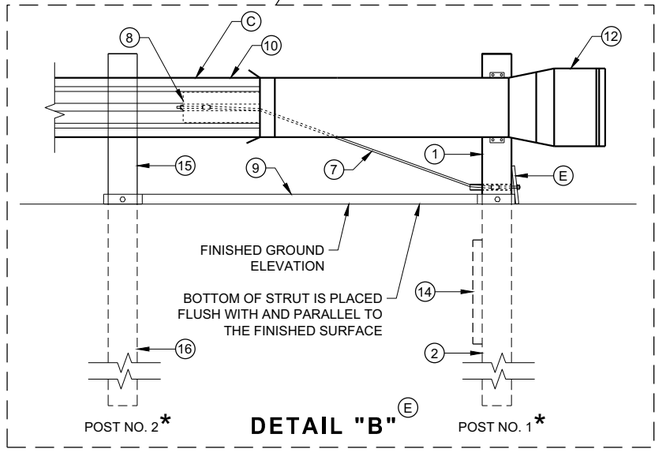
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



SECTION B - B
TYPICAL AT POST NO. 2*



SECTION A - A
TYPICAL AT POST NO. 1*



DETAIL "B" (E)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

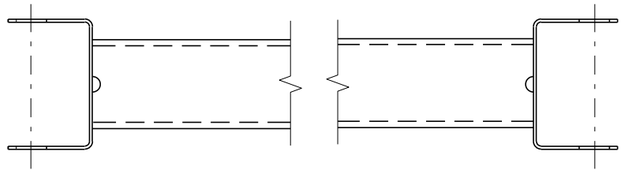
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B44 - 04a

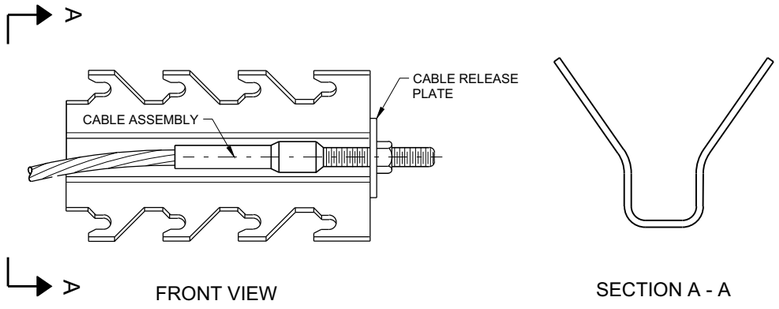
SDD 14B44 - 04a

BILL OF MATERIALS

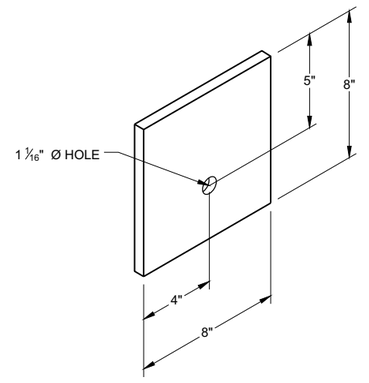
PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUGACTURER'S DETAILS FOR MORE INFORMATION.
①	UPPER POST NO. 1 6" X 6" TUBE
②	LOWER POST NO. 1
③	WOOD CRT
④	WOOD BLOCKOUT
⑤	PIPE SLEEVE
⑥	BEARING PLATE
⑦	BCT CABLE ASSEMBLY
⑧	ANCHOR CABLE BOX
⑨	GROUND STRUT
⑩	PERFORATED W-BEAM RAIL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



GENERIC GROUND STRUT ⑨ Ⓔ



GENERIC ANCHOR CABLE BOX ⑨ Ⓔ



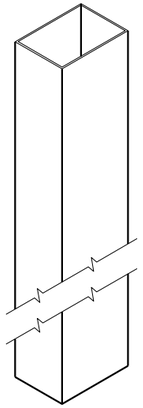
BEARING PLATE ⑥ Ⓔ

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

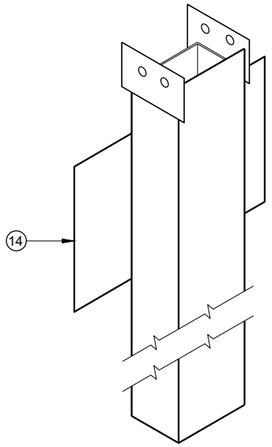
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

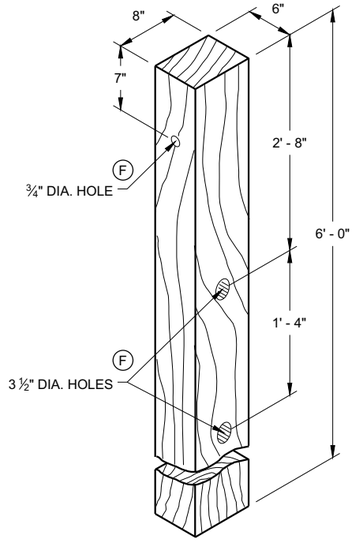
SDD 14B44 - 04b



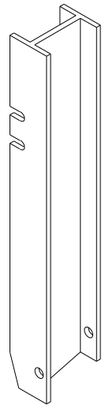
UPPER POST NO. 1 (1) (E)



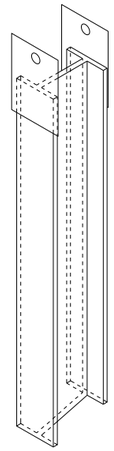
LOWER POST NO. 1 (2) (E)



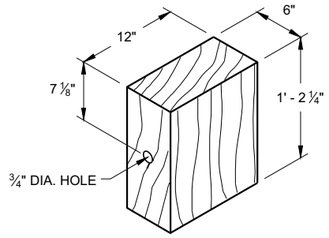
WOOD CRT POST (3) (E)
POSTS NUMBER 3-9



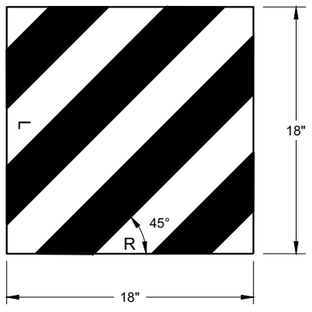
UPPER POST NO. 2 (15) (E)



LOWER POST NO. 2 (16) (E)

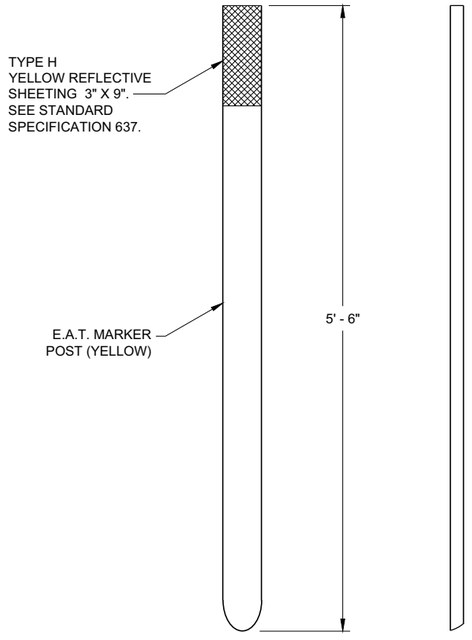


WOOD BLOCKOUT (4)
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



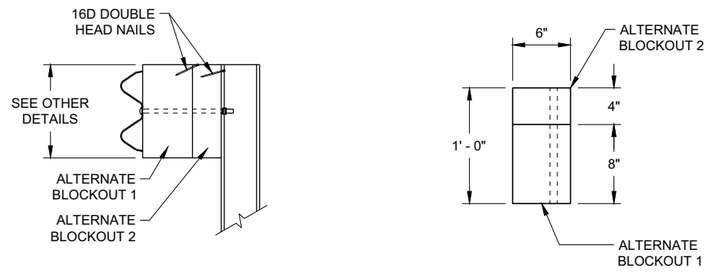
W5 - 59

REFLECTIVE SHEETING DETAIL (E)



FRONT VIEW SIDE VIEW

E.A.T. MARKER POST (13)



SIDE VIEW TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

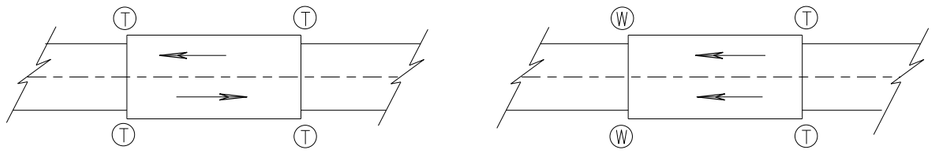
MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

SDD 14B44 - 04c



TWO WAY TRAFFIC

ONE WAY TRAFFIC

(T) THRIE BEAM CONNECTION

(W) W-BEAM CONNECTION WHEN REQUIRED

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

GENERAL NOTES

IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2½", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

TRANSITION USES STEEL POSTS ONLY.

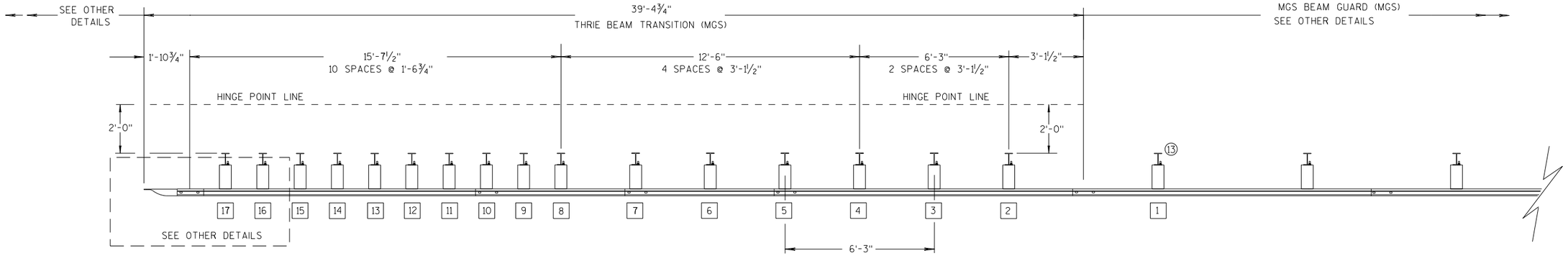
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

POST 2 THROUGH 17 USES STEEL POST ONLY

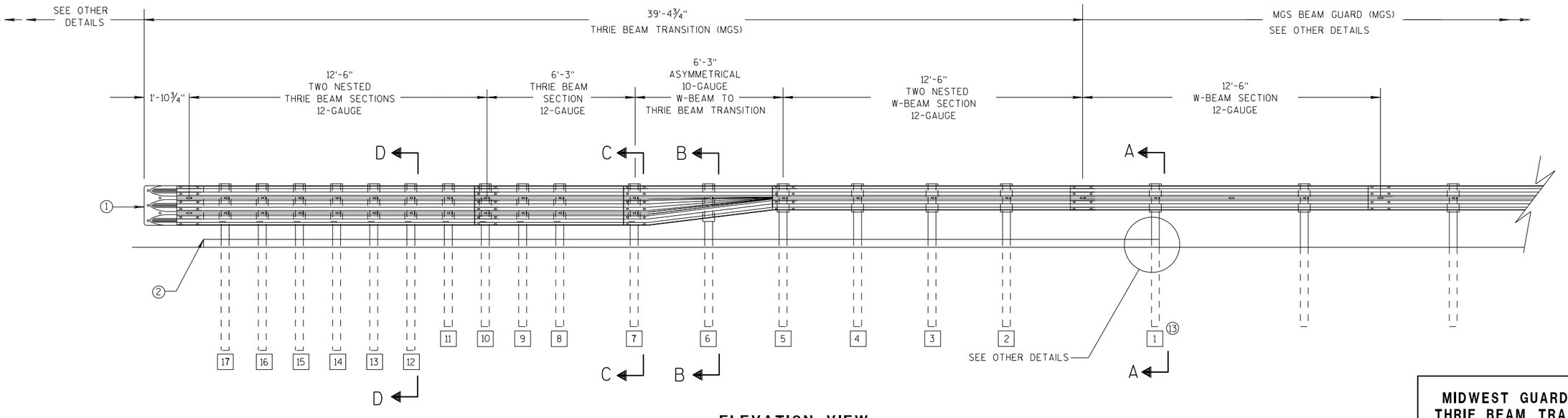
(1) BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD14B42



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6
S.D.D. 14 B 45-5a

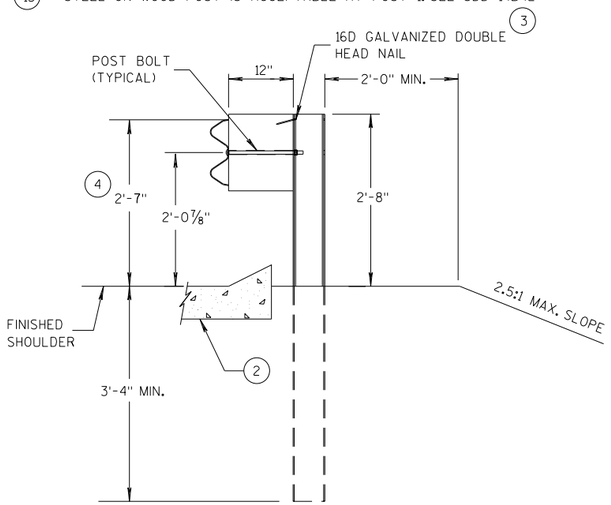
GENERAL NOTES

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

(3) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 10D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

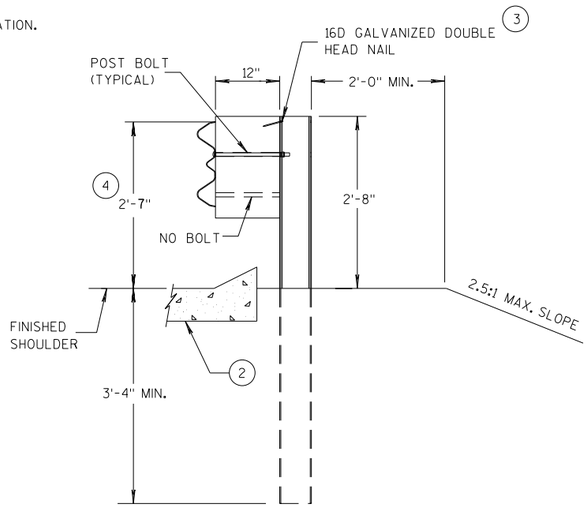
(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

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



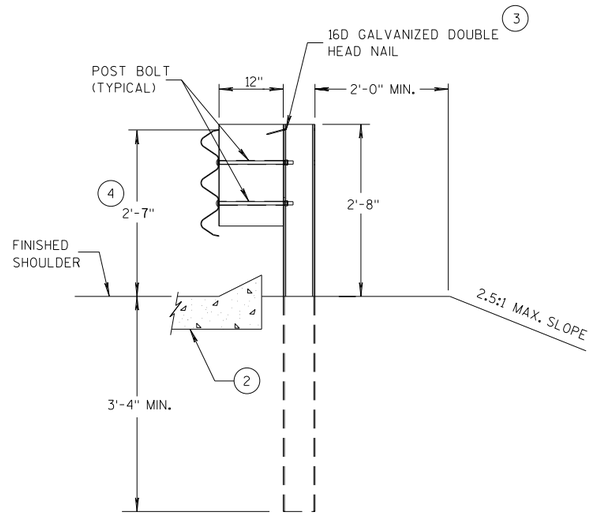
SECTION A-A (13)

POSTS 1-5



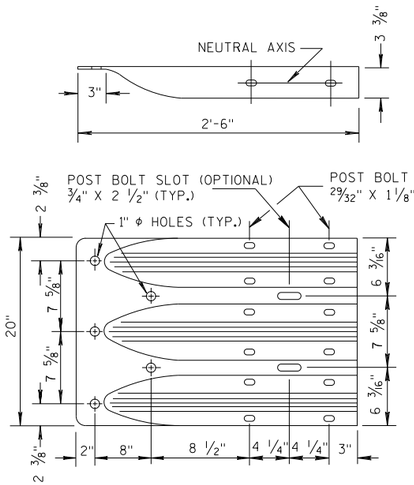
SECTION B-B

POST 6

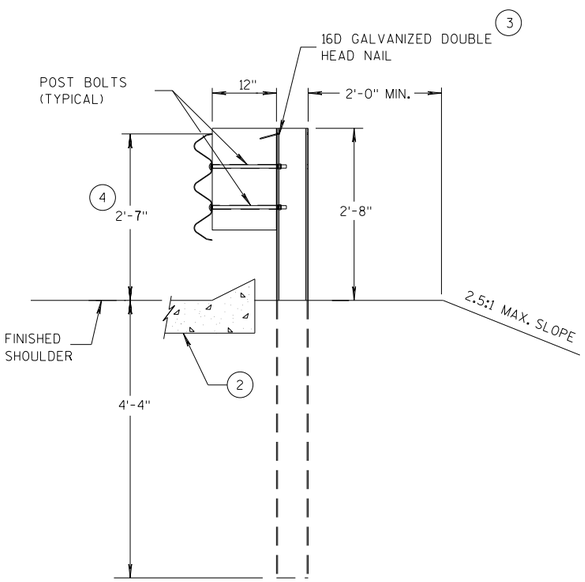


SECTION C-C

POSTS 7-11

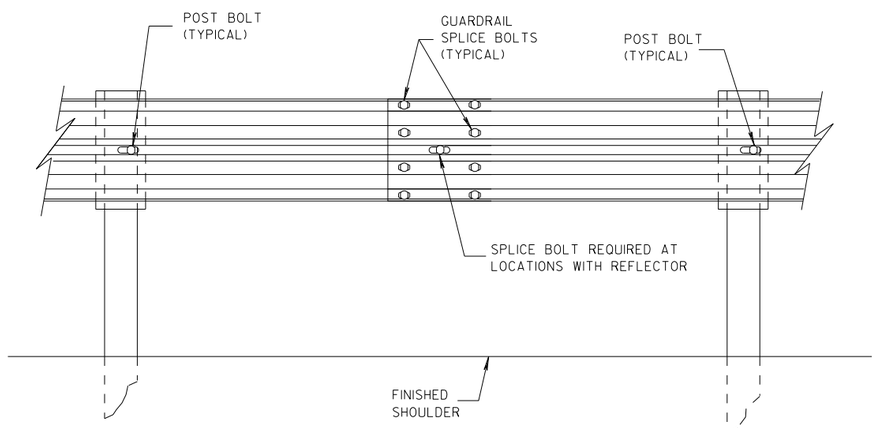


THRIE BEAM TERMINAL CONNECTOR



SECTION D-D

POSTS 12-17



SPLICE DETAIL

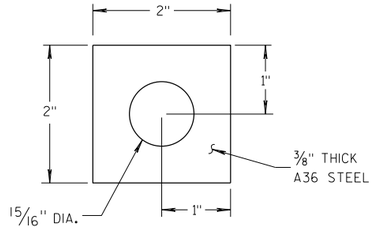
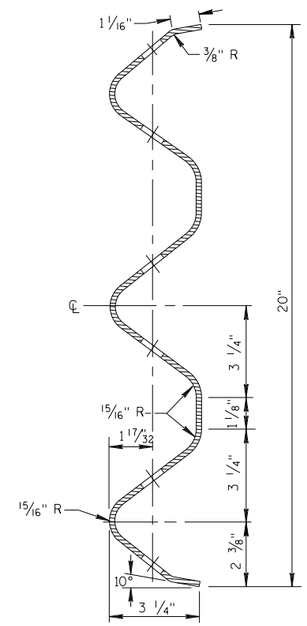


PLATE WASHER DETAIL



SECTION THRU THRIE BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOF

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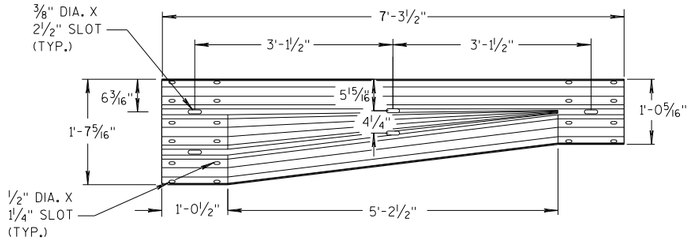
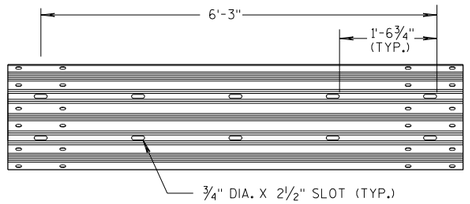
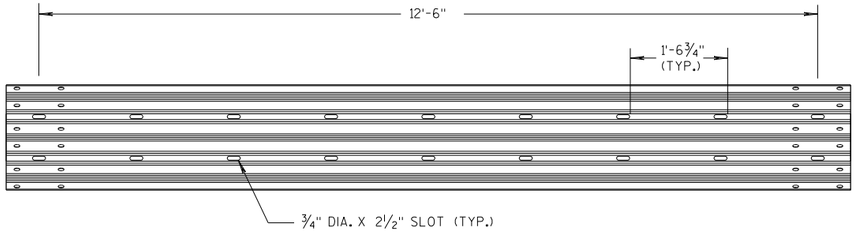
S.D.D. 14 B 45-5b



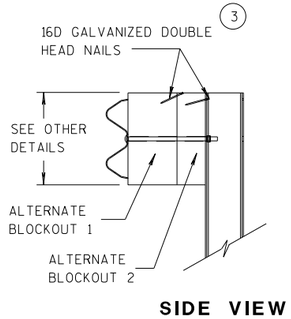
W-BEAM TO THRIE BEAM TRANSITION SECTION



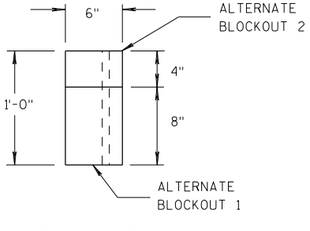
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

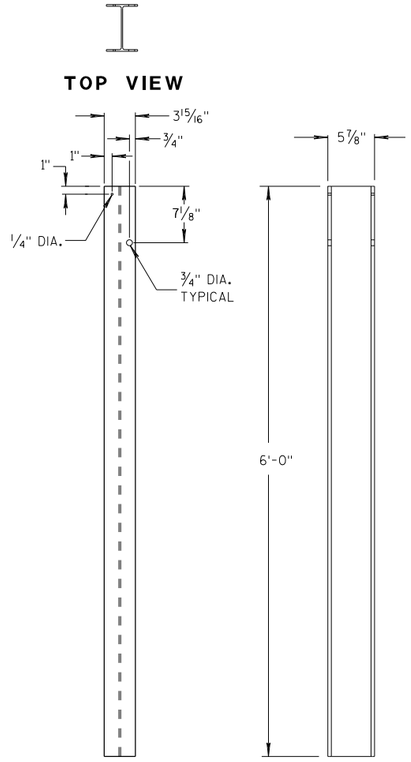


SIDE VIEW



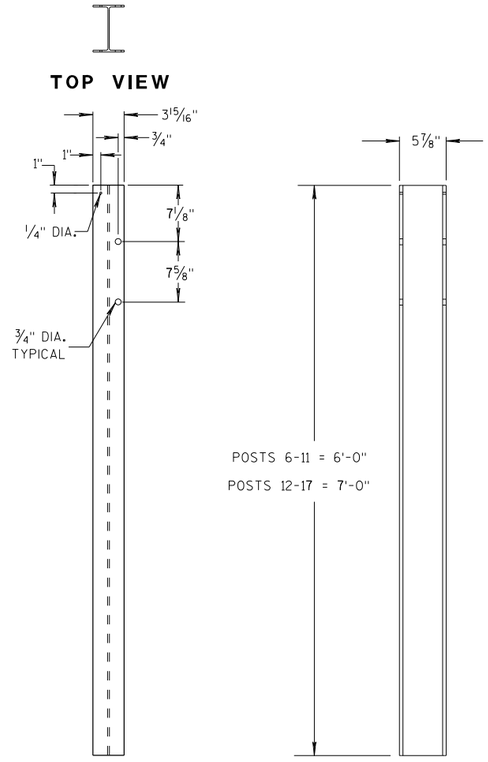
TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL



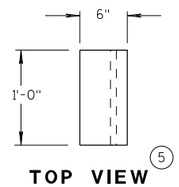
FRONT VIEW SIDE VIEW

STEEL POSTS 1-5 (13)

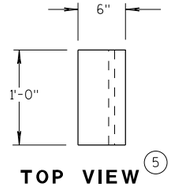


FRONT VIEW SIDE VIEW

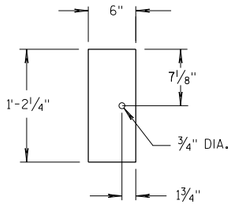
STEEL POSTS 6-17



TOP VIEW (5)

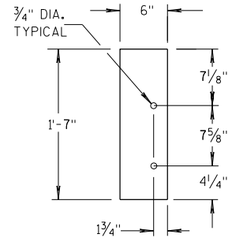


TOP VIEW (5)



FRONT VIEW

BLOCKOUT POSTS 1-5



FRONT VIEW

BLOCKOUT POSTS 6-17

GENERAL NOTES

STEEL POSTS ARE W6X9 OR W6X8.5.

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

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

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

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

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

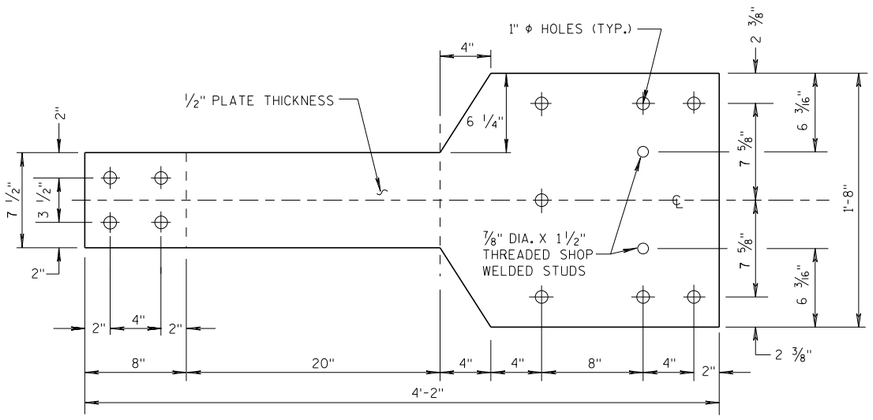
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

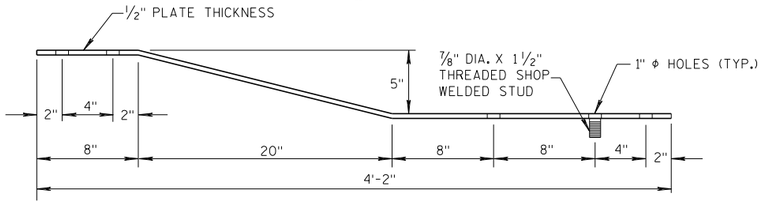
S.D.D. 14 B 45-5c

GENERAL NOTES

(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

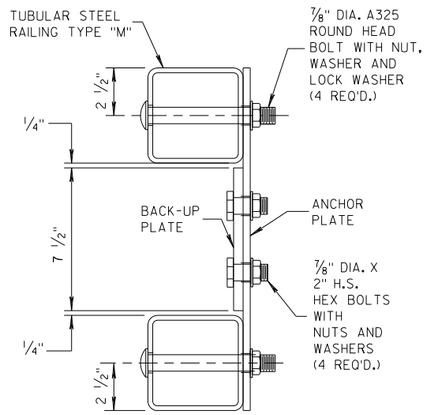


FRONT VIEW

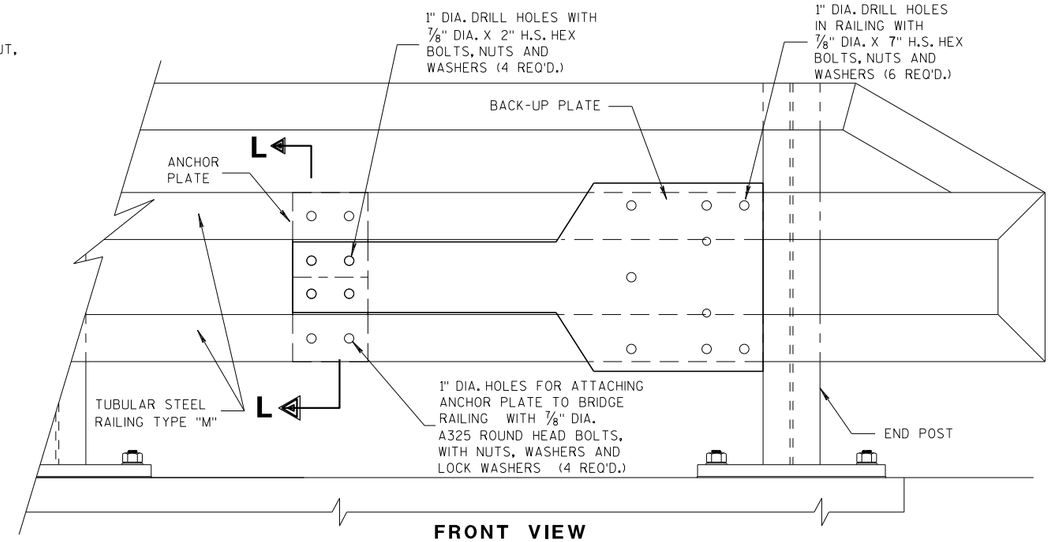


PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

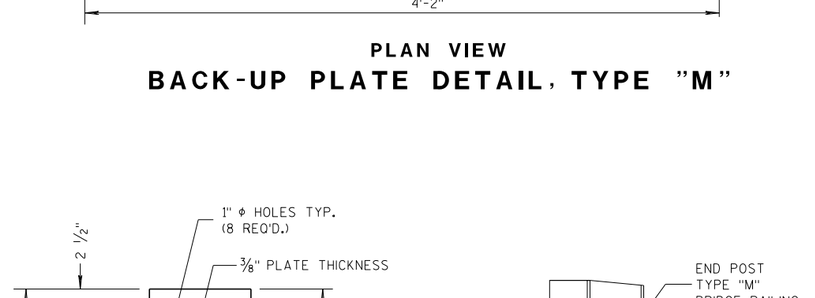


SECTION L-L



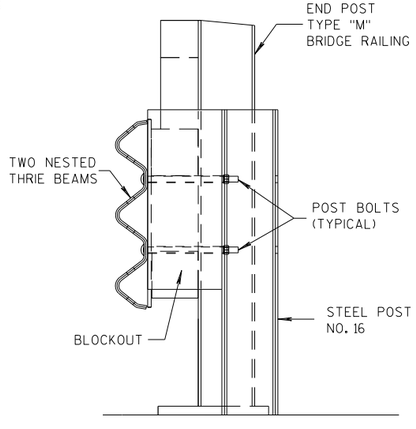
FRONT VIEW

ANCHOR AND BACK-UP PLATE MOUNTING TO BRIDGE RAILING, TYPE "M"

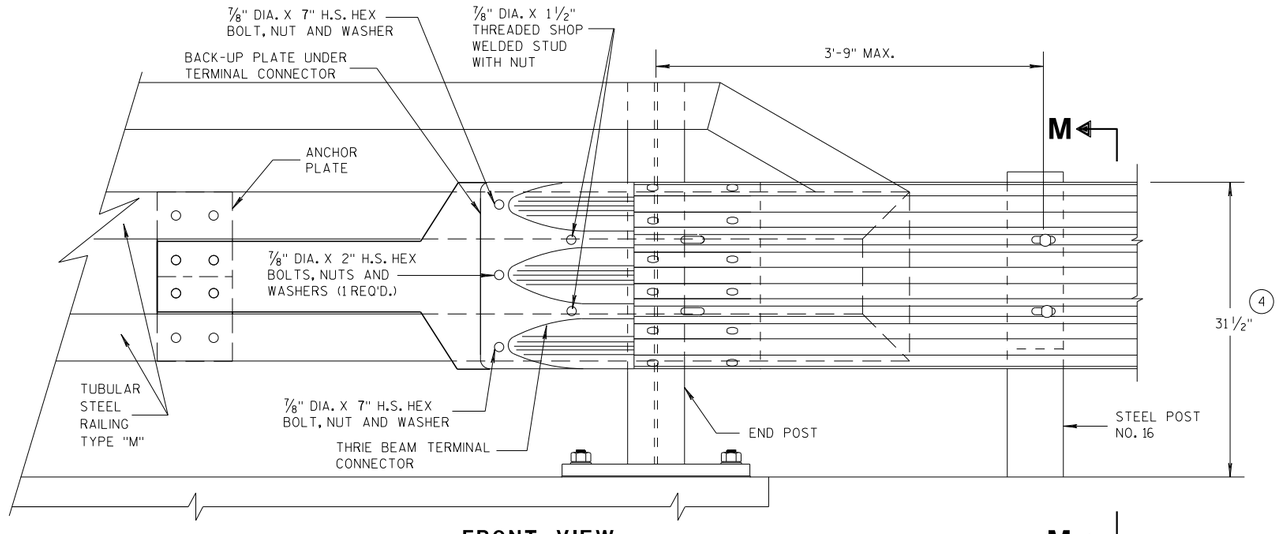


FRONT VIEW

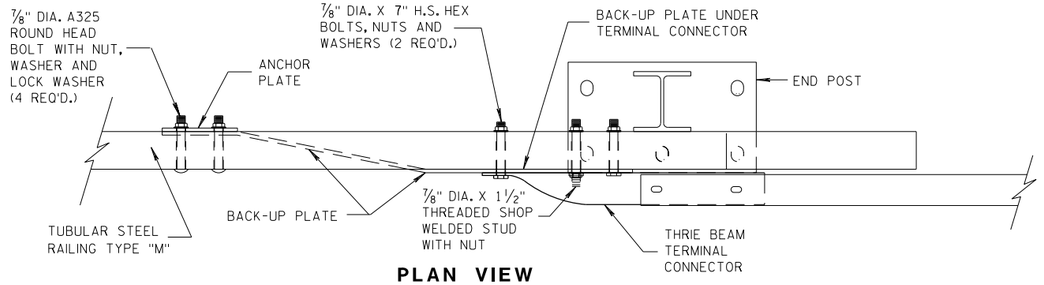
ANCHOR PLATE DETAIL, TYPE "M"



SECTION M-M



FRONT VIEW



PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

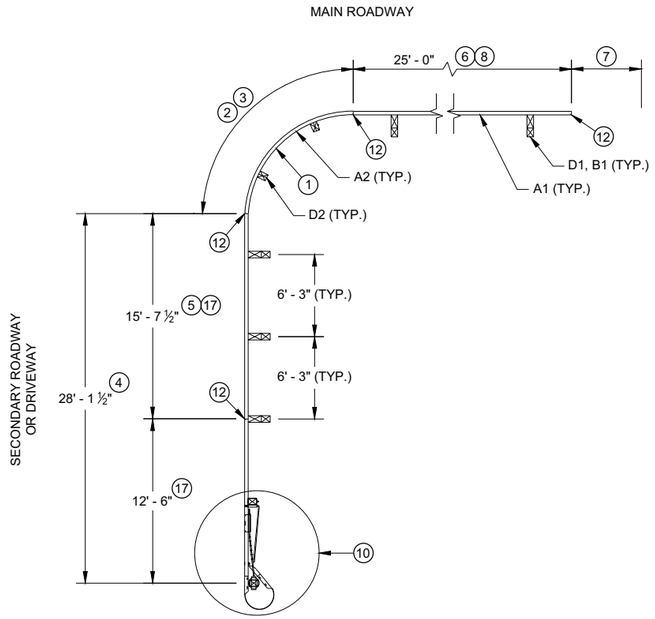
APPROVED
07/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS UNIT SUPERVISOR
FHWA

6

S.D.D. 14 B 45-5h

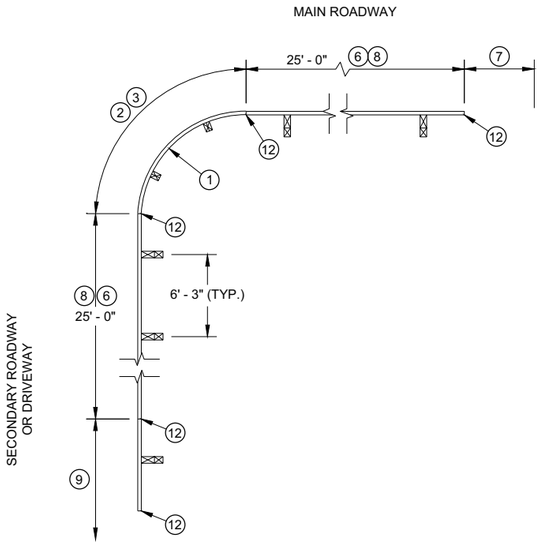
6

S.D.D. 14 B 45-5h



PLAN VIEW

SHORT RADIUS BEAM GUARD WITH SHORT RADIUS TERMINAL ON SECONDARY ROAD OR DRIVEWAY

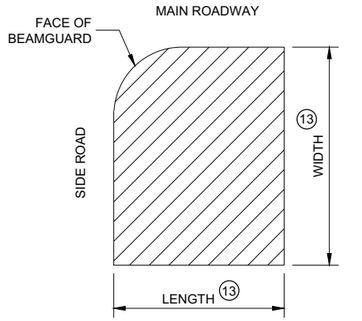


PLAN VIEW

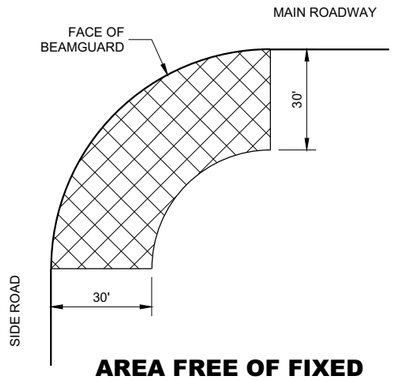
SHORT RADIUS BEAM GUARD WITH EAT, ADDITIONAL BEAM GUARD OR TRANSITION TO RIGID BARRIER ON SECONDARY ROAD OR DRIVEWAY

TABLE FOR RADIUS OF 32' AND LESS

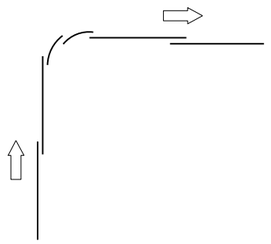
RADIUS (FT)	LENGTH (FT)	WIDTH (FT)
8	25	15
16	30	15
24	40	20
32	50	30



AREA FREE OF FIXED OBJECTS FOR RADIUS 32' AND LESS (16)



AREA FREE OF FIXED OBJECTS FOR RADIUS GREATER THAN 32'



LAP SPLICE DETAIL

GENERAL NOTES

SEE PLANS FOR OTHER BARRIER SYSTEM AND LOCATION SPECIFICS.

SEE SDD 14B42 FOR MORE INFORMATION ON BEAM GUARD INSTALLATION, PARTS, MATERIALS, AND INSTALLATION INFORMATION.

GALVANIZE PARTS AFTER FABRICATION.

WELDING TO FOLLOW CURRENT REQUIREMENTS OF THE AMERICAN WELDING SOCIETY STRUCTURAL WELDING CODE ANSI / AWS D1.1.

UNLESS NOTED OTHERWISE, ALL PLATES ARE FLAT AND FREE OF WARP.

UNLESS NOTED OTHERWISE, ALL EDGES ARE SMOOTH, STRAIGHT AND VERTICAL.

ALL CUTS AND HOLES, EXCEPT IN BEAM GUARD RAIL ARE TO BE MACHINED OR MACHINE FLAME CUT.

UNLESS NOTED OTHERWISE, CUT OR PROVIDE BOLTS THAT ARE ¼" TO ½" BEYOND THE NUT.

DRAWINGS ARE NOT TO SCALE.

(1) RADIUS MEASURE FROM INSIDE OF RAIL. LENGTH OF BEAM GUARD SHORT RADIUS GUARD MEASURED ALONG TRAFFIC SIDE OF RAIL. RADIUS BETWEEN 8 FEET TO 150 FEET. SEE PLAN FOR REQUIRED RADIUS. BEAM GUARD RAIL IN RADIUS IS SHOP BENT. ODD RAIL LENGTH OR FIELD CUTS MAY BE REQUIRED.

(2) CONTROLLED RELEASE TERMINAL (CRT) POSTS ARE USED IN THE RADIUS. CONTROLLED RELEASE TERMINAL (CRT) POSTS ARE SPACED 6' - 3". SEE PLAN FOR NUMBER OF CONTROLLED RELEASE (CRT) POSTS.

(3) WITHIN RADIUS BEAM GUARD RAILS ARE NOT BOLTED TO POSTS. BEAM GUARD RAIL IS RESTED ON TOP OF LAG SCREW.

(4) MINIMUM LENGTH OF BEAM GUARD ALONG SIDE ROAD OR DRIVEWAY TO INSTALL SHORT RADIUS TERMINAL. BEAM GUARD IS PAID WITH BEAM GUARD ITEM.

(5) ODD LENGTH OF BEAM GUARD REQUIRED TO INSTALL SHORT RADIUS TERMINAL.

(6) MINIMUM AMOUNT OF BEAM GUARD TO BE INSTALLED PRIOR TO TRANSITION TO RIGID BARRIER. ADDITIONAL BEAM GUARD, OR EAT. BEAM GUARD PAID FOR WITH BEAM GUARD ITEM. SEE PLANS FOR MORE DETAIL.

(7) BEAM GUARD, EAT, OR TRANSITION TO RIGID BARRIER. SEE PLAN.

(8) TOP OF BEAM GUARD BY THE RADIUS IS 27". HEIGHT OF BEAM GUARD IS 31" BY TRANSITION TO RIGID BARRIER, ADDITIONAL BEAM GUARD OR EAT.

(9) ADDITIONAL BEAM GUARD, EAT OR TRANSITION TO RIGID BARRIER. BEAM GUARD SHOWN. SEE PLAN FOR DETAILS.

(10) SHORT RADIUS TERMINAL (SEE OTHER DETAILS).

(11) HEIGHT VARIES. SEE NOTE (8) AND (8).

(12) BEAM GUARD RAIL SPLICE LOCATION. SPLICE LOCATION REQUIRES PART F1 AND F2. SEE SDD 14B42 FOR DETAILS.

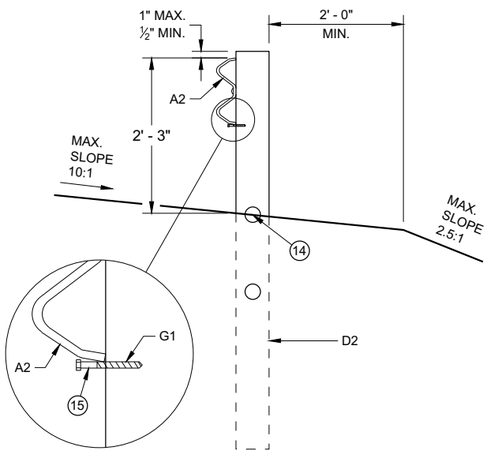
(13) SEE TABLE FOR VALUES.

(14) MAXIMUM HEIGHT FOR CENTER OF HOLE IS ¾" ABOVE FINISHED GROUND ±1".

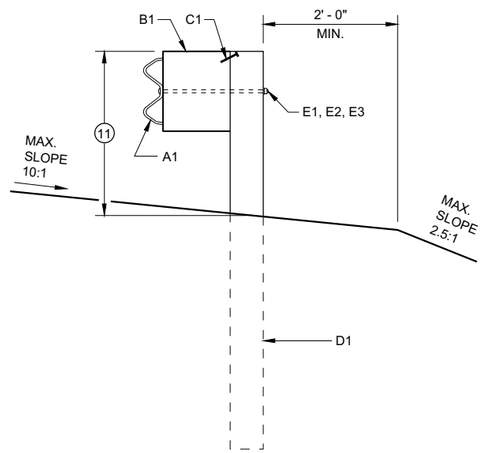
(15) DRILL POST $^{15}/_{64}$" DIA. PILOT HOLE. DO NOT HAMMER LAG SCREW INTO POST.

(16) SMALL SIGNS ON BREAKAWAY HARDWARE ARE ACCEPTABLE.

(17) TOP OF RAIL HEIGHT IS 27" WHEN USING A SHORT RADIUS TERMINAL (CRT).

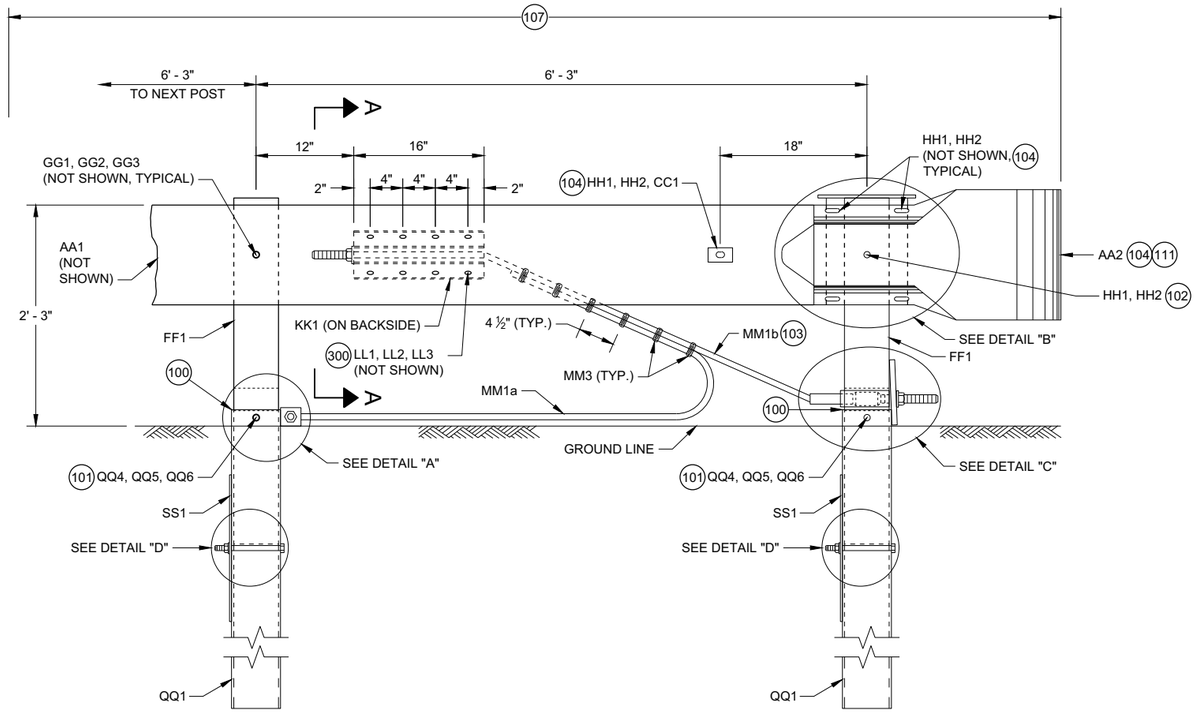


CONTROLLED RELEASE TERMINAL POST (CRT) IN RADIUS



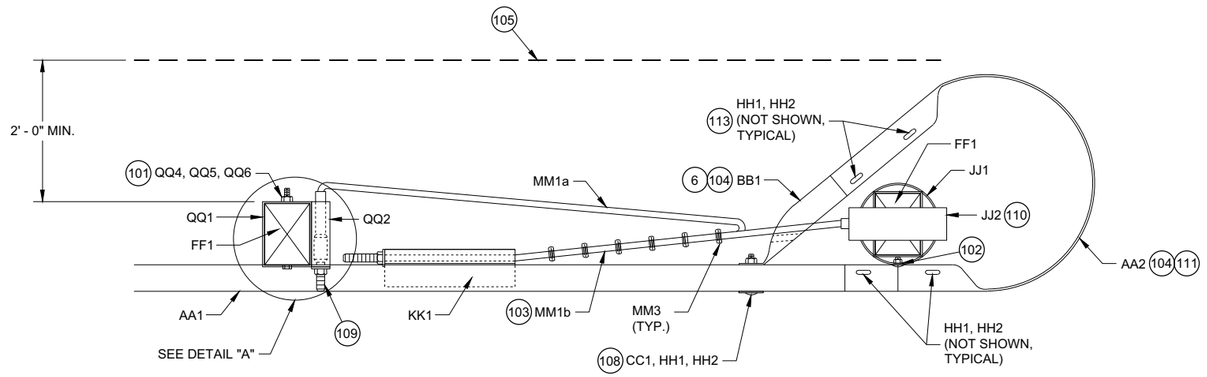
BEAM GUARD POSTS IN HEIGHT TRANSITION

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)



PROFILE VIEW

SHORT RADIUS TERMINAL



TOP VIEW

SHORT RADIUS TERMINAL

GENERAL NOTES

100 TOP OF FOUNDATION TUBE 2 INCHES MAXIMUM ABOVE FINISHED GROUND.

101 WASHERS REQUIRED BETWEEN BOLT HEAD AND FOUNDATION TUBE AND BETWEEN NUT AND FOUNDATION TUBE.

102 SPLICE BOLT AND NUT CONNECTS BEAM GUARD RAIL, W-BEAM SECTION BUFFER, AND STEEL PIPE ASSEMBLY. NO WASHER REQUIRED. SEE DETAIL "B".

103 CABLE IS TAUT.

104 ADJUST AA2 AND BB1 TO FIT.

105 BREAK POINT OF SHOULDER.

106 TACK WELD CABLE CONNECTOR TUBE PLATE TO CABLE CONNECTION TUBE. SEE DETAIL "A" PROFILE VIEW.

107 PAY LIMIT FOR BEAM GUARD.

108 SQUARE WASHER BETWEEN HEAD OF BOLT AND TRAFFIC FACE OF BEAM GUARD. ROUND WASHER REQUIRED BETWEEN NUT AND BB1.

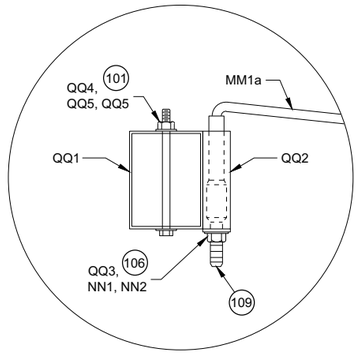
109 CUT OR PROVIDE THREADED STUD THAT IS FLUSH WITH FACE OF BEAM GUARD RAIL KK1 (PLUS OR MINUS ½" TOLERANCE). DEBURR AFTER CUTTING.

110 SEE STEEL PIPE ASSEMBLY DETAILS.

111 ATTACH UU2 WITH UU3. SHOP APPLY UU1 TO UU2.

112 FOUR (4) HH1 AND HH2 REQUIRED TO ATTACH AA1 TO AA2.

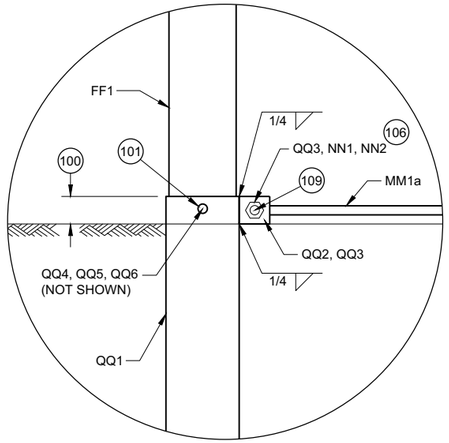
113 FOUR (4) HH1 AND HH2 REQUIRED TO ATTACH AA2 TO BB1.



TOP VIEW

DETAIL "A"

(WOOD BREAKAWAY AND BEAM GUARD RAIL POSTS NOT SHOWN)



PROFILE VIEW

DETAIL "A"

6

SDD 14B53 - 01b

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

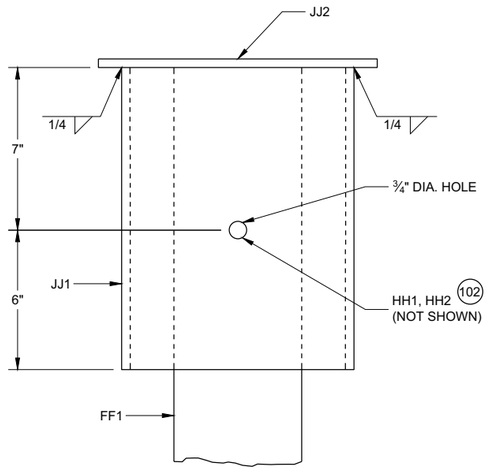
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B53 - 01b

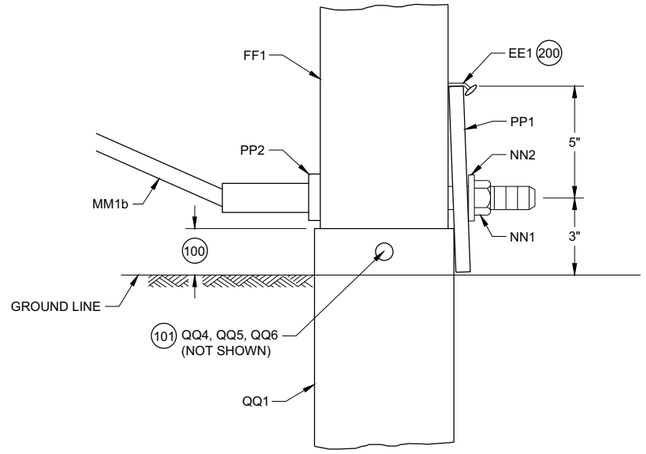
GENERAL NOTES

(200) TWO (2) NAILS SPACED 4 INCHES CENTER TO CENTER.



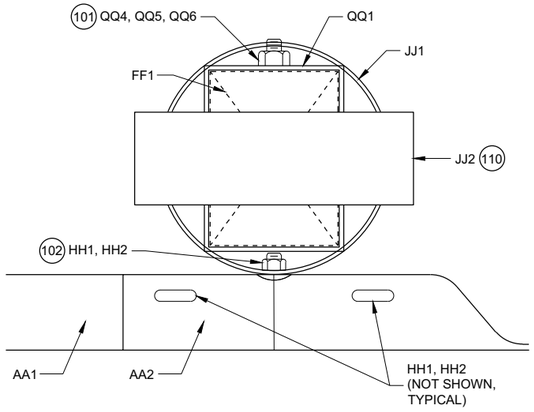
PROFILE VIEW

DETAIL "B"
STEEL PIPE ASSEMBLY
(BEAM GUARD AND W BEAM END SECTION NOT SHOWN)



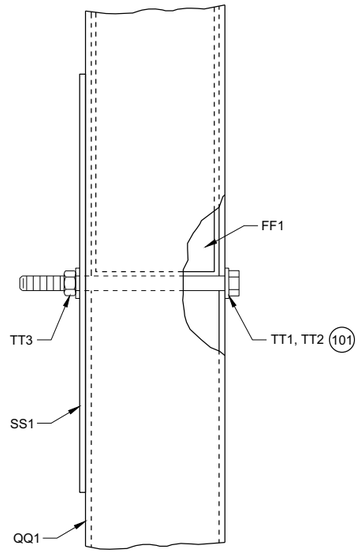
PROFILE VIEW

DETAIL "C"



PLAN VIEW

DETAIL "B"
STEEL PIPE ASSEMBLY



PROFILE VIEW

DETAIL "D"

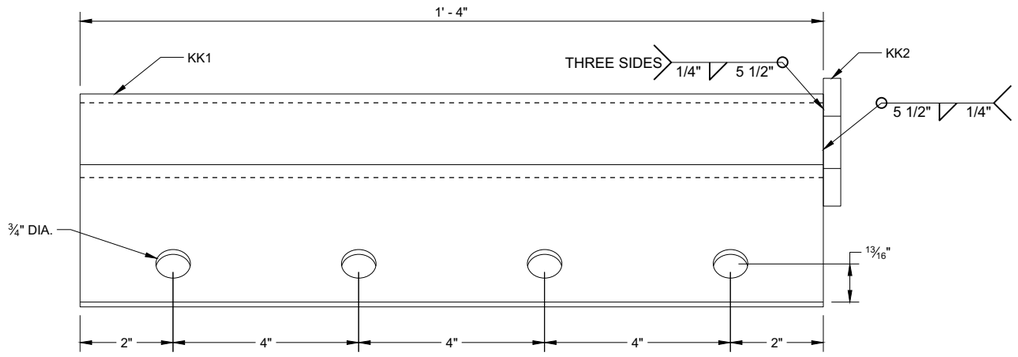
SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

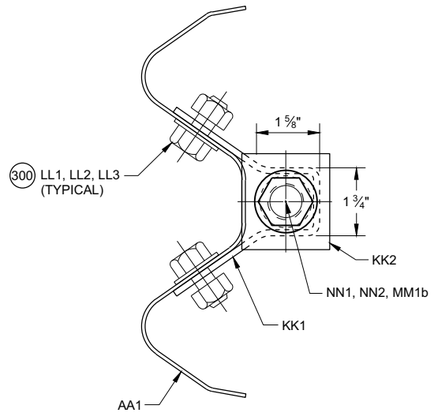
6

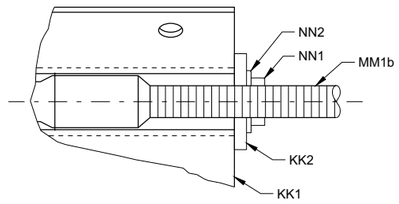
SDD 14B53 - 01c

GENERAL NOTES

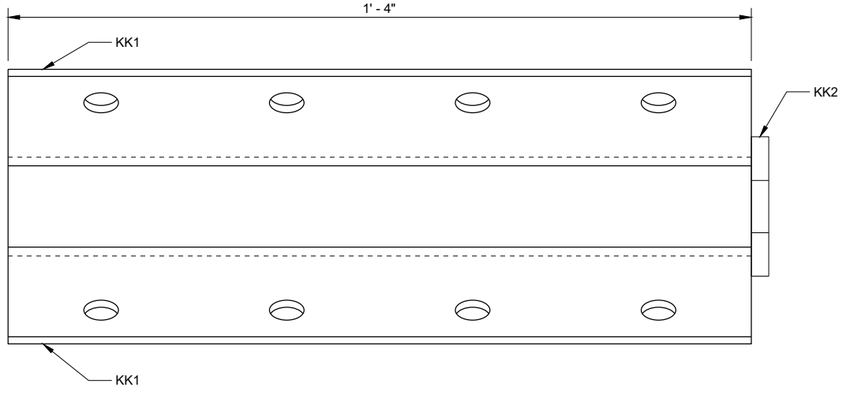
(300) WASHERS REQUIRED BETWEEN BOLT HEAD AND BEAM GUARD RAIL AND BETWEEN NUT AND ANCHOR BRACKET. EIGHT (8) LL1 AND LL3 REQUIRED. SIXTEEN (16) LL2 REQUIRED.

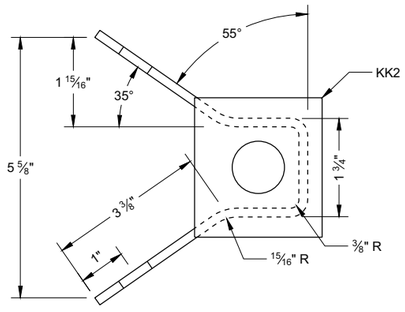




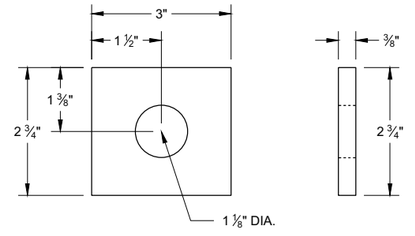


SECTION A - A





ANCHOR BRACKET (KK1, KK2)



ANCHOR BRACKET BEARING PLATE (KK2)

6

SDD 14B53 - 01d

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

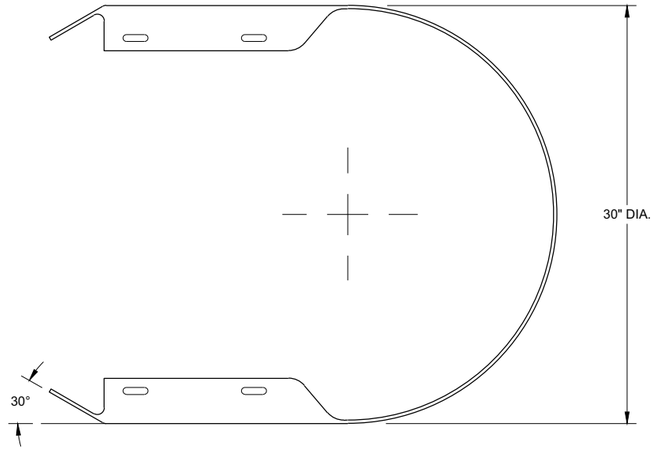
6

SDD 14B53 - 01d

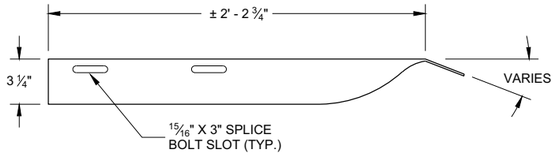
GENERAL NOTES

(400) CROSS SECTION OF PART IS TO FIT OVER AA1 .

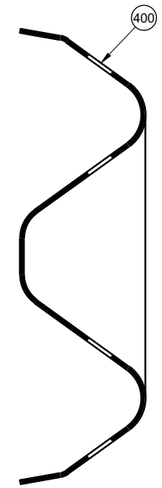
(401) CROSS SECTION OF PART IS TO FIT OVER OR UNDER AA1 .



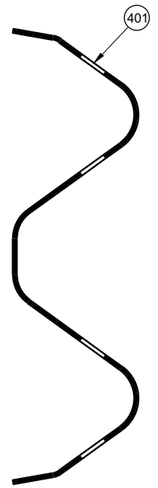
TOP VIEW



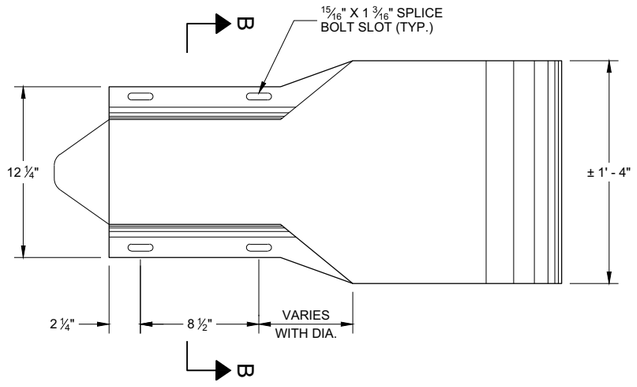
TOP VIEW



SECTION B -B

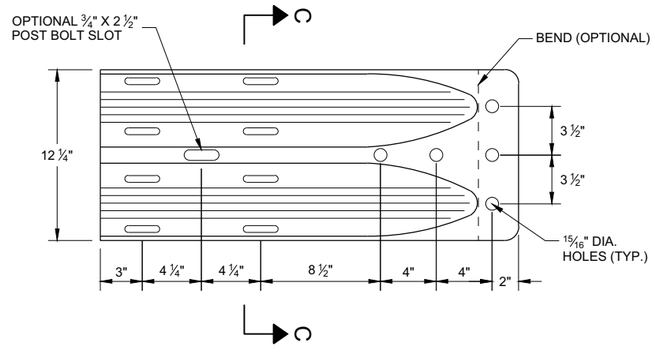


SECTION C -C



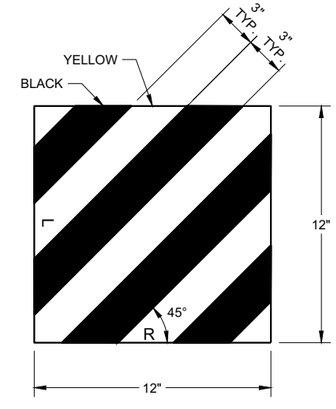
PROFILE VIEW

W BEAM
END SECTION BUFFER (AA2)



PROFILE VIEW

W BEAM
TERMINAL CONNECTOR (BB1)



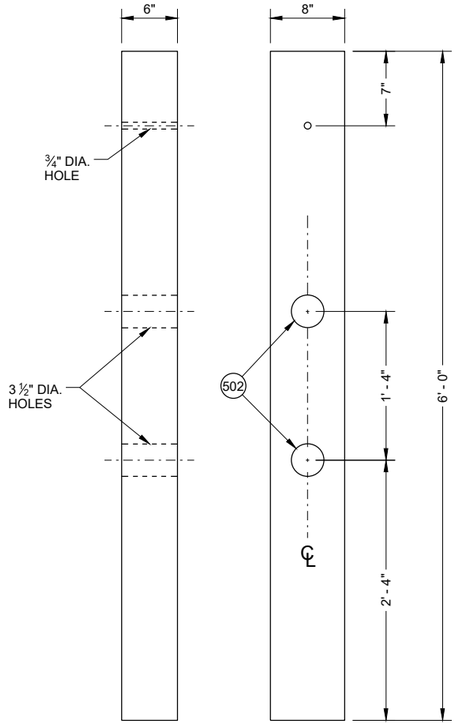
REFLECTIVE SHEETING (UU1, UU2)

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

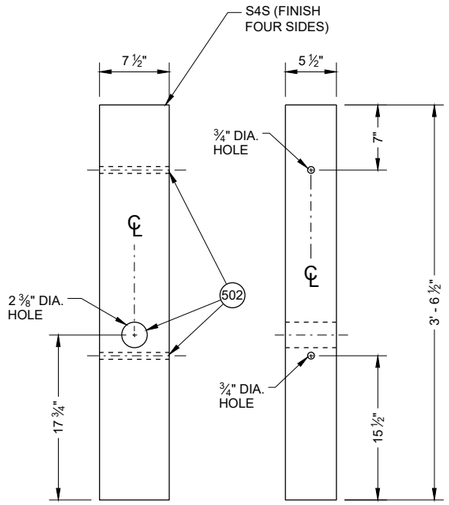
6

SDD 14B53 - 01e



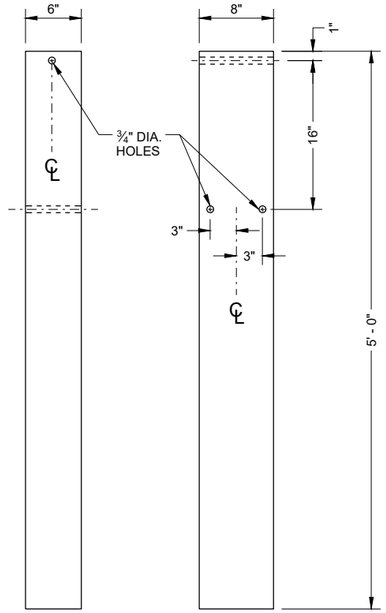
FRONT VIEW SIDE VIEW

CONTROLLED RELEASE POST (CRT) (DD2)



FRONT VIEW SIDE VIEW

WOOD BREAKAWAY POST (FF1)



FRONT VIEW SIDE VIEW

FOUNDATION TUBE (QQ1) 500

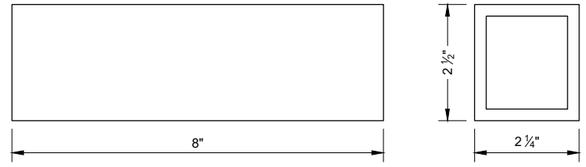
GENERAL NOTES

500 SEE DETAIL "D" FOR LOCATION AND ATTACHMENT OF SS1.

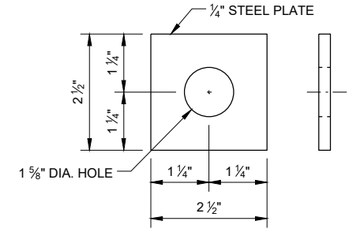
501 FOR MM1a THREADED STUD ONLY REQUIRED ON ONE END. SWAGED FITTING REQUIRED.

502 LOCATE HOLES ON THE CENTERLINE OF THE SIDE OF THE POST.

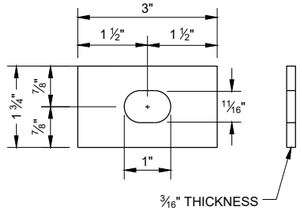
503 MM1a MAY HAVE ONE THREADED STUD 4 INCHES LONG. SEE NOTE 109.



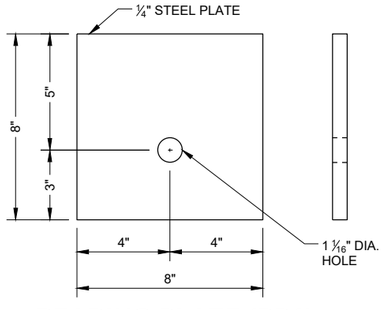
FOUNDATION TUBE - ANCHOR CABLE TUBE (QQ2)



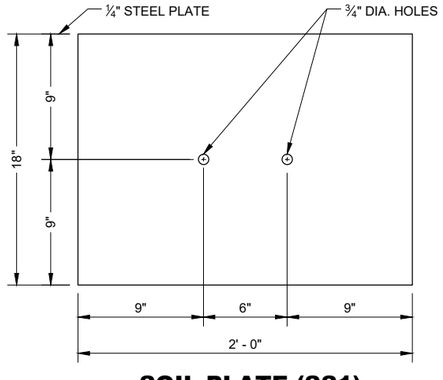
ANCHOR CABLE TUBE END PLATE (QQ3)



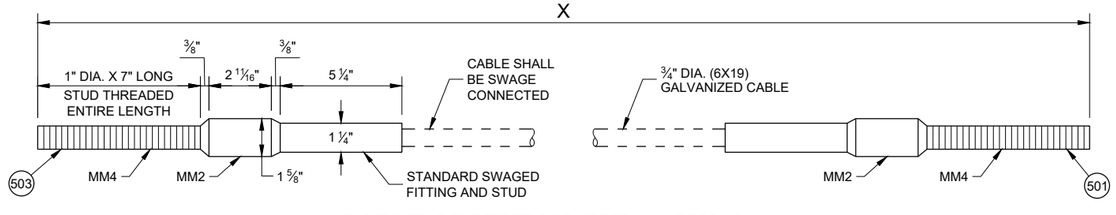
RECTANGULAR PLATE WASHER (CC1)



BEARING PLATE (PP1)



SOIL PLATE (SS1)



CABLE ASSEMBLY (MM1a, MM1b)

"X" LENGTH

MM1b	9' - 0"
MM1b	6' - 8"

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

BILL OF MATERIALS - SHORT RADIUS BEAM GUARD (MGS)

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
A1	BEAM GUARD RAIL	AASHTO M180, CLASS A, TYPE 2	
		APPROVED PRODUCER	
A2	BEAM GUARD RAIL - SHOP BENT	INDICATE ON BACK OF RAIL THE RADIUS THAT RAIL WAS BENT TO. SHOP BEND RADIUS IS TO THE NEAREST FOOT. FOLLOW AASHTO M180 ON HOW TO MARK RADIUS INFORMATION.	
		AASHTO M180, CLASS A, TYPE 2	
		APPROVED PRODUCER	
B1	BLOCK - WOOD	WISDOT SPEC. 614	SEE SDD 14B42
C1	NAIL	ASTM A153 HOT DIP CLASS D	
		ASTM F1667 TYPE 1 STYLE 12 (16 DOUBLE HEAD)	
D1	POST-STRONG POST-WOOD	WISDOT SPEC. 614	SEE SDD 14B42
D2	POST-CRT-WOOD	WISDOT SPEC. 614	
E1	POST BOLT	ASTM A307 GRADE A OR SAE J429 GRADE 2	5/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		AASHTO M180	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	
E2	POST BOLT - WASHER	ASTM F436 TYPE 1 (HARDEN TYPICALLY USED WITH STEEL) OR ASTM F844 (UNHARDENED TYPICALLY WITH WOOD)	5/8" DIA.
		GALV. AASHTO M111 / ASTM A 123 OR GALV. HOT DIP. TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	
E3	POST BOLT - NUT	AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	5/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		ASTM A563 GRADE A HEAVY HEX HEAD	
F1	SPLICE BOLT	GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	5/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		ASTM A307 GRADE A OR SAE J429 GRADE 2	
		UNC	
		AASHTO M180	

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
F2	SPLICE BOLT - NUT	ASTM A563 GRADE A	5/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C/ASTM A153 CLASS C/ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1/ASTM B695 CLASS 50, TYPE 1	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		UNC	
G1	LAG SCREW	ASTM A308 GRADE A ASTM A153 CLASS D	1/2" DIA. 6" LONG
H1	DELINEATOR - BEAM GUARD		SEE SDD 14B42 FOR MORE INFORMATION
H2	DELINEATION - SHEETING	YELLOW OR WHITE	
		WISDOT SPEC 637 TYPE SH	
		APPROVED PRODUCT LIST	
J1	FOUNDATION BACKFILL	STANDARD SPEC. 614	
AA1	BEAM GUARD RAIL - PUNCHED	AASHTO M180, CLASS A, TYPE 2	
		APPROVED PRODUCER	
AA2	BEAM GUARD RAIL - END SECTION BUFFER	AASHTO M180, CLASS A, TYPE 2	
		APPROVED PRODUCER	
BB1	BEAM GUARD RAIL - TERMINAL CONNECTOR MODIFIED	AASHTO M180, CLASS A, TYPE 2	
		APPROVED PRODUCER	
CC1	SHORT RADIUS - SQUARE WASHER	AASHTO M180	
		GALV. AASHTO M111 / ASTM A123	
EE1	NAIL	ASTM A153 HOT DIP CLASS D	
		ASTM F1667 TYPE 1 STYLE 12 (16 DOUBLE HEADED)	
FF1	POST - BCT - WOOD	S4S FINISH ON 4 SIDES	
		WISDOT SPEC. 614	
GG1	POST BOLT	ASTM A307 GRADE A OR SAE J429 GRADE 2	3/8" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		AASHTO M180	
		GALV. HOT DIP TO AASHTO M232 CLASS C/ASTM A153 CLASS C/ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1/ASTM B695 CLASS 50, TYPE 1	
		UNC	
GG2	POST BOLT - WASHER	ASTM F436 TYPE 1 (HARDEN TYPICALLY USED WITH STEEL) OR ASTM F844 (UNHARDENED TYPICALLY WITH WOOD)	3/8" DIA.
		GALV. AASHTO M111 / ASTM A 123 OR GALV. HOT DIP. TO AASHTO M232 CLASS C/ASTM A153 CLASS C / ASTM F2329	

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

6

SDD 14B53 - 01g

BILL OF MATERIALS - SHORT RADIUS BEAM GUARD (MGS)

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
GG3	POST BOLT - NUT	ASTM A563 GRADE A	¾" DIA. SEE 14B42 FOR GEOMETRY
		AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		ASTM A563 GRADE A HEAVY HEX HEAD	
HH1	SPLICE BOLT	GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	⅜" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		ASTM A307 GRADE A OR SAE J429 GRADE 2	
		UNC	
		AASHTO M180 HEAD GEOMETRY	
HH2	SPLICE BOLT - NUT	ASTM A563 GRADE A	⅜" DIA. SEE SDD 14B42 FOR BOLT GEOMETRY
		AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		UNC	
JJ1	PIPE - STEEL	ASTM A53 GALVANIZED GRADE B SCHEDULE 40	10" O.D.
JJ2	TOP PLATE	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	DIMENSIONS ⅜" X 4" X 1' - 0"
		GALV. AASHTO M111 / ASTM A123	
KK1	ANCHOR BRACKET	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	
		GALV. AASHTO M111 / ASTM A123	
KK2	ANCHOR BRACKET - BEARING PLATE	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	
		GALV. AASHTO M111 / ASTM A123	
LL1	ANCHOR BRACKET - BOLT	ASTM A307 GRADE B HEAVY HEX HEAD OR SAE J429 GRADE 2 HEAVY HEX HEAD	⅝" DIA.
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
LL2	ANCHOR BRACKET - WASHER	ASTM F436 TYPE 1 (HARDEN WASHER ONLY)	⅝" DIA.
		GALV. AASHTO M111 / ASTM A123 OR GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	
LL3	ANCHOR BRACKET - NUT	ASTM A563 GRADE A	⅝" DIA.
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		UNC	
MM1a	ANCHOR CABLE	AASHTO M30 / ASTM A741 INDEPENDENT WIRE CORE (IWRC) OR WIRE STRAND CORE (WCS), IMPROVED PLOW STEEL (IPS), 6X19, TYPE II OR IIc CLASS C ZINC COATED	
MM1b	ANCHOR CABLE	AASHTO M30 / ASTM A741 INDEPENDENT WIRE CORE (IWRC) OR WIRE STRAND CORE (WCS), IMPROVED PLOW STEEL (IPS), 6X19, TYPE II OR IIc CLASS C ZINC COATED	
MM2	ANCHOR CABLE - SWAGE FITTING	ASTM A576 GRADE 1035	
		SWAGE FITTINGS ARE TO BE FACTORY SWEDGED. WITH A BREAKING STRENGTH 40,000 LBS.	
		GALV. AASHTO M111 / ASTM A123	
		ASME B30.26 FORGED, CAST, OR DIE STAMPED WITH THE FOLLOWING INTO CONNECTION: NAME OF MANUFACTURER OR TRADEMARK OF CONNECTION'S MANUFACTURER, SIZE OR RATED LOAD, GRADE.	
MM3	WIRE ROPE CABLE CLAMPS	FF-C-450D TYPE 1 CLASS 1	¾"
		ASTM A153 HOT DIP CLASS D	
MM4	ANCHOR CABLE - SWAGE FITTING - STUD	ASTM F3125 GRADE A325 TYPE 1 OR SAE GRADE 5 OR ASTM A449 TYPE 1 HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	
NN1	ANCHOR CABLE - NUT	ASTM A563 GRADE A	1" DIA.
		AASHTO M180 DOUBLE RECESSED HEAVY HEX HEAD	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		OVER TAPPED NUTS OVER-SIZE AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		UNC	
NN2	ANCHOR CABLE - NUT - WASHER	ASTM F436 TYPE 1 (HARDEN WASHER ONLY)	1" DIA.
		GALV. AASHTO M111 / ASTM A123 OR GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	

BILL OF MATERIALS - SHORT RADIUS BEAM GUARD (MGS)

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
PP1	BEARING PLATE AT POST	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	
		GALV. AASHTO M111 / ASTM A123	
PP2	PIPE - STEEL	ASTM A53 GALVANIZED GRADE B SCHEDULE 40	2" DIA. x 6" LONG
QQ1	FOUNDATION TUBE	ASTM A500 GRADE B	8" X 6" X 3/16"
		GALV. AASHTO M111 / ASTM A123	
QQ2	SHORT RADIUS - FOUNDATION TUBE - ANCHOR CABLE - TUBE	ASTM A500 GRADE B	DIMENSIONS 2 1/2" X 2 1/4" X 1/4" X 8"
		GALV. AASHTO M111 / ASTM A123	
QQ3	SHORT RADIUS - SOIL TUBE - ANCHOR CABLE - TUBE - END PLATE	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	DIMENSIONS 2 1/2" X 2 1/2" X 1/4"
		GALV. AASHTO M111 / ASTM A123	
QQ4	GROUND STRUT AND YOKE - BOLT	GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	5/8 DIA.
		ASTM A307 GRADE B HEAVY HEX HEAD OR SAE J429 GRADE 2 HEAVY HEX HEAD	
		UNC	
QQ5	GROUND PLATE AND YOKE - WASHER	ASTM F436 TYPE 1 (HARDEN WASHER ONLY)	5/8 DIA.
		GALV. AASHTO M111 / ASTM A123 OR GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	
QQ6	GROUND STRUT AND YOKE - NUT	HEAVY HEX	5/8 DIA.
		UNC	
		ASTM A563 GRADE A	
		OVER TAPPED NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563	
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
SS1	SOIL PLATE	ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX STRENGTH 50 KSI OR ASTM A709 MAX STRENGTH 50 KSI OR ASTM A992 MAX STRENGTH 50 KSI	
		GALV. AASHTO M111 / A123	
TT1	SOIL PLATE - BOLT	ASTM A307 GRADE B HEAVY HEX HEAD OR SAE J429 GRADE 2 HEAVY HEX HEAD	5/8 DIA.
		GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	
		UNC	
TT2	SOIL PLATE - WASHER	ASTM F436 TYPE 1 (HARDEN WASHER ONLY)	5/8 DIA.
		GALV. AASHTO M111 / ASTM A123 OR GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329	
TT3	SOIL PLATE - NUT	GALV. HOT DIP TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 50, TYPE 1	5/8 DIA.
UU1	OBJECT MARKER - SHEETING	MUTCD / WISDOT OBJECT MARKER TYPE 3	PATTERN AND COLOR FOR SHEETING. SHEETING TYPE FOR MARKER.
		WISDOT SPEC 637 TYPE F	
		APPROVED PRODUCT LIST	
UU2	OBJECT MARKER - ALUMINUM PLATE	WISDOT SPEC 637 ALUMINUM PLATE	MATERIAL AND THICKNESS OF MATERIALS
UU3	OBJECT MARKER - SCREWS	STAINLESS SELF-TAPPING SCREWS	
VV1	FOUNDATION BACKFILL	WISDOT SPEC 614	

SHORT RADIUS BEAM GUARD (MGS) SHORT RADIUS TERMINAL (MGS)

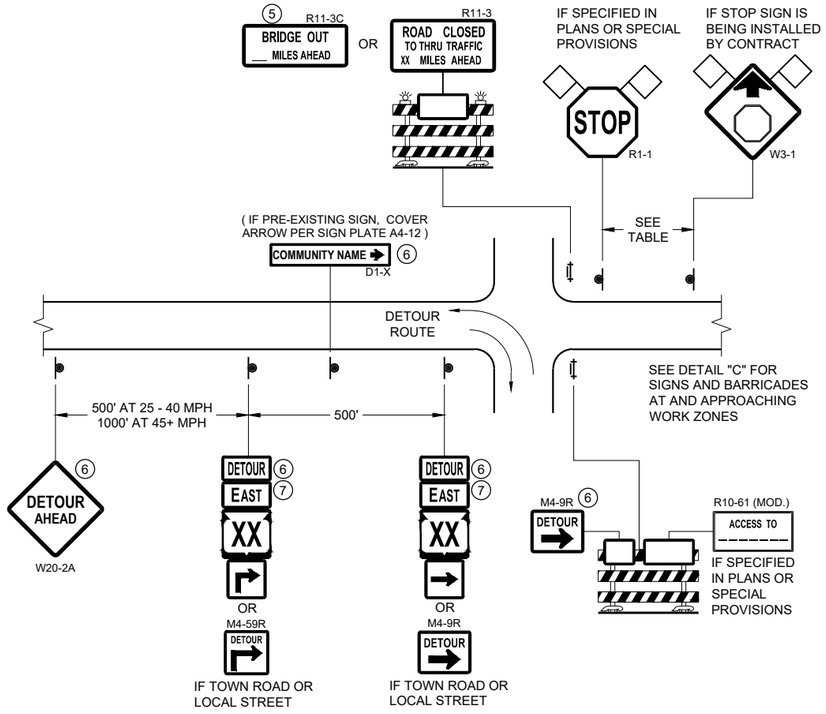
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER

FHWA

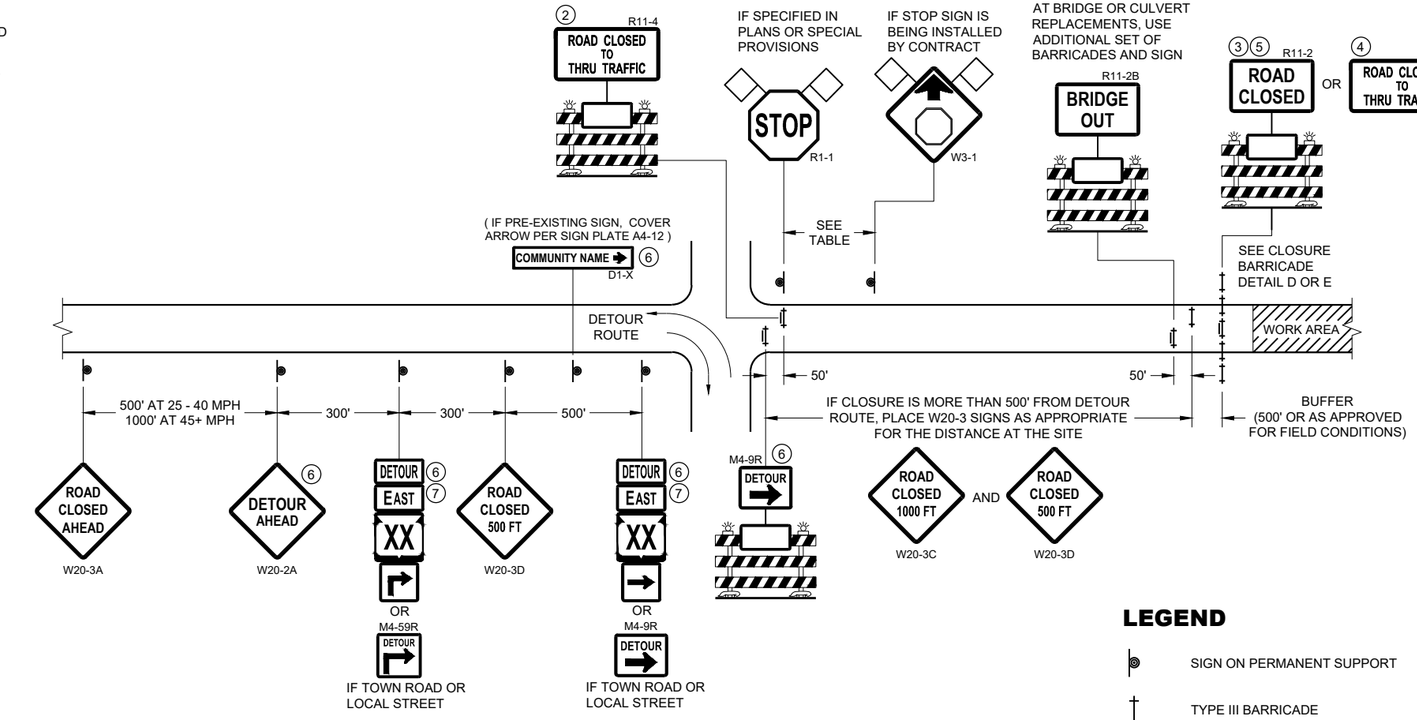
6

SDD 14B53 - 01i



DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN OR EQUAL TO ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



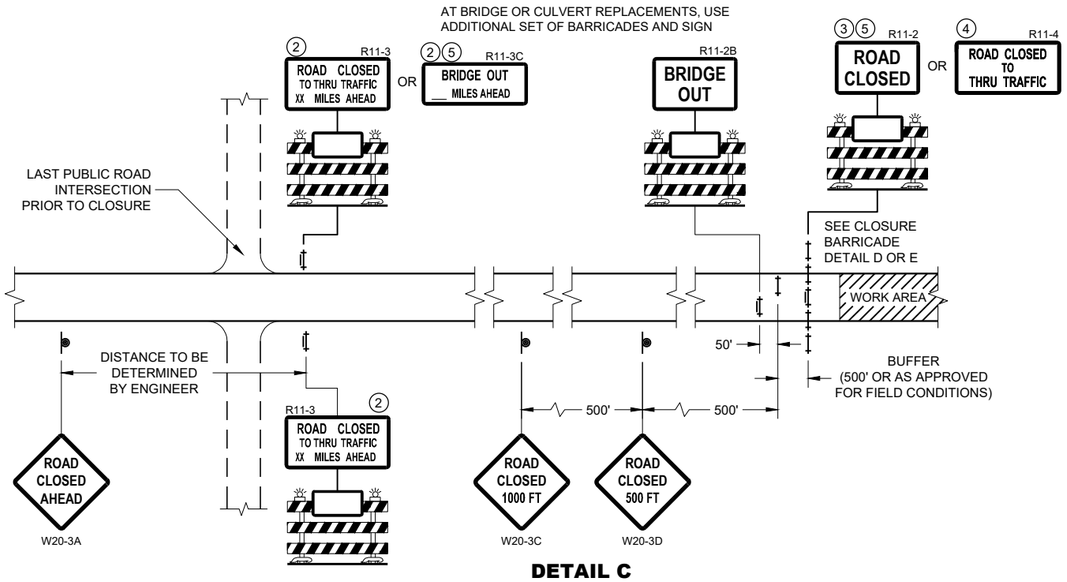
DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- FLAGS, 16" X 16" MIN. (ORANGE)

DETOUR M4 - 8
EAST M3 - X
XX M1 - 4 OR XX M1 - 6 OR COUNTY X M1 - 5A
M05 - 1 OR M06 - 1



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

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

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

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

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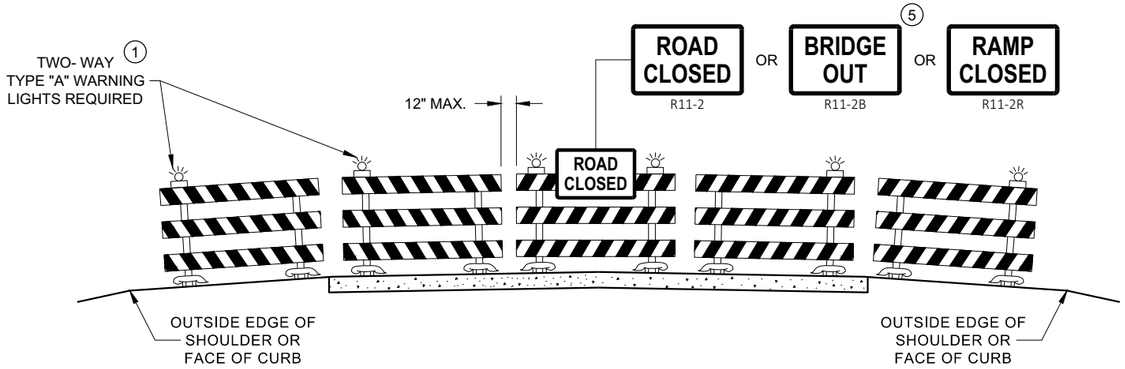
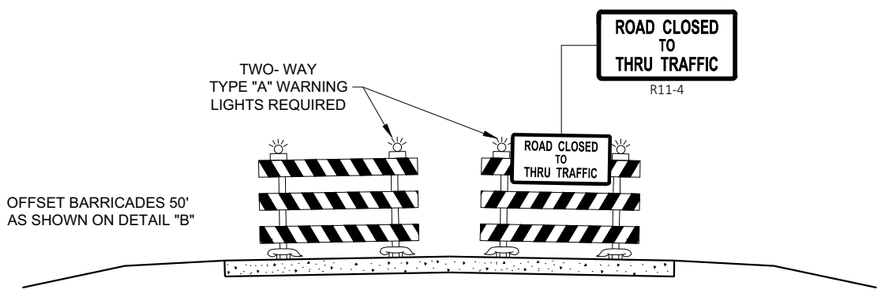
SDD 15C02 - 08a

SDD 15C02 - 08a



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

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

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
- R11 - 2 SHALL BE 48" X 30"
- R11 - 3 SHALL, R11 - 4 AND R10 - 61 SHALL BE 60 " X 30"
- M4 - 9 SHALL BE 30" X 24"
- M3 - X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4 - 8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1 - 4, M1 - 5A AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- MO5 - 1 AND MO6 - 1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- D1 - X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1 - 1 SHALL BE 36" X 36"

(1) TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING.

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT AN INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "D".

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "E".

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11 - 2 AND R11 - 3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR VARIOUS CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE
FHWA

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SDD 15C02 - 08b

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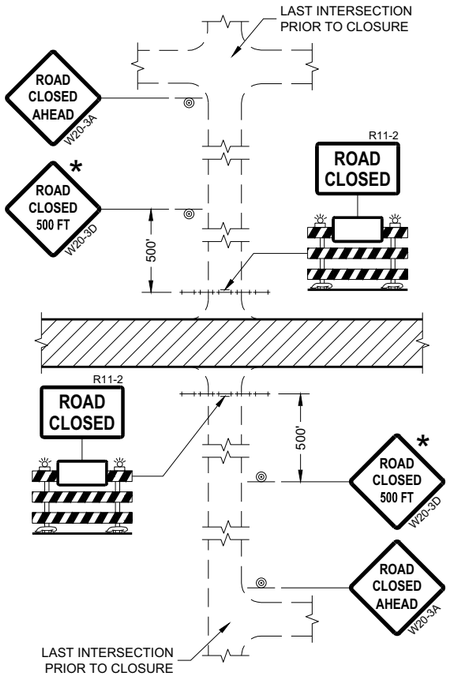
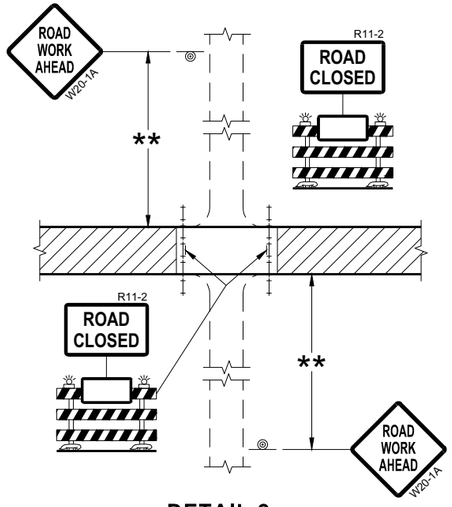
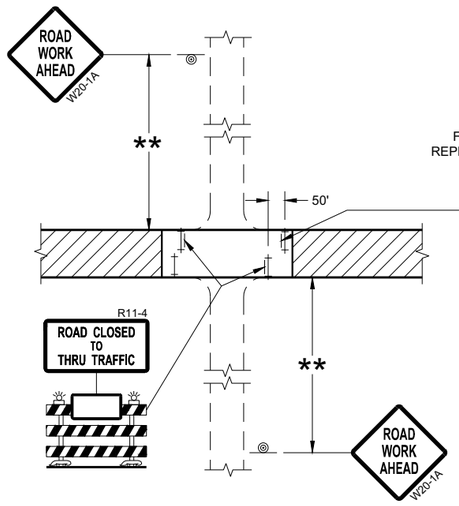
SDD 15C02 - 08b



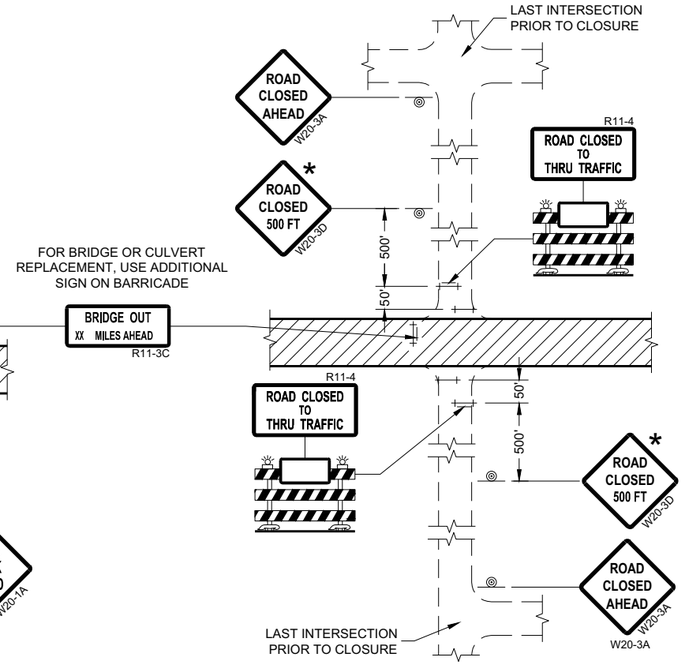
DETAIL 1
(NO ACCESS TO PROJECT)



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



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



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 (500 FEET DESIRABLE) 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 REESTABLISHED.

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

SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN 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 FEET OR LESS FROM THE WORK ZONE.

** 500' MAX. OR AT LAST INTERSECTION, WHICHEVER IS CLOSEST.

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6
SDD 15C03 - 05

GENERAL NOTES

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

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

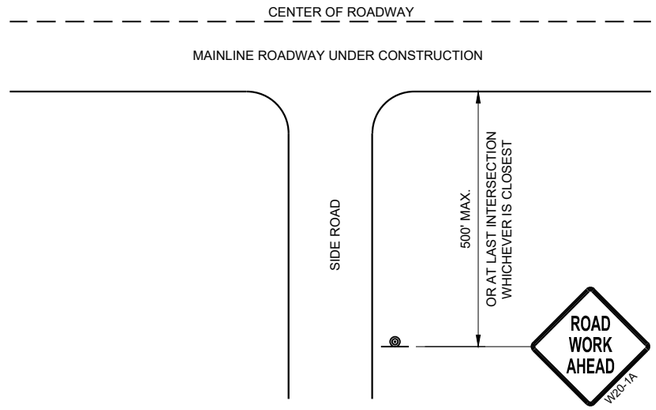
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS REESTABLISHED.

* OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS

** PLACE AN ADDITIONAL W20-1A "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.



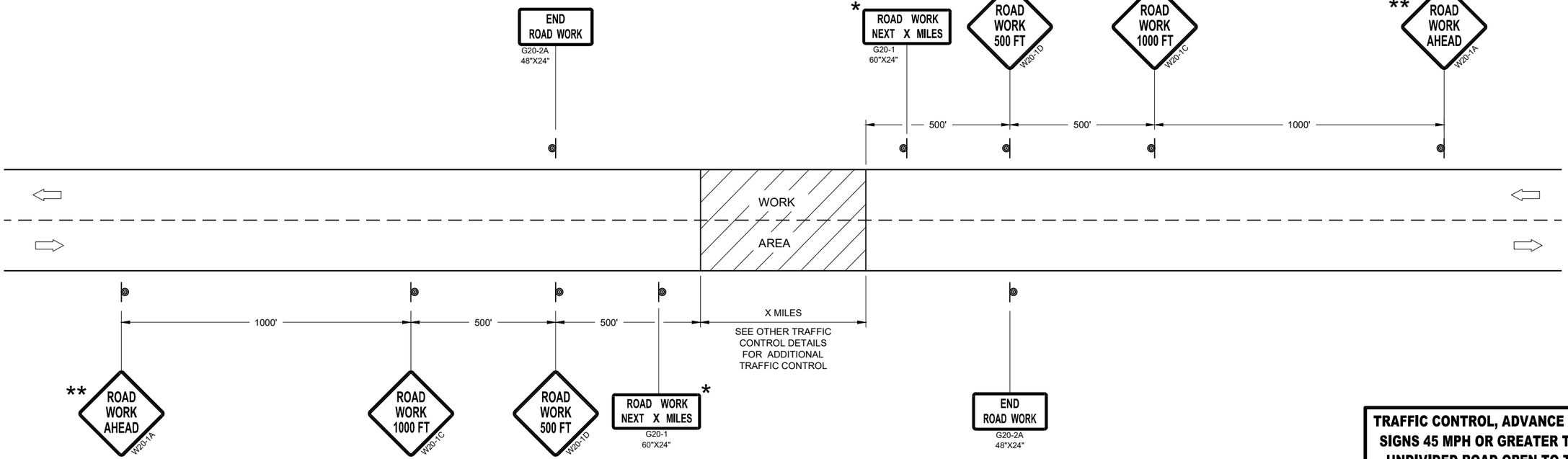
TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL

LEGEND

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA



TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45MPH OR GREATER

TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 MPH OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

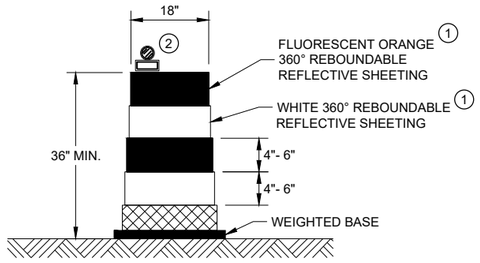
FHWA

6

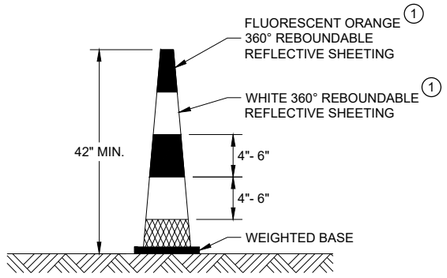
SDD 15C04 - 05

GENERAL NOTES

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

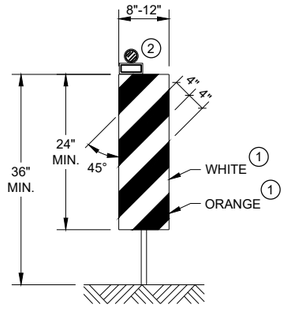


DRUM



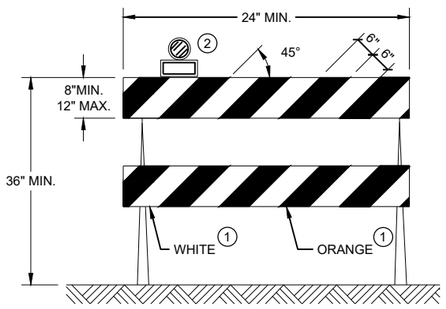
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS



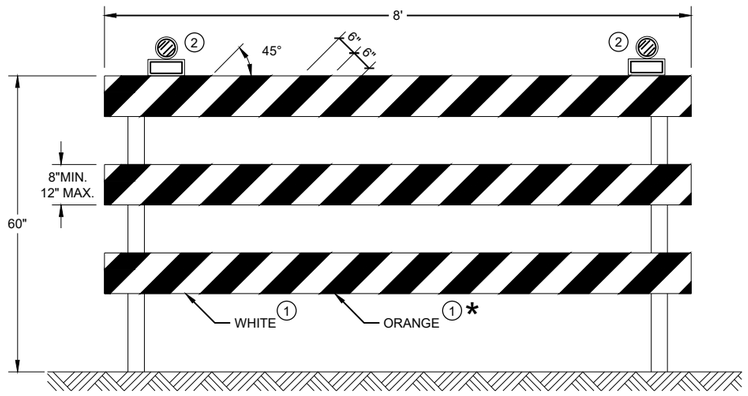
VERTICAL PANEL

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



TYPE II BARRICADE

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



TYPE III BARRICADE

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

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2021
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

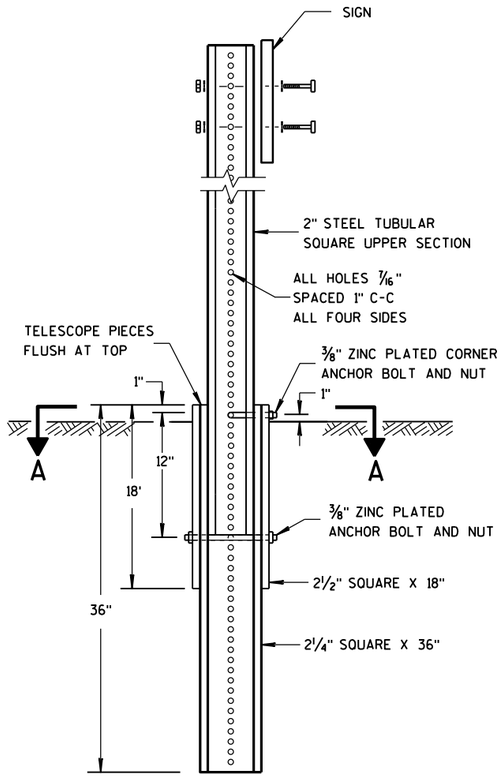
FHWA

6

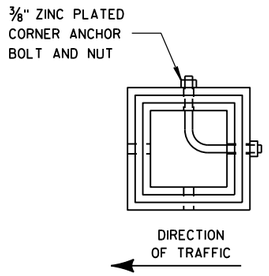
SDD 15C11 - 09b

6

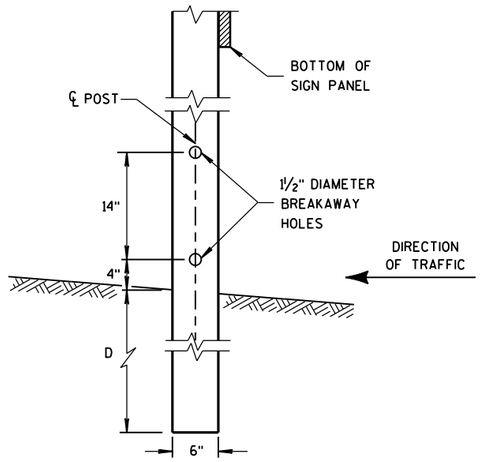
SDD 15C11 - 09b



DETAIL OF TUBULAR STEEL SIGN POST



SECTION A-A



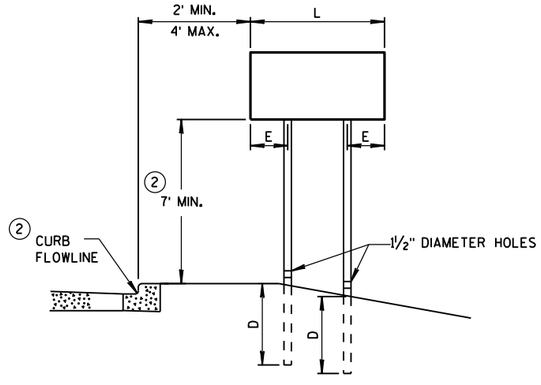
4"x6" WOOD POST MODIFICATION

GENERAL NOTES

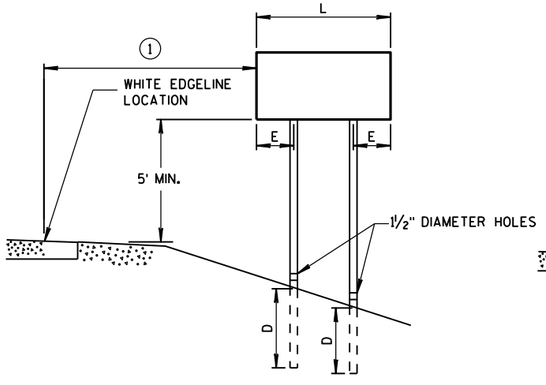
(1) 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.

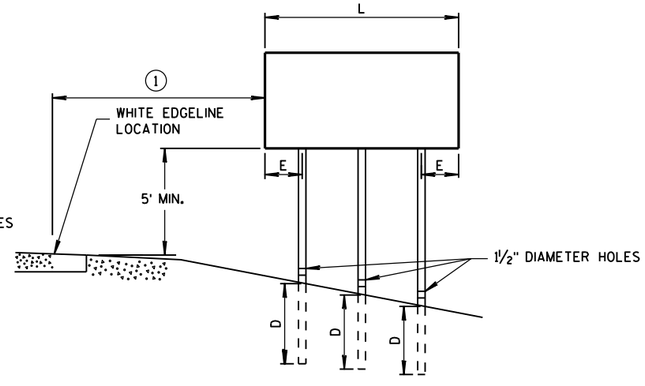
(2) THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK 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

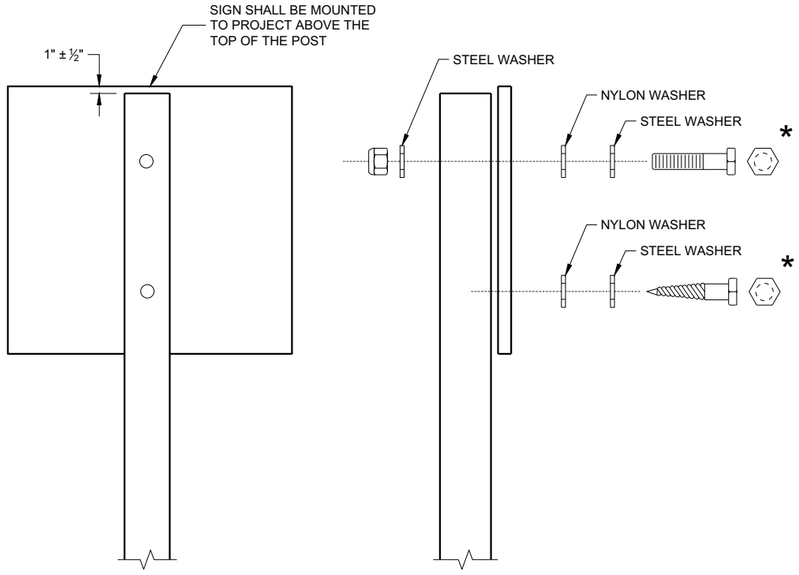
SEE NOTE (3)

TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 15 D 38-2a
S.D.D. 15 D 38-2a



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

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

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

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

SQUARE STEEL POST (2" x 2")
MACHINE BOLTS - ⅜" x 3 ¼" LENGTH W/NUTS
RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM
BODY/MANDREL O.D. FLANGE 0.720 - 0.765 INCH,
GRIP RANGE 0.042 - 0.375 INCH

WASHERS (ALL POSTS) -
1 ¼" O.D. x ⅜" I.D. x 1/16" STEEL
1 ¼" O.D. x ⅜" I.D. x 0.080 NYLON

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

6

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SDD 15D38 - 02b

SDD 15D38 - 02b

ATTACHMENT OF SIGNS TO POSTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

GENERAL NOTES

DRAWING NOT TO SCALE. ALL SIGNS AND POSTS ON THIS SHEET SHALL BE PAID FOR WITH 'TRAFFIC CONTROL SIGNS' BID ITEM. ALL SIDE ROADS WHICH ARE UNDER CONSTRUCTION OF CURB AND GUTTER AND/OR GRADING SHALL BE ADEQUATELY SIGNED.

ALL SIGNS AND DEVICES SHALL BE IN CONFORMANCE WITH THE WISCONSIN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (WMUTCD). SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISDOT STANDARD SIGN PLATES.

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

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

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

ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE, INCLUDING PRE-EXISTING SIGNS IN THE VICINITY, SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER.

SEE 15C34 FOR ADDITIONAL TRAFFIC CONTROL SIGNING WHEN CENTERLINE PAVEMENT MAKINGS ARE MISSING. 'DO NOT PASS' SIGNS MUST BE INSTALLED ON THE SAME DAY AS MILLING OPERATIONS.

(1) PLACE SIGNS 350' IN ADVANCE OF CHIP SEALED OR LOOSE GRAVEL SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.

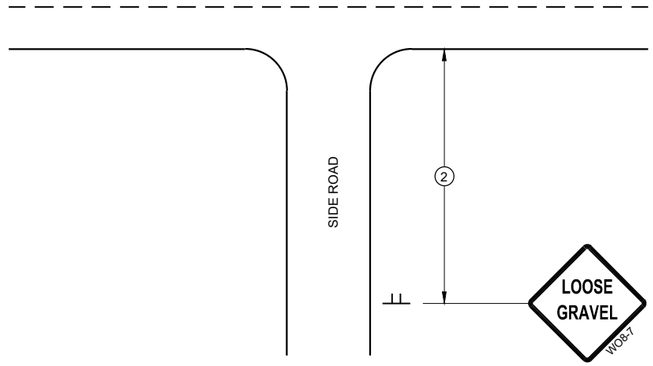
(2) PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.

(3) ADD WO8-1 OR WO8-2 SIGN WHEN THE CONDITION IS PRESENT.

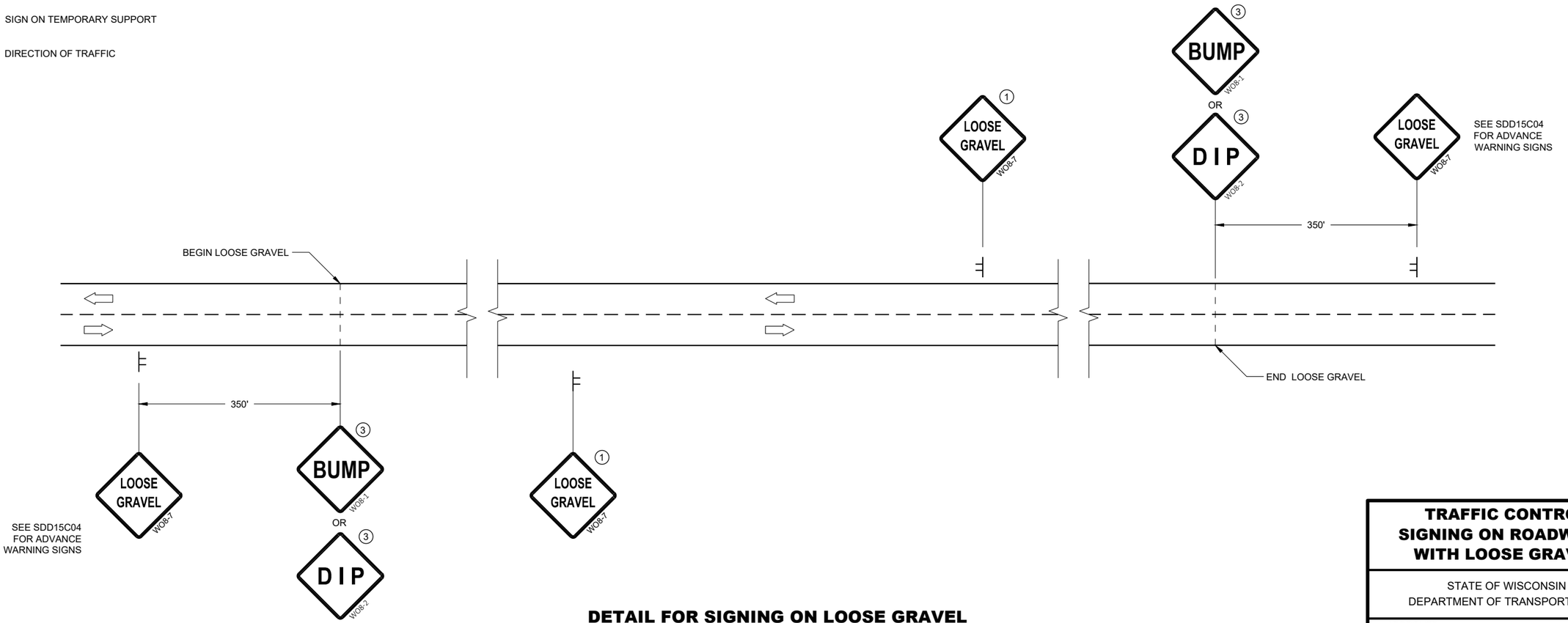
LEGEND

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH SIGN DETAIL



DETAIL FOR SIGNING ON LOOSE GRAVEL OR CHIP SEALED SURFACES

TRAFFIC CONTROL SIGNING ON ROADWAYS WITH LOOSE GRAVEL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2021
DATE

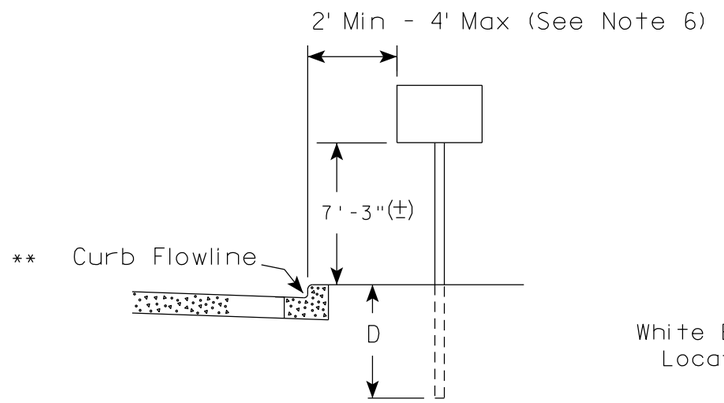
/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

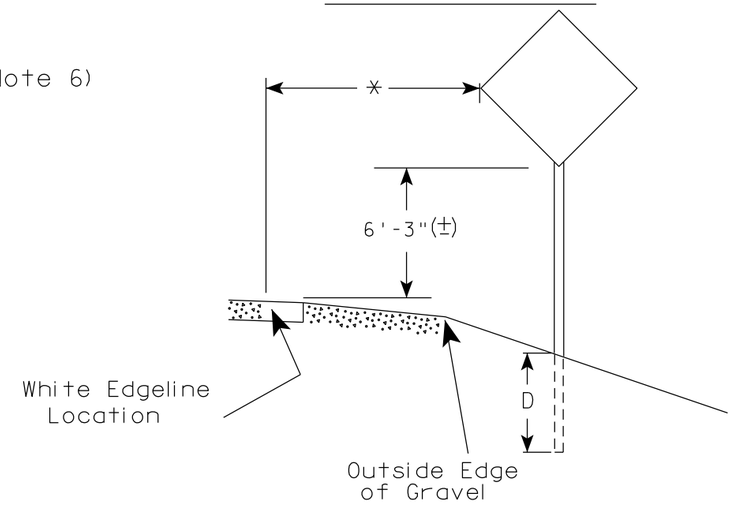
6

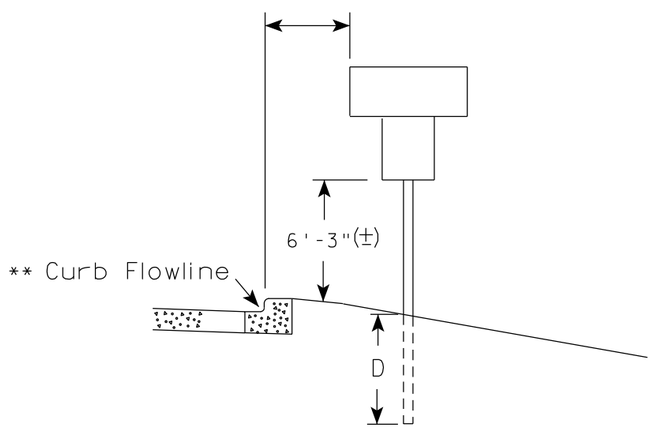
SDD 15D45 - 03

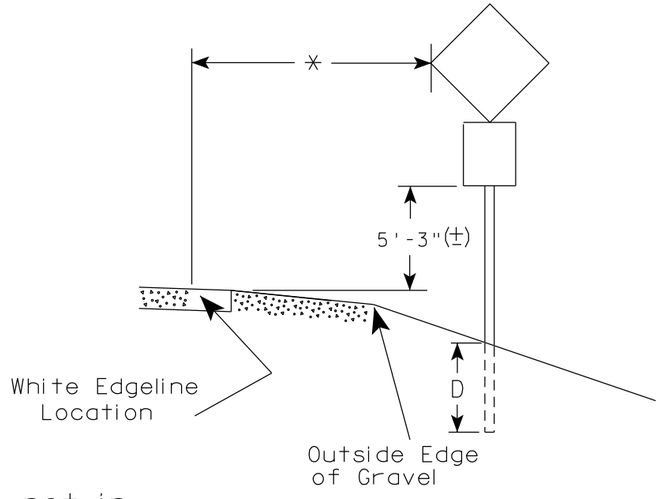
URBAN AREA



RURAL AREA (See Note 2)







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

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

POST EMBEDMENT DEPTH

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

GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on or behind barrier wall, see A4-10 sign plate.
   The Double Arrow sign (W12-1D) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
5. Offset distance shall be consistent with existing signs or consistent throughout length of project.
6. The (±) tolerance for mounting height is 3 inches.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.

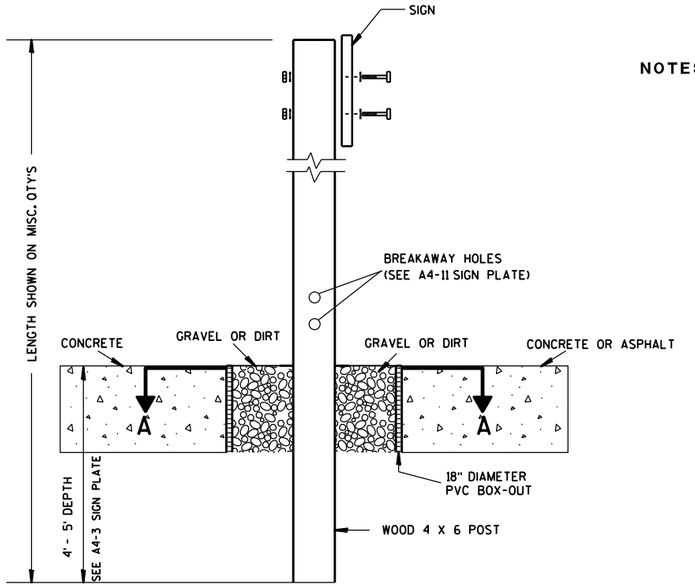
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

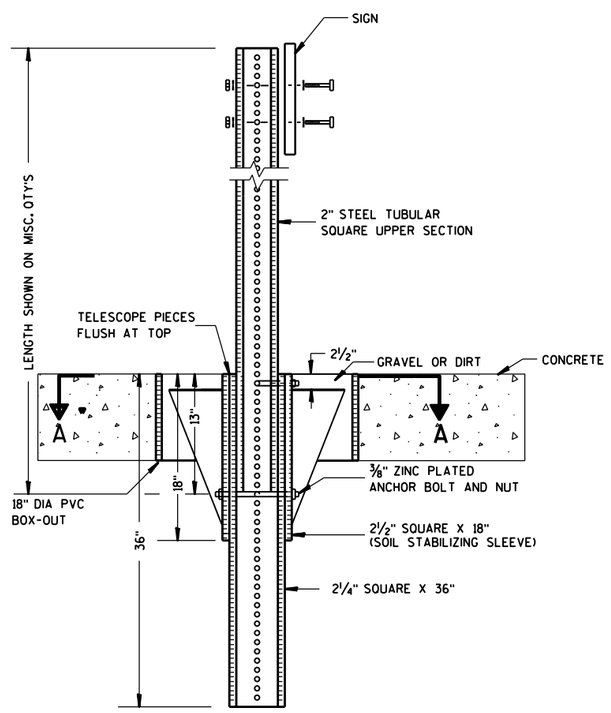
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 55	E



ELEVATION VIEW

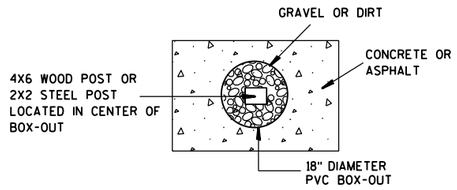
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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



ELEVATION VIEW

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



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

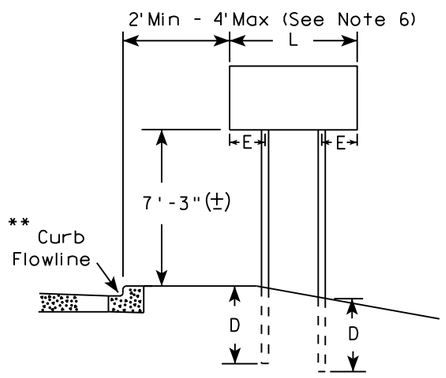
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/27/14 PLATE NO. A4-3B.1

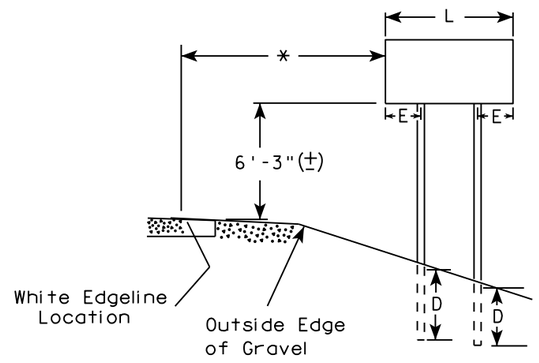
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

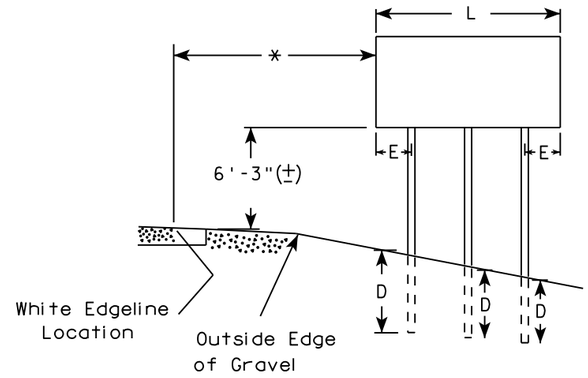
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

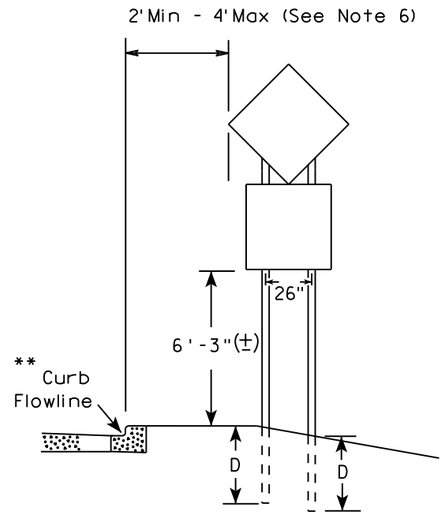
URBAN AREA



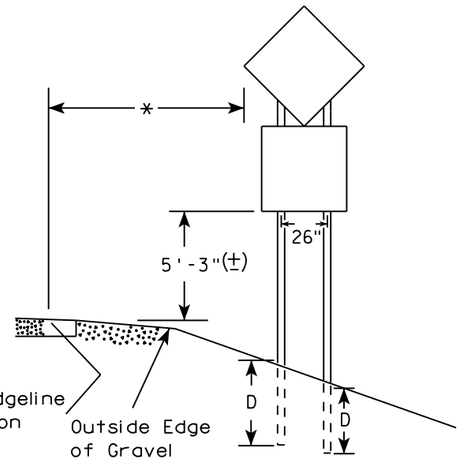
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)	
L	E
Greater than 48" Less than 60"	12"
60" to 108"	L/5

***

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. J-Assemblies are considered to be one sign for mounting height.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4"-3" (±).

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

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

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

POST EMBEDMENT DEPTH

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

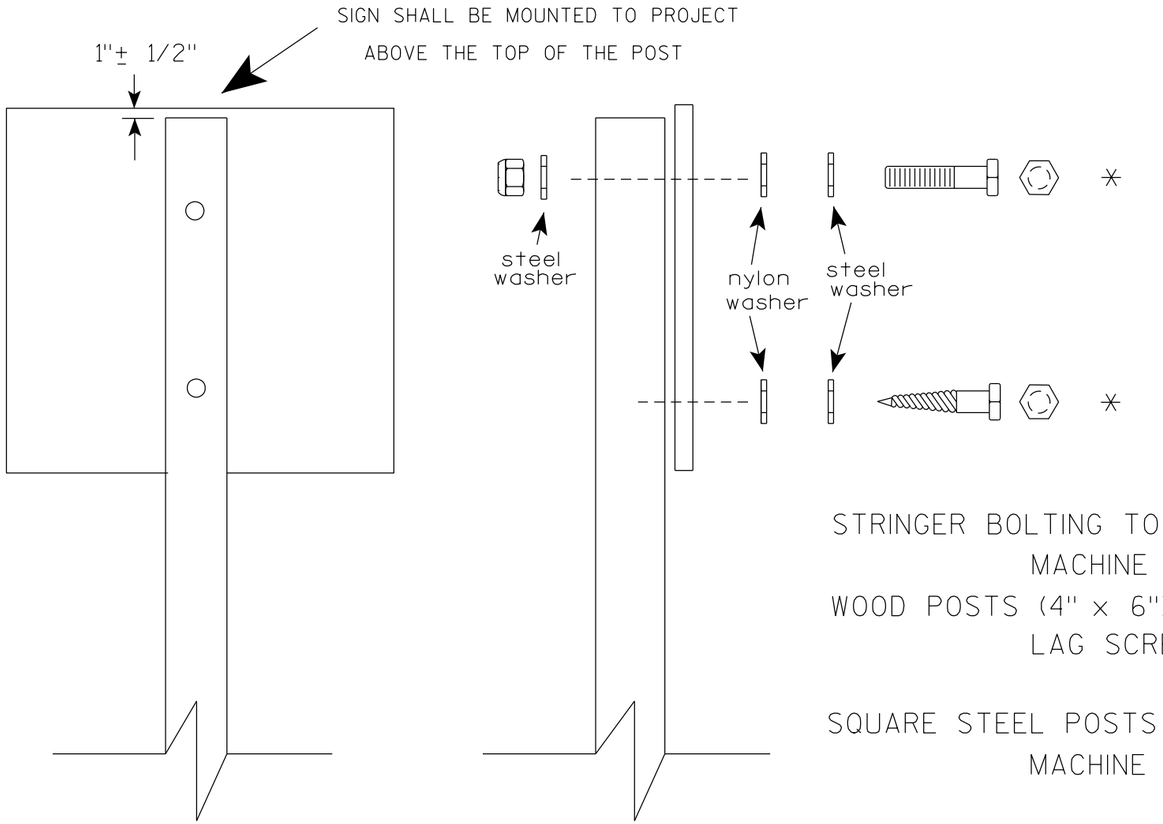
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-4.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 57	E



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

a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3

b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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

STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)

MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts

WOOD POSTS (4" x 6")

LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
3/8" X 4" (STRINGERS ON BACK OF SIGN)

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)

RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

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

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

ATTACHMENT OF SIGNS TO POSTS

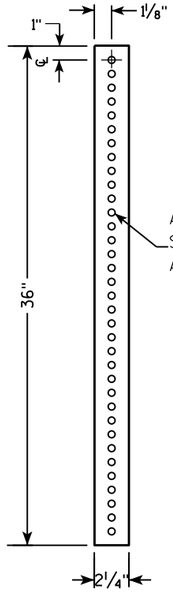
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

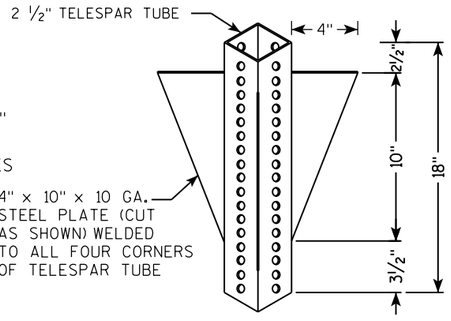
DATE 4/1/2020 PLATE NO. A4-8.9

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

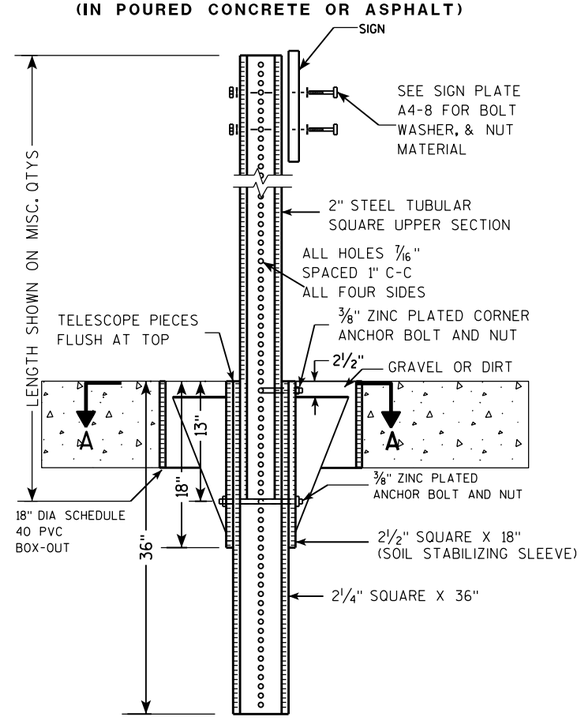
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



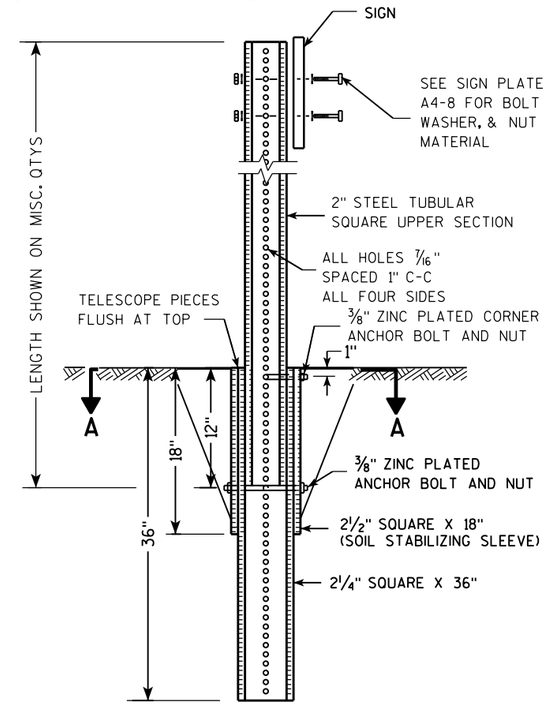
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

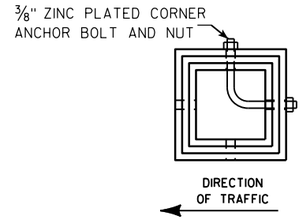


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



DETAIL OF TUBULAR STEEL SIGN POST
(IN LOCATIONS OTHER THAN POURED CONCRETE OR ASPHALT)





SECTION A-A

Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

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

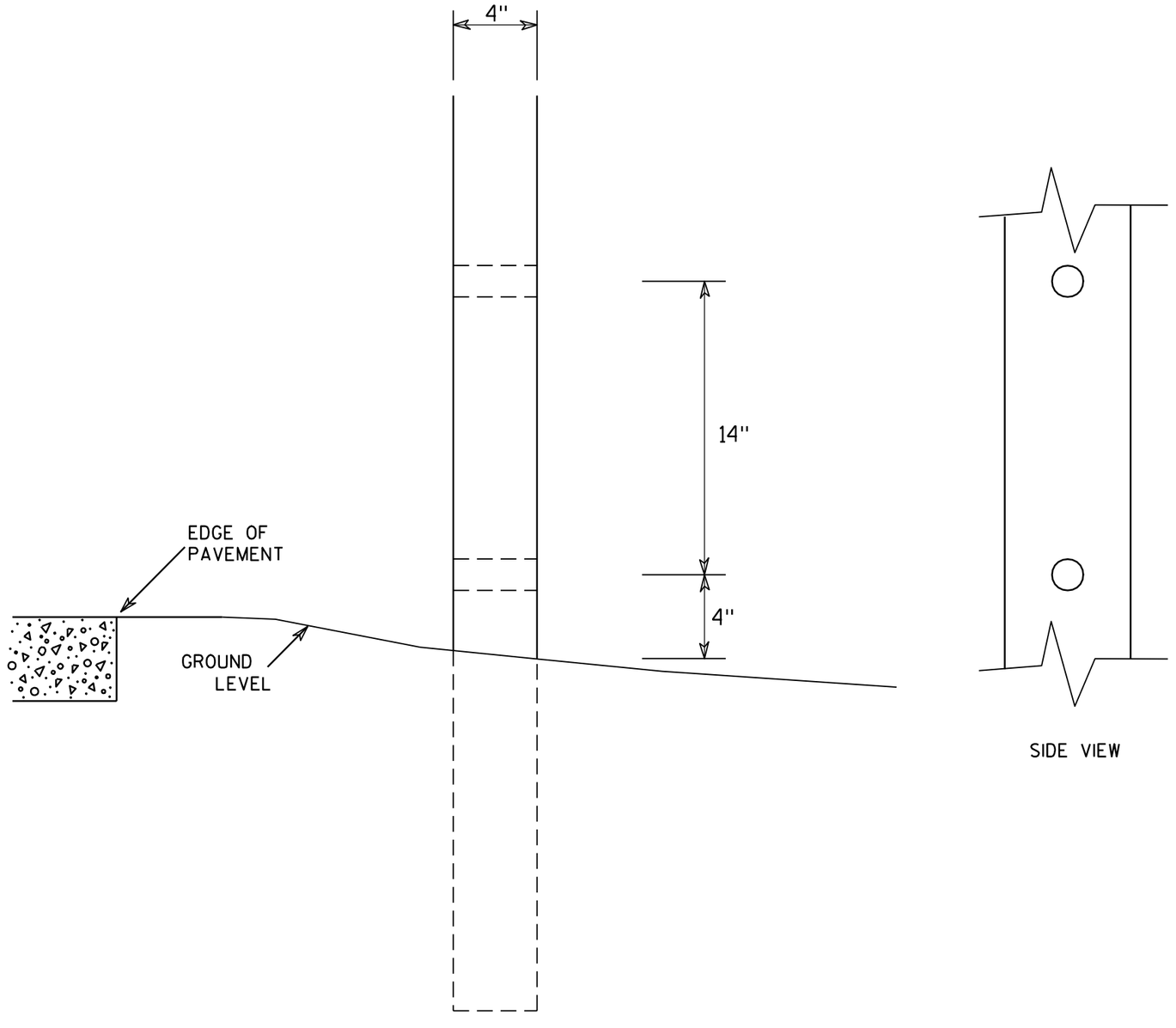
TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 59 A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1½" diameter holes drilled perpendicular to the roadway centerline.

7

7

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

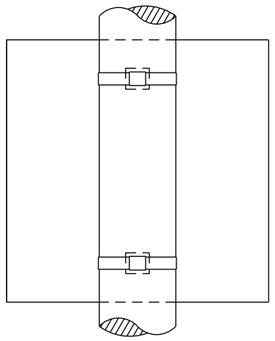
APPROVED Chester J Spang
for State Traffic Engineer

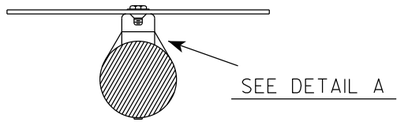
DATE 3/27/97 PLATE NO. A4-11.2

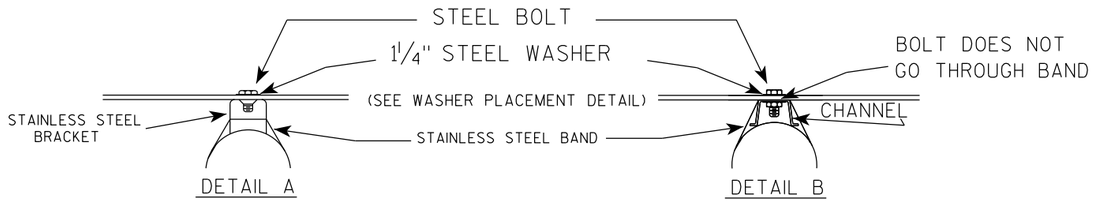
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 60	E

BANDING

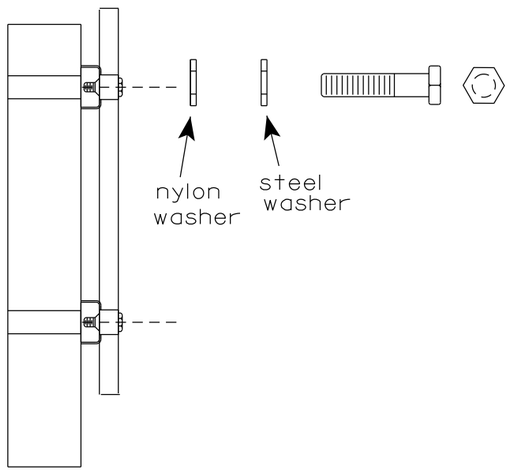
SINGLE SIGN







WASHER PLACEMENT

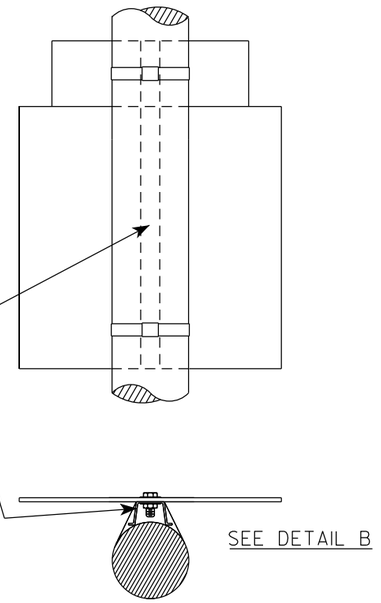


WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be ¾" in width and 0.025" thickness.
4. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

"J" ASSEMBLY



STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

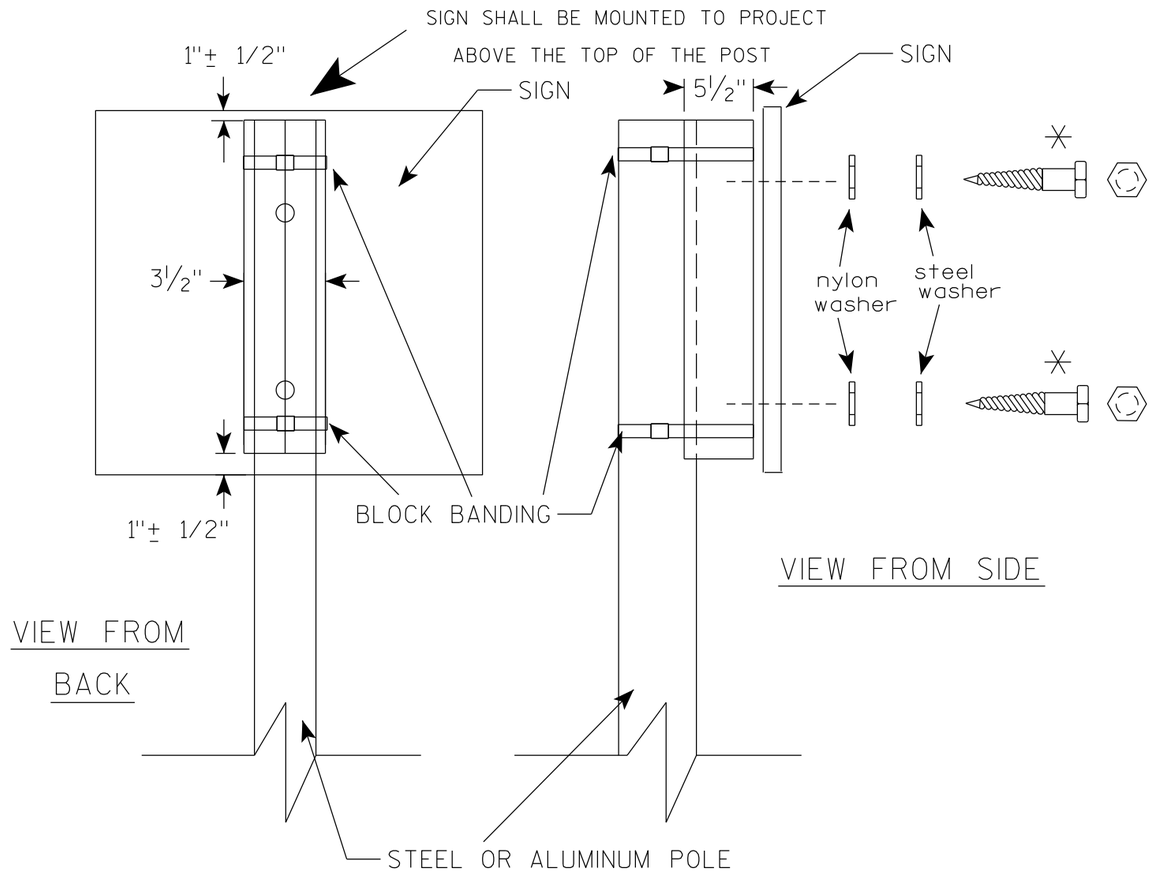
DATE 6/10/19 PLATE NO. A5-9.4

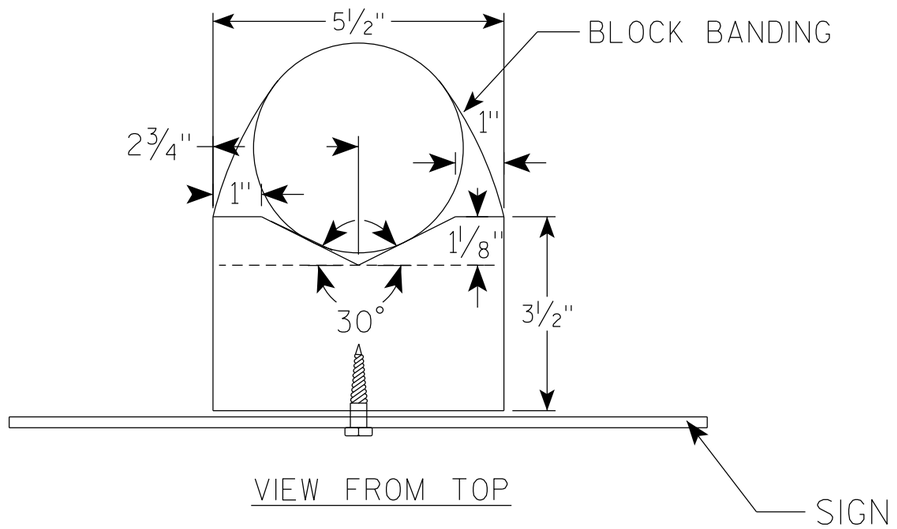
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 61	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A59.dgn PLOT DATE : 10-JUN 2019 4:10 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

7

7





GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, ¾" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORNALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

BLOCK BANDING DETAIL (V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

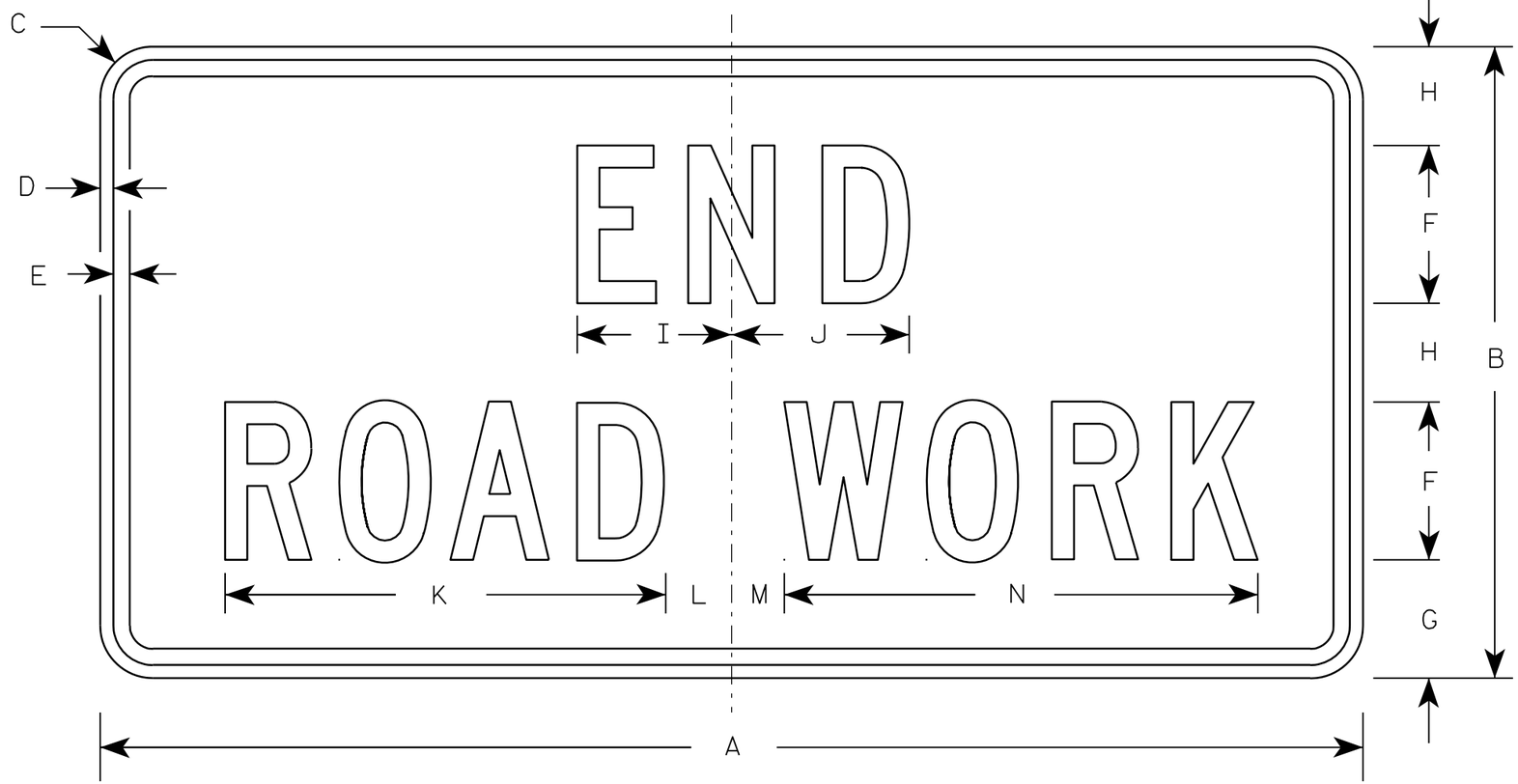
APPROVED Matthew R Rauch
For State Traffic Engineer

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

PROJECT NO: | SHEET NO: 62 | E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A510.dgn PLOT DATE : 10-JUN 2019 4:15 PLOT BY : mscj9h

WISDOT/CADDS SHEET 42



G20-2A

NOTES

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

Metric equivalent for this sign is:

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1	36	18	1 1/8	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5	0.41
2	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
3	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
4	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
5	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72

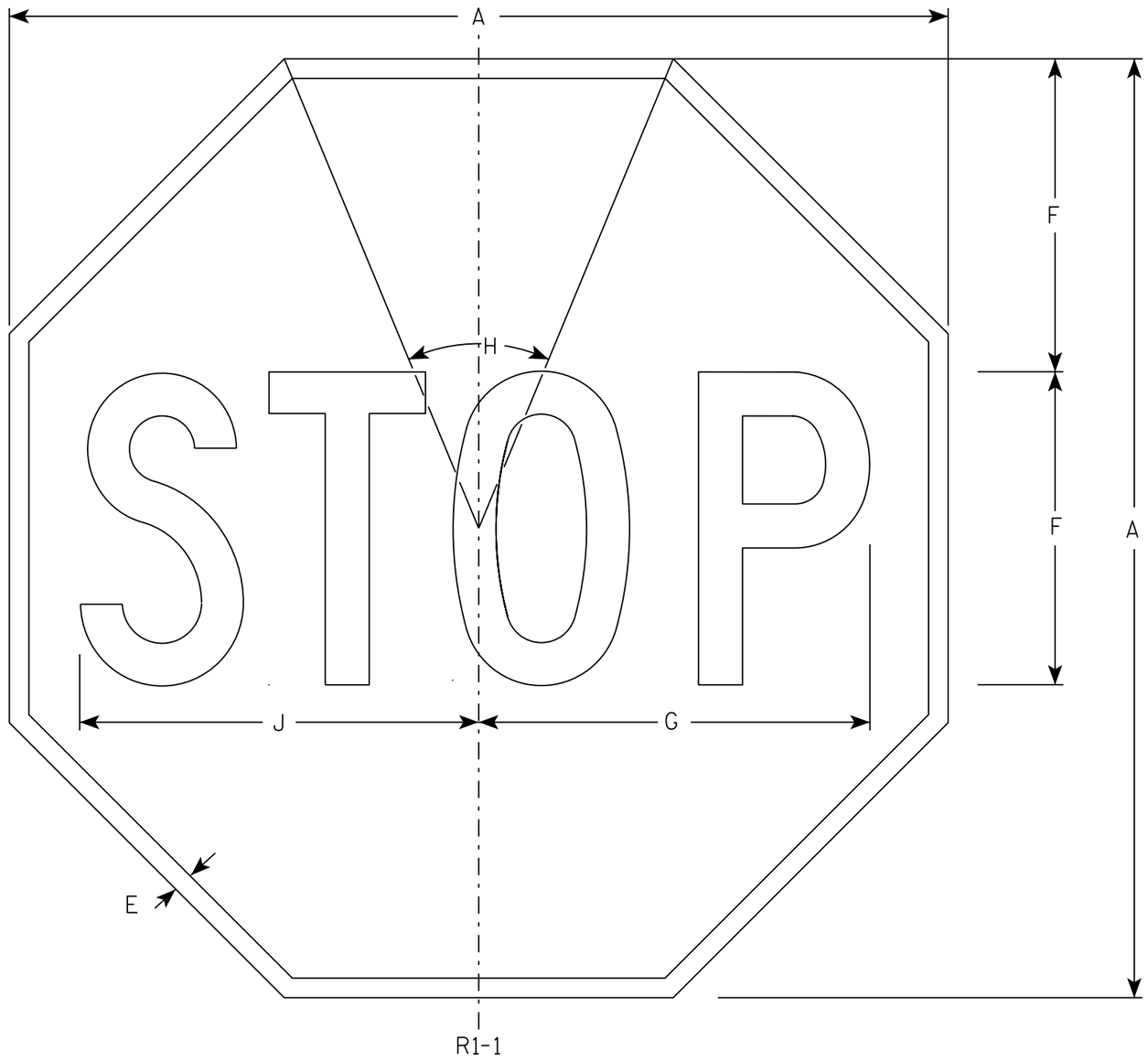
STANDARD SIGN
G20-2A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/30/09 PLATE NO. G20-2A.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 63	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

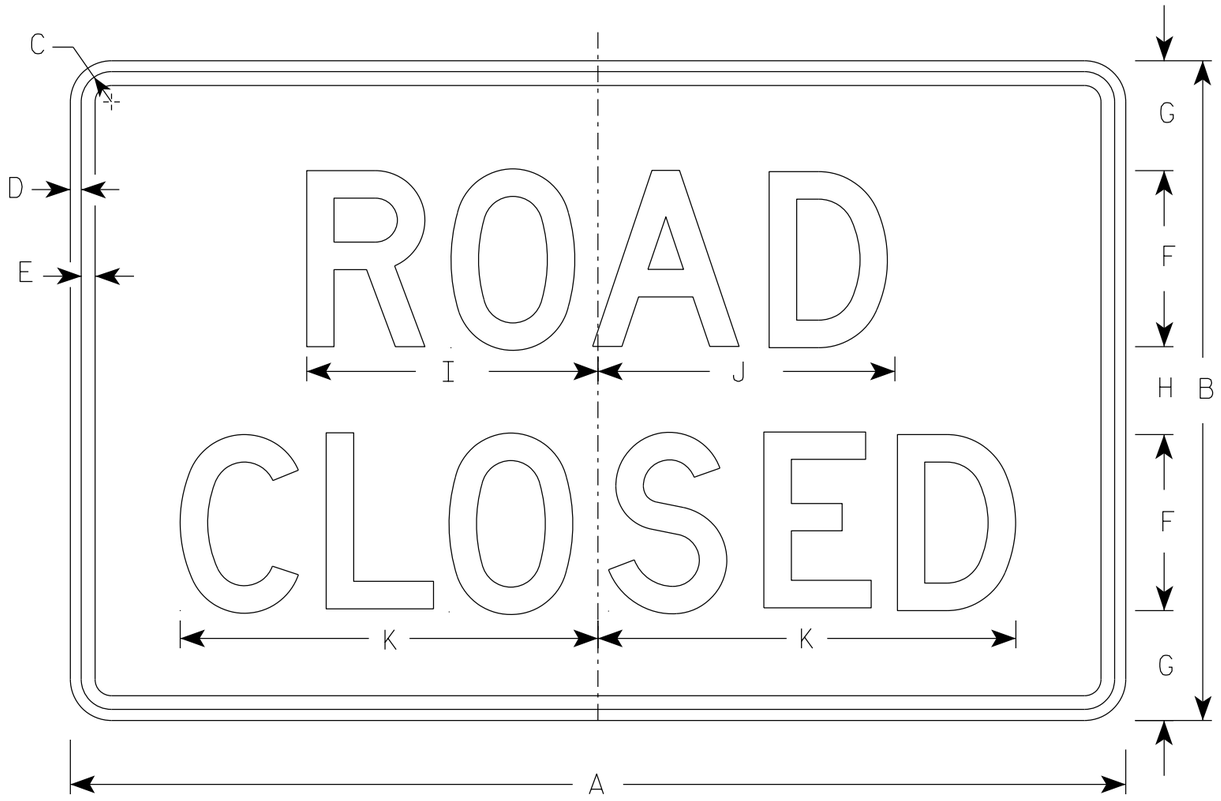
STANDARD SIGN
R1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/12/15 PLATE NO. R1-1.13

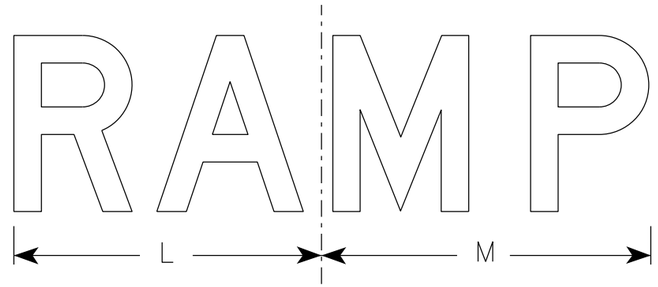
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 64	E



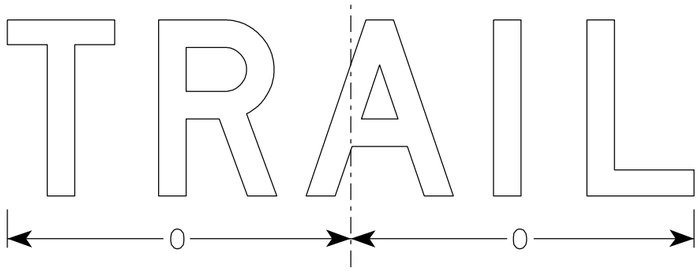
R11-2

NOTES

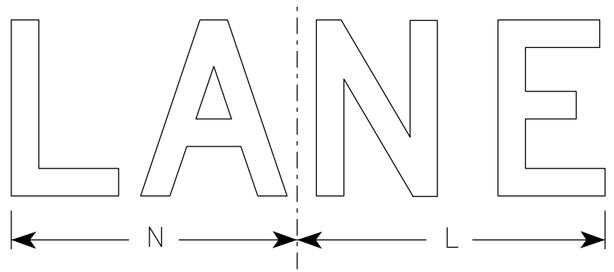
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Modify the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



R11-2R



R11-2T



R11-2L

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
2M	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
3	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
4	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
5	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0

STANDARD SIGN
R11-2

WISCONSIN DEPT OF TRANSPORTATION

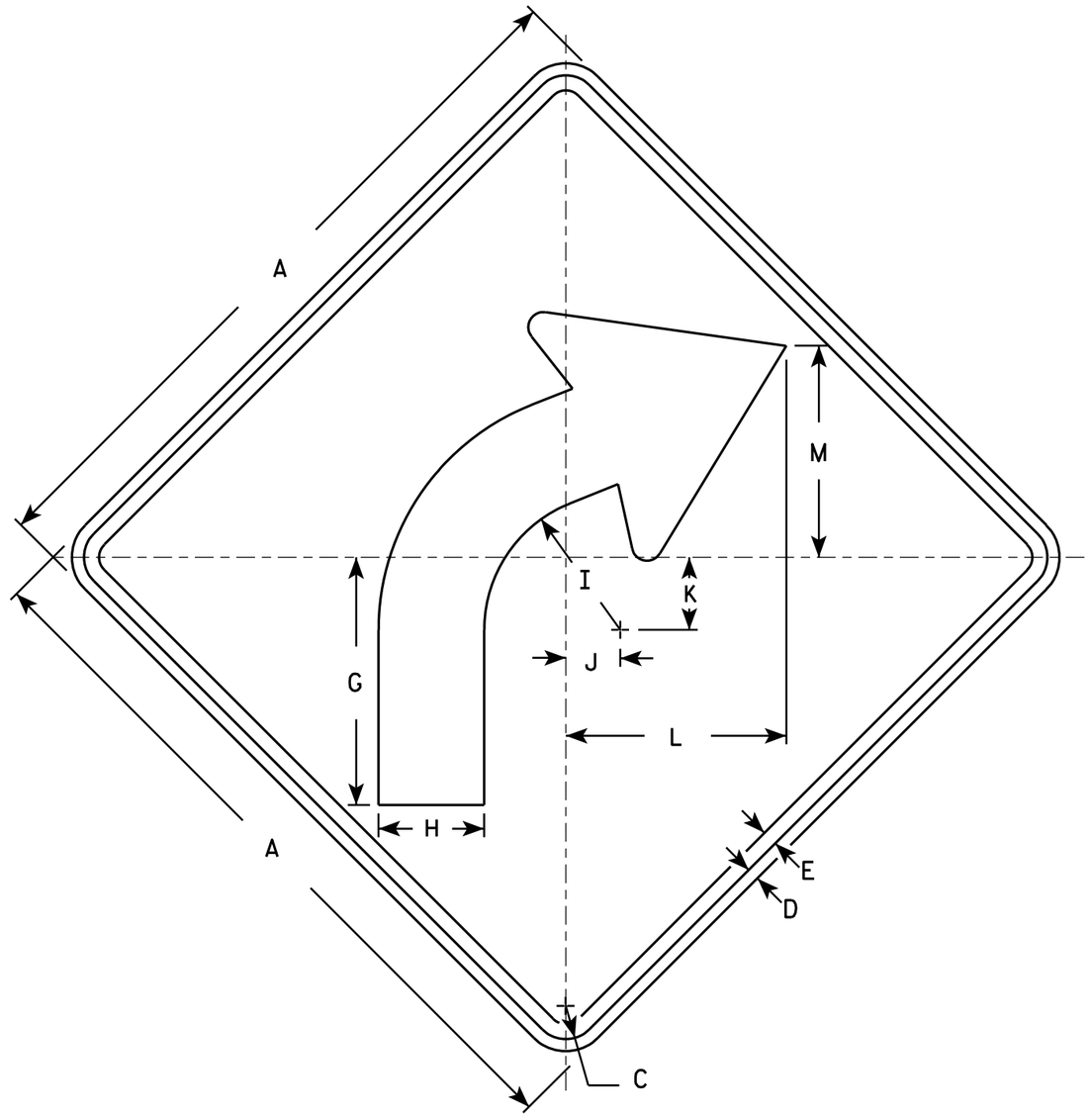
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/29/2021 PLATE NO. R11-2.11

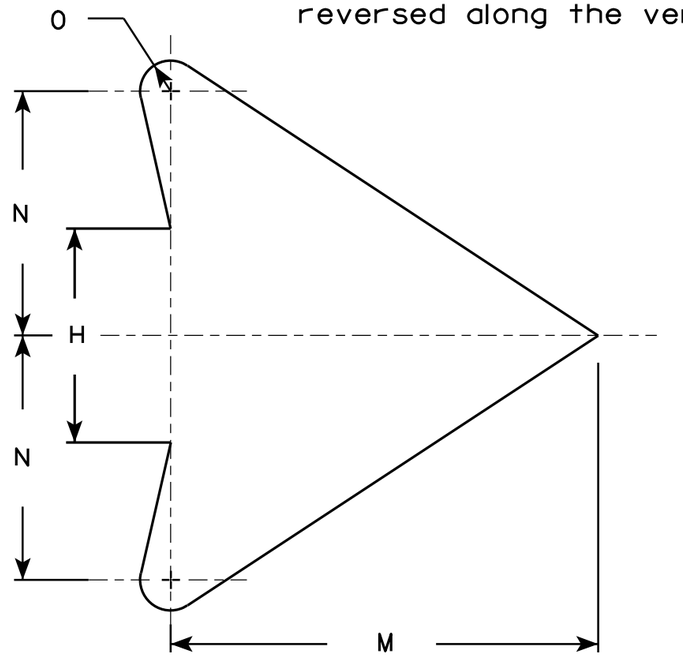
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W1-2L is the same as W1-2R except the arrow is reversed along the vertical centerline.



W1-2R



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		8 1/4	3 1/2	4 1/2	1 3/4	2 3/8	7 1/4	7	4	1/2												4.0
2S	30		1 3/8	1/2	5/8		10 1/4	4 3/8	5 5/8	2 1/4	3	9 1/8	8 3/4	5	5/8												6.25
2M	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
3	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
4	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												9.0
5	48		2 1/4	3/4	1		16 1/2	7	9	3 1/2	4 5/8	14 1/2	14	8	1												16.0

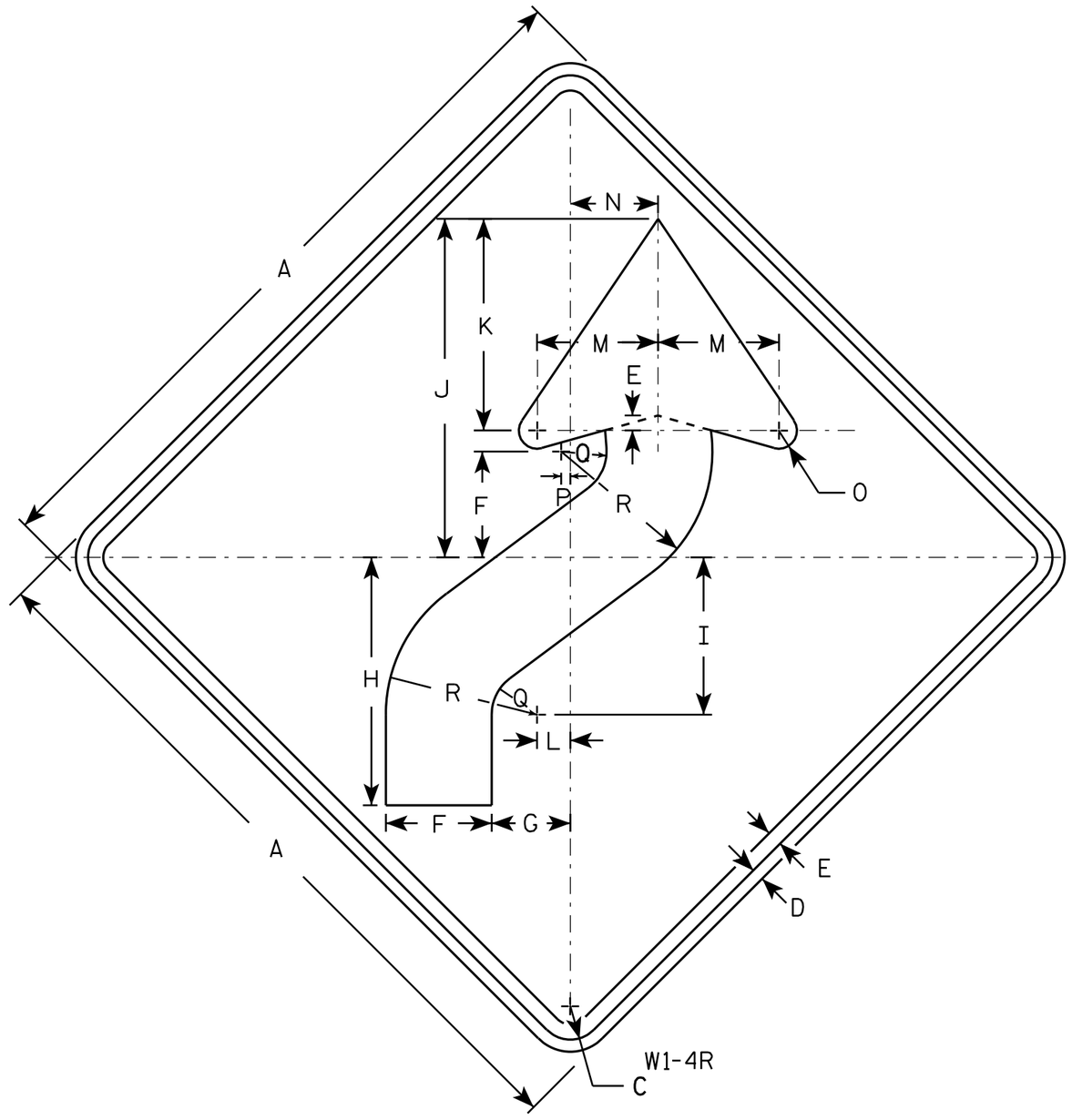
STANDARD SIGN
W1-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/15/12 PLATE NO. W1-2.10

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 66	E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W1-4L is the same as W1-4R except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	3 1/2	2 5/8	8 1/4	5 1/4	11 1/4	7	1 1/8	4	3	5/8	1/4	1 1/2	5									4.0
2S	30		1 3/8	1/2	5/8	4 3/8	3 1/4	10 1/4	6 1/2	14	8 3/4	1 3/8	5	3 5/8	3/4	3/8	1 7/8	6 1/4									6.25
2M	36		1 5/8	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
3	36		1 5/8	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
4	36		1 5/8	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
5	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0

STANDARD SIGN

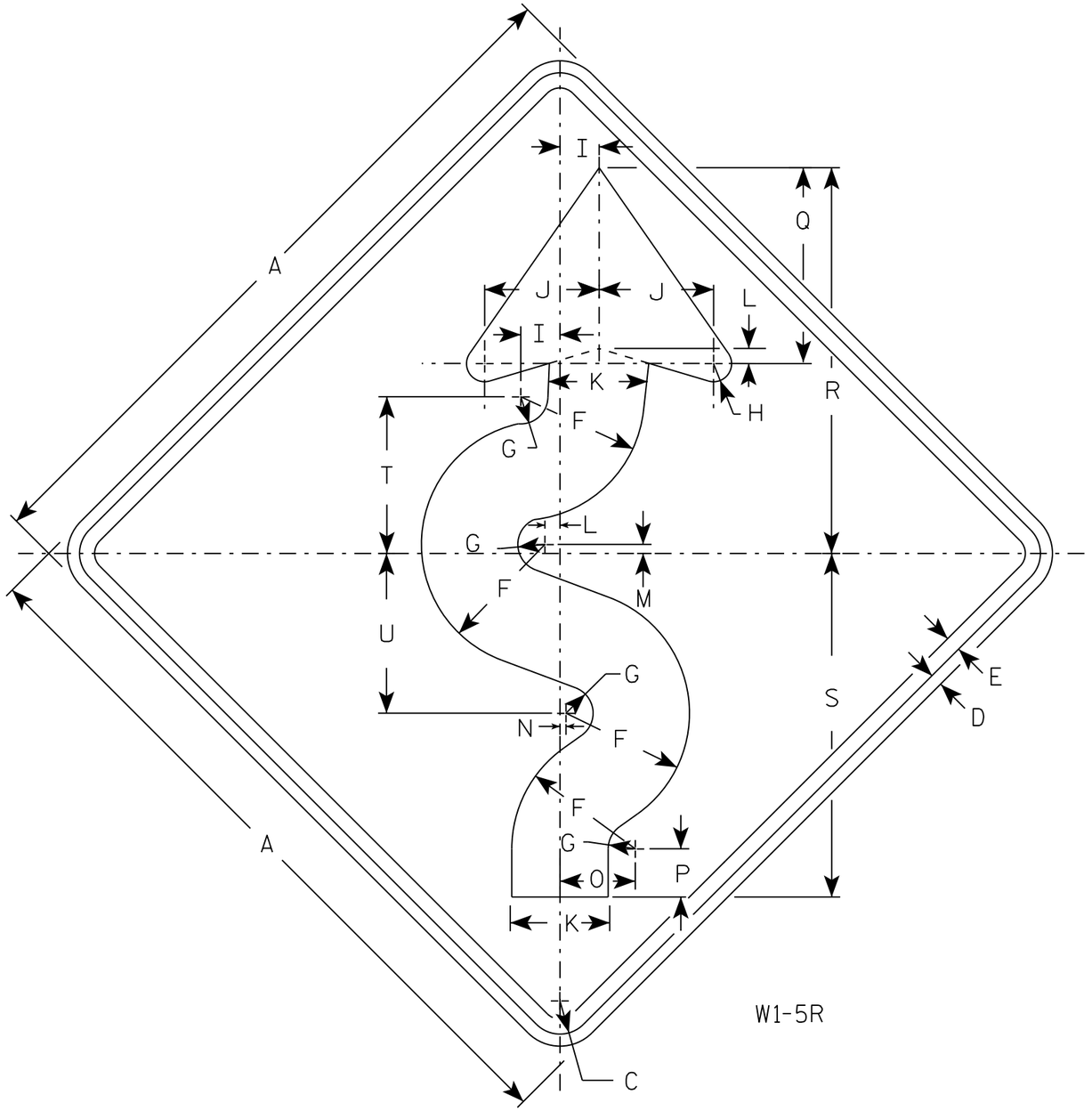
W1-4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 5/17/12 PLATE NO. W1-4.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 67 | E



W1-5R

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Yellow
   Message - Black
3. W1-5L is the same as W1-5R except the arrow is reversed along the vertical centerline.
4. If used with W13-1 of 30 MPH or less, use 36" sign for Size 2S.

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	4 1/8	7/8	5/8	1 1/4	3 3/4	3 1/4	1/2	1/4	1/8	2 1/2	1 5/8	6 1/2	12 3/4	11 3/8	5 1/4	5 1/4						4.0
2S	30		1 3/8	1/2	5/8	5 1/8	1 1/8	3/4	1 5/8	4 3/4	4 1/8	5/8	3/8	1/4	3 1/8	2	8 1/8	16	14 1/4	6 1/2	6 5/8						6.25
2M	36		1 5/8	5/8	3/4	6 1/4	1 3/8	1	1 7/8	5 5/8	4 7/8	3/4	3/8	1/4	3 3/4	2 7/8	9 3/4	19 1/8	17 1/8	7 3/4	7 7/8						9.0
3	36		1 5/8	5/8	3/4	6 1/4	1 3/8	1	1 7/8	5 5/8	4 7/8	3/4	3/8	1/4	3 3/4	2 7/8	9 3/4	19 1/8	17 1/8	7 3/4	7 7/8						9.0
4	36		1 5/8	5/8	3/4	6 1/4	1 3/8	1	1 7/8	5 5/8	4 7/8	3/4	3/8	1/4	3 3/4	2 7/8	9 3/4	19 1/8	17 1/8	7 3/4	7 7/8						9.0
5	48		2 1/4	3/4	1	8 1/4	1 3/4	1 1/4	2 1/2	7 1/2	6 1/2	1	1/2	3/8	5	3 1/4	13	25 1/2	22 3/4	10 3/8	10 1/2						16.0

STANDARD SIGN

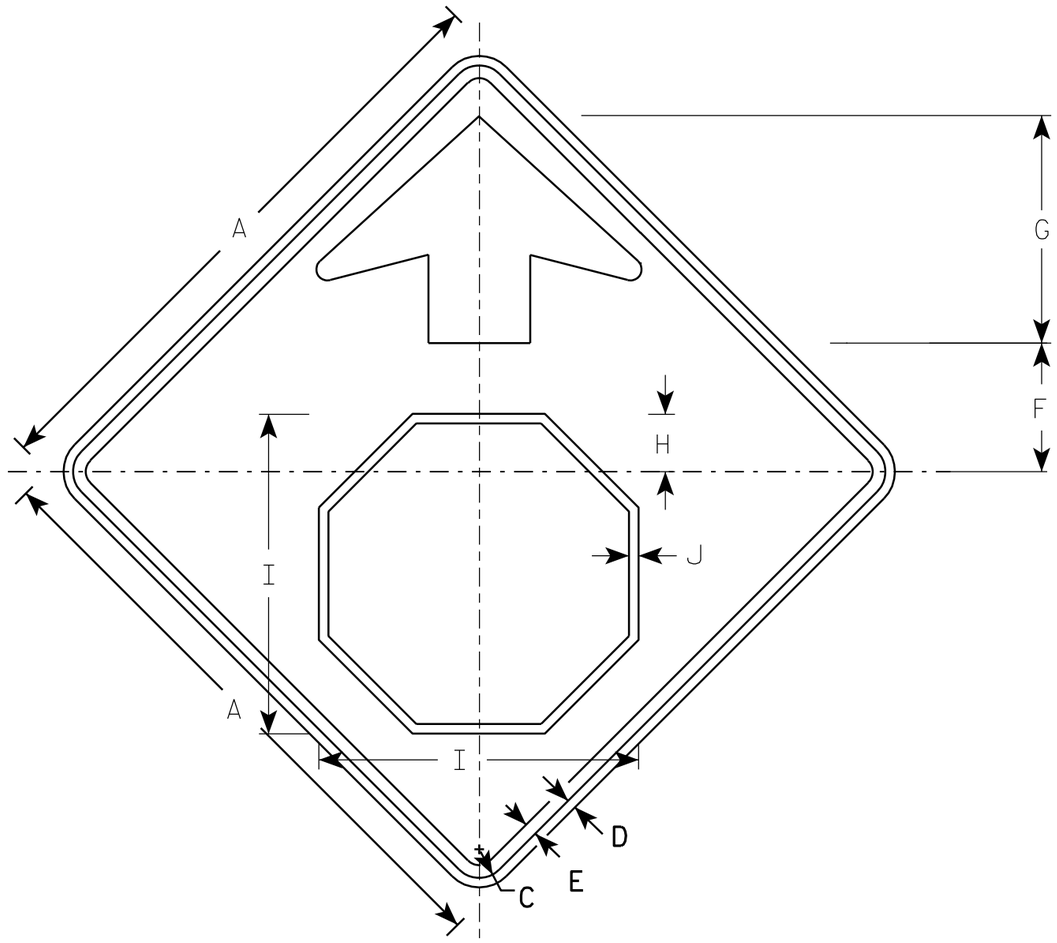
W1-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 8/1/16 PLATE NO W1-5.9

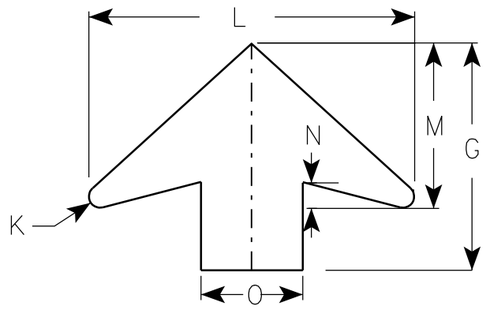
PROJECT NO: | HWY: | COUNTY: | SHEET NO: E



W3-1

NOTES

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



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	6 1/4	11 1/4	2 7/8	15 3/4	1/2	1/2	16	8	1 1/4	5												6.25
2S	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
2M	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
3	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
4	48		2 1/4	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0
5	48		2 1/4	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0

STANDARD SIGN
W3-1

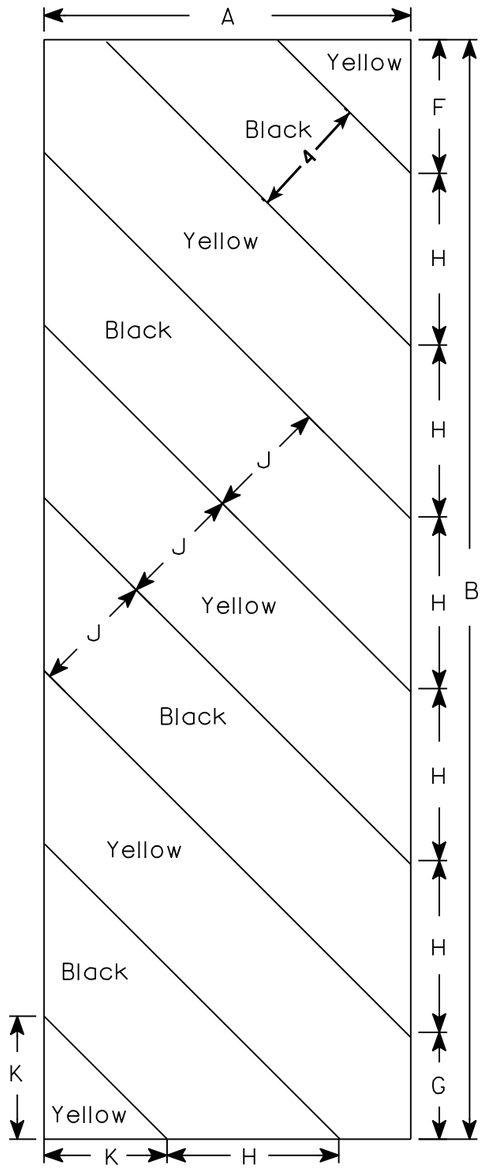
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

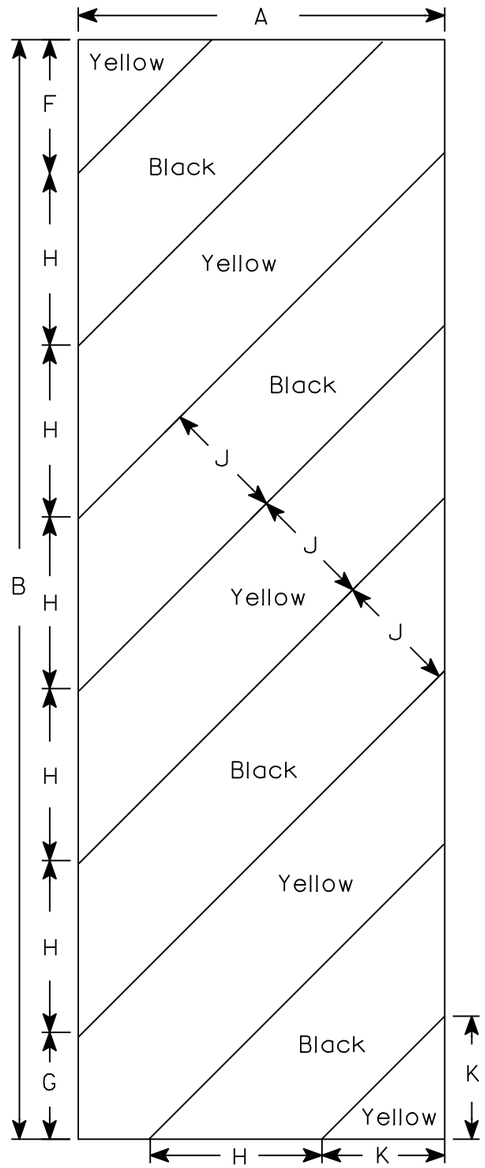
DATE 6/7/10 PLATE NO. W3-1.12

PROJECT NO:

SHEET NO: 69 E



W5-52L



W5-52R

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. Alternate colors of stripes as shown.

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	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
2M	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
3	18	54				6	5 1/2	8 1/2	45°	6	6 9/16																6.75
4																											
5																											

STANDARD SIGN

W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

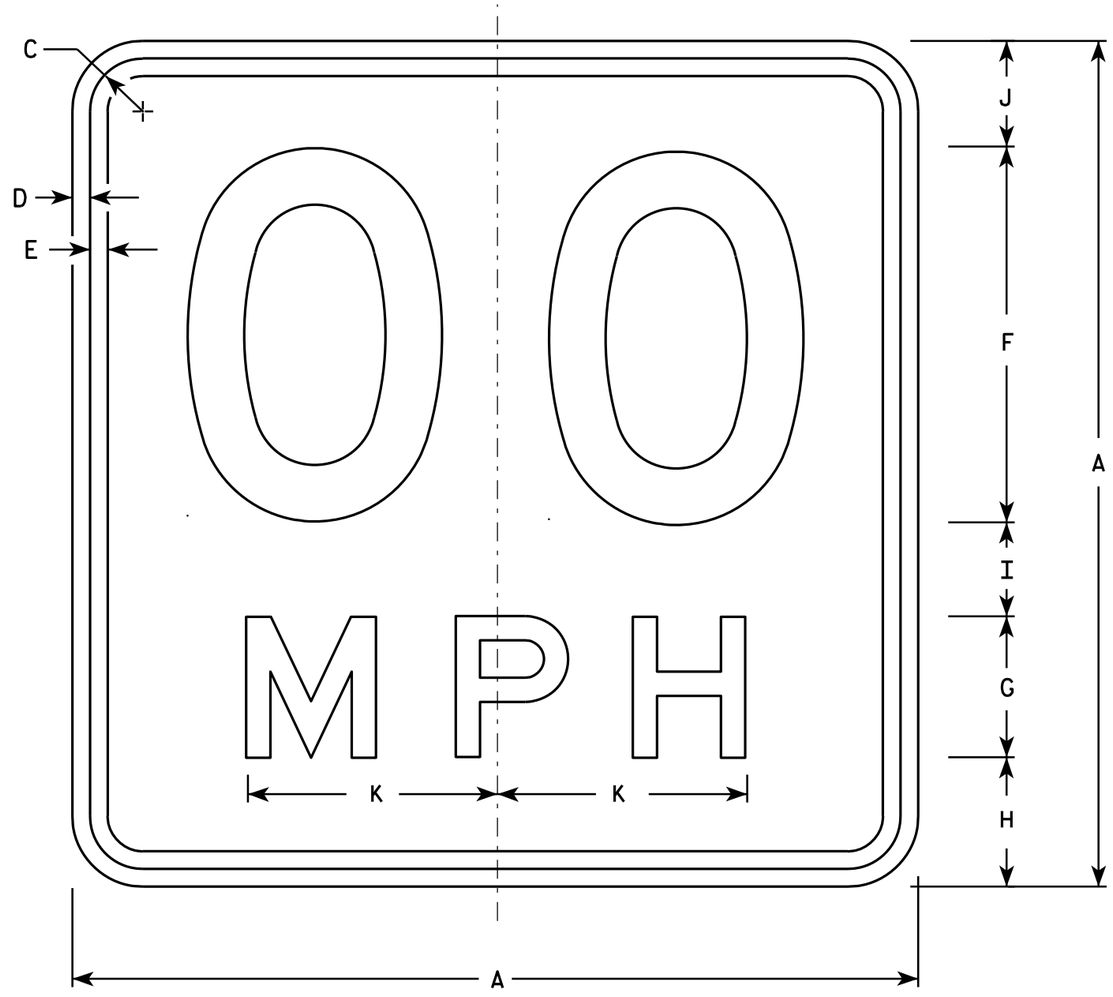
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W5-52.9

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 70 | E

7

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W552.DGN PLOT DATE : 29-MAY-2012 13:03 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 4.961899:1.000000



W13-1

* For 30" x 30" Warning Signs, use 18" x 18" W13-1 signs.
For 36" x 36" Warning Signs, use 24" x 24" W13-1 signs.

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - See Note 6
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically space about centerline to achieve proper balance.
6. Line 1 is Series D
   Line 2 is Series E

	SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
	1	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
*	2S	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
*	2M	18		1 1/8	3/8	3/8	8	3	2 3/4	2	2 1/4	5 3/8																2.25
	3	24		1 1/8	3/8	1/2	10	4	4	2 3/4	3 1/4	6 5/8																4.00
	4	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
	5	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00

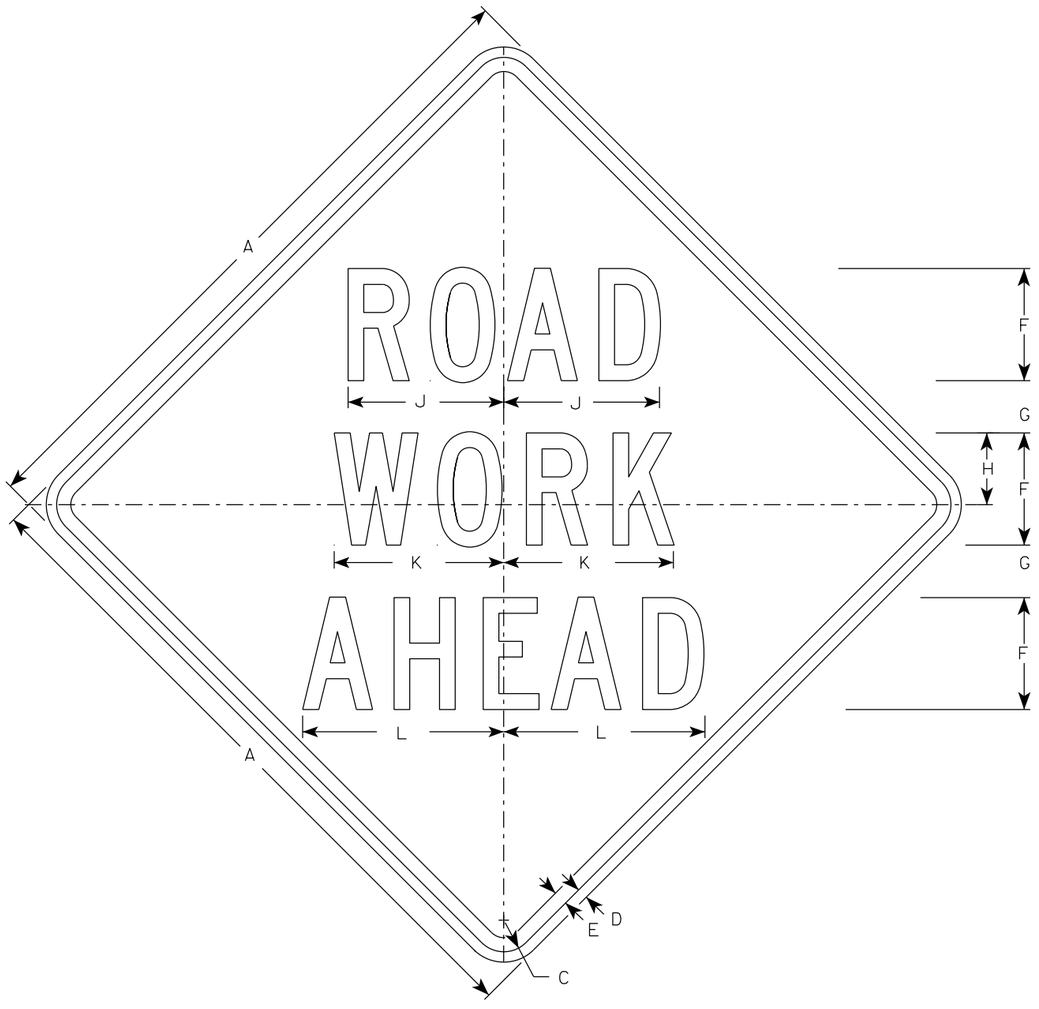
STANDARD SIGN
W13-1

WISCONSIN DEPT OF TRANSPORTATION

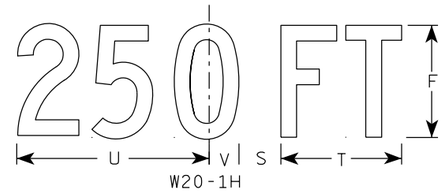
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 5/31/12 PLATE NO. W13-1.16

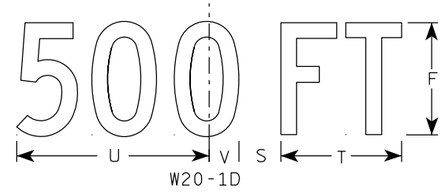
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 71	E



W20-1A

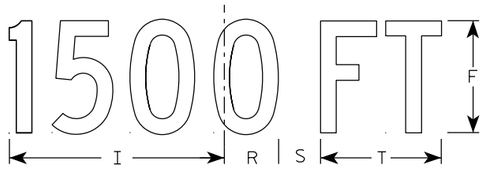


W20-1H



W20-1D

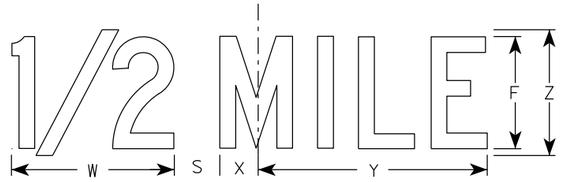
W20-1C



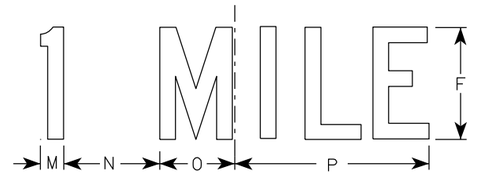
W20-1B

NOTES

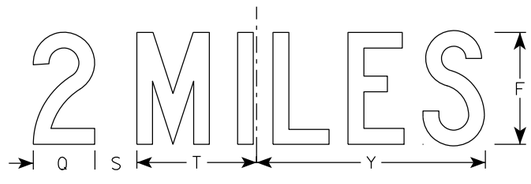
1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



W20-1G



W20-1F



W20-1E

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

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

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:

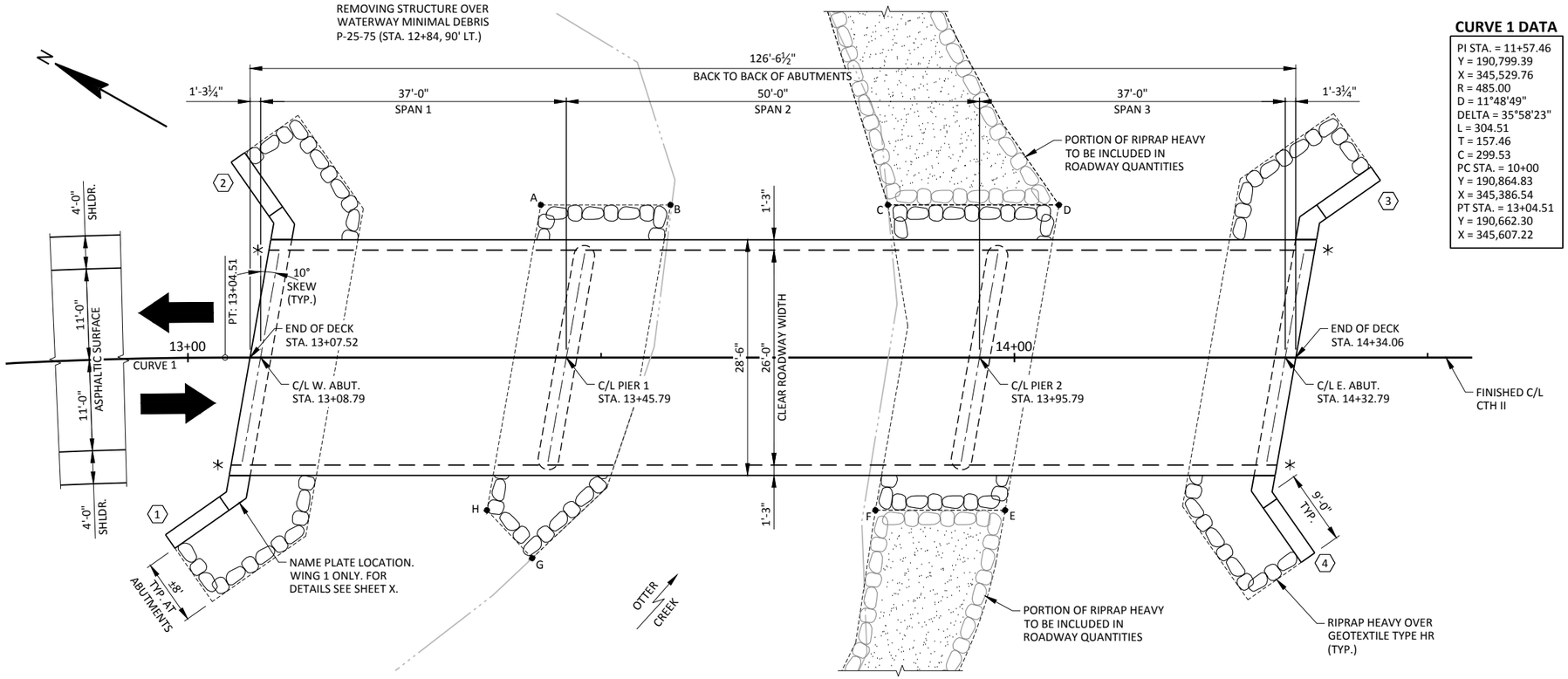
SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W201.DGN PLOT DATE : 25-MARCH-2020 PLOT BY : dotc4c

WISDOT/CADDS SHEET 42

7

7



PLAN B-25-191

(THREE-SPAN REINFORCED CONCRETE HAUNCHED SLAB)

INDICATES WING NUMBER

✳ THRIE BEAM RAIL ATTACHMENT

CURVE 1 DATA

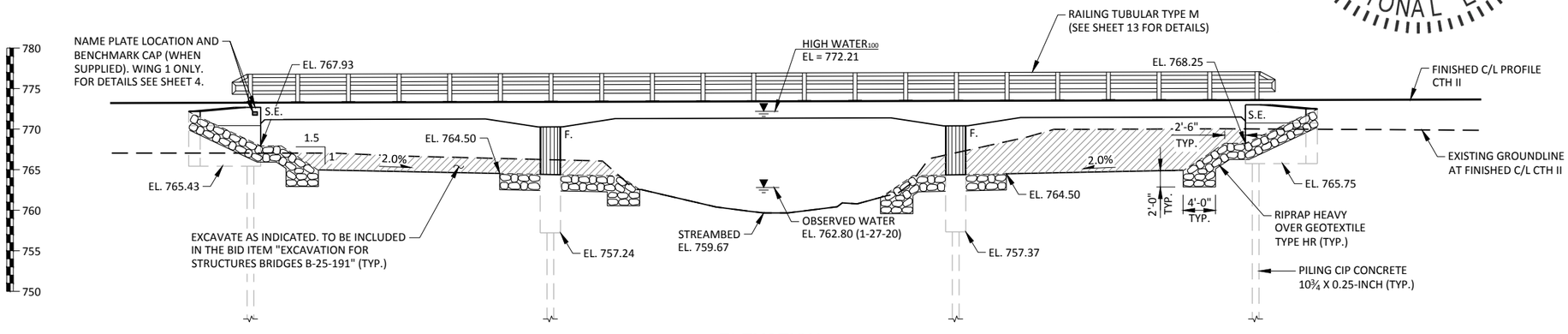
PI STA. = 11+57.46
Y = 190,799.39
X = 345,529.76
R = 485.00
D = 11°48'49"
DELTA = 35°58'23"
L = 304.51
T = 157.46
C = 299.53
PC STA. = 10+00
Y = 190,864.83
X = 345,386.54
PT STA. = 13+04.51
Y = 190,662.30
X = 345,607.22

RIPRAP HEAVY LAYOUT

POINT	STATION	OFFSET
A	13+43	18' LT.
B	13+58	18' LT.
C	13+85	18' LT.
D	14+05	18' LT.
E	13+99	18' RT.
F	13+83	18' RT.
G	13+42	24' RT.
H	13+36	18' RT.

BENCH MARKS

NO.	STA.	DESCRIPTION	ELEV.
2	10+45	3/4" IRON REBAR SET, 29.9' LT.	769.54
4	19+81	3/4" IRON REBAR SET, 13.1' RT.	784.97



ELEVATION

(NORMAL TO OTTER CREEK)

STATE PROJECT NUMBER

5682-00-75

DESIGN DATA

LIVE LOAD:

DESIGN LOADING — HL-93
INVENTORY RATING FACTOR — RF=1.38
OPERATING RATING FACTOR — RF=1.78
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) — 250 KIPS

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 P.S.F.

MATERIAL PROPERTIES:

CONCRETE MASONRY, SUPERSTRUCTURE — f'c = 4,000 P.S.I.
ALL OTHER — f'c = 3,500 P.S.I.
HIGH-STRENGTH BAR STEEL REINFORCEMENT, GRADE 60 — fy = 60,000 P.S.I.

FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON PILING CIP CONCRETE 10¾ X 0.25-INCH DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 100 TONS** PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. PIERS TO BE SUPPORTED ON PILING CIP CONCRETE 10¾ X 0.25-INCH DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 130 TONS** PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATE 25 FT PILE LENGTHS AT BOTH ABUTMENTS, 30 FT PILE LENGTHS AT PIER 1, AND 35 FT PILE LENGTHS AT PIER 2.

**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 MODIFIED GATES TO DETERMINE DRIVEN PILE CAPACITY.

TRAFFIC DATA

A.D.T. (2022) — 185
A.D.T. (2042) — 275
DESIGN SPEED — 40 M.P.H.

HYDRAULIC DATA

100 YEAR FREQUENCY
DRAINAGE AREA — 51.8 SQ. MI.
Q_{100} TOTAL — 5,160 C.F.S.
THROUGH STRUCTURE — 5,160 C.F.S.
OVERTOPPING ROADWAY — N/A
VELOCITY - THROUGH STRUCTURE — 6.7 F.P.S.
WATERWAY AREA - THROUGH STRUCTURE — 768.9 SQ. FT.
HIGH $WATER_{100}$ ELEVATION — 772.21
SCOUR CRITICAL CODE — 5

EROSION CONTROL
Q_2 — 1,045 C.F.S.
$VELOCITY_2$ — 2.7 F.P.S.
HIGH $WATER_2$ ELEVATION — 767.67

LIST OF DRAWINGS

WISCONSIN
PATRICK T. BOLAND E-36303 HILLPOINT WIS
Patrick Boland 6-1-21
PROFESSIONAL ENGINEER

NO.	DATE	REVISION	BY

JEWELL associates engineers, inc.
Engineers - Architects - Surveyors
560 SUNRISE DRIVE
SPRING GREEN, WI 53588
OFFICE: (608) 588-7484
www.jewellassoc.com

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED — SDR — 08/24/21
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-25-191

CTH II OVER OTTER CREEK

COUNTY: IOWA
TOWN/~~CITY/VILLAGE~~: HIGHLAND
DESIGN SPEC.: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS

DESIGNED BY	PTB	DESIGN CK'D.	RBH	DRAWN BY	PTB	PLANS CK'D.	RBH

GENERAL PLAN

SHEET 1 OF 13
73

DESIGN CONSULTANT
PATRICK BOLAND, PE
(608) 588-7484

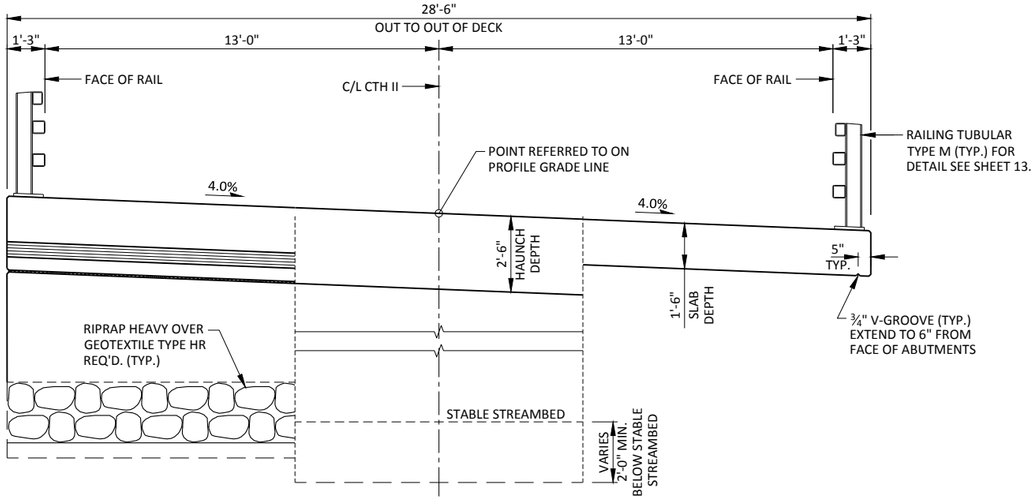
BRIDGE OFFICE CONTACT
AARON BONK, PE
(608) 261-0261

8

8

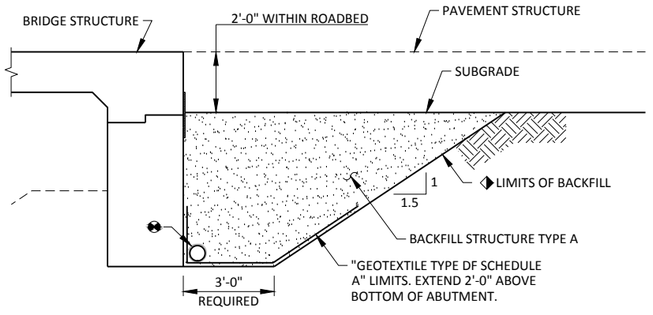
STATE PROJECT NUMBER

5682-00-75



PROPOSED CROSS-SECTION THROUGH ROADWAY

LOOKING EAST



BACKFILL STRUCTURE DETAIL

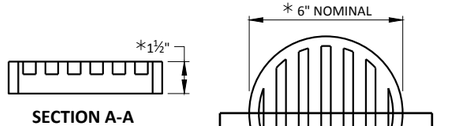
(TYPICAL AT ABUTMENTS. ABUTMENT BODY SHOWN - WING WALLS SIMILAR)

◆ BACKFILL STRUCTURE TYPE A PAY LIMITS. BACKFILL BEYOND PAY LIMITS SHALL BE INCIDENTAL TO THE BID ITEM "EXCAVATION FOR STRUCTURES B-25-191". LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.

◆◆ PIPE UNDERDRAIN WRAPPED (6-INCH), SLOPED 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SCREEN AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON THIS SHEET. RODENT SCREEN TO BE INCLUDED IN THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH."

TOTAL ESTIMATED QUANTITIES

ITEM NUMBER	ITEM DESCRIPTION	UNIT	W. ABUT.	PIER 1	PIER 2	E. ABUT.	SUPER	TOTALS
203.0260	REMOVING STRUCTURE OVER WATERWAY MINIMAL DEBRIS P-25-75	EACH	--	--	--	--	--	1
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-25-191	LS	--	--	--	--	--	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	165	--	--	165	--	330
502.0100	CONCRETE MASONRY BRIDGES	CY	29	34	34	29	225	351
502.3200	PROTECTIVE SURFACE TREATMENT	SY	--	--	--	--	480	480
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	2,270	1,590	1,590	2,270	--	7,720
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	1,360	50	50	1,370	50,410	53,240
513.4061	RAILING TUBULAR TYPE M	LF	--	--	--	--	258	258
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	6	--	--	6	--	12
550.2104	PILING CIP CONCRETE 10¾ X 0.25-INCH	LF	175	240	280	175	--	870
606.0300	RIPRAP HEAVY	CY	50	55	55	50	--	210
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	75	--	--	75	--	150
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	50	--	--	50	--	100
645.0120	GEOTEXTILE TYPE HR	SY	85	90	90	85	--	350
SPV.0090.01	FLASHING STAINLESS STEEL	LF	--	--	--	--	243	243
	NON-BID ITEMS							
	FILLER	SIZE						½" & ¾"
	NAME PLATE							



RODENT SCREEN

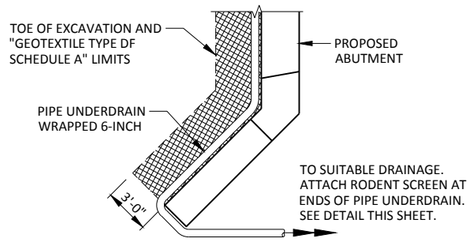
NOTES:

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

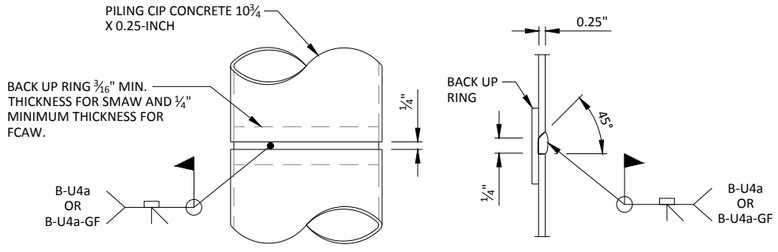
ORIENT SCREEN SO SLOTS ARE VERTICAL.

THE RODENT SCREEN, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

THE RODENT SCREEN 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 SCREEN TO THE EXPOSED ENDS OF THE PIPE UNDERDRAIN. THE SCREEN SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.



PIPE UNDERDRAIN DETAIL

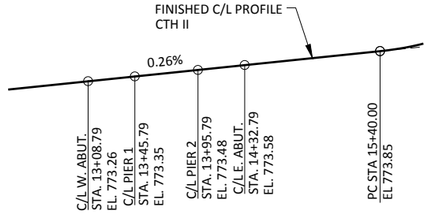


CAST-IN-PLACE 'PIPE PILE'

C.I.P. PILE WELD DETAIL

NOTES:

CAST-IN-PLACE PILE SHELL MATERIAL SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS



PROFILE GRADE LINE

CTH II

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ELEVATIONS SHOWN ON THE PLAN ARE REFERENCED TO THE NORTH AMERICA VERTICAL DATUM OF 1988 (NAVD 88).

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

JOINT FILLER SHALL CONFORM TO A.A.S.H.T.O. DESIGNATION MI53, TYPE I, II OR III OR A.A.S.H.T.O. DESIGNATION M213.

THE SLOPE OF FILL IN FRONT OF THE ABUTMENTS AND PIERS SHALL BE COVERED WITH RIPRAP HEAVY AND GEOTEXTILE TYPE HR TO THE EXTENT SHOWN ON SHEET 1 AND IN THE ABUTMENT OR PIER DETAILS, OR AS DIRECTED BY THE ENGINEER IN THE FIELD.

AT THE BACK FACE OF ABUTMENTS, ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH BACKFILL STRUCTURE TYPE A. SEE THIS SHEET FOR DETAIL.

ANY EXCAVATION BELOW THE ABUTMENT AND ASSOCIATED ABUTMENT BEDDING MATERIALS REQUIRE THE APPROVAL OF THE ENGINEER IN THE FIELD.

APPLY PROTECTIVE SURFACE TREATMENT TO THE TOP OF THE DECK, THE SIDES OF THE DECK AND EXTERIOR 12" OF THE UNDERSIDE OF THE DECK (CONCRETE MATERIAL ONLY).

ALL STATIONS AND ELEVATIONS SHOWN ARE IN FEET.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES BRIDGES B-25-191" SHALL BE THE EXISTING GROUNDLINE.

SLAB FALSEWORK SHALL BE SUPPORTED ON PILES OR THE SUBSTRUCTURE UNLESS AN ALTERNATIVE METHOD IS APPROVED BY THE ENGINEER IN THE FIELD.

THE FIRST DIGIT OF A THREE DIGIT BAR MARK OR THE FIRST TWO DIGITS OF A FOUR DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

THE EXISTING STRUCTURE (P-25-075) IS A THREE SPAN STEEL DECK GIRDER STRUCTURE SUPPORTED ON TIMBER ABUTMENTS AND CONCRETE SOLID SHAFT PIERS. THE STRUCTURE HAS A 22.1' BRIDGE WIDTH AND IS 125.5' LONG AND SHALL BE REMOVED FOLLOWING COMPLETION OF THE PROPOSED STRUCTURE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-25-191

DRAWN BY PTB | PLANS CK'D. RBH

CROSS SECTION AND QUANTITIES

SHEET 2 OF 13

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8

8

STATE PROJECT NUMBER

5682-00-75

SOIL BORINGS

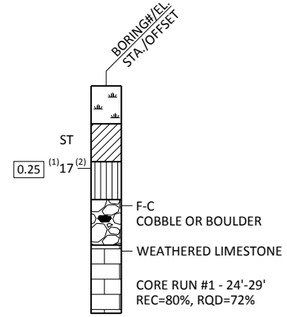
BORING NUMBER	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	06/08/20	190,662.4	345,620.2
2	06/08/20	190,623.2	345,618.6
3	06/08/20	190,586.0	346,661.1
4	06/08/20	190,546.8	345,659.6

BORINGS & REPORT COMPLETED BY: AMERICAN ENGINEERING TESTING, INC.
4203 SCHOFIELD AVENUE, SUITE 1
SCHOFIELD, WI 54476

MATERIAL SYMBOLS

Asphalt · Topsoil · Peat · Concrete · Fill · Gravel · Sand · Clay · Silt · Boulders or Cobbles · Limestone · Bedrock (unknown) · Shale · Sandstone · Igneous/ meta

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNLESS OTHERWISE SPECIFIED, THE SPT 'N' VALUE IS BASED ON AASHTO T-206 STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATIONS

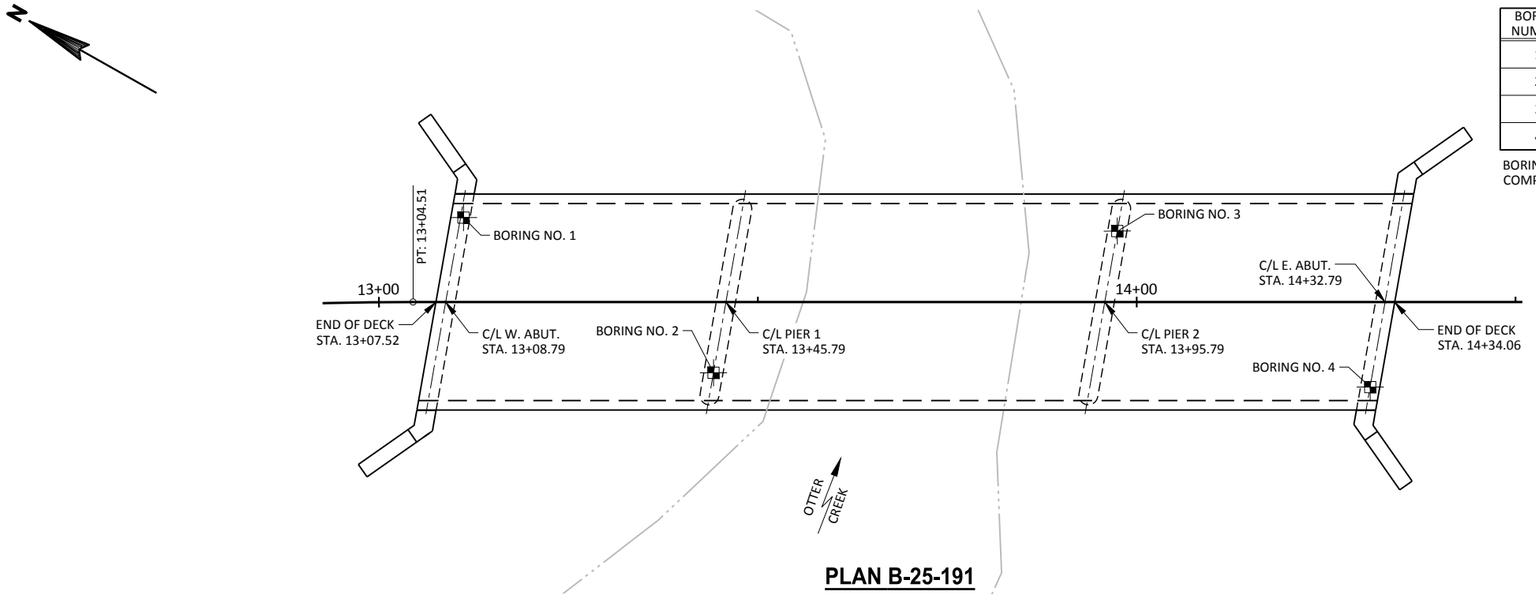
AT TIME OF DRILLING
END OF DRILLING
AFTER DRILLING

ABBREVIATIONS

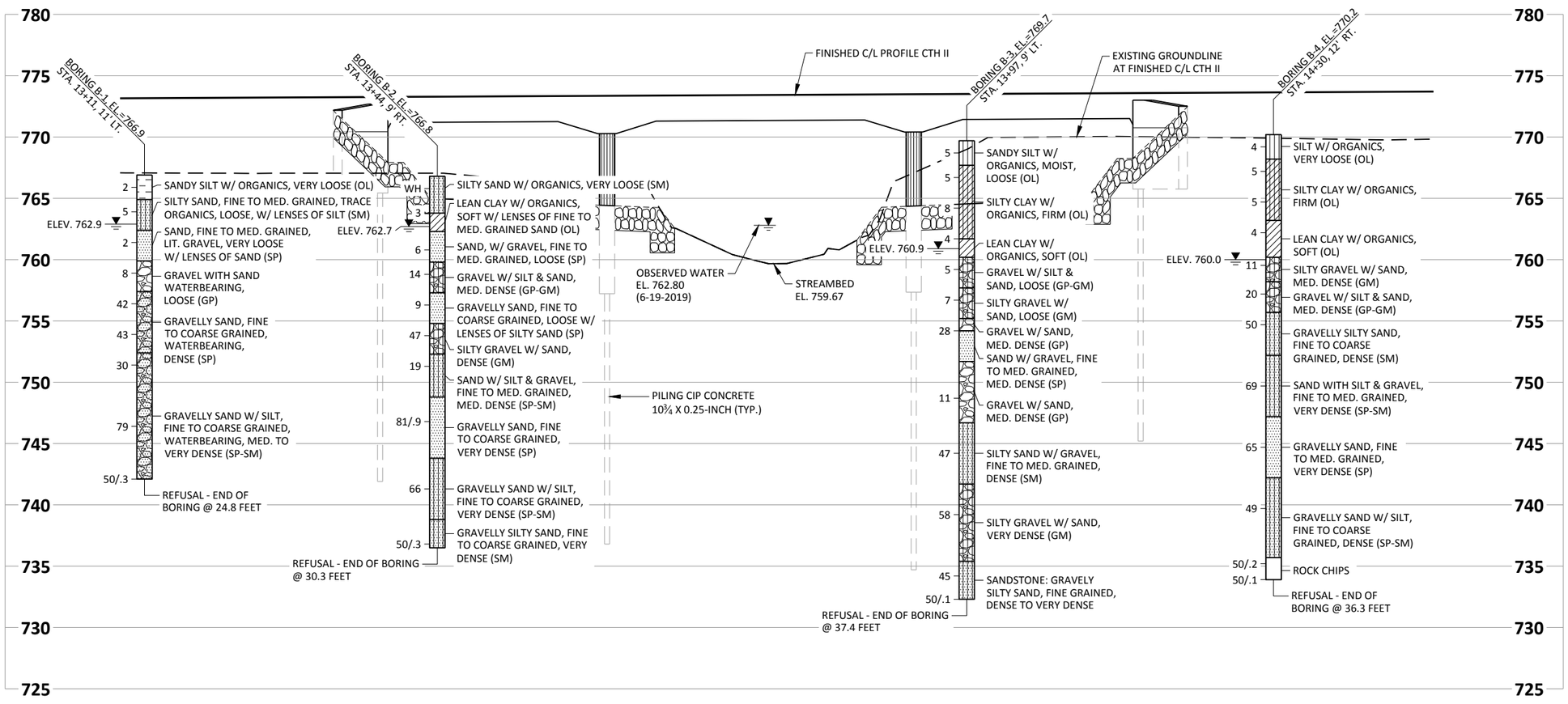
F-FINE M-MEDIUM C-COURSE ST-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.



PLAN B-25-191



NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-25-191

DRAWN BY PTB | PLANS CK'D. RBH

SUBSURFACE EXPLORATION

SHEET 3 OF 13

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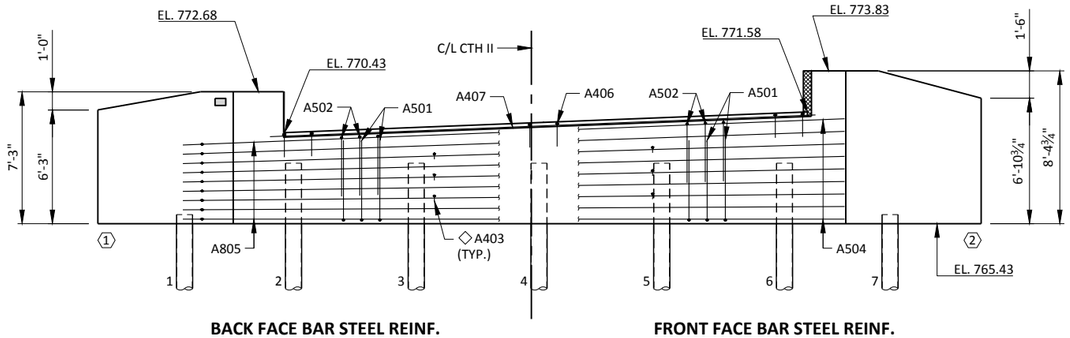
STATE PROJECT NUMBER

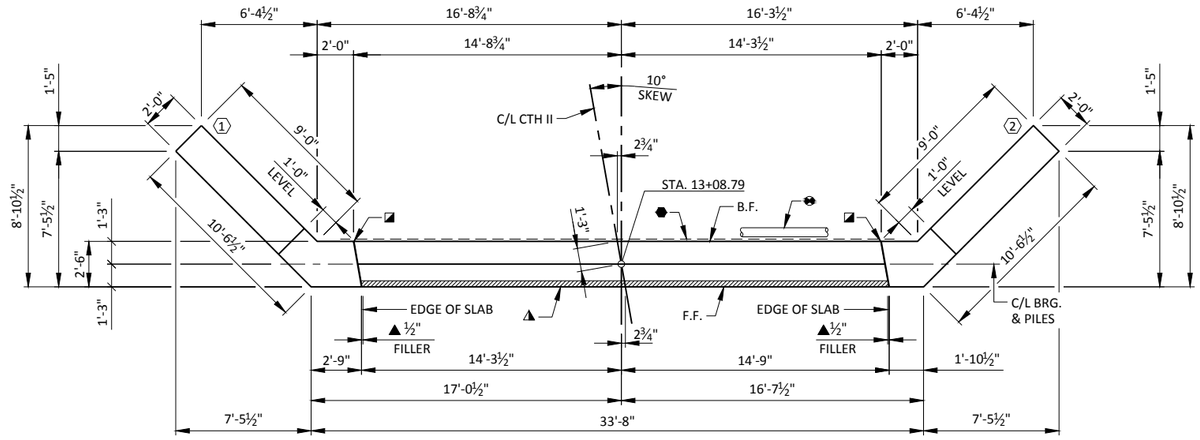
5682-00-75



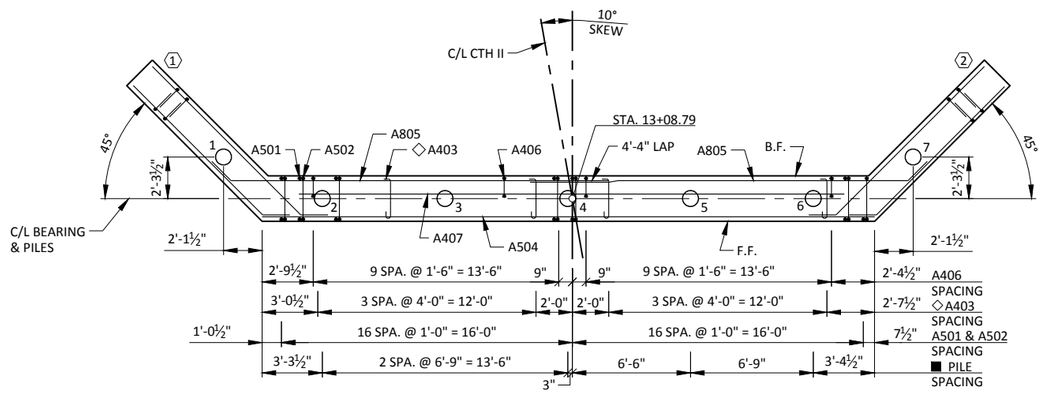
BACK FACE BAR STEEL REINF. **FRONT FACE BAR STEEL REINF.**

ELEVATION

(WEST ABUTMENT LOOKING WEST)



PLAN



LAYOUT

NOTES

SOME BARS HAVE BEEN OMITTED FOR CLARITY. SEE SHEET 5 FOR BILL OF BARS.

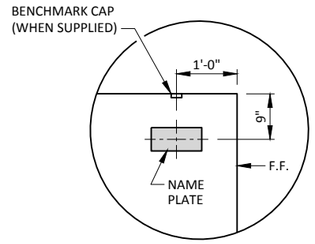
SEAT ELEVATIONS SHOWN IN THE ELEVATION VIEW ARE TAKEN AT THE C/L OF BEARING AT THE TOP OF THE ABUTMENT STEP.

DO NOT PLACE FILL HIGHER THAN 3 FEET FROM BOTTOM OF ABUTMENT UNTIL SUPERSTRUCTURE IS IN PLACE.

SPACE REINFORCEMENT TO MISS PILING

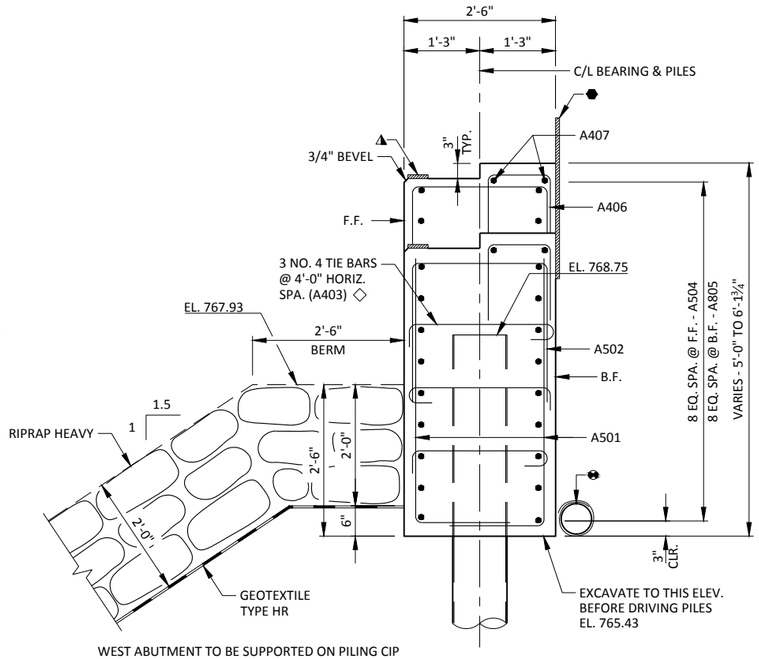
F.F. - FRONT FACE

B.F. - BACK FACE



NAME PLATE AND BENCHMARK CAP DETAIL

(WING 1 ONLY)



WEST ABUTMENT TO BE SUPPORTED ON PILING CIP CONCRETE 10¾ X 0.25-INCH DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 100 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATE 25 FT. PILE LENGTHS AT THE WEST ABUTMENT.

TYPICAL SECTION THROUGH ABUTMENT BODY

LEGEND

- ◪ VERTICAL 18" RUBBERIZED MEMBRANE WATERPROOFING EXTEND FROM 9" BELOW BRIDGE SEAT TO 1" BELOW TOP OF WINGS.
- ⬣ 18" RUBBERIZED MEMBRANE WATERPROOFING. (HORIZONTAL)
- ▲ ½" FILLER EXTEND AS SHOWN. SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING GRAY, NON-BITUMINUOS JOINT SEALER. (1" DEEP & HOLD ⅛" BELOW SURFACE OF CONCRETE)
- ◭ ¾" x 4" PREFORMED FILLER, EXTEND FULL LENGTH OF ABUTMENTS BETWEEN EDGES OF SLAB.
- ■ PILE SPACING MEASURED AT BASE OF ABUTMENT BODY.
- ❶ PIPE UNDERDRAIN WRAPPED (6-INCH), SLOPED 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SCREEN AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON SHEET 2. RODENT SCREEN TO BE INCLUDED IN THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH."
- ◇ ALTERNATE THE POSITION OF THE 90° AND THE 180° BENDS AT EACH VERTICAL LAYER OF TIES.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-25-191

DRAWN BY PTB | PLANS CK'D. RBH

WEST ABUTMENT

SHEET 4 OF 13

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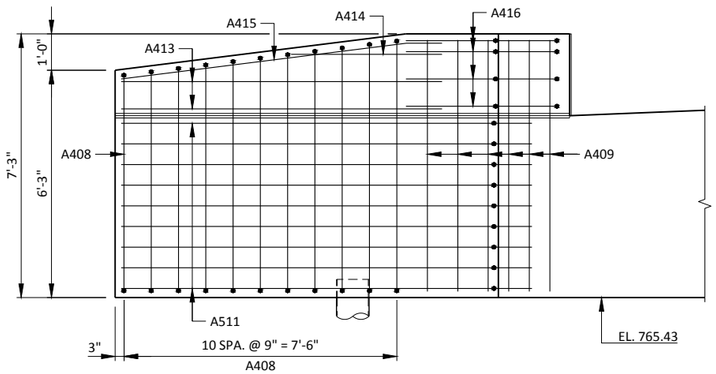
8

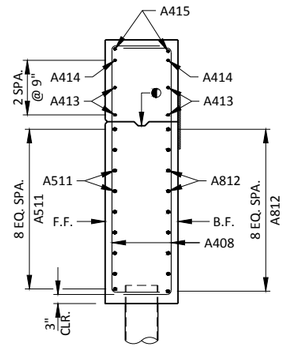
8

STATE PROJECT NUMBER

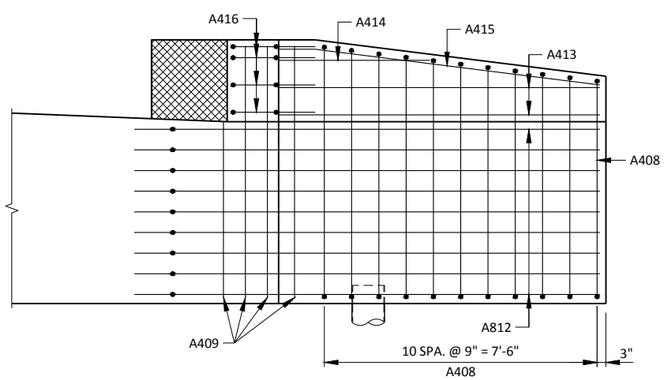
5682-00-75



F.F. ELEVATION - WING 1



SECTION A-A



B.F. ELEVATION - WING 1

BILL OF BARS
WEST ABUTMENT

1,360 LB (COATED)
2,270 LB (UNCOATED)

BAR MARK	NO. REQ'D.	LENGTH	BENT	COAT	BAR SERIES	LOCATION
A501	66	6-1	X			BODY - VERT. - F.F & B.F.
A502	33	9-5	X			BODY - VERT. - TOP
A403	24	2-9	X			TIE BARS
A504	9	33-6				BODY - HORIZ. - F.F.
A805	18	22-8	X			BODY - HORIZ. - B.F.
A406	20	3-3	X			BODY - VERT. - TOP
A407	2	30-0				BODY - HORIZ. - TOP
A408	22	8-10	X	X	✳	WING 1 - VERT. - F.F. & B.F.
A409	10	6-10		X		WING 1- VERT.
A410	1	2-8		X		WING 1 - VERT. - TOP
A511	9	11-9	X	X		WING 1 - HORIZ. - F.F.
A812	9	13-5	X	X		WING 1- HORIZ. - B.F.
A413	4	8-10		X		WING 1 - HORIZ. - F.F. & B.F. - TOP
A414	2	4-2		X		WING 1 - HORIZ. - F.F. & B.F. - TOP
A415	2	8-10	X	X		WING 1 - HORIZ. - F.F. & B.F. - TOP
A416	4	9-10	X	X		WING 1 - HORIZ. - TOP
A417	22	9-9	X	X	✳	WING 2 - VERT. - F.F. & B.F.
A418	9	7-11		X		WING 2- VERT.
A419	1	2-8		X		WING 2 - VERT. - TOP
A520	9	11-9	X	X		WING 2 - HORIZ. - F.F.
A821	9	13-5	X	X		WING 2 - HORIZ. - B.F.
A422	2	8-10		X		WING 2 - HORIZ. - F.F. & B.F. - TOP
A423	2	7-0		X		WING 2 - HORIZ. - F.F & B.F. - TOP
A424	2	3-0		X		WING 2 - HORIZ. - F.F. & B.F.- TOP
A425	2	8-11	X	X		WING 2 - HORIZ. - F.F. & B.F.- TOP
A426	4	9-0	X	X		WING 2 - HORIZ. - F.F. & B.F. - TOP

NOTES: THE FIRST DIGIT OF A BAR MARK SIGNIFIES THE BAR SIZE.

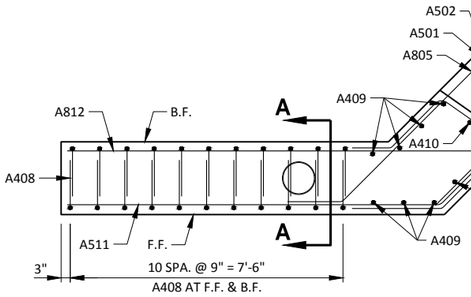
DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

✳ LENGTH SHOWN IS AN AVERAGE LENGTH ONLY. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

BAR SERIES TABLE

BAR MARK	NO. REQ'D.	LENGTH
A408	2 SERIES OF 11	9-4 TO 8-4
A417	2 SERIES OF 11	10-5 TO 9-1

BUNDLE AND TAG EACH SERIES SEPARATELY.



PLAN VIEW - WING 1

LEGEND

◐ OPTIONAL KEYED CONSTRUCTION JOINT FORMED BY SURFACED & BEVELED 2x6. ¾" "V" GROOVE AT FRONT FACE OF WING WALL AND HORIZONTAL 18" RUBBERIZED MEMBRANE WATERPROOFING AT BACK FACE IF CONSTRUCTION JOINT IS USED. COST IS INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY BRIDGES".

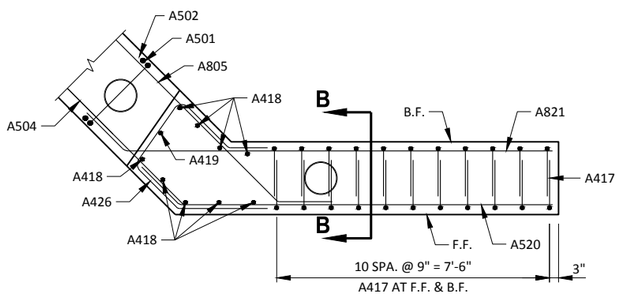
NOTES

SOME BARS HAVE BEEN OMITTED FOR CLARITY. SEE THIS SHEET FOR BILL OF BARS.

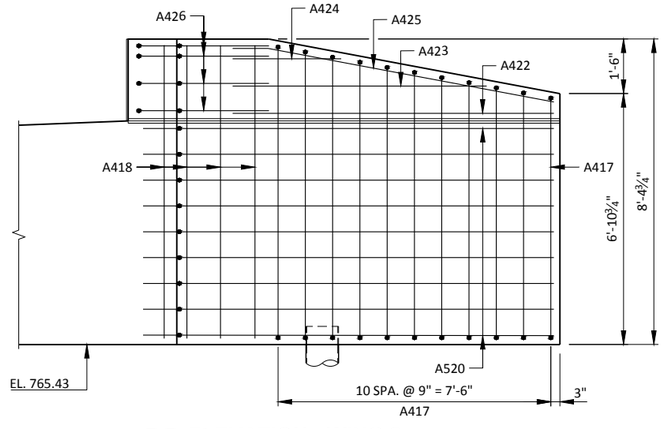
SPACE REINFORCEMENT TO MISS PILING

F.F. - FRONT FACE

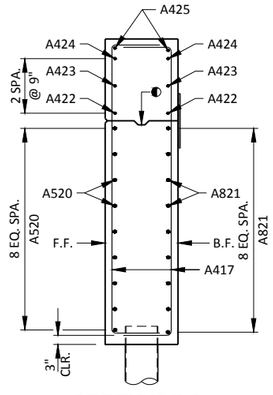
B.F. - BACK FACE



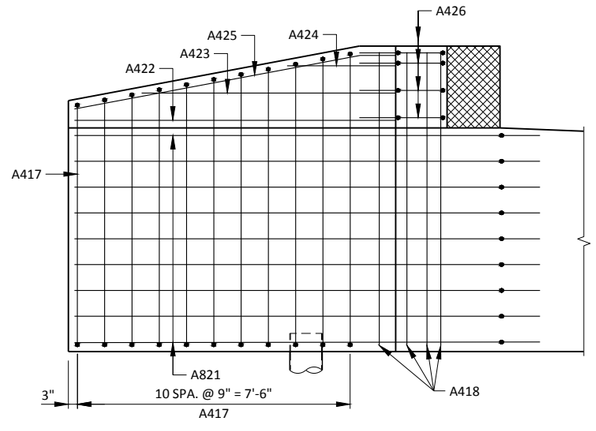
PLAN VIEW - WING 2



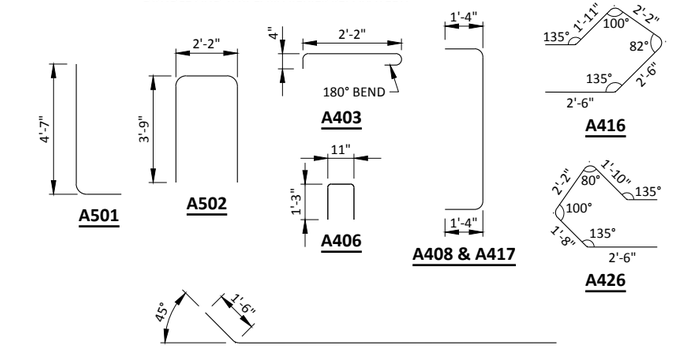
F.F. ELEVATION - WING 2



SECTION B-B



B.F. ELEVATION - WING 2



A415 & A425

MARK	'A'
A415	172°52'
A425	169°23'

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-25-191

DRAWN BY PTB | PLANS CK'D. RBH

WEST ABUTMENT DETAILS

SHEET 5 OF 13

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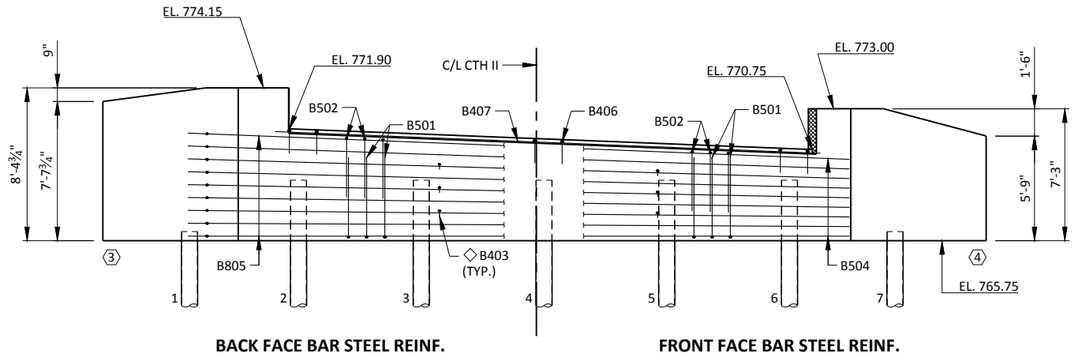
8

8

STATE PROJECT NUMBER

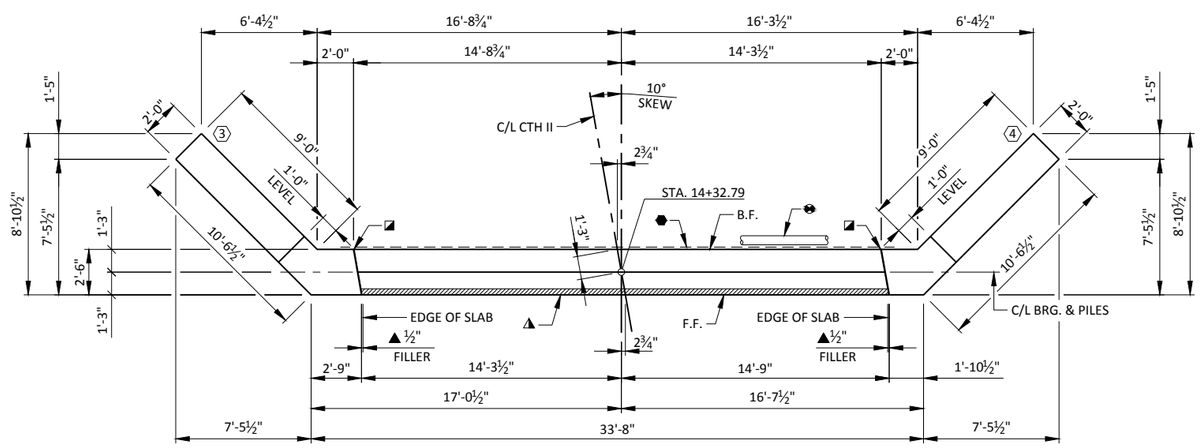
5682-00-75



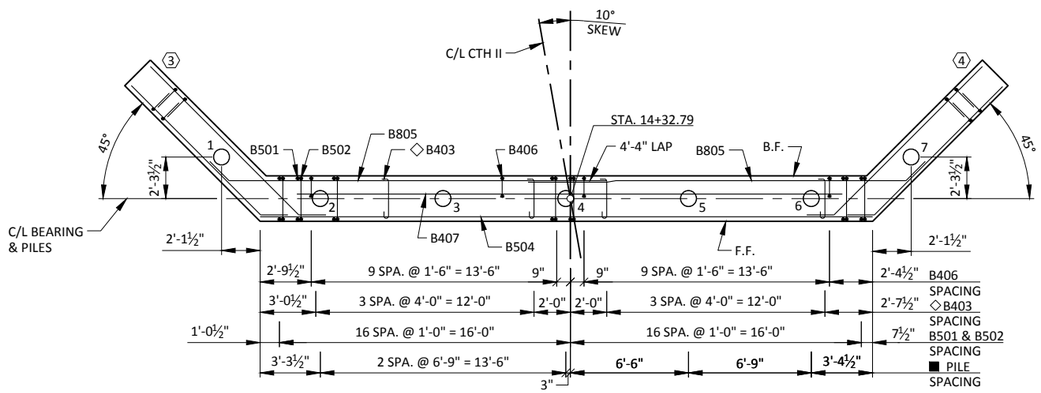
BACK FACE BAR STEEL REINF. **FRONT FACE BAR STEEL REINF.**

ELEVATION

(EAST ABUTMENT LOOKING EAST)



PLAN



LAYOUT

NOTES

SOME BARS HAVE BEEN OMITTED FOR CLARITY. SEE SHEET 7 FOR BILL OF BARS.

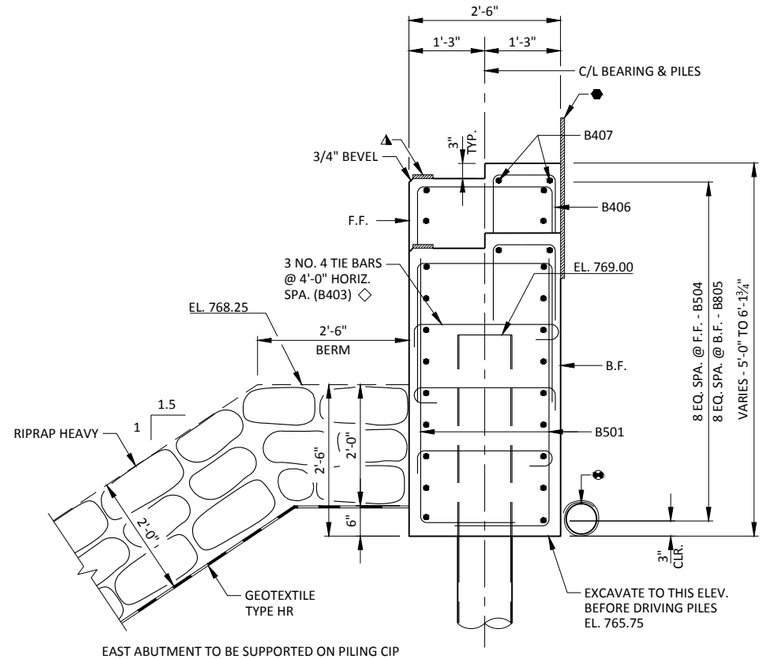
SEAT ELEVATIONS SHOWN IN THE ELEVATION VIEW ARE TAKEN AT THE C/L OF BEARING AT THE TOP OF THE ABUTMENT STEP.

DO NOT PLACE FILL HIGHER THAN 3 FEET FROM BOTTOM OF ABUTMENT UNTIL SUPERSTRUCTURE IS IN PLACE.

SPACE REINFORCEMENT TO MISS PILING

F.F. - FRONT FACE

B.F. - BACK FACE



EAST ABUTMENT TO BE SUPPORTED ON PILING CIP CONCRETE 10¾ X 0.25-INCH DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 100 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATE 25 FT. PILE LENGTHS AT THE EAST ABUTMENT.

TYPICAL SECTION THROUGH ABUTMENT BODY

LEGEND

- ◪ VERTICAL 18" RUBBERIZED MEMBRANE WATERPROOFING EXTEND FROM 9" BELOW BRIDGE SEAT TO 1" BELOW TOP OF WINGS.
- ⬣ 18" RUBBERIZED MEMBRANE WATERPROOFING. (HORIZONTAL)
- ▲ ½" FILLER EXTEND AS SHOWN. SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF FILLER WITH NON-STAINING GRAY, NON-BITUMINUOS JOINT SEALER. (1" DEEP & HOLD ⅛" BELOW SURFACE OF CONCRETE)
- ◭ ¾" x 4" PREFORMED FILLER, EXTEND FULL LENGTH OF ABUTMENTS BETWEEN EDGES OF SLAB.
- ■ PILE SPACING MEASURED AT BASE OF ABUTMENT BODY.
- ⓫ PIPE UNDERDRAIN WRAPPED (6-INCH), SLOPED 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SCREEN AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON SHEET 2. RODENT SCREEN TO BE INCLUDED IN THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH."
- ◇ ALTERNATE THE POSITION OF THE 90° AND THE 180° BENDS AT EACH VERTICAL LAYER OF TIES.

NO.	DATE	REVISION	BY

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STRUCTURE B-25-191

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EAST ABUTMENT

SHEET 6 OF 13

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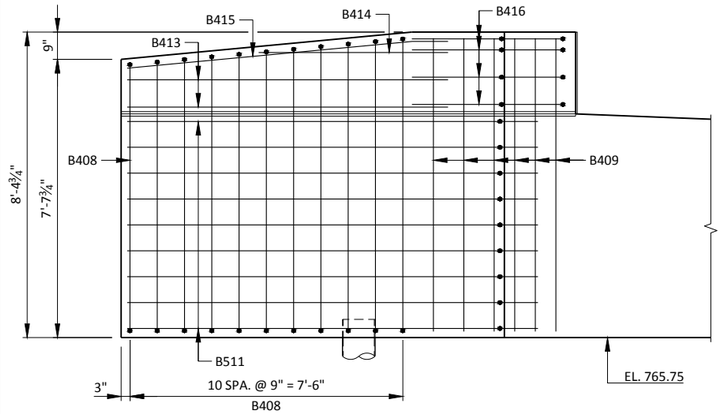
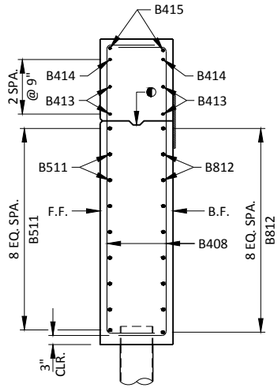
STATE PROJECT NUMBER

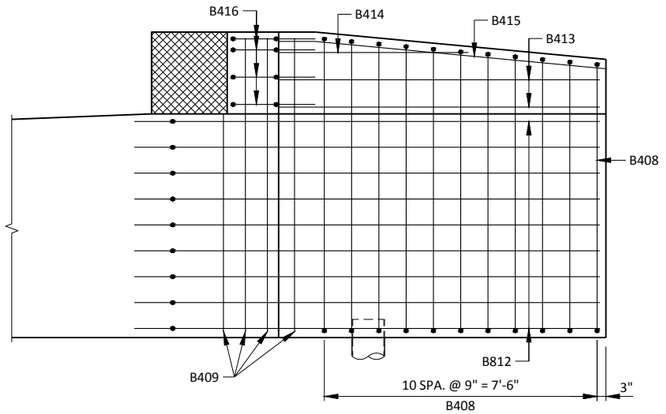
5682-00-75



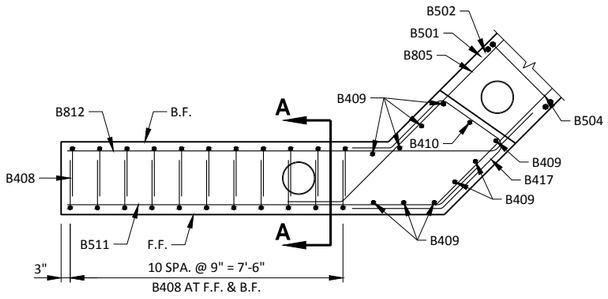
F.F. ELEVATION - WING 3



SECTION A-A



B.F. ELEVATION - WING 3



PLAN VIEW - WING 3

LEGEND

◐ OPTIONAL KEYED CONSTRUCTION JOINT FORMED BY SURFACED & BEVELED 2x6. ¾" "V" GROOVE AT FRONT FACE OF WING WALL AND HORIZONTAL 18" RUBBERIZED MEMBRANE WATERPROOFING AT BACK FACE IF CONSTRUCTION JOINT IS USED. COST IS INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY BRIDGES".

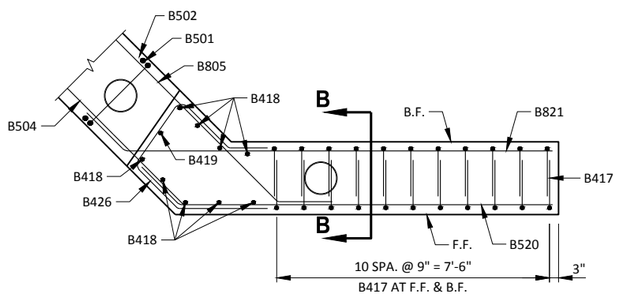
NOTES

SOME BARS HAVE BEEN OMITTED FOR CLARITY. SEE THIS SHEET FOR BILL OF BARS.

SPACE REINFORCEMENT TO MISS PILING

F.F. - FRONT FACE

B.F. - BACK FACE



PLAN VIEW - WING 4

BILL OF BARS
EAST ABUTMENT

1,370 LB (COATED)
2,270 LB (UNCOATED)

BAR MARK	NO. REQ'D.	LENGTH	BENT	COAT	BAR SERIES	LOCATION
B501	66	6-1	X			BODY - VERT. - F.F & B.F.
B502	33	9-5	X			BODY - VERT. - TOP
B403	24	2-9	X			TIE BARS
B504	9	33-6				BODY - HORIZ. - F.F.
B805	18	22-8	X			BODY - HORIZ. - B.F.
B406	20	3-3	X			BODY - VERT. - TOP
B407	2	30-0				BODY - HORIZ. - TOP
B408	22	10-1	X	X	✳	WING 3 - VERT. - F.F. & B.F.
B409	10	7-11		X		WING 3- VERT.
B410	1	2-8		X		WING 3 - VERT. - TOP
B511	9	11-9	X	X		WING 3 - HORIZ. - F.F.
B812	9	13-5	X	X		WING 3- HORIZ. - B.F.
B413	4	8-10		X		WING 3 - HORIZ. - F.F. & B.F. - TOP
B414	2	5-3		X		WING 3 - HORIZ. - F.F. & B.F. - TOP
B415	2	8-10	X	X		WING 3 - HORIZ. - F.F. & B.F. - TOP
B416	4	9-10	X	X		WING 3 - HORIZ. - TOP
B417	22	8-7	X	X	✳	WING 4 - VERT. - F.F. & B.F.
B418	9	6-10		X		WING 4- VERT.
B419	1	2-8		X		WING 4 - VERT. - TOP
B520	9	11-9	X	X		WING 4 - HORIZ. - F.F.
B821	9	13-5	X	X		WING 4 - HORIZ. - B.F.
B422	2	8-10		X		WING 4 - HORIZ. - F.F. & B.F. - TOP
B423	2	7-0		X		WING 4 - HORIZ. - F.F & B.F. - TOP
B424	2	3-0		X		WING 4 - HORIZ. - F.F. & B.F.- TOP
B425	2	8-11	X	X		WING 4 - HORIZ. - F.F. & B.F.- TOP
B426	4	9-0	X	X		WING 4 - HORIZ. - F.F. & B.F. - TOP

NOTES: THE FIRST DIGIT OF A BAR MARK SIGNIFIES THE BAR SIZE.

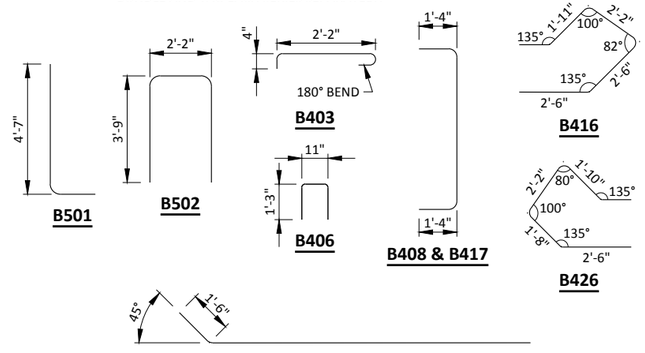
DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

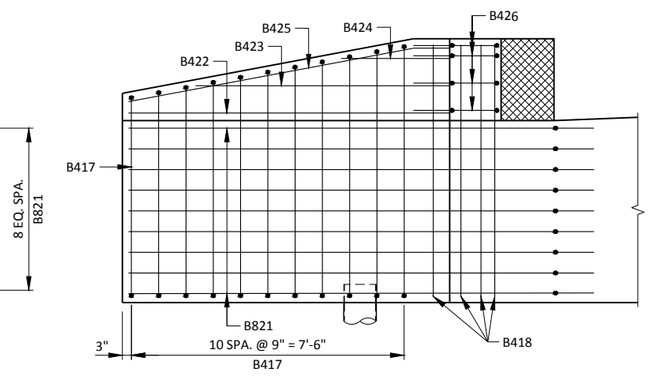
✳ LENGTH SHOWN IS AN AVERAGE LENGTH ONLY. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

BAR SERIES TABLE

BAR MARK	NO. REQ'D.	LENGTH
B408	2 SERIES OF 11	10-5 TO 9-9
B417	2 SERIES OF 11	9-3 TO 7-11

BUNDLE AND TAG EACH SERIES SEPARATELY.





F.F. ELEVATION - WING 4

SECTION B-B

B.F. ELEVATION - WING 4

B415 & B425

MARK	'A'
B415	174°39'
B425	169°23'

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STATE OF WISCONSIN
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DRAWN BY PTB | PLANS CK'D. RBH

EAST ABUTMENT DETAILS

SHEET 7 OF 13

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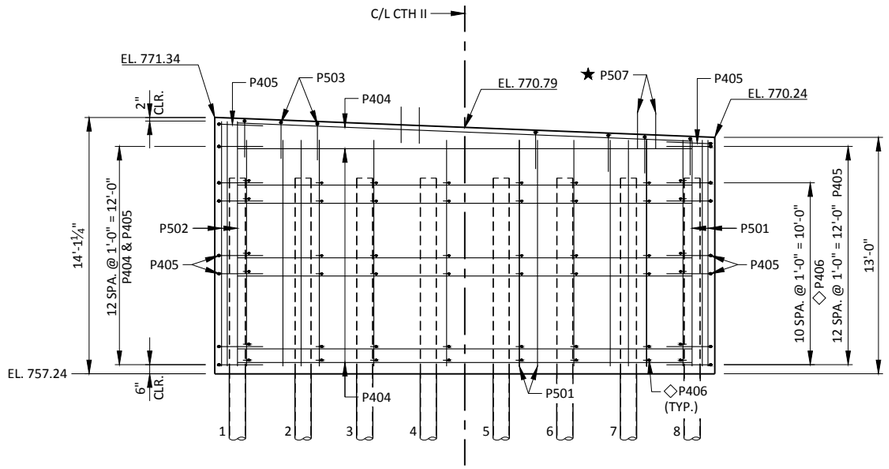

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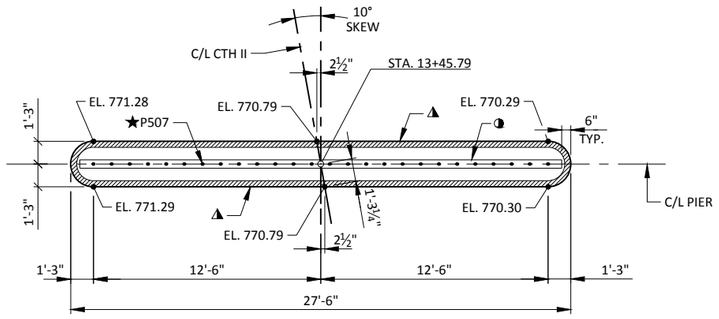
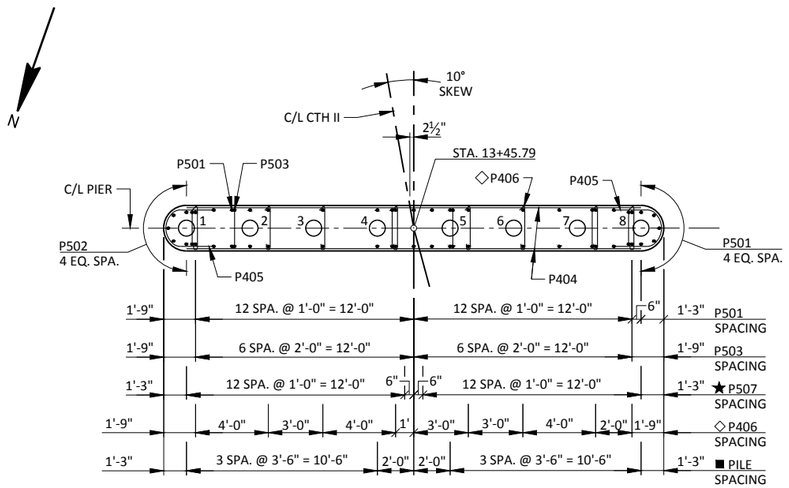
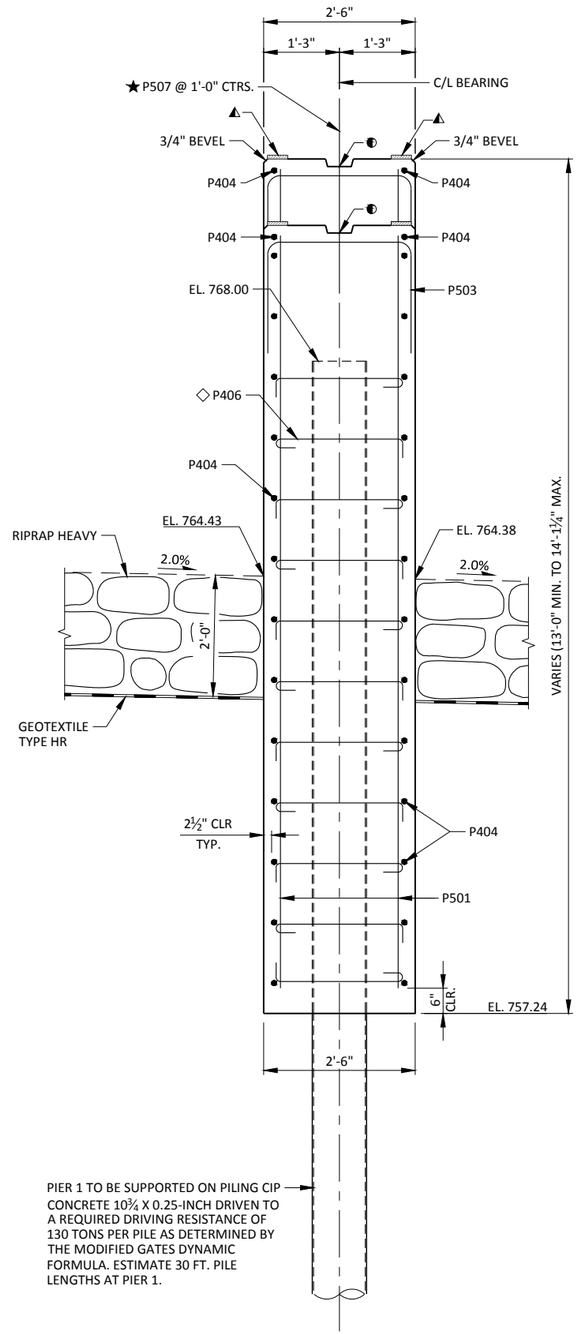


PLAN



LAYOUT



TYPICAL SECTION THROUGH PIER

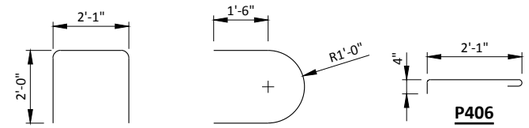
BILL OF BARS
PIER 1

50 LB (COATED)
1,590 LB (UNCOATED)

	BAR MARK	NO. REQ'D.	LENGTH	BENT	COAT	LOCATION
	P501	55	12-4			BODY - VERT. - E.F. & S. END
	P502	5	13-5			BODY - VERT. - N. END
	P503	13	5-10	X		BODY - VERT. - TOP
	P404	28	25-0			BODY - HORIZ. - E.F.
	P405	28	6-2	X		BODY - HORIZ. - ENDS
◇	P406	88	2-7	X		TIE BARS
★	P507	26	2-0		X	BODY - VERT. - DOWELS

NOTES: THE FIRST DIGIT OF A BAR MARK SIGNIFIES THE BAR SIZE.

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.



NOTES

SOME BARS HAVE BEEN OMITTED FOR CLARITY. SEE THIS SHEET FOR BILL OF BARS.

SEAT ELEVATIONS SHOWN IN THE ELEVATION VIEW ARE TAKEN AT THE C/L OF BEARING, NEGLECTING THE KEYED CONSTRUCTION JOINT.

TOP OF PIER ELEVATIONS ARE ¾" BELOW BOTTOM OF DECK TO ALLOW FOR FILLER.

E.F. - EACH FACE

AT PIER 1, CONCRETE POURED UNDERWATER WILL BE ALLOWED AND SHALL BE DONE IN ACCORDANCE WITH STANDARD SPEC. 502.3.5.3.

LEGEND

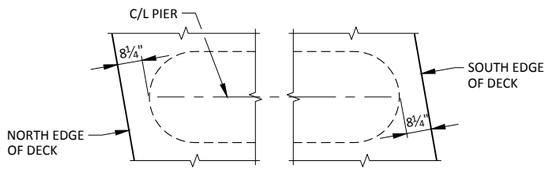
◑ KEYED CONSTRUCTION JOINT FORMED BY SURFACED & BEVELED 2x6.

◭ ¾"x4" PREFORMED FILLER, EXTEND FULL PERIMETER OF PIER AS SHOWN.

★ P507 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE IT HAS TAKEN ITS INITIAL SET. EMBED BAR 1'-0".

■ PILE SPACING MEASURED AT BASE OF SHAFT.

◇ PLACE P406 BARS ADJACENT TO EACH PILE ONLY. TIE TO NEAREST VERTICAL NO. 5 BAR. VERTICAL SPACING @ 1'-0" TO MATCH NO. 4 OUTSIDE BARS FROM BASE OF SHAFT TO TOP OF PILING. ALTERNATE THE POSITION OF THE 90° AND 180° HOOKS AT EACH VERTICAL LAYER OF TIES.



PLAN AT END OF PIER

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-25-191

DRAWN BY PTB | PLANS CK'D. RBH

PIER 1

SHEET 8 OF 13

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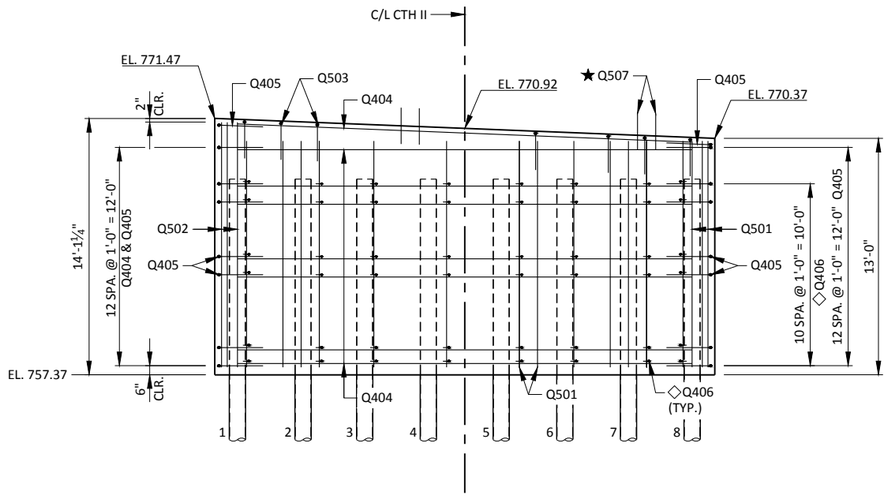
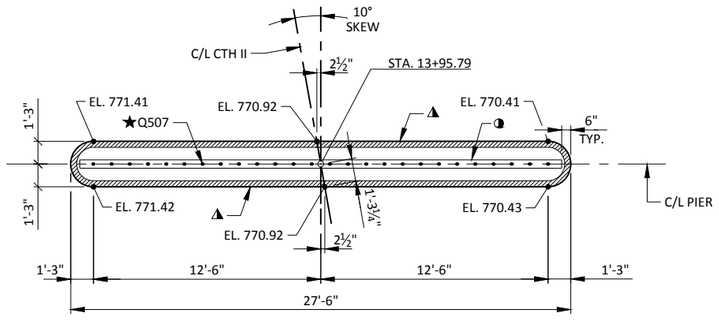
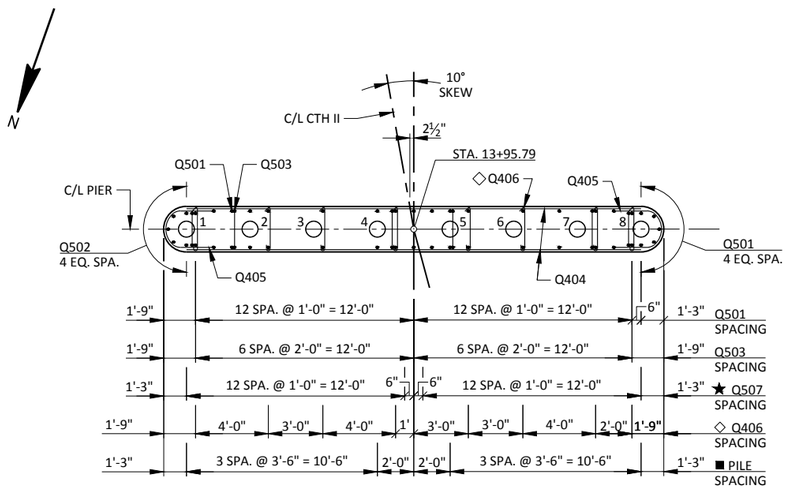


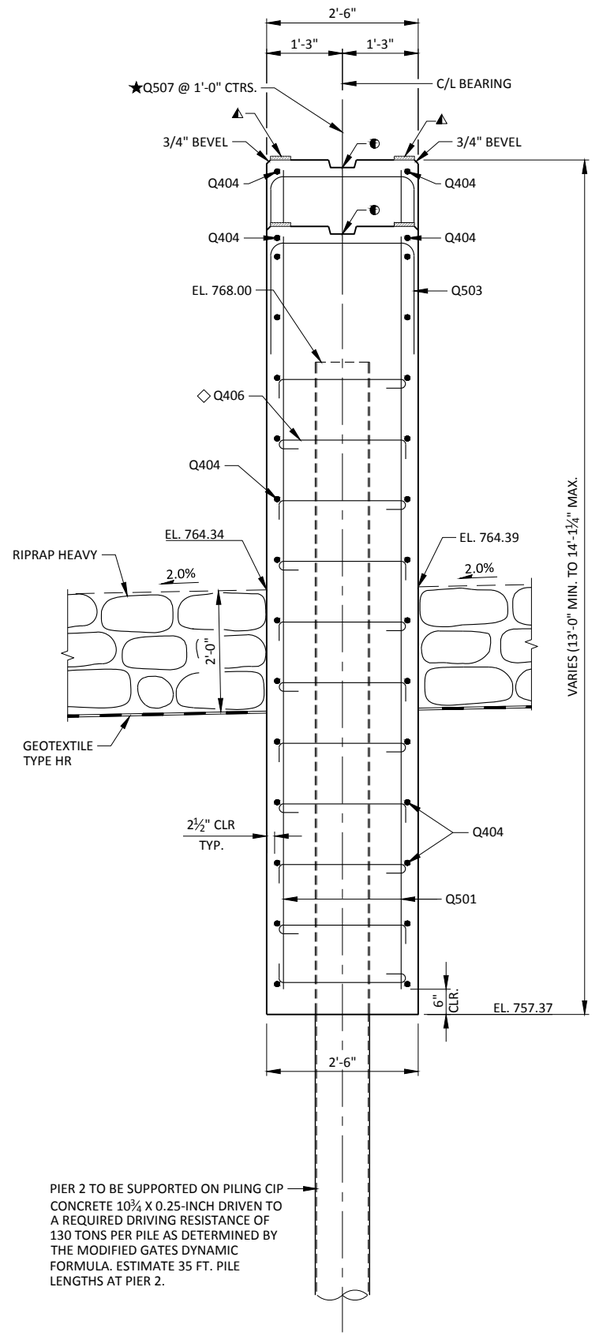
ELEVATION



PLAN



LAYOUT



TYPICAL SECTION THROUGH PIER

STATE PROJECT NUMBER

5682-00-75

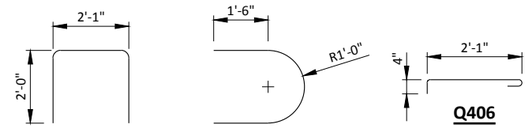
BILL OF BARS
PIER 2

50 LB (COATED)
1,590 LB (UNCOATED)

	BAR MARK	NO. REQ'D.	LENGTH	BENT	COAT	LOCATION
	Q501	55	12-4			BODY - VERT. - E.F. & S. END
	Q502	5	13-5			BODY - VERT. - N. END
	Q503	13	5-10	X		BODY - VERT. - TOP
	Q404	28	25-0			BODY - HORIZ. - E.F.
	Q405	28	6-2	X		BODY - HORIZ. - ENDS
◇	Q406	88	2-7	X		TIE BARS
★	Q507	26	2-0		X	BODY - VERT. - DOWELS

NOTES: THE FIRST DIGIT OF A BAR MARK SIGNIFIES THE BAR SIZE.

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.



NOTES

SOME BARS HAVE BEEN OMITTED FOR CLARITY. SEE THIS SHEET FOR BILL OF BARS.

SEAT ELEVATIONS SHOWN IN THE ELEVATION VIEW ARE TAKEN AT THE C/L OF BEARING, NEGLECTING THE KEYED CONSTRUCTION JOINT.

TOP OF PIER ELEVATIONS ARE ¾" BELOW BOTTOM OF DECK TO ALLOW FOR FILLER.

E.F. - EACH FACE

AT PIER 2, CONCRETE POURED UNDERWATER WILL BE ALLOWED AND SHALL BE DONE IN ACCORDANCE WITH STANDARD SPEC. 502.3.5.3.

LEGEND

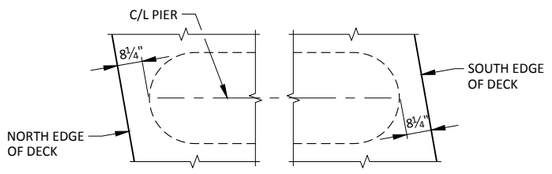
◑ KEYED CONSTRUCTION JOINT FORMED BY SURFACED & BEVELED 2x6.

◭ ¾"x4" PREFORMED FILLER, EXTEND FULL PERIMETER OF PIER AS SHOWN.

★ Q507 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE IT HAS TAKEN ITS INITIAL SET. EMBED BAR 1'-0".

■ PILE SPACING MEASURED AT BASE OF SHAFT.

◇ PLACE Q406 BARS ADJACENT TO EACH PILE ONLY. TIE TO NEAREST VERTICAL NO. 5 BAR. VERTICAL SPACING @ 1'-0" TO MATCH NO. 4 OUTSIDE BARS FROM BASE OF SHAFT TO TOP OF PILING. ALTERNATE THE POSITION OF THE 90° AND 180° HOOKS AT EACH VERTICAL LAYER OF TIES.



PLAN AT END OF PIER

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-25-191

DRAWN BY PTB | PLANS CK'D. RBH

PIER 2

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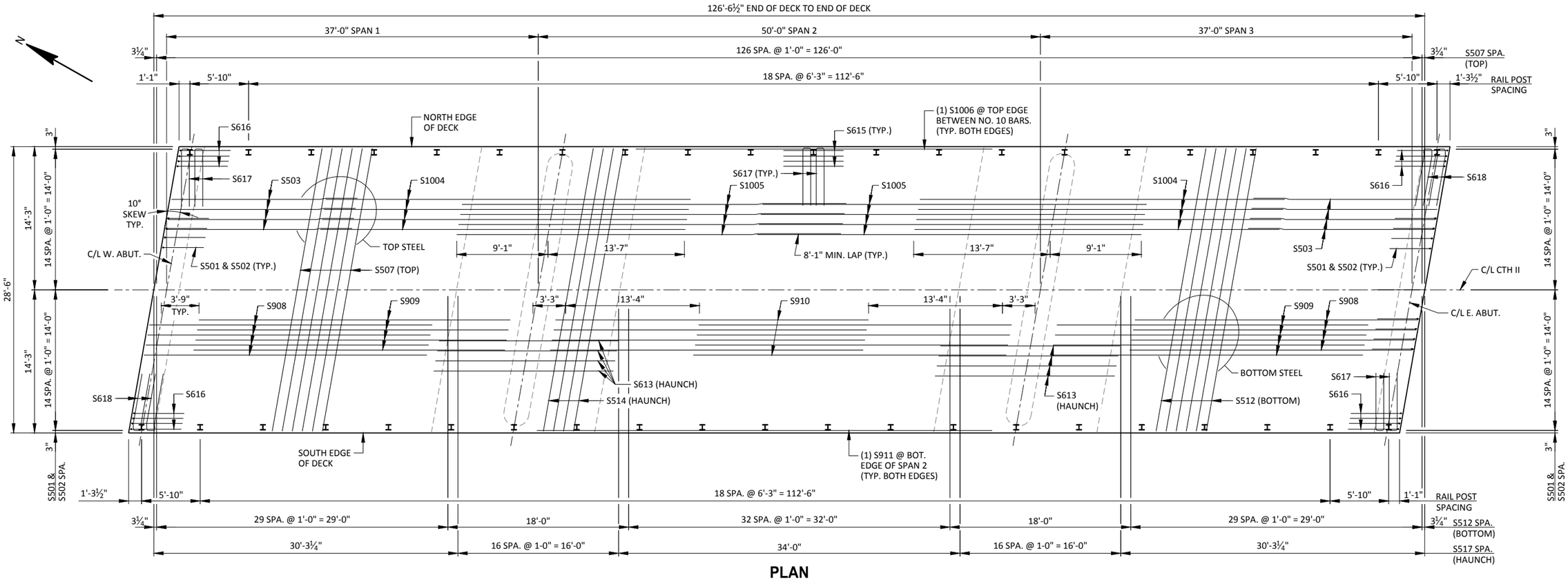
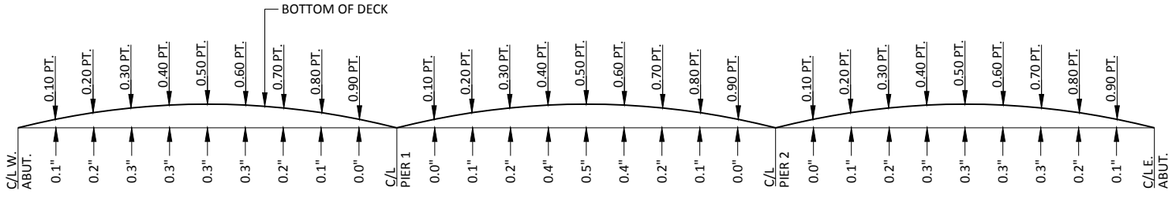
TOP OF DECK ELEVATIONS

	C/L W. ABUT.	0.10 PNT.	0.20 PNT.	0.30 PNT.	0.40 PNT.	0.50 PNT.	0.60 PNT.	0.70 PNT.	0.80 PNT.	0.90 PNT.	C/L PIER 1	0.10 PNT.	0.20 PNT.	0.30 PNT.	0.40 PNT.	0.50 PNT.	0.60 PNT.	0.70 PNT.	0.80 PNT.	0.90 PNT.	C/L PIER 2	0.10 PNT.	0.20 PNT.	0.30 PNT.	0.40 PNT.	0.50 PNT.	0.60 PNT.	0.70 PNT.	0.80 PNT.	0.90 PNT.	C/L E. ABUT.
N. EDGE OF DECK	773.83	773.84	773.85	773.86	773.87	773.88	773.89	773.90	773.91	773.92	773.93	773.94	773.95	773.97	773.98	773.99	774.01	774.02	774.03	774.04	774.06	774.07	774.08	774.09	774.10	774.11	774.11	774.12	774.13	7744.14	774.15
C/L	773.26	773.27	773.28	773.29	773.29	773.30	773.31	773.32	773.33	773.34	773.35	773.36	773.38	773.39	773.40	773.42	773.43	773.44	773.46	773.47	773.48	773.49	773.50	773.51	773.52	773.53	773.54	773.55	773.56	773.57	773.58
S. EDGE OF DECK	772.68	772.69	772.70	772.71	772.72	772.73	772.74	772.75	772.76	772.77	772.78	772.79	772.80	772.81	772.83	772.84	772.85	772.87	772.88	772.89	772.90	772.91	772.92	772.93	772.94	772.95	772.96	772.97	772.98	772.99	773.00



PLAN



CAMBER DIAGRAM

CAMBER SPAN AS SHOWN TO PROVIDE FOR THEORETICAL DEADLOAD DEFLECTION AND FUTURE PLASTIC FLOW. CAMBER DOES NOT INCLUDE ALLOWANCE FOR FORM SETTLEMENT.

NOTES

SOME BARS HAVE BEEN OMITTED FOR CLARITY. SEE SHEET 12 FOR BILL OF BARS.

SEE SUPERSTRUCTURE DETAILS SHEETS (SHEETS 11 & 12) FOR BAR SPACINGS NOT SHOWN ON THIS SHEET.

SUPPORT ALTERNATE TOP TRANSVERSE BARS IN SLAB BY INDIVIDUAL BAR CHAIRS AT APPROX. 3'-0" CENTERS. SUPPORT BOTTOM LONGITUDINAL BARS BY CONTINUOUS BAR CHAIRS AT APPROX. 4'-0" CENTERS.

PLACE TRANSVERSE BARS PARALLEL TO THE CENTERLINE OF SUBSTRUCTURE UNITS.

THE SLAB THICKNESS DIMENSION IS MINIMUM. ANY TOLERANCES NECESSARY TO CORRECT CONSTRUCTION DISCREPANCIES ARE TO BE PLUS (+).

CAMBER SPANS AS SHOWN TO PROVIDE FOR DEAD LOAD DEFLECTION AND FUTURE CREEP. CAMBER DOES NOT INCLUDE ALLOWANCE FOR FORM SETTLEMENT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-25-191

DRAWN BY PTB | PLANS CK'D. RBH

SUPERSTRUCTURE

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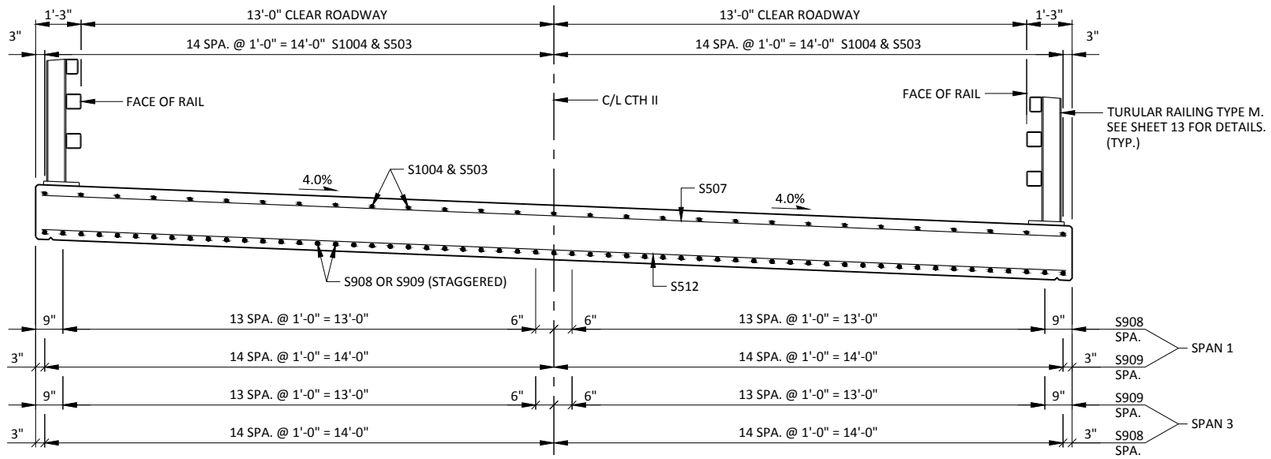
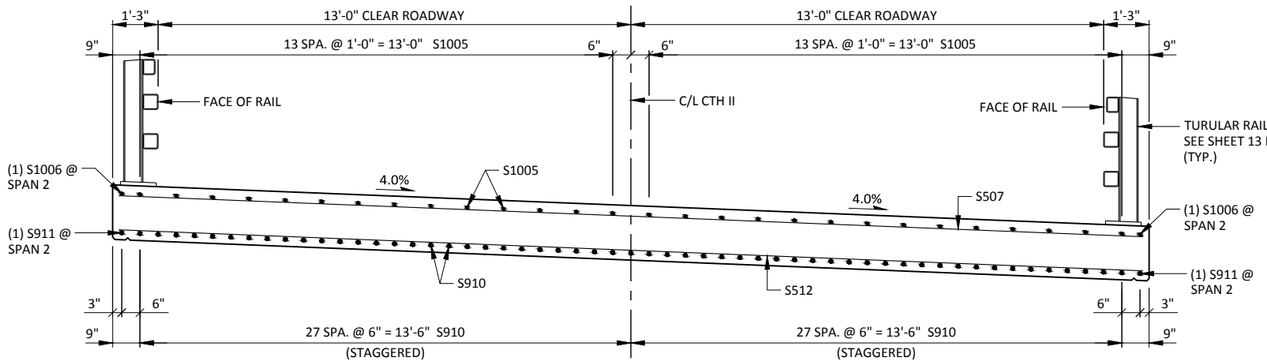


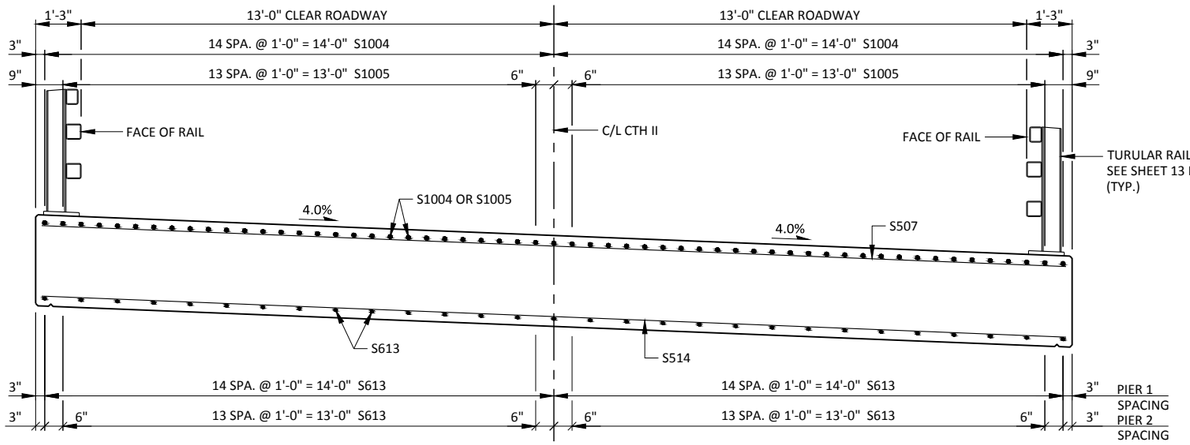
CROSS SECTION THROUGH ROADWAY

SPANS 1 & 3 (IN SPAN LOOKING EAST)



CROSS SECTION THROUGH ROADWAY

SPAN 2 (IN SPAN LOOKING EAST)



CROSS SECTION THROUGH ROADWAY

PIERS (AT PIERS LOOKING EAST)

NOTES

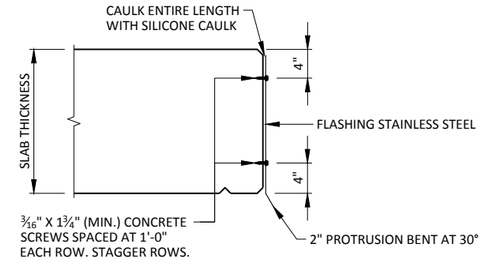
SEE SHEET 12 FOR BILL OF BARS.

SUPPORT ALTERNATE TOP TRANSVERSE BARS IN SLAB BY INDIVIDUAL BAR CHAIRS AT APPROX. 3'-0" CENTERS. SUPPORT BOTTOM LONGITUDINAL BARS BY CONTINUOUS BAR CHAIRS AT APPROX. 4'-0" CENTERS.

PLACE TRANSVERSE BARS PARALLEL TO THE CENTERLINE OF SUBSTRUCTURE UNITS.

THE SLAB THICKNESS DIMENSION IS MINIMUM. ANY TOLERANCES NECESSARY TO CORRECT CONSTRUCTION DISCREPANCIES ARE TO BE PLUS (+).

CAMBER SPANS AS SHOWN TO PROVIDE FOR DEAD LOAD DEFLECTION AND FUTURE CREEP. CAMBER DOES NOT INCLUDE ALLOWANCE FOR FORM SETTLEMENT.



STAINLESS STEEL FLASHING DETAIL

NOTES:

THE BID ITEM "FLASHING STAINLESS STEEL" SHALL INCLUDE PROVIDING AND INSTALLING THE STAINLESS STEEL FLASHING, SILICONE CAULK, 3/16" CONCRETE SCREWS, AND CLEANING THE EDGE OF DECK PRIOR TO ATTACHMENT OF THE FLASHING.

FLASHING TO BE INSTALLED AFTER APPLICATION OF PROTECTIVE SURFACE TREATMENT.

CONCRETE SCREWS SHALL BE 410 STAINLESS STEEL.

EXTEND FLASHING TO F.F. OF ABUTMENT.

TOP OF FLASHING TO BEGIN APPROXIMATELY 1" BELOW TOP OF SLAB SURFACE.

THE FLASHING IS TO BE A CONSTANT HEIGHT BASED ON THE THINNEST SLAB DEPTH OVER THE BRIDGE LENGTH.

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-25-191

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SUPERSTRUCTURE DETAILS (1 OF 2)

SHEET 11 OF 13

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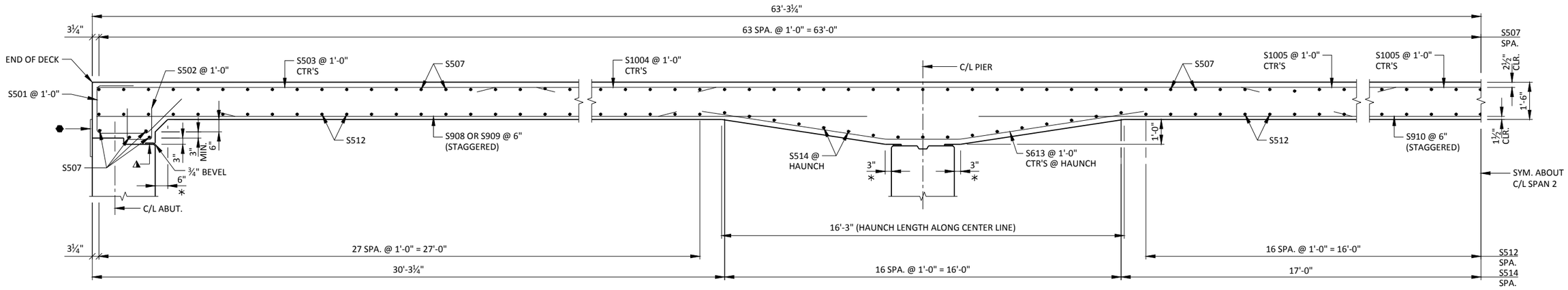
STATE PROJECT NUMBER

5682-00-75



PARTIAL LONGITUDINAL SECTION THROUGH ROADWAY

LEGEND

- ⬣ 18" RUBBERIZED MEMBRANE WATERPROOFING. (HORIZONTAL)
- ∗ DIMENSION IS NORMAL TO THE C/L OF SUBSTRUCTURE UNITS.
- ◭ ¾"x4" PREFORMED FILLER, EXTEND FULL LENGTH OF ABUTMENT BETWEEN EDGES OF SLAB.

NOTES

SUPPORT ALTERNATE TOP TRANSVERSE BARS IN SLAB BY INDIVIDUAL BAR CHAIRS AT APPROX. 3'-0" CENTERS. SUPPORT BOTTOM LONGITUDINAL BARS BY CONTINUOUS BAR CHAIRS AT APPROX. 4'-0" CENTERS.

PLACE TRANSVERSE BARS PARALLEL TO THE CENTERLINE OF SUBSTRUCTURE UNITS.

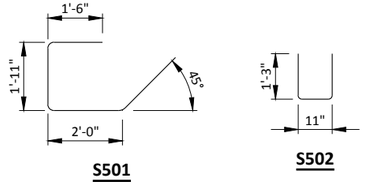
THE SLAB THICKNESS DIMENSION IS MINIMUM. ANY TOLERANCES NECESSARY TO CORRECT CONSTRUCTION DISCREPANCIES ARE TO BE PLUS (+).

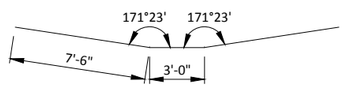
CAMBER SPANS AS SHOWN TO PROVIDE FOR DEAD LOAD DEFLECTION AND FUTURE CREEP. CAMBER DOES NOT INCLUDE ALLOWANCE FOR FORM SETTLEMENT.

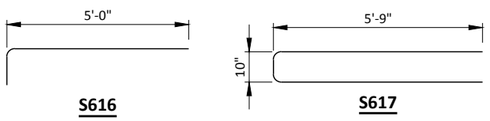
SURVEY TOP OF DECK ELEVATIONS

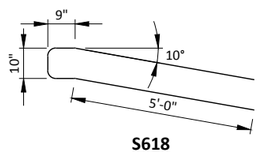
	W. ABUT.	0.50 PT.	PIER 1	0.50 PT.	PIER 2	0.50 PT.	E. ABUT.
NORTH EDGE OF DECK							
CENTER LINE							
SOUTH EDGE OF DECK							

PRIOR TO RELEASING SLAB FASLEWORK, TAKE TOP OF DECK ELEVATIONS AT THE C/L OF THE ABUTMENTS AND AT 0.50 PTS. TO VERIFY CAMBER. TAKE ELEVATIONS ALONG THE EDGE OF DECK AND CENTER LINE. RECORD THE ELEVATIONS IN THE ABOVE TABLE FOR THE "AS BUILT" PLANS.









BILL OF BARS
SUPERSTRUCTURE

50,410 LB (COATED)

BAR MARK	NO. REQ'D.	LENGTH	BENT	COAT	LOCATION
S501	58	7-3	X	X	END OF DECK
S502	58	3-2	X	X	END OF DECK - BOTTOM
S503	58	18-6		X	SLAB - TOP - LONG. - SPAN 1 & 3
S1004	58	36-4		X	SLAB - TOP - LONG. - SPANS 1 & 3
S1005	56	38-3		X	SLAB - TOP - LONG. - SPAN 2
S1006	2	39-0		X	SLAB - TOP - LONG. - SPAN 2 - EDGES
S507	135	28-7		X	SLAB - TOP - TRANS. & AT ABUTS.
S908	57	28-2		X	SLAB - BOTTOM - LONG. - SPAN 1 & 3
S909	57	31-0		X	SLAB - BOTTOM - LONG. - SPAN 1 & 3
S910	55	31-2		X	SLAB - BOTTOM - LONG. - SPAN 2
S911	2	45-6		X	SLAB - BOTTOM - LONG. - SPAN 2 - EDGES
S512	93	28-7		X	SLAB - BOTTOM - TRANS.
S613	59	18-0	X	X	SLAB - BOTTOM - HAUNCH - LONG.
S514	34	28-7		X	SLAB - BOTTOM - HAUNCH - TRANS.
S615	152	6-0		X	RAIL POSTS - INTERIOR
S616	16	6-0	X	X	RAIL POSTS - CORNERS
S617	80	12-0	X	X	RAIL POSTS
S618	4	12-0	X	X	RAIL POSTS - CORNER 1 & 3

NOTES: THE FIRST DIGIT OF A THREE DIGIT BARK MARK OR THE FIRST TWO DIGITS OF A FOUR DIGIT BAR MARK SIGNIFIES THE BAR SIZE.

DIMENSIONS IN BENDING DETAILS ARE OUT TO OUT OF BAR.

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STRUCTURE B-25-191

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SUPERSTRUCTURE DETAILS (2 OF 2)

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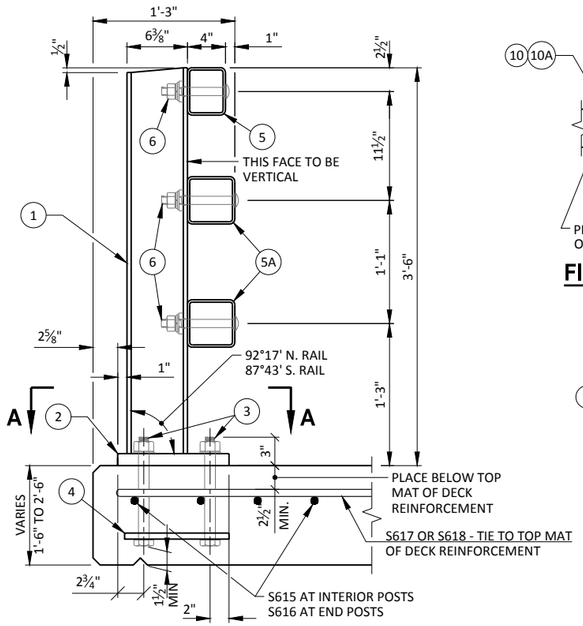
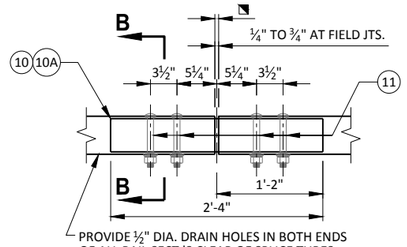
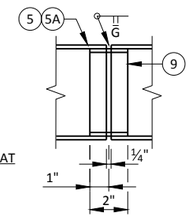


SECTION THROUGH RAILING ON DECK



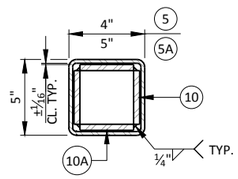
FIELD ERECTION JOINT DETAIL

RDWY. OPENING OR 2½" MIN. FOR STRIP SEAL EXP. JOINT & (¼" TO ¾") OPENING FOR A1 ABUTMENT.

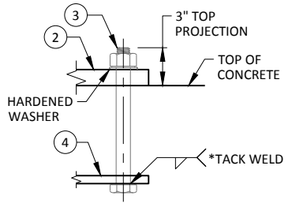


SHOP RAIL SPLICE DETAIL

(LOCATION MUST BE SHOWN ON SHOP DRAWINGS)

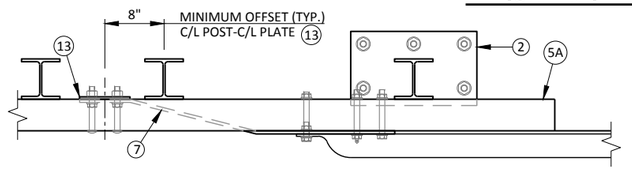


SECTION B-B



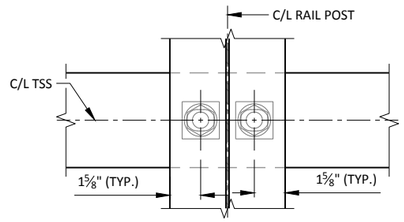
ANCHOR BOLTS

* ANCHOR BOLT ASSEMBLY MAY BE TACK WELDED, EITHER IN THE SHOP, OR IN THE FIELD AFTER THE ANCHOR PLATE IS PLACED.

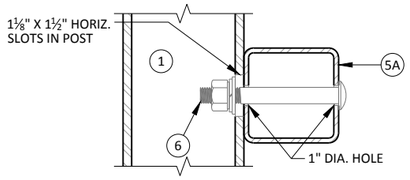


TOP VIEW AT END POST

(THRIE BEAM RAIL ATTACHMENT)



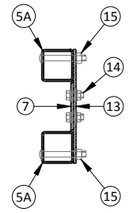
SECTION THROUGH POST WEB



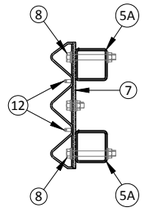
SECTION THROUGH RAIL

NOTE: CONNECTIONS AT LOWER RAILS SHOWN. CONNECTIONS AT TOP RAIL SIMILAR.

TYPICAL RAIL TO POST CONNECTIONS



SECTION C-C



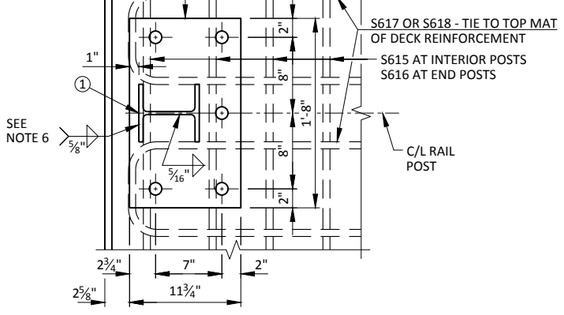
SECTION D-D

LEGEND

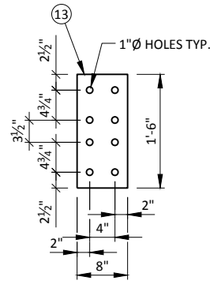
1. W6x25 WITH 1⅛" x 1½" HORIZONTAL SLOTS ON EACH SIDE OF POST FOR BOLT NO. 6. CUT BOTTOM OF POST TO MATCH CROSS SLOPE OF ROADWAY. PLACE POST VERTICAL. PLACE POSTS NORMAL TO GRADE LINE.
2. PLATE 1½"x11¾"x1'-8" WITH 1 7/16" DIA. OVERSIZED HOLES FOR ANCHOR BOLTS NO. 3. WELD TO NO. 1 AS SHOWN.
3. ASTM A449 - 1⅛" DIA. ANCHOR BOLTS WITH NUT AND HARDENED WASHER (ALL GALVANIZED). 5 REQ'D. PER POST. THREAD 3" AND PLACE NORMAL TO PLATE NO. 2. CHAMFER TOP OF BOLTS BEFORE THREADING. AT POSTS ON CONCRETE SLAB SUPERSTRUCTURES WHERE THE SLAB THICKNESS IS > 16" USE 1'-3" LONG. USE 10¾" LONG AT ALL OTHER LOCATIONS.
4. ⅝"x11"x1'-8" ANCHOR PLATE (GALVANIZED) WITH 1 3/16" DIA. HOLES FOR ANCHOR BOLTS NO. 3.
5. TSS 5x4x0.25 STRUCTURAL TUBING. ATTACH TO NO. 1 WITH NO. 6.
5A. TSS 5x5x0.25 STRUCTURAL TUBING. ATTACH TO NO. 1 WITH NO. 6.
6. ⅞" DIA. A325 SLOTTED ROUND HEAD BOLT WITH NUT, 3/16"x1⅝"x1⅝" WASHER, AND LOCK WASHER (2 REQ'D. AT EACH RAIL TO POST LOCATION).
7. ½" THK. BACK-UP PLATE WITH 2 - ⅞"x1½" THREADED SHOP WELDED STUDS (NO. 12). BOLT TO RAIL AS SHOWN IN DETAIL. REQUIRED AT THRIE BEAM GUARD RAIL ATTACHMENTS ONLY. PLACE SYMMETRICALLY ABOUT TUBES NO. 5A.
8. 1" DIA. HOLES IN PLATE NO. 7 & TUBES NO. 5A FOR ⅞" DIA. A325 BOLTS WITH HEX NUTS AND WASHERS. 6 HOLES IN TUBES AND PLATE NO. 7.
9. SPLICE SLEEVE FABRICATED FROM ¼" PLATE. PROVIDE "SLIDING FIT".
10. ⅜"x3⅜"x2'-4" PLATE. 2 PER RAIL. USED IN NO. 5 & 5A.
10A. ⅜"x2⅜"x2'-4" PLATE USED IN NO. 5, ⅜"x3⅜"x2'-4" PLATE USED IN NO. 5A. 2 PER RAIL.
11. ⅞" DIA. A325 ROUND HEAD BOLT WITH NUT, WASHER, AND LOCK WASHER. USE 15/16"x1¼" LONGIT. SLOTTED HOLES IN PLATE NO. 10A. AT FIELD JOINTS AND 15/16"x2¼" MIN. LONGIT. SLOTTED HOLES AT EXP. JOINTS IN PLATE NO. 10A. PROVIDE 15/16" DIA. ROUND HOLES IN TUBES NO. 5 AND NO. 5A.
12. ⅞" DIA. BY 1½" LONG THREADED SHOP WELDED STUDS (2 REQ'D).
13. ⅜"x8"x1'-6" PLATE. BOLT TO RAIL AS SHOWN IN DETAIL. REQ'D. AT THRIE BEAM GUARD RAIL ATTACHMENTS ONLY. PLACE SYM. ABOUT TUBES NO. 5A.
14. ⅞" DIA. x 2" LONG A325 HEX BOLT WITH NUT AND WASHER (5 REQ'D.).
15. 1" DIA. HOLES IN TUBES NO. 5A FOR ⅞" A325 ROUND HEAD BOLT WITH NUT, WASHER AND LOCK WASHER (4 REQ'D.). 4 HOLES IN TUBES.

GENERAL NOTES

1. BID ITEM SHALL BE "RAILING TUBULAR TYPE M" WHICH INCLUDES ALL ITEMS SHOWN.
2. RAIL POST AND BASE PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A709 GRADE 50. HOLLOW RAILING STRUCTURAL TUBING SHALL CONFORM TO THE REQUIREMENTS OF ASTM A500 GRADE B OR C WITH A CERTIFIED FY=50 KSI. ANCHOR PLATES AND SPLICE TUBE PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A709 GRADE 36.
3. THE NUT SECURING THE POST BASE PLATE TO THE CONCRETE SHALL BE TIGHTENED TO A SNUG FIT AND GIVEN AN ADDITIONAL ⅛ TURN.
4. RAILS SHALL BE CONTINUOUS OVER A MINIMUM OF THREE (3) POSTS WITHOUT SPLICES WHERE POSSIBLE.
5. ENDS OF TUBE SECTIONS SHALL BE SAWED. GRIND SMOOTH EXPOSED EDGES. ALL CUT ENDS SHALL BE TRUE AND SMOOTH.
6. WELD IS THE SAME ON BOTH FLANGES. FLANGE WELD DOES NOT REQUIRE MAGNETIC PARTICLE TESTING.
7. FILL BOLT SLOT OPENINGS IN POST SHIMS AND PLATE NO. 2 AND CAULK AROUND PERIMETER OF PLATE NO. 2 WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. STEEL POST SHIMS MAY BE USED UNDER POSTS WHERE REQ'D. FOR ALIGNMENT.
8. 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.
9. ALL MATERIAL SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING, ALL STEEL RAILING POSTS & STEEL TUBING SHALL BE GIVEN A NO. 6 BLAST CLEANING BY S.S.P.C. SPECIFICATIONS.
10. THIS RAILING MEETS NCHRP REPORT 350 EVALUATION CRITERIA FOR TEST LEVEL 4 (TL-4).

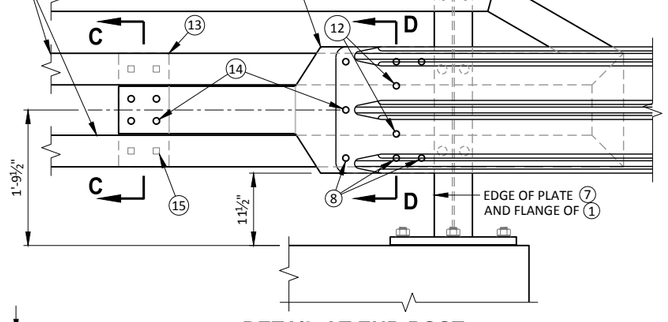


SECTION A-A



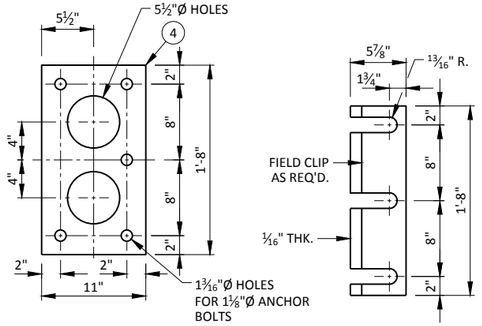
ANCHOR PLATE

AT BEAM GUARD ATTACHMENT



DETAIL AT END POST

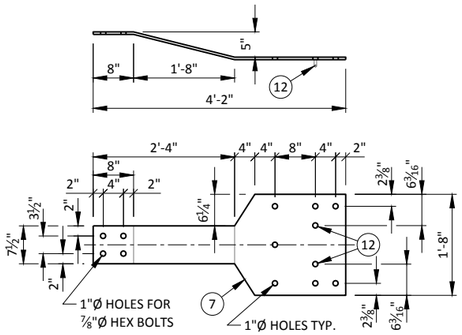
(THRIE BEAM RAIL ATTACHMENT)



ANCHOR PLATE

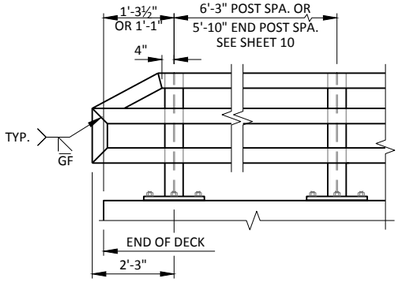
AT RAIL TO DECK CONNECTION

POST SHIM DETAIL



BACK-UP PLATE DETAIL

AT BEAM GUARD ATTACHMENT



PART ELEVATION OF RAILING

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-25-191

DRAWN BY PTB | PLANS CK'D. RBH

TUBULAR STEEL RAILING TYPE M

SHEET 13 OF 13

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EARTHWORK - CTH II, MAINLINE - STAGE 1 (BY OTHERS)

	AREA (SF)		INCREMENTAL VOL (CY)			CUMMULATIVE VOLUME (CY)			
STATION	CUT	FILL	CUT NOTE 1	FILL NOTE 2	FILL (25%) NOTE 3	CUT 1.00 NOTE 1	FILL	FILL (25%) NOTE 3	MASS ORDINATE NOTE 4
10+00	0	0	0	0	0	0	0	0	0
10+50	18	14	17	13	16	17	13	16	1
11+00	26	23	41	34	43	58	47	58	-1
11+50	29	50	51	68	85	109	115	143	-35
12+00	20	89	45	129	161	154	244	305	-151
12+50	5	264	22	327	409	176	571	713	-537
13+00	10	275	14	500	625	190	1070	1338	-1148
13+08	0	97	2	55	69	191	1126	1407	-1216
13+08	0	0	0	0	0	191	1126	1407	-1216
13+50	0	0	0	0	0	191	1126	1407	-1216
14+00	0	0	0	0	0	191	1126	1407	-1216
14+34	0	0	0	0	0	191	1126	1407	-1216
14+34	103	22	0	0	0	191	1126	1407	-1216
14+50	74	96	53	35	44	244	1160	1451	-1207
15+00	27	68	94	151	189	338	1312	1640	-1302
15+50	14	70	38	128	159	376	1439	1799	-1423
16+00	7	35	19	97	121	394	1536	1920	-1526
16+50	13	10	18	41	51	412	1577	1971	-1559
17+00	11	2	22	10	13	434	1587	1984	-1550
17+50	0	0	11	2	2	445	1589	1986	-1541
COLUMN TOTALS =			445	1589	1986				-1541

MARSH EXCAVATION - CTH II, MAINLINE - STAGE 1 (BY OTHERS)

	AREA (SF)		INCREMENTAL VOL (CY)			CUMMULATIVE VOLUME (CY)			
STATION	CUT	FILL	CUT NOTE 1	FILL NOTE 2	FILL (25%) NOTE 3	CUT 1.00 NOTE 1	FILL	FILL (25%) NOTE 3	MASS ORDINATE NOTE 4
10+00	0	0	0	0	0	0	0	0	0
10+50	0	0	0	0	0	0	0	0	0
11+00	0	0	0	0	0	0	0	0	0
11+50	0	0	0	0	0	0	0	0	0
12+00	0	0	0	0	0	0	0	0	0
12+50	156	0	144	0	0	144	0	0	144
13+00	112	0	250	0	0	394	0	0	394
13+08	41	0	23	0	0	417	0	0	417
13+08	0	0	0	0	0	417	0	0	417
13+50	0	0	0	0	0	417	0	0	417
14+00	0	0	0	0	0	417	0	0	417
14+34	0	0	0	0	0	417	0	0	417
14+34	0	0	0	0	0	417	0	0	417
14+50	41	0	44	0	0	461	0	0	461
15+00	107	0	99	0	0	560	0	0	560
COLUMN TOTALS =			560	0	0				560

EARTHWORK - FACTORY ROAD, 'A'-LINE - STAGE 1 (BY OTHERS)

	AREA (SF)		INCREMENTAL VOL (CY)			CUMMULATIVE VOLUME (CY)			
STATION	CUT	FILL	CUT NOTE 1	FILL NOTE 2	FILL (25%) NOTE 3	CUT 1.00 NOTE 1	FILL	FILL (25%) NOTE 3	MASS ORDINATE NOTE 4
50+16	5	292	218	218	273	218	218	273	-55
50+47	373	88	28	6	8	246	224	281	-35
50+50	124	25	130	138	173	375	363	454	-79
51+00	17	124	21	180	225	396	542	678	-283
51+50	6	60	82	71	89	478	614	767	-290
52+00	83	7	177	7	8	654	620	776	-121
52+50	108	0	187	0	0	841	620	776	66
53+00	94	0	144	0	0	985	620	776	210
53+50	61	0	81	0	0	1066	620	776	291
54+00	26	0	24	0	0	1090	620	776	315
54+50	0	0	0	0	0	1090	620	776	315
54+70	0	0	0	0	0	1090	620	776	315
COLUMN TOTALS =			1090	620	775				315

NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
3 - FILL 25%	(UNEXPANDED FILL)*1.25
4 - MASS ORDINATE	CUT + ROCK (10%) + REDUCED MARSH (60%) - FILL (25%)

EARTHWORK - CTH II, MAINLINE - STAGE 2 (BY OTHERS)

	AREA (SF)		INCREMENTAL VOL (CY)			CUMMULATIVE VOLUME (CY)			
STATION	CUT	FILL	CUT NOTE 1	FILL NOTE 2	FILL (25%) NOTE 3	CUT 1.00 NOTE 1	FILL	FILL (25%) NOTE 3	MASS ORDINATE NOTE 4
10+00	0	0	0	0	0	0	0	0	0
10+50	70	0	65	0	0	65	0	0	65
11+00	76	0	136	0	0	201	0	0	201
11+50	130	0	191	0	0	392	0	0	392
12+00	298	0	397	0	0	789	0	0	789
12+50	0	0	276	0	0	1065	0	0	1065
13+00	0	0	0	0	0	1065	0	0	1065
13+08	0	0	0	0	0	1065	0	0	1065
13+08	0	0	0	0	0	1065	0	0	1065
13+50	0	0	0	0	0	1065	0	0	1065
14+00	0	0	0	0	0	1065	0	0	1065
14+34	0	0	0	0	0	1065	0	0	1065
14+34	0	0	0	0	0	1065	0	0	1065
14+50	0	0	0	0	0	1065	0	0	1065
15+00	0	0	0	0	0	1065	0	0	1065
15+50	0	0	0	0	0	1065	0	0	1065
16+00	156	0	145	0	0	1209	0	0	1209
16+50	85	0	223	0	0	1432	0	0	1432
17+00	56	4	130	3.5	4.4	1563	4	4	1558
17+50	0	0	52	3.5	4.4	1615	7	9	1606
	COLUMN TOTALS =		1615	7	9				1606

EARTHWORK - FACTORY ROAD, 'A'-LINE - STAGE 2 (BY OTHERS)

	AREA (SF)		INCREMENTAL VOL (CY)			CUMMULATIVE VOLUME (CY)			
STATION	CUT	FILL	CUT NOTE 1	FILL NOTE 2	FILL (25%) NOTE 3	CUT 1.00 NOTE 1	FILL	FILL (25%) NOTE 3	MASS ORDINATE NOTE 4
50+16	0	0	0	10	12	0	10	12	-12
50+50	601	16	557	14	18	557	24	30	527
51+00	679	124	1186	0	0	1742	24	30	1712
51+50	822	60	1390	0	0	3132	24	30	3102
52+00	914	7	1608	0	0	4740	24	30	4710
52+50	131	0	968	0	0	5707	24	30	5677
53+00	68	0	184	0	0	5892	24	30	5862
53+50	62	0	121	0	0	6013	24	30	5983
54+00	0	0	57	0	0	6070	24	30	6040
54+50	0	0	0	0	0	6070	24	30	6040
54+70	0	0	0	0	0	6070	24	30	6040
	COLUMN TOTALS =		6070	24	30				6040

NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
3 - FILL 25%	(UNEXPANDED FILL)*1.25
4 - MASS ORDINATE	CUT + ROCK (10%) + REDUCED MARSH (60%) - FILL (25%)

9

9

PROJECT NO: 5682-00-75	HWY: CTH II	COUNTY: IOWA	EARTHWORK - STAGE 2	SHEET 87	E

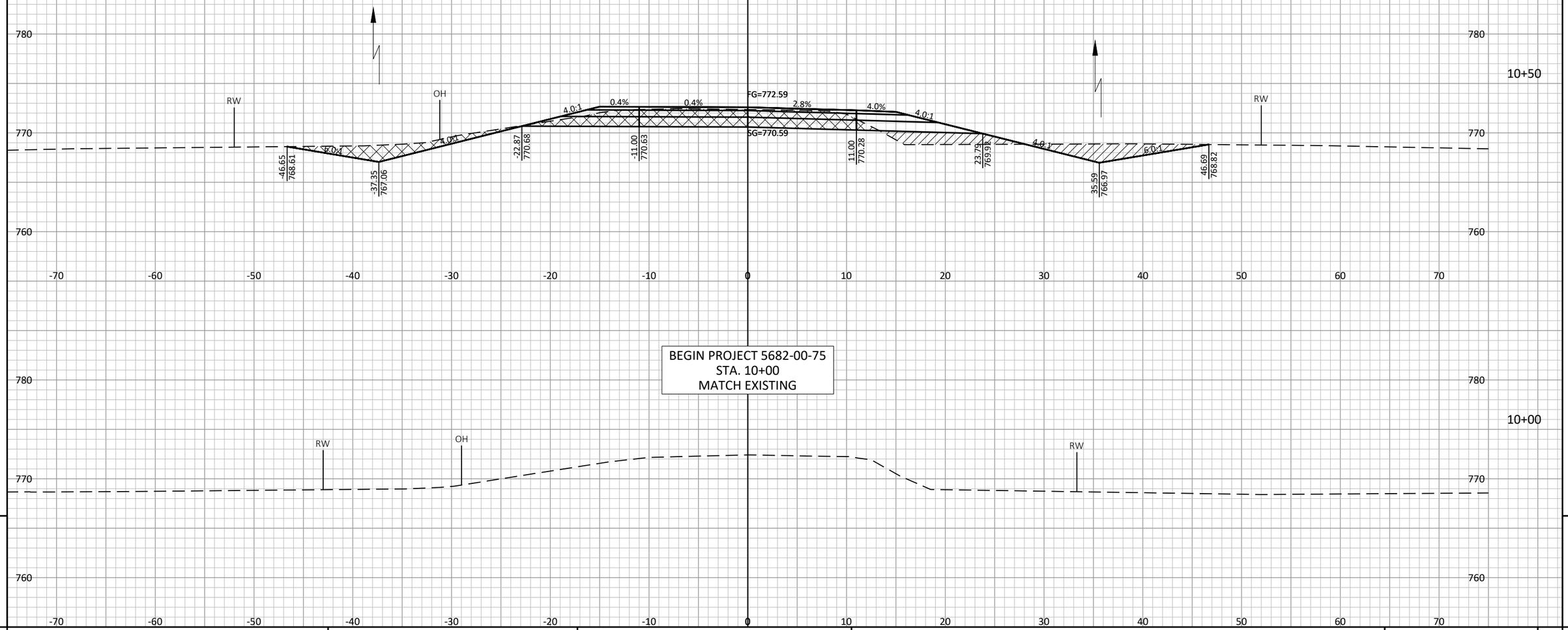
FILE NAME : S:\PROJECTS\W11614 WISDOT - CTH II, IOWA CO\SHEETSPLAN\DETAILS\56820005_EARTHWORK.DWG PLOT DATE : 8/5/2021 2:39:59 PM PLOT BY : ETHAN KAAT PLOT SCALE : 1" = 1' LAYOUT : STAGE 2

FOR INFORMATION ONLY

LEGEND

STAGE 1 CONSTRUCTION

STAGE 2 CONSTRUCTION



BEGIN PROJECT 5682-00-75
STA. 10+00
MATCH EXISTING

PROJECT NO: 5682-00-75	HWY: CTH II	COUNTY: IOWA	CROSS SECTIONS: MAINLINE	SHEET	E

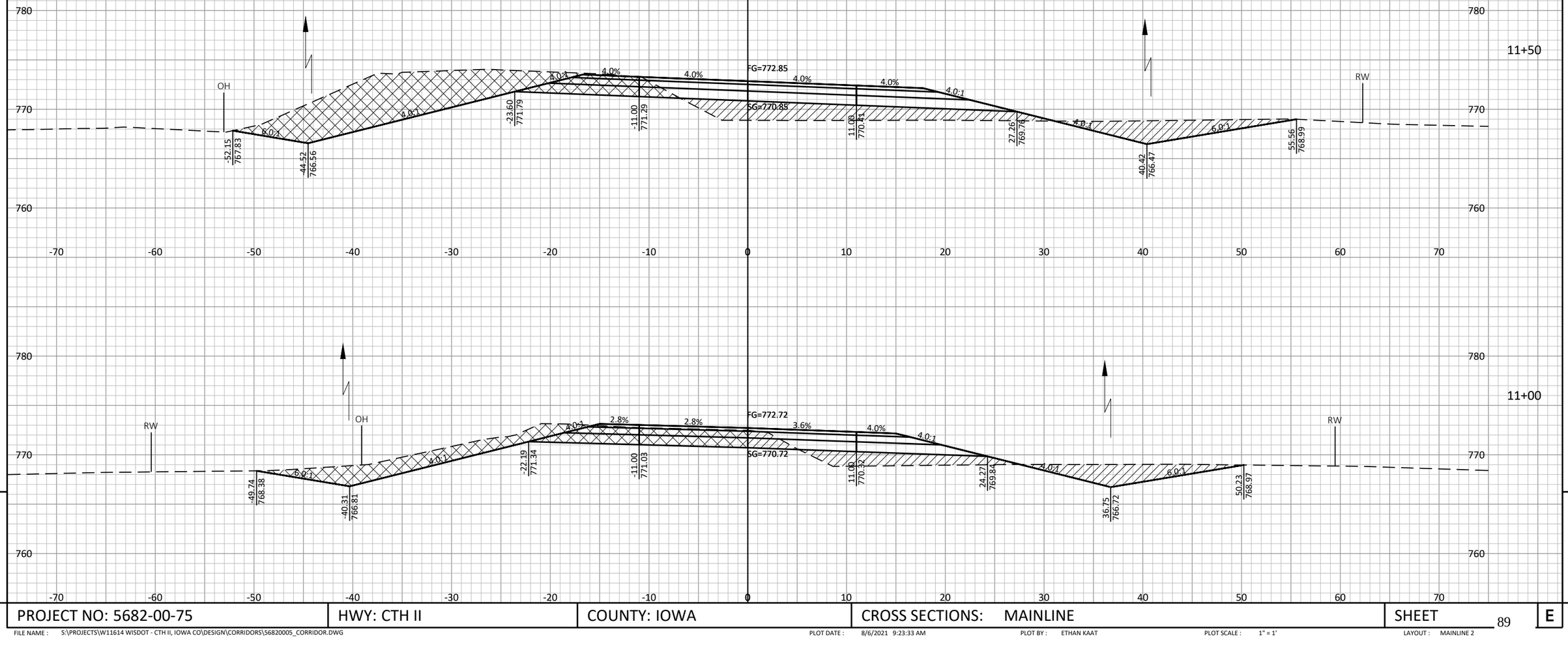
FILE NAME : S:\PROJECTS\W11614 WISDOT - CTH II, IOWA CO\DESIGN\CORRIDORS\56820005_CORRIDOR.DWG
PLOT DATE : 8/6/2021 9:23:31 AM
PLOT BY : ETHAN KAAT
PLOT SCALE : 1" = 1'
LAYOUT : MAINLINE 1

FOR INFORMATION ONLY

LEGEND

STAGE 1 CONSTRUCTION

STAGE 2 CONSTRUCTION



9

9

PROJECT NO: 5682-00-75	HWY: CTH II	COUNTY: IOWA	CROSS SECTIONS: MAINLINE	SHEET	E

FILE NAME : S:\PROJECTS\W11614 WISDOT - CTH II, IOWA CO\DESIGN\CORRIDORS\56820005_CORRIDOR.DWG PLOT DATE : 8/6/2021 9:23:33 AM PLOT BY : ETHAN KAAT PLOT SCALE : 1" = 1' LAYOUT : MAINLINE 2

FOR INFORMATION ONLY

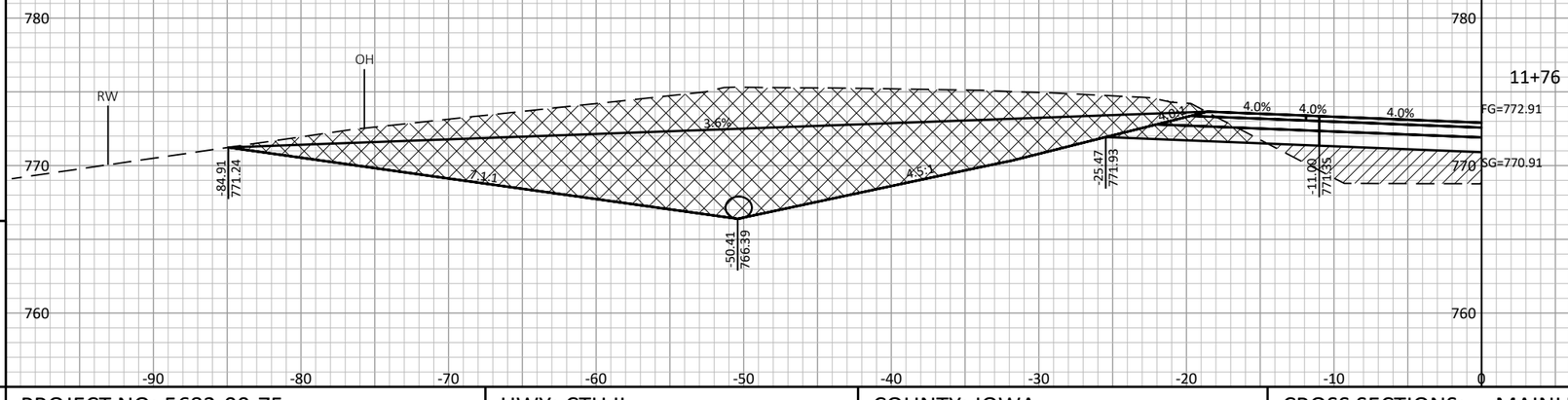
LEGEND

STAGE 1 CONSTRUCTION

STAGE 2 CONSTRUCTION

STA. 11+76, LT.
CONSTRUCT F.E. (B.A.D.)
(1) CULVERT PIPE CLASS III-A 18-INCH
(2) APRON ENDWALLS REQ'D.

(CROSS SECTION FOLLOWS FINISHED F.E. C/L)



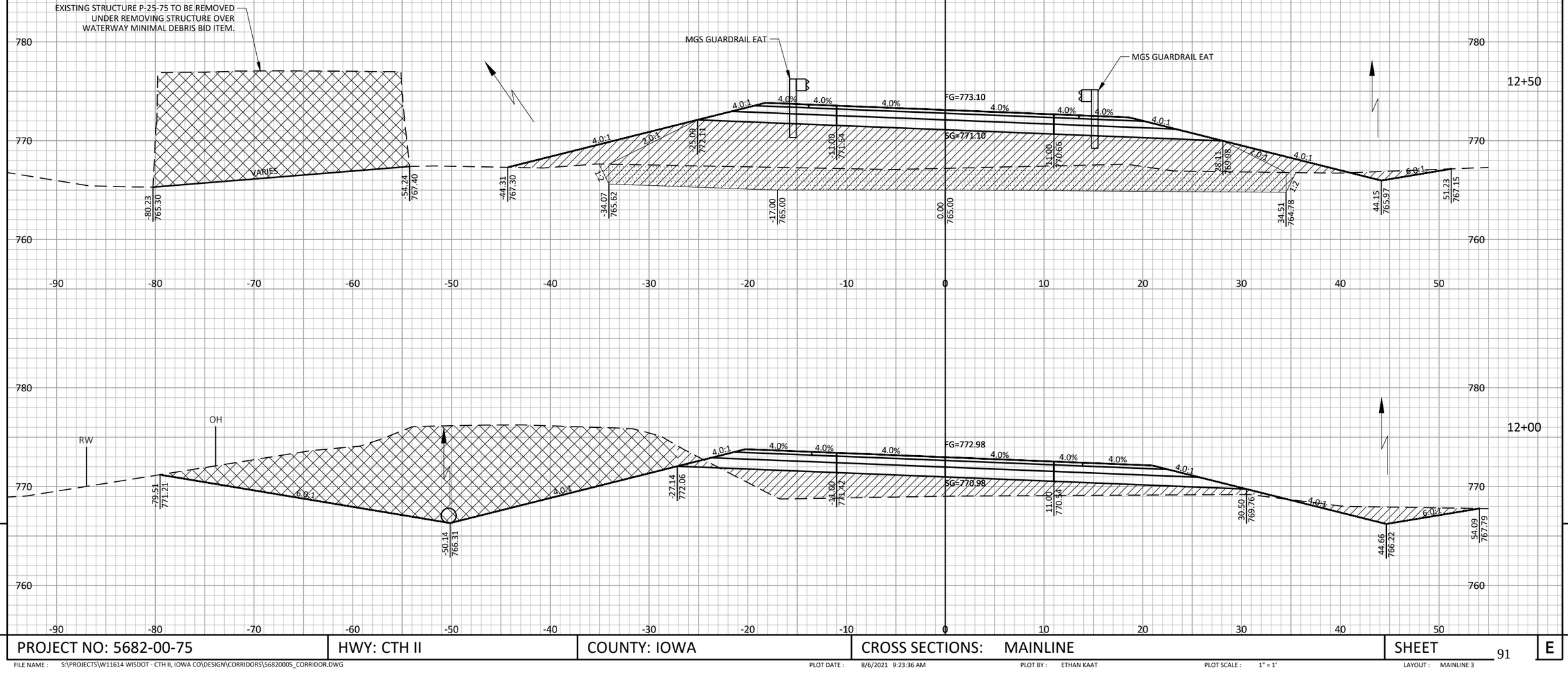
PROJECT NO: 5682-00-75	HWY: CTH II	COUNTY: IOWA	CROSS SECTIONS: MAINLINE	SHEET 90	E

FILE NAME : S:\PROJECTS\W11614 WISDOT - CTH II, IOWA CO\DESIGN\CORRIDORS\56820005_CORRIDOR.DWG PLOT DATE : 8/6/2021 9:23:35 AM PLOT BY : ETHAN KAAT PLOT SCALE : 1" = 1' LAYOUT : F.E. - 1

FOR INFORMATION ONLY

LEGEND

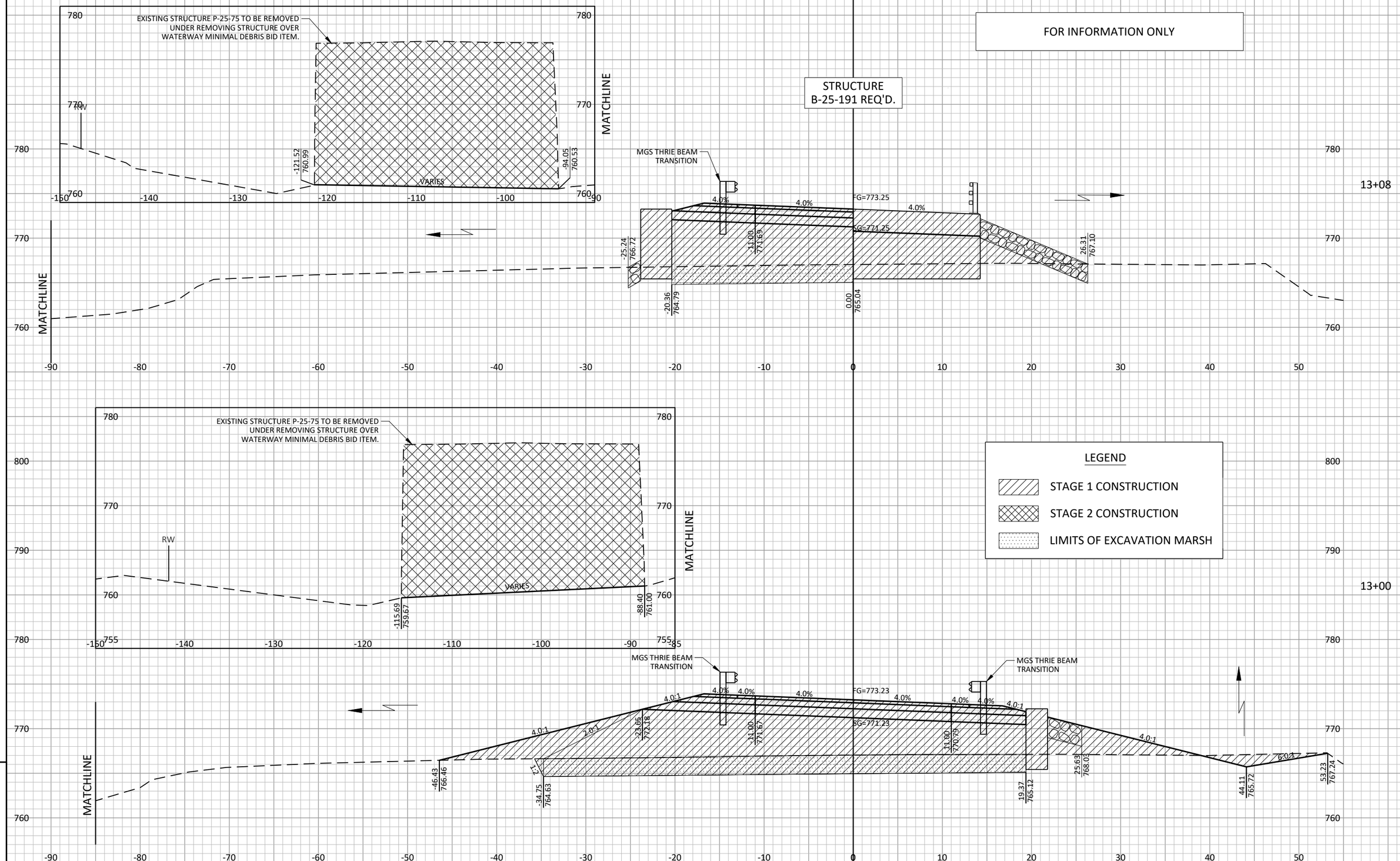
- STAGE 1 CONSTRUCTION
- STAGE 2 CONSTRUCTION
- LIMITS OF EXCAVATION MARSH



PROJECT NO: 5682-00-75	HWY: CTH II	COUNTY: IOWA	CROSS SECTIONS: MAINLINE	SHEET	E

FOR INFORMATION ONLY

STRUCTURE
B-25-191 REQ'D.



LEGEND

- STAGE 1 CONSTRUCTION
- STAGE 2 CONSTRUCTION
- LIMITS OF EXCAVATION MARSH

PROJECT NO: 5682-00-75	HWY: CTH II	COUNTY: IOWA	CROSS SECTIONS: MAINLINE	SHEET 92	E

FILE NAME : S:\PROJECTS\W11614 WISDOT - CTH II, IOWA CO\DESIGN\CORRIDORS\56820005_CORRIDOR.DWG PLOT DATE : 8/6/2021 9:23:38 AM PLOT BY : ETHAN KAAT PLOT SCALE : 1" = 1' LAYOUT : MAINLINE 4

FOR INFORMATION ONLY

LEGEND

STAGE 1 CONSTRUCTION

LIMITS OF EXCAVATION MARSH

14+50

MGS THRIE BEAM TRANSITION

MGS THRIE BEAM TRANSITION

FG=773.62

SG=771.62

4.0%

4.0%

4.0%

4.0%

4.0%

4.0:1

3.0:1

4.0:1

3.0:1

1:2

1:2

4.0:1

6.0:1

TEL

RW

MATCHLINE
STA. 50'A'+47, LT.
('A'-LINE)

48.03
763.93

23.65
772.57

-28.93
767.44

11.00
771.14

11.00
771.18

26.27
770.57

23.46
768.28

37.99
767.64

53.45
770.22

14+34

MGS THRIE BEAM TRANSITION

FG=773.58

SG=771.58

4.0%

4.0%

4.0%

4.0:1

4.0:1

6.0:1

RW

MATCHLINE
STA. 50'A'+47, LT.
('A'-LINE)

-26.31
769.56

-49.40
763.85

11.00
771.14

0.00
768.00

25.24
770.29

20.36
768.29

36.83
767.39

54.03
770.26

FOR INFORMATION PURPOSES ONLY

14+00

FG=773.49

RW

MATCHLINE
STA. 51'A'+00, LT.
('A'-LINE)

-41.30
764.31

780
770
760
0
-70
-60
-50
-40
-30
-20
-10
10
20
30
40
50
60
70

9

9

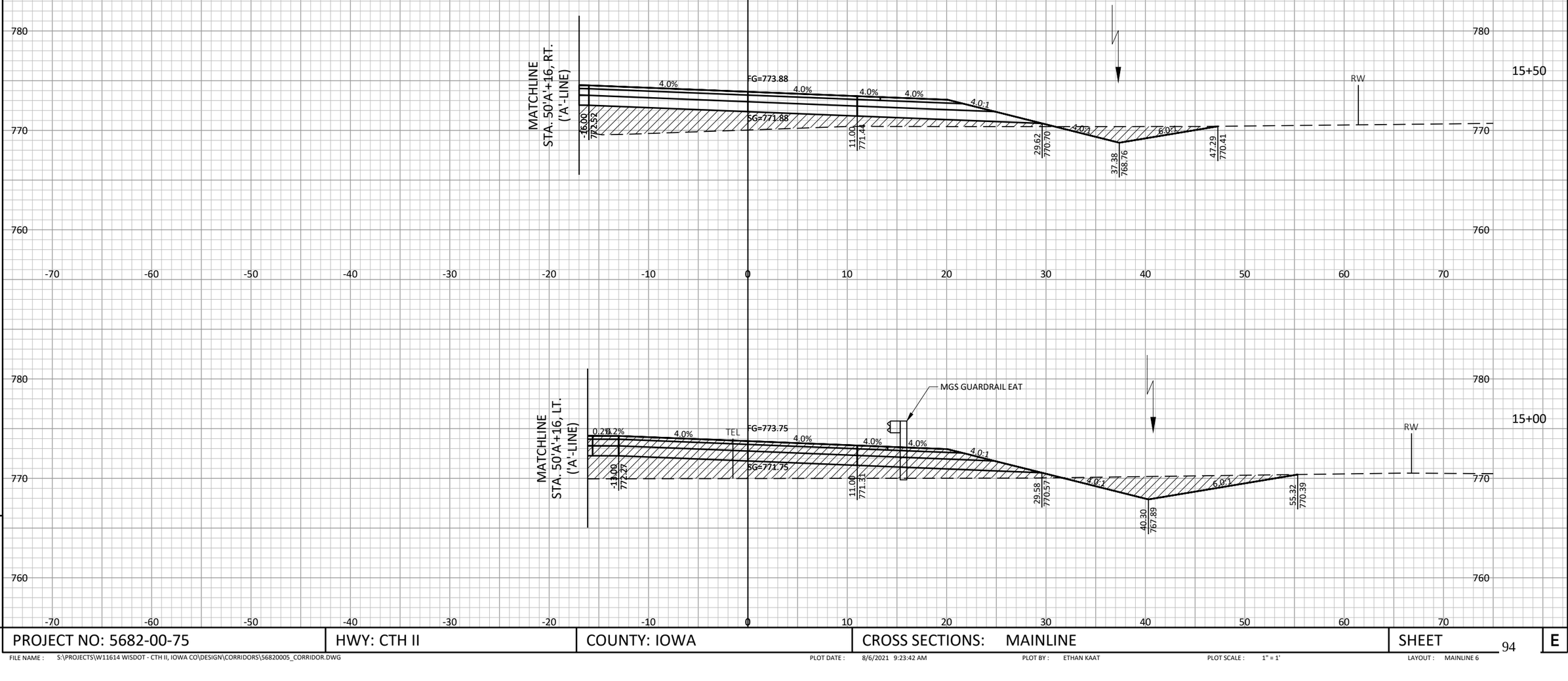
PROJECT NO: 5682-00-75	HWY: CTH II	COUNTY: IOWA	CROSS SECTIONS: MAINLINE	SHEET	E

FILE NAME : S:\PROJECTS\W11614 WISDOT - CTH II, IOWA CO\DESIGN\CORRIDORS\56820005_CORRIDOR.DWG PLOT DATE : 8/6/2021 9:23:40 AM PLOT BY : ETHAN KAAT PLOT SCALE : 1" = 1' LAYOUT : MAINLINE 5

FOR INFORMATION ONLY

LEGEND

STAGE 1 CONSTRUCTION



PROJECT NO: 5682-00-75	HWY: CTH II	COUNTY: IOWA	CROSS SECTIONS: MAINLINE	SHEET 94	E

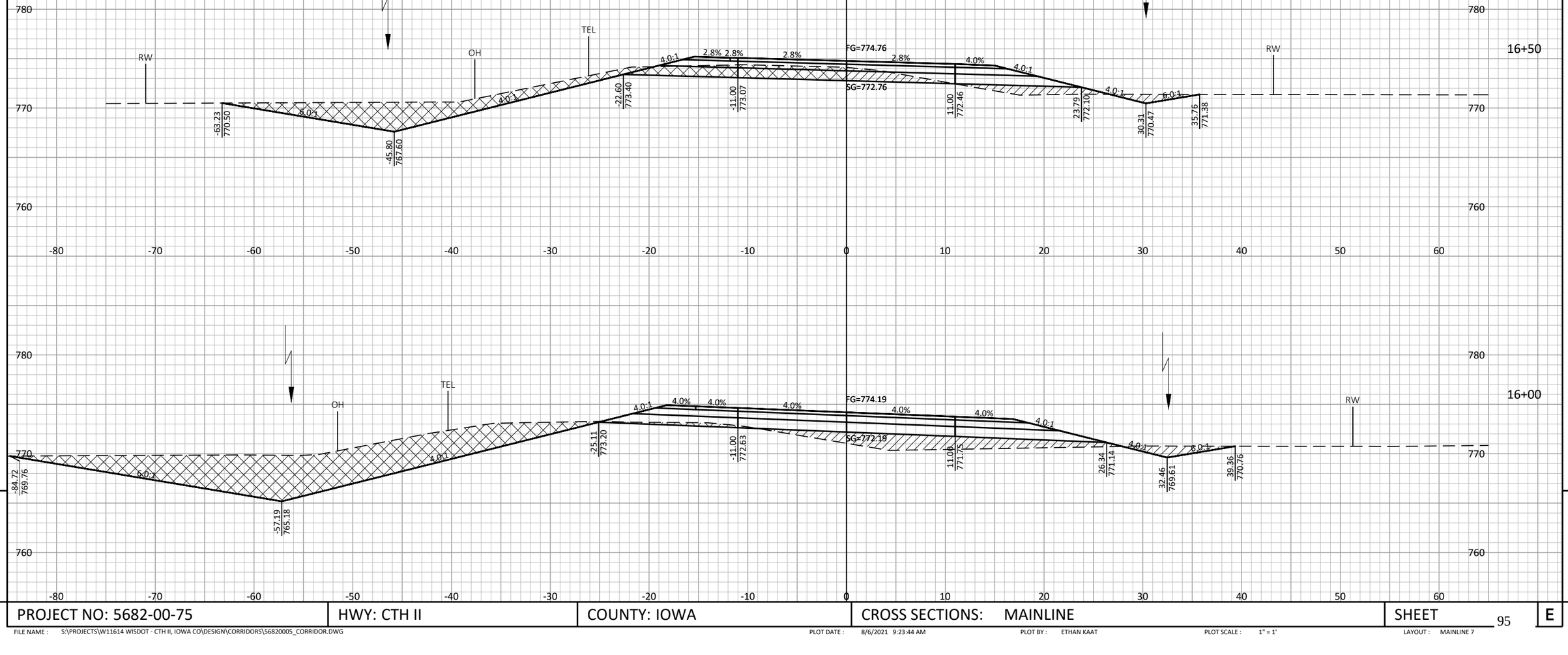
FILE NAME : S:\PROJECTS\W11614 WISDOT - CTH II, IOWA CO\DESIGN\CORRIDORS\56820005_CORRIDOR.DWG PLOT DATE : 8/6/2021 9:23:42 AM PLOT BY : ETHAN KAAT PLOT SCALE : 1" = 1' LAYOUT : MAINLINE 6

FOR INFORMATION ONLY

LEGEND

STAGE 1 CONSTRUCTION

STAGE 2 CONSTRUCTION



PROJECT NO: 5682-00-75	HWY: CTH II	COUNTY: IOWA	CROSS SECTIONS: MAINLINE	SHEET	E

FILE NAME : S:\PROJECTS\W11614 WISDOT - CTH II, IOWA CO\DESIGN\CORRIDORS\56820005_CORRIDOR.DWG PLOT DATE : 8/6/2021 9:23:44 AM PLOT BY : ETHAN KAAT PLOT SCALE : 1" = 1' LAYOUT : MAINLINE 7

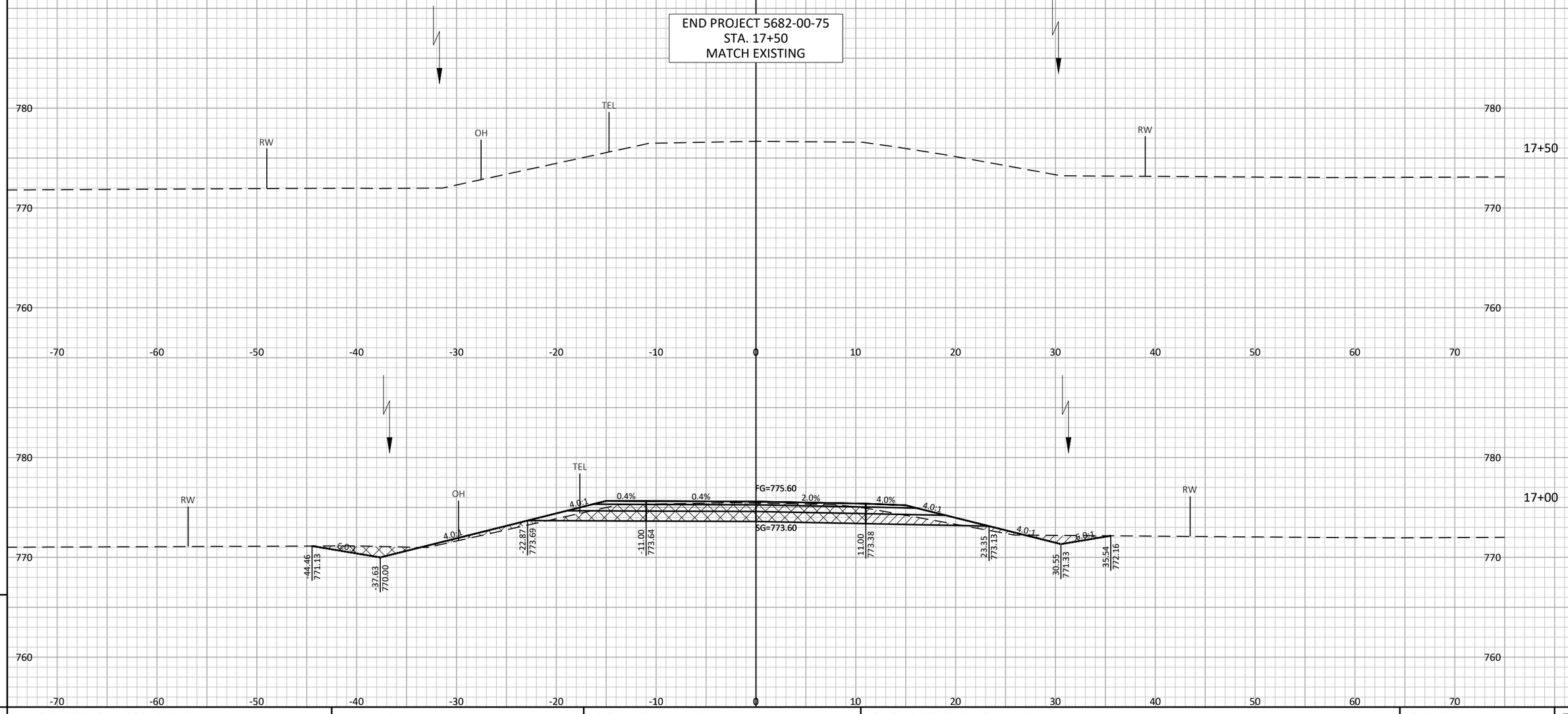
FOR INFORMATION ONLY

LEGEND

STAGE 1 CONSTRUCTION

STAGE 2 CONSTRUCTION

END PROJECT 5682-00-75
STA. 17+50
MATCH EXISTING



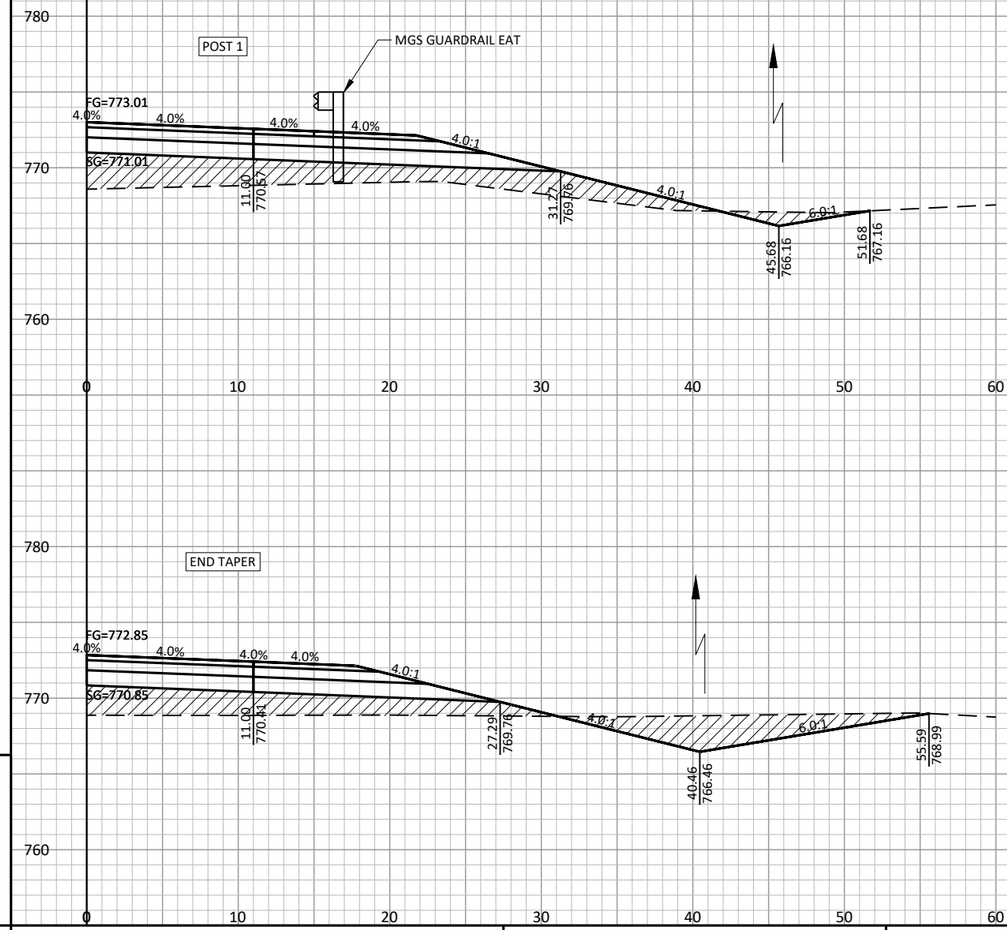
PROJECT NO: 5682-00-75	HWY: CTH II	COUNTY: IOWA	CROSS SECTIONS: MAINLINE	SHEET 96	E

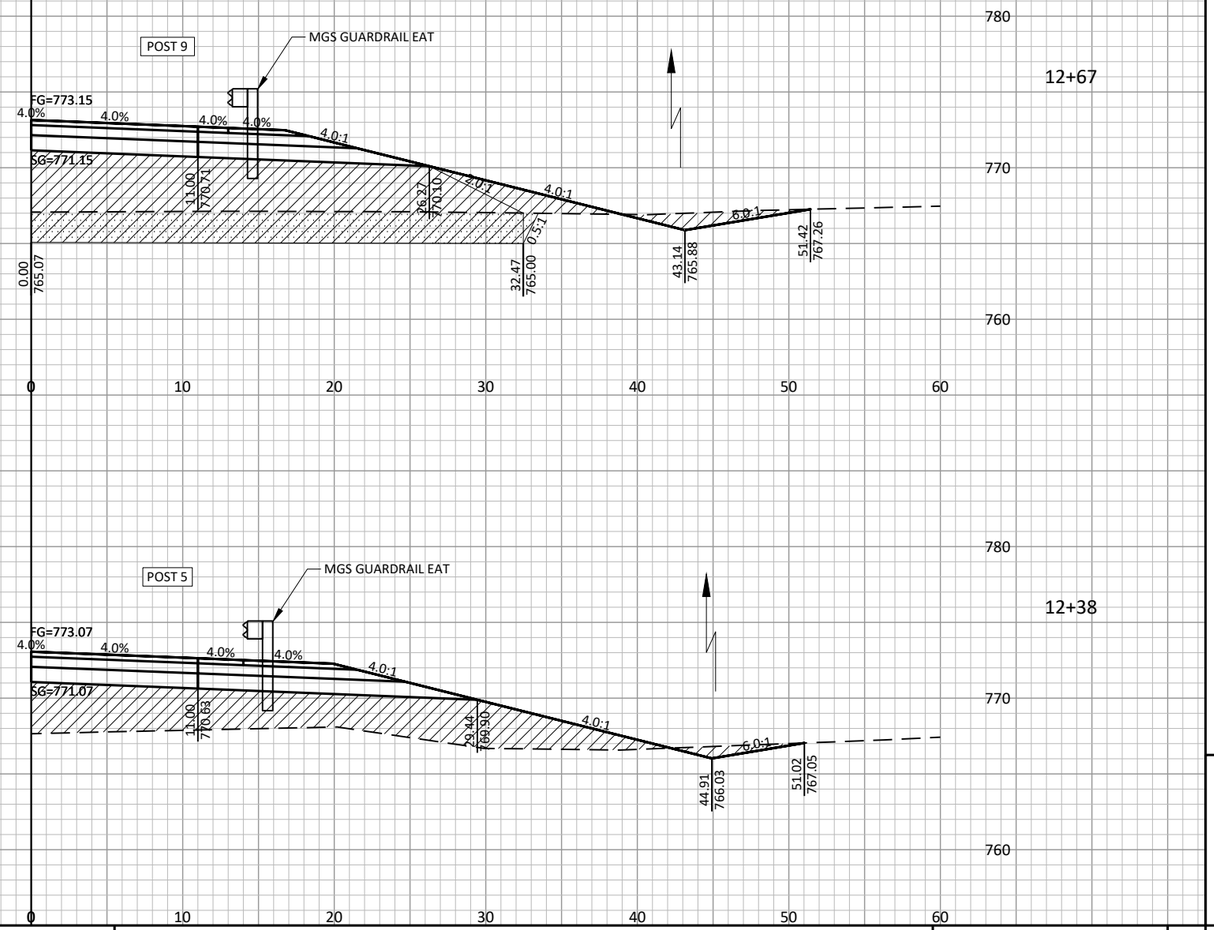
FOR INFORMATION ONLY

LEGEND

STAGE 1 CONSTRUCTION

LIMITS OF EXCAVATION MARSH





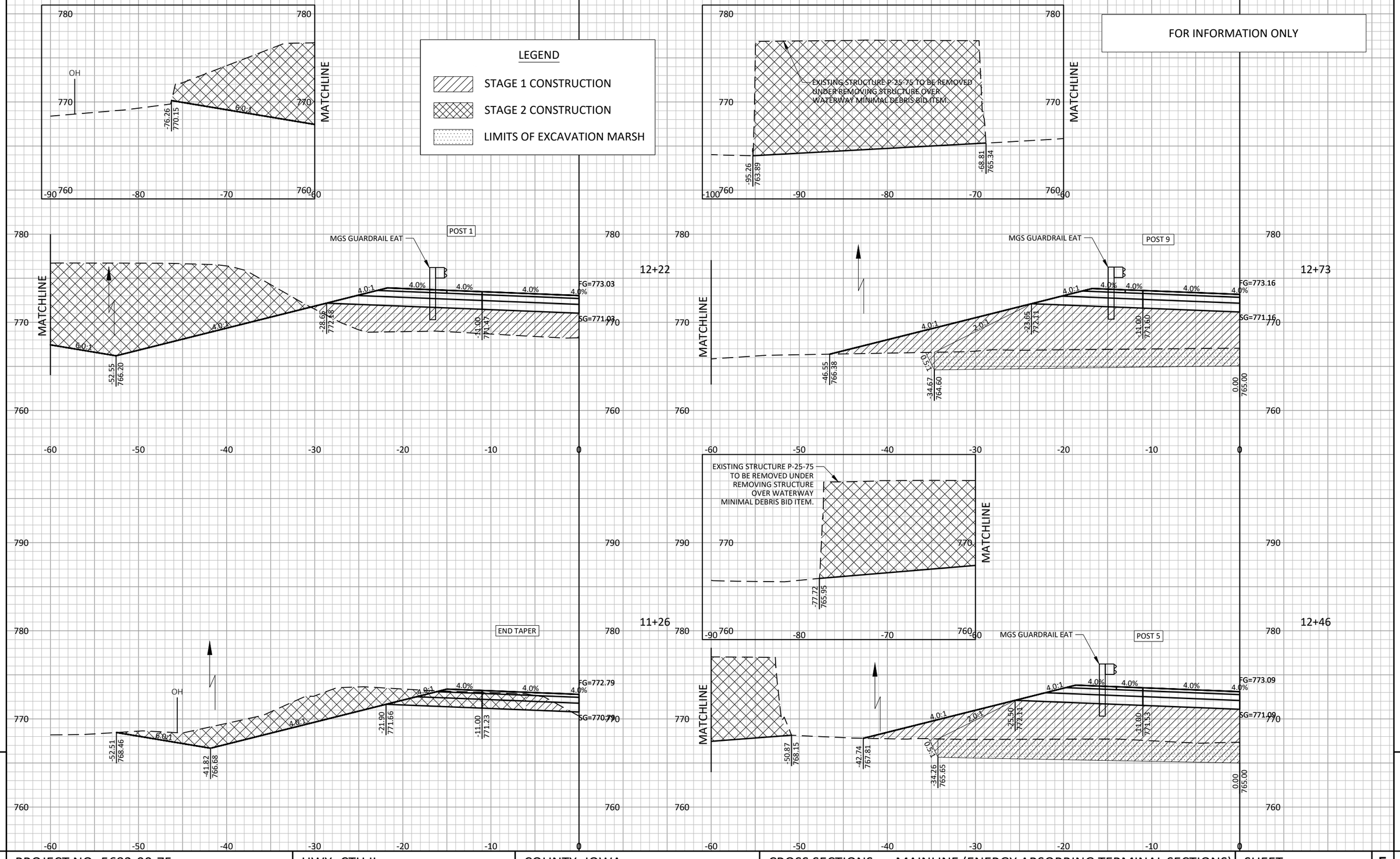
9

9

PROJECT NO: 5682-00-75	HWY: CTH II	COUNTY: IOWA	CROSS SECTIONS: MAINLINE (ENERGY ABSORBING TERMINAL SECTIONS)	SHEET	E

FILE NAME : S:\PROJECTS\W11614 WISDOT - CTH II, IOWA CO\DESIGN\CORRIDORS\56820005_CORRIDOR.DWG

PLOT DATE : 8/6/2021 9:23:48 AM PLOT BY : ETHAN KAAT PLOT SCALE : 1" = 1' LAYOUT : NW EAT



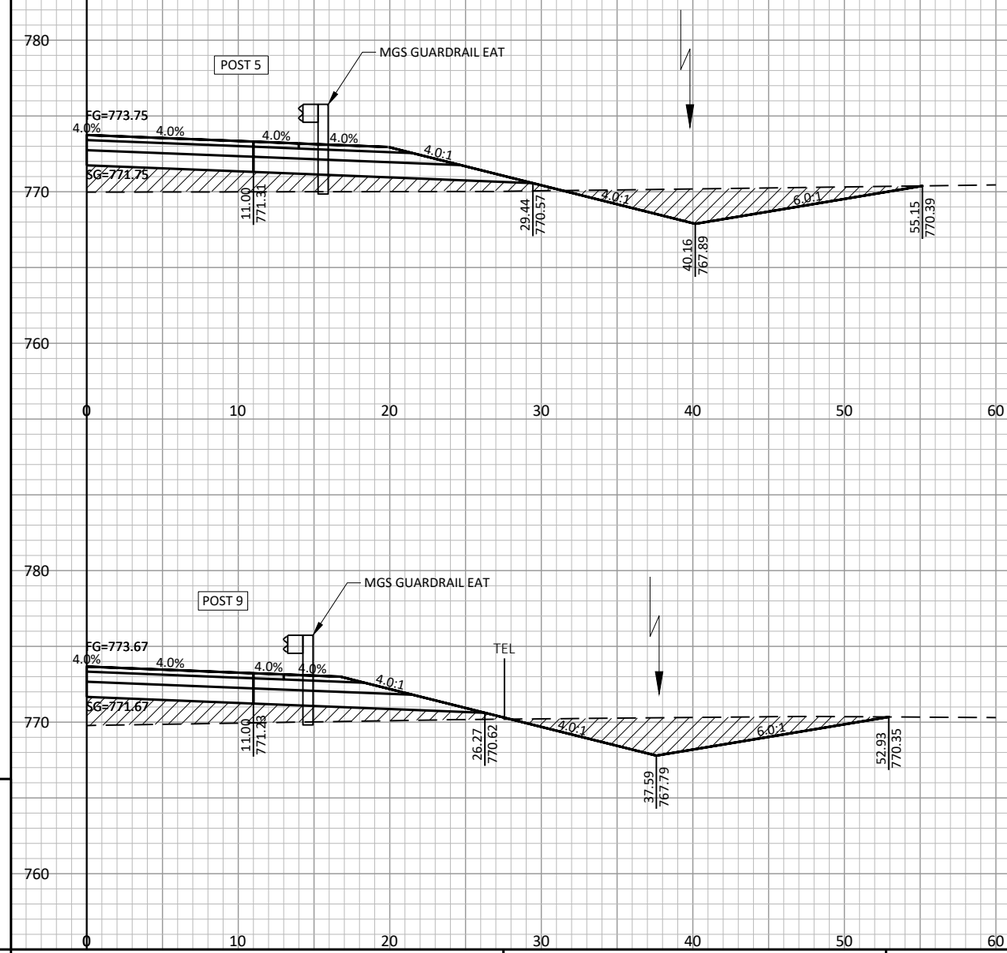
PROJECT NO: 5682-00-75	HWY: CTH II	COUNTY: IOWA	CROSS SECTIONS: MAINLINE (ENERGY ABSORBING TERMINAL SECTIONS)	SHEET 98	E

FILE NAME : S:\PROJECTS\W11614 WISDOT - CTH II, IOWA CO\DESIGN\CORRIDORS\56820005_CORRIDOR.DWG PLOT DATE : 8/6/2021 9:23:50 AM PLOT BY : ETHAN KAAT PLOT SCALE : 1" = 1' LAYOUT : NE EAT

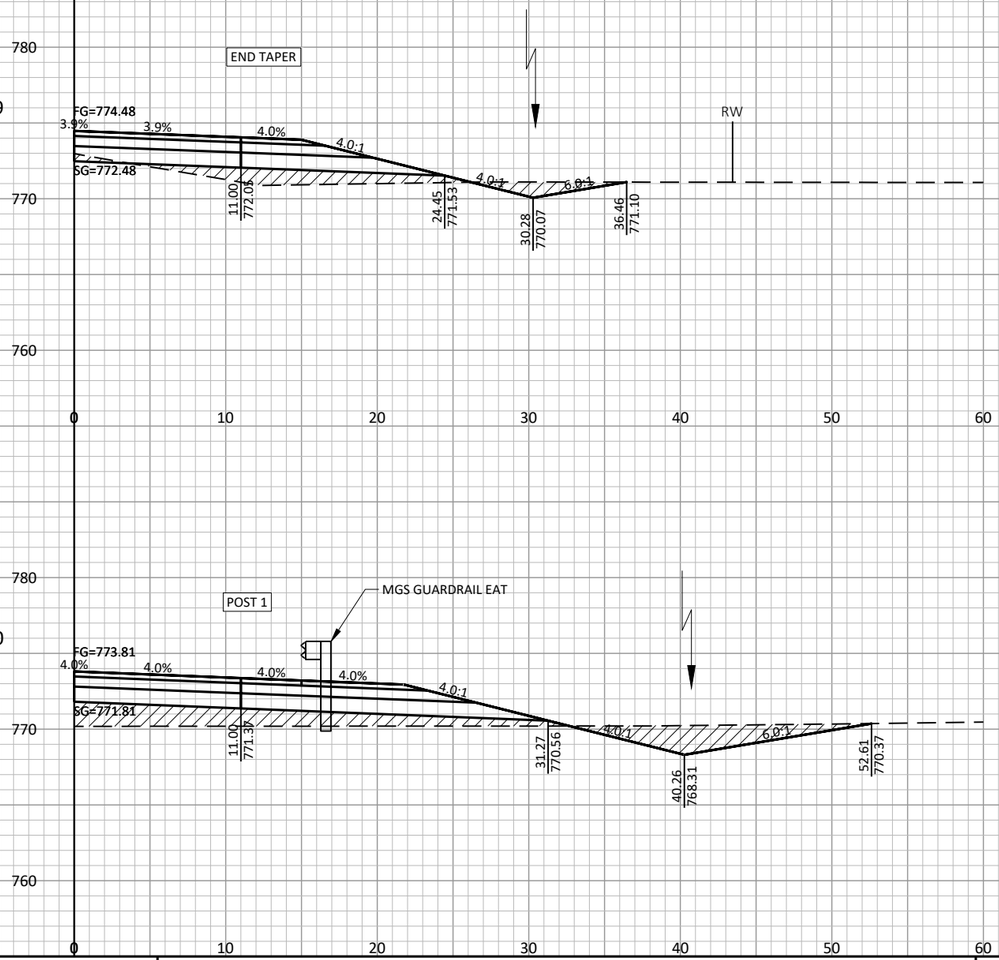
FOR INFORMATION ONLY

LEGEND

STAGE 1 CONSTRUCTION



14+99



16+27

14+70

15+24

9

9

PROJECT NO: 5682-00-75	HWY: CTH II	COUNTY: IOWA	CROSS SECTIONS: MAINLINE (ENERGY ABSORBING TERMINAL SECTIONS)	SHEET 99	E

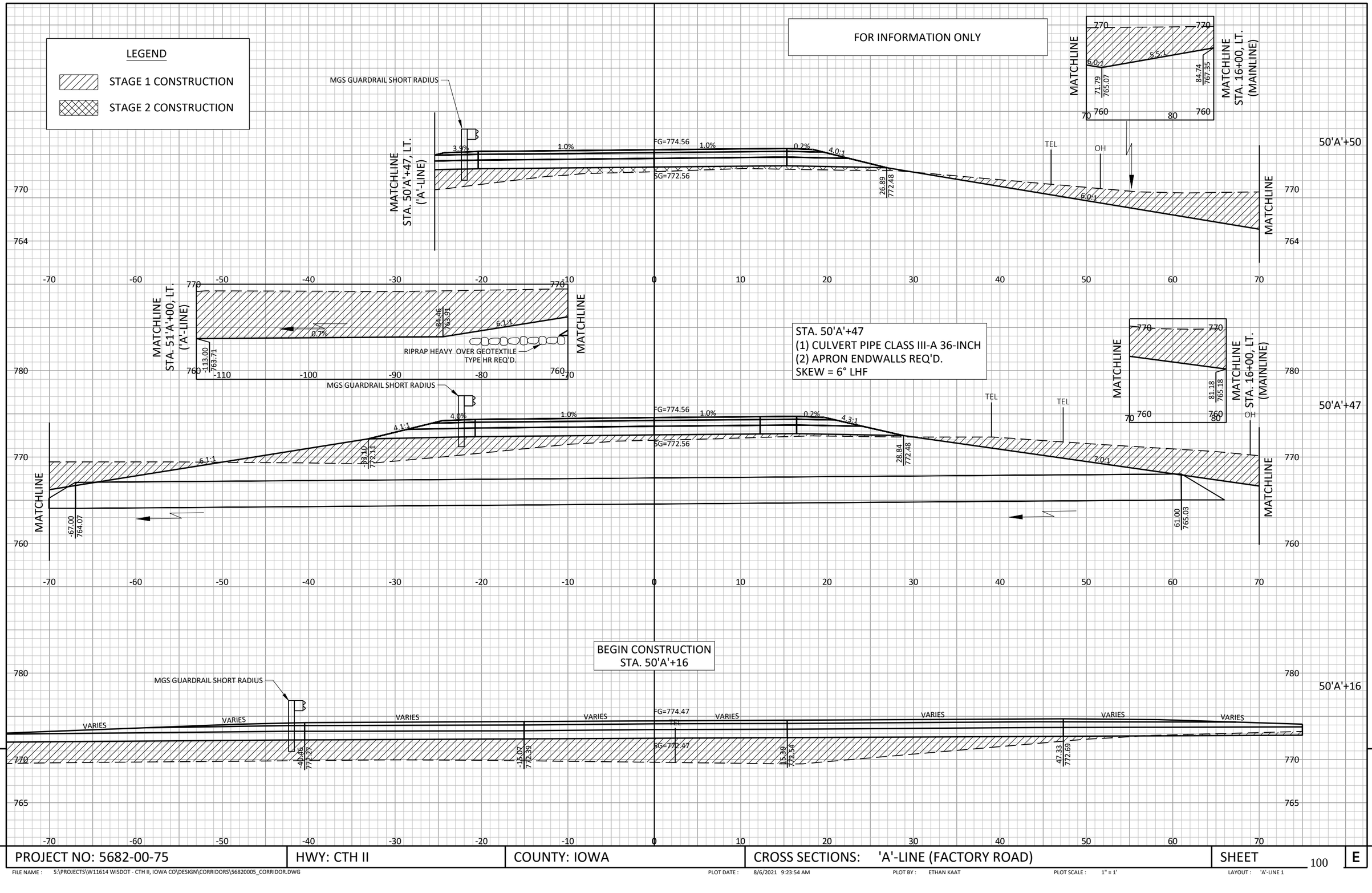
FILE NAME : S:\PROJECTS\W11614 WISDOT - CTH II, IOWA CO\DESIGN\CORRIDORS\56820005_CORRIDOR.DWG PLOT DATE : 8/6/2021 9:23:52 AM PLOT BY : ETHAN KAAT PLOT SCALE : 1" = 1' LAYOUT : SW EAT

LEGEND

STAGE 1 CONSTRUCTION

STAGE 2 CONSTRUCTION

FOR INFORMATION ONLY



PROJECT NO: 5682-00-75	HWY: CTH II	COUNTY: IOWA	CROSS SECTIONS: 'A'-LINE (FACTORY ROAD)	SHEET 100	E

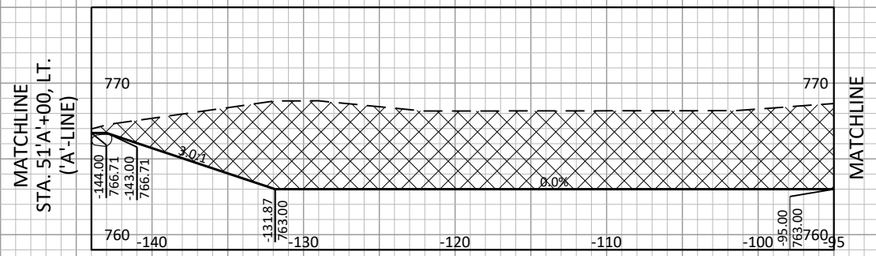
FILE NAME : S:\PROJECTS\W11614 WISDOT - CTH II, IOWA CO\DESIGN\CORRIDORS\56820005_CORRIDOR.DWG PLOT DATE : 8/6/2021 9:23:54 AM PLOT BY : ETHAN KAAT PLOT SCALE : 1" = 1' LAYOUT : 'A'-LINE 1

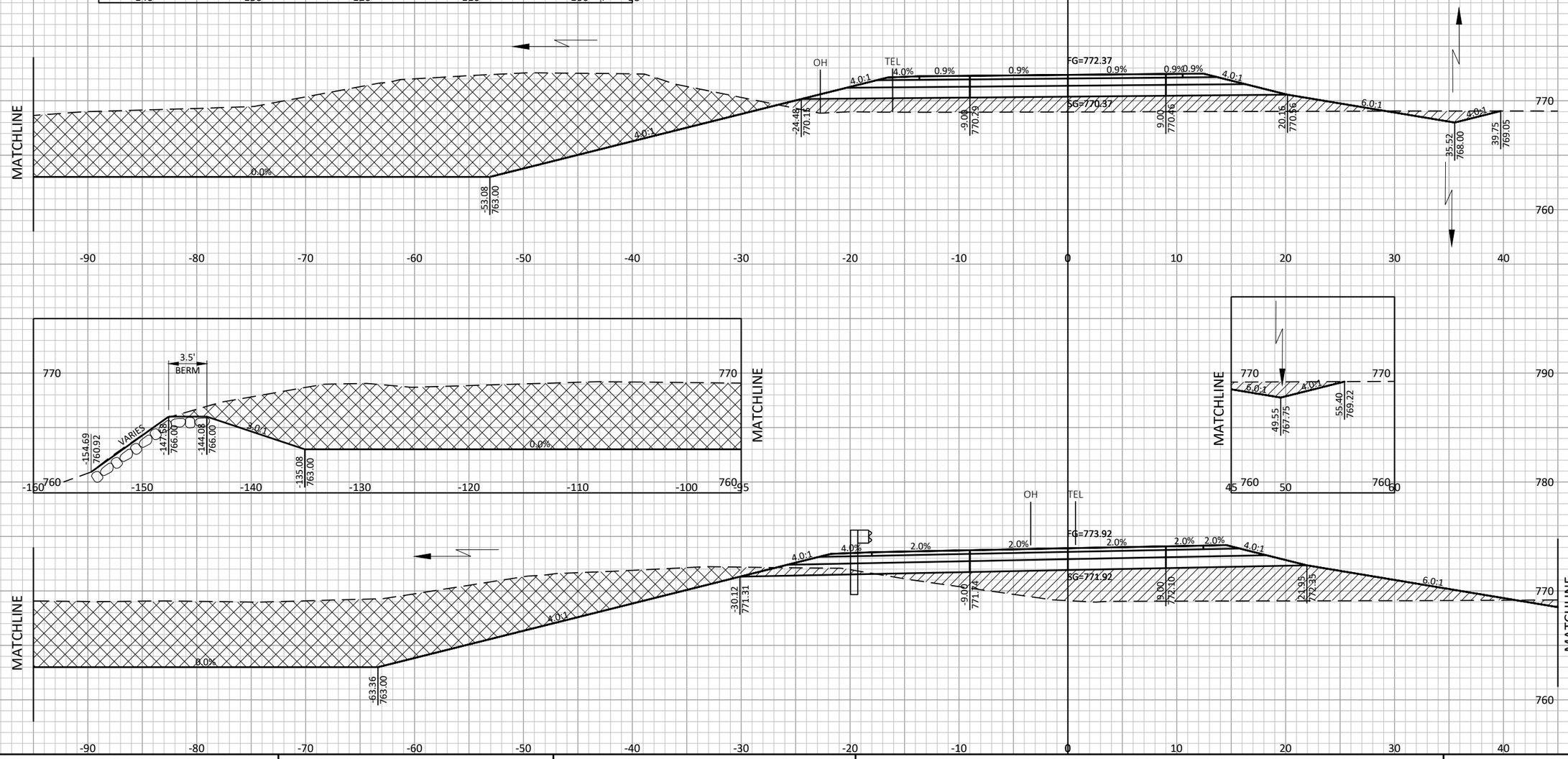
FOR INFORMATION ONLY

LEGEND

STAGE 1 CONSTRUCTION

STAGE 2 CONSTRUCTION





PROJECT NO: 5682-00-75	HWY: CTH II	COUNTY: IOWA	CROSS SECTIONS: 'A'-LINE (FACTORY ROAD)	SHEET 101	E

FILE NAME : S:\PROJECTS\W11614 WISDOT - CTH II, IOWA CO\DESIGN\CORRIDORS\56820005_CORRIDOR.DWG PLOT DATE : 8/6/2021 9:23:56 AM PLOT BY : ETHAN KAAT PLOT SCALE : 1" = 1' LAYOUT : 'A'-LINE 2

9

9

EXISTING STRUCTURE P-25-75 TO BE REMOVED
UNDER REMOVING STRUCTURE OVER
WATERWAY MINIMAL DEBRIS BID ITEM.

FOR INFORMATION ONLY

LEGEND

STAGE 1 CONSTRUCTION

STAGE 2 CONSTRUCTION

MATCHLINE

VARIES

3.5' BERM

3.0:1

0.0%

-135.20 762.17

-127.82 776.00

-119.32 776.00

-95.00 763.00

-98.32 763.00

52'A'+50

OH

TEL

-36.41 769.25

4.0:1

1.4%

FG=770.14

SG=768.14

4.0%

-18.58 768.40

-9.00 768.26

9.00 768.01

19.25 767.87

34.43 765.34

48.14 768.76

-27.29 766.22

-40.18 763.00

-95.00 763.00

STA. 52'A'+00
(1) CULVERT PIPE CLASS III-A 24-INCH
(2) APRON ENDWALLS REQ'D.
SKEW = 0°

52'A'+00

RW

4.0:1

56.67 768.77

0.2%

FG=771.00

SG=769.00

-34.39 769.09

-18.94 769.04

-9.00 768.02

9.00 768.98

18.76 768.96

32.00 765.04

41.98 765.09

-30.00 764.67

-21.69 764.85

-43.10 763.00

-95.00 763.00

RIPRAP HEAVY OVER GEOTEXTILE
TYPE HR REQ'D.

PROJECT NO: 5682-00-75	HWY: CTH II	COUNTY: IOWA	CROSS SECTIONS: 'A'-LINE (FACTORY ROAD)	SHEET	E

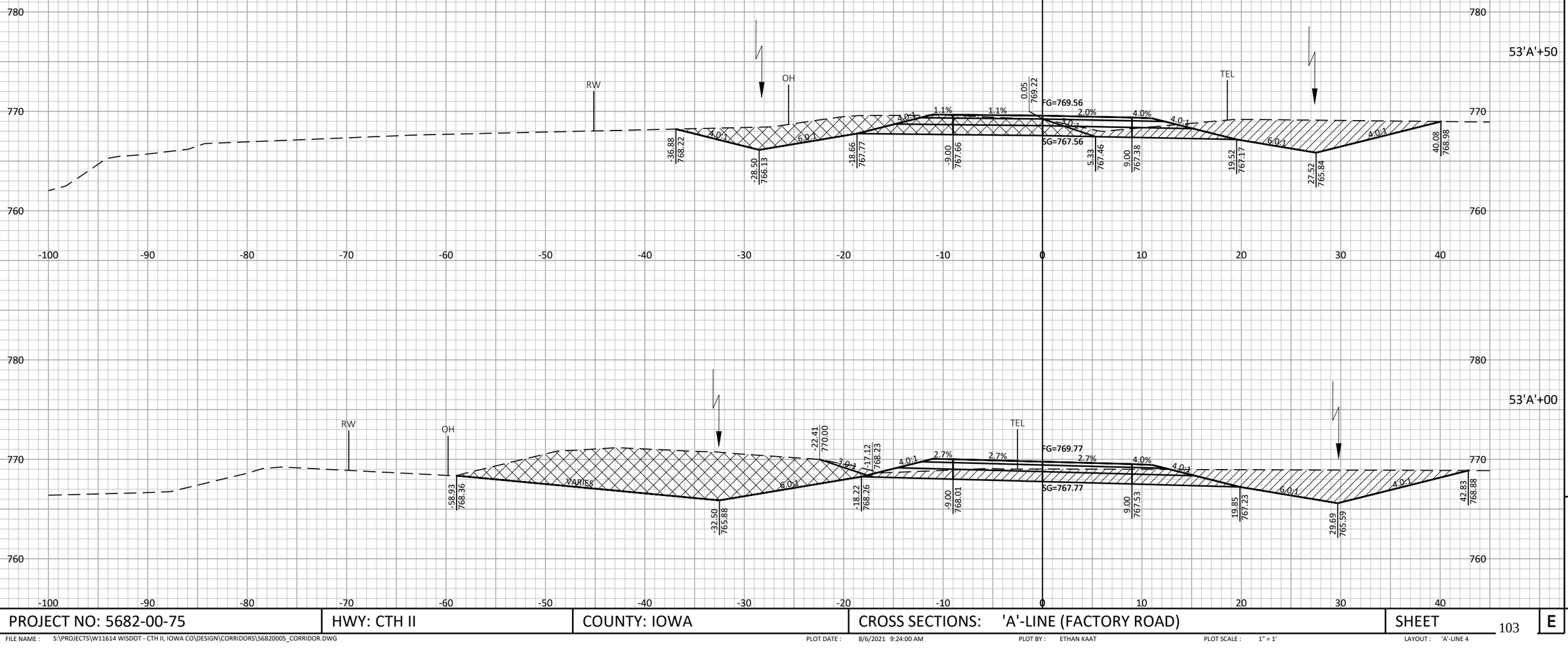
FILE NAME : S:\PROJECTS\W11614 WISDOT - CTH II, IOWA CO\DESIGN\CORRIDORS\56820005_CORRIDOR.DWG PLOT DATE : 8/6/2021 9:23:58 AM PLOT BY : ETHAN KAAT PLOT SCALE : 1" = 1' LAYOUT : 'A'-LINE 3

FOR INFORMATION ONLY

LEGEND

STAGE 1 CONSTRUCTION

STAGE 2 CONSTRUCTION



PROJECT NO: 5682-00-75	HWY: CTH II	COUNTY: IOWA	CROSS SECTIONS: 'A'-LINE (FACTORY ROAD)	SHEET	E

FILE NAME : S:\PROJECTS\W11614 WISDOT - CTH II, IOWA CO\DESIGN\CORRIDORS\56820005_CORRIDOR.DWG PLOT DATE : 8/6/2021 9:24:00 AM PLOT BY : ETHAN KAAT PLOT SCALE : 1" = 1' LAYOUT : 'A'-LINE 4

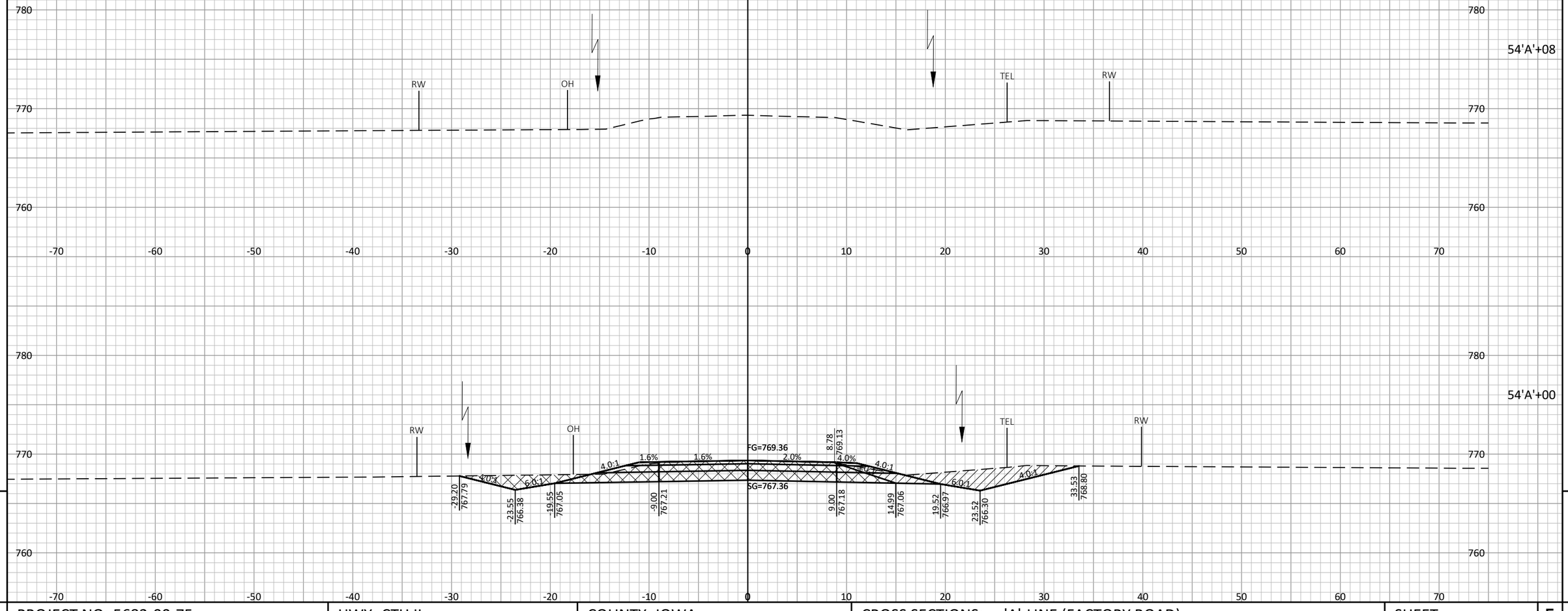
FOR INFORMATION ONLY

LEGEND

STAGE 1 CONSTRUCTION

STAGE 2 CONSTRUCTION

END CONSTRUCTION
STA. 54'A'+70
MATCH EXISTING



PROJECT NO: 5682-00-75	HWY: CTH II	COUNTY: IOWA	CROSS SECTIONS: 'A'-LINE (FACTORY ROAD)	SHEET 104	E

FILE NAME : S:\PROJECTS\W11614 WISDOT - CTH II, IOWA CO\DESIGN\CORRIDORS\56820005_CORRIDOR.DWG PLOT DATE : 8/6/2021 9:24:01 AM PLOT BY : ETHAN KAAT PLOT SCALE : 1" = 1' LAYOUT : 'A'-LINE 5

Notes

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov